ChevronTexaco

End of
Well Report

Well 6507/1-1

PL261BS

April 2005

Partner **Partner** **Partner**

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ChevronTexaco

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APPROVALS							
Rev.	Issue or Revision Description	Orig. By	Date	Chkd By	Date	Appvd. By	Date
		IVAR DSOU RKPU DACU	Dec 04	RKPU	Jan 05	RKPU	

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1.1 Introduction

This well Report covers drilling activities performed by the semi-submersible drilling rig Stena Dee on Sahara project (6507/1-1). The report conforms to requirements contained in NORSOK
D-010 and NPD guidelines.

1.2 Summary of Well Objectives vs. Results

Well 6507/1-1 was the first well to be drilled on ChevronTexaco's licence PL261BS. The objectives for the well were:

- Demonstrate economic potential for hydrocarbon reservoirs in Lysing formation
- Gather data to calibrate the seismic response in the DTW cube, to help understand further potential of the licence.
- Tag and evaluate the Lange seismic marker.

Post well review of results from the well are as follows:

- Economic potential of the well was conclusively evaluated using MWD/LWD and mudlog data. No hydrocarbons were detected.
- Sonic data collected during the 8 1/2" section via Inteq's APX tool allowed partial evaluation of seismic response.
- Lange Marker was tagged successfully during drilling.

1.3 Summary of Operational Safety Results

The corporate and project HSE objectives were met with no serious incident during the planning and operational phases.

- No LTI's, Medical Treatments, Environmental Spillages or Incidents reportable to Authorities.
- First Aid Case: Man sprained ankle on deck. Returned to work following treatment.
- First Aid Case: Man tripped over slips on Drillfloor. Returned to work following visit to rig hospital.
- Near Miss: Observed poorly welded chain bracket on Knuckle-boom Crane had broken away, held in place by chain.
- Near Miss: Operator error resulted in cement stand fell across derrick. No injuries / damage to equipment.
- STOP Cards were ranked as to the seriousness of the event and 5 were selected as the highest potential.

Further details on the HSE performance and statistics are presented in Section 2.4.

1.4 Short Summary of Activities

The Stena Dee entered Invergordon on 3rd September 2004 for an intensive upgrade/inspection work programme to satisfy Norwegian regulations and ChevronTexaco

requirements. Rig departed Invergordon on 16th September for license PL261BS, well 6507/1-1. The rig crossed into Norwegian territory at 21:18 hrs on September 18th 2004 and arrived at the Sahara prospect on September 21st 2004 16:00 hrs. The tow of 610 nautical miles had taken a total of 118 hrs.
Following anchor handling ops the rig went on Contract at 21:00 hrs September 22, 2004.

Spud & 36" Hole Section

Prior to making up the 36" BHA, 5" DP was picked up and racked back in the derrick. The well was spudded at 12:30 hrs on September 25, 2004. The hole section was drilled from 426m to 511m using seawater and bentonite sweeps without significant problems.

Run & Cement 30" x 20" Conductor

The 20" x 30" shoe joint, five 30" x 1" conductor joints and the 30" / 1" x 30" / 1.5" crossover Low Pressure Wellhead Housing joint were picked up. Casing string was RIH without problem. When circulation was broken with seawater from the rig pump, a leak was observed at the connection of the fill-up valve to the 30" CART. The connection was tightened by the ROV. The cement job was carried out with 300% excess, floats were holding. Although dye was added to the lead slurry, the ROV did not see any cement returns. Due to the low final circulating pressure of 10 psi and the ROV not having observed any cement returns decision was made to carry out a top up job. The top up job was carried out successfully with good cement returns observed.

Drill 17-1/2" Hole Section: 511-1377m

The 17 ½" BHA was run in the hole to and tagged good cement at 503.5m. The 17 ½" hole section was drilled from 511m to TD of 1377m with an average overall ROP of 22.5 m/hr using seawater and gel sweeps. Drilling was smooth with no indications of shallow gas or major boulders being encountered. At section TD (1377m), 200 bbls of gel pill were pumped and the hole displaced with ± 1.5x hole volume of 10 ppg Glydril mud.
On the trip out of the hole, numerous tight spots had to be worked through between 1311-860m with up to 40k lbs drag (18 MT). When the BHA was pulled out to surface a 14" x 7" x 7" boulder was recovered from above the 17 1/8" stabilizer. This boulder likely caused the problems pulling out of hole. The 17.1/2" bit was graded 1,2,BT,A7,E,1/16,CT,TD.

Run & Cement 13-3/8" Casing: 418.2-1371.5m

All the 13 3/8" casing had been prepared onshore: strapped, drifted, pre-doped and randomly ID callipered. The HPWH was pre-made up onshore with the wear-bushing pre-installed.
The 13 3/8" casing was then run until 1133m when the string stood up with 30k lbs (13.6MT) S/O weight and could not be worked through. DDM was made up and casing was washed down from 1133-1158m. The casing was then run to 1360m without any further problems or washing required.
The Dowell unit mixed and pumped 600 bbls of 13 ppg Class 'G' lead cement slurry. The rig pumps displaced the cement with seawater and bumped the plug.

Running the Riser and BOP

The BOP, Riser and Diverter were run and function tested in a total of 54.5 hrs. The ROV had previously installed the VX-gasket in the wellhead. With the BOPs latched, the wellhead connector, the blind / shear rams and the 13 3/8" casing were all successfully pressure tested to 400 psi / 2650 psi (28 / 183 bar) for 5 / 15 min respectively.

Clean-out 13-3/8" casing

The shoetrack was cleaned out using a 12 ¼" BHA, and the well was displaced to 1.54 s.g OBM. A formation integrity test (FIT) was performed to a 1.80 s.g / 15 ppg EMW. The 12 ¼" BHA was then pulled out of the hole.

Drill 8-1/2" Hole Section (1371.5m- 3745m)

On October 7, 2004 at 10:00 hrs the rig commenced drilling the 8 ½" hole section. Inclination increased when drilling the Kvitnos formation but was kept within target tolerance by reducing WOB and backreaming. Circulation was limited by the MWD tools in the beginning of the section and mud pump pop-off towards TD. The riser booster was used during much of the drilling time.
The drill string RPM was maintained at 170 / 180 throughout and the WOB was reduced to 5 / 10k below 2800m due to an increase noted in Stick-slip alarms on the MWD tool.
A drilling break was noted from 3450m – 3453m, with no positive indication of hydrocarbons from circulation. The decision not to core was made, and drilling continued through the Lysing formation monitoring for hydrocarbons via LWD tools.

The 8 1/2" hole section was drilled to TD 3745m on October 13, 2004 at approximately 16:00 hrs. The hole was circulated clean with a hi-wt pill, a total of 3½ bottoms up were pumped to clean hole. Well was flow checked and pipe was POOH. Over-pull noted from 3540m – 3529m and the Top drive was used to back-ream from 3548m – 3432m. Once the bit was above 3448m normal conditions were noted. The hole was circulated clean at 3432m and the bit was then POOH with no further problems. A slight over-pull (20k) was noted at 1816m and was wiped through with no difficulty. The bit was graded 3, 3, CT, XN, X, IN, NO, TD

Logging Operations:

On October 14, 2004 at 19:00 hrs Schlumberger Wire line equipment was rigged up and tool string #1 (DSI / PEX / AIT / HNGS) was then run in hole to 2135m where the tool string stood up. Numerous attempts were made to get the tool worked through this area with no success. The tool string was POOH and the DSI section was removed in an attempt to shorten the tool string. The second run was attempted with the PEX / AIT / HNGS and this tool string #2 also stood up at 2135m. A further unsuccessful attempt to RIH with tool string #3 (MDT / GR) was made. The W/L equipment was rigged down for a conditioning trip at 18:30 hrs on October 15, 2004.

Conditioning Trip for Logging Operations:

This assembly was run in the hole and circulation was broken every 25 stands. No obstruction was noted when tripping pipe through the section (2135m) where the wire line tools were tagging up and unable to work past. The BHA took 30 k weight at 2643m, circulation was established at this time and higher than expected initial pump pressure observed. After 30 minutes of circulation the pump rate was increased to 535 gpm and dynamic losses were observed. During evaluation operations high torque was experienced and trouble was encountered attempting to POOH. It was decided at this point that due to

limited supplies of mud on location and deteriorating hole conditions it would be necessary to pull out to the shoe. Once in the shoe, circulation was carried out at full rate without dynamic losses. The riser was boosted at this time and cavings and fines were noted at bottoms up across the shakers. 3 different LCM pills were pumped as various attempts were made to reduce dynamic losses without success.

Therefore, the decision was made to pull out of hole and commence abandonment operations. The clean out BHA was pulled out of the well. There was no further damage noted to the bit or any of the stabilizers.

Abandonment

Abandonment operations commenced at 09:00 hrs on October 19, 2004. A 3 1/2" cement stinger was RIH and managed to get past the previous obstruction at 2643m, continued to RIH to 3600m and POOH to retry wireline logging. The Schlumberger wire line equipment was rigged up and the MDT toolstring RIH. No hole problems or conditions were noted down to 3438m.
The tool string hung up at 3438.5m (wire line depth corrected to LWD depth). For 1 ½ hrs, attempts were made to pass the hang-up depth by running in with speeds up to 250 ft/min (75m / min) and by functioning the tool open several times. No over-pulls were observed when picking back up. As all attempts were unsuccessful to get past the obstruction at 3438m the decision was made to pull out of the hole with MDT Tool and rig down the Wire line equipment.
Prior to recommencing abandonment operation the BOP test was performed.
Before setting cement plugs, the bridge at 3438.5m was tagged. Attempts to circulate through the bridge were not successful.
Cement plugs were then set as followed:

- Plug #1: theoretical setting depth of 3385-3125m (in open hole)
- Plug #2: theoretical setting depth of 2260-2010m (in open hole)
- Plug #3: theoretical setting depth of 2000-1750m. (in open hole)
- Plug #4: theoretical setting depth of 1480-1280m (tagged and tested to 1500 psi)
- Bridge plug was set at 647m, and pressure tested to 2000 psi
- Plug #5: theoretical setting depth of 647-447m

The BOP was retrieved without incident and the wellhead cut using MOST tool.

Final stages / pulling anchors

All remaining 5" DP, 5" HWPD, 8" and 6 ½" DC's and EDPHOT was laid out from the derrick onto the deck. Meanwhile the crew continued to clean the pits. Worsening weather conditions required waiting on weather for 31.5 hrs before commencing with the anchor handling. During this time the rig was de-ballasted to survival draught. On the 1st of November at 17:00 hrs the weather improved and the rig was de-ballasted to transit draught. Anchor handling was commenced by passing #7 pennant to the "Northern Corona" and #3 pennant to the "Northern Challenger". The anchors was pulled and bolstered in the following order: #7, #3, #6, #2, #4, #8, #1, #5. During the anchoring operation the tow bridle was passed to the "Northern Challenger". The last anchor was bolstered at 18:05 hrs and the rig was under tight tow and off contract at 18:30 hrs the 2nd of November.

1.5 Attachments

1. Figure 1.1 Well Summary

Well 6507/1-1

Figure 1.1 Well Summary

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Location: Norway
Well Type/Status: Exploration
Production Licence : PL261BS
Licencees : ChevronTexaco (65%), BP Norge AS (10%), RWE DEA Norge AS (15%), Statoil ASA (10%)
Rig Name: Stena Dee
Rig on Contract : September 22th, 2004 at 2100 hrs
Rig off Contract : November 2st, 2004 at 1830 hrs

Surface location: N 65° 56' 19.148" 7 314 353.73m N
E 07° 15' 39.050" 420 880.31m E
Target Tolerance: 150m Radius @ Lysing
Target Formation(s): Lysing Sst.
Days on Location: 42.1 days
AFE Days: 28.1 days
Estimated Well Cost: 131 mill NOK
AFE Cost: 134.0 mill NOK

Water depth: 397m MSL
Rotary-MSL: 25m
Rotary - Seabed: 422m
Actual TD: 3745 mTVD / 3745 mMD
Planned TD : 3800mTVD / 3800 mMD
Maximum Hole Angle: 5.24°
Rig Heading: 224.83° (True)

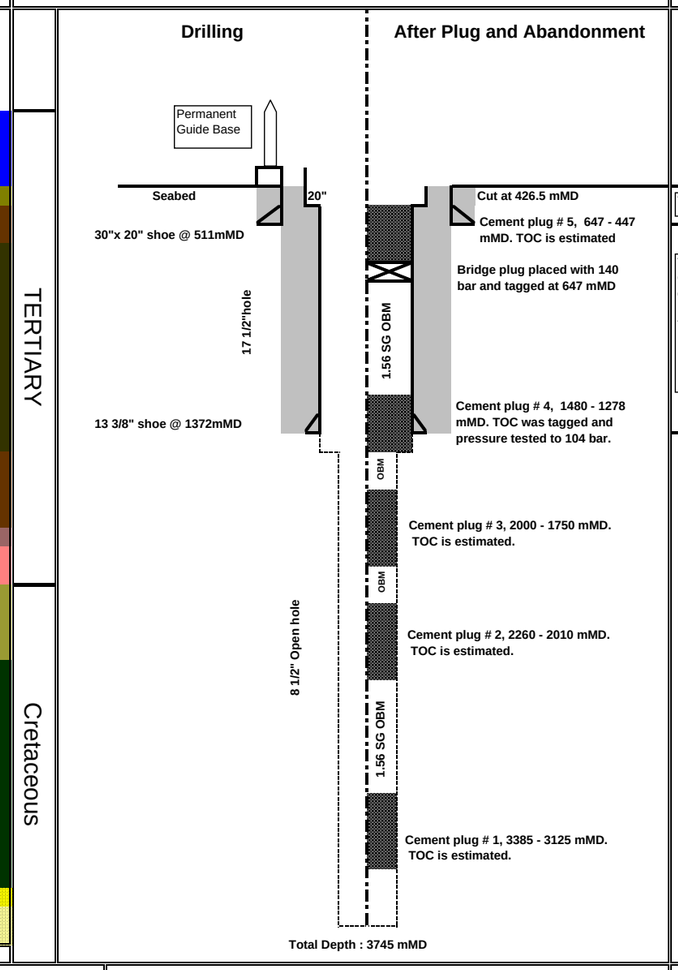
Operational Safety Results

- No LTI's Medical Treatments, Environmental Spillages or Incidents reportable to Authorities.
- First Aid Case : Man sprained ankle on deck. Returned to work following treatment.
- First Aid Case : Man tripped over slips on Drillfloor. Returned to work following treatment.
- Near Miss: Observed poorly welded chain bracket on Knuckle-boom Crane had broken away, held in place by chain.
- Near Miss: Operator error resulted in cement stand fell across derrick. No injuries / damage to equipment.

Depth MD RT (m)	Formation Tops (m)
0	0-25m Airgap
25	MSL
422	Seabed
525	Top Naust
750	Tertiary
1372	Casing Shoe
1536	Kai
1894	Brygge
1925	Tare
2160	Top Springar
3466	Top Lysing Fm
3509	Top Lange Fm
3693	Lange Marker
3745	TD

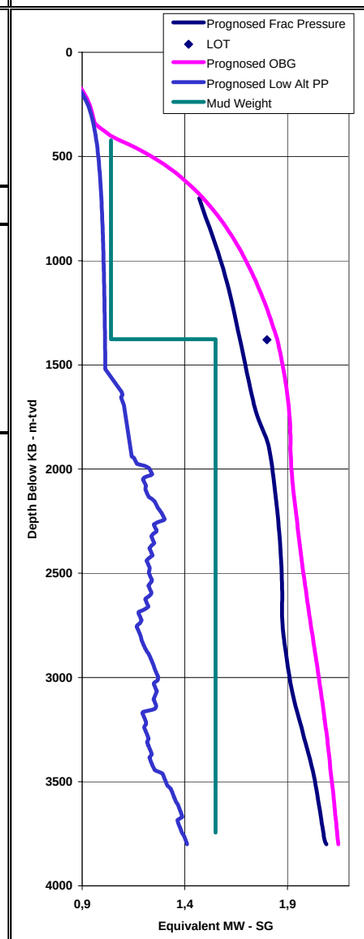
Lithology

Wellbore Schematic

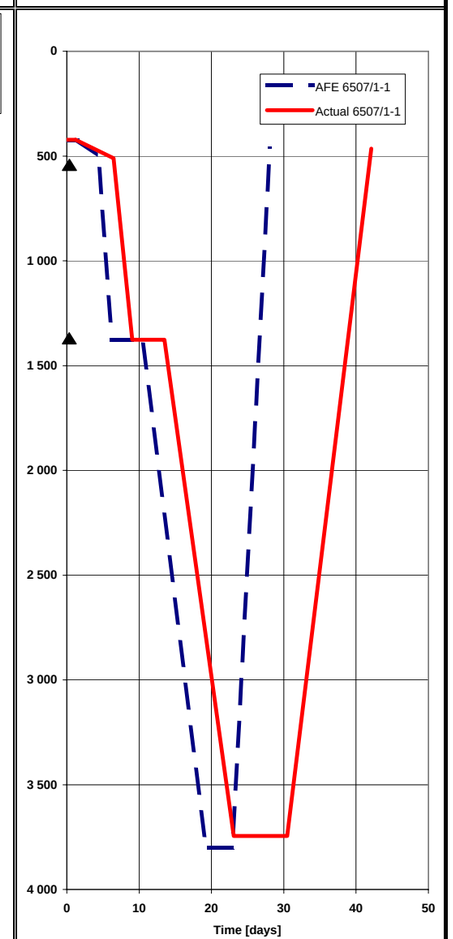


Relevant drilling problems and NPT	Mud System	FIT DATA (SG)	Directional Surveys	Logging & Coring
Total section NPT = 9,5 hrs	Riserless **SW - Spud mud**	None	Anderdrift	None
Tight spots when tripping out of hole. Over gauged boulder observed on top of stabilistator. Total section NPT= 7,5 hrs	Riserless **SW - Spud mud** pills. Displaced to 1.2 SG Glydril mud prior to running casing	None	MWD	Gamma ray and resistivity.
When logging an obstuction was hit at 2135 mMD. Not able to log reservoir due to obstruction in hole. Losses to formation when running conditioning BHA. Total section NPT = 74 hrs	**Oil Based** (Low Toxic) **Min. MW** 1.55 SG **Max. MW** 1.56 SG **Average prop.:** PV = 37 cP, YP = 27 Pa, 10sGel = 16 Pa, 10mGel = 27 Pa, O/W = 75/25 **Volume Used:** 385 m3 **Volume lost:** 180 m3 **Cuttings generated:** 322 MT	1.80 SG with OBM (LOT)	MWD	Gamma ray, resistivity and sonic. **Wireline logging:** (2135-1377 mMD) DSI/PEX/AIT/HNGS
P & A MOST tool released early several times. Cut wellhead in compression. WOW to pull anchors Total section NPT = 42,5 hrs				**No coring** **No MDT**

Pore & Frac.Pressure and Mud Density



Actulal and AFE Time vs Depth (Days)



Bits

#	Bit size	Make & Type	D.out (mMD)	Drld. (m)
1	17 1/2" Insert Bit	DBS EBXT12DSCL	511	89
2	22" x 26" x 36" HO	IPE, Weatherford	508	86
3	36" HO single	IPE, Weatherford	507	85
4	17 1/2" Insert Bit	DBS EBXT02DSL	1377	870
5	12 1/4" Bit	DBS XS4G	1380	3
6	8 1/2" PDC Bit	DBS FM3663Z	3745	2365

Services

Name	Service	Name	Service
Andergauge Ltd	Inclination Verific.	Read	VSP
BHI	MWD/LWD/Coring	ResLab	Cuttings / core handling
Cambrian	Site Geologist	Schlumberger	Cement / Wireline log
CHC/ Norsk Helicopter	Helicopters	Stena	Drilling Contractor
Datalog Ltd	Mudlogging	Vetco Grey	Wellhead / Conductor
Halliburton	Welltesting & bits	Vestbase	Shore base / transport
Fugro	Rig positioning	VestDrill (VMS)	Well Delivery Team
Mediteam	Health Service	Weatherford	Fishing eq., wellhead cutting, hole openers, casing running
MI Norge	Mud		
MI Swaco	Cuttings collec.& disp.		
ModuSpec	BOP / Rig Inspection		
Oceaneering	ROV		
Petrotech	MDT Sample Processing		

People

Name	Function
Kirk Purdy	Project Manager
John Dacus	Drilling project Manager
L.T. Vika / T.L.-Sorensen / I. Mogedal	Drilling Engineer
J.P. Aabel / J.V. Markmanrud	HSE Representative
Johan Myrdal	Logistic Co-Ordinator
Mike Hollinshead / Ken Russel	Senior Offshore Drilling Rep.
Silvia de Jonge / Roger Moore	Offshore Drilling Rep.
Debbie South	Project Geologist
A. McQueen / N. Feery / S. Pickles	Operational & Wellsite Geologist
Per-Allan Rosand	Contract Co-Ordinator
A. Pointing / B. Johnson	Marine Advisor
Paul Hughes / Steve Pattie	Well Testing
Bente Gjerde	Admin. Assistant

Boats

Boat name	Function
Normand Mariner	AHV
Northern Challenger	AHV / St.by / Supply vessel
Northern Corona	AHV / St.by / Supply vessel
Esvagt Corona	St.by

Experience

1. Circulation losses to formation.
2. Boulders experienced. Tight spots in 17 1/2" hole
3. No shallow gas observed
4. No LTA
5. Two dedicated boats worked very well

Summary of Operations

Moved from Invergordon, positioned and anchored rig.
Drilled 36" hole
Ran & cemented 30" csg with PGB
Drilled 17-1/2" hole
Ran 13-3/8" Casing and cemented same
Ran riser and BOP's
Cleaned out shoetrack with 12-1/4" slick BHA
Drilled 8-1/2" hole thru Lysing formation and tagged the Lange marker
Ran in with wireline log (hit obstuction @2135 mMD)
Wireline logged 2135 - 1377 mMD
Losses to formation when running condition BHA
Plugged back hole (cement plugs)
Pulled BOP's, cut and retrieved WH & PGB, pulled anchors

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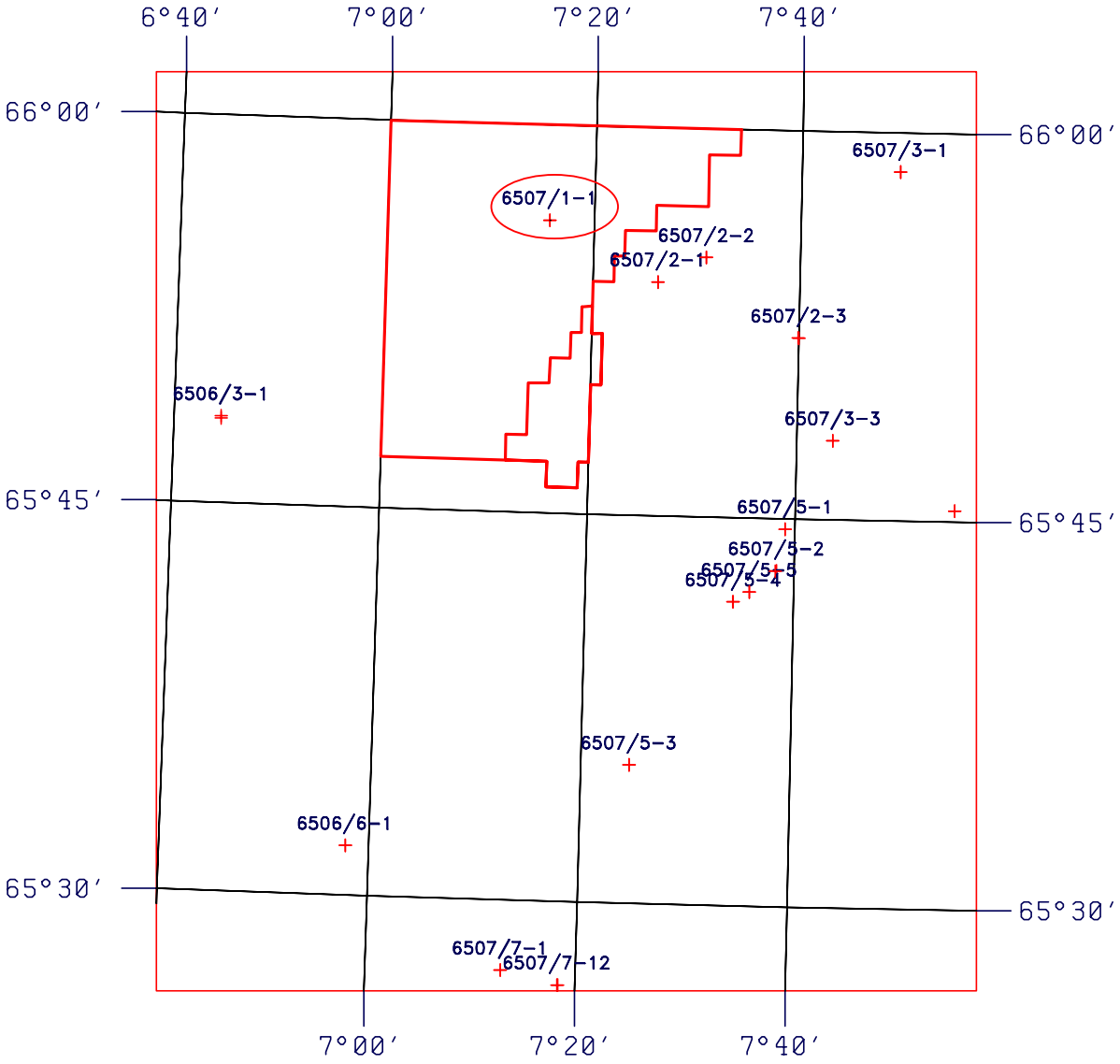
2.1 Licensees

The Production Licence 261 BS was awarded to the following license group:

CHEVRON TEXACO	65% (Operator)
BP Norge AS	10%
RWE DEA Norge AS	15%
Statoil ASA	10%

2.2 Well Location Plot



The final rig position on a heading of 224.83° (True) was recorded as:

Long:	N 65° 56’ 19.148”	UTM 7 314 353.73m N
Lat:	E 07° 15’ 39.050”	UTM 420 880.31m E

2.3 Well Results vs. Objectives

Objectives
The objectives for the 6507/1-1 well were:

- Demonstrate economic potential of hydrocarbon reservoirs in Lysing (Cretaceous) Formation named the Sahara prospect
- Gather data to calibrate the seismic response in the DTW 2000 cube, to further understand the potential of the license
- Tag and evaluate the Lange seismic marker, depending on hole condition and drilling progress.

Results
The Sahara prospect (Lysing formation) was demonstrated to have no economic potential in this license. The well was able to identify the Lysing reservoir sands (63 m gross sand interval) by logging with MWD tool (GR/Res/Sonic) while drilling. No fluid samples from the reservoir were recovered due to the MDT tool hitting an obstruction in the well before reservoir depth.

The Sahara prospect trap was thought to have been created by a combination of stratigraphic pinch-out of turbiditic sands towards the Marulk high to the southeast and fault throw across the main channel feature to the south. Regional sedimentology work done on the Lysing Formation of the Halten and Dønna Terraces added confidence that the observed amplitudes reflected a turbidite sand accumulation. The seismic amplitudes and the AVO work revealed a Class III AVO anomaly (a trough that becomes more negative with offset) indicating low densities, which were interpreted to be related to either highly porous sandstone or sandstone containing low or high saturations of gas. The principal pre-drill risk was judged to be the up-dip seal created by the fault throw in the main channel feature. For the seal to work, the sandstone layers needed to be thin enough, and the fault to have a large enough throw, to isolate the prospect from the rest of the Lysing Formation up-dip.

The petrophysical evaluation concluded that the Sw was 90%-100%, and the porosity averaged 20%-22%. It is believed that the thick sands are the major contributing factor to the failure of the prospect as the faults probably do not have sufficient throw to seal the reservoir. The pre-drill AVO work identified the well results as a possible outcome i.e. a possible residual saturation of gas in good reservoir sand.

2.4 Operational Safety Results vs. Objectives

Based on the corporate HSE objectives defined in the HSE program for 2004, a number of project goals and objectives were defined for the project. The table below summarizes these goals and objects measured against the actual performance for the project.

Table 1 HSE performance verses project goals and objectives – PL261 Sahara Well Project

Project goals and objectives	Actual performance
- The Managing Director will ensure an operational environment in which humans care for each other and help each other in achieving a corporate culture where safety is given first priority.	Achieved. • IFO workshops, audits and general interface with rig operator • Clear communication to the crew from CT and Stena management • Incorporation of the principle during the planning and execution phase
- Cultivate a working environment where everybody leaves the workplace at least as healthy as they were when they arrived.	Difficult to measure and conclude for a short term operation. Performance reward scheme implemented. Activities to improve and maintain a good WE where made during the planning and execution phase.
- Zero Lost Time Injuries (LTI=0).	Achieved.
- No new Repetitive Stress Injuries (RSI=0)	Achieved.
- No reportable (Medical Treatment) injuries (MTI=0) or accidental environmental releases.	Achieved.
- No accidents that causes damage to equipment which affects its operability or integrity and causes rig downtime.	Achieved.
- No high risk incidents, i.e. incidents that are classified in the unacceptable (red) area in the risk matrix adopted for the project.	Not achieved. Five (5) incidents classified as high risk potential in accordance with the CT risk matrix.

The following incidents received particular attention during the operation:

- First Aid Case: Man sprained ankle on deck. Returned to work following treatment.
- First Aid Case: Man tripped over slips on Drillfloor. Returned to work following visit to rig hospital.
- Near Miss: Observed poorly welded chain bracket on Knuckle-boom Crane had broken away, held in place by chain.
- Near Miss: Operator error resulted in cement stand fell across derrick. No injuries / damage to equipment.

The 5 incidents classified as high risk potential was related to:

- Welding sparks fell from rig mezzanine deck onto plastic sheet on deck below during the mobilization phase. Area was not cleared and no fire watch was present. Situation was corrected with no consequences.
- Three sets of handrails around the moonpool area were found unsecured and required proper mounting. Situation was corrected without any consequences.
- Hand rails on fwd mezzanine deck not properly welded after refit of cherry picker. Hand rails were properly secured without any consequences.
- Fire exit at the top of the new accommodation unit was found bolted shut with ISPS lock 2 weeks after the rig left port. Lock was removed to allow egress.
- Access to the explosive container was found blocked by cargo which would have prevented overboarding of explosives in a fire situation. Cargo was removed to free access.

Table 2 presents an overview of the HSE statistics for the project.

Table 2 HSE statistics – PL261 Sahara Well Project

Stop cards	Ranking		First Aid Treatment
1100	5	High	2
	62	Medium	
	1033	Minor*	

*** Included proactive stop cards**

2.5 Well Progress Curve

See Figure 1.1 Well Summary

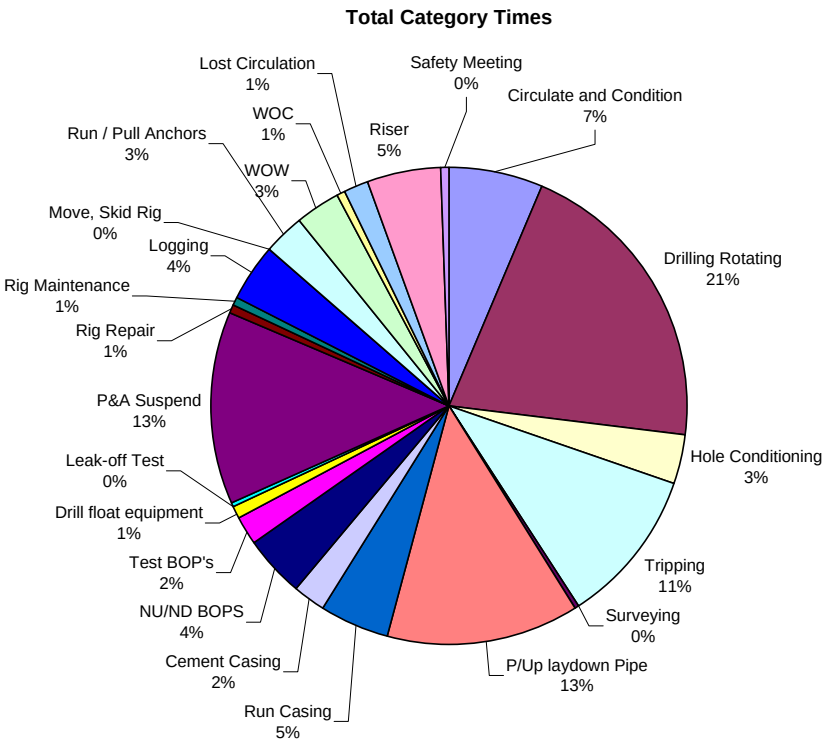
2.6 Well Status after Abandonment

See Figure 1.1 Well Summary

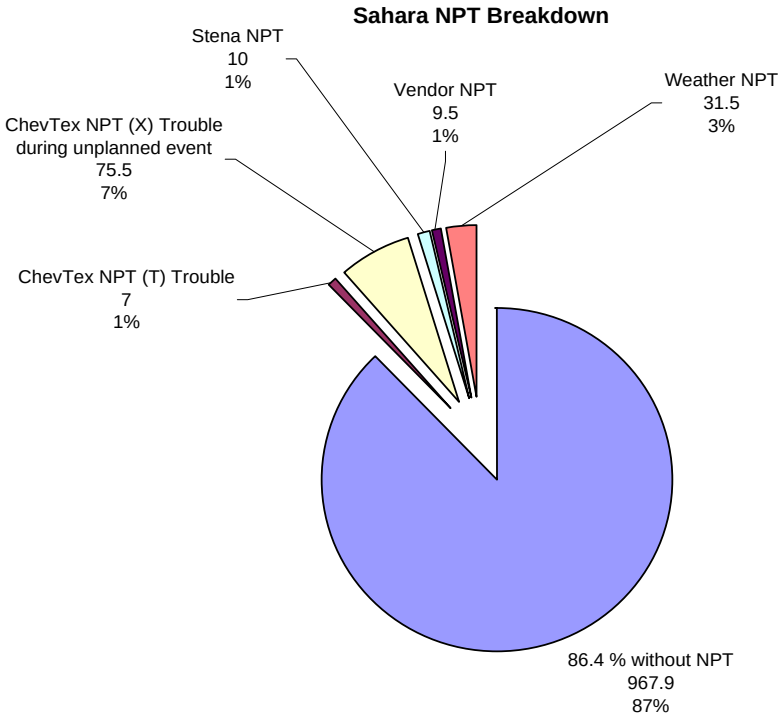
2.7 Time Distribution Summary

The overall rig time distribution and trouble time (non productive time) are as follows:

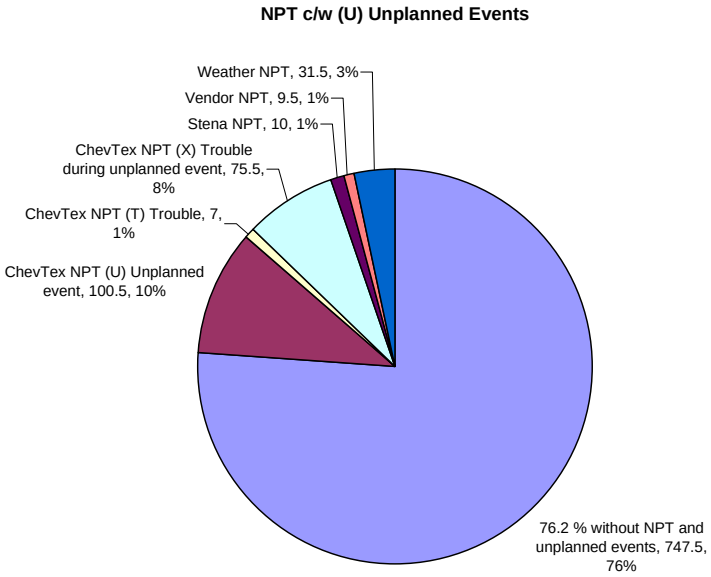
All Categories			
Code	Category Description	Total Time Hrs	%
1	Circulate and Condition	64	6,5
2	Drilling Rotating	202	20,5
4	Hole Conditioning	32	3,3
5	Tripping	105	10,7
6	Surveying	3	0,3
7	P/Up laydown Pipe	126.5	12,8
8	Run Casing	46.5	4,7
9	Cement Casing	24	2,4
13	NU/ND BOPS	41	4,2
14	Test BOP's	18.5	1,9
15	Drill float equipment	8	0,8
17	Leak-off Test	3.5	0,4
19	P&A Suspend	127	12,9
20	Rig Repair	7	0,7
21	Rig Maintenance	5	0,5
25	Logging	37.5	3,8
38	Move, Skid Rig	1	0,1
40	Run / Pull Anchors	25.5	2,6
42	WOW	31.5	3,2
43	WOC	6	0,6
50	Lost Circulation	14	1,4
53	Riser	51.5	5,2
62	Safety Meeting	4.5	0,5



Allocated Time	Hrs
86.4 % without NPT	967.9
ChevTex NPT (T) Trouble	7
ChevTex NPT (X) Trouble during unplanned event	75.5
Stena NPT	10
Vendor NPT	9.5
Weather NPT	31.5



Allocated Time	Hrs
76.2 % without NPT and unplanned events	747.5
ChevTex NPT (U) Unplanned event	100.5
ChevTex NPT (T) Trouble	7
ChevTex NPT (X) Trouble during unplanned event	75.5
Stena NPT	10
Vendor NPT	9.5
Weather NPT	31.5



2.8 Cost Summary

The AFE (Application For Expenditure) was 134.9 million NOK, which was based on:

- Dry hole well design.
- Total time of 28.1 days. Estimated with a P50 probability with the P1 software.
- Cost estimation with a probability of P70 with the P1 software.
- Exchange rated of 6.85 NOK/USD and 12.25 NOK/GBP
- Total depth of 3800 mMSL

The latest estimation (April 2005) of well costs is 128.4 million NOK.

The books have not been closed yet and the final well reconciliation and final audit will be produced early 2005.

See figure and table below for AFE vs. actual cost comparison.

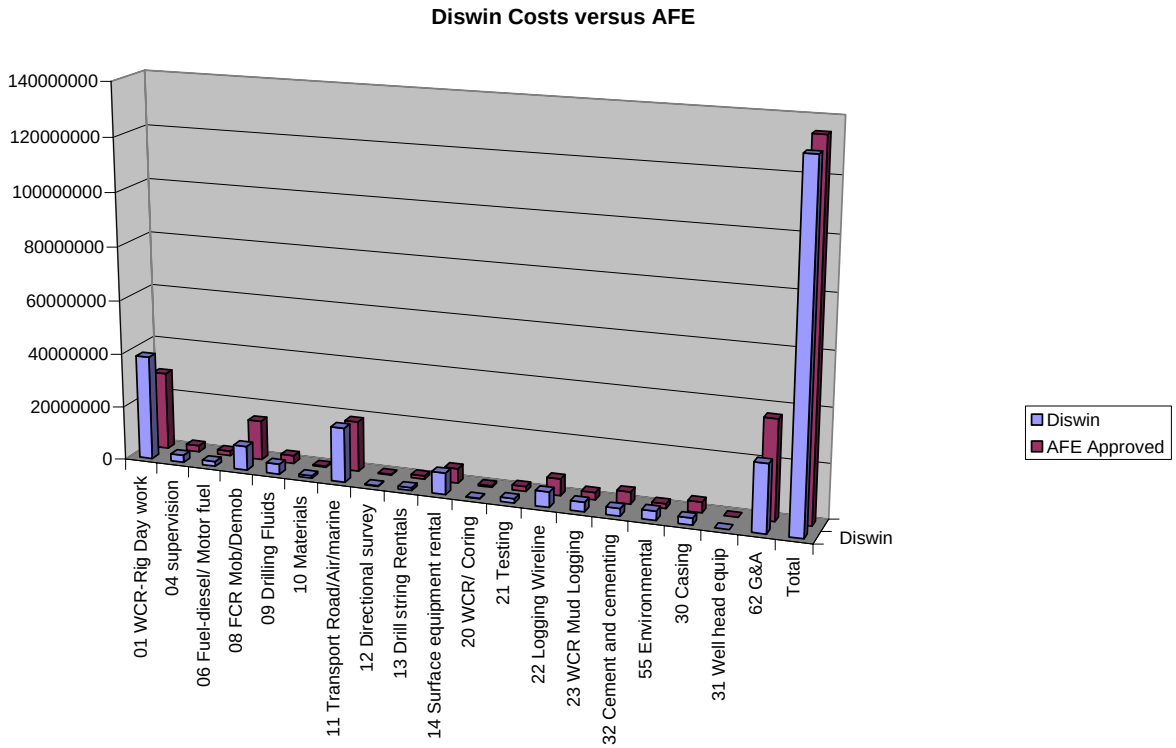


Figure 2.8.1

PL261 Budget Line Review

BDGT. LINE	DESCRIPTION	AFE USD	AFE NOK	ACTUAL NOK FLOWTING FX RATE	ACTUAL COST USD	BUDGET LINE BALANCE- USD	ACTUAL COST- AFE FX RATE USD
1	CONTRACT DAYWORK	4,212,498	28,872,500	35,609,384	5,738,599	(1,526,101)	5,195,718
4	WELL SITE SUPERVISION	351,434	2,400,730	1,245,717	72,185	279,249	181,761
6	FUEL, POWER, WATER	248,430	1,702,740	6,732,325	1,083,832	(835,402)	982,305
8	RIGGING UP AND DOWN	2,139,097	14,661,390	3,112,170	491,133	1,647,964	454,093
9	DRILLING FLUIDS	423,259	2,901,020	6,988,814	1,122,236	(698,977)	1,019,729
10	MATERIALS, SUPPLY, PARTS	60,709	416,100	453,709	69,636	(8,927)	66,200
11	TRANSPORTATION	2,721,759	18,654,960	13,053,177	2,095,258	626,501	1,904,572
12	DIRECTIONAL DRILLING	41,580	284,990	4,767,123	768,788	(727,208)	695,565
13	DRILL STRING RENTAL / BITS	179,523	1,230,450	504,597	79,767	99,756	73,625
14	OTHER RENTALS & SERVICES	797,265	5,464,460	23,542,479	3,713,644	(2,916,379)	3,435,052
15	OTHER SUBSURFACE COSTS	0	0	0	0	0	0
20	CORING	85,430	585,540	318,670	51,104	34,326	46,497
21	TESTING	267,569	1,833,920	1,636,701	257,329	10,240	238,809
22	WIRELINE LOGGING	903,731	6,194,180	3,065,357	500,648	403,083	447,262
23	MUD LOGGING	395,986	2,714,090	1,116,218	178,640	217,346	162,866
30	WELL PIPE	576,826	3,953,570	1,146,371	184,497	392,329	167,265
31	SUBSURFACE EQUIPMENT	0	0	1,085,897	177,456	(177,456)	158,442
32	CEMENTING	654,057	4,482,910	3,633,223	581,407	72,650	530,119
40	FISHING	0	0	0	0	0	0
52	DRILLSITE COSTS	0	0	604,721	87,195	(87,195)	88,234
54	SUBSURFACE PROD. EQ.	0	0	0	0	0	0
55	HS&E & DRILLSITE COSTS	254,399	1,743,650	2,680,871	410,941	(156,542)	391,162
62	GENERAL & ADMIN COSTS	5,360,694	36,742,250	13,310,359	2,169,068	3,191,626	1,942,097
TOTAL BOOKED (INCLUDES TABLE B)		**19,674,246**	**134,839,450**	**124,607,882**	**19,833,361**	**(159,115)**	**18,181,371**

	NOK	USD
TOTAL INCLUDING EXPECTED ADDITIONAL COSTs,	**128,413,332**	**20,437,287**

Well 6507/1-1

Figure 1.1 Well Summary

ChevronTexaco

Location: Norway
Well Type/Status: Exploration
Production Licence : PL261BS
Licencees : ChevronTexaco (65%), BP Norge AS (10%), RWE DEA Norge AS (15%), Statoil ASA (10%)
Rig Name: Stena Dee
Rig on Contract : September 22th, 2004 at 2100 hrs
Rig off Contract : November 2st, 2004 at 1830 hrs

Surface location: N 65° 56' 19.148" 7 314 353.73m N
E 07° 15' 39.050" 420 880.31m E
Target Tolerance: 150m Radius @ Lysing
Target Formation(s): Lysing Sst.
Days on Location: 42.1 days
AFE Days: 28.1 days
Estimated Well Cost: 131 mill NOK
AFE Cost: 134.0 mill NOK

Water depth: 397m MSL
Rotary-MSL: 25m
Rotary - Seabed: 422m
Actual TD: 3745 mTVD / 3745 mMD
Planned TD : 3800mTVD / 3800 mMD
Maximum Hole Angle: 5.24°
Rig Heading: 224.83° (True)

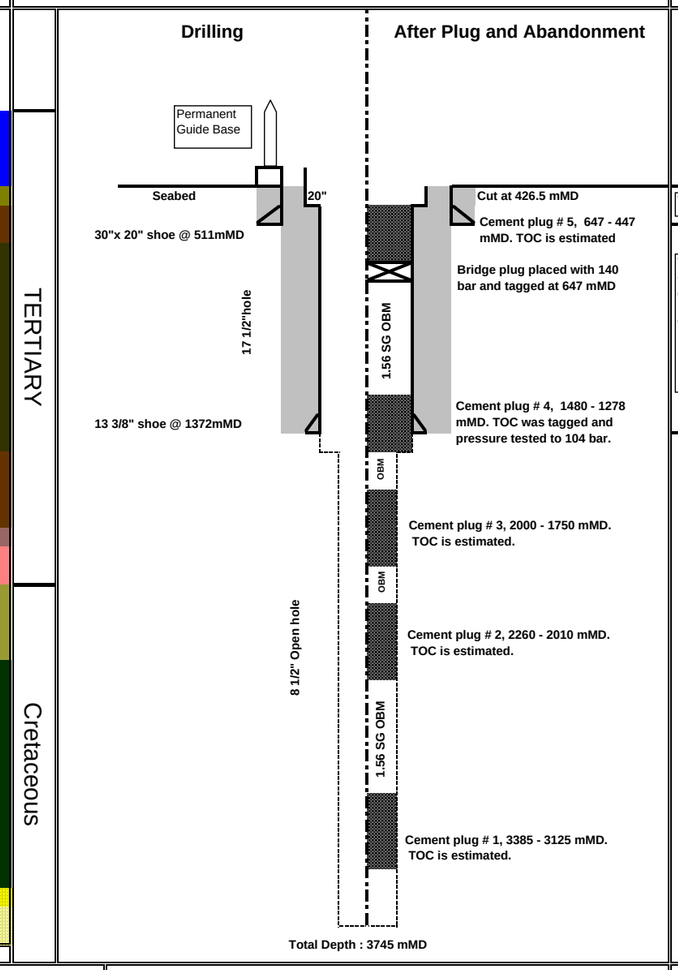
Operational Safety Results

- No LTI's Medical Treatments, Environmental Spillages or Incidents reportable to Authorities.
- First Aid Case : Man sprained ankle on deck. Returned to work following treatment.
- First Aid Case : Man tripped over slips on Drillfloor. Returned to work following treatment.
- Near Miss: Observed poorly welded chain bracket on Knuckle-boom Crane had broken away, held in place by chain.
- Near Miss: Operator error resulted in cement stand fell across derrick. No injuries / damage to equipment.

Depth MD RT (m)	Formation Tops (m)
0	0-25m Airgap
25	MSL
422	Seabed
525	Top Naust
750	Tertiary
1372	Casing Shoe
1536	Kai
1894	Brygge
1925	Tare
2160	Top Springar
3466	Top Lysing Fm
3509	Top Lange Fm
3693	Lange Marker
3745	TD

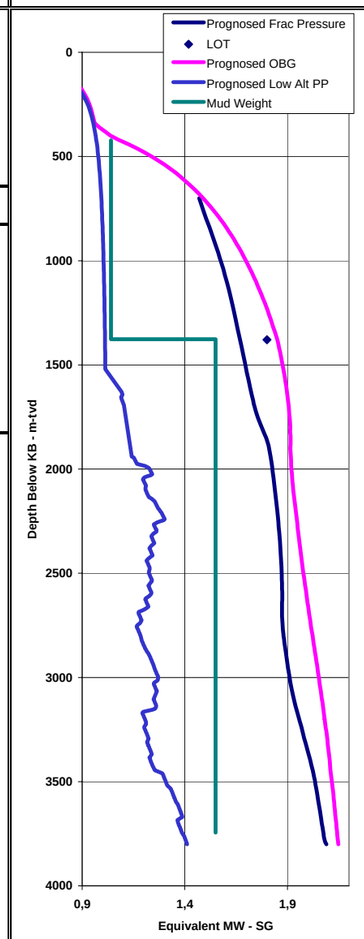
Lithology

Wellbore Schematic

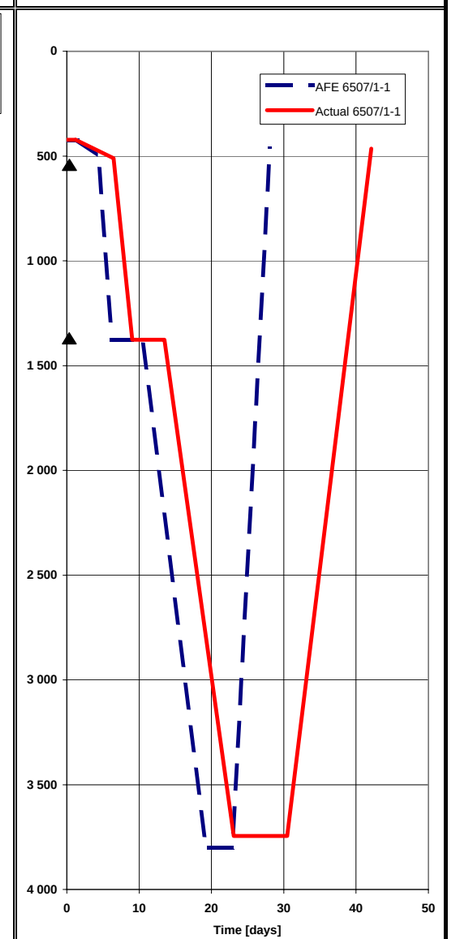


Relevant drilling problems and NPT	Mud System	FIT DATA (SG)	Directional Surveys	Logging & Coring
Total section NPT = 9,5 hrs	Riserless **SW - Spud mud**	None	Anderdrift	None
Tight spots when tripping out of hole. Over gauged boulder observed on top of stabilistator. Total section NPT= 7,5 hrs	Riserless **SW - Spud mud** pills. Displaced to 1.2 SG Glydril mud prior to running casing	None	MWD	Gamma ray and resistivity.
When logging an obstuction was hit at 2135 mMD. Not able to log reservoir due to obstruction in hole. Losses to formation when running conditioning BHA. Total section NPT = 74 hrs	**Oil Based** (Low Toxic) **Min. MW** 1.55 SG **Max. MW** 1.56 SG **Average prop.:** PV = 37 cP, YP = 27 Pa, 10sGel = 16 Pa, 10mGel = 27 Pa, O/W = 75/25 **Volume Used:** 385 m3 **Volume lost:** 180 m3 **Cuttings generated:** 322 MT	1.80 SG with OBM (LOT)	MWD	Gamma ray, resistivity and sonic. **Wireline logging:** (2135-1377 mMD) DSI/PEX/AIT/HNGS
P & A MOST tool released early several times. Cut wellhead in compression. WOW to pull anchors Total section NPT = 42,5 hrs				**No coring** **No MDT**

Pore & Frac.Pressure and Mud Density



Actulal and AFE Time vs Depth (Days)



Bits

#	Bit size	Make & Type	D.out (mMD)	Drld. (m)
1	17 1/2" Insert Bit	DBS EBXT12DSCL	511	89
2	22" x 26" x 36" HO	IPE, Weatherford	508	86
3	36" HO single	IPE, Weatherford	507	85
4	17 1/2" Insert Bit	DBS EBXT02DSL	1377	870
5	12 1/4" Bit	DBS XS4G	1380	3
6	8 1/2" PDC Bit	DBS FM3663Z	3745	2365

Services

Name	Service	Name	Service
Andergauge Ltd	Inclination Verific.	Read	VSP
BHI	MWD/LWD/Coring	ResLab	Cuttings / core handling
Cambrian	Site Geologist	Schlumberger	Cement / Wireline log
CHC/ Norsk Helicopter	Helicopters	Stena	Drilling Contractor
Datalog Ltd	Mudlogging	Vetco Grey	Wellhead / Conductor
Halliburton	Welltesting & bits	Vestbase	Shore base / transport
Fugro	Rig positioning	VestDrill (VMS)	Well Delivery Team
Mediteam	Health Service	Weatherford	Fishing eq., wellhead cutting, hole openers, casing running
MI Norge	Mud		
MI Swaco	Cuttings collec.& disp.		
ModuSpec	BOP / Rig Inspection		
Oceaneering	ROV		
Petrotech	MDT Sample Processing		

People

Name	Function
Kirk Purdy	Project Manager
John Dacus	Drilling project Manager
L.T. Vika / T.L.-Sorensen / I. Mogedal	Drilling Engineer
J.P. Aabel / J.V. Markmanrud	HSE Representative
Johan Myrdal	Logistic Co-Ordinator
Mike Hollinshead / Ken Russel	Senior Offshore Drilling Rep.
Silvia de Jonge / Roger Moore	Offshore Drilling Rep.
Debbie South	Project Geologist
A. McQueen / N. Feery / S. Pickles	Operational & Wellsite Geologist
Per-Allan Rosand	Contract Co-Ordinator
A. Pointing / B. Johnson	Marine Advisor
Paul Hughes / Steve Pattie	Well Testing
Bente Gjerde	Admin. Assistant

Boats

Boat name	Function
Normand Mariner	AHV
Northern Challenger	AHV / St.by / Supply vessel
Northern Corona	AHV / St.by / Supply vessel
Esvagt Corona	St.by

Experience

1. Circulation losses to formation.
2. Boulders experienced. Tight spots in 17 1/2" hole
3. No shallow gas observed
4. No LTA
5. Two dedicated boats worked very well

Summary of Operations

Moved from Invergordon, positioned and anchored rig.
Drilled 36" hole
Ran & cemented 30" csg with PGB
Drilled 17-1/2" hole
Ran 13-3/8" Casing and cemented same
Ran riser and BOP's
Cleaned out shoetrack with 12-1/4" slick BHA
Drilled 8-1/2" hole thru Lysing formation and tagged the Lange marker
Ran in with wireline log (hit obstuction @2135 mMD)
Wireline logged 2135 - 1377 mMD
Losses to formation when running condition BHA
Plugged back hole (cement plugs)
Pulled BOP's, cut and retrieved WH & PGB, pulled anchors

This section contains:

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3.3 Geochemistry 8
3.4 Geophysics 8
3.5 Petrophysics 10
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3.7.1 LWD Summary 23
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3.1 Geology Summary

The Sahara well target consisted of only one horizon, the Late Cretaceous, Lysing Formation. The primary objective of this well was to demonstrate the economic potential of the Lysing Formation in the Sahara prospect. No hydrocarbons were found.

The Sahara prospect trap was thought to be created by a combination of stratigraphic pinch-out of turbiditic sands towards the Marulk high to the southeast and fault throw across the main channel feature to the south. Regional sedimentology work done on the Lysing Formation of the Halten and Dønna Terraces added confidence that the observed amplitudes reflected a turbidite sand accumulation. The seismic amplitudes and the AVO work revealed a Class III AVO anomaly (a trough that becomes more negative with offset) indicating low densities, which were interpreted to be related to either highly porous sandstone or sandstone containing low or high saturations of gas. The principal pre-drill risk was judged to be the up-dip seal created by the fault throw in the main channel feature. For the seal to work, the sandstone layers needed to be thin enough, and the fault to have a large enough throw, to isolate the prospect from the rest of the Lysing Formation up-dip.

Acoustic impedance work done on the Lysing Formation resulted in a prognosed 43m gross thickness of the Lysing sand in the well location. 63 meters of gross sand was encountered.

No wireline logs were obtained due to hole problems while trying to get tools to TD. The LWD suite had been designed so that critical evaluation data was obtained and provided the information needed to interpret the reservoir and its contents. No pressure measurements or formation fluid samples were taken.

The petrophysical evaluation concluded that the Sw was 90%-100%, and the porosity averaged 20%-22%. It is believed that the thick sands are the major contributing factor to the failure of the prospect as the faults probably do not have sufficient throw to seal the reservoir. The pre-drill AVO work identified the well results as a possible outcome i.e. a possible residual saturation of gas in good reservoir sand.

The so-called “Lange Formation marker” located about 200m below the base of the Lysing Formation was a feature that we wanted to penetrate and log, to better understand the seismic response of these intervals within the Lange Formation. There was a very low probability of actually encountering any sandstones at this level. No sandstones were encountered within the Lange Formation and TD for the well was set at 3745m MDRKB.

3.2 Well Stratigraphy

Introduction
Please refer to the Composite Log (Enclosure 3). Reference is also made to Ichron 2005 for biostratigraphy.

The prognosed and actual tops are shown in Table 3.1. All actual tops came within the expected uncertainty range in the prognosis. The main target, the Lysing Formation, was encountered 50 metres shallower than prognosed, but well within the prognosed uncertainty of +/-200m.

Seabed
Prior to choosing the anchor location, the seabed was mapped and imaged using single beam echo sounder, multi-beam echo-sounder and side scan sonar acoustic systems as well as sub seabed information was gathered using the hull mounted 4x4 pinger (see the Well site survey, Fugro 2004). A number of sites were examined for cold water corals, but the only location where corals were encountered was 4.5 km ESE from the well site. The seabed was mainly firm clay with pebbles and small boulders outcropping under un-consolidated silty clay.

Quaternary Deposits 422.5 (397.5) – 525 (500) MD RKB (TVD MSL)
(Mid? Pleistocene – Holocene, Neogene)
The well was drilled with returns to seabed down to the 13 3/8" casing point at 1375 m. Therefore, the description if this interval is based on log interpretation, and descriptions of this formation from offset wells.

Boulders were not observed during drilling. High risk, shallow gas filled sands were neither prognosed nor observed in this well. Some relatively high amplitude seismic events were drilled in the top sections of this well, without any signs of shallow gas being present.

This stratigraphic level consists of unconsolidated to firm clays, with interbedded sand-silt layers, pebbles and boulders.

Naust Formation 525 (500) – 1536 (1511) MD RKB (TVD MSL)
(Late Pliocene – Early- Mid? Pleistocene, Neogene)
The logs in this section show a monotonous, lightly serrated GR around 55 API, indicating mainly clays, with interbedded silts. A number of seismic events that were prognosed to be possible sands were expected, but no significant sands were encountered in the well. No overwhelming sand response on the gamma ray is seen, but the resistivity logs shows a slight response. Some sands have been identified in cuttings.

Returns were taken from 1375m. The Naust Formation consists of mainly dark grey, greyish black, dark brown to olive crumbly to blocky claystone, with traces of pyrite, shells and carbonaceous material, and may be silty or sandy in places. Interbedded with this is thin intervals of quartzose, clear, colourless and translucent, medium to coarse grained sandstone, with rounded to angular and sub – to elongate clasts that may or may not be cemented with quartz cement. Also, rarely occurring, are pale grey brown to pale yellow brown, microcrystalline limestone layers within the mudstone. These are slightly dolomitic with traces of organic matter.

Kai Formation 1536 (1511) - 1894 (1869) m MD RKB (TVD MSL)
(Late Miocene – Early Pliocene, Neogene)

The Kai Formation is characterized by a gamma ray log signature that indicates the presence of claystones with interbedded sands and silts. The claystone is medium dark grey to dark grey, occasionally speckled black, slightly soft to firm, crumbly to sub-blocky, occasionally sub-elongate, with traces of carbonaceous material, commonly slightly silty, rarely slightly sandy in places. The sandstone present is clear, colorless, and translucent, in medium to coarse-grained, angular, elongate clasts, either well cemented with silica cement or occurring as loose quartz grains. Rare traces of light grey-brown, fine to microcrystalline, slightly dolomitic limestones with occasionally sucrosic texture occur in this formation.

Brygge Formation 1894 (1869) – 1925 (1900) m MD RKB (TVD MSL)
(Early Eocene to Middle Eocene, Paleogene)

The Brygge Formation is easily identifiable on the electrical logs, as the GR signature shows a number of blocky, to bell-shaped and inverse bell shaped packages, with GR values from as low as 15 to as high as 130 in the clay interbeds. The resistivity in this formaton is noticeably lower than that of the overlying formation. In cuttings, the main lithology seen is the claystone, as described below. The formation becomes more tuffaceous downwards. No sandstone is seen in cuttings.

Judging from the similarity in the log character, we can assume that there is an abundance iof diatoms in this formation. These often do not show up in cuttings as they are destroyed on the way out of the hole. In well 6506/3-1 side wall cores were taken and the presence of abundant diatoms in ttuff was established. This explains the siliceous looking gamma-ray character of this formation, while the only returns to the rig are clays and small tuffs.

The claystone is predominantly dark greenish and olive grey, also dark grey, greyish and greenish black, rarely blueish grey, moderately firm to firm, sub-blocky to sub-platey, commonly slightly silty grading siltstone, commonly black speckled, moderate to very calcareous, becoming tuffaceous towards the base. The tuffs are medium grey, speckled, soft to moderately firm, amorphous, occasionally silty and very fine sandy, glassy fragments, non to slightly calcareous

Tare Formation 1992(1967)) – 2090 (2065) m MD RKB (TVD MSL)
(Early Eocene, Paleogene)

The gammaray signature of the Tare Formation is overall gently increasing from the base towards the top. The cuttings of the Tare Formation show diverse lithologies, mainly tuff and claystone with smaller amounts of limestone and sandstone.

The claystone is medium dark to dark grey, dark greenish to brownish black, or grey black, dark brown grey, dark olive grey soft to firm, amorphous to sub-blocky, occasionally slightly speckled, silty in places, waxy, and commonly calcareous, or with traces of glauconite. The tuffs are medium grey, speckled, soft to moderately firm, amorphous, occasionally silty and very fine sandy, with glassy fragments, non to slightly calcareous, or also light yellow grey, light orange grey, occasionally light to medium grey, soft to slightly firm, slightly to very calcareous. Limestones occur in smaller quantities and are medium brownish grey, firm, and crumbly microcrystalline. Traces of sandstone occur that are clear, colourless, fine grained, sub angular to sub rounded, moderately cemented, with trace micromicaceous, and traces of organic matter.

Tang Formation 2090 (2065) – 2145 (2120) m MD RKB (TVD MSL)
(Late Paleocene, Paleogene)

The Tang Formation consists mainly of claystone with smaller amounts of tuff and limestone stringers. The claystone is greyish black to brownish black, dark greenish and olive grey, also light to medium green grey, medium olive grey, occasionally speckled, moderately soft to firm, commonly slightly waxy, sub-blocky to sub-platy, commonly slightly silty, grading from non to moderately calcareous, rarely grading to argillaceous limestone, with traces of glauconite and rare traces of pyrite. The tuffs are pale grey to pale yellow grey, pale orange grey, commonly speckled, soft to moderately firm, amorphous, to sub blocky, commonly silty to very fine sandy, non to slightly calcareous. The limestone **is** off white to light grey, soft, and amorphous to sub blocky, microcrystalline, commonly argillaceous and silty.

Springar Formation 2145 (2120)– 2331 (2306) m MD RKB (TVD MSL)
(Late Campanian – Late Maastrichtian, Cretaceous)
and the
Nise Formation 2331 (2306) – 2478 (2453) m MD RKB (TVD MSL)
(Early Campanian, Late Cretaceous)

These Formations are heavily dominated by dark grey to grey-black, light olive grey to grey green, moderately soft to firm, commonly slightly waxy, sub-blocky to sub-platy, commonly slightly silty claystone, with traces of white to light grey grading medium grey, very soft to soft, occasionally slightly firm, amorphous to sub blocky, microcrystalline limestone, pale grey to pale yellow grey, pale orange grey, commonly speckled, soft, blocky, commonly silty to very fine sandy, non to slightly calcareous tuff, , and grey to yellow grey and yellow brown, orange grey, dark brown grey, commonly speckled, soft to occasionally hard, blocky to occasionally splintery dolomite.

This formation has a very transparent seismic signature. No layering is seen on the seismic. When drilling through this formation, some caving occurred. This and the fact that the formation started taking losses eventually this led to the data collection program being compromised and the wireline program could not be carried out. It is thought that the Springar Formation is very brittle in this area, possibly as a result of either slumping or faulting.

Kvitnos Formation 2478 (2453) – 3446 (3421) MD RKB (TVD MSL)
(Late Coniacian – Early Campanian, Late Cretaceous)

The Kvitnos and Nise Formation log character is virtually indistinguishable from that of the overlying Formation. A very stable and monotonous GR character of about 60 API, and a stable resistivity measurement of 1 ohmm, leads to the interpretation of this formation of being deposited as hemipelagic claystone with minor limestone or dolomitic cemented layers.

The claystones are dark grey, dark green grey to olive grey, grey black to olive black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally lightly micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules. The cemented limestones are only present as traces to 10% and are, light to medium brown grey, occasionally dark brown grey, occasionally brown speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places.

Traces of dolomite which is medium to dark brown grey, dark yellowish brown, firm to hard, sub blocky, blocky to splintery, locally very argillaceous, microcrystalline to cryptocrystalline, grading dolomitic limestone in places and traces of medium grey, medium green grey, firm, occasionally slightly friable, blocky, slightly argillaceous, calcareous to very calcareous, siltstone, grading very fine to fine sandstone in places.

Lysing Formation 3446 (3421) – 3510 (3485) MD RKB (TVD MSL)
(Early Coniacian, Late Cretaceous)

The Lysing Formation came in little thicker than prognosed, 63 meters gross instead of the 43 meters of sand predicted. The log character shows an alternation of packages of meter scale fining upward sandstones, and two to five meter thick blocky sandstones, separated by thin, decimeter to meter scale claystones.

The sandstone is commonly seen as rock flour: Light grey, light brown grey, commonly black speckled, soft to very soft, friable, amorphous, silty, slightly to moderately argillaceous, common trace glauconite, non to very slightly calcareous.
Occasionally seen un-crushed: Light to medium grey, medium brown grey, colourless, translucent to transparent, soft, friable, occasionally loose, very fine to fine grade, occasionally medium grade, sub rounded, rounded, occasionally sub elongate, moderate sphericity, trace Glauconite, non to very slightly calcareous.

The claystone is dark grey, dark olive grey, grey black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally trace micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules

There are also traces of limestone which is light to medium brown grey, occasionally dark brown grey, occasionally brown and black speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading to dolomitic limestone in places, and traces of medium grey, medium green grey, firm, occasionally slightly friable, blocky, slightly argillaceous, calcareous to very calcareous siltstone grading to very fine to fine sandstone in places.

The log character of these deposits, together with the nature of the seismic amplitude that this well was drilled on, indicate deposition in a channelised upper turbidite fan setting. The thick, blocky sandstone represent, high energy channel fill packages, from large turbidity currents, with the thinner, fining upwards units representing the distal equivalents of these, deposited from flows of lower intensity and volume.

Lange Formation 3509 (3484) – 3745 (3720) MD RKB (TVD MSL)
(Late Turonian, Late Cretaceous)

The Lange Formation consists of claystone which is medium grey brown to dark brown grey, commonly brown and black speckled, soft to firm, sub blocky to sub angular, non to moderately silty, becoming very silty in places, grading argillaceous siltstone, trace glauconite, becoming dark grey, more uniform, and less silty with depth. Traces of sandstone limestone and siltstone occur, similar to those found in the Lysing Fm.

FORMATION PICKS					
Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m +/-	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	MWD Logs
Top Tertiary	750	725	726	-1	MWD Logs
Kai	1536	1511	1510	-1	MWD Logs + biostrat
Brygge	1895	1870	1860	+10	MWD Logs + biostrat
Tare	1992	1967	1920	+47	MWD Logs + Cuttings+ biostrat
Tang	2090	2065	2035	+8	MWD Logs + biostrat
Springar / Top Cretaceous	2145	2120	2140	-20	MWD Logs + Cuttings + biostrat
Nise	2331	2306	-	-	MWD Logs Biostratigraphy
Kvitnos	2478	2453	2455	-2	MWD Logs + Gas + biostrat
Lysing	3446	3420	3470	-50	MWD Logs
Lange	3510	3485	3515	-30	MWD Logs
Lange Marker	3693	3668	3725	-57	MWD Logs
TD	3745	3720	3775	-55	Logging depth below Lange Marker

Table 3.1: A comparison of prognosed vs. actual formation tops

3.3 Geochemistry

Geochemical samples were taken (both tinned cuttings and flowline gas samples), but no analysis was performed on these.

3.4 Geophysics

Acoustic logs
Both compressional (P) and shear wave (S) sonic logs were acquired while drilling. The quality of these logs is good to very good. These are detailed in the Baker Hughes Inteq End of Well Report and on the Final Well Log enclosed.

VSP / Checkshot Survey
A VSP and Checkshot survey was planned but could not be carried out due to hole problems.

Seismic Calibration

The seismic data have been tied to the well using SynTool, with the integrated MWD sonic logs providing the initial time-depth relation. No check shots or VSP data were collected due to poor hole conditions. Since no density logs were run in the well, an initial synthetic seismogram was created using the sonic log only. This proved to be wholly unsatisfactory, because there is little p-wave velocity change between the Lysing and surrounding shales. A density : gamma-ray linear relation was derived from nearby well 6507/2-3, and MWD gamma-ray log data were used to construct a pseudo-density log for Sahara-1. The vertical-incidence synthetic seismogram shown below was created from the pseudo-density and MWD sonic logs. The display shown below has reversed polarity to normal SEG convention, with an increase in acoustic impedance shown as a peak (filled wiggle with deflection to the right). The wavelets used for convolution are a zero-phase 25-Hz Ricker wavelet in the top of the section (1500-2300 msec) and a 15-Hz Ricker in the lower section (near 3200 msec).

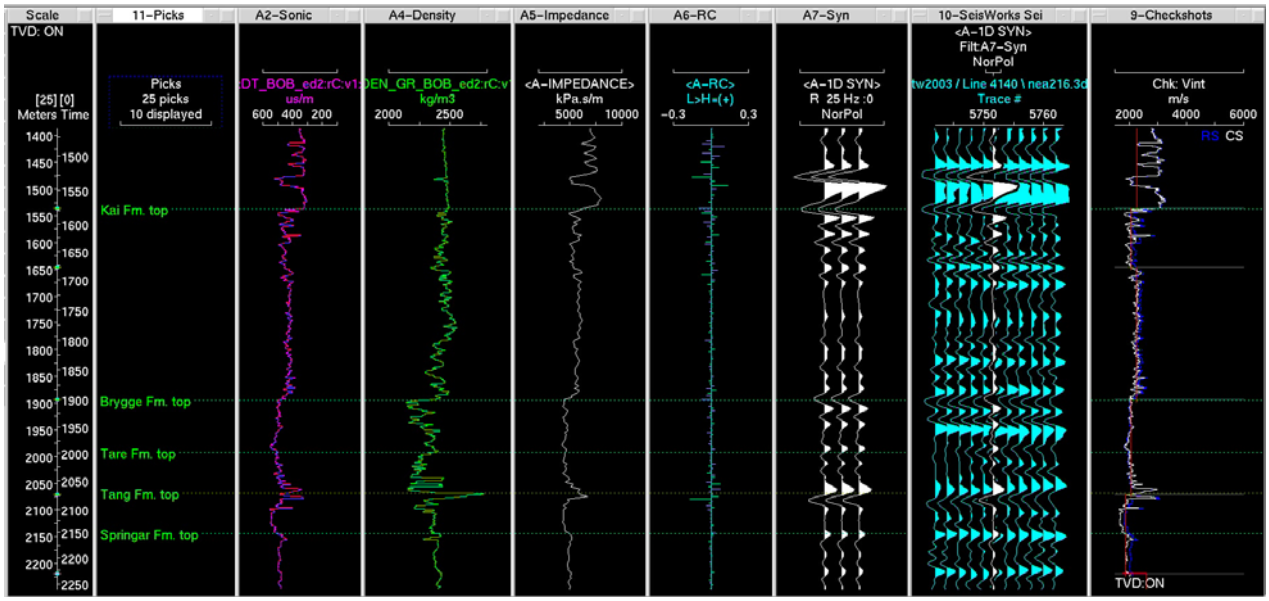


Figure 3.1: Top hole seismic calibration, using a 25Hz Ricker wavelet

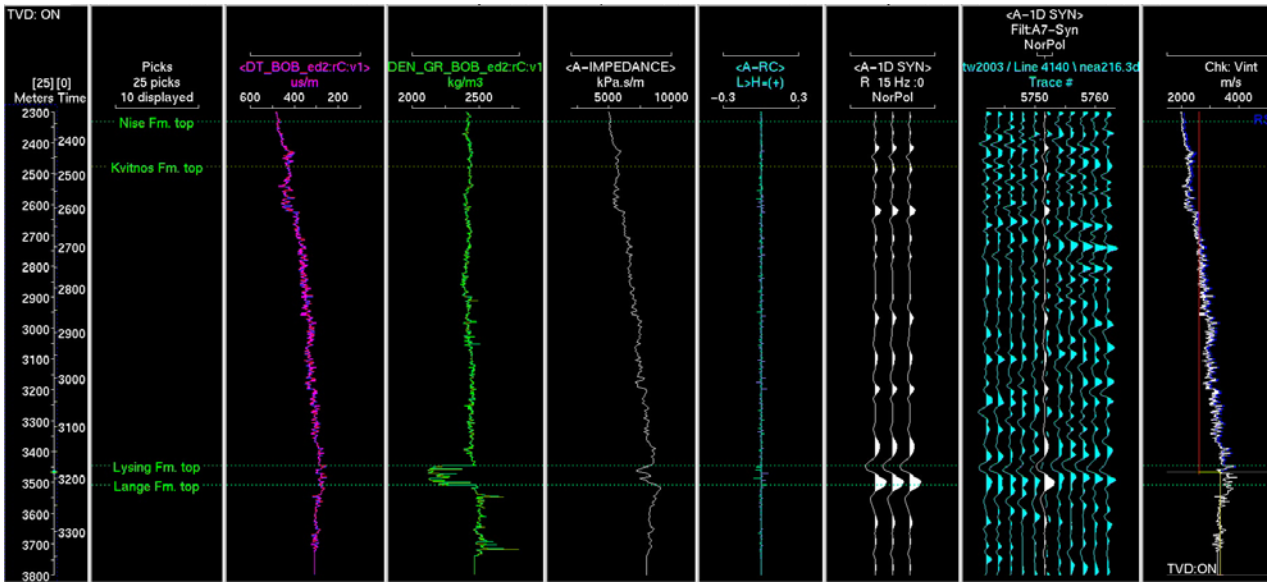


Figure 3.2: Bottom hole seismic calibration, using a 20Hz Ricker wavelet

3.5 Petrophysics

Composite Log Curve data

The two LWD runs and the one wireline logging run were combined to create one composite curve. Wireline logs were only run over the interval between 1375m and 2140 m due to hole problems- The acoustic LWD log was processed to resolve data quality issues in a washout zone between 2300m and 2700 m, and also processed to obtain the shearwave data.

Formation evaluation – Lysing Formation

The Cretaceous section was penetrated with the 8 ½" hole to the extent that the base of the Lange Marker could be logged. The only significant sand interval was the Lysing sand. No wireline logs, pressures or fluid samples were obtained across the reservoir interval due to hole problems. No sidewall or conventional core was taken.

However, the LWD log quality across the Lysing Formation is excellent and allows for a unambiguous interpretation of the lithology and fluid fill.

In order to carry out a petrophysical analysis of the data, assumptions had to be made as to which input parameters to use. Since no water samples or temperature measurements could be made in the 6507/1-1 well, offset well data was used as input parameters.

Based on good temperature data from well 6506/3-1 the final log processing used 115 °C as opposed to the 'guesstimated' value of 135 ° C which was made at the time of logging. The results using both 135 and 115 °C are both presented in the tabulation.

The map in Figure 3.3 illustrates the location of offset wells used in assigning an Rw for processing LWD data. Note that the closest offset which contains high quality data is the Chevron operated 6506/3-1, (PL 259) drilled in 2001. Great efforts were made in that well to ensure that a clean water sample was obtained, hence, this measured RW (0.625 ohm) was used for log processing by petrophysicists.

Another factor that adds confidence to this approach is the depositional environment and structural positioning of the PL 259 well relative to other offsets. There is a Cretaceous structural high which partially separates the Sahara well from the offset wells to the East. Using the Rw from the PL 259 well is considered most appropriate.

Well 6507/5-3 was also used as a calibration point since that well shows clear evidence of a GWC in the Lysing. The back calculated Rw below the GWC was determined to be 0.365 ohm. The assumption, for the purposes of back calculating Rw, was that the Sw below the GWC was 100%. Despite these assumptions, when using the Rw from the 6507/5-3 well, the Lysing in the Sahara well is still clearly wet.

Another consideration in selecting the appropriate Rw is the resistivities of the shales above and below the Lysing sand. Note that in the Sahara well, the resistivities of the shales surrounding the Lysing are most similar to the resistivities of the shales in the PL 259 well. It is believed that this is an indication that the formation water salinities are most similar between these two wells.

A table illustrating shale similarities and differences is presented below. The 6506/6-1 well is included since it may illustrate the relationship between shale and formation water resistivities. Interestingly the profile of this well is almost exactly the same as Sahara, but a factor of 2 -- 3 times lower resistivities.

Well Name/ Number	Shale Resistivity above Lysing	Shale Resistivity below Lysing
6506/3-1	1.8-2ohms	2-3
6506/6-1	1 ohms	1-1.3 ohms
6507/1-1	3 ohms	3-4 ohms
6507/5-3	1.5-1.8 ohms	1.8-2 ohms

Table 3.2: Resistivities from offset wells used in the petrophysical evaluation of the 6507/1-1 well

Monte Carlo analysis was run, with 2000 simulations, to capture the effects of principle parameter selection uncertainties in determining porosity and water saturation. Figure 3.8 shows the Tornado diagrams produced as a result of this and Table 3.3 shows the Summary of the Monte Carlo analysis.

NET RESERVOIR ROCK SUMMARY

Zone Name	Top	Bottom	Gross	Net	N/G	Av Phi	Av Sw
Lysing	3446.10	3509.10	63.00	34.65	0.550	0.193	0.905
Mean				34.92	0.554	0.194	0.930
P10.				31.50	0.500	0.182	0.997
P50.				35.25	0.560	0.194	0.941
P90.				38.85	0.617	0.204	0.845

Table 3.3 : Table showing Monte Carlo summary results.

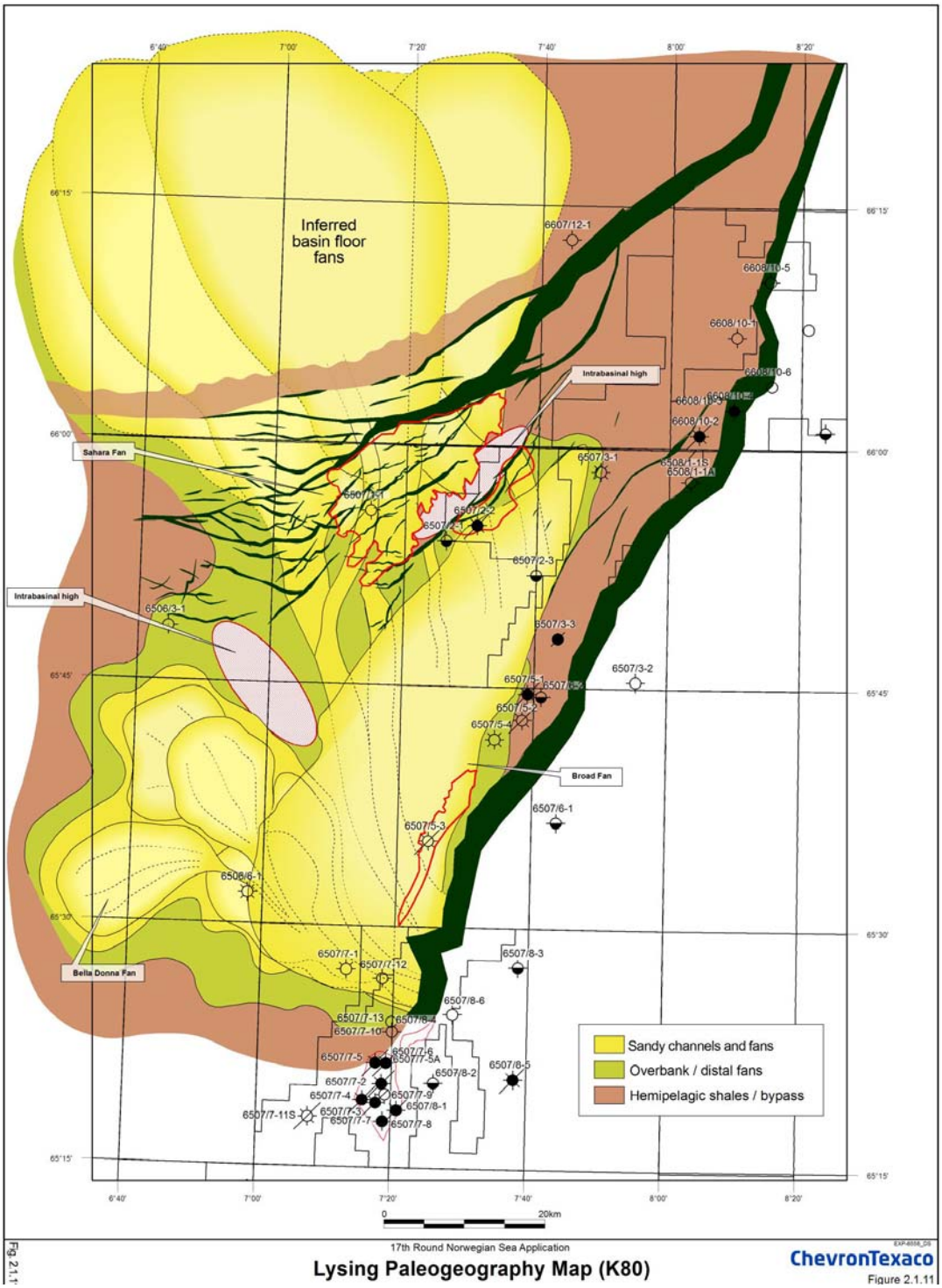


Figure 3.3 : Paleogeography map of the Lysing Formation deposition, showing intrabasinal highs.

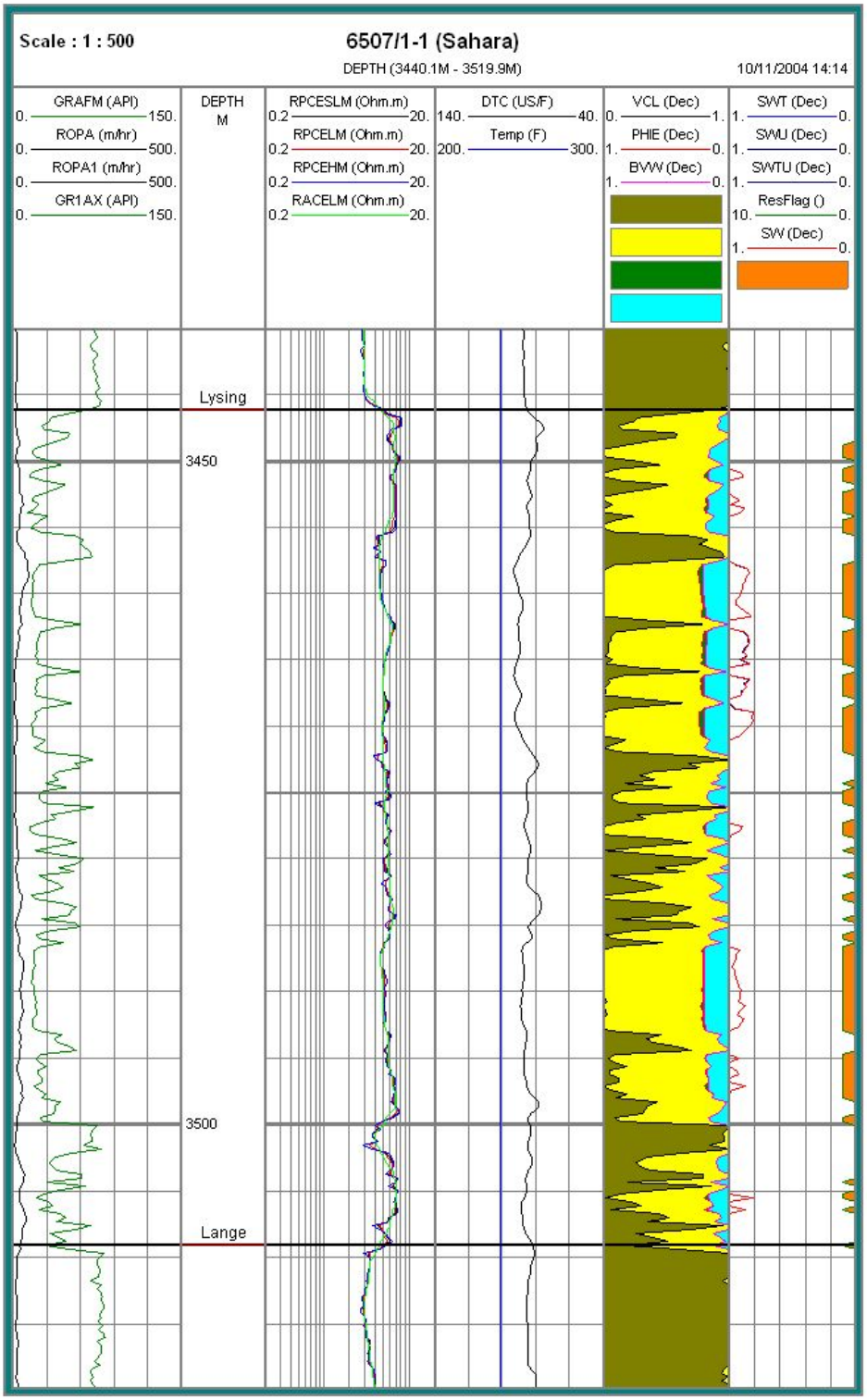


Figure 3.4: A CPI of the Lysing Formation in the 6507/1-1 well, using CPI: Rw = 0.625 @ 20 DegC; Lysing Temp = 115 DegC; Phi cutoff > 0.1

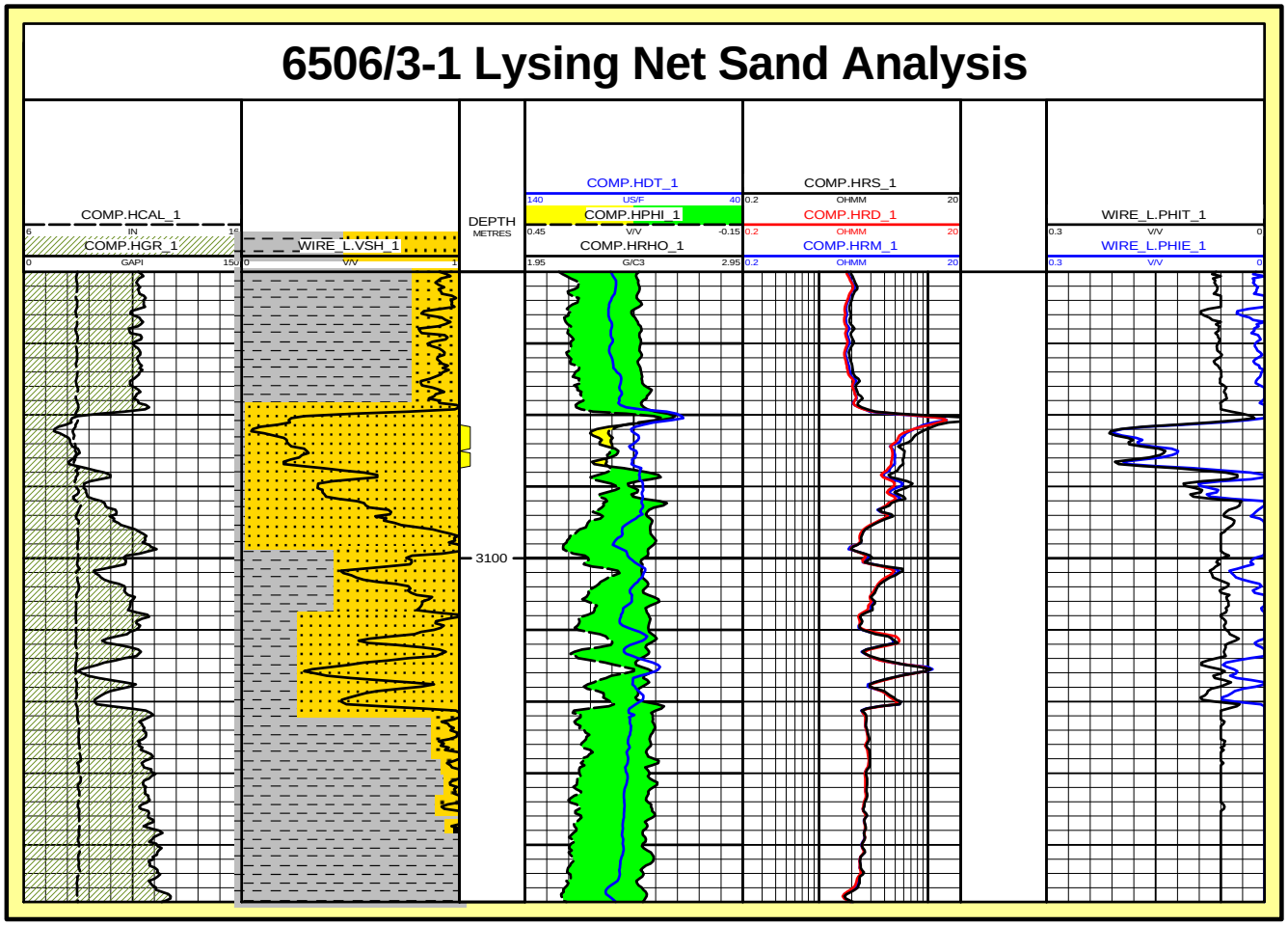


Figure 3.5: Log display and CPI of the 6506/3-1 well

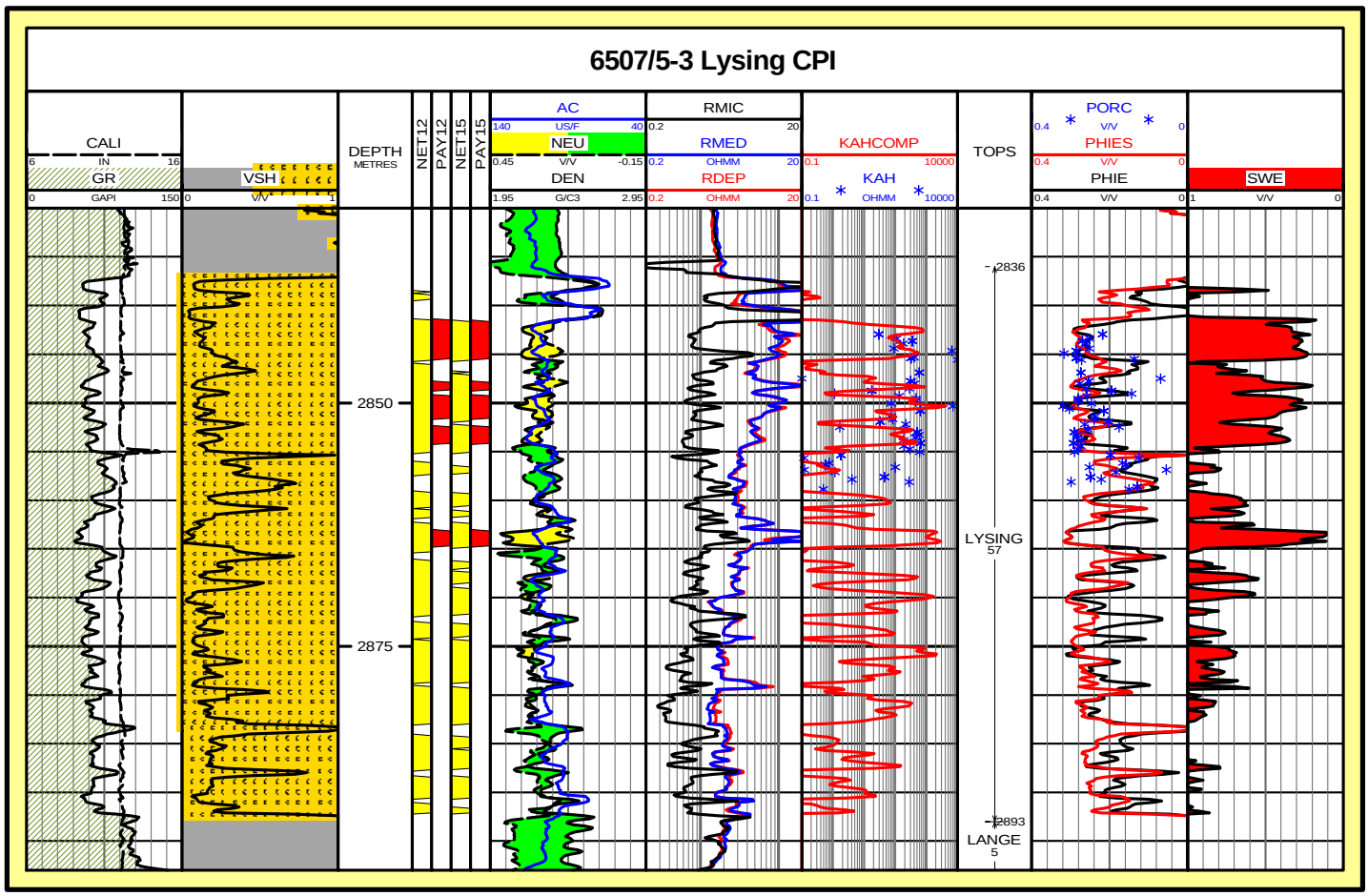


Figure 3.6 : Log display and CPI interpretation of the 6507/5-3 well

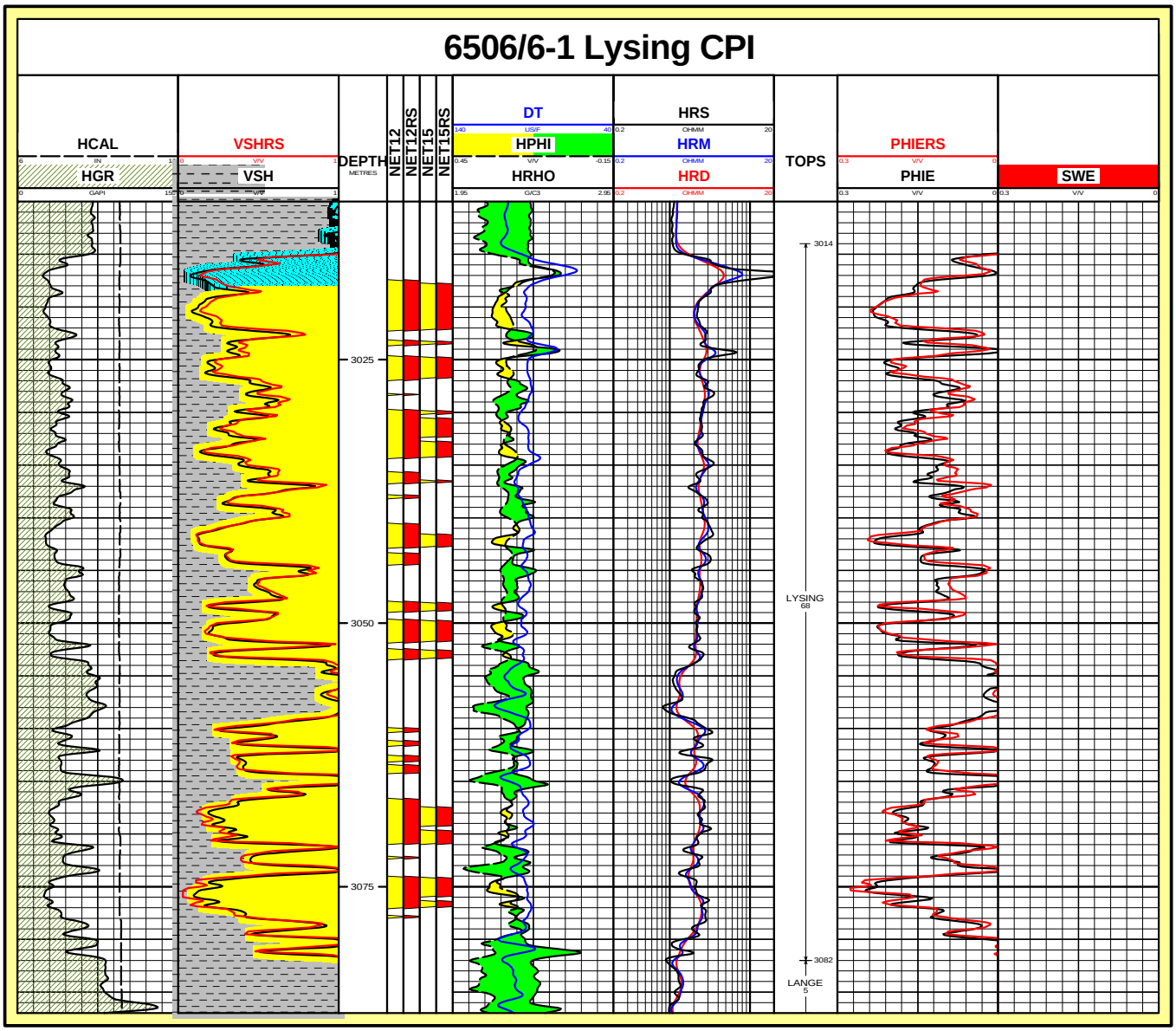


Figure 3.7 : CPI interpretation and Log display of the 6506/6-1 well

Lysing Interval	Gross (m)	Porosity Cutoff	Vsh cutoff	Net Sand	N/G	Average porosity	Rw @ 20 DegC	Lysing Temp	Average Sw
3446	63	0.10	0.2	34.65	0.550	0.196	0.625	115 C	**0.918**
to	63	0.15	0.2	31.80	0.505	0.202			**0.913**
3509	63	0.05	0.1	28.20	0.448	0.206			**0.905**
	63	0.20	0.2	18.60	0.295	0.221			**0.880**
	63	0.20	0.1	18.00	0.286	0.221			**0.877**

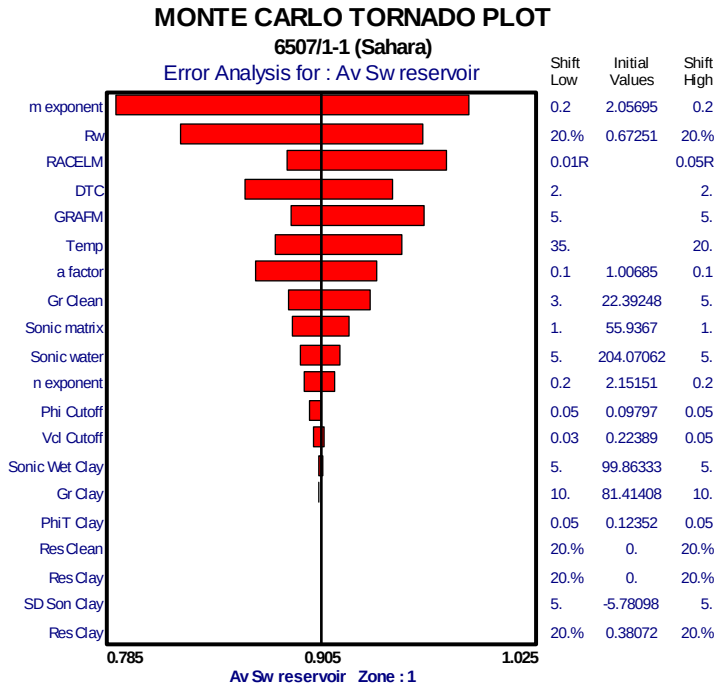
Rw @ 20 DegC	Lysing Temp	Average Sw
0.365	115 C	0.728
		0.714
		0.702
		0.672
		0.670

Rw @ 20 DegC	Lysing Temp	Average Sw
0.625	135 C	0.871
		0.863
		0.852
		0.822
		0.819

Rw @ 20 DegC	Lysing Temp	Average Sw
0.365	135 C	0.681
		0.667
		0.655
		0.628
		0.626

Note:-
Rw of 0.625 @ 20 °C is from Chevron well 6506/3-1
Rw of 0.365 @ 20 °C is from BP well 6507/5-3
Temperature estimate of 115 °C is from wireline log vs time extrapolation on 6506/3-1
The results based on this (115 °C) temperature should be used.
The results based on a guesstimated Lysing temperature of 135 °C made during logging are presented for comparison.

