

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

8.5 in. Section

Well: BTA-A4A-ST

Field: Barracouta

Rig: ENSCO 102

State:

Victoria

GeoVISION Resistivity 1:200 True Vertical Depth Recorded Mode Log

ENSCO 102

Rig: ENSCO 100

Field: Barracouta

Location: Bass Strait

Well: BTA-A4A-ST

Company: ESSO Australia Pty. Ltd.

Location	
Total depth:	2165.0 m
Spud date:	24-Feb-05
Runs:	2 To 4
Permanent datum:	Mean Sea Level
Log measured from:	Drill Floor
Depth reference:	Driller's Depth
	Elev.: 0.0 m
	56.0 m above Perm. datum

Rig:	Field:	Location:	Well:	Completion:
Service Order no.	x = 5591 17.64 m (East)	Longitude	Latitude	
ASQ-05-02	y = 5761070.28 m (North)	E 147° 40' 33.85"	S 38° 17' 47.41"	

Depth logged:	848.0 m	To	2132.9 m	Mag decl:	12.974 deg.	Other services:
Date logged:	01-Mar-05	To	07-Mar-05	Mag dip:	-68.872 deg.	Directional Drilling, D&I Survey

Bore hole record				Casing record			
Hole size	from	to	Size	Density	from	to	
12.25 in.	342.0 m	851.0 m	13.375 in.	54.5 lb/ft	Surface	337.0 m	
8.5 in.	851.0 m	2165.0 m	9.625 in.	47.0 lb/ft	Surface	848.0 m	
Mud record			Borehole deviation record				
Type	from	to	Min	Max	from	to	
S-W/Bentonite	342.0 m	851.0 m	0.25 deg.	60.05 deg.	342.0 m	851.0 m	
KCL/PPH/PA/Glycol	851.0 m	2165.0 m	57.71 deg.	63.32 deg.	851.0 m	2165.0 m	
Surface equipment			Software record				
Unit	OLU-JA-9602	IDEAL Wis	ID9_1C_02				
Depth system	PDA – DES-DA	SPM	hspm9_2c_08				
		LWD	V8.3A02		V6.2B01		
		MWD	V7.0C00				

Bit Run Summary

Run number		2	3	4						
Bit size	in.	8.5	8.5	8.5						
Bit start depth	m	851.0	1570.0	1930.0						
Bit end depth	m	2108.0	1625.0	2165.0						
Top interval logged	m	848.0	1562.3	1912.6						
Bottom interval logged	m	2090.7	1602.6	2132.9						
Begin log: time		11:40	20:15	21:47						
Begin log: date		01-Mar-05	04-Mar-05	05-Mar-05						
End log: time		02:30	22:30	07:54						
End log: date		04-Mar-05	04-Mar-05	07-Mar-05						
Mud data										
Depth	m	2084	2084	2165						

Type		KCL/PHPA/Glycol	KCL/PHPA/Glycol	KCL/PHPA/Glycol						
Mud weight	ppg	10.0	10.0	10.0						
Solids	%	7.1	7.1	8.1						
Chlorides	mg/L	31000	31000	31000						
Rm	ohm.m@°C	0.14@24.1	0.14@24.1	0.12@24.0						
Rmf	ohm.m@°C	0.12@23.5	0.12@23.5	0.13@24.9						
Rmc	ohm.m@°C	0.23@24.5	0.23@24.5	0.14@24.6						
Potassium	%	6.0	6.0	6.0						
Environmental data										
GR										
Mud weight	ppg	10.0	10.0	10.0						
Bit size	in.	8.5	8.5	8.5						
Resistivity										
Neutron porosity										
Hole Size	in.	8.5	8.5	8.5						
Mud weight	ppg	10.0	10.0	10.0						
Temperature	°C	70.6	70.6	69.0						
Mud salinity	ppm	45746	45746	47390						
Formation salinity										
Recording rate 1	SEC	10 sec.	10 sec.	10 sec.						
Recording rate 2	SEC	10 sec.	10 sec.	10 sec.						
Filtering GR		3 pt.	3 pt.	3 pt.						
Filtering density		3 pt.	3 pt.	3 pt.						
Filtering Neutron		3 pt.	3 pt.	3 pt.						
Company representative		B. Steel	M. Jackson	A. Bassett						
Anadrill personnel		K. Handley	M. Y. Tan	R. Burns	K. Wilson	D. Hay				

DISCLAIMER

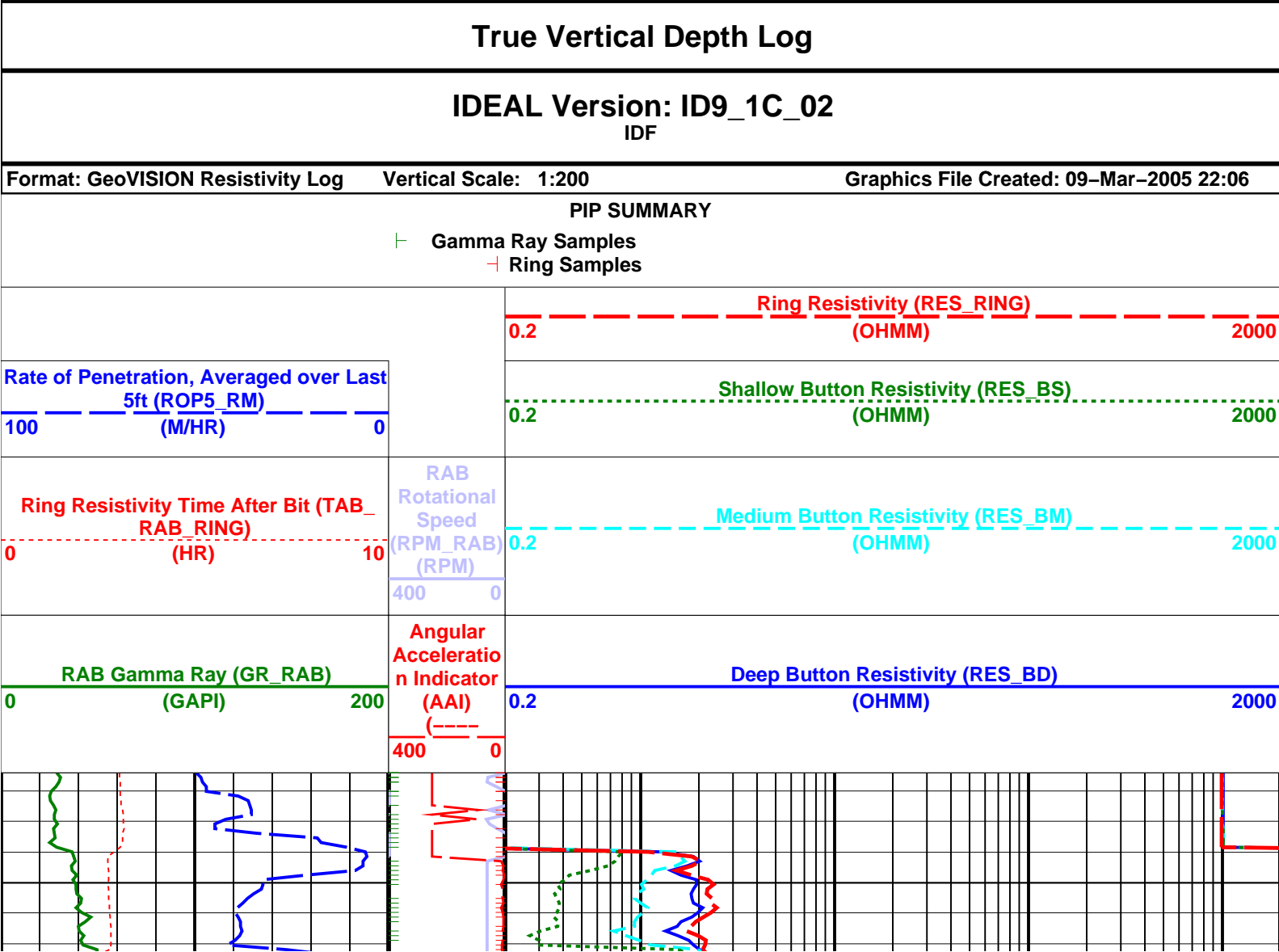
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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.

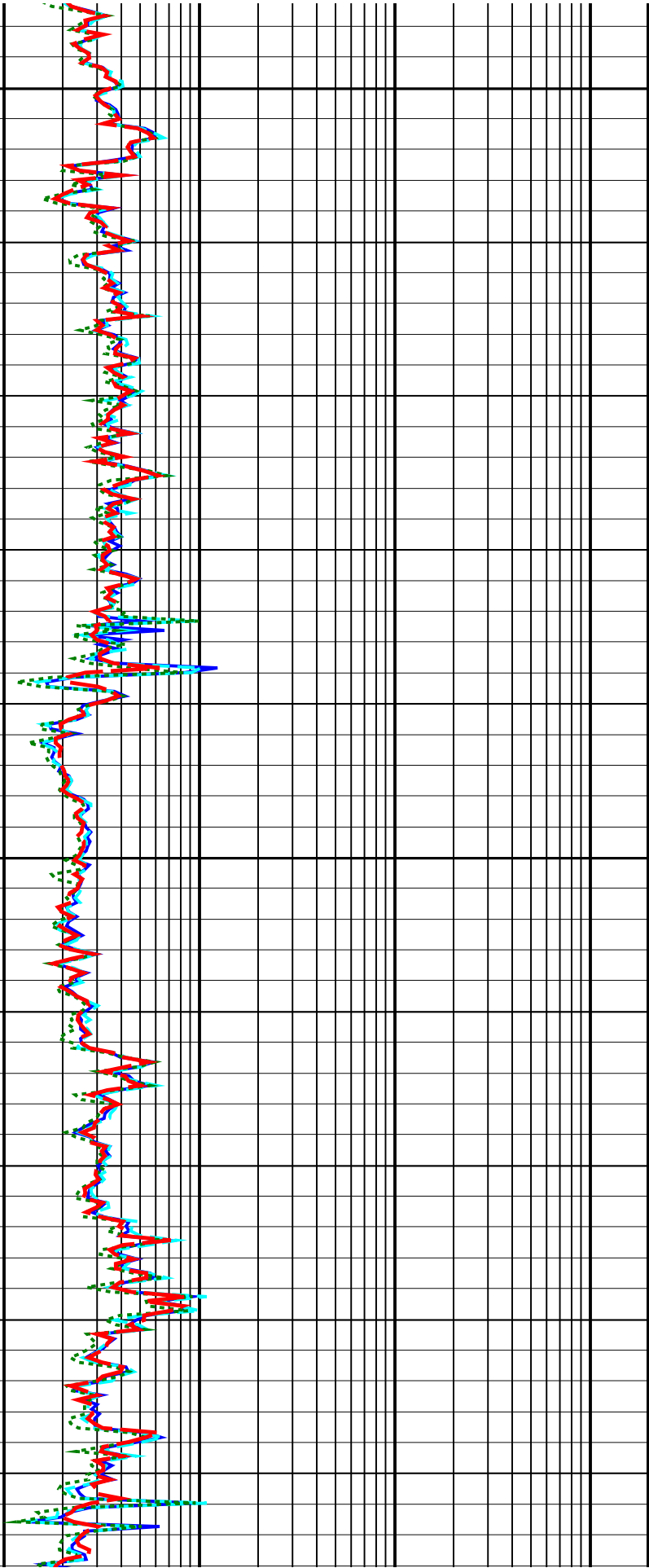
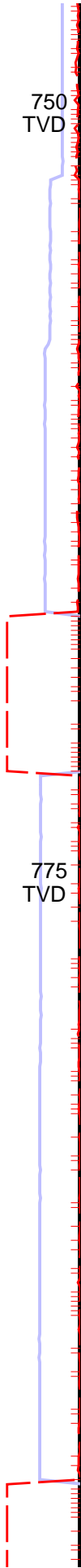
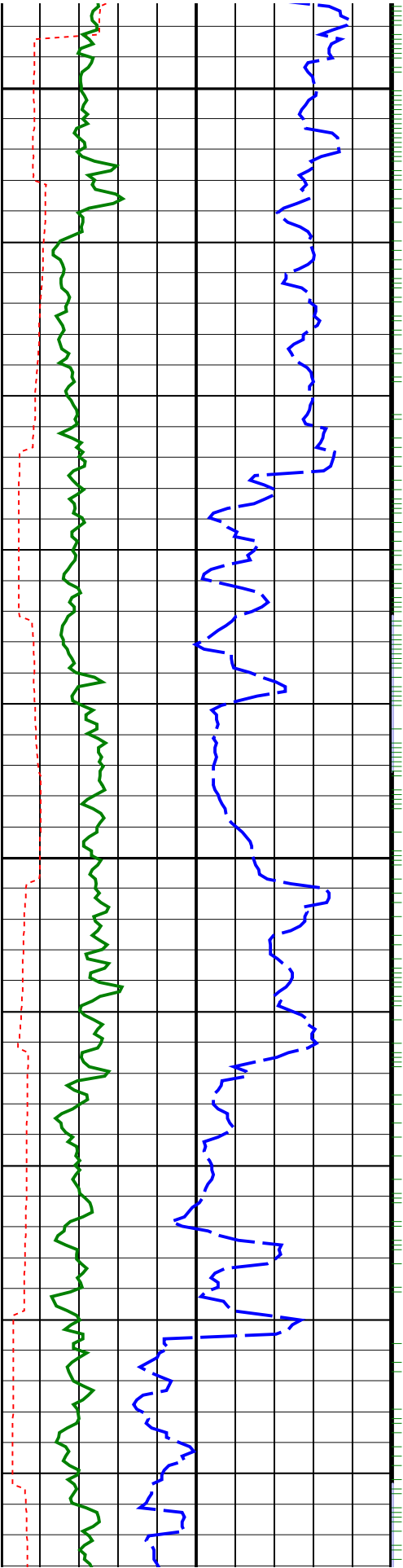
OTHER SERVICES FOR RUN2 Directional Drilling D&I Survey	OTHER SERVICES FOR RUN3 Directional Drilling D&I Survey	OTHER SERVICES FOR RUN4 Directional Drilling D&I Survey
REMARKS: RUN NUMBER 2 8-1/2 in. hole section was drilled from 851.0 m to 2108.0 m. Depth is referenced to Driller's Depth. All data presented is from tool memory. GR corrected for mud weight, tool and bit size. GVR*6 resistivity is corrected for bit size, mud resistivity and borehole temperature. Neutron porosity is calculated with a limestone matrix and is corrected for bit size, borehole salinity, temperature and mud hydrogen index. Ultrasonic Caliper not available during sliding intervals.	REMARKS: RUN NUMBER 3 8-1/2 in. hole section was reamed from 1570.0 m to 1625.0 m. Depth is referenced to Driller's Depth. All data presented is from tool memory. GR corrected for mud weight, tool and bit size. GVR*6 resistivity is corrected for bit size, mud resistivity and borehole temperature. Neutron porosity is calculated with a limestone matrix and is corrected for bit size, borehole salinity, temperature and mud hydrogen index. PEF readings were affected by the presence of Barite in the mud system.	REMARKS: RUN NUMBER 4 8-1/2 in. hole section was drilled from 1930.0 m to 2165.0 m. Depth is referenced to Driller's Depth. All data presented is from tool memory. GR corrected for mud weight, tool and bit size. GVR*6 resistivity is corrected for bit size, mud resistivity and borehole temperature. Neutron porosity is calculated with a limestone matrix and is corrected for bit size, borehole salinity, temperature and mud hydrogen index. Ultrasonic Caliper not available during sliding intervals.

