



Pioneer Energy Services

Dual Compensated Porosity Log

API No. 15-047-21,629-00-00
Company Toto Energy, LLC
Well Norwegian Wood No.1
Field Wil
County Edwards **State** Kansas
Location 660' FSL & 660' FWL
Sec: 15 **Twp:** 26S **Rge:** 16W
Other Services DILMEL

Permanent Datum Ground Level **Elevation** 2097
Log Measured From Kelly Bushing **10 Ft. Above Perm. Datum**
Drilling Measured From Kelly Bushing
Date 1/13/14
Elevation K.B. 2107
 D.F. G.L. 2097

Run Number	One
Type Log	CNL / CDL
Depth Driller	4700
Depth Logger	4698
Bottom Logged Interval	4677
Top Logged Interval	3600
Type Fluid In Hole	Chemical
Salinity, PPM CL	5,000
Density	9.2
Level	Full
Max. Rec. Temp. F	123
Operating Rig Time	4 Hours
Equipment -- Location	17 Hays
Recorded By	J. Henrickson
Witnessed By	Harley Sayles

Borehole Record		Casing Record	
Run No.	Bit From To	Size	Wgt. From To
One	12.25 00	8.625	23# 00
Two	7.875 368		

<<< Fold Here >>>

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

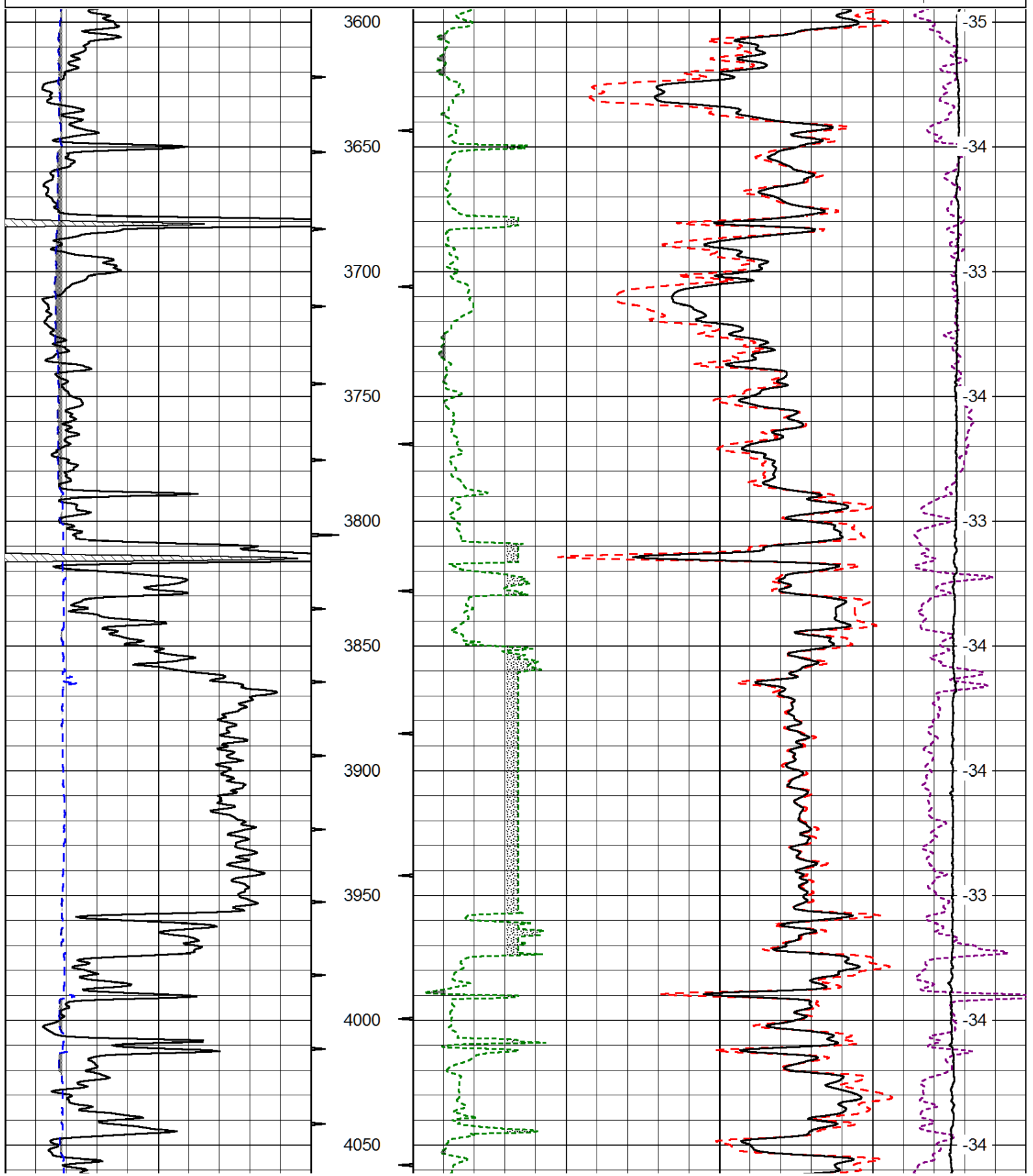
 Belpre Kansas
 South to T, 1/2 West, 2 South, 2 1/2 East, South Into(South to Tree Row then West)