Table 3.4 : Deterministic results of the Petrophysical evaluation. The uppermost calculation is the base case.



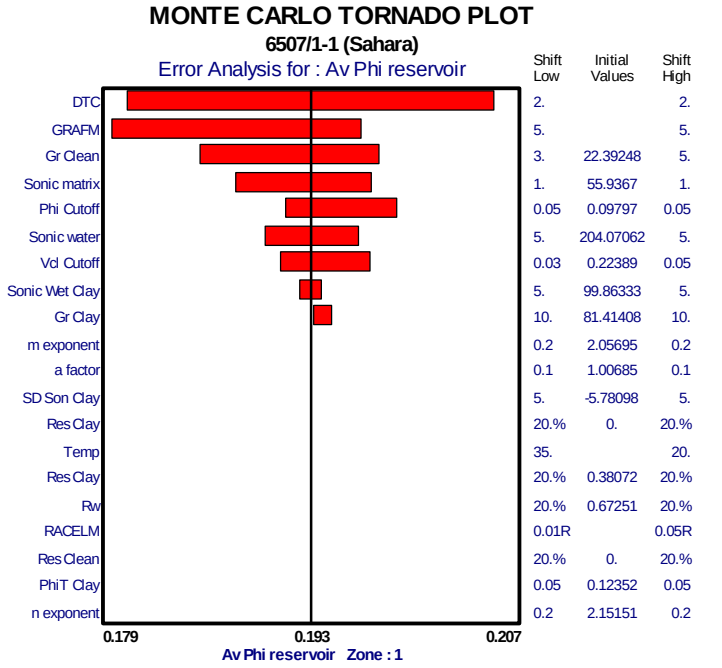


Figure 3.8: Tornado diagrams showing the influence of the various parameters on the Sw and Phi calculations.

3.6 Formation Pressures and Temperature

Formation Pressures

No direct formation pressure measurements were obtained from the well due to wellbore problems. The pre-drill pore pressure prediction presented below indicates the expected pressure regime as calculated from offset well data and interval seismic velocities.

The 13 3/8" casing was set at 1375m MD. On drilling out, a FIT achieved a 1.8 SG pressure which was considered critical (1.66 SG was the actual threshold) for being able to drill the 8.5" section to TD. (The CVX operated well in 2001 had a LOT of 1.84 SG at 1386m)

Due to expected pressures in the Tare formation, the well was then drilled to TD of 3745m with a mud weight of 1.55 SG without problem. Although there was concern of being overbalanced in the Lysing Formation, the mud weight was considered necessary for containing the shallower pore pressures and potentially unstable shale sections.

Indications from the trip out of hole was that a significant mud cake was built across the Lysing, as expected from drilling a high porosity sand in an overbalanced condition.

Despite having drilled the primary objective overbalanced (probably highly overbalanced), it is believed that the lack of mud gas was due to the absence of hydrocarbon rather than a complete flushing ahead of the bit. To help "encourage" gas to flow into the mud, 2 attempts were made to swab gas into the mud stream after the upper Lysing was opened. It is felt that if gas was present in the formation, the swabbing action would have induced a gas peak on the mud log. None was noted.

The section below the Lysing Formation was drilled without incident.

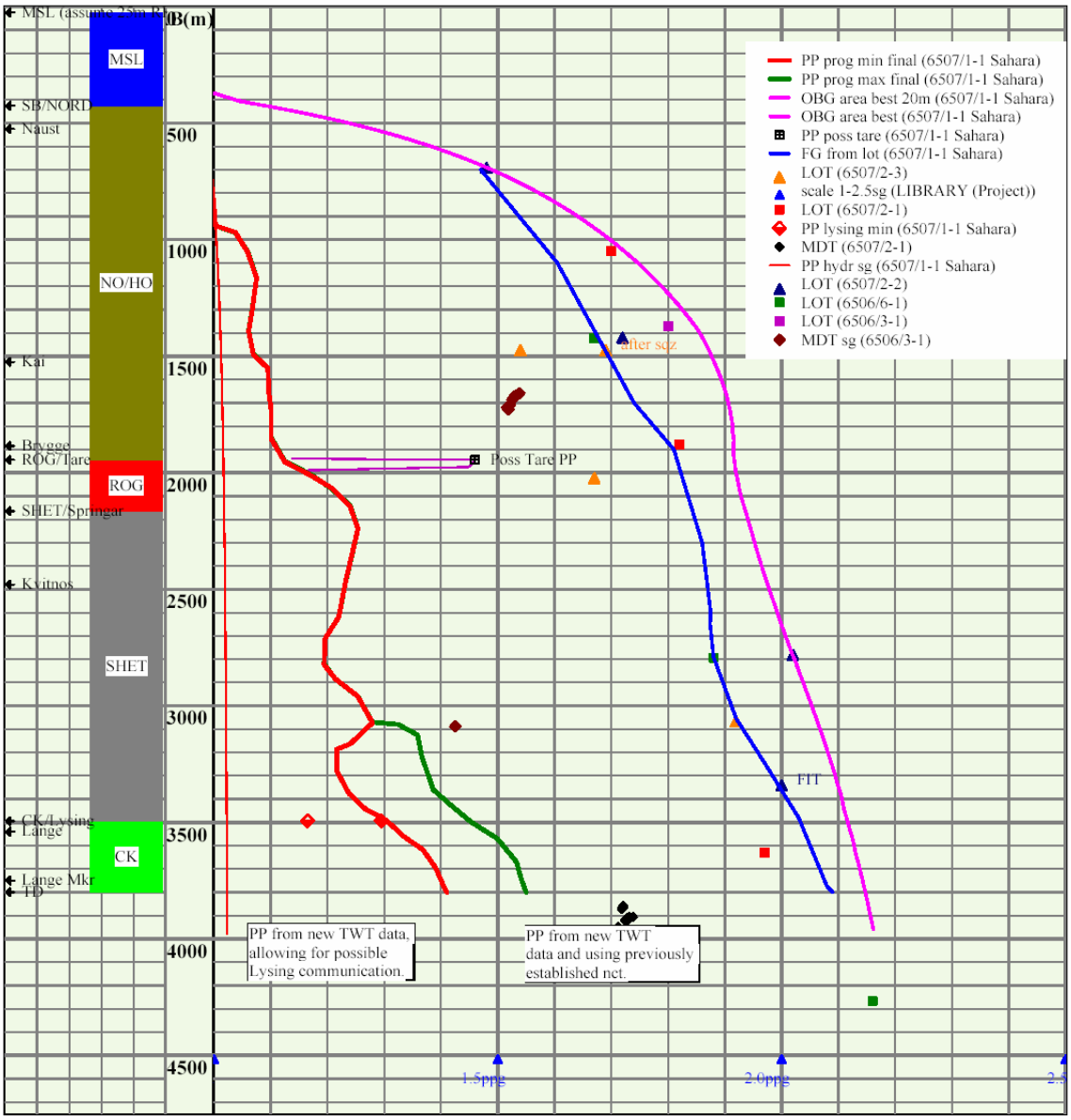


Figure 3.9: Pore pressure prognosis for well 6507/1-1

Bottom hole temperature was not logged in the well due to the lack of wireline logs being run. For the final log processing on the LWD data, the temperature data from the nearby well 6506/3-1 was used in determining the optimal processing parameters.

The displays below are a direct extract from the PL 259 final well report, Horner BHT calculation.

Depth:	3667mBRT			Circulation stopped:		9-Aug-01 17:30	
TVD:	3662mTVD			Seabed (default)		5 °C	
RT – SB:	366m						
Log	Run no:	Date	Bottom Log Interval	Max Temp	Time since circ. stopped	Circulation time	Log to bottom?
PEX/AIT	1A	10-Aug-01	3667	112	12.7	3	Y
DSI/OBDT	1A	10-Aug-01	3667	116	24	3	Y
Calculated Bottom hole temperature			121.1°C				
Geothermal gradient			35.2 °C				

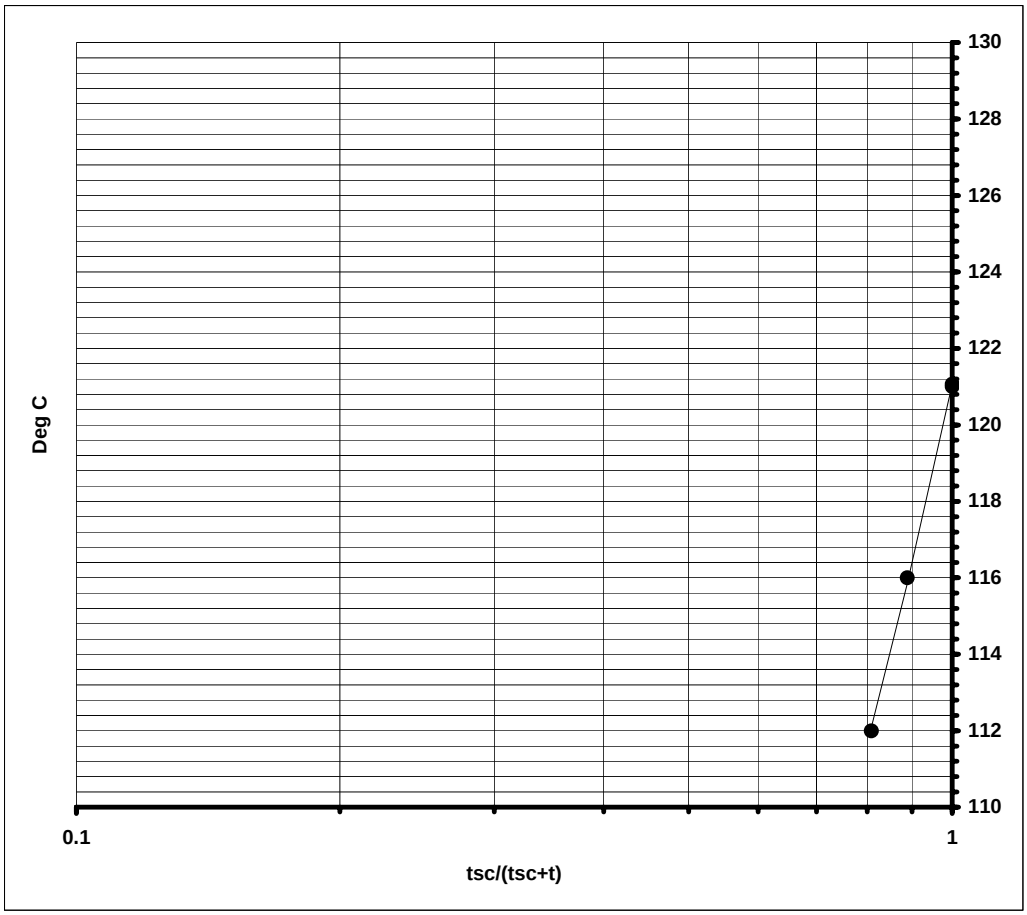


Figure 3.10: Bottom hole temperature 6506/3-1

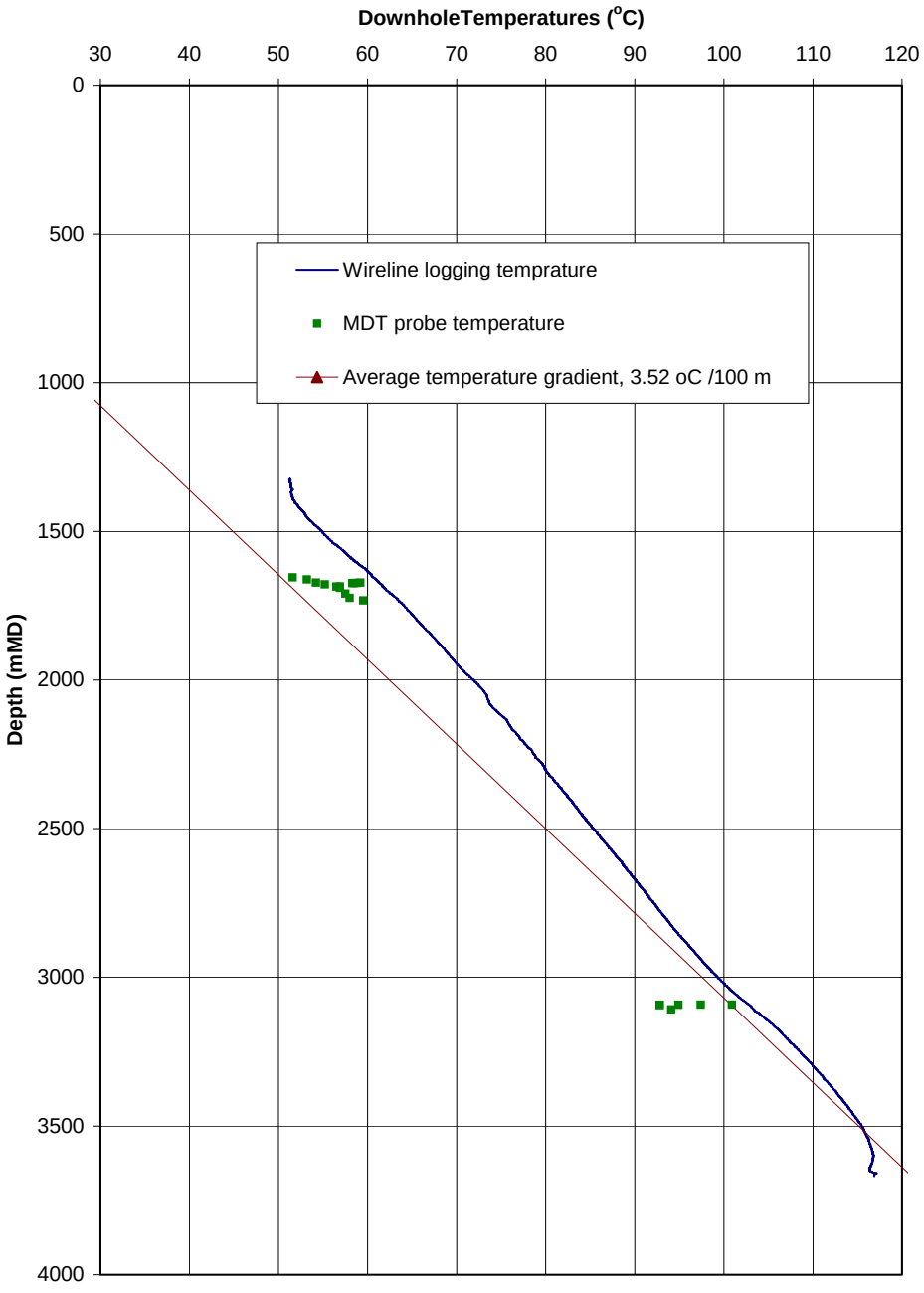


Figure 3.11: Downhole Temperature profile well 6506/3-1

3.7 Summaries

3.7.1 LWD Summary

A total of 2 LWD /MWD runs were made in 6507/1-1. Baker Hughes Inteq provided all LWD services. There were no reported tool failures, and performance was good despite severe slip-stick readings from 3150m to TD. However, the realtime data from the sonic tool had some issues. Processing of the AOX acoustic data revealed that the real-time DTPX log was affected by poor signal to noise ratio down to approx 2630m. This lead to the tool picking a tool mode wave arrival at approx 160us/ft for longer intervals above this depth. For this reason, the memory data uses4kHz data from the top and down to 2630m and 12kHz data below this.

Interval (mMD)	Tools	Tool in	Tool out
511 - 1377	MPR (GR RES)	28.09.04	30.09.05
1380 - 3745	MPR + APX	07.10.05	14.10.05

Table 3.5: LWD summary

3.7.2 Wireline Logging Summary

A comprehensive set of Open-hole wireline logs was planned in the 8 1/2” hole. The wireline tools stood up at 2135m, and after many attempts to penetrate a probable bridge at this level, logs were run on the way out of the hole, over the interval 2135m to 1372m MD. This run included the DSI-AIT-PEX-HGNS tools.

Further operational problems prevented the acquisition of any more wireline logs as described in Chapter 4.

A detailed breakdown of the logging summary can be found in the Appendix.

3.7.3 Coring Summary

No conventional core was taken in this well.

3.7.4 Side Wall Core Summary

No sidewall cores were taken in this well

3.7.5 MDT Summary

No MDT pressure points or samples were taken in this well.

3.7.6 Cuttings Sampling Summary

Cuttings were taken at regular (10m) intervals from returns started at the 13 3/8” casing shoe at 1371 m to TD. Across the reservoir interval cuttings samples were taken every 3m. Geochemical tinned samples were taken every 10m from ca 3350m to TD.

This section contains:

4.1 Section Synopsis 2
4.1.1 Preparations 2
4.1.2 36” Hole Section 3
4.1.3 17-1/2” Hole Section: 511-1377m 3
4.1.4 8-1/2” Main Hole Section 3
4.1.5 Abandonment 3
4.2.1 LOT Summary 3
4.2.2 Environmental Discharge Summary 3
4.2.3 Material Consumption 3
4.3 Attachments
4.3.1 Marine Summary .....
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4.3.3 BHA Summary .....
4.3.4 Bits and Hydraulics Summary .....
4.3.5 Survey Summary .....

4.1 Section Synopsis

4.1.1 Preparations

Stena Dee Activities Prior to going on Contract at Invergordon.

The Stena Dee spent 8½ months (November 2003 – July 2004) at dry dock in Rotterdam (Netherlands) for modifications and upgrading to comply with the stringent Norwegian regulations. Work was conducted on several fronts:

- 5-Yearly API 8B inspection and overhaul of drilling lifting equipment: crown block, traveling block etc.
- Work on the existing DDM (MH)
- Changed brakes on drawworks from band-brakes to disc brakes
- New dog house and controls (National Oilwell Cyberbase / SDI drilling control and instrument package)
- Drive of rotary table changed to hydraulic system
- Change out of racking system to National Oilwell and overhaul of pipe-handling arms and fingerboard.
- Installation of new iron roughneck Hydrotong
- New drillpipe handling tools.
- Overhaul pipe deck crane and deck machine and modification to gantry crane such that it now can pick up riser (National Oilwell)
- Installation of a new Knuckle crane and crane pedestal.
- New sack handling system to be automated (National Oilwell)
- Adjustment to cement system to be able to pressure test remotely
- Installation of four new Rocket buoyancy stability columns

Prior to taking the rig under contract, several audits were performed:

1. Safety Management System (both onshore and offshore)
2. Marine audit
3. Health audit – provided by Mediteam
4. Environmental audit – MI-Swaco performed an audit regarding OBM cuttings handling
5. Technical audit – by Moduspec

The rig had also been audited several times by the Norwegian Petroleum Safety Authority (PSA).

A team of the ChevronTexaco Europe Drilling and Subsea Group performed a SMS audit on the Stena Dee in Rotterdam from June 29th till July 1st 2004. At this time, a lot of the new equipment had not been commissioned yet, except for the hydrotong and the sacksystem. During the rig audit, several gaps were found between the standards of Stena Dee and the standards of ChevronTexaco such as the PTW system, risk assessments, dropped objects, waste segregation and housekeeping.

The PSA also provided the Stena Dee with a list of non-conformities to the Norwegian regulations. Work was required to be ongoing to obtain a Norwegian Acknowledgement of Conformance.

As a result, ChevronTexaco constructed a checklist of requirements which the Stena Dee would have to fulfill, prior to the rig being accepted. This acceptance list was made part of the contract.
Also included in the contract was a performance based reward scheme whereby 33,400 USD of the dayrate was made available for Stena and rigcrew if targets were met. In the performance scheme, the well was split up in four sections (36” hole section, 17 ½” hole section, 8 ½” hole section and abandonment and / or testing). A percentage of the total bonus could be earned for the different components:

- Preparation requirements
  - 10% for compliance with planned completion dates for all non-conformities that was submitted in the Application for Consent.
  - 5% for Rectification of category A, B and C findings from the ChevronTexaco audits within the dates specified.
  - Overall individual competency ratings > 75%.
- Safety requirements during drilling
  - 5% per hole section for no lost incidents
  - 5% per hole section for no reportable incident
  - 15% at end of well if no LTI occurred at all
  - 15% at end of well if no reportable incident occurred at all
- Performance requirements
  - 10% if the number of days at operating was 2 days less than planned for in the AFE.

To discourage persons from deliberately avoiding to report reportable incidents, the entire achieved performance reward would be lost if this was revealed and substantiated during or after completion of operations.

Tow from Ireland to Invergordon: 28 August – 3 September 2004

The Stena Dee left Rotterdam mid July, and towed to Ireland to drill a well for Providence / ADTI from July 23rd till August 28th 2004. Once this well was finished, the Stena Dee was towed to Invergordon.

During the tow from Ireland to Invergordon, Moduspec completed a condition survey of the primary drilling equipment, mud system, marine equipment, power plant, electrical equipment, safety equipment, maintenance system and spare parts. Moduspec found the general condition of the rig satisfactory and in general well maintained. The areas of most concern were:

- Damaged UPS backup power supply for the Cyberbase SDI computerized drilling control and monitoring system
- Choked drains under the sackstore and cement room areas
- Possible problem with the transference of bulk cement
- Learning issues of crews with the new equipment.
- Bearing clearances on one of the mud pumps reaching their manufacturers upper limit wear tolerance.
- Crosshead guide clearances on two of the three mudpumps were above the manufacturer's recommended upper tolerance and required to be adjusted.

During the period in Invergordon, all these issues were resolved.

CTUE Drilling and Subsea Group's HES Advisor was on the rig during the tow from Ireland to Invergordon to review the progress of the Stena Dee in closing out the non-conformances.

Invergordon: 3-16th September 2004

In Invergordon, the following work was conducted:

- Installation of new platform gates in the derrick.
- Fabrication of save-all around well test area.
- Installation of 2 cherry pickers in the moonpool area.
- Scaffold under the rig and clearing of choked drain lines.
- Fabrication of explosives dumping platform.
- Carry out mud pump crankshaft NDT inspection.
- Installation of replacement UPS system for Cyberbase / SDI system
- Installation of new acoustic system for the BOP's
- Installation of the hydraulic mud bucket
- Repairs to the starboard knuckle boom crane
- Investigation into power problems and minor adjustments.

BOP's

In Invergordon, ModuSpec carried out a full BOP inspection. The BOP's were stump tested as part of the inspection. Any problems were rectified and all pressure tests were completed successfully. Several other issues were identified and resolved. The major findings of the BOP inspections were:

- Major leak in lower ram's close circuit into the open circuit, indicating a problem with the cylinder liner → an overhauled bonnet was sent out to the rig and installed.
- Several of the wedgelocks were not operating when close pressure was applied → one seized wedgelock was replaced with an overhauled spare and the other was repaired on the rig and re-installed.
- Two of the chokes were leaking both ways during the pressure test → both were repaired or replaced.
- A new remote control system for the hydraulic chokes had been included in the upgrade of the drillers' control cabin. However, the hydraulic choke control function failed to operate from the local panel and the remote panel → this was repaired.
- Several recommendations were given for the BOP-handling equipment:
  - Load testing of the cranes → Done
  - Verifying motor brakes→ Done
  - Inspect welds, de-rusting and painting and replacing certain items → Done
- BOP Hydraulic power unit required an increase in capacity of the hydraulic power to comply with API 16D (to charge the accumulator system from zero not to take longer than 15 minutes), installation of fluid filters to the high pressure discharge side of the pumps to protect the control system and attending to the corrosion on high pressure piping → Not done
- The bond between the rubber and the upper steel segment of the outer diverter packer had partially separated → outer diverter packer was replaced.
- When applying pressure for the diverter packer to close, the hose connection in the diverter housing was leaking → repaired leak.
- Several items on the BOP control system:
  - Identifying all BOP control unit and remote panel functions → Done
  - Driller panel and toolpushers panel functions to be made functional → Not done
  - Move shuttle valves directly onto the functions or connect with hard piping → Done
- No cover was installed on the flex joint / ball joint on the LMRP to prevent any debris from falling into the rubber element and causing damage → Done
- Hydraulic leak on the kill side mini connector → repaired or replaced
- Collets of the choke side connector not fully retracting → replaced

- Provide a certification document for the Vetco rental H4-connector → Done
- Advanced corrosion on the high pressure piping and valves between the accumulator and the main cylinder on the rucker tensioners and some of the valves should be replaced → Not done
- Several wire line keeper bars below the lower sheaves of the riser tensioners were bent or only secured at one side → repaired
- No spooling devices were fitted to the podline and guideline tugger winches to assist even spooling without manual intervention → Not done

Invergordon / Well Handover

The Stena Dee arrived in Invergordon on September 3rd. The Stena organization had expected to finish the work in Invergordon in ± 5 days. Due to the work-scope however, Moduspec recommendations and BOP problems, the Stena Dee was not taken on until ChevronTexaco was satisfied with the condition of the rig. The Stena Dee was accepted on contract to ChevronTexaco in Invergordon on 14 Sep 2004.

One of the anchor handling vessels was sent from Norway to Invergordon with initial batch of spud equipment such as Vetco wellhead equipment, 30" conductor, BHA's and fishing equipment for the 36" hole section, bentonite, and cement and cement chemicals for the conductor cement job. This was all offloaded onto the rig prior to tow.

Stena itself loaded all the riser joints (20 joints), drill pipe (482 joints), DC's (28 joints) and HWDP (21 joints).

Tow to Location

Anchor handling operations started on September 14th 2004**.** Target scope of anchor chain run was 1650 to 1800m. Some of the anchor chains were less than the ChevronTexaco's assessment of 1650m minimum. Therefore, six additional lengths were added, a total of 2271m of chain to provide a minimum anchor chain length of 1922m.

With the last anchor being bolstered, high tide and pilot available, the rig departed Invergordon on September 16th 2004 at 12:40hrs. The rig had passed the tow bridle to the "Normand Mariner" for the 610 nautical mile journey to the Sahara location. With the rig carrying a high VDL there was concern about the proximity of the crossmembers to the splash zone. With moderate weather the rig was towed at an average speed of ± 5 knots with a rig heading of ± 23 degrees. Although the weather picked up during the tow to 30 knots and a wave height of 4.5m, it was decided to continue the tow in the same draft.

The rig crossed into Norwegian territory at 21:18 hrs on September 18th 2004 and arrived in the Sahara field on September 21st 2004 16:00 hrs. The tow of 610 nautical miles had taken a total of 118 hrs.

With the weather being good, the tow speed was reduced and the tow length from the "Normand Mariner" was reduced from 1400m to 300m.

During anchor handling operations and the tow to Norway the rig continued to work on the list of non-conformities, DROPS survey, commissioning of mud bucket, training of the crews in the use of the new cherry pickers, working on the Moduspec punchlist of items, housekeeping etc.

In preparation of the Sahara well, the Imenco latches were attached to the guidelines and the pits were cleaned.

Running Anchors

The "Normand Mariner" was still on the tow bridle and the "Northern Corona" entered the field to assist with the anchoring. The first anchor to be deployed was #5 and it was down at 20:50hrs on 21 September. With anchors #5, #1 & #4 deployed the "Normand Mariner" was released from the tow bridle to assist in handling the remaining anchors. The 8 anchors were landed in the following order #5, #1, #4, #8, #7, #3, #6, #2 and operations were complete by 06:53 hrs on 22 September.

The anchors were cross tensioned to 182-200 tons in the following pairs, #1 & #5, #4 & #8, #3 & #7, #2 & #6. All anchors were holding in exception of anchor #3 which had inverted (fouled) during the running operation. The anchor had to be recovered, decked and the re-deployed. The #3 anchor was chased out and on bottom at 17:10hrs. Cross tensioned #3 & #7 again and they held acceptable tension.

The Stena Dee was ballasted down to drilling draft and the rig went on Contract at 21:00 hrs September 22, 2004.

The final rig position on a heading of 224.83° (True) was recorded as:

Long:	N 65° 56' 19.148"	UTM 7 314 353.73m N
Lat:	E 07° 15' 39.050"	UTM 420 880.31m E

While running anchors, the rig crews changed out all the pump liners to 6" and carried on with working on items on the Moduspec punch-list. The spud equipment was checked to be all on the rig. ROV performed visual and sonar seabed survey to 100m from rig centre. No anomalies were found.

Delays

The slippage of the number #3 anchor caused a delay of ± 9 hrs. However, since the rig was not to be on contract until all anchors were run and cross-tensioned this trouble time was not recorded.

4.1.2 36” Hole Section

Spud & 36” Hole Section

Prior to making up the 36” BHA, a total of 210 joints of 5” DP was picked up and racked back in the derrick. The total length of pipe (2019m) would be sufficient to drill the 17½” hole section. The rig continued to pick up 3 joints of 9½” DCs, 9 joints of 8” DCs and 15 joints of 5” HWDP. As a result, the average of making up and racking back pipe was 10 - 12 joints / hr.

The picking up of 5” DP was a slow process due to all the automated equipment. The deck or gantry crane could only handle 3 joints of DP at a time and the automated catwalk had to move back from the rig floor and down again to receive more drill pipe. A lot of the equipment was new to the rig crews who were still getting used to working with it.

While picking up all the DP, the boats were worked and offloaded including KWM, cement and bulks (Barite, Gel, DrillWater). The 9.6 ppg displacement mud and necessary volumes of pre-hydrated gel were mixed in the mud pits.

Note: The plan for the 13.6 ppg Glydril kill weight mud was to cut down the weight of the KWM at the end of the 17½” hole section, and then use it as displacement fluid.

The BHAs inclusive of the bit were pre-made up onshore and sent out as an assembly. The amount of DCs were adjusted to allow for easy racking back in the derrick on the trip out of the hole. The 17½” x 22” x 26” x 36” hole opener assembly was made up as listed below:

17½” DBS EBXT12DSCL Insert Bit (c/w 3 x 20/32" & 1 x 18/32” nozzles)
22” x 26” x 36” Hole Opener (c/w 3 x 16/32" & 3 x 13/32” & 3 x 10/32” nozzles)
36” Single Stage Hole Opener (blank nozzles)
Bit Sub (c/w non-ported float)
Anderdrift Tool (0° to 5° inclination flask)
5 x 9½” Spiral Steel Drill Collars
Cross Over
3 x 8" Spiral Steel Drill Collars
Cross Over
15 x 5" HWDP

Note: Bit to 22” = 1.23m; Bit to 26” = 2.65m; Bit to 36” = 3.24m

The pre-made up hole opener assembly was made up to the Anderdrift tool and 2 joints of 9½” DCs. At this point the hole opener assembly was just below the splashzone – due to sea state (± 5m), it was deemed unsafe to unlatch the elevators as the slips and masterbushings were moving. The hole opener assembly was racked back in the derrick and a further 159 joints of 5” DP were picked up and racked back in the derrick (± 11 joints / hr) while the rig waited on weather to spud the well. No downtime was recorded due to W.O.W. as this time was spent picking up remaining pipe to TD well and log on 5” drill pipe if necessary. There were a total of 123 stands (369 joints) of 5” drill pipe racked in the derrick at this time (+/-3520m).

Once all DP required for the well was picked up and racked back, the weather had dropped sufficiently to TIH with the BHA. The Anderdrift tool was shallow tested mid water with some difficulty experienced decoding the pulses. It was then tripped to the seabed before taking a final survey at the seabed prior to spud - 0.5 degree inclination.

Drilling draft = 20m.
Airgap = 25m.
Waterdepth = 396.5m.

RKB – Mudline (Seabed) = 421.5m RKB MSL.

The well was spudded at 12:30 hrs on September 25, 2004. Two Anderdrift surveys were taken to confirm the verticality of the BHA – both 0.5 degree inclination. The first 4.5m were washed down prior to commence drilling the 36" hole. The hole section was drilled from 426m to 511m (36" cutter depth of 507.5m) in 22 hrs. Pump-rates were increased gradually from 500 to 1090 GPM. Typical drilling parameters were 500 / 1000 GPM – 500 psi / 2015 psi, 60 / 100 RPM - 5 / 15k ft-lbs, 2-10k lbs WOB. (4,125 lpm, 139 bar, 60 - 100 rpm, 6.7 - 20 kNm torque, 1.0 - 4.5 MT WOB). No shallow gas or major boulders were encountered.

50 bbls (8m3) gel sweeps were pumped each 1/2 stand (14m) and pumped past the bit prior to connections. When picking up to make the first connection the string stalled out. With the concern that maybe a boulder had fallen in on top of the BHA, it was decided to backream the whole stand. While backreaming the stand, a lot of torque and vibration was encountered (10-15k ft-lbs = 13.5-20.3 kNm compared with 6-8k ft-lbs = 8-10.8kNm while drilling).

Anderdrift surveys (7.3m behind the bit) were taken on each connection and all surveys showed 0.5 degrees down to 475m where the inclination went up to 1.5 degrees. This was verified with repeat surveys and the decision taken to backream the stand to reduce the inclination. This was done for 3 hours, until the hole angle had dropped back to 1.0 degree inclination. Hole fill was noted after each period of backreaming.

At TD the final inclination survey was 0 degrees.

Note: TD was determined by the length of the strapped conductor pipe, giving 2.5m stickup and ± 2m rathole above the TD of the 36” hole.

At TD, the hole was displaced to 1.5x hole volumes of 9.6ppg (1.15 s.g) displacement mud at 800 GPM - 1300 psi, 60 RPM - 3k ft-lbs (3030 lpm, 90 bar). The drill string was displaced to seawater to trip out wet as an indication that the hole was not swabbing.

Although no problems were experienced during the trip out of the hole, it was decided to perform a wiper trip after the amount of backreaming and over concerns about hole fill. The hole was rested for 15 minutes. The trip back to bottom completed without problems and tagged 2m of fill. The hole was reamed down to TD (511m) with 400 GPM - 400 psi, 30 rpm - 5k ft-lbs torque (1515 lpm, 27.6 bar, 30 RPM, 6.8 kNm torque). The hole was displaced again with 1.5 x hole volume of 9.6 ppg (1.15 s.g) displacement mud at 1000 GPM - 2050 psi, 80 RPM - 5k ft-lbs (3785 lpm, 141.4 bar, 80 RPM, 6.8 kNm torque).

The BHA was pulled out of hole without problems. ROV located the marker buoys on either side of the hole. The BHA was pulled back to surface and racked back. No discernible wear was evident on either stage of the hole openers or on the 17.1/2” bit. The bit was graded 0, 0, NO, A7, E, IN, NO, TD.

Run & Cement 30” x 20” Conductor

- Initially the plan had been to run an inner string (5” drill pipe) in the conductor to perform the cement job. During the peer review, it was decided not to run an inner string; colleagues in the company had performed several conductor cement jobs without inner strings successfully. By eliminating the inner string, the changing out of handling equipment and manual handling issues could be reduced.
- A 20” shoe crossed-over to 30” was prepared in town. The use of the 20” shoe would eliminate the requirement of drilling out the conductor shoe with a 26” bit to prevent cement blocks falling in on the BHA.
- 300% Open hole excess was used for all volumes.

The 20” x 30” shoe joint was picked up, 5 joints of 30” x 1” conductor joints and the 30” / 1” x 30” / 1.5” crossover Low Pressure Wellhead Housing joint (which had been pre-made up onshore) and locked in same to Permanent Guide Base (PGB). The conductor was handled on the drill floor

using a 30" false rotary and 2 x 30” elevators. Ran the conductor string on 5” DP through the splash zone and filled the same with seawater. The ROV closed the 30” CART fill up valve and circulated with 150 psi (10.3 bar) pressure to confirm the fill-up valve was closed. The conductor was run to the mud-line on 5” DP. It took an hour to stab the conductor into the 36” hole due to poor visibility. The conductor was then run to a shoe depth of 507.5m with no hole problems, filling the string with seawater. With a stick-up of ± 2.5m, the bullseyes on the PGB were reading 0 degrees.

When circulation was broken with seawater from the rig pump, a leakage was observed at the connection of the fill-up valve to the 30” CART. The connection was tightened by the ROV. The rig circulated seawater at 14 BPM - 180 psi (2225 lpm - 12.4bar) to confirm that the fill-up valve did not leak.

The cement was mixed and pumped at 5-6 BPM: 230 bbls of 13 ppg lead class ‘G’ slurry (891 sxs) using 174 bbls of mixwater and 249 bbls of 16 ppg class ‘G’ tail slurry (1206 sxs**)** using 150 bbls of mixwater.

The cement unit displaced the cement with 10 bbls of seawater after which the rig pumps displaced the cement with 211 bbls of seawater at 10 BPM to leave 5m of cement inside the 20” conductor shoe. Final circulating pressure (FCP) at 1 BPM was 10 psi. Floats were holding. Although dye was added to the lead slurry, the ROV did not see any cement returns.

The rig waited on cement for 8 hrs, after which the landing string weight was slacked off. No movement was seen at the mud line, the running tool was backed out with 5 RH turns and the landing string was pulled. The aft and starboard bulls-eye readings on the PGB were 0.25 degrees forward and 0.5 degrees port/aft respectively.

Due to the low final circulating pressure of 10 psi (minimum FCP of ± 40 psi was expected) and the ROV not having observed any cement returns, the program required to run in and tag the top of cement. Therefore, a 5” ported mule shoe was run to the PBG on 5” DP. The mule shoe was stabbed through the guide funnel on the PGB and tagged the top of cement with 5k lbs (2 ¼ MT) 7.5m below the mud-line. The mule shoe was washed down to 9.5m below the mud-line with 8 BPM (1270 lpm).

A top-up cement job was performed by mixing and pumping 95 bbls of 16 ppg class ‘G’ tail slurry (460 sxs**)** using 57 bbls of mix water. The cement was displaced with 23 bbls of seawater at 7 BPM - 400 psi (± 4 bbls under-displaced).

Prior to picking up the 17 ½” drilling BHA, the cement stand, 5 joints of 9 ½” DC’s and the hole opener assembly were laid out. The 13 3/8” cement stand was made up and racked back in the derrick. However the weight of the dart launcher caused an unacceptable bend in the 5” DP single below it and appeared a possible unsafe situation. Therefore, the cement stand was laid down to be picked up prior to running the 13 3/8” casing.

Delays

Troubleshooting Anderdrift tool – decoding problems	2.0 hrs
Rig - repairing motion compensator	4.0 hrs
Leaking connection to 30” CART	0.5 hrs
After P/U cement stand, L/D same due to too heavy and DP bending	3.0 hrs
Section Total	*9.5 hrs*

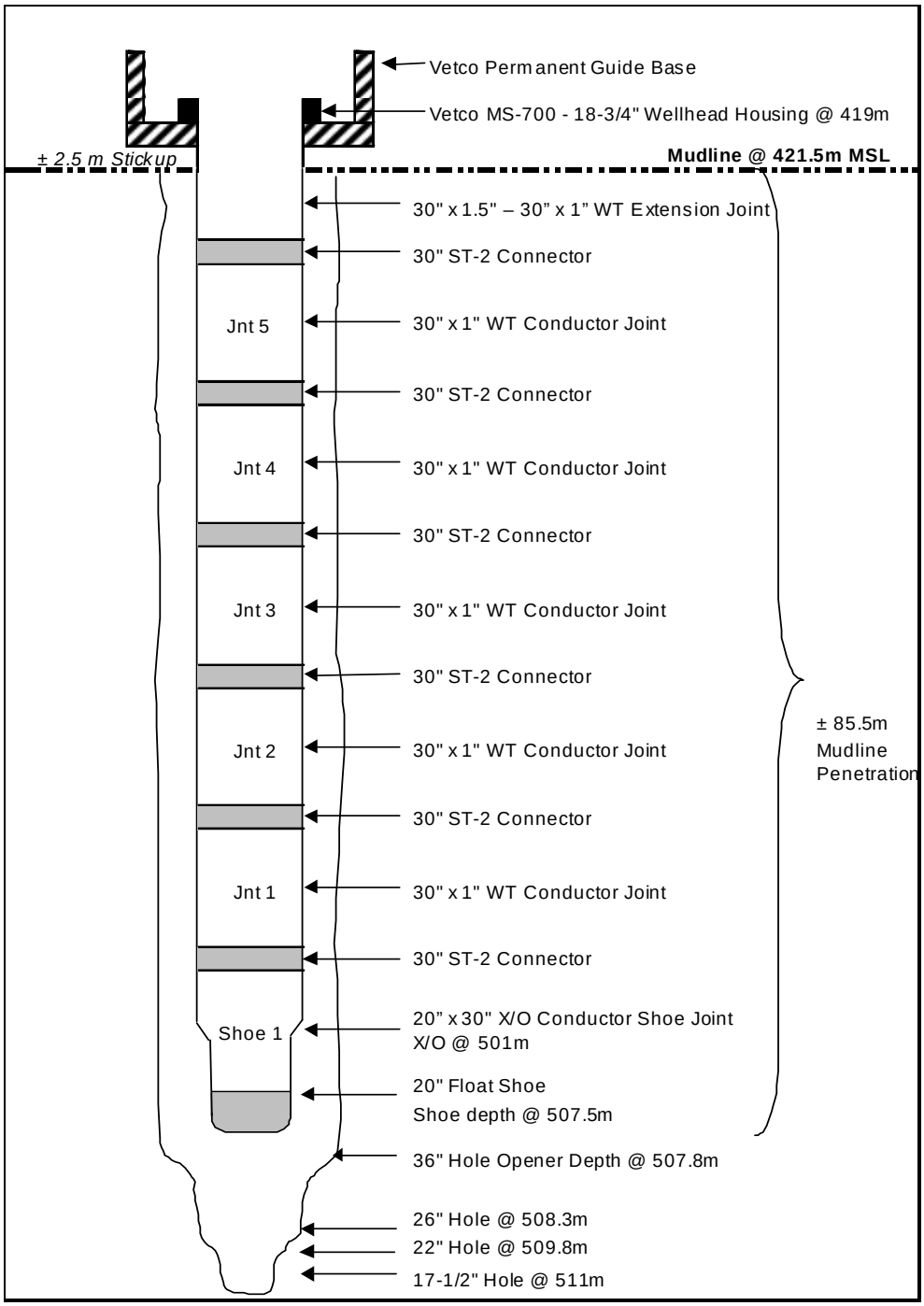

Fig: 1 - 30" Conductor Schematic

4.1.3 17-1/2" Hole Section: 511-1377m

The 17 1/2" assembly was pre-made up onshore and made up as follows:

17 1/2" DBS EBXT02DSL Insert bit (c/w 3 x 20/32" & 1 x 18/32" nozzles)

Bit sub w/ solid float
Cross over
MPR Assy.
MWD Assy (inclusive GR and Resistivity)
17 1/4" Stab
1 x 8" Drill Collar
17 1/8" Stab
12 x 8" Drill Collar
Cross Over
9 x 5" HWDP

The 17 ½" BHA was run in the hole to 484m. Washed down with 600 GPM and tagged good cement at 503.5m. Firm cement and the float shoe were drilled from 503.5m to 509m in 1 hr with 850 GPM – 1500 psi, 60 RPM - 3k ft-lbs and 5k lbs WOB. A 50 bbl gel sweep was pumped while reaming through the shoe and cleaning out the rathole to 511m.

The 17 ½" hole section was drilled from 511m to TD of 1377m in 38.5 hrs with an average overall ROP of 22.5 m/hr. (Note: TD was determined by the 13 3/8" casing strap plus ± 5m rathole.) This 17 ½" hole section was drilled with seawater. Pump rate was increased from 850 GPM to 1100 GPM once the collars were below the conductor shoe. Typical drilling parameters were 1100 GPM - 2950 psi, 100 / 140 RPM – 4 / 10k ft-lbs, 0-20k lbs WOB (4160 lpm - 203 bar, 100 / 140 rpm - 5.4-13.6 kNm, 0-9MT).

50 Bbl gel sweeps were pumped every ½ stand and spotted around the BHA prior to making connections. A MWD survey was taken each stand to confirm the hole was still vertical. Inclination was below 1 degree, with the maximum inclination being 0.61 degrees at 762m meter. ROP was controlled while drilling through the Quaternary and other expected sand intervals. The ROV would fly out of its cage every 5 stands to perform a flow-check and to check the alignment of the DP in the 30" LPWH. Drilling was smooth with no indications of shallow gas or major boulders being encountered. Back-reaming on connections was therefore not required.

Once the hole section was at TD (1377m), 200 bbls of gel pill were pumped and the hole circulated clean at 800 GPM – 1700 psi, 50 RPM – 1k ft-lbs torque. The 13.6 ppg Gly-drill KWM was to be used as a displacement mud and the hole was circulated while this was cut back to 10 ppg.

Once the displacement mud was prepared, the hole was displaced with ± 1.5x hole volume of 10 ppg Glydril mud at 1100 GPM - 2630 psi, 50 RPM - 4k ft-lbs (4160 GPM - 181 bar, 50 RPM - 5.4 kNm). The string was then displaced to seawater, to give an indication on the trip out of the hole whether the hole was swabbing.

On the trip out of the hole, numerous tight spots had to be worked through between 1311-860m with up to 40k lbs drag (18 MT). As the BHA could wipe through with no problems and no weight was lost while slacking off, it was decided not to perform a wiper trip. The flow-check with the ROV prior to pulling the BHA above the mud line was static. The BHA was then pulled out to surface. A 14" x 7" x 7" boulder was recovered from above the 17 1/8" stabilizer. This boulder likely caused the problems pulling out of hole. The 17.1/2" bit was not heavily worn and was graded 1,2,BT,A7,E,1/16,CT,TD.

Run & Cement 13.3/8" Casing: 418.2-1371.5m

- All the 13 3/8" casing had been prepared onshore: strapped, drifted, pre-doped and randomly ID callipered.
- The HPWH was pre-made up onshore with the wear-bushing pre-installed.

- HPWH consisted of ± 11m of 20” casing (± 10m below 30” LPWH) crossed-over to a 13 3/8” pup. This would allow the 30” and 20” to be cut and recovered simultaneously in the abandonment phase.
- Casing cement volumes were based on 100% open-hole excess and 305m (+/-1000ft) of tail cement.
- The cement stand was racked back in the derrick at this time.

The rig had just purchased a set of BX Frame #3 elevators and casing slips. The rigs BX-frame #3 had not been used before and when rigged up failed to function. 3.5 hours was spent troubleshooting in an attempt to function the elevators. This amount of time was spent in troubleshooting, as the Norwegian regulations require the operations to be hands-free. As the problem with the BX elevators could not be found, the 13 3/8” manual side-door elevators were rigged up. A non-conformance report was written and a risk assessment for use of manual elevators held to comply. The 13 3/8” Weatherford tong was rigged up together with the Power-scope to be able to operate the tong remotely and not having to manually pull it around the casing. Some problems were experienced with the space out of the La-fleur (inclusive swivel) and bails.

The 13 3/8” shoe track was picked up consisting of: 1-shoejoint (complete with 2 bow spring centralizers), 1-intermediate joint (1 bow spring centralizer) and float collar joint w/ a 10m joint below (1 bow spring centralizer) the Float Collar and a 2m pup on top. The entire shoe track was baker-locked. A modified stop collar with lugs welded on to attach the softlines to the guidelines was installed on the shoe joint to assist in stabbing the LPWH.

The rig continued to run 13 3/8” 72# P110 Vam Top casing to 438m, filling the casing with seawater (Make up torque of 23,150 ft-lbs). A 17 ½” bow-spring centralizer was installed at mid-joint over the pre-installed (in town) stop collars on the first 7 joints of casing. A maximum slack off weight graph was provided to the driller and the casing was marked with white paint so it would be easier for the ROV to visually see the casing move in the hole. ROV and rig thrusters assisted to stab the 13 3/8” shoe in the hole.

The Le-Fleur tool was rigged up at 438m (± 17m below the mudline), and the casing was displaced to 10 ppg Glydril mud to minimize buoyancy effects on the slack off weights. The rig continued to run the 13 3/8” casing to 939m, filling each joint with 10 ppg Glydril mud. The 18 ¾” Vetco HPWH was made up to the casing string. Attempts were made to fill the void above the wiper plugs (pre-installed onshore) with seawater indicating that there was a leak past the plugs. The 13 3/8” casing was then run on 5” DP without hole problems until 1133m – top filled each stand with 10 ppg Glydril mud. At 1133m, the string stood up with 30k lbs (13.6MT) S/O weight and could not be worked through. Therefore, DDM was made up and casing was washed down from 1133-1158m with 3 BPM (480 lpm). The casing was then run to 1360m without any further problems or washing required. The cement stand was made up and the casing washed down from 1360m – 1371.5m at 2 BPM – 60 psi (320 lpm) and the 18 3/4” HPWH was landed in the 30” LPWH (shoe depth of 1371.5m). A 50k overpull was made to confirm that the HPWH had properly locked into the LPWH at this time.

The casing was run in 30.5 hrs with 5.5 hours trouble time due to the malfunction of the BX elevators and problems with the space out of the La-fleur tool. The rig was able to run an average of 8.5 joints of 13 3/8” casing per hour during casing running operations.

Circulation was established and the pumps staged up to 8 BPM – 230 psi (1270 lpm) and 1.5 x casing capacity was circulated with seawater. The cement unit then pumped 40 bbls of dyed seawater after which the bottom dart was released. The Dowell unit mixed and pumped 600 bbls of 13 ppg Class ‘G’ lead cement slurry (1806 sxs) using 460 bbls of mixwater at an average of 6 BPM – 290 psi (795-1190 lpm). Due to problems with blocks of solid cement dislodging from the rig’s lines, the cement job was stopped after pumping the lead slurry to clean the bowl and knifes on the

delivery tank. This operation took approximately 20 minutes to complete. Then the Dowell unit continued to mix and pump 259 bbls of 16 ppg Class 'G' tail cement slurry (1290 sxs) using 152 bbls of mixwater at 6 BPM - 400 psi (950 lpm, 27.6 bar). The second dart was released from the cement head and chased with 24 bbls seawater by the Dowell unit at which time the top plug sheared with 2000 psi noted. The Dowell unit pumped an additional 10 bbls of seawater once the top plug shear was noted.
The rig pumps displaced the cement with seawater at 11 BPM. Slowed the pumps down to 1 BPM and bumped the plug at 98.1% pump efficiency based on callipered casing ID. Final Circulating Pressure at 1BPM was 1015psi. The pressure was increased to 1700 psi and held for 5 minutes – ok. The pressure was then bled off and floats confirmed to be holding.

Note: The ROV observed dye and cement returns after ± 198 bbls (31.5 m3) of seawater being pumped. The ROV also began to observe a small stream of gas bubbles out one side of the circulating ports on the 30" X 13 3/8" annulus.

Note: Using the final circulating pressure (FCP) of 1015 psi at 1 BPM, the estimated Top of tail cement is ± 1940ft above the shoe versus the 1000ft planned**.** This would mean that the top 2000ft of 17 ½" hole would be ± 3% overgauge.

The 18 ¾" CART tool was released by taking a 5k lbs overpull on the landing string and with 4 Right Hand turns. The plug launching stinger was pulled above the PGB and used to flush the PGB with seawater prior to pulling out of hole with the landing string. The cement stand, complete with the cement head was laid out from the derrick at this time.

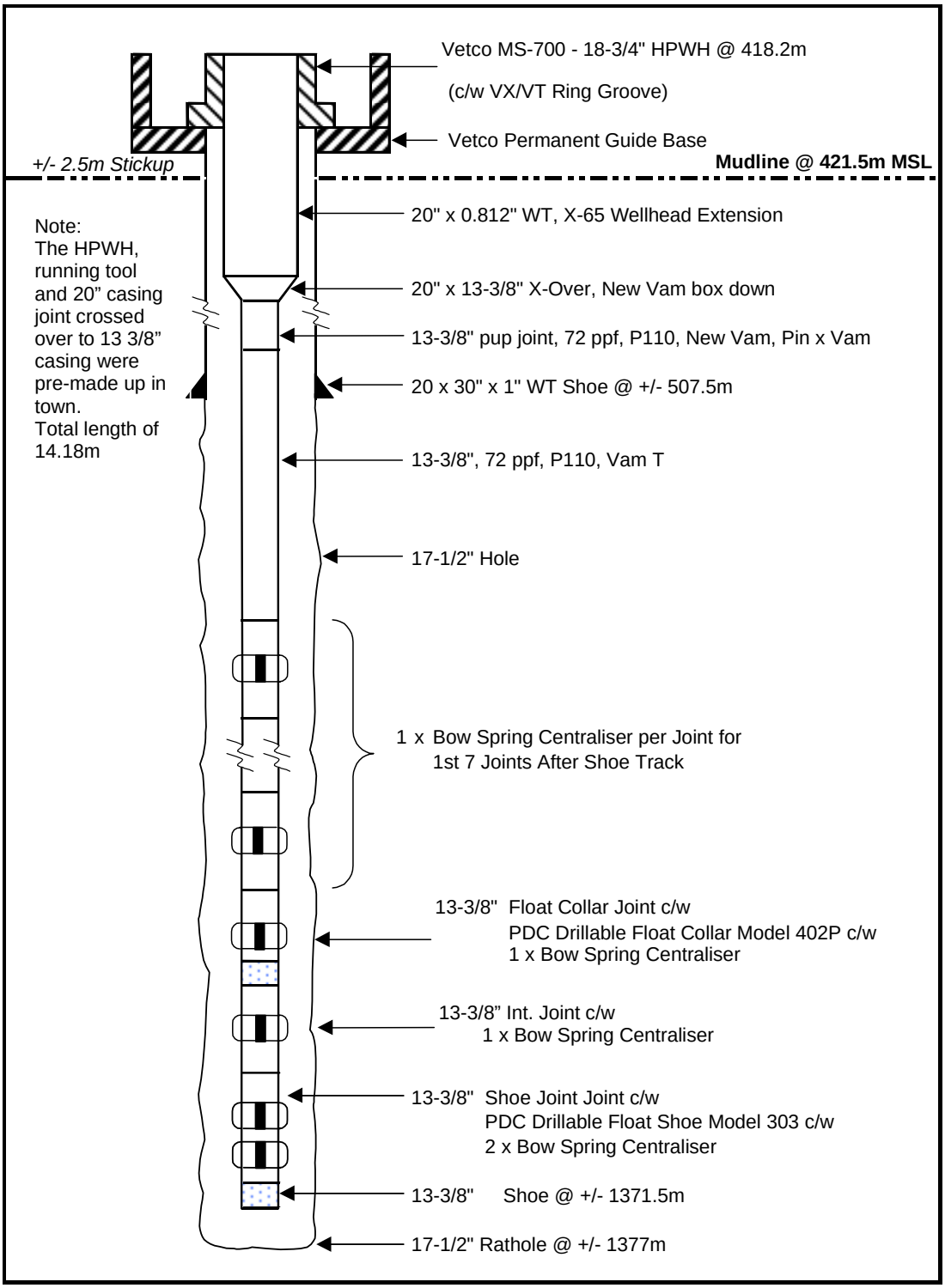

Fig: 2 – 13 3/8" Surface Casing Schematic

Running the Riser and BOP

The BOPs were inspected by Moduspec in Invergordon. Several issues were identified and resolved (See Section 4.1.1 or separate Moduspec UK1142 report for more detailed information).

The configuration of the Stena Dee stack for the Sahara well is as shown in Table 1 below. Each Ram or Annular was stump tested in Invergordon as per the schedule in table 1.

1. Note: upper annular on LMRP is a 10,000 psi annular.
2. The rig had installed a rental Vetco H4 wellhead connector to bottom of the BOP.

BOP Type	Model	Type	Stump pressure (bar)
Upper Annular	Cameron	D 10M	520
Lower Annular	Cameron	D 10M	520
Shear Rams	Cameron – 15M	-	690
Upper Pipe Rams	Cameron – 15M	3½" – 5" VBR	690
Middle Pipe Rams	Cameron – 15M	5" fixed	690
Lower Pipe Rams	Cameron – 15M	3½" – 5" VBR	690
Mini Collets, inner failsafes from above	Cameron	FCS	690
Outer failsafes from above	Cameron	FCS	690

Table 1 – BOP Test Schedule

The BOP, Riser and Diverter were run and function tested in a total of 54.5 hrs. The ROV had previously installed the VX-gasket in the wellhead. The running of the riser was particularly slow due to a combination of problems. The first problem was the fact that there was a lot of difficulty stabbing the riser together and at times it took nearly an hour to get two sections to mate up properly. Some of this was due to a combination of new and older joint spread thoughout the entire riser. The other problem was when the Blue Pod line jumped the sheave in the moon pool, which took approximately 2.0 hours to rectify. Other items that effected run time are discussed in the next few paragraphs.

The rig floor had to first be cleared of all excess equipment prior to being able to rig up to run the BOP's (3.5hrs). The monkey arm had to be removed from the catwalk, the iron roughneck's tracks had to be pulled and the mouse hole's (2) had to be removed. The master bushings were removed and then the riser handling tools and gimble could be installed.

Once the BOP's were run through the splash zone (7.5 hrs), it took 28 hrs to run the riser (both slick and buoyant). The choke and kill lines were pressure tested to 360 / 5800 psi (25 / 400 bar) every 8 joints. It then took another 12.5 hrs to make up the slip-joint, install the choke, kill and booster goosenecks etc. before the BOP were latched.

When getting close to the PGB the BOP was visually observed to be +/-20 degrees out of alignment with the guideposts. The problem was fixed by turning the BOP with a combination of the blocks and air tuggers in the moonpool. The BOP's were latched and a 50k lbs (23 MT) overpull was taken. ROV observed the following bulls-eye readings:

BOP – 0.5° (port), Riser – 0-1° (starboard / forward), PGB – 0.5° (fwd) & 0.75° (port)

The original program required to pressure test the wellhead connector to 410 bar. With the 13 3/8" casing only being pressure tested to 2610 psi, it was determined that there was no need to test the wellhead connector to 410 bar. By only pressure testing to 2650 psi, the wellhead connector could be pressure tested against the 13 3/8" casing and no separate run with the BOP isolation test tool would be required. With the BOPs latched, the wellhead connector, the blind / shear rams and the 13 3/8" casing were all successfully pressure tested to 400 psi / 2650 psi (28 / 183 bar) for 5 / 15 min respectively with seawater, 4 bbls pumped and returned.

Delays

Failed to function hydraulic BX elevators	3.5 hrs
Correction of space out on Le-Fleur	2.0 hrs
Hydraulic hose jumped of the sheave in the moonpool	2.0 hrs
Section Total	*7.5 hrs*

4.1.4 8-1/2" Main Hole Section

Drill Out 13 3/8" Shoe and LOT

- The original plan had been to drill out the 13 3/8" shoe track with the 8 ½" drilling BHA. However, the 36meter of cement in the shoe track could provide problems of cement blocks falling in, if drilled out with the 8 ½" bit. Therefore, it was decided to clean out the shoe track with a 12 ¼" slick BHA.
- The leak-off test (LOT) at the 13 3/8" would determine whether the well could be drilled as an 8 ½" hole section, or whether a 12 ¼" hole would have to be drilled. The minimum required LOT was 1.66 s.g based on a 25 bbl kick (4 m3) gas influx at TD.
- To improve the chance of a good leak-off test (LOT), it was decided to:
  - Circulate and condition the mud to allow the mud to heat up prior to LOT
  - Spot an LCM pill

The EDPHOT was made up and racked back in the derrick and the 12 1/4" slick clean out assembly was picked up as follows:

12 1/4" DBS XS4G milled tooth bit (c/w 3 x 20/32" nozzles)
Bit sub (c/w non ported float)
12 x 8" Drill Collar
Cross over
6 x 5" HWDP
6 1/2" Jar
3 x 5" HWDP

The 12 ¼" slick BHA was RIH to 1328m. The DDM was made up and BHA was washed down with 200 GPM (750 lpm). Top of Cement was tagged with 10k lbs (4.5MT) at 1329.5m. A well control drill was performed at this time.

The choke, kill, booster lines and mud gas separator were displaced to 12.8 ppg (1.54sg) LTOBM. The well was then displaced to 12.8 ppg (1.54 s.g) LTOBM at 855 GPM – 3800 psi (3235 lpm), 80 RPM – minimal torque noted. Once the LTOBM was all around the pumps were shut down and the mud system closed. No surface leaks to the system were noted.

It took 7 hours to drill the cement, plugs, float collar and shoe from 1329m to 1371.5m, and clean out the rat-hole to 1377m. The bit was worked through the shoe four times with no problems. Typical drilling parameters were (855 GPM - 3400 psi, 80 RPM – 5 / 6k ft-lbs, 20k lbs WOB (3235 lpm - 235 bar, 80 rpm – 7 / 8 kN.m Torque, 9 MT WOB).

New formation was drilled from 1377m to 1380m. The BHA was pulled back into the casing and the LTOBM was circulated and conditioned to 12.9 ppg (1.55 s.g) at 860 GPM – 4000 psi (3250 lpm). The well was flow-checked and a 50 bbl (8 m3) LCM pill was spotted on bottom. The BHA was pulled into the casing shoe above the LCM pill to +/-1260m.

A leak-off test with 12.9 ppg (1.55 s.g) mud was performed by pumping in at 500 psi (1.80 s.g / 15 ppg EMW). The pressure dropped off to 240 psi (1.67 s.g / 13.9 ppg EMW) in 15 minutes. 1 ½ bbls pumped, ½ bbl returned.. Due to concerns regarding the validity of the results it was decided to circulate and condition the mud for 1 ½ hrs. With better conditioned mud in the hole, a better LOT was achieved. The second leak-off test was performed with 12.9 ppg (1.55 s.g) mud, pumping in at 500 psi (1.80 s.g / 15 ppg EMW).The pressure was monitored and dropped to 290 psi over 10 minutes (1.69 s.g / 14.1 ppg EMW). With the LOT being above the minimum requirement of 13.8 ppg EMW (1.66 s.g), the 12 ¼" BHA was pulled out of the hole.

Drill 8 1/2" Hole Section

- The plan was to make a decision on whether or not to core the Lysing formation based on the results of LWD (GR / Resistivity / Sonic) and the gas readings at surface.
- Due to tight kick tolerances, pore pressure was to be monitored constantly using Cambrian software.

The 8 1/2" main hole section BHA consisted of:

8 1/2" DBS 3663Z PDC Bit (c/w 6 x 14/32" nozzles).
8 1/2" Near Bit Stab (c/w ported float)
2.42m x 6 1/2" NM Pony Drill Collar
8 1/2" NM Stab
MWD assy (inclusive GR / Res / Sonic) c/w 8 3/8" in-line stab
APX assy (pressure while drilling)
Stop sub
8 3/8" Stab
8 x 6 1/2" Drill Collar
6 1/2" Jar
3 x 6.1/2" Drill Collar
9 x 5" HWDP

Drilling the 8 1/2" Hole section:

On October 7, 2004 at 10:00 hrs the rig commenced drilling the 8 ½" hole section. Initially the flow rate was limited to 615 gpm – 3200 psi until the BHA was below the shoe. There was a significant increase in amount, size and shape of the cuttings at the shakers noted while drilling at 1465m. The hole was circulated clean and the riser booster pump introduced to the system at this time. Mud pump #1 is the only pump that can physically lined up on the hole and have the other 2 pumps lined up on the drill string. When boosting the riser a maximum of 420 gpm can be used running the pump at full rate.

The hole was circulated clean and drilling continued from 1465m – 3453m with no hole problems or conditions noted. Surveys were taken every stand when possible and inclination stayed below 1 degree until +/-2800m where a slight build tendency was noted in a generally south direction. Due

to the nature of the build it was required to back-ream each stand prior to making connections below 2800m which seemed effective in controlling the build rate. This build tendency could be related to bedding plane of the Kvitnos formation as inclination was held to under ½ degree until the bit crossed that boundary.

Circulation was limited to 640 gpm maximum through the MWD tools in the beginning of the section. However, the pump pressure became the limiting factor in flow rate the deeper in the section the rig drilled. Flow rate was increased to 640 gpm (2420 lpm) – 3300 psi (227 bar) at 1465m and by 3453m the flow rate was limited to 590 gpm (2230 lpm) – 4100 psi (283 bar). The riser booster was used during much of the drilling time however periodically it had to be removed from the riser when it required change out of a swab or liner or when there were any problems with any of the other mud pumps requiring # 1 to be lined up on the drill pipe side.

The drill string RPM was maintained at 170 / 180 through the interval 1465m – 3453m. The WOB was reduced to 5 / 10k below 2800m due to an increase noted in Stick-slip alarms on the MWD tool. All systems working this MWD tool provided very good data and reliability through the entire TD of the 8 ½" hole section. However, there were times when the parameters needed altering to ensure a tool failure did not occur. The average ECD recorded for the hole section was approximately 1.68 s.g or a 14.0 ppg EMW.

A drilling break was noted from 3450m – 3453m as the ROP increased from +/-15m/hr to +30 m/hr. The well was flow checked and found static. A dummy trip was performed in an attempt to swab gas into the wellbore. The well was circulated clean for a sample which indicated an increase in the presence of sand from the bottom of the well but no background gas was noticed. Discussions with the geologists on site and in town lead to a decision to be made to drill another 8m of hole to get a response from the MWD tool. The well was drilled from 3453m – 3461m and another flow check was performed and the well found to be static once again. The well was circulated clean again for samples and the increase in the presence of sand at bottoms up confirmed reservoir quality sand but no actual increase in background gas was noted.

The well was circulated clean and a function test of the BOP's was performed using both pods from the driller's console and office remote stations. During this period discussions with town and available data exchanged it was determined that the Lysing target would not be cored due to both the lack of gas noted when samples were circulated up and the response noted on the MWD tool as it encountered the very top of the Lysing sand.

Drilling operations resumed and the 8 1/2" hole section was drilled to TD on October 13, 2004 at approximately 16:00 hrs. Flow rate was limited to 585 gpm (2215 lpm) – 4150 psi (286 bar), RPM was held at 150 – 4 / 10k ft-lbs torque. WOB was run at 15 / 20K and had to be periodically changed due to Slip-stick alarms from the MWD tool. Inclination began a greater build tend once the bit was below the base of the Lysing sand and final survey had inclination at 5.24 deg and azimuth of a 140 deg.

The hole was circulated clean with 1.55 s.g (12.9 ppg) mud at 585 gpm (2220 lpm) – 4150 psi (286 bar). After initial bottoms up a 50 bbl (8.0 m3) weighted pill, 1.80 s.g (15.0 ppg), was circulated around with no significant increase in cuttings or cavings noted across the shakers. A total of 3 bottoms up were pumped in total. The riser was also being boosted with mud pump #1 at 6 bpm while circulating the well clean.

The well was flow checked and pipe was pulled wet from 3745m – 3529m. There was some over-pull noted from 3540m – 3529m and a maximum of 30k was applied each time and worked through with no difficulties. The main hydraulic power pack for the drawworks burst a hose at this point and repairs were made to the rig. The pipe was kept moving by using the Crown compensator while the hose was replaced. Upon successful completion of the repairs the pipe was worked out to 3510m with steady 30k over-pulls noted. The pipe always went down with no problems. However,

due to the proximity of the Lysing sand and the stabilizers in the BHA it was determined that pumping and back-reaming would be the proper way to clean out this section.

The Top drive was made up to the string at 24:00 hrs on October 13, 2004, and circulation was established at 3510m but rotation was not established due to torque. The string was run down to 3548m where rotation was initiated at 80 rpm and circulation was increased to 430 gpm (1610 lpm) - 2300 psi (159 bar). The pipe was back-reamed from 3548m – 3432m at a slow rate due to high torque (10 - 12k ft-lbs). Once the bit was above 3448m normal conditions were noted. The hole was circulated clean at 3432m at 600 gpm (2270 lpm) – 4100 psi (283 bar) and 80 rpm – 2 / 3k torque.

The well was flow checked – static at 3432m and the bit was then POOH with no further problems. A slight over-pull (20k) was noted at 1816m and was wiped through with no difficulty. The BHA was racked back and the BHI MWD tools were L/O and downloaded. The bit graded 3,3,CT, XN, X, IN, NO, TD with chipped teeth across the nose and shoulder areas being noted. The bit was in gauge.

Logging Operations:

On October 14, 2004 at 19:00 hrs Schlumberger Wire line equipment was rigged up and tool string #1 (DSI / PEX / AIT / HNGS) was then run in hole to 2135m where the tools string stood up. Numerous attempts were made to get the tool worked through this area with no success. The tool string was POOH and the DSI section was removed in an attempt to shorten the tool string.

The second run was attempted at 02:00 hrs on 15/10/04 with the PEX / AIT / HNGS and this tool string #2 also stood up at 2135m. Numerous attempts were made to work past the obstruction with no success. The caliper was opened and the well logged from 2135m back to the shoe with no problems. The hole size was mostly in gauge, however, at the start point the caliper was showing a possible washout of up to 14” at +/-2130m.

Damage to the cable above the rope socket was noticed when the tool string was recovered to surface and Schlumberger re-terminated the cable and rope socket. Once this was complete a further attempt to RIH with tool string #3 (MDT / GR) was unsuccessful. This run commenced at 13:00 hrs on 15/10/04. This tool string also tagged and stood up at 2135m. This tool string was POOH and the W/L equipment was rigged down for a conditioning trip at 18:30 hrs on October 15, 2004.

Conditioning Trip for Logging Operations:

The conditioning BHA is listed below:

8 1/2” DBS FM3663Z PDC Bit (c/w 6 x 14/32" nozzles).
8 1/2" Near Bit Stab (c/w ported float)
2.42m x 6 1/2" NM Pony Drill Collar
8 1/2" Stab
1x 6 ½” DC
8 3/8” Stab
7 x 6.1/2" Drill Collar
6 1/2" Jar
3 x 6.1/2" Drill Collar
9 x 5" HWDP (c/w Totco ring)

Total length of the conditioning BHA was 201.62m.

This assembly was run in the hole and circulation was broken every 25 stands (992m, 1370m and 2076m) the drill pipe capacity was circulated at each interval and hole conditions appeared to be very good. No obstruction was noted when tripping pipe through the section (2135m) where the wire line tools were tagging up and unable to work past.

The BHA took weight at 2643m, approximately 30k was set down at 03:15 hrs on 16/10/04. The string was picked up and the pipe filled with mud and circulation established. The pumps were staged up to 430 gpm (1620 lpm) – 3200psi (220 bar) and it was noticed that the pump pressure was higher than expected at this depth and there was higher torque initially as 100 rpm – 7/9k ft-lbs were recorded. While working the stand up the pressure dropped to 2350 psi at the same flow rate and a torque reduction was also noted 100 rpm – 5 / 6k ft/lbs.

Circulation was continued at this rate for over 30 minutes and a total of +/-370 bbls of mud had been circulated with no losses noted in the active system. At approximately 04:15 hrs on 16/10/04, the flow rate was then increased to 535 gpm (2022 lpm) – 2900 psi with no change in rpm or torque. Shortly thereafter it was noticed that the active pit was losing mud. Surface equipment was checked and no losses were visible on surface. The flow rate was reduced to 320 gpm (1215 lpm) – 1300 psi and RPM maintained at 100 with 5/6k ft-lbs torque. Losses appeared to be +/-50% so the pumps were shut down at 05:00 hrs and a flow check on the hole was performed on the trip tank. The well was static with no losses observed with no pump on the hole for 15 minutes. During this time it was recorded that a total of 150 bbls of mud had been lost from the active system during the final 30 minutes of circulation. The drill floor pit sensor had recorded approximately 50 / 60 bbls lost and then some mud was transferred from pit #2 while the pump rate was slowed down prior to the flow check.

The riser was then circulated with mud pump #1 with no losses to the hole at 07:00 hrs on 16/10/04. Flow rate up the riser was 427 gpm (1620 lpm) – 1050 psi. Returns across the shakers contained a considerable amount of cavings / cuttings and fines. Once the riser was cleaned up circulation was attempted down the drill string at 1 bpm – 300 psi with no returns noted at this time. The booster was continuously running and the active system was dropping at a rate of 1 bpm too. High erratic torque and increase in hole drag was also observed.

It was decided at this point that due to limited supplies of mud on location and deteriorating hole conditions, that pulling to the shoe was necessary. At 10:30 hrs on 16/10/04 back-reaming operations commenced. High torque and drag were noted until approximately 2624 m from that point onwards the BHA was back-reamed out of the hole to 1425m with no problems. Back-reaming was performed by pumping 1.4 bpm (222 lpm) – 220 psi and 50 rpm – 4 / 7k ft-lbs torque. However, at 1425m it was noted that pump pressure and torque had increased and further losses were occurring. The stand was run down to 1442m and parameters re-established.

The riser was boosted at this time at 427 gpm (1620 lpm) – 1050 psi. Cavings and fines were noted at bottoms up across the shakers. The drill pipe pressure reduced +/- 50 psi at 1 bpm and no losses were noted. Flow rate down the drill string was increased until 4 BPM (635 lpm) – 400 psi with full returns. Back-reaming continued until the bit was inside the 13 3/8” shoe at 1371.5m at 03:00 hrs on 17/10/04.

The hole was then circulated clean inside of the 13 3/8” casing with no losses while staging up the flow rate to 725 gpm (2745 lpm) – 3200 psi and 100 rpm – 4k ft-lbs of torque. Cavings / fines and cement were noted at the shakers. Once the hole was clean at 09:00 hrs on 17/10/04 the choke and kill lines were flushed with fresh mud as well as surface lines through the poor-boy gas buster.

The booster pump was continuously run while tripping pipe into the hole. Initially the bit was run to 1600m at 13:30 hrs on 17/10/04. An attempt to circulate at 150 gpm (568 lpm) – 375 psi produced loss rates of 20 – 30 bph. The bit was RIH to 1790m while monitoring the hole and building an LCM pill consisting of 20 ppb (Course / medium and fine CaCO3 and 20ppg G-seal).

95 bbls of LCM were pumped in the well and losses were induced while displacing the LCM into the open hole at 6 BPM. A total of 50 bbls were lost while spotting the LCM pill below the bit. The hole was rested for one hour to allow the LCM pill to soak and at 24:00 hrs on 17/10/04 circulation at 2 bpm - 260 psi was still inducing +/-20 BPH losses to the hole.

The assembly was RIH from 1790m – 2190m with no problems, however losses were recorded at 15 bbls while tripping in the hole. A second 95 bbl LCM pill was circulated down the drill string at reduced rate and spotted in the open hole inducing 44 bbls of losses when the LCM was spotted into open hole at 6 BPM. The hole was rested for one hour to allow the LCM pill to soak and at 06:00 hrs on 18/10/04 circulation at 1 bpm - 250 psi was still seeing +/-40 BPH losses to the hole.

The BHA was pumped / back-reamed out of the hole to the 13 3/8" casing shoe at 2 BPM (320 lpm), 13 bbls in losses were recorded during this operation. Once inside the casing the well was circulated clean at 16 BPM (2545 lpm) – 2750 psi (190 bar) with 125 RPM – 3k ft-lbs torque noted. The riser was also boosted at 10 BPM (1590 lpm) with no losses to the hole. There were some cavings, cement and fines noted over the shakers at this time.

With no losses inside the casing shoe, it was decided to attempt to wash / ream in the hole at 450 GPM (1700 lpm) to determine if the losses were cured by the LCM and / or the location of the losses. The 450 GPM pump-rate is the rate required to operate the BHI Test-track tool which can take formation pressure reading. It was determined that this rate could not be maintained and thus the Test-Track tool was not an option.
The BHA was washed in the hole at 450 GPM (1700 lpm) – 1400 psi (96 bar), 80 RPM – 3 / 5k ft-lbs torque from 1371m to 1500m. Initially, fluid returns were 95%, but from 1455m, the returns dropped to less than 60%. Since there was already a 100 bbls LCM pill in one of the slug pits it was decided to attempt pumping another 40 bbls (6.4 m3) while reaming down to 1530m. A last attempt was made to determine the loss rate at 10 BPM (1590 lpm) – 1400 psi and losing ± 180 BPH (28.6 m3 / hr) = 70% returns.

The hole was flow-checked at 00:00 hrs on October 19, 2004 and it was noted that some back flow was experienced however the trend during the hour long check showed the trend was slowing continuously. A total of 5 bbls flow back occurred over the hour but the well was static the last 15 minutes.

The BHA was pumped / back-reamed out of the hole, from 1530m to the 13 3/8" shoe at 1371.5m. The well was then circulated clean at 640 gpm (2422 lpm) – 2500 psi (172 bar) with the riser booster pump running constantly. Some cavings were observed at bottoms up across the shakers.

Discussions with town occurred at this point that considered the following:

- the losses that were occurring down hole,
- the obstruction at 2135m that wireline was unable to run through in the initial attempt,
- the obstruction at 2643m for the drill string that created the losses to the formation
- the hole could not be cleaned out properly due to the losses downhole
- No further run wireline logs would be attempted due to possible bridge at 2643m.
- No tubing conveyed logs could safely be run
- The BHI Test-track tool which can take formation pressures could not safely be run or operated without major losses of drilling fluid to the well.

Therefore, the decision was made to pull out of hole and commence abandonment operations.
The clean out BHA was pulled out of the well at 08:00 hrs on October 19, 2004. There was no further damage noted to the bit or any of the stabilizers noted.

Delays

Replaced broken hydraulic hose on drawworks	0.5 hrs
Lost circulation	73.5 hrs
Section Total	*74 hrs*

4.1.5 Abandonment

Abandonment operations were commenced at 09:00 hrs on October 19, 2004.

- The plan was to abandon the hole by setting the cement plugs above the hang-up depth with the bottom cement plug to be based at +/-2540m. The Stavanger office wanted to confirm that there was still an obstruction at 2643m, and therefore requested that the rig should tag the obstruction with the 3 1/2" cement stinger.

The 3 ½" open-ended mule shoe was run on 50 joints of 3 ½" PH6 cement stinger (482m) and run in hole on 5" drill pipe to the casing shoe at 1371.5m. Bottoms up was circulated at 560 GPM (2120 lpm) – 3000 psi (207 bar) with no losses recorded. The rig continued to run in the hole, breaking circulation every 10 stands to confirm the mule shoe was not plugged – slight losses to the formation each time circulation was established but no hole problems were experienced. Since no obstruction was seen while tripping the mule shoe to 2700m (previous hang-up point was at 2643m), it was decided to continue running in hole to 3600m to confirm the condition of the hole prior to attempting to do another logging run.

Note: 3600m was the maximum wireline depth required.

While breaking circulation at 2700m, the hole was still taking 50% losses while circulating at 2 BPM (320 lpm) – 340 psi (23 bar). It took 6 ½ hrs to trip in from 2700m to 3600m due to trying to minimize losses and breaking circulation every 10 stands. No hole problems were experienced except once above the reservoir when the string stood up with minimal weight (+/- 5k). By only picking the string back up and continuing to run in, there were no further indications of an obstruction.

When the attempt to break circulation at 3600m was made, the mule shoe was plugged and it took 3000 psi to clear the blockage. An attempt was made to circulate the hole clean, but loss rate at 2 BPM (320 lpm) – 350 psi (24 bar) was ± 60%. Therefore, circulation was stopped. The well was flow-checked and found static. Attempts were made to pull out of the hole but this induced swabbing as seen before with the 8 1/2" BHA. While attempting to break circulation following the attempt to POOH, it took 1200 psi to clear the blockage in the mule shoe.

The 5" drill pipe and 3 ½" cement stinger were pumped out of the hole from 3600m to 1360m (inside the casing shoe) at 1.5 BPM (240 lpm) – the hole was still taking slight losses. This operation took 18 hours to complete. Once the 3 1/2" cement stinger was inside the shoe, a total of 1.2 bottoms up were circulated at 470 GPM (1780 lpm) – 2000 psi (138 bar), while the riser was boosted at 300 GPM (1135 lpm). There were no losses to the formation and no cuttings and or cavings were noted over the shakers. Gas peaks were seen both prior and at bottoms up. During the circulation period, the well appeared to be flowing. A flow check was performed and the return rate was not on a decreasing trend. Therefore, the well was shut in on the upper annular, but no pressure build up was observed after 30 minutes. Well was opened up and circulation continued as before.

The well was flow checked and found to be static. A slug was pumped and the remaining 5" drill pipe and the 3 ½" cement stinger was racked in the derrick.

An explanation for why the bit tagged up at 2643m while the open ended mule shoe went to 3600m without difficulty was subsequently presented. Since the zone from approximately 2100 to 2700m likely contained sections of washout and gauge hole, it is suspected that the upper stabilizer dislodged a portion of the borehole ledge that became trapped between the upper two stabilizers. This ledge acted as a wedge, pinning the BHA at 2643m in such a way that the bridge was initially suspected. When the mud pumps were activated, the wedge provided a restriction that caused pressures below it to be increased such that it broke down the formation. The interval from 2100—2700m is suspected to be a zone of weakness and likely contains highly fractured shale. Once propped open, this section never regained original rock strength and thus the lost circulation problems.

Logging attempt #2 commenced at 16:30 hrs on October 21, 2004.

- An MDT was to be run on e-line to determine the fluid gradient in the Lysing sand interval.

The Schlumberger wire line equipment was rigged up, the MDT tool was surface tested and was RIH at 18:30 hrs. No hole problems or conditions were noted down to 3438m. There was only a small indication on the tension as the tool string passed 2135m wire line depth (previous hang-up point for wire line).

The tool string hung up at 3438.5m (6m above the Lysing sand)(wire line depth corrected to LWD depth). For 1 ½ hrs, attempts were made to pass the hang-up depth by running in with speeds up to 250 ft/min (75m / min) and by functioning the tool open several times. No over-pulls were observed when picking back up. As all attempts were unsuccessful to get past the obstruction at 3438m the decision was made to pull out of the hole with MDT Tool and rig down the Wire line equipment. The second attempt to capture MDT pressure gradients was completed at 03:30 hrs on October 22, 2004.

Second abandonment program commenced at 03:30 hrs October 22, 2004.

The depths of the cement plugs were chosen such that when running in with the cement stinger, no singles had to be laid out or picked up. The cement hose could be made up, with the side-entry-sub on the cement stand just above the rig floor when at the bottom of the plug setting depth.

- The cement stinger mule shoe had been modified with some fins to allow for centralization in the hole to give a better chance for a good cement plug. Slots were cut in the open-ended mule shoe to prevent plugging while running in (as had happened on the first run in the hole).

The 14 day BOP test was overdue for ± 4 days and a 7-day extension had been requested and received from the PSA. However, it could not be guaranteed that all 4 cement plugs on the first run could be set and still have enough time to pressure test the BOP's prior to the extension period expiring. After having pulled out with the wire line, the BOP's were pressure tested. Choke and kill manifold had already been pressure tested while doing wire line work. The pressure testing was completed at 13:30 hrs on October 22, 2004.

The 3 1/2" slotted mule shoe was run on 482m of 3 ½" cement stinger and 5" DP to 1370m (the 13 3/8" casing shoe). Bottoms up was circulated at 555 GPM (2100 lpm) – 2700 psi (186 bar) while boosting the riser with no down hole losses.

The cement stinger was then run in hole to 3432m without seeing any hole problems. Circulation was broken every 10 stands to 2770m and every 5 stands to 3432m. The mule shoe hung up at

3432m (hang-up depth of wire line was 3438.5m). When attempting to wash down to 3435m at 2 BPM (320 lpm) – 500 psi (34 bar) and 20 RPM, there were no fluid returns and indications of the hole packing off. Since the hole was to be abandoned, it was decided not to try to get down to TD to set the cement plug.

Plug #1: theoretical setting depth of 3385-3125m using 8 ½" hole + 25% open hole excess

- Spacer volume of 50 bbls (8m3) was based on 10 minutes contact time.

The mule shoe was pulled back to 3420m. The loss rate was established at 35% (losses) at 3 BPM (475 lpm) and 15% (losses) at 2 BPM (320 lpm). With the well losing fluids to the formation, it was decided not to circulate bottoms up.

- A 40m (10 bbls or 1.5m3) hi-vis pill was spotted from ± 3420-3380m.
- Pipe pulled back to 3385m.
- Rig pumped 56 bbls (9.0m3) spacer at 1.67 s.g (13.9 ppg) - (46 bbls into string and 10 bbls remaining in lines to chase cement)
- Dowell unit mixed and pumped 75 bbls (11.9 m3) 1.92 s.g (16.0 ppg) Class G + 35% silica flour using 44 bbls (7 m3) mix water.
- Dowell chased cement to the drill string with 3 bbls mix water.
- Rig pump then displaced cement with 10 bbls (1.6 m3) spacer at 1.69 s.g (13.9 ppg) and 135 bbls (21.5 m3) of 1.56 s.g (13.0 ppg) LTOBM. Note: displacement was cut 20 bbls short to ensure pipe was dry.
- To prevent swabbing the lower annular was closed and pipe stripped back to 3030m
- Cement plug #1 was in place and pipe above ETOC at 17:00 hrs on October 23, 2004.

A Dowell wiper dart was dropped and displaced out of the string at 3 BPM (475 lpm), 30 rpm. As the hole was still taking fluid when circulating, it was decided not to circulate a complete bottoms up at 3030m. With the next viscous pill to be spotted at 2360m, an attempt was made to strip out of the hole. However, as the pipe was still pulling wet, it was decided to pump out of the hole.

Plug #2: theoretical setting depth of 2260-2010m using 8 1/2" hole and 25% open hole excess

- A 100m viscous pill was to be pumped at 2360m (=23 bbls). As there was still sufficient viscous pill left in the pits, it was decided to pump 40 bbls viscous pill.
- To assist in reducing the losses, Cem-net fibres were mixed in the cement slurry.
- Cement plug #1 had been under-displaced by 20 bbls. However, the pipe was still pulling wet. Therefore, it was decided to under-displace cement plug #2 with 25 bbls.

The 3 ½" mule shoe was pulled back to 2355m and a 40 bbls (6.4 m3) viscous pill was pumped and chased with mud spotting 13 bbls of the pill outside the mule shoe. The string was then pumped out of the hole to 2260m, thereby spotting viscous pill in open hole.

- The rig pumped 56 bbls (9.0 m3) of 1.67 s.g (13.9 ppg) spacer (46 bbls in the string, 10 bbls in the surface lines).
- Dowell unit mixed and pumped 75 bbls (11.9 m3) of 1.80 s.g (16 ppg) Class 'G' cement slurry using 43 bbls (6.8 m3) of mix water and 0.67 lb / bbl Cem-net fiber at 3.5 BPM.
- The cement unit cleared its lines by pumping 3 bbls of mix water.
- The rig pumps then displaced the cement with 10 bbls of spacer and 70 bbls (11.1 m3) mud at 1.56 s.g (13 ppg) LTOBM at 4 BPM (635 lpm), 40 RPM. The cement plug was left 25 bbls under-displaced. Note: During displacement of cement, 33 bbls (5.2 m3) of mud was lost to the formation.

- To prevent swabbing the lower annular was closed pipe was stripped back to 2000m Note: pipe stripped dry.
- Cement plug #2 was in place at 05:30 hrs on October 24, 2004.

A wiper dart was dropped and displaced out of the string at 3 BPM (475 lpm) – 570 psi (39 bar) and 75 rpm. The loss rate was dropping gradually from 40% to 20%. The program required to circulate bottoms up at this point. If no full returns were obtained, the program required to pull back to the casing shoe, circulate bottoms up and run back in to 2000m for the next cement job. Considering the fluid losses being below 20% and the long tripping times in open hole, it was decided to continue to circulate at 2000m. The pump rate was increased gradually to 4.5 BPM (715 lpm) – 800 psi (55 bar) and 75 RPM thereby maintaining a loss rate below 20%. Observed cement contamination in the returns ± 250 bbls prior to bottoms up at the shakers. The riser was boosted and a total of 178 bbls (28.3 m3) of contaminated mud was diverted to the slops pit. A total of 1.2 times bottoms up was circulated until the shakers were clean.

Plug #3: theoretical setting depth of 2000-1750m based on 9" hole with 10% open hole excess

- The well had been logged down to ± 2135m. As a consequence, more knowledge of the hole size was available. Consequently, open hole excess could be reduced.
- With success of last plug under-displaced by 25 bbls the same was programmed for plug #3.
- Plug #3 was being set directly on top of plug #2 so there was no requirement for a viscous pill.

The mule shoe was located at 2000m for plug #3:

- The rig pumped 56 bbls (9.0 m3) of 1.67 s.g (13.9 ppg) spacer (46 bbls in the string and 10 bbls in the surface lines).
- Dowell unit mixed and pumped 75 bbls (11.9 m3) of 1.80 s.g (16.0 ppg) Class 'G' cement slurry using 43 bbls (6.8 m3) of mix water and 1.7 lb / bbl Cem-net fiber at 3 BPM.
- The cement unit cleared its lines by pumping an additional 3 bbls of mix water.
- The rig pumps displaced the cement with 10 bbls (1.6 m3) of spacer (surface line volume) and 60 bbls (9.5 m3) of 1.56 s.g (13 ppg) LTOBM at 4 BPM (635 lpm) – 500 psi (34 bar) and 40 RPM. The cement plug was left 25 bbls under-displaced.
- While pumping and displacing the cement, a total of 28 bbls (4.5 m3) mud was lost to the formation.
- The lower annular was closed and pipe stripped (dry) to 1630m to prevent swabbing.
- Cement plug #3 was in place at 14:30 hrs on October 24, 2004.

A Dowell wiper dart was dropped and displaced out of the string at 4 BPM (635 lpm) – 500 psi (34 bar) and 40 rpm with no losses noted. The pumps were staged up to 420 gpm (1590 lpm) – 2300 psi (157 bar) and the hole was circulated clean without losses nor was any cement contamination noted at the shakers.

A 30 bbl (4.7 m3) hi-vis pill was then spotted on bottom prior to pulling out of hole from 1630m to 1480m without swabbing and having to strip through the annular.

Plug #4: theoretical setting depth of 1480-1280m based on Caliper results with 10% open hole excess

- As the fluid losses seemed to be cured, no Cem-net fiber was mixed in the cement slurry.

The mule shoe was located at 1480m for cement plug #4:

- The rig pumped 56 bbls (9.0 m3) of 1.67 s.g (13.9 ppg) spacer (46 bbls in the string and 10 bbls in the surface lines).
- Dowell unit mixed and pumped 84 bbls (13.3 m3) of 16 ppg Class 'G' cement slurry using 48 bbls (7.6 m3) of mix water at 3.5 BPM.
- The cement unit cleared the lines by pumping 3 bbls of mix water.
- The rig pump then displaced the cement with 10 bbls of spacer (surface line volume) and 35 bbls of 1.56 s.g (13.0 ppg) LTOBM at 4-7 BPM (635-945 lpm) – 600 psi and 40 RPM.
- The cement plug was left 25 bbls under-displaced.
- No fluid was lost to the formation while setting plug #4.
- The pipe was pulled dry to 1200m, no swabbing occurred therefore annular remained open.
- Cement plug #4 was in place at 20:30 hrs on October 24, 2004.

A Dowell wiper dart was installed and displaced it out of the string at 4.5 BPM (715 lpm) – 415 psi (28 bar) and 75 RPM with no losses noted. Circulation was continued staging the pumps up to 10 BPM (1590 lpm) – 2150 psi (148 bar) and 75 RPM. Cement returns were observed at the shakers ± 120 bbls prior to bottoms up. The contamination was circulated out while boosting the riser. A total of 161 bbls of contaminated mud were diverted to the slops pit. A total of 1.1 times bottoms up were circulated without losses.

The well was flow-checked and found static. A slug was pumped and the entire assembly pulled out of hole and laid down (75 joints of 5" DP, 50 joints of 3 ½" cement stinger and 1 mule shoe joint). This phase of the abandonment was complete at 11:30 hrs on October 25, 2005.

Final fluid losses to the formation were +/-1130 bbls since losses started on October 16, 2004.

Casing displacement to seawater

Ran in the hole with 5" open-ended muleshoe to 1200m. Washed down with 2 BPM (320 lpm) to tag the top of cement at 1278m. Made up the cement stand, spaced out and closed the Middle Pipe Rams (5" fixed). Pressure tested the casing and cement successfully to 1500 psi / 15 min (104 bar).

Waited for the pits to be cleaned and the clean up pills to be mixed before displacing the casing to seawater. While waiting, ½ sponge wiper ball was loaded into the booster line and ¼ sponge ball was loaded into the choke line (unable to load one in the kill line) Thereafter, the casing was circulated with LTOBM at 718 GPM (2720 lpm) to warm up the mud. About 120 bbls prior to bottoms up, large amount of green cement returns were observed at the shakers (± 1 skip).

Once the pits were clean and the clean up pills mixed, the sponge balls were displaced through the choke and booster lines with SafeSurf pills. The kill line was also displaced to SafeSurf pill.

Pumped the clean up train consisting of 88 bbls of base oil, 50 bbls of SafeSurf pill, 57 bbls of SafeSolve pill and 85 bbls of SafeSurf pill. Displaced the LTOBM out of the hole with seawater at 960 GPM (3635 lpm) and 60 RPM. Once the pills had been displaced past the BOP's, the choke, kill and boosterlines were displaced to seawater. A total of ± 590 bbls of fluids were diverted to the slops pit.

Pulled out of the hole and laid down 5" DP. Jetted across the wellhead and BOP's on the way out.

Set bridge plug@ 647m & cement plug #5@647-447m

- At this point in time, there was an excess of class 'G' cement on the rig and ± 17MT of class 'G' cement c/w 35% silica. It was decided to use the class 'G' cement c/w silica to set cement plug #5. Once the "silica" cement was finished the plan was to continue with "normal" 'G' cement.
- The program required to pump a chemical wash ahead and behind of cement plug #5. The chemical wash was to clean the casing and improve the chance for a better cement bond with the casing. As a train of cleanup pills had been pumped prior to displacement to cement, and a bridgeplug was set, it was decided that there was no real need for the chemical wash.
- As the cement was to be mixed with seawater, no drillwater spacer was pumped ahead and behind the seawater.

Ran in hole with the Schlumberger (Peak) 13 3/8" SVCR bridgeplug to 648m. Dropped the 1" ball and set the bridgeplug at 647m (top of plug) with 2000 psi. At this point, the pressure did not bleed off as per design. Took an overpull to 43k lbs (19 MT) Slacked of 4k lbs (1.8MT) to confirm the plug was set – all fine. Bled off pressure at surface. Took a small overpull 1k lbs (0.5MT) and released the running tool with 5 Right Hand turns.

When pulled above the bridgeplug and attempted to establish circulation with the cement unit prior to the cement job, there was no flowpath. Retagged the bridgeplug to confirm it was set. Pressure up to shift the running tool to 2500 psi without success.

As the depth was shallow (647m), it was decided to pull out of hole with the bridgeplug running tool and run in with the 5" open-ended muleshoe to set the cement plug.
Re-tagged the bridgeplug with the 5" muleshoe.

Mixed and pumped ± 60 bbls (290 sxs) of 16 ppg Class 'G' cement slurry c/w 35% silica flour and ± 37 bbls (179 sxs) of 16 ppg Class 'G' cement slurry using a total of 58 bbls of seawater at 4 BPM. Displaced cement with 16 bbls of seawater with the cement unit to leave the cement plug 10 bbls underdisplaced.

Pulled out of hole dry to 440m. Circulated with 1025 GPM (3880 lpm) and 50 RPM. Observed cement in the returns at bottoms up. Therefore continued to circulate a total of 1.5x bottoms up. Dropped sponge wiper ball to clean the drillpipe and displaced the same out the string with 5.5 BPM (875 lpm), 0 psi (0 bar).

Pulled out of hole while laying down 5" DP.

Clean riser and retrieve wearbushing.

Made up the wearbushing retrieval tool assembly consisting of a jet sub, stand of 5" DP, wearbushing pulling tool, and sufficient DP to space out the SPS AFOS riser brush 2.38m above the flexjoint when the pulling tool is landed.

Ran in the riser, working each stand 2 times without pumping and rotation to clean the riser. Jetted the wellhead and BOP's 4 times at 1150 GPM (4355 lpm) and 30 RPM (total of 1.25 bottoms up) using seawater.

Latched the wearbushing at 418.5m and disengaged same with 25k lbs (11.3MT). Pulled out of hole, racking back the 5" DP. Laid down the riser brush and the wearbushing.

Note: When the riser was pulled, it was clean of OBM.

Pulling BOP's and riser.

It took about 5 hrs to prepare to pull riser. All the automated equipment such as the hydraulic mud bucket, roughneck tracks and monkey arm of the catwalk had to be removed. Then the riser gimbal had to be installed in the rotary and the riser handling grippers installed on the gantry (deck) crane.

Pulled the riser in a total of 34.5 hrs.

The pulling of the riser and the BOP's was suspended for 6.5 hours to allow manpower for backloading operations. Backloading had been prioritized above pulling riser for the following reasons:

- After a visit of the PSA a few weeks before it was noted that the gantry crane was only allowed to be operated by a fully certified crane operator.
- Stena Dee had only 1 certified crane operator on dayshift.
- There was an anticipated upcoming shortage of AHV's due to resumed activity after a labor strike, which could make it difficult to hire an extra AHV. Therefore the dedicated AHV / supply / standby vessels Northern-Corona and Northern-Challenger had to be filled up with backload, sail to Kristiansund, be completely offloaded and sail back to be back in time for anchor handling operations.

With riser operations being postponed, more manpower was available to clean the surface equipment, shakers and pits.

Cutting and Retrieving the Wellhead

The Weatherford casing / WH cutting assembly was made up consisting of:

- Cutter assembly c/w motor
- MOST tool
- 6x 8" DC's
- 5" DP

The cutters were spaced out, such that when the MOST tool landed out on top of the HPWH @ 418.2m, the casing would be cut 5m below the seabed, i.e. at 426.5m.

Ran in the water and landed out the MOST tool (pick up weight of 135k lbs = 61 MT). Latched and locked the MOST tool and took 56k lbs (25.4MT) overpull. Commenced cutting the 30" / 20" casing in tension with 850 GPM, 2200 psi (3220 lpm, 152 bar). A short drop in the pressure indicated that the 30" casing was cut.

After 55 minutes of cutting, the MOST tool released itself from the wellhead. The ROV flushed and cleaned the wellhead and the rig position was trimmed to centralize the pipe in the HPWH housing (possible reason for the MOST tool releasing early). The MOST tool was re-latched and a 15k lbs (6.8 MT) overpull taken.

Continued to cut the 20" casing in tension with 850 GPM, 2100 psi (3220 lpm, 145 bar). ROV observed returns at the seabed. After 20 minutes of cutting, the MOST tool released itself again. ROV inspected and cleaned the wellhead as second time.

As the MOST tool continued to release itself while cutting in tension with the potential to damage the wellhead, it was decided to complete the cutting in compression. Set down 25k lbs (11.3 MT) on top of the wellhead, and continued to cut the casing. After 40 minutes of cutting casing in compression at 850 GPM, 2100 psi (3220 lpm, 145 bar) an unsuccessful attempt was made to pull the wellhead free with an overpull of 120k lbs.

Cutting was re-commenced and completed after a further 5 minutes. Pump pressure started to increase gradually to ± 2400 psi, whereafter it spiked to 2900 psi. The pumps were shut down immediately. Well head pulled free without any overpulls and continued to pull out with 155k lbs upweight (70MT).
Laid down the cutting assembly and disengaged the HPWH from the PGB using the 18 ¾" CART tool. Both the 30" and 20" casing were pulled out and laid out simultaneously.

Final stages / pulling anchors

All remaining 5" DP, 5" HWPD, 8" and 6 ½" DC's and EDPHOT were laid out from the derrick onto deck. Meanwhile continued to clean the pits.

Worsening weather conditions required waiting on weather for 31.5 hrs before commencing with the anchor handling. The rig was meanwhile de-ballasted to survival draught. The 1st of November at 17:00 hrs the weather improved and the rig was de-ballasted to transit draught. Anchor handling was commenced by passing #7 pennant to the "Northern Corona" and #3 pennant to the "Northern Challenger". The anchors was pulled and bolstered in the following order: #7, #3, #6, #2, #4, #8, #1, #5. During the anchoring operation the tow bridle was passed to the "Northern Challenger". The last anchor was bolstered at 18:05 hrs and the rig was under tight tow and off contract November 2 at 18:30.

