



Pioneer Energy Services

Dual Compensated Porosity Log

API No. 15-101-22473-00-00
Company Larson Engineering, Inc.
Well Dutoit # 1-32
Field Amy West
County Lane
Location 642' FNL & 638' FWL
State Kansas
Other Services DIL/MEI

Permanent Datum Ground Level
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing
Date 01-04-2014
Run Number One
Type Log CNL / CDL
Depth Driller 4614
Depth Logger 4614
Bottom Logged Interval 4593
Top Logged Interval 3600
Type Fluid In Hole Chemical
Salinity, PPM CL 3200
Density 9.0
Level Full
Max. Rec. Temp. F 124
Operating Rig Time 4 1/2 Hours
Equipment -- Location 91 Hays
Recorded By Y. Ruiz
Witnessed By Vern Schrag

Sec: 32 **Twp:** 18 S **Rge:** 30 W
Elevation 2892
K.B. 2899
D.F.
G.L. 2892

Borehole Record		Casing Record					
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	273	8.625	23#	00	273
Two	7.875	273	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

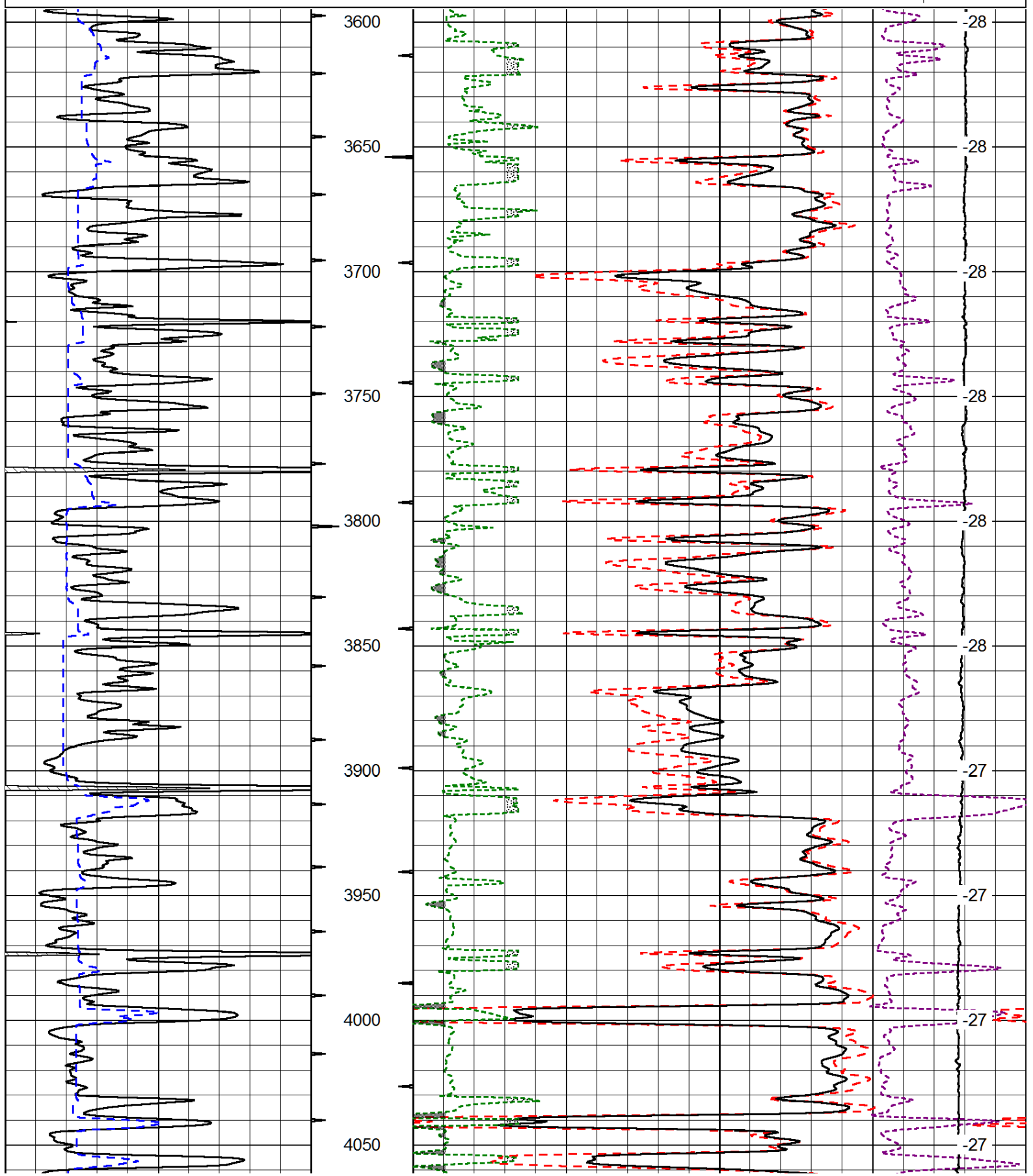
Thank you for using Log-Tech, Inc.
 (785) 625-3858
 Dighton,
 West to Arapahoe RD, 2 1/8 South,
 East into

