SIMON PETROLEUM TECHNOLOGY WELL: 34/10-33B

Print: 12261 H Units: [✓ M] F
Length: 19 FT Initials: JmY

Top	Bottom	Scale	TD
1840	3945	1:500	3942

DIGITAL WIRELINE LOGS PACKAGE
1994
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SIMON PETROLEUM TECHNOLOGY SPT

COMPLETION LOG

U-591

REGISTERT
OLJEDIREKTORATET
07 MARS 1990

PARTNERS
NORSK HYDRO/SAGA PETROLEUM

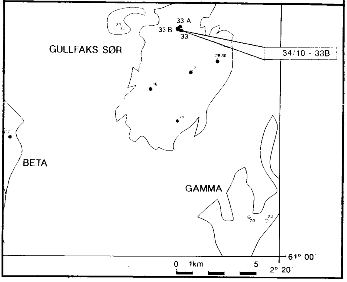
STATOIL

WELL
34/10-33B COMPLETION LOG
Scale 1:500

PROSPECT STRUCTURE
GULLFAKS SØR

AREA: NORTHERN NORTH SEA
LICENCE: PL 050
COORDINATES: 61° 07′ 34.44" N
02° 12′ 57.10"E
K.B.: 23m
WATER DEPTH: 134m
TOTAL DEPTH: 3942m
DEEPEST FORM. PEN.: NESS FM
SPUD DATE: (RE-ENTRY): 27.04.89
RIG RELEASE DATE: 10.07.89
WELL STATUS: PLUGGED BACK FOR SIDETRACK
RIG: DEEPSEA BERGEN
CONTRACTOR: ODFJELL DRILLING
GEOLOGISTS: FRISTAD, JENSEN, AGA,
HELLE, GREVE, SVINDLAND
PREPARED BY: B. LAASTAD DATE: NOV. 89

LOCATION MAP



CASING DATA:	LEAK OFF TESTS:
30″ at 219m	—
20″ at 453m	1.43 SG
16″ at —	—
13 3/8″ at 1822m	1.65 SG
9 5/8″ at 3484.5m	1.70 SG (FIT)
7″ at —	—

VELOCITY SURVEY:

LOGS RUN CONTRACTOR: ATLAS W./SPERRY SUN/ANADRILL

GR (MWD)	EWR-GR-SFØ-CN-(MWD)	4-ARM CAL - GR	GYRO-CCL-GR	CHFT-GR	CDL-CN-GR	FMT-HP-GR
RUN # 1-22 1840 - 3942m	RUN # 1-7 3484.5 - 3906m	RUN 1A: 1822 - 3419m	RUN 2A: 1690 - 3440m ACBL-VDL-CCL-GR RUN 2A: 1800 - 3475m	RUN 3A: 3299.5m RUN 3B: 3335m RUN 3C: 3238m RUN 3D: 3358.6m RUN 3E: 3336.1m	RUN 3A: 3185 - 3475m This log was run on wireline inside 9 5/8" casing	RUN 3A: 3551 - 3894m RUN 3B: MISRUN RUN 3C: 3551 - 3892m All logs were run on drill pipe

COMMENTS:
1. This well was drilled as a sidetrack from well 34/10-33. The kick -off point was at 1840m MD RKB
2. The transition between gas and oil in the well is defined across a pressure barrier at approximately 3370m MD RKB (3310 m TVD RKB)
3. The transition between oil and water in the well is defined across a pressure barrier at approximately 3680m MD RKB (3412m TVD RKB)
4. The MWD-GR and -DWOB logs failed between 2520 and 2980m MD
5. The CDL-CN-GR log between 3190 and 3467m is run on wireline inside 9 5/8" casing.

6. The horizontal section of the well is between 3670 and 3942m MD (TD)
7. Due to severe hole stability problems, the 8 1/2" hole section had to be plugged and abandoned without the planned production test.
8. No biostratigraphical breakdown was done in this well, please refer to well 34/10-33

LITHOLOGICAL SYMBOLS

CONGLOMERATE	SHALE	MARL	COAL or LIGNITE	FORAMS	MICA
SAND SANDSTONE	LIMESTONE	TUFF	WOOD FRAGS	BURROWS	KAOLINITE
SILT SILTSTONE	CHALK	SALT GEN'L	FOSSILS GEN'L	PYRITE	CHERT
CLAY CLAYSTONE	DOLOMITE	ANHYDRITE	SHELL FRAGS	GLAUCONITE	SIDERITE

STAIN

FLUORESCENCE

CUT FLUOR

GAS SHOWS

SIDEWALL CORES

○→ REC.
●→ REC. W/SHOW
→ NO REC

CORES

CORE NO.