Delays:

Repair broken fitting on hydraulic mud bucket	0.5 hrs
Unable to get into reservoir with MDT on wireline	1.5 hrs
Unable to cement thru stinger of bridgeplug	6.5 hrs
Unplanned release of MOST tool	2.5 hrs
WOW	31.5 hrs
Section Total	*42.5 hrs*

4.2.1 LOT Summary

Time	Volume Pumped	CMT unit pressure	EMW Shoe
Min	bbl	psi	ppg
0	0		
1	0	0	12,87
2	0,4	130	13,42
3	0,8	270	14,02
4	1,2	390	14,53
5	1,5	500	15,00
6		425	14,68
7		390	14,53
8		370	14,44
9		350	14,36
10		335	14,29
11		320	14,23
12		310	14,19
13		302	14,15
14		295	14,12
15		290	14,10

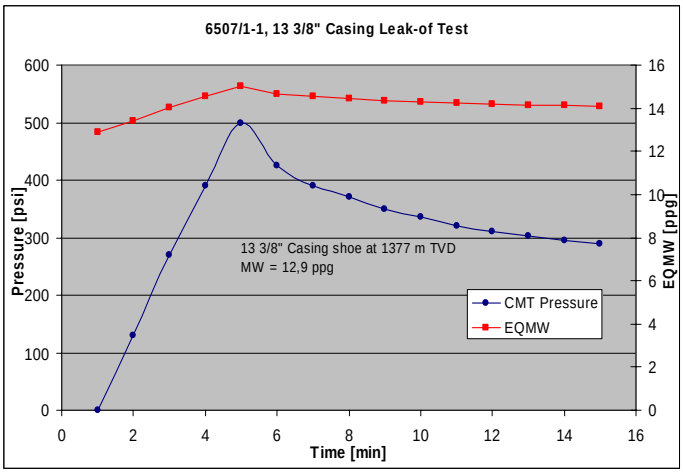

Table 4.2.8.1

4.2.2 Environmental Discharge Summary

Application for a Discharge Permit

According to Norwegian regulation, a Discharge Permit Application shall be submitted to the Norwegian State Pollution Authority as a part of the Application for Consent. As the application can be subject to a public review, the document should be submitted 9 – 12 weeks before spud.

Chemicals are split into four categories, depending on their toxicity. A color code is used with "black" chemicals as the most toxic. These are in general not allowed discharged to the environment. "Red" chemicals are prioritized for substitution, "Yellow" chemicals are acceptable and finally "Green" chemicals are classified as PLONOR chemicals (Pose Little Or No Risk). A Discharge Permit is not split on the different chemicals, but pooled into a permit to discharge certain amounts of "red" and "yellow" chemicals. The discharge application for well 6507/1-1 contained no "black" chemicals for discharge, one red chemical and six "yellow" chemicals. Contingency chemicals and chemicals in OBM, which are not planned discharged, are not included in the discharge permit.

The Discharge Permit Application for well 6507/1-1 (CTR-C1-DR-04.0020) was submitted to the Norwegian State Pollution Authority 11 June 2004 with additional information sent 23 June 2004. The document was based on input from:

- MI-SWACO – Planned use and discharge of drilling mud, handling of OBM
- Schlumberger – Dowell – Planned use and discharge of cement
- Stena Drilling – Planned use and discharge of rig chemicals
- Vestbase – Handling of waste

Discharge permit

A discharge permit from Norwegian State Pollution Authority was granted 30 June 2004, with acceptance for all applied discharges.

Actual discharges

A complete list of the use and discharge of all chemicals listed in the Application for Discharge Permit is listed in Appendix. Below is a list of red and yellow chemicals that were included in the application.

Chemical	Color code	Use	Planned use	Planned discharge	Actual use	Actual discharge	Discharge permit	% of permit
Bestolife	Red	Dope	100 kg	20 kg	246 kg*	15 kg **	20 kg **	75 %
Glydril	Yellow	Drill	18 MT	18 MT	4,9 MT	4,9 MT	18 MT	27,5 %
B143	Yellow	Cement	0.7 MT	0.2 MT	0.5 MT	0.02 MT	0.2 MT	10 %
D193	Yellow	Cement	2.1 MT	0.2 MT	0 MT	0 MT	0.2 MT	0 %
U66	Yellow	Cement	8.4 MT	8.4 MT	0 MT	0 MT	8.4 MT	0 %
Stack Magic	Yellow	Rig	1 MT	1 MT	0.6 MT	0.6 MT	1 MT	60 %
Erifon ***	Yellow	Rig	0 MT	0 MT	2.6 MT	2.6 MT	0 MT	-
Dyno clean	Yellow	Rig	1 MT	1 MT	3.2 MT	3.2 MT	1 MT	300 %

* 169 kg were used in connection with OBM, resulting in 0 kg discharge. The use of OBM is regulated in a separate chapter in the Application Permit and a total of 37 metric tons are accepted used (total actual use was approximately 9.5 metric tons)

** The Discharge Permit for Bestolife is accounted as the percentage content of red substances. The numbers referred to in the table total weights. The discharge permit is actually 8 kg, as the content of red chemicals is 37.7 %

The Discharge Permit covered a discharge of 20 kg red chemicals (see not above on content of red substances) and 26.62 MT yellow chemicals. The actual discharges were respectively 15 kg red chemicals and approximately 11 MT yellow chemicals. The reasons for the “low” discharge of yellow substances were mainly no use of U66 and reduced use of Glydril.

The hydraulic chemical Stack Magic 200 N was replaced with Erifon HD 603 N. This can be done without approval as both chemicals are yellow and the replacement chemical is equal to, or better, than the replaced chemical. However, the discharge quantity of hydraulic fluid was larger than reflected in the Application for Discharge Permit. As long as this is a yellow chemical, the volumes are low and the total discharged volumes of yellow chemicals were only 40 % of the permitted discharges, no mitigation measures were implemented.

Total use and discharge of chemicals. All units are in metric tons (MT)

Product	Total use 6705/1-1	Total discharge 6507/1-1	Discharge permit	Percentage of discharge permit used
Drilling chemicals				
Barite	492,79	153,24	612,00	25,04 %
Lime	9,22	0,00	1,08	0,00 %
Bentonite	61,00	61,00	99,00	61,62 %
Soda Ash	1,04	1,04	2,61	39,66 %
DUO-TEC NS	2,14	2,03	2,73	74,18 %
CMC EHV	0,88	0,88	15,12	5,79 %
Glydril	4,95	4,95	18,03	27,45 %
KCl brine	28,00	28,00	355,00	7,89 %
Polypac ELV	2,10	2,10	7,65	27,45 %
Cement chemicals				
Cement Class G (D907)	314,00	4,00	48,00	8,33 %
Liquid Antifoam (B143)	0,49	0,02	0,18	8,44 %
Silicate Additive (D75)	4,45	0,05	1,10	4,45 %
Liquid Accelerator (D77)	1,44	0,00	0,50	0,00 %
CemNet (D095)	0,10	0,00	0,05	0,00 %
Dispersant (B165)	1,49	0,00	0,30	0,00 %
Retarder (D81)	0,04	0,00	0,30	0,00 %
Microblock B018			1,20	0,00 %
Retarder B151			0,09	0,00 %
Viskosifier B174			0,54	0,00 %
Silicapowder D66			1,80	0,00 %
Anti settling D153			0,15	0,00 %
Fluid loss control D193			0,01	0,00 %
DeepCRETE dry blend			2,50	0,00 %
Mutual Solvent U66			8,40	0,00 %
Cont. Chem Cement				
Sea Dye (Dyno MS 200)	0,08	0,03	0,03	100,00 %
Drilling chemicals OBM				
EDC 95/11	175,73	0,00		
Versavert PE	6,76	0,00		
Versavert SE	3,66	0,00		
Versavert F	3,46	0,00		
Lime	0,00	0,00		
Bentone 128	4,83	0,00		
Bentone 38	0,00	0,00		
CaCl2	15,34	0,00		
G-seal	4,83	0,00		

Total use and discharge of chemicals. (continued)

Cont. Chem drilling				
Safe Solv 148	1,60	0,00		
Safe surf E	2,00	0,00		
CaCo3 F	2,46	0,00		
CaCo3 M	5,54	0,00		
CaCo3 C	4,73	0,00		
Safe cide	0,00	0,00		
Safe cor E	0,00	0,00		
Safe Scav NA	0,00	0,00		
Rig chemicals				
Bestolife 3010 Ultra	0,25	0,02	0,02	75,00 %
Mercasol				
MEG	0,60	0,60	0,60	0,00 %
Stack Magic 200N	0,60	0,60	1,00	40,00 %
Erifon HD 603 N	2,60	2,60	0,00	-
Dynoclean	3,20	3,00	1,00	300,00 %

Summary	Discharge permit	Actual discharge	% of discharge permit
Black	0	0	
Red	0,02	0,02	75,00 %
Yellow	26,62	11,16	41,94 %
Green	-	952,19	

4.1.3 Material Consumption

Material Consumption:

Period	Route	Ton
08/09-29/09	Out bound	2.134,5
03/10-05/11	In bound	2.049,1
	Total basis for invoice	*4.183,6*

Fuel Consumption: total of 2200m^3

4.3 Attachments

4.3.1 Marine Report Summary.....
4.3.2 Casing Summary .....
4.3.3 BHA Summary.....
4.3.4 Bits and Hydraulics Summary.....
4.3.5 Survey Summary

Attachment 4.3.1
Marine Report

ChevronTexaco Norge A/S

Sahara Well Project

Marine Surveyor Services

0	For Information	10.11.04	RCJ	DM		
Rev.	Description	Date	Prepared	Checked	Disc. Sup.	Client

Document Title

'STENA DEE' – SEMI-SUBMERSIBLE DRILLING RIG
RIG MOVE REPORT

Document Number

LOCN/5/1249 RP-002					**0**	**8**
Origin Code	Discipline Code	Project Code	Document Code	Sequence No.	Revision	No. of Sheets

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2.0 RIG MOVE COMMENTARY

3.0 POST RIG MOVE NOTES AND COMMENTS

ATTACHMENT A: ANCHOR DEPLOYMENT PLAN

ATTACHMENT B: ANCHOR HANDLING LOGS

EXECUTIVE SUMMARY AND RECOMMENDATIONS

Safety and operations:
The rig was moved from Invergordon to Sahara field location without incident or accident and according to the procedures agreed prior to starting operations. Communications between the rig staff, ChevronTexaco and the A/H vessels were good throughout the operation. The vessels, 'Normand Mariner', 'Northern Challenger' and 'Northern Corona' worked efficiently, professionally and safely, with a high degree of co-operation between all parties

During the tow communications from the rig to /from shore were difficult, particularly considering today's hi-tech equipment and capability. Thus Emergency Preparedness / bridging document details, including back-up systems were invalid until the rig was finally set-up on location. During the tow the rig was assisted by the towing vessel, 'Normand Mariner', and utilised for relaying relevant communications and arrival notifications when the rig systems were not functioning.

Manning.
Marine manning on the rig for preparations for rig move, during the tow and anchor handling operations was adequate, but appeared to be lacking in anchor winch operators. This meant that only two winches could be run simultaneously and contributed to additional anchor handling time. Basically only two vessels could run anchors at any one time. The 'Stena Dee' bridge and operations room officers were very experienced and vessel masters / towmaster worked well together to overcome minor mechanical difficulties during operations.

Tow, Anchor Handling operations and time
There were in depth discussions on the subject of vessel requirements, in house and with MLS during the build up to mobilisation. This resulted in good liaison and decisive actions during the vessel chartering. Chevron Texaco were then able to take advantage of the market situation and obtain low rates for the preferred vessels.
For example, at a very low market charter rate, the lead vessel selected had a higher bollard pull than minimum requirement, comprehensive power management, multi-role winch capacity for work wires, towing gear, additional chain storage, etc. This enabled chain deployment, anchor handling and towing duties to be performed without operational restrictions saving time and subsequent costs.

The rig was de-ballasted and mobilised with the essential deck cargo only, to establish a draught of 8.9metres. This set the rig with the pontoons awash and the cross members just dipping. With the one vessel in the bridle pulling an average 100t bollard pull, an average tow speed of 5.2 knots was achieved from rig sail-away, Invergordon, to end of sea passage at the Sahara location. This was faster than the anticipated 4 knots due to maintaining the rig at transit draught in the heavy weather, plus, a following sea conditions with Southerly winds throughout the tow. The passage planning was better than anticipated as the convoy followed behind the severe weather system immediately to the North.

The Anchor Handling operation targeted a weather window seen to be developing in the field on arrival. This was achieved, with anchor handling operations completed within the 16 hours weather window. Cross tensioning and skidding to final position was completed once the increase in weather and sea state had passed through.
The time, taken from swinging onto the approach line through to final anchor tension tested was 25hours. The actual handling time from first approach drop anchor #5 on the bottom, to last anchor #6 pennant back to the rig was 12hours. Ballasting the rig down to final operating draught was completed during the weather downtime.

Time was lost with the re-setting of anchor number 3 due to the anchor slipping on cross tensioning. On lifting, the anchor was found rotated with the chain underneath. Time was taken to re-set and establish a new drop position, 50m further out within an identified depression on the seabed. Fluke angles remained the same and on re-tensioning anchor #3 set firm with 125 tonnes
There was additional slight delay due to a electrical problems with the chain winch #7 winch – 25mis

Weather:	Wind:	Sea:
The weather during the tow from Invergordon:	S/SW 35kn	Max 5.0m
The weather during anchor handling at Sahara:	S / W 25kn	2.5m building max 4m
The weather during final pretension and skidding:	W 20kn	2.0m
The weather during anchor handling, departure:	SW 40kn	Max 5.0m

Recommendations:

1. During the engineering and pre-mobilisation phase, the effects of rig heading and proposed mooring configuration were studied.
   In summary, the proposed heading of 225° was studied with regard to weather and wave statistics adjacent to Sahara, with due account given to experience from other rig operations in the area. The heading of 225° was agreed. After due consideration and discussions around the mooring analysis, 6 anchor chains were extended with lengths varying from 330m to 559m, to provide an acceptable scope of 1700 to 1800m. A total of 2271m of chain were added to the existing mooring system provided on the rig, prior to sail away from Invergordon. This resulted in an acceptable, secure and trouble free mooring configuration offshore, with final scope of between 1625 and 1835m after cross tensioning.

   It is recommended that similar considerations are given to future mooring operations, However, this should be carried out at an earlier stage of the project to allow input into a realistic deep water anchor analysis, that also takes account of dynamic effects.

2. During pre-mobilisation review of the mooring analysis, the practical aspects and effects of seabed condition and anchor handling with adjustable Stevpris mk5 Anchors was addressed.
   Existing soils data was studied and after consultation with anchor manufacturers Vryhof, Stena and with experience from operators of adjacent fields, it was decide to set the fluke angles of the anchors at shallow angle 32°. This was based on having the anchors bite into the stiffer clays, underlying soft surface silts varying from 1m to 10m across the mooring area. Potentially in the deeper silts to the South of the field a worse case scenario would be to open out the fluke angle to 45° should slipping occur. 3 sets of Piggyback anchors (one for each vessel) were taken offshore as an ultimate contingency.
   The anchors responded as anticipated during tensioning with only #3 dragging in soft silt. As reported the repositioning of this anchor in a favourable seabed location 50m further out resolved the problem without adjusting the fluke angle.

   It is recommended that similar considerations be given to future mooring operations, when assessing rig equipment and implications of mooring analysis results. However, this should be carried out at an earlier stage of the project to allow time for necessary logistics to be planned.

3. Consideration for mobilisation of navigation equipment to 2nd and / or 3rd anchor handling vessel at port of mobilisation for that vessel. This ensures no loss of rig time once the vessel is location. This obviously requires planning and is dependent on the rig and operation situation (including weather and prospects for working).

4. When rig moving to locations this far north and beyond, provision of any additional mooring equipment – such as piggyback sets, should be confirmed available from more than one port; for example Stavanger and Kritiansund. This allows maximum flexibility for vessel and equipment mobilisation and de-mobilisation.
   On this project the flexibility of the supplier IOS allowed mobilisation of 3 sets of piggyback anchors in Stavanger and / or Kristiansund, plus, non-planned demobilisation of equipment in Kristiansund.

5. Ensure sufficient and experienced crew on board rig during final preparations for departure and for anchor handling operations. This may include provision of some or all the following and requires proper evaluation for potential rig time saving and working hours:
   Back shift barge engineer, additional crane operator, mooring winch drivers and tow master.

1.0 RIG MANNING, STATUS, AND VESSELS

1.1 KEY PERSONEL

ChevronTexaco Marine Representative: Robert Johnson
Chevron Texaco Drilling Supervisors: Ken Russell

'Stena Dee' Towmaster: Keith Johnstone
'Stena Dee' OIM: Martin Ransome
'Stena Dee' Barge Engineer: Kevin Cox

Positioning: Fugro TGS:

1.2 RIG STATUS

Status on arrival at rig 07.00 hrs - 13 September 2004.
Rig moored in Invergordon roads. Third rig in: Back-loading all extra equipment / containers/ construction materials ongoing following crane modifications. Normand Master arrived 06.00 with some 2271m chain, piggyback anchor sets and project equipment from Stavanger. Seafastening of equipment etc, required prior to de-ballasting rig. Fugro were in attendance on board and setting up their equipment. Weather reasonable and local forecast good for anchor handling operations through to Sailaway 06.00hrs – 16 September. Additional A/Hs due to commence charter during Rig sailaway for rendezvous in the field. A potential problem exists for Northern Challenger, currently weather bound and committed to rig move by others. Northern Comrade expected with bulks from Aberdeen within 24 hours for anchor handling and escort duties to assist departure from Cromarty.

1.3 ANCHORING HANDLING VESSELS

Normand Mariner **(Mariner)**. On-location (Invergordon) from Stavanger with Spud equipment at 13.09.04 – 05.30hrs.
Fuel: GO 789cbm, Lubs 42,240lts. Spec: 23.500 BHP and 282 tonnes bollard pull.
Fixed with on-hire Bergen 22.00 hrs – 20.09.04 with delivery via Stavanger and re-delivery Bergen or equivalent distance.

Northern Corona **(Corona).** On-location (Sahara) 21.09.04 – 14.00hrs with bulk and cement from Kristiansund.
Fuel: GO 400cbm, Lubs 13,261ltrs, PW 500cbm, Spec: 15,600BHP and 168 tonnes bollard pull.
Fixed with on-hire Bergen with delivery via Kristiansund and re-delivery Bergen

Northern Challenger **(Challenger).** On-location (Sahara) Delivery after Anchor Handling operations: Fixed with possible hand-over from previous charterers and re-delivery Aberdeen. Spec: 15,600BHP and 168 tonnes bollard pull.

Northern Comrade **(Comrade)**: On Location (Invergordon) from Aberdeen with bulk and deck cargo 16.09.04 – 05.30hrs Hrs.
Fuel: DO 321bm, Lubs 13.014ltrs. PW 202cbm. Spec: 11,140 BHP, 146 tonnes bollard pull.
Fixed day by day with delivery /re-delivery Aberdeen.

2.0 RIG MOVE COMMENTARY

Attendance Log: See Attachment B

3.0 POST RIG MOVE NOTES AND COMMENTS

1. Input has been listed into the '**Lessons Learnt'** document regarding the recommendations on anchor fluke angle and anchor chain length.

2. Mobilisation of IOS piggyback sets was planned for Stavanger and Kristiansund, with confirmation that pick-up of all 3 sets could be from either location, if required. Stavanger was requested for pick-up port for all chain, associated kenter links and one piggyback set. The IOS service was excellent with efficient preparation of good condition equipment with full certification. Delivery of all equipment was again very flexible and Kristiansund was chosen to simplify in house logistics.

3. Communications during the rig transit move have proved very difficult and problems with receiving e-mail and fax weather updates experienced throughout.

4. The Third AHV, 'Northern Challenger, with intended ETA at rig on location, was delayed by weather and subsequent commitments to previous charterers. The Anchor handling was actually carried out for the 'Stena Dee' with just two vessels causing a delay in setting the primary anchors of approximately 3 hours. Similarly approximately four hours were lost with the anchor lifting operation during demobilisation. In effect the latter was an effective cost saving operation as the market price for Anchor handlers was well above norm at the time. Both operations were managed successfully, however, closing weather windows of less than 14 hours have to be carefully considered if anchor handling with two vessels is to be undertaken. Rig delay is always a risk in weather-restricted operations.

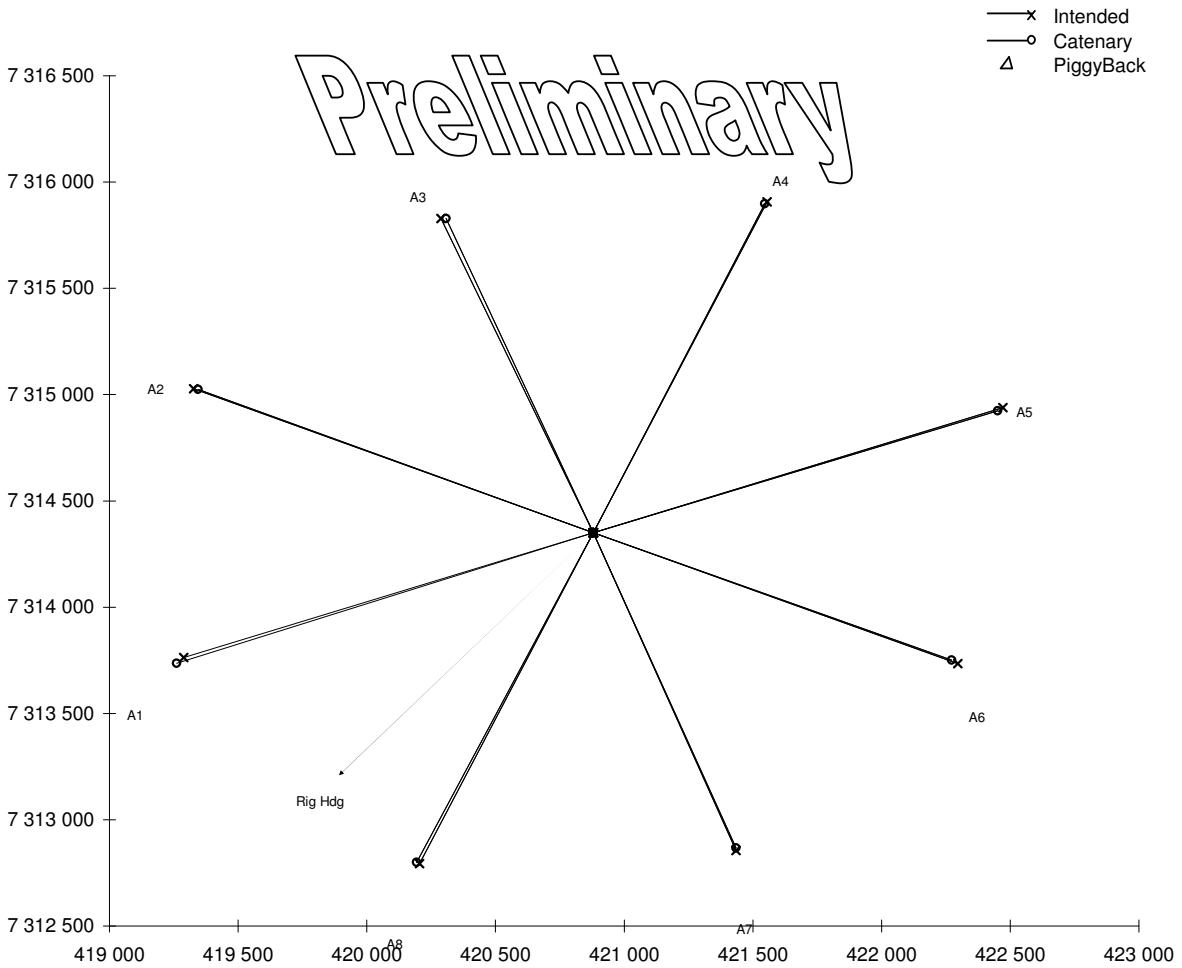
5. Electrical problems on No. 7 winch – Required repair. This fault was in the monitoring system for the winch and the winch operation was secure at all times. It was also noted during the operation that the monitoring computer software was at times out of step with actual deployed length of chain. General calibration is required to accommodate actual chain length at the fairlead prior to start, rather than manual correction during operations

6. Vessels generally worked well, particularly the 'Normand Mariner' The crew maintained a comprehensive dialogue with the Barge Master and Stena Dee Bridge, during operations. The vessel performed the towing duties without incident in poor sea conditions and continued into anchor handling duties very efficiently. The rig was on planned course line for the entire tow through to final approach to location.

ATTACHMENT A

ANCHOR DEPLOYMENT PLAN

ANCHOR PATTERN



Stena Dee	Final rig position:	7 314 350.0 N	420 880.0 E
6507 01-01	Rig heading:	225.0 True	226.6 Grid

		INTENDED ANCHOR POSITIONS				CATENARY ANCHOR POSITIONS			
		Northing	Easting	Brg (True)	Length	Northing	Easting	Brg (True)	Length
Anchor	1	7 313 763	419 289	247.5	1651	7 313 736	419 261	247.0	1687
Anchor	2	7 315 028	419 327	292.5	1651	7 315 024	419 345	292.7	1633
Anchor	3	7 315 829	420 288	336.0	1550	7 315 829	420 309	336.7	1542
Anchor	4	7 315 906	421 556	022.5	1651	7 315 898	421 547	022.3	1640
Anchor	5	7 314 938	422 471	067.5	1651	7 314 923	422 452	067.8	1627
Anchor	6	7 313 734	422 297	112.5	1501	7 313 751	422 273	112.3	1472
Anchor	7	7 312 855	421 435	157.5	1551	7 312 868	421 435	157.3	1539
Anchor	8	7 312 794	420 205	202.5	1651	7 312 799	420 194	202.9	1651

The co-ordinates refer to ED-50, UTM projection, Zone 32. Direction and length refer to fairlead.

CHEVRONTEXACO

(Mixed) **Initial Floater Report**

Riser	
Make:	VETCO GRAY MODEL 50
Size O.D.:	21.000
Wall Thickness:	1
Steel Grade:	X56
Wt./ M. In Air:	
Wt./ M. In Air W/Buoyancy:	
Wt./ M. In Water:	
Wt./ M. In Water W/Buoyancy:	54.80
O.D. W/Buoyancy:	
Length Each Joint:	15.24
Length of Pups:	
Riser Fill-Up Valve in System?:	
RKB to Valve:	

Mooring Configuration

Vessel Heading: 225.0 DEG

Line Number	1	2	3	6	4	8	5	7		
Size (Chain)	0.300	0.300	0.300	0.300	0.300	0.300	0.300	0.300		
Length Deployed	1835.0	1768.0	1680.0	1623.7	1779.0	1810.0	1763.0	1690.0		
Size (Wire)										
Length Deployed										
Anchor, Type, Wt.	STEVPRIS;15T	STEVPRIS;15T	STEVPRIS;15T	STEVPRIS;15T	STEVPRIS;15T	STEVPRIS;15T	STEVPRIS;15T	STEVPRIS;15T		
Pendent Size, Type										
Pendent Length										
Piggy Back, Type, Wt.										
Test Tension	28	28	28	27	31	27	29	28		
Working Tension	15	17	17	17	18	14	17	15		
Anchor Az	247.0	292.7	336.7	112.3	22.3	202.9	67.8	157.3		

Dynamic Positioning System Description:

Note:

Mooring Schematic

Tensioners	
Make:	RUCKER SHAFER 160
Number:	8
Capacity, Each:	80000

Slip Joint	
Make:	VETCO GRAY
Length:	
Stroke:	16.75M
Weight:	
Overall Stack Height:	

Measurements	
RKB to Sea Level:	
Water Depth:	396.50
RKB to Wellhead:	421.50

Rig: STENA DEE		AFE No: KWENO 650 711-001	Well ID: UB5980	Project No: 0	Page: 1 of 1
Drilling Rep: HOLLINS/SMJ/MOGEDAL	Field:	Lease: SAHARA	Well Number:		Date: 22-SEP-2004

CHEVRONTEXACO Mixed **Initial Tour Report**

Contractor:	STENA DRILLING LTD
Tool Pusher:	BRUCE/DENHOLM
Rig Type:	SEMI-SUBMERSIBLE
Derrick Substructure & Capacity:	MH-STANDARD 1030DERRICK; HEIGHT 160+20FT; 650T CAPACITY
Drawworks:	CONTINENTAL EMSCO, C-3 TYPE 2; 36" DIAMETER; MAX. 590ST
Prime Movers:	2X F316V & 2X F312V WARTSILA NOHAB; AT 900 RPM MAX. 2992 / 3808 HP
Generators:	X2 2100 & 2X 2800KW NEBB AC GENERATOR; AT 900 RPM GIVES 6000V OUTPUT
Electric Motors:	8X ABB 850 A, 720 DC VOLTS SCR'S; 2X ABB MNS MODULAR LOW VOLTAGE 900 A 750 DC

Pumps	Manufacturer	Type	Stroke	Rod Dia.	Liner Size	Maximum Oper Press	Powered By
1			12.000		6.000		
2			12.000		6.000		
3			12.000	0.000	6.000		

Crown Block:	MARITIME HYDRAULICS 650	# Sheaves: 7	# Lines: 14
Traveling Block:	MARITIME HYDRAULICS, MH 1068 TYPE 650; 7X 60" SHEAVES WITH 1.5" GROOVES		
Hook:			
Bails:			
Swivel:	PART OF DDM; RATING 650ST, TEST / WORK PRES = 10000/5000 PSI		
Rotary Hose:			
Rotary & Drive:	CONTINENTAL EMSCO, T-4950; RATED 650ST, 20,000NM, 20 RPM		
Aux. Equipment:	WATER DISTILLATION, BOILERS, AIRCONDITIONING, ELECTRIC WELDING SET, HP CLEANER		
Initial Fuel Inventory:			

Active Mud Capacity:	1X 59M3, 1X 73M3 AND 1X 85M3
Reserve Mud Capacity:	1X 132M3, 1X 118M3
Slugging Pit:	2X 17M3
Trip Tank:	1X 40BBLS
Mud Mixers & Agitators:	
Shale Shaker:	4X THULE RIG TECH LINEAR; VSM 100
Desander:	-
Desilter:	-
Aux. Solids Cont. Equip:	

Drill Pipe	Grade	Size	Weight	Footage	# Joints	Tool Joint

Collars	O.D.	I.D.	Weight	Footage	# Joints	Tool Joint

Diverter:	VETCO GRAY / KFDS; 47IN, 12" OD OUTLETS; 1034KPA

BOPS	#	Type	Manufacturer	Size	Pressure Rating

Accumulator & Cap:	HPU COOPER OIL TOO; 4240LTR / 3000 US GAL AT SURFACE; 8X SS BOTTLES 35GAL/EA
# Remotes:	1
API No:	6507/1-1
Type Well:	VERTICAL EXPLORATION WELL
Location:	SAHARA PROSPECT BLOCK 6507/1-1 NORWEGIAN CONTINENTAL SHELF
Datum:	0.00

Init Data			
		KB To Datum:	KB Elevation: (above sea level)
	Water Depth: 396.50	Leg Penetration:	Leg Preload:

Rig Name: STENA DEE			Well ID: UB5980	Project ID: 0	Page: 1 Of 1
Drilling Rep: HOLLINS/SMJ/MOGEDAL	Field:	Lease: SAHARA	Well Number:	AFE No: KWENO 650 711-001	Date: 22-SEP-2004

Attachment 4.3.2
Casing Report

CHEVRONTEXACO (Mixed) **Casing/Liner Landing Details**

Qnty	Description	O.D. in	Wt. ppf	Grade	Threads	Lgth. m	Ref #
1	20" SHOE	20.000	133.00	B	ST-2	6.60	
1	30" X/O MADE UP TO SHOEJNT	30.000	310.00	B	ST-2	6.95	
1	30" CSG JNTS	30.000	310.00	B	ST-2	12.22	
1	30" CSG JNTS	30.000	310.00	B	ST-2	12.20	
1	30" CSG JNTS	30.000	310.00	B	ST-2	12.23	
1	30" CSG JNTS	30.000	310.00	B	ST-2	12.24	
1	30" CSG JNTS	30.000	310.00	B	ST-2	12.23	
1	30" LPWH; 1.5" WT	30.000		B	ST-2	13.38	

Liner Hanger (If Applicable):	
Total Pipe Installed:	88.05
Less Cutoff Piece(s) and Landing Joints:	
DP To land Liner (If Applicable) TOL @:	419.40
Plus KBE (One Ft. Above Rotary To last CHF):	
Casing Set @: 507.50 TVD 507.50 MD Total:	507.45

Last Casing Size: @ MD | Hole Size: 36.000 @ 510.84 MD

Hole Volume From Caliper Log: bbl

Mud Properties Prior To Cementing: | WT: | Type: SPUD MUD

FV(sec/qt):	PV(cp):	YP(lb/100ft2):	Gels: /	WL:
HTHP WL:	Solids:	% Oil:	Sand:	pH:
PM:	CL:	Ca:	XLime:	Elec Stab:

Casing Reciprocation?: NO | Length of Stroke: Time: Hrs

Casing Rotated?: NO

Number of Centralizers/Wipers: 0 / 0 | Type: /

Spacing:

Cement Company: DOWELL | Yard Location: STAVANGER

First Stage | Circulation Time & Rate prior to cementing: 0.50 Hrs @ bpm | Return(Full/Partial):

Cement	Type	No. sx	Pump Time time @ temp	Yield ft3/sx	Weight: lb/gal est.	actual	Mix Water gal/sx	Comp. Strength psi	@ hrs	WL cc	Free water %
Lead	CLASS G CMT	891	4.4 Hrs @ 43	1.97	13.0		11.220				1.50
Tail	CLASS G CMT	1206	3.0 Hrs @ 43	1.16	16.0		5.200	1610	24.00		

Lead Cement Additives: 1 LTR/TONNE B143 ANTIFOAM; 34LTR/TONNE D075 EXTENDER | Additives liquid/blended: YES /

Tail Cement Additives: 1 LTR/TONNE B143 ANTIFOAM; 20 LTR/TONNE D077 ACCELERATOR | Additives liquid/blended: YES /

Spacer Type: Volume: Weight: PV YP: | Compatibility Test Run?:

Cement Displacement Rate: 10.0 bpm | Displaced With (Cement Unit/Pump) : PUMP | Estimated TOC: 421.50

Cement Returns? (Y/N): | Early Returns? (Y/N): | Est. sx Circulated: | Number of Plugs Used: 0 | Plug Bumped? (Y/N):

Second Stage | DV Tool Located @: MD | Circulation Time & Rate prior to cementing: 0.50 Hrs @ bpm | Return (Full/Partial):

Cement	Type	No. sx	Pump Time time @ temp	Yield ft3/sx	Weight: lb/gal est.	actual	Mix Water gal/sx	Comp. Strength psi	@ hrs	WL cc	Free water %
Lead			Hrs @								
Tail	CLASS G CMT	460	3.0 Hrs @ 43	1.16	16.0		5.200	1610	24.00		

Lead Cement Additives: | Additives liquid/blended: /

Tail Cement Additives: 1 LTR/T B143 ANTIFOAM; 20 LTR/D077 ACCELERATOR | Additives liquid/blended: YES /

Spacer Type: Volume: Weight: PV: YP: | Compatibility Test Run?:

Cement Displacement Rate: 7.0 bpm | Displaced With (Cement Unit/Pump) : PUMP | Estimated TOC: 421.50

Cement Returns? (Y/N): | Early Returns? (Y/N): | Est. sx Circulated: | Number of Plugs Used: 0 | Plug Bumped? (Y/N):

Remarks: 17.1/2" X 36" HOLE WAS DRILLED W/ 3-STAGE HOLE OPENER ASSY (22" X 26" X 36"). BIT TD OF 511M (BIT TO 22" = 1.23M
BIT TO 26" = 2.65M; BIT TO 36" = 3.24M); REAMING DURING DRILLING TO REDUCE ANGLE ; DISPLACED HOLE TO 9.6 PPG MUD & PERFORM
WIPER TRIP; NO HOLE PROBLEMS EXCEPT FOR +/- 2M FILL; LIGHT REAM TO TD; POOH
RAN 20" X 30" SHOEJOINT, 5 JNTS OF 30" X 1" WT INTERMEIDATE CONDUCTOR JOINTS W/ VETCO ST-2 CONNECTIONS; RAN 30" X 1.5" WT
LPWH, AND MAKE UP TO PGB; RUN THRU SPLASHZONE, FILL CONDUCTOR AND CLOSE BALL VALVE
STAB CONDUCTOR IN OPEN HOLE AND RAN TO 507M WITHOUT PROBLEMS - BULLSEYES ON PGB = 0-1.4DEG
BREAK CIRC & OBSERVE FILL UP V/V LEAKING AT CONNECTION TO 30" CART; TIGHTEN SAME W/ ROV & TEST BY PUMPING W/ 14 BPM, 180PSI
R/U CMT LINES & TEST TO 3000 PSI;MIX & PUMP 230 BBLS OF 13 PPG CLASS G LEAD CMT SLURRY USING 174 BBLS OF MIXWATER (891 SXS)
AT 5BPM 200 PSI;MIX & PUMP 249 BBLS OF 16 PPG CLASS G TAIL CMT SLURRY USING 150 BBLS OF MIXWATER (1206 SXS) AT 6 BPM 380 PSI
DISPLACE W/ 10 BBLS OF S/W F/ CMT UNIT AND 211 BBLS WITH RIGPUMPS AT 10 BPM, 90 PSI; SLOW DOWN PUMPS TO 1 BPM; FCP = 10 PSI
CEMENT IN PLACE 0800HRS; NO CMT RETURNS OBSERVED; BLED DOWN & CHECK FLOAT - OK; BULLSEYS ON PGB 1/4DEG
WOC F/ 6HRS; RELEASED OF CART - NO MOVEMENT SEEN AT MUDLINE; BULLSEYES PGB @ 1/4 & 1/2 DEG; POOH W/ CART
RIH W/ 5" PORTED MULESHOE & STAB THRU GUIDEFUNNEL ON PGB; TOOK 5K WT AFTER 7.5M; WASHED DOWN TO 9.5M W/ 8 BPM
MIX & PUMP 95 BBLS OF 16 PPG CLASS G TAIL CMT SLURRY USING 57 BBLS OF MIXWATER (460 SXS) & DISPLACE AT 7BPM, 400 PSI

CHEVRONTEXACO (Mixed)

Casing/Liner Landing Details

Qnty	Description	O.D. in	Wt. ppf	Grade	Threads	Lgth. m	Ref #
1	SHOE	13.375	72.00	P110	VAMTOP	0.59	
1	SHOE JNT C/W 2 CENTR	13.374	72.00	P110	VAMTOP	12.54	
1	INTERMEDIATE JNT C/W 1 CENTR	13.374	72.00	P110	VAMTOP	12.54	
1	PUP JNT C/W CENTR	13.374	72.00	P110	VAMTOP	9.91	
1	FLOAT COLLAR	13.374	72.00	P110	VAMTOP	0.63	
1	PUP JNT	13.374	72.00	P110	VAMTOP	1.98	
72	CASING JOINTS	13.374	72.00	P110	VAMTOP	901.26	
1	PUP JNT	13.374	72.00	P110	VAMTOP	2.72	

Liner Hanger (If Applicable):	13.05
Total Pipe Installed:	3104.16
Less Cutoff Piece(s) and Landing Joints:	
DP To land Liner (If Applicable) TOL @:	418.00
Plus KBE (One Ft. Above Rotary To last CHF):	
Casing Set @: 1371.50 TVD 1371.50 MD Total:	3,522.16

Last Casing Size: 30.000 @ 507.5 MD | Hole Size: 17.500 @ 1377.00 MD

Hole Volume From Caliper Log: bbl

Mud Properties Prior To Cementing: | WT: | Type: SEAWATER

FV(sec/qt):	PV(cp):	YP(lb/100ft2):	Gels: /	WL:
HTHP WL:	Solids:	% Oil:	Sand:	pH:
PM:	CL:	Ca:	XLime:	Elec Stab:

Casing Reciprocation?: NO | Length of Stroke: Time: Hrs

Casing Rotated?: NO

Number of Centralizers/Wipers: 11 / 0 | Type: 17 1/2" BOWSPRING /

Spacing: CENTRALISERS: 2X AT SHOEJNT, 1X INTERMEDIATE, 1X FLOAT COLLAR AND 1 PER JOINT FOR NEXT 7 JOINTS

Cement Company: DOWELL | Yard Location:

First Stage | Circulation Time & Rate prior to cementing: 1.50 Hrs @ 8.0bpm | Return(Full/Partial):

Cement	Type	No. sx	Pump Time time @ temp	Yield ft3/sx	Weight: lb/gal est.	actual	Mix Water gal/sx	Comp. Strength psi	@ hrs	WL cc	Free water %
Lead	CLASS 'G' CMT	1806	6.3 Hrs @ 68	1.97	13.0		11.265				0.80
Tail	CLASS 'G' CMT	1290	3.8 Hrs @ 68	1.13	16.0		4.957	1835	24.00		4.00

Lead Cement Additives: 1 LTR/T B143 ANTIFOAM, 34LTR/T D075 EXTENDER, 7LTR/T D081 RETARDER | Additives liquid/blended: YES /

Tail Cement Additives: 1LTR/T B143 ANTIFOAM, 2LTR/T D081 RETARDER | Additives liquid/blended: YES /

Spacer Type: Volume: Weight: PV YP: | Compatibility Test Run?:

Cement Displacement Rate: 11.0 bpm | Displaced With (Cement Unit/Pump) : PUMP | Estimated TOC: 421.50

Cement Returns? (Y/N): YES | Early Returns? (Y/N): | Est. sx Circulated: | Number of Plugs Used: 2 | Plug Bumped? (Y/N): YES

Second Stage | DV Tool Located @: MD | Circulation Time & Rate prior to cementing: Hrs @ bpm | Return (Full/Partial):

Cement	Type	No. sx	Pump Time time @ temp	Yield ft3/sx	Weight: lb/gal est.	actual	Mix Water gal/sx	Comp. Strength psi	@ hrs	WL cc	Free water %
Lead			Hrs @								
Tail			Hrs @								

Lead Cement Additives: | Additives liquid/blended: /

Tail Cement Additives: | Additives liquid/blended: /

Spacer Type: Volume: Weight: PV: YP: | Compatibility Test Run?:

Cement Displacement Rate: bpm | Displaced With (Cement Unit/Pump) : | Estimated TOC:

Cement Returns? (Y/N): | Early Returns? (Y/N): | Est. sx Circulated: | Number of Plugs Used: | Plug Bumped? (Y/N):

Remarks: 17 1/2" HOLE WAS DRILLED FROM 511 TO 1377M USING SEAWATER AND HIVIS SWEEPS; THE HOLE WAS CIRCULATED CLEAN WITH 200 BBLS GEL PILL AND DISPLACED TO 10 PPG GLYDRIL MUD; WHILE POOH, HAD TO WORK THRU NUMEROUS TIGHT SPOTS BETWEEN 1311-860M; WIPED THRU ALL AND CONT POOH; AT SURFACE, RECOVERED A LARGE 14" X 7" X 7" BOULDER FROM ABOVE THE UPPER 17 1/8" STAB

RAN 13 3/8" 72# P110 VAM TOP CSG CROSSOVERED TO 20" BELOW HPWH TO 953M - FILLED CSG W/ 10 PPG MUD ONCE INSIDE 30" CONDUCTOR

TIH ON 5" DP; TOOK WT AT 1133M, UNABLE TO WORK THRU; WASHED DOWN TO 1158M WITH 3 BPM; CONT TO TIH TO 1360M W/O PROBLEMS

WASHED DOWN F/ 1360M TO 1371.5M TO LAND 18 3/4" HPWH IN 30" LPWH. SET DOWN 60K LBS & TOOK 50K LBS OVERPULL

CIRC 1.5 CSG CAPACITY @ 8 BPM, 230 PSI; PUMPED 20 BBLS DYED S/W, P/TEST SURFACE LINES TO 3000PSI; PUMPED 20 BBLS DYED S/W

RELEASE BOTTOM DART; MIXED & PUMPED 620 BBLS OF 13 PPG CLASS 'G' LEAD SLURRY (1806SXS) USING 460 BBLS MIXWATER AT 5-7.5 BPM

AND 259 BBLS OF 16 PPG CLASS 'G' TAIL SLURRY (1290 SXS) USING 152 BBLS MIXWATER AT 6 BPM, 400 PSI. RELEASED TOP DART

DISPLACED TOP DART TO 2000 PSI SHEAR W/ 24 BBLS OF S/W; PUMP ADDITIONAL 10 BBLS S/W F/ CMT UNIT

DISPLACE CEMENT WITH RIG PUMPS AT 11 BPM, 1160 PSI; SLOW PUMPS TO 1 BPM, 1015PSI AND BUMP PLUG AT 98.1% PUMP EFFICIENCY

BASED ON CALIPERED CASING ID. INCREASE PRESSURE TO 1700 PSI AND HELD F/ 5 MIN - OK

BLED BACK PRES TO CMT UNIT - 3 BBLS; FLOAT HOLDING; FCP = 1015PSI

Attachment 4.3.3
BHA Report

CHEVRONTEXACO

BHA Data Report

Page: 1 of 1 12-NOV-2004

Proj: UB5980 - 0 **Well:** SAHARA PROSPECT **Field:** Mixed

BHA No.	Depth In MD m	Depth Out MD m	Total BHA Length m	BHA Type Code	BHA Description
1	421.5	511.0	223.38	HO	17.1/2" ROCK BIT, 22" X 26" X 36" HOLE OPENER, 36" HOLE OPENER (C/W NON-PORTED FLOAT), 0 - 5 DEG ANDERDRIFT TOOL (C/W TOTCO RING), 5 X 9.1/2" SPIRAL DRILL COLLARS, X/OVER, 3 X 8" SPIRAL DRILL COLLARS, X/OVER, 15 X 5" HWDP
2	511.0	1377.0	225.16	PH	17.1/2" INSERT BIT, BIT SUB (C/W NON-PORTED FLOAT), X/OVER, MPR TOOL, MWD, FILTER SUB, 17.1/4" STRING STAB, 8" DC, 17.1/8" STRING STAB, 12 X 8" DC, X/OVER, 9 X 5" HWDP
3	1371.5	1380.0	203.89	SL	12 1/4" MILL TOOTH BIT, BIT SUB (FLOAT), 12 - 8" DC'S, X-O, 6 - 5" HWDP, JARS, 3 - 5" HWDP.
4	1380.0	3745.0	222.67	HD	8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.
5	3745.0	2643.0	201.62	PH	8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)
5	3745.0	2643.0	201.62	PH	8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)
5	3800.0	3800.0	12.70	PH	MDT PROBE, MDT ELECTRONICS, GAMMA RAY TOOL, CABLEHEAD TENSION SUB, SWIVEL, CABLEHEAD.

Attachment 4.3.4
Bit Report

CHEVRONTEXACO (Mixed) **Bit Record**

Bit No.	Serial Number	Date Pulled	Size in	Bi Center Size in	Make	Type	IADC Code	Jets 1/32 in 1	2	3	4	5	TFA in2	Depth POOH m	Drilled m	Total Bit Hours	Avg Rate/ Hour m/hr	Avg WOB klb	Avg RPM	Avg Pump PRS psi	Mud Wt. lb/gal	Bit hp	Bit HHP SQIN	Mud gpm	Bit Grading: Inner Rows	Outer Rows	Dull Char	Location	Number of Cones	Bearings	Gage	Other Char	Reason Pulled	Trip Time Hrs	Angle	Cost / m	Remarks
1	75535	26-SEP-2004	17.500			XTD12DSCL	435M	3-20	1-18	-			1.172	511.0	89.5	19.0	15.450	10	110	2015	9.6			1090	0	0	NO	A7		E	IN	NO	TD	3.0	0.00	20483.8	
2	10640491	30-SEP-2004	17.500			EBXT02DSL	415W	3-20	1-18	-			1.169	1377.0	866.0	40.5	70.160	20	140	2950	8.6	323.6	1.6	1100	1	2	BT	A7		E	1/16	CT	TD	10.0	0.00	6074.38	
3	752172	06-OCT-2004	12.244			XS4G	217S	3-25					1.438	1380.0	3.0	0.5	19.690	18	90	3400	12.9			661	1	1	NO	A7		E	IN	NO	BHA	12.0	0.00	53186.9	CLEAN OUT ASSY
4	10659362	14-OCT-2004	8.500			FM3663Z		6-14					0.901	3745.0	2365.0	88.3	87.870	16	160	4061	12.9	0.0	0.0	608	3	3	CT	XN		X	IN	NO	TD	16.0	5.00	3370.60	TD 8 1/2" SECTION

AFE No: KWENO 650 711-001	Well ID: UB5980	Project No: 0	Page: 1 of 1
Drilling Rep: RUSSELL/MOORE/SMJ	Field:	Lease: SAHARA	Well Number:	Date: 12-NOV-2004

Attachment 4.3.5
Survey Report

CHEVRONTEXACO (Metric) **Directional Survey Data**

Target:	Method of Calculation: MINIMUM CURVATURE	Proposed Azimuth: 0.00	Correction: 0.00
Directional Company: BHI	Directional Driller:	Well Type: EXPLORATORY WELL	

Date	Measured Depth	TVD	Angle	Azimuth	Direction	Vertical Section	Coordinates N or S	Coordinates E or W	Dogleg Severity	Initials	SdTrk	Remarks
28-SEP-2004	421.5m	421.5m	0.00	0.00	N	0.00m	0 S	0 W	0.00		0	
28-SEP-2004	559.8m	559.8m	0.30	197.56	S 17.56W	-0.34m	0.34 N	0.11 E	0.07	MH	0	
28-SEP-2004	586.3m	586.3m	0.31	215.00	S 35.00W	-0.47m	0.47 N	0.17 E	0.11	MH	0	
28-SEP-2004	617.4m	617.4m	0.07	242.51	S 62.51W	-0.55m	0.55 N	0.24 E	0.25	MH	0	
28-SEP-2004	646.3m	646.3m	0.33	245.97	S 65.97W	-0.59m	0.59 N	0.33 E	0.27	MH	0	
28-SEP-2004	676.1m	676.1m	0.26	233.42	S 53.42W	-0.66m	0.66 N	0.46 E	0.10	MH	0	
28-SEP-2004	704.5m	704.5m	0.20	198.76	S 18.76W	-0.75m	0.75 N	0.53 E	0.16	MH	0	
28-SEP-2004	733.2m	733.2m	0.36	260.43	S 80.43W	-0.81m	0.81 N	0.63 E	0.34	MH	0	
29-SEP-2004	762.3m	762.3m	0.61	265.15	S 85.15W	-0.84m	0.84 N	0.88 E	0.26	MH	0	
29-SEP-2004	790.9m	790.9m	0.54	291.11	N 68.89W	-0.80m	0.8 N	1.16 E	0.28	MH	0	
29-SEP-2004	820.2m	820.2m	0.51	279.42	N 80.58W	-0.73m	0.73 N	1.41 E	0.12	MH	0	
29-SEP-2004	848.5m	848.5m	0.44	250.41	S 70.41W	-0.75m	0.75 N	1.64 E	0.27	MH	0	
29-SEP-2004	877.7m	877.7m	0.39	229.18	S 49.18W	-0.85m	0.85 N	1.82 E	0.17	MH	0	
29-SEP-2004	906.6m	906.6m	0.21	267.90	S 87.90W	-0.92m	0.92 N	1.95 E	0.28	MH	0	
29-SEP-2004	935.6m	935.6m	0.26	295.02	N 64.98W	-0.89m	0.89 N	2.06 E	0.13	MH	0	
29-SEP-2004	964.6m	964.6m	0.24	254.13	S 74.13W	-0.88m	0.88 N	2.18 E	0.18	MH	0	
29-SEP-2004	994.0m	994.0m	0.33	249.89	S 69.89W	-0.93m	0.93 N	2.32 E	0.10	MH	0	
29-SEP-2004	1021.9m	1021.9m	0.12	12.70	N 12.70E	-0.92m	0.92 N	2.39 E	0.45	MH	0	
29-SEP-2004	1051.6m	1051.6m	0.35	199.45	S 19.45W	-0.98m	0.98 N	2.41 E	0.48	MH	0	
29-SEP-2004	1080.0m	1080.0m	0.21	249.23	S 69.23W	-1.08m	1.08 N	2.49 E	0.29	MH	0	
29-SEP-2004	1109.3m	1109.3m	0.27	189.23	S 9.23 W	-1.17m	1.17 N	2.55 E	0.26	MH	0	
29-SEP-2004	1137.8m	1137.8m	0.27	218.52	S 38.52W	-1.29m	1.29 N	2.6 E	0.15	MH	0	
29-SEP-2004	1167.7m	1167.7m	0.30	219.75	S 39.75W	-1.40m	1.4 N	2.69 E	0.03	MH	0	
29-SEP-2004	1195.7m	1195.7m	0.38	278.49	N 81.51W	-1.44m	1.44 N	2.83 E	0.37	MH	0	
29-SEP-2004	1225.6m	1225.6m	0.21	242.31	S 62.31W	-1.45m	1.45 N	2.98 E	0.25	MH	0	
29-SEP-2004	1253.9m	1253.9m	0.17	66.15	N 66.15E	-1.46m	1.46 N	2.99 E	0.41	MH	0	
29-SEP-2004	1282.0m	1282.0m	0.14	110.44	S 69.56E	-1.46m	1.46 N	2.92 E	0.13	MH	0	
30-SEP-2004	1310.2m	1310.2m	0.18	43.65	N 43.65E	-1.44m	1.44 N	2.85 E	0.19	SMJ	0	
30-SEP-2004	1340.0m	1340.0m	0.18	186.39	S 6.39 W	-1.45m	1.45 N	2.83 E	0.35	SMJ	0	
30-SEP-2004	1366.4m	1366.4m	0.08	103.63	S 76.37E	-1.49m	1.49 N	2.81 E	0.22	SMJ	0	
07-OCT-2004	1394.1m	1394.1m	0.24	308.62	N 51.38W	-1.46m	1.46 N	2.84 E	0.35	RLM	0	
07-OCT-2004	1422.7m	1422.7m	0.52	295.42	N 64.58W	-1.37m	1.37 N	3 E	0.32	RLM	0	

UTM Northing: 7314353.73m	UTM Easting: 420880.31m	UTM Zone: 32	Well ID: UB5980	Project ID: 0	AFE No: KWENO 650	Page: 1 Of 4
Drilling Rep: RUSSELL / MOORE	Field:	Lease: SAHARA	Well No:	Rig: STENA DEE		Date: 19-NOV-2004

CHEVRONTEXACO (Metric) **Directional Survey Data**

Target:	Method of Calculation: MINIMUM CURVATURE	Proposed Azimuth: 0.00	Correction: 0.00
Directional Company: BHI	Directional Driller:	Well Type: EXPLORATORY WELL	

Date	Measured Depth	TVD	Angle	Azimuth	Direction	Vertical Section	Coordinates N or S	Coordinates E or W	Dogleg Severity	Initials	SdTrk	Remarks
07-OCT-2004	1452.2m	1452.2m	0.50	292.31	N 67.69W	-1.26m	1.26 N	3.24 E	0.04	RLM	0	
07-OCT-2004	1480.1m	1480.1m	0.59	277.58	N 82.42W	-1.19m	1.19 N	3.5 E	0.18	RLM	0	
07-OCT-2004	1509.7m	1509.7m	0.46	283.41	N 76.59W	-1.15m	1.15 N	3.76 E	0.14	RLM	0	
07-OCT-2004	1538.8m	1538.8m	0.49	297.52	N 62.48W	-1.06m	1.06 N	3.99 E	0.13	RLM	0	
07-OCT-2004	1567.2m	1567.2m	0.50	298.58	N 61.42W	-0.94m	0.94 N	4.2 E	0.01	RLM	0	
07-OCT-2004	1596.6m	1596.6m	0.56	301.95	N 58.05W	-0.81m	0.81 N	4.44 E	0.07	RLM	0	
08-OCT-2004	1625.6m	1625.6m	0.61	301.84	N 58.16W	-0.65m	0.65 N	4.69 E	0.05	RLM	0	
08-OCT-2004	1654.1m	1654.1m	0.53	245.47	S 65.47W	-0.63m	0.63 N	4.94 E	0.58	RLM	0	AZMUTH FLAGGED.
08-OCT-2004	1682.4m	1682.4m	0.59	304.65	N 55.35W	-0.60m	0.6 N	5.18 E	0.60	RLM	0	
08-OCT-2004	1740.2m	1740.2m	0.53	300.00	N 60.00W	-0.30m	0.3 N	5.66 E	0.04	RLM	0	AZUMITH FLAGGED
08-OCT-2004	1798.0m	1798.0m	0.58	301.36	N 58.64W	-0.02m	0.02 N	6.14 E	0.03	RLM	0	
08-OCT-2004	1827.3m	1827.3m	0.57	296.68	N 63.32W	0.12m	0.12 N	6.4 E	0.05	RLM	0	
08-OCT-2004	1856.2m	1856.2m	0.55	295.83	N 64.17W	0.24m	0.24 N	6.65 E	0.02	RLM	0	
08-OCT-2004	1885.0m	1885.0m	0.60	292.96	N 67.04W	0.36m	0.36 N	6.92 E	0.06	RLM	0	
08-OCT-2004	1914.8m	1914.8m	0.59	284.99	N 75.01W	0.46m	0.46 N	7.21 E	0.09	RLM	0	
08-OCT-2004	1943.6m	1943.6m	0.54	292.81	N 67.19W	0.55m	0.55 N	7.48 E	0.10	RLM	0	
08-OCT-2004	1972.7m	1972.7m	0.44	299.26	N 60.74W	0.66m	0.66 N	7.71 E	0.12	RLM	0	
08-OCT-2004	2001.5m	2001.5m	0.52	291.38	N 68.62W	0.76m	0.76 N	7.92 E	0.11	RLM	0	
08-OCT-2004	2030.2m	2030.2m	0.43	300.63	N 59.37W	0.86m	0.86 N	8.14 E	0.13	RLM	0	
08-OCT-2004	2059.2m	2059.2m	0.46	324.52	N 35.48W	1.01m	1.01 N	8.3 E	0.20	RLM	0	
08-OCT-2004	2086.2m	2086.2m	0.18	332.51	N 27.49W	1.14m	1.14 N	8.38 E	0.32	RLM	0	
08-OCT-2004	2115.1m	2115.1m	0.19	300.00	N 60.00W	1.20m	1.2 N	8.44 E	0.11	RLM	0	AZIMUTH FLAGGED
08-OCT-2004	2144.1m	2144.1m	0.18	101.98	S 78.02E	1.22m	1.22 N	8.44 E	0.38	RLM	0	
08-OCT-2004	2173.0m	2173.0m	0.48	113.02	S 66.98E	1.16m	1.16 N	8.28 E	0.32	RLM	0	
08-OCT-2004	2201.7m	2201.7m	0.37	100.42	S 79.58E	1.10m	1.1 N	8.08 E	0.15	RLM	0	
09-OCT-2004	2230.1m	2230.1m	0.32	131.07	S 48.93E	1.03m	1.03 N	7.93 E	0.20	RLM	0	
09-OCT-2004	2259.7m	2259.7m	0.25	100.00	S 80.00E	0.96m	0.96 N	7.8 E	0.17	RLM	0	AZIMUTH FLAGGED
09-OCT-2004	2288.1m	2288.1m	0.27	281.78	N 78.22W	0.97m	0.97 N	7.81 E	0.56	RLM	0	
09-OCT-2004	2317.3m	2317.3m	0.37	100.00	S 80.00E	0.97m	0.97 N	7.78 E	0.67	RLM	0	AZIMUTH FLAGGED
09-OCT-2004	2346.5m	2346.5m	0.27	239.12	S 59.12W	0.91m	0.91 N	7.75 E	0.63	RLM	0	
09-OCT-2004	2378.4m	2378.4m	0.20	259.83	S 79.83W	0.86m	0.86 N	7.87 E	0.10	RLM	0	
09-OCT-2004	2403.5m	2403.5m	0.17	100.00	S 80.00E	0.84m	0.84 N	7.88 E	0.44	RLM	0	AZIMUTH FLAGGED

UTM Northing: 7314353.73m	UTM Easting: 420880.31m	UTM Zone: 32	Well ID: UB5980	Project ID: 0	AFE No: KWENO 650	Page: 2 Of 4
Drilling Rep: RUSSELL / MOORE	Field:	Lease: SAHARA	Well No:	Rig: STENA DEE		Date: 19-NOV-2004

CHEVRONTEXACO (Metric) **Directional Survey Data**

Target:	Method of Calculation: MINIMUM CURVATURE	Proposed Azimuth: 0.00	Correction: 0.00
Directional Company: BHI	Directional Driller:	Well Type: EXPLORATORY WELL	

Date	Measured Depth	TVD	Angle	Azimuth	Direction	Vertical Section	Coordinates N or S	Coordinates E or W	Dogleg Severity	Initials	SdTrk	Remarks
09-OCT-2004	2432.8m	2432.8m	0.18	325.71	N 34.29W	0.87m	0.87 N	7.86 E	0.34	RLM	0	
09-OCT-2004	2462.4m	2462.4m	0.29	318.56	N 41.44W	0.97m	0.97 N	7.93 E	0.12	RLM	0	
09-OCT-2004	2491.2m	2491.2m	0.26	315.85	N 44.15W	1.07m	1.07 N	8.03 E	0.03	RLM	0	
09-OCT-2004	2519.9m	2519.9m	0.31	266.97	S 86.97W	1.12m	1.12 N	8.15 E	0.26	RLM	0	
09-OCT-2004	2549.4m	2549.4m	0.35	290.76	N 69.24W	1.14m	1.14 N	8.31 E	0.15	RLM	0	
09-OCT-2004	2578.6m	2578.6m	0.54	177.83	S 2.17 E	1.04m	1.04 N	8.39 E	0.78	RLM	0	
09-OCT-2004	2607.5m	2607.5m	0.61	173.95	S 6.05 E	0.75m	0.75 N	8.37 E	0.08	RLM	0	
09-OCT-2004	2664.9m	2664.9m	0.82	191.17	S 11.17W	0.04m	0.04 N	8.42 E	0.16	RLM	0	
09-OCT-2004	2693.5m	2693.5m	0.79	182.83	S 2.83 W	-0.36m	0.36 N	8.47 E	0.13	RLM	0	
09-OCT-2004	2720.3m	2720.3m	0.80	191.12	S 11.12W	-0.73m	0.73 N	8.52 E	0.13	RLM	0	
09-OCT-2004	2749.4m	2749.4m	0.90	200.00	S 20.00W	-1.14m	1.14 N	8.63 E	0.17	RLM	0	AZIMUTH FLAGGED
09-OCT-2004	2778.5m	2778.5m	0.89	180.63	S 0.63 W	-1.58m	1.58 N	8.71 E	0.32	RLM	0	
09-OCT-2004	2807.1m	2807.1m	1.09	187.23	S 7.23 W	-2.07m	2.07 N	8.75 E	0.25	RLM	0	
09-OCT-2004	2835.6m	2835.6m	1.27	180.97	S 0.97 W	-2.65m	2.65 N	8.79 E	0.24	RLM	0	
10-OCT-2004	2863.7m	2863.7m	1.45	180.50	S 0.50 W	-3.32m	3.32 N	8.8 E	0.20	RLM	0	
10-OCT-2004	2892.9m	2892.9m	1.57	177.09	S 2.91 E	-4.09m	4.09 N	8.78 E	0.16	RLM	0	
10-OCT-2004	2921.0m	2921.0m	1.76	177.08	S 2.92 E	-4.90m	4.9 N	8.74 E	0.21	RLM	0	
10-OCT-2004	2950.7m	2950.7m	1.98	179.28	S 0.72 E	-5.87m	5.87 N	8.71 E	0.24	RLM	0	
10-OCT-2004	2979.8m	2979.8m	2.24	180.96	S 0.96 W	-6.94m	6.94 N	8.71 E	0.28	RLM	0	
10-OCT-2004	3008.8m	3008.8m	2.62	184.50	S 4.50 W	-8.17m	8.17 N	8.77 E	0.43	RLM	0	
10-OCT-2004	3040.1m	3040.1m	2.89	189.05	S 9.05 W	-9.66m	9.66 N	8.95 E	0.34	RLM	0	
10-OCT-2004	3097.3m	3097.2m	2.95	186.56	S 6.56 W	-12.55m	12.55 N	9.35 E	0.07	RLM	0	
10-OCT-2004	3123.7m	3123.6m	3.13	182.03	S 2.03 W	-13.94m	13.94 N	9.45 E	0.35	RLM	0	
10-OCT-2004	3152.6m	3152.5m	3.25	174.23	S 5.77 E	-15.54m	15.54 N	9.4 E	0.47	RLM	0	
11-OCT-2004	3182.0m	3181.9m	3.04	172.75	S 7.25 E	-17.14m	17.14 N	9.22 E	0.23	RLM	0	
11-OCT-2004	3210.6m	3210.5m	2.94	170.34	S 9.66 E	-18.61m	18.61 N	9 E	0.17	RLM	0	
11-OCT-2004	3239.1m	3239.0m	2.82	168.68	S 11.32E	-20.02m	20.02 N	8.74 E	0.16	RLM	0	
11-OCT-2004	3267.9m	3267.8m	2.89	168.45	S 11.55E	-21.43m	21.43 N	8.46 E	0.08	RLM	0	
11-OCT-2004	3296.1m	3296.0m	2.74	167.58	S 12.42E	-22.78m	22.78 N	8.17 E	0.17	RLM	0	
11-OCT-2004	3324.7m	3324.6m	2.77	157.33	S 22.67E	-24.09m	24.09 N	7.76 E	0.53	RLM	0	
11-OCT-2004	3355.2m	3355.1m	2.67	151.92	S 28.08E	-25.40m	25.4 N	7.14 E	0.28	RLM	0	
11-OCT-2004	3384.0m	3383.9m	2.88	145.73	S 34.27E	-26.59m	26.59 N	6.42 E	0.39	RLM	0	

UTM Northing: 7314353.73m	UTM Easting: 420880.31m	UTM Zone: 32	Well ID: UB5980	Project ID: 0	AFE No: KWENO 650	Page: 3 Of 4
Drilling Rep: RUSSELL / MOORE	Field:	Lease: SAHARA	Well No:	Rig: STENA DEE		Date: 19-NOV-2004

CHEVRONTEXACO (Metric) **Directional Survey Data**

Target:	Method of Calculation: MINIMUM CURVATURE	Proposed Azimuth: 0.00	Correction: 0.00
Directional Company: BHI	Directional Driller:	Well Type: EXPLORATORY WELL	

Date	Measured Depth	TVD	Angle	Azimuth	Direction	Vertical Section	Coordinates N or S	Coordinates E or W	Dogleg Severity	Initials	SdTrk	Remarks
11-OCT-2004	3412.8m	3412.7m	2.71	144.84	S 35.16E	-27.75m	27.75 N	5.62 E	0.19	RLM	0	
12-OCT-2004	3440.9m	3440.8m	2.96	142.52	S 37.48E	-28.87m	28.87 N	4.79 E	0.30	RLM	0	
12-OCT-2004	3488.9m	3488.7m	2.98	149.46	S 30.54E	-30.93m	30.93 N	3.41 E	0.23	RLM	0	
12-OCT-2004	3510.3m	3510.1m	3.23	148.93	S 31.07E	-31.92m	31.92 N	2.82 E	0.36	RLM	0	
13-OCT-2004	3566.2m	3565.9m	3.78	142.13	S 37.87E	-34.72m	34.72 N	0.87 E	0.38	RLM	0	
13-OCT-2004	3595.6m	3595.2m	3.98	140.10	S 39.90E	-36.27m	36.27 N	0.38 E	0.25	RLM	0	
13-OCT-2004	3624.4m	3623.9m	4.34	140.78	S 39.22E	-37.88m	37.88 N	1.71 E	0.38	RLM	0	
13-OCT-2004	3682.5m	3681.8m	4.68	140.86	S 39.14E	-41.42m	41.42 N	4.6 E	0.18	RLM	0	
13-OCT-2004	3733.5m	3732.6m	5.24	140.50	S 39.50E	-44.83m	44.83 N	7.39 E	0.34	RLM	0	

UTM Northing: 7314353.73m	UTM Easting: 420880.31m	UTM Zone: 32	Well ID: UB5980	Project ID: 0	AFE No: KWENO 650	Page: 4 Of 4
Drilling Rep: RUSSELL / MOORE	Field:	Lease: SAHARA	Well No:	Rig: STENA DEE		Date: 19-NOV-2004

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5.1 Deviations from Original Program and Procedures

5.1.1 Deviations from NPD's Drilling Regulations

The following deviations from the requirements in NPD's Drilling Regulations occurred:

Deviation No.	Reference to Rules and Regulations	Description	Consequence	Compensating Measures	Deadline
NC003	The Activities Regulations, Section 48, Specific requirements to testing	The guidelines to the regulations states that: *"If the time interval since the last pressure test exceeds 14 days, the BOP, with the exception of the shear/blind ram, shall be pressure tested even if no new casing string has been installed."* BOP was function tested October 17th. The 14 days pressure testing requirement is due October 18th. (No abnormalities were recorded when BOP was last pressure tested). A 13 3/8" casing is set with shoe at 1372m and 8 ½" hole drilled to 3745m total depth. The primary objective, Lysing sandstone formation, has been penetrated from 3445m to 3610m. Current mudweight is 1.55 s.g, OBM. During a wipertrip an obstruction in the well was tagged at 2643m, unable to pass this point. During reaming/backreaming above the obstruction, partial loss of returns were recorded. Attempted to cure losses by setting LCM pills. Currently pulling out to the 13 3/8" shoe to regain circulation. The well has been static on flow checks. An exemption from The Activities Regulations to delay the BOP pressure test for one week is applied for to allow us to continue the operations with regaining circulation before WL logging and/or P&A.	None	None	BOP will be pressure tested as per normal procedures by October 25th.

5.1.2 Deviations from Drilling Program

- Casing, wellhead and BOP pressure test rating reduced to 180 bar. If 9 5/8" x 7" casing was run, the BOP and the 9 5/8" x 7" casing would be tested to 410 bar.
- Due to long shoetrack the 17 ½" casing was cleaned out with a 12 ¼" slick BHA instead of the planned 8 ½" BHA.
- P&A program was updated when well conditions required so.

5.2 Summary and Conclusions - Drilling Related Lessons Learned

#	Title	Summary	Conclusion
	Poor visibility	The 36" Hole was not marked with buoy at time of spud due to concerns regarding getting buried by drilling debris. However poor visibility after spud made their eventual placement difficult	Place before spud and make sure they have radar reflectors available. Oceaneering only had 1 onboard.
	Small 20" shoetrack	On conductor casing plan was to swage over to 20" to eliminate clean-out trip. 20" section was only 20 ft long reducing volume of cement to be left in shoetrack down to an uncomfortably small volume	Running 20" save a bit run Should use a full joint on 20" the would reduce the likelihood of wet shoe or cement in the 30" which could cause problems with cleaning out.
	No 26" bit onboard	In the situation above where a poor cement displacement had occurred then no 26" bit was onboard to clean-out the 30" casing	Should plan for all contingencies
	Could not see dye during 30"cement job	Dye was placed in mixwater along with Mica. It should really be placed in the mixwater ahead	Place in mixwater ahead next time
	Removal of internal cement stinger	Using a short pup joint on the bottom of the 30" CART and not running long internal cement stinger.	Using a short pup joint on the bottom of the cart as the only cement stinger worked well. It eliminated having to remove pre-made CART from wellhead housing on rig floor and rig up and run a cement stinger. Saving both time and eliminating manual handling. Only downside was that needed to POOH and run dedicated string for top up job.
	Dart Launcher	When attempts were made to rack back the dart launcher for the 13 3/8" job it was observed that the 5" d/p below was bowed	It is known by manufacturer that 5" d/p is not suitable for being racked back below the launcher. This information was not communicated to Dowell on rig. Dowell have generated internal alert.
	2 Plug system for 13 3/8"	2 plug system led to large and heavy cement head being required	Was use of 2 plug system really required.
	13 3/8" shoetrack length	13 3/8" shoetrack was too long at 36 m resulting in a dedicated clean-out run being required.	Plan shoe and float assembly to reduce length to more acceptable length.
	Lack of dedicated cement crew	Heavy rotation of cementing personnel during the well. Resulted in lack of familiarity with Stena Dee and problem during jobs.	Try to keep core crew who are familiar with rig.
	Poor connection tripping times	Stena Dee connection times were painfully slow. A combination of anti-collision software problems and the need to drill with a drilling pup made for excessive trip times. On top of this rig crews were unfamiliar with recent mod's	If use of a heavily automated rig such as Stena Dee does not ensure quick trip times. Future AFE's may want to reflect this.
	Rig Movement due to Knuckle Boom crane	Knuckle boom crane causes major variations in the pit volumes when in use +/- 20 bbls. On Sahara this meant that we had to have the crane in the cradle for a significant amount of time as we drilled through kick zones or monitored for loss gains	Crane use seriously compromises kick and loss detection. Close communication is required when in use. Fact that crane use was so restrictive compromised efficiency of boat handling in marginal weather.
	Excessive fluid movement	Due to the design of the header/shaker area and the excessive movement of the rig when the knuckle boom crane was used flowline in the pit room was frequently over flowing even at 650 GPM.	Flowline/shaker house needs significant mods to enable it to handle higher flow rates and surge from crane.
	Good performance from MWD/LWD	BHI LWD/MWD tools worked well under harsh working conditions. They were subjected to large amounts of slip/stick type vibration for a significant portion of the well	BHI personnel were pro-active in communicating problems and proffering solutions.

#	Title	Summary	Conclusion
	Cavings	Cavings were observed in the well during drilling of 8½" section with mud weight of 1.55 SG. Cavings significantly cleaned up during circulation at TD prior to logging commencing. During eventual clean-out run losses were initiated during circulation.	Although cavings cleaned up during circulation at TD it is probable that hole cleaning was not great due to low achievable AV's in riser and 13 3/8". Coupled with increase in ECD when cavings were again circulated from the well during clean-out trip this may have led to losses in well. Conclusion is that perhaps greater mud weight or a dedicated 9 5/8" casing run to isolate unstable zone and improve ECD should be considered in future.
	LCM usage	Use of LCM to control losses was restricted to no fibrous material, to eliminate problems during any eventual MDT. When Dowell's fibrous Cemnet material was utilized during cementing losses stopped	Although project requirements drove decision not to include fibrous LCM it appeared that loss zone was plugged by use of it during cementing
	Excessive amount of slops	An excessive amount of slops (1100 bbls) was generated on the rig when swapping out to seawater and cleaning pits. More focus should have been placed on the clean-up planning both on and offshore. Pill design led to large dirty interface and lack of HP washdown guns in pits contributed to volume. Riser brush assisted with successful clean-up of riser	Assign more focus on clean-up pill volume and design. Ensure HP guns available in pits. Use riser brush to clean riser.
	Foam wiper balls	Use of foam wiper balls to clean-up drillpipe should be encouraged. Foam balls are more flexible than conventional wiper darts and carry less risk. They can also be used to flush out OBM from choke and kill lines at end of job	Use of foam wiper balls should be encouraged.
	Boosting Riser	Volume of cuttings and low AV in riser meant that it was necessary to run the booster pump almost continuously. Alignment of Stena Dee standpipe Manifold and continuous problems with the suction strainer on the pumps meant that frequent stops to drilling occurred as pumps we re-assigned to the booster pump or the hole	Investigate line up for booster pump before start of contract.
	Lack of wireline equipment	Schlumberger's loadout did not contain any hole finding equipment such as knuckle joint; donkey "fingers", variable centralizer etc	Planning should include basic contingency items.
	Boats	Use of 2 dedicated boats during the contract to work as multi-purpose vessels worked extremely well. The boats worked as AHV's ;supply vessels and standby boats. Concept was chosen due to extremely low market value of boats at the time.	Taking advantage of the quiet boat market allowed the use of the 2 dedicated vessels as a result many operation marine costs were reduced
	Environmental Issues	When operations commenced a few loose ends were apparent regards environmental planning. Stena Dee was not set up with a robust system for segregating and handling waste; Stena subsea department had replaced a chemical from the discharge license with another without informing CVX. Also clear guidelines as to who was recording what and when they were to be distributed was not given	Needs to be addressed in future prior to the spud. Maybe an issue for future IFO's

5.3 Summary and Conclusions – Top 10 Project Related Lessons Learned

#	Title	Summary	Conclusion
1	Boats	The dual role of the standby vessels as floating storage (limited by the requirement to provide rescue cover) worked very well. Logistics for this well were a great deal simpler and easier to manage than for the pervious well.	Consider same arrangement for next well.
2	Well design - Pore Pressure Prediction	Had a local PP "Expert" carry out the prediction since he had access to all the local and regional data. He did a poor job causing a lot of recycle and uncertainty	Put more focus on the PP work and use in-house expertise even if more expensive
3	HSE - STOP Card System and Awards	This system had been revitalized by Stena and was the primary system for all HSE related observations. Watches were awarded to persons that turned in the 2-3 bests STOP cards of the day.	Encouraged by all means available a system that focuses on safety awareness. Make sure gifts are available at the start of operations. An immediate award has a big positive impact---do again.
4	HSE - performance reward scheme	A part of the day rate for the rig was linked to the performance. Clear HSE performance measures were defined, and could be earned per hole section completed for the well. 1/3 of the reward was paid as salary to the crews. In additional, an equal amount of money was paid to the service company personnel who spent at least 7 nights on the rig. For many Norwegian companies this was deposited into each companies' welfare fund.	Use with care, needs to be well thought through for each specific application, i.e.--long duration projects need to be treated differently than 40 day wells.
5	Project - personnel	Ensure the project is manned with the right people in the right positions	Look at lessons learned from other projects to ensure correct level of staffing. Carry out a good selection process for staff and start early.
6	Rig - intake process plan	A rig intake process plan with activities, responsibilities and time was established and communicated to involved parties, incl. Stena	Allocate time and resources to when (if ever) taking a rig without an AoC!
7	Contracts - global agreements and local agreements	Blue copying UK and international contracts reduced the time consumption for contractual work	Cherry pick the best global agreements and local agreements.
8	HSE- Incident Free Workshops	Two IFO were conducted - with participation of rig crew, service providers and CTN	Conduct IFO with crews prior to operations.
9	Well location	Good that the well location was locked down early.	Have the target location defined/locked down early
10	CVX organization - relationship between Project and CTUK	The Project underestimated CTUK involvement in the planning phase, which led to: a) More time spent on meetings, correspondence, b) Experience transfer from DSG into the project	The Project should sit down with their counter parts in DSG to establish the relationship & build trust, discuss who does what in the planning and execution. This "agreement" should be described in the Project Manual, which should be in place quite early

Enclosure 1

Daily Activity Reports

1.0 Daily Drilling Reports
2.0 Wellsite Geological Reports

1.0 Daily Drilling Reports

Sahara **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467 '	Proposed TVD: 12,467 '			
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB:
Last Casing Size:	Set At: MD TVD	Shoe Test: EMW Leakoff?					
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:				
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD					
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC (1/32) API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type	Feet	Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 40	ANCHOR HANDLING OPS ON STENA DEE: ADD ETXRA CHAIN TO ANCHOR #4 AND RELAY ON BOTTOM. ADD EXTRA CHAIN TO ANCHOR	
		-	#5 AND RELAY ON BOTTOM. WORK ON ANCHOR #8 KNOTTED CHAIN, ADD NEW CHAIN AND RELAY ON BOTTOM. ADD EXTRA CHAIN	
		-	TO ANCHOR #2 HEAVE IN AND BOLSTER SAME. PICK UP ANCHOR #3, HEAVE IN AND BOLSTER SAME. MOVE #7 ANCHOR TO DEEP	
		-	WATER AND RELAY ON BOTTOM.	
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Safety:

24 Hr Summary:

Projected Oprn: FINALISE RIG ACCEPTANCE. PREPARE TO MOVE ON HIGH TIDE 16 TH SEPT ONCE INVERGORDON PILOTAGE AVAILABLE.

Remarks:

Daily Mud Cost: KR8,036	Daily Tangible Cost: KR0	Daily Well Cost: KR204,453	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: KR16,072	Cum Tangible Cost: KR672,328	Cum Well Cost: KR1,818,556	Total Appr: KR134,847,000

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: Blended:
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 14-SEP-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: / Seas: / Bar: / POB:
Last Casing Size:	Set At: MD	TVD	Shoe Test: EMW	Leakoff?	
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD	
Mud Co:	Type:	Sample From:	Wt:	FV:	PV: / YP: / Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand: / MBT: / Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent: / Solids %HG/LG: / %DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 40	ADD EXTRA CHAIN TO ANCHOR #6, HEAVE IN AND BOLSTER SAME. PICK-UP ANCHOR #7 REMOVE TWISTS FROM CHAIN. CONNECT	
		-	EXTRA CHAIN, HEAVE IN AND BOLSTER # 7. WAIT ON HIGH TIDE AND PILOT TO BE AVAILABLE 16 SEPT. CONTINUE WITH BOP	
		-	FUNCTION TESTING FROM REMOTE STATIONS. MARINE DEPT PROGRESS SEA FASTENING. DRILLING CONTINUE WITH CHERRY	
		-	PICKER TRAINING; DROPS SURVEY WORK AND MUD BUCKET ELECTRICAL COMMISIONING.	
		99 - 99	06:00 HRS UPDATE: NORTHERN COMRADE ARRIVED ON LOCATION @ 05:30 HRS	
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Safety:

24 Hr Summary:

Projected Oprn: COMMENCE RIG MOVE TO SAHARA LOCATION.

Remarks:

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 204,453	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 24,108	Cum Tangible Cost: 672,328	Cum Well Cost: 2,023,009	Total Appr: 134,847,000

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: / Blended:
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 15-SEP-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467				
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:			
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 76
Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?					
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:					
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD						
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
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					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
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Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
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Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 40	CONTINUE WITH MODUSPEC WORKLIST. COMMISION MUDBUCKET. CARRY OUT CHERRY PICKER TRAINING. STORM FASTEN RIG. AT	
		-	05:30 HRS NORTHERN COMRADE ARRIVE LOCATION, UNABLE TO WORK BULK HOSE. AT 06:30 HRS COMMENCE ANCHOR HANDLING	
		-	OPS, RETRIEVE ANCHOR #1 @07:40 HRS ; ANCHOR #5 RACKED @ 09:50 HRS; ANCHOR #8 RACKED @ 11:35 HRS; ANCHOR #4	
		-	RACKED AT 14:30 HRS. DEPARTED INVERGORDON AT 12:40. UNLOAD BENTONITE. COMMENCE TIGHT TOW AT 17:00 HRS.	
		99 - 99	06:00 HRS UPDATE: DISTANCE TRAVELLED=63 NM. DISTANCE TO GO= 545 NM. AVERAGE SPEED 4.8 KNTS.	
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Safety:

24 Hr Summary:

Projected Oprn: CONTINUE RIG MOVE TO SAHARA LOCATION.

Remarks:

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 204,453	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 32,144	Cum Tangible Cost: 672,328	Cum Well Cost: 2,227,462	Total Appr: 134,847,000	
Drill Water: 160	Potable Water: 158	Fuel:	Bulk Weight: 127	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 16-SEP-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467			
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 77

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
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Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
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Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 41	CONTINUE WITH RIG TOW TO SAHARA FIELD. CURRENT POSITION: 59 DEG 43.3N; 00 DEG 11.0 E. DISTANCE TRAVELLED=180	
		-	MILES DISTANCE TO GO=428 MILES; AVERAGE SPEED 4.8 KNOTS. WIND SPEED 33KNOTS 190DEG; 3 M SEA. CURRENT RIG	
		-	HEADING 045 DEG. DRILL CREW CARRY OUT DERRICK CLEANING OPS. ATTACH IMENCO LATCHES TO GUIELINES. CONTINUE	
		-	WITH MODUSPEC PUNCHLIST ITEMS. CONTINUE WITH CHERRY PICKER TRAINING.	
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Safety:

24 Hr Summary:

Projected Oprn: CONTINUE WITH RIG TOW.

Remarks:

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 195,453	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 40,180	Cum Tangible Cost: 672,328	Cum Well Cost: 2,422,915	Total Appr: 134,847,000

Drill Water: 160	Potable Water: 158	Fuel:	Bulk Weight: 127	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 17-SEP-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467			
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 76

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?	
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 41	CONTINUE WITH RIG TOW TO SAHARA FIELD. CROSSED INTO NORWEGIAN TERRITORY @21:18 HRS. POSITION AT 24:00 HRS 60	
		-	DEG 45.6 N;2 DEG 17.1E. DRILL CREW CARRY OUT DERRICK CLEANING OPS. CONTINUE WITH MODUSPEC PUNCHLIST ITEMS.	
		-	CONTINUE WITH CHERRY PICKER TRAINING. 06:00 HRS POSITION: 61 DEG 58.0N; 02 DEG 51.7 E. DISTANCE TRAVELLED=	
		-	301.3 MILES DISTANCE TO GO=311 MILES; AVERAGE SPEED 5.0 KNOTS. WIND SPEED 30KNOTS; 4 M SEA. CURRENT RIG	
		-	HEADING 023 DEG	
		-		
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		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 2,257,453	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 48,216	Cum Tangible Cost: 672,328	Cum Well Cost: 4,680,368	Total Appr: 134,847,000

Drill Water: 160	Potable Water: 158	Fuel:	Bulk Weight: 127	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 18-SEP-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467			
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 76

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 41	CONTINUE WITH RIG TOW TO SAHARA FIELD. POSITION AT 24:00 HRS 62 DEG 46.7 N;4DEG 13.8E. DRILL CREW CARRY OUT	
		-	DERRICK CLEANING OPS. RETERMINATE POD LINE WIRES.CONTINUE WITH MODUSPEC PUNCHLIST ITEMS. FUNCTION TEST	
		-	SLICKLINE UNIT. 06:00 HRS POSITION: 63 DEG 19.5N; 04 DEG 42.9 E. DISTANCE TRAVELLED=438.8 MILES DISTANCE TO	
		-	GO=173 MILES; AVERAGE SPEED 5.5 KNOTS. WIND SPEED 30KNOTS; 4.5M SIG. PITCH=1.5; ROLL=2.0 CURRENT RIG HEADING	
		-	023 DEG	
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		-		
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Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 3,655,470	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 56,252	Cum Tangible Cost: 672,328	Cum Well Cost: 8,335,838	Total Appr: 134,847,000

Drill Water: 160	Potable Water: 158	Fuel:	Bulk Weight: 127	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 19-SEP-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467			
DOL: 0	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 76
Last Casing Size:	Set At: MD	TVD	Shoe Test: EMW	Leakoff?			
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:				
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
24.00	0	08 - 41	CONTINUE WITH RIG TOW TO SAHARA FIELD. POSITION AT 24:00 HRS 64 DEG 47.8 N;5 DEG 56.2E. DRILL CREW CARRY OUT	
		-	DERRICK CLEANING OPS. CONTINUE WITH MODUSPEC PUNCHLIST ITEMS. CLEAN PITS: FINALISE MUD BUCKET COMMISSIONING	
		-	06:00 HRS POSITION: 65 DEG 15.1N; 06 DEG 29.5 E. DISTANCE TRAVELLED=564.3 MILES DISTANCE TO GO=47.7 MILES;	
		-	AVERAGE SPEED 5.2 KNOTS. WIND SPEED 20 KNOTS; 2.0 M SIG. PITCH=0.7; ROLL=0.8 CURRENT RIG HEADING 025 DEG.	
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		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 345,534	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 64,288	Cum Tangible Cost: 672,328	Cum Well Cost: 8,681,372	Total Appr: 134,847,000

Drill Water: 160	Potable Water: 158	Fuel:	Bulk Weight: 127	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 20-SEP-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467				
DOL: 1	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:			
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 5	Seas: 10 / 1	Bar:	POB: 82
Last Casing Size:	Set At:	MD	TVD	Shoe Test: EMW	Leakoff?			
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:					
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD				
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
16.00	0	08 - 41	CONTINUE WITH RIG TOW TO SAHARA FIELD WITH "NORMAND MARINER" ON TOW BRIDAL, 1400M TOWLINE, 4-5KNOTS AVERAGE	
		-	SPEED. END OF PASSAGE: LAT 65DEG 56.1MIN NORTH, LONGITUDE 007DEG, 18.7MIN EAST. TOWING TIME 118 HRS FOR 610N-	
		-	MILES	
3.50	1600	08 - 41	REDUCE TOW SPEED AND REDUCE TOW LENGTH TO 300M; RUN IN ON LOCATION	
4.50	1930	08 - 40	COMMENCE RUNNING ANCHORS; ANCHOR #5 SET @ 2050HRS; ANCHOR #1 ON BOTTOM @ 2223HRS; RUN ANCHOR #4	
		99 - 99	CHANGED OUT PUMP LINERS TO 6INCH; CHECK SPUD EQUIPMENT ON RIG	
		99 - 99		
		99 - 99	0600 HRS OPS: ANCHOR #4 ON BOTTOM @ 0044HRS; DISCONNECT NORMAND MARINER FROM BRIDLE; ANCHOR #8 ON BOTTOM @	
		-	0135HRS; ANCHOR #3 ON BOTTOM @ 0447HRS; ANCHOR #7 ON BOTTOM 0447HRS; CONTINUE TO RUN ANCHORS #2 AND #6	
		-		
		-		
		-		
		-		
		-		
		-		

Safety: HELD PRE-TOUR TBT; 27 STOPCARDS

24 Hr Summary: TOW RIG TO LOCATION IN SAHARA FIELD; RUN ANCHORS

Projected Oprn: CONT RUN AND PRE-TENSION ANCHORS; BALLAST RIG; OFFLOAD BOAT, MIX SPUD MUD; P/U DP & DC'S

Remarks:
POB=82; CVX=4; SERVICE=15; STENA=63 NEXT BOP TEST DUE ....

SEAS 0.5M, WIND 5-10KNOTS, PITCH 1DEG, ROLL 1 DEG, HEAVE

Daily Mud Cost: 8,036	Daily Tangible Cost: 0	Daily Well Cost: 791,182	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 72,324	Cum Tangible Cost: 672,328	Cum Well Cost: 9,472,554	Total Appr: 134,847,000

Drill Water: 160	Potable Water: 225	Fuel: 300	Bulk Weight: 108	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep: RUSSELL/HOLLINS/SMJ		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 21-SEP-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467			
DOL: 2	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 12-22	Seas: 1 /	Bar:	POB: 82
Last Casing Size:	Set At: MD TVD	Shoe Test: EMW Leakoff?					
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:				
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD					

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
9.00	0	08 - 40	CONTINUE TO RUN ANCHORS; ANCHOR #8 ON BOTTOM @ 01:35HRS; ANCHOR #3 ON BOTTOM @ 04:47HRS; ANCHOR #7 ON BOTTOM @
		-	04:47HRS; ANCHOR #6 ON BOTTOM @ 06:40HRS; ANCHOR #2 ON BOTTOM @ 06:53HRS.
3.00	900	08 - 40	CROSS TENSION ANCHORS PAIRS TO 182-200 TONS; 1 & 5 @ 09:57HRS; 4 & 6 @ 10:30 HRS; 3 & 7 @ 10:50HRS; 2 & 6 @ 11:
		-	45HRS. ALL ANCHORS HOLDING W/ EXCEPTION OF #3.
4.00	1200	08 - 40	ANCHOR #3 HEAVING IN W/ 140-160 TON PRE-TENSION. PULL ANCHOR #3 & ATTEMPT TO DECK SAME ON M/V MARINER - NO GO -
		-	ANCHOR INVERTED. CONT TO HEAVE IN ANCHOR #3 UNTIL ABLE TO DECK SAME.
5.00	1600	08 - 40	CHASE OUT ANCHOR #3 AND RE-LOCATE ON BOTTOM @ 17:10HRS; CROSS-TENSION ANCHOR PAIR 3 & 6 - OK; COMMENCE
		-	BALLASTING DOWN RIG.
		99 - 99	NOTE: CONT TO CHANGE OUT PUMP LINERS TO 6" AND WORK ON MODUSPEC ACTION LIST.
		99 - 99	ROV PERFORMED VISUAL / SONAR SEABED SURVEY TO 100M FROM RIG CENTRE - NO ANOMOLIES.
		99 - 99	COMMENCE RIG ON CONTRACT @ 21:00HRS.
0.50	2100	01 - 62	HOLD TBT WITH DECK & DRILL CREW PRIOR TO P/U 5" DP FROM DECK & RACK BACK SAME IN DERRICK.
2.50	2130	01 - 07	P/U 3 JNTS OF 8" DC'S AND +/- 20 JNTS OF 5" DP FROM DECK.
		99 - 99	NOTE: CONTINUE TO OFFLOAD DRILLWATER; HYDROTEST PITS AND DUMPVALVES - OK; BALLAST DOWN TO 18M DRAFT.
		99 - 99	06:00 HR OPS: CONT TO P/U 5" DP FROM DECK; OFFLOAD MUD AND CONTAINERS F/ M/V TROMS STEGGEN.

Safety: HELD PRE-TOUR TBT; 27 STOPCARDS

24 Hr Summary: RUN, SET AND CROSS-TENSION ALL ANCHORS TO 180-200T. RE-RUN ANCHOR #3. OFFLOAD BOATS; P/U DP.

Projected Oprn: P/U TOTAL OF 5000' OF 5" DP; P/U DRILLING 36" BHA.

Remarks:
DAYS SINCE LTI = 625; POB=82; CVX=4; SERVICE=15; STENA=63 NEXT BOP TEST DUE ....

SEAS 1M, WIND 12-22KNOTS, PITCH 1.6DEG, ROLL 1.5 DEG, HEAVE M;

ANCHOR TENSIONS: #1 @ 104T, #2 @ 118T, #3 @117T, #4 @ 113T, #5 @ 106T, #6 @ 104T, #7 @ 95T, #8 @ 103T

FE COST ..... NOK (% OF TOTAL COST)

Daily Mud Cost: 16,072	Daily Tangible Cost: 0	Daily Well Cost: 1,113,858	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 88,396	Cum Tangible Cost: 672,328	Cum Well Cost: 10,586,412	Total Appr: 134,847,000

Drill Water: 386	Potable Water: 249	Fuel: 296	Bulk Weight: 108	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 22-SEP-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 3	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 18-35	Seas: 1 / 2	Bar:	POB: 82

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

27.0 1.0MT BARITE 386.0 1.0LB SODA ASH 18.0 1.0MT BENTONITE 820.0 1.0BBLMUD PAC

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
19.50	0	01 - 07	CONT TO P/U 5" DP F/ DECK & RACK BACK SAME IN DERRICK. TOTAL OF 210 JNTS PICKED UP = 2019 M. ALL DRIFTED TO 3".	
1.50	1930	01 - 09	M/U CEMENT STAND & RACK BACK SAME IN DERRICK.	
3.00	2100	01 - 07	HOLD TBT. CONT TO P/U 3 JNTS OF 9.1/2" DC & 9 JNTS OF 8" DC.	
		99 - 99		
		99 - 99	NOTE: CONT TO WORK SUPPLY BOATS & OFFLOAD 13.6 PPG GLYDRILL KILL WEIGHT MUD, CEMENT, BARYTE, ETC.	
		99 - 99	PREPARE 9.6 PPG DISPLACEMENT MUD & GEL SWEEPS.	
		99 - 99	SHALLOW GAS MOVE OFF DRILL PERFORMED DURING MOVE ONTO LOCATION.	
		99 - 99	COMMODITIES AT START OF CONTRACT 22 SEPT 21:00HRS - 354 M3 FUEL, 7700 LTR LUBOIL, 244 MT POTWATER,	
		99 - 99	386 MT DRILL WATER, 127 MT BARITE, 38 MT BENTONITE,	
		99 - 99	4301 LTR HELIFUEL.	
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Safety: 14 STOPCARDS. DURING PRE-TOUR TBT'S & SERVICE HAND MEETINGS, RE-ITERATE OBJECTIVE NUMBER ONE OF THE WELL BEING SAFETY.

24 Hr Summary: P/U TOTAL OF 210 JNTS OF 5" DP AND RACK BACK IN DERRICK; CONTINUE TO P/U 8" & 9.1/2" DC

Projected Oprn: M/U & RIH WITH 36" HOLE OPENER ASSY; SPUD SAHARA WELL & DRILL 17.1/2" X 36" HOLE SECTION.

Remarks:
DAYS SINCE LTI = 626; POB = 82; CVX = 4; SERVICE = 15; STENA = 63. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 2M, WIND: 35 KNOTS, PITCH: 1.1 DEG, ROLL: 1.3 DEG, HEAVE: 0.4 M.

ANCHOR TENSIONS (MT): #1 - 104, #2 - 118, #3 - 117, #4 - 113, #5 - 106, #6 - 104, #7 - 95, #8 - 103.

06:00 HRS OPS: WOW - WITH HOLE OPENER ASSY MADE UP, UNSAFE TO UNLATCH ELEVATORS DUE TO SEAS - SLIPS/MASTER BUSHING ROCKING

Daily Mud Cost: 16,072	Daily Tangible Cost: 0	Daily Well Cost: 2,111,920	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 104,468	Cum Tangible Cost: 672,328	Cum Well Cost: 12,698,332	Total Appr: 134,847,000

Drill Water: 818	Potable Water: 263	Fuel: 271	Bulk Weight: 139	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 23-SEP-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 4	DFS: 0	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs:

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 28-41	Seas: 5 / 6	Bar:	POB: 88

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

1.0 1.0MT BENTONITE

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
2.50	0	01 - 07	P/U & RACK BACK 15 JNTS OF 5" HWDP, 9 JNTS OF 8" DC & 3 JNTS OF 9.1/2" DC.	
2.50	230	01 - 07	HOLD TBT. P/U 17.1/2" X 22" X 26" X 36" HOLE OPENER & CHECK CONDITION OF CONES & CUTTERS - OK. INSTALL TOTCO	
		-	RING. P/U 2 JNTS OF 9.1/2" DC F/ DECK.	
0.50	500	01 - 05	ATTEMPT TO RUN BHA THRU SPLASH ZONE - NO GO. UNABLE TO SAFELY UNLATCH ELEVATORS. UNACCEPTABLE MOVEMENT OF SLIPS	
		-	& MASTER BUSHINGS DUE TO SEA STATE.	
2.00	530	01 - 07	POOH & RACK BACK HOLE OPENER. COMMENCE WEATHER WATCH. MEANWHILE M/U & RACK BACK DRILLING STAND.	
		99 - 99	05:30 HR: 35 KNT MEAN WIND, 045 DEG, 5.0 M MAX WAVE, 1.3 DEG PITCH, 1.6 DEG ROLL, 0.7 M HEAVE.	
16.50	730	01 - 07	CONT WEATHER WATCH. MEANWHILE P/U 195 JNTS OF 5" DP F/ DECK & RACK BACK SAME IN DERRICK.	
		99 - 99	08:00 HR: 34 KNT MEAN WIND, 010 DEG, 5.0 M MAX WAVE, 1.4 DEG PITCH, 2.4 DEG ROLL, 0.8 M HEAVE.	
		99 - 99	12:00 HR: 36 KNT MEAN WIND, 000 DEG, 6.0 M MAX WAVE, 2.3 DEG PITCH, 3.0 DEG ROLL, 1.3 M HEAVE.	
		99 - 99	16:00 HR: 34 KNT MEAN WIND, 000 DEG, 6.0 M MAX WAVE, 1.3 DEG PITCH, 1.9 DEG ROLL, 0.8 M HEAVE.	
		99 - 99	20:00 HR: 27 KNT MEAN WIND, 350 DEG, 6.0 M MAX WAVE, 1.4 DEG PITCH, 1.3 DEG ROLL, 0.4 M HEAVE.	
		99 - 99	24:00 HR: 25 KNT MEAN WIND, 350 DEG, 5.0 M MAX WAVE, 1.1 DEG PITCH, 1.2 DEG ROLL, 0.7 M HEAVE.	
		99 - 99	03:00 HR: 22 KNT MEAN WIND, 320 DEG, 4.5 M MAX WAVE, 1.1 DEG PITCH, 1.1 DEG ROLL, 0.7 M HEAVE.	
		99 - 99	NOTE: CONCLUDED TRIAL OF MIXING CEMENT (+/- 10 BBLS) - ALL OK.	

Safety: 17 STOPCARDS. HELD PRE-TOUR TBT'S & SERVICE HAND MEETINGS

24 Hr Summary: P/U 5" HWDP; M/U 17.1/2" X 36" H/O; UNABLE TO RUN THRU SPLASHZONE. PULL BACK. WEATHER WATCH WHILE P/U 5" DP.

Projected Oprn: RIH WITH HOLE OPENER ASSY AND DRILL 89M OF 17.1/2" X 36" HOLE.

Remarks:
DAYS SINCE LTI = 627; POB = 88; CVX = 4; SERVICE = 24; STENA = 60. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 5-6M, WIND: 28-41 KNOTS, PITCH: 2.3 DEG, ROLL: 3.0 DEG, HEAVE: 1.3 M.

