NO-32\10-3

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STATOIL

PARTNERS

STATOIL-HYDRO-MOBIL-ELF

WELL

35/10-3

COMPOSITE LOG

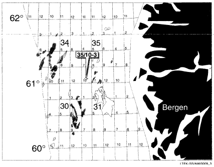
1 : 500

PROSPECT

Paleocene Graben Fill Prospect

AREA:	North Sea
LICENCE:	PL 173
COORDINATES:	61° 02' 47.96"N 03° 07' 40.04"E
KB:	24m
WATER DEPTH:	363m
TOTAL DEPTH:	2250mMD RT - 2247mTVD RT
FM. AT T.D.:	Shetland Group / Jorsalfare Fm
SPUD DATE:	23-06-99
RIG RELEASE:	15-07-99
WELL STATUT:	P&A, dry well
RIG:	Transocean Arctic
CONTRACTOR:	Transocean
GEOLOGIST:	O. Beyer, T.F.Kristensen, S.Bjerkenes
PREPARED BY:	Ø. Hovden

LOCATION MAP



CASING DATA

30"	459,5m
20"	646m
13 3/8"	1807m

LEAK OFF TESTS

FIT at 1100m: 1,27 g/cc
1,35 g/cc
1,66 g/cc

VELOCITY SURVEY

70 levels were shot in the interval 2230 - 1195m

LOGS RUN

CONTRACTOR: Wireline: Baker Atlas MWD: Baker Hughes Inteq

Wireline: (12 1/4" section)		MWD:
Run 1A:	Interval:	Run 1: 468-655m Run 2: 468-650m Run 3: 655-1494m Run 4: 1494-1818m Run 5: 1807-2250m
HDIL-MAC-ZDL-CND-DSL-TTRM:	2248-1807m	
FMT-GR:	1949,5-1983m	
VSP-GR:	2230-1195m	

COMMENTS:

Respudded the well after two attemts to run 30" conductor in the first drilled 36" hole.

Only wireline logs in 12 1/4" section (1807m-TD)

LITHOLOGICAL SYMBOLS

CONGLOMERATE	SHALE	MARL	COAL 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
OOZE					

