



Dual Compensated Porosity Log

Pioneer Energy Services

API No.

15-135-25639-00-00

Company American Warrior, Inc.

Well Joseph #1-21

Field Chrif

County Ness

State Kansas

Location 860' FNL & 769' FEL

Other Services
DIL/MEL

Sec: 21 Twp: 19 S Rge: 25 W

Permanent Datum Ground Level Elevation 2470
Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation
K.B. 2481
D.F. 2470
G.L. 2470

Date 08-01-2013

Run Number One

Type Log CNL / CDL

Depth Driller 4600

Depth Logger 4602

Bottom Logged Interval 4581

Top Logged Interval 3750

Type Fluid In Hole Chemical

Salinity, PPM CL 5300

Density 9.3

Level Full

Max. Rec. Temp. F 124

Operating Rig Time 4 Hours

Equipment -- Location 91 Days

Recorded By Y. Ruiz

Witnessed By Kevin Timson

Borehole Record

Casing Record

Run No. Bit From To Size Wgt. From To

One 12.25 00 235 8.625 23# 00 235

Two 7.875 235 TD 235

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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

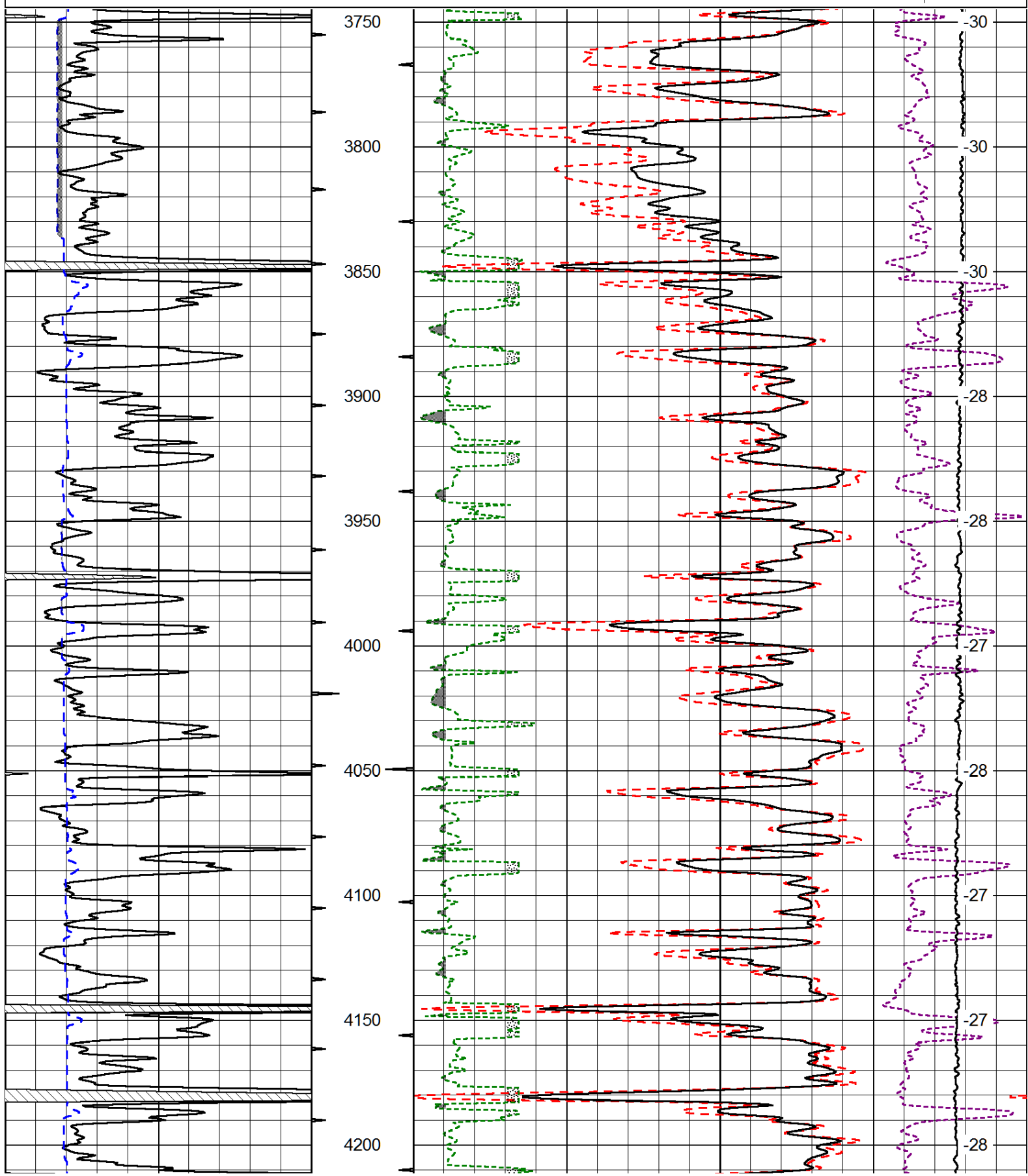
Ness City,
West to J Rd, 4 South,
1 1/2 West to location (stay right at 1st fork and left at 2nd fork)

