



Pioneer Energy Services

## Dual Compensated Porosity Log

**Company** Murfin Drilling Company, Inc.  
**Well** Frisbie #3-23  
**Field** Happy Southwest  
**County** Rawlins **State** Kansas  
**Location** 1320' FNL & 1815' FWL  
 Sec: 23 Twp: 2S Rge: 36W  
 Other Services: DIL, MEI/BHCS

API No. 15-153-20995-00-00  
 Permanent Datum Ground Level Elevation 3309  
 Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum  
 Drilling Measured From Kelly Bushing  
 Date 3/24/2014  
 Elevation K.B. 3314  
 D.F. G.L. 3309

Run Number	One
Type Log	CNL / CDL
Depth Driller	4830
Depth Logger	4830
Bottom Logged Interval	4809
Top Logged Interval	3650
Type Fluid In Hole	Chemical
Salinity, PPM CL	1400
Density	9.3
Level	Full
Max. Rec. Temp. F	126
Operating Rig Time	5 Hours
Equipment -- Location	91 Hays
Recorded By	D. Schmidt
Witnessed By	Rocky Milford

Borehole Record		Casing Record	
Run No.	Bit From To	Size	Wgt. From To
One	12.25 00	8.625	23# 00
Two	7.875 345		

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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.

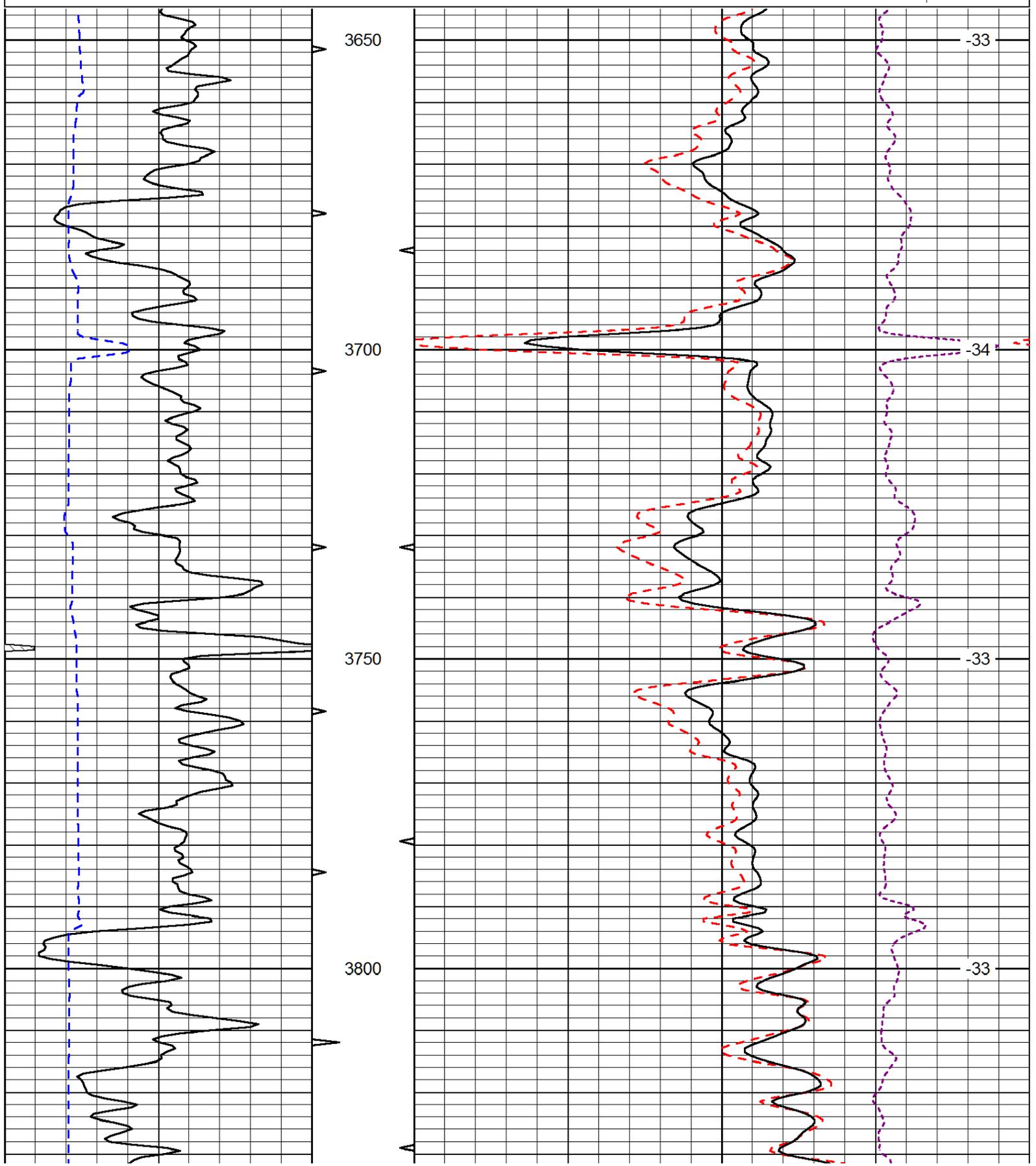
**Comments**

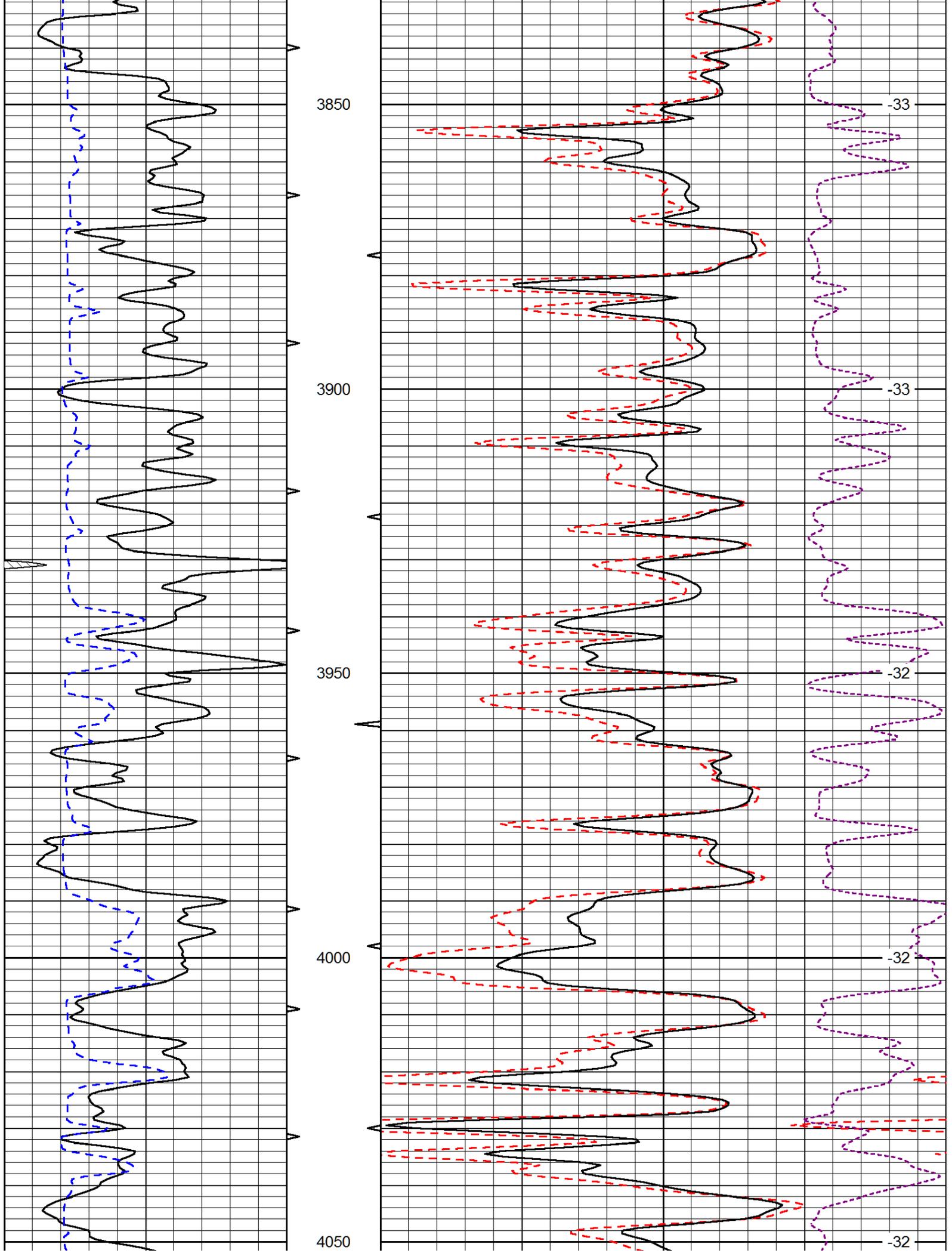
Thank you for using Log-Tech, Inc.  
 (785) 625-3858  
  
 McDonald,  
 2 East to 5 Rd, 6 North to V Rd, 1/2 East,  
 South and West into

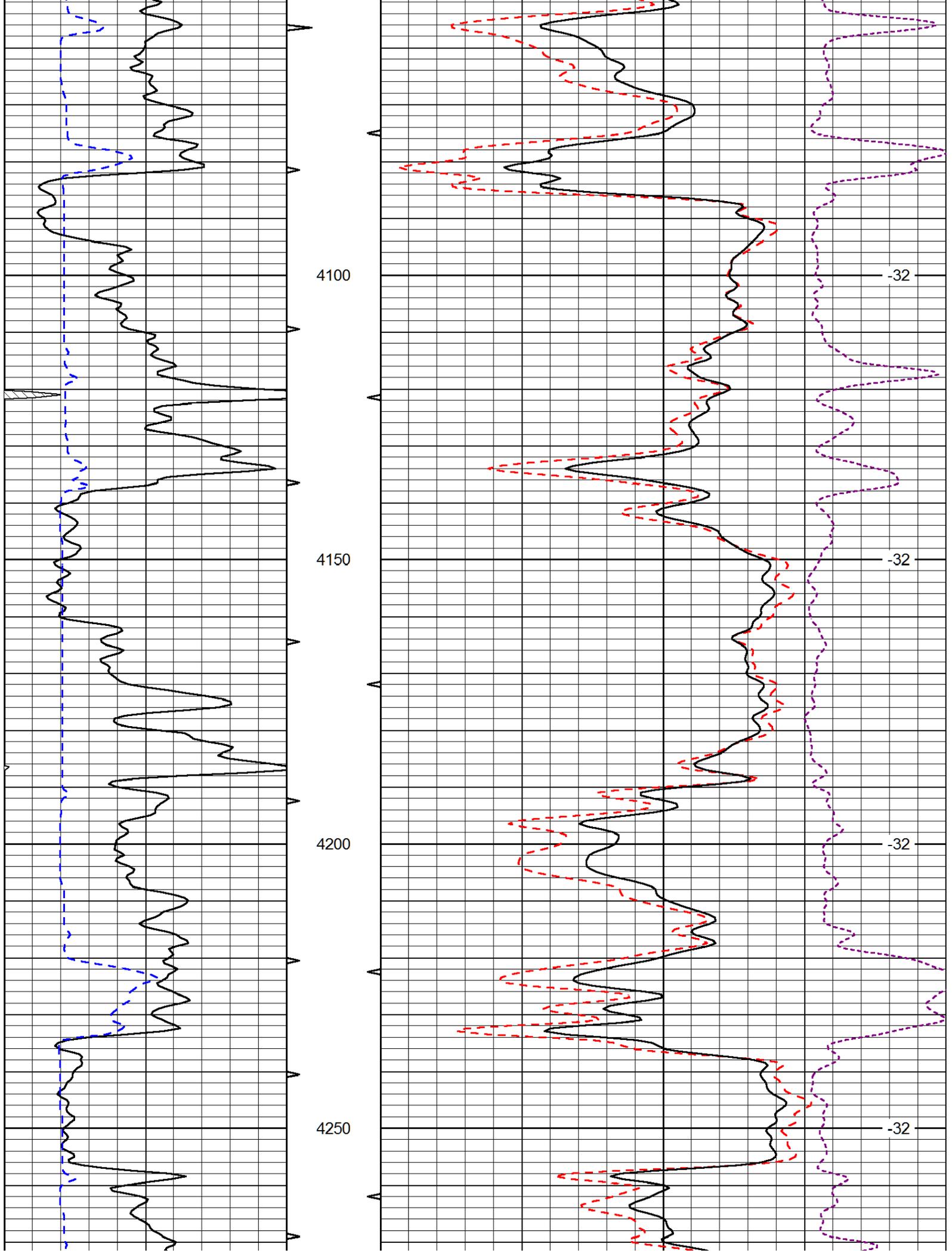
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 Dataset Creation: Tue Mar 25 02:47:56 2014  
 Charted by: Depth in Feet scaled 1:240

