



Dual Compensated Porosity Log

Pioneer Energy Services

API No.

15-069-20440-00-00

Company American Warrior, Inc.

Well Kramer #2-31

Field Wildcat

County Gray

State Kansas

Location 1016' FSL / 1229' FWL

Sec: 31

Twp: 24S

Rge: 29W

Permanent Datum Ground Level
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Elevation 2824
11 Ft. Above Perm. Datum

Other Services
DIL/MEL

Elevation
K.B. 2835
D.F. 2835
G.L. 2824

Date

8/17/2013

Run Number

One

Type Log

CNL / CDL

Depth Driller

5050

Depth Logger

5050

Bottom Logged Interval

5029

Top Logged Interval

4050

Type Fluid In Hole

Chemical

Salinity, PPM CL

2200

Density

9.4

Level

Full

Max. Rec. Temp. F

127

Operating Rig Time

5 Hours

Equipment -- Location

15 Hays

Recorded By

R. Barnhart

Witnessed By

Kevin Timson

Borehole Record

Casing Record

Run No.

Bit

From

To

Size

Wgt.

From

To

One

12.25

00

524

8.625

23#

00

Two

7.875

524

TD

<<< 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

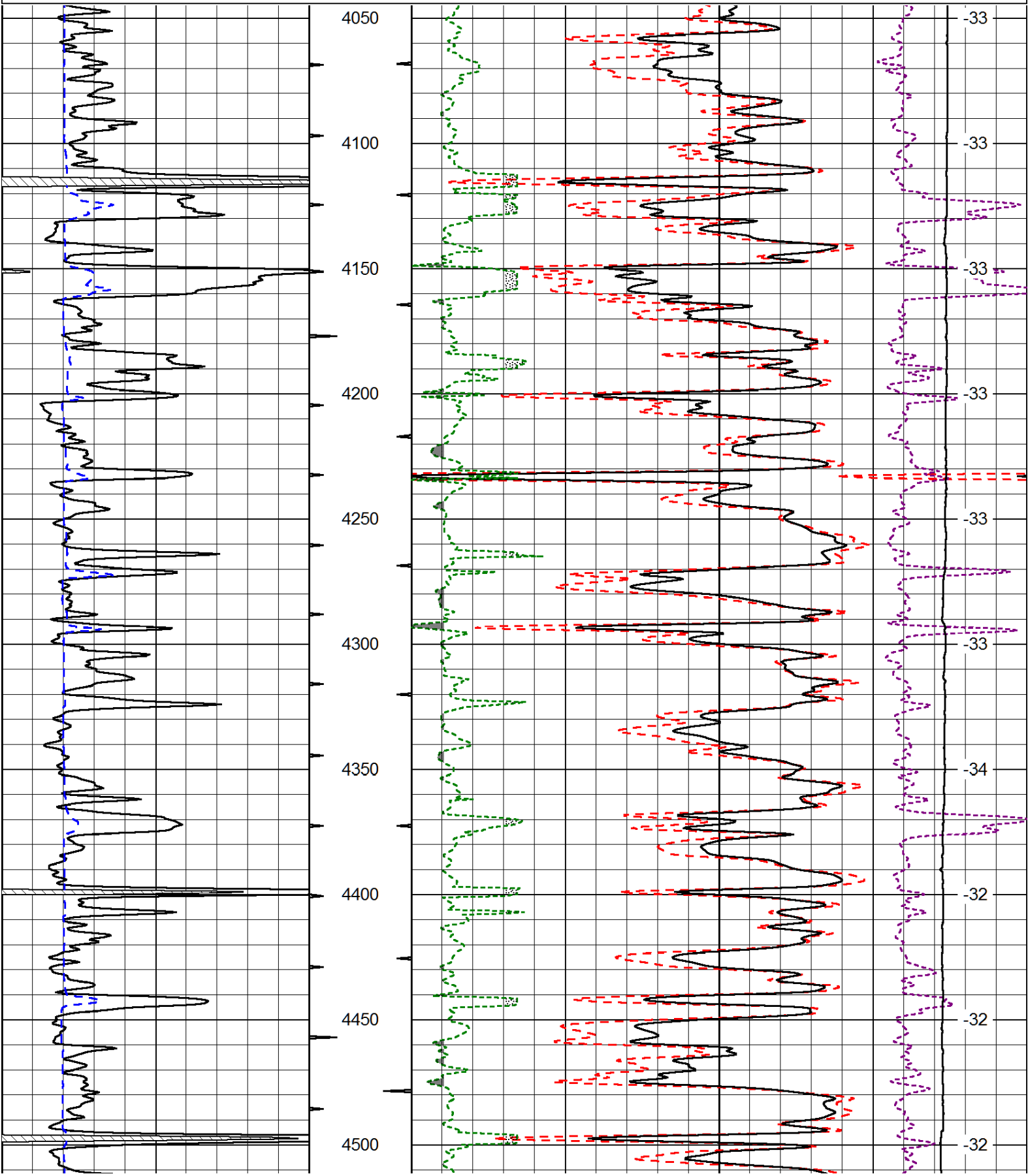
Kalvesta, KS:
14 1/2W, 10S, 1/4E, N into

