

Company: **ESSO Australia Ltd.**

Well: **WTN-W48 A**

Field: Tuna

Rig: **NABORS 453** State: **Victoria**

Schlumberger
VISION Density Neutron
1 : 200 True Vertical Depth
Recorded Mode

Rig: NABORS 453
Field: Tuna
Location: Bass Strait
Well: WTN-W48 A
Company: ESSO Australia Ltd.

Location	
Total depth:	2268 m
Spud date:	19-Jan-02
Runs:	1 To 2
Permanent datum:	Mean Sea Level
Log measured from:	Drill Floor
Depth reference:	Driller's Depth

API serial no.	x = 5,771,791.69 m	Longitude	Latitude
y = 621,538.528 m		E 148 23' 16.531"	S 38 11' 36.558"

Depth logged:	622 m	To	2253 m	Mag decl:	13.18 deg	Other services:
Date logged:	20-Jan-02	To	24-Jan-02	Mag dip:	-68.71 deg	Directional Surveys

Bore hole record

Casing record

Hole size	from	to	Size	Density	from	to
8.5 in.	622 m	2268 m	10.75 in.	40.5 lbm/ft	Surface	622 m

[illegible]

[illegible][illegible]

Mud record		Borehole deviation record	
Turns from	to	Min	Max from to

Type	10	100	1000	10000
Coastal	633 m	617 m	3550 dms	638 m
Water			3567 dms	617

[illegible]

KCL/PHPA	64 / m	2268 m	23.6 / deg	66.50 deg	64 / m	2268
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Surface equipment	Software record
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[illegible]

Unit	OLU-FB-924	IDEAL Wis	id6_1c_10

Depth system	PDA	SPM	id6 1c 10	services from

[illegible]

	LWD	See Toolsketch

Anadrill!

MWD	See Toolsketch
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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 RUN1

Directional Surveys

OTHER SERVICES FOR RUN2

Directional Surveys

OTHER SERVICES FOR RUN

REMARKS: RUN NUMBER 1
622 to 637 m interval was drilled in sliding mode.
All data presented is from memory.
GR is corrected for mud weight and bit size.
GVR 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 (from R_m), temperature, and mud hydrogen index (from mud weight, temperature and pressure).

REMARKS: RUN NUMBER 2
637 to 2268 m interval was drilled in rotating and sliding mode.
All data presented is from memory.
GR is corrected for mud weight and bit size.
GVR Resistivity is corrected for bit size, mud resistivity and borehole temperature.
There was barite in the mud.
The PEF curve is not presented.
Bottom quadrant density is presented.
Neutron porosity is calculated with a limestone matrix, and is corrected for bit size, borehole

REMARKS: RUN NUMBER

hydrogen index (from mud weight, temperature and pressure).
Pulled out of the hole at 637 m to change the bit and motor bend after kicking off.

Neutron porosity is calculated with a limestone matrix, and is corrected for bit size, borehole salinity (from Rm), temperature, and mud hydrogen index (from mud weight, temperature and pressure).
Mud weight was increased from 9 to 10 lbm/gal at 1600 m before drilling into the Lakes Entrance formation.
Mud weight was increased from 10 to 10.5 lbm/gal at 2125 m to improve well stability.
Zoned processing used for mud weight and mud salinity.
Pulled out of the hole at 2268 m to run casing after reaching TD.

EQUIPMENT DESCRIPTION

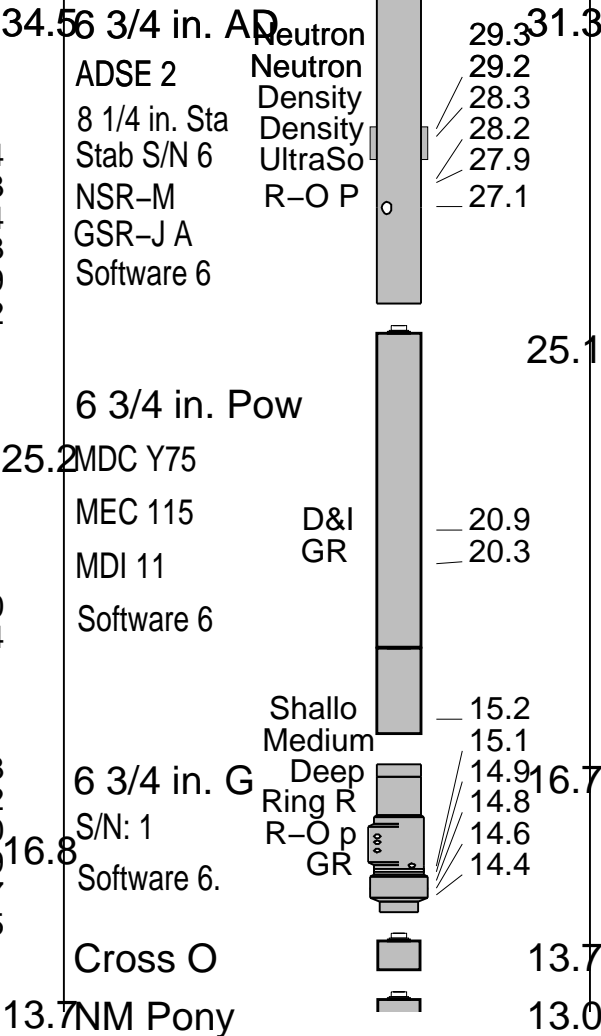
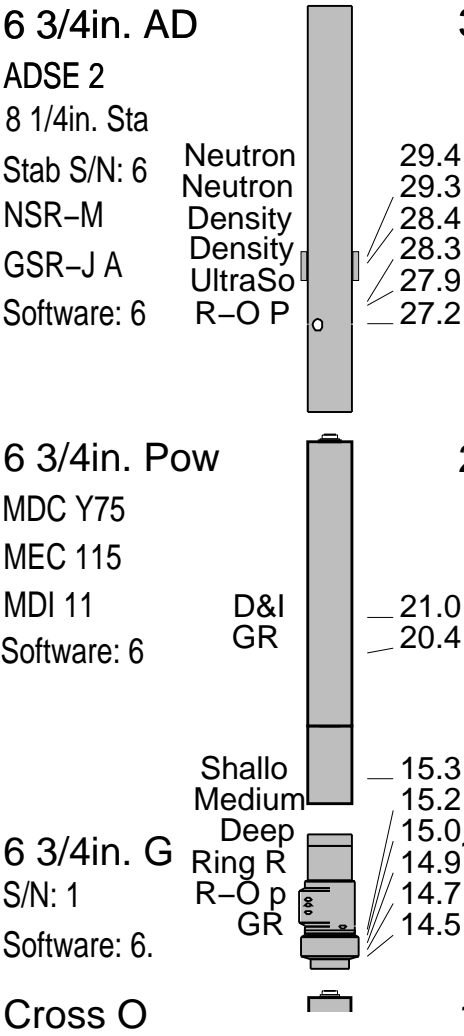
RUN1

RUN2

RUN

DOWNHOLE EQ

DOWNHOLE E



Environmental data

GR											
Mud weight	lbm/gal	8.5	10.5								
Bit size	in.	8.5	8.5								
Resistivity											
Neutron porosity											
Hole Size	in.	8.5	8.5								
Mud weight	lbm/gal	8.5	10.5								
Temperature	deg C	30	74.5								
Mud salinity	mg/l	0.0	72,600								
Formation salinity	mg/l	n/a	n/a								
Recording rate 1	SEC	10	10	GR/Res							
Recording rate 2	SEC	10	10	Den/Neut							
Filtering GR		3 pt.	3 pt.								
Filtering density		3 pt.	3 pt.								
Filtering Neutron		3 pt.	3 pt.								
Company representative	B.Woodward	J.Booker	B.Davis								
Anadrill personnel	T.Sims	T.Ford	L.Bon	C.Soper	T.Harvey	C.Cocks					

True Vertical Depth Log

IDEAL Version: ID6_1C_10

IDF

RAB id6_1c_10 MWD_10 id6_1c_10
ADN id6_1c_10

Format: ADNDetailLog Vertical Scale: 1:200

Graphics File Created: 28-Jan-2002 19:10

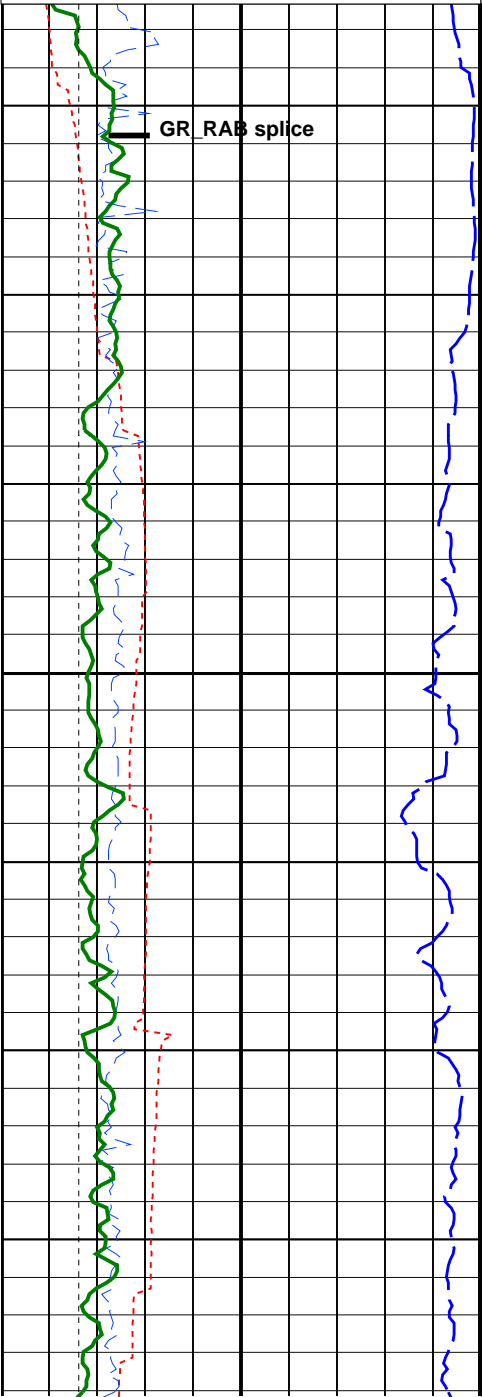
Parameters

DLIS Name	Description	Value
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	YES
BHA_COEF_VER	RAB: BHA Coef Generator Version	62012.0
BHT_RM	Bottom Hole Temperature (RM)	74.500 degC
BSAL_RM	Mud Salinity (RM)	57.700 ppk
BS_RM	Bit Size (RM)	8.500 in
DEVI	Average angle of the hole (RM)	61.000 deg
DHS_VERSION	RAB: DownHole Software Version	6.101
DO	Depth Offset	0.0 m
DTMUD	Delta-T for Mud	645.2 us/m
ENVCOR	Neutron Quadrant Processing: Environmental Correction?	YES
LITHO_TYPE_ADN	Lithology (RM)	LIME
MST_RM	Mud Sample temperature (RM)	21.000 degC
MW_RM	Mud Weight (RM)	10.500 lbm/gal
OBM	RAB: Oil base Mud	NO
OBMF_RM	Oil Based Mud	NO
RAB_TEMP_SELECT	RAB Temperature Selection	MEAS
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	14.718 m
RHOF_RM	Mud Filtrate Density (RM)	1.000 g/cm3
RHOM_RM	Matrix density (RM)	2.710 g/cm3
RMS_RM	Resistivity of Mud Sample (RM)	0.130 ohm.m
RWS_RM	Resistivity of Connate Water (RM)	1.000 ohm.m
SHT_RM	Surface Hole Temperature (RM)	23.889 degC
SSIZ_ADN	ADN:Stabilizer Size (RM)	8.250 in
STAB	RAB: Run with Stabilizer	YES
TD_RM	Total Measured Depth (RM)	2268.0 m
TOOLTYPE	RAB: Azimuthal Tool	YES
TRPM_RM	Average Tool rotational Speed (RM)	20.000 c/min
TSIZ_ADN	ADN:Tool Size (RM)	6.750 in
TS_VERSION	RAB: ToolScope Software Version	6.101
TWS_RM	Temperature of Connate Water (RM)	23.889 degC
USMIN_RM	ADN:Minimum ultra-sonic standoff (RM)	0.300 in
VERS_ADN	ADN downhole software	6.200
VRAB6	Rab Tool type (ENP/PILOT)	RAB6_C_SERIES

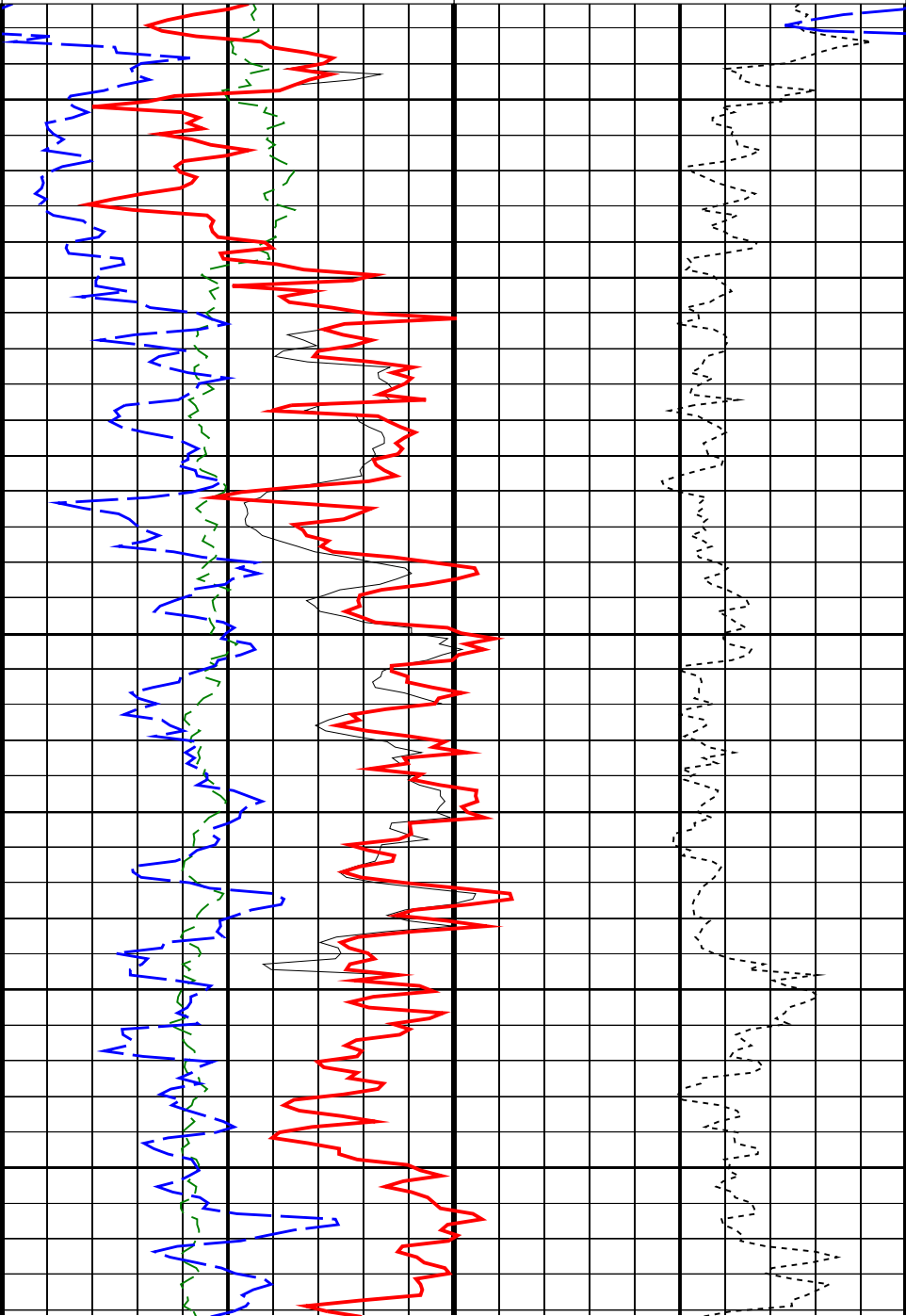
Rate of Penetration, Averaged over Last
5ft (ROP5_RM)