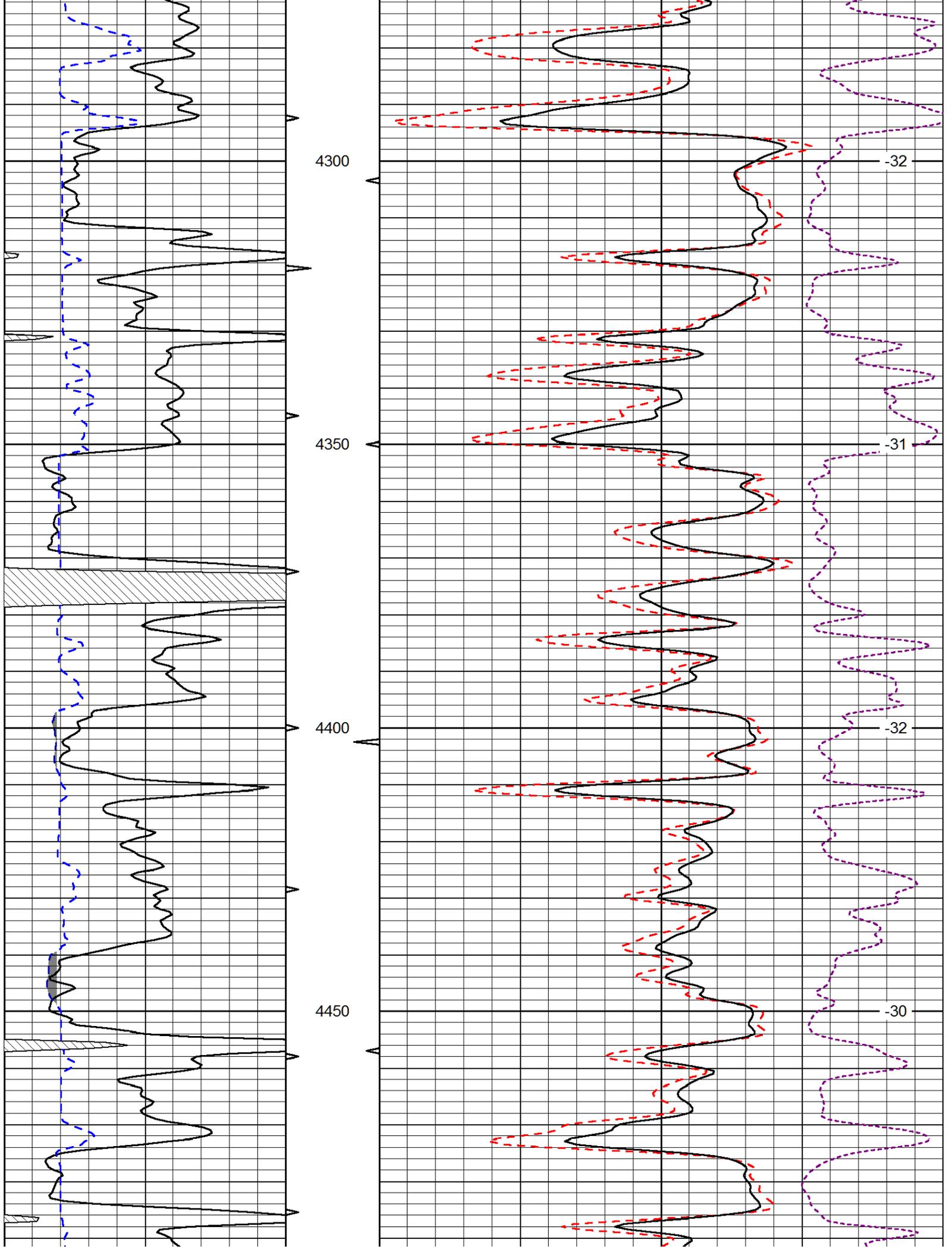
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

