SLEIPNER VEST

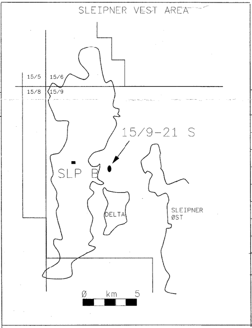
WELL: 15/9-21 S

COMPLETION LOG

STATOIL

Scale 1 : 500

LOCATION MAP



GENERAL:

License:	PL 046
Field:	SLEIPNER VEST
Slot No:	11
Platform Centre UTM Coordinates :	6 476 101.205 mN 425 099.229 mE
Slot Offset :	3.02 m N 0.12 m E
Well type:	HUGIN OIL APPRAISAL
RT- MSL:	48 m
Water Depth:	108 m
Total Depth:	5126 mMD
Deepest Formation:	SLEIPNER
Date Drilling Start:	23.03.98
Date at TD:	15.05.98
Logging Finished:	19.05.98
Well Completed:	Plugged and Abandoned, 23.05.98

CORES:

No.	INTERVAL (mMD)	CUT(m)	RECOVERED (%)
1	4747 - 4753	6	87.5
2	4753 - 4784	31	101.5
3	4784 - 4816	32	96.9
4	4816 - 4843	27	100

PERFORATED TEST INTERVALS:

None

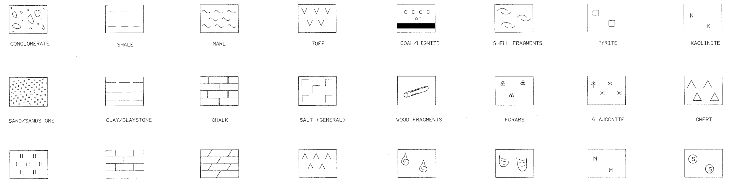
CASING AND FORMATION INTEGRITY:

32"	at	265.8 mMD / 265.8 mTVD	No test performed
18 5/8"	at	501.3 mMD / 500.61 mTVD	LOT: 1.65 SG EMW
13 3/8"	at	2248.0 mMD / 2045.5 mTVD	FIT: 1.75 SG EMW
9 5/8"	at	3451.8 mMD / 2822.9 mTVD	FIT: 1.75 SG EMW

LOGGING WITH MWD AND WIRELINE

LOG TYPE	No.	INTERVAL (mMD)	DATE	COMMENTS
CDR/MWD 17 1/2" SECTION CDR/MWD 12 1/4" SECTION	1 - 2 3 - 5	506 - 2236 2236 - 3439	26/03/98-31/03/98 05/04/98-16/04/98	ANADRILL - MWD ANADRILL - MWD
CDR/MWD 8 1/2" SECTION	6 - 13	3439 - 5118	20/04/98-15/05/98	ANADRILL - MWD
TTRM/DGR/MAC/HDIL CHT/GR/FMT/TTRM/DSL/CN/ZDL/HEXDIP	1A 1A	4272 - 5125 4272 - 5120	15/05/98-16/05/98 17/05/98-19/05/98	WESTERN ATLAS - WIRELINE WESTERN ATLAS - PCL (CN failed-no neutron log)

LITHOLOGICAL SYMBOLS



SILTSTONE LIMESTONE DOLOMITE ANHYDRITE FOSSILS (GENERAL) BURROWS MICA SIDERITE

SIDEWALL CORES
○→ NO REC
●→ REC
3.5→ REC IN CM

CORES ①

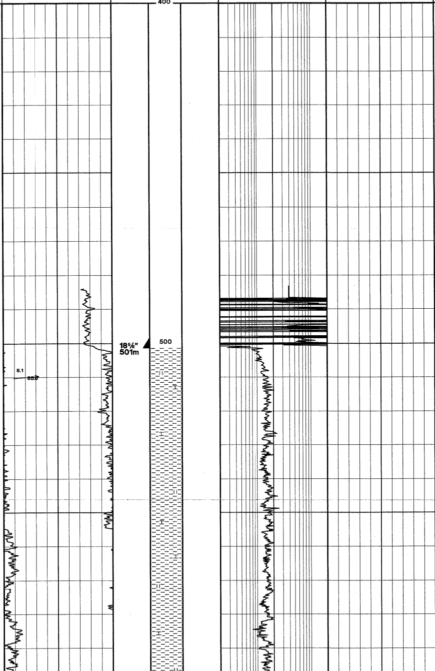
PERFORATIONS

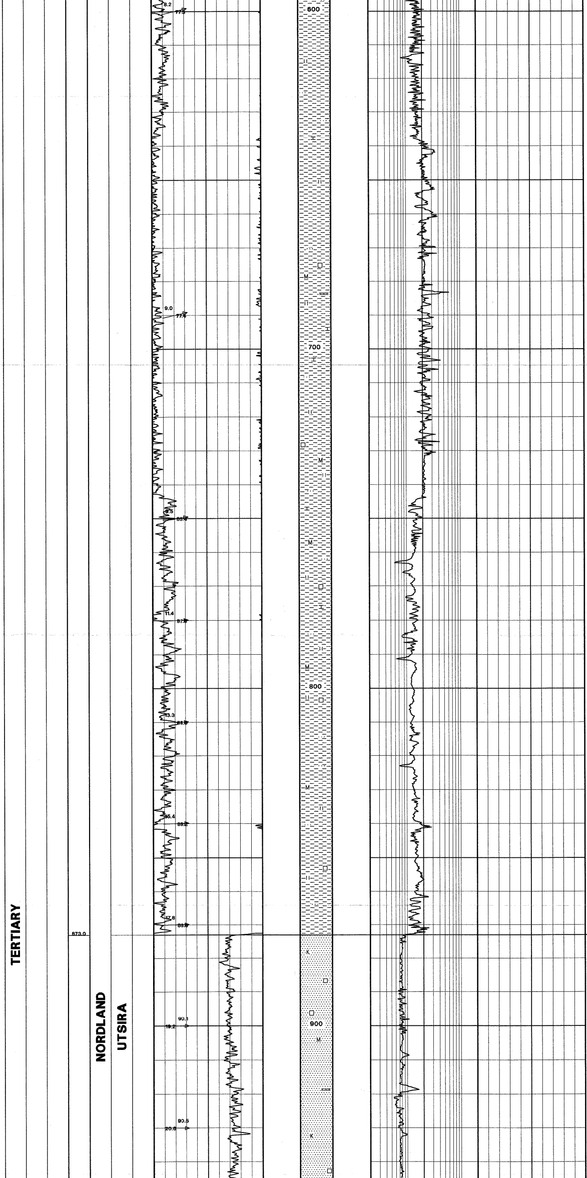
RFT/FMT
←①
←① SAMPLE

CASING SHOE/LINER

DEVIATION DATA
INCLINATION / AZIMUTH
84.7
42.1

Chron Strat				Litho Strat			Well Log				Lithological Descriptions
System	Series	Stage	Depth	Group	Formation	Depositional Environment	GR(API) 0 150		RT(ohm-m) 0.20 20	RHOB(g/cc) 1.95 2.95	
QUATERNARY											CLAYSTONE: med dk - dk gry, occ brnsh gry, sft, plas, sbblky - amor, stky, slily slty, mod - v calc, Tr C CLAYSTONE: slily - mod calc, else a.a.





