



Pioneer Energy Services

Dual Compensated Porosity Log

15-065-24,031-00-00

API No.

Company **H&C Oil Operating, Inc.**
 Well **Miller #16-1**
 Field **Wildcat**
 County **Graham** State **Kansas**

Location **330' FNL & 1980' FEL**
 Sec: **16** Twp: **7S** Rge: **23W**

Other Services
 DIL
 MEL

Permanent Datum **Ground Level** Elevation **2458**
 Log Measured From **Kelly Bushing** **7** Ft. Above Perm. Datum
 Drilling Measured From **Kelly Bushing**

Elevation
 K.B. **2465**
 D.F.
 G.L. **2458**

Date	5/1/2014
Run Number	One
Type Log	CNL / CDL
Depth Driller	3982
Depth Logger	3983
Bottom Logged Interval	3962
Top Logged Interval	3400
Type Fluid In Hole	Chemical
Salinity, PPM CL	2,200
Density	9.4
Level	Full
Max. Rec. Temp. F	116
Operating Rig Time	4 Hours
Equipment -- Location	17 Hays
Recorded By	C. Desaire
Witnessed By	Marc Downing

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	263	8.625	24#	00	263
2	7.875	263	3982				

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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

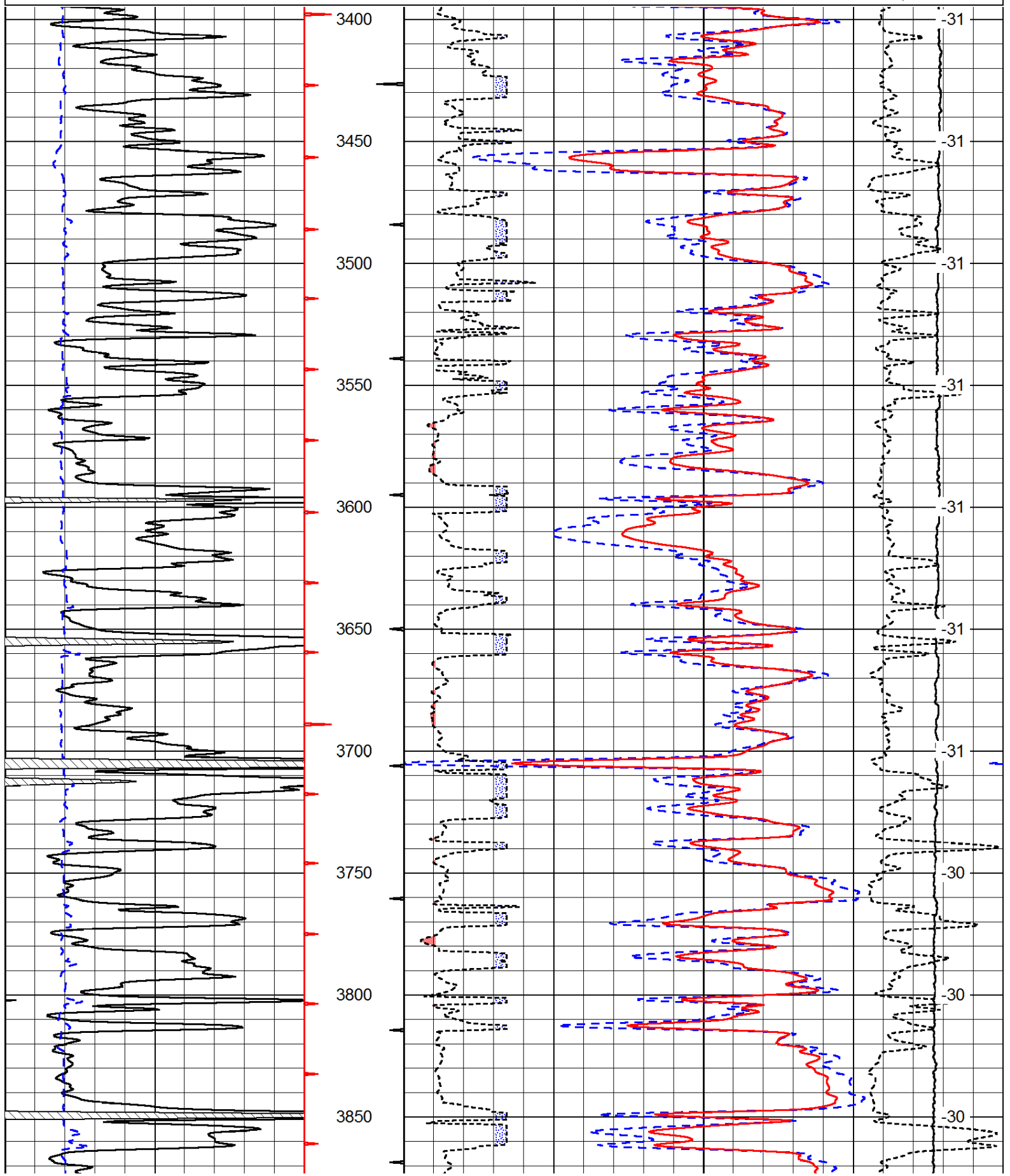
Thank you for using Pioneer Energy Services
www.pioneerenergy.com
 785 625 3858

