



Pioneer Energy Services

Dual Compensated Porosity Log

15-135-25532-00-00

API No.

Company **Cobalt Energy, LLC**
 Well **Craig A # 1-27**
 Field **McDonald Northeast**
 County **Ness** State **Kansas**

Location

1860' FSL & 1190' FEL

Other Services
DIL

Sec: 27 Twp: 18 S Rge: 24 W

Permanent Datum Ground Level Elevation 2283
 Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing

Elevation
K.B. 2288
D.F. 2283
G.L. 2283

Date	3/07/2013	
Run Number	One	
Type Log	CNL / CDL	
Depth Driller	4400	
Depth Logger	4402	
Bottom Logged Interval	4381	
Top Logged Interval	3300	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	5500	
Density Level	9.5	
Level	Full	
Max. Rec. Temp. F	122	
Operating Rig Time	3 Hours	
Equipment -- Location	91 Hays	
Recorded By	Y. Ruiz	
Witnessed By	Rocky Milford	
	D. Schmidt	

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	220	8.625	24#	00	220
2	7.875	220	4400				

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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.

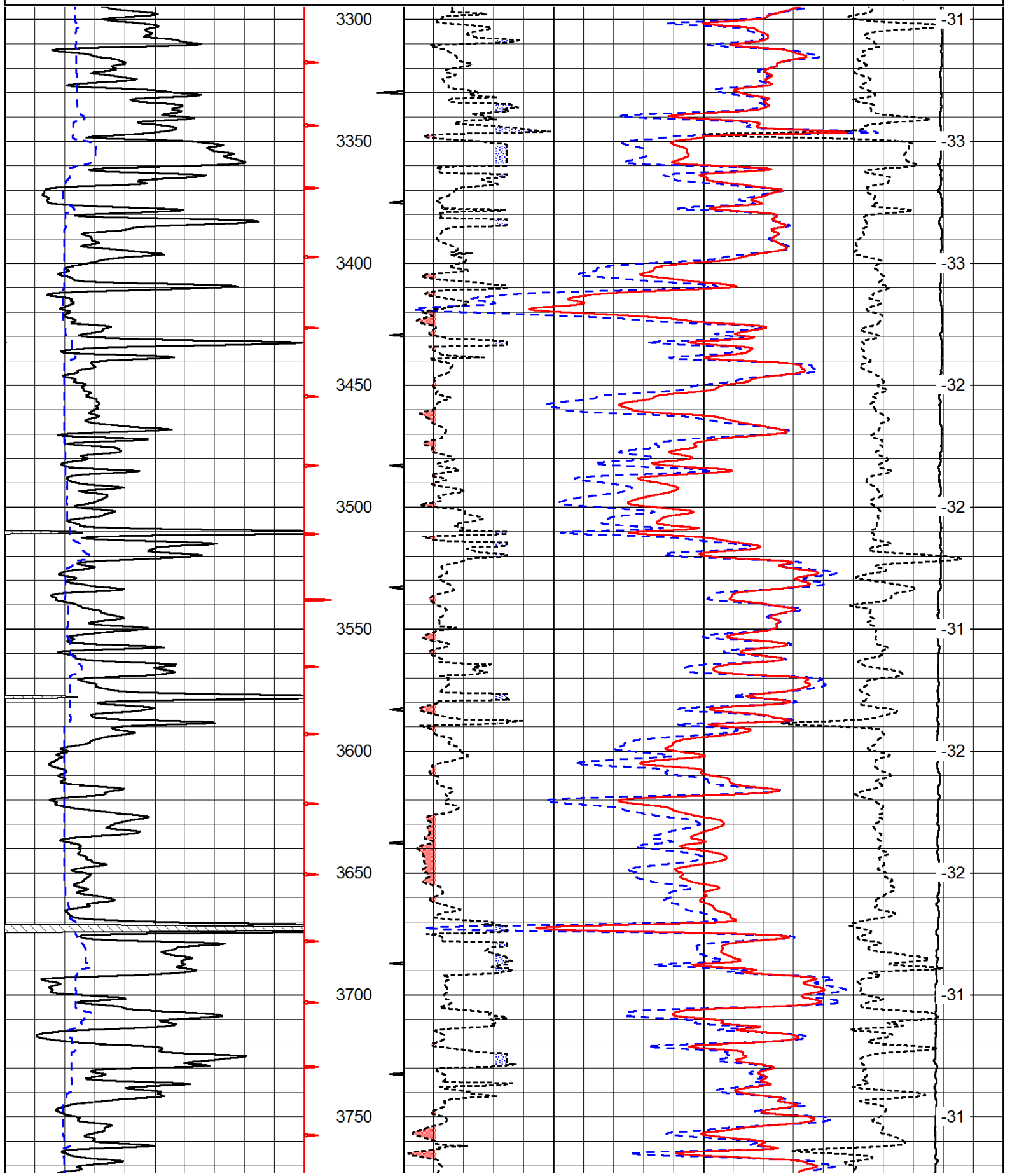
Comments

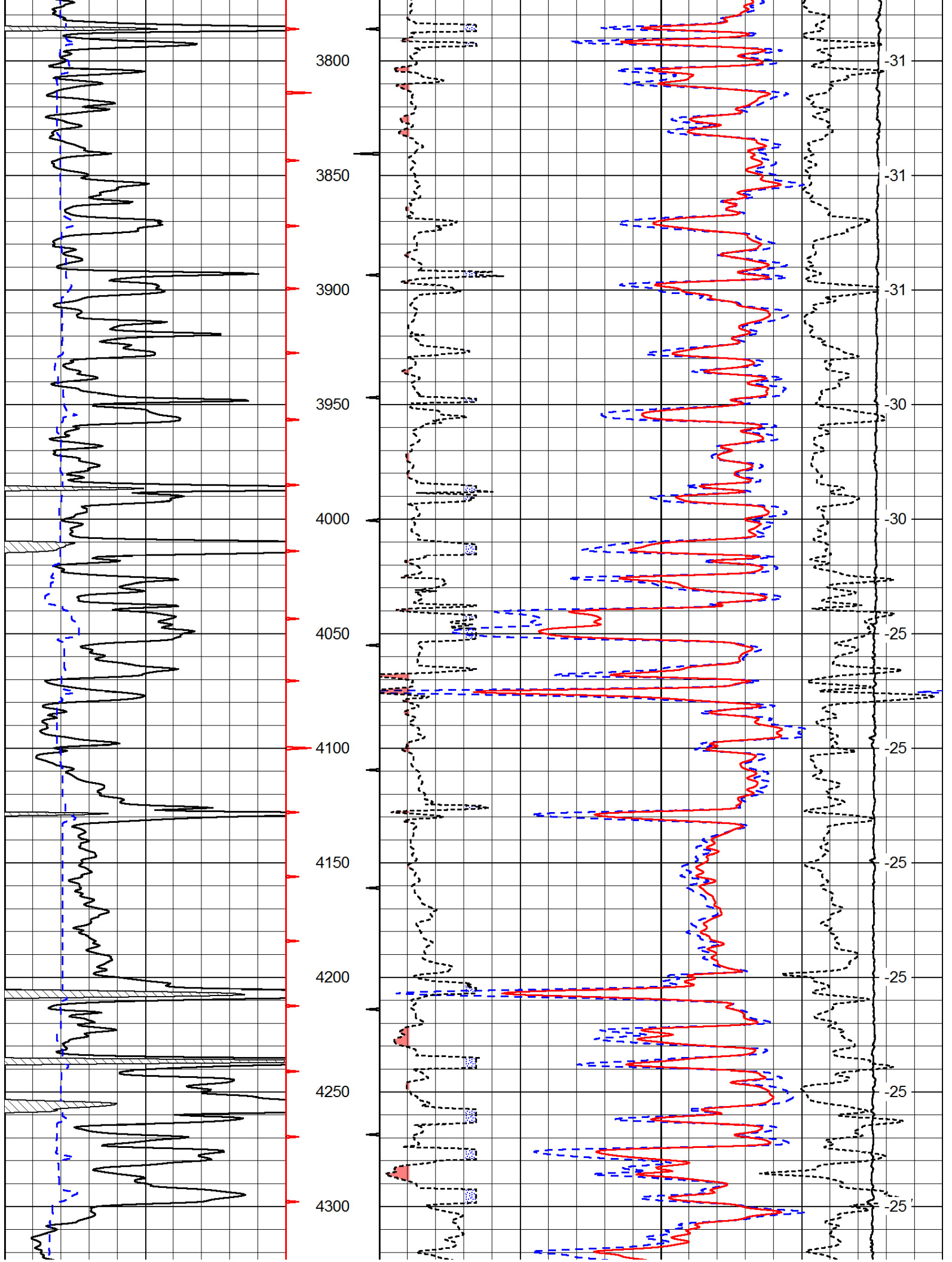
Thank you for using Pioneer Energy Services
 www.pioneer.com
 785 625 3858
 Ness City,
 2 1/2 West to P Rd, 1/4 North,
 West and South Into

