



Microresistivity Log

Pioneer Energy Services

API No.

15-163-24,104-00-00

Company Great Plains Energy, Inc.

Well Karr No. 1 - 17

Field Axelson Northeast

County Rocks State Kansas

Location N/2 NW SW SW
1090' FSL & 330' FWL

Sec: 17 Twp: 7 S Rge: 18 W

Permanent Datum Ground Level Elevation 1932

Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing Elevation
K.B. 1937
D.F. 1932
G.L. 1932

Date 3/16/2013

Run Number Two

Depth Driller 3458

Depth Logger 3459

Bottom Logged Interval 3458

Top Log Interval 2600

Casing Driller 8.625 @ 218

Casing Logger 217

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 2100

Density / Viscosity 8.9 55

pH / Fluid Loss 11.0 6.4

Source of Sample Flowline

Rm @ Meas. Temp .65 @ 63

Rmf @ Meas. Temp .49 @ 63

Rmc @ Meas. Temp .88 @ 63

Source of Rmf / Rmc Charts

Rm @ BHT .37 @ 111

Operating Rig Time 4 Hours

Max Rec. Temp. F 111

Equipment Number 108

Location Hays

Recorded By D. Martin

Witnessed By Larry Nicholson

<<< 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

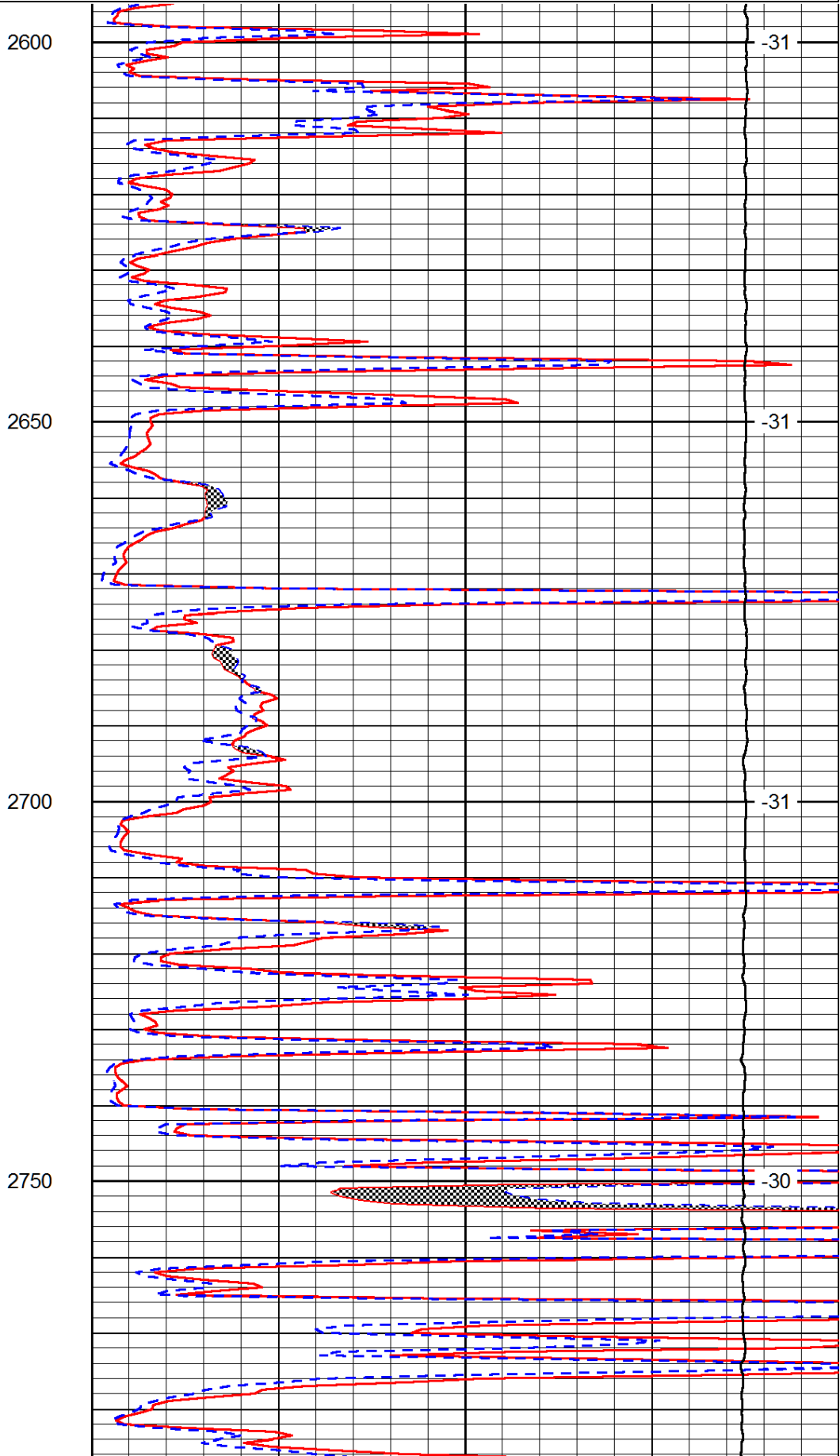
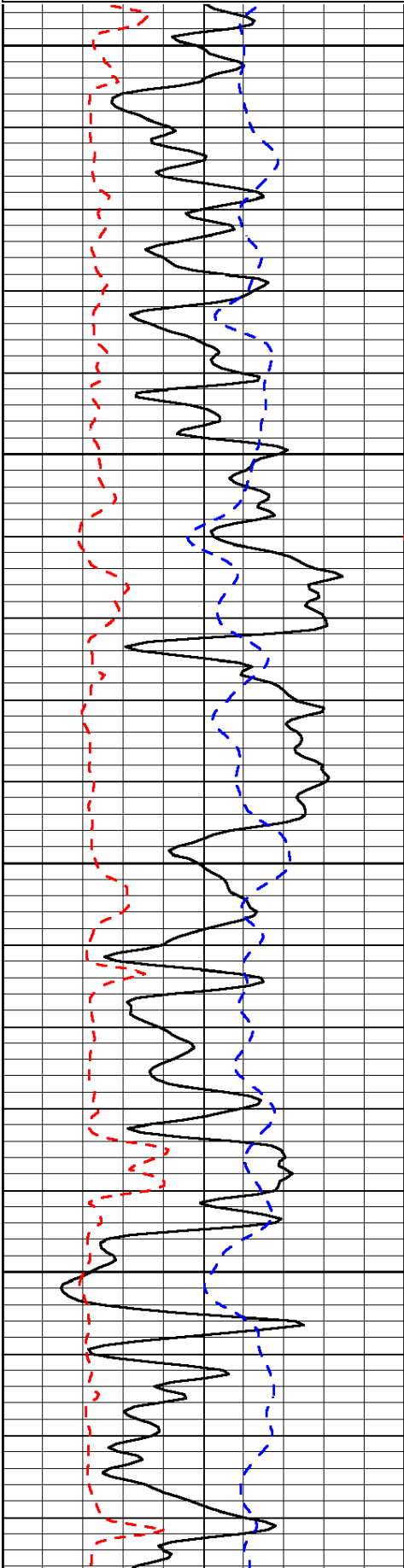
Thank you for using Log-Tech, Inc.
(785) 625-3858