DST

RFT/FMT

UNSUCCESSFUL

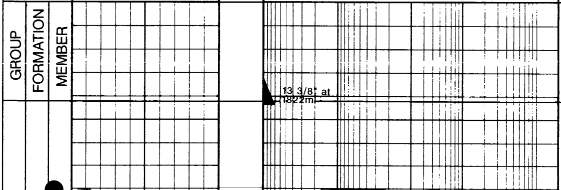
CASING SHOE/LINER

Curve	Left scale	Right scale
GR(API) - ANADRILL	0	100
GR(API) BACKUP - ANADRILL	100	200
GR(API) - ATLAS	0	100
GR(API) BACKUP - ATLAS	100	200
GR(API) - SPERRY SUN	0	100
GR(API) BACKUP - SPERRY SUN	100	200

DEPTH

Curve	Left scale	Right scale
ROP(M/T) - ANADRILL	100	1
SVOB(KDAN) - ANADRILL	0	30
EVR(OHMM) - SPERRY SUN	.2	20
SVOB(KDAN) BACKUP - ANADRILL	30	60
EVR(OHMM) BACKUP - SPERRY SUN	20	2000
DVOB(KDAN) - ANADRILL	0	30
DVOB(KDAN) BACKUP - ANADRILL	30	60
CN(P.U.) - ATLAS	45	-15
CN(P.U.) BACKUP - ATLAS	105	45
DEN(G/CM3) - ATLAS	1.95	2.95
DEN(G/CM3) BACKUP - ATLAS	.95	1.95
CN(P.U.) - SPERRY SUN	45	-15
CN(P.U.) BACKUP - SPERRY SUN	105	45
SFD(G/CM3) - SPERRY SUN	1.95	2.95
SFD(G/CM3) BACKUP - SPERRY SUN	.95	1.95
SFD(G/CM3) BACKUP - SPERRY SUN	2.95	3.95

Lithology descriptions

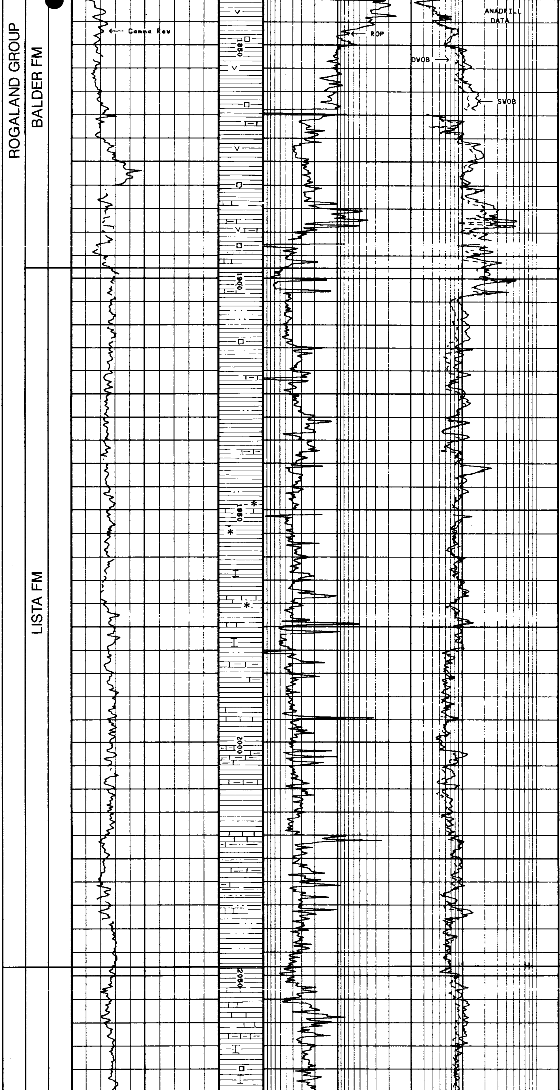


All depths in mMD RKB (mTVD MSL)

ROGALAND GROUP 1821m (1798m)

BALDER FM

Kick off point at 1840m MD



CLYST: med lt gry-olv gry, med dk gry, tr blu gry, loc w/blk specs of tuff mat, frm-mod hd, blky, plty i/p, non calc, tr dism micropyr, sl slty, occ sdy.

TR: lse qtz + chert.

LST: yel brn-yel wh, lt gry, sft-frm, micr.

