



<div> <div>  </div> <div> <div>  </div> <div> DGR Dual Gamma Ray EWR Electromagnetic Wave Resistivity CTN Compensated Thermal Neutron ALD Azimuthal Lithodensity BAT Bi-Modal Acoustic </div> </div> </div>									
<div> <div> <div>1 : 500</div> <div>Sperry Drilling Services</div> </div> </div>									
<div> <div> <div>Country : Australia</div> <div>Field : Trefoil</div> <div>Location : Lat: 39° 53' 7.93" South GDA94 Long: 145° 22' 14.62" East GDA94</div> <div>Well : Trefoil-2</div> <div>Company : Origin Energy Resources Ltd</div> <div>Rig : Kan Tan IV</div> </div> <div> <div> <div>Company : Origin Energy Resources Ltd</div> <div>Rig : Kan Tan IV</div> <div>Well : Trefoil-2</div> <div>Field : Trefoil</div> <div>Country : Australia</div> <div>DOE Number :</div> </div> <div> <div>LOCATION</div> <div> <div>Latitude : Lat: 39° 53' 7.93" South GDA94</div> <div>Longitude : Long: 145° 22' 14.62" East GDA94</div> <div>UTM Easting = 360,690.38 m</div> <div>UTM Northing = 5,583,676.58 m</div> </div> <div>Other Services Directional Drilling</div> </div> </div> </div>									
<div> <div> <div>Permanent Datum : Mean Sea Level</div> <div>Elevation : 0.00 m</div> </div> <div> <div>Log Measured From : Drill Floor</div> <div>26.00 m Above Permanent Datum</div> <div>MD LOG</div> </div> <div> <div>Drilling Measured From : Drill Floor</div> <div>Elev. KB DF 26.00 m GL WD 69.00 m</div> </div> </div>									
<div> <div> <div>Depth Logged : 155.00 m To 3,235.00 m</div> <div>Date Logged : 03-Oct-09 To 05-Oct-09</div> <div>Total Depth MD : 3,235.00 m TVD : 3,233.99 m</div> <div>Spud Date : 06-Oct-09</div> </div> <div> <div>Unit No. : SSH-40</div> <div>Plot Type : Final</div> <div>Plot Date : 09-Dec-09</div> </div> <div> <div>Job No. : AU-FE-0006714148</div> </div> </div>									
<div> <div> <div>Run No.</div> <div>Size</div> <div>From</div> <div>To</div> </div> <div> <div>Borehole Record (MD)</div> <div>Run No.</div> <div>Size</div> <div>From</div> <div>To</div> </div> <div> <div>Borehole Record (MD)</div> <div>Run No.</div> <div>Size</div> <div>From</div> <div>To</div> </div> </div>									
<div> <div> <div>100</div> <div>445,000 mm</div> <div>155.00 m</div> <div>935.00 m</div> </div> <div> <div>200</div> <div>311,000 mm</div> <div>935.00 m</div> <div>2,271.00 m</div> </div> <div> <div>300</div> <div>311,000 mm</div> <div>2,271.00 m</div> <div>2,520.00 m</div> </div> <div> <div>400</div> <div>216,000 mm</div> <div>2,520.00 m</div> <div>2,633.00 m</div> </div> <div> <div>500</div> <div>216,000 mm</div> <div>2,633.00 m</div> <div>2,983.00 m</div> </div> <div> <div>600</div> <div>216,000 mm</div> <div>2,983.00 m</div> <div>3,145.00 m</div> </div> <div> <div>700</div> <div>216,000 mm</div> <div>3,145.00 m</div> <div>3,235.00 m</div> </div> </div>									
<div> <div> <div>Size</div> <div>Weight</div> <div>From</div> <div>To</div> </div> <div> <div>Casing Record (MD)</div> <div>Size</div> <div>Weight</div> <div>From</div> <div>To</div> </div> </div>									
<div> <div> <div>30,000 in</div> <div>458.00 kgpm</div> <div>95.00 m</div> <div>143.00 m</div> </div> <div> <div>101.00 kgpm</div> <div>95.00 m</div> <div>930.00 m</div> <div>930.00 m</div> </div> <div> <div>13.375 in</div> <div>70.00 kgpm</div> <div>95.00 m</div> <div>2,520.00 m</div> </div> </div>									

WELL INFORMATION					
MWD Run Number	100	200	300	400	500
Date run completed	11-Oct-09	20-Oct-09	22-Oct-09	09-Nov-09	12-Nov-09
Rig Bit Number	2	3	4	6	7
Bit Size (mm)	445	311	311	216	216
Tool Nominal OD (in)	241	203	203	171	171
Log Start Depth (MD, m)	155.00	935.00	2,271.00	2,520.00	2,633.00
Log End Depth (MD, m)	935.00	2,271.00	2,520.00	2,633.00	2,983.00
Drill or Wipe	Drilling	Drilling	Drilling	Drilling	Drilling
Drill/Wipe Start Date and Time	08-Oct-09 18:33	15-Oct-09 15:53	20-Oct-09 23:21	08-Nov-09 12:18	10-Nov-09 10:17
Drill/Wipe End Date and Time	10-Oct-09 06:17	19-Oct-09 05:33	21-Oct-09 18:43	09-Nov-09 02:33	11-Nov-09 20:16
Min Inc (deg) @ Depth (MD, m)	0 @ 95.00	0.30 @ 868.19	0.62 @ 2,253.19	1.00 @ 2,524.750	1.43 @ 2,646.630
Max Inc (deg) @ Depth (MD, m)	1.03 @ 896.77	1.44 @ 1,500.56	1.08 @ 2,426.57	1.30 @ 2,588.200	2.93 @ 2,963.220
Bit TFA(in2) / Bit Type	1.24 / Smith XR+VCPS	1.04 / Reed RSX616M	1.04 / Reed RSX616M	0.90 / Smith Mi16VBPX	0.90 / Smith Mi16VBPX
Flow Rate (gpm)	1,157	1,000	949	725	702.00
Max AV (mps) / CV (mps) @ MWD	0.7 / 0.9	1.7 / 2.0	1.5 / 2.1	3.4 / 2.4	3.5 / 2.3
Fluid Type	Sea Water	KCL/Polymer	KCL/Polymer	KCI/Polymer	KCI/Polymer
Density (ppg) / Viscosity (spqt)	8.76 / N/A	9.10 / 50.00	9.40 / 56.00	9.30 / 48.00	9.30 / 46.00
Filtrate CL (ppm)	N/A	38,000	44,000	42,500	40,000
pH / Fluid Loss (mptm)	N/A / N/A	9.00 / 4.4	9.00 / 3.8	9.00 / 4.0	9.00 / 4
PV (cP) / YP (Ihf2)	N/A / N/A	15 / 27.00	16 / 32.00	12 / 27.00	14 / 25.00
% Solids / % Sand	0 / 0	2.9 / 0.25	4.0 / 0.25	3.2 / 0.25	3.3 / 0.25
% Oil / Oil:Water Ratio	0 / 0:100	0 / 0:100	0 / 0:100	0 / 0:100	0 / 0:100
Rm @ Measured Temp (degC)	N/A @ N/A	0.04 @ 17.80	0.08 @ 23.30	0.07 @ 19.80	0.07 @ 25.60
Rmf @ Measured Temp (degC)	N/A @ N/A	0.03 @ 17.80	0.06 @ 21.70	0.08 @ 21.00	0.06 @ 26.70
Rmc @ Measured Temp (degC)	N/A @ N/A	0.08 @ 16.70	0.18 @ 22.20	0.04 @ 21.00	0.09 @ 25.60
Max Tool Temp (degC) / Source	21.10 / PCM	65.30 / EWR-P4	86.70 / EWR-P4	96.00 / EWR-P4	101.00 / EWR-P4
Rm @ Max Tool Temp (degC)	N/A @ N/A	0.02 @ 65.30	0.03 @ 86.70	0.02 @ 96.00	0.04 @ 101.00
Lead MWD Engineer	J. Lau	J. Lau	J. Lau	T. Osborne	T. Osborne
Customer Representative	J. McGarrity	J. McGarrity	J. McGarrity	B. Houston	B. Houston

SENSOR INFORMATION

Downhole Processor Information					
Tool Type	PCM	HCIM	HCIM	HCIM	HCIM
Software Version	5.28	88.20	88.20	88.20	88.20
Sub Serial Number	46811	245814	245814	222936	232754
Insert Serial Number	11226946	103485	103485	10911832	10943320
Date and Time Initialized	07-Oct-09 08:43	15-Oct-09 05:03	20-Oct-09 11:04	08-Nov-09 01:56	09-Nov-09 22:44
Date and Time Read	11-Oct-09 02:33	12-Oct-09 05:27	22-Oct-09 09:34	09-Nov-09 12:21	12-Nov-09 08:34
ECMB SW Version	N/A	N/A	N/A	N/A	N/A

Directional Sensor Information					
Tool Type	PCDC	PCDC	PCDC	PCDC	PCDC
Distance From Bit (m)	7.760	19.760	19.760	10.022	10.070
Software Version	6.09	6.09	6.09	6.09	6.09
Sub Serial Number	46811	246906	246907	194443	1025744
Sonde Serial Number	300348	300348	300454	300351	300348
Sensor ID Number	10993464	10993464	11062084	10993467	10993464
Toolface Offset (deg)	N/A	49.40	311.11	N/A	N/A

Gamma Ray Sensor Information					
Tool Type	PCG	DGR	DGR	DGR	DGR
Distance From Bit (m)	5.621	12.340	12.340	2.806	2.830
Recorded Sample Period (sec)	10	10	10	10	10
Software Version	8.11	N/A	N/A	N/A	N/A
Sub Serial Number	46811	11158407	11158407	218750	176027
Insert/Sonde Serial Number	PCGR624	263664	263664	254375	126021

Resistivity Sensor Information					
Tool Type		EWR-P4	EWR-P4	EWR-P4	EWR-P4
Distance From Bit (m)		14.810	14.810	5.160	5.170
Recorded Sample Period (sec)		12	10	10	10
Software Version		1.50	1.50	1.50	1.50
Sub Serial Number		11131559	11131559	175801	270277
Receiver Insert Serial Number		11079093	11079093	113356	261331
Transmitter Insert Serial Number		11072204	11072204	225155	11194015
Receiver Orientation		Down	Down	Down	Down

Neutron Sensor Information					
Tool Type				CTN	CTN
Distance From Bit (m)				18.830	19.640
Recorded Sample Period (sec)				14	14
Sub Serial Number				161970	231177
Insert Serial Number				175364	230786
Source Serial Number				0102NN	0102NN
Source Factor				N/A	N/A
Pin Orientation				Up	Up

Density Sensor Information					
Tool Type				ALD	ALD
Distance From Bit (m)				14.845	15.590
Recorded Sample Period (sec)				14	14
Software Version				3.04	3.04
Sub Serial Number				96441	10507525
Insert Serial Number				240578	10718194
Sensor ID Number				12055	32033
Source Serial Number				2434GW	39382B
Pin Orientation				Up	Up
Stabilizer Blade O.D. (mm)				209.6	209.6
DPA Offset				0	0

Caliper Sensor Information					
Tool Type				ACAL	ACAL
Distance From Bit (m)				30.200	31.020

Software Version				0.19	0.19
Sub Serial Number				138159	123087
Insert Serial Number				132768	113327

Sonic Sensor Information					
Tool Type				BAT	BAT
Distance From Bit (m)				23.365	24.200
Recorded Sample Period (sec)				18	18
Sub Serial Number				11378930	11378929
Receiver Insert Serial Number				11215928	11215930
Transmitter Insert Serial Number				11215907	133714
MIT File				QBAT_ggss_d11_q	QBAT_ggss_d11_q
Config File				R5Listen_512_DS	R5Listen_512_DS
Real-Time Window (uspf)	-	-	-	75 - 110	75 - 110
Battery Insert Serial Number				231589	157179
MCM Software Version				20.02	20.02
DAQ1/DAQ2 Software Version	/	/	/	20.01 / 20.01	20.01 / 20.01
DSM Software Version				36.65	36.65

Pulser Controller Sensor Information					
Tool Type	PCM	PCM	PCM	PCM	PCM
Software Version	5.28	8.04	8.04	8.04	8.04
PIC Software Version	1.20 /	1.20 /	1.20 /	1.20 /	1.20 /
Sub/HOC Serial Number	46811	246906	246907	203846	302842
Insert/Probe/Module SN	11226946	11226946	10921470	10921384	11226946
Battery Serial Number	N/A	N/A	N/A	N/A	N/A
Valve Insert SN	N/A	N/A	N/A	N/A	N/A
DC Insert Serial Number	N/A	N/A	N/A	N/A	N/A
Choke Size (32nd)	N/A	N/A	N/A	N/A	N/A
Driver Current (uA)	N/A	N/A	N/A	N/A	N/A
Driver SMI Current (uA)	N/A	N/A	N/A	N/A	N/A
Boot Strap Version	1022	1022	1022	1022	1022

DDSr-DGR Sensor Information					
Tool Type		DDSr-DGR	DDSr-DGR	DDSr-DGR	DDSr-DGR
Distance From Bit (m)		0	0	0	0
Recorded Sample Period (sec)		12	12	12	12
Software Version		10.49	10.49	10.49	10.49
Sub Serial Number		11158407	11158407	218750	176027
Insert Serial Number		263664	263664	254375	126021
Sensor ID Number		5970	5970	5729	6261

WELL INFORMATION					
MWD Run Number	600	700			
Date run completed	15-Nov-09	18-Nov-09			
Rig Bit Number	9	11			
Bit Size (mm)	216	216			
Tool Nominal OD (in)	171	171			
Log Start Depth (MD, m)	2,983.000	3,145.000			
Log End Depth (MD, m)	3,145.000	3,235.000			
Drill or Wipe	Wipe/Drilling	Wipe/Drilling			
Drill/Wipe Start Date and Time	14-Nov-09 07:40	17-Nov-09 17:44			
Drill/Wipe End Date and Time	15-Nov-09 01:25	18-Nov-09 03:09			
Min Inc (deg) @ Depth (MD, m)	2.88 @ 2,992.320	3.79 @ 3,167.650			
Max Inc (deg) @ Depth (MD, m)	3.75 @ 3,130.210	4.33 @ 3,223.600			
Bit TFA(in2) / Bit Type	0.90 / Smith Mi16VBPX	0.90 / Smith Mi16VBPX			
Flow Rate (gpm)	725	681			
Max AV (mps) / CV (mps) @ MWD	3.4 / 2.5	3.3 / 2.5			
Fluid Type	KCl/Polymer	KCl/Polymer			
Density (ppg) / Viscosity (spqt)	9.40 / 50.00	9.40 / 56.00			
Filtrate CL (ppm)	40,000	38,000			
pH / Fluid Loss (mptm)	9.00 / 5	9.00 / 5			
PV (cP) / YP (lhf2)	12 / 29.00	14 / 29.00			
% Solids / % Sand	2.5 / 25	2.6 / 25			

% Solids / % Sand	3.5 / .25	3.6 / 0.25			
% Oil / Oil:Water Ratio	0 / 0:100	0 / 0:100			
Rm @ Measured Temp (degC)	.12 @ 22.20	.11 @ 21.50			
Rmf @ Measured Temp (degC)	.10 @ 21.10	.10 @ 21.00			
Rmc @ Measured Temp (degC)	.18 @ 24.40	.16 @ 23.80			
Max Tool Temp (degC) / Source	109.30 / EWR-P4	112.90 / EWR-P4			
Rm @ Max Tool Temp (degC)	.05 @ 109.30	.04 @ 112.90			
Lead MWD Engineer	J. Lau	J. Lau			
Customer Representative	B. Houston	B. Houston			

SENSOR INFORMATION

Downhole Processor Information

Tool Type	HCIM	HCIM			
Software Version	88.20	88.20			
Sub Serial Number	232754	232754			
Insert Serial Number	10943320	10943320			
Date and Time Initialized	13-Nov-09 19:00	16-Nov-09 21:13			
Date and Time Read	15-Nov-09 12:04	18-Nov-09 16:24			
ECMB SW Version	N/A	N/A			

Directional Sensor Information

Tool Type	PCDC	PCDC			
Distance From Bit (m)	10.070	10.070			
Software Version					
Sub Serial Number	1025744	1025744			
Sonde Serial Number	300348	300348			
Sensor ID Number	10993464	10993464			
Toolface Offset (deg)	N/A	N/A			

Gamma Ray Sensor Information

Tool Type	DGR	DGR			
Distance From Bit (m)	2.830	2.830			
Recorded Sample Period (sec)	10	10			
Software Version	N/A	N/A			
Sub Serial Number	176027	176027			
Insert/Sonde Serial Number	126021	126021			

Resistivity Sensor Information

Tool Type	EWR-P4	EWR-P4			
Distance From Bit (m)	5.170	5.170			
Recorded Sample Period (sec)	10	10			
Software Version	1.50	1.50			
Sub Serial Number	270277	270277			
Receiver Insert Serial Number	261331	261331			
Transmitter Insert Serial Number	11194015	11194015			
Receiver Orientation	Down	Down			

Neutron Sensor Information

Tool Type	CTN	CTN			
Distance From Bit (m)	19.640	19.640			
Recorded Sample Period (sec)	14	14			
Sub Serial Number	231177	231177			
Insert Serial Number	230786	230786			
Source Serial Number	0102NN	0102NN			
Source Factor	N/A	N/A			
Pin Orientation	Up	Up			

Density Sensor Information

Tool Type	ALD	ALD			
Distance From Bit (m)	15.590	15.590			
Recorded Sample Period (sec)	14	14			

Software Version	3.04	3.04			
Sub Serial Number	10507525	10507525			
Insert Serial Number	10718194	10718194			
Sensor ID Number	32033	32033			
Source Serial Number	39382B	39382B			
Pin Orientation	Up	Up			
Stabilizer Blade O.D. (mm)	209.6	209.6			
DPA Offset	0	0			

Caliper Sensor Information					
Tool Type	ACAL	ACAL			
Distance From Bit (m)	31.020	31.020			
Software Version	0.19	0.19			
Sub Serial Number	123087	123087			
Insert Serial Number	113327	113327			