ANCHOR TENSIONS (MT): #1 - 104, #2 - 132, #3 - 122, #4 - 122, #5 - 115, #6 - 116, #7 - 101, #8 - 93.

06:00 HRS OPS:CONTINUE RIH @ +/- 400M.

Daily Mud Cost: 23,910	Daily Tangible Cost: 0	Daily Well Cost: 2,391,156	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 128,378	Cum Tangible Cost: 672,328	Cum Well Cost: 15,089,488	Total Appr: 134,847,000

Drill Water: 804	Potable Water: 284	Fuel: 271	Bulk Weight: 139	Neat Cement: 193	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 24-SEP-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth: 1,558	TVD: 1,558	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 5	DFS: 1	Spud Date: 25-SEP-2004	Daily Footage: 175	Daily Rot Hrs: 11.0	Total Rot Hrs: 11.0
Torq: 11	Drag: 0	Rot Wgt: 170	P/U Wgt: 170	Slack Off Wgt: 170	Wind: 8-24
Seas: 1 / 5	Bar:	POB: 88			
Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?		
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co:	Type: SEAWATER	Sample From:	Wt: 8.6	FV:	PV:
YP:	Gel: /				
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand: SAMPL
MBT:	Ph: 9.0				
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:
Solids %HG/LG: /	%DS/Bent: /				

57.0 1.0LB SODA ASH 2.0 1.0MT BENTONITE

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
1	435M	17.500	DBS	75535	3 - 20 / 1 - 18 / - / - / -	1.172	1,383		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
XTD12DSCL	175	11.0	2/10	60 / 100										6666.67
			/	/										

Total Length of BHA: 732.89 BHA Description: 17.1/2" ROCK BIT, 22" X 26" X 36" HOLE OPENER, 36" HOLE OPENER (C/W NON-PORTED FLOAT), 0 - 5 DEG ANDERDRIFT TOOL (C/W TOTCO RING), 5 X 9.1/2" SPIRAL DRILL COLLARS, X/OVER, 3 X 8" SPIRAL DRILL COLLARS, X/OVER, 15 X 5" HWDP

Hrs On Jars: Hours Since Last Inspection: 11.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
1	6.000 / 6.000 / 6.000	/ /	75 / 80 / 75	1500	983	270.4	19.6	111.5	310.0	1.3	860
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.00	0	01 - 07	CONT WEATHER WATCH. MEANWHILE CONT TO P/U & RACK BACK A TOTAL OF 195 JNTS OF 5" DP F/ DECK.	
0.50	100	01 - 07	CLEAR RIG FLOOR OF EXCESS EQUIPMENT. C/OUT HANDLING GEAR.	
0.50	130	01 - 62	HOLD TBT PRIOR TO RUNNING BHA. REVIEW SHALLOW GAS PROCEDURES W/ DRILL CREW.	
1.50	200	01 - 05	TIH W/ HOLE OPENER ASSY F/ DERRICK TO 240M - WEIGHT OF DC IN SEAWATER = 55K LBS.	
		99 - 99	NOTE: 22", 26" & 36" CUTTERS ARE 1.23M, 2.65M & 3.24M BEHIND THE 17.1/2" BIT RESPECTIVELY.	
2.00T	330	01 - 06	FILL STRING W/ SEAWATER & SHALLOW TEST ANDERDRIFT. DIFFICULTY DECODING PULSES - TROUBLESHOOT SAME.	
1.00	530	01 - 05	CONFIRM ANDERDRIFT SURVEY - 0.5 DEG INCLINATION. CONT TIH W/ 5" DP F/ 240M - 414M.	
0.50	630	01 - 05	TAKE ANDERDRIFT SURVEY PRIOR TO SPUD - 0.5 DEG INCLINATION. RUN DOWN & OBSERVE SEABED TAG W/ ROV AT 421.5M MSL.	
1.00	700	01 - 38	RE-BALANCE ANCHOR TENSIONS DUE TO REDUCED SEA STATE & CONFIRM LOCATION W/ PROVISIONAL 15 MIN GPS FIX.	
4.00T	800	01 - 20	ATTEMPT TO OPEN MOTION COMPENSATOR - NO GO. COMPENSATOR ONLY STROKING +/- 0.25M OPEN - TROUBLESHOOT SAME.	
		-	PROBLEM TRACED TO LOW OIL LEVEL - RECTIFY SAME.	
1.00	1200	01 - 05	RUN DOWN W/ 200 GPM, 400 PSI & OBSERVE MUDLINE TAG W/ ROV. MARK PIPE & CONT TO WASH IN 4.5M W/OUT ROTARY. TAKE	
		-	2 X ANDERDRIFT SURVEYS - BOTH 0.5 DEG INCLINATION.	
		99 - 99	NOTE: WELL 6507/1-1 SPUDDED AT 12:30 HRS ON 25/09/04 - ALL SHALLOW GAS PROCEDURES IN PLACE.	
11.00	1300	01 - 02	DRILL 17.1/2" X 22" X 26" X 36" HOLE F/ 426M - 475M MSL W/ 500 - 986 GPM, 400 - 1500 PSI, 60 - 100 RPM, 2 - 11K	

Safety: 18 STOPCARDS. HELD PRE-TOUR TBT'S; HELD WEEKLY SERVICE HAND SAFETY MEETINGS & MUSTER DRILL.

24 Hr Summary: RIH W/ 17 1/2" X 22" X 26" X 36" HOLE OPENER ASSY; DRILL 17 1/2" F/ 421.5M TO 475M

Projected Oprn: DRILL 17 1/2" X 36" HOLE TO 511M; CIRC & DISPLACE TO 9.6PPG MUD; POOH; R/U & RUN CONDUCTOR

Remarks:
DAYS SINCE LTI = 628; POB = 88; CVX = 4; SERVICE = 24; STENA = 60. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 0.5-4.5M, WIND: 8-24 KNOTS, PITCH: 1.2 DEG, ROLL: 1.2DEG, HEAVE: 0.7 M.

ANCHOR TENSIONS (MT): #1 - 103, #2 - 100, #3 - 97, #4 - 100, #5 - 109, #6 - 116, #7 - 110, #8 - 100.

06:00 HRS OPS: CONT TO DRILL 17 1/2" X 36" HOLE @

Daily Mud Cost: 175,035	Daily Tangible Cost: 0	Daily Well Cost: 25,202,577	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 303,413	Cum Tangible Cost: 672,328	Cum Well Cost: 40,292,065	Total Appr: 134,847,000

Drill Water: 766	Potable Water: 302	Fuel: 660	Bulk Weight: 335	Neat Cement: 193	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 25-SEP-2004	Page: 1 Of 2		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 1,558	TVD: 1,558	PBTD:		Proposed MD: 12,467	Proposed TVD: 12,467		
DOL: 5	DFS: 1	Spud Date:	Daily Footage: 175	Daily Rot Hrs: 11.0	Total Rot Hrs: 11.0		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 88
Last Casing Size:	Set At: MD	TVD	Shoe Test: EMW	Leakoff?			
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:				
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	TQ, 2 - 10K WOB. PUMP 50 BBL GEL SWEEP MIDSTAND & SPOT 50 BBL GEL PILL PAST BIT PRIOR TO CONNECTION.	
		99 - 99	NOTE: BACK REAM EACH HALF STAND & SURVEY PRIOR TO EACH CONNECTION.	
		99 - 99	ALL ANDERDRIFT SURVEYS - 0.5 DEG INCLINATION.	
		99 - 99	TAKE PRELIMINARY WELL POSITION WHILE DRILLING AHEAD - 7314353.73N, 420880.31E.	
		99 - 99	- 3.74M F/ PROPOSED LOCATION ON BEARING 4.81 DEG.	
		99 - 99		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:	
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:	
Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 25-SEP-2004	Page: 2 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 1,677	TVD: 1,677	PBTD:			Proposed MD: 12,467		Proposed TVD: 12,467	
DOL: 6	DFS: 2	Spud Date: 25-SEP-2004		Daily Footage: 118		Daily Rot Hrs: 8.0	Total Rot Hrs: 19.0	
Torq: 15	Drag: 0	Rot Wgt: 170	P/U Wgt: 170	Slack Off Wgt: 170	Wind: 27-32	Seas: 5 / 0	Bar:	POB: 88

Last Casing Size: Set At: MD TVD Shoe Test: EMW Leakoff?

Cum Rot Hrs On Casing: Cum Rot Hrs On Casing Since Last Caliper: Depth Worst Wear: % Remaining:

Liner Size: Set At: MD TVD Liner Top At: MD TVD

Mud Co: M.I. DRILLING FLUIDS	Type: SPUD MUD	Sample From:	Wt: 9.6	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	SAMPL	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

110.0 1.0LB SODA ASH 5.0 1.0MT BENTONITE

Drlg Gas: Max Gas: Conn Gas: Trip Gas: Trip Cl: Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
1	435M	17.500	DBS	75535	3 - 20 / 1 - 18 / - / - / -	1.172	1,383	1,677	1,677
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
XTD12DSCL	294	19.0	0/5	95 / 110										6243.47
			/	/										

Total Length of BHA: 732.89 BHA Description: 17.1/2" ROCK BIT, 22" X 26" X 36" HOLE OPENER, 36" HOLE OPENER (C/W NON-PORTED FLOAT), 0 - 5 DEG ANDERDRIFT TOOL (C/W TOTCO RING), 5 X 9.1/2" SPIRAL DRILL COLLARS, X/OVER, 3 X 8" SPIRAL DRILL COLLARS, X/OVER, 15 X 5" HWDP Hrs On Jars: Hours Since Last Inspection: 24.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
1	6.000 / 6.000 / 6.000	/ /	85 / 85 / 85	2015	1083	297.1	21.5	122.9	412.5	1.3	1273
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
3.00	0	01 - 04	SURVEY PRIOR TO CONNECTION AT 475M - 1.5 DEG. BACK REAM F/ 444M - 474M TO REDUCE INCLINATION TO 1 DEG.
8.00	300	01 - 02	DRILL 17.1/2" X 22" X 26" X 36" HOLE F/ 475M - SECTION TD AT 511M MSL W/ 980-1090 GPM, 1580-2015 PSI, 95-100
		-	RPM, 5-15K TQ, 0-5K WOB. PUMP 50 BBL GEL SWEEP EACH JNT & PRIOR TO CONNECTIONS.
		99 - 99	NOTE: BACK REAM & SURVEY AS REQ'D TO MAINTAIN HOLE ANGLE LESS THAN 0.5 DEG.
0.50	1100	01 - 01	SWEEP HOLE CLEAN W/ 200 BBL GEL PILL & TAKE SURVEY 2M ABOVE TD - 0 DEG INCLINATION. DISPLACE HOLE 1.5 X HOLE
		-	VOLUME OF 9.6 PPG DISPLACEMENT MUD AT 800 GPM, 1300 PSI, 60 RPM, 3K TQ. CHASE W/ 15 BBLS SEAWATER. TIH TO TAG
		-	TD & OBSERVE 89M PENETRATION MARK ON BHA AT MUDLINE W/ ROV. F/CHECK - STATIC.
1.50	1130	01 - 05	POOH W/ TOP HOLE BHA F/ 511M - 432M W/OUT PROBLEM. REST HOLE FOR 15 MINS.
0.50	1300	01 - 05	TIH W/ TOP HOLE BHA F/ 432M TO TAG 2M OF FILL. REAM DOWN TO TD W/ 400 GPM, 400 PSI, 30 RPM, 5K TQ.
1.00	1330	01 - 01	LINE UP & DISPLACE HOLE W/ 1.5 X HOLE VOLUME OF 9.6 PPG DISPLACEMENT MUD W/ 1000 GPM, 2050 PSI, 80 RPM, 5K TQ.
		-	F/CHECK W/ ROV - STATIC.
1.00	1430	01 - 05	POOH W/ TOP HOLE BHA F/ 511M - 432M W/OUT PROBLEM. LOCATE MARKER BUOYS EITHER SIDE OF HOLE W/ ROV.
1.50	1530	01 - 05	CONT TO POOH W/ TOP HOLE BHA F/ 432M & RACK BACK SAME. BIT & HOLE OPENER IN GOOD CONDITION.
0.50	1700	01 - 62	R/U TO RUN 30" CONDUCTOR (C/W FALSE ROTARY & 2 X 30" ELEVATORS). HOLD TBT & REVIEW TASK RISK ASSESSMENT.
3.50	1730	01 - 08	P/U 20" X 30" SHOE JNT & RUN SAME THRU ROTARY TO STAB PGB ON MOONPOOL TROLLEY. LAND OFF ON ROTARY & FILL W/

Safety: 34 STOP CARDS. ROUSTABOUT SPRAINED ANCKLE WHIILE WALKING ON CELLAR DECK. WEEKLY SAFETY MEETING HELD.

24 Hr Summary: DRILL TO SECTION TD @ 511M MSL. MAKE WIPER TRIP. DISPLACE TO 9.6 PPG MUD & POOH. M/U & RUN 30" CONDUCTOR.

Projected Oprn: RUN & CEMENT 30" CONDUCTOR. WOC. RELEASE 30" CART & POOH. M/U 17.1/2" DRILLING BHA & TIH W/ SAME.

Remarks:
DAYS SINCE LTI = 629; POB = 88; CVX = 4; SERVICE = 24; STENA = 60. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 1.5M, WIND: 27-32 KNOTS, PITCH: 1.2 DEG, ROLL: 1.2DEG, HEAVE: 0.8 M.

ANCHOR TENSIONS (MT): #1 - 103, #2 - 106, #3 - 102, #4 - 102, #5 - 102, #6 - 110, #7 - 108, #8 - 99.

06:00 HRS OPS: CEMENT 30" CONDUCTOR.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,591,812	Incidents: FIRST AID
Cum Mud Cost: 323,323	Cum Tangible Cost: 672,328	Cum Well Cost: 42,883,877	Total Appr: 134,847,000

Drill Water: 766	Potable Water: 323	Fuel: 651	Bulk Weight: 335	Neat Cement: 193 Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 26-SEP-2004	Page: 1 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 1,677	TVD: 1,677	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 6	DFS: 2	Spud Date:	Daily Footage: 118	Daily Rot Hrs: 8.0	Total Rot Hrs: 19.0

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 88

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?

Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:

Liner Size:	Set At: MD TVD	Liner Top At: MD TVD

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	SEAWATER TO CHECK FLOAT - OK. CONT TO RUN 5 JNTS OF 30" X 1" WT INTERMEDIATE CONDUCTOR JOINTS W/ VETCO ST-2	
		-	CONNECTIONS.	
1.00	2100	01 - 08	C/OUT TO 5" HANDLING GEAR. P/U & M/U 30" X 1.5" WT LPWH HOUSING JNT. ATTACH GUIDELINES TO PGB IN MOONPOOL.	
0.50	2200	01 - 08	RELEASE R/TOOL ON DRILL FLOOR & CHECK O-RINGS ON SAME. REMOVE LPWH CLAMP & INSTALL ANTI-ROTATION RINGS.	
0.50	2230	01 - 08	M/U 1 X STD OF 5" DP TO R/TOOL. RUN DOWN TO LAND THEN LOCK 30" LPWH TO PGB.	
1.00	2300	01 - 08	RUN 30" LPWH HOUSING & PGB THRU SPLASH ZONE. LINE UP RIG PUMPS & FILL CASING W/ SEAWATER. CLOSE 30" CART FILL	
		-	UP VALVE W/ ROV. P/U WT = 195K LB (BLOCKS = 80K LB).	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

ChevronTexaco **Drilling Activity Report**

Measured Depth: 1,677	TVD: 1,677	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 7	DFS: 3	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 19.0

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 7 - 12	Seas: 3 /	Bar:	POB: 94

Last Casing Size: 30.000 Set At: 1,665 MD 1,665 TVD Shoe Test: 0.0 EMW Leakoff?

Cum Rot Hrs On Casing: Cum Rot Hrs On Casing Since Last Caliper: Depth Worst Wear: % Remaining:

Liner Size: Set At: MD TVD Liner Top At: MD TVD

Mud Co: M.I. DRILLING FLUIDS	Type: SPUD MUD	Sample From:	Wt: 9.6	FV: 0	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand: SAMPL	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

60.0 1.0BBLMUD PAC

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.00	0	01 - 08	TIH W/ 20" X 30" CONDUCTOR STRING ON 5" DP TO 410M.	
2.00	100	01 - 08	LOCATE 20" X 30" CONDUCTOR W/ ROV & MOVE RIG TO ALIGN SAME W/ 36" HOLE. OPERATION HAMPERED BY POOR VISIBILITY.	
		-	STAB 36" HOLE W/ CONDUCTOR.	
1.00	300	01 - 08	CONT TO RUN 20" X 30" CONDUCTOR ON 5" DP TO A SHOE DEPTH OF 507.5M W/OUT PROBLEM. P/U - 188K LBS, S/O - 185K	
		-	LBS. CONFIRM 30" LPWH HOUSING STICK UP W/ ROV AT 2.5M. OBSERVE BULLSEYE - BOTH 0 DEGREES.	
0.50T	400	01 - 09	LINE UP RIG PUMPS & BREAK CIRC W/ SEAWATER. OBSERVE FILL UP V/V LEAKING AT CONNECTION TO 30" CART, TIGHTEN SAME	
		-	W/ ROV. BREAK CIRC AGAIN & PRESS TEST V/V W/ 14 BPM, 180 PSI - OK.	
0.50	430	01 - 09	LINE UP CMT UNIT, PUMP 20 BBLS OF SEAWATER & PRESS TEST LINES TO 3000 PSI/5 MINS - OK.	
2.50	500	01 - 09	MIX & PUMP 230 BBLS OF 13 PPG LEAD SLURRY USING 174 BBLS OF MIXWATER & 249 BBLS OF 16 PPG TAIL SLURRY USING 150	
		-	BBLS MIXWATER AT 5-6 BPM. CLEAR LINES W/ 10 BBLS SEAWATER F/ CMT UNIT.	
0.50	730	01 - 09	LINE UP RIG PUMPS & DISPLACE SLURRY W/ 211 BBLS OF SEAWATER AT 10 BPM, 90 PSI TO LEAVE 5M OF CEMENT ABOVE 20"	
		-	SHOE. FINAL DISPLACEMENT PRESS AT 1 BPM = 10 PSI. BREAK OFF CMT HOSE & CHECK FLOATS HOLDING - OK.	
0.00		99 - 99	NOTE: DYE ADDED TO LEAD MIXWATER - NONE SEEN BY ROV DUE TO POOR VISABILITY.	
6.00	800	01 - 43	WEIGHT ON CEMENT. MONITOR DRILL PIPE MARK AT ROTARY & ADJUST SAME FOR TIDE.	
0.00		99 - 99	NOTE: CMT IN PLACE AT 08:00 HRS. AFT & STBD BULLSEYE READING 0.25 DEG FWD & 0.25 DEG PORT RESPECTIVELY.	

Safety: 32 STOP CARDS. HELD PRE-TOUR TBT'S. STOP & SAFETY PROMPT CARDS USED.

24 Hr Summary: RUN & CMT 20" X 30" CONDUCTOR. WOC. POOH W/ R/TOOL. TIH W/ MULESHOE & PERFORM TOP UP CMT JOB. POOH. L/O EXCESS BHA.

Projected Oprn: M/U 17.1/2" BHA & TIH W/ SAME. DRILL OUT CMT & SHOE. DRILL 17.1/2" HOLE TO SECTION TD. DISPLACE TO GLYDRILL MUD.

Remarks:
DAYS SINCE LTI = 630; POB = 94; CVX = 4; SERVICE = 28; STENA = 62. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 1M, WIND: 7-12 KNOTS, PITCH: 2 DEG, ROLL: 1DEG, HEAVE: 1.2 M. PGB BULLSEYES = 1/4 FWD & 1/2 PORT/AFT.

ANCHOR TENSIONS (MT): #1 - 105, #2 - 110, #3 - 107, #4 - 104, #5 - 110, #6 - 107, #7 - 118, #8 - 97.

06:00 HRS OPS: TIH W/ 17.1/2" BHA

Daily Mud Cost: 130,390	Daily Tangible Cost: 565,926	Daily Well Cost: 2,184,142	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 453,713	Cum Tangible Cost: 1,238,254	Cum Well Cost: 45,068,019	Total Appr: 134,847,000

Drill Water: 5183	Potable Water: 2139	Fuel: 4032	Bulk Weight: 7385	Neat Cement: 1853	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 27-SEP-2004	Page: 1 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 1,677	TVD: 1,677	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 7	DFS: 3	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 19.0

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 94

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
0.50	1400	01 - 09	PROGESSIVLY SLACK OFF TO LANDING STRING WEIGHT. NO MOVEMENT SEEN AT MUDLINE. RELEASE 30" CART W/ 5 RH TURNS &	
		-	PULL CLEAR OF PGM. AFT & STBD BULLSEYE READING 0.25 DEG FWD & 0.5 DEG PORT/AFT RESPECTIVELY.	
1.00	1430	01 - 08	POOH W/ 30" CART ON 5" DP F/ 422M & L/O SAME.	
2.00	1530	01 - 09	P/U 5" PORTED MULESHOE & TIH W/ SAME ON 5" DP. M/U CMT STAND & STAB MULESHOE THRU GUIDE FUNNEL ON PGB.	
0.50	1730	01 - 09	RUN DOWN & TAKE 5K WT AFTER 7.5M OF MUDLINE PENETRATION. BREAK CIRC & WASH DOWN TO 9.5M BELOW MUDLINE W/ 8 BPM.	
1.00	1800	01 - 09	LINE UP CMT UNIT, PUMP 20 BBLS OF SEAWATER & PRESS TEST LINES TO 1500 PSI/5 MINS - OK. MIX & PUMP 95 BBLS OF 16	
		-	PPG TAIL SLURRY USING 57 BBLS OF MIXWATER. DISPLACE CMT W/ 23 BBLS SEAWATER AT 7 BPM, 400 PSI.	
0.50	1900	01 - 09	P/U & PULL PORTED MULESHOE CLEAR OF PGB. CIRCULATE CLEAR W/ 600 GPM. RACK BACK CMT STAND.	
1.00	1930	01 - 09	POOH PORTED MULESHOE ON 5" DP F/ 410M.	
2.50	2030	01 - 07	HOLD TBT. L/O 17.1/2" X 22" X 26" X 36" HOLE OPENER ASSY & 5 X 9" DC F/ DERRICK.	
0.50	2300	01 - 09	L/D CMT STAND F/ DERRICK & CLEAR RIG FLOOR.	
0.50	2330	01 - 21	SERVICE DDM.	
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

ChevronTexaco **Drilling Activity Report**

Measured Depth: 2,493	TVD: 2,493	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 8	DFS: 4	Spud Date: 25-SEP-2004	Daily Footage: 817	Daily Rot Hrs: 13.0	Total Rot Hrs: 32.0
Torq: 10	Drag: 0	Rot Wgt: 183	P/U Wgt: 183	Slack Off Wgt: 183	Wind: 14-23
Seas: 4 / 5	Bar: 0.00	POB: 96			

Last Casing Size: 30.000 Set At: 1,665 MD 1,665 TVD Shoe Test: 0.0 EMW Leakoff?

Cum Rot Hrs On Casing: 13.0 Cum Rot Hrs On Casing Since Last Caliper: 13.0 Depth Worst Wear: % Remaining:

Liner Size: Set At: MD TVD Liner Top At: MD TVD

Mud Co: M.I. DRILLING FLUIDS Type: SPUD MUD Sample From: Wt: 9.6 FV: 0 PV: 0 YP: 0 Gel: 0 / 0

WL API: 0.0 HTHP: 0.0 FC API: 0 HTHP: 0 Solids: % Oil: 0.00 %Water: 0.00 % Sand: SAMPL MBT: Ph:

Pm: 0.00 Pf/Mf: 0.00 / 0.00 Carb: Cl: Ca: Bent: Solids %HG/LG: / %DS/Bent: /

385.0 1.0LB DUOTEC 14.0 1.0MT BENTONITE

Drlg Gas: Max Gas: Conn Gas: Trip Gas: Trip Cl: Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
2	415W	17.500	DBS	10640491	3 - 20 / 1 - 18 / - / - / -	1.169	1,677		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
EBXT02DSL	817	13.0	0/15	100 / 140										2932.73
			/	/										

Total Length of BHA: 738.71 BHA Description: 17.1/2" INSERT BIT, BIT SUB (C/W NON-PORTED FLOAT), X/OVER, MPR TOOL, MWD, FILTER SUB, 17.1/4" STRING STAB, 8" DC, 17.1/8" STRING STAB, 12 X 8" DC, X/OVER, 9 X 5" HWDP

Hrs On Jars: 0.0 Hours Since Last Inspection: 13.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
2	6.000 / 6.000 / 6.000	/ /	85 / 85 / 85	2640	1090	299.8	87.2	87.2	438.0	1.8	1679
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
2,120	0.33	245.97	S65.97W	2,120			-1.94	0.27
2,218	0.26	233.42	S53.42W	2,218			-2.17	0.10
2,311	0.20	198.76	S18.76W	2,311			-2.46	0.16
2,406	0.36	260.43	S80.43W	2,406			-2.66	0.34

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
3.00T	0	01 - 09	P/U & M/U 13.3/8" CMT STAND AS PER PROCEDURE & ATTEMPT TO RACK BACK SAME IN DERRICK - NO GO. WEIGHT OF DART
		-	LAUNCHER CAUSING UNACCEPTABLE BEND IN 5" DP SINGLE BELOW. L/O CMT STAND.
2.50	300	01 - 07	P/U & M/U 17.1/2" BHA (C/W ONTRAK MPR & MWD ASSY). VERIFY MWD TOOL ON DRILL FLOOR.
0.50	530	01 - 07	RUN DOWN TO MOONPOOL. PAINT BHA TO AID VISIBILTY & ATTACH SOFTLINES TO SAME.
4.00	600	01 - 05	TIH W/ REMAINDER OF BHA & 5" DP F/ DERRICK TO 484M. M/U DRILLING STAND & WASH DOWN W/ 600 GPM, 700 PSI TO TAG
		-	GOOD CMT AT 503.5M MSL. TAKE PARAMS P/U, S/O & FRWT = 170K LBS.
1.00	1000	01 - 15	DRILL GOOD CMT & FLOAT SHOE F/ 503.5M - 509M W/ 850 GPM, 1500 PSI, 60 RPM, 3K TQ, 5K WOB. PUMP 50 BBL GEL SWEEP
		-	WHILE REAM THRU SHOE X 3. CLEAN OUT RATHOLE TO 17.1/2" TD AT 511M.
13.00	1100	01 - 02	DRILL 17.1/2" HOLE F/ 511M - 760M W/ 850 - 1100 GPM, 1500 - 2640 PSI, 100-140 RPM, 4-10K TQ, 0-15K WOB. PUMP 50
		-	BBL GEL SWEEPS EACH HALF STAND & SPOT 50 BBL PILL AROUND BHA PRIOR TO CONNECTIONS. SURVEY EACH STAND.
0.00		99 - 99	NOTE: F/CHECK W/ ROV AT 744M - STATIC. CHECK ALIGNMENT OF 5" DP PIPE IN 30" LPWH HOUSING.
0.00		99 - 99	AVE ROP = 19.2 M/HR. CONTROL ROP THRU BASE QUATERNARY AT +/- 751M.
		-	
		-	
		-	

Safety: 14 STOP CARDS. HELD PRE-TOUR TBT'S. STOP & SAFETY PROMPT CARDS USED.

24 Hr Summary: M/U 17.1/2" BHA. TIH & TAG CMT. DRILL OUT CMT & FLOAT SHOE. DRILL 17.1/2" HOLE TO 760M.

Projected Oprn: DRILL 17.1/2" HOLE TO SECTION TD +/- 1378M. CIRC HOLE CLEAN, DISPLACE TO 10 PPG MUD & POOH. RUN 13.3/8" CASING.

Remarks:
DAYS SINCE LTI = 631; POB = 96; CVX = 5; SERVICE = 27; STENA = 64. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 1M, WIND: 7-12 KNOTS, PITCH: 2 DEG, ROLL: 1DEG, HEAVE: 1.2 M. PGB BULLSEYES = 1/4 FWD & 1/2 PORT/AFT.

ANCHOR TENSIONS (MT): #1 - 107, #2 - 112, #3 - 106, #4 - 120, #5 - 106, #6 - 106, #7 - 96, #8 - 102.

05:30 HRS OPS: DRILL 17.1/2" HOLE AT 888M.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,795,741	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 473,623	Cum Tangible Cost: 1,238,254	Cum Well Cost: 46,863,760	Total Appr: 134,847,000

Drill Water: 4302	Potable Water: 2227	Fuel: 3994	Bulk Weight: 7385	Neat Cement: 1853 Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 28-SEP-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,301	TVD: 4,301	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 9	DFS: 5	Spud Date: 25-SEP-2004	Daily Footage: 1,808	Daily Rot Hrs: 24.0	Total Rot Hrs: 56.0

Torq: 6	Drag: 5	Rot Wgt: 214	P/U Wgt: 219	Slack Off Wgt: 214	Wind: 6-15	Seas: 3 / 5	Bar: 0.00	POB: 94

Last Casing Size: 30.000	Set At: 1,665 MD 1,665 TVD	Shoe Test: 0.0 EMW Leakoff?

Cum Rot Hrs On Casing: 37.0	Cum Rot Hrs On Casing Since Last Caliper: 37.0	Depth Worst Wear:	% Remaining:

Liner Size:	Set At: MD TVD	Liner Top At: MD TVD

Mud Co: M.I. DRILLING FLUIDS	Type: SEAWATER	Sample From:	Wt: 8.6	FV: 0	PV: 0	YP: 0	Gel: 0 / 0

WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids:	% Oil: 0.00	%Water: 0.00	% Sand: SAMPL	MBT:	Ph:

Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

882.0 1.0LB SODA ASH 554.0 1.0LB DUOTEC 19.0 1.0MT BENTONITE

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
2	415W	17.500	DBS	10640491	3 - 20 / 1 - 18 / - / - / -	1.169	1,677		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
EBXT02DSL	2,625	37.0	5/20	130 / 140										1865.31
			/	/										

Total Length of BHA: 738.71 BHA Description: 17.1/2" INSERT BIT, BIT SUB (C/W NON-PORTED FLOAT), X/OVER, MPR TOOL, MWD, FILTER SUB, 17.1/4" STRING STAB, 8" DC, 17.1/8" STRING STAB, 12 X 8" DC, X/OVER, 9 X 5" HWDP

Hrs On Jars: 0.0 Hours Since Last Inspection: 37.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
2	5.984 / 5.984 / 5.984	/ /	85 / 85 / 85	2950	1085	298.5	86.8	86.8	432.0	1.8	1867
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
3,923	0.38	278.49	N81.51W	3,923			-4.72	0.37
4,021	0.21	242.31	S62.31W	4,021			-4.76	0.25
4,114	0.17	66.15	N66.15E	4,114			-4.79	0.41
4,206	0.14	110.44	S69.56E	4,206			-4.79	0.13

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
24.00	0	01 - 02	DRILL 17.1/2" HOLE F/ 760M - 1311M W/ 1100 GPM, 2700 - 2950 PSI, 130 - 140 RPM, 4 - 7K TQ, 5 - 20K WOB. PUMP 50
		-	BBL GEL SWEEPS EACH HALF STAND & SPOT 50 BBL PILL AROUND BHA PRIOR TO CONNECTIONS. SURVEY EACH STAND.
		99 - 99	NOTE: F/CHECK W/ ROV EVERY 5 STANDS - STATIC. CHECK ALIGNMENT OF 5" DP PIPE IN 30" LPWH HOUSING.
		99 - 99	AVE ROP = 23 M/HR. CONTROL ROP THRU SAND INTERVALS AT 922M, 1157M & 1195M.
		-	
		-	
		-	
		-	
		-	
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		-	
		-	
		-	
		-	

Safety: 19 STOP CARDS. HELD PRE-TOUR TBT'S. STOP & SAFETY PROMPT CARDS USED.

24 Hr Summary: DRILL 17.1/2" HOLE F/ 760M - 1311M.

Projected Oprn: DRILL 17.1/2" HOLE TO SECTION TD. DISPLACE HOLE TO GLYDRILL MUD. POOH. P/U CMT STAND. R/U & RUN 13.3/8" CASING.

Remarks:
DAYS SINCE LTI = 632; POB = 94; CVX = 3; SERVICE = 28; STENA = 63. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 1M, WIND: 6 - 18 KNOTS, PITCH: 0.6 DEG, ROLL: 0.5 DEG, HEAVE: 0M. PGB AFT BULLSEYE = 1/2 PORT/FWD.

ANCHOR TENSIONS (MT): #1 - 128, #2 - 112, #3 - 118, #4 - 117, #5 - 119, #6 - 110, #7 - 101, #8 - 110.

05:30 HRS OPS: DRILL TO SECTION TD AT 1377M. DISPLACE WELL TO 10 PPG GLYDRIL MUD.

Daily Mud Cost: 700,112	Daily Tangible Cost: 0	Daily Well Cost: 2,696,635	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 1,173,735	Cum Tangible Cost: 1,238,254	Cum Well Cost: 49,560,395	Total Appr: 134,847,000

Drill Water: 0	Potable Water: 2346	Fuel: 3875	Bulk Weight: 7385	Neat Cement: 1853	Blended: 0

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 29-SEP-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 10	DFS: 6	Spud Date: 25-SEP-2004	Daily Footage: 217	Daily Rot Hrs: 3.5	Total Rot Hrs: 59.5

Torq: 6	Drag: 5	Rot Wgt: 214	P/U Wgt: 219	Slack Off Wgt: 214	Wind: 15	Seas: 2 / 0	Bar: 0.00	POB: 94

Last Casing Size: 30.000	Set At: 1,665 MD 1,665 TVD	Shoe Test: 0.0 EMW Leakoff?
Cum Rot Hrs On Casing: 44.5	Cum Rot Hrs On Casing Since Last Caliper: 44.5	Depth Worst Wear: / % Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD

Mud Co: M.I. DRILLING FLUIDS	Type: KCL POLYMER	Sample From:	Wt: 10.0	FV: 62	PV: 9	YP: 15	Gel: 7 / 15

WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids:	% Oil: 0.00	%Water: 0.00	% Sand: SAMPL	MBT:	Ph: 8.7

Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

1929.0 1.0LB CMC HI VIS 551.0 1.0LB SODA ASH 1874.0 1.0LB DUOTEC 2.0 1.0MT BENTONITE

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
2	415W	17.500	DBS	10640491	3 - 20 / 1 - 18 / - / - / -	1.169	1,677	4,518	4,518
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
EBXT02DSL	2,841	40.5	10/20	135 /										1851.47
			/	/										

Total Length of BHA: 738.71 BHA Description: 17.1/2" INSERT BIT, BIT SUB (C/W NON-PORTED FLOAT), X/OVER, MPR TOOL, MWD, FILTER SUB, 17.1/4" STRING STAB, 8" DC, 17.1/8" STRING STAB, 12 X 8" DC, X/OVER, 9 X 5" HWDP

Hrs On Jars: 0.0 Hours Since Last Inspection: 44.5

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
2	5.984 / 5.984 / 5.984	/ /	85 / 85 / 85	2950	1083	297.9	86.7	86.7	429.8	1.3	1864
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
4,299	0.18	43.65	N43.65E	4,299			-4.72	0.19
4,396	0.18	186.39	S6.39W	4,396			-4.76	0.35
4,483	0.08	103.63	S76.37E	4,483			-4.89	0.22

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
3.50	0	01 - 02	DRILL 17.1/2" HOLE F/ 1311M TO SECTION TD AT 1377M MSL W/ 1100 GPM, 2950 PSI, 135 RPM, 6K TQ, 20K WOB. PUMP 50
		-	BBL GEL SWEEPS EACH HALF STAND & SPOT 50 BBL PILL AROUND BHA PRIOR TO CONNECTIONS. SURVEY EACH STAND.
2.00	330	01 - 01	PUMP 200 BBL GEL PILL & DISPLACE F/ HOLE W/ SEAWATER AT 800 GPM, 1700 PSI, 50 RPM, 0K TQ. CONT TO CIRC SEAWATER
		-	WHILE CUTTING BACK KILL WEIGHT MUD TO 10 PPG. RACK BACK STAND AS REQ'D.
1.50	530	01 - 01	LINE UP RIG PUMPS & DISPLACE WELL W/ 1400 BBLS OF 10 PPG GLYDRIL MUD AT 1100 GPM, 2630 PSI, 50 RPM, 4K TQ.
0.50	700	01 - 05	DISPLACE STRING TO SEAWATER W/ 80 BBLS AT 700 GPM, 1200 PSI, 50 RPM, 4K TQ. F/CHECK W/ ROV - STATIC.
5.50	730	01 - 05	POOH W/ 17.1/2" BHA ON 5" DP F/ 1377M - 478M. WORK THRU NUMEROUS TIGHTS SPOTS BETWEEN 1311M - 860M W/ UP TO 40K
		-	DRAG - WIPE BACK THRU EACH W/OUT PROBLEM. POOH ABOVE 860M W/OUT PROBLEM.
2.50	1300	01 - 05	F/CHECK W/ ROV - STATIC. CONT TO POOH F/ 478M TO SURFACE OBSERVING BHA PULLED THRU 30" LPWH HOUSING W/ ROV.
		99 - 99	NOTE: LARGE 14" X 7" X 7" BOULDER RECOVERED F/ ABOVE UPPER 17.1/8" STAB.
		99 - 99	TIGHT SPOTS - 1311M, 1309M, 1250M, 1191M, 1187M, 1139M, 1105M, 1085M, 1030M, 1020M, 957M, 880M & 860M.
		99 - 99	OBSERVE APPROX 0.5M SEPARATION BETWEEN PGB & CUTTINGS PILE.
1.00	1530	01 - 06	HOLD TBT PRIOR TO P/U CMT STAND WHILE DOWNLOADING MWD MEMORY DATA ON DRILL FLOOR. R/BACK MWD & 17.1/2" BIT.
1.00	1630	01 - 09	P/U & M/U CMT STAND. R/BACK & SECURE SAME IN DERRICK W/ CARGO STRAPS.
2.50	1730	01 - 08	R/U TO RUN 13.3/8" CASING. R/U CTX SUPPLIED 20' BAILS FOR LE-FLEUR SPACE OUT & BX FRAME #3 HYD ELEVATORS - NO

Safety: 25 STOP CARDS. HELD PRE-TOUR TBT'S. STOP & SAFETY PROMPT CARDS USED.

24 Hr Summary: DRILL 17.1/2" HOLE TO SECTION TD. DISPLACE HOLE TO GLYDRIL MUD. POOH. P/U CMT STAND. R/U & RUN 13.3/8" CASING.

Projected Oprn: RUN & CMT 13.3/8" CASING. RUN BOP & RISER. TEST 13.3/8" CASING & CONNECTOR. M/U 8.1/2" BHA & TIH W/ SAME.

Remarks:
DAYS SINCE LTI = 633; POB = 94; CVX = 3; SERVICE = 28; STENA = 63. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.
SEAS: 0.5M, WIND: 15 KNOTS, PITCH: 0.3 DEG, ROLL: 0.4 DEG, HEAVE: 0.2M. BULLSEYES: PGB AFT = 1/2 DEG FWD. PGB STB=1/2DEG PORT
ANCHOR TENSIONS (MT): #1 - 125, #2 - 111, #3 - 117, #4 - 116, #5 - 110, #6 - 111, #7 - 103, #8 - 110.
06:00 HRS OPS: RIH W/ 13.3/8" CASING AT 350M.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,860,175	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 1,193,645	Cum Tangible Cost: 1,238,254	Cum Well Cost: 51,420,570	Total Appr: 134,847,000

Drill Water: 5013	Potable Water: 2422	Fuel: 3736	Bulk Weight: 8422	Neat Cement: 6543	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 30-SEP-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 10	DFS: 6	Spud Date:	Daily Footage: 217	Daily Rot Hrs: 3.5	Total Rot Hrs: 59.5

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 94

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	GO. HYD HOSES TO BX ELEVATORS TOO SHORT. C/OUT TO RIGS 11' BAILS WHILE PREPARE EXTENSION HOSES.	
3.50T	2000	01 - 08	ATTEMPT TO FUNCTION HYD BX ELEVATORS - NOGO. TROUBLESHOOT SAME W/OUT SUCCESS. R/D BX ELEVATORS & R/U 13.3/8"	
		-	MANUAL SIDE-DOOR ELEVATORS.	
0.50	2330	01 - 08	CONT TO R/U 13.3/8" CASING HANDLING EQUIPMENT INCLUDING WEATHERFORD POWERSCOPE & CASING TONG.	
		-		
		-		
		-		
		-		
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		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOGEDAL

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 30-SEP-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 11	DFS: 7	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 19	Seas: 1 / 0	Bar: 0.00	POB: 96

Last Casing Size: 30.000	Set At: 1,665 MD 1,665 TVD	Shoe Test: 0.0 EMW	Leakoff?
Cum Rot Hrs On Casing: 44.5	Cum Rot Hrs On Casing Since Last Caliper: 44.5	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD	TVD

Mud Co: M.I. DRILLING FLUIDS	Type: KCL POLYMER	Sample From:	Wt: 10.0	FV: 62	PV: 9	YP: 15	Gel: 7 / 15

WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids:	% Oil: 0.00	%Water: 0.00	% Sand: SAMPL	MBT:	Ph: 8.7

Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

5.0 1.0MT BARITE 110.0 1.0LB DUOTEC

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.00	0	01 - 08	CONT TO R/U 13.3/8" CASING HANDLING EQUIPMENT. FUNCTION CHECK NEW RIG SUPPLIED PS-30 HYD SLIPS - OK.	
2.50	100	01 - 08	HOLD TBT. P/U, M/U & BAKER-LOC SHOE, INTERMEDIATE & FLOAT COLLAR JNTS (SHOE JNT C/W 2 X BOWSPRING, FLOAT COLLAR	
		-	JNT & INTERMEDIATE JNT C/W 1 X BOWSPRING CENTRALISER). CHECK OPERATION OF FLOATS W/ SEAWATER - OK. ATTACH	
		-	SOFTLINES TO GUIDELINES IN MOONPOOL USING MODIFIED STOP COLLAR.	
4.00	330	01 - 08	RUN 13.3/8", 72#, P-110, VAM TOP CASING F/ 38M - 438M AS PER TALLY. INSTALL 1 X BOWSPRING CENTRALISER MID-JNT	
		-	ON FIRST 7 JNTS OF CASING. FILL EACH JNT CASING W/ SEAWATER.	
0.00		99 - 99	NOTE: USE RIG THRUSTERS & ROV ASSIST TO STAB 13.3/8" SHOE. TRIM RIG TO CENTRALISE STRING IN CONDUCTOR.	
2.00	730	01 - 08	C/OUT TO 20' BAILS. P/U & ATTEMPT TO SPACE OUT LE-FLEUR TOOL - NO GO. BAILS SUPPLIED TOO LONG. ENGAGE LE-FLEUR	
		-	& DISPLACE CASING W/ 217 BBLS OF 10 PPG GLYDRIL MUD AT 10 BPM, 270 PSI.	
2.00T	930	01 - 08	L/O LE-FLEUR TOOL. P/U & M/U 1.1M SAVER SUB PUP JNT TO DDM TO PROVIDE CORRECT SPACE OUT FOR LE-FLEUR. M/U &	
		-	FUNCTION TEST LE-FLEUR TOOL - OK.	
4.50	1130	01 - 08	CONT TO RUN 13.3/8", 72#, P-110, VAM TOP CASING F/ 438M - 939M AS PER TALLY. FILL EACH CASING JNT W/ 10 PPG	
		-	GLYDRIL MUD. MONITOR CASING PROGRESS AT WELLHEAD W/ ROV.	
2.00	1600	01 - 08	R/D LE-FLEUR TOOL. C/OUT TO 11' BAILS & P/U 5" BX ELEVATORS.	
1.00	1800	01 - 08	P/U 18.3/4" HPWH HOUSING JNT & M/U SAME TO CASING STRING. R/D PS-30 SLIPS. RUN DOWN, CHECK HPWH CONNECTOR &	

Safety: 15 STOP CARDS. HELD PRE-TOUR TBT'S. STOP & SAFETY PROMPT CARDS USED.

24 Hr Summary: R/U & RUN 13.3/8" CASING TO 1368M.

Projected Oprn: LAND & CMT 13.3/8" CASING. POOH W/ LANDING STRING. L/O EXCESS BHA. R/U & RUN BOP & RISER. P/U 8.1/2" BHA.

Remarks:
DAYS SINCE LTI = 634; POB = 96; CVX = 5; SERVICE = 30; STENA = 61. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 0.3M, WIND: 19 KNOTS, PITCH: 0.3 DEG, ROLL: 0.3 DEG, HEAVE: 0.2M. BULLSEYES: PGB AFT = 1/2 DEG FWD. PGB STB = 1 DEG PORT.

ANCHOR TENSIONS (MT): #1 - 129, #2 - 114, #3 - 120, #4 - 117, #5 - 109, #6 - 109, #7 - 99, #8 - 109.

06:00 HRS OPS: LINE UP TO DISPLACE CMT W/ RIG PUMPS.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,728,605	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 1,213,555	Cum Tangible Cost: 1,238,254	Cum Well Cost: 53,149,175	Total Appr: 134,847,000

Drill Water: 4554	Potable Water: 2264	Fuel: 3636	Bulk Weight: 8422	Neat Cement: 8959	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 11	DFS: 7	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:
Seas: /	Bar:	POB: 96			
Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?		
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:
YP:	Gel: /				
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:
MBT:	Ph:				
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:
Solids %HG/LG: /	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	FILL VOID ABOVE WIPER PLUGS W/ SEAWATER. P/U & S/O - 285K.	
4.50	1900	01 - 08	CONT TO RUN 13.3/8" CASING ON 5" DP F/ 953M. FILL EACH STAND W/ 10 PPG GLYDRIL MUD & MONITOR CASING PROGRESS AT	
		-	WELLHEAD W/ ROV. TAKE 30K WT AT 1133M. ATTEMPT TO WORK THRU - NO GO. M/U DDM & WASH DOWN TO 1158M W/ 3 BPM, 62	
		-	PSI. CONT TO TIH TO 1360M W/OUT PROBLEM.	
0.50	2330	01 - 08	M/U CMT STAND. P/U - 310K, S/O - 300K. LINE UP RIG PUMPS & WASH DOWN F/ 1360M - 1368M W/ 2 BPM, 60 PSI.	
		-		
		-		
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		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:	
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:	
Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 01-OCT-2004	Page: 2 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 12	DFS: 8	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 8-22
Seas: 2 / 0	Bar: 0.00	POB: 90			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?	
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co: M.I. DRILLING FLUIDS	Type: SEAWATER	Sample From:	Wt: 8.6	FV: 0	PV: 0	YP: 0	Gel: 0 / 0
WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids:	% Oil: 0.00	%Water: 0.00	% Sand: SAMPL	MBT:	Ph:
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
0.50	0	01 - 08	CONT TO WASH DOWN F/ 1368M W/ 2 BPM, 60 PSI TO LAND 18.3/4" HPWH IN 30" LPWH HOUSING. SET DOWN 60K LB. TAKE 50K	
		-	O/PULL TO CONFIRM LATCH - OK. S/O TO 115K LB.	
1.50	30	01 - 09	STAGE UP PUMPS UP TO 8 BPM, 230 PSI & CIRC 1.1/2 X CSG VOLUME W/ SEAWATER. MEANWHILE HOLD TBT PRIOR TO CMT JOB.	
0.50	200	01 - 09	LINE UP CMT UNIT & PUMP 20 BBLS OF DYED SEAWATER. CLOSE LO-TORQ ON CMT HEAD & P/TEST SURFACE LINES TO 3000 PSI	
		-	/ 5 MIN - OK. PUMP ADDITIONAL 20 BBLS OF DYED SEAWATER. RELEASE BOTTOM DART.	
3.50	230	01 - 09	MIX & PUMP 600 BBLS OF 13 PPG CLASS 'G' LEAD SLURRY (1806 SXS) USING 460 BBLS MIXWATER AT 5 - 7.5 BPM & 259	
		-	BBLS OF 16 PPG CLASS 'G' TAIL SLURRY (1290 SXS) USING 152 BBLS MIXWATER AT 6 BPM, 400 PSI.	
0.50	600	01 - 09	RELEASE TOP DART & DISPLACE TO 2000 PSI SHEAR W/ 24 BBL OF SEAWATER F/ CMT UNIT. PUMP ADDITIONAL 10 BBL.	
0.50	630	01 - 09	LINE UP RIG PUMPS & DISPLACE TOP WIPER PLUG W/ SEAWATER AT 11 BPM. SLOW PUMPS TO 1 BPM, 1015 PSI & BUMP PLUG AT	
		-	98.1% EFFICIENCY BASED ON CALIPERED CASING ID. INCREASE PRESS TO 1700 PSI & HOLD FOR 5 MINS - OK.	
0.00		99 - 99	NOTE: DYE & CMT RETURNS SEEN W/ ROV AFTER +/- 198 BBLS OF DISPLACEMENT SEAWATER PUMPED.	
0.50	700	01 - 09	BLEED PRESS BACK TO CMT UNIT - FLOATS HOLDING.	
1.00	730	01 - 09	TAKE 5K O/PULL ABOVE LANDING STRING WT. RELEASE 18.3/4" CART W/ 4 RH TURNS, P/U ABOVE PGB, MOVE RIG & FLUSH PGB	
		-	W/ SEAWATER THRU STINGER.	
0.50	830	01 - 09	RACK BACK CMT STAND & SECURE SAME IN DERRICK W/ CARGO STRAPS.	

Safety: 21 STOP CARDS. HELD PRE-TOUR TBT'S. STOP & SAFETY PROMPT CARDS USED.

24 Hr Summary: LAND 13.3/8" CASING. CIRC SEAWATER & CEMENT CASING. RECOVER LANDING STRING. R/U & RUN BOP.

Projected Oprn: CONT TO RUN BOP ON MARINE RISER. LAND & LATCH BOP. P/TEST CASING & WELLHEAED CONNECTOR. FUNCTION TEST BOP.

Remarks:
DAYS SINCE LTI = 635; POB = 90; CVX = 5; SERVICE = 24; STENA = 61. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.
SEAS: 0.5M, WIND: 22 KNOTS, PITCH: 0.5 DEG, ROLL: 0.5 DEG, HEAVE: 0.2M. BULLSEYES: PGB AFT = 1/4 DEG FWD, PGB STB = 3/4 DEG PORT.
ANCHOR TENSIONS (MT): #1 - 117, #2 - 119, #3 - 114, #4 - 108, #5 - 101, #6 - 115, #7 - 117, #8 - 107.
06:00 HRS OPS: CONT TO RUN BOP ON MARINE RISER.

Daily Mud Cost: 19,910	Daily Tangible Cost: 947,439	Daily Well Cost: 3,320,396	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 1,233,465	Cum Tangible Cost: 2,185,693	Cum Well Cost: 56,469,571	Total Appr: 134,847,000	

Drill Water: 4441	Potable Water: 2101	Fuel: 3585	Bulk Weight: 8422	Neat Cement: 3143	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 02-OCT-2004	Page: 1 Of 2		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 12	DFS: 8	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 90

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
3.00	900.	01 - 08	POOH & L/O 18.3/4" CART. L/O CMT STAND F/ DERRICK & CLEAR RIG FLOOR OF CASING RUNNING EQUIP.	
3.50	1200	01 - 13	HOLD TBT. R/U RISER HANDLING GEAR. REMOVE MONKEY ARM F/ CATWALK & IRON ROUGHNECK TRAKS. PULL & L/O MOUSEHOLE.	
		-	REMOVE MASTER BUSHINGS & INSTALL RISER GIMBLE.	
0.00		99 - 99	NOTE: MOVED RIG TO STAND OFF LOCATION - 30M STARBOARD.	
1.50	1530	01 - 13	HOLD TBT. P/U & M/U MARINE RISER HANDLING DOUBLE. P/U CLEAR OF MOONPOOL.	
6.00	1700	01 - 13	SKID BOP UNDER WELL CENTRE, INSTALL GUIDELINES & M/U TO MARINE RISER DOUBLE. SET BEACONS TO ACTIVE & ADJUST	
		-	BULLSEYES TO CENTRE SAME. EXTEND & LOCK OUT ACOUSTIC TRANSPONDER ARMS.	
1.00	2300	01 - 53	RUN BOP THRU SPLASHZONE. FILL CHOKE & KILL LINES W/ SEAWATER & P/TEST TO 365 / 5800 PSI FOR 5/10 MINS - OK.	
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/SMJ/MOORE

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 02-OCT-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 13	DFS: 9	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: 8-19	Seas: 2 / 3	Bar: 0.00	POB: 90

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
5.50	0	01 - 53	CONT TO RUN BOP ON MARINE RISER TO 169M.	
2.00T	530	01 - 20	BLUE POD HYD HOSE JUMPED THE SHEAVE IN THE MOONPOOL - HOLD TBT. L/D SHEAVE, RE-INSTALL HOSE & RE-HANG SHEAVE.	
16.50	730	01 - 53	CONT TO RUN BOP ON MARINE RISER TO 382M. P/TEST CHOKE & KILL LINES EVERY 8 JNTS TO 360/5800 PSI FOR 5/10 MINS.	
0.00		99 - 99	NOTE: CLEANED & HYDRO-TESTED PITS PRIOR TO TAKING ON OBM.	
0.00		99 - 99	ROV BRUSH & CLEAN WELLHEAD & PRE-INSTALL VX GASKET ON 18.3/4" HPWH HOUSING.	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety: 12 STOP CARDS. HOLD PRE-TOUR TBT'S. WEEKLY SAFETY MEETING & MUSTER DRILL HELD.

24 Hr Summary: CONT TO RUN BOP ON MARINE RISER TO 382M.

Projected Oprn: RUN, LAND & LATCH BOP. P/TEST CASING & BOP CONNECTOR. RACK BACK EDPHOT. M/U & TIH W/ 12.1/4" SLICK ASSY.

Remarks:
DAYS SINCE LTI = 636; POB = 90; CVX = 5; SERVICE = 24; STENA = 61. NEXT BOP TEST DUE - N/A. STBY VESSEL - NORTHERN CORONA.

SEAS: 1M, WIND: 19 KNOTS, PITCH: 0.4 DEG, ROLL: 0.4 DEG, HEAVE: 0.2M. BULLSEYES: PGB AFT = 1/4 DEG FWD, PGB STB = 3/4 DEG PORT.

ANCHOR TENSIONS (MT): #1 - 118, #2 - 122, #3 - 116, #4 - 109, #5 - 101, #6 - 114, #7 - 115, #8 - 101.

06:00 HRS OPS: INSTALL CHOKE, KILL & BOOSTER LINE GOOSENECKS.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,601,441	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 1,253,375	Cum Tangible Cost: 2,185,693	Cum Well Cost: 58,071,012	Total Appr: 134,847,000

Drill Water: 4415	Potable Water: 1988	Fuel: 3529	Bulk Weight: 8422	Neat Cement: 3401	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINS/MOORE/SMJ		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 03-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 14	DFS: 10	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SE-20
Seas: 7 / 10	Bar: 0.00	POB: 91			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW Leakoff?	
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co: M.I. DRILLING FLUIDS	Type: SEAWATER	Sample From:	Wt: 8.4	FV: 0	PV: 0	YP: 0	Gel: 0 / 0	
WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids:	% Oil: 0.00	%Water: 0.00	% Sand: SAMPL	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
2.00	0	01 - 53	CONT TO RUN BOP ON MARINE RISER TO 385M.	
1.00	200	01 - 53	INSTALL TEST CAP & P/TEST CHOKE & KILL LINES TO 360/5800 PSI FOR 5/10 MINS - OK. R/D TEST CAP.	
2.00	300	01 - 53	P/U & M/U SLIP JNT. RUN DOWN & INSTALL DBL CLAMPS AT SPLASH ZONE. M/U LANDING JNT & RUN DOWN W/ SAME.	
0.00		99 - 99	NOTE: RISER CONFIGURATION - 2 X 50' SLICK, 4 X 50' BUOYANT, 2 X 50' SLICK, 4 X 50' BUOYANT, 2 X 50' SLICK,	
0.00		99 - 99	4 X 50' BUOYANT, 2 X 50' SLICK, 4 X 50' BUOYANT, 1 X 20' SLICK, 1 X 10' SLICK,	
0.00		99 - 99	SLIP JNT, LANDING JNT.	
6.00	500	01 - 53	INSTALL CHOKE, KILL & BOOSTER GOOSENECKS IN MOONPOOL. P/TEST SAME TO 360/5800 PSI FOR 5/10 MINS - OK. P/U &	
		-	LATCH / LOCK TENSION RING & LOWER TO WORKING HEIGHT. R/U POD LINE SADDLES & STORM LOOPS.	
2.50	1100	01 - 53	MOVE RIG OVER WELL LOCATION, MONITOR SAME W/ ROV. CHECK RISER & BOP BULLSEYES MID-WATER.	
1.50	1330	01 - 53	BOP OBSERVED +/- 20 DEG OUT OF ALIGHNMENT W/ GUIDEPOSTS. TURN BOP W/ BLOCKS & TUGGER IN MOONPOOL.	
0.50	1500	01 - 13	RUN DOWN & LAND OFF BOP W/ 290K WT ON BLOCKS, 400K ON RUCKERS. SET DOWN 50K WT. FUNCTION LATCH & OBSERVE SAME	
		-	W/ ROV. TAKE 50K O/PULL TO CONFIRM LATCH - OK.	
	0	99 - 99	NOTE: BULLSEYES AFTER LANDING OFF - BOP = 0.5 DEG PORT, RISER = 0 - 1 DEG STBD/FWD.	
2.50	1530	01 - 13	SCOPE OUT SLIP JOINT AS PER STENA PROCEDURES. L/O LANDING JOINT.	
0.50	1800	01 - 14	LINE UP CMT UNIT & P/TEST VETCO H4 WELLHEAD CONNECTOR, CASING & BLIND / SHEAR RAMS TO 400/2650 PSI FOR 5/15 MIN	

Safety: 15 STOP CARDS. HOLD PRE-TOUR TBT'S. TOFS AND COMMUNICATION DISCUSSED. 3RD PARTY SAFETY MEETING HELD.

24 Hr Summary: RUN BOP & RISER, LAND / LATCH SAME. TEST CONNECTOR, SCOPE OUT SLIP JNT, INSTALL DIVERTER R/U FOR DRILLING OPS.

Projected Oprn: M/U 12.1/4" BHA & TIH. FUNCTION BOP & DISPLACE TO LTOBM. CLEAN OUT SHOE TRACK & PERFORM LOT / FIT.

Remarks:
DAYS SINCE LTI = 637; POB = 91; CVX = 6; SERVICE = 23; STENA = 62. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.
SEAS: 2M, WIND: 27 KNOTS, PITCH: 0.8DEG, ROLL: 0.7DEG, HEAVE: 0.0M. BULLSEYES: PGB = 1/2DEG FWD & 3/4DEG PORT. BOP = 1/2DEG PORT.
ANCHOR TENSIONS (MT): #1 - 97, #2 - 101, #3 - 120, #4 - 104, #5 - 115, #6 - 117, #7 - 112, #8 - 111.
06:00 HRS OPS: M/U & TIH W/ 12.1/4" SLICK ASSY.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,753,518	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 1,273,285	Cum Tangible Cost: 2,185,693	Cum Well Cost: 59,824,530	Total Appr: 134,847,000

Drill Water: 4403	Potable Water: 1855	Fuel: 3472	Bulk Weight: 8422	Neat Cement: 3401	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD / MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 04-OCT-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 14	DFS: 10	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 59.5

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 91

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	- OK. 4 BBLS PUMPED & RTND.	
3.50	1830	01 - 13	P/U & MU DIVERTER HOUSING AS PER STENA PROCEDURES & LAND OUT SAME. R/D RISER HANDLING EQUIPMENT. FILL RISER W/	
		-	SEAWATER CHECK FOR LEAKS - NONE SEEN.	
2.00	2200	01 - 13	C/OUT BAILS, INSTALL MOUSE HOLES, R/U DRILL FLOOR & CATWALK FOR DRILLING OPERATIONS (INSTALL IRON ROUGHNECK	
		-	TRACKS, R/U HYD MUD BUCKET & PIPE HANDLING KIT ON CATWALK).	
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		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD / MOORE
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467				
DOL: 15	DFS: 11	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 59.5			
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: E-10	Seas: 2 / 5	Bar: 0.00	POB: 91

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD	TVD

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 35	YP: 46	Gel: 27 / 46	
WL API: 0.0 HTHP: 2.2	FC API: 0 HTHP: 1	Solids: 22.00	% Oil: 79.00	%Water: 21.00	% Sand: 0.00	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 156,300	Ca:	Bent:	Solids %HG/LG: 18.30 / 2.30	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
3	217S	12.244	DBS	752172	3 - 25 / - / - / - / -	1.438	4,518		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
XS4G	0	0.0	/	/	0									0.00
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
3	5.984 / 5.984 / 5.984	/ /	100/100/	3783	849	186.9	166.6	241.8	198.9	1.3	1874
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
2.50	0	01 - 07	HOLD TBT. L/O EXCESS 17.1/2" BHA F/ DERRICK.	
1.50	230	01 - 07	P/U & M/U VETCO EDPHOT. CHECK ACME & 6.5/8" FH RECOVERY THREAD & RACK BACK SAME.	
2.50	400	01 - 07	P/U & M/U 12.1/4" SLICK ASSY (C/W NON-PORTED FLOAT & DBS MILLED TOOTH BIT).	
2.50	630	01 - 05	TIH W/ 12.1/4" SLICK ASSY ON 5" DP F/ 204M - 775M. FILL PIPE EVERY 10 STANDS. INSTALL INSERT PACKER.	
2.00	900	01 - 14	FUNCTION TEST BOP ON BOTH PODS (YELLOW F/ DRILL FLOOR & BLUE F/ KOOMEY ROOM).	
0.50	1100	01 - 14	FUNCTION TEST DIVERTOR & FLUSH THRU OVERBOARD LINES.	
1.50	1130	01 - 05	CONT TIH W/ 12.1/4" SLICK ASSY ON 5" DP F/ 775M - 1328M. FILL PIPE EVERY 10 STANDS.	
1.00	1300	01 - 21	SERVICE DDM AND DOLLY ROLLER ASSY.	
0.50	1400	01 - 05	M/U DRILLING STAND, LINE UP RIG PUMPS TO SEAWATER & BREAK CIRC W/ 200 GPM, 100 PSI. WASH DOWN TO TAG CMT W/ 10K	
		-	WT AT 1329.5M MSL.	
0.50	1430	01 - 05	POOH W/ 3 STANDS OF 5" DP. M/U DRILLING STAND.	
1.50	1500	01 - 14	HOLD TBT. R/U CMT HOSE & P/TEST TIW V/V & IBOP TO 500/5000 PSI FOR 5/10 MINS - OK. R/D CMT HOSE.	
1.50	1630	01 - 21	HOLD TBT. SLIP & CUT 113' OF DRILL LINE.	
0.50	1800	01 - 05	TIH TO 1300M, M/U DRILLING STD & SPACE OUT FOR WELL CONTROL DRILL.	
2.00	1830	01 - 62	HOLD WELL CONTROL DRILL W/ BOTH CREWS USING FIRST CIRC DRILLERS METHOD. TAKE SCR'S & CLF'S.	

Safety: 28 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. TBT FOR LTOBM DISPLACEMENT.

24 Hr Summary: M/U 12.1/4" SLICK BHA - TIH, FUNCTION BOP / DIVERTER SYSTEM. HOLD WELL CONTROL DRILL. DISPLACE WELL TO LTOBM.

Projected Oprn: DRILL SHOE TRACK & 3M FORMATION - PERFORM LOT / FIT. POOH & P/U 8.1/2" DRILLING ASSY.

Remarks:
DAYS SINCE LTI = 639; POB = 93; CVX = 7; SERVICE = 21; STENA = 65. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.

SEAS: 1M, WIND: 10 KNTS, PITCH: 1.3 DEG, ROLL: 1.1DEG, HEAVE 0.6M. BULLSEYES: PGB = 1/2DEG FWD & 3/4DEG PORT. BOP = 1/2DEG PORT.

ANCHOR TENSIONS (MT): #1 - 100, #2 - 109, #3 - 126, #4 - 104, #5 - 104, #6 - 112, #7 - 109, #8 - 111.

06:00 HRS OPS:

Daily Mud Cost: 2,205,17	Daily Tangible Cost: 0	Daily Well Cost: 4,096,813	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,478,462	Cum Tangible Cost: 2,185,693	Cum Well Cost: 63,921,343	Total Appr: 134,847,000

Drill Water: 4365	Potable Water: 1717	Fuel: 3390	Bulk Weight: 8289	Neat Cement: 3401	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD / MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 05-OCT-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,518	TVD: 4,518	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 15	DFS: 11	Spud Date:	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 59.5
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:
Seas: /	Bar:	POB: 91			
Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?		
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:
YP:	Gel: /				
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:
MBT:	Ph:				
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:
Solids %HG/LG: /	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
2.00	2030	01 - 01	HOLD TBT PRIOR TO DISPLACMENT TO LTOBM. FLUSH SURFACE LINES, CHOKE / KILL LINES (6 BBLS EACH) & MUD GAS	
		-	SEPARATOR W/ 1.54 SG (12.8 PPG) MUD. ESTABLISH CIRC THRU BOOSTER LINE W/ 2100 PSI MAX THEN PUMP 6 BBLS LTOBM	
		-	DOWN BOOSTER LINE.	
1.00	2230	01 - 01	DISPLACE WELL TO 1.54 SG MUD (12.8 PPG), DUMPING SEAWATER RETURNS AT SHAKERS. INTITAL PRESS 855 GPM (3200 L/M) -	
		-	3300 PSI, FINAL 855 GPM - 3800 PSI. 80 RPM. CATCH +/-100 BBLS INTERFACE AT SURFACE - SHUT DOWN & CLOSE SYSTEM,	
		-	CHECK FOR LEAKS - OK.	
0.50	2330	01 - 01	REPEAT FLUSH OF SURFACE LINES W/ 1.54 (12.8 PPG) LTOBM WHILE CLOSE SYSTEM IN PIT ROOM & LINE UP SWACO CUTTINGS	
		-	HANDLING EQUIPMENT FOR DRILLING CEMENT.	
0.00		99 - 99		
0.00		99 - 99	TOTAL SKIPS ON BOARD = 16 MT, 0 FULL, SKIPS ON VESSEL = 65.	
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:	
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:	
Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 05-OCT-2004	Page: 2 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,528	TVD: 4,528	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 16	DFS: 12	Spud Date: 25-SEP-2004	Daily Footage: 10	Daily Rot Hrs: 0.5	Total Rot Hrs: 60.0
Torq: 3	Drag: 0	Rot Wgt: 202	P/U Wgt: 202	Slack Off Wgt: 202	Wind: NE-11
Seas: 2 / 3	Bar: 0.00	POB: 93			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 7.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 41
YP: 58	Gel: 25 / 38				
WL API: 0.0 HTHP: 2.2	FC API: 0 HTHP: 1	Solids: 21.08	% Oil: 77.00	%Water: 23.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 156,300	Ca:	Bent:
Solids %HG/LG: 17.90 / 3.10	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
3	217S	12.244	DBS	752172	3 - 25 / - / - / - / -	1.438	4,518	4,528	4,528
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
XS4G	10	0.5	15/20	80 / 100	0									16211.38
			/	/										

Total Length of BHA: 668.93 BHA Description: 12 1/4" MILL TOOTH BIT, BIT SUB (FLOAT), 12 - 8" DC'S, X-O, 6 - 5" HWDP, JARS, 3 - 5" HWDP.

Hrs On Jars: 7.5 Hours Since Last Inspection: 34.5

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
3	5.984 / 5.984 / 5.984	/ /	75 / 75 /	2350	637	142.4	125.0	181.4	86.6	0.5	873
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
7.00	0	01 - 15	ESTABLISH PARAMETERS, DRILL CEMENT, PLUGS, FLOAT COLLAR AND SHOE F/ 1329M - 1371.5M CLEAN OUT RATHOLE TO 1377M	
		-	AND WORK THRU SHOE 4 TIMES - NO PROBLEMS	
0.00		99 - 99	AVE PARAMETERS: 855 GPM (3200 L/M) - 3400 PSI, 80 RPM - 5/6K TQ, WOB 20K.	
0.50	700	01 - 02	DRILL NEW FORMATION F/ 1377M - 1380M, 640 GPM (2425 L/M) - 2350 PSI, 100 RPM - 3/4K TQ, WOB 20K.	
1.00	730	01 - 01	CIRC HOLE CLEAN IN CASING - CONDITION MUD TO 1.55 SG (12.9 PPG) ALL AROUND. 860 GPM (3250 L/M) - 4000 PSI.	
1.00	830	01 - 01	FLOW CHECK - STATIC. SPOT 50 BBLS LCM PILL ON BTM.	
0.50	930	01 - 05	POOH WET W/ 4 STDS TO +/-1260M.	
2.50	1000	01 - 17	R/U AND PERFORM LOT W/ 1.55 SG (12.9 PPG) MUD. PUMP-IN W/ 500 PSI = 1.80 SG (15.0 EMW) MONITORED PRESSURE	
		-	REDUCE TO OFF 240 PSI = 1.67 SG (13.9 EMW). 1 1/2 BBLS PUMPED - 1/2 BBL RETURNED.	
1.50	1230	01 - 01	CIRC & COND MUD 880 GPM (3330 L/M) - 4000 PSI PRIOR TO REPEAT LOT.	
1.00	1400	01 - 17	LINE UP DOWN DP AND CHOKE. PERFORM FIT W/ 1.55 SG (12.9 PPG) MUD. PUMP-UP TO 500 PSI, OK = 1.80 SG (15.0 EMW)	
		-	MONITORED PRESSURE REDUCE TO 290 PSI OVER 10 MINS= 1.69 SG (14.1 EMW), 1 BBL PUMPED / 1/2 BBL RETURNED.	
2.50	1500	01 - 05	FLOW CHECK - PUMP SLUG AND POOH W/ 5" DP TO 204M - FLOW CHECK AGAIN W/ BHA BELOW BOP'S	
1.00	1730	01 - 05	POOH RACKING 5" HWDP IN DERRICK	
3.50	1830	01 - 07	HOLD TBT / RA: POOH L/D 6 - 8" DRILL COLLARS AND BIT.	

Safety: 18 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DISCUSS OPERATIONS W/ NEW PERSONNEL.

24 Hr Summary: CLEAN OUT SHOE TRACK RAT HOLE. DRILL 3M HOLE, PERFORM LOT, POOH L/D 12 1/4" CLEAN OUT ASSY.

Projected Oprn: M/U 8 1/2" BHA, TIH, BEGIN DRILLING 8 1/2" HOLE

Remarks:
DAYS SINCE LTI = 639; POB = 93; CVX = 7; SERVICE = 21; STENA = 65. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.

PITCH: 1.3 DEG, ROLL: 1.1DEG, HEAVE 0.6M. BULLSEYES: PGB = 3/4 DEG PORT. BOP = 1/2 DEG PORT. SWARF: DAILY 1.3KG CUM 1.3KG

ANCHOR TENSIONS (MT): #1 - 100, #2 - 110, #3 - 130, #4 - 134, #5 - 125, #6 - 111, #7 - 107, #8 - 109.

06:00 HRS OPS: RIH WITH 8 1/2" ASSEMBLY CURRENT DEPTH 400 M.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,818,091	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,498,372	Cum Tangible Cost: 2,185,693	Cum Well Cost: 65,739,434	Total Appr: 134,847,000

Drill Water: 4246	Potable Water: 1572	Fuel: 3321	Bulk Weight: 9348	Neat Cement: 3401 Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 06-OCT-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 4,528	TVD: 4,528	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 16	DFS: 12	Spud Date:	Daily Footage: 10	Daily Rot Hrs: 0.5	Total Rot Hrs: 60.0

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 93

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
2.00	2200	01 - 07	HOLD TBT / RA: P/U AND M/U 8 1/2" BHA PER PROGRAMME.	
0.00		99 - 99		
0.00		99 - 99	TOTAL SKIPS ON BOARD: 16, 14MT, 2 FULL (CEMENT), SKIPS ON VESSEL = 65.	
0.00		99 - 99		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 06-OCT-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 5,282	TVD: 5,282	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 17	DFS: 13	Spud Date: 25-SEP-2004	Daily Footage: 755	Daily Rot Hrs: 7.0	Total Rot Hrs: 67.0
Torq: 5	Drag: -2	Rot Wgt: 198	P/U Wgt: 196	Slack Off Wgt: 198	Wind: NE-22
Seas: 3 / 7	Bar: 0.00	POB: 89			
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 22.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD	

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 38	YP: 58	Gel: 40 / 63	
WL API: 0.0 HTHP: 2.3	FC API: 0 HTHP: 1	Solids: 21.21	% Oil: 77.00	%Water: 23.00	% Sand: 0.00	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 122,200	Ca:	Bent:	Solids %HG/LG: 18.80 / 2.40	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	755	7.0	10/16	100 / 150	0									2483.43
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 22.5 Hours Since Last Inspection: 15.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 75 / 75	3286	637	227.1	124.9	520.4	220.1	2.9	1221
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
4,953	0.46	283.41	N76.59W	4,953			-3.77	0.14
5,049	0.49	297.52	N62.48W	5,049			-3.48	0.13
5,142	0.50	298.58	N61.42W	5,142			-3.08	0.01
5,238	0.56	301.95	N58.05W	5,238			-2.66	0.07

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
0.50	0	02 - 25	BHI MWD VERIFY TOOLS ON SURFACE - O.K.
4.00	30	01 - 07	CON'T P/U AND M/U 8 1/2" BHA (P/U 11- 6 1/2" DC'S AND JARS) - INSTALL INNER DIVERTER PACKER.
3.00	430	01 - 05	TIH W/ BHA W/ 3 STDS 5" HWDP AND 5" DRILL PIPE TO 795M.
0.50	730	02 - 25	M/U TOP DRIVE, BREAK CIRC - SURFACE TEST MWD TOOLS - O.K.
1.00	800	01 - 05	CON'T TIH W/ 8 1/2" BHA F/ 795M - 1347M.
1.00	900	01 - 01	M/U TOP DRIVE, BREAK CIRC AND WASH TO BTM - TAG 1379M (1M FILL). EST PARAMETERS FOR DRILLING, TAKE SCR'S / CLF.
5.00	1000	01 - 02	DRILL 8 1/2" HOLE F/ 1380M - 1465M, AVE 17M / HR. SURVEY EACH STD. 615 GPM (2330 L/M) - 3200 PSI, 100 RPM -
		-	3/5K TQ. WOB 5/15K.
1.50	1500	01 - 01	OBSERVE SIGNIFICANT INCREASE IN SIZE / SHAPE / VOLUME OF CUTTINGS - CIRC HOLE CLEAN, LINE UP RISER BOOSTER AND
		-	COMMENCE BOOSTING RISER 385 GPM (1450 L/M) - 800 PSI.
7.50	1630	01 - 02	DRILL 8 1/2" HOLE F/ 1465M - 1610M, AVE ROP 19.3M/HR, SURVEY AS REQUIRED. 640 GPM (2325 L/M) - 3300 PSI, RPM
		-	140 - 4/6K TQ. WOB 5 / 10K.
0.00		99 - 99	NOTE: TOOK SCR'S 1380M & 1520M
0.00		99 - 99	SKIPS ON RIG: 30 FULL 6, MT 24 FILLED LAST 24 HOURS 4 SKIPS AVE 50M / SKIP SKIPS ON VESSEL 51MT
0.00		99 - 99	

Safety: 15 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DISCUSS DRILLING OP'S , CUTTINGS HANDLING.

24 Hr Summary: P/U 8 1/2" BHA - TIH. DRILL 8 1/2" HOLE TO 1610M.

Projected Oprn: DRILL 8 1/2" HOLE.

Remarks:
DAYS SINCE LTI = 640; POB = 89; CVX = 7; SERVICE = 20; STENA = 61. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.
PITCH: 1.0 DEG, ROLL: 1.2 DEG, HEAVE 0.5M. BULLSEYES: PGB = 3/4 PORT. RISER = 1.1 DEG STB. SWARF: DAILY 0.9KG CUM 2.1KG
ANCHOR TENSIONS (MT): #1 - 99, #2 - 108, #3 - 128, #4 - 134, #5 - 127, #6 - 113, #7 - 108, #8 - 103.
06:00 HRS OPS: DRILL 8 1/2" HOLE AT 1811M AVE 33.5M/HR.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,752,447	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,518,282	Cum Tangible Cost: 2,185,693	Cum Well Cost: 67,491,881	Total Appr: 134,847,000

Drill Water: 4126	Potable Water: 1667	Fuel: 3202	Bulk Weight: 9348	Neat Cement: 3401	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 07-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 7,264	TVD: 7,264	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 18	DFS: 14	Spud Date: 25-SEP-2004	Daily Footage: 1,982	Daily Rot Hrs: 15.3	Total Rot Hrs: 82.3
Torq: 5	Drag: -4	Rot Wgt: 225	P/U Wgt: 221	Slack Off Wgt: 226	Wind: NW-15
Seas: 3 / 7	Bar: 0.00	POB: 86			
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 46.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD	
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 130	PV: 41
YP: 65	Gel: 38 / 58				
WL API: 0.0 HTHP: 2.2	FC API: 0 HTHP: 1	Solids: 20.06	% Oil: 73.00	%Water: 27.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 123,800	Ca:	Bent:
Solids %HG/LG: 18.80 / 2.40	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	2,736	22.3	2/15	170 / 180	0									1104.25
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 46.5 Hours Since Last Inspection: 39.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 75 / 75	3850	637	227.6	124.9	520.4	221.1	2.9	1431
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
6,939	0.19	300.00	N60.00W	6,939			3.94	0.11
7,034	0.18	101.98	S78.02E	7,034			4.00	0.38
7,129	0.48	113.02	S66.98E	7,129			3.81	0.32
7,223	0.37	100.42	S79.58E	7,223			3.61	0.15

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
24.00	0	01 - 02	DRILL 8 1/2" HOLE F/ 1610M - 2214M, AVE ROP 25 M/HR. SURVEY AS REQUIRED. 640 GPM (2425 L/M) - 3850 PSI, 180 RPM
		-	- 4 / 6K FT-LBS TORQUE. WOB 2 / 15K. AVE ECD = 1.69 SG (14.0 PPG)
0.00		99 - 99	NOTE: CONTROL ROP FOR WELL CONTROL MONITORING: 1877M - 2131M PER PROGRAMME.
0.00		99 - 99	TAKE SCR'S 1870M & 2097M, FLUSH CHOKE AND KILL LINES W/ 1.55 SG (12.9 PPG) MUD AT 2097M.
0.00		99 - 99	SKIPS ON RIG = 30: 7 FULL - 23 MT (FILLED 12 SKIPS LAST 24 HRS 50M/SKIP) SKIPS ON VESSEL: 51 (11 FULL, 40 MT)
0.00		99 - 99	
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Safety: 24 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DISCUSS DRILLING OP'S, PPE USING LTOBM

24 Hr Summary: DRILL 8 1/2" HOLE F/ 1610M - 2214M.

Projected Oprn: DRILL 8 1/2" HOLE

Remarks:
DAYS SINCE LTI = 641; POB = 86; CVX = 5; SERVICE = 24; STENA = 57. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.
PITCH: 0.8 DEG, ROLL: 0.5 DEG, HEAVE 0.4M. BULLSEYES: PGB = 3/4 PORT. RISER = 0.5 DEG STB. SWARF: DAILY 0.7KG CUM 2.9KG
ANCHOR TENSIONS (MT): #1 - 103, #2 - 109, #3 - 126, #4 - 129, #5 - 124, #6 - 115, #7 - 103, #8 - 93.
06:00 HRS OPS: DRILL 8 1/2" HOLE AT 2416 M LAST F/A DRILL 3/10/04.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 1,819,187	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,538,192	Cum Tangible Cost: 2,185,693	Cum Well Cost: 69,311,068	Total Appr: 134,847,000

Drill Water: 4088	Potable Water: 1793	Fuel: 3032	Bulk Weight: 9259	Neat Cement: 3401 Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 08-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 9,347	TVD: 9,347	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 19	DFS: 15	Spud Date: 25-SEP-2004	Daily Footage: 2,083	Daily Rot Hrs: 12.8	Total Rot Hrs: 95.1
Torq: 5	Drag: -7	Rot Wgt: 259	P/U Wgt: 252	Slack Off Wgt: 259	Wind: E-8
Seas: 2 / 3	Bar: 0.00	POB: 86			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 70.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 114	PV: 40
YP: 63	Gel: 38 / 56				
WL API: 0.0 HTHP: 2.3	FC API: 0 HTHP: 1	Solids: 21.03	% Oil: 74.00	%Water: 26.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 132,500	Ca:	Bent:
Solids %HG/LG: 17.60 / 3.40	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	4,820	35.1	5/15	170 / 180	0									826.11
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 70.5 Hours Since Last Inspection: 63.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 72 / 73	4100	616	220.1	120.8	503.4	199.9	2.6	1474
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
9,020	0.90	200.00	S20.00W	9,020			-3.74	0.17
9,116	0.89	180.63	S0.63W	9,116			-5.18	0.32
9,210	1.09	187.23	S7.23W	9,210			-6.79	0.25
9,303	1.27	180.97	S0.97W	9,303			-8.69	0.24

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
24.00	0	01 - 02	DRILL 8 1/2" HOLE F/ 2214M - 2849M (AVE ROP: 26.5M/HR), SURVEY AS REQUIRED. 620 GPM (2346 L/M) - 4100 PSI, 180
		-	RPM - 4 / 8K TQ, WOB 5 / 15K. AVE ECD = 1.68 (14.0 PPG).
0.00		99 - 99	NOTE: BEGIN BACKREAM FULL STD PRIOR TO CONN'S F/ 2710M DUE TO BUILD IN INCLINATION.
0.00		99 - 99	NOTE: TAKE SCR'S 2443M, 2616M & 2789M (EVERY 500')
0.00		99 - 99	SKIPS ON RIG: 31, 10-FULL, 21-MT (FILLED 17 SKIPS LAST 24 HS 37M/SKIP) SKIPS ON VESSEL: 50, 25-FULL, 25-MT.
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Safety: 28 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DISCUSS DRILLING OP'S, GENERAL HOUSEKEEPING

24 Hr Summary: DRILL 8 1/2" HOLE F/ 2214M - 2849M.

Projected Oprn: DRILL 8 1/2" HOLE

Remarks:
DAYS SINCE LTI = 642; POB = 86; CVX = 5; SERVICE = 24; STENA = 57. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.

PITCH: 0.3 DEG, ROLL: 0.4 DEG, HEAVE 0.2M. BULLSEYES: PGB =3/4 PORT. RISER = 0.5 DEG P/AFT. SWARF: DAILY 0.6KG CUM 3.5KG

ANCHOR TENSIONS (MT): #1 - 101, #2 - 107, #3 - 124, #4 - 130, #5 - 126, #6 - 117, #7 - 104, #8 - 92.

06:00 HRS OPS: DRILL 8 1/2" HOLE AT 2950 M. LAST F/A DRILL 3/10/04.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,072,458	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,558,102	Cum Tangible Cost: 2,185,693	Cum Well Cost: 71,383,526	Total Appr: 134,847,000

Drill Water: 3988	Potable Water: 1912	Fuel: 2893	Bulk Weight: 9259	Neat Cement: 3401 Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 09-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 10,387	TVD: 10,387	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 20	DFS: 16	Spud Date: 25-SEP-2004	Daily Footage: 1,040	Daily Rot Hrs: 14.0	Total Rot Hrs: 109.1
Torq: 7	Drag: -6	Rot Wgt: 285	P/U Wgt: 279	Slack Off Wgt: 282	Wind: SW-20
Seas: 3 / 7	Bar: 0.00	POB: 86			
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 94.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD	
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 102	PV: 38
YP: 56	Gel: 33 / 58				
WL API: 0.0 HTHP: 2.3	FC API: 0 HTHP: 1	Solids: 21.56	% Oil: 74.00	%Water: 26.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 130,000	Ca:	Bent:
Solids %HG/LG: 17.10 / 4.40	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	5,860	49.1	5/10	160 / 180	0									858.68
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 94.5 Hours Since Last Inspection: 87.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 70 / 70	4000	595	212.6	116.7	486.1	180.2	2.4	1389
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
9,974	2.89	189.05	S9.05W	9,974			-31.69	0.34
10,162	2.95	186.56	S6.56W	10,161			-41.17	0.07
10,248	3.13	182.03	S2.03W	10,248			-45.73	0.35
10,343	3.25	174.23	S5.77E	10,343			-50.98	0.47

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
24.00	0	01 - 02	DRILL 8 1/2" HOLE F/ 2849M - 3166M (AVE ROP: 13M/HR) SURVEY AS REQUIRED. 600 GPM (2270 L/M) - 4000 PSI, 170 RPM
		-	- 4 / 8K TQ, WOB - 5 / 10K (AVE ECD = 1.67 (13.9 PPG).
0.00		99 - 99	NOTE: REDUCE WOB TO 5 - 10K AND BACKREAM EACH STD PRIOR TO CONNECTION DUE TO INCLINATION.
0.00		99 - 99	NOTE: TAKE SCR'S - 2932 & 3106M
0.00		99 - 99	SKIPS ON RIG: 23, 0-FULL, 23-MT (FILLED 7 SKIPS LAST 24 HS 45M/SKIP) SKIPS ON N. CORONA = 20 MT
0.00		99 - 99	SKIPS RETURNED TO BASE ON N. CHALLENGER 58: 42-FULL, 16 - MT TO BE RETURNED.
0.00		99 - 99	TOTAL SKIPS IN SYSTEM = 101 (42 FULL / 58 MT), 8 1/2" SECTION AVE = 45M / SKIP
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Safety: 25 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. WEEKLY SAFETY MEETING W/ PERSONNEL - STOP CARDS

24 Hr Summary: DRILL 8 1/2" HOLE F/ 2849M - 3166M

Projected Oprn: DRILL 8 1/2" HOLE

Remarks:
DAYS SINCE LTI = 643; POB = 86; CVX = 5; SERVICE = 24; STENA = 57. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA.

PITCH: 0.8 DEG, ROLL: 0.5 DEG, HEAVE 0.3M. BULLSEYES: PGB =3/4 PORT. RISER = 0.5 DEG AFT. SWARF: DAILY 0.9KG CUM 4.4KG

ANCHOR TENSIONS (MT): #1 - 104, #2 - 108, #3 - 120, #4 - 126, #5 - 125, #6 - 117, #7 - 107, #8 - 97.

06:00 HRS OPS: DRILL 8 1/2" HOLE AT 3258M. LAST F/A DRILL 10/10/04.

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,265,066	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,578,012	Cum Tangible Cost: 2,185,693	Cum Well Cost: 73,648,592	Total Appr: 134,847,000

Drill Water: 5472	Potable Water: 2032	Fuel: 2717	Bulk Weight: 8774	Neat Cement: 3401	Blended: 704
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 10-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 11,234	TVD: 11,234	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 21	DFS: 17	Spud Date: 25-SEP-2004	Daily Footage: 846	Daily Rot Hrs: 16.2	Total Rot Hrs: 125.3
Torq: 10	Drag: -3	Rot Wgt: 293	P/U Wgt: 290	Slack Off Wgt: 293	Wind: SW-30
Seas: 7 / 15	Bar: 0.00	POB: 87			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 118.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 97	PV: 37
YP: 56	Gel: 33 / 56				
WL API: 0.0 HTHP: 2.2	FC API: 0 HTHP: 1	Solids: 21.60	% Oil: 77.00	%Water: 23.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 136,100	Ca:	Bent:
Solids %HG/LG: 17.40 / 4.20	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	6,706	65.3	5/15	160 / 180	0									931.47
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 118.5 Hours Since Last Inspection: 111.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 90 / 48	4049	586	208.9	114.9	478.8	171.2	2.2	1384
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
10,908	2.77	157.33	S22.67E	10,907			-79.04	0.53
11,008	2.67	151.92	S28.08E	11,008			-83.33	0.28
11,102	2.88	145.73	S34.27E	11,102			-87.24	0.39
11,197	2.71	144.84	S35.16E	11,197			-91.04	0.19

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
24.00	0	01 - 02	DRILL 8 1/2" HOLE F/ 3166M - 3424M (AVE ROP 11M/HR). SURVEY EACH CONN. 590 GPM (2235 L/M) - 4050 PSI, 170 RPM -
		-	4 / 10K TQ, WOB 5 / 15K. (AVE ECD = 1.67 SG (13.9 PPG)
0.00		99 - 99	NOTE: WOB HELD AT 10 / 15K MAX DUE TO MWD TOOL ALARMS (SLIP-STICK).
0.00		99 - 99	NOTE: TAKE SCR'S @ 3253M, 3337M - FLUSH CHOKE AND KILL LINES W/ 1.55 SG (12.9 PPG) MUD AT 3395M.
0.00		99 - 99	NOTE: SKIPS ON RIG 23: 7-FULL, 16 MT (FILLED X SKIPS LAST 24 HRS = 37M/SKIP)
0.00		99 - 99	NOTE: SKIPS ON N. CORONA (IN FIELD) 20 MT, SKIPS ON N. CHALLENGER (VESTBASE) 10 - MT
0.00		99 - 99	NOTE: 42 FULL SKIPS RETURNED TO BASE - ADDITIONAL 6 MT'S OFFLOADED AT VESTBASE F/ N. CHALLENGER.
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Safety: 38 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DRILLING OP'S - WELL CONTROL. COMMUNICATIONS

24 Hr Summary: DRILL 8 1/2" HOLE F/ 3166M - 3424M.

Projected Oprn: DRILL 8 1/2" HOLE, CIRCULATE AND CONDITION, POOH FOR CORING OR CON'T DRILLING

Remarks:
DAYS SINCE LTI = 644; POB = 87; CVX = 5; SERVICE = 25; STENA = 57. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA.

PITCH: 0.8 DEG, ROLL: 0.5 DEG, HEAVE 0.3M. BULLSEYES: PGB =3/4 PORT. RISER = 1.0 DEG AFT. SWARF: DAILY 1.1KG CUM 5.7KG

ANCHOR TENSIONS (MT): #1 - 122, #2 - 130, #3 - 124, #4 - 127, #5 - 123, #6 - 116, #7 - 105, #8 - 116.

P.O. 06:00 HRS: DRIILL TO 3450M D/BREAK TO 3453M, CBU. LAST F/A DRILL 10/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 6,588,183	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,597,922	Cum Tangible Cost: 2,185,693	Cum Well Cost: 80,236,775	Total Appr: 134,847,000

Drill Water: 5422	Potable Water: 2139	Fuel: 2604	Bulk Weight: 8774	Neat Cement: 3401 Blended: 704
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 11-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 11,690	TVD: 11,690	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 22	DFS: 18	Spud Date: 25-SEP-2004	Daily Footage: 456	Daily Rot Hrs: 11.7	Total Rot Hrs: 137.0
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SW-34
Seas: 7 / 13	Bar: 0.00	POB: 92			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 142.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 113	PV: 36
YP: 48	Gel: 31 / 54				
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.10	% Oil: 74.00	%Water: 26.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 125,000	Ca:	Bent:
Solids %HG/LG: 16.60 / 5.50	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	7,162	77.0	10/20	120 / 180	0									994.68
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 90 / 48	4105	586	208.9	114.9	478.8	171.2	2.2	1404
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
11,289	2.96	142.52	S37.48E	11,289			-94.72	0.30
11,447	2.98	149.46	S30.54E	11,446			-101.48	0.23
11,517	3.23	148.93	S31.07E	11,516			-104.72	0.36

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
4.00	0	01 - 02	DRILL 8 1/2" HOLE F/ 3424M - 3453M (AVE ROP 8M/HR), SURVEY AS REQUIRED, 590 GPM (2235 L/M) - 4100 PSI, 170 RPM -
		-	4 / 10K TQ) WOB 5 / 10K, AVE ECD 1.67 SG (13.9 PPG). DRILLING BREAK 3450M - 3453M (ROP INC TO 30+M/HR) - FLOW
		-	CHECK WELL @ 3453M - 15MIN STATIC.
2.50	400	01 - 01	CIRC BTMS UP FOR SAMPLE - 590 GPM (2235 L/M) - 4050 PSI, 100 RPM - 2 / 4K TQ. BOOST RISER CLEAN AFTER CBU.
0.50	630	01 - 02	DRILL 8 1/2" HOLE F/ 3453M - 3461M (AVE ROP 25M/HR), 590 GPM (2235 L/M)-4050 PSI, 170 RPM - 4/10K TQ, WOB 5/10K.
2.50	700	01 - 01	FLOW CHECK WELL (15 MIN - STATIC), CIRC BTMS UP FOR SAMPLE, 600 GPM (2265 L/M) - 4200 PSI, 30 RPM - 2 / 4K TQ.
0.50	930	01 - 14	SPACE OUT AND FUNCTION TEST BOP'S ON YELLOW POD (WEEKLY TEST)
0.50	1000	01 - 01	CIRCULATE AND COND MUD 600 GPM (2265 L/M) - 4200 PSI, BOOST RISER CLEAN.
0.50	1030	01 - 14	SPACE OUT AND FUNCTION TEST BOP'S ON BLUE POD (WEEKLY TEST).
13.00	1100	01 - 02	DRILL 8 1/2" HOLE F/ 3461M - 3563M (AVE ROP 8 M/HR), SURVEY AS REQUIRED 590 GPM (2235 L/M) - 4100 PSI, RPM 120
		-	/ 170 - 3 / 10K TQ. WOB 5 / 20K. AVE ECD 1.67 SG (13.9 PPG).
0.00		99 - 99	
0.00		99 - 99	NOTE: SKIPS ON RIG 23, 2 FULL, 21 MT (FILL 5 SKIPS LAST 24 HRS = 28M/SKIP.
0.00		99 - 99	NOTE: SKIPS ON N. CORONA (IN-FIELD) 20: 10-MT, 10-FULL. SKIPS ON N CHALLENGER (VESTBASE) 10-MT.
0.00		99 - 99	NOTE: SKIPS IN SYSTEM: 101 = 23 RIG, 20-CORONA, 10-CHALLENGER, 42-FULL (VESTBASE) 6-MT (VESTBASE).

Safety: 37 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DRILLING OP'S - WELL CONTROL. LOGGING PREPARATIONS

24 Hr Summary: DRILL 8 1/2" HOLE F/ 3424M - 3563M. FLOW CHECK (3453M & 3461M) AND CIRC OUT SAMPLES PER GEOLOGY REQUEST.

Projected Oprn: DRILL 8 1/2" HOLE TO TD - CIRC / COND MUD - BEGIN POOH TO LOG WELL.

Remarks:
DAYS SINCE LTI = 645; POB = 92; CVX = 5; SERVICE = 28; STENA = 59. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA.

PITCH: 1.0 DEG, ROLL: 1.0 DEG, HEAVE 0.5M. BULLSEYES: PGB =3/4 PORT. RISER = 1.0 DEG AFT. SWARF: DAILY 1.0KG CUM 6.7KG

ANCHOR TENSIONS (MT): #1 - 123, #2 - 127, #3 - 122, #4 - 127, #5 - 124, #6 - 118, #7 - 106, #8 - 117.

P.O. 06:00 HRS: DRIILL 8 1/2" HOLE AT 3644M LAST F/A DRILL 10/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,011,329	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,617,832	Cum Tangible Cost: 2,185,693	Cum Well Cost: 82,248,104	Total Appr: 134,847,000

Drill Water: 5390	Potable Water: 2233	Fuel: 2466	Bulk Weight: 8774	Neat Cement: 3401 Blended: 704
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 12-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467							
DOL: 23	DFS: 19	Spud Date: 25-SEP-2004	Daily Footage: 597	Daily Rot Hrs: 11.3	Total Rot Hrs: 148.3						
Torq: 10	Drag: -5	Rot Wgt: 306	P/U Wgt: 301	Slack Off Wgt: 303	Wind: S-14	Seas: 3 / 7	Bar: 0.00	POB: 99			
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y							
Cum Rot Hrs On Casing: 163.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:								
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD							
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 92	PV: 35	YP: 54	Gel: 31 / 58				
WL API: 0.0 HTHP: 2.1	FC API: 0 HTHP: 1	Solids: 22.60	% Oil: 75.00	%Water: 25.00	% Sand: 0.00	MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 128,200	Ca:	Bent:	Solids %HG/LG: 16.10 / 6.50	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS						

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	7,759	88.3	12/30	120 / 170	0									1027.36
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 163.5 Hours Since Last Inspection: 156.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 89 / 48	4150	582	207.5	114.1	475.5	167.9	2.2	1409
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS
11,797	3.98	140.10	S39.90E	11,795			-119.00	0.25
11,891	4.34	140.78	S39.22E	11,889			-124.28	0.38
12,082	4.68	140.86	S39.14E	12,079			-135.89	0.18
12,249	5.24	140.50	S39.50E	12,246			-147.08	0.34

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
16.00	0	01 - 02	DRILL 8 1/2" HOLE F/ 3563M - 3745M (AVE ROP 11.4M/HR) SURVEY AS REQUIRED, 585 GPM (2220 L/M) - 4150 PSI, 150
		-	RPM - 4 / 10K TQ. WOB 15 / 20K AVE ECD 1.68 SG (14.0 PPG).
5.00	1600	01 - 01	CIRC HOLE CLEAN & COND MUD. 585 GPM (2220 L/M) - 4150 PSI, 150 RPM - 2 / 3K TQ. AVE ECD 1.66 SG (13.8 PPG).
		-	PUMP 50 BBL - 15.0 PPG HT WT SWEEP AFTER INITIAL BTMS UP - NO SIGNIFICANT INCREASE IN CUTTINGS WHEN HI-WT SWEEP
		-	AT SHAKERS. TOTAL 3 1/2 BTMS UP. BOOST RISER AT 6 BPM W/ CMT UNIT. FLOW CHECK WELL - STATIC.
1.50	2100	01 - 05	POOH (WET) F/ 3745M - 3529M (NOTE 30K O/P F/ 3540M - 3529M). HOLE SLICK BELOW 3540M.
0.50T	2230	01 - 20	DRILL 8 1/2" HOLE F/ 3563M - 3745M (AVE ROP 11.4M/HR) SURVEY AS REQUIRED, 585 GPM (2220 L/M) - 4150 PSI, 150
		-	RPM - 4 / 10K TQ. WOB 15 / 20K AVE ECD 1.68 SG (14.0 PPG).
1.00U	2300	01 - 05	CON'T POOH (WET) F/ 3529M - 3510M W/ 30K O/P (S/O NO PROBLEMS). M/U DDM - BREAK CIRC 370 GPM (1400 L/M) - 1750
		-	PSI. UNABLE TO ROTATE DUE TO TORQUE. TIH TO 3548M - ESTABLISH CIRC 430 GPM (1610 L/M) - 2300 PSI. EST
		-	ROTATION 80 RPM - 2 / 3K TQ. ROT WT 304K.
0.00		99 - 99	
0.00		99 - 99	SKIPS ON RIG: 23, 7-FULL, 16 MT (FILL 5 SKIPS LAST 24 HRS - AVE 36M/SKIP)
0.00		99 - 99	SKIPS ON N. CORONA 20 = 10 FULL, 10 - MT. SKIPS ON N. CHALLENGER 10 MT.
		-	

Safety: 28 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. DRILLING OP'S - WELL CONTROL W/ NEW DRILL CREWS

24 Hr Summary: DRILL 8 1/2" HOLE TO 3745M (TD SECTION), CIRC HOLE CLEAN / COND MUD, BEGIN POOH.

Projected Oprn: POOH - R/U AND BEGIN LOGGING WELL

Remarks:
DAYS SINCE LTI = 646; POB = 92; CVX = 5; SERVICE = 34; STENA = 60. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA.

PITCH: 1.0 DEG, ROLL: 0.8 DEG, HEAVE 0.5M. BULLSEYES: PGB =3/4 PORT. RISER = 3/4 DEG AFT. SWARF: DAILY 1.0KG CUM 6.7KG

ANCHOR TENSIONS (MT): #1 - 118, #2 - 127, #3 - 122, #4 - 128, #5 - 126, #6 - 119, #7 - 106, #8 - 114.

