

1 : 500



EW Electromagnetic Wave Resistivity
DGR Dual Gamma Ray
SLD Stabilized Litho-Density
CNP Compensated Neutron Porosity
BAT Bi-Modal Acoustic

Company : Apache Energy Ltd									
Rig : Ocean Patriot									
Well : Fur Seal-1									
Field : Exploration									
Country : Australia									
DOE Number :									
Other Services									
LOCATION					Latitude : 38° 7' 47.91" South Longitude : 148° 9' 8.44" East				
UTM Easting = 600,995.50 m UTM Northing = 5,779,136.70 m									
Elevation : 0.00 m					Elev. KB				
Drilling Measured From : Drill Floor					DF 21.50 m GL WD 56.62 m				
Log Measured From : Drill Floor									
Permanent Datum : AHD									
Depth Logged : 112.00 m To 2,610.00 m					Unit No. : 182				
Date Logged : 25-Oct-05 To 01-Nov-05					Job No. : AU-FE-0003890148				
Total Depth MD : 2,610.00 m TVD: 2,609.73 m					Plot Type : Final				
Spud Date : 24-Oct-05					Plot Date : 17-May-06				
Borehole Record (MD)					Borehole Record (MD)				
Run No.	Size	From	To	Run No.	Size	From	To		
2	311,000 mm	111.70 m	824.00 m						
3	216,000 mm	824.00 m	2,610.00 m						
Casing Record (MD)									
	Size	Weight	From	To					
	762,000 mm	307.00 kgpm	80.10 m	111.00 m					
	340,000 mm	101.20 kgpm	80.10 m	817.60 m					

MWD Run Number	100	200			
Date run completed	26-Oct-05	01-Nov-05			
Rig Bit Number	2	3			
Bit Size (mm)	311	216			
Tool Nominal OD (mm)	203	171			
Log Start Depth (MD, m)	111.7	824.0			
Log End Depth (MD, m)	824.0	2,610			
Drill or Wipe	Drilling	Drilling			
Drill/Wipe Start Date and Time	25-Oct-05 04:40	28-Oct-05 05:10			
Drill/Wipe End Date and Time	25-Oct-05 23:59	01-Nov-05 01:45			
Min Inc (deg) @ Depth (MD, m)	0.19 @ 316.46	0.47 @ 2,030.20			
Max Inc (deg) @ Depth (MD, m)	1.36 @ 804.24	1.41 @ 2,517.63			
Bit TFA(in2) / Bit Type	1.74 / Security FS2563	1.11 / Smith S73VPX			
Flow Rate (gpm)	1,060	600			
Max AV (mpm) / CV (mpm) @ MWD	N/A / N/A	181.5 / 137.2			
Fluid Type	Seawater/PHG	KCl/PHPA			
Density (sg) / Viscosity (spqt)	1.06 / N/A	1.22 / 67.0			
Filtrate CL (ppm)	N/A	47,000			
pH / Fluid Loss (mptm)	N/A / N/A	8.9 / 4.8			
PV (cp) / YP (lhf2)	N/A / N/A	26 / 18.5			
% Solids / % Sand	N/A / N/A	14 / 0.6			
% Oil / Oil:Water Ratio	N/A / N/A	N/A / 0:91			
Rm @ Measured Temp (degC)	N/A @ N/A	0.11 @ 24.0			
Rmf @ Measured Temp (degC)	N/A @ N/A	0.09 @ 22.0			
Rmc @ Measured Temp (degC)	N/A @ N/A	0.25 @ 24.0			
Max Tool Temp (degC) / Source	25.0 / EWR-P4	78.0 / EWR-P4			
Rm @ Max Tool Temp (degC)	N/A @ 25.0	0.05 @ 78.0			
Lead MWD Engineer	A. Oraekwuotu	A.Oraekwuotu/A.Rule			
Customer Representative	J. Herriot	J. Herriot			

SENSOR INFORMATION

Downhole Processor Information

Tool Type	HCIM	HCIM			
Software Version	68.18	68.18			
Sub Serial Number	198838	195232			
Insert Serial Number	074608	209729			
Logging String Serial Number	90086009H1GVR8	90086708H1RGV6			
Date and Time Initialized	25-Oct-05 03:08	28-Oct-05 12:54			
Date and Time Read	26-Oct-05 05:54:00	01-Nov-05 14:23:00			

Directional Sensor Information

Tool Type	PM	PM			
Distance From Bit (m)	18.36	32.73			
Software Version	N/A	N/A			
Sub Serial Number	124777	178482			
Sonde Serial Number	022873	126995			
Sensor ID Number	022873	126995			
Survey String Serial Number	90086411M8	90082559			
Toolface Offset (deg)	N/A	N/A			

Gamma Ray Sensor Information

Tool Type	DGR	DGR			
Distance From Bit (m)	14.98	11.51			
Recorded Sample Period (sec)	10	10			
Software Version	N/A	N/A			
Sub Serial Number	210651	64636			
Insert/Sonde Serial Number	184694	53520			

Resistivity Sensor Information

Tool Type	EWR-P4	EWR-P4			
Distance From Bit (m)	11.95	13.72			
Recorded Sample Period (sec)	12	12			
Software Version	1.38	1.38			
Sub Serial Number	122988	139216			
Receiver Insert Serial Number	123048	165129			
Transmitter Insert Serial Number	78411	110610			
Receiver Orientation	Down	Down			

Neutron Sensor Information

Tool Type		CNP			
Distance From Bit (m)		23.21			
Recorded Sample Period (sec)		10			
Sub Serial Number		186641			
Insert Serial Number		087644			
Source Serial Number		4070NK			
Source Factor		1.1400			
Pin Orientation		Up			

Density Sensor Information

Tool Type		SLD			
Distance From Bit (m)		20.40			
Recorded Sample Period (sec)		14			
Software Version		11.00			
Sub Serial Number		058245			
Insert Serial Number		071411			
Sensor ID Number		33			
Source Serial Number		2570			
Pin Orientation		Up			
Stabilizer Blade O.D. (mm)		209.55			
DPA Offset		N/A			

Sonic Sensor Information

Tool Type	BAT	BAT			
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Distance From Bit (m)	26.13	28.03			
Recorded Sample Period (sec)	15	14			
Software Version	4.00	4.00			
Sub Serial Number	144401	1150515			
Receiver Insert Serial Number	136555	195076			
Transmitter Insert Serial Number	143996	191710			

