



MICRORESISTIVITY LOG

PIONEER
Pioneer Energy Services

Company **AMERICAN WARRIOR, INC.**
Well **BRANDA #1-29**
Field **STOLTENBERG**
County **ELLSWORTH**
State **KANSAS**

Company **AMERICAN WARRIOR, INC.**
Well **BRANDA #1-29**
Field **STOLTENBERG**
County **ELLSWORTH** State **KANSAS**

Location: API #: 15-053-21347-00-00

Other Services

SEC 29 TWP 15S RGE 10W
837' FSL & 1516' FWL

CNL/CDL
DIL

Permanent Datum **GROUND LEVEL** Elevation **1816'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 1824'
D.F. N/A
G.L. 1816'

Date **5/22/2016**

Run Number **ONE**

Depth Driller **3500'**

Depth Logger **3485'**

Bottom Logged Interval **3484'**

Top Log Interval **2500'**

Casing Driller **8.625" @ 396'**

Casing Logger **398'**

Bit Size **7.875"**

Type Fluid in Hole **CHEMICAL**

Salinity, ppm CL **6500**

Density / Viscosity **9.2 52**

pH / Fluid Loss **10.0 9.2**

Source of Sample **FLOWLINE**

Rm @ Meas. Temp **0.42 @ 74**

Rmt @ Meas. Temp **0.32 @ 74**

Rmc @ Meas. Temp **0.57 @ 74**

Source of Rmf / Rmc **CHARTS**

Rm @ BHT **0.28 @ 111**

Operating Rig Time **3 HOURS**

Max Rec. Temp. F **111**

Equipment Number **91**

Location **COLBY**

Recorded By **D. SCHMIDT**

Witnessed By **LUKE THOMPSON**

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

**WILSON,
7 SOUTH TO K RD, 2 EAST,
1 SOUTH, 1/2 WEST,
NORTH INTO**

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

**THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858**

Your Pioneer Energy Services Crew

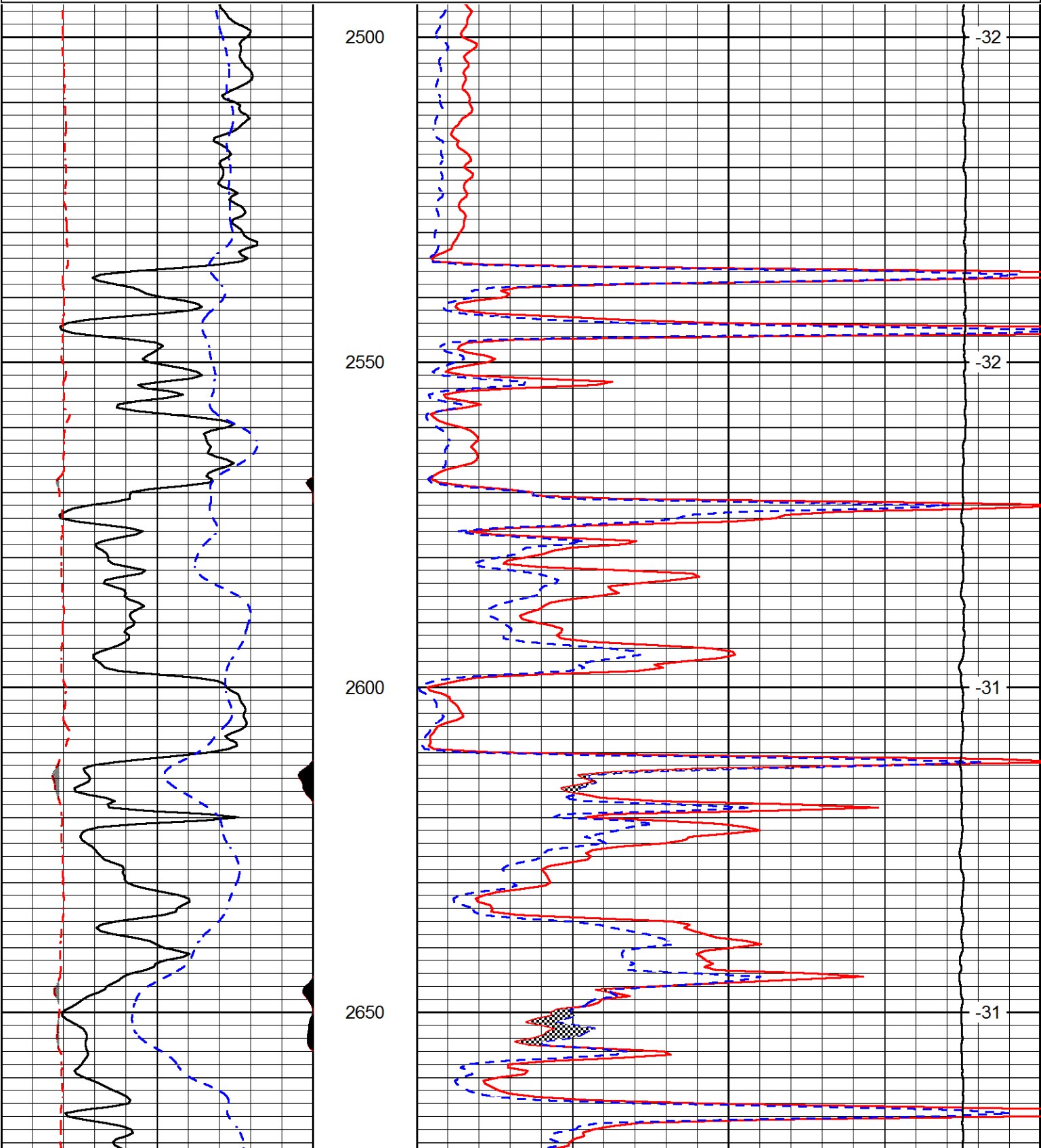
**Engineer: D. SCHMIDT
Operator:
Operator:
Operator:**