Database File: l Larson_010414hd.db
 Dataset Pathname: DIL/larstk
 Presentation Format: cdl
 Dataset Creation: Sat Jan 04 18:27:44 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

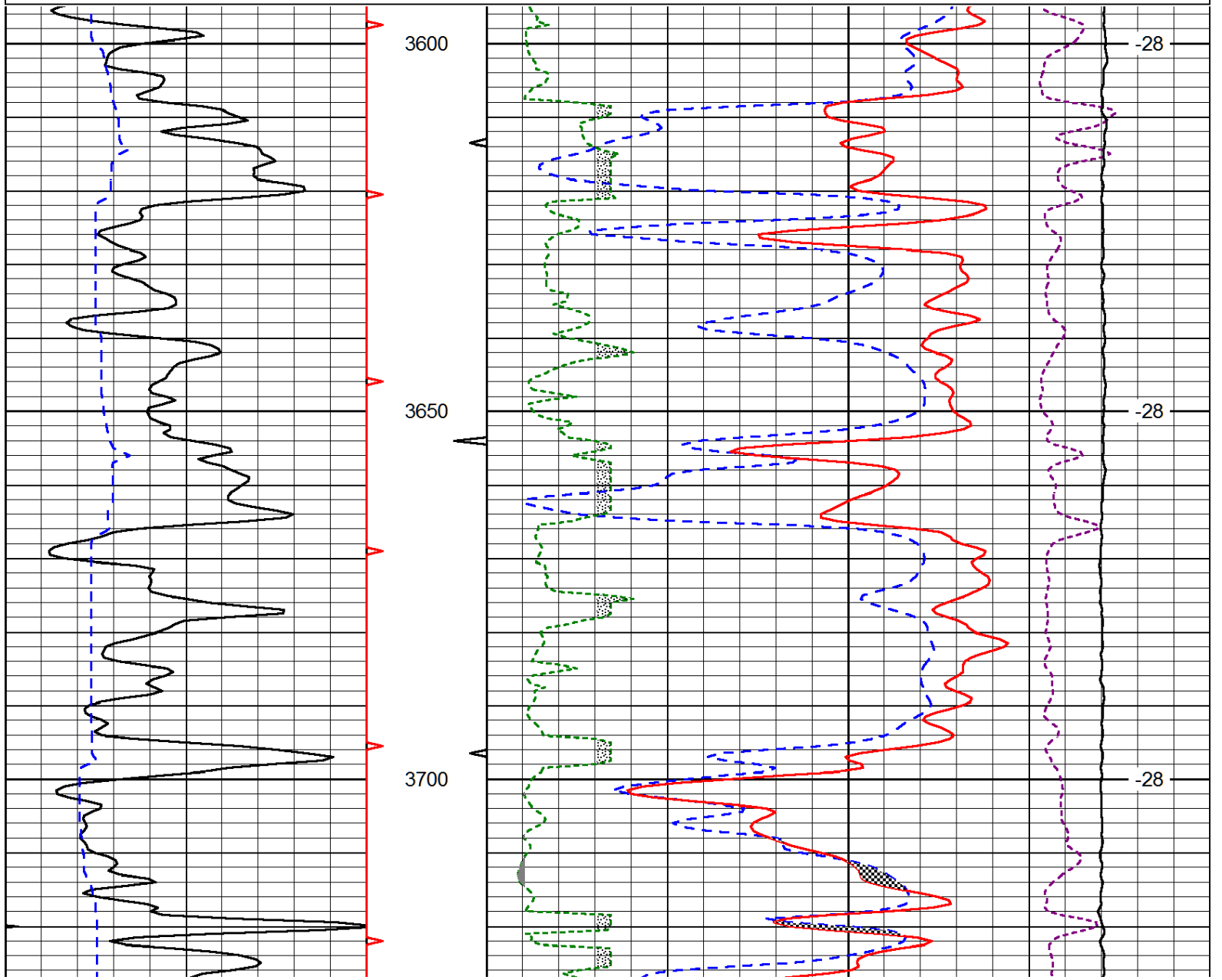
LSPD
(ft/min)

