



Country : USA
 Field : DJ Wattenburg
 Location : 40.143860
 : -104.973790
 Well : Grant Elmquist 2D-14H C268
 Company : Encana Oil & Gas
 Rig : Ensign 135

Company : Encana Oil & Gas
 Rig : Ensign 135
 Well : Grant Elmquist 2D-14H C268
 Field : DJ Wattenburg
 County/Parish : Weld
 State/Province : CO
 Country : USA
 Well ID : 51233764300

LOCATION
 Latitude : 40.143860
 Longitude : -104.973790
 Firestone Colorado
 Sect: S14 Twp: T2N Range: R68W
 Other Services:
 Gamma
 WPR

Permanent Datum : NAD 1983 Elevation: MSL
 Log Measured From : KB
 Elev. KB : 4894
 DF : 4893
 GLWD : 4881

Depth Logged : 868 to : 6458.00
 Date Logged : 11-25-2014 to : 11/27/2014
 Total Depth MD : 6458.0 TVD : 6449.9
 Spud Date : 11-25-2014
 Job Number:
GRANT ELMQUIST 2D-14H

Run		Borehole Record (MD) Size From To		Run		Borehole Record (MD) Size From To	
1	8 3/4	868	6458.00				
				Casing Record (MD) Size Weight From To			
	9 5/8	40	0				856

FIELD PRINT

CORRECTIONS

Log Run	Run 1	Run 1		
Bit Run	Run 1	Run 1		
Start Date/Time	2014-11-25 10:48:28	2014-11-26 09:04:44		
Start Depth (ft)	868	4061.05		
End Date/Time	2014-11-26 09:04:43	2014-11-27 09:30:31		
End Depth (ft)	4061.25	6458.61		
Gamma Ray Corrections				
Collar Correction	4.61	4.61		
Mud Density (lb/gal)	8.3	8.3		
Mud Correction	1.252	1.252		
Calibration	1.33	1.33		
%K	0	0		
WPR Corrections				
Effective Hole Diam (in)	8.75	8.75		
Surface Rm (ohm-m)	0.7	0.7		
Surface Mud Temp (F)	60	70		
Bottom Hole Circ Temp (F)	75	116.8		
Rm @ BHT	0.571	0.435		

--	--	--	--	--	--

LOGGING SUMMARY

Log Run	Run 1				
Bit Run	Run 1				
Hole Size (in)	8.75				
Sensor Suite	Directional/ Gamma/				

Measured Depth

In Hole From	868				
In Hole To	6458.61				
Log From	868.00				
Log To	6458.61				

Date/Time

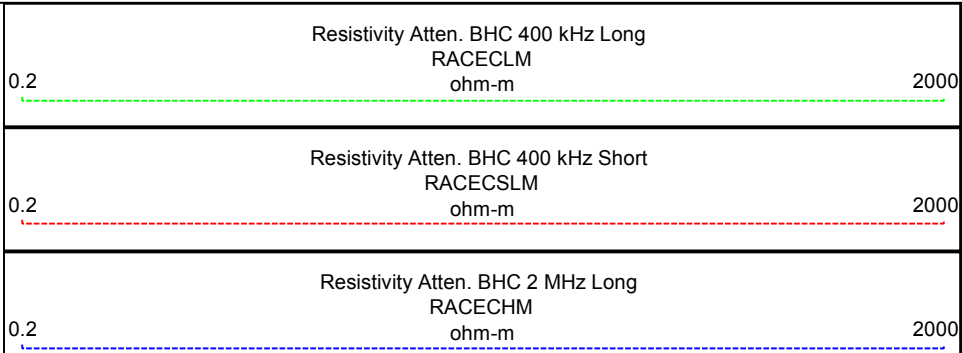
In Hole Date	2014-11-25				
In Hole Time	14:30:01				
Out Hole Date	2014-11-27				
Out Hole Time	09:30:60				
Begin Log Date	2014-11-25				
Begin Log Time	14:30:00				
End Log Date	2014-11-27				
End Log Time	09:30:59				
LWD Engineer	Aaron Clark				
Oil Company Rep	Bill LaForce				