LISTA FM 1897m (1874m)

CLYST: med gry-olv gry-grn gry, grdg pred med lt gry, blky-plty, grdg amor, non-sl calc, tr glau, tr micropyr, non-sl slty.

LST: v lt gry-lt yel brn, frm, blky, xln-microxln, sl arg in lam+spcs, loc v sl sdy, vfn qtz.

CLYST: bec pred med lt gry, tr olv gry, sft, amor, sl stky, sl calc, pred non slty.

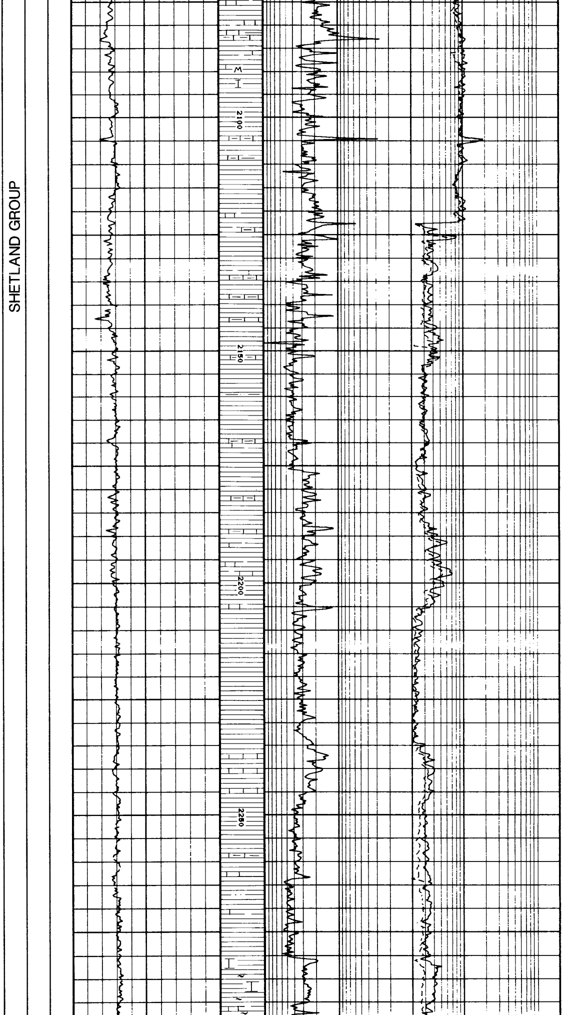
LST: a/a, also clr xln calsite

CLYST: bec incr slty + tr sdy vfn qtz downwards, else a/a.

SHETLAND GROUP 2048m (2023m)

CLYST: dusky yel brn-olv gry, frm-hd, blky, mod calc, loc v calc in thin lam, tr micromic, tr dism micropyr, tr carb frags, non-sl slty.

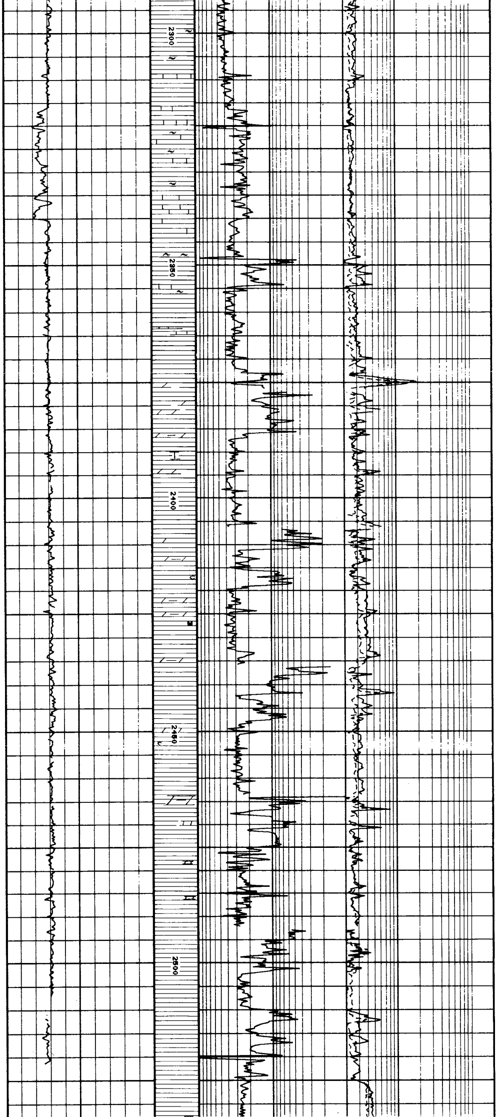
LST: lt-med gry, occ lt orng brn, also clr xln cal, arg, loc grdg mrl.