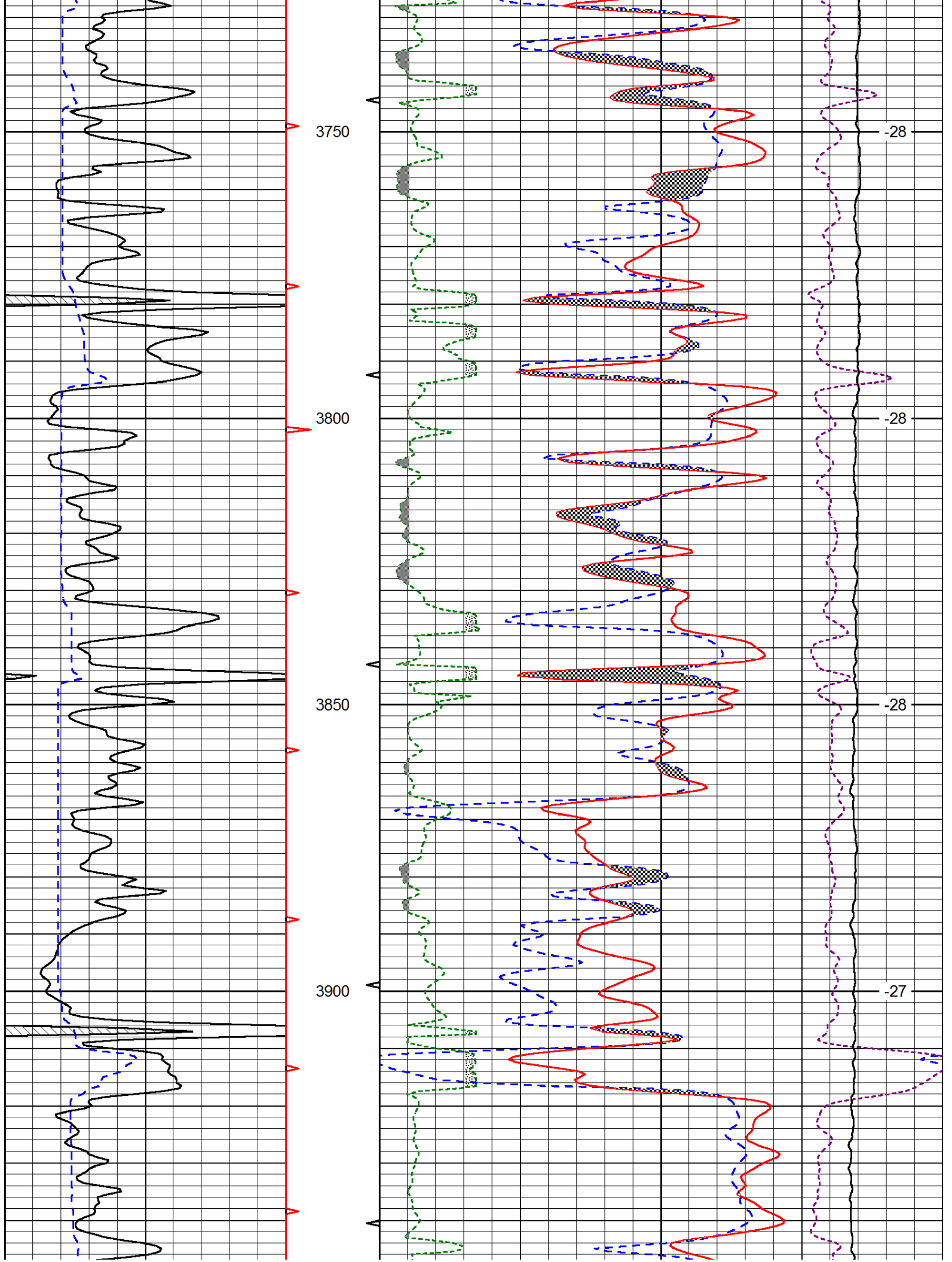


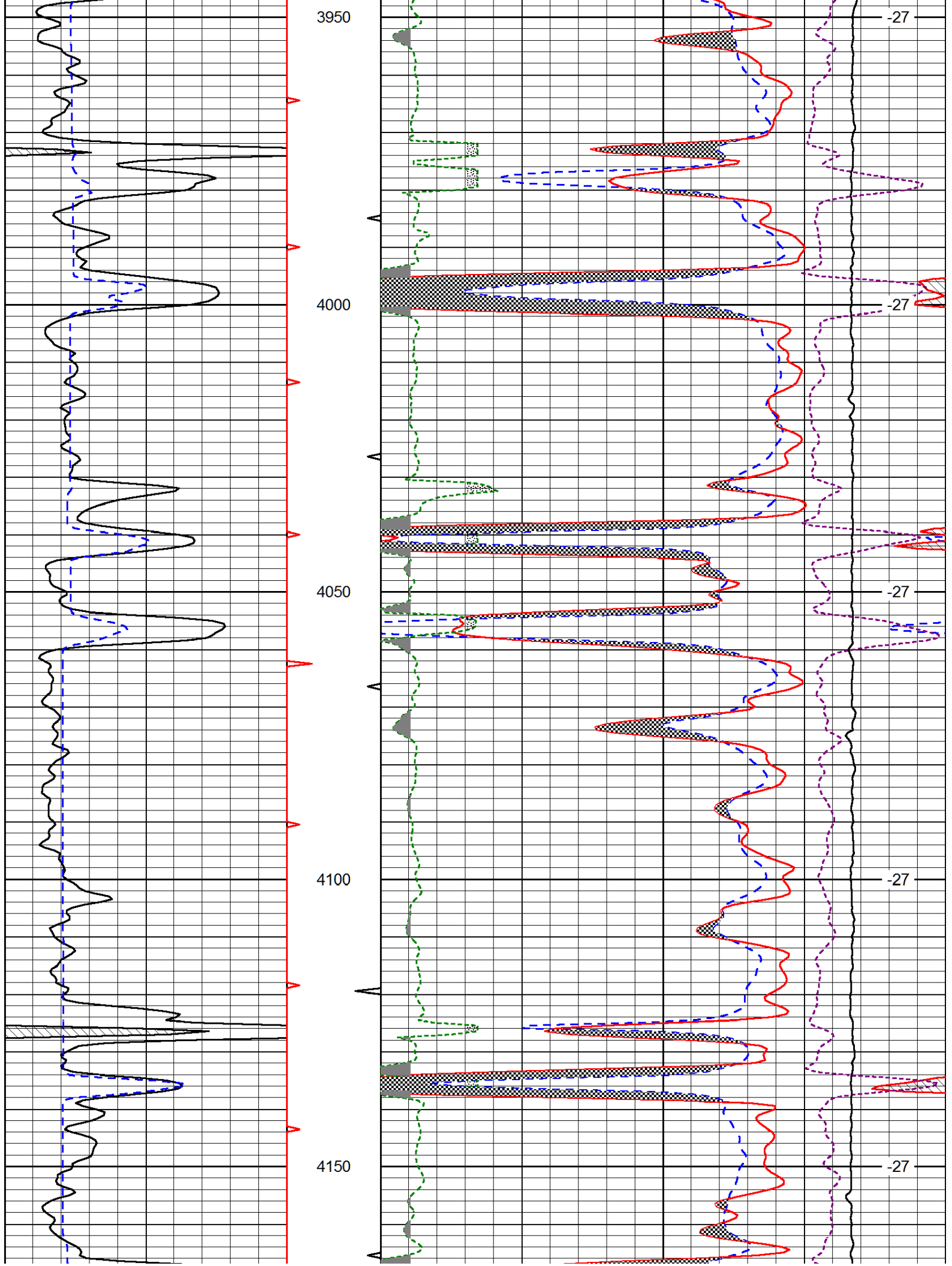
0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)			-10
6	Caliper (in)	16	2	Bulk Density (g/cc)			3
			15000	Line Tension (lb)			0
			2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc) 0.25
							LSPD (ft/min)