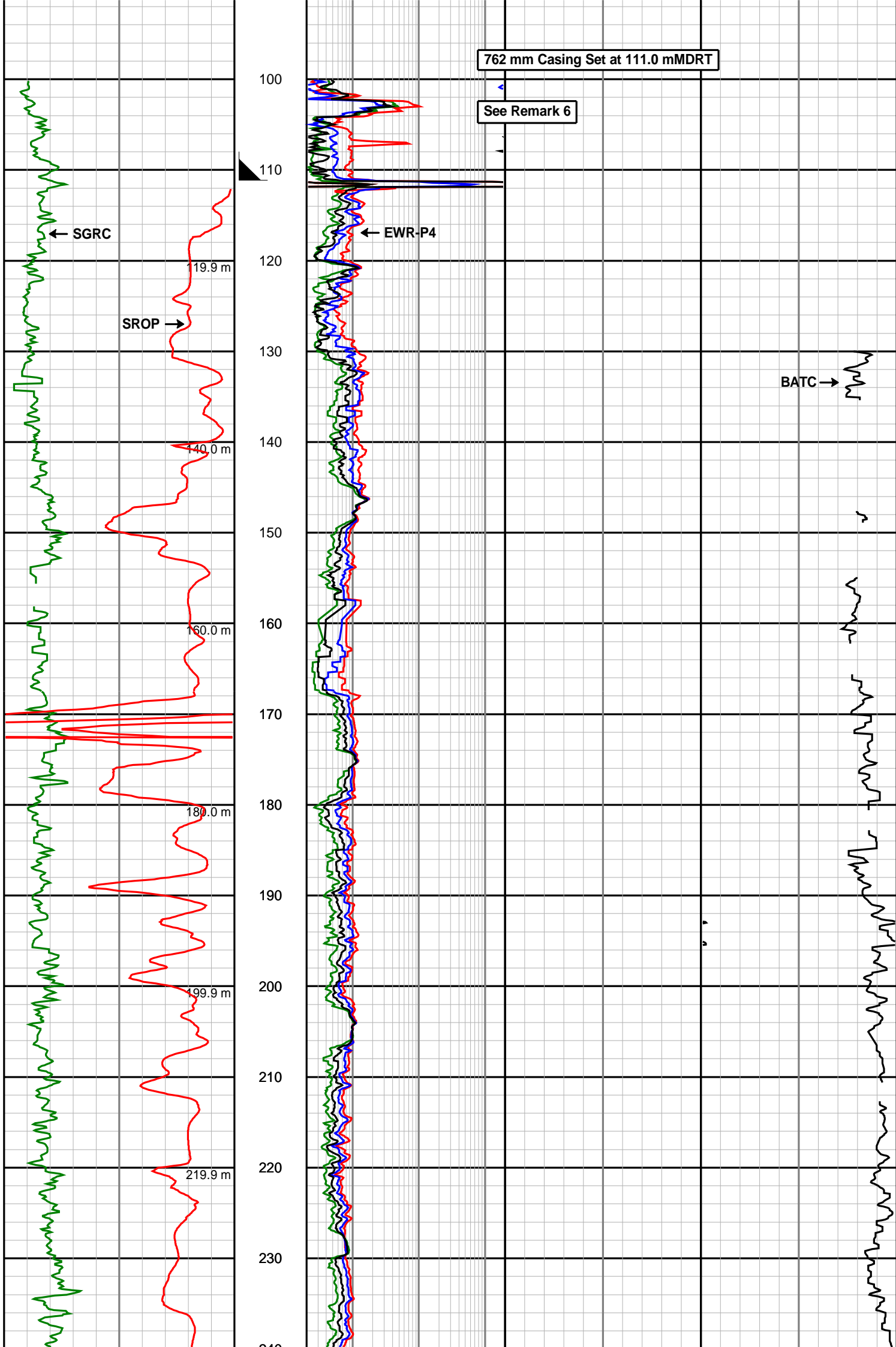
REMARKS

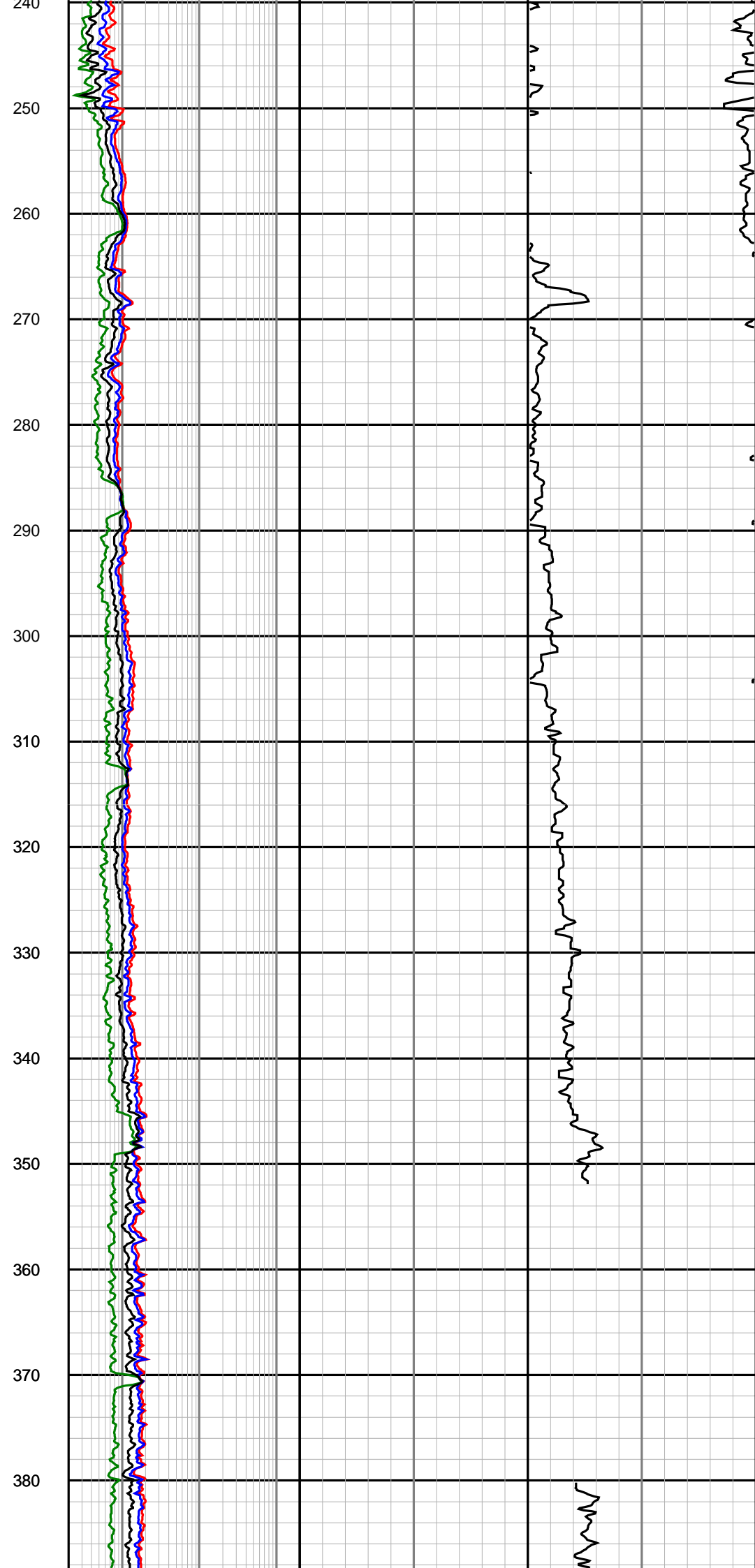
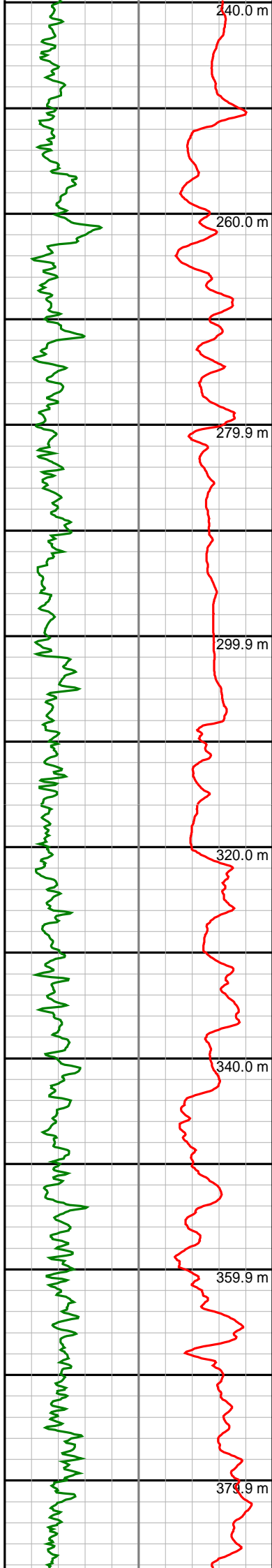
- All depths are bit depths and referenced to the drillers pipe tally unless otherwise noted.
- AV/CV is calculated at the MWD collar using the Power Law for water based muds and is in m/min.
- Curve mnemonics are :
 SROP - Smoothed Rate of Penetration, m/hr
 SGRC - Smoothed Dual Gamma Ray Combined, api
 SHSI - Smoothed Hole Size Indicator from Density Tool, in
 SEXP - Smoothed Extra Shallow Phase Shift Derived Resistivity, ohmm
 SESP - Smoothed Shallow Phase Shift Derived Resistivity, ohmm
 SEMP - Smoothed Medium Phase Shift Derived Resistivity, ohmm
 SEDP - Smoothed Deep Phase Shift Derived Resistivity, ohmm
 SBD2 - Smoothed Best Bin Bulk Density Compensated, g/cc
 SCO2 - Smoothed Best Bin Stand-off Correction, g/cc
 SNP2 - Smoothed Best Bin Near Photoelectric Effect, b/e
 NUCL - Smoothed CNP Neutron Porosity, v/v
 BATC - Bi-Modal Acoustic Compressional Slowness, us/ft
- CNP data was processed using the CNP-E algorithm using the following parameters and is based on a Limestone matrix:
 MW = 1.20 - 1.22 SG
 Formation Salinity = 24,000 ppm Cl
 Mud Salinity = 27,000 - 47,000 ppm Cl
 Matrix Density = 2.71 g/cc
 Fluid Density = 1.00 g/cc
- CNP data has been reprocessed using borehole diameter from the density tool.
- Data from intervals from 100.0 to 111.0 and 809.5 to 817.6 mMDRT were logged behind casing.

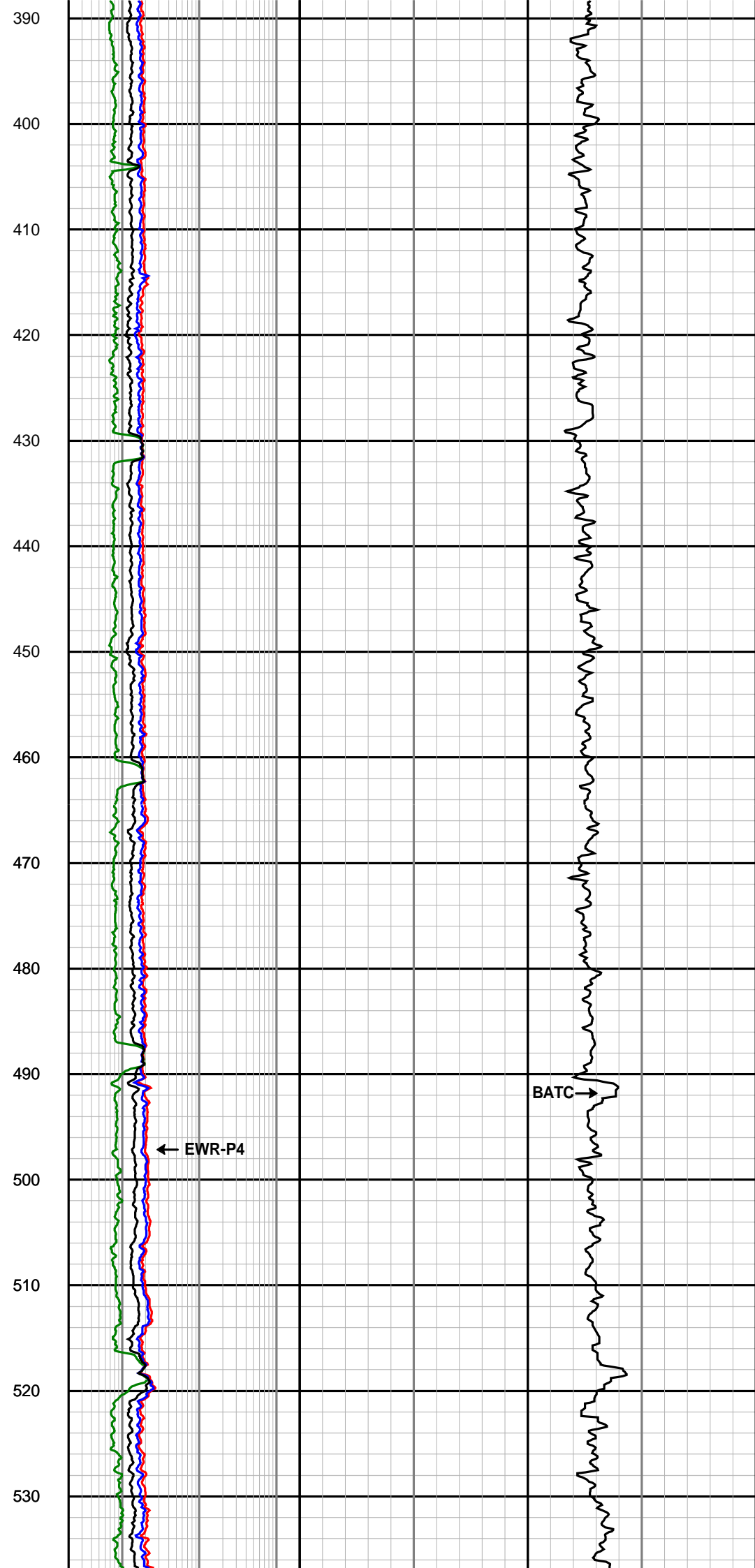
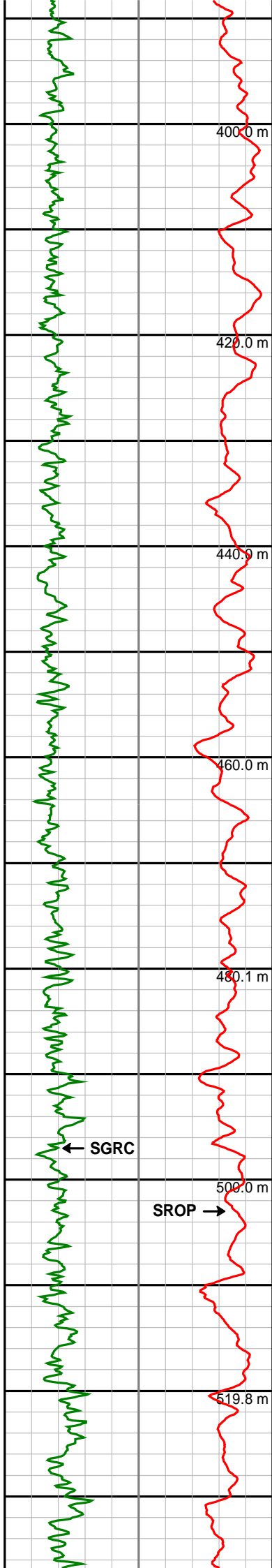
WARRANTY

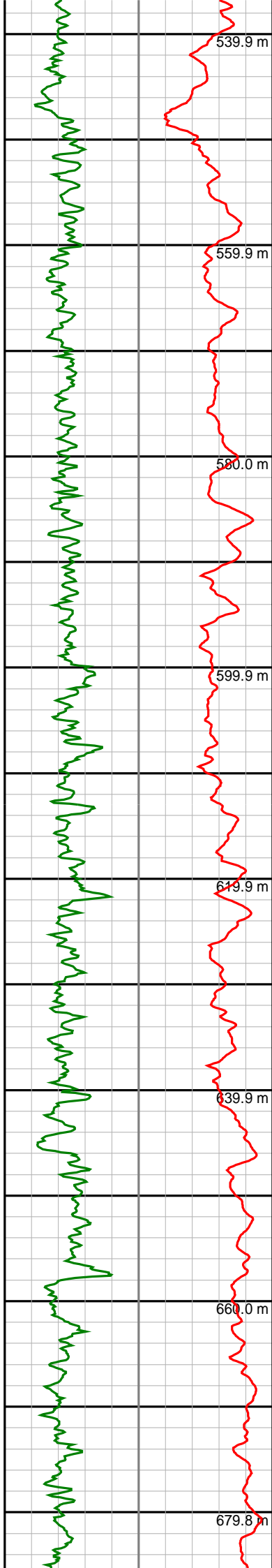
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TVD metres		Deep Phase Res (SEDP) ohmm			
		0.2 200			
SLD Rapid Caliper (SHSI) inches		Medium Phase Res (SEMP) ohmm	Density (SBD2) gram per cc		
6 26		0.2 200	1.95 2.95		
Rate of Penetration (SROP) m/hr		Shallow Phase Res (SESP) ohmm	Neutron Porosity (NUCL) v/v	Photoelectric Effect (SNP2) barns/electron	
500 0		0.2 200	0.45 -0.15	0 10	
Gamma Ray (SGRC) api	Depth MD 1:500	Ext Shallow Phase Res (SEXP) ohmm	Standoff Correction (SCO2) gram per cc	Compressional Slowness (BATC) microsec per ft	
0 150		0.2 200	-0.75 0.25	140 40	