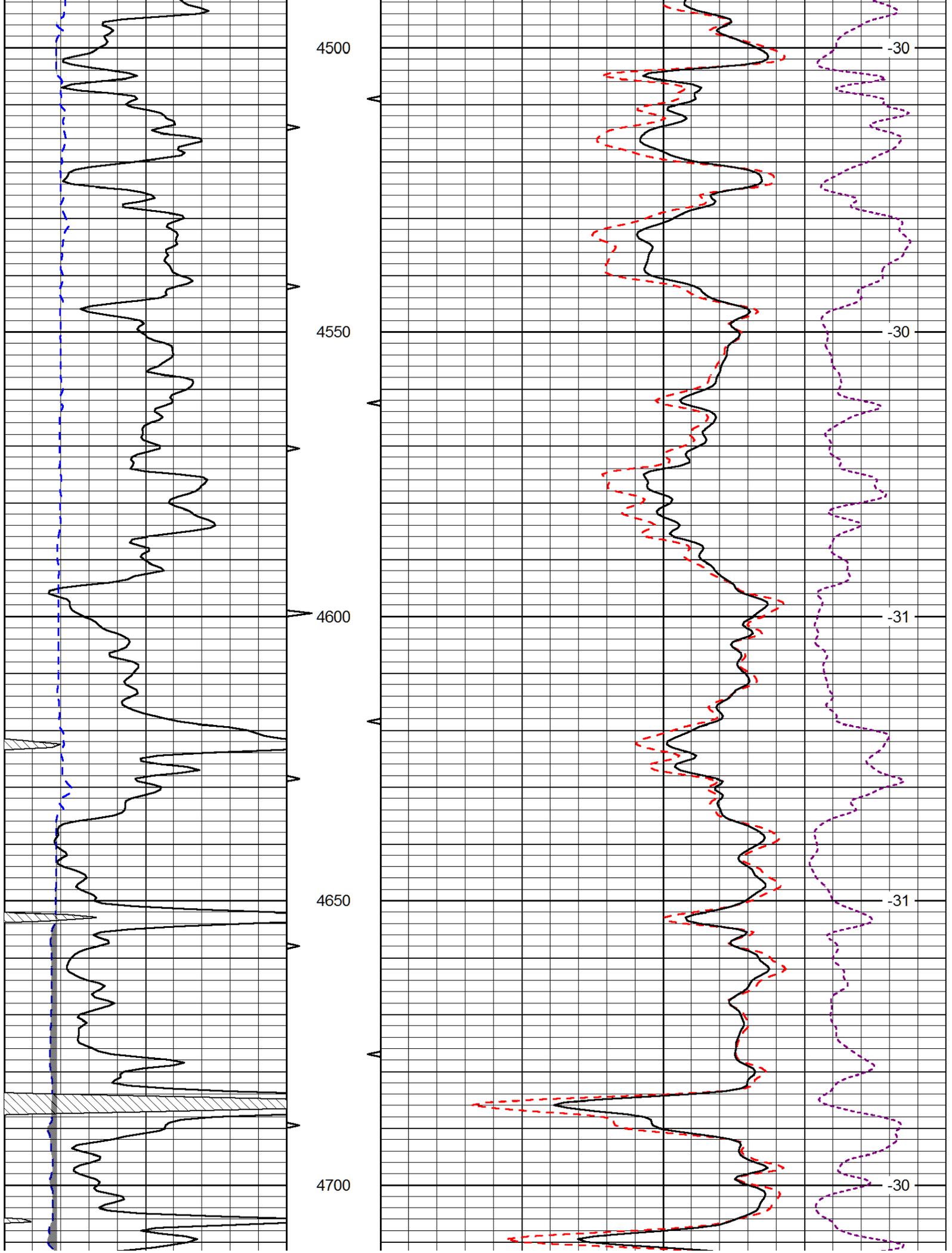
30	Compensated Density (pu)	-10
2	Bulk Density (g/cc)	3
15000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25
		LSPD (ft/min)

