



Pioneer Energy Services

Microresistivity Log

15-167-23, 992-00-00

API No.

Company **EMPIRE ENERGY E&P LLC**

Well **DRISCOLL HEIRS # 31-6**

Field **DRISCOLL**

County **RUSSELL** State **KS**

Location **2156' FNL & 1928' FEL
NW/SE/SW/NE**

Other Services
CNL/CDL/MEL
BHCS

Sec: 31 Twp: 15 S Rge: 11 W

Permanent Datum **GROUND LEVEL** Elevation **1868 FT**

Log Measured From **KELLY BUSHING** 13 Ft. Above Perm. Datum

Drilling Measured From **KELLY BUSHING**

Date **SEPTEMBER 20, 2014**

Run Number **ONE**

Depth Driller **3450 FT**

Depth Logger **3442 FT**

Bottom Logged Interval **3421 FT**

Top Log Interval **2200 FT**

Casing Driller **8-5/8" @ 727 FT**

Casing Logger **726 FT**

Bit Size **7-7/8"**

Type Fluid in Hole **CHEM GEL**

Salinity, ppm CL **4,800 ppm**

Density / Viscosity **9.3 ppd 58 s**

pH / Fluid Loss **10.5 9.4 cc**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.7 @ 79 F**

Rmf @ Meas. Temp **1.3 @ 79 F**

Rmc @ Meas. Temp **2.1 @ 79 F**

Source of Rmf / Rmc **Charts**

Rm @ BHT **1.2 @ 107 F**

Operating Rig Time **4 HRS**

Max Rec. Temp. F **107 F**

Equipment Number **H - 20**

Location **Hays**

Recorded By **A. HARTMAN**

Witnessed By **MIKE BAIR**

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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

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(785) 625-3858

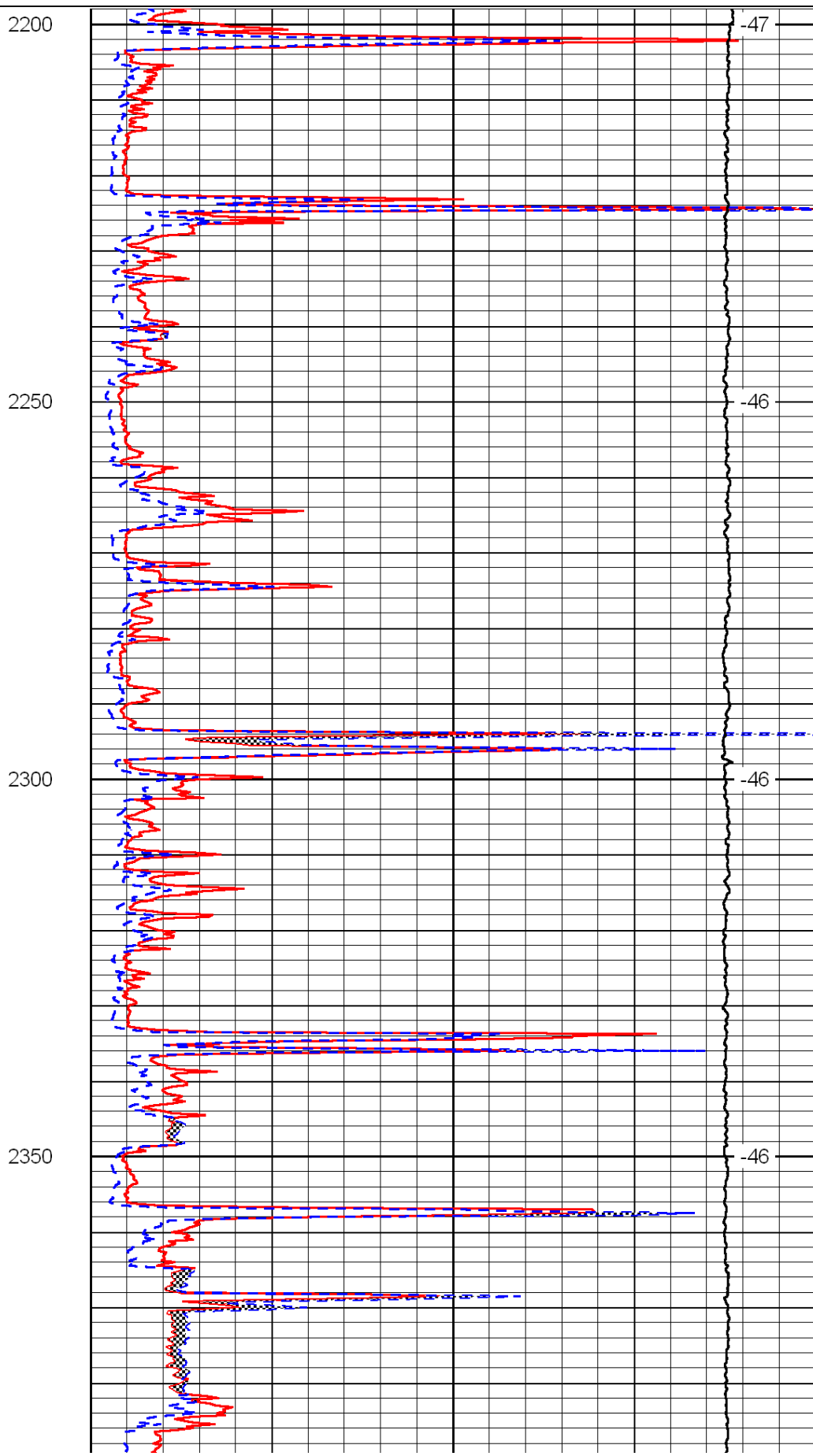
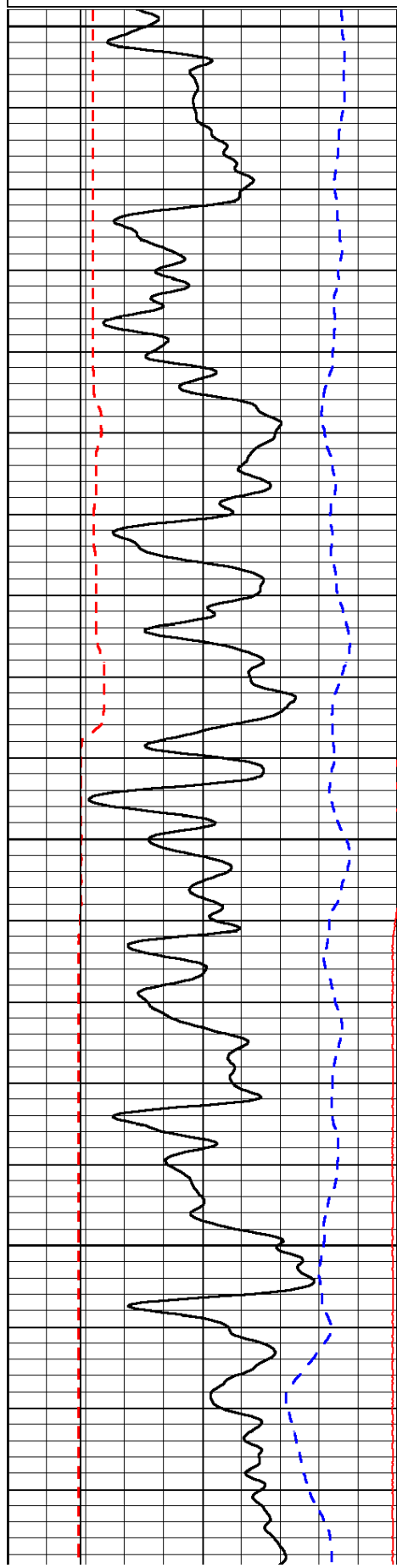
SERVICE ORDER # 12081
POROSITY VALUES BASED ON A LIMESTONE MATRIX. 2.71 g/cc
ANNULAR BOREHOLE VOLUMES CALCULATED FOR 5.5" CASING.

