



Pioneer Energy Services

Dual Compensated Porosity Log

API No.	15-109-21,330-00-00	
Company	Black Tea Oil, LLC	
Well	Pahls A No. 1	
Field		
County	Logan	State Kansas
Location	1,980' FSL & 2,300' FEL	
Sec: 20	Twp: 13S	Rge: 34W
Permanent Datum	Ground Level	Elevation 2949
Log Measured From	Kelly Bushing	9 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
		Other Services DIL MEL/BHCS
		Elevation K.B. 2958 D.F. G.L. 2949

Date	8/12/2014	
Run Number	One	
Type Log	CNL / CDL	
Depth Driller	4600	
Depth Logger	4603	
Bottom Logged Interval	4582	
Top Logged Interval	3000	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	6000	
Density	9.1	
Level	Full	
Max. Rec. Temp. F	122	
Operating Rig Time	4 1/2 Hours	
Equipment -- Location	108	Hays
Recorded By	J. Long	
Witnessed By	Kevin Bailey	

Borehole Record		Casing Record					
Run No	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	265	8.625	23#	00	265
Two	7.875	265					

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

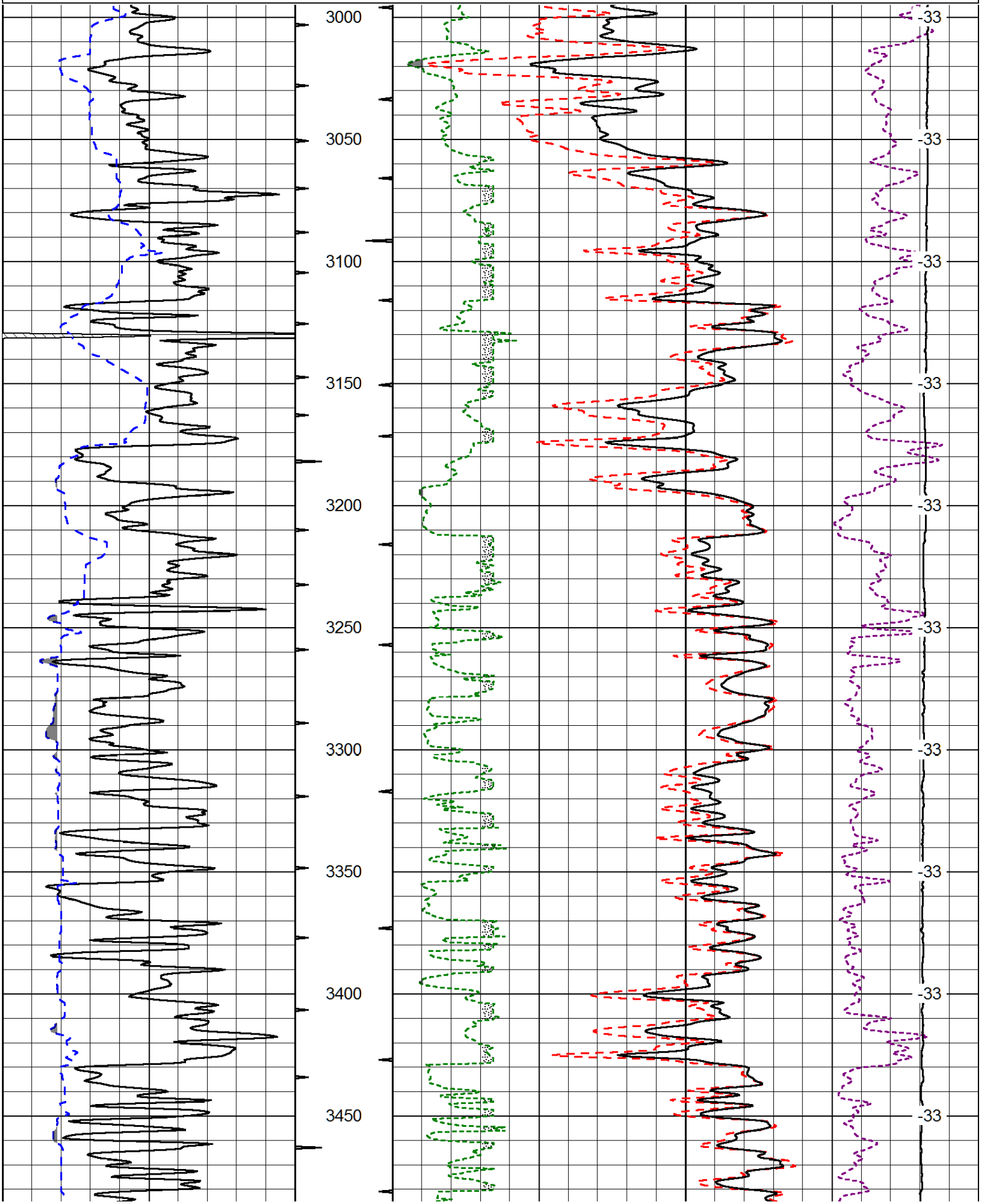
Monument, (West Edge) South on 350 Road to Plains Road, 5 West to 300 Road,
2/3 South, East Into

