



Microresistivity Log

Pioneer Energy Services

API No.

15-155-21632-00-00

Company Novy Oil & Gas, Inc.

Well Zwick #1

Field Sterling SW

County Reno State

Kansas

Location 660' FSL & 710' FEL

Other Services
CNL/CDL
DIL

Sec: 17 Twp: 22S Rge: 8W

Permanent Datum Ground Level Elevation 1695
Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation

K.B. 1705
D.F. 1695
G.L. 1695

Date 2/1/2013

Run Number Two

Depth Driller 3650

Depth Logger 3648

Bottom Logged Interval 3647

Top Log Interval 2800

Casing Driller 8.625 @ 265

Casing Logger 263

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 12500

Density / Viscosity 9.25 49

pH / Fluid Loss 9.0 11.2

Source of Sample Flowline

Rm @ Meas. Temp 0.65 @ 48

Rmf @ Meas. Temp 0.49 @ 48

Rmc @ Meas. Temp 0.88 @ 48

Source of Rmf / Rmc Charts

Rm @ BHT 0.27 @ 115

Operating Rig Time 4 Hours

Max Rec. Temp. F 115

Equipment Number 91

Location Hays

Recorded By D. Schmidt

Witnessed By Macklin Armstrong

<<< Fold Here >>>

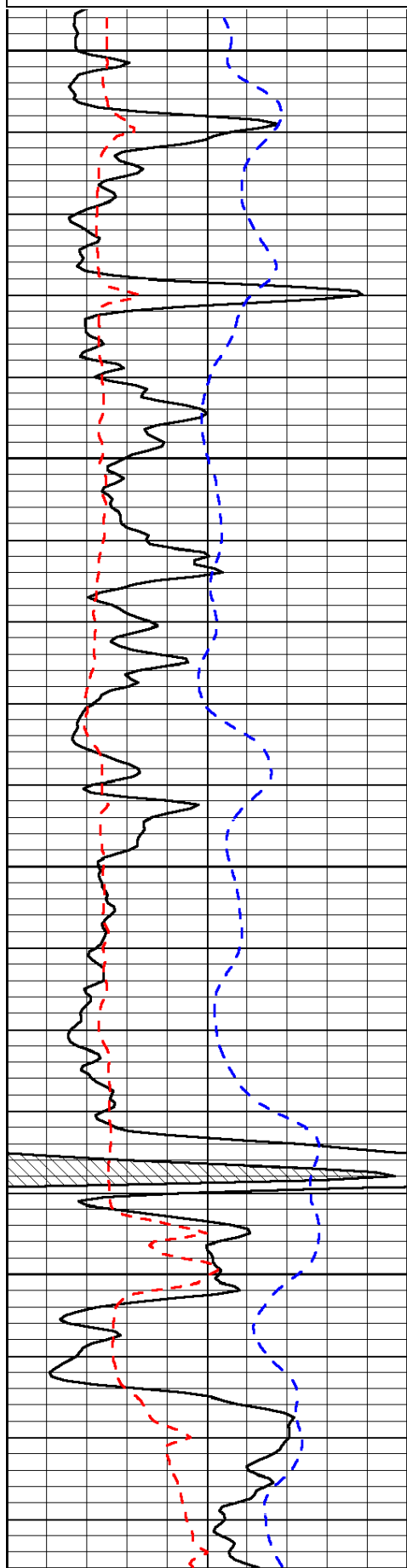
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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
Sterling,
5 South to 82 Rd, 3/4 West to Bonesprings Rd, 3/4 South,
West into

Database File: novy_020113hd.db
Dataset Pathname: dil/novy
Presentation Format: micro
Dataset Creation: Fri Feb 01 20:48:39 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