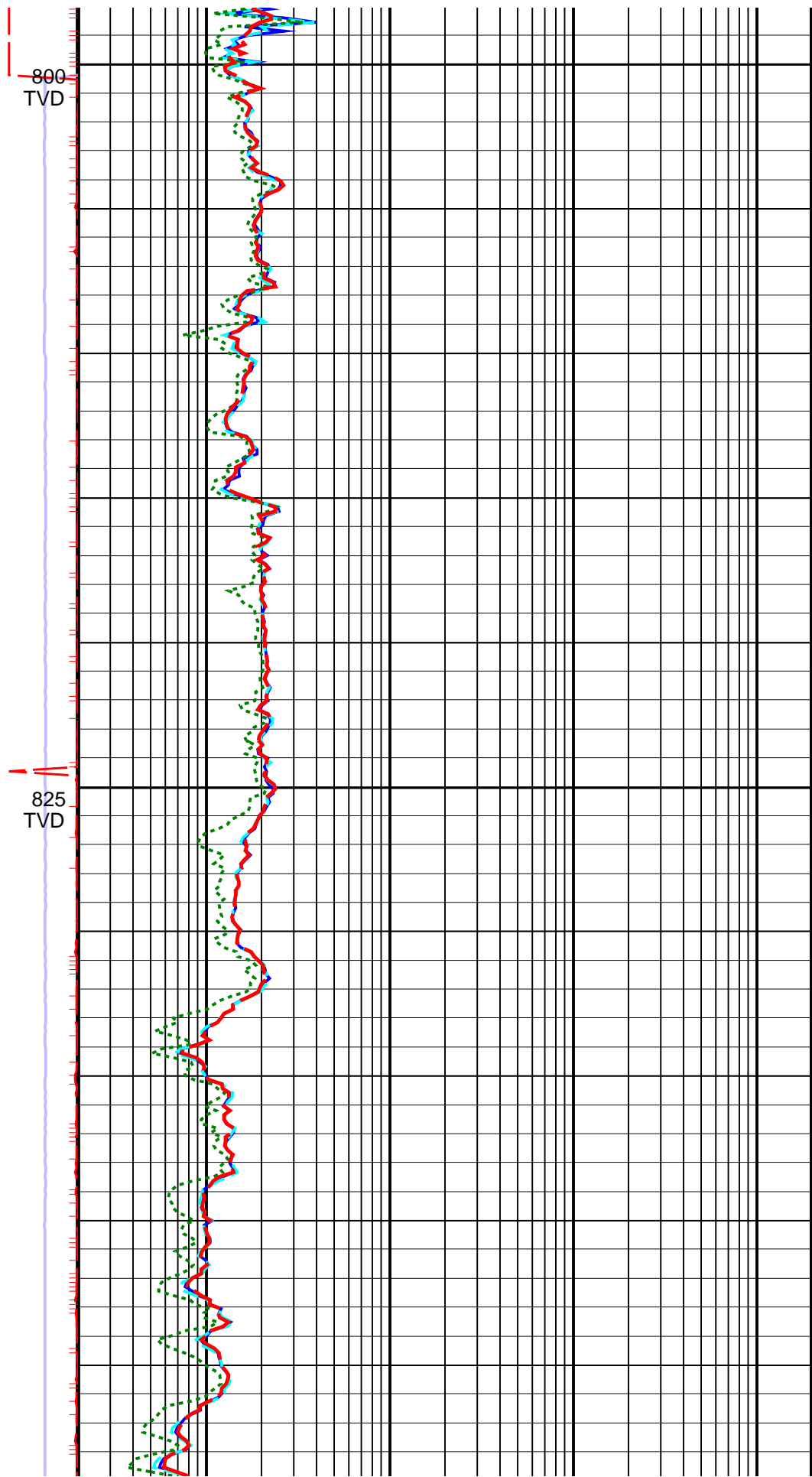
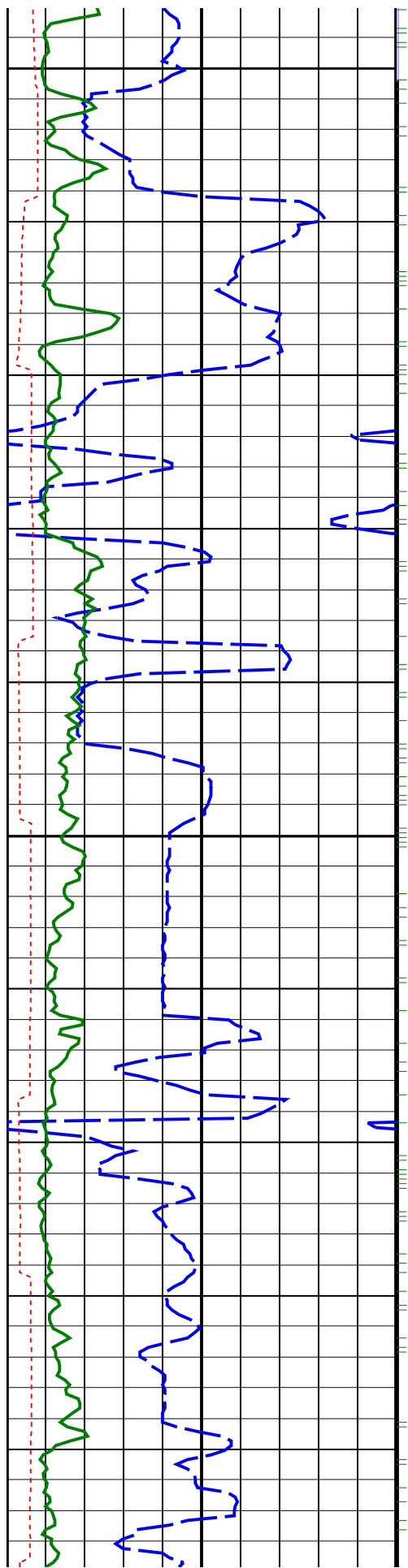
sliding intervals.	Barite in the mud system.	sliding intervals.
PEF readings were affected by the presence of Barite in the mud system.	POOH to change BHA.	PEF readings were affected by the presence of Barite in the mud system.
Data density compromised at high ROP.		Data density compromised at high ROP.
POOH due to drill plug.		POOH due to penetration rate.

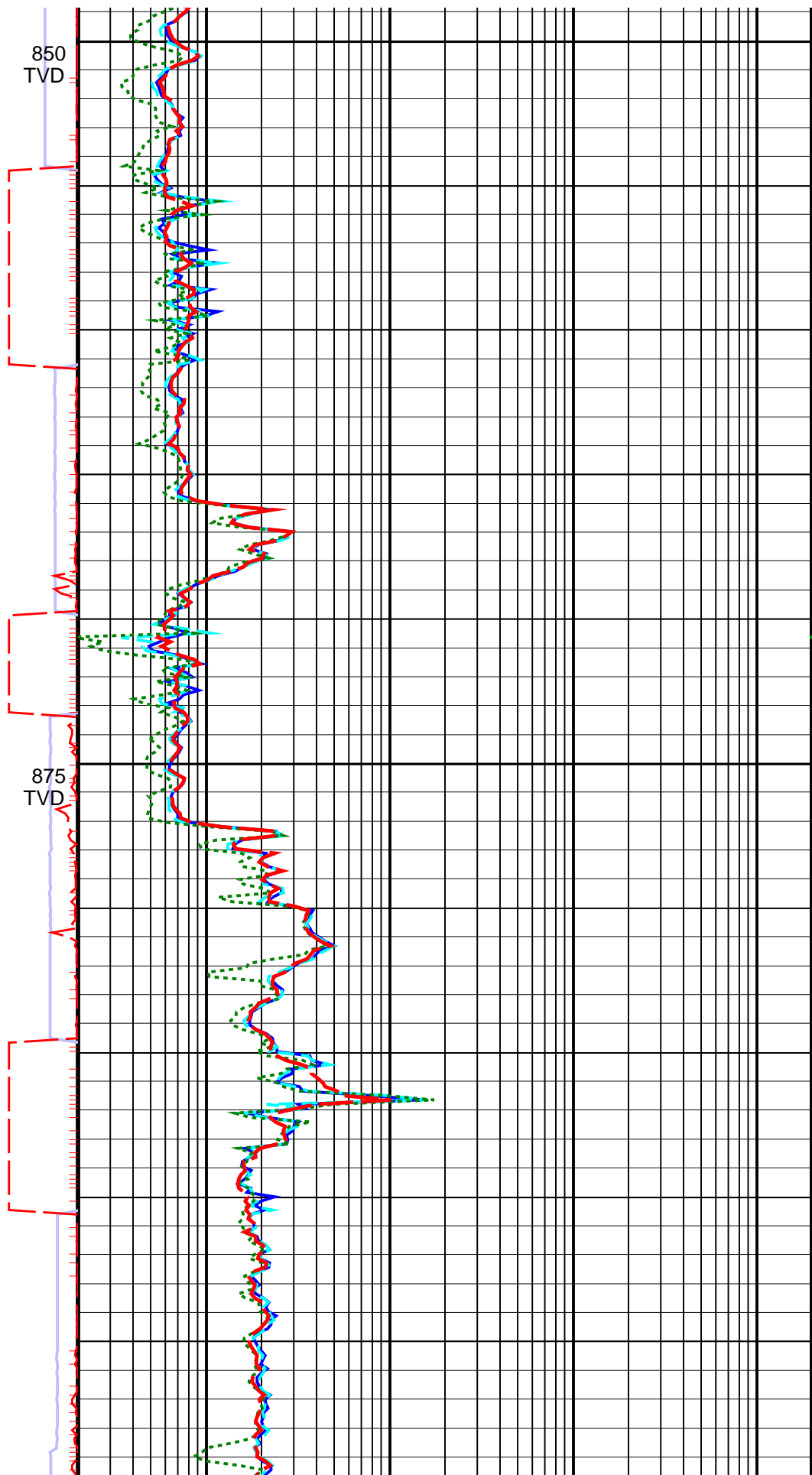
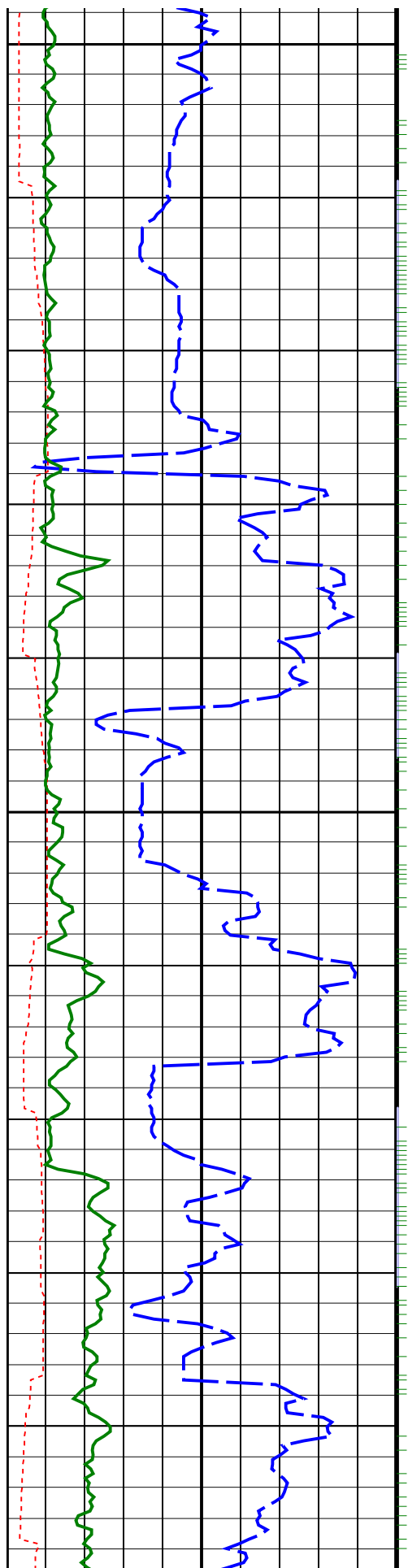
EQUIPMENT DESCRIPTION					
RUN2			RUN3		
DOWNHOLE EQUIPMENT			DOWNHOLE EQUIPMENT		
6-3/4 in. ADN*6C	Neutron F	32.06	6-3/4 in. ADN*6C		24.34
S/N: FE55	Neutron N	31.91	S/N: FE55	Neutron F	22.38
8-1/4 in. IBS	Density S	31.04	8-1/4 in. IBS	Neutron N	22.23
NSR-M A202	Density L	30.94	NSR-M A202	Density S	21.36
GSR-J A1994	UltraSonic	30.56	GSR-J A1994	Density L	21.26
Software: V8.3A02	R-O Port	29.80	Software: V8.3A02	UltraSonic	20.88
				R-O Port	20.12
6-3/4 in. PowerPulse*		27.78			
MDC Z408			6-3/4 in. PowerPulse*		18.10
MEC 612			MDC Z408		
MDI 626			MEC 612		
Software: V7.0C00			MDI 626		
	D&I	23.61	Software: V7.0C00		
	Shallow	18.17		D&I	13.93
	Medium	18.05			
	Deep	17.87			
6-3/4 in. GVR*6	Ring Res	17.70			
S/N: 191	R-O Port	17.56	6-3/4 in. GVR*6		19.50
8-1/4 in. Stabilizer	GR	17.34	S/N: 191	Ring Res	17.74
Software: V6.2B01			8-1/4 in. Stabilizer	R-O Port	17.60
			Software: V6.2B01	GR	17.38
7 in. Cross Over Sub		16.38			
S/N: SBD2075			7 in. Cross Over Sub		16.42
6-7/16 in. NM Pony Collar		15.81	S/N: SBD2075		15.85
S/N: 6649			6-3/4 in. NM Pony Collar		
			S/N: SBD1651		
6-3/4 in. NM Pony Collar		12.23			
S/N: SBD 1651			6-7/16 in. NM Pony Collar		12.80
			S/N: 6649		
				Shallow	8.49
				Medium	8.37
				Deep	8.19
				Ring Res	8.02
				R-O Port	7.88
				GR	7.66
					6.70

