

Company:	Santos Ltd./Strike Oil
Well:	Casino-1
Field:	VIC/P 44
Rig:	Ocean Bounty
	State: Victoria

Bore hole record				Casing record			
Hole size	from	to	Size	Density	from	to	
914 mm / 36 in.	Seabed	130 m	762 mm	461 kg/m	Wellhead	128 m	
443 mm / 17.5 in.	130 m	752 m	340 mm	101 kg/m	Wellhead	743 m	
311 mm / 12.25 in.	752 m	2118 m					
Type	Mud record from	to	Min	Max	Borehole deviation record from	to	
Seawater	Seabed	752 m	0 deg.	0.6 deg.	Seabed	752 m	
KCl/HPA/Glyc	752 m	2118 m	0.26 deg.	4.38 deg.	752 m	1797 m	

Bit Run Summary

Run number		1	2	3	4						
Bit size	in.	12.25	12.25	12.25	12.25						
Bit start depth	m	752	1056	1400	1797						
Bit end depth	m	1056	1400	1797	1797						
Top interval logged	m	726	1050	1395	1792						
Bottom interval logged	m	1050	1395	1792	1792						
Begin log: time		9:00	15:30	14:30	1:30						
Begin log: date		30 Aug 02	31 Aug 02	02 Sep 02	04 Sep 02						
End log: time		11:00	23:00	9:00	2:00						
End log: date		31 Aug 02	01 Sep 02	03 Sep 02	12 Sep 02						
Mud data											
Depth	m	1056	1400	1797	1797						
Type		KCl/PHPA/Gly	KCl/PHPA/Gly	KCl/PHPA/Gly	KCl/PHPA/Gly						
Mud weight	ppg	8.80	8.80	9.90	10.3						
Solids	%	1.63	2.01	5.67	7.28						
Chlorides	mg/L	29000	28000	29000	30000						
Rm	ohmm@degC	0.132@22	0.135@21	0.165@20	n/a						
Rmf	ohmm@degC	0.125@22	0.127@20	0.145@21	n/a						
Rmc	ohmm@degC	0.182@21	0.190@21	0.207@20	n/a						

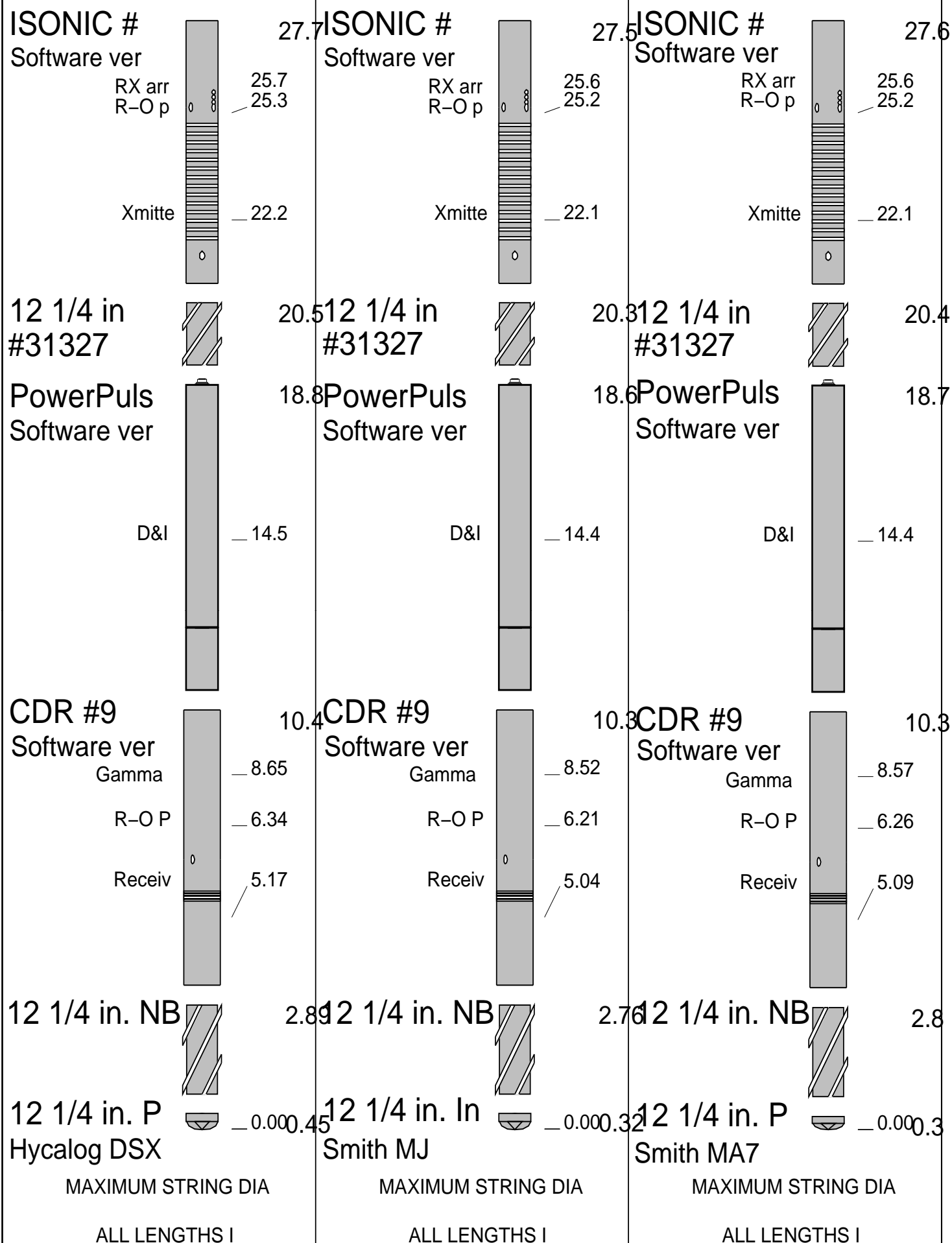
Potassium	mg/L	37800	37800	32400	32400						
Environmental data											
GR											
Mud weight	ppg	8.80	8.80	9.90	10.3						
Bit size	in.	12.25	12.25	12.25	12.25						
Resistivity											
Neutron porosity											
Hole Size	in.	12.25	12.25	12.25	12.25						
Mud weight	ppg	8.80	8.80	9.90	10.3						
Borehole Temperature	degC	45	58	59	n/a						
Mud salinity		n/a	n/a	n/a	n/a						
Formation salinity		n/a	n/a	n/a	n/a						
Recording rate 1	SEC	10	10	10	10	GR/Res Sonic Array					
Recording rate 2	SEC	10	10	10	10						
Filtering GR		3	3	3	3						
Filtering density		n/a	n/a	n/a	n/a						
Filtering Neutron		n/a	n/a	n/a	n/a						
Company representative		H.Flink,	S.Hodgetts	R. Subramanian							
Anadrill personnel		W.Bertheux	C.Tue	O.Radicevic							