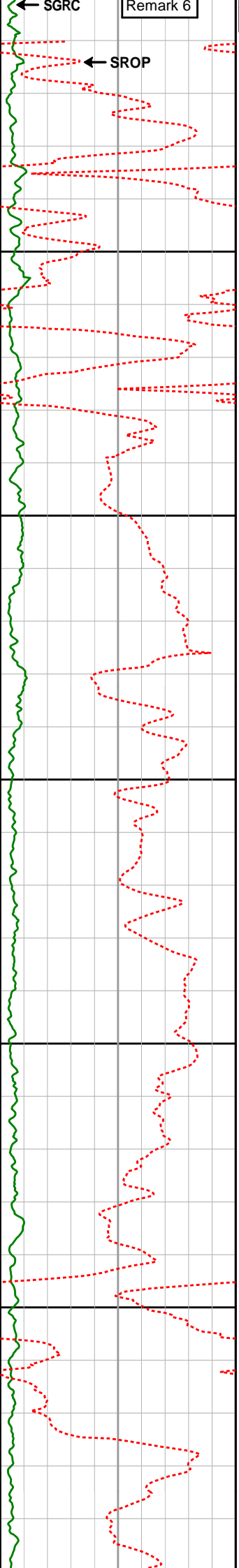
Sonic Sensor Information					
Tool Type	BAT	BAT			
Distance From Bit (m)	24.200	24.200			
Recorded Sample Period (sec)	18	18			
Sub Serial Number	11378929	11378929			
Receiver Insert Serial Number	11215930	11215930			
Transmitter Insert Serial Number	133714	133714			
MIT File	QBAT_ggss_m12_m	QBAT_ggss_m12_m			
Config File	R5Listen_512_DS	R5Listen_512_DS			
Real-Time Window (uspf)	75 - 110	75 - 110			
Battery Insert Serial Number	157179	157179			
MCM Software Version	20.02	20.02			
DAQ1/DAQ2 Software Version	20.01 / 20.01	20.01 / 20.01			
DSM Software Version	36.65	36.65			

Pulser Controller Sensor Information					
Tool Type	PCM	PCM			
Software Version	8.04	8.04			
PIC Software Version	1.20 /	1.20 /			
Sub/HOC Serial Number	302842	302842			
Insert/Probe/Module SN	11226946	11226946			
Battery Serial Number	N/A	N/A			
Valve Insert SN	N/A	N/A			
DC Insert Serial Number	N/A	N/A			
Choke Size (32nd)	N/A	N/A			
Driver Current (uA)	N/A	N/A			
Driver SMI Current (uA)	N/A	N/A			
Boot Strap Version	1022	1022			

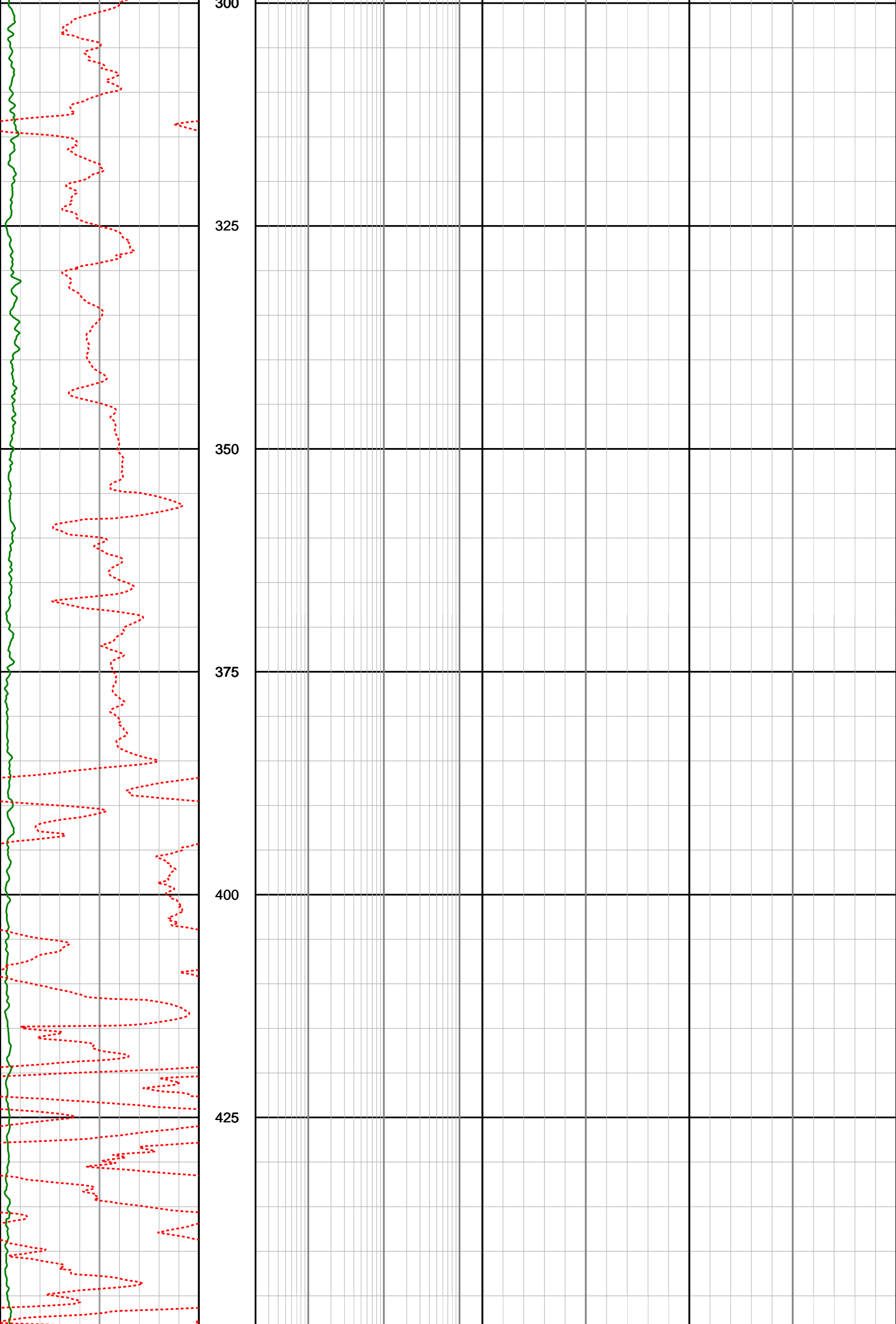
DDSr-DGR Sensor Information					
Tool Type	DDSr-DGR	DDSr-DGR			
Distance From Bit (m)	0	0			
Recorded Sample Period (sec)	12	12			
Software Version	10.49	10.49			
Sub Serial Number	176027	176027			
Insert Serial Number	126021	126021			
Sensor ID Number	6261	6261			

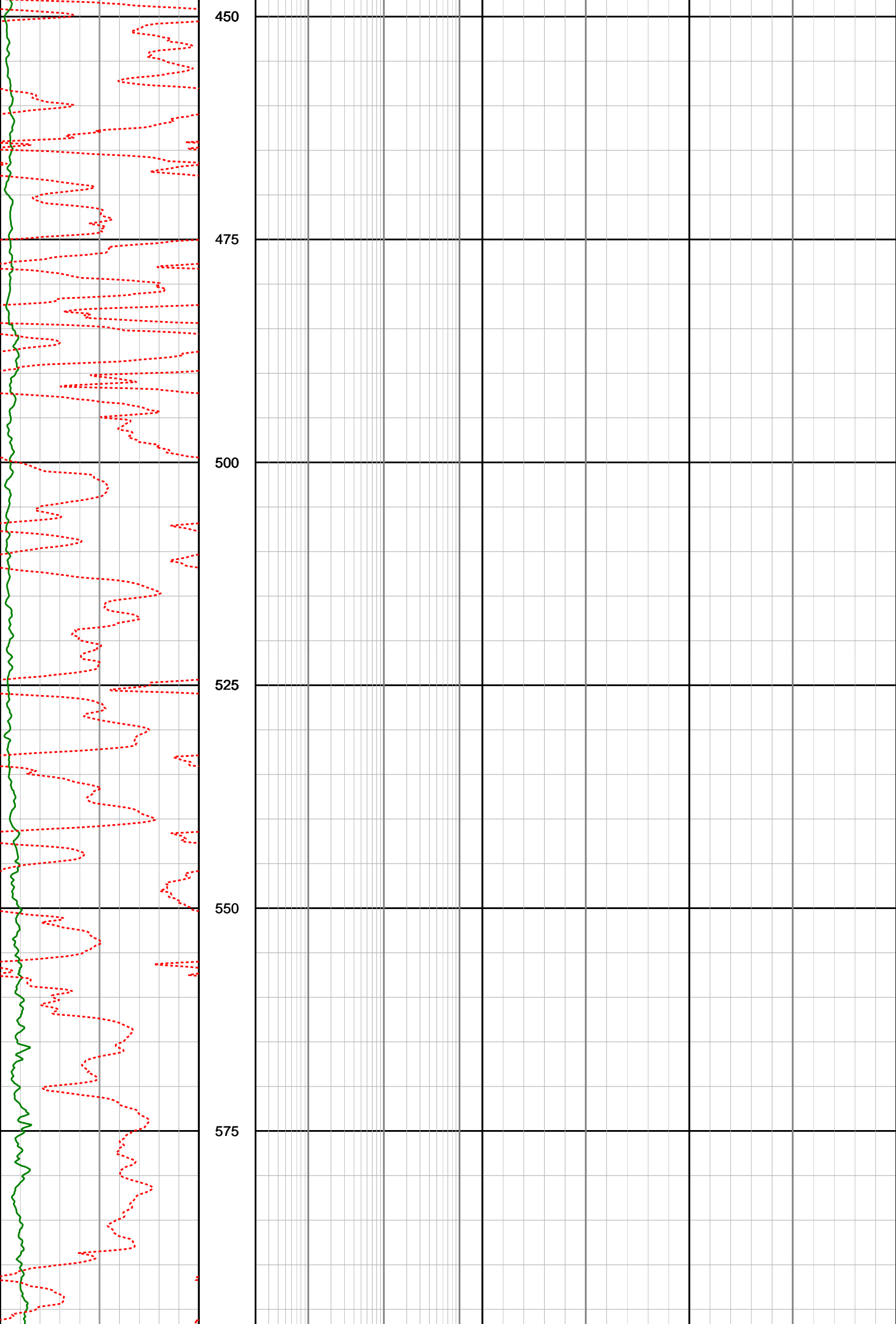
REMARKS					
1. All depths are bit depths and referenced to the drillers pipe tally. 2. AV/CV is calculated at the MWD collar using the Power Law for water based mud. 3. Curve Mnemonics are: ACAL - Smoothed Acoustic Caliper, in SR0P - Smoothed Rate of Penetration, m/hr SGRC - Smoothed Gamma Ray Combined, api SEDP - Smoothed Deep Phase-Shift Derived Resistivity, ohm-m					

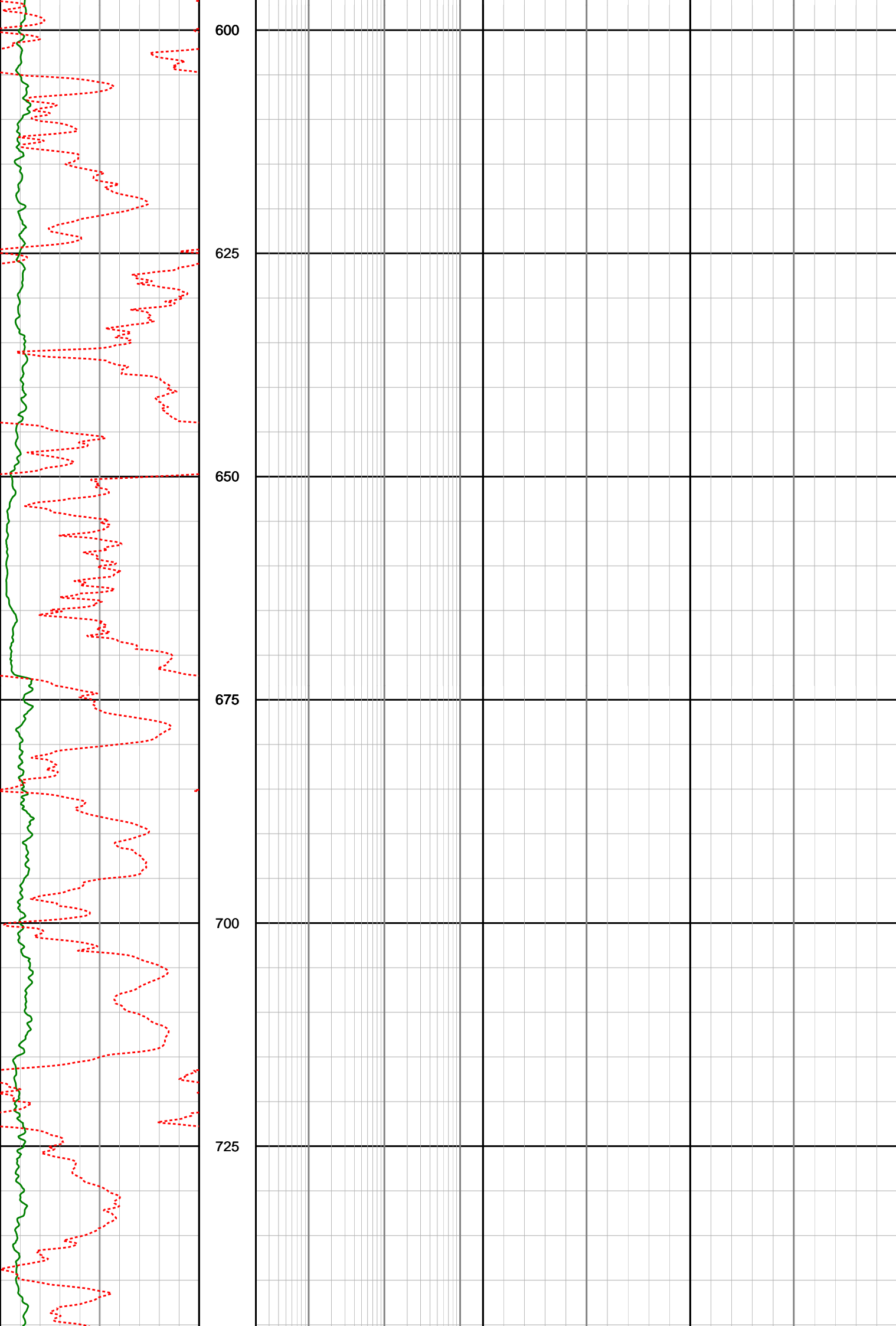
<div> <div>Acoustic Caliper (ACAL)</div> <div>6 inches</div> <div>Rate of Penetration (SROP)</div> <div>100 m/hr</div> <div>Gamma Ray (SGRC)</div> <div>0 api</div> </div>		<div> <div>Deep Phase Res (SEDP)</div> <div>0.2 ohmm</div> </div>			
		<div> <div>Medium Phase Res (SEMP)</div> <div>0.2 ohmm</div> </div>		<div> <div>Best Bin Delta Rho (SCO2)</div> <div>-0.75 0.25</div> </div>	
		<div> <div>Shallow Phase Res (SESP)</div> <div>0.2 ohmm</div> </div>		<div> <div>Best Bin Bulk Density (SBD2)</div> <div>1.95 2.95</div> </div>	
		<div> <div>X-Shallow Phase Res (SEXP)</div> <div>0.2 ohmm</div> </div>		<div> <div>Neutron Porosity (TNPL)</div> <div>0.45 -0.15</div> </div>	
<div> <div>Depth MD</div> <div>1 : 500</div> </div>		<div> <div>Comp Slowness (BATC)</div> <div>140 400</div> </div>		<div> <div>Photoelectric Effect (SNP2)</div> <div>0 b/e</div> </div>	
<div> <div>150</div> </div>					

