SIMON PETROLEUM TECHNOLOGY WELL: 6406/6-1

Print: 5641 M Units: (M) F Top 260 Bottom 4710. Scale 1:500 TD 4715.
Length: 34 FT Initials: [illegible]

DIGITAL WIRELINE LOGS PACKAGE
1994
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SIMON PETROLEUM TECHNOLOGY

COMPLETION LOG

statoil PARTNERS BP, AMERADA HESS

6406/6-1 WELL

ETA PROSPECT STRUCTURE

- 8 JULI 1986
REGISTRERT
OLJEDIREKTORATET

COMPLETION LOG
Scale 1:500

AREA: HALTENBANKEN

LICENCE: PL 105

COORDINATES: 64°43' 48, 23"N
06°42' 14, 69"E

K.B.: 25 m

WATER DEPTH: 243 m (MSL)

TOTAL DEPTH: 4715 m KB

DEEPEST FORM. PEN.: ALDRA FM (HALTEN GP)

SPUD DATE: 15th AUGUST 1985

RIG RELEASE DATE: 31 · 12 · 85

WELL STATUS: PLUGGED & ABANDONED - DRY WITH TRACES OF HC (CRETACEOUS)

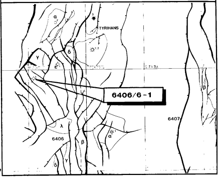
RIG: DYVI STENA

CONTRACTOR: DYVI OFFSHORE

GEOLOGISTS: TVEITEN, ALM, BEYER, CLINT, HAGBY, BJERKNES, BRYANT, ALSTADSÆTHER, LAW, KORNSTAD, SINGH.

PREPARED BY: S. SINGH/T.W. SNÅRE DATE: JUNE - 86

LOCATION MAP



CASING DATA:		LEAK OFF TESTS:
30" at	331 m KB	—
20" at	954 "	1.73 SG
16" at	—	—
13 3/8" at	2393 "	1.85 "
9 5/8" at	4157 "	2.20 "
7" at	4703 (top @3999)	—

VELOCITY SURVEY:

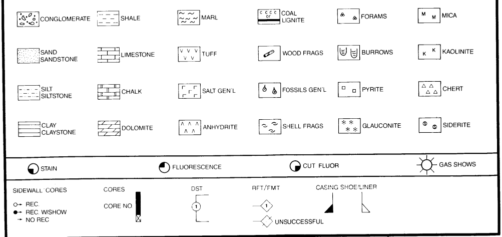
LOGS RUN CONTRACTOR: SCHLUMBERGER

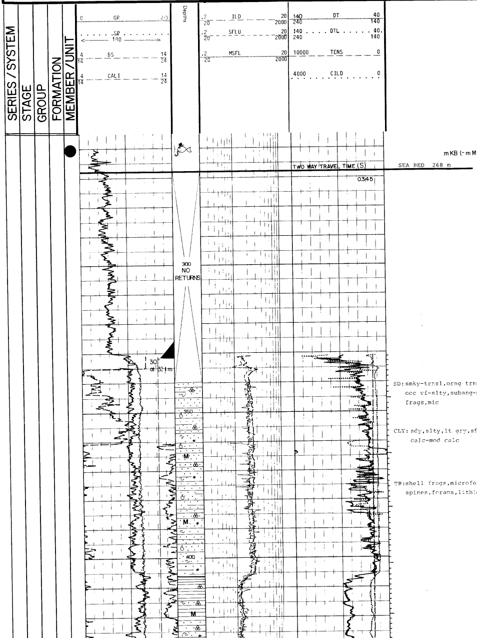
ISF-LSS-MSFL-GR	LDL-CNL-GR	DLL-MSFL-GR	CST-GR	CBL-VDL-GR-CCL	RFT	SHDT-GR
1A: 963 - 331 m 2B: 2413 - 954 m 3C: 4164 - 2392 m 5D: 4705 - 4155 m	1A: 964 - 331 m (NO CNL) 2B: 2414 - 953,5 m (NO CNL) 3C: 4164 - 2392 m 5D: 4706 - 4155 m	3A: 4161,5 - 3831 m	3A: 4155 - 4000 m 3B: 3969,9 - 2475 m 5C+5D: 4685 - 4420 m	3A: 2390 - 380 m 5B: 4150 - 2000 m 6C: 4711,5 - 3980 m	3A: 3899,1 - 3894.8 m 4B: 4215 - 4211 m 5C: 4680 - 4211 m	5A: 4705,6 - 4154 m
		NGS			RFT-HP-GR	
		3A: 4164 - 2392 m 5B: 4706 - 4155 m			3A: 3899,1 - 3894,8 m	

