

Schlumberger

sonicVISION

1:200 Measured Depth

Recorded Mode Log

Company: Beach Petroleum Ltd

Well: Spikey Beach-1

Field: Exploration

Rig Name: Ocean Patriot

State: Tasmania

Country: Australia

Latitude: 40° 28' 53.9" S

Longitude: 145° 52' 24.71" E

Block:

FL: Exploration

FL1:

FL2:

Custom:

Rig Name: Ocean Patriot

Rig Type: Semi Submersible

Log Measured From - Drill Floor: 21.5 m
Permanent Datum - Mean Sea Level



Ground Level: 74.0 m

Acquisition Dates: 07 Sep 09 to 13 Sep 09

Print Interval: 163.7(m) to 2100.2(m)

Index Types: Measured Depth

Index Scales: 1:200

Depth Source: Driller's Depth

Depth Sensor: DES

Conveyance: Drill Pipe

Print Type: Field

Spud Date: 05-Sep-2009

Other Services:

Directional Surveys



Disclaimer

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Composite 2

Software Version

Acquisition System		Version	
MaxWell		1.2.8706.0	
Framework Patch		FWK-BGC-20090709-1.2.8706.1016	
Application Patch		APL-BGC-DnM-1.2.8706.1021	
Computation	Description	Version	
ARC9GammaRayComputation	ARC9 Gamma Ray Computation Package for both Real-time and Recorded Mode	1.2.8706.1021	
ARC8GammaRayComputation	ARC8 Gamma Ray Computation Package for both Real-time and Recorded Mode	1.2.8706.1021	
Tool Elements	Description	Software Version	Firmware Version
ARDC	ARC 8.25 Inch Tool Drilling Collar	1.2.8706.1021	V9.4B
DRILLING_SURFACE	DRILLING_SURFACE	1.2.8706.1016	

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Acquisition Start Date	Acquisition Start Time
Run 1	Drilling	Down	42.14 m	816.61 m	07-Sep-2009	20:16:27
Run 2	Drilling	Down	804.72 m	2100.35 m	11-Sep-2009	01:32:19
Run 2	Ream Up 1	Up	808.84 m	2091.26 m	13-Sep-2009	09:45:06

All depths are referenced to toolstring zero

Log

Composite 2 F08944D3-9C4A-4990-A62E-899C93C3FE62

Description: ARC + sonicVISION Format: Log (Spikey Beach-1 RT ARC+Sonic) Index Scale: 1:200 Index Unit: m Index Type: Measured Depth Creation Date: 14-Sep-2009 04:39:20

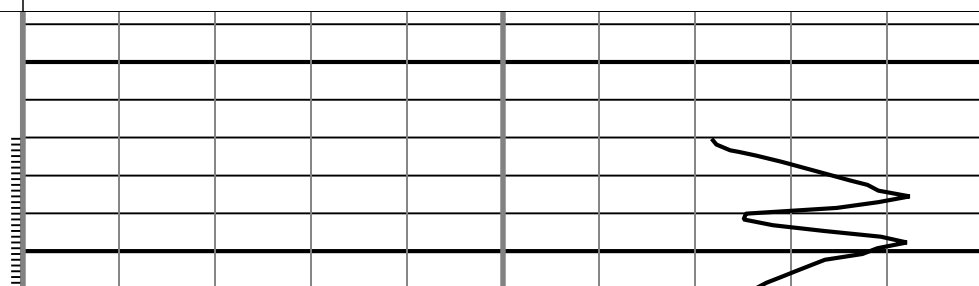
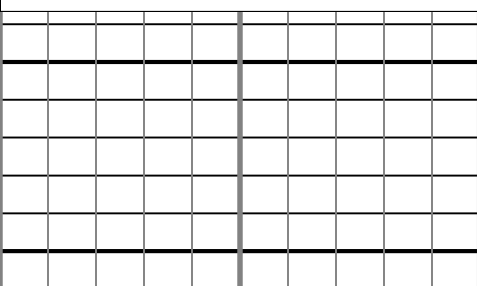
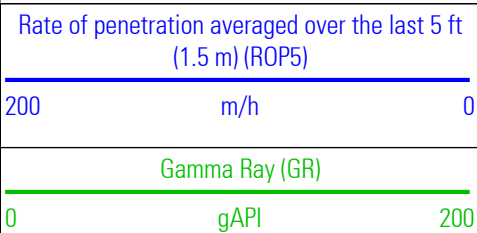
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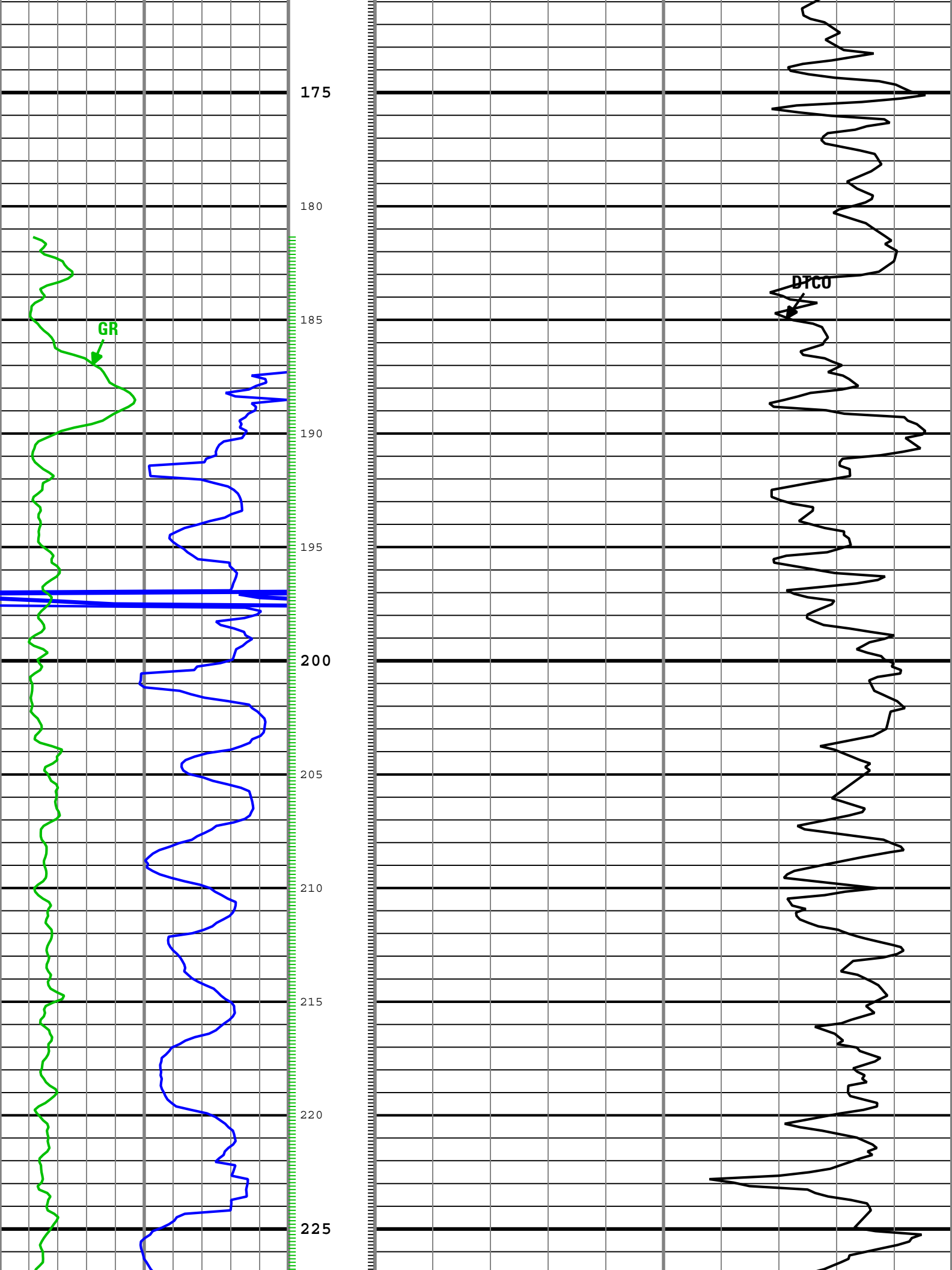
GR ARC[1]:ARC[1]:ARDC[1] 6in - RM

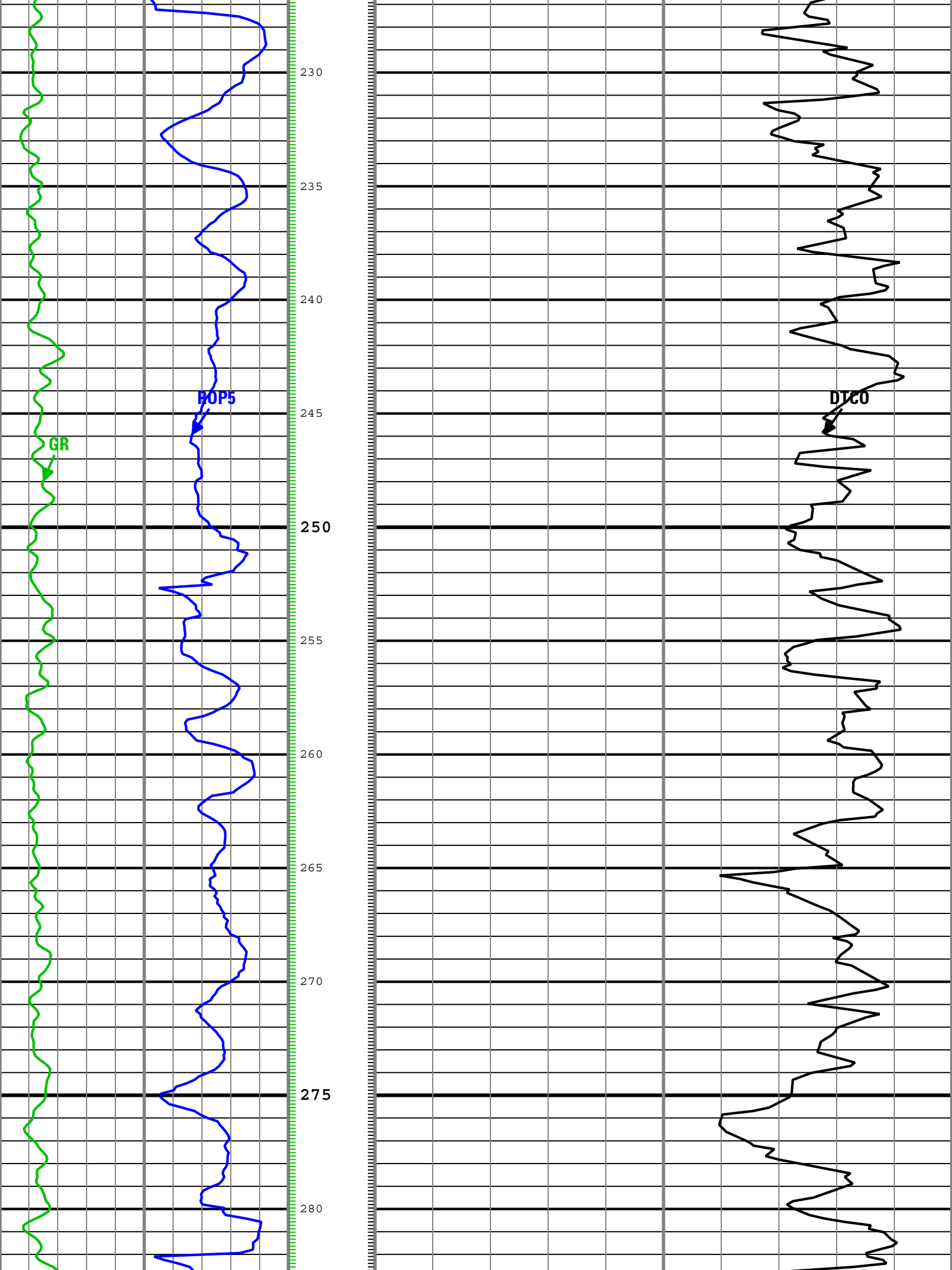
ROP5 DRILLING_SURFACE 6in - RT

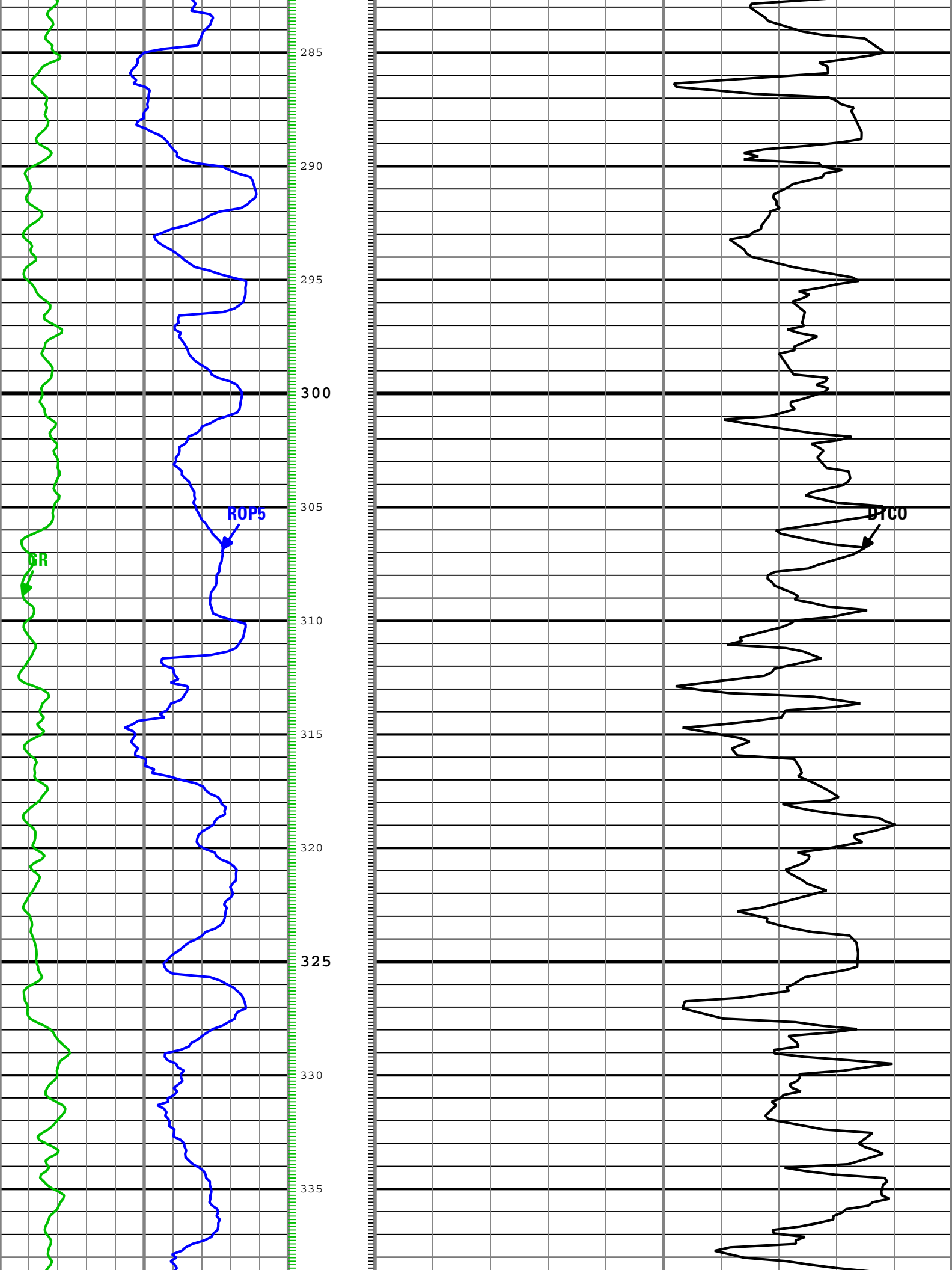
-|DTCO - Delta-T Compressional

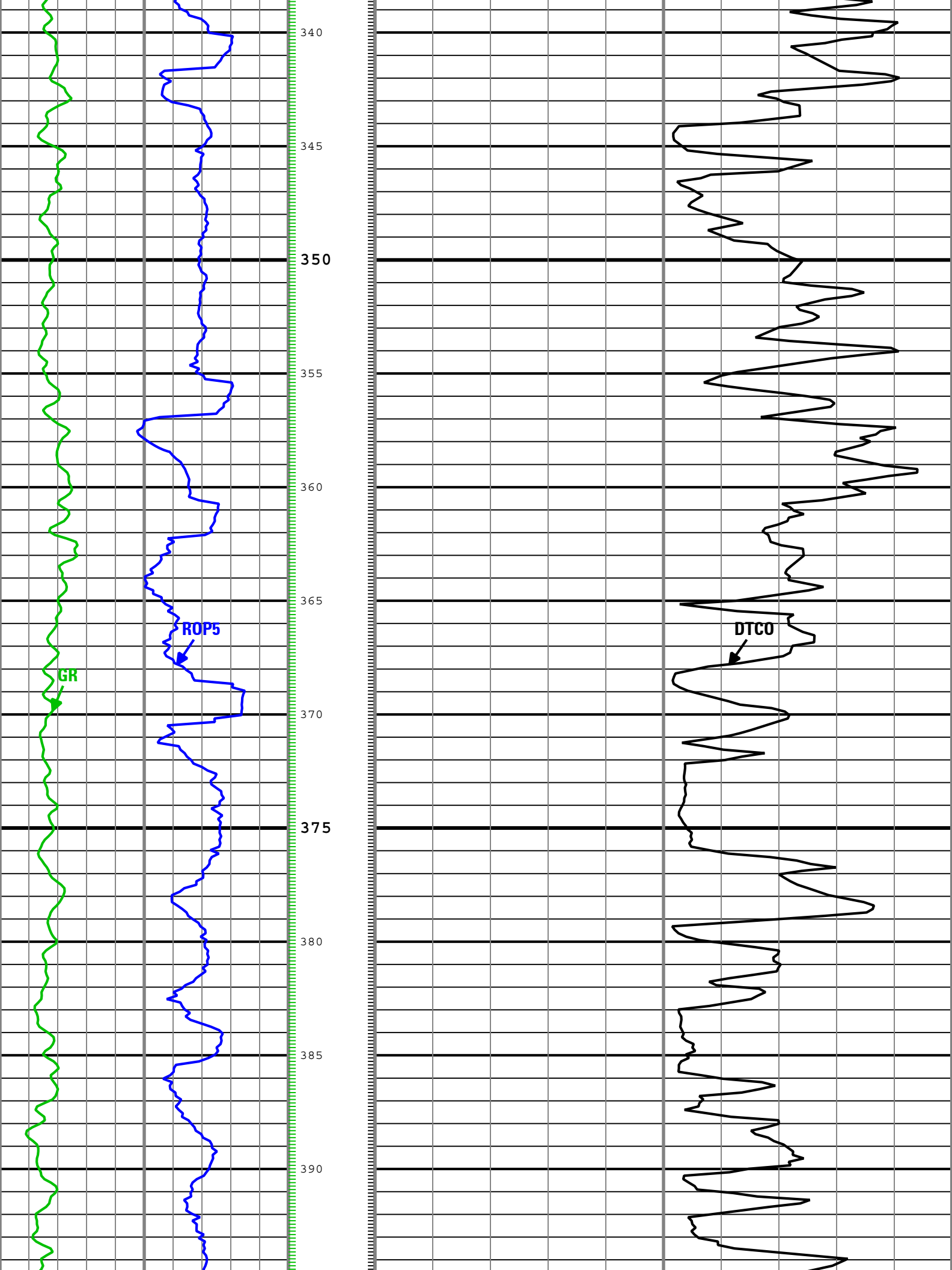
-|GR - Gamma Ray

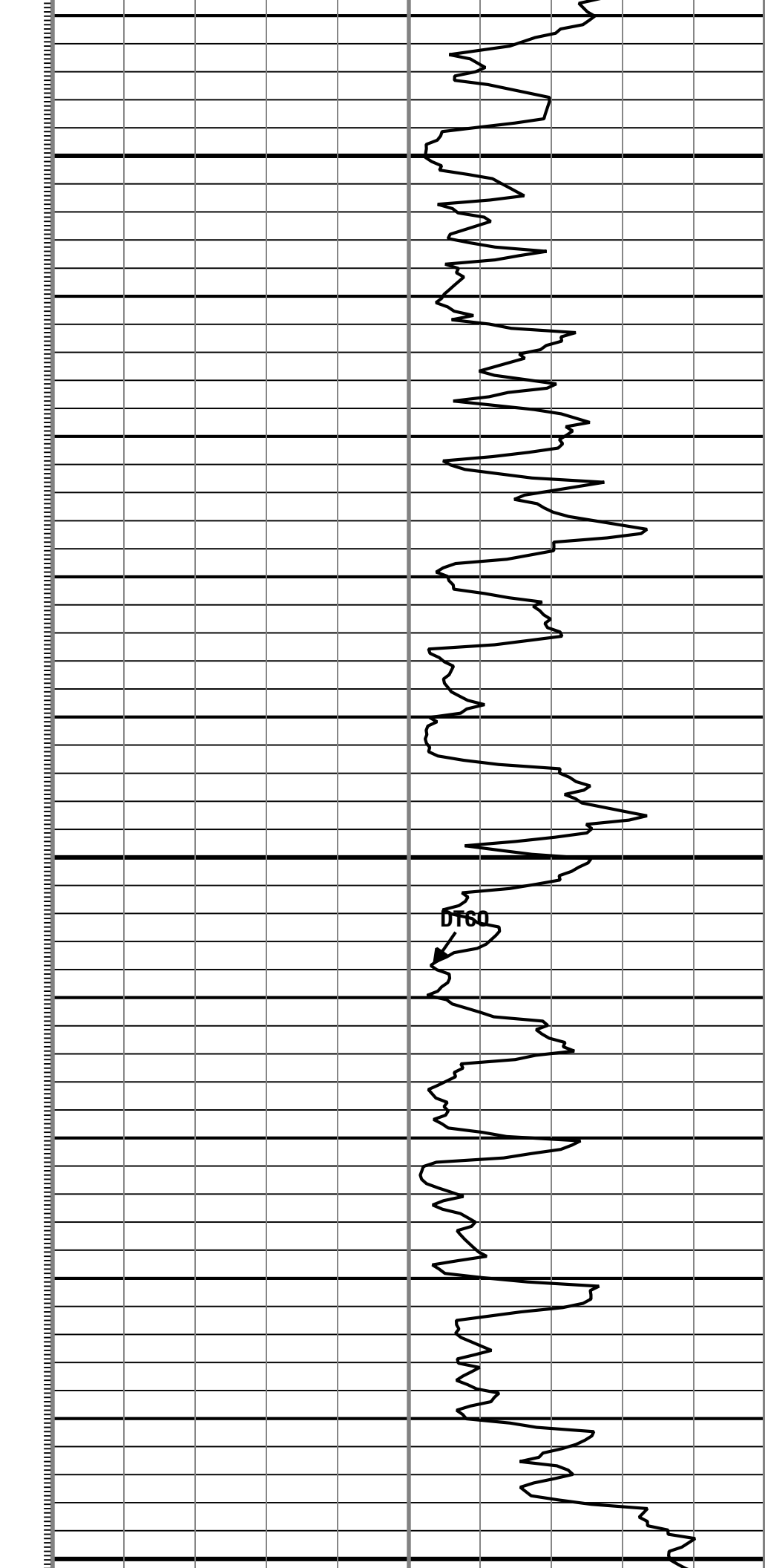
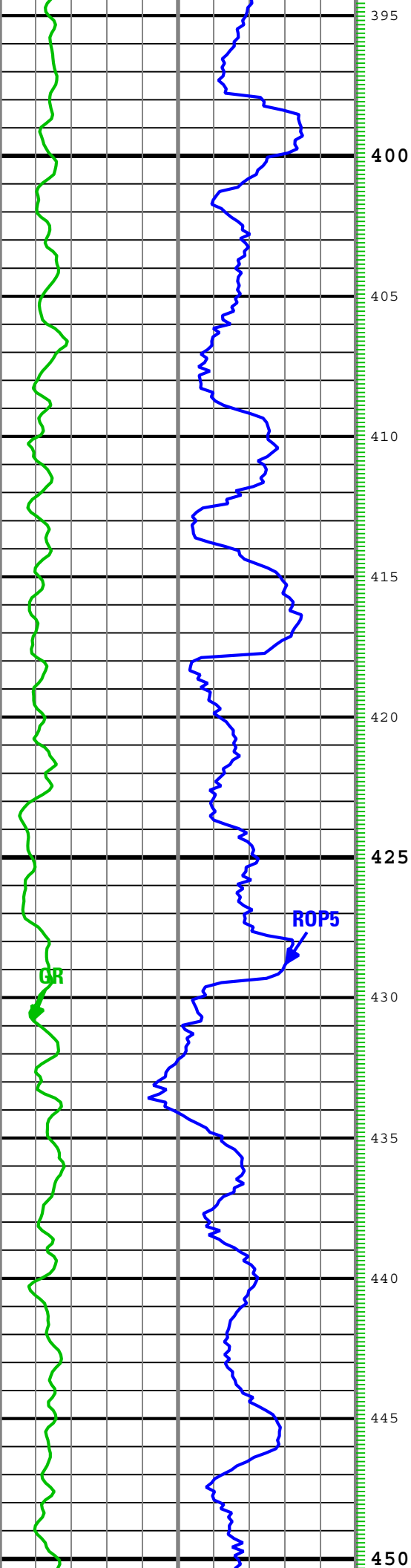


