SIMON PETROLEUM TECHNOLOGY WELL: 30/9-9

Print: 9474 T.	Units: (M) F	Top	Bottom	Scale	TD
Length: 29 FT	Initials:	140	2809	1:500	0

DIGITAL WIRELINE LOGS PACKAGE
1994
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SIMON PETROLEUM TECHNOLOGY SPT

COMPLETION LOG

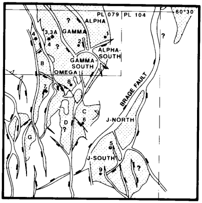
HYDRO

Completion log

Scale 1:500

Well: 30/9-9

Location map



Scale:

Coordinates:	60°19'51.10" N UTM: 6 688 423.0 m N 02°52'29.47" E 493 089.0 m E
Elevation K B:	23 m
Water Depth:	101 mMSL (124 m RKB)
Total Depth (Driller):	2809.0 m
Total Depth (Logger):	2809.5 m
Formation at Total Depth:	Statfjord Formation

Country:	Norway
Licence:	104
Owners:	Norsk Hydro, Statoil, Saga, Conoco, Norsk Agip, DNO
Field:	Norwegian North Sea, J-South Structure
Date Spudded:	26.09.89 19.30 hrs
Reached Total Depth:	20.10.89 11.10 hrs
Completed:	November 6, 1989
Well Status:	Temporarily abondoned
Rig:	Polar Pioneer
Contractor:	Polar Frontier Drilling
Mudlogging Company:	Exlog
Geologists:	Giskeødegaard, Dons, Eide, Sørheim
Prepared by:	Ree, Sørheim, Fearn
Controlled by:	Holehouse
Date:	April 1990

15 MAI 1990
REGISTRERT
OLJEDIREKTORATET

REGISTRERT
OLJEDIREKTORATET

Casing Records:

30"	at	211 m
20"	at	—
13 3/8"	at	905 m LOT 1.44 rd
9 5/8"	at	2180 m LOT 1.75 rd
7" liner at		2523 m

Comments

The well was drilled with returns to seabed down to 920 m RKB.
The only log run in this part of the hole was gamma ray – resistivity from MWD (Anadrill Schlumberger).
Two way time from Read Well Services A/S.

Logs Run

SGR/DIL/LSS	LDL/CNL	FMS	DLL/MFSL/GR	CST	VSP
1A. 2180.5– 904.5 m 2B. 2806.5–2180.0 m	1A. 2180.5– 904.5 m 2B. 2788.4–2180.0 m	2A. 2807–2180.0 m	2A. 2437–2180 m	2A. 2800–2187.5 m 2B. 2800–2236.0 m	2A. 2800–1000 m
AMS	**NGL**	**RFT**			**MWD**
2A. 2776.0–1946.0 m	2A. 2788.4–2180.0 m	2A. 2784.1–2257.5 m 2B. 2303.0–2295.5 m			2193–124 m
					CBL/VDL
					2A. 2445–1772 m 2B. 2442–2163 m

Legend

CONGLOMERATE	SHALE	CHALK	ANHYDRITE	SANDY VERY SANDY SANDY SLIGHTLY	C Carbonaceous mat
SAND SANDSTONE	LIMESTONE	MARL MARLSTONE	SALT	SILTY VERY SILTY SILTY SLIGHTLY	△ Chert
SILT SILTSTONE	DOLOMITE	COAL LIGNITE	GYPSUM	ARGILLACEOUS	✱ Glauconite
CLAY	DOLOMITIC LIMESTONE		TUFF		M Mica
CLAYSTONE	CALCAREOUS DOLOMITE		IGNEOUS EXTR INTR		☐ Pyrite
					⌒ Macrofossils
					Ꭓ Macrofossils frag
					ꝏ Microfossils

Hydrocarbon Shows

- Oil stain
- Fluorescence
- Visible cut
- Fluorescence cut
- Gas shows

Casing Shoe

Deviation 2°

Dipmeter results 3°

Two way time from velocity survey (depth m K.B.) e.g: 3603 m 1450 s

Core Interval

(No recovery)

Side Wall Core →

(No recovery)

Perforated Interval

Cement

Plug

Interval

DST

Through casing

Open hole

Re - Run

① RFT/FIT

SYSTEM	SERIES	STAGE	GROUP	FORMATION	MEMBER

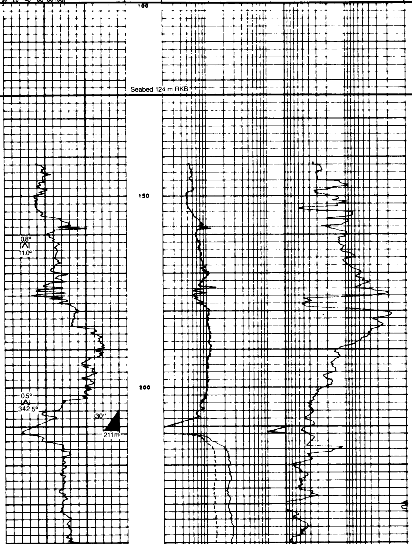
MWD: Anadrill Schlumberger (top – 920 m)

DEPTH SCALE 1 cm = 5 m (1:500) AVERAGING INTERVAL 0.3 m

SCINTILLATION DETECTOR	DEPTH (m) MD	16" SHORT NORMAL RES	RATE OF PENETRATION
0 COR GAMA AAPI 150		0.2 COR RES OHM MTRS 20 0.2 RESIST OHM MTRS 20	100 ROP•5 M/HR 1

Wireline: Schlumberger (920 – TD)

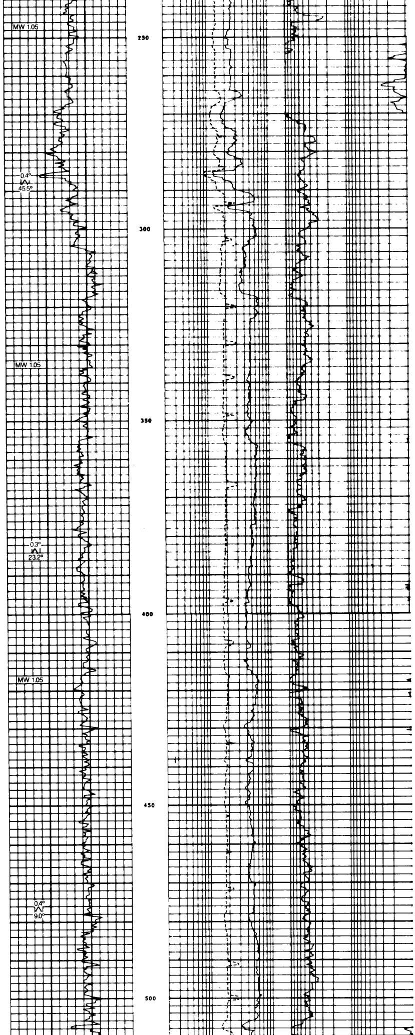
0.00 GR (GAPI) 100.00 -80.00 SP (mV) 20.00 CALCIMETRY %Calc – – %Dol —— 0 20 40 60 80 100	LITHOLOGY	0.20 ILD (OHMM) 2000.00 0.20 ILM (OHMM) 2000.00 240.00 DT (uS/FT) 40.00 240.00 DTL (uS/FT) 40.00 10000.00 TENSION (LB) 0.00	Ditch gas	Lithological Description Colour description from Rock-colour chart. Prep. by: The Rock-colour chart committee Distr. by: Geological Society of America

