SIMON PETROLEUM TECHNOLOGY

WELL: 34/4-7

Print: 1616 H	Units: [✓ M] F	Top	Bottom	Scale	TD
Length: 26 FT	Initials: WC	470	2945	1/500	2950

DIGITAL WIRELINE LOGS PACKAGE
1993
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SIMON PETROLEUM TECHNOLOGY SPT

COMPLETION LOG

Mb.101.1

Enclosure I

STATOIL / DEMINEX / AMOCO /
AMERADA / TEXAS EASTERN

saga

Saga Petroleum a.s.

Composite Well Log

● Well 34/4-7

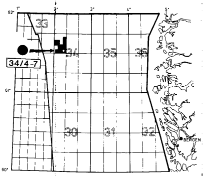
SCALE	: 1:500
COUNTRY	: NORWAY
AREA	: TAMPEN
OPERATOR	: SAGA PETROLEUM A.S
LICENCE	: 057
RIG TAKEN OVER BY THE LICENCE	: 14.2.87
DATE SPUDDED	: 17.2.87
T.D. DATE	: 18.3.87
RIG RELEASED	: 12.5.87
COMPLETION STATUS:	P and A Oil Well

RIG	: TREASURE SAGA
LOCATION COORDINATES	
LATITUDE	: 61° 31'09.83"N
LONGITUDE	: 02° 15'15.45"E
UTM COORDINATES	6821 032.2m N 460 326.5m E
ELEVATIONS	
RKB-MEAN SEA LEVEL:	26m
RKB-SEA FLOOR	: 380m
WATER DEPTH	: 354m
TOTAL DEPTH	
driller's depth	: 2950m
logger's depth	: (2942m)

DRILLING CONTRACTOR	MUDLOGGING SERVICE
WILH. WILHELMSEN	EXPLORATION LOGGING

CASING	SHOE(mRKB)	HOLE SIZE	INTERVALL(mRKB)
30"	465	36"	380-470
20"	902	26"	470 915
13 3/8"	1872	17 1/2"	915-1887
9 5/8"	2921	12 1/4"	1887-2950

LOCATION MAP



OPEN HOLE LOGS

ANADRILL(MWD)/DRESSER ATLAS (WIRE LINE LOGS)

Casing Record	Hole Size	Logged Interval (m RKB)	Type of Log	Run No.	Date
	36" to 470 m				
30" 465 m					
	26" to 915 m		MWD		
20" 902 m					
	17 1/2" to 1887 m		MWD		
		902.8 - 1882.2	DIFL-LSBHC-GR	1A	02.03.87
		902.8 - 1863.5	CDL-GR	1A	02.03.87
		47 cores rec.	COREGUN	1A	02.03.87
13 3/8" 1872 m					
	12 1/4" to 2950 m		MWD		
		Intermediate run			
		1872.2 - 2647.2	CDL-CNL-GR	2B	13.03.87
		2450.0 - 2646.8	DLL-MLL-GR	2A	13.03.87
			FMT (HP-gauge)	2A-C	13.03.87
		At T.D.			
		1872.2 - 2939.3	DIFL-LSBHC-GR	3B	19.03.87
9 5/8" 2921 m		2472.0 - 2940.3	CDL-CNL-GR	3C	20.03.87
		1872.2 - 2941.0	DIPLOG	3A	20.03.87
			FMT (HP-gauge)	3D-F	21.03.87
			VSP	3A	21.03.87
		42 cores rec.	COREGUN	3B-D	21.03.87
		640.0 - 1872.2	CBL-GR	3A	19.03.87
T.D. 2942 m (logger's depth)					

AUTHOR: B. R. FREDHEIM APPR: T. SOLLI

DRAFTED BY: R. H. KJØLSTAD DATE: SEPT. 1987

GEOLOGICAL SYMBOLS

- CLAY/ CLAYSTONE
- SHALE
- SILTSTONE
- SAND/ SANDSTONE
- CONGLOMERATE
- BRECCIA
- LIMESTONE
- CHALK
- DOLOMITE
- MARL
- SALT
- ANHYDRITE/ GYPSUM
- VOLCANICS
- COAL
- GNEISSEOUS/ BASEMENT