CUTTINGS/FLUORESCENCE ◇ OIL SHOW ● OIL/GAS SHOW ✸ GAS SHOW ☼

AZIMUTH & INCLINATION

SIDEWALL CORES
1.5 ▶ SIDEWALL CORE
2.8 ▷ NO RECOVERY
R 1.2 ▶ ROTARY SIDEWALL CORE

CORES
CORE NO

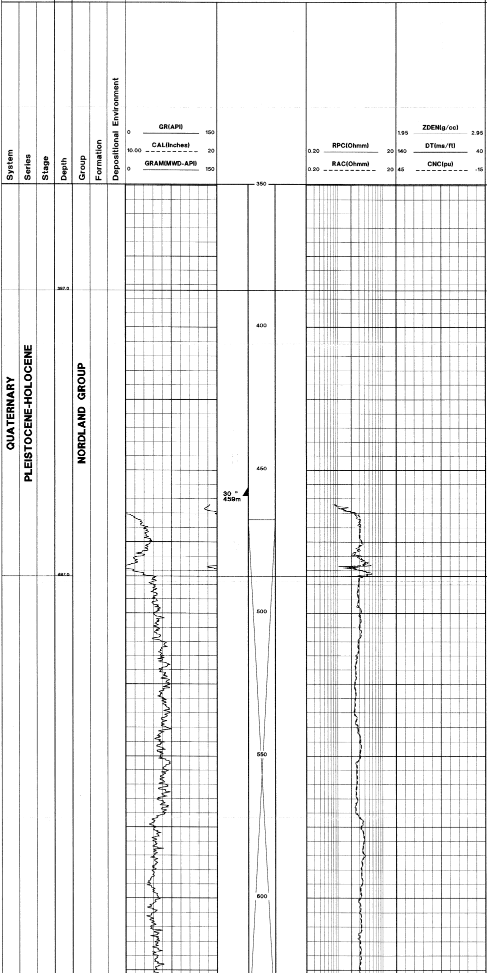
DST

RFT/FMT
SAMPLE

CASING SHOE / LINER

CHRONO STRAT UNCERTAINTY

Chron Strat		Litho Strat	Well Log	Lithological Descriptions



SEA FLOOR

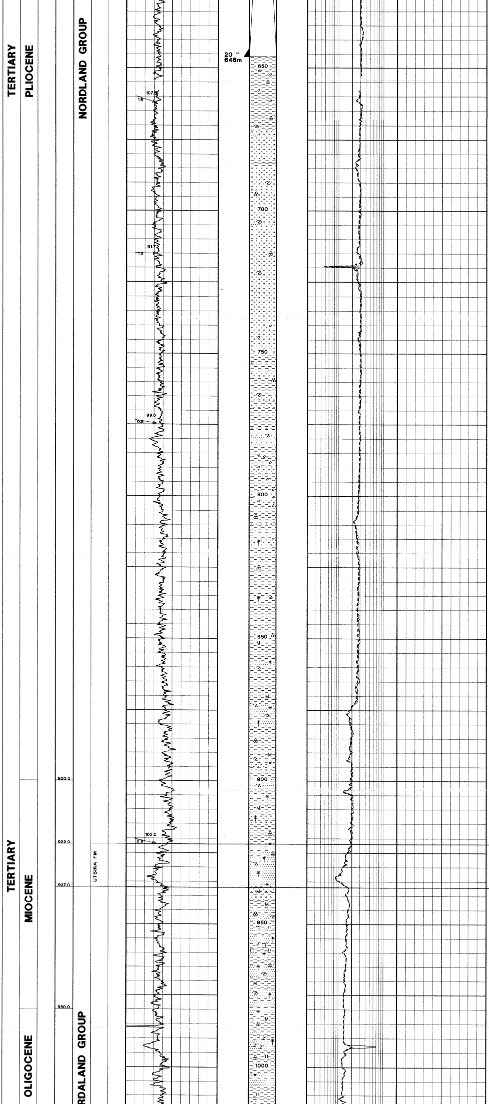
NORDLAND GROUP: 387mMD RT
(-363m MSL), 491ms TWT

Boulders at 450m, (indicated by drilling parameters)

30" CONDUCTOR: 459,5mMD RT

BASE QUATERNARY 487mMD RT (588ms TWT)

RETURNS TO SEA FLOOR



20" CASING: 646mMD RT, LOT: 1.27G/CC
(performed FIT=1.35g/cc at 1100m RT)

SILT: predominantly medium grey - blueish grey, soft, subblocky - amorphous, very argillaceous, grading to clay / claystone

SAND: laminated with silt, clear - translucent quartz, fine - medium, trace coarse grains, moderate - poor sorting, slightly argillaceous

TR: MICROFOSS, SHELL FRAGMENTS

SILT/CLAY(STONE): predominantly medium grey - blueish grey, soft, subblocky - amorphous, abundant clay, grading clay / claystone

TR: METAMORHIC ROCK FRAGMENTS

CLAY/CLAYSTONE: non - slightly silty, medium dark grey - dark greenish grey, soft, amorphous - subblocky, non calcareous

SAND: dominantly clear quartz, very fine - coarse grained, poor sorted, subrounded - subangular, loose - friable

BOULDERS: METAMORHIC ROCK FRAGMENTS

CLAY/CLAYSTONE: non - slightly silty, medium dark grey - dark greenish grey, soft, amorphous - subblocky, non calcareous

SAND/SANDSTONE: clear quartz, very fine - medium, trace coarse grains, well - moderate sorted, subangular - rounded, loose - friable (non calcareous cement/matrix)

GD TR: GLAUCONITE

TR: SHELL FRAGMENTS, MUSCOVITE MICA,

CLAY/CLAYSTONE: non - slightly silty, medium dark grey - dark greenish grey, soft, amorphous - subblocky, non calcareous

UTSIRA FORMATION: 922mMD RT
(-896m MSL), 1011ms TWT

SAND: clear - translucent quartz, black glauconite, very fine - fine, trace medium grains, well sorted, subrounded, loose grains