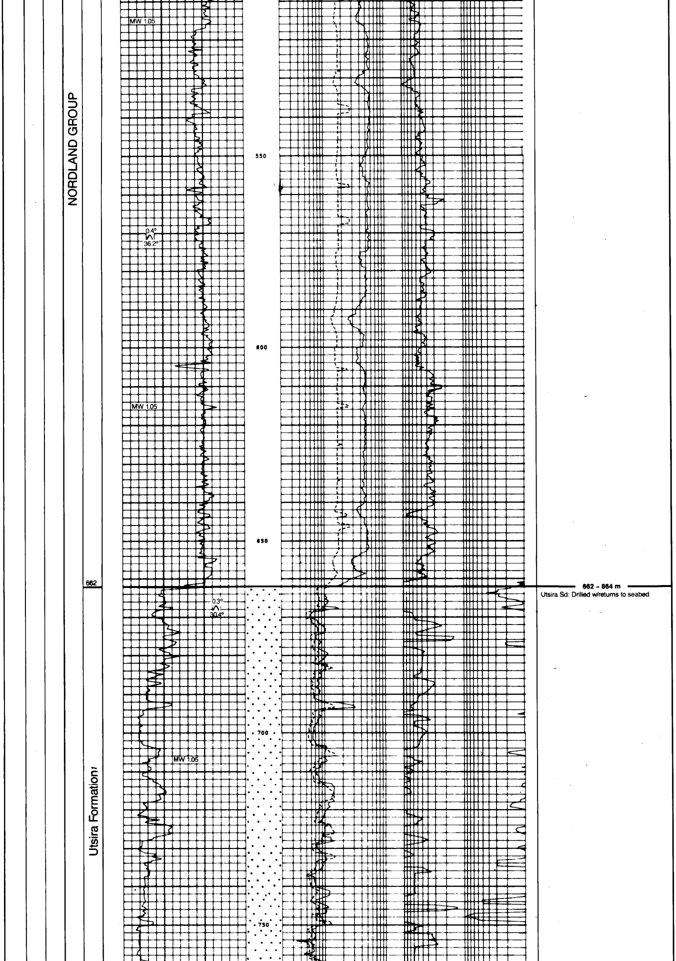


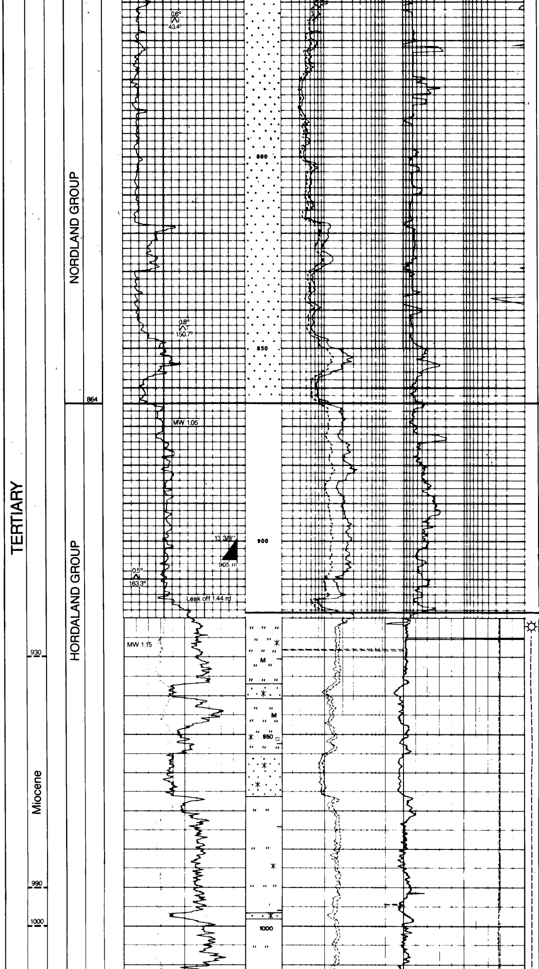
124 – 662 m

Drilled w/returns to seabed

RDLAND GROUP







864 – 919 m

Drilled w/returns to seabed

919 – 1926 m

Down to 1500 m:
Clyst: olv gy - olv blk, some dusky, yel brn, sft - frm, occ mod hd, blky, gen non calc, occ sl calc, tr micromic, tr Glau, tr Pyr, slty - v slty, loc grdg **Slst**

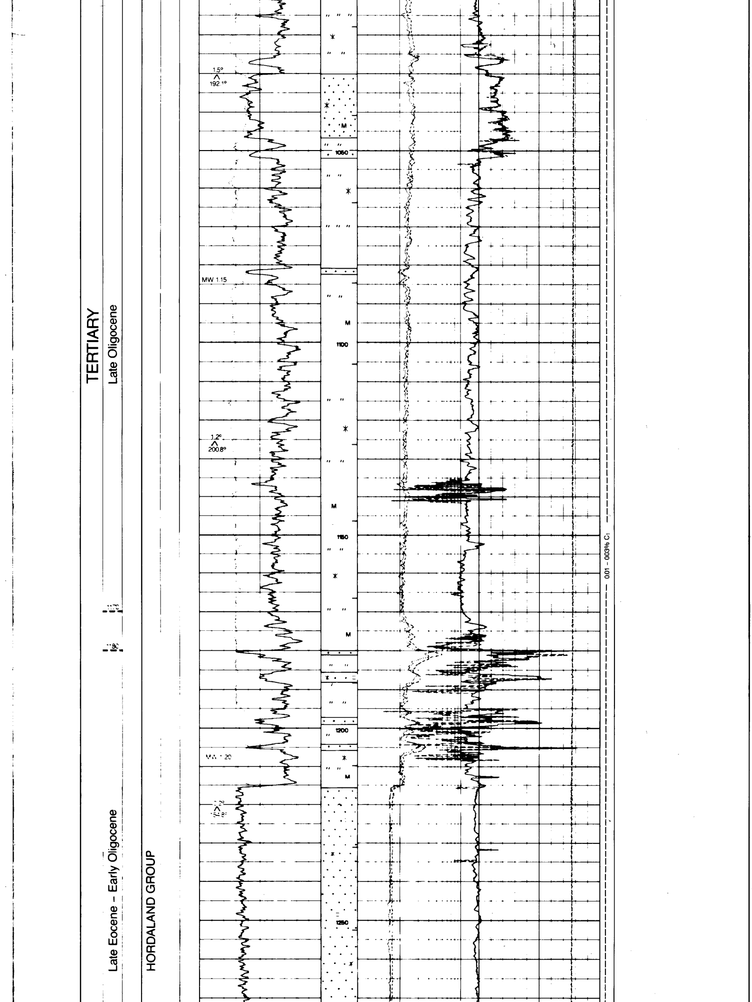
Slst: olv blk – brn blk, frm, gen non calc, occ mod calc, micromic, tr Glau, tr micropyr

Sd: clr - mlky wh Qtz, f - crs, pred m, ang - rnd, occ w rnd, mod srtd, lse, tr Glau, tr Pyr, tr Musc

tr **Sst:** clr Qtz, pred m, mod hd - hd, w srtd, silic cmt, tr Glau, tr Pyr, tr Mic, loc arg - v arg mtx, no vis por

tr **Dol:** lt olv gy, blky, mod hd - fri, microxln

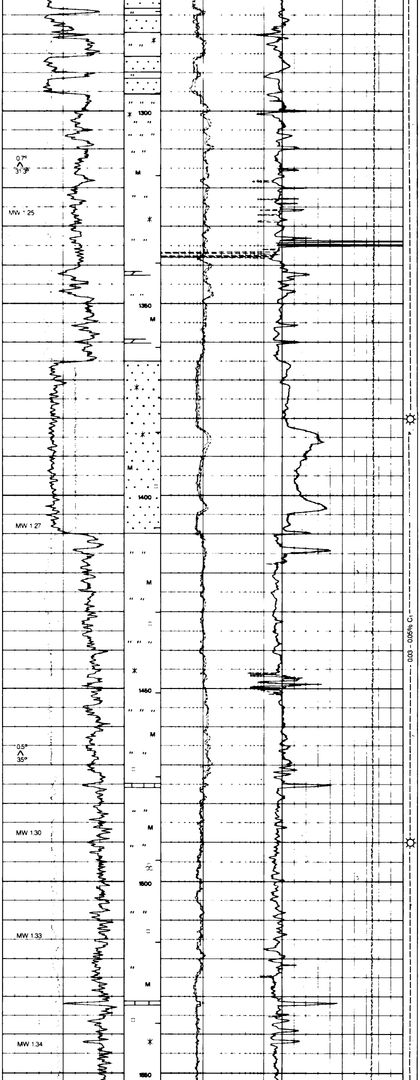
tr **Lst:** yel gy - lt olv gy, sft - mod hd, blky, arg - v arg, microxln



