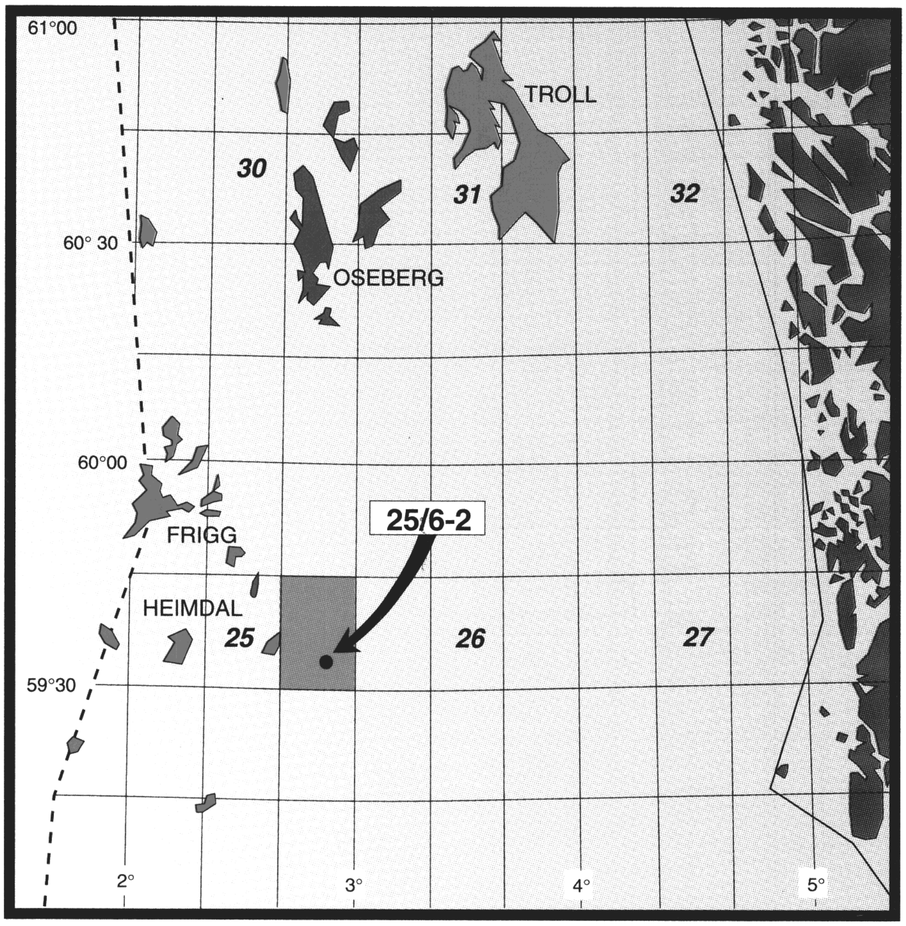
Saga
Petroleum a.s.



Final Well Report

25/6-2

September 1992

Saga
Petroleum a.s

Licence : PL 117

Partners : Saga/Statoil/Norsk Agip/Fina

Date : September 1992

Revision No :

Date of revision :

FINAL WELL REPORT

25/6-2

Norwegian Continental Shelf

Classification/Distribution [X] **Saga and partners**

	Exploration	Res. Eval.	Operations
Authors	EUO/EUS	ERF/ERL	for R. Henriksen SBT
Reviewed	EUO/EUS	ERF/ERL	SBT/SLL
Approved	EU	ER	for SE/SB/SL

Head Office Oslo
Address
Kjørboveien 16
P.O.Box 490
1301 Sandvika
Norway

Telephone
Nat. (02) 12 66 00
Internat. 47 2 12 66 00

Telex
78852 saga n
Facsimile
Nat. (02) 12 66 66
Internat. 47 2 12 66 66

Regional Office Stavanger
Address
Petroleumsveien 6
P.O.Box 117
4033 Forus
Norway

Telephone
Nat. (04) 57 40 00
Internat. 47 4 57 40 00

Telex
33244 saga n
Facsimile
Nat. (04) 57 02 61
Internat. 44 4 57 02 61

Comments to this Final Well Report are greatly appreciated, and will be taken into account when developing our next Final Well Report for the area.

COMMENTS TO FINAL WELL REPORT		
WELL NO.: **25/6-2**		RIG: **"Treasure Saga"**
SECT.	PAGE	COMMENTS/RECOMMENDATIONS
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2. SUMMARY

2.1 Exploration

The main objectives for the exploration well 25/6-2 were to test the hydrocarbon potential of the Paleocene sandstones in the Ty Formation and to test the extension of the Middle Jurassic reservoir discovered in well 25/6-1.

Well 25/6-2 was spudded April 26th, and TD was reached May 23rd, 1992. In the Nordland, Hordaland and Rogaland Groups, the well penetrated mainly clays and claystones with minor sandstones. Shallow gas was encountered in a minor sandstone between 273 and 274 mRKB MD (see chapter 4.8). The Ty Formation was reached at 2154.5 and continued down to 2207 mRKB MD. No hydrocarbons were encountered in the Ty Formation.

The Cromer Knoll Group consisted of limestones interbedded with claystones and marls, while the Viking Group consisted of claystones as expected. The stratigraphy is described in detail in chapter 4.9.

The Brent Group Equivalent (2324 - 2345 mRKB MD) was also found to be waterbearing. The well was drilled to TD at 2392 mRKB MD, 47 m into the Dunlin Group without any conventional cores cut. "Treasure Saga" left the location on May 29th, 1992.

2.2 Operation

All depths in this chapter refer to driller's depth, unless otherwise stated.

For detailed information about the operation, see chapter 6, 7 and 8.

2.2.1 Rig Move, Positioning and Anchor Handling

The semi-submersible drilling rig "Treasure Saga" departed from location 35/12-1 on April 24th, 1992 at 06:30 hrs. It arrived on location 25/6-2 on April 25th, 1992 at 09:00 hrs. Anchor no.4 had to be rerun due to chain counter failure. Piggy-back anchors were used on all anchors. Anchors were pretensioned to 160 MT.

2.2.2 The 36" Hole Section

The well was spudded on April 26th at 00:30 hrs, and the water depth measured 119 m. 9 7/8" pilothole was drilled from 145 m (seafloor) to 370 mRKB. MWD indicated gas shows at 273 mRKB. The pilothole was opened to 36" from 145 m to 257 mRKB, using a 26"bit and a 36" holeopener. The 30" casing was run and cemented with the shoe at 257 mRKB. The seabed diverter (SBD) was run and latched onto the 30" wellhead housing on April 28th. Observed PGB moving within 1^0. The seabed diverter was disconnected and pulled above the wellhead and the annulus was grouted between 36" hole and 30" casing. The diverter was then relanded. The 36" hole was drilled and cemented in 3.5 days (including the grouting job).

2.2.3 The 26" Hole Section

Drilled out cement, casing shoe and formation from 257 m to 260 mRKB. 9 7/8" hole was opened to 17 1/2" from 260 m to 370 mRKB, and then 17 1/2" pilothole was drilled from 370 to 1045 mRKB. Underreamed the 17 1/2" hole to 26" from 260 m to 1045 mRKB. Had seepage losses to the formation in this section and the mudweight was reduced from 1.17 to 1.15 sg. When observing the well with the ROV after unlatching the SBD, a few gas bubbles were observed. Relanded the SBD, ran in hole to 1045 mRKB and increased the mudweight to 1.19 sg. The well was observed for 3-4 hours, and proved to be stable. The SBD and riser was pulled to the surface after displacing the riser with seawater. Ran and cemented the 20" casing with the shoe at 1030 mRKB. Ran BOP and riser on May 6th, 1992. The 26" hole section was finished in 7.5 days.

2.2.4 The 17 1/2" Hole Section

Drilled out cement, casing shoe and formation from 1045 m to 1051 mRKB, and performed a leak-off test to 1.65 sg EMW. Drilled 17 1/2" hole from 1051 m to 1388 mRKB with a pendulum assembly, where the hole started to build angle with a maximum 4.3 deg. at 1357 mRKB. Increased the mudweight to 1.35 sg and pulled out of hole. Ran in hole with a packed bottomhole assembly and drilled from 1388 m to 1609 mRKB. However, the inclination continued to increase to 5.4 deg. Ran in hole with a MK 2 mud motor and drilled from 1609 m to 1911 mRKB, and the angle dropped to 2.4 deg. Pulled out of hole and ran in the hole with a pendulum assembly. Drilled to TD of the section at 2050 mRKB where a final angle of 3.1 deg. was reached. Backreamed from 2030 m to 1950 mRKB. Made two wireline logging runs. Ran and cemented the 13 3/8" casing with the shoe at 2026 mRKB. The 17 1/2" hole section was completed in 8.5 days.

2.2.5 The 12 1/4" Hole Section

Drilled out cement, casing and new formation from 2050 m to 2053 mRKB. Performed a leak-off test to 1.65 sg EMW. Drilled a 12 1/4" hole from 2053 m to 2266 mRKB. After repairing the topdrive, a 12 1/4" hole was drilled from 2266 m to 2392 mRKB. A total of five wireline logging runs were performed. The 12 1/4" hole section was completed in 10 days.

2.2.6 Plug and Abandonment

The plug and abandonment process commenced on May 25th at 10:00 hrs. Two balanced cement plugs were set from 2392 m to 1926 mRKB. The top drive was changed. The 13 3/8" casing was cut at 279 mRKB and retrieved to the surface. A balanced cement plug was set from 380 m to 180 mRKB. Cut 20" and 30" casing strings at 150 mRKB, pulled casings and the permanent guidebase. The anchor handling started on May 29th at 06:30 hrs. with the final anchor on bolster at 13:00 hrs. May 29th, 1992. The plug and abandonment phase together with anchor handling was finished in 4 days (including 2 days changing top drive).

2.3 Formation Evaluation

Well 25/6-2 penetrated the Ty Formation at 2154.5 mRKB MD and the Brent Group at 2324.0 mRKB MD. Both the Ty Formation and Brent Group were water bearing.

The calculated average log porosity for the Ty Formation (2154.5 - 2207.0 mRKB MD) is 27.7% and the net to gross ratio is 0.80.

For the Brent Group (2324.0 - 2345.0 mRKB MD) the average log porosity is 26.5% and the net to gross ratio is 0.89.

Since both the Ty Formation and the Brent Group were waterbearing, no cores were cut.

Well 25/6-2

KEY INFO

Licence: PL 117

Group Members	Interest
Saga	15 %
Statoil	50 %
Norsk Agip	20 %
Fina	15 %

Rig taken over by PL 117:	24.04.92
Spud date :	26.04.92
T.D. date:	23.05.92
Rig released from PL 117:	29.05.92
Completion status:	P & A as a dry well
Final location coordinates:	Latitude: 59° 33'39,83" N Longitude: 02° 49'13,44" E
UTM-coordinates:	6602696.7 m N 489849.5 m E
Seismic position (surface):	SG-8603-411, SP 799
Rig:	"Treasure Saga"
RKB - MSL:	26m
MSL - Seabed (water depth):	119m
RKB - Seabed:	145m
RKB - T.D. MD (driller's depth):	2392mRKB
RKB - T.D. (TVD)	2390mRKB

FORMATION TOPS

Formations	mRKB MD	mRKB TVD	Thickness m
Nordland Group (Seabed)	145	145	782
Utsira Sand	768	768	159
Hordaland Group	927	927	998
Rogaland Group	1927	1925	280
Balder Formation	1927	1925	57
Sele Formation	1984	1982	69
Lista Formation	2053	2051	101.5
Ty Formation	2154.5	2152.5	52.5
Shetland Group	2207	2205	32
Cromer Knoll Group	2239	2237	39
Rødby Formation	2239	2237	17
Sola Formation	2256	2254	5.5
Mime Formation	2261.5	2259.5	16.5
Viking Group	2278	2276	46
Daupne Formation	2278	2276	23
Heather Formation	2301	2299	23
Brent Group Eqv.	2324	2322	21
Dunlin Group	2345	2343	(47)
T.D. (Drillers depth)	2392	2390	
T.D. (Loggers depth)	2397	2395	

CASING

TYPE OD"	Depths mRKB	LOT g/cc EMW
30"	257	
20"	1030	1.65
13 3/8"	2026	1.65

RESERVOIR DATA

Ty Fm.:

Top (mRKB):	2154.5	N/G:	0.80
Gross (m):	52.5	Eff. por.:	27.7 %
Net (m):	42	Sw:	100%

Brent Gp. Equ.

Top (mRKB):	2324	N/G:	0.89
Gross (m):	21	Eff. por.:	26.5 %
Net (m):	18.7	Sw:	100%

WIRELINE AND MWD LOGS

Logged Interval mRKB MD	Type of log	Run	Date
194-1041	MWD (GR,DPR,DIR)		
1041-2047	MWD (GR,RGD,DIR)		
2026-2387	MWD (GR,DPR,NEUTR, DENS,DIR)		
1030,5-2040	DLL-LSS-LDL-GR	1A	13.05.92
1051-2030	CST (51 rec. of 60)	1A	13.05.92
2026,5-2395	DIL-MSFL-LSS-LDL-CNL-GR	2B	24.05.92
850-2026	VDL	2A	24.05.92
2026-2392	SHDT	2A	24.05.92
2173-2343,5	MDT	2A	24.05.92
930-2390	VSP	2A	24.05.92
2040-2392	CST (54 rec. of 60)	2B	25.05.92

PORE PRESSURE

Max. gradient : 1.20 g/cc EMW at 1550 mRKB

Fig. 2.1 Well Data Summary

92100201.25/6-2.EUO.VG.BA

3. GENERAL INFORMATION

3.1 Licence and General Well Information

PL 117, awarded on August 23rd, 1985, covers block 25/6 on the Utsira High offshore West Norway, approximately 135 km northwest of Haugesund. 79.3% of the block was relinquished June 30th, 1992, after the well was completed. Remaining area is 108.5 km^2. The location map is shown in fig. 3.1.

Group Members	Interest
Saga Petroleum (operator)	15%
Statoil	50%
Norsk Agip	20%
Fina	15%

Rig taken over by PL 117:	April 24th, 1992
Spud date:	April 26th, 1992
TD date:	May 23rd, 1992
Rig released from PL 117:	May 29th, 1992
Completion status:	P & A as a dry well
Final location coordinates:	
Latitude (ED-50):	59° 33' 39.83" N
Longitude:	02° 49' 13.44" E
UTM-coordinates	6602696.7 m N
	489849.5 m E
	UTM Zone 31, Central Meridian 3°E
Seismic position:	SG-8603-411, SP 799
Rig:	"Treasure Saga"
RKB - MSL:	26 m
MSL - Seabed (water depth):	119 m
RKB - Seabed:	145 m
RKB - TD (driller's depth):	2392 mRKB (2390 mTVD)
RKB - TD (logger's depth):	2397 m RKB

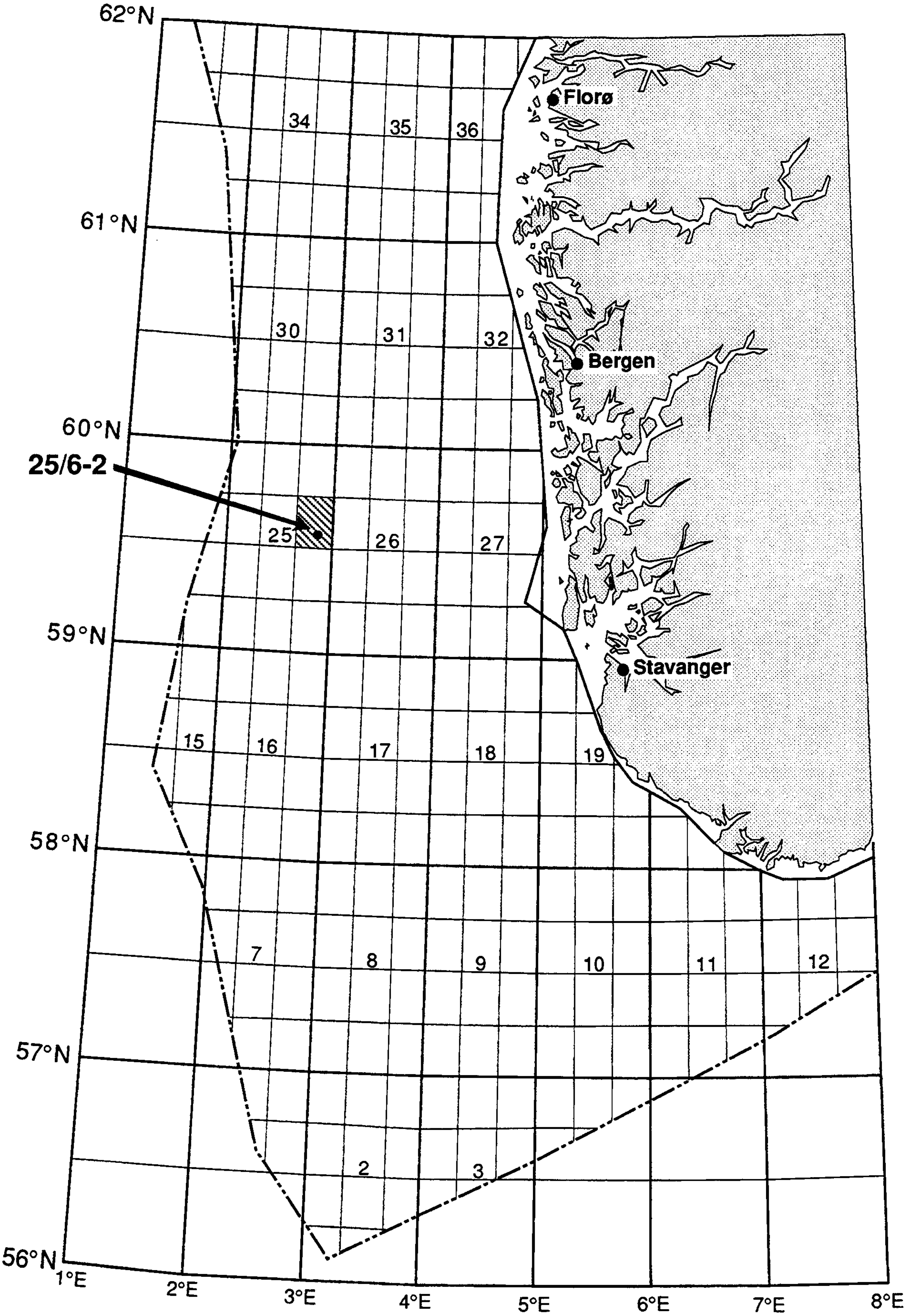

Fig. 3.1 Location Map showing the Position of Well 25/6-2

92092303.25/6-2.EUO.VG.BA

3.2 Saga Personnel

3.2.1 Drilling

Onshore:	
Senior Vice President Operations:	A. Unneberg
Drilling Manager:	P. T. Klavenes
Drilling Operation Manager:	K. Sirevaag
Drilling Superintendent:	A. Appfjell
Senior Drilling Engineer:	T. Kristensen
Drilling Engineer:	R. Henriksen
Offshore:	
Drilling Supervisors:	T. Bjerke
	J. Bysveen
	T. Kjønnerød
	J. Nilsen
Assistant Drilling Supervisor:	S. Bjørheim

3.2.2 Engineering

Onshore:	
Department Manager, Drilling and Well Technology:	S. A. Askedal
Section Leader, Drilling Technology:	T. Ø. Oftedal

3.2.3 Geology

Onshore:	
Exploration Department	
Vice President, Exploration:	H. Chr. Rønnevik
Senior Manager, Operation Geology:	B. Gustavsen
Operation Geologist:	J. E. Pedersen
Operation Geologist, Stavanger:	V. Gunleiksrud
Senior Manager, Exploration Area South:	A. Lie
Licence Geologists:	A. Mirkin
Senior Manager, Geophysics:	K. Kolbjørnsen
Senior Manager, Geology:	T. Haaland
Micropaleontologist:	S. A. Bäckström
Palynologist:	I. Throndsen
Sedimentologist:	T. Sæther
Geochemist:	V. B. Pedersen
Sample distribution:	B. Grote

Offshore:	
Well-site Geologists:	A. Hansen
	L. O. Grøvik
	H. Lie
	E. Stølen
	I. Ribland Nilssen

3.2.4 Petroleum Technology

Onshore:	
Vice President, Petroleum Technology:	H. Høydalsvik
Senior Manager, Formation Evaluation:	T. Tinholt
Manager, Petrophysics and Logging:	J. Bang
Petrophysicist:	G. Smaaskjær

Offshore:	
Petrophysicist:	G. Smaaskjær

3.3 Contractors and Service Companies

Drilling Contractor:	Wilrig
Mud Logging:	Geoservices
MWD Logging:	Teleco Oilfield Services
Wireline Services:	Schlumberger Norge A/S
VSP:	Schlumberger Norge A/S
Mud Engineering:	MI-Norge AS
Cement and Pumping Services:	Halliburton
ROV Service:	Bergen Underwater Services
Well Head System:	Vetco Gray a.s.
Supply Boats:	"Solfonn"
Standby Boat:	"Standby Master"
Helicopter Service:	Helicopter Service A/S
Catering Service:	Wilrig
Well Testing:	Flowpetrol Schlumberger Norge A/S
Casing Services:	Weatherford Norge A/S
Paleo-dating:	Simon-Robertson
Geochemistry:	Geolab Nor

4. GEOLOGY AND GEOPHYSICS

4.1 Geographic and Structural Setting

The 25/6-2 well is located in southern portion of block 25/6 (fig. 4.1). The block is approximately 175 km northwest of Stavanger and situated on the northern part of the Utsira High. The Utsira High forms the southern part of the western rim of the Horda Platform and lies between the South Viking Graben to the west and the Stord Basin to the east.

4.2 Purposes and Results of the Well

4.2.1 Purposes

The well had two main objectives:

- To test the hydrocarbon potential of the Paleocene sandstone reservoirs in the Ty Formation in the Delta and Beta prospects.

- To test the extension of the Middle Jurassic reservoir (Brent Group) found in the Alpha south prospect into the Alpha North prospect.

The Ty Formation prospects were anticipated to comprise clastic, gravity fan deposits. The well was located in a position that would test both a mapped simple closure at this level and a larger stratigraphic trap interpreted to be characterized by sands pinching out to the south by onlap (figs. 4.2 and 4.3).

In addition to the Paleocene prospects, the well was designed to test the northern extension of the Alpha South discovery made in the 25/6-1 well to the Alpha North prospect at the Jurassic Brent Group level. The Alpha North prospect was mapped as a faulted closure and it was expected to contain hydrocarbons in communication with the Alpha South discovery, such that a common oil-water contact of 2281 mRKB would be encountered (fig. 4.4).

4.2.2 Results

Well 25/6-2 was drilled to a total depth of 2392 mRKB (2390 mRKB TVD). No hydrocarbons were encountered in any of the prospective intervals, and only one show was described from a single cutting sample recovered from the Brent Equivalent interval. There were no indications of hydrocarbons from either the mud log or wireline logs.

The tops prognosed for the well were within the expected margin of error for the Top Balder and Top Shetland seismic markers. However, the tops prognosed for the Top Ty, Base Cretaceous, Top Brent, and Top Dunlin markers were off by as much as 65 m (Top Brent) and as little as 32 m (Top Dunlin) (fig. 4.5). As a result, the top of the Brent was encountered 39.5 m below the oil water contact in the Brent discovery at 25/6-1.

4.2.3 Discussion

Well 25/6-2 tested and condemned the Ty Formation Beta and Delta prospects and the Brent Group Alpha N. prospect. In addition, the lack of hydrocarbon shows throughout the Paleocene (portions of which were considered to be within simple closure) casts further uncertainty as to the possibility of charging additional Tertiary prospects on the block.

After reviewing the results of the 25/6-2 well, three contributing factors can be cited as possible reasons why the prognosed tops below the Cretaceous were encountered deeper in the well. The primary cause was the use of a geologic model that predicted a Brent Group thickness on the order of that found in well 25/5-3. Instead, the well encountered the same thickness of Brent drilled in 25/6-1 (fig. 4.6). In addition, comparison of check-shot velocity data between the 25/6-1 and 25/6-2 wells shows that there is a lateral velocity gradient between them resulting in a pull up of the Brent and Dunlin reflections in time at the No. 2 location (fig. 4.7). Finally, it was noted that the thin interval between the Base Cretaceous and the Top Dunlin may have resulted in interference between the Top Brent and Dunlin. This could result in what appears to be the Top Dunlin reflection occurring above the actual stratigraphic interface.

