



Pioneer Energy Services

Dual Induction Log

API No.

15-009-25986-00-00

Company Bird Dog Oil, LLC

Well Lakin-Sieker # 2-23

Field Lanterman

County Barton State

Kansas

Location 1305' FNL & 140' FWL

Sec: 23 Twp: 19 S Rge: 11 W

Other Services
CNL/CDL
MEL/BHCS

Elevation

Permanent Datum Ground Level Elevation 1777
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly BushingK.B. 1785
D.F. 1777
G.L. 1777

Date 06-21-2014

Run Number One

Depth Driller 3420

Depth Logger 3419

Bottom Logged Interval 3418

Top Log Interval 250

Casing Driller 8.625 @ 263

Casing Logger 259

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 6100

Density / Viscosity 9.3 54

pH / Fluid Loss 10.0 8.8

Source of Sample Flowline

Rm @ Meas. Temp 0.30 @ 80

Rmf @ Meas. Temp 0.22 @ 80

Rmc @ Meas. Temp 0.40 @ 80

Source of Rmf / Rmc Charts

Rm @ BHT 0.21 @ 112

Operating Rig Time 5 Hours

Max Rec. Temp. F 112

Equipment Number 91

Location Hays

Recorded By Y. Ruiz

Witnessed By Adam Kennedy

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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

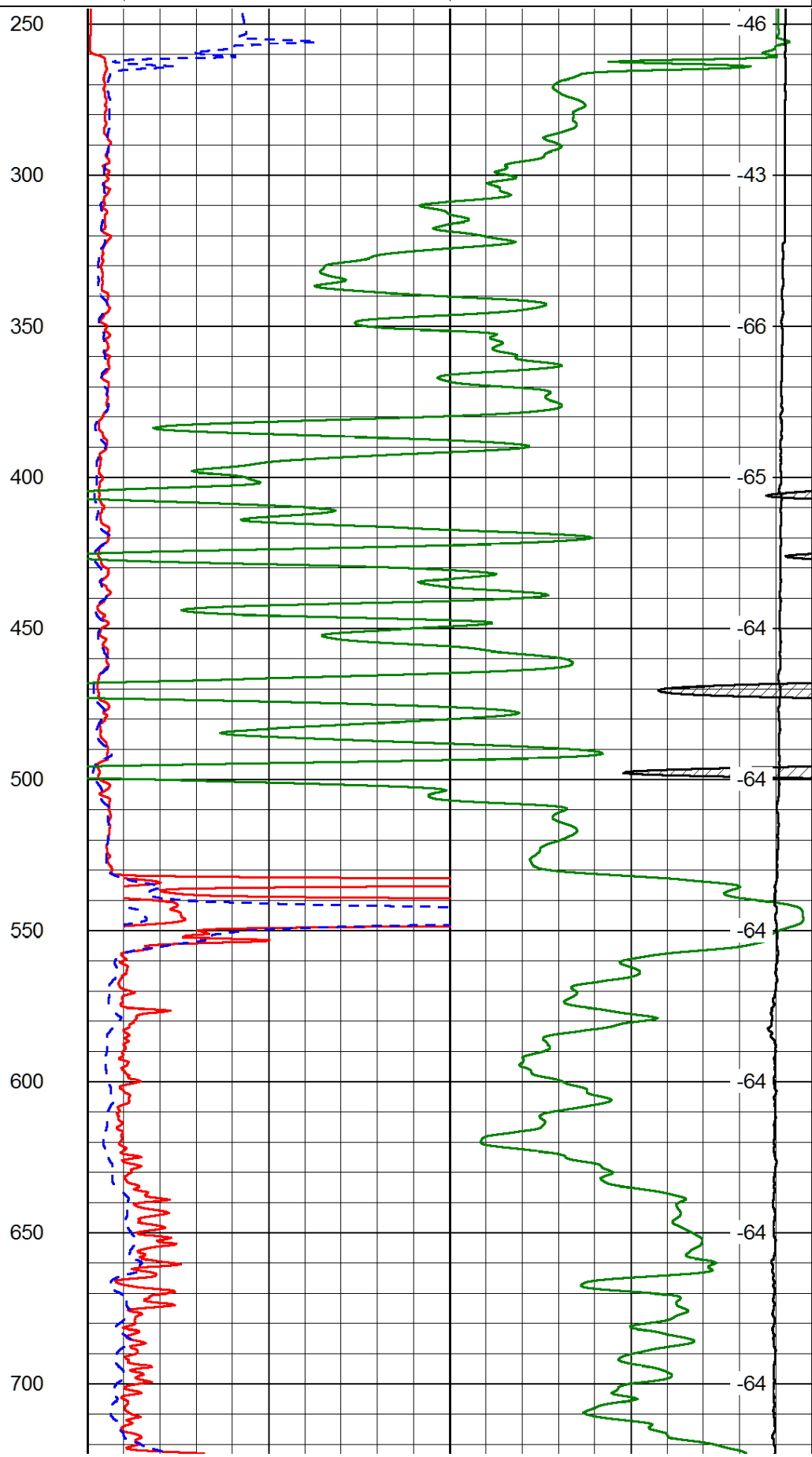
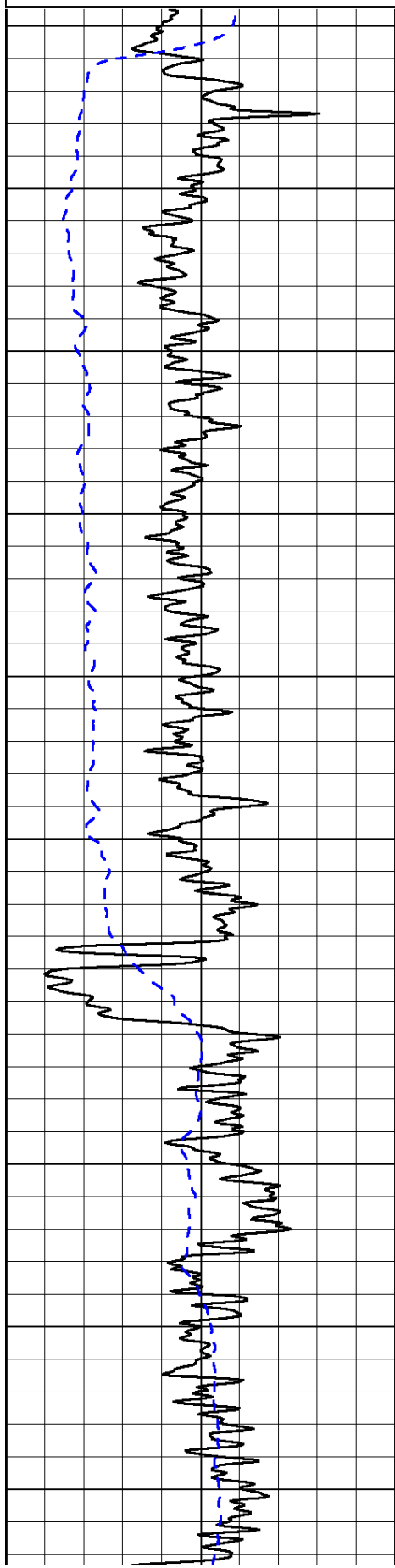
Ellinwood,
3 East to 140 Rd, 2 North,
East into

