

ESSO Australia Pty Ltd

8.50 in. Section

SNA A21A

Snapper

ISDL 175

State:

Victoria

Gamma Ray Service

1:500 True Vertical Depth

Real Time Log

Rig: ISDL 175			
Field: Snapper			
Location: Bass Strait			
Well: SNA A21A			
Company: ESSO Australia Pty Ltd			
<div>Gamma Ray Service 1:500 True Vertical Depth Real Time Log</div>			
Location			
Total depth:	3347.0 m	Top Drive	
Spud date:	05-Feb-08	G.L. -55.0 m	
Run:	6	D.F. 41.7 m	
Permanent datum:	Mean Sea Level	Elev.: 0.0 m	
Log measured from:	Drill Floor	41.7 m above Perm. datum	
Depth reference:	Driller's Depth		
Service Order no. 07ASQ0022	X = E 589,791.823 m Y = N 5,772,180.918 m	Longitude E 148° 1' 31.472"	Latitude S 38° 11' 37.821"

Bit Run Summary

Run number		6								
Bit size	in	8.50								
Bit start depth	m	2931.0								
Bit end depth	m	3347.0								
Top interval logged	m	2920.08								
Bottom interval logged	m	3182.20								
Begin log: time		14:19								
Begin log: date		05-Mar-08								
End log: time		16:01								
End log: date		06-Mar-08								
Mud data										
Depth	m	3223.00								
Type		Accolade SBM								
Mud weight	ppg	11.4								
Solids	%	16.9								
Chlorides	mg/l	45,648.00								
Rm	ohm.m@°C	n.a								
Rmf	ohm.m@°C	n.a								
Rmc	ohm.m@°C	n.a								

Potassium	%	0									
Environmental data											
GR											
Mud weight	ppg	11.4									
Bit size	in	8.50									
Resistivity											
Neutron porosity											
Hole Size	in	8.50									
Mud weight	ppg	11.4									
Temperature	°C	n.a									
Mud salinity	ppb	n.a									
Formation salinity	ppb	n.a									
Recording rate 1	SEC	n.a									
Recording rate 2	SEC	n.a									
Filtering GR		3 pts.									
Filtering density		n.a									
Filtering Neutron		n.a									
Company representative		D.Daniels	R.Spence	Mark C							
Anadrill personnel		J. Ikeda	M. Sihite	C. Soper6							

<div>DISCLAIMER</div> <div>THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.</div>		
OTHER SERVICES FOR RUN6 Directional Drilling Directional Surveys Annular Pressure & Temperature	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 6 Depth is referenced to Driller's Depth All data presented is real time Gamma ray is corrected for mud weight, tool size and bit size PowerPulse failed at 3193.2 m MD, continue drilling and POOH due to reaching TD for SNA A21A.		