Main Structural Elements

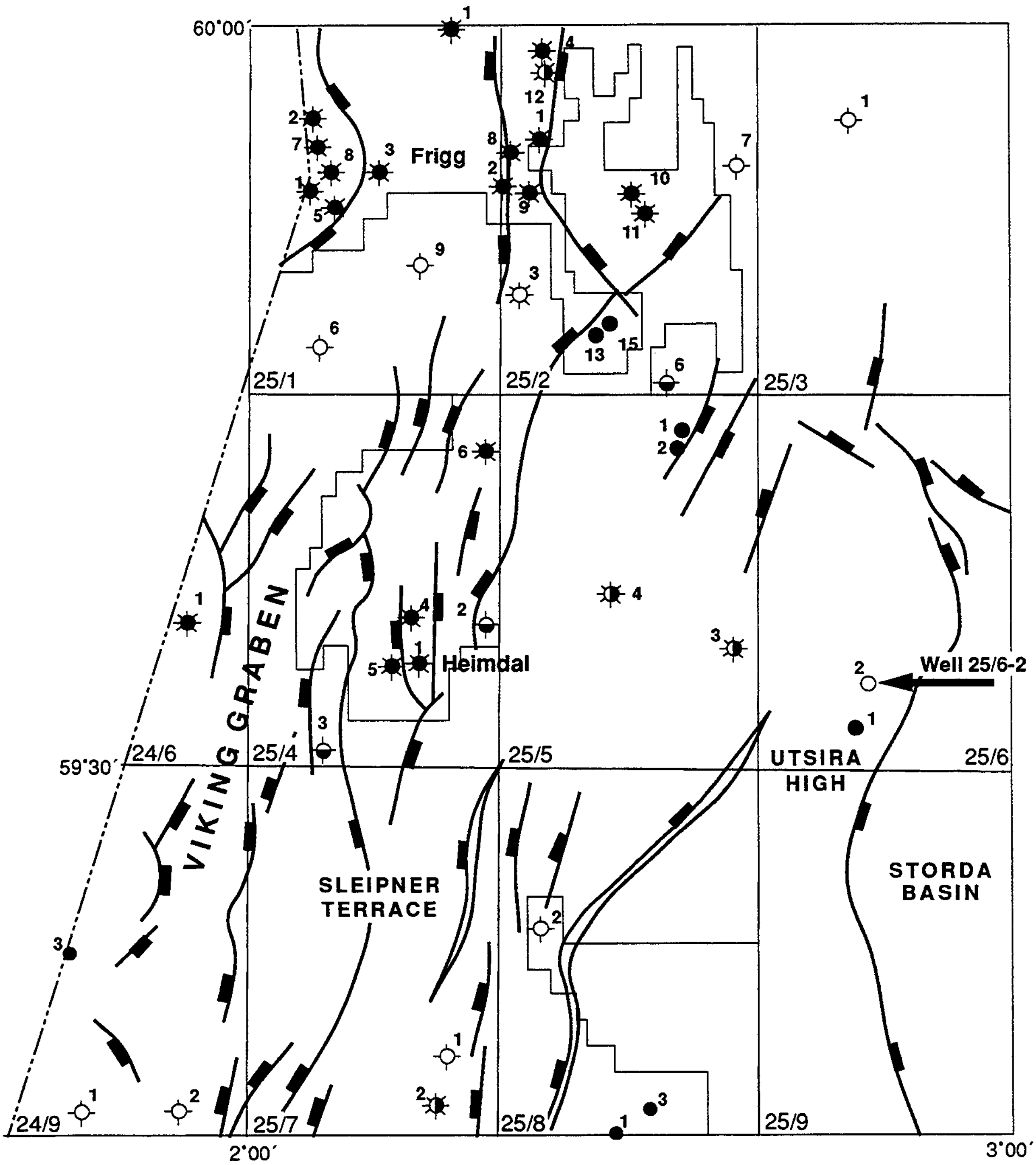

Fig. 4.1 Main Structural Elements

EUS/PL117/PGGr/920204/TEr

Block 25/6 Delta Prospect

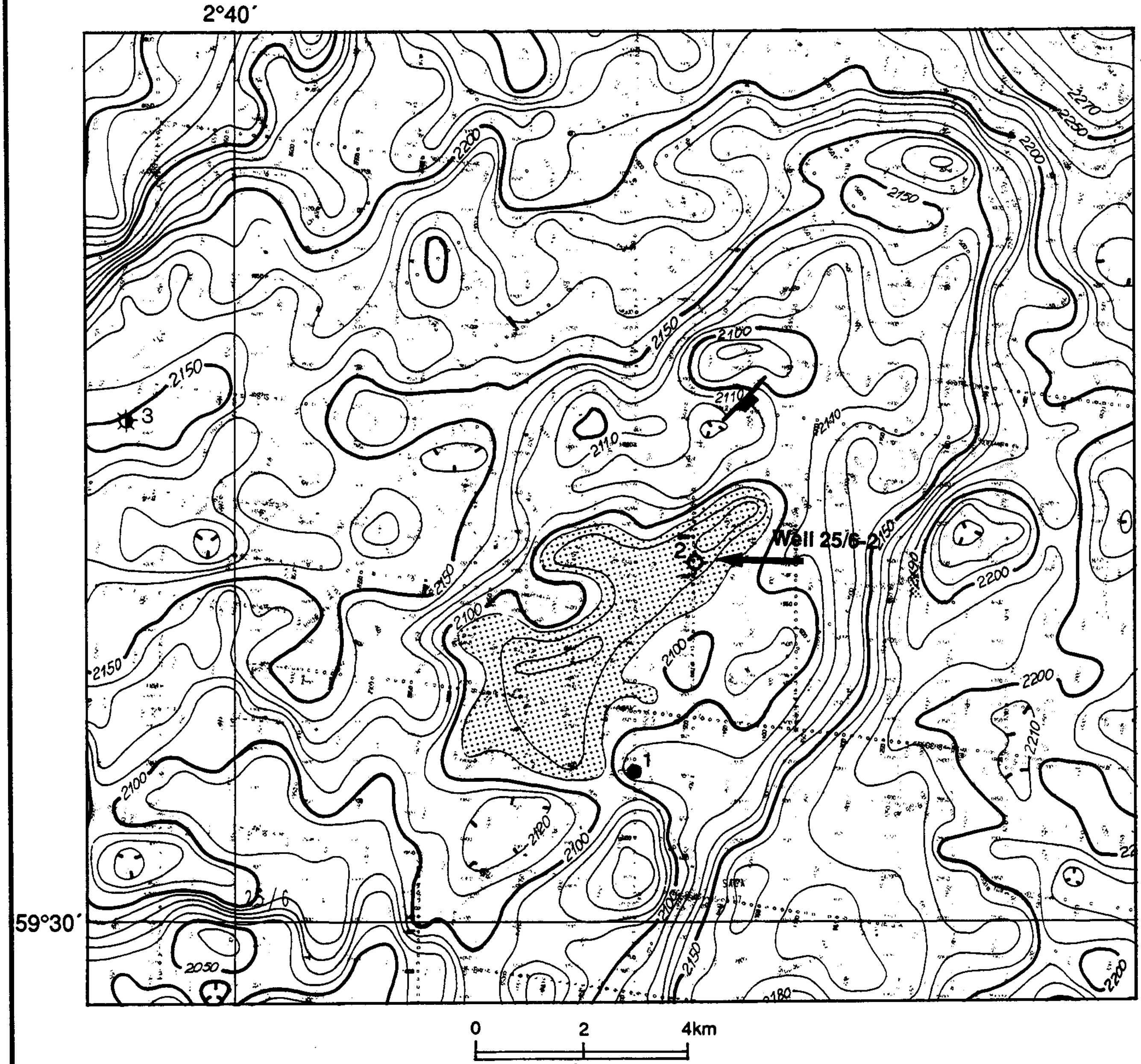

Figure 4.2 Top Upper Ty Fm., depth

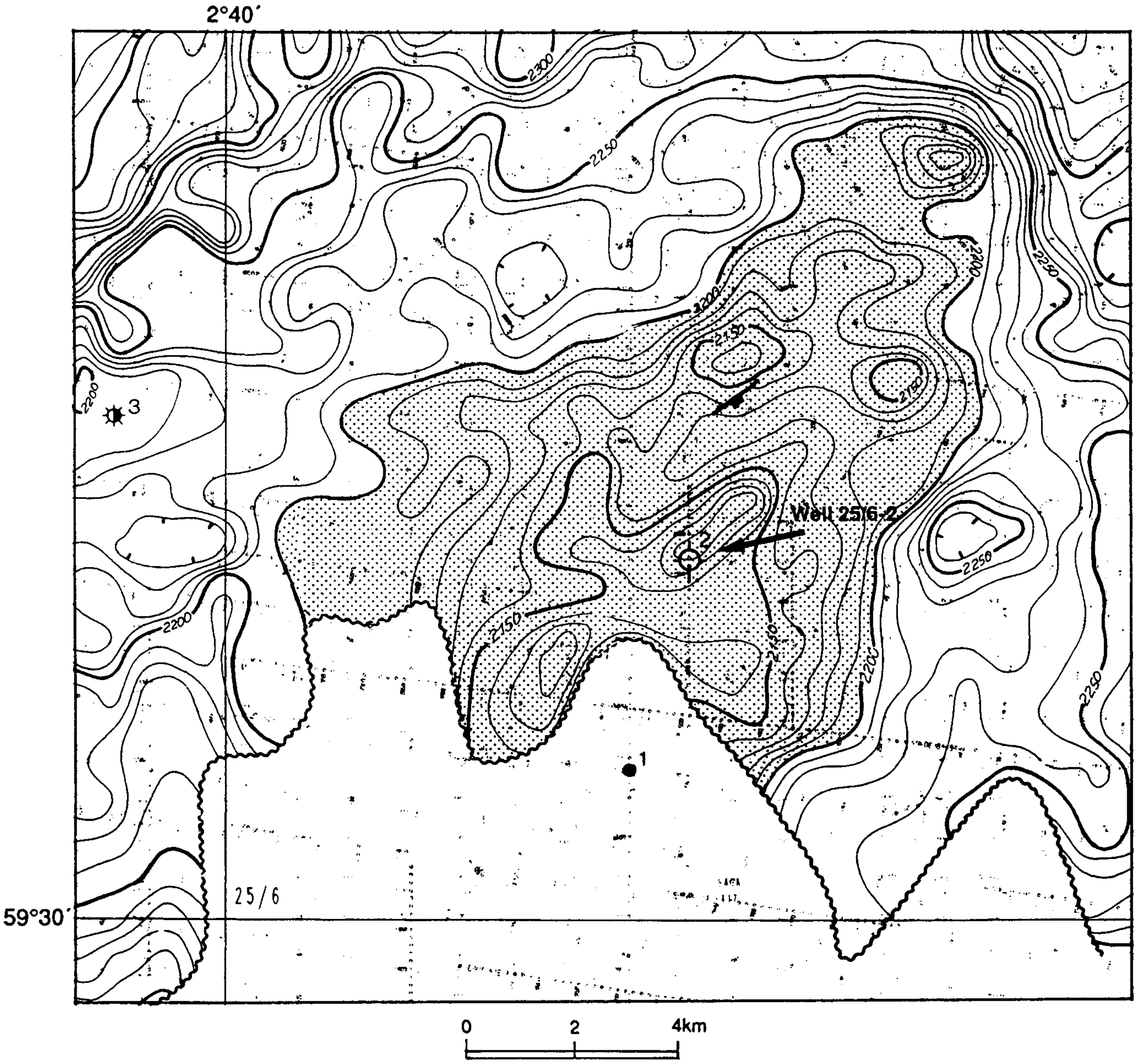

Figure 4.3 Top Lower Ty Fm., depth

Block 25/6 Alpha N. & Alpha S. prospects

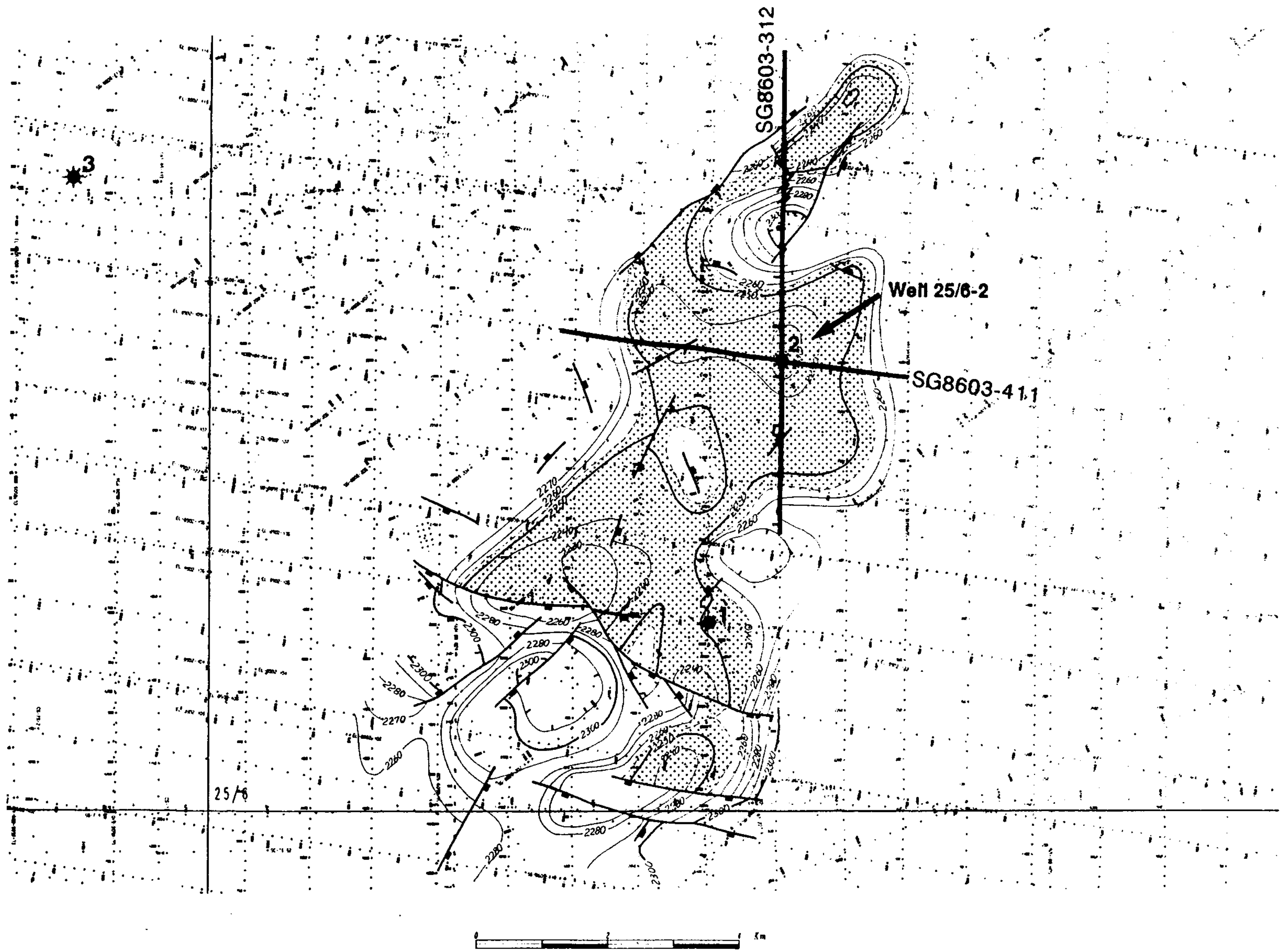

Figure 4.4 Top Brent Gp., depth

10.91 ThH/EUS TEr

Well 25/6-2 Tops Summary

Results
TD 2390 mRKB (TVD drillers, 47m below Top Dunlin Group)

Horizon	**Prognosed depth mRKB**	**Actual (TVD mRKB)**	**Difference**	**Shows**
Balder	1929	1925	-2	None
Ty	2096	2152.5	56.5	None
Shetland	2208	2205	-3	None
Base Cretaceous	2232	2276	44	None
Brent	2257	2322	65	Minor
Dunlin	2311	2343	32	None

Figure 4.5 Tops Summary

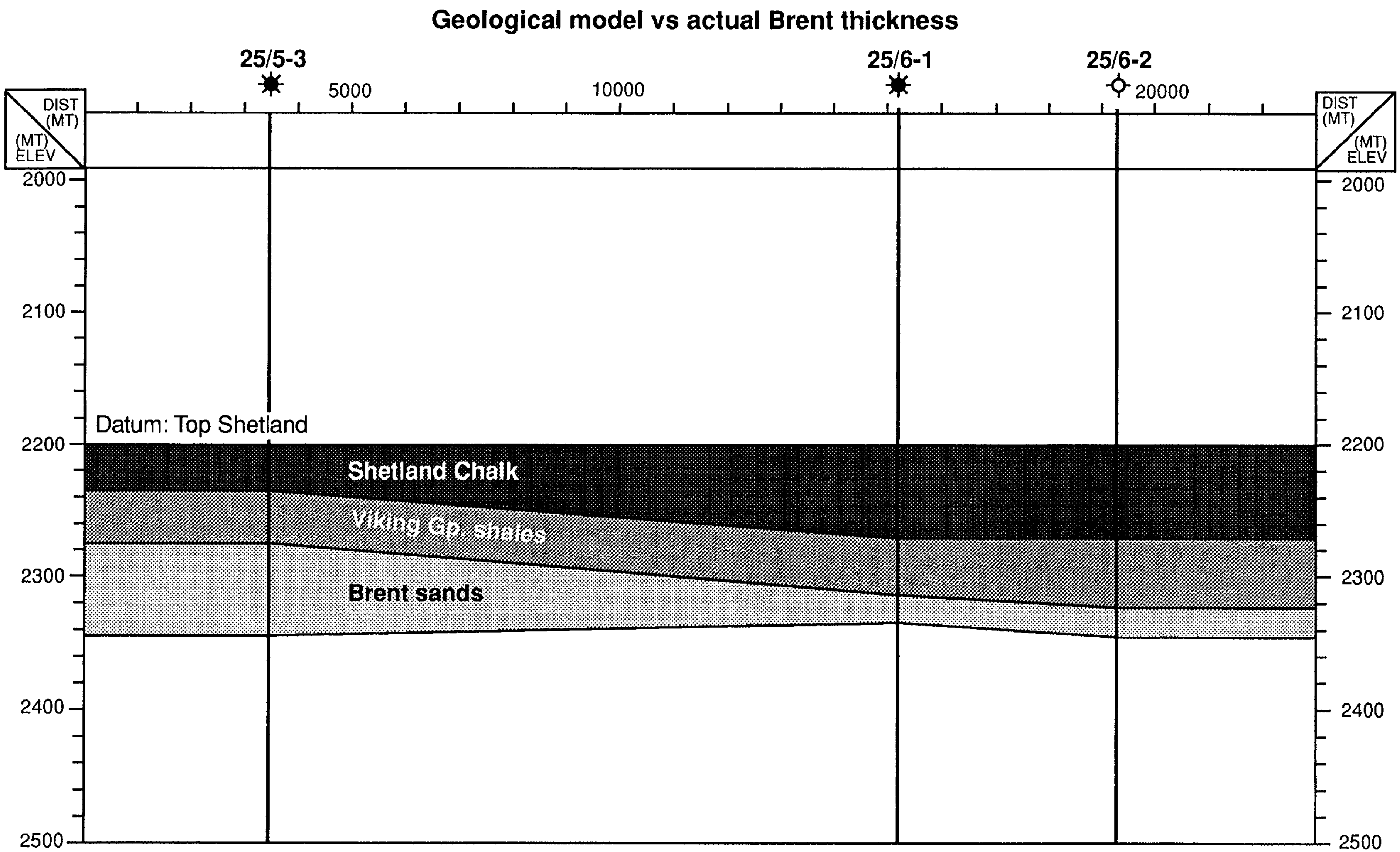

Figure 4.6 Geological model vs actual Brent thickness

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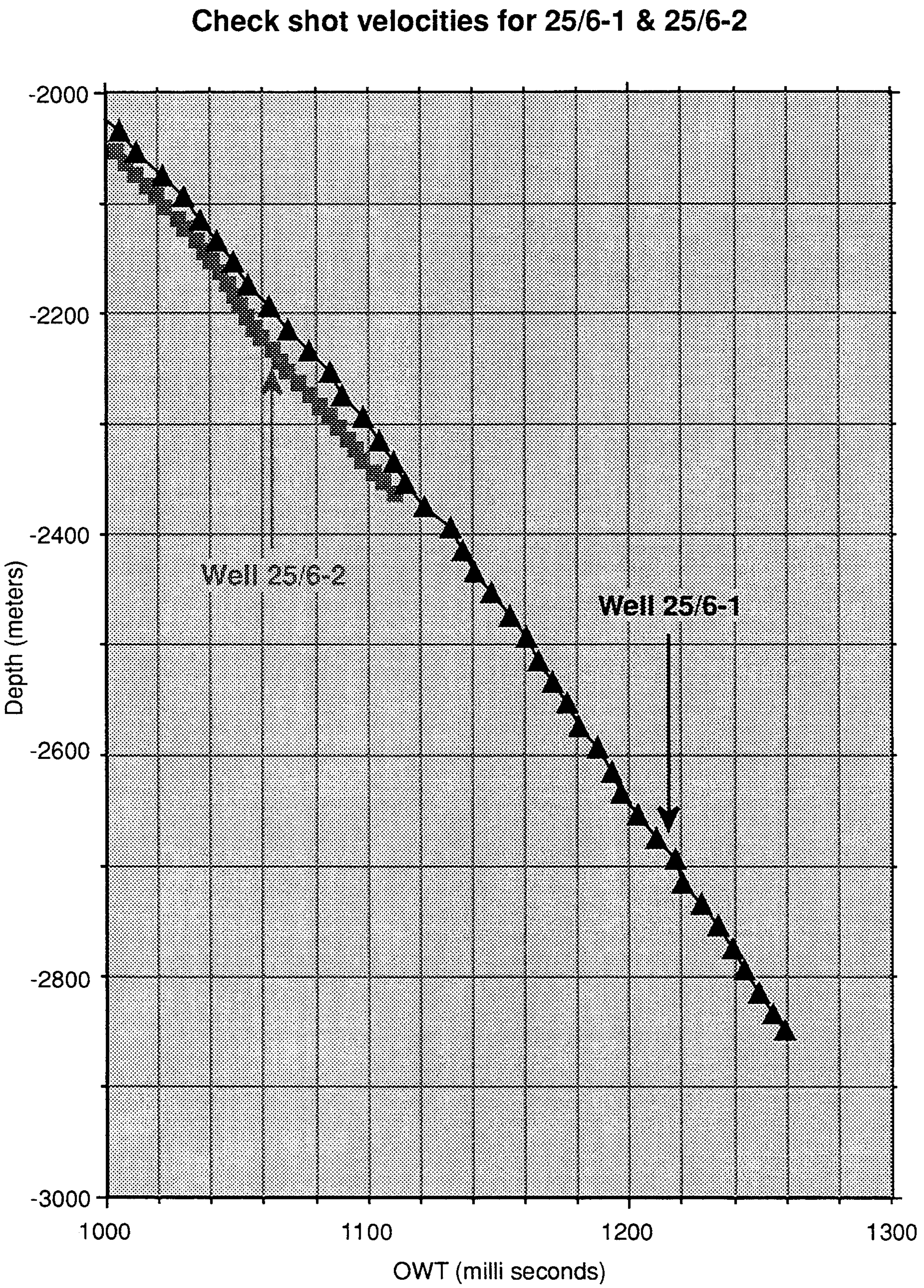


Figure 4.7 Check shot velocities

4.3 Sampling

4.3.1 Routine Samples

The following routine samples were collected:

a) Eight sets of wet ditch cuttings (a 1/2 kg).

No returns:	145 (Seabed) - 250 mRKB MD
10 m intervals:	250 - 2020 mRKB MD
5 m intervals:	2020 - 2235 mRKB MD
3 m intervals:	2235 - 2391 mRKB MD

b) Two sets of wellsite washed and dried cuttings were collected from the intervals mentioned above.

c) One set of canned composite wet samples for geochemical analyses.

10 m intervals:	250 - 2230 mRKB MD
9 m intervals:	2238 - 2391 mRKB MD

4.3.2 Distribution and Analyses of Samples

Eight sets of wet cutting samples, two sets of washed and dried samples, and one set of canned samples were collected from first sample return to total depth. These samples were distributed in the following way:

Wet samples

a) Sent to Simon - Robertson, North Wales. The remaining material was returned to Geco, Stavanger, for storage.

b) Treated according to NPD regulations by West-Lab a.s, Tananger, and transferred to NPD, Stavanger.

c) Washed and divided into 10 splits by West-Lab a.s, Tananger, and transferred to Statoil (Geco), Stavanger, as trade sets.

d) Washed and divided into 3 splits by West-Lab a.s, Tananger. One split containing one half of this set was transferred to Statoil (Geco), Stavanger, and the other splits were sent to partners.

e) Transferred to Geco Petroleum Lab., Stavanger, for storage (Saga).

f) Washed and dried by West-Lab a.s, Tananger, and thereafter transferred to Geco, Stavanger, for storage (Saga).

g) Transferred to Statoil (Geco), Stavanger, for storage.

h) Transferred to Fina (Fina), Stavanger, for storage.

Washed and dried samples directly from the rig

a) Transferred to Geco Petroleum Lab., Stavanger, for storage.
b) Transferred to NPD, Stavanger.

Geochemistry samples

Canned samples were sent to Geco Petroleum Lab., Stavanger, and later transferred to Geolab Nor A/S, Trondheim, for geochemical analyses.

Conventional cores

No conventional cores were cut.

Sidewall cores

The sidewall cores (SWC) were sent to Saga, Sandvika, for paleontological, geochemical and petrographical analyses.

4.3.3 Conventional Cores

Due to lack of significant hydrocarbon shows no conventional cores were cut in well 25/6-2.

4.3.4 Sidewall Cores

Two runs were made with coregun, attempting to collect a total of 120 sidewall cores.

Run 1A (17 1/2" hole), 60 barrels: 51 recovered, 1 lost, 7 empty, 1 misfire.
Run 2B (12 1/4" hole), 60 barrels: 54 recovered, 5 lost, 1 empty.

In total, 105 cores were recovered (88%), 6 were lost and 8 were empty and there was 1 misfire.

The geological descriptions are given in table 4.1.

Table 4.1: Sidewall Core Description, Well: 25/6-2			
No on log	Depth mRKB	Lithology	
1	1051	Clst:	slty, sl sdy, dk yel brn - olv gy, sft, amor, calc, glauc
2	1069	Clst:	v slty - vf sdy, dk yel brn - olv gy, sft, amor, sl calc, mic-mica, glauc
3	1085	Clst:	as above, but bcm incr mica
4	1095	Sd :	qtz, lt olv gy - gn gy, pred f, occ m, w srtd, ang - sbrnd, lse, sl calc, glauc
5	1118	Sd :	qtz, v arg, olv gy - dk gn gy, pred f, w srtd, ang - sbang, lse, sl calc, mica, glauc
6	1134	Clst:	pred brn gy - dk yel brn, sft, amor, calc, mica, tr glauc, bur
7	1151	Clst:	as above, but no bur
8	1171	Clst:	as above, but bcm slty / vf sdy
9	1210	Clst:	dsk yel brn - dk yel brn, sft - frm, sbfis, sl mic-mica
10	1225	Sd :	qtz, sl arg, lt olv gy - gn gy, pred f, occ m, w srtd, sbang - sbrnd, lse, sl calc, mic-mica, v glauc, no shows
11	1245	Sd :	qtz, sl arg, lt olv gy - gn gy, pred f, occ m - c, mod srtd, sbang - sbrnd, occ rnd, lse, micxl pyr, mic-mica, v glauc, no shows
12	1265	Clst:	brn gy - dsk yel brn, sft-frm, sbfis, occ micxl pyr agg, sl mic-mica, occ glauc
13	1285	Clst:	as above, but bcm sl sdy & sl calc
14	1305	Clst:	as above
15	1342	Clst:	sl slty, olv gy - dk yel brn, frm-sft, sbfis, sl calc, occ micxl pyr, mic-mica, tr glauc
16	1361	Clst:	sl slty, dk yel brn - dsk yel brn, sl shy, frm-sft, sbfis, sl calc, mic-mica, tr glauc
17	1381	Clst:	gy or - pa yel brn, frm, sbfis-fis, calc, sl mic-mica
18	1399	Clst:	sl slty, dsk yel brn, frm, sbfis-blky, sl calc, sl mic-mica
19	1419	Clst:	as above, but incr mic-mica
20	1438	Clst:	slty, dsk yel brn - olv blk, frm, sbfis-fis, mic pyr

Table 4.1: Sidewall Core Description, Well: 25/6-2

21	1458	Clst:	slty, dk yel brn - olv gy, sft - sl frm, amor - sbblky, sl mic pyr, sl mic-mica
22	1478	Clst:	slty, dsk yel brn - olv blk, frm, sbfis - blky, mic pyr, mic-mica
23	1517	Clst:	olv gy - dsk yel brn, sl wxy, frm - sft, sbblky - amor, tr mic pyr
24	1537	Clst:	olv blk, sl shy, frm, fis-plty, sl mic pyr
25	1556	Clst:	slty-vf sdy, olv blk, frm - hd, brit, blky - fis, sl mic-mica
26	1575	Clst:	dk gn gy - olv gy, wxy, frm - hd, fis
27	1595.5	Clst:	sl sdy, olv blk, sl lam, blky - sbfis, hd - frm, mic-mica
28	1615	Clst:	sl slty, dk gn gy, wxy, frm, occ sft, sbblky - sbfis, mic pyr
29	1635	Clst:	olv gy, frm, sbfis - fis, mic pyr
30	1654	Sd:	sl arg, qtz, lt gy - lt olv gy, pred f - vf, occ m, mod - w srtd, lse, non - sl calc, glauc, no shows
31	1674	Sd:	arg/kao, slty, qtz, v lt gy - lt gn gy, vf - f, occ m, mod srtd, lse, sl mic-mica, v glauc, no shows
32	1724	Clst:	sl slty, dsk yel brn - olv blk, frm, fis, sl mic-mica
33	1743	Clst:	m gy - m dk gy, wxy, hd, blky, pch mic pyr (?bur)
34	1802	Clst:	slty, sl vf sdy, m dk gy - olv gy - sl dk gn gy, frm - sft, amor - sbblky, occ sbfis, sl mic-mica, glauc
35	1822	Clst:	olv gy - dk gn gy, sl pch, frm, fis, sl mic pyr
36	1863	Clst:	slty, sl tuf, dk yel brn - dsk yel brn, tr gn gy - m bl gy /blk & wh spk, frm - sft, amor - sbblky, occ sbfis, sl calc, sl mic-mica, tr glauc
37	1880	Clst:	sl slty, dsk yel brn - olv blk, frm - sft, sbblky - sbfis, calc, sl mic-mica
38	1918	Clst:	tuf, slty, sdy, lt bl gy - lt gy /blk spk, sl shy, frm - hd, brit, calc - v calc, tr mic pyr
39	1923	Clst:	tuf, sl slty, lt - m bl gy /tr blk spk, sl wxy, sft - frm, amor - sbblky, abd micxl pyr
40	1926	Clst:	tuf, sl slty, m gy - m bl gy - dk gn gy, sl wxy, sft - frm, sl stc, amor - sbblky, abd micxl pyr
41	1929	Clst:	sl slty, olv gy, sl wxy, sft - frm, sl stc, amor - sbblky, micxl pyr