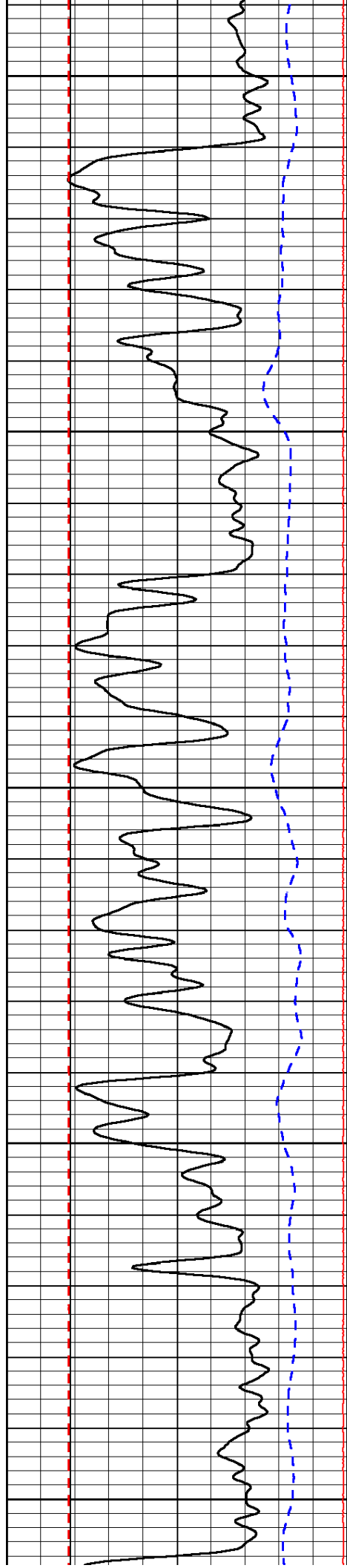
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Dataset Pathname: pass3
Presentation Format: MICRO(~1
Dataset Creation: Sat Sep 20 22:10:59 2014 by Log 0
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	DCAL (in)	16
2.875	Mud Cake (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

LSPD
(ft/min)