CLYST: lt gry-med lt gry, lt olv gry, frm, blky, sl-mod calc, tr micropyr, non-sl slty. Also;
rd brn, frm-mod hd, blky, mod-v calc grdg mrl, sl slty.

LST: lt gry, sft, arg, loc grdg to mrl.

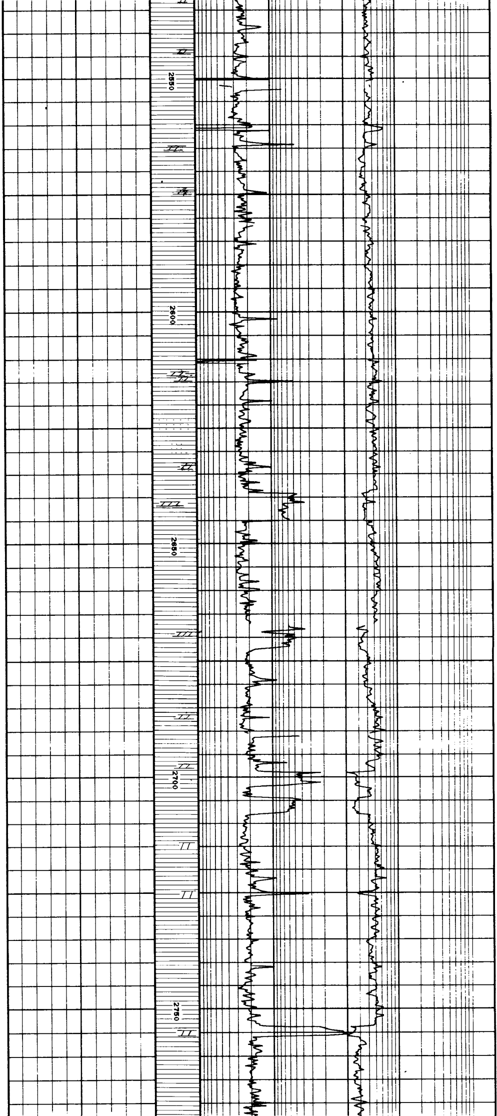
SHETLAND GROUP



DOL/LST: lt-med orng brn, hd, blky, microxln-xln, gen arg, arg/carb seams.

CLYST: bec pred dk grn gry-grn blk, also olv gry, mod hd, blky-plty, bec non calc, tr micromic, tr dism micropyr, sl carb, non-sl slty.

SHETLAND GROUP



CLYST: dk grn gry-grn blk,also
olvgry, mod hd,blky-plty
non calc,tr micromic
tr dis micropyr,tr carb
lam+spks, non-sl slty

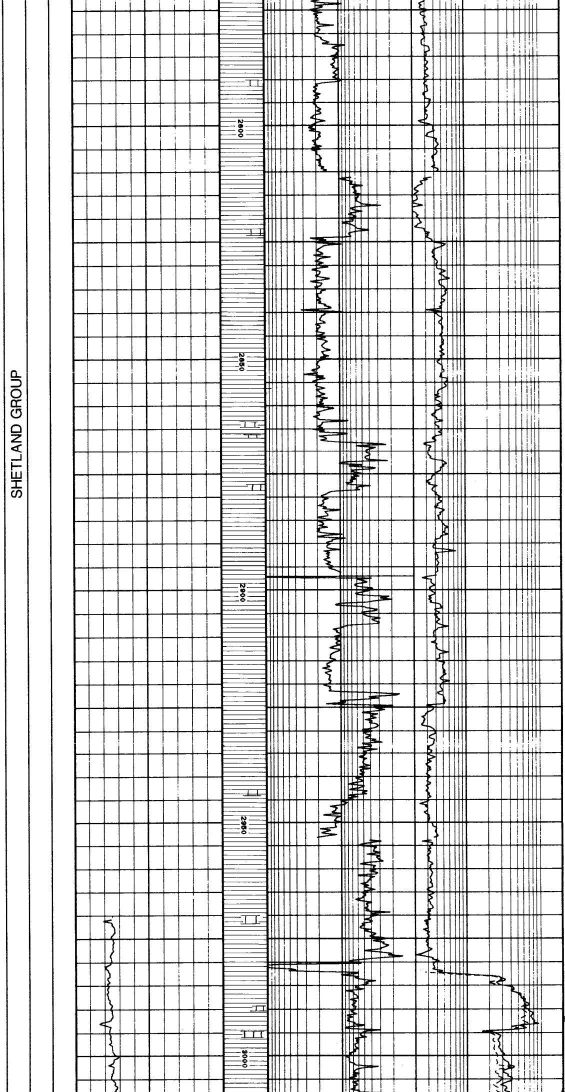
DOL/LST:lt-med orng brn, hd
blky, microxln-xln, arg
w/ carb seams