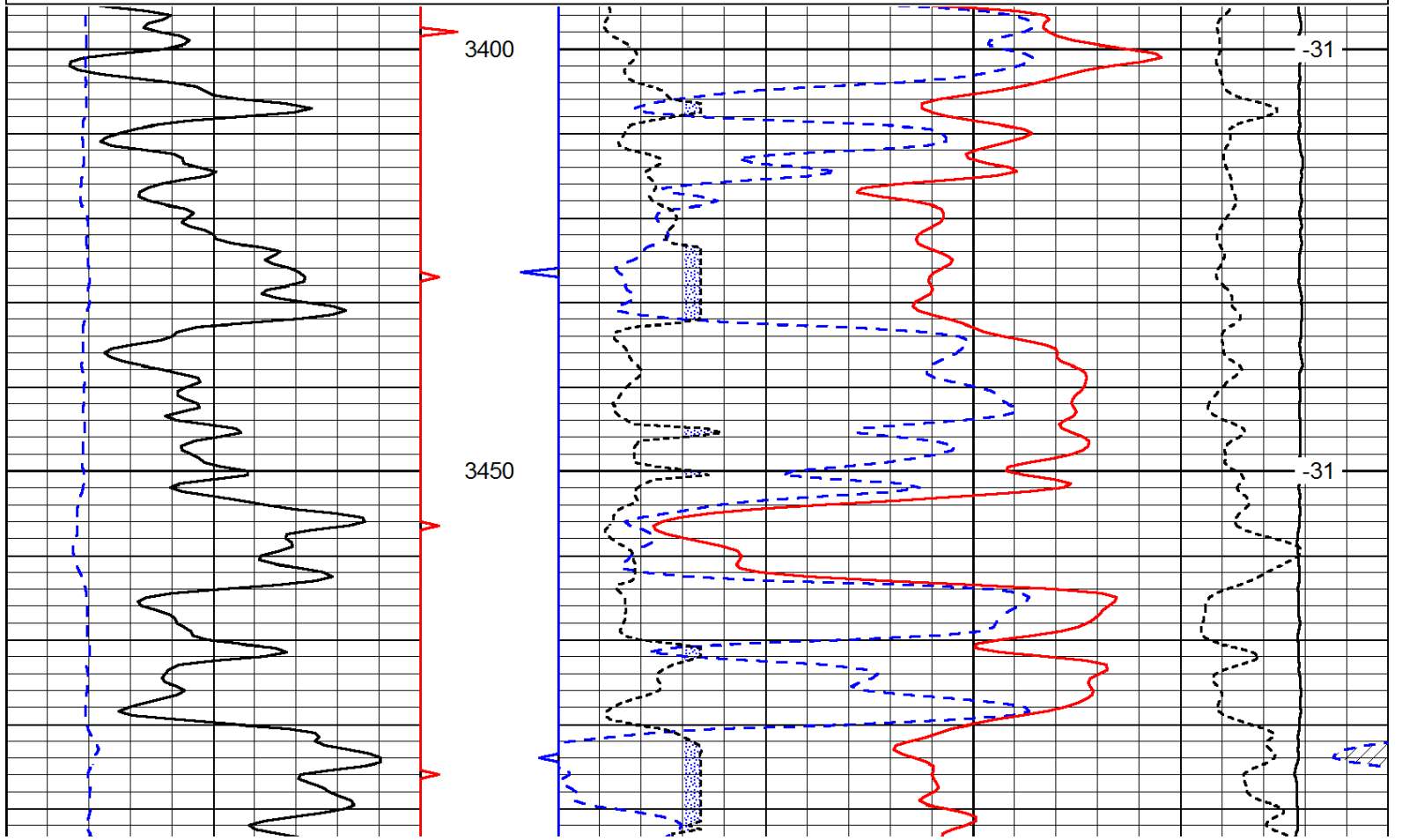
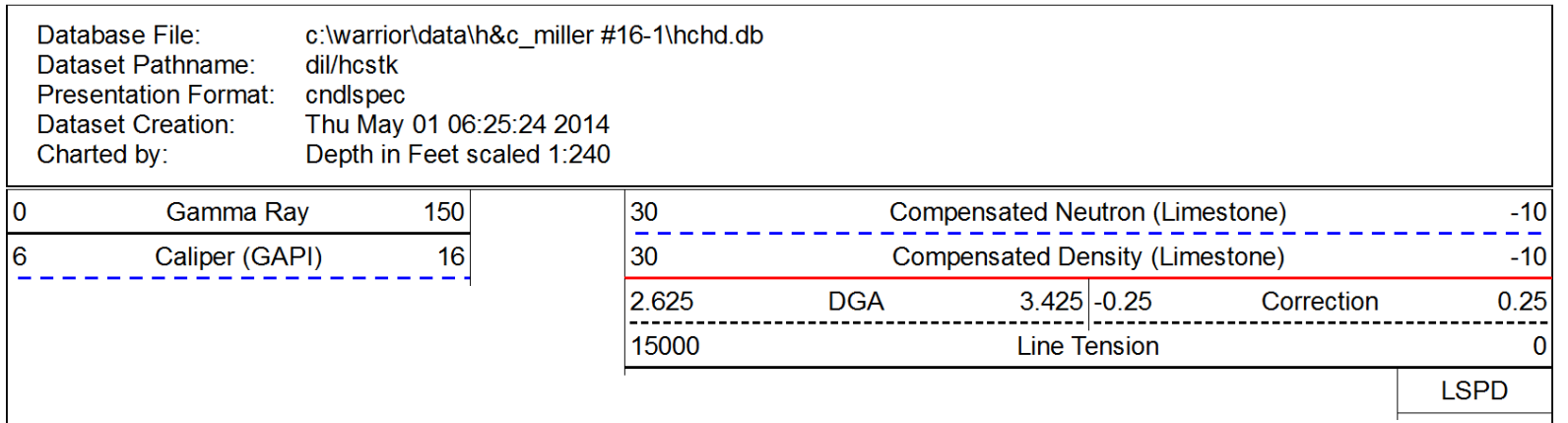