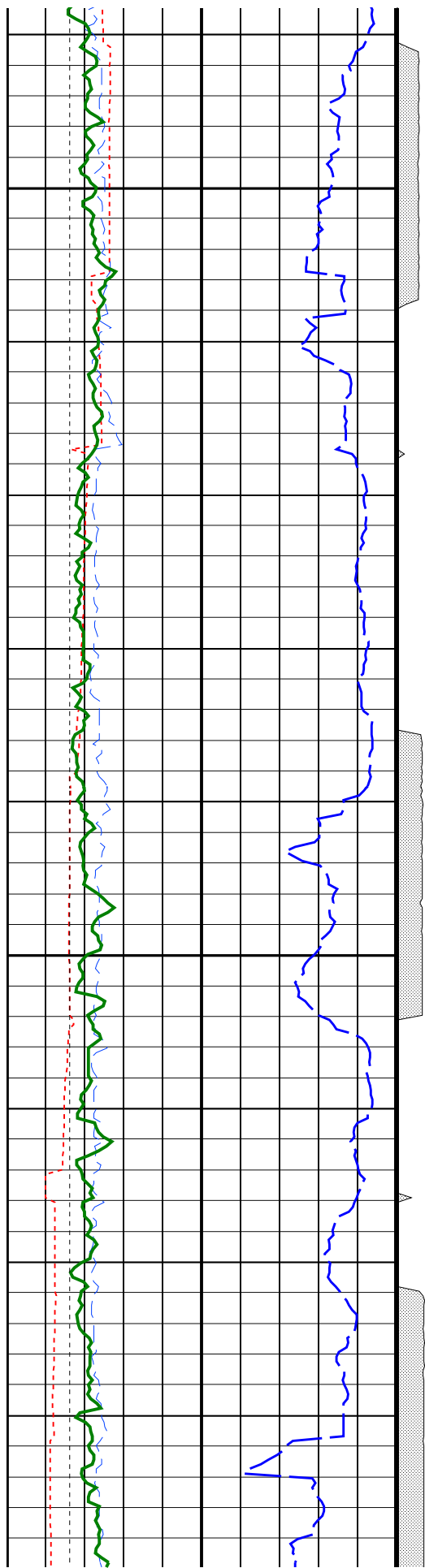
Gas Area
From ROBB to TNPH

5ft (ROP5_RM)		
200	(M/HR)	0
RAB Gamma Ray (GR_RAB)		
0	(GAPI)	200
Density Time After Bit (TAB_DEN)		
0	(HR)	10
Vertical Hole Diameter (VERD)		
6	(IN)	16
Horizontal Hole Diameter (HORD)		
6	(IN)	16
ADN Rotational Speed (RPM_ADN) (RPM)		
0		200



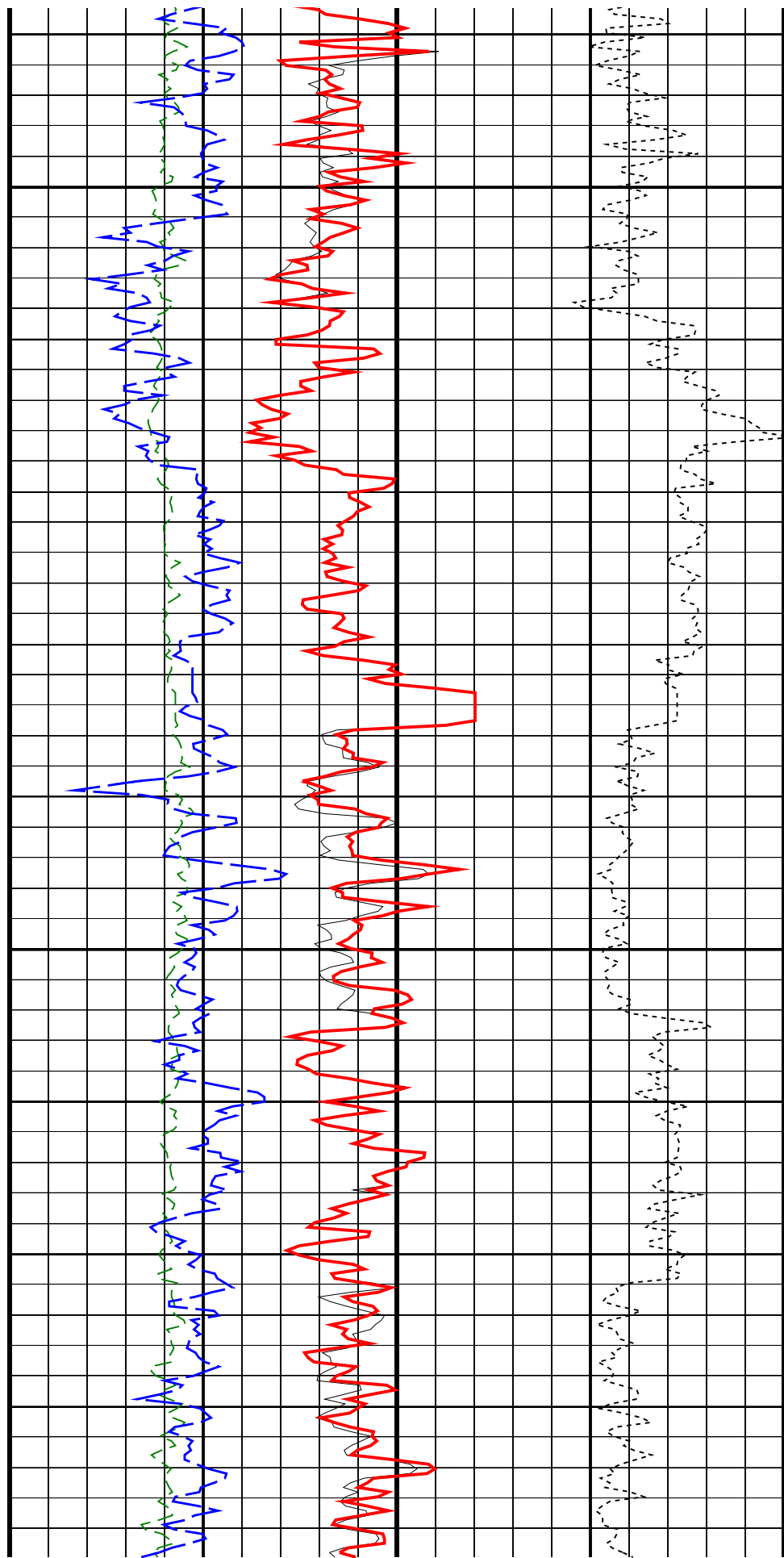
Gas Area		
From ROBB to TNPH		
Bulk Density, Bottom (ROBB)		
1.85	(G/C3)	2.85
Thermal Neutron Porosity (TNPH)		
45	(PU)	-15
Bulk Density (RHOB)		
1.85	(G/C3)	2.85
Photoelectric Factor, Bottom (PEB)		
0	(----	10
Bulk Density Correction, Bottom (DRHB)		
-0.25	(G/C3)	0.25

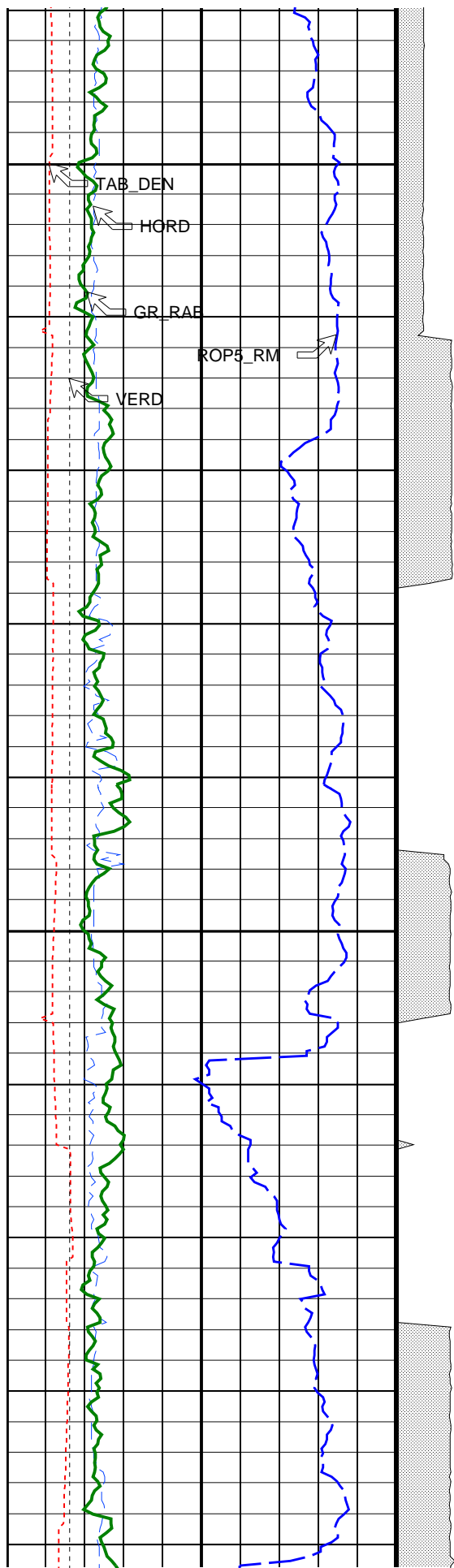




650
TVD

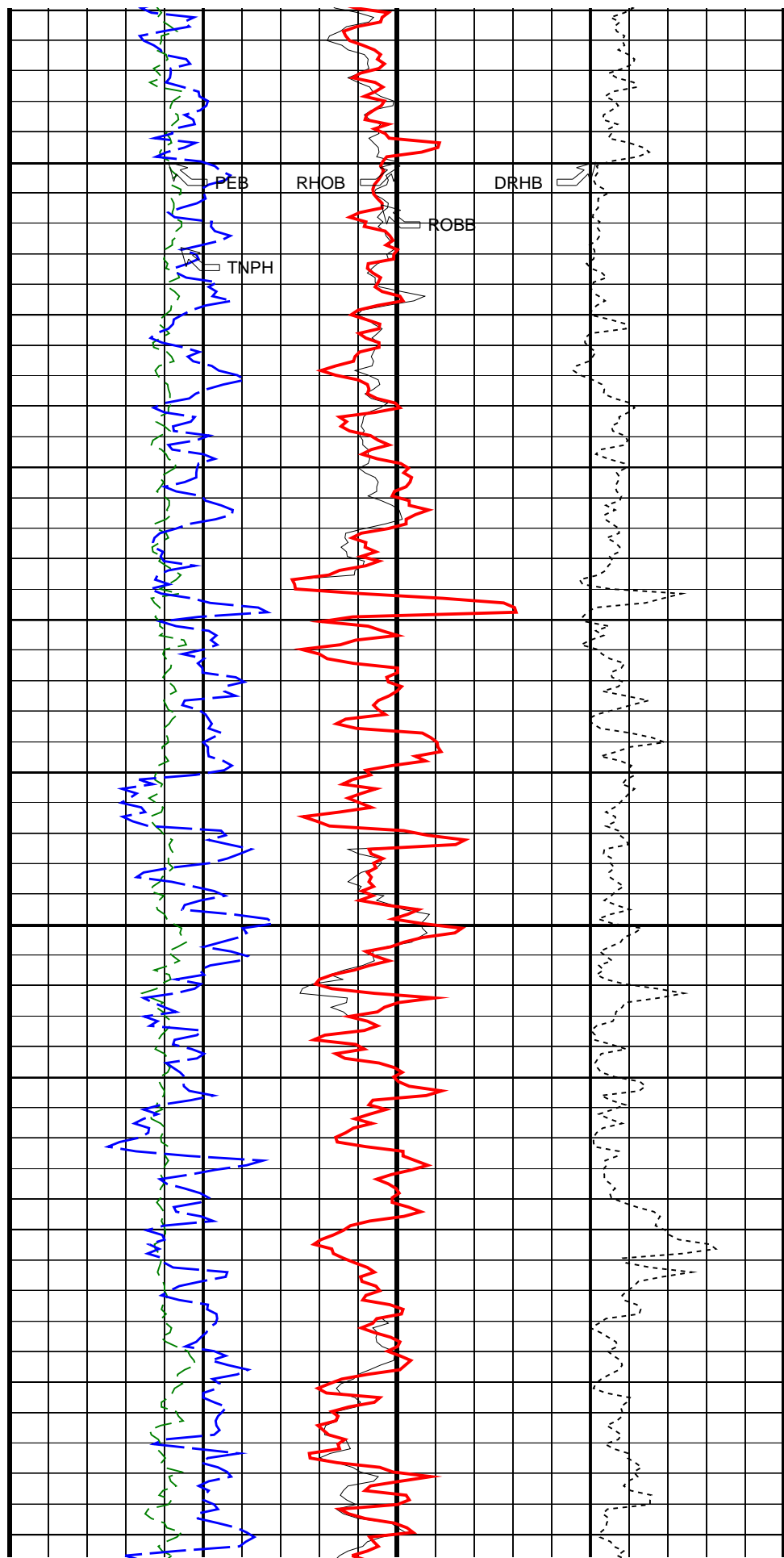
675
TVD

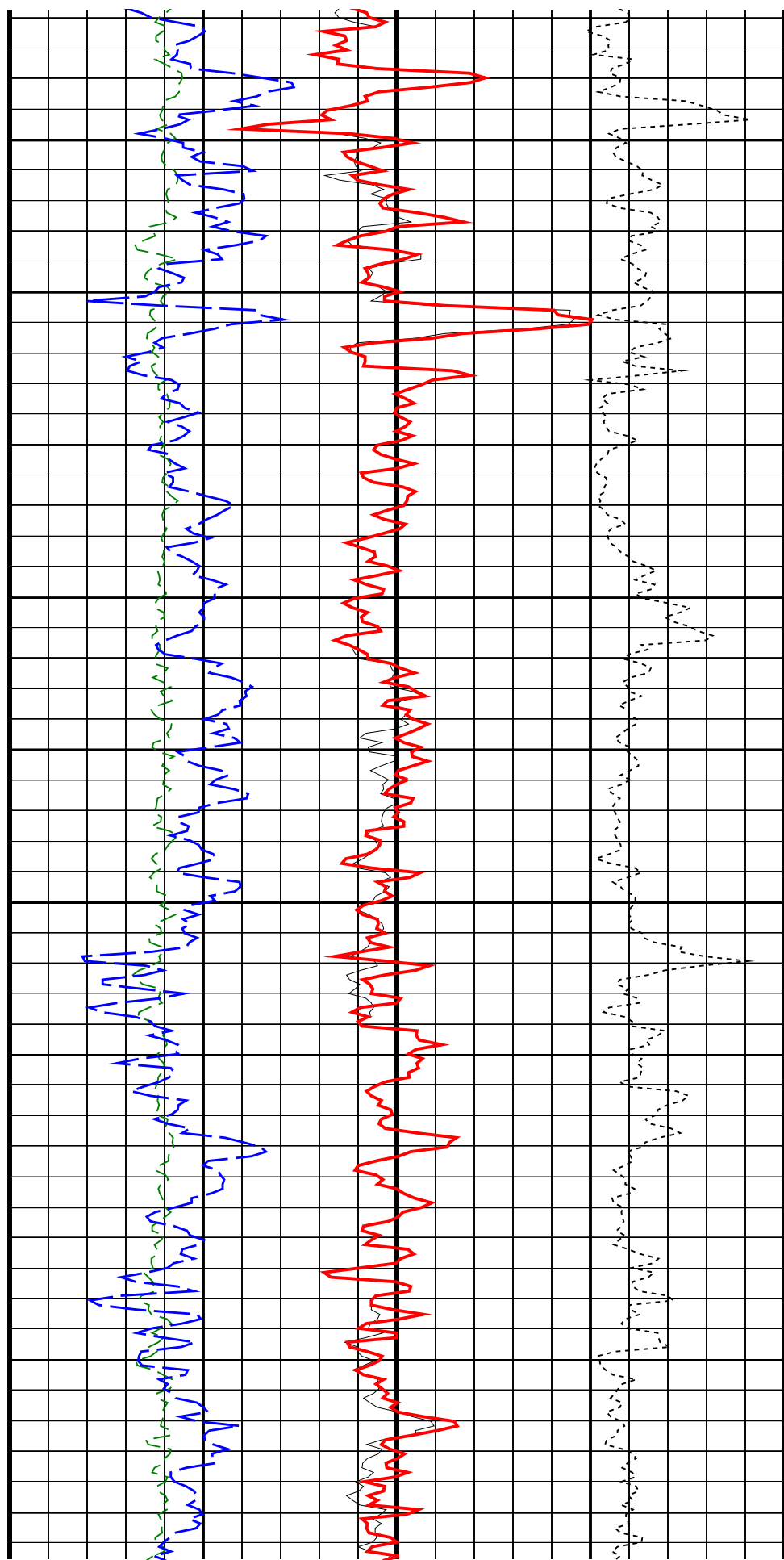
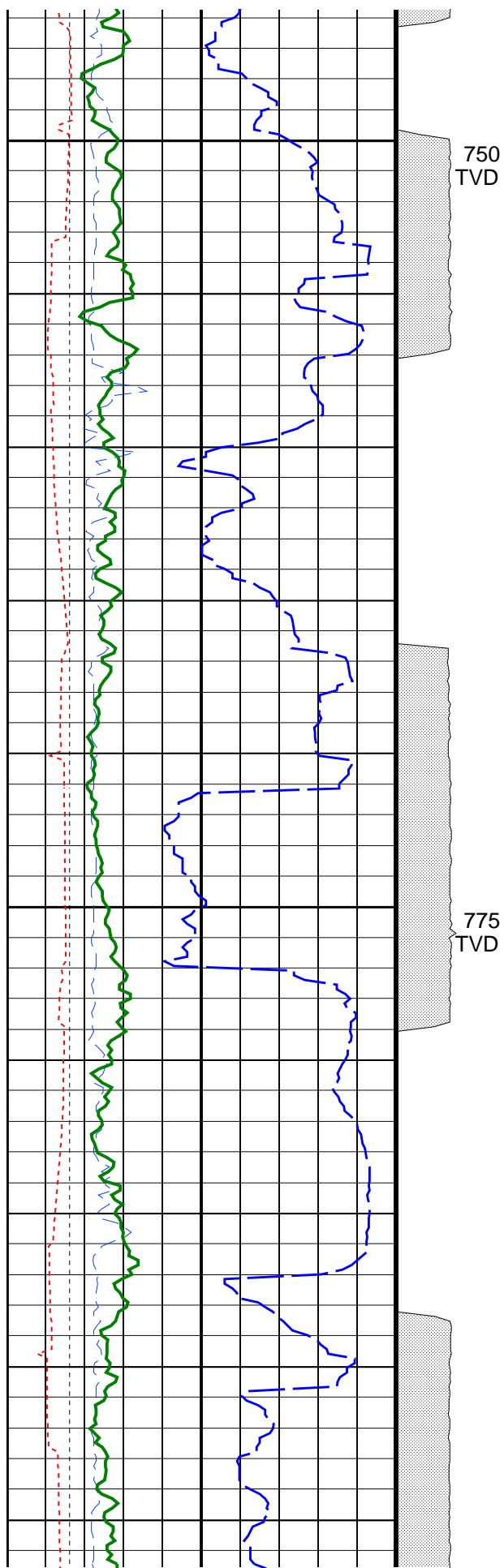