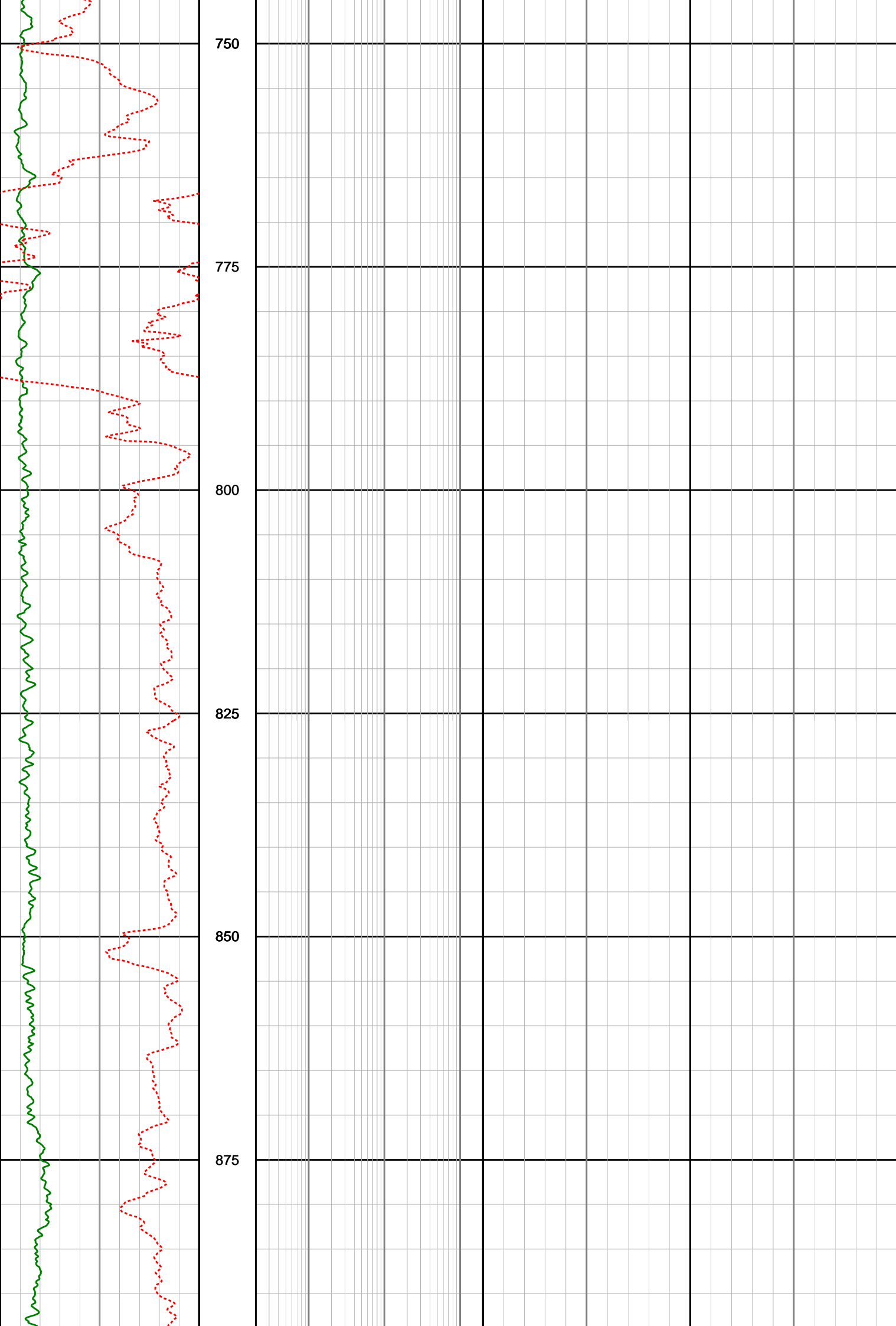


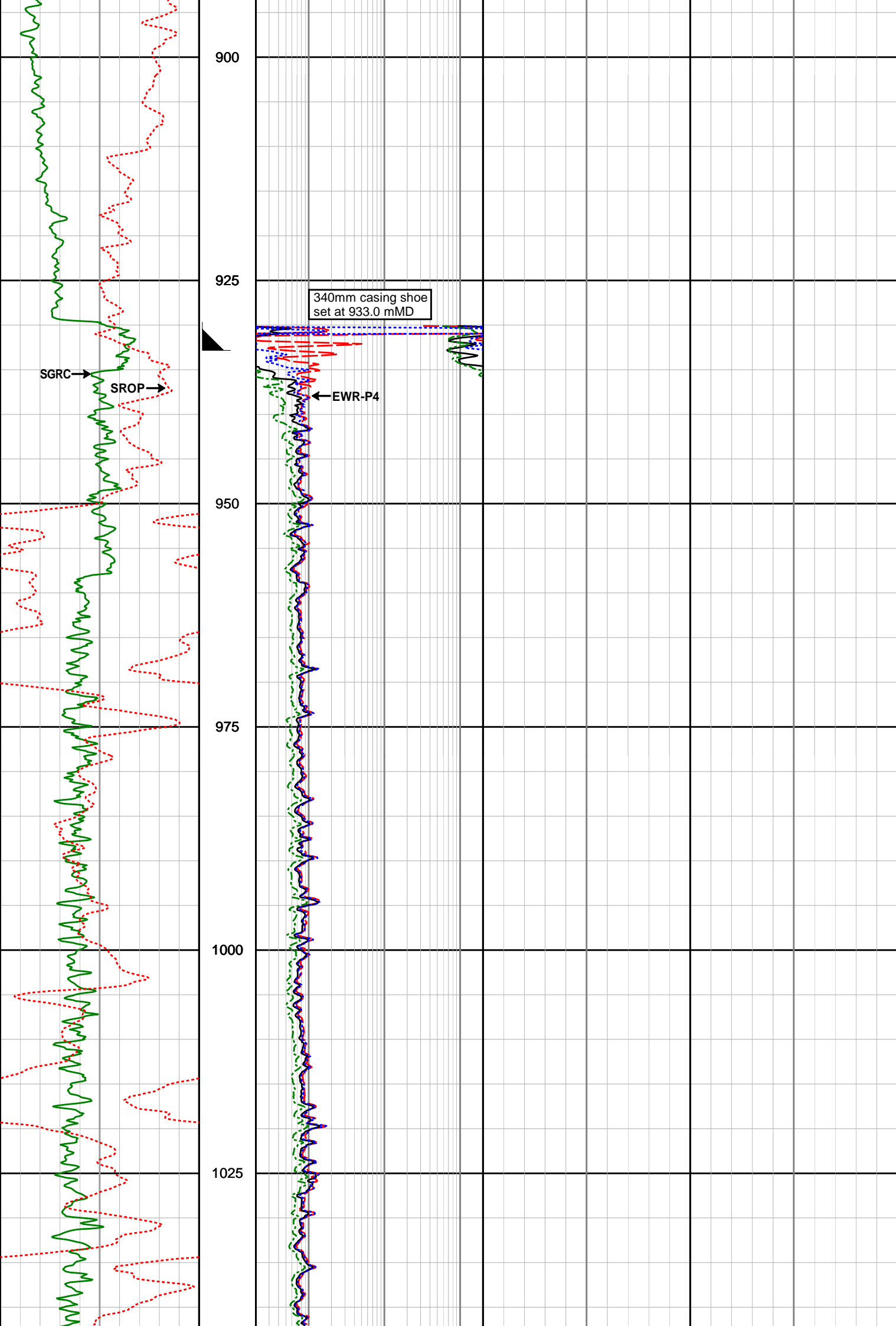
762mm casing shoe
set at 153.0 mMD

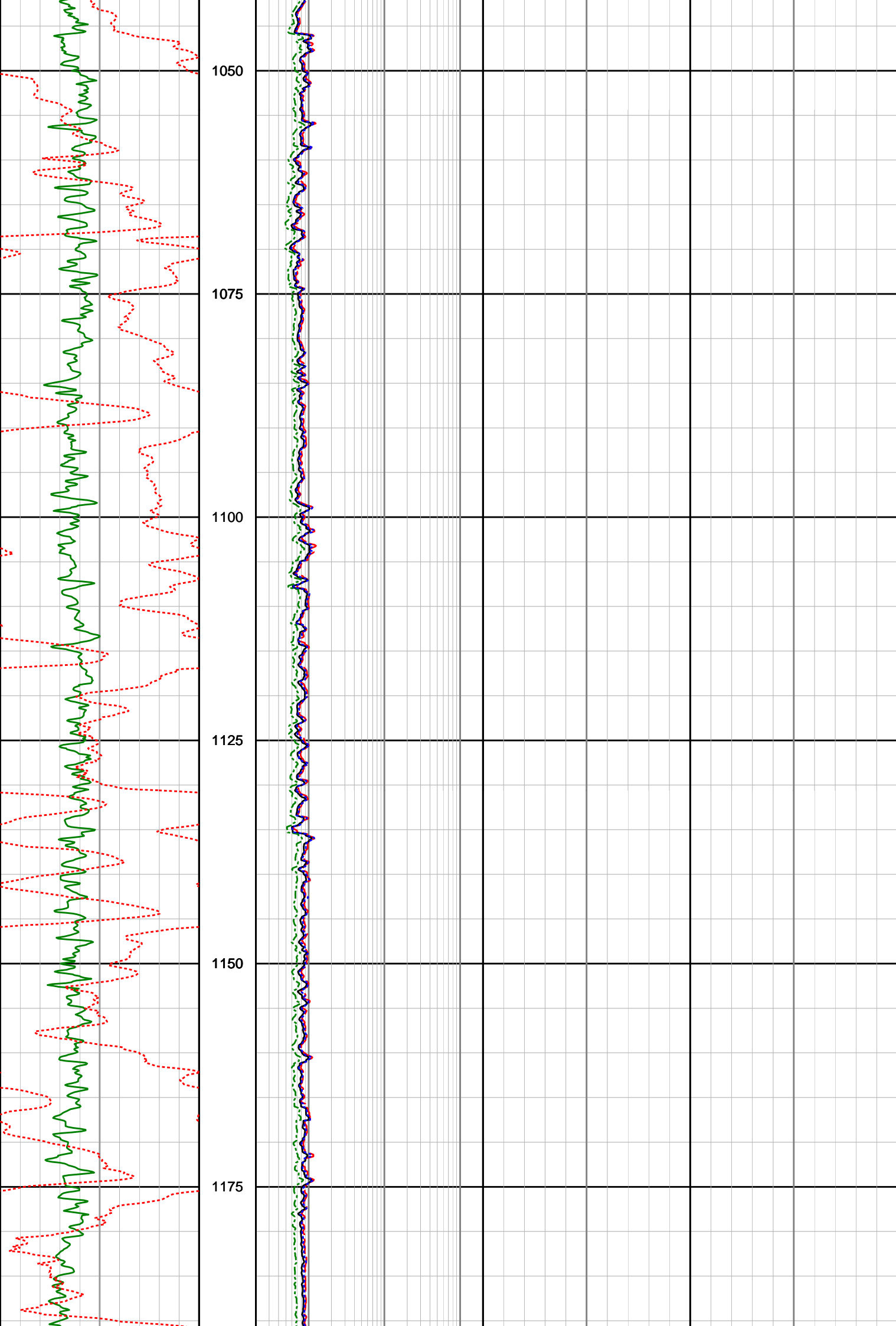


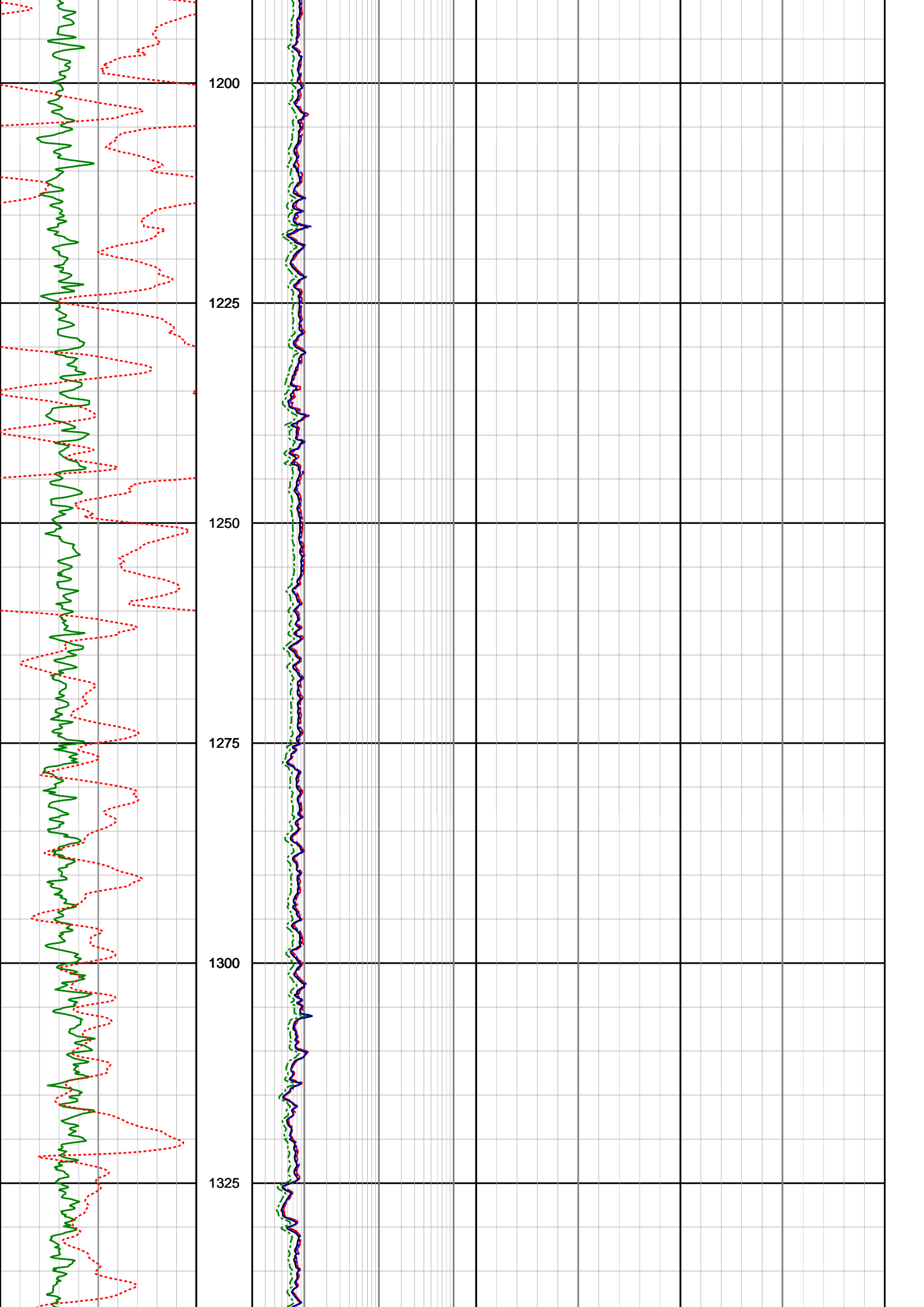


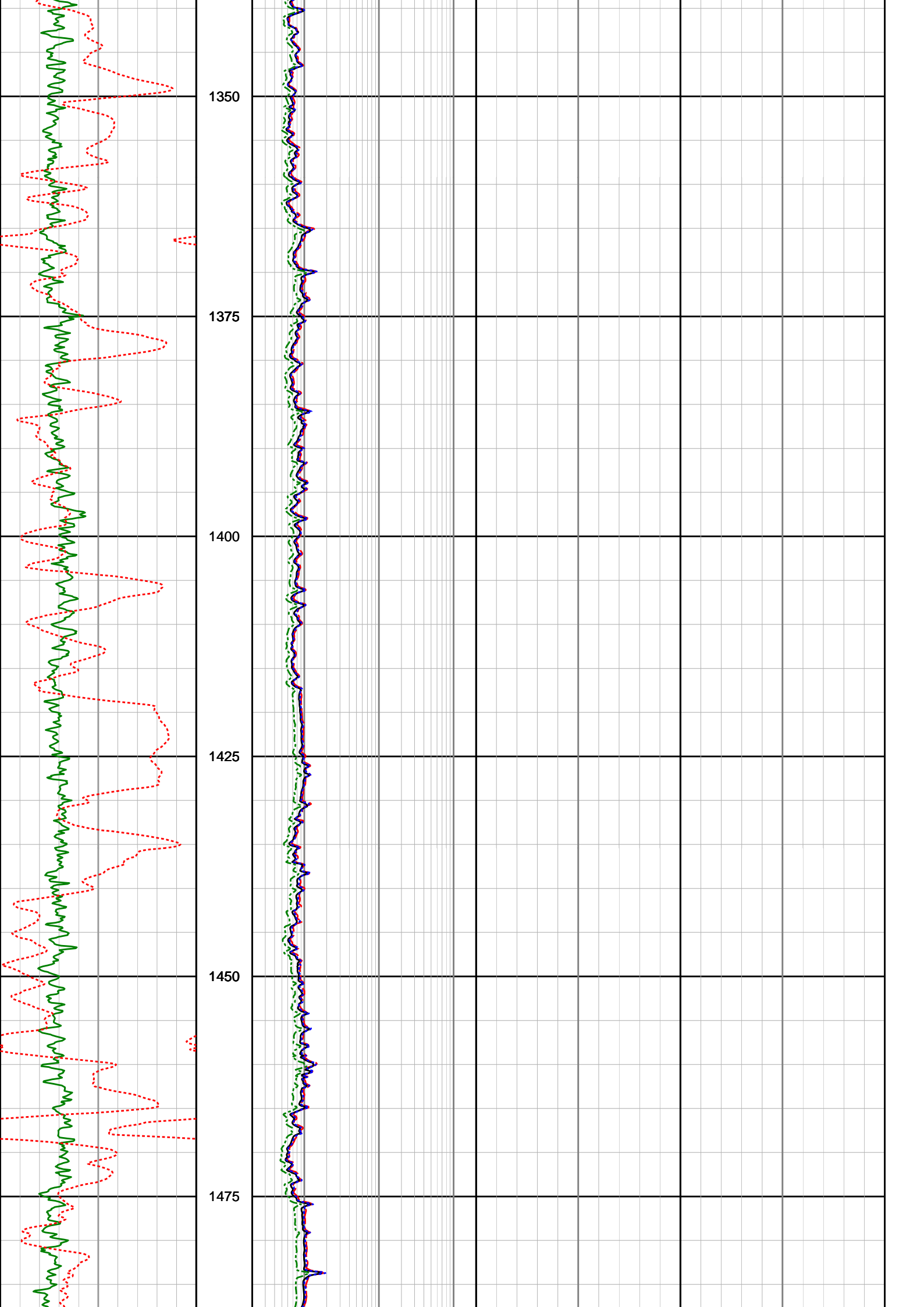


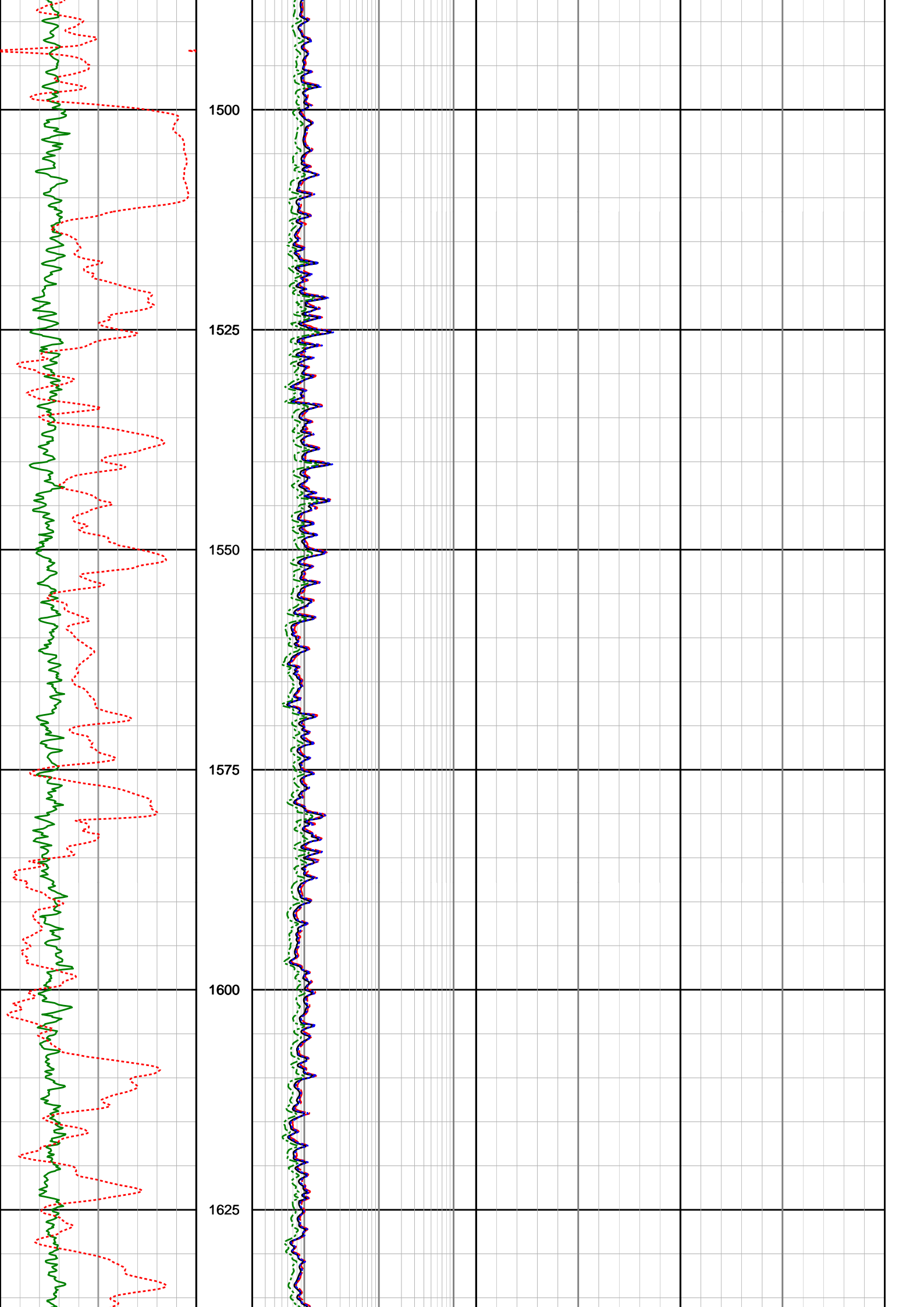


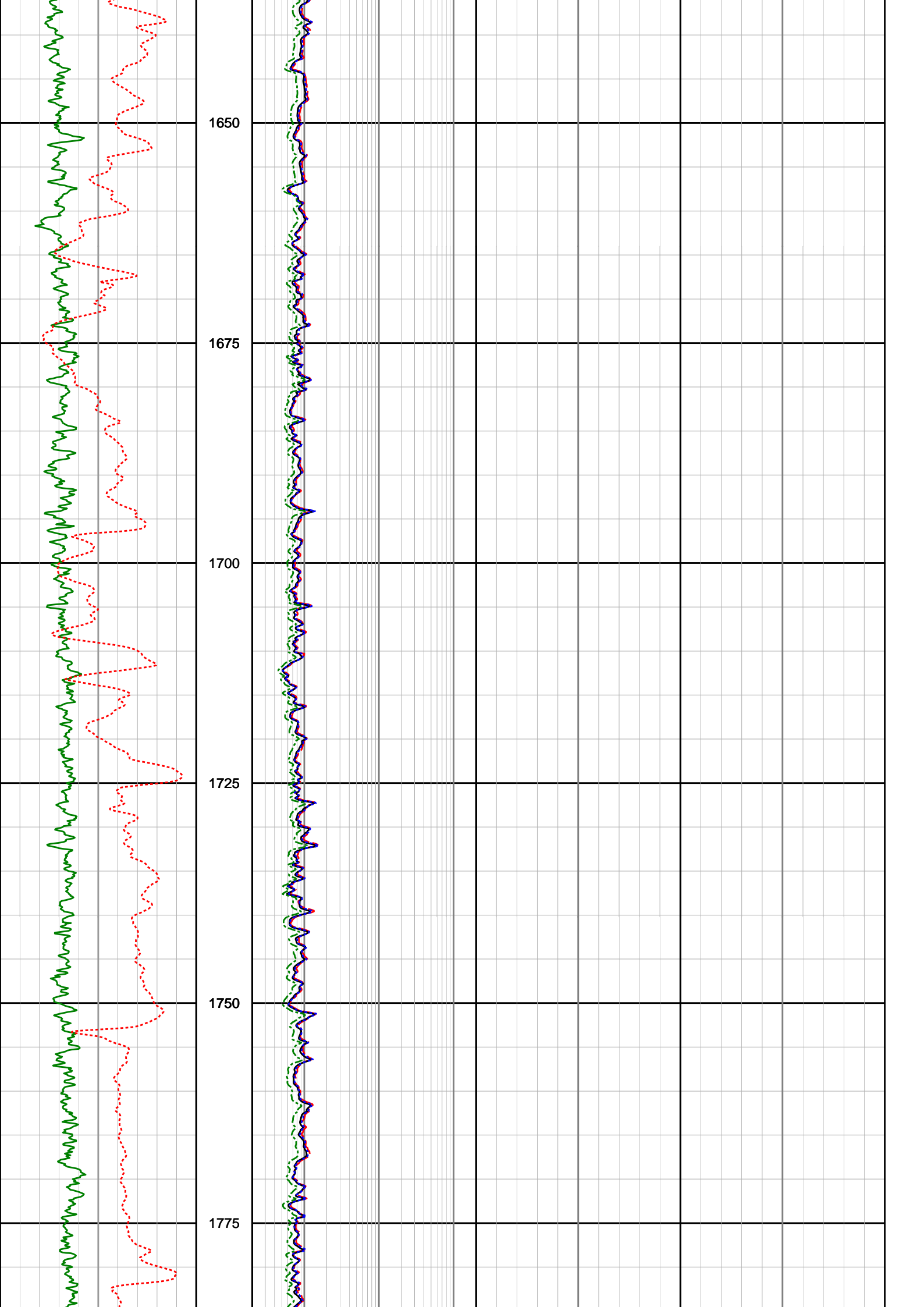


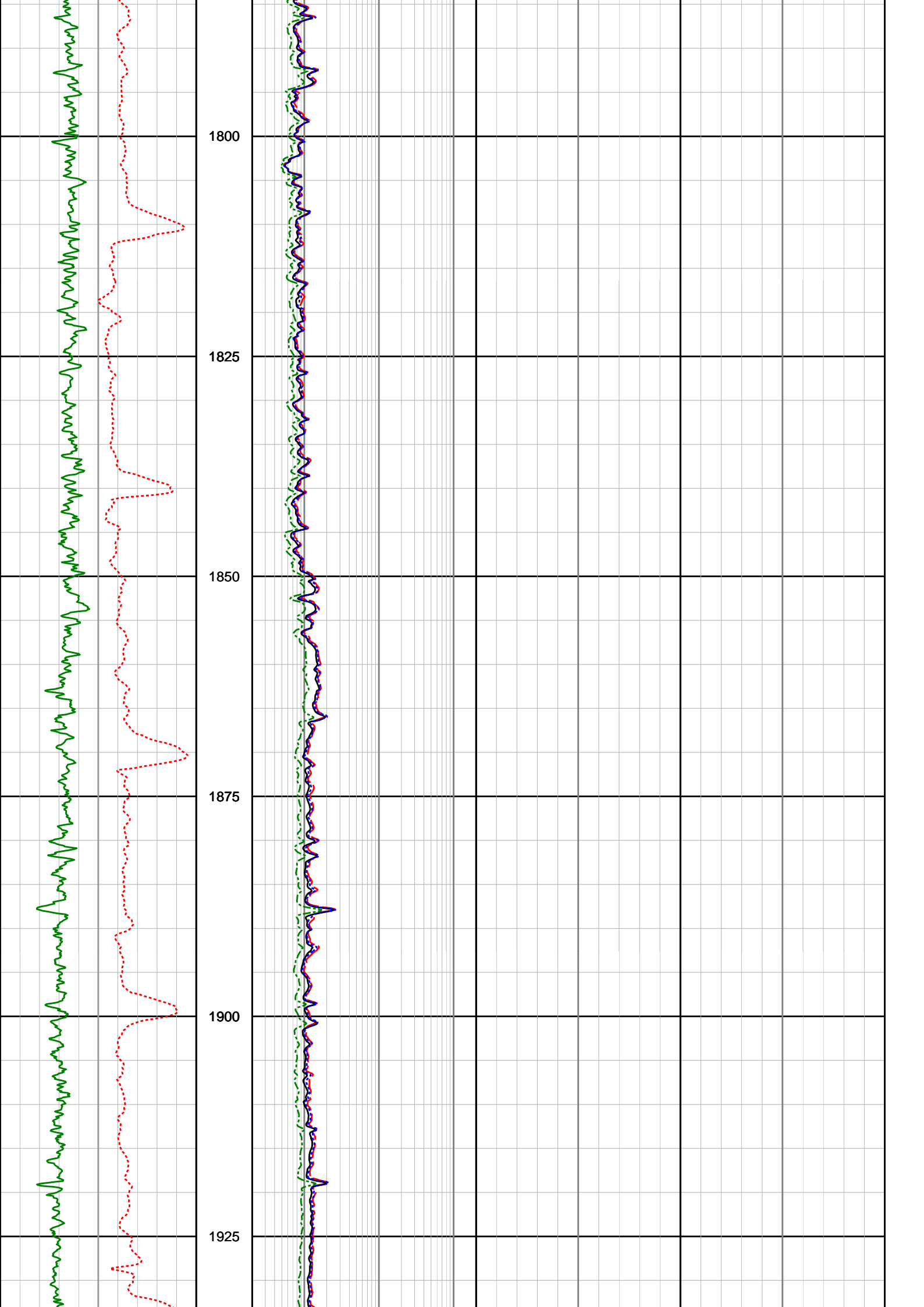


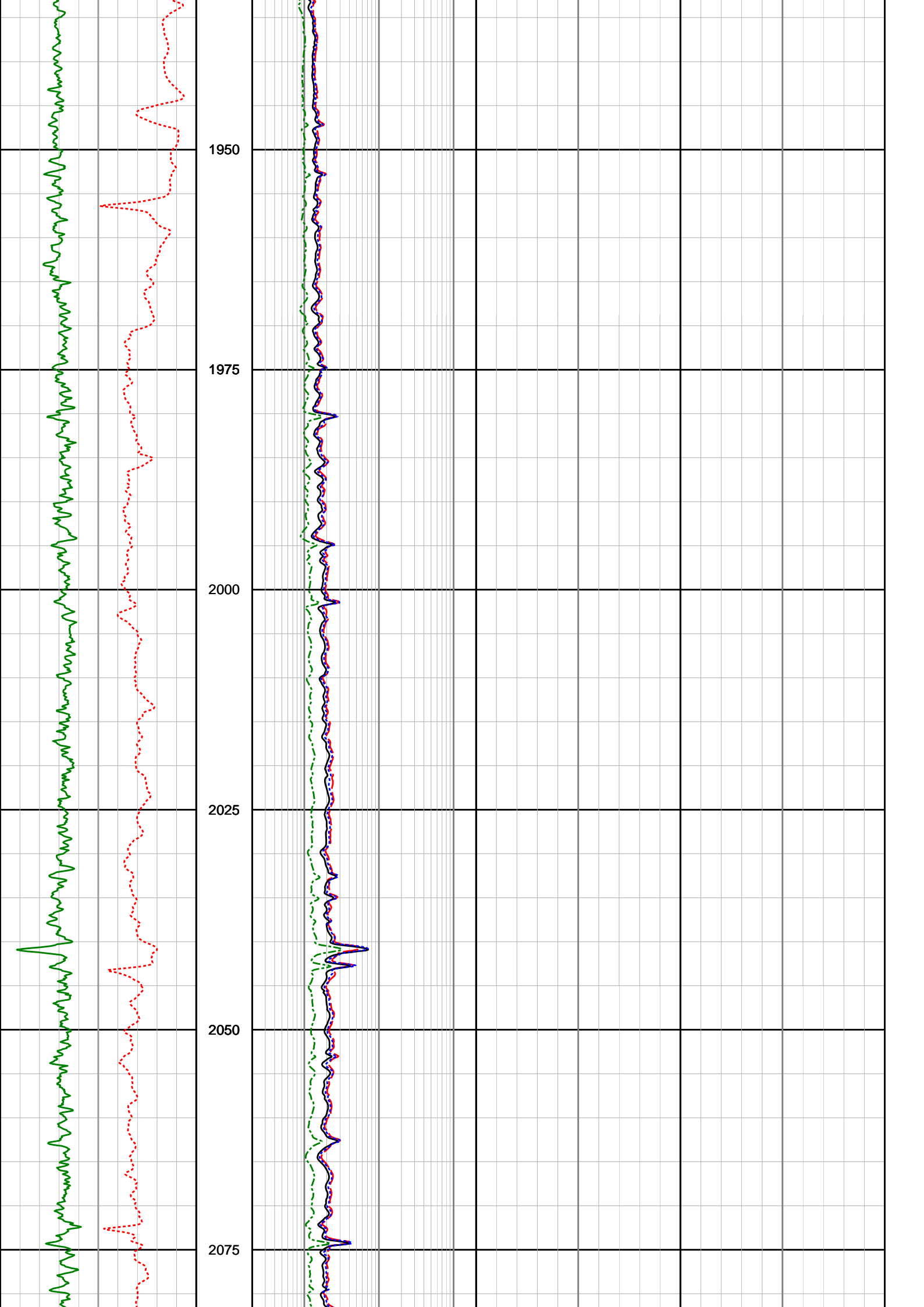


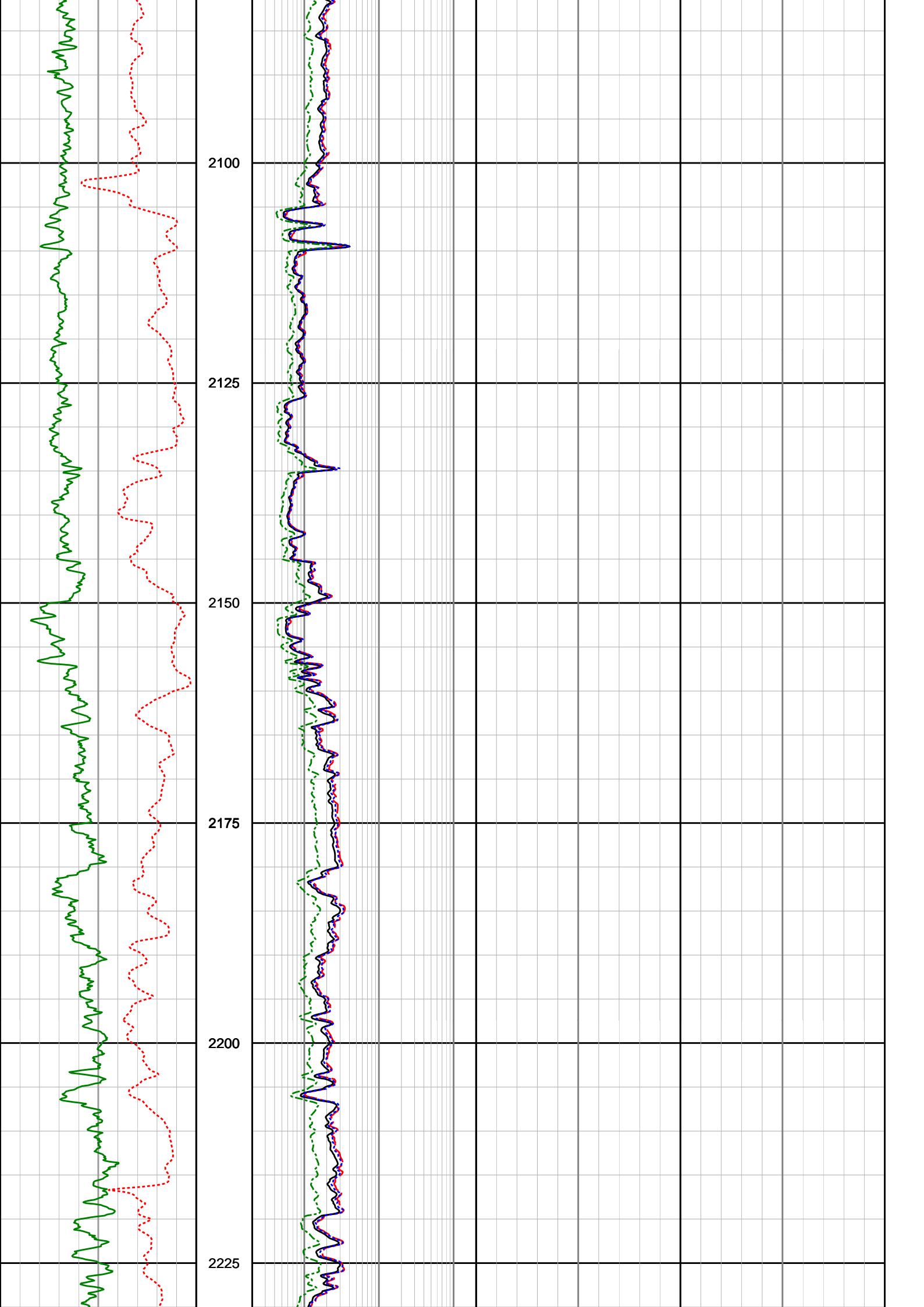


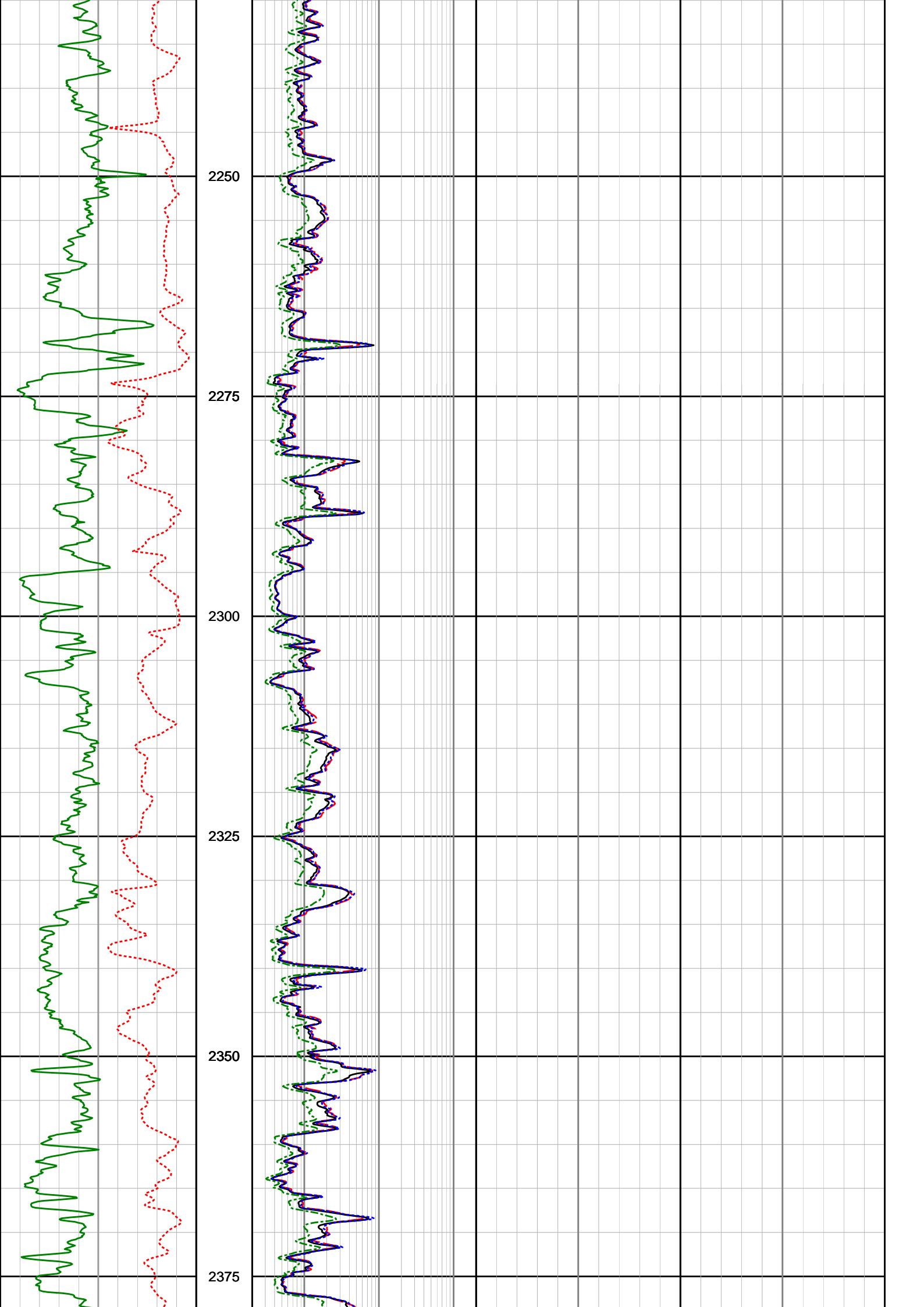


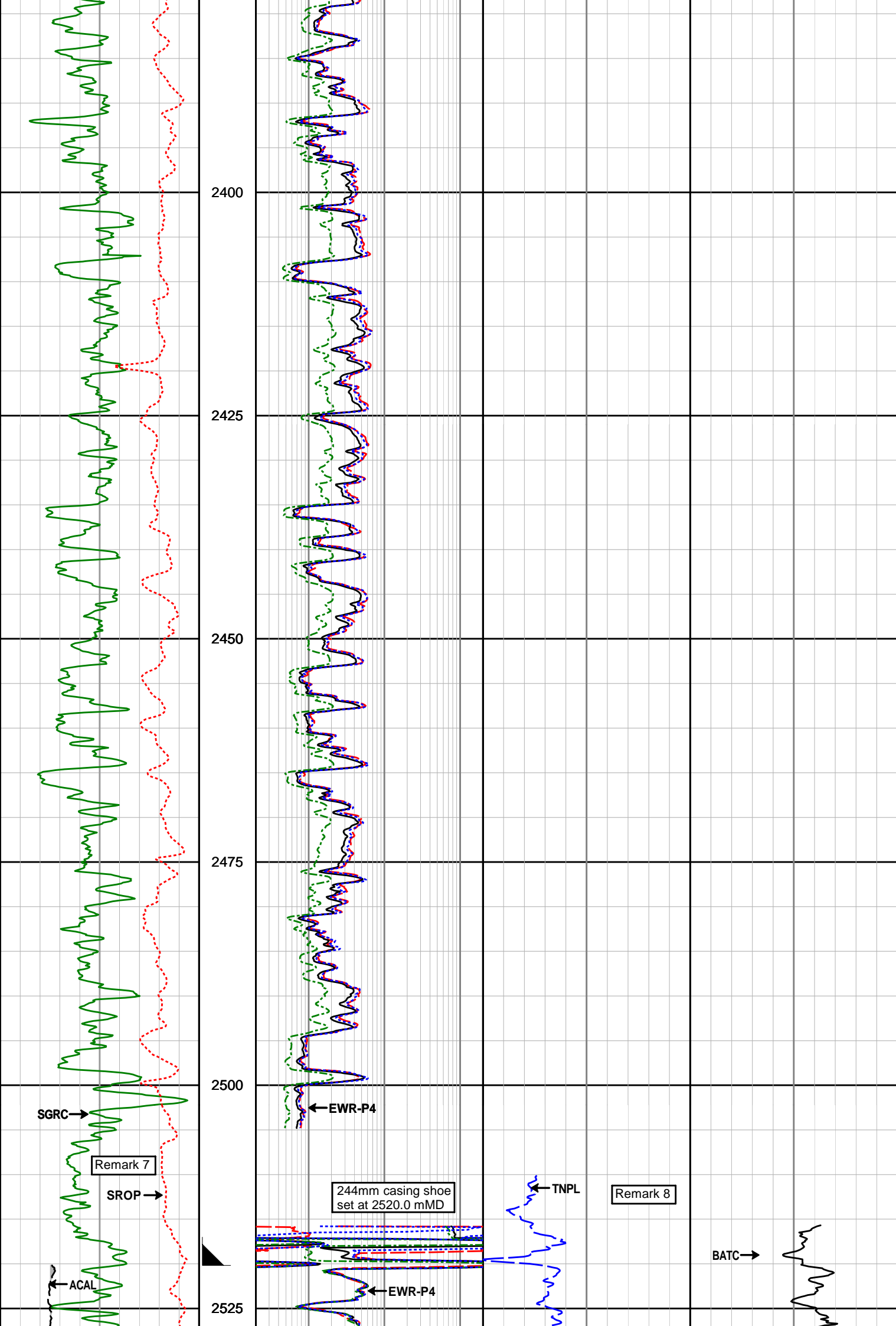


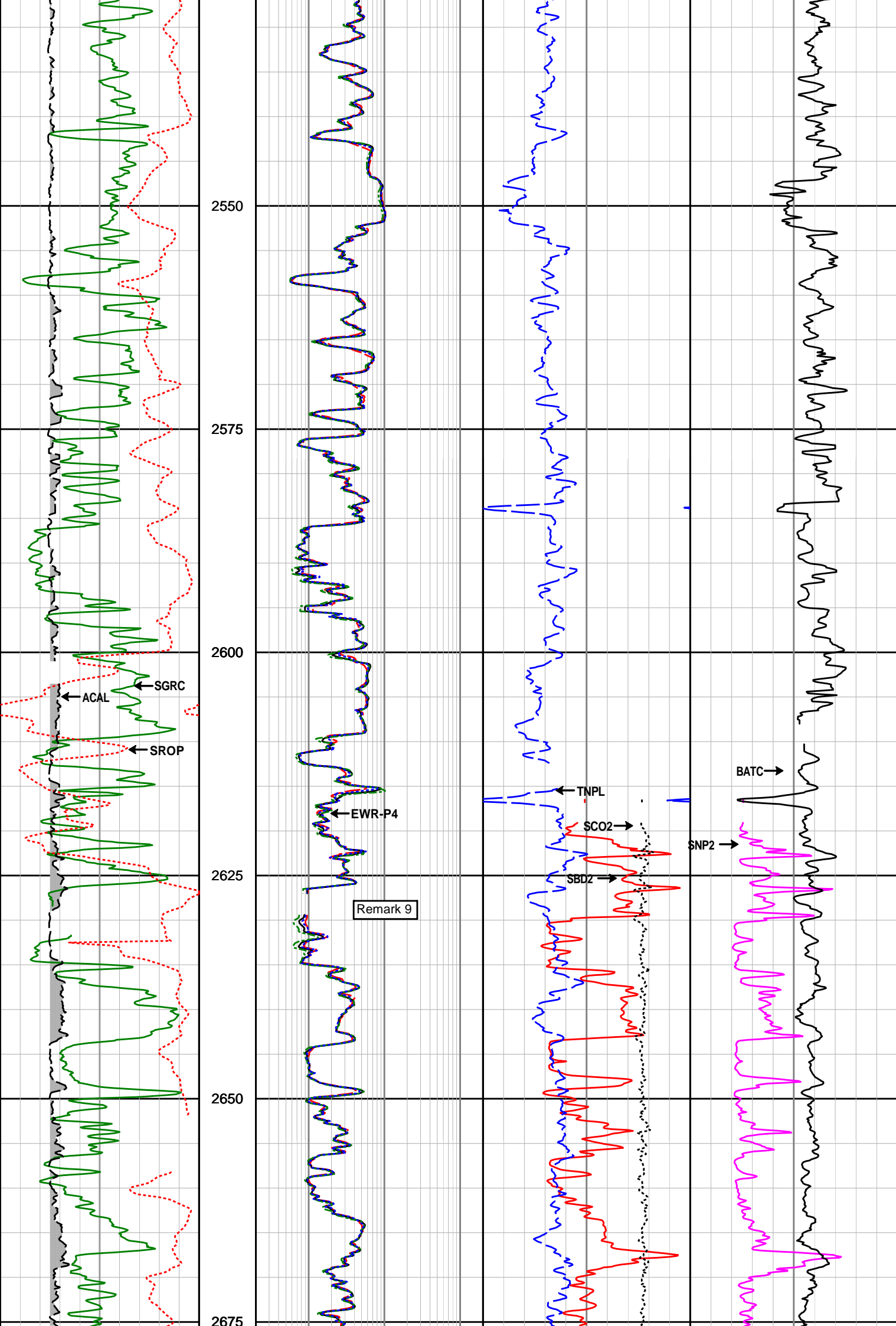


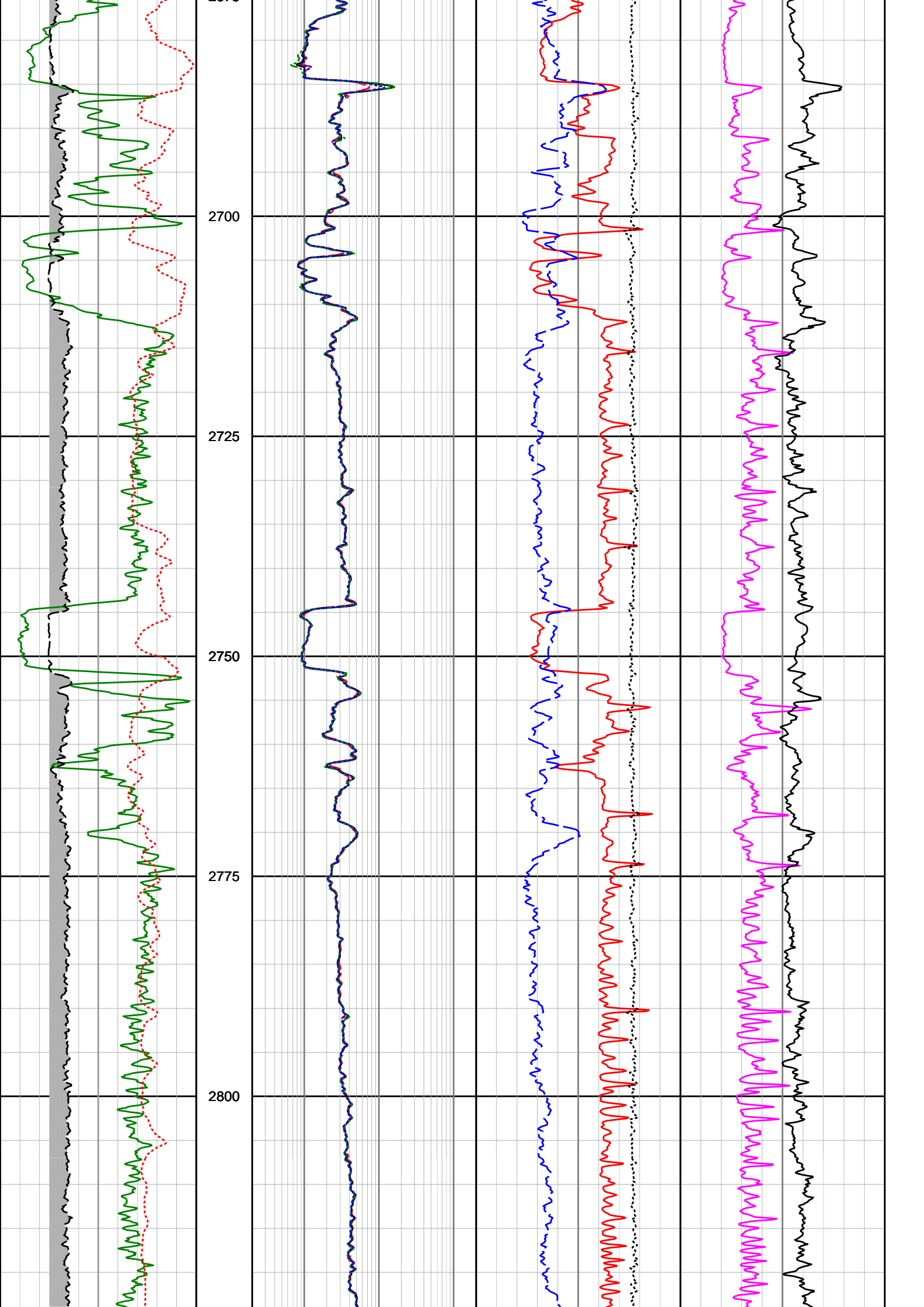


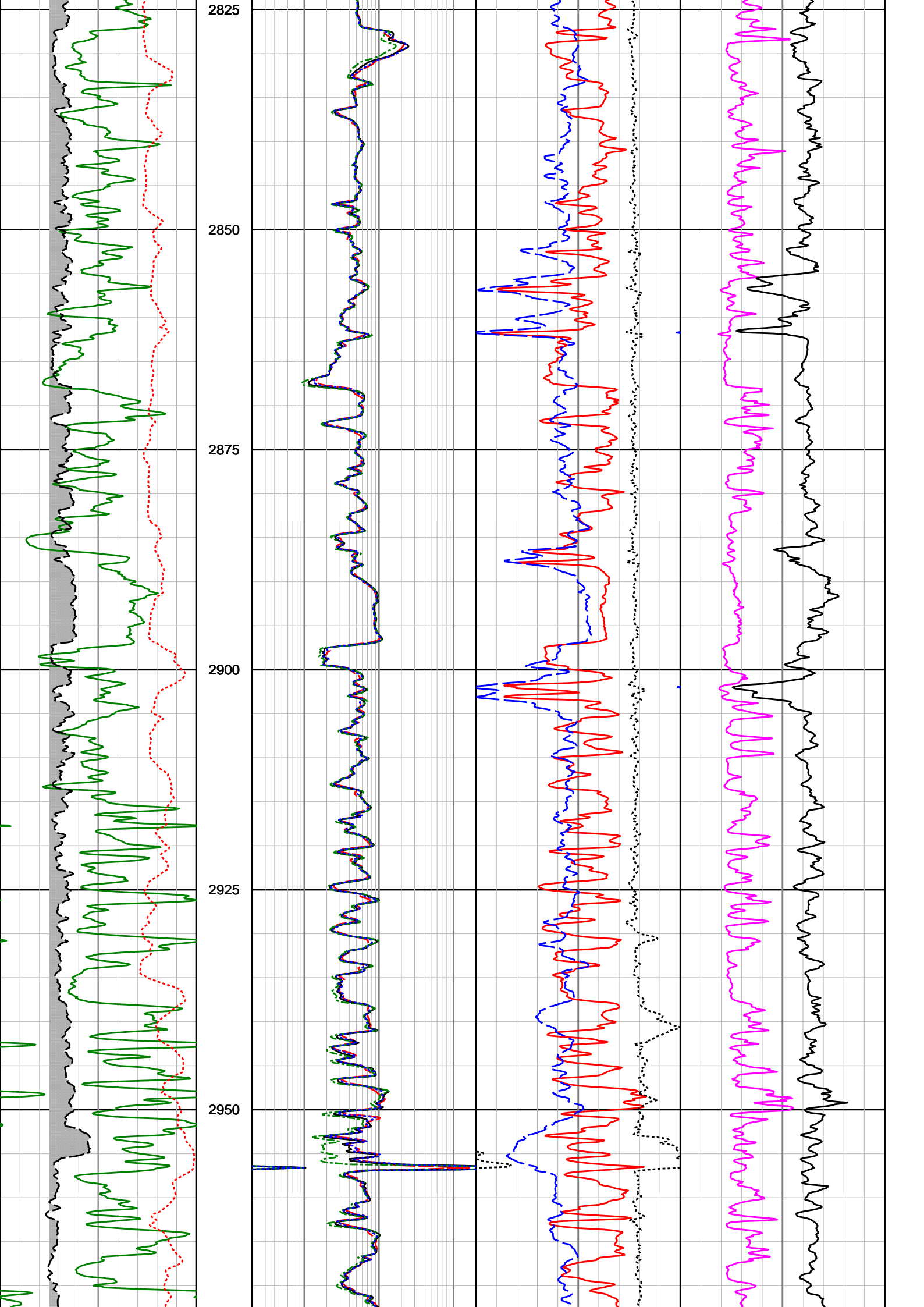


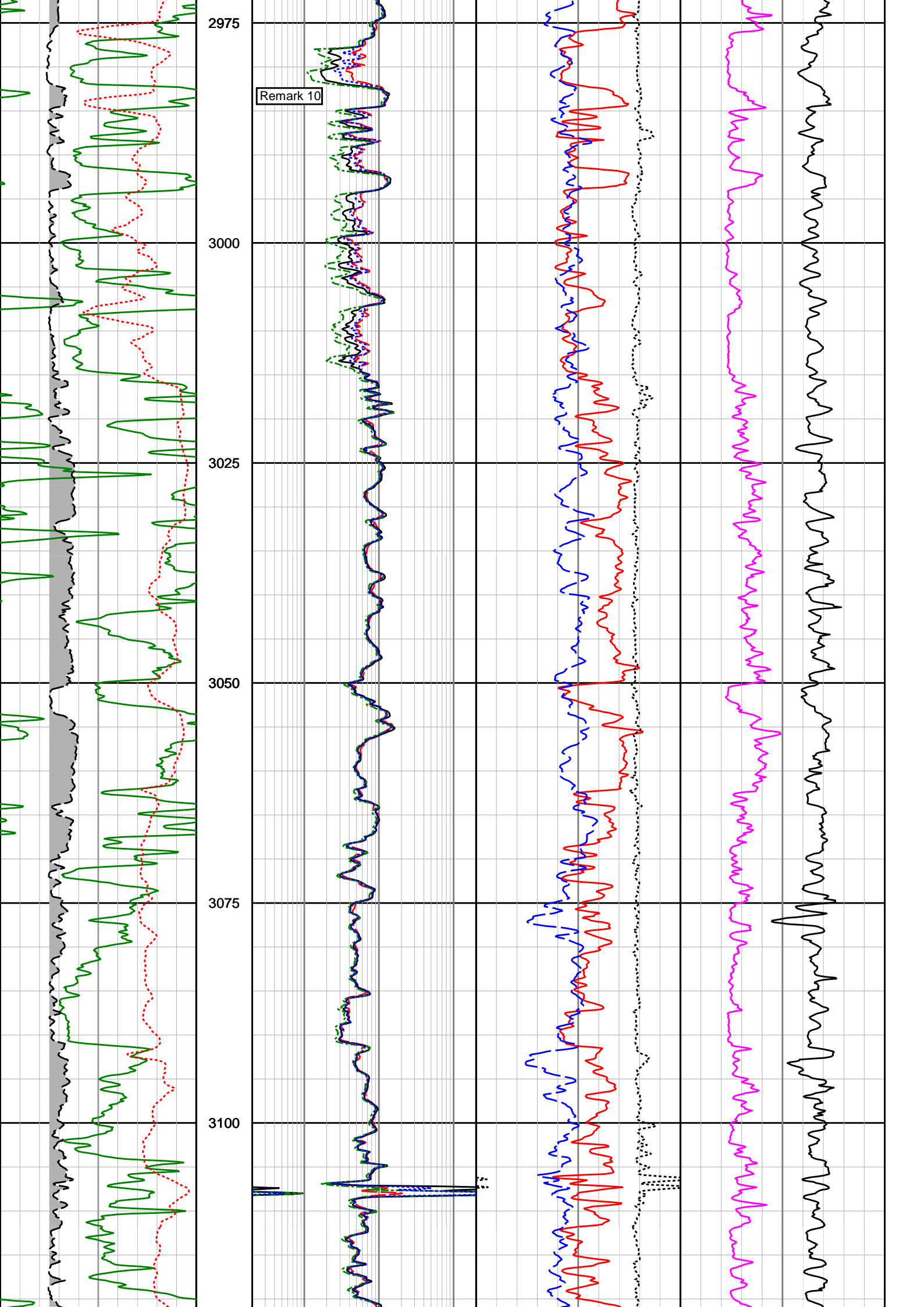


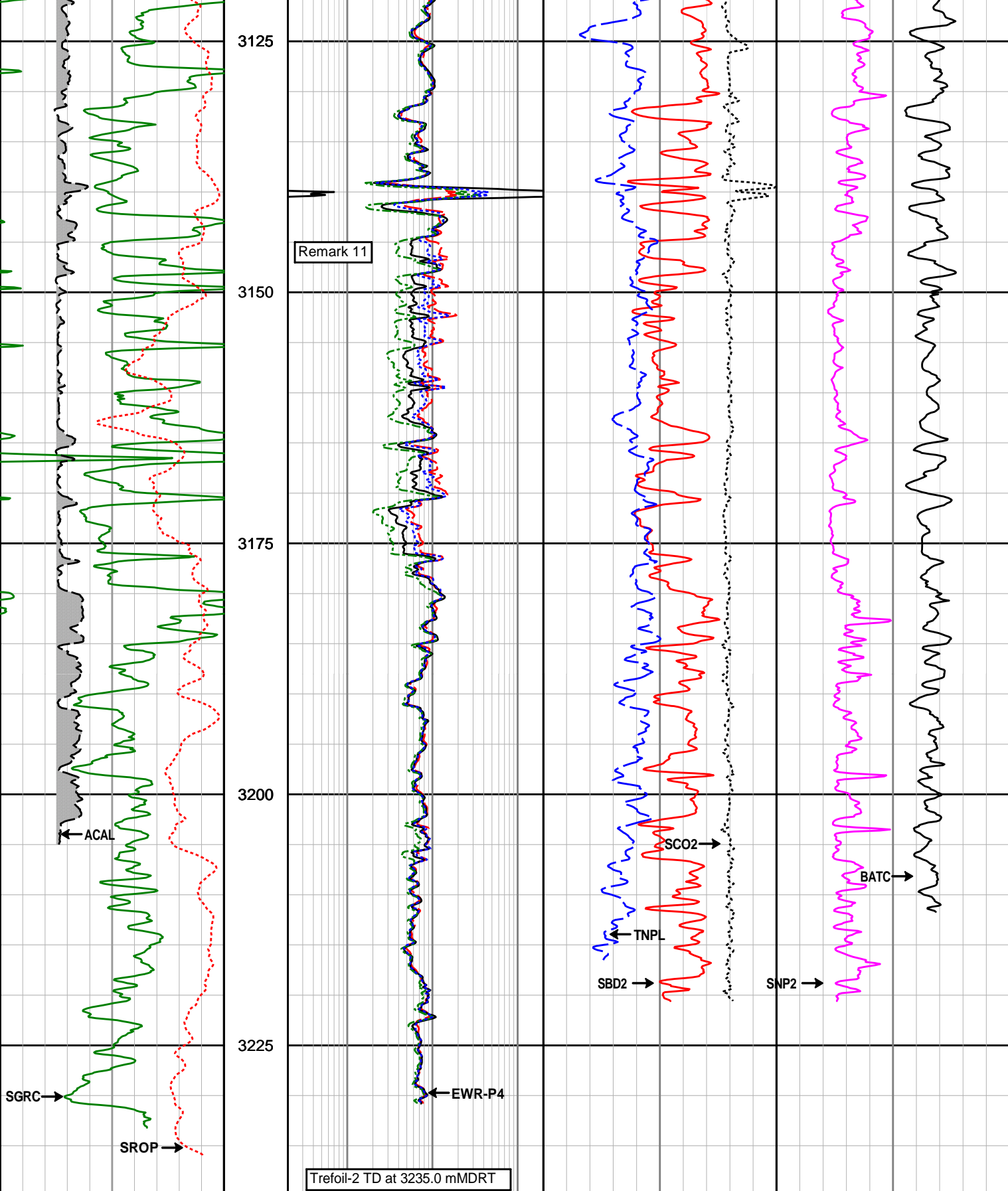












Gamma Ray (SGRC)	Depth MD	X-Shallow Phase Res (SEXP)	Neutron Porosity (TNPL)	Photoelectric Effect (SNP2)
0 200 api	1 : 500	0.2 200 ohmm	0.45 -0.15 v/v	0 10 b/e
Rate of Penetration (SROP)		Shallow Phase Res (SESP)	Best Bin Bulk Density (SBD2)	Comp Slowness (BATC)
100 0 m/hr		0.2 200 ohmm	1.95 2.95 g/cc	140 40 uspf
Acoustic Caliper (ACAL)		Medium Phase Res (SEMP)	Best Bin Delta Rho (SCO2)	
6 16 inches		0.2 200 ohmm	-0.75 0.25 g/cc	



DIRECTIONAL SURVEY REPORT

Origin Energy Resources Ltd

Trefoil-2

Trefoil

Tasmania

Australia

AU-FE-000671414

UTM Zone 55S, GDA 1994

RT-MSL = 26.0m

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
0.000	0.00	0.00	0.000	0.000 N	0.000 E	0.000	TIE-IN
95.000	0.00	0.00	95.000	0.000 N	0.000 E	0.000	0.00
204.920	0.58	282.17	204.920	0.120 N	0.540 W	-0.520	0.16
289.500	0.55	277.88	289.490	0.260 N	1.360 W	-1.280	0.02