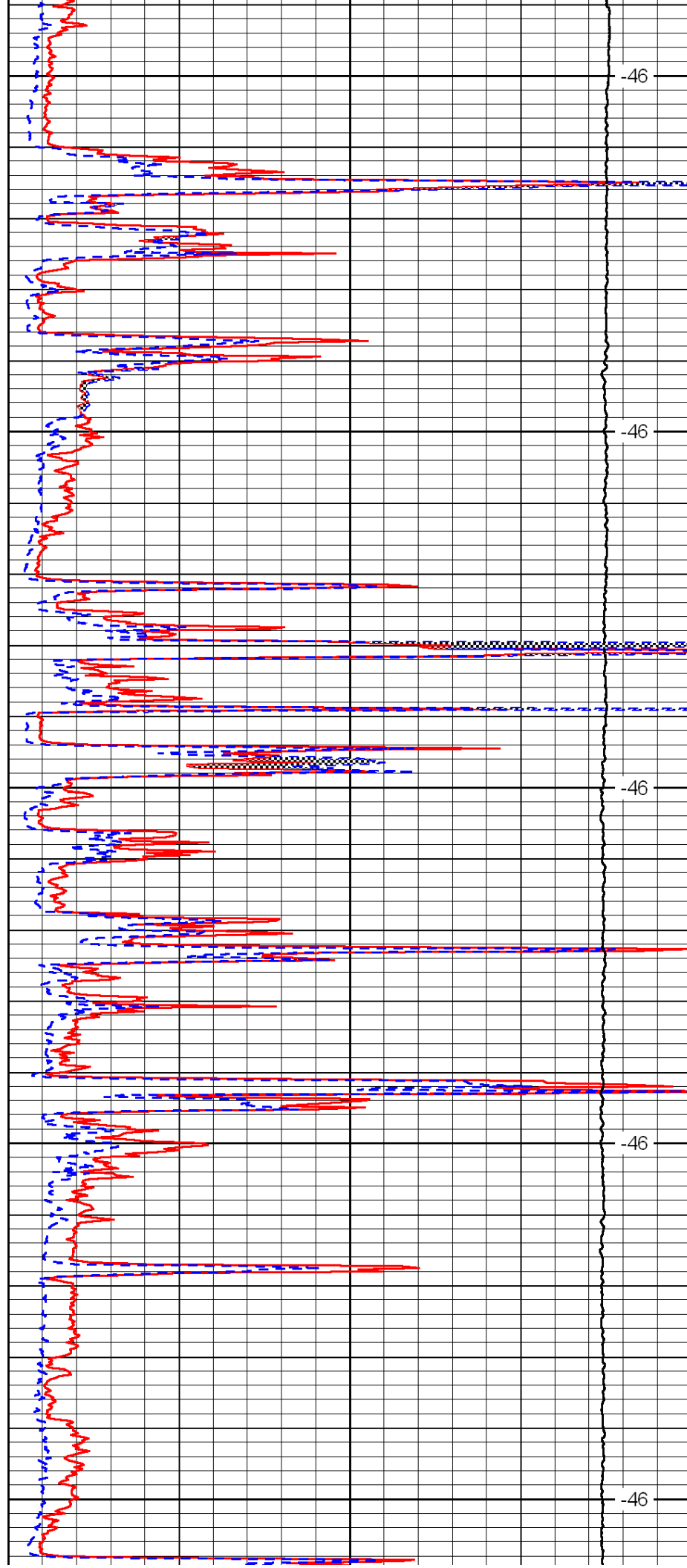
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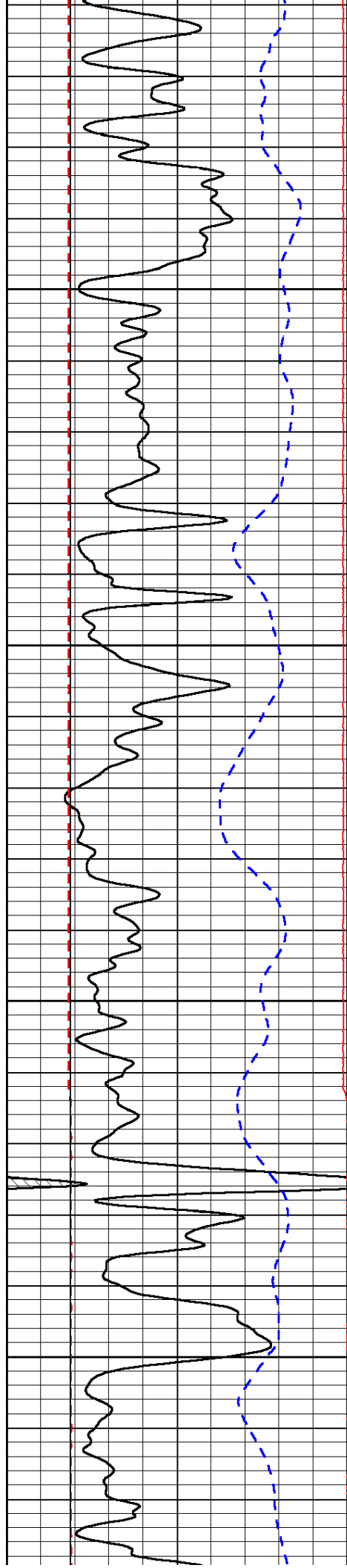
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2600