COMMENTS:

1. FINAL POSITION WAS 50,0 m N 042°E FROM PROPOSED LOCATION ON SEISMIC LINE HBGS 83-462 SP 1389
2. POSSIBLE SHALLOW GAS ENCOUNTERED 745 - 753 m, PEAK 1% (BG 0,4%). ONLY LOG INDICATOR: SONIC CURVE.
3. DUE TO TECHNICAL PROBLEMS THE WELL WAS STOPPED AT 4715 m KB (TD)

LITHOLOGICAL SYMBOLS

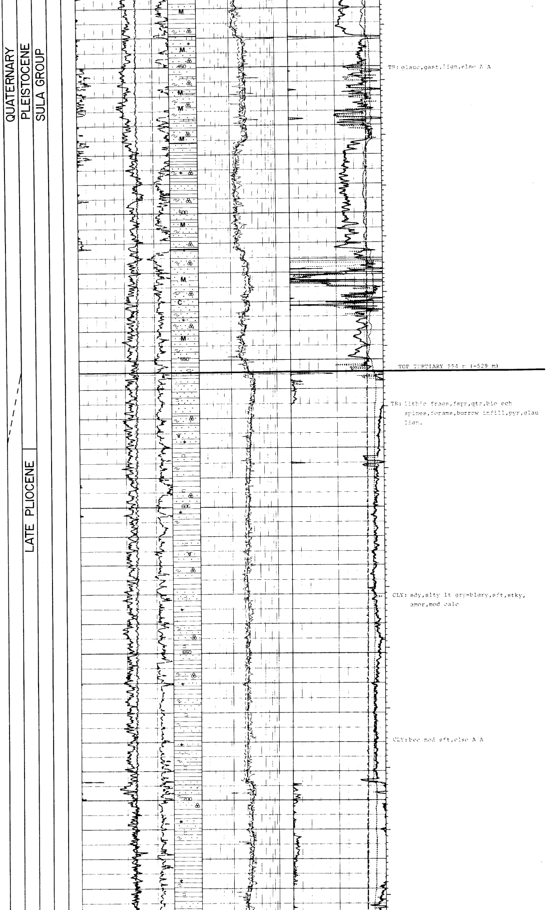




SD: smky-trnsl, orng trnsl, qtz f-vcrs, occ vf-slty, subang-subrnd, lithic frags, mic