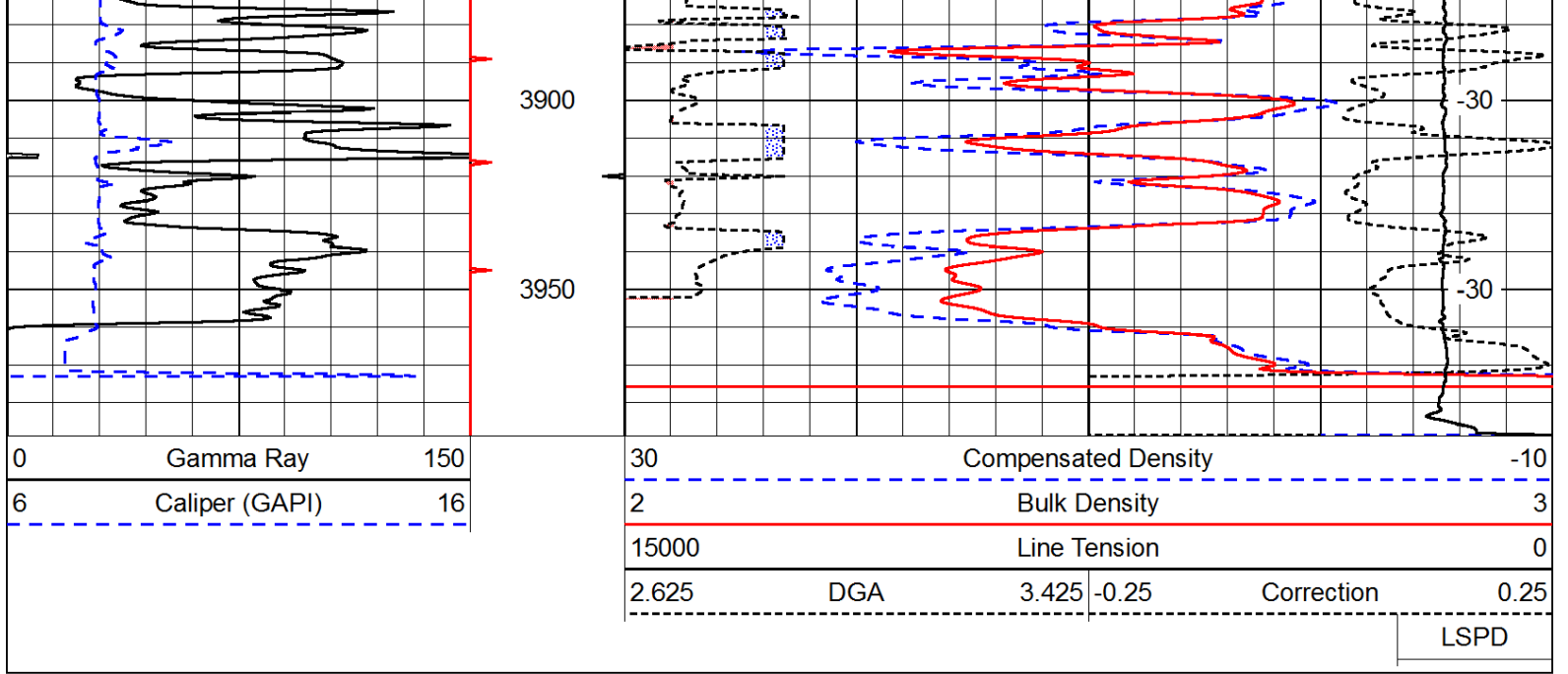
Hill City KS, 6 N to W Rd,
 2 1/2 W, S Into

