

Company: Woodside Energy Ltd

Well: Somerset-1
Field: T34P
Rig Name: Ocean Patriot
State: Tasmania
Country: Australia

Latitude: 39° 20' 36.76" S

Longitude: 142° 44' 56.14" E

Block: n.a

UWID: n.a

Rig Name: Ocean Patriot

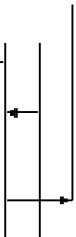
Rig Type: Semi-Submersible

FL: Otway Basin

FL1:

FL2:

Log Measured From - Drill Floor: 21.5 m
Reference Datum - Mean Sea Level
Permanent Datum - Least Astronomic Tide: 0.6 m



Ground Level: 503.0 m

Acquisition Dates:

24 Oct 09

Other Services:

Print Interval:

1275.0(m) to 1817.5(m)

Directional Surveys

Index Types:

Measured Depth

Shock and Vibrations

Index Scales:

1:500

Annulus Temperature and Pressure

Depth Source:

Driller's Depth

Depth Sensor:

DES

Conveyance:

Drill Pipe

Print Type:

Field

Spud Date:

19-Oct-2009

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 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.

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Survey Record

Survey Calculation			
Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	Grid North	Total Correction Formula :	Magnetic Dec - Grid Convergence
Grid Convergence :	-1.11 deg		

Rig Location			
Latitude :	39° 20' 36.76" S	Longitude :	142° 44' 56.14" E

Tie In Point					
Measured Depth:	0.00 m	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 m	North Displacement:	0.00 m	East Displacement:	0.00 m
N/-S VSec Origin:	0.00 m	E/-W VSec Origin:	0.00 m	Vertical Section Azimuth:	0.00 deg

D&I Inits Computed and Values Used - Run 1			
Geomagnetic Model :	BGGM 2009	Geomagnetic Date :	20-Oct-2009
Computed Location B :	61074.75 nT +/- 300.00nT	Used Location B :	61074.75 nT +/- 300.00nT
Computed Location G :	999.45 mgn +/- 2.50mgn	Used Location G :	999.45 mgn +/- 2.50mgn
Computed Magnetic Dip :	-70.38 deg +/- 0.45deg	Used Magnetic Dip :	-70.38 deg +/- 0.45deg
Computed Magnetic Dec :	11.03 deg	Used Magnetic Dec :	11.03 deg
Computed Total Correction :	12.14 deg	Used Total Correction :	12.14 deg

D&I Inits Computed and Values Used - Run 2			
Geomagnetic Model :	BGGM 2009	Geomagnetic Date :	24-Oct-2009
Computed Location B :	61074.62 nT +/- 300.00nT	Used Location B :	61074.62 nT +/- 300.00nT
Computed Location G :	999.45 mgn +/- 2.50mgn	Used Location G :	999.45 mgn +/- 2.50mgn
Computed Magnetic Dip :	-70.38 deg +/- 0.45deg	Used Magnetic Dip :	-70.38 deg +/- 0.45deg
Computed Magnetic Dec :	11.03 deg	Used Magnetic Dec :	11.03 deg
Computed Total Correction :	12.14 deg	Used Total Correction :	12.14 deg

Survey Quality Index		
0 : Long, passed all criteria	2 : Long, failed mag criteria	10 : DMAG-Corrected