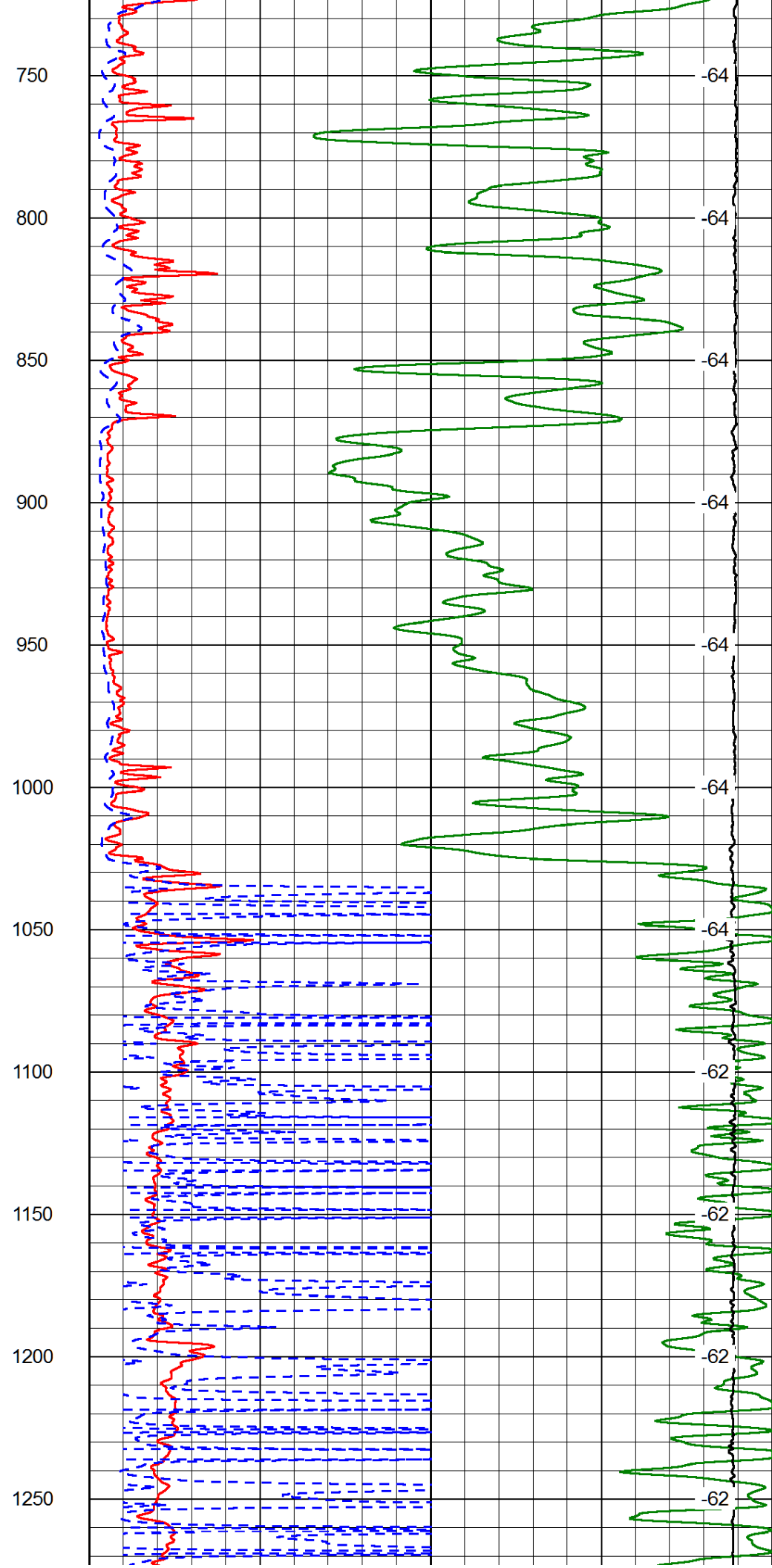
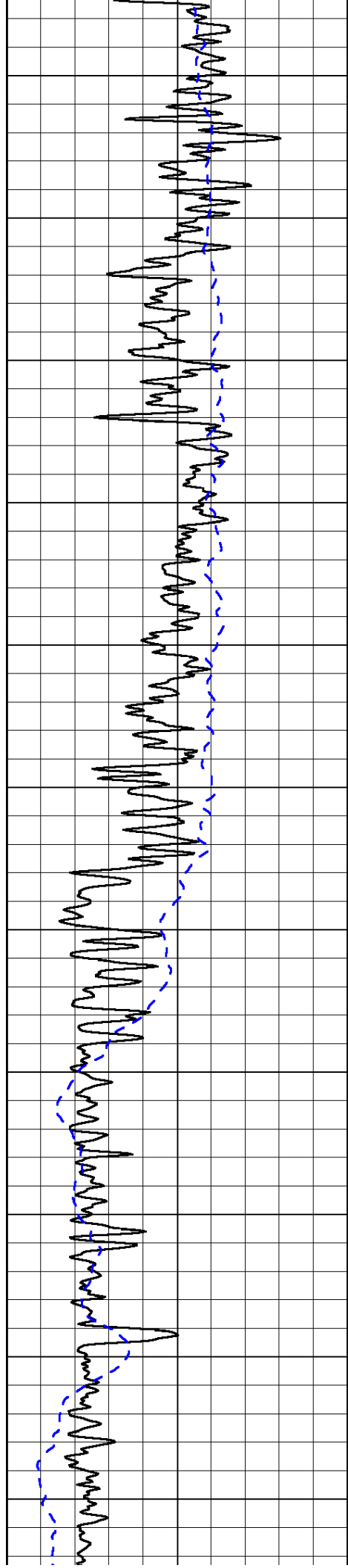
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Dataset Pathname: DIL/bdstk
Presentation Format: dil2in
Dataset Creation: Sun Jun 22 01:54:53 2014
Charted by: Depth in Feet scaled 1:600

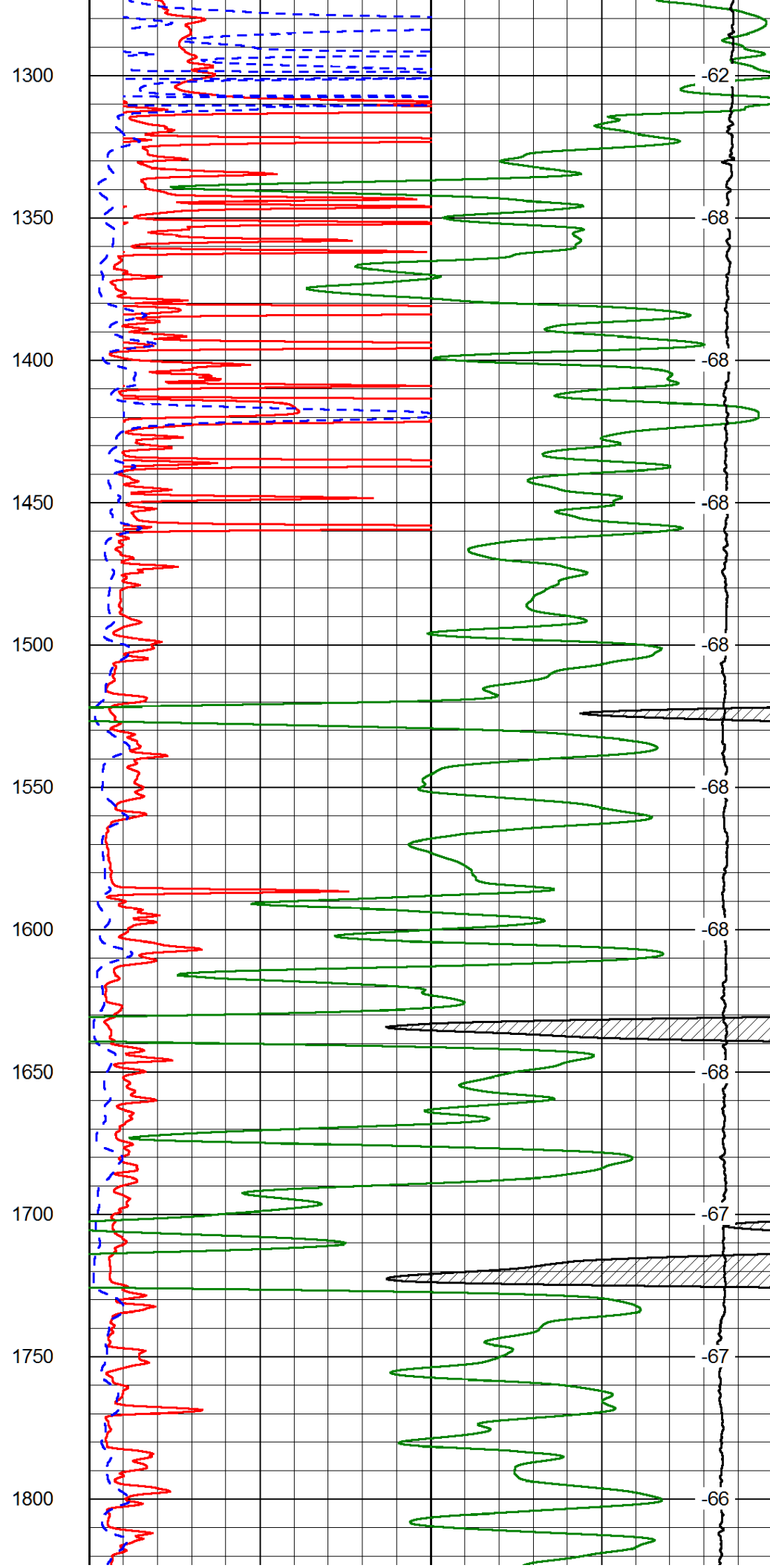
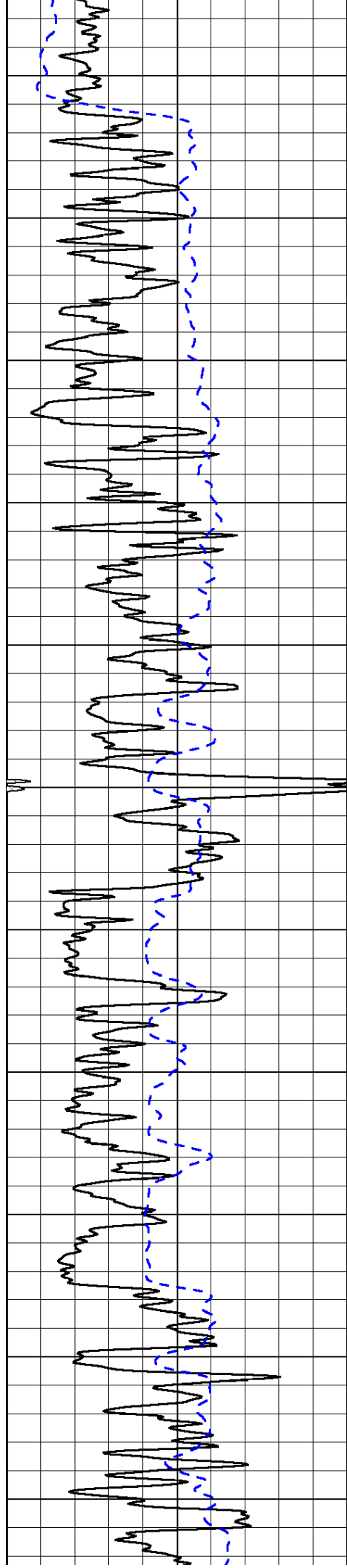
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-200	SP (mV)	0