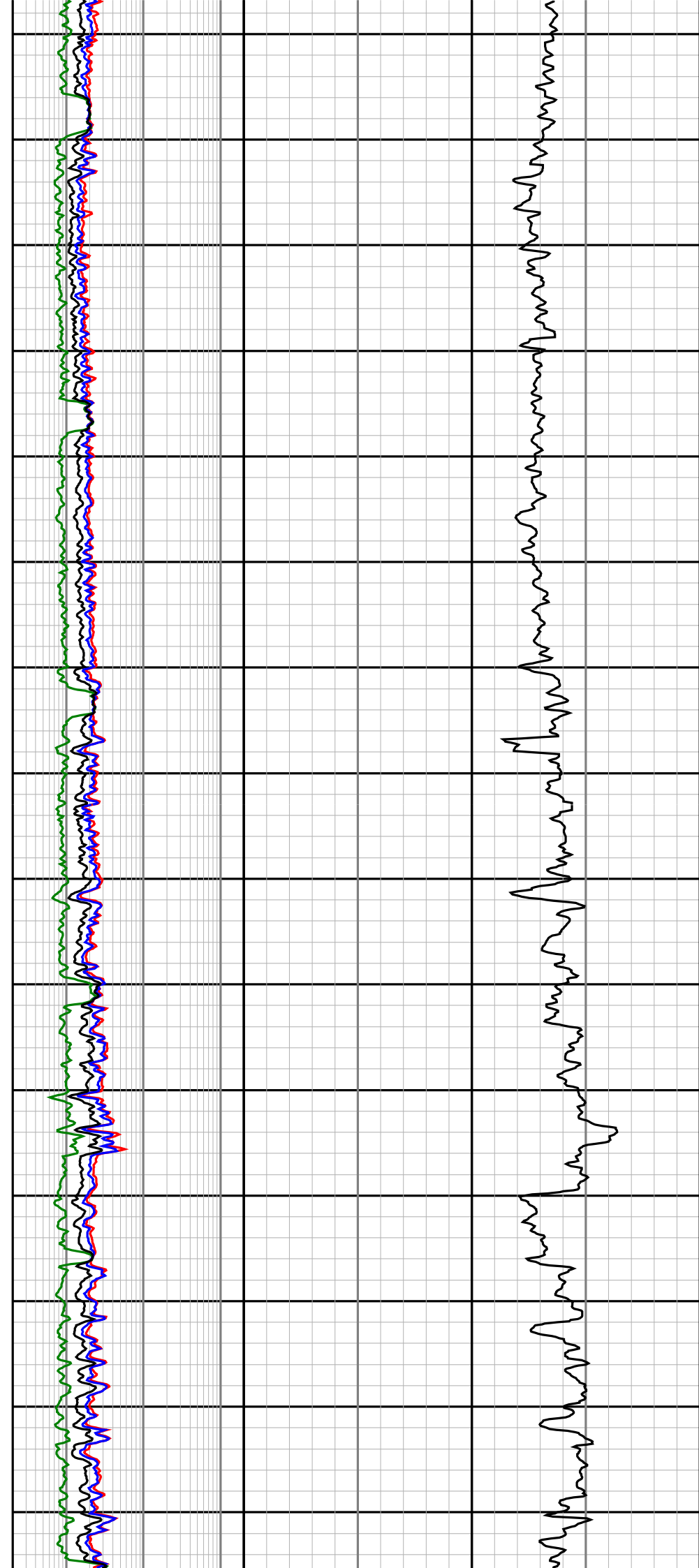


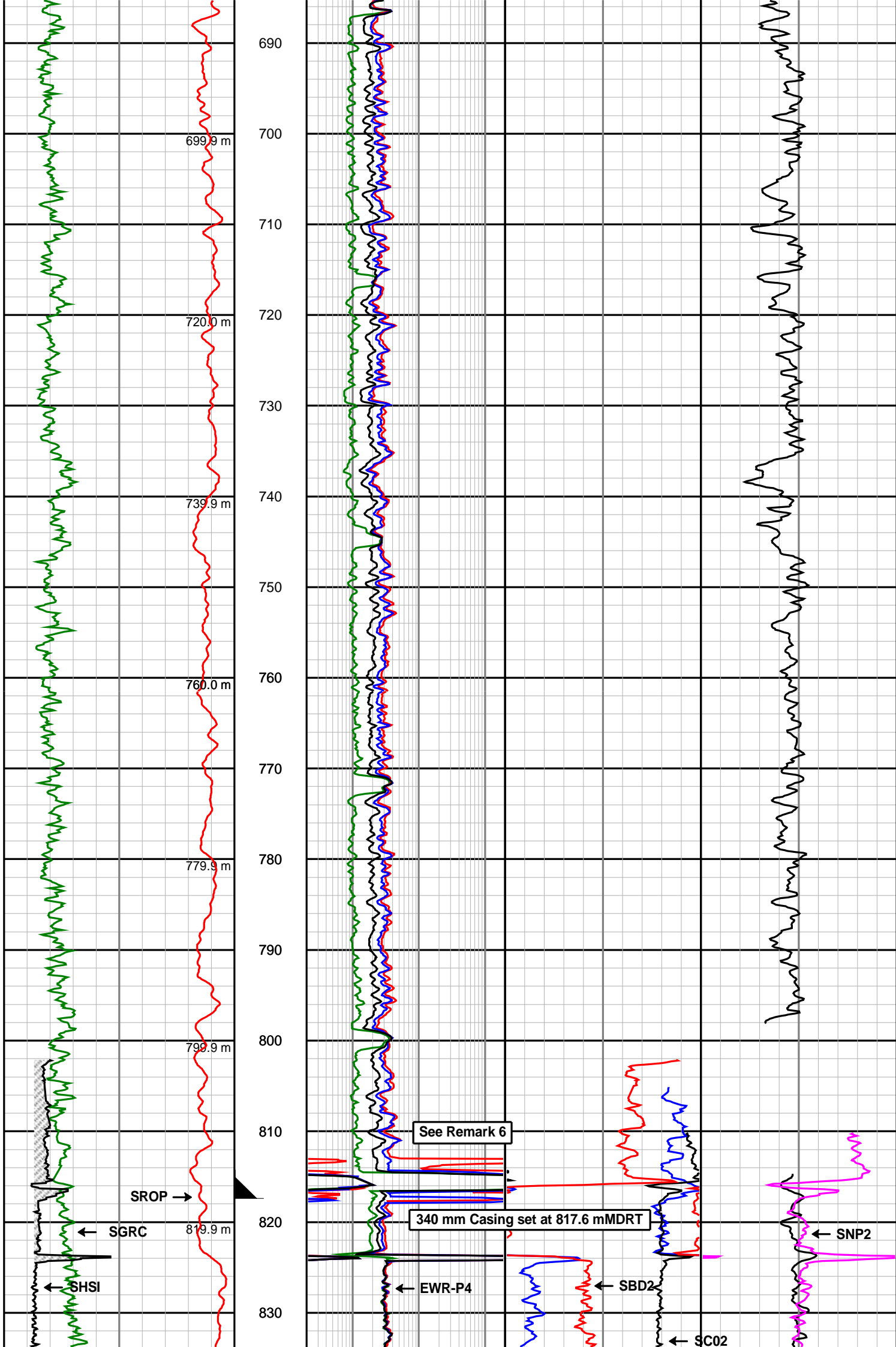


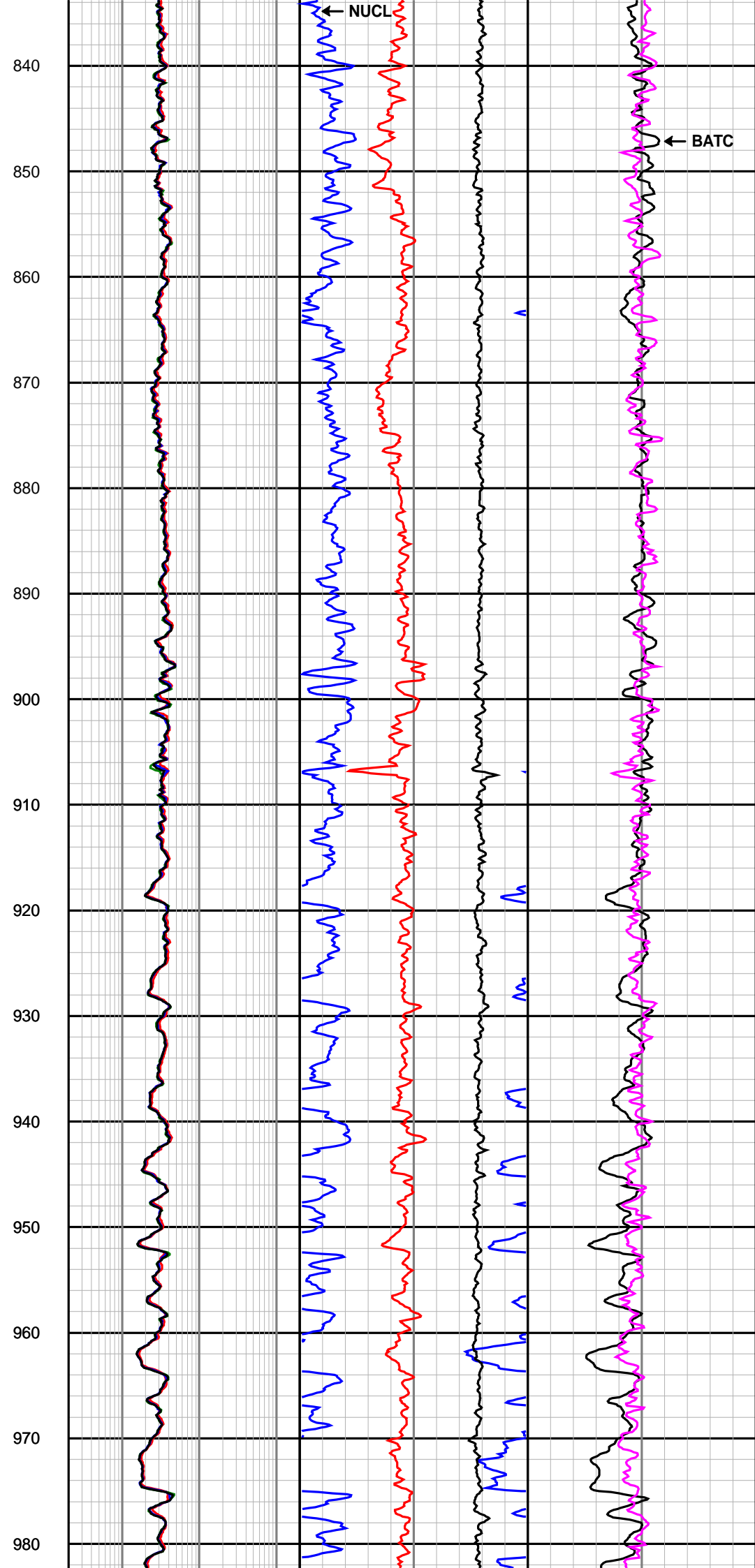
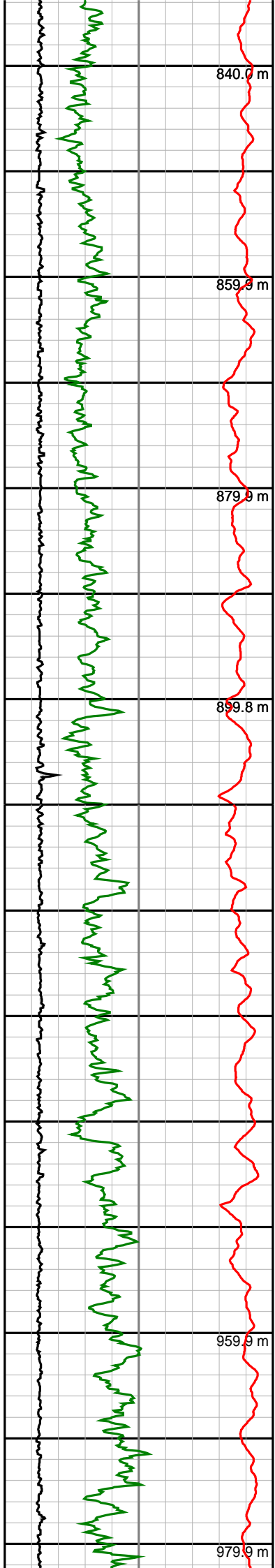


