

Company: **ESSO Australia Pty. Ltd.**

Well: **BMA A9B**Field: **Bream A**

Rig: ISDL 453

State: **Victoria**

Gamma Ray Service			
1:500 Measured Depth			
Real Time Log			
Location			
Total depth:	2283.0 m	K.B.	Top Drive
Spud date:	26 Feb 2006	G.L.	-59.40 m
Runs:	1 To 2	D.F.	32.82 m
Permanent datum:	Mean Sea Level	Elev.:	0.0 m
Log measured from:	Drill Floor	32.82 m above Perm. datum	
Depth reference:	Driller's Depth		
Service Order no.	Y = 5738460.92 m	Longitude	Latitude
06ASQ0002	X = 567353.50 m	E147° 46' 20.685" S38° 29' 58.800"	

Depth logged:	1756.0 m	To 2283.0 m	Mag decl:	13.068 deg.	Other services:	
Date logged:	1-Mar-06	To 3-Mar-06	Mag dip:	-69.035 deg.	Direction Drilling, D&I	
Bore hole record			Casing record			
Hole size	from	to	Size	Density	from	to
8-1/2 in.	1756.0 m	2283.0 m	13-3/8 in. 9-5/8 in.	54.5 lbs/ft 47.0 lbs/ft	11.9 m 797.0 m	797.0 m 1756.0 m
Mud record			Borehole deviation record			
Type	from	to	Min	Max	from	to
KCl/HPA/Glycol.	1756.0 m	2283.0 m	35.15 deg.	47.90 deg.	1756.0 m	2000.0 m
			33.70 deg.	35.08 deg.	2000.0 m	2283.0 m

Surface equipment		Software record			
Unit	OLU-FB-924	IDEAL W/s	ID11_OC_01		
Depth system	DES-CA-ASQ04-01SPM		HSPM11_OC_01		
		LWD	N/A		
		MWD	V8.0B96		

Bit Run Summary

Run number		1	2							
Bit size	in	8.5	8.5							
Bit start depth	m	1756.0	1769.0							
Bit end depth	m	1769.0	2283.0							
Top interval logged	m	1736.4	1756.0							
Bottom interval logged	m	1749.4	2264.4							
Begin log: time		27-Feb-06	01-Mar-06							
Begin log: date		20:00	16:00							
End log: time		01-Mar-06	03-Mar-06							
End log: date		0:00	14:15							
Mud data										
Depth	m	1769.0	2283.0							
Type		KCl/PHPA/Gly.	KCl/PHPA/Gly.							
Mud weight	ppg	9.70	10.00							
Solids	%	4.6	7.1							
Chlorides	mg/L	45,000	43,000							
Rm		N/A	N/A							
Rmf		N/A	N/A							
Rmc		N/A	N/A							

Potassium	%	8.2	8.1								
Environmental data											
GR											
Mud weight	ppg	9.70	10.00								
Bit size	in	8.5	8.5								
Resistivity											
Neutron porosity											
Hole Size		N/A	N/A								
Mud weight		N/A	N/A								
Temperature		N/A	N/A								
Mud salinity		N/A	N/A								
Formation salinity		N/A	N/A								
Recording rate 1	SEC	3.83	3.83								
Recording rate 2	SEC	N/A	N/A								
Filtering GR		3 pt.	3 pt.								
Filtering density		N/A	N/A								
Filtering Neutron		N/A	N/A								
Company representative		G. Campbell	B. Davis	T. Bassett							
Schlumberger D&M Personnel		B. Pattarakorn	C. Skiba	C. Soper	B. Manjenic						