CLAYSTONE: med dk - dk gry, occ brnsh gry, sft, plas, sbblky - amor, stky, slty - sdy, mod - v calc, Tr Mic, Tr Pyr, Tr C, Tr Ls

Tr SANDSTONE: clr Qtz Gr, v f - f, sbang, wl srt, gen lse but occ Sil cmt, mic, occ dk Cotg, pr vis Por

CLAYSTONE: pred olv gry - brnsh gry, occ med - dk gry, sft, plas, sbblky - amor, occ stky, slty - sdy, slily - mod calc, Tr Mic, Tr C, Tr Ls, Tr Sst

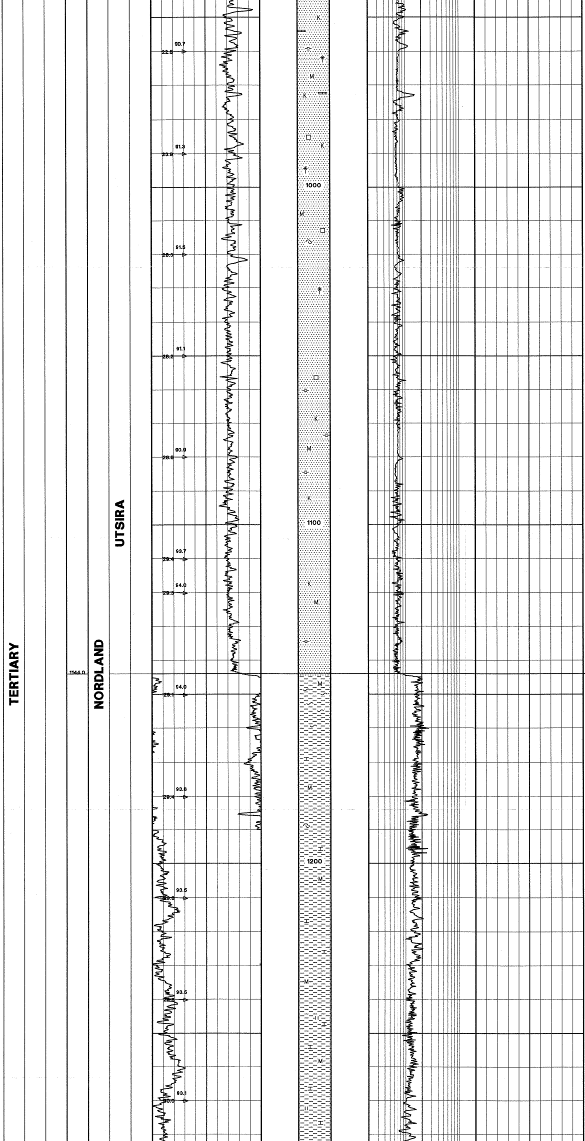
CLAYSTONE: olv gry, occ med dk gry, sft, amor, slty I.P., calc, micromic, Tr Sd, r Tr Ls

CLAYSTONE: olv gry - dk gnsh gry, occ med dk gry, sft, amor, stky, slty I.P., calc, Tr Sd, Tr Mic, Tr Pyr, Tr C

UTSIRA FORMATION
873.0 mMD (818.0 mTVD MSL)

SANDSTONE: clr Qtz Gr, f - med, crs, sbang - sbrndd, mod srt, pred lse but occ kao Mtrx, Tr Mic, Tr Pyr

LIMESTONE: yelsh gry, hd, occ sft, blky, microxln



SANDSTONE: clr Qtz Gr, f - med, occ crs, sbang - sbrndd, mod srt, pred lse but occ kao Mtrx, occ lt olv gry - olv gry Cl Mtrx, Tr Glauc, r Mic, Tr Pyr

SANDSTONE: clr Qtz Gr, f - med, crs, sbrndd - rndd, occ sbang, wl - mod srt, pred lse, occ calc Mtrx, occ Cl Mtrx, Tr Mic, Tr Pyr, Tr Glauc, Tr Microfoss

SANDSTONE: clr - trnsl Qtz Gr, v f - f, occ med, sbrndd - wl rndd, v wl srt, abd lt brnsh gry - med gry Cl Mtrx, sft, calc, occ kao Mtrx, Tr Mic,

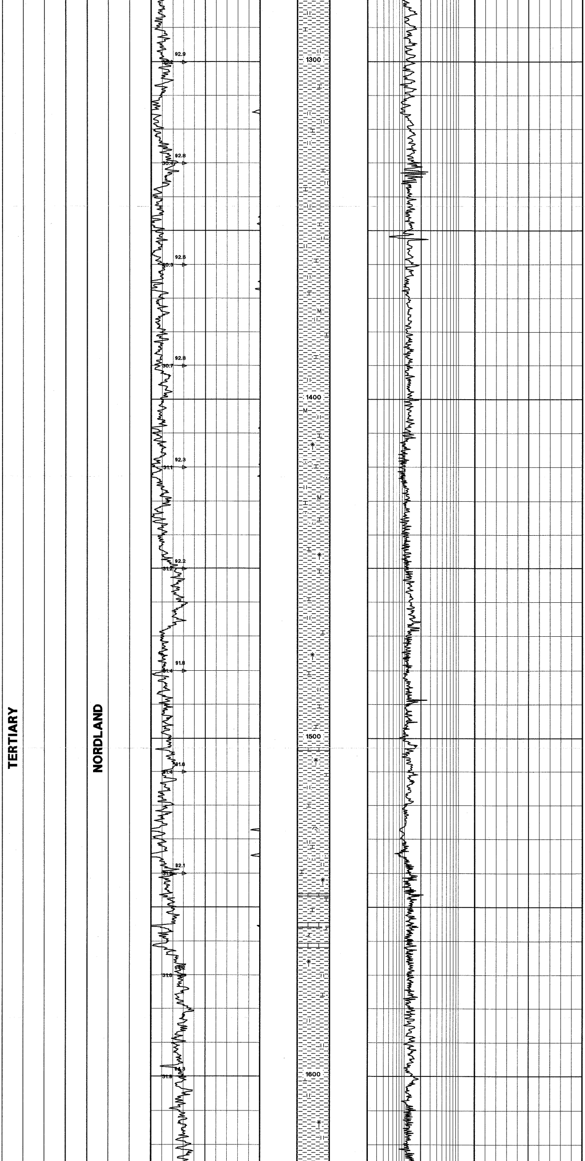
Base of Utsira Formation
1144 mMD (1063.4 mTVD MSL)

CLAYSTONE: olv gry, sft, plas, amor, stky, slty - sdy I.P., calc, micromic, Tr Ls

MARL: med lt gry, sft, amor, micromic I.P.

CLAYSTONE: olv gry, sft, plas, occ firm, amor, stky, calc, micromic, Tr Ls, r Microfoss

CLAYSTONE: olv gry - brnsh gry, occ dsky yelsh brn, sft, amor, slty I.P., calc - v calc, Tr Ls



CLAYSTONE: olv gry - brnsh gry, occ dsky yelsh brn, sft, amor, slty & grad to Sltst, calc - v calc, Tr Ls

CLAYSTONE: olv gry - brnsh gry, occ dsky yelsh brn, occ gnsh gry, sft, amor, slty I.P., calc - v calc, Tr Ls, Tr Mic

CLAYSTONE: olv gry - brnsh gry, occ dsky yelsh brn, occ gnsh gry, sft, occ firm, stky I.P., amor, slty - sdy I.P., calc - v calc, Tr Ls, Tr Glauc

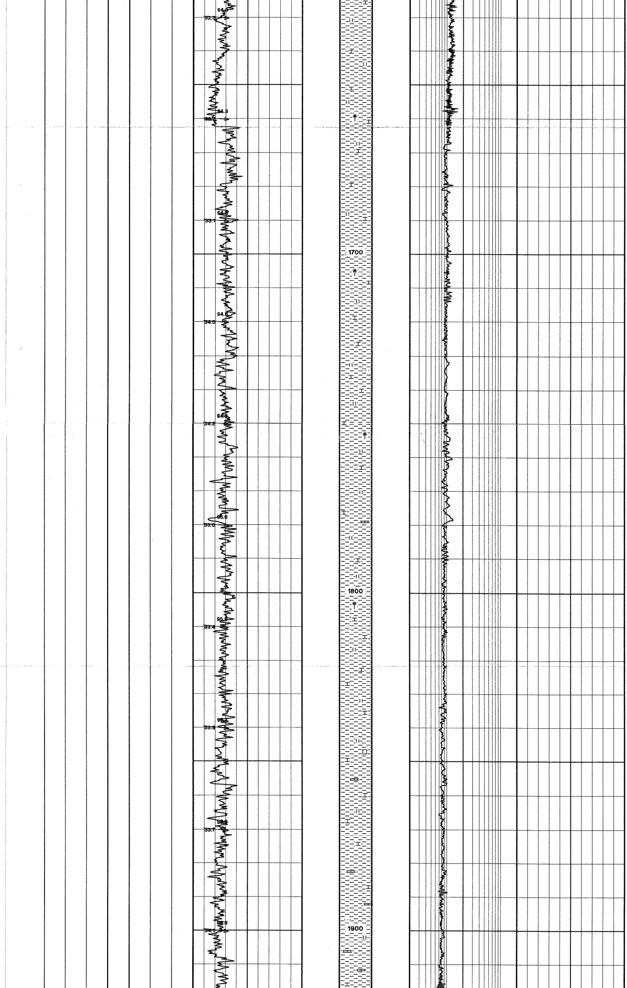
LIMESTONE: mod - dk yelsh brn, hd, blky, microxln