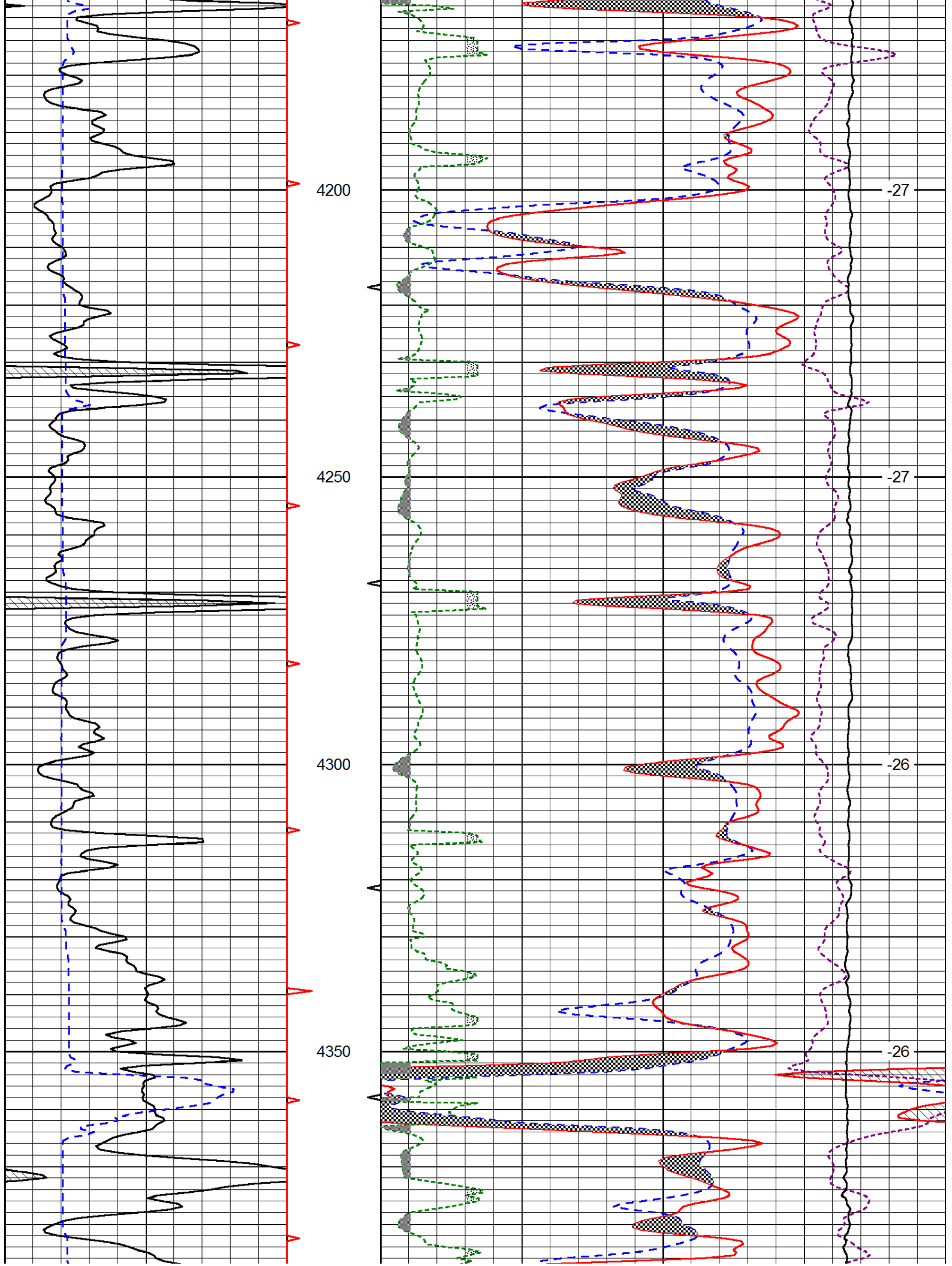
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 Dataset Pathname: DIL/larstk
 Presentation Format: cndlspec
 Dataset Creation: Sat Jan 04 18:27:44 2014
 Charted by: Depth in Feet scaled 1:240