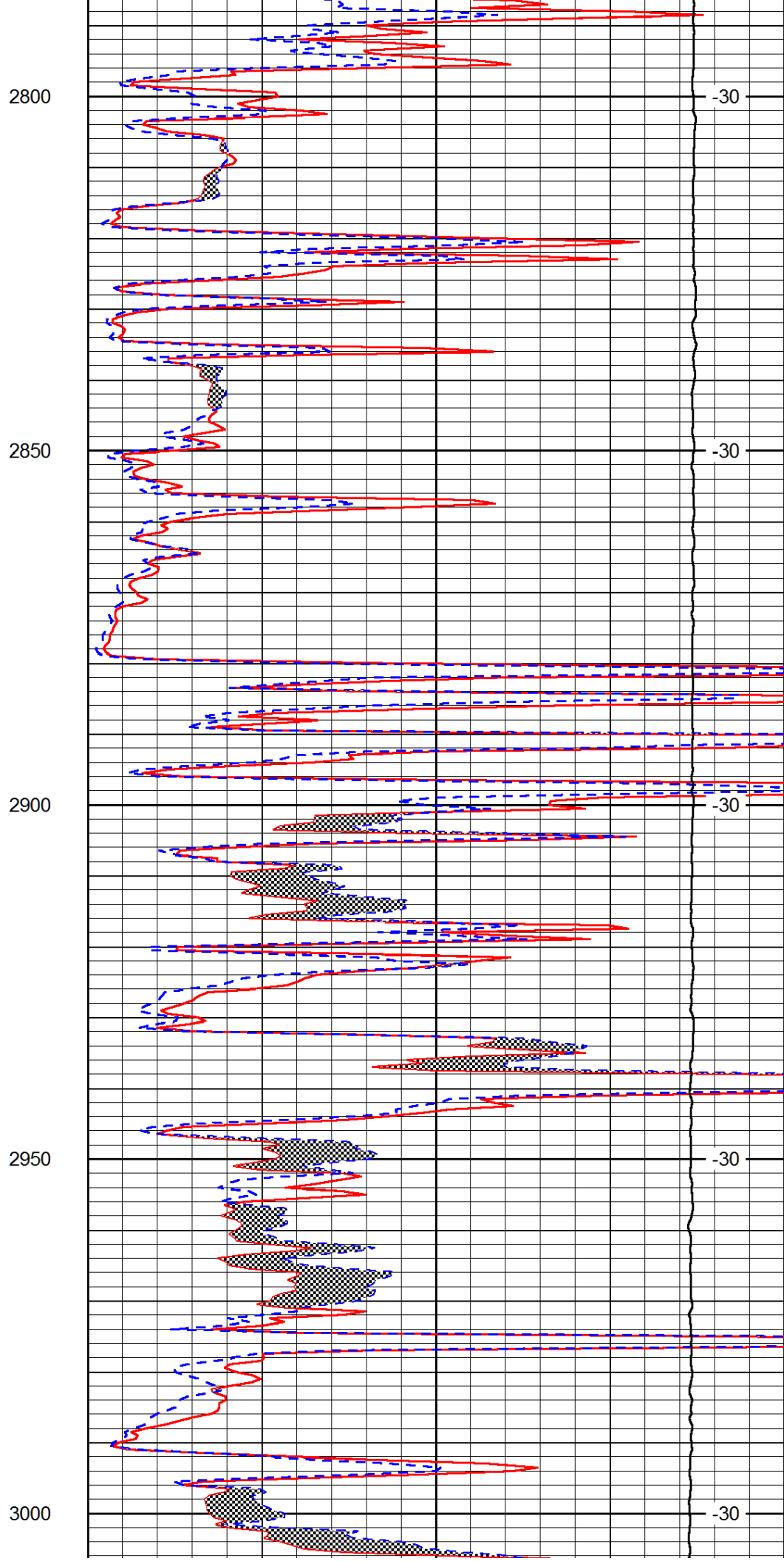
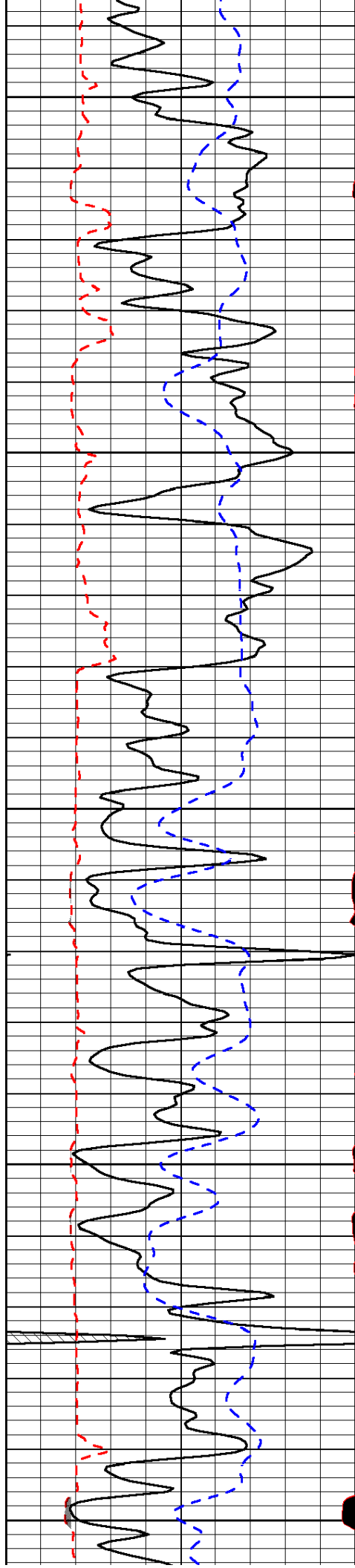
Stockton, KS
3 W on Highway to Curve,
1 W on J Rd., 1/4 N, E Into

