



Pioneer Energy Services

Borehole Compensated Sonic Log

15-065-24046-00-00

API No. **Company** **Cobalt Energy, LLC**
Well **Wasinger Trust A #1-21**
Field **N/A**
County **Graham** **State** **Kansas**
Location **910' FSL & 1718' FWL**
Sec: 21 **Twp: 8S** **Rge: 22W**

Other Services
CNL/CDL
MEL/DIL

Permanent Datum **Ground Level** **Elevation 2184**
Log Measured From **Kelly Bushing** **5 Ft. Above Perm. Datum**
Drilling Measured From **Kelly Bushing**

Elevation
K.B. 2189
D.F. 2184
G.L. 2184

Date **06/10/2014**

Run Number **Two**

Type Log **BHC Sonic**

Depth Driller **3710**

Depth Logger **3707**

Bottom Logged Interval **3696**

Top Logged Interval **200**

Type Fluid In Hole **Chemical**

Salinity, PPM CL **1400**

Density **8.8**

Level **Full**

Max. Rec. Temp. F **115**

Operating Rig Time **6 Hours**

Equipment -- Location **91 Hays**

Recorded By **M. Beougher**

Witnessed By **Corey Baker**

Borehole Record

Casing Record

Run No. **Bit** **From** **To** **Size** **Wgt.** **From** **To**

1 **12.25** **00** **221** **8.625** **24#** **00** **221**

2 **7.875** **221** **3710**

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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
Hill City,
South to Rd 4392, East to TH Ave,
South to O Rd, 1 1/4 East,
North into

Database File: c:\warrior\data\cobalt_wasinger trust a #1-21\cobalt_wasinger_1-21hd.db
Dataset Pathname: dil/costack
Presentation Format: sonic
Dataset Creation: Tue Jun 10 10:58:16 2014
Charted by: Depth in Feet scaled 1:240

Charted by:		Depth in Feet scaled 1:2.15						
0	Gamma Ray	150	Sonic Int	140	Delta Time (usec/ft)	40		
150	Gamma Ray	300		5	0	30	SPOR	-10
6	Caliper (GAPI)	16				15000	LTEN (lb)	0
							LSPD	

