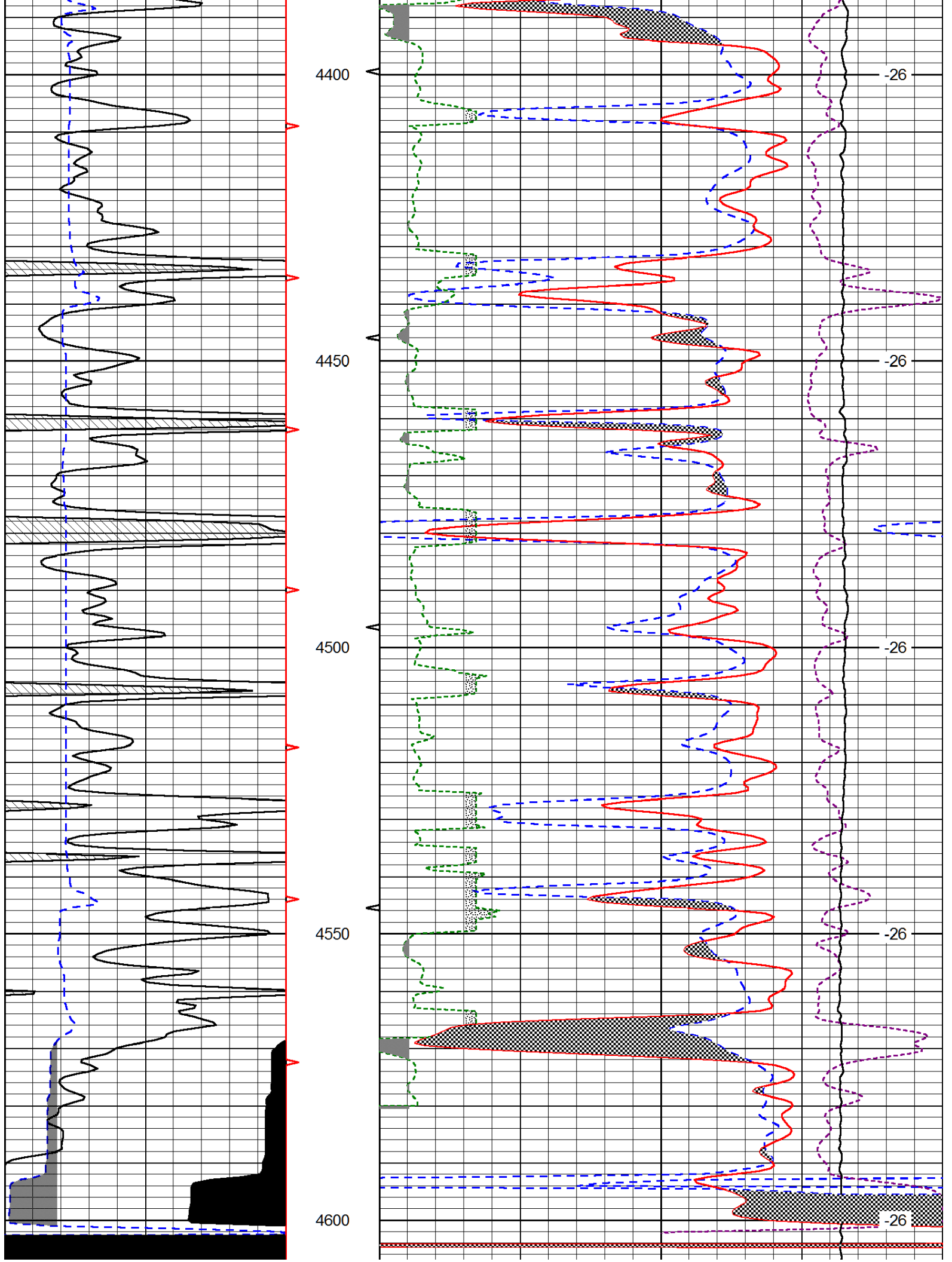
0	Gamma Ray (GAPI)	150	30	CNPOR (pu)			-10
6	Caliper (in)	16	30	Compensated Density (2.71 ma) (pu)			-10
			2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc) 0.25
			10000	Line Tension (lb)			0
							LSPD (ft/min)



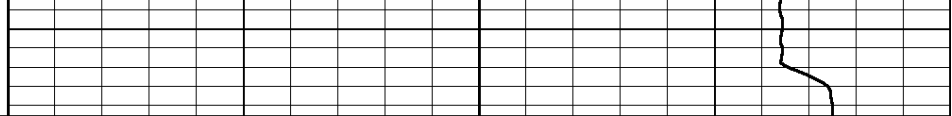








0	Gamma Ray (GAPI)	150
6	Caliper (in)	16



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

LSPD
(ft/min)