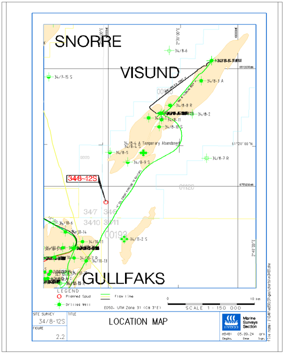
Completion Log

Visund Sør (B-Prospect, Statfj. Fm.)

Scale: 1 / 500

Well: 34/8-12 S/ST2

Location Map



KB Elevation	24m
Water Depth	297 m TVD RKB / 273 m MSL
Depth Reference	RKB
Total Depth (Driller)	3347 m RKB 3183,5 m TVD RKB
Total Depth (Logger)	Not logged to Total Depth. Not logged to Total Depth.
Formation at Total Depth	Lunde Formation
Date Spudded	06.11.2001
Date Reached TD	01.12.2001
Date Completed	09.12.2001
Well Status	P & A as a discovery
Well Classification	Exploration well
Prepared by	B.Schønningsen, K.Kalgraff, C.Dons, E.Skottlien
Controlled by	
Date	

Country	Norway
Licence	PL120
Owners	Norsk Hydro ASA (29.0 %) Statoil ASA (30.1 %) Petoro (16.9 %) TotalFinaElf (11.0 %) Conoco (13 %)
Field	Visund Sør
Platform	Transocean Arctic
Drilling Contractor	Transocen Sedco Forex
Mudlogging Company	Geoservices
Logging Company	Schlumberger
MWD Company	Anadrill
Geologists	K.Kalgraff, C.Dons, B.Schønningsen E.Skottlien, Å Halvorsen

Well Coordinates	**Geographical :**	61deg 16' 04.90'' N	02deg 20' 31.95'' E
	UTM:	6 792 981.1 m North	464 721.6 m East
	European Datum 1950		
	UTM projection Zone 31	ED 50	
	Central Meridian 3 deg East		

Output log file created : 2002-08-14 11:17:28
Winlog well ID : 34_8_12 S
Winlog template version : 20010309 - AJC

Casing Records

Diameter	Shoe depth m MD RKB	Shoe depth m TVD RKB
30" Casing shoe	371	371
13 3/8" Casing shoe	1547	1546
9 5/8" Casing shoe	2953	2789

LOT / FIT

Type	Result {densityunits}	Depth m MD RKB	Depth m TVD RKB
FIT	1.66	1556.0	1555.2
FIT	1.73	2969.0	2805.6

Comments

Interval 297-1553m drilled with returns to Seabed (No Samples)
Lost circulation at 2201m in 34/8 - 12 S with 1.55sg mud.
Well sidetracked as 34/8-12 ST2 from 1904 - 1959 m. (Kick-off at 1910m)
A depth discrepancy of 1-2 m is seen between the MWD and wireline log data in the 8.5" section.
MDT pressure points were picked from the PEX wireline logs. When comparing the MDT points with MWD logs
this gives the impresson that some pressure points were taken in shale intervals. That is not the case. (Wireline/MWD depth offset)

Logs

Run no.	Log type	Logged interval
	34/8-12 S	
	MWD LOGS	
1	Power Pulse	297 - 373 m
2	Power Pulse-CDR	373 - 1553 m
3	Power Pulse-CDR	1553 - 1664 m
4	Power Pulse-CDR	1664 - 2201 m
	34/8-12 ST2	
	MWD LOGS	
5	Power Pulse-CDR	1900 - 1959 m
6	Power Pulse-CDR	1845 - 2960 m
7	Power Pulse-CDR-ADN	2960 - 2968 m
8	Power Pulse-CDR-ADN	2968 - 3347 m
	WIRELINE	
1A	AIT/PEX/DSI/GR	2650 - 3343 m
1A	VSP/GR	2650 - 3340 m
1A	MDT/GR	3056.2 - 3307.5 m
1A	CST/GR	3049 - 3183 m

Cores

Core no.	Cored interval m MD RKB	Recovered interval m MD RKB	Rec. mMD	Rec. %
No cores				

Pressure points (MDT)

Test no.	Depth m MD RKB	Depth m TVD RKB	Fm.Pres. QG (Bars)	Test no.	Depth m MD RKB	Depth m TVD RKB	Fm.Pres. QG (Bars)
sampl	3056.0	2868.6	424.47	8	3169.7	2982.3	446.83
51	3056.2	2868.8	424.36	26	3170.8	2983.4	451.30
50	3057.7	2870.3	426.10	1	3170.9	2983.5	452.21
49	3058.0	2870.6	424.92	24	3186.2	2998.8	452.93
48	3059.0	2871.6	424.50	23	3188.5	3001.1	453.13
47	3060.4	2873.1	424.58	22	3189.5	3002.1	453.24
46	3066.7	2879.3	425.07	21	3190.5	3003.1	453.32
45	3067.5	2880.1	425.12	20	3191.3	3003.9	453.43
35	3067.5	2880.1	425.17	19	3192.3	3004.9	453.50
sampl	3067.5	2880.1	425.17	18	3195.5	3008.1	453.83
44	3068.5	2881.1	425.16	17	3197.5	3010.1	454.02
43	3071.9	2884.5	279.69	16	3207.5	3020.1	454.99
42	3072.1	2884.7	328.17	15	3208.3	3020.9	455.08
33	3073.9	2886.5	384.95	14	3210.0	3022.6	455.23
32	3075.0	2887.6	427.84	13	3227.0	3039.6	456.93
31	3076.5	2889.1	428.50	12	3239.5	3052.1	458.50
11	3114.2	2926.8	318.79	11	3245.0	3057.6	458.64
30	3159.5	2972.1	451.15	10	3249.8	3062.4	459.09
none	3159.5	2972.1	0.00	9	3251.0	3063.6	459.28
sampl	3159.6	2972.2	451.21	8	3292.2	3104.8	465.22
6	3160.5	2973.1	451.21	7	3295.2	3107.8	464.53
4	3161.6	2974.2	451.26	6	3297.0	3109.6	464.71
7	3163.5	2976.1	451.35	5	3302.5	3115.5	465.34
3	3164.3	2976.9	451.38	3	3306.5	3119.1	465.66
29	3165.0	2977.6	451.43	3	3306.5	3119.1	465.77
2	3165.5	2978.1	451.46	2	3307.5	3120.1	465.74
27	3166.7	2979.3	451.54				

Lithology Legend

- CONGLOMERATE
- SAND/SANDSTONE
- SILT/SILTSTONE
- CLAY/CLAYSTONE
- SHALE

- LIMESTONE
- DOLOMITE
- DOL. LIMESTONE
- CALC. DOLOMITE
- CHALK
- MARL

- ANHYDRITE
- SALT
- GYPSUM
- TUFF
- INTR. IGNEOUS
- EXTR. IGNEOUS

- ··· SANDY, VERY
- ·· SANDY
- · SANDY, SLIGHTLY
- ıı ıı ıı SILTY, VERY
- ıı ıı SILTY
- ıı SILTY, SLIGHTLY
- — ARGILLACEOUS
- ⊥ CALCAREOUS