376.490	0.32	238.01	376.480	0.190 N	1.980 W	-1.760	0.13
435.080	0.35	232.40	435.070	0.000 N	2.260 W	-1.890	0.02
521.950	0.72	199.02	521.940	0.680 S	2.650 W	-1.830	0.16
547.830	0.73	193.58	547.810	1.000 S	2.740 W	-1.740	0.08
579.000	0.69	195.91	578.980	1.370 S	2.840 W	-1.610	0.05
665.440	0.36	203.20	665.420	2.120 S	3.090 W	-1.410	0.12
782.280	0.67	192.10	782.250	3.120 S	3.380 W	-1.090	0.08
812.120	0.66	196.82	812.090	3.460 S	3.470 W	-0.980	0.06
868.190	0.30	224.95	868.160	3.870 S	3.660 W	-0.920	0.22
896.770	1.03	195.99	896.740	4.170 S	3.790 W	-0.850	0.82
925.970	0.71	183.94	925.930	4.610 S	3.870 W	-0.680	0.38
952.440	0.80	188.49	952.400	4.950 S	3.910 W	-0.530	0.12
981.350	0.74	192.99	981.310	5.330 S	3.980 W	-0.370	0.09
1010.200	0.83	198.72	1010.160	5.710 S	4.090 W	-0.260	0.12
1067.210	0.87	190.96	1067.160	6.530 S	4.310 W	0.020	0.06
1095.870	0.84	194.49	1095.820	6.950 S	4.400 W	0.170	0.06
1153.510	1.11	191.81	1153.450	7.900 S	4.620 W	0.510	0.14
1182.360	1.27	187.06	1182.290	8.490 S	4.720 W	0.760	0.20
1211.300	0.97	182.63	1211.230	9.060 S	4.770 W	1.030	0.32
1240.320	1.00	184.76	1240.240	9.550 S	4.800 W	1.270	0.05
1269.440	0.96	179.68	1269.360	10.050 S	4.820 W	1.530	0.10
1298.710	1.13	178.12	1298.620	10.580 S	4.810 W	1.840	0.18
1327.950	1.27	184.82	1327.860	11.200 S	4.830 W	2.160	0.20
1357.120	1.31	184.97	1357.020	11.850 S	4.880 W	2.470	0.04
1385.950	1.43	187.08	1385.840	12.530 S	4.950 W	2.790	0.14
1414.800	1.33	186.15	1414.680	13.220 S	5.030 W	3.110	0.11
1443.260	1.42	189.23	1443.140	13.900 S	5.130 W	3.400	0.12
1471.760	1.41	188.55	1471.630	14.600 S	5.240 W	3.700	0.02
1500.560	1.44	186.77	1500.420	15.310 S	5.330 W	4.010	0.06