LITH.PREFIXES

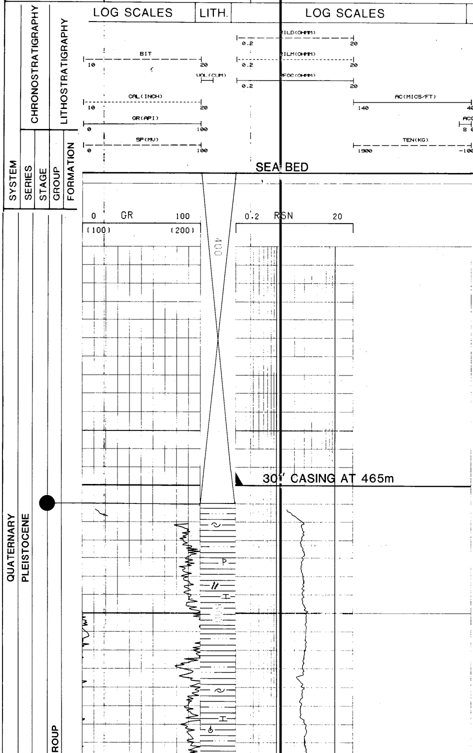
- Ӏ CALCAREOUS
- Ӏ DOLOMITIC
- _ ARGILLACEOUS
- ▽ CHERTY
- ✶ GLAUCONITIC
- M MICACEOUS
- P PYRITIC
- V TUFFACEOUS
- ∬ METAMORPHICS
- ⊕ SIDERITE

FOSSILS

- ஃ FORAMINIFERA
- ~ SHELL DEBRIS
- ⌒ MACROFOSSILS
- ♁ FOSSILS N GENERAL

WELL LOG SYMBOLS

- ► SIDEWALL CORE
- ▷ SIDEWALL CORE, NO RECOVERY
- ▌ CORE
- ◕ SHOWS, FLUORESCENCE AND CUT
- ◐ SHOWS STAIN FLUORESCENCE, AND CUT
- ☼ GAS, ON LOGS
- ◣ CASING SHOE
- ⊏ DRILL STEM TEST



