



Pioneer Energy Services

Dual Compensated Porosity Log

15-153-20,912-00-00

API No.

Company **Murfin Drilling Company, Inc.**

Well **Frisbie No.1-23**

Field

County **Rawlins**

State **Kansas**

Location

2310' FNL & 2310' FWL

Other Services
DIL
MEL/BHCS

Sec: **23**

Twp: **2S**

Rge: **36W**

Elevation

Permanent Datum **Ground Level** Elevation **3295**

Log Measured From **Kelly Bushing** 10 Ft. Above Perm. Datum

K.B. 3305
D.F.
G.L. 3295

Date **11/30/2012**

Run Number **One**

Type Log **CNL / CDL**

Depth Driller **4990**

Depth Logger **4986**

Bottom Logged Interval **4965**

Top Logged Interval **3550**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **1,400**

Density **9.3**

Level **Full**

Max. Rec. Temp. F **126**

Operating Rig Time **5 Hours**

Equipment -- Location **17 Hays**

Recorded By **C. Desaire**

Witnessed By **Rocky Milford**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	391	8.625	24#	00	391
2	7.875	391	4990				

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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

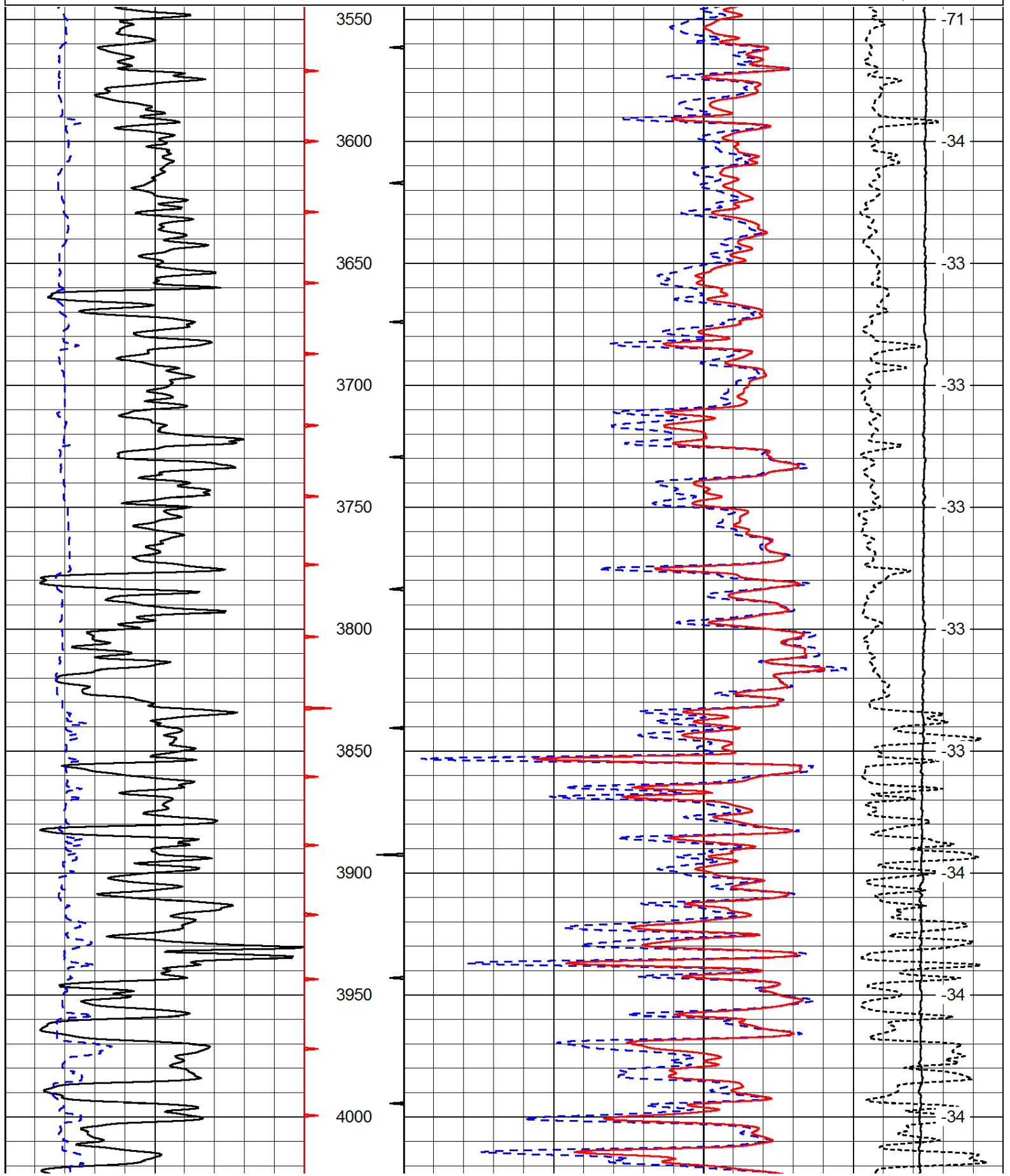
Thank you for using Pioneer Energy Services
www.pioneerenergy.com
 785 625 3858