EQUIPMENT DESCRIPTION		
RUN6		
DOWNHOLE EQUIPMENT		

DOWNHOLE EQUIPMENT

6-3/4" PowerPulse*
MDC: AE-FA28
2931.0 m
MDI: CA-1820
2931.0 m
DHS: V8.0C04

D&I
GR
APWD

11.60
10.96
8.35

8-3/8" Roller Reamer
S/N: GU2317R

6-3/4" NM Pony
S/N: SBD4464

8-3/8" Roller Reamer
S/N: GU2945

8-1/2" Reed Hycalog PDC Bit
S/N: 218087



0.00 0.28

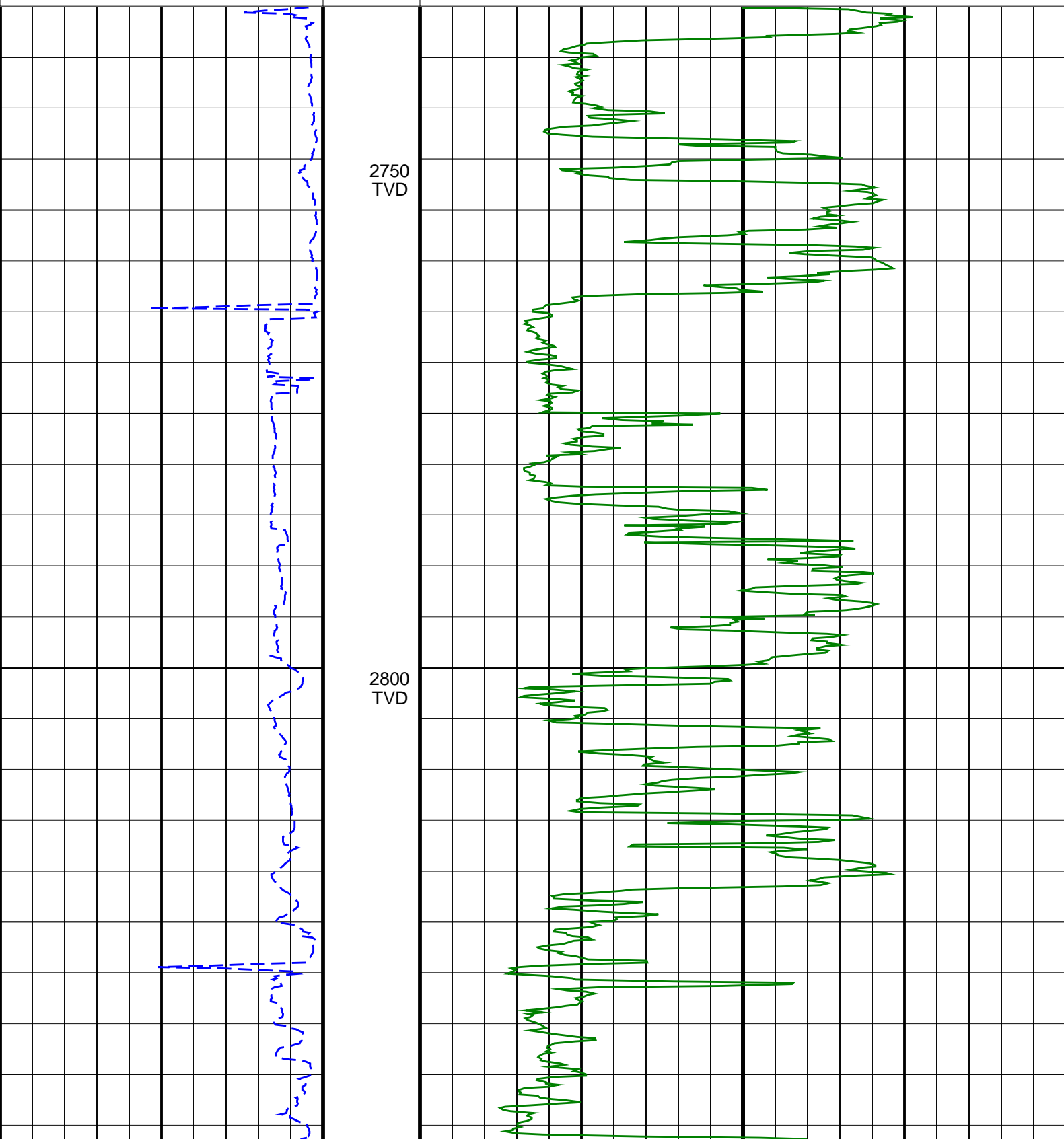
Maximum string diameter 8.50 in.
All lengths in Meters