DESCRIPTION AND REMARKS

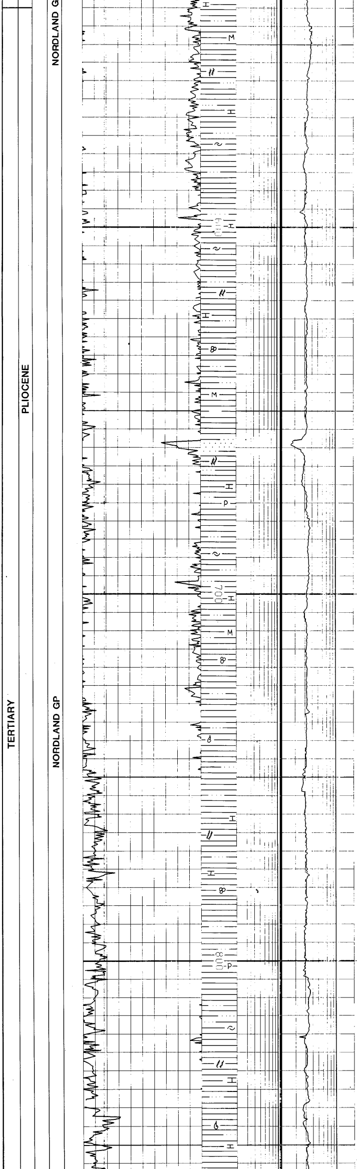
380m (-354)
478ms

CLAY WITH MINOR SAND

Cly: aren, pred m dk gy occ m lt gy - dk gn gy, stc, sft, sl calc

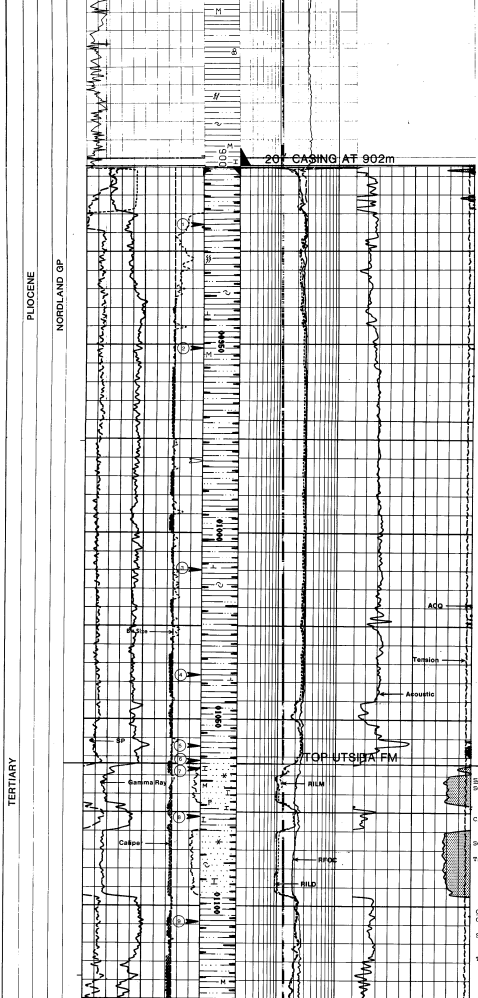
Sd: qtz, clr, vf-m occ c, mod-p srtd, ang-sbrnd

Tr: rk frag, shl frag, foram, microf, mica, occ pyr, occ ls



LITHOLOGY AS ABOVE

LITHOLOGY AS ABOVE



1062m (-1036)