- Q CEMENT: QUARTZ
- ┬┬┬ CEMENT: CARBONATE
- K CEMENT: KAOLINITE

- c CARBONACEOUS MAT.
- △ CHERT
- * GLAUCONITE
- M MICA
- □ PYRITE
- v TUFFACEOUS

- MACROFOSSILS
- MACROFOSSILS FRAG
- MICROFOSSILS

Symbol legend

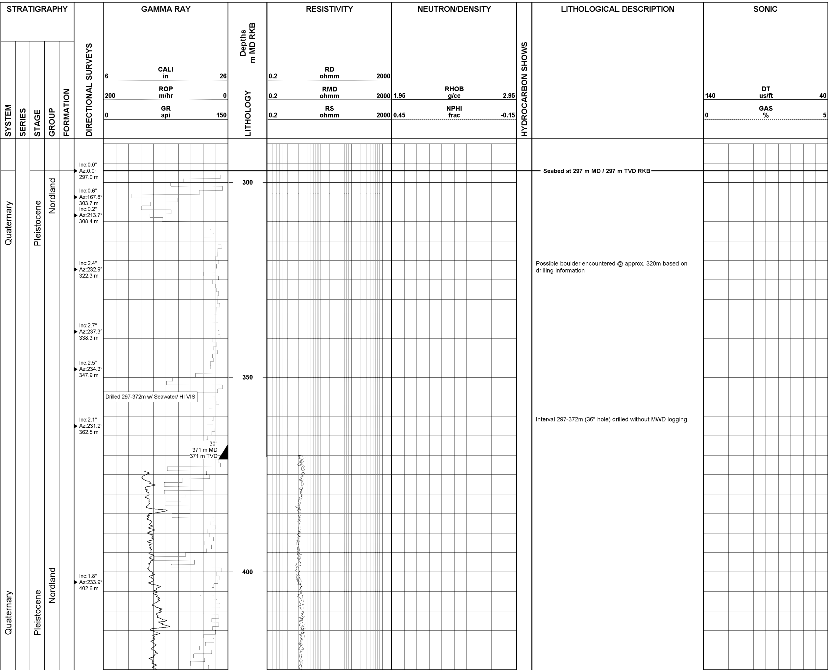
- ◢ Casing shoe
- ◥ Liner hanger
- ◢ Liner shoe
- ▶ Inc:(deg)° Az:(deg)° TVD m Deviation survey - MWD
- ▷ Inc:(deg)° Az:(deg)° TVD m Deviation survey - Other
- 1 Core interval
- → Sidewall core
- ▷ (No recovery)

DST

- ② Open hole
- 2 Open hole (rerun)
- Ⓘ Through casing
- II Through casing (rerun)
- Perforation interval
- ← ① RFT / MDT