P.O. 06:00 HRS: REAM/WIPE CLEAN 3548M-3432M, CBU; POOH TO 3221M, OK. LAST F/A DRILL 10/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,640,772	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,637,742	Cum Tangible Cost: 2,185,693	Cum Well Cost: 84,888,876	Total Appr: 134,847,000

Drill Water: 5353	Potable Water: 2302	Fuel: 2352	Bulk Weight: 8708	Neat Cement: 3401	Blended: 704
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 13-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467					
DOL: 24	DFS: 20	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3				
Torq: 12	Drag: -5	Rot Wgt: 306	P/U Wgt: 301	Slack Off Wgt: 303	Wind: E-18	Seas: 1 / 5	Bar: 0.00	POB: 99	
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y					
Cum Rot Hrs On Casing: 168.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:						
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD					
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 36	YP: 52	Gel: 31 / 58		
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.60	% Oil: 75.00	%Water: 25.00	% Sand: 0.00	MBT:	Ph:		
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 128,200	Ca:	Bent:	Solids %HG/LG: 16.10 / 6.50	%DS/Bent: /		
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS				

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - / - / - / -	0.901	4,528	12,287	12,287
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	7,759	88.3	0/0	80 / 120	0									1027.36
			/	/										

Total Length of BHA: 730.54 BHA Description: 8 1/2" PDC BIT, 8 1/2" NB STAB, NM PONY, 8 1/2" NM STAB, STOP SUB, ONTRAK MWD, BCPM, 8 3/8" IN LINE STAB, APX TOOL, STOP SUB, 8 3/8" STRING STAB, 8 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 - 5" HWDP.

Hrs On Jars: 168.0 Hours Since Last Inspection: 160.5

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	0 / 50 / 50	4150	425	151.9	83.3	347.3	65.7	0.9	1029
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
3.00U	0	01 - 04	BACKREAM F/ 3548M - 3432M. 430 GPM (1630 L/M) - 2300 PSI, 100 RPM - 4 / 12K TQ. NO PRBLEMS ABOVE 3448M. WASH
		-	EACH STD BACK DOWN AND POOH W/ NO ROTARY. PRIOR TO BACKREAM NEXT STD.
1.50U	300	01 - 01	CIRC HOLE CLEAN AT 3432M (WORK PIPE F/ 3432M - 3413M) 600 GPM (2270 L/M) - 4100 PSI, 80 RPM - 2 / 3 K TQ.
1.00	430	01 - 05	FLOW CHECK WELL - STATIC. POOH (WET) F/ 3432M - 3337M. NO PROBLEMS - PUMP SLUG.
9.00	530	01 - 05	POOH F/ 3337M - 222M W/ NO PROBLEMS, 20K OVERPULL AT 1816M (WIPED CLEAN). FLOW CHECK AT 13 3/8" SHOE AND BOP'S
		-	- STATIC.
1.50	1430	01 - 05	POOH RACKING 12 - 6 1/2" DC'S - L/D JARS.
1.00	1600	02 - 25	BHI - MWD, VERIFY TOOLS AND DOWNLOAD MWD DATA.
1.00	1700	01 - 07	L/D BHI - MWD TOOLS, BREAK OFF BIT. (GRADED 3,3, CT, XN, X, IN, NO, TD).
1.00	1800	02 - 25	CLEAR DRILL FLOOR AND R/U FOR W/L OPERATIONS (CHANGE ELEVATORS)
3.00	1900	02 - 25	HOLD TBT/RA: R/U SCHLUMBERGER W/L EQUIPMENT AND M/U TOOL STRING #1 (DSI / PEX / AIT / HNGS).
0.50	2200	02 - 25	HOLD TBT/RA: INSTALL RA SOURCE IN TOOL STRING, RIH 100M - SET MOTION COMPENSATOR, VERIFY TOOL STRING.
1.50	2230	02 - 25	RIH W/ LOG RUN #1: DSI / PEX / AIT / HNGS - PERFORM FINAL CHECKS AT 13 3/8" SHOE (P/U WT 3700#'S), COMMENCE
		-	DOWNLOG FROM 1371.5M PER PROGRAMME.
0.00		99 - 99	

Safety: 23 STOP CARDS. HOLD PRE-TOUR TBT'S W/ DRILL CREWS. WELL CONTROL - WIREINE LOGGING OPERATIONS

24 Hr Summary: BACKREAM 3448M - 3432M, CIRC HOLE CLEAN, POOH L/D MWD TOOLS - R/U W/L EQUIP BEGIN RUN LOG #1 (DSI/PEX/AIT/HNGS)

Projected Oprn: LOG WELL PER GEOLOGICAL PROGRAMME

Remarks:
DAYS SINCE LTI = 647; POB = 99; CVX = 6; SERVICE = 35; STENA = 58. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.

PITCH: 0.7 DEG, ROLL: 0.4 DEG, HEAVE 0.3M. BULLSEYES: PGB =3/4 PORT. RISER = 0.0 DEG. SWARF: DAILY 0.7KG CUM 7.4KG

ANCHOR TENSIONS (MT): #1 - 114, #2 - 127, #3 - 124, #4 - 132, #5 - 129, #6 - 120, #7 - 104, #8 - 111

P.O. 06:00 HRS: UNABLE TO PASS 2135M W/ LOG RUN#1 - RIH W/ LOG RUN #1A (PEX/AIT/HNGS),SAME RESULT AS RUN1. LAST F/A DRILL 10 OCT

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,884,369	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,657,652	Cum Tangible Cost: 2,185,693	Cum Well Cost: 87,773,245	Total Appr: 134,847,000

Drill Water: 5271	Potable Water: 2428	Fuel: 3623	Bulk Weight: 8708	Neat Cement: 3401	Blended: 704
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 14-OCT-2004	Page: 1 Of 2		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 24	DFS: 20	Spud Date:	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:
Seas: /	Bar:	POB: 99			

Last Casing Size:	Set At: MD	TVD	Shoe Test: EMW	Leakoff?			
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:				
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
0.00		99 - 99	NOTE: SKIPS ON RIG: 15 2-FULL, 13-MT (FILLED 2 SKIPS LAST 24 HRS)	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:	
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:	
Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 14-OCT-2004	Page: 2 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467							
DOL: 25	DFS: 21	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3						
Torq: 0	Drag: -3	Rot Wgt: 229	P/U Wgt: 227	Slack Off Wgt: 229	Wind: E-15	Seas: 2 / 5	Bar: 0.00	POB: 99			
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y							
Cum Rot Hrs On Casing: 168.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:								
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD							
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 35	YP: 56	Gel: 31 / 61				
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.60	% Oil: 75.00	%Water: 25.00	% Sand: 0.00	MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 128,200	Ca:	Bent:	Solids %HG/LG: 16.10 / 6.50	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS						

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - 0 / - 0 / - 0 / - 0	0.902	12,287		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	0	0.0	/	/	0									0.00
			/	/										

Total Length of BHA: 661.48 BHA Description: 8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)

Hrs On Jars: 168.0 Hours Since Last Inspection: 160.5

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	/ /		0	0.0	0.0	0.0	0.0	0.0	0
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
2.50	0	02 - 25	RIH W/ LOG RUN #1 (DSI/PEX/AIT/HCGS) F/ 1371M - 2135M WLM. TAG OBSTRUCTION ATTEMPT TO WORK THROUGH NUMEROUS	
		-	TIMES (VARIOUS SPEEDS) NO-GO. POOH W/ LOG RUN #1.	
2.00U	230	02 - 25	HOLD TBT: REMOVE RA SOURCE, RE-CONFIGURE TOOL STRING, INSTALL RA SOURCE, RIH 100M, SET UP MOTION COMPENSATOR.	
2.00U	430	02 - 25	RIH W/ LOG RUN #2 (PEX/AIT/HNGS) - TOOL STOOD UP AT 2135M WLM, SEVERAL ATTEMPTS MADE TO WORK THRU, NO-GO.	
2.00	630	02 - 25	OPEN CALIPER AND UP LOG F/ 2133M - SHOE @ 1371M, NO PROBLEMS. FINISH POOH W/ LOG RUN #2.	
2.00	830	02 - 25	HOLD TBT: REMOVE RA SOUCE, PERFORM CALIBRATION CHECKS ON LOG RUN #2, L/D W/L TOOLS.	
2.50U	1030	02 - 25	DAMAGE TO CABLE / ROPE SOCKET NOTED ON SURFACE. SCHLUMBERGER RE-TERMINATE CABLE - ROPE SOCKET. M/U MDT TOOL	
		-	STRING ON DRILL FLOOR WHILE RE-TERMINATE ROPE SOCKET. PERFORM SURFACE CHECKS ON MDT TOOL STRING.	
2.50U	1300	02 - 25	RIH W/ LOG RUN #3 (MDT), UNABLE TO WORK PAST 2135M WLM. SEVERAL ATTEMPS MADE (VARIOUS SPEEDS) NO-GO.	
1.50U	1530	02 - 25	POOH W/ LOG RUN #3 (MDT) AND L/D W/L TOOLS.	
1.50U	1700	02 - 25	R/D W/L EQUIPMENT, CHANGE ELEVATORS FOR CONDITIONING TRIP.	
2.00U	1830	01 - 05	M/U 8 1/2" BHA FOR CONDITIONING TRIP AND RIH TO 201M.	
3.50U	2030	01 - 05	TIH W/ 8 1/2" BHA F/ 201M - 1442M. FILL PIPE AND BREAK CIRC EVERY 25 STDS. EST PARAMETERS AT 13 3/8" SHOE.	
0.00U		99 - 99		
0.00U		99 - 99	NOTE: SKIPS ON RIG: 14 - 2 FULL, 12 MT (SECTION TOTAL 63 FULL = 37M/SKIP)	

Safety: 31 STOP CARDS HELD PRE-TOUR MTG W/ DRILL CREWS. WIREINE OP'S - HANDLING BHA - TRIPPING PIPE.

24 Hr Summary: RUN LOGS: UNABLE TO WORK PAST OBSTRUCTION AT 2135M W/ VARIOUS TOOL CONFIGURATIONS, R/D W/L AND BEGIN WIPER TRIP.

Projected Oprn: CONDITIONING TRIP FOR LOGGING OPERATIONS, CIRC HOLE CLEAN , POOH.

Remarks:
DAYS SINCE LTI = 648; POB = 99; CVX = 5; SERVICE = 34; STENA = 60. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.

PITCH: 0.5 DEG, ROLL: 0.4 DEG, HEAVE 0.2M. BULLSEYES: PGB =3/4 PORT. RISER = 0.5 DEG. FWD SWARF: DAILY 0.7KG CUM 7.4KG

ANCHOR TENSIONS (MT): #1 - 113, #2 - 126, #3 - 124, #4 - 134, #5 - 131, #6 - 120, #7 - 104, #8 - 110

P.O. 06:00 HRS: RIH TO 2643M, STOOD UP, ATTEMPT TO WORK PAST. LOSSES ENCOUNTERED. LAST F/A DRILL 10/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 3,101,263	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,677,562	Cum Tangible Cost: 2,185,693	Cum Well Cost: 90,874,508	Total Appr: 134,847,000

Drill Water: 5214	Potable Water: 2283	Fuel: 3547	Bulk Weight: 6349	Neat Cement: 3401 Blended: 704
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 15-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467					
DOL: 26	DFS: 22	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3				
Torq: 5	Drag: -3	Rot Wgt: 229	P/U Wgt: 227	Slack Off Wgt: 229	Wind: E-20	Seas: 2 / 3	Bar: 0.00	POB: 99	
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y					
Cum Rot Hrs On Casing: 188.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:						
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD					
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 36	YP: 54	Gel: 31 / 61		
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.60	% Oil: 75.00	%Water: 25.00	% Sand: 0.00	MBT:	Ph:		
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 128,200	Ca:	Bent:	Solids %HG/LG: 16.10 / 6.50	%DS/Bent: /		
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS				

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - 0 / - 0 / - 0 / - 0	0.902	12,287		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	0	0.0	0/0	50 / 100	0									0.00
			/	/										

Total Length of BHA: 661.48 BHA Description: 8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)

Hrs On Jars: 188.5 Hours Since Last Inspection: 181.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	/ 90 / 35	2900	531	189.3	275.4	433.9	127.5	1.7	898
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
3.50U	0	01 - 05	CON'T TIH W/ 8 1/2" BHA F/ 1442M - 2643M. FILL PIPE / BREAK CIRC EVERY 25 STDS (2076M). WORK PIPE ACROSS W/L	
		-	HOLD UP DEPTH AT 2135M W/ NO PROBLEMS. TOOK 30K WT AT +/-2643M.	
1.50U	330	01 - 01	M/U DDM - FILL PIPE AND BREAK CIRC AT 2643M. INITIAL RATE 430 GPM (1620 L/M) - 3200 PSI, 100 RPM - 7 / 9K TQ.	
		-	HOLE TRYING TO PACK-OFF, BACK-REAM STD AND PRESS DROP NOTICED: 430 GPM (1620 L/M) - 2350 PSI, 100 RPM - 5/7K TQ.	
		-	WORK STD SEVERAL TIMES - INC RATE TO 535 GPM (2022 L/M) - 2900 PSI. CON'T WORK STAND WHILE BEGIN CIRC BTMS	
		-	UP. LOSSES NOTED IN ACTIVE SYSTEM. REDUCE PUMP RATE TO 320 GPM (1215 L/M) - 1300 PSI. +/-60% LOSSES.	
0.50X	500	01 - 50	MONITOR WELL ON TRIP TANK - WELL BLED BACK 2 BBLS THEN STATIC. TOTAL LOSSES FROM CIRCULATING +/-150 BBLS.	
0.50X	530	01 - 50	ATTEMPT EST CIRC AT 200 GPM (810 L/M) - 770 PSI, MINIMAL RETURNS, SLOW RATE TO 125 GPM (485 L/M) - 570 PSI,	
		-	30% RETURNS NOTED ON TRIP TANK. LOST ADDITIONAL +/-50 BBLS TO HOLE.	
1.00X	600	01 - 50	MONITOR WELL ON TRIP TANK - GAIN 5 BBLS THEN STATIC. CHECK PIT LEVELS (TOTAL LOST +/-200 BBLS).	
1.50X	700	01 - 01	BEGIN BOOST RISER, 170 GPM (645 L/M) - 400 PSI - FULL RETURNS, STAGE RISER PUMP UP TO 430 GPM (1620 L/M) - 1050	
		-	PSI, CIRC RISER CLEAN - OBSERVE CUTTINGS / CAVINGS AND LARGE AMOUNT OF FINES AT SHAKERS ON BTMS UP FROM RISER	
		-	(+/-5 MT RECOVERED IN SKIPS). NO LOSSES TO HOLE. ROTATE PIPE AT +/-50 RPM - 4/6K TQ.	
2.00X	830	01 - 50	BEGIN PUMPING DOWN DP AT 85 GPM (325 L/M) - 400 PSI, 60 / 100 RPM - 4 / 8K TQ, BOOSTER PUMP RUNNING - NO	
		-	RETURNS FROM DOWNHOLE - LOSING 2BPM ACTIVE SYSTEM. REDUCE PUMP RATE DOWN DP TO 42 GPM (160 L/M) - 300 PSI,	

Safety: 29 STOP CARDS HELD PRE-TOUR MTG W/ DRILL CREWS. WELL CONTROL - HOLE CONDITIONS - BACK-REAMING OP'S

24 Hr Summary: TIH TO 2643M - BEGIN CIRC BTMS UP - OBSERVE LOSSES DOWNHOLE, CIRC RISER CLEAN BACK-REAM OUT OF HOLE.

Projected Oprn: CIRC HOLE CLEAN IN CASING - BEGIN STAGING IN HOLE TO CONDITION FOR LOGGING OPERATIONS.

Remarks:
DAYS SINCE LTI = 649; POB = 99; CVX = 5; SERVICE = 34; STENA = 60. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CHALLENGER.

PITCH: 0.3 DEG, ROLL: 0.4 DEG, HEAVE 0.2M. BULLSEYES: PGB =3/4 PORT. RISER = 0.5 DEG. FWD SWARF: DAILY 0.60KG CUM 8.0KG

ANCHOR TENSIONS (MT): #1 - 114, #2 - 126, #3 - 126, #4 - 134, #5 - 131, #6 - 121, #7 - 104, #8 - 109

P.O. 06:00 HRS: BACKREAM INTO SHOE CIRCULATE TO CLEAN CASING. LAST F/A DRILL 10/10/04

Daily Mud Cost: 293,660	Daily Tangible Cost: 0	Daily Well Cost: 2,272,942	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 3,971,222	Cum Tangible Cost: 2,185,693	Cum Well Cost: 93,147,450	Total Appr: 134,847,000	
Drill Water: 5164	Potable Water: 2107	Fuel: 3485	Bulk Weight: 6349	Neat Cement: 3401 Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 16-OCT-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 26	DFS: 22	Spud Date:	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 99

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	LOSING 1 BPM ACTIVE SYSTEM. NOTICE INCREASE IN HOLE DRAG AND TQ. LOST ADDITIONAL +/-50 BBLS TO HOLE. TOTAL	
		-	LOSSES +/-300 BBLS SINCE 03:30 HRS. BACK-REAM STD TO 2624M	
6.50X	1030	01 - 04	FLOW CHECK WELL (2624M) - STATIC, BACK-REAM OUT F/ 2624M - 2076M W/ LOSSES DOWN HOLE - PUMPING 1 BPM (160 L/M)	
		-	- 300 PSI. 50 RPM - 4 / 7K TQ.	
1.50X	1700	01 - 50	FLOW CHECK WELL DUE TO FLOW BACK NOTED DURING CONNECTION - 5 BBL GAIN. SPACE-OUT AND CLOSE UPPER ANNULAR -	
		-	MONITOR WELL - NO BUILD UP OF PRESSURE, OPEN ANNULAR AND MONITOR ON TRIP TANK - STATIC.	
5.50X	1830	01 - 04	BACK-REAM OUT OF HOLE F/ 2066M - 1425M W/ LOSSES PUMPING 1.4 BPM (222 L/M) - +/-220 PSI. 50 RPM - 4 / 7K TQ.	
		-	INC IN TORQUE AND LOSSES AT 1425M. WORK STD DOWN TO 1442M - ESTABLISH PARAMETERS.	
0.00		99 - 99	TOTAL LOSSES TO HOLE LAST 24 HOURS: +/-400 BBLS	
0.00		99 - 99	SKIPS ON RIG: 14 3-FULL 11 MT (FILLED 1 SKIP LAST 24 HRS).	
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 16-OCT-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 27	DFS: 23	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3
Torq: 5	Drag: -3	Rot Wgt: 229	P/U Wgt: 227	Slack Off Wgt: 229	Wind: SE-24
Seas: 2 / 5	Bar: 0.00	POB: 99			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 197.5	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 35
YP: 54	Gel: 36 / 56				
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.80	% Oil: 75.00	%Water: 25.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 94,700	Ca:	Bent:
Solids %HG/LG: 16.30 / 6.50	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - 0 / - 0 / - 0 / - 0	0.902	12,287		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	0	0.0	0/0	50 / 100	0									0.00
			/	/										

Total Length of BHA: 661.48 BHA Description: 8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)

Hrs On Jars: 197.5 Hours Since Last Inspection: 190.0

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	/ 80 / 80	2900	680	242.4	352.7	555.6	267.7	3.5	1150
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.50X	0	01 - 01	HOLE TRYING TO PACK-OFF AT 1425M - DP PRESS INCREASE F/ 200 - 240 PSI, TQ INC F/ 5K - 10K. LOSSES INCREASING.	
		-	RUN STAND DOWN TO 1442M PRESS / TORQUE BACK TO NORMAL. BOOST RISER STAGING UP TO 10 BPM (1620 L/M) - 1050 PSI -	
		-	NO LOSSES. CON'T PUMPING DOWN DP AT 1.5 BPM (240 L/M) - 200 PSI. WORK STD F/ 1442M - 1430M W/ NO PROBLEMS.	
		-	CAVINGS / FINES ACROSS SHAKERS.	
1.50X	130	01 - 01	CON'T TO BOOST RISER AT 10 BPM (1620 L/M) - 1050 PSI - NO LOSSES. INCREASE FLOW RATE DOWN DP IN STAGES TO 4	
		-	BPM (635 L/M) - 400 PSI W/ NO LOSSES. 100 RPM 3/5K TQ. WORK STAND OUT TO 1410M. RACK BACK STAND.	
1.50X	300	01 - 04	CON'T BOOST RISER, B/REAM OUT F/ 1410M - 1371M (BIT INSIDE 13 3/8" CASING) - ABLE TO INC FLOW RATE TO 6 BPM	
		-	(950 L/M) - 600 PSI - NO LOSSES, 100 RPM - 4/6K TQ.	
4.50X	430	01 - 01	CON'T BOOSTING RISER AT 10 BPM - 1050 PSI. CIRC HOLE CLEAN - STAGING PUMPS UP TO MAX 725 GPM (2745 L/M) - 3200	
		-	PSI, NO LOSSES. CAVINGS / FINES / CEMENT NOTED AT SHAKERS. 100 RPM - 4K TQ.	
2.00	900	01 - 14	FLUSH CHOKE / KILL AND SURFACE LINES THRU POOR-BOY GAS BUSTER, SPACE OUT AND FUNCTION TEST BOP'S (YELLOW POD -	
		-	RIG FLOOR / BLUE POD - OFFICE REMOTE).	
0.50	1100	01 - 21	SERVICE DDM / DOLLY TRACK AND CALIBRATE COMPENSATOR. CON'T BOOSTING RISER 80 SPM - 700 PSI.	
0.50X	1130	01 - 62	TOFS: HOLD TBT W/ PERSONNEL - DISCUSS TRIPPING PROCEDURES WITH RISER BOOSTER PUMP RUNNING.	
1.50X	1200	01 - 05	TIH F/ 1370M - 1600M - NO PROBLEMS, MONITOR FOR LOSSES WHILE BOOSTING RISER 80 SPM - 900 PSI. NO LOSSES.	

Safety: 22 STOP CARDS HELD PRE-TOUR MTG W/ DRILL CREWS. DISCUSSED HOLE CONDITIONS - LOST CIRCULATION - WELL CONTROL.

24 Hr Summary: BACK-REAM TO 13 3/8" SHOE. CIRCULATE HOLE CLEAN IN CASING - TIH TO 1790M ATTMEPT CIRC - LOSSES NOTED - SPOT LCM

Projected Oprn: STAGE IN HOLE SPOTTING LCM, REGAIN CIRCULATION AND CONDITION HOLE.

Remarks:
DAYS SINCE LTI = 650; POB = 99; CVX = 5; SERVICE = 34; STENA = 60. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA

PITCH: 0.4 DEG, ROLL: 0.8 DEG, HEAVE 0.4M. BULLSEYES: PGB =3/4 PORT. RISER = 0.0 DEG. SWARF: DAILY 0.0KG CUM 8.0KG

ANCHOR TENSIONS (MT): #1 - 115, #2 - 124, #3 - 125, #4 - 134, #5 - 131, #6 - 121, #7 - 104, #8 - 109

P.O. 06:00 HRS: RIH TO 2190M SPOT 95 BBLS LCM PILL, ALLOW TO SOAK. LAST F/A DRILL 16/10/04

Daily Mud Cost: 749,910	Daily Tangible Cost: 0	Daily Well Cost: 2,752,609	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 4,721,132	Cum Tangible Cost: 2,185,693	Cum Well Cost: 95,900,059	Total Appr: 134,847,000

Drill Water: 5114	Potable Water: 2120	Fuel: 3384	Bulk Weight: 5732	Neat Cement: 3401 Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 17-OCT-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 27	DFS: 23	Spud Date:	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 99

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
3.50X	1330	01 - 01	BREAK CIRC AND STAGE PUMPS TO 150 GPM (568 L/M) - 375 PSI (BOOSTING RISER W/ PUMP #1). ADD LCM TO ACTIVE	
		-	SYSTEM - LOSS RATE AT 20+ BPH. S/D PUMPS - NO STATIC LOSSES.	
1.00X	1700	01 - 05	TIH F/ 1600M - 1790M (BOOSTING RISER) NO PROBLEMS (BEGIN MIXING 100 BBLS LCM PILL)	
3.00X	1800	01 - 01	BREAK CIRC AT 1790M, 2 BPM (320 L/M) - 275 PSI. LOSING +/-15 BPH, SLOW RATE TO 1 BPM WHILE FINISH MIXING LCM.	
1.50X	2100	01 - 01	HOLD TBT: PUMP 95 BBLS LCM (20 PPB COURSE / MED / FINE CACO3 & 20 PPB G-SEAL = 1.60 SG (13.4 PPG)) AND CHASE TO	
		-	BIT W/ ACTIVE MUD AT 2 BPM (320 L/M) - 200 PSI. DISPLACE PILL INTO OPEN HOLE AT 6 BPM (950 L/M) - 650 PSI W/	
		-	50% RETURNS - LOST 50 BBLS WHILE SPOTTING PILL IN OPEN HOLE.	
1.00X	2230	01 - 50	MONITOR WELL WHILE BOOSTING RISER 8 BPM (1279 L/M) - 710 PSI. NO LOSSES. (BEGIN BUILDING 100 BBLS LCM PILL)	
0.50X	2330	01 - 50	EST CIRC AT 2 BPM - 260 PSI (LOSSES 20+ BPH), SLOW TO 1 BPM - 180 PSI (LOSSES 20+ BPH). TOTAL 40 BBLS PUMPED	
		-	AND 20 RETURNED.	
0.00		99 - 99	NOTE: DAILY LOSSES TO HOLE = 203 BBLS TOTAL LOSSES = 586 BBLS	
0.00		99 - 99	NOTE: SKIPS ON RIG: 18, 2-FULL, 16 MT (FILLED 2 SKIPS DURING LAST 24 HRS)	
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL / MOORE

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 17-OCT-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 28	DFS: 24	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3
Torq: 4	Drag: -4	Rot Wgt: 193	P/U Wgt: 189	Slack Off Wgt: 193	Wind: SE-16
Seas: 3 / 7	Bar: 0.00	POB: 100			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 214.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 35	YP: 54	Gel: 38 / 58	
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.86	% Oil: 79.00	%Water: 21.00	% Sand: 0.50	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 112,500	Ca:	Bent:	Solids %HG/LG: 17.70 / 5.20	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks: SEE DATA LOG REPORTS

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - 0 / - 0 / - 0 / - 0	0.902	12,287		
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	0	0.0	0/0	40 /	0									0.00
			/	/										

Total Length of BHA: 661.48 BHA Description: 8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)

Hrs On Jars: 214.0 Hours Since Last Inspection: 206.5

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	/ 75 / 75	1400	637	227.6	330.4	520.4	221.1	2.9	520
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.00X	0	01 - 50	MONITOR WELL - STATIC. ALLOW LCM PILL TO SOAK (BIT DEPTH 1790M) BOOSTING RISER AT 7.5 BPM (1215 L/M) - 610 PSI.	
0.50X	100	01 - 50	CON'T BOOST RISER, ATTEMPT CIRC AT 1 BPM (160 L/M) THRU STRING - 180 PSI W/ 50% RETURNS	
1.50X	130	01 - 05	TIH F/ 1790M - 2190M NO PROBLEMS, LOST 15 BBLS WHILE TIH. BOOSTING RISER.	
0.50X	300	01 - 50	BREAK CIRC AND EST LOSSES, 1 BPM (160 L/M) - 240 PSI LOSING 12 BPH, 2 BPM (320 L/M) - 350 PSI, LOSING 24 BPH.	
1.50X	330	01 - 50	PUMP 95 BBLS LCM (20 PPB COURSE / MED / FINE CACO3 & 20 PPB G-SEAL) 1.60 SG (13.4 PPG)) AND CHASE TO BIT W/ 2	
		-	BPM (320 L/M) - 300 PSI. DISPLACE PILL INTO OPEN HOLE AT 6 BPM (954 L/M) - 875 PSI. LOST 44 BBLS WHILE SPOTTING	
		-	LCM IN OPEN HOLE.	
1.00X	500	01 - 50	MONITOR WELL - ALLOW LCM PILL TO SOAK. BOOST RISER AT 7.5 BPM - 600 PSI.	
0.50X	600	01 - 50	ESTABLISH LOSSES AT 1 BPM - 250 PSI (30 BBLS PUMPED - LOST 22 BBLS).	
1.00X	630	01 - 50	MONITOR WELL WHILE BOOSTING RISER 7.5 BPM - 600 PSI. NO LOSSES.	
8.00X	730	01 - 04	PUMP / BACK-REAM OUT OF HOLE F/ 2190M - 1355M. PUMPING 20 SPM - 250 PSI, 30 RPM - 3K TQ. LOST 13 BBLS POOH.	
4.00X	1530	01 - 01	BREAK CIRC AND STAGE PUMPS UP TO 16.0 BPM (2545 L/M) - 2750 PSI, 125 RPM - 3K TQ. NO LOSSES. BOOST RISER AT 10	
		-	BPM - 1050 PSI. SOME CAVINGS / CEMENT AND FINES ACROSS SHAKERS.	
0.50X	1930	01 - 01	FLUSH CHOKE / KILL AND SURFACE LINES THROUGH POOR-BOY GAS BUSTER.	
0.50X	2000	01 - 62	TOFS: HOLD TBT W/ PERSONNEL ON TOUR - WASHING / REAMING OPERATIONS.	

Safety: 26 STOP CARDS HELD PRE-TOUR MTG W/ DRILL CREWS. DISCUSSED HOLE CONDITIONS - LOST CIRCULATION - WELL CONTROL.

24 Hr Summary: SPOT LCM PILL AT 1790M & 2190M, PUMP OUT TO SHOE, CIRC HOLE CLEAN - WASH / REAM TO 1530M - LOSING RETURNS.

Projected Oprn: POOH TO SHOE, CIRC HOLE CLEAN, POOH W/ BHA, P/U 3 1/2" CEMENT STINGER.

Remarks:
DAYS SINCE LTI = 651; POB = 100; CVX = 8; SERVICE = 34; STENA = 58. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA

PITCH: 1.0 DEG, ROLL: 1.5 DEG, HEAVE 0.5M. BULLSEYES: PGB =3/4 PORT. RISER = 3/4DEG STBD-FWD. SWARF: DAILY 0.72KG CUM 8.69KG

ANCHOR TENSIONS (MT): #1 - 113, #2 - 119, #3 - 121, #4 - 133, #5 - 131, #6 - 124, #7 - 106, #8 - 112

P.O. 06:00 HRS: POOH CURRENT DEPTH 470M. LAST F/A DRILL 16/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,121,991	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 4,741,042	Cum Tangible Cost: 2,185,693	Cum Well Cost: 98,022,050	Total Appr: 134,847,000

Drill Water: 5114	Potable Water: 2183	Fuel: 3308	Bulk Weight: 5732	Neat Cement: 3401	Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL/MOORE/DEJONG		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 18-OCT-2004	Page: 1 Of 2		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 28	DFS: 24	Spud Date:	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 100

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
2.50X	2030	01 - 04	WASH / REAM F/ 1371M - 1500M, 450GPM (1700 L/M) - 1400 PSI, 80 RPM - 3 / 5K TQ. 95% RETURNS F/ 1371 - 1455M,	
		-	INC IN LOSSES NOTED F/ 1455M - 1500M. +/-60% RETURNS. BOOST RISER AT 70 SPM - 510 PSI.	
1.00X	2300	01 - 04	PUMP 40 BBLS LCM PILL - WASH / REAM F/ 1500M - 1530M W/ +/-60% RETURNS. CHECK LOSS RATE AT 1530M - LOSING +/-	
		-	180 BPH AT 10 BPM RATE. S/D AND BEGIN MONITOR WELL - NO LOSSES.	
0.00X		99 - 99	NOTE: DAILY LOSSES TO HOLE = 130 BBLS TOTAL LOSSES = 716 BBLS	
0.00X		99 - 99	NOTE: SKIPS ON RIG: 18 EMPTY	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL/MOORE/DEJONG

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 18-OCT-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 29	DFS: 25	Spud Date: 25-SEP-2004	Daily Footage: 0	Daily Rot Hrs: 0.0	Total Rot Hrs: 148.3
Torq: 4	Drag: -4	Rot Wgt: 193	P/U Wgt: 189	Slack Off Wgt: 193	Wind: S-15
Seas: 2 / 3	Bar: 0.00	POB: 87			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 33	YP: 58	Gel: 38 / 58	
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 23.00	% Oil: 79.00	%Water: 21.00	% Sand: 0.50	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 93,800	Ca:	Bent:	Solids %HG/LG: 17.80 / 5.20	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
4		8.500	DBS	10659362	6 - 14 / - 0 / - 0 / - 0 / - 0	0.902	12,287	0	0
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
FM3663Z	0	0.0	0/0	40 /	0									0.00
			/	/										

Total Length of BHA: 661.48 BHA Description: 8 1/2" PDC (RR), 8 1/2" NB STAB (PORTED FLT), NON-MAG PONY, 8 1/2" STAB, 1 - 6 1/2" DC, 8 3/8" STAB, 7 - 6 1/2" DC'S, JARS, 3 - 6 1/2" DC'S, 9 JTS - 5" HWDP (TOTCO)

Hrs On Jars: 216.0 Hours Since Last Inspection: 208.5

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
4	5.984 / 5.984 / 5.984	/ /	/ 75 / 75	2500	637	227.1	330.4	520.4	220.1	2.9	929
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.00X	0	01 - 50	FLOWCHECK WELL WHILST BOOST RISER - OBSERVE WELL BALLOONING, MONITOR FOR DECREASING TREND.	
1.00X	100	01 - 04	BACKREAM OOH F/ 1530M TO 1371M AT 1 BPM, 250 PSI, 40 RPM WHILST BOOSTING THE RISER	
1.00X	200	01 - 01	CIRC BTM'S UP AT 640 GPM, 2500 PSI, 40 RPM AND CONT TO BOOST RISER; OBSERVED CAVINGS AT BOTTOMS UP - NO LOSSES	
5.00X	300	01 - 05	CONTINUE TO POOH; F/C AT BOP'S - STATIC; CONT POOH & RACK BACK BHA	
1.00X	800	01 - 07	L/D JARS AND 2X 6 1/2" DC'S & BHA; BHA & BIT ALL CLEAN - NO BALLING	
1.00	900	01 - 19	CLEAR RIG FLOOR; M/U CEMENT STAND AND RACK BACK IN DERRICK	
2.50	1000	01 - 19	R/D MUD BUCKET; R/U 3 1/2" HANDLING EQUIPMENT & HYDRAULIC TONG	
5.50	1230	01 - 19	HELD TBT & REVIEW RISK ASSESSMENT; P/U MULESHOE & 50 JNTS OF 3 1/2" 15.8# PH-6 STINGER (TOTAL 482M)	
3.50	1800	01 - 19	RIH W/ STINGER ON 5" DP TO 1370M	
1.50	2130	01 - 19	STAGE UP PUMPS TO 560 GPM, 3000 PSI; CIRCULATE BOTTOMS UP WHILST BOOST RISER AT 300 GPM, 530 PSI; MEANWHILE,	
		-	R/D HYDR. POWER TONG & R/U HYDR. MUD BUCKET	
1.00	2300	01 - 19	TAKE PARAMETERS; P/U WT = 150K LBS, S/O WT=155K LBS; AT 80 RPM, 153K LBS WT AND 1.5K FT-LBS T/Q; CONT TIH ON 5"	
		-	DP TO 1500M	
0.00		99 - 99	NOTE: DAILY LOSSES TO HOLE = 34 BBLS TOTAL LOSSES = 750 BBLS SKIPS: 6 EMPTY, 0 FULL	
		-		

Safety: 32 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: POOH TO SHOE, CIRC HOLE CLEAN, POOH W/ BHA, P/U 3 1/2" STINGER AND RIH ON 5" DP

Projected Oprn: CONT TO RIH TO TD

Remarks:
DAYS SINCE LTI = 652; POB = 87; CVX = 6; SERVICE = 22; STENA = 59. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA

PITCH: 0.6 DEG, ROLL: 1.1 DEG, HEAVE 0.4M. BULLSEYES: PGB =3/4 PORT. RISER = 0 DEG . SWARF: DAILY 0.6KG CUM 9.29KG

ANCHOR TENSIONS (MT): #1 - 115, #2 - 123, #3 - 124, #4 - 133, #5 - 130, #6 - 121, #7 - 105, #8 - 112

P.O. 06:00 HRS: RIH WITH STINGER TO 2700M, CBU AT 2 BPM; 50% RETURNS. LAST F/A DRILL 16/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,134,884	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 4,760,952	Cum Tangible Cost: 2,185,693	Cum Well Cost: 100,156,934	Total Appr: 134,847,000	
Drill Water: 4787	Potable Water: 2258	Fuel: 3233	Bulk Weight: 5732	Neat Cement: 3401 Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: RUSSELL/MOORE/SMJ	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 19-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 30	DFS: 26	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SE-10
Seas: 1 / 0	Bar: 0.00	POB: 89			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 33	YP: 58	Gel: 38 / 58	
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.94	% Oil: 79.00	%Water: 21.00	% Sand: 0.50	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 100,000	Ca:	Bent:	Solids %HG/LG: 17.70 / 5.20	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
5.00	0	01 - 19	CONT TIH WITH 3 1/2" CMT STINGER ON 5" DP FROM 1500 TO 2700M WITH SLIGHT LOSSES TO FORMATION - HOLE WAS SLICK.	
		-	BREAK CIRC EVERY 10 STANDS AT 2 BPM, LOOSING 50%	
6.50U	500	01 - 05	AT 2700M, BREAK CIRC W/ 2 BPM - 50% LOSSES, 30 RPM, 1.5K FT-LBS; CONT TIH ON 5" DP TO 3600M TO CHECK HOLE	
		-	CONDITIONS FOR WL-RUN; SLIGHT LOSSES TO FORMATION WHILE TIH - NO HOLE PROBLEMS. BREAK CIRC EVERY 10 STANDS AT 2	
		-	BPM, 350 PSI	
1.00U	1130	01 - 01	ATTEMPT TO BREAK CIRC AT 3600M - MULESHOE WAS PLUGGED. PRESSURED UP TO 3000 PSI TO CLEAR BLOCKAGE; CONT TO CIRC	
		-	AT 2 BPM, 350 PSI - LOSSRATE 60%	
1.00U	1230	01 - 05	FLOWCHECK - STATIC. ATTEMPT TO POOH BUT HOLE SWABBING. RUN BACK DOWN & BREAK CIRC - TOOK 1200 PSI TO CLEAR	
		-	BLOCKAGE IN MULESHOE; CONT TO PUMP OOH AT 1.5 BPM, 240 PSI FROM 3600 TO 3510M	
0.50X	1330	01 - 20	REPAIR BROKEN FITTING ON HYDRAULIC MUD BUCKET	
1.00U	1400	01 - 05	CONT TO PUMP OOH FROM 3540 TO 3420M - INCORRECT HOLE FILL	
0.50U	1500	01 - 05	FLOWCHECK - OBSERVE WELL BALLOONING (+/- 7 BBLS RETURNED), MONITOR FOR DECREASING TREND.	
8.50U	1530	01 - 05	CONT TO PUMP OOH FROM 3420 TO 2390M WITH 1.5 BPM, 200 PSI TO PREVENT SWABBING - NO HOLE PROBLEMS	
0.00U		99 - 99	NOTE: DAILY LOSSES TO HOLE = 0 BBLS TOTAL LOSSES = 750 BBLS	
0.00U		99 - 99	NOTE: SKIPS 7 EMPTY, 0 FULL	

Safety: 17 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: TIH W/ CMT STINGER ON 5" DP - NO OBSTRUCTION AT 2640; CONT WIPERTRIP TO 3600M - NO PROBLEMS; PUMP OOH

Projected Oprn: PUMP OOH W/ CMT STINGER ASSY; R/U AND RUN WIRELINE LOGS

Remarks:
DAYS SINCE LTI = 653; POB = 89; CVX = 5; SERVICE = 24; STENA = 60. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA

PITCH: 0.3 DEG, ROLL: 0.5 DEG, HEAVE 0.3M. BULLSEYES: PGB =3/4 PORT. RISER = 1/2 DEG FWD . SWARF: DAILY 0.8KG CUM 10.09KG

ANCHOR TENSIONS (MT): #1 - 115, #2 - 124, #3 - 124, #4 - 134, #5 - 130, #6 - 121, #7 - 104, #8 - 111

P.O. 06:00 HRS: CONT PUMP OOH @ 1660M LAST F/A DRILL 16/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 289,586	Daily Well Cost: 3,546,622	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 4,780,862	Cum Tangible Cost: 2,475,279	Cum Well Cost: 103,703,556	Total Appr: 134,847,000

Drill Water: 4717	Potable Water: 2340	Fuel: 3151	Bulk Weight: 5732	Neat Cement: 3401	Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 20-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 31	DFS: 27	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq: 0	Drag: 0	Rot Wgt: 0	P/U Wgt: 0	Slack Off Wgt: 0	Wind: E-33
Seas: 5 / 10	Bar: 0.00	POB: 89			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 33	YP: 58	Gel: 38 / 58	
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 21.37	% Oil: 77.00	%Water: 23.00	% Sand: 0.50	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 100,000	Ca:	Bent:	Solids %HG/LG: 19.10 / 2.30	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: 41.67 BHA Description: MDT PROBE, MDT ELECTRONICS, GAMMA RAY TOOL, CABLEHEAD TENSION SUB, SWIVEL, CABLEHEAD.

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
8.50U	0	01 - 05	CONT TO PUMP OOH F/ 2390M - 1360M W/ 60 GPM, 200 PSI TO PREVENT SWABBING - NO HOLE PROBLEMS.	
1.50U	830	01 - 01	BREAK CIRC & STAGE UP PUMPS TO 470 GPM, 2000 PSI. BOOST RISER W/ 300 GPM, 480 PSI.	
0.50U	1000	01 - 05	FLOWCHECK - TREND NOT DECREASING. SPACE OUT, CLOSE UPPER ANNULAR & MONITOR WELL - NO PRESSURE BUILD UP SEEN.	
1.00U	1030	01 - 01	OPEN ANNULAR & CONT TO CIRC AT 470 GPM, 2000 PSI. CIRC TOTAL OF 1.2 X BTM'S UP - NO LOSSES TO FORMATION - NO	
		-	CUTTINGS OR CAVINGS OVER SHAKERS BUT OBSERVE GAS PEAKS BOTH PRIOR TO & AT BTMS UP. MEANWHILE R/D HYDR MUD	
		-	BUCKET & R/U WEATHERFORD TONG FOR 3.1/2", PH-6 CMT STINGER.	
3.00U	1130	01 - 05	FLOWCHECK - STATIC. PUMP SLUG & POOH F/ 1360M - 480M. FLOWCHECK AT BOP - STATIC.	
2.00U	1430	01 - 05	HOLD TBT. POOH & RACK BACK 3.1/2", PH-6 CMT STINGER IN DERRICK. L/D MULESHOE.	
2.00U	1630	02 - 25	HOLD TBT. R/U ELECTRIC LINE & M/U MDT TOOLSTRING. M/U CABLEHEAD & TEST MDT TOOLSTRING - OK.	
3.50U	1830	02 - 25	SET COMPENSATOR & RIH W/ MDT LOGGING TOOLSTRING AT 5000 FT/HR. TAKE P/U WT'S EVERY 300M. NO O/PULLS OR EXCESS	
		-	DRAG DOWN TO 3438M (SMALL INDICATION ON TENSION AS TOOLSTRING PASSES 2135M W/LINE DEPTH).	
1.50X	2200	02 - 25	TOOLSTRING HUNG UP AT 3438.5M (W/LINE DEPTH CORRECTED TO LWD LOG). ATTEMPT TO PASS SAME W/ CABLE SPEEDS OF UP	
		-	TO 250 FPM - NOGO. FUNCTION TOOL OPEN SEVERAL TIMES - NO PROGRESS. NO O/PULLS OBSERVED ON PICK UP.	
0.50U	2330	02 - 25	POOH W/ MDT TOOLSTRING F/ 3438.5M. MEANWHILE P/TEST CHOKE & KILL MANIFOLD TO 500/5000 PSI FOR 5/10 MINS.	
0.00		99 - 99	NOTE: DAILY LOSSES TO HOLE = 7 BBLS. TOTAL LOSSES = 757 BBLS. SKIPS ON RIG: 7 EMPTY , 0 FULL.	

Safety: 14 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: PUMP OOH W/ CMT STINGER ASSY. RACK BACK CMT STINGER. R/U & RUN MDT ON E-LINE.

Projected Oprn: POOH W/ MDT ON E-LINE. P/TEST BOP. RIH W/ 3.1/2" CMT STINGER.

Remarks:
DAYS SINCE LTI = 654; POB = 89; CVX = 5; SERVICE = 24; STENA = 60. NEXT BOP TEST DUE - 18/10. STBY VESSEL - N CORONA

PITCH: 0.8 DEG, ROLL: 0.8 DEG, HEAVE 0.4M. BULLSEYES: PGB =3/4 PORT. RISER = 1 DEG STBD-FWD . SWARF: DAILY 0.4KG CUM 10.54KG

ANCHOR TENSIONS (MT): #1 - 114, #2 - 120, #3 - 124, #4 - 134, #5 - 133, #6 - 123, #7 - 104, #8 - 109

P.O. 06:00 HRS: CONT TO P/TEST BOP. LAST F/A DRILL 16/10/04

Daily Mud Cost: -606,612	Daily Tangible Cost: 0	Daily Well Cost: 2,974,177	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 4,174,250	Cum Tangible Cost: 2,475,279	Cum Well Cost: 106,677,733	Total Appr: 134,847,000	

Drill Water: 4698	Potable Water: 2378	Fuel: 3063	Bulk Weight: 4497	Neat Cement: 3401	Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 21-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 32	DFS: 28	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: NE-28
Seas: 8 / 11	Bar: 0.00	POB: 89			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y		
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 33
YP: 61	Gel: 38 / 56				
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 21.49	% Oil: 77.00	%Water: 23.00	% Sand: 0.50
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 83,300	Ca:	Bent:
Solids %HG/LG: 19.20 / 2.30	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
2.50U	0	02 - 25	CONT TO POOH W/ MDT TOOLSTRING TO SURFACE W/ OUT PROBLEM. HELD TBT.	
1.00U	230	02 - 25	L/O MDT TOOLSTRING. R/D ELECTRIC LINE & CLEAR RIG FLOOR OF EXCESS EQUIPMENT.	
1.00U	330	01 - 14	HELD TBT. C/O HANDLING EQUIPMENT FOR 5" DP. P/U BULLNOSE JET SUB & BOP TEST ASSY.	
2.50	430	01 - 14	TIH ON 5" DP TO TOP OF BOP. JET BOP & LANDOFF AREA W/ 575 GPM, 560 PSI. LAND OFF TEST PLUG W/ 10K LBS DOWN.	
4.50U	700	01 - 14	DISPLACE BOP TO SEAWATER & P/TEST SAME TO 500 PSI / 5 MIN, 2700 PSI / 10 MIN. DISPLACE BOP TO MUD.	
2.00U	1130	01 - 14	POOH & L/O BOP TEST TOOL & JET SUB. R/D HYDRAULIC MUD BUCKET.	
2.50U	1330	01 - 19	R/U WEATHERFORD HYD TONG & C/O TO 3.1/2" HANDLING EQUIPMENT. RUN SLOTTED MULESHOE & 482M OF 3.1/2", PH6 CMT	
		-	STINGER F/ DERRICK. C/O TO 5" HANDLING EQUIPMENT.	
1.00U	1600	01 - 14	R/U SURFACE LINES & P/TEST KELLY HOSE & KICK JNT KELLY TO 500 PSI / 5 MIN, 3000 PSI / 10 MIN. R/D SURFACE LINES.	
2.50U	1700	01 - 19	CONT TO TIH W/ 3.1/2" CMT STINGER ON 5" DP TO 1370M.	
1.50U	1930	01 - 19	STAGE UP PUMPS TO 555 GPM, 2700 PSI & CIRCULATE BOTTOMS UP WHILST BOOST RISER AT 300 GPM, 500 PSI - NO LOSSES.	
		-	MEANWHILE R/D HYD POWER TONG & R/U MUD BUCKET.	
3.00U	2100	01 - 19	CONT TIH W/ 5" DP TO 1924M. BREAK CIRC EVERY 10 STANDS W/ 2 BPM.	
0.00		99 - 99	NOTE: P/TEST CHOKE/KILL & STANDPIPE MANIFOLDS & AUXILIARY EQUIP TO 500 PSI/5 MIN, 5000 PSI - 10 MIN.	
0.00		99 - 99	DAILY LOSSES TO HOLE = 5 BBLS. TOTAL LOSSES = 762 BBLS. SKIPS ON RIG: 6 EMPTY , 1 FULL.	

Safety: 34 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: POOH W/ E-LINE, P/TEST BOP, RIH W/ 3.1/2" CMT STINGER ON 5" DP TO 1924M.

Projected Oprn: TIH W/ 3.1/2" CMT STINGER TO 3600M. SPOT VISCOUS PILL & SET CMT PLUG #1. POOH TO 2360M.

Remarks:
DAYS SINCE LTI = 655; POB = 89; CVX = 5; SERVICE = 22; STENA = 62. NEXT BOP TEST DUE - 5/11. STBY VESSEL - N CHALLENGER

PITCH: 0.8 DEG, ROLL: 0.8 DEG, HEAVE 0.4M. BULLSEYES: PGB =3/4 PORT. RISER = 1/2 DEG FWD . SWARF: DAILY 0.33KG CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 113, #2 - 125, #3 - 130, #4 - 138, #5 - 133, #6 - 120, #7 - 102, #8 - 108

P.O. 06:00 HRS: CONT TIH W/ CMT STINGER ON 5" DP @ 3070M. LAST F/A DRILL 16/10/04

Daily Mud Cost: -282,993	Daily Tangible Cost: 0	Daily Well Cost: 2,559,936	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 3,891,257	Cum Tangible Cost: 2,475,279	Cum Well Cost: 109,237,669	Total Appr: 134,847,000	
Drill Water: 4529	Potable Water: 2170	Fuel: 2918	Bulk Weight: 4497	Neat Cement: 3401 Blended: 774
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 22-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 33	DFS: 29	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: NE-20	Seas: 2 / 8	Bar: 0.00	POB: 83

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 13.0	FV: 0	PV: 34	YP: 61	Gel: 38 / 58
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 21.45	% Oil: 77.00	%Water: 23.00	% Sand: 0.50	MBT:	Ph:
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 88,900	Ca:	Bent:	Solids %HG/LG: 19.20 / 2.30	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
4.00U	0	01 - 19	CONT TIH W/ 5" DP F/ 1924M - 2700M. BREAK CIRC EVERY 10 STANDS AT 2 BPM, 640 PSI - NO O/PULL OR EXCESS DRAG.
5.00	400	01 - 19	CONT TIH W/ 5" DP F/ 2700M TO 3432M. BREAK CIRC EVERY 10 STANDS TO 2770M & EVERY 5 STANDS THEREAFTER.
1.00	900	01 - 19	MULESHOE HUNG UP AT 3432M. M/U DDM & WORK DOWN TO 3435M W/ UP TO 2 BPM, 500 PSI, 20 RPM, 2.5K TQ. NO RTNS &
		-	INDICATIONS OF HOLE PACKING OFF.
1.00	1000	01 - 19	PULL BACK TO 3420M & ESTABLISH CIRC W/ 35 RPM, 2.5K TQ. STAGE PUMPS UP TO 3 BPM W/ 35% LOSSES. CUT PUMPS TO 2
		-	BPM W/ 15% LOSSES & HOLD TBT PRIOR TO CMT PLUG #1.
1.00	1100	01 - 19	LINE UP & PUMP 10 BBL HI-VIS PILL. SPOT SAME AT MULESHOE W/ UP TO 3 BPM, 15% LOSSES.
1.00	1200	01 - 19	POOH & RACK BACK 2 STANDS. M/U CMT STAND & HOSE. RUN DOWN TO PLACE MULESHOE AT 3385M. LINE UP RIG PUMPS & PUMP
		-	56 BBLS OF 13.9 PPG SPACER.
1.50	1300	01 - 19	PUMP 3 BBLS MIXWATER, CLOSE LO-TORQ & P/TEST LINES TO 1000 PSI / 5 MINS - OK. MIX & PUMP 75 BBLS (350 SXS) OF
		-	16 PPG CLASS G+35% SILICA SLURRY USING 44 BBLS OF MIXWATER AT 5 BPM, 500 PSI. CLEAR LINES TO DRILL FLOOR W/ 3
		-	BBLS OF MIXWATER. +/- 5 BBLS LOST TO FORMATION WHILE PUMPING SLURRY.
0.50	1430	01 - 19	BREAK OFF & FLUSH THRU CMT HOSE. LINE UP RIG PUMPS & DISPLACE CMT W/ 10 BBLS 13.9 PPG SPACER (LINE VOLUME) &
		-	135 BBLS OF 13 PPG LTOBM AT 4 BPM, 50 RPM, 3.2K TQ TO LEAVE PLUG 20 BBLS UNDER DISPLACED.
0.00		99 - 99	NOTE: ABANDONMENT PLUG #1 SET AT THEORETICAL DEPTH OF/ 3385M - 3125M USING 25% OPEN HOLE EXCESS.

Safety: 20 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: TIH W/ CMT STINGER ON DP. SET CMT PLUG #1 F/ 3385 - 3125M. PUMP OUT TO 2360M. PUMP HI-VIS PILL.

Projected Oprn: SPOT CEMENT PLUG #2 @ 2260M. POOH TO 2000M & SET CMT PLUG #3 @ 2000M.

Remarks:
DAYS SINCE LTI = 656; POB = 83; CVX = 5; SERVICE = 18; STENA = 60. NEXT BOP TEST DUE - 5/11. STBY VESSEL - N CHALLENGER

PITCH: 0.5 DEG, ROLL: 0.4 DEG, HEAVE 0.3M. BULLSEYES 22/10:PGB =3/4 PORT. RISER = 1/2 DEG FWD. SWARF: DAILY 0.0KG CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 116, #2 - 124, #3 - 127, #4 - 136, #5 - 132, #6 - 120, #7 - 104, #8 - 110

P.O. 06:00 HRS: DISPLACE WIPER DART AT 2000M. LAST F/A DRILL 16/10/04

Daily Mud Cost: 416,893	Daily Tangible Cost: 0	Daily Well Cost: 2,225,134	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 4,308,150	Cum Tangible Cost: 2,475,279	Cum Well Cost: 111,462,803	Total Appr: 134,847,000

Drill Water: 4340	Potable Water: 2013	Fuel: 2849	Bulk Weight: 4497	Neat Cement: 3401	Blended: 399
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 0	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 33	DFS: 29	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 83

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
2.00	1500	01 - 19	SHUT DOWN PUMPS & ROTARY. CLOSE LOWER ANNULAR W/ 1000 PSI PRESS & STRIP OUT OF HOLE TO 3030M.	
1.50	1700	01 - 19	INSTALL WIPER DART, M/U DDM & DISPLACE SAME F/ STRING W/ 3 BPM, 660 PSI, 30 RPM, 1.8K TQ, 30% LOSSES. +/- 35	
		-	BBLS LOST TO FORMATION WHILE PUMPING WIPER DART.	
5.00	1830	01 - 19	ATTEMPT TO STRIP OUT OF HOLE - PIPE PULLING WET. LINE UP & PUMP OUT OF HOLE TO 2355M W/ 1.5 BPM, 400 PSI. +/-	
		-	13 BBLS LOST TO FORMATION.	
0.50	2330	01 - 19	LINE UP & PUMP 40 BBL HI-VIS PILL AT 2.2 BPM, 600 PSI. SPOT SAME AT MULESHOE W/ 10 BBLS LOST TO FORMATION.	
0.00		99 - 99	NOTE: DAILY FLUID LOSSES TO HOLE = 120 BBLS. TOTAL FLUID LOSSES = 882 BBLS. SKIPS ON RIG: 10 EMPTY , 1 FULL.	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 4,167	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 34	DFS: 30	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: NE-20	Seas: 2 / 8	Bar: 0.00	POB: 83

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 42	YP: 50	Gel: 29 / 63

WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 22.37	% Oil: 75.00	%Water: 25.00	% Sand: 0.50	MBT:	Ph:

Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 94,700	Ca:	Bent:	Solids %HG/LG: 17.10 / 5.30	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
1.00	0	01 - 19	SPOT 13 BBL HI-VIS PILL AT 2355M W/ 2.2 BPM, 620 PSI. 2 BBLS LOST TO FORMATION.
1.00	100	01 - 19	PUMP OUT OF HOLE TO LEAVE HI-VIS PILL F/ 2355M - 2260M. M/U CMT STAND.
1.00	200	01 - 19	HOLD TBT. R/U CMT HOSE. LINE UP RIG PUMPS & PUMP 56 BBLS OF 13.9 PPG SPACER AT 3 BPM, 540 PSI W/OUT LOSSES.
		-	OPEN LO-TORQ & PUMP 2 BBL OF MIXWATER F/ CMT UNIT. CLOSE LO-TORQ & P/TEST LINE TO 1000 PSI / 5 MIN - OK.
0.50	300	01 - 19	MIX & PUMP 75 BBLS (364 SXS) OF 16 PPG CLASS 'G' CMT SLURRY USING 43 BBLS OF MIXWATER & 0.67 PPB OF CEMNET
		-	FIBRES AT 3.5 BPM. CLEAR CMT LINES TO DRILL FLOOR W/ 3 BBLS OF MIXWATER. NO LOSSES TO FORMATION.
0.50	330	01 - 19	BREAK OFF CMT HOSE & FLUSH THRU SAME. LINE UP RIG PUMPS & DISPLACE CMT W/ 10 BBLS OF 13.9 PPG SPACER (LINE
		-	VOLUME) & 70 BBLS OF 13 PPG LTOBM AT 4 BPM, 50 RPM, 2K TQ TO LEAVE PLUG 25 BBLS UNDERDISPLACED - 33 BBLS LOST.
0.00		99 - 99	NOTE: ABANDONMENT PLUG #2 SET AT THEORETICAL DEPTH OF/ 2260M - 2010M USING 25% OPEN HOLE EXCESS.
1.50	400	01 - 19	SHUT DOWN PUMPS & ROTARY. CLOSE LOWER ANNULAR W/ 1000 PSI PRESS & STRIP OUT OF HOLE TO 2000M.
0.50	530	01 - 19	INSTALL WIPER DART, M/U DDM & DISPLACE SAME F/ STRING W/ 3 BPM, 570 PSI, 75 RPM, 2.2K TQ & 30% LOSSES.
4.50	600	01 - 19	STAGE UP PUMPS FROM 3 TO 4.5 BPM; CONT TO CIRC W/ 4.5 BPM, 800 PSI, 75 RPM, 2.2K TQ. OBSERVE CMT RTNS AT
		-	SHAKERS +/-250 BBLS PRIOR TO BTMS UP. BOOST RISER & DIVERT 178 BBLS OF CONTAMINATED MUD TO SLOPS PIT. CIRCULATE
		-	UNTIL SHAKERS CLEAN UP - 1.2 X BTMS UP & +/- 20% LOSSES.
1.00	1030	01 - 19	FLOWCHECK - OBSERVE REDUCING TREND IN FLOWBACK. RACK BACK STAND, P/U CMT STAND & RUN DOWN TO PLACE MULESHOE &

Safety: 20 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: SET CMT PLUGS #2, #3 & #4. COMMENCE POOH & L/O OF 5" DP.

Projected Oprn: L/O TOTAL OF 25 STDS 5" DP. L/D 50 JNTS OF 3.1/2" DP. TIH, TAG & P/TEST CMT PLUG #4. DISPLACE WELL TO SEAWATER.

Remarks:
DAYS SINCE LTI = 657; POB = 83; CVX = 5; SERVICE = 18; STENA = 60. NEXT BOP TEST DUE - 5/11. STBY VESSEL - N CHALLENGER

PITCH: 0.3 DEG, ROLL: 0.3 DEG, HEAVE 0.2M. BULLSEYES: PGB =3/4 PORT. RISER = 1/2 DEG P-FWD. SWARF: DAILY 0.0KG CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 117, #2 - 125, #3 - 126, #4 - 135, #5 - 130, #6 - 120, #7 - 104, #8 - 110

P.O. 06:00 HRS: CONT TO L/O 5" DP @ LAST F/A DRILL 24/10/04

Daily Mud Cost: 223,613	Daily Tangible Cost: 0	Daily Well Cost: 2,542,562	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 4,531,763	Cum Tangible Cost: 2,475,279	Cum Well Cost: 114,005,365	Total Appr: 134,847,000

Drill Water: 4340	Potable Water: 2013	Fuel: 2849	Bulk Weight: 4497	Neat Cement: 3401	Blended: 399
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 4,167	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 34	DFS: 30	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 83

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	2000M. CONT FLOWCHECK WHILE HOLD TBT PRIOR TO CMT JOB.	
0.50	1130	01 - 19	R/U CMT HOSE. LINE UP RIG PUMPS & PUMP 56 BBLS OF 13.9 PPG SPACER AT 4.5 BPM, 500 PSI - 6 BBLS LOST. OPEN LO-	
		-	TORQ & PUMP 2 BBLS OF MIXWATER F/ CMT UNIT. CLOSE LO-TORQ & P/TEST LINES TO 1000 PSI / 5 MIN - OK.	
0.50	1200	01 - 19	MIX & PUMP 74 BBLS (345 SXS) OF 16 PPG CLASS 'G' CMT SLURRY USING 43 BBLS OF MIXWATER & 1.7 LB/ BBL SLURRY OF	
		-	CEMNET FIBRES AT 3 BPM. CLEAR CMT LINES TO DRILL FLOOR W/ 3 BBLS OF MIXWATER. 3 BBLS LOST TO FORMATION.	
0.50	1230	01 - 19	BREAK OFF CMT HOSE & FLUSH THRU SAME. LINE UP RIG PUMPS & DISPLACE CMT W/ 10 BBLS OF 13.9 PPG SPACER (LINE	
		-	VOLUME) & 60 BBLS OF 13 PPG LTOBM AT 4 BPM, 40 RPM, 2.1K TQ TO LEAVE PLUG 25 BBLS UNDERDISPLACED - 28 BBL LOST.	
0.00		99 - 99	NOTE: ABANDONMENT PLUG #3 SET AT THEORETICAL DEPTH OF/ 2000M - 1750M USING 23% OPEN HOLE EXCESS.	
1.50	1300	01 - 19	SHUT DOWN PUMPS & ROTARY. CLOSE LOWER ANNULAR W/ 1000 PSI PRESS & STRIP OUT OF HOLE TO 1630M.	
0.50	1430	01 - 19	INSTALL WIPER DART, M/U DDM & DISPLACE SAME F/ STRING W/ 4 BPM, 500 PSI, 40 RPM, 1.7K TQ. NO LOSSES.	
2.00	1500	01 - 19	STAGE PUMPS TO 10 BPM, 2300 PSI, 40 RPM, 1.7K TQ & CIRC BTMS UP W/OUT LOSSES. BOOST 1 X RISER VOL AFTER BTMS UP	
		-	- NO CEMENT RETURNS OBSERVED. SPOT 30 BBLS HIVIS PILL.	
1.00	1700	01 - 19	POOH W/ 3.1/2" CMT STINGER F/ 1630M. M/U CMT STAND & RUN DOWN TO PLACE MULESHOE AT 1480M. M/U CMT HOSE.	
0.50	1800	01 - 19	HOLD TBT. LINE UP RIG PUMPS & PUMP 56 BBLS OF 13.9 PPG SPACER AT 5 BPM, 480 PSI W/OUT LOSSES. OPEN LO-TORQ &	
		-	PUMP 2 BBL OF MIXWATER F/ CMT UNIT. CLOSE LO-TORQ & P/TEST LINE TO 1000 PSI / 5 MIN - OK.	

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 4,167	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 34	DFS: 30	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 83

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
0.50	1830	01 - 19	MIX & PUMP 84 BBLS (413 SXS) OF 16 PPG CLASS 'G' CMT SLURRY USING 48 BBLS OF MIXWATER AT 3.5 BPM. CLEAR CMT	
		-	LINES TO DRILL FLOOR W/ 3 BBLS OF MIXWATER. NO LOSSES	
0.50	1900	01 - 19	BREAK OFF CMT HOSE & FLUSH THRU SAME. LINE UP RIG PUMPS & DISPLACE CMT W/ 10 BBLS OF 13.9 PPG SPACER (LINE	
		-	VOLUME) & 35 BBLS OF 13 PPG LTOBM AT 4 - 7 BPM, 50 RPM, 2.1K TQ TO LEAVE PLUG 25 BBLS UNDERDISPLACED - NO	
		-	LOSSES.	
0.00		99 - 99	NOTE: ABANDONMENT PLUG #4 SET AT THEORETICAL DEPTH OF/ 1480M - 1280M USING 23% OPEN HOLE EXCESS.	
1.00	1930	01 - 19	POOH DRY F/ 1470M TO 1200M - HOLE TAKING CORRECT FLUID.	
0.50	2030	01 - 19	INSTALL WIPER DART, M/U DDM & DISPLACE SAME F/ STRING W/ 4.5 BPM, 415 PSI, 75 RPM, 2.3K TQ. NO LOSSES.	
1.00	2100	01 - 19	CONT TO CIRC W/ 10 BPM, 2150 PSI, 75 RPM, 1.8K TQ. OBSERVE CMT RTNS AT SHAKERS +/-120 BBLS PRIOR TO BTMS UP.	
		-	BOOST RISER & DIVERT 161 BBLS OF CONTAMINATED MUD TO SLOPS PIT. CIRCULATE UNTIL SHAKERS CLEAN UP - 1.1 X BTMS	
		-	UP, NO LOSSES. FLOWCHECK - STATIC. HOLD TBT PRIOR TO POOH & L/O 5" DP.	
2.00	2200	01 - 07	PUMP SLUG. POOH & L/O 5" DP TO DECK.	
0.00		99 - 99	NOTE: DAILY FLUID LOSSES TO HOLE = 248 BBLS. TOTAL FLUID LOSSES = 1130 BBLS. SKIPS ON RIG: 8 EMPTY , 3 FULL.	
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 24-OCT-2004	Page: 3 Of 3

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 4,193	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 35	DFS: 31	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SE-20 / Seas: 2 / 3 / Bar: 0.00 / POB: 89
Last Casing Size: 13.375	Set At: 4,500 MD	4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD	

Mud Co: M.I. DRILLING FLUIDS	Type: MINERAL OIL BASED	Sample From:	Wt: 12.9	FV: 0	PV: 42	YP: 50	Gel: 31 / 44	
WL API: 0.0 HTHP: 2.0	FC API: 0 HTHP: 1	Solids: 21.35	% Oil: 69.00	%Water: 31.00	% Sand: 0.50	MBT:	Ph:	
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 79,200	Ca:	Bent:	Solids %HG/LG: 17.60 / 3.80	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
5.50	0	01 - 07	CONT TO POOH & L/O 5" DP. L/O A TOTAL OF 75 JNTS TO DECK.	
4.50	530	01 - 19	HOLD TBT. C/O TO 3.1/2" HANDLING GEAR. POOH & L/O 50 JNTS OF 3.1/2", PH-6 CMT STINGER & MULESHOE.	
1.00	1000	01 - 08	R/D WEATHERFORD TUBING TONG & POWER SCOPE FOR BACKLOAD.	
0.50	1100	01 - 21	SERVICE DDM & CHECK OIL LEVELS.	
1.00	1130	01 - 21	HOLD TBT. SLIP & CUT 110' OF DRILL LINE.	
3.50	1230	01 - 05	P/U 5" MULESHOE & TIH ON 5" DP TO 1200M. M/U DDM & WASH DOWN W/ 2 BPM, 150 PSI TO TAG CMT W/ 10K WT AT 1278M.	
2.00	1600	01 - 19	RACK BACK STAND & M/U CMT STAND. M/U CMT HOSE & P/TEST LINES TO 2000 PSI - OK. SPACE OUT & CLOSE MPR (5" FIXED)	
		-	& P/TEST CMT PLUG #4 W/ DRILLWATER TO 1500 PSI / 15 MIN. 3 BBLS PUMPED & RETURNED.	
1.00	1800	01 - 01	OPEN MPR & FUNCTION ALL PIPE RAMS & ANNULARS. CONT TO CLEAN PITS & PREPARE CLEAN UP PILLS PRIOR TO DISPLACEMENT	
		-	TO SEAWATER. LOAD SPONGE WIPER BALLS INTO CHOKE & BOOSTER LINES.	
5.00	1900	01 - 01	STAGE UP PUMPS TO 718 GPM, 1580 PSI & CIRCULATE 2.5 X BTMS UP TO CONDITION MUD WHILE CONTINUING TO CLEAN PITS &	
		-	PREPARE CLEAN UP PILLS. OBSERVE GREEN CMT RETURNS +/- 120 BBLS PRIOR TO BTMS UP - FILL +/- 1 SKIP.	
0.00		99 - 99	NOTE: FINAL FLUID LOSSES TO FORMATION = 1130 BBLS. SKIPS ON RIG: 9 EMPTY , 1 FULL.	
0.00		99 - 99	DATALOG COMMENCE R/D OF SENSORS & PULLING CABLES.	
		-		

Safety: 32 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: POOH LAYING OUT 5" DP & CMT STINGER. RIH W/ 5" DP, TAG CMT PLUG & P/TEST SAME. CLEAN PITS & MIX CLEAN UP PILLS.

Projected Oprn: DISPLACE HOLE TO SEAWATER. POOH & L/O 1200M OF 5" DP. RUN & SET SVCR BRIDGE PLUG. MIX & SPOT CEMENT PLUG #5.

Remarks:
DAYS SINCE LTI = 658; POB = 89; CVX = 5; SERVICE = 23; STENA = 61. NEXT BOP TEST DUE - 5/11. STBY VESSEL - N CORONA

PITCH: 0.5 DEG, ROLL: 0.6 DEG, HEAVE 0.3M. BULLSEYES: PGB =3/4 PORT. RISER = 1/2 DEG P-FWD. SWARF: DAILY 0.0KG CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 115, #2 - 123, #3 - 126, #4 - 135, #5 - 133, #6 - 121, #7 - 105, #8 - 110

P.O. 06:00 HRS: POOH W/ 5" MULESHOE AT 850M. LAST F/A DRILL 24/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 4,400,073	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 4,551,673	Cum Tangible Cost: 2,475,279	Cum Well Cost: 118,405,438	Total Appr: 134,847,000	
Drill Water: 3573	Potable Water: 1868	Fuel: 2736	Bulk Weight: 4497	Neat Cement: 2205 Blended: 399
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 25-OCT-2004	Page: 1 Of 1

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 2,123	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 36	DFS: 32	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: W-25
Seas: 4 / 7	Bar: 0.00	POB: 88			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 15.0 EMW	Leakoff? Y	
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co: M.I. DRILLING FLUIDS	Type: SEAWATER	Sample From:	Wt: 8.6	FV: 0	PV: 0	YP: 0	Gel: 0 / 0
WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids: 0.00	% Oil: 0.00	%Water: 0.00	% Sand: 0.00	MBT:	Ph:
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 0	Ca:	Bent:	Solids %HG/LG: 0.00 / 0.00	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
0.50	0	01 - 01	FLOWCHECK - STATIC. MEANWHILE TRANSFER BASE OIL & CONT TO PREPARE CLEAN UP PILLS.	
0.50	30	01 - 01	LINE UP CMT UNIT & DISPLACE SPONGE WIPER BALLS THRU CHOKE & BOOSTER LINES W/ SAFESURF PILLS. DISPLACE KILL LINE	
		-	W/ SAFESURF PILL.	
2.50	100	01 - 01	HOLD TBT. LINE UP RIG PUMPS & PUMP THE FOLLOWING: 88 BBLS OF BASE OIL, 50 BBLS OF SAFESURF, 57 BBLS OF	
		-	SAFESOLVE & 85 BBLS OF SAFESURF. DISPLACE SAME W/ SEAWATER AT 960 GPM, 1000 PSI, 60 RPM, 1.3K TQ. DISPLACE	
		-	CHOKE, KILL & BOOSTER LINES TO SEAWATER. DIVERT 590 BBLS TO SLOPS PIT.	
6.50	330	01 - 07	HOLD TBT. RACK BACK CMT STAND & POOH F/ 1270M - 425M LAYING OUT 5" DP.	
0.50	1000	01 - 01	M/U DDM. JET ACROSS WELLHEAD & BOP W/ SEAWATER AT MAXIMUM RATE.	
4.50	1030	01 - 07	CONT POOH F/ 425M LAYING OUT 5" DP & MULESHOE.	
2.00	1500	01 - 19	P/U PEAK 13.3/8" SVCR BRIDGE PLUG & CHECK SAME ON SURFACE. TIH ON 5" DP AT CONTROLLED RATE TO 648M.	
2.00	1700	01 - 19	M/U CMT STAND & CMT HOSE. LINE UP CMT UNIT & P/TEST SURFACE LINES TO 3000 PSI/5 MINS - OK. DROP 1" BALL & SET	
		-	BRIDGE PLUG AT 647M (TOP PLUG DEPTH) W/ 2000 PSI / 5 MIN. 0.6 BBLS PUMPED - PRESS DID NOT BLEED OFF AS PER	
		-	DESIGN. TAKE 42K O/PULL & HOLD FOR 5 MIN - OK. SLACK OFF 4K TO CONFIRM PLUG SET - OK. BLEED OFF PRESS AT CMT	
		-	UNIT. BREAK OFF CMT HOSE, TAKE 1K O/PULL & RELEASE R/TOOL W/ 10 RH TURNS - OK.	
1.50T	1900	01 - 19	HOLD TBT. P/U ABOVE BRIDGE PLUG, M/U CMT HOSE & ATTEMPT TO ESTABLISH CIRC W/ CMT UNIT - NO GO. RIH & TAG BRIDGE	

Safety: 27 STOP CARDS; HELD PRE-TOUR MTG W/ DRILL CREWS.

24 Hr Summary: DISPLACE WELL TO SEAWATER. POOH & L/O 5" DP. RIH & SET SVCR BRIDGE PLUG - UNABLE TO CMT THRU R/TOOL. POOH & RIH W/

Projected Oprn: SET CMT PLUG #5. POOH & L/O 5" DP. RUN WERABUSHING P/TOOL (C/W RISER BRUSH). PULL WEARBUSHING. PULL BOP & RISER.

Remarks:
DAYS SINCE LTI = 659; POB = 88; CVX = 5; SERVICE = 22; STENA = 61. NEXT BOP TEST DUE - 5/11. STBY VESSEL - N. CORONA

PITCH: 0.5 DEG, ROLL: 0.5 DEG, HEAVE 0.3M. BULLSEYES: PGB = 3/4 PORT. RISER = 1/2 DEG PORT. SWARF: DAILY 0.0KG CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 122, #2 - 128, #3 - 124, #4 - 129, #5 - 127, #6 - 114, #7 - 108, #8 - 115.

P.O. 06:00 HRS: CONT POOH & L/D 5" DP AT 500M. LAST F/A DRILL 24/10/04

Daily Mud Cost: 19,910	Daily Tangible Cost: 0	Daily Well Cost: 2,119,195	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 4,571,583	Cum Tangible Cost: 2,475,279	Cum Well Cost: 120,524,633	Total Appr: 134,847,000	

Drill Water: 3466	Potable Water: 1862	Fuel: 2667	Bulk Weight: 4453	Neat Cement: 2205	Blended: 399
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 26-OCT-2004	Page: 1 Of 2		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 2,123	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 36	DFS: 32	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 88

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	PLUG TO RE-CONFIRM SET - OK. PRESS UP TO 2500 PSI TO SHIFT R/ TOOL - NO GO. BLEED OFF PRESS, BREAK OFF CMT HOSE	
		-	& PUMP THRU SAME TO CONFIRM SURFACE FLOWPATH - OK. RACK BACK CMT STAND.	
2.50T	2030	01 - 19	POOH WET F/ 647M RACKING BACK 5" DP. L/O BRIDGE PLUG R/TOOL.	
1.00T	2300	01 - 19	RIH W/ 5" MULESHOE ON 5" DP TO 300M.	
0.00		99 - 99		
0.00		99 - 99	NOTE: FINAL FLUID LOSSES TO FORMATION = 1130 BBLS. SKIPS ON RIG: 9 EMPTY , 1 FULL.	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 37	DFS: 33	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: W-39
Seas: 7 / 10	Bar: 0.00	POB: 88			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?		
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co: M.I. DRILLING FLUIDS	Type: SEAWATER	Sample From:	Wt: 8.6	FV: 0	PV: 0
YP: 0	Gel: 0 / 0				
WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids: 0.00	% Oil: 0.00	%Water: 0.00	% Sand: 0.00
MBT:	Ph:				
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 0	Ca:	Bent:
Solids %HG/LG: 0.00 / 0.00	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.00T	0	01 - 19	CONT TO RIH W/ 5" MULESHOE ON 5" DP F/ 300M TO 647M.	
0.50T	100	01 - 19	M/U CMT STAND & HOSE. RUN DOWN & TAG BRIDGE PLUG. BREAK CIRC & P/TEST LINES TO 1000 PSI/5 MIN - OK. HOLD TBT.	
0.50	130	01 - 19	MIX & PUMP 60 BBLS (290 SXS) OF 16 PPG CMT SLURRY (C/W 35% SILICA FLOUR) & 37 BBLS (179 SXS) OF 16 PPG CLASS	
		-	'G' CMT SLURRY USING A TOTAL OF 58 BBLS OF SEAWATER AT 4 BPM. DISPLACE CMT W/ 16 BBLS OF SEAWATER F/ CMT UNIT.	
1.00	200	01 - 19	R/D CMT HOSE & RACK BACK CMT STAND. POOH DRY TO 440M.	
1.00	300	01 - 19	M/U DDM & CIRC 1.5 X BTMS UP W/ 1025 GPM, 450 PSI - OBSERVE CMT IN RTNS AT BTMS UP. DROP SPONGE WIPER BALL &	
		-	DISPLACE SAME W/ DP VOLUME OF SEAWATER.	
4.50	400	01 - 07	HOLD TBT. POOH F/ 440M LAYING OUT 5" DP.	
1.00	830	01 - 19	P/U & M/U BULLNOSE JET SUB, WEARBUSHING P/TOOL & RISER BRUSH ASSY SPACED OUT TO PLACE RISER BRUSH 2.38M ABOVE	
		-	FLEX JOINT WHEN P/TOOL LANDED OFF.	
2.50	930	01 - 19	TIH W/ JET SUB, WEARBUSHING P/TOOL & RISER BRUSH ON 5" DP. WORK EACH STAND X 2.	
0.50	1200	01 - 19	LINE UP RIG PUMPS. JET WELLHEAD & BOP X 4 W/ SEAWATER (1.25 X BTMS UP) AT 1150 GPM, 1200 PSI, 30 RPM.	
0.50	1230	01 - 19	M/U LAST STAND. RUN DOWN TO LATCH WEARBUSHING AT 418.5M LAT & DISENGAGE SAME W/ 25K O/PULL.	
2.50	1300	01 - 19	POOH W/ JET SUB, WEARBUSHING P/TOOL & RISER BRUSH, RACKING BACK 5" DP. CLEAN OUT RISER BRUSH JUNK CATCHER & L/O	
		-	SAME. DISENGAGE WEARBUSHING F/ P/TOOL & L/O SAME. BREAK DOWN & L/O JET SUB.	

Safety: 12 STOP CARDS. CMT STAND INADVERTANTLY RELEASED FINGER IN DERRICK.

24 Hr Summary: SET CMT PLUG #5 F/ 647-447M. POOH CIRCULATING AT 440M. RIH, BRUSH RISER & RECOVER W/BUSHING. R/U TO PULL RISER.

Projected Oprn: CONT TO PULL RISER & RECOVER BOP. M/U MOST TOOL & RUN DOWN TO CUT & RECOVER WELLHEAD.

Remarks:
DAYS SINCE LTI = 660; POB = 88; CVX = 5; SERVICE = 20; STENA = 63. NEXT BOP TEST DUE - 5/11. STBY VESSEL - N. CORONA

PITCH: 1.2 DEG, ROLL: 1.3 DEG, HEAVE 0.3M. BULLSEYES 26/10: PGB = 3/4 PORT. RISER = 1/2 DEG PORT. SWARF: CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 119, #2 - 135, #3 - 131, #4 - 136, #5 - 126, #6 - 116, #7 - 102, #8 - 110.

P.O. 06:00 HRS: CONT TO PULL RISER - LAY OUT SLIP JOINT. LAST F/A DRILL 24/10/04

Daily Mud Cost: 19,110	Daily Tangible Cost: 0	Daily Well Cost: 1,902,275	Incidents: NEAR MISS	
Cum Mud Cost: 4,590,693	Cum Tangible Cost: 2,475,279	Cum Well Cost: 122,426,908	Total Appr: 134,847,000	
Drill Water: 3447	Potable Water: 1906	Fuel: 2566	Bulk Weight: 4453	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 27-OCT-2004	Page: 1 Of 2	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 37	DFS: 33	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 88

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
3.50	1530	01 - 13	HOLD TBT. CLEAR & PREP RIG FLOOR F/ PULLING BOP. N/D MONKEY ARM F/ CATWALK & REMOVE ROUGHNECK TRACKS.	
3.50	1900	01 - 13	HOLD TBT. REMOVE HYD MUD BUCKET, C/OUT BAILS & ELEVATORS, INSTALL RISER HANDLING GRIPPERS ON GANTRY CRANE,	
		-	INSTALL DIVERTER R/TOOL & L/O MOUSEHOLES.	
1.50	2230	01 - 13	INSTALL RISER GIMBAL IN ROTARY. PULL & L/O DIVERTER.	
0.00		99 - 99		
0.00		99 - 99	NOTE: FINAL FLUID LOSSES TO FORMATION = 1130 BBLS. SKIPS ON RIG: 7 EMPTY , 3 FULL.	
0.00		99 - 99	BACKLOAD 79 MT OF CLASS 'G' NEAT CEMENT TO NORTHERN CORONA.	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 38	DFS: 34	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: NW-16	Seas: 3 / 5	Bar: 0.00	POB: 88

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co: M.I. DRILLING FLUIDS	Type: SEAWATER	Sample From:	Wt: 8.6	FV: 0	PV: 0	YP: 0	Gel: 0 / 0
WL API: 0.0 HTHP: 0.0	FC API: 0 HTHP: 0	Solids: 0.00	% Oil: 0.00	%Water: 0.00	% Sand: 0.00	MBT:	Ph:
Pm: 0.00	Pf/Mf: 0.00 / 0.00	Carb:	Cl: 0	Ca:	Bent:	Solids %HG/LG: 0.00 / 0.00	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
0.50	0	01 - 13	CONT TO L/O DIVERTER TO DECK.	
1.00	30	01 - 13	INSTALL CATWALK RISER SADDLE ASSY. P/U & M/U BOP RISER LANDING JOINT.	
1.00	130	01 - 13	LOWER LANDING JOINT & LOCK SLIP JOINT INNER BARREL. UNLATCH BOP, OBSERVE SAME W/ ROV & P/U CLEAR GUIDEPOSTS.	
1.00	230	01 - 13	MOVE RIG CLEAR OF WELLHEAD - 15M TO PORT. MEANWHILE N/D POD HOSE SADDLES.	
0.00		99 - 99	NOTE: RECOVER VX GASKET TO SURFACE W/ ROV.	
2.00	330	01 - 13	N/D SLIP JOINT LOAD RING, REMOVE CHOKE, KILL & BOOSTER LINES GOOSENECKS.	
2.50	530	01 - 13	PULL & L/O LANDING JOINT & SLIP JOINT TO DECK. HOLD TBT.	
1.50	800	01 - 53	CONT TO PULL RISER TO 360M.	
6.00U	930	01 - 19	STOP PULLING RISER TO WORK TO SUPPLY BOAT & CLEAR DECKS. MEANWHILE SERVICE DDM & CLEAN SHAKERS / PITS.	
8.50	1530	01 - 53	CONT TO PULL RISER F/ 360M.	
		-		
		-		
		-		
		-		
		-		

Safety: 14 STOP CARDS. HELD PRE-TOUR TBT WITH DRILL CREWS.

24 Hr Summary: PULL RISER - BACKLOAD TO SUPPLY BOAT - CLEAN PITS.

Projected Oprn: PULL RISER & BOP. M/U MOST TOOL, RUN DOWN W/ SAME TO CUT & RECOVER WELLHEAD.

Remarks:
DAYS SINCE LTI = 661; POB = 88; CVX = 5; SERVICE = 20; STENA = 63. NEXT BOP TEST DUE - N/A STBY VESSEL - ESVAGT CORONA

PITCH: 1.0 DEG, ROLL: 1.2 DEG, HEAVE 0.32. BULLSEYES 26/10: PGB = 3/4 DEG PORT. RISER = N/A. SWARF: CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 118, #2 - 111, #3 - 114, #4 - 108, #5 - 127, #6 - 109, #7 - 110, #8 - 106.

P.O. 06:00 HRS: BOP ABOVE SPLASH ZONE @ 03:30HRS. L/O RISER DOUBLE. LAST F/A DRILL 24/10/04.

Daily Mud Cost: -1,162,6	Daily Tangible Cost: 0	Daily Well Cost: 448,464	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,428,074	Cum Tangible Cost: 2,475,279	Cum Well Cost: 122,875,372	Total Appr: 134,847,000

Drill Water: 3422	Potable Water: 1969	Fuel: 4378	Bulk Weight: 4453	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 28-OCT-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 39	DFS: 35	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SE-15
Seas: 2 / 3	Bar: 0.00	POB: 79			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?	
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
3.50	0	01 - 53	CONT TO PULL BOP ON MARINE RISER.	
0.00		99 - 99	NOTE: RISER CLEAN OF OBM.	
1.50	330	01 - 13	HOLD TBT. PULL BOP THRU SPLASH ZONE & SECURE SAME ON MOONPOOL TROLLEY. REMOVE GUIDELINES & POD LINES. RETRACT	
		-	ACOUSTIC TRANSPONDER ARMS.	
1.50	500	01 - 13	SET DOWN BOP ON BOP TRANSPORTER. N/D RISER DOUBLE, SKID BACK BOP & SECURE SAME. L/O RISER DOUBLE.	
2.00	630	01 - 13	N/D RISER GIMBAL. HOLD TBT. CLEAR RIG FLOOR & C/OUT TO 350T HANDLING GEAR. INSTALL IRON ROUGHNECK TRACKS.	
1.00	830	01 - 19	CLEAR CATWALK, RE-ARRANGE 6.1/2" DC'S IN DERRICK TO GAIN ACCESS TO 8" DC'S.	
2.50	930	01 - 19	HOLD TBT. M/U MOST WELLHEAD CUTTING ASSY.	
0.00		99 - 99	NOTE: CUTTERS SPACED OUT TO CUT 5M BELOW SEABED.	
1.00	1200	01 - 19	TIE-OFF ASSY TO GUIDELINES. RUN DOWN ON 2 STDS OF 8" DC'S.	
1.00	1300	01 - 19	RIH W/ MOST TOOL ON 5" DP TO 400M - P/U WT = 135K LBS.	
0.50	1400	01 - 19	STAB CUTTING ASSY INTO 18.3/4" HPWH. LAND, LOCK & CONFIRM SAME W/ 10K LBS O/PULL - OK. INCREASE O/PULL TO 56K	
		-	OVER STRING WT (36K RECOVERY WT + 20K O/PULL FOR CUT).	
1.50	1430	01 - 19	LINE UP RIG PUMPS TO SEAWATER & COMMENCE CUT IN TENSION AT 426.5M W/ 850 GPM, 2200 PSI.	
1.00T	1600	01 - 19	UNPLANNED RELEASE OF MOST TOOL F/ HPWH HOUSING AFTER 1 HR OF CUTTING TIME. ROV INSPECT & CLEAN HPWH. MEANWHILE	

Safety: 18 STOP CARDS. HELD PRE-TOUR TBT WITH DRILL CREWS.

24 Hr Summary: CONT TO PULL BOP. RIH W/ MOST TOOL. CUT & PULL WELLHEAD F/ 5M BELOW SEABED.

Projected Oprn: L/O WELLHEAD COMPONENTS. L/O CMT STD, EDPHOT, 5" DP, DC'S & HWDP F/ DERRICK.

Remarks:
DAYS SINCE LTI = 662; POB = 79; CVX = 4; SERVICE = 13; STENA = 62. NEXT BOP TEST DUE - N/A STBY VESSEL - ESVAGT CORONA

PITCH: 0.1 DEG, ROLL: 0.8 DEG, HEAVE 0.2 BULLSEYES N/A. RISER = N/A. SWARF: CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 114, #2 - 123, #3 - 110, #4 - 105, #5 - 131, #6 - 109, #7 - 120, #8 - 110

P.O. 06:00 HRS: L/O 5" DP F/ DERRICK. LAST F/A DRILL 24/10/04.

Daily Mud Cost: 14,674	Daily Tangible Cost: 0	Daily Well Cost: 2,229,010	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,442,748	Cum Tangible Cost: 2,475,279	Cum Well Cost: 125,104,382	Total Appr: 134,847,000

Drill Water: 3403	Potable Water: 2025	Fuel: 2384	Bulk Weight: 0	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 39	DFS: 35	Spud Date:	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB: 79

Last Casing Size:	Set At: MD TVD	Shoe Test: EMW	Leakoff?
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /

WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:

Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-	MOVE RIG OVER LOCATION TO CENTRALISE CUTTING ASSY IN HPWH. LAND MOST TOOL & LOCK SAME W/ 56K O/PULL.	
0.50	1700	01 - 19	CONT TO CUT 20" X 30" CSG IN TENSION W/ 850 GPM, 2100 PSI.	
0.50T	1730	01 - 19	SECOND UNPLANNED RELEASE OF MOST TOOL F/ HPWH HOUSING AFTER 20 MINS OF CUTTING TIME. ROV INSPECT & CLEAN HPWH.	
		-	LAND MOST TOOL & LOCK SAME. SET DOWN 25K LBS TO FINISH CUT IN COMPRESSION.	
1.00	1800	01 - 19	CONT TO CUT 20" X 30" CSG IN COMPRESSION W/ 850 GPM, 2100 PSI FOR 40 MINS (TOTAL OF 2 HRS CUTTING TIME).	
1.00T	1900	01 - 19	LOCK MOST TOOL FINGERS W/ ROV & ATTEMPT TO PULL WELLHEAD FREE W/ 120K O/PULL ABOVE STRING WT + WELLHEAD	
		-	RECOVERY WT - NO GO.	
0.50	2000	01 - 19	SET DOWN 25K LBS & STAGE PUMPS BACK UP TO 850 GPM, 2200 PSI. COMPLETE 20" X 30" CSG CUT W/ PRESS TO 2400 PSI &	
		-	PEAK OF 2900 PSI. RE-LOCK MOST TOOL & PULL WELLHEAD FREE W/ 20K O/PULL ABOVE STRING WT + WELLHEAD RECOVERY WT.	
2.50	2030	01 - 19	POOH SLOWLY W/ RECOVERED WELLHEAD & PGB. LAND SAME ON MOONPOOL TROLLY.	
1.00	2300	01 - 19	SECURE WELLHEAD & PGB ON MOONPOOL TROLLEY. DISENGAGE MOST TOOL & L/O SAME.	
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost:	Daily Tangible Cost:	Daily Well Cost:	Incidents:
Cum Mud Cost:	Cum Tangible Cost:	Cum Well Cost:	Total Appr:

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement:	Blended:

Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE

Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0

API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 29-OCT-2004	Page: 2 Of 2

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 40	DFS: 36	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SW-38
Seas: 5 / 10	Bar: 0.00	POB: 79			

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?	
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:	
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD		

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
1.50	0	01 - 19	DISENGAGE MOST TOOL F/ WELLHEAD. BREAK OFF & L/O MOST TOOL & CUTTER ASSY TO DECK.	
2.00	130	01 - 19	P/U 18.3/4" CART TOOL F/ DECK, M/U TO HPWH W/ 4.5 LH TURNS & REMOVE C-PLATES F/ PGB. P/U & PULL WELHEAD ASSY	
		-	C/W 30" & 20 CASING STUMP & L/D SAME TO DECK.	
1.00	330	01 - 07	P/U STAND W/ EDPHOT F/ DERRICK. BREAK OFF & L/O SAME TO DECK.	
19.50	430	01 - 07	L/O 5" DP F/ DERRICK.	
0.00		99 - 99	NOTE: ROV PERFORMED VISUAL / SONAR SEABED SURVEY TO 100M F/ RIG CENTRE - NO ANOMOLIES FOUND.	
0.00		99 - 99	PIT CLEANING OPERATIONS ONGOING: SKIPS ONBOARD: 5 FULL, 3 EMPTY	
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety: 18 STOP CARDS. HELD PRE-TOUR TBT WITH DRILL CREWS. HELD FIRE & USTER DRILL.

24 Hr Summary: L/O WELLHEAD COMPONENT. L/O EDPHOT & 5" DP F/ DERRICK.

Projected Oprn: CONT L/O 5" DP, DC'S & HWDP F/ DERRICK. WOW. PULL ANCHORS & COMMENCE TOW TO BERGAN.

Remarks:
DAYS SINCE LTI = 663; POB = 79; CVX = 4; SERVICE = 13; STENA = 62. NEXT BOP TEST DUE - N/A STBY VESSEL - NORTHERN CORONA.

PITCH: 1.1 DEG, ROLL: 1.0 DEG, HEAVE 0.4 BULLSEYES N/A. RISER = N/A. SWARF: CUM 10.87KG

ANCHOR TENSIONS (MT): #1 - 126, #2 - 131, #3 - 111, #4 - 100, #5 - 124, #6 - 107, #7 - 123, #8 - 118

P.O. 06:00 HRS: L/O 5" DP & DC F/ DERRICK. LAST F/A DRILL 30/10/04.

Daily Mud Cost: 1,838	Daily Tangible Cost: 0	Daily Well Cost: 1,762,724	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 3,444,586	Cum Tangible Cost: 2,475,279	Cum Well Cost: 126,867,106	Total Appr: 134,847,000	

Drill Water: 3384	Potable Water: 2095	Fuel: 2321	Bulk Weight: 0	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD/DE JONGE		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 30-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 41	DFS: 37	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SW-50
Seas: 18 / 26	Bar: 0.00	POB: 68			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?		
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:
YP:	Gel: /				
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:
MBT:	Ph:				
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:
Solids %HG/LG: /	%DS/Bent: /				
Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight — Total Hours Reported: 24.0
3.50	0	01 - 07	CONT TO BREAK DOWN & L/O 5" DP F/ DERRICK.
1.50	330	01 - 07	BREAK DOWN & L/O 5" HWDP F/ DERRICK.
4.50	500	01 - 07	BREAK DOWN & L/O 8" DC & 6.1/2" DC F/ DERRICK.
14.50T	930	08 - 42	WAIT ON WEATHER TO DE-BALLAST & WORK ANCHORS.
0.00		99 - 99	10:00 HR: WIND - 44 KNT MEAN, 48 KNT MAX, 270 DEG, WAVE - 5.5M MEAN, 1.6 DEG PITCH, 1.8 DEG ROLL, 0.9M HEAVE.
0.00		99 - 99	12:00 HR: WIND - 48 KNT MEAN, 51 KNT MAX, 263 DEG, WAVE - 6.0M MEAN, 1.7 DEG PITCH, 2.0 DEG ROLL, 1.2M HEAVE.
0.00		99 - 99	14:00 HR: WIND - 48 KNT MEAN, 52 KNT MAX, 283 DEG, WAVE - 6.3M MEAN, 1.7 DEG PITCH, 2.2 DEG ROLL, 1.2M HEAVE.
0.00		99 - 99	16:00 HR: WIND - 50 KNT MEAN, 53 KNT MAX, 288 DEG, WAVE - 7.5M MEAN, 1.6 DEG PITCH, 2.0 DEG ROLL, 3.0M HEAVE.
0.00		99 - 99	18:00 HR: WIND - 47 KNT MEAN, 51 KNT MAX, 288 DEG, WAVE - 7.5M MEAN, 2.0 DEG PITCH, 2.4 DEG ROLL, 3.0M HEAVE.
0.00		99 - 99	20:00 HR: WIND - 48 KNT MEAN, 52 KNT MAX, 282 DEG, WAVE - 8.0M MEAN, 2.0 DEG PITCH, 3.0 DEG ROLL, 3.9M HEAVE.
0.00		99 - 99	22:00 HR: WIND - 43 KNT MEAN, 47 KNT MAX, 290 DEG, WAVE - 8.0M MEAN, 1.8 DEG PITCH, 2.5 DEG ROLL, 3.4M HEAVE.
0.00		99 - 99	24:00 HR: WIND - 38 KNT MEAN, 41 KNT MAX, 280 DEG, WAVE - 8.0M MEAN, 1.8 DEG PITCH, 3.3 DEG ROLL, 3.5M HEAVE.
0.00		99 - 99	
0.00		99 - 99	NOTE: CONT W/ PIT CLEANING: SKIPS ONBOARD: 8 FULL, 0 EMPTY, ON BOAT: 0 FULL, 8 EMPTY.
		-	

Safety: 19 STOP CARDS. HOLD PRE-TOUR TBT WITH DRILL CREWS. WEEKLY SAFETY MEETING HELD.

24 Hr Summary: L/O DP, HWDP & DRILL COLLARS F/ DERRICK. WAIT ON WEATHER TO DE-BALLAST & PULL ANCHORS.

Projected Oprn: WAIT ON WEATHER. DE-BALLAST RIG. PULL ANCHORS & COMMENCE TOW TO BERGAN.

Remarks:
DAYS SINCE LTI = 664; POB = 68; CVX = 3; SERVICE = 3; STENA = 62. NEXT BOP TEST DUE - N/A STBY VESSEL - NORTHERN CORONA.

PITCH: 1.8 DEG, ROLL: 3.3 DEG, HEAVE: 3.5 BULLSEYES N/A. RISER = N/A. SWARF: CUM 10.87KG.

ANCHOR TENSIONS (MT): #1 - 126, #2 - 151, #3 - 125, #4 - 107, #5 - 124, #6 - 106, #7 - 115, #8 - 111.

P.O. 06:00 HRS: WAIT ON WEATHER TO HANDLE ANCHORS. LAST F/A DRILL 30/10/04.

Daily Mud Cost: 1,838	Daily Tangible Cost: 0	Daily Well Cost: 1,325,960	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,446,424	Cum Tangible Cost: 2,475,279	Cum Well Cost: 128,193,066	Total Appr: 134,847,000

Drill Water: 3308	Potable Water: 2157	Fuel: 2214	Bulk Weight: 0	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 31-OCT-2004	Page: 1 Of 1		

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467	
DOL: 42	DFS: 38	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind: SW-25
Seas: 11 / 0	Bar: 0.00	POB: 68			
Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?		
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:		
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD			

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /	
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:	
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /	

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 24.0
17.00T	0	08 - 42	WAIT ON WEATHER TO WORK ANCHORS. MEANWHILE DE-BALLAST TO SURVICAL DRAUGHT.	
0.00		99 - 99	02:00 HR: WIND - 36 KNT MEAN, 40 KNT MAX, 299 DEG, WAVE - 8.5M MEAN, 2.0 DEG PITCH, 2.5 DEG ROLL, 3.5M HEAVE.	
0.00		99 - 99	04:00 HR: WIND - 32 KNT MEAN, 36 KNT MAX, 290 DEG, WAVE - 7.5M MEAN, 1.3 DEG PITCH, 2.0 DEG ROLL, 3.7M HEAVE.	
0.00		99 - 99	06:00 HR: WIND - 25 KNT MEAN, 31 KNT MAX, 290 DEG, WAVE - 7.0M MEAN, 1.5 DEG PITCH, 2.0 DEG ROLL, 4.5M HEAVE.	
0.00		99 - 99	08:00 HR: WIND - 23 KNT MEAN, 28 KNT MAX, 290 DEG, WAVE - 6.5M MEAN, 1.2 DEG PITCH, 2.0 DEG ROLL, 2.3M HEAVE.	
0.00		99 - 99	10:00 HR: WIND - 23 KNT MEAN, 26 KNT MAX, 280 DEG, WAVE - 6.0M MEAN, 1.2 DEG PITCH, 2.0 DEG ROLL, 2.3M HEAVE.	
0.00		99 - 99	12:00 HR: WIND - 22 KNT MEAN, 25 KNT MAX, 324 DEG, WAVE - 5.5M MEAN, 1.2 DEG PITCH, 1.5 DEG ROLL, 1.6M HEAVE.	
0.00		99 - 99	14:00 HR: WIND - 25 KNT MEAN, 27 KNT MAX, 315 DEG, WAVE - 5.5M MEAN, 1.2 DEG PITCH, 1.5 DEG ROLL, 1.7M HEAVE.	
0.00		99 - 99	16:00 HR: WIND - 18 KNT MEAN, 21 KNT MAX, 320 DEG, WAVE - 5.0M MEAN, 1.0 DEG PITCH, 1.8 DEG ROLL, 4.5M HEAVE.	
6.00	1700	08 - 40	COMMENCE DE-BALLAST TO TRANSIT DRAUGHT & OFFLOADING CARGO F/ NORTHERN CHALLANGER.	
1.00	2300	08 - 40	COMMENCE ANCHOR HANDLING BY PASSING #7 PENNANT TO NORTHERN 'CORONA' & #3 PENNANT TO NORTHERN 'CHALLENGER'.	
0.00		99 - 99	ANCHOR #7 - PENNANT TO CORONA AT 23:07 HRS, OFF BOTTOM AT 23:59 HRS, BOLSTERED AT 01:59 HRS.	
0.00		99 - 99	ANCHOR #3 - PENNANT TO CHALLENGER AT 23:22 HRS, OFF BOTTOM AT 00:03 HRS, REMOVED & SECURED AT 02:27 HRS.	
0.00		99 - 99	ANCHOR #6 - PENNANT TO CORONA AT 02:24 HRS, OFF BOTTOM AT 03:18 HRS, BOLSTERED AT 05:22 HRS.	
0.00		99 - 99	ANCHOR #2 - PENNANT TO CHALLENGER AT 02:50 HRS, OFF BOTTOM AT 03:35 HRS, REMOVED & SECURED AT 04:03 HRS.	