1119ms

SAND WITH MINOR CLAY

Sd: v arg, lt gy - gn gy, vf-f, w srtd, sbang-sbrnd, mic-mica, sl-v calc,

Cly: sl aren, olv gy, stc, sft, mic-mica, calc - v calc

Sd: qtz, clr, vf-m, mod srtd, sbrnd

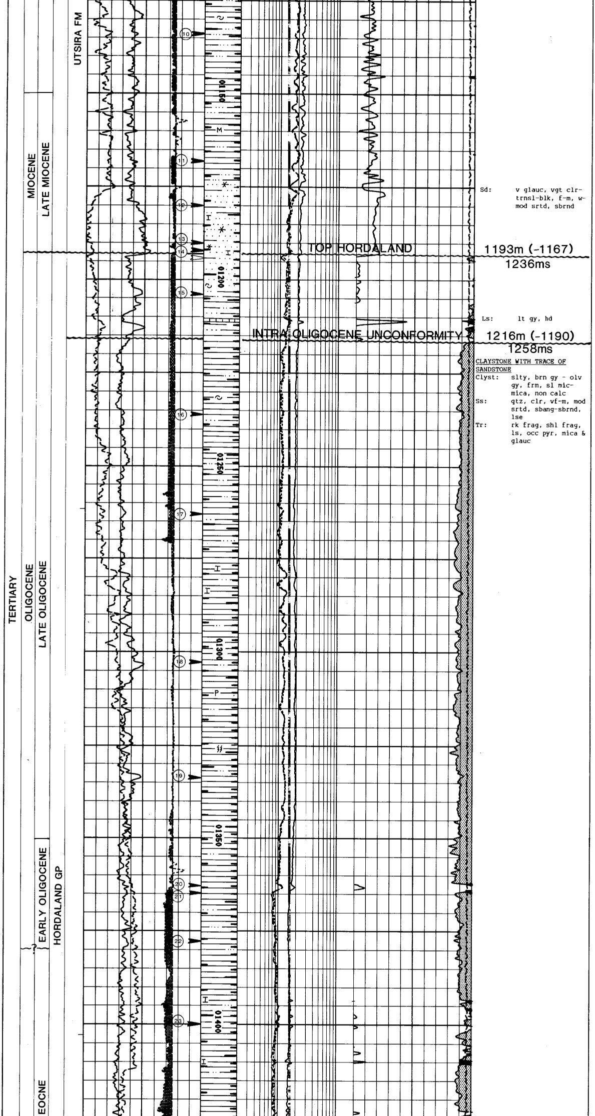
Tr: shl frag, rk frag, occ pyr & glauc

CLAY WITH MINOR SAND

Cly: slty, m dk gy, stc, sft, sl calc

Sd: qtz, clr, vf-f occ m, w-mod srtd, sbang-sbrnd

Tr: a/a



Sd: v glauc, vgt clr-trnsl-blk, f-m, w-mod srtd, sbrnd

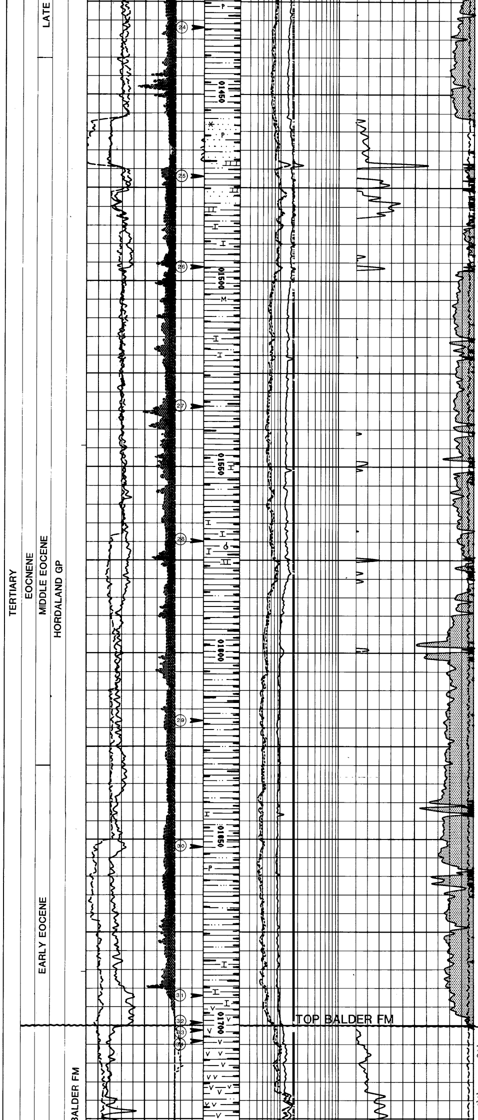
Ls: lt gy, hd

CLAYSTONE WITH TRACE OF SANDSTONE

Clyst: slty, brn gy - olv gy, frm, sl mic-mica, non calc