TERTIARY

Late Eocene – Early Oligocene

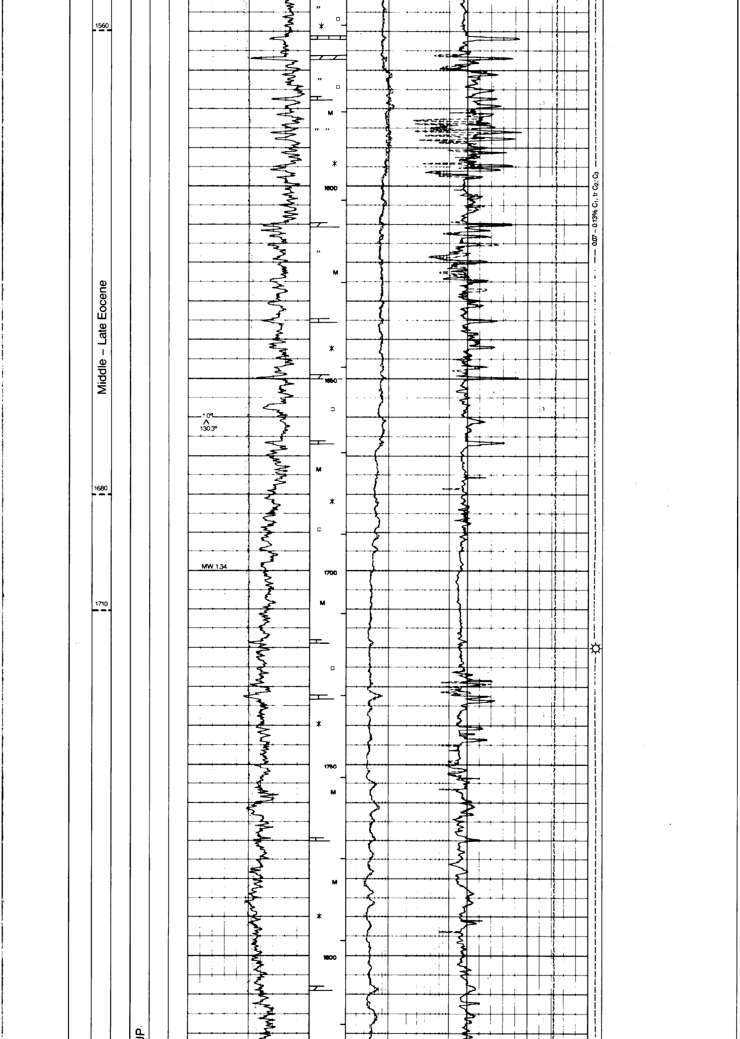
HORDALAND GROUP

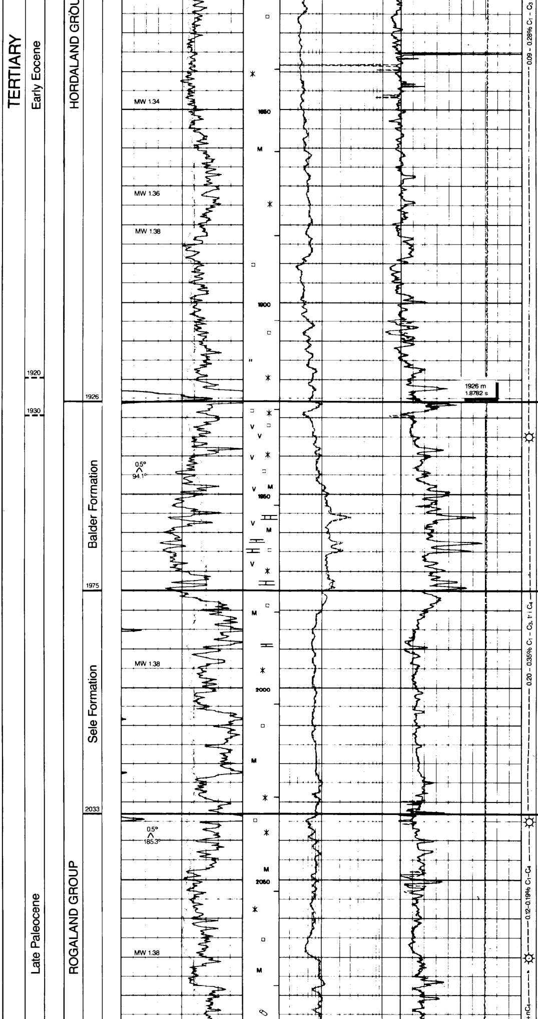


Clyst: grn gy - grn, occ olv gy - m dk gy, sft - frm. occ mod hd. blky - subfis. non calc, tr micromic, tr Glau, tr Pyr

Lst: yel gy - lt olv gy and dusky yel brn - lt brn, sft - frm, occ mod hd, blky, arg, microxln - loc xln, loc micritic

Dol: yel gy - mod yel brn, some brn - dusky yel brn, mod hd - hd, blky, loc arg, micro - crptoxln, loc xln





Clyst: red brn - mod brn, some dusky red, frm - mod hd, blky, occ subfis, non calc, micromic, tr Pyr, tr Glau, sl slty

1926 – 1975 m

Clyst: varicol, dom m gy - m dk gy and olv gy, also dk grn gy - grn, tr red brn - mod brn, blky, sft - frm, occ mod hd, rr - gd tr Pyr, rr - tr Glau, micromic, non calc

gd tr **Tuff:** m lt gy - m gy, blk and wh specs, occ clr ang Qtz specs, blky, frm, non calc

Strgs of
Lst: v lt gy - yel gy, m gy, blky, fri - mod hd, occ v arg, microxln - xln

1975 – 2033 m

Clyst: olv gy - m dk gy, tr bl grn - bl gy, tr brn, blky, sft - frm, occ mod hd, lam, tr micromic, rr tr Pyr, rr tr Glau, non calc

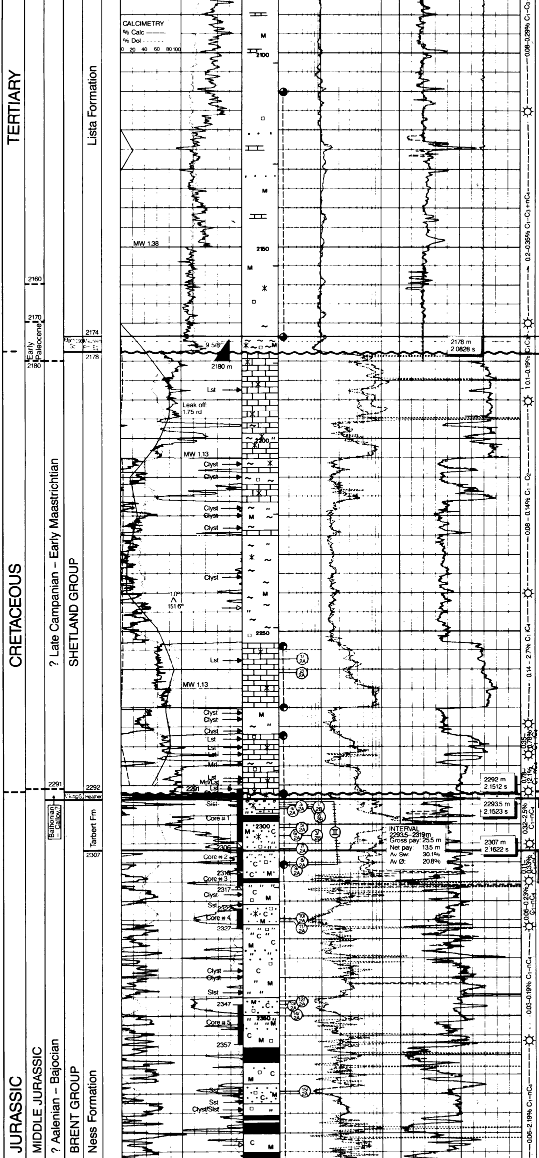
rr tr **Lst:** v lt gy - yel gy, m gy, blky, fri - mod hd, occ v arg, microxln - xln