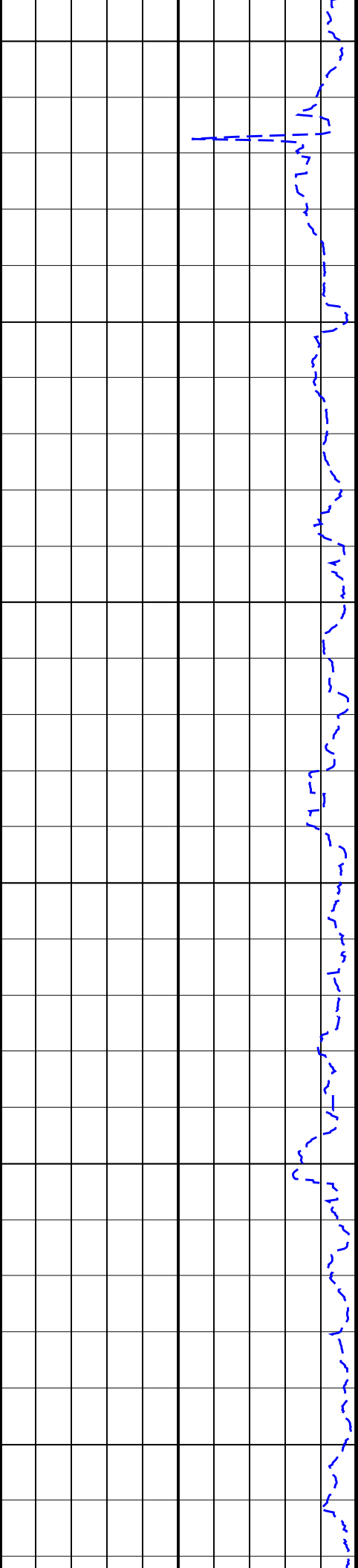
SNA A21A LWD RT 500TVD

IDEAL Version: ID13_OC_06 <TVD> Vertical Scale: 1:500

Graphics File Created: 08-Mar-2008 16:44

ROP*5 (ROP5) (M/HR) 0 200 GR(TM) (GRM1) (GAPI) 0 200

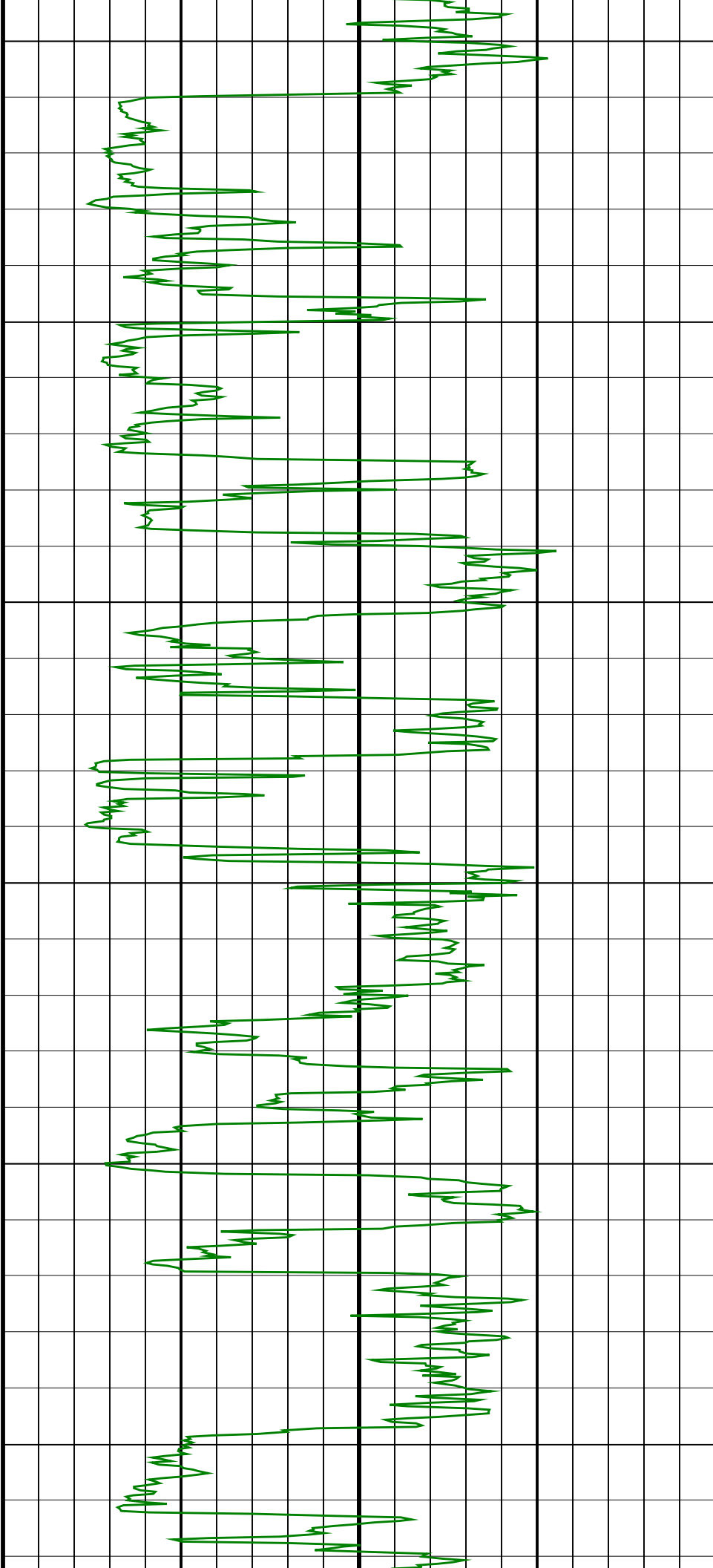


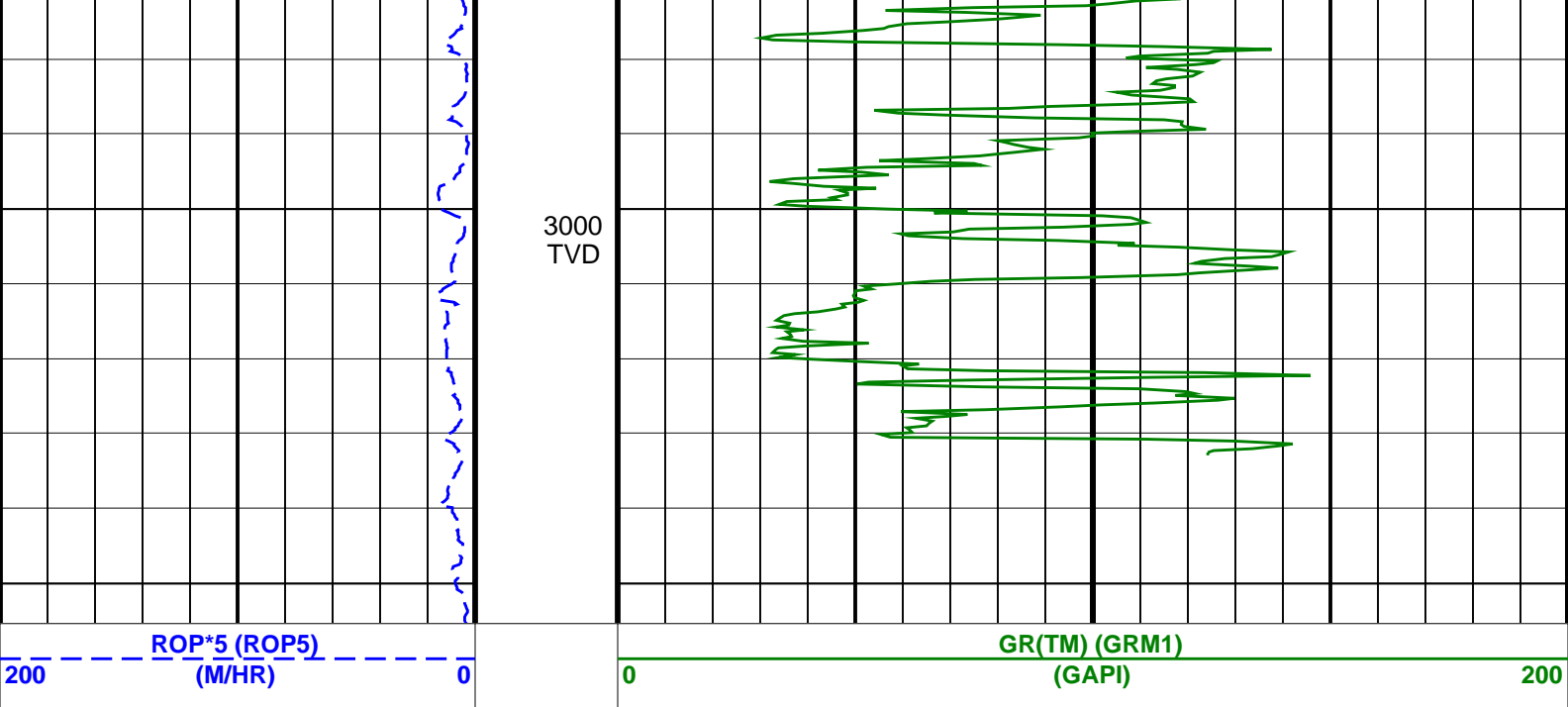


2850
TVD

2900
TVD

2950
TVD





SCHLUMBERGER

Survey report

7-May-2008 04:20:32

Client.....: ESSO Australia Pty Ltd
Field.....: Snapper

Well.....: SNA-A21A
Service Order no.....: 07ASQ0022
Engineer.....: ML/MS

RIG.....: ISDL 175
STATE.....: Victoria

Spud date.....: 05-Feb-08
Last survey date.....: 18-Mar-08
Total accepted surveys....: 91
MD of first survey.....: 625.00 m
MD of last survey.....: 3346.89 m

----- Survey calculation methods-----
Method for positions.....: Minimum curvature
Method for DLS.....: Mason & Taylor

----- Depth reference -----