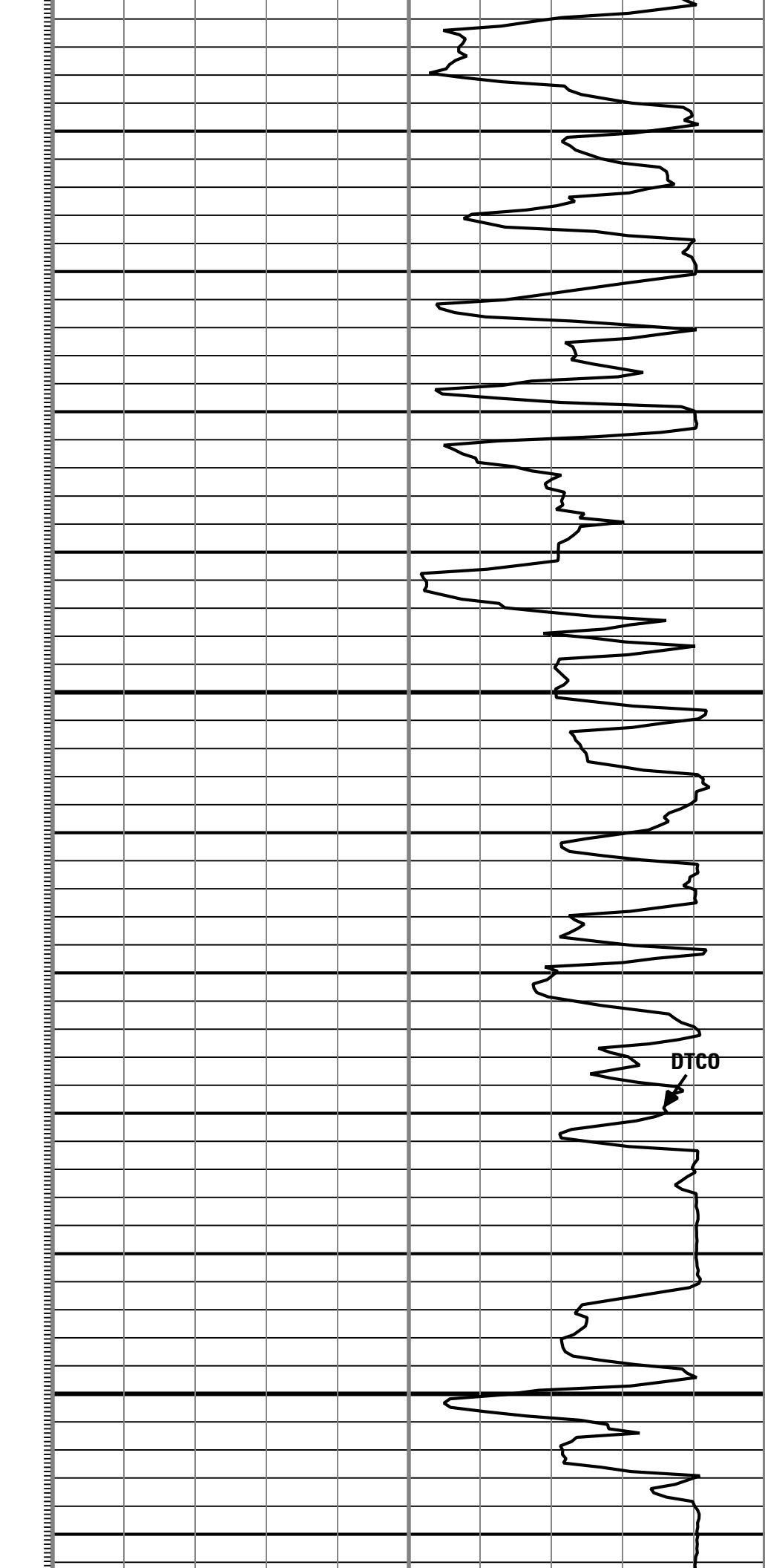
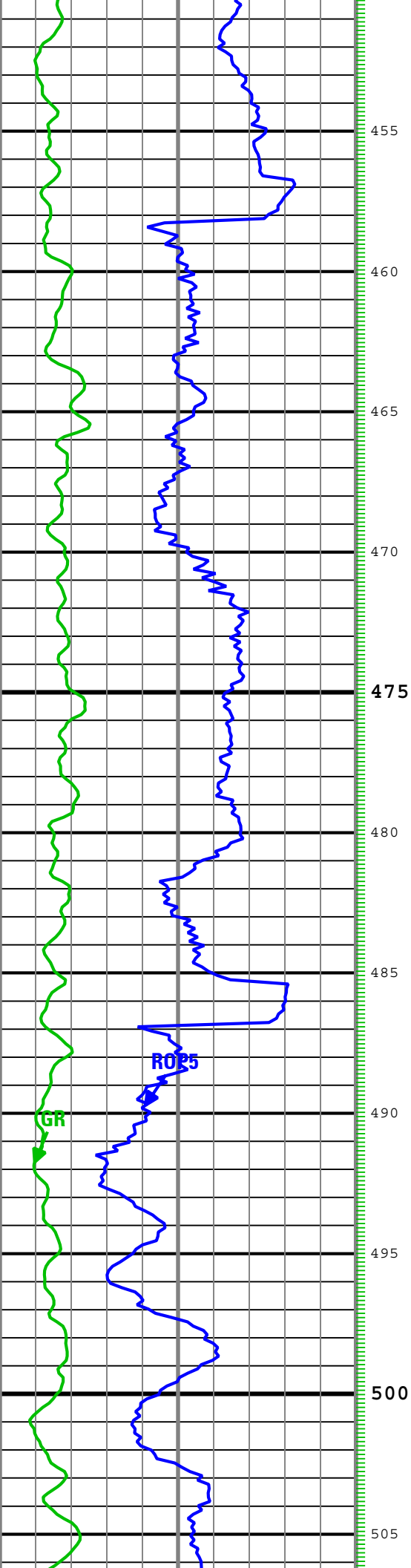