Survey Correction Index														
0 : No correction														

Seq	MD (m)	Incl (deg)	Azim (deg)	Course (m)	TVD (m)	V Sec (m)	N/ -S (m)	E/ -W (m)	Closure (m)	at Azi (deg)	DLS deg/30m	Tool Type	QI	CI
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP		
2	599.08	0.58	120.59	599.08	599.07	-1.54	-1.54	2.61	3.03	120.59	0.03	Manual	10	
3	684.35	0.43	120.90	85.27	684.34	-1.93	-1.93	3.26	3.78	120.62	0.05	Manual	10	
4	713.04	0.53	133.63	28.69	713.03	-2.07	-2.07	3.44	4.02	121.05	0.15	Manual	10	
5	972.34	0.91	95.08	259.30	972.31	-3.08	-3.08	6.36	7.07	115.85	0.07	Manual	10	
6	1001.37	0.91	84.18	29.03	1001.33	-3.08	-3.08	6.82	7.49	114.30	0.18	Manual	10	
7	1059.78	0.95	75.47	58.41	1059.73	-2.91	-2.91	7.75	8.28	110.59	0.08	Manual	10	
8	1090.08	0.78	51.04	30.30	1090.03	-2.72	-2.72	8.16	8.60	108.44	0.40	Manual	10	
9	1117.31	0.70	46.36	27.23	1117.26	-2.49	-2.49	8.42	8.78	106.46	0.11	Manual	10	
10	1203.66	0.94	59.46	86.35	1203.60	-1.76	-1.76	9.41	9.58	100.62	0.11	Manual	10	
11	1251.88	0.96	60.07	48.22	1251.81	-1.36	-1.36	10.10	10.19	97.68	0.01	Manual	10	

12	1395.50	0.44	87.23	143.62	1395.42	-0.73	-0.73	11.69	11.72	93.60	0.13	TeleScope	2	0
13	1423.48	0.35	95.19	27.98	1423.40	-0.74	-0.74	11.89	11.91	93.55	0.11	TeleScope	2	0
14	1450.69	0.32	100.66	27.21	1450.62	-0.76	-0.76	12.04	12.07	93.61	0.05	TeleScope	2	0
15	1739.63	0.22	152.34	288.93	1739.55	-1.39	-1.39	13.09	13.17	96.08	0.03	TeleScope	0	0

Run 2

Software Version			
Acquisition System		Version	
MaxWell		1.2.8706.0	
Framework Patch		FWK-BGC-20090918-1.2.8706.1030	
Application Patch		APL-BGC-DnM-1.2.8706.1021	
Computation	Description		Version
NEUTRON_PROC	Neutron Processing, ADN		1.2.8706.0
ARC8GammaRayComput ation	ARC8 Gamma Ray Computation Package for both Real-time and Recorded Mode		1.2.8706.1021
ARC8PressureComputatio	ARC8 Pressure Computation Package for both Real-time and Recorded Mode		1.2.8706.1021
ARCResistivity	ARC Resistivity Computation Package for ARC Tool Family		1.2.8706.1021
Tool Elements	Description	Software Version	Firmware Version
ARDC	ARC 8.25 Inch Tool Drilling Collar	1.2.8706.1021	
DRILLING_SURFACE	DRILLING_SURFACE	1.2.8706.1030	
ADNP	Azimuth Neutron Detector Package	1.2.8706.0	8.3