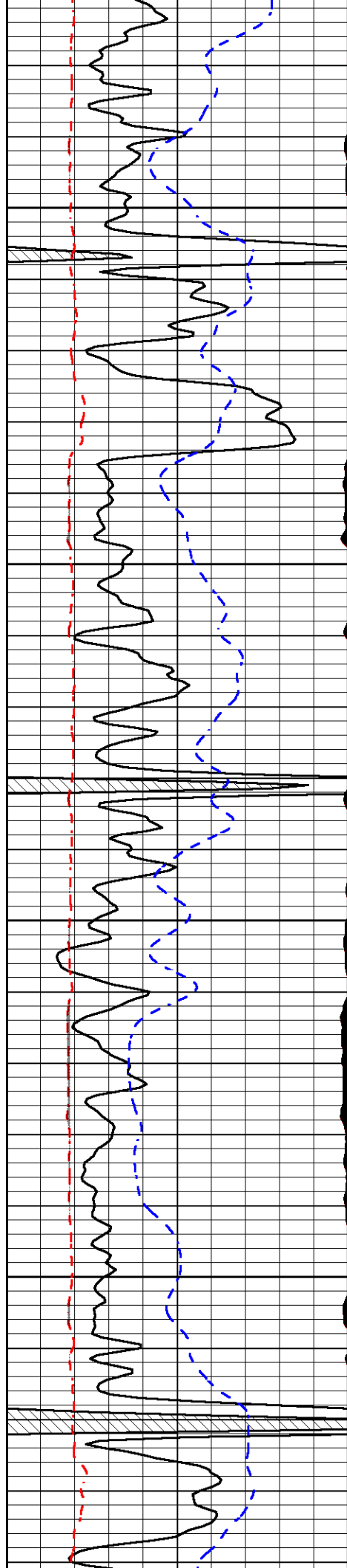
This Log Record Was Witnessed By

**Primary Witness: LUKE THOMPSON
Secondary Witness:
Secondary Witness:
Secondary Witness:**

Database File	american warrior_branda_1-29hd.db
Dataset Pathname	DIL/awstkml
Presentation Format	micro
Dataset Creation	Mon May 23 03:18:40 2016
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0	Micro Inverese 1 X 1 (Ohm-m)	40
6	MCAL (in)	16	0	Micro Normal 2" (Ohm-m)	40
2.875	Mud Cake (in)	7.875	10000	Line Weight (lb)	0
-200	SP (mV)	0	LSPD (ft/min)		