2033 – 2174 m

Clyst: varicol, pred olv gy - m dk gy, lt gy - lt olv gy, also bl gy - steel bl, grn - grn gy and mod brn - brn gy, blky, sft - frm, occ mod hd, lam, non calc, tr Glau, tr Pyr, tr micromic

tr **Sh:** dk gy, mod hd, subfis, micromic

tr **Pyr:** worm tubes



Clyst: olv gy - m dk gy, tr grn, brn and lt gy, blky, sft - frm, tr micromic, tr Pyr, non calc
Shows on Clyst: 5% sptd dull yel - wk orng dir flu, mod - fast strmg yel - mlky flu cut, pl brn - yel brn vis cut, yel wh - bl wh flu resd, pl yel brn vis resd

Lst: pred off wh - lt gy, buff yel - pl brn - brn, blky, sft - frm, micritic but also brn - brn gy, pl brn, blky - spltry, hd - v hd, brit, micro - crptoxln
tr **Sst:** yel brn - brn gy, pred clr - lt gy Qtz, vf, frm - mod hd, tr Glau
Shows on Sst: yel brn oil stn, dull yel - yel brn dir flu, mod - fast strmg yel - mlky flu cut, pl brn - yel brn vis cut, yel wh - bl wh flu resd, pl yel brn vis resd

Clyst: olv gy - m dk gy, occ grn gy - dk grn, bl grn - bl gy, brn gy - mod brn, dk gy - gy blk, blky - occ subfis, sft - frm, occ mod hd, tr micromic, rr tr Glau, rr tr Pyr, occ grdg **Sh**, non calc

Clyst: Bcm calc - v calc grdg **Mrl**, else a/a

2174 – 2178 m

Mrl: m dk gy - m gy, blky, sft - frm, micromic, rr tr Pyr, v arg grdg **Clyst**

2178 – 2270 m

Lst: off wh - wh, lt gy - lt grn gy, occ m gy - yel gy, blky, gen frm, also sft - mod hd, occ hd, micritic, tr Glau, tr Pyr, occ arg

Clyst/Mrl: olv blk - olv gy, m lt gy - m dk gy, amor - blky, lse - mod hd, tr micromic, tr Glau, tr Pyr, v calc, occ sl slty

tr **Clyst:** mod brn - dk brn - brn blk, amor - blky, frm, micromic, slty, gen sl calc

Shows on 50% Lst: v lt brn stn, lt yel - bri yel wh dir flu, no vis cut, v slo strmg bl wh - mlky wh flu cut, no vis resd, bl wh flu resd

Clyst: m dk gy - olv gy - olv brn, blky, micromic, slty, gen sl calc, occ v calc grdg **Mrl**,
Lst: ool, lt brn - mod brn, occ lt gy - off wh, blky, gen frm, occ mod hd, gd tr Glau, tr Pyr, micro - crptoxln

Shows on 90% Lst: pl yel brn - v lt brn stn, yel brn - bri yel dir flu, fst - mod strmg bl wh - mlky wh flu cut, no vis cut, bl wh flu resd, no vis resd

2292 – 2393.5 m

Clyst: dk gy - brn gy, earthy, abdt pyr, tr Glau, tr **Sl**

2393.5 – 2307 m

Sst: mod yel brn - m dk gy, clr - smoky Qtz, vf - m, subrnd - subfis, spher, mod - w srld, abdt Mica, tr Pyr, tr Glau, x-bed, pr - fair vis por **Coal:** blk, hd, brit, slty and Mic ln pt, abdt Pyr
Shows: wk - mod petr odour, occ lt brn stn, dull - pl yel dir flu, slo - fst strmg dull bl wh - mlky wh flu cut, no - wk straw vis cut, bri bl wh - yel wh flu resd

2307 – 2412 m

Sst: olv gy - lt brn, clr - mlky Qtz, vf - m, tr v crs, subang - subrnd, mod - w srtd, fri - frm, kao cmt, occ pyr and silic cmt, gd tr Pyr, rr tr Glau, tr Mica, tr carb frags, no vis por

Clyst: lt olv gy - olv gy, occ dk gy - gy blk, blky - subfis, frm - mod hd, micromic, slty - v slty, gd tr Pyr, abdt carb frags

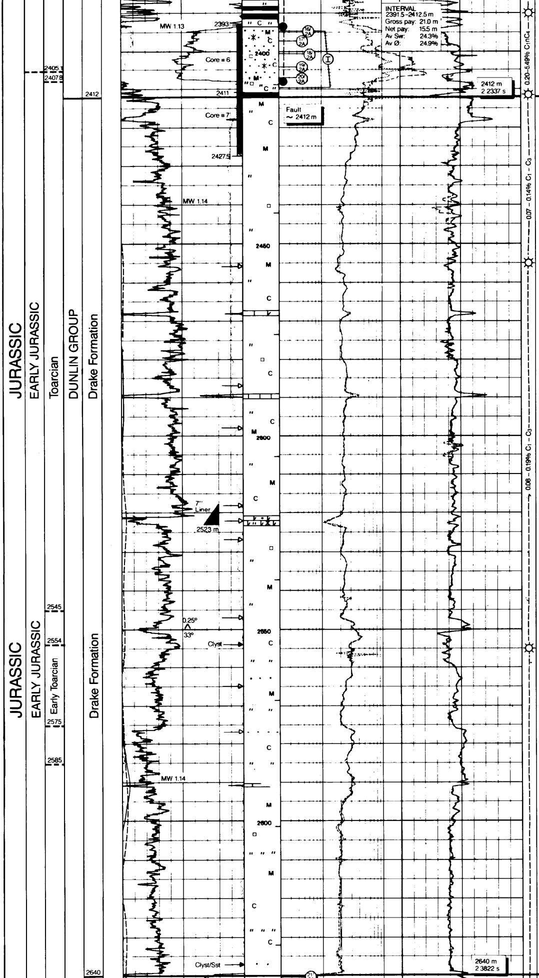
Coal: blk - brn blk, shny, blky - spltry, hd, brit

Coaly Sh: brn blk, shny, hd, fis, brit, abdt plnt rmn

Slst: lt olv gy - olv gy, blky - subfis, mod hd - hd, v mic, abdt carb frags, sdy, rr tr Pyr

Shows: tr lt brn stn, tr dull brn dir flu, v slo strmg dull yel brn flu cut, no vis cut, wk yel flu resd, no vis resd

Note: cores not shifted to logs



Sst: mod yel brn, clr - mlky Qtz, pred m, also f - v crs, subang - subrnd, gen pr srtd, frm - mod hd, silic cmt, occ kao mtx, tr Glau, tr carb frags, pr - fair vis por

Shows: wk - mod petr odour, lt brn stn, bri bl yel - mlky bl dir flu, slo - fast strmg bl wh - mlky bl flu cut, straw - lt yel brn vis cut, bri - dull mlky bl wh flu resd, lt yel brn - yel brn vis resd

2412 – 2640 m

Clyst: dusky yel brn - brn blk, mod hd, blky, gen non calc, loc sl - v calc, gen sl slty, bcmg v slty grdg **Slst**, micromic, loc mica - abdn mica, tr carb - loc carb, tr pyr