Ss: qtz, clr, vf-m, mod srtd, sbang-sbrnd, lse

Tr: rk frag, shl frag, ls, occ pyr, mica & glauc



Ss: qtz, clr, f-m occ c, w-mod srtd, sbrnd, lse occ calc cmt

CLAYSTONE WITH TRACE OF LIMESTONE AND SANDSTONE

Clyst: occ slty, m dk gy - olv gy occ brn gy, frm, occ sbfis, sl mic-mica, non calc

Tr: ls; occ arg, v lt gy - pa yel brn, frm-hd

Tr: ss; clr, vf-m, mod srtd, sbrnd, lse

Tr: sltst; lt brn gy - lt gy, frm, mic-mica, non calc

Tr: pyr, glauc, fos

1700m (-1674)

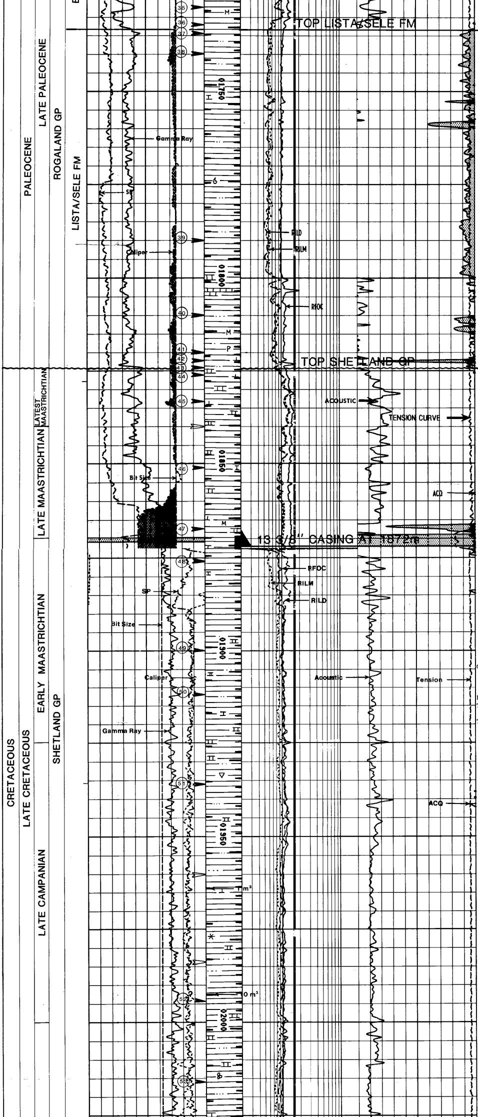
1750ms

TUFFACEOUS CLAYSTONE

Clyst: v tuf, sl slty, m dk gy - gn blk occ brn gy /wh and blk specs, frm, non-sl calc