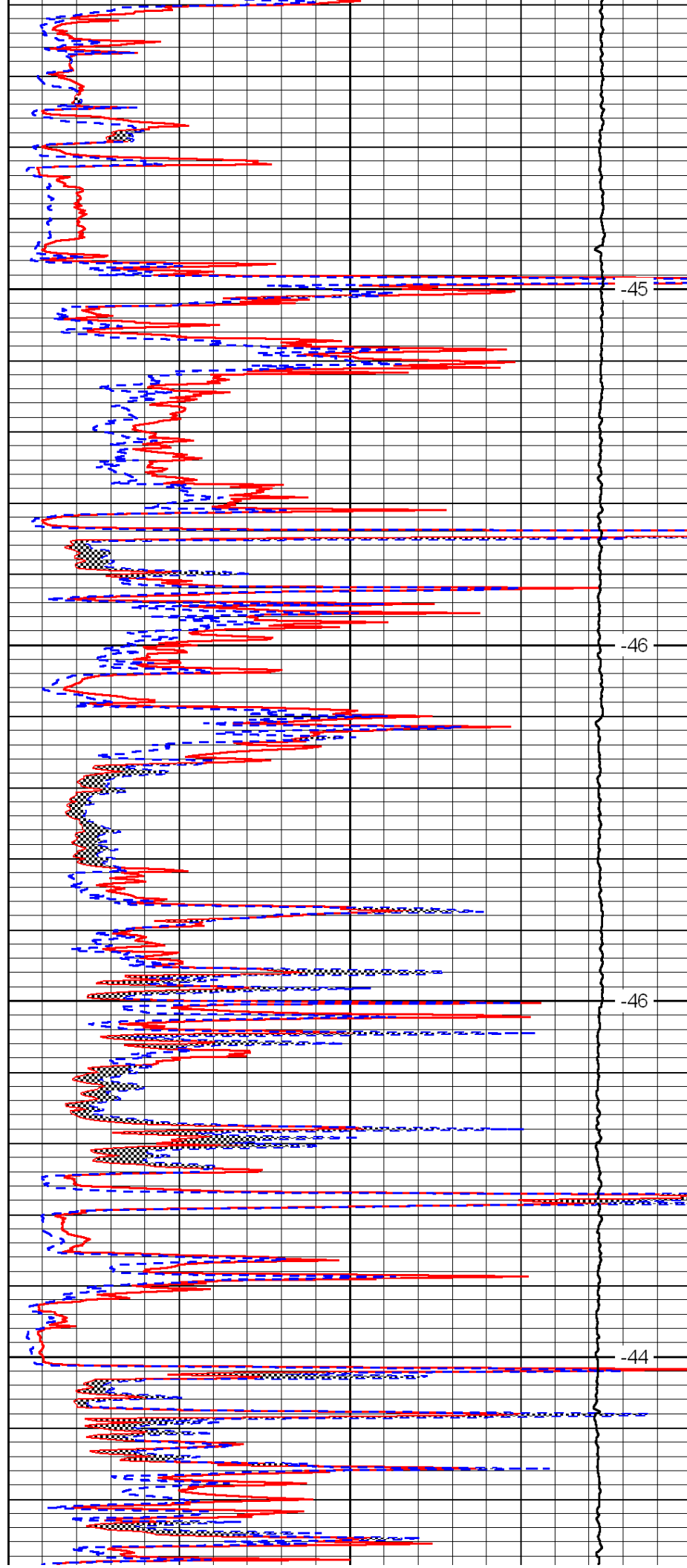


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2700

2750

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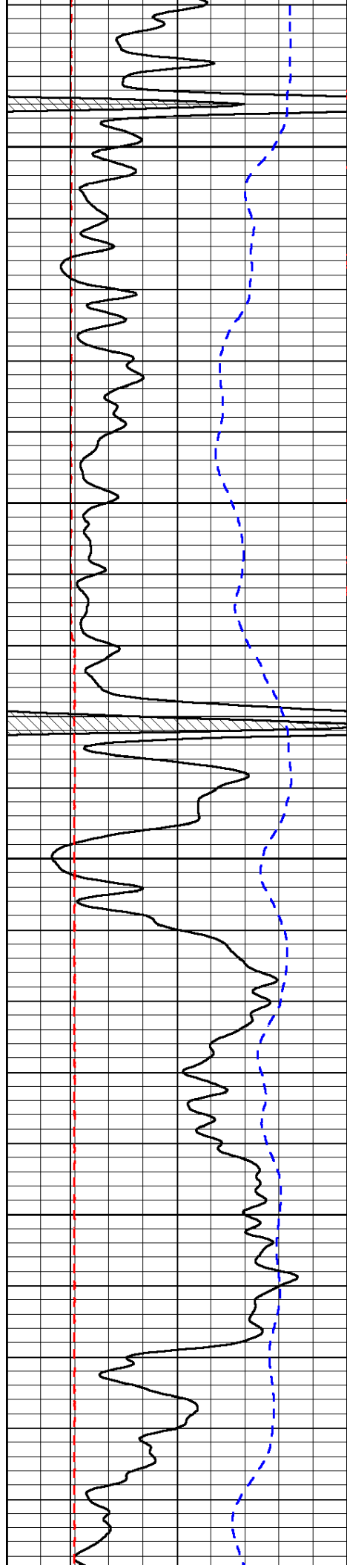