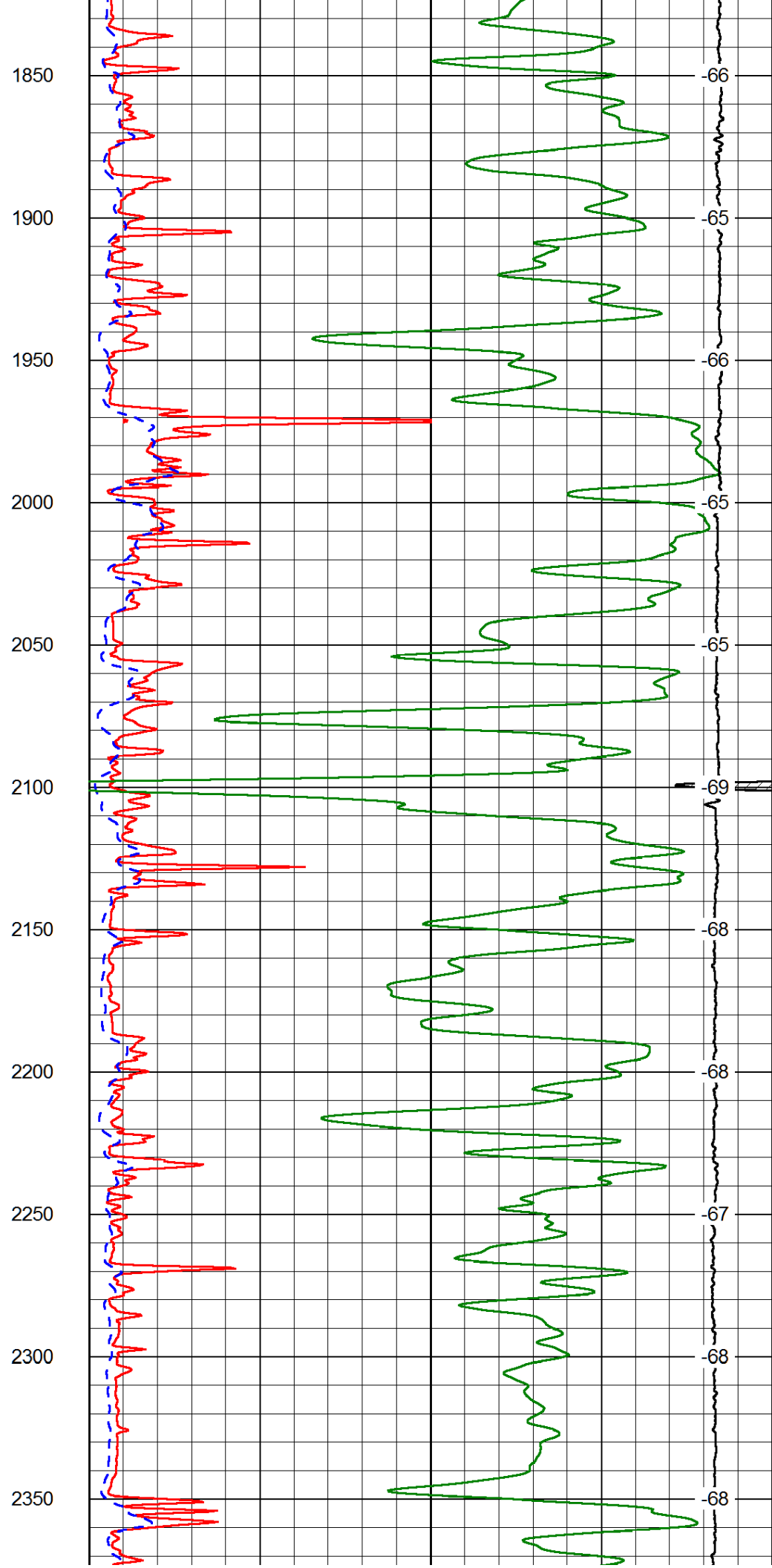
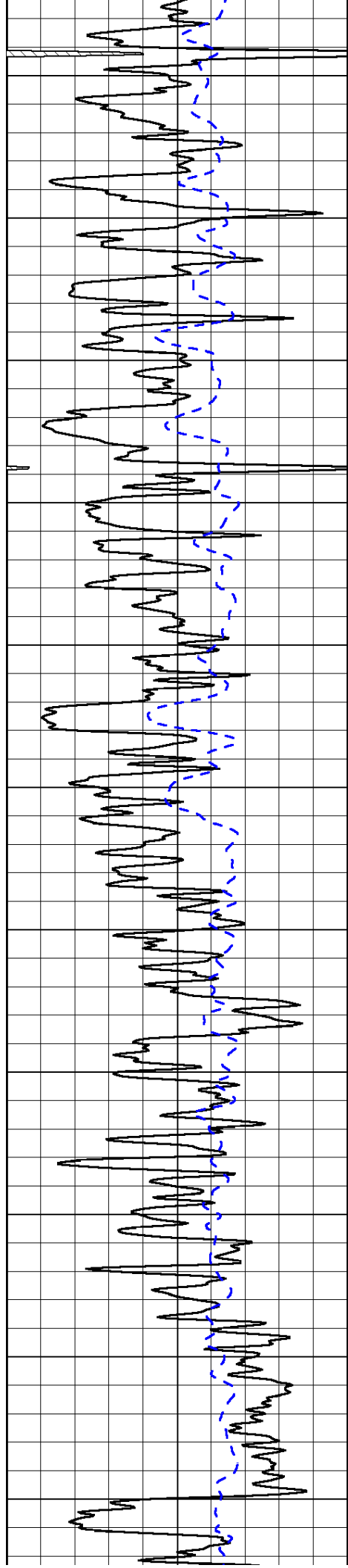
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0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