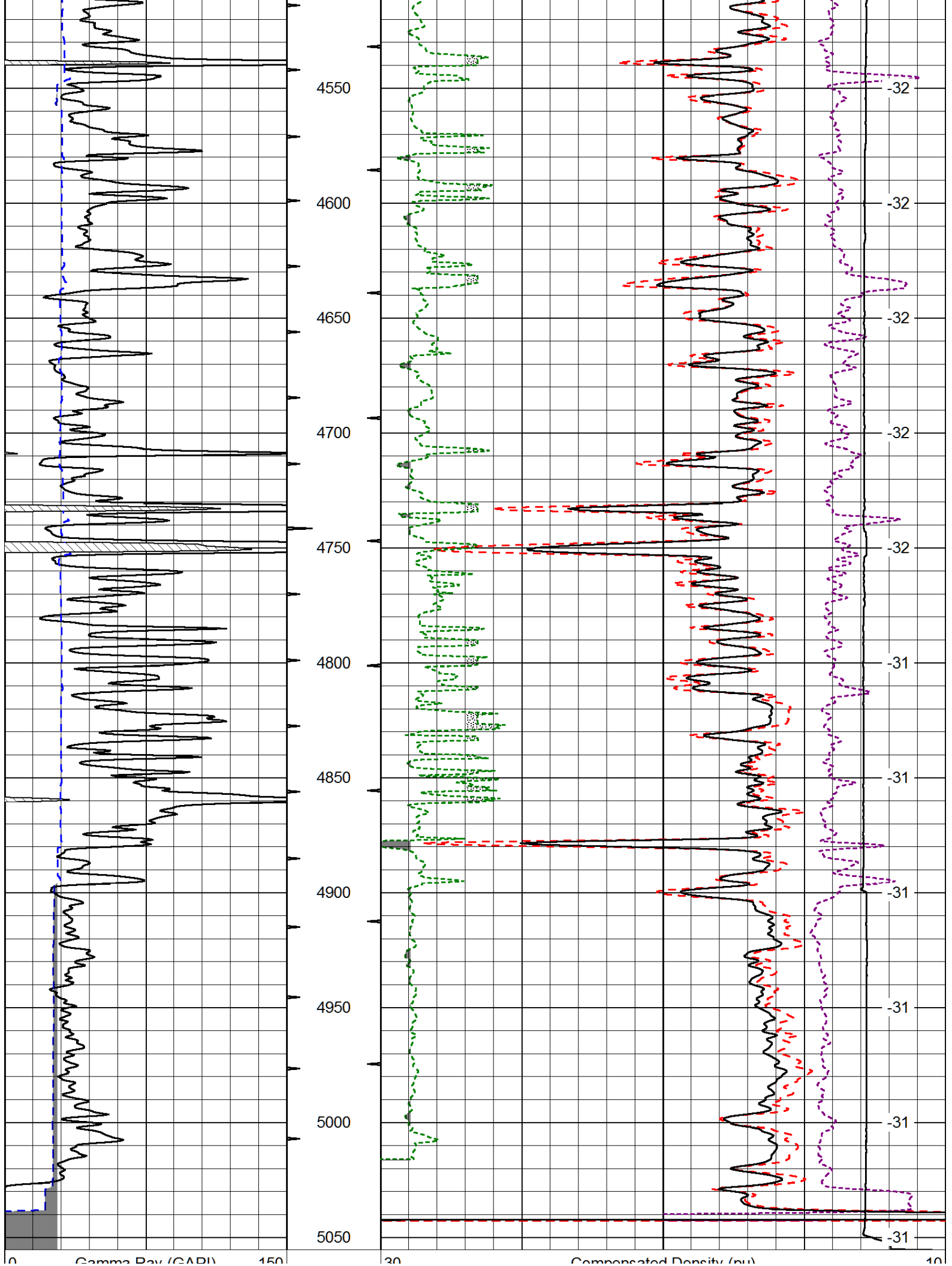
Database File: amwar_hd.db
Dataset Pathname: dil/amwmain
Presentation Format: cdl
Dataset Creation: Sat Aug 17 10:32:18 2013
Charted by: Depth in Feet scaled 1:600

