



Pioneer Energy Services

## Dual Compensated Porosity Log

API No.	15-083-21,875-00-00		
Company	American Warrior, Inc.		
Well	Sparks #1-28		
Field	Unnamed		
County	Hodgeman		State Kansas
Location	1982' FSL & 2305' FWL		
Sec: 28	Twp: 22S	Rge: 21W	
Other Services	DIL/MEI		

Permanent Datum	Ground Level	Elevation 2248
Log Measured From	Kelly Bushing	11 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	1/16/2013	

Run Number	One
Type Log	CNL / CDL
Depth Driller	4600
Depth Logger	4602
Bottom Logged Interval	4581
Top Logged Interval	3800
Type Fluid In Hole	Chemical
Salinity, PPM CL	7200
Density	9.3
Level	Full
Max. Rec. Temp. F	122
Operating Rig Time	4 Hours
Equipment -- Location	15 Days
Recorded By	D Kerr
Witnessed By	Kevin Timson

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	236	8.625	23#	00	236
Two	7.875	236	TD				

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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

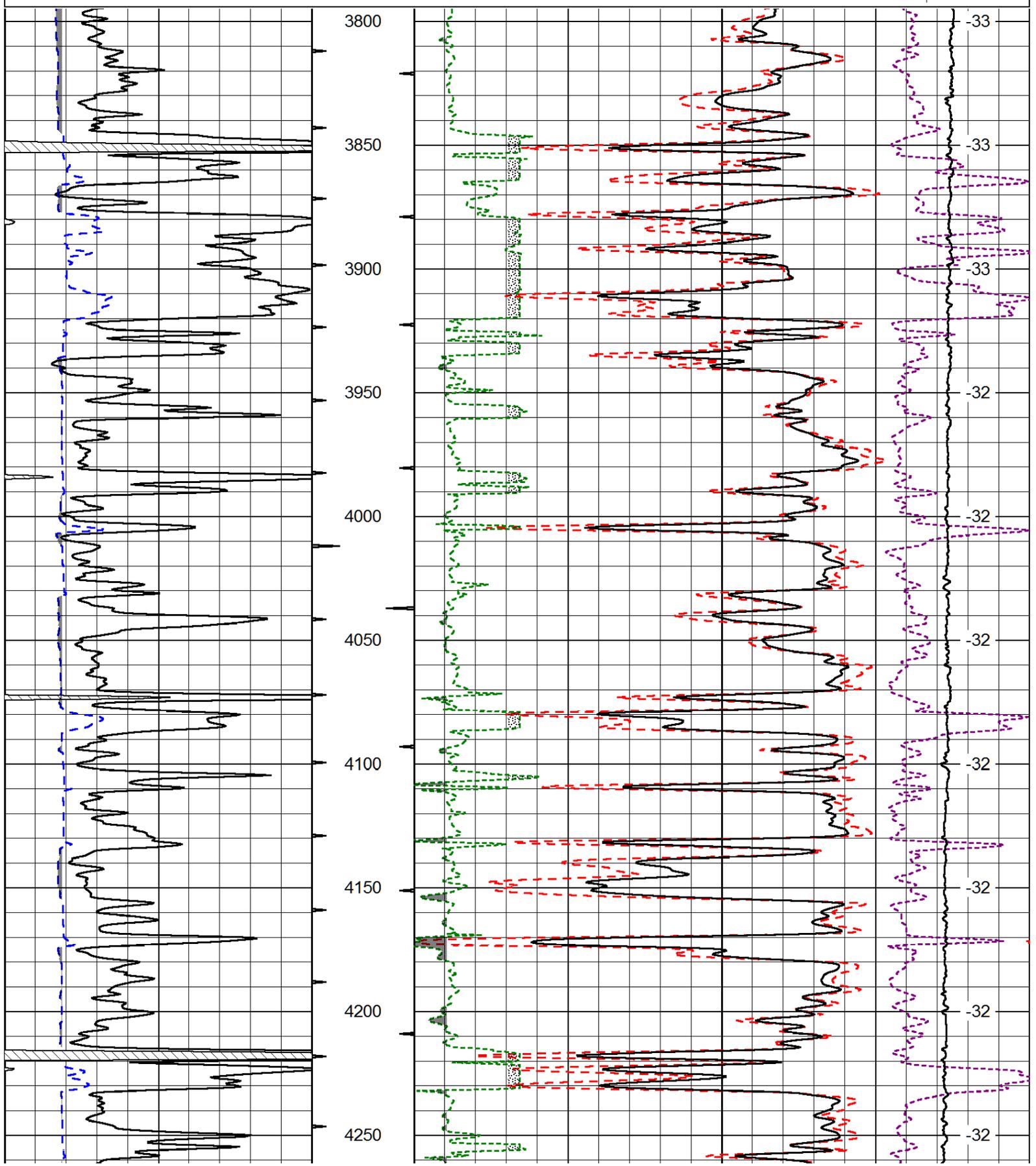
Burdett KS, 5 West to 233 RD, 5 South to O,  
1/2 West, South Into