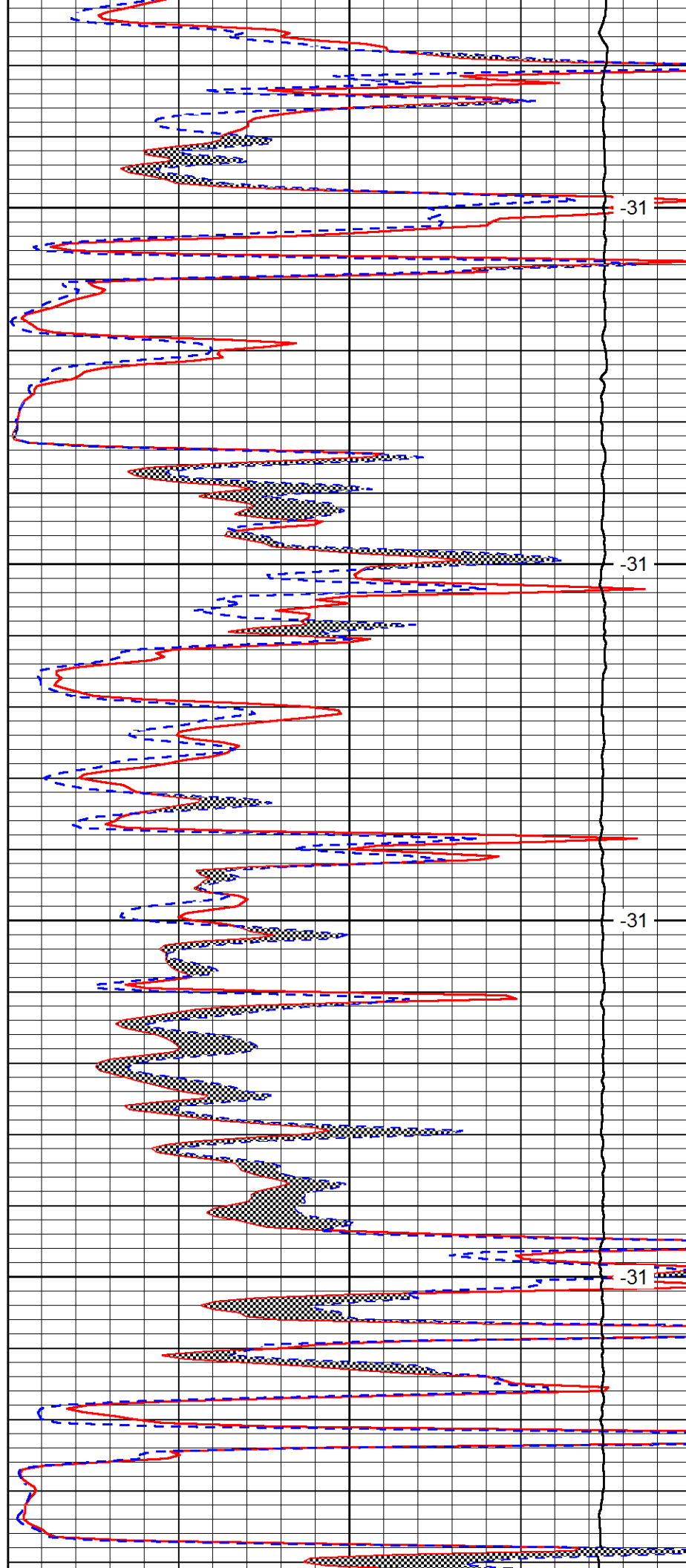


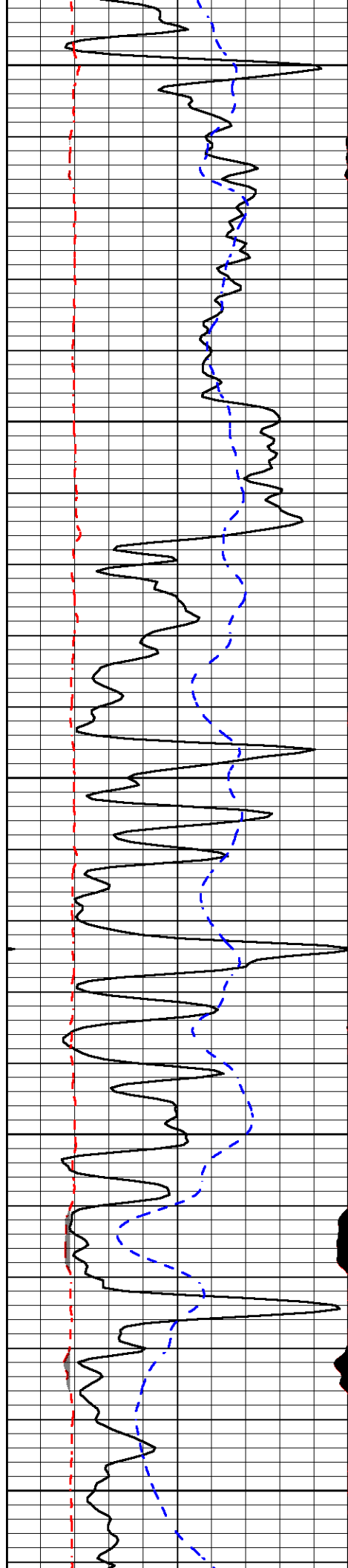
2700

2750