<p style="text-align: center;">DISCLAIMER</p> <p>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.</p>		
OTHER SERVICES FOR RUN1 Directional Survey	OTHER SERVICES FOR RUN2 Directional Drilling Directional Survey	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 8-1/2 in. hole was drilled from 1756.0m to 1769.0m MD Depth is referenced to Driller's Depth Mud type is KCl/PHPA/Glycol. PowerPulse is used for orientation Whipstock. Tool failed from 23:15 on 27 Feb 06 to 14:00 on 28 Feb 06 due to high shock level while milling window Tool started working again at 14:00 on 28 Feb 06 till the end of Run1 POOH due to change BHA assembly	REMARKS: RUN NUMBER 2 8-1/2 in. hole was drilled from 1769.0m to 2283.0m MD Depth is referenced to Driller's Depth Mud type is KCl/PHPA/Glycol. Gamma Ray not corrected for Potassium Gamma Ray corrected for Tool Size, Bit Size and Mud Weight. POOH due to TD of BMA A9B	REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION		
RUN1	RUN2	RUN
DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT	

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT

6 3/4 in. PowerPulse
MDC: Z411
MEC: 1533
MDI: 1565
MGR: 565
DHS: V8.0B96

D&I 20.29
GR 19.64

5" HWDP
OD 6 3/8 in.

8-1/2 in. WaterMelon Mill
S/N: TSV6764

4-7/8 in. Flex Jt.
S/N: TSV6727

8-1/2 in. WaterMelon Mill
S/N: TSV6766

BOT Window Mill
S/N: TSP52105
OD: 8-1/2 in.

Maximum string diameter 8.50 in.
All lengths in Meters

6 3/4 in. PowerPulse
MDC: 401AB
MEC: 1540
MDI : 1556
MGR: 146
DHS: V8.0B96

D&I 19.21
GR 18.56

6-5/8 in. NM Pony DC w/Float
SN: 9612058

6-5/8 in. NM Pony DC
SN: 97081023

8-3/8 in. NM Roller Reamer
SN: GU2298

7 in. PowerPak* Motor
A700GT 7:8
SN: N7310
1.5 deg. Bent Housing
8-3/8 in. Motor Sleeve

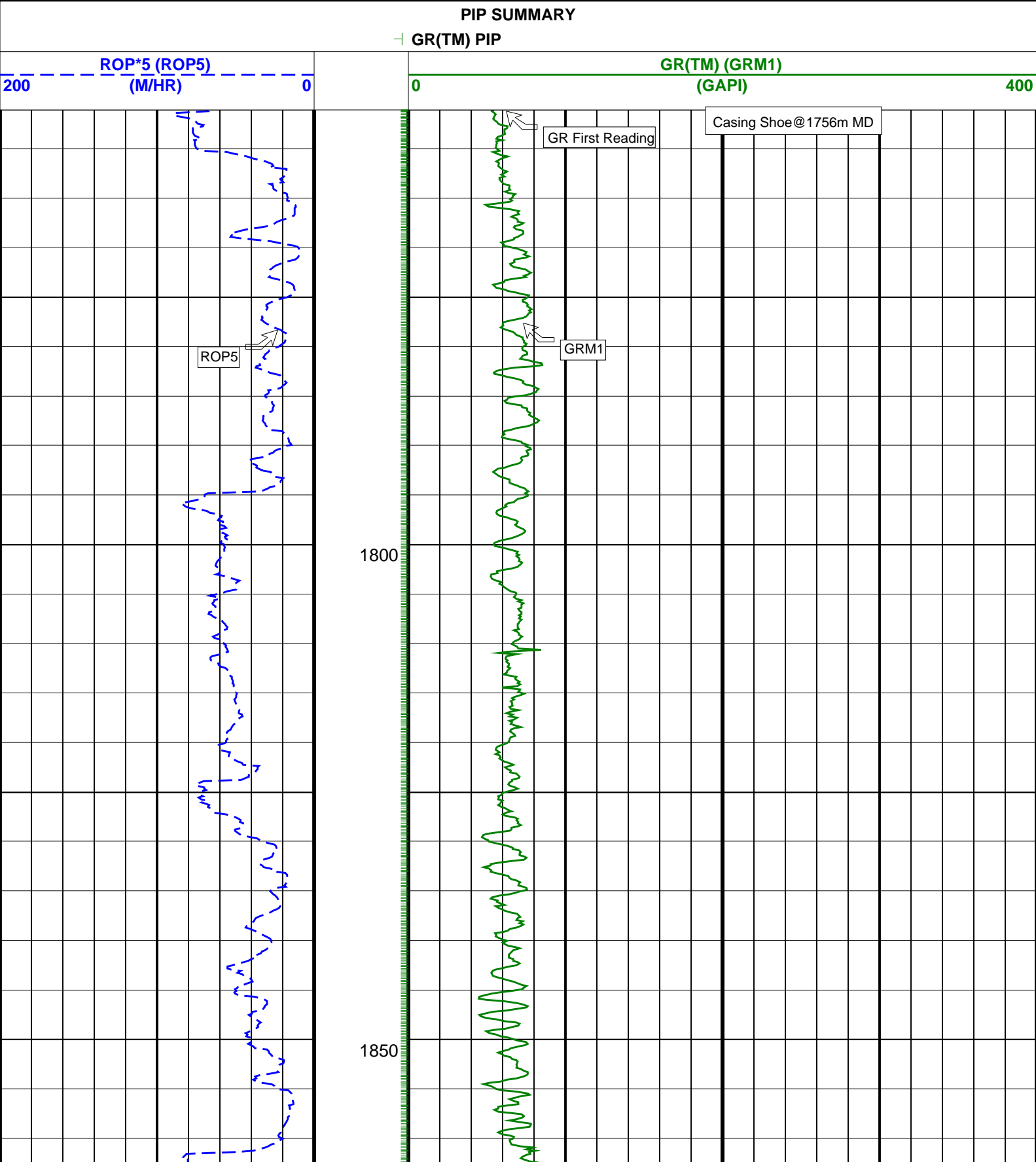
Smith PDC Bit
S73PX S/N: JT6968A
OD: 8-1/2 in.