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)





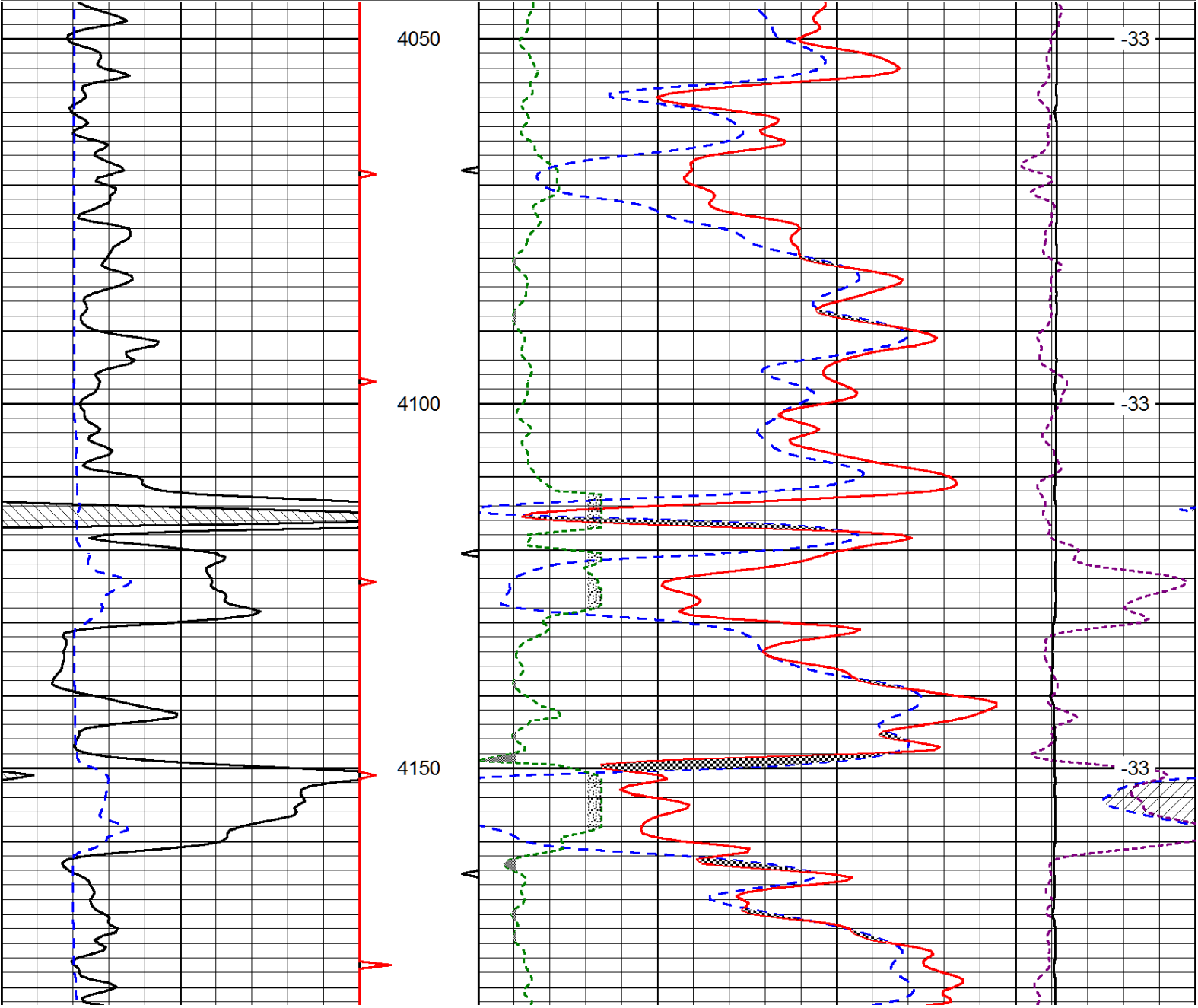
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