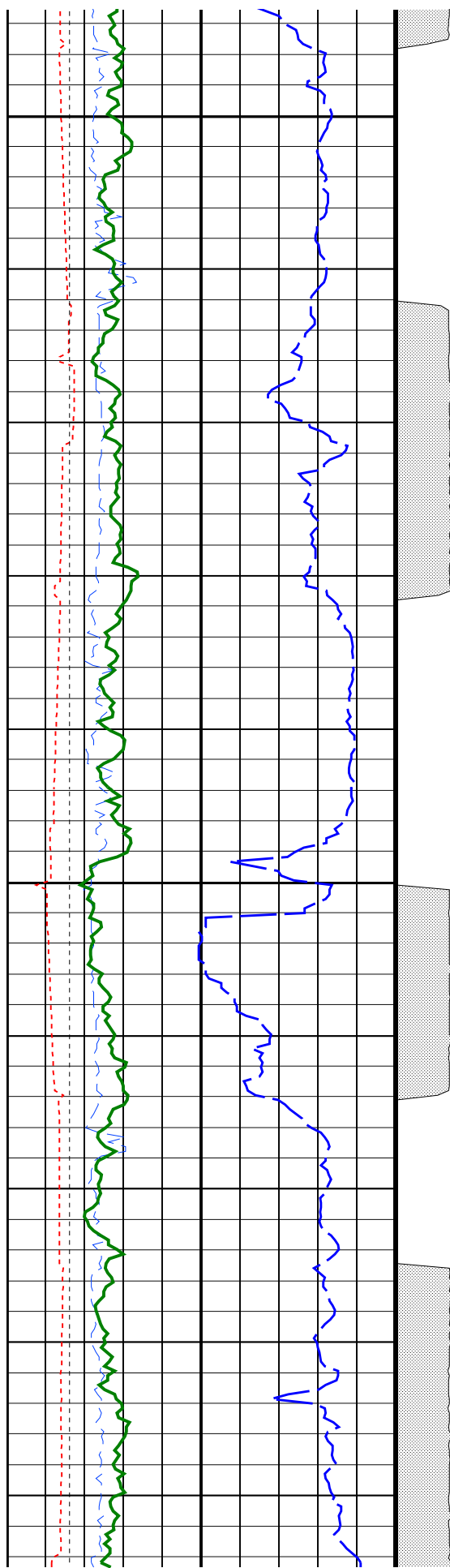


700
TVD

725
TVD

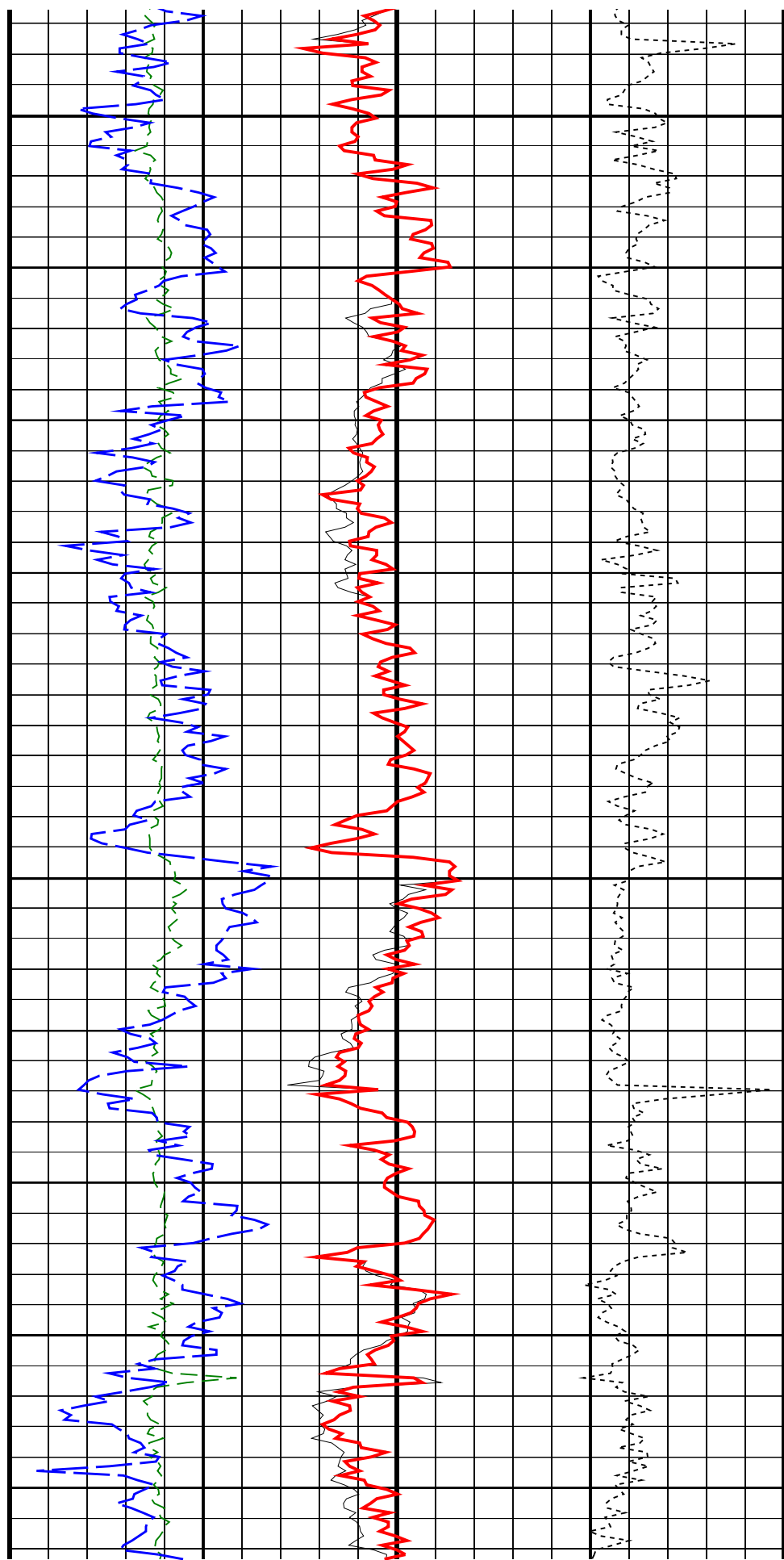


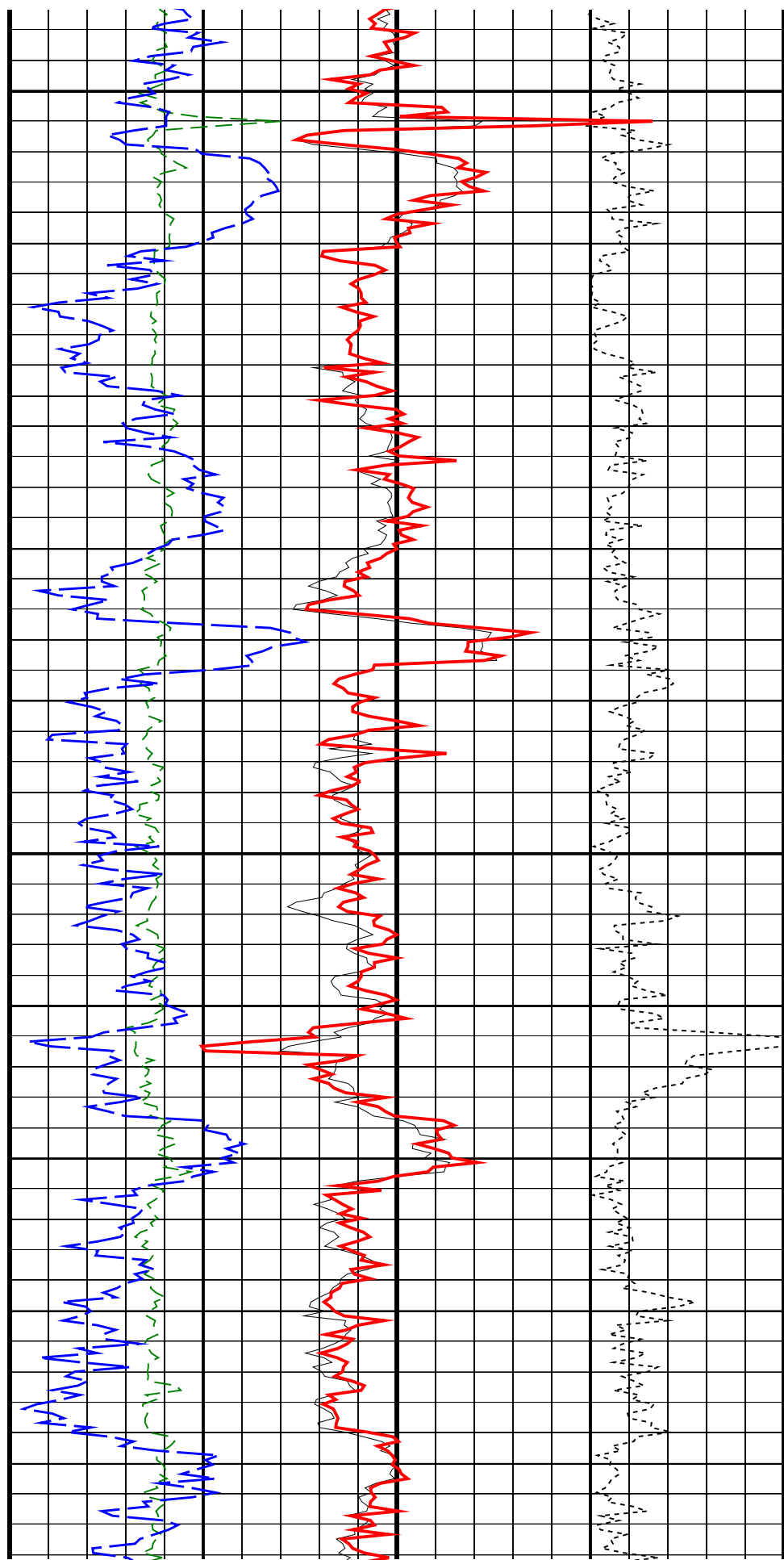
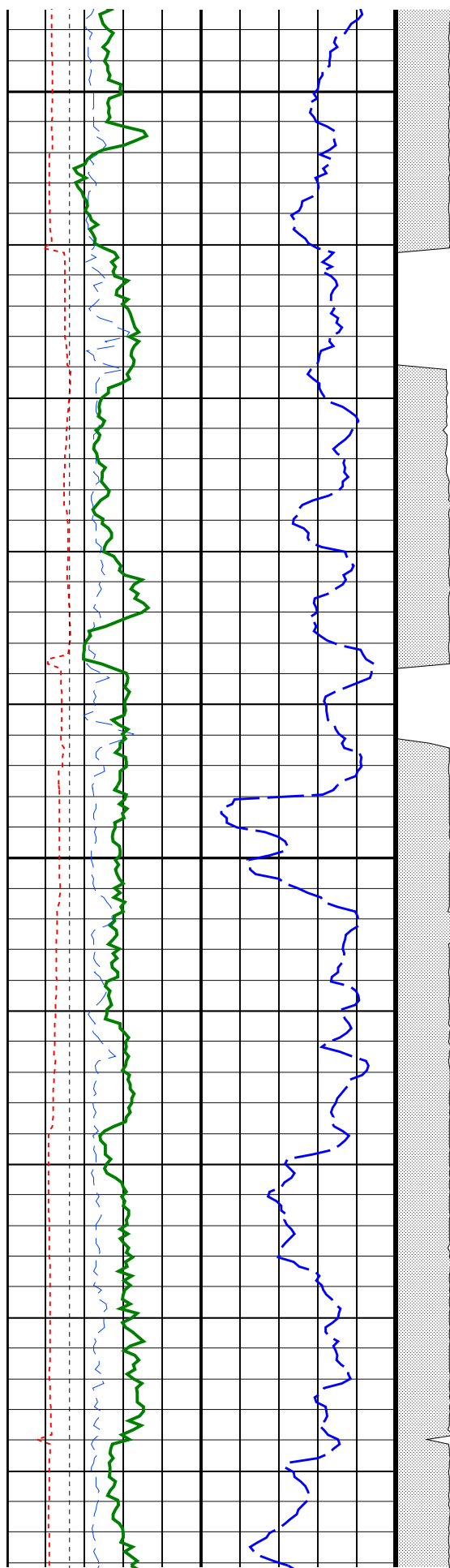