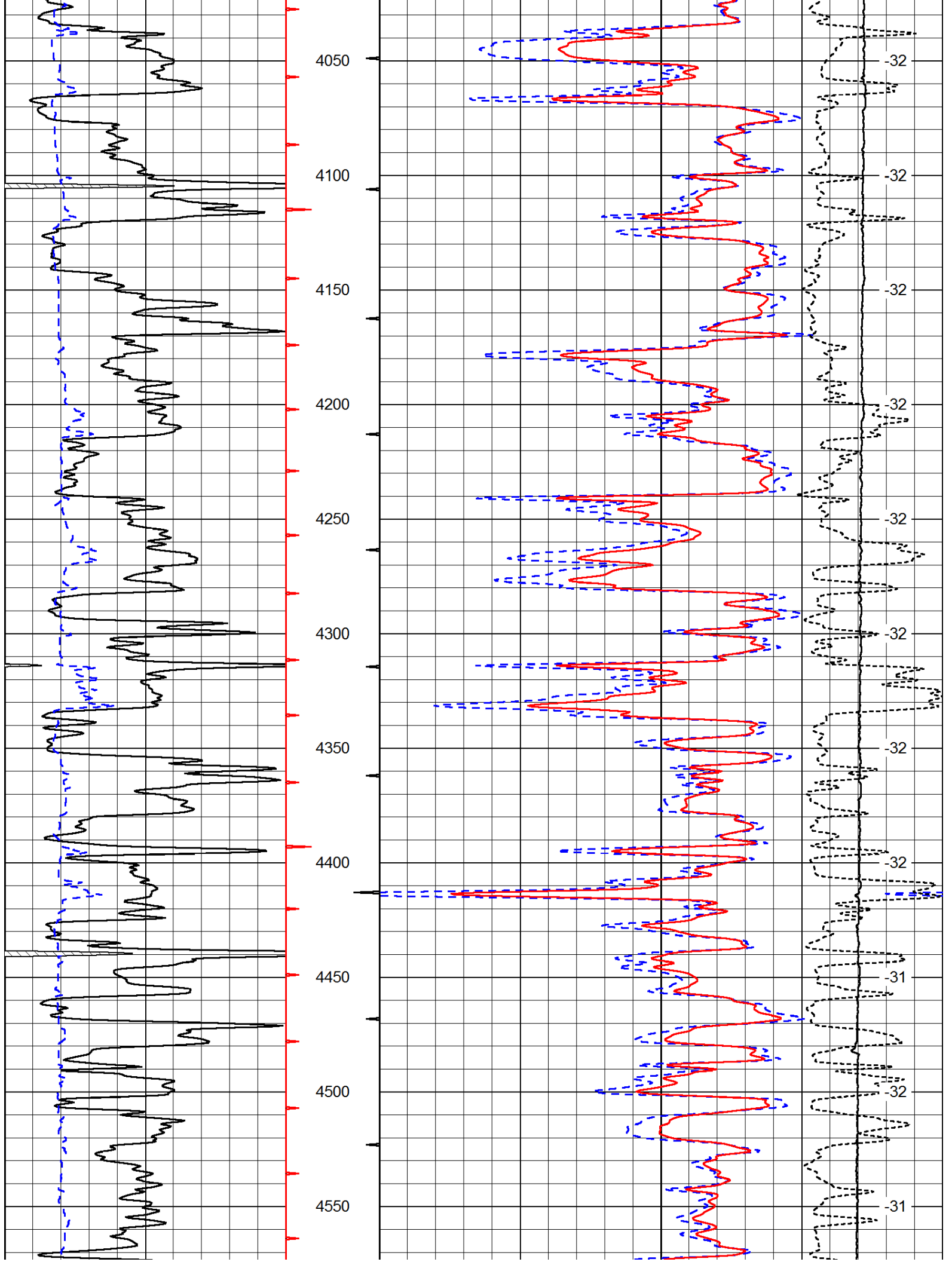
Atwood KS, 16 W to 5 Rd,
 6 N to V Rd, 1/2 E, S Into