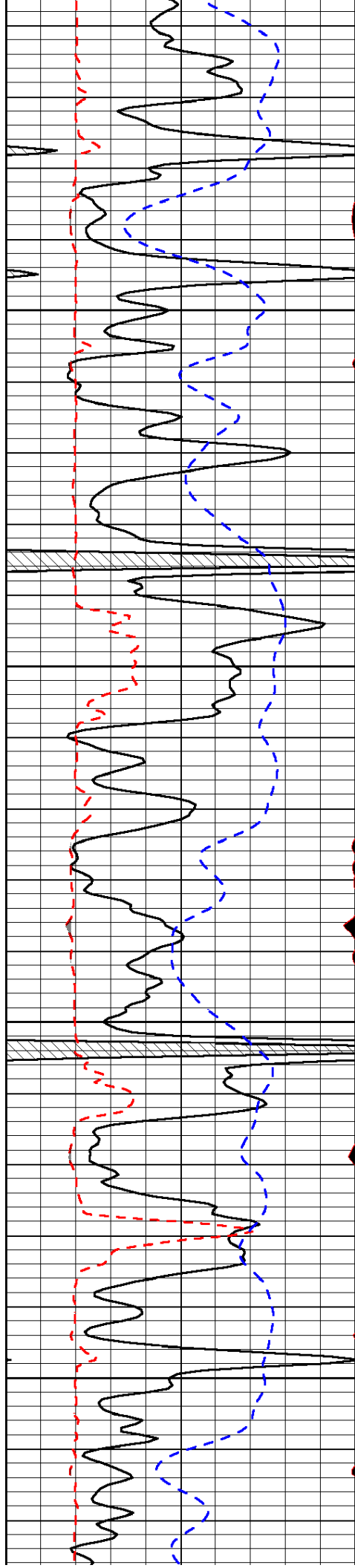
Database File: grplhd.db
Dataset Pathname: DIL/grplstk
Presentation Format: micro
Dataset Creation: Sat Mar 16 05:00:50 2013
Charted by: Depth in Feet scaled 1:240