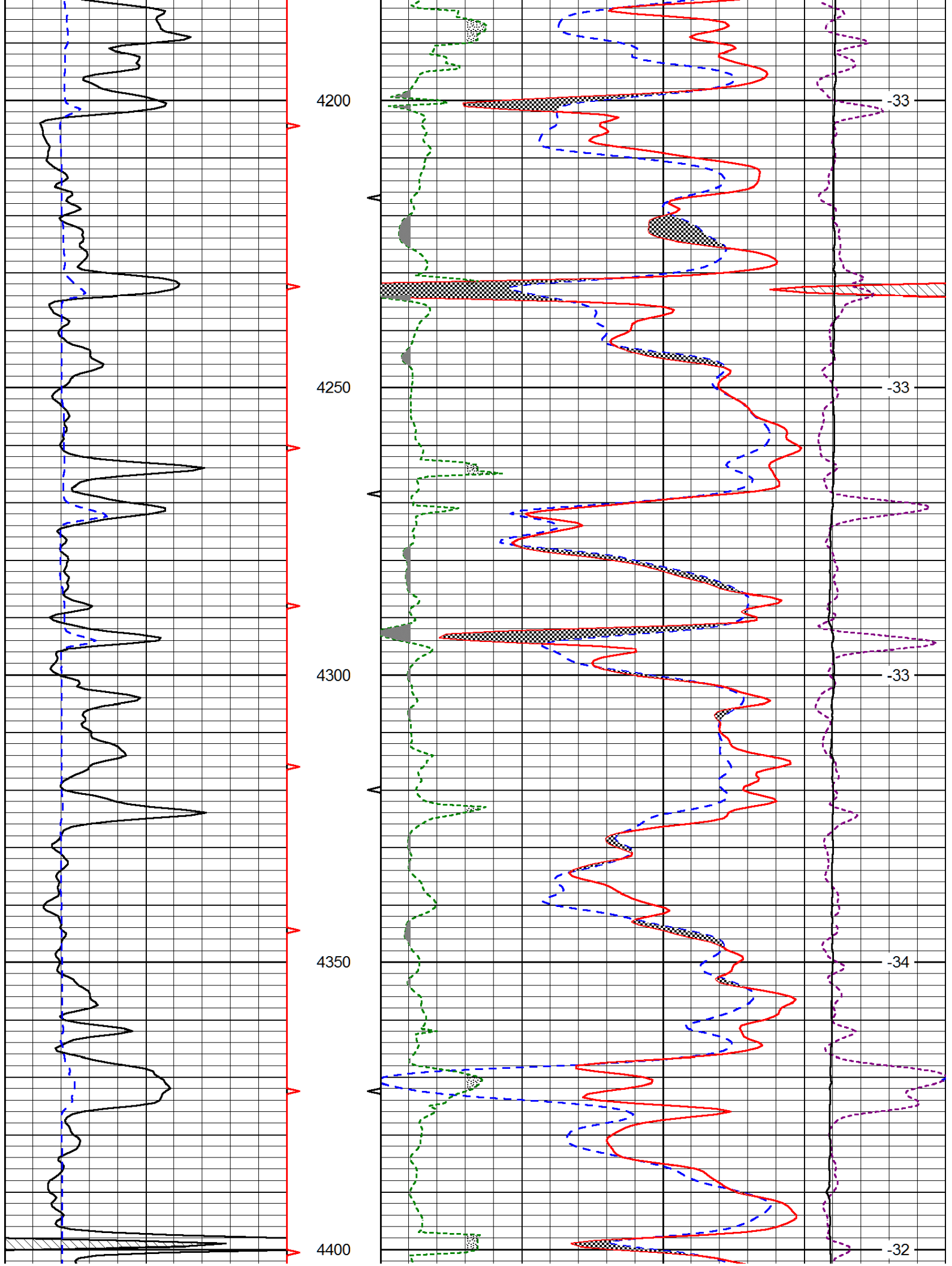
30	Compensated Density (pu)				-10
2	Bulk Density (g/cc)				3
15000	Line Tension (lb)				0
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
LSPD (ft/min)					