<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>		
<p>OTHER SERVICES FOR RUN1</p> <p>MWD Surveys Interact</p>	<p>OTHER SERVICES FOR RUN2</p> <p>MWD Surveys Interact</p>	<p>OTHER SERVICES FOR RUN3</p> <p>MWD Surveys Interact</p>
<p>REMARKS: RUN NUMBER 1</p> <p>The data presented is from the tool memory. There was barrite in the mud. CDR gamma ray is corrected for mud weight, bit size and tool size, but not environmentally corrected for potassium content in mud. CDR resitivity is bore hole compensated but not environmentally corrected.</p> <p>ISONIC measurements are borehole compensated, but not environmentally corrected.</p> <p>Interval drilled from 752m to 1056m. Interval logged from 726m to 1050m. Depth is Driller's Depth. Sensor offsets are described in Toolskech.</p> <p>Processed ISONIC data without receiver 4 Receiver 4 signal weak</p> <p>Run objective : drill vertically to TD. POOH : to change bit due to low ROP.</p>	<p>REMARKS: RUN NUMBER 2</p> <p>The data presented is from the tool memory. There was barrite in the mud. CDR gamma ray is corrected for mud weight, bit size and tool size, but not environmentally corrected for potassium content in mud. CDR resitivity is bore hole compensated but not environmentally corrected.</p> <p>ISONIC measurements are borehole compensated, but not environmentally corrected.</p> <p>Interval drilled from 1056m to 1400m. Interval logged from 1050m to 1395m. Depth is Driller's Depth. Sensor offsets are described in Toolskech.</p> <p>Processed ISONIC data without receiver 4 Receiver 4 signal weak</p> <p>Run objective : drill vertically to TD. POOH : to change bit due to low ROP.</p>	<p>REMARKS: RUN NUMBER 3</p> <p>The data presented is from the tool memory. There was barrite in the mud. CDR gamma ray is corrected for mud weight, bit size and tool size, but not environmentally corrected for potassium content in mud. CDR resitivity is bore hole compensated but not environmentally corrected.</p> <p>ISONIC measurements are borehole compensated, but not environmentally corrected.</p> <p>Interval drilled from 1400m to 1797m. Interval logged from 1395m to 1792m. Depth is Driller's Depth. Sensor offsets are described in Toolskech.</p> <p>Processed ISONIC data without receiver 4 Receiver 4 signal weak</p> <p>Run objective : drill vertically to TD. POOH : to change bit due to low ROP.</p>
<p style="text-align: center;">EQUIPMENT DESCRIPTION</p>		
RUN1	RUN2	RUN3