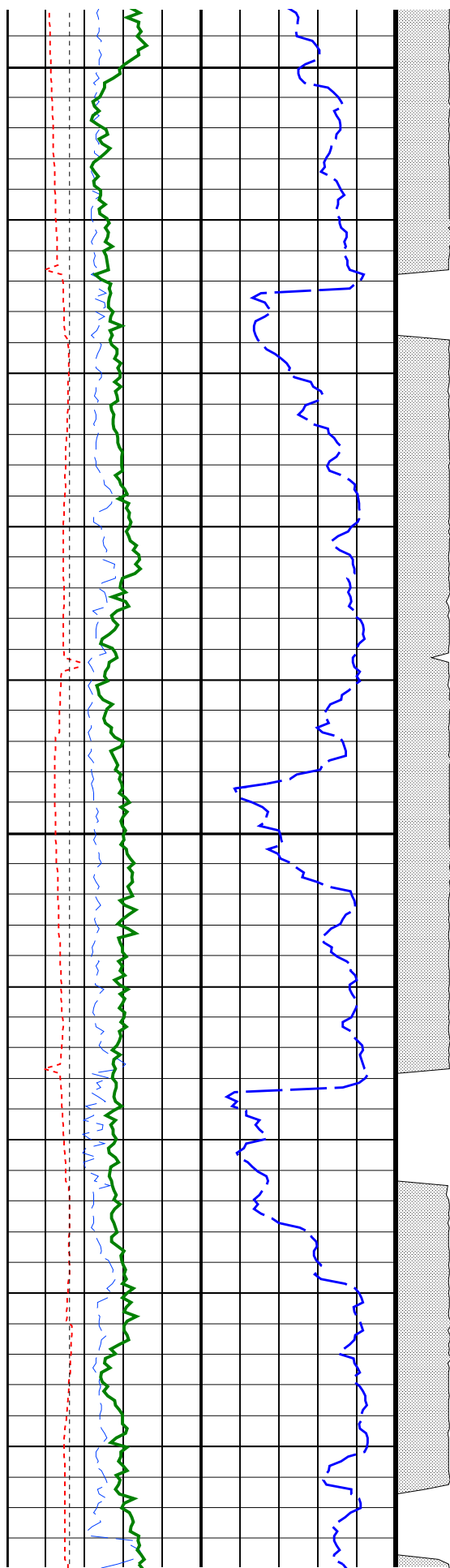


800
TVD

825
TVD

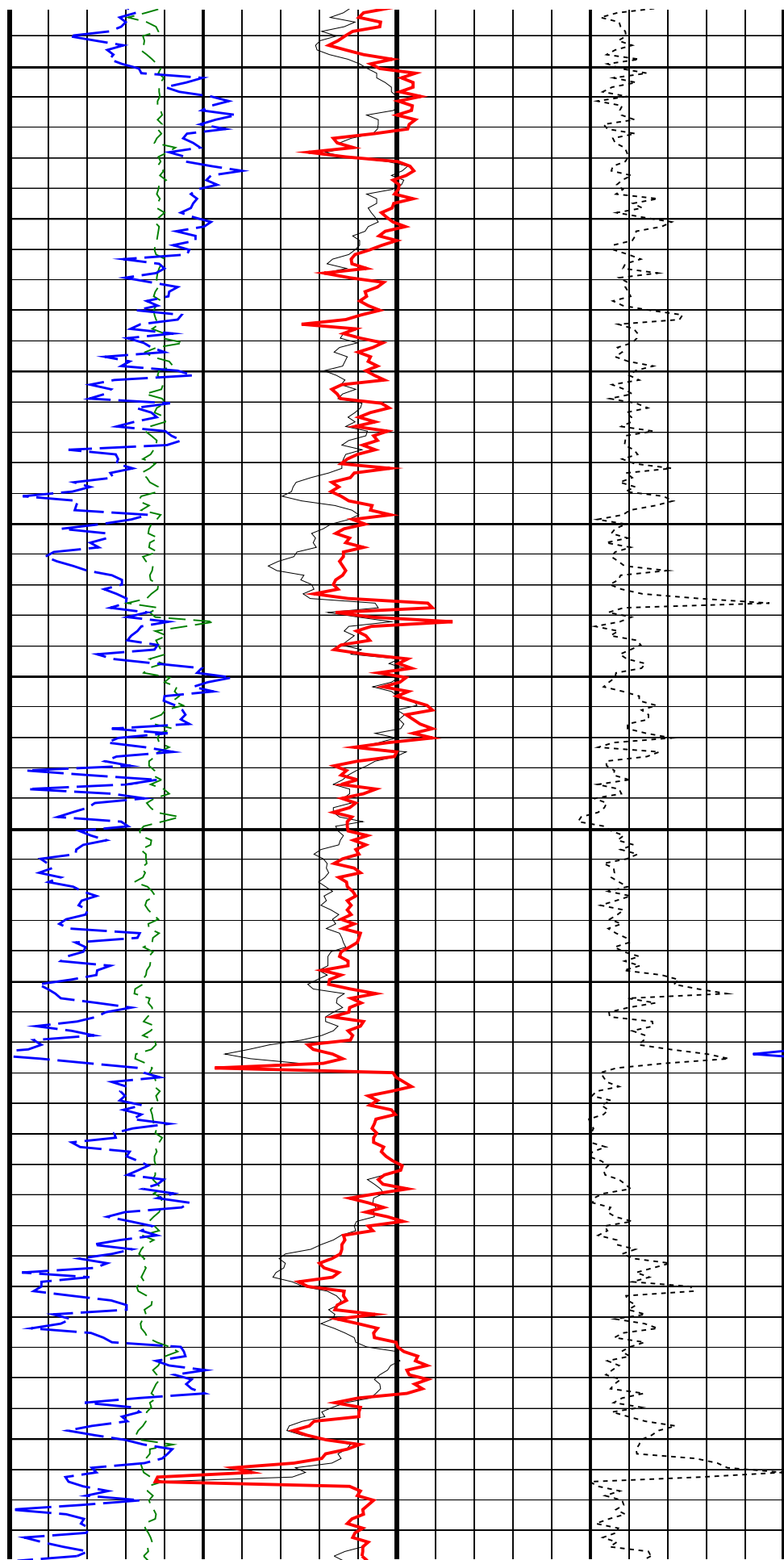


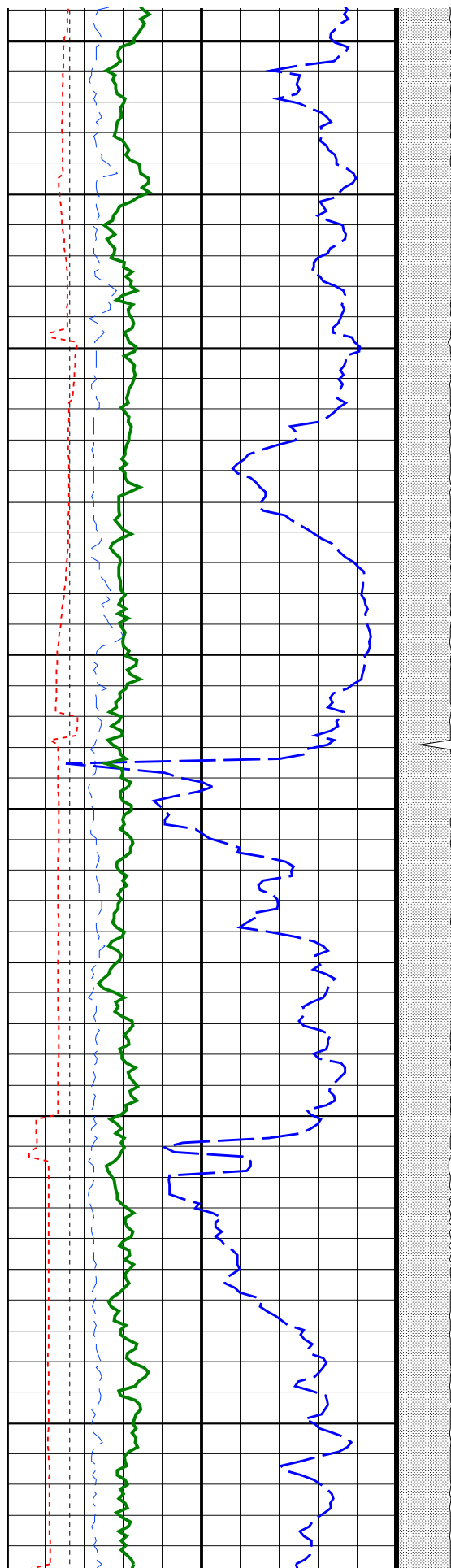




900
TVD

925
TVD

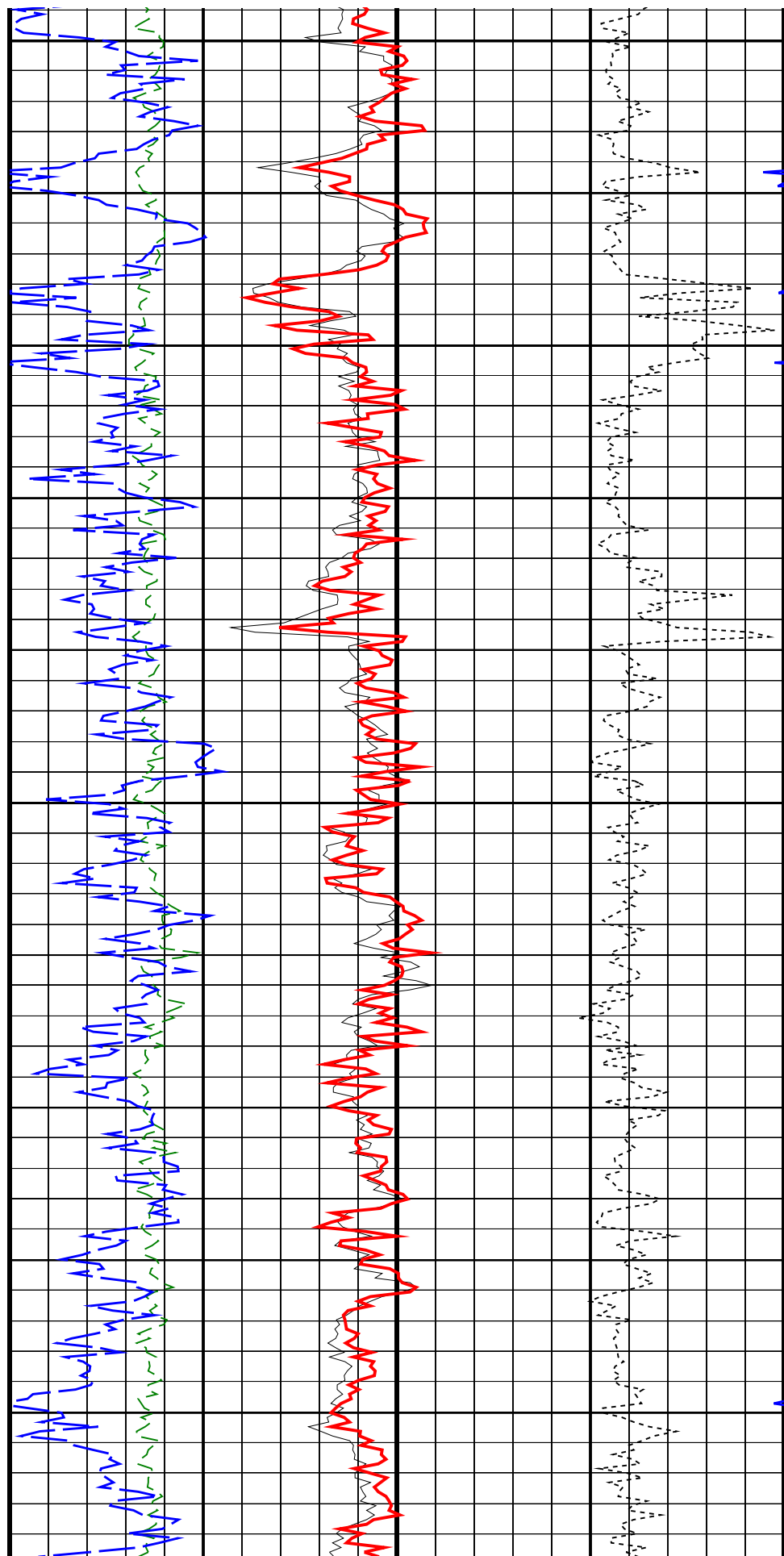


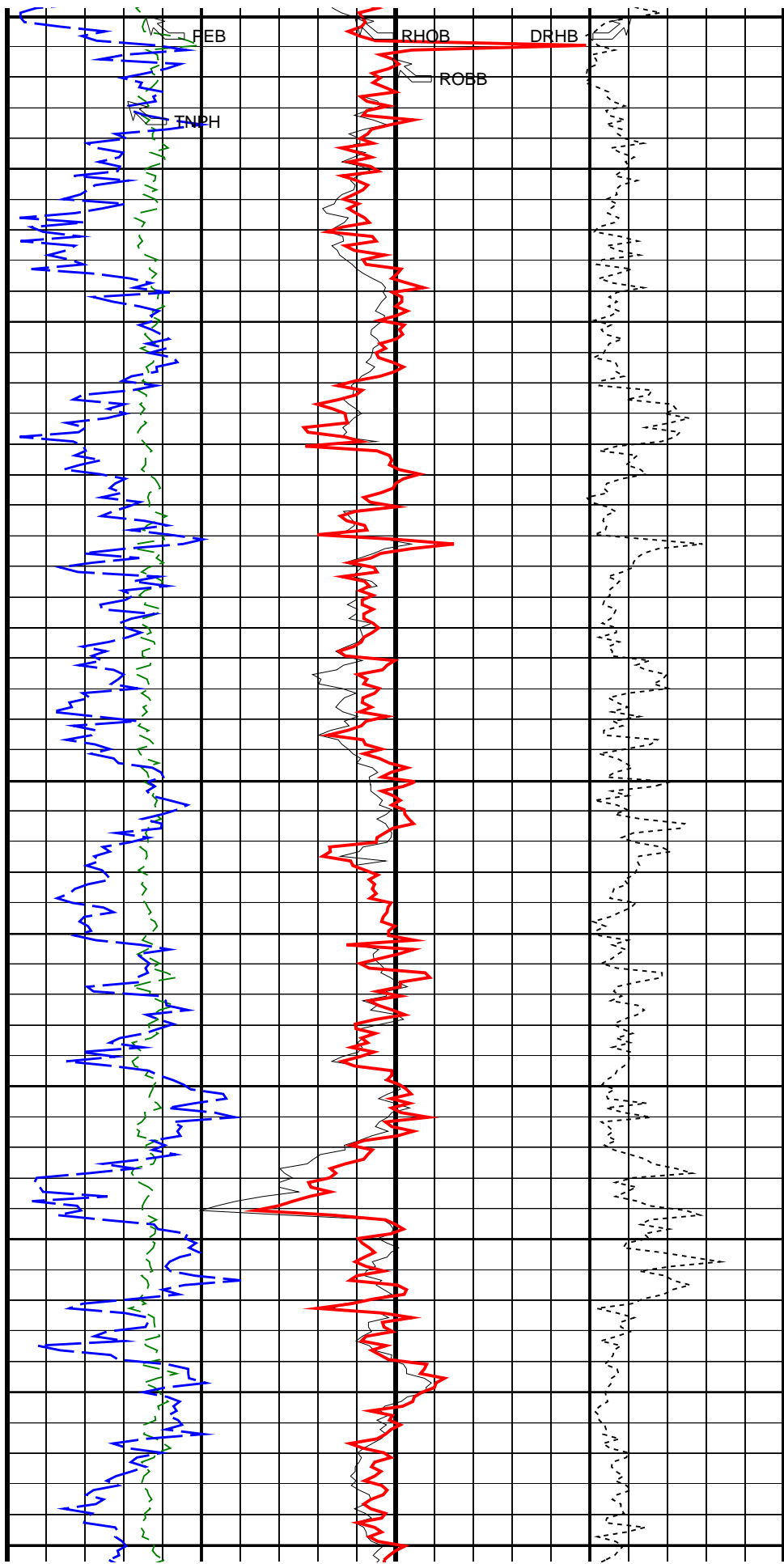
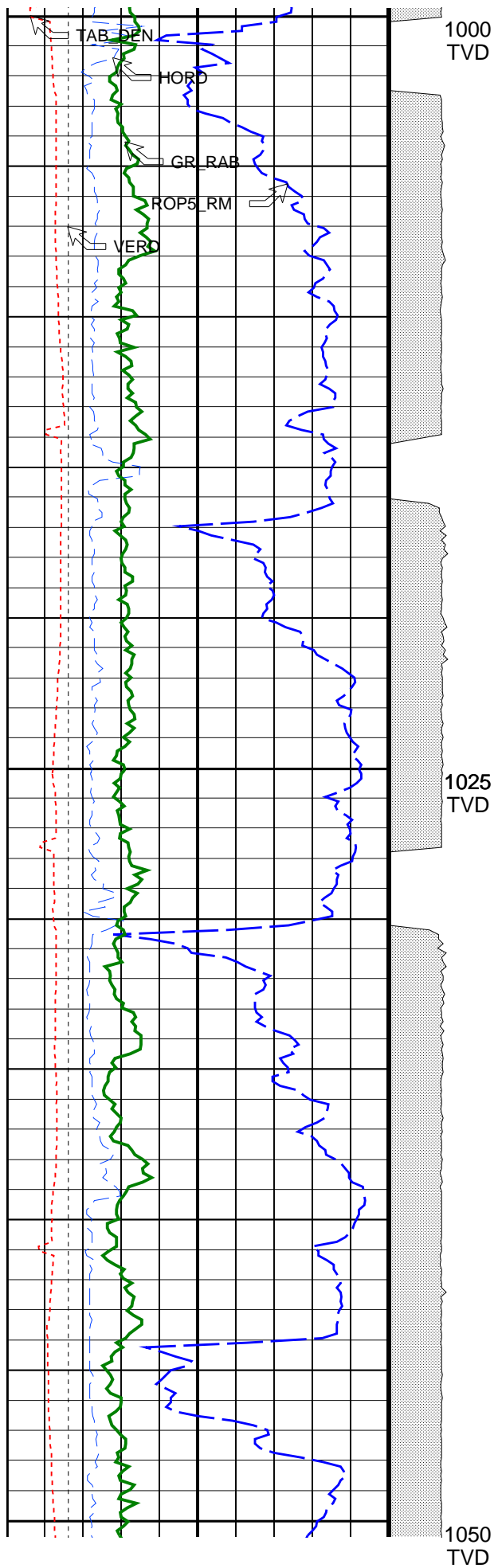