SD/SST:lt gry, clr qtz, vf-occ f
wll srtd, SA, calc cmtd
no vis por
no shows

CLYST: dk grn gry-dsky yel brn-
brnblk,sft-frm,occ mod hd
blky-plty,non calc
sl slty, tr micromic
tr dis micropyr, tr carb
lam+spks

CLYST: olv gry-med dk gry also
dk yel brn, sft-frm,hydr
stky, blky, non-sl slty
tr micromic,dis micropyr

DOL/LST: lt-med orng gry also
gry wh, frm, blky,arg
microxln-xln, w/carb
seams



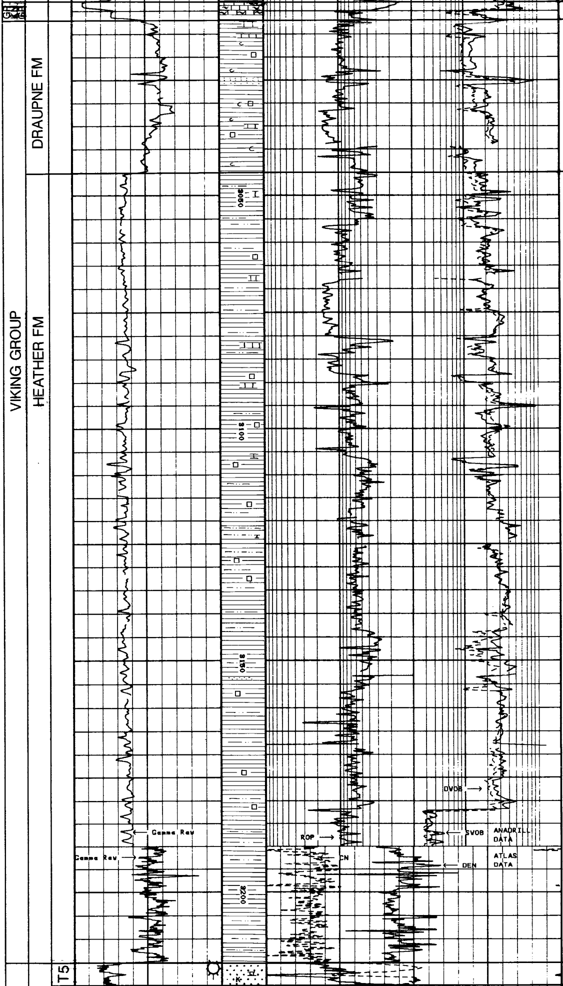
CLYST: olv gry,dk yel brn
occ med dk gry,sft-frm
hydr,stky,blky,occ slty
occ micromic,occ v calc

DOL/LST: yel orng, gry wh, frm
blky, carb seams, arg
occ lam w/dk gry clyst
microxln

CROMER KNOLL GROUP 3008m (2976m)

CLYST: rd brn, sft, occ slty
v calc, marly

LST: yel orng, gry wh, frm-hd
sl-v arg, in gen w/yel brn
coating



VIKING GROUP 3012m (2980m)

DRAUPNE FM

CLYST: dsky yel brn, frm, subfiss shny app, v carb, micromic, non calc, occ slty

SST: med gry, clr-trans qtz vf-f, mod srtd, SA-SR, calc cmtd, no vis por
no shows
prob due to washing of cuttings

HEATHER FM 3045m (3013m)

CLYST: olv gry-med dk gry, also dk grn gry, lt brn gry frm, occ sft, blky occ stky, non-sl calc sl slty-slty, I/P grdg to sltst, micropyr-pyr tr micromic