Table 4.1: Sidewall Core Description, Well: 25/6-2			
42	1934	Clst:	sl slty, sl tuf, olv gy, occ /wh spk, lam, sft - frm, stc, amor - sbblky, tr mic-mica, ab mic pyr
43	1951	Clst:	tuf, slty, vf sdy, m gy - lt bl gy /blk spk, lam, sft - frm, sl stc, amor, micxl pyr, occ glauc
44	1971	Clst: Clst:	tuf, sl slty, sdy, m gy - m bl gy /wh spk, stc, amor - sbblky, intbd w/: dsk yel brn, sft - frm, amor - sbblky
45	1975	Clst:	tuf, slty, m lt gy - lt bl gy /blk spk, sl stc, amor - sbblky, tr pch micxl pyr
46	1979	Clst:	m dk gy, frm, blky, r tr micxl pyr
47	1985	Clst:	brn blk - olv blk, sft - frm, amor - sbblky, r tr micxl pyr
48	1996	Clst:	sl slty, m dk gy, frm, blky - sbfis, r tr mic carb, r tr micxl pyr
49	2011	Clst:	m gy - m dk gy, blky, else as above
50	2025	Clst:	sl slty, m dk gy - olv gy, frm, sbblky, non calc - calc, r tr micxl pyr, r tr mica
51	2030	Clst:	sl slty, pch olv gy, dsk yel brn, m bl gy, frm, sbblky, sl calc, tr sd, r tr glauc
52	2040	Clst:	sl slty, m dk gy - olv gy, frm, sbfis, non - sl calc, sl mic-mica, sl mic-carb
53	2048	Clst:	dk gy - olv blk, bnd, gsy, frm - hd, sbfis, non - sl calc, mic pyr, sl mic-mica, sl mic-carb
54	2052	Clst:	sl slty, dk gy - olv blk, gsy, frm - sft, sbfis, sl calc, sl mic pyr, sl mic-mica
55	2056	Clst:	as above
56	2105	Clst:	sl slty, m dk gy - olv blk, gsy, frm - sft, sbfis, non - sl calc, sl mic-mica
57	2146	Clst:	olv blk, gsy, frm, sbfis - non fis, sl mic-mica
58	2148	Clst:	tr glauc, else as above
59	2152	Clst/Mrl:	lt gy - m gy - olv gy, mot, frm - hd, non - sbfis, v calc, sl mic pyr, sl mic carb
60	2153	Clst/Mrl:	as above
61	2157	Clst/Mrl:	olv gy - m dk gy, frm - hd, sbfis, calc, sl mic-mica, tr mic pyr

Table 4.1: Sidewall Core Description, Well: 25/6-2

62	2160	Clst/Mrl:	as above
63	2172	Sst:	arg, slty, v lt gy - lt gy, vf - f, occ m - c, mod - w srtd, sbang - rnd, fri - frm, kao cmt, mic pyr, lam, tr glauc, p vis por, no shows
64	2180	Sst:	as above
65	2190	Sst:	as above
66	2200	Sst:	sl calc, else as above
67	2203	Sst:	as above
68	2205	Sst:	as above
69	2207	Sst:	as above
70	2210	Ls/chk:	wh, hd, amor
71	2232	Mrl:	sl slty, pa brn, frm, non - sbfis, v calc
72	2234	Mrl:	sl slty, m gy - olv gy, sft - frm, non - sbfis, v calc, sl mic carb
73	2237	Mrl:	as above
74	2239	Mrl:	as above
75	2245	Clst:	sl slty, dk gy - olv blk, frm, sbfis, calc - v calc, mic-mica, micxl pyr in agg
76	2247	Clst:	as above
77	2255	Clst:	sl slty, m gy - gn gy, frm, nonfis, calc, sl mic-mica
78	2260	Clst:	sl slty, mod brn, frm, non-sbfis, calc, micxl pyr in agg
79	2277	Clst/Mrl:	v lt gy - lt gy, frm - sft, v calc, micxl pyr dism and in agg
80	2278	Clst:	sl slty, olv gy - brn gy, frm, non - sbfis, calc, sl mic-mica, micxl pyr dism
81	2282	Clst:	olv blk, hd - frm, non - sbfis, sl calc, sl mic-mica, micxl pyr dism
82	2284	Clst:	splin - sbfis, else as above
83	2286	Clst:	olv blk, hd - frm, sbfis - splin, sl calc, sl mic-mica, micxl pyr dism
84	2290	Clst:	as above
85	2297	Clst:	as above

Table 4.1: Sidewall Core Description, Well: 25/6-2			
86	2299	Clst:	olv blk, frm, sbfis, non - sl calc, sl mic-mica, micxl pyr dism
87	2303	Clst:	non calc, else as above
88	2306	Clst:	as above
89	2310	Clst:	as above
90	2320	Clst:	sl slty, olv gy - olv blk, frm, sbfis, sl calc, mic-mica, micxl pyr dism and in agg
91	2323	Clst:	as above
92	2326	Sst:	slty, arg, v lt gy - wh, p srtd, sbang - rnd, frm - hd, calc and kao cmt, mica, tr mic carb, no - tr vis por, no shows
93	2329	Sst:	sl slty, lt olv gy - v lt gy, vf - f, w srtd, sbang - rnd, frm, tr calc cmt, mica, tr mic carb, tr vis por, no shows
94	2332	Sst:	slty, lt olv gy - v lt gy, vf - f, pred f, w srtd, sbang - rnd, frm, tr calc cmt, mica, tr glauc, tr vis por, no shows
	2334	Sst:	arg, slty, v lt gy, vf, occ f, w srtd, sbang - sbrnd, frm, calc and kao cmt, mica, tr mic carb, no - tr vis por, no shows, poor recovery, not accepted as a valid sample
95	2338	Sst:	as above
96	2342	Sst:	sl slty, lt olv gy - yel gy, vf, v w srtd, sbrnd, occ sbang and rnd, fri - frm, tr calc cmt, mica, tr mic carb, tr vis por, no shows
97	2343	Sst:	v lt gy - yel gy, sbang - sbrnd, tr pyr agg, else as above
98	2344	Sst:	r tr calc cmt, else as above
99	2340	Clst:	sl slty, olv gy - olv blk, frm - sft, non - sbfis, sl calc, sl mic-mica, tr mic carb
100	2348	Clst:	sl slty, olv gy - olv blk, frm, sbfis, sl calc, sl mic-mica, tr micxl pyr dism, tr mic carb
101	2352	Clst:	sl calc - calc, else as above, also sl slty, pa brn - brn gy, frm, sbfis - splin, calc, sl mic-mica, tr micxl pyr dism, tr mic carb
102	2365	Clst:	sl slty, olv gy - brn gy, frm, nonfis - sbfis, sl calc, v mica dism and in vn, mic carb
103	2375	Clst:	sl slty, olv gy - brn gy, hd - frm, nonfis, sl calc - calc, mic-mica, mic carb

Table 4.1: Sidewall Core Description, Well: 25/6-2			
104	2390	Clst:	sl slty, v lt gy, olv gy, bnd, frm, nonfis, calc, tr mic-mica, tr micxl pyr in agg
105	2392	Clst:	as above

4.4 Well Logging

Fig. 4.8 represents the logging services carried out in well 25/6-2. For further details on formation evaluation and wireline logging see section 5 in this report.

Measurement While Drilling

Teleco carried out the MWD services which provided real time downhole information of gamma ray, resistivity, temperature, borehole inclination and azimuth as well as surface measurements of rate of penetration and weight on bit.

Two types of resistivity tools were used; the conventional RGD with short normal resistivity, and the DPR-tool with electromagnetic wave resistivity and downhole memory. The DPR-tools were run in the shallow sections, while the RGD-tool was run in the 17 1/2" section.

In addition, a Triple Combo tool was run in the 12 1/4" section. The Triple Combo tool included neutron porosity and bulk density measurements in addition to the above mentioned parameters.

No MWD-data were collected from seafloor to 194 m because of too low mud flow for the MWD-tool.

For further details on MWD services in well 25/6-2, see table 4.2 in this report, and Teleco MWD: "End of Well Report".

25/6-2

Casing Record mRKB MD	Hole Size mRKB MD	Logged Interval mRKB MD	Type of Log	Run No.	Date
30" @ 257 m	9 7/8" pilot hole 36" to 257 m	194 - 257	MWD (GR, DPR, DIR)		
20" @ 1030 m	9 7/8" pilot hole to 370 m 17 1/2" pilot hole 26" to 1045 m	257 - 1041	MWD (GR, DPR, DIR)		
13 3/8" @ 2026 m	17 1/2" to 2050 m	1041 - 2047 1030.5 - 2040 1051 - 2030	MWD (GR, RGD, DIR) DLL-LSS-LDL-GR CST (51 rec. of 60)	 1A/A/A 1A	 13.05.92 13.05.92
	12 1/4" to 2392 m	2026 - 2387 2026.5 - 2395 850 - 2026 2026 - 2392 2173 - 2343.5 930 - 2390 2040 - 2392	MWD (GR, RES, NEUTR., DENS,DIR) DIL-MSFL-LSS-LDL-CNL-GR VDL SHDT MDT VSP CST (54 rec. of 60)	 2A/A/B/B/A 2A 2A 2A 2A 2B	 24.05.92 24.05.92 24.05.92 24.05.92 24.05.92 25.05.92

TD Driller´s 2392 mRKB MD, 2390 mRKB TVD
TD Logger´s 2397 mRKB MD

Fig. 4.8 Wireline and MWD logs

92093002.Wirel/MWD.EUO.VG.BA

Well 25/6-2

MWD COMPANY	TELECO
DRILLING UNIT TYPE	SEMISUB
HOLE SIZE	9 7/8", 36", 26", 17 1/2", 12 1/4"
WELL TYPE	EXPLORATION
JOB TYPE	RES, GAMMA, DIR

AREA:

- SOUTH OF 62° N ☒
- MID NORWAY ☐
- NORTH NORWAY ☐
- OTHER ______

1st RUN DATE: 2 5 0 4 9 2 (D D M M Y Y)

LAST RUN DATE: 2 3 0 5 9 2 (D D M M Y Y)

FOOTAGE BASED PERFORMANCE

TOTAL METRES OF LOG REQUESTED FOR ALL RUNS 2442

	GAMMA	RESIST.	DIRECTL	CDN
METRES LOGGED	2442	2442	2442	361
% LOG OBTAINED	100	100	100	100

TOOL PERFORMANCE FOR SECTION OR WELL (CONTINUE ON ANOTHER FORM IF NECESSARY)

RUN NUMBER	CIRC. HRS	PULSING HRS	DIRECT. HRS	GAMMA HRS	GAMMA LOST (M)	RESIST. HRS	RESIST. LOST (M)	LOG REQUESTED FROM	LOG REQUESTED TO	M LOG REQUESTED	TOOL No.	COMMENTS
1	2.1	0	0	0	0	0	0			0	8404-10	Too little flow for the tool, 9 7/8"
2	7.5	7.5	7.5	7.5	0	7.5	0	194 m	368 m	174 m	2266-22	TD 9 7/8" Pilot Hole
3	13.2	13.2	13.2	13.2	0	13.2	0	145 m	251 m	106 m	2266-22	36" Hole Opener
4	38.2	38.2	38.2	38.2	0	38.2	0	257 m	1041 m	784 m	2266-22	17 1/2" Pilot Hole
5	38.5	38.5	38.5	38.5	0	38.5	0	1030 m	1388 m	358 m	8414-5	17 1/2"
6	19.5	19.5	19.5	19.5	0	19.5	0	1388 m	1609 m	221 m	8414-5	17 1/2"
7	38.5	38.5	38.5	38.5	0	38.5	0	1609 m	1911 m	302 m	8414-5	Motor run, 17 1/2"
8	21.5	21.5	21.5	21.5	0	21.5	0	1911 m	2047 m	136 m	8414-5	TD 17 1/2"
9	53.5	53.5	53.5	53.5	0	53.5	0	2026 m	2387 m	361 m	866-40	12 1/4", Including Dens-neutr.
SUM	232.5	230.4	230.4	230.4	0	230.4	0			2442 m		

FAILURE BREAKDOWN

NO. DUE TO OP. COND	NO. DUE TO TOOL

MUD TYPE Water based/ KCL mud

Tab. 4.2 MWD Job Summary

92093003.MWD.EUO.VG.BA

4.5 Well Velocity Survey

A zero-offset VSP was recorded on the 24th and 25th of May 1992 by Schlumberger Norge A/S in calm weather. The survey was done in open hole from TD (2397 mRKB) to 13 3/8" casing shoe (2026 mRKB), and in casing further up.

The energy source was a Bolt 500 cu.inch air gun with wave shape kit. A Schlumberger CSI geophone tool was used.

Data acquired:
From 2390 - 1870 mRKB, level spacing of 10 m
From 1850 - 930 mRKB, level spacing 20 m.

The VSP data were processed by Schlumberger Norge in Stavanger. Full details concerning the acquisition and processing of the data are presented in the report: "Zero Offset VSP / Check-Shot Calibration Report" by Schlumberger.

Based on the check-shot calibrated velocity and density logs, synthetic seismograms were calculated and displayed as interpreted composites showing velocity log, density log, acoustic impedance log, reflection coefficients and the VSP data.

Fig 4.9 shows the lithologic column, acoustic impedance log, synthetic seismogram (30 hz minimum phase Ricker wavelet) and tie to seismic line GUHI-92-201.

A geophysical summary is given in table 4.3.

Well 25/6-2

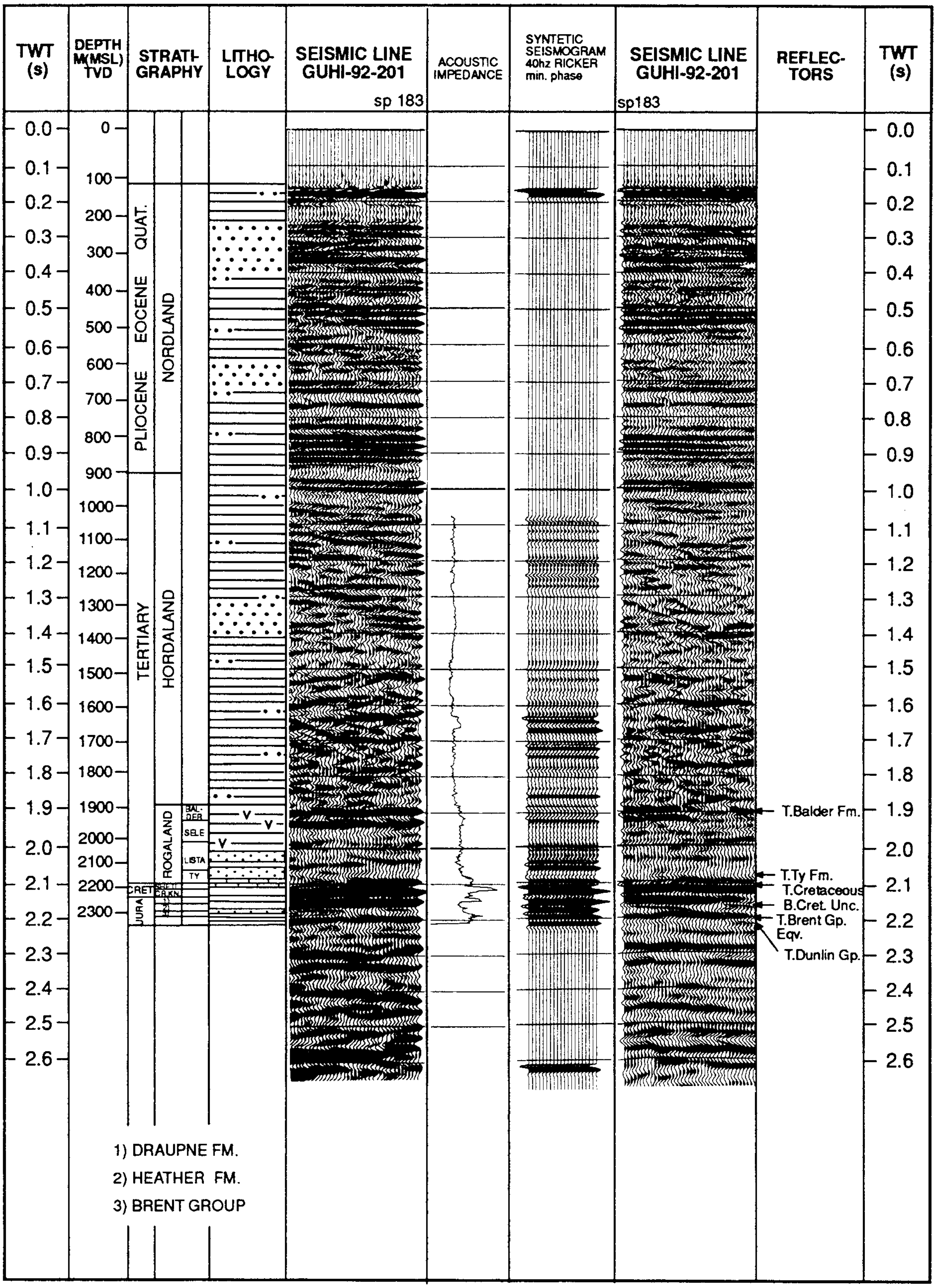


Fig. 4.9 Geophysical Summary 25/6-2

Horizon	Depth mRKB MD	Depth mTVD SS	Thickness (m)	Seismic TWT (ms)	Interval velocity (m/s)
Sea surface	0	0	119		1478
Nordland Group	145	119	782	161	1936
Hordaland Group	927	901	998	1968	2162
Balder Formation	1927	1899	58	1892	2591
Sele Formation	1984	1957	68	1936	2473
Lista Formation	2053	2025	101.5	1991	2538
Ty Formation	2154.5	2126.5	52.5	2071	3387
Shetland Group	2207	2179	32	2102	3765
Cromer Knoll Group	2239	2211	39	2119	3000
Draupne Formation	2278	2250	23	2145	2421
Heather Formation	2301	2273	23	2164	2706
Brent Group Equivalent	2324	2296	21	2181	3231
Dunlin Group	2345	2317	-	2194	3030
TD	2392	2364		2225	

Table 4.3: Seismic Summary

4.6 Formation Temperature

The maximum recorded temperatures (BHT) obtained during logging have been converted to static formation temperatures (T_f) using a Horner plot technique. The recorded BHTs and the estimated static formation temperatures are listed in table 4.4. The data used for the calculations are listed in table 4.5.

The data have been plotted in fig. 4.10.

Depth mRKB MD	No. of BHT readings	Average rec. BHT °C	T_f °C
2020	1	56.7	74
2360	2	66.0	81.5
2385	2	72.2	81.5

Table 4.4: Average recorded bottom hole temperatures (BHT) and static formation temperatures (T_f).

Log	Date	Run No.	Temp. meas. point mRKB MD	Average recorded temp. °C	Time since circ. Δt	Total circ. time at meas. point t
DLL-LSS-LDL-GR	14.05.92	1A/A/A	2022	56.7	5 hrs 5 min	7 hrs 30 min
DIL-MSFL-LSS-LDL-CNL-GR	24.05.92	2A/A/B/B/A	2360	66.0	9 hrs	3 hrs 25 min
SHDT-GR	24.05.92	2A	2385	72.2	15 hrs 5 min	3 hrs 25 min

Table 4.5: Temperature Data, well 25/6-2

Well 25/6-2

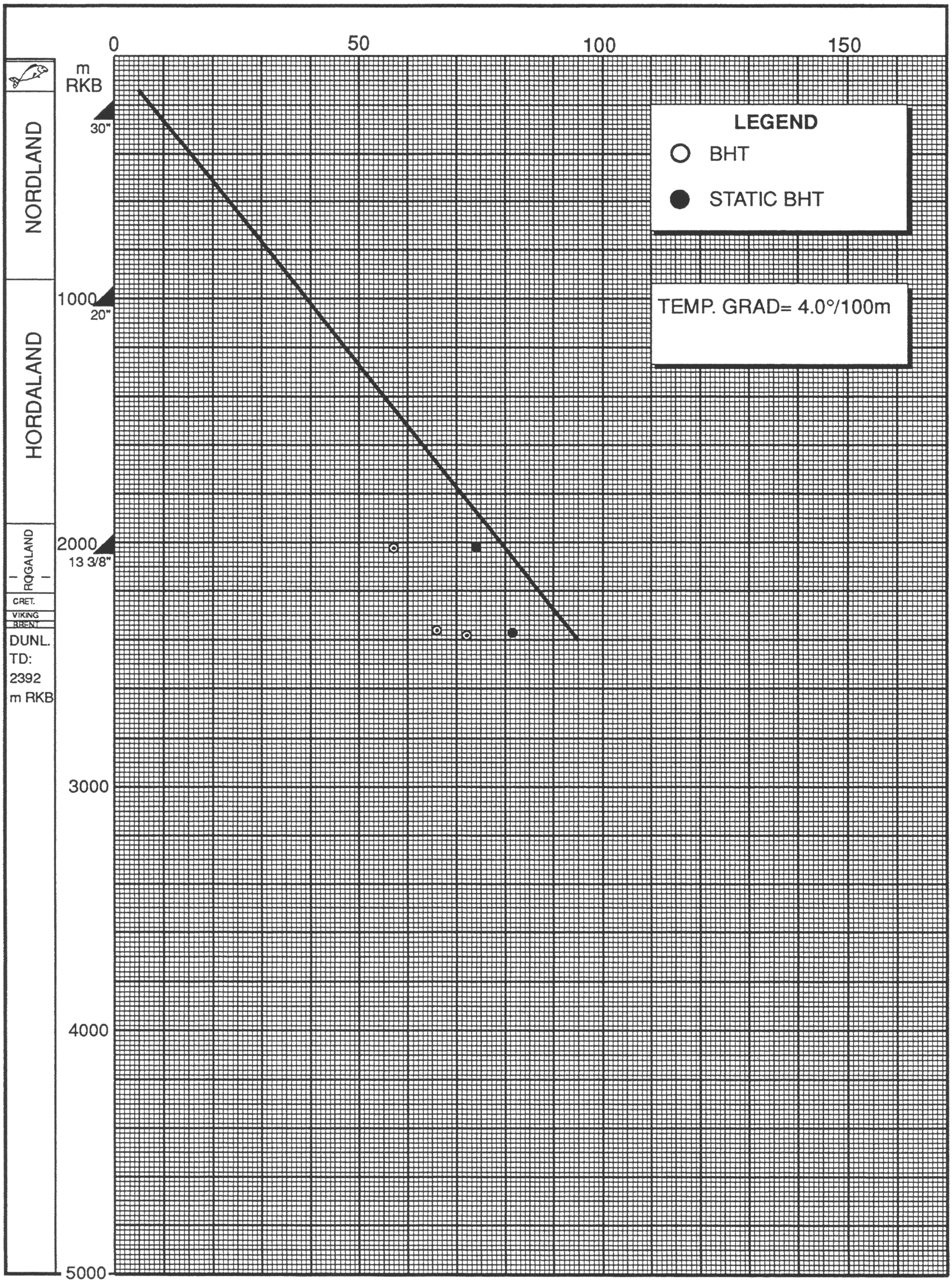


Fig. 4.10 Formation Temperature.

92072701.FormTemp.EUO.VG.BA

4.7 Formation Pressure

A pressure gradient profile is given in fig. 4.11. The pressure evaluation is based on drilling parametres, sonic log and pressure measurements (RFTs). The drilling parametres, the sonic log and the RFT results are plotted in the Formation Pressure Evaluation Sheet (Enclosure II).

The pressure gradient was hydrostatic down to approximately 1400 mRKB MD in the Hordaland Group. A pressure buildup was indicated by the sonic log and the drilling parametres from 1400 to 1550 mRKB MD. The pressure gradient seemed to remain stable in lowermost Hordaland Group, before decreasing to hydrostatic pressure conditions in the Rogaland Group.

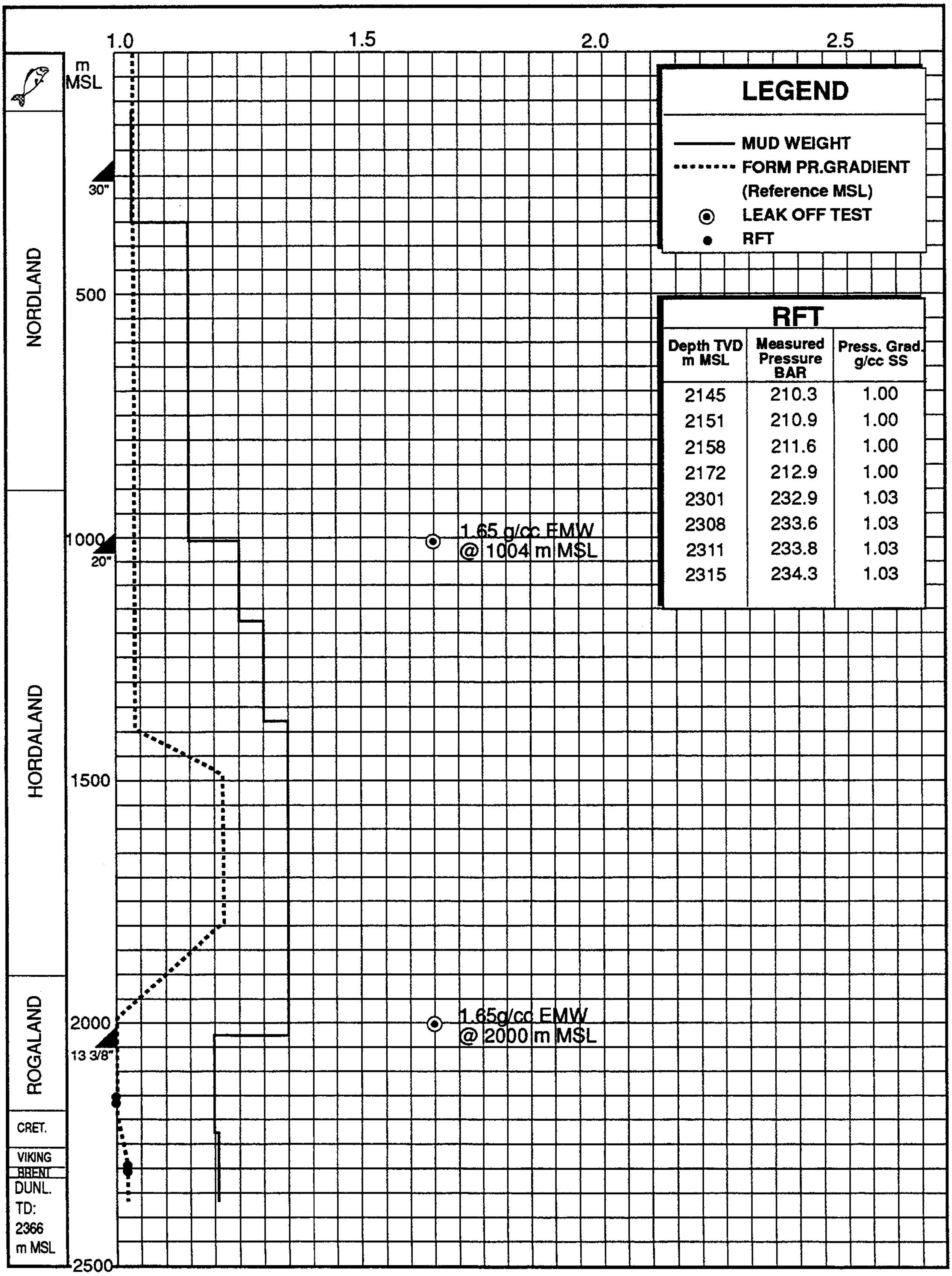
Pressure gradient calculations made from sonic and Dc-exp values in the abnormal pressure regime resulted in gradient values around ECD level (1.35 - 1.40 g/cc EMW). On the other hand, there were low gas values experienced throughout this section, trip and connection gases were rare and there were not recorded any other signs of a situation with pore pressure close to the ECD. A maximum pressure gradient of 1.20 g/cc EMW is therefore believed to be a realistic value. Calculations based purely on Dc-exp values in 25/6-1 also show a too high pressure gradient trend compared to the estimated gradients.

The pressure gradient remained hydrostatic from the lower Rogaland Group to TD in the Dunlin Group. This is confirmed by RFT-measurements in Ty Formation and Brent Group Equivalent sands.

It should be noted that because of deviation problems, the well was drilled with a turbine from 1609 to 1910 mRKB. Turbine drilling may mask pressure signals on drilling parametres, and therefore the Dc-exp was not used for evaluation in this particular area.

Seepage losses to the formation were experienced during drilling of 26" section (257 - 1045 mRKB MD) with 1.15 - 1.19 g/cc mud. This was cured by reducing fluid loss properties of the drilling fluid.