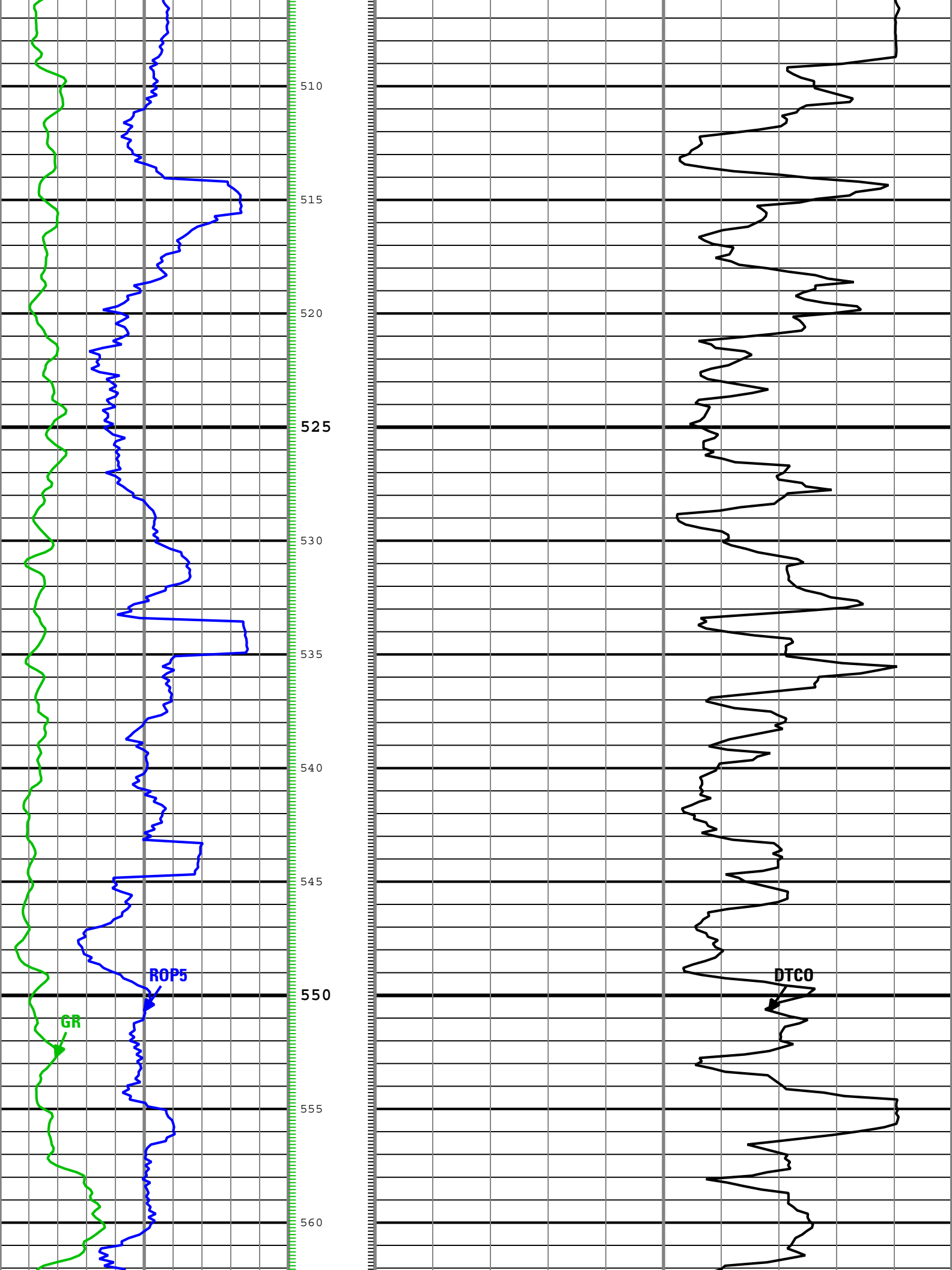


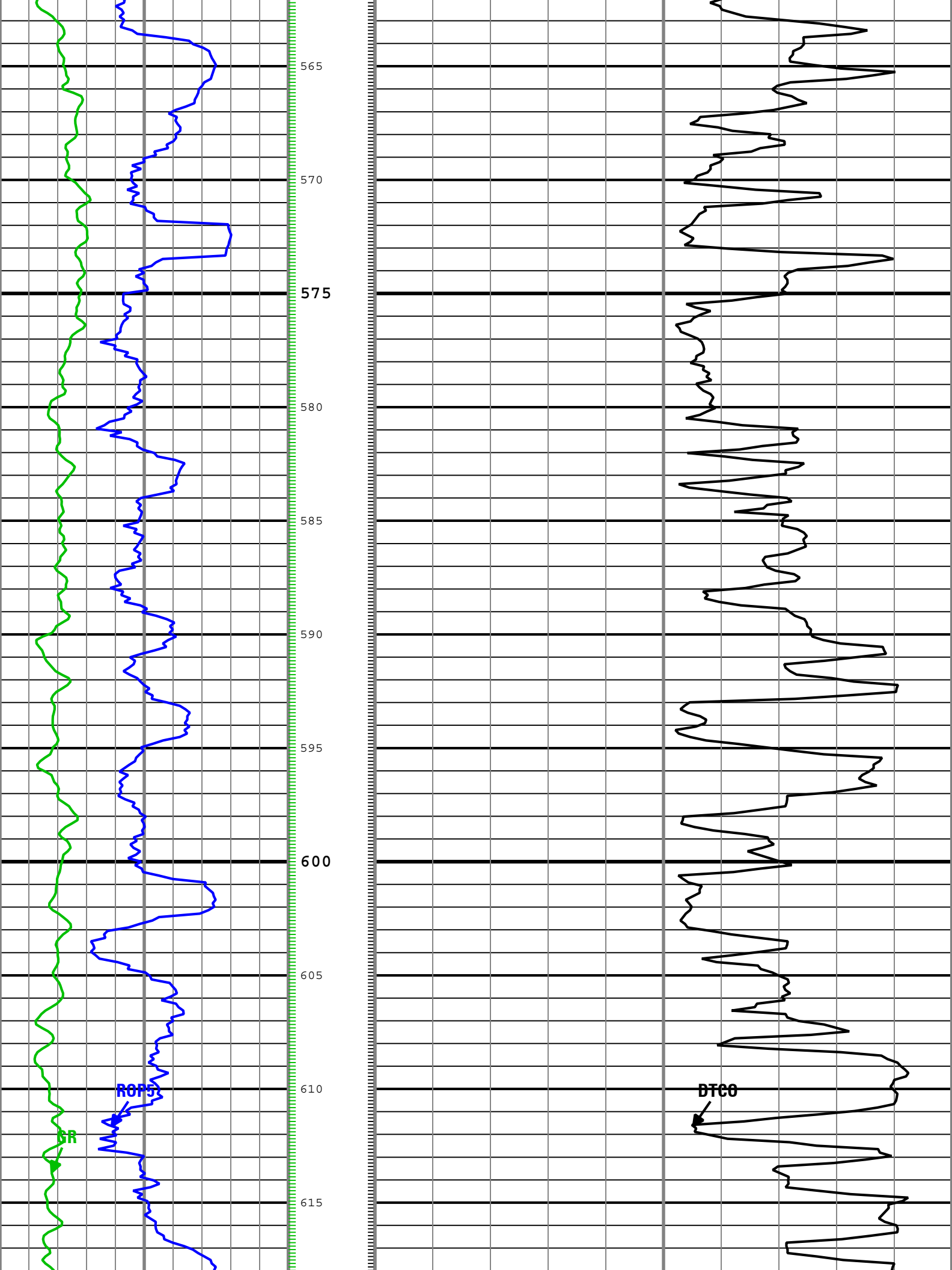


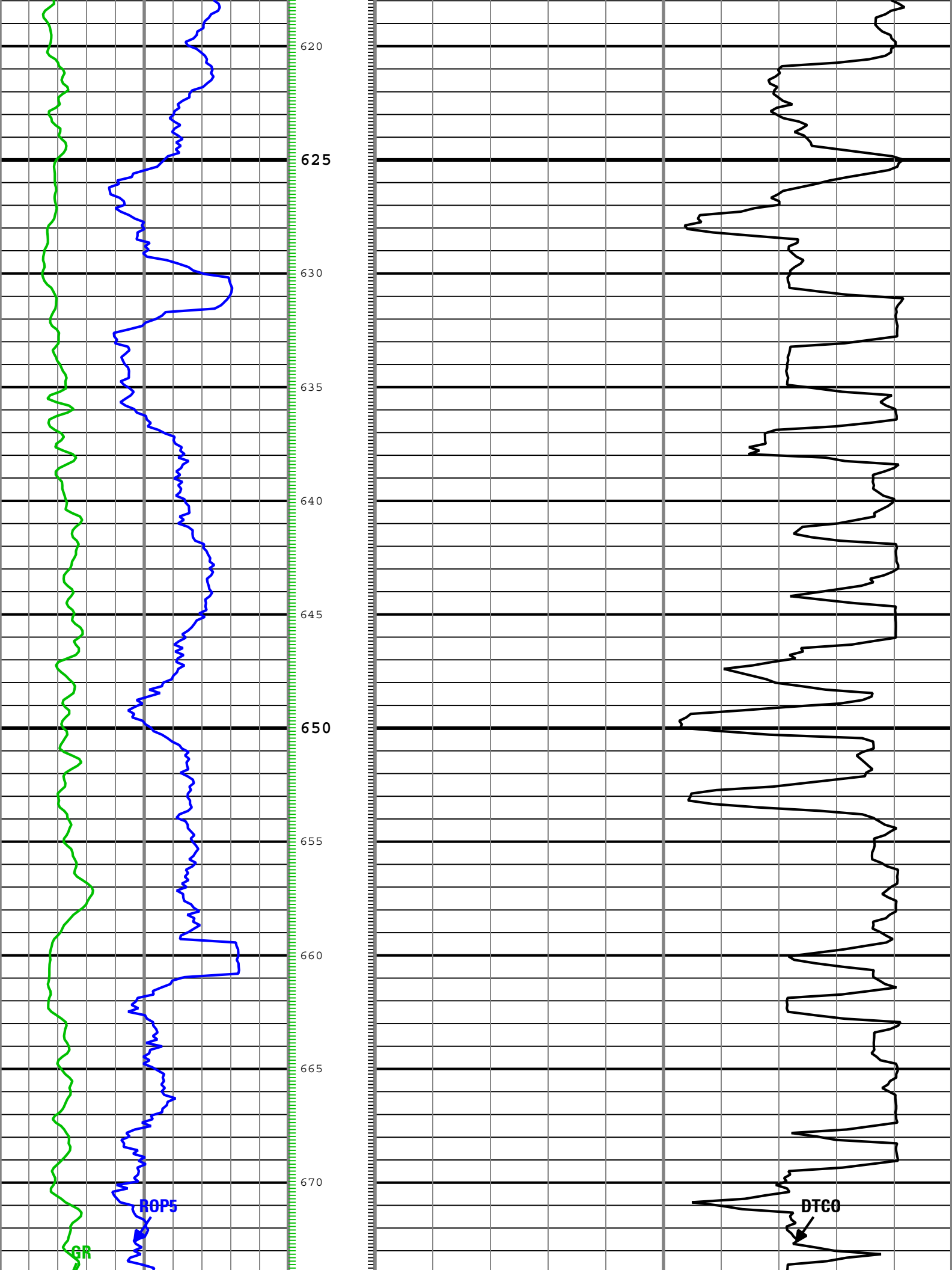


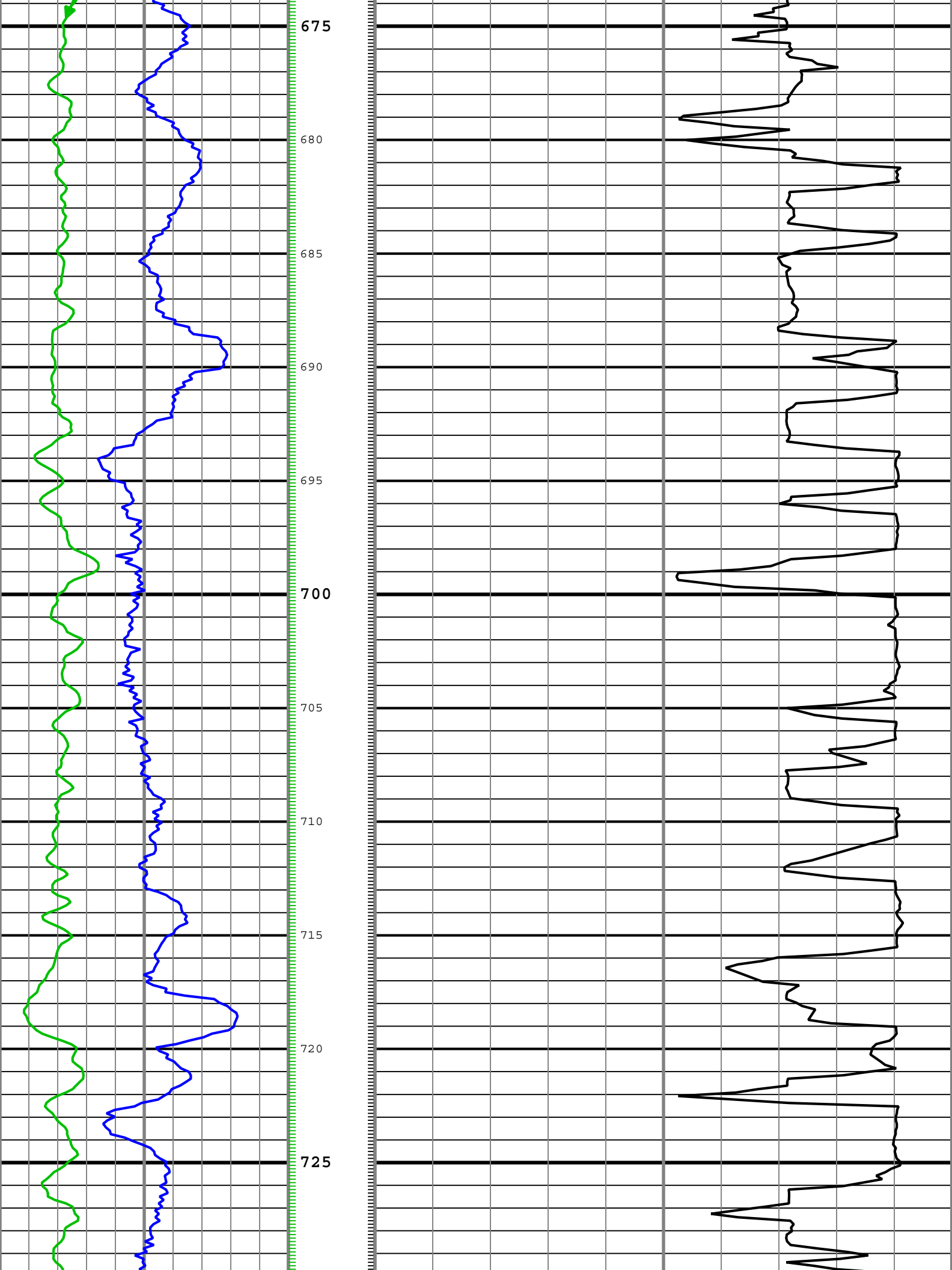


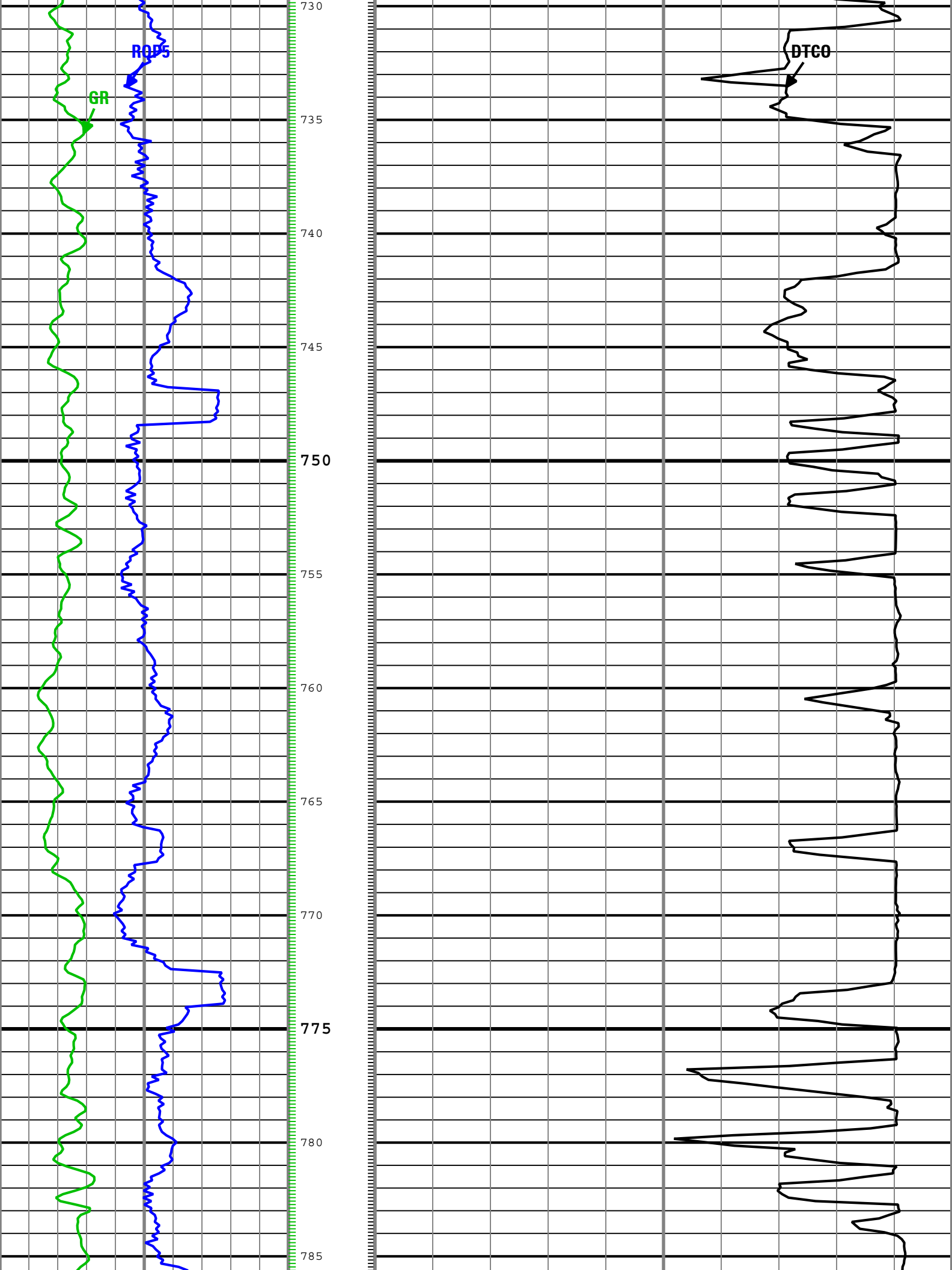


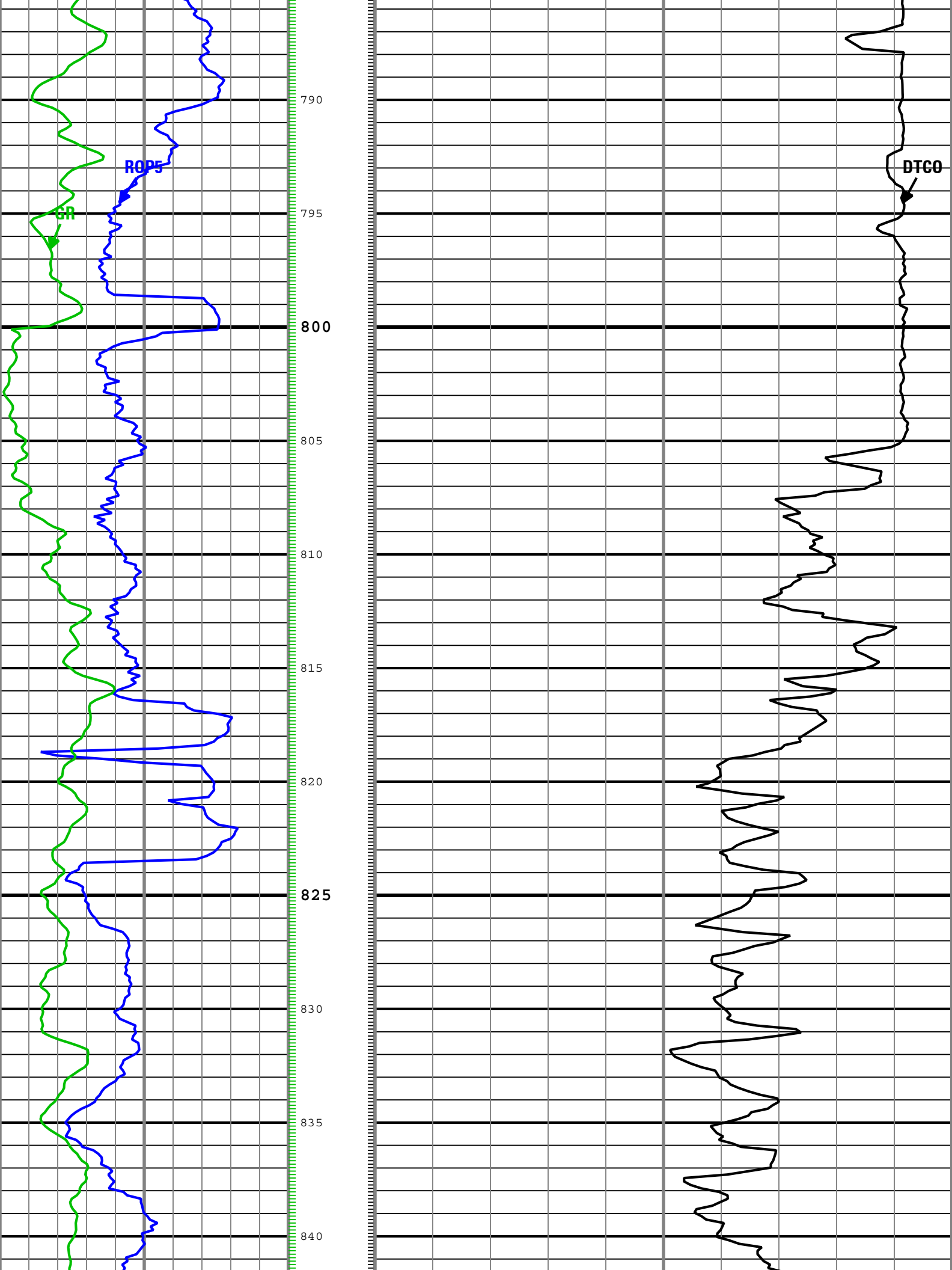


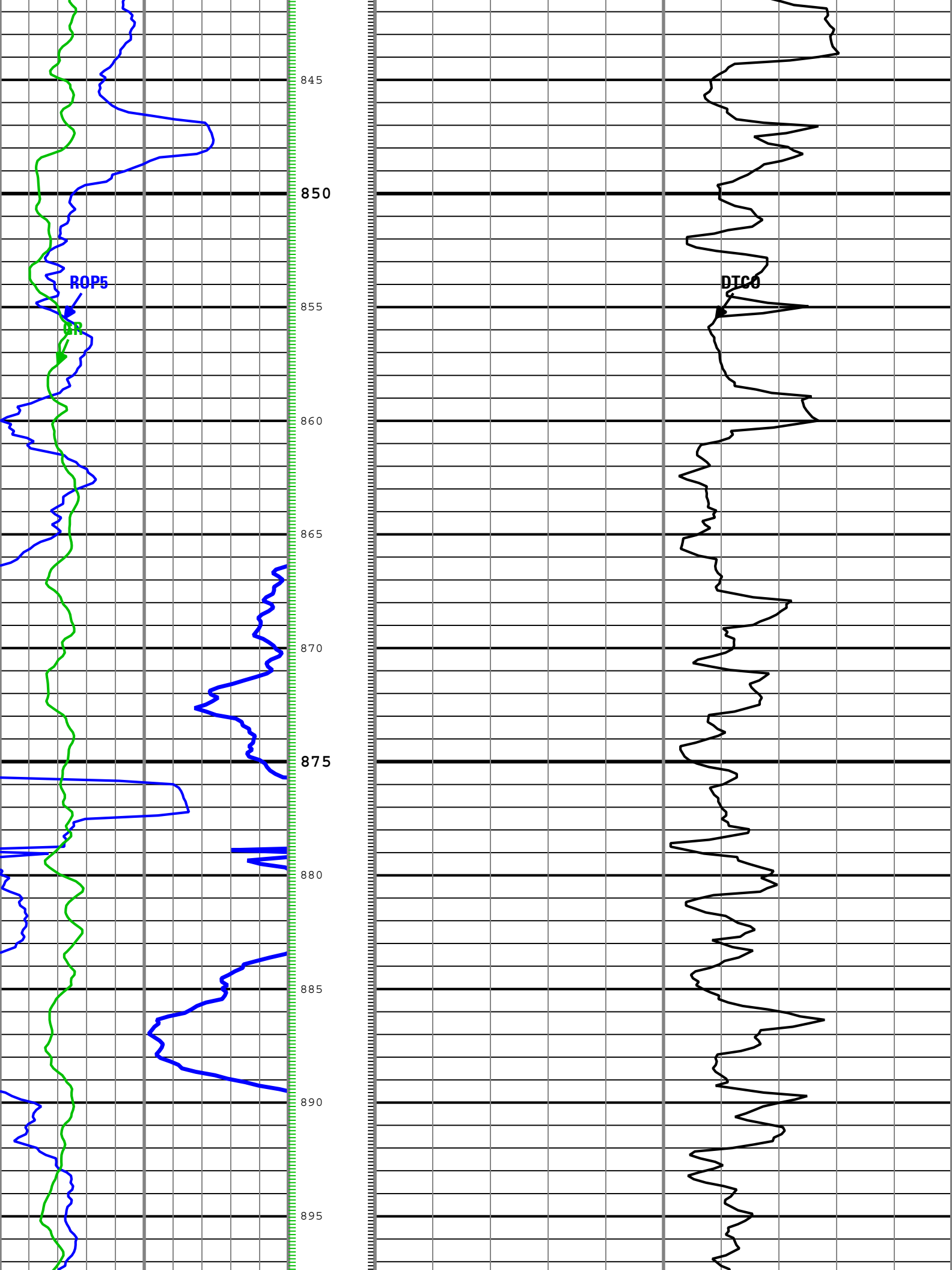


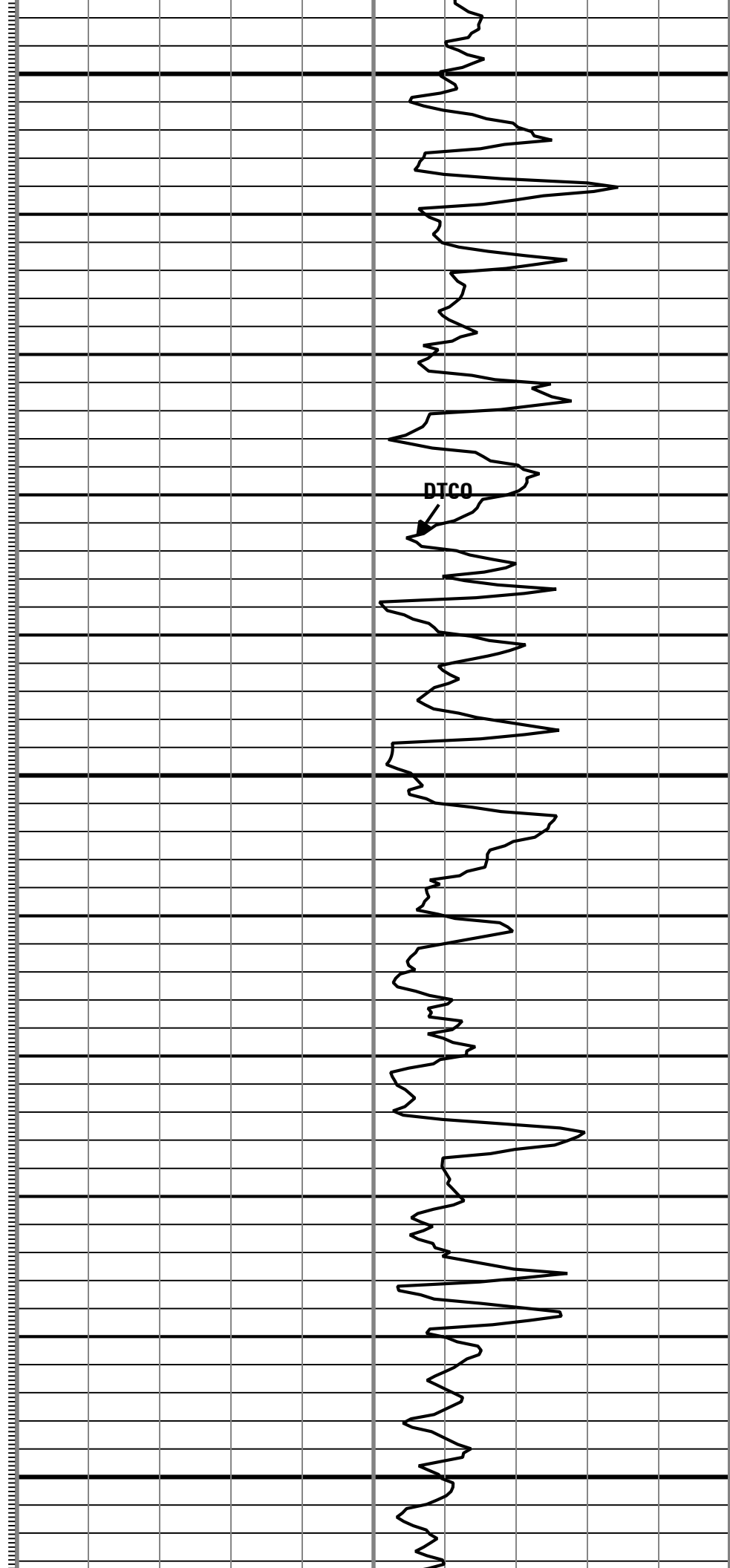
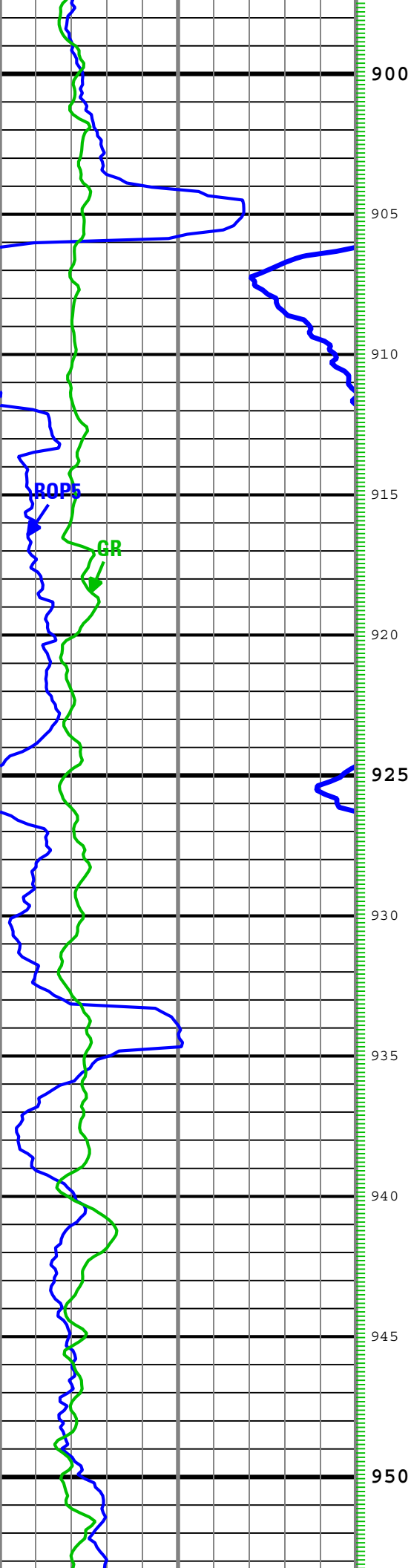


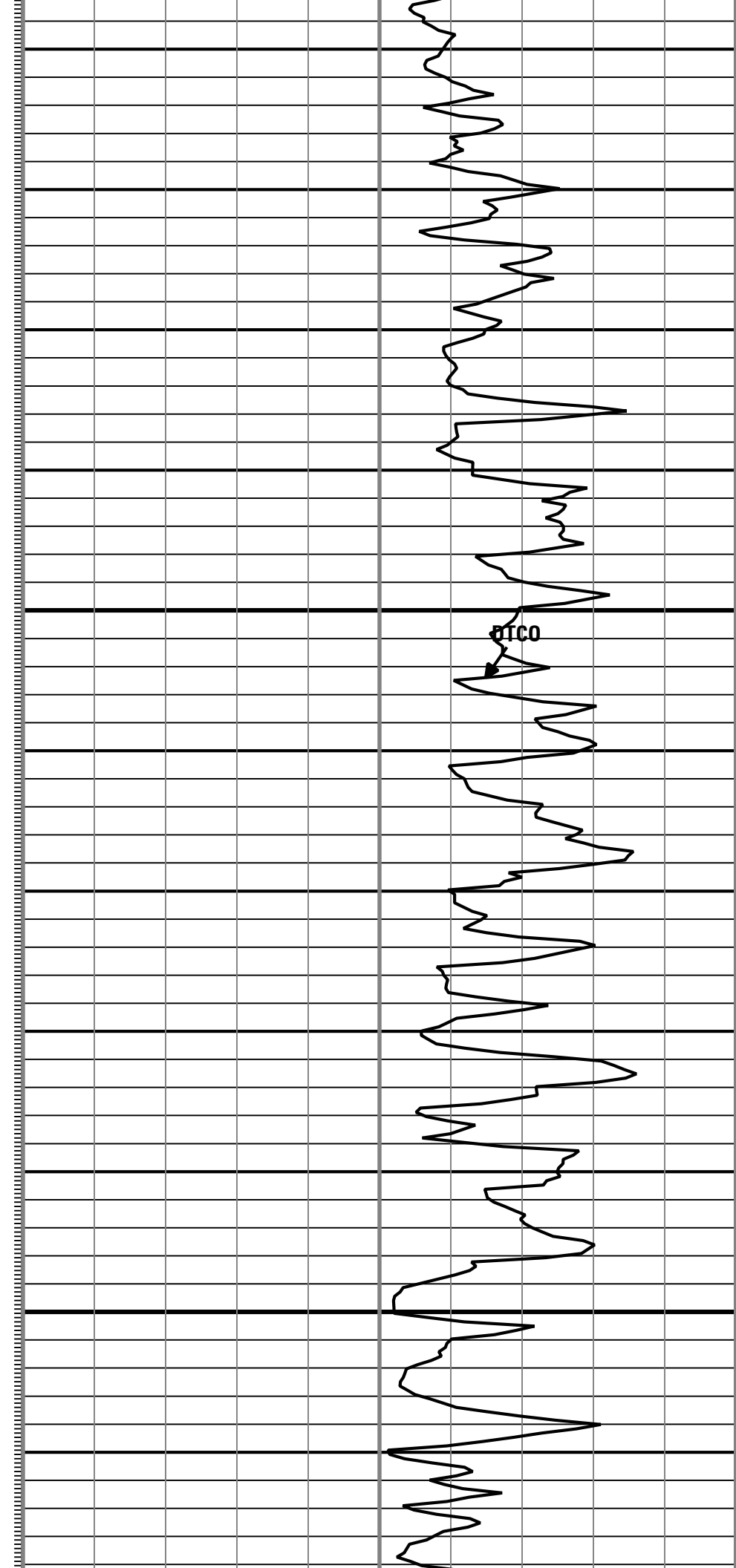
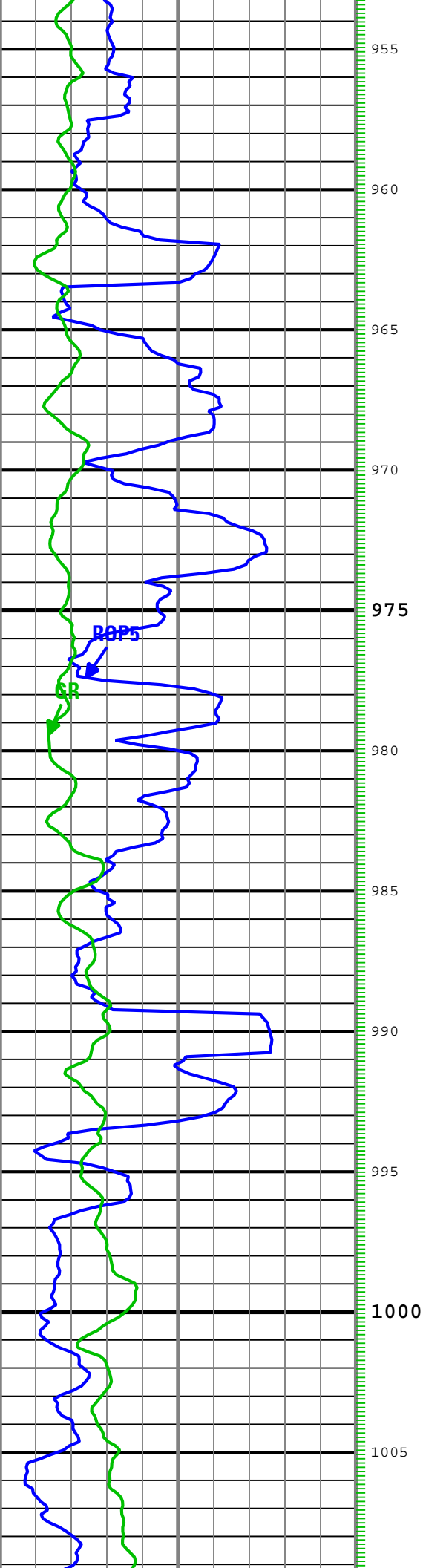


