



Dual Compensated Porosity Log

Pioneer Energy Services

API No.

15-101-22,551-00-00

Company **Cobalt Energy, LLC**
Well **Williams-Hess "A" #1-15**
Field **Paris West**
County **Lane** State **Kansas**

Location **330' FNL & 1250' FEL**

Sec: **15** Twp: **19S** Rge: **29W**

Other Services
DIL
MEL

Permanent Datum **Ground Level** Elevation **2821**
Log Measured From **Kelly Bushing** 12 Ft. Above Perm. Datum
Drilling Measured From **Kelly Bushing**

Elevation
K.B. 2833
D.F. G.L. 2821

Date **12/12/2014**

Run Number **One**

Type Log **CNL / CDL**

Depth Driller **4700**

Depth Logger **4702**

Bottom Logged Interval **4681**

Top Logged Interval **3700**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **2,200**

Density **9.3**

Level **Full**

Max. Rec. Temp. F **123**

Operating Rig Time **3 Hours**

Equipment -- Location **10 | Hays**

Recorded By **C. Desaire**

Witnessed By **Terry McCleod**

Borehole Record

Casing Record

Run No	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	265	8.625	24#	00	265
2	7.875	265	4700				

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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

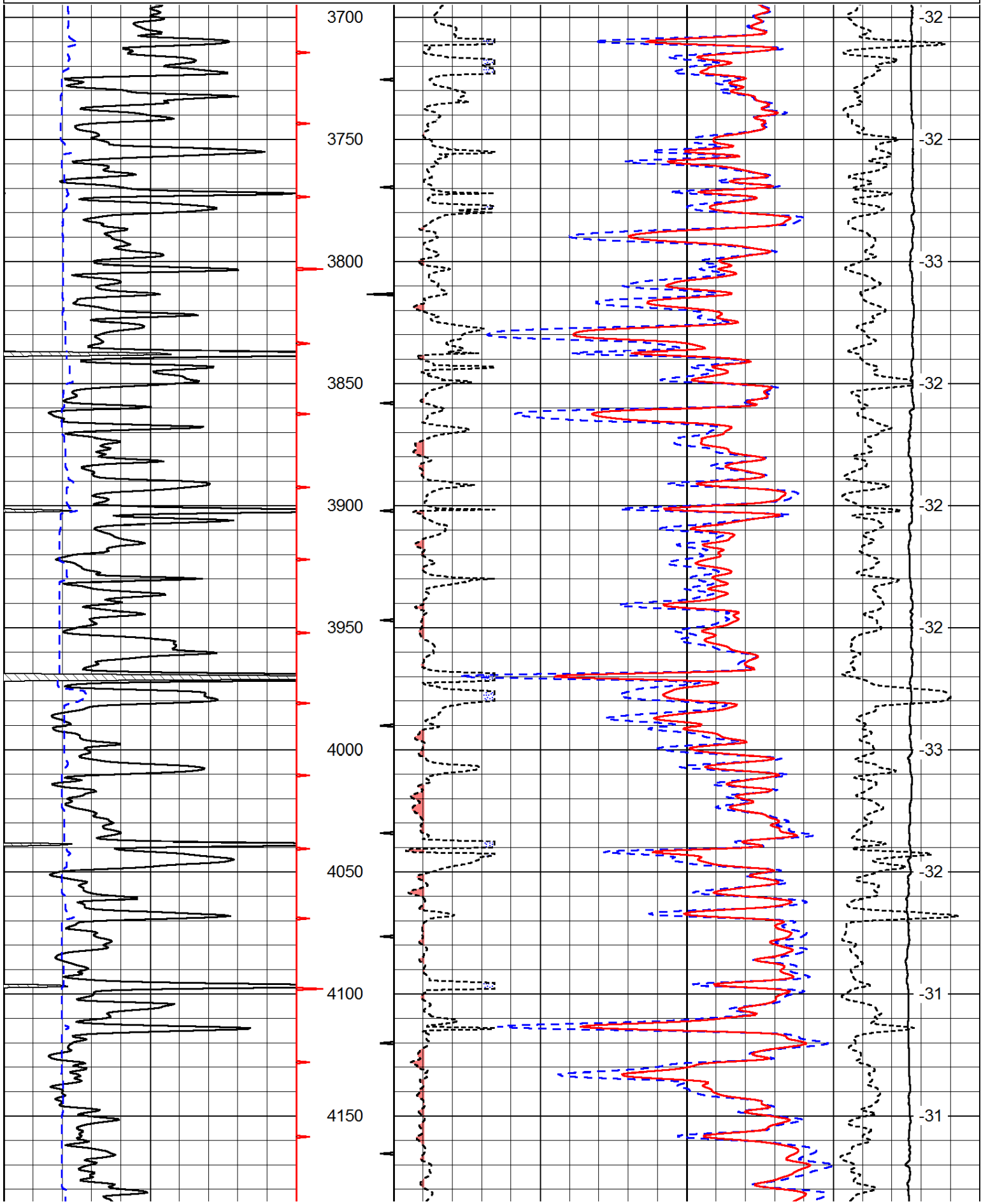
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