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

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





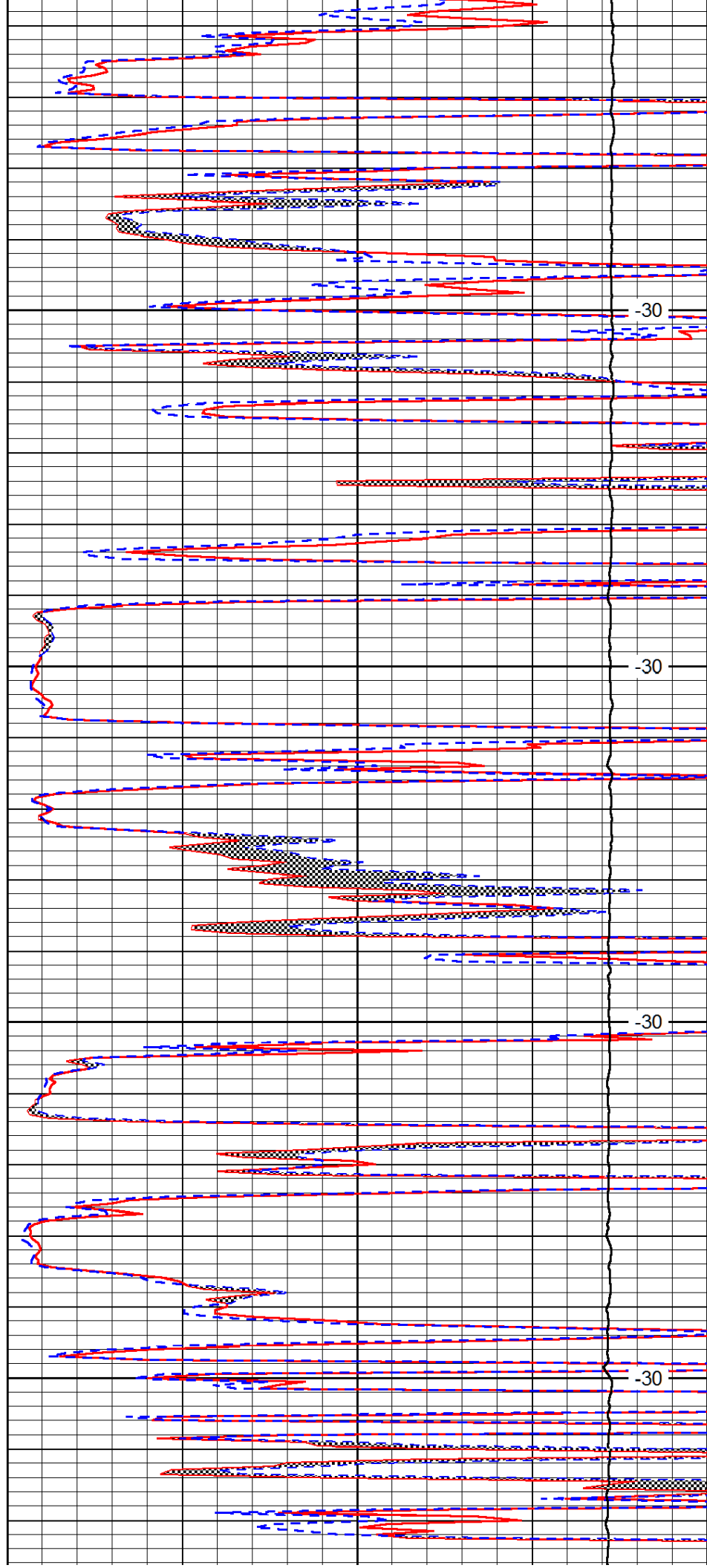


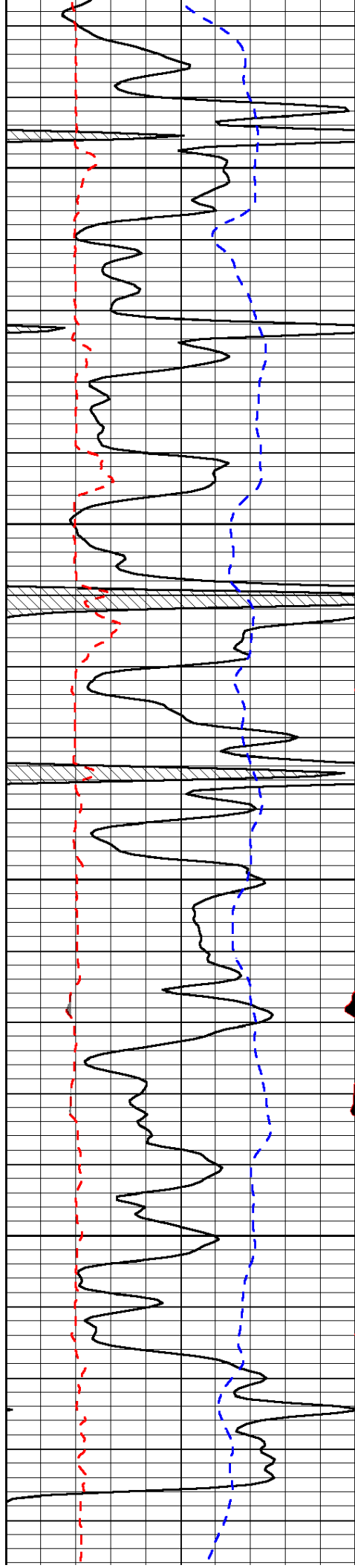