CLY: sdy, slty, lt gry, sft, stky, amor, calc-mod calc

TR: shell frags, microfoss, ech spines, forams, lithic frags, meta



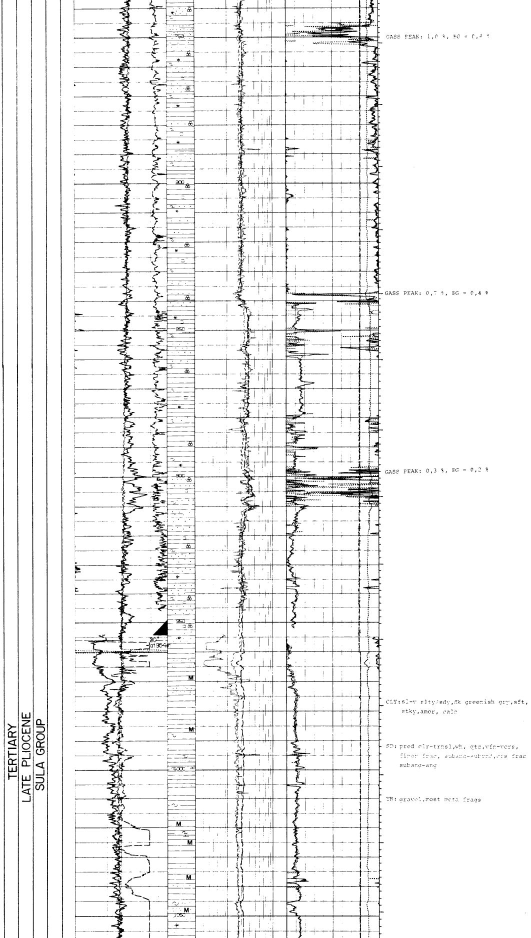
TR: glauc,gast,lign,else A/A

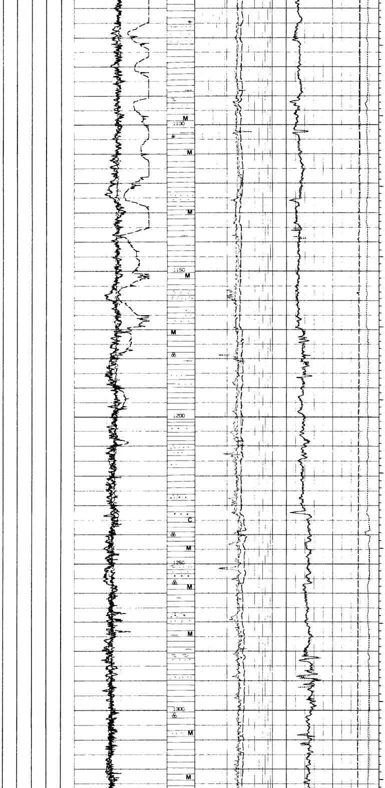
TOP TERTIARY 554 m (-529 m)

TR: lithic frags,fspr,qtz,bio ech
spines,forams,burrow infill,pyr,glau
lign.

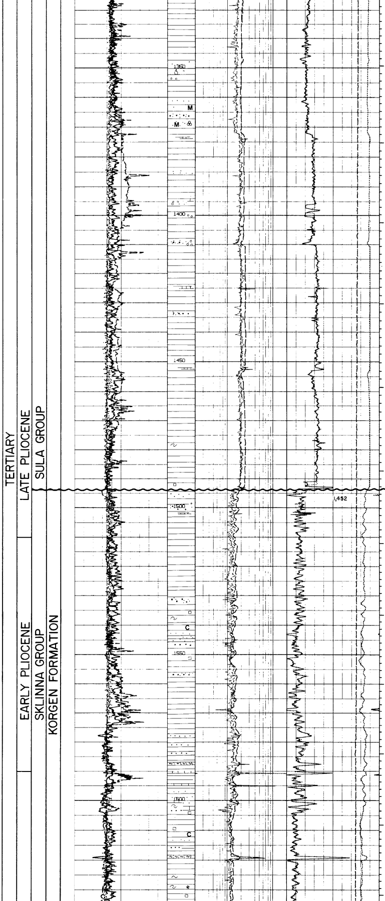
CLY: sdy,slty lt gry-blgry,sft,stky,
amor,mod calc

CLY: bec mod sft,else A/A





CLY: sl-v slty.sdy,dk greenish gry,
sft,stky,amor, calc



SD/GRAVEL:
clr-trnsl qtz,meta frags,
med-v crs,occ vfn-med, occ gravel,
subang-ang,lse floating grns

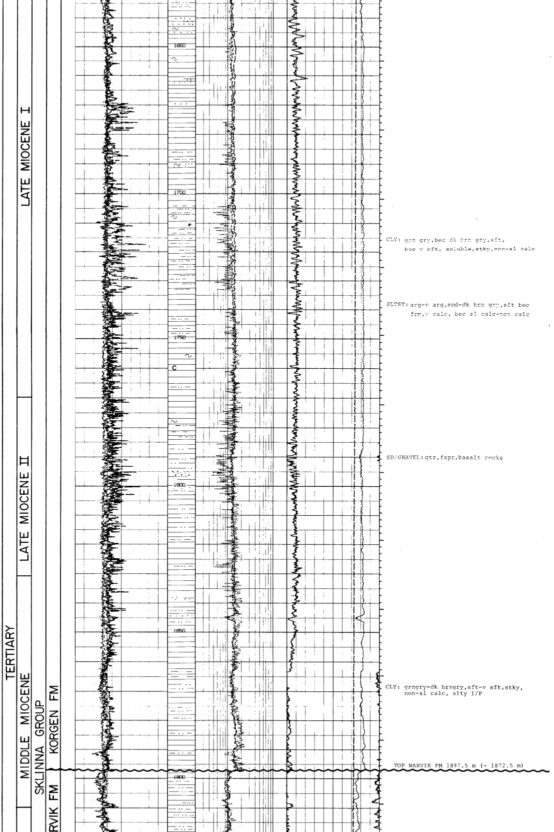
TOP SKLINNA GROUP 1493.5 m (-1468.5 m)