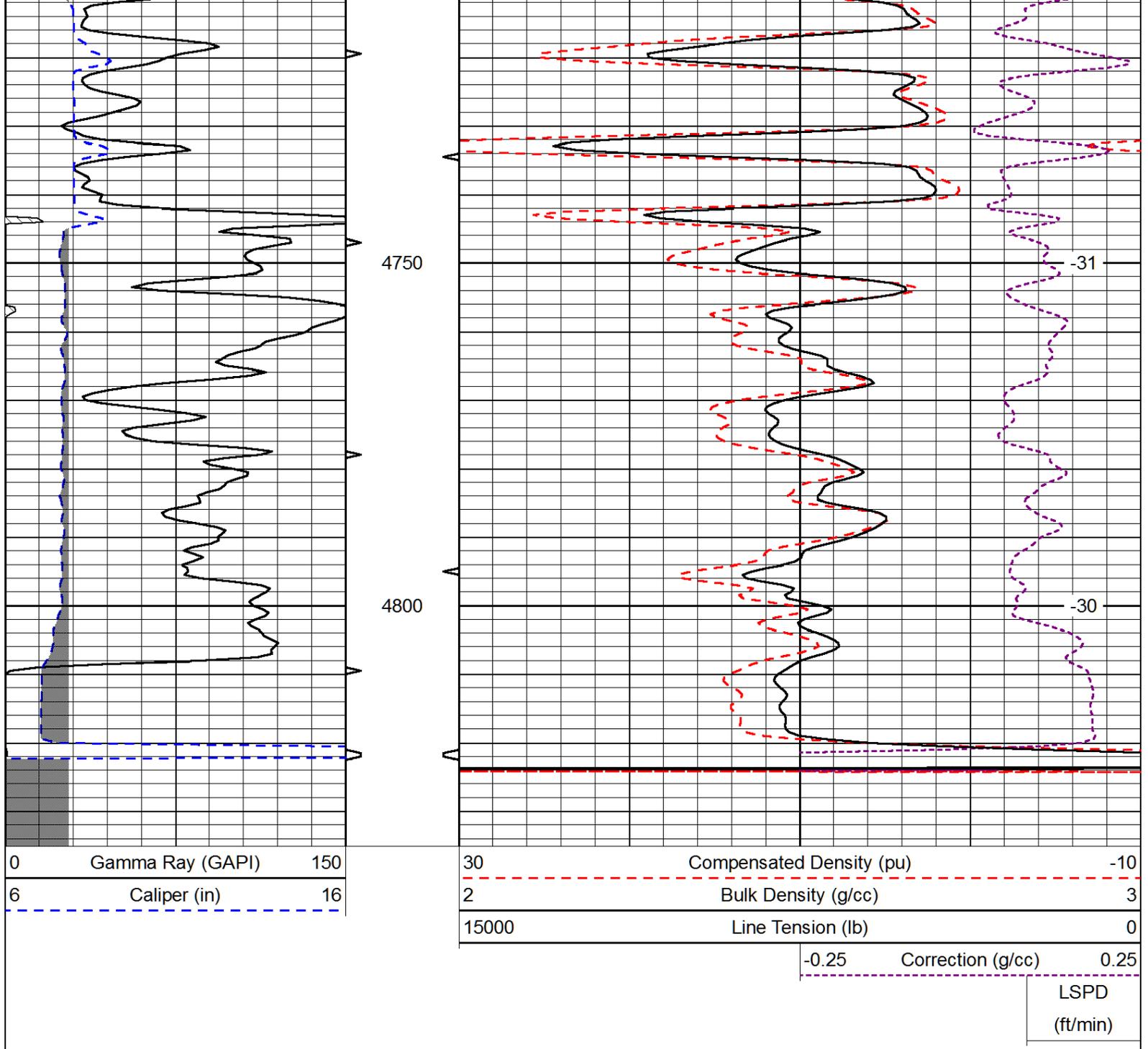




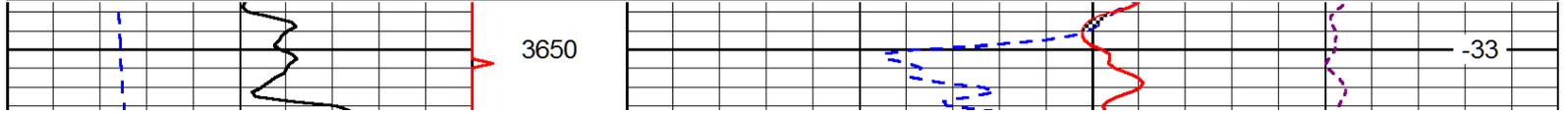
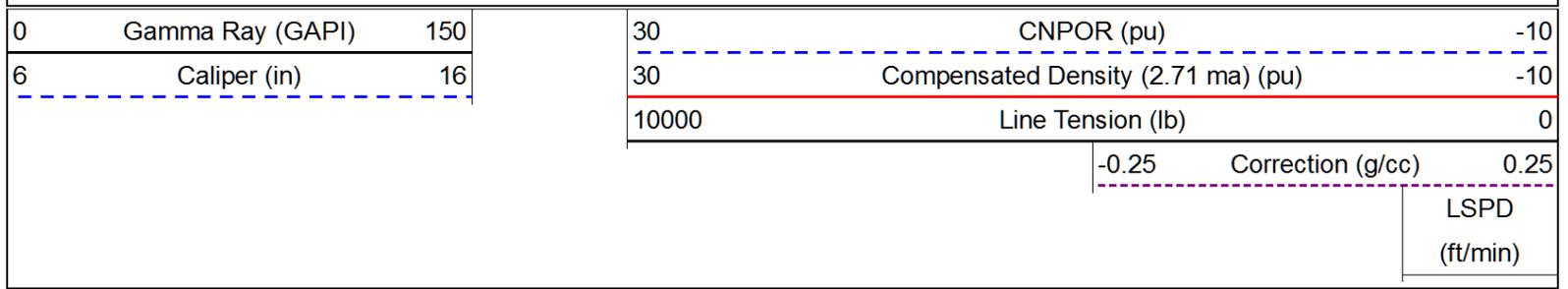