Tr: ss, ls a/a

Tr: pyr, fos



1733m (-1707)

1780ms

CLAYSTONE

Clyst: sl slty, m gy - dk gn gy occ brn gy - rd brn, frm, occ sbfis, sl mic-mica, non calc

Tr: ls; occ arg, lt yel brn occ wh, frm-hd

Tr: ss; clr, vf-m, mod srtd, sbang-sbrnd, lse

Tr: pyr, mica, fos

1824m (-[illegible]798)

1871ms

CLAYSTONE WITH TRACE OF LIMESTONE STRINGERS

Clyst: m dk gy - olv gy, frm, occ sbfis, sl mic-mica, v calc

Ls: arg, wh-lt gy, frm occ hd

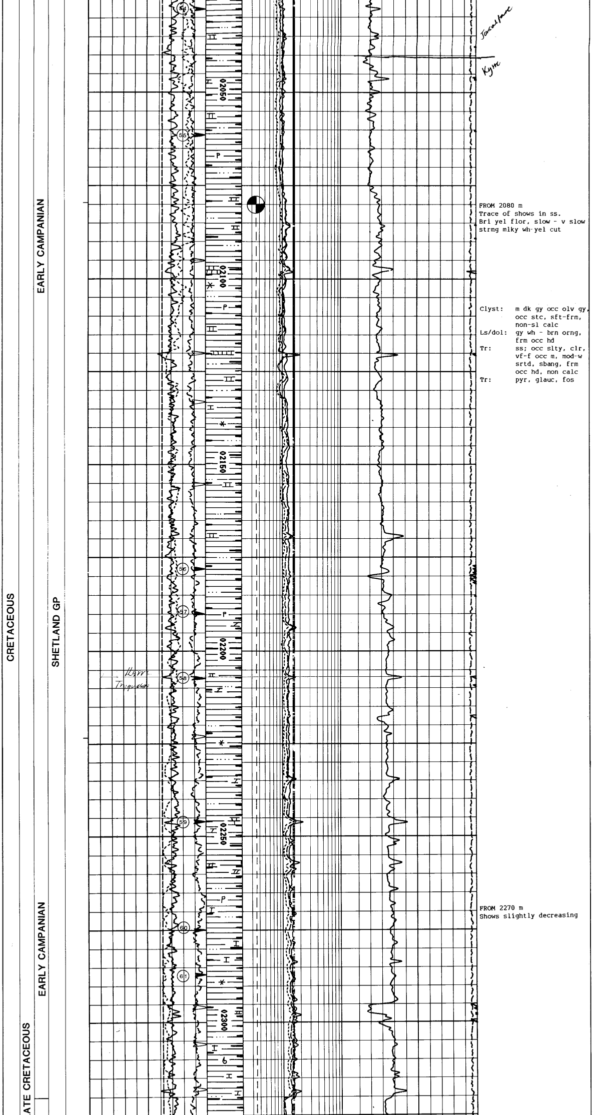
Tr: pyr, mica

Clyst: slty, pred m gy occ brn gy, sft-frm, sl mic-mica, calc - v calc

Ls: a/a

Tr: ss; clr, f-m, mod-w srtd, sbrnd, lse

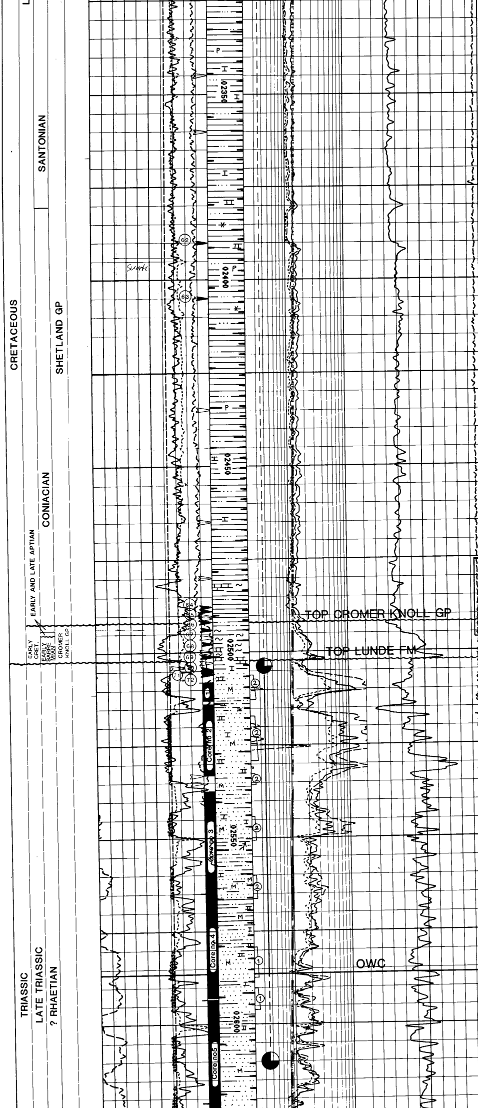
Tr: pyr, mica, foram, cht, glauc



FROM 2080 m
Trace of shows in ss.
Bri yel flor, slow - v slow
strmg mlky wh-yel cut

Clyst:	m dk gy occ olv gy, occ stc, sft-frm, non-sl calc
Ls/dol:	gy wh - brn orng, frm occ hd
Tr:	ss; occ slty, clr, vf-f occ m, mod-w srtd, sbang, frm occ hd, non calc
Tr:	pyr, glauc, fos

FROM 2270 m
Shows slightly decreasing



FROM 2335 m
Dull yel-bri yel flor, occ v slow strmg lt yel-wh cut, occ no cut

CLAYSTONE

Clyst: sl slty, m dk gy occ brn gy, sft-frm, occ sbfis, sl mic-mica, sl calc

Tr: ss: occ slty, pred clr occ brn orng, pred vf occ f-c, mod srtd, ang-sbang, lse occ frm-hd, occ calc cmt

Tr: ls/dol: wh-gy wh occ lt brn, sft-frm

Tr: pyr, glauc

MARL WITH MINOR LIMESTONE AND TRACES OF CLAYSTONE

Mrl: slty, mod-dk rd brn, sft-frm

Ls: pred wh occ lt gy, frm, chky

Clyst: a/a

2492m (-2466)
2422ms

2502m (-2476)
2428ms

SANDSTONE WITH MINOR SILTSTONE

Ss: qtz, trnsl-orng brn, vf-m pred f occ c, mod srtd, ang-sbang, fri-frm occ hd, occ tt calc cmt, v mica, p-fr por

Sltst: dk rd brn, frm-hd, sbfis, v mica, sl calc

Shows: strong hc od, exc brn o stn, 100% strong-mod yel flor, fast strmg, strong bl-wh cut, yel res upon evap