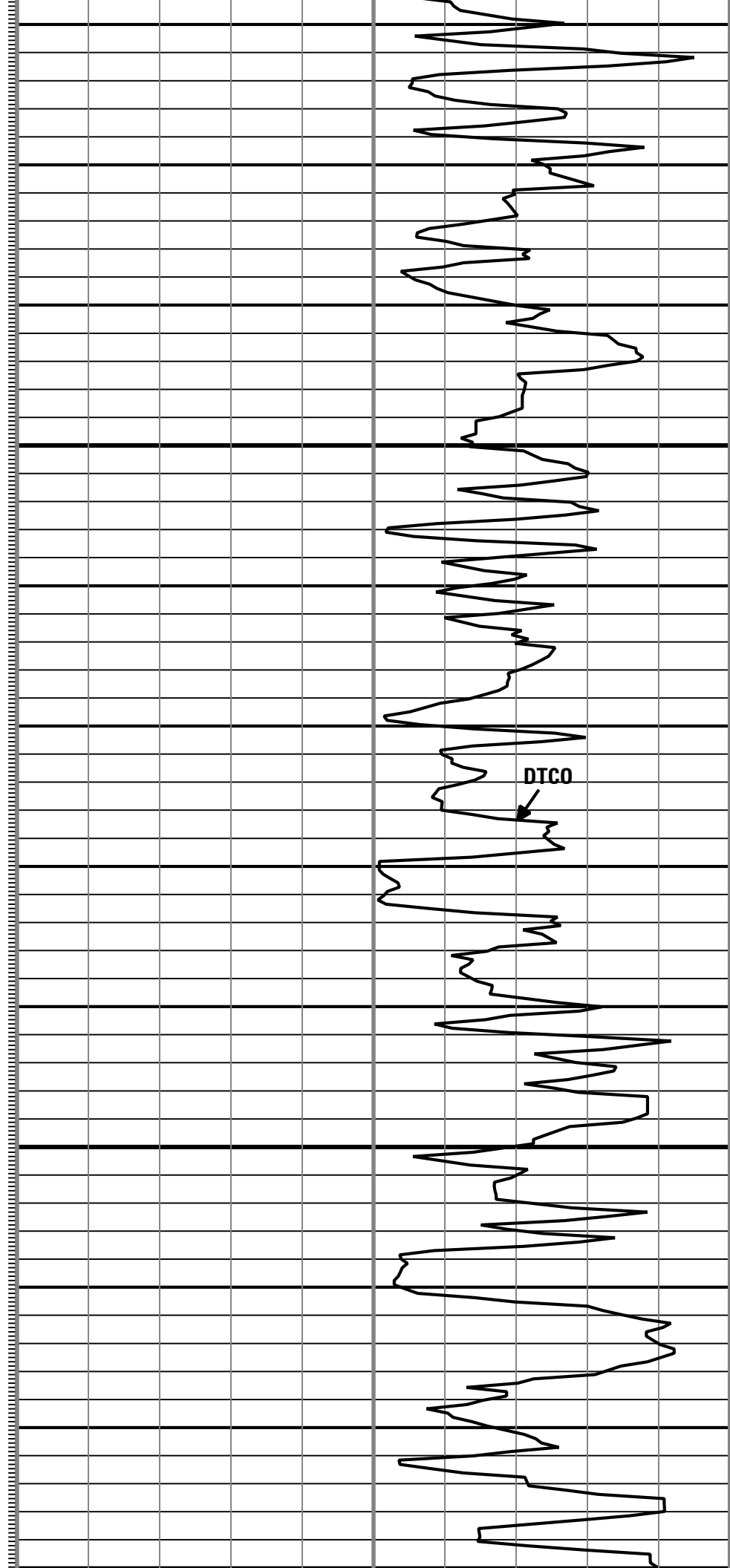
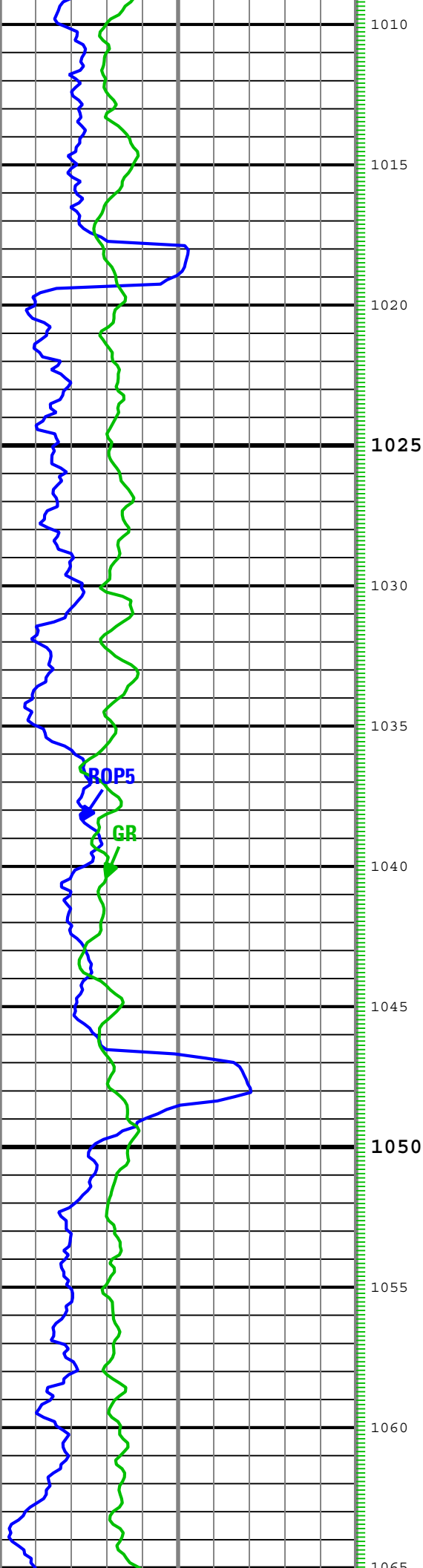


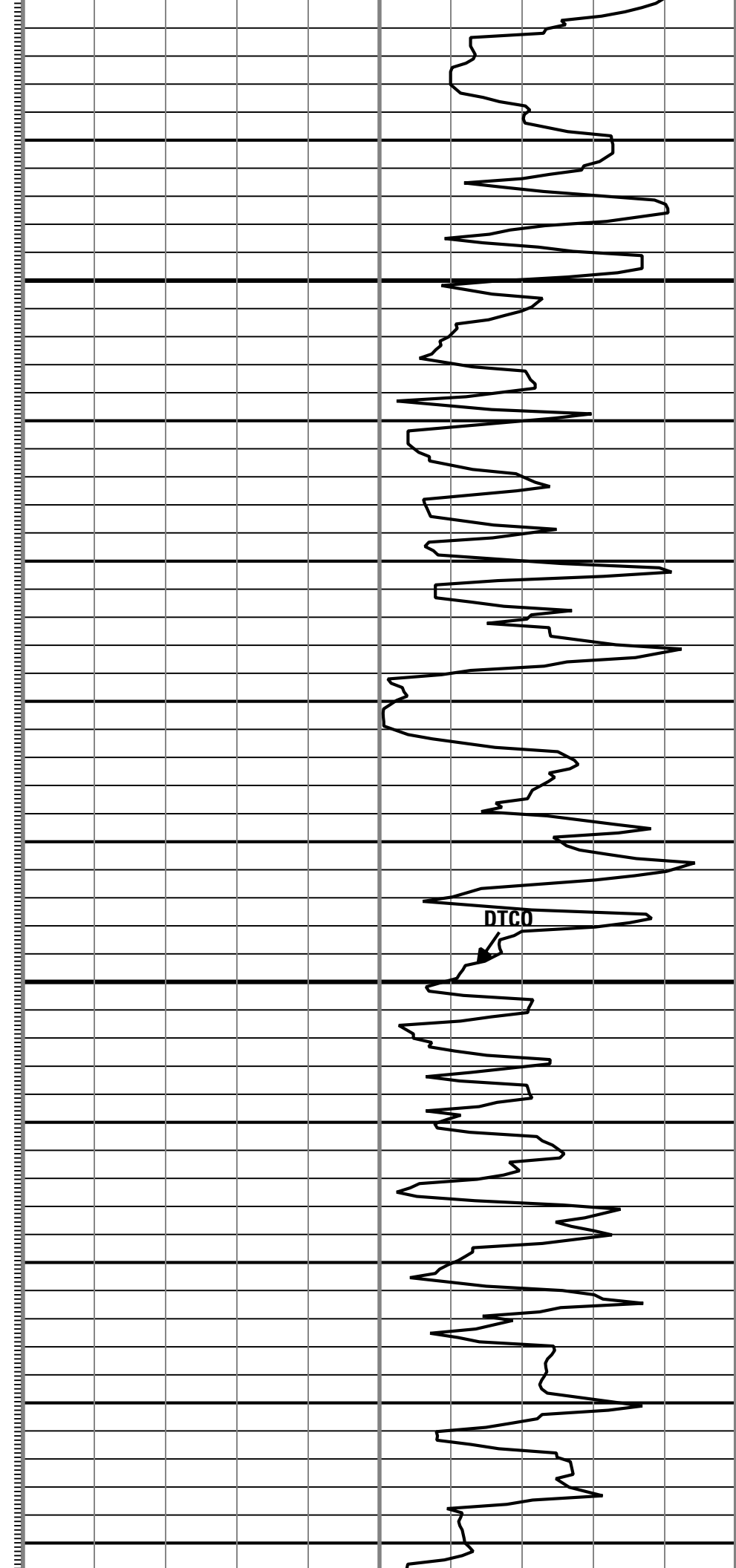
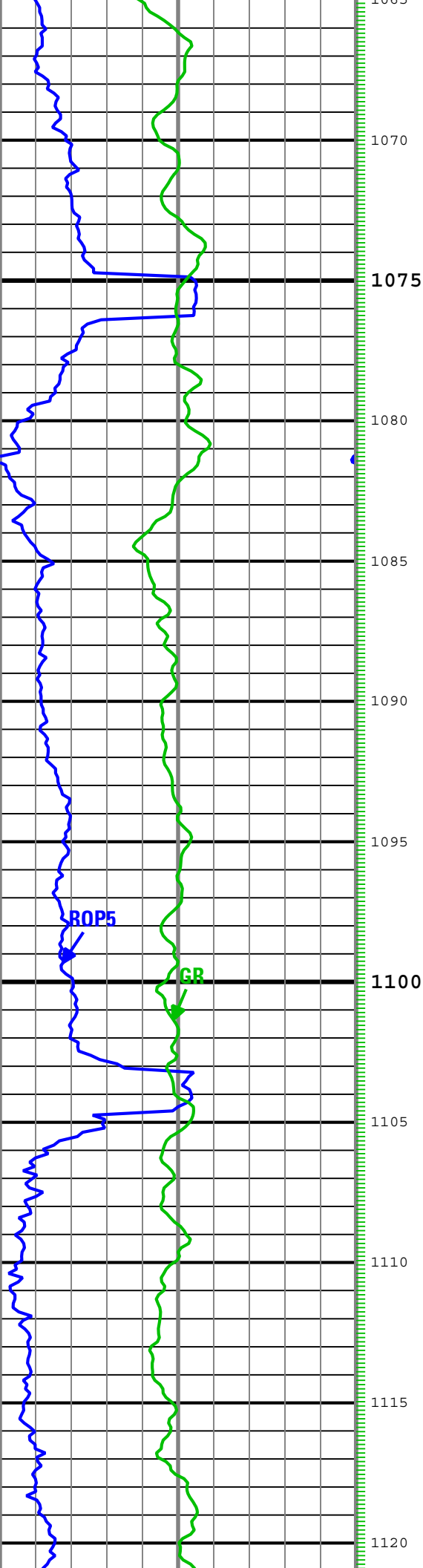


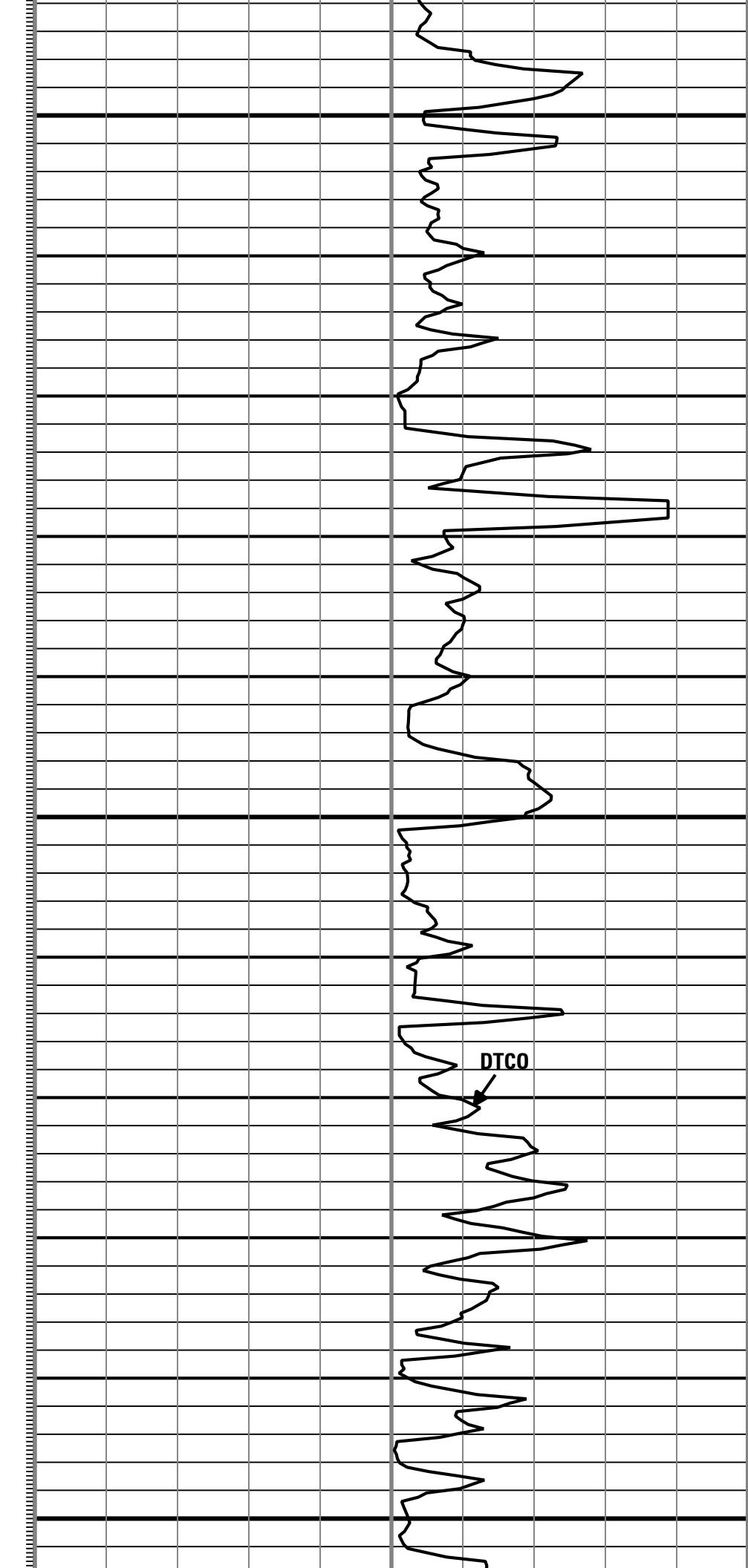
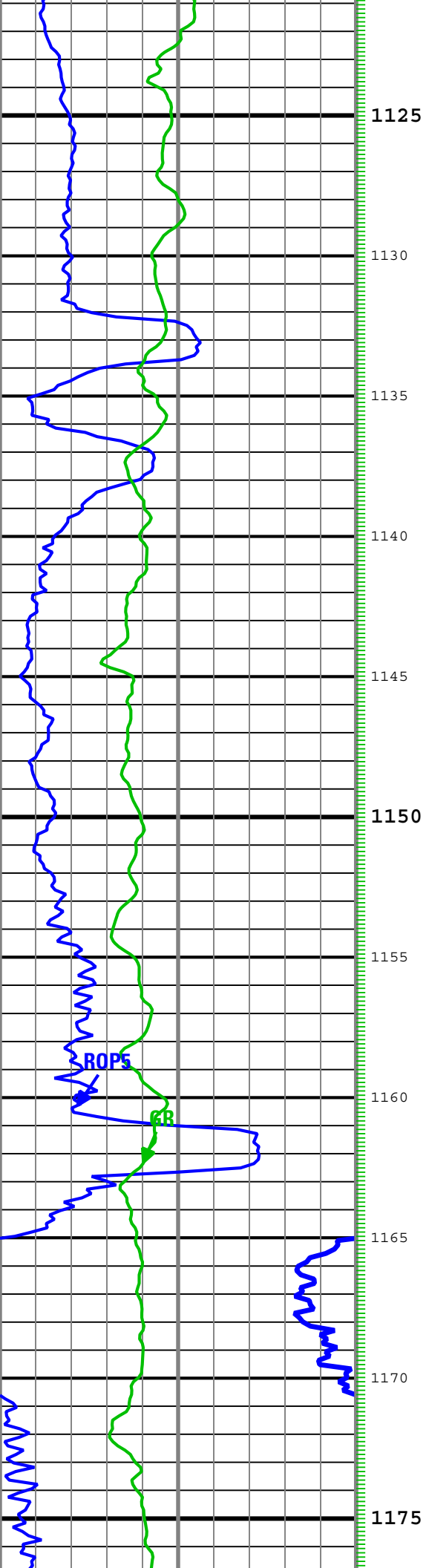