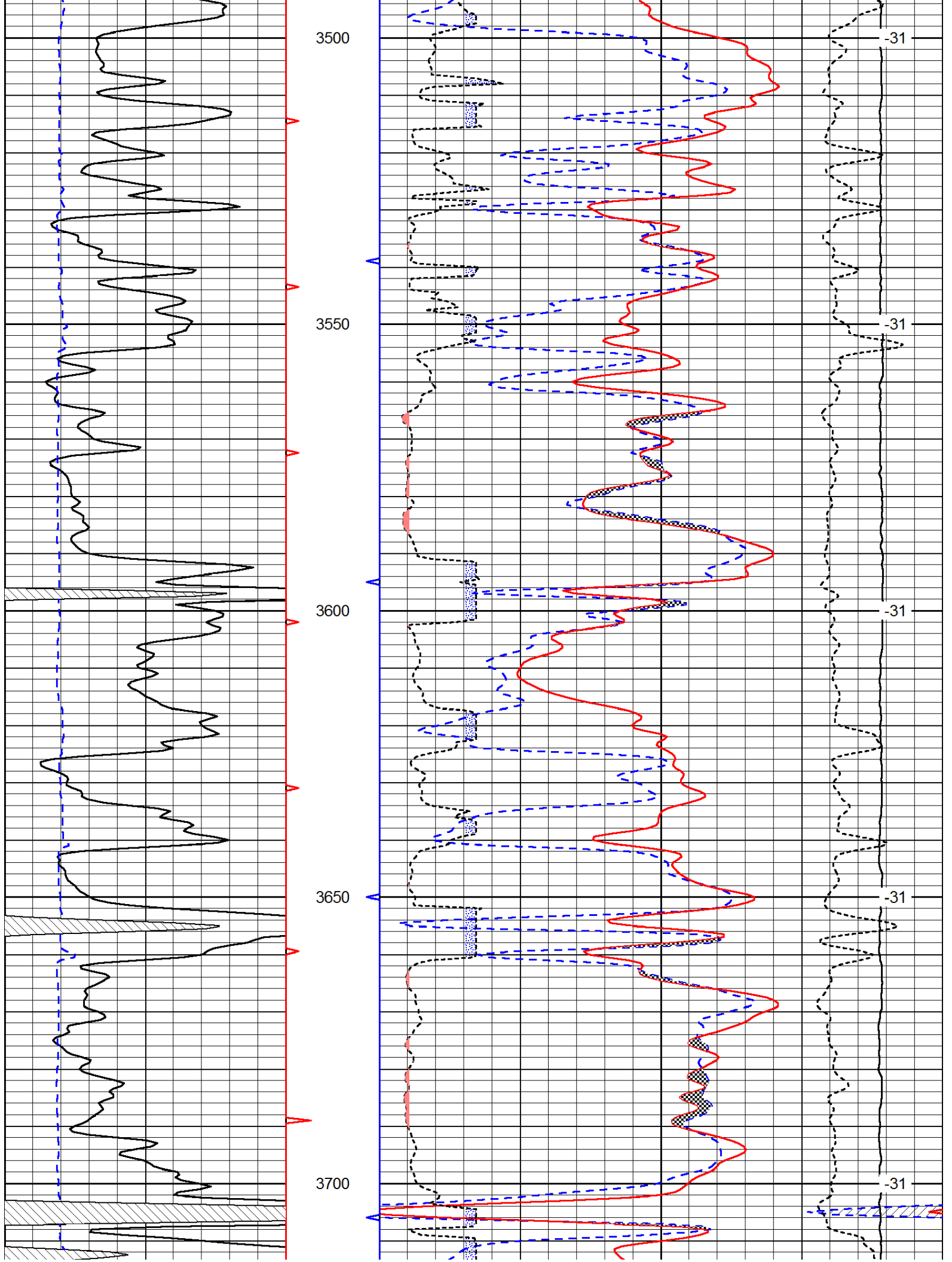
Database File: c:\warrior\data\h&c_miller #16-1\hchd.db
 Dataset Pathname: dil/hcstk
 Presentation Format: cdl
 Dataset Creation: Thu May 01 06:25:24 2014
 Charted by: Depth in Feet scaled 1:600