TR: SHELL FRAGMENTS, MUSCOVITE MICA,

HORDALAND GROUP: 937mMD RT
(-913m MSL), 1025ms TWT

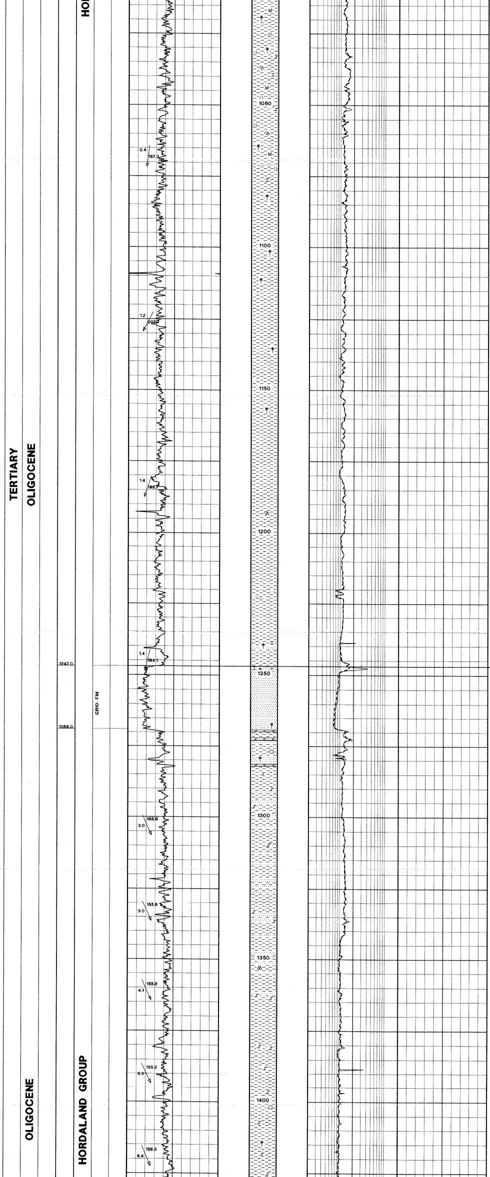
SAND: clear - translucent quartz, black glauconite, very fine - fine, trace medium grains, well sorted, subrounded, loose

TR: SHELL FRAGMENTS, MUSCOVITE MICA, PYRITE NODULES

CLAY/CLAYSTONE: becoming olive brown - dusky yellow brown, slightly earthy, soft, amorphous, none - slightly arenaceous, micromicaceous, non calcareous

SL TR: MICROMICA, PYRITE, FORAMINIFERA

GD TR LIMESTONE: light grey - medium grey, firm - hard, micritic, in part crystalline (sparite), also locally slightly dolomitic



CLAY/CLAYSTONE: predominantly brownish black - olive grey, brownish grey, slightly earthy, soft, amorphous, moderately arenaceous, micromicaceous, glauconitic, non - slightly calcareous

SL TR: MICROMICA, PYRITE, FORAMINIFERA

CLAY/CLAYSTONE: predominantly olive grey - brownish grey, soft, amorphous, moderately arenaceous, micromicaceous, slightly glauconitic, non calcareous

SL TR: PYRITE, FORAMINIFERA

CLAYSTONE: olive grey - brownish grey, soft - firm, amorphous - subblocky, occasionally blocky, arenaceous in part, slightly micromicaceous, slightly glauconitic, non calcareous

GRID FORMATION: 1247mMD RT
(-1223m MSL), 1327ms TWT

SAND: clear - translucent quartz, minor black glauconite, fine - medium, well sorted, subangular - subrounded, trace rounded (frosted), loose

SL TR: PYRITE NODULES

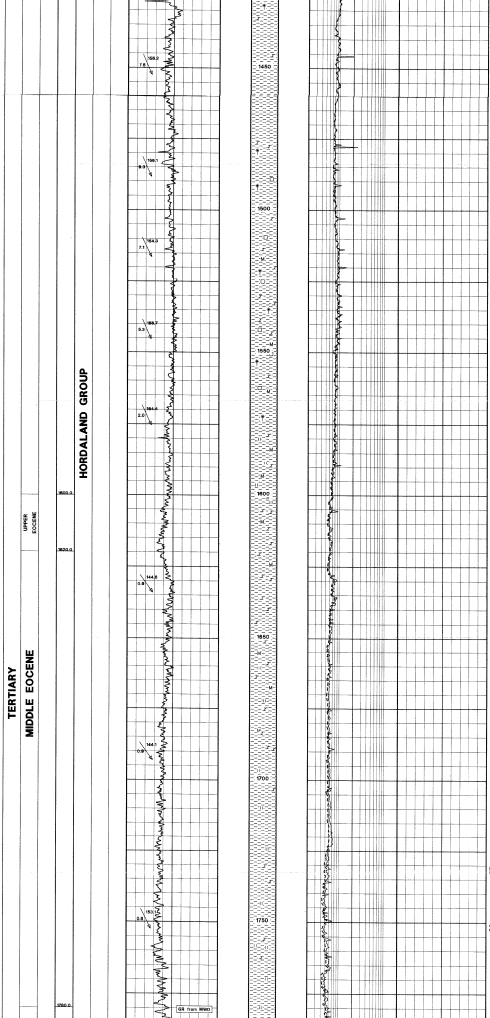
SAND: becoming fine - coarse, trace very coarse, moderate sorted, subrounded, trace rounded (frosted), loose