Well 25/6-2



RFT

Depth TVD m MSL	Measured Pressure BAR	Press. Grad. g/cc SS
2145	210.3	1.00
2151	210.9	1.00
2158	211.6	1.00
2172	212.9	1.00
2301	232.9	1.03
2308	233.6	1.03
2311	233.8	1.03
2315	234.3	1.03

Fig. 4.11 Formation Pressure Gradient

92093004.FormPrGrad.EUO.VG.BA

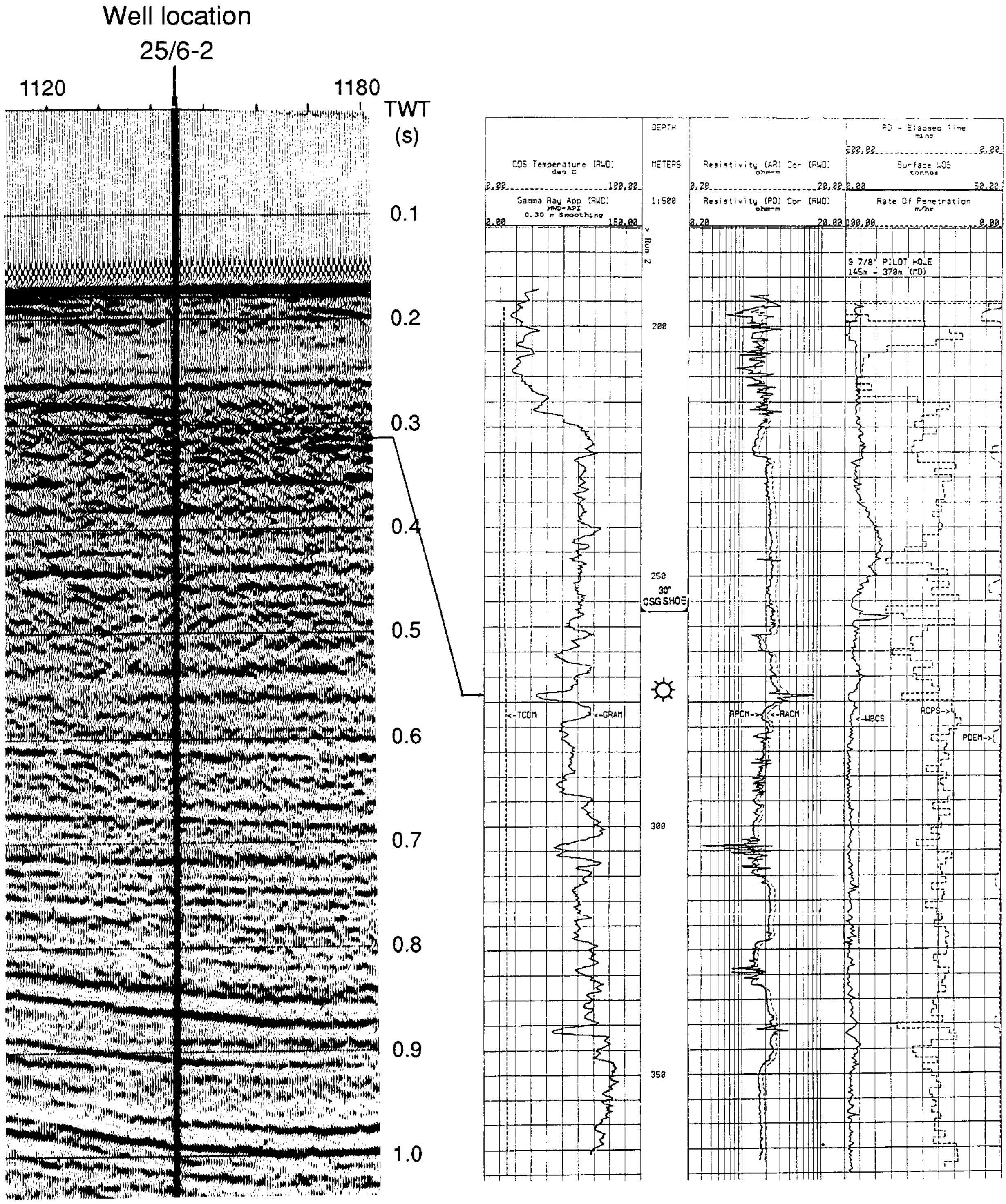
4.8 Shallow Gas

The 36" section was drilled without riser, whilst the 26" section was drilled with riser and seabed diverter. The well was spudded and drilled down to 370 mRKB MD with a 9 7/8" pilot hole because of prognosed risk of shallow gas between 195 and 355 mRKB. MWD indicated shallow gas (low gamma, high resistivity) between 273 and 274 mRKB MD (fig. 4.12). A drillbreak was also recorded at this level. No gas was observed at the wellhead. 30" casing was set at 257 mRKB MD.

The well was then opened to 17 1/2" down to 370 m and 17 1/2" pilot hole was drilled to 1045 m. No significant gas peaks were observed, but this may be a result of a non-reliable gas detection system throughout this section.

After unlatching the riser and seabed diverter, prior to running 20" casing, a few gas bubbles were observed at the well head with the ROV. The mudweight was therefore increased from 1.15 to 1.19 g/cc and the well was then observed to be stable.

Well 25/6-2



Line SG9116-805 filtered migration

☼ Shallow gas 273 - 274 m RKB MD

Fig. 4.12 Shallow Gas Correlation

92093005.25/6-2.EUO.VG.BA

4.9 Stratigraphy

4.9.1 Lithostratigraphic Summary

The lithostratigraphic subdivision of well 25/6-2 (table 4.6) is based on wireline logs, sidewall cores and cuttings descriptions, supported by the biostratigraphic breakdown prepared by Simon - Robertson and Saga Petroleum a.s.

Formation Tops 25/6-2	Depths mRKB MD	Depths mRKB TVD	Thickness mRKB TVD
Nordland Group (Seabed)	145	145	782
Utsira Sand	768	768	159
Hordaland Group	927	927	998
Grid Formation	1640 - 1682	1638 - 1680	42
Rogaland Group	1927	1925	280
Balder Formation	1927	1925	57
Sele Formation	1984	1982	69
Lista Formation	2053	2051	101.5
Ty Formation	2154.5	2152.5	52.5
Shetland Group	2207	2205	32
Cromer Knoll Group	2239	2237	39
Rødby Formation	2239	2237	17
Sola Formation	2256	2254	5.5
Mime Formation	2261.5	2259.5	16.5
Viking Group	2278	2276	46
Draupne Formation	2278	2276	23
Heather Formation	2301	2299	23
Brent Group Equivalent	2324	2322	21
Dunlin Group	2345	2343	(47)
TD (driller's depth)	2392	2390	

Table 4.6: Lithostratigraphic Summary, well 25/6-2

4.9.2 Biostratigraphic Summary

The routine biostratigraphic interpretation was prepared by Simon-Robertson and Saga Petroleum. The following analyses were carried out on well 25/6-2:

1. Simon Robertson:

Micropaleontology:	177 ditch cutting samples.
Palynology:	157 ditch cutting samples and 23 sidewall core samples.

2. Saga Petroleum:

Palynology:	22 sidewall core samples.

The biostratigraphic breakdown is given in table 4.7. The Cenozoic and Mesozoic stratigraphic history is given in figs. 4.13 and 4.14.

Table 4.7: Biostratigraphic Summary, well 25/6-2

Age	Depth mRKB	Thickness m
Pleistocene - Holocene	145	105
Pliocene? - Pleistocene	250	90
Lower? - Upper Pliocene	340	250
?Upper Miocene - lowermost Pliocene	590	140
Middle Miocene	730	90
Lower Miocene	820	120
Upper Chattian	940	171
Lower Chattian	1211	19
Rupelian	1230	347
UNCONFORMITY		
upper Middle - Upper? Eocene	1577 (log)	143
lower Middle Eocene	1720	110
Lower Eocene	1830	210
Upper Paleocene	2040	115
Lower Paleocene	2155	52
UNCONFORMITY		
Upper Maastrichtian	2207 (log)	24
?UNCONFORMITY		
Lower Maastrichtian	2231 (log)	8
UNCONFORMITY		
Upper Albian	2239 (log)	14
Middle Albian	2253	6
Lower Albian - ?Aptian	2259	2.5
UNCONFORMITY		
Hauterivian? - Lower Barremian	2261.5 (log)	16.5
UNCONFORMITY		
Ryazanian	2278 (log)	5
Upper Portlandian - lowermost Ryazanian	2283	7
Lower Portlandian	2290	13

Age	Depth mRKB	Thickness m
UNCONFORMITY		
Lower Kimmeridgian	2303	13
?UNCONFORMITY		
Oxfordian	2316	4
UNCONFORMITY		
lowermost Middle Callovian	2320	3
Lower Callovian	2323	1
UNCONFORMITY		
Upper Bajocian - ?Lower Bathonian	2324 (log)	21
UNCONFORMITY		
Toarcian	2345 (log)	4
Upper Pliensbachian	2349	43
TD	2392	

Well 25/6-2

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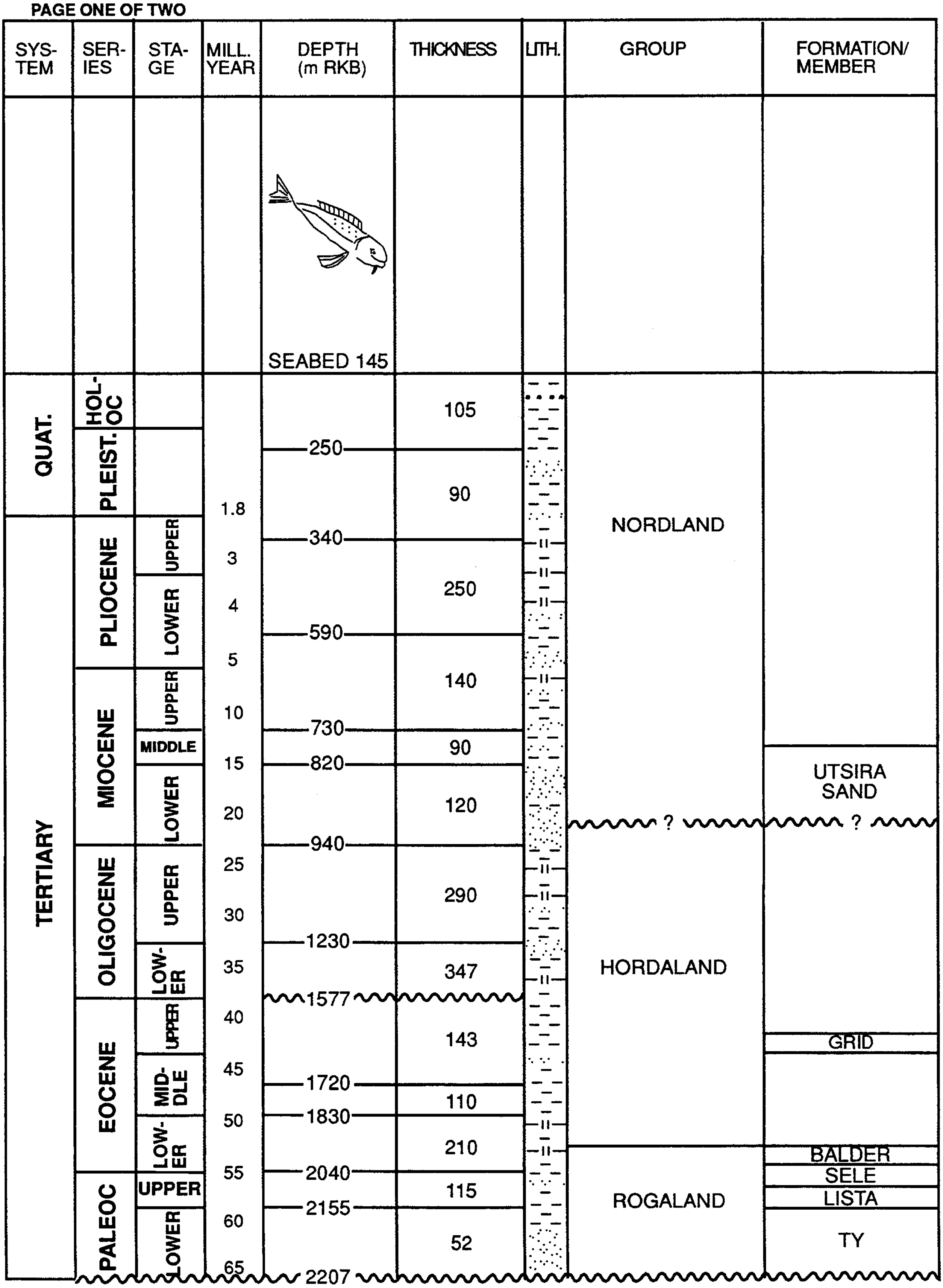

Fig. 4.13 Cenozoic Stratigraphic History

92093006.25/6-2.EUO.VG.BA

Well 25/6-2

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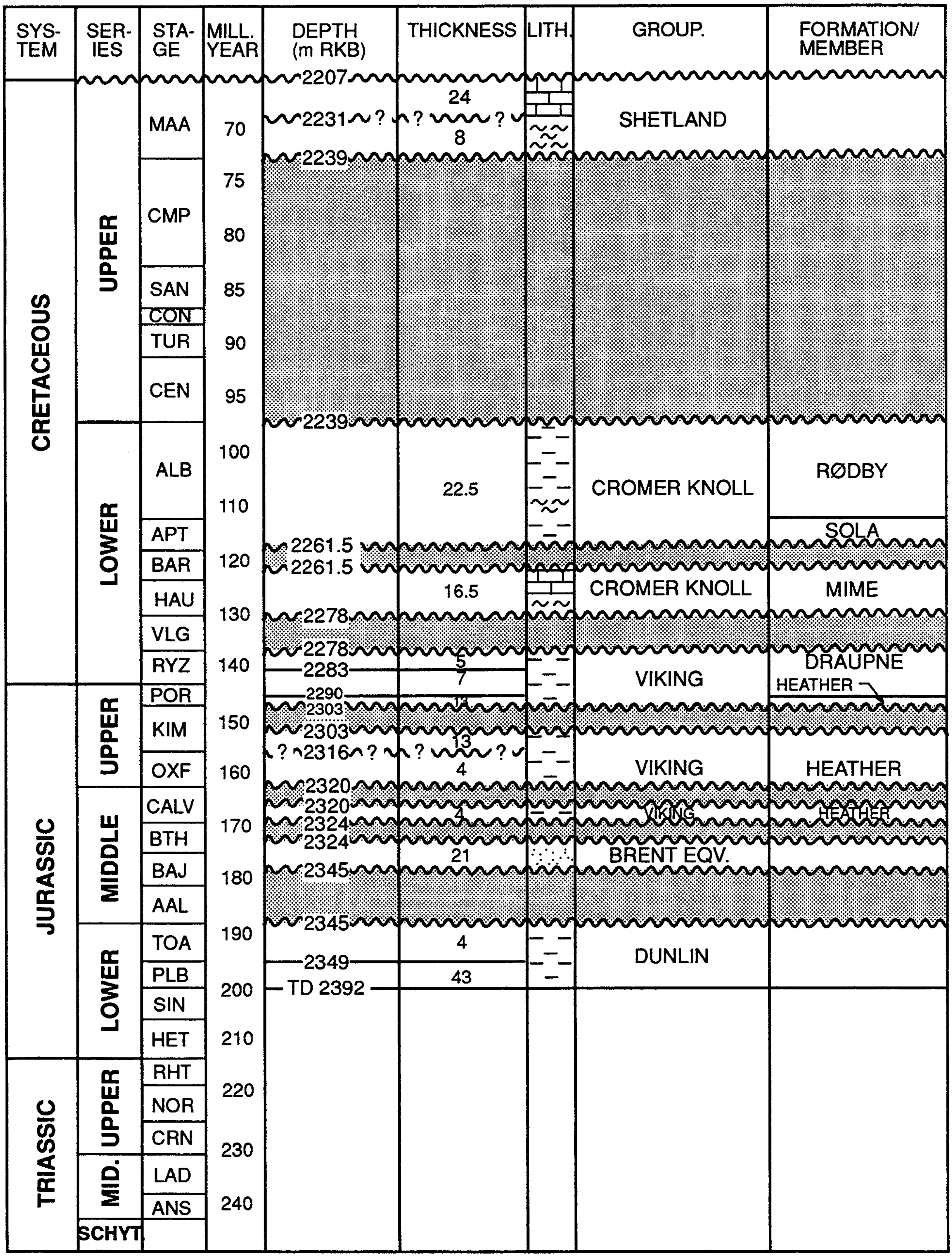

Fig. 4.14 Mesozoic Stratigraphic History

92093007.25/6-2.EUO.VG.BA

4.9.3 Dunlin Group

Depth interval:	2345 - 2392 mRKB MD (TD)
Vertical thickness:	> 47 m
Age:	Upper Pliensbachian - Toarcian

The Dunlin Group consists of slightly silty claystones. The claystones are brown grey to olive grey to olive black, firm, non to subfissile, occasionally splintery and slightly calcareous to calcareous. The claystones contain traces of pyrite, carbonaceous material and micro-mica.

In the lower part of the well the Dunlin claystones are very light grey to olive grey.

Upper boundary
The upper boundary to the Brent Group Equivalent is defined by a drop i gamma ray and resistivity.

4.9.4 Brent Group Equivalent

Depth interval:	2324 - 2345 mRKB MD
Vertical thickness:	21 m
Age:	Upper Bajocian - ? Lower Bathonian

The Brent Group Equivalent consists of silty sandstones.

The sandstones are occasionally argillaceous, white to light olive grey and yellow grey. They are very fine to fine grained, well sorted, subangular to rounded, predominantly firm, occasionally calcite and kaolinite cemented, micaceous and slightly carbonaceous. One single cuttings sample contained traces of sandstone with poor shows. Traces of visible porosity are described from sidewall core observations, whilst the estimates from petrophysical analyses based on wireline logs describe a good porosity.

Upper boundary
The upper boundary is defined by an increase in gamma ray, resistivity and sonic transit time.

4.9.5 Viking Group

Depth interval:	2278 - 2324 mRKB MD
Vertical thickness:	46 m
Age:	Lower Callovian - Ryazanian

The Viking Group is represented by two formations; the Draupne and Heather Formations.

Heather Formation

Depth interval:	2301 - 2324 mRKB MD
Vertical thickness:	23
Age:	Lower Callovian - Lower Portlandian

The Heather Formation consists claystones which are olive black, occasionally olive grey, firm, subfissile, occasionally slightly calcareous, slightly micro-micaceous and pyritic.

Upper boundary
The boundary to the Draupne Formation above is defined by a distinct increase in gamma ray and an increase in sonic transit time.

Draupne Formation

Depth interval:	2278 - 2301 mRKB MD
Vertical thickness:	23 m
Age:	Lower Portlandian - Ryazanian

The Draupne Formation consists of olive black, hard to firm claystones. The claystones are non to subfissile, occasionally splintery, slightly calcareous, slightly micro-micaceous and contain accessory pyrite.

Upper boundary
The upper boundary to the Cromer Knoll Group is defined by a decrease in gamma ray and sonic transit time and an increase in resistivity.

4.9.6 Cromer Knoll Group

Depth interval:	2239 - 2278 mRKB MD
Vertical thickness:	39 m
Age:	Hauterivian? - Albian

Three formations of the Cromer Knoll Group are present in the well; the Mime, Sola and Rødby Formations.

Mime Formation

Depth interval:	2261.5 - 2278 mRKB MD
Vertical thickness:	16.5 m
Age:	Hauterivian? - Lower Barremian

The Mime Formation is composed of a marl unit in the lower part and a limestone unit in the upper part.

The marls are very light to light grey, firm to soft and pyritic.

The limestones are slightly silty, white, firm to hard and blocky.

Upper boundary
The upper boundary is defined by an increase in gamma ray readings and a distinct decrease in resistivity and a distinct increase in sonic transit time.

Sola Formation

Depth interval:	2256 - 2261.5 mRKB MD
Vertical thickness:	5.5 m
Age:	Aptian? - Middle Albian

The Sola Formation consists of slightly silty calcareous claystones. The claystones are moderate brown, firm, non to subfissile and pyritic.

Upper boundary
The upper boundary is defined by a decrease in gamma ray and sonic travel time and an increase in resistivity.

Rødby Formation

Depth interval:	2239 - 2256 mRKB MD
Vertical thickness:	17 m
Age:	Middle - Upper Albian

The Rødby Formation consists of marls in the lower part and calcareous claystones in the upper part.

The marls are moderately to pale brown, amorphous and firm to soft.

The claystones are slightly silty, medium grey to green grey to olive black, firm, non to subfissile, very calcareous, micro-micaceous and occasionally pyritic.

Upper boundary
The upper boundary is defined by a drop in gamma ray and sonic travel time, and an increase in resistivity.

4.9.7 Shetland Group

Depth interval:	2207 - 2239 mRKB MD
Vertical thickness:	32 m
Age:	Maastrichtian

The lower part of Shetland Group consists of marls. They are medium grey to olive grey, soft to firm and non to subfissile.

The upper part of Shetland Group consists of white, hard and amorphous limestones.

Upper boundary
The upper boundary is defined by an increase in the gamma ray and sonic travel time and an abrupt decrease in resistivity.

4.9.8 Rogaland Group

Depth interval:	1927 - 2207 mRKB MD
Vertical thickness:	280 m
Age:	Lower Paleocene - Lower Eocene

Four formations of the Rogaland Group are present.

Ty Formation

Depth interval:	2154.5 - 2207 mRKB
Vertical thickness:	52.5 m
Age:	Lower Paleocene

The lower part of the Ty Formation consists of silty sandstones. The upper part of the Ty Formation consists of calcareous claystones, which are grading to marl. Minor sandstone beds are present.

The sandstones are generally silty, argillaceous, very light to light grey, very fine to fine grained, moderately to well sorted, subangular to rounded, firm to brittle, kaolinite cemented, occasionally slightly calcitic, pyritic and glauconitic with no shows. Sidewall cores are described as having poor visible porosity, whilst the petrophysical analyses based on the wireline logs suggests that the sandstones have good porosity.

The claystones are light grey to olive grey, mottled, firm to hard, non to sub fissile, very calcareous, slightly pyritic and slightly micro-micaceous.

Upper boundary
The upper boundary is picked at an increase in gamma ray, at the top of a resistivity trough overlying an area of upward decrease in resistivity, and at the top of a sonic velocity peak overlying an area of decreasing velocity.

Lista Formation

Depth interval:	2053 - 2154.5 MD RKB
Vertical thickness:	101.5 m
Age:	Upper Paleocene

The Lista Formation consists of claystones with minor sandstones, siltstones and dolomites.

The claystones are occasionally silty, medium dark grey to olive black. They have a greasy surface, are firm to soft, predominantly subfissile, slightly calcareous and are occasionally micro-micaceous. The claystones are becoming increasingly calcareous near the base of the formation.

The sandstones are argillaceous, occasionally grading to sandy claystone, very light grey, occasionally green grey. They are predominantly very fine grained, moderately to well sorted, angular to subangular, firm to friable and calcite cemented. They contain traces of glauconite and pyrite.

The siltstones are grading to very fine sandstones and are also very argillaceous. They are light grey to brown grey to olive black, firm to loose, vary from calcareous to non calcareous and contain pyrite, glauconite and carbonaceous material.

The dolomites are dark yellow orange to moderately yellow brown, blocky to splintery, hard to very hard and crystalline.

Upper boundary
The upper boundary is picked at the bottom of a high gamma ray peak.

Sele Formation

Depth interval:	1984 - 2053 mRKB MD
Vertical thickness:	69 m
Age:	Uppermost Paleocene - Lowermost Eocene

The Sele Formation is composed of slightly silty claystones with minor limestone beds.

The claystones are olive grey to medium dark grey, firm, blocky to subfissile and occasionally calcareous. They contain traces of pyrite, mica and carbonaceous material.

Upper boundary
The upper boundary is defined by an increase in resistivity and a marked decrease in sonic travel time.

Balder Formation

Depth interval:	1927 - 1984 mRKB MD
Vertical thickness:	57 m
Age:	Lower Eocene

The Balder Formation is composed of a tuffaceous, silty claystone with occasional laminae of limestone.

The claystones are varicoloured medium grey to olive grey, dusky yellow brown, light blue grey with black and white specks. They are slightly sticky, soft to firm, occasionally laminated, non calcareous and pyritic.

Upper boundary
The upper boundary is defined on the logs by a gamma ray peak, and at the top of a decrease in resistivity and sonic velocity.

4.9.9 Hordaland Group

Depth interval:	927 -1927 mRKB MD
Vertical thickness:	998 m
Age:	Lower Eocene - lowermost Miocene

The Hordaland Group is dominated by two thick claystone units separated by an Eocene sandstone unit named the Grid Formation.

The claystones are occasionally sandy and silty. The lower claystone unit contains laminae and beds of limestone and dolomite. The upper claystone unit contains laminae and beds of sandstones. The claystones are yellow brown to brown grey to olive black, occasionally medium grey and dark green grey. The claystones are predominantly subfissile and firm. Occasionally the claystones are calcareous, micaceous, glauconitic and pyritic. Towards the base the claystones are becoming slightly tuffaceous, occasionally with black and white specks and becoming more calcareous.

The sandstones in the upper part are occasionally argillaceous, light olive grey to dark green grey, occasionally brown grey and predominantly fine grained. They are well sorted, subangular to subrounded, loose, slightly calcareous and occasionally micaceous and glauconitic.

Upper boundary
The upper boundary is defined by a decrease in gamma ray and resistivity.

Grid Formation

Depth interval:	1640 - 1682 mRKB MD
Vertical thickness:	42 m
Age:	upper Middle - Upper? Eocene

The Grid Formation consists of argillaceous, occasionally silty, predominantly very fine to fine sandstones. They are very light grey to light olive grey to light green grey, well sorted, loose and glauconitic.

Upper boundary
The upper boundary is defined by an increase in gamma ray and sonic transit time.

Lower boundary
The lower boundary is defined by an upward decrease in gamma ray and sonic transit time.

4.9.10 Nordland Group

Depth interval:	145 - 927 mRKB MD
Vertical thickness:	782 m
Age:	Lower Miocene - Pleistocene

The upper part of the Nordland Group was drilled without returns from seafloor to the 30" casing shoe at 257 m. The lithological interpretation above the 30" shoe is based on MWD and drilling parameters.

Utsira Formation

Depth interval:	768 - 927 mRKB MD, Driller's
Vertical thickness:	159 m
Age:	Lower - Middle Miocene

The Utsira Formation consists of sandstones interbedded with clays and claystones.

The sandstones are argillaceous, occasionally grading to sandy clays, light brown grey to medium light grey, very fine to fine, occasionally medium, well sorted, subangular to rounded, loose and glauconitic.

The clays/claystones are slightly silty and slightly sandy, medium light grey to brown grey, soft, predominantly sticky, micaceous and glauconitic.

Traces of pyrite and shell fragments were observed.

Upper boundary
The upper boundary of the Utsira Formation is characterized by an upward increase of the MWD gamma ray and resistivity readings.

Nordland Group above Utsira Formation

Depth interval:	145 - 768 mRKB MD
Vertical thickness:	623 m
Age:	Middle Miocene - Pleistocene

The group is dominated by massive marine clays interbedded with minor sands. In the upper part some boulder beds are present.

The clays are silty, sandy, soft, sticky and calcareous to very calcareous. They are olive grey to dark green grey in the upper part whilst in the lower part they are olive grey to medium dark grey. Traces of mica and pyrite were observed.

The sands are mainly very fine to medium grained, moderately to well sorted and loose. Generally the sand grains are clear and subangular to angular.

Traces of limestones, dolomites and foraminiferae were observed in the cuttings samples.

4.10 Hydrocarbon Indications

MWD-responses in the 9 7/8" pilot hole indicated a shallow gas zone from 273 to 274 mRKB MD (see section 4.8 and fig. 4.12). There were no returns to the rig throughout the 9 7/8" pilot hole drilling and the 36" hole-opening.

Down to the 20" casing shoe (1030 mRKB MD) the gas detection system seemed to be non reliable. Some gas data were collected, but it is difficult to evaluate whether parts of the data are of satisfactory quality or not.

In the 17 1/2" section (1045 - 2050 mRKB MD) the total gas showed low values, ranging from traces to 0.25%. The gas consisted of C1 only.

Low total gas values were also measured in the 12 1/4" section (2050 mRKB - TD). The range was from traces to 0.8%. The highest values were measured in the hydrocarbon generating shales of the Viking Group. The gas from the Viking Group contained C1, C2 and C3, whilst in the rest of the section measured gas consisted of C1 only. For details on the gas measurements see Saga Well Site Lithlog or Geoservices Final Well Report.

One single ditch cuttings sample from 2328 mRKB MD in Brent Group Equivalent showed traces of weak hydrocarbon shows.