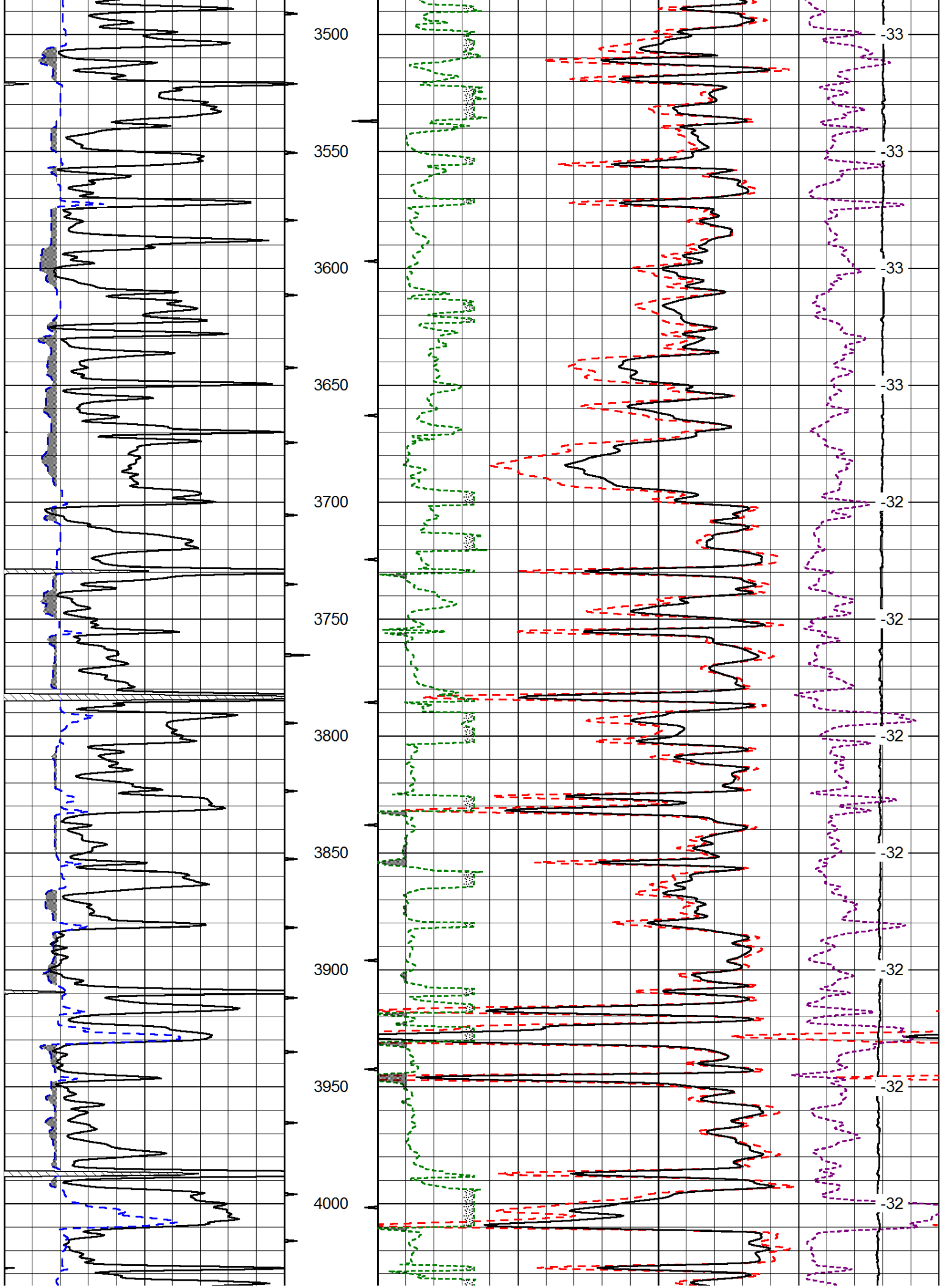
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 Charted by: Depth in Feet scaled 1:600