SHOWS

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

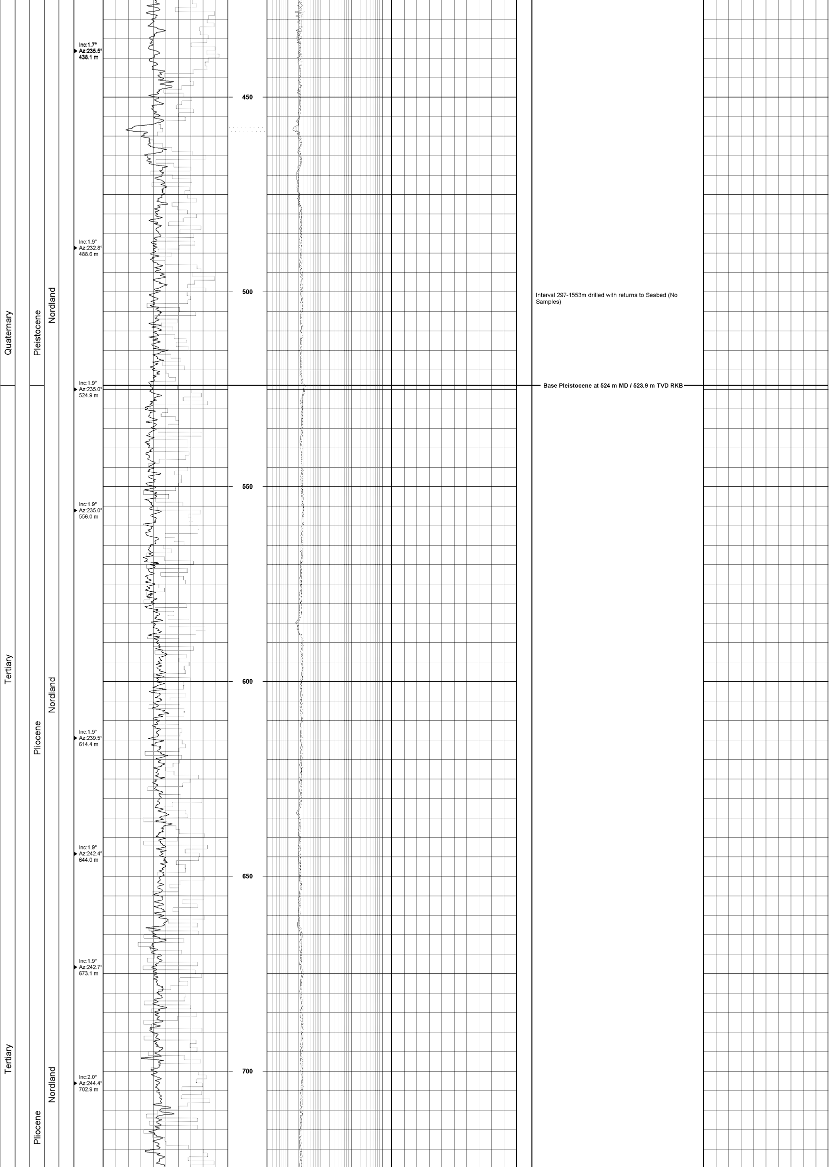


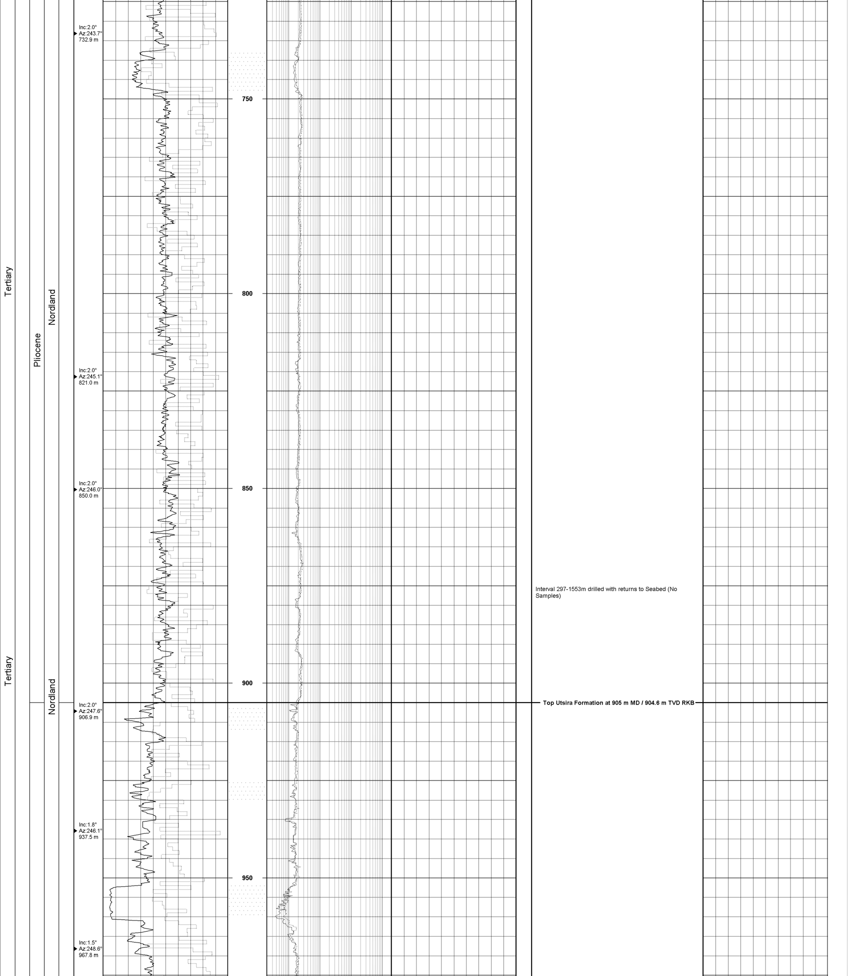
Drilled 297-372m w/ Seawater/ HI VIS

Seabed at 297 m MD / 297 m TVD RKB

Possible boulder encountered @ approx. 320m based on drilling information

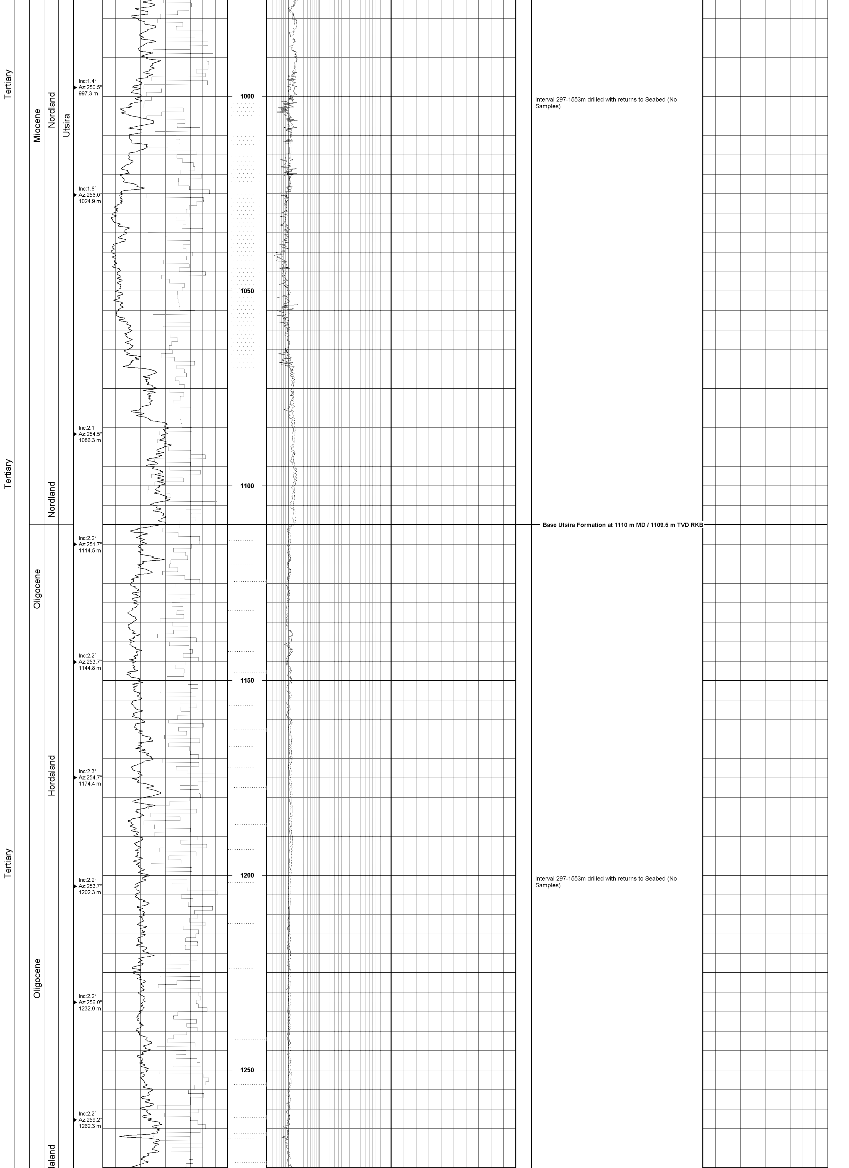
Interval 297-372m (36" hole) drilled without MWD logging





Interval 297-1553m drilled with returns to Seabed (No Samples)

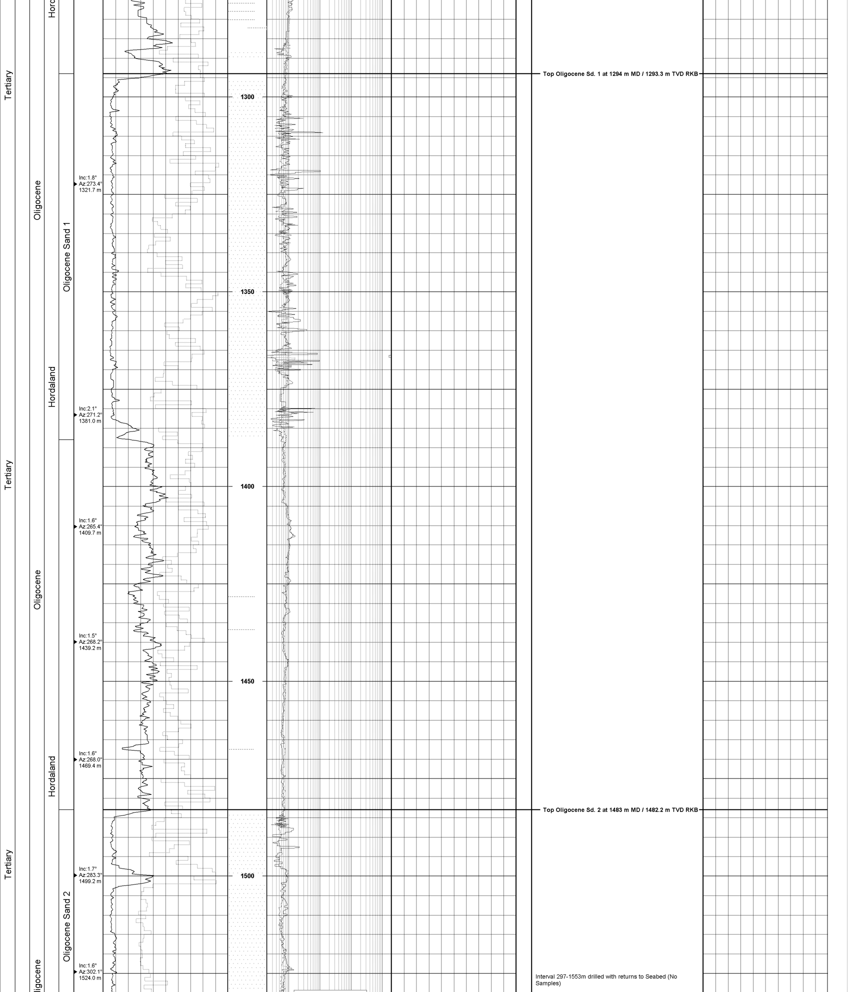
Top Utsira Formation at 905 m MD / 904.6 m TVD RKB