Permanent datum.....: Mean Sea Level
Depth reference.....: Driller's Depth
GL above permanent.....: -55.00 m
KB above permanent.....: Top Drive
DF above permanent.....: 41.70 m

----- Vertical section origin-----
Latitude (+N/S-).....: -3.69 m
Departure (+E/W-).....: 4.78 m

----- Platform reference point-----
Latitude (+N/S-).....:
Departure (+E/W-).....:

Azimuth from Vsect Origin to target: 312.96 degrees

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2007
Magnetic date.....: 01-Feb-2008
Magnetic field strength...: 1197.84 HCNT
Magnetic dec (+E/W-).....: 13.01 degrees
Magnetic dip.....: -68.71 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.02 mGal
Reference H.....: 1197.84 HCNT
Reference Dip.....: -68.71 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 13.01 degrees
Grid convergence (+E/W-)..: -0.63 degrees
Total az corr (+E/W-).....: 13.64 degrees
(Total az corr = magnetic dec - grid conv)
Survey Correction Type ...:
I=Sag Corrected Inclination
M=Schlumberger Magnetic Correction
S=Shell Magnetic Correction
F=Failed Axis Correction
R=Magnetic Resonance Tool Correction
D=Dmag Magnetic Correction

[(c)2008 IDEAL ID13_OC_08]
SCHLUMBERGER Survey Report

7-May-2008 04:20:32

Seq # -	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 10m)	Srvy tool type	Tool Corr (deg)
1	625.00	1.38	351.20	0.00	623.39	27.34	32.16	0.80	32.17	1.42	0.00	TIP	None
2	652.41	5.45	320.65	27.41	650.75	28.89	33.49	-0.08	33.49	359.87	1.58	MWD	None
3	705.85	12.48	317.04	53.44	703.50	37.18	39.69	-5.63	40.09	351.93	1.32	MWD	None
4	725.21	13.02	315.52	19.36	722.38	41.44	42.78	-8.58	43.63	348.66	0.33	MWD	None
5	754.52	14.44	311.84	29.31	750.86	48.40	47.57	-13.62	49.48	344.03	0.57	MWD	None