SD: pred clr-trnsl qtz,occ meta frags,
med-v crs,occ vfn-med, minor gravel,
subang-ang, lse grns

CLY: med grygrn- sl brn,sft,hydr,slty,
amor,sl calc

SD: clr-wh-ltgry,trnsl,qtz,pred crs,
pr srtd,subang

LST/MARL: lt gry,hd,ang, I/P aren



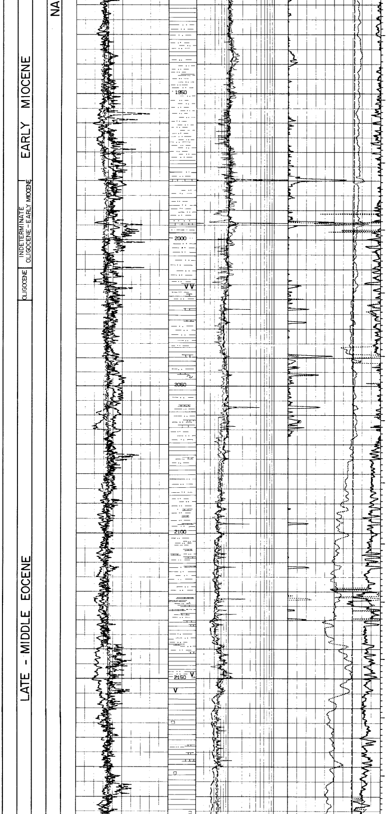
CLY: grn gry,bec dk brn gry,sft,
bec v sft, soluble,stky,non-sl calc

SLTST: arg-v arg,mod-dk brn gry,sft bec
frm,v calc, bec sl calc-non calc

SD/GRAVEL: qtz,fspr,basalt rocks

CLY: grngry-dk brngry,sft-v sft,stky,
non-sl calc, slty I/P

TOP NARVIK FM 1897.5 m (- 1872.5 m)



SLTST: v arg,grdng to clyst,med-dk
brn gry,frm,micromic,non-sl calc

CLY: dk brnsh gry,sft-v sft,amor,
non-sl calc

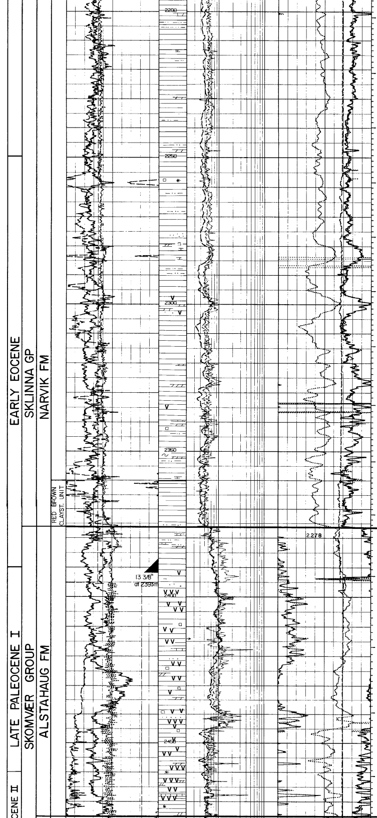
TR TUFF: sft,lt orng brn,dk spckld,sl calc

LST: wh-lt brn-brn,arg,frm-mod hd,
occ sft,occ microxln

CLYST/CLY:
med gry, brn wh,frm,blky,
lign spckld I/P,occ grdng to sltst,
hydr I/P,non-sl calc

LST: A/A, occ suc, occ dol

CLYST: pred grn gry,frm, blky-subfiss,
non calc,occ grn gry, slty,frm,blky
sl pyr, foss frags,tuff I/P



CLYST: med- dk brn gry,sft, hydr, stky "gumbo"

TUFF: wh-lt gry,lt brn gry,sft,drk spckld

DOL: lt brn, lt olv grn,suc,hd

CLYST/CLY:
pred grn gry,frm,occ frm-sft, subfiss-blky,non calc, also brnsh gry,occ slty,A/A,and med-dk brn gry, sft,hydr,amor,sl stky,"gumbo", pred non calc