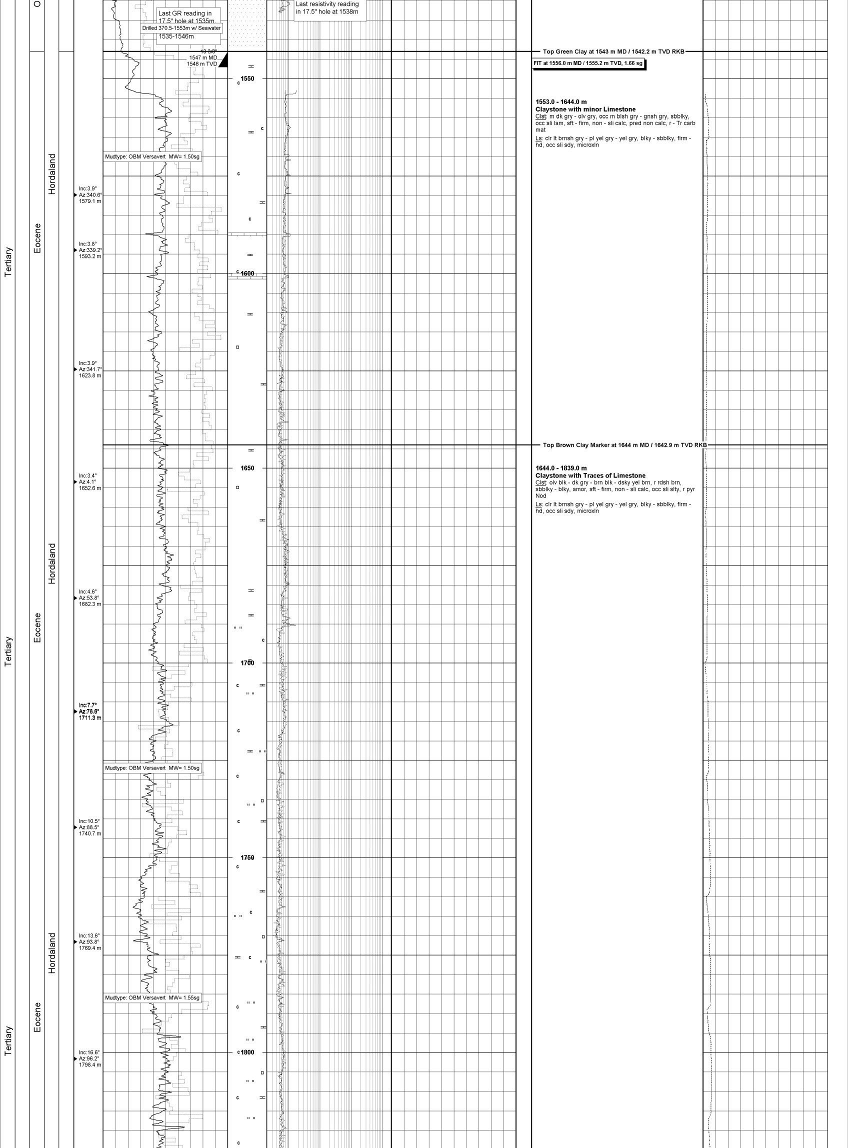


Interval 297-1553m drilled with returns to Seabed (No Samples)

Base Utsira Formation at 1110 m MD / 1109.5 m TVD RKB

Interval 297-1553m drilled with returns to Seabed (No Samples)





Top Green Clay at 1543 m MD / 1542.2 m TVD RKB

FIT at 1556.0 m MD / 1555.2 m TVD, 1.66 sg

1553.0 - 1644.0 m
Claystone with minor Limestone

Clst: m dk gry - olv gry, occ m blsh gry - gnsh gry, sbblky, occ sli lam, sft - firm, non - sli calc, pred non calc, r - Tr carb mat

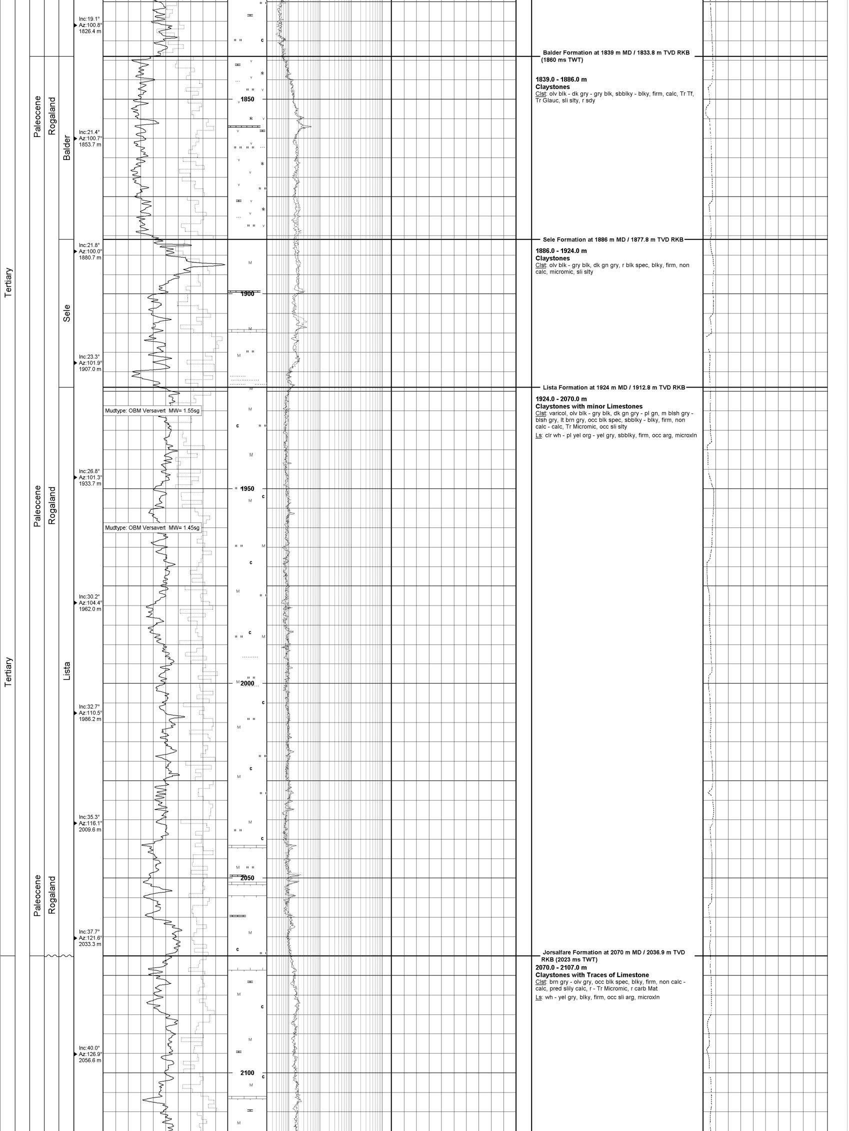
Ls: clr lt brnsh gry - pl yel gry - yel gry, blky - sbblky, firm - hd, occ sli sdy, microxln