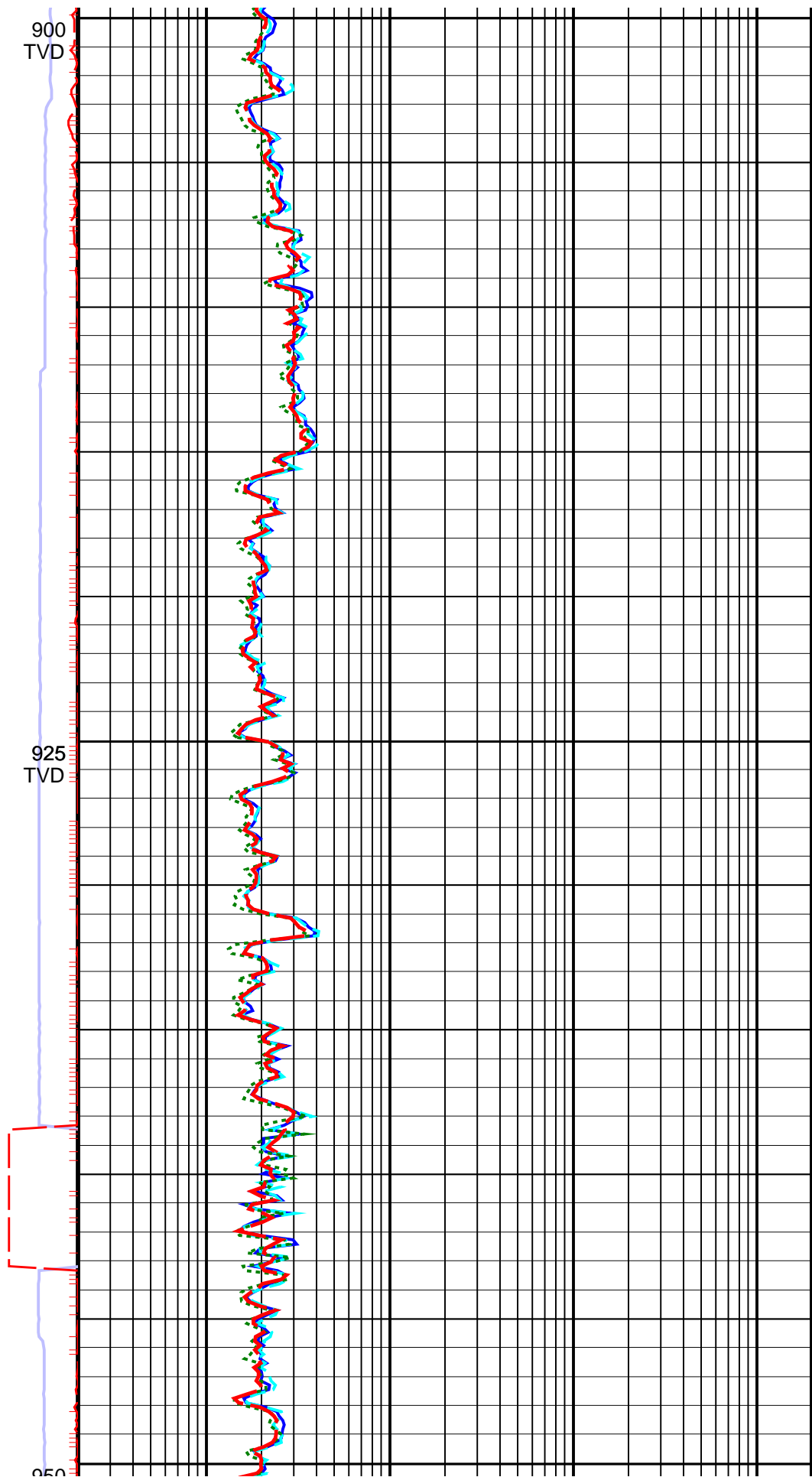
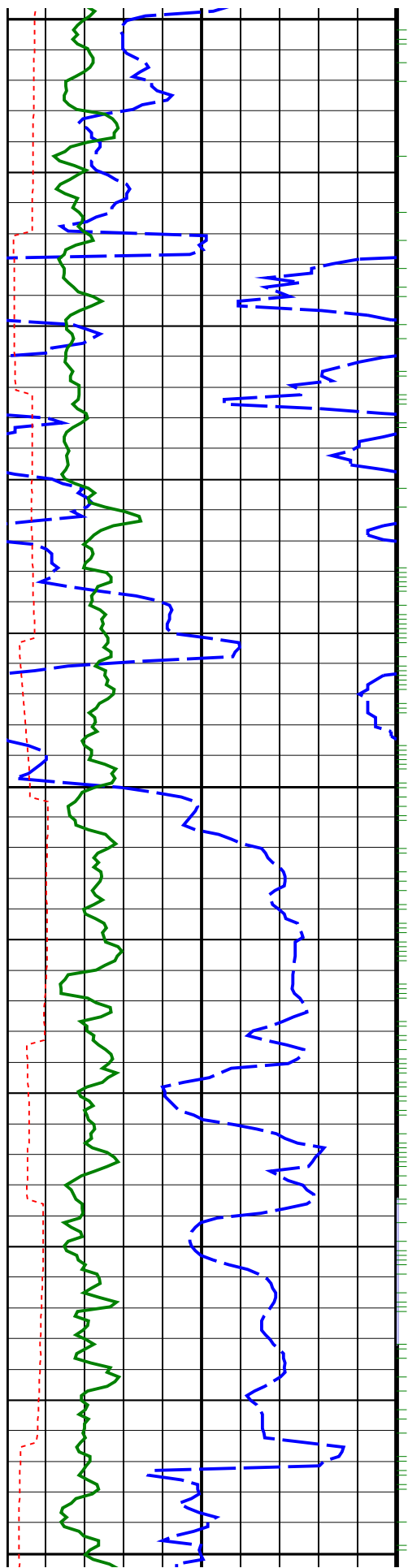
<p>PowerPak* Mud Motor A700GT S/N: 7062 1.15 deg Bend 8-3/8 in. Motor Sleeve</p> <p>Reed Hycalog PDC Bit RSX272 S/N: 110936 OD 8-1/2 in.</p> <p>Maximum string diameter 8.50 in. All lengths in Meters</p>	<p>6-3/4 in. NM Pony Collar S/N: SBD 1651</p> <p>8-1/4 in. Stabilizer S/N: S11773</p> <p>6-13/16 in. Bit Sub S/N: E102-25</p> <p>Reed Hycalog PDC Bit DSX210GUW S/N: 110575 OD 8-1/2 in.</p> <p>Maximum string diameter 8.50 in. All lengths in Meters</p>	<p>PowerPak* Mud Motor A700GT S/N: N7311 1.20 deg. Bend 8-3/8 in. Motor Sleeve</p> <p>Hughes Insert Bit MX20DX S/N: 6027923 OD 8-1/2 in.</p> <p>Maximum string diameter 8.50 in. All lengths in Meters</p>
9.18	6.13	9.22
0.00	0.00	0.00
0.25	0.30	0.24
3.08	1.22	