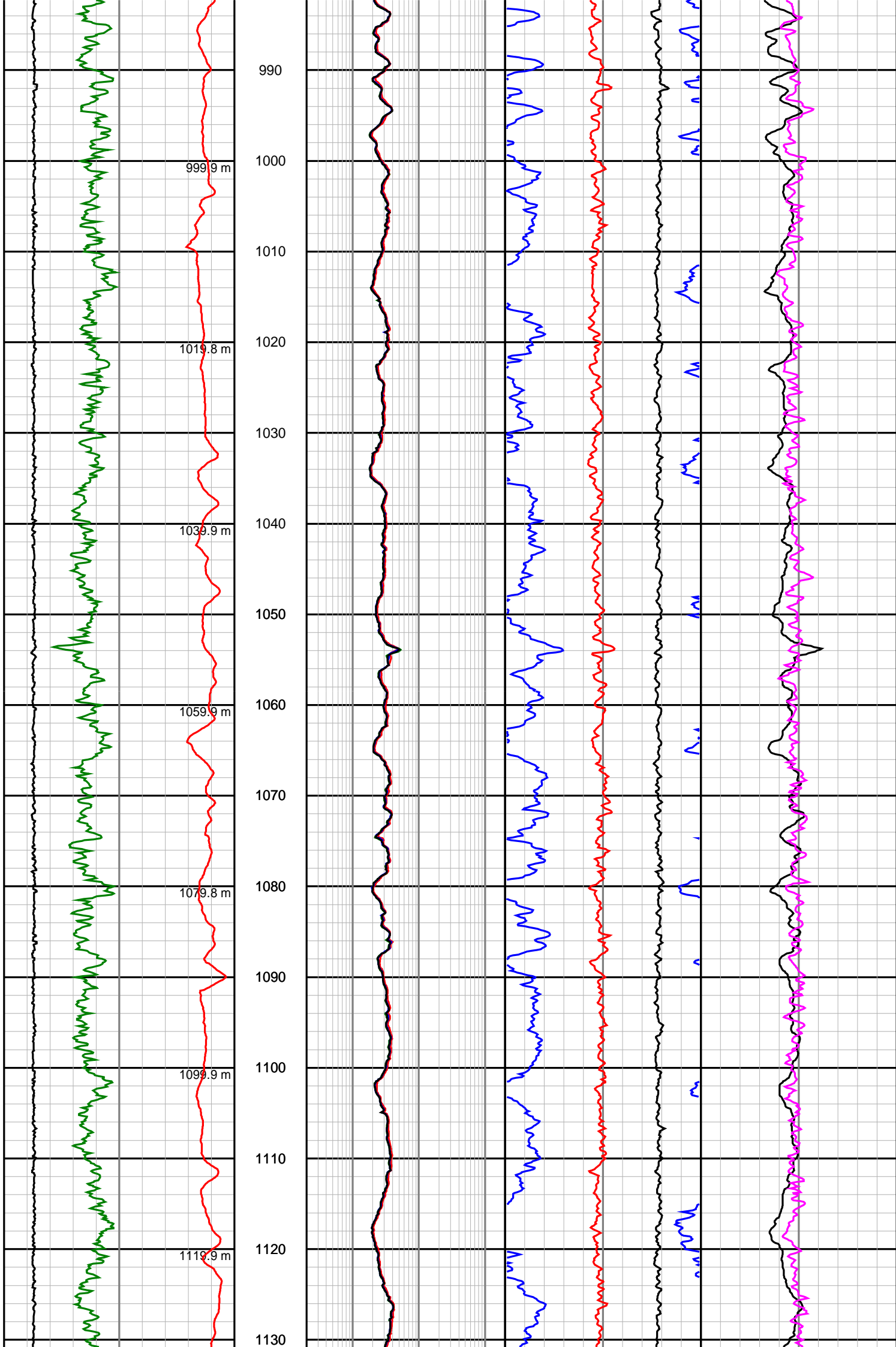


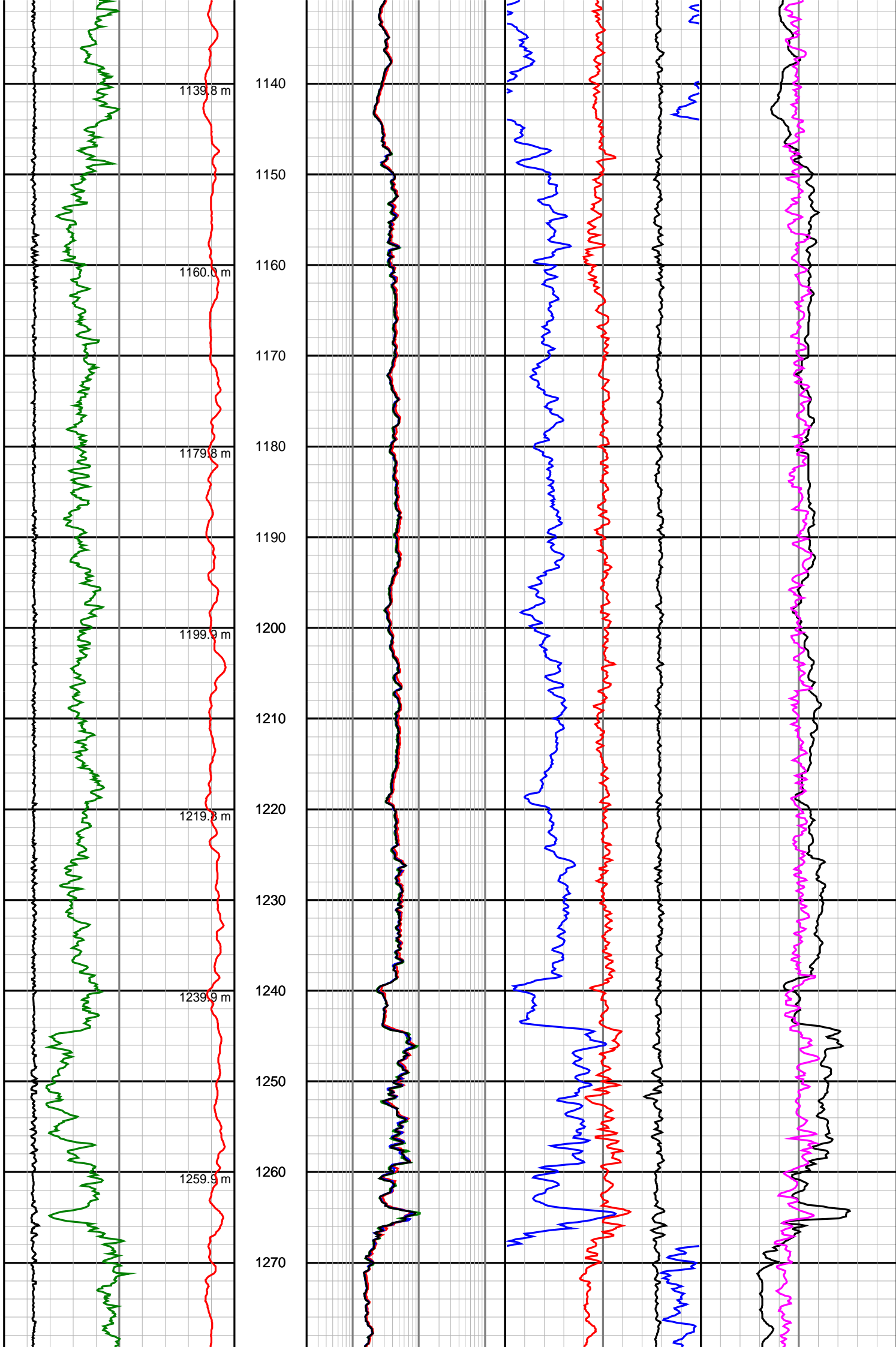
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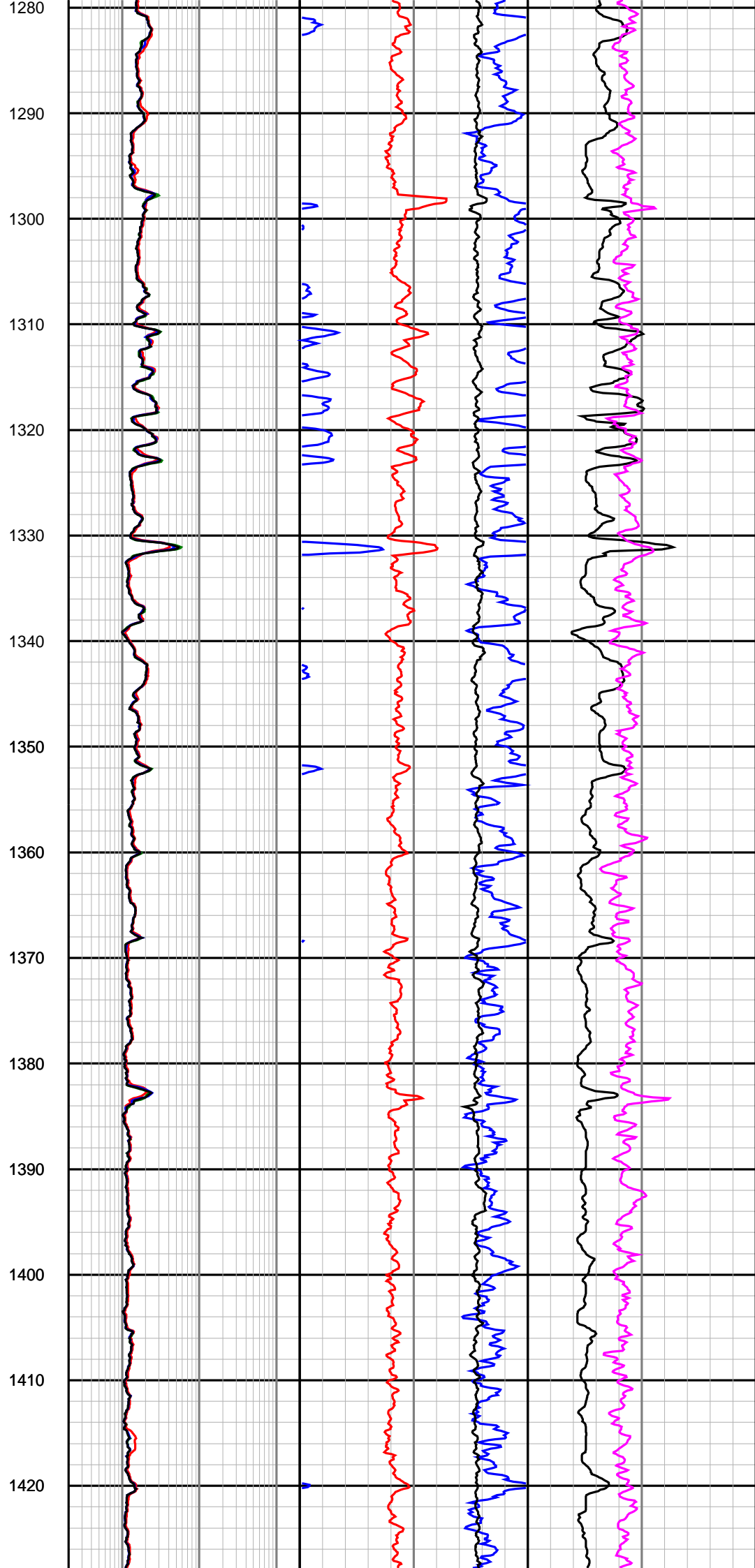
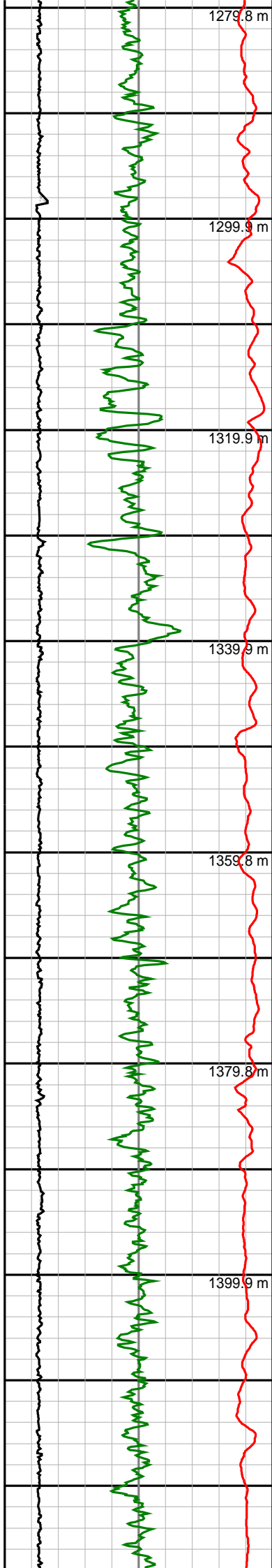