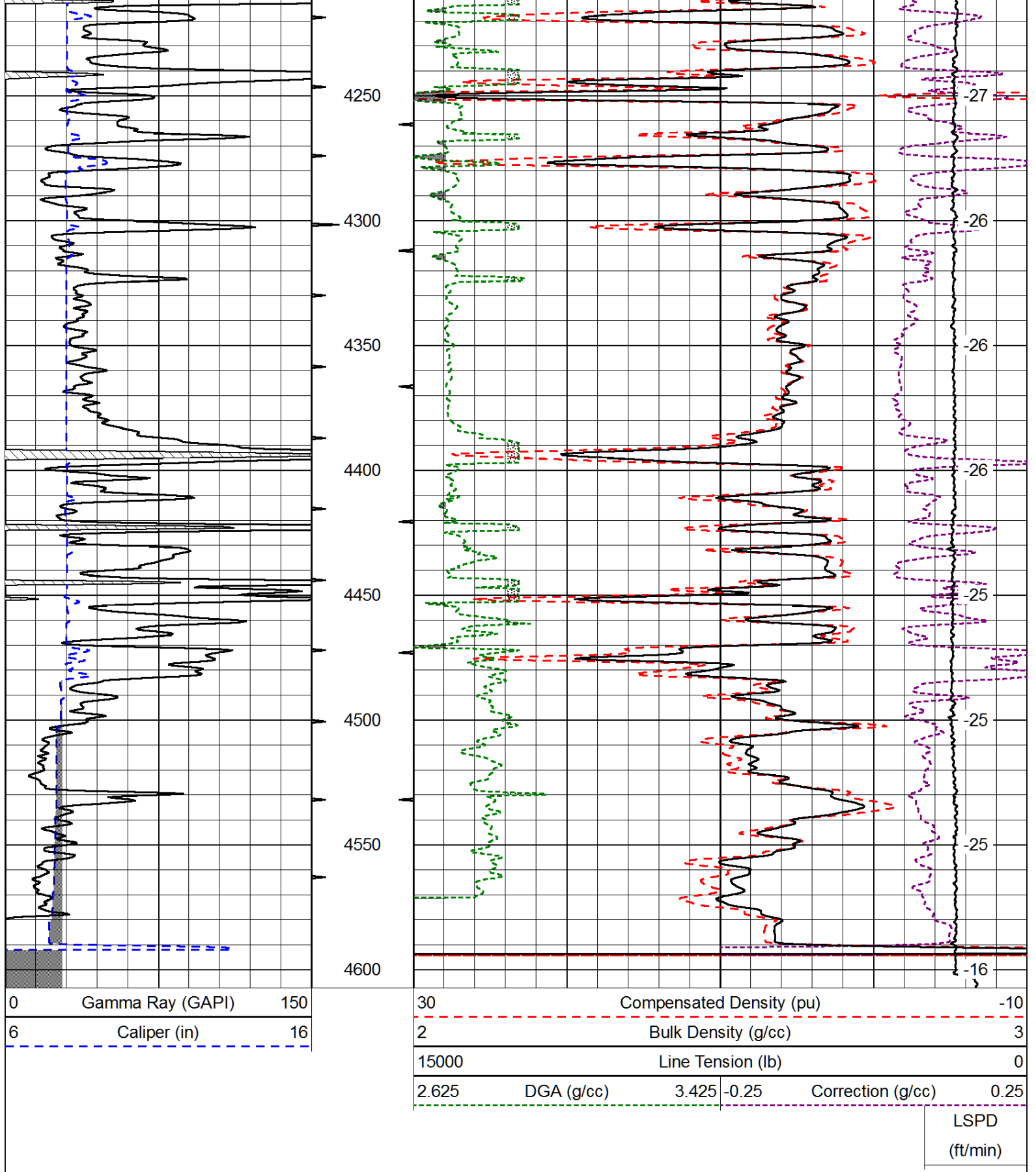
Database File: amwar_080113hd.db
Dataset Pathname: dil/awstck
Presentation Format: cdl
Dataset Creation: Thu Aug 01 12:33:20 2013
Charted by: Depth in Feet scaled 1:600

