PIONEER

Pioneer Energy Services

Dual Compensated Porosity 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: DIL/MEL

Permanent Datum	Ground Level	Elevation 2456	Elevation
Log Measured From	Kelly Bushing	9 Ft. Above Perm. Datum	K.B. 2465
Drilling Measured From	Kelly Bushing		D.F.
			G.L. 2456

Date	4/9/2014								
Run Number	One								
Type Log	CNL / CDL								
Depth Driller	4050								
Depth Logger	4049								
Bottom Logged Interval	4028								
Top Logged Interval	3600								
Type Fluid In Hole	Chemical								
Salinity, PPM CL	1700								
Density	9.1								
Level	Full								
Max. Rec. Temp. F	117								
Operating Rig Time	4 Hours								
Equipment -- Location	108 Hays								
Recorded By	D.Kerr								
Witnessed By	Corey Baker								

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	221	8.625	23#	00	221
Two	7.875	221	TD				

<<< Fold Here >>>

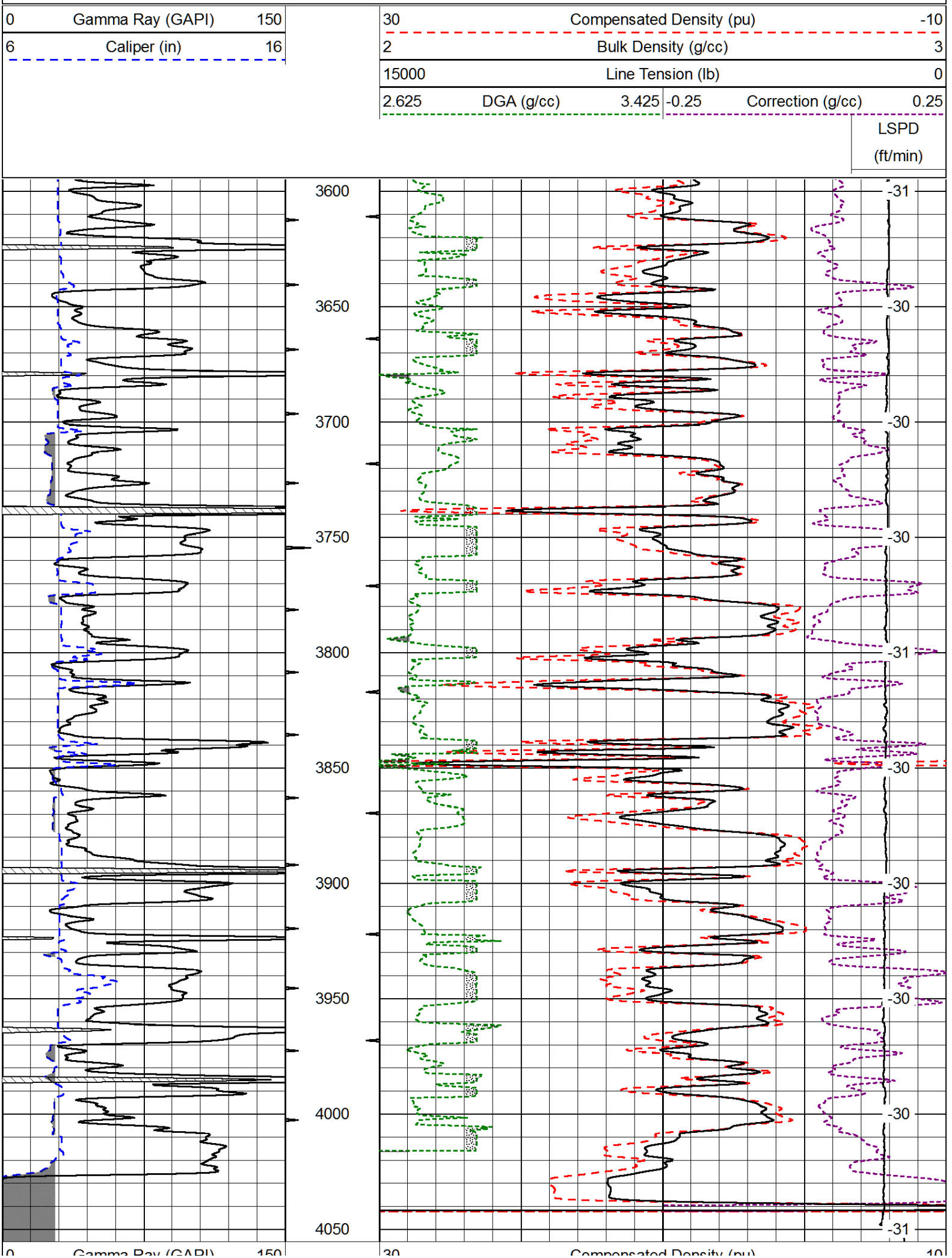
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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:	cdl
Dataset Creation:	Wed Apr 09 15:08:35 2014
Charted by:	Depth in Feet scaled 1:600