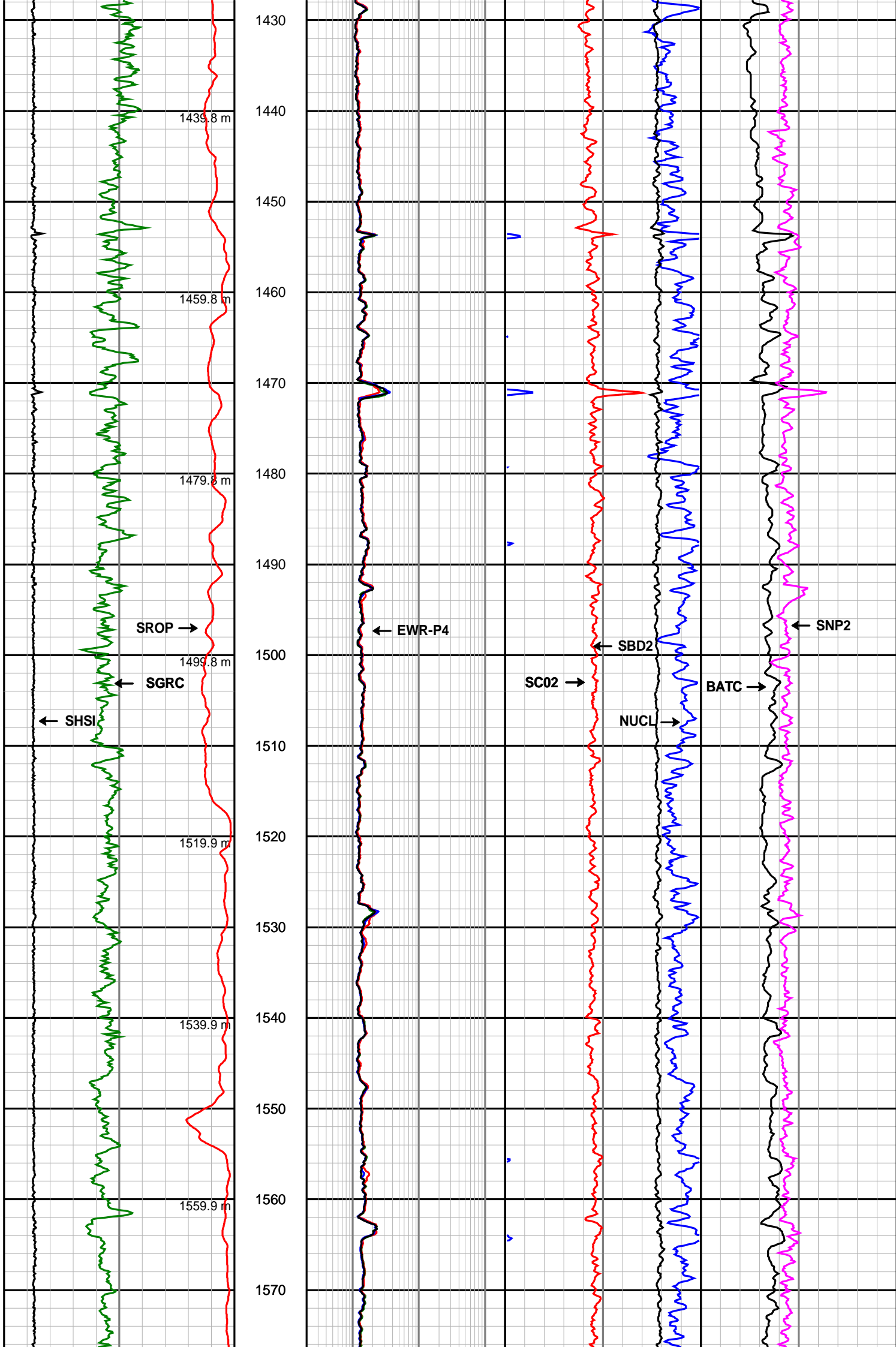


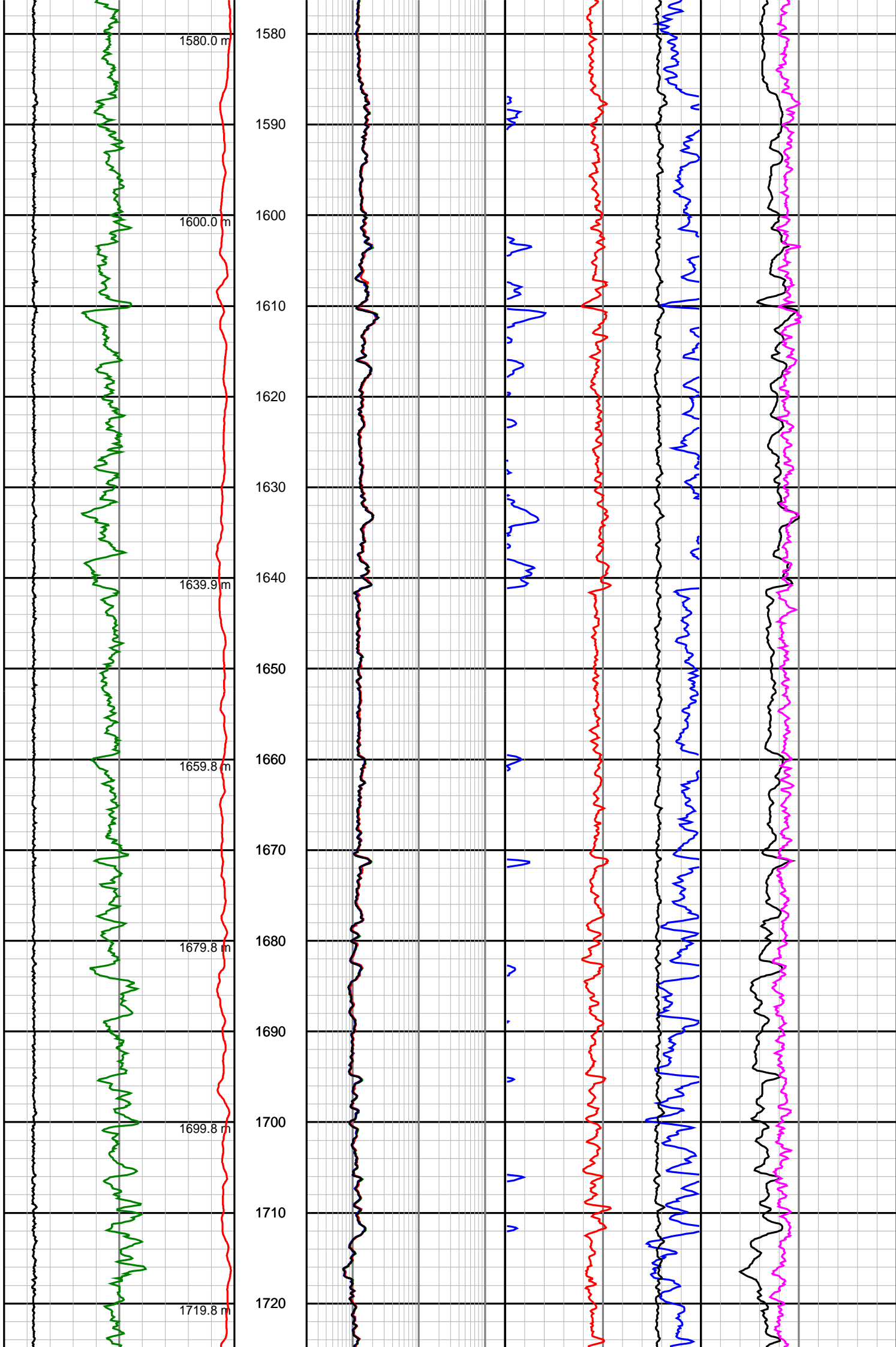


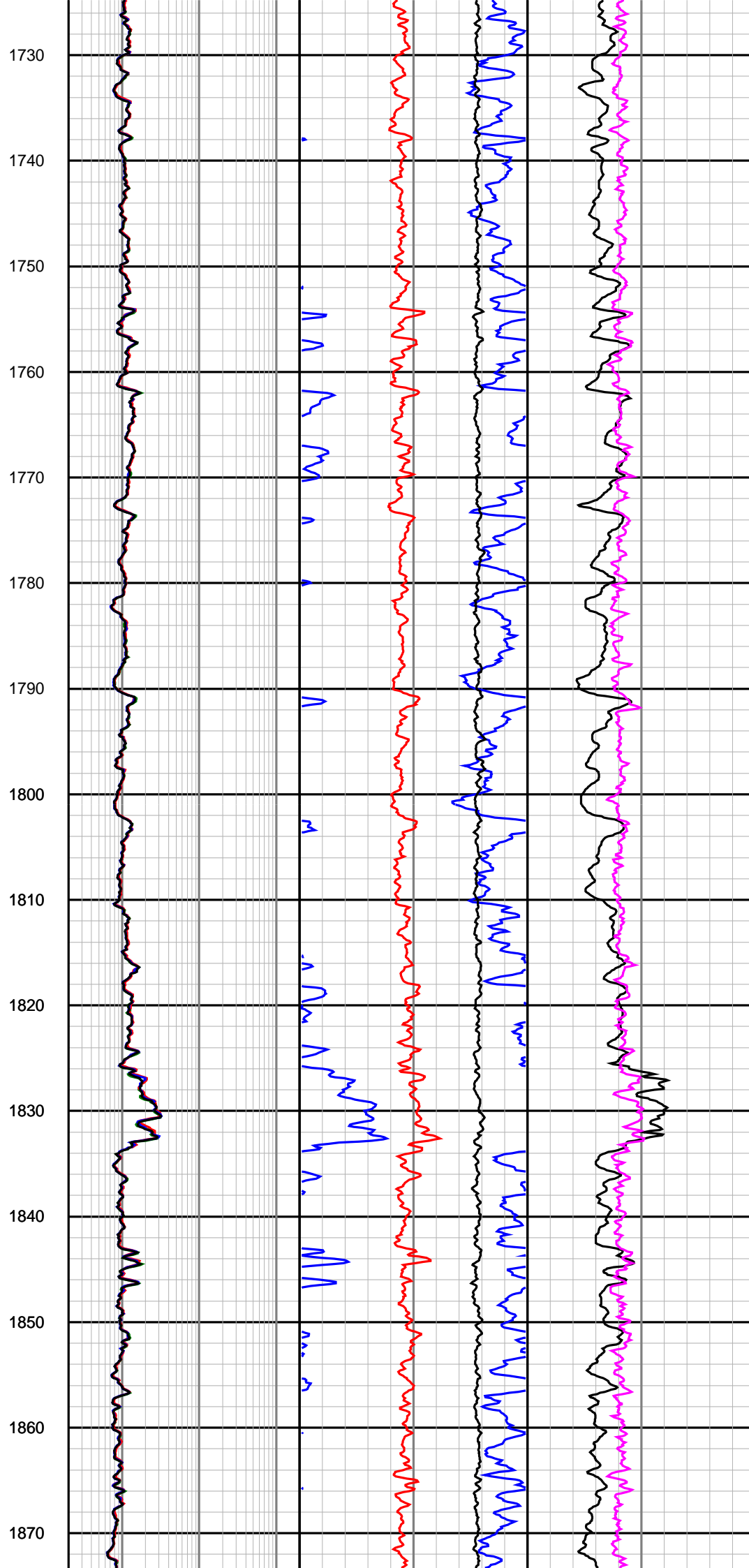
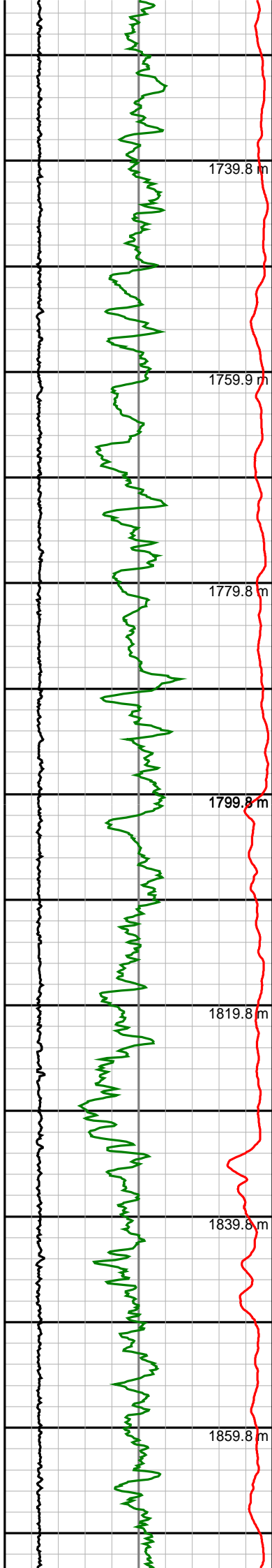