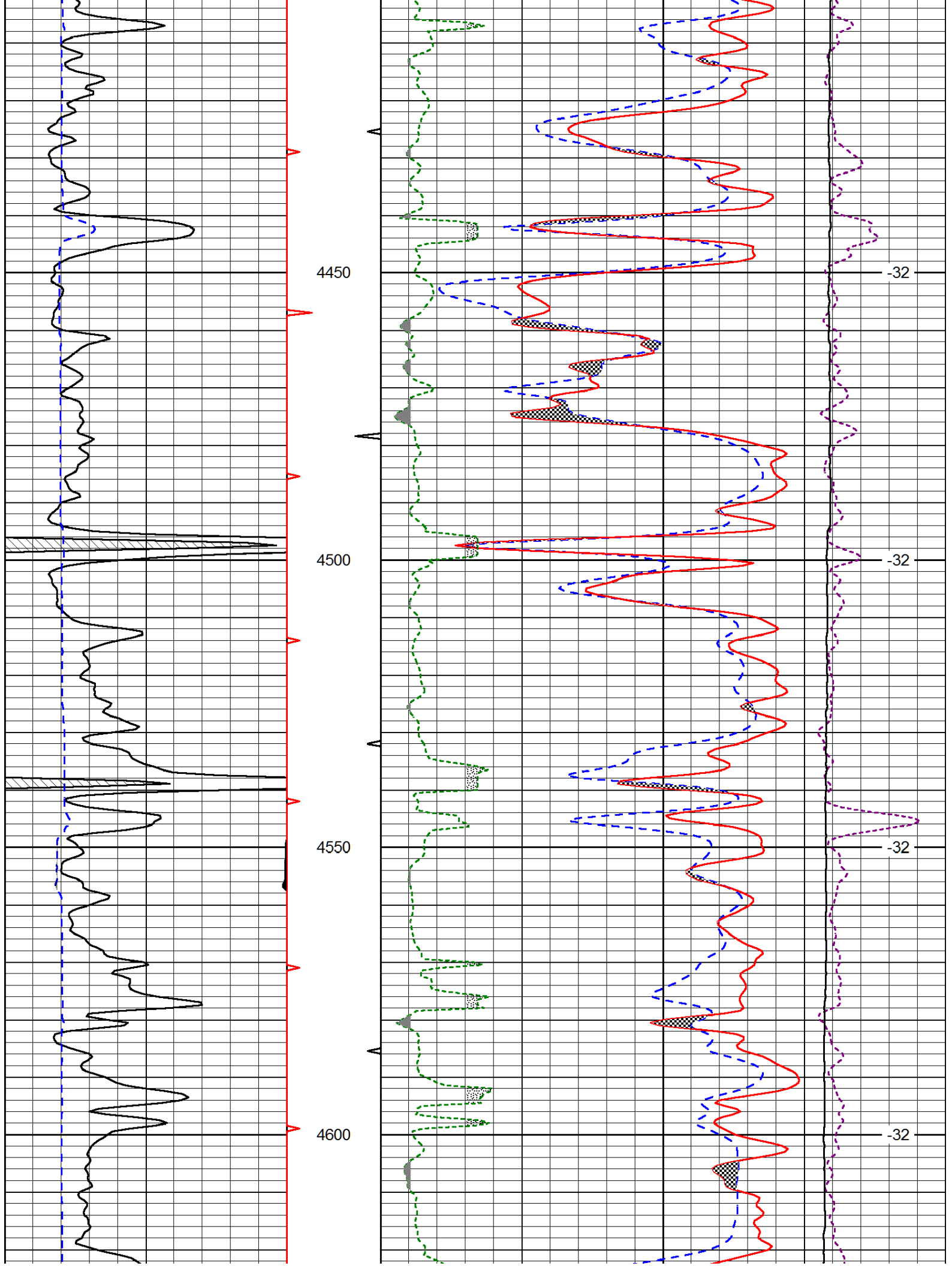
Database File:	amwar_hd.db
Dataset Pathname:	dil/amwmain
Presentation Format:	cnlspec
Dataset Creation:	Sat Aug 17 10:32:18 2013
Charted by:	Depth in Feet scaled 1:240