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-46

-44



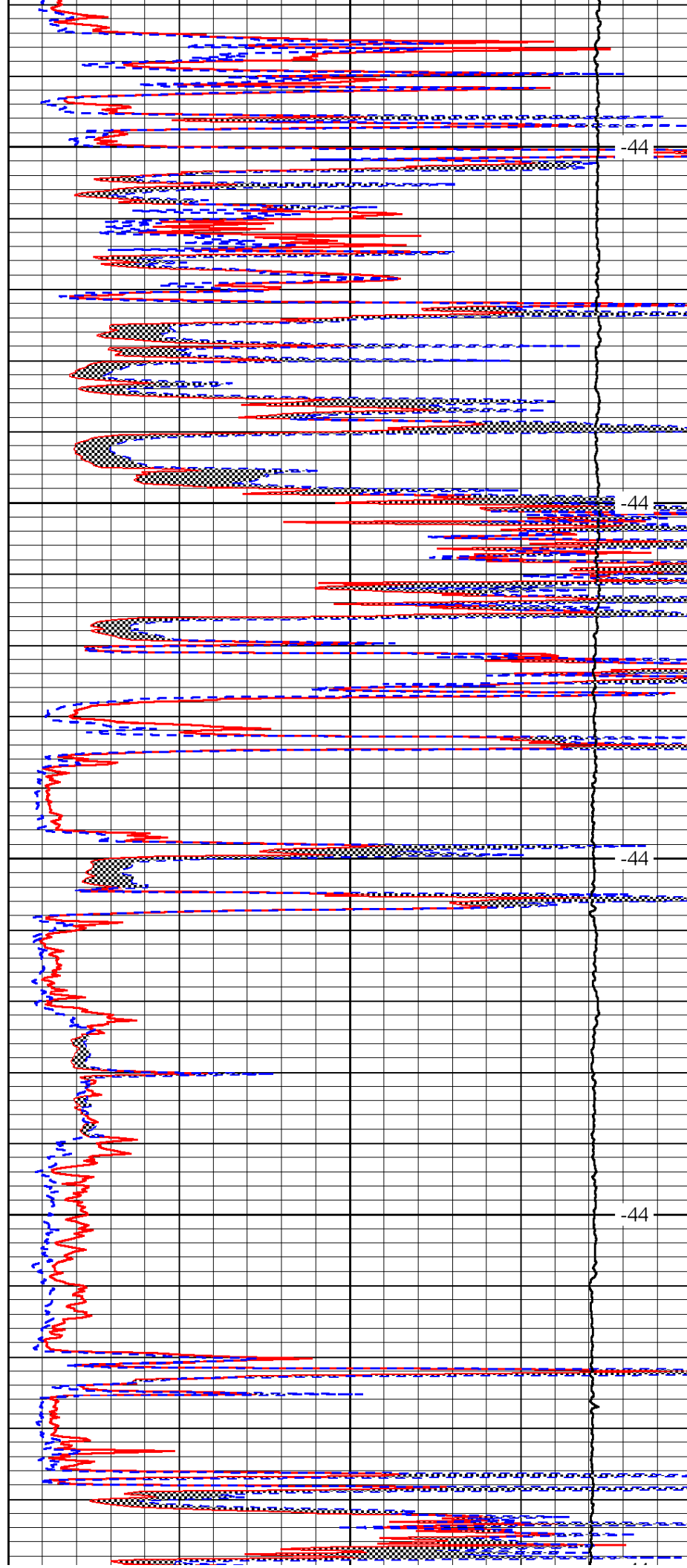
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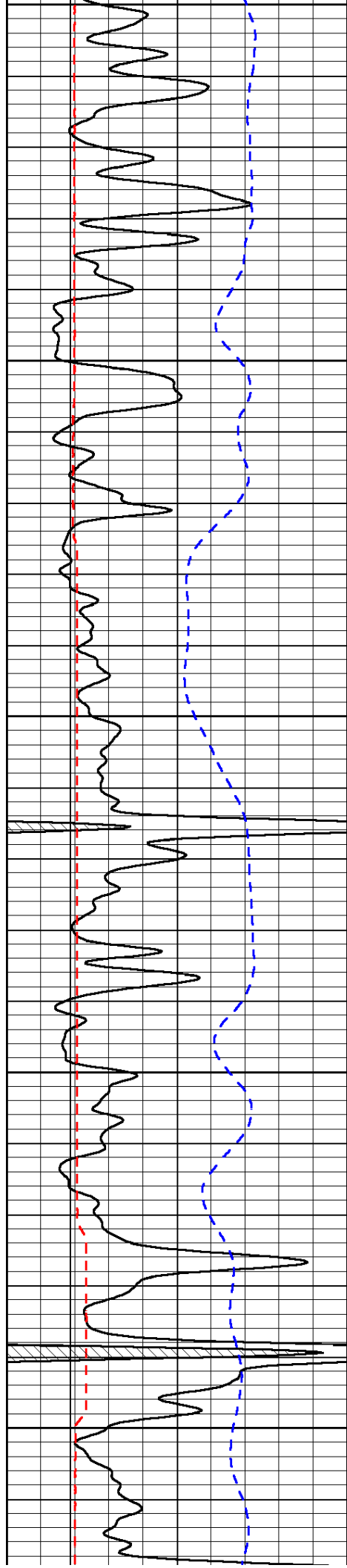
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3050