DOWNHOLE EQ

DOWNHOLE E

DOWNHOLE EQ



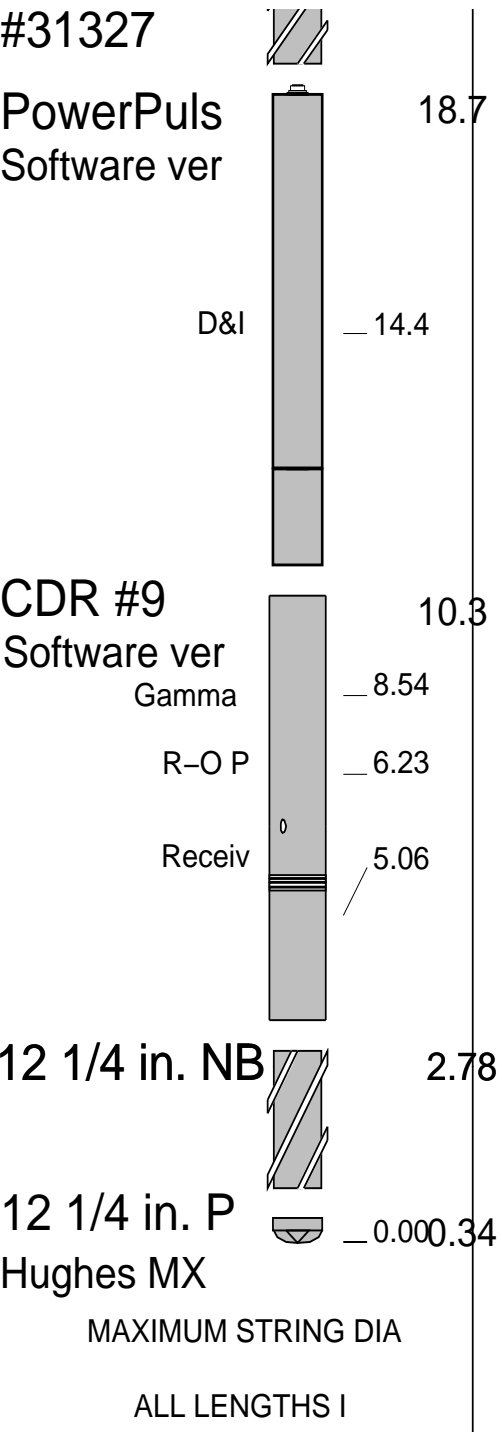
DISCLAIMER

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.

OTHER SERVICES FOR RUN4 MWD Surveys Interact	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 4 Gale force wind and high swell forced the rig to stop RIH, hang off the BHA in BOP and disconnect the riser. After 7 days the weather improved and the BHA was pulled out of hole. Next BHA was run to assess hole condition without MWD/LWD tools. Hole was in good condition and decision was made to drill ahead. TD was reached at 2118 m.	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN4	RUN	RUN
<div>DOWNHOLE EQ</div> <div>ISONIC # Software ver</div> <div>RX arr R-O p</div> <div>Xmitte</div> <div>12 1/4 in</div> <div>27.6 25.5 25.1 22.0 20.4</div>		