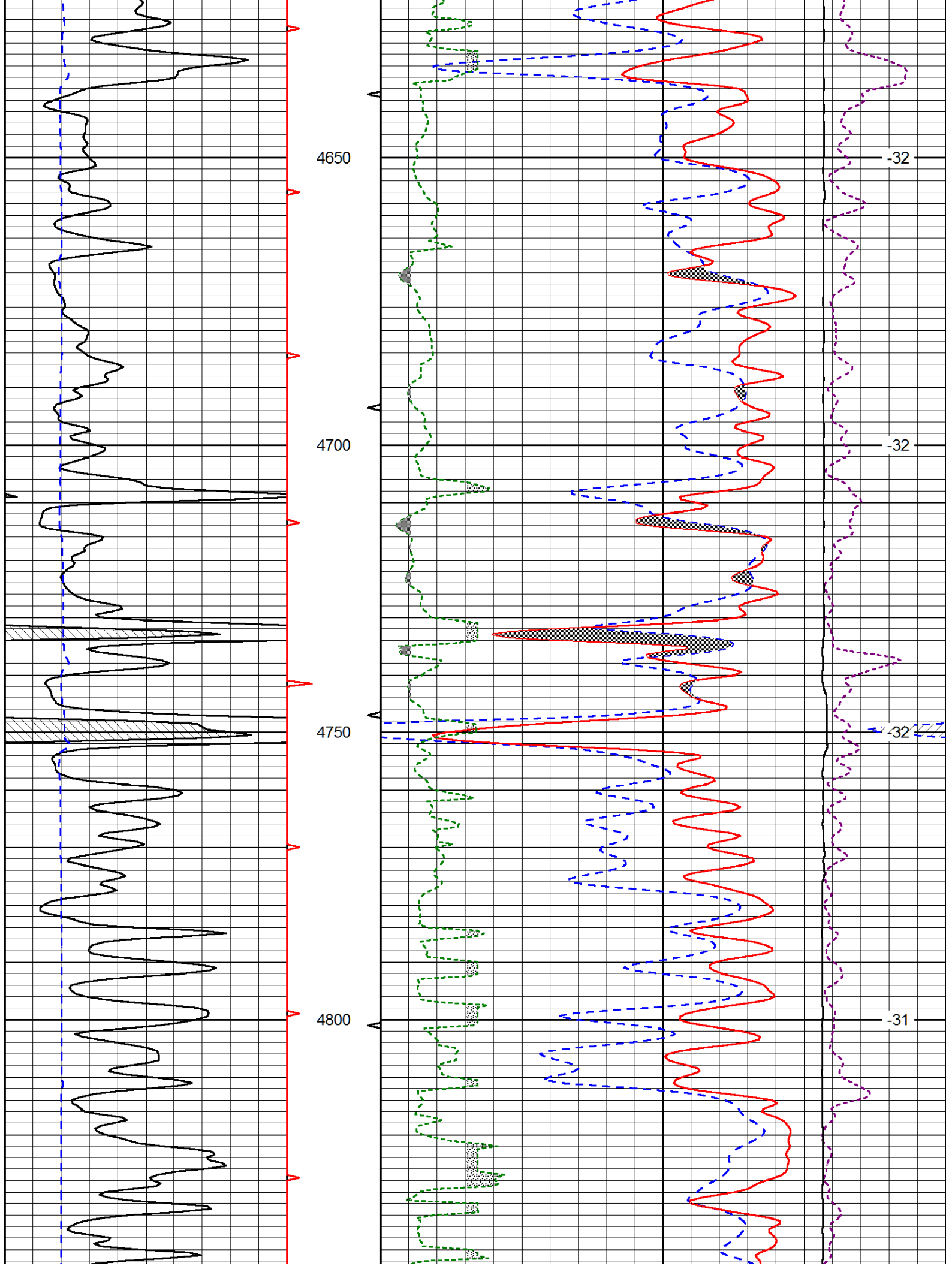
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