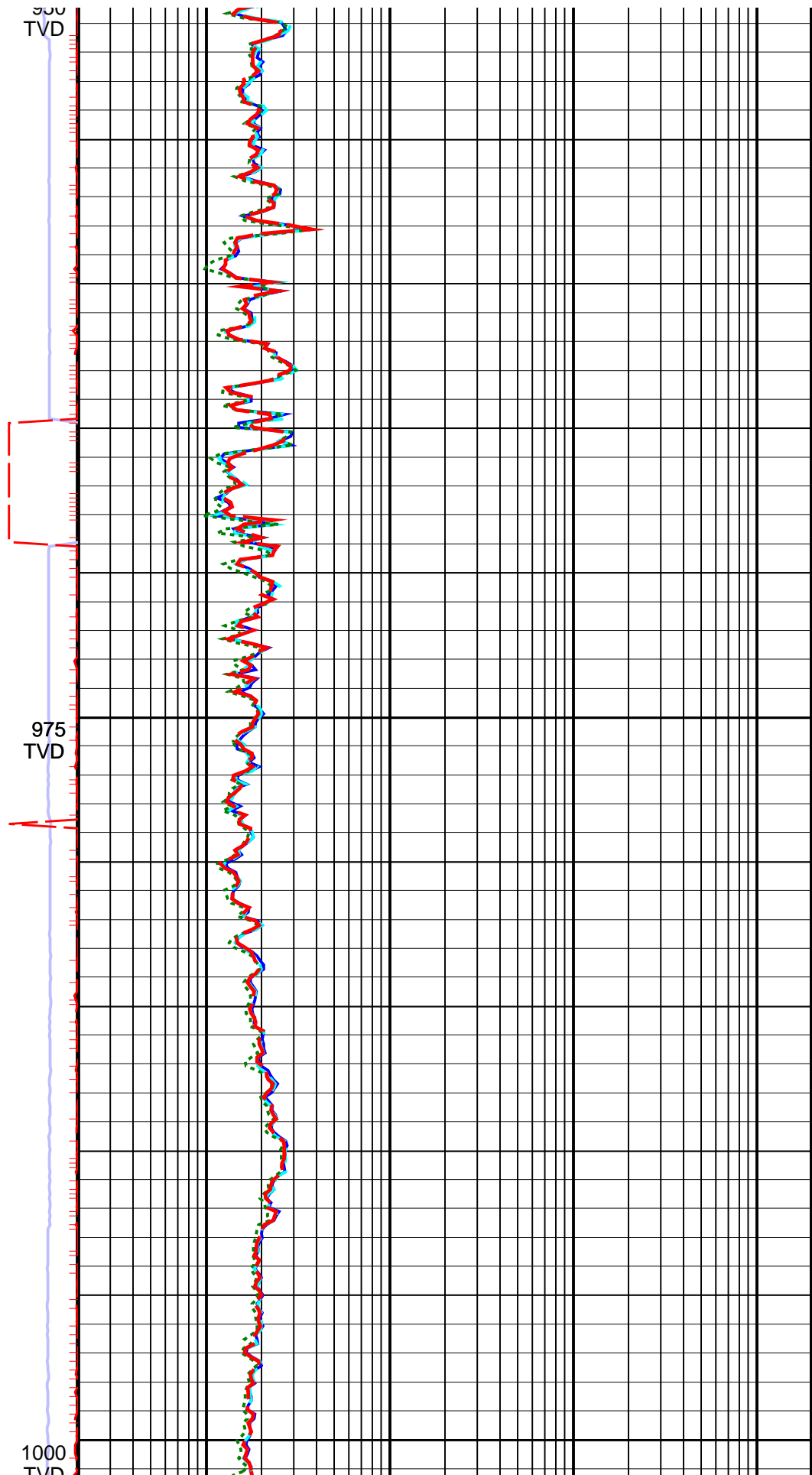
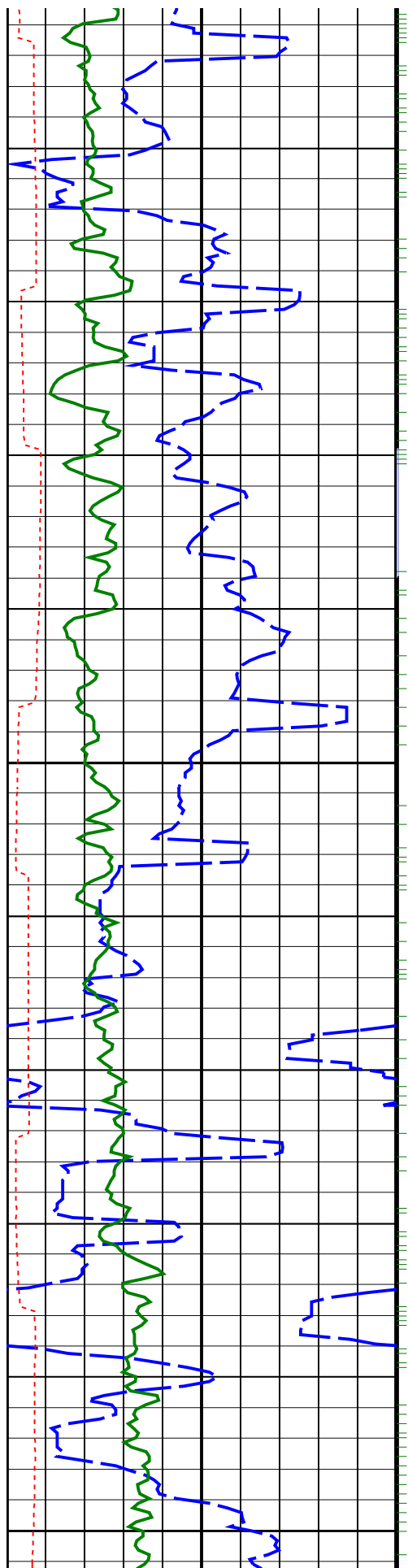


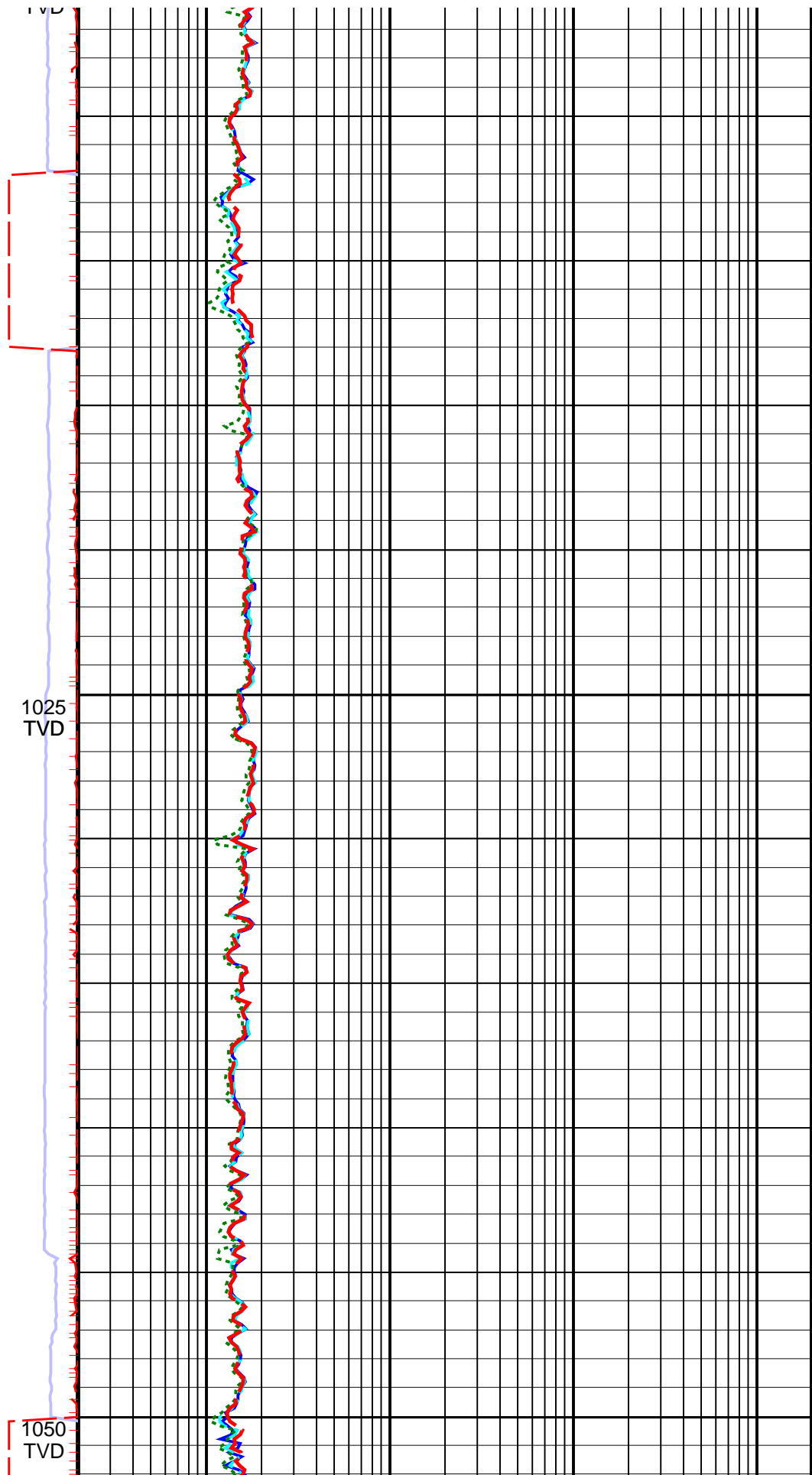
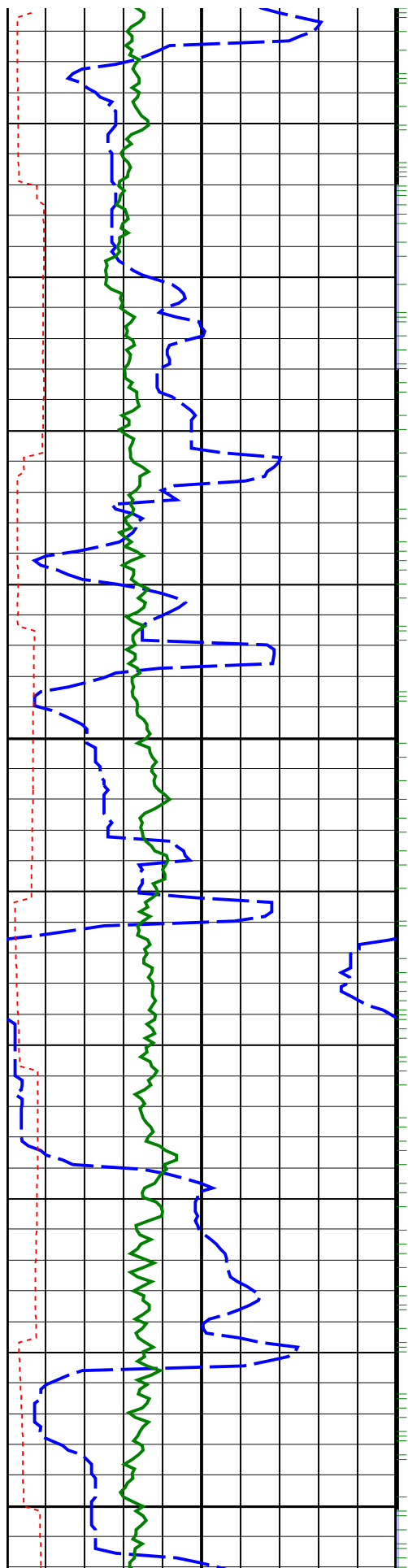


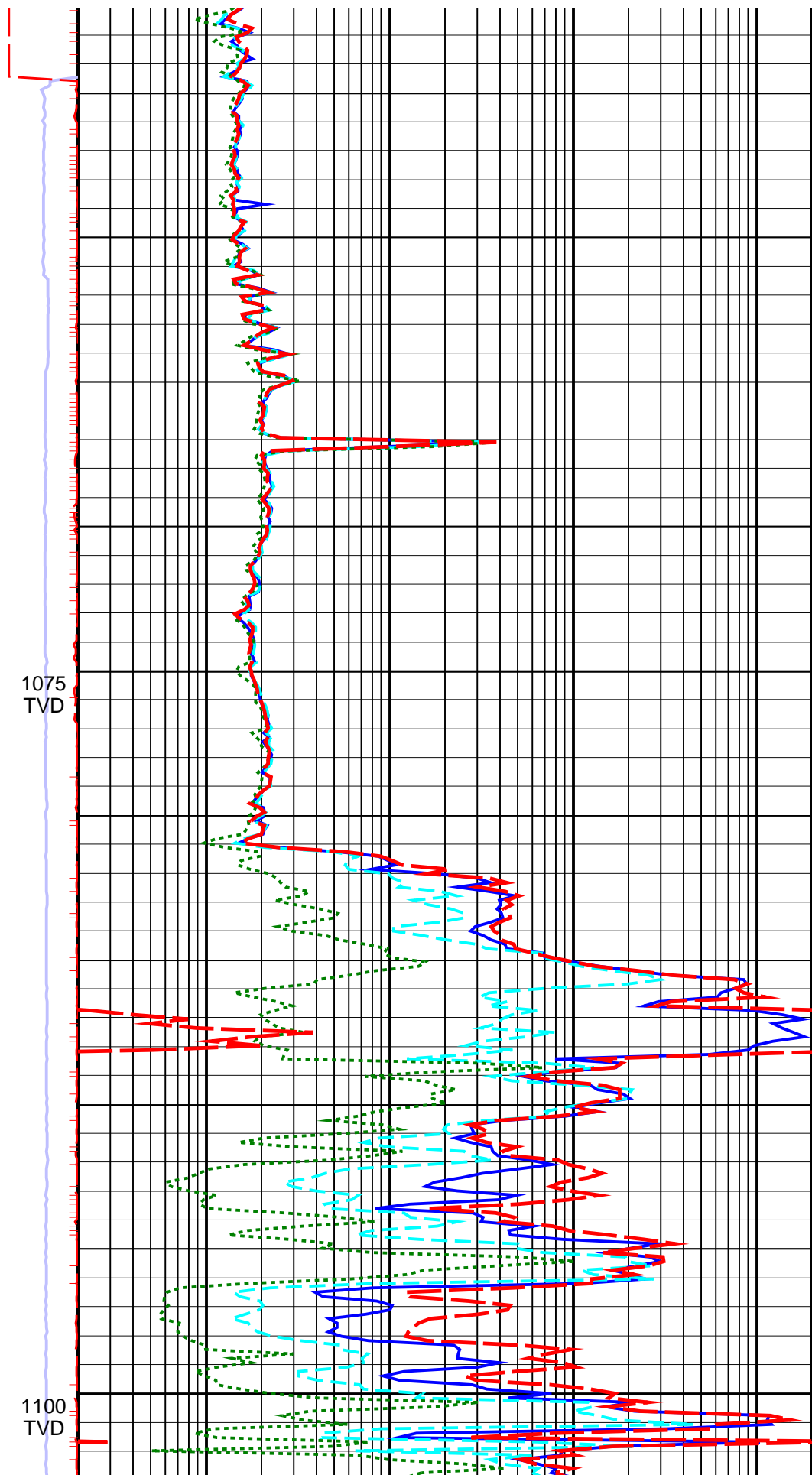
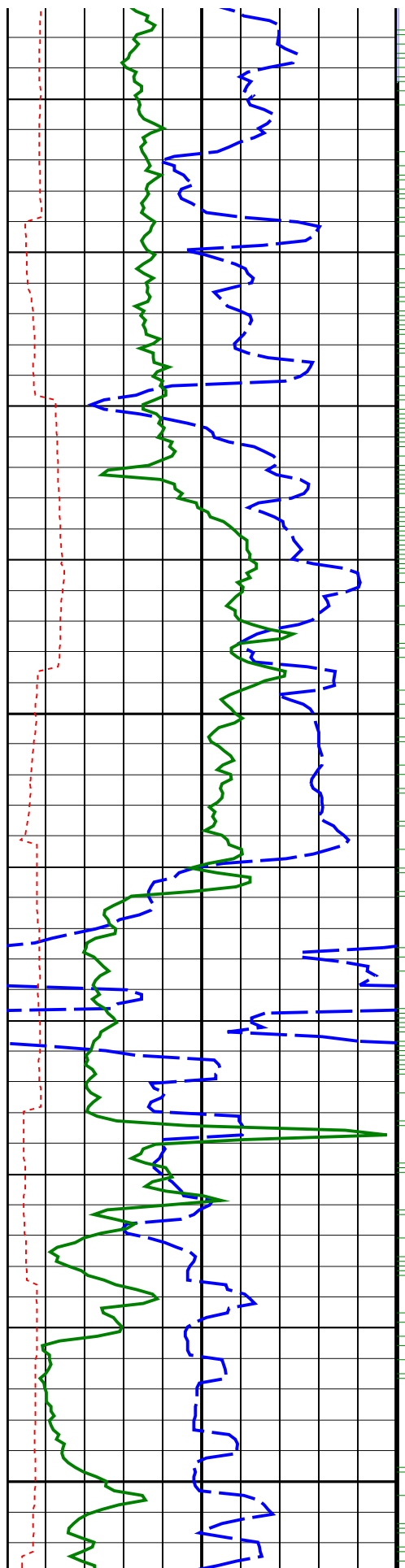