0 Gamma Ray (GAPI) 150
6 Caliper (in) 16
30 Compensated Density (pu) -10
2 Bulk Density (g/cc) 3
15000 Line Tension (lb) 0
2.625 DGA (g/cc) 3.425
-0.25 Correction (g/cc) 0.25
LSPD
(ft/min)
3600
3650
3700
3750
3800
3850
3900
3950
4000
4050
-31
-30
-30
-30
-31
-30
-30
-30
-30
-31
0 Gamma Ray (GAPI) 150
30 Compensated Density (pu) -10

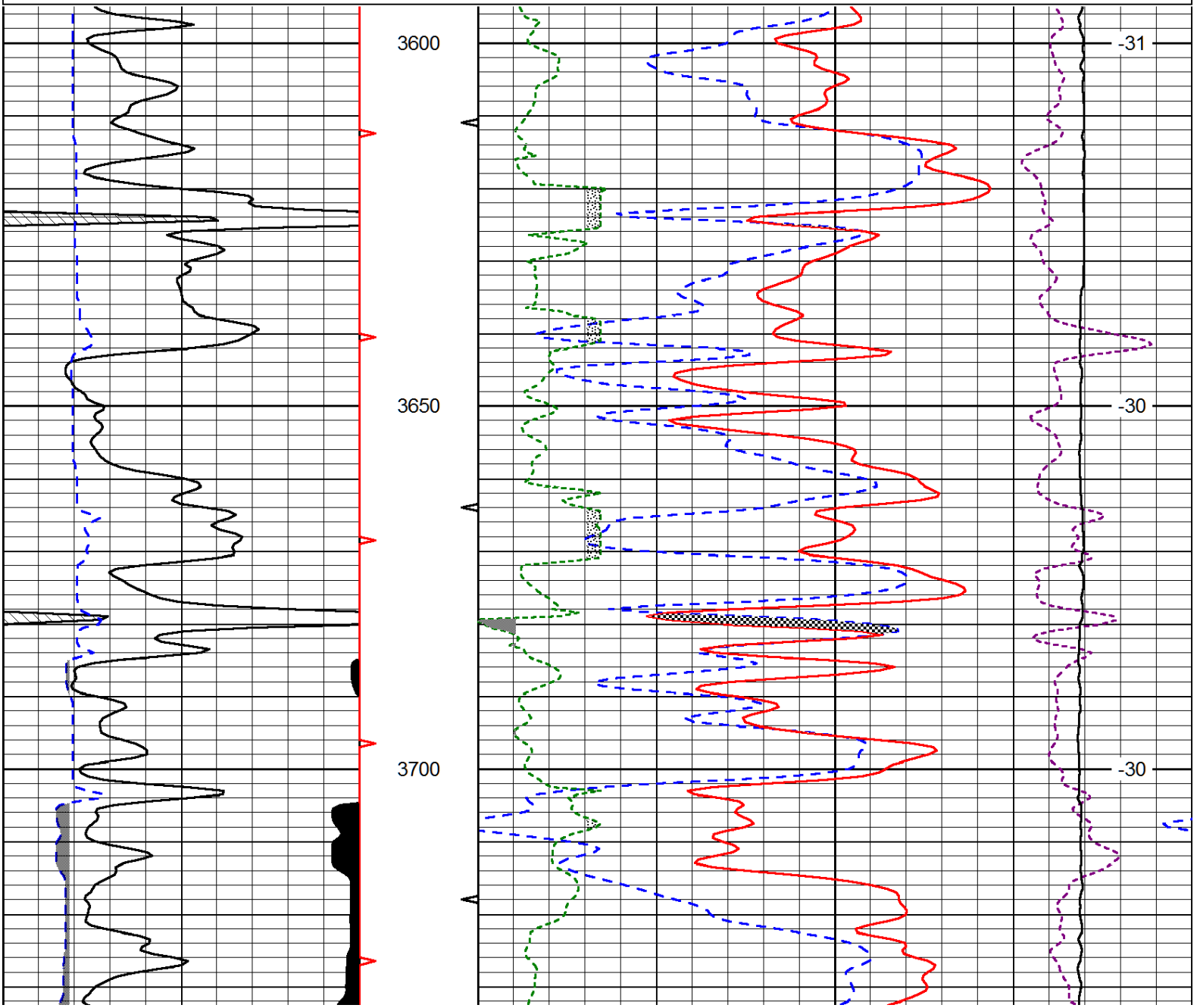
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