Top Brown Clay Marker at 1644 m MD / 1642.9 m TVD RKB

1644.0 - 1839.0 m
Claystone with Traces of Limestone

Clst: olv blk - dk gry - brn blk - dsky yel brn, r rdsh brn, sbblky - blky, amor, sft - firm, non - sli calc, occ sli slty, r pyr Nod

Ls: clr lt brnsh gry - pl yel gry - yel gry, blky - sbblky, firm - hd, occ sli sdy, microxln



Balder Formation at 1839 m MD / 1833.8 m TVD RKB (1860 ms TWT)

1839.0 - 1886.0 m
Claystones
Clst: olv blk - dk gry - gry blk, sbblky - blky, firm, calc, Tr Tf, Tr Glauc, sli slty, r sdy

Sele Formation at 1886 m MD / 1877.8 m TVD RKB

1886.0 - 1924.0 m
Claystones
Clst: olv blk - gry blk, dk gn gry, r blk spec, blky, firm, non calc, micromic, sli slty

Lista Formation at 1924 m MD / 1912.8 m TVD RKB

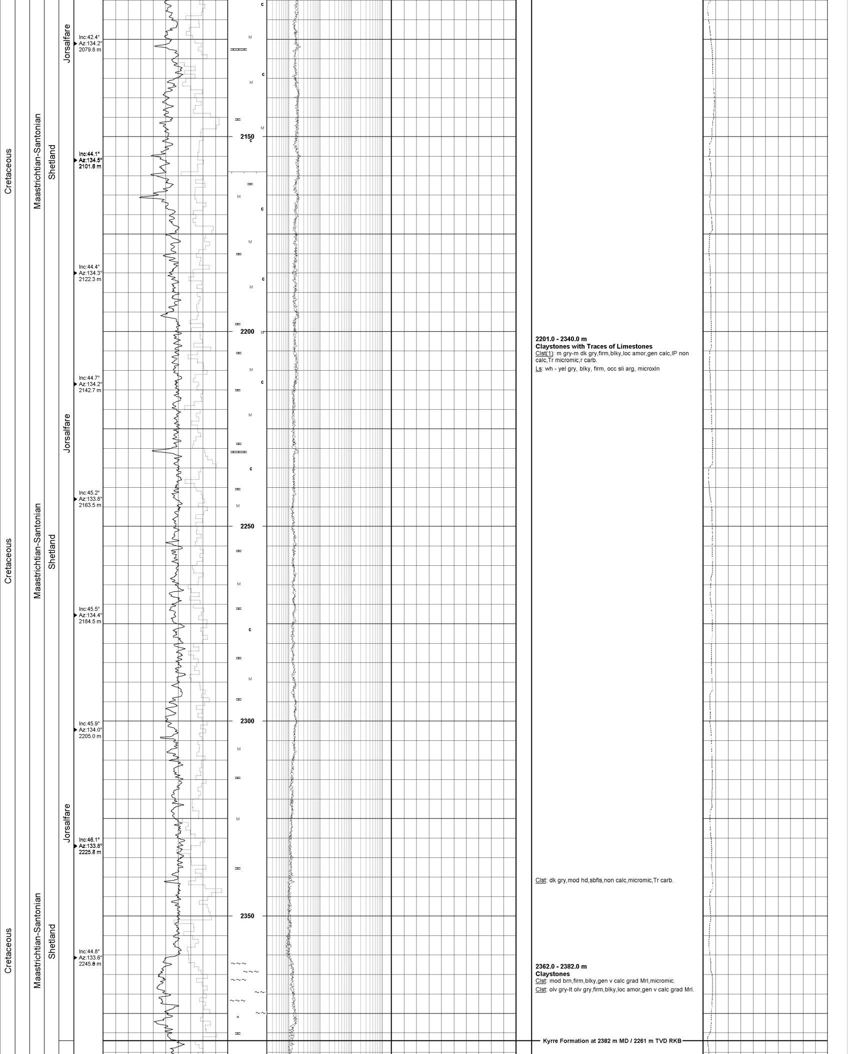
1924.0 - 2070.0 m
Claystones with minor Limestones
Clst: varicol, olv blk - gry blk, dk gn gry - pl gn, m blsh gry - blsh gry, lt brn gry, occ blk spec, sbblky - blky, firm, non calc - calc, Tr Micromic, occ sli slty

Ls: clr wh - pl yel org - yel gry, sbblky, firm, occ arg, microxln

Jorsalfare Formation at 2070 m MD / 2036.9 m TVD RKB (2023 ms TWT)

2070.0 - 2107.0 m
Claystones with Traces of Limestone
Clst: brn gry - olv gry, occ blk spec, blky, firm, non calc - calc, pred slily calc, r - Tr Micromic, r carb Mat

Ls: wh - yel gry, blky, firm, occ sli arg, microxln



2201.0 - 2340.0 m
Claystones with Traces of Limestones
Clst(1): m gry-m dk gry,firm,blky,loc amor,gen calc,IP non calc,Tr micromic,r carb.