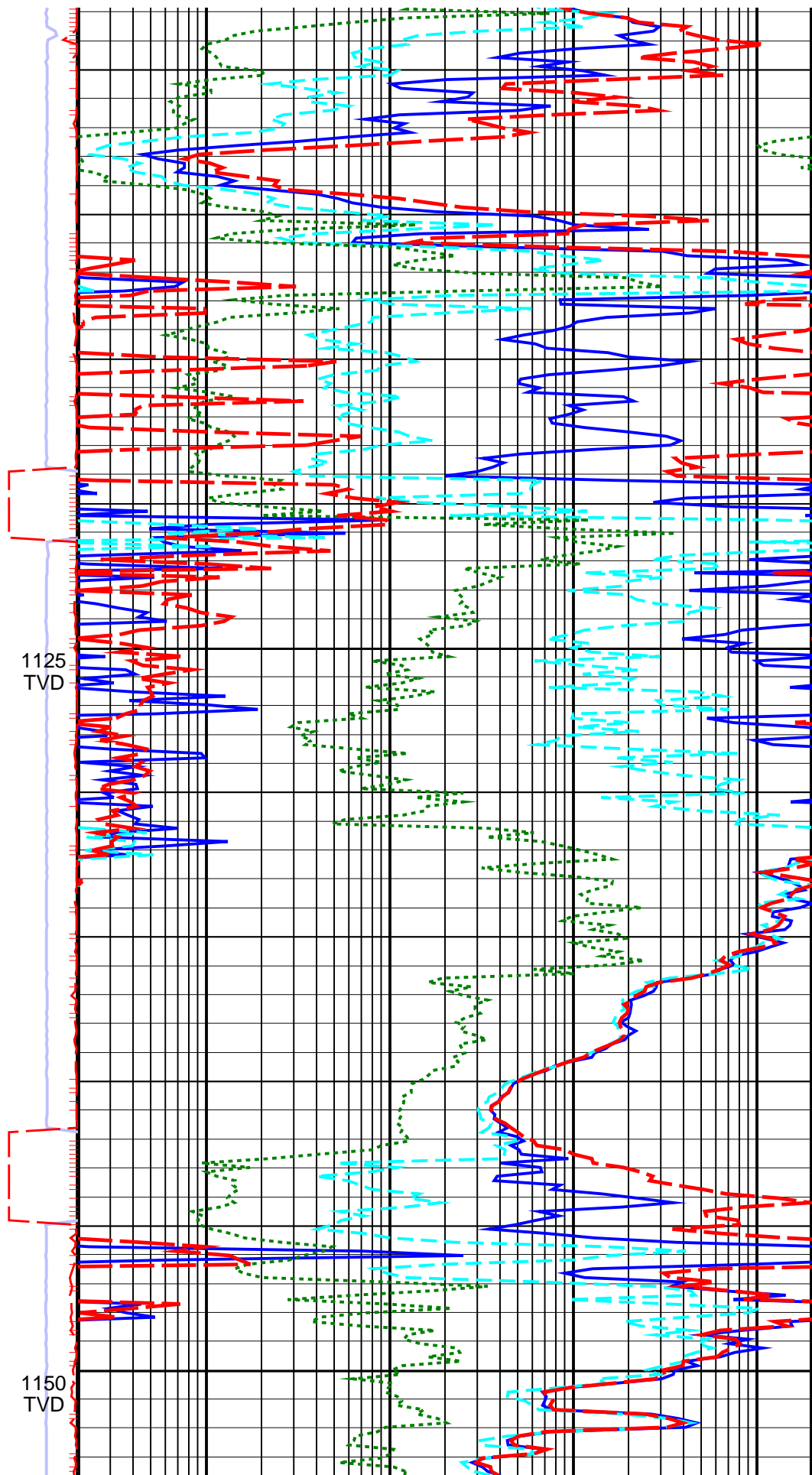
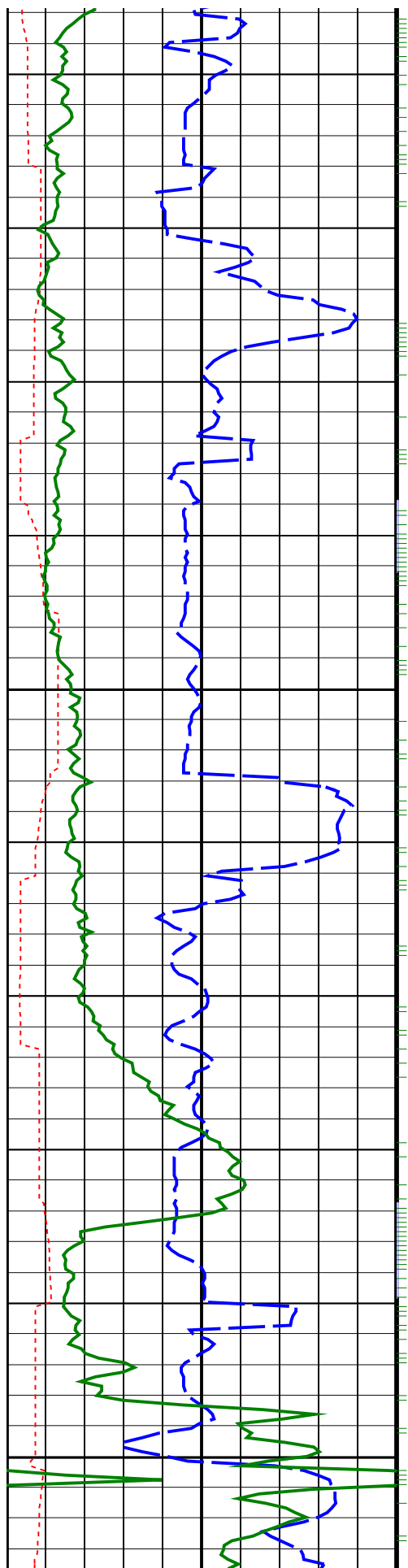


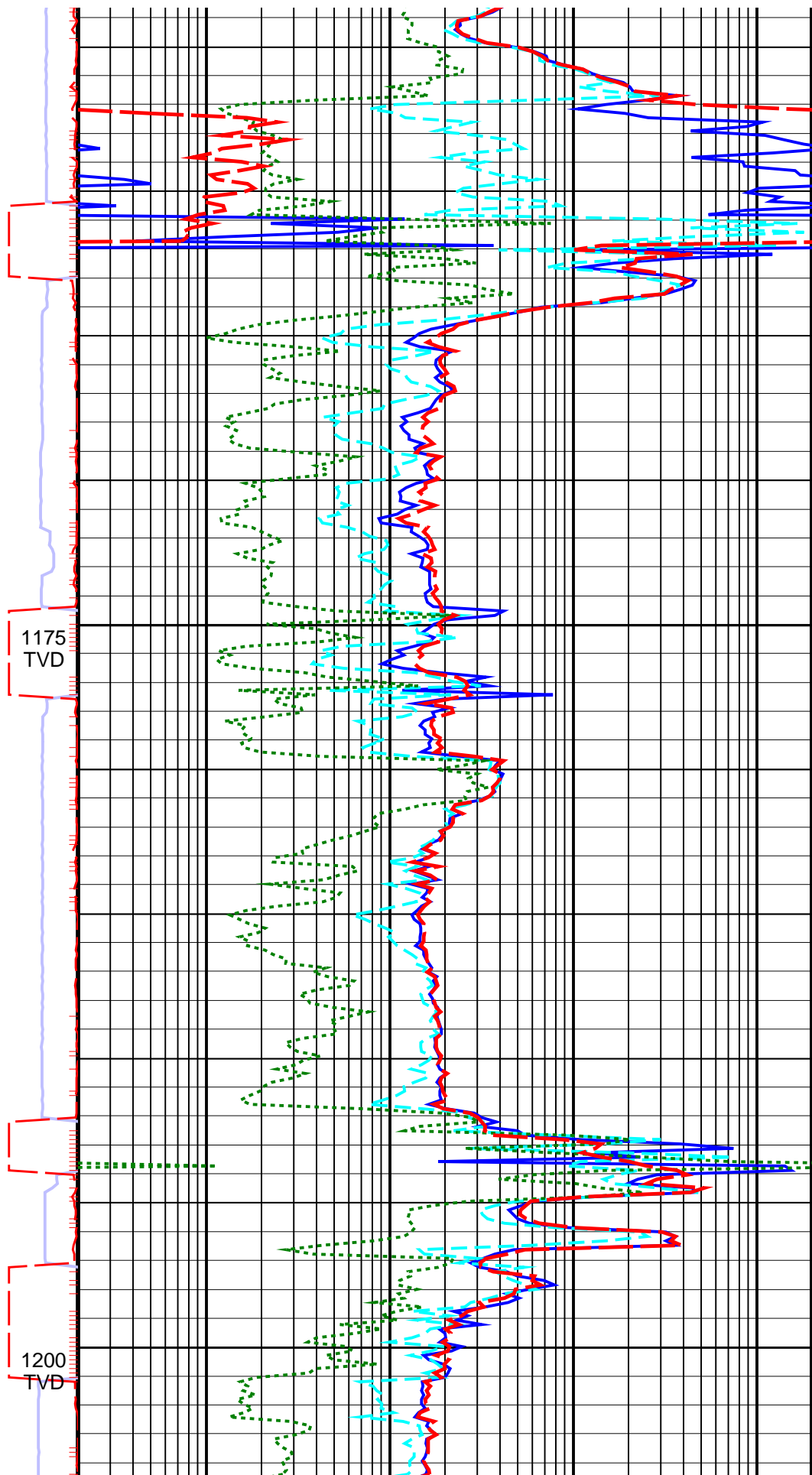
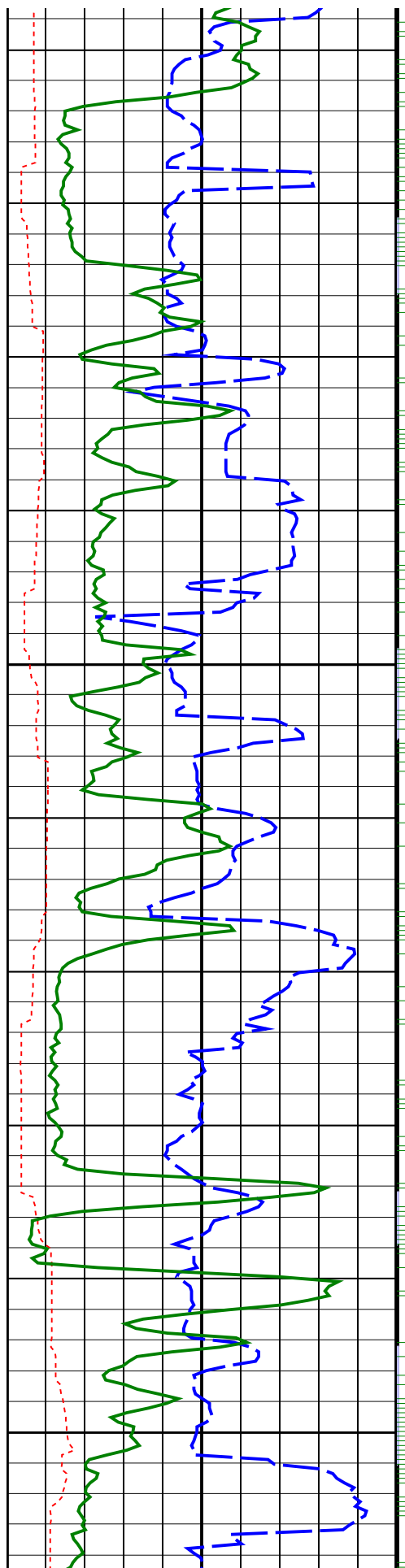