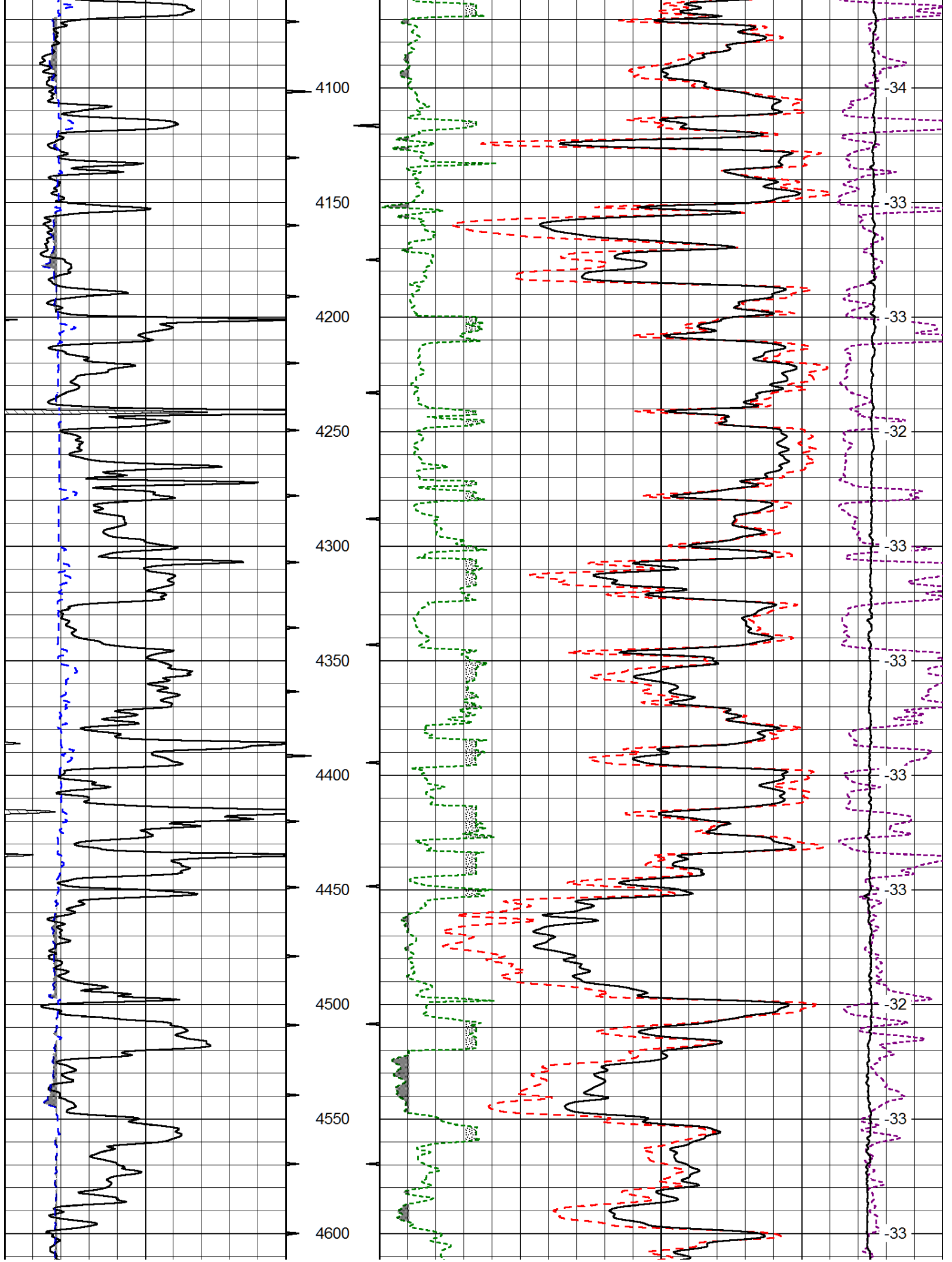
Database File: toto_norwegian_wood_1hd.db
 Dataset Pathname: DIL/totostk
 Presentation Format: cdl
 Dataset Creation: Mon Jan 13 16:14:16 2014
 Charted by: Depth in Feet scaled 1:600