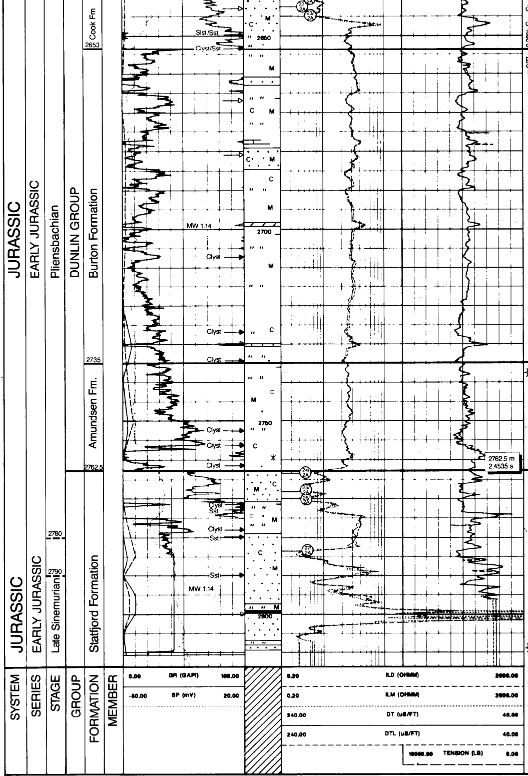
tr **Lst:** gy wh - pl yel brn, some yel brn, sft - frm, loc mod hd - hd, loc suc, loc arg, dol grdg **Dol**, micro - crptoxln

tr **Dol:** pl yel brn, some dusky yel brn - mod brn, mod hd - hd, blky, brit, arg, loc calc grdg **Lst**, micro - crpotoxln

Lst: lt olv gy - brn gy, mod hd, fri, suc tex, blky, gd tr glau, slty - v f sdy, arg, dol

tr **Sst:** lt gy - olv gy, clr - mlky Qtz, v f, subang - subrnd, mod hd - hd, w srtd, gen silic cmt, tr calc cmt, loc v slty grdg **Slst**, mica, tr carb, no vis por

2640 – 2653 m



Sst: lt gy - lt olv gy, f - m, bcmg v f -slt grdg **Slst**, lse - fri, subrnd, mod - w srtd, silic cmt, wh kao (?) mtx, tr Musc, rr carb, pr vis por
lam of **Slst:** olv blk - olv gy, mod hd, non calc, arg, micromic, tr carb, sdy lam

2653 – 2735 m

Clyst: olv gy - m dk gy, some olv blk, frm - mod hd, blky, non - sl calc, slty - v slty grdg **Slst**, micromic, carb, rr micropyr

Slst: olv gy - olv blk, mod hd, blky, non - sl calc, micromic, loc mica, carb, tr coaly lam, loc sdy grdg v f **Sst**

Sst: lt gy - lt olv gy, clr Qtz, vf - f, loc grdg **Slst**, mod hd, subang - subrnd, w srtd, silic/calc cmt, tr carb, mica, loc arg, no vis por

tr **Dol:** dusky - dk yel brn, hd, blky, brnt, arg, microxln

tr **Lst:** pred gy wh - wh, mnr pl yel brn, mod hd - frm, blky, loc arg, microxln

2735 – 2762.5 m

Clyst: olv gy - olv blk, some m gy - dk gy, frm - mod hd, blky, non - sl cal, slty - v f sdy, loc grdg **Slst**, micromic, micropyr, tr Glau, tr carb

2762.5 – 2809 m

Sst: lt gy - lt olv gy, clr - mlky Qtz, v f - f, loc m - crs, subang - subrnd, mod - pr srtd, mod hd - fri, calc cmt, tr mica, tr carb, tr arg mtx, no - mod vis por

Clyst: olv gy - olv blk, some m gy - dk gy, frm - mod hd, blky, non - sl calc, slty loc grdg **Slst**, loc sdy, micromic, tr micropyr, tr carb

tr **Coal:** blk, hd, blky, brit, tr lam w/pyr

TD DRILLER = 2809 m
TD LOGGER = 2809.5 m

CORE REPORTS, RFT RESULTS AND WELL TEST RESULT

HYDRO

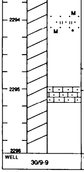
WELL NO 30/9-9	CORE REPORT		CORE NO'S 1
INTERVAL 2291-2296m	AREA J-South	CUT 2291-2306	DATE 13.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2291-2304.65m 91%	GEOLOGIST Sørheim/Eide

DEPTH SCALE mRKB	RE-COV-ERY	LITHO-LOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2291		M o		**Cgl/Sst:** mod yel brn-dk yel brn, clr-smoky gy Qtz, vf-crs mtx, 2-10 mm lrg ang-subang pbls, pr srtd, frm, sl calc cmt, occ silic cmt, mic-v mic, gd tr Pyr, fair-pr vis por.	Fair pet odour, uni yel brn stn, gd pl yel brn dir flu, bl dir flu on Qtz pbls, inst mlky wh flu cut, no vis cut, bri yel wh-bl wh flu resd, no vis resd.
2292		o M	2292.0 Sealed sample 2292.3	**Sst:** mod yel brn-dk yel brn, clr-smoky gy Qtz, pred f, occ vf-m, subang-subrnd, spheric, mod-w srtd, abdt Musc, tr Pyr, tr Glau, trough x-bed, pr-fair vis por.	Mod pet odour, uni yel brn stn, uni pl yel dir flu, inst strmg bl wh-mlky wh flu cut, wk straw vis cut, bri bl wh-yel wh flu resd, wk lt brn vis resd.
2293		M o M		**Sst:** a/a.	Show a/a.

HYDRO

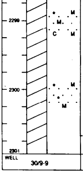
WELL NO 30/9-9	CORE REPORT		CORE NO'S 1
INTERVAL 2296-2301	AREA J-South	CUT 2291-2306	DATE 13.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2291-2304.65m 91%	GEOLOGIST Sørheim/Eide

DEPTH SCALE mRKB	RE-COV-ERY	LITHO-LOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2296				**Coal:** blk-brn blk, hd, brit, slty and mic lam, abdt Pyr	No show.
2297				**Coal:** a/a	No show.
2298		C M M o	2297.7 Sealed sample 2298.0	**Sst:** mod yel brn-dk yel brn, clr-smoky gy Qtz, pred m, occ f-crs, subang-subrnd, spheric, mod-w srtd, fri-mod hd, tr Pyr, tr carb frag, gd tr Musc, fair vis por.	Mod pet odour, uni yel brn stn, uni pl yel dir flu, inst strmg bl wh-mlky wh flu cut, wk straw vis cut, lt yel brn vis resd, bri bl wh flu resd.



DEPTH m	DESCRIPTION	SHOWS
	Sst: vf, loc grdg **Slst**, else a/a.	Wk pet odour, spty yel brn stn, spty dull yel brn dir flu, slo-mod strmg mlky wh-bl wh flu cut, no vis cut, pl yel wh flu resd, no vis resd.
2294.7 Sealed sample		
2295.0	**Sst**: m dk gy, occ dk yel brn, clr-smoky gy Qtz, v f-f, ang-subrnd, mod srtd, v hd, calc cmt, abdt Musc, no vis por.	No pet odour, spty dull yel brn dir flu, v slo strmg wk mlky wh flu cut, no vis cut, dull yel flu resd, no vis resd.

WELL 30/9-9	CORE REPORT 1 of 3	CORE NO 1

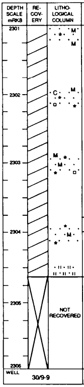


DEPTH m	DESCRIPTION	SHOWS
	Sst: mod yel brn-dk yel brn, clr-smoky gy Qtz, v f-f, w srtd, mod hd, abdt Musc, tr glob Glau, v Mic and carb lam, pr-no vis por.	Wk pet odour, spty brn stn, spty dull yel dir flu, slo strmg dull bl wh flu cut, no vis cut, yel wh flu resd, no vis resd.
	Sst: pred f, else a/a	Mod pet odour, uni brn stn, uni bri yel dir flu, inst bri mlky wh flu cut, lt straw vis cut.
2300.7 Sealed sample		
2301.0		

WELL 30/9-9	CORE REPORT 2 of 3	CORE NO 1

CORE REPORT

WELL NO 30/9-9			CORE NO'S 1
INTERVAL 2301-2306	AREA J-South	CUT 2291-2306	DATE 13.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2291-2304.65m 91%	GEOLOGIST Sørheim/Eide

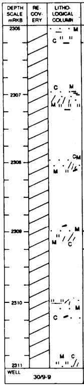


DEPTH m	DESCRIPTION	SHOWS
	Sst: a/a.	Show a/a.
	Sst: mod yel brn-dk yel brn, clr-smoky gy Qtz, pred vf, subang-subrnd, gen hd, occ frm-mod hd, w srtd, sl calc cmt, abdt Glau, abdt Musc, rr tr Pyr, tr carb frag, no-tr vis por.	Sour pet odour, gd yel brn stn, gd pl yel wh dir flu, mod-fast strmg mlky wh-bl wh flu cut, wk straw vis cut, bri yel wh flu resd, lt brn vis resd.
	Sst: pred f, else a/a.	Mod pet odour, uni yel brn stn, pl yel dir flu, mod strmg mlky wh-bl wh flu cut, lt straw vis cut, bri yel wh flu resd, straw vis resd.
2303.8 Sealed sample		
2304.0	**Sst**: a/a.	Show a/a.
2304.65	**Sst**: bcmg v slty.	

