PIONEER

Pioneer Energy Services

Microresistivity Log

API No. 15-065-24,022-00-00

Company Cobalt Energy, LLC.

Well KT Unit "A" #1-18

Field High Hill Northwest

County Graham State Kansas

Location 864' FNL & 1290' FEL

Sec: 18 Twp: 10S Rge: 24W

Other Services
CNL/CDL
DIL

Elevation
K.B. 2465
D.F.
G.L. 2456

Permanent Datum Ground Level Elevation 2456
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date	4/9/2014				
Run Number	Two				
Depth Driller	4050				
Depth Logger	4049				
Bottom Logged Interval	4048				
Top Log Interval	3600				
Casing Driller	8.625 @ 221				
Casing Logger	222				
Bit Size	7.875				
Type Fluid in Hole	Chemical				
Salinity,ppm CL	1700				
Density / Viscosity	9.1 57				
pH / Fluid Loss	10.5 6.0				
Source of Sample	Flowline				
Rm @ Meas. Temp	0.50 @ 80				
Rmf @ Meas. Temp	0.38 @ 80				
Rmc @ Meas. Temp	0.68 @ 80				
Source of Rmf / Rmc	Charts				
Rm @ BHT	0.34 @ 117				
Operating Rig Time	4 Hours				
Max. Rec. Temp. F	117				
Equipment Number	108				
Location	Hays				
Recorded By	D.Kerr				
Witnessed By	Corey Baker				

<<< Fold Here >>>

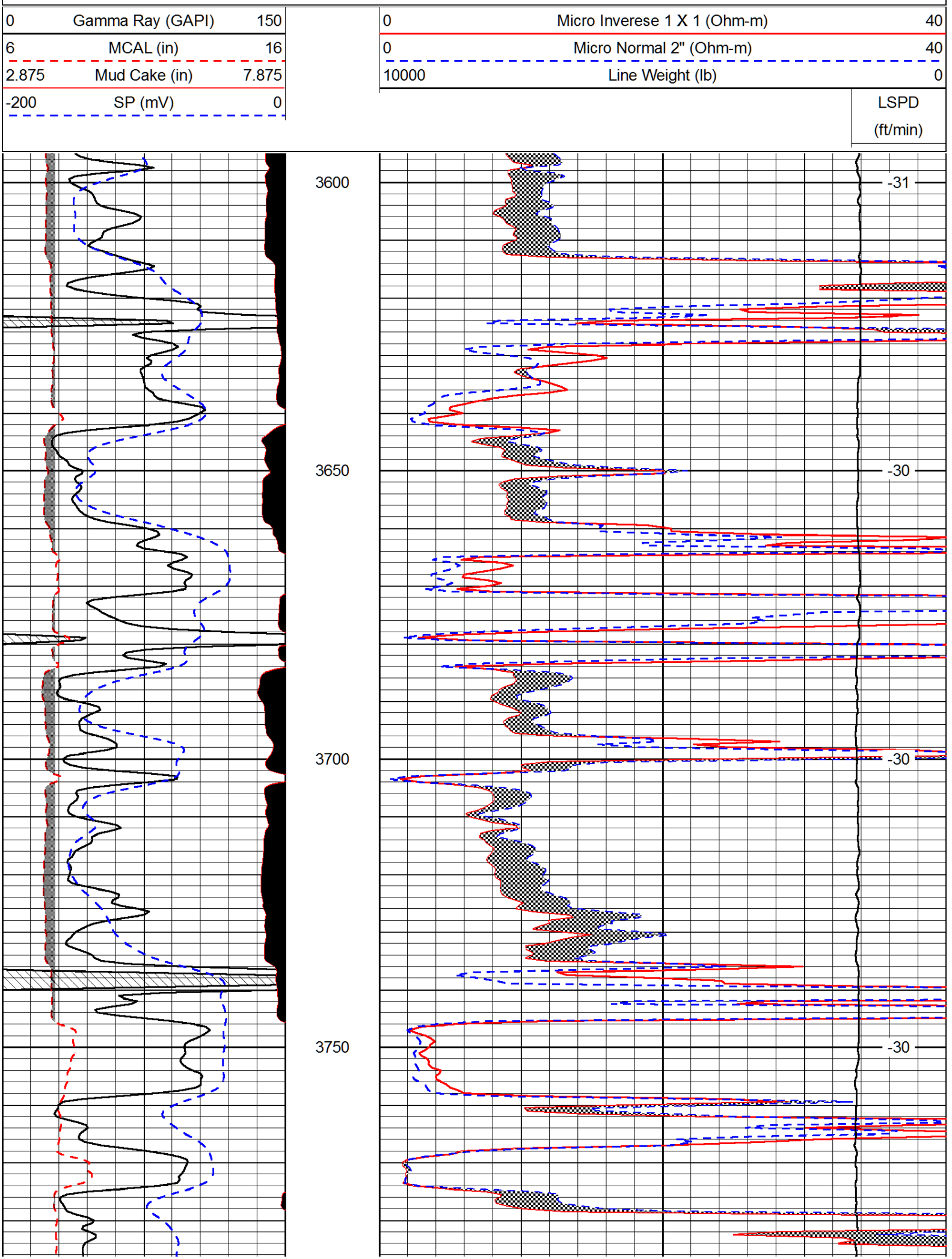
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