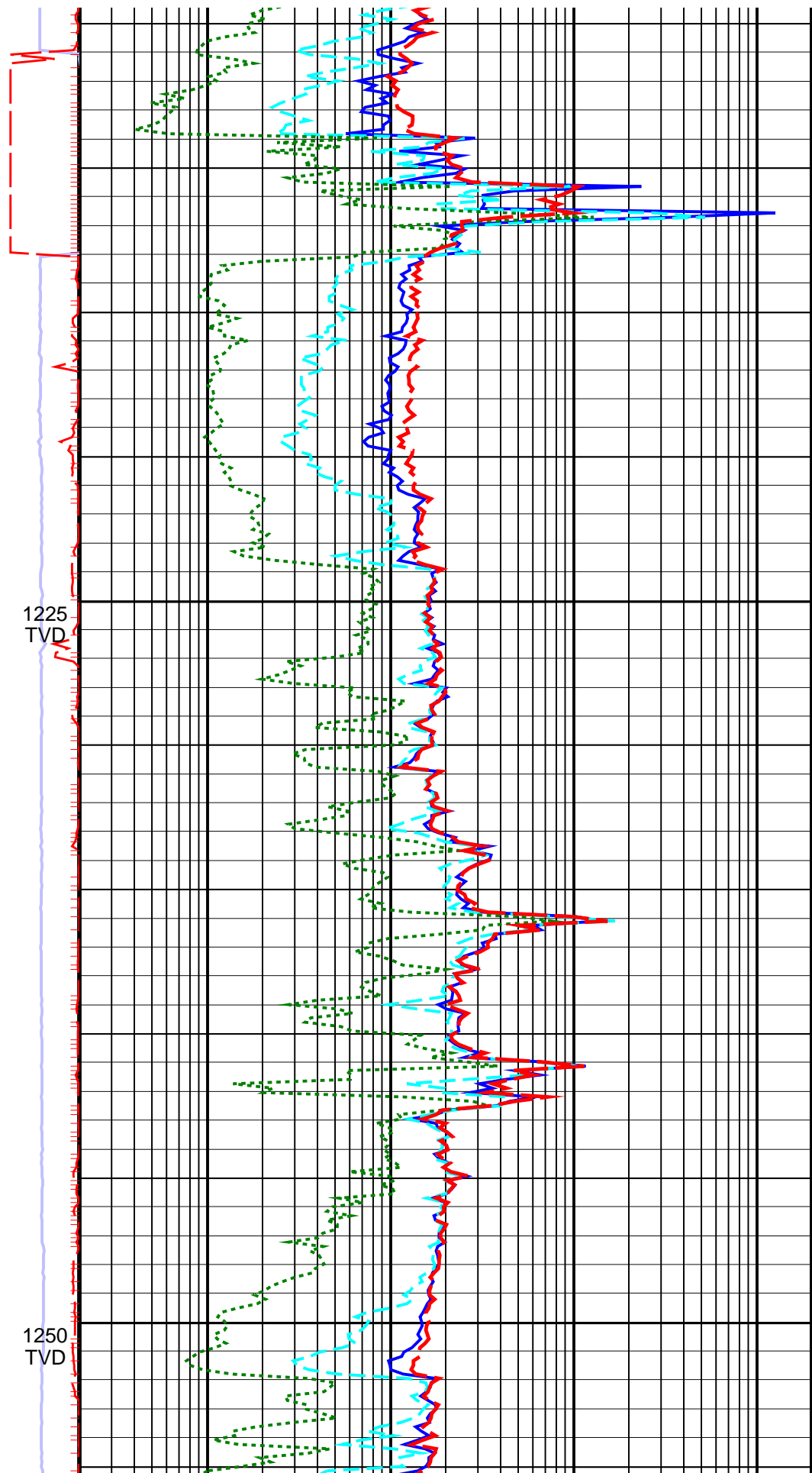
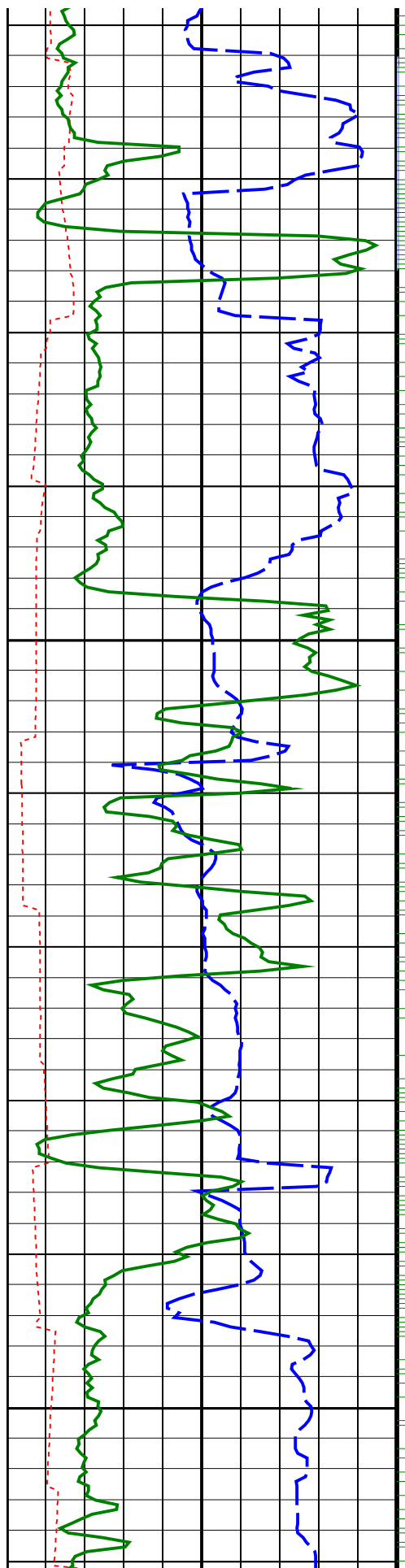


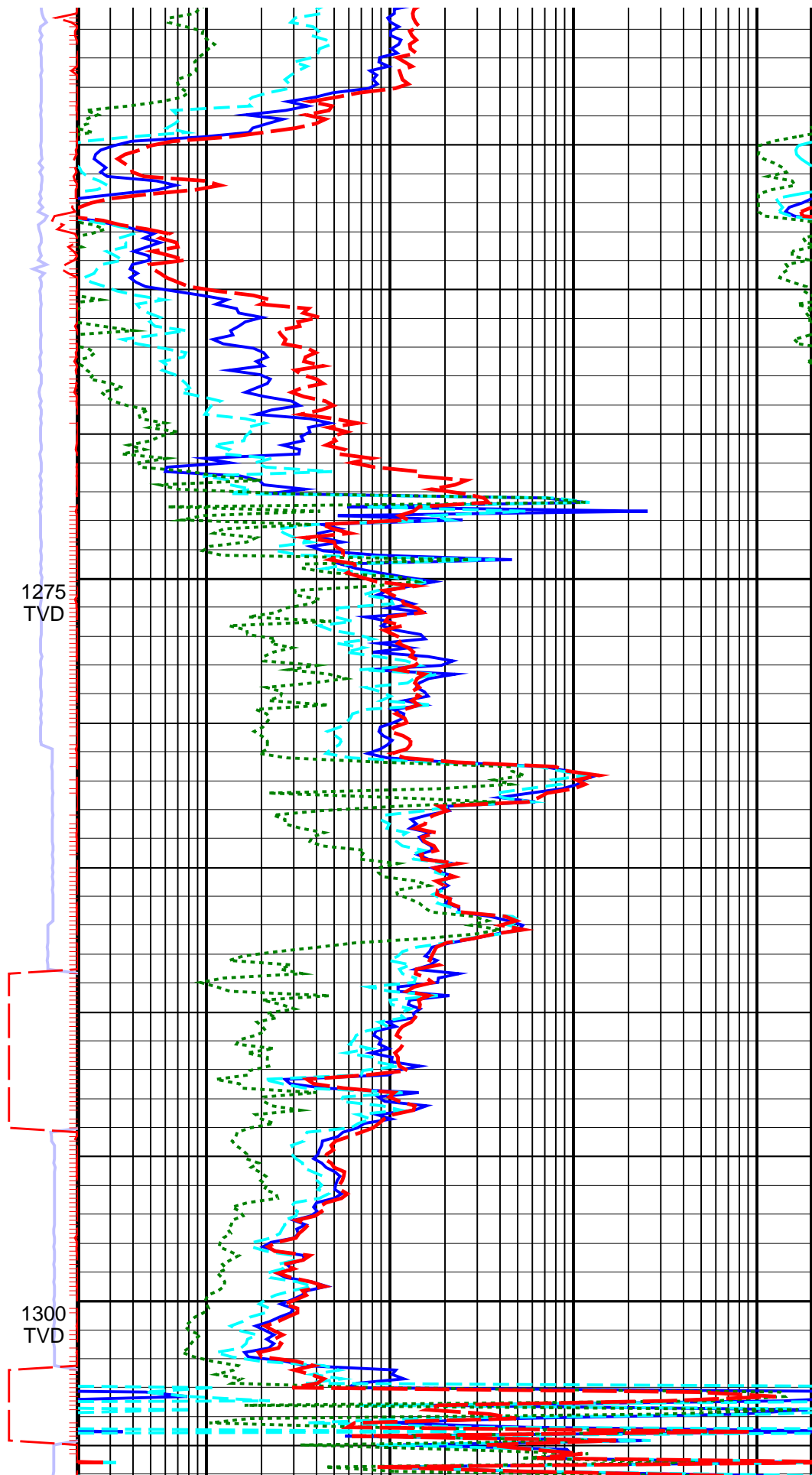
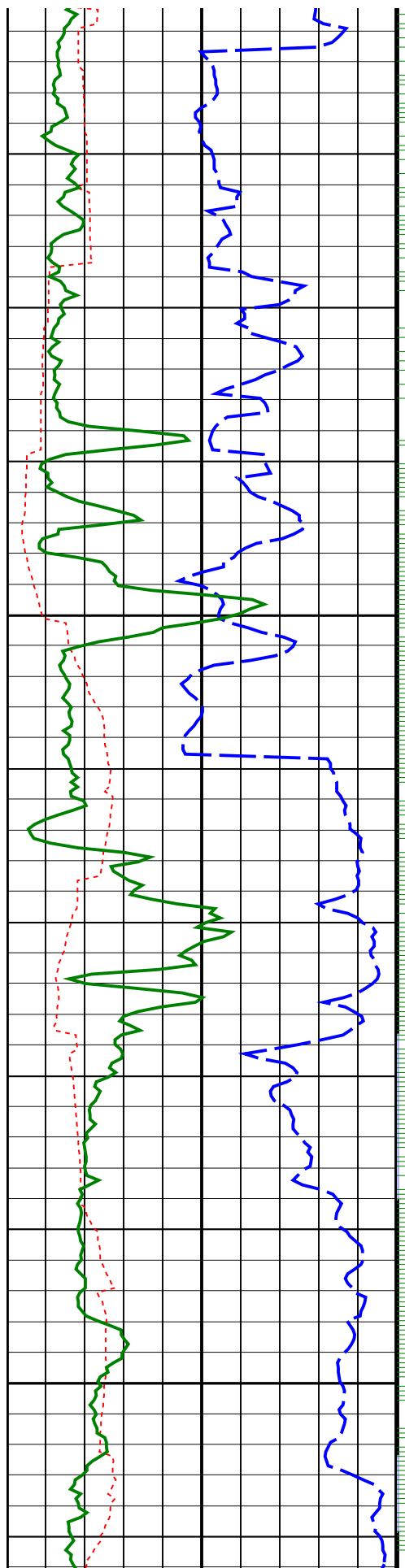