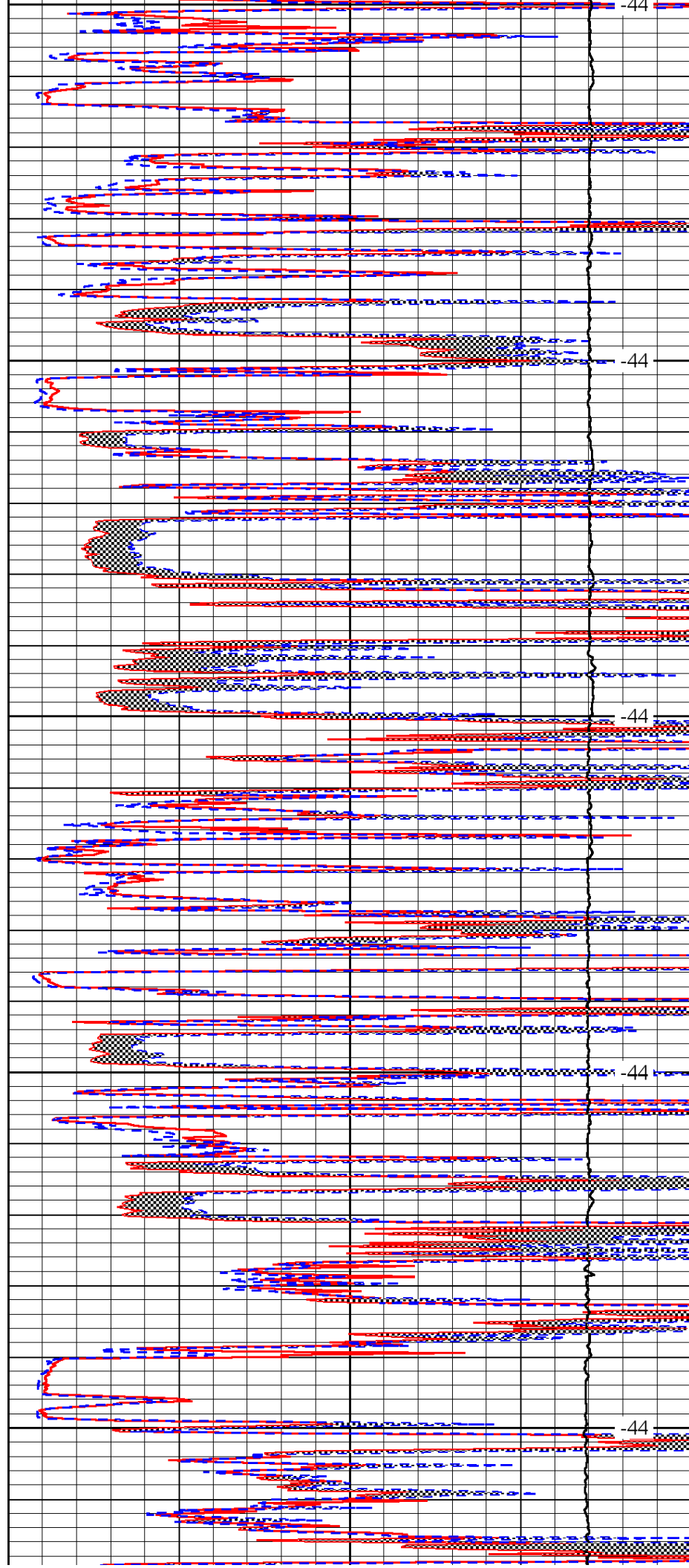
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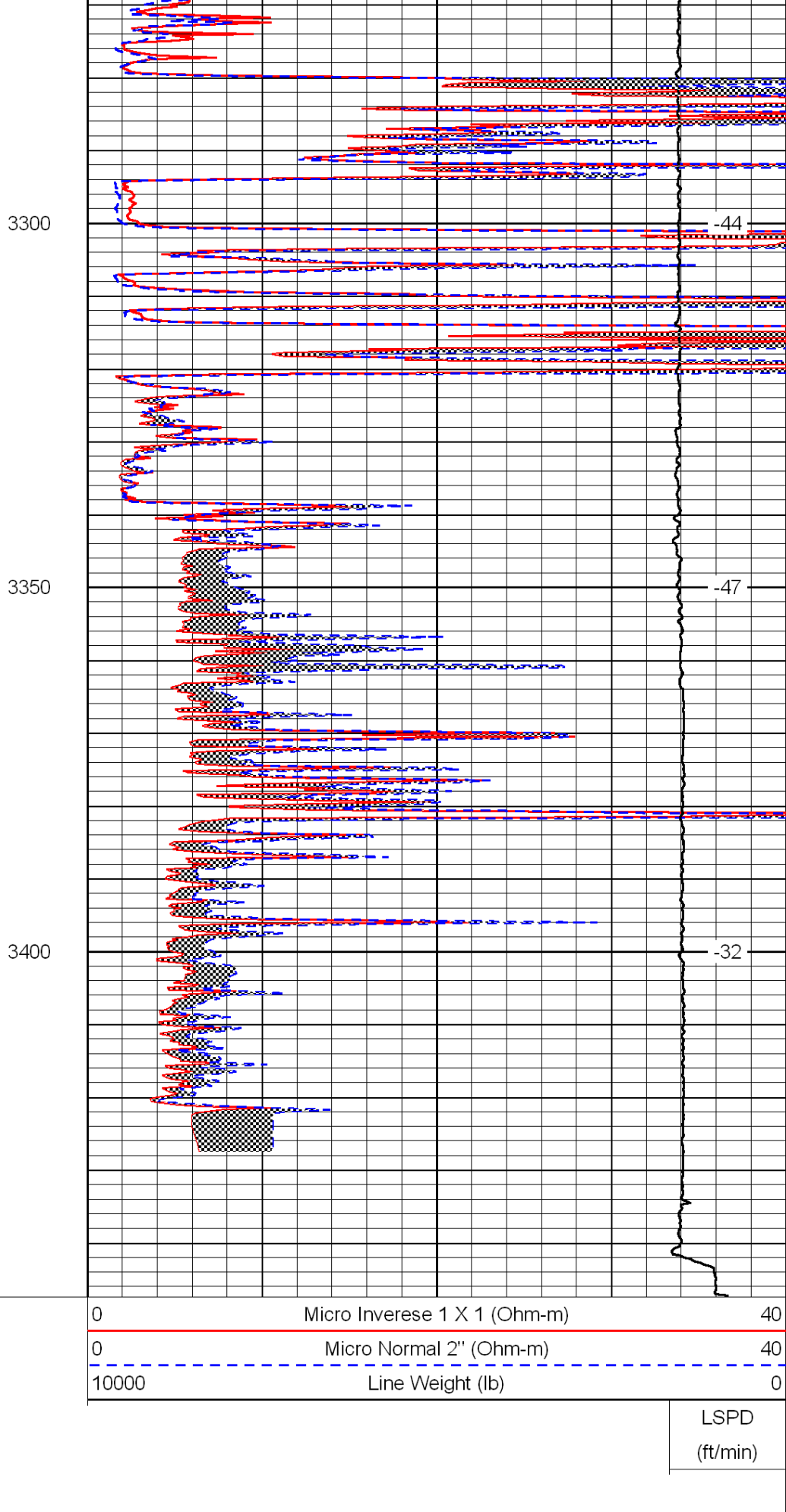
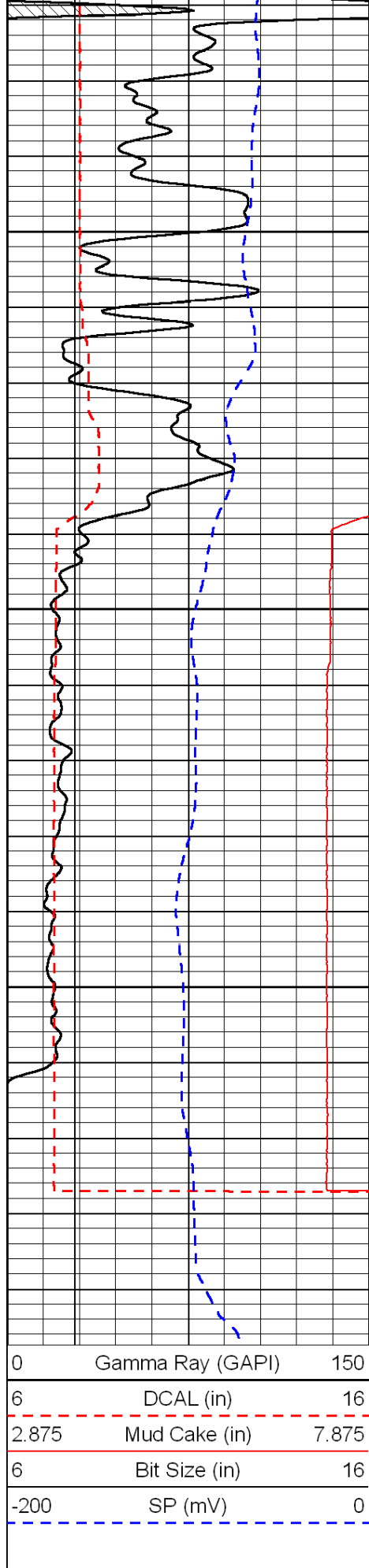
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3150