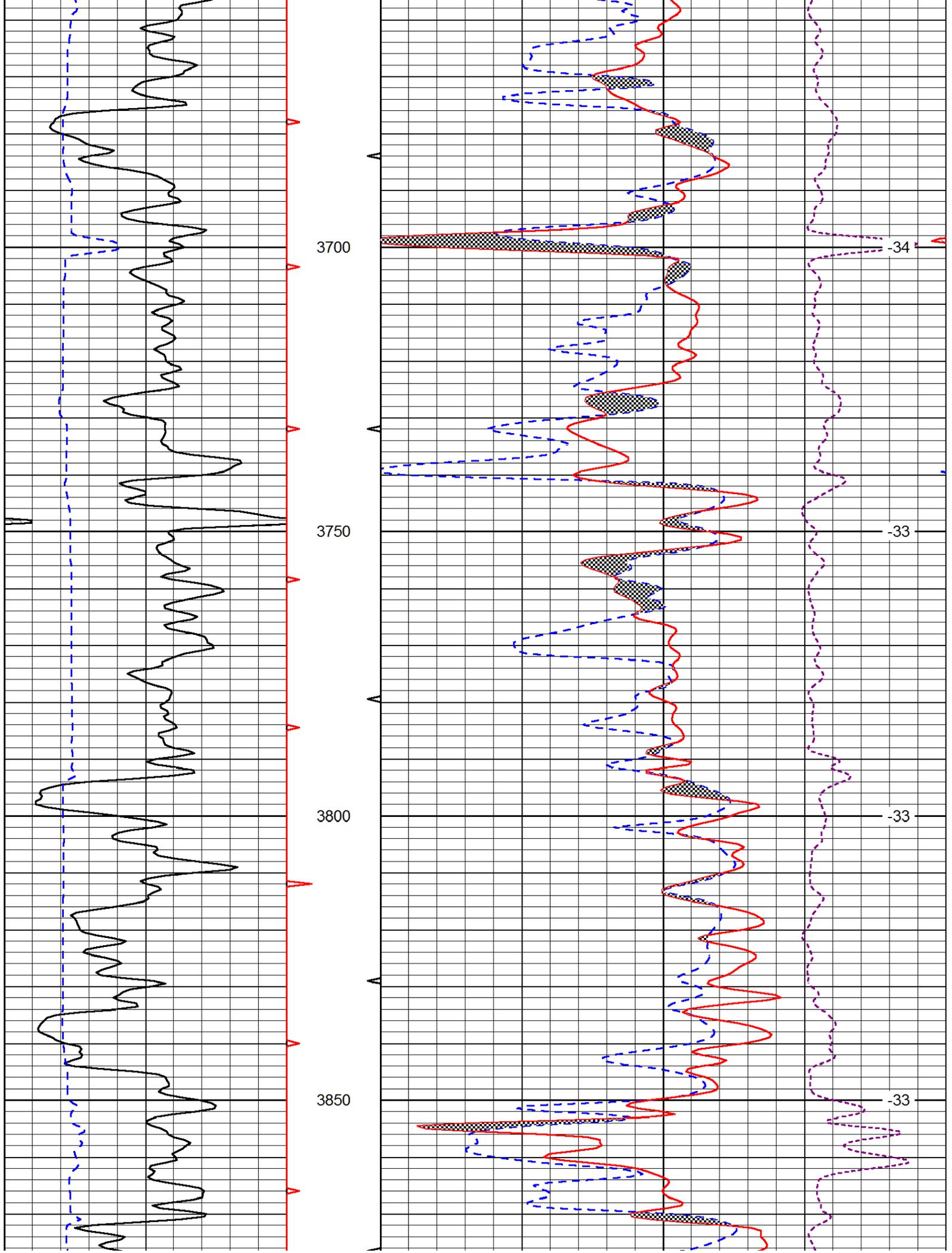


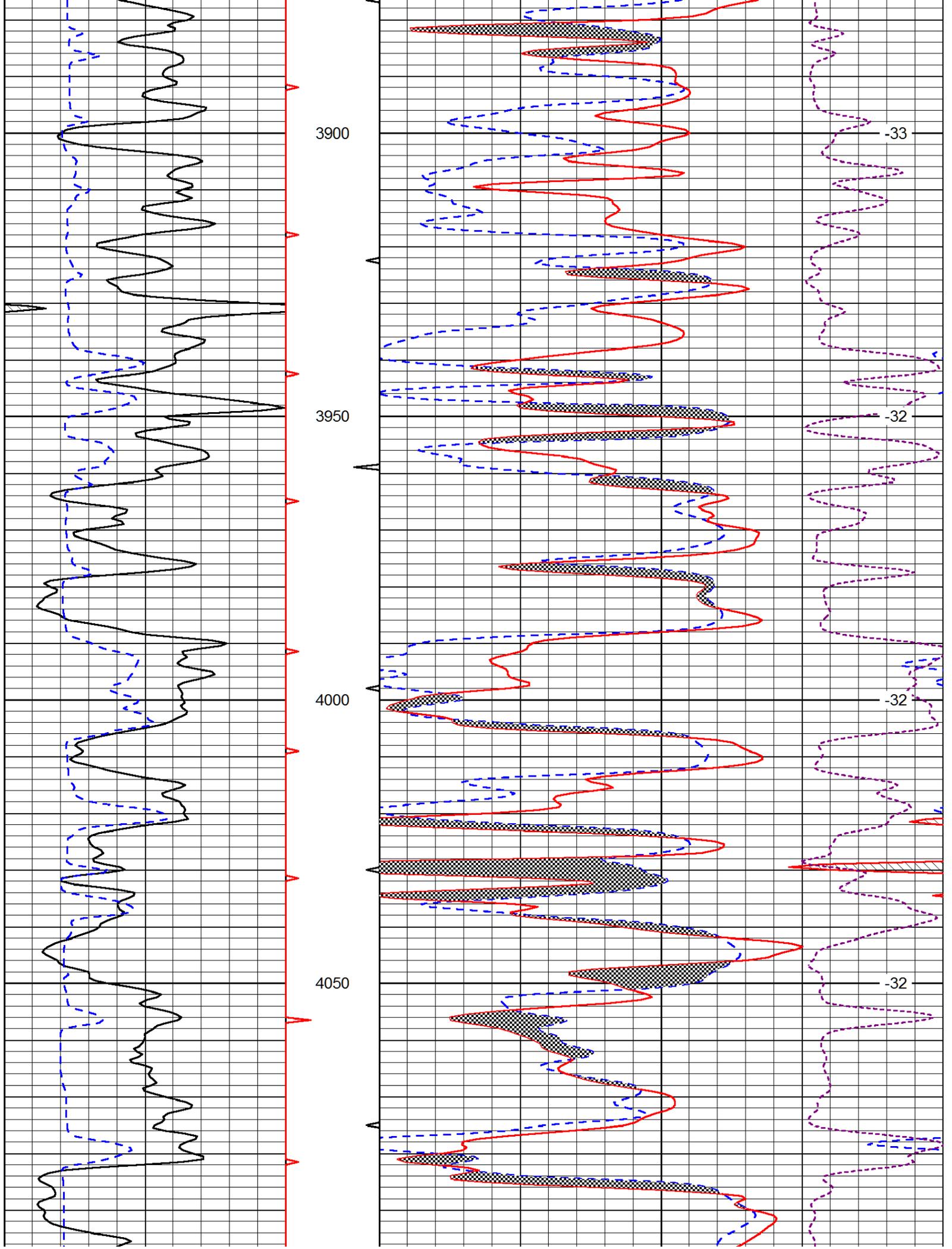


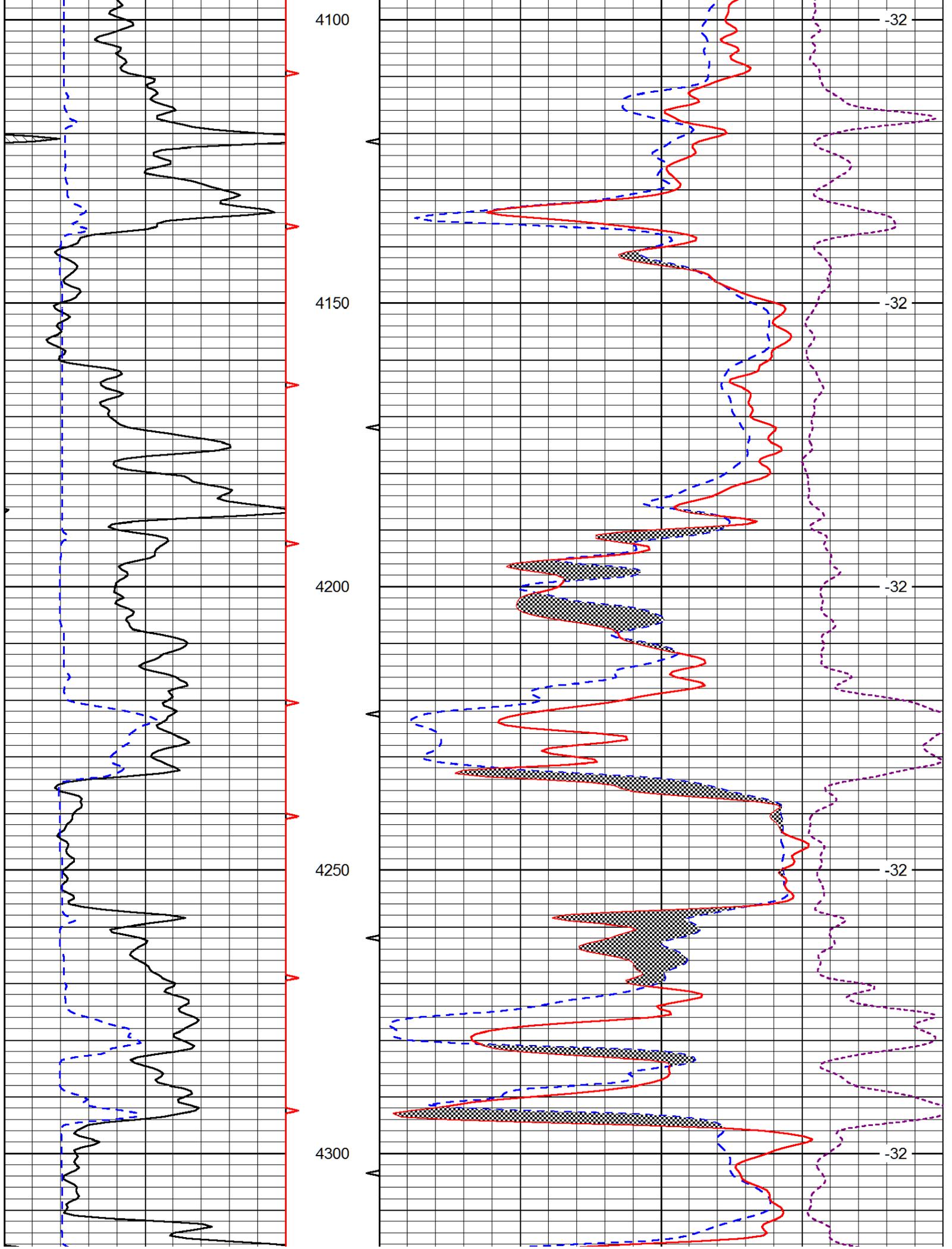