LST/SPARRY CALC: yel brn-buff hd, xln, fibr

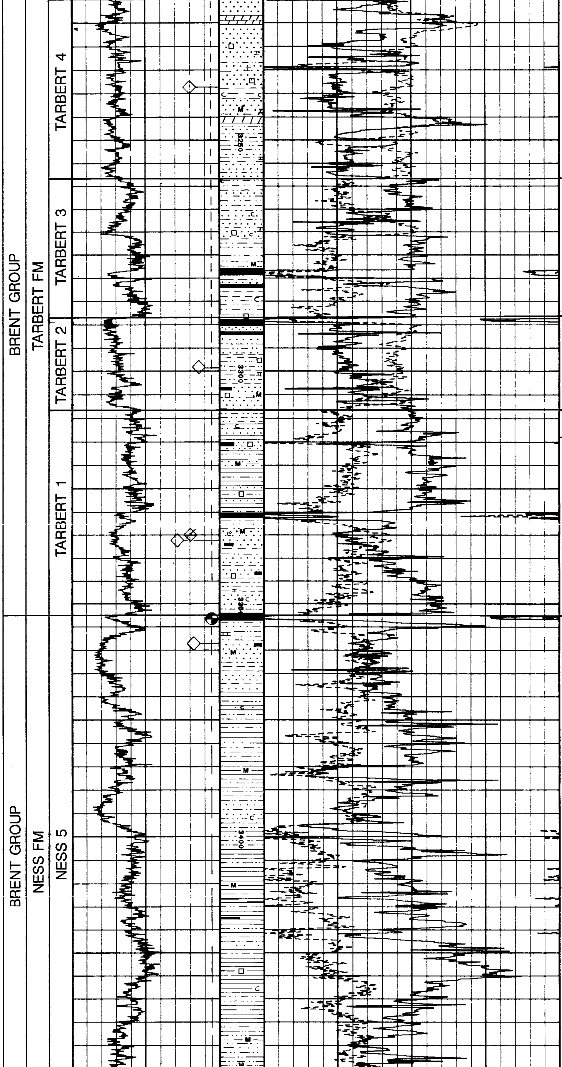
CLYST: olvgry-dk grngry-lt brngry bec olv blk-brn blk occ brnblk and yel brn sft-mod hd, occ stky blky, sl-v slty, sl slty I/P grdg to sltst, pyr

SLT/V F SD/SST: lse clr qtz slt-v f, SA, I/P ltbrn sst v f, wll srtd, SR, wll cmt calc cmtd, micromic
no vis por
no shows
probably caused by washing of cuttings

BRENT GROUP 3215m (3169m)

TARBERT 5

TARBERT 4 3220m (3173m)



SST: lt brngry - yelbrn, vf-med occ crs, get finer w/depth, frm -mod hd, clr-trnsl qtz, occ smky mod srtd, ang-subrnd, I/P slty mtx, I/P w/wh-yelwh kaol mtx I/P dol/calc cmt, also lse sd

SLTST: dk brngry, dk yelbrn lt gry, frm-mod hd, mica, occ micropyr, I/P w/blk carb spks arg I/P grdg to clyst/sh I/P grdg to vf sst, non-sl calc

CLYST: brnblk-gryblk, mod hd blky, occ plty, occ subfiss I/P v carb grdg to arg coal micromic, I/P v micropyr non calc

LST: brngry, grywh, sft- frm v arg, I/P sdy, I/P v dol

COAL: blk, mass, hd, brit, shny

tr pyr

TARBERT 3 3258.5m (3205m)

TARBERT 2 3288.5m (3229m)

SST: yelbrn, occ yelwh, clr-trnsl qtz, v f-med, pr-mod srtd mod hd, calc/dol cmt, also sil smt, slty mtx, I/P arg mtx(kaol) I/P v arg, I/P lse sd, lt brn stn

SLTST: brngry-yelbrn, occ yelbrn - yelwh, else A/A

CLYST: dsky yelbrn-grybrn-gryblk frm-mod hd, I/P v slty grdg to sltst, I/P subfiss-fiss else A/A

TARBERT 1 3308m (3244m)

SST: vf, frm, occ mod hd-hd, mod srtd, I/P grdg to sltst non-sl calc else A/A

COAL: blk, mass, hd, brit, shny

LST: brngry, grywh, sft- frm v arg, I/P sdy, I/P v dol

TR PYR

NESS 5 3352.5m (3276m)