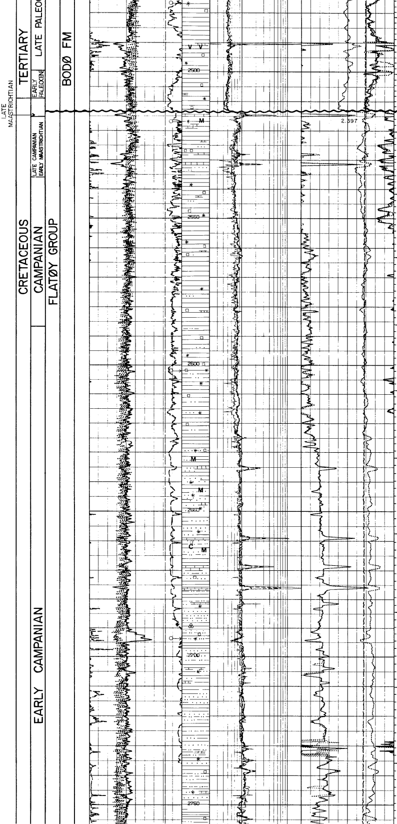
FROM 2360 m:
CLY/CLYST: brnsh rd brn,sft-frm,bec frmr,sl calc swlg,also lt grnsh gry, occ mod gry

TOP SKOMVÆR GROUP 2376 m (-2351 m)

TUFF/TUFFACEOUS CLYST:
pa grn gry-grn gry,lt-dk gry,arg, frm,blky,non hydr,non calc

CLYST:
med brn gry,pa grn,lt gry,sft-frm, blky-subfiss,sl calc,micromic, micropyr,glau, I/P tuff

TOP BODØ FM 2475 m (-2450 m)



CLY: lt gry-pa grn gry,sft,hydr,stky

TOP FLATØY GROUP 2513.5 m (-2488.5 m)

CLYST:
lt-mod brn orng brn-rd brn,sft-frm,
blky,sl-v calc,mrly,cal xls,
glau,mic

LST: wh-crm,frm,occ mod hd,microxln

CLYST/CLY:
lt-med gry,wh gry-lt brn,bl gn
sft-frm bec v sft,stky,soluable,sl
micromic,pred non calc, sl slty I/P,
blky-subfiss,pyr,glau

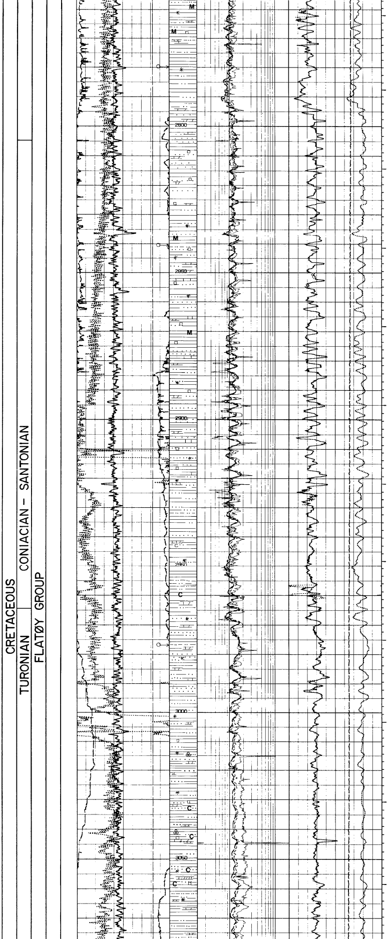
CLYST/SLTST:
lt gry,frm,blky-subfiss,micromic,
glau,sl calc

SST: clr-wh-lt gry,occ med gry,vfn-fn,
with crs-vcrs clr lse grns,subang-
subrnd,lse grns rnd,wll-mod srtd,
lt silic/calc cmt,fri-frm,glau,
grdng to SLTST: med-dk gry, lamin
w/vfn sst layers,frm-mod hd,sli mic,
glau,non calc

CLY/CLYST:
med gry-dk gry,occ pa gn-gn gry,
lt gry,sft,amor,occ frm,blky,non
calc,slty I/P

SLTST/GRDNG TO VFN SST:
lt-med gry,subang,wll srtd,frm, arg
mtx,non calc,glau,pr vis por

CLYST/CLY:
pred lt gry-med gry,tr pa gn,dk gry
blk,rd brn,sft plas,occ frm,
blky,non calc,slty to v slty