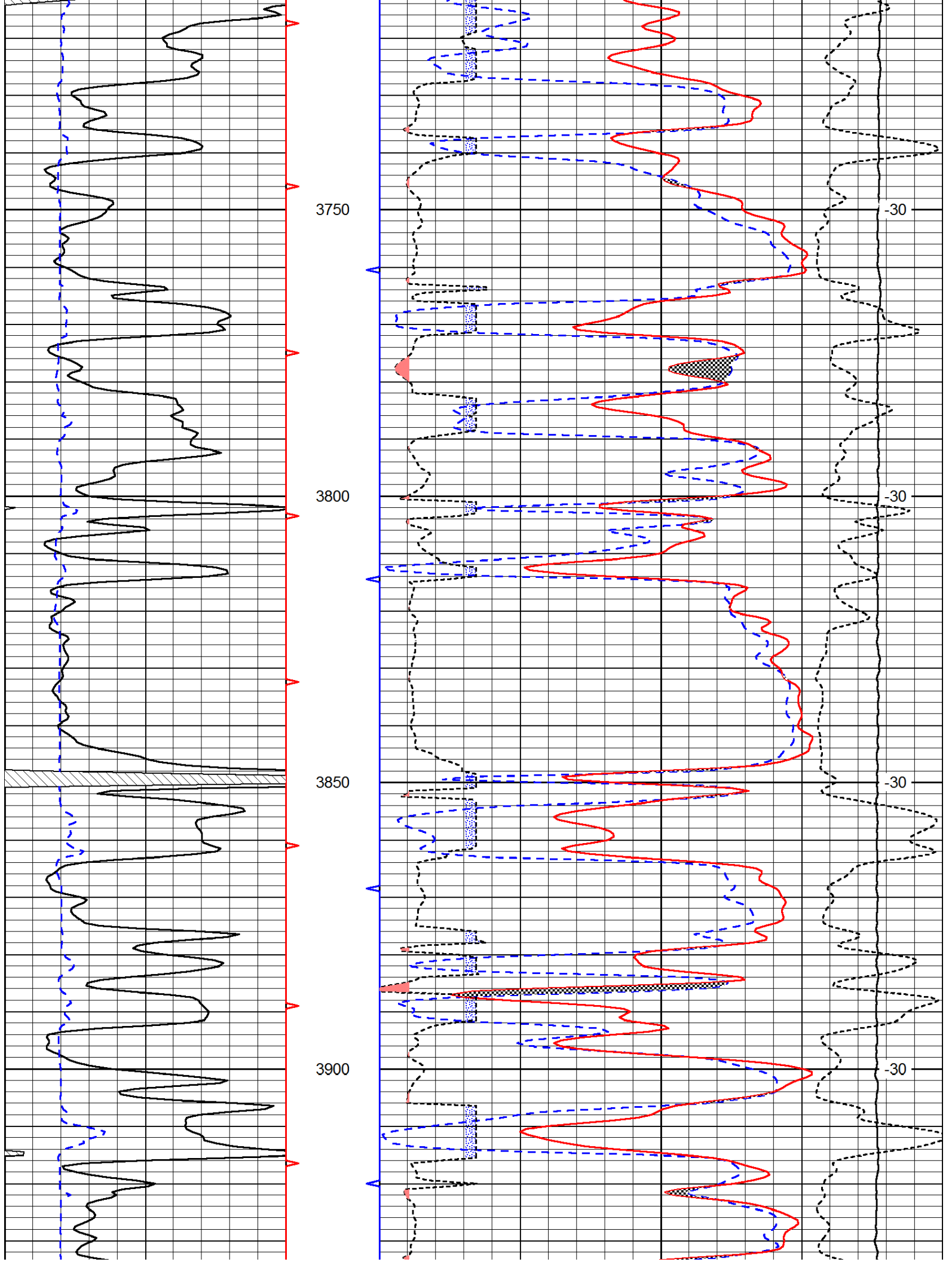
0	Gamma Ray	150
6	Caliper (GAPI)	16

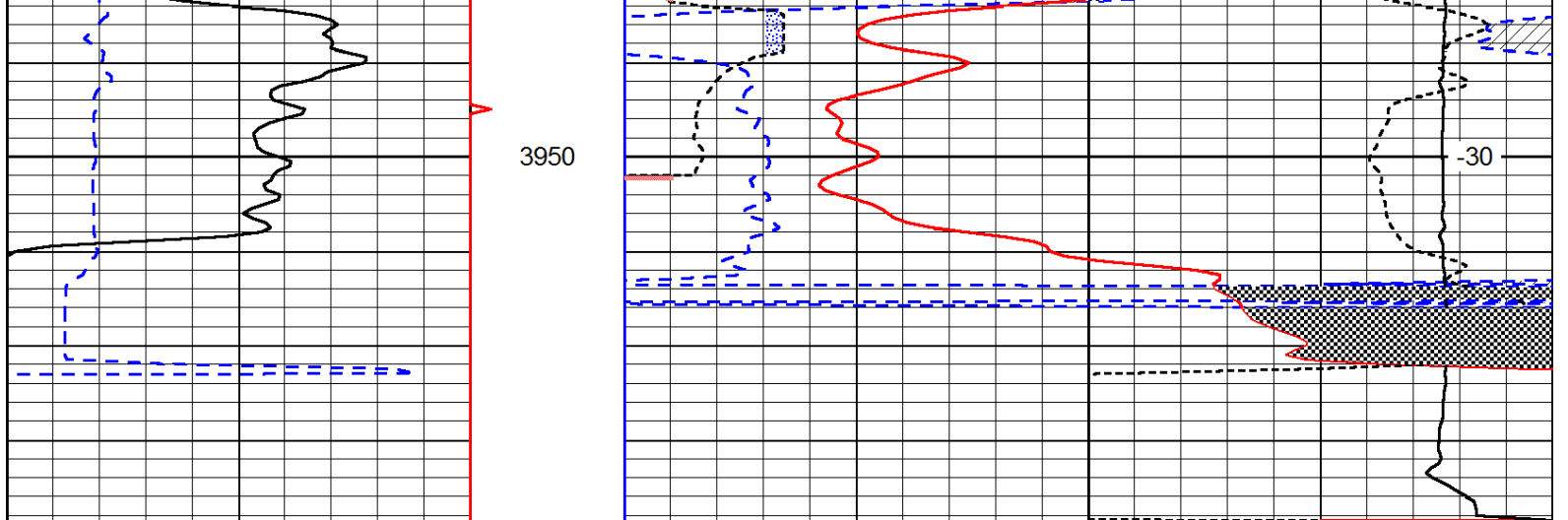
30	Compensated Density		-10
2	Bulk Density		3
15000	Line Tension		0
2.625	DGA	3.425	-0.25
Correction			0.25
LSPD			











0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Neutron (Limestone)			-10	
30	Compensated Density (Limestone)			-10	
2.625	DGA	3.425	-0.25	Correction	0.25
15000	Line Tension			0	

LSPD