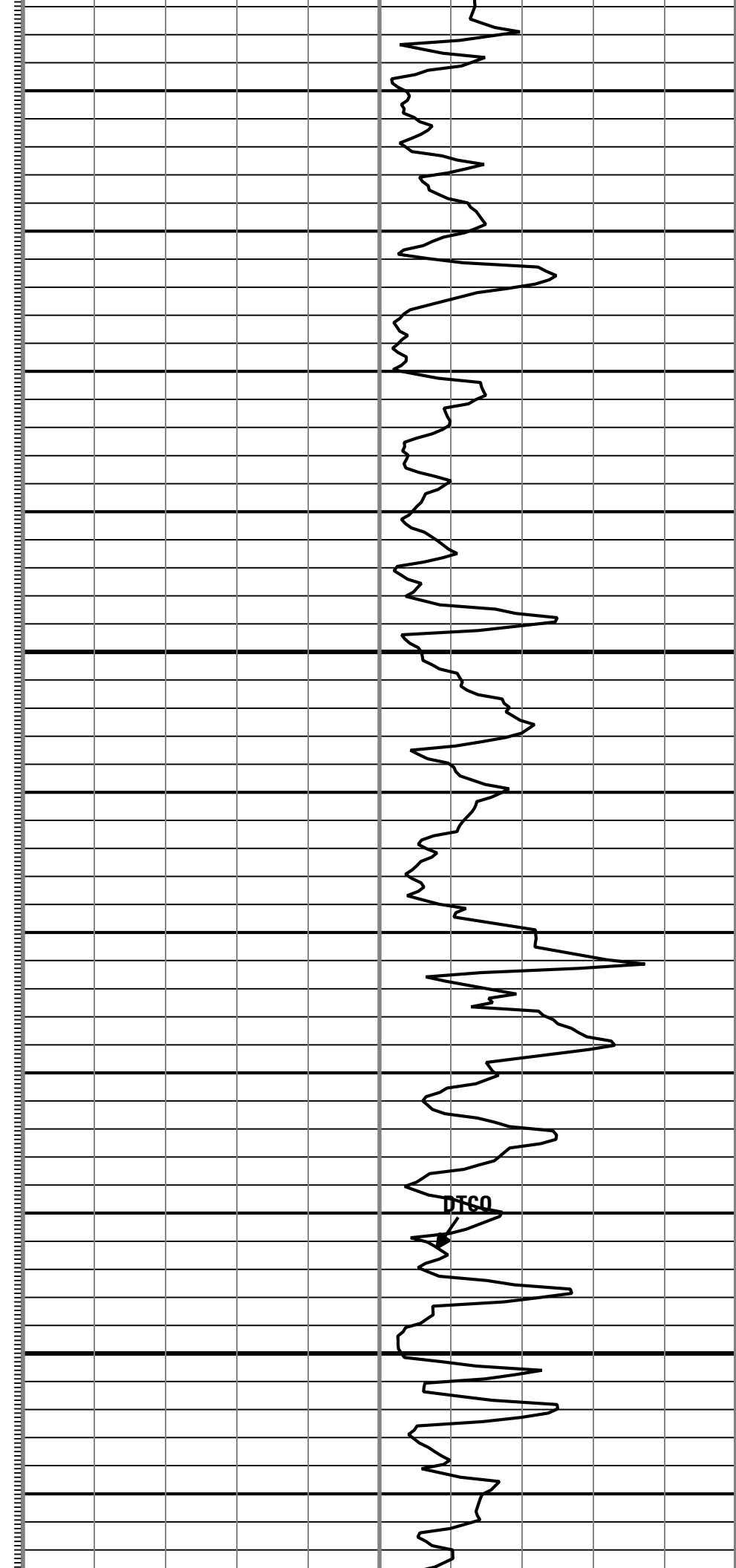
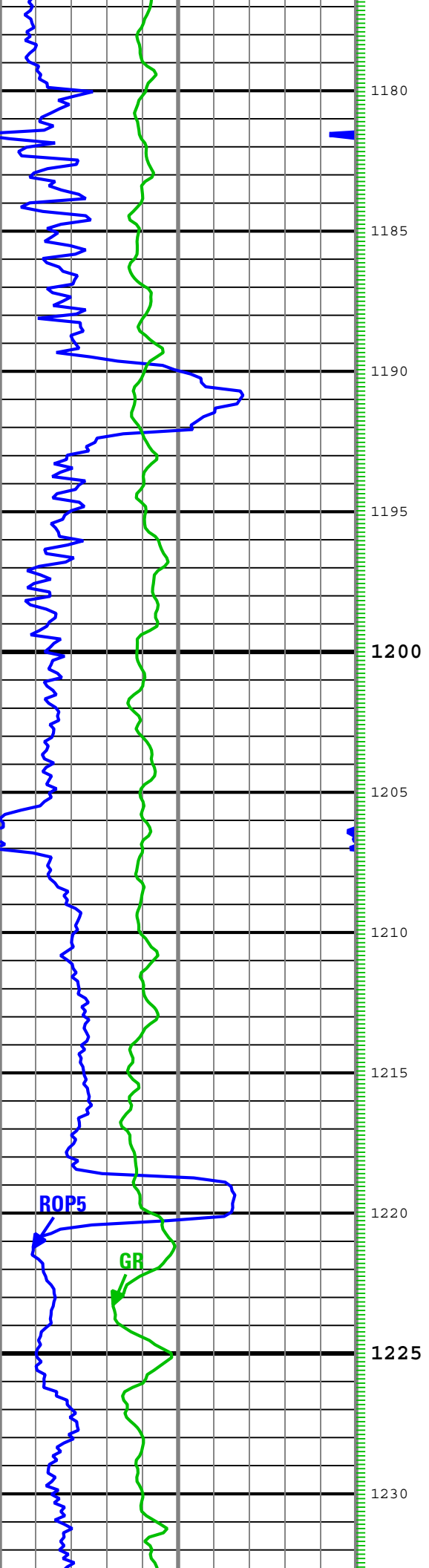


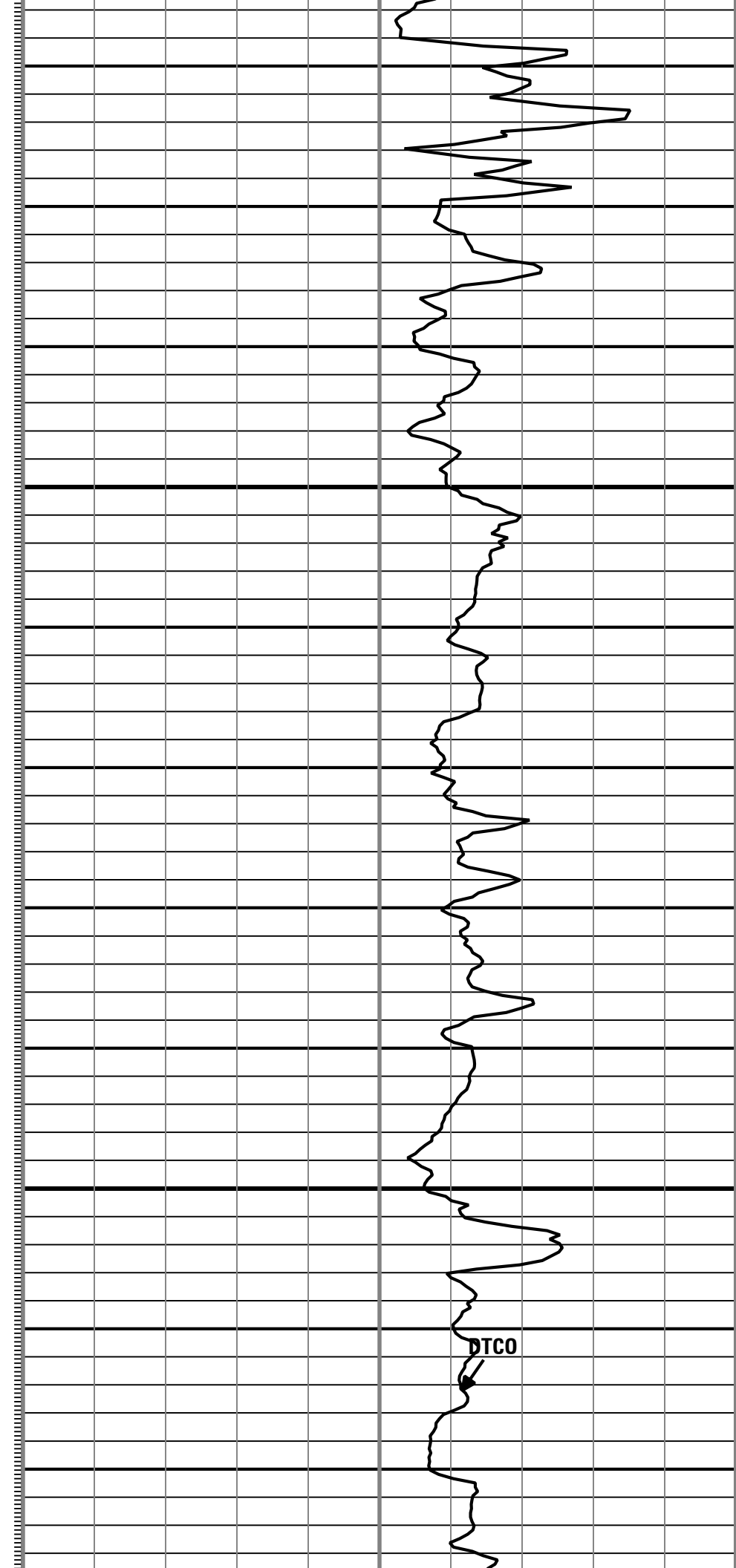
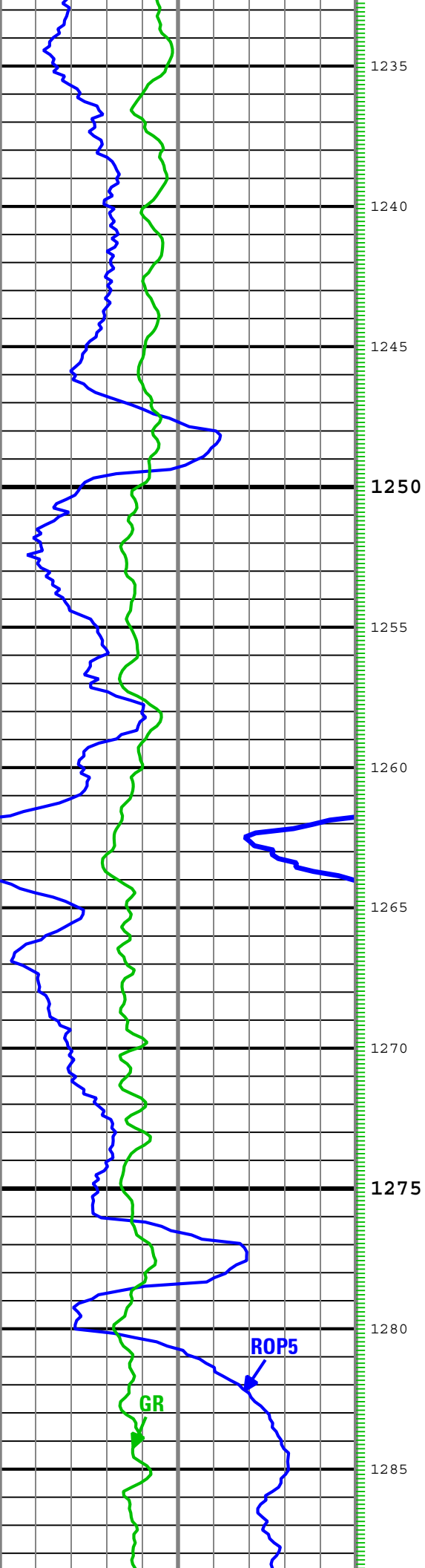


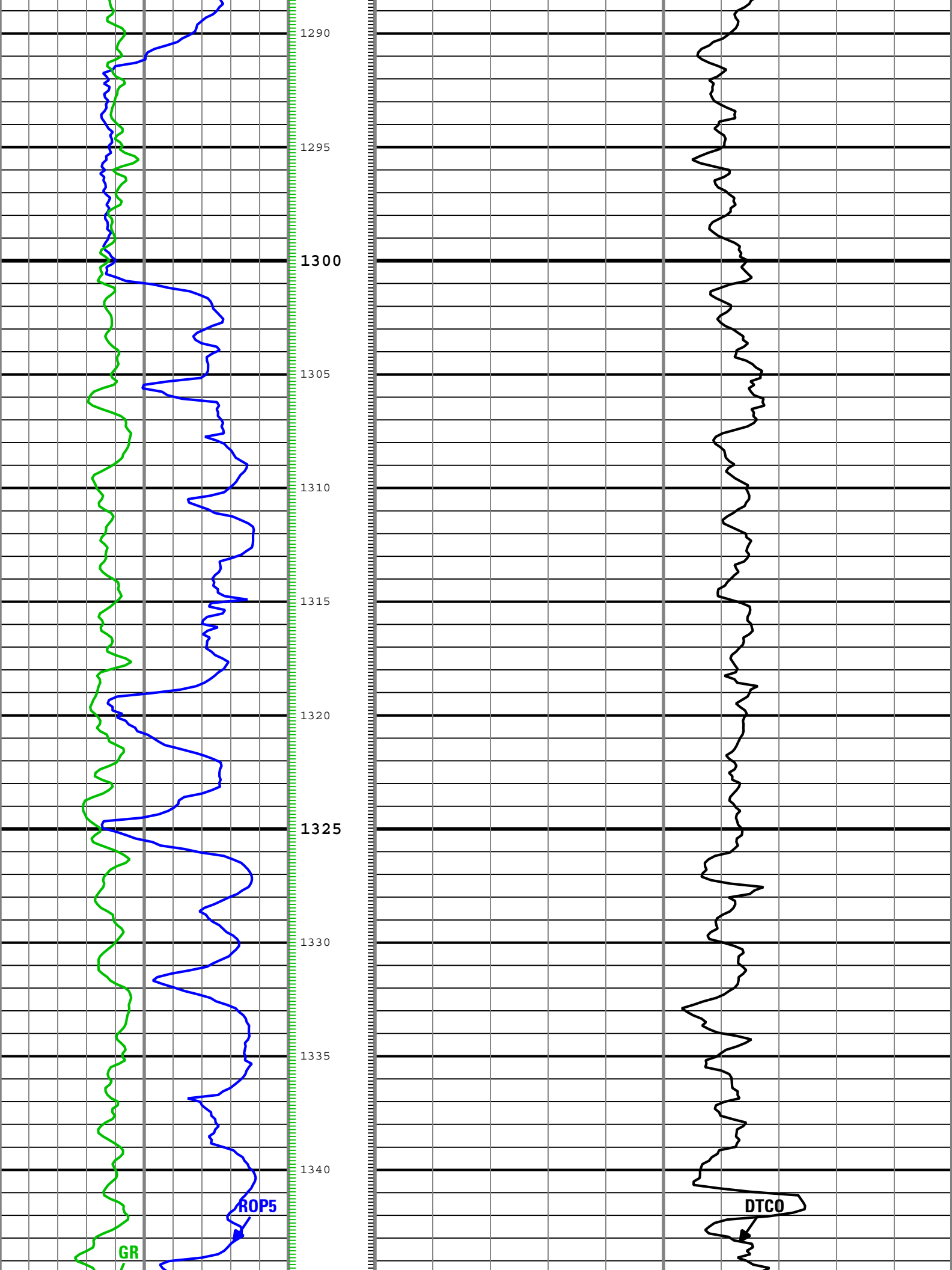


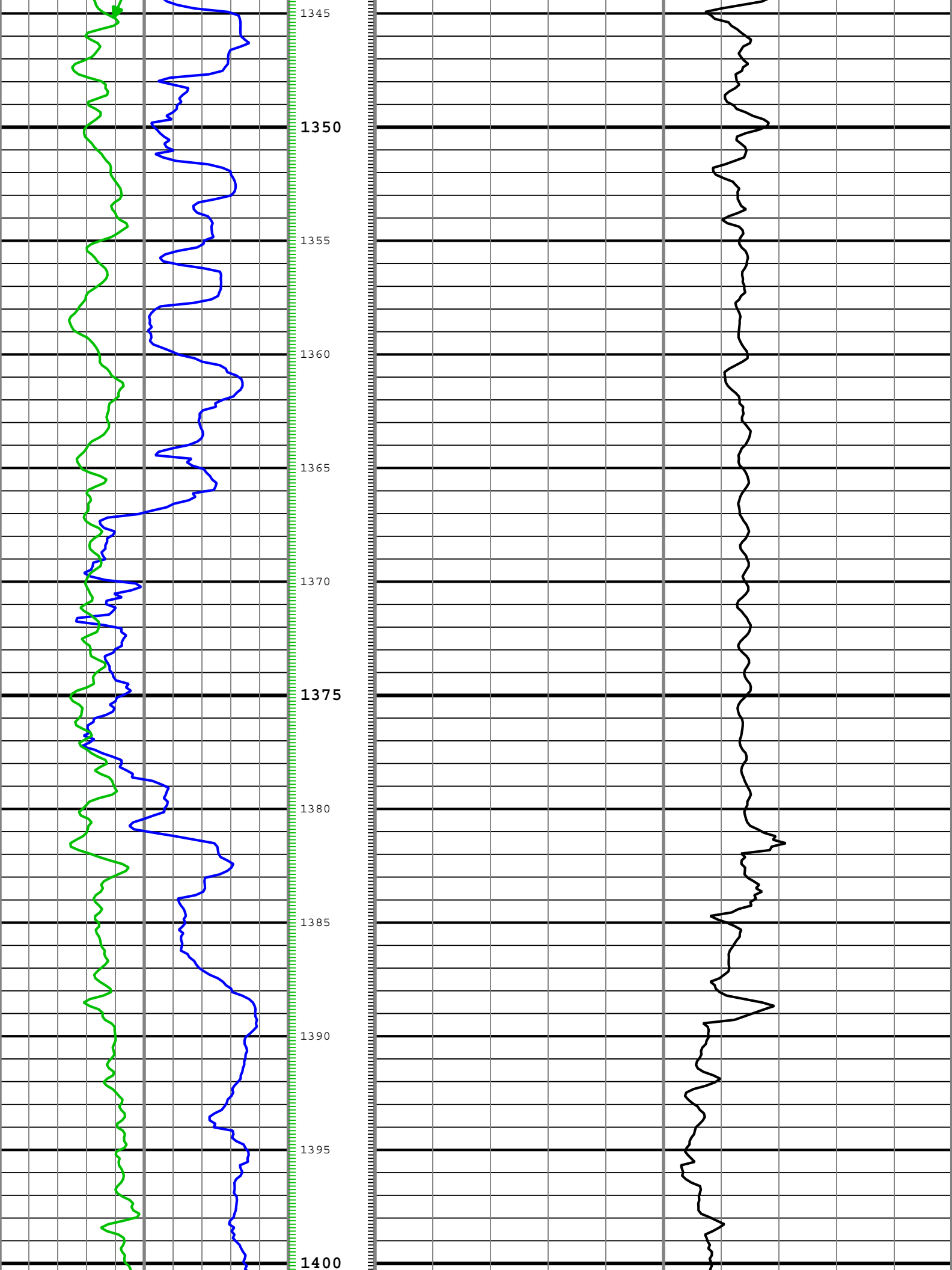


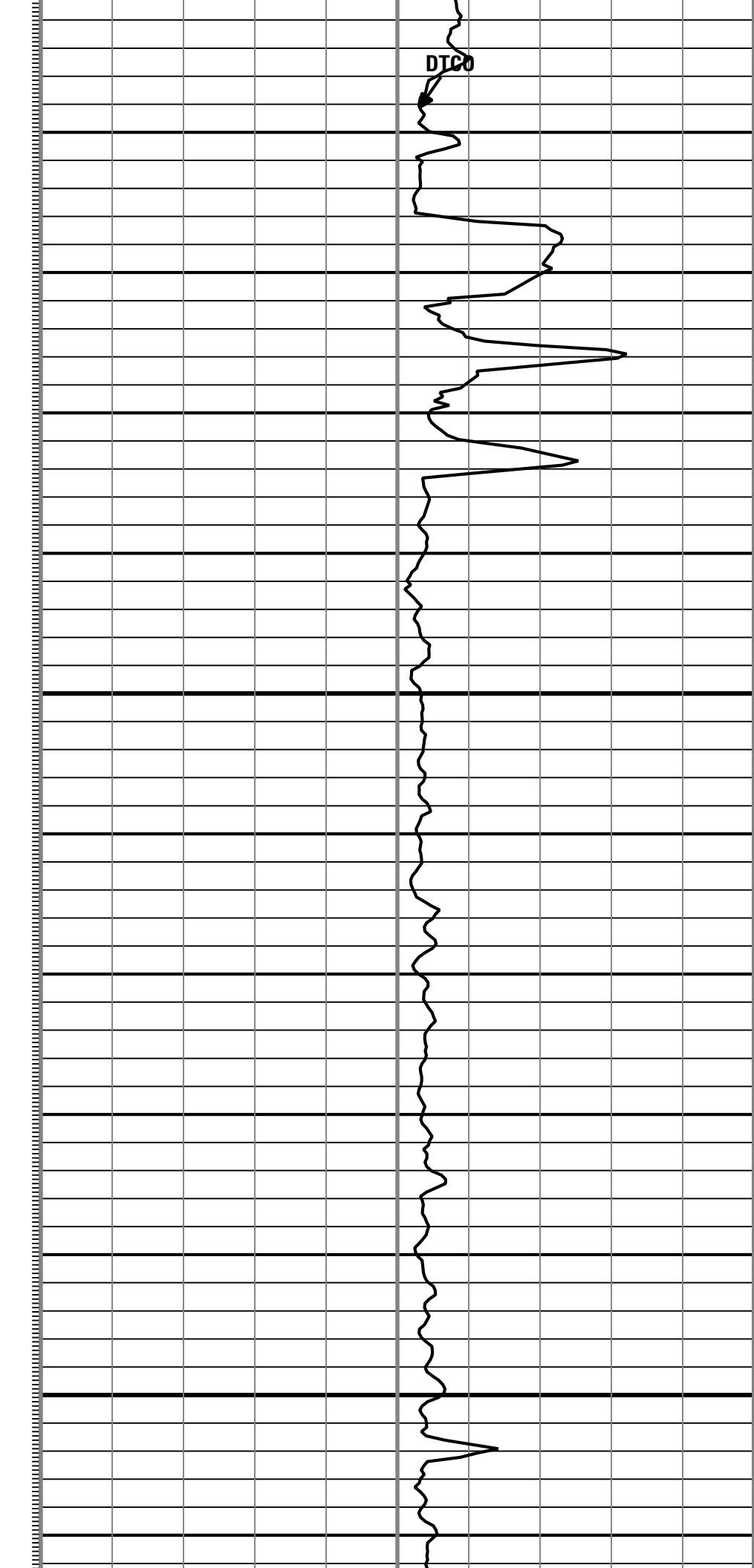
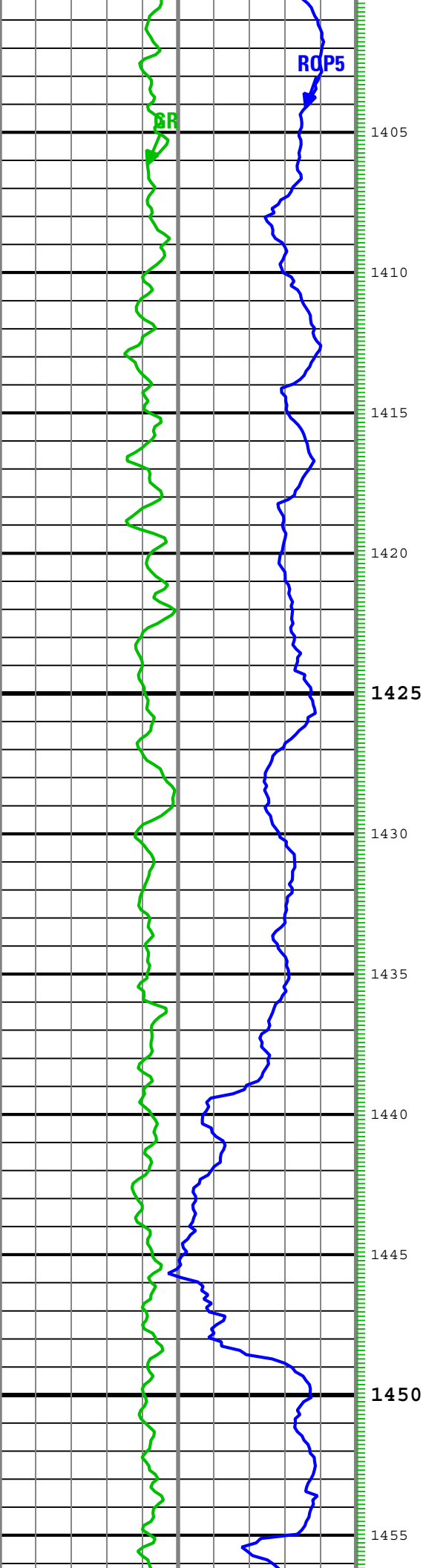