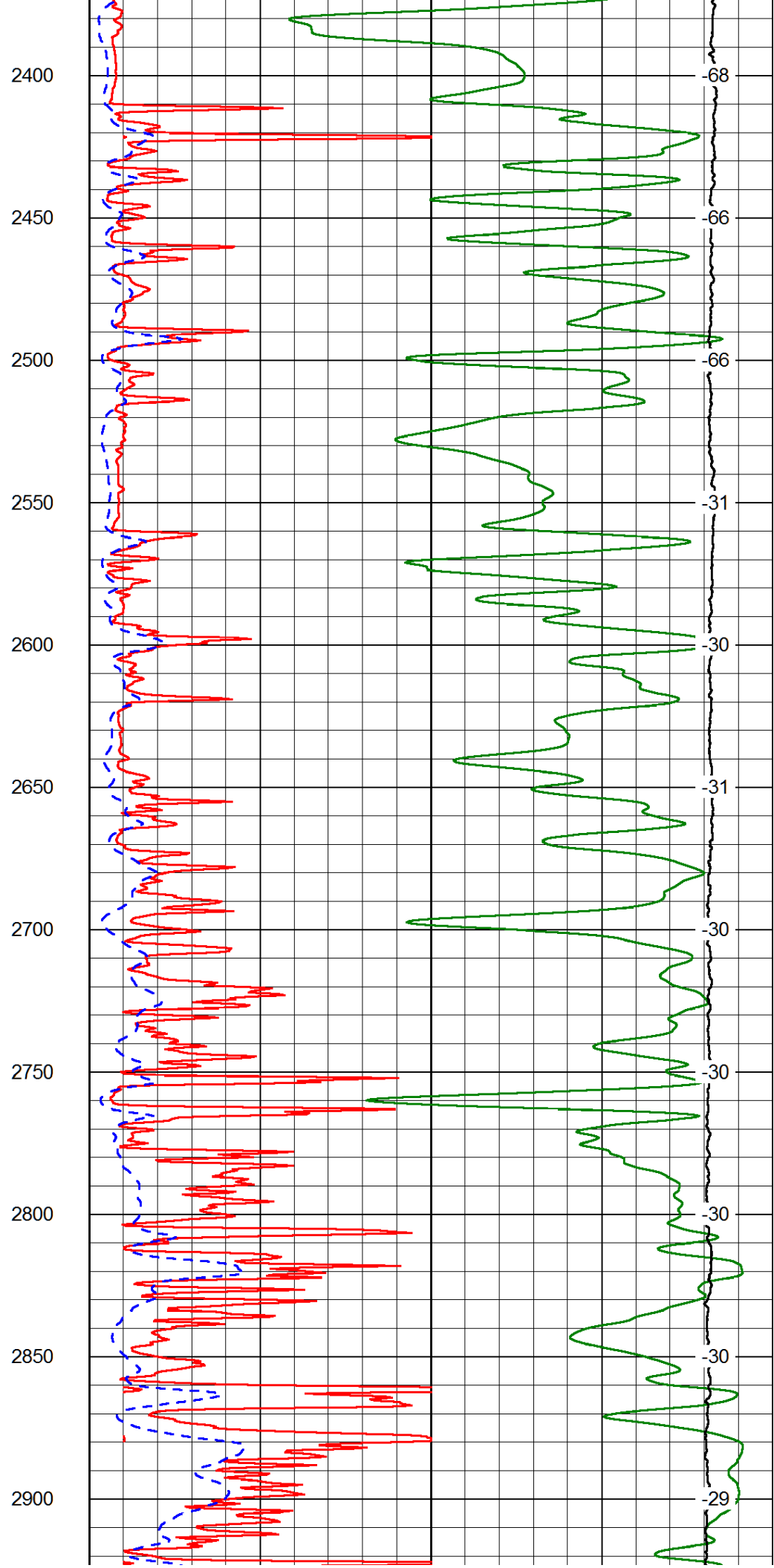
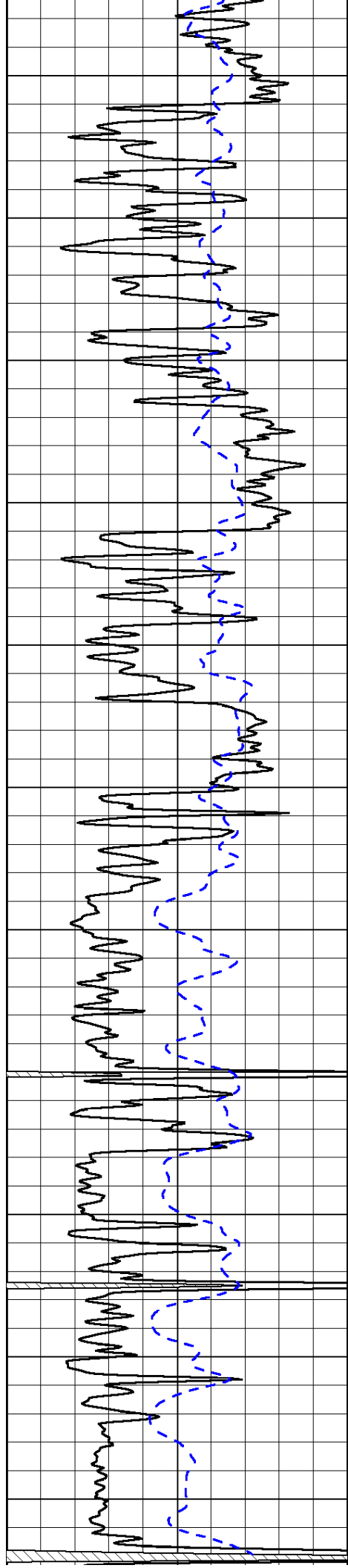
LSPD
0
0