CLAYSTONE: olv gry - brnsh gry, occ dsky yelsh brn, occ gnsh gry, sft, occ firm, amor, occ sbblky, slty - sdy I.P., occ grad to Sltst, non - slily calc, Tr Ls, r Dol, Tr Glauc, Tr Micopyr, r Foss

LIMESTONE: pa brn, lt gry, dk yelsh brn, sft, occ v hd, amor - sbblky, occ blky, microxln - crpxln, dol I.P., slily arg I.P.

DOLOMITE: mod yelsh brn, v hd, blky, microxln

CLAYSTONE: yelsh brn, occ olv gry - brnsh gry, firm occ sft, sbblky, occ amor, stky I.P., slty, v slty I.P., slily - mod calc, Tr Ls, Tr Glauc



CLAYSTONE: pred olv gry - brnsh gry, occ dsky yelsh brn, firm occ sft, sbblky - blky, occ amor, stky I.P., slty, v slty I.P., calc - v calc, Tr Glauc

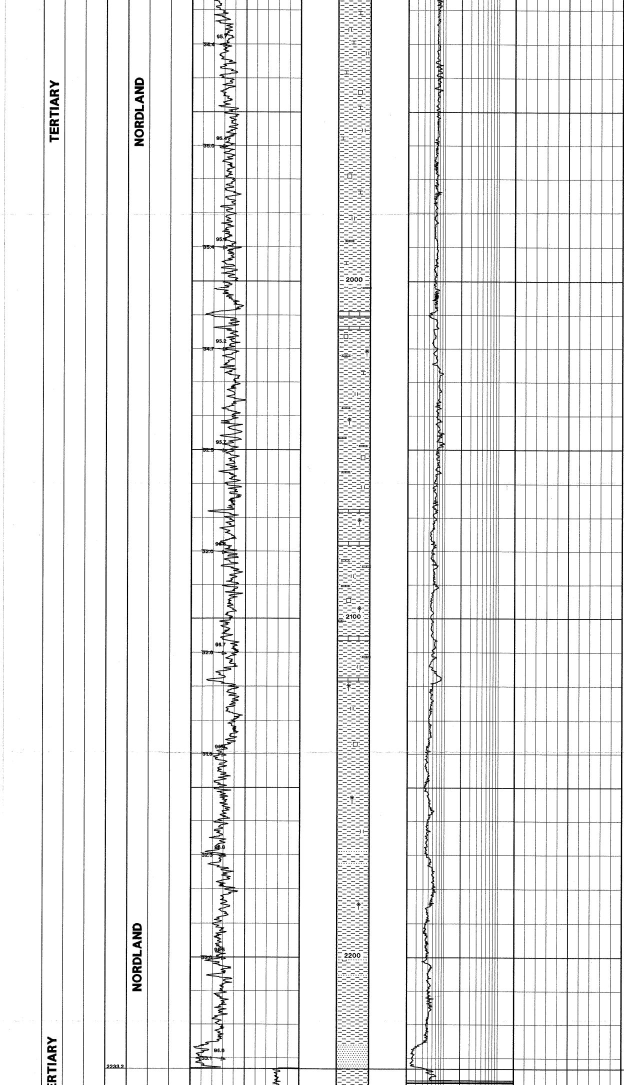
CLAYSTONE: occ brnsh blk - blk, else a.a.

CLAYSTONE: olv gry, dsky yelsh brn, brnsh blk - blk, sft - firm, amor - sbblky, occ blky, stky I.P., slty, v slty I.P., calc - v calc, Tr Glauc, Tr Sd, Tr Ls

CLAYSTONE: pred olv gry, occ dsky yelsh brn, occ brnsh blk, sft occ firm, sbblky, occ amor, stky I.P., slty, v calc, Tr Glauc, Tr Sd, Tr Ls

CLAYSTONE: pred olv gry, occ dsky yelsh brn - brnsh blk, sft occ firm, sbblky, occ amor, stky I.P., slty, calc - v calc, Tr Glauc, Tr Ls

LIMESTONE: pa yelsh brn, occ wh, sft occ hd, sbblky, crpxln, occ amor, arg I.P.



CLAYSTONE: pred olv gry, occ dsky yelsh brn, occ brnsh blk, sft - firm, sbblky, occ slty, calc - v calc, Tr Pyr Nod, Tr Ls

CLAYSTONE: pred olv gry, occ mod brn - brnsh blk, firm occ sft, sbblky, occ slty, non - slily calc, occ v calc, microglauc I.P., Tr Pyr

LIMESTONE: lt brn, v pa or, occ mod - dk yelsh brn, sft, occ mod hd - hd, sbblky, occ blky, crpxln, slily arg I.P., Tr Dol

CLAYSTONE: pred olv gry, occ mod brn, occ brnsh blk, firm occ sft, sbblky, occ slty, non - slily calc, loc v calc, microglauc I.P., Tr Pyr Nod

LIMESTONE: lt brn, v pa or, occ mod - dk yelsh brn, sft, occ mod hd - hd, sbblky, occ blky, ea, crpxln, slily arg I.P., Tr Dol

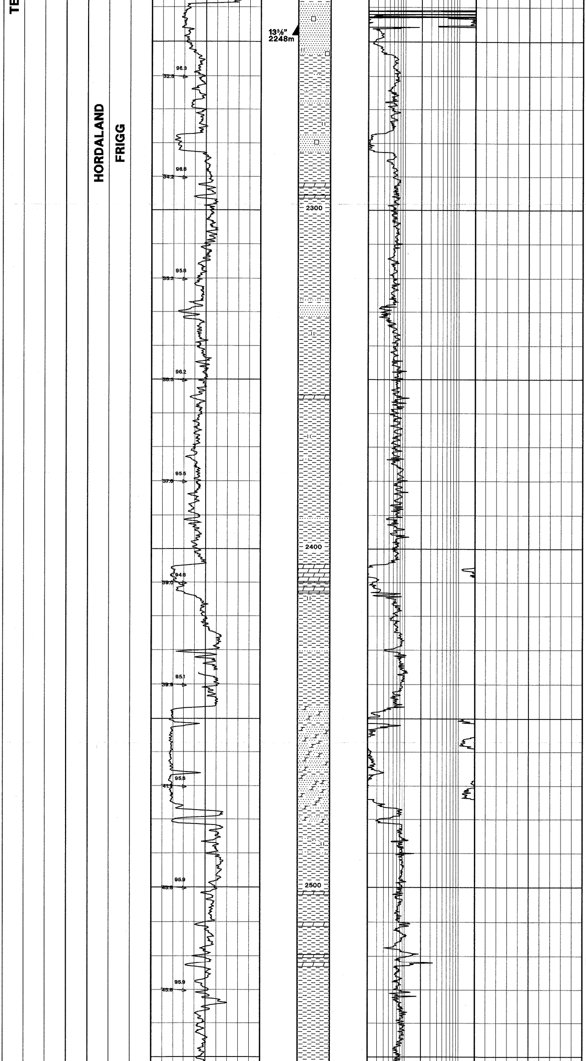
CLAYSTONE: pred olv gry, occ mod brn, occ brnsh blk, occ dk gnsh gry, sft - firm, sbblky, non - slily calc, microglauc I.P., Tr Micropyr