2800

2850





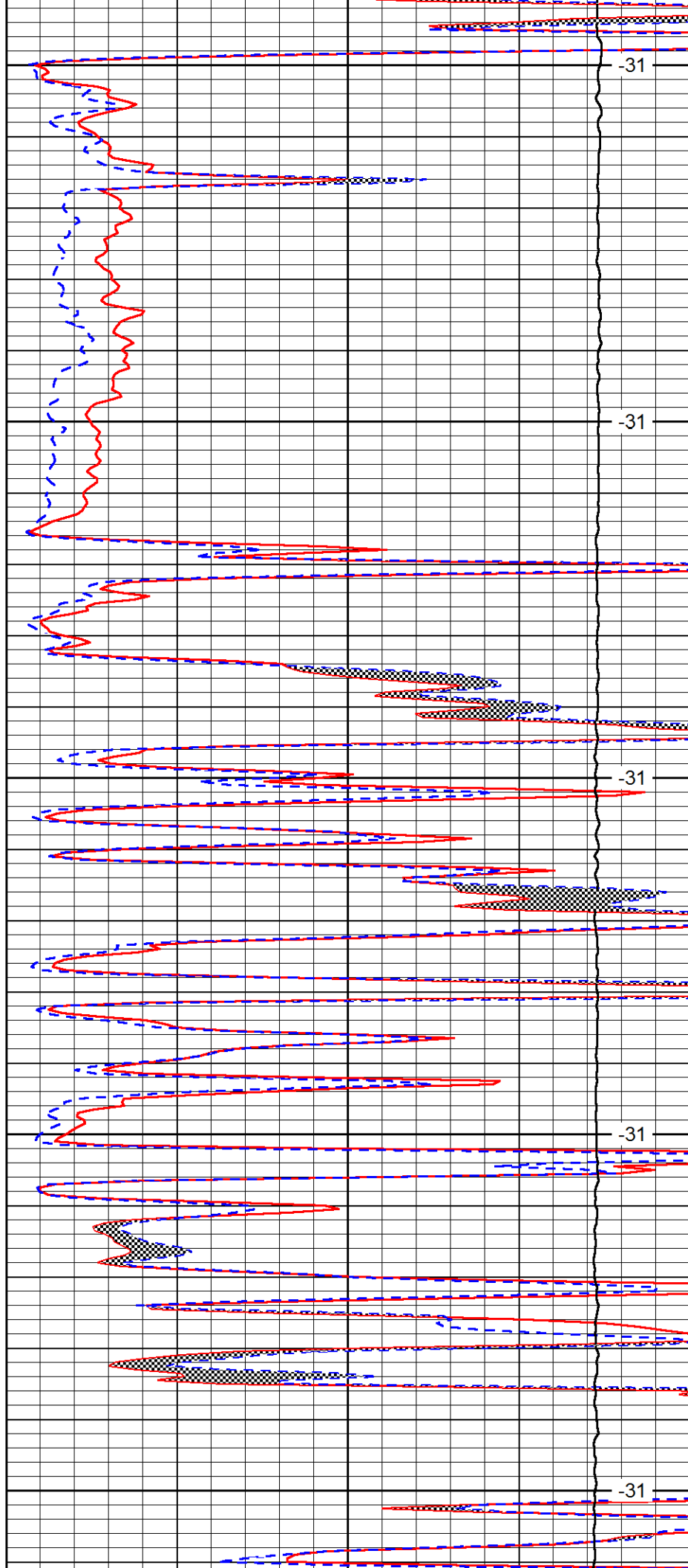
2900

2950

3000

3050

3100