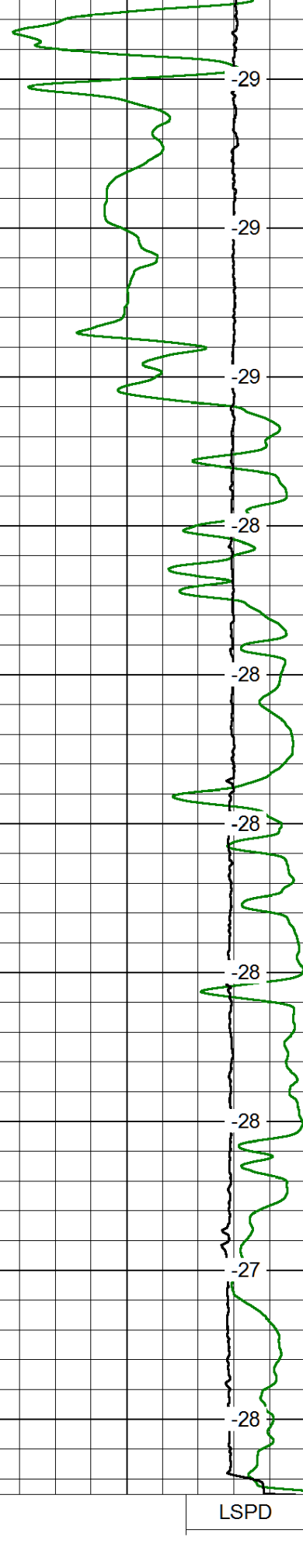
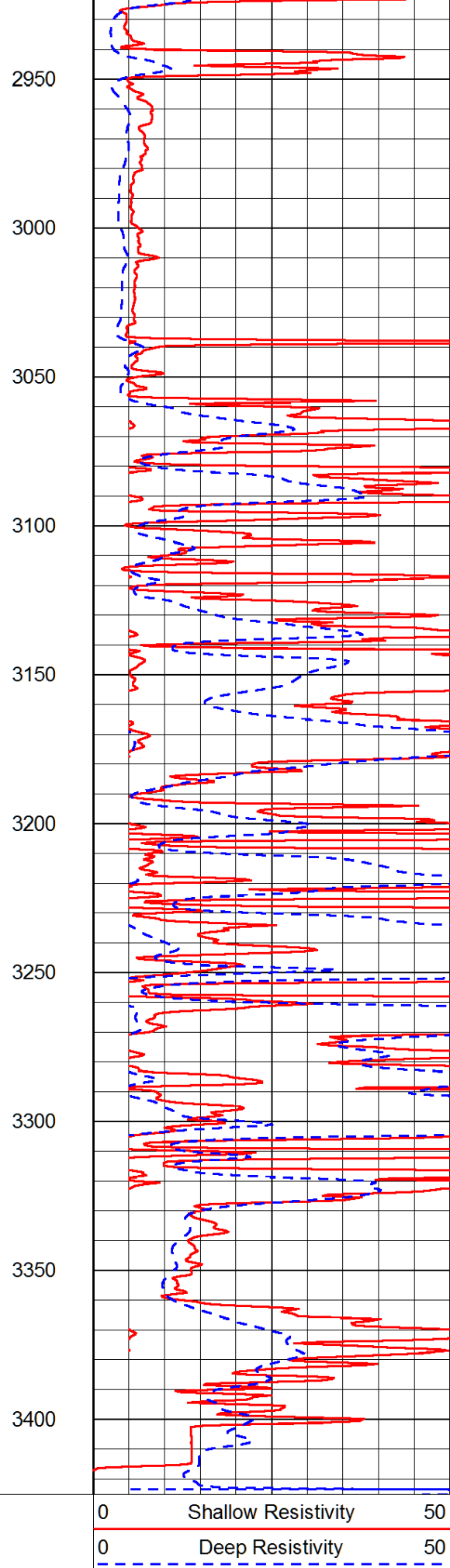
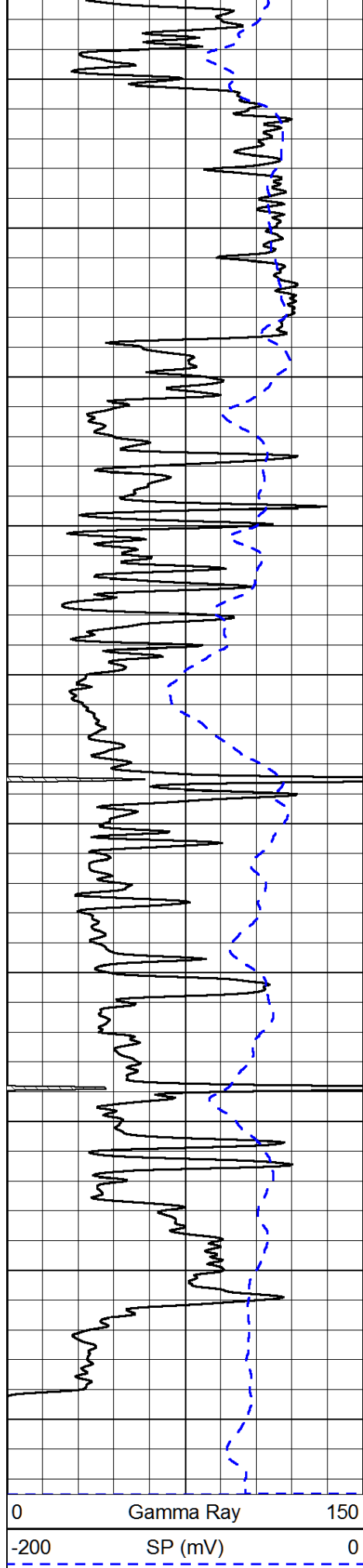












0 150
Gamma Ray
-200 0
SP (mV)

0 50
Shallow Resistivity
0 50
Deep Resistivity

LSPD
0
15000
Line Tension

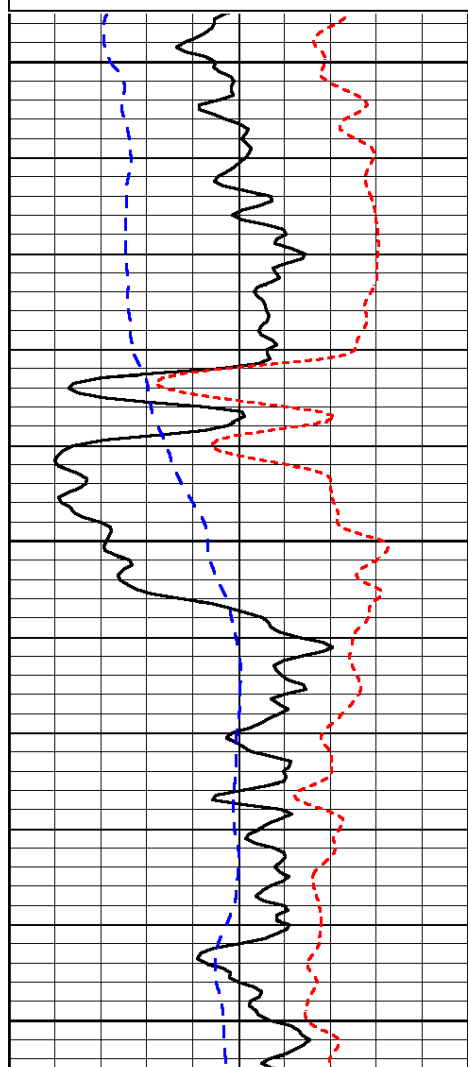
50	Shallow Resistivity	500
50	Deep Resistivity	500

Database File: bird_dog 062114hd.db
Dataset Pathname: DIL/bdstk
Presentation Format: dil
Dataset Creation: Sun Jun 22 01:54:53 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD

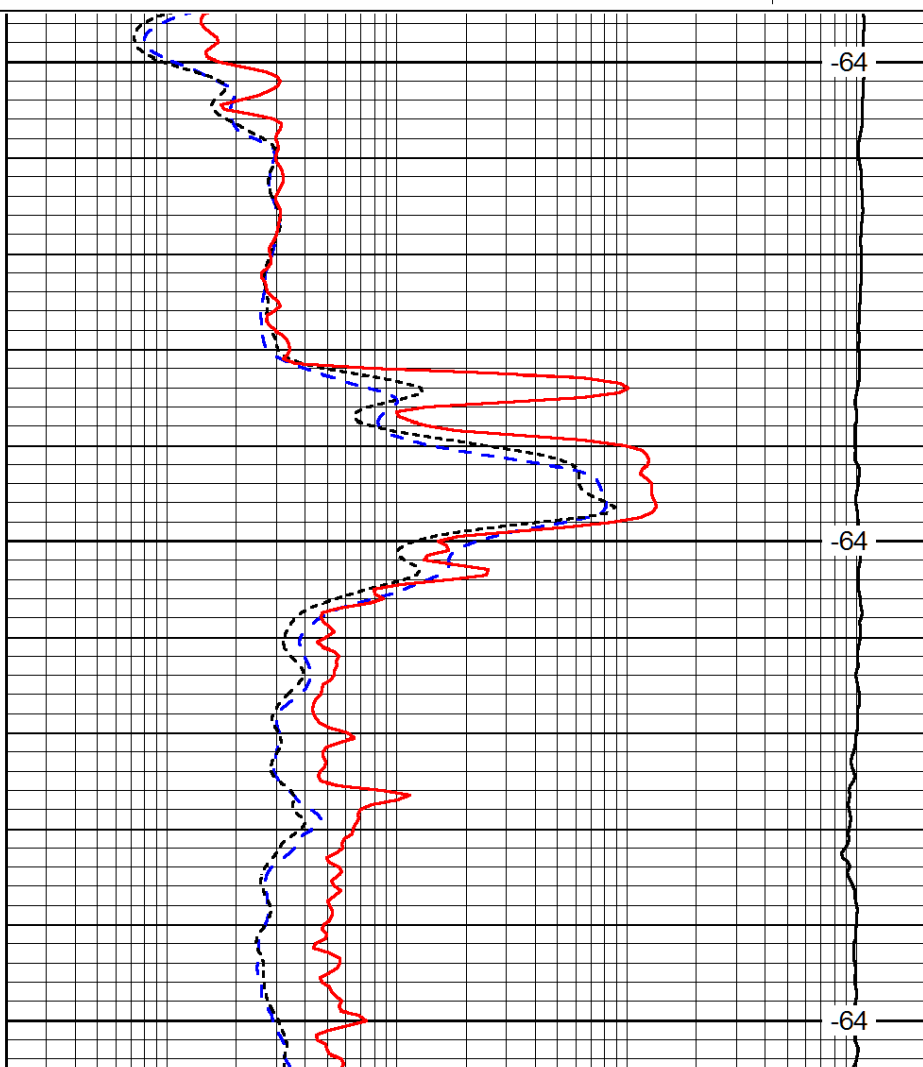


0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

500

550

600



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

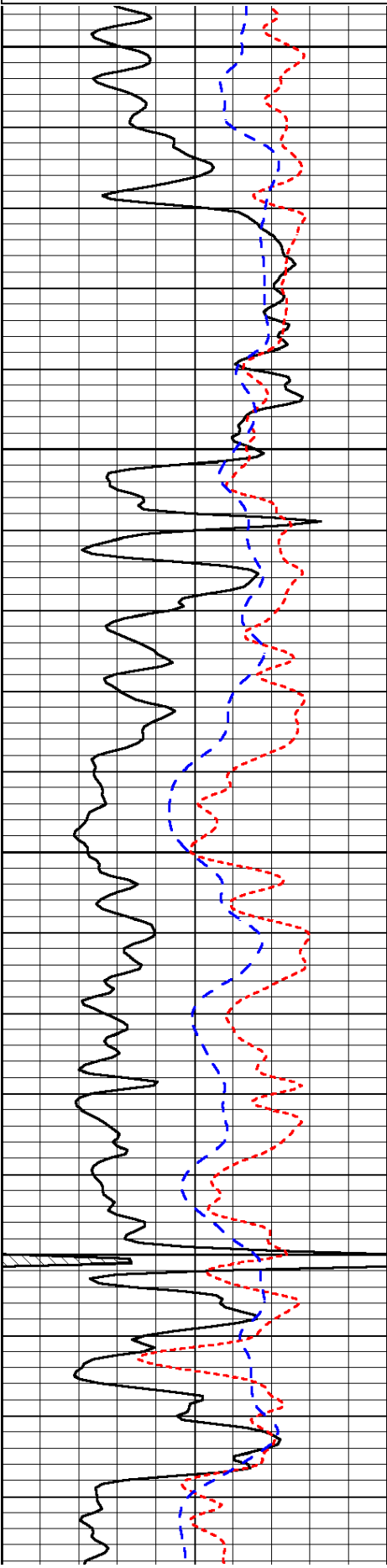
LSPD

Database File: bird_dog 062114hd.db
Dataset Pathname: DIL/bdstk
Presentation Format: dil
Dataset Creation: Sun Jun 22 01:54:53 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD

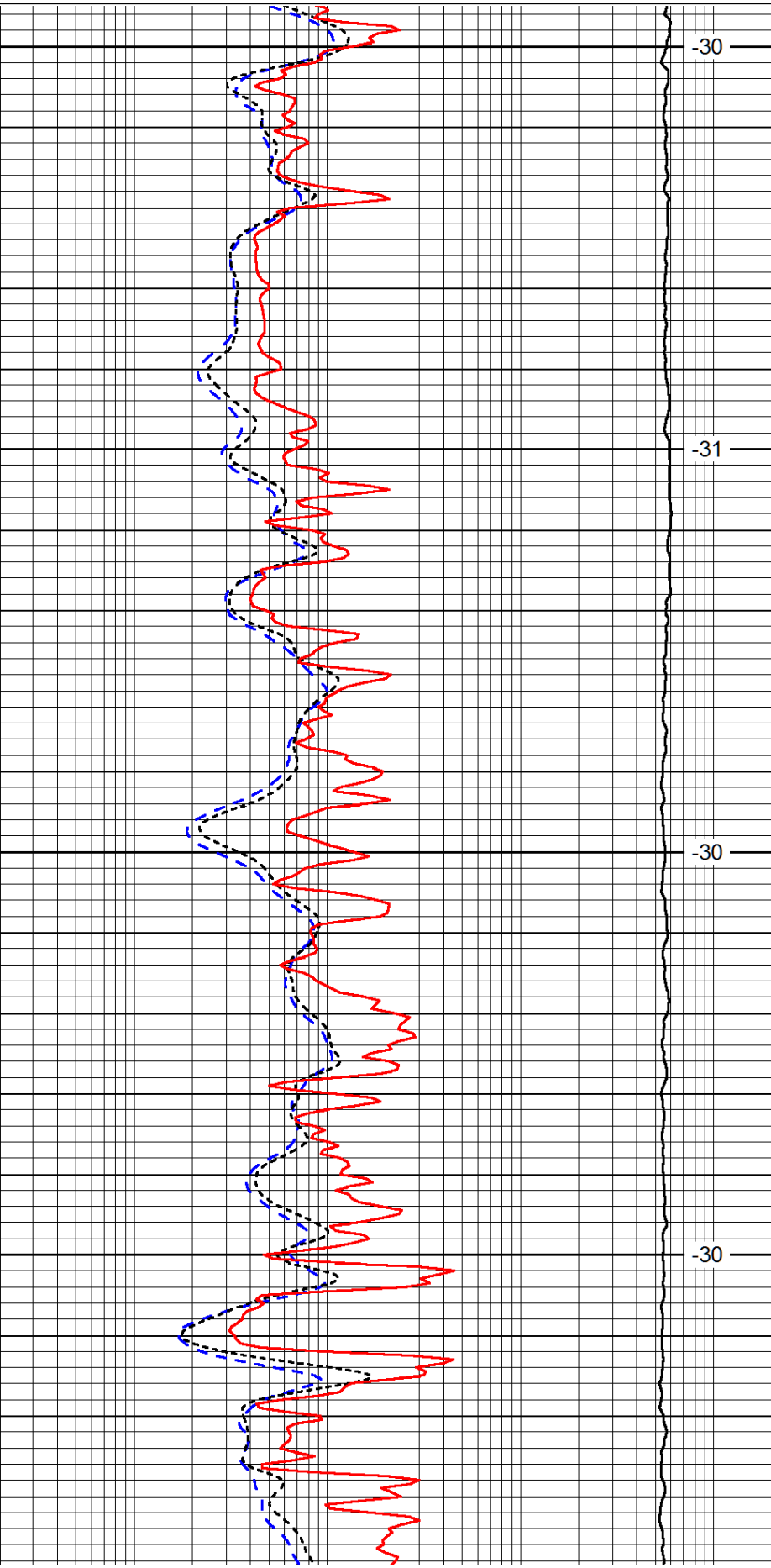


2600

2650

2700

2750

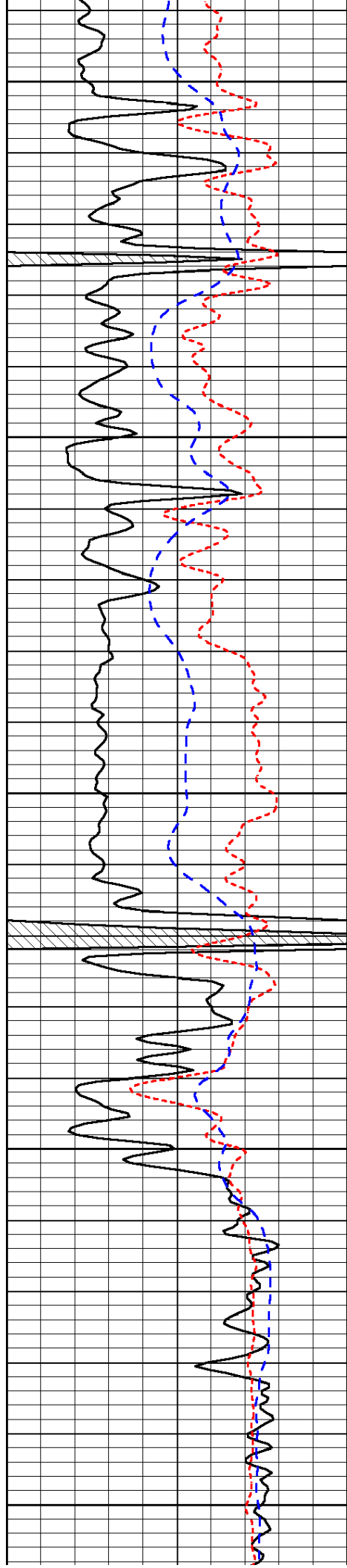


-30

-31

-30

-30



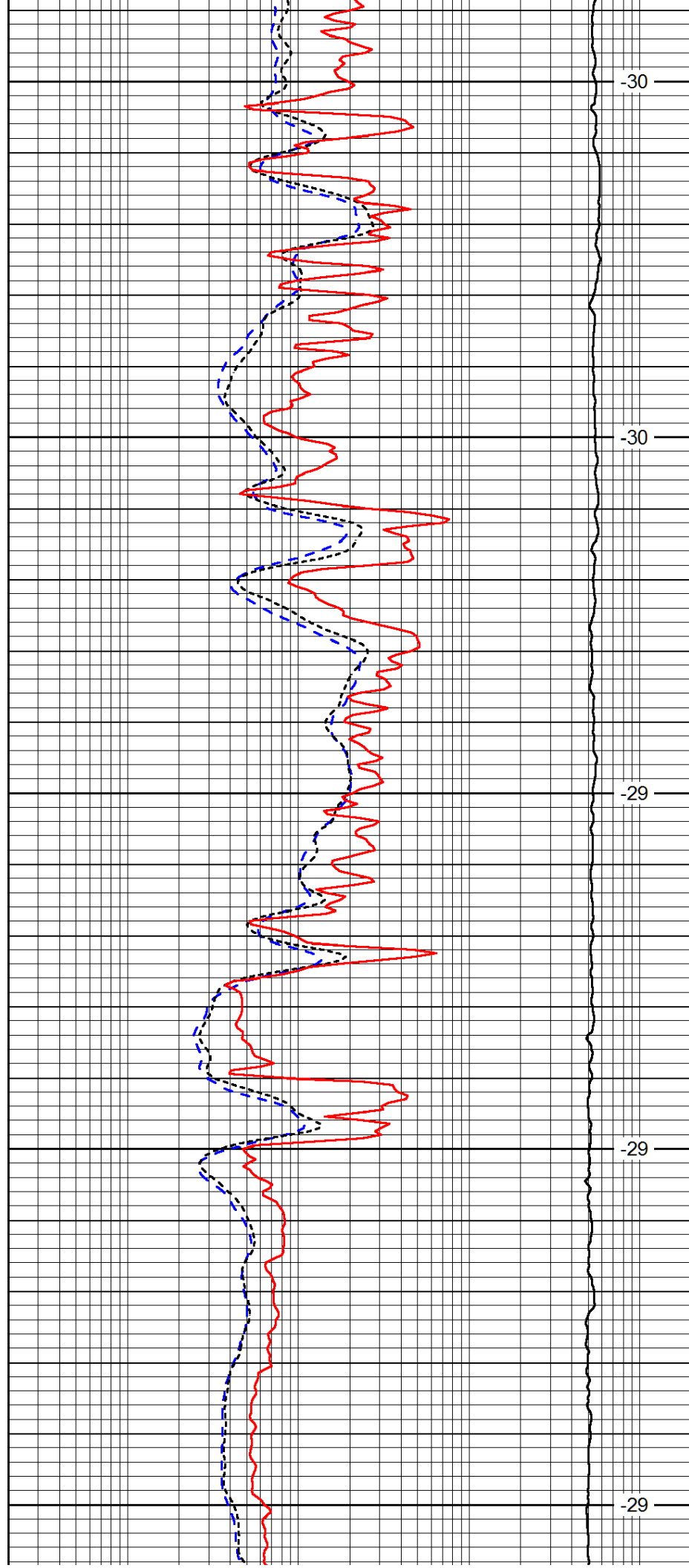
2800

2850

2900

2950

3000



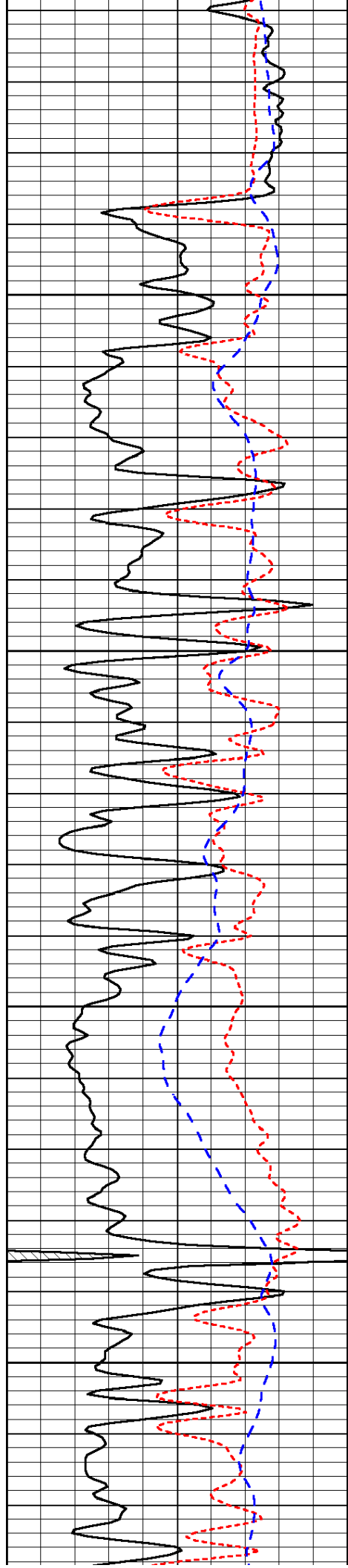
-30

-30

-29

-29

-29

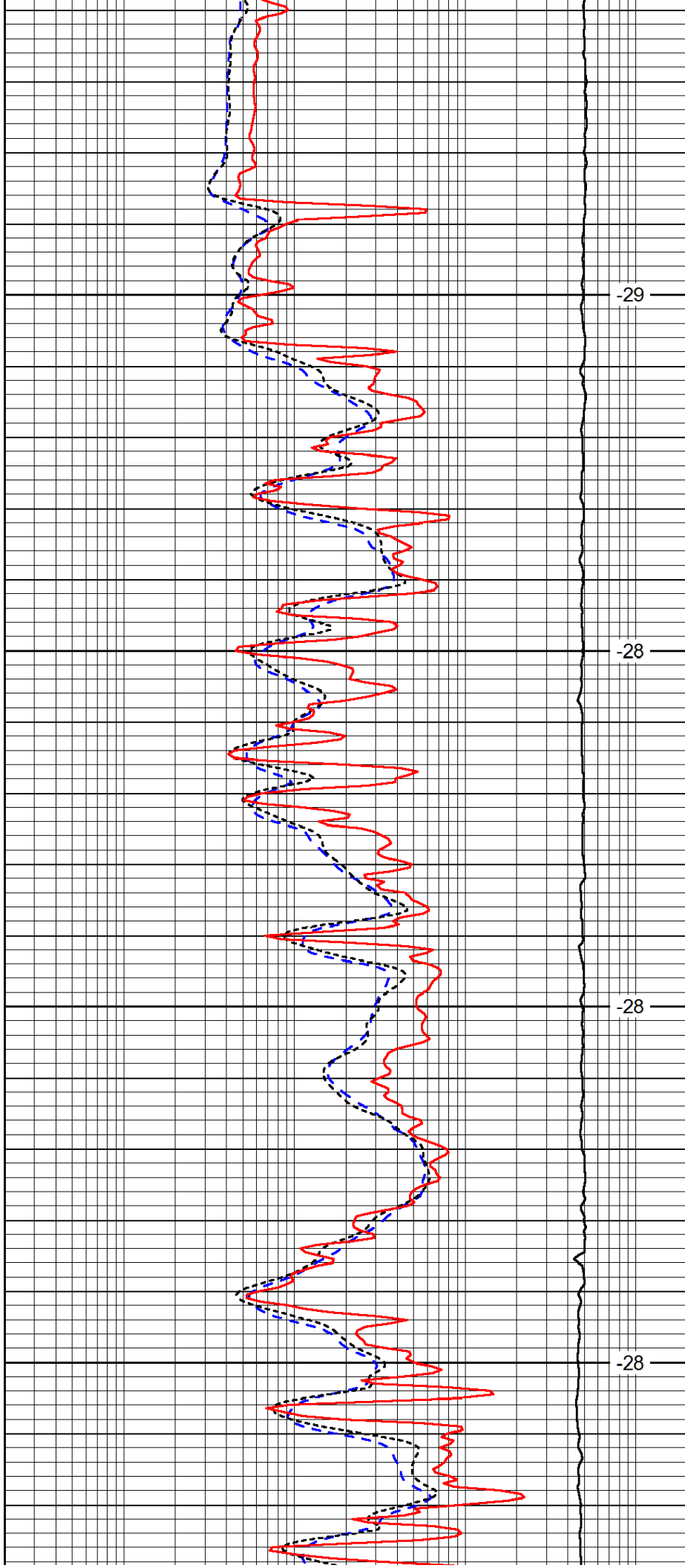