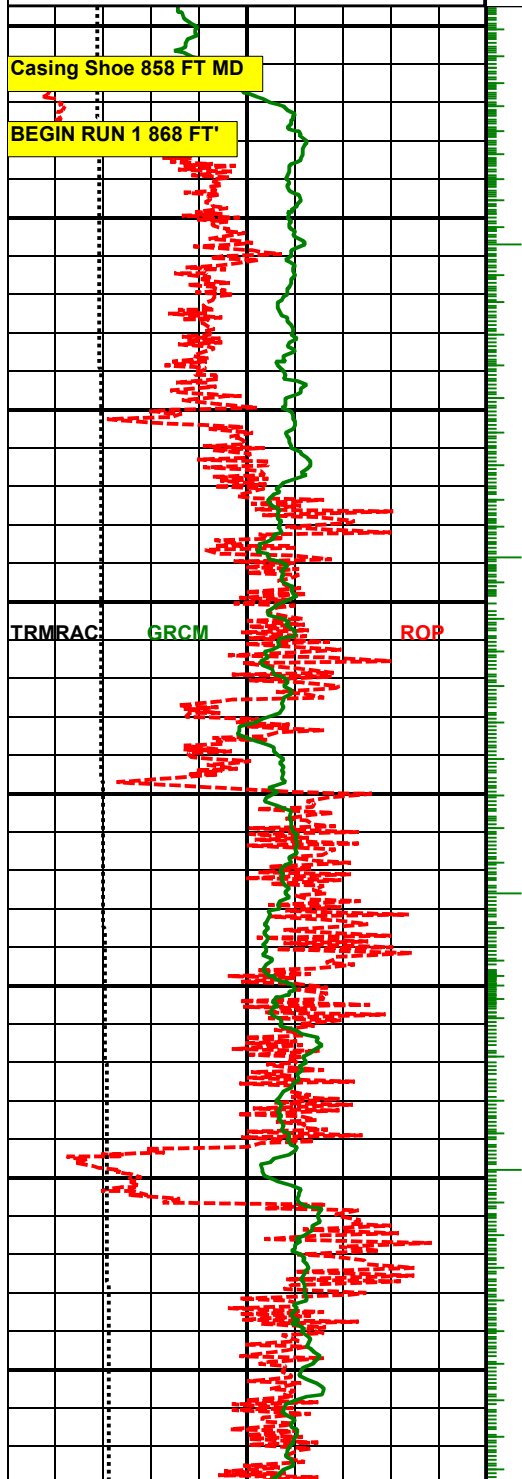
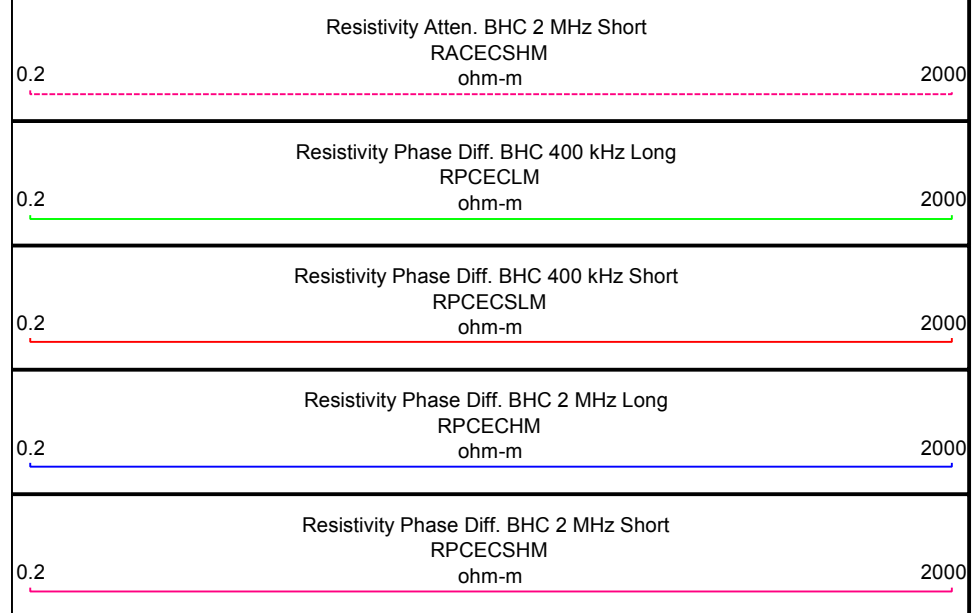
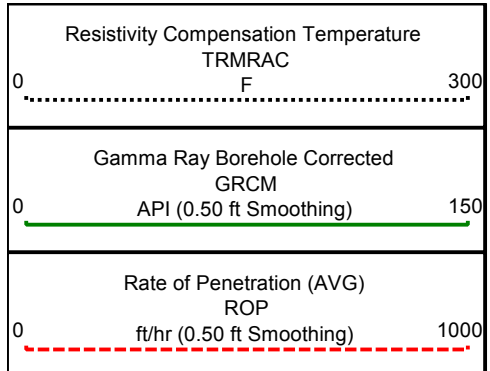
DRILLING FLUID SUMMARY

Mud Type	Water				
Density (lb/gal)	8.30				
Funnel Viscosity	37				
Plastic Viscosity	9				
Chlorides	800				
Oil/Water Ratio	0: 100				
Maximum Circ Temp (F)	140				