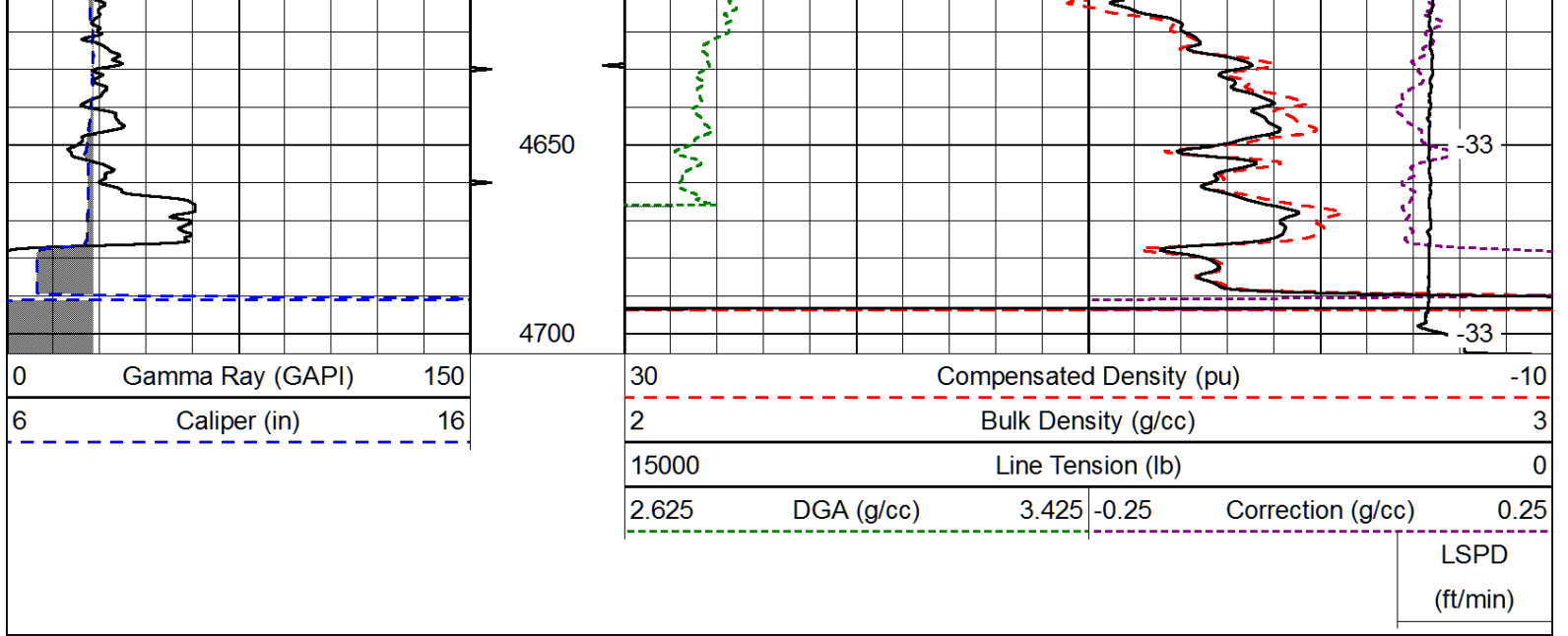
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
2.625	DGA (g/cc)	3.425	-0.25
			Correction (g/cc)
			0.25