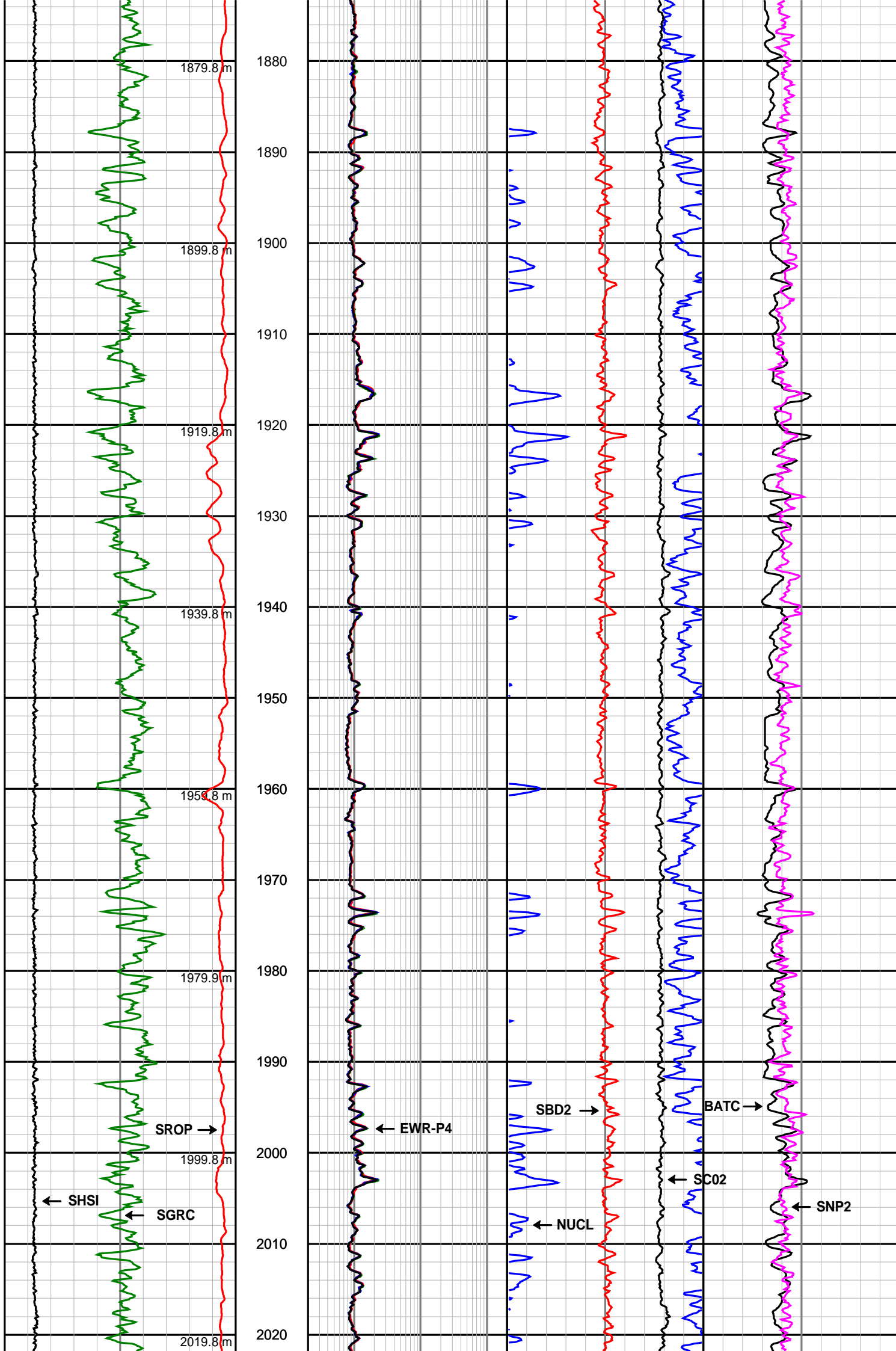


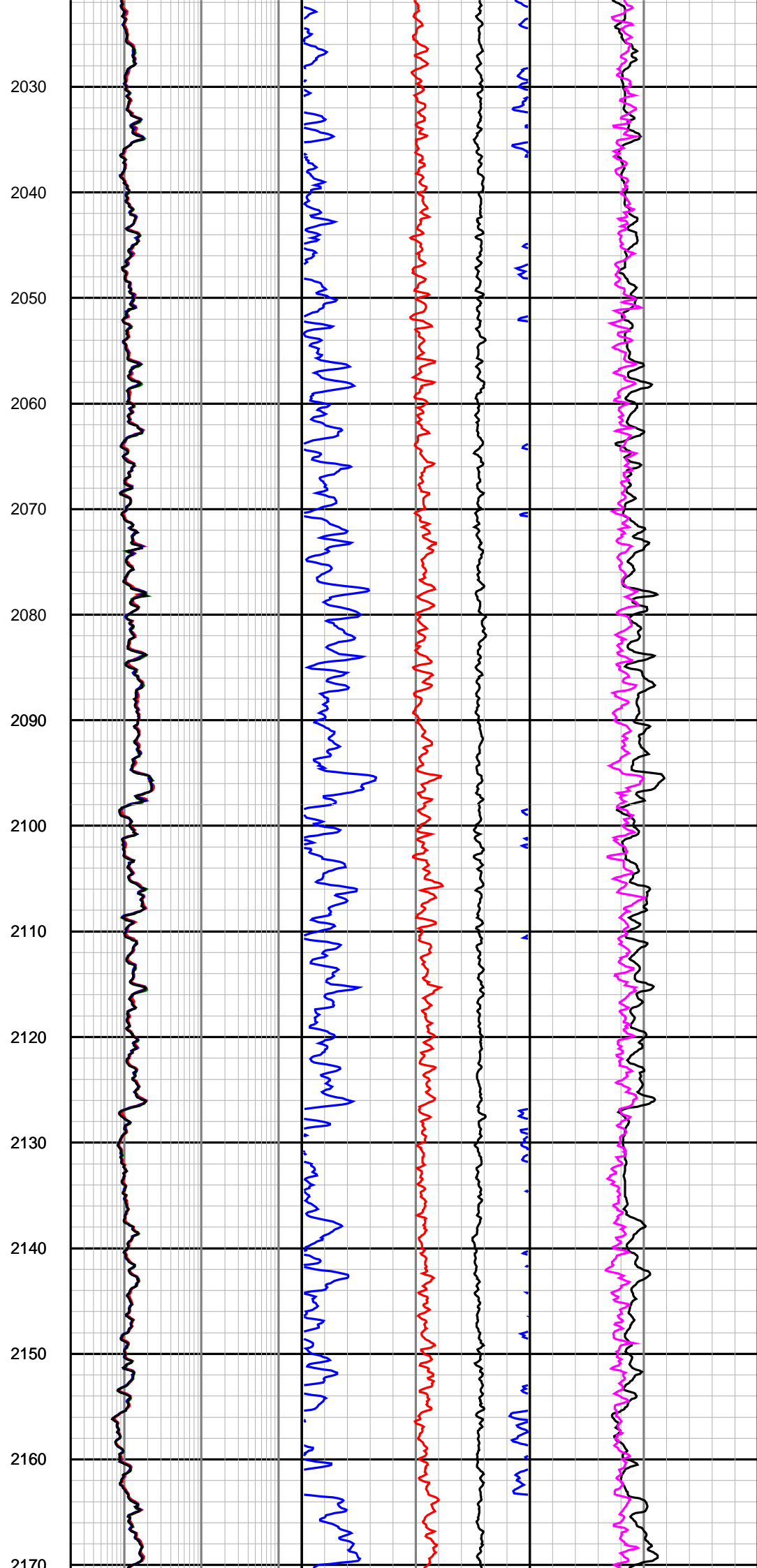
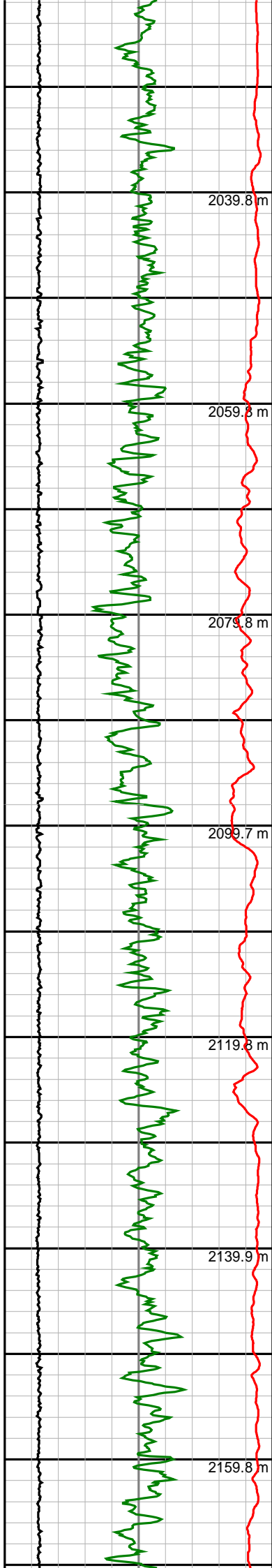