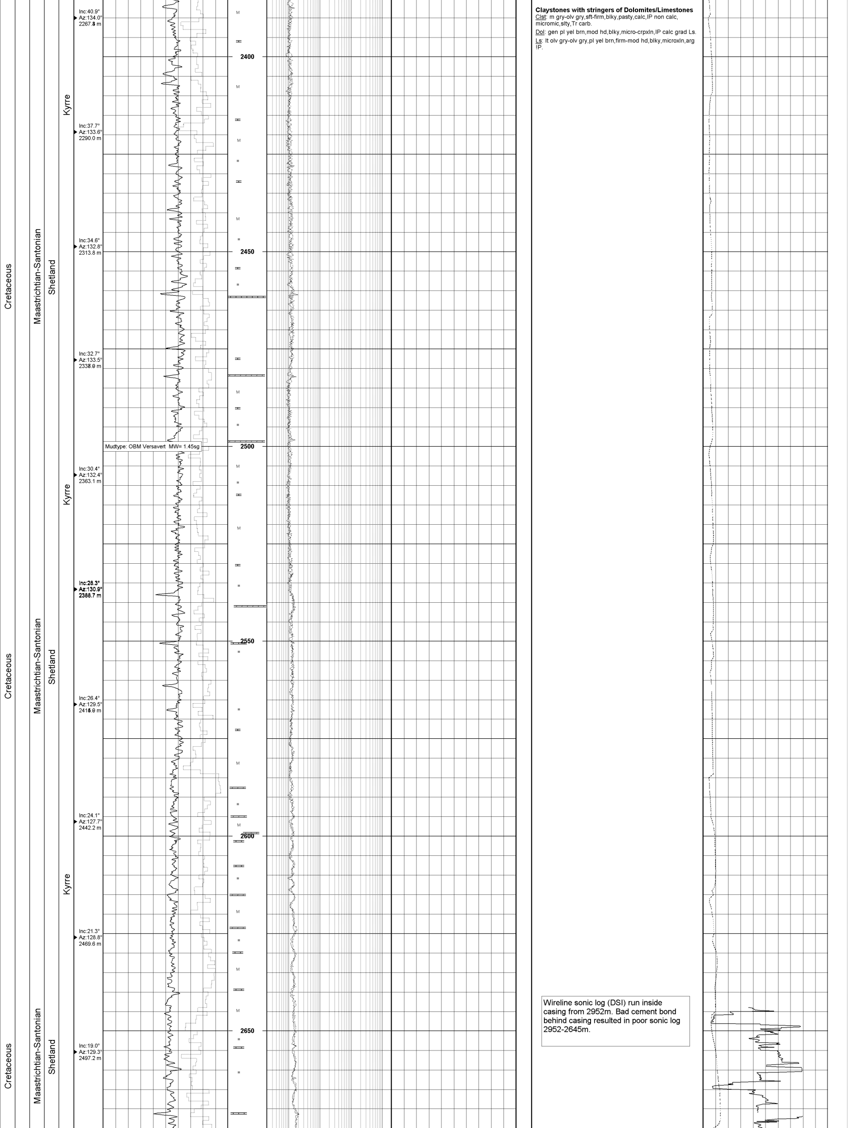
Ls: wh - yel gry, blky, firm, occ sli arg, microxln

Clst: dk gry,mod hd,sbfis,non calc,micromic,Tr carb.

2362.0 - 2382.0 m
Claystones
Clst: mod brn,firm,blky,gen v calc grad Mrl,micromic.

Clst: olv gry-lt olv gry,firm,blky,loc amor,gen v calc grad Mrl.

Kyrre Formation at 2382 m MD / 2261 m TVD RKB



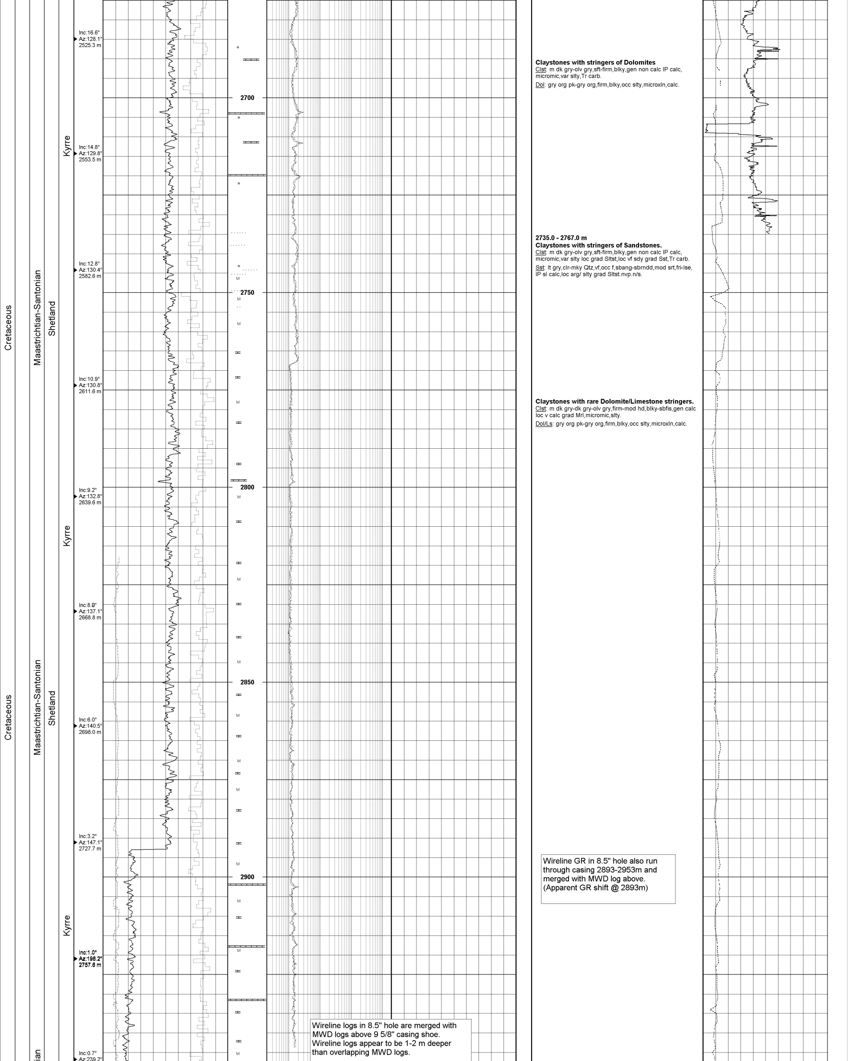
Claystones with stringers of Dolomites/Limestones

Clst: m gry-olv gry,sft-firm,blky,pasty,calc,IP non calc, micromic,slty,Tr carb.

Dol: gen pl yel brn,mod hd,blky,micro-crpxln,IP calc grad Ls.

Ls: lt olv gry-olv gry,pl yel brn,firm-mod hd,blky,microxln,arg IP.

Wireline sonic log (DSI) run inside casing from 2952m. Bad cement bond behind casing resulted in poor sonic log 2952-2645m.



Claystones with stringers of Dolomites
Clst: m dk gry-olv gry,sft-firm,blky,gen non calc IP calc, micromic,var slty,Tr carb.

Dol: gry org pk-gry org,firm,blky,occ slty,microxln,calc.

2735.0 - 2767.0 m
Claystones with stringers of Sandstones.
Clst: m dk gry-olv gry,sft-firm,blky,gen non calc IP calc, micromic,var slty loc grad Sltst,loc vf sdy grad Sst,Tr carb.