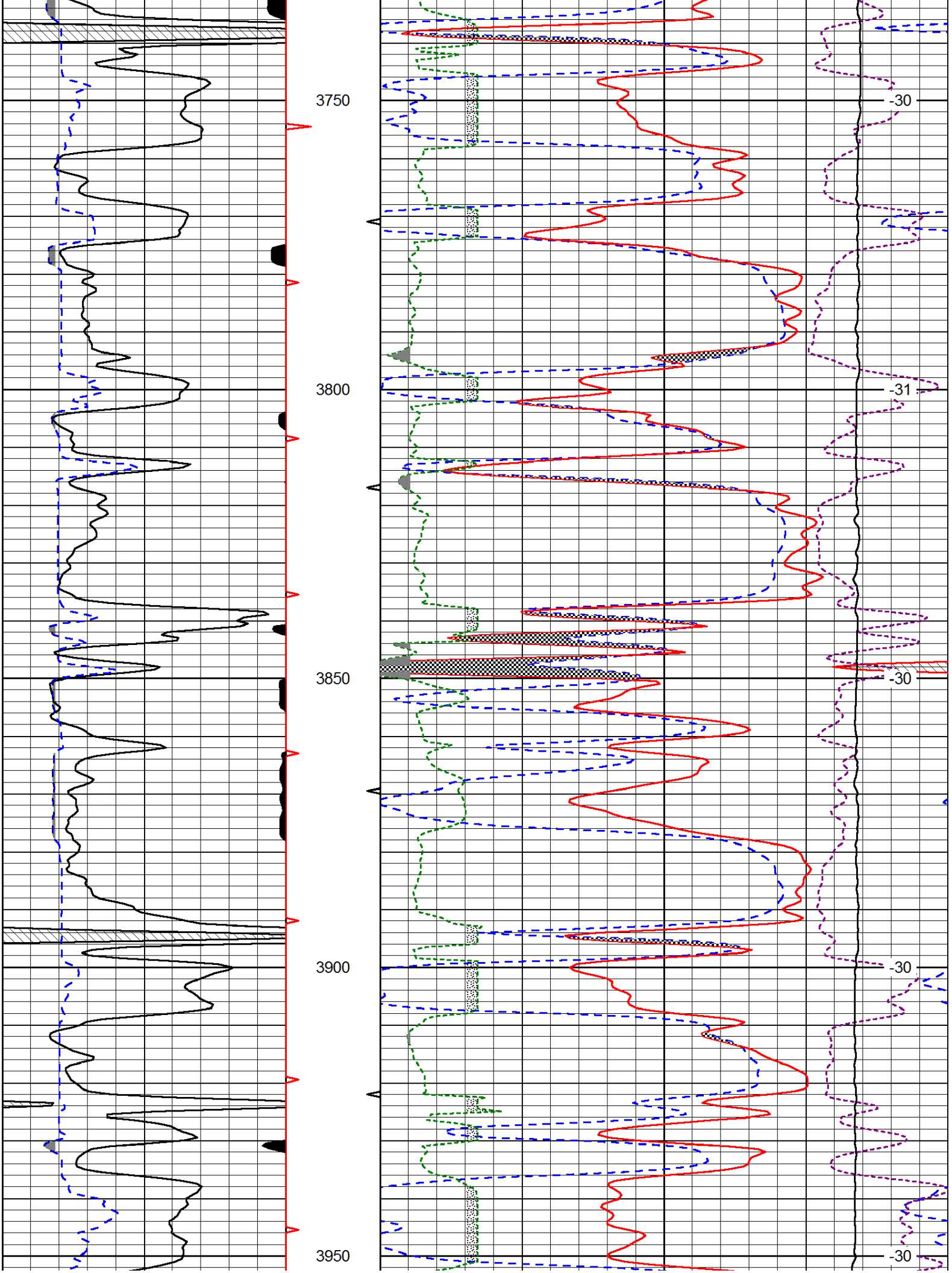
30	Compensated Density (pu)				-10
2	Bulk Density (g/cc)				3
15000	Line Tension (lb)				0
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
					LSPD (ft/min)