3200

3250



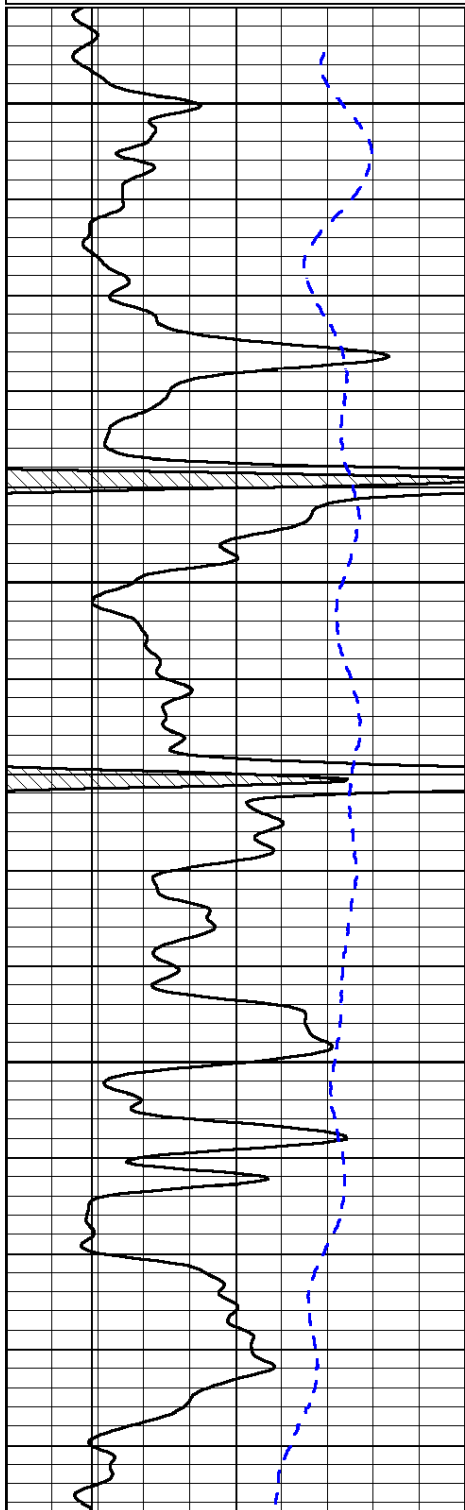


REPEAT SECTION

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 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

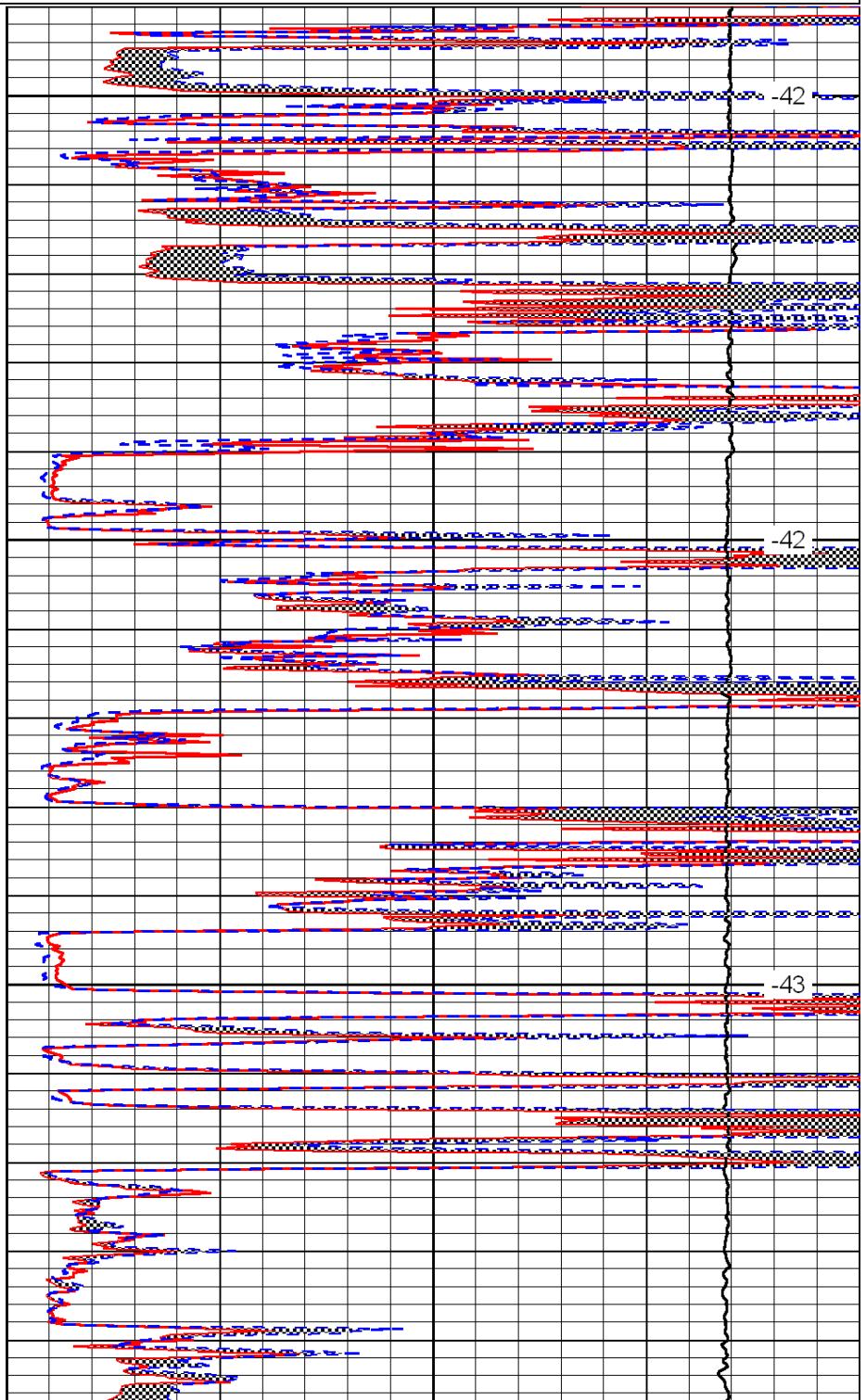
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0
		LSPD (ft/min)