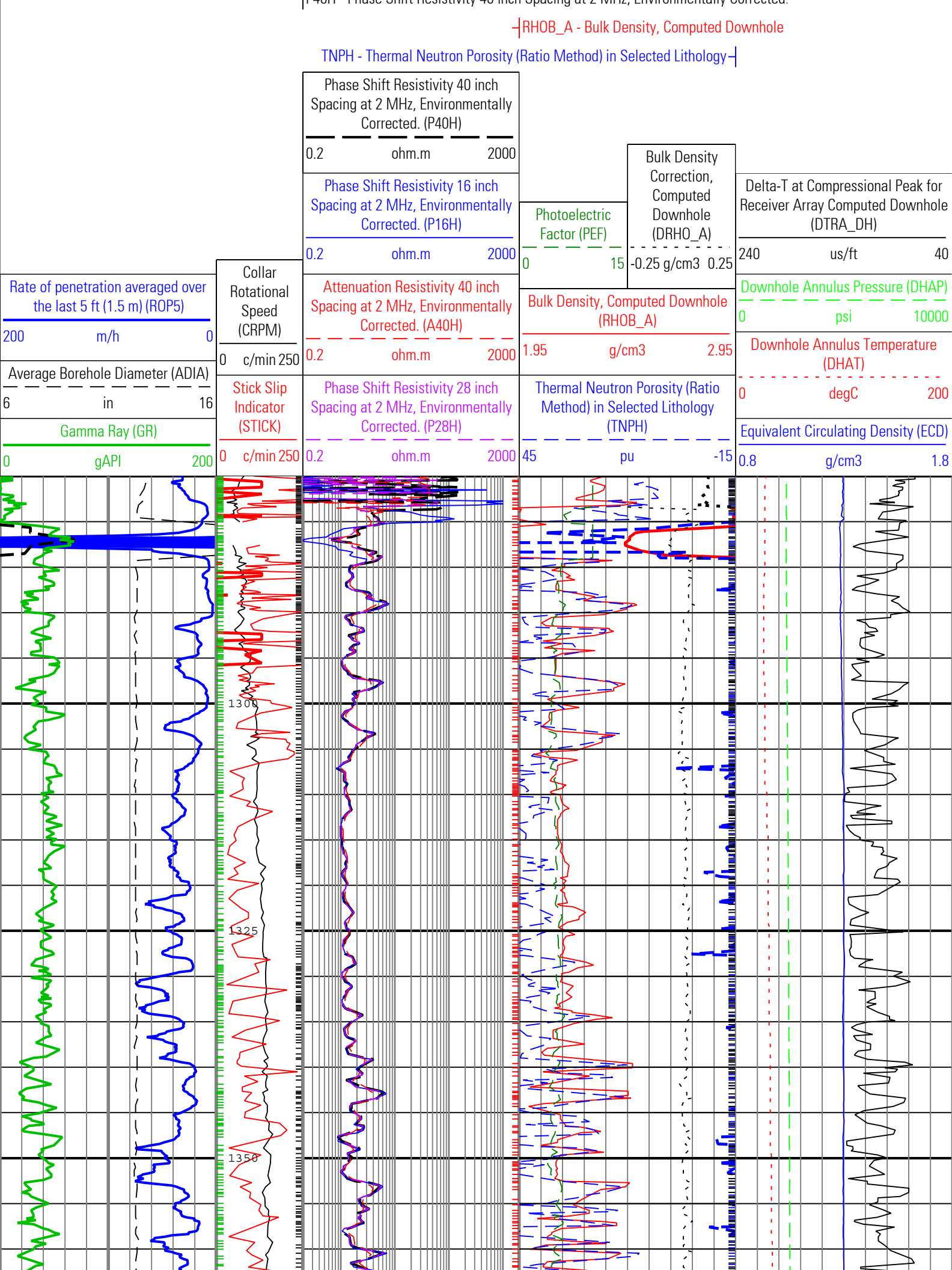
Pass Summary						
Run Name	Pass Objective	Direction	Top	Bottom	Acquisition Start Date	Acquisition Start Time
Run 2	Drilling	Down	1274.72 m		24-Oct-2009	19:34:49
All depths are referenced to toolstring zero						