CLAYSTONE: dk gnsh gry - gnsh gry, olv gry, med - med dk gry, dk yelsh brn, firm - v firm, sbblky, occ blky, occ slty, non - slily calc, Tr Glauc, micropyr I.P., Tr Pyr Nod

SANDSTONE: clr Qtz Gr, f - med, sbang - sbrndd, wl srt, lse

CLAYSTONE: gnsh gry - dk gnsh gry, olv gry, med - med dk gry, occ dk yelsh brn, firm - v firm, sbblky, occ blky, occ slty, non - slily calc, Tr Pyr, Tr Ls, Tr Dol

FRIGG FORMATION
2233.2 mMD (1985.0 mTVD MSL)



SANDSTONE: clr lse Qtz Gr, f - med, occ crs, sbang - sbrndd, mod srt, Tr Pyr

CLAYSTONE: pred gnsh gry, olv gry, occ med - med dk gry, sft, occ firm, amor, occ slty, stky I.P., non - slily calc, Tr Ls, Tr Dol

DOLOMITE: v lt gry, v pa or, sft - v firm, amor - blky

CLAYSTONE: olv gry - olv blk, dk gnsh gry, sft - firm, sbblky - blky, non calc, Tr Dol

SANDSTONE: clr lse Qtz Gr, f - med, sbang - sbrndd, mod srt

CLAYSTONE: olv gry, dk gnsh gry, gnsh gry, occ dsky yelsh brn, sft - firm, slty, sbblky, occ blky, stky I.P., non - slily calc, Tr Dol, Tr Sst

DOLOMITE: dk yelsh or - mod yelsh brn, hd - v hd, blky

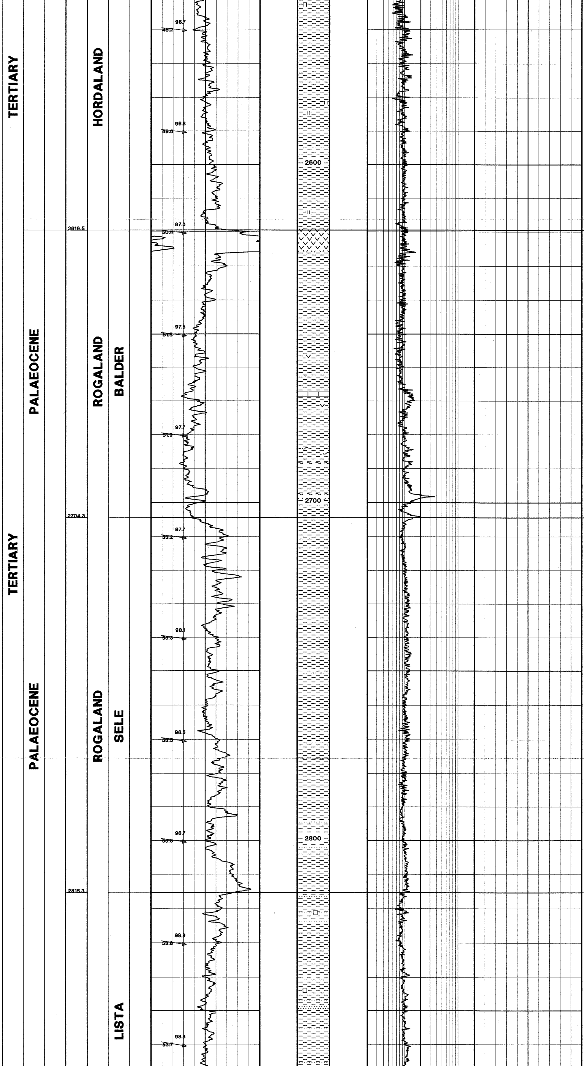
CLAYSTONE: olv gry - olv blk, dk gnsh gry, sft - firm, sbblky - blky, non calc, Tr Dol

SANDSTONE: clr & occ mky wh Qtz Gr, f - med, sbang - sbrndd, occ rndd, mod srt, lse

DOLOMITE: dk yelsh or - mod yelsh brn, occ yelsh brn, mod hd - hd, sbblky - blky, prob dol Cmt from Sst

CLAYSTONE: olv gry - olv blk, dk gnsh gry - gnsh blk, sft - firm, sbblky, stky I.P., slty I.P., non - slily calc, Tr Dol, Tr Sst

DOLOMITE: dk yelsh or - mod yelsh brn, occ yelsh brn, mod hd - hd, sbblky - blky



CLAYSTONE: olv gry, dsky yelsh brn, brnsh gry, grysh rd, occ gnsh gry, pred firm, sbblky, occ amor, stky I.P., slty I.P., non - slily calc, Tr Dol, Tr Sst

CLAYSTONE: grysh rd, brnsh gry, dk yelsh brn, occ olv gry, else a.a.

BALDER FORMATION
2619.5 mMD (2277.4 mTVD MSL)

TUFF: med blsh gry - med gnsh gry, sft, amor - sbblky, non calc

CLAYSTONE: gnsh blk, olv blk, med blsh gry, mod hd - firm, sbblky - blky
Tr TUFF: med - med dk gry, sft - mod hd, sbblky - blky, slily - non calc
Tr LIMESTONE: wh - grysh wh, mod hd - hd, blky, crpxln

MARL: med blsh gry - blsh gry, sft, blky

SELE FORMATION
2704.3 mMD (2330.0 mTVD MSL)

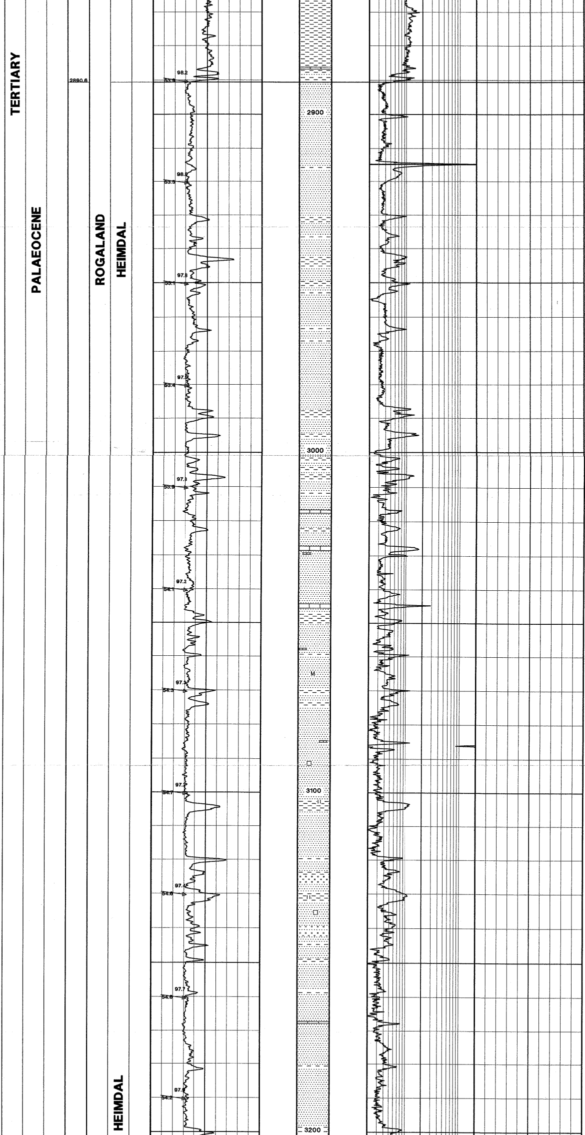
CLAYSTONE: brnsh gry, dk gry, grysh blk, mod hd - hd, sbblky, non calc

CLAYSTONE: olv blk - brnsh blk, firm - mod hd, occ sft, sbblky - blky, slily - non calc, Tr Ls