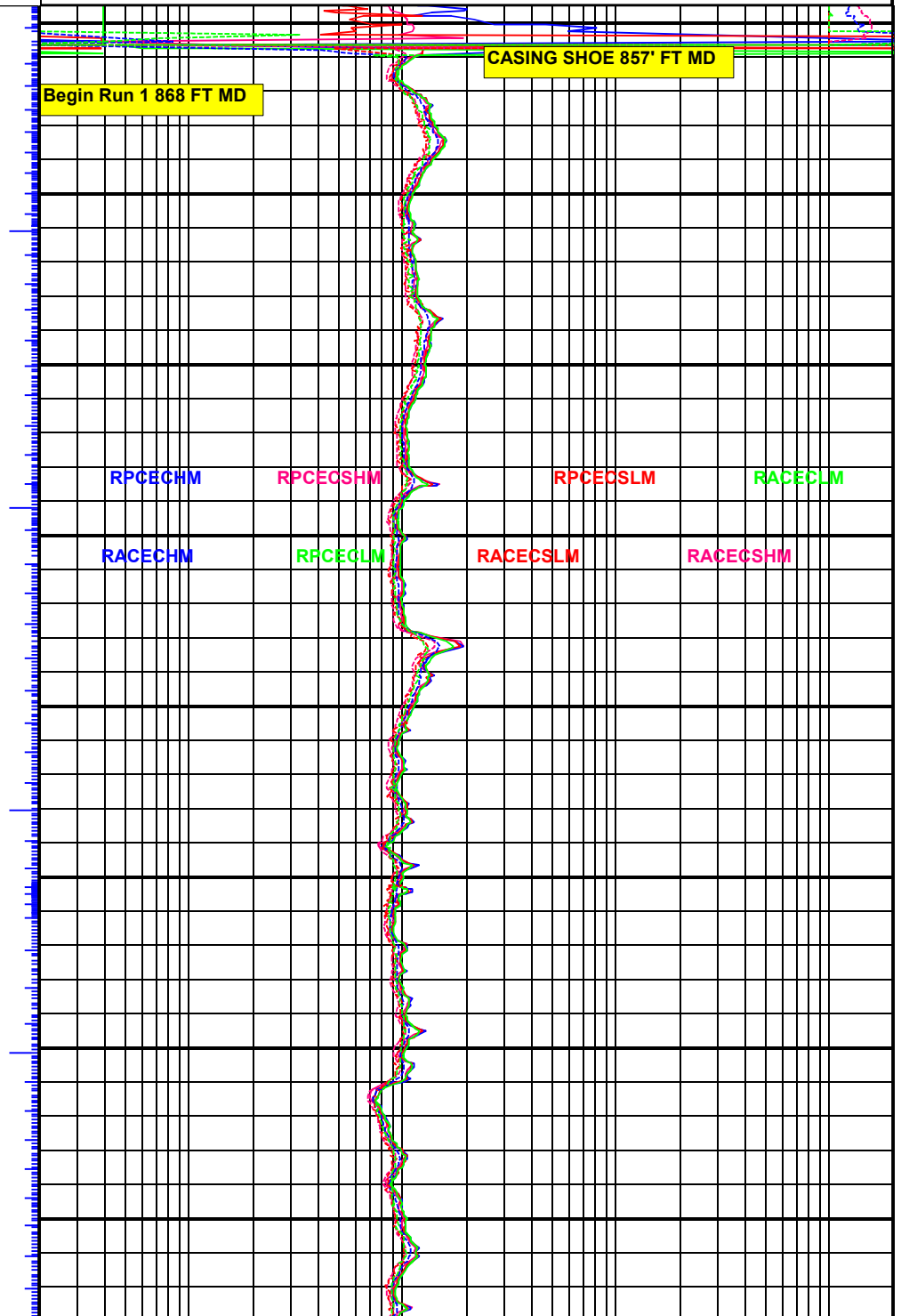
DISCLAIMER

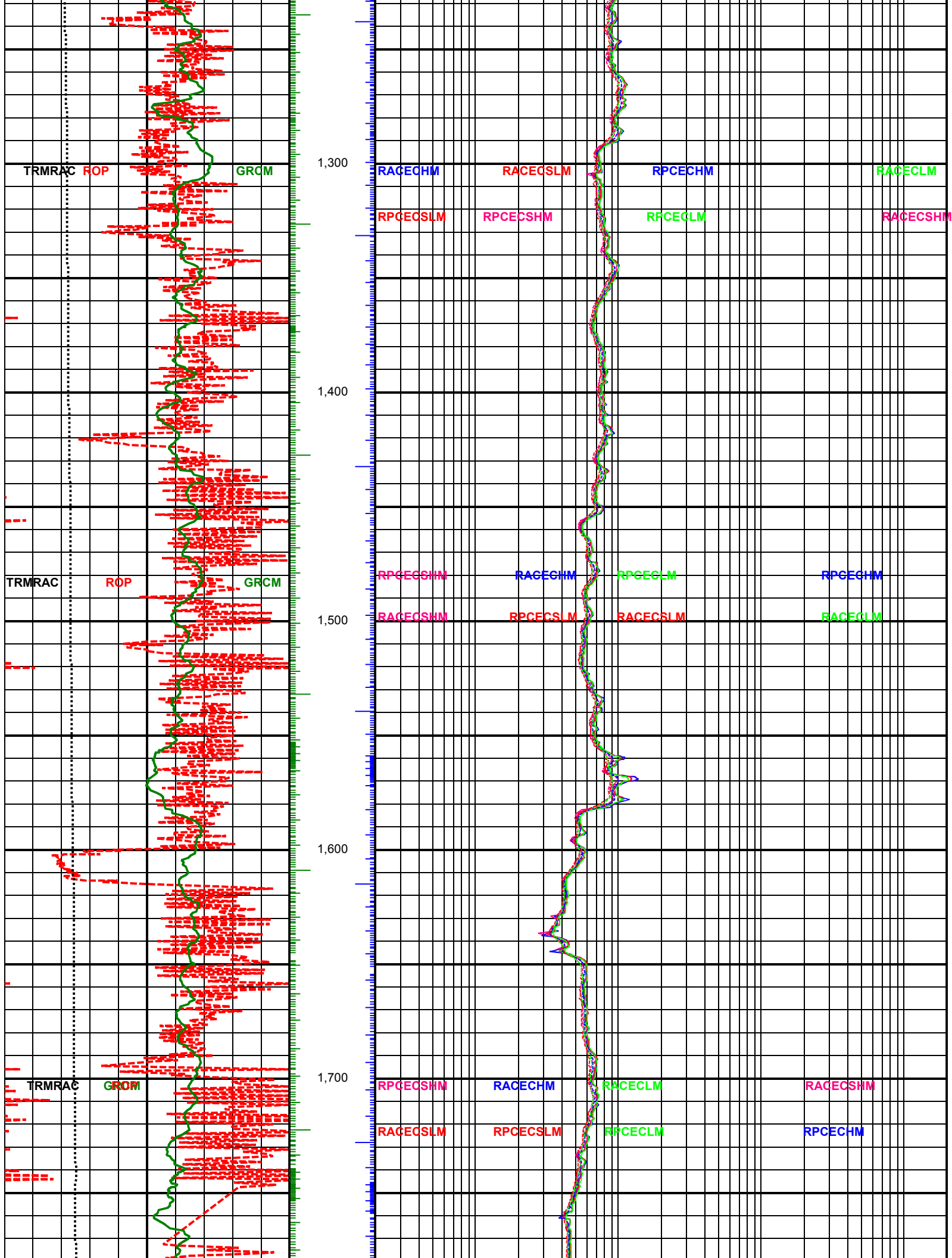
Cathedral Energy Services does not guarantee the accuracy or correctness of interpretations provided in or from this log. Since all interpretations are opinions based on measurements, APS Technology Inc shall under no circumstances be responsible for consequential damages or any other loss, costs, or expenses incurred or sustained in connection with the use of any such interpretations.