Except for the above mentioned shallow gas zone, MWD- and wireline log responses did not indicate any presence of hydrocarbons throughout the well.

5. FORMATION EVALUATION

5.1 Logging

The logging programme included two runs with wireline logs and one run with a MNP/MDL-tool (LWD), see fig. 4.8. The data quality is generally good for both wireline runs performed in the well. The LWD data is being processed by Teleco since this was a test run for Eastman Teleco.

The difference between measured depth and true vertical depth varies some, but in general the difference is approximately 2 meters. The top of the Ty Formation is at 2154.5 mRKB, which is 1.8 m deeper than the TVD. The top of the Brent Group Equivalent is at 2324.0 mRKB which is 2.0 meter deeper than TVD.

The logs have been analyzed using a computer based model applying a complex lithology method. Both the Ty net sand and the Brent Group net sand have been defined using a porosity cutoff of 12%.

The main results from the preliminary log analysis are summarized in table 5.1. For further details and final interpretation, reference is made to the "Petrophysical Report".

5.2 Conventional Core Analyses

Since both the Ty Formation and the Brent Group Equivalent were waterbearing no core was taken.

5.3 Formation Pressure Measurements

Formation pressure measurements were taken using a Modular Formation Dynamic Tester (MDT) with a Quartz-gauge. The pressure measurements were of good quality (table 5.2).

The Pressure gradient in the Ty Formation is 0.097 bar/m, corresponding to a water density of 0.99 g/cc at reservoir conditions. The Brent Group Equivalent had a pressure gradient of 0.096 bar/m or 0.98 g/cc. A difference of 7.4 bar in the pressure regime exists between the two reservoirs, see fig. 5.1.

Formation Pressure Well 25/6-2

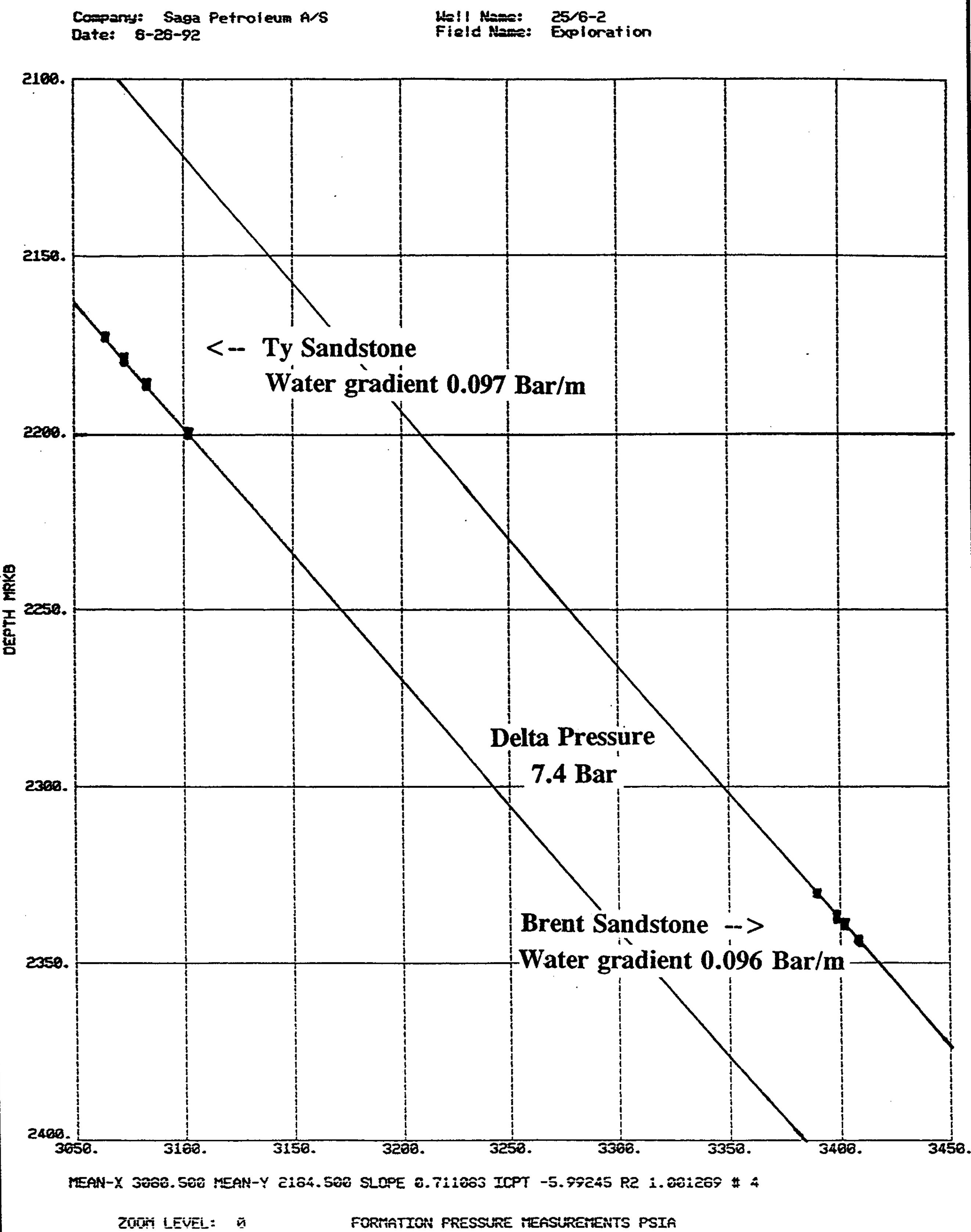

Fig. 5.1 Formation Pressure vs. depth Well 25/6-2

21.7.92 GSm/ERF

Petrophysical Evaluation

Formation/ unit		Ty Fm.	Brent Gp.
Top	(MDmRKB)	2154.5	2324.0
Bottom	(MDmRKB)	2207.0	2345.0
Gross	(m)	52.5	21.0
Net	(m)	42.0	18.7
N/G		0.80	0.89
Φ_{eff}	(%)	27.7	26.5
S_w	(%)	100	100
Cutoffs			
Porosity	(%)	12	12
V_{sh}	(%)	40	40

Remarks:

RKB: 26 m

Table 5.1 Petrophysical Evaluation

Formation Pressure Well 25/6-2

DEPTH		Hydrostatic mud Pressure Quartz Gauge		Formation Pressure Quartz Gauge		Comments
MDmRKB	TVDmRKB	Before Psia	After Psia	Psia	Bara	Test type
2173.0	2171.1	3820.6	3820.7	3064.1	211.3	10 cc pretest
2179.0	2177.1	3831.7	3831.8	3072.8	211.9	10 cc pretest
2186.0	2184.1	3844.5	3844.7	3083.0	212.6	20 cc pretest
2200.0	2198.1	3869.1	3869.4	3102.1	213.9	20 cc pretest
2330.0	2327.9	4100.1	4100.1	3392.8	233.9	20 cc pretest
2336.5	2334.4	4112.1	4111.9	3402.2	234.6	10 cc pretest
2339.0	2336.9	4116.5	4116.3	3406.0	234.8	20 cc pretest
2343.5	2341.4	4124.5	4124.5	3412.6	235.3	20 cc pretest

Remarks:

All Pressures reported are from the new Quartz gauge

RKB : 26 m

Table 5.2 Formation Pressure Well 25/6-2

6. DRILLING DATA

If not otherwise mentioned, all depths in this chapter refer to mRKB MD (Rotary Kelly Bushing).

Date	Stop	Operational Description
920424	24:00	On tow to location 25/6-2 Pos. at midnight:60 deg 13' N :3 deg 12.5'E Distance sailed :63 Nm Distance to go :41 Nm
920425	09:00	On tow to location 25/6-2.
	14:30	Anchor handling. Anchor-On btm.-P.back on btm. No.5 09:00 15:20 No.1 10:20 10:42 No.8 10:39 11:22 No.6 11:58 12:35 No.2 12:36 13:03 No.4 12:36 12:50 No.7 13:49 14:06 No.3 13:58 14:15
	19:00	Ballasted rig to drilling draught.
	20:30	Pretensioned anchors to 160 ton, OK.
	21:30	Adjusted rig position.
	22:00	Aligned top drive. Re-arranged hoses.
	24:00	Made up 9 7/8" bit. Picked up MWD tool and loaded same. RIH and tagged seabed. RKB-sealevel: 145m
920426	00:30	Lowered and positioned beacon on seabed by ROV.
	04:00	Spudded well at 00:30 hrs. Drilled 9 7/8" pilot hole from 145m to 196m.
	06:30	POOH to change MWD tool. RIH to 172m.
	07:00	Washed and reamed from 172m to 196m.
	07:30	Drilled 9 7/8" pilot hole from 196m to 200m.
	08:30	Circulated and worked to get signals from MWD.
	15:30	Drilled 9 7/8" pilot hole from 200m to 370m.
	16:00	Swept hole with 8 m3 high-viscous mud. Displaced to 1.2 sg mud.
	17:30	POOH. Dumped MWD memory.
	20:00	Made up 26" bit and 36" hole opener. RIH. Positioned rig and stabbed in.
	24:00	Opened 9 7/8" pilot hole to 36" from 145m to 184m.

Date	Stop	Operational Description
920427	09:00	Opened 9 7/8" pilot hole to 36" from 184m to 257m.
	09:30	Swept hole with 15 m3 high-viscous mud.
	10:30	Made wipertrip to seabed.
	11:30	Swept hole with 15 m3 high-viscous mud and displaced hole to 1.2 sg bentonite mud.
	12:30	POOH.
	13:00	Made up T-sub and kelly valve in DP stand, and 30" cam actuated running tool on DP stand. Racked same back in derrick.
	17:30	Rigged up and ran 30" casing.
	18:30	Ran 10 joints of DP stinger.
	21:00	Installed PGB. Ran 30" casing on landing string. Washed down last 2m to bottom at 258m. PGB too low in mud on seabed. Picked up 1m. Casing shoe at 257m. Circulated annulus volume.
	21:30	Cleaned and checked bulls eye on PGB - 1/2 deg.
	23:00	Mixed and pumped cement as per program. Displaced with seawater. Left 5m cement in shoe track.
	24:00	Checked float shoe. Found leakage. Waited on cement.
920428	09:00	Waited on cement.
	10:00	Released 30" running tool. Observed 1/2 degree on PGB. POOH.
	19:30	Rigged up and ran SBD on riser. Pressure tested kill and choke lines to 70 bar. Hooked up kill/ choke/booster lines. Landed SBD and made overpull test to 20 tons. Function tested dump valve, OK. Observed PGB moving within 1 degree. Disconnected SBD and pulled above wellhead.
	22:00	Ran 9 7/8" tubing through mousehole for grouting. Stabbed into PGB with ROV. RIH to 156 m.
	23:30	Mixed and pumped 18.6 m3 1.9 SG cement slurry. Observed bullseye 1/2 degree.
	24:00	POOH with 2 7/8" tubing.

Date	Stop	Operational Description
920429	01:00	POOH with 2 7/8" grouting tubing.
	06:30	Waited on cement.
	08:30	Landed SBD. Overpull tested with 20 ton. Laid down landing joint. Made up ball joint.
	10:30	Made up 26" BHA. RIH to 225m.
	12:00	Pressure tested SBD to 35 bar, OK. Functioned and circulated through surface diverter system.
	13:30	Drilled cement from 251m. Drilled 30" shoe and 26" hole to 260m.
	14:30	Displaced hole to 1.15 sg mud.
	16:00	POOH. Laid down 17 1/2" bit and 26" under reamer.
	16:30	Laid down 17 1/2" bit and 36" hole opener.
	17:00	Dumped MWD memory.
	19:00	Made up 17 1/2" BHA and RIH.
	19:30	Repaired broken hoses on top drive.
	21:00	RIH to 261m.
	24:00	Opened 9 7/8" hole to 17 1/2" hole from 261m to 329m.
920430	02:00	Opened 9 7/8" hole to 17 1/2" from 329m to 370m.
	11:30	Drilled 17 1/2" pilot hole from 370m to 545m.
	12:30	Circulated on bottom.
	13:30	Made wipertrip to 30" casing shoe.
	24:00	Drilled 17 1/2" pilot hole from 545m to 798m.
920501	00:30	Drilled 17 1/2" hole from 798m to 817m.
	01:30	Circulated bottoms up.
	03:00	Performed wipertrip to 30" casing shoe.
	12:00	Drilled 17 1/2" pilot hole from 817m to 1045m.
	14:00	Pumped a 14 m3 high-viscous pill and circulated around.
	14:30	Closed seabed diverter and top drive valve, opened seabed diverter dump valve and flowchecked, OK.
	15:30	Circulated bottoms up. Mud weight drifted from 1.15 sg to 1.16 sg.
	19:30	POOH. Drained memory on MWD and laid down same. Broke out bit. Had seepage losses of 1.3 m3/hr.
	22:30	Made up new 17 1/2" bit and tested underreamer. RIH.
	24:00	Underreamed 17 1/2" hole to 26" from 260m to 303m.
920502	17:00	Underreamed 17 1/2" hole to 26" from 303m to 741m. Had seepage losses to formation while circulating.
	19:30	Circulated to reduce mudweight in annulus from 1.17 sg to 1.15 sg due to losses at a rate of 1.0 m3/hr.
	24:00	Underreamed 17 1/2" hole to 26" from 741m to 856m.

Date	Stop	Operational Description
920503	08:30	Underreamed 17 1/2" hole to 26" hole from 856m to 1045m.
	10:30	Pumped a 12.7 m3 high-viscous pill and circulated hole clean.
	12:00	Flowchecked for 10 min. Losses at a rate of 1 m3/hr. POOH to wellhead.
	13:00	Closed SBD annnular preventer around monel DC. Opened dump valve. Flowchecked for 30 min, OK. Displaced riser to seawater.
	14:00	POOH and laid down underreamer (kept dump valve open).
	18:00	Rigged up and disconnected SBD. Observed gas bubbles from well. Connected SBD with dump valve open and annular preventer closed. Noppled up surface diverter.
	19:30	RIH with 17 1/2" bit to above SBD. Displaced riser to 1.16 sg mud.
	20:00	Closed surface diverter and opened annular on SBD. Observed well for 20 min, OK.
	22:30	RIH to 1045m. Flowchecked at 145m and 230m. Losses at a rate of 0.5 - 1.5 m3/hr.
	24:00	Circulated and conditioned mud to reduce fluid loss.
920504	01:00	Circulated to reduce fluidloss on mud.
	03:30	Flowchecked for 10 min. Lossrate: 0.5 m3/hr. Circulated and increased mudweight to 1.18 sg.
	05:00	Flowchecked for 10 min. Lossrate: 0.5 m3/hr. Circulated and increased mudweight to 1.19 sg.
	06:00	Flowchecked for 10 min. Lossrate: 0.3 m3/hr. POOH to 30" casing shoe.
	07:00	Slipped and cut drilling line.
	09:00	POOH to SBD. Closed annular preventer around monel DC. Opened dump valve and flowchecked for 30 min. Displaced riser to seawater.
	10:00	POOH.
	11:00	Rigged up and disconnected SBD.
	14:30	Observed wellhead due to small gass bubbles after disconnecting SBD.
	20:00	Pulled riser and SBD. Positioned SBD on cellar deck.
	22:00	Made up wellhead and cement head. Racked same back in derrick.
	24:00	Made up 26" bit. RIH and stabbed in 30" wellhead.

Date	Stop	Operational Description
920505	01:30	RIH to 855m.
	02:30	Washed and reamed from 855m to 884m and from 932m to 1046m.
	04:00	Circulated bottoms up.
	05:00	POOH to 300m.
	05:30	Spotted 56 m3 high-viscous mud from 300m to seabed.
	07:00	POOH. Filled hole with high-viscous mud at 173m.
	16:30	Rigged up and ran 20" casing. Made up 18 3/4" wellhead and ran landing string.
	18:00	Landed 20" casing in 30" wellhead. Pumped 108 m3 of 1.19 sg mud.
	22:00	Pressure tested cement lines to 207 bar. Mixed and pumped 224.5 m3 of 1.50 lead slurry and 10 m3 of 1.90 sg tail slurry.
	23:30	Dropped dart and sheared plug. Displaced cement with seawater using rig pumps. Bumped plug with 20 bar above final circulating pressure.
	24:00	Attempted to pressure test casing to 143 bar, no go.
920506	01:00	Checked float, not holding. Waited on cement.
	02:30	Checked float, OK. Backed out running tool and POOH with same. Laid down running tool and cement head.
	13:30	Rigged up and ran BOP and riser. Landed BOP on 18 3/4" wellhead. Installed diverter.
	15:00	Repaired broken hydraulic hose on surface diverter. installed and tested same, OK.
	18:30	RIH with BOP test plug. Tested BOP to specifications.
	20:30	POOH with BOP test plug. RIH and set seat protector. POOH with running tool.
	21:30	Pressure tested surface equipment to specifications.
	24:00	Made up 17 1/2" bit and BHA. RIH. Tested MWD on way in.
920507	01:00	RIH and tagged cement at 1015m.
	01:30	Held kick drill. Closed upper annular and spaced out. Circulated over choke with 30/40 SPM.
	03:30	Drilled cement and float to 1030m. Displaced hole to 1.25 sg mud.
	04:00	Drilled 20" casing shoe and cleaned rat hole.
	04:30	drilled 17 1/2" hole from 1046m to 1051m.
	05:30	Circulated bottoms up.
	07:00	Pulled into 20" casing shoe. Performed leak-off test to 1.65 sg EMW.
	24:00	Drilled 17 1/2" hole from 1051m to 1328m.

Date	Stop	Operational Description
920508	09:00	Drilled 17 1/2" hole from 1328m to 1388m.
	09:30	Circulated.
	15:30	POOH to 1336m. Backreamed and circulated out of hole from 1336m to 20" csg. shoe at 1030m.
	16:30	Circulated hole clean.
	17:00	RIH to 1388m.
	20:00	Swept hole with 20.6 m3 hi-vis mud. Increased mudweight to 1.35 SG.
	21:30	POOH.
	24:00	Made up new BHA and RIH.
920509	00:30	RIH to 1388m.
	14:00	Drilled 17 1/2" hole from 1388m to 1609m.
	15:30	Circulated a 20.6 m3 high-viscous pill around.
	20:00	POOH to casing shoe. Circulated and backreamed tight hole.
	22:30	Continued POOH. Laid down stabilizers.
	24:00	Disassembled pipehandler on top drive. Repaired same.
920510	04:00	Repaired torque arrestor on top drive. Installed pipe handler.
	09:30	Picked up MK II mud motor. Tested same and orientated MWD on motor. RIH.
	10:00	Washed and reamed from 1570m to TD at 1609m.
	24:00	Drilled 17 1/2" hole from 1609m to 1740m. Oriented and rotated as necessary to correct wellpath.
920511	06:30	Drilled 17 1/2" hole from 1740m to 1799m.
	08:00	Circulated a 19 m3 high-viscous pill around.
	09:30	Made wipertrip to 20" casing shoe.
	10:30	Washed and reamed from 1776m to TD at 1799m.
	23:00	Drilled 17 1/2" hole from 1799m to 1911m.
	24:00	Circulated a 9 m3 high-viscous pill around.
920512	01:30	Circulated.
	05:00	POOH. Laid down stabilizers and MK II motor.
	06:30	Made up new 17 1/2" BHA. RIH to 20" casing shoe.
	07:00	Slipped drilling line.
	07:30	RIH to 1887m.
	08:00	Washed and reamed from 1887m to 1892m.
	08:30	Worked pipe while increasing mud volume in active system.
	09:30	Washed and reamed from 1892m to 1911m. Logged with MWD from 1902m to 1911m.
	21:00	Drilled 17 1/2" hole from 1911m to 2050m.
	23:00	Pumped 16 m3 high-viscous mud. Circulated hole clean.
	24:00	POOH. Backreamed from 2030m to 1950m.

Date	Stop	Operational Description
920513	02:00	Backreamed from 1950m to 1750m.
	03:30	Made wipertrip to 20" casing shoe.
	04:00	Reamed and washed from 2010m to 2050m.
	07:00	Pumped 16 m3 high-viscous mud. Circulated hole clean.
	09:30	POOH.
	10:30	Rigged up Schlumberger logging equipment.
	16:30	Ran log no.1: DLL-LSS-LDL-GR.
	23:30	Ran log no.2: CST-GR. Fired 60 shots. Recovered:51 Misfired : 1 Lost : 1
	24:00	Rigged down Schlumberger logging equipment.
920514	02:30	Made up 17 1/2" bit and junk basket. RIH to 2027m.
	03:30	Washed and reamed from 2027m to 2050m.
	05:00	Pumped a 14 m3 high-viscous pill. Circulated bottoms up.
	08:00	POOH.
	09:00	RIH with jet sub. Washed wellhead area. Retrieved nominal seat protector.
	24:00	Rigged up and ran 13 3/8" casing. Laid out 6 joints of casing (X-treaded) and additional 4 joints pin end recut. Replaced during running. Had stabbing problems due to weather condition.

Date	Stop	Operational Description
920515	02:30	Ran 13 3/8" casing. Made up hanger and landed casing on DP with shoe at 2026m.
	04:00	Circulated casing volume.
	06:30	Pressure tested surface lines. Pumped 8 m3 fresh water. Mixed and pumped 111 m3 of 1.56 sg lead slurry and 16 m3 of 1.95 sg tail slurry.
	08:00	Dropped dart. Pumped 3.2 m3 fresh water. Sheared top plug. Displaced cement with 1.20 sg mud using rig pumps.
	09:00	Bumped plug. Pressure tested 13 3/8" casing to 289 bar for 10 min., ok. Had no backflow. Set pack-off assembly.
	11:30	Pressure tested BOP to Saga specification.
	12:30	Displaced landing string to 1.35 sg mud to avoid u-tubing. POOH. Serviced and laid down tools.
	14:00	Laid down 17 1/2" BHA, MWD and cementing head.
	16:30	Repaired brackets on travelling block retracting dolly.
	17:30	Displaced riser to 1.20 sg mud.
	18:30	Pressure tested safety valves, hoses and kelly valves.
	20:00	Installed wearbushing.
	20:30	Picked up Teleco's tripple combo. Made up 12 1/4" bit, nearbit stabilizers, crossover and junksub.
	22:30	Checked connections on tripple combo and made up same. Loaded sources. Tested tool with flow.
	24:00	RIH.
920516	01:30	RIH to 1999m.
	04:30	Drilled float collar, cement and shoe. Washed down and cleaned out rathole from 2026m to 2050m.
	06:00	Drilled 12 1/4" hole from 2050m to 2053m. Worked junk sub.
	07:30	Circulated. Pulled bit into casing. Performed LOT resulting in leak-off at 1.65 sg equivalent mud weight. RIH to 2053m.
	10:30	Drilled 12 1/4" hole from 2053m to 2103m.
	11:00	Had problems with tripple combo tool. Was unable to restart tool.
	15:00	Drilled 12 1/4" hole from 2103m to 2188m.
	16:00	Circulated for samples.
	17:30	Made wipertrip to shoe. Backreamed from 2121m to casing shoe at 2026m. RIH. Washed down from 2180m to TD.
	24:00	Drilled 12 1/4" hole from 2188m to 2225m.

Date	Stop	Operational Description
920517	04:30	Drilled 12 1/4" hole from 2225m to 2258m.
	05:30	Circulated for samples.
	07:00	Drilled 12 1/4" hole from 2258m to 2266m.
	08:30	Had top drive failure. POOH. Circulated out from 2230m to 2208m. Was unable to pull string past a hard spot. Top drive was frozen. Was unable to backream.
	24:00	Repaired top drive while circulating and rotating string in slips with bit at 2217m. Found failure in upper bearing of electric motor. Prepared tools for pulling same.
920518	24:00	Repaired top drive while circulating and rotating string in slips. Upper bearing on electric motor failed and turned with the shaft resulting in heavy scars on the shaft itself when it locked. Dismanteled electric motor and prepared for installation of new motor.
920519	24:00	Repaired top drive while circulating and rotating string in slips.
920520	15:30	Repaired top drive while circulating and rotating string in slips. Installed new electric motor with blower and electric connections. Flushed gear and made full adjustment of sensors and read-back signals.
	16:30	Backreamed from 2217m to 2165m.
	17:00	Attempted to log with MWD while back-reaming from 2165 m,Negative.
	17:30	POOH to shoe and RIH to 2089 m.
	23:00	Logged with MWD from 2089 m to 2192 m.
	23:30	Performed kick-drill with crew. The well was shut in.
	24:00	RIH to 2266 m. Drilled 12 1/4" hole from 2266 m to 2269 m.
920521	02:00	Drilled 12 1/4" hole from 2269 m to 2278 m.
	03:00	Circulated for sample.
	07:00	Drilled 12 1/4" hole from 2278 m to 2329 m.
	08:00	Circulated for sample.
	09:00	Drilled 12 1/4" hole from 2329 m to 2336 m.
	24:00	Swivel stem sheared. Pulled to 2332 m. Circulated and rotated string while repairing swivel.
920522	24:00	Repaired top drive swivel. Attempted to pull main pin on traveling hook adapter using 100 T hydraulic jack. No go. Disambled swivel and installed new lower swivel end with steam.

Date	Stop	Operational Description
920523	05:30	Repaired swivel.
	07:00	Made wipertrip to shoe.
	07:30	Held kick drill with tripping. Full shut in procedure.
	08:00	RIH to 2330m
	08:30	Logged hole with MWD from 2330m to 2336m.
	14:00	Drilled 12 1/4" hole from 2336m to 2392m.
	16:00	Circulated a 15 m3 high-viscous pill around.
	17:00	Made wipertrip to shoe at 1030m. Reamed tight spot at 2280m.
	19:00	Circulated hole clean.
	24:00	POOH. Removed radioactive sources and verified MWD tool. Laid down same, junksub and bit.
920524	01:00	Rigged up Schlumberger logging equipment.
	07:30	Ran log no.1: DIL-MSFL-LSS-LDL-CNL-GR
	11:30	Ran log no.2: SHDT-GR.
	13:30	Ran log no.3: MDT-GR.
	15:30	Pulled log no.3 due to tool failure.
	17:30	Reran log no.3: MDT-GR
	24:00	Ran log no.4: VSP.
920525	04:30	Ran log no.4: VSP
	09:00	Ran log no.5: CST. Recovered: 54 Lost : 1 Empty : 1 Misfired : 0
	10:00	Rigged down Schlumberger logging equipment.
	11:30	RIH with OEDP to TD at 2392m.
	13:00	Circulated. Pressure tested cement line to 35 bar, OK.
	16:30	Set a balanced cement plug from 2392m to 2159m. Pulled to 2149m and reverse circulated. Set a balanced cement plug from 2149m to 1926m. Pulled to 1910m and reverse circulated.
	18:00	POOH.
	24:00	Changed top drive.
920526	24:00	Changed top drive.
920527	17:00	Changed top drive.
	17:30	RIH with 12 1/4" bit assembly.
	18:30	Checked out oil pressure switch on top drive.
	20:00	Continued to RIH. Tagged top of cement at 1944 m.
	24:00	POOH and laid down excess drillpipe.

Date	Stop	Operational Description
920528	01:00	Continued to POOH and laid down excess drillpipe.
	03:00	Made up 13 3/8" casing cutting assembly and RIH.
	03:30	Cut 13 3/8" casing at 279 m. Flowchecked for 15 min., OK.
	04:30	POOH and laid down 13 3/8" cutting assembly.
	05:00	RIH with 13 3/8" casing spear.
	07:30	Pull 13 3/8" casing free with 14 tons overpull. POOH and recovered 13 joints of 13 3/8" casing.
	10:00	RIH with OEDP to 480 m. Attempted to inject 13 3/8" x 20" annulus to 70 bar above 20" leak-off, No go. Spot hi-vis pill. Pull to 380 m. Set a balanced cement plug from 380 m to 180 m. POOH to 170 m and reversed circulated. Pulled out to BOP.
	10:30	Washed and cleaned BOP while operating rams and annulus.
	14:00	POOH. Laid down excess drillpipe and tubulars from derrick.
	14:30	Slipped and cut 56' drill line.
	17:30	Pulled the BOP.
	18:00	Found broken cord on crane wire. Laid down port crane.
	21:00	Continued to pull BOP.
	23:00	Made up and ran 20"/30" casing cutter with M.O.S.T tool.
	24:00	Cut 20" and 30" casings at 150 m.
920529	01:30	Cut 20" and 30" casing strings at 150 m.Pulled casings and permanent guide base free with 110 ton overpull.
	06:30	Pulled 20" and 30" casing stumps and permanent guide base, and deballasted rig at the same time. Laid down casing and cutting assembly.
	13:00	Pulled anchors. Anchor no.2 off bottom at 0640 hrs and on bolster at 0745 hrs. Anchor no.6 off bottom at 0645 hrs. and on bolster at 0810 hrs. Anchor no.3 off bottom at 0815 hrs. and on bolster at 0915 hrs.Anchor no.7 off bottom at 0825 hrs. and on bolster at 1000 hrs. Anchor no.1 off bottom at 0945 hrs. and on bolster at 1055 hrs. Anchor no.5 off bottom at 1015 hrs. and on bolster at 1125 hrs Anchor no.8 off bottom at 1135 hrs. and on bolster at 1255 hrs. Anchor no.4 off bottom at 1145 hrs. and on bolster at 1255 hrs.