WELL 30/9-9	CORE REPORT 3 of 3	CORE NO 1

CORE REPORT

WELL NO 30/9-9			CORE NO'S 2
INTERVAL 2306-2311	AREA J-South	CUT 2306-2313m	DATE 13.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2306-2312.37m 91%	GEOLOGIST Eide

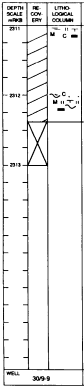


DEPTH m	DESCRIPTION	SHOWS
2306 Sealed sample 2306.27	Intbd/lam **Sst and Slst** **Sst**: olv gy-lt brn gy, pred clr-mlky wh Qtz, v f, occ f, subang-subrnd, mod-w srtd, frm-mod hd, v mic, tr-gd tr coal frag, slty-grdg **Slst**, no vis por. **Slst**: olv gy-m dk gy, frm-mod hd, tr micromic, abdt Mic, carb, v f lam.	No show.
	X-bedded-ll lam **Sst and Slst** **Sst**: a/a gd tr plnt frag. **Slst**: a/a.	Mod pet odour, tr lt brn-yel brn stn, mod-bri yel-mlky yel dir flu, bri yel-bl yel/mlky slo-mod fast strmg flu cut, straw-lt brn vis cut, bl yel-bri mlky yel flu resd, wk lt brn-yel vis resd.
	Sst: olv gy-lt brn gy, pred clr-mlky wh Qtz, f-m, occ vf, subang-subrnd, w srtd, frm, occ fri-mod hd, wk silic cmt, tr-abdt arg mtx, abdt Mic (pred Musc), pt x-bedded, occ mass, tr **Coal**-pred as thin lam, mod vis por.	Show: a/a.
2309.06 Sealed sample 2309.25	**Sst**: a/a. **Coal**: brn blk-blk, occ mod brn, pt shiny, mod hd, brit.	Wk pet odour, tr lt brn-yel brn stn, dull yel-mlky yel dir flu, yel-wk yel slo strmg flu cut, no-v lt yel brn vis cut, mlky yel flu resd, no vis resd.
	Intbd/ll lam **Sst and Slst** **Sst**: olv gy-lt brn gy, pred clr-mlky wh Qtz, v f-slty, subang-subrnd, mod-w srtd, mod hd-hd, abdt Mic, silic cmt, ll-lam-pt x-bedded, slty- grdg **Slst**, no vis por.	Show: a/a.
	Slst: a/a.	

WELL 30/9-9	CORE REPORT 1 of 2	CORE NO 2

CORE REPORT

WELL NO 30/9-9			CORE NO'S 2
INTERVAL 2311-2312.37m	AREA J-South	CUT 2306-2313m	DATE 13.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2306-2312.37m 91%	GEOLOGIST Eide

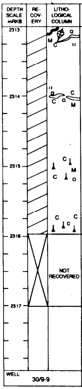


DEPTH m	DESCRIPTION	SHOWS
	Sh: m dk gy-dk gy, subfis-fis, hd, micromic, abdt coal/plnt rem, non calc, slty-v slty-grdg ll lam **Slst**.	No show.
2312.37	**Sh/Clyst**: m dk gy-dk gy, blky-subfis, hd, micromic, slty, abdt coal lam, wvy bedded-slump/micro loading, v carb-grdg **Coaly Sh**.	No show.

WELL 30/9-9	CORE REPORT 2 of 2	CORE NO 2

CORE REPORT

WELL NO 30/9-9			CORE NO'S 3
INTERVAL 2313-2315.9m	AREA J-South	CUT 2313-2317m	DATE 14.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2313-2315.9m 73%	GEOLOGIST Sørheim

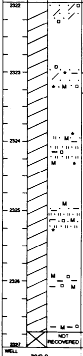


DEPTH m	DESCRIPTION	SHOWS
	Sh/Clyst: olv blk-blk-dk gy, fis, mod hd-hd, v foss, w pres leaf foss, abdt pyr plnt frag, v carb, occ grdg coaly **Sh**, v Mic, sl slty, occ v slty, non calc.	No show.
	Sh/Clyst a/a.	No show.
	Sh/Clyst: dom olv gy, occ dk gy, blky-subfis, mod hd, v Mic, gd tr Pyr, sl slty, non calc, abdt roots and plnt frag, gen carb.	No show.
2315.9	**Sh/Clyst**: a/a.	No show.
2317		

WELL 30/9-9	CORE REPORT 1 of 1	CORE NO 3

CORE REPORT

WELL NO 30/9-9			CORE NO'S 4
INTERVAL 2322-2326.7m	AREA J-South	CUT 2322-2327m	DATE 15.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2322-2326.7m 94%	GEOLOGIST Serheim

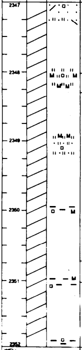


DEPTH SCALE mRKB	RE-COV-ERY	LITHO-LOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2322				**Sst:** lt brn, clr-smoky gy Qtz, pred m-crs, occ v f-crs, subang-submd, occ w rnd, spheric, pr srtd, frm, tr pyr and silic cmt, kao mtx, abdt coal frag, rr tr Glau, fair vis por.	V wk pet odour, tr lt brn stn, spty fnt yel brn dir flu, v slo-slo strmg bl wh-mlky yel flu cut, no vis cut, pl yel flu resd, no vis resd.
2323			2323.0 Sealed sample 2323.3	**Sst:** lt brn, clr Qtz, pred m, occ f-crs, submd-rnd, spheric, frm, tr pyr and silic cmt, occ Pyr nod, abdt Glau, tr carb frag, tr Musc, mod vis por.	Wk pet odour, tr lt brn stn, uni pl yel-yel brn dir flu, mod-mod fast strmg bl wh-mlky flu cut, tr v lt brn vis cut, bl wh flu resd, no vis resd.
2324				**Sst:** olv gy, clr Qtz, v f, mod hd, arg mtx, v slty grdg Slst, v mic (pred Musc), tr carb frag, tr Glau, tr Pyr, no vis por.	No-v wk bl wh flu crsh cut, else no show.
2325				**Sst:** pred f, else a/a.	No-v wk bl wh flu crsh cut.
2326				**Clyst:** lt olv gy-olv gy, blky, mod hd-frm, micromic, tr micropyr, abdt carb/coal frag	No show
			2326.7	**Clyst:** a/a	
2327		NOT RECOVERED	2327		

WELL 30/9-9	CORE REPORT 1 of 1	CORE NO 4

CORE REPORT

WELL NO 30/9-9			CORE NO'S 5
INTERVAL 2347-2352m	AREA J-South	CUT 2347-2357m	DATE 16.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2347-2356.95m 99%	GEOLOGIST Serheim