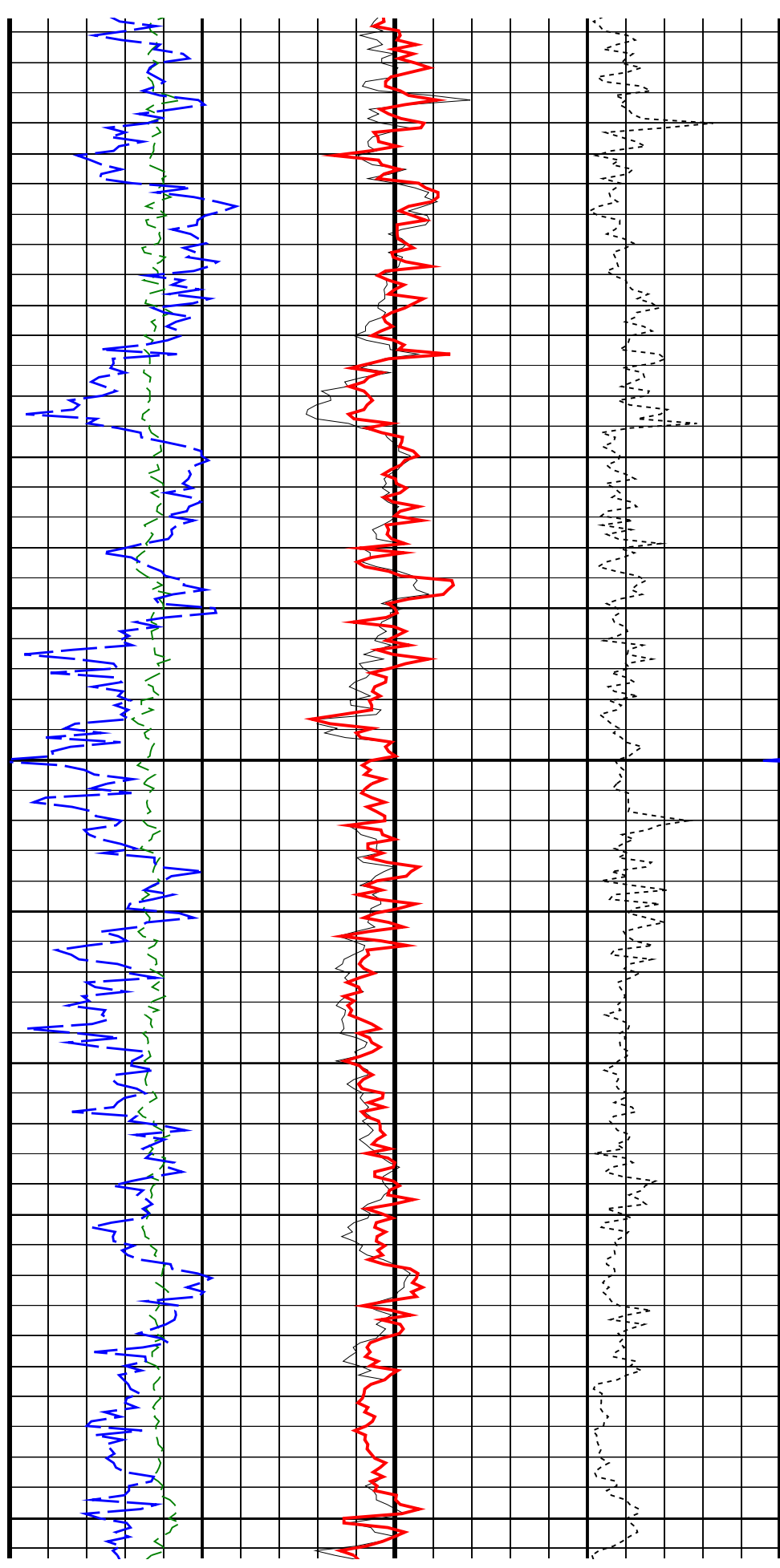
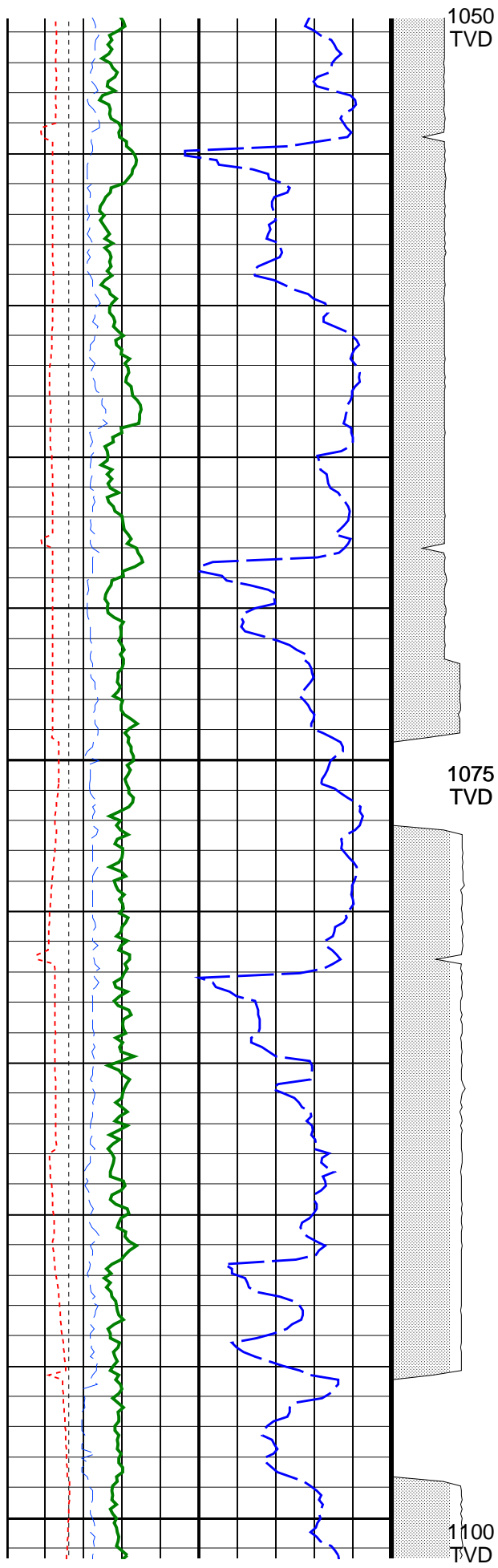
950
TVD

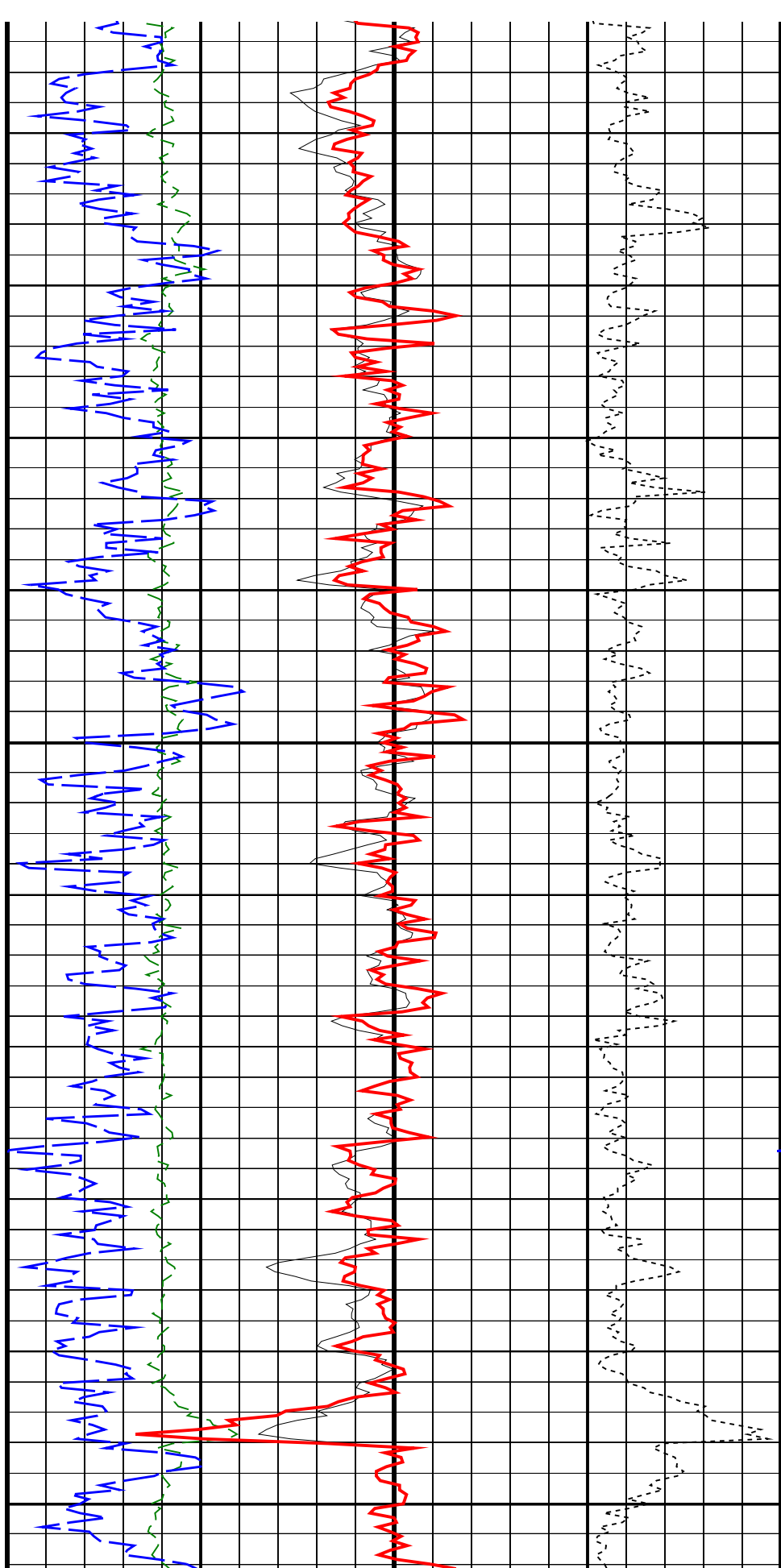
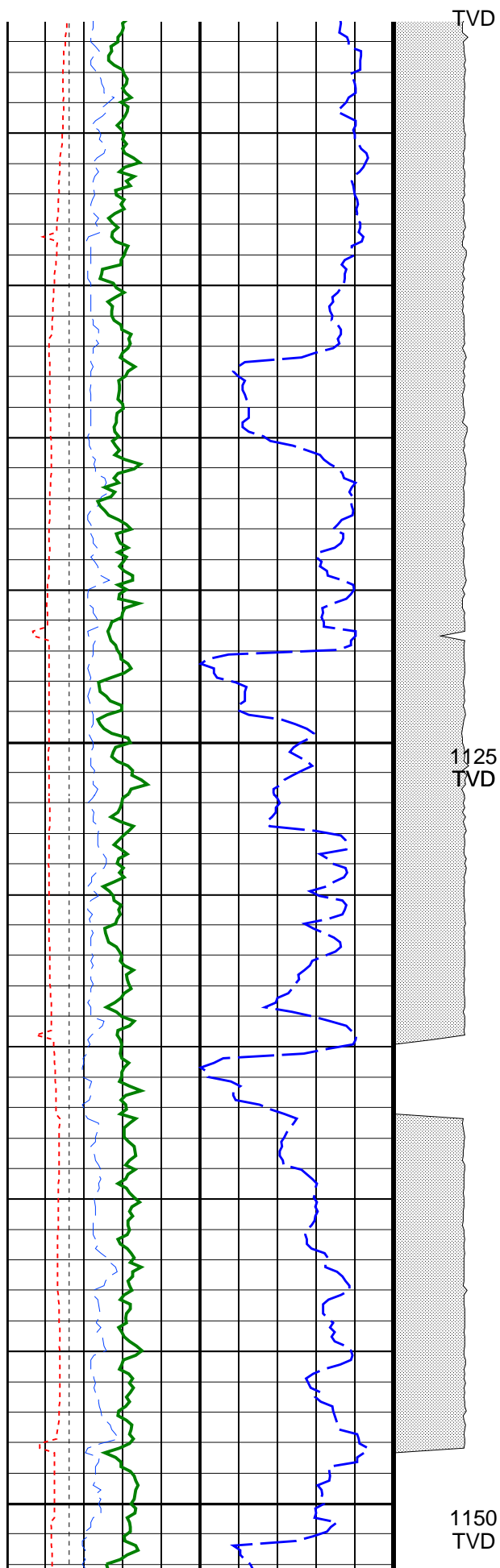
975
TVD