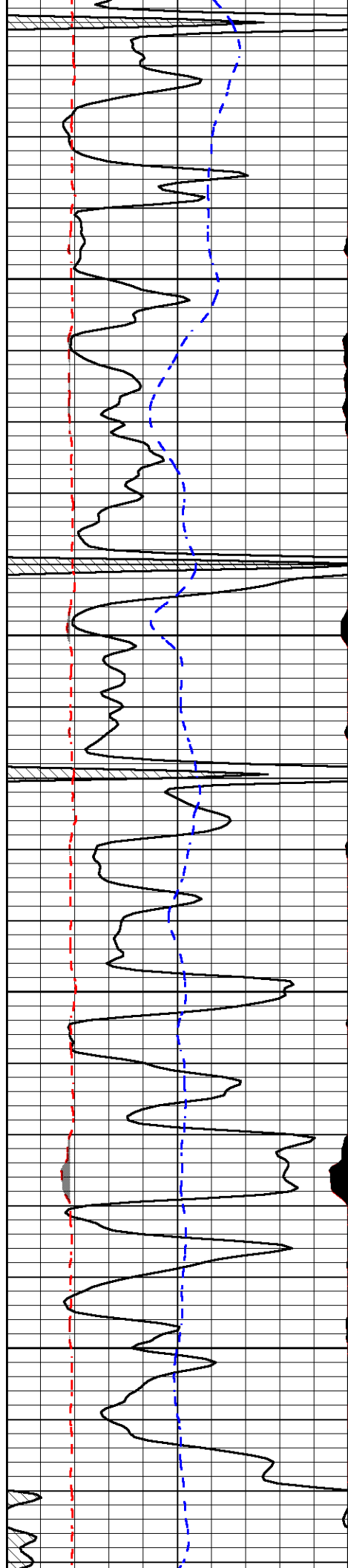
-31

-31

-31

-31

-31

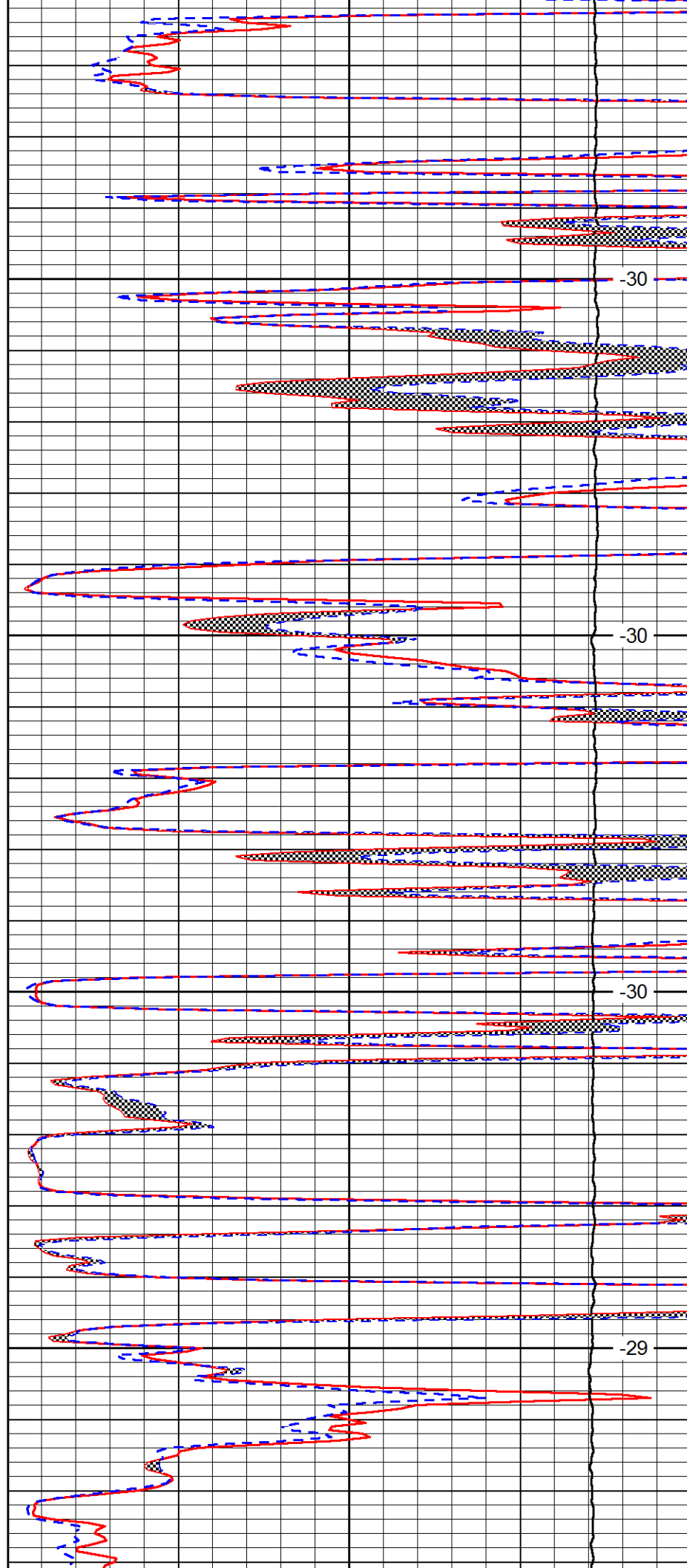