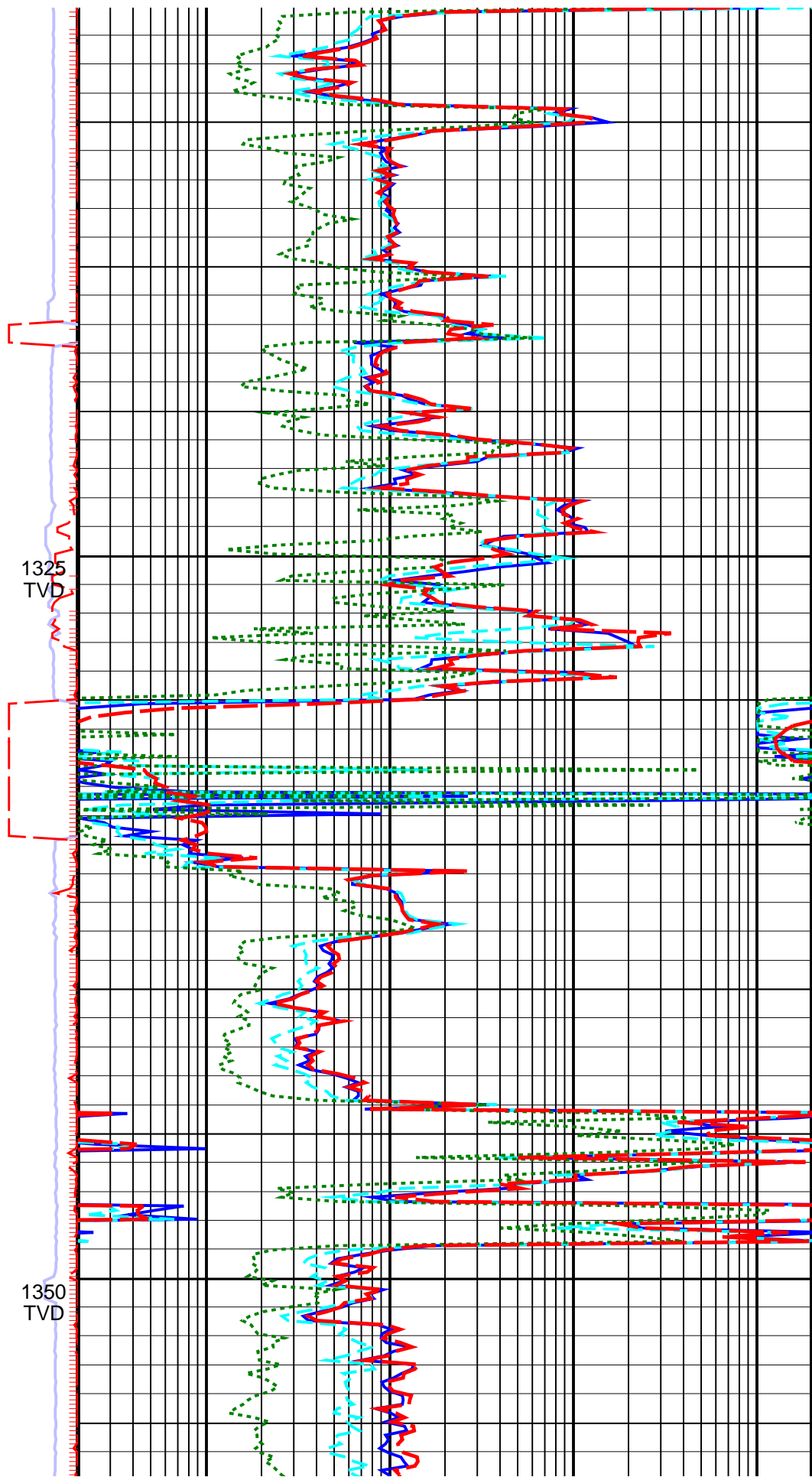
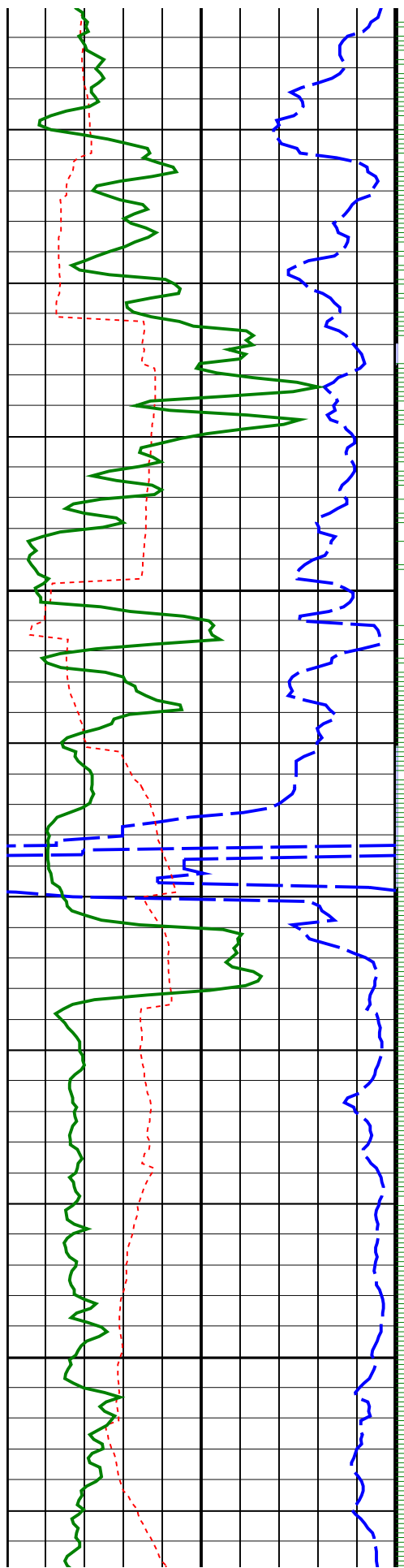


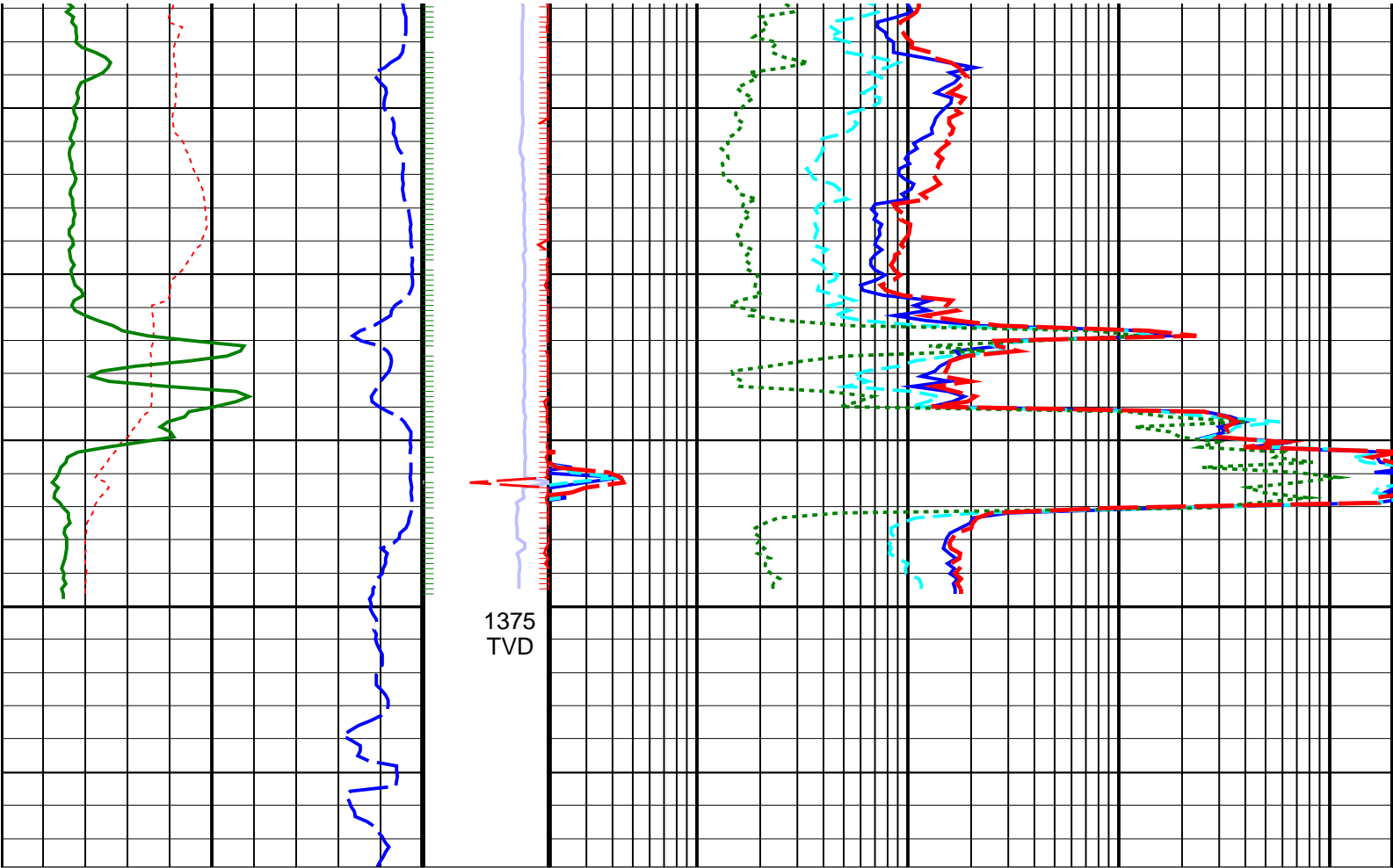












<div>RAB Gamma Ray (GR_RAB) (GAPI)</div> <div>0200</div>	<div>Angular Acceleration Indicator (AAI) (-----)</div> <div>4000</div>	<div>Deep Button Resistivity (RES_BD) (OHMM)</div> <div>0.22000</div>
<div>Ring Resistivity Time After Bit (TAB_RAB_RING) (HR)</div> <div>010</div>	<div>RAB Rotational Speed (RPM_RAB) (RPM)</div> <div>4000</div>	<div>Medium Button Resistivity (RES_BM) (OHMM)</div> <div>0.22000</div>
<div>Rate of Penetration, Averaged over Last 5ft (ROP5_RM) (M/HR)</div> <div>1000</div>		<div>Shallow Button Resistivity (RES_BS) (OHMM)</div> <div>0.22000</div>
		<div>Ring Resistivity (RES_RING) (OHMM)</div> <div>0.22000</div>

PIP SUMMARY		
┤ Gamma Ray Samples		
┤ Ring Samples		

IDEAL Version: ID9_1C_02
IDF

True Vertical Depth Log

6.75-in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:
Tool Name and Serial Number
Collar Type and Serial Number
Chassis Type and Serial Number
Neutron Logging Source
Density Logging Source
Stabilizer Size
Calibration Status

ADN6 – CA
ADDC – AA
ADSE – EA
NSR – M
GSR – J/Z
8.25 – in.
Valid
FE55
FE55
380
202
1994

Master: 4-Jan-2005 21:40

6.75-in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 – Mg CPS	Value	Phase	SS window 1 – Mg CPS	Value	Phase	SS window 3 – Mg CPS	Value
Master		1041	Master		2505	Master		6228
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)			700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)			2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 4-Jan-2005 21:40

6.75-in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 – Al CPS	Value	Phase	SS window 1 – Al CPS	Value	Phase	SS window 3 – Al CPS	Value
Master		156.5	Master		1275	Master		3922
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)			500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)			1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 4-Jan-2005 21:40

6.75-in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 – Background CPS	Value	Phase	SS window 1 – Background CPS	Value	Phase	SS window 3 – Background CPS	Value
Master		51.03	Master		129.8	Master		563.0
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)			40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)			150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 4-Jan-2005 21:40

6.75-in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.029	Master		1.116
	1.024 (Minimum) 1.039 (Nominal) 1.054 (Maximum)			1.096 (Minimum) 1.126 (Nominal) 1.156 (Maximum)	

Master: 4-Jan-2005 21:40

6.75-in. Azimuthal Density Neutron Calibration

Neutron: Water Tank

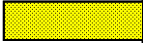
Phase	Far 1 tube 1 gain	Value	Phase	Far 1 tube 1 offset CPS	Value
Master		1.068	Master		0.06511
	0.8000 (Minimum) 1.050 (Nominal) 1.300 (Maximum)			-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)	
Phase	Far 1 tube 2 gain	Value	Phase	Far 1 tube 2 offset CPS	Value
Master		1.013	Master		-0.03114
	0.8000 (Minimum) 1.050 (Nominal) 1.300 (Maximum)			-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)	
Phase	Far 1 tube 3 gain	Value	Phase	Far 1 tube 3 offset CPS	Value
Master		1.039	Master		0.01313
	0.8000 (Minimum) 1.050 (Nominal) 1.300 (Maximum)			-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)	
Phase	Far 2 tube 1 gain	Value	Phase	Far 2 tube 1 offset CPS	Value
Master		1.096	Master		0.07837
	0.8000 (Minimum) 1.050 (Nominal) 1.300 (Maximum)			-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)	