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No	Size	Make	Type	Seri.no	Jets 32 inch	Depth out	Drld depth	Hrs	m/hr	WOB tons	RPM	PUMP l/m	PUMP bar	Dull.cond. T	B	G	Other	Bitactiv.	Rem
1	9 7/8	HTC	ATJ-1S	L51PE	20-20-20	196.0	51.0	3.5	14.6	0/ 5	110/110	2056	62	1	1	I		DRILLING	
1RR	9 7/8	HTC	ATJ-1S	L51PE	20-20-20	370.0	174.0	7.5	23.2	0/ 5	110/110	2056	62	1	1	I		DRILLING	
2	26	SMITH	DGJC	KR5137	22-22-22-24	257.0	112.0	13.0	8.6	2/ 6	90/100	4512	166	2	2	I		HOLE OPEN	*
3RR	17 1/2	HTC	MAX-G3	J12BT	18-18-18	261.0	10.0	1.5	6.7	5/ 7	70/ 70	3692	-	2	2	-		DRLG CMT	*
4	17 1/2	REED	MS13G	M42853	17-22-22-22	1045.0	675.0	29.5	22.9	0/15	130/130	4031	182	1	2	I		DRILLING	*
3RR	17 1/2	HTC	MAX-G3	J12BT	16-18-18-18	1046.0	786.0	31.5	25.0	0/15	100/130	4520	210	2	3	I		HOLE OPEN	
4RR	17 1/2	REED	MS13G	M42853	open	1046.0	785.0	-	-	0/0	- / -	-	-	1	2	I		CIRCULATIO	
2RR	26	SMITH	DGJC	KR5137	24-3 x open	1046.0	785.0	-	-	0/0	- / -	-	-	2	2	I		CIRCULATIO	
5	17 1/2	SECURI	SS44GJ	500-607	16-18-18-18	1388.0	342.0	26.5	12.9	3/25	140/180	3785	248	7	7	1/16		DRILLING	*
6	17 1/2	HTC	MAX-G3	K56BL	16-18-18-18	1609.0	221.0	13.5	16.4	3/25	150/180	3785	269	1	1	I		DRILLING	
7	17 1/2	HTC	MAX-G3	K92BW	20-20-20-20	1911.0	302.0	33.0	9.2	3/27	290/290	3785	277	1	3	1/16		DRILLING	*
6RR	17 1/2	HTC	MAX-G3	K56BL	16-16-16-18	2050.0	139.0	11.5	12.1	5/25	160/160	3785	296	2	2	I		DRILLING	
6RR	17 1/2	HTC	MAX-G3	K56BL	16-18-2xope	2050.0	23.0	-	-	0/0	- / -	-	-	2	2	I		CIRCULATIO	
8	12 1/4	HTC	ATX-CG	J44PT	14-14-14-14	2392.0	342.0	34.0	10.1	20/25	150/180	3060	255	4	3	1/8		DRILLING	*
8RR	12 1/4	HTC	ATX-CG	J44PT	14-14-14-14	1944.0	0.0	-	-	0/0	- / -	-	-					CIRCULATIO	

No	Size	Make	Type	Ser.no.	Remarks
2	26	SMITH	DGJC	KR5137	Ran with 36" Smith H.O, S/N:SN8059.
3 RR	17 1/2	HTC	MAX-G3	J12BT	Ran with 26".....U.R, S/N:TSN3147
4	17 1/2	REED	MS13G	M42853	Opened also 9 7/8" pilot hole to 17 1/2" from 261m to 370m.
5	17 1/2	SECURIT	SS44GJ	500-607	Drilled also cmt (31m), float and 20" csg shoe
7	17 1/2	HTC	MAX-G3	K92BW	Ran with MK II mud motor.
8	12 1/4	HTC	ATX-CG	J44PT	Drilled also FC, cement and 13 3/8" csg shoe.

BHA no. 1: Drlg 9 7/8" PH:145-196m
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 145.0 - 196.0

1 Bit	9.78	0.26		7 Drill Col	8.000	101.20
2 Bit Sub w/floa	7.78	1.16		8 Jar	7.750	9.77
3 XO Sub	8.25	0.53		9 Drill Col	8.000	27.51
4 MWD Tool	8.25	12.19		10 XO Sub	7.780	1.03
5 Saver Sub	8.00	0.80		11 HW Drill Pipe	6.380	9.08
6 Monel	8.00	8.18				

BHA no. 2: Drlg 9 7/8" PH:196-370m
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 196.0 - 370.0

1 Bit	9.78	0.26		7 Drill Col	8.000	101.20
2 Bit Sub w/floa	7.78	1.16		8 Jar	7.750	9.77
3 XO Sub	8.25	0.53		9 Drill Col	8.000	27.51
4 MWD Tool	8.25	12.19		10 XO Sub	7.780	1.03
5 Saver Sub	8.00	0.80		11 HW Drill Pipe	6.380	9.08
6 Monel	8.00	8.18				

BHA no. 3: 36" H.O.ass: 145-257m
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 145.0 - 257.0

1 Bit	26.00	0.62		8 Monel	7.940	8.68
2 Hole Opener	36.00	2.72		9 Drill Col	8.000	109.80
3 Bit Sub w/floa	9.50	1.27		10 XO Sub	8.000	1.03
4 XO Sub	9.50	1.02		11 HW Drill Pipe	7.380	9.08
5 XO Sub	8.25	0.53		12 Dart Sub	6.500	0.68
6 MWD Tool	8.25	12.19		13 HW Drill Pipe	6.380	82.17
7 Saver Sub	8.00	0.80				

BHA no. 4: Drlg.cmt.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 251.0 - 261.0

1 Bit	17.50	0.41		7 Drill Col	8.000	27.42
2 Under Reamer	26.00	3.52		8 XO Sub	7.880	1.03
3 Bit Sub w/floa	9.50	0.82		9 HW Drill Pipe	7.780	9.09
4 XO Sub	9.50	0.73		10 Dart Sub	6.340	0.68
5 Drill Col	8.00	100.76		11 HW Drill Pipe	5.000	82.17
6 Jar	7.75	9.77				

Well: 25/6-2

BHA no. 5: Drld 17 1/2" P.H:261-1045m.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 370.0 -1045.0

1	Bit	17.50	0.43	12	XO Sub	9.500	0.83
2	Bit Sub w/floa	9.50	1.27	13	Stabilizer	17.500	2.05
3	XO Sub	9.50	1.02	14	XO Sub	8.000	0.50
4	XO Sub	8.25	0.53	15	Drill Col	8.000	109.80
5	MWD Tool	8.25	12.19	16	Jar	8.000	9.77
6	Saver Sub	8.00	0.80	17	Drill Col	8.000	27.51
7	Monel	7.94	8.68	18	XO Sub	8.000	1.03
8	XO Sub	8.25	0.51	19	HW Drill Pipe	7.380	9.08
9	Stabilizer	17.50	1.98	20	Dart Sub	6.500	0.68
10	XO Sub	7.50	0.72	21	HW Drill Pipe	6.380	82.17
11	Drill Col	8.00	9.24				

BHA no. 6: U.R 17 1/2" to 26": 260-1045m
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 260.0 -1046.0

1	Bit	17.50	0.42	7	Drill Col	8.000	27.45
2	Under Reamer	26.00	3.48	8	XO Sub	7.880	1.03
3	Bit Sub w/floa	9.50	0.74	9	HW Drill Pipe	7.780	9.08
4	Monel	8.00	8.68	10	Dart Sub	6.340	0.68
5	Drill Col	8.00	119.08	11	HW Drill Pipe	6.380	82.17
6	Jar	7.75	9.77				

BHA no. 7: Circ. due to fluid loss.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 261.0 -1046.0

1	Bit	17.50	0.43	6	Drill Col	8.000	27.51
2	Bit Sub w/floa	9.50	0.74	7	XO Sub	7.880	1.03
3	Monel	8.00	8.68	8	HW Drill Pipe	7.780	9.08
4	Drill Col	8.00	64.33	9	Dart Sub	6.340	0.68
5	Jar	7.75	9.77	10	HW Drill Pipe	6.380	82.17

BHA no. 8: Wipertrip before 20" csg.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md): 261.0 -1046.0

1	Bit	26.00	0.62	6	Drill Col	8.000	27.51
2	Bit Sub w/floa	9.50	0.74	7	XO Sub	7.880	1.03
3	Monel	8.00	8.68	8	HW Drill Pipe	7.780	9.08
4	Drill Col	8.00	64.33	9	Dart Sub	6.340	0.68
5	Jar	7.75	9.77	10	HW Drill Pipe	6.380	82.17

BHA no. 9: Drld cmt.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):1046.0 -1388.0

1 Bit	17.50	0.42		8 Drill Col	8.000	119.08
2 Bit Sub w/floa	9.50	0.74		9 Jar	8.000	9.77
3 XO Sub	8.13	0.53		10 Drill Col	8.000	27.51
4 MWD Tool	8.25	11.94		11 XO Sub	8.000	1.03
5 Saver Sub	8.00	0.80		12 HW Drill Pipe	7.380	9.08
6 Monel	7.94	8.68		13 Dart Sub	6.500	0.68
7 Stabilizer	17.50	1.58		14 HW Drill Pipe	6.380	82.17

BHA no. 10: Drld:1388-1609m.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):1388.0 -1609.0

1 Bit	17.50	0.42		10 Drill Col	8.000	18.48
2 Nearbit Stab	9.50	1.86		11 Stabilizer	17.500	1.76
3 XO Sub	9.50	1.02		12 Drill Col	8.000	109.68
4 XO Sub	8.13	0.53		13 Jar	8.000	9.77
5 MWD Tool	8.25	11.94		14 Drill Col	8.000	27.51
6 Saver Sub	8.00	0.80		15 XO Sub	8.000	1.03
7 Stabilizer	17.50	1.55		16 HW Drill Pipe	7.380	9.08
8 Monel	7.94	8.68		17 Dart Sub	6.500	0.68
9 Stabilizer	17.50	1.58		18 HW Drill Pipe	6.380	82.17

BHA no. 11: Drld:1609-1911m.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):1609.0 -1911.0

BHA no. 12: Drld: 1911m-2050m.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):1911.0 -2050.0

1 Bit	17.50	0.42		8 Drill Col	8.000	128.24
2 Bit Sub w/floa	9.50	0.74		9 Jar	8.000	9.77
3 XO Sub	8.13	0.53		10 Drill Col	8.000	27.51
4 MWD Tool	8.25	11.94		11 XO Sub	8.000	1.03
5 Saver Sub	8.00	0.80		12 HW Drill Pipe	7.380	9.08
6 Monel	7.94	8.68		13 Dart Sub	6.500	0.68
7 Stabilizer	17.50	1.55		14 HW Drill Pipe	6.380	82.17

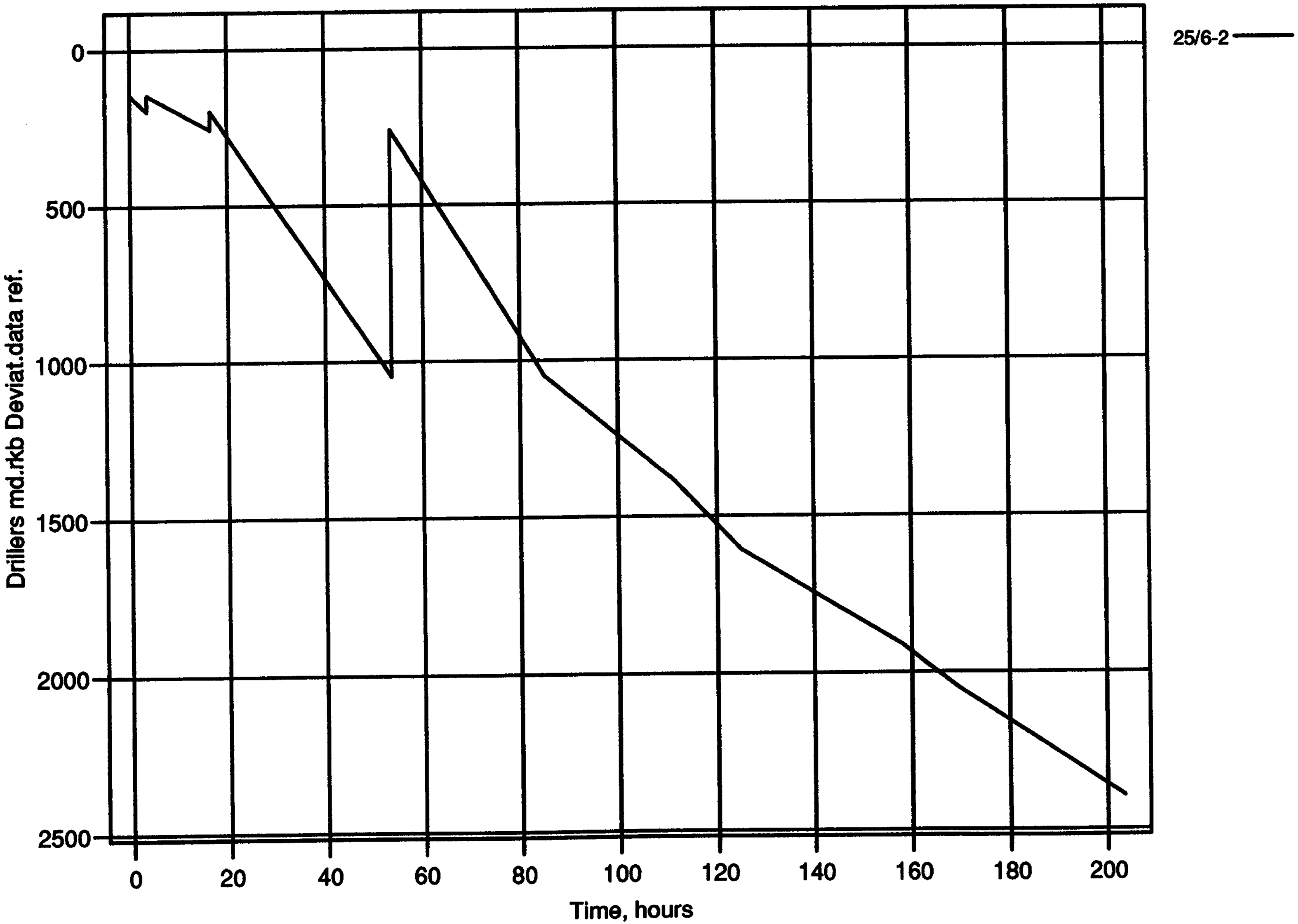
BHA no. 13: Wipertrip before 13 3/8" casing.
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):2027.0 -2050.0

1 Bit	17.50	0.42		7 Jar	8.000	9.77
2 Bit Sub w/floa	9.50	0.74		8 Drill Col	8.000	27.51
3 XO Sub	8.00	0.32		9 XO Sub	8.000	1.03
4 Junk Sub	9.50	0.75		10 HW Drill Pipe	7.380	9.08
5 Bit Sub	7.83	1.17		11 Dart Sub	6.500	0.68
6 Drill Col	8.00	118.95		12 HW Drill Pipe	6.380	82.17

BHA no. 14: Drld:2050-2392m
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):2050.0 -2392.0

BHA no. 15: Tested cmt.plug
Item no./Name/OD(inch)/Tot. Length(m) Depth interval(md):1944.0 -1944.0

6.1.3 Drilled depth vs. rotating hours



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Well: 25/6-2

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
920424						/		/					SPUD MUD
920425	PSPUD		1.03			/		/				3.0	SPUD MUD
920426	9 7/8"		1.03			/	9.8	/				3.0	SPUD MUD
920427	36"		1.03			/	9.7	/				3.0	SPUD MUD
920428	36"		1.15	5.0	14.0	11/13	9.7	/				7.0	SPUD MUD
920429	26"	370.0	1.15	6.0	15.0	12/16	8.9	/		18000		8.0	GEL MUD
920430	17 1/2"	798.0	1.15	4.0	24.0	12/23	8.9	/		18500	.1	8.0	GEL MUD
920501	17 1/2"	1045.0	1.15	4.0	24.0	18/18	8.8	/		19000	.0	8.0	GEL MUD
920502	17 1/2"	1045.0	1.15	4.0	43.0	21/24	8.4	/		19000	.2	8.0	GEL MUD
920503	26"	1045.0	1.16	9.0	8.0	3/15	7.6	/		19000	.2	8.0	GEL MUD
920504	26"	1045.0	1.19	20.0	10.0	3/12	8.0	/		18000		8.0	GEL MUD
920505	26"	1046.0	1.19	20.0	10.0	3/12	8.0	/		18000		9.0	GEL MUD
920506	26"	1046.0	1.25	14.0	6.0	1/2	8.1	/1.2	340	64000		10.0	KCL MUD
920507	17 1/2"	1328.0	1.30	22.0	8.0	2/9	8.2	/.9	440	67500	.1	12.0	KCL MUD
920508	17 1/2"	1388.0	1.35	25.0	17.0	4/11	8.1	/.7	400	7200	.1	15.0	KCL MUD
920509	17 1/2"	1609.0	1.35	31.0	19.0	3/19	7.6	/.6	720	73000	.1	16.0	KCL MUD
920510	17 1/2"	1740.0	1.35	32.0	21.0	3/18	8.0	/.7	520	72000	.2	16.0	KCL MUD
920511	17 1/2"	1911.0	1.35	35.0	23.0	3/12	8.2	/.7	480	69000	.1	16.0	KCL MUD
920512	17 1/2"	2050.0	1.35	32.0	23.0	4/10	8.1	/.6	560	66000	.2	15.0	KCL MUD
920513	17 1/2"	2050.0	1.35	34.0	30.0	4/11	8.1	/.6	520	60000	.2	15.0	KCL MUD
920514	17 1/2"	2050.0	1.35	35.0	29.0	4/12	8.0	/.6	640	57000	.2	15.0	KCL MUD
920515	17 1/2"	2050.0	1.20	20.0	12.0	2/3	8.3	/.6	400	65000		10.0	KCL MUD
920516	12 1/4"	2225.0	1.20	24.0	20.0	3/5	8.7	/1.1	480	66000	.2	10.0	KCL MUD
920517	12 1/4"	2266.0	1.20	24.0	17.0	3/5	8.4	/.9	440	63000	.1	10.0	KCL MUD
920518	12 1/4"	2266.0	1.20	23.0	18.0	3/5	8.6	.1/1.2	400	65000	.1	10.0	KCL MUD
920519	12 1/4"	2266.0	1.20	22.0	17.0	3/4	8.5	/1.0	400	65000	.1	10.0	KCL MUD
920520	12 1/4"	2266.0	1.20	22.0	17.0	3/4	8.5	/1.0	400	65000	.1	10.0	KCL MUD

Well: 25/6-2

Date	Hole size	Hole depth	Mud weight	PV	YP	Gel strength	pH	Alkalinity Pf /Mf	Ca++ mg/l	Cl- mg/l	Sand %	Solids %	Mudtype
920521	12 1/4"	2266.0	1.20	23.0	17.0	3/4	8.4	/1.0	280	65000	.1	10.0	KCL MUD
920522	12 1/4"	2266.0	1.20	26.0	19.0	3/7	8.4	.1/1.4	360	67000	.2	10.0	KCL MUD
920523	12 1/4"	2266.0	1.20	26.0	18.0	3/7	8.5	.1/1.4	340	67000	.1	10.0	KCL MUD
920524	12 1/4"	2392.0	1.20	26.0	17.0	3/8	8.5	.1/1.4	340	67500	.1	10.0	KCL MUD
920525	P&A	2392.0	1.20	25.0	16.0	3/6	8.4	.1/1.2	320	67000	.1	10.0	KCL MUD
920526	P&A	2392.0	1.20	25.0	16.0	3/6	8.4	.1/1.2	320	67000	.1	10.0	KCL MUD
920527	P&A	2392.0	1.20	25.0	16.0	3/6	8.4	.1/1.2	320	67000	.1	10.0	KCL MUD
920528	P&A					/		/					KCL MUD
920529	P&A					/		/					KCL MUD

Well : 25/6-2

Materials	Unit	36" Hole	26" Hole	17 1/2" Hole	12 1/4" Hole	Total
Agipac LV.	25 kg	-	-	432	55	487
Agipak Reg.	25 kg	-	137	310	-	447
Barite	MT	39	191	182	10	422
Bentonite	MT	17	28	-	-	45
Caustic Soda	25 kg	3	39	-	-	42
Citric Acid	25 kg	-	-	12	32	44
Drispac Reg.	50 lb	-	-	15	13	28
Desco CF	25 lb	-	113	-	-	113
Detergent	drm	-	-	5	-	5
KCL - sxs	25 kg	-	-	500	-	500
KCl Brine	m3	-	-	421	6	427
Poly Plus	25 kg	-	-	82	6	88
Pot.Bicarbonat	25 kg	-	-	21	52	73
Sil.Defoam	drm	-	-	2	-	2
Soda Ash	25 kg	3	6	34	26	69
Sodium Bicarbon	25 kg	-	-	16	23	39
Xanthan Gum	25 kg	-	26	34	20	80

SIZE inches	DATE RUN	GRADE	NO OF JOINTS	TOTAL LENGTH (m)	WEIGHT kg/m (lbs/ft)	COUPLINGS	SHOE DEPTH	FLOAT COLL DEPTH m-RKB	CENTRALIZERS type	depth m	REMARKS
30"	27.02.92	B	10	113.5	309 lbs/ft	ST-2-RB	257				
20"	05.05.92	X-95	74	888	133 lbs/ft	RL-4S	1030	1018	RIGID:	239	
										243	
									BOW:	950	
										962	
										974	
										986	
										998	
										1010	
										1022	
										1026	
13 3/8"	15.05.92	N-80	159	1883	72 lbs/ft	Buttress	2026	2002	RIGID:	1013	
										1025	
									BOW:	1948	
										1960	
										1972	
										1984	

SIZE inches	DATE RUN	GRADE	NO OF JOINTS	TOTAL LENGTH (m)	WEIGHT kg/m (lbs/ft)	COUPLINGS	SHOE DEPTH	FLOAT COLL DEPTH m-RKB	CENTRALIZERS type	depth m	REMARKS
										1996	
										2008	
										2018	
										2022	

DATE	JOB DESCRIPTION	SHOE DEPTH m-RKB	CEM. TYPE	SLURRY WEIGHT SG	SLURRY VOLUME USED m^3	ADDITIVES L/100 kg CEMENT	MIX WATER L/100 kg CEMENT	LOSSES m^3	REMARKS
27.02.92	30" csg	257	G	Lead: 1.5 Tail: 1.9	54 16	Bentonite: 2.5 % BWOC $CaCl_2$: 5.0	F.W: 106.93 S.W: 42.03		Casing was hanging on Drill Pipe while cementing and waiting for cement. In top of annulus it proved to be no cement. Therefor a grouting job had to be performed.
28.04.92	Grouting		G	1.9	18.7	$CaCl_2$: 5.0			
05.05.92	20" csg	1030	G	Lead: 1.5 Tail: 1.9	225 16	Halad-9: 1.5 %BWOC CFR-3: 0.4 % BWOC Microblock: 25.0	F.W: 100.2 F.W: 44.09		Plug bumped, but did not hold back press. Waited for 1hr -ok. Csg test to 150 bar failed. Used gas tight lead slurry.
15.05.92	13 3/8" csg	2026	G	Lead: 1.56 Tail: 1.95	95 16	Bentonite: 2.1 % BWOC CFR-3: 0.1 % HR-6L: 0.9 HR-6L: 1.0	F.W: 92.99 F.W: 40.69		On the first part of the job, while using bulk-tank #10, the density was fluctuating. While using #11 the density was steady.
25.06.92	Cmt plug for P&A		G	1.9	38.9	HR-6L: 1.0	F.W: 44.73		Set a balanced cement plug from 2392 m to 1926 m in 2 stages.
25.06.92	Cmt plug for P&A		G	1.9	25.4		S.W: 45.35		Set a balanced cement plug from 380 m to 180 m.