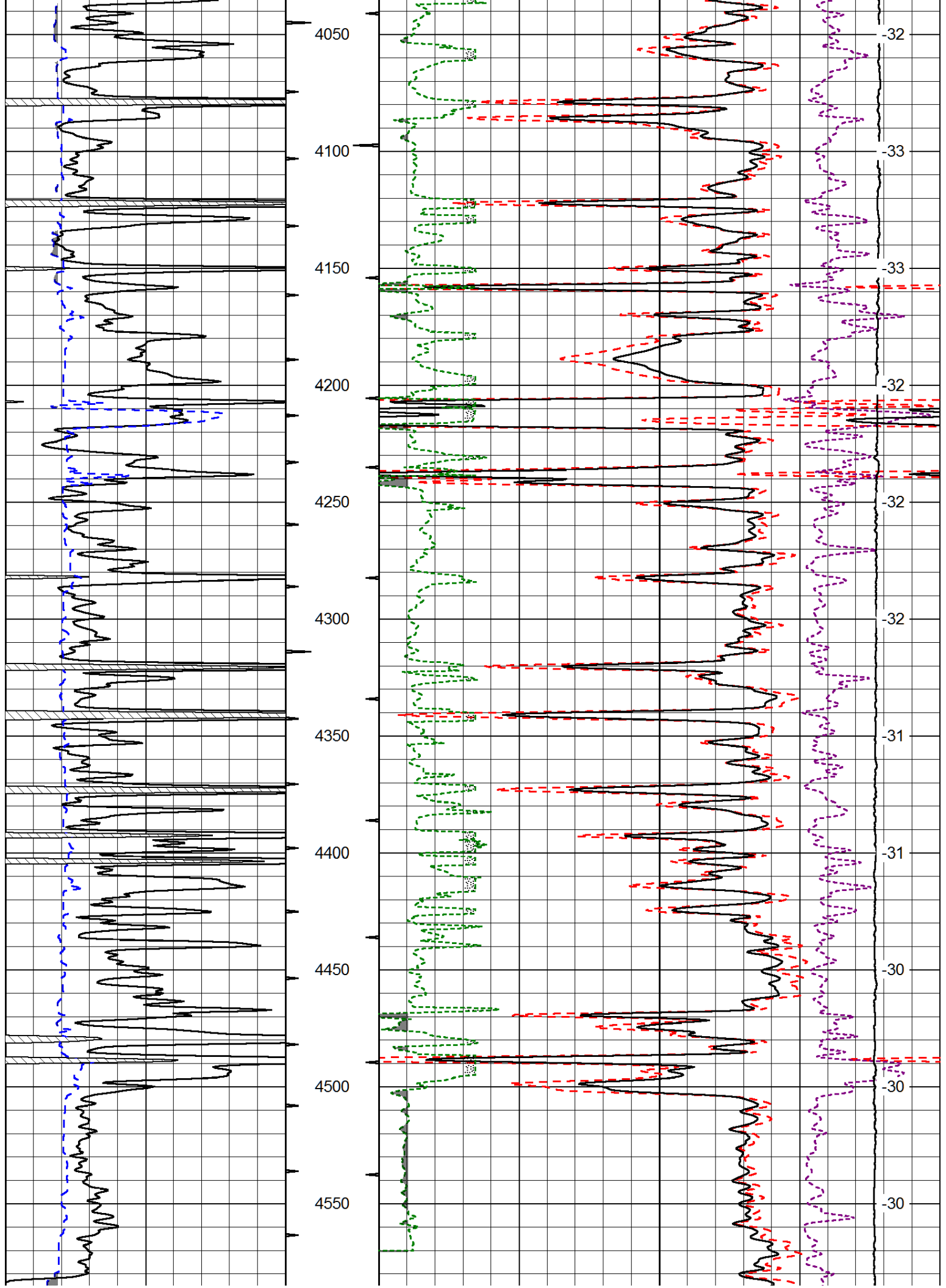
0	Gamma Ray	150
6	Caliper (GAPI)	16

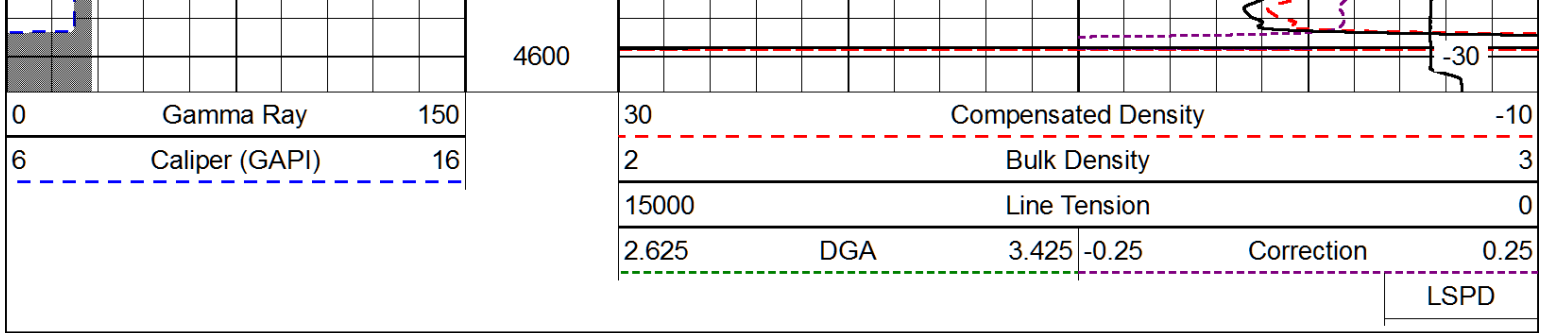
30	Compensated Density		-10
2	Bulk Density		3