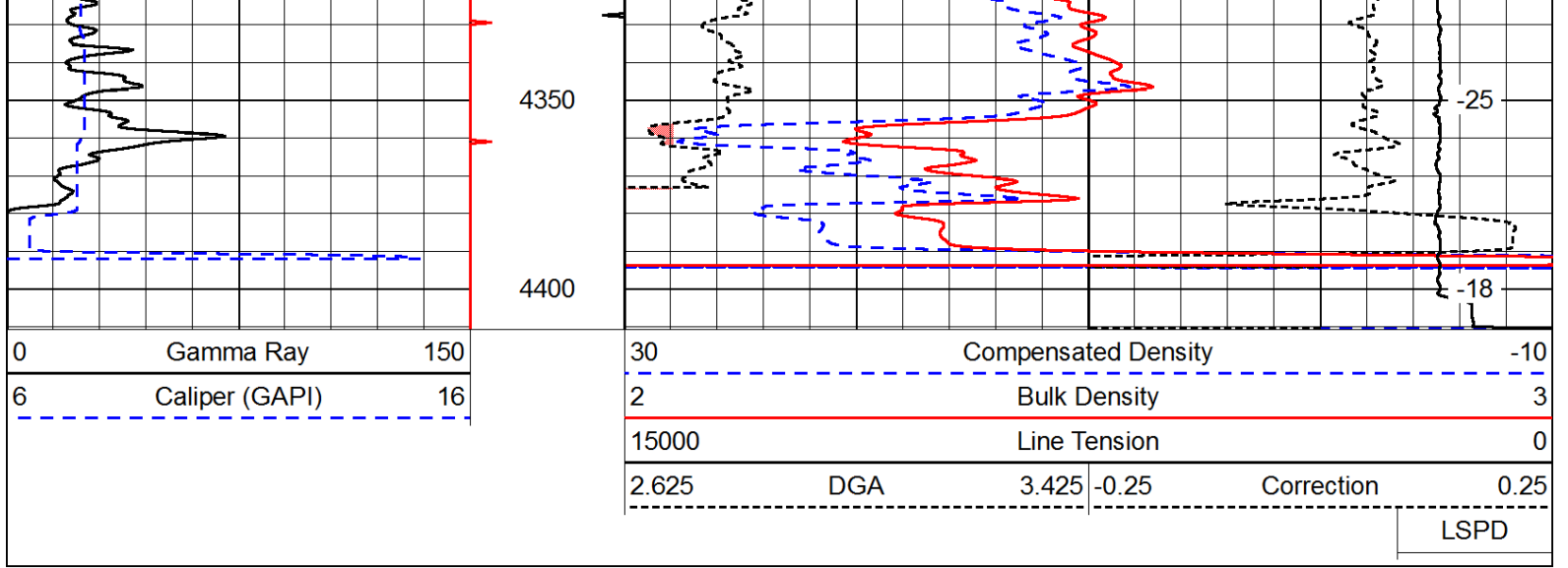
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 Dataset Pathname: DIL\colstk
 Presentation Format: cdl
 Dataset Creation: Thu Mar 07 03:23:42 2013
 Charted by: Depth in Feet scaled 1:600

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
			LSPD







Database File: c:\warrior\data\cobalt_craig a # 1-27\cobalt_030713hd.db
 Dataset Pathname: DIL/colstk
 Presentation Format: cndlspec
 Dataset Creation: Thu Mar 07 03:23:42 2013
 Charted by: Depth in Feet scaled 1:240