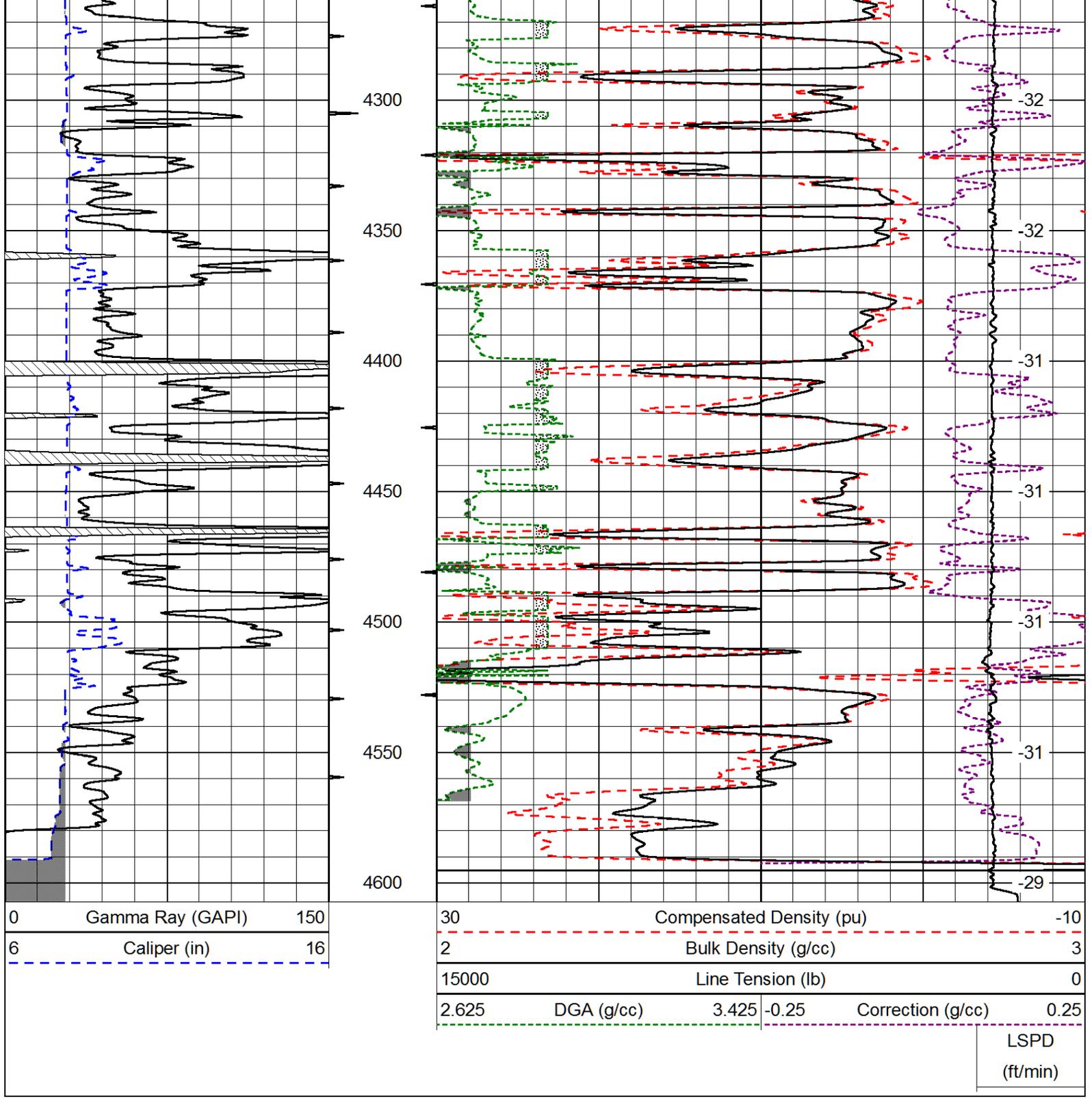
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 Dataset Pathname: DIL/awstk  
 Presentation Format: cdl  
 Dataset Creation: Wed Jan 16 23:01:07 2013  
 Charted by: Depth in Feet scaled 1:600