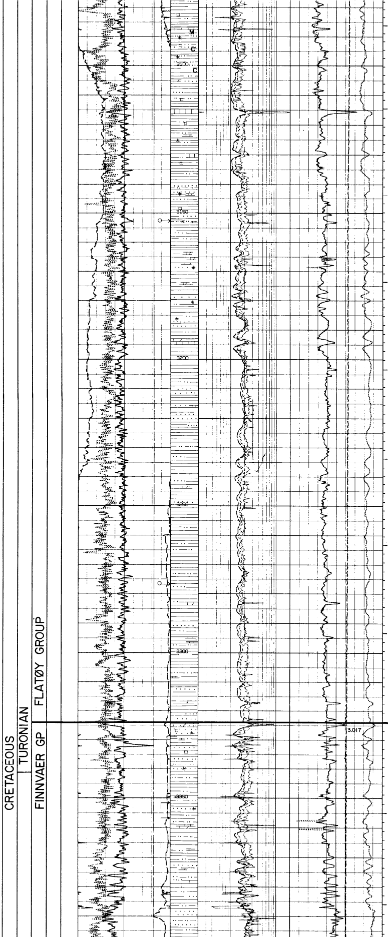


SST: wh-lt gry,lt brn,vfn-fn,occ lse med
grns,mod srtd,fri-calc cmt,glau

CLYST:
lt-med gry,gn-gn gry,occ rd brn,
v occ tr purpl brn,sft,amor,
stky,occ frm,blky,sl-occ mod calc,
slty I/P,micromic

SLTST: brn-gry,sft,frm,blky,lam,calc

SST: clr-wh,vfn,subang,v w srtd,light
cal cmt,fri,lam (clr/wh),w/flakes
carb mtx + mic,occ clr lse qtz,
fn-med ang-subang



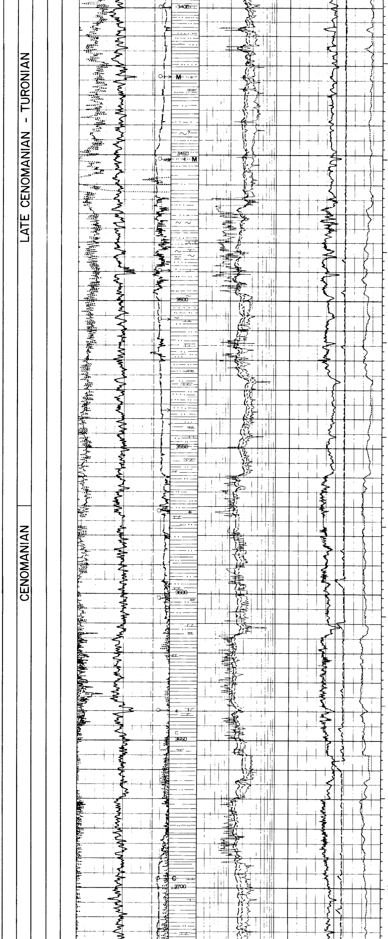
CLYST: lt-med gry,occ med gnsh gry,frm
occ mod hd,blky,partly soluable
I/P,occ subfiss,sli cal I/P,grds
to sltst,sdy,micromic

TOP FINNVÆR GROUP: 3324 m (3299 m)

SST: clr-mlky qtz,med-crs,mod srtd,
ang-subang,v hd,cal cmt,no v-pr vis
por,glau I/P

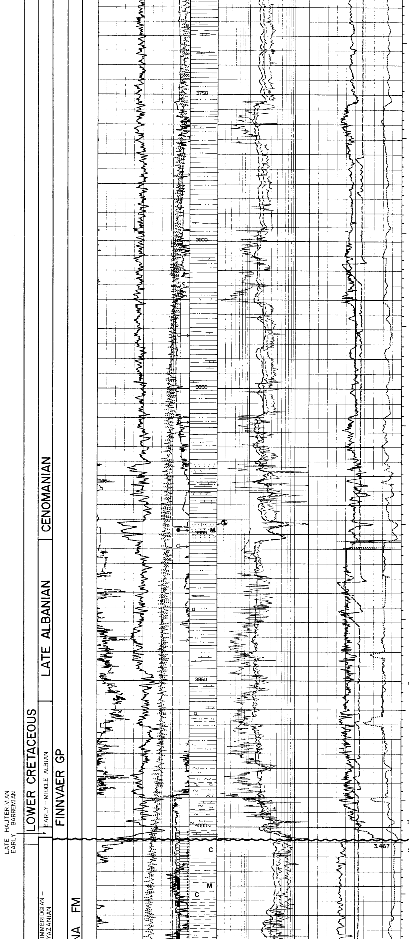
CLYST:
med gry,lt-dk gry,sft-frm,blky,
non-sl calc,slty-sltst,occ sdy,pyr

LST/DOL: crm-yel brn,frm,sdy



CLYST:
med gry-med brnsh gry,tr wh-wh gry,
sft-frm,blky,slty,mrly I/P
(or acid-reactive drill mud ?)