SANDSTONE: clr, wh - mky wh, lse Qtz Gr, v f - f, sbrndd - rndd, mod - wl srt, Tr Pyr Nod

LISTA FORMATION
2815.3 mMD (2396.0 mTVD MSL)

CLAYSTONE: med dk - dk gry, occ gnsh gry, occ olv blk, pred sft, sbblky, stky I.P., non calc, Tr Ls, Tr Sst



CLAYSTONE: lt gnsh gry - gnsh gry - dk gnsh gry, rdsh brn, pred gnsh gry, sft - mod hd, sbfiss - blky

HEIMDAL FORMATION
2890.6 mMD (2440.5 mTVD MSL)

SANDSTONE: clr Gr, f, occ med, sbang - sbrndd, mod - wl srt, lse - slily cmt

CLAYSTONE: lt gnsh gry - gnsh gry, sft - mod hd, sbfiss - sbblky, non calc

SANDSTONE: clr Qtz Gr, f - med, pred f, r crs, sbang - sbrndd, mod srt, lse - slily cmt

LIMESTONE: lt - med lt gry, spkld w/ dk gry, sft - firm, sbblky, crpxln, arg

CLAYSTONE: med dk gry, occ olv gry, occ dk gnsh gry, sft - firm, sbblky, non calc

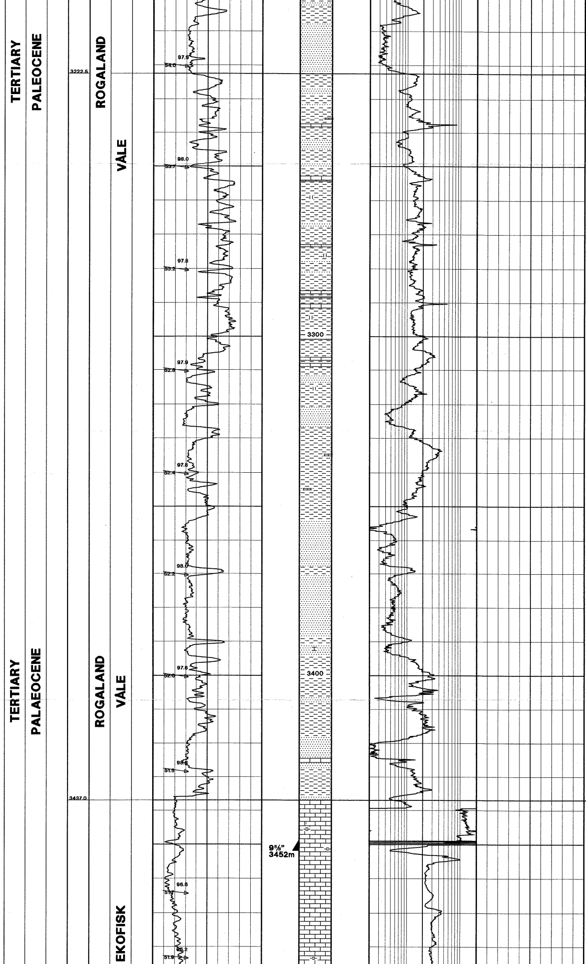
SANDSTONE: clr & mky wh Qtz Gr, f - med, occ v f, occ crs, sbang - sbrndd, mod srt, gen lse, occ slily Sil cmt, r Tr Mic

SILTSTONE: lt - med gry, lt brnsh gry, sft - mod hd, sbblky, arg, Sil Cmt, non calc

SANDSTONE: clr, occ pksh gry, occ mky wh, Qtz Gr, v f - med, occ crs, sbang - sbrndd, mod srt, lse, Tr Pyr, Tr Ls

CLAYSTONE: lt brnsh gry - med gry - lt gry, sft - firm, blky, slty, non calc

SANDSTONE: clr Gr, v f - med, occ crs, sbang - sbrndd, mod srt, lse - slily cmt, Tr Pyr



CLAYSTONE: gnsh gry - lt olv gry, sft - mod hd, sbfiss - sbblky, slty, non calc

VÅLE FORMATION
3222.5 mMD (2635.5 mTVD MSL)

CLAYSTONE: gnsh gry - lt olv gry, sft - mod hd, sbfiss - sbblky, slty, non calc

Tr LIMESTONE: pksh - grysh or, mod hd - hd, blky, crpxln, arg I.P.

LIMESTONE: dk yelsh or - grysh or, mod yelsh brn, pa or, hd, blky, crpxln, slily arg I.P.

CLAYSTONE: olv gry - olv blk, med dk gry, occ med blsh gry, occ dk gnsh gry, sft - firm, sbblky - blky, slty, non calc

CLAYSTONE: olv gry - olv blk, med dk gry, occ med blsh gry, sft - firm, sbblky - blky, non calc

LIMESTONE: grysh or, mod yelsh brn, lt olv gry, mod hd - hd, blky, crpxln, slily arg I.P.

CLAYSTONE: gnsh gry - gnsh blk, olv blk, lt olv gry, lt gry, mod hd - hd, sbfiss - blky, non calc

Tr LIMESTONE: wh, hd, blky, crpxln

SANDSTONE: clr & occ mky Gr, f - med, occ crs, sbang - sbrndd, mod srt, lse - slily cmt

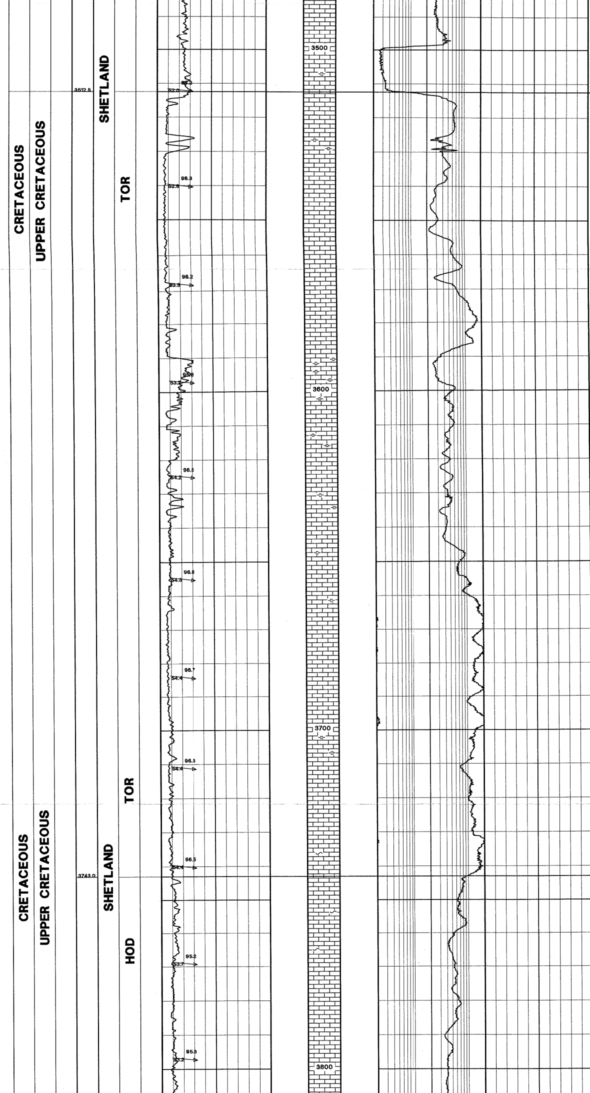
SANDSTONE: clr, occ mky wh, occ pksh, f - med, occ crs, sbang - sbrndd, mod srt, lse - slily Sil & calc cmt

CLAYSTONE: olv blk, gnsh blk, occ lt gry, mod hd, sbfiss, calc, occ grad to Sltst, Tr Ls

EKOFISK FORMATION
3437.0 mMD (2765.7 mTVD MSL)

LIMESTONE: wh - lt gry, mod hd - hd, blky, crpxln, occ arg, Tr Clst

LIMESTONE: lt olv gry, olv gry, occ lt gnsh gry, occ v lt gry, mod hd - hd, occ sft, brit, blky, crpxln, occ slily arg