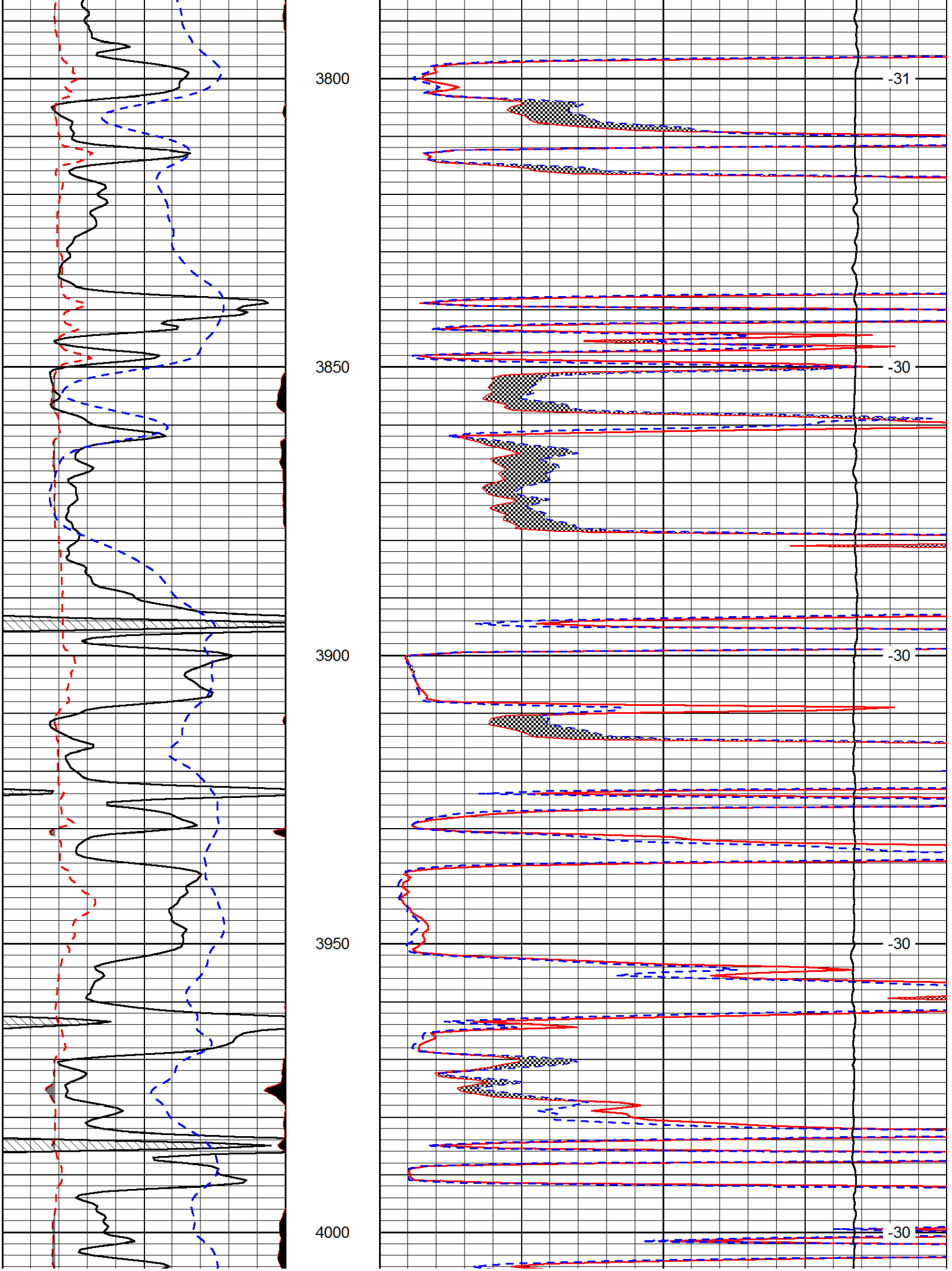
Comments

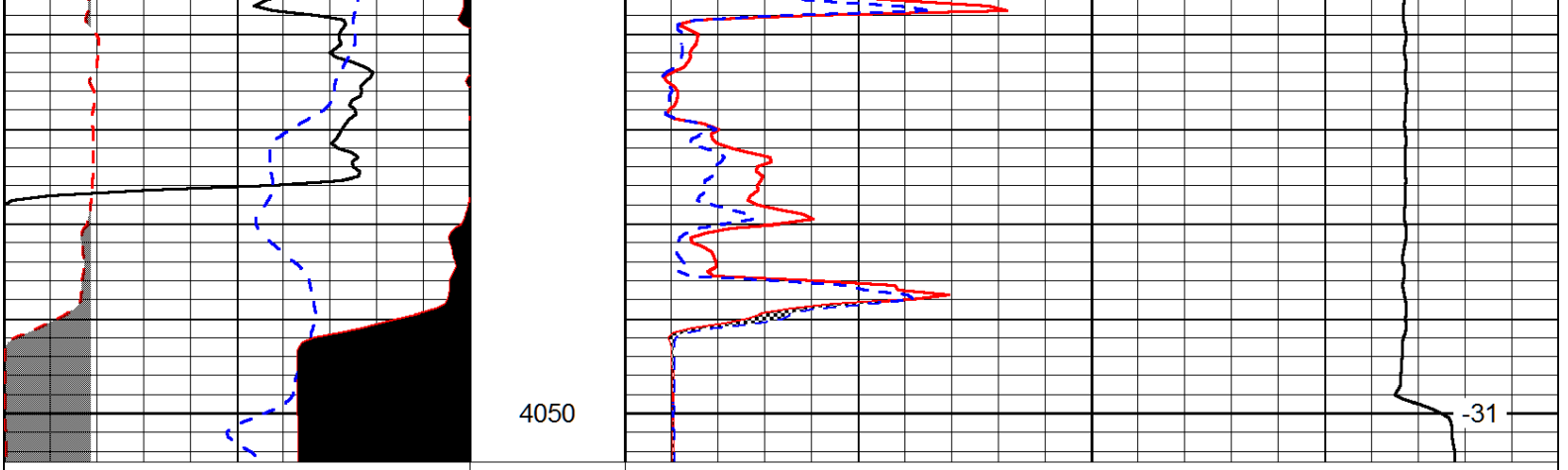
Thank you for using Log-Tech, Inc.
(785) 625-3858

Wakeeny KS, 10 North to C RD,
6 West, 2 North, 3 1/2 West, South Into

Database File:	cobalt_ktunit_a_1_18hd.db
Dataset Pathname:	DIL/cobstk
Presentation Format:	micro
Dataset Creation:	Wed Apr 09 15:08:35 2014
Charted by:	Depth in Feet scaled 1:240


0 Gamma Ray (GAPI) 150
6 MCAL (in) 16
2.875 Mud Cake (in) 7.875
-200 SP (mV) 0
0 Micro Inverese 1 X 1 (Ohm-m) 40
0 Micro Normal 2" (Ohm-m) 40
10000 Line Weight (lb) 0
LSPD (ft/min)
3600
3650
3700
3750
-31
-30
-30
-30


3800
-31
3850
-30
3900
-30
3950
-30
4000
-30



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2.875	Mud Cake (in)	7.875
-200	SP (mV)	0

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0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

LSPD
(ft/min)