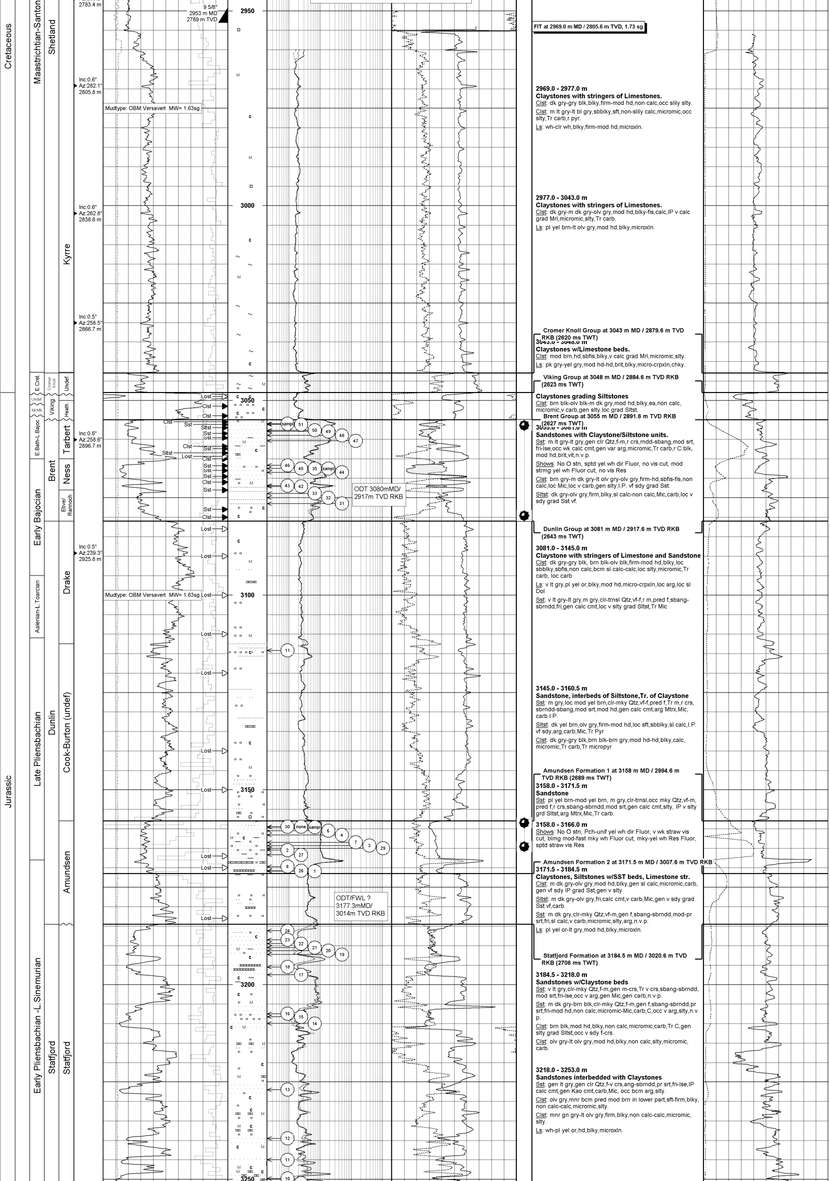
Sst: lt gry,clr-mky Qtz,vf,occ f,sbang-sbrndd,mod srt,fri-lse, IP sl calc,loc arg/ slty grad Sltst.nvp.n/s.

Claystones with rare Dolomite/Limestone stringers.
Clst: m dk gry-dk gry-olv gry,firm-mod hd,blky-sbfis,gen calc loc v calc grad Mrl,micromic,slty.

Dol/Ls: gry org pk-gry org,firm,blky,occ slty,microxln,calc.

Wireline GR in 8.5" hole also run through casing 2893-2953m and merged with MWD log above. (Apparent GR shift @ 2893m)

Wireline logs in 8.5" hole are merged with MWD logs above 9 5/8" casing shoe. Wireline logs appear to be 1-2 m deeper than overlapping MWD logs.



2969.0 - 2977.0 m
Claystones with stringers of Limestones.
Clst: dk gry-gry blk,blky,firm-mod hd,non calc,occ slily slty.

Clst: m lt gry-lt bl gry,sbblky,sft,non-slily calc,micromic,occ slty,Tr carb,r pyr.

Ls: wh-clr wh,blky,firm-mod hd,microxln.

2977.0 - 3043.0 m
Claystones with stringers of Limestones.
Clst: dk gry-m dk gry-olv gry,mod hd,blky-fis,calc,IP v calc grad Mrl,micromic,slty,Tr carb.

Ls: pl yel brn-lt olv gry,mod hd,blky,microxln.

Cromer Knoll Group at 3043 m MD / 2879.6 m TVD RKB (2620 ms TWT)

3043.0 - 3048.0 m
Claystones w/Limestone beds.
Clst: mod brn,hd,sbfis,blky,v calc grad Mrl,micromic,slty.

Ls: pk gry-yel gry,mod hd-hd,brit,blky,micro-crpxln,chky.

Viking Group at 3048 m MD / 2884.6 m TVD RKB (2623 ms TWT)

Claystones grading Siltstones
Clst: brn blk-olv blk-m dk gry,mod hd,blky,ea,non calc, micromic,v carb,gen slty loc grad Sltst.

Brent Group at 3055 m MD / 2891.6 m TVD RKB (2627 ms TWT)

3055.0 - 3081.0 m
Sandstones with Claystone/Siltstone units.
Sst: m lt gry-lt gry,gen clr Qtz,f-m,r crs,rndd-sbang,mod srt, fri-lse,occ wk calc cmt,gen var arg,micromic,Tr carb,r C:blk, mod hd,brit,vit,n.v.p.

Shows: No O stn, sptd yel wh dir Fluor, no vis cut, mod strmg yel wh Fluor cut, no vis Res

Clst: brn gry-m dk gry-lt olv gry-olv gry,firm-hd,sbfis-fis,non calc,loc Mic,loc v carb,gen slty,I.P. vf sdy grad Sst.

Sltst: dk gry-olv gry,firm,blky,sl calc-non calc,Mic,carb,loc v sdy grad Sst vf.

Dunlin Group at 3081 m MD / 2917.6 m TVD RKB (2643 ms TWT)

3081.0 - 3145.0 m
Claystone with stringers of Limestone and Sandstone
Clst: dk gry-gry blk, brn blk-olv blk,firm-mod hd,blky,loc sbblky,sbfis,non calc,bcm sl calc-calc,loc slty,micromic,Tr carb, loc carb

Ls: v lt gry,pl yel or,blky,mod hd,micro-crpxln,loc arg,loc sl Dol

Sst: v lt gry-lt gry,m gry,clr-trnsl Qtz,vf-f,r m,pred f,sbang-sbrndd,fri,gen calc cmt,loc v slty grad Sltst,Tr Mic

3145.0 - 3160.5 m
Sandstone, interbeds of Siltstone,Tr. of Claystone
Sst: m gry,loc mod yel brn,clr-mky Qtz,vf-f,pred f,Tr m,r crs, sbrndd-sbang,mod srt,mod hd,gen calc cmt,arg Mtrx,Mic, carb I.P.

Sltst: dk yel brn,olv gry,firm-mod hd,loc sft,sbblky,sl calc,I.P. vf sdy,arg,carb,Mic,Tr Pyr

Clst: dk gry-gry blk,brn blk-brn gry,mod hd-hd,blky,calc, micromic,Tr carb,Tr micropyr

Amundsen Formation 1 at 3158 m MD / 2994.6 m TVD RKB (2689 ms TWT)

3158.0 - 3171.5 m
Sandstone
Sst: pl yel brn-mod yel brn, m gry,clr-trnsl,occ mky Qtz,vf-m, pred f,r crs,sbang-sbrndd,mod srt,gen calc cmt,slty, IP v slty grd Sltst,arg Mtrx,Mic,Tr carb.