SL TR: PYRITE NODULES

DOLOMITIC LIMESTONE: off white - light grey, light olive grey, soft and micritic in part, moderate hard and crystalline in part, locally sucrosic

CLAYSTONE: predominantly olive grey, dusky yellow grey, soft - firm, amorphous - blocky, arenaceous, slightly micromicaceous, non calcareous

CLAYSTONE: predominantly olive grey, light brownish grey, predominantly firm, blocky, non calcareous



CLAYSTONE: olive grey - brown grey, soft - firm, amorphous - blocky, slightly silty, slightly micromicaceous, slightly micropyritic, trace glauconite, non calcareous

CLAYSTONE: olive grey - brown grey, brown black, soft - firm, amorphous - blocky, silty, locally sandy, micromicaceous, occasionally micropyritic, trace glauconite, non calcareous

CLAYSTONE: olive grey - brown grey, brown black, soft - firm, amorphous - blocky, silty, locally sandy, micromicaceous, occasionally micropyritic, non - slightly calcareous

TR: GLAUCONITE, DOLOMITE

CLAYSTONE: olive grey - brown grey, also dark green grey, soft - firm, amorphous - blocky, silty, locally sandy, micromicaceous, micropyritic, non - slightly calcareous

TR: GLAUCONITE, DOLOMITE

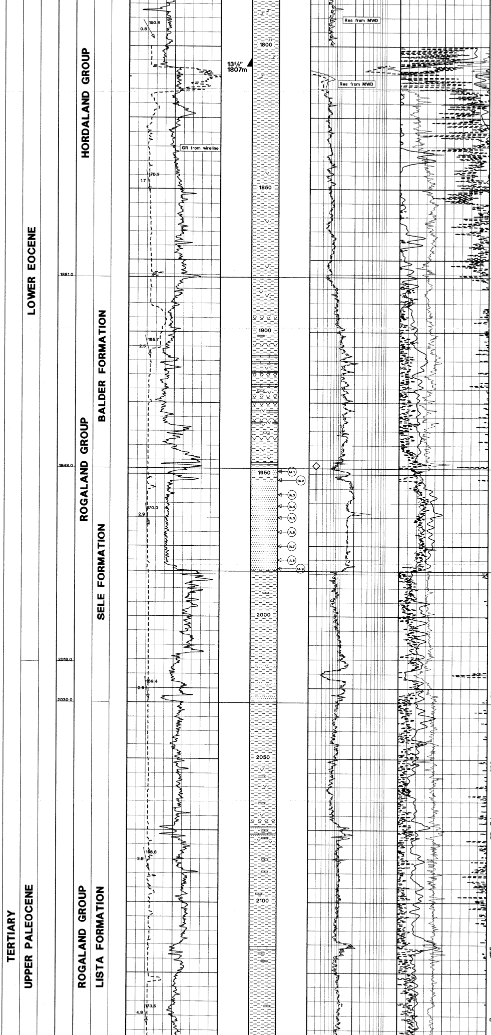
DOLOMITE: yellow brown - grey brown, orange brown, firm - hard, microcrystalline, also micritic, argillaceous

CLAYSTONE: becoming bluish grey, also dark green grey, firm, blocky, micromicaceous, non calcareous

TR: GLAUCONITE, MICROPYRITE

DOLOMITE: yellow brown - grey brown, orange brown, firm - hard, microcrystalline in part, micritic in part, argillaceous