Safety: 19 STOP CARDS. HOLD PRE-TOUR TBT WITH DRILL CREWS. WEEKLY SAFETY MEETING HELD.

24 Hr Summary: WAIT ON WEATHER. DE-BALLAST & OFFLOAD CARGO FOR ANCHOR HANDLER. COMMENCE ANCHOR HANDLING.

Projected Oprn: COMPLETE ANCHOR HANDLING. COMMENCE TOW TO BERGAN.

Remarks:
DAYS SINCE LTI = 665; POB = 68; CVX = 3; SERVICE = 3; STENA = 62. NEXT BOP TEST DUE - N/A STBY VESSEL - NORTHERN CORONA.

PITCH: 1.8 DEG, ROLL: 3.3 DEG, HEAVE: 3.5 BULLSEYES N/A. RISER = N/A. SWARF: CUM 10.87KG.

ANCHOR TENSIONS (MT): #1 - 126, #2 - 151, #3 - 125, #4 - 107, #5 - 124, #6 - 106, #7 - 115, #8 - 111.

P.O. 06:00 HRS: CHALLANGER ON BRIDLE - CORONA CHASING OUT #4. LAST F/A DRILL 30/10/04.

Daily Mud Cost: 1,838	Daily Tangible Cost: 0	Daily Well Cost: 912,897	Incidents: NO INCIDENT REPORTED	
Cum Mud Cost: 3,448,262	Cum Tangible Cost: 2,475,279	Cum Well Cost: 129,105,963	Total Appr: 134,847,000	
Drill Water: 3032	Potable Water: 2239	Fuel: 2126	Bulk Weight: 0	Neat Cement: 0 Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 01-NOV-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth: 12,287	TVD: 12,287	PBTD: 1,467	Proposed MD: 12,467	Proposed TVD: 12,467

DOL: 43	DFS: 39	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3

Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: 0 / 0	Bar: 0.00	POB: 66

Last Casing Size: 13.375	Set At: 4,500 MD 4,500 TVD	Shoe Test: 0.0 EMW	Leakoff?
Cum Rot Hrs On Casing: 216.0	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:
Liner Size:	Set At: MD TVD	Liner Top At: MD TVD	

Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported: 18.5
18.50	0	08 - 40	COMPLETE ANCHOR HANDLING AT SAHARA LOCATION.	
0.00		99 - 99	ANCHOR #7 - PENNANT TO CORONA AT 23:07 HRS, OFF BOTTOM AT 23:59 HRS, BOLSTERED AT 01:59 HRS.	
0.00		99 - 99	ANCHOR #3 - PENNANT TO CHALLENGER AT 23:22 HRS, OFF BOTTOM AT 00:03 HRS, REMOVED & SECURED AT 02:27 HRS.	
0.00		99 - 99	ANCHOR #6 - PENNANT TO CORONA AT 02:24 HRS, OFF BOTTOM AT 03:18 HRS, BOLSTERED AT 05:22 HRS.	
0.00		99 - 99	ANCHOR #2 - PENNANT TO CHALLENGER AT 02:50 HRS, OFF BOTTOM AT 03:35 HRS, REMOVED & SECURED AT 04:03 HRS.	
0.00		99 - 99	ANCHOR #4 - PENNANT TO CORONA AT 06:12 HRS, OFF BOTTOM AT 06:58 HRS, REMOVED & SECURED AT 09:20 HRS.	
0.00		99 - 99	PASS TOW BRIDLE TO NORTHERN CHALLENGER AT 06:24 HRS.	
0.00		99 - 99	ANCHOR #8 - PENNANT TO CORONA AT 10:37 HRS, OFF BOTTOM AT 11:26 HRS, REMOVED & SECURED AT 13:45 HRS.	
0.00		99 - 99	ANCHOR #1 - PENNANT TO CORONA AT 14:25 HRS, OFF BOTTOM AT 15:23 HRS, AT BOAT 17:39 HRS.	
0.00		99 - 99	ANCHOR #5 - HEAVE IN W/ RIG AT 16:12, OFF BOTTOM AT 17:36 HRS, BOLSTERED AT 18:05 HRS.	
0.00		99 - 99		
0.00		99 - 99	NOTE: RIG UNDER TIGHT TOW & OFF CONTRACT AT 18:30 HRS - 02/11/04.	
0.00		99 - 99	FUEL OIL - 328 MT, POT WATER - 360 MT, DRILL WATER - 288 MT, LUB OIL - 4200 LTS,	
0.00		99 - 99	HELI-FUEL - 2452 LTS, BARITE - NIL, CEMENT - NIL, BENTONITE - NIL.	
		-		

Safety: 13 STOP CARDS. HOLD PRE-TOUR TBT WITH DRILL CREWS. WEEKLY SAFETY MEETING HELD.

24 Hr Summary: PULL ANCHORS AT SAHARA LOCATION. COMMENCE TIGHT TOW TO BERGAN.

Projected Oprn: COMPLETE TIGHT TOW TO BERGAN. ETA - 06:00 HRS 09/11/04.

Remarks:
DAYS SINCE LTI = 666; POB = 66; CVX = 1; SERVICE = 3; STENA = 62.

P.O. 06:00 HRS: RIG UNDER TOW OF NORTHERN CHALLENGER TO BERGAN.

Daily Mud Cost: 287,027	Daily Tangible Cost: 0	Daily Well Cost: 1,630,562	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,735,289	Cum Tangible Cost: 2,475,279	Cum Well Cost: 130,736,525	Total Appr: 134,847,000

Drill Water: 1811	Potable Water: 2264	Fuel: 2063	Bulk Weight: 0	Neat Cement: 0	Blended: 0
Country: NORWAY	Rig: STENA DEE	Rig Phone: 1224 333474	Drilling Rep: HOLLINSHEAD		
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0		
	API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 02-NOV-2004	Page: 1 Of 1	

ChevronTexaco **Drilling Activity Report**

Measured Depth:	TVD:	PBTD:	Proposed MD: 12,467	Proposed TVD: 12,467			
DOL: 44	DFS: 40	Spud Date: 25-SEP-2004	Daily Footage:	Daily Rot Hrs:	Total Rot Hrs: 148.3		
Torq:	Drag:	Rot Wgt:	P/U Wgt:	Slack Off Wgt:	Wind:	Seas: /	Bar:	POB:

Last Casing Size:	Set At: MD	TVD	Shoe Test: EMW	Leakoff?			
Cum Rot Hrs On Casing:	Cum Rot Hrs On Casing Since Last Caliper:	Depth Worst Wear:	% Remaining:				
Liner Size:	Set At: MD	TVD	Liner Top At: MD	TVD			
Mud Co:	Type:	Sample From:	Wt:	FV:	PV:	YP:	Gel: /
WL API: HTHP:	FC API: HTHP:	Solids:	% Oil:	%Water:	% Sand:	MBT:	Ph:
Pm:	Pf/Mf: /	Carb:	Cl:	Ca:	Bent:	Solids %HG/LG: /	%DS/Bent: /

Drlg Gas:	Max Gas:	Conn Gas:	Trip Gas:	Trip Cl:	Remarks:

Bit Number	IADC	Size	Manufacturer	Serial number	Jets (Quantity - Size)	TFA	MD In	MD Out	TVD Out
					- / - / - / - / -				
					- / - / - / - / -				

Type		Hours	WOB	RPM	Motor RPM	I-Row	O-Row	DC	Loc	B	G	Char	?Pull	Cost/Ft
			/	/										
			/	/										

Total Length of BHA: BHA Description:

Hrs On Jars: Hours Since Last Inspection:

Bit Num	Liner	Stroke	SPM	Press.	GPM	Jet Vel	DP Av	DC Av	Bit HHP	BHHP/SQIN	Pump HHP
	/ /	/ /	/ /								
	/ /	/ /	/ /								

Survey MD	Angle	Azimuth	Direction	TVD	N/S Coordinates	E/W Coordinates	Vertical Section	DLS

Hours	From	Act-Cat	Operations Covering 24 Hours Ending at Midnight	Total Hours Reported:
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		
		-		

Safety:

24 Hr Summary:

Projected Oprn:

Remarks:

Daily Mud Cost: 0	Daily Tangible Cost: 0	Daily Well Cost: 107,642	Incidents: NO INCIDENT REPORTED
Cum Mud Cost: 3,735,289	Cum Tangible Cost: 2,475,279	Cum Well Cost: 130,844,167	Total Appr: 134,847,000

Drill Water:	Potable Water:	Fuel:	Bulk Weight:	Neat Cement: Blended:
Country: NORWAY	Rig:	Rig Phone:	Drilling Rep:	
Field:	Lease: SAHARA	Well No: 6507/1-1	Well ID: UB5980 -0	
API No: 6507/1-1	AFE No: KWENO 650 711-001	Date: 03-NOV-2004	Page: 1 Of 1	

2.0 Wellsite Geological Reports

ChevronTexaco

WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 06.10.04	Days since spud: 11
Depth (mMD): 1380	Depth (mTVD): 1380	Current Operation: M/U 8 ½" BHA	
ROP(m/hr): -	Progress (m): 3	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m	
Last Survey:	mMD	mTVD Inc: °	Azim. °
MW (sg): 1.55	Max PP (sg): 1.05	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): RIH 12 ¼" slick assembly, displace to LTOBM, Drill cement + plug + shoe, drill 3m new formation. Perform LOT, POOH + L/D 12 ¼" BHA. M/U 8 ½" BHA.

6 o'clock update: RIH 8 ½" BHA.

Operations next 24 hours: Drill ahead 8 ½" section

GEOLOGICAL DESCRIPTION

Interval (m)	Description
1371-1380m	Cement. No significant formation returns.

SHOWS DATA

Interval (m)	Description

GAS DATA

Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	1377	2.5	-	--	-	-	-	-	-

PORE PRESSURE

Interval: 1377m – 1380m	Min. (sg): 1.05	Max. (sg): 1.05

Comments:
PP assumed normal in absence of indicators to contrary. No trends possible given minimal drilling.

FORMATION PICKS LAST 24 HOURS

Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m +/-	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	
Top Tertiary	750	725	726	-1	
Kai			1510		
Brygge			1860		
Tare			1920		
Tang			2035		
Springar / Top Cretaceous			2140		
Kvitnos			2455		
Lysing			3470		
Lange			3515		
Lange Marker			3725		

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WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 07.10.04	Days since spud: 12
Depth (m - MDRKB): 1610	Depth (m - TVDSS): 1585	Current Operation: Drill ahead 8 ½" section	
ROP(m/hr): - 32.9	Progress (m): 230	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m	
Last Survey:	1625.6 mMD	1625.58 mTVD	Inc: 0.61 ° Azim. 301.84°
MW (sg): 1.55	Max PP (sg): 1.1	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371 LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): RIH 8 ½" BHA, SCR's, Drill ahead 8 ½" section.

6 o'clock update: Drill ahead 8 ½" section to 1805m @ 06:00.

Operations next 24 hours: Drill ahead 8 ½" section to coring point.

GEOLOGICAL DESCRIPTION

Interval (m)	Description
1371m-1536m **TERTIARY**	**CLAYSTONE**: dark grey, greyish black, brownish to olive black, speckled black, firm, crumbly to blocky, traces nodular pyrite, trace shell fragments, trace carbonaceous material, slightly silty/sandy in places with Traces of **SANDSTONE**: clear, colourless, translucent, medium to coarse, angular, elongate, well cemented with silica cement also as loose quartz grains. Rare traces of **LIMESTONE:** Light grey-brown, mud-stone, fine to microcrystalline, occasionally sucrosic texture, angular break, hard, slightly dolmitic.
1536m-1610m **KAI**	**CLAYSTONE**: medium dark grey to dark grey, occasionally speckled black, slightly soft to firm, crumbly to sub-blocky, occasionally sub-elongate, traces carbonaceous material, commonly slightly silty, rarely slightly sandy in places with Traces of **SANDSTONE**: clear, colourless, translucent, medium to coarse, angular, elongate, well cemented with silica cement also as loose quartz grains. Rare traces of **LIMESTONE:** Light grey-brown, mud-stone, fine to microcrystalline, occasionally sucrosic texture, angular break, hard, slightly dolmitic.

SHOWS DATA

Interval (m)	Description
-	-

GAS DATA

Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	1377	2.5	-	-	-	-	-	-	-
Drilled Gas	1600	1.8	1800	-	-	-	-	-	-

PORE PRESSURE

Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.05	Max. (sg): 1.1

Comments:
1): PP assumed normal to 1536m in absence of indicators to contrary.
2): Small Dxc and Resistivity cutback from 1536m to 1610m may be indicative of gently rising PP given uniformity of formations. No qualitative evidence to contradict prognosed PP estimate of around 1.1 for this depth.

FORMATION PICKS LAST 24 HOURS

Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	Logs
Top Tertiary	750	725	726	-1	Logs
Kai	1536	1511	1510	-1	MWD: RES + GR
Brygge			1860		
Tare			1920		
Tang			2035		
Springar / Top Cretaceous			2140		
Kvitnos			2455		
Lysing			3470		
Lange			3515		
Lange Marker			3725		

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WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 08.10.04	Days since spud: 13	
Depth (m - MDRKB): 2214	Depth (m - TVDSS): 2189	Current Operation: Drill ahead 8 ½" section		
ROP(m/hr): 39.4	Progress (m): 604	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m		
Last Survey:	2173 mMD	2173 mTVD	Inc: 0.48 °	Azim. 113.02°
MW (sg): 1.55	Max PP (sg): 1.4	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): Drill ahead 8 ½" section.

6 o'clock update: Drill ahead 8 ½" section to 2416m

Operations next 24 hours: Drill ahead 8 ½" section to coring point.

GEOLOGICAL DESCRIPTION

Interval (m)	Description
1610-1890m	**CLAYSTONE**: medium dark grey to dark grey, occasionally speckled black, slightly soft to firm, crumbly to sub-blocky, occasionally sub-elongate, traces carbonaceous material, commonly slightly silty, rarely slightly sandy in places with Traces of **SANDSTONE**: clear, colourless, translucent, medium to coarse, angular, elongate, well cemented with silica cement also as loose quartz grains. Rare traces of **LIMESTONE:** Light grey-brown, mud-stone, fine to microcrystalline, occasionally sucrosic texture, angular break, hard, slightly dolmitic.
1890-1950m	**CLAYSTONE**: predominantly dark greenish and olive grey, also dark grey, greyish and greenish black, rarely blueish grey, moderately firm to firm, sub-blocky to sub-platey, commonly slightly silty grading siltstone, commonly black speckled, moderate to very calcareous, becoming tuffaceous towards the base
1950-2070m	**CLAYSTONE**: medium dark to dark grey, dark greenish to brownish black, soft to firm, amorphous to sub-blocky, waxy, calcareous **TUFF**: medium grey, speckled, soft to moderately firm, amorphous, occasionally silty and very fine sandy, glassy fragments, non to slightly calcareous **LIMESTONE**: medium brownish grey, firm, crumbly microcrystaline
2070-2160m	**CLAYSTONE**: greyish black to brownish black, dark greenish and olive grey, also light to medium green grey, medium olive grey, occasionally speckled, moderately soft to firm, commonly slightly waxy, sub-blocky to sub-platy, commonly slightly silty, grading non to moderately calcareous, rarely grading to argillaceous Limestone, with trace Glauconite and rare trace Pyrite **LIMESTONE**: off white to light grey, soft, amorphous to sub blocky, microcrystalline, mudstone, commonly argillaceous, commonly silty **TUFF**: pale grey to pale yellow grey, pale orange grey, commonly speckled, soft to moderately firm, amorphous,to sub blocky, commonly silty to very fine sandy, non to slightly calcareous
2160m-2214m	**CLAYSTONE**: dark grey to grey-black, light olive grey to grey green, moderately soft to firm, commonly slightly waxy, sub-blocky to sub-platy, commonly slightly silty, grading non to slightly calcareous, rarely grading to argillaceous Limestone Traces of **LIMESTONE**: white to light grey grading medium grey, very soft to soft, occasionally slightly firm, amorphous to sub blocky, microcrystalline, mudstone, commonly argillaceous, grading to calcareous claystone Traces of **TUFF**: pale grey to pale yellow grey, pale orange grey, commonly speckled, soft, blocky, commonly silty to very fine sandy, non to slightly calcareous

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SHOWS DATA	
Interval (m)	Description
-	-

GAS DATA

Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	-	-	-	-	-	-	-	-	-
Background Gas	1675	0.160	1605	0	0	0	0	0	0
Background Gas	1875	0.050	512	0	0	0	0	0	0
Background Gas	2100	0.100	997	0	0	0	0	0	0

PORE PRESSURE

Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.1	Max. (sg): 1.3
Interval: 1610m – 2214m	Min. (sg): 1.3	Max. (sg): 1.4

Comments:
Analysis of Dxc and Acoustic cutbacks continuing from 1610m to 2214m suggests PP to be around 1.4 SG by 2214m.
No evidence to contradict prognosed PP estimate of around 1.3 SG for this depth.

FORMATION PICKS LAST 24 HOURS

Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	Logs
Top Tertiary	750	725	726	-1	Logs
Kai	1536	1511	1510	-1	Logs
Brygge	1894	1869	1860	+9	Logs
Tare	1952	1927	1920	+7	Logs + Cuttings
Tang	2070	2045	2035	+10	Logs
Springar / Top Cretaceous	2160	2135	2140	-5	Logs + Cuttings
Kvitnos			2455		
Lysing			3470		
Lange			3515		
Lange Marker			3725		

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WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 09.10.04	Days since spud: 14	
Depth (m - MDRKB): 2849	Depth (m - TVDSS): 2824	Current Operation: Drill ahead 8 ½" section		
ROP(m/hr): 49.5	Progress (m): 634	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m		
Last Survey:	2807.1 mMD	2807.1 mTVD	Inc: 1.09°	Azim. 187.23°
MW (sg): 1.54	Max PP (sg): 1.4 @ 2250m	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): Drill ahead 8 ½" section.

6 o'clock update: Drill ahead 8 ½" section to 2950m

Operations next 24 hours: Drill ahead 8 ½" section to coring point.

GEOLOGICAL DESCRIPTION

Interval (m)	Description
2214m-2478m	**CLAYSTONE**: dark grey to grey-black, light olive grey to grey green, moderately soft to firm, commonly slightly waxy, sub-blocky to sub-platy, commonly slightly silty, grading non to slightly calcareous, rarely grading to argillaceous Limestone Traces of **LIMESTONE**: white to light grey grading medium grey, very soft to soft, occasionally slightly firm, amorphous to sub blocky, microcrystalline, mudstone, commonly argillaceous, grading to calcareous claystone and dolomitic limestone Traces of **DOLOMITE**: grey to yellow grey and yellow brown, orange grey, dark brown grey, commonly speckled, soft to occasionally hard, blocky to occasionally splintery, occasionally silty to very fine sandy, grading dolomitic limestone
2478m-2849m	**CLAYSTONE**: dark grey, dark green grey to olive grey, green black to olive black, soft to firm, occasionally sticky, sub blocky to blocky, occasionally sub angular, occasionally lightly micromicaceous and micropyritic, rarely carbonaceous, locally slightly very fine sandy locally slightly glauconitic Traces-10% **LIMESTONE**: light to medium brown grey, occasionally dark brown grey, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places Traces **DOLOMITE**: medium to dark brown grey, dark yellowish brown, firm to hard, sub blocky, blocky to splintery, locally very argillaceous, microcrystalline to cryptocrystalline, grading dolomitic limestone in places

ChevronTexaco

SHOWS DATA	
Interval (m)	Description
-	-

GAS DATA									
Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	-	-	-	-	-	-	-	-	-
Background Gas	2200-2478	0.02	251	0	0	0	0	0	0
Background Gas	2478-2830	0.2	2010	20	1	0	0	0	0

PORE PRESSURE		
Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.1	Max. (sg): 1.3
Interval: 1610m – 2250m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 2250m – 2489m	Min. (sg): 1.2	Max. (sg): 1.4

Comments:
Pore pressure estimates from Dxc and Acoustic data suggested a maximum Pore Pressure value of around 1.4 SG to occur at around 2250m. A gradual reversal of the cutback trend has been noted from 2250m to 2849m in the Dxc, Resistivity, (and where functioning) Acoustic data.
The three trends indicate a gradual reduction in Pore Pressure from 2250m to between 1.15 and 1.2SG by 2849m. No other evidence seen to contradict prognosed PP estimate of around 1.2 SG for this depth.

FORMATION PICKS LAST 24 HOURS					
Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	Logs
Top Tertiary	750	725	726	-1	Logs
Kai	1536	1511	1510	-1	Logs
Brygge	1894	1869	1860	+9	Logs
Tare	1952	1927	1920	+7	Logs + Cuttings
Tang	2070	2045	2035	+10	Logs
Springar / Top Cretaceous	2160	2135	2140	-5	Logs + Cuttings
Kvitnos	(2478)	(2453)	2455	(-2)	Logs + Gas, (tentative pick)
Lysing			3470		
Lange			3515		
Lange Marker			3725		

ChevronTexaco

WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 10.10.04	Days since spud: 15	
Depth (m - MDRKB):3166	Depth (m - TVDSS):3166	Current Operation: Drill ahead 8 ½" section		
ROP(m/hr): 22.6	Progress (m): 317	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m		
Last Survey:	3123.7m MD	3123.4m TVD	Inc: 3.13°	Azim. 180.03°
MW (sg): 1.55	Max PP (sg): 1.4	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): Drill ahead 8 ½" section.

6 o'clock update: Drill ahead 8 ½" section to 3258m

Operations next 24 hours: Drill ahead 8 ½" section to coring point.

GEOLOGICAL DESCRIPTION

Interval (m)	Description
2849-3166	**CLAYSTONE**: dark grey, dark green grey to olive grey, grey black to olive black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally lightly micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules Traces-10% **LIMESTONE**: light to medium brown grey, occasionally dark brown grey, occasionally brown speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places Traces **DOLOMITE**: medium to dark brown grey, dark yellowish brown, firm to hard, sub blocky, blocky to splintery, locally very argillaceous, microcrystalline to cryptocrystalline, grading dolomitic limestone in places

ChevronTexaco

SHOWS DATA	
Interval (m)	Description
-	-

GAS DATA

Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	-	-	-	-	-	-	-	-	-
Background Gas	2200-2478	0.02	251	0	0	0	0	0	0
Background Gas	2478-2830	0.2	2010	20	1	0	0	0	0
Background Gas	2830-3075	0.06	531	10	2	0	0	0	0
Background Gas	3075-3150	0.1	1048	20	4	1	1	2	0

PORE PRESSURE

Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.1	Max. (sg): 1.3
Interval: 1610m – 2250m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 2250m – 2849m	Min. (sg): 1.2	Max. (sg): 1.4
Interval: 2849m – 3166m	Min. (sg): 1.2	Max. (sg): 1.3

Comments:
Acoustic interval transit times have been seen to decrease in a trend from around 2500mn to around 3000m. A cutback from this trend suggests a rise in PP to an estimated 1.3 SG by 3166m, and mud temperature increases above the previous temperature trend would also suggest entrance into a potentially over-pressured zone. Indications of PP increase from Dxc and resistivity trends have not been conclusive, but their effectiveness as PP indicators has been limited within the Kvitnos by 'Ratty formation', i.e. common thin hard Limestone stringers.
A PP of around 1.3 SG by 3166m, though uncertain, is seen as the likely scenario. As the well currently has a large overbalance margin, no qualitative evidence (gas, cavings etc) is seen to contradict either of the two prognosed PP estimates from the well program.

FORMATION PICKS

Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	Logs
Top Tertiary	750	725	726	-1	Logs
Kai	1536	1511	1510	-1	Logs
Brygge	1894	1869	1860	+9	Logs
Tare	1952	1927	1920	+7	Logs + Cuttings
Tang	2070	2045	2035	+10	Logs
Springar / Top Cretaceous	2160	2135	2140	-5	Logs + Cuttings
Kvitnos	(2478)	(2453)	2455	(-2)	Logs + Gas, (tentative pick)
Lysing			3470		
Lange			3515		
Lange Marker			3725		

ChevronTexaco

WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 12.10.04	Days since spud: 17	
Depth (m - MDRKB):3424	Depth 3423(m - TVDSS):	Current Operation: Drill ahead 8 ½" section		
ROP(m/hr): 16.0	Progress (m): 258	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m		
Last Survey:	3384m MD	3383m TVD	Inc: 2.88°	Azim. 145.7°
MW (sg): 1.55	Max PP (sg): 1.4	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): Drill ahead 8 ½" section.

6 o'clock update:

Operations next 24 hours: Drill ahead 8 ½" section to TD.

GEOLOGICAL DESCRIPTION

Interval (m)	Description
3166-3424	**CLAYSTONE**: dark grey, dark olive grey, grey black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally trace micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules Traces-10% **LIMESTONE**: light to medium brown grey, occasionally dark brown grey, occasionally brown and black speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places Traces **DOLOMITE**: medium to dark brown grey, dark yellowish brown, firm to hard, sub blocky, blocky to splintery, locally very argillaceous, microcrystalline to cryptocrystalline, grading dolomitic limestone in places Traces **SILTSTONE:** medium grey, medium green grey, firm, occasionally slightly friable, blky, slightly argillaceous, calcareous to very calcareous, grading very fine to fine SANDSTONE in places.
6 a.m. Update: 3424-3453	**SANDSTONE:** Commonly seen as rock flour**:** Light grey, light **b**rown grey, commonly black speckled, soft to very soft, friable, amorphous, silty, slightly to moderately argillaceous, common trace glauconite, non to very slightly calcareous. Occasionally seen un-crushed: Light to medium grey, medium brown grey, colourless, translucent to transparent, soft, friable, occasionally loose, very fine to fine grade, occasionally medium grade, sub rounded, rounded, occasionally sub elongate, moderate sphericity, trace Glauconite, non to very slightly calcareous. **CLAYSTONE**: dark grey, dark olive grey, grey black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally trace micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules Traces **LIMESTONE**: light to medium brown grey, occasionally dark brown grey, occasionally brown and black speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places Traces **SILTSTONE:** medium grey, medium green grey, firm, occasionally slightly friable, blky, slightly argillaceous, calcareous to very calcareous, grading very fine to fine SANDSTONE in places.

ChevronTexaco

SHOWS DATA	
Interval (m)	Description
-	-

GAS DATA									
Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	-	-	-	-	-	-	-	-	-
Background Gas	2200-2478	0.02	251	0	0	0	0	0	0
Background Gas	2478-2830	0.2	2010	20	1	0	0	0	0
Background Gas	2830-3075	0.06	531	10	2	0	0	0	0
Background Gas	3075-3150	0.1	1048	20	4	1	1	2	0
Background Gas	3150-3166	0.05	509	15	4	1	1	1	0
Background Gas	3166-3453	0.05	504	16	4	1	2	1	1
3453 dummy Trip	3453	0.11	1083	41	11	1	2	1	0

PORE PRESSURE		
Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.1	Max. (sg): 1.3
Interval: 1610m – 2250m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 2250m – 2849m	Min. (sg): 1.2	Max. (sg): 1.4
Interval: 2849m – 3166m	Min. (sg): 1.2	Max. (sg): 1.3
Interval: 3166m – 3453m	Min. (sg): 1.3	Max. (sg): 1.4

Comments:
Drilling parameters strongly suggest a dull bit, negating the usability of Dxc as a PP indicator.

No trends indicative of increasing overpressure can be seen at this depth, but the frequent Limestone stringers within the Kvitnos would tend to reduce the effectiveness of the Resistivity and sonic tools as pore pressure indicators by masking overpressure trends.

Thus if the PP yesterday's figure of around 1.3 SG is taken as a minimum, an estimated PP value of between 1.3 and 1.4 SG though uncertain, is seen as the likely scenario. As the well currently has a large overbalance margin, no qualitative evidence (gas, cavings etc) is evident to contradict either of the two prognosed PP estimates from the well program.

FORMATION PICKS					
Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	Logs
Top Tertiary	750	725	726	-1	Logs
Kai	1536	1511	1510	-1	Logs
Brygge	1894	1869	1860	+9	Logs
Tare	1952	1927	1920	+7	Logs + Cuttings
Tang	2070	2045	2035	+10	Logs
Springar / Top Cretaceous	2160	2135	2140	-5	Logs + Cuttings
Kvitnos	(2478)	(2453)	2455	(-2)	Logs + Gas, (tentative pick)
Lysing	3450	3424	3470	-46	ROP + Torque response
Lange			3515		
Lange Marker			3725		

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WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 12.10.04	Days since spud: 17	
Depth 3563(m - MDRKB):	Depth 3537(m - TVDSS):	Current Operation: Drill ahead 8 ½" section		
ROP(m/hr): 11.9	Progress (m): 139	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m		
Last Survey:	3510m MD	3509m TVD	Inc: 3.2°	Azim. 148.9°
MW (sg): 1.55	Max PP (sg): 1.4+	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): Drill ahead 8 ½" section.

6 o'clock update: Drillahead to 3644m

Operations next 24 hours: Drill ahead 8 ½" section to TD.

GEOLOGICAL DESCRIPTION

Interval (m)	Description
3424-3456	**SANDSTONE:** Commonly seen as rock flour**:** Light grey, light **b**rown grey, commonly black speckled, soft to very soft, friable, amorphous, silty, slightly to moderately argillaceous, common trace glauconite, non to very slightly calcareous. Occasionally seen un-crushed: Light to medium grey, medium brown grey, colourless, translucent to transparent, soft, friable, occasionally loose, very fine to fine grade, occasionally medium grade, sub rounded, rounded, occasionally sub elongate, moderate sphericity, trace Glauconite, non to very slightly calcareous. **CLAYSTONE**: dark grey, dark olive grey, grey black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally trace micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules Traces **LIMESTONE**: light to medium brown grey, occasionally dark brown grey, occasionally brown and black speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places Traces **SILTSTONE:** medium grey, medium green grey, firm, occasionally slightly friable, blky, slightly argillaceous, calcareous to very calcareous, grading very fine to fine SANDSTONE in places.
3456-3509	**SANDSTONE**: Light to medium grey, medium brown grey, colourless, translucent to transparent, friable, occasionally loose, very fine to fine grade, occasionally medium grade and rarely coarse, sub rounded, rounded, occasionally sub elongate, moderate sphericity, poorly to moderately well cemented with silica/calcareous cement, trace Glauconite, occasionally agillaceous/silty and kaolinitic, trace mica. No shows - oil base fluorescence only **CLAYSTONE**: dark grey, dark olive grey, grey black, soft to firm, sub blocky to blocky, occasionally sub angular and sub splintery, occasionally trace micromicaceous and micropyritic, rarely carbonaceous, locally slightly silty to very fine sandy, locally slightly glauconitic, rare calcite and pyrite nodules Traces **LIMESTONE**: light to medium brown grey, occasionally dark brown grey, occasionally brown and black speckled, soft to firm, occasionally very firm, sub blocky, commonly crumbly, locally very argillaceous, microcrystalline, grading dolomitic limestone in places Traces **SILTSTONE:** medium grey, medium green grey, greyish brown, firm, occasionally slightly friable, blky, slightly argillaceous, calcareous to very calcareous, grading very fine to fine SANDSTONE in places
3509-3563	**CLAYSTONE**: Medium grey brown to dark brown grey, commonly brown and black speckled, soft to firm, sub blocky to sub angular, non to moderately silty, becoming very silty in places, grading argillaceous siltstone, trace glauconite, becoming dark grey, more uniform, and less silty with depth **SANDSTONE**: as above. Seen 90% as rock flour Traces **LIMESTONE**: As above, + white, firm, sub angular to sub blocky, microcrystalline mudstone Also vein calcite: Light grey, translucent, hard, blocky, crystalline Traces **SILTSTONE:** As above

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SHOWS DATA	
Interval (m)	Description
-	-

GAS DATA

Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	-	-	-	-	-	-	-	-	-
Background Gas	2200-2478	0.02	251	0	0	0	0	0	0
Background Gas	2478-2830	0.2	2010	20	1	0	0	0	0
Background Gas	2830-3075	0.06	531	10	2	0	0	0	0
Background Gas	3075-3150	0.1	1048	20	4	1	1	2	0
Background Gas	3150-3166	0.05	509	15	4	1	1	1	0
Background Gas	3166-3453	0.05	504	16	4	1	2	1	1
3453 dummy Trip	3453	0.11	1083	41	11	1	2	1	0
Background Gas	3424-3446	0.036	335	17	4	1	2	1	1
Background Gas	3446-3517	0.094	909	26	5	1	1	1	1
Background Gas	3517-3563	0.035	329	13	2	0	1	2	1

PORE PRESSURE

Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.1	Max. (sg): 1.3
Interval: 1610m – 2250m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 2250m – 2849m	Min. (sg): 1.2	Max. (sg): 1.4
Interval: 2849m – 3166m	Min. (sg): 1.2	Max. (sg): 1.3
Interval: 3166m – 3453m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 3453m – 3563m	Min. (sg): 1.4	Max. (sg): 1.4+
Update: Interval: 3563m – 3625m	Min. (sg): 1.4+	Max. (sg): 1.45+

Comments:

Drilling parameters suggest a dulled bit, rendering questionable the usability of Dxc as a PP indicator

The Lange has not been drilled for long enough to establish any reliable NCT at this depth, though both the Sonic and the Resistivity trends are seen to begin cutting back slightly from around 3530m, just below base Lysing.
Geological sampling suggests an impure, interbedded shale at the top of the sequence, again reducing the effectiveness of the resistivity and sonic tools as pore pressure indicators.

Gas values have remained low and relatively constant, and no connection gases or pressure cavings have been observed, leading to the assumption that the hydrostatic column is still well over balance
Thus though a rising PP trend may be emerging there is no conclusive evidence as yet to justify raising yesterday's PP estimate to much over 1.4 SG: "1.4 SG +"

06:00 update: The shales are becoming increasingly clean with depth from around 3550m. A much clearer cutback from the previous trend is currently being observed lower down in the Lange in 3 parametrs: Dxc, Resistivity, and Acoustic: New PP estimation: "1.45 +", though still no signs of nearing balance.

FORMATION PICKS

Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	Logs
Top Tertiary	750	725	726	-1	Logs
Kai	1536	1511	1510	-1	Logs
Brygge	1894	1869	1860	+9	Logs
Tare	1952	1927	1920	+7	Logs + Cuttings
Tang	2070	2045	2035	+10	Logs
Springar / Top Cretaceous	2160	2135	2140	-5	Logs + Cuttings
Kvitnos	(2478)	(2453)	2455	(-2)	Logs + Gas,
Lysing	3446	3420	3470	-50	Logs
Lange	3509	3483	3489 (rev)	-6	Logs
Lange Marker			3720 (rev)		

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WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee		Well: 6507/1-1	Date: 13.10.04	Days since spud: 18
Depth 3745(m - MDRKB):		Depth 3719(m - TVDSS):	Current Operation: POOH	
ROP(m/hr):	Progress (m):	MWD offset: PWD-6.82m, GR-7.09m, Res-8.32m, Acoustic-19.32m		
Last Survey:	3733.5 m MD	3732.07 m TVD	Inc: 5.24°	Azim. 140.50°
MW (sg): 1.55	Max PP (sg): 1.5	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): Drill ahead 8 ½" section to TD, CBU x 2, POOH.

6 o'clock update: POOH to R/U Schlumberger Wireline. Overpull at ca 3530m – 30 Klb – worked through it OK

Operations next 24 hours: R/U + run wireline logs

GEOLOGICAL DESCRIPTION

Interval (m)	Description
3563-3745	**CLAYSTONE**: Medium grey brown to dark brown grey, becoming dark grey to grey black and dark olive grey to olive black, commonly brown and black speckled, firm, sub blocky to sub angular, non to moderately silty, becoming very silty in places, grading argillaceous siltstone, trace glauconite, Traces **SANDSTONE**: colourless to pale grey, transparent, very fine to fine, subangular to rounded, sub elongate to sub spherical, well cemented with calcite, occasionally medium to dark grey and silty. Traces **LIMESTONE**: very light grey to light grey, light to medium yellow brown, soft, occasionally slightly firm, amorphous to blocky, friable, occasionally unconsolidated, microcrystalline, slightly silty, commonly dolomitic

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SHOWS DATA	
Interval (m)	Description
-	-

GAS DATA									
Gas Type	Int. (m)	Total(%)	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4ppm	iC5 ppm	nC5 pm
Trip Gas	-	-	-	-	-	-	-	-	-
Background Gas	2200-2478	0.02	251	0	0	0	0	0	0
Background Gas	2478-2830	0.2	2010	20	1	0	0	0	0
Background Gas	2830-3075	0.06	531	10	2	0	0	0	0
Background Gas	3075-3150	0.1	1048	20	4	1	1	2	0
Background Gas	3150-3166	0.05	509	15	4	1	1	1	0
Background Gas	3166-3453	0.05	504	16	4	1	2	1	1
3453 dummy Trip	3453	0.11	1083	41	11	1	2	1	0
Background Gas	3424-3446	0.036	335	17	4	1	2	1	1
Background Gas	3446-3517	0.094	909	26	5	1	1	1	1
Background Gas	3517-3563	0.035	329	13	2	0	1	2	1
Background Gas	3563-3745	0.11	1062	27	7	0	2	2	1
Drilled Peak Gas	0.27	2670	57	16	4	0	1	1	0

PORE PRESSURE		
Interval: 1377m – 1536m	Min. (sg): 1.05	Max. (sg): 1.05
Interval: 1536m – 1610m	Min. (sg): 1.1	Max. (sg): 1.3
Interval: 1610m – 2250m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 2250m – 2849m	Min. (sg): 1.2	Max. (sg): 1.4
Interval: 2849m – 3166m	Min. (sg): 1.2	Max. (sg): 1.3
Interval: 3166m – 3453m	Min. (sg): 1.3	Max. (sg): 1.4
Interval: 3453m – 3563m	Min. (sg): 1.4	Max. (sg): 1.4+
Interval: 3563m – 3625m	Min. (sg): 1.4+	Max. (sg): 1.45+
Interval: 3625m – 3745m	Min. (sg): 1.45	Max. (sg): 1.5

Comments:

N.B. Drilling parameters suggested a dulled bit prior to drilling the reservoir, rendering questionable the usability of Dxc as a PP indicator

Gas values have remained low and relatively constant, and no connection gases or pressure cavings have been seen, leading to the assumption that the hydrostatic column is still comfortably over balance. (Mud weight 1.55 SG)

The shales are becoming increasingly clean with depth from around 3550m. A clear cutback from the previous trend has been observed in 3 parameters between the top of the Lange and TD: Resistivity, Acoustic, and Dxc. Calculations suggest a tentative PP value at TD of 1.45 to 1.50.

FORMATION PICKS					
Formation	Depth mMDBRT	Depth mTVDSS	Prognosed mTVDSS	Difference m + / -	Basis of Pick
Seabed	422,5	397,5	397	+0,5	
Naust	525	500	510	-10	MWD Logs
Top Tertiary	750	725	726	-1	MWD Logs
Kai	1536	1511	1510	-1	MWD Logs
Brygge	1894	1869	1860	+9	MWD Logs
Tare	1952	1927	1920	+7	MWD Logs + Cuttings
Tang	2070	2045	2035	+10	MWD Logs
Springar / Top Cretaceous	2160	2135	2140	-5	MWD Logs + Cuttings
Kvitnos	(2478)	(2453)	2455	(-2)	MWD Logs + Gas,
Lysing	3446	3420	3470	-50	MWD Logs
Lange	3509	3483	3464	+19	MWD Logs
Lange Marker	3693	3667	3670	-3	MWD Logs

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WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 14.10.04	Days since spud: 19
Depth 3745(m - MDRKB):	Depth 3719(m - TVDSS):	Current Operation: RIH Wireline	

Last Survey:	3733.5 m MD	3732.07 m TVD	Inc: 5.24°	Azim. 140.50°
MW (sg): 1.55	Max PP (sg): 1.5	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): POOH, L/D 8 ½" BHA, R/U Schlumberger Wireline, RIH DSI/PEX/AIT/HGNS to 2135. observe tool stand-up & tension loss, Unable to pass obstruction (potentially dogleg), after 8 attempts. POOH, L/D DSI to shorten string. (No 'Donkeys C**K on board). RIH with PEX/AIT/HGNS to 2135m. Observe stand-up & tension loss. Repeat x 3 by 06:00 without success.

6 o'clock update: Attempting to pass ledge / dogleg @ 2135m

Operations next 24 hours: Run Wireline if pass obstruction @ 2135m

LOGGING TIME BREAKDOWN

Date / Time	Activity
14 / 10 / 04	
19:00	Hand over Drill floor to Schlumberger. Hold TBT Rig up DSI/PEX/AIT/HGNS (N.B. 30 mins time spent fabricating sheave shims for W/L eqpipment but not ascribed to down-time as Drill-crew were still able to P/U schlumberger tools)
22:43	RIH Wireline, descent 1). Pause @ 100m to calib. Depth compensator.
11.05	RIH Wireline. Commence logging @ 1200m.
11:50	RIH, Calc. descent rate @ 5000ft/hr. (Revise speed upon log transmission) P/U/ @ shoe 37,000 lbs
15 / 10 / 04	
00:00	RIH, Schlumberger Wireline from shoe seen @ 1372m, Calc. descent rate @ 5000ft/hr.
00:50	Observe tool stand-up & tension loss @ 2135m. Attempt to pass x 8 without success. P/U tool @
01:30	46,000lbs
02:30	POOH @ 2135m.
04:13	Remove nuke sources on surface.
05:10	Fit nuke sources to shortened string. RIH Descent 2).Pause @ 100m to calib. Depth compensator.
05:30	P/U @ 1300m. Observe 2850 lbf RIH, start down-log @ 4000ft/hr Observe shoe @ 1372m Observe top Brygge @ 1895m. (Observe slight separation in Res' curves within Brygge.) Observe top Tare @ 1951m. (observe Res' curves stacked within Tare.)
05:45	Observe top Tang @ 2068.5m. Observe tool stand-up & tension loss @ 2135m
05:51	Log up @ 2000-3700 ft/hr to 2100m Log down @ 6000 ft/hr, attempt pass 2. Observe tool stand-up & tension loss @ 2135m N.B. no overpull on log up. Suspect Limestone ledge or bridge, not dogleg.

ChevronTexaco

WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 15.10.04	Days since spud: 20
Depth 3745(m - MDRKB):	Depth 3719(m - TVDSS):	Current Operation: Wiper trip	

Last Survey:	3733.5 m MD	3732.07 m TVD	Inc: 5.24°	Azim. 140.50°

MW (sg): 1.55	Max PP (sg): 1.5	Csg Size (ins): 13 3/8”	Csg Depth(m): 1371	LOT (sg): 1.80

Operations last 24 hours (midnight to midnight): observe tool stand-up & tension loss @ 2135m, Unable to pass obstruction (potentially dogleg), after 8 attempts. POOH, L/D DSI to shorten string. (No ‘Donkeys C**K on board). RIH with PEX/AIT/HGNS to 2135m. Observe stand-up & tension loss. Repeat x 3 by 06:00 without success. Log up to shoe, POOH, L/D string, Re-terminate W/L socket + test, (Service DDM), M/U + RIH MDT tool string, Encounter obstruction @ 2135m, attempt pass x 4, POOH, L/D MDT, P/U 8 ½” cleanout ass’y, RIH

6 o'clock update: Encounter difficulty RIH @ 2630 – 2640m, Circ @ 226 gpm + ream. Inc flow to 265 gpm, Suffer 140 bbls losses to formation @ 240 bbls/hr. Flowcheck, 2 bbl gain / 20 mins. Current time 05:30.

Operations next 24 hours: Complete conditioning trip, R/U MDT and RIH.

LOGGING TIME BREAKDOWN

Date / Time	Activity
15 / 10 / 04	
00:00	RIH, Schlumberger Wireline from shoe seen @ 1372m, Calc. descent rate @ 5000ft/hr.
00:46	Observe tool stand-up & tension loss @ 2135m. Attempt to pass x 10 without success. P/U tool @
01:30	46,000lbs
02:30	POOH @ 2135m
03:00	Tool @ surface
04:13	Remove nuke sources on surface.
05:10	Fit nuke sources to shortened string. RIH Descent 2).Pause @ 100m to calib. Depth compensator.
05:30	P/U @ 1300m. Observe 2850 lbf
	RIH, start down-log (dlis 026) @ 4000ft/hr
	Observe shoe @ 1372m
	Observe top Brygge @ 1895m. (Observe slight separation in Res’ curves within Brygge.)
	Observe top Tare @ 1951m. (observe Res’ curves stacked within Tare.)
05:40	Observe top Tang @ 2068.5m.
05:45	Observe tool stand-up & tension loss @ 2135m. 3 attempts to pass.
	Log up @ 2000-3700 ft/hr to 2100m
	Log down @ 6000 ft/hr, attempt pass 2.
	Observe tool stand-up & tension loss @ 2135m
	N.B. no overpull on log up. Suspect Limestone ledge or bridge, not dogleg.
06:30	Start uplog (dlis 029)
07:30	Log completed. POOH
08:30	Tools at surface..
08:40	Discuss next logging programme
09:00	Unload sources. Proceed w. After calibrations
09:20	Standby for crane
09:50	Cont. after calibration. Commence disconnect tool
10.30	L/D tools on pipe deck
11:10	P/U MDT string
13:15	Commence Op check
13:45	RIH
13:50	Activate wave compensator
14:00	Cont. RIH. Commence down-log, (file dlis 037)
15:20	Encounter obstruction @ 2135m. 4 attempts made to pass@ 3000, 5000, 6000 ft/hr
15:30	POOH. L/D W/L tools
17:00	L/D W/L equipment to 18:30

ChevronTexaco

WELLSITE GEOLOGICAL REPORT

Wellsite Geologist: Nigel Feery / Stef Pickles

Rig: Stena Dee	Well: 6507/1-1	Date: 15.10.04	Days since spud: 21
Depth 3745(m - MDRKB):	Depth 3719(m - TVDSS):	Current Operation: Wiper trip	

Last Survey:	3733.5 m MD	3732.07 m TVD	Inc: 5.24°	Azim. 140.50°
MW (sg): 1.55	Max PP (sg): 1.5	Csg Size (ins): 13 3/8"	Csg Depth(m): 1371	LOT (sg): 1.80

Encounter difficulty RIH @ 2630 – 2640m, Circ @ 226 gpm + ream. Inc flow to 265 gpm, Suffer 140 bbls losses to formation @ 240 bbls/hr. Flowcheck, 2 bbl gain / 20 mins.
Work string back to shoe, circulating & back-reaming with losses + partial returns.

6 o'clock update: Circulating at shoe, attempting to stage in.

Operations next 24 hours: Complete conditioning trip, R/U MDT and RIH.

LOGGING TIME BREAKDOWN

Date / Time	Activity

Enclosure 2

Contractors' End of Well Summaries and Reports

MI Norge AS
Drilling Fluid Summary

Drilling Fluids Summary

Well: 6507/1-1

SAHARA

Prepared by: **Stig Seglem**	Verified by: **Trond Dåtland**	Approved by: **Henning Balzer**
Sign. *Stig Seglem*	Sign. *Trond Dåtland*	Sign. *Henning Balzer*

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1 GENERAL

OPERATOR: **ChevronTexaco**

WELL: **6507/1-1 - SAHARA**

AREA: **Norwegian Sea / Trøndelag**

CHEVRONTEXACO SUPERVISORS: **Ken Russell**
Michael Hollinshead
Silvia de Jonge
Roger Moore

DRILLING CONTRACTOR: **Stena Drilling**

RIG: **Stena Dee**

M-I NORGE ENGINEERS: **Trygve Sagberg**
Jan Arild Rasmussen
Gordon Webster
Frode T. Nilsen
Tore Stock
Geir Grøttjord

SECTION SUMMARY:

Hole section	Drilling fluid system	Drilled to, mMD/TVD	Casing, in. / Shoe depth, m
36″	SW/ sweeps	511 / 511	30″ / 507.5
17 ½″	SW/sweeps	1377 / 1377	13 3/8″ / 1371.5
8 ½″	Versavert	3745 / 3745	Plug back

2 QHSE

2.1 Summary

M-I SWACO have not had any lost time or first aid incidents during the Sahara project. M-I SWACO has been represented by two drilling fluid engineers and 4 waste management engineers throughout the project duration. Extra personnel during rig up and rig down og equipment. M-I SWACO has been working a total of 3 444 man hours on the Stena Dee rig during the Sahara project.

HSE presentation, regarding handling of oil based drilling fluid, was held by the drilling fluid engineers for the rig crew on the rig. This presentation included a general description of the drilling fluid system and the proper personal protection equipment to wear when handling the oil based drilling fluid.

The usage and discharge of chemicals was watched closely and compared to the limits given in the discharge permit for the Sahara project. The usage and discharge was kept well within the given limits for the project. See details for usage and discharge.
The cuttings and slop from the rig has been handled after a Total Fluid Management philosophy where all cuttings have been skipped to Soilcare at Mongstad and the slop to the M-I SWACO Envirocentre. The cuttings have been separated into oil, water and solids. The water has been filtrated until satisfactorily clean and pumped to the sea. Preparations are ongoing to be able to reuse the water as base fluid for mixing brine. Recovered oil has been pumped back to the M-I SWACO process plant for reuse in drilling fluid. Recovered solids from the TCC® (Thermo mechanical processing of oily waste) process are approved by NCC Roads as a filler material in production of asphalt. At the moment NCC Roads does not have the capacity to receive all the dry solids, and some will be delivered to a municipal landfill site. The slop has been transferred into the M-I SWACO Envirocentre and is being processed back to drilling fluid. Only small amounts of special waste are created from this process.

2.2 Reporting by M-I SWACO Personnel

During the project time, M-I SWACO engineers has reported a total of 61 stop cards, and 90 prompt cards. This averages to about 25 reports each week for the M-I SWACO engineers. M-I SWACO has been represented with an average of 5 engineers throughout the operation and each engineer has then written in average 5 reports each week.

2.3 Incidents reports involving M-I SWACO

No incidents reports written involving M-I SWACO

3 Summary of events

3.1 Details of 36″ section

36" hole drilled from:	422 m
36" hole drilled to:	511 m
Hole length:	89 m
30″ conductor shoe at:	507.5 m
Drilling fluid:	Seawater / hivis sweeps
Max. Inclination:	0°

3.1.1 Summary of drilling events

Prior to spud the well, the 5" DP was picked up and the cement stand made up and racked in the derrick. When all preparations were ready the BHA was put together and the rig was skidded over the spud location. The drill string was run down and the seabed tagged at 421.5 m. Washed down to 426.5 m where drilling commenced and the 36" hole was drilled to section TD at 511 m. Some reaming was needed during drilling to maintain the hole angle less than 0.5°. At TD the well was displaced to 9.6 ppg drilling fluid and a wiper trip was performed. Back on bottom again the well was again displaced to the 9.6 ppg drilling fluid again and the drill string was POOH. The 30″ conductor was run without any problems, no cement however was seen in return during the cement job and a top up job was done to ensure that the conductor was satisfactorily cemented.

3.1.2 Drilling fluid performance

Prior to spud a total of 700 bbl pre-hydrated Bentonite (90 kg/m³) for hivis pills was made up. Also 1100 bbl of displacement fluid at 9.6 ppg was prepared. Pumped 50 bbl hivis sweep as required (3-4 each stand). During drilling, another 200 bbl Bentonite hivis was made up. The section was drilled without BOP and riser, hence all the returns from the well was lost on the sea bed. At TD the hole was swept with a 200 bbl hivis pill and displaced to 9.6 ppg displacement fluid. After the wiper trip the well was again displaced to 9.6 ppg fluid prior to POOH to sun conductor.

Prior to spud, 820 bbl of 13.6 ppg Glydril drilling fluid was received from shore and stored on the rig. This fluid acted as kill fluid in case of shallow gas.

3.1.3 Solid control equipment

No solids control in use for this section.

3.1.4 Recommendations / Experiences

Drilled the section riser less with return to seabed i.e. all water based drilling fluid lost at seabed.
No problems to mix 90 kg/m³ pre-hydrated Bentonite and 50 kg/m³ displacement fluid of Bentonite. Only drill water was used i.e. no seawater was used to cut back the viscosity. The Bentonite yielded as expected and there was no need of CMC to ensure sufficient rheology.

3.2 Details of 17 ½" hole

17 ½" hole drilled from:	511 m
17 ½" hole drilled to:	1377 m
Hole length:	866 m
13 3/8" casing set at:	1371,5 m
Drilling fluid:	Seawater / hivis sweeps
Max. Inclination:	0.6°

3.2.1 Summary of drilling events

Run in with 17 ½" BHA and tagged the top of cement at 503.5 m. Commence drilling and drilled into new formation from 511 m. Hivis sweeps was pumped 2 x 50 bbl every stand to section TD at 1377 m. Closing in to TD the Glydril kill fluid was diluted back to 10 ppg. At TD, a 200 bbl hivis pill was pumped and the well displaced to the 10 ppg Glydril.
Several tight spots observed while pulling out of the hole, which is believed to be caused by a big boulder found on one of the stabilisators (Size: 14" x 7" x 7")
The 13 3/8" casing was run and cemented without experiencing problems.

3.2.2 Drilling fluid performance

Left over pre-hydrated Bentonite hivis fluid was carried over from the 36" section.
Pre-hydrated 70-90 kg/m³ Bentonite as required to keep up volume of hivis fluid as drilling proceeded throughout the interval.

Glydril kill fluid (820 bbl) at 13.6 ppg was transferred over from 36" section and stored in one pit as a precaution to shallow gas.
Rest of Glydril mud (60 bbl) was taken onboard to be used as displacement fluid. The displacement fluid was made up at 10 ppg by addition of drill water and 5 kg/m³ Duotec NS after reaching TD.
The remaining of the kill fluid was diluted back and used as casing fill while running in.

Remainder of WBM was discarded to sea at the end of the section.

3.2.3 Solid control equipment

No solids control in use for this section.

3.2.4 Recommendations

No recommendations were made for this section as it appeared to be completed in a safe and efficient manner with the plans and fluids in place.

3.3 Details of 8 ½" section

8 ½" hole drilled from:	1377 m
8 ½" hole drilled to:	3745 m
Hole length:	2368 m
Hole plugged back to:	1278 m
Drilling fluid:	Versavert
Max. Inclination:	0.6°

3.3.1 Summary of drilling events

12 ¼" assembly used to tag cement at 1329 m. The well was then displaced to 12.9 ppg Versavert LTOBM with no spacer and the cement, shoe and 3 m new formation were drilled to 1380 m. A 50 bbl LCM pill (G-Seal, $CaCO_3$ M and $CaCO_3$ F) was spotted on bottom and a LOT was performed to 15.0 ppg EMW.
The 8 ½" BHA with MWD was RIH and tested at 800 m. Drilling of the section started with approx 1 metre fill to be washed out and then drilling carried on with no problems. While drilling to 1410 m an increase in cutting size and volume was observed. Some of these pieces were tested as cement and when the riser pump was started the cuttings increased and then reduced to normal volume for the drilling rate. Around 1920 m the Tare formation could have released some water as the O/W ratio decreased for the period of drilling this formation. No problems were caused by this ingress.

At 3000 m the addition of G-Seal and Calcium Carbonate C and M was started to build up the concentration of LCM before entering the reservoir sand to around 7 kg/m³ of each.
Drilled into sand at 3450 m. (ROP increased 10 → 30m/hr) and circulated BU after 3 metres. Drilled a further 8 metres to place MWD into the suspected sand formation and circulated BU again.

Drilling continued to TD at 3745 m with average ROP 10-15 m/hr. Circulated clean and pumped 50 bbl 15.0 ppg hi-weight pill round to sweep hole. Some extra fines discarded at BU of the pill. POOH from 3745 to 3529 m. Due to tight hole reamed from 3529 to 3510m. Ran back to 3548 m and back reamed to 3432 m. Pulled wet from 3432 m to 3337 m and then pumped a slug, POOH and laid down BHA including MWD tools.

Schlumberger wire line logs were run but could not pass 2135 m. After several attempt to pass the obstruction without success the logs were pulled out of hole for a wiper trip.

Built up and run in with cleanout assembly. Broke circulation while ran in hole. Ran in to 2643 m and started circulation. Lost fluid to formation and used booster pump while circulating. Losses induced most likely due to hole packing off. Pumped until drilling fluid in riser was clean, losses were still observed. No losses at static well. Started to back-ream and pulled out to 1370 m. Circulated and conditioned mud. Ran in to 1600 m MD, used booster pump and monitored losses. Continued to run in to 1790 m and spotted 100 bbls of LCM pill at 1761 m. Monitored well. Ran in hole to 2190 m and spotted LCM pill #2. Pumped and back-reamed out of hole to 1355 m and circulated well clean while boosting the riser. Washed down to 1500 m again and monitored losses to approximately 60% return from well. Pumped 40 bbl of LCM pill at 1500 m MD. Worked string to 1530 m and monitored losses at 70 bbl/hr. Commenced back ream from 1530 m to 1571 m, performed a flow check, pumped slug and pulled out of hole. At this point it was believed that the well was partially or totally collapsed and it was decided to go to P&A without logging the hole.

Ran in hole with a 3 ½" x 5" cement stinger with the objective to P&A from as deep as possible in the well. Managed to reach 2700 m without heavy losses or obstructions and continued to run into 3600 m. Circulated and conditioned hole prior to pullout. Since no restriction was seen running in with the cement stinger it was decided to cancel the P&A and have another try logging the well. After short logging run, cement stinger was again run in hole and the P&A operation started.

3.3.2 Drilling fluid performance

No shear device was available on this rig for the whole of the oil base section.
Premix was prepared with low water content (approx 85/15) and transferred slowly into the system all the time the fluid was circulated, apart from just before entering the potential reservoir.
The chlorides were slightly below the specification at the beginning of the section, but soon moved into range. The 10 min gels were above the spec of 25 in the initial mud and only by dilution and screening were the number reduced to 25 from 30. This was as low as the 10 min gel was reduced and it still fell outside the 25 max in programme on occasions.
The HTHP reduced slowly towards the upper limit of 2.0 ml despite the addition of Versavert F and G-Seal. This was probably due to the lack of shear and heat in the system.
Mud performance was observed to be good during the drilling of the section. No increase in mud weight from the initial 12.9 ppg was required. LGS in the mud rose at the end of the section, but a large part of the increase was due to the addition and retention of the G-Seal and Calcium Carbonate additives used before and during the reservoir section.

3.3.3 Solid control equipment

The shakers were dressed with 20/84 mesh for all 4 shakers during the displacement from seawater to Versavert OBM. Shakers 2 and 3 was then changed to 145 mesh, gradually building up to a final screens of 200, 210 and 175 mesh on shakers 1, 2 and 3. Shaker 4 had mechanical problems and were relegated to standby for this section.

3.3.4 Recommendations

The Versavert system performed very well throughout the section and there was no problem to keep the drilling fluid within the specifications apart from initial mud from town having slightly high water content and 10 min gels. The HTHP fluid loss was controlled just at the top of the specification, despite adequate Versavert F and G-Seal. It is considered that high pressure shearing of the mud would have improved the chemical performance of these agents.

3.4 Details of P&A operation

3.4.1 Summary of events

The 3 ½" x 5" cement stinger was run in hole. An obstruction was hit at 3432 m and the string was worked down to 3435 m. Pulled out again to 3420 m, pumped 10 m^3 of viscous OBM. Pulled out another two stands and set cement plug #1 (56 bbl spacer and 75 bbl cement). Displaced and stripped out to 3020 m. Pumped down wiper dart and lubricated out of hole to 2360 m.
Spotted 40 bbl of viscous OBM and pulled out to 2260 m. Pumped spacer and cement plug #2 and displaced same. Stripped out to 2000 m and circulated BU. Took out 177 bbl of cement and spacer contaminated fluid to slop, including 120 bbl mud.

Pumped cement plug #3 and stripped out to 1600 m. Circulated BU with no return of spacer/cement seen.
Spotted 30 bbl of viscous OBM and pulled out to 1480 m were cement plug# 4 was pumped. Pulled out to 1200 m and circulated BU. Took out 161 bbl of cement and spacer contaminated fluid to slop, including 115 bbl mud.

Ran in hole with 5" mule shoe and tagged cement at 1278 m. Circulated hole clean, observed cement in return. Displace well to sea water using 88 bbl base oil, 50 bbl of viscous Safe Surf OE (80 ltr/m^3), 57 bbl of Safe Solv 148 (80 kg/m^3) and 85 bbl of viscous Safe Surf OE pill followed by seawater. A total of 625 bbl of slop was directed into a separate pit during the displacement operation.

Ran in hole with bridge plug assembly and set bridge plug at 647 m. Attempted to circulate, but no go. POOH and RIH with mule shoe. Set cement plug above bridge plug, returns were dumped to sea while circulating hole clean.
RIH with riser brush and worked every stand twice. Jetted BOP area and circulated hole clean, dumping return to sea. Commence abandon procedure.

3.4.2 Drilling fluid performance

A lot of water was incorporated into the oil based fluid during setting and circulation of the cement plugs. This resulted in that oil/water ratio decreased from 75/35 to 67/22. ES decreased from 1000 to 500. Versavert PE, SE and Lime were added to active to prevent from further decrease. A total of 2157 bbl of Versavert OBM was back loaded it two batches.

A total of 346 bbl of OBM was lost to the formation while setting the three first cement plugs, no down hole losses when setting the 4.plug. A total of 194 bbl was left in hole.

Back loaded base oil, Bentonite, barite and all mud chemicals prior leaving the location.

4 Volume and Consumption Summaries

4.1 36″ Section

36" SECTION DAILY USAGE AND LOSSES — ChevronTexaco

RIG:	Stena Dee
WELL:	6507/1-1 Sahara
DRILLING FLUID	Seawater/sweeps
SECTION START:	23.09.2004
SECTION END:	27.09.2004

START VOLUME:	m³	ACT. DAYS - SECTION:	4.0 days
START DEPTH:	422 m	EST. DAYS - SECTION:	4.0 days
SECTION LENGTH:	89 m	MUD USAGE/M:	3.25 m³/m
TOTAL SECTION COST:	NOK	METERS/DAY:	22.3 m/day
MUD USAGE/M³ DRILLED:	4.94 m³/m³	COST/METER:	NOK/m

SECTION: 36 "

DATE	2004	23.sep	24.sep	25.sep	26.sep	27.sep					TOTAL
FSR	No:	1	2	3	4	5					
DEPTH	m	422	422	475	511	511					
VOLUME BUILT	m³	286	1	32	64	3					386
VOLUME RECEIVED FROM SHORE	m³	130				10					140
VOLUME RECEIVED FROM SECTION	m³										
VOLUME LOST ON BOAT	m³										
CENTRIFUGE	m³										
LOST ON SHAKERS TO SEA	m³										
LOST ON SHAKERS TO INJECTION	m³										
LOST TO FORMATION	m³										
LOST TO SLOP / INJECTION	m³										
LEFT BEHIND CASING / IN HOLE	m³										
VOLUME LOST TO SEA	m³			56	233						289
LOST TO DESTRUCTION	m³										
BACK LOADED TO SHORE	m³										
TRANSFERRED TO NEXT SECTION	m³					237					237
FINAL VOLUME	m³	416	417	393	224						
DAILY SECTION LENGTH	m			53	36						89
HOLE VOL. MADE	m³			34.8	23.6						58.4
DAILY DILUTION FAC.	m³/m³	N/A	N/A	1.6	9.9	N/A	N/A	N/A	N/A	N/A	4.9
Transfer Tickets, volume in/out		TT 813062				TT813062					

CHEMICALS:	Unit	Price/unit											Total consumption
Barite	mt		27									27	27
Bentonite, OCMA	mt		18	1	2	5						26	26
Citric Acid	kg												
CMC EHV	kg												
Duotec NS	kg												
Glydril	m³		130				10					140	140
Glydril MC	ltr												
KCL Powder	kg												
Lime	kg												
Mica Fine	kg												
Polypac ELV	kg												
Soda Ash	kg		175		25	50						250	250

Daily fluid cost:

DATE/SIGN M-I NORGE AS | DATE/SIGN CHEVRONTEXACO

4.2 17 ½″ Section

17.5" SECTION DAILY USAGE AND LOSSES — ChevronTexaco

RIG:	Stena Dee
WELL:	6507/1-1 Sahara
DRILLING FLUID	Seawater/sweeps
SECTION START:	28.09.2004
SECTION END:	03.10.2004

START VOLUME:	m³	ACT. DAYS - SECTION:	5.0 days
START DEPTH:	511 m	EST. DAYS - SECTION:	days
SECTION LENGTH:	866.0 m	MUD USAGE/M:	1.15 m³/m
TOTAL SECTION COST:	NOK	METERS/DAY:	173.2 m/day
MUD USAGE/M³ DRILLEI	7.42 m³/m³	COST/METER:	NOK/m

SECTION: 17 1/2 "

DATE	2004	28.sep	29.sep	30.sep	01.okt	02.okt	03.okt					TOTAL
FSR	No:	6	7	8	9	10	11					
DEPTH	m	754	1311	1377	1377	1337	1337					
VOLUME BUILT	m³	204	291	264	1							760
VOLUME RECEIVED FROM SHORE	m³											
VOLUME RECEIVED FROM SECTION	m³	237										237
VOLUME LOST ON BOAT	m³											
CENTRIFUGE / DESANDER	m³											
LOST ON SHAKERS TO SEA	m³											
LOST ON SHAKERS TO INJECTION	m³											
LOST TO FORMATION	m³											
LOST TO SLOP / INJECTION	m³											
LEFT BEHIND CASING / IN HOLE	m³											
VOLUME LOST TO SEA	m³	112	298	344	95		148					997
LOST TO DESTRUCTION	m³											
BACK LOADED TO SHORE	m³											
TRANSFERRED TO NEXT SECTION	m³											
FINAL VOLUME	m³	329	322	242	148	148						
DAILY SECTION LENGTH	m	243	557	66								866
HOLE VOL. MADE	m³	37.7	86.4	10.2								134.4
DAILY DILUTION FAC.	m³/m³	3.0	3.4	33.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.4

CHEMICALS:	Unit	Price/unit											Total consumption
Barite	mt					5						5	5
Bentonite, OCMA	mt		14	19	2							35	35
Citric Acid	kg												
CMC EHV	kg				875							875	875
Duotec NS	kg		175	250	850	50						1325	1325
Glydril	m³												
Glydril MC	ltr												
KCL Powder	kg												
Lime	kg												
Mica Fine	kg												
Polypac ELV	kg												
Soda Ash	kg			400	250							650	650

Daily fluid cost:

DATE/SIGN M-I NORGE AS | DATE/SIGN CHEVRONTEXACO

4.3 8 ½" section

Mi SWACO

8,5" SECTION DAILY USAGE AND LOSSES

ChevronTexaco

RIG: Stena Dee
WELL: 6507/1-1 Sahara
DRILLING FLUID Versavert
SECTION START: 04.10.2004
SECTION END: 28.10.2004

START VOLUME:	m³	ACT. DAYS - SECTION:	24.0 days
START DEPTH:	1377 m	EST. DAYS - SECTION:	15.0 days
SECTION LENGTH:	2368 m	MUD USAGE/M:	0.16 m³/m
TOTAL SECTION COST:	NOK	METERS/DAY	98.7 m/day
MUD USAGE/m³ DRILLED	4.29 m³/m³	COST/METER:	NOK/m

SECTION: 8 1/2 "

DATE	2004	04.okt	05.okt	06.okt	07.okt	08.okt	09.okt	10.okt	11.okt	12.okt	13.okt	14.okt	15.okt	16.okt	17.okt	18.okt	19.okt	20.okt	21.okt	22.okt	23.okt	24.okt	25.okt	26.okt	TOTAL
FSR	No:	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	
DEPTH	m	1377	1377	1380	1637	2224	2849	3167	3426	3564	3745	3745	3745	3745	3745	3745	3745	3745	3745	3745	3745	3745	3745	3745	
VOLUME BUILT	m³				39	1	1	40	2	2	1	2		90	20	3		1	2			1	14		219
VOLUME RECEIVED FROM SHORE	m³	400														109									509
VOLUME RECEIVED FROM SECTION	m³																								
VOLUME LOST ON BOAT	m³	9	4																						13
CENTRIFUGE / DESANDER	m³																								
LOST ON SHAKERS TO SEA	m³																								
LOST ON SHAKERS/MUDSKIPS	m³			4	11	13	8	8	12	6	11	12										1	2		88
LOST TO FORMATION	m³													61	32	21	5		1	2	16	39			177
LOST TO SLOP	m³		9	2							4											37	12	13	77
LEFT BEHIND CASING / IN HOLE	m³																				22	8			30
VOLUME LOST TO SEA	m³																								
LOST TO DESTRUCTION	m³																								
BACK LOADED TO SHORE	m³																						136	207	343
TRANSFERRED TO NEXT SECTION	m³																								
FINAL VOLUME	m³	391	378	372	400	388	381	413	403	399	385	375	375	404	392	483	478	479	480	478	440	356	220		
DAILY SECTION LENGTH	m			3	257	587	625	318	259	138	181														2368
HOLE VOL. MADE	m³			0.1	9.4	21.5	22.9	11.6	9.5	5.1	6.6														86.7
DAILY DILUTION FAC.	m³/m³	N/A	N/A	54.6	1.2	0.6	0.3	0.7	1.3	1.2	2.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.3

CHEMICALS:	Unit																								Total
Barite	mt		1								3			99	47			6				2			158
Bentone 128	kg													1500	500										2000
Bentone 38	kg																								
Bentonite, OCMA	mt																								
CaCl2	kg				1500			1000				550		1500	2000				2100						8650
CaCO3 , COARSE	kg								1975	1975		1675		200	1200	1925									8950
CaCO3 , FINE	kg	250			300			275				350		75	1325	1925						150			4650
CaCO3 , MEDIUM	kg	550			300			550	1400	1975		925		100	2200	1925			550						10475
Citric Acid	kg																								
CMC EHV	kg																								
Duotec NS	kg																						225		225
EDC 95/11	m³				31			32						63									14	2	142
G-seal	kg	325			300			550	1400	1975		1000		225	2250	1000			100						9125
Lime	kg				900	1600	800	1600						840	840							680			7260
Mica Fine	kg																								
Mica Medium	kg																								
MIX II	kg																								
Nutplug Medium	kg																								
Safe Solv 148	ltr																						1000	1000	2000
Safe Surf E	ltr																						2000		2000
Soda Ash	kg																								
Versavert DF	m³	400														109									509
Versavert F	ltr				400	400	400	400											800						2400
Versavert PE	ltr				800			800						800	800							80			3280
Versavert SE	ltr				400			400						400	400							600			2200

Daily fluid cost:

DATE/SIGN M-I NORGE AS **DATE/SIGN CHEVRONTEXACO**

4.4 Total usage for drilling fluids and shaker screens

Total cost includes wash chemicals used during displacement of well and riser and the cost of 80 m³ of Versavert OBM lost to the formation.

MATERIAL CONSUMPTION AND COST SUMMARY

AREA: Sahara
WELL: 6507/1-1
RIG: Stena Dee
OPERATOR: ChevronTexaco

CHEMICAL USAGE			1		2		3				ACTUAL USAGE & COST	
Product	Unit size	Unit price NOK	36 " sect.	Cost NOK	17 1/2 " sect.	Cost NOK	8 1/2 " sect.	Cost NOK	sect.	Cost NOK	Total consumed	Total cost NOK
Barite	mt		27		5		168				190	
Bentone 128	kg						2 000				2 000	
Bentonite, OCMA	mt		26		35						61	
CaCl2	kg						8 650				8 650	
CaCO3 , COARSE	kg						8 950				8 950	
CaCO3 , FINE	kg						4 650				4 650	
CaCO3 , MEDIUM	kg						10 475				10 475	
Citric Acid	kg											
CMC EHV	kg				875						875	
Duotec NS	kg				1 325		225				1 550	
EDC 95/11	m³						142				142	
Glydril MC	ltr											
G-seal	kg						9 125				9 125	
KCL Powder	kg											
Lime	kg						7 260				7 260	
Mica Fine	kg											
Mica Medium	kg											
MIX II	kg											
Nutplug Medium	kg											
Polypac ELV	kg											
Safe Solv 148	ltr						2 000				2 000	
Safe Surf E	ltr						2 000				2 000	
Soda Ash	kg		250		650						900	
Versavert F	ltr						2 400				2 400	
Versavert PE	ltr						3 280				3 280	
Versavert SE	ltr						2 200				2 200	
Glydril	m³		140								140	
Versavert DF	m³						509				509	
Total cost	NOK											2 586 353.50
Hole drilled	m			69		066		2 368				3 323
Cost per metre	NOK											778.32
Total days				4		5		24				33
Cost per day	NOK											78 374.35
Volume Used	m³			289		997		385				1 671
Cost per m³ used	NOK											1 547.79

5 Drilling Fluids Volume Distribution Summary

DRILLING FLUIDS VOLUME DISTRIBUTION

WELL: *6507/1-1 Sahara* RIG: *Stena Dee*

Hole size inch	Hole From m	Hole To m	Hole Length m	Volume received m³	Volume built m³	Volume dumped to sea m³	Volume on cuttings to sea m³	Volume on cuttings in mudskips m³	Volume slop to envirocentre m³	Volume lost to formation m³	Volume left behind csg and left in hole m³	Volume backload to base/ to rigs m³	Volume transferred to next section m³	Volume cuttings drilled m³	Drilling Fluid type used for interval
36"	422	511	89	140	386	289							237	58.4	Seawater/sweeps
17 1/2"	511	1377	866	237	760	997								134.4	Seawater/sweeps
8 1/2"	1377	3745	2368	509	219			88	90	177	30	343		86.7	Versavert

Volume dumped to sea:	1286	m³	Volume received:	886	m³
Volume lost on cuttings to sea:		m³	Volume built:	1365	m³
Volume lost on cuttings to injection:	88	m³			
Volume lost to slop/injection:	90	m³	Total volume lost/used:	1671	m³
Volume lost to formation:	177	m³	Total volume discharged to sea:	1286	m³
Volume left in hole:	30	m³	Total volume left/lost downhole:	207	m³
Volume backloaded:	343	m³	Total volume of cuttings drilled:	279.5	m³
			Volume Control:	**OK**	**m³**

Gamle Forusvei 43, Stavanger, NORWAY
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6 Discharge Reports

6.1 36″ Section

MI SWACO — ChevronTexaco

36" SECTION ENVIRONMENTAL REPORT

Rig	Stena Dee	Drilling fluid system	Seawater/sweeps
Well name	6507/1-1 Sahara	Drilled from	422 m MD
Section	36 "	Drilled to	511 m MD
Start date	23.sep.2004	Length	89 m MD
End date	27.sep.2004	Cuttings volume	58.4 m³

MIXED / IMPORTED / EXPORTED		VOLUME USED		CONTROL	
From Previous section		Left behind casing		Volume imported	140 m³
From Shore	140 m³	Lost to formation		Volume built / mixed	386 m³
Built / mixed	386 m³	Volume/Cuttings to sea	289 m³	Volume used	289 m³
To next section	237 m³	Volume/Cuttings injected		Volume exported	237 m³
To shore		Destruction		Volume balance	OK

Product name	SFT Category	Conc unit/m³	Components of imported fluid: Previous section kg	From shore kg	Total kg	Chemicals mixed kg	Total received/ mixed kg	Components of exported fluid: Next section kg	To shore kg	Total exported kg	Total usage kg	Left behind casing/ in hole kg	Lost to formation kg	Discharge to sea kg	Injected kg	USAGE LIMIT: Usage limit section kg	Percent used of usage limit
Baritte	Green	0.066		121 240	121 240	27 000	148 240	121 240		121 240	27 000			27 000			
Bentonite, OCMA	Green					26 000	26 000	11 715		11 715	14 285			14 285			
Citric Acid	Green																
CMC EHV	Green																
Duotec NS	Green	5.000		700	700		700	700		700							
Glydril MC	Yellow	35.000		4 949	4 949		4 949	4 949		4 949							
KCL Powder	Green	200.000		28 000	28 000		28 000	28 000		28 000							
Lime	Green																
Mica Fine	Green																
Polypac ELV	Green	15.000		2 100	2 100		2 100	2 100		2 100							
Soda Ash	Green	1.000		140	140	250	390	176		176	214			214			

COMMENTS:
140 m³ of Glydril mud kept on rig as kill fluid during drilling, transfered to the 17 1/2" section.

Date _____ Signature _____ M-I DRILLING FLUIDS ENGINEER

Date _____ Signature _____ CHEVRONTEXACO SUPERVISOR

6.2 17 ½″ Section

MI SWACO — ChevronTexaco

17.5" SECTION ENVIRONMENTAL REPORT

Rig	Stena Dee	Mud system	Seawater/sweeps
Well name	6507/1-1 Sahara	Drilled from	511 m MD
Section	17 1/2 "	Drilled to	1 377 m MD
Start date	28.sep.2004	Length	866 m
End date	03.okt.2004	Cuttings volume	134.4 m³

MIXED / IMPORTED / EXPORTED		VOLUME USED		CONTROL	
From Previous section	237 m³	Left behind casing		Volume imported	237 m³
From Shore		Lost to formation		Volume built / mixed	760 m³
Built / mixed	760 m³	Volume/Cuttings to sea	997 m³	Volume used	997 m³
To next section		Volume/Cuttings injected		Volume exported	
To shore		Destruction		Volume balance	OK

Product name	SFT Category	Conc unit/m³	Components of imported fluid: Previous section kg	From shore kg	Total kg	Chemicals mixed kg	Total received/ mixed kg	Components of exported fluid: Next section kg	To shore kg	Total exported kg	Total usage kg	Left behind casing/ in hole kg	Lost to formation kg	Discharge to sea kg	Injected kg	USAGE LIMIT: Usage limit section kg	Percent used of usage limit
Baritte	Green		121 240		121 240	5 000	126 240				126 240			126 240			
Bentonite, OCMA	Green		11 715		11 715	35 000	46 715				46 715			46 715			
Citric Acid	Green																
CMC EHV	Green					875	875				875			875			
Duotec NS	Green		700		700	1 322	2 022				2 022			2 022			
Glydril MC	Yellow		4 949		4 949		4 949				4 949			4 949			
KCL Powder	Green		28 000		28 000		28 000				28 000			28 000			
Lime	Green																
Mica Fine	Green																
Polypac ELV	Green		2 100		2 100		2 100				2 100			2 100			
Soda Ash	Green		176		176	650	826				826			826			

COMMENTS:

Date _____ Signature _____ M-I DRILLING FLUIDS ENGINEER

Date _____ Signature _____ CHEVRONTEXACO SUPERVISOR

6.3 8 ½" section

8.5" SECTION ENVIRONMENTAL REPORT

Rig	Stena Dee	Mud system	Versavert
Well name	6507/1-1 Sahara	Drilled from	1 377 m MD
Section	8 1/2 "	Drilled to	3 745 m MD
Start date	04.okt.2004	Length	2 368 m MD
End date	28.okt.2004	Cuttings volume	86.7 m³

From Previous section		Left behind casing	30 m³	Volume imported	500 m³
From Shore	309 m³	Lost to formation	177 m³	Volume built / mixed	219 m³
Built / mixed	219 m³	Volume/Cuttings to sea		Volume used	385 m³
To next section		Slop/Cuttings to shore	178 m³	Volume exported	345 m³
To shore	345 m³	Destruction		Volume balance	OK

Product name	Unit	SFT Category	Conc. unit/m³	Components of imported fluid: Previous section kg	From shore kg	Total kg	Chemicals mixed kg	Total received/ mixed kg	Components of exported fluid: Next section kg	To shore kg	Total exported kg	Total usage kg	Left behind casing/ in hole kg	Lost to formation kg	Discharge to sea kg	Lost on cuttings / Slop kg	USAGE LIMIT: Usage limit section kg	Percent used of usage limit
Barite	mt	Green	0.951		484 059	484 059	158 000	642 059		302 509	302 509	339 550	26 458	156 105		156 987		
Bentone 128	kg	Red	14.000		7 126	7 126	2 000	9 126		4 300	4 300	4 826	376	2 219		2 231		
Bentone 38	kg	Red																
Bentonite, OCMA	mt	Green																
CaCl2	kg	Green	40.000		20 360	20 360	8 650	29 010		13 668	13 668	15 342	1 195	7 053		7 093		
CaCO3, COARSE	kg	Green					8 950	8 950		4 217	4 217	4 733	369	2 176		2 188		
CaCO3, FINE	kg	Green					4 650	4 650		2 191	2 191	2 459	192	1 131		1 137		
CaCO3, MEDIUM	kg	Green					10 475	10 475		4 935	4 935	5 540	432	2 547		2 561		
Citric Acid	kg	Green																
CMC EHV	kg	Green																
Duotec NS	kg	Green					225	225		106	106	119	9	55		55		
EDC 95/11	m³	Yellow	0.523		216 692	216 692	115 588	332 280		156 555	156 555	175 725	13 693	80 788		81 244		
G-seal	kg	Green					9 125	9 125		4 299	4 299	4 826	376	2 219		2 231		
Lime	kg	Green	20.000		10 180	10 180	7 260	17 440		8 217	8 217	9 223	719	4 240		4 264		
Mica Fine	kg	Green																
Mica Medium	kg	Green																
MIX II	kg	Green																
Nutplug Medium	kg	Green																
Safe Solv 148	ltr	Yellow					1 600	1 600				1 600				1 600		
Safe Surf E	ltr	Yellow					2 000	2 000				2 000				2 000		
Soda Ash	kg	Green																
Versavert F	ltr	Red	8.000		4 113	4 113	2 424	6 537		3 080	3 080	3 457	269	1 589		1 598		
Versavert PE	ltr	Red	20.000		9 671	9 671	3 116	12 787		6 025	6 025	6 762	527	3 109		3 126		
Versavert SE	ltr	Red	10.000		4 836	4 836	2 090	6 926		3 263	3 263	3 663	285	1 684		1 693		

COMMENTS:

Date Signature M-I DRILLING FLUIDS ENGINEER

Date Signature CHEVRONTEXACO SUPERVISOR

6.4 Total well discharge report

END OF WELL ENVIRONMENTAL REPORT

Rig	Stena Dee	Type of well	Exploration
Well name	6507/1-1 Sahara	Drilled from	422 m
Sections	36", 17 1/2", 8 1/2"	Drilled to	3745 m
Start date	23.sep.2004	Length	3323 m
End date	28.okt.2004	Cuttings volume	279.5 m³

Section	Mud system	From	To	Length	Cuttings volume
36"	Seawater/sweeps	422 m	511 m	89 m	58.4 m³
17 1/2"	Seawater/sweeps	511 m	1 377 m	866 m	134.4 m³
8 1/2"	Versavert	1 377 m	3 745 m	2 368 m	86.7 m³

Product name	SFT Category	Components of imported fluid: Previous section kg	From shore kg	Total kg	Chemicals mixed kg	Total received/ mixed kg	Components of exported fluid: Next section kg	To shore kg	Total exported kg	Total usage kg	Left behind casing/ in hole kg	Lost to formation kg	Discharge to sea kg	Injected kg	USAGE LIMIT: Usage limit well kg	Percent used of usage limit	DISCHARGE LIMIT: Discharge limit well kg	Percent used of discharge limit
Barite	Green	121 240	605 299	726 539	190 000	916 539	121 240	302 509	423 749	492 790	26 458	156 105	133 240	156 987				
Bentone 128	Red		7 126	7 126	2 000	9 126		4 300	4 300	4 826	376	2 219		2 231				
Bentonite, OCMA	Green	11 715		11 715	61 000	72 715	11 715		11 715	61 000			61 000					
CaCl2	Green		20 360	20 360	8 650	29 010		13 668	13 668	15 342	1 195	7 053		7 093				
CaCO3, COARSE	Green				8 950	8 950		4 217	4 217	4 733	369	2 176		2 188				
CaCO3, FINE	Green				4 650	4 650		2 191	2 191	2 459	192	1 131		1 137				
CaCO3, MEDIUM	Green				10 475	10 475		4 935	4 935	5 540	432	2 547		2 561				
Citric Acid	Green																	
CMC EHV	Green				875	875				875			875					
Duotec NS	Green	700	700	1 400	1 550	2 950	700	106	806	2 144	9	55	2 025	55				
EDC 95/11	Yellow		216 692	216 692	115 588	332 280		156 555	156 555	175 725	13 693	80 788		81 244				
Glydril MC	Yellow	4 949	4 949	9 898		9 898	4 949		4 949	4 949			4 949					
G-seal	Green				9 125	9 125		4 299	4 299	4 826	376	2 219		2 231				
KCL Powder	Green	28 000	28 000	56 000		56 000	28 000		28 000	28 000			28 000					
Lime	Green		10 180	10 180	7 260	17 440		8 217	8 217	9 223	719	4 240		4 264				
Mica Fine	Green																	
Mica Medium	Green																	
MIX II	Green																	
Nutplug Medium	Green																	
Polypac ELV	Green	2 100	2 100	4 200		4 200	2 100		2 100	2 100			2 100					
Safe Solv 148	Yellow				1 600	1 600				1 600				1 600				
Safe Surf E	Yellow				2 000	2 000				2 000				2 000				
Soda Ash	Green	176	140	316	900	1 216	176		176	1 040			1 040					
Versavert F	Red		4 113	4 113	2 424	6 537		3 080	3 080	3 457	269	1 589		1 598				
Versavert PE	Red		9 671	9 671	3 116	12 787		6 025	6 025	6 762	527	3 109		3 126				
Versavert SE	Red		4 836	4 836	2 090	6 926		3 263	3 263	3 663	285	1 684		1 693				

COMMENTS:

Date Signature M-I DRILLING FLUIDS ENGINEER

Date Signature CHEVRONTEXACO SUPERVISOR

6.5 Usage and discharge compared to the discharge permit

ChevronTexaco

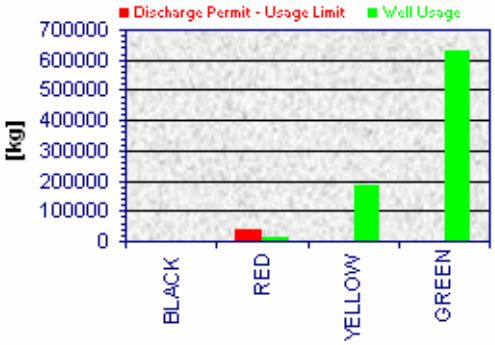
DISCHARGE PERMIT COMPARISON

Operator	ChevronTexaco	Rig	Stena Dee	Start date	23-sep-04
Well	6507/1-1 Sahara	Contractor	Stena Drilling	End date	28-okt-04

This report describes the total usage and discharge of the different color components of each chemicals added together.

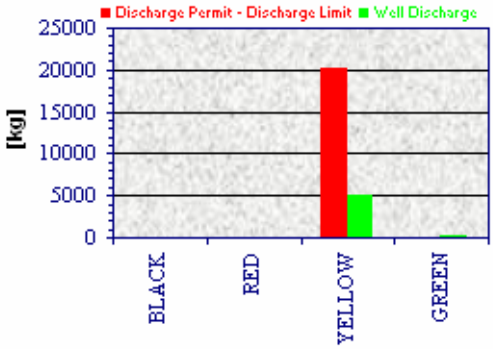
TOTAL USAGE [kg]

	Discharge Permit - Usage Limit	Well Usage	% of Limit
BLACK	0	0	
RED	37000	14311	38.68 %
YELLOW		185514	
GREEN	N/A	631631	



TOTAL DISCHARGE [kg]

	Discharge Permit - Discharge Limit	Well Discharge	% of Limit
BLACK	0	0	
RED	0	0	
YELLOW	20200	4949	24.50 %
GREEN	N/A	248 x 10^3	



COMMENTS

7 Total Fluid Management

7.1 Handling of cuttings

All cuttings are collected in closed cuttings skips from Swaco. The cuttings, at the drilling of the 8 ½" section, were transported from the shakers in screw conveyors into Clean cut cuttings blower (CCB) and then transported to skips. During drilling operations, one of the compressors shut down. The back-up compressor was started and was running constantly till the new compressor got sent out. This did not slow down the drilling operation.
Two days from TD, one of the switches on the Clyde Blower broke off while adjusting the timer. This malfunction caused the CCB to be shut down for 1 hour to resolve the problem. While fixing the CCB, the Vacuum Unit took care of the cuttings handling. This affected the drilling operations in the degree that they had to stop boosting the riser for 1 hour.
The full cuttings skips were shipped from the rig to the base in Kristiansund, from where the skips was transported to Soilcare at Mongstad base. A total of 89 skips have been filled with a total cuttings weight of 416.9 MT. At Soilcare the cuttings are processed and separated into water, oil and solids. The water is cleaned and pumped to the sea; the oil is reused when mixing oil based drilling fluid and the solids are partly reused in asphalt production.

7.2 Handling of slop from the rig

All slop from the rig was sent by boat to the Swaco Envirocentre. A total of 238 m^3 (271.5 MT) of slop was received from the rig. The slop is processed through the Envirocentre and a high percentage of the slop from the drilling operation is treated back to oil based drilling fluid.

7.3 Effect of Total Fluid Management

If we take into account the reuse from treatment of cuttings and slop, the actual discharge and usage on the Sahara well is greatly reduced. A very high percentage of the slop and the fluid attached to the cuttings are reused as drilling fluid. This means that the usage and discharge for the well is mainly the usage and discharge that was in the top hole section, which was drilled with water based drilling fluid.

8 Drilling Fluid Programme

36 — Section: 36" Seawater/Bentonite - Spud — SPEC #

Depth meters	Inclination deg.
419	
499	

Length: 80

COMMENTS:
Mix Bentonite hivis according to programmed concentrations and procedures.
140 m³ of 1.60 sg glydril mud will be shipped from shore and used as kill mud. Pump 5-10 m3 high viscosity pills twice on every stand or as hole condition dictate.
The well will be displaced to 1.5 time hole volume with 1.2 s.g. Bentonite mud prior to POOH for conductor. If a wiper trip is neccessary another 1.5 times hole volume of mud must be available.
* CMC EHV & Lime will be on location as contingency for viscosity adjustments.
As a contingency in case bulk Bentonite can not be used - or the time don't allow to mix Bentonite mud, 14-16 kg/m3 CMC EHV is a sacked viscosifying alternative.

Product usage		Conc. (unit/m3) New	Maint	Tot Unit
TYPE SW/Bentonite	Unit			
Barite	mt	0.224		37
Bentonite	mt	0.075		12
Soda Ash	kg	1.5		248
Freshwater	m3	0.631		104
Seawater	m3	0.284		47
* CMC EHV	kg		14	772
*Lime	kg	1		165
Kill/Displ.mud:				
Barite	mt	0.715		62
Bentonite	mt	0.075		7
Soda Ash	kg	2		174
Freshwater	m3	0.547		48
Seawater	m3	0.252		22

Volumes	m3
SURFACE	0
RISER	0
CASING/LINER	0
OPEN HOLE	55
DILUTION	110
HOLE TOT	55
LOST ON CUTTINGS	0
LOST IN HOLE	0
TOT. VOL	165
RECEIVED	0
MIXED	165
MUD LEFT	0
BACKLOADED	0
Dilution OH (m3/m3)	2.0

17 1/2 — Section: 17 1/2" Seawater/Bentonite - Spud — SPEC #

Depth meters	Inclination deg.
499	
1 375	

Length: 876

COMMENTS:
Mix Bentonite hivis according to programmed concentrations and procedures.
The 1.60sg Glydril kill mud will be diluted back to +\- 1.20sg displacement fluid when drilled section to TD.
As a contingency in case bulk Bentonite can not be used - or the time don't allow to mix Bentonite mud, 14-16 kg/m3 CMC EHV is a sacked viscosifying alternative.
It is recommended that the 17 1/2" hole is displaced to a more inhibitive mud system based on experience from well 6506/3-1.
* CMC EHV will be on location as contingency for viscosity adjustments.

Product usage		Conc. (unit/m3) New	Maint	Tot Unit
TYPE SW/Bentonite	Unit			
Barite	mt	0.224		263
Bentonite	mt	0.076		89
Soda Ash	kg	2		2 350
Freshwater	m3	0.631		700
Seawater	m3	0.284		330
*CMC EHV	kg		14	2 459
*Lime	kg	1		1 519
Kill/displ mud	mt			0
KCl mud, 1.60 sg	m3			146

Volumes	m3
SURFACE	0
RISER	0
CASING / LINER	33
OPEN HOLE	143
DILUTION	999
HOLE TOT	176
LOST ON CUTTINGS	0
LOST IN HOLE	0
TOT. VOL	1175
RECEIVED	0
MIXED	1175
MUD LEFT	8
BACKLOADED	0
Dilution OH (m3/m3)	7.0

8 1/2 — Section: Versavert - Oil Based Mud — SPEC #

Depth meters	Inclination deg.
1 375	
3 800	

Length: 2 425

Total well lenght: 3 381

COMMENTS:
This section will be drilled using the Versavert oil based drilling fluid.
Adjust the initial start volume to programmed properties prior to start drilling. New fresh Versavert mud will be mixed up on the rig as required to maintain properties. Add a 50/50 blend of pre-mix and used mud to maintain volume and properties. The rheology in addition to the HPHT fluid loss will be kept in the mid range of the programmed specs. during drilling. Maintain a good dilution rate while drilling to prevent solids build up in the system. Optimize the solids equipment at all times for the same purpose. Add G-Seal and CaCo3 Medium and Coarse grade to the active mud prior to drill permeable formation, in order to strengten the filtercake and any microfractures to avoid stuck pipe and losses.
If losses occour, pump LCM material according to separate contingency plan.
NOTE : LGS concentration, weight and volume of slugs, rheology at 80°C and delta sag will be reported on the Daily drilling report.
Bentone 38 will be available as contingency if the temperature of the well requires a more stable clay.

Product usage		Conc. (unit/m3) New	Maint	Tot Units
TYPE Versavert	Unit			
BARITE	mt	1.124		282
EDC 95/11	m³	0.523	0.020	136
VERSAVERT PE	ltr	20	4	6 000
VERSAVERT SE	ltr	10	1	2 800
VERSAVERT F	kg	8	4	3 000
Lime	kg	20	5	6 300
FRESH WATER	kg	0.131	1	300
BENTONE 128	kg	14	5	4 800
CaCO2	kg	40		10 000
CaCO3 Med/ Coarse	kg	20	5	8 500
G-Seal	kg	20	5	8 500
* Bentone 38	kg			5 000

Volumes	m3
SURFACE	100
RISER	83
CASING / LINER	74
OPEN HOLE	91
DILUTION	293
HOLE TOT	248
LOST ON CUTTINGS	91
LOST IN HOLE	10
TOT. VOL	651
RECEIVED	400
MIXED	251
MUD LEFT	499
BACKLOADED	498
Dilution OH (m3/m3)	3.2

Prepared date/by:	Approved date/by:	ChevronTexaco approval date/by:
15.09.04 / Stig Seglem	/ Henning Balzer	

Dowell Schlumberger
Cementing Services
End of Well Report

Schlumberger

End of Well Report
Cementing Services

ChevronTexaco
Stena Dee
Sahara 6507/1-1

NOR-CEM-F511

Oilfield Services, Scandinavia

Kokstadveien 34/42
Kokstad 5257, Norway
Tel: 47 5598 6100
Fax: 47 5598 6021

NOR-CEM-F510

Schlumberger

Mr. John Dacus
ChevronTexaco Norge AS
C/o Noresea Dusavik Base,
Bldg No.1, N-4029
Stavanger, Norway

26 October 2004

Dear Mr. John Dacus,

Schlumberger Well Services, are pleased to submit the End of Well Report covering all our cementing activities on well **6507/1-1 Sahara**.

We hope that our performance on location, as well as office support were to your satisfaction, and we are looking forward to your comments on improvements we could make for the future wells.

We would like to thank **ChevronTexaco Norge AS** again for choosing us as your Cementing operator and should you have any questions or queries regarding this report, please do not hesitate to contact us.

Yours Faithfully,

Irina Krylova
Well Services
Cementing

Schlumberger

End of Well Report

Schlumberger Cementing Services

For Sahara 6507/1-1 Well

INDEX

1. Operation Overview
2. Job Summary, Comments and Recommendations
3. Material Consumption

NOR-CEM-F511

1. Operation Overview

Operation Overview

Job Type	Jobs Done	Date	Operating Time (hrs)	Downtime (hrs)
30" Conductor	1	27/9/2004	4	0
30" Top Job	1	27/9/2004		0
13 3/8" Casing	1	2/10/2004	5.5	3
P&A Plug #1	1	24/10/2004	1	0
P&A Plug #2	1	24/10/2004	17	0
P&A Plug #3	1	24/10/2004		0
P&A Plug #4	1	24/10/2004		0
P&A Plug #5	1	26/10/2004	1	0
Setting bridge plug	1	26/10/2004	4	6
TOTAL	**9**		**32.5**	**9**

ChevronTexaco

STENA DEE
SAFETY INCENTIVE AWARD

AWARD MADE TO: Carsten Jensen
FOR: Exceptional Safety Observation Card

I watched the deck crew as they were installing the "riser hooks" onto the gantry crane. When they started working on the forward hook, one of the crew told the crane operator to move the "arm" Aft. When the arm started moving the wire that moves the arm up and down got caught on a beam of the walkway. No one was able to see this so as I saw it I stopped the oporation. The crew re-arranged and continued the job.

SIGNED: C. Jensen

DATE: 29/10/04

AWARD: Wristwatch

2. Job Summary, Comments and Recommendations

Job Summaries/ Comments

30" Conductor (507.5 m MD)

- Job executed as per design, no changes prior commencing operations
- Volume of lead slurry pumped is 36.38 m3, tail - 4 m3 accordingly. Refer to the service report attached.
- Dyed sea water was used as a spacer ahead of lead slurry to monitor the returns with ROV during the job.

30" Conductor Top Job

- Total volume pumped for top-up job is 15.4 m3.

13 3/8" Casing (1375 m MD)

- Volume of lead slurry pumped is 99.8 m3, and tail slurry – 38 m3.
- Dyed sea water was used as a spacer ahead of lead slurry to monitor the returns with ROV during the job.
- Mixing system was plugged during the job with rocks. So, mixing was stopped after lead slurry pumped to clean the mixer and was resumed after approx. ½ hour.
- Lesson learnt through accident with PEAK cement head: the DP to be used should be at least 5" HWDP, 5 ½" or 6 5/8" due to the cement head's weight considerations.

P&A Plug #1 (3385 to 3125 m MD)

- There were losses prior and during the cementing operations.

P&A Plug #2 (2260 to 2010 m MD)

- CemNET fibers were added to the slurry at concentration of 5.7 kg/m3 as losses were encounted prior the job.

P&A Plug #3 (2000 to 1750 m MD)

- CemNET fibers were added to the slurry at concentration of 5.7 kg/m3 as losses were encounted prior the job.

P&A Plug #4 (1470 to 1270 m MD)

- Plug has been tagged with 5 MT weight after WOC. TOC has been found 2 m higher than theoretical TOC. Job was designed with 25% XS over the 8 ½" OH.
- Plug has been successfully pressure tested with 1500 psi for 15 min.