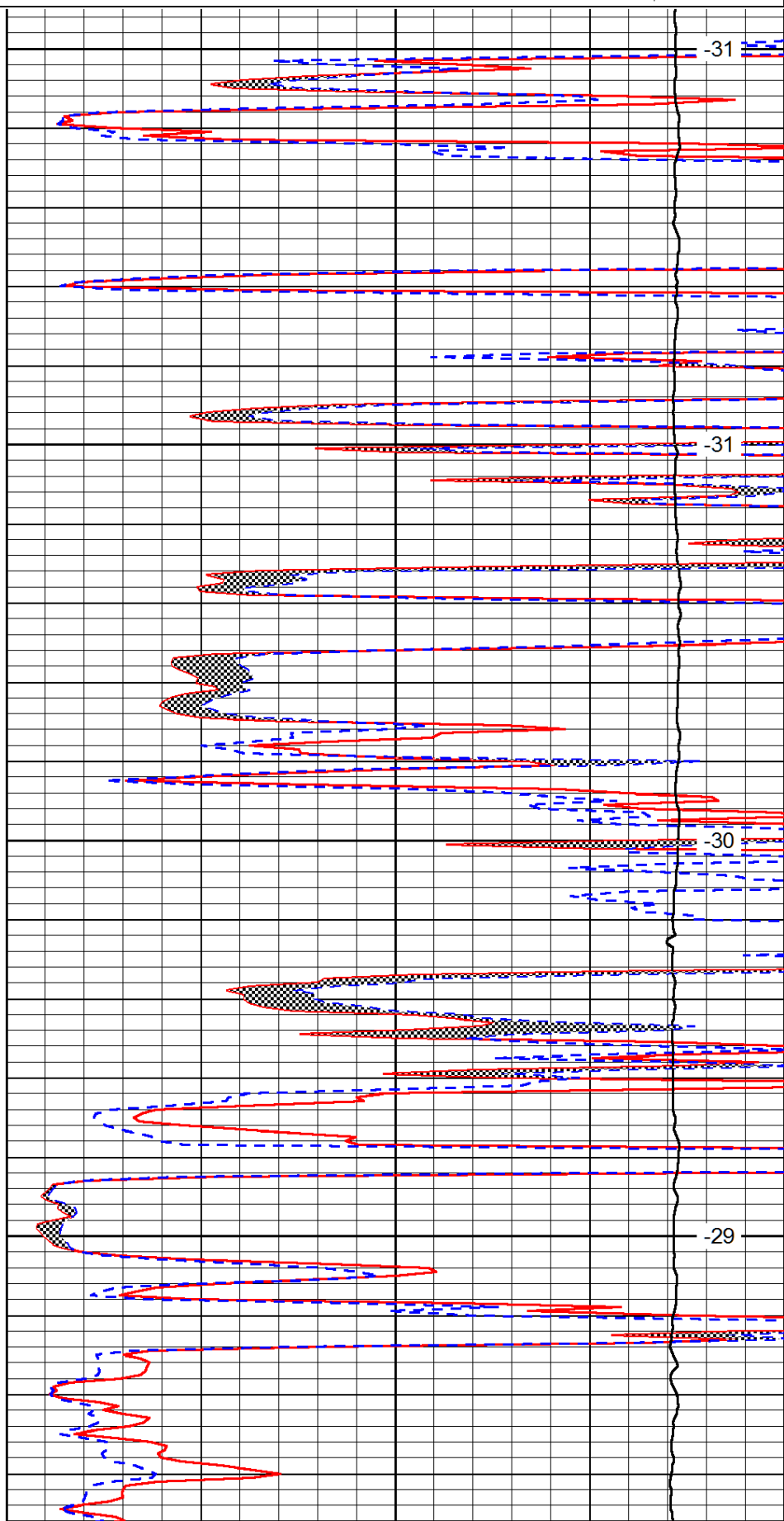
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