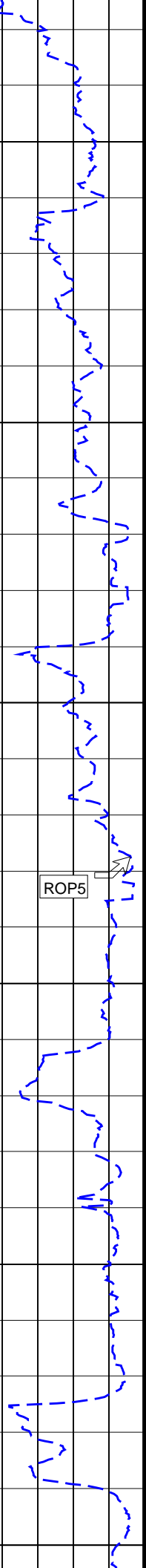
Maximum string diameter 8.50 in.
All lengths in Meters

BMA A9B RT 1:500 MD

IDEAL Version: ID11_OC_01 <MD > Vertical Scale: 1:500

Graphics File Created: 04-Mar-2006 10:19

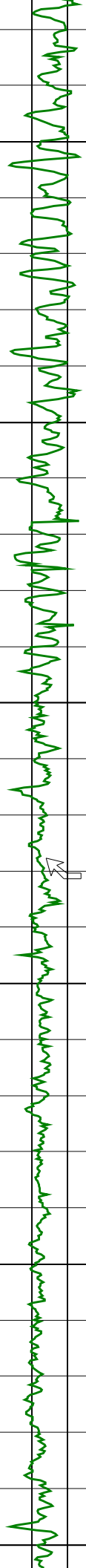




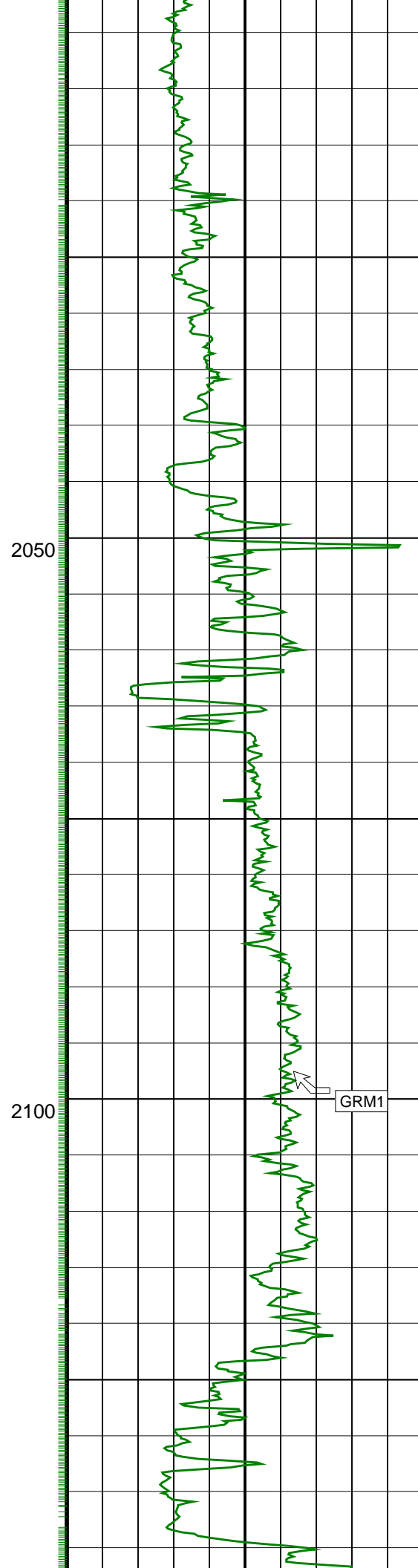
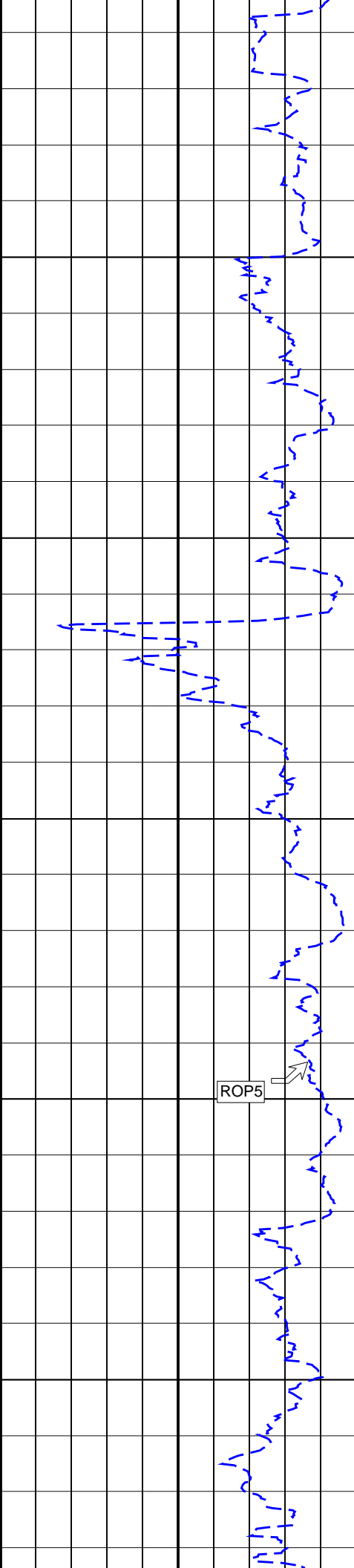
1900