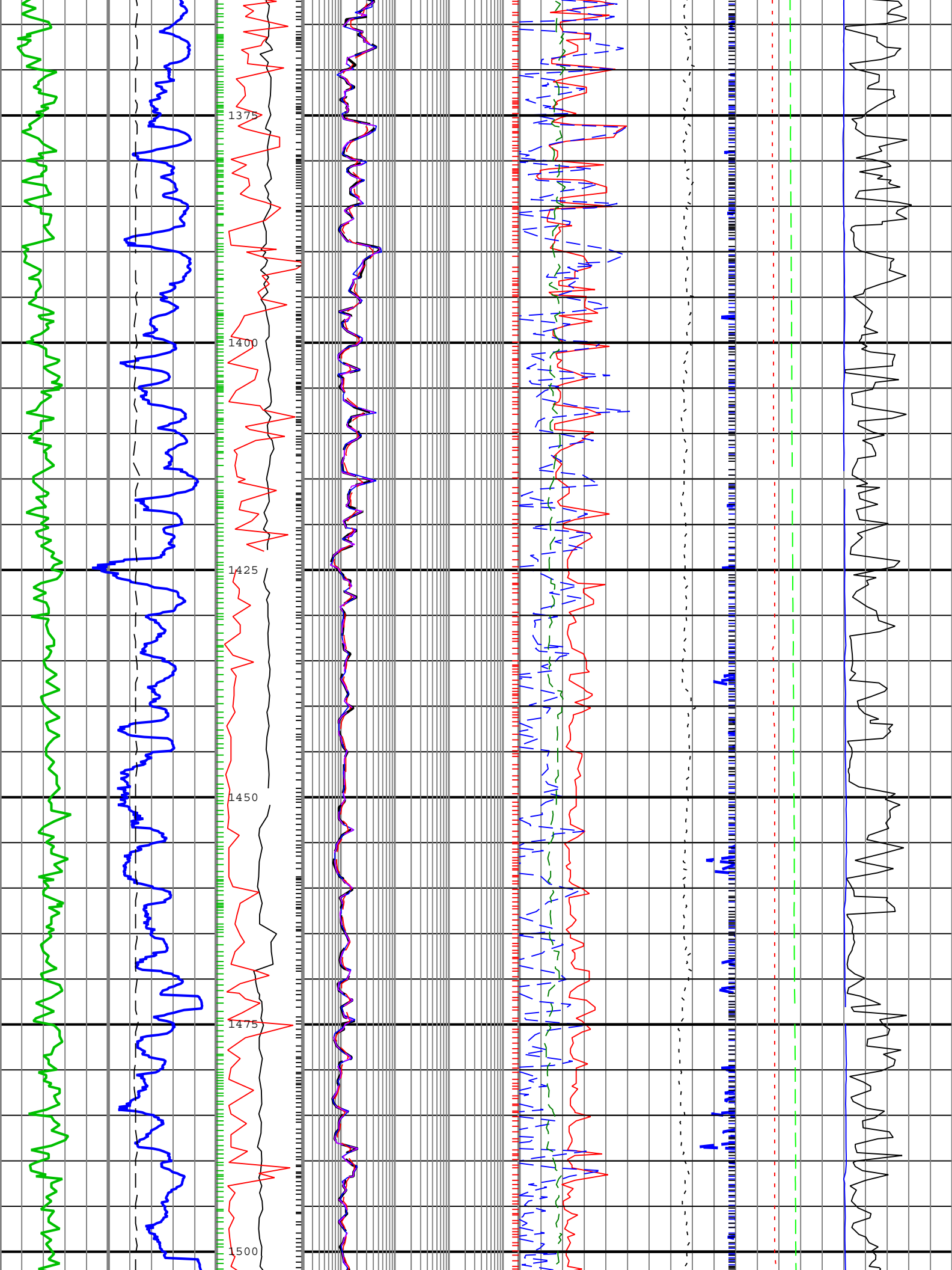
Log		Run 2: Drilling E2100D83-971D-4474-8039-4856F35B64ED										
Description: ARC Dual Frequency 3-Log Resistivity			Format: Log (RT Quad Combo - SADN8 Woodside)				Index Scale: 1:500		Index Unit: m		Index Type: Measured	
Depth	Creation Date: 26-Oct-2009 09:28:20											
A40H	ARC8:ARC8:ARDC		6in - RT									
ADIA	SADN8:SADN8		6in - RT									
CRPM	TELE825:TELE825		6in - RT									
DHAP	ARC8:ARC8		6in - RT									
DHAT	ARC8:ARC8		6in - RT									
DRHO_A	SADN8:SADN8		6in - RT									
DTRA_DH	SONICVISION8:SONICVISION8		6in - RT									
ECD	ARC8:ARC8:ARDC		6in - RT									
GR	ARC8:ARC8:ARDC		6in - RT									
P16H	ARC8:ARC8:ARDC		6in - RT									
P28H	ARC8:ARC8:ARDC		6in - RT									
P40H	ARC8:ARC8:ARDC		6in - RT									
PEF	SADN8:SADN8		6in - RT									
RHOB_A	SADN8:SADN8		6in - RT									
ROP5	DRILLING_SURFACE		6in - RT									
STICK	TELE825:TELE825		6in - RT									
TNPH	SADN8:SADN8:ADNP		6in - RT									