15000	Line Tension		0
2.625	DGA	3.425	-0.25
			Correction
			0.25

LSPD

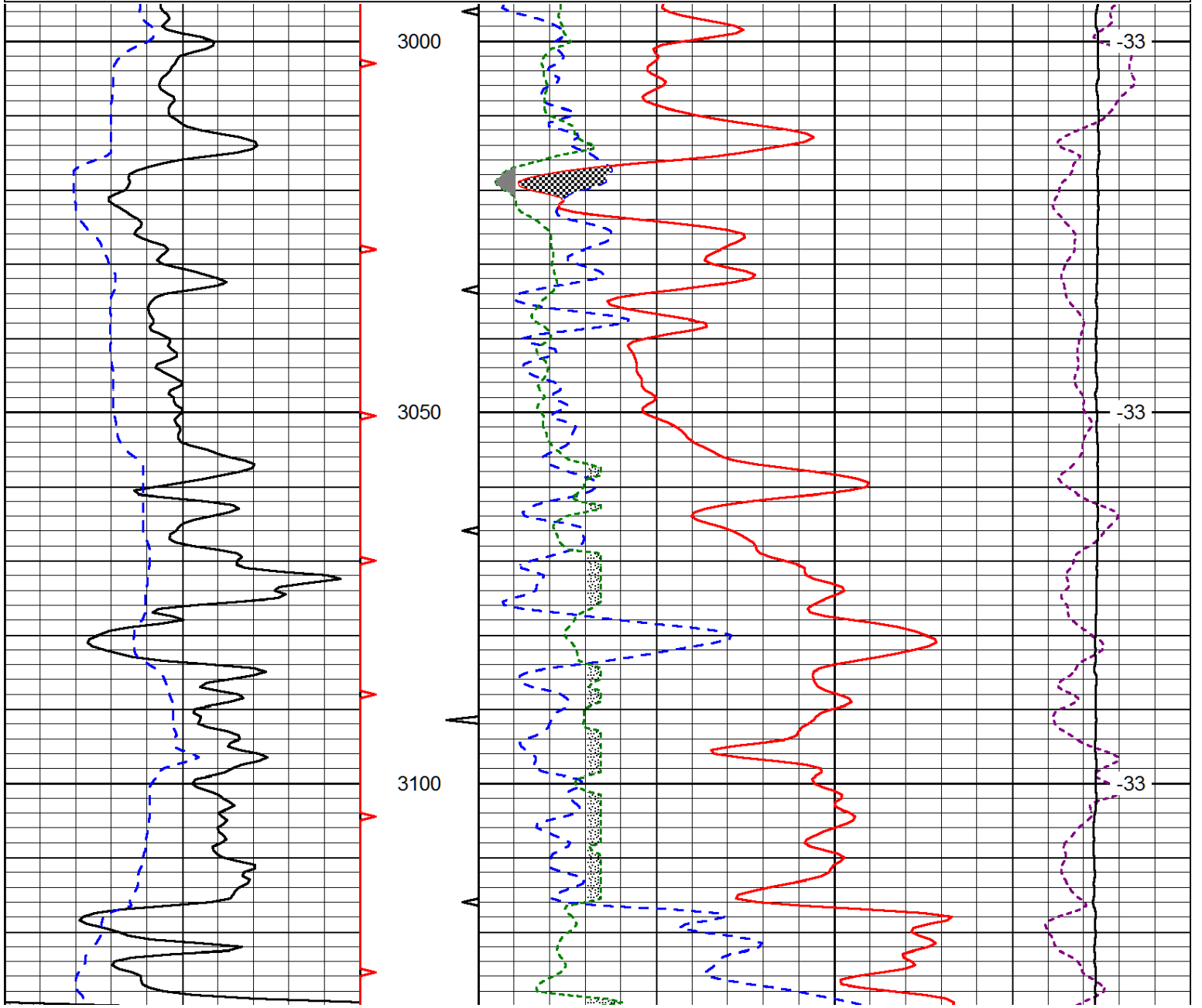
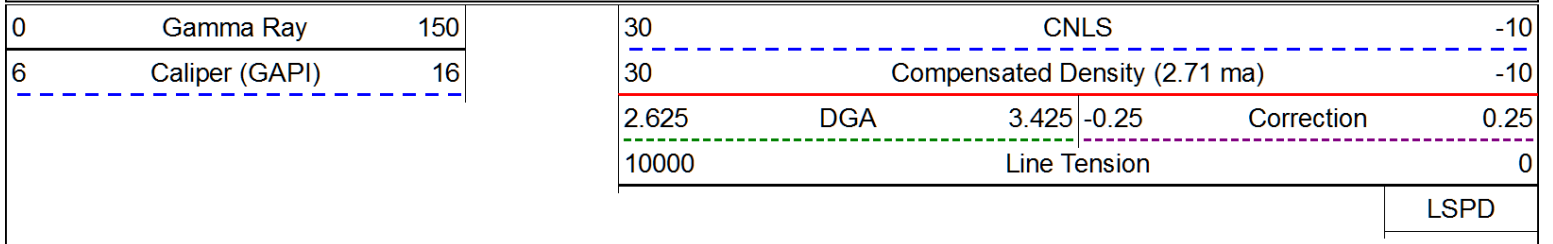