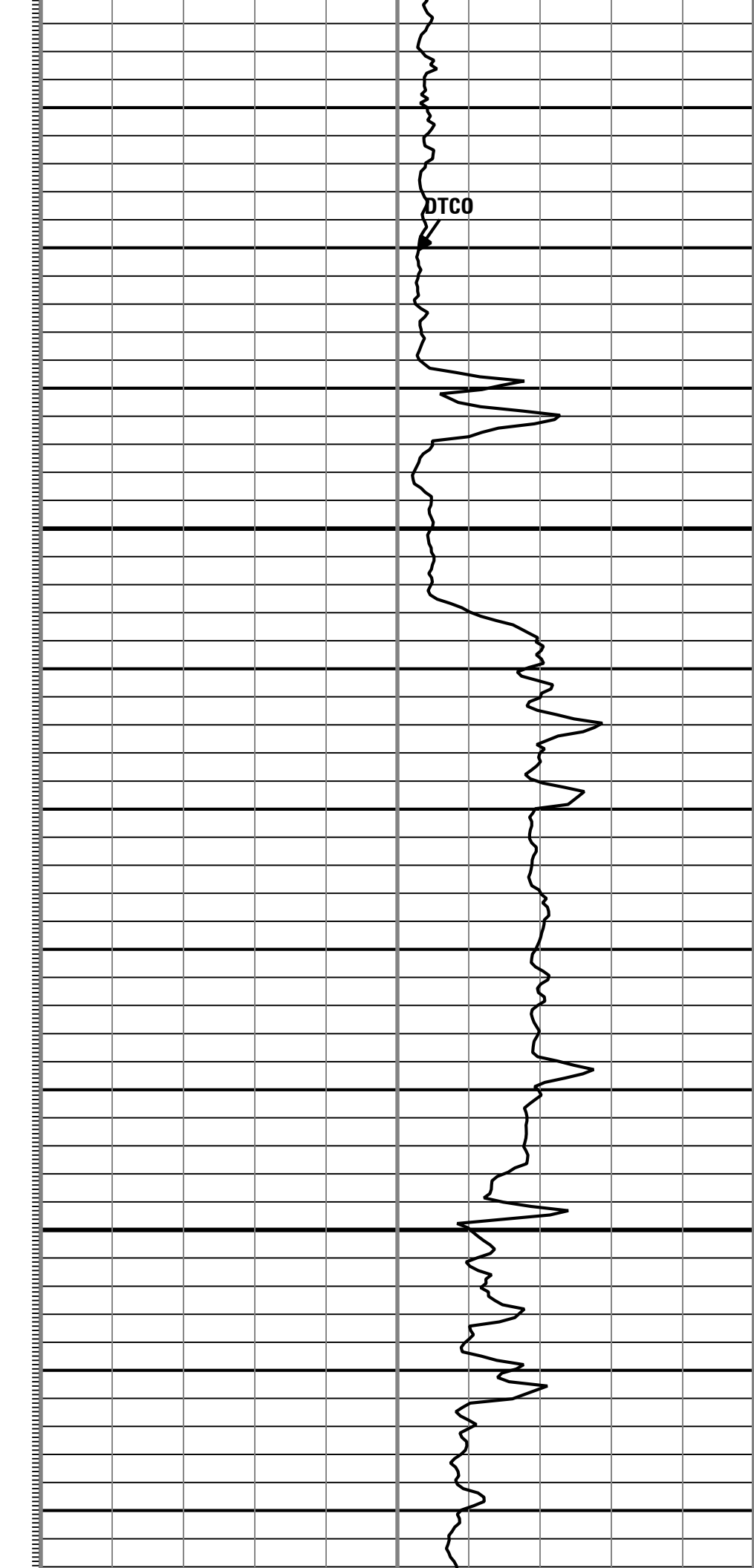
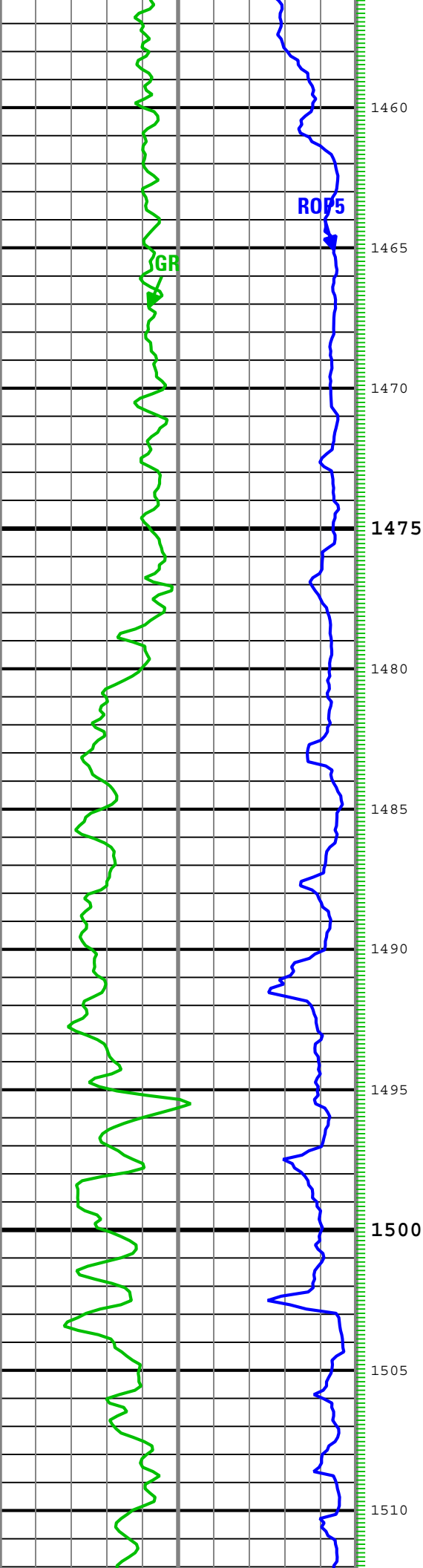


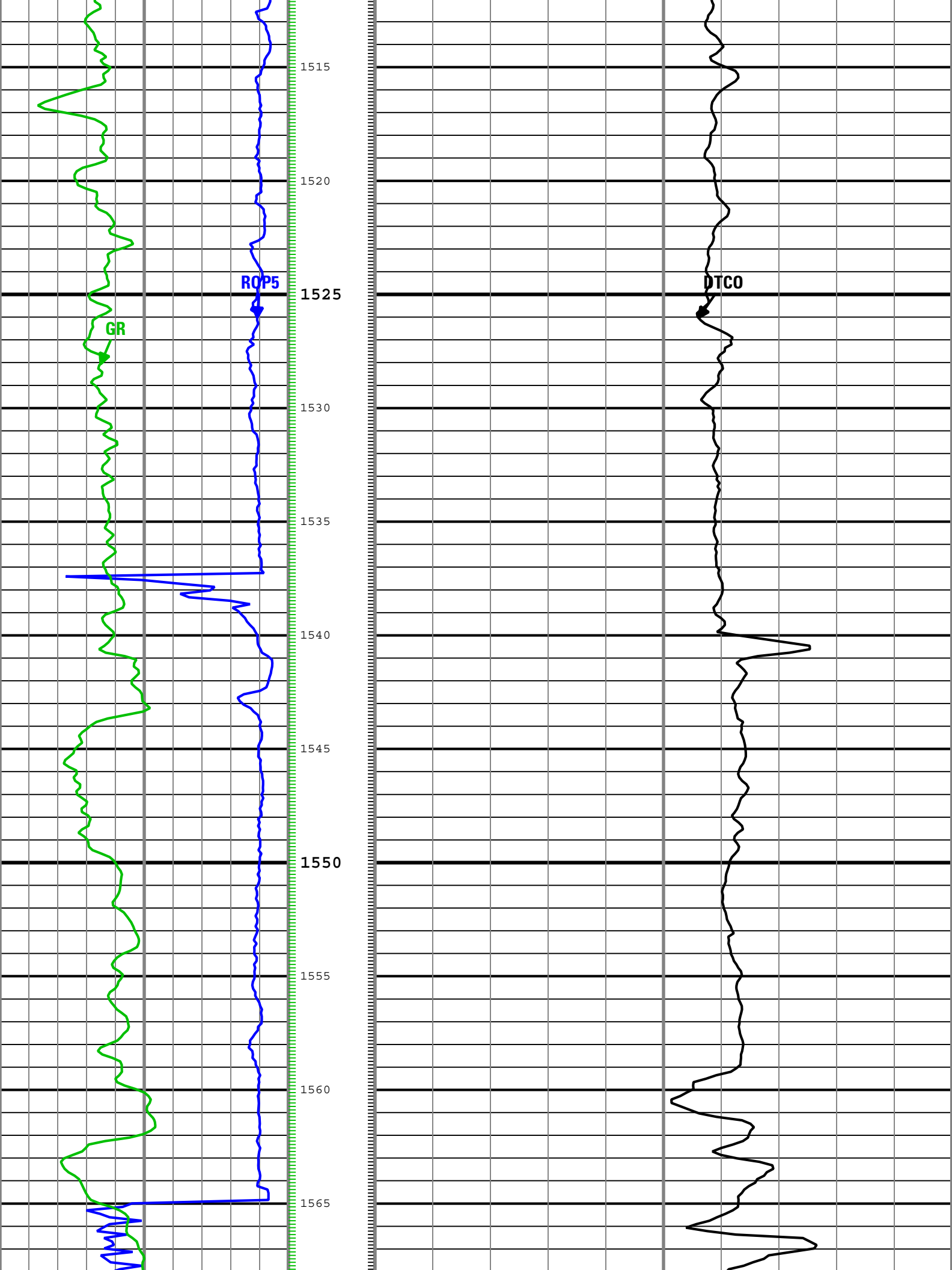


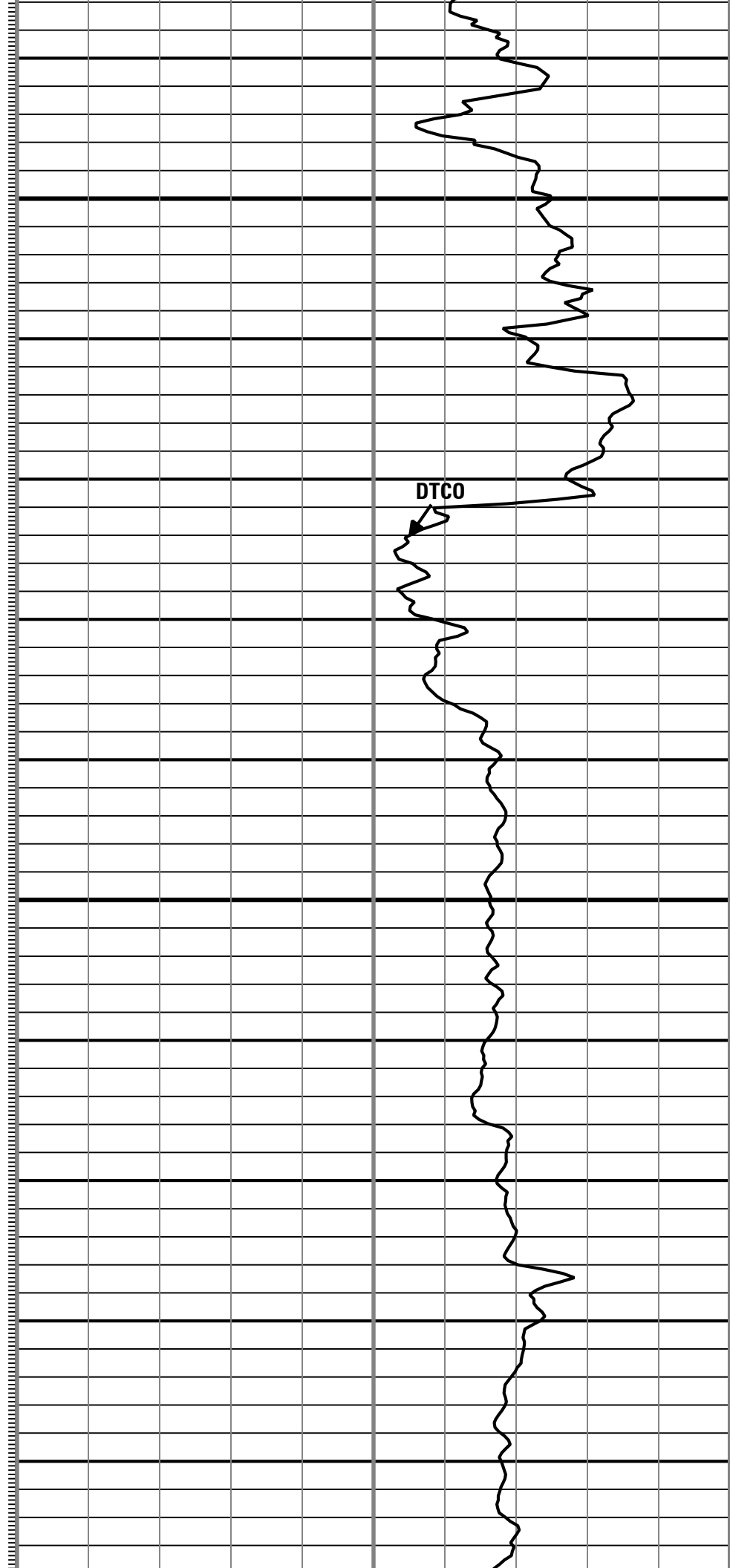
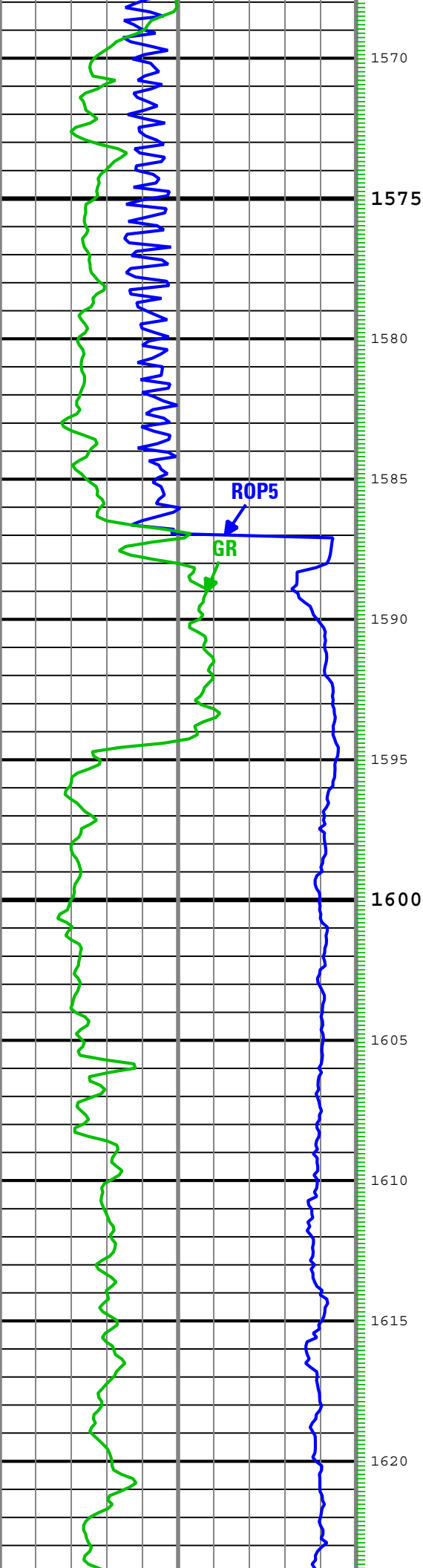


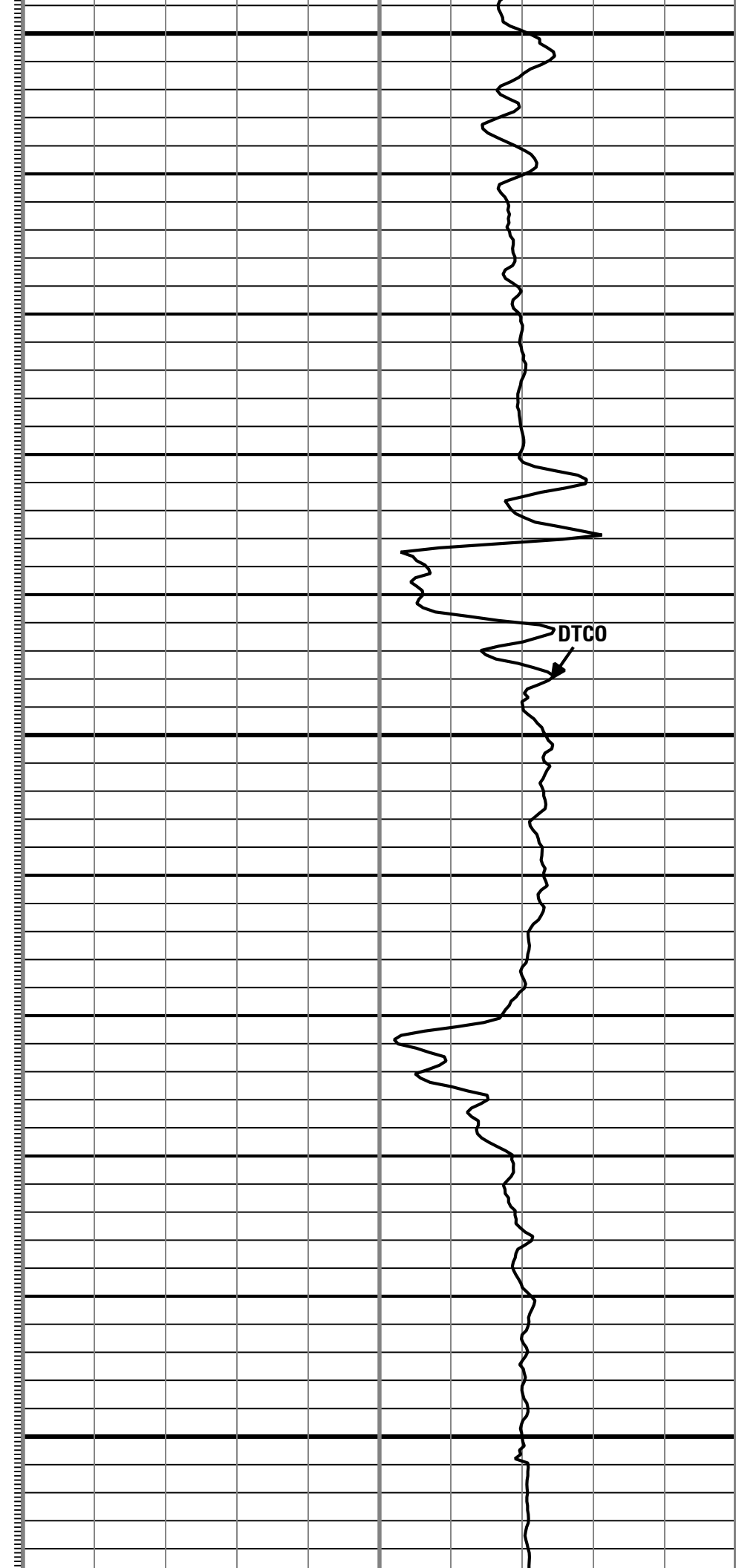
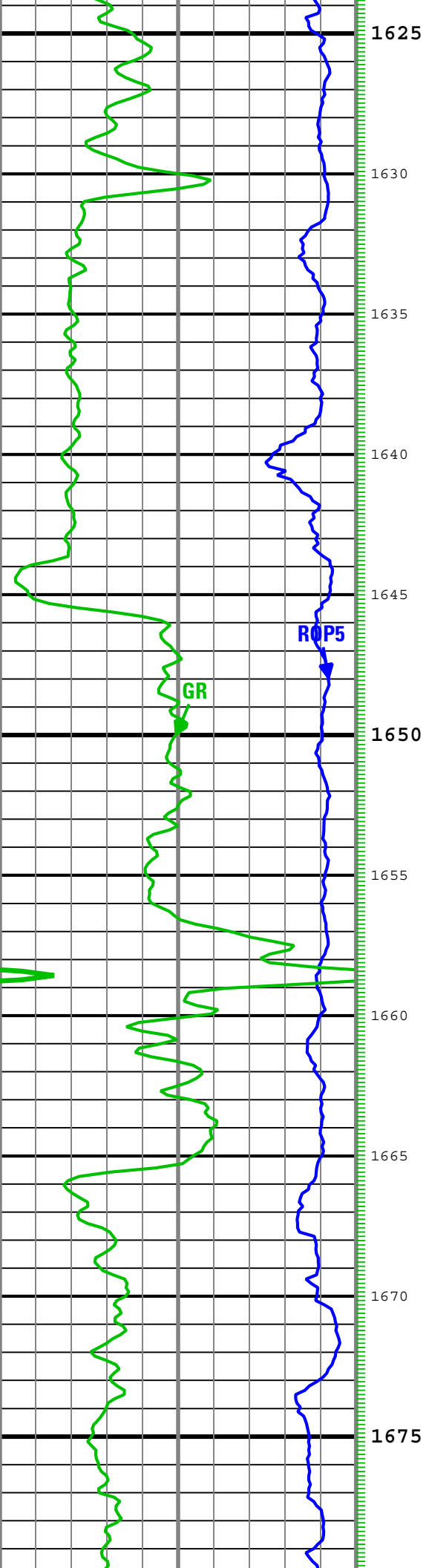