3050

3100

3150

3200



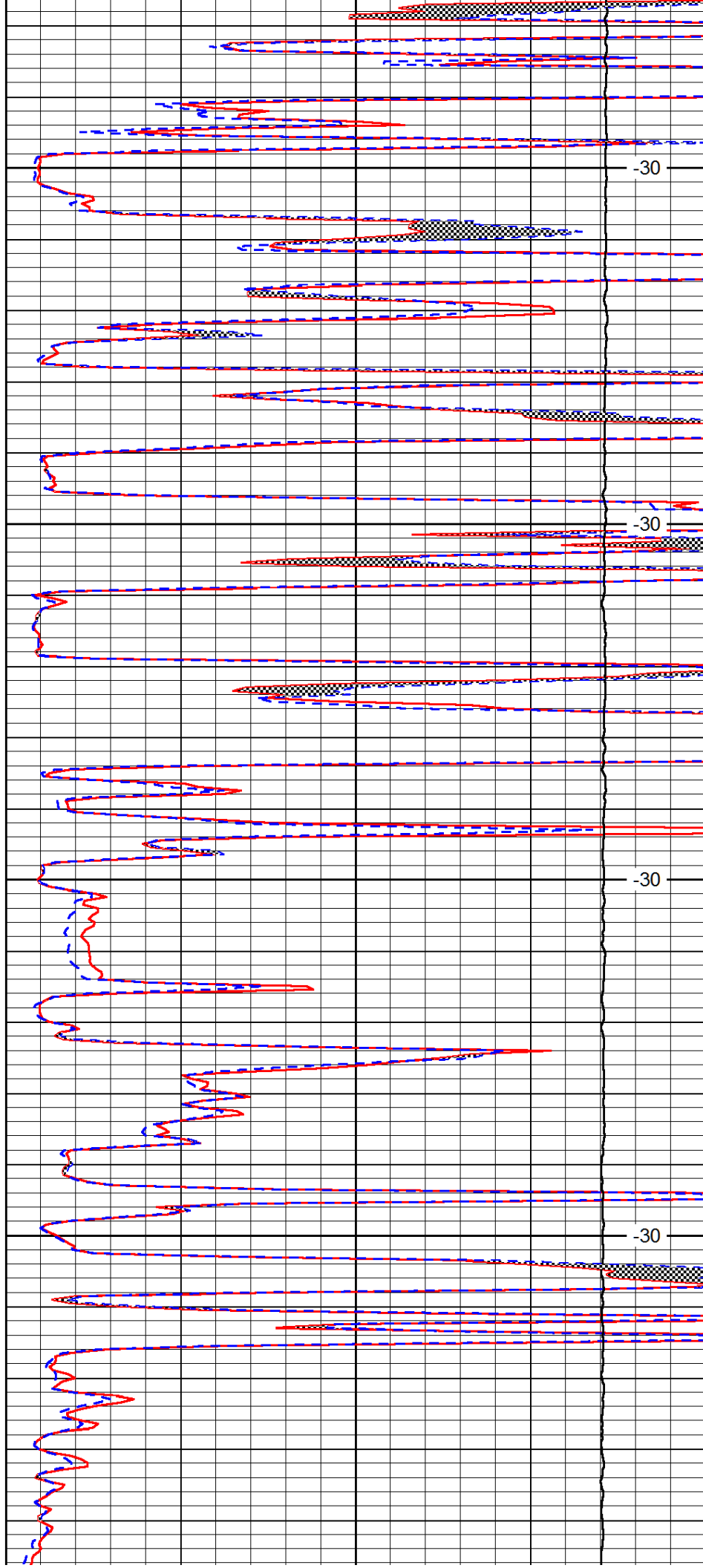


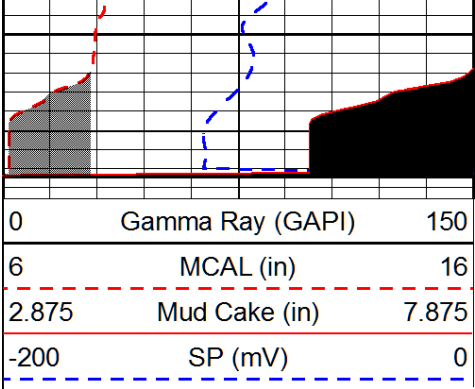
3250

3300

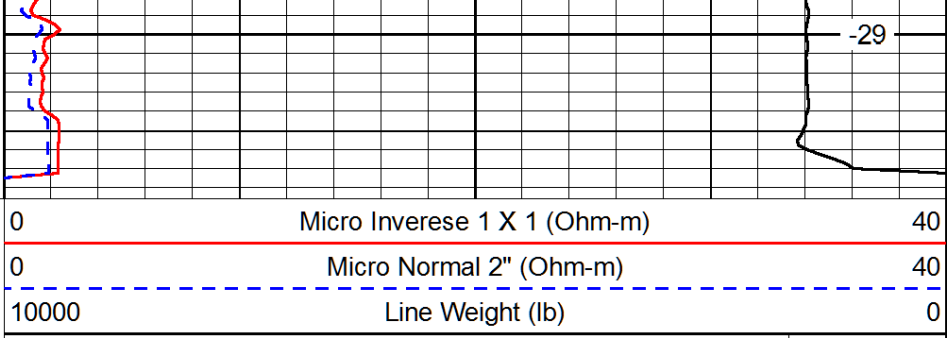
3350

3400





3450



LSPD
(ft/min)