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

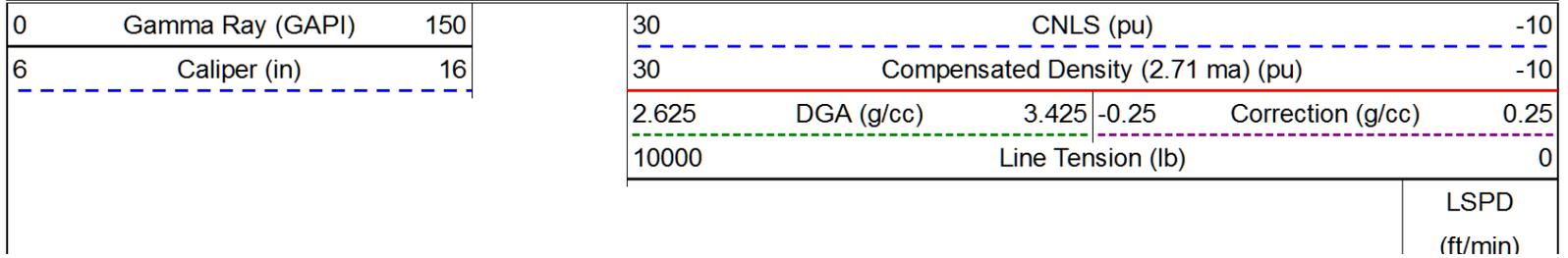
30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
2.625	DGA (g/cc)	3.425	-0.25
		Correction (g/cc)	0.25

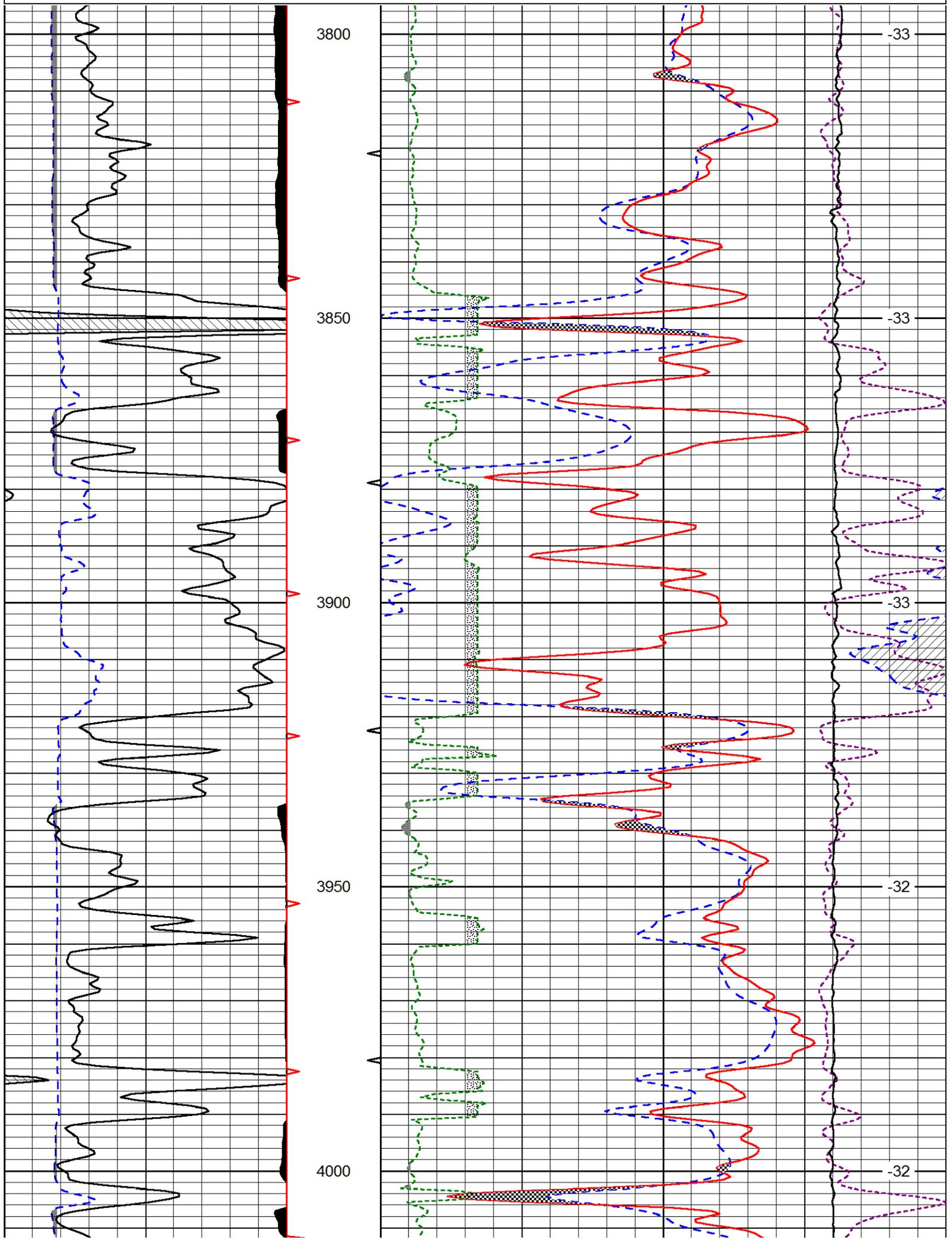
LSPD  
(ft/min)