3050

3100

3150

3200

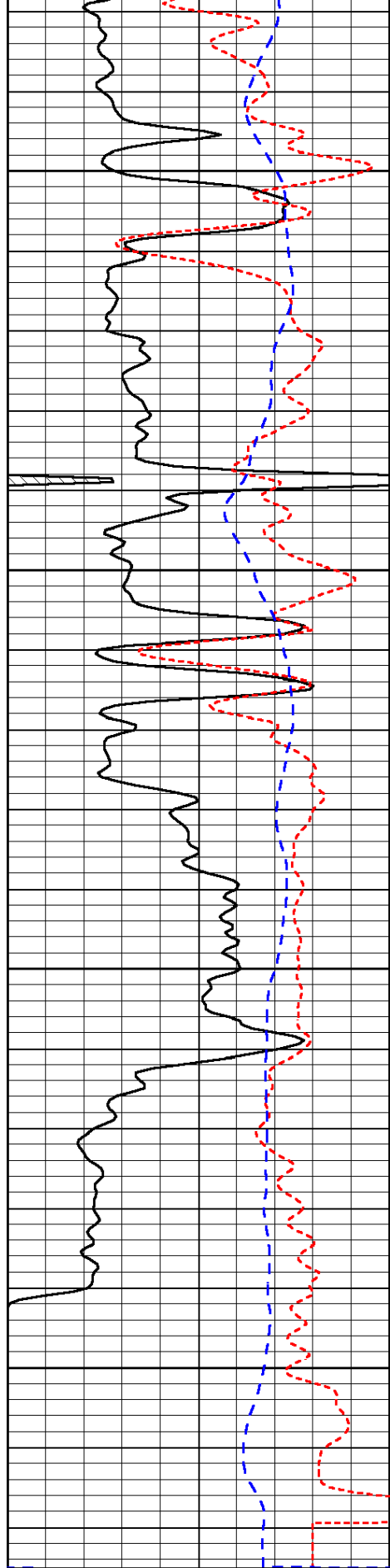


-29

-28

-28

-28



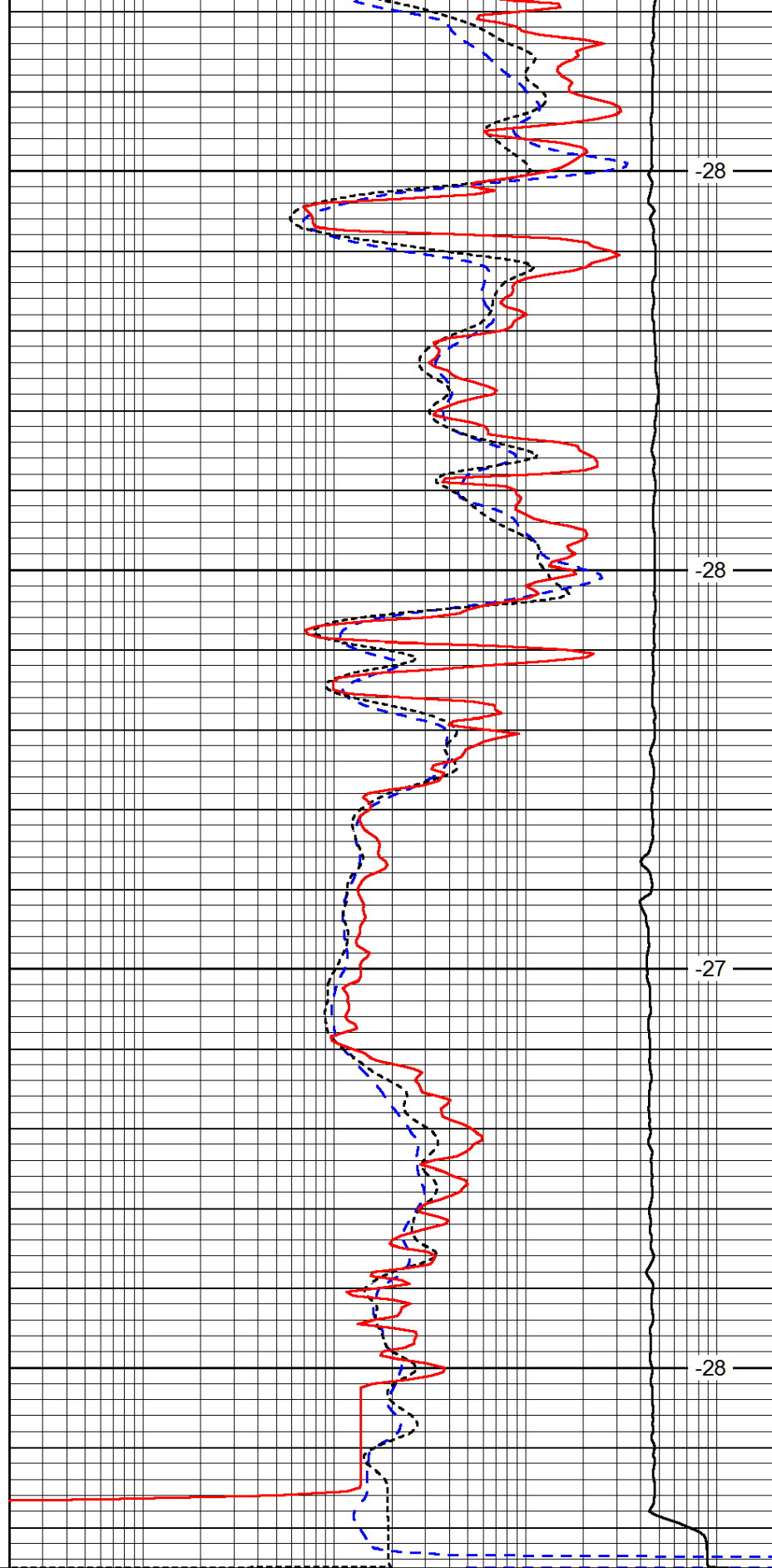
0	Gamma Ray	150
-160	RXO/RT	40
-200	SP (mV)	0

3250

3300

3350

3400



-28

-28

-27

-28

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD