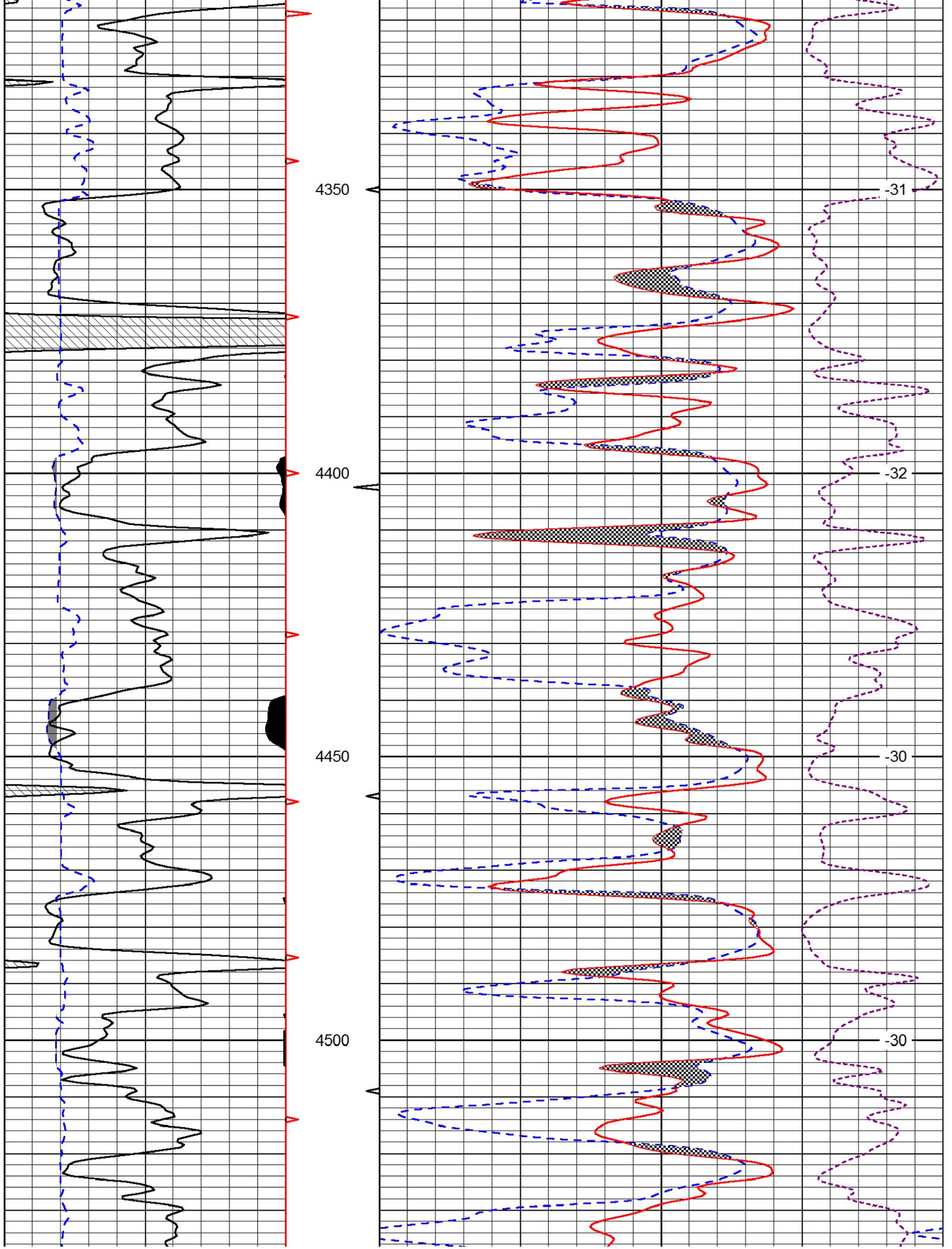
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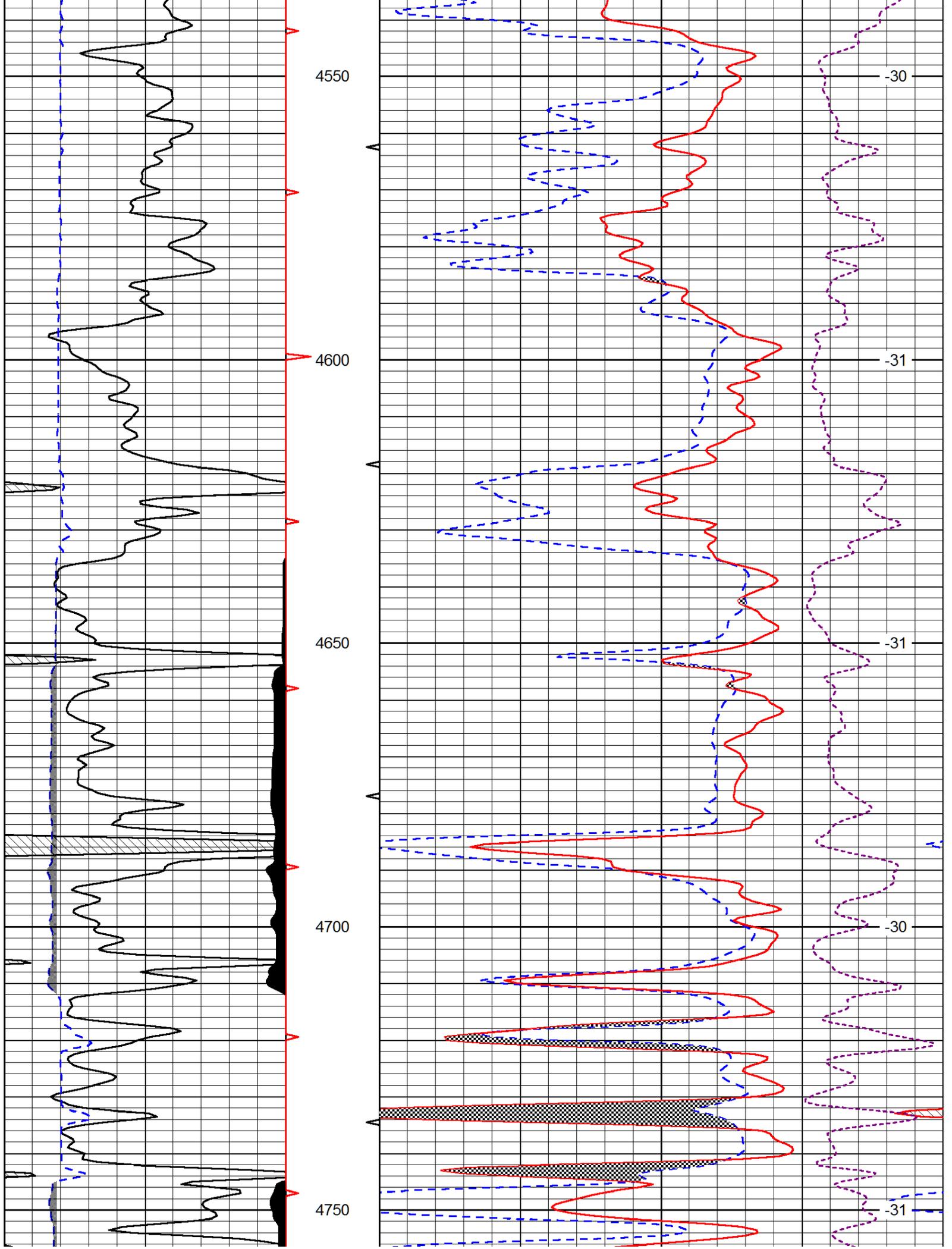