LIMESTONE: v lt gry - lt gry, grysh or pk, occ lt blsh gry, mod hd - hd, occ sft, brit, sbblky, crpxln, occ slily arg

TOR FORMATION
3512.5 mMD (2812.4 mTVD MSL)

LIMESTONE: wh - v lt gry, occ lt olv gry, occ brnsh gry, mod hd - hd, blky, crpxln

LIMESTONE: wh - v lt gry, occ lt olv gry, occ olv gry, mod hd - hd, occ sft, blky, crpxln, occ arg

LIMESTONE: wh - v lt gry, mod hd - hd, blky, crpxln

Tr CLAYSTONE: med dk - dk gry, olv blk, mod hd, sbfiss - sbblky, calc

LIMESTONE: wh - lt gry, mod hd - hd, blky, crpxln

Tr CLAYSTONE: olv gry, firm, blky, v calc

LIMESTONE: lt gry, occ lt - med lt gry, mod hd - hd, blky, crpxln
Tr CLAYSTONE: olv gry, sft, sbblky, v calc

LIMESTONE: wh - lt gry, pa yelsh brn, occ dk yelsh brn, sft - mod hd, brit, blky, crpxln, arg I.P., Tr Mrl

HOD FORMATION
3743.0 mMD (2948.4 mTVD MSL)

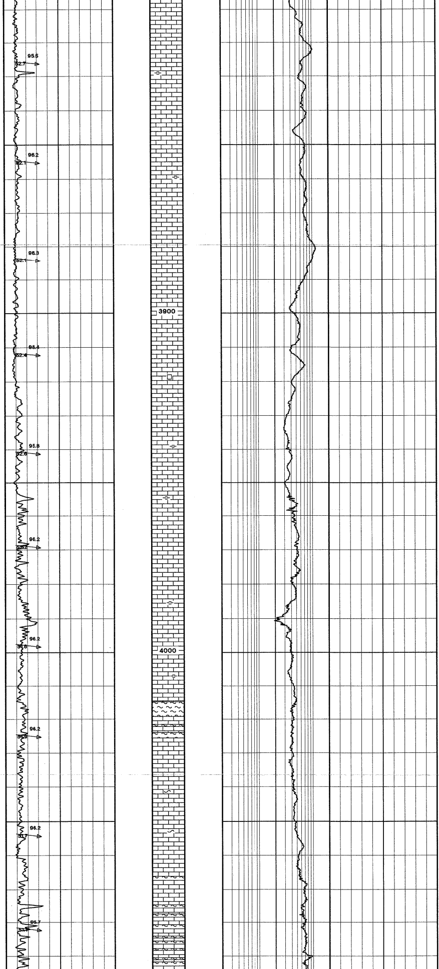
LIMESTONE: v lt - lt gry, pa brn, lt brn, mod brn, r lt olv gry, sft - mod hd, brit, blky, crpxln, arg I.P.

CRETACEOUS

UPPER CRETACEOUS

SHETLAND

HOD



LIMESTONE: pa brn, lt brn, mod brn, occ v lt - lt gry, mod hd - hd, brit, blky, crpxln, arg I.P.

LIMESTONE: mod brn, occ v lt gry, mod hd - hd, brit, blky, crpxln, arg I.P., Tr Clst, r Qtz Gr

LIMESTONE: mod brn, grysh or pk, occ wh - v lt gry, mod hd - hd, brit, blky, crpxln, slty arg I.P., Tr Clst, r Pyr

LIMESTONE: grysh or pk - lt brn, mod brn, v lt gry - lt gry, mod hd - hd, occ sft, pred brit, blky, slty arg I.P., Tr Clst, r Pyr

LIMESTONE: lt olv gry, lt gry, med lt gry, med gry, mnr grysh or pk - lt brn, mnr mod brn, mod hd - hd, crpxln, brit, blky, slty arg I.P.

LIMESTONE: lt olv gry, lt gry, m lt gry, pale brn, mnr grysh or pk - lt brn, mnr mod brn, mod hd - hd, crpxln, brit, blky, slty arg I.P.

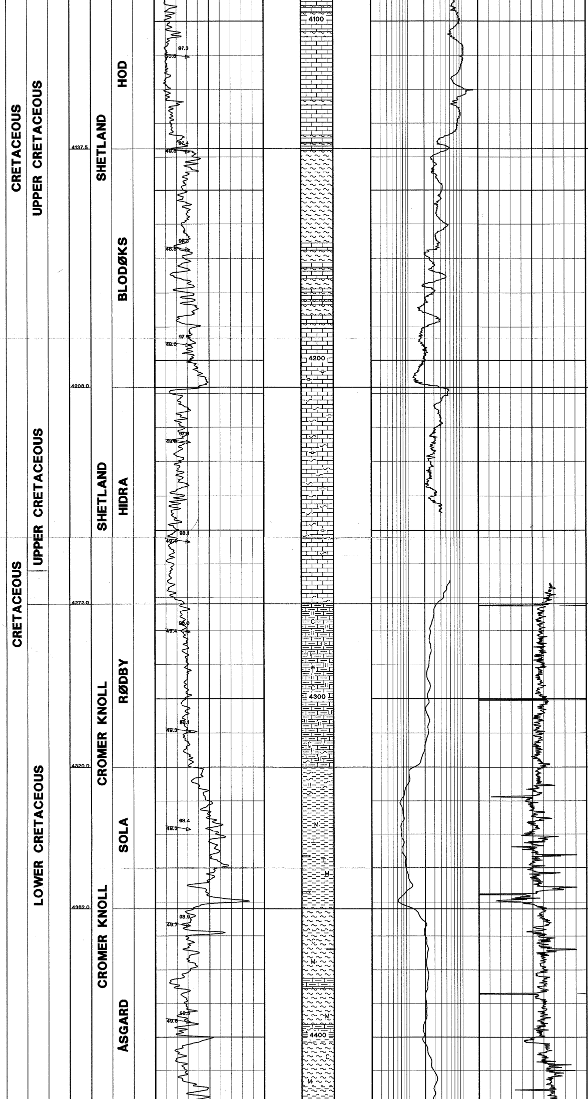
MARL: grysh brn - dsky brn, occ w/dk Spk, occ m gry, sft - frm, sbblky

LIMESTONE: lt yelsh brn, gnsh gry, lt gry, occ dk gnsh gry, mod hd - hd, brit, blky, crpxln, slty arg I.P., Tr Mrl

LIMESTONE: lt yelsh brn, lt gry, occ lt brnsh gry w/dk Bnd, mod hd - hd, brit, blky, crpxln, slty arg I.P.

MARL: lt brn, olv gry & mott, sft, occ frm, ea-crmbly, sbblky

MARL: olv gry - olv blk, occ lt olv gry, mott, occ dk yelsh brn, sft - frm



LIMESTONE: lt gry, med lt gry - med gry, occ mott w/gnsh gry, occ lt brn - mod brn, crpxln, mod hd - hd, brit, blky, slily arg I.P.

BLODØKS FORMATION
4137.5 mMD (3190.7 mTVD MSL)

MARL: olv gry - olv blk, mott, sft - frm, sbblky, fri

LIMESTONE: med lt gry - med gry, lt yelsh brn, occ mott, mod hd, brit, crpxln, arg

LIMESTONE: lt brnsh gry, lt yelsh brn, lt olv gry - olv gry, occ m lt gry, sft - mod hd, brit, sbblky, crpxln, arg I.P.