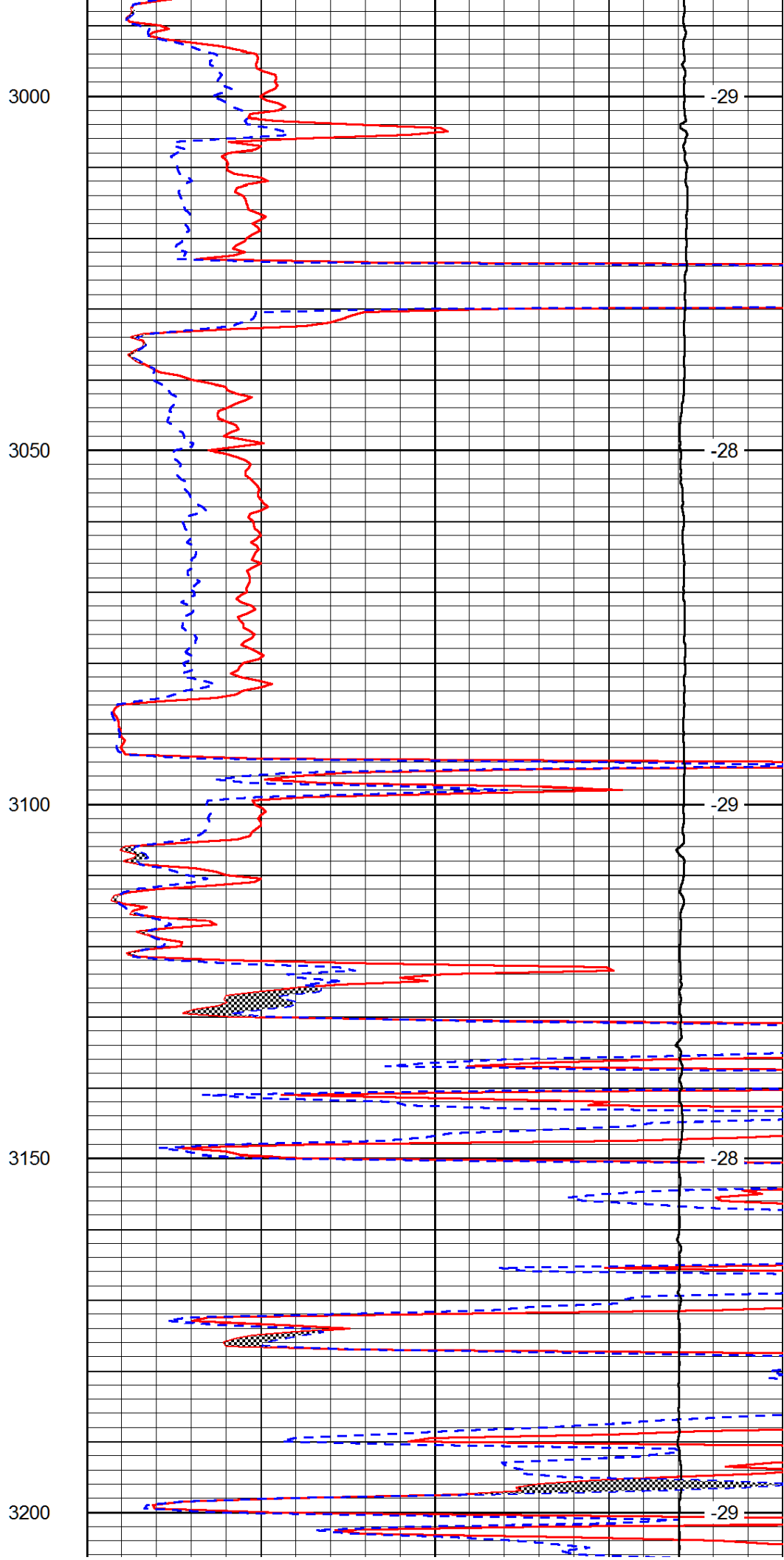
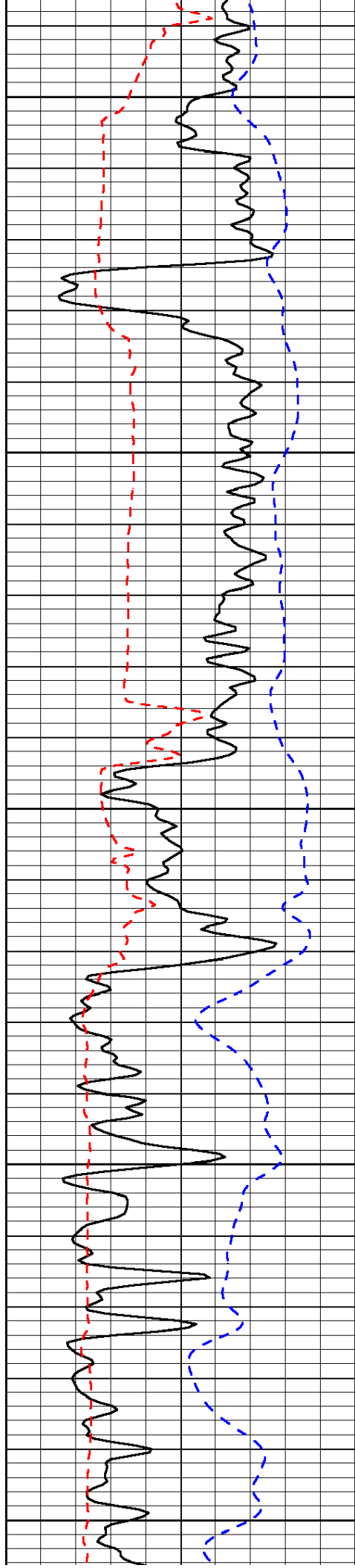