1529.740	1.02	177.87	1529.590	15.930 S	5.360 W	4.320	0.47
1559.000	1.11	183.32	1558.850	16.470 S	5.370 W	4.620	0.14
1588.150	1.05	181.86	1587.990	17.020 S	5.400 W	4.900	0.07
1617.270	1.14	175.03	1617.110	17.580 S	5.380 W	5.220	0.16
1646.320	1.17	184.16	1646.150	18.160 S	5.380 W	5.550	0.19
1675.150	1.31	182.99	1674.970	18.780 S	5.410 W	5.860	0.15
1703.610	1.02	183.90	1703.430	19.360 S	5.450 W	6.150	0.31
1731.980	1.12	176.27	1731.790	19.890 S	5.450 W	6.440	0.18
1760.710	1.20	179.48	1760.520	20.470 S	5.430 W	6.780	0.11
1790.080	1.13	181.99	1789.880	21.070 S	5.430 W	7.100	0.09
1819.450	1.17	182.73	1819.240	21.660 S	5.460 W	7.410	0.04
1848.520	1.17	190.32	1848.310	22.250 S	5.530 W	7.680	0.16
1877.800	1.13	190.92	1877.580	22.820 S	5.630 W	7.910	0.04
1906.650	1.23	192.98	1906.430	23.400 S	5.760 W	8.120	0.11
1934.670	1.08	194.42	1934.440	23.950 S	5.890 W	8.320	0.16
1963.220	0.48	64.50	1962.990	24.160 S	5.850 W	8.470	1.51
1992.330	0.56	59.70	1992.100	24.040 S	5.620 W	8.590	0.09
2021.460	0.59	61.98	2021.230	23.900 S	5.360 W	8.730	0.04
2050.740	0.64	78.76	2050.500	23.790 S	5.070 W	8.840	0.10

2050.740	0.64	78.76	2050.500	23.790 S	5.070 W	8.910	0.19
2080.190	0.61	81.26	2079.950	23.740 S	4.750 W	9.150	0.04
2102.200	0.68	80.27	2101.960	23.700 S	4.510 W	9.330	0.10
2138.040	0.69	75.36	2137.800	23.610 S	4.090 W	9.630	0.05
2195.190	0.63	82.85	2194.940	23.480 S	3.440 W	10.090	0.06
2253.190	0.62	89.29	2252.940	23.440 S	2.810 W	10.600	0.04
2281.350	0.84	88.95	2281.100	23.430 S	2.460 W	10.890	0.23
2310.290	0.91	90.74	2310.040	23.430 S	2.010 W	11.260	0.08
2339.670	0.80	84.68	2339.410	23.410 S	1.580 W	11.620	0.15
2398.220	0.81	98.78	2397.960	23.440 S	0.760 W	12.310	0.10