SANDSTONE INTERBEDDED WITH SILTSTONE

Ss: frequent lam by mica and clyst, else a/a

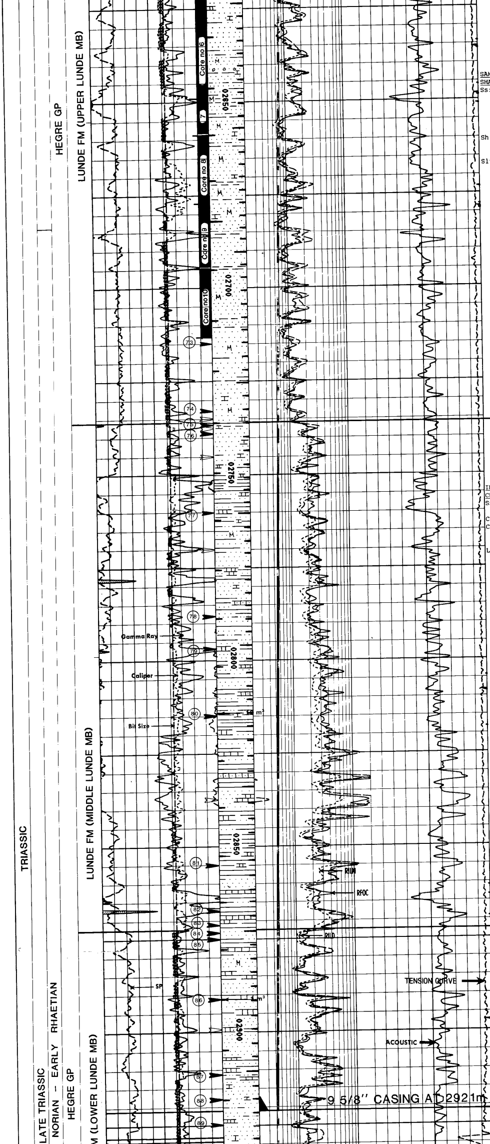
Sltst: occ lt gn gy, else a/a

Tr: clyst, slty, m gy - gn gy, sbfis, mic-mica, sl-v calc

2586m (-2560)

Shows: fr hc od, g pa brn o stn, 70-90% mod yel-lt brn ptchy flor, slow-fast strmg bl wh cut, pa yel res upon evap

From 2610 m NO SHOWS



SANDSTONE INTERBEDDED WITH SHALE AND SILTSTONE

Ss:	arg, qtz, clr-lt gn gy occ orng, vf-f occ m, w-mod srtd, sbang-sbrnd, fri-frm occ hd, sl-v mica, occ calc cmt
Sh:	vgt dk gy - dk rd brn, frm-hd, mic-mica, sl calc
Sltst:	a/a

2736m (-2710)

2579ms

INTERBEDDED SANDSTONE, CLAYSTONE AND LIMESTONE

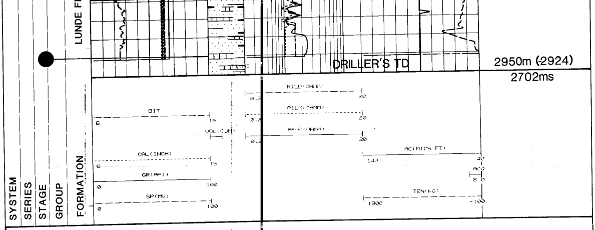
Ss:	occ grdg sltst, else a/a
Clyst/ls	lam
Clyst:	dk gy - brn gy - dk rd brn, sft occ frm, calc
Ls:	gy wh, frm

2872.5m (-2846,5)

2657ms

SANDSTONE WITH MINOR CLAYSTONE AND LIMESTONE

Ss:	clr-wh occ orng, vf-m pred f, mod-w srtd, sbang, lse-fri, sl mic-mica, calc
Clyst:	m-lt gy occ brn gy, sft-frm, sl mic-mica, calc - sl calc
Ls:	gy wh, frm
Tr:	sltst, lt gy, frm, calc - sl calc



WELL 34/4-7 - CORE SUMMARY

Core No.	Cut Interval m RKB	Cut m	Recovered Interval m RKB	Recovered m	Recovered %	Correction Factor m	Recovered Interval Log m RKB
1	2506.0 - 2512.0	6.0	2506.0 - 2511.0	5.0	83	+2	2508.00 - 2513.00
2	2512.0 - 2536.0	24.0	2512.0 - 2531.2	19.2	80	+2	2514.00 - 2533.20
3	2536.0 - 2563.5	27.5	2536.0 - 2563.5	27.5	100	+1.5	2537.50 - 2565.00
4	2563.5 - 2591.3	27.8	2563.5 - 2591.3	27.8	100	+1.5	2565.00 - 2592.80
5	2591.3 - 2619.3	28.0	2591.3 - 2619.3	28.0	100	+2	2593.30 - 2621.30
6	2619.3 - 2647.0	27.7	2619.3 - 2647.0	27.7	100	+2	2621.30 - 2649.00
7	2647.0 - 2656.5	9.5	2647.0 - 2656.5	9.5	100	+2	2649.00 - 2658.50
8	2656.5 - 2675.0	18.5	2656.5 - 2675.0	18.5	100	+2.25	2658.75 - 2677.25
9	2675.0 - 2693.0	18.0	2675.0 - 2692.7	17.7	98	+2	2677.00 - 2694.70
10	2693.0 - 2711.5	18.5	2693.0 - 2711.5	18.5	100	+1.75	2694.75 - 2713.25

Remarks: Cores 8 and 9 slightly overlaps.

