



DUAL INDUCTION LOG

Company MIKE KELSO OIL, INC.
Well WONDER-MUD NO. 14-1
Field THISTLE GROVE
County NESS **State** KANSAS

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Field THISTLE GROVE
County NESS
State KANSAS

Location: API #: 15-135-25910-00-00
 330' FSL & 1,155' FWL
 SEC 14 TWP 17S RGE 21W
Permanent Datum GROUND LEVEL Elevation 2176'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING
Other Services CNL/CDL MEL
Elevation K.B. 2183', D.F. N/A, G.L. 2176'

Date	5/29/2016
Run Number	ONE
Depth Driller	4234'
Depth Logger	4232'
Bottom Logged Interval	4231'
Top Log Interval	300'
Casing Driller	8.625" @ 340'
Casing Logger	343'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	8500
Density / Viscosity	9.0 38
pH / Fluid Loss	9.0 9.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.55 @ 64
Rmt @ Meas. Temp	.41 @ 64
Rmc @ Meas. Temp	.74 @ 64
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.30 @ 118
Operating Rig Time	2 1/2 HOURS
Max Rec. Temp. F	118 DEG F.
Equipment Number	108
Location	COLBY
Recorded By	J. LONG
Witnessed By	PATRICK DEENIHAN

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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.
 MCCRACKEN, 2 WEST ON ELM STREET (SOUTH SIDE OF TOWN), 1 SOUTH, 7/8 WEST, NORTH INTO

Log Measured From: KELLY BUSHING 7 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew Engineer: J. LONG Operator: Operator: Operator: D. WALKER	This Log Record Was Witnessed By Primary Witness: PATRICK DEENIHAN Secondary Witness: Secondary Witness: Secondary Witness:
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Database File mikekelsooil_wonder-mud_14-1hd.db
 Dataset Pathname DIL/mkstckml
 Presentation Format dil2in
 Dataset Creation Sun May 29 07:56:21 2016
 Charted by Depth in Feet scaled 1:600

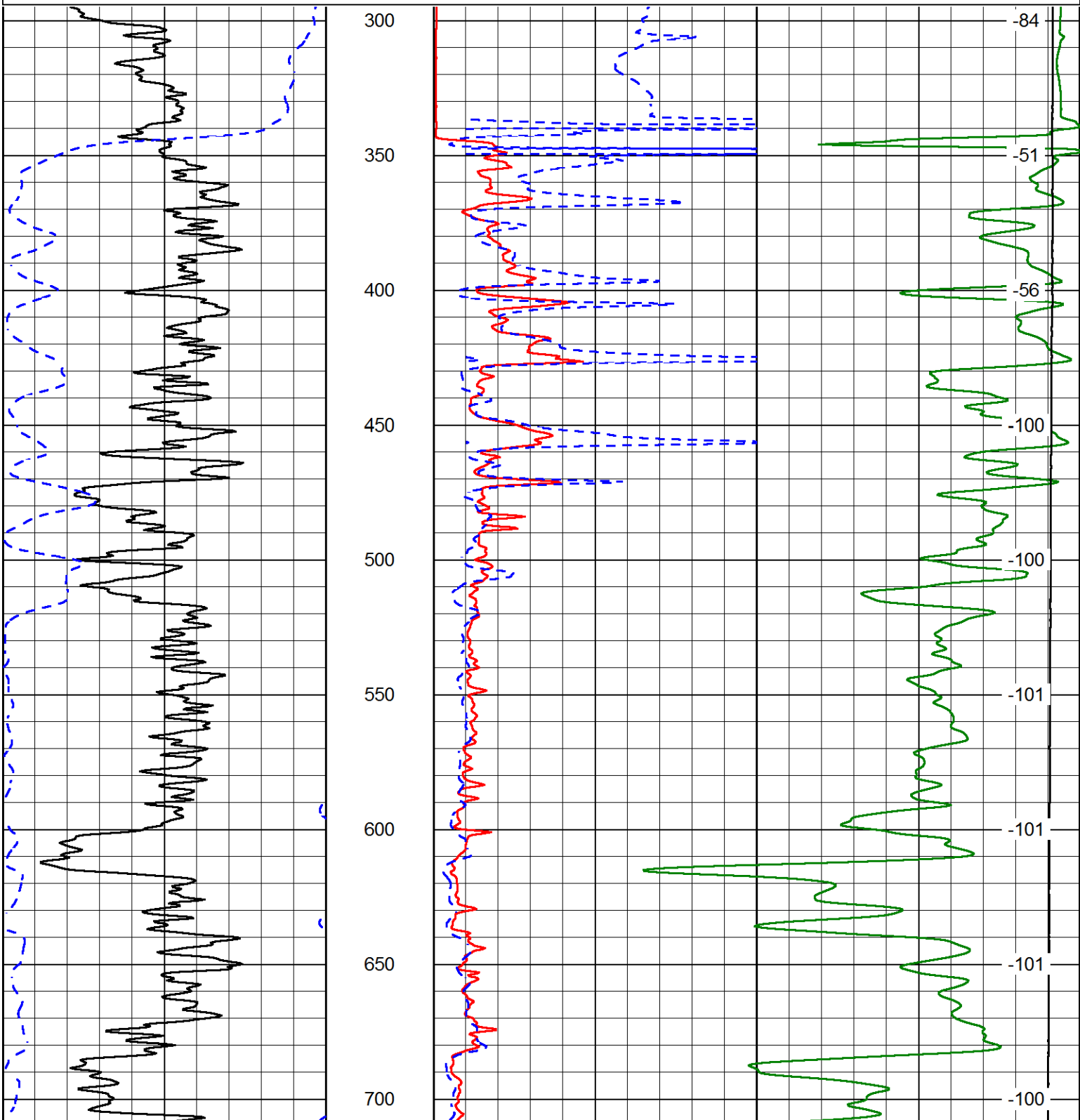
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 -200 SP (mV) 0