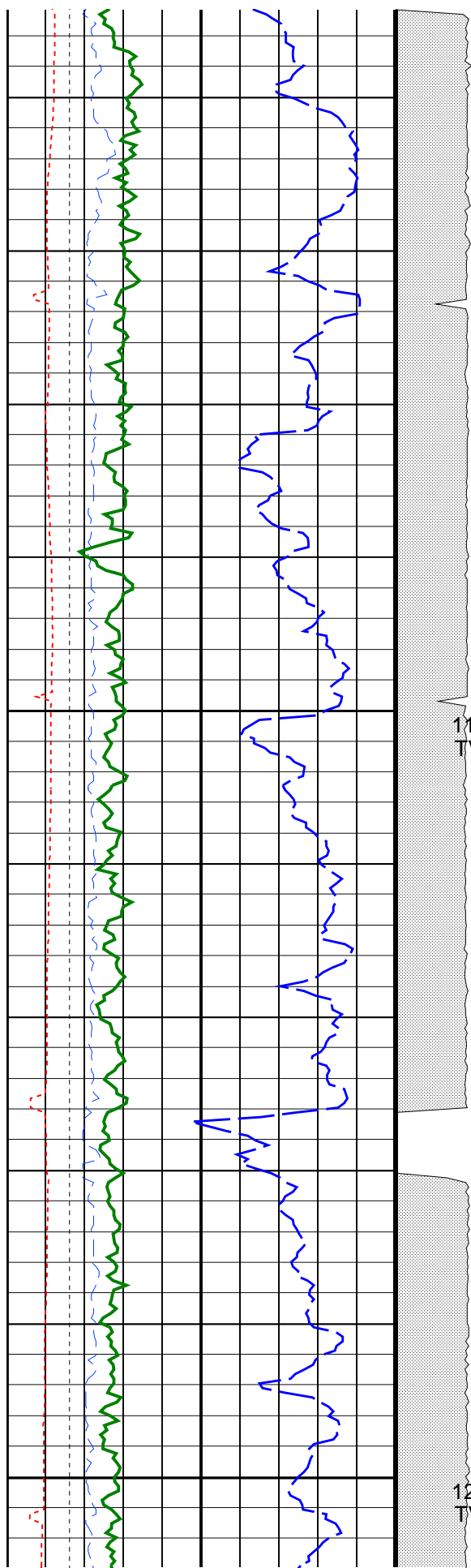
1000





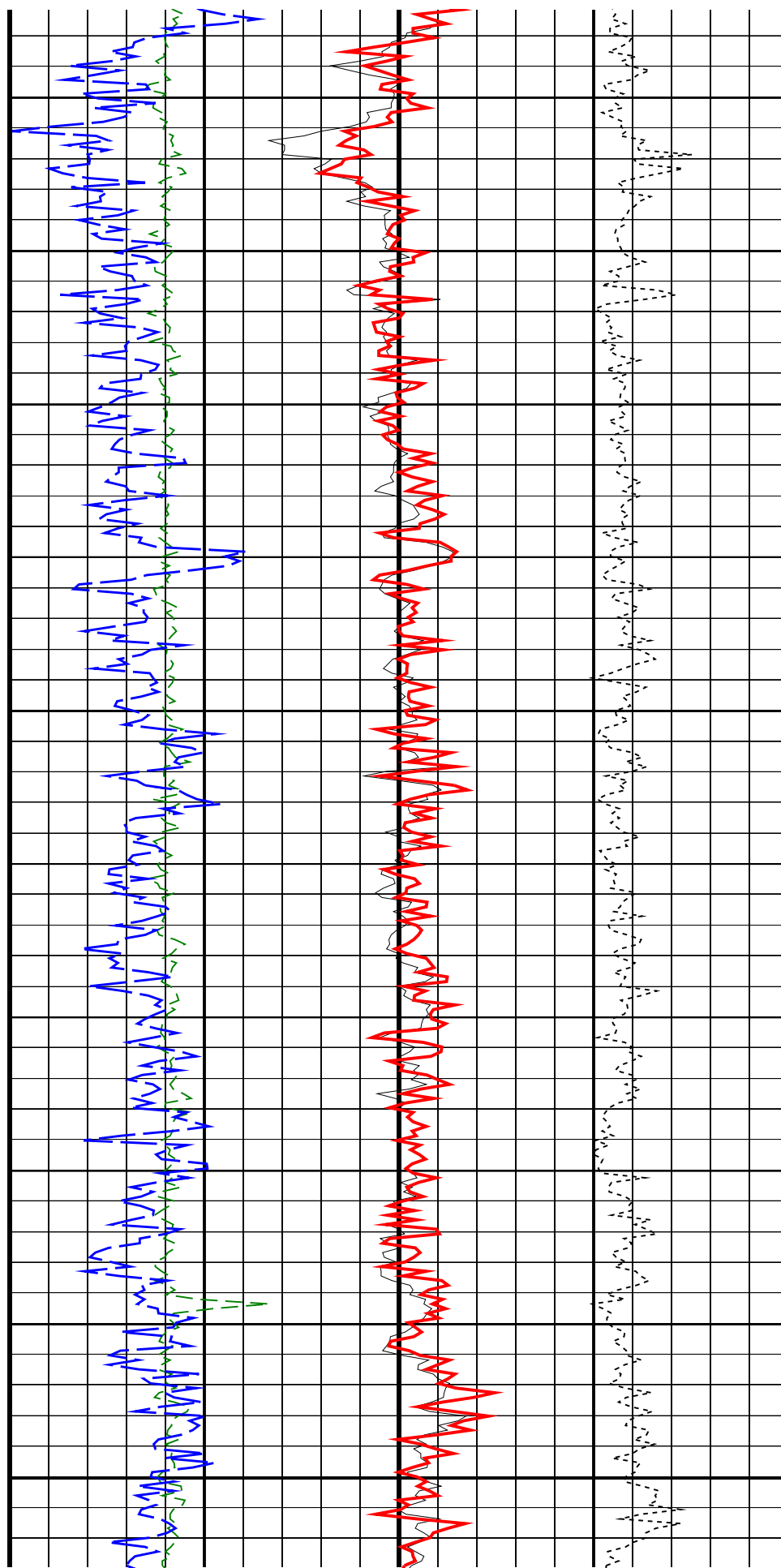


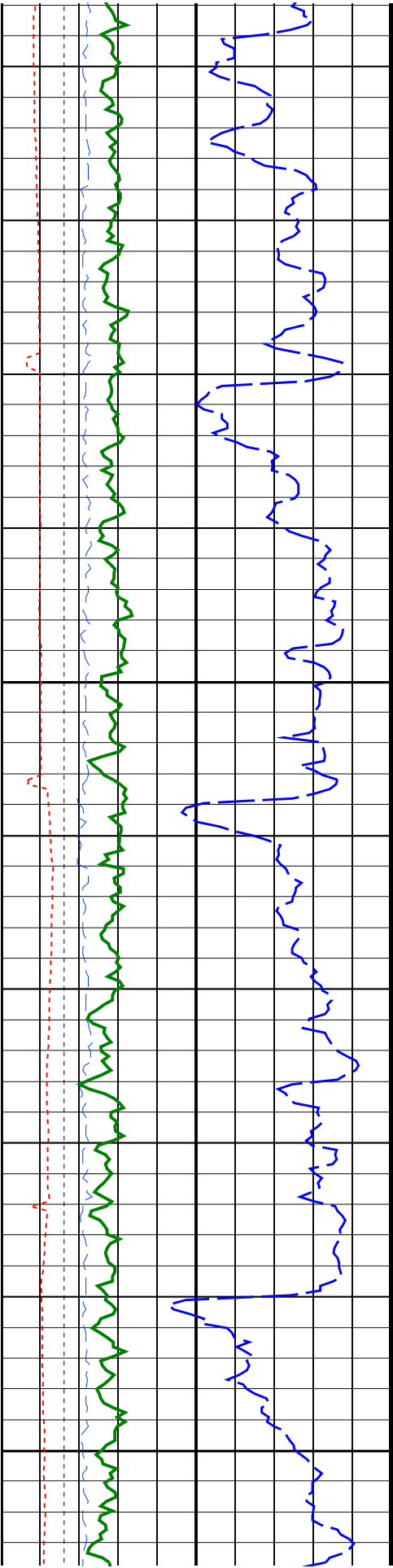




1175
TVD

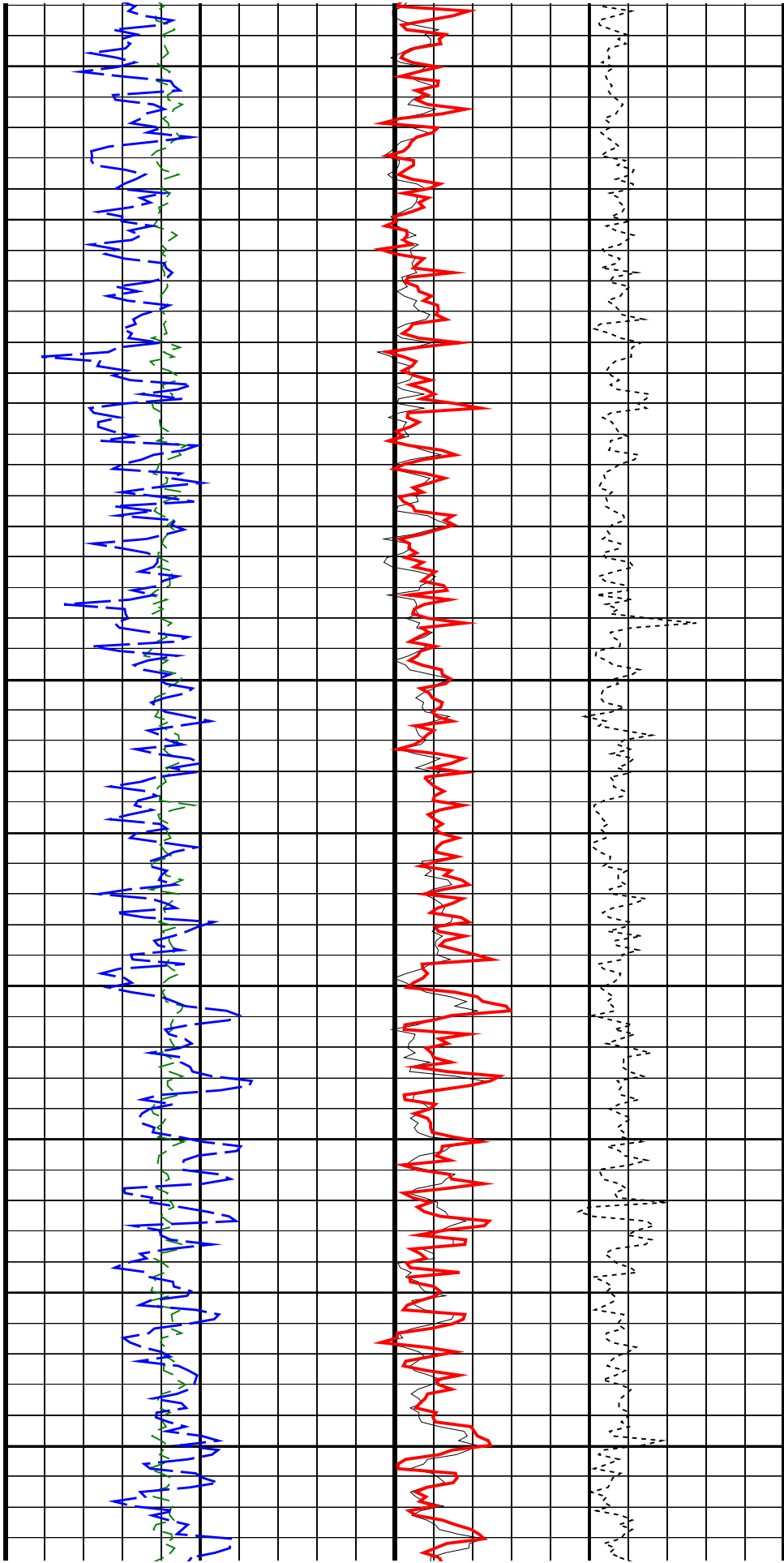
1200
TVD

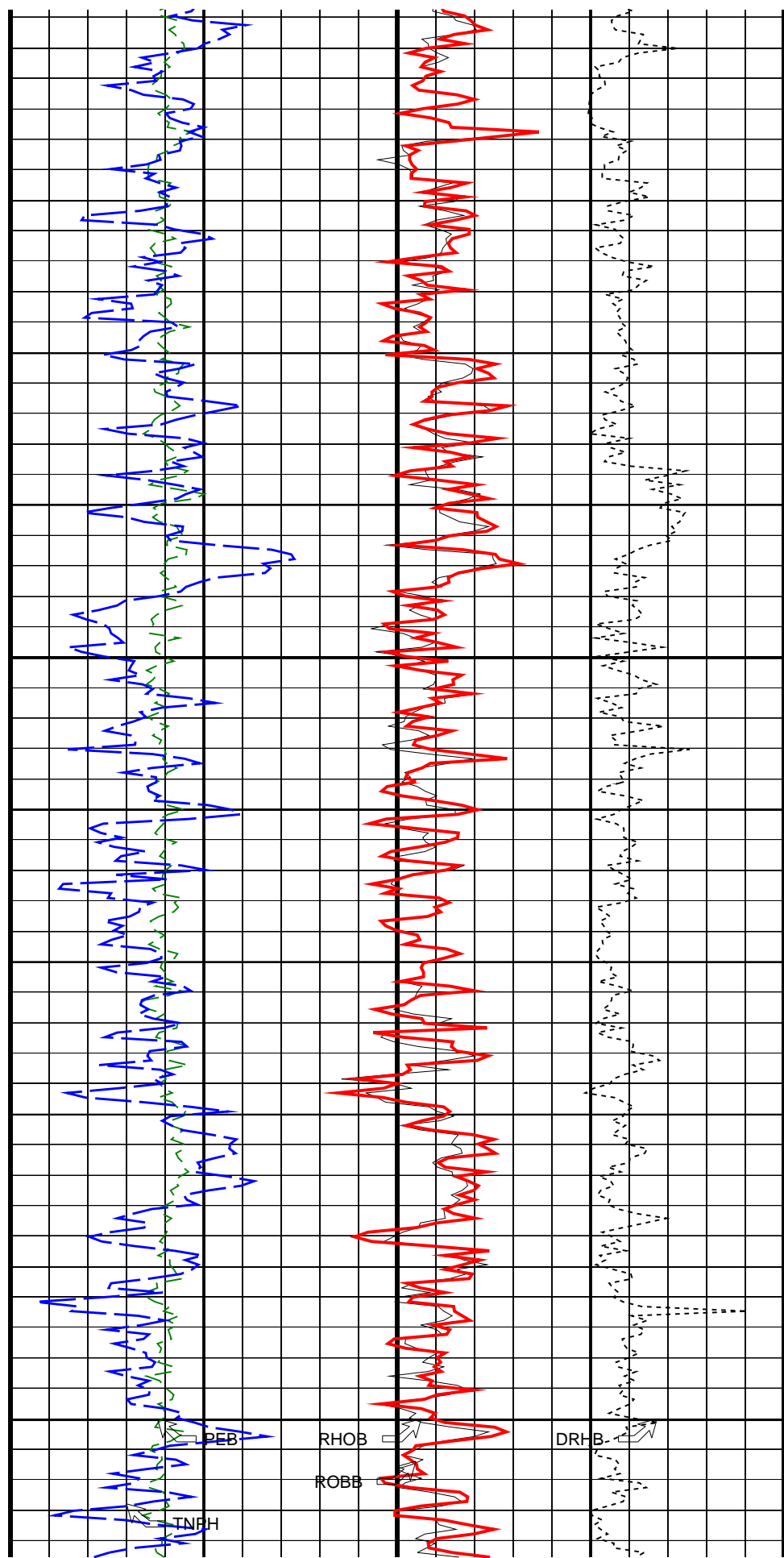
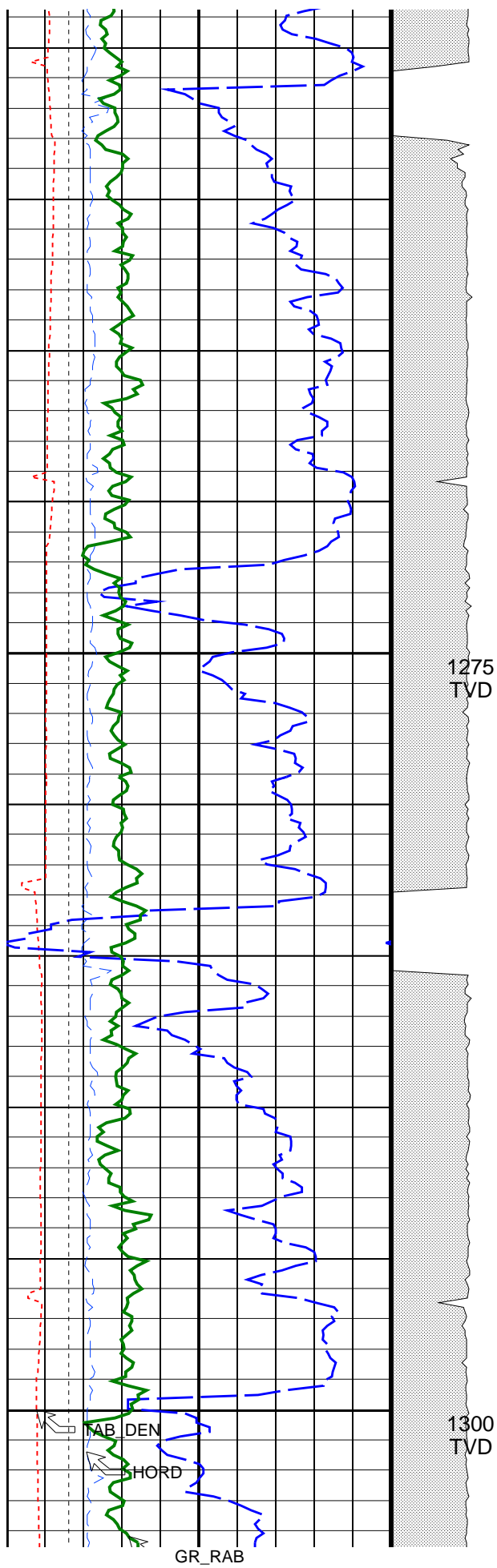