6	784.09	16.51	312.18	29.57	779.35	56.28	52.85	-19.48	56.33	339.77	0.70	MWD	None
7	813.12	18.78	313.53	29.03	807.02	65.08	58.84	-25.92	64.30	336.22	0.79	MWD	None
8	842.44	21.59	313.20	29.32	834.53	75.20	65.78	-33.28	73.72	333.17	0.96	MWD	None
9	871.68	24.22	311.73	29.24	861.46	86.58	73.46	-41.68	84.46	330.43	0.92	MWD	None
10	900.94	26.82	310.10	29.26	887.87	99.17	81.71	-51.21	96.43	327.92	0.92	MWD	None
11	930.15	29.84	307.85	29.21	913.58	113.00	90.42	-61.99	109.63	325.56	1.10	MWD	None
12	959.50	32.87	307.23	29.35	938.64	128.20	99.72	-74.10	124.23	323.38	1.04	MWD	None
13	989.11	33.88	307.39	29.61	963.36	144.41	109.59	-87.06	139.96	321.54	0.34	MWD	None
14	1018.15	34.17	307.26	29.04	987.43	160.58	119.44	-99.98	155.76	320.07	0.10	MWD	None
15	1047.09	34.15	308.61	28.94	1011.38	176.76	129.43	-112.79	171.68	318.93	0.26	MWD	None
16	1078.04	34.14	309.60	30.95	1037.00	194.10	140.39	-126.27	188.82	318.03	0.18	MWD	None
17	1107.99	33.85	312.28	29.95	1061.83	210.83	151.36	-138.92	205.45	317.45	0.51	MWD	None
18	1137.64	34.20	312.71	29.65	1086.40	227.42	162.57	-151.15	221.98	317.08	0.14	MWD	None
19	1165.35	34.55	312.45	27.71	1109.27	243.06	173.15	-162.67	237.58	316.79	0.14	MWD	None
20	1195.05	34.67	311.75	29.70	1133.72	259.93	184.46	-175.19	254.40	316.48	0.14	MWD	None
21	1223.98	34.59	311.04	28.93	1157.52	276.36	195.33	-187.52	270.78	316.17	0.14	MWD	None
22	1253.83	34.61	311.01	29.85	1182.09	293.30	206.46	-200.31	287.66	315.87	0.01	MWD	None
23	1283.30	35.06	310.70	29.47	1206.28	310.13	217.47	-213.04	304.43	315.59	0.16	MWD	None
24	1311.04	35.22	310.15	27.74	1228.97	326.08	227.82	-225.20	320.34	315.33	0.13	MWD	None
25	1339.83	34.49	309.08	28.79	1252.59	342.50	238.31	-237.87	336.71	315.05	0.33	MWD	None
26	1368.38	34.54	308.77	28.55	1276.11	358.64	248.48	-250.46	352.80	314.77	0.06	MWD	None
27	1398.22	34.75	309.47	29.84	1300.66	375.56	259.18	-263.62	369.69	314.51	0.15	MWD	None
28	1427.62	33.94	311.69	29.40	1324.94	392.13	269.97	-276.21	386.23	314.34	0.51	MWD	None
29	1457.22	33.59	312.30	29.60	1349.55	408.58	280.97	-288.44	402.67	314.25	0.16	MWD	None
30	1486.18	33.57	312.37	28.96	1373.67	424.60	291.76	-300.28	418.68	314.18	0.02	MWD	None
31	1515.35	34.00	311.71	29.17	1397.92	440.82	302.62	-312.33	434.89	314.10	0.19	MWD	None
32	1545.07	34.17	310.50	29.72	1422.53	457.46	313.57	-324.88	451.52	313.99	0.24	MWD	None
33	1573.99	33.63	309.97	28.92	1446.54	473.58	323.99	-337.19	467.62	313.86	0.21	MWD	None