LST:lt yel gry,mod hd,blky,arg



CLYST:
pred med gry-med dk gry,frm-occ mod hd, blky-occ fiss,bcm incr shly w dpth, non calc,also med-lt gry lt ol gry,sft-frm,cmby,pred non calc-occ mod calc,and tr grn-gry,frm,subfiss,non calc

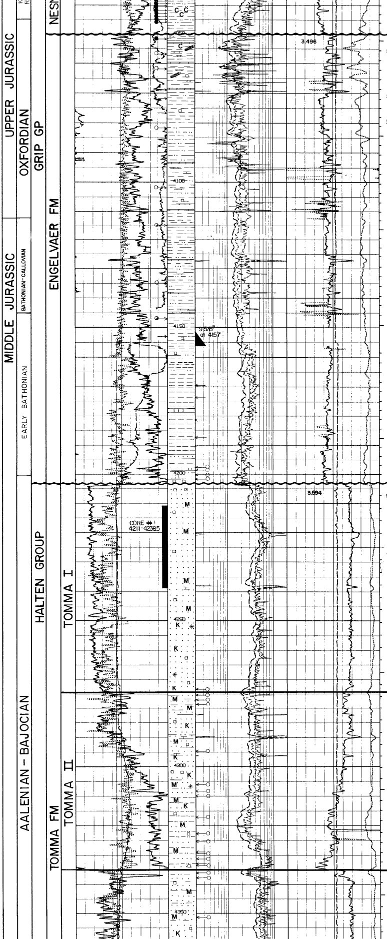
SST/CALCARENITE:
wh-v lt gry,clr qtz,wll-mod srtd,pred fn-med,subrnd-subang, frm,calc and arg cmt,mic,glau, also tr slty-vfn and crs-v crs grns

CLYST:
pred med gry,also med lt gry,lt olv gry,blgry,pale-mod rd brn,frm-sft, cmbly I/P,non-calc

LST/MARL:wh-lt gry,lt brn,frm-sft, arg,microxln-xln

TOP NESNA FM: 4004.5 m (-3979.5 m)

SH: dusky yel brn,dk gry-blk,med gry, frm-mod hd,blky-subfiss,occ fiss, occ slty,bec v slty w/occ vfn qtz, non-sl calc,carb,mic-v mic



TOP ENGELVÆR FM: 4050 m (-4025 m)

SH: med gry-dusky yel brn,dk gry brn-
med brn,med-dk brn gry,frm-hd,blky-
subfiss,silic,non-sl calc,occ
dolmtc,sl micromic-v micromic,slty-
v slty, pyr

SILSTONE: med gry-med brn,mod hd-hd,mass,
sl mic,non-mod calc,sl carb,pyr

LST/DOL:
lt gry-crm,dk yel brn,wh,hd-v hd,arg

TOP TOMMA I FM: 4203.5 m (-4178.5 m)

SST: qtz,clr-trnsl,pred med occ crs,
occ fn,subrnd-rnd,mod w-srt,
mod-w silic cmt,occ cal cmt,
kaol,mic and pyr

TOP TOMMA II FM: 4274.5 m (-4249.5 m)