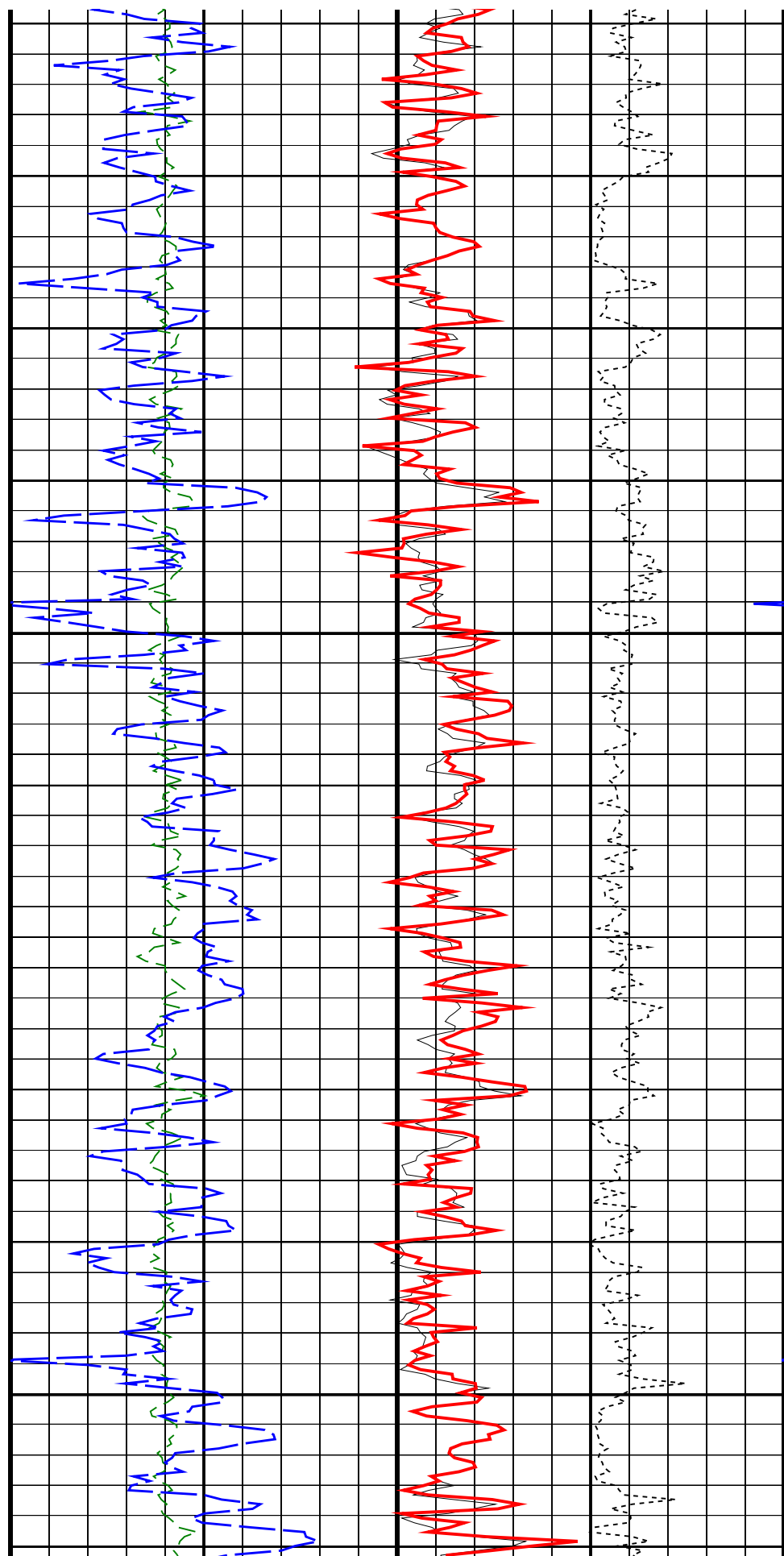
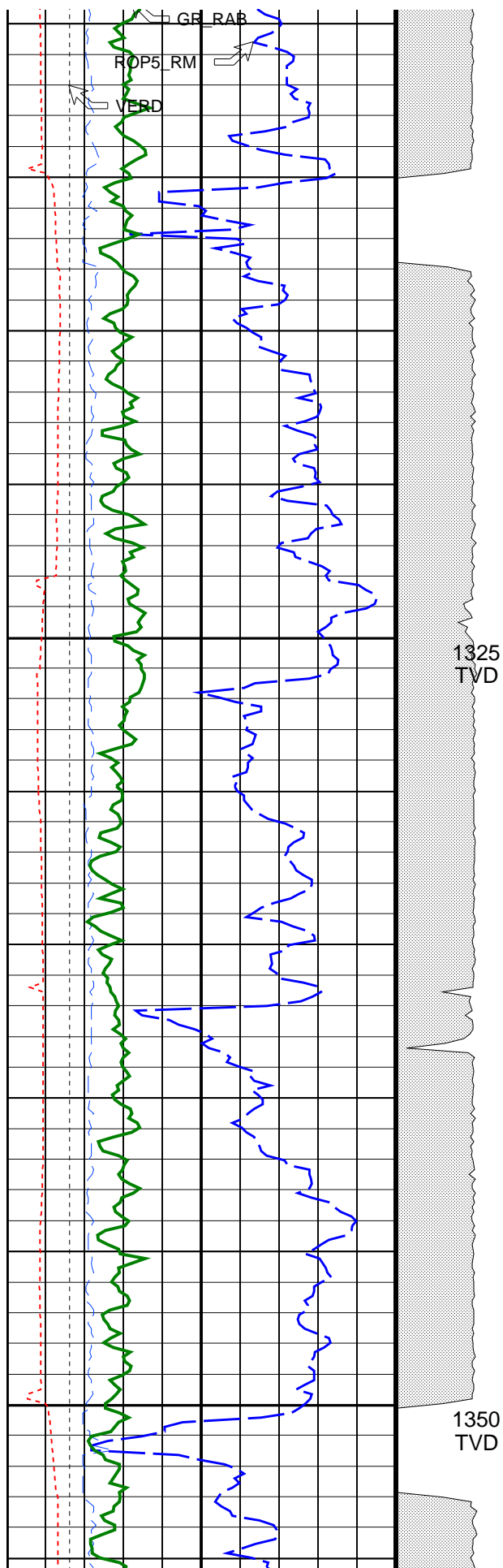


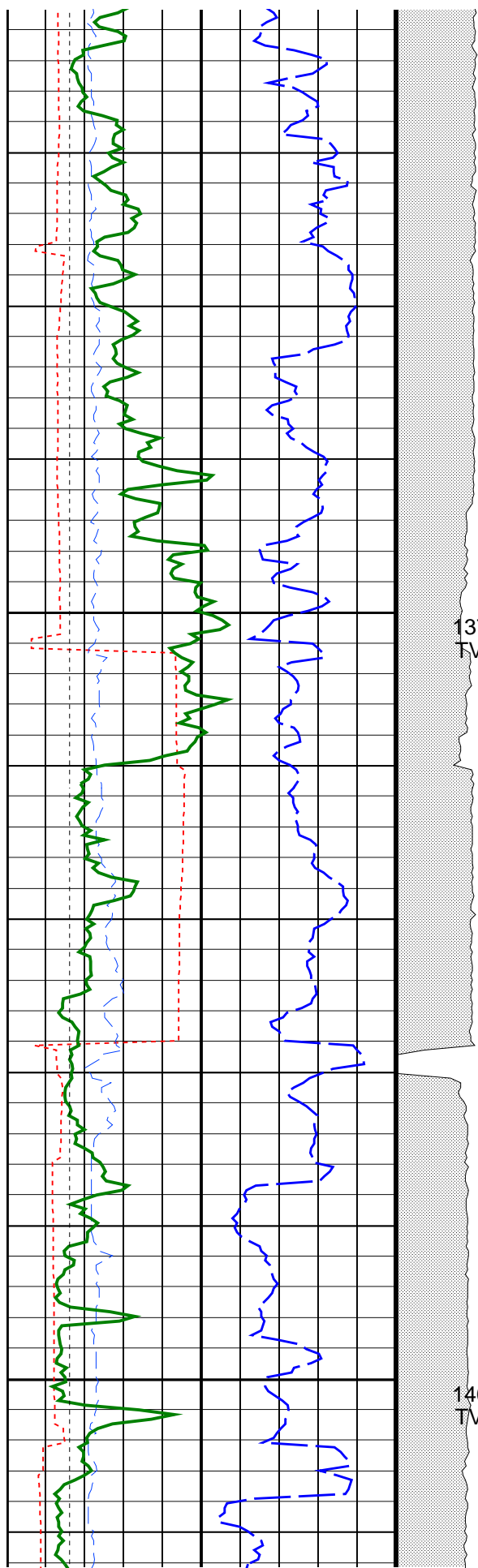
1225
TVD

1250
TVD



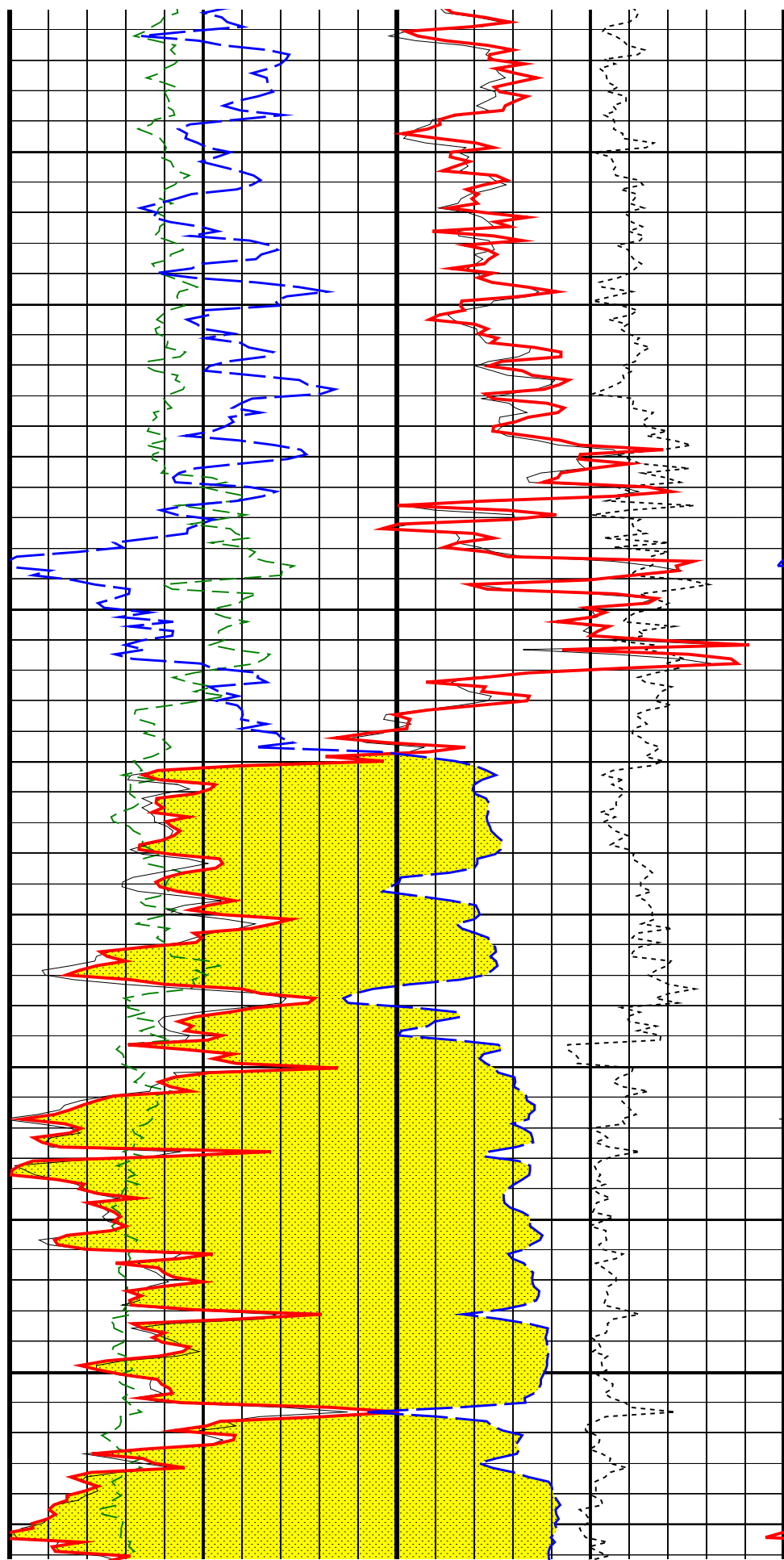


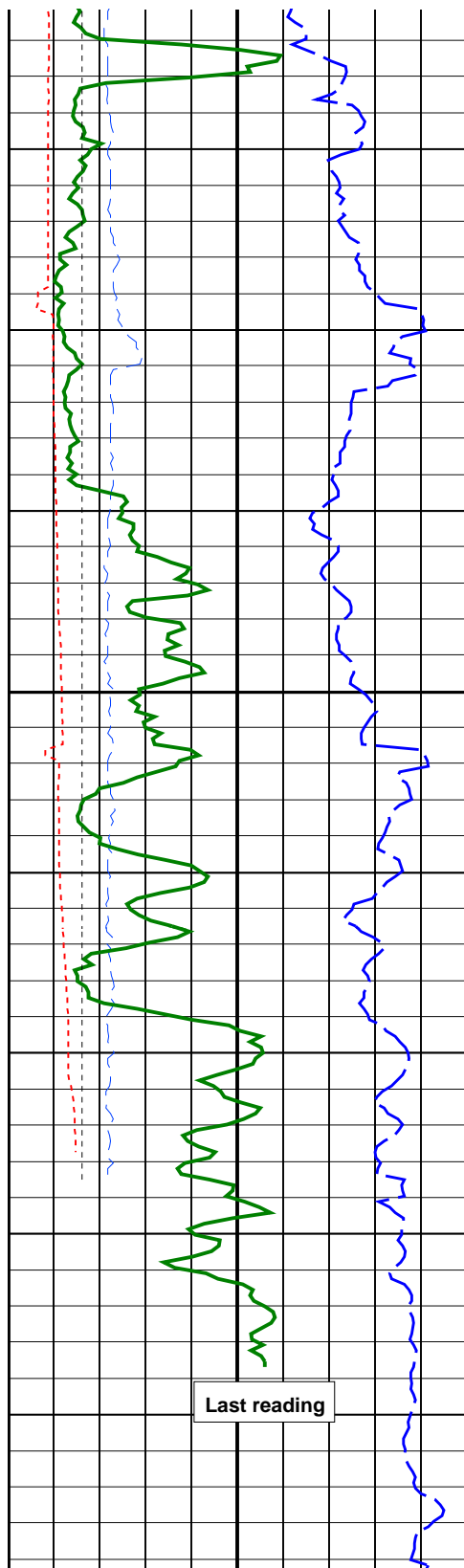




1375
TVD

1400
TVD





1425
TVD

TD 2268 MD

ADN
Rotational
Speed
(RPM_ADN)
(RPM)

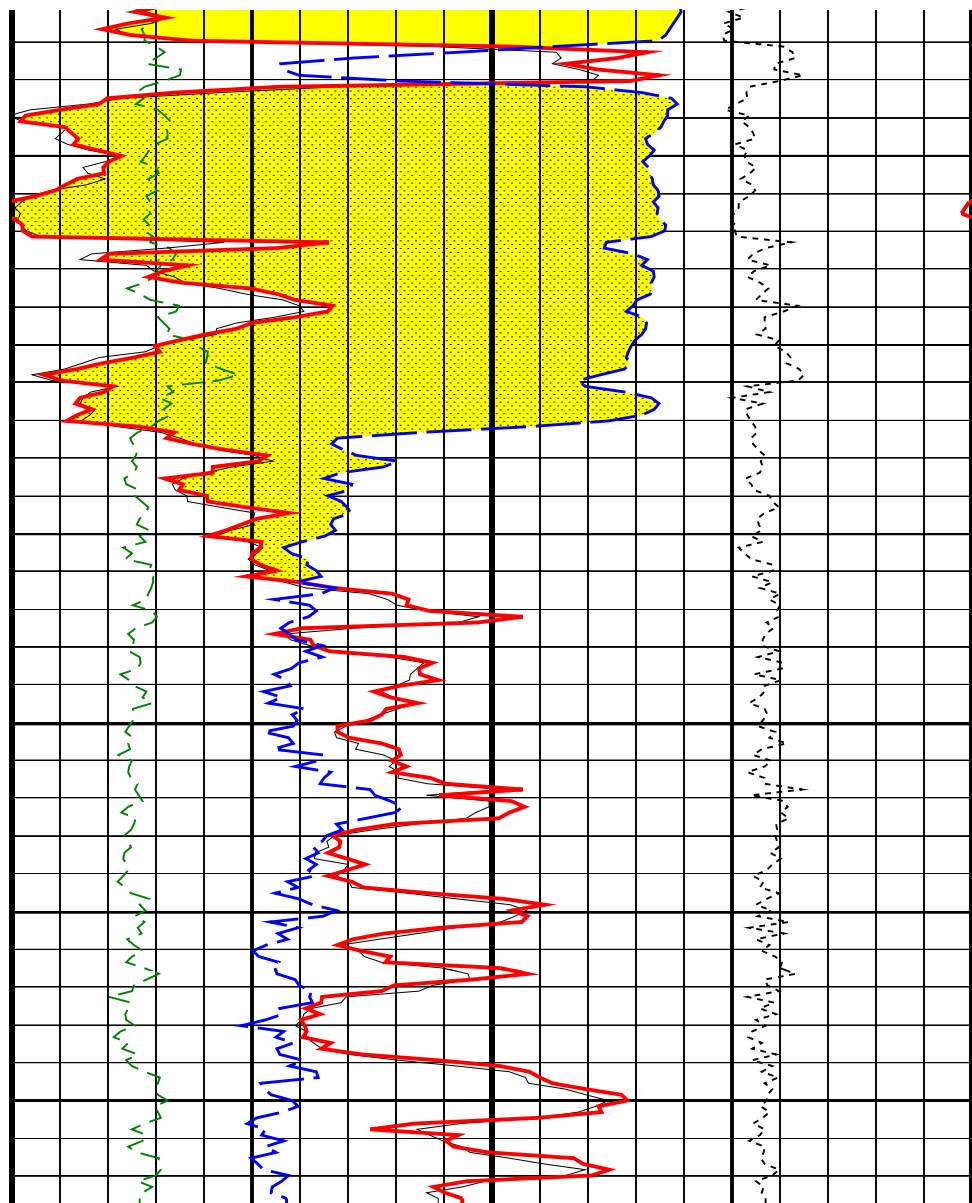
0 200

Horizontal Hole Diameter (HORD) (IN)

6 16

Vertical Hole Diameter (VERD) (IN)

6 16



Bulk Density (RHOB) (G/C3)

1.85 2.85

Photoelectric Factor, Bottom (PEB) (-----)

0 10

Bulk Density (RHOB) (G/C3)

1.85 2.85

Thermal Neutron Porosity (TNPH)

Density Time After Bit (TAB_DEN)

Thermal Neutron Porosity (TNPH)

Density Time After Bit (TAB_DEN)		
0	(HR)	10
RAB Gamma Ray (GR_RAB)		
0	(GAPI)	200
Rate of Penetration, Averaged over Last 5ft (ROP5_RM)		
200	(M/HR)	0

Thermal Neutron Porosity (TNPH)		
45	(PU)	-15
Bulk Density, Bottom (ROBB)		
1.85	(G/C3)	2.85
Gas Area From ROBB to TNPH		

IDEAL Version: ID6_1C_10

IDF

RABid6_1c_10

ADNid6_1c_10

MWD_10

id6_1c_10

True Vertical Depth Log

6.75-in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:

Tool Name and Serial Number

Neutron Logging Source

Density Logging Source

Stabilizer Size

Calibration Status

ADN6 – CA

NSR – M

GSR – J/Z

8.25 – in.