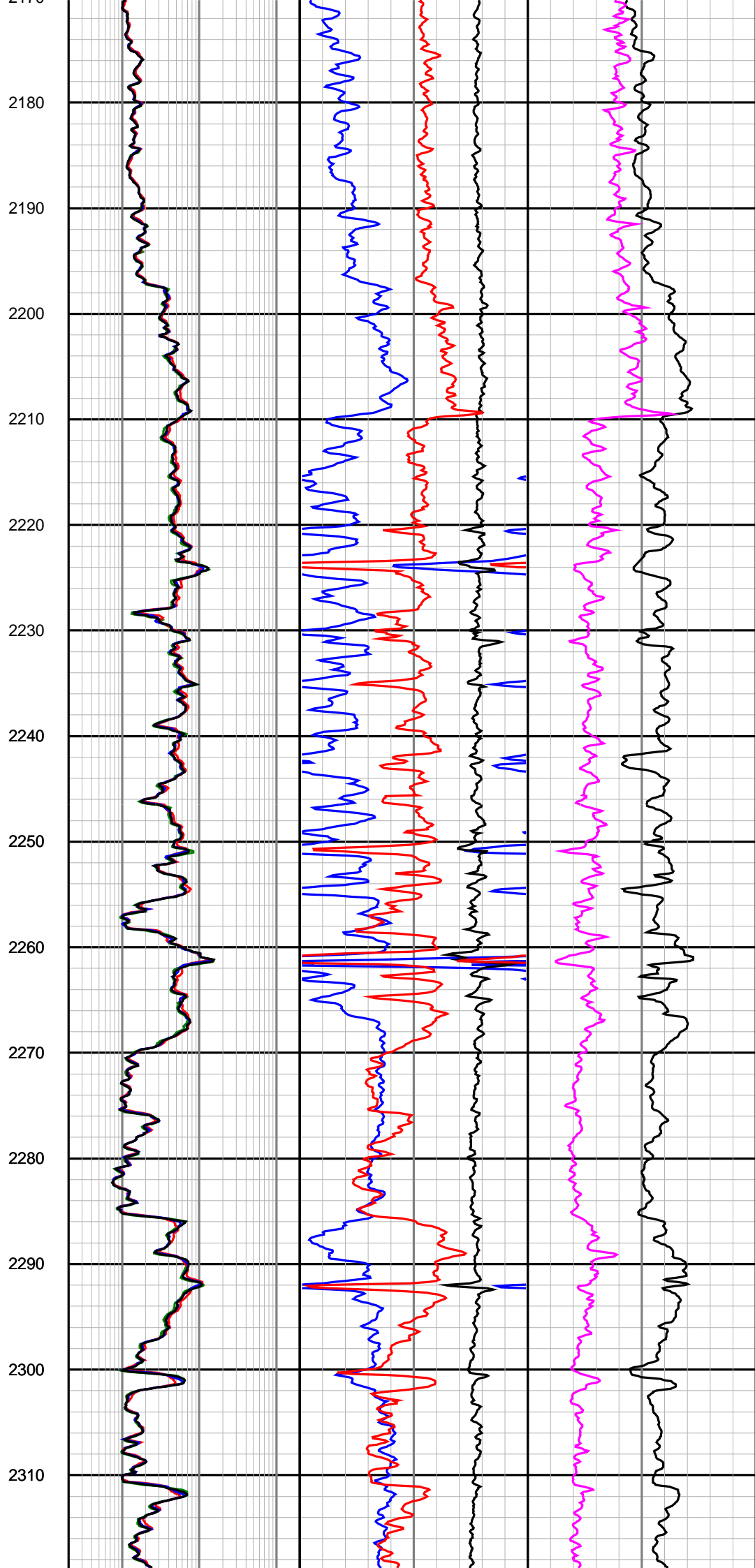
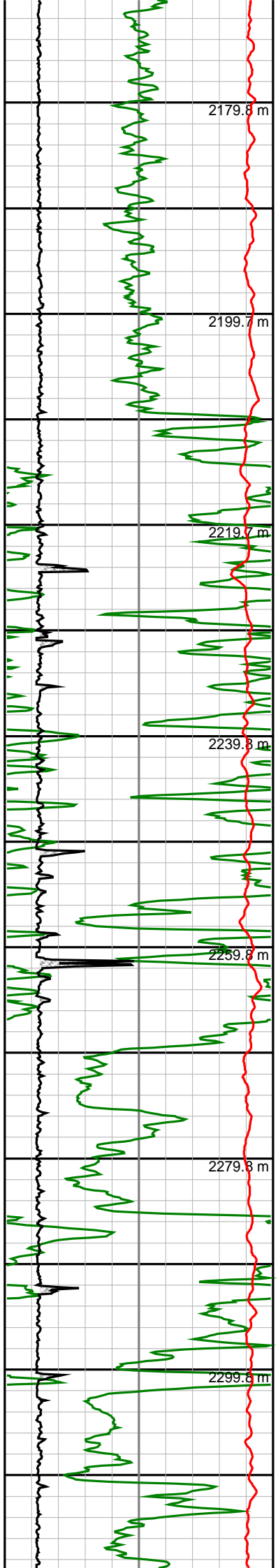


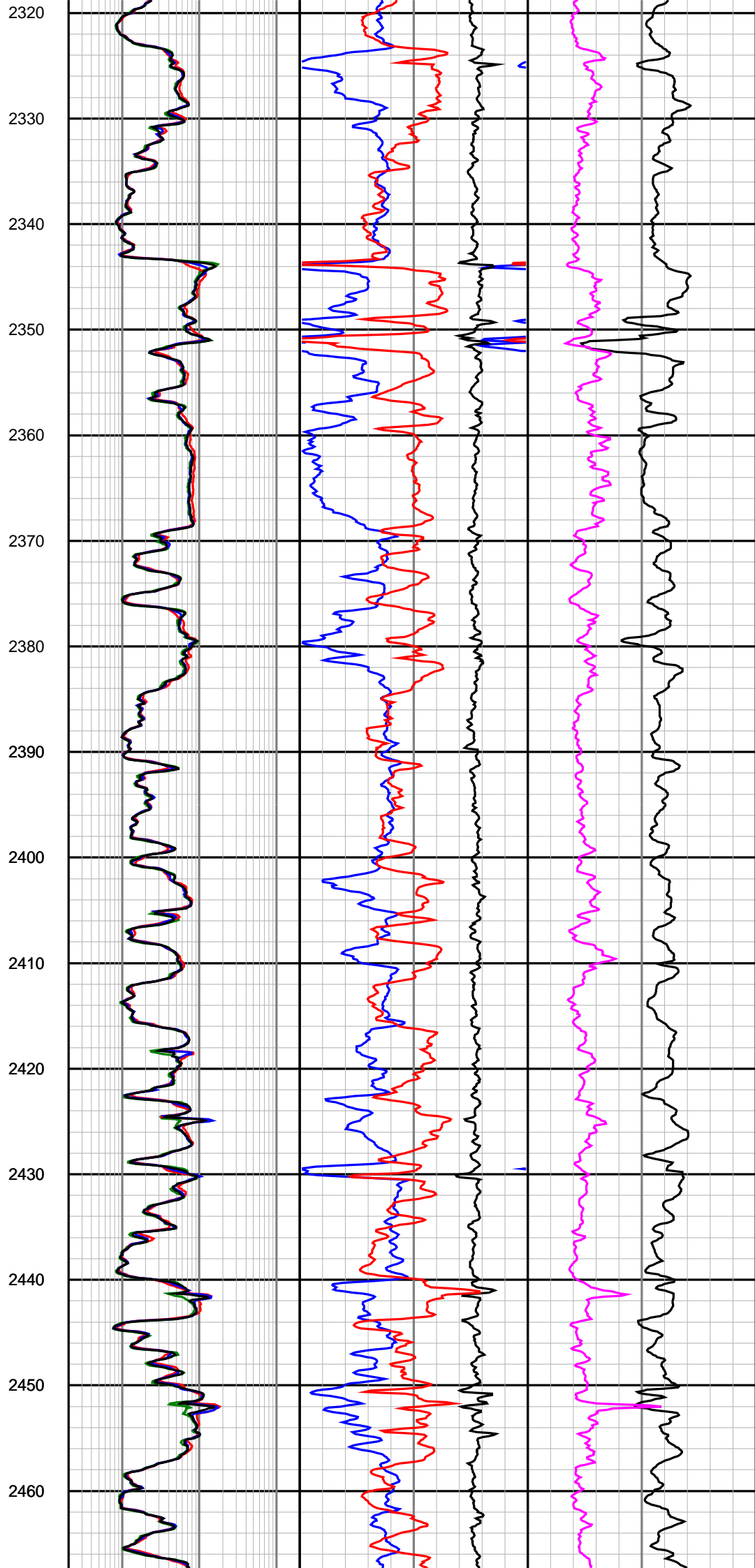
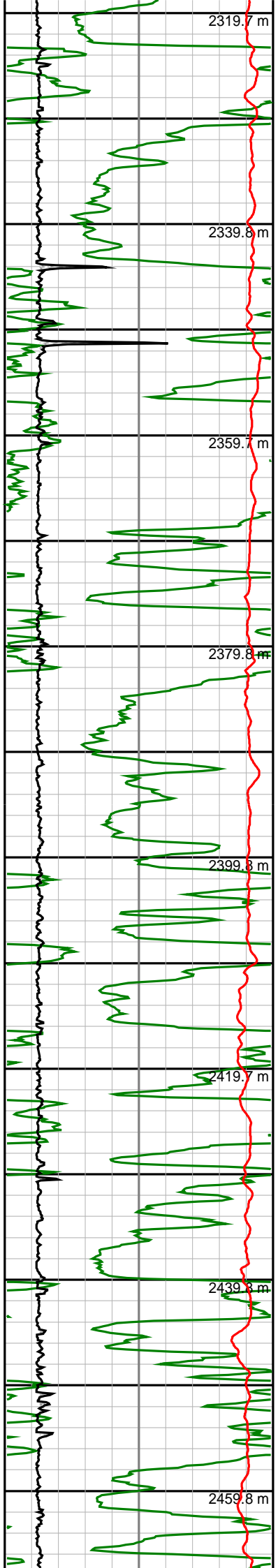


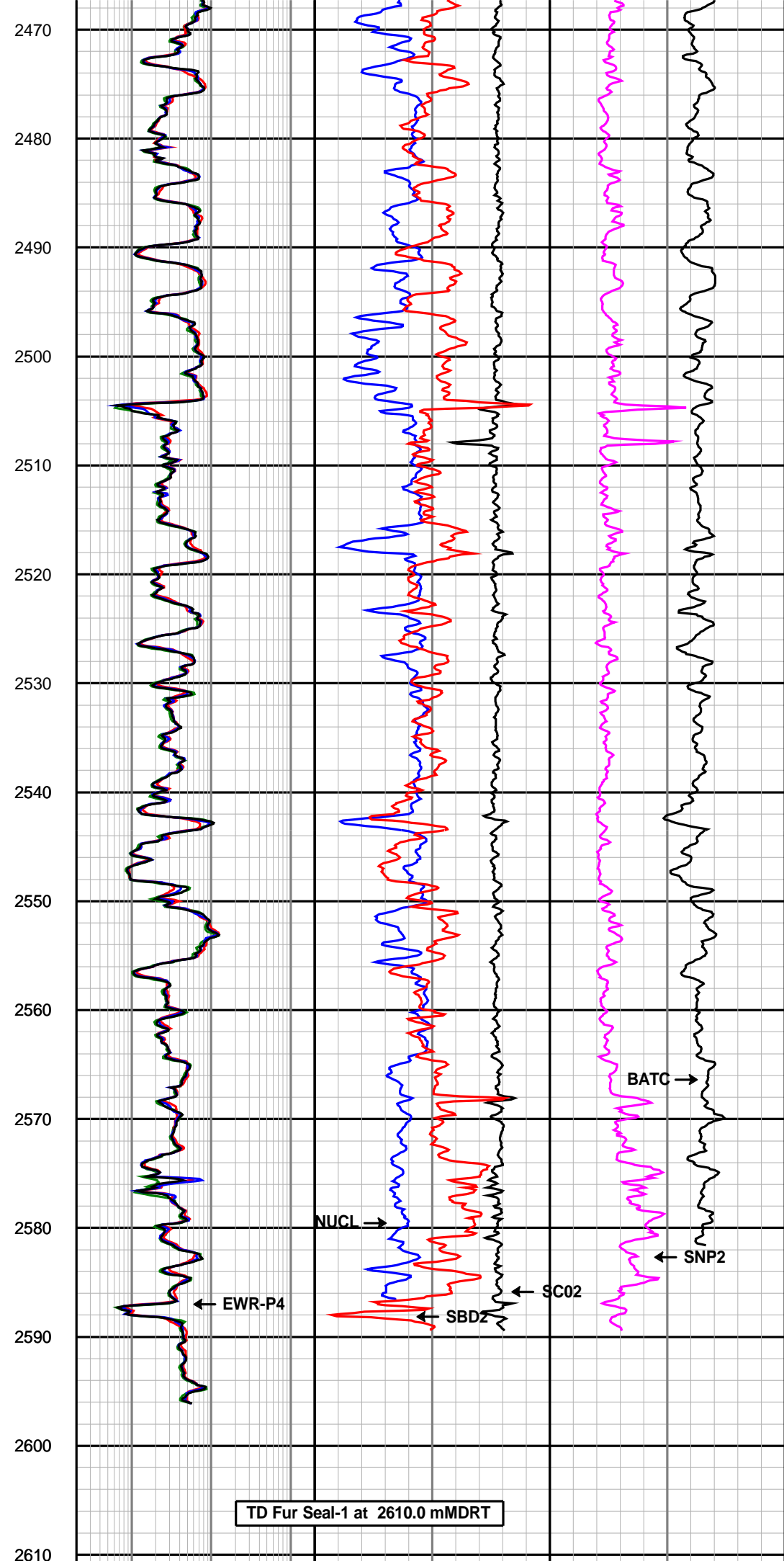
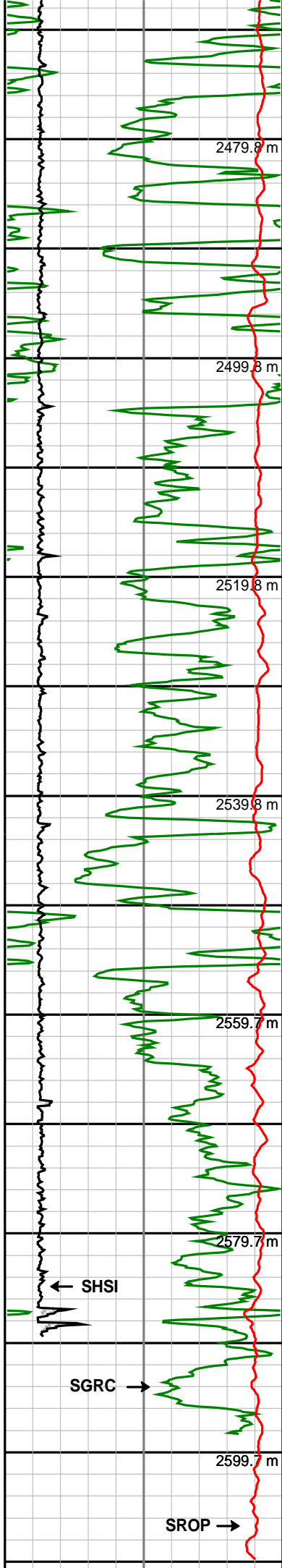