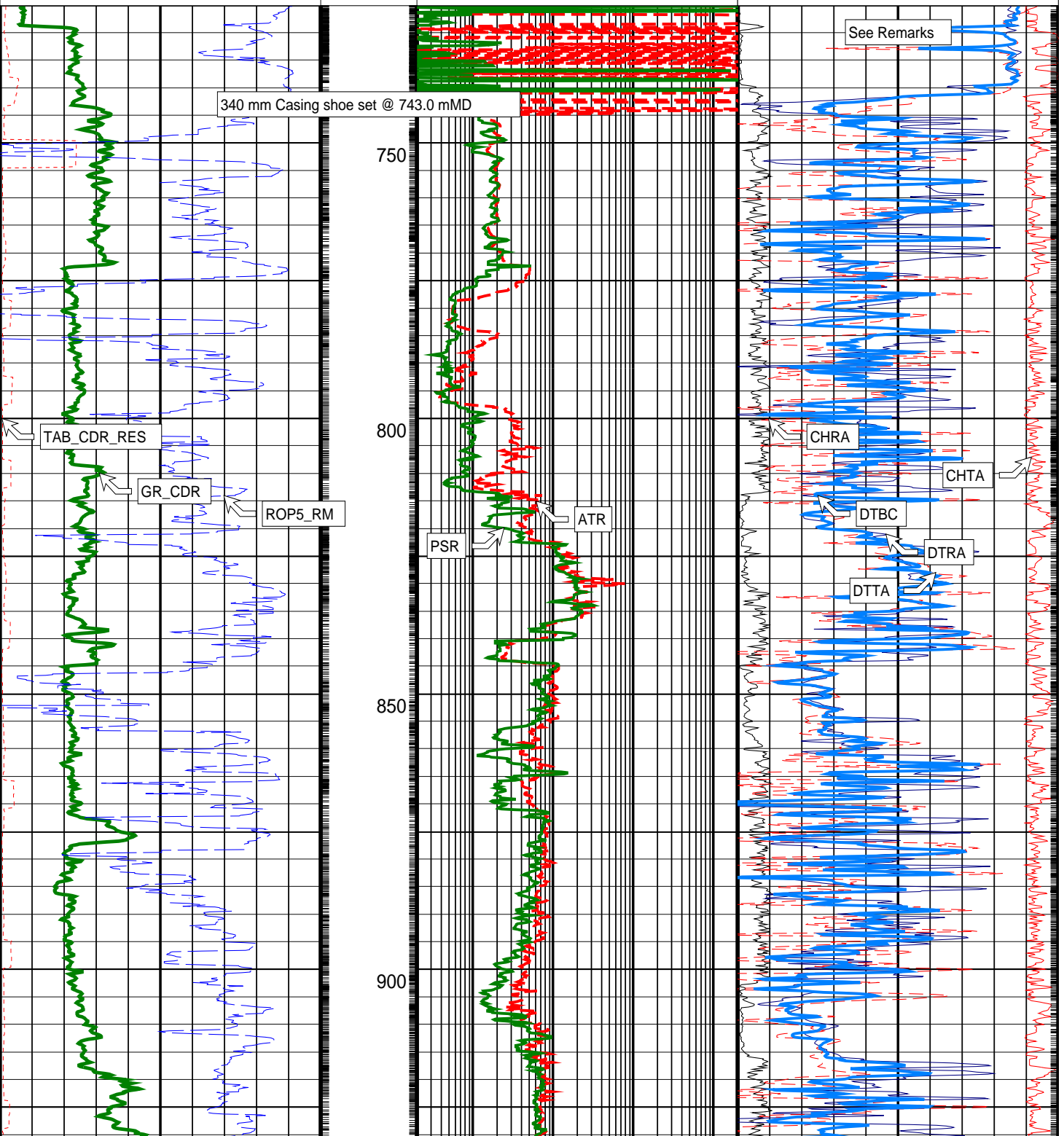


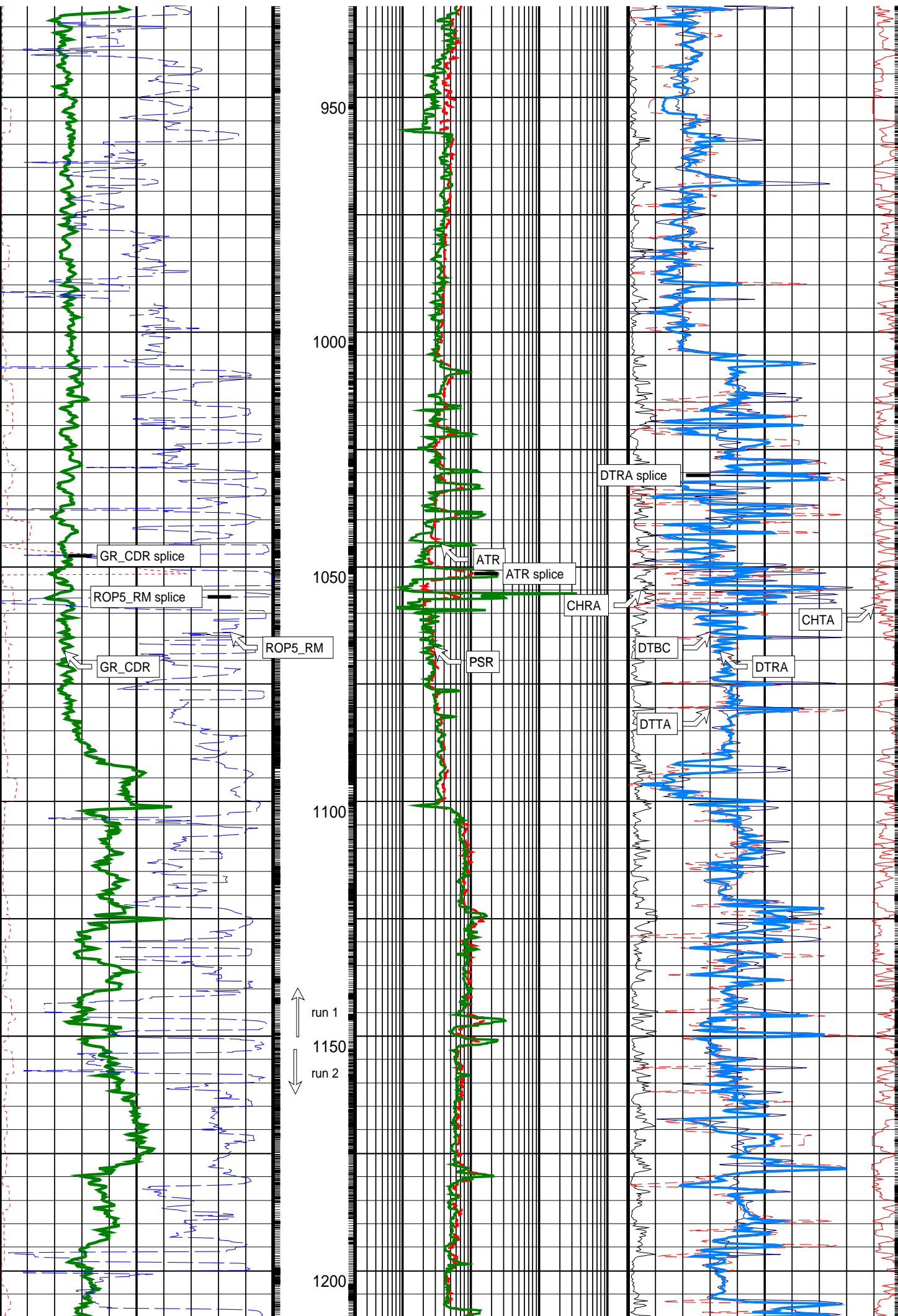
IDEAL Version: ID7_OC_02			
IDF			
CDR SON825	IDEAL Version: ID7_OC_02 IDEAL Version: ID7_OC_02	MWD_10	IDEAL Version: ID7_OC_02
Format: CDR ISONIC 1000 Vertical Scale: 1:1000		Graphics File Created: 18-Sep-2002 15:10	
Parameters			
DLIS Name	Description	Value	
DO	Depth Offset	0.0	m
MW_RM	Mud Weight (RM)	9.900	lbm/gal
PLATEAU	CDR: Plateau GR sensor	YES	
PIP SUMMARY			
└ CDR Resistivity Samples			
└ CDR Gamma Ray Samples			
			ISONIC Samples └
Delta-T Compressional Borehole			