Valid

289

161

2125

Master: 16-NOV-2001 1:40

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	<div><div></div></div>	1325	Master	<div><div></div></div>	3006	Master	<div><div></div></div>	7495
	250.0 (Minimum)4125 (Nominal)8000 (Maximum)			700.0 (Minimum)9350 (Nominal)18000 (Maximum)			2500 (Minimum)23750 (Nominal)45000 (Maximum)	

Master: 16-NOV-2001 1:40

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	<div><div></div></div>	207.4	Master	<div><div></div></div>	1606	Master	<div><div></div></div>	4870
	50.00 (Minimum)725.0 (Nominal)1400 (Maximum)			500.0 (Minimum)4250 (Nominal)8000 (Maximum)			1500 (Minimum)15750 (Nominal)30000 (Maximum)	

Master: 16-NOV-2001 1:40

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	<div><div></div></div>	53.02	Master	<div><div></div></div>	122.8	Master	<div><div></div></div>	539.2
	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: 16-NOV-2001 1:40

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	<div><div></div></div>	1.033	Master	<div><div></div></div>	1.116
	1.011 (Minimum)1.026 (Nominal)1.041 (Maximum)			1.093 (Minimum)1.118 (Nominal)1.143 (Maximum)	

Master: 16-NOV-2001 1:40

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			1.108	Master			-0.7570
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)	-1.200 (Minimum)		-0.9000 (Nominal)	-0.6000 (Maximum)
Phase	Far 1 tube 2 gain		Value	Phase	Far 1 tube 2 offset CPS		Value
Master			1.045	Master			-0.9770
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)	-1.200 (Minimum)		-0.9000 (Nominal)	-0.6000 (Maximum)
Phase	Far 1 tube 3 gain		Value	Phase	Far 1 tube 3 offset CPS		Value
Master			1.070	Master			-0.7650
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)	-1.200 (Minimum)		-0.9000 (Nominal)	-0.6000 (Maximum)
Phase	Far 2 tube 1 gain		Value	Phase	Far 2 tube 1 offset CPS		Value
Master			1.104	Master			-0.7610
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)	-1.200 (Minimum)		-0.9000 (Nominal)	-0.6000 (Maximum)
Phase	Far 2 tube 2 gain		Value	Phase	Far 2 tube 2 offset CPS		Value
Master			0.9970	Master			-0.8130
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)	-1.200 (Minimum)		-0.9000 (Nominal)	-0.6000 (Maximum)
Phase	Far 2 tube 3 gain		Value	Phase	Far 2 tube 3 offset CPS		Value
Master			1.097	Master			-0.7910
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)	-1.200 (Minimum)		-0.9000 (Nominal)	-0.6000 (Maximum)
Phase	Near 1 tube 1 gain		Value				
Master			1.073				
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)				
Phase	Near 2 tube 1 gain		Value				
Master			1.054				
0.9000 (Minimum)		1.100 (Nominal)	1.300 (Maximum)				

6.75--in. Resistivity At-the-Bit / Equipment Identification

Primary Equipment:

Tool Name and Serial Number

RAB6 - CA

125







Calibration Status


Valid

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			1.001	Master			0.9962	Master			1.004
0.9750 (Minimum)				0.9750 (Minimum)				0.9750 (Minimum)			
1.000 (Nominal)				1.000 (Nominal)				1.000 (Nominal)			
1.025 (Maximum)				1.025 (Maximum)				1.025 (Maximum)			
Phase	M0/T2 factor		Value	Phase	M2/T1 factor		Value	Phase	M2/T2 factor		Value
Master			0.9992	Master			0.9975	Master			0.9926
0.9750 (Minimum)				0.9750 (Minimum)				0.9750 (Minimum)			
1.000 (Nominal)				1.000 (Nominal)				1.000 (Nominal)			
1.025 (Maximum)				1.025 (Maximum)				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		0.9987	Master		1.006			
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		1.001	Master		1.005	Master		1.000			
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: Calibration out of date 20-MAY-2001 9:46									
6.75-in. Resistivity At-the-Bit Calibration									
Gamma Ray: Blanket									
Phase		Gamma ray factor						Value	
Master								0.8812	
		0.7500 (Minimum)		1.000 (Nominal)				1.250 (Maximum)	

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Client.....: ESSO Australia Ltd.
Field.....: Tuna

Well.....: WTN-W48 A
API number.....:
Engineer.....: T.Sims

Rig.....: NABORS 453
STATE.....: Victoria

----- 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.....: -61.00 m
KB above permanent.....: 34.70 m
DF above permanent.....: 34.70 m

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

----- Platform reference point-----
Latitude (+N/S-).....: -5.06 m
Departure (+E/W-).....: 55.86 m

Azimuth from rotary table to target: 64.64 degrees

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2000
Magnetic date.....: 31-Dec-2001
Magnetic field strength..: 1200.65 HCNT
Magnetic dec (+E/W-).....: 13.18 degrees
Magnetic dip.....: -68.71 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.02 mGal
Reference H.....: 1200.65 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-).....: 13.18 degrees
Grid convergence (+E/W-)..: -0.86 degrees
Total az corr (+E/W-).....: 14.04 degrees
(Total az corr = magnetic dec - grid conv)
Sag applied (Y/N).....: No degree: 0.00

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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/10m)	Srvy tool type	Tool qual type
1	628.00	25.50	95.71	0.00	607.03	144.98	-32.99	176.08	179.14	100.61	0.00	TIP	-
2	637.42	25.67	90.66	9.42	615.53	148.55	-33.22	180.14	183.17	100.45	2.32	MWD	6-axis
3	665.50	32.04	84.68	28.08	640.11	161.03	-32.59	193.65	196.38	99.55	2.49	MWD	6-axis
4	695.37	33.51	81.07	29.87	665.23	176.39	-30.58	209.69	211.91	98.30	0.82	MWD	6-axis
5	723.88	36.79	76.42	28.51	688.54	192.30	-27.35	225.77	227.42	96.91	1.48	MWD	6-axis
6	751.52	38.73	72.29	27.64	710.40	208.97	-22.78	242.06	243.13	95.38	1.15	MWD	6-axis
7	780.30	38.69	71.34	28.78	732.85	226.83	-17.16	259.16	259.72	93.79	0.21	MWD	6-axis
8	808.87	43.85	69.48	28.57	754.32	245.57	-10.83	276.90	277.11	92.24	1.86	MWD	6-axis
9	837.41	45.97	69.57	28.54	774.53	265.65	-3.78	295.77	295.80	90.73	0.74	MWD	6-axis
10	865.79	48.92	67.80	28.38	793.72	286.50	3.82	315.24	315.26	89.31	1.14	MWD	6-axis
11	893.98	52.42	65.60	28.19	811.59	308.29	12.46	335.26	335.49	87.87	1.38	MWD	6-axis
12	923.17	55.44	63.56	29.19	828.78	331.87	22.59	356.56	357.28	86.38	1.18	MWD	6-axis
13	952.07	59.26	60.72	28.90	844.37	356.18	33.97	378.06	379.58	84.87	1.56	MWD	6-axis
14	980.67	61.56	59.44	28.60	858.49	380.96	46.37	399.61	402.29	83.38	0.89	MWD	6-axis
15	1009.06	62.87	59.54	28.39	871.72	405.98	59.12	421.25	425.38	82.01	0.46	MWD	6-axis
16	1037.57	64.15	59.67	28.51	884.44	431.40	72.03	443.26	449.07	80.77	0.45	MWD	6-axis
17	1066.26	63.79	59.11	28.69	897.03	457.07	85.16	465.45	473.17	79.63	0.22	MWD	6-axis
18	1094.51	63.16	58.43	28.25	909.64	482.21	98.27	487.06	496.87	78.59	0.31	MWD	6-axis
19	1122.19	61.98	59.38	27.68	922.40	506.66	110.95	508.10	520.07	77.68	0.52	MWD	6-axis
20	1150.39	61.14	59.16	28.20	935.83	531.34	123.63	529.41	543.65	76.86	0.31	MWD	6-axis

19	1122.19	61.98	59.38	27.68	922.40	506.66	110.95	508.10	520.07	77.68	0.52	MWD	6-axis
20	1150.39	61.14	59.16	28.20	935.83	531.34	123.63	529.41	543.65	76.86	0.31	MWD	6-axis
21	1178.94	62.03	60.19	28.55	949.41	556.36	136.30	551.09	567.69	76.11	0.44	MWD	6-axis
22	1207.15	63.15	60.28	28.21	962.40	581.33	148.73	572.83	591.82	75.44	0.40	MWD	6-axis
23	1236.27	62.43	59.97	29.12	975.71	607.15	161.63	595.28	616.83	74.81	0.26	MWD	6-axis
24	1265.12	62.15	59.81	28.85	989.13	632.60	174.45	617.38	641.55	74.22	0.11	MWD	6-axis
25	1293.99	61.08	59.79	28.87	1002.85	657.91	187.22	639.33	666.18	73.68	0.37	MWD	6-axis
26	1323.58	61.56	59.93	29.59	1017.05	683.78	200.26	661.78	691.41	73.16	0.17	MWD	6-axis
27	1351.66	61.96	60.22	28.08	1030.34	708.44	212.60	683.22	715.53	72.72	0.17	MWD	6-axis
28	1380.99	62.87	60.44	29.33	1043.92	734.36	225.47	705.80	740.94	72.28	0.32	MWD	6-axis
29	1410.08	62.26	60.33	29.09	1057.32	760.10	238.22	728.25	766.22	71.89	0.21	MWD	6-axis
30	1439.00	62.01	60.44	28.92	1070.84	785.60	250.86	750.48	791.29	71.52	0.09	MWD	6-axis

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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/10m)	Srvy tool type	Tool qual type
31	1468.28	60.88	60.22	29.28	1084.84	811.25	263.59	772.82	816.54	71.17	0.39	MWD	6-axis
32	1496.90	62.33	59.64	28.62	1098.45	836.34	276.20	794.61	841.25	70.83	0.54	MWD	6-axis
33	1525.62	63.33	59.19	28.72	1111.56	861.78	289.21	816.61	866.31	70.50	0.38	MWD	6-axis
34	1554.18	62.76	59.51	28.56	1124.51	887.13	302.18	838.51	891.30	70.18	0.22	MWD	6-axis
35	1583.01	62.03	59.58	28.83	1137.87	912.58	315.13	860.53	916.42	69.89	0.25	MWD	6-axis
36	1612.06	62.03	59.85	29.05	1151.49	938.14	328.07	882.68	941.68	69.61	0.08	MWD	6-axis
37	1641.08	63.64	58.36	29.02	1164.74	963.84	341.33	904.84	967.08	69.33	0.72	MWD	6-axis
38	1670.28	63.05	58.63	29.20	1177.84	989.78	354.97	927.09	992.72	69.05	0.22	MWD	6-axis
39	1699.28	62.23	58.75	29.00	1191.17	1015.40	368.35	949.09	1018.07	68.79	0.29	MWD	6-axis
40	1728.42	62.83	59.01	29.14	1204.61	1041.12	381.71	971.23	1043.54	68.54	0.22	MWD	6-axis
41	1757.48	62.30	59.03	29.06	1218.00	1066.79	394.99	993.34	1068.99	68.32	0.18	MWD	6-axis
42	1785.41	61.38	59.30	27.93	1231.18	1091.30	407.61	1014.48	1093.31	68.11	0.34	MWD	6-axis
43	1814.52	61.98	59.01	29.11	1244.99	1116.81	420.75	1036.48	1118.63	67.91	0.22	MWD	6-axis
44	1843.43	61.56	59.12	28.91	1258.66	1142.16	433.84	1058.33	1143.80	67.71	0.15	MWD	6-axis
45	1871.96	62.19	59.37	28.53	1272.11	1167.21	446.71	1079.95	1168.69	67.53	0.23	MWD	6-axis
46	1900.95	61.63	59.56	28.99	1285.76	1192.68	459.70	1101.98	1194.02	67.36	0.20	MWD	6-axis
47	1929.89	62.51	59.14	28.94	1299.32	1218.14	472.74	1123.98	1219.35	67.19	0.33	MWD	6-axis
48	1958.60	61.74	59.42	28.71	1312.74	1243.41	485.70	1145.79	1244.49	67.03	0.28	MWD	6-axis
49	1987.71	62.93	59.29	29.11	1326.26	1269.08	498.85	1167.98	1270.04	66.87	0.41	MWD	6-axis
50	2016.29	62.64	59.41	28.58	1339.33	1294.39	511.80	1189.84	1295.25	66.73	0.11	MWD	6-axis
51	2045.59	61.94	59.77	29.30	1352.95	1320.23	524.93	1212.21	1320.99	66.59	0.26	MWD	6-axis
52	2074.80	63.76	59.47	29.21	1366.28	1346.12	538.08	1234.63	1346.79	66.45	0.63	MWD	6-axis
53	2103.81	63.69	60.18	29.01	1379.12	1372.04	551.15	1257.12	1372.63	66.33	0.22	MWD	6-axis
54	2130.96	62.44	60.29	27.15	1391.42	1396.17	563.17	1278.13	1396.70	66.22	0.46	MWD	6-axis
55	2160.05	63.95	59.90	29.09	1404.54	1422.05	576.11	1300.64	1422.52	66.11	0.53	MWD	6-axis
56	2189.53	64.50	59.77	29.48	1417.36	1448.51	589.45	1323.59	1448.91	65.99	0.19	MWD	6-axis
57	2218.85	65.72	59.79	29.32	1429.70	1475.01	602.84	1346.57	1475.35	65.88	0.42	MWD	6-axis
58	2243.88	66.47	59.87	25.03	1439.84	1497.81	614.34	1366.35	1498.11	65.79	0.30	MWD	6-axis
59	2268.00	66.50	59.90	24.12	1449.46	1519.85	625.44	1385.49	1520.11	65.70	0.02	MWD	Projection

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Company: ESSO Australia Ltd.

Well: WTN-W48 A

Field: Tuna

Rig: NABORS 453

State: Victoria

IDEAL services from Anadrill

VISION Density Neutron
1 : 200 True Vertical Depth
Recorded Mode

Schlumberger