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

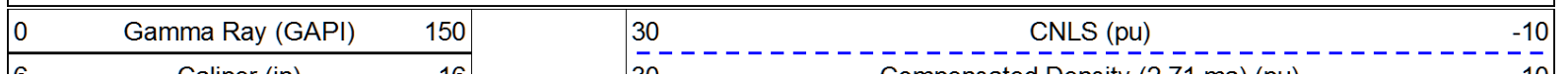
30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
2.625	DGA (g/cc)	3.425	-0.25
	Correction (g/cc)		0.25

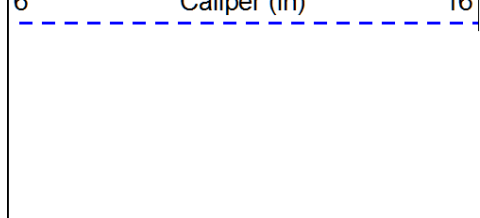
LSPD
(ft/min)





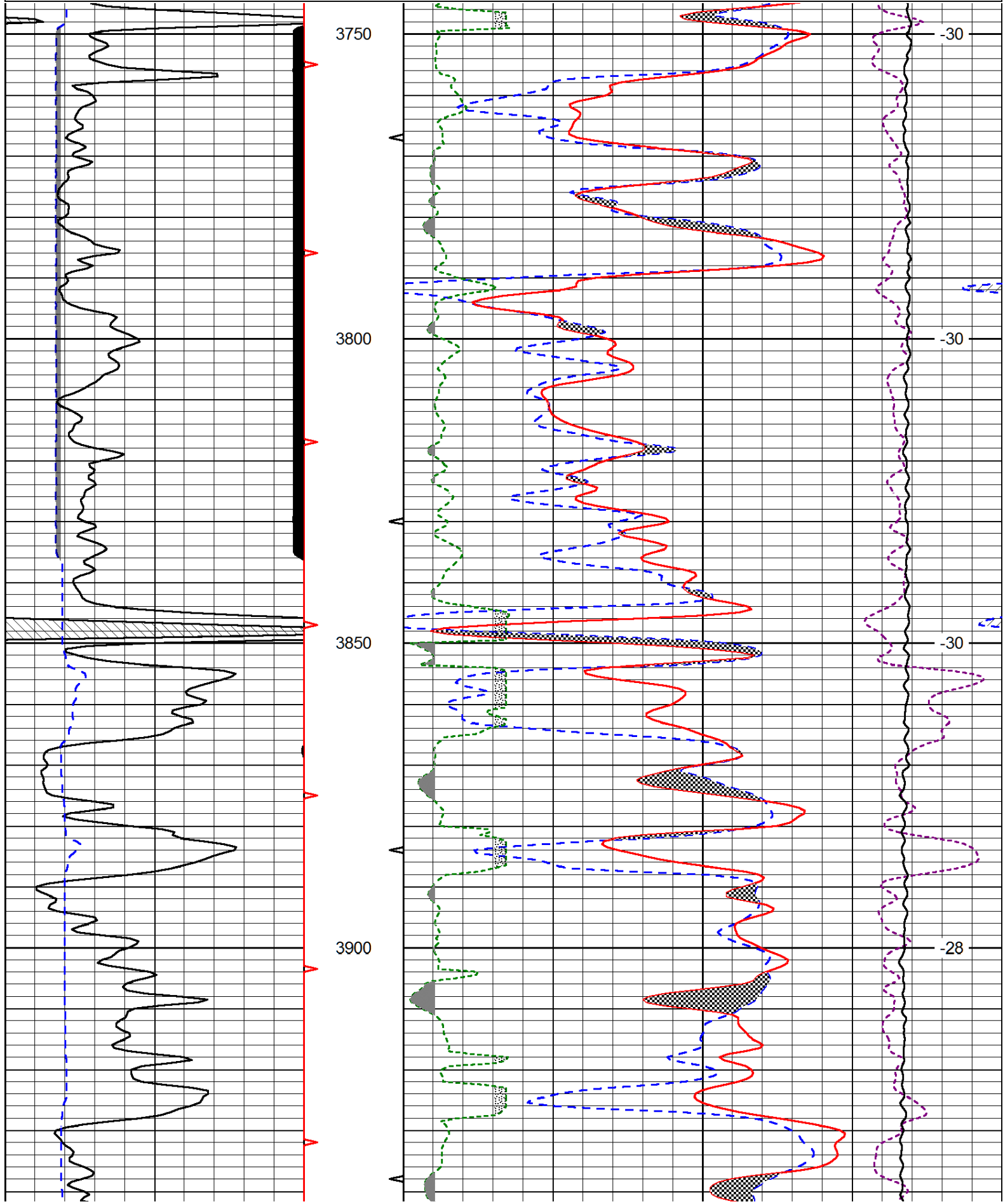
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 Presentation Format: cndlspec
 Dataset Creation: Thu Aug 01 12:33:20 2013
 Charted by: Depth in Feet scaled 1:240