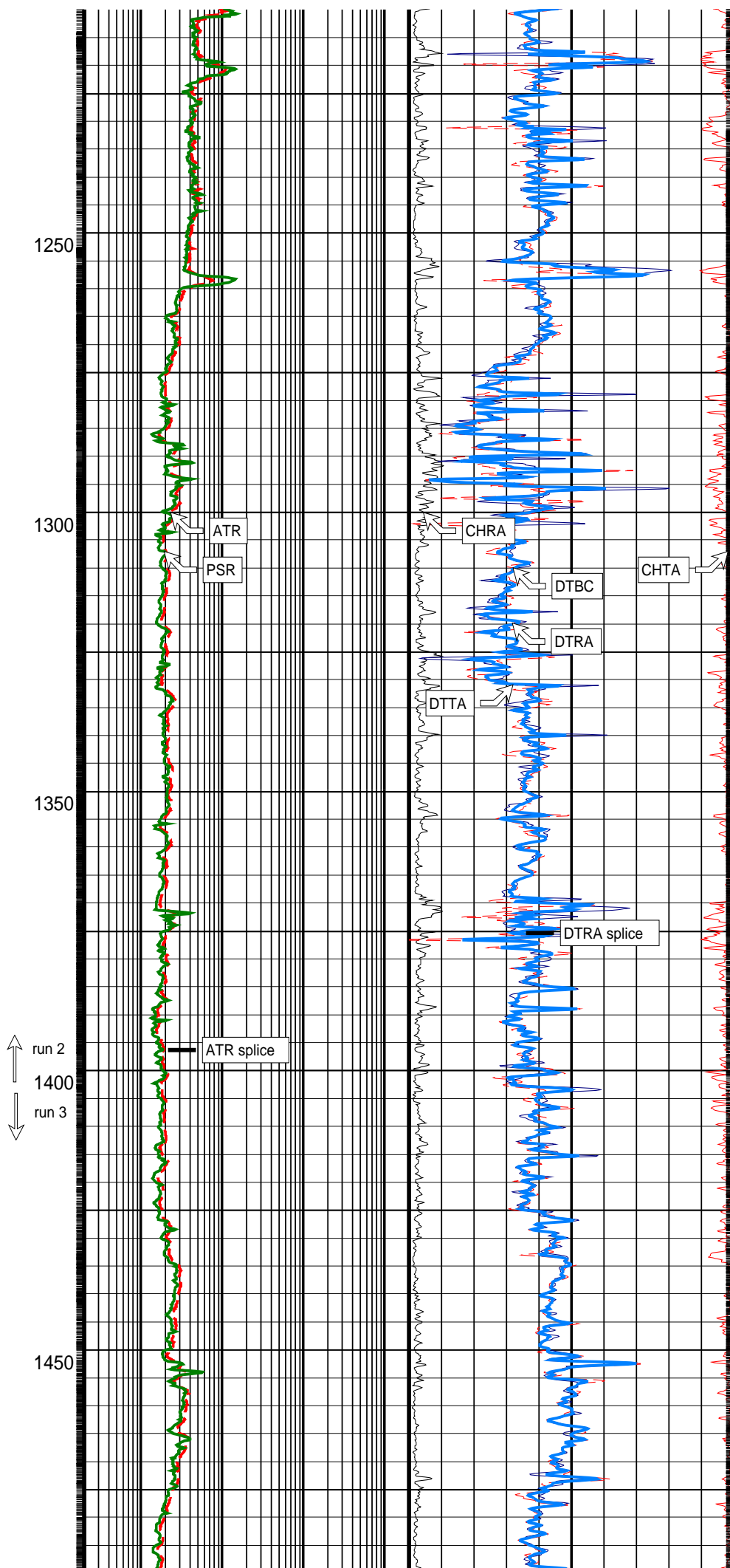
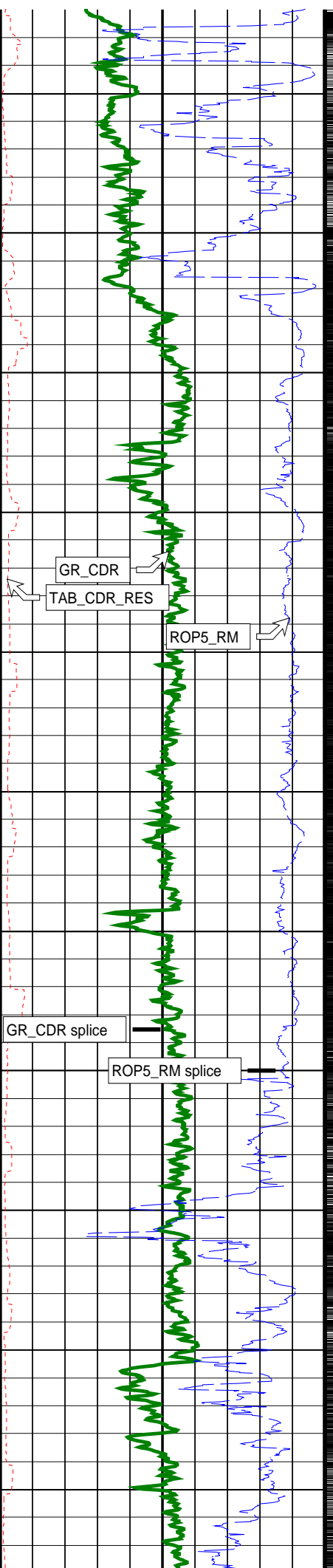
Rate of Penetration, Averaged over Last 5ft (ROP5_RM)		
200	(M/HR)	0
CDR Resistivity Time After Bit (TAB_CDR_RES)		
0	(HR)	10
CDR Gamma Ray (GR_CDR)		
0	(GAPI)	200