MD meter	TVD meter	INCLIN deg.	AZIMUT deg.	DOGLEG deg/30m	+N,-S meter	+E,-W meter
145.0	145.0	0.00	0.0	0.00	0.00	0.00
150.0	150.0	0.80	125.8	4.80	-0.02	0.03
172.0	172.0	0.90	128.5	0.15	-0.22	0.29
176.0	176.0	0.70	125.4	1.53	-0.25	0.33
220.0	220.0	0.50	113.6	0.16	-0.48	0.73
263.0	263.0	0.70	118.2	0.14	-0.68	1.13
291.0	291.0	0.40	122.0	0.32	-0.82	1.36
321.0	321.0	0.60	120.8	0.20	-0.95	1.59
348.0	348.0	0.40	158.1	0.41	-1.11	1.74
377.0	377.0	0.30	139.1	0.16	-1.26	1.83
406.0	406.0	0.40	110.3	0.21	-1.36	1.98
435.0	435.0	0.30	106.1	0.11	-1.41	2.14
463.0	463.0	0.30	120.0	0.08	-1.47	2.28
491.0	491.0	0.50	84.9	0.33	-1.49	2.46
521.0	521.0	0.50	46.8	0.33	-1.39	2.69
549.0	549.0	0.30	359.2	0.40	-1.24	2.78
578.0	578.0	0.20	239.1	0.45	-1.19	2.73
606.0	606.0	0.10	99.0	0.30	-1.22	2.72
635.0	635.0	0.30	68.3	0.23	-1.19	2.81
664.0	664.0	0.40	107.0	0.26	-1.19	2.98
694.0	694.0	0.10	285.0	0.50	-1.22	3.05
722.0	722.0	0.10	118.3	0.21	-1.22	3.05
750.0	750.0	0.30	309.7	0.43	-1.19	3.02
779.0	779.0	0.20	134.1	0.52	-1.17	2.99
807.0	807.0	0.40	331.7	0.64	-1.12	2.98
836.0	836.0	0.40	359.2	0.20	-0.93	2.93
864.0	864.0	0.30	301.8	0.37	-0.79	2.87
893.0	893.0	0.40	265.7	0.24	-0.76	2.70
923.0	923.0	0.40	237.9	0.19	-0.83	2.51
951.0	951.0	0.80	288.8	0.67	-0.81	2.24
980.0	980.0	0.10	257.5	0.74	-0.75	2.03
1010.0	1010.0	0.40	324.2	0.37	-0.68	1.94
1037.0	1037.0	0.40	86.7	0.78	-0.59	1.98
1071.0	1071.0	0.60	334.0	0.74	-0.43	2.02
1129.0	1129.0	1.10	243.2	0.65	-0.40	1.39
1243.0	1242.9	1.40	219.4	0.16	-1.97	-0.47
1271.0	1270.9	2.40	220.7	1.07	-2.68	-1.07
1299.0	1298.9	3.30	221.7	0.97	-3.73	-1.99
1328.0	1327.8	4.40	222.4	1.14	-5.17	-3.29
1357.0	1356.7	4.30	226.1	0.31	-6.75	-4.83
1380.0	1379.7	3.80	230.2	0.75	-7.84	-6.03
1399.0	1398.6	3.60	229.0	0.34	-8.63	-6.97
1428.0	1427.6	3.80	229.9	0.22	-9.85	-8.39
1457.0	1456.5	4.40	230.6	0.62	-11.17	-9.99
1485.0	1484.4	4.80	228.6	0.46	-12.63	-11.69
1514.0	1513.3	5.00	230.1	0.25	-14.24	-13.57
1542.0	1541.2	5.10	228.8	0.16	-15.84	-15.45
1570.0	1569.1	5.40	228.8	0.32	-17.53	-17.37
1599.0	1598.0	5.80	227.4	0.44	-19.42	-19.48
1606.0	1604.9	5.90	226.5	0.58	-19.91	-20.00
1635.0	1633.8	4.50	232.0	1.54	-21.63	-21.98
1665.0	1663.7	4.50	238.3	0.49	-22.98	-23.91
1693.0	1691.6	3.50	250.4	1.40	-23.84	-25.65
1722.0	1720.6	1.80	276.1	2.10	-24.09	-26.93
1751.0	1749.6	1.60	325.8	1.49	-23.71	-27.61
1780.0	1778.6	1.60	352.8	0.77	-22.97	-27.89

MD meter	TVD meter	INCLIN deg.	AZIMUT deg.	DOGLEG deg/30m	+N,-S meter	+E,-W meter
1809.0	1807.6	1.80	3.5	0.39	-22.11	-27.92
1838.0	1836.6	2.40	25.6	1.03	-21.11	-27.63
1866.0	1864.5	2.40	48.3	1.01	-20.19	-26.93
1892.0	1890.5	2.50	50.2	0.15	-19.47	-26.09
1912.0	1910.5	2.40	46.1	0.30	-18.90	-25.46
1941.0	1939.5	1.80	46.2	0.62	-18.16	-24.69
1969.0	1967.5	1.20	60.3	0.75	-17.71	-24.12
1998.0	1996.5	1.10	49.5	0.25	-17.38	-23.64
2027.0	2025.4	2.60	48.8	1.55	-16.77	-22.93
2043.0	2041.4	3.10	52.6	1.00	-16.27	-22.32
2169.0	2167.2	3.00	54.5	0.03	-12.28	-16.93
2242.0	2240.1	2.70	56.5	0.13	-10.22	-13.94
2260.0	2258.1	2.70	55.7	0.06	-9.75	-13.23
2309.0	2307.1	2.40	54.2	0.19	-8.50	-11.45
2392.0	2390.0	1.80	51.6	0.22	-6.67	-9.02

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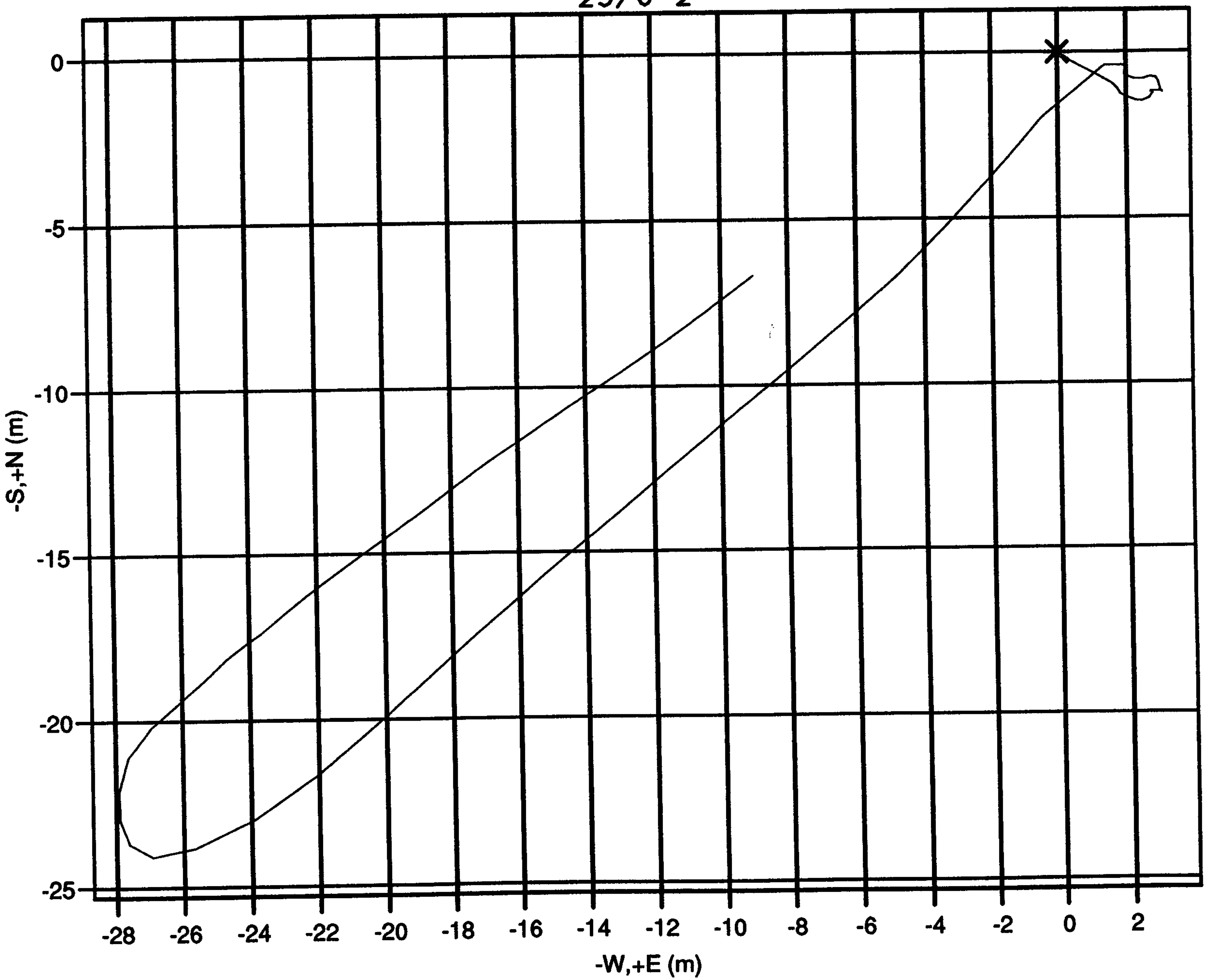
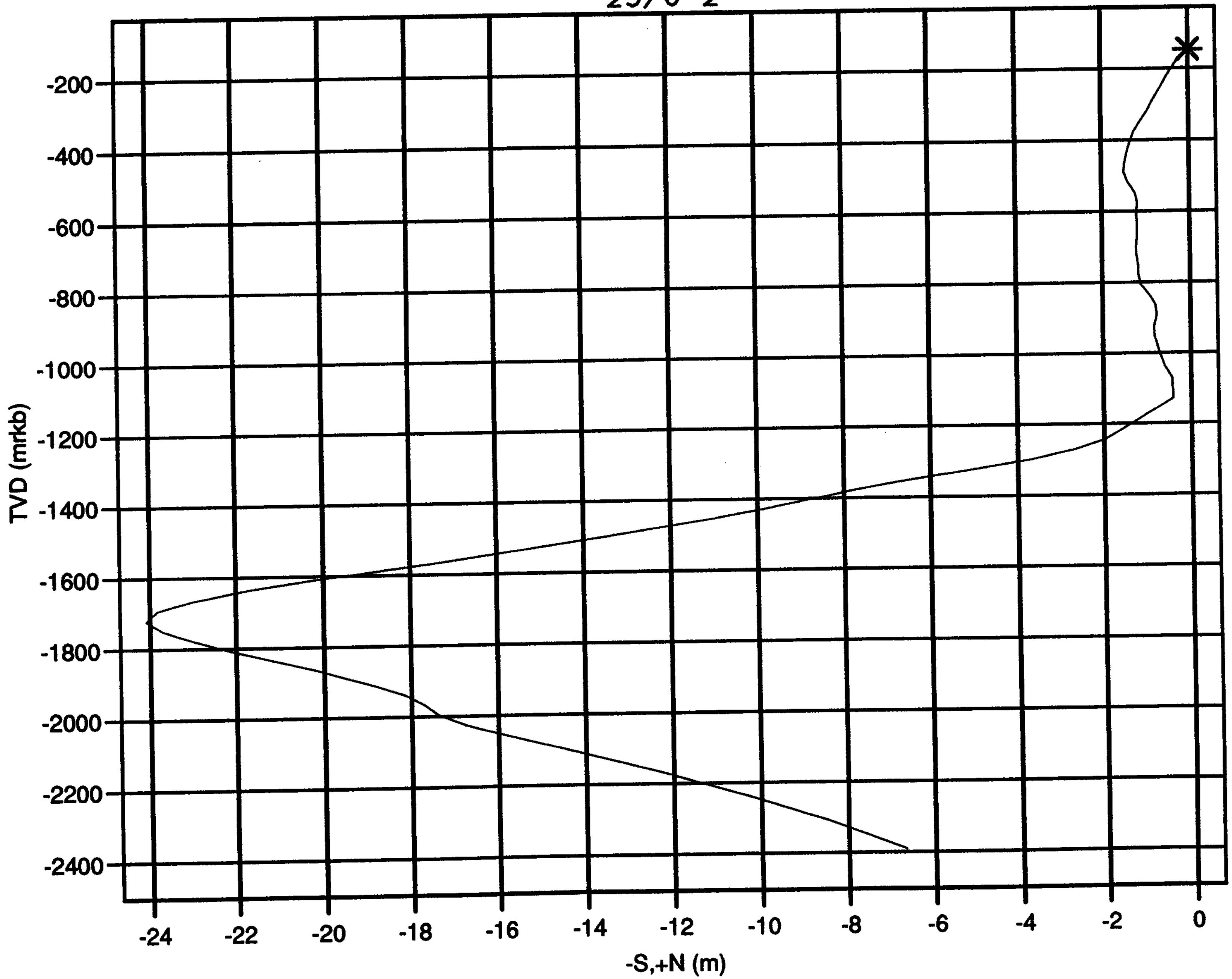
6.5.1 SURVEY DATA (EW,NS)

25/6-2



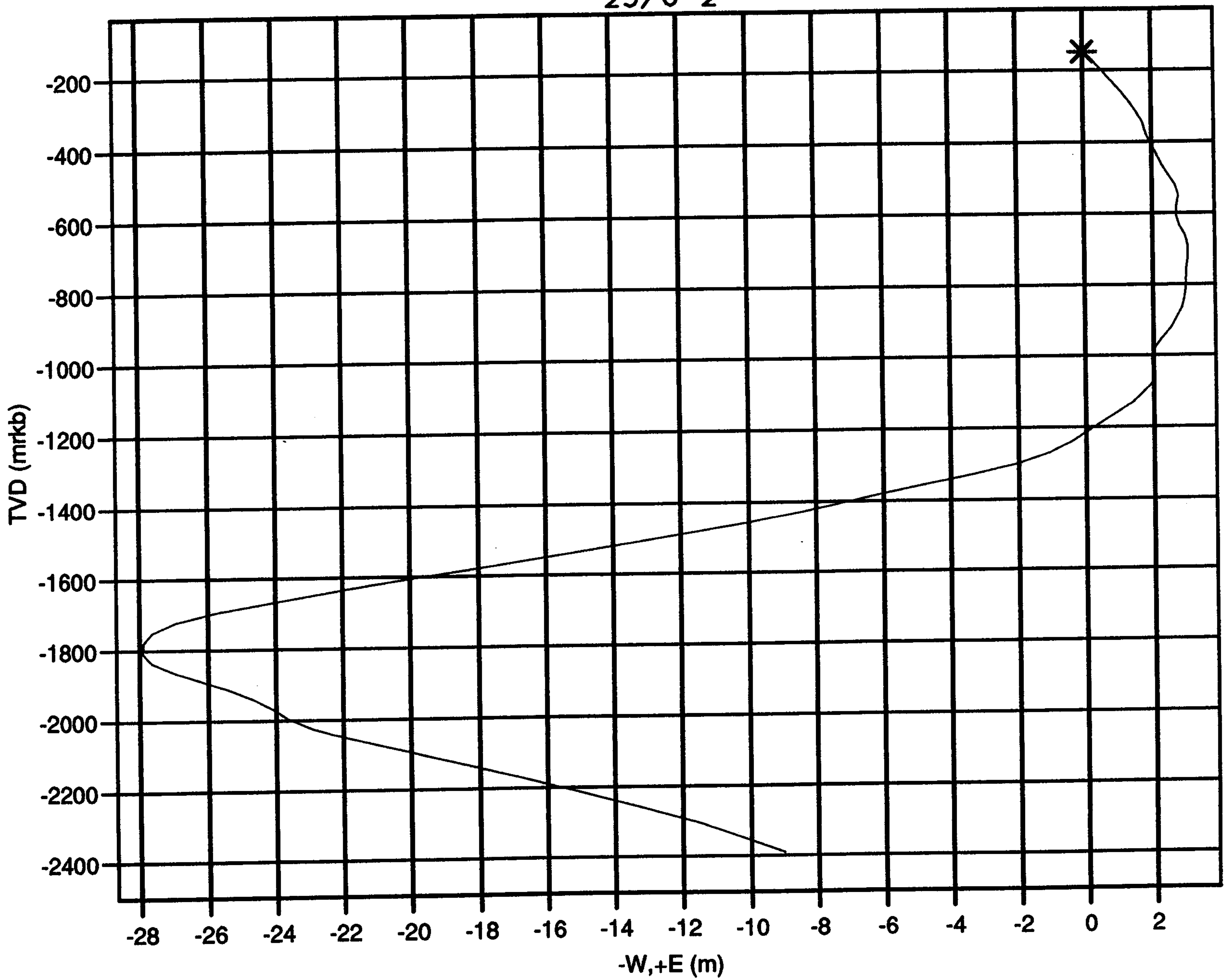
6.5.2 SURVEY DATA (NS,TVD)

25/6-2



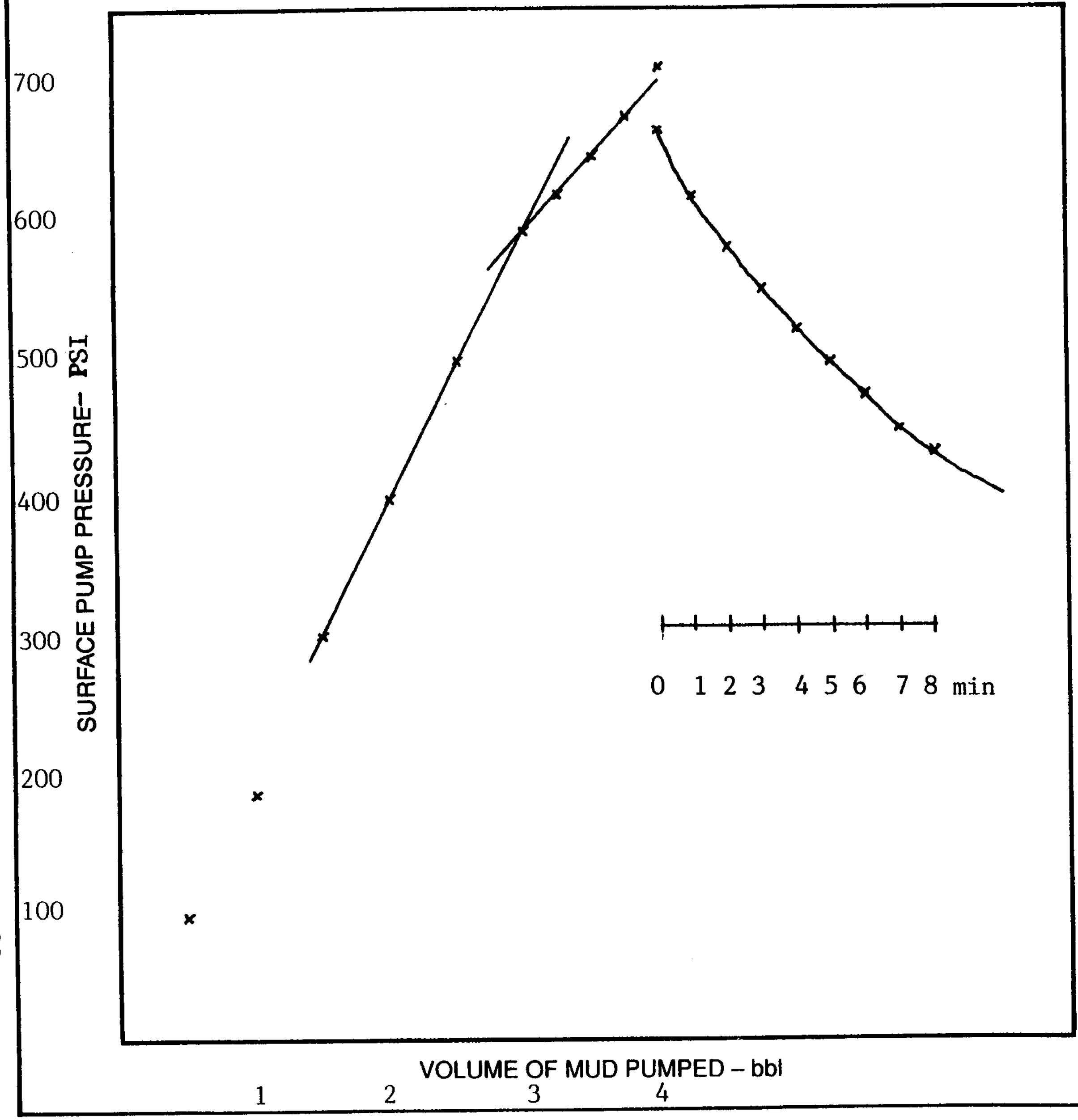
6.5.3 SURVEY DATA (EW,TVD)

25/6-2



6.6. Formation Leak off Test Data

Well no: 25/6-2

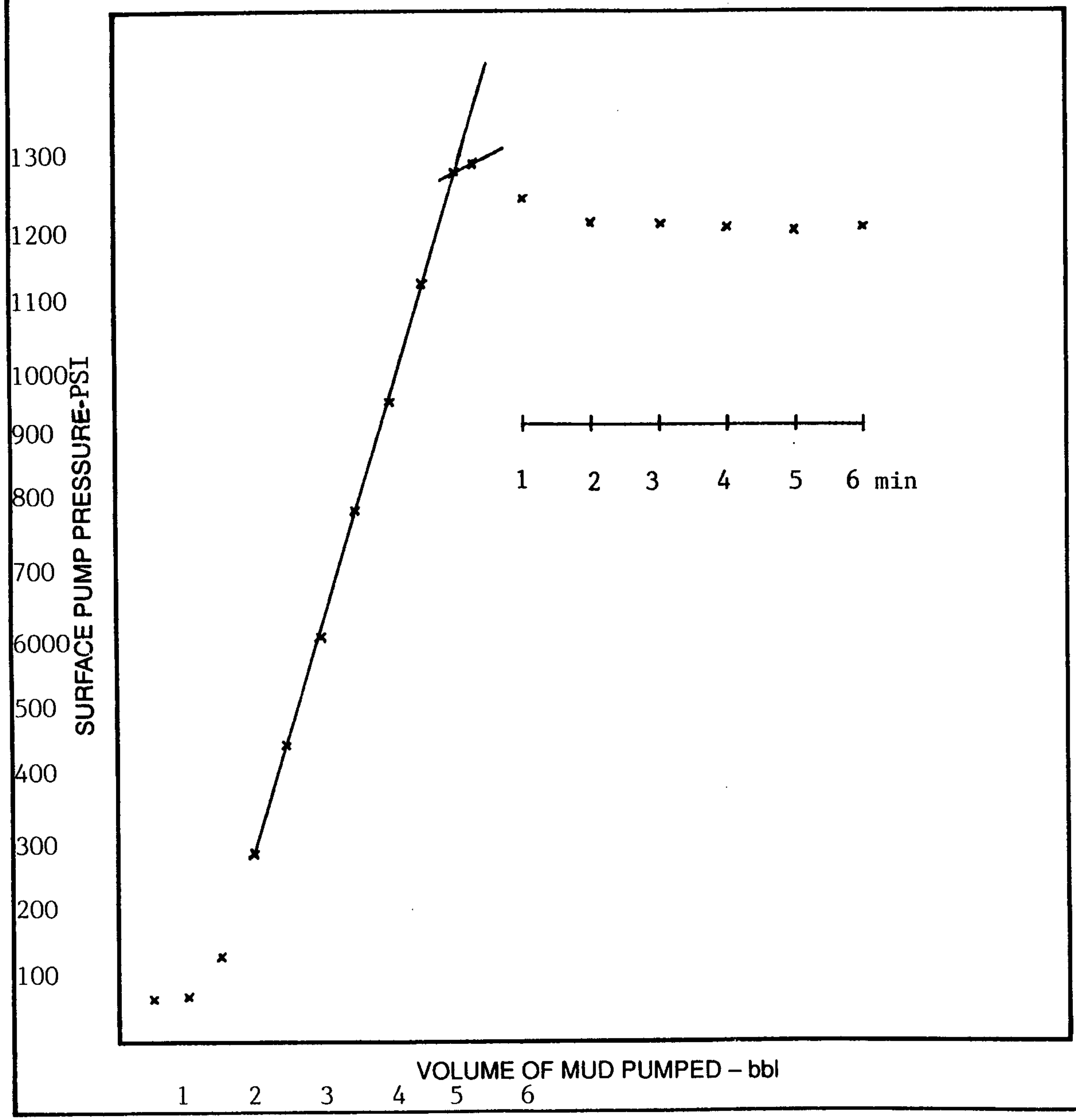


WELL	DATE
25/6-2	7/5-92

CSG. SIZE 20"	VOLUME PUMPED 4 bbl
CSG. SHOE DEPTH 1030 m	VOLUME RECOVERED 2,25 bbl
WATER DEPTH 119 m	FORMATION TYPE Claystone
HOLE SIZE 17 1/2"	LEAK OFF PRESSURE 580 psi
HOLE DEPTH 1051 m	SHUT-IN PRESSURE 320 psi
MUD WEIGHT 1,25 sg	SHUT-IN TIME 8 min
PUMP RATE 0,5 bbl/min	

EQV. MUD WEIGHT AT CSG. SHOE: 1,65 SG

bbl	PRESSURE	bbl	PRESSURE
1/2	88	3	580
1	176	3 1/4	611
1 1/2	292	3 1/2	640
2	393	3 3/4	670
2 1/2	493	4	710



WELL	DATE
25/6-2	16/5-92

CSG. SIZE: 13 3/8"	VOLUME PUMPED: 5,5 bbl
CSG. SHOE DEPTH: 2026 m	VOLUME RECOVERED: 4,5 bbl
WATER DEPTH: 119 m	FORMATION TYPE: Claystone
HOLE SIZE: 12 1/4"	LEAK OFF PRESSURE: 1270 psi
HOLE DEPTH: 2050 m	SHUT-IN PRESSURE: 1190 psi
MUD WEIGHT: 1,21 sg	SHUT-IN TIME: 5 min
PUMP RATE: 0,5 bbl/min	

EQV. MUD WEIGHT AT CSG. SHOE: 1,65 SG

bbl	PRESSURE	bbl	PRESSURE
1/2	60	3	590
1	62	3 1/2	770
1 1/2	120	4	930
2	270	4 1/2	1100
2 1/2	430	5	1265
		5 1/4	1275

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Mainoperation	Suboperation	Hours		% of total rig time	
MOVING	ANCHOR	18.0		2.1	
	POSITION	1.0		.1	
	TRANSIT	26.5		3.1	
Sum:			45.5		5.4
DRILLING	BOP ACTIVITIES	20.5		2.4	
	BOP/WELLHEAD EQ	32.0		3.8	
	CASING	65.0		7.7	
	CIRC/COND	34.5		4.1	
	DRILL	159.0		18.8	
	HOLE OPEN	18.0		2.1	
	OTHER	.5		.1	
	PRESS DETECTION	5.0		.6	
	REAM	14.0		1.7	
	SURVEY	.5		.1	
	TRIP	90.0		10.6	
	UNDERREAM	31.5		3.7	
	WAIT	11.0		1.3	
Sum:			481.5		56.9
FORMATION EVAL	CIRC SAMPLES	4.0		.5	
	LOG	47.0		5.6	
Sum:			51.0		6.0
INTERRUPTION	LOST CIRC	2.5		.3	
	MAINTAIN/REP	2.0		.2	
	OTHER	38.0		4.5	
	SUBSURFACE EQ/F	5.0		.6	
	SURFACE EQ/F	183.5		21.7	
	WELL CONTROL	.5		.1	
Sum:			231.5		27.3
PLUG & ABANDON	CEMENT PLUG	3.5		.4	
	CIRC/COND	1.5		.2	
	CUT	3.0		.4	
	EQUIP RECOVERY	7.5		.9	
	TRIP	21.5		2.5	
Sum:			37.0		4.4
Total rig time :		846.5		100.0	

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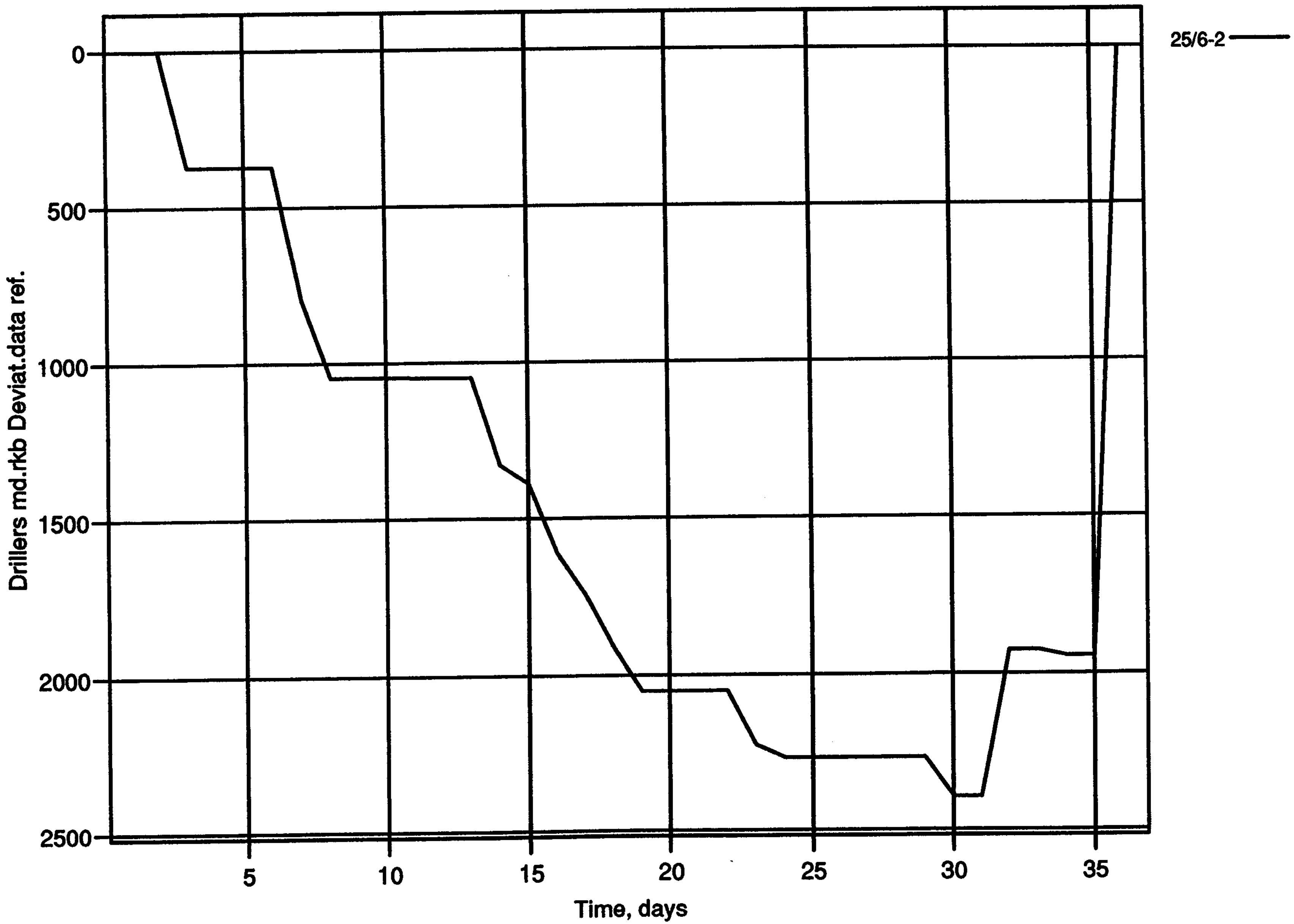
6.7.1 Drilled depth vs. rig time