Gamma Ray (SGRC) api 150	Depth MD 1:500	Ext Shallow Phase Res (SEXP) ohmm 200	Standoff Correction (SCO2) -0.75 gram per cc 0.25	Compressional Slowness (BATC) 140 microsec per ft 40
Rate of Penetration (SROP) m/hr 0		Shallow Phase Res (SESP) ohmm 200	Neutron Porosity (NUCL) v/v 0.45 -0.15	Photoelectric Effect (SNP2) barns/electron 10
SLD Rapid Caliper (SHSI) inches 6 26		Medium Phase Res (SEMP) ohmm 200	Density (SBD2) gram per cc 1.95 2.95	
TVD metres		Deep Phase Res (SEDP) ohmm 200		



HALLIBURTON

DIRECTIONAL SURVEY REPORT

Apache Energy Ltd

Fur Seal-1

Exploration

Victoria

Australia

AU-FE-0003890148

Final Survey projected to TD. RT to AHD = 21.5m.

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
147.580	0.20	177.10	147.580	0.260 S	0.013 E	-0.260	0.04
202.770	0.44	176.34	202.769	0.569 S	0.032 E	-0.569	0.13
230.700	0.60	175.42	230.698	0.821 S	0.050 E	-0.821	0.17
259.170	0.44	182.26	259.166	1.079 S	0.058 E	-1.079	0.17
316.460	0.19	202.22	316.456	1.388 S	0.014 E	-1.388	0.14
431.050	0.42	169.27	431.044	1.977 S	0.022 E	-1.977	0.08
574.280	0.77	174.99	574.266	3.457 S	0.205 E	-3.457	0.07
631.930	0.59	187.00	631.912	4.138 S	0.203 E	-4.138	0.12
747.010	1.16	234.79	746.979	5.397 S	0.820 W	-5.397	0.23
804.240	1.36	261.58	804.196	5.830 S	1.963 W	-5.830	0.32
825.390	1.41	257.87	825.340	5.921 S	2.465 W	-5.921	0.15
854.170	1.08	262.66	854.113	6.030 S	3.081 W	-6.030	0.36
882.940	1.07	265.44	882.878	6.086 S	3.618 W	-6.086	0.05
911.810	1.19	271.36	911.742	6.100 S	4.189 W	-6.100	0.17
940.400	1.16	271.02	940.326	6.088 S	4.775 W	-6.088	0.04
969.000	1.14	275.16	968.921	6.057 S	5.347 W	-6.057	0.09
997.650	1.07	274.19	997.565	6.012 S	5.898 W	-6.012	0.09
1026.350	1.05	269.72	1026.260	5.994 S	6.426 W	-5.994	0.09
1054.970	0.93	273.03	1054.876	5.983 S	6.920 W	-5.983	0.14
1083.560	0.88	279.71	1083.463	5.934 S	7.368 W	-5.934	0.12
1112.050	0.86	280.50	1111.949	5.858 S	7.794 W	-5.858	0.02
1140.780	0.80	280.28	1140.676	5.782 S	8.205 W	-5.782	0.06
1169.420	0.69	281.95	1169.314	5.711 S	8.571 W	-5.711	0.12
1198.140	0.81	286.36	1198.031	5.618 S	8.934 W	-5.618	0.14
1255.860	1.01	305.38	1255.744	5.211 S	9.736 W	-5.211	0.19
1284.620	0.87	311.34	1284.500	4.921 S	10.105 W	-4.921	0.18
1313.270	0.86	333.94	1313.147	4.585 S	10.362 W	-4.585	0.35
1341.990	0.67	334.23	1341.865	4.241 S	10.529 W	-4.241	0.21
1370.650	0.68	330.15	1370.523	3.942 S	10.687 W	-3.942	0.05

Fur Seal-1

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
1427.720	0.77	326.65	1427.588	3.328 S	11.066 W	-3.328	0.05
1456.160	0.82	328.79	1456.025	2.995 S	11.277 W	-2.995	0.07
1484.950	0.85	336.79	1484.812	2.622 S	11.468 W	-2.622	0.12
1513.890	0.88	324.92	1513.749	2.244 S	11.680 W	-2.244	0.19
1542.830	0.86	327.87	1542.686	1.878 S	11.923 W	-1.878	0.05
1571.590	0.87	324.35	1571.442	1.517 S	12.166 W	-1.517	0.06
1599.700	0.77	338.40	1599.549	1.166 S	12.360 W	-1.166	0.24
1657.300	0.97	353.39	1657.143	0.322 S	12.559 W	-0.322	0.15
1686.010	0.88	355.80	1685.849	0.138 N	12.603 W	0.138	0.10
1715.080	0.89	6.11	1714.916	0.585 N	12.596 W	0.585	0.16
1743.680	0.78	6.96	1743.513	1.000 N	12.548 W	1.000	0.12
1772.080	0.50	6.19	1771.911	1.316 N	12.511 W	1.316	0.29
1800.650	0.48	16.78	1800.480	1.554 N	12.464 W	1.554	0.10
1829.260	0.58	38.40	1829.089	1.782 N	12.339 W	1.782	0.23
1858.090	0.50	34.50	1857.917	2.000 N	12.178 W	2.000	0.09
1887.200	0.56	59.17	1887.026	2.177 N	11.984 W	2.177	0.24
1916.070	0.69	58.49	1915.894	2.340 N	11.715 W	2.340	0.14
1944.740	0.66	50.11	1944.562	2.536 N	11.442 W	2.536	0.11
1973.020	0.75	60.07	1972.840	2.732 N	11.157 W	2.732	0.16
2001.540	0.62	65.93	2001.358	2.888 N	10.854 W	2.888	0.15
2030.200	0.47	54.96	2030.017	3.020 N	10.615 W	3.020	0.19
2058.700	0.51	43.07	2058.516	3.179 N	10.433 W	3.179	0.11
2087.390	0.51	81.71	2087.205	3.290 N	10.221 W	3.290	0.35
2116.440	0.55	117.19	2116.254	3.244 N	9.970 W	3.244	0.34
2144.780	0.56	102.11	2144.592	3.153 N	9.713 W	3.153	0.16
2231.210	0.95	136.21	2231.015	2.547 N	8.802 W	2.547	0.20
2317.050	0.95	103.22	2316.844	1.871 N	7.619 W	1.871	0.19
2402.730	0.93	77.31	2402.513	1.861 N	6.254 W	1.861	0.15
2431.360	1.07	70.01	2431.139	2.003 N	5.778 W	2.003	0.20
2460.090	1.06	56.97	2459.864	2.239 N	5.303 W	2.239	0.25
2488.890	1.28	60.60	2488.658	2.543 N	4.799 W	2.543	0.24
2517.630	1.41	56.39	2517.390	2.896 N	4.225 W	2.896	0.17
2610.000	1.41	56.39	2609.732	4.153 N	2.333 W	4.153	0.00

CALCULATION BASED ON MINIMUM CURVATURE METHOD

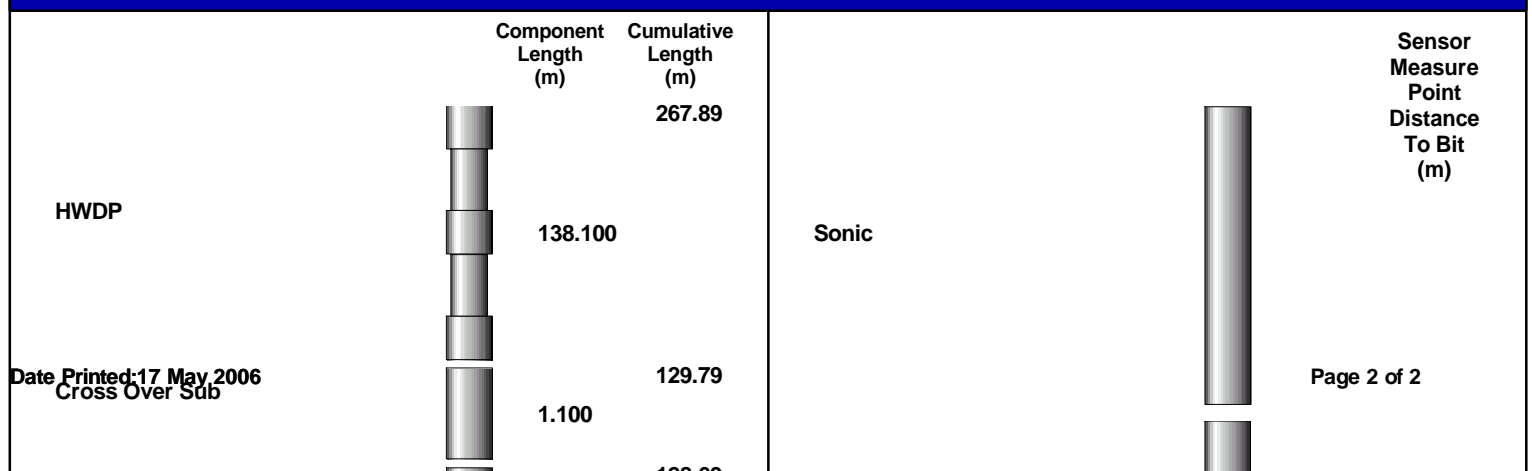
SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT















VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG A DIRECTION OF 0.00 DEGREES (GRID)
A TOTAL CORRECTION OF 13.79 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED

HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 2610.000 METRES
IS 4.764 METRES ALONG 330.68 DEGREES (GRID)

MWD RUN 100 - BHA

MWD RUN 100 - MWD









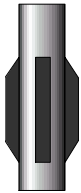










			128.69			
Drill Collar		17.470				
			111.22			
Drilling Jars		9.050				
			102.17			
Drill Collar		70.480				18.360
			31.69			
Integral Blade Stabilizer		2.150				
			29.54			
MWD		19.610				
			9.93			
Cross Over Sub		.970				14.980
			8.96			
9-5/8" SperryDrill Lobe 3/4 - 4M ₃ DI		8.540				
			0.42			
PDC		.420				11.950

MWD RUN 200 - BHA

MWD RUN 200 - MWD

	Component Length (m)	Cumulative Length (m)		Sensor Measure Point Distance To Bit (m)
		259.78		
HWDP	110.550		Pulser	
		149.23	Processor	
Drill Collar	12.680			

Drilling Jars		18.620	Directional		32.730
		130.61			
		9.680			
		120.93			
Drill Collar		83.680	Neutron		
		37.25			
MWD		26.920	Processor		
Integral Blade Stabilizer		10.33			
Float Sub		8.80	Resistivity		13.720
9-5/8" SperryDrill Lobe 3/4 - 4M ₃ DI		7.92			
PDC		7.700	Gamma Ray		11.510
		.220			
		0.22			