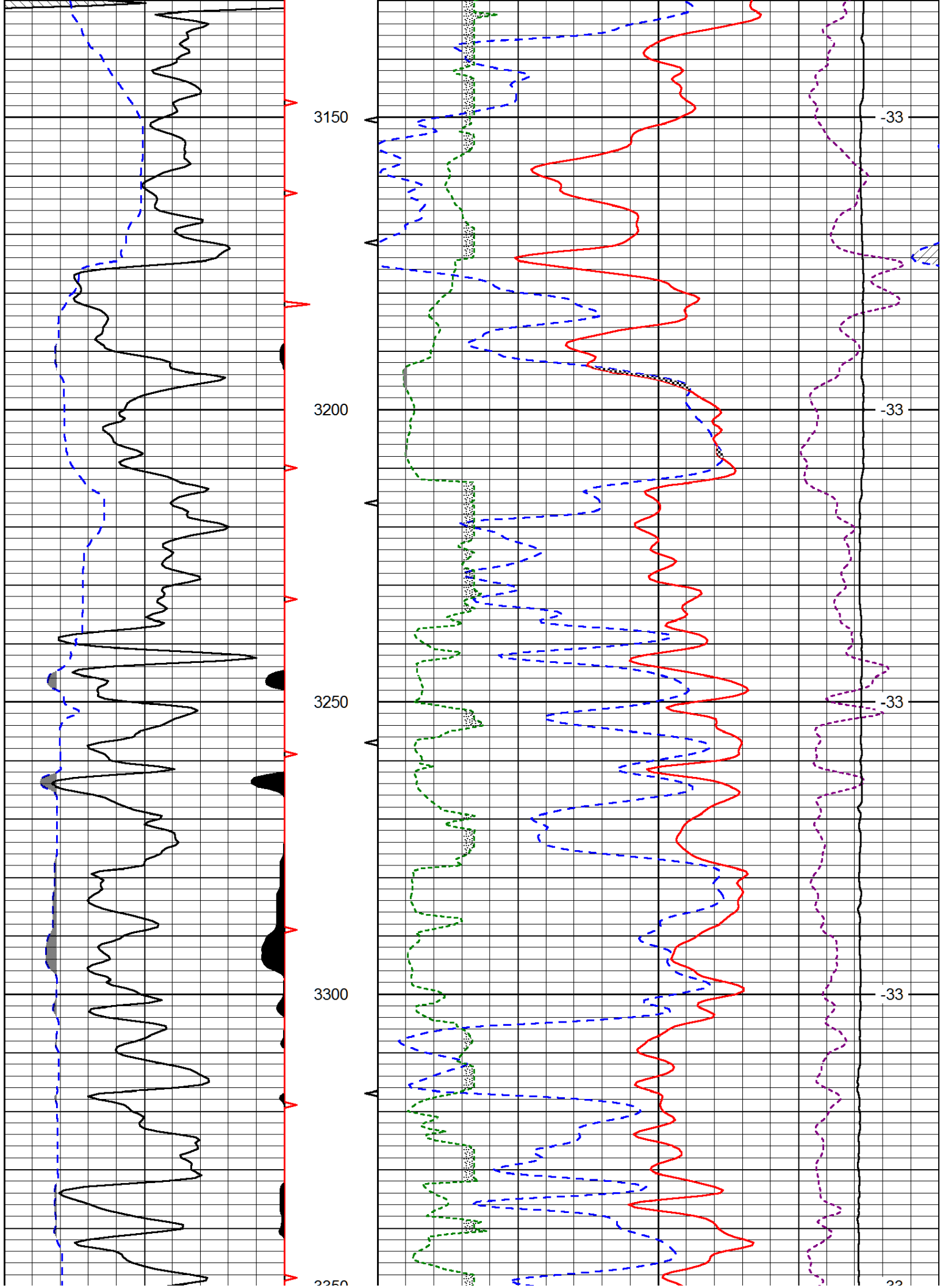


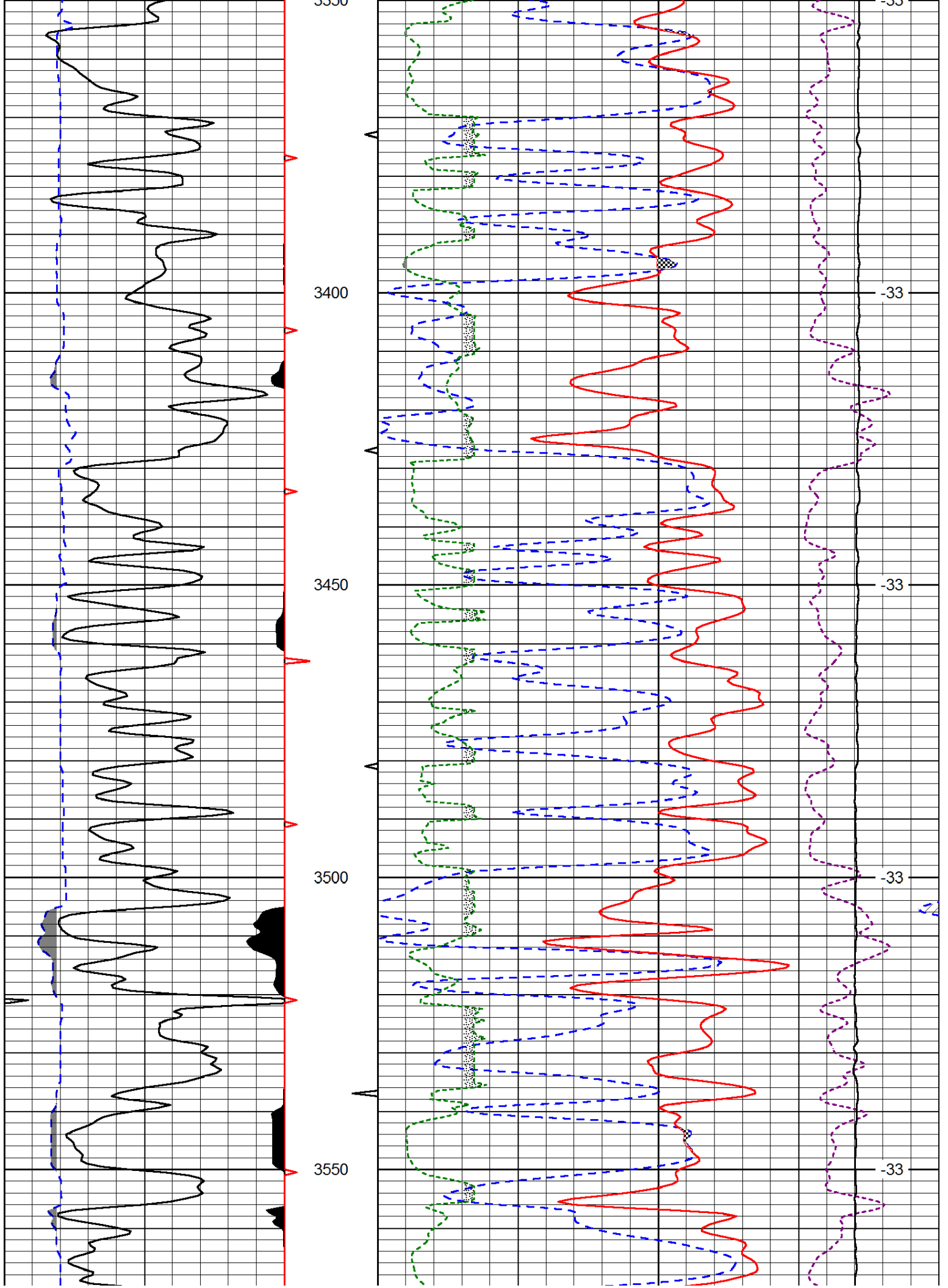