2426.570	1.08	93.16	2426.300	23.480 S	0.300 W	12.720	0.30
2454.950	0.96	91.77	2454.680	23.510 S	0.210 E	13.160	0.13
2484.550	1.06	89.94	2484.270	23.510 S	0.730 E	13.590	0.11
2524.750	1.00	97.22	2524.470	23.560 S	1.450 E	14.220	0.11
2557.550	1.13	91.00	2557.260	23.600 S	2.060 E	14.750	0.16
2588.200	1.30	90.35	2587.900	23.610 S	2.710 E	15.290	0.17
2646.630	1.43	86.39	2646.320	23.560 S	4.100 E	16.430	0.08
2674.000	1.51	91.33	2673.680	23.550 S	4.800 E	17.010	0.16
2702.980	1.62	88.34	2702.650	23.550 S	5.590 E	17.670	0.14
2732.910	1.69	88.47	2732.570	23.520 S	6.450 E	18.370	0.07
2762.560	1.85	89.89	2762.200	23.510 S	7.370 E	19.130	0.17
2791.490	1.82	85.29	2791.120	23.470 S	8.300 E	19.880	0.16
2819.890	1.94	85.21	2819.500	23.400 S	9.220 E	20.610	0.13
2847.720	2.06	83.71	2847.310	23.300 S	10.190 E	21.360	0.14
2876.190	2.24	81.90	2875.760	23.170 S	11.250 E	22.170	0.20
2905.640	2.46	85.79	2905.190	23.040 S	12.450 E	23.100	0.28
2935.670	2.58	82.74	2935.190	22.910 S	13.760 E	24.120	0.18
2963.220	2.93	85.15	2962.710	22.770 S	15.080 E	25.150	0.40
2992.320	2.88	83.61	2991.770	22.630 S	16.550 E	26.290	0.10
3021.530	3.01	83.20	3020.940	22.450 S	18.040 E	27.440	0.14
3051.620	3.07	82.21	3050.990	22.250 S	19.620 E	28.640	0.08
3080.660	3.23	81.34	3079.990	22.020 S	21.200 E	29.840	0.17
3101.980	3.47	82.50	3101.270	21.850 S	22.430 E	30.770	0.35
3130.210	3.75	81.59	3129.440	21.600 S	24.190 E	32.100	0.30
3167.650	3.79	84.07	3166.800	21.290 S	26.640 E	33.960	0.13
3194.790	3.87	83.32	3193.880	21.090 S	28.440 E	35.360	0.10
3223.600	4.33	83.41	3222.620	20.860 S	30.480 E	36.930	0.48
3235.000	4.33	83.41	3233.990	20.760 S	31.340 E	37.590	0.00