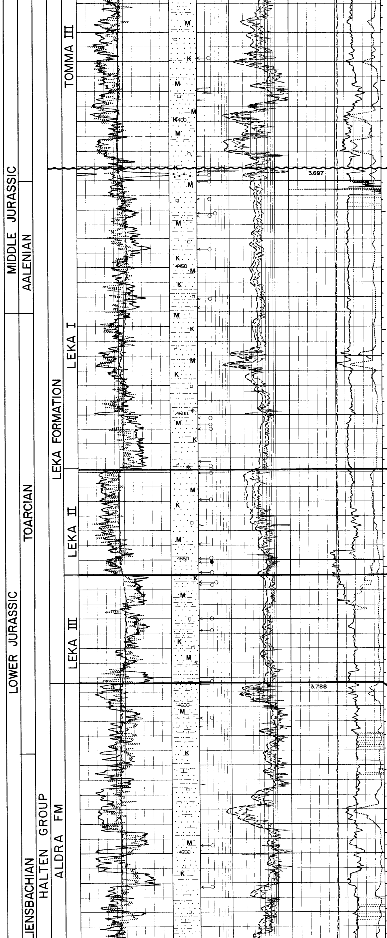
CLYST: blk,blky-subfiss,micromic

SLTST: lt-dk gry,frm-sft,blky-subfiss,calc
cmt,occ silic cmt,arg,micromic

SST: clr-trnsl,med-fn,subang-rnd,wll srtd
hd,pred silic cmt,fair-pr vis por,
kaol,pyr

TOP TOMMA III FM: 4335 m (4310 m)

SST: clr-trnsl qtz,med-fn subang-subrnd,
mod-wll srtd hd,silic cmt-sl/mod
calc cmt kaol mtx



TR: pyr,mic

TOP LEKA I FM: 4416 m (-4391 m)

SST: qtz,clr-wh,fn-med occ vfn,
occ crs,var mod-pr srtd,subang-
subrnd,frm-hd,mod-wll silic cmt,occ
cal cmt,kaol,mic,pyr,fair-pr vis
por

SLTST: lt-dk gry,frm-hd,blky,slty,micromic,
arg,non-sl calc

TOP LEKA II 4519 m (-4494 m)

SST: qtz,clr,fn-crs,subang-subrnd,mod
srtd,mod silic cmt,mod hd-fri,kaol
mic,pyr

TOP LEKA III FM: 4555.5 m (-4530.5 m)

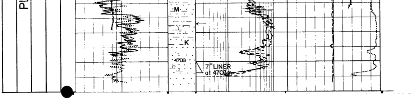
SST: qtz,clr,wh,pred vfn,mnr med-crs,
mod srtd,wll silic cmt,kaol,pyr,
glau,mic

SLTST: dk gry,rd-brn,blky,arg,frm,non calc,
micromic

TOP ALDRA FM : 4592 m (.4567 m)

SST: qtz,clr,pred med partly w/vfn-fn,
prtly crs-v crs,mod srtd,subang-
subrnd,mod-wll silic cmt,prtly also
cal cmt,fair-pr vis por,kaol,mic
sl pyr

SLTST: dk gry-blk,frm-hd,non calc,arg,
micromic,pyr



TD 4715 m RKB

SUMMARY OF RFT RESULTS

Three RFT runs were performed in well 6406/6-1.
All readings are from HP-gauge.

	Depth	Hydrostatic pressure	Formation pressure	Comments
	m RKB	kpa	kpa	
RUN 3A	LOWER CRETACEOUS			
	3894.2	68262		Seal failure
	3894.8	68260		Tight formation
	3895.2	68287		Tight formation
	3896.0	68310		Tight formation
	3896.7	68329		Tight formation
	3897.0	68353	64993	Good permeability
	3897.2	68382	65013	Good permeability
	3897.3	68408		Tight formation
	3899.0	68493		Seal failure
	3899.1	68499		Seal failure
	3897.1	68513	65155	Low permeability
	3897.2	68289		Seal failure
	3896.9	68301		Seal failure

Tried to sample at 3879 and 3897.2 m RKB, failed both places due to plugging.

Filled 2 3/4 gal chamber at 3897.1 m RKB, filled with mud due to seal failure during sampling.

RUN 4B	TOMMA I			
	4211.0	74132	72547	Fair permeability
	4215.0	74188	72540	Fair permeability
	No samples taken.			
RUN 5C	TOMMA I			
	4211.0		72565	Low permeability
	4235.0		72931	Low permeability
	4253.5		-	Tight formation
	4255.0		-	Tight formation
	TOMMA III			
	4408.0		74661	Fair permeability
	LEKA			
	4483.0		75413	Fair permeability
	4523.0		76357	Low permeability
	4539.0		74522	Low permeability
	4552.0		-	Tight formation
	ALDRA			
	4593.2		76909	Low permeability
	4635.0		77736	Low permeability
	4637.0		77695	Low permeability
	4679.5		-	Tight formation

Filled sample chamber at 4212 m RKB, filled with mud due to seal failure while sampling.