3150

3200

3250

3300

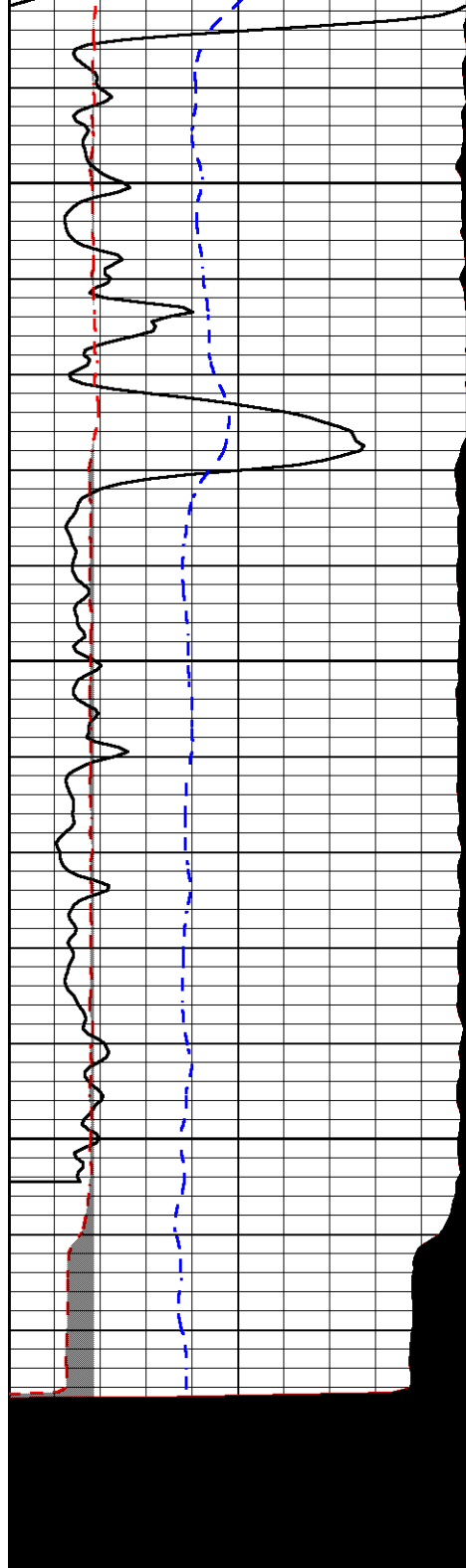


-30