CALCULATION BASED ON MINIMUM CURVATURE METHOD

**SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT**

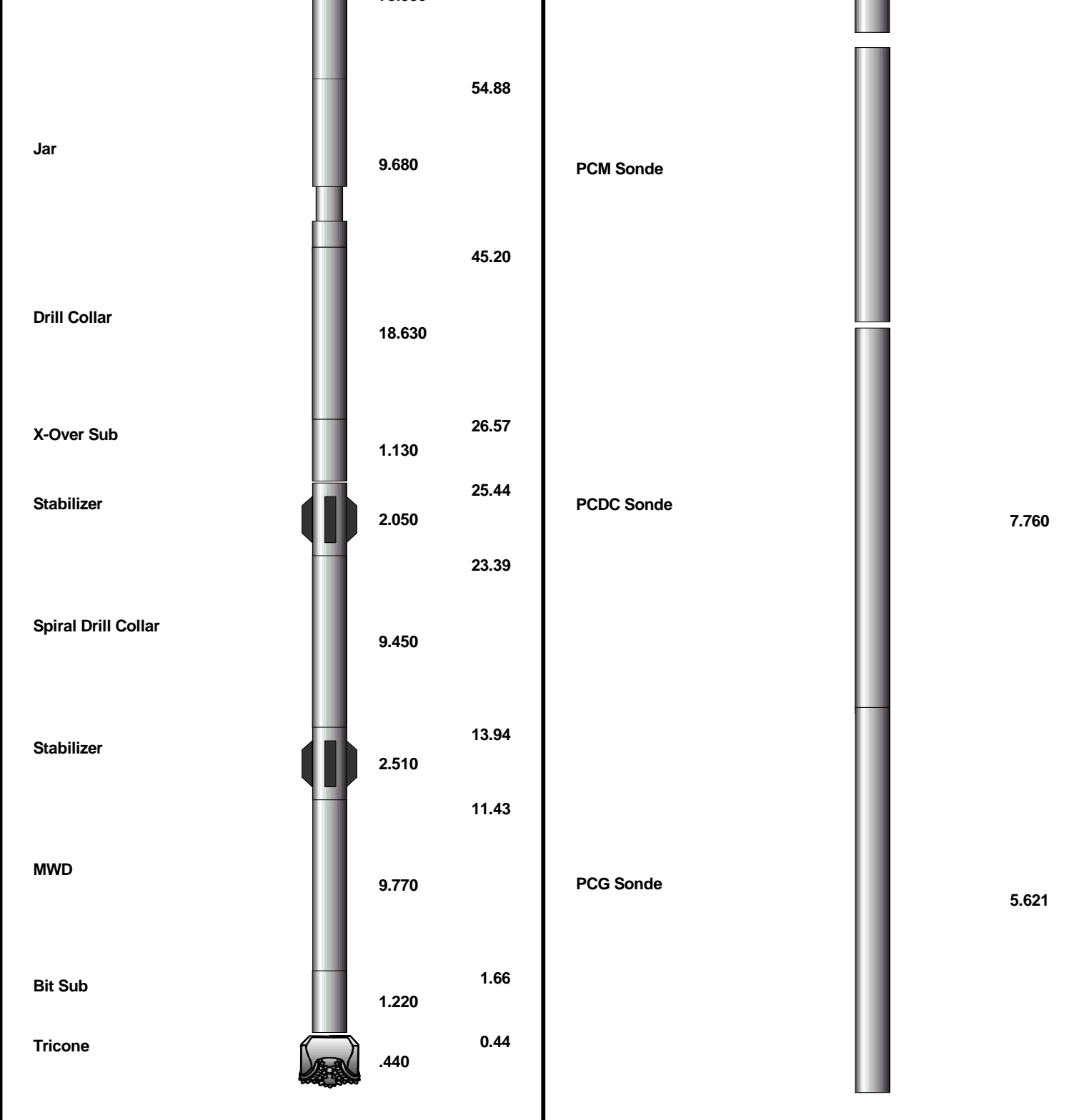
**VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG A CLOSURE OF 123.52 DEGREES (GRID)
A TOTAL CORRECTION OF 11.45 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED**

**HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 3235.000 METRES
IS 37.592 METRES ALONG 123.52 DEGREES (GRID)**

Final Survey Projected to TD.

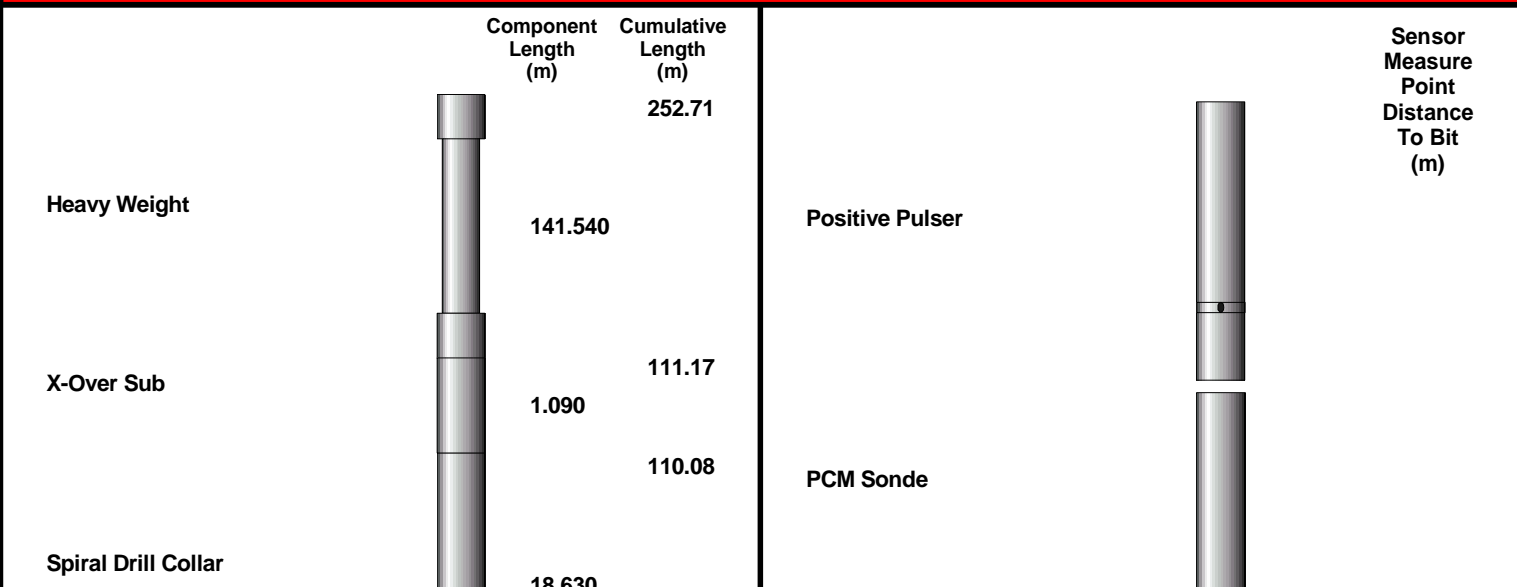
Date Printed:09 December 2009

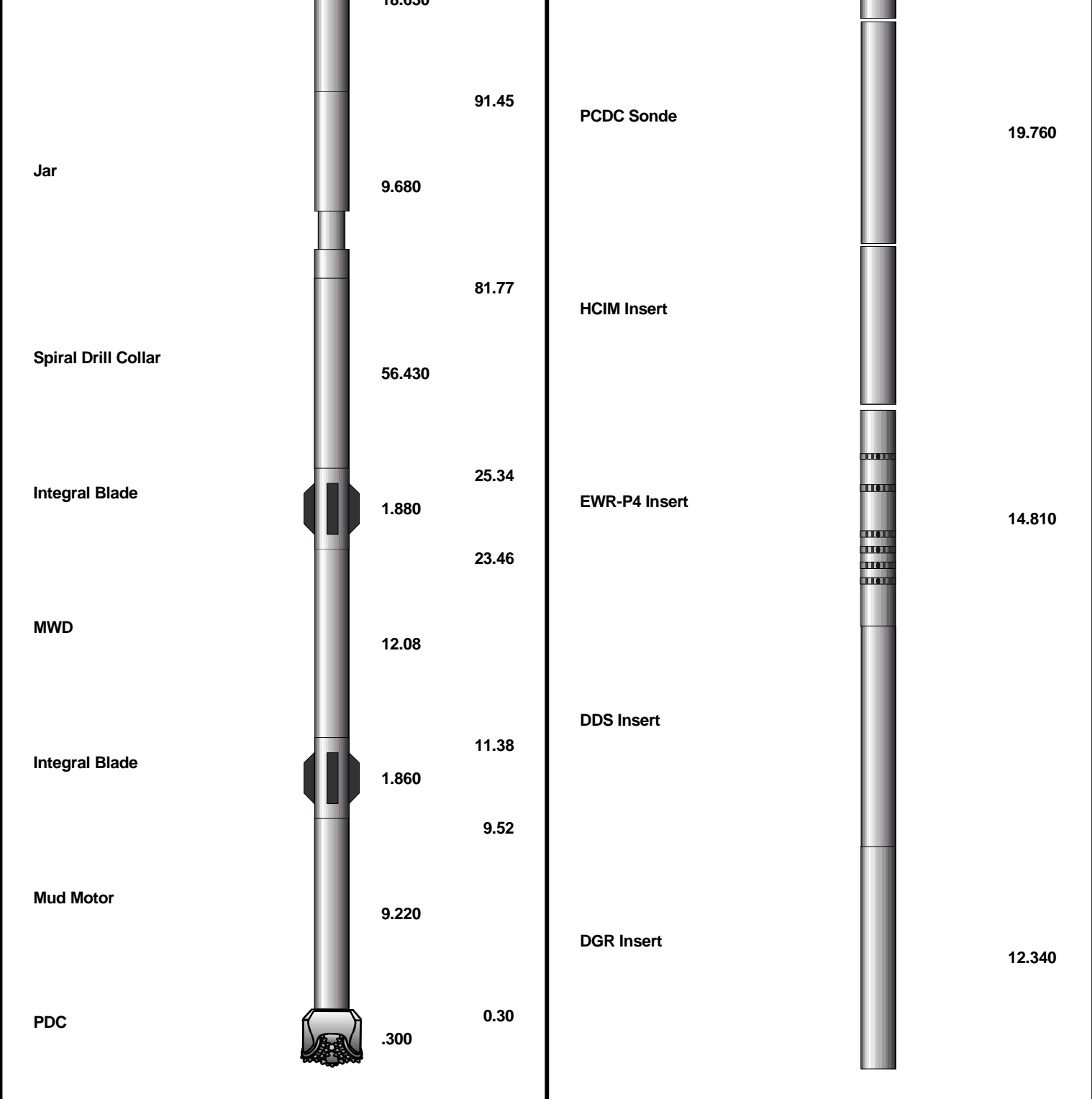
MWD RUN 100 - BHA				MWD RUN 100 - MWD			
	Component Length (m)	Cumulative Length (m)				Sensor Measure Point Distance To Bit (m)	
		244.52					
Heavy Weight	113.220						
X-Over Sub	1.090	131.30		Positive Pulsar			
		130.21					
Drill Collar	75.330						