WELL 34/4-7 - FORMATION MULTI TESTER

Depth m RKB	Hydrostatic Mud Pressure Before psia	Hydrostatic Mud Pressure After psia	Temperature Corrected Formation Pressure psia	Temperature Corrected Formation Pressure bar	Remarks
Run 2A					
2509.0	6151.0	6151.0	5566.4	383.79	
2518.6	6174.0	6174.0	5575.6	384.42	
2526.0	6192.0	6192.0	5583.0	384.93	
2533.5	6211.0	6211.0	5591.0	385.49	
2547.0	6243.5	6243.5	5603.7	386.36	
2560.4	6276.0	6276.0	5617.1	387.28	
2575.4	6314.5	6314.5	5713.7	393.95	
2581.0	6327.5	6327.5	5622.7	387.67	
2584.1	5974.0	5973.5	5641.3	388.95	
2592.0	5996.5	5996.5	5652.7	389.74	
2604.5	6025.5	6065.5	5669.5	390.91	
2620.5	6065.5	6065.5	5695.0	392.66	
2632.5	6096.5	6096.0	5712.7	393.88	
2584.0	5971.0	5971.0	5639.0	388.79	Opened 2 3/4 gal chamber, lost seal.
2584.4	5971.5	5973.5	5638.7	388.77	Segregated sample.
Run 2B					
2592.1	5991.5	5991.5	5651.9	384.68	Opened 2 3/4 gal chamber, lost seal.
2592.5	5996.0	5999.6	5654.3	389.85	Segregated sample.
Run 3D					
2509.0	5799.1	5798.2	5566.4	383.79	
2526.0	5840.2	5838.8	5583.3	384.95	
2547.0	5891.1	5889.5	5604.0	386.38	
2557.8	5917.7	5914.8	5624.5	387.79	
257[illegible].2	5961.0	5958.6	5688.0	392.17	
258[illegible].0	5972.8	5971.8	5638.9	388.79	
2582.0	5975.2	5974.6	5639.1	388.80	
2586.0	5985.8	5985.3	5642.9	389.06	
2590.0	5997.2	5663.5	5663.5	390.48	
2595.5	6010.7	6010.2	5657.4	390.06	
2604.5	6032.7	6032.7	5670.7	390.98	
2620.5	6073.6	6073.1	5692.9	392.51	
2748.5	6391.0	6390.9	5875.9	405.13	
2874.0	6704.0	6703.7	6058.5	417.72	
2581.5	5977.2	5978.4	5639.3	388.82	Segregated sample. Lost seal when opening 1 gal chamber.

Run 3E					
2581.3	5974.0	5969.7	5640.6	388.91	Opened 2 3/4 gal chamber, lost seal.
2582.1	5976.4	5974.5	5637.3	388.68	Opened 2 3/4 gal chamber, lost seal.
2509.0	5795.5	5796.5	5567.3	383.85	Segregated sample.
Run 3F					
2582.7	5974.4	5973.8	5640.8	388.91	Opened 2 3/4 gal chamber, lost seal.
2581.7	5973.0	5973.0	5638.0*	388.72	Opened 2 3/4 gal chamber, lost seal.
2580.9	5970.0	5972.0	5641.0*	388.93	Opened 2 3/4 gal chamber, lost seal.
2580.2	5970.0	5971.0	5644.0*	389.14	
2581.4	5975.0	5974.0	5642.0*	389.00	Opened 2 3/4 gal chamber, lost seal.
2583.3	5978.0	5978.0	5643.0*	389.07	Lost seal when opening 1 gal chamber.
2581.8	5974.0	5974.0	5640.0*	388.86	Lost seal when opening 1 gal chamber.

*Strain gauge.

WELL 34/4-7 - TEST SUMMARY

Test No.	Interval	BHP	BHT	Reference depth	WHP	WHT	Choke size	Flow rate
	m RKB (logged)	bar	°C	m RKB	bar	°C	mm	Sm^3/day
1	2579.0 - 2587.0 2590.0 - 2596.0	337.8	98.8	2518.9	126	21	7.9	190
2	2506.0 - 2512.5 2517.0 - 2529.0 2532.5 - 2535.5 2544.0 - 2550.5 2560.0 - 2566.0	339.3	96.7	2421.8	161	32	14.3	1379

All values are from the end of the main flow in each test.

Reference depth: Measuring depth for BHP and BHT.