3158.0 - 3166.0 m
Shows: No O stn, Pch-unif yel wh dir Fluor, v wk straw vis cut, blmg mod-fast mky wh Fluor cut, mky-yel wh Res Fluor, sptd straw vis Res

Amundsen Formation 2 at 3171.5 m MD / 3007.6 m TVD RKB

3171.5 - 3184.5 m
Claystones, Siltstones w/SST beds, Limestone str.
Clst: m dk gry-olv gry,mod hd,blky,gen sl calc,micromic,carb, gen vf sdy IP grad Sst,gen v slty.

Sltst: m dk gry-olv gry,fri,calc cmt,v carb,Mic,gen v sdy grad Sst vf,carb.

Sst: m dk gry,clr-mky Qtz,vf-m,gen f,sbang-sbrndd,mod-pr srt,fri,sl calc,v carb,micromic,slty,arg,n.v.p.

Ls: pl yel or-lt gry,mod hd,blky,microxln.

Statfjord Formation at 3184.5 m MD / 3020.6 m TVD RKB (2706 ms TWT)

3184.5 - 3218.0 m
Sandstones w/Claystone beds
Sst: v lt gry,clr-mky Qtz,f-m,gen m-crs,Tr v crs,sbang-sbrndd, mod srt,fri-lse,occ v arg,gen Mic,gen carb,n.v.p.

Sst: m dk gry-brn blk,clr-mky Qtz,f-m,gen f,sbang-sbrndd,pr srt,fri-mod hd,non calc,micromic-Mic,carb,C,occ v arg,slty,n.v.p.

Clst: brn blk,mod hd,blky,non calc,micromic,carb,Tr C,gen slty grad Sltst,occ v sdy f-crs.

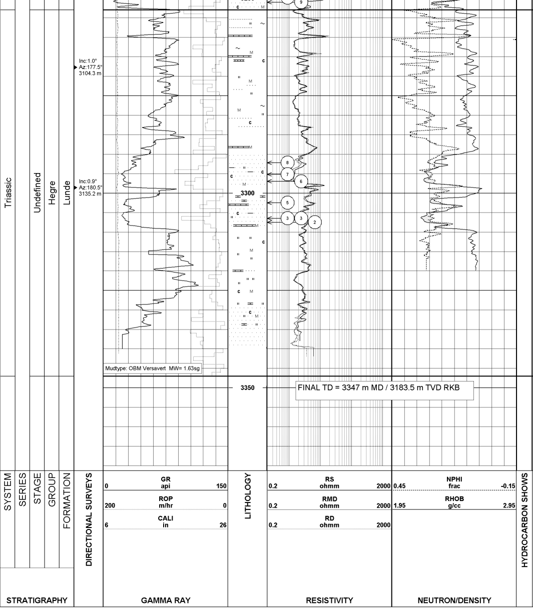
Clst: olv gry-lt olv gry,mod hd,blky,non calc,slty,micromic, carb.

3218.0 - 3253.0 m
Sandstones interbedded with Claystones
Sst: gen lt gry,gen clr Qtz,f-v crs,ang-sbrndd,pr srt,fri-lse,IP calc cmt,gen Kao cmt,carb,Mic, occ bcm arg,slty.

Clst: olv gry,mnr bcm pred mod brn in lower part,sft-firm,blky, non calc-calc,micromic,slty.

Clst: mnr gn gry-lt olv gry,firm,blky,non calc-calc,micromic, slty.

Ls: wh-pl yel or,hd,blky,microxln.



**Hegre Group at 3253 m MD / 3089.6 m TVD RKB
(2748 ms TWT)**

3253.0 - 3288.0 m
Claystones w/stringers of Sandstones and Limestones

Clst: mod brn-brn gry,mod hd-firm,blky-fis,non calc-v calc IP grad Mrl,micromic,occ v slty grad Sltst,vf sdy.

Clst: gn gry- dk gry,mod hd,blky,gen sl calc,micromic,slty,Tr carb,chlor.

Sst: m lt gry-olv gry-brn gry,clr-mky Qtz,f,sbang-sbrndd,pr-mod srt,fri,sl calc,gen arg/slty,Mic,carb,n.v.p.

Ls: wh-pl yel or,hd,blky,microxln,loc sdy,grad calc Sst.

3288.0 - 3310.0 m
Sandstones w / thin Claystones.

Sst: gen lt gry,dk gn gry at top,gen clr Qtz,f-m,bcm crs at base,ang-sbrndd,Tr rndd,mod srt,fri-mod hd,occ calc,IP arg Mtrx,gen Mica,carb,slty IP,chlor at top,n.v.p.

Clst: m dk gry-gn gry,firm-sft,blky,sl calc-calc,micromic,slty, Tr vf sdy.

3310.0 - 3330.0 m
Claystones with stringers of Limestones

Clst: mod brn-gry brn,hd-mod hd,loc firm,blky,non calc-v calc,slty,vf sdy I.P.,micromic,Tr carb

Clst: dk gry-m dk gry,lt olv gry,mod hd, blky,non calc,slty, micromic,carb

Ls: wh-pl yel or,hd,blky,microxln,loc sdy grad calc Sst

Ls: gn gry-lt olv gry,pk gry,hd,blky,microxln,loc arg

3330.0 - 3342.0 m
Sandstone w/stringers of Limestone, Claystone

Sst: v lt gry-lt gry,lt olv gry,clr-trnsl,occ mky Qtz,f-m,Tr crs, sbang-sbrndd,r ang,r rndd,mod srt,fri,gen calc cmt,loc arg Mtrx,loc slty,Tr Mic

Ls: wh-v lt gry,hd,blky,microxln,loc arg,loc vf sdy,I.P.grd calc Sst

Ls: gn gry-lt olv gry,hd,blky,microxln,loc arg

Clst: mod brn-gry brn,hd-mod hd,loc firm,blky,non calc-v calc,slty,vf sdy I.P.,micromic,Tr carb

3342.0 - 3347.0 m
Claystone with trace of Sandstone and Limestone

Clst: mod brn,loc dk yel or,firm-mod hd,sbblky-blky,non calc-v calc,I.P. grad Mrl,loc arg,micromic bcm abd micromic,loc micropyr

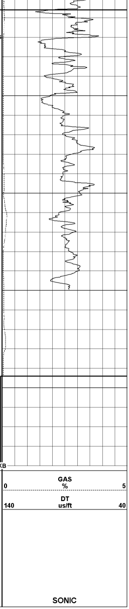
Clst: m gry,olv gry,sft-firm,sbblky,non calc

Sst: lt olv gry-lt gn gry,clr-trnsl Qtz,vf-f,sbang-sbrndd,mod srt,mod hd,non calc,Glauc,Carb,Tr Mic

Ls: dk yel or,sft-mod hd,sbblky-blk,ymicroxln,loc arg,I.P. grad Mrl

Ls: wh-v lt gry,hd,blky,microxln,loc arg,loc vf sdy,I.P.grad calc Sst

TD(50m into Lunde Fm) at 3347 m MD / 3183.5 m TVD RKB

LITHOLOGICAL DESCRIPTION