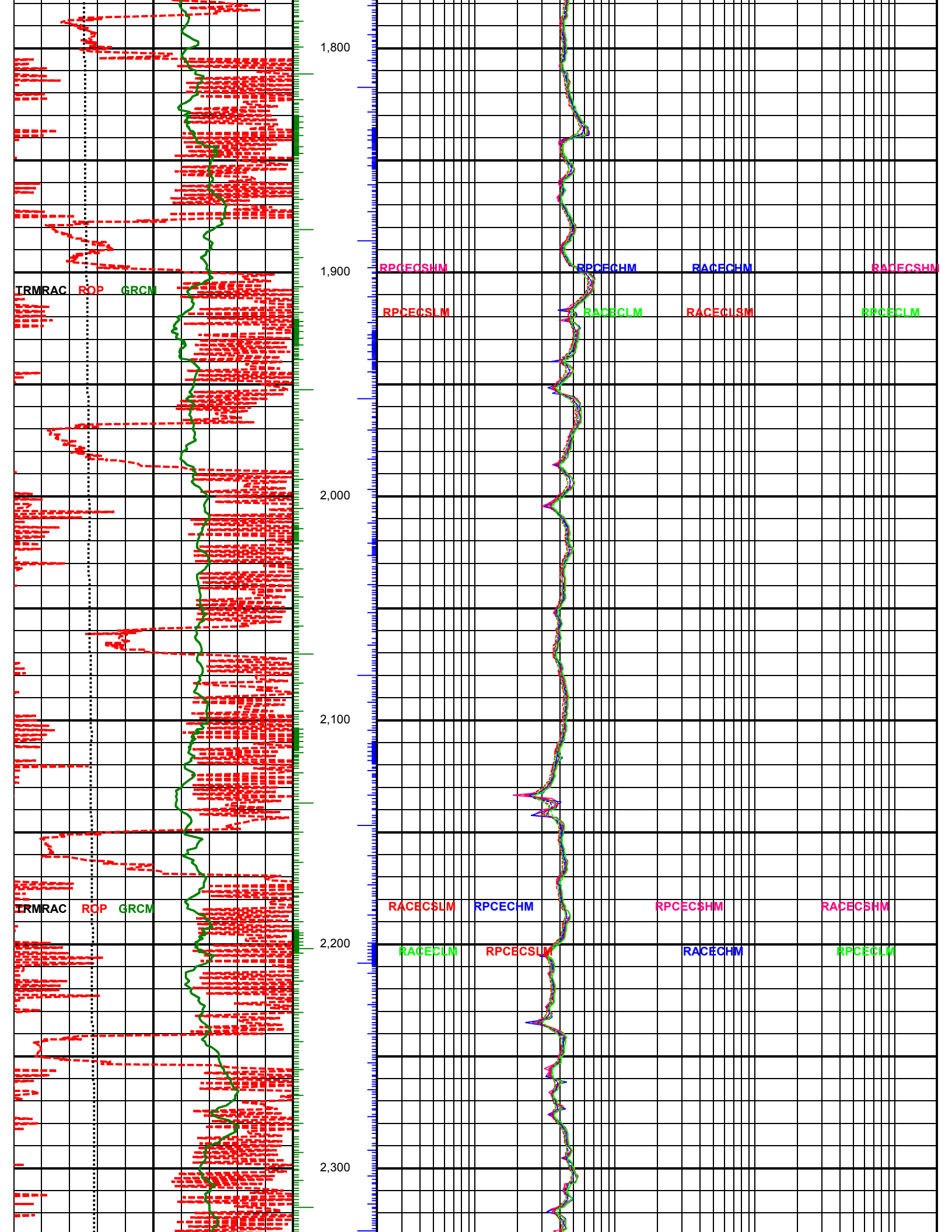


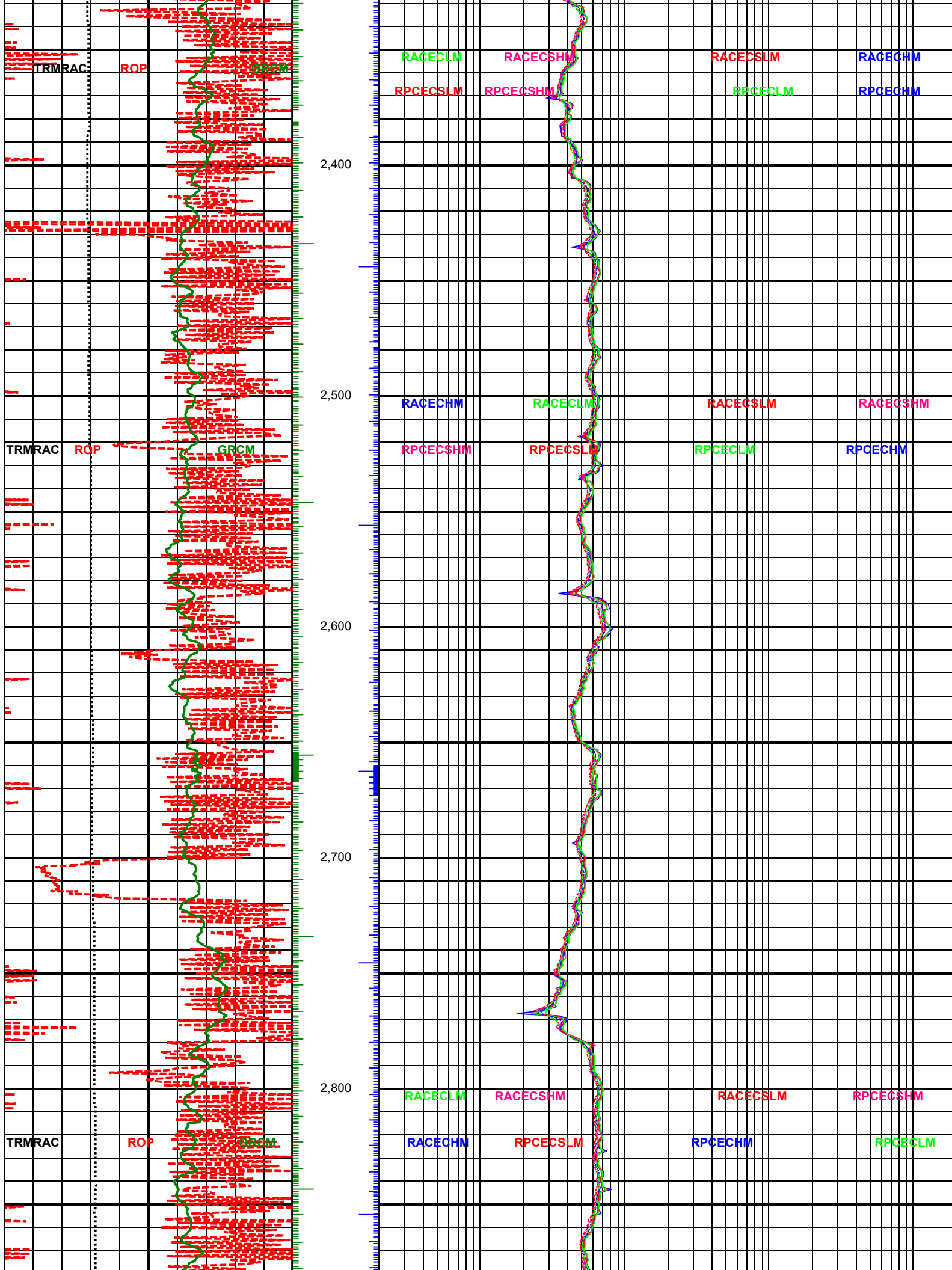


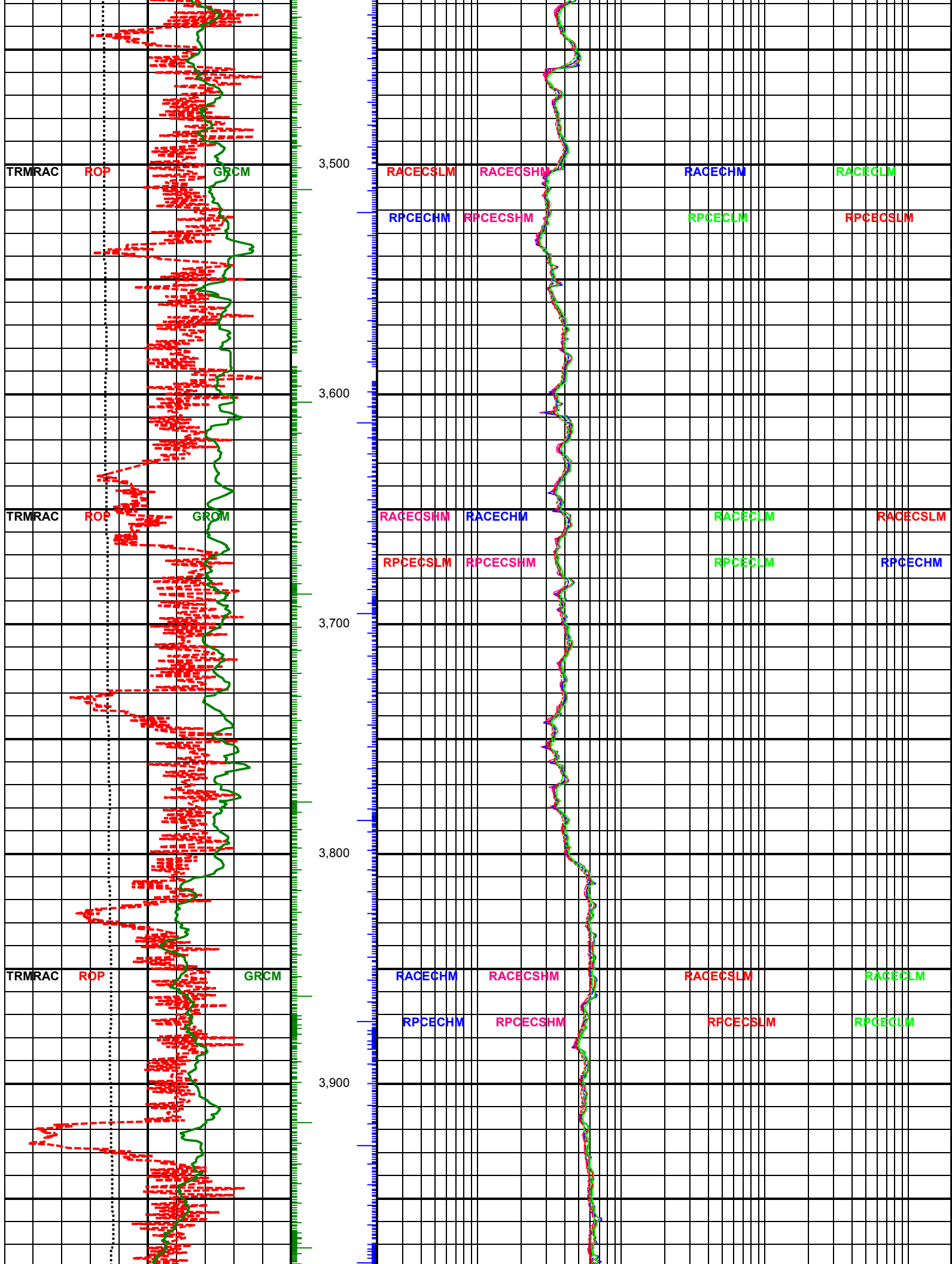
TVD
FEET

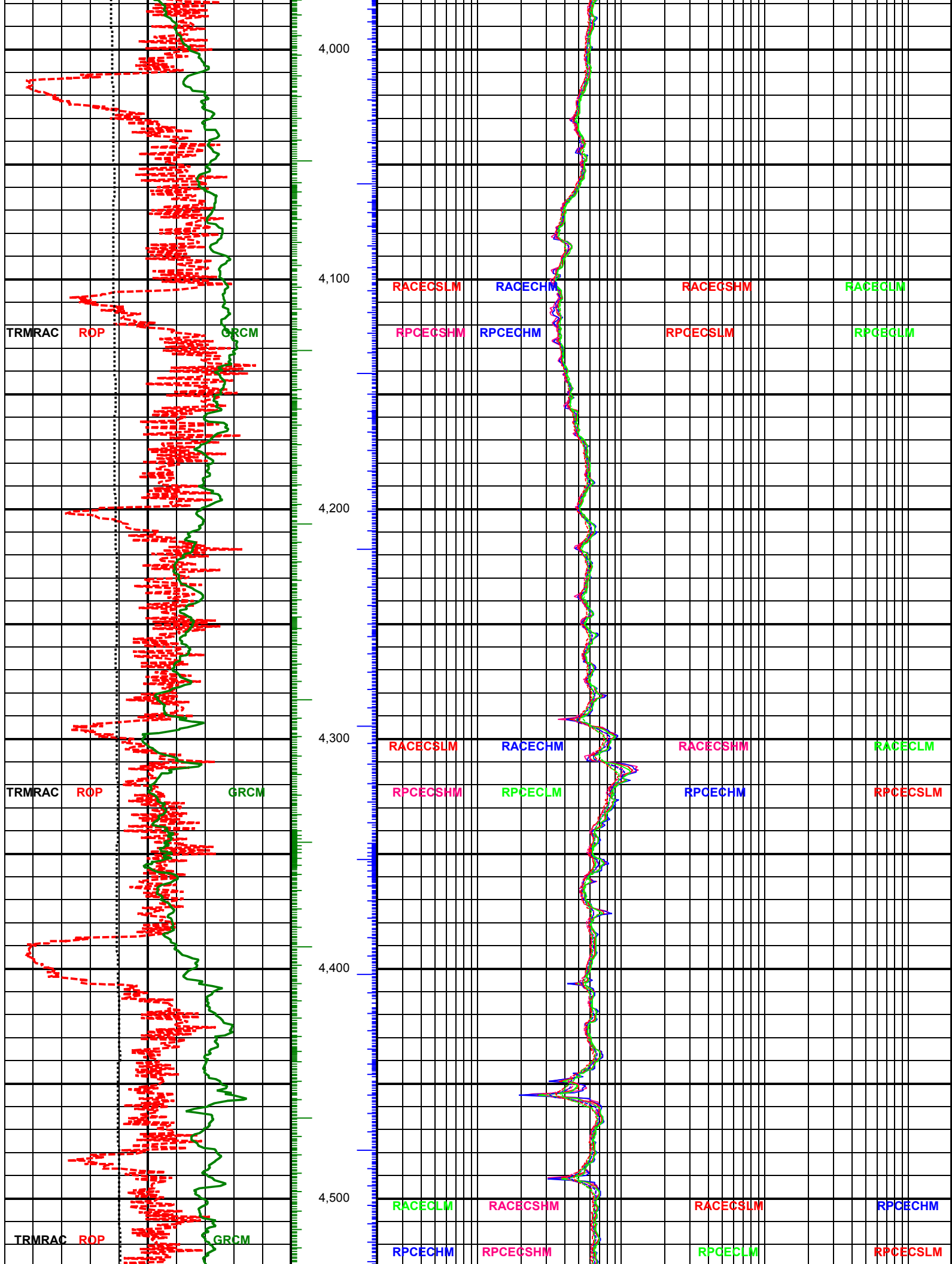


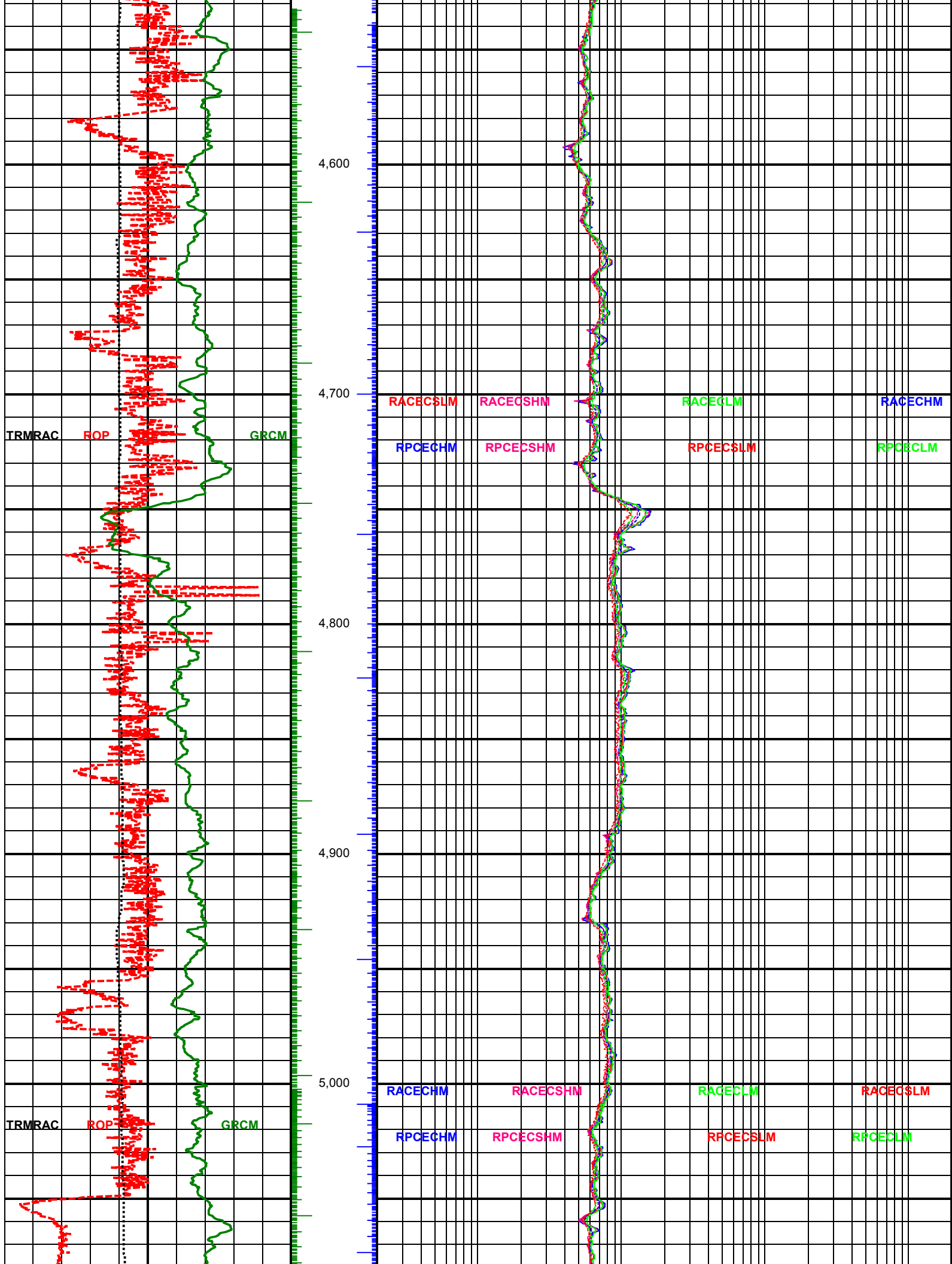