34	1602.74	32.45	310.56	28.75	1470.64	489.23	334.12	-349.15	483.27	313.74	0.43	MWD	None
35	1632.66	31.89	310.51	29.92	1495.96	505.15	344.47	-361.26	499.17	313.64	0.19	MWD	None
36	1661.99	30.57	310.54	29.33	1521.04	520.34	354.36	-372.82	514.36	313.55	0.45	MWD	None
37	1691.42	28.92	310.18	29.43	1546.59	534.93	363.81	-383.95	528.94	313.46	0.56	MWD	None
38	1720.46	27.60	309.76	29.04	1572.17	548.66	372.64	-394.48	542.66	313.37	0.46	MWD	None
39	1750.04	26.32	309.58	29.58	1598.54	562.05	381.21	-404.80	556.04	313.28	0.43	MWD	None
40	1779.99	24.23	309.89	29.95	1625.62	574.81	389.38	-414.64	568.81	313.20	0.70	MWD	None
41	1808.98	22.83	310.45	28.99	1652.20	586.37	396.84	-423.48	580.36	313.14	0.49	MWD	None
42	1837.32	20.99	310.77	28.34	1678.49	596.94	403.72	-431.51	590.93	313.09	0.65	MWD	None
43	1867.39	18.74	310.60	30.07	1706.77	607.15	410.39	-439.26	601.14	313.05	0.75	MWD	None
44	1897.11	16.67	309.64	29.72	1735.08	616.17	416.21	-446.17	610.16	313.01	0.70	MWD	None
45	1926.28	15.62	309.74	29.17	1763.10	624.27	421.39	-452.41	618.26	312.97	0.36	MWD	None
46	1955.02	13.10	310.42	28.74	1790.94	631.39	425.98	-457.86	625.38	312.93	0.88	MWD	None
47	1984.70	10.07	310.16	29.68	1820.01	637.34	429.83	-462.41	631.33	312.91	1.02	MWD	None
48	2013.75	7.32	312.94	29.05	1848.72	641.73	432.73	-465.70	635.72	312.90	0.96	MWD	None
49	2044.10	4.92	317.60	30.35	1878.90	644.96	435.01	-468.00	638.95	312.91	0.81	PUP	None
50	2073.22	3.32	318.41	29.12	1907.94	647.05	436.56	-469.40	641.03	312.92	0.55	PUP	None
51	2102.90	1.71	322.36	29.68	1937.59	648.34	437.56	-470.24	642.33	312.94	0.55	PUP	None
52	2131.95	0.17	329.67	29.05	1966.64	648.81	437.94	-470.53	642.80	312.95	0.53	PUP	None
53	2161.88	0.06	37.16	29.93	1996.57	648.85	437.99	-470.54	642.84	312.95	0.05	PUP	None
54	2191.09	0.14	285.89	29.21	2025.78	648.89	438.01	-470.57	642.87	312.95	0.06	PUP	None
55	2220.65	0.11	151.26	29.56	2055.34	648.89	438.00	-470.59	642.88	312.95	0.08	PUP	None
56	2249.63	0.14	116.42	28.98	2084.32	648.83	437.96	-470.54	642.82	312.95	0.03	PUP	None
57	2279.10	0.14	131.90	29.47	2113.79	648.76	437.92	-470.48	642.75	312.95	0.01	PUP	None
58	2308.26	0.14	57.11	29.16	2142.95	648.72	437.91	-470.43	642.70	312.95	0.06	PUP	None
59	2337.63	0.17	15.68	29.37	2172.32	648.73	437.97	-470.38	642.71	312.96	0.04	PUP	None
60	2366.84	0.15	276.78	29.21	2201.53	648.78	438.02	-470.41	642.77	312.96	0.08	PUP	None