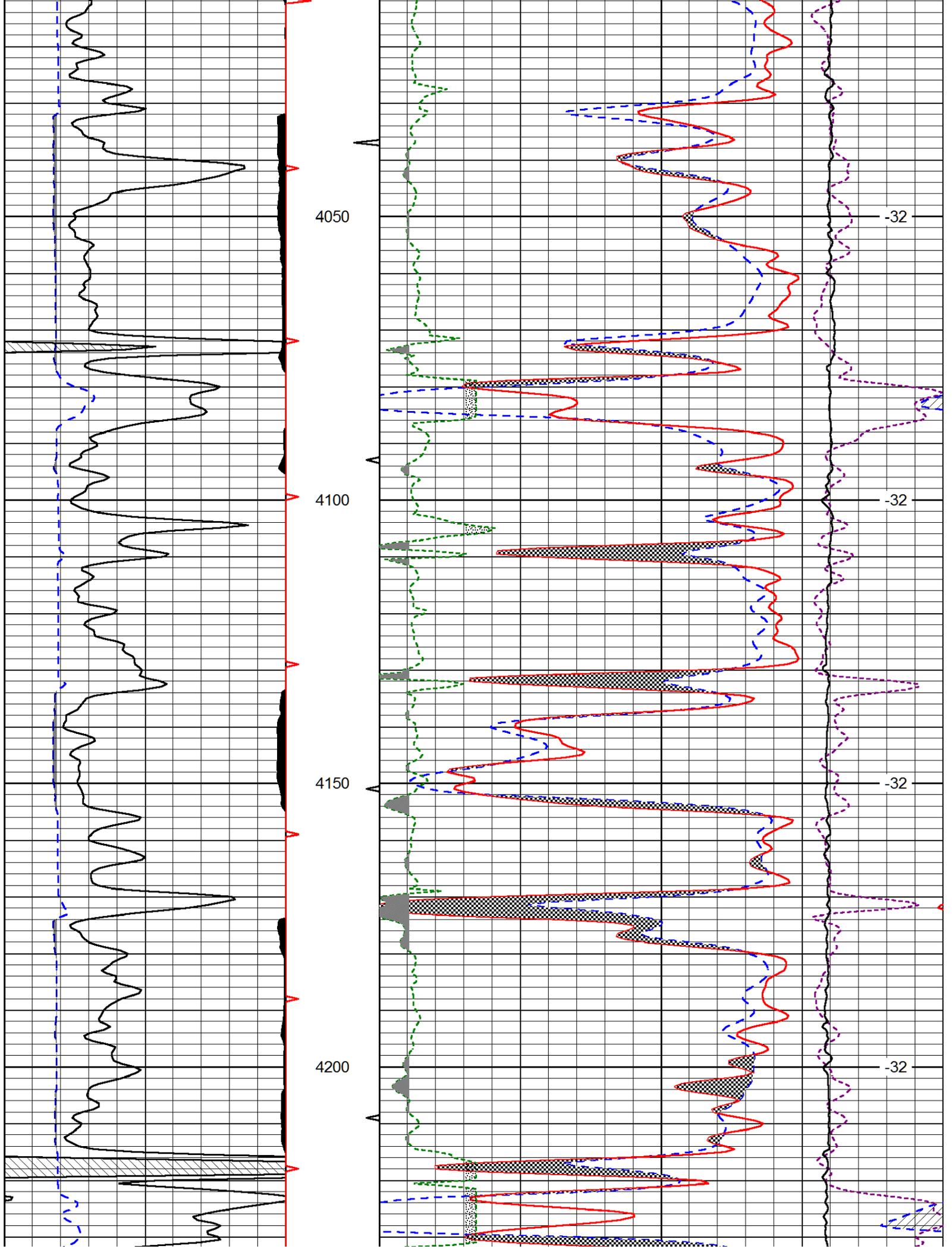


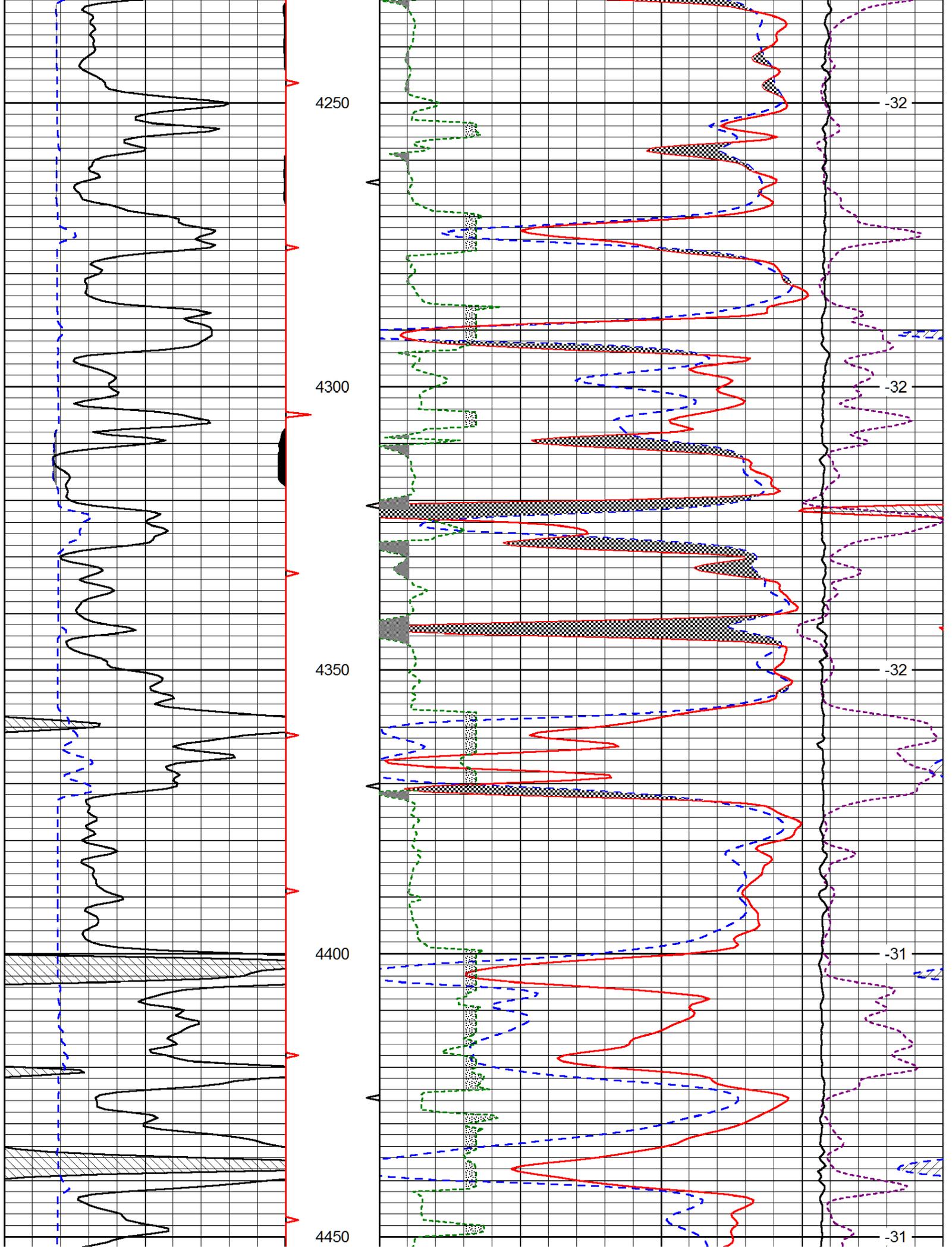


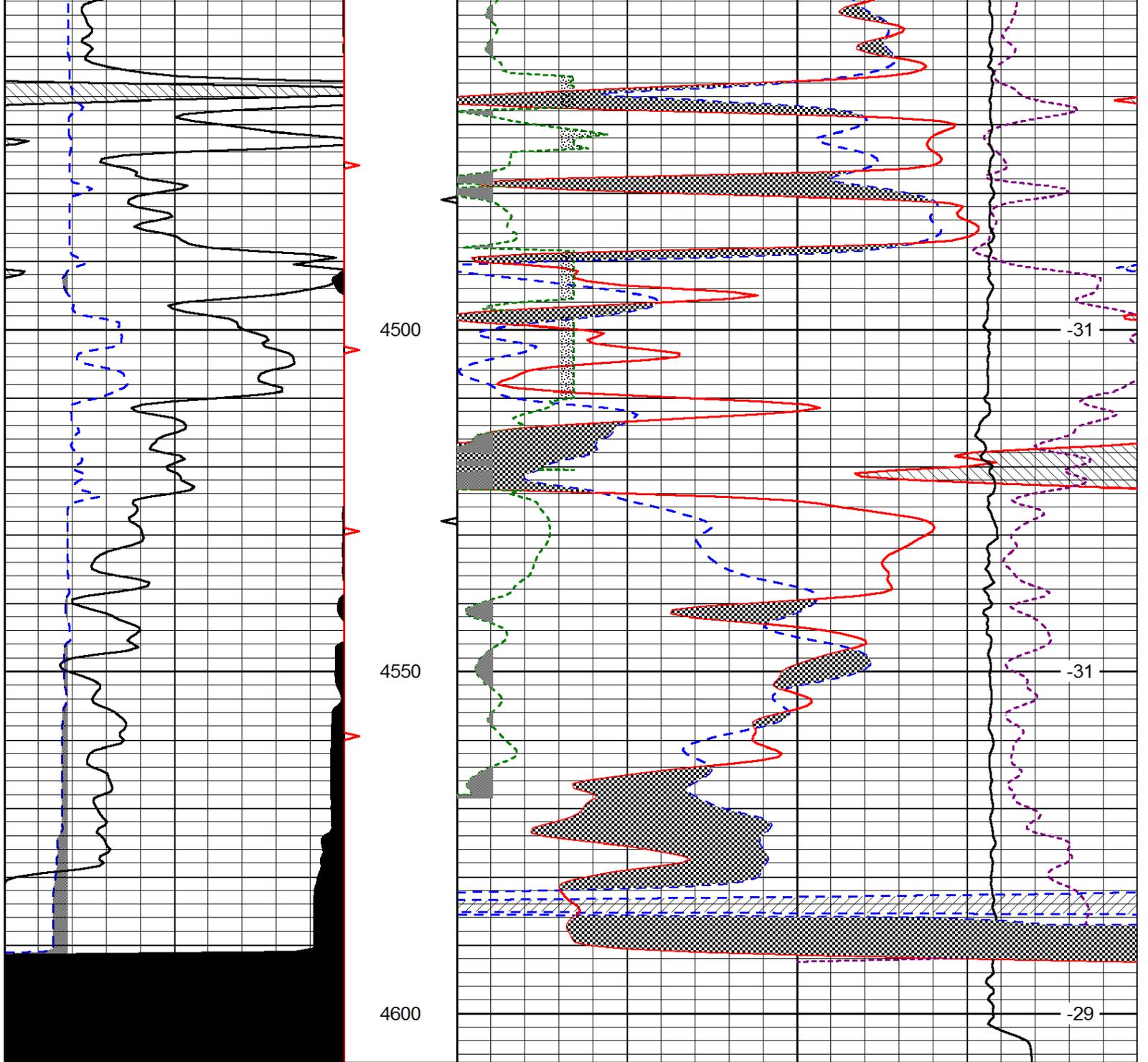
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 Presentation Format: cndlspec  
 Dataset Creation: Wed Jan 16 23:01:07 2013  
 Charted by: Depth in Feet scaled 1:240











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

30	CNLS (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)