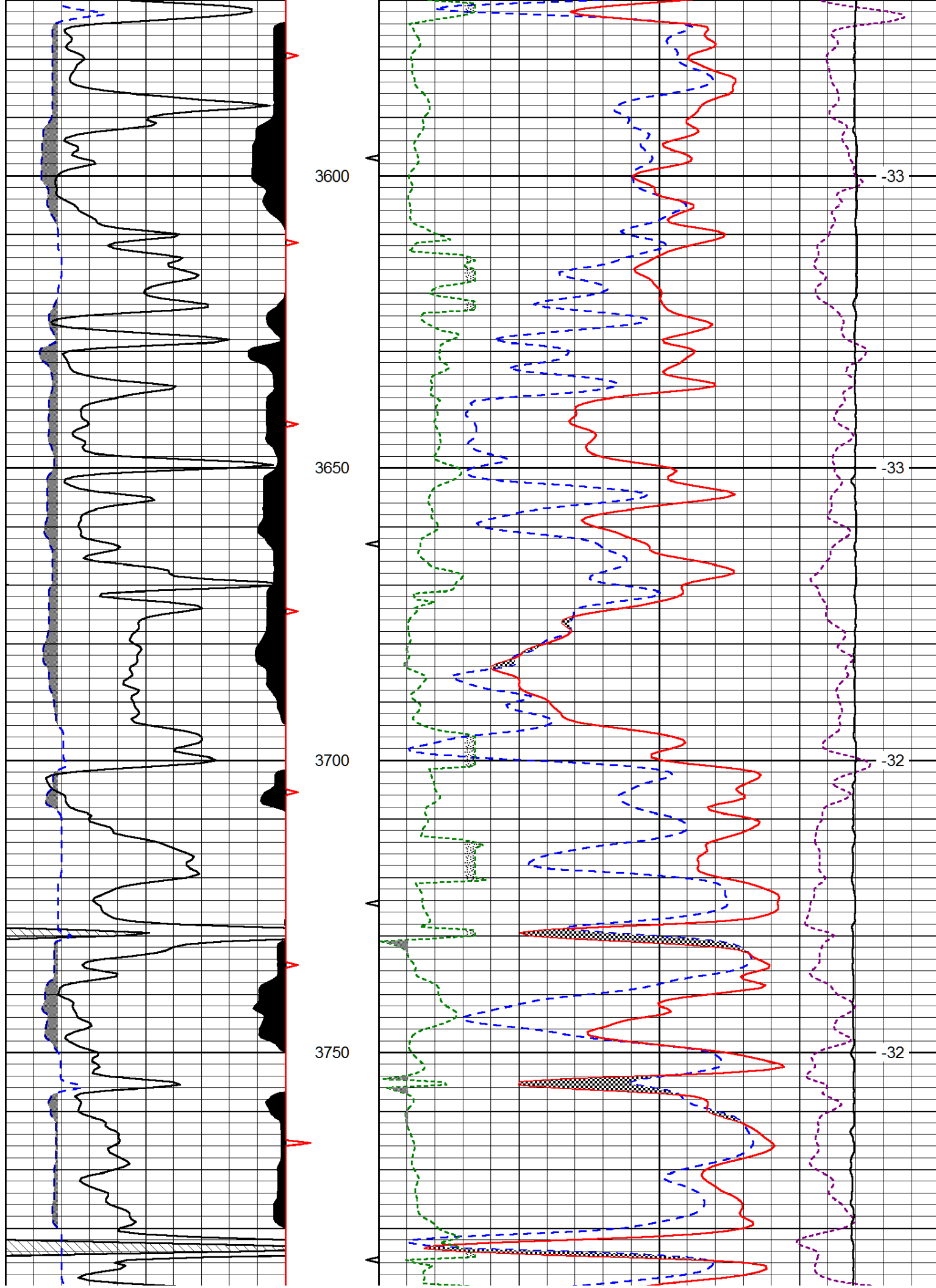


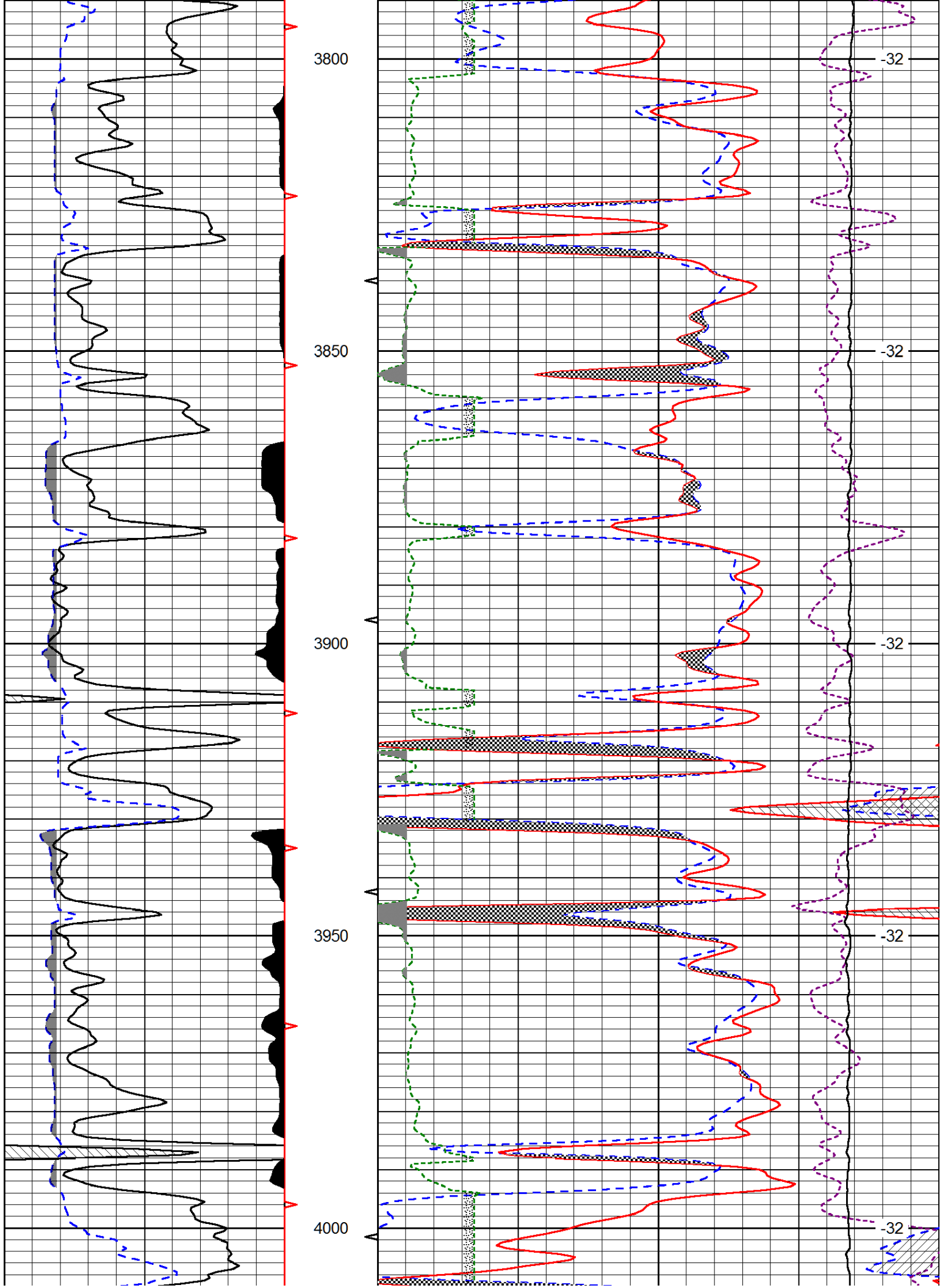