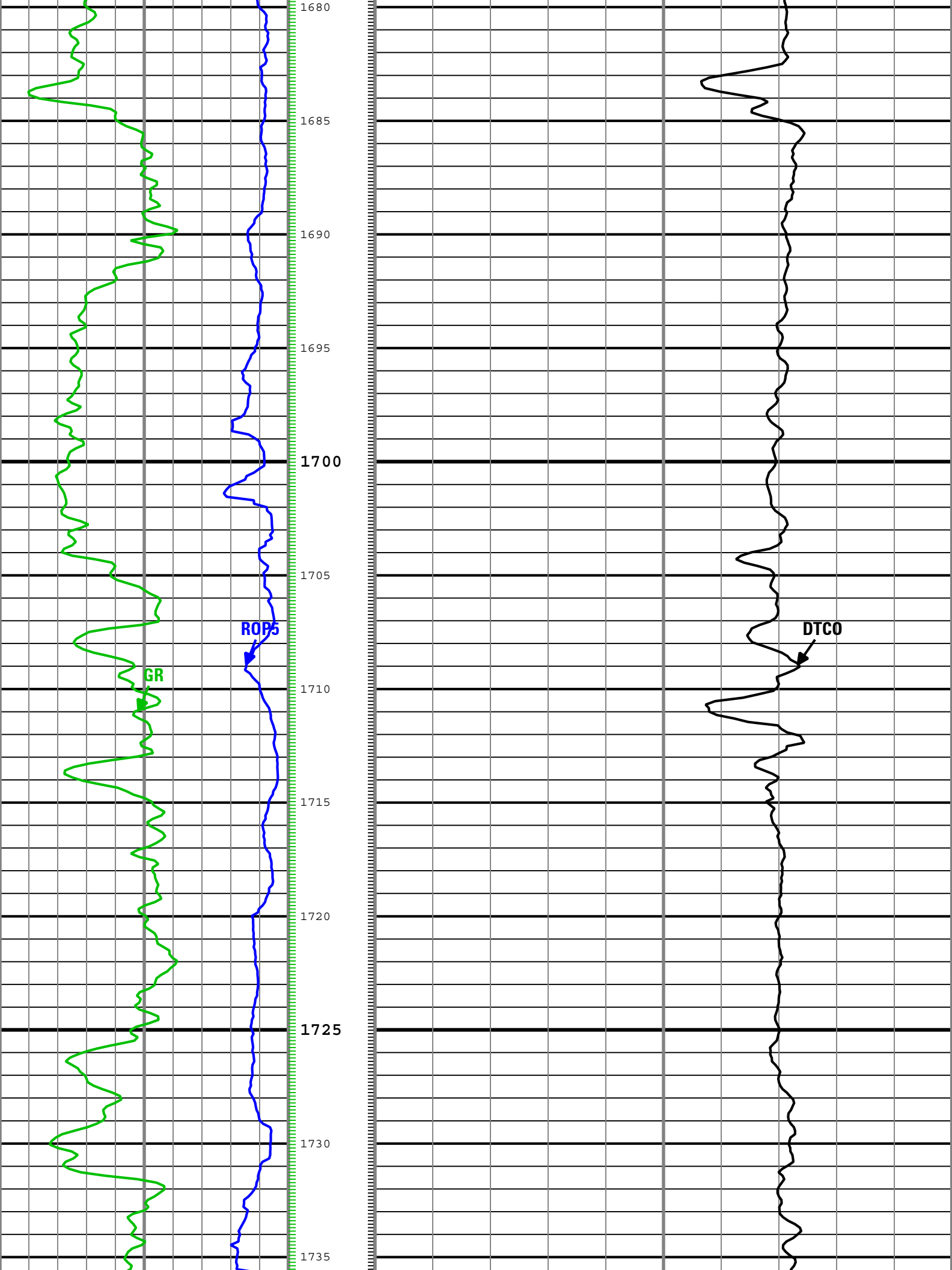


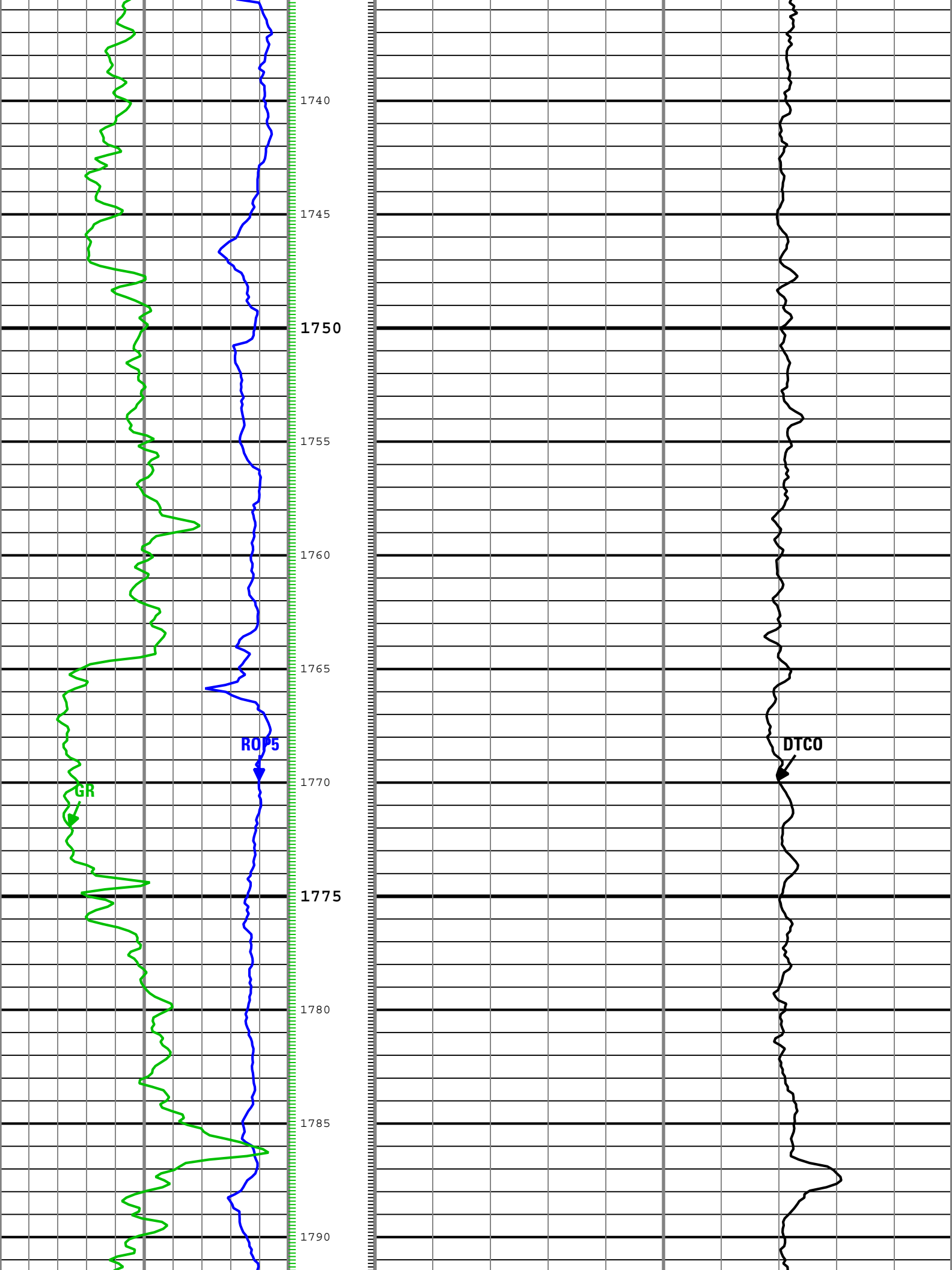


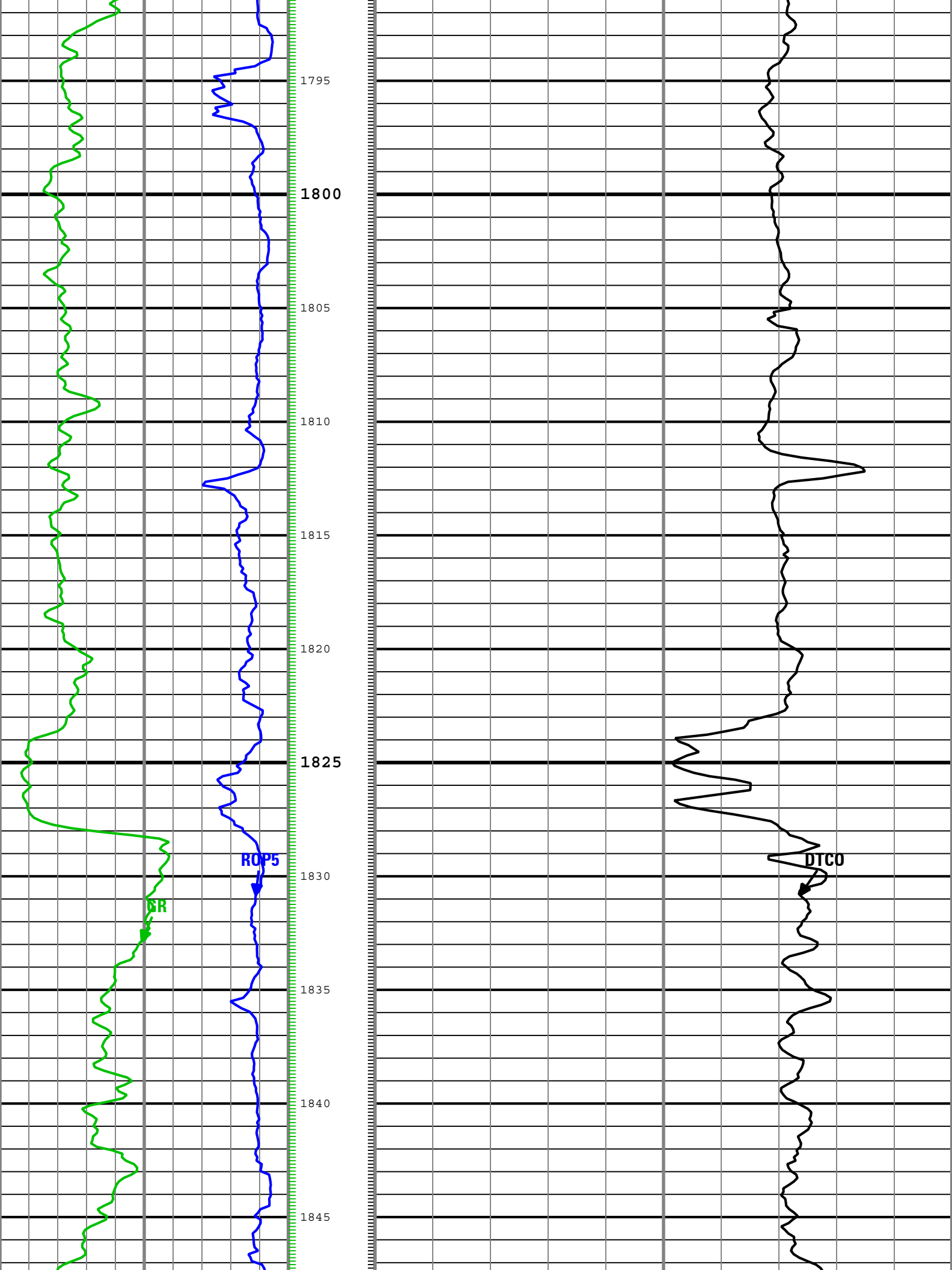


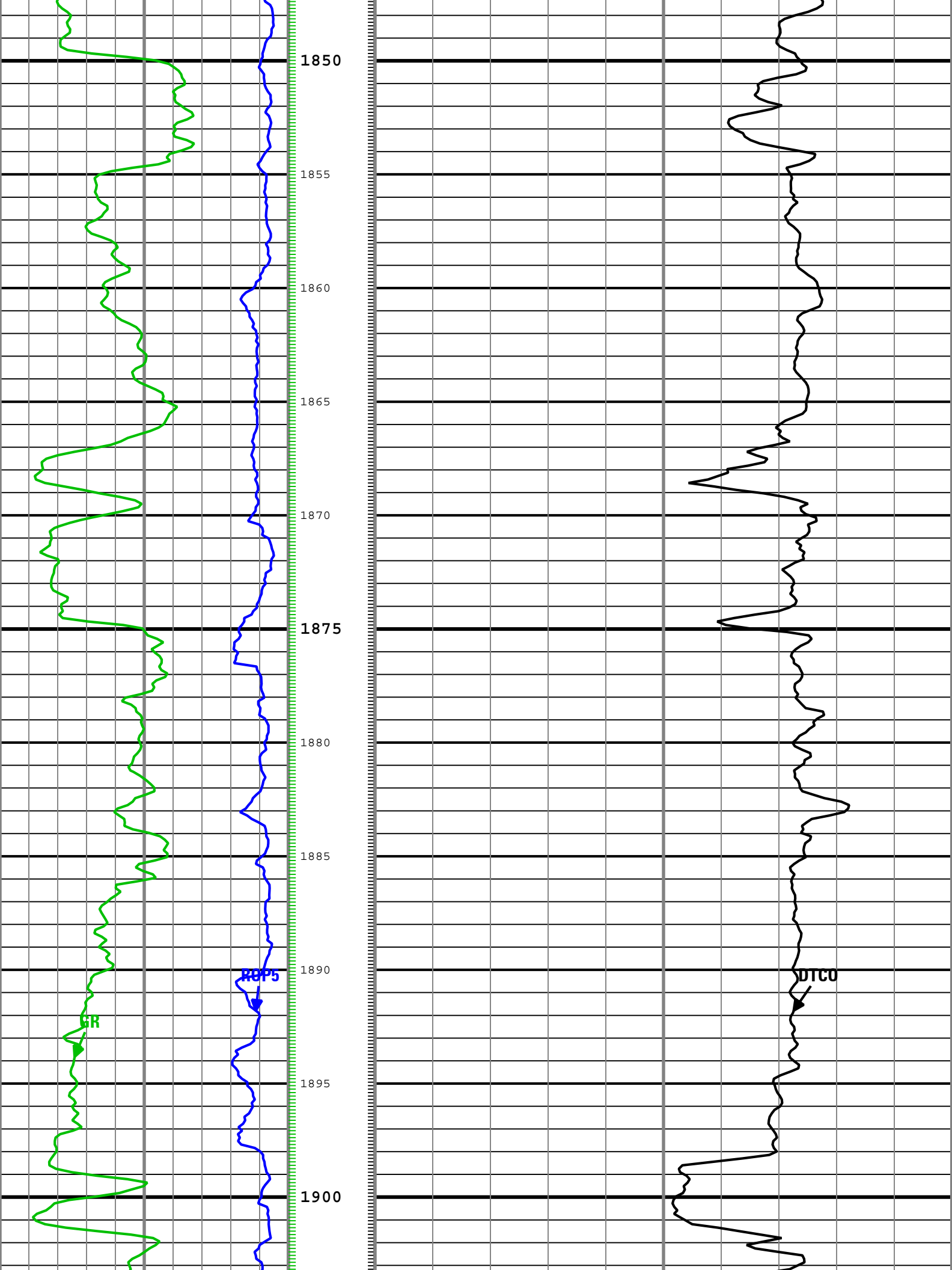


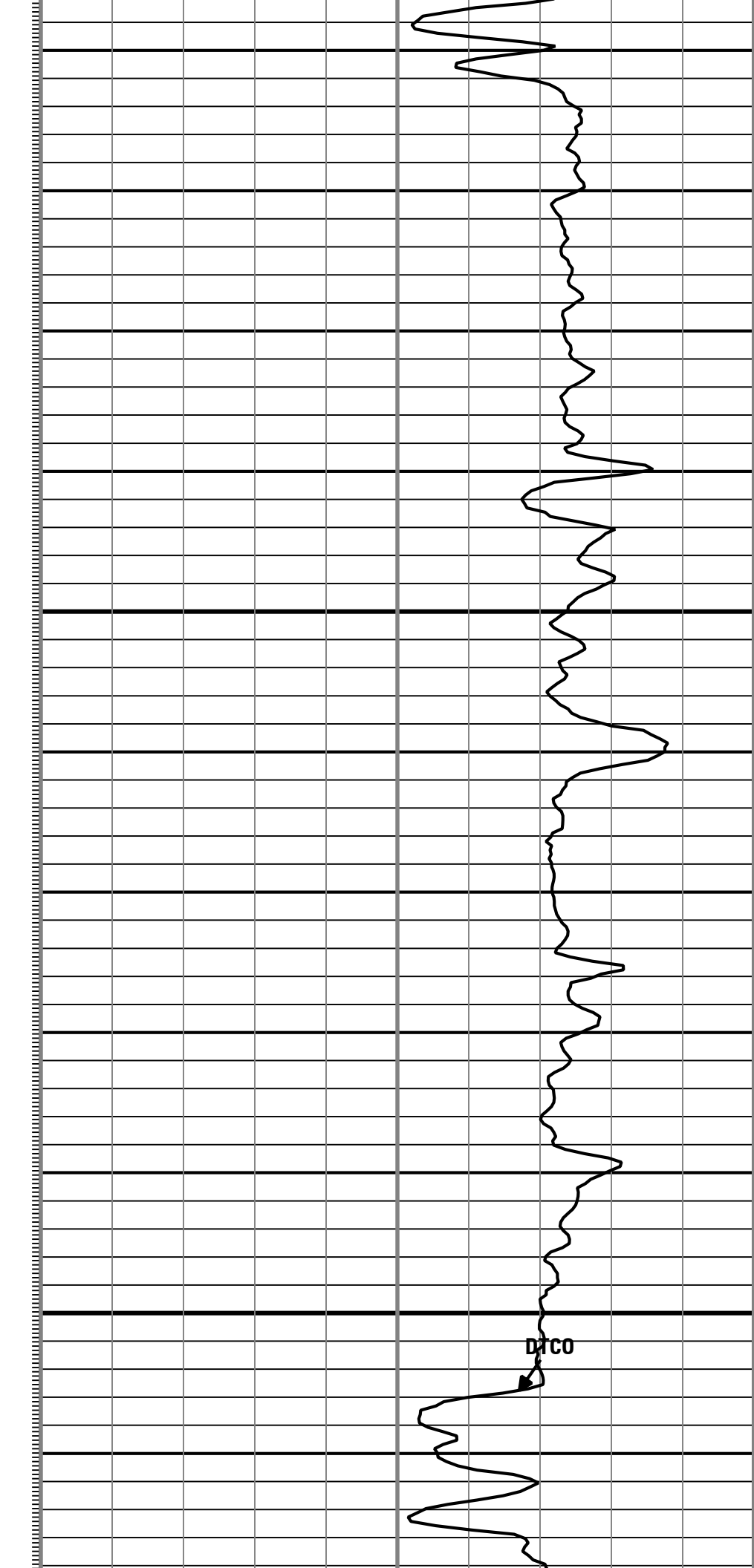
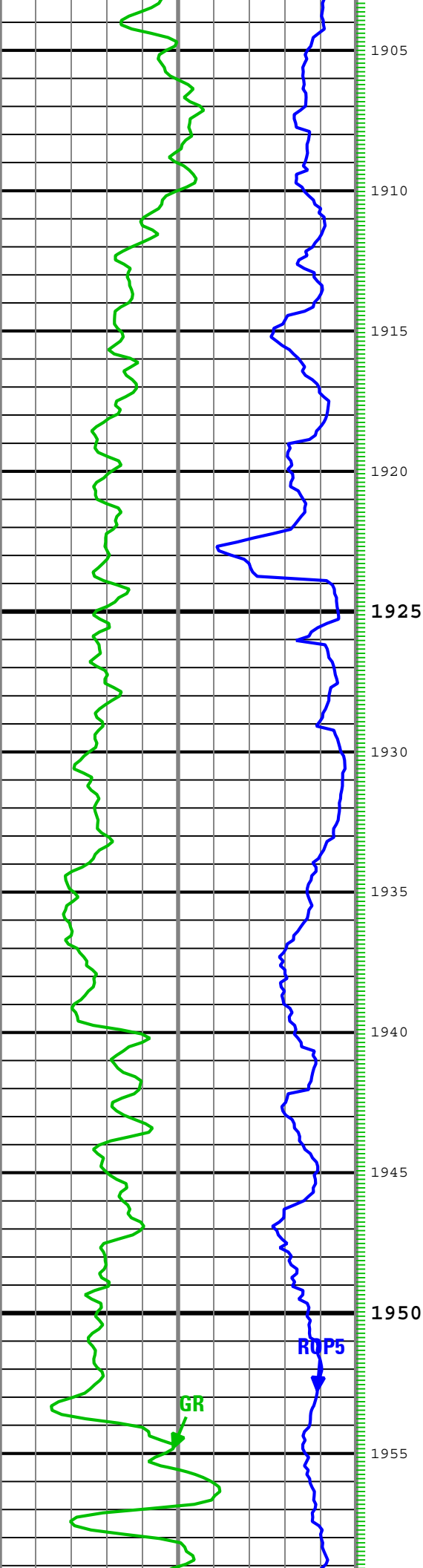