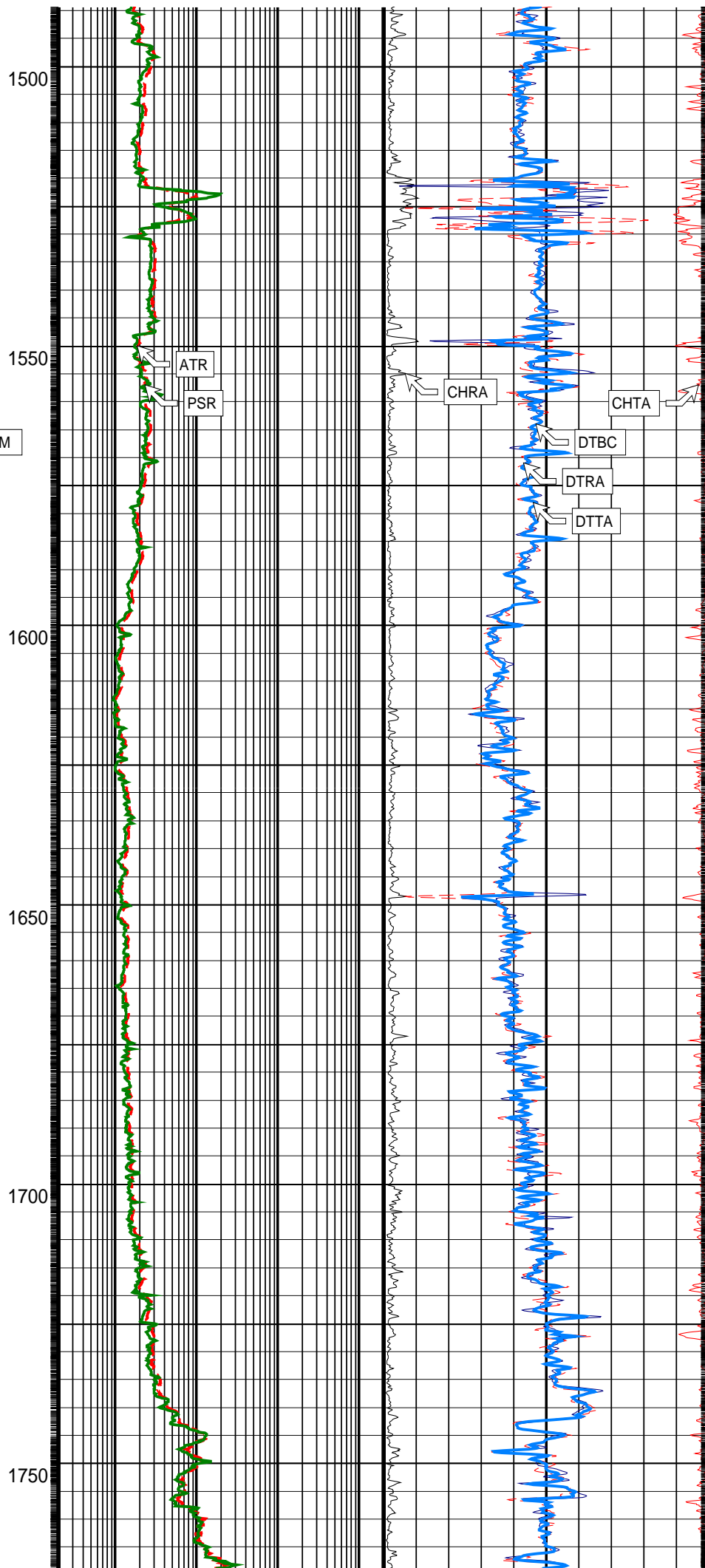
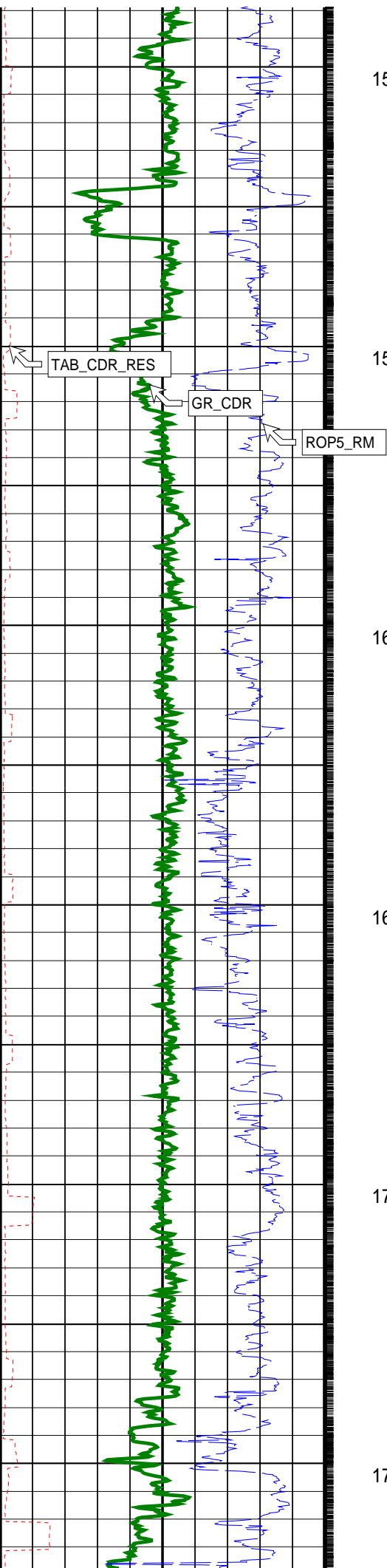
Uncorrected Phase Shift Resistivity (PSR)		
0.2	(OHMM)	2000
Uncorrected Attenuation Resistivity (ATR)		
0.2	(OHMM)	2000