SST: vf-f, cal/sil cmt else A/A

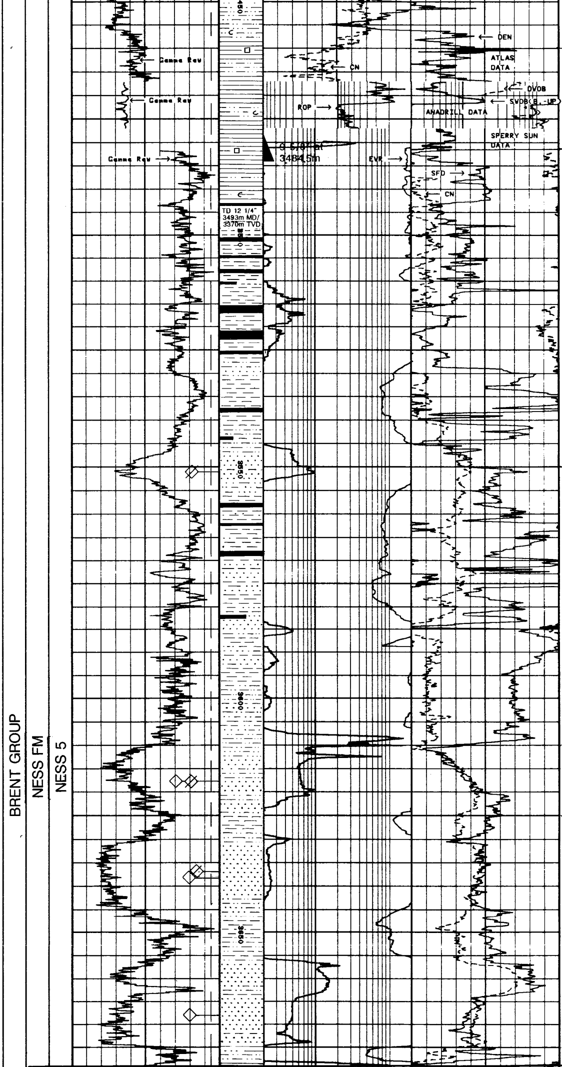
SLTST: brngry-dk yelbrn, occ micropyr, else A/A

CLYST: olvblk-brnblk, occ grybrn -olvgry, mod hd-hd, occ frm

COAL: blk, mass, hd, brit, shny

LST: brngry, grywh, sft- frm v arg, I/P sdy, I/P v dol

TR PYR



SH: brnblk-olvbrn, brngry-yelbrn, mod hd-hd, fiss-subfiss, mnly v carb, I/P grdg to coal, I/P slty and micropyr

COAL: blk-brnblk, hd, brit, shny

TR PYR

INCL. AT 9 5/8" CASING SHOE: 65.5°, AZIMUTH: 317.5°

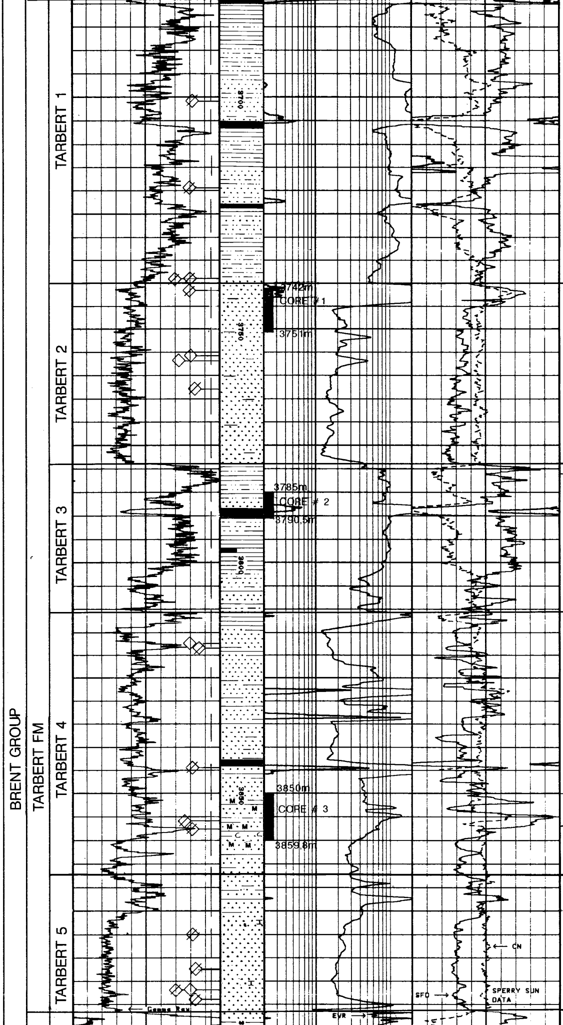
SST: lt gry, clr qtz, vf-f, mod srtd, subrnd, sil cmt, pr vis por, mod hd-fri

SPLICE BETWEEN RLL-RUNS
LOSS OF APPROX. 4m LOG

SLTST: lt gry-olvgry, yelbrn, mod hd, sil cmt, I/P sdy, arg, sl carb

SST: yelbrn-lt gry-grngry, clr qtz, vf-f, mod srtd, subang-subrnd, mod hd, sil cmt, pr vis por