P&A Plug #5 (647 to 447 m MD)

- Cement plug has been spotted on top of the bridge plug set @ 647 m MD.
- Setting tool failed to operate as designed. At the attempt to pump water ahead of cement slurry, the pressure increased to 2500 psi and it was decided to POOH and RIH with open-ended muleshoe.
- The choice of the slurry recipe to be used for this job has been dictated by logystics issues on the rig rather than technical considerations. Silica blend has been mixed with sea water and pumped for plug #5. Thus, the surplus of Silica blend, left over after the previous plug jobs, has been utilized.
- Plug was not planned to be tagged.

Recommendations

CemNET fibers were used in cement plug slurries to cure losses while P&A campaign. They were added at the recommended concentration at 5.7 kg/m3 of slurry. The performance was proved by the eliminating of losses prior spotting the following plugs, thus ensuring the proper balancing of the plugs as per design.

NOR-CEM-F201

SERVICE REPORT

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STATION	LOCATION	TYPE SERVICE	COMPANY	SIR NUMBER
		30" Conductor/ Topupjob	Chevron Texaco	

TIME & DATE LEFT STATION		TYPE OF WELL	FIELD	WELL no.	INVOICE NUMBER
Equipment	Personnel	Exploration	Sahara	6507/1.1	

TIME & DATE ON LOCATION		TOTAL DEPTH	RIG	Km. (One Way)	JOB NUMBER
Equipment	Personnel 3	511 m	Stena Dee		

TIME & DATE JOB STARTED	BHST	CASING Size	CASING Depth	TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE	COLLAR AT	STAGE COLLAR AT
27.09.04 04:45	6degC	30"	507.5m	5"					

TIME & DATE LEFT LOCATION		DRILLING FLUID Type	Wt.	Visc.	TUBING / DRILL PIPE Size	Depth	TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE
Equipment	Personnel	S.W								

TIME & DATE ARRIVED STATION		DISPLACEMENT VOLUME	LINER FROM	TO	SIZE	VOLUME	PACKER TYPE	DEPTH
Equipment	Personnel	211 bbl						

EQUIPMENT AND UNIT Nos.

(1) [ ] Frac Tanks / Cement Silos (2) [X] Pump Units (3) [ ] Blender / Paddle Tank (4) [ ] Supply Trucks & Pickups

CEMENT TYPE USED	SLURRY WEIGHT
Norcem G	13ppg / 16 ppg

MATERIALS HAULED TO LOCATION — Cu. ft. Cement Blend (5) — Gal. Water (6) — Gal. Oil (7) — Gal. Acid (8)

TOTAL ROUND TRIPS (1 - 8)

MIX WATER TEMP.

SLURRY VOLUME PUMPED: 229 bbl / 254 /97Bbl

MATERIALS AND/OR TOOLS SUPPLIED OR USED

(Indicate with (Cus) if Customer owned or supplied and by (Inv) if previously invoiced)
(For Tool Service state Qty, Size, Wt, Description, Serial No.)

CMT: 92 Mt+ 22Mt	D77: 308 GL	
B143: 25 GL	MS200: 50 L	
D75: 345 GL		

WAS CIRCULATION EVER LOST? [ ] Yes [X] No

CEMENT CIRCULATED TO SURFACE? [ ] Yes [X] No

TOTAL PUMPED (A + B + C)	FILL & BREAKDOWN (A)	TREATED FLUID (B)	DISPLACEMENT (C)	AVERAGE RATE

MAX TREATING PRESS. PSI BPM

MIN. TREATING PRESS. PSI BPM

SHUT IN PRESSURE PSI IMMEDIATELY AFTER JOB

SHUT IN PRESSURE PSI AT MINUTES LATER

JOB DONE DOWN: [X] TUBING/DP [X] CASING [ ] ANNULUS

O.H. or PERFS O.H. Size	Shots/Ft	From	To	Check Zone Treated

TIME	PRESSURE Casing	PRESSURE Tubing	BARRELS Pumped	BARRELS Rate	LT	RECORD OF SERVICE
04:45			20 bbl	6bbl/m		Pump 20 bbl S.W.
05.00						P.test lines to rig floor 3000 Psi/ 10 min
05:15						Start mixing Slurry
05:20				6 bbl/m		Start pumping Lead Slurry 13 ppg
05:40			120 bbl			Stop due to bulk problem
05:45						Restart
05:55			180 bbl			Stop due to bulk problem
06:05						Restart
06:20			229 bbl			Reset vol. Start Tail Slurry 16 ppg
07:05			254 bbl			End Tail / Start S.W.
07:07			10 bbl			End Job / Start displace with Mud-pumps
17:55				6 bbl/m		Start pump S.W. and p.test lines for Top Up Job
18:20			15 bbl			Reset vol. Start pumping 16 ppg slurry
18:50			97 bbl			End Slurry / Total stop 15 min. due to mixing problem/ Reset vol.
18:51						Start displacing with S.W.
18:56			25 bbl			End Job

DOWELL PERSONNEL ON JOB

OPERATING TIME 4:00 HR

DOWELL REPRESENTATIVE: N.Hellem/O.K.Syltoy / I.Macarthur

TOTAL LOST TIME HR

FAILURE CATEGORY

N.Hellem / O.K.Syltoy

CUSTOMER REPRESENTATIVE

Mike McMillan

NAME

QUALITY OF SERVICE: GOOD [ ] SATISFACTORY [✓] POOR [ ]

COMMENTS BY CUSTOMER

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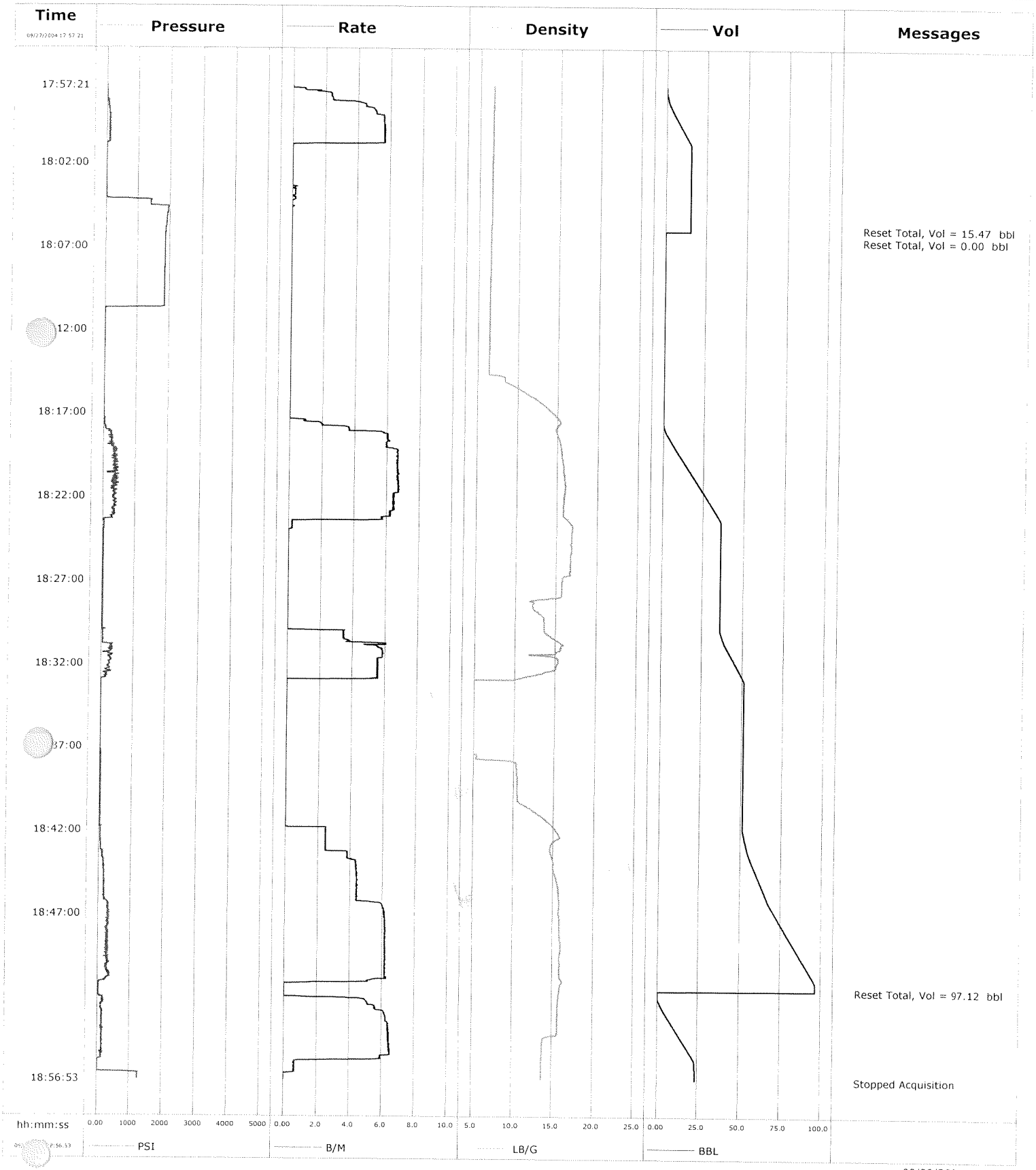
Cementing Job Report

CemCAT v1.0

Well	6507/1-1	**Client**	Chevron Texaco
Field	Sahara	**SIR No.**	
Engineer	N.Hellem / O.K.Syltoy	**Job Type**	Top up 30in
Country	Norway	**Job Date**	09-27-2004



09/29/2004 14:42:52

Stena Dee, Sahara well –30" Conductor Recommendations and Procedures

Schlumberger

Oilfield Services, Scandinavia

Kokstadveien 34
5257 Kokstad - Norway
Tel +47 55 98 61 00
Fax +47 55 98 60 37

To		Location	**Stena Dee**
Cc	**Schlumberger Cementer**	Rev	**Rev. 3**
From	**Irina Krylova**	Date	**September 24, 2004**
Subject	**30" Conductor cement program for Sahara well # 6507/ 1-1**	Pages incl	

Please find attached:

1. Procedures and recommendations for 30" conductor cementing job w. plots
2. CemCADE report
3. Lab reports for Lead and Tail slurries
4. UCA chart for Tail slurry

Well & Job data:
The size of the OH is 36" 300% XS is used for the slurry volumes calculations (equivalent OH diameter: 50.9").
36.8 m3 (equal to 40 m annular length as per drilling program) of conventional class "G" tail slurry with a density of 1.92 SG will be placed around the shoe. Standard lead slurry of 1.56 SG slurry based on Norcem "G" cement will be used ahead of the tail slurry.
1.20 SG WBM is in the well prior to cementing, same will be used for displacement.

Objective:
Cement the conductor in place with TOC at seabed with lead and tail slurries. Top-up job is expected to follow in the volume of 15 m3 with the conventional 1.9 SG tail slurry without an accelerator CaCl2 (D077).

Fluid Pumping Sequence:

1. Land conductor + run inner string and stab in (weight on stinger 10 to 15 MT as per Weatherford procedure)
2. Break circulation with a maximum rate of 2000 lpm. Increase pump rate gradually and make sure pressure is stable during each stage. If losses are observed reduce to a loss free rate.
3. Pressure test cement line to 100 bar
4. Pump 20 m^3 of seawater at 1500 lpm
5. Dyno MS-200 dye may be added to the last 5 m^3 of seawater, or as stated in the drilling program, in the whole volume of spacer with a concentration of 2 ltr/m^3 of spacer.
6. Start mixing and pumping lead cement at a density of 1.56 SG.The planned volume is 41.0 m^3. The planned pump rate is 1100 lpm. The optimum rate is to be found by the cementer.
7. Start mixing and pumping the tail slurry at a density of 1.92 SG. Pump rate approx 700 lpm. The planned total volume of tail slurry is 36.8 m^3.
8. Pump displacement fluid with 1000 lpm. Reduce the rate 0.7 m^3 before end of displacement to 500 lpm. Underdisplace 500 ltr.

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9. Check for back flow
    a. If no back flow is observed sting out approx 0.5 m, drop wiper dart and circulate out cement
    b. If back flow is seen, displace the 500 ltr underdisplacement to ensure stinger is free of cement and hold pressure until cement has reached 50 psi. Refer to the UCA chart provided with the slurries report.

The total job time is 01:47 (hr:mn). The TT for the tail slurry tested is 04:21 (hr:min) at 70 Bc.
The following recipe is tested for the job:
Lead slurry: class "G" cement, sea water, B143 1 l/tonne, D075 34 l/tonne.
Tail slurry: class "G" cement, sea water, B143 1 l/tonne, D077 20 l/tonne. The CS of 500 psi at 9:43 (hr:min) was recorded in UCA test.
Please note that some changes might be encounted due to the actual job data.

ECD plots are provided in the next page, followed by plots of pumping pressure and U-tubing (flow in/out).

NOTE:

1. All volumes have to be recalculated offshore prior the job based on actual data.
2. CemNET is on board as a contingency if losses are observed.
3. Risk assessment to be done offshore prior to the job with SLB onshore coordinator.
4. 1.20 SG WBM is in the well prior to cementing.
5. 1.03 SG Seawater is in the conductor – drillpipe annulus
6. A 1.92 SG class "G" cement based tail slurry and 1.56 SG lead slurry have to be tested with rig samples prior the job. Additives are on board.
7. Main isolation valve on cement unit to be closed if cement mixing/pumping stopped because of U-tubing.
8. WOC time is to be determined using UCA chart provided.
9. As per the simulation, no collapse or burst casing is predicted.

Please note that this program is a draft only, and job volumes and slurry properties are to be confirmed with the actual well data/rig samples.

Irina Krylova
WS Field Engineer
Schlumberger Well Services, Cementing
Norway, Scandinavia
ilrylova@slb.com

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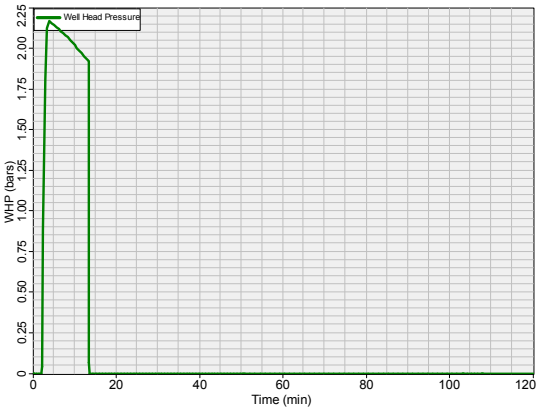
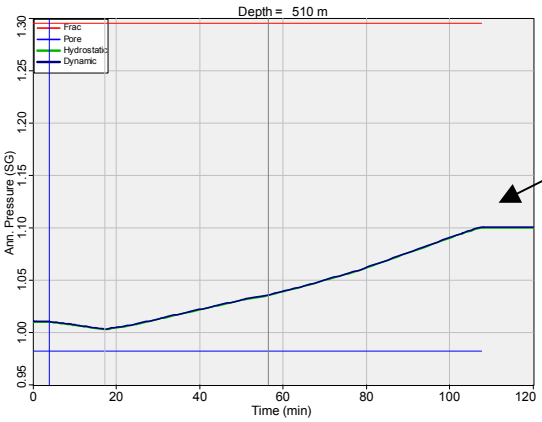
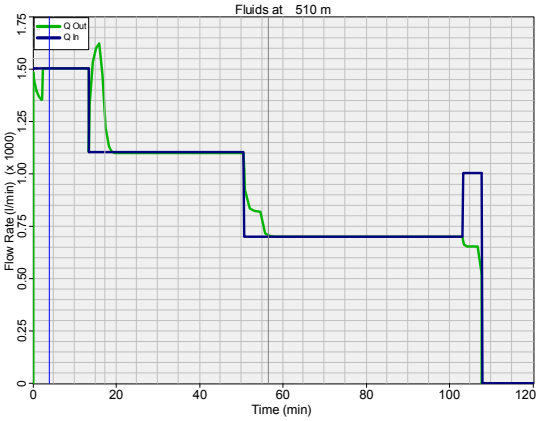
Predicted ECD at the casing shoe (510 m MD), expected well head pressure and U-tube simulation
300% excess on open hole





Max ECD: 1.1 SG



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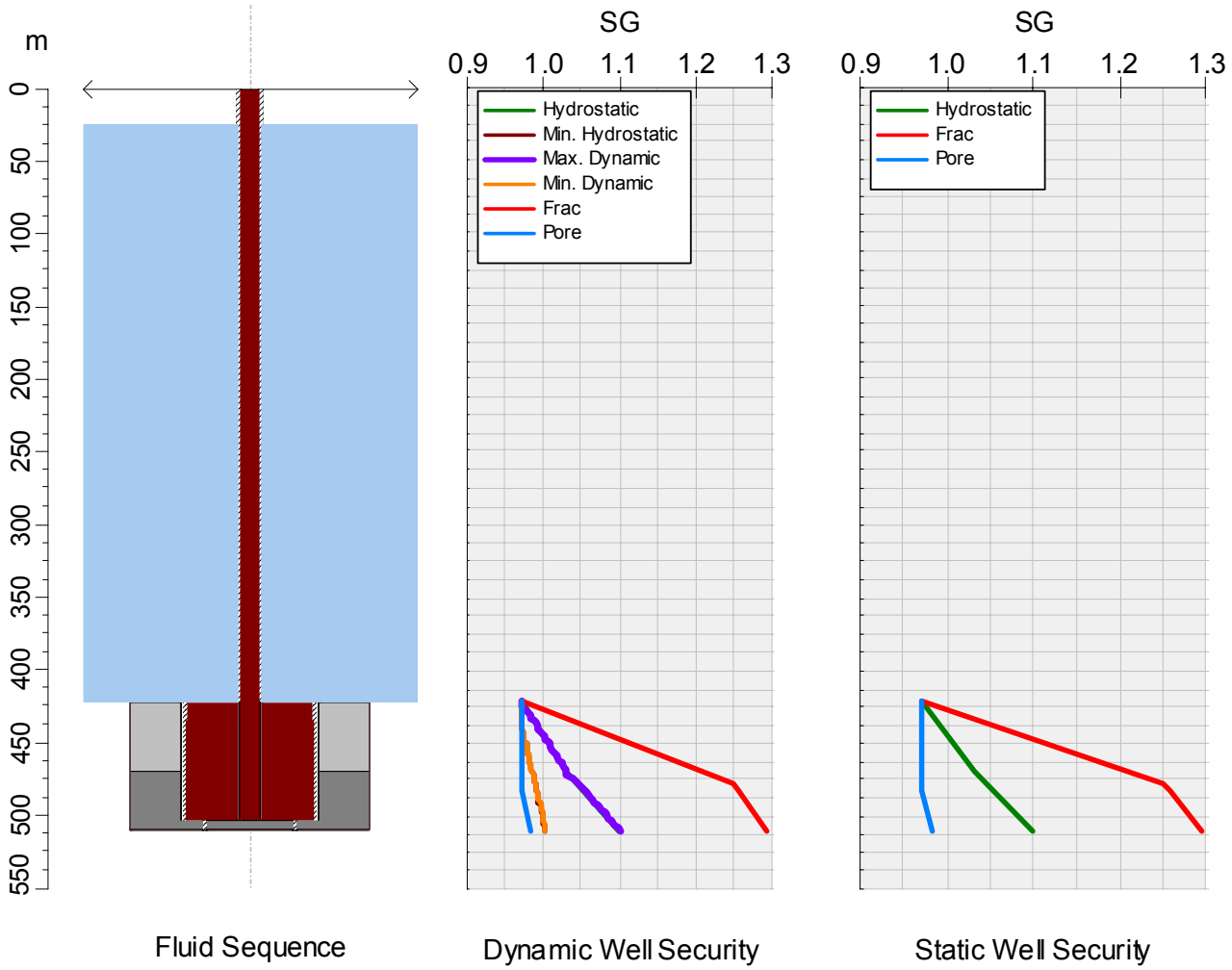
Minimum and maximum ECDs predicted during the job



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CemCADE* well cementing recommendation for 30" Conductor

Operator	**: ChevronTexaco**	**Well**	**: Sahara 6507/1-1**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**: Stena Dee**
Proposal No.	: Rev 3	Service Point	: SCA Norway
Date Prepared	: September 24, 2004	Business Phone	:
		FAX No.	: 47 55 98 6021

Prepared by : Irina Krylova
Phone :
E-Mail : ikrylova@slb.com

well description

Configuration	**Inner String**	**Stage : Single**	**Rig Type : Floating Offshore**
Csg/Liner	MD : 510.0 m	OD : 30 X 20 inch	Weight : 456.6 lb/ft X 129.3 lb/ft
Drill Pipe	MD : 504.0 m	OD : 3 1/2 inch	Weight : 13.3 lb/ft

Stab In Collar MD	504.0 m
Casing/liner Shoe MD	510.0 m
Total MD	510.0 m
BHST	6 degC
Bit Size	36 inch
Mean OH Diameter	36.0 inch
Mean Annular Excess	300.0 %
Mean OH Equivalent Diameter	50.9 in
Total OH Volume	115.3 m3 (including excess)
Fluids Return to	SEA_BED
Mean Sea Level	25.0 m
Sea Bed Depth	422.0 m

Disclaimer Notice:

This information is presented in good faith, but no warranty is given by and Schlumberger assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlumberger can assist in selecting.

The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

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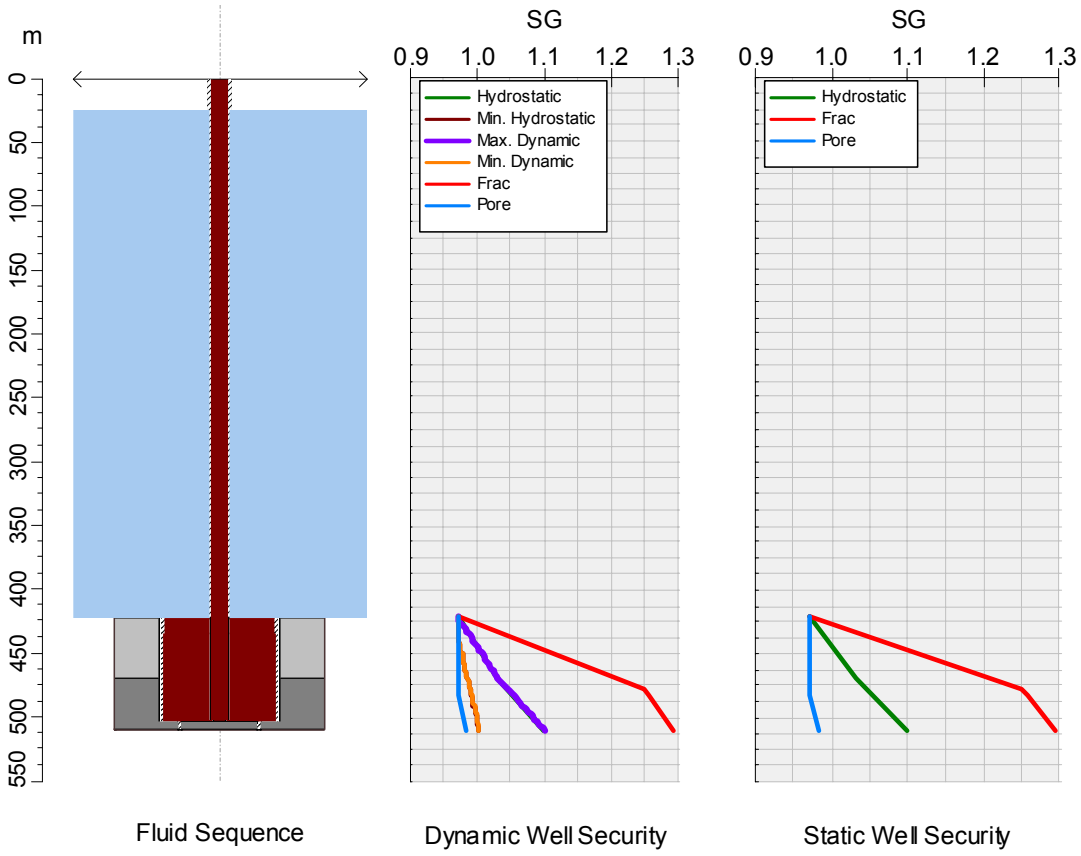
Client	:	ChevronTexaco
Well	:	Sahara 6507/1-1
String	:	30
District	:	SCA Norway
Country	:	Norway
Loadcase	:	Conductor (a)

Section 1: fluid sequence

Original fluid	Spud mud 1.2 sg	1.20 SG	
	P_v : 30.0 cP		T_y : 4.00 Pa
Displacement Volume	4.7 m3		
Drill Pipe Volume	4.7 m3		
Total Volume	102.4 m3		
TOC	422.0 m		

Fluid Sequence

Name	Volume (m3)	Ann. Len (m)	Top (m)	Density (SG)	Rheology		
Sea water	20.0	0.0		1.03	viscosity:3.0 cP		
Lead slurry	41.0	48.0	422.0	1.56	k:6.18E-1 Pa.s^n	n:0.456	T_y:8.10 Pa
Tail slurry	36.8	40.0	470.0	1.92	k:1.59E+0 Pa.s^n	n:0.446	T_y:3.07 Pa
Spud mud 1.2 sg	4.7		0.0	1.20	P_v:30.0 cP		T_y:4.00 Pa



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Client : ChevronTexaco
Well : Sahara 6507/1-1
String : 30
District : SCA Norway
Country : Norway
Loadcase : Conductor (a)

Section 2: pumping schedule

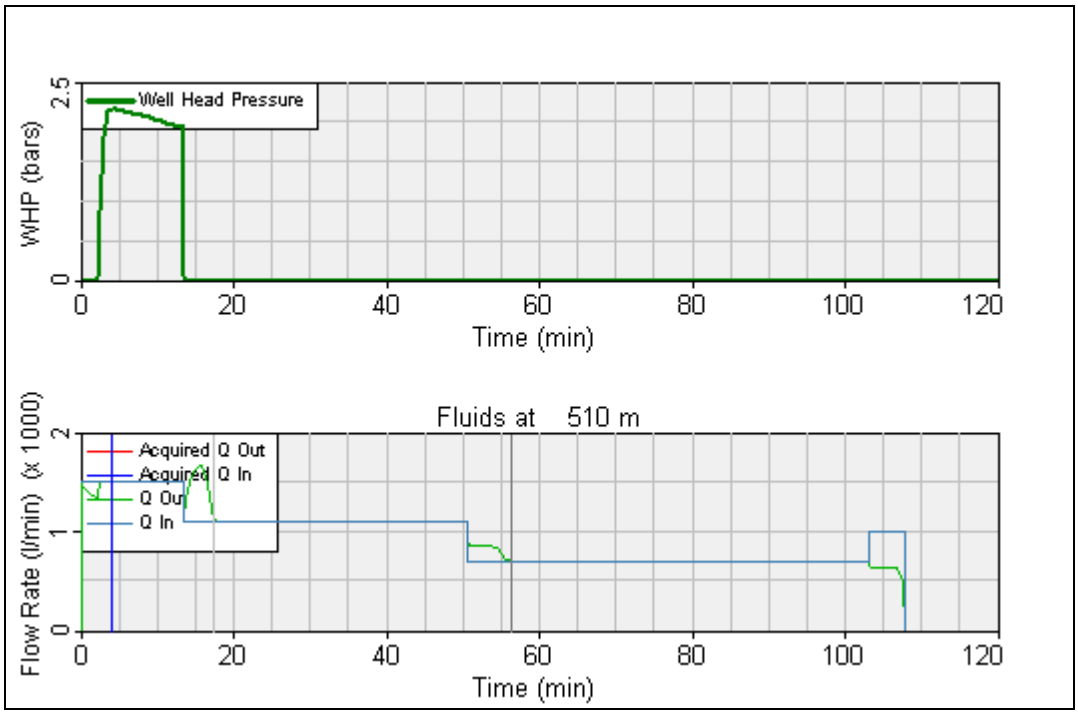
Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
Sea water	1500.00	20.0	13.3	20.0	27	
Lead slurry	1100.00	41.0	37.3	41.0	27	
Tail slurry	700.00	36.8	52.5	36.8	27	
Spud mud 1.2 sg	1000.00	4.7	4.7	4.7	27	
Shut-In	0.00	0.0	1440.0	0.0	27	Static period after Placement
		Total	**01:47 hr:mn**	**102.4 m3**		

Back Pressure : 40 bars

Dynamic Security Checks :

Frac	0 bar	at 422.0 m
Pore	0 bar	at 422.0 m
Collapse	684 bar	at 434.0 m
Burst	1024 bar	at 422.0 m



Client : ChevronTexaco
Well : Sahara 6507/1-1
String : 30
District : SCA Norway
Country : Norway
Loadcase : Conductor (a)

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
Sea water	1500.00	20.0	13.3	20.0	
Lead slurry	1100.00	41.0	37.3	41.0	
Tail slurry	700.00	36.8	52.5	36.8	
Spud mud 1.2 sg	1000.00	4.7	4.7	4.7	
Shut-In	0.00	0.0	1440.0	0.0	Static period after Placement

Total Pumping Time : 01:47 hr:mn
End Job:

TOTAL MATERIAL REQUIREMENTS

Additives	Total Quantity	Item Quantity	Pack. Name	Packaging	Comments
Norwell G	78969 kg	1853	sack	43 kg	
MS-200	40.0 l	40	can	1.0 l	
B143	79.0 l	4	CAN	20.0 l	
D075	1066.6 l	6	drum	189.3 l	
D077	952.0 l	5	drum	200.6 l	

Mix Water Requirements :

Sea water 71.1 m3

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Laboratory Cement Test Report-9593-1

Well Data

Fluid No:		**Client:**	**Chevron Texaco**	**Location:**	**Stena Dee**
Date:	**23-09-2004**	**Well Name:**	**Sahara**	**Field:**	**Sahara**

Signatures

Lab Tech:M. Sagmo
Sales Eng:Espen Johannessen

Job Type	**30"Cond. Lead**	Depth	506.0 m	TVD	506.0 m
BHST	6 degC	BHCT	19 degC	BHP	1175 psi
Starting Temp.	21 degC	Time to Temp.	00:15 hr:mn	Heating Rate	-0.13 degC/min
Starting Pressure	280 psi	Time to Pressure	00:15 hr:mn	Schedule	2/3

Composition

Density	**1.56 SG**	**Yield**	**1307.37 L/tonne**	**Mix Fluid**	**996.81 L/tonne**
Porosity	76.2 %	Solid Fraction	23.8 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3515
Sea water	961.81 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D075	34.000 L/tonne	EXTENDER	

Rheology

(rpm)	(deg)
300	38.8
200	34.0
100	29.8
60	27.5
30	26.0
6	22.5
3	17.0

10 sec	15
10 min	18

Temperature	**19 degC**

P_v : 14.0 cP
T_y : 24.77 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	04:25 hr:mn
70 Bc	05:45 hr:mn
100 Bc	10:43 hr:mn

Free Water

1.5 mL/250mL	in 2 hrs

Comments

Sit 3515, cement from boat ‘Northern Corona’.

Schlumberger

Laboratory Cement Test Report-9594-1

Well Data

Fluid No: SNO 9594001	**Client: Chevron Texaco**	**Location: Stena Dee**	
Date: 06-09-2004	**Well Name: Sahara**	**Field: Sahara**	

Signatures

Lab Tech:M. Sagmo

Sales Eng:Espen Johannessen

Job Type	**Cond. Tail**	Depth	506.0 m	TVD	506.0 m
BHST	6 degC	BHCT	19 degC	BHP	1175 psi
Starting Temp.	21 degC	Time to Temp.	00:15 hr:mn	Heating Rate	-0.13 degC/min
Starting Pressure	280 psi	Time to Pressure	00:15 hr:mn	Schedule	2/3

Composition

Density	**1.92 SG**	**Yield**	**772.45 L/tonne**	**Mix Fluid**	**461.89 L/tonne**
Porosity	59.8 %	Solid Fraction	40.2 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3515
Sea water	440.89 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D077	20.000 L/tonne	ACCELERATOR	

Rheology

(rpm)	(deg)
300	58.7
200	48.0
100	37.3
60	32.5
30	28.0
6	18.5
3	12.3

10 sec	13
10 min	18

Temperature	**19 degC**

P_v : 33.7 cP
T_y : 25.46 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	02:58 hr:mn
70 Bc	04:21 hr:mn
100 Bc	05:55 hr:mn

Compressive Strength @ 20°C

Time	CS
03:19 hr:mn	50 psi
09:43 hr:mn	500 psi
12:00 hr:mn	703 psi
24:00 hr:mn	1610 psi

Comments

Accelerated slurry, don't circulate for more than 20 minutes.
Sit 3515, cement from boat 'Northern Corona'.

ULTRASONIC CEMENT ANALYZER

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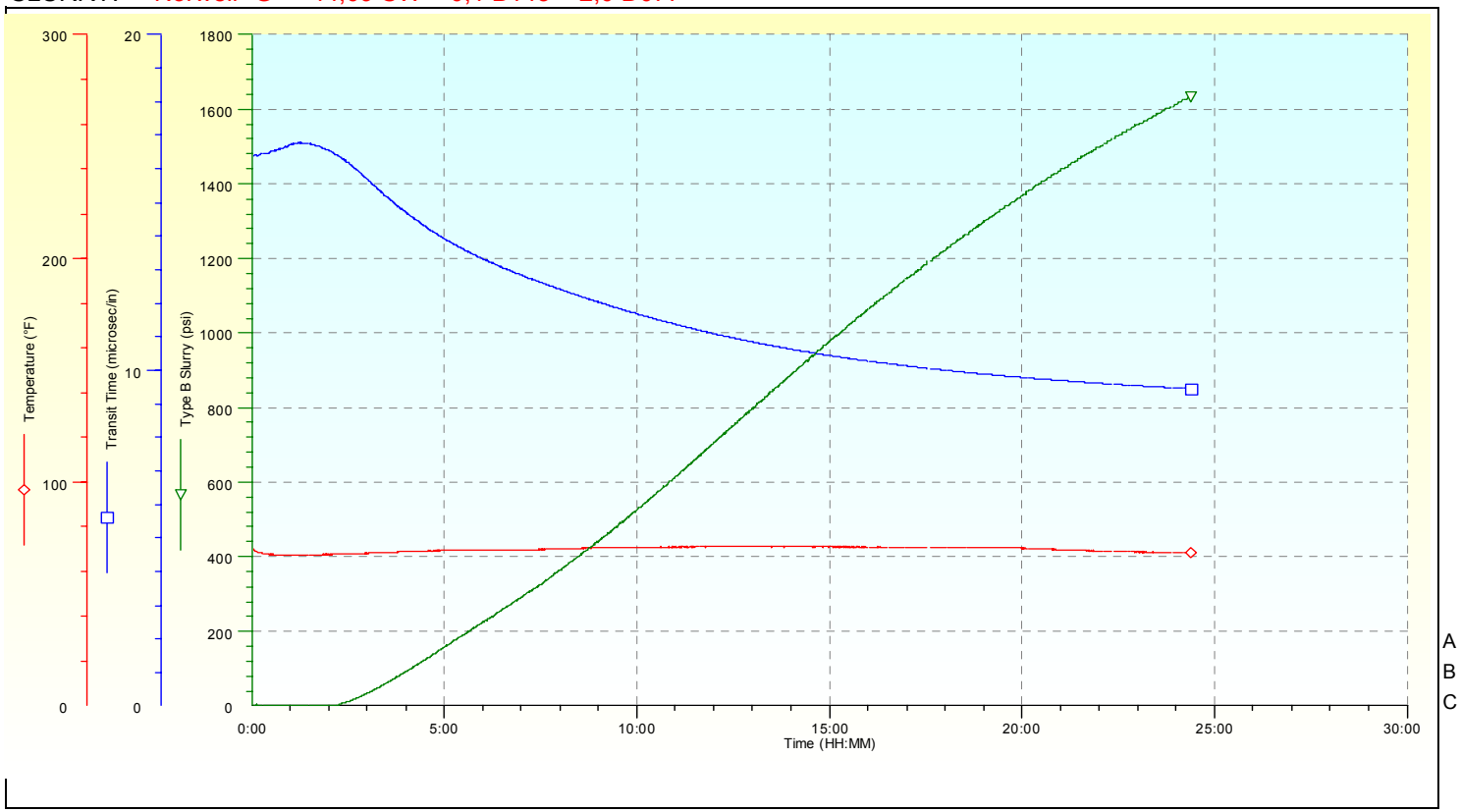
Project no:	Sno 9594-1	Temperature:	20°C	Time to 50 psi:	3:19
Company:	Chevron Texaco	Pressure:	3000 psi	Time to 500 psi:	9:43
Location:	Stena Dee	Units:	L/100 kg	Strenght @ 12 hrs:	703 psi
Well:	Sahara	Slurry density:	1.92 SG	Strenght @ 24 hrs:	1610 psi
Date:	24-Sep-04	Density mode:	B		

SLURRY: Norwell "G" + 44,09 SW + 0,1 B143 + 2,0 D077



A - LIGHTWEIGHT (< 14 LBS/GAL)
B - STANDARD SLURRIES
C - HIDENSE SLURRIES

NOR-CEM-F201

Schlumberger

SERVICE REPORT

STATION	LOCATION	TYPE SERVICE	COMPANY	SIR NUMBER
		13 3/8" Casing	Chevron Texaco	

TIME & DATE LEFT STATION		TYPE OF WELL	FIELD	WELL no.	INVOICE NUMBER
Equipment	Personnel	Exploration	Sahara	6507/1.1	

TIME & DATE ON LOCATION		TOTAL DEPTH	RIG	Km. (One Way)	JOB NUMBER
Equipment	Personnel 3	1377m	Stena Dee		

TIME & DATE JOB STARTED	BHST	CASING Size	CASING Depth	TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE	COLLAR AT	STAGE COLLAR AT
02.10.04 02:00	44 degC	13 3/8"	1375m		72#				

TIME & DATE LEFT LOCATION		DRILLING FLUID Type	Wt.	Visc.	TUBING / DRILL PIPE Size	Depth	TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE
Equipment	Personnel	S.W			5"					

TIME & DATE ARRIVED STATION		DISPLACEMENT VOLUME	LINER FROM	TO	SIZE	VOLUME	PACKER TYPE	DEPTH
Equipment	Personnel							

EQUIPMENT AND UNIT Nos.

(1) [ ] Frac Tanks / Cement Silos (2) [X] Pump Units (3) [ ] Blender / Paddle Tank (4) [ ] Supply Trucks & Pickups

CEMENT TYPE USED	SLURRY WEIGHT
Norcem G	13ppg / 16 ppg

MATERIALS HAULED TO LOCATION — Cu. ft. Cement Blend (5) — Gal. Water (6) — Gal. Oil (7) — Gal. Acid (8)

TOTAL ROUND TRIPS (1 - 8)

MIX WATER TEMP.

SLURRY VOLUME PUMPED: 629 bbl +237 bbl

MATERIALS AND/OR TOOLS SUPPLIED OR USED (Indicate with (Cus) if Customer owned or supplied and by (Inv) if previously invoiced) (For Tool Service state Qty, Size, Wt, Description, Serial No.)

CMT: 134 Mt	D81: 207 GL	
B143: 43 GL	MS200: 13 L	
D75: 827 GL		

WAS CIRCULATION EVER LOST? [ ] Yes [X] No

CEMENT CIRCULATED TO SURFACE? [X] Yes [ ] No

TOTAL PUMPED (A + B + C)	FILL & BREAKDOWN (A)	TREATED FLUID (B)	DISPLACEMENT (C)	AVERAGE RATE

MAX TREATING PRESS. PSI BPM — MIN. TREATING PRESS. PSI BPM

SHUT IN PRESSURE PSI IMMEDIATELY AFTER JOB — SHUT IN PRESSURE PSI AT MINUTES LATER

JOB DONE DOWN: [X] TUBING/DP [X] CASING [ ] ANNULUS

O.H. Size	Shots/Ft	O.H. or PERFS From	To	Check Zone Treated

TIME	PRESSURE Casing	PRESSURE Tubing	BARRELS Pumped	BARRELS Rate	LT	RECORD OF SERVICE
02:15				5bbl/m		Pump 20 bbl dyed S.W.
02:20			20 bbl			P.test lines to rig floor 3000 Psi/ 5 min
02:28				5bbl/m		Pump 20 bbl dyed S.W. Released bottom dart
02:50			40 bbl	6 bbl/m		Reset Vol. Start pumping Lead Slurry 13 ppg
04:40			628 bbl			End Lead. Reset Vol. Stop mixing due to rocks plugging mixing system. Open and clean mixer
05:15						Start Tail 16 ppg
05:55			237 bbl			End Tail. Reset Vol. Released top dart
05:57						Start pumping S.W.
06:05	2000 psi		24 bbl	4 bbl/m		Top plug Sheared
06:10			35.6 bbl			End Job. Start displacing with rig pumps
						Check for backflow, float holding

DOWELL PERSONNEL ON JOB 3

DOWELL REPRESENTATIVE: N.Hellem/O.K.Syltoy /J.Boyal

OPERATING TIME 5:30 HR

TOTAL LOST TIME HR

FAILURE CATEGORY

CUSTOMER REPRESENTATIVE: Sinde Jonge

NAME: S. DE JONGE

QUALITY OF SERVICE: GOOD [✓] SATISFACTORY [ ] POOR [ ]

COMMENTS BY CUSTOMER: Problems experienced were due to the system rather than to the engineers

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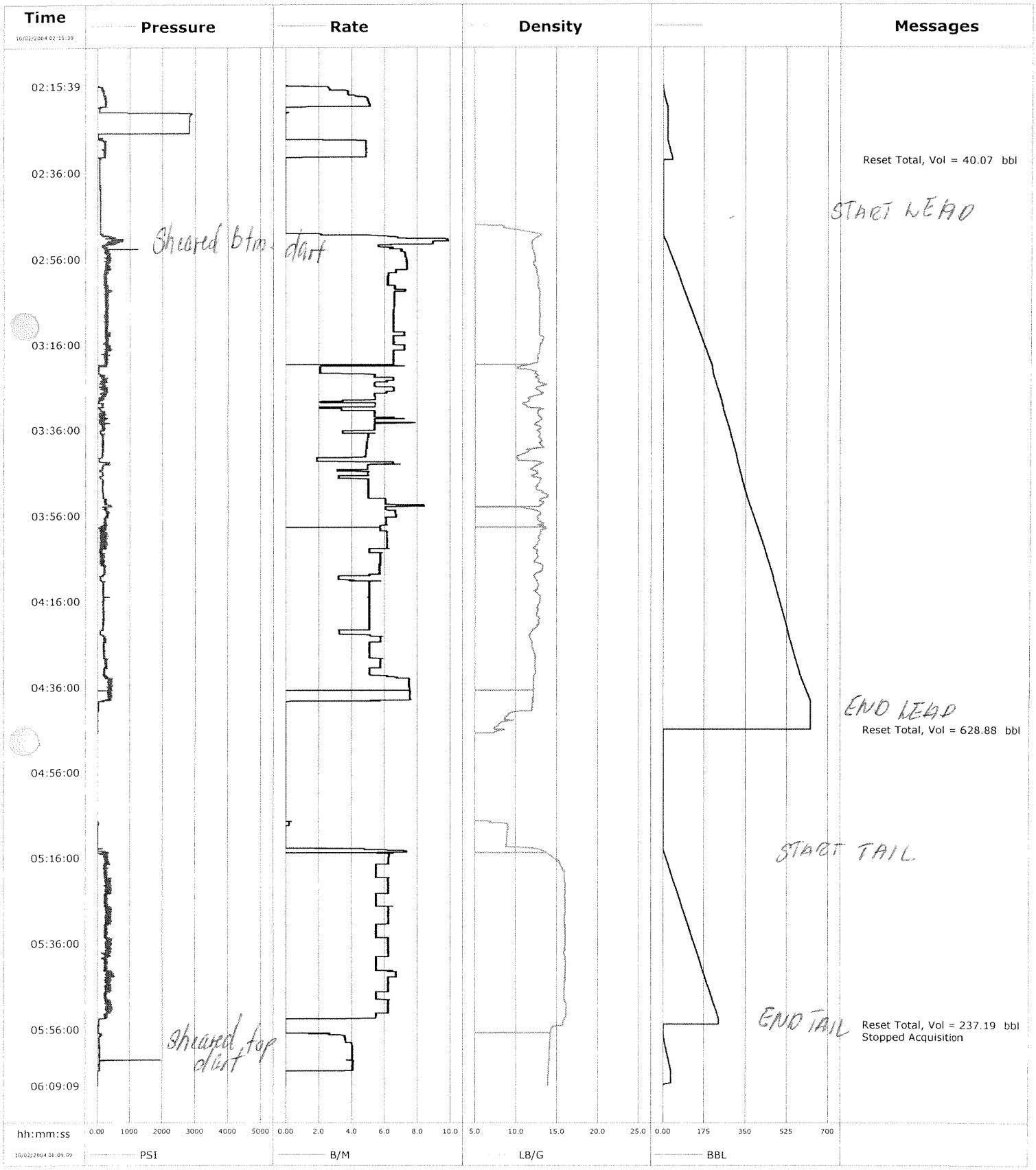
Cementing Job Report

CemCAT v1.0

Well	6507/1-1	**Client**	Chevron Texaco
Field	Sahara	**SIR No.**	
Engineer	N.Hellem/O.K. Syltøy/J.Boyal	**Job Type**	13 3/8" csg
Country	Norway	**Job Date**	10-02-2004



10/02/2004 16:56:35

Stena Dee, Sahara well – 13 3/8" Casing Recommendations and Procedures

Schlumberger

Oilfield Services, Scandinavia

Kokstadveien 34
5257 Kokstad - Norway
Tel +47 55 98 61 00
Fax +47 55 98 60 37

To		Location	**Stena Dee**
Cc	**Schlumberger Cementer**	Rev	**Rev. 2**
From	**Irina Krylova**	Date	**September 29, 2004**
Subject	**13 3/8" Cement program for Sahara well**	Pages incl.	

Please find attached:

1. Procedures and recommendations for 13 3/8" cementing job w. plots, including simulations for gauged hole
2. CemCADE report.
3. Lab test for lead and tail slurries
4. UCA chart for tail slurry

Well & Job data:
The size of the OH is 17 ½". 100% XS is used in OH (equivalent to 20.8").
The BHST and BHCT are 44 °C and 20°C respectively. The maximum pore formation pressure is 1.0 SG and the minimum fracture formation pressure is 1.29 SG below previous shoe. No losses were predicted on the job simulation.
304.8 m (equal to 1000 ft annular length) of conventional class "G" tail slurry with a density of 1.92 SG will be placed around the shoe. A standard lead slurry with 1.56 SG slurry based on Norcem "G" cement will be used ahead of the tail slurry. TOC is raised till seabed level.

The simulations were done for case when OH is in-gauge. Therefore, no static or dynamic losses were predicted.
In this case 55.6 m3 of lead slurry returns are expected at the seabed.

The planned mud weight is 1.2 SG WBM.

Objective:
Get good cement around the shoe in order to be able to drill the next section.

Fluid Pumping Sequence:

1. Land casing
2. Circulate well with a maximum rate of 2500 lpm (planned displacement rate) to clean the well. Break circulation and increase pump rate gradually and make sure pressure is stable during each stage. While circulating observe volumes and returns. If losses are observed reduce to a loss free rate.
3. Pressure test cement line to 330 bar
4. Pump 20 m^3 of seawater at 1500 lpm
5. Release the bottom dart with sea water
6. Pump about 3.8 m3 of sea water at 700 lpm to shear the bottom plug (5" 19.5 ppf DP used), expect a shear at approx. 69 bar.

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7. Start mixing and pumping lead cement at a density of 1.56 SG. The planned volume is 95.7 m^3. The planned pumprate is 1100 lpm. The optimum rate is to be found by the cementer.
8. Start mixing and pumping the tail slurry at a density of 1.92 SG. Pumprate approx 600 lpm. The planned total volume of tail slurry is 42.0 m^3.
9. Release the top dart
10. Pump fresh water at 700 lpm. The top plug is expected to shear after 3.8 m3 of displacement pumped. Expected pressure is 144 bars.
11. Continue pumping displacement fluid at 2500 lpm. The total expected displacement volume is 76.0 m3. Reduce the pump rate 4 m3 before end of displacement to 1000 lpm to bump the plug.
12. Check for back flow
13. Pressure test casing as per drilling programme.

The total job time is 03:42 (hr:mn). The TT for the tail slurry is 04:39 (hr:min) at 70 Bc.
The lab tests for lead and tail slurries are attached.

ECD plots are provided in the next page, followed by plots of pumping pressure and U-tubing (flow in/out) for 2 scenarios: 100% XS and in-gauged OH.

NOTE:

1. Risk assessment to be done offshore prior to the job with SLB onshore coordinator.
2. If losses are observed on the prejob circulation CemNET D095 is on board as a contingency.
3. It is recommened to reduce the mud properties prior to the job as much as possible in order to reduce the dynamic ECD on the formation.
4. The max ECD at the shoe is calculated to 1.48 SG (frac gradient 1.68 SG). No losses are expected at the shoe.
5. Main isolation valve on cement unit to be closed if cement mixing/pumping stopped because of U-tubing.
6. It is very important that rates are increased gradually after breaking the circulation.
7. Surface Dart Launcher (cementing head) will be preloaded with appropriate darts.
8. SST will be loaded with Weatherford top plug and bottom plug (Non rotating) – pressure rating 275 bar @ 80°C (4000 psi @ 175°F).
9. Recommended to measure ID of casing when calculating displacement volume.
10. Start mixing and pumping tail slurry, when returns of the lead slurry can be seen on the surface. This is a measure to avoid pumping too much extra cement to the sea.
11. If Top Plug does not bump, then pump max. 1/2 shoetrack volume. If still no bump, then check for backflow (check valve in float). Hold pressure until cement has set if checkvalve not holding.
12. Pressures test the casing when the cement is still in the liquid phase to avoid microannulus. If plug not bumped, then P/T to be done after cement has set and built compressive strength (500 psi as per UCA test).
13. Drill out shoetrack after 500 psi according to UCA plot.

Please note that this program is a subject to changes, and job volumes are to be confirmed with the actual well data prior the job.

Irina Krylova
WS Field Engineer
Schlumberger Well Services, Cementing
Norway, Scandinavia
ikrylova@slb.com

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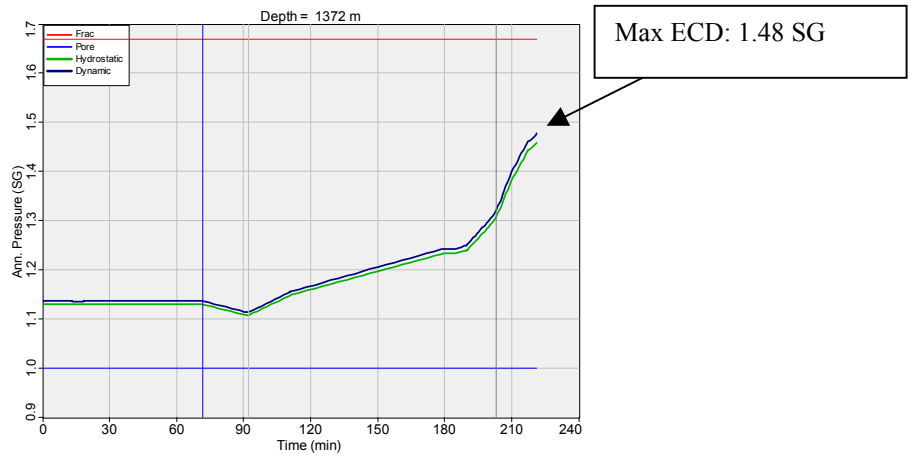
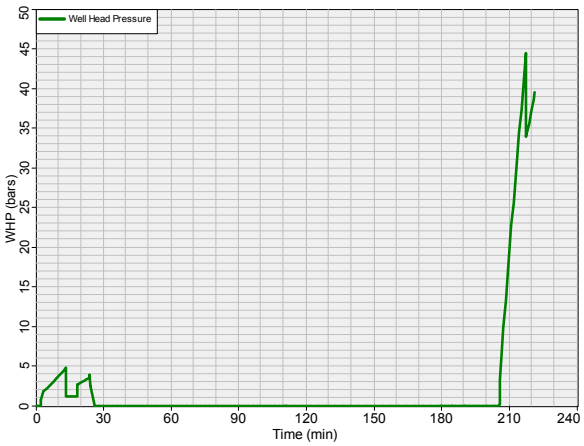
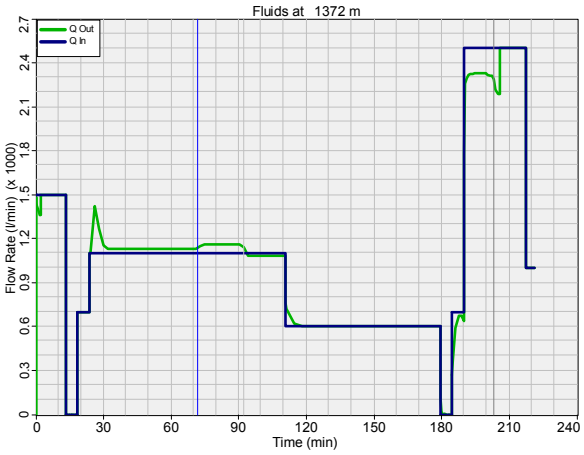
Predicted ECD at the casing shoe (1372 m MD) with 100% Excess on open hole, wellhead pressure and U-tube simulation during the job







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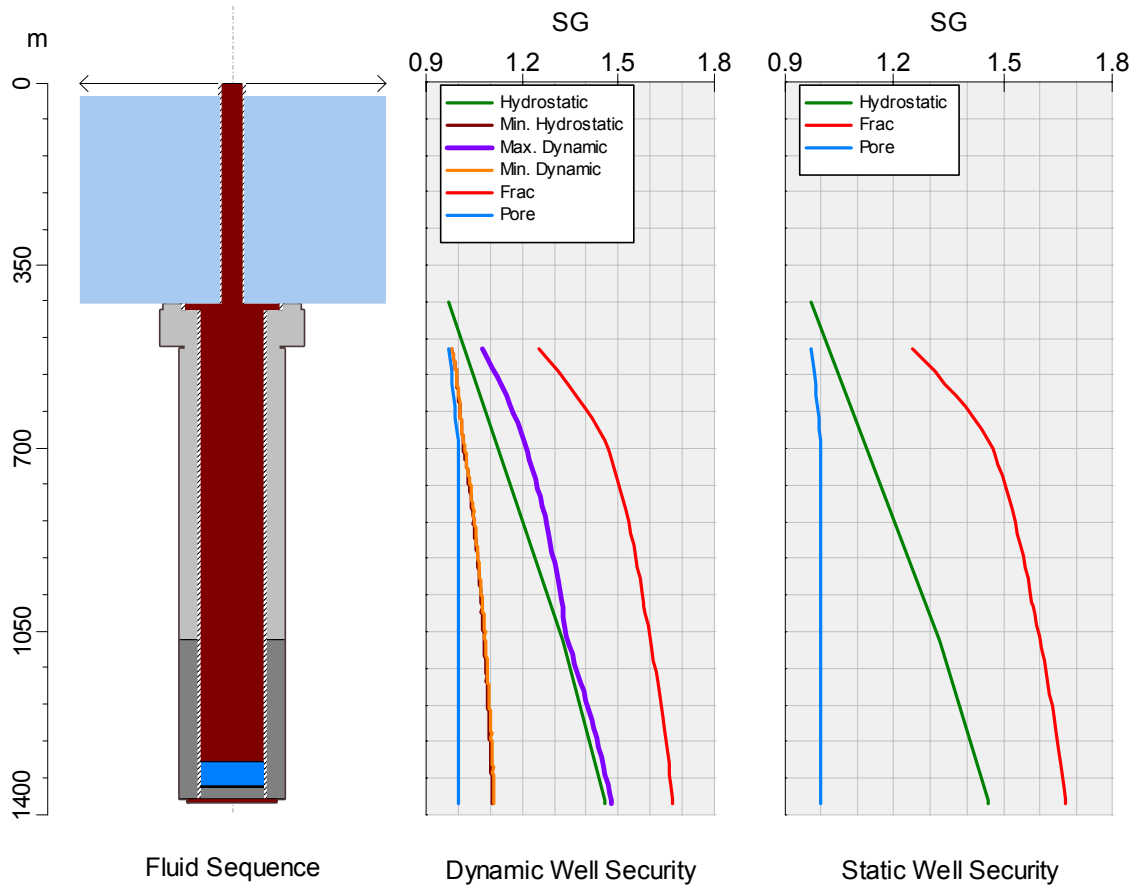
Minimum and maximum ECDs predicted during the job.



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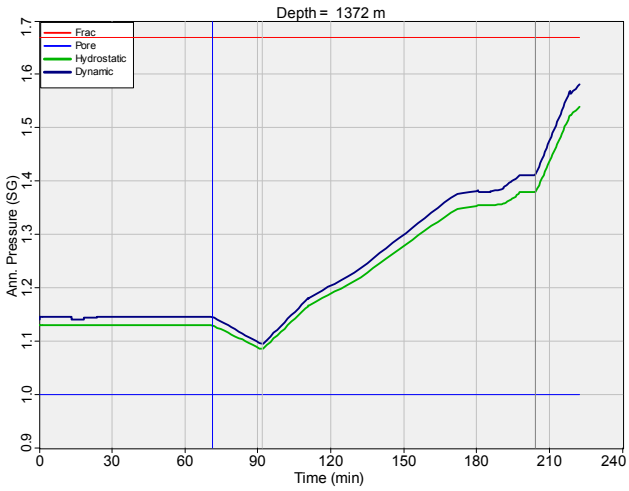
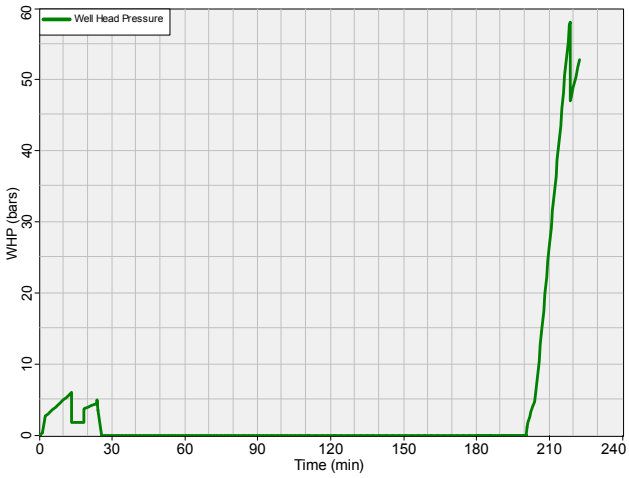
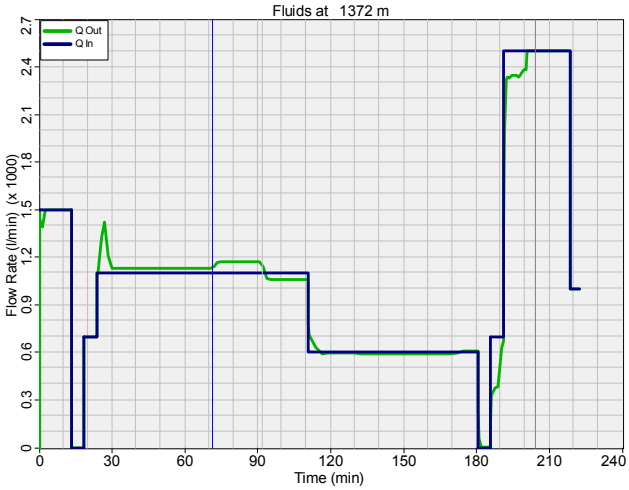
Predicted ECD at the casing shoe (1372 m MD) if open hole is in-gauge, wellhead pressure and U-tube simulation during the job







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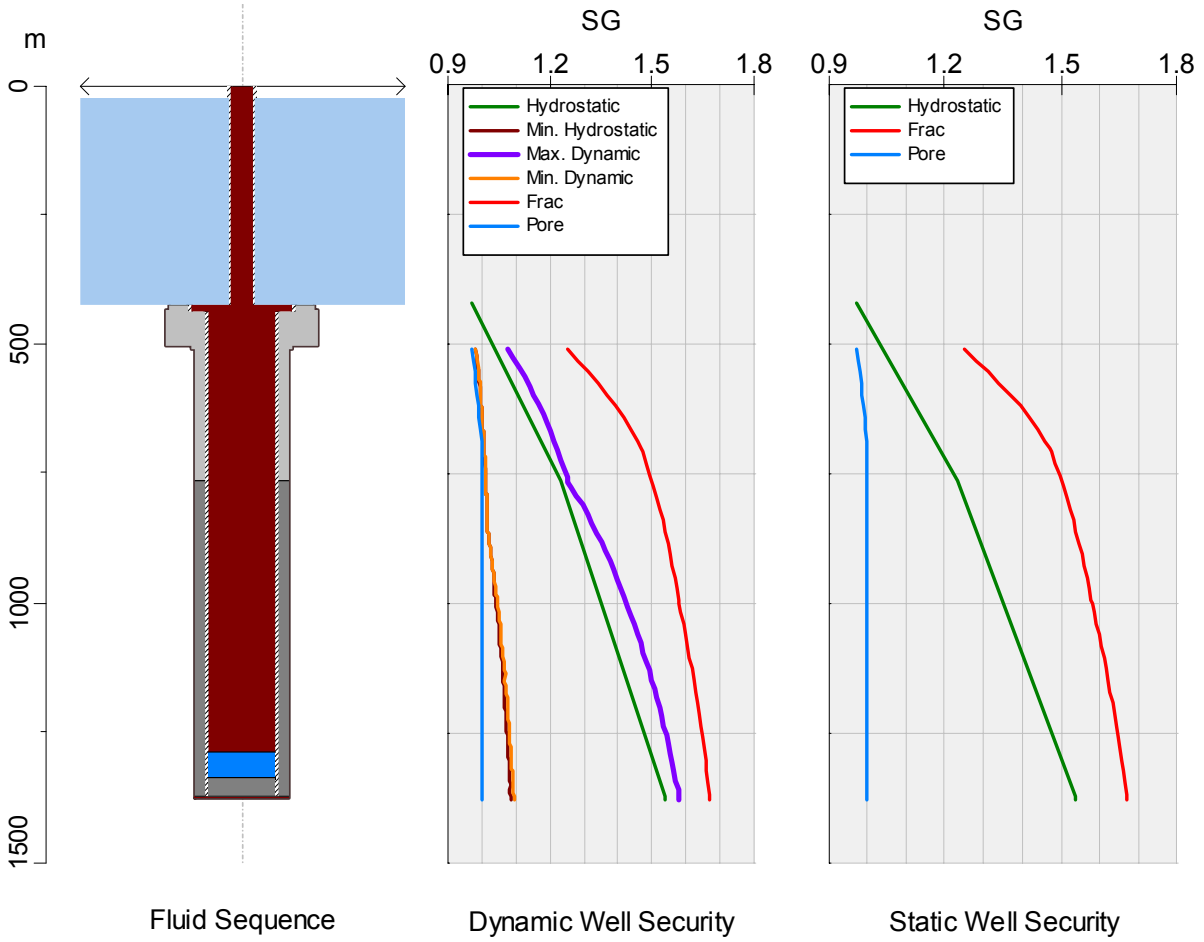
Minimum and maximum ECDs predicted during the job when hole is in-gauge



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CemCADE* well cementing recommendation for 13 3/8" Casing

Operator	**: ChevronTexaco**	**Well**	**: Sahara 6507/1-1**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**: Stena Dee**
Proposal No.	: Rev.2	Service Point	: SCA
Date Prepared	: September 29, 2004	Business Phone	: 00 47 5598 6000
		FAX No.	: 00 47 5598 6021

Prepared by : Irina Krylova
Phone :
E-Mail : ikrylova@slb.com

well description

Configuration	**Casing**	**Stage : Single**	**Rig Type : Floating Offshore**
Prev.String	MD : 510.0 m	OD : 30 X 20 inch	Weight : 129.3 lb/ft
Csg/Liner	MD : 1372.0 m	OD : 20 X 13 3/8 inch	Weight : 72.0 lb/ft
Drill Pipe	MD : 422.0 m	OD : 5 inch	Weight : 19.5 lb/ft
Landing Collar MD		1338.0 m	
Casing/liner Shoe MD		1372.0 m	
Total MD		1377.0 m	
BHST		44 degC	
Bit Size		17 1/2 inch	
Mean OH Diameter		17.5 inch	
Mean Annular Excess		100.0 %	
Mean OH Equivalent Diameter		20.8 in	
Total OH Volume		190.2 m3 (including excess)	
Fluids Return to		SEA_BED	
Mean Sea Level		25.0 m	
Sea Bed Depth		422.0 m	

Disclaimer Notice:

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The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

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Client	:	ChevronTexaco
Well	:	Sahara 6507/1-1
String	:	13 3/8
District	:	SCA
Country	:	Norway
Loadcase	:	13 38 Casing (a)

Section 1: fluid sequence

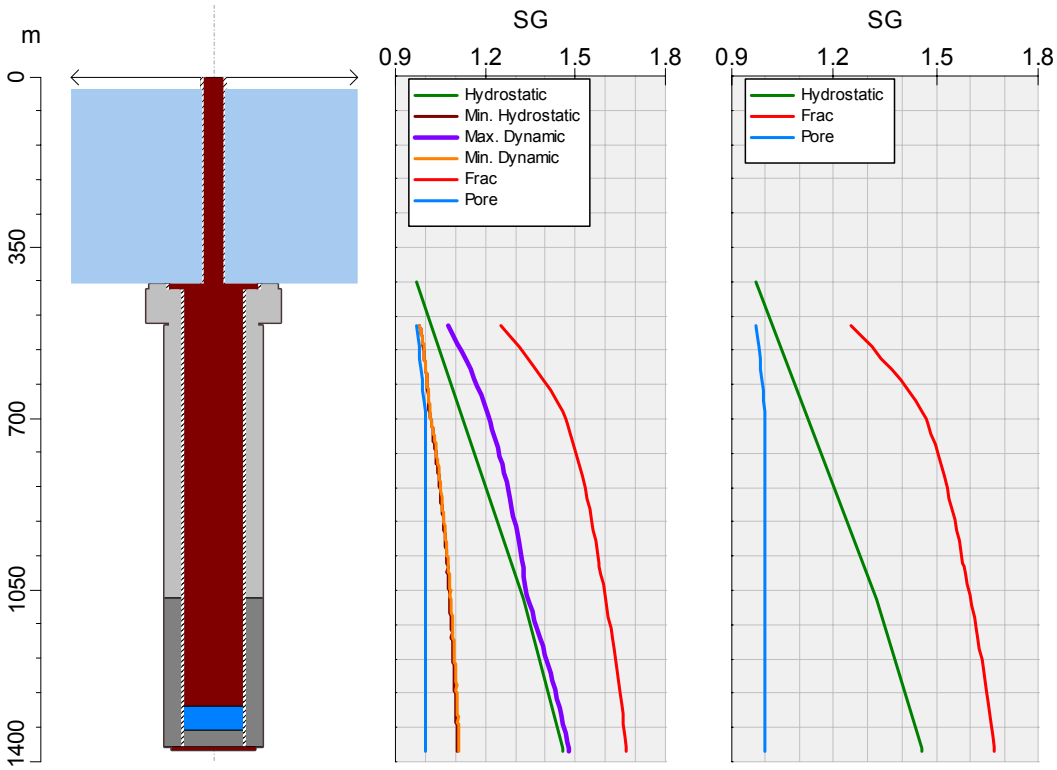
Original fluid	WBM 1.2	1.20 SG	
	P_v : 30.0 cP		T_y : 4.00 Pa
Displacement Volume	76.0 m3		
Drill Pipe Volume	3.9 m3		
Total Volume	237.4 m3		
TOC	422.0 m		

Fluid Sequence

Name	Volume (m3)	Ann. Len (ft)	Top (m)	Density (SG)	Rheology		
Sea water	23.8	0.0		1.03	viscosity:3.0 cP		
Lead slurry	95.7	2116.8	422.0	1.56	k:1.62E-2 Pa.s^n	n:0.977	T_y:9.94 Pa
Tail Slurry	42.0	1000.0	1067.2	1.92	P_v:45.7 cP		T_y:14.53 Pa
Fresh water	3.8		1288.8	1.00	viscosity:5.0 cP		
WBM 1.2	72.2		0.0	1.20	P_v:30.0 cP		T_y:4.00 Pa

Static Security Checks :

Frac	892 kPa	at 510.0 m
Pore	509 kPa	at 510.0 m
Collapse	13388 kPa	at 1338.0 m
Burst	26448 kPa	at 422.0 m



Fluid Sequence | Dynamic Well Security | Static Well Security

Schlumberger

Client : ChevronTexaco
Well : Sahara 6507/1-1
String : 13 3/8
District : SCA
Country : Norway
Loadcase : 13 38 Casing (a)

Section 2: pumping schedule

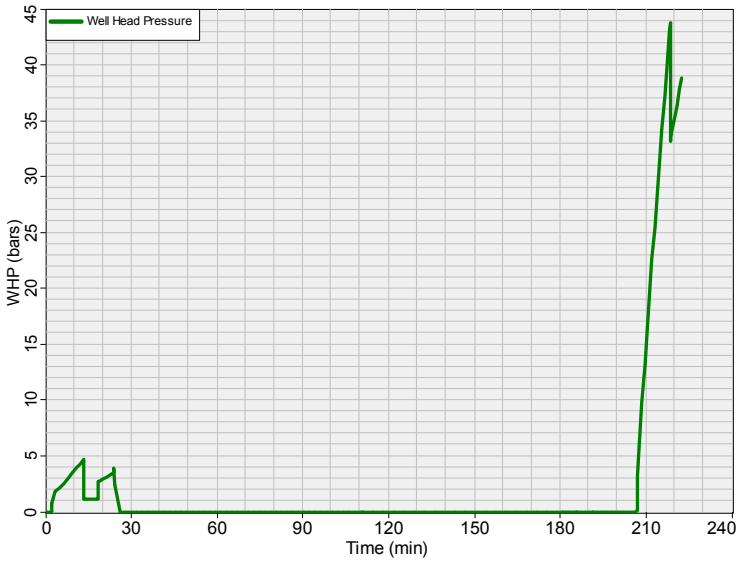
Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
Sea water	1500.00	20.0	13.3	20.0	27	
Pause	0.00	0.0	5.0	0.0	27	Release bottom dart
Sea water	700.00	3.8	5.4	23.8	27	Pump to shear the bottom plug
Lead slurry	1100.00	95.7	87.0	95.7	27	
Tail Slurry	600.00	42.0	69.9	42.0	27	
Pause	0.00	0.0	5.0	0.0	27	Release top dart
Fresh water	700.00	3.8	5.4	3.8	27	Pump to shear the top plug
WBM 1.2	2500.00	68.2	27.3	68.2	27	Switch to rig pumps
WBM 1.2	1000.00	4.0	4.0	72.2	27	Slow down to bump the plug
		Total	**03:42 hr:mn**	**237.4 m3**		

Back Pressure : 40 bar

Dynamic Security Checks :		
Frac	879 kPa	at 510.0 m
Pore	53 kPa	at 511.7 m
Collapse	13388 kPa	at 1338.0 m
Burst	22807 kPa	at 422.0 m

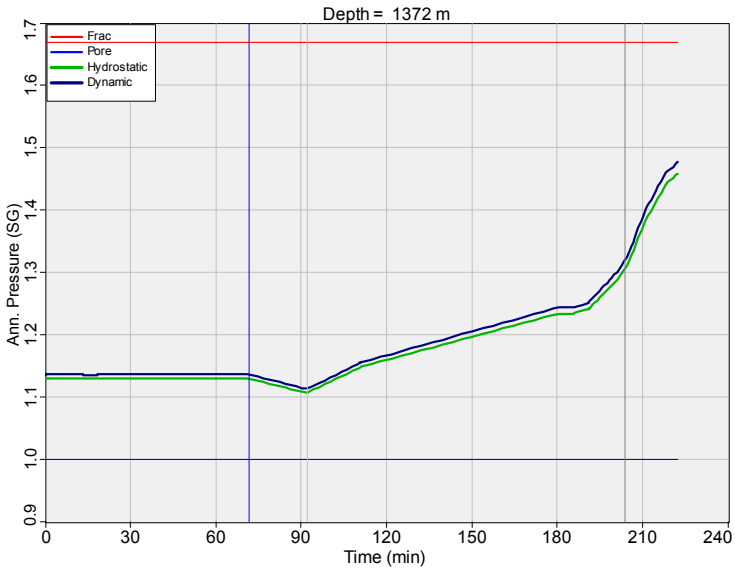
WHP predicted < 45 bar during the job



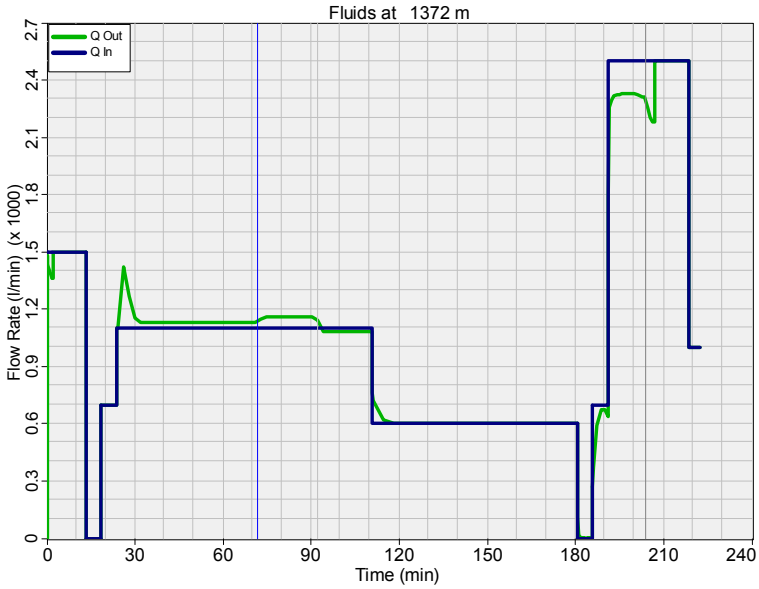
Schlumberger

Client	:	ChevronTexaco
Well	:	Sahara 6507/1-1
String	:	13 3/8
District	:	SCA
Country	:	Norway
Loadcase	:	13 38 Casing (a)

ECD during the job <1.5 SG



U-tube simulation



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Client : ChevronTexaco
Well : Sahara 6507/1-1
String : 13 3/8
District : SCA
Country : Norway
Loadcase : 13 38 Casing (a)

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
Sea water	1500.00	20.0	13.3	20.0	
Pause	0.00	0.0	5.0	0.0	Release bottom dart
Sea water	700.00	3.8	5.4	23.8	Pump to shear the bottom plug
Lead slurry	1100.00	95.7	87.0	95.7	
Tail Slurry	600.00	42.0	69.9	42.0	
Pause	0.00	0.0	5.0	0.0	Release top dart
Fresh water	700.00	3.8	5.4	3.8	Pump to shear the top plug
WBM 1.2	2500.00	68.2	27.3	68.2	Switch to rig pumps
WBM 1.2	1000.00	4.0	4.0	72.2	Slow down to bump the plug

Total Pumping Time : 03:42 hr:mn
End Job:

TOTAL MATERIAL REQUIREMENTS

Additives	Total Quantity	Item Quantity	Pack. Name	Packaging	Comments
Norwell G	129092 kg	3028	sack	43 kg	
B143	129.1 l	7	Can	20.0 l	
D081	623.3 l	21	pail	30.3 l	
D075	2482.7 l	14	drum	189.3 l	

Mix Water Requirements :

Sea water	93.7 m3
Fresh water	28.2 m3

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Laboratory Cement Test Report-9595-3

Well Data

Fluid No: SNO 9595001	**Client: Chevron Texaco**	**Location: Stena Dee**	
Date: 06-09-2004	**Well Name: Sahara**	**Field: Sahara**	

Signatures

Lab Tech:M. Sagmo

Sales Eng:Espen Johannessen

Job Type	**13 3/8" Lead**	Depth	1375.0 m	TVD	1375.0 m
BHST	44 degC	BHCT	20 degC	BHP	2822 psi
Starting Temp.	21 degC	Time to Temp.	00:26 hr:mn	Heating Rate	-0.04 degC/min
Starting Pressure	374 psi	Time to Pressure	00:26 hr:mn	Schedule	4/5

Composition

Density	**1.56 SG**	**Yield**	**1310.39 L/tonne**	**Mix Fluid**	**999.83 L/tonne**
Porosity	76.3 %	Solid Fraction	23.7 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3515
Sea water	957.83 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D075	34.000 L/tonne	EXTENDER	
D081	7.000 L/tonne	RETARDER	

Rheology

(rpm)	(deg)
300	28.3
200	29.5
100	25.5
60	23.7
30	22.5
6	21.0
3	16.8

10 sec	14
10 min	20

Temperature	**20 degC**

P_v : 9.1 cP
T_y : 21.80 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	06:18 hr:mn
70 Bc	07:19 hr:mn
100 Bc	11:10 hr:mn

Free Water

0.8 mL/250mL in 2 hrs

Comments

Sit 3515, cement from boat, ‘Northern Corona’.

Schlumberger

Laboratory Cement Test Report-9596-1

Well Data

Fluid No: SNO 9596001	**Client: Chevron Texaco**	**Location: Stena Dee**	
Date: 27-09-2004	**Well Name: Sahara**	**Field: Sahara**	

Signatures

Lab Tech: M. Sagmo
Sales Eng: Espen Johannessen

Job Type	**13 3/8" Tail**	Depth	1375.0 m	TVD	1375.0 m
BHST	44 degC	BHCT	20 degC	BHP	2822 psi
Starting Temp.	21 degC	Time to Temp.	00:26 hr:mn	Heating Rate	-0.04 degC/min
Starting Pressure	374 psi	Time to Pressure	00:26 hr:mn	Schedule	4/5

Composition

Density	**1.92 SG**	**Yield**	**748.46 L/tonne**	**Mix Fluid**	**437.90 L/tonne**
Porosity	58.5 %	Solid Fraction	41.5 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3515
Fresh water	434.90 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D081	2.000 L/tonne	RETARDER	

Rheology

(rpm)	(deg)
300	75.0
200	61.5
100	46.5
60	40.0
30	33.5
6	19.8
3	13.0

10 sec	15
10 min	17

Temperature	**20 degC**

P_v : 45.7 cP
T_y : 30.34 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	03:48 hr:mn
70 Bc	04:39 hr:mn
100 Bc	05:02 hr:mn

Free Water

4.0 mL/250mL Sedimentation	in 2 hrs

Compressive Strength @ 40°C

Time	CS
03:46 hr:mn	50 psi
06:22 hr:mn	500 psi
12:00 hr:mn	1251 psi
24:00 hr:mn	1835 psi

Comments

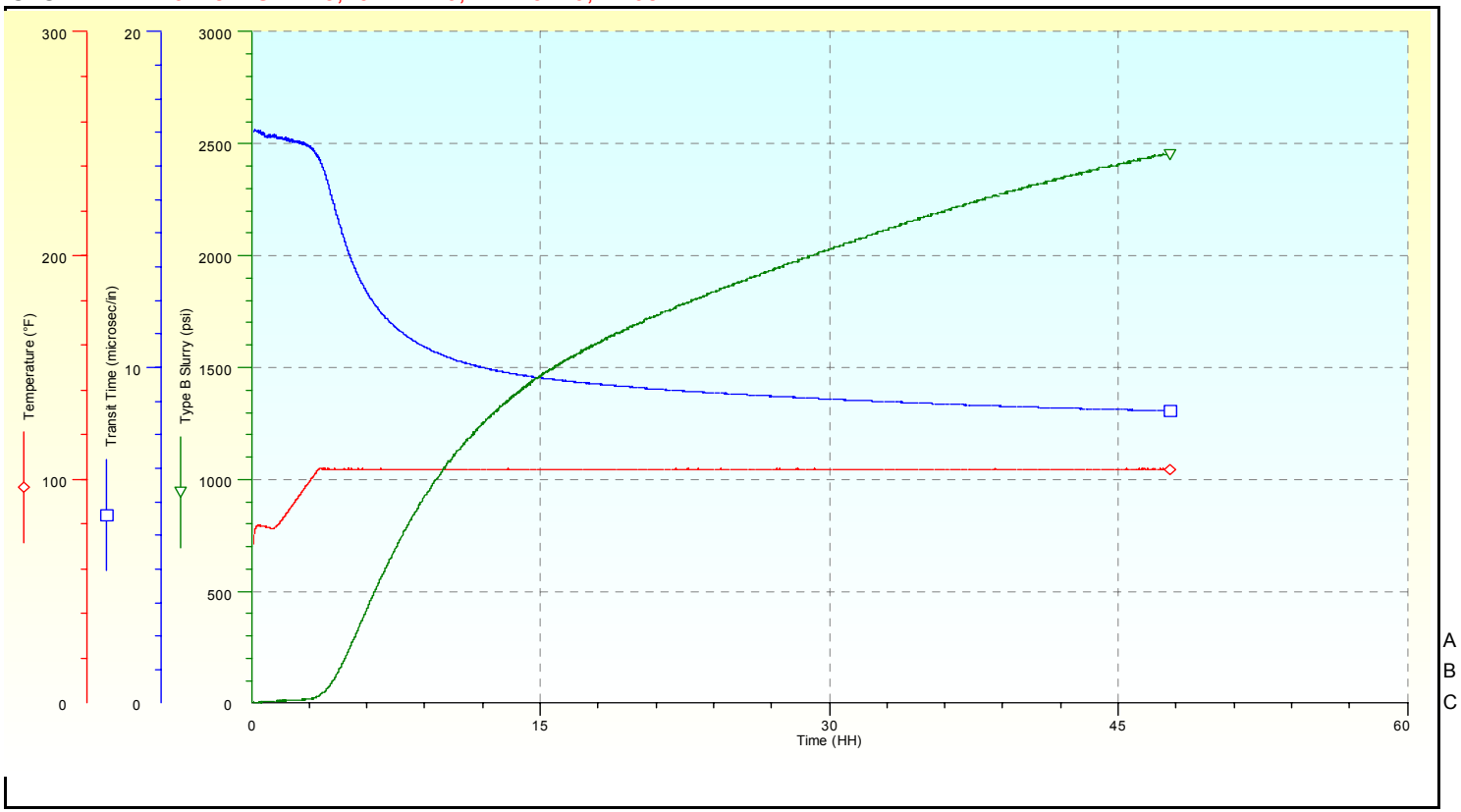
SIT 3515, Cement from boat 'Northern Corona', arrived lab 22.09.04

ULTRASONIC CEMENT ANALYZER

Schlumberger

Project no:	Sno 9596-1	Temperature:	40°C	Time to 50 psi:	3:46
Company:	Chevron Texaco	Pressure:	3000 psi	Time to 500 psi:	6:22
Location:	Stena Dee	Units:	L/100 kg	Strenght @ 12 hrs:	1251 psi
Well:	Sahara	Slurry density:	1.92 SG	Strenght @ 24 hrs:	1835 psi
Date:	26-Sep-04	Density mode:	B		

SLURRY: Norwell "G" + 43,49 FW + 0,1 B143 + 0,2 D081



A - LIGHTWEIGHT (< 14 LBS/GAL)
B - STANDARD SLURRIES
C - HIDENSE SLURRIES

ock and
week | 44 | 6507/1-1 | Stena Dee

TIME & DATE JOB STARTED		Size	Depth
23.10.2004		13 3/8"	1371.5 m

TIME & DATE LEFT LOCATION		DRILLING FLUID			TUBING / DRILL PIPE		TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE
Equipment	Personnel	Type	Wt.	Visc.	Size	Depth				
		OBM	12.9 ppg							

TIME & DATE ARRIVED STATION		DISPLACEMENT VOLUME	LINER FROM	TO	SIZE	VOLUME	PACKER TYPE	DEPTH
Equipment	Personnel							

EQUIPMENT AND UNIT Nos.				CEMENT TYPE USED	SLURRY WEIGHT
Frac Tanks	Pump Units	Blender	Supply Trucks		
(1) Cement Silos	(2) 1	(3) Paddle Tank	(4) & Pickups	Silica cmt + "G"-cement	15.8 ppg / 16.0 ppg

MATERIALS HAULED TO LOCATION			TOTAL ROUND TRIPS	MIX WATER TEMP.	SLURRY VOLUME PUMPED
Gal. Water (6)	Gal. Oil (7)	Gal. Acid (8)	(1 - 8)		75 + 78 + 71 + 83

MATERIALS AND/OR TOOLS SUPPLIED OR USED	(Indicate with (Cus) if Customer owned or supplied and by (Inv) if previously invoiced) (For Tool Service state Qty, Size, Wt, Description, Serial No.)		WAS CIRCULATION EVER LOST?
61 gal B143 antifoam	275 lbs B174 mudpush	200 lbs D095 CemNet	[X] Yes [ ] No
719 gal B018 microblock	392 gal B165 fluid loss	660 gal U060 mutual solvent	CEMENT CIRCULATED TO SURFACE? [ ] Yes [X] No
962 gal D193 dispersant	10 gal D081 retarder	33 t. silica cement, 66 t. G-cement	

TOTAL PUMPED (A + B + C)	FILL & BREAKDOWN (A)	TREATED FLUID (B)	DISPLACEMENT (C)	AVERAGE RATE	O.H. or PERF'S O.H. Size	Shots/Ft	From	To	Check Zone Treated

MAX TREATING PRESS.		MIN. TREATING PRESS.		JOB DONE DOWN
PSI	BPM	PSI	BPM	[X] TUBING/DP
SHUT IN PRESSURE	PSI	SHUT IN PRESSURE	PSI	[ ] CASING
IMMEDIATELY AFTER JOB		AT MINUTES LATER		[ ] ANNULUS

TIME		PRESSURE psi Casing	Tubing	BARRELS Pumped	Rate	LT	RECORD OF SERVICE
23/10	13:08		1000				Pressure test surface lines to 1000 psi. OK.
	13:27		613	75 bbls	4 bpm		Mix & pump plug 1 from 3385m to 3125m according to Lab report no: 9626-5
	14:02			3 bbls	2 bpm		Pumped 3 bbls mixwater behind cement
24/10	02:30		1000				Pressure test surface lines to 1000 psi. OK.
	03.00		400	75 bbls	3.5 bpm		Mix & pump plug 2 from 2260m to 2010m according to Lab report no: 9630-2. CemNet added to slurry
	03:22			3 bbls	2 bpm		Pumped 3 bbls mixwater behind cement
	11.36		1000				Pressure test surface lines to 1000 psi. OK.
	11:52		400	71 bbls	3 bpm		Mix & pump plug 3 from 2000m to 1750m according to Lab report no: 9630-2. CemNet added to slurry
	12:19			3 bbls	2 bpm		Pumped 3 bbls mixwater behind cement
	18:14		1000				Pressure test surface lines to 1000 psi. OK.
	18:28		600	83 bbls	3.6 bpm		Mix & pump plug 4 from 1470m to 1270m according to Lab report no: 9596-1
	18:49			3 bbls	2 bpm		Pumped 3 bbls mixwater behind cement
27/10	01:20						Pressure test surface lines to 1000 psi. OK.
	01:30		230	57 bbls	4 bpm		Mix & pump plug 5 from 678 m to 478m according to Lab report no: 9594-3
	02:00			16 bbls	8 bpm		Pumping 16 bbls seawater behind cement

DOWELL PERSONNEL ON JOB: 4 | OPERATING TIME: 6 HR
DOWELL REPRESENTATIVE | TOTAL LOST TIME: HR
FAILURE CATEGORY

Hidle / Hatval
Narayananaty / Jemun
CUSTOMER REPRESENTATIVE

QUALITY OF SERVICE: GOOD [✓] SATISFACTORY [ ] POOR [ ]

COMMENTS BY CUSTOMER

NAME
Mr. Mike Hollinshead

Mike Hollinshead

Stena Dee, Sahara well –P&A plug #1
Recommendations and Procedures

Schlumberger

Oilfield Services, Scandinavia

Kokstadveien 34/42
5257 Kokstad - Norway
Tel +47 55 98 61 00
Fax +47 55 98 60 21

To		Location	**Stena Dee**
Cc	**Schlumberger Cementer**	Rev	**Rev. 4**
From	**Irina Krylova**	Date	**October 22, 2004**
Subject	**P&A cement program for Sahara well # 6507/ 1-1 Plug #1**	Pages incl	

Please find attached:

1. Procedures and recommendations for the abandonment plug
2. Lab report
3. CemCADE report
4. Recommendations for plug-post-placement drill pipe clean-out

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Well & Job data:
The size of the OH is 8 ½" and the excess used is 25% (equivalent hole size 9.2"). The well has been drilled vertically. The BHST and BHCT at plug placement depth are 135 degC and 87 degC (including mud circulation prior the job) respectively. The fracture formation pressure is 1.67 SG at the 13 3/8" shoe and the maximum pore formation pressure is 1.3 SG.
The mud weight is 1.55 SG.

The hi-vis pill will be spotted as a base for the cement plug. Plug length is 260 m. The plug will not be tagged. G+35% BWOC silica cement blend is used to avoid long-term strength retrogression of the set cement due to the high temperature. CemNET is planned to be mixed with the slurry to eliminate losses during plug placement.

The drill pipe stinger set up used for job design is based on the information given from the rig (480 m of 3 ½", 15.8 ppf stinger on bottom, rest is 5", 19.5 ppf drillpipe to the rigfloor).

Objective:
To abandon the 8 ½" OH section above obstruction met in the well with a cement plug from 3560 to 3300 m MD.

Fluid Pumping Sequence:

1. Run in hole with cement stinger and mule shoe at bottom.
2. Break circulation and increase pump rate gradually while ensuring pressure is stable. The max pump rate during the cement job is 1200 lpm as per the drilling program, which should not be exceeded.
3. Rig will spot a hi-vis pill as a base for cement plug.
4. Pressure test cement line to 150 bar (maximum expected WHP is 80 bar at 1200 lpm displacement rate)
5. Pump 8 m^3 of Wellclean II spacer 1.7 SG at 1200 lpm (loss free rate)
6. Start mixing and pumping 11.2 m^3 of 1.9 SG tail slurry @ 700 lpm, or optimum rate found by cementer. CemNET will be mixed in a slurry at max concentration of 5.7 kg/m3 of slurry.

7. Pump 2.0 m^3 of Wellclean II spacer behind.
8. Displace the spacer up to the rig floor with fresh water to clean the lines
9. Rig pumps to continue displacement @ 1200 lpm by gradually increasing rate. The theoretical displacement volume is 27.4 m^3 of mud. Underdisplace 1.7 m^3. Total displacement is 25.7 m3 of mud.
10. Reduce rate to 500 lpm for the last 0.5 m^3 of displacement
11. Stop displacement and check for backflow.
12. POOH at max 2 min per stand to 2360 m.
13. Circulate out excess cement and spacer at 1200 lpm (rate to be increased gradually), move the pipe while circulating.
14. Rig will spot a hi-vis pill as a base for cement plug #2. POOH to 2260 m.

The total job time for the Plug #1 is 00:45 (hr:mn), excluding circulation prior the job + 1/3 hr for POOH + 1 hr for circulating bottoms up = approx 2.5 - 3 hrs. Thickening time of slurry is 06:55 hrs at 70 Bc at 90 degC.

NOTE:

1. Main isolation valve on cement unit to be closed if cement mixing/pumping stopped because of U-tubing.
2. It is very important that rates are increased gradually after breaking the circulation.
3. The displacement volumes have to be recalculated on the rig with actual data.
4. Pull out of the cement plug slowly. A POOH speed of 2 min per stand is appropriate.
5. The pipe can be rotated at 30-40 rpm while circulating the excess cement slurry out.
6. As losses are experienced in the well, the CemNET will be used for curing them to allow the plug not to be lost in formation.
7. CemNET D095 should be added to the cement slurry at max concentration of 5.7 kg/m^3 of slurry. CemNET is efficient for fractures up to 2 mm width. Please use required PPE as per MSDS while handling the fibers.

I wish you Safe and Successful job.

Irina Krylova
WS Field Engineer
Schlumberger Well Services, Cementing

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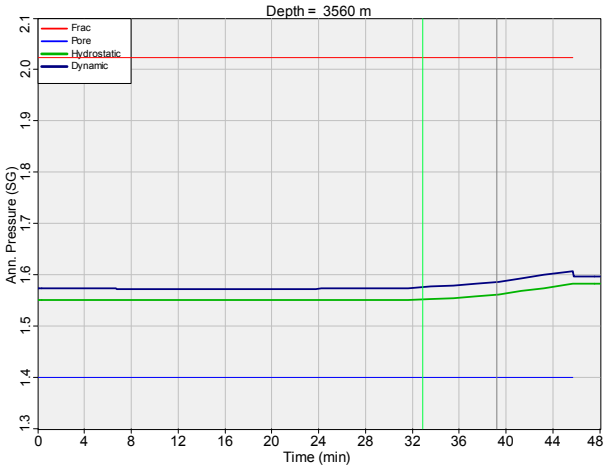
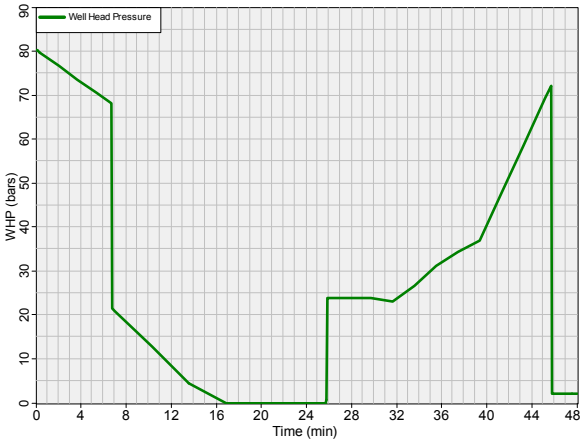
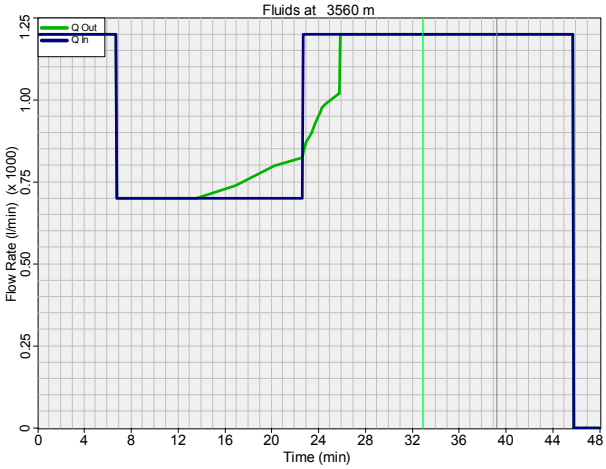
Predicted ECD at the TD (3560 m MD), expected well head pressure and U-tube simulation 25% excess on open hole







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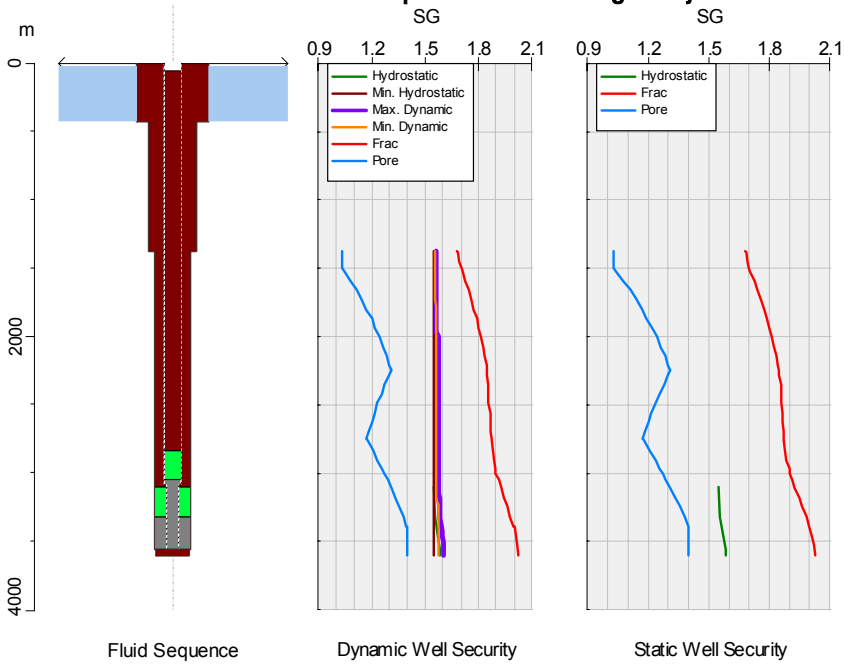
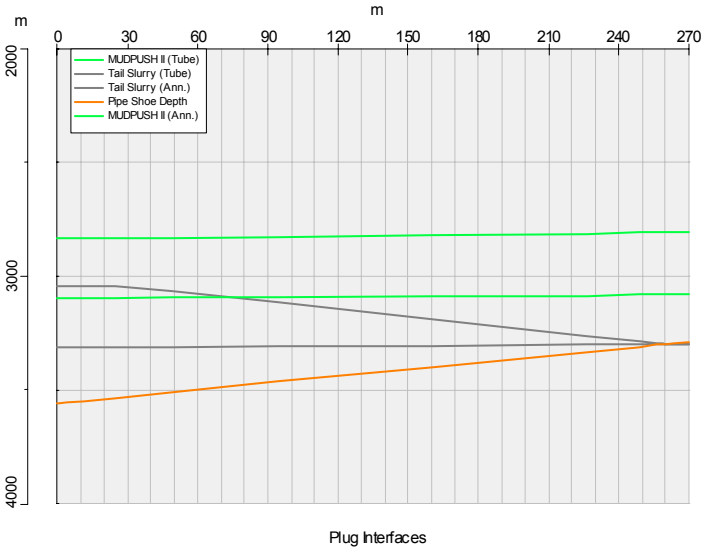
Minimum and maximum ECDs predicted during the job



Fluids interface while POOH



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Laboratory Cement Test Report-9626-5 Plug 1

Well Data

Fluid No: SNO 9626001	**Client: Chevron Texaco**	**Location: Stena Dee**
Date: 16-10-2004	**Well Name: 6507/1-1 Sahara**	**Field:**

Signatures

Lab Tech: RPSandnes

Sales Eng: I. Krylova

Job Type	**P&A plug#1**	Depth	3800.0 m	TVD	3800.0 m
BHST	145 degC	BHCT	90 degC	BHP	10214 psi
Starting Temp.	21 degC	Time to Temp.	00:30 hr:mn	Heating Rate	2.3 degC/min
Starting Pressure	1563 psi	Time to Pressure	00:30 hr:mn	Schedule	32/33

Composition

Density	**1.90 SG**	**Yield**	**798.61 L/tonne**	**Mix Fluid**	**471.816 L/tonne**
Porosity	59.1 %	Solid Fraction	40.9 %		

Code	Concentration	Component	Lot Number
Silicacement		Blend	SIT 3521
Fresh water	290.816 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D193	40.000 L/tonne	FLUID LOSS	
B165	30.000 L/tonne	DISPERSANT	
D077	10.000 L/tonne	ACCELERATOR	
B018	100.000 L/tonne	ANTISEDIMENT	

Rheology

(rpm)	(deg)
300	39.3
200	31.5
100	24.3
60	22.3
30	21.5
6	21.3
3	21.3

10 sec	38
10 min	78

Temperature	**85 degC**

P_v: 18.715 cP
T_y: 19.71 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	06:06 hr:mn
70 Bc	06:55 hr:mn
100 Bc	07:02 hr:mn

Free Water

0.1 mL/250mL in 2 hrs

Fluid Loss

API Fluid Loss			28	mL
14 mL in	30 min	at (degC)		and (psi)

Comments

Silicacement, Sit 3521, arrived lab 11/10/04 from boat 'Northern Corona'.

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CemCADE* well cementing recommendation for P&A Plug #1

Operator	**: ChevronTexaco**	**Well**	**: Sahara**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**:**
Proposal No.	: Rev.4	Service Point	: WCS Norway
Date Prepared	: October 22, 2004	Business Phone	: 47 5598 6100
		FAX No.	: 47 5598 6021

Prepared by : Irina Krylova
Phone : 47 5598 6100
E-Mail : ikrylova@slb.com

well description

Configuration	**Plug**	**Stage : Single**	**Rig Type : Floating Offshore**
Prev.String	MD : 1372.0 m	OD : 13 3/8 inch	Weight : 72.0 lb/ft
Drill Pipe	MD : 3560.0 m	OD : 3 1/2 inch	Weight : 15.8 lb/ft
Casing/liner Shoe MD			
Mud Line		0.0 m	
Total MD		3600.0 m	
BHST		135 degC	
Bit Size		8 1/2 inch	
Mean OH Diameter		8.5 inch	
Mean Annular Excess		25.0 %	
Mean OH Equivalent Diameter		9.2 in	
Total OH Volume		95.4 m3 (including excess)	
Fluids Return to		RIG_FLOOR	
Mean Sea Level		25.0 m	
Sea Bed Depth		422.0 m	
Riser ID		18.8 in	

Disclaimer Notice:

This information is presented in good faith, but no warranty is given by and Schlumberger assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlumberger can assist in selecting.