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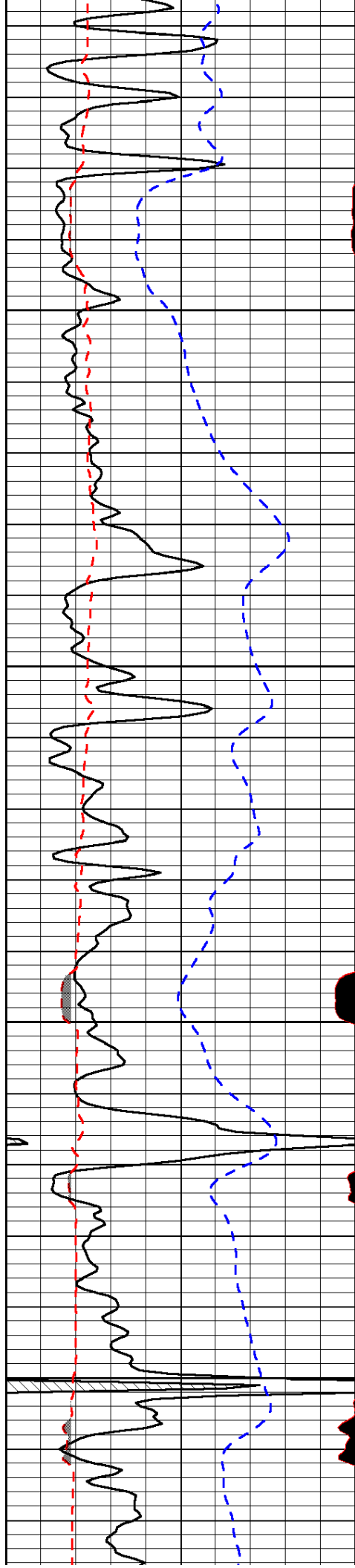
2900