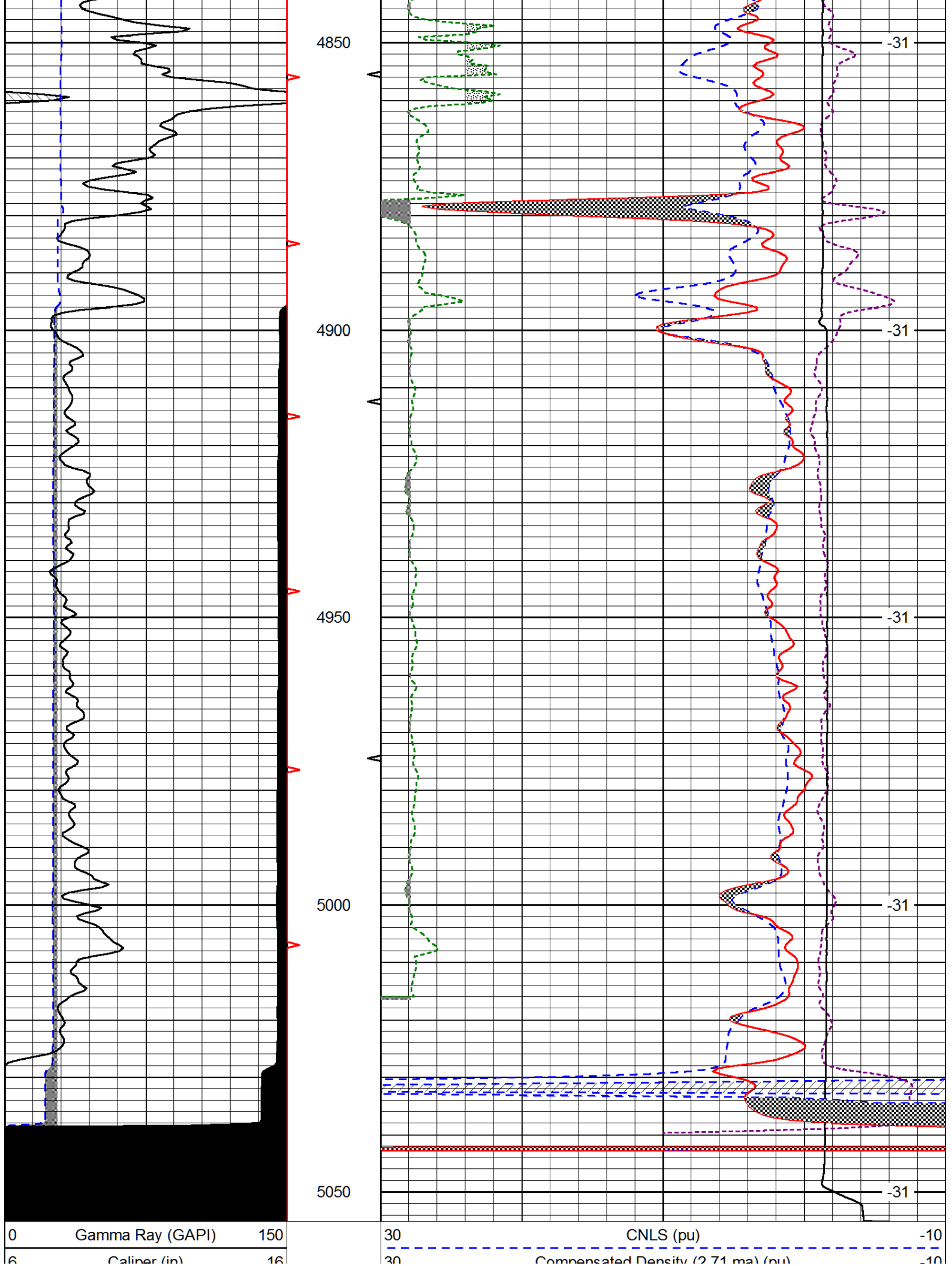
30	CNLS (pu)				-10
30	Compensated Density (2.71 ma) (pu)				-10
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)				0
					LSPD (ft/min)











Caliper (in)		Compensated Density (2.71 ma) (pd)	
2.625	DGA (g/cc)	3.425	-0.25
Correction (g/cc)		0.25	
10000		Line Tension (lb)	
		0	
		LSPD	
		(ft/min)	