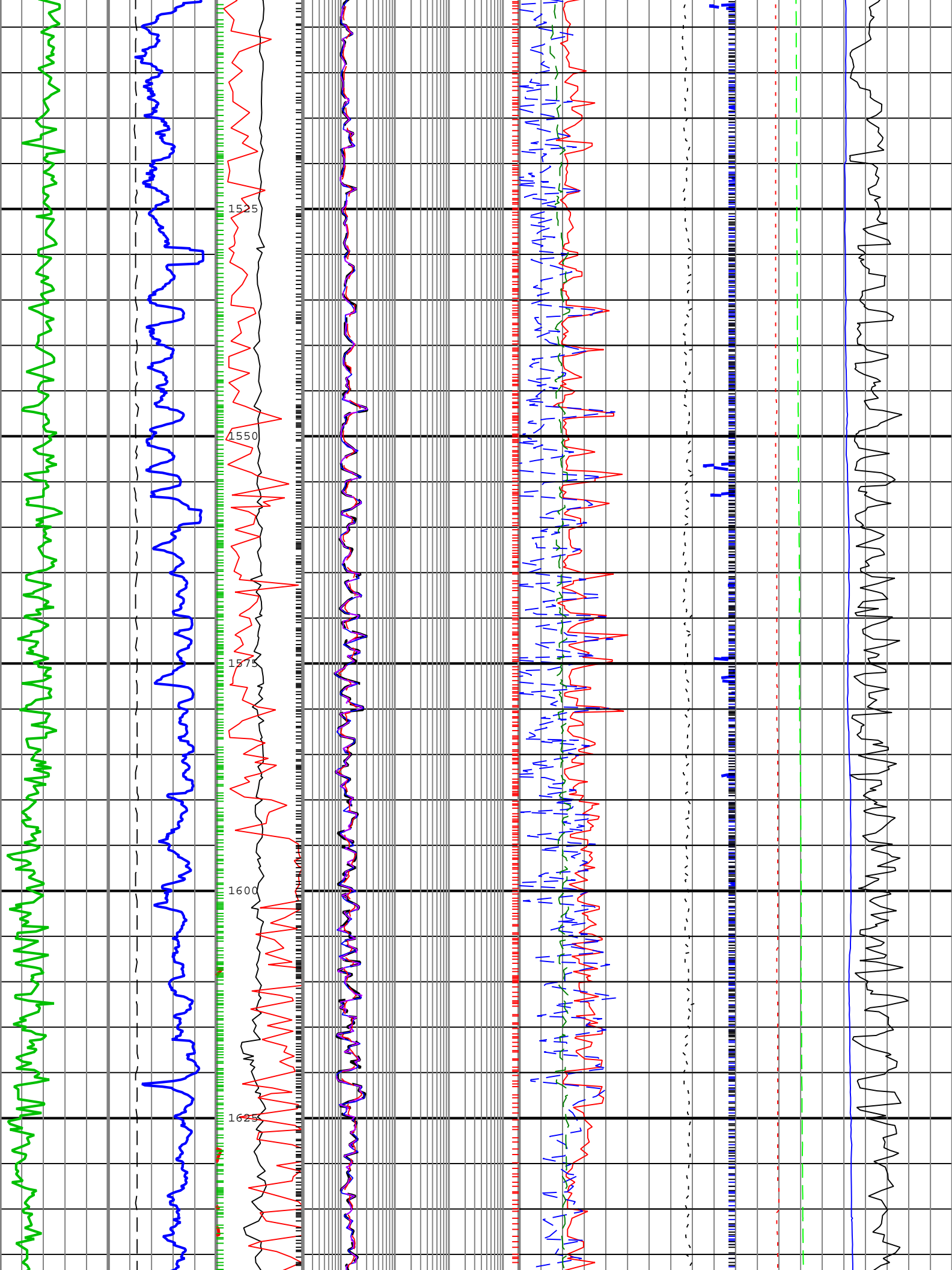
DTRA_DH - Delta-T at Compressional Peak for Receiver Array Computed Downhole-