CLAYSTONE: bluish grey, medium grey - olive grey, firm, blocky, none calcareous



DOLOMITE: yellow brown - grey brown, orange brown, firm - hard, microcrystalline in part, micritic in part, argillaceous

13 3/8" CASING: 1807mMD RT, LOT:166 g/cc

ROGALAND GROUP
BALDER FORMATION, 1881mMD RT / 1879mTVD
(-1855m TVD MSL), 1935ms TWT

CLAYSTONE: medium dark grey to medium grey, olive grey, medium bluish grey and red brown in part,brownish grey to olive black, firm to moderately hard, blocky, micromicaceous, micropyrittic, non calcareous.

LIMESTONE: light grey to yellow grey, medium grey, brownish grey, firm to hard, predominately micrittic, locally microcrystalline, slightly argillaceous to argillaceous.

TUFF: blueish grey, medium light grey to light grey, dark greenish grey or purple grey, soft to occasionally firm, grainy texture, speckled black and white, non calcareous

SELE FORMATION, 1948mMD RT / 1946m TVD RT
(-1922m MSL), 1988ms TWT

SANDSTONE: clear quartz, mainly medium to coarse grained, well to poor sorted, subrounded to subangular, loose to friable.

SHOWS: slight traces of spotty moderate weak yellow direct fluor. Moderate fast blue white streaming cut, only on a few limestone grains

Top Lower Fan 1984 mMD RT/ 1982 mTVD RT
(-1958 mMSL)

CLAYSTONE: dark olive grey, firm, blocky and non calcareous, below 2020m: medium greenish grey or light to medium olive grey, slightly silty.

SANDSTONE: clear quatz, fine to coarse, partly very coarse, moderately to poor sorted, rounded to subrounded, loose grains.

LISTA FORMATION, 2030mMD RT / 2028m TVD R
(-2004m MSL), 2051ms TWT

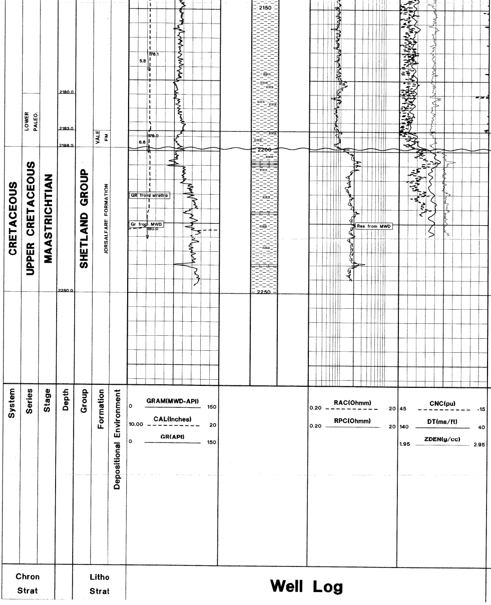
CLAYSTONE: medium to dark grey, occasionally medium bluish grey, firm, blocky, predominantly non calcareous, sandy in part, occasionally silty.

TUFF: greenish grey to pale green, black microspecks, firm, blocky.

SANDSTONE: translucent to clear quartz, moderately sorted, very fine to medium, loose grains.

LIMESTONE: light grey to light brown, firm to moderately hard in parts, blocky, micrittic, slightly argillaceous to argillaceous, grading to marl in parts, often very silty grading to calcareous siltstone.

CLAYSTONE: a.s.



VÅLE FORMATION, 2193mMD RT / 2190m TVD R
(-2166 MSL), 2184ms TWT

CLAYSTONE: medium dark grey to dark grey, firm, blocky, slightly silty to silty, partly sandy, micromicaceous, partly slightly micropyrittic, calc.

SHETLAND GROUP
JORSALFARE FM, 2199mMD RT / 2196m TVD RT
(-2172m MSL), 2189ms TWT

CLAYSTONE: medium dark grey, occasionally light grey to medium grey, firm, blocky, slightly silty, calcareous, slightly glauconitic and medium greenish grey in parts.

LIMESTONE: off white to light grey to medium grey, firm, blocky, micritic, marly in parts.

TD OF THE WELL AT 2250mMD RT / 2247m TVD
(-2223m TVD MSL)

Lithological Descriptions