HIDRA FORMATION
4208.0 mMD (3237.1 mTVD MSL)

MRL: brnsh gry - brnsh blk, olv gry, mod brn, occ blk, sft, occ frm, sbblky

LIMESTONE: off wh - pa gry - occ lt gry, mod - occ wl ind, slily brit, micr I.P., microxln I.P., slily - dom mod - occ v arg, Tr microcarb, r glauc w/ occ intbd/Lam

MARL: med gry - olv gry, mod ind, slily micromic, slily microcarb, slily slty, r glauc, grad to loc v calc Clst

RØDBY FORMATION
4272.0 mMD (3279.4 mTVD MSL)

LIMESTONE: med gry - occ gnsh gry, mott I.P., mod ind, v slty, mod - v arg, slily - Tr micromic, slily - loc mod microcarb, Tr - occ slily glauc, grad I.P. to calc/arg Sltst

Tr CLAYSTONE: dk gry - olv gry, firm - v firm, mod - v calc, slily - mod slty, slily micromic & microcarb

LIMESTONE: lt - med gry - olv gry - gnsh gry - grysh gn, mod ind, micr, mod - v arg, mod slty, slily - occ mod micromic, slily microcarb, Tr glauc, grad to occ MRL

SOLA FORMATION
4320.3m MD (3310.8m TVD MSL)

CLAYSTONE: multicol, off wh - lt - dk gry - olv gry, lt - med dk gnsh gry - brnsh gry, med - dk brn - rdsh brn, v sft - firm, Tr - mod calc, slily - occ mod micromic, Tr Slt, Tr Glauc

Tr LIMESTONE: off wh - pa gnsh gry, pa pk, mod - wl ind, cryptoxln, mod - v arg

ÅSGARD FORMATION
4362.0 mMD (3337.9 mTVD MSL)

CLAYSTONE: lt - med gnsh gry - olv gry - gry,Tr gn, com mott, firm, mod - v calc,Tr - slily micropyr, w/ occ intbd
MARL: med dk brn - rdsh brn, firm, v slily micromic, occ grad to calc CLST
loc CLAYSTONE: dk gry - olv blk, firm, non - slily calc, slily micromic, slily carb

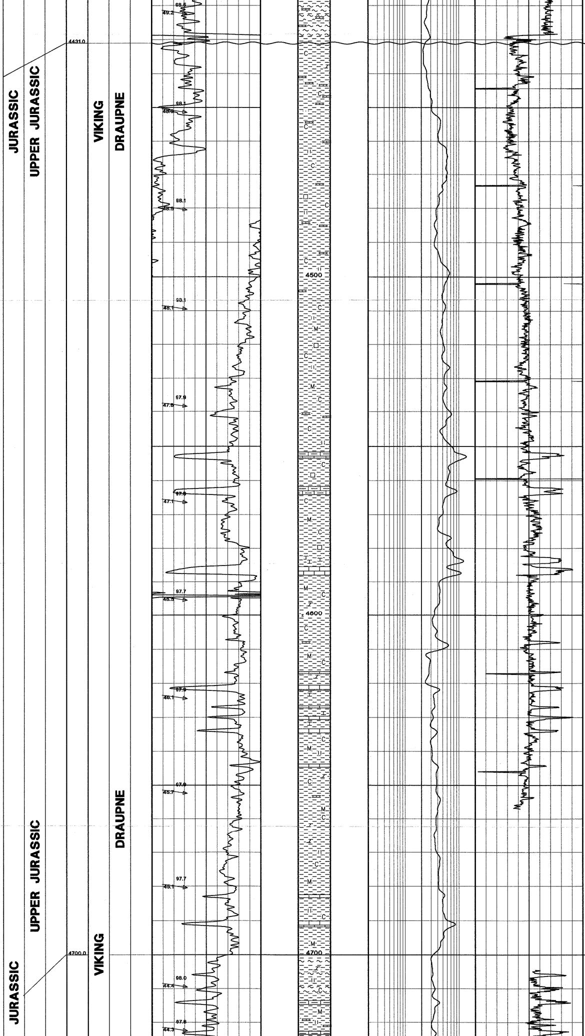
MARL: multicol, lt - med dk olv gry - occ gry, loc med dk brn - rdsh brn, firm - v firm, slily microcarb, Tr micromic, occ grad to arg Ls & Tr calc Clst

LIMESTONE: wh - dom pa gry - gnsh gry - pk, crpxln, mod - wl ind, Tr cln, dom v arg

MARL: a.a., dom pa - med gry - olv gry intbd w/ & grad to
LIMESTONE: off wh - pa gry, mod - wl ind, crptxln, mod - v arg, Tr - occ slily micropyr, Tr microcarb

CLAYSTONE: olv blk, firm - v firm, mod - v calc, carb, slily micromic, Tr pyr

MARL: dom pale - med gry - olv gry, mnr brn - rdsh brn, firm - v firm, slily microcarb, Tr micromic, v arg, occ grad to calc CLST



CLAYSTONE: med - med dk gry - olv gry, firm, mod - v calc, Tr microcarb, Tr Micropyr, Tr Micromic

DRAUPNE FORMATION
4431.0 mMD (3382.7 mTVD MSL)

CLAYSTONE: olv blk - brnsh blk, firm - v firm, occ fiss, Tr - v slily calc, v slily dol, carb, Tr aren, mod micromic

LIMESTONE: lt - med gry, off wh, occ gnsh gry & lt brnsh gry, sft - firm, occ brit, crpxln - microxln, slily slty I.P., micropyr I.P., gen mod - v arg

CLAYSTONE: olv blk - brnsh blk, pred firm, gen mod slty, non - slily calc, occ fiss, carb, Tr aren, mod micromic

CLAYSTONE: olv blk - brnsh blk, pred firm - occ v firm, slily - mod slty, pred non calc, carb, micromic, occ aren, occ micropyr

LIMESTONE: off wh, lt gnsh gry, med lt gry, occ rdsh brn, pred firm, occ brit, v arg, occ slty, micropyr, micromic

CLAYSTONE: olv blk - brnsh blk, pred firm, loc crumbly, slily - mod slty, v aren, slily - mod calc, occ fiss, carb, micropyr, micromic, r Pyr Nod

LIMESTONE: off wh, occ lt gry, sft, microxln, v arg, grad to Mrl, slily slty, micropyr

CLAYSTONE: olv blk - brnsh blk, pred firm, crumbly, slily - mod slty, v aren, slily - mod calc, occ fiss, carb, micropyr, micromic, r Pyr Nod
LIMESTONE: off wh - lt gry, mod ind, micr, v arg

CLAYSTONE: olv blk - brnsh blk, firm - v firm, occ crumbly, v slily - slily calc, slily - occ mod dol, carb, slily slty, mod - occ v micromic, r pyr

LIMESTONE: wh - off wh, mod ind, crumbly I.P., micr, cln - slily arg, slily dol, occ as Vn in Clst

CLAYSTONE: loc dk gry - occ olv gry - olv blk, firm - v firm, slily - v calc, slily dol, mod micromic, slily carb, Tr Slt, occ grad to Mrl

CLAYSTONE: brnsh blk - olv blk, firm - v firm, non - Tr calc, slily dol, mod micromic, carb, Tr - occ slily slty, loc Tr vn Calc

CLAYSTONE: a.a., also loc med dk - dk gry - olv gry, firm - v firm, mod - v calc, v slily dol, slily carb, v slily micromic

LIMESTONE: wh - dom off wh - v pa gry - v pa brn, mod ind, slily crumbly, slily dol, cln, occ as Vn in Clst