BASE TARBERT 1 3679m (3388m)



BASE TARBERT 2 3740m (3386m)

SST: drkbrn-yelgry, clr-transl qtz, vf-occ f, ang-subang, v arg, I/P sil cmt, mod hd, I/P micromic, occ micropyr

BASE TARBERT 3 3779m (3383.5m)

SH: dk brn-brnblk, I/P org rich, fiss, mod hd, pyr

SST: vf-occ med, else a/a

BASE TARBERT 4 3810.5m (3381.5m)

SST: med yelbrn, occ pa+dk yelbrn, clr-transl qtz, occ brn, occ smky qtz, vf-f, I/P grdg to sltst, mod-wl srtd, subang-subrnd, loc wh arg mtx, occ arg frags+strgrs, I/P v mica, I/P wl sil cmt, occ cal/dol cmt, hd occ frm, pr vis por in gen

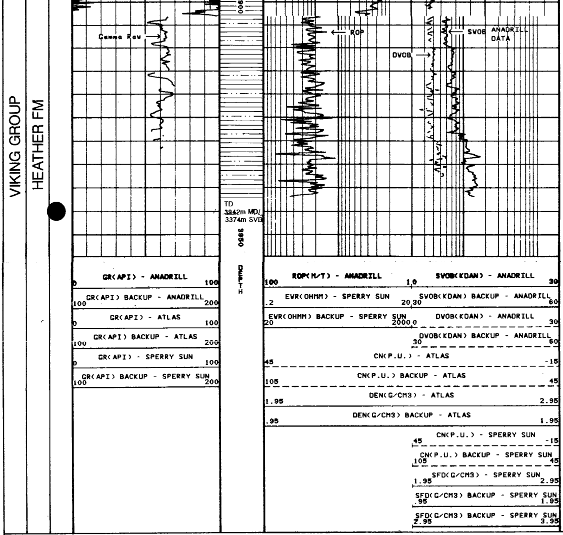
CLYST: varicol, olvgry, brngry, med gry, frm-hd, blky, non calc, I/P v slty, carb seams+spcs

BASE TARBERT 5 3867m (3377m)

SST: bec yel brn, pred clr occ mlky qtz, vf-v crs, pr srtd, subrnd-ang, lse-fri, loc mod arg, I/P sl-mod calc cmt, gen gd vis por

BASE VIKING GROUP 3896.5m (3376.5m)

HEATHER FM



CLYST: brnblk-dk brngry, frm-mod hd, blky, non calc, tr blk carb spcs, tr micropyr, sl slty, loc grdg to sltst

SLTST: lt orngbrn, med gry-lt olvgry, frm-hd, blky, non calc, sl carb in lam, sl sdy vf qtz

Brønn: **34/10-33B**

Kjøring nr nr.:	Målt dyp (m MD BD)	Vert. dyp (mTVD MHN)	Form. trykk (bar)	Hydr.st.trykk (bar)	Kommentarer
3A * (FMT[1])	3894.0				Forseglingsfeil
	3892.5				=
	3887.0				=
	3880.0				=
	3857.5				=
	3856.0				=
	3844.5				=
	3818.0				=
	3763.3				=
	3741.5				=
	3738.5				=
	3719.6				=
	3701.0				=
	3668.0	3388.0	459.90	539.40	God test
	3637.0				Forseglingsfeil
	3618.0				=
	3551.0				FMT-feil feilet
3B	Mislykket kjøring				
3C	3551.0	3369.4	-	-	Forseglingsfeil
	3618.0	3382.9	461.31	541.31	God test
	3638.0	3386.0	460.38	544.34	=
	3668.0	3388.0	459.85	542.21	=
	3738.5	3385.4	(460.8)	543.90	Supercharged
	3756.0	3384.3	456.86	538.44	God test
	3757.0	3384.2	456.91	538.51	=
	3817.5	3380.4	457.56	540.58	=
	3892.0	3376.0	457.56	540.37	Prøvetaking/God
4A (CHFT[2])	3299.5	3237.2	451.86	518.97	Prøvetaking/OK test
4B	3335.0	3263.2	452.62	524.48	Prøvetaking/Lavperm.
4C	3238.0	3188.4	449.28	513.52	Brukbar test
4D	3358.6	3279.1	452.0	530.90	=
4E	3336.1	3263.9	450.58	527.93	=

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* FMT kjørt på borestrengen.

[1] FMT: Formation Multi Tester
[2] CHFT: Cased Hole Formation Tester