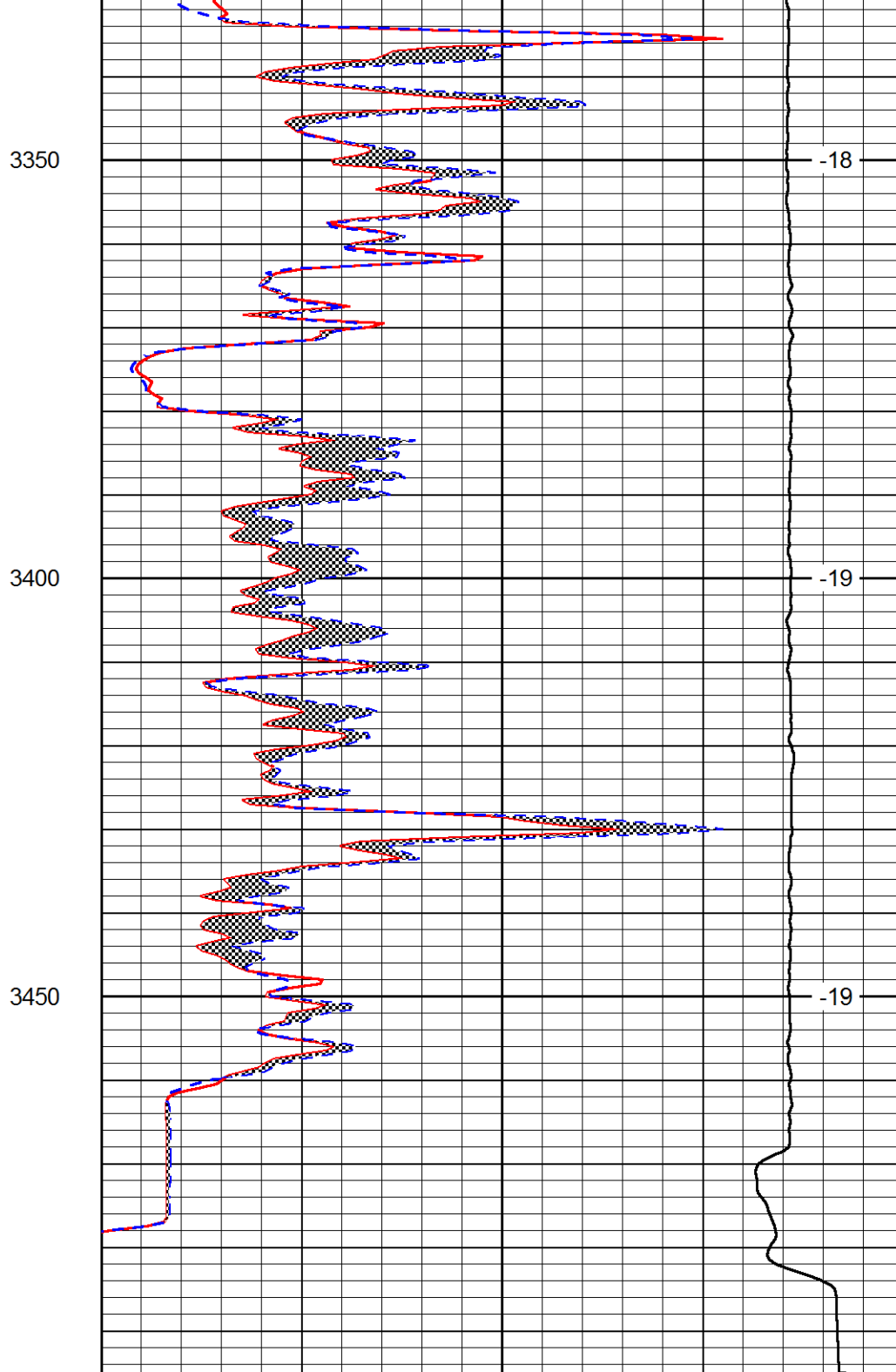
-30

-30

-29



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)