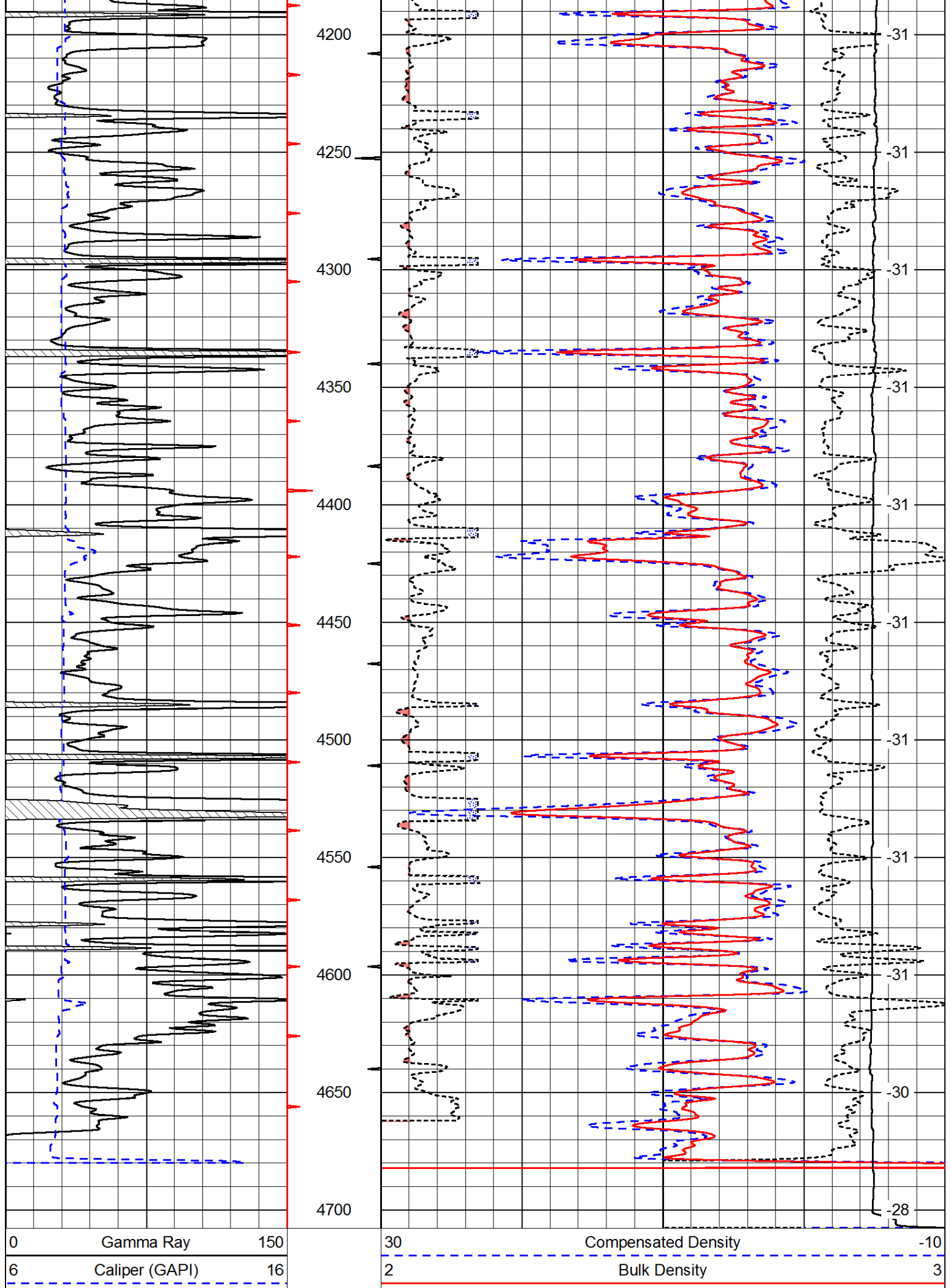
Dighton KS, 6 S to 90 Rd, 2 W, 1 N,
1/4 W, S Into

Database File: c:\warrior\data\cobalt_williams-hess a #1-15\cobhd.db
Dataset Pathname: dil/cobstk
Presentation Format: cdl
Dataset Creation: Fri Dec 12 23:23:47 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





			15000	Line Tension		0
			2.625	DGA	3.425 -0.25	Correction 0.25
						LSPD

Database File:	c:\warrior\data\cobalt_williams-hess a #1-15\cobhd.db
Dataset Pathname:	dil/cobstk
Presentation Format:	cndlspec
Dataset Creation:	Fri Dec 12 23:23:47 2014
Charted by:	Depth in Feet scaled 1:240

0	Gamma Ray	150	30	Compensated Neutron (Limestone)	-10
6	Caliper (GAPI)	16	30	Compensated Density (Limestone)	-10
			2.625	DGA	3.425 -0.25
					Correction 0.25
			15000	Line Tension	0
					LSPD