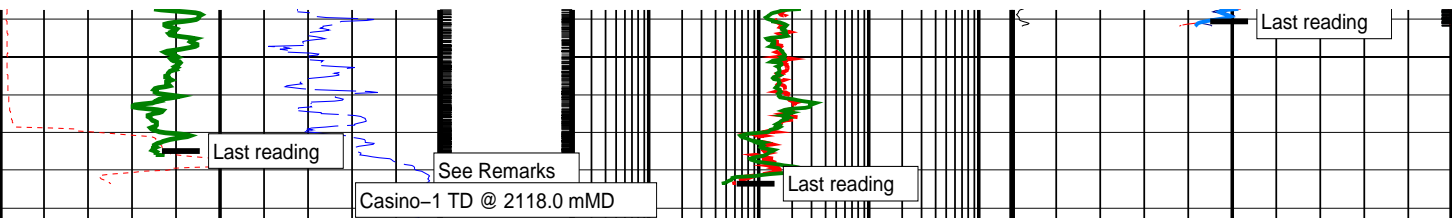
Compensated (Depth Derived) (DTBC)		
140	(US/F)	40
Delta-T Compressional from Transmitter Array (DTTA)		
140	(US/F)	40
Delta-T Compressional from Receiver Array (DTRA)		
140	(US/F)	40
Coherence at Compressional Peak for the Transmitter Array (CHTA)		
-4	(----	1
Coherence at Compressional Peak for the Receiver Array (CHRA)		
1	(----	-4











CDR Gamma Ray (GR_CDR) (GAPI) 0 200			Uncorrected Attenuation Resistivity (ATR) 0.2 2000 (OHMM)			Coherence at Compressional Peak for the Receiver Array (CHRA) 1 (----) -4		
CDR Resistivity Time After Bit (TAB_CDR_RES) (HR) 0 10			Uncorrected Phase Shift Resistivity (PSR) 0.2 2000 (OHMM)			Coherence at Compressional Peak for the Transmitter Array (CHTA) -4 (----) 1		
Rate of Penetration, Averaged over Last 5ft (ROP5_RM) 200 0 (M/HR)						Delta-T Compressional from Receiver Array (DTRA) 140 (US/F) 40		
						Delta-T Compressional from Transmitter Array (DTTA) 140 (US/F) 40		
						Delta-T Compressional Borehole Compensated (Depth Derived) (DTBC) 140 (US/F) 40		

PIP SUMMARY								
└ CDR Resistivity Samples								
└ CDR Gamma Ray Samples								
ISONIC Samples └								

IDEAL Version: ID7_0C_02			
IDF			
CDR SON825	IDEAL Version: ID7_0C_02	MWD_10	IDEAL Version: ID7_0C_02
	IDEAL Version: ID7_0C_02		

9.50-in. Compensated Dual Resistivity / Equipment Identification			
Primary Equipment:			
Tool Name and Serial Number		RGS9 - AA	9556
Gamma Ray Type		Plat - GR	
Calibration Status		Valid	