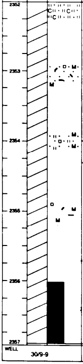


DEPTH SCALE mRKB	RE-COV-ERY	LITHO-LOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2347				**Slst:** lt olv gy, clr-lt brn Qtz, pred v f-f, tr m, subang, sl elg-spheric, mod-w srtd, mod hd-hd, sl silic cmt, gd tr carb frag, tr Mic, rr tr Pyr, no vis por, lam with **Slst.**	No pet odour, 5% dull yel-yel brn dir flu, tr v dull yel brn flu cut, no vis cut, no flu resd, no vis resd.
2348			2348 Sealed sample 2348.3	**Slst:** lt olv gy-olv gy, blky-subfis, mod hd-hd, v Mic, abdt carb frag, sdy, rr tr Pyr.	Dull yel-yel brn flu crsh cut, wk yel flu resd, no vis resd.
2349				**Slst:** v sdy grdg v f g Sst, else a/a	Show a/a.
2350				**Clyst:** lt olv gy-olv gy, blky, mod hd-frm, micromic, tr micropyr, abdt carb/coal frag.	No show.
			2350.7 Sealed sample		
2351			2351.0	**Coaly Sh:** dusky yel brn, subfis, mod hd, v carb, abdt plnt rem, tr micromic and micro-pyr.	No show.
2352					

WELL 30/9-9	CORE REPORT 1 of 2	CORE NO 5

CORE REPORT

WELL NO 30/9-9			CORE NO'S 5
INTERVAL 2352-2356.95m	AREA J-South	CUT 2347-2357m	DATE 16.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2347-2356.95m 99%	GEOLOGIST Serheim

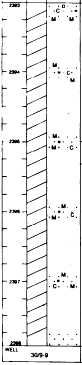


DEPTH SCALE mRKB	RE-COV-ERY	LITHO-LOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2352				**Slst:** brn blk, subfis, hd, v Mic, v carb, sdy	Dull yel-yel brn crsh cut wk yel flu resd, no vis resd
2353				**Sst:** lt olv gy-brn gy, clr-lt brn Qtz, v f-m, subang, sl elg-spheric, mod-pr srtd, mod hd, sl silic cmt, gd tr carb frag, tr Mic, rr tr Pyr, no vis por.	V wk pet odour, 50% lt brn stn, 50% bri yel-yel brn dir flu, inst milky yel flu cut, no-wk straw vis cut, yel flu resd, no vis resd.
2354			2354.0 Sealed sample 2354.3	**Sst:** olv gy, clr Qtz, vf, grdg Slst a/a.	Dull yel-yel brn crsh cut wk yel flu resd, no vis resd
2355				**Clyst:** lt olv gy-olv gy, blky, mod hd-hd, micromic, tr micropyr, abdt carb frag, tr Pyr mod, Mic lam.	No show
2356				**Coaly Sh:** brn blk, shiny, hd, fis, brit, abdt plnt rmn.	No show
2357			2356.95		

WELL 30/9-9	CORE REPORT 2 of 2	CORE NO 5

CORE REPORT

WELL NO 30/9-9			CORE NO'S 6
INTERVAL 2393-2398m	AREA J-South	CUT 2393-2411m	DATE 17.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2393-2410.3m 96%	GEOLOGIST Serheim



DEPTH SCALE mRKB	RE-COV-ERY	LITHO-LOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2393				**Sst:** mod yel brn-olv gy, clr-smoky Qtz, pred f-m, occ crs, subang-subrnd, sl elg-sl spheric, mod srtd, frm-mod hd, silic cmt, Mic lam, tr Glau, tr Pyr, tr Musc, tr carb frag, fair vis por.	Mod pet odour, lt brn stn, 90-100% bri bl yel-mlky bl dir flu, slo-fast strmg bl wh-mlky bl flu cut, straw-lt yel brn vis cut, bri-dull mlky bl wh flu resd, lt yel brn-yel brn vis resd.
2394				**Sst:** pred m, tr crs, mod hd, Kao mtx, else a/a.	Show a/a.
2395			2395.0 Sealed sample 2395.3	**Sst:** a/a.	Show a/a.
2396				**Sst:** a/a.	Show a/a.
2397				**Sst:** mod yel brn-olv gy, clr-smoky Qtz, pred crs, lam w/v f-f slty Sst, subang-subrnd, sl elg-sl spheric, pr srtd, mod hd, silic cmt, Kao mtx, abdt Musc, rr tr Glau, tr carb frag, no vis por.	Wk pet odour, tr lt brn stn, 50% dull-bri mlky bl dir flu, slo strmg bl wh flu cut, no-v wk lt yel brn vis cut, dull bl wh flu resd, no vis resd.
2398					

WELL 30/9-9	CORE REPORT 1 of 4	CORE NO 6

CORE REPORT

WELL NO 30/9-9			CORE NO'S 6
INTERVAL 2398-2403m	AREA J-South	CUT 2393-2411m	DATE 17.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2393-2410.3m 96%	GEOLOGIST Serheim

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CORE REPORT

WELL NO 30/9-9			CORE NO'S 6
INTERVAL 2403-2408m	AREA J-South	CUT 2393-2411m	DATE 17.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2393-2410.3m 96%	GEOLOGIST Serheim

DEPTH SCALE mRKB	RECOVERY	LITHOLOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2398			2398.0 Sealed sample 2398.3	**Sst:** mod yel brn, clr-smoky Qtz, f-m, subang-subrnd, sl elg-sl spheric, mod srtd, mod hd, tr Kao mtx, silic cmt, tr Glau, tr Musc, tr carb frag, Mic lam, pr vis por.	Mod pet odour, lt brn stn, 90-100% bri bl yel-milky bl dir flu, slo-fast strmg bl wh-milky bl flu cut, straw-lt yel brn vis cut, bri-dull milky bl wh flu resd, lt yel brn-yel brn vis resd.
2399				**Sst:** dk yel brn, clr-smoky Qtz, crs, subang-subrnd, elg-sl spheric, pr-mod srtd, mod hd, silic cmt, vf sdy mtx, rr tr Glau, tr carb frag, rr tr Musc, pr-fair vis por.	Show a/a
2400				**Sst:** v crs, else a/a.	Show a/a
2401			2400.85 Sealed sample 2400.14	**Sst:** pred m-crs, else a/a	Show a/a
2402				**Sst:** a/a.	Show a/a
2403					

WELL	CORE REPORT	CORE NO
30/9-9	2 of 4	6

DEPTH SCALE mRKB	RECOVERY	LITHOLOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2403				**Sst:** mod yel brn, clr-smoky Qtz, m, tr crs, subang-subrnd, sl elg-sl spheric, mod srtd, frm-mod hd, silic cmt, Mic lam, tr Glau, tr Pyr, tr Musc, tr carb frag, fair vis por.	Show a/a.
2404			2403.7 Sealed sample 2404.0	**Sst:** m-crs, else a/a.	Show a/a.
2405				**Sst:** pred f-m, vf lam, else a/a.	Show a/a.
2406				**Slst:** dk yel brn-dusky yel brn, blky-subfis, hd, v Mic (pred Musc), w pres plnt rem, v sdy grdg v f g Sst, no vis por.	V wk pet odour, tr lt brn stn, 50% dull-bri mlky bl dir flu, slo strmg bl wh flu cut, no-v wk lt yel brn vis cut, dull bl wh flu resd, no vis resd.
2407			2406.7 Sealed sample 2407.0	**Sst:** dk yel brn, clr Qtz, vf, mod hd, arg mtx, slty, abdt Musc, abdt Pyr cmt nod, abdt roots, no vis por, microfrac.	Show a/a on fractures/fault planes.
2408					

WELL	CORE REPORT	CORE NO
30/9-9	3 of 4	6

WELL NO 30/9-9	CORE REPORT		CORE NO'S 6
INTERVAL 2408-2410.3m	AREA J-South	CUT 2393-2411m	DATE 17.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2393-2410.3m 96%	GEOLOGIST Semem

DEPTH SCALE mRKB	RECOVERY	LITHOLOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2408				**Slst:** dusky yel brn, subfis, hd, v Mic, carb sdy, lent bedded w/v f Sst, microfrac	Show on fractures a/a
2409				**Coal:** blk-brn blk, shiny, blky-spltry, hd, brit.	
2410			2410.3	**Slst:** v Mic grdg Mic a/a.	No show.
		Not recovered	2411.0		
2411					
2412					
2413					