3200

3250

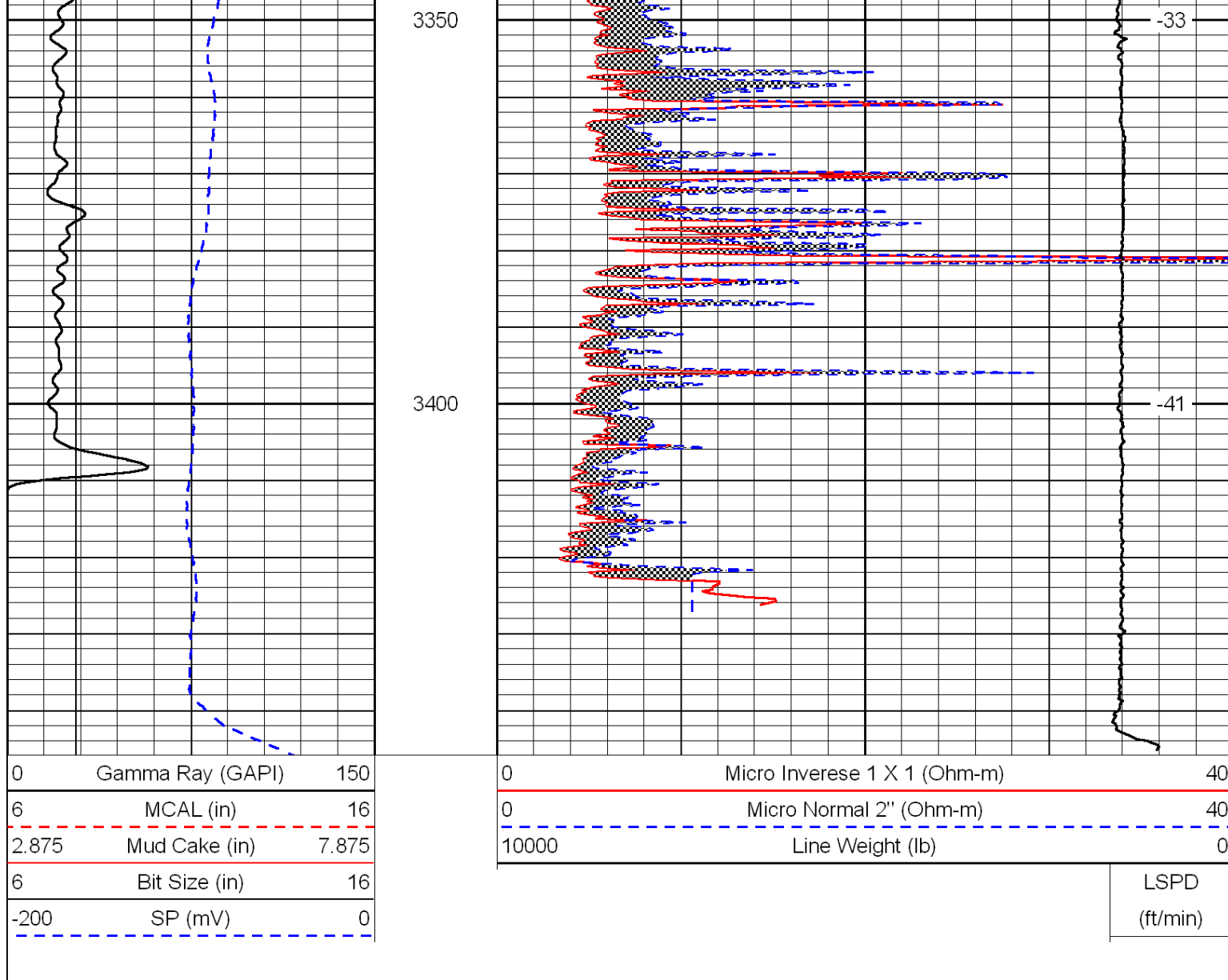
3300



-42

-42

-43



		Company	EMPIRE ENERGY E&P LLC	
		Well	DRISCOLL HEIRS # 31-6	
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		County	RUSSELL	
		State	KS	Country