61	2396.12	0.14	172.53	29.28	2230.81	648.78	437.99	-470.44	642.77	312.95	0.08	PUP	None
62	2425.74	0.21	73.80	29.62	2260.43	648.73	437.97	-470.39	642.71	312.96	0.09	PUP	None
63	2454.71	0.29	12.45	28.97	2289.40	648.74	438.05	-470.32	642.72	312.97	0.09	PUP	None
64	2483.64	0.18	307.41	28.93	2318.33	648.82	438.15	-470.34	642.81	312.97	0.09	PUP	None
65	2511.29	0.17	271.05	27.65	2345.98	648.89	438.18	-470.42	642.88	312.97	0.04	PUP	None
66	2595.54	0.46	294.45	84.25	2430.22	649.31	438.32	-470.85	643.29	312.95	0.04	MWD	None
67	2624.99	0.32	281.01	29.45	2459.67	649.49	438.39	-471.04	643.47	312.94	0.06	MWD	None
68	2653.28	0.32	280.34	28.29	2487.96	649.62	438.42	-471.19	643.61	312.94	0.00	MWD	None
69	2682.92	0.51	290.53	29.64	2517.60	649.81	438.48	-471.40	643.80	312.93	0.07	MWD	None
70	2711.80	0.60	279.20	28.88	2546.48	650.06	438.55	-471.67	644.04	312.92	0.05	MWD	None
71	2741.85	0.45	284.11	30.05	2576.53	650.29	438.60	-471.94	644.28	312.90	0.05	MWD	None
72	2771.28	0.56	279.80	29.43	2605.96	650.51	438.65	-472.19	644.50	312.89	0.04	MWD	None
73	2800.47	0.63	303.10	29.19	2635.15	650.79	438.77	-472.47	644.78	312.88	0.09	MWD	None
74	2829.52	0.22	290.40	29.05	2664.20	651.00	438.87	-472.65	644.99	312.88	0.14	MWD	None
75	2858.73	0.44	352.48	29.21	2693.41	651.14	439.00	-472.72	645.13	312.88	0.13	MWD	None
76	2887.94	0.59	335.99	29.21	2722.61	651.36	439.25	-472.79	645.35	312.89	0.07	MWD	None
77	2917.29	1.02	331.24	29.35	2751.96	651.75	439.62	-472.98	645.74	312.91	0.15	MWD	None
78	2952.39	1.45	332.66	35.10	2787.05	652.46	440.29	-473.34	646.45	312.93	0.12	MWD	None
79	2982.31	1.40	335.32	29.92	2816.96	653.16	440.96	-473.66	647.15	312.95	0.03	MWD	None
80	3011.52	1.55	343.71	29.21	2846.16	653.83	441.66	-473.92	647.82	312.98	0.09	MWD	None
81	3040.02	1.76	339.70	28.50	2874.65	654.55	442.44	-474.18	648.54	313.02	0.08	MWD	None
82	3069.79	2.05	348.59	29.77	2904.41	655.39	443.39	-474.45	649.38	313.06	0.14	MWD	None
83	3098.66	1.92	350.74	28.87	2933.26	656.19	444.37	-474.63	650.18	313.11	0.05	MWD	None
84	3128.14	1.98	351.62	29.48	2962.72	656.98	445.36	-474.78	650.97	313.17	0.02	MWD	None
85	3157.90	2.02	354.35	29.76	2992.46	657.78	446.40	-474.91	651.77	313.23	0.03	MWD	None

Company:	ESSO Australia Pty Ltd	Schlumberger
Well:	SNA A21A	
Field:	Snapper	
Rig:	ISDL 175	8.50 in. Section
State:	Victoria	
	Gamma Ray Service	
	1:500 True Vertical Depth	
	Real Time Log	