2950

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





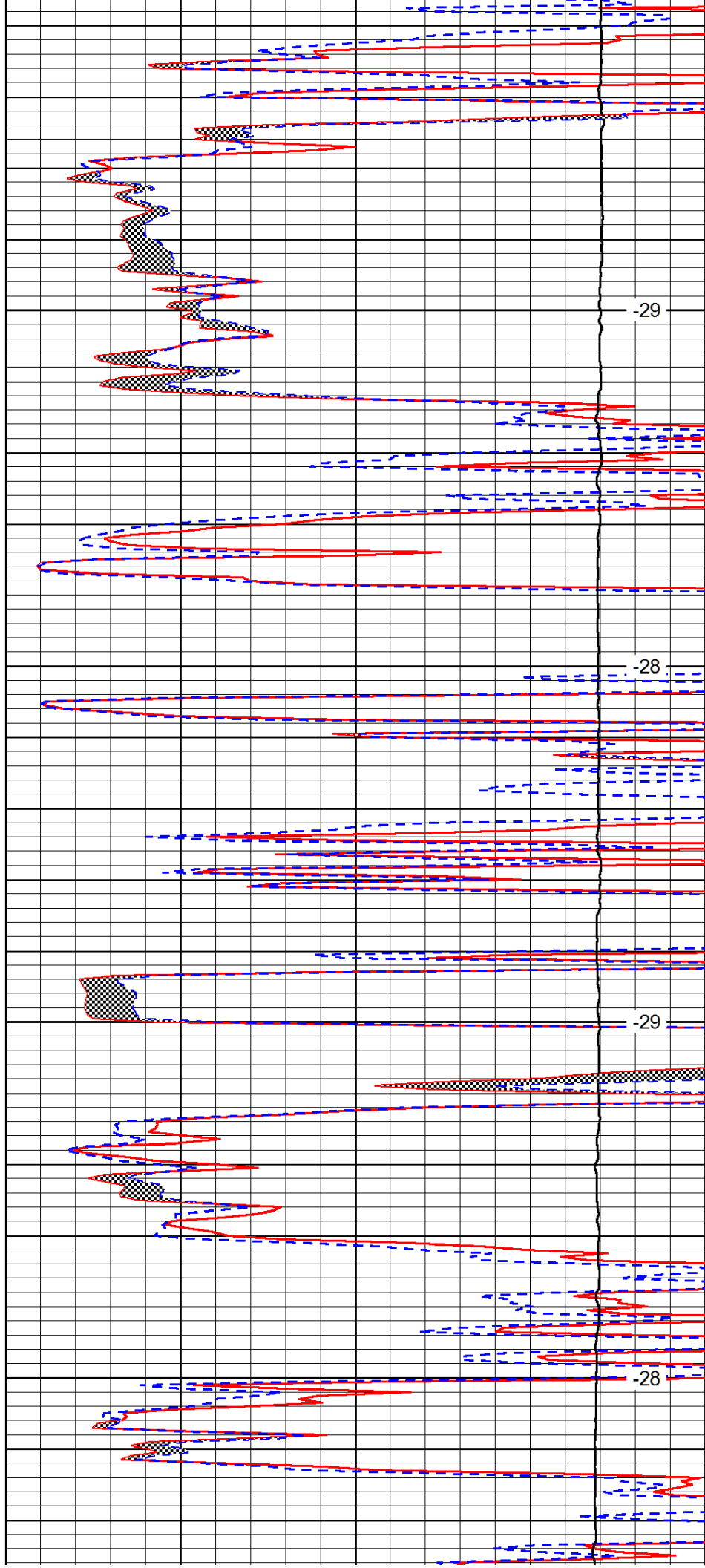


3250

3300

3350

3400

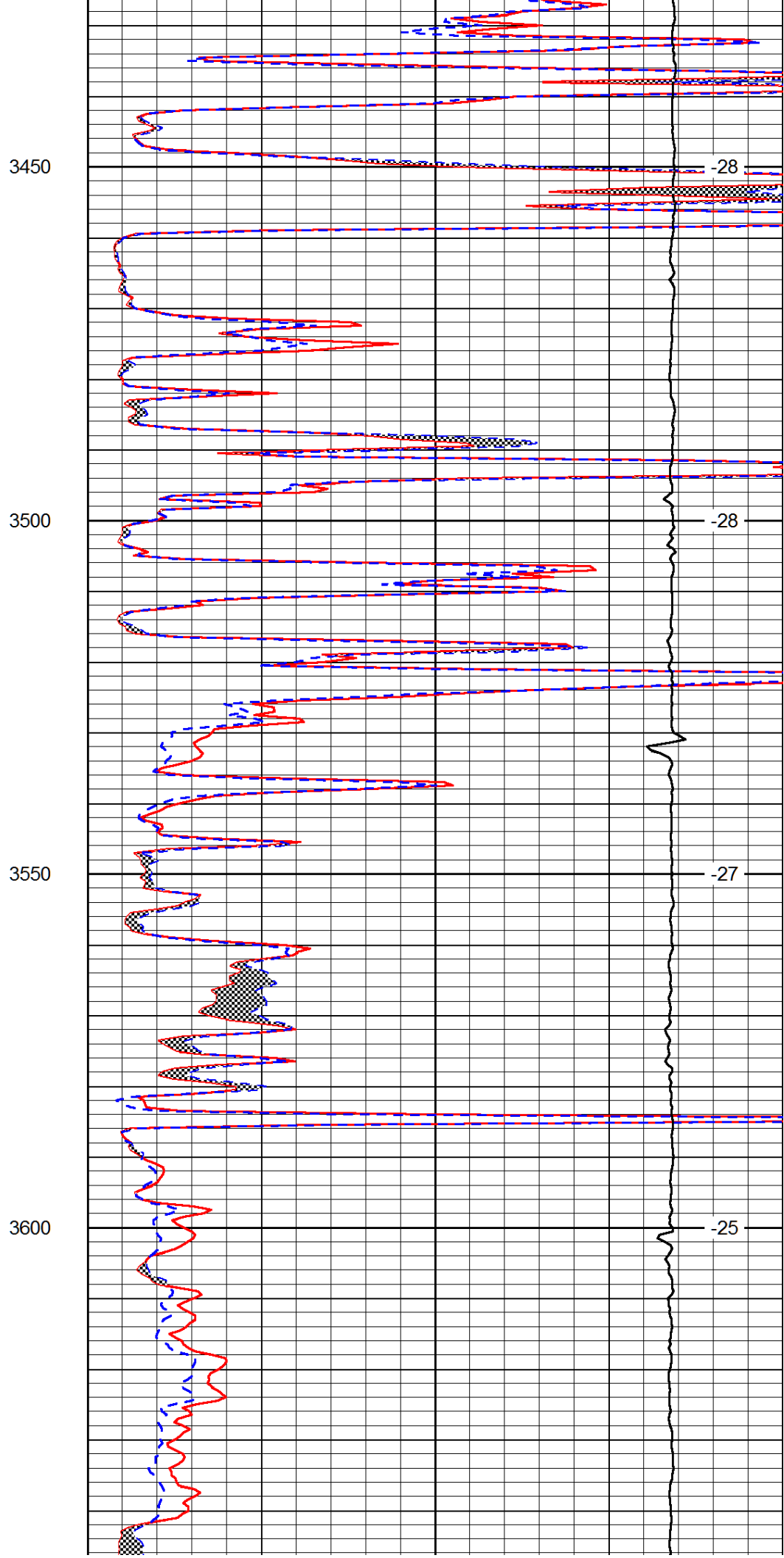