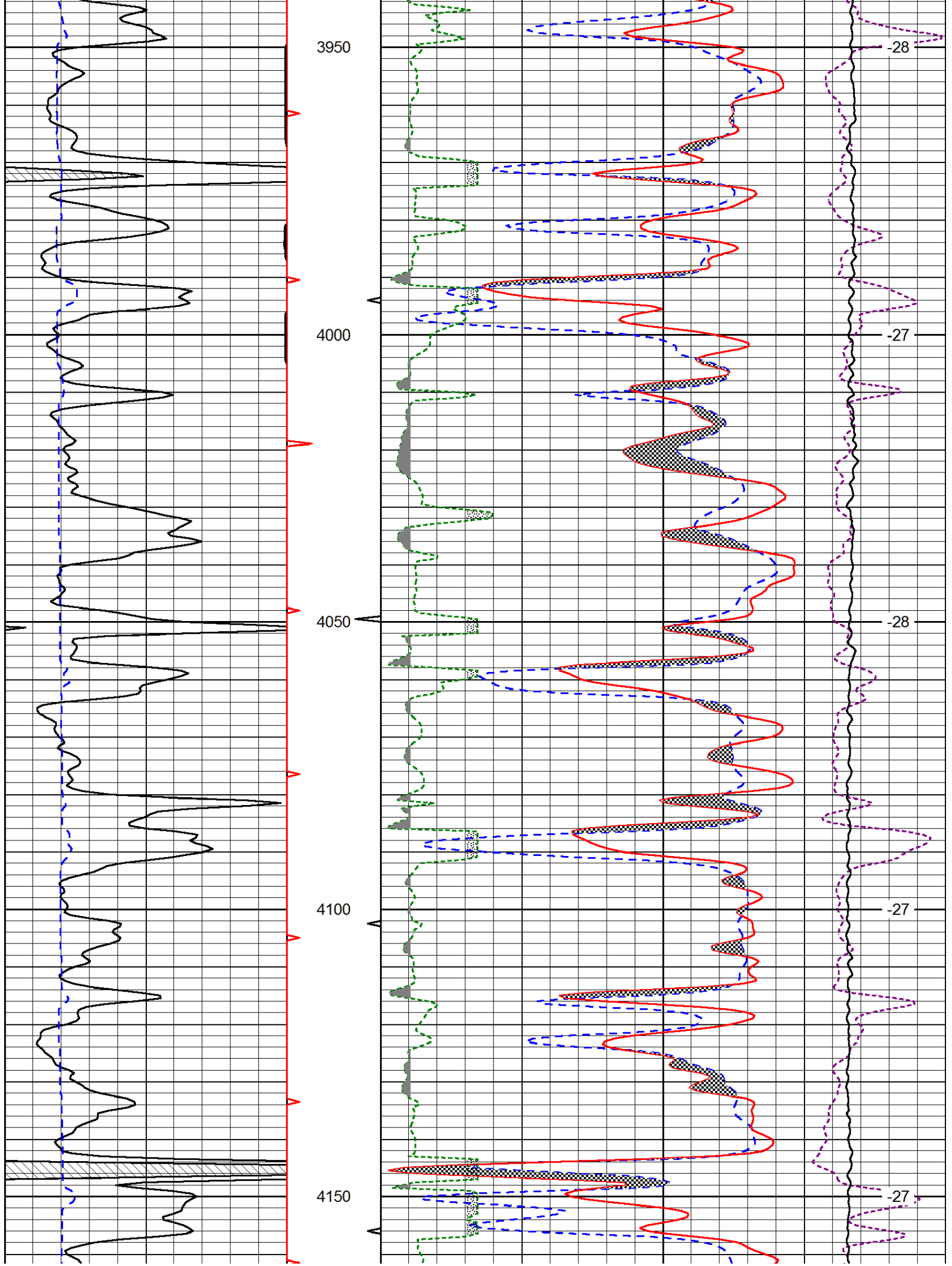


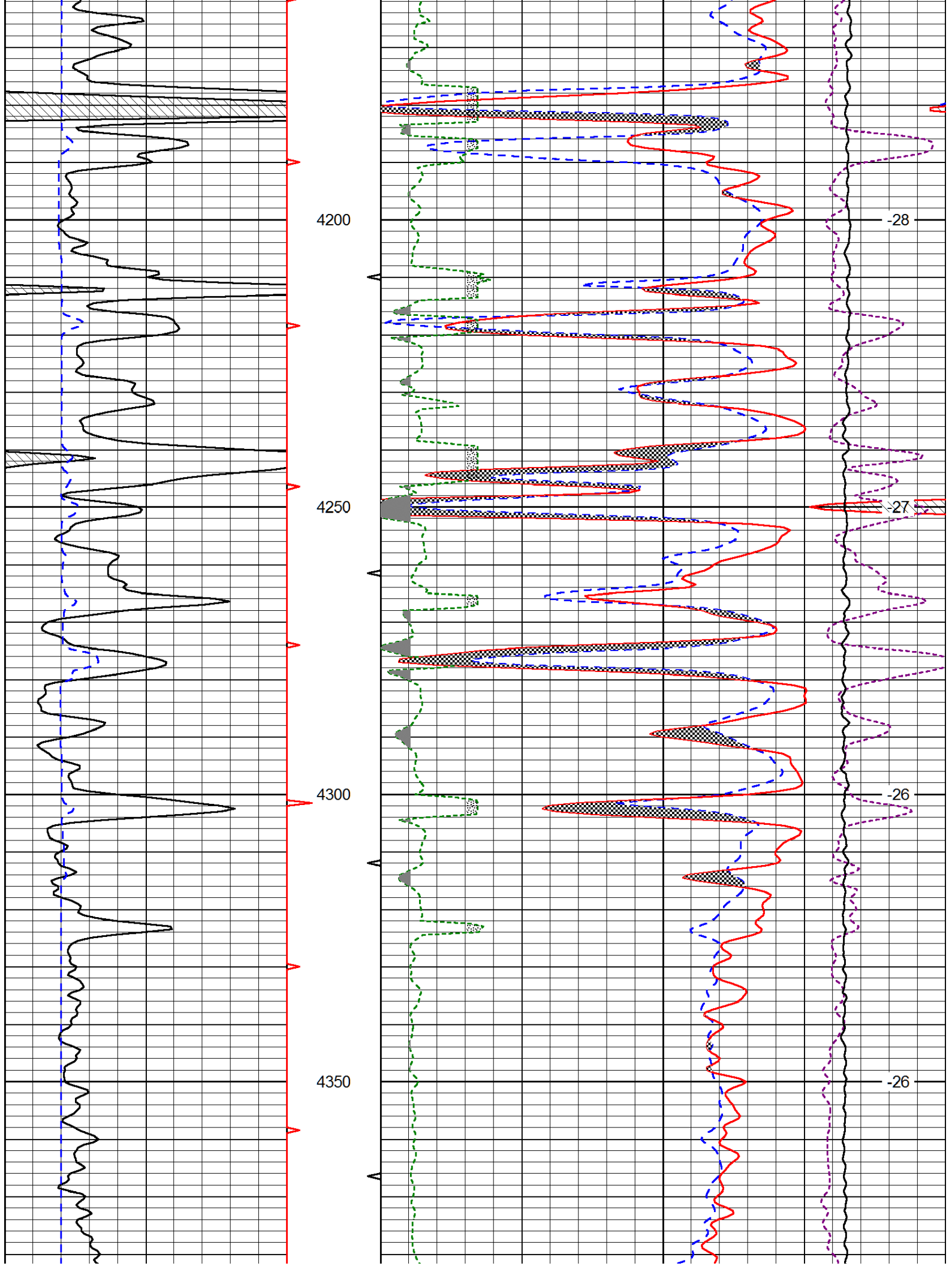


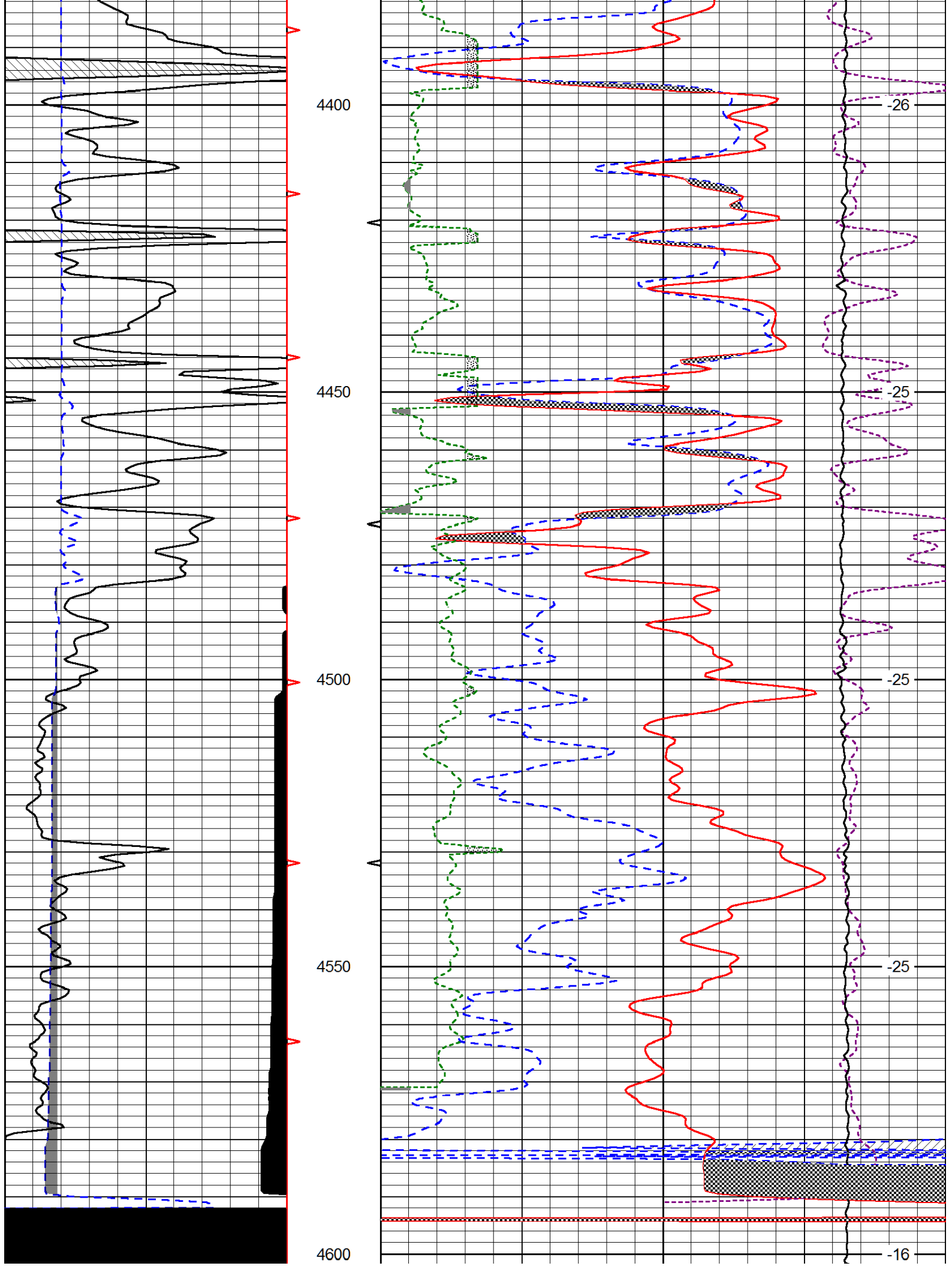
30	Compensated Density (2.71 ma) (pu)				-10
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)				0

LSPD
(ft/min)









0	Gamma Ray (GAPI)	150	30CNLS (pu)-10																									
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