WELL	CORE REPORT	CORE NO
30/9-9	4 of 4	6

WELL NO 30/9-9	CORE REPORT		CORE NO'S 7
INTERVAL 2411-2416m	AREA J-South	CUT 2411-2427.5m	DATE 17.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2411-2426.93m 96.5%	GEOLOGIST Dons/Giskeødegaard

DEPTH SCALE mRKB	RECOVERY	LITHOLOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2411			No sealed samples taken.	**Clyst/Sh:** dusky yel brn-brn blk, mod hd, vf wvy lam, non-v sl calc, mic-abdt mic (Musc), sl slty, lt brn gy non calc min specs, sl bioturbated.	No show.
2412				Same lithology as base core 6. a/a.	No show.
2413				A/a.	No show.
2414				A/a. Sphaeroidal calc nod. 2 cm tr fibr wood frag.	No show.
2415				A/a.	No show.
				A/a. abdt wood frag, fibrous loc pyritized.	No show.
2416					

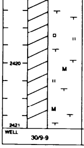
WELL	CORE REPORT	CORE NO
30/9-9	1 of 4	7

WELL NO 30/9-9	CORE REPORT		CORE NO'S 7
INTERVAL 2416-2421m	AREA J-South	CUT 2411-2427.5m	DATE 17.1089
SCALE 1:25	WELL RKB 23m	RECOVERY 2411-2426.93m 96.5%	GEOLOGIST Dons/Giskeødegaard

DEPTH SCALE mRKB	RECOVERY	LITHOLOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2416				**Clyst/Sh:** dusky yel brn, brn blk, mod hd, vf sl wvy lam, non calc, abdt mic (Musc), sl slty, lt brn gy non calc min specs, sl bioturb, tr fibr wood frag loc pyr.	No show.
2417				A/a.	No show.
2418				A/a. Decreasing amount of wood fragments downwards.	No show.
2419				A/a.	No show.

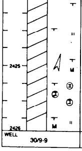
WELL NO 30/9-9	CORE REPORT		CORE NO'S 7
INTERVAL 2421-2426m	AREA J-South	CUT 2411-2427.5m	DATE 17.10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2411-2426.93m 96.5%	GEOLOGIST Dons/Giskeødegaard

DEPTH SCALE mRKB	RECOVERY	LITHOLOGICAL COLUMN	DEPTH m	DESCRIPTION	SHOWS
2421				**Clyst/Sh:** dusky yel brn-brn blk, mod hd, vf sl wvy lam, non calc, abdt mic (Musc), sl slty, lt brn gy non calc min specs, sl bioturb.	No show.
2422					No show.
2423				A/a.	No show.
2424				A/a.	No show.



DESCRIPTION	SHOWS
A/a.	No show.
A/a.	No show.

WELL	CORE REPORT	CORE NO
30/9-9	2 of 4	7



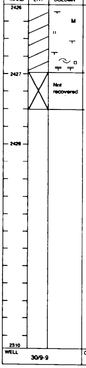
DESCRIPTION	SHOWS
A/a Belemnite. Sphaeroidal calc nod max 4 cm.	No show.
A/a.	No show.

WELL	CORE REPORT	CORE NO
30/9-9	3 of 4	7

CORE REPORT

WELL NO 30/9-9			CORE NO'S 7
INTERVAL 2426-2427.5m	AREA J-South	CUT 2411-2427 5m	DATE 17 10.89
SCALE 1:25	WELL RKB 23m	RECOVERY 2411-2426.93m 96.5%	GEOLOGIST Dons/Giskeedegaard

DEPTH SCALE mRKB | RE-COV-ERY | LITHO-LOGICAL COLUMN



DEPTH m	DESCRIPTION	SHOWS
	Clyst/Sh: dusky yel brn-brn blk, mod hd, vf sl wvy lam, non calc, abdt mic, sl slty, lt brn gy non calc min specs, sl bioturb.	No show.
2426.93	Gen a/a, bcmg less mic and less slty, tr Shl loc pyritized-non frag.	No show.
2427.5		

WELL	CORE REPORT	CORE NO
30/9-9	4 of 4	7

RFT RESULTS – PRESSURES

WELL: 30/9–9

All pressures from HP gauge.

Run no/ Test no	Depth m RKB MD	IHP Bar	FP Bar	FHP Bar	Mobility mD/cp	Comment
2A/1	2257.0	257.54	–	257.50	–	Tight
2A/2	2260.4	257.90	–	257.86	–	Tight
2A/3	2295.4	261.90	238.16	261.79	250.7	
2A/4	2296.2	261.92	238.31	261.81	5.9	
2A/5	2301.4	262.56	238.52	262.45	674.5	
2A/6	2303.0	262.65	238.54	262.54	336.7	
2A/7	2306.6	263.15	238.81	263.07	89.4	
2A/8	2310.0	263.40	238.97	263.40	28.9	
2A/9	2310 2	263.38	238.93	263.42	134.1	
2A/10	2324.5	265.20	239.01	265.20	39.2	
2A/11	2325.4	265.13	239.02	265.16	84.1	
2A/12	2346.0	267.65	241.58	267.44	203.4	Sample
2A/13	2347.0	267.40	241.62	267.43	113.2	
2A/14	2348.0	267.50	241.64	267.54	9.6	
2A/15	2369 4	270.20	242.87	270.00	122.0	
2A/16	2395 0	273.00	247.74	272.73	654.8	
2A/17	2397.6	273.20	247.90	273.06	268.0	
2A/18	2400.5	273.50	248.12	273.40	214.5	
2A/19	2404 5	273.91	248.37	273.90	30.9	
2A/20	2406.5	274.20	248.52	274.14	287.9	
2A/21	2640.5	300.14	279.84	300.08	52.8	
2A/22	2642.4	300.32	280.02	300.30	45.2	
2A/23	2645.0	300.68	280.24	300.56	57.7	
2A/24	2763.5	313.80	289.03	313.80	22.0	
2A/25	2767.9	314.30	289.37	314.25	–	
2A/26	2769.9	314.47	289.63	314.50	358.7	
2A/27	2784.1	316.16	291.06	316.14	506.3	
2B/1	2295.5	261.80	238.15	261.80	–	Sample
2B/2	2303.0	262.70	238.61	262.60	26.4	

Run :	2A	2A	2B	2B
Sampling depth (m) :	2346	2346	2295.5	2295.5
Chamber vol.(Gal) :	2 3/4	1	2 3/4	1
Filling time (min) :	22	20	50	Sent ashore
Shut in pressure,Bar/T°C .	241.22/90.5	241.22/90.1	238.17/72.7	sealed.
Chamber pressure surface, Bar/T :	0/10	0/10	110/10	
Gas volume (SCM) :	0	0	12.21	
Oil volume (litres) .	0	0	2.0	
Oil gravity (API) :	–	–	45	
Water/filtrate (litres) :	9.8	3.4	7.1	

HYDRO

WELL TEST RESULT

WELL: 30/9–9

TEST No.	1	2	
PERFORATED INTERVAL (m)	2394 4- 2409.4	2294 8- 2310.8	
CHOKE SIZE (mm)	19 05	19 05	
OIL/COND. FLOW RATE (Sm^3/D)	946	966	
GAS FLOW RATE (Sm^3/D)	$158x10^3$	$158x10^3$	
GOR (Sm^3/Sm^3)	166	164	
OIL/COND. GRAVITY (g/cc)	0.822	0.820	
GAS GRAVITY (air=1)	0.743	0 745	
FWHP (bar)	96.3	96 5	
SIWHP (bar)	Down hole shut in	Down hole shut in	
WHT (deg C)	60 9	59.4	
BHT (deg C)	100 4	99 8	
BHFP (bar)	240.4	232 4	
BHSIP (bar)	244.98	237.3	
BS&W (%)	0	0	
CO2 (%)	1.5	1.6	
H2S (ppm)	1.3	1.5	
Kh (mDm)	68626	66658	
S	28.4	47.6	
Pi (bar)	245.15	237.5	
DEPTH OF BH MEASUREMENTS	2349.34m	2240.54m	

30.04.90