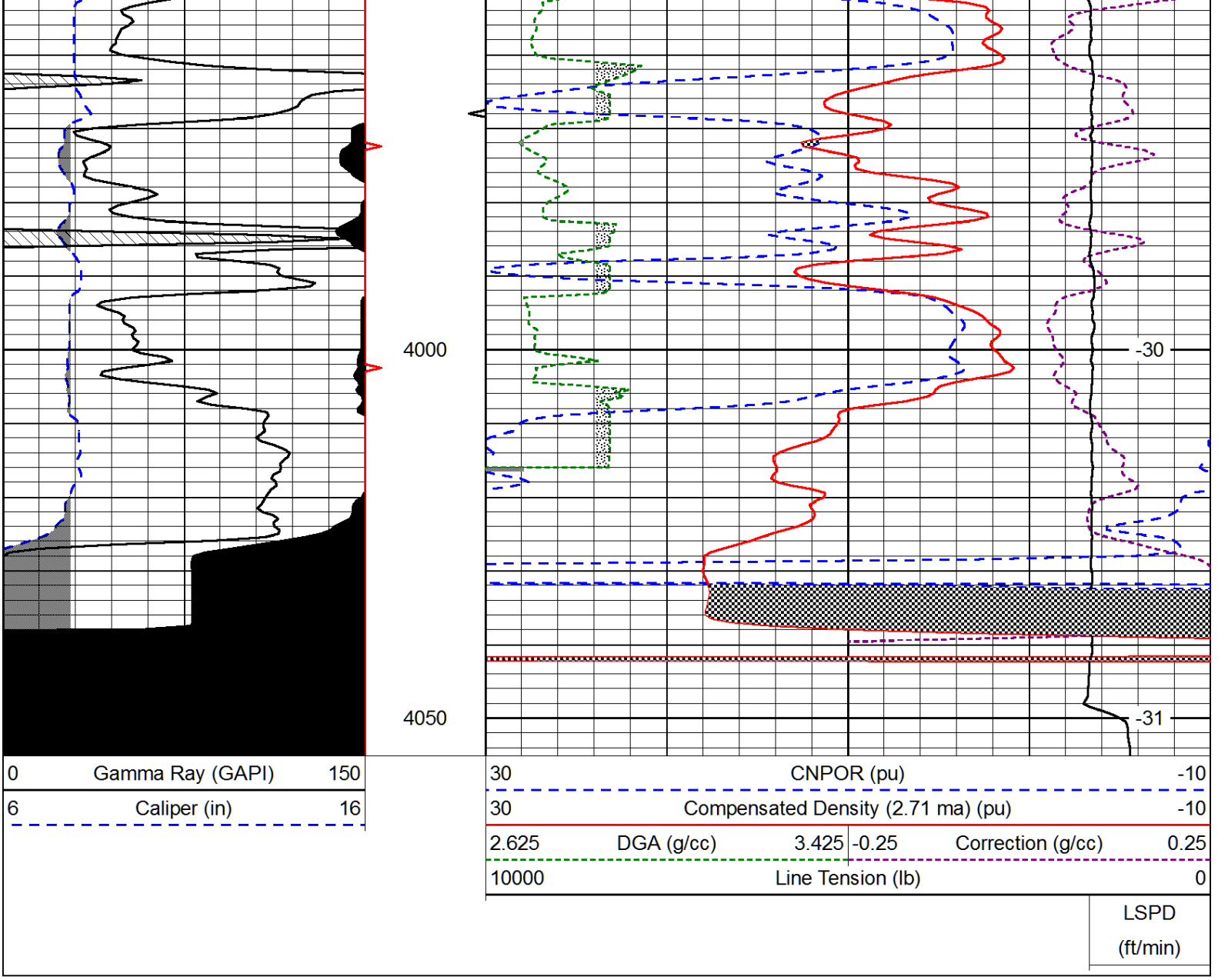
Database File:	cobalt_ktunit_a_1_18hd.db
Dataset Pathname:	DIL/cobstk
Presentation Format:	cndlspec
Dataset Creation:	Wed Apr 09 15:08:35 2014
Charted by:	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	CNPOR (pu)				-10
30	Compensated Density (2.71 ma) (pu)				-10
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)				0
					LSPD (ft/min)




3750
3800
3850
3900
3950
-30
-31
-30
-30
-30



0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	CNPOR (pu)				-10
30	Compensated Density (2.71 ma) (pu)				-10
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)				0

LSPD
(ft/min)