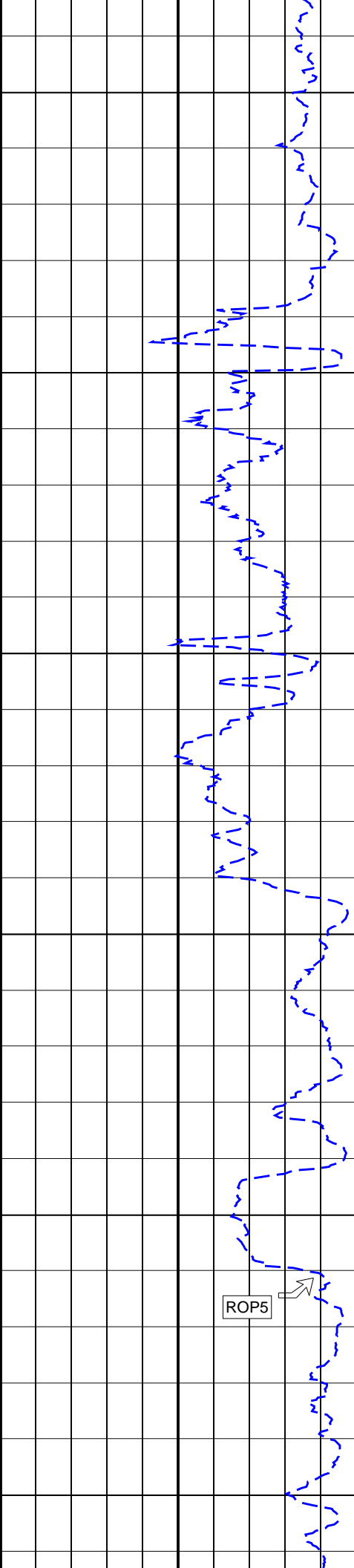
1950

2000

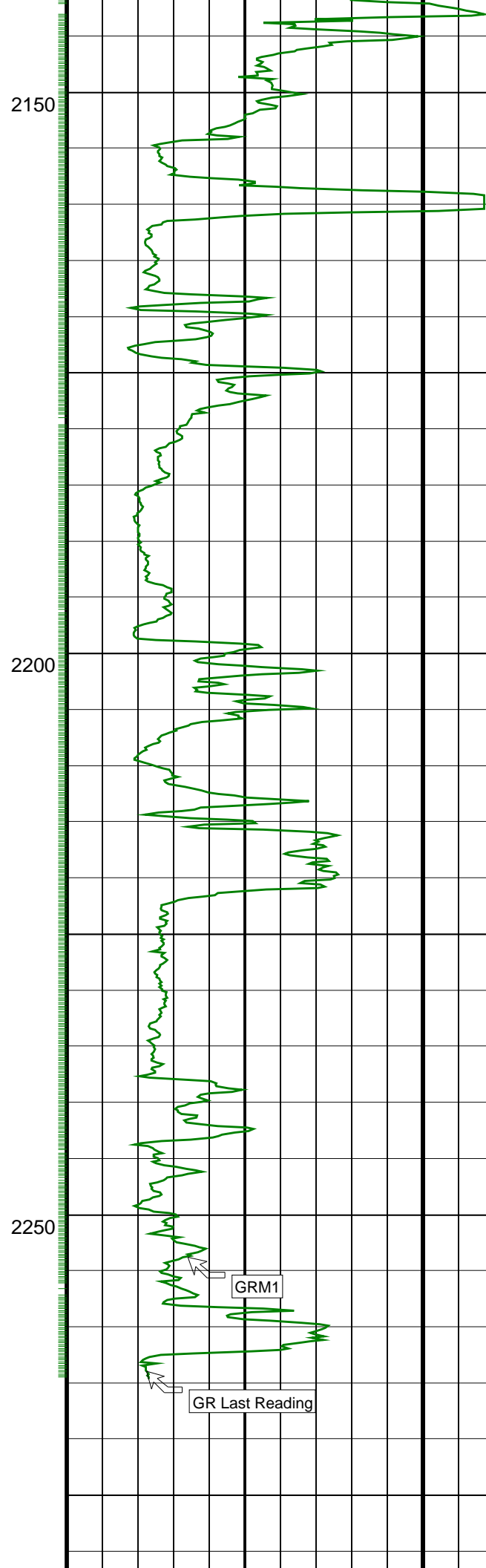


GRM1





ROP5



GRM1

GR Last Reading



PIP SUMMARY

GR(TM) PIP

SCHLUMBERGER

Survey report 3-Mar-2006 17:21:45 Page 1 of 2

Client..... ESSO Australia Pty. Ltd.
Field..... Bream A

Well..... BMA A9B
API number.....
Engineer..... B. Pattarakorn/ C. Skiba
Rig..... ISDL 453
State..... Victoria

Spud date..... 26-Feb-06
Last survey date..... 03-Mar-06
Total accepted surveys... 19
MD of first survey..... 1750.00 m
MD of last survey..... 2283.00 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..... -59.40 m
KB above permanent..... Top Drive
DF above permanent..... 32.82 m