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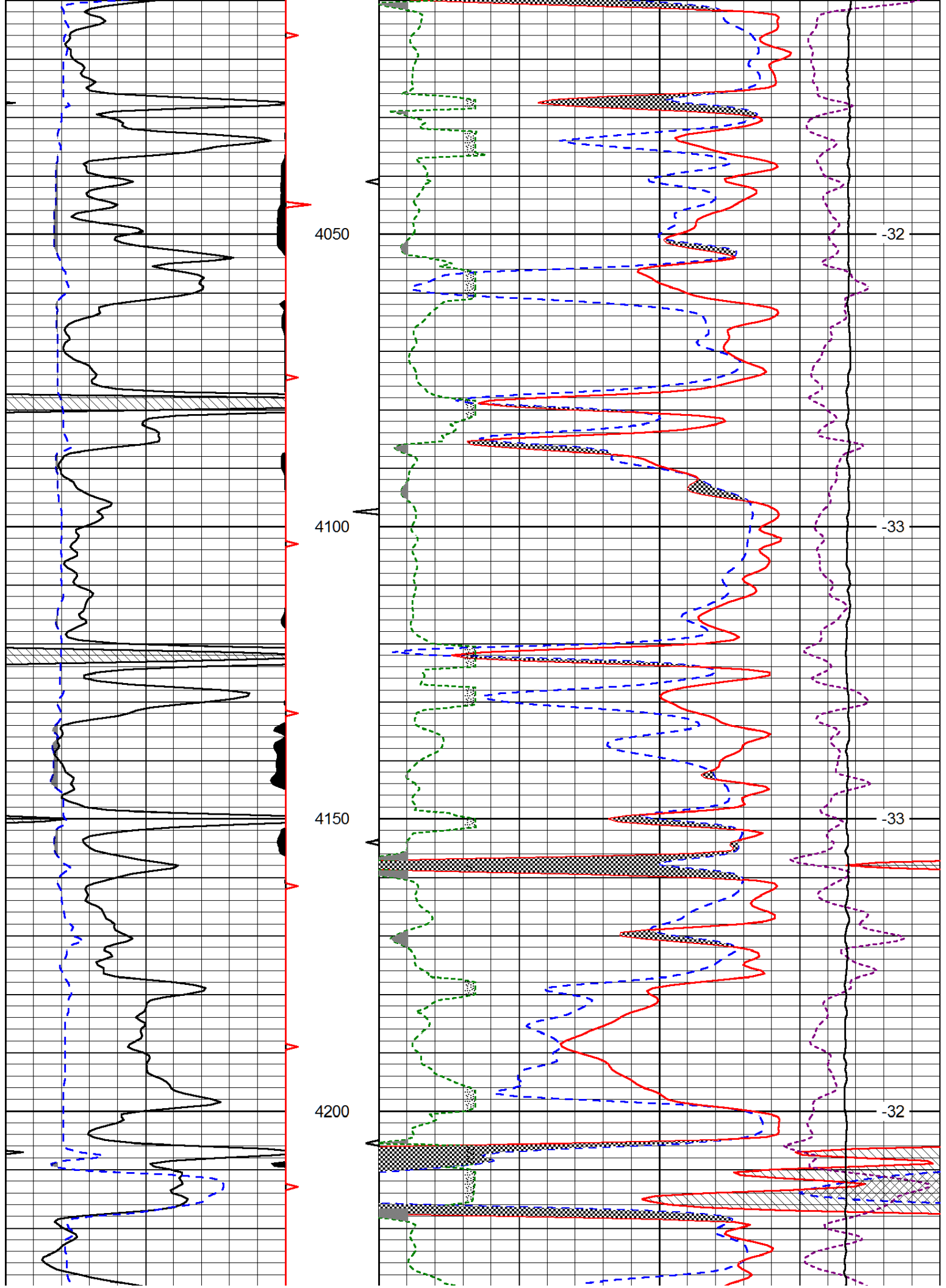