920619 15:17
By:u41420

Date	Mainoperation	Suboperation	Hours/Activity	
920424	MOVING	TRANSIT	17.5	
		Sum:		17.5
920425	DRILLING	TRIP	2.0	
	INTERRUPTION	SURFACE EQ/F	.5	
	MOVING	ANCHOR	11.5	
		POSITION	1.0	
		TRANSIT	9.0	
		Sum:		24.0
920426	DRILLING	CIRC/COND	1.5	
		DRILL	11.0	
		HOLE OPEN	4.0	
		OTHER	.5	
		REAM	.5	
		TRIP	6.5	
		Sum:		24.0
920427	DRILLING	CASING	10.5	
		CIRC/COND	1.5	
		HOLE OPEN	9.0	
		TRIP	2.0	
		WAIT	1.0	
		Sum:		24.0
920428	DRILLING	BOP/WELLHEAD EQ	9.5	
		CASING	1.0	
		WAIT	9.0	
	INTERRUPTION	OTHER	4.5	
		Sum:		24.0
920429	DRILLING	BOP/WELLHEAD EQ	1.5	
		CASING	1.5	
		CIRC/COND	1.0	
		HOLE OPEN	3.0	
		SURVEY	.5	
		TRIP	7.5	
	INTERRUPTION	OTHER	8.5	
		SURFACE EQ/F	.5	
		Sum:		24.0
920430	DRILLING	CIRC/COND	1.0	
		DRILL	20.0	
		HOLE OPEN	2.0	
		TRIP	1.0	

Date	Mainoperation	Suboperation	Hours/Activity	
		Sum:		24.0
920501	DRILLING	CIRC/COND	4.0	
		DRILL	9.5	
		PRESS DETECTION	.5	
		TRIP	8.5	
		UNDERREAM	1.5	
		Sum:		24.0
920502	DRILLING	UNDERREAM	21.5	
	INTERRUPTION	LOST CIRC	2.5	
		Sum:		24.0
920503	DRILLING	CIRC/COND	2.0	
		PRESS DETECTION	1.0	
		TRIP	2.5	
		UNDERREAM	8.5	
	INTERRUPTION	OTHER	10.0	
		Sum:		24.0
920504	DRILLING	BOP/WELLHEAD EQ	8.5	
		CASING	2.0	
		PRESS DETECTION	3.5	
		TRIP	3.0	
	INTERRUPTION	MAINTAIN/REP	1.0	
		OTHER	6.0	
		Sum:		24.0
920505	DRILLING	CASING	17.0	
		CIRC/COND	2.0	
		REAM	1.0	
		TRIP	4.0	
		Sum:		24.0
920506	DRILLING	BOP ACTIVITIES	6.5	
		BOP/WELLHEAD EQ	11.0	
		CASING	1.5	
		TRIP	2.5	
		WAIT	1.0	
	INTERRUPTION	SURFACE EQ/F	1.5	
		Sum:		24.0

Date	Mainoperation	Suboperation	Hours/Activity	
920507	DRILLING	BOP ACTIVITIES	2.0	
		CASING	2.5	
		CIRC/COND	1.0	
		DRILL	17.5	
		TRIP	1.0	
		Sum:		24.0
920508	DRILLING	CIRC/COND	4.5	
		DRILL	9.0	
		REAM	6.0	
		TRIP	4.5	
		Sum:		24.0
920509	DRILLING	CIRC/COND	1.5	
		DRILL	13.5	
		TRIP	7.5	
	INTERRUPTION	SURFACE EQ/F	1.5	
		Sum:		24.0
920510	DRILLING	DRILL	14.0	
		REAM	.5	
		TRIP	5.5	
	INTERRUPTION	SURFACE EQ/F	4.0	
		Sum:		24.0
920511	DRILLING	CIRC/COND	2.5	
		DRILL	19.0	
		REAM	1.0	
		TRIP	1.5	
		Sum:		24.0
920512	DRILLING	CIRC/COND	3.5	
		DRILL	11.5	
		REAM	1.5	
		TRIP	7.0	
	INTERRUPTION	MAINTAIN/REP	.5	
		Sum:		24.0
920513	DRILLING	CIRC/COND	3.0	
		REAM	2.5	
		TRIP	4.0	
	FORMATION EVAL	LOG	14.5	
		Sum:		24.0

Date	Mainoperation	Suboperation	Hours/Activity	
920514	DRILLING	CASING	15.0	
		CIRC/COND	1.5	
		REAM	1.0	
		TRIP	6.5	
		Sum:		24.0
920515	DRILLING	BOP ACTIVITIES	3.5	
		BOP/WELLHEAD EQ	1.5	
		CASING	11.0	
		TRIP	3.5	
	FORMATION EVAL	LOG	2.0	
	INTERRUPTION	SURFACE EQ/F	2.5	
		Sum:		24.0
920516	DRILLING	BOP ACTIVITIES	1.5	
		CASING	3.0	
		DRILL	15.0	
		TRIP	3.0	
	FORMATION EVAL	CIRC SAMPLES	1.0	
	INTERRUPTION	SUBSURFACE EQ/F	.5	
		Sum:		24.0
920517	DRILLING	DRILL	6.0	
	FORMATION EVAL	CIRC SAMPLES	1.0	
	INTERRUPTION	SURFACE EQ/F	17.0	
		Sum:		24.0
920518	INTERRUPTION	SURFACE EQ/F	24.0	
		Sum:		24.0
920519	INTERRUPTION	SURFACE EQ/F	24.0	
		Sum:		24.0
920520	DRILLING	DRILL	.5	
	INTERRUPTION	OTHER	7.5	
		SURFACE EQ/F	15.5	
		WELL CONTROL	.5	
		Sum:		24.0

Date	Mainoperation	Suboperation	Hours/Activity	
920521	DRILLING	DRILL	7.0	
	FORMATION EVAL	CIRC SAMPLES	2.0	
	INTERRUPTION	SURFACE EQ/F	15.0	
		Sum:		24.0
920522	INTERRUPTION	SURFACE EQ/F	24.0	
		Sum:		24.0
920523	DRILLING	BOP ACTIVITIES	.5	
		CIRC/COND	4.0	
		DRILL	5.5	
		TRIP	6.5	
	FORMATION EVAL	LOG	.5	
	INTERRUPTION	OTHER	1.5	
		SURFACE EQ/F	5.5	
		Sum:		24.0
920524	FORMATION EVAL	LOG	20.0	
	INTERRUPTION	SUBSURFACE EQ/F	4.0	
		Sum:		24.0
920525	FORMATION EVAL	LOG	10.0	
	INTERRUPTION	SURFACE EQ/F	6.0	
	PLUG & ABANDON	CEMENT PLUG	3.5	
		CIRC/COND	1.5	
		TRIP	3.0	
		Sum:		24.0
920526	INTERRUPTION	SURFACE EQ/F	24.0	
		Sum:		24.0
920527	INTERRUPTION	SURFACE EQ/F	18.0	
	PLUG & ABANDON	TRIP	6.0	
		Sum:		24.0

Date	Mainoperation	Suboperation		Hours/Activity	
920528	DRILLING	BOP ACTIVITIES		6.5	
	INTERRUPTION	MAINTAIN/REP		.5	
		SUBSURFACE EQ/F		.5	
	PLUG & ABANDON	CUT		1.5	
		EQUIP RECOVERY		2.5	
		TRIP		12.5	
			Sum:		24.0
920529	MOVING	ANCHOR		6.5	
	PLUG & ABANDON	CUT		1.5	
		EQUIP RECOVERY		5.0	
			Sum:		13.0

.C

7. OPERATIONAL DATA

If not otherwise mentioned, all depths in this chapter refer to mRKB MD (Rotary Kelly Bushing).

Anchor no	1	2	3	4	5	6	7	8
Compass direction (°)	202	247	292	337	22	67	112	157
Length of chain out (m)	1130	1130	1084	1089	1053	1118	1106	1143
Max. initial tension (MT)	160	160	160	160	160	160	160	160

Remarks:

Righeading 180°.
Anchor No 4: Chain counter failed. Had to pull back to bolster, adjust and return

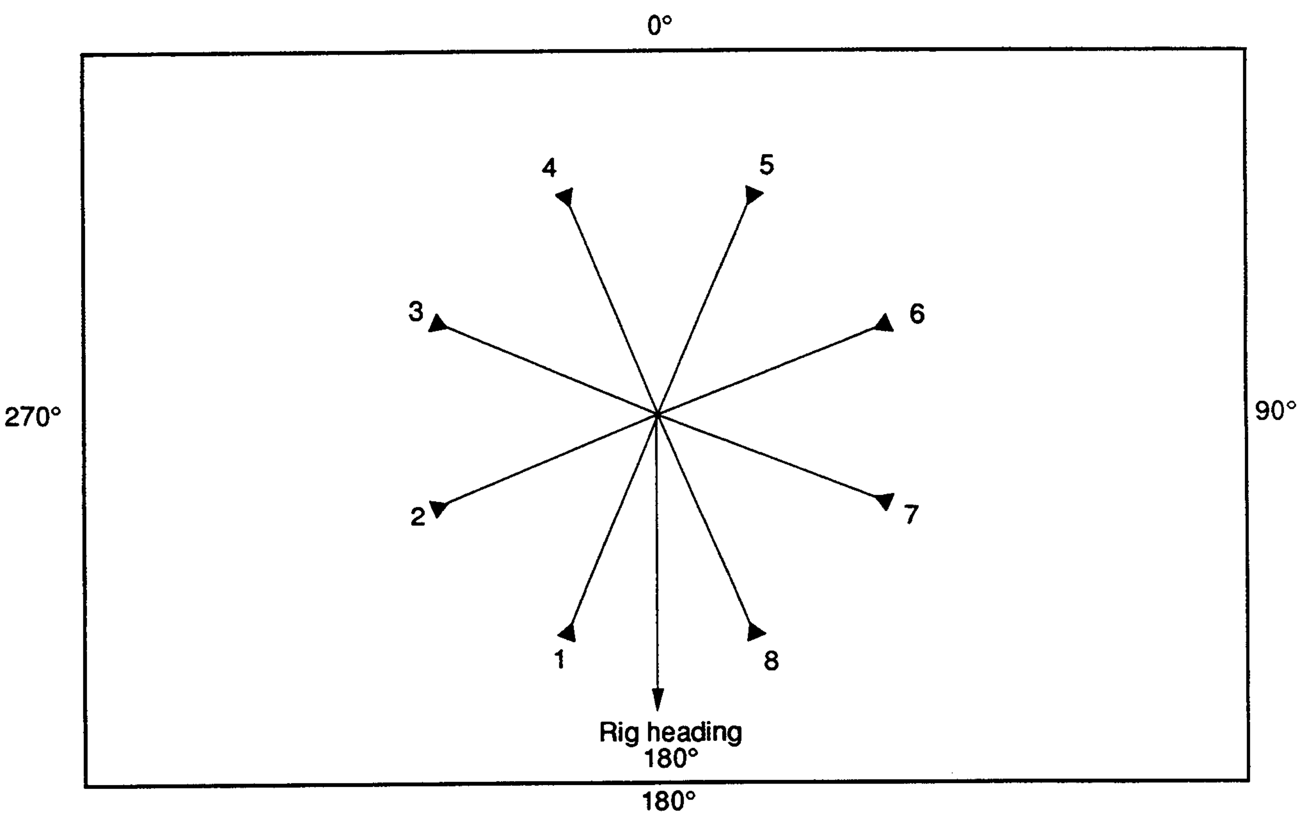


Figure 7.1 Anchor Pattern

Well: 25/6-2

	WIND		SEAS		SWELL			RIG MOVEMENT				ANCHOR		RISER	
Date	Speed m/s	Dir deg	Height m	Dir deg	Height m	Dir deg	Periode sec	Heave m	Roll deg	Pitch deg	Head deg	Tons min	Tons max	max	Remarks
920424											180				On tow to location 25/6-2
920425	13.0	150	2.2					.2	2.8	2.4	180	96	120		
920426	11.0	160	5.2	180				.4	3.4	2.4	180	97	123		
920427	8.0	140	3.7	140				.2	2.6	3.0	180	92	123		
920428	7.0	195	1.5	195				.1	1.4	1.8	180	93	123		
920429	5.0	290	1.9	290				.2	2.0	1.6	180	96	123	83	
920430	5.9	195	3.9	180				.2	2.4	4.0	180	91	121	87	
920501	3.9	155	3.0	180				.5	3.0	3.2	180	93	122	87	
920502	10.2	320	5.0	320				.4	2.8	6.0	180	86	123	87	
920503	9.7	175	2.7	175				.1	2.0	3.6	180	79	122	95	
920504	91.0	200	2.8	200				.2	1.6	1.8	180	76	122		
920505	13.5	180	3.1	180				.3	.8	1.4	180	73	123		
920506	8.0	192	3.4	220				.5	2.0	1.2	180	89	123	99	
920507	13.0	252	5.8	255				1.5	5.2	2.0	180	84	128	87	
920508	3.0	270	2.6	270				.7	3.0	1.4	180	84	123	87	
920509	6.0	280	2.2	270				.5	2.0	1.6	180	83	124	87	
920510	6.0	318	3.8	315				.7	2.0	1.4	180	80	123	91	
920511	13.0	133	3.6	130				.6	.8	1.2	180	85	121	91	
920512	13.0	241	5.3	240				.6	2.8	1.8	180	87	126	91	
920513	11.0	153	2.7	145				.2	1.0	1.4	180	84	123	91	
920514	23.0	130	6.0	130				.5	4.0	3.8	180	92	121	91	
920515	14.0	239	4.3	230				.2	2.0	1.6	180	88	123	91	
920516	5.0	260	2.2	270				.2	1.2	1.2	180	82	123	91	
920517			1.5					.2	1.2	.8	180	86	123	91	
920518	3.0	49	1.2	45				.1	.6	.4	180	86	123	91	
920519	3.0	147	3.1	145				.1	.6	.2	180	84	123	91	
920520	1.0	180	.8	180				.1	.2	.1	180	84	123	103	

	WIND		SEAS		SWELL			RIG MOVEMENT				ANCHOR		RISER	
Date	Speed m/s	Dir deg	Height m	Dir deg	Height m	Dir deg	Periode sec	Heave m	Roll deg	Pitch deg	Head deg	min	Tons max	max	Remarks
920521	7.0	140	1.0	140				.1	.2	.2	180	85	123	103	
920522	7.0	260	1.5	230				.2	.6	.4	180	81	121	103	
920523	3.0	20	1.1	30				.1	.6	.4	180	82	122	103	
920524	5.0	80	.7	40				.1	.4	.4	180	85	122	102	
920525	4.0	130	.7	140				.1	.2	.4	180	86	122	102	
920526	1.0	220	.8	140				.1	.4	.4	180	86	123	103	
920527	2.0	70	.4	180				.1	.2	.2	180	80	122	103	
920528	6.0	100	.6	180				.1	.2	.2	180	76	122		
920529	2.0	110	.8								180				

NO OF FLIGHT		FLIGHT ROUTE	PASSENGERS		DESCRIPTION OF CARGO	REMARKS
			OUT	IN		
15	Scheduled helicopter flights	BGO-TSA-BGO	221	216		Riggmove
	Scheduled charter flights					
4	Extra helicopter flight	BGO-TSA-BGO	20	11		
5	Extra helicopter flight	SVG-TSA-BGO	19	34		
	Extra seats	Snorre flight	3	7		
	Extra seats	Elf flight	0	1		

Saga Petroleum a.s.

7.4.1. Occupational Accidents. Incident/Profession
Arbeidsulykker. Skadehendelse/Yrke

Well no: 25/6-2

Incident / Skadehendelse \ Profession / Yrke	Administration - Administrasjon	Roughneck - Boredekksarbeider	Driller - Borer	Electrician - Elektriker	Catering - Forpleining	Roustabout - Hjelpearbeider	Electronic technician - Instrumenttekniker	Crane operator - Kranfører	Derrikman - Tårnmann	Painter Sandblaster worker - Maler Sandblåser	Mechanic/ Repairer - Mekaniker/Motormann/ Reparatør	Operator - Operatør	Plumber - Rørlegger	Service technichan - Servicetekniker	Scaffolding worker - Stillasbygger	Welder - Sveiser	Unspecified - Uspesifisert	Total - Totalt	%	Year - år
Contact with machinery in motion Kontakt med maskindel i bevegelse																				
Fire, explosion, etc. Brann, eksplosjon e.l.																				
Fall to same level Fall til samme nivå														1						
False step Tråkk på ujevnheter, feiltråkk																				
Falling objects Fallende gjenstander																				
Contact with stationary objects Kontakt med gjenstander i ro																				
Accident of handling mobile units Håndteringsulykker						1														
Chemicals Kontakt med kjemiske forbindelser																				
Body overload Overbelastning av kroppsdeler																				
Splinter, spurt Splinter, sprut																				
Electricity Elektrisk strøm																				
Extreme temperatures Ekstreme tempraturer																				
Occupational disease Yrkessykdommer																				
Man overboard Mann overbord																				
Other Annet																				
Total Totalt																				

Industritrykk 31725

Saga Petroleum a.s.

7.4.2. Occupational Accidents. Incid./injur. part of the body
Arbeidsulykker. Skadehendelse/skadet legemsdel

Well no: 25/6-2

Incident / Skadehendelse — Injured part of the body / Skadet legemsdel	Eye – Øye	Back – Rygg	Toe/foot – Tå/fot	Hip/leg – Hofte/bein	Abdomen/chest – Mage/bryst	Arm/shoulder – Arm/skulder	Head – Hode	Tooth – Tann	Hand/finger – Hånd/finger	Other – Annet	Total – Totalt	%	Year – År
Contact with machinery in motion Kontakt med maskindel i bevegelse													
Fire, explosion, etc. Brann, eksplosjon e.l.													
Fall to lower level Fall til lavere nivå													
Fall to the same level Fall til samme nivå						1							
False step Tråkk på ujevnheter, feiltråkk													
Falling objects Fallende gjenstander													
Contact with stationary objects Kontakt med gjenstander i ro													
Accident of handling mobile units Håndteringsulykker									1				
Chemicals Kontakt med kjemiske forbindelser													
Bodity overload Overbelastning av kroppsdeler													
Splinter, spurt Splinter, sprut													
Electricity Elektrisk strøm													
Extreme tempratures Ekstreme temperaturer													
Occupational disease Yrkessykdommer													
Man overboard Mann overbord													
Other Annet													
Total Totalt													

Industritrykk 31725

7.4.3. Occupational Accidents. Incid./extern. influence
Arbeidsulykker. Skadehendelse/ytre faktor

Well no: 25/6-2

External influence / Ytre faktor — Incident / Skadehendelse	Chemical, physical, biological influence / Kjemisk, fysisk, biologisk faktor	Cooling, pressure, wormth, ventilation / Kjøling, trykk, varme, ventilasjon	Material, goods, packing / Materiale, gods, emballasje	Electric equipment / Elektrisk utrustning	Other machine / Annen maskin	Drilling tools / Boretenger	Handcraft tool, machines, instruments / Håndverktøy, maskiner, instrumenter	Movable/fixed arrangements of the constr. / Løs/fast innretning på bygning, konstruksjon	Lifting-/transport equipment / Løfte-/transport anordning	Other / Annet	Total / Totalt	%	Year / År
Contact with machinery in motion / Kontakt med maskindel i bevegelse													
Fire, explosion, etc. / Brann, eksplosjon e.l.													
Fall to lower level / Fall til lavere nivå													
Fall to same level / Fall til samme nivå	1												
False step / Tråkk på ujevnheter, feiltråkk													
Falling objects / Fallende gjenstander													
Contact with stationary objects / Kontakt med gjenstander i ro													
Accident of handling mobile units / Håndteringsulykker									1				
Chemicals / Kontakt med kjemiske forbindelser													
Bodity overload / Overbelastning av kroppsdeler													
Splinter, spurt / Splinter, sprut													
Electricity / Elektrisk strøm													
Extreme tempratures / Ekstreme temperaturer													
Occupational disease / Yrkessykdommer													
Man overboard / Mann overbord													
Other / Annet													
Total / Totalt													

Industritrykk 31725

8. WELL PROFILES

If not otherwise mentioned, all depths in this chapter refer to mRKB MD (Rotary Kelly Bushing).

RKB: 26 m
Water depth: 119 m

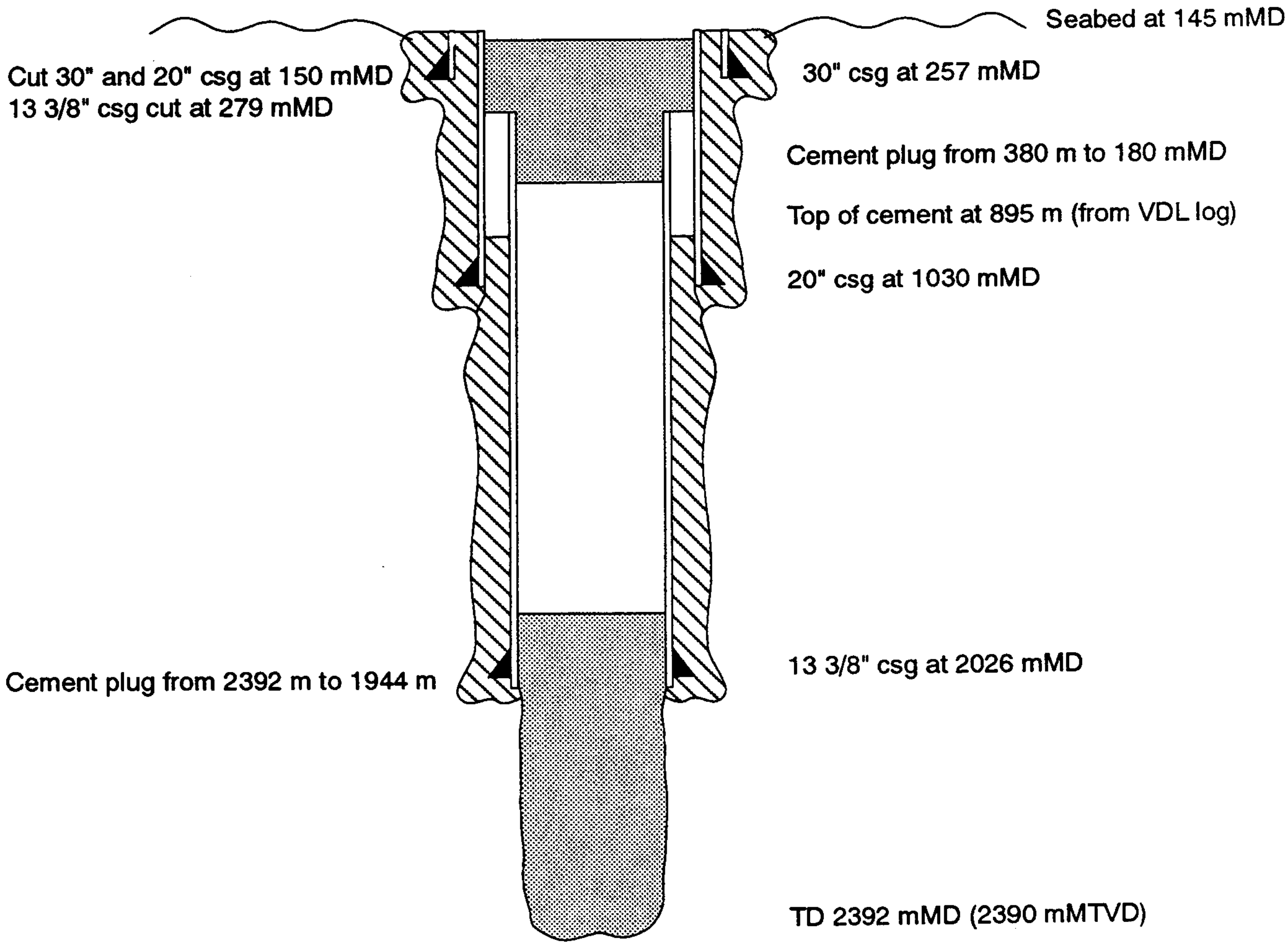


Figure 8.1 Abandonment Profile

ENCLOSURE 1

SAGA / STATOIL / NORSK AGIP/FINA

Saga Petroleum a.s.

Composite Well Log

Well 25/6-2

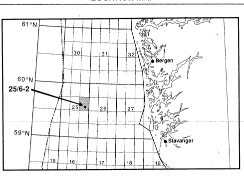
SCALE	: 1: 500		DATUM	: ED-1950, UTM ZONE 31, CM = 3° E
COUNTRY	: NORWAY		LATITUDE	: 59° 33`39.8" N
AREA	: BLOKK 25/6		LONGITUDE	: 02° 49`13.4" E
LICENCE	: PL 117		UTM COORDINATES	6602696.7 m N 489849.5 m E
RIG TAKEN OVER BY THE LICENCE	: 24.04.92		ELEVATIONS	
DATE SPUDDED	: 26.04.92		RKB-MEAN SEA LEVEL	: 26 m
T.D. DATE	: 23.05.92		RKB-SEA FLOOR	: 145 m
RIG RELEASED	: 29.05.92		WATER DEPTH	: 119 m
COMPLETION STATUS	: P & A AS A DRY WELL		TOTAL DEPTH driller´s depth	: 2392 mRKB
RIG	: "TREASURE SAGA"		logger´s depth	: 2397 mRKB

LOCATION COORDINATES

DRILLING CONTRACTOR	MUDLOGGING SERVICE
WILRIG a.s.	GEOSERVICES

CASING SHOE (mRKB)		HOLE SIZE	INTERVAL (mRKB)
30"	257	9 7/8" Pilot hole	145 - 370
		36"	145 - 257
20"	1030	17 1/2" Pilot hole	370 - 1045
		26"	257 - 1045
13 3/8"	2026	17 1/2"	1045 - 2050
		12 1/4"	2050 - 2392

LOCATION MAP



LOGS

TELECO (MWD) / SCHLUMBERGER (WIRELINE)

Casing Record mRKB MD	Hole Size mRKB MD	Logged Interval mRKB MD	Type of Log	Run No.	Date
30" @ 257 m	9 7/8" pilot hole 36" to 257 m	194 - 257	MWD (GR, DPR, DIR)		
20" @ 1030 m	9 7/8" pilot hole to 370 m 17 1/2" pilot hole 26" to 1045 m	257 - 1041	MWD (GR, DPR, DIR)		
13 3/8" @ 2026 m	17 1/2" to 2050 m	1041 - 2047	MWD (GR, RGD, DIR)		
		1030.5 - 2040	DLL-LSS-LDL-GR	1A	13.05.92
		1051 - 2030	CST (51 rec. of 60)	1A	13.05.92
	12 1/4" to 2392 m	2026 - 2387	MWD (GR, RES, NEUTR., DENS,DIR)		
		2026.5 - 2395	DIL-MSFL-LSS-LDL-CNL-GR	2B	24.05.92
		850 - 2026	VDL	2A	24.05.92
		2026 - 2392	SHDT	2A	24.05.92
		2173 - 2343.5	MDT	2A	24.05.92
		930 - 2390	VSP	2A	24.05.92
		2040 - 2392	CST (54 rec. of 60)	2B	25.05.92

TD Driller´s 2392 mRKB MD, 2390 mRKB TVD
TD Logger´s 2397 mRKB MD

AUTHOR: V. GUNLEIKSRUD DRAFTED BY: R.K.SÆBØ/J.SLETTEBØ APPR: B.GUSTAVSEN DATE: SEPT. 1992

GEOLOGICAL SYMBOLS

WELL LOG SYMBOLS

WELL 25/6-2 REPEAT FORMATION RESULTS

DEPTH		Hydrostatic mud Pressure Quartz Gauge		Formation Pressure Quartz Gauge		Comments
MDmRKB	TVDmRKB	Before Psia	After Psia	Psia	Bara	Test type
2173.0	2171.1	3820.6	3820.7	3064.1	211.3	10 cc pretest
2179.0	2177.1	3831.7	3831.8	3072.8	211.9	10 cc pretest
2186.0	2184.1	3844.5	3844.7	3083.0	212.6	20 cc pretest
2200.0	2198.1	3869.1	3869.4	3102.1	213.9	20 cc pretest
2330.0	2327.9	4100.1	4100.1	3392.8	233.9	20 cc pretest
2336.5	2334.4	4112.1	4111.9	3402.2	234.6	10 cc pretest
2339.0	2336.9	4116.5	4116.3	3406.0	234.8	20 cc pretest
2343.5	2341.4	4124.5	4124.5	3412.6	235.3	20 cc pretest

ENCLOSURE 11

FORMATION PRESSURE EVALUATION SHEET Well 25/6-2