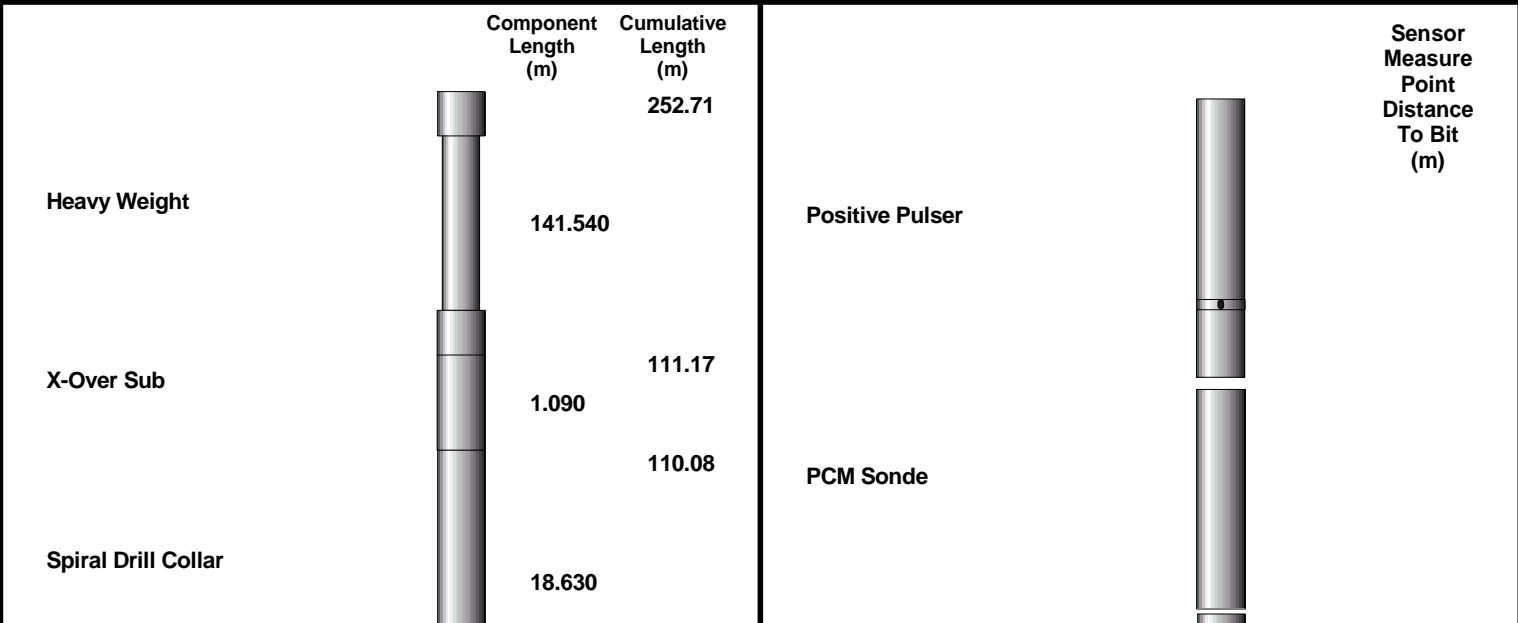
MWD RUN 200 - BHA

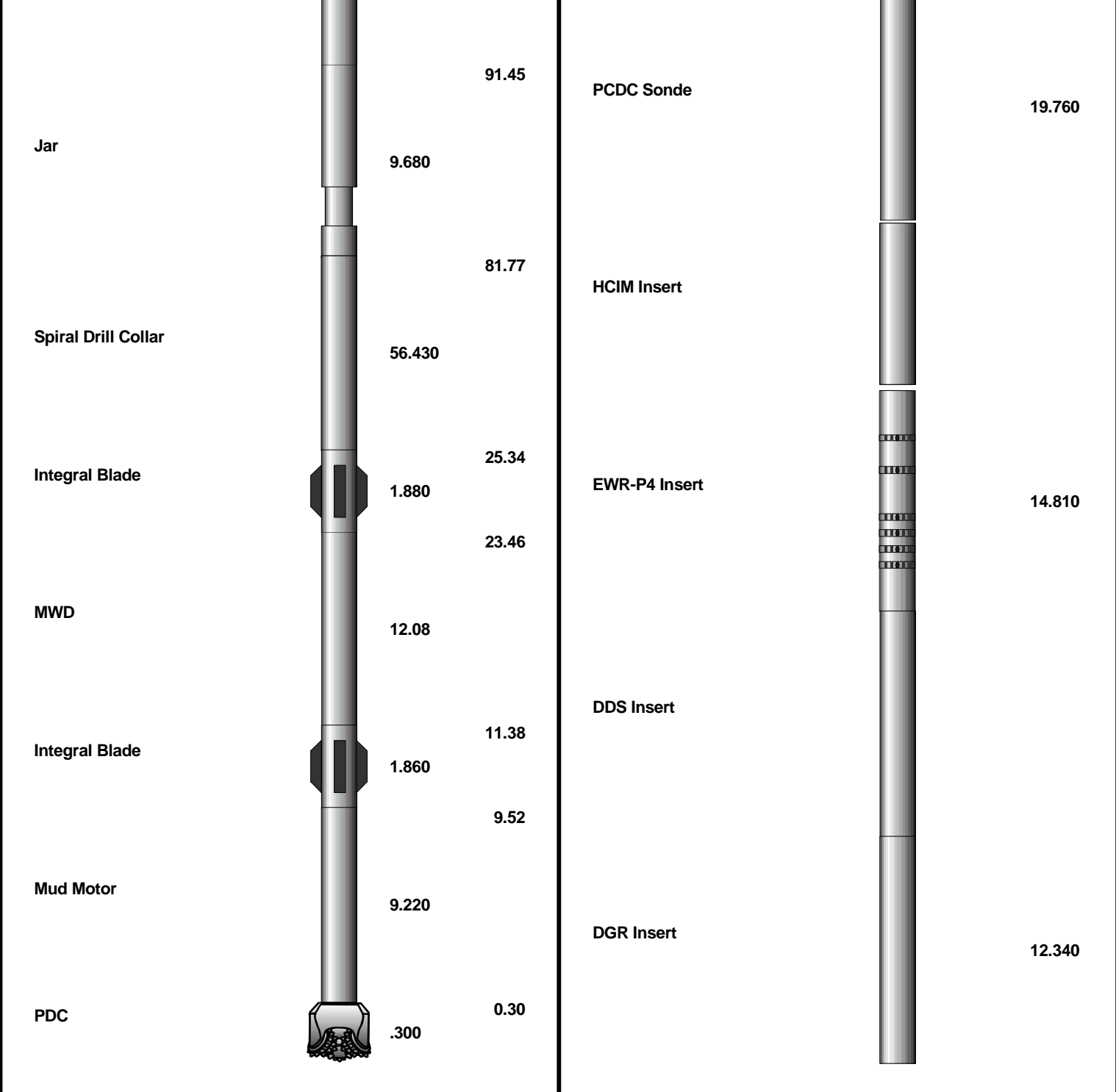
MWD RUN 200 - MWD



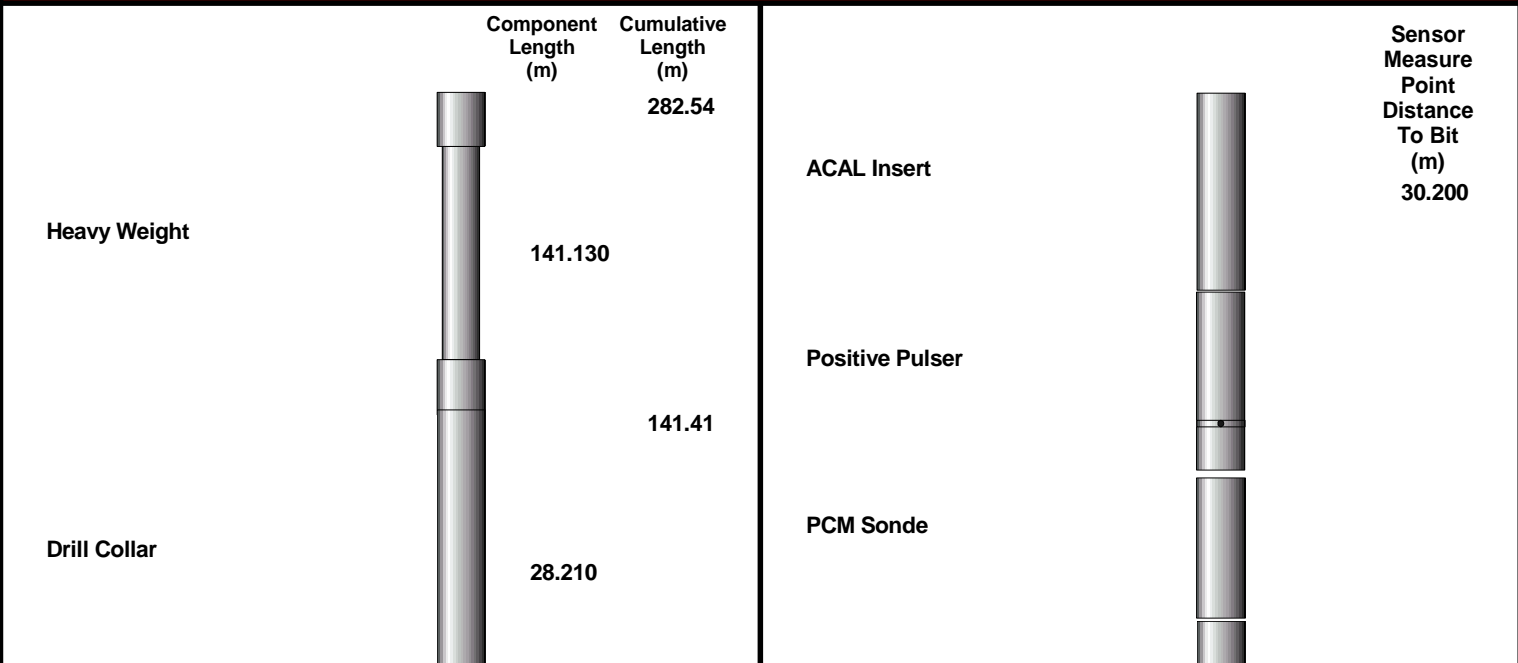













MWD RUN 300 - BHA	MWD RUN 300 - MWD
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MWD RUN 400 - BHA	MWD RUN 400 - MWD
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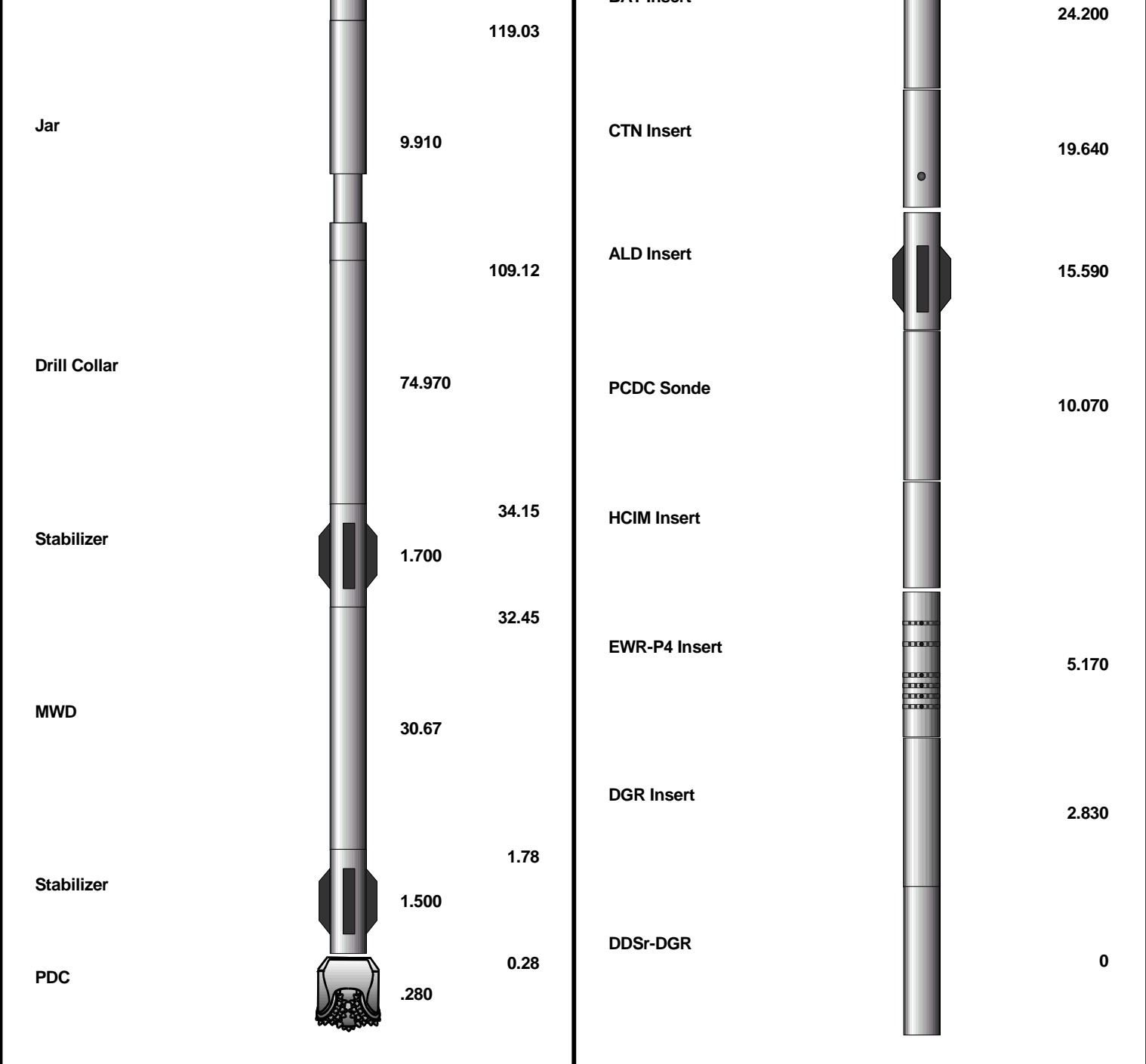


Jar		113.20	BAT Insert		23.365
Drill Collar		74.970	PCDC Sonde		10.022
Stabilizer		1.700	EWR-P4 Insert		5.160
MWD		24.84	DGR Insert		2.806
Stabilizer		1.500	DDSr-DGR		0
PDC		.280			

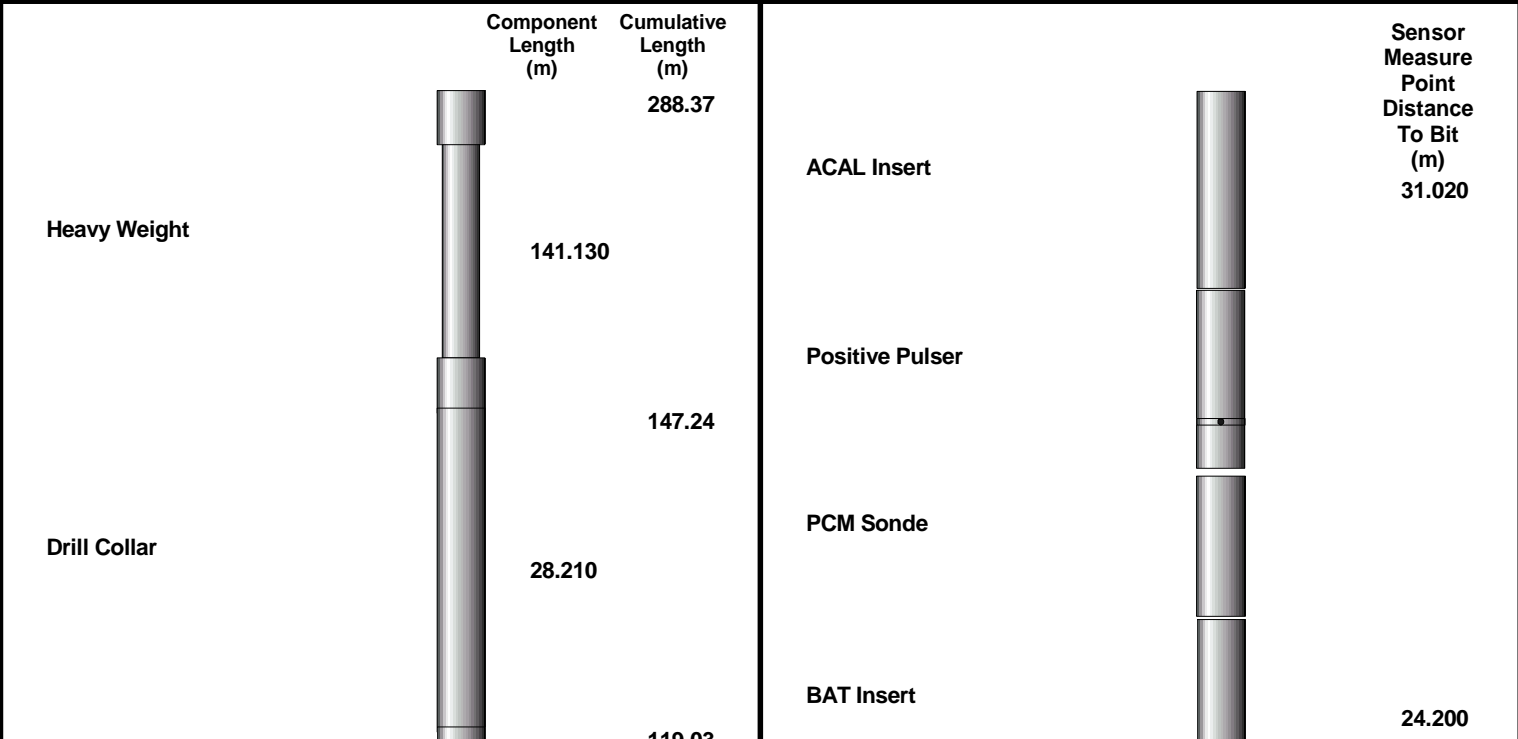
MWD RUN 500 - BHA

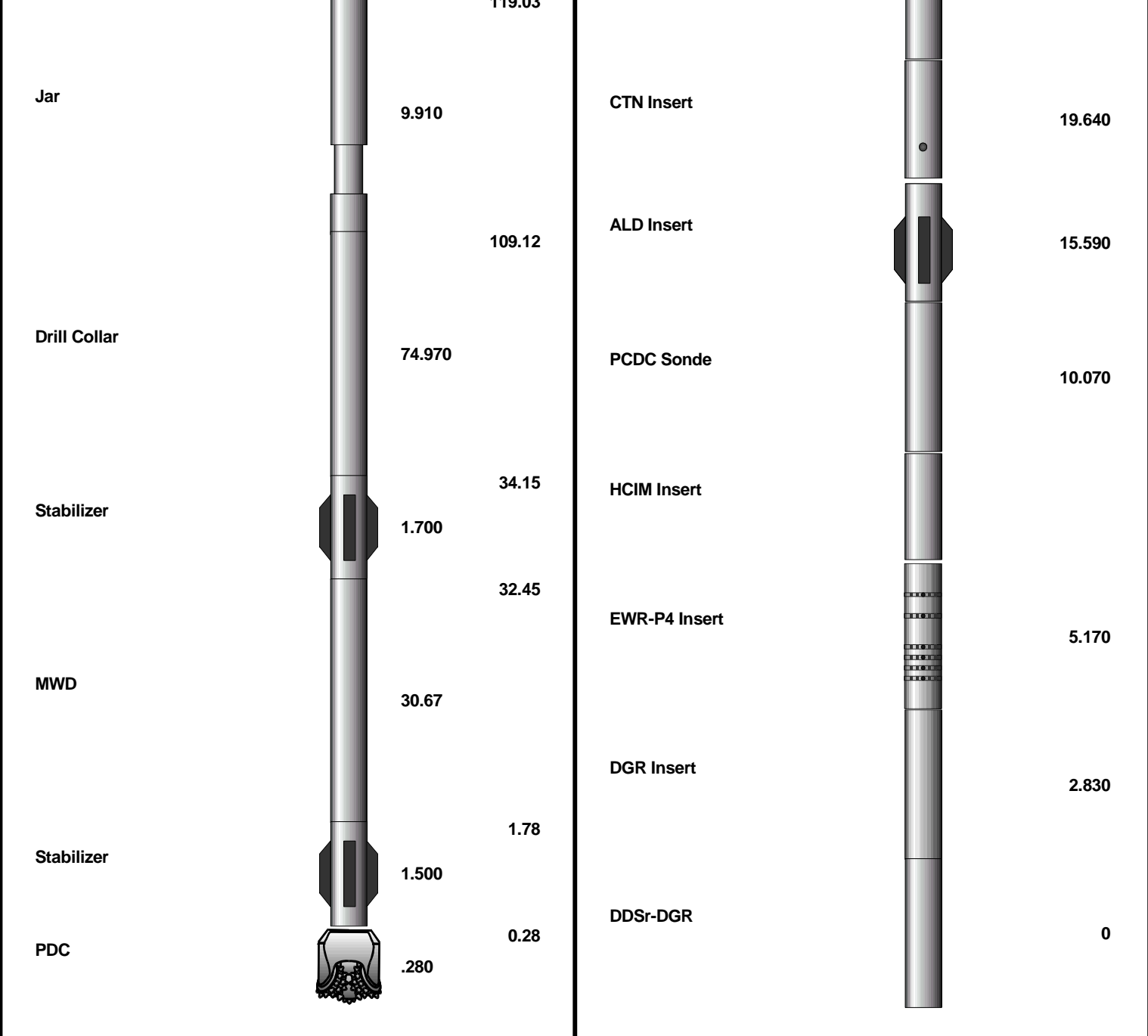
MWD RUN 500 - MWD

	Component Length (m)	Cumulative Length (m)		Sensor Measure Point Distance To Bit (m)
Heavy Weight		141.130	ACAL Insert	
Drill Collar		28.210	BAT Insert	



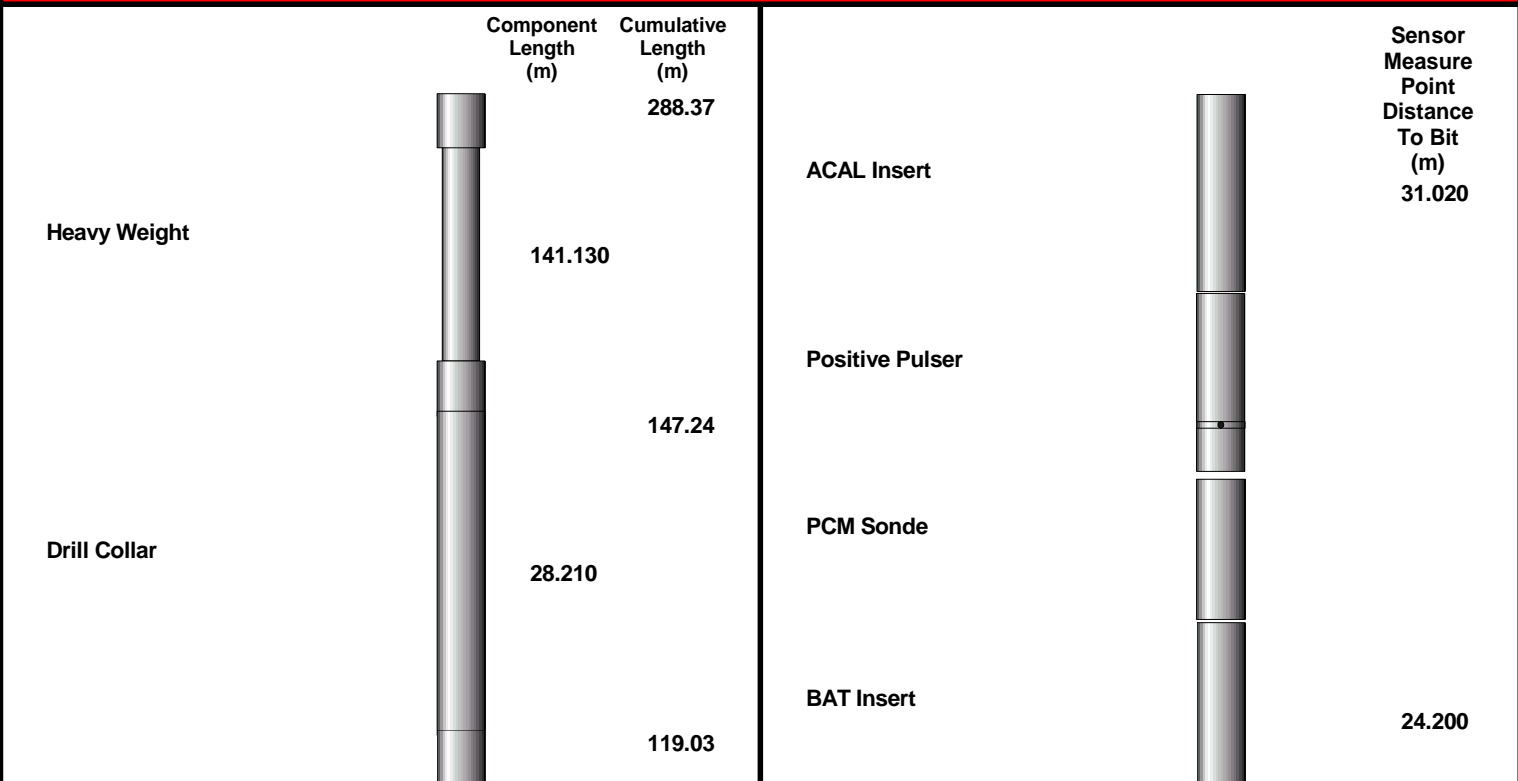
MWD RUN 600 - BHA	MWD RUN 600 - MWD
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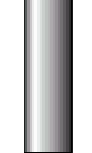










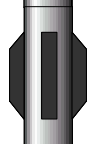





MWD RUN 700 - BHA

MWD RUN 700 - MWD



Jar		9.910	CTN Insert		19.640
		109.12	ALD Insert		15.590
Drill Collar		74.970	PCDC Sonde		10.070
Stabilizer		34.15	HCIM Insert		
		1.700			
		32.45	EWR-P4 Insert		5.170
MWD		30.67	DGR Insert		2.830
		1.78	DDSr-DGR		0
Stabilizer		1.500			
PDC		0.28			
		.280			