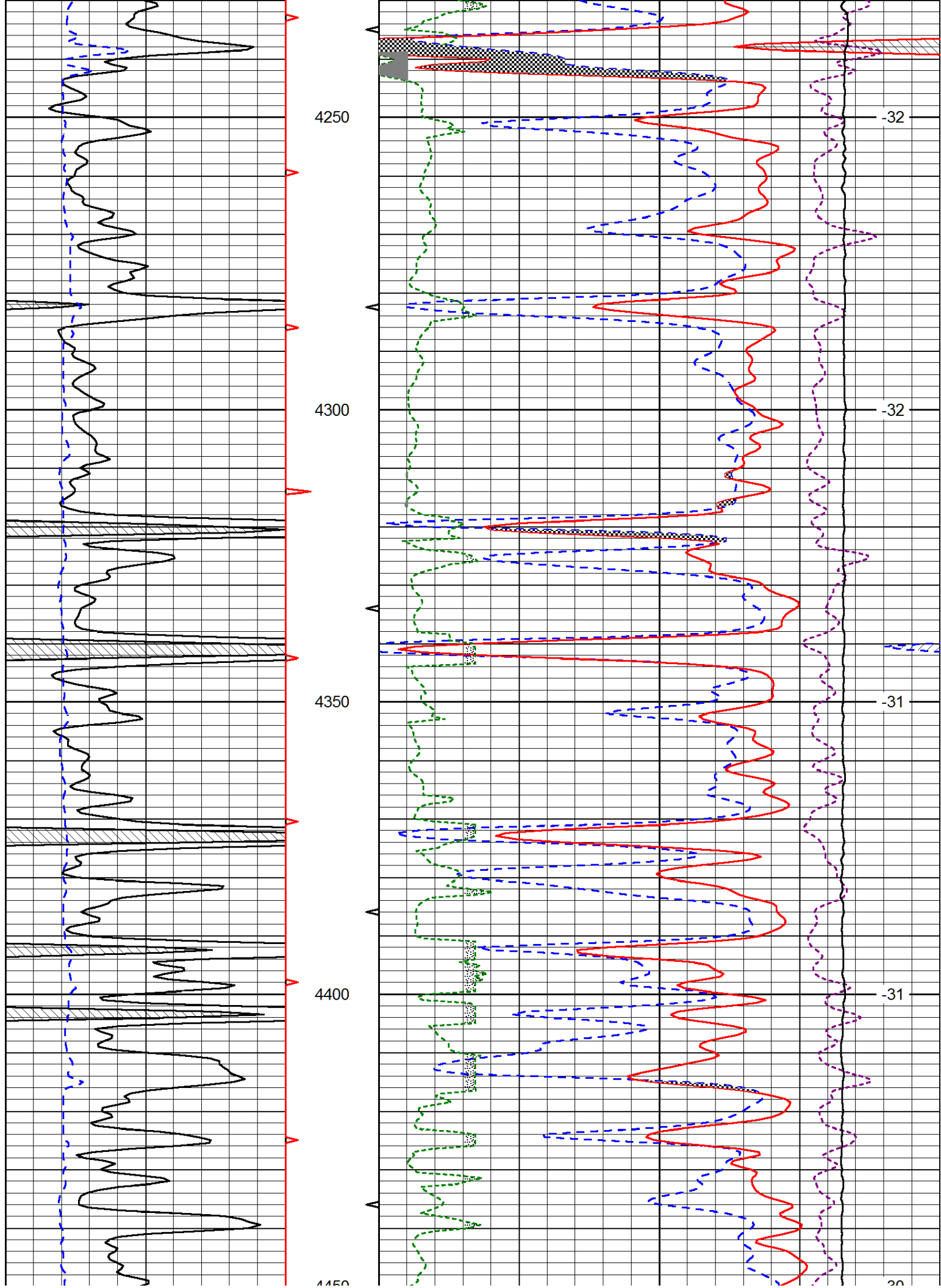


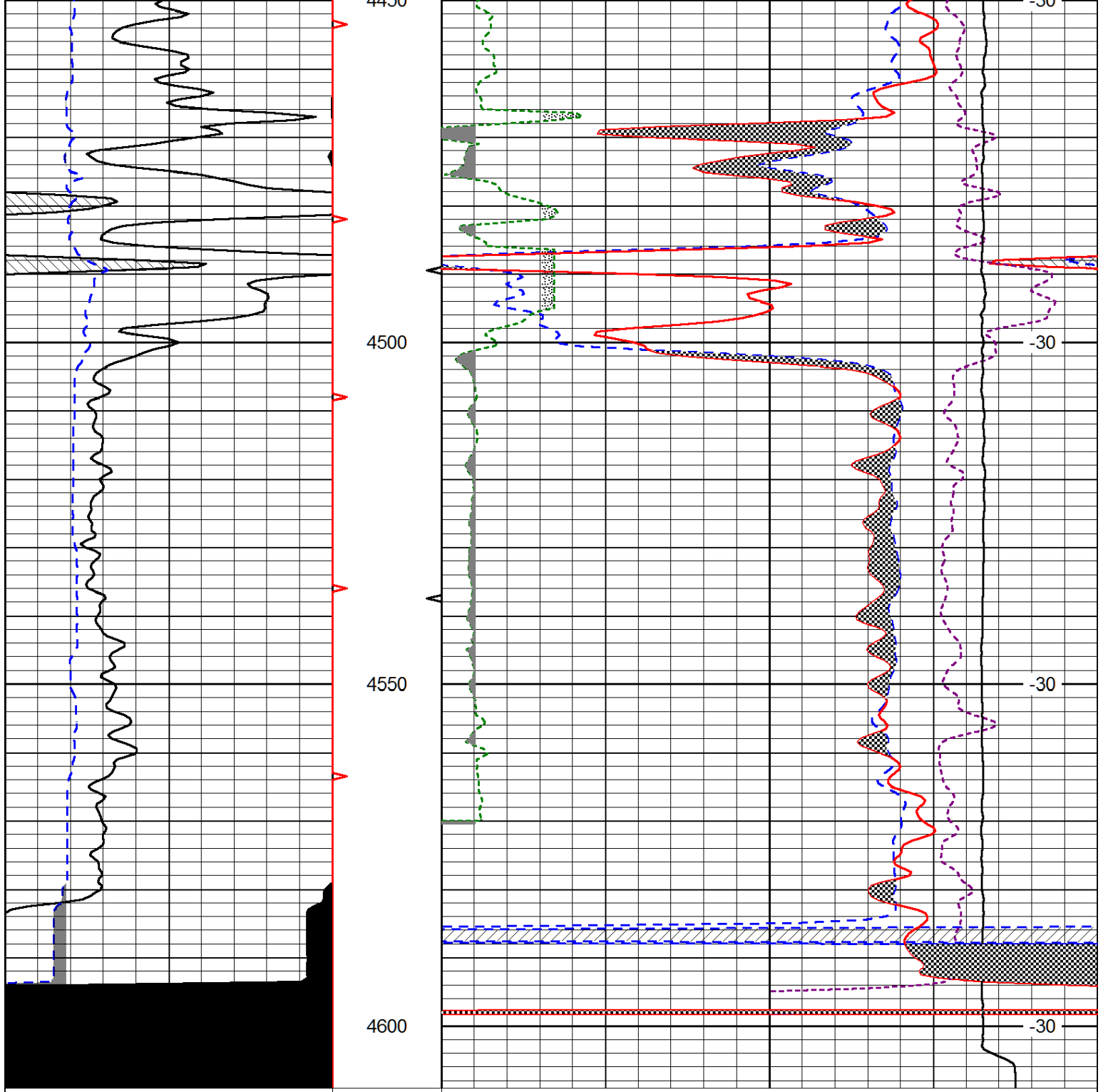












0	Gamma Ray	150
6	Caliper (GAPI)	16

30	CNLS			-10	
30	Compensated Density (2.71 ma)			-10	
2.625	DGA	3.425	-0.25	Correction	0.25
10000	Line Tension			0	

LSPD