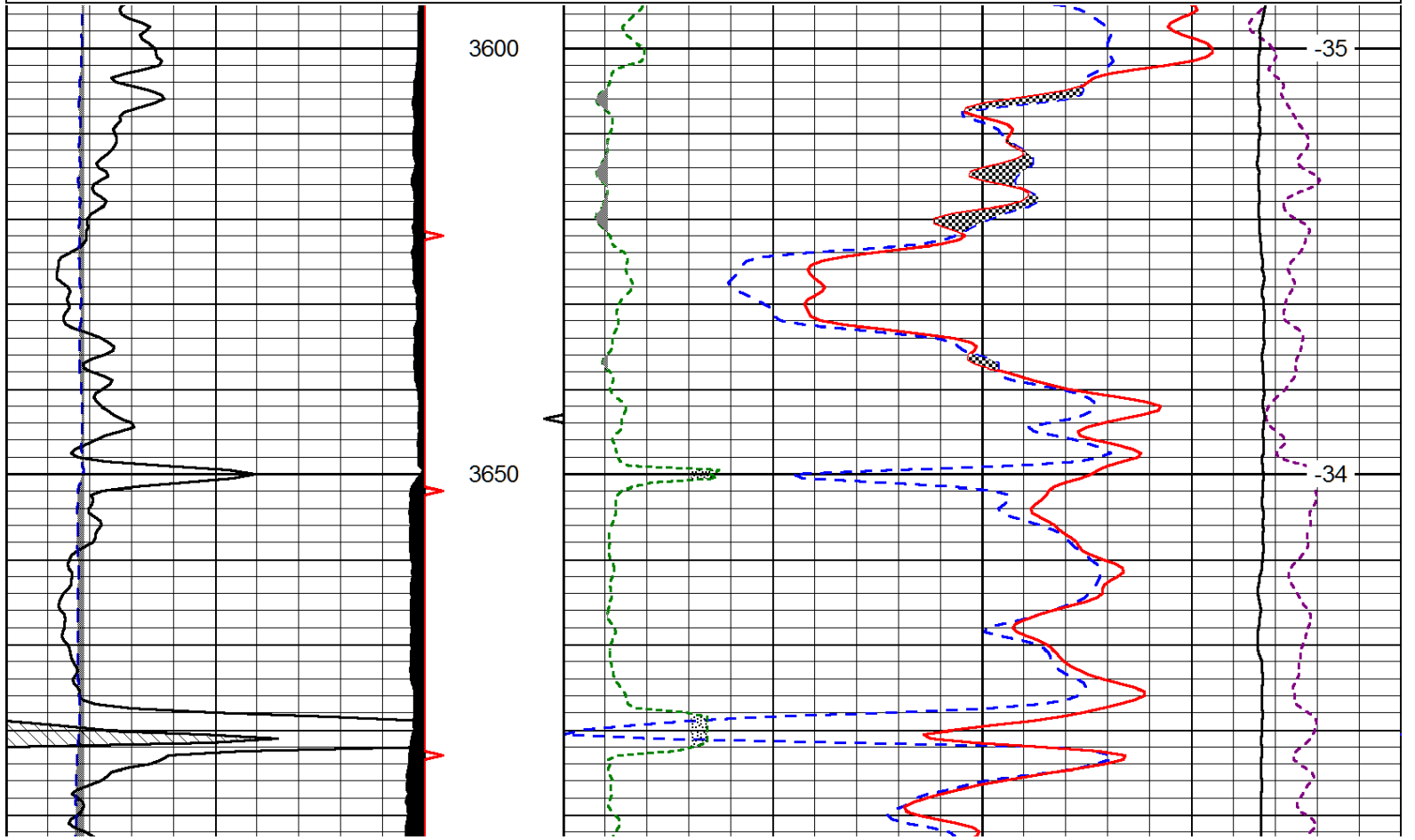
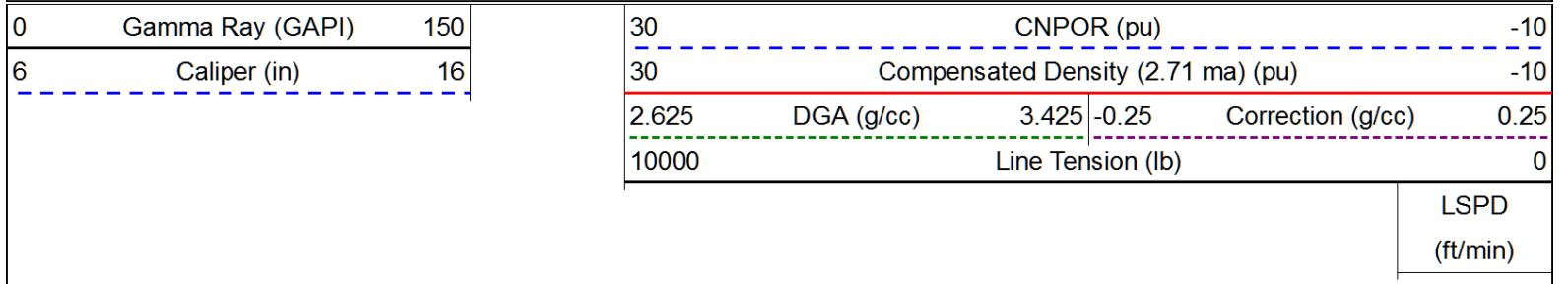
LSPD
(ft/min)