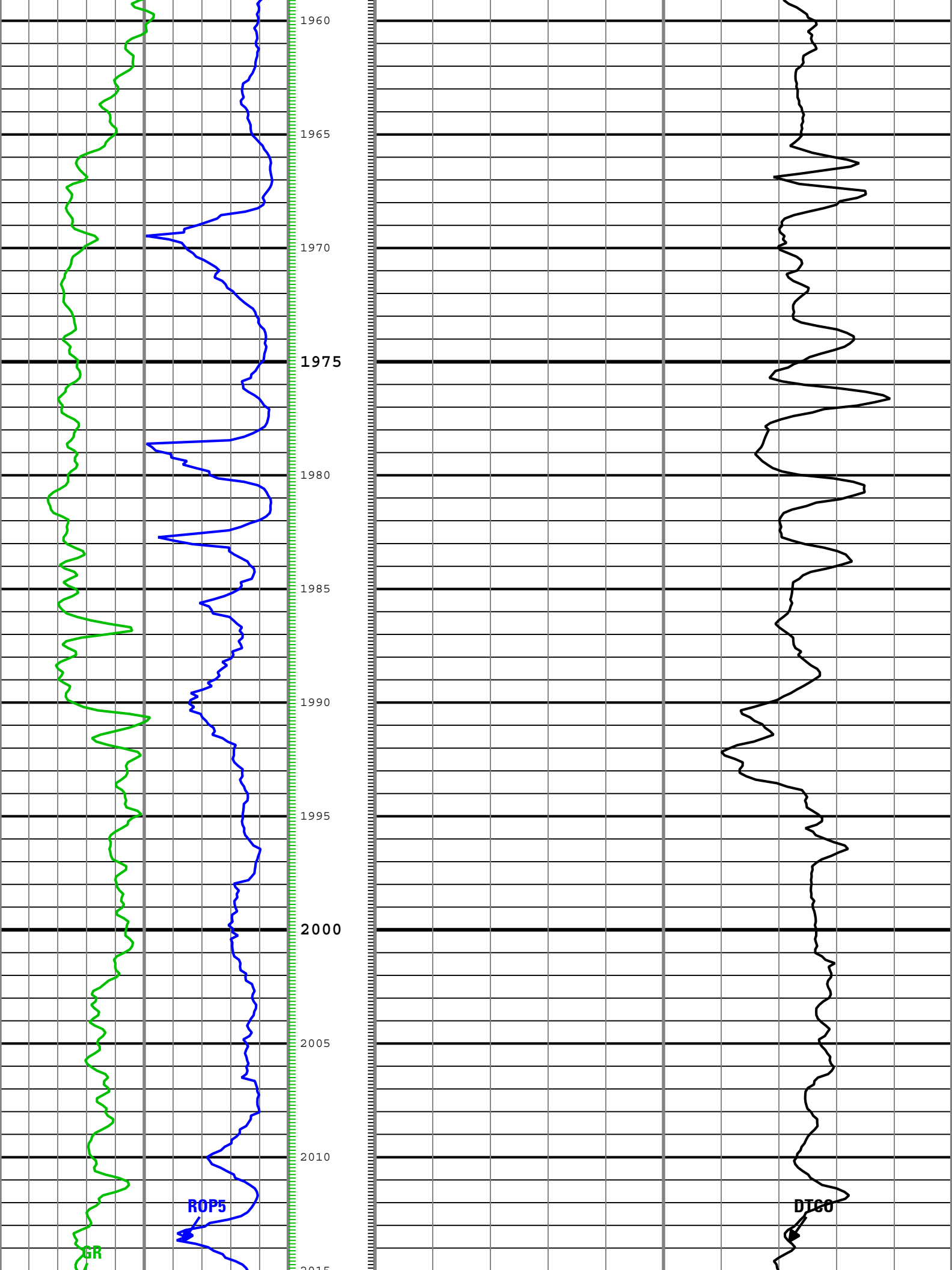


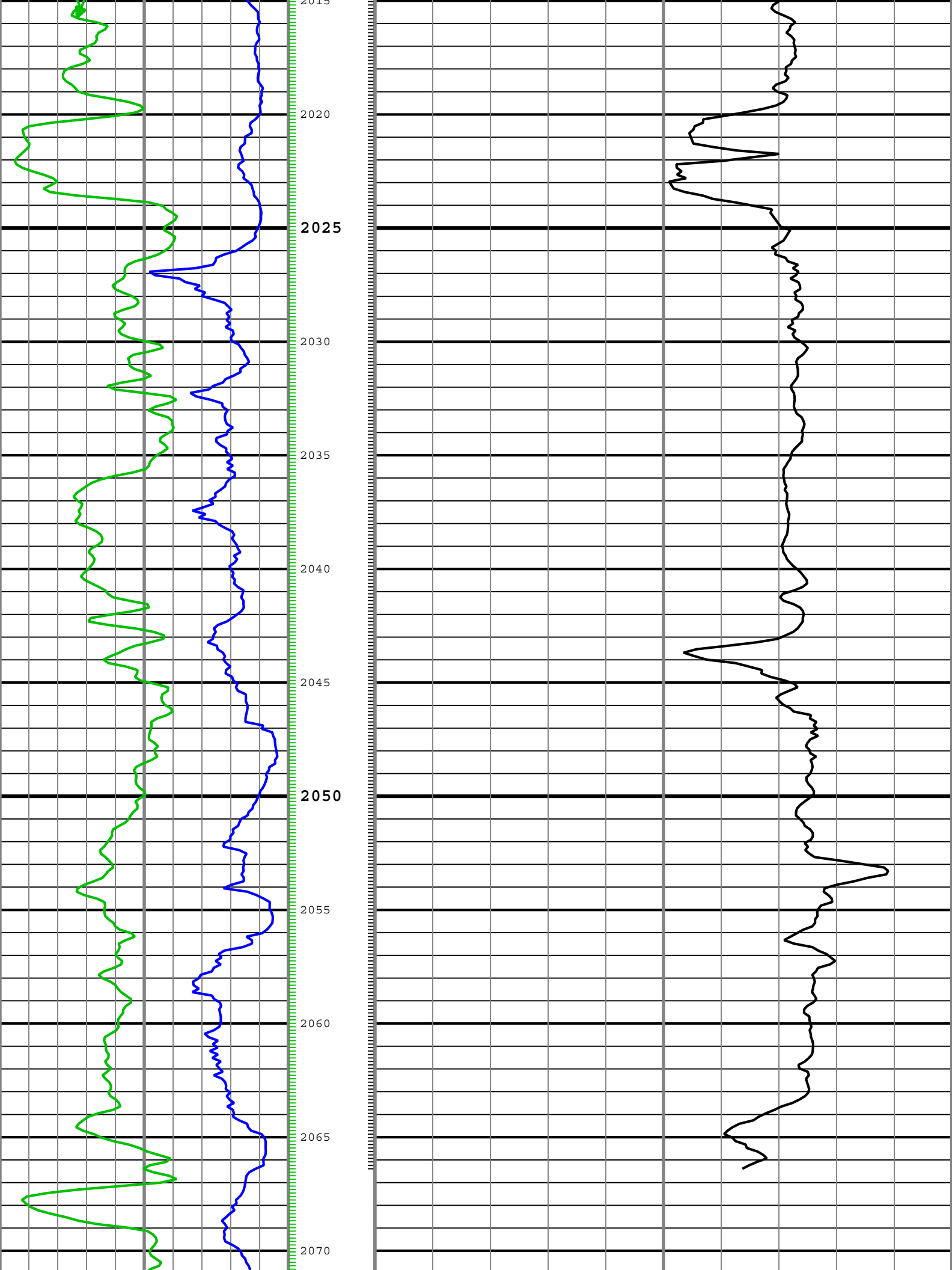


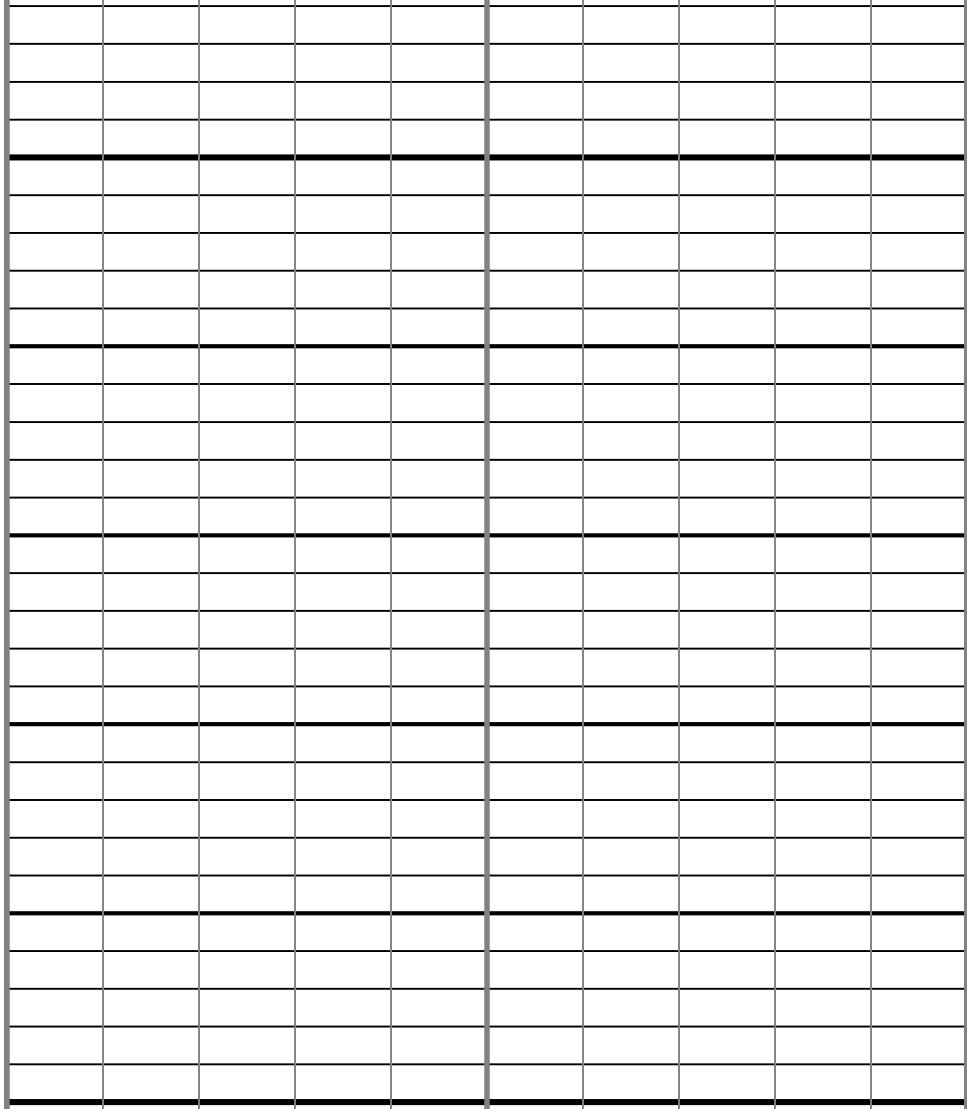
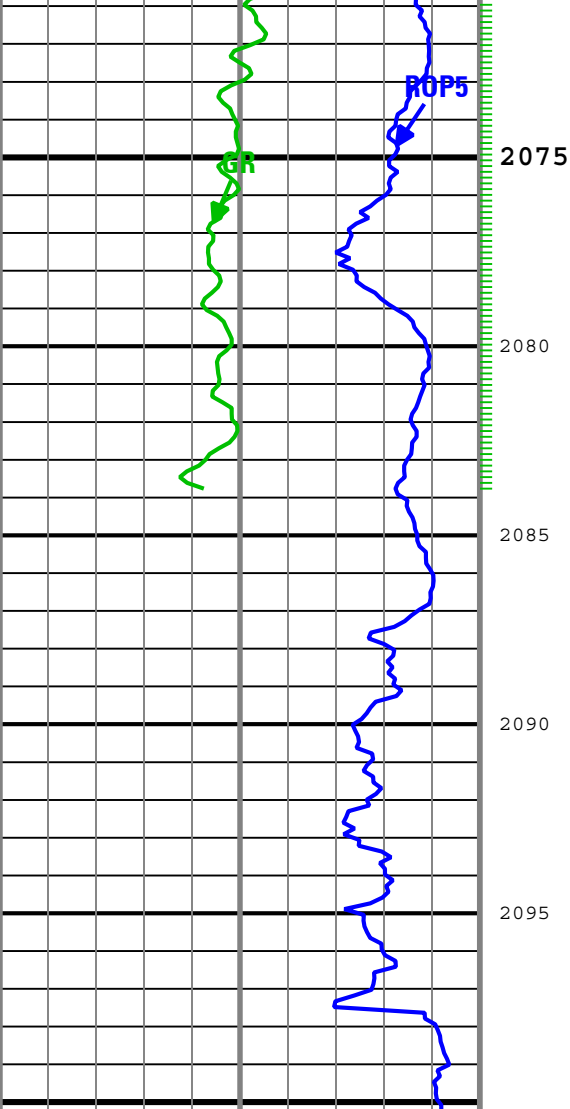












Rate of penetration averaged over the last 5 ft
(1.5 m) (ROP5)

200 m/h 0

Gamma Ray (GR)

0 gAPI 200

Delta-T Compressional (DTCO)

240 us/ft 40

GR - Gamma Ray

DTCO - Delta-T Compressional

Description: ARC + sonicVISION Format: Log (Spikey Beach-1 RT ARC+Sonic) Index Scale: 1:200 Index Unit: m Index Type: Measured Depth Creation Date: 14-Sep-2009 04:39:20

Channel Processing Parameters

Run 1: Parameters

Parameter	Description	ToolPath	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BS	Bit Size	COMPLETION	17.5	in
CDTS	Correction for Delta-T Shale, Empirical	Borehole	100	us/ft
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	SONICVISION9:SONICVISI ON9	40	us/ft
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	SONICVISION9:SONICVISI ON9	140	us/ft
DDEL	Digitizing Delay	SONICVISION9:SONICVISI ON9	400	us
DFD	Drilling Fluid Density	Borehole	8.8	lbm/gal
DTF	Delta-T Fluid	Borehole	189	us/ft
DTM	Delta-T Matrix	Borehole	56	us/ft
ITT_OFFSET	Integrated Transit Time Offset	SONICVISION9:SONICVISI	0	ms

NWED	Noise Window End	SONICVISION9:SONICVISION9	2200	us
NWST	Noise Window Start	SONICVISION9:SONICVISION9	600	us
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	SONICVISION9:SONICVISION9	75	us/ft
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	SONICVISION9:SONICVISION9	240	us/ft
SIGE	Waveform Signal End Time	SONICVISION9:SONICVISION9	2000	us
SIGM	Waveform Signal Move Out	SONICVISION9:SONICVISION9	130	us/ft
SIGST	Waveform Signal Start Time	SONICVISION9:SONICVISION9	1500	us
SPFS	Sonic Porosity Formula	Borehole	Raymer-Hunt	
SPSO_LWD	Sonic Porosity Source Logging While Drilling	SONICVISION9:SONICVISION9	DTRA	
SWD_FIL_HIGH	Pre-STC filter high frequency cutoff (in kHz)	SONICVISION9:SONICVISION9	0	kHz
SWD_FIL LENG	Pre-STC filter length	SONICVISION9:SONICVISION9	1	
SWD_FIL_LOW	Pre-STC filter low frequency cutoff (in kHz)	SONICVISION9:SONICVISION9	0	kHz
SWD_FILTER	Pre-STC Filter Selection	SONICVISION9:SONICVISION9	No Filter	
SWD_PR_SEL	Sonic Processing Option	SONICVISION9:SONICVISION9	Both	

Run 2: Parameters

Parameter	Description	ToolPath	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	Time Zoned	%
BS	Bit Size	COMPLETION	Depth Zoned	in
CDTS	Correction for Delta-T Shale, Empirical	Borehole	100	us/ft
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	SONICVISION8:SONICVISION8	40	us/ft
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	SONICVISION8:SONICVISION8	140	us/ft
DDEL	Digitizing Delay	SONICVISION8:SONICVISION8	400	us
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
DTF	Delta-T Fluid	Borehole	189	us/ft
DTM	Delta-T Matrix	Borehole	56	us/ft
ITT_OFFSET	Integrated Transit Time Offset	SONICVISION8:SONICVISION8	0	ms
NWED	Noise Window End	SONICVISION8:SONICVISION8	2200	us
NWST	Noise Window Start	SONICVISION8:SONICVISION8	600	us
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	SONICVISION8:SONICVISION8	75	us/ft
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	SONICVISION8:SONICVISION8	240	us/ft
SIGE	Waveform Signal End Time	SONICVISION8:SONICVISION8	2000	us
SIGM	Waveform Signal Move Out	SONICVISION8:SONICVISION8	130	us/ft
SIGST	Waveform Signal Start Time	SONICVISION8:SONICVISION8	1500	us
SPFS	Sonic Porosity Formula	Borehole	Raymer-Hunt	
SPSO_LWD	Sonic Porosity Source Logging While Drilling	SONICVISION8:SONICVISION8	DTRA	
SWD_FIL_HIGH	Pre-STC filter high frequency cutoff (in kHz)	SONICVISION8:SONICVISION8	0	kHz
SWD_FIL LENG	Pre-STC filter length	SONICVISION8:SONICVISION8	1	
SWD_FIL_LOW	Pre-STC filter low frequency cutoff (in kHz)	SONICVISION8:SONICVISION8	0	kHz
SWD_FILTER	Pre-STC Filter Selection	SONICVISION8:SONICVISION8	No Filter	
SWD_PR_SEL	Sonic Processing Option	SONICVISION8:SONICVISION8	Both	

Run 2 : Depth Zoned Parameters

Parameter	Value	Start (m)	Stop (m)
BS	17.5	759.11	816.61

BS	12.25	816.61	2100.22
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All depth are actual.

Run 2 : Time Zoned Parameters

Pass Drilling

Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
BHK	5.77	11-Sep-2009 01:32:19	11-Sep-2009 11:30:28	816.56	1000.33
BHK	4.98	11-Sep-2009 11:30:28	12-Sep-2009 02:00:00	1000.33	1545.64
BHK	4.72	12-Sep-2009 02:00:00	13-Sep-2009 15:53:56	1545.64	2100.35
DFD	9	11-Sep-2009 01:32:19	11-Sep-2009 11:30:28	816.56	1000.33
DFD	9.1	11-Sep-2009 11:30:28	12-Sep-2009 02:00:00	1000.33	1545.64
DFD	9.5	12-Sep-2009 02:00:00	13-Sep-2009 15:53:56	1545.64	2100.35

Pass Ream Up 1

BHK	4.72	13-Sep-2009 13:03:17	13-Sep-2009 15:53:56	1587	1565
DFD	9.5	13-Sep-2009 13:03:17	13-Sep-2009 15:53:56	1587	1565

All depth are at tool zero.

Detailed Calibration Record

Run 1: ARC9 : Calibration Resistivity

Primary Set Components	Description	Tool Element	Serial Number
	DC with AIM	ARDC	
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	27-Aug-2009 06:33:40 PM - Valid		
Calibration Source	Time Frame File		

Calibration Type: Resistivity: Air

Description	Min/Nominal/Max	Shop	Unit
ATT1F2AIR Attenuation T1 at 2 MHz	6.500 / 8.500 / 10.500	8.303	dB
ATT2F2AIR Attenuation T2 at 2 MHz	4.500 / 6.500 / 8.500	6.206	dB
ATT3F2AIR Attenuation T3 at 2 MHz	2.500 / 4.500 / 6.500	5.075	dB
ATT4F2AIR Attenuation T4 at 2 MHz	2.600 / 4.600 / 6.600	4.190	dB
ATT5F2AIR Attenuation T5 at 2 MHz	1.600 / 3.600 / 5.600	3.684	dB
PST1F2AIR Phase Shift T1 at 2 MHz	-3.900 / 0.100 / 4.100	1.617	deg
PST2F2AIR Phase Shift T2 at 2 MHz	-3.900 / 0.100 / 4.100	-1.579	deg
PST3F2AIR Phase Shift T3 at 2 MHz	-3.900 / 0.100 / 4.100	1.555	deg
PST4F2AIR Phase Shift T4 at 2 MHz	-3.900 / 0.100 / 4.100	-1.623	deg
PST5F2AIR Phase Shift T5 at 2 MHz	-3.900 / 0.100 / 4.100	1.556	deg
ATT1F4AIR Attenuation T1 at 400 KHz	6.500 / 8.500 / 10.500	8.288	dB
ATT2F4AIR Attenuation T2 at 400 KHz	4.500 / 6.500 / 8.500	6.232	dB
ATT3F4AIR Attenuation T3 at 400 KHz	2.500 / 4.500 / 6.500	5.056	dB
ATT4F4AIR Attenuation T4 at 400 KHz	2.600 / 4.600 / 6.600	4.226	dB
ATT5F4AIR Attenuation T5 at 400 KHz	1.600 / 3.600 / 5.600	3.668	dB
PST1F4AIR Phase Shift T1 at 400 KHz	-3.900 / 0.100 / 4.100	-1.128	deg
PST2F4AIR Phase Shift T2 at 400 KHz	-3.900 / 0.100 / 4.100	0.979	deg

PST3F4AIR Phase Shift T3 at 400 KHz	-3.900 / 0.100 / 4.100	-1.080	deg
PST4F4AIR Phase Shift T4 at 400 KHz	-3.900 / 0.100 / 4.100	0.861	deg
PST5F4AIR Phase Shift T5 at 400 KHz	-3.900 / 0.100 / 4.100	-1.146	deg

Run 1: ARC9 : Calibration Gamma Ray

Primary Set Components	Description	Tool Element	Serial Number
	DC with AIM	ARDC	
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	26-Aug-2009 08:02:43 PM - Valid		
Calibration Source	Time Frame File		
Calibration Type: Gamma Ray: Blanket			
Description	Min/Nominal/Max	Shop	Unit
GR_GAIN Gamma Ray Calibration Gain	0.580 / 1.000 / 1.250	1.065	

Run 2: ARC8 : Calibration Resistivity

Primary Set Components	Description	Tool Element	Serial Number
	DC with AIM	ARDC	
Calibration Dates	Shop Calibration		
Date & Time / Date Validity	04-Sep-2009 10:51:30 AM - Valid		
Calibration Source	Time Frame File		
Calibration Type: Resistivity: Air			
Description	Min/Nominal/Max	Shop	Unit
ATT1F2AIR Attenuation T1 at 2 MHz	6.500 / 8.500 / 10.500	8.079	dB
ATT2F2AIR Attenuation T2 at 2 MHz	4.500 / 6.500 / 8.500	6.594	dB
ATT3F2AIR Attenuation T3 at 2 MHz	2.500 / 4.500 / 6.500	4.786	dB
ATT4F2AIR Attenuation T4 at 2 MHz	2.600 / 4.600 / 6.600	4.546	dB
ATT5F2AIR Attenuation T5 at 2 MHz	1.600 / 3.600 / 5.600	3.373	dB
PST1F2AIR Phase Shift T1 at 2 MHz	-3.900 / 0.100 / 4.100	-0.298	deg
PST2F2AIR Phase Shift T2 at 2 MHz	-3.900 / 0.100 / 4.100	0.371	deg
PST3F2AIR Phase Shift T3 at 2 MHz	-3.900 / 0.100 / 4.100	-0.408	deg
PST4F2AIR Phase Shift T4 at 2 MHz	-3.900 / 0.100 / 4.100	0.352	deg
PST5F2AIR Phase Shift T5 at 2 MHz	-3.900 / 0.100 / 4.100	-0.404	deg
ATT1F4AIR Attenuation T1 at 400 KHz	6.500 / 8.500 / 10.500	8.139	dB
ATT2F4AIR Attenuation T2 at 400 KHz	4.500 / 6.500 / 8.500	6.536	dB
ATT3F4AIR Attenuation T3 at 400 KHz	2.500 / 4.500 / 6.500	4.844	dB
ATT4F4AIR Attenuation T4 at 400 KHz	2.600 / 4.600 / 6.600	4.490	dB
ATT5F4AIR Attenuation T5 at 400 KHz	1.600 / 3.600 / 5.600	3.445	dB
PST1F4AIR Phase Shift T1 at 400 KHz	-3.900 / 0.100 / 4.100	0.107	deg
PST2F4AIR Phase Shift T2 at 400 KHz	-3.900 / 0.100 / 4.100	-0.147	deg
PST3F4AIR Phase Shift T3 at 400 KHz	-3.900 / 0.100 / 4.100	0.125	deg
PST4F4AIR Phase Shift T4 at 400 KHz	-3.900 / 0.100 / 4.100	-0.186	deg
PST5F4AIR Phase Shift T5 at 400 KHz	-3.900 / 0.100 / 4.100	0.094	deg

Run 2: ARC8 : Calibration Gamma Ray