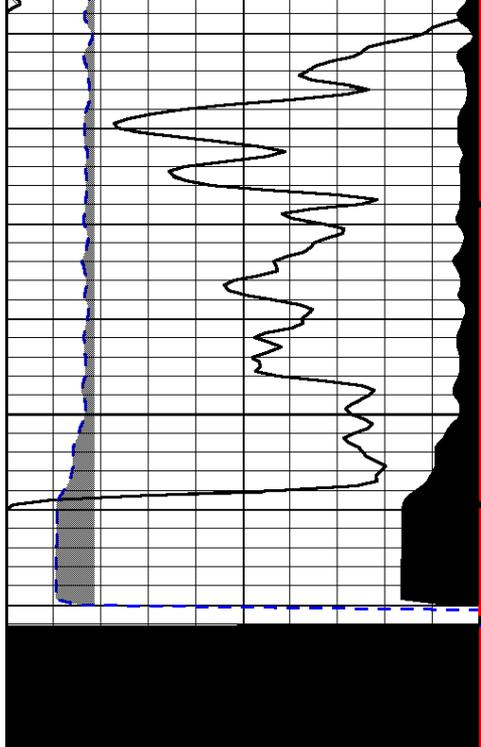




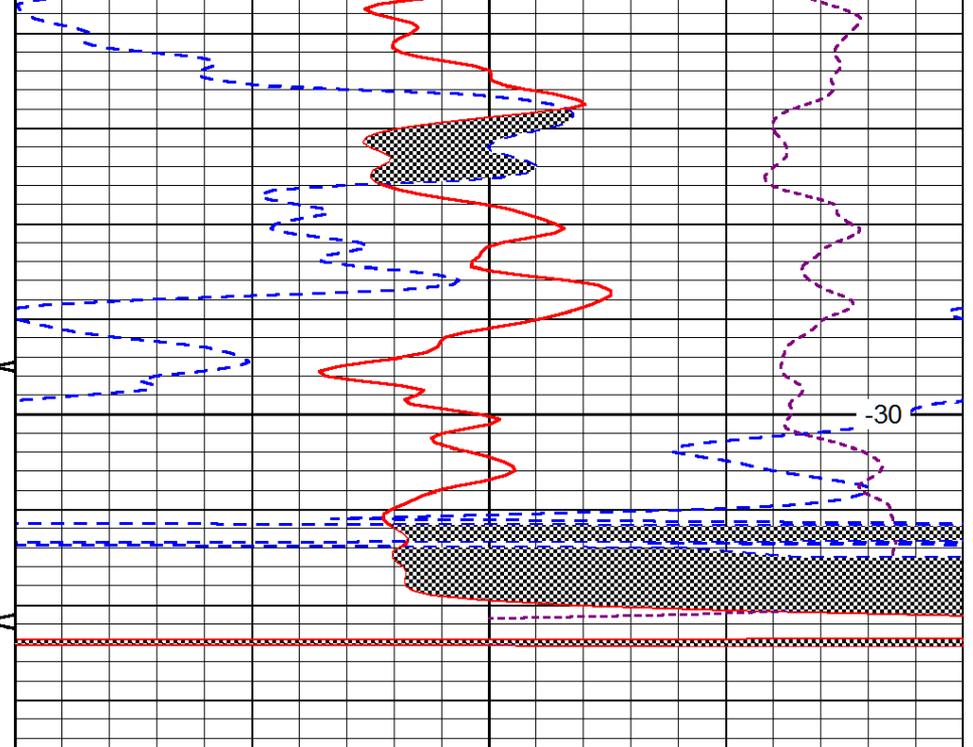








4800



30

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	CNPOR (pu)	-10
30	Compensated Density (2.71 ma) (pu)	-10
10000	Line Tension (lb)	0

-0.25	Correction (g/cc)	0.25
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LSPD  
(ft/min)