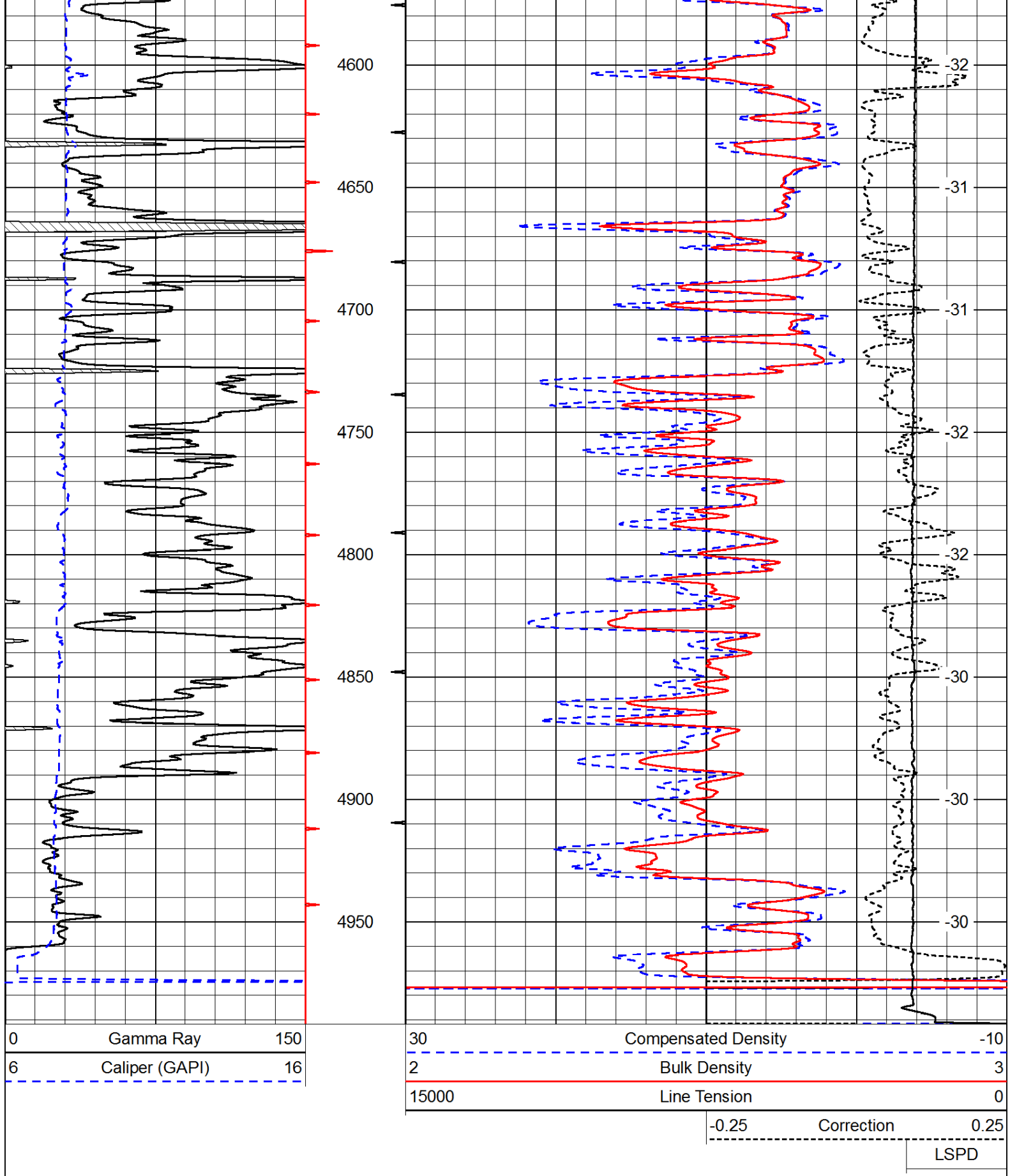
Database File: c:\warrior\data\murfin_frisbie #1-23\murfhd.db
 Dataset Pathname: dil\murfstk
 Presentation Format: cdl
 Dataset Creation: Fri Nov 30 17:56:53 2012
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Density	-10
2	Bulk Density	3
15000	Line Tension	0
-0.25	Correction	0.25
		LSPD







Database File: c:\warrior\data\murfin_frisbie #1-23\murfhd.db
 Dataset Pathname: dil/murfstk
 Presentation Format: cndlspec
 Dataset Creation: Fri Nov 30 17:56:53 2012
 Charted by: Depth in Feet scaled 1:240



Gamma Ray 150
6 Caliper (GAPI) 16

30 Compensated Neutron (Limestone) -10

15000 Line Tension 0

-0.25 Correction 0.25

LSPD