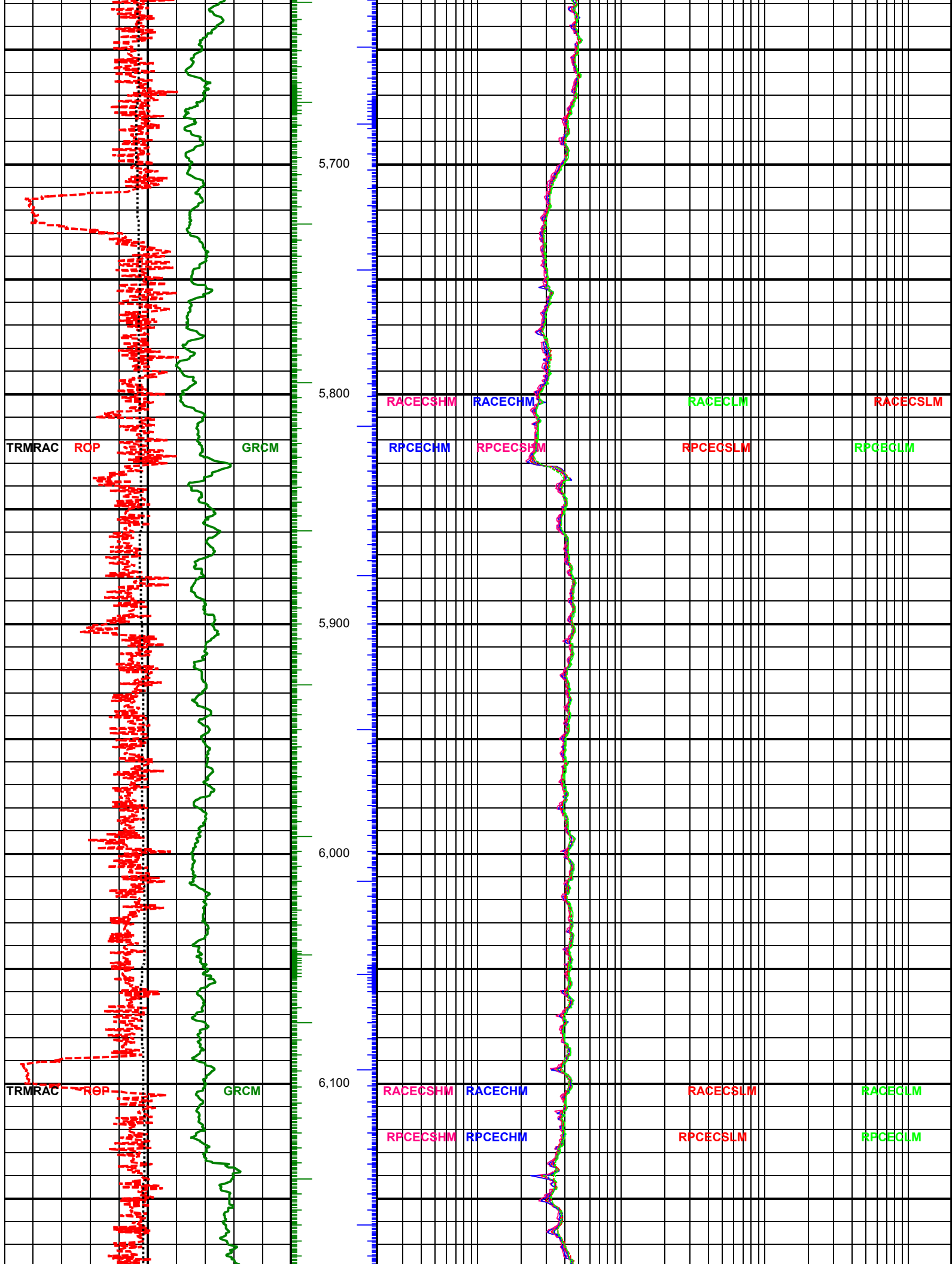


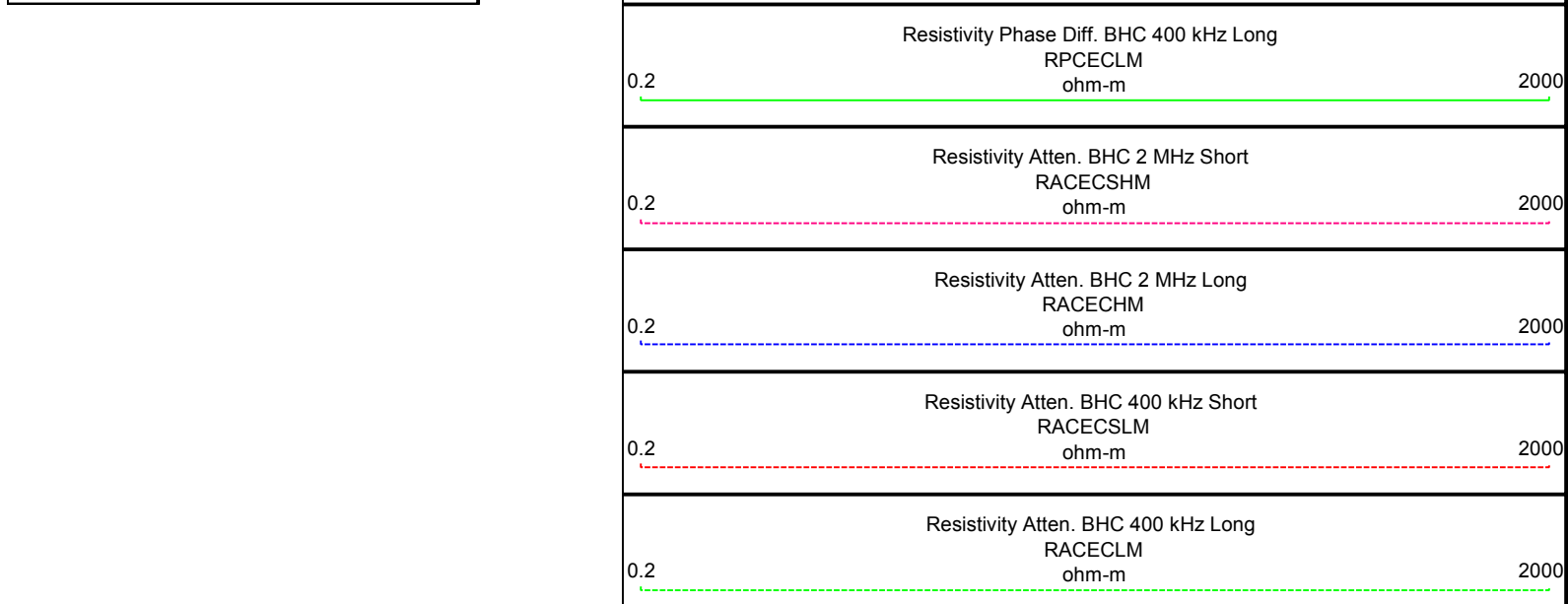
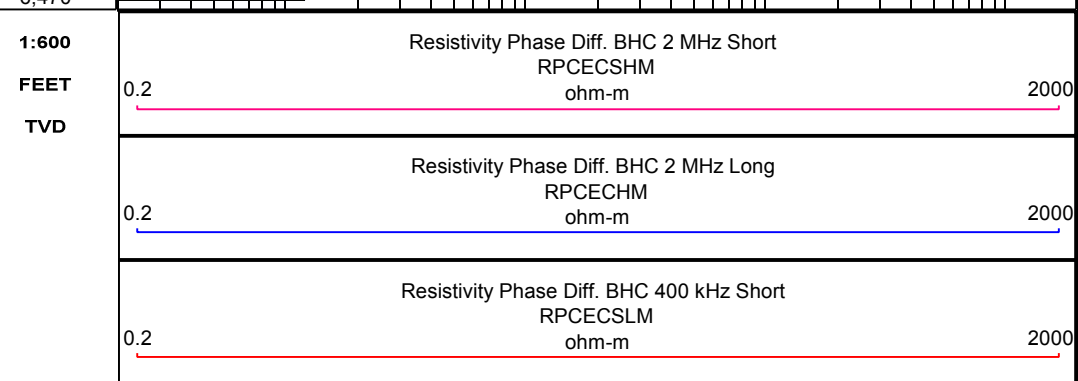
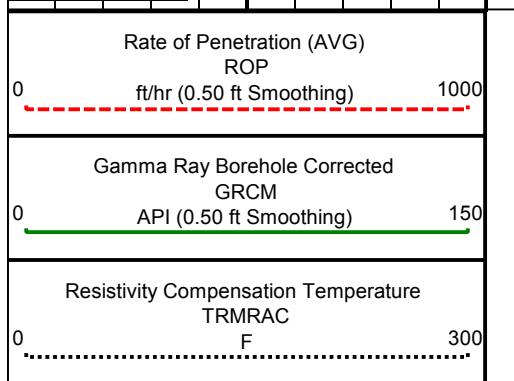
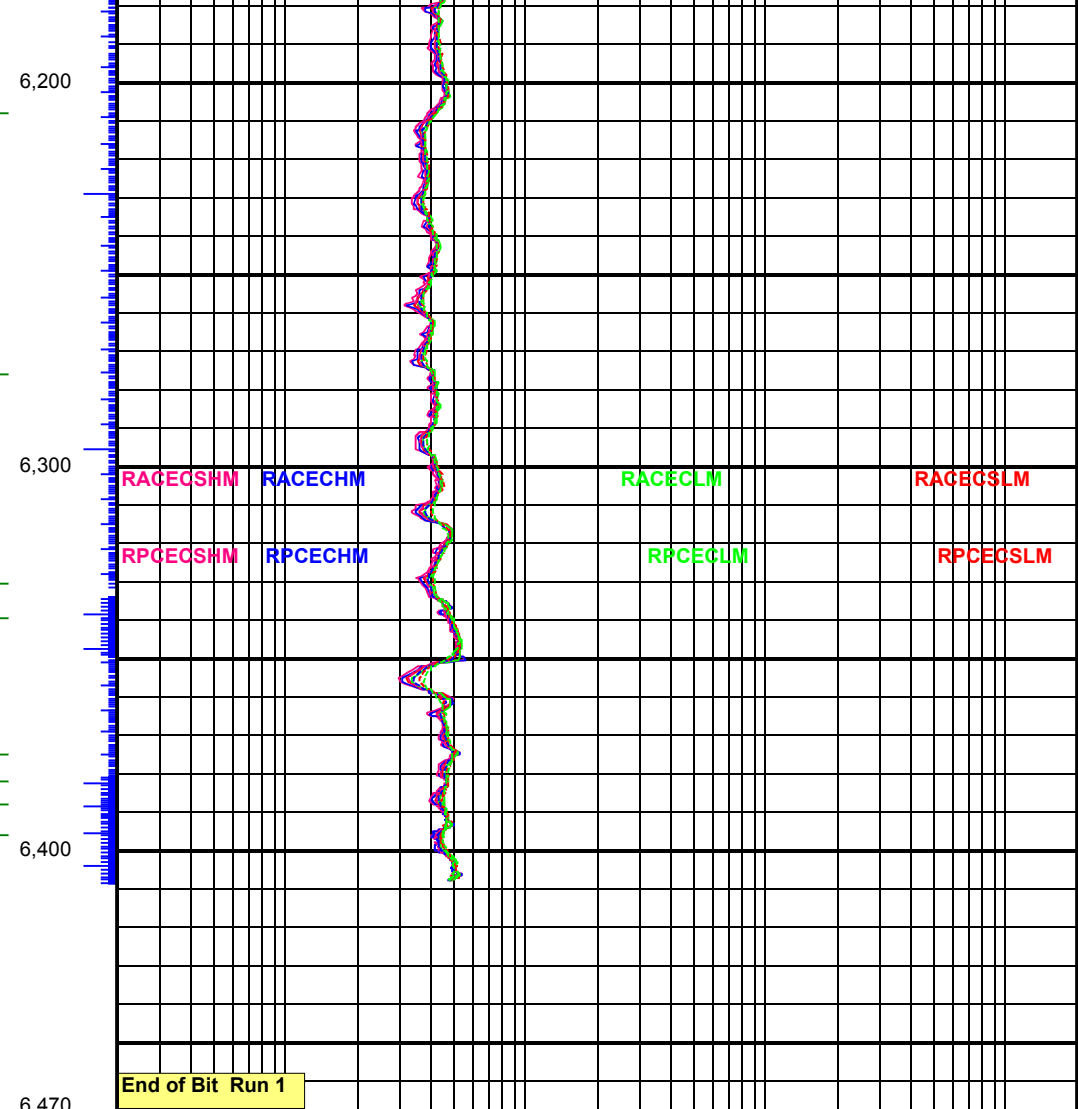