The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

Freedom from infringement of patents of Schlumberger or others is not to be inferred.

* Mark of Schlumberger

Schlumberger

Client	:	ChevronTexaco
Well	:	Sahara
String	:	P&A Plug #1
District	:	WCS Norway
Country	:	Norway
Loadcase	:	PA 1 at 3560

Section 1: fluid sequence

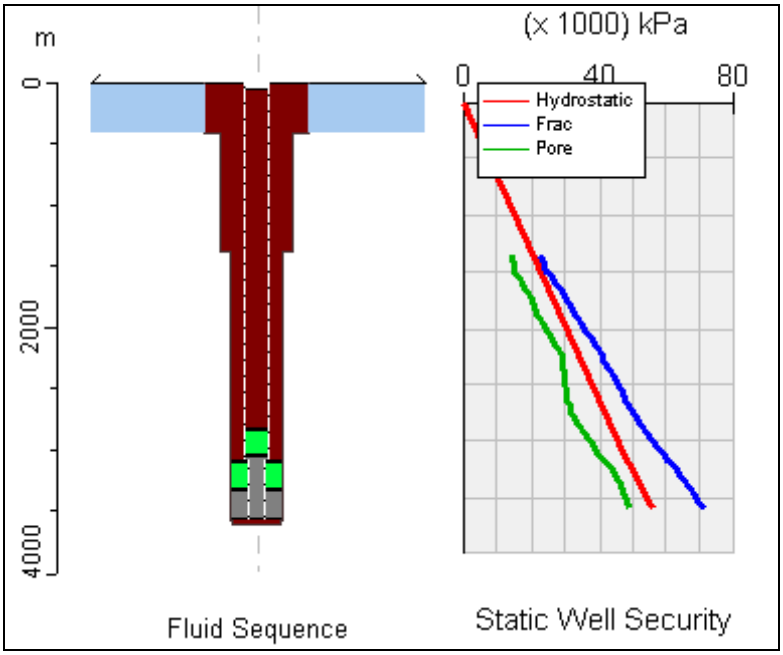
Original fluid	Mud	1.55 SG	
	P_v : 35.0 cP		T_y : 4.79 Pa
Displacement Volume	30.4 m3		
Drill Pipe Volume	30.4 m3		
Total Volume	46.8 m3		
TOC	3314.9 m		

Fluid Sequence

Name	Volume (m3)	Ann. Len (m)	Top (m)	Density (SG)	Rheology	
MUDPUSH II	8.0	217.7	3097.2	1.70	P_v:35.0 cP	T_y:7.18 Pa
Tail Slurry	9.0	245.1	3314.9	1.90	P_v:18.7 cP	T_y:9.45 Pa
Tail Slurry	2.2		3047.1	1.90	P_v:18.7 cP	T_y:9.45 Pa
MUDPUSH II	2.0		2835.8	1.70	P_v:35.0 cP	T_y:7.18 Pa
Mud	25.7		59.8	1.55	P_v:35.0 cP	T_y:4.79 Pa

Static Security Checks :

Frac	1769 kPa	at 1372.0 m
Pore	5291 kPa	at 2250.0 m



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Client : ChevronTexaco
Well : Sahara
String : P&A Plug #1
District : WCS Norway
Country : Norway
Loadcase : PA 1 at 3560

Section 2: pumping schedule

Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
MUDPUSH II	1200.00	8.0	6.7	8.0	15	
Tail Slurry	700.00	11.2	16.0	11.2	20	
MUDPUSH II	1200.00	2.0	1.6	2.0	15	
Mud	1200.00	25.7	21.4	25.7	27	
Shut-In	0.00	0.0	30.0	0.0	27	Static period after Placement
		Total	**00:45 hr:mn**	**46.8 m3**		

Dynamic Security Checks :

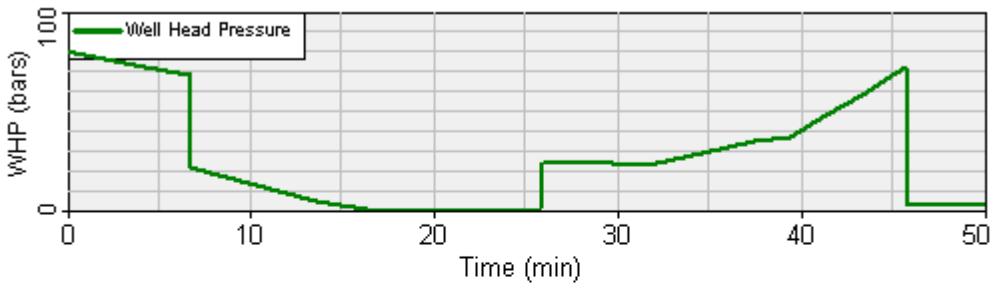
Frac	1610 kPa	at 1372.0 m
Pore	4992 kPa	at 3395.0 m

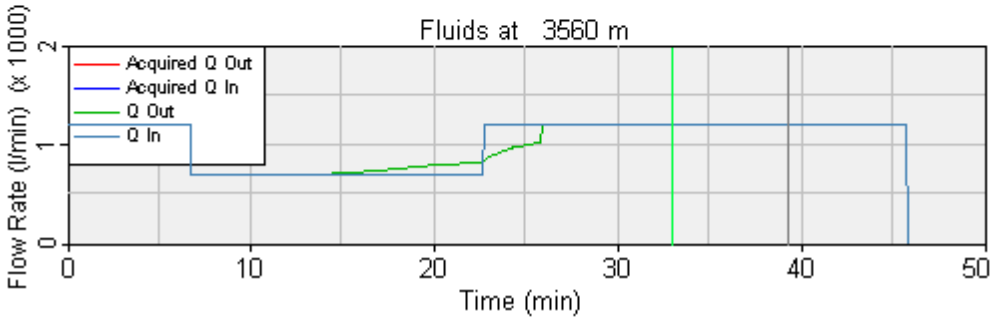
Temperature Results

BHCT	100 degC	Simulated Max HCT	135 degC
Simulated BHCT	91 degC	Max HCT Depth	3560.0 m
CT at TOC	94 degC	Max HCT Time	00:00:00 hr:mn:sc

Static temperatures :

At Time	00:15 hr:mn	00:30 hr:mn	Geo. Temp.
Top of Cement	95 degC	95 degC	125 degC
Bottom Hole	91 degC	92 degC	135 degC





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Client : ChevronTexaco
Well : Sahara
String : P&A Plug #1
District : WCS Norway
Country : Norway
Loadcase : PA 1 at 3560

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
MUDPUSH II	1200.00	8.0	6.7	8.0	
Tail Slurry	700.00	11.2	16.0	11.2	
MUDPUSH II	1200.00	2.0	1.6	2.0	
Mud	1200.00	25.7	21.4	25.7	
Shut-In	0.00	0.0	30.0	0.0	Static period after Placement

Total Pumping Time : 00:45 hr:mn
End Job:

MIXING PREPARATION

MUDPUSH II	**Volume :** 10.0 m3	**Density :** 1.70 SG
Code	**Quantity**	**Design**
Fresh water	7.100 m3	
B143	19.916 l	2.0 L/m3 of spacer
B174	34.853 kg	3.5 kg/m3 of spacer
U066	697.065 l	70.0 L/m3 of spacer
D031	9169.141 kg	920.77 kg/m3 of spacer

Stena Dee, Sahara well –P&A plug #2, 3
Recommendations and Procedures

Oilfield Services, Scandinavia

Kokstadveien 34/42
5257 Kokstad - Norway
Tel +47 55 98 61 00
Fax +47 55 98 60 21

To		Location	**Stena Dee**
Cc	**Schlumberger Cementer**	Rev	**Rev. 4**
From	**Irina Krylova**	Date	**October 22, 2004**
Subject	**P&A cement program for Sahara well # 6507/ 1-1 Plug #2, 3**	Pages incl	

Please find attached:

1. Procedures and recommendations for the abandonment plug
2. Lab report of slurry to be used for plugs # 2 and 3
3. CemCADE reports
4. Recommendations for plug-post-placement drill pipe clean-out

Well & Job data:
The size of the OH is 8 ½" and the excess used is 25% (equivalent hole size 9.2"). The well has been drilled vertically. The BHST and BHCT at plug placement depth are 85 degC and 46 degC (including mud circulation prior the job) respectively. The fracture formation pressure is 1.67 SG at the 13 3/8" shoe and the maximum pore formation pressure is 1.3 SG.
The mud weight is 1.55 SG.

The hi-vis pill will be spotted as a base for the cement plug #2. Plug #3 will be placed on top of plug #2. Plug length is 250 m each. The plugs will not be tagged. CemNET will be mixed with the slurry to eliminate losses during plug s placement.

The drill pipe stinger set up used for job design is based on the information given from the rig (480 m of 3 ½", 15.8 ppf stinger on bottom, rest is 5", 19.5 ppf drillpipe to the rigfloor).

Objective:
To abandon the 8 ½" OH section with two cement plugs from 2260 to 1750 m MD.

Fluid Pumping Sequence:

Plug #2: 2260 to2010 m

1. Rig will spot a hi-vis pill below the plug placement depth.
2. Cement stinger and mule shoe at bottom are at plug placement depth.
3. Break circulation and increase pump rate gradually while ensuring pressure is stable. The max pump rate during the cement job is 1200 lpm as per the drilling program, which should not be exceeded.
4. Pressure test cement line to 150 bar (maximum expected WHP is 80 bar at 1200 lpm displacement rate)
5. Pump 8 m^3 of Wellclean II spacer 1.7 SG at 1200 lpm (loss free rate)

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6. Start mixing and pumping 10.9 m³ of 1.9 SG tail slurry @ 700 lpm, or optimum rate found by cementer. CemNET will be mixed in a slurry at max concentration of 5.7 kg/m3 of slurry.
7. Pump 1.9 m³ of Wellclean II spacer behind.
8. Displace the spacer up to the rig floor with fresh water to clean the lines
9. Rig pumps to continue displacement @ 1200 lpm by gradually increasing rate. The theoretical displacement volume is 15.4 m³ of mud. Underdisplace 1.6 m³. Total displacement is 13.8 m3 of mud.
10. Reduce rate to 500 lpm for the last 0.5 m³ of displacement
11. Stop displacement and check for backflow.
12. POOH at max 2 min per stand to 2000 m.
13. Circulate out excess cement and spacer at 1200 lpm (rate to be increased gradually), move the pipe while circulating.
14. When mud weight in = mud weight out, prepare to spot Plug #3.

Plug #3: 2000 to1750 m

1. Cement stinger and mule shoe at bottom are at plug placement depth.
2. Break circulation and increase pump rate gradually while ensuring pressure is stable. The max pump rate during the cement job is 1200 lpm as per the drilling program, which should not be exceeded.
3. Pressure test cement line to 150 bar (maximum expected WHP is 70 bar at 1200 lpm displacement rate)
4. Pump 8 m³ of Wellclean II spacer 1.7 SG at 1200 lpm (loss free rate)
5. Start mixing and pumping 11.0 m³ of 1.9 SG tail slurry @ 700 lpm, or optimum rate found by cementer. CemNET will be mixed in a slurry at max concentration of 5.7 kg/m3 of slurry.
6. Pump 1.9 m³ of Wellclean II spacer behind.
7. Displace the spacer up to the rig floor with fresh water to clean the lines
8. Rig pumps to continue displacement @ 1200 lpm by gradually increasing rate. The theoretical displacement volume is 13.0 m³ of mud. Underdisplace 1.6 m³. Total displacement is 11.4 m3 of mud.
9. Reduce rate to 500 lpm for the last 0.5 m³ of displacement
10. Stop displacement and check for backflow.
11. POOH at max 2 min per stand to 1600 m.
12. Circulate out excess cement and spacer at 1200 lpm (rate to be increased gradually), move the pipe while circulating.
13. Rig will spot a hi-vis pill as a base for cement plug #4.
14. POOH to 1470 m.

The total job time for the Plug #2 is 00:35 (hr:mn), excluding circulation prior the job + 1/3 hr for POOH + 1 hr for circulating bottoms up = approx 2.5 - 3 hrs.
The total job time for the Plug #3 is 00:33 (hr:mn), excluding circulation prior the job + 1/3 hr for POOH + 1 hr for circulating bottoms up = approx 2.5 - 3 hrs.

Thickening time of slurry is 05:06 hrs at 70 Bc at 46 degC.

NOTE:
1. Main isolation valve on cement unit to be closed if cement mixing/pumping stopped because of U-tubing.
2. It is very important that rates are increased gradually after breaking the circulation.
3. The displacement volumes have to be recalculated on the rig with actual data.
4. Pull out of the cement plug slowly. A POOH speed of 2 min per stand is appropriate.
5. The pipe can be rotated at 30-40 rpm while circulating the excess cement slurry out.
6. As losses are experienced in the well, the CemNET will be used for curing them to allow the plug not to be lost in formation.
7. CemNET D095 should be added to the cement slurry at max concentration of 5.7 kg/m³ of slurry. CemNET is efficient for fractures up to 2 mm width. Please use required PPE as per MSDS while handling the fibers.

I wish you Safe and Successful job.

Irina Krylova
WS Field Engineer
Schlumberger Well Services, Cementing

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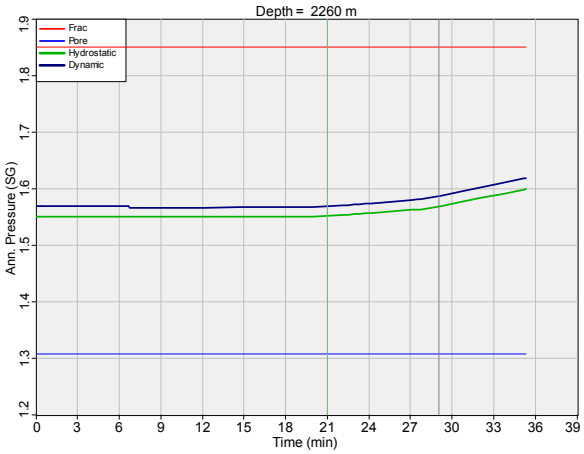
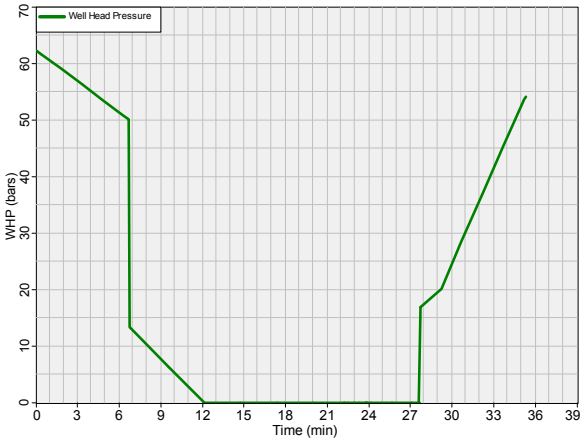
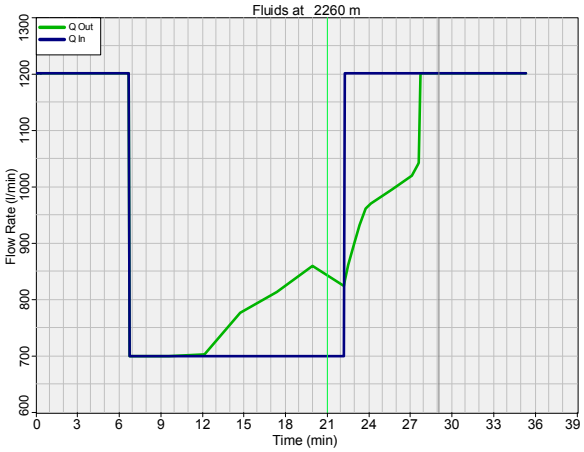
Predicted ECD at the TD (3560 m MD), expected well head pressure and U-tube simulation 25% excess on open hole







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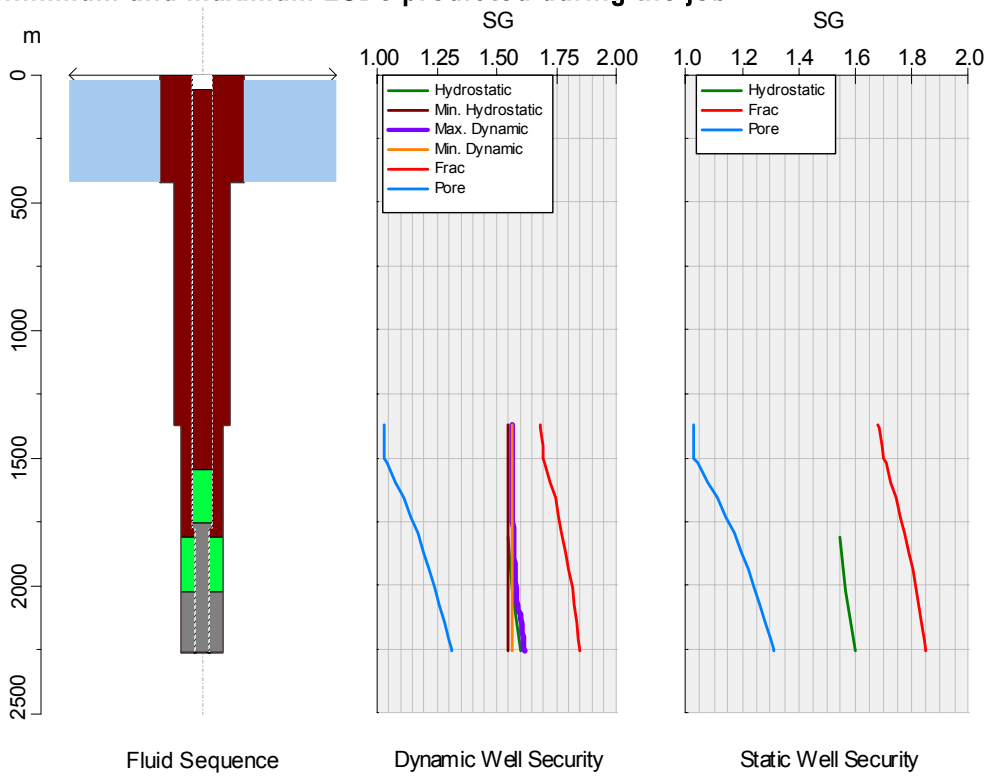
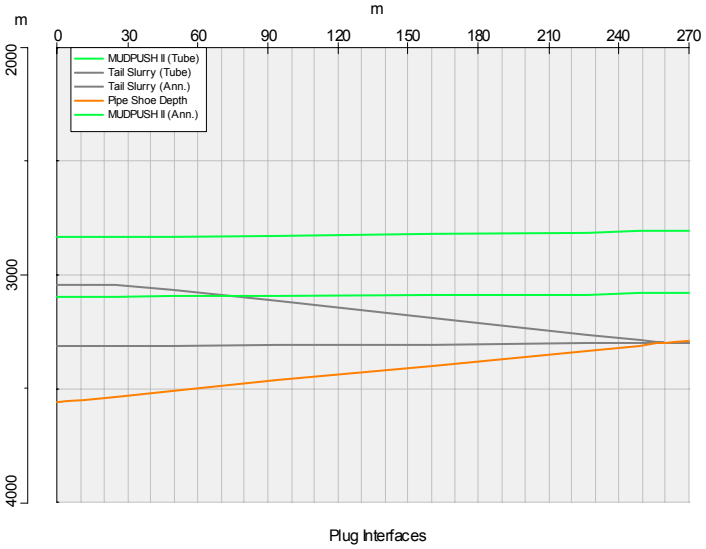
Minimum and maximum ECDs predicted during the job



Fluids interface while POOH



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Laboratory Cement Test Report-9630-2

Well Data

Fluid No:	**Client:** Chevron Texaco	**Location:** Stena Dee
Date: 19-10-2004	**Well Name:** 6507/1-1 Sahara	**Field:** Sahara

Signatures

Lab Tech: RPSandnes

Sales Eng: I. Krylova

Job Type	**P&A plug #1**	Depth	2640.0 m	TVD	2640.0 m
BHST	98 degC	BHCT	58 degC	BHP	7110 psi
Starting Temp.	21 degC	Time to Temp.	00:22 hr:mn	Heating Rate	1.68 degC/min
Starting Pressure	1100 psi	Time to Pressure	00:22 hr:mn	Schedule	( )

Composition

Density	**1.90 SG**	**Yield**	**768.34 L/tonne**	**Mix Fluid**	**457.779 L/tonne**
Porosity	59.6 %	Solid Fraction	40.4 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3520
Fresh water	380.779 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D193	60.000 L/tonne	FLUID LOSS	
B165	16.000 L/tonne	DISPERSANT	

Rheology

(rpm)	(deg)
300	20.8
200	15.2
100	8.5
60	6.0
30	4.3
6	2.7
3	2.5

Temperature	**58 degC**

P_v : 18.657 cP
T_y : 2.40 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	05:23 hr:mn
70 Bc	05:37 hr:mn
100 Bc	05:43 hr:mn

Free Water

0.5 mL/250mL in 2 hrs

Comments

UCA is ongoing.

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CemCADE* well cementing recommendation for P&A Plug #2

Operator	**: ChevronTexaco**	**Well**	**: Sahara**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**:**
Proposal No.	: Rev.4	Service Point	: WCS Norway
Date Prepared	: October 22, 2004	Business Phone	: 47 5598 6100
		FAX No.	: 47 5598 6021

Prepared by : Irina Krylova
Phone : 47 5598 6100
E-Mail : ikrylova@slb.com

well description

Configuration	**Plug**	**Stage : Single**	**Rig Type : Floating Offshore**
Prev.String	MD : 1372.0 m	OD : 13 3/8 inch	Weight : 72.0 lb/ft
Drill Pipe	MD : 2260.0 m	OD : 3 1/2 inch	Weight : 15.8 lb/ft

Casing/liner Shoe MD	2260.0 m
Mud Line	0.0 m
Total MD	2260.0 m
BHST	85 degC
Bit Size	8 1/2 inch
Mean OH Diameter	8.5 inch
Mean Annular Excess	25.0 %
Mean OH Equivalent Diameter	9.3 in
Total OH Volume	38.6 m3 (including excess)
Fluids Return to	RIG_FLOOR
Mean Sea Level	25.0 m
Sea Bed Depth	422.0 m
Riser ID	18.8 in

Disclaimer Notice:

This information is presented in good faith, but no warranty is given by and Schlumberger assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlumberger can assist in selecting.

The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

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Client	:	ChevronTexaco
Well	:	Sahara
String	:	P&A Plug #2
District	:	WCS Norway
Country	:	Norway
Loadcase	:	PA 2 at 2260

Section 1: fluid sequence

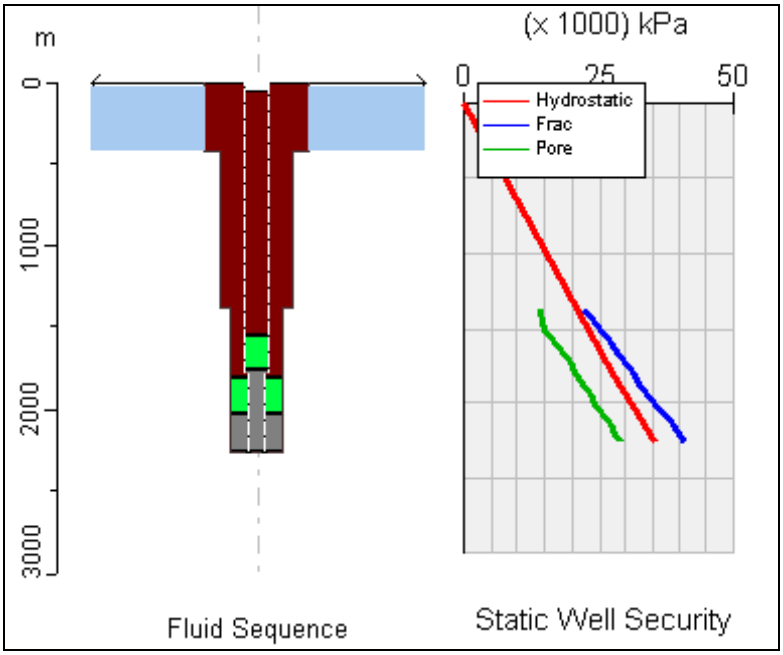
Original fluid	Mud	1.55 SG	
	Pv : 35.0 cP		Ty : 4.79 Pa
Displacement Volume	18.3 m3		
Drill Pipe Volume	18.3 m3		
Total Volume	34.6 m3		
TOC	2023.9 m		

Fluid Sequence

Name	Volume (m3)	Ann. Len (m)	Top (m)	Density (SG)	Rheology	
MUDPUSH II	8.0	214.7	1809.2	1.70	Pv:35.0 cP	Ty:7.18 Pa
Tail Slurry	8.8	236.1	2023.9	1.90	Pv:18.7 cP	Ty:9.45 Pa
Tail Slurry	2.1		1757.1	1.90	Pv:18.7 cP	Ty:9.45 Pa
MUDPUSH II	1.9		1549.3	1.70	Pv:35.0 cP	Ty:7.18 Pa
Mud	13.8		59.6	1.55	Pv:35.0 cP	Ty:4.79 Pa

Static Security Checks :

Frac	1766 kPa	at 1372.0 m
Pore	6320 kPa	at 2023.9 m



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Client : ChevronTexaco
Well : Sahara
String : P&A Plug #2
District : WCS Norway
Country : Norway
Loadcase : PA 2 at 2260

Section 2: pumping schedule

Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
MUDPUSH II	1200.00	8.0	6.7	8.0	15	
Tail Slurry	700.00	10.9	15.5	10.9	20	
MUDPUSH II	1200.00	1.9	1.6	1.9	15	
Mud	1200.00	13.8	11.5	13.8	27	
Shut-In	0.00	0.0	30.0	0.0	27	Static period after Placement
		Total	**00:35 hr:mn**	**34.6 m3**		

Dynamic Security Checks :

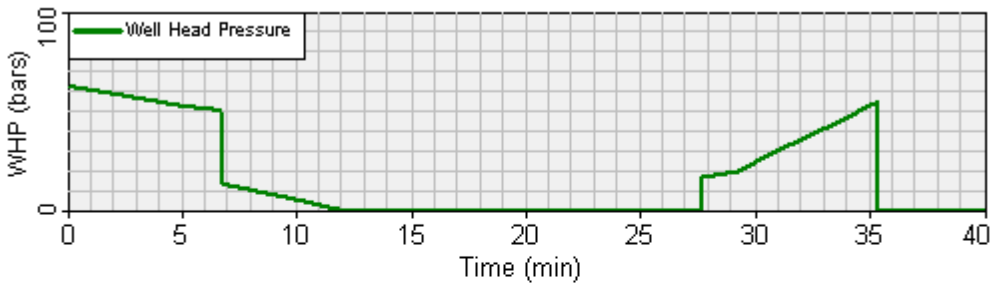
Frac	1607 kPa	at 1372.0 m
Pore	5295 kPa	at 2250.0 m

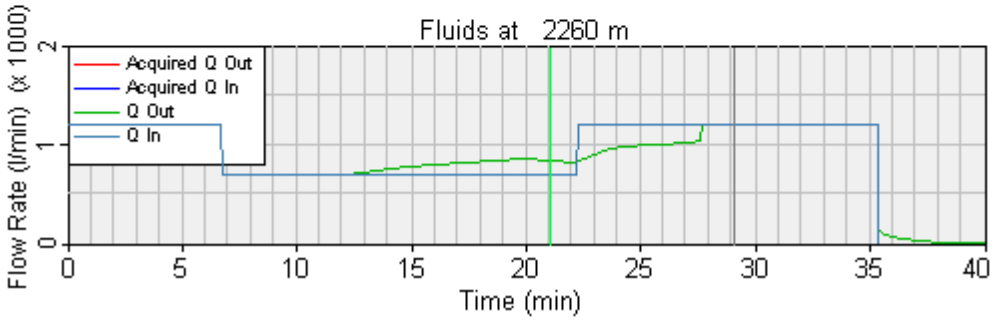
Temperature Results

BHCT	60 degC	Simulated Max HCT	85 degC
Simulated BHCT	44 degC	Max HCT Depth	2260.0 m
CT at TOC	45 degC	Max HCT Time	00:00:00 hr:mn:sc

Static temperatures :

At Time	00:15 hr:mn	00:30 hr:mn	Geo. Temp.
Top of Cement	46 degC	46 degC	75 degC
Bottom Hole	44 degC	44 degC	85 degC





Schlumberger

Client : ChevronTexaco
Well : Sahara
String : P&A Plug #2
District : WCS Norway
Country : Norway
Loadcase : PA 2 at 2260

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
MUDPUSH II	1200.00	8.0	6.7	8.0	
Tail Slurry	700.00	10.9	15.5	10.9	
MUDPUSH II	1200.00	1.9	1.6	1.9	
Mud	1200.00	13.8	11.5	13.8	
Shut-In	0.00	0.0	30.0	0.0	Static period after Placement

Total Pumping Time : 00:35 hr:mn
End Job:

MIXING PREPARATION

MUDPUSH II	**Volume :** 9.9 m3	**Density :** 1.70 SG
Code	**Quantity**	**Design**
Fresh water	7.077 m3	
B143	19.850 l	2.0 L/m3 of spacer
B174	34.738 kg	3.5 kg/m3 of spacer
U066	694.767 l	70.0 L/m3 of spacer
D031	9138.909 kg	920.77 kg/m3 of spacer

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CemCADE* well cementing recommendation for P&A Plug #3

Operator	**: ChevronTexaco**	**Well**	**: Sahara**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**:**
Proposal No.	: Rev.4	Service Point	: WCS Norway
Date Prepared	: October 22, 2004	Business Phone	: 47 5598 6100
		FAX No.	: 47 5598 6021

Prepared by : Irina Krylova
Phone : 47 5598 6100
E-Mail : ikrylova@slb.com

well description

Configuration	**Plug**	**Stage : Single**	**Rig Type : Floating Offshore**
Prev.String	MD : 1372.0 m	OD : 13 3/8 inch	Weight : 72.0 lb/ft
Drill Pipe	MD : 2000.0 m	OD : 3 1/2 inch	Weight : 15.8 lb/ft

Casing/liner Shoe MD	2000.0 m
Mud Line	0.0 m
Total MD	2000.0 m
BHST	70 degC
Bit Size	8 1/2 inch
Mean OH Diameter	8.5 inch
Mean Annular Excess	25.0 %
Mean OH Equivalent Diameter	9.3 in
Total OH Volume	27.5 m3 (including excess)
Fluids Return to	RIG_FLOOR
Mean Sea Level	25.0 m
Sea Bed Depth	422.0 m
Riser ID	18.8 in

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Client	:	ChevronTexaco
Well	:	Sahara
String	:	P&A Plug #3
District	:	WCS Norway
Country	:	Norway
Loadcase	:	PA 3 at 2000

Section 1: fluid sequence

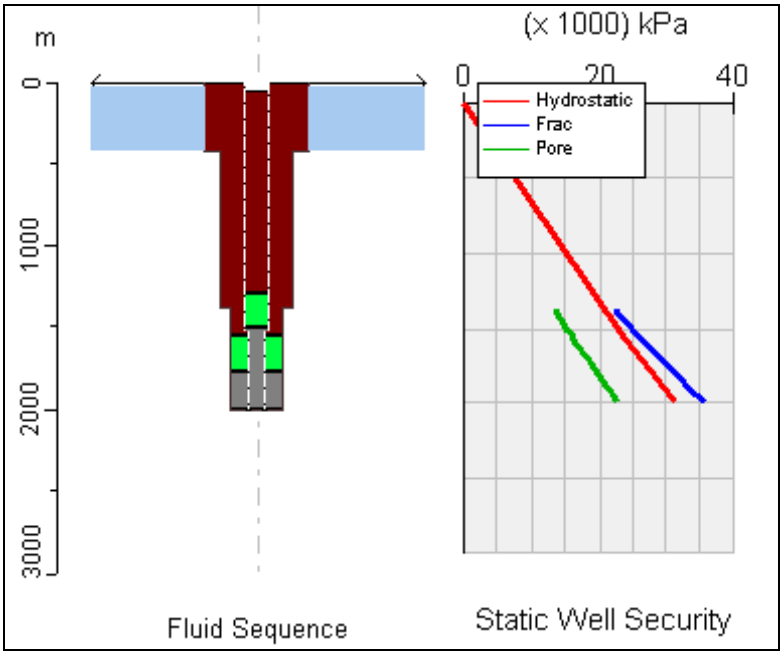
Original fluid	Mud	1.55 SG	
	P_v : 35.0 cP		T_y : 4.79 Pa
Displacement Volume	15.9 m3		
Drill Pipe Volume	15.9 m3		
Total Volume	32.3 m3		
TOC	1763.8 m		

Fluid Sequence

Name	Volume (m3)	Ann. Len (m)	Top (m)	Density (SG)	Rheology	
MUDPUSH II	8.0	212.6	1551.1	1.70	P_v:35.0 cP	T_y:7.18 Pa
Tail Slurry	8.9	236.2	1763.8	1.90	P_v:22.3 cP	T_y:2.09 Pa
Tail Slurry	2.1		1497.1	1.90	P_v:22.3 cP	T_y:2.09 Pa
MUDPUSH II	1.9		1291.7	1.70	P_v:35.0 cP	T_y:7.18 Pa
Mud	11.4		59.5	1.55	P_v:35.0 cP	T_y:4.79 Pa

Static Security Checks :

Frac	1767 kPa	at 1372.0 m
Pore	6995 kPa	at 1372.0 m



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Client : ChevronTexaco
Well : Sahara
String : P&A Plug #3
District : WCS Norway
Country : Norway
Loadcase : PA 3 at 2000

Section 2: pumping schedule

Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
MUDPUSH II	1200.00	8.0	6.7	8.0	15	
Tail Slurry	700.00	11.0	15.7	11.0	20	
MUDPUSH II	1200.00	1.9	1.6	1.9	15	
Mud	1200.00	11.4	9.5	11.4	27	
Shut-In	0.00	0.0	30.0	0.0	27	Static period after Placement
		Total	**00:33 hr:mn**	**32.3 m3**		

Dynamic Security Checks :

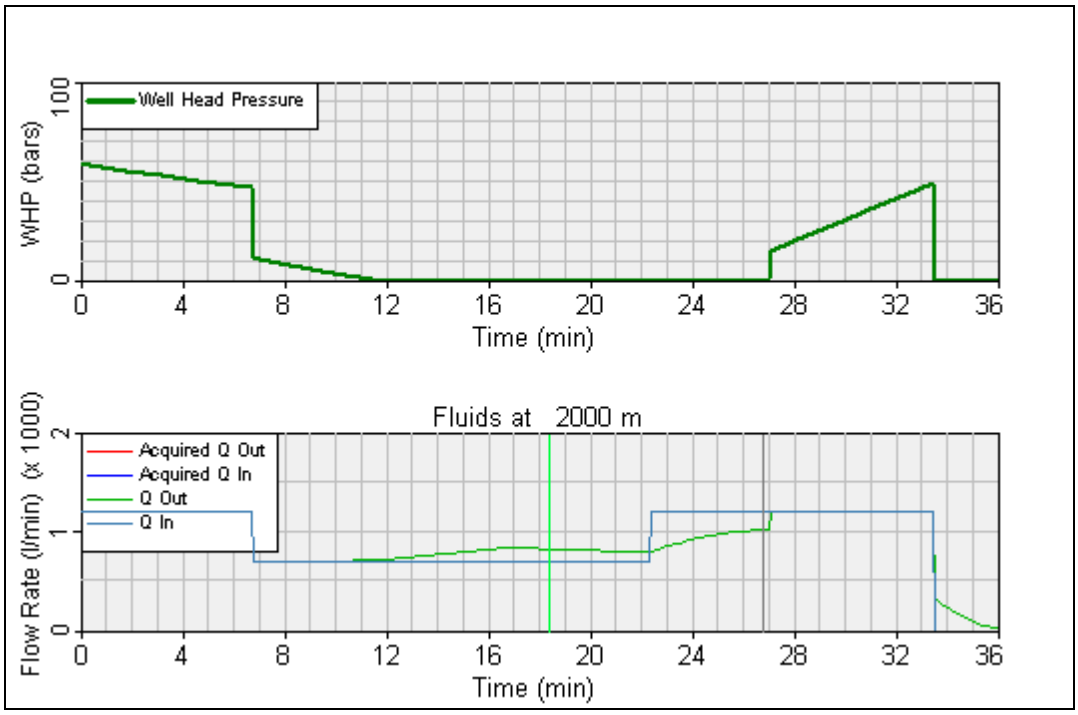
Frac	1607 kPa	at 1372.0 m
Pore	6995 kPa	at 1372.0 m

Temperature Results

BHCT	50 degC	Simulated Max HCT	70 degC
Simulated BHCT	34 degC	Max HCT Depth	2000.0 m
CT at TOC	37 degC	Max HCT Time	00:00:00 hr:mn:sc

Static temperatures :

At Time	00:15 hr:mn	00:30 hr:mn	Geo. Temp.
Top of Cement	38 degC	38 degC	61 degC
Bottom Hole	34 degC	35 degC	70 degC



Client : ChevronTexaco
Well : Sahara
String : P&A Plug #3
District : WCS Norway
Country : Norway
Loadcase : PA 3 at 2000

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
MUDPUSH II	1200.00	8.0	6.7	8.0	
Tail Slurry	700.00	11.0	15.7	11.0	
MUDPUSH II	1200.00	1.9	1.6	1.9	
Mud	1200.00	11.4	9.5	11.4	
Shut-In	0.00	0.0	30.0	0.0	Static period after Placement

Total Pumping Time : 00:33 hr:mn
End Job:

MIXING PREPARATION

MUDPUSH II	**Volume :** 9.9 m3	**Density :** 1.70 SG
Code	**Quantity**	**Design**
Fresh water	7.061 m3	
B143	19.806 l	2.0 L/m3 of spacer
B174	34.660 kg	3.5 kg/m3 of spacer
U066	693.206 l	70.0 L/m3 of spacer
D031	9118.379 kg	920.77 kg/m3 of spacer

Stena Dee, Sahara well –P&A plug #4
Recommendations and Procedures

Schlumberger

Oilfield Services, Scandinavia

Kokstadveien 34/42
5257 Kokstad - Norway
Tel +47 55 98 61 00
Fax +47 55 98 60 21

To		Location	**Stena Dee**
Cc	**Schlumberger Cementer**	Rev	**Rev. 2**
From	**Irina Krylova**	Date	**October 22, 2004**
Subject	**P&A cement program for Sahara well # 6507/ 1-1 Plug #4**	Pages incl	

Please find attached:

1. Procedures and recommendations for the abandonment of the 13 3/8" shoe section
2. Lab report for slurry of Plug #4
3. CemCADE report
4. Recommendations for plug-post-placement drill pipe clean-out

Well & Job data:
The size of the OH below 13 3/8" shoe is 8 ½" and the excess used is 25% (equivalent hole size 9.2"). The well has been drilled vertically. The BHST and BHCT are 48 degC and 25 degC respectively. The fracture formation pressure is 1.67 SG at the 13 3/8" shoe and the maximum pore formation pressure is 1.0 SG.
The mud weight is 1.55 SG.
Plug length is 200 m. This plug will be tagged.
The drill pipe stinger set up used is based on the information given from the rig (480 m of 3 ½", 15.8 ppf stinger on bottom, rest is 5", 19.5 ppf drillpipe to the rigfloor).

Objective:
Set an abandonment plug at 1470 m at 13 3/8" casing shoe till 1270 m.

Fluid Pumping Sequence:

1. Rig will spot hi-vis pill below bottom of cement plug
2. Cement stinger and mule shoe are above hi-vis pill.
3. Break circulation and increase pump rate gradually while ensuring pressure is stable. The max pump rate during the cement job is 1500 lpm, which should not be exceeded. If losses occur, reduce to a loss free rate.
4. Pressure test cement line to 150 bar (maximum expected WHP is 90 bar)
5. Pump 8 m^3 of Wellclean II spacer 1.70 SG at 1500 lpm (loss free rate)
6. Start mixing and pumping 12.2 m^3 of 1.92 SG tail slurry @ 700 lpm, or optimum rate found by cementer
7. Pump 1.0 m^3 of Wellclean II spacer behind.
8. Displace the spacer up to the rig floor with fresh water to clean the lines
9. Rig pumps to continue displacement @ 1500 lpm by gradually increasing rate. The theoretical displacement volume is 9.3 m^3 . Underdisplace 1.3 m^3. Total displacement is 8.0 m3.
10. Reduce rate to 500 lpm for the last 0.5 m^3 of displacement
11. Stop displacement and check for backflow.

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12. POOH at max 2 min per stand to1260 m.
13. Circulate out excess cement and spacer at 1500 lpm (rate to be increased gradually), move the pipe while circulating.
14. Continue to POOH while WOC.
15. Refer to UCA chart provided to determine WOC time. It is recommended to wait min 15 hrs before tagging plug (1500 psi).
16. Also check the surface samples of slurry pumped.

The total job time is 00:28 (hr:mn), excluding circulation prior the job + 1/4 hr for POOH + 1 hr for circulating bottoms up = approx 2.5 hrs. The thickening time for the slurry is 04:39 at 70 Bc at 20 degC.
Fluid interface plots are provided on the next pages, which simulated the behaviour of the interfaces when pulling the stinger out of the slurry.

NOTE:

1. Main isolation valve on cement unit to be closed if cement mixing/pumping stopped because of U-tubing.
2. It is very important that rates are increased gradually after breaking the circulation.
3. The displacement volumes have to be recalculated on the rig with actual data.
4. Pull out of the cement plug slowly. A POOH speed of minimum 2 min per stand is appropriate.
5. If still losses are observed CemNET D095 should be added to the cement slurry at 5.7 kg/m³. CemNET is efficient for fractures up to 2 mm width.

I wish you Safe and Successful job.

Irina Krylova
WS Field Engineer
Schlumberger Well Services, Cementing
Norway, Scandinavia
ilrylova@slb.com

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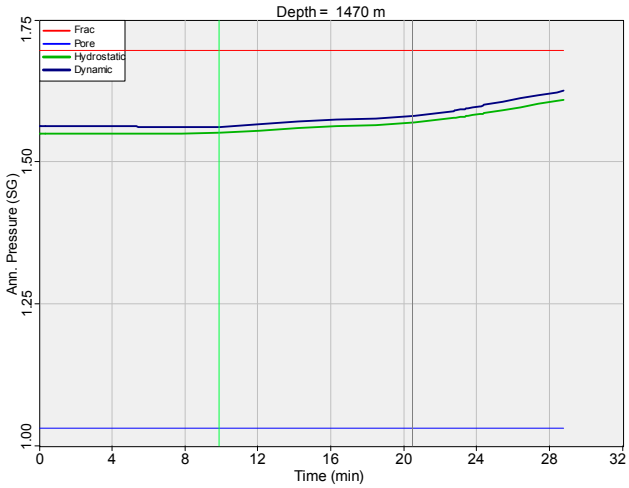
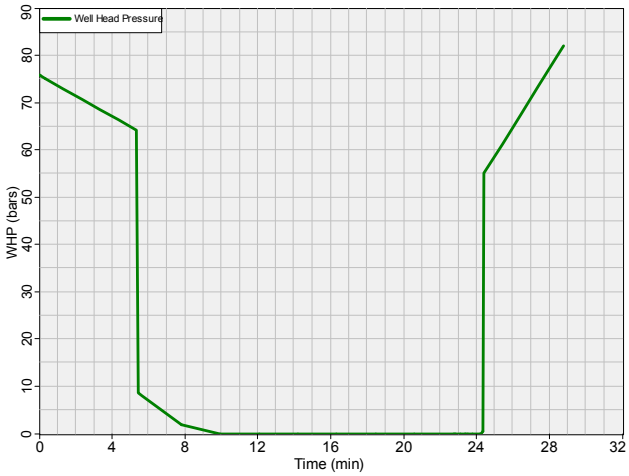
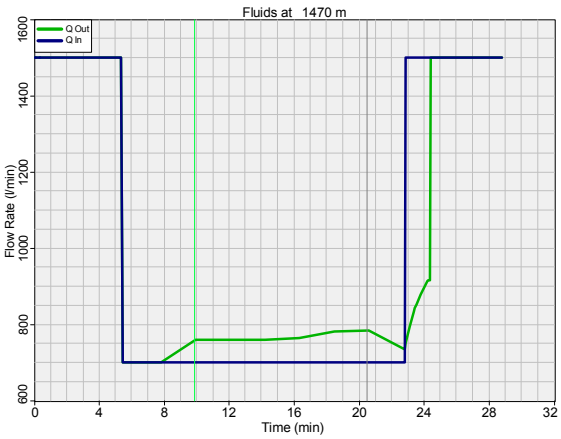
Predicted ECD at the TD (1470 m MD), expected well head pressure and U-tube simulation 25% excess on open hole







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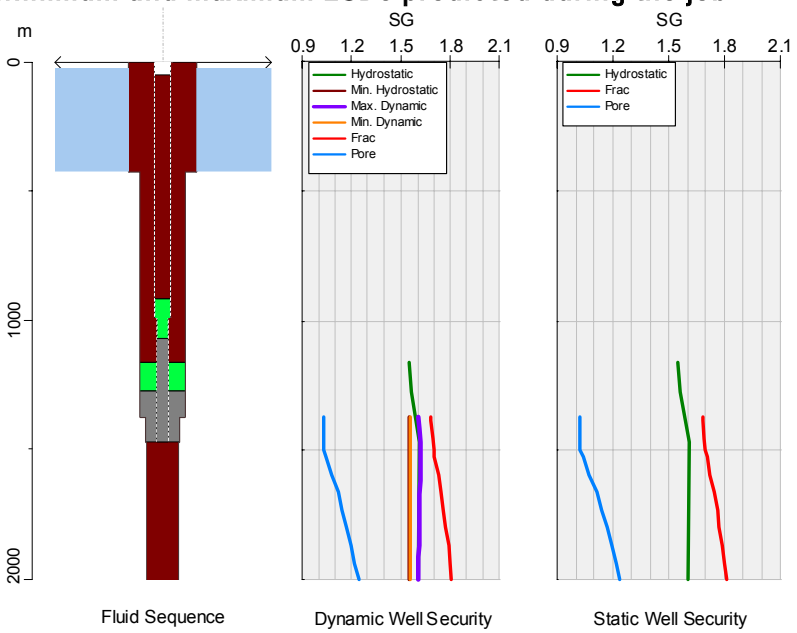
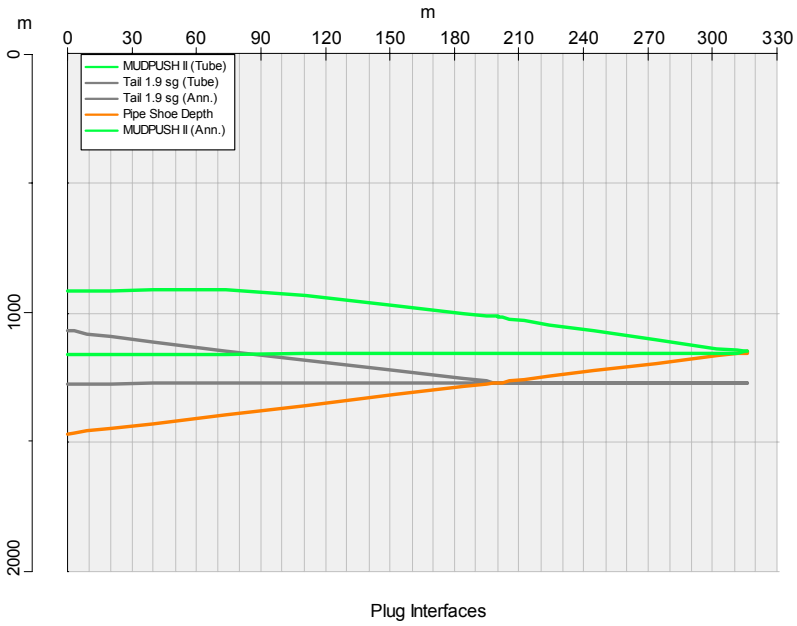
Minimum and maximum ECDs predicted during the job



Fluids interface while POOH



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Laboratory Cement Test Report-9596-1 Plug 4

Well Data

Fluid No: SNO 9596001	**Client: Chevron Texaco**	**Location: Stena Dee**	
Date: 15-10-2004	**Well Name: Sahara**	**Field: Sahara**	

Signatures

Lab Tech:
M. Sagmo

Sales Eng:
Espen Johannessen

Job Type	**Plug 4**	Depth	1375.0 m	TVD	1375.0 m
BHST	44 degC	BHCT	20 degC	BHP	2822 psi
Starting Temp.	21 degC	Time to Temp.	00:26 hr:mn	Heating Rate	-0.04 degC/min
Starting Pressure	374 psi	Time to Pressure	00:26 hr:mn	Schedule	4/5

Composition

Density	**1.92 SG**	**Yield**	**748.46 L/tonne**	**Mix Fluid**	**437.90 L/tonne**
Porosity	58.5 %	Solid Fraction	41.5 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3515
Fresh water	434.90 L/tonne	Base Fluid	
B143	1.000 L/tonne	ANTIFOAM	
D081	2.000 L/tonne	RETARDER	

Rheology

(rpm)	(deg)
300	75.0
200	61.5
100	46.5
60	40.0
30	33.5
6	19.8
3	13.0

10 sec	15
10 min	17

Temperature	**20 degC**

P_v : 45.7 cP
T_y : 30.34 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	03:48 hr:mn
70 Bc	04:39 hr:mn
100 Bc	05:02 hr:mn

Free Water

4.0 mL/250mL	in 2 hrs
Sedimentation	

Compressive Strength @ 40°C

Time	CS
03:46 hr:mn	50 psi
06:22 hr:mn	500 psi
12:00 hr:mn	1251 psi
24:00 hr:mn	1835 psi

Comments

SIT 3515, Cement from boat 'Northern Corona', arrived lab 22.09.04

CemCADE* well cementing recommendation for P&A Plug in 13 3/8" shoe

Operator	**: ChevronTexaco**	**Well**	**: Sahara**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**:**
Proposal No.	: Rev.2	Service Point	: WCS Norway
Date Prepared	: October 22, 2004	Business Phone	: 47 5598 6100
		FAX No.	: 47 5598 6021

Prepared by : Irina Krylova
Phone : 47 5598 6100
E-Mail : ikrylova@slb.com

well description

Configuration	**Plug**	**Stage : Single**	**Rig Type : Floating Offshore**
Prev.String	MD : 1372.0 m	OD : 13 3/8 inch	Weight : 72.0 lb/ft
Drill Pipe	MD : 1470.0 m	OD : 3 1/2 inch	Weight : 15.8 lb/ft
Casing/liner Shoe MD		1470.0 m	
Mud Line		0.0 m	
Total MD		3800.0 m	
BHST		48 degC	
Bit Size		8 1/2 inch	
Mean OH Diameter		8.5 inch	
Mean Annular Excess		25.0 %	
Mean OH Equivalent Diameter		8.5 in	
Total OH Volume		89.6 m3 (including excess)	
Fluids Return to		RIG_FLOOR	
Mean Sea Level		25.0 m	
Sea Bed Depth		422.0 m	
Riser ID		18.8 in	

Disclaimer Notice:

This information is presented in good faith, but no warranty is given by and Schlumberger assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on input data provided by the Operator and estimates as to unknown data and can be no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the actual results that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlumberger can assist in selecting.

The Operator has superior knowledge of the well, the reservoir, the field and conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein it is the Operator's responsibility to notify the owner or owners of the well or wells accordingly.

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* Mark of Schlumberger

Schlumberger

Client : ChevronTexaco
Well : Sahara
String : P&A Plug in 13 3/8
District : WCS Norway
Country : Norway
Loadcase : PA 4 in 13 38 shoe

Section 1: fluid sequence

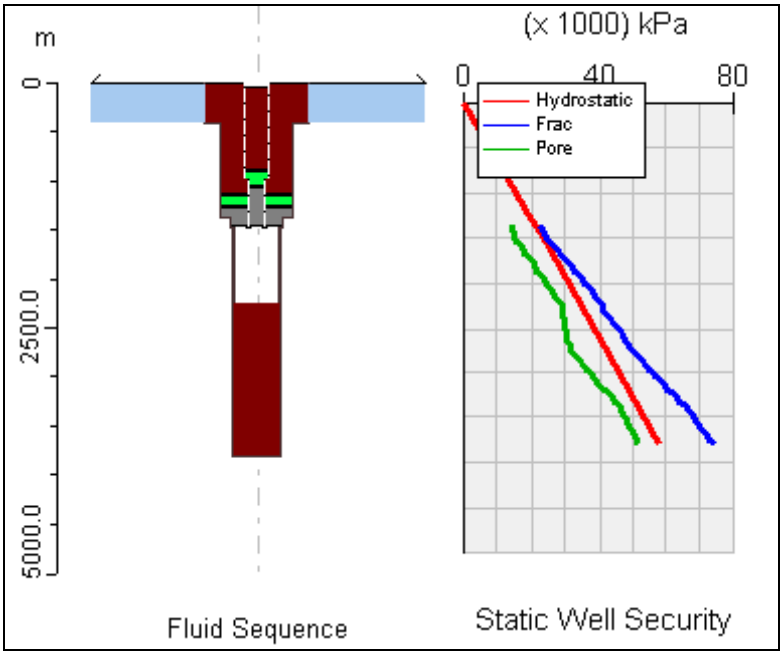
Original fluid	Mud	1.55 SG	
	P_v : 35.0 cP		T_y : 4.79 Pa
Displacement Volume	11.0 m3		
Drill Pipe Volume	11.0 m3		
Total Volume	29.2 m3		
TOC	1274.3 m		

Fluid Sequence

Name	Volume (m3)	Ann. Len (m)	Top (m)	Density (SG)	Rheology	
MUDPUSH II	8.0	112.6	1161.7	1.70	P_v:35.0 cP	T_y:7.18 Pa
Tail 1.9 sg	10.7	195.7	1274.3	1.92	P_v:45.7 cP	T_y:14.53 Pa
Tail 1.9 sg	1.5		1070.3	1.92	P_v:45.7 cP	T_y:14.53 Pa
MUDPUSH II	1.0		917.9	1.70	P_v:35.0 cP	T_y:7.18 Pa
Mud	8.0		52.5	1.55	P_v:35.0 cP	T_y:4.79 Pa

Static Security Checks :

Frac	1227 kPa	at 1470.0 m
Pore	5870 kPa	at 3395.0 m



Schlumberger

Client : ChevronTexaco
Well : Sahara
String : P&A Plug in 13 3/8
District : WCS Norway
Country : Norway
Loadcase : PA 4 in 13 38 shoe

Section 2: pumping schedule

Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
MUDPUSH II	1500.00	8.0	5.3	8.0	27	
Tail 1.9 sg	700.00	12.2	17.4	12.2	27	
MUDPUSH II	1500.00	1.0	0.7	1.0	27	
Mud	1500.00	8.0	5.3	8.0	27	
		Total	**00:28 hr:mn**	**29.2 m3**		

Dynamic Security Checks :

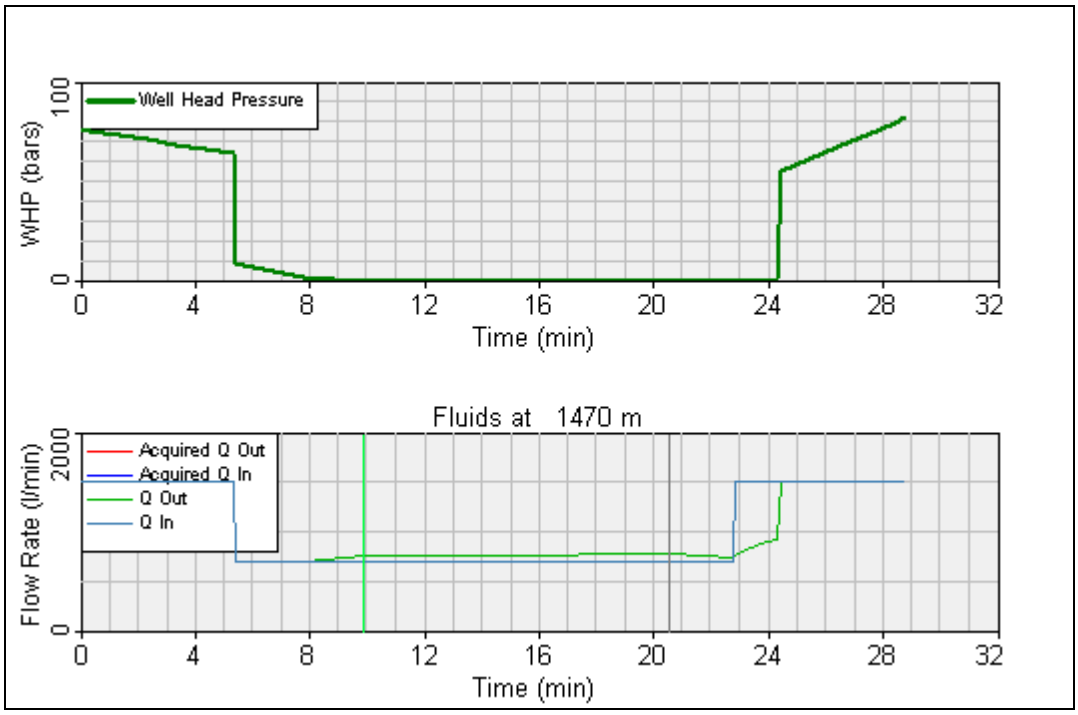
Frac	1022 kPa	at 1470.0 m
Pore	4994 kPa	at 3395.0 m

Temperature Results

BHCT	34 degC	Simulated Max HCT	48 degC
Simulated BHCT	25 degC	Max HCT Depth	1470.0 m
CT at TOC	25 degC	Max HCT Time	00:00:00 hr:mn:sc

Static temperatures :

At Time	(hr:mn)	(hr:mn)	Geo. Temp.
Top of Cement	(degC)	(degC)	40 degC
Bottom Hole	(degC)	(degC)	48 degC



Schlumberger

Client : ChevronTexaco
Well : Sahara
String : P&A Plug in 13 3/8
District : WCS Norway
Country : Norway
Loadcase : PA 4 in 13 38 shoe

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
MUDPUSH II	1500.00	8.0	5.3	8.0	
Tail 1.9 sg	700.00	12.2	17.4	12.2	
MUDPUSH II	1500.00	1.0	0.7	1.0	
Mud	1500.00	8.0	5.3	8.0	

Total Pumping Time : 00:28 hr:mn
End Job:

TOTAL MATERIAL REQUIREMENTS

Additives	Total Quantity	Item Quantity	Pack. Name	Packaging	Comments
G Norcem	16316 kg	383	sack	43 kg	
B143	34.3 l	2	Can	20.0 l	
B174	31 kg	2	bag	23 kg	
U066	628.5 l	12	drum	56.8 l	
D031	8267 kg	166	sack	50 kg	
D081	32.6 l	2	pail	30.3 l	

Mix Water Requirements :
Fresh water 13.5 m3

MIXING PREPARATION

MUDPUSH II	**Volume :** 9.0 m3	**Density :** 1.70 SG
Code	**Quantity**	**Design**
Fresh water	6.402 m3	
B143	17.958 l	2.0 L/m3 of spacer
B174	31.426 kg	3.5 kg/m3 of spacer
U066	628.516 l	70.0 L/m3 of spacer
D031	8267.441 kg	920.77 kg/m3 of spacer

Stena Dee, Sahara well –P&A plug #5
Recommendations and Procedures

Schlumberger

Oilfield Services, Scandinavia

Kokstadveien 34/42
5257 Kokstad - Norway
Tel +47 55 98 61 00
Fax +47 55 98 60 21

To		Location	**Stena Dee**
Cc	**Schlumberger Cementer**	Rev	**Rev. 2**
From	**Irina Krylova**	Date	**October 22, 2004**
Subject	**P&A cement program for Sahara well # 6507/ 1-1 Plug #5**	Pages incl	

Please find attached:

1. Procedures and recommendations for the shallow abandonment plug
2. Lab test of slurry for Plug #5
3. CemCADE report
4. Recommendations for plug-post-placement drill pipe clean-out

Well & Job data:

The plug will be set at 650 m MD inside 13 3/8" casing. The deviation at the shoe is 0°. The BHST and BHCT are 17 degC and 11 degC respectively.
Well will be displaced to sea water and bridge plug to be set prior the job. Cement plug will be set on top of the bridge plug then.
The plug length is planned to be 200 m and will not be tagged.
The drill pipe stinger set up used is based on the information given from the rig (480 m of 3 ½", 15.8 ppf stinger on bottom and above 5", 19.5 ppf drillpipe to the rigfloor).

Objective:

Set shallow abandonment plug from 650 to 450 m.

Fluid Pumping Sequence:

1. Set mechanical bridge plug at 650 m MD.
2. Stinger at the bottom of the plug, break circulation and increase pump rate gradually while ensuring pressure is stable. The max pump rate during the cement job is 1000 lpm.
3. Pressure test lines to 100 bar (max expected well head pressure is 15 bar)
4. Pump 8 m^3 of chemical wash at 1000 lpm
5. Start mixing and pumping 15.4 m^3 of 1.92 SG tail slurry @ 600 lpm, or optimum rate found by cementer
6. Pump 0.2 m^3 of chemical wash behind at 700 lpm
7. Displace with 1.5 m^3 of sea water at 1000 lpm (0.9 m^3 of underdisplacement is already considered)
8. Stop displacement and check for backflow.
9. POOH at max 2 min per stand to 440 m MD.
10. Circulate out excess cement and chemical wash at 1000 lpm (rate to be increased gradually)
11. POOH

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The total job time is 00:31 (hr:mn), excluding circulation prior the job + 1/4 hr for POOH + 1 hr for circulating bottoms up = approx 2.5 hrs. The thickening time for the slurry is 04:21 hr:min at 70 Bc at 19 degC.

ECD plots are provided in the next page, followed by plots of pumping pressure and U-tubing (flow in/out).

NOTE:

1. Main isolation valve on cement unit to be closed if cement mixing/pumping stopped because of U-tubing.
2. It is very important that rates are increased gradually after breaking the circulation.
3. The displacement volumes have to be recalculated on the rig with actual data.
4. Pull out of the cement plug slowly. A POOH speed of minimum 2 min per stand is appropriate.

I wish you a Safe and Successful job

Irina Krylova
WS Field Engineer
Schlumberger Well Services, Cementing
Norway, Scandinavia
ilrylova@slb.com

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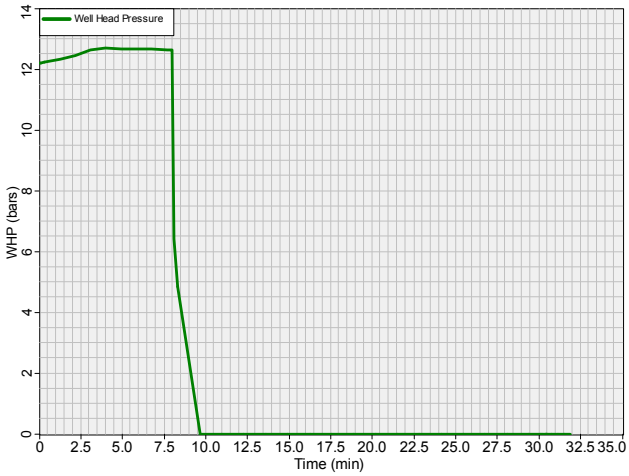
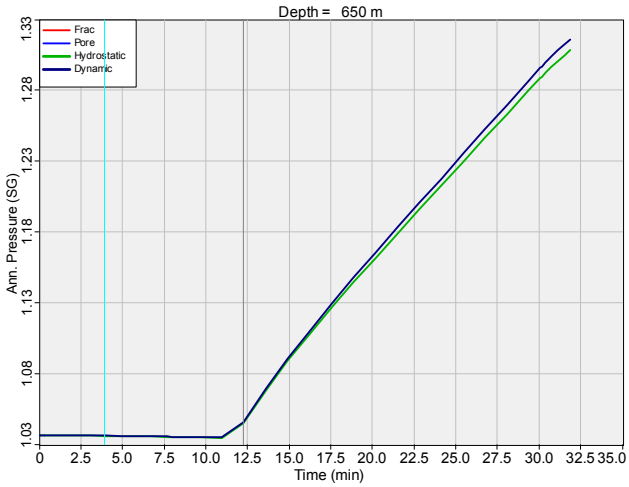
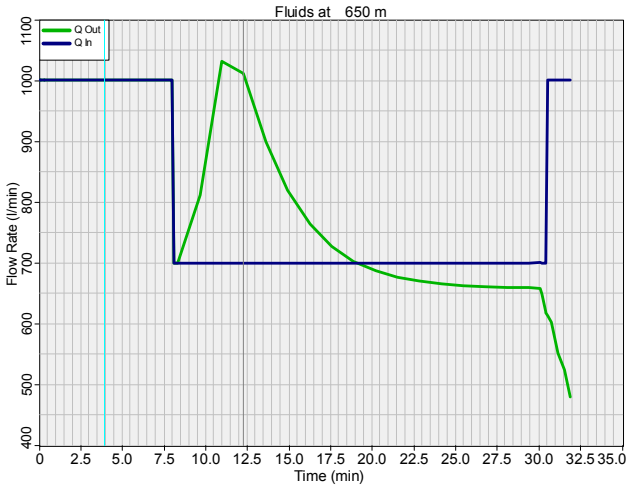
Predicted ECD at the TD (650 m MD), expected well head pressure and U-tube simulation







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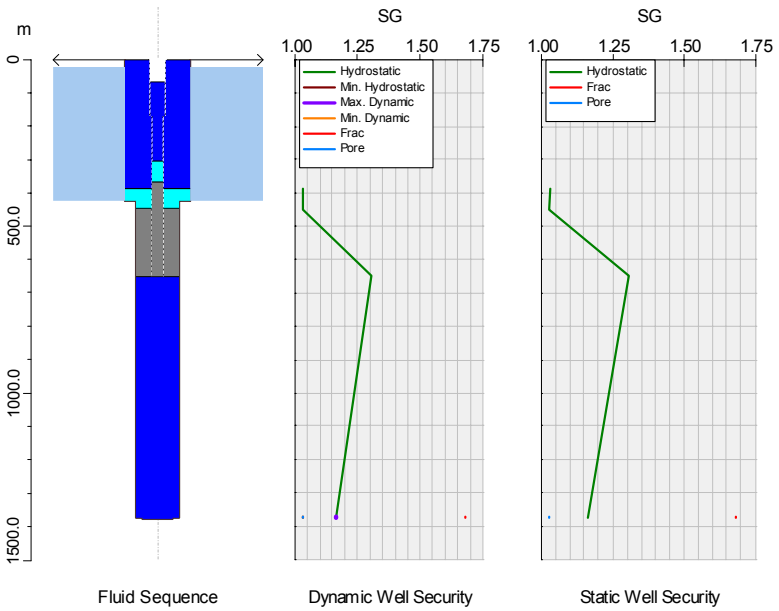
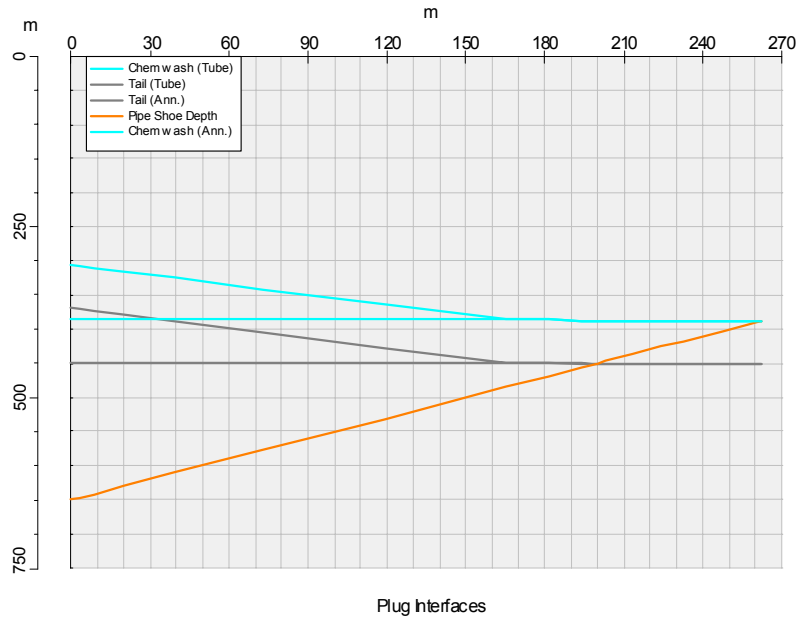
Minimum and maximum ECDs predicted during the job



Fluids interface while POOH

Note: sea water levels cannot be balanced



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Laboratory Cement Test Report-9594-3

Well Data

Fluid No:	**Client:**	**Chevron Texaco**	**Location:** **Stena Dee**
Date: **06-09-2004**	**Well Name:**	**Sahara**	**Field:** **Sahara**

Signatures

Lab Tech:M. Sagmo

Sales Eng:Espen Johannessen

Job Type	**Cond. Tail**	Depth	506.0 m	TVD	506.0 m
BHST	6 degC	BHCT	19 degC	BHP	1175 psi
Starting Temp.	21 degC	Time to Temp.	00:15 hr:mn	Heating Rate	-0.13 degC/min
Starting Pressure	280 psi	Time to Pressure	00:15 hr:mn	Schedule	2/3

Composition

Density	**1.90 SG**	**Yield**	**1028.25 L/tonne**	**Mix Fluid**	**585.62 L/tonne**
Porosity	57.0 %	Solid Fraction	43.0 %		

Code	Concentration	Component	Lot Number
Norwell G		Blend	Sit 3521
Sea water	584.62 L/tonne	Base Fluid	
D066	35.000 %BWOC	SILICA	
B143	1.000 L/tonne	ANTIFOAM	

Rheology

(rpm)	(deg)
300	97.5
200	74.3
100	52.5
60	43.5
30	34.8
6	19.5
3	13.5

10 sec	14
10 min	19

Temperature	**19 degC**

P_v : 68.9 cP
T_y : 28.88 lbf/100ft2

Thickening Time

Consistency	Time
30 Bc	05:05 hr:mn
70 Bc	07:02 hr:mn
100 Bc	07:42 hr:mn

Compressive Strength

Time	CS

Comments

Sit 3521, Silica cement received lab 13.10.04

CemCADE* well cementing recommendation for P&A Plug #5

Operator	**: ChevronTexaco**	**Well**	**: Sahara**
Country	: Norway	Field	:
State	:		
Prepared for	**:**	**Location**	**:**
Proposal No.	: Rev.2	Service Point	: WCS Norway
Date Prepared	: October 22, 2004	Business Phone	: 47 5598 6100
		FAX No.	: 47 5598 6021

Prepared by : Irina Krylova
Phone : 47 5598 6100
E-Mail : ikrylova@slb.com

well description

Configuration	**Plug**	**Stage : Single**	**Rig Type : Floating Offshore**
Prev.String	MD : 1372.0 m	OD : 13 3/8 inch	Weight : 72.0 lb/ft
Drill Pipe	MD : 650.0 m	OD : 3 1/2 inch	Weight : 15.8 lb/ft
Casing/liner Shoe MD		650.0 m	
Mud Line		0.0 m	
Total MD		1375.0 m	
BHST		17 degC	
Bit Size		8 1/2 inch	
Mean OH Diameter		8.5 inch	
Mean Annular Excess		0.0 %	
Mean OH Equivalent Diameter		8.5 in	
Total OH Volume		0.1 m3 (including excess)	
Fluids Return to		RIG_FLOOR	
Mean Sea Level		25.0 m	
Sea Bed Depth		422.0 m	
Riser ID		18.8 in	

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Schlumberger

Client	:	ChevronTexaco
Well	:	Sahara
String	:	P&A Plug #5
District	:	WCS Norway
Country	:	Norway
Loadcase	:	PA 5 inside 13 38 csg

Section 1: fluid sequence

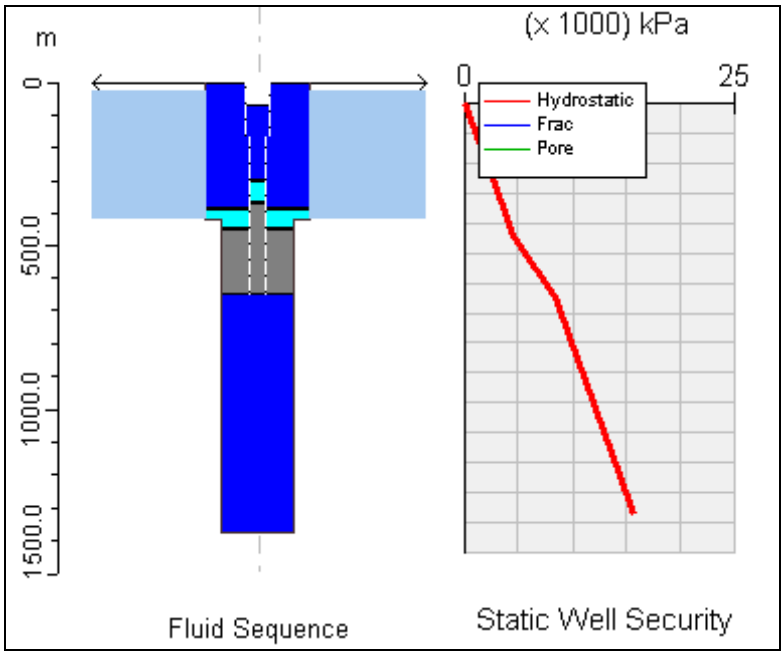
Original fluid	Sea water viscosity : 3.0 cP	1.03 SG
Displacement Volume	3.4 m3	
Drill Pipe Volume	3.4 m3	
Total Volume	25.2 m3	
TOC	447.8 m	

Fluid Sequence

Name	Volume (m3)	Ann. Len (m)	Top (m)	Density (SG)	Rheology	
Chem wash	8.0	61.7	386.1	1.02	viscosity:3.0 cP	
Tail	14.4	202.2	447.8	1.92	Pv:33.5 cP	Ty:12.20 Pa
Tail	1.1		368.9	1.92	Pv:33.5 cP	Ty:12.20 Pa
Chem wash	0.2		305.9	1.02	viscosity:3.0 cP	
Sea water	1.5		68.1	1.03	viscosity:3.0 cP	

Static Security Checks :

Frac	6992 kPa	at 1372.0 m
Pore	1770 kPa	at 1372.0 m



Schlumberger

Client	:	ChevronTexaco
Well	:	Sahara
String	:	P&A Plug #5
District	:	WCS Norway
Country	:	Norway
Loadcase	:	PA 5 inside 13 38 csg

Section 2: pumping schedule

Pumping Schedule

Name	Flow Rate (L/min)	Volume (m3)	Stage Time (min)	Cum.Vol (m3).	Inj. Temp. (degC)	Comments
Chem wash	1000.00	8.0	8.0	8.0	27	
Tail	700.00	15.4	22.1	15.4	27	
Chem wash	700.00	0.2	0.3	0.2	27	
Sea water	1000.00	1.5	1.5	1.5	27	
		Total	**00:31 hr:mn**	**25.2 m3**		

Dynamic Security Checks :

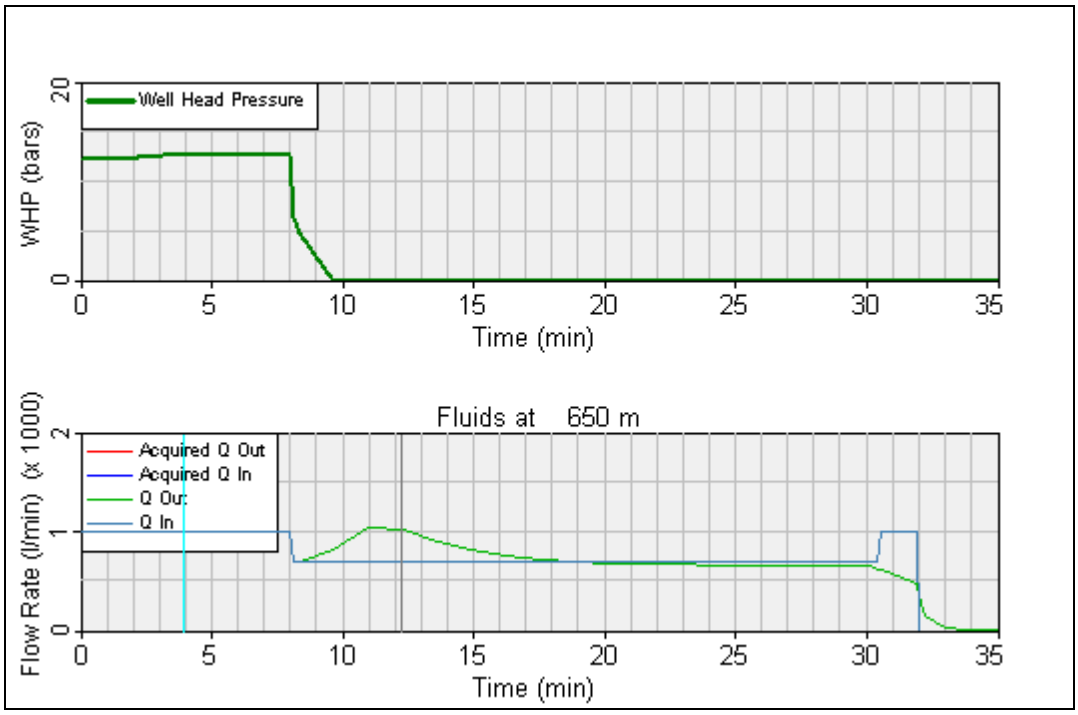
Frac	6957 kPa	at 1372.0 m
Pore	4 kPa	at 1372.0 m

Temperature Results

BHCT	15 degC	Simulated Max HCT	17 degC
Simulated BHCT	11 degC	Max HCT Depth	0.0 m
CT at TOC	11 degC	Max HCT Time	00:07:59 hr:mn:sc

Static temperatures :

At Time	00:15 hr:mn	00:30 hr:mn	Geo. Temp.
Top of Cement	10 degC	10 degC	6 degC
Bottom Hole	45 degC	11 degC	17 degC



Schlumberger

Client : ChevronTexaco
Well : Sahara
String : P&A Plug #5
District : WCS Norway
Country : Norway
Loadcase : PA 5 inside 13 38 csg

Section 3: operator summary

Start Job:

Operator Pumping Schedule					
Name	**Flow Rate** (L/min)	**Volume** (m3)	**Stage Time** (min)	**Cum Vol** (m3)	**Comments**
Chem wash	1000.00	8.0	8.0	8.0	
Tail	700.00	15.4	22.1	15.4	
Chem wash	700.00	0.2	0.3	0.2	
Sea water	1000.00	1.5	1.5	1.5	
Shut-In	0.00	0.0	30.0	0.0	Static period after Placement

Total Pumping Time : 00:31 hr:mn
End Job:

MIXING PREPARATION

Chem wash	**Volume :** 8.2 m3	**Density :** 1.02 SG
Code	**Quantity**	**Design**
Sea water	7.658 m3	
B143	8.244 l	1.0 L/m3 of wash
U066	577.061 l	70.0 L/m3 of wash

NOR-CEM F201

Schlumberger

SERVICE REPORT

STATION	LOCATION	TYPE SERVICE	COMPANY	AIR NUMBER
ANO		Set Cement retainer/Bridgeplug	Chevron Texaco	

TIME & DATE LEFT STATION		TYPE OF WELL	FIELD	WELL no.	INVOICE NUMBER
Equipment	Personnel	Exploration	Sahara	6507 / 1-1	

TIME & DATE ON LOCATION		TOTAL DEPTH	RIG	Km. (One Way)	JOB NUMBER
Equipment	Personnel		Stena Dee		

TIME & DATE JOB STARTED	BHST	CASING Size	CASING Depth	TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE	COLLAR AT	STAGE COLLAR AT
16:30 26.10.04		13 3/8"	647 mtr						

TIME & DATE LEFT LOCATION		DRILLING FLUID Type	Wt.	Visc.	TUBING / DRILL PIPE Size	Depth	TYPE	WEIGHT	VOLUME	ALLOWABLE PRESSURE
Equipment	Personnel									

TIME & DATE ARRIVED STATION		DISPLACEMENT VOLUME	LINER FROM	TO	SIZE	VOLUME	PACKER TYPE	DEPTH
Equipment	Personnel							

EQUIPMENT AND UNIT Nos.

(1) [ ] Frac Tanks / Cement Silos (2) [1] Pump Units (3) [ ] Blender / Paddle Tank (4) [ ] Supply Trucks & Pickups

CEMENT TYPE USED | SLURRY WEIGHT

MATERIALS HAULED TO LOCATION — Qty. ft. Cement Blend (5) — Gal. Water (6) — Gal. Oil (7) — Gal. Acid (8) — TOTAL ROUND TRIPS (1 - 8)

MIX WATER TEMP. | SLURRY VOLUME PUMPED

MATERIALS AND/OR TOOLS SUPPLIED OR USED (Indicate with (Cus) if Customer owned or supplied and by (Inv) if previously invoiced) (For Tool Service state Qty, Size, Wt, Description, Serial No.)

13 3/8" SVCR	1 ea
HM setting tool	1 ea

WAS CIRCULATION EVER LOST? [ ] Yes [ ] No

CEMENT CIRCULATED TO SURFACE? [ ] Yes [ ] No

TOTAL PUMPED (A + B + C)	FILL & BREAKDOWN (A)	TREATED FLUID (B)	DISPLACEMENT (C)	AVERAGE RATE

MAX. TREATING PRESS. PSI BPM — MIN. TREATING PRESS. PSI BPM

SHUT IN PRESSURE PSI — SHUT IN PRESSURE PSI — IMMEDIATELY AFTER JOB — AT MINUTES LATER

JOB DONE DOWN: [X] TUBING/DP [X] CASING [ ] ANNULUS

O.H. or PERFS	O.H. Size	Shots/Ft	From	To	Check Zone Treated

TIME	PRESSURE (psi) Casing	PRESSURE (psi) Tubing	BARRELS Pumped	BARRELS Rate	BARRELS LT	RECORD OF SERVICE
14:55						Pick up Bridge plug and setting tool from pipedeck
15:05						Flush water through tool and adjust the setting sleeve.
15:20						Start to run in hole
16:10						Run through BOPs
17:10						At setting depth, 647 mtr., break circulation, 6 bpm / 280 psi
17:57		3000				Drop the setting ball, and pressuretest the cement hose.
18:20		2000				Ball in seat, pressure up to 2000 psi to set bridge plug, good indication of plug set, because the rig compensator starts working. (pressure did not bleed off on its own)
18:20						Bleed off pressure
18:30						Pull 12000 lbs overpull on the plug, hold for 4 minnutes.
18:34						Load test plug with 5000 lbs down weight.
18:43						Pull 1000 lbs tension in the string and turn 10 turns clockwise to come of the plug. (released after 8 turns.)
19:00		700				Started to pump water ahead of cement, but got pressure increase at once.
19:45		2500				Increased pressure to 2500 psi to clear the blockage, no success. Decission made to POOH

DOWELL PERSONNEL ON JOB: Stefan / Jensen

OPERATING TIME 6 HR

TOTAL LOST TIME HR

FAILURE CATEGORY

DOWELL REPRESENTATIVE: E. Jensen

CUSTOMER REPRESENTATIVE

QUALITY OF SERVICE: GOOD [ ] SATISFACTORY [X] POOR [ ]

COMMENTS BY CUSTOMER: Setting tool failed to operate as designed. Trip to run 5" mudshoe required.

NAME: Mr Mike Hollinshead

Mike Hollinshead

Report Date: Oct 27, 2004 (UTC) **Report Number: 20041027112553**
Created By: Jensen Carsten **Reviewed:** No **Closed:** No
Updated On: 11/10/2004 12:37:00 PM (UTC) by Therond Emmanuel **Service Quality:** Yes **HSE:** No
Source: Direct Entry - Web **Classification:** Accident/Non-conformance

Sub-Segment:	WS - WCS	**IPM Involved:**	No	Remedial Actions
GeoMarket:	Scandinavia	**Client:**	ChevronTexaco	0- Pending
Location:	NOR - WS Cementing	**SLB Contractor:**	NONE	3- Closed
Reporter:	Jensen Carsten			

Event Date: Oct 26, 2004 **Event Time:** 19:00
Site: Rig/Vessel
Site Name: Stena Dee

Risk Classification
Potential: Undesirable
Residual: Undesirable

Description and Details of Actual or Potential Loss

Summary: PEAK HM setting tool, ball seat not sheared out.

Details: After setting a 12" SVCR retainer with the HM setting tool in a 13 3/8" casing @ 647 mtr successfully, we pulled the workstring 3 mtr up the hole to dump a 200 mtr cementplug on top. When we started pumping some water ahead we got a pressure increase at once ! It was soon clear that the "ball seat" in the setting tool had not sheared out or that the stinger was plugged. Tried to shear it out with increased pressure, (2500 psi which was the maximum we where alowed to go to according to the manufacturer) but did not succed. The operator then decided to trip out of the hole, lay out the setting tool, and trip back in with a muleshoe (6 hrs) and do the cement job.The whole procedure was done 100 % according to the CR manufacturers instructions.

Service Quality Data

SQ Severity: Serious **SLB Related?** Yes

Compliance with SQ Standards: Yes
Number of Times Operation Re-Done: 0
Percentage target run life at time of failure: %

QUALITY

Non-Productive Time	✓ Client
	Schlumberger
	3rd Party
Other	Reputation
	Fine/Penalties
	Process
	Revenue

Service Quality Data

	Category	Sub Category
Service/Product:		
SQ Non-conformance:	Equipment	Tool
Damage:	Other	Job-Start Delayed

Time Loss Details

Type	Description of Loss	Quantity	Unit
Client	Rig Time	5.5	hours

Loss Cost Estimate ($K)

Non-Productive Time	Client Costs	0.0 K
	Litigation/Other	0.0 K
	Remediation	0.0 K
	Lost Time	0.0 K
	Non-Productive Time SubTotal	**0.0 K**
	Grand Total Loss	**0.0 K**

SQ Investigation

Section 1a:	**Suspected Immediate Causes:**	HM ball seat not sheared Plugging of cement stinger
Manager Leading the Investigation:	E. Therond	
Section 1b:	**Confirmed Immediate Causes:**	Ball seat was not pushed all the way which prevented to be able to pump though the HM setting tool after setting the Cement Retainer.
Section 2 - Root Causes		**MRC**

	Job Planning & Logistics:	Poor Risk Evaluation	✓
	Job Execution:	Poor Communication with 3rd Party	
Section 3 - Lack of Controls	Lack of Control	Risk Management.	
Section 4 - Notification to Technology Center	Originating Technology Center:	Undefined	
Section 5 - Notification to Supply Chain Center	Supply Chain Center:	Undefined	

Attachments

Description	File Name	File Size	Upload Date	Uploaded By
Service Report	CR Chevtex.pdf	149,465	Nov 10, 2004	Therond Emmanuel
Updated PEAK Procedure	Proposal Operation Procedure HM Setting Tool 091104.doc	371,200	Nov 11, 2004	Therond Emmanuel

Remedial Action # 1

Create On:	Oct 28, 2004	**Target:**	Nov 04, 2004	**Close:**	Nov 10, 2004
Create By:	Therond Emmanuel	**Updated By:**	Therond Emmanuel		
Responsibility:	Johannessen Espen			**Priority:**	Medium
Category:	Unavailable				
Summary:	Inspection of HM setting tool when back onshore				
Action Item:	Espen, Can you please go to PEAK and inspect the redressing of HM setting tool when it is back onshore. This will help in finding out the root cause of the problem.				
Follow Up:	The HM Setting Tool was inspected on 09-November at the PEAK facility (report pending) The tool was undressed and was clean of debris. The ball seat was not pushed down all the way, but could be easily pushed with the help of a small hammer. The reason why the ball seat was not pushed all the way was explained by PEAK reresentative due to the large casing thickness (13 3/8" 72 ppf) which is at the upper range for the tool, not allowing movement for the ball seat to be pushed all the way when the tool is set. It is still not understood why the ball seat could not be pushed all the way when stigging out of the tool and applying 2000 psi.				

Remedial Action # 2

Create On:	Oct 28, 2004	**Target:**	Nov 04, 2004	**Close:**	Nov 10, 2004
Create By:	Therond Emmanuel	**Updated By:**	Therond Emmanuel		
Responsibility:	Therond Emmanuel			**Priority:**	Medium
Category:	Unavailable				
Summary:	PEAK Procedures				
Action Item:	Check with PEAK the following: 1- What is the max pressure we can go to to shear the ball seat (2000 psi, 2500 psi or more) 2- What is the contingency if pressure does not bleed off by itself afetr setting the plug? Update running procedure if required				
Follow Up:	Reply from PEAK: The pressure rating of the tool is 5000 Psi and if pressure does not bleed off at 2000 psi witch it should, (it should bleed off at 1455 Psi +/- 15%) that would be the contingency. One thing to remember here is that the tool has to be stinged out of the packer to check this because of the sealed volume/well below the packer witch has just been sat. If the pressure does not bleed off seeing 5000 Psi it will have to be pulled out of hole. We will update the procedure with this contignency as well. ======= Procedure updated				

Remedial Action # 3

Create On:	Nov 11, 2004	**Target:**	Nov 18, 2004	**Close:**	Nov 11, 2004
Create By:	Therond Emmanuel	**Updated By:**	Therond Emmanuel		

Responsibility:	Therond Emmanuel	**Priority:**	Medium
Category:	Unavailable		
Summary:	HI-FLOW-Circulation Valve		
Action Item:	"HI-FLOW-Circulation Valve" in top of the HM Setting-tool as a back-up, or primary use ,when circulate down string, after released from retainer. This will manage 2-3 times higher pump rate then today's 980 lpm. This means that your displacing/cementing-job over the svcr will go 2-3 times faster.		
Follow Up:	To be considered for next job		

Report.

From:Peak Well Solutions AS.

To: Schlumberger .

Att:Espen Johannessen.

Incident on Stena Dee,25/10-04, 13 3/8" SVCR on HM Setting Tool.

After setting a 13 3/8 inch Model B from Alpha Oil Tools in 72 ppf casing with an HM Running tool it was discovered that it was not possible to pump through the tool. Setting the plug and stinging out off the plug went by the book.

When it was clear that fluid would not pass through the tool it was decided to POOH and run back with open ended pipe to pump cement on top of the plug

Corrective action

HM running tool was shipped back to PWS workshop and was disassembled to find case of incident. No obvious reason for the incident was detected at first inspection. Ball seat and ball seat housing was reassembled and tested, no fault was found on the tool. The tool was fully stoked and no objects where found inside the tool that would prevent the tool performing as designed.

The HM running tool has some built in fail safe futures, this prevent the tool in being assembled incorrectly and to insure operational susses. These futures will also insure that the toll will operate in a pre decided sequence.

1) When setting chamber is fully stroked it will push down the Retainer ring holding the dogs that keep the ball seat in place.(Stroke on the tool was checked)

2) The retainer ring is moved down by the setting chamber and dogs are released and ball seat is free to slide down and open bypass so fluid can be pumped through the tool. When tool was disassembled it was found that the Retainer ring was shifted down and tool had stroked max stroke. (Retainer ring was fully stroked, and ball seat was not stuck when tool was disassembled)

When the plug is set in minimum range 13 3/8 72 ppf it is possible that the tool bypass will not open due to that the tool can not stroked fully when inside the plug. this will be overcomed by pulling out of the plug and pressuring up on the tool string again. According to the report from the operator on the job it was noted that they needed to bleed of the pressure on the string before pulling tension on the tool when setting the plug. This is a indication that this has occurred, When tool is pulled out of the plug it should be posible to pump throug the tool.

It is also possible that the pressure did not arrive to the tool due to a valve has been closed during operations/ crew change. If revers circulation was performed it would have been possible to check that the lines where correctly lined up for pumping to the tool.

We would recommend a updated running procedure for troubleshooting if similar problems should would reoccurre.

On the tool design corrective action can be taken at this time before all facts have been identified, we would need the log form the cement unit and the log form the mud loggers to be able to build the case to find all the facts.

We will take action for a "HI-FLOW-Circulation Valve" in top of the HM Setting-tool as a back-up, or primary use ,when circulate down string, after released from retainer. This will manage 2-3 times higher pump rate then today's 980 lpm. This means that your displacing/cementing-job over the svcr will go 2-3 times faster.

Tananger, 10/11-04

Johne Johnsen, Peak Well Solutions AS.

3. Material Consumption

Schlumberger

NOR-CEM-F516

MATERIAL CONSUMPTION

OPERATOR ChevronTexaco
WELL Sahara 6507/1-1
RIG Stena Dee

		TON	TON	Liter	Liter	Liter	Liter	Liter	Liter	Liter	Liter	Liter	Lbs	Lbs
JOB	**DATE**	**Norwell G**	**D066 Silica**	**B018**	**B143**	**D193**	**B165**	**D077**	**D081**	**D075**	**U066**	**MS 200**	**B174**	**D095 CemNET**
30" Casing + Top job		114			94			1165		1305		62		
13 3/8" Casing		134			163				784	3131		13		
P&A plugs # 1-5		66	33	2722	231	3641	1484		38		2575		275	200

TOTAL CONSUMPTION	314	33	2722	488	3641	1484	1165	822	4436	2575	75	275	200

Oceaneering
ROV Services
End of Well Report

12. Nov. 2004

Close Out Meeting

ChevronTexaco - Sahara Well

- **HSE**
  - No Injuries or Accidents.
  - 21 Stop Observation Cards in October.
  - 2 Oceaneering RUH Reports.
- **OPERATIONS**
  - 55 days
  - 32 dives with 291 dive hours total.
  - 100% ROV Equipment uptime.
- **LESSONS LEARNED**

  + Stop Card Reward system appreciated and effective.

  + Supervisors presentation during Rig Call effective motivator.

  - Limited IT network access, hampering communications.

OCEANEERING®

Enclosure 3

Logs

CHEVRONTEXACO
6507/1/1
COMPOSITE LOG 1:500

ChevronTexaco

COUNTRY	NORWAY
BLOCK	6507/1/1
LICENCE	PL281 BG
OPERATOR	CHEVRONTEXACO NORGE AS
DRILLING PERMIT	1250-L
PRE DRILL STATUS	WILDCAT
RIG NAME	STENA DEE
STATUS	WELL PLUGGED & ABANDONED

LOCATION MAP

OBJECTIVES

PRIMARY: CRETACEOUS LYSING

RIG DATA

RIG TYPE	DRILLSHIP
RIG NAME	STENA DEE
DRILLING CONTRACTOR	STENA DRILLING
RIG OWNER	STENA DRILLING
TOTAL DEPTH (MD)	1500 m
TOTAL DEPTH (TVD)	1500 m
WATER DEPTH (MSL)	1214 m
KB TO MSL	25 m
KB TO GROUND LEVEL	25 m
SPUD DATE	17-Jun-08
COMPLETION DATE	19-Jun-08
PLUGGED & ABANDONED	19-Jun-08
DRILLING DURATION	2 DAYS

CONTRACTORS

DRILLING CONTRACTOR	STENA DRILLING
DRILLING RIG	STENA DEE
DRILLING SYSTEM	2000 HP
MAIN PUMPS	3 x Emsco/National
MAIN DRIVES	3 x Emsco/National
BOP STACK	1 x Hydril GK Annular
BOP CONTROL	1 x Hydril 5000
BLOWOUT PREVENTERS	1 x Hydril 18 3/4" 5000
CHOKE MANIFOLD	1 x Hydril 5000

LOCATION DATA

PROJECT LOCATION	NORTH SEA
BLOCK	6507/1/1
LATITUDE	63° 59' 59.0 N
LONGITUDE	7° 59' 59.0 E
UTM ZONE	31
UTM EASTING	419000.0 m
UTM NORTHING	7100000.0 m
GEOMAG LOCATION	

FASTNESS

CHEVRONTEXACO WORK AS OPERATOR	100 %
Total	100 %

LOG COMPLETION

CHEVRONTEXACO WORK AS / RIG CHANGE	100 %
Total	100 %

GEOLOGISTS

OPERATOR	BRENDA SMITH
WELLSITE	ANDREW DUNN
	JAMES WATSON
	MARK HUNTER

LITHOSTRATIGRAPHY TOPS

SYSTEM	TOPS	DEPTH (m)	DEPTH (m)	TVDSS (m)	TVDSS (m)
QUATERNARY	SEABED	1214.0		1189.0	
TERTIARY	SEABED.MIO	1217.0	1217	1192.0	1192
TERTIARY	MIO.PLIO	1223.0	1223	1198.0	1198
TERTIARY	PLIO.PLIO	1227.0	1227	1202.0	1202
TERTIARY	PLIO.PLIO	1231.0	1231	1206.0	1206
TERTIARY	PLIO.MIO	1237.0	1237	1212.0	1212
TERTIARY	MIO.EOC	1246.0	1246	1221.0	1221
TERTIARY	EOC.CRETACEOUS	1256.0	1256	1231.0	1231
CRETACEOUS	CRETACEOUS	1264.0	1264	1239.0	1239
CRETACEOUS	CRETACEOUS.LYSING	1270.0	1270	1245.0	1245
CRETACEOUS	CRETACEOUS.LYSING	1274.0	1274	1249.0	1249
CRETACEOUS	CRETACEOUS.LYSING	1280.0	1280	1255.0	1255
TD		1500.0	1500.0	1500	

CASING DATA

30"	30"	1214.0 m	1214.0 m	1214.0 m
20"	20"	1217.0 m	1217.0 m	1217.0 m

MD SYSTEM TVDSS SYSTEM

LWD SUMMARY

GR	1217.0 m	1500.0 m	283.0 m
RESISTIVITY	1217.0 m	1500.0 m	283.0 m

SIDEWALL CORES

RUN	SHOT	DEPTH (MDBRT)	RECOVERY
RUN	SHOT	DEPTH (MDBRT)	RECOVERY

MUDLINE LOGS

17-Jun-08	17-Jun-08	1214.0 m	1214.0 m
17-Jun-08	17-Jun-08	1214.0 m	1214.0 m

RFT DATA

RUN	START	END	DEPTH (MDBRT)	DEPTH (TVDSS)	COMMENTS	FORMATION

SAMPLING SUMMARY

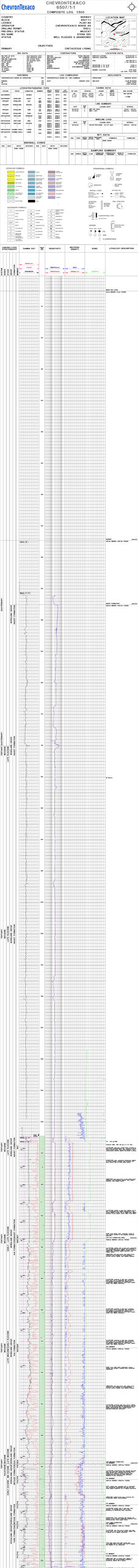
RUN	SAMPLE	DEPTH (MDBRT)	DEPTH (TVDSS)	PRESSURE (PSIA)	TEMPERATURE (DEGC)	FORMATION

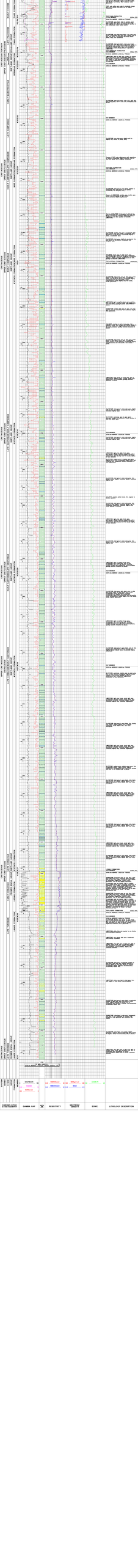
LITHOLOGY SYMBOLS

ACCESSORY SYMBOLS

OPERATIONAL SYMBOLS

FLUORESCENCE




SYSTEM
SERIES
STAGE
CHRONOSTRATIGRAPHY
LITHOSTRATIGRAPHY
GAMMA RAY
SENSITIVITY
SONIC
LITHOLOGY DESCRIPTION