(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)	
Phase	Far 2 tube 2 gain		Value	Phase	Far 2 tube 2 offset CPS		Value
Master			0.9974	Master			-0.1285
0.8000 (Minimum)	1.050 (Nominal)	1.300 (Maximum)		-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	
Phase	Far 2 tube 3 gain		Value	Phase	Far 2 tube 3 offset CPS		Value
Master			1.042	Master			0.1064
0.8000 (Minimum)	1.050 (Nominal)	1.300 (Maximum)		-1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	
Phase	Near 1 tube 1 gain		Value	Phase	Near 1 tube 1 offset CPS		Value
Master			0.9812	Master			-40.77
0.8000 (Minimum)	1.050 (Nominal)	1.300 (Maximum)		-100.0 (Minimum)	0 (Nominal)	100.0 (Maximum)	
Phase	Near 2 tube 1 gain		Value	Phase	Near 2 tube 1 offset CPS		Value
Master			0.9674	Master			-32.21
0.8000 (Minimum)	1.050 (Nominal)	1.300 (Maximum)		-100.0 (Minimum)	0 (Nominal)	100.0 (Maximum)	

Master: 4-Jan-2005 21:40		
6.75-in. Azimuthal Density Neutron Calibration		
Neutron: Water Block Check		
Phase	Far Neutron water porosity PU	Value
Master		103.2
90.00 (Minimum)	100.0 (Nominal)	125.0 (Maximum)

6.75-in. Resistivity At-the-Bit / Equipment Identification		
Primary Equipment:		
Tool Name and Serial Number	RAB6 – CA	191
Calibration Status	Valid	

Master: 28-Jan-2005 18:29														
6.75-in. Resistivity At-the-Bit Calibration														
Resistivity: Fixture														
Phase	Ring/T1 factor			Value	Phase	Ring/T2 factor			Value	Phase	M0/T1 factor			Value
Master				0.9967	Master				0.9942	Master				1.007
	0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)	
Phase	M0/T2 factor			Value	Phase	M2/T1 factor			Value	Phase	M2/T2 factor			Value
Master				1.004	Master				1.007	Master				1.004
	0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)	
Phase	BTN shallow/T1 factor			Value	Phase	BTN shallow/T2 factor			Value	Phase	BTN medium/T1 factor			Value
Master				1.003	Master				0.9999	Master				0.9950
	0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)	
Phase	BTN medium/T2 factor			Value	Phase	BTN deep/T1 factor			Value	Phase	BTN deep/T2 factor			Value
Master				0.9919	Master				1.012	Master				1.009
	0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)			0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)	

Master: 28-Jan-2005 18:29		
6.75-in. Resistivity At-the-Bit Calibration		
Gamma Ray: Blanket		
Phase	Gamma ray factor	Value
Master		0.9256
0.7500 (Minimum)	1.000 (Nominal)	1.250 (Maximum)

SCHLUMBERGER

Survey report 8-Mar-2005 04:40:23 Page 1 of 4

Client..... ESSO
Field..... Barracouta

Well..... BTA-A4A-ST
API number.....
Engineer..... K.Handley, M.Y.Tan, R.Burns

Rig..... ENSCO 102
STATE..... Victoria

Spud date..... 24-Feb-05
Last survey date..... 08-Mar-05
Total accepted surveys.... 65
MD of first survey..... 344.00 m
MD of last survey..... 2165.00 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..... -45.70 m
KB above permanent..... Top Drive
DF above permanent..... 56.00 m

----- Vertical section origin-----
Latitude (+N/S-)..... 0.85 m
Departure (+E/W-)..... 8.53 m

----- Platform reference point-----
Latitude (+N/S-)..... -304.57 m
Departure (+E/W-)..... -304.57 m

Azimuth from Vsect Origin to target: 76.22 degrees

----- Geomagnetic data -----
Magnetic model..... BGGM version 2004
Magnetic date..... 22-Feb-2005
Magnetic field strength... 1201.43 HCNT
Magnetic dec (+E/W-)..... 12.97 degrees
Magnetic dip..... -68.87 degrees

----- MWD survey Reference Criteria -----
Reference G..... 1000.03 mGal
Reference H..... 1201.43 HCNT
Reference Dip..... -68.87 degrees
Tolerance of G..... (+/-) 2.50 mGal
Tolerance of H..... (+/-) 6.00 HCNT
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-)..... 12.97 degrees
Grid convergence (+E/W-).. -0.42 degrees
Total az corr (+E/W-)..... 13.39 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

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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/D/M)	Srvy tool type	Tool Corr (deg)
1	344.00	0.25	235.37	0.00	343.99	0.73	0.55	9.36	9.38	86.64	0.00	TIP	None
2	351.60	3.14	130.65	7.60	351.59	0.84	0.40	9.50	9.51	87.56	0.42	GYR	None
3	371.56	6.26	115.73	19.96	371.48	2.00	-0.42	10.90	10.91	92.23	0.17	MWD	None
4	400.60	10.44	98.23	29.04	400.21	5.66	-1.49	14.93	15.01	95.69	0.17	GYR	None
5	430.00	13.39	92.42	29.40	428.97	11.40	-2.01	20.97	21.07	95.48	0.11	MWD	None
6	458.41	16.35	82.38	28.41	456.43	18.54	-1.62	28.22	28.27	93.29	0.14	MWD	None
7	487.44	19.21	75.25	29.03	484.08	27.38	0.14	36.90	36.90	89.79	0.12	MWD	None
8	516.58	22.78	75.14	29.14	511.28	37.82	2.80	46.99	47.07	86.58	0.12	MWD	None
9	545.52	27.31	73.86	28.94	537.49	50.06	6.09	58.79	59.10	84.09	0.16	MWD	None
10	574.63	31.33	72.34	29.11	562.87	64.29	10.24	72.42	73.14	81.95	0.14	MWD	None
11	603.86	34.81	75.42	29.23	587.36	80.22	14.65	87.74	88.95	80.52	0.13	MWD	None
12	632.38	38.27	75.46	28.52	610.27	97.19	18.92	104.17	105.88	79.71	0.12	MWD	None
13	661.80	41.30	75.07	29.42	632.87	116.01	23.71	122.38	124.65	79.04	0.10	MWD	None
14	691.10	45.16	74.90	29.30	654.22	136.07	28.91	141.76	144.67	78.47	0.13	MWD	None
15	719.99	48.91	74.32	28.89	673.90	157.20	34.52	162.13	165.77	77.98	0.13	MWD	None
16	749.12	52.83	74.48	29.13	692.28	179.78	40.59	183.89	188.32	77.55	0.13	MWD	None
17	778.33	56.53	75.07	29.21	709.17	203.61	46.85	206.89	212.13	77.24	0.13	MWD	None
18	806.73	58.42	75.06	28.40	724.44	227.54	53.02	230.02	236.05	77.02	0.07	MWD	None
19	826.51	60.05	75.43	19.78	734.56	244.54	57.35	246.46	253.04	76.90	0.08	MWD	None
20	857.08	60.11	75.02	30.57	749.80	271.03	64.11	272.08	279.53	76.74	0.01	MWD	None
21	885.76	61.34	74.96	28.68	763.83	296.04	70.58	296.24	304.53	76.60	0.04	MWD	None
22	914.88	60.95	74.82	29.12	777.88	321.54	77.23	320.86	330.03	76.47	0.01	MWD	None
23	943.53	60.68	75.21	28.65	791.85	346.55	83.70	345.03	355.03	76.36	0.02	MWD	None
24	972.56	59.77	76.12	28.62	806.27	371.74	89.97	369.15	380.22	76.22	0.05	MWD	None

25	1001.50	59.54	77.10	28.94	820.89	396.72	95.59	393.77	405.20	76.35	0.02	MWD	None
26	1030.64	59.11	76.93	29.14	835.76	421.78	101.22	418.19	430.26	76.39	0.02	MWD	None
27	1059.78	57.85	76.77	29.14	850.99	446.61	106.87	442.38	455.10	76.42	0.04	MWD	None
28	1089.10	58.34	76.70	29.32	866.49	471.50	112.59	466.60	479.99	76.43	0.02	MWD	None
29	1118.03	59.62	78.08	28.93	881.39	496.29	118.00	490.80	504.78	76.48	0.06	MWD	None
30	1147.18	61.65	77.56	29.15	895.69	521.68	123.36	515.63	530.18	76.55	0.07	MWD	None

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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/D/M)	Srvy tool type	Tool Corr (deg)
31	1176.44	62.74	77.42	29.26	909.34	547.56	128.96	540.89	556.06	76.59	0.04	MWD	None
32	1205.78	63.29	77.18	29.34	922.65	573.70	134.71	566.40	582.20	76.62	0.02	MWD	None
33	1234.53	63.22	77.02	28.75	935.59	599.37	140.44	591.43	607.87	76.64	0.01	MWD	None
34	1263.41	63.32	74.80	28.88	948.58	625.16	146.72	616.44	633.66	76.61	0.07	MWD	None
35	1292.28	62.74	73.74	28.87	961.67	650.88	153.70	641.21	659.37	76.52	0.04	MWD	None
36	1321.68	61.29	72.83	29.40	975.47	676.80	161.16	666.07	685.29	76.40	0.06	MWD	None
37	1350.51	60.59	72.52	28.83	989.47	701.95	168.67	690.13	710.44	76.27	0.03	MWD	None
38	1379.66	60.36	72.02	29.15	1003.84	727.26	176.39	714.29	735.75	76.13	0.02	MWD	None
39	1408.57	60.11	72.24	28.91	1018.19	752.29	184.09	738.18	760.78	76.00	0.01	MWD	None
40	1437.70	60.53	73.72	29.13	1032.61	777.56	191.50	762.37	786.06	75.90	0.05	MWD	None
41	1466.67	60.32	73.21	28.97	1046.91	802.72	198.67	786.53	811.23	75.82	0.02	MWD	None
42	1494.99	59.98	74.68	28.32	1061.01	827.27	205.46	810.13	835.78	75.77	0.05	MWD	None
43	1524.16	60.08	76.01	29.17	1075.58	852.53	211.85	834.58	861.05	75.76	0.04	MWD	None
44	1553.56	60.34	75.95	29.40	1090.19	878.05	218.04	859.33	886.56	75.76	0.01	MWD	None
45	1582.31	59.93	76.35	28.75	1104.50	902.98	224.00	883.54	911.49	75.77	0.02	MWD	None
46	1611.11	60.27	75.83	28.80	1118.86	927.95	230.01	907.77	936.46	75.78	0.02	MWD	None
47	1640.37	60.83	76.43	29.26	1133.25	953.42	236.11	932.51	961.94	75.79	0.03	MWD	None
48	1669.37	61.92	76.44	29.00	1147.14	978.88	242.08	957.25	987.39	75.81	0.04	MWD	None
49	1697.95	61.74	77.55	28.58	1160.63	1004.07	247.75	981.80	1012.58	75.84	0.03	MWD	None
50	1727.34	61.10	76.95	29.39	1174.69	1029.88	253.45	1006.98	1038.38	75.87	0.03	MWD	None
51	1756.52	60.74	76.03	29.18	1188.87	1055.38	259.41	1031.77	1063.88	75.89	0.03	MWD	None
52	1785.84	61.68	75.81	29.32	1202.99	1081.07	265.66	1056.69	1089.58	75.89	0.03	MWD	None
53	1814.73	60.60	74.63	28.89	1216.94	1106.37	272.11	1081.16	1114.88	75.87	0.05	MWD	None
54	1843.93	59.17	75.44	29.20	1231.59	1131.62	278.63	1105.56	1140.13	75.85	0.05	MWD	None
55	1873.01	60.22	75.24	29.08	1246.26	1156.72	284.99	1129.85	1165.24	75.84	0.04	MWD	None
56	1901.51	60.30	75.12	28.50	1260.40	1181.47	291.32	1153.77	1189.98	75.83	0.00	MWD	None
57	1930.45	57.71	75.01	28.94	1275.30	1206.27	297.71	1177.74	1214.78	75.81	0.09	MWD	None
58	1959.57	61.45	74.05	29.12	1290.04	1231.36	304.41	1201.93	1239.88	75.79	0.13	MWD	None
59	1988.76	61.26	74.58	29.19	1304.04	1256.96	311.34	1226.60	1265.49	75.76	0.02	MWD	None
60	2016.21	59.94	74.18	27.45	1317.51	1280.87	317.78	1249.63	1289.40	75.73	0.05	MWD	None

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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/D/M)	Srvy tool type	Tool Corr (deg)
61	2047.03	60.93	73.76	30.82	1332.72	1307.65	325.18	1275.39	1316.19	75.70	0.03	MWD	None
62	2075.72	59.49	73.40	28.69	1346.97	1332.52	332.22	1299.28	1341.08	75.66	0.05	MWD	None
63	2104.69	60.28	74.27	28.97	1361.51	1357.56	339.19	1323.34	1366.12	75.62	0.04	MWD	None
64	2133.61	61.55	74.59	28.92	1375.57	1382.82	345.98	1347.69	1391.39	75.60	0.04	MWD	None
65	2165.00	62.93	74.93	31.39	1390.19	1410.59	353.28	1374.49	1419.16	75.59	0.04	Projection to TD	

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

Schlumberger

Well: **BTA-A4A-ST**

Field: **Barracouta**

Rig: **ENSCO 102**

8.5 in. Section

State: **Victoria**

GeoVISION Resistivity

4000 T... Method...

**1:200 True Vertical Depth
Recorded Mode Log**