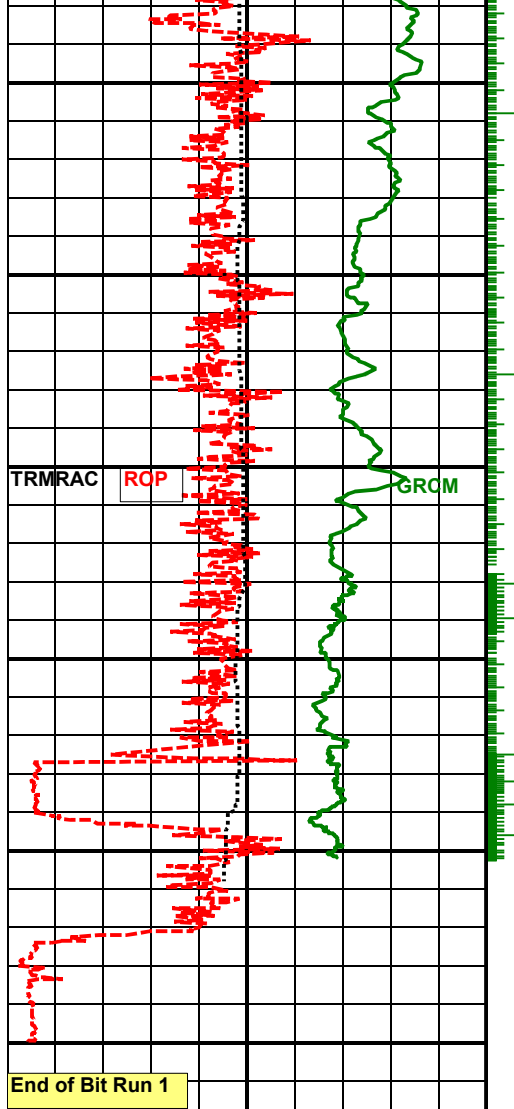












EQUIPMENT

Log Run	Run 1				
Bit Run	Run 1				
Start Date/Time	2014-11-25 14:30:01				
Start Depth (ft)	868				
End Date/Time	2014-11-27 09:30:60				
End Depth (ft)	6458.61				
Serial Numbers					
Surface Gear	614				
Flow Sub	215552-3				
Pulser	1779				
Battery 1	534 / 541				
Battery 2	547 / 549				
Turbine Alternator					
Directional Sensor	284				
Gamma Sensor	116				
WPR Sensor	131				
Vibration Sensor					
Sensor Offsets To Bit					
Directional (ft)	54				
Gamma Ray (ft)	48				
WPR (ft)	42				
PWD (ft)					
Vibration (ft)					