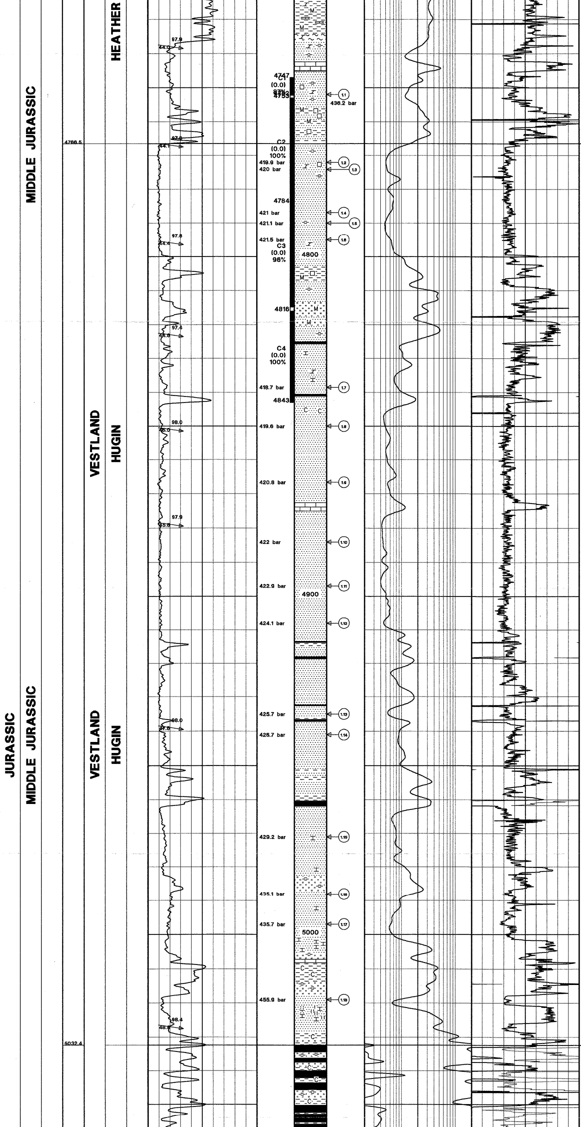
LIMESTONE: wh - off wh - v lt gry, mod ind, micr, slily - v arg, slily dol

CLAYSTONE: brnsh blk - olv blk, firm - v firm, non calc, slily - occ mod dol, carb, mod micromic, Tr - slily slty

HEATHER FORMATION
4700.0 mMD (3566.0 mTVD MSL)

CLAYSTONE: grysh blk - brnsh blk, firm - v firm, non - slily calc, slily - mod dol, mod micromic, slily slty, slily carb, Tr pyr, loc bcm dk gry & slily - mod calc

MARL: lt - med gry - olv gry, sft - crumbly - occ firm, slily - mod dol, slily microcarb, Tr Slt, occ grad to calc Clst & Tr arg Ls



DOLOMITIC MARL: lt - med dk brnsh gry - grysh brn, crumbly, slily calc I.P., slily - v slty, slily aren I.P., slily mic, grad I.P. to dol/arg Sltst

SANDSTONE: as Rk Flour/Mtrx, I.P. lt - med gry - brnsh gry, slily arg, non - v slily calc, slily dol, Tr mic, I.P. off wh, mod - v dol, slily calc, occ - com v f - f Gr embd, No Shows

LIMESTONE: dk gry, v hd, microxln, mod dol, v arg, slily slty, Tr Mic

SANDSTONE: pale brn - med gry, v f - f, wl srt, sbang - rndd, slily slty, mod Sil cmt, Tr Dol, slily arg, slily micropyr, Tr mic Lam, Tr C Lam, occ thn wvy Clst Lam, loc slily kao

CLAYSTONE: brnsh blk, hd, fiss, slily dol, slily - mod mic, carb, slily slty, Tr pyr Pch

HUGIN FORMATION
4766.5 mMD (3613.6 mTVD MSL)

SANDSTONE: lt - med dk brn Sst, clr - trnsl - wh Qtz, f - med, wl srt, sbang - rndd, mod Sil cmt, Tr Dol, slily carb, loc Pyr, r Mic, gd Por
SHOWS: Hydc Od, dull brn - gold dir Fluor, Tr dull wh crush cut Fluor, fading w/ depth to dull brn Stn & no dir Fluor

SANDSTONE: no longer carb/pyr/mic, slily slty & arg, else a.a.
SHOWS: dk Stn, Hydc Od, yel - wh dir Fluor, bri streaming yel wh cut Fluor, bri cut Fluor. Yel golden oil slowly seeped from the cores from 4784 - 4798m MD. The oil has bri blsh wh Fluor, and is more viscous than either mud filtrate or base oil.

SANDSTONE: lt olv gry - med gry Sst, clr - trnsl grysh Qtz, v f - f, Sil cmt, dol, v tightly cmt, occ arg Pch & Lam, no vis Por
SANDSTONE: dk yelsh brn Sst, trnsl mky - brnsh Qtz, v f - f, occ med, mod wl srt, sbang - sbrndd, Sil cmtd, slily dol, mod hd - hd, r thn arg Lam, pr Por
SANDSTONE: lt olv gry - med gry Sst, clr - trnsl grysh Qtz, v f - f, Sil cmt, dol, v tightly cmt, occ arg Pch & Lam, no vis Por
SILTY CLAYSTONE: med dk gry - dk brn, hd, slty, tr v f aren Mat, dol

SANDSTONE: olv gry - brnsh gry Sst, v f - med, dom f, tightly Sil & Dol cmtd, hd, v pr - no vis Por

COAL: blk, brit, firm, slily arg

SANDSTONE: lt brnsh gry , trnsp - trnsl mky/brnsh Qtz, v f - f, occ med, sbrndd, lse Gr, com - dom lt gry - med gry Rk Flour

COAL: blk, frm, brit, ang

CLAYSTONE: olv gry, dk gry, hd, non calc

SANDSTONE: lt brnsh gry , trnsp - trnsl mky/brnsh Qtz, v f - f, occ med, sbrndd, lse Gr, com - dom lt gry - med gry Rk Flour

SANDSTONE: lt gry - occ med gry Sst, clr Qtz, v f - occ f, com as Rk Flour, slily calc

SANDSTONE: pt as lt gry Rk Flour, pt as lse Qtz Gr, f - med, r crs, trnsp - trnsl mky, wl srt, sbrndd, Tr Calc cmt Sst Agg

CLAYSTONE: olv gry, dk gry, firm - slily hd, blky, loc slty, v slily micropyr, non calc

SILTSTONE: med - lt gry, sbblky, firm, grad to v f Sst

SANDSTONE: med lt gry - lt brnsh gry Sst, v f - f, sbang - sbrndd, pt as lse Gr, pt as Rk Flour, occ v f - slty & grad to Sltst

SHALE: dk brn gry, dk gry, hd, fiss, non calc

SLEIPNER FORMATION
5032.4 mMD (3797.0 mTVD MSL)

SILTSTONE: med brn, sft, non calc

CLAYSTONE: brnsh blk, dk gry, slily hd, var brit, non calc, occ: blk, v carb, brit, grad to Coal

COAL: blk, firm - slily hd, brit, ang Brk, occ slily arg

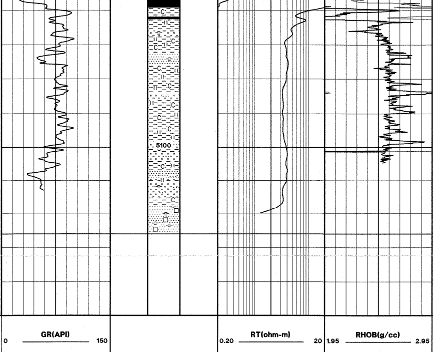
JURASSIC

MIDDLE JURASSIC

5126.0

VESTLAND

SLEIPNER



CLAYSTONE: brnsh blk, slily hd, pt carb, brit, ea, non calc

SILTSTONE: brnsh gry, sft - firm, slily arg, sbblky, non calc, occ v arg & grad to Clst, occ v f aren Mat

SANDSTONE: lt brnsh gry Sst, clr - mky Qtz, mod srt, ang, slty/kao Mtrx, firm, occ calc, r Pyr Nod

CLAYSTONE: brnsh gry - grysh brn, occ lt brnsh gry, sbblky, firm, slty, non calc

SANDSTONE: clr - mky Qtz, v f - f, r med, ang - sbang, scattered lse Gr, Tr sml Pyr Nod

SANDSTONE: clr Qtz, f - med, dom f, mod wl srt, sbang, lse Gr

DRILLER'S TD = 5126 mMD (3859.1 mTVD MSL)

System	Series	Stage	Depth	Group	Formation	Depositional Environment

Chron Strat		Litho Strat	Well Log	Lithological Descriptions