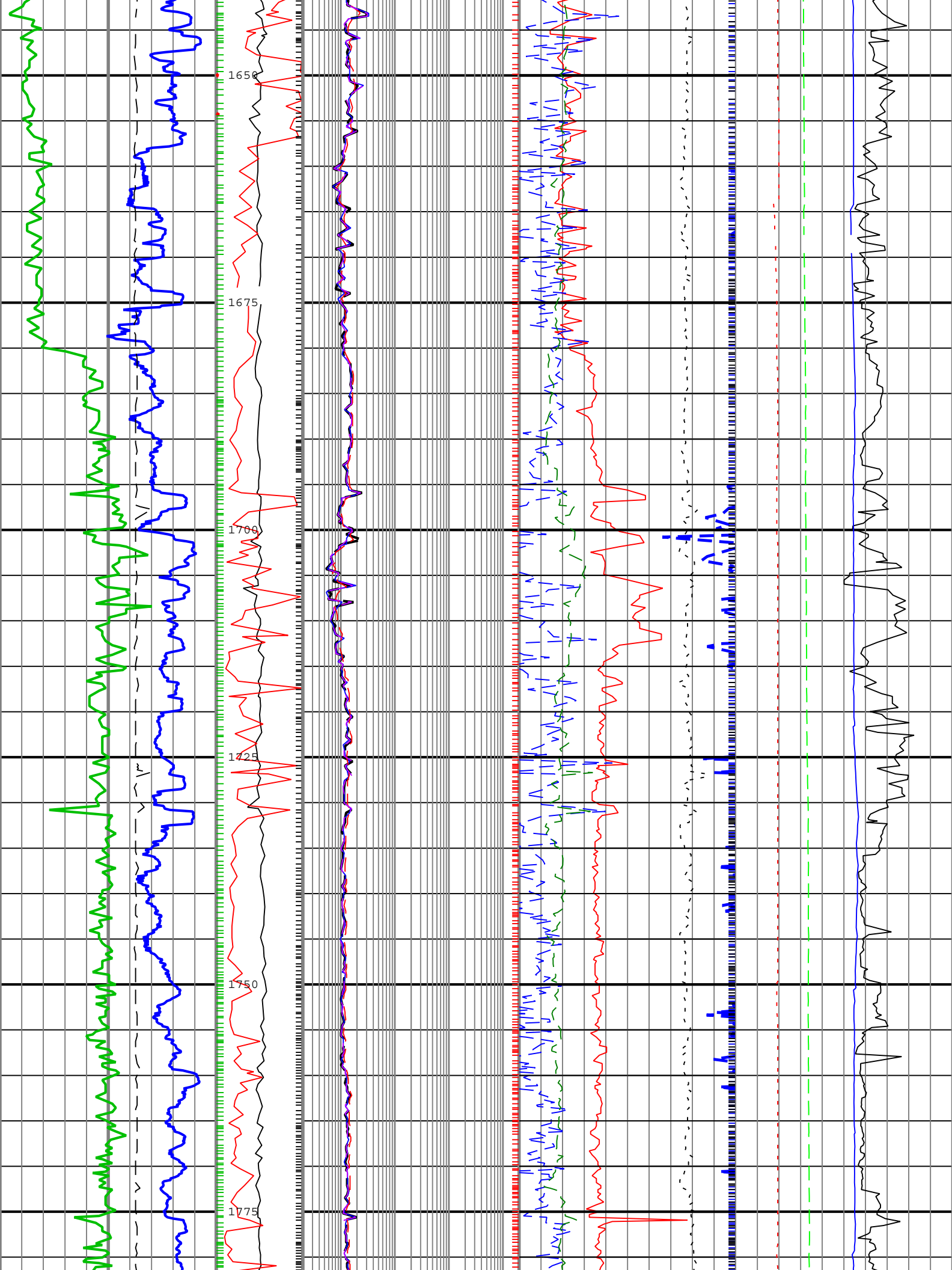
- GR - Gamma Ray

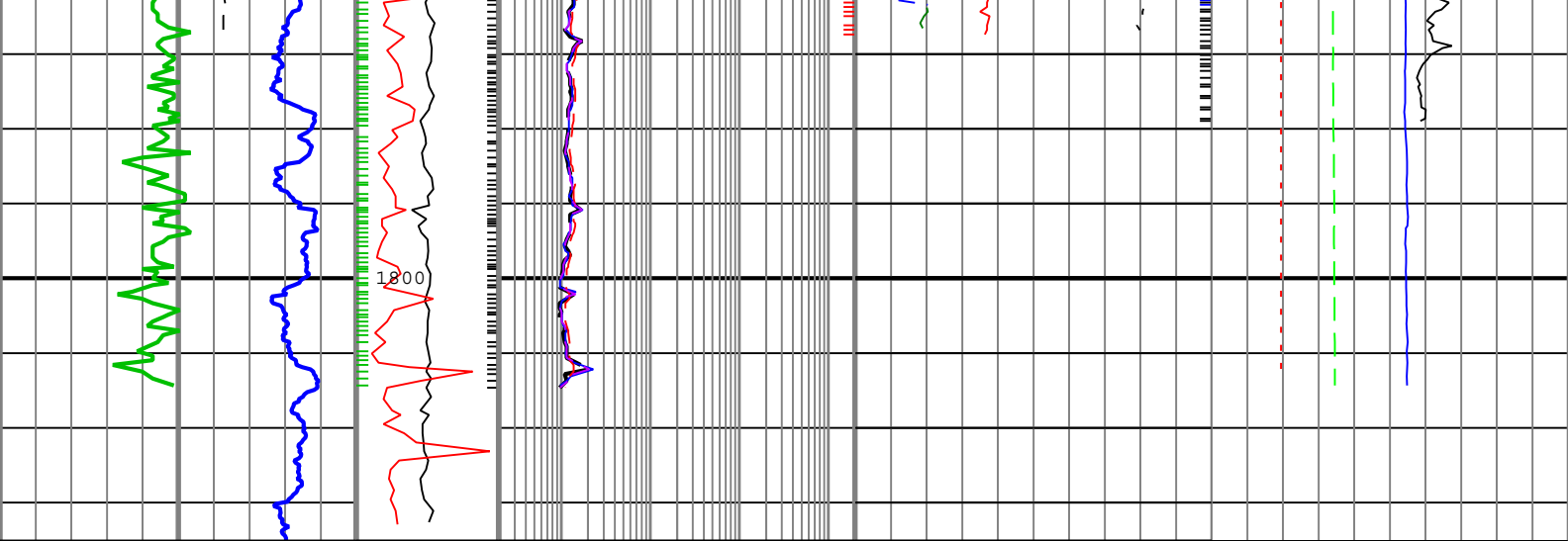
- P40H - Phase Shift Resistivity 40 inch Spacing at 2 MHz - Environmentally Corrected











Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) 200 m/h 0	Collar Rotational Speed (CRPM) 0 c/min 250	Phase Shift Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected. (P40H) 0.2 ohm.m 2000	Bulk Density, Computed Downhole (RHOB_A) 1.95 g/cm3 2.95	Delta-T at Compressional Peak for Receiver Array Computed Downhole (DTRA_DH) 240 us/ft 40
Average Borehole Diameter (ADIA) 6 in 16	Stick Slip Indicator (STICK) 0 c/min 250	Phase Shift Resistivity 16 inch Spacing at 2 MHz, Environmentally Corrected. (P16H) 0.2 ohm.m 2000	Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) 45 pu -15	Downhole Annulus Pressure (DHAP) 0 psi 10000
Gamma Ray (GR) 0 gAPI 200		Attenuation Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected. (A40H) 0.2 ohm.m 2000	Photoelectric Factor (PEF) 0 15	Downhole Annulus Temperature (DHAT) 0 degC 200
		Phase Shift Resistivity 28 inch Spacing at 2 MHz, Environmentally Corrected. (P28H) 0.2 ohm.m 2000	Bulk Density Correction, Computed Downhole (DRHO_A) -0.25 g/cm3 0.25	Equivalent Circulating Density (ECD) 0.8 g/cm3 1.8

TNPH - Thermal Neutron Porosity (Ratio Method) in Selected Lithology

RHOB_A - Bulk Density, Computed Downhole

P40H - Phase Shift Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected.

GR - Gamma Ray

DTRA_DH - Delta-T at Compressional Peak for Receiver Array Computed Downhole

Description: ARC Dual Frequency 3-Log Resistivity Format: Log (RT Quad Combo - SADN8 Woodside) Index Scale: 1:500 Index Unit: m Index Type: Measured Depth Creation Date: 26-Oct-2009 09:28:20

Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	Time Zoned	%
BHT	Bottom Hole Temperature	Borehole	39	degC
BS	Bit Size	COMPLETION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	g/cm3
DFT	Drilling Fluid Type	Borehole	Water	
FLEV	Depth of Drilling Fluid Level to LMF (Log Measured From)	Borehole	2.44	m
GGRD	Geothermal Gradient	Borehole	2	degF/100ft
GRSE	Generalized Mud Resistivity Selection	Borehole	Computed (GEN-9)	
GTSE	Generalized Temperature Selection	Borehole	Gradient From Surface	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MST	Mud Sample Temperature	Borehole	Time Zoned	degC
RHO_SEAWATER	Density of the Sea Water	Borehole	1.02	g/cm3

RHO_SEAWATER	Density of the Sea Water	Borehole	1.02	g/cm3
RMS	Resistivity of Mud Sample	Borehole	Time Zoned	ohm.m
SF_FLAG	Mud Return to Sea Floor (No Riser)?	Borehole	No	
SHT	Surface Hole Temperature	Borehole	10	degC

Depth Zone Parameters

Parameter	Value	Start (m)	Stop (m)
BS	17.5	1275	1280
BS	12.25	1280	

All depth are actual.

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
BHK	5.77	24-Oct-2009 19:34:49	26-Oct-2009 02:52:07	1274.72	1626.46
BHK	5.77	26-Oct-2009 02:52:07		1626.46	
DFD	1.29	24-Oct-2009 19:34:49	26-Oct-2009 02:52:31	1274.72	1626.54
DFD	1.26	26-Oct-2009 02:52:31		1626.54	
MST	19.4	24-Oct-2009 19:34:49	26-Oct-2009 04:24:53	1274.72	1673.78
MST	18.8	26-Oct-2009 04:24:53		1673.78	
RMS	0.08	24-Oct-2009 19:34:49	26-Oct-2009 04:24:53	1274.72	1673.78
RMS	0.09	26-Oct-2009 04:24:53		1673.78	

All depth are at tool zero.

Tool Control Parameters

Parameter	Description	ToolPath	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DnMWorkflow	Time Zoned	m

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
OFFBTM_TH	0.6	24-Oct-2009 19:34:49	25-Oct-2009 23:15:02	1274.72	1529.56
OFFBTM_TH	0.5	25-Oct-2009 23:15:02	26-Oct-2009 00:11:46	1529.56	1558.04
OFFBTM_TH	0.4	26-Oct-2009 00:11:46		1558.04	

All depth are at tool zero.

Company:	Woodside Energy Ltd
Well:	Somerset-1
Field:	T34P
Rig Name:	Ocean Patriot
State:	Tasmania
Country:	Australia