Master: 17-Aug-2002 0:16									
9.50-in. Compensated Dual Resistivity Calibration									
Resistivity: Air									
Phase	Attenuation down	DB	Value	Phase	Attenuation up	DB	Value	Phase	BHC attenuation
Master			3.920	Master			3.912	Master	
	3.290	3.890	4.490		3.290	3.890	4.490		3.790
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		(Minimum)
									3.890
									3.990
									(Maximum)

Master: 17-Aug-2002 0:16									
9.50-in. Compensated Dual Resistivity Calibration									
Resistivity: Air									
Phase	Phase shift down	DEG	Value	Phase	Phase shift up	DEG	Value	Phase	BHC phase shift
Master			-0.4190	Master			0.5240	Master	
	-2.400	0.1000	2.600		-2.400	0.1000	2.600		-0.9000
	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)		(Minimum)
									0.1000
									1.100
									(Maximum)

Master: 18-Aug-2002 0:27									
9.50-in. Compensated Dual Resistivity Calibration									
Gamma Ray: Blanket									
Phase	Gain							Value	
Master								0.8800	

0.8000
(Minimum)

1.000
(Nominal)

1.200
(Maximum)

ANADRILL

SCHLUMBERGER

Survey report

13-Sep-2002 12:11:21

Page 1 of 2

Client.....: Santos
Field.....: Exploration

Well.....: Casino-1
API number.....:
Engineer.....: W. Bertheux, C. Tue, C. Borbas
COUNTY.....: Ocean Bounty
STATE.....: Victoria

Spud date.....: 25-Aug-02
Last survey date.....: 09-Sep-02
Total accepted surveys...: 16
MD of first survey.....: 0.00 m
MD of last survey.....: 1797.00 m

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

----- Depth reference -----
Permanent datum.....: LAT
Depth reference.....: Driller's Depth
GL above permanent.....: -70.50 m
KB above permanent.....: 0.00 m
DF above permanent.....: 25.00 m

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

----- Platform reference point-----
Latitude (+N/S-).....: 0.00 m
Departure (+E/W-).....: 0.00 m

Azimuth from rotary table to target: 0.00 degrees

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2002
Magnetic date.....: 29-Aug-2002
Magnetic field strength...: 1220.75 HCNT
Magnetic dec (+E/W-).....: 10.87 degrees
Magnetic dip.....: -70.06 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.08 mGal
Reference H.....: 1220.75 HCNT
Reference Dip.....: -70.06 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 10.87 degrees
Grid convergence (+E/W-)..: -1.07 degrees
Total az corr (+E/W-).....: 11.94 degrees
(Total az corr = magnetic dec - grid conv)
Sag applied (Y/N).....: No degree: 0.00

[(c)2002 Anadrill IDEAL ID7_OC_02]
ANADRILL SCHLUMBERGER Survey Report

13-Sep-2002 12:11:21

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/ 10m)	Srvy tool type	Tool qual type
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	-
2	766.75	0.60	342.17	766.75	766.74	3.82	3.82	-1.23	4.01	342.17	0.01	MWD	6-axis
3	855.00	0.26	216.64	88.25	854.98	4.10	4.10	-1.49	4.36	340.03	0.09	MWD	6-axis
4	912.40	0.54	155.43	57.40	912.38	3.75	3.75	-1.46	4.02	338.79	0.08	MWD	6-axis
5	969.94	0.83	135.97	57.54	969.92	3.20	3.20	-1.05	3.37	341.81	0.06	MWD	6-axis
6	1041.08	1.20	191.94	71.14	1041.05	2.11	2.11	-0.85	2.27	338.03	0.14	MWD	6-axis
7	1084.57	1.29	209.06	43.49	1084.53	1.23	1.23	-1.18	1.71	316.20	0.09	MWD	6-axis
8	1170.44	0.93	192.51	85.87	1170.38	-0.29	-0.29	-1.80	1.83	260.74	0.06	MWD	6-axis
9	1256.72	1.44	181.17	86.28	1256.64	-2.06	-2.06	-1.98	2.85	223.78	0.06	MWD	6-axis
10	1382.12	1.87	182.17	125.40	1381.99	-5.68	-5.68	-2.08	6.05	200.15	0.03	MWD	6-axis
11	1458.48	2.13	183.87	76.36	1458.31	-8.34	-8.34	-2.23	8.63	194.95	0.03	MWD	6-axis
12	1546.07	2.74	185.63	87.59	1545.82	-12.05	-12.05	-2.54	12.31	191.92	0.07	MWD	6-axis
13	1605.53	3.09	184.83	59.46	1605.20	-15.06	-15.06	-2.82	15.32	190.60	0.06	MWD	6-axis
14	1690.72	3.44	188.91	85.19	1690.25	-19.87	-19.87	-3.41	20.16	189.73	0.05	MWD	6-axis
15	1775.86	4.38	192.34	85.14	1775.19	-25.57	-25.57	-4.50	25.97	189.97	0.11	MWD	6-axis

[(c)2002 Anadrill IDEAL ID7_OC_02]

Company: Santos Ltd./Strike Oil

Schlumberger

Well: Casino-1

Field: VIC/P 44

Rig: Ocean Bounty

State: Victoria

CDR – ISONIC

Measured Depth 1:1000

Recorded Mode