----- Vertical section origin-----
Latitude (+N/S-)..... 0.00 m
Departure (+E/W-)..... 0.00 m

Azimuth from Vsect Origin to target: 118.48 degrees

----- Geomagnetic data -----
Magnetic model..... BGGM version 2005
Magnetic date..... 27-Feb-2006
Magnetic field strength... 1202.65 HCNT
Magnetic dec (+E/W-)..... 13.07 degrees
Magnetic dip..... -69.03 degrees

----- MWD survey Reference Criteria -----
Reference G..... 1000.05 mGal
Reference H..... 1202.65 HCNT
Reference Dip..... -69.03 degrees
Tolerance of G..... (+/-) 2.50 mGal
Tolerance of H..... (+/-) 6.00 HCNT
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-)..... 13.07 degrees
Grid convergence (+E/W-).. -0.48 degrees
Total az corr (+E/W-)..... 13.55 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)2006 IDEAL ID11_OC_01]
SCHLUMBERGER Survey Report

3-Mar-2006 17:21:45 Page 2 of 2

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/100f)	Srvy tool type	Tool Corr (deg)
1	1750.00	47.90	131.86	0.00	1563.40	499.77	-320.04	394.95	508.34	129.02	0.00	TIP	None
2	1802.08	41.64	118.76	52.08	1600.44	535.98	-341.32	424.60	544.78	128.79	6.51	MWD	None
3	1830.98	40.06	118.17	28.90	1622.30	554.88	-350.34	441.22	563.39	128.45	1.72	MWD	None
4	1859.93	35.88	113.15	28.95	1645.12	572.66	-358.07	457.24	580.76	128.07	5.47	MWD	None
5	1888.74	35.29	112.55	28.81	1668.55	589.34	-364.58	472.69	596.96	127.64	0.73	MWD	None
6	1917.12	35.15	108.55	28.38	1691.74	605.54	-370.33	488.01	612.61	127.19	2.48	MWD	None
7	1945.54	35.56	102.97	28.42	1714.92	621.57	-374.79	503.82	627.93	126.65	3.49	MWD	None
8	1974.64	35.32	94.19	29.10	1738.64	637.40	-377.30	520.47	642.84	125.94	5.33	MWD	None
9	2002.88	35.08	86.13	28.24	1761.73	651.70	-377.35	536.71	656.09	125.11	5.02	MWD	None
10	2032.39	34.45	85.45	29.51	1785.98	665.87	-376.12	553.50	669.19	124.20	0.76	MWD	None
11	2061.28	34.02	84.79	28.89	1809.86	679.44	-374.73	569.69	681.89	123.34	0.60	MWD	None
12	2090.26	33.53	82.66	28.98	1833.95	692.68	-372.98	585.70	694.38	122.49	1.35	MWD	None
13	2119.28	33.52	82.38	29.02	1858.14	705.65	-370.89	601.59	706.73	121.65	0.16	MWD	None
14	2148.28	33.68	81.84	29.00	1882.30	718.57	-368.69	617.49	719.18	120.84	0.36	MWD	None
15	2177.09	33.73	81.36	28.81	1906.26	731.36	-366.35	633.31	731.63	120.05	0.29	MWD	None
16	2205.90	33.69	80.36	28.81	1930.23	744.02	-363.81	649.09	744.10	119.27	0.59	MWD	None
17	2234.50	33.78	81.17	28.60	1954.01	756.59	-361.26	664.77	756.59	118.52	0.49	MWD	None
18	2263.78	33.72	79.83	29.28	1978.36	769.41	-358.58	680.81	769.47	117.78	0.78	MWD	None
19	2283.00	33.70	79.80	19.22	1994.35	777.74	-356.69	691.31	777.91	117.29	0.04	Proj.	to TD

[(c)2006 IDEAL ID11_OC_01]

Company: ESSO Australia Pty. Ltd.

Schlumberger

Well: BMA A9B

Field: Bream A

Rig: ISDL 453

Rig:	ISDL 453
State:	Victoria
	Gamma Ray Service 1:500 Measured Depth Real Time Log