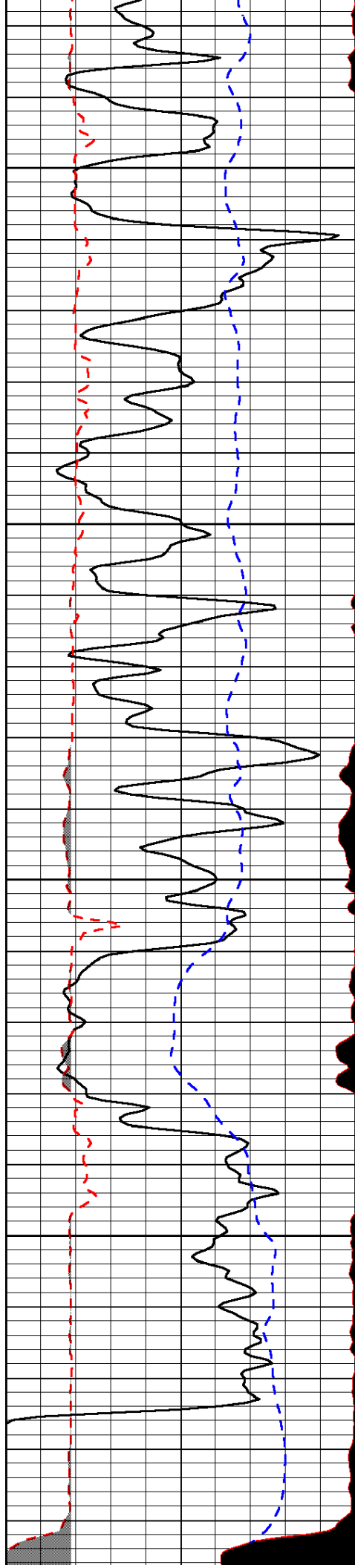


-29

-28

-29

-28



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

3650

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