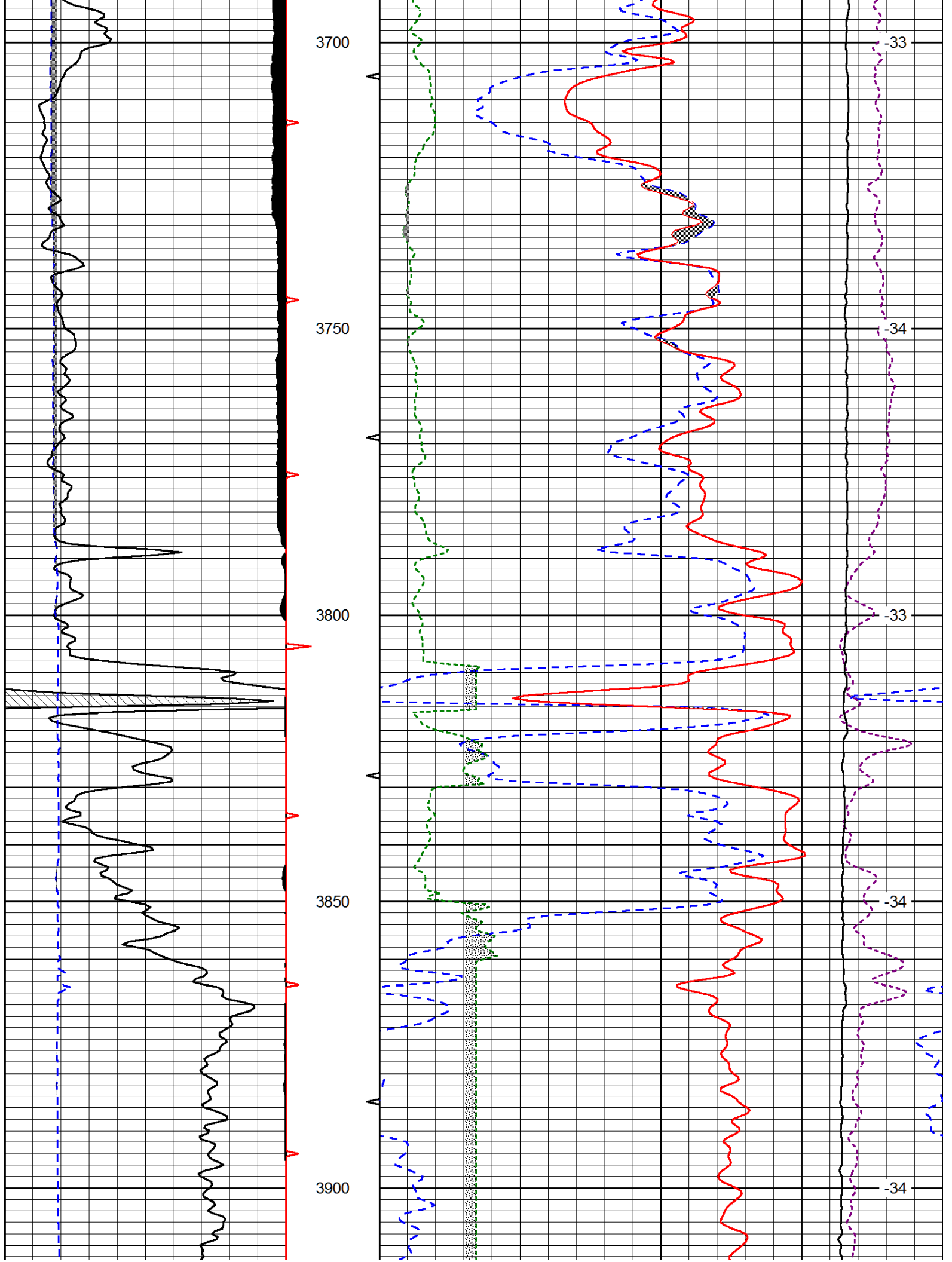


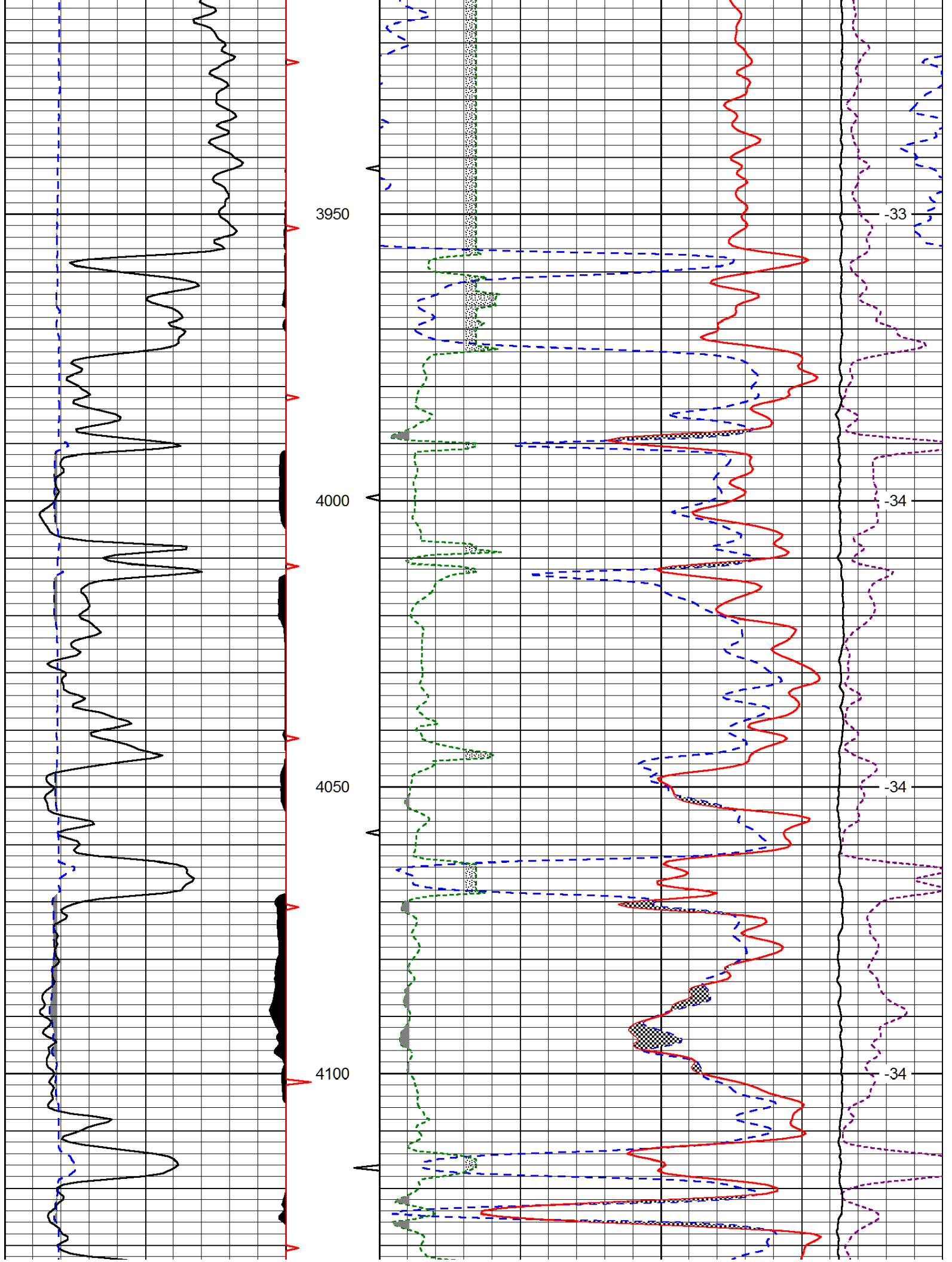


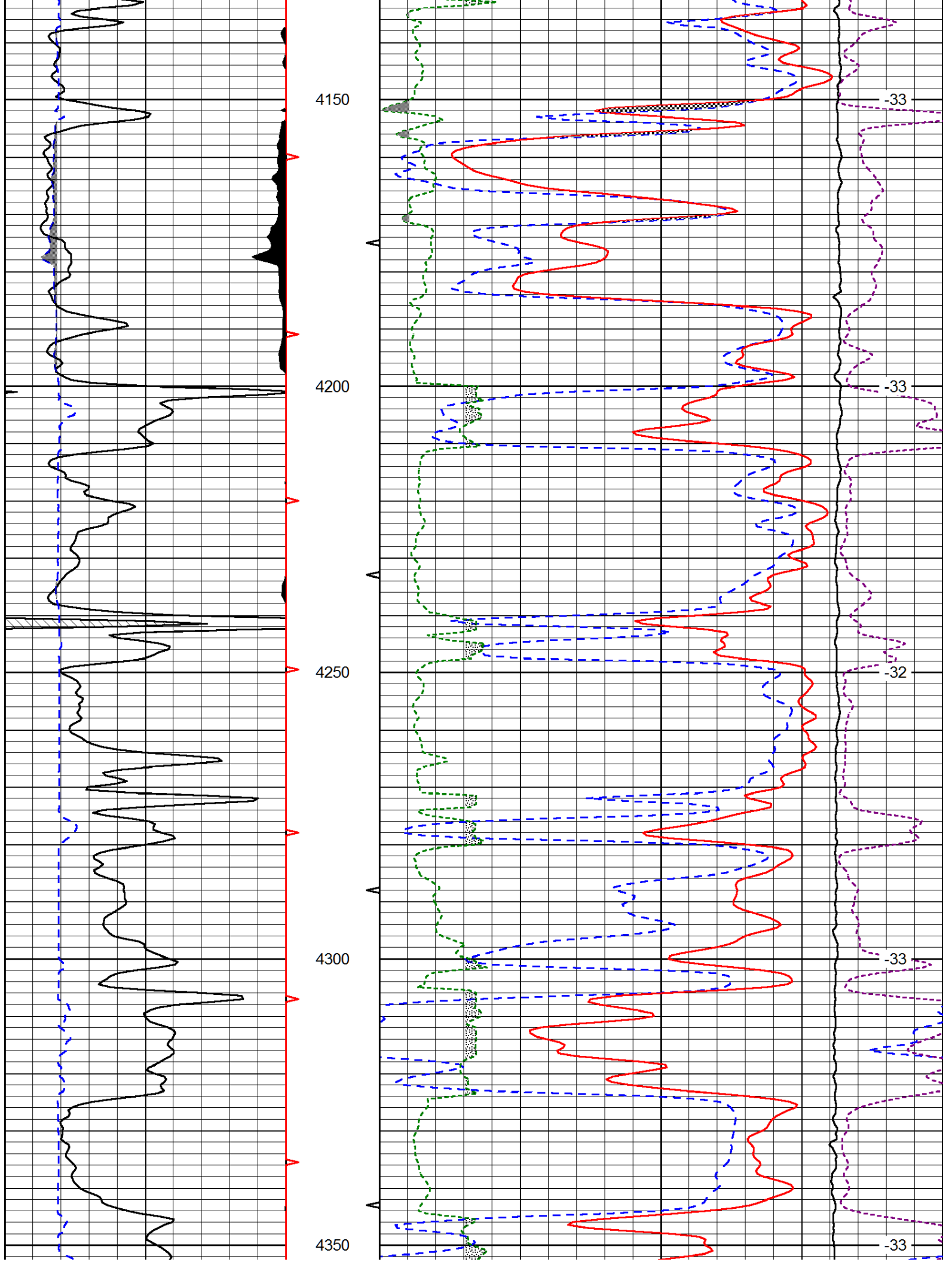


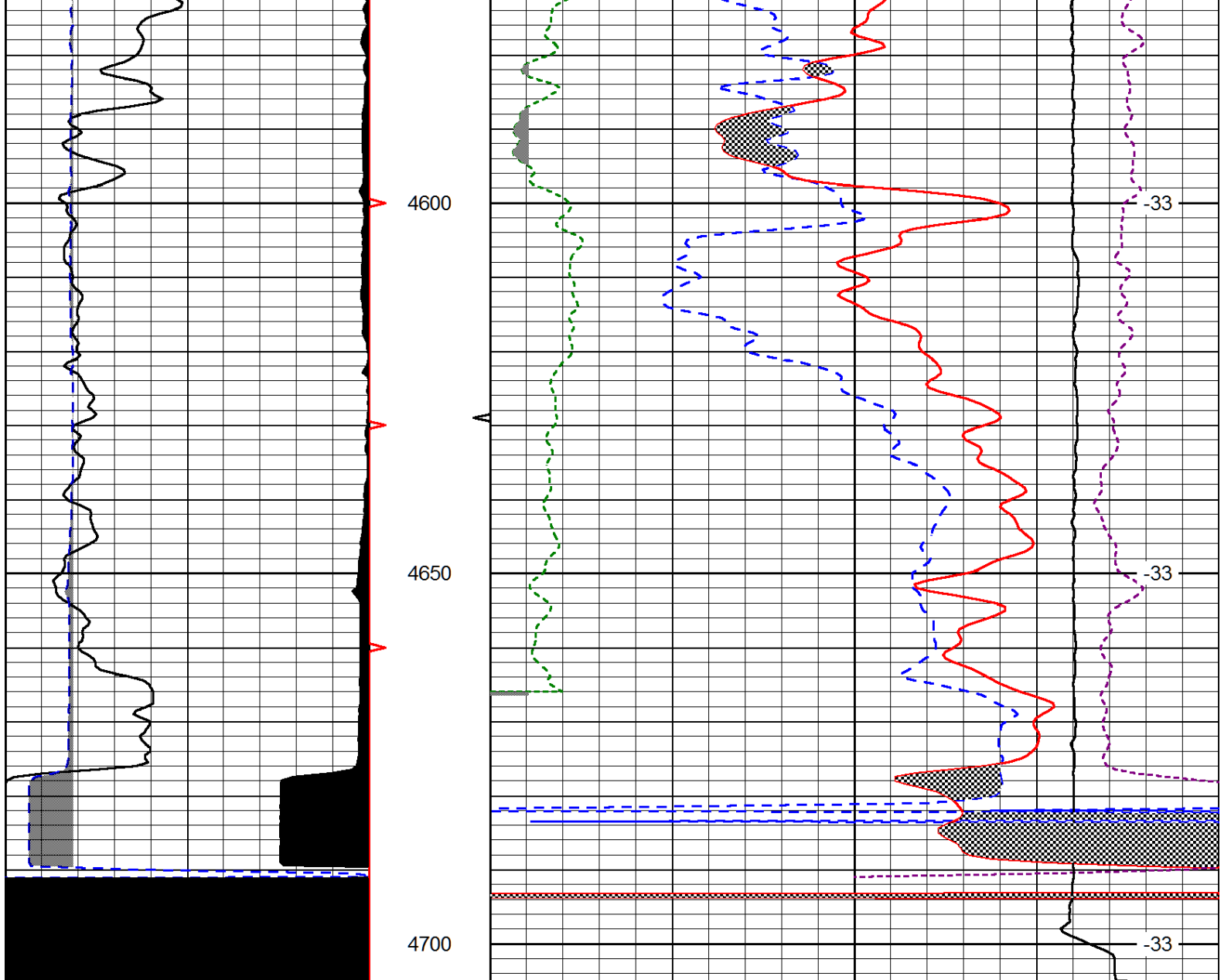
Database File: toto_norwegian_wood_1hd.db
 Dataset Pathname: DIL/totostk
 Presentation Format: cndlspec
 Dataset Creation: Mon Jan 13 16:14:16 2014
 Charted by: Depth in Feet scaled 1:240











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

30	CNPOR (pu)			-10	
30	Compensated Density (2.71 ma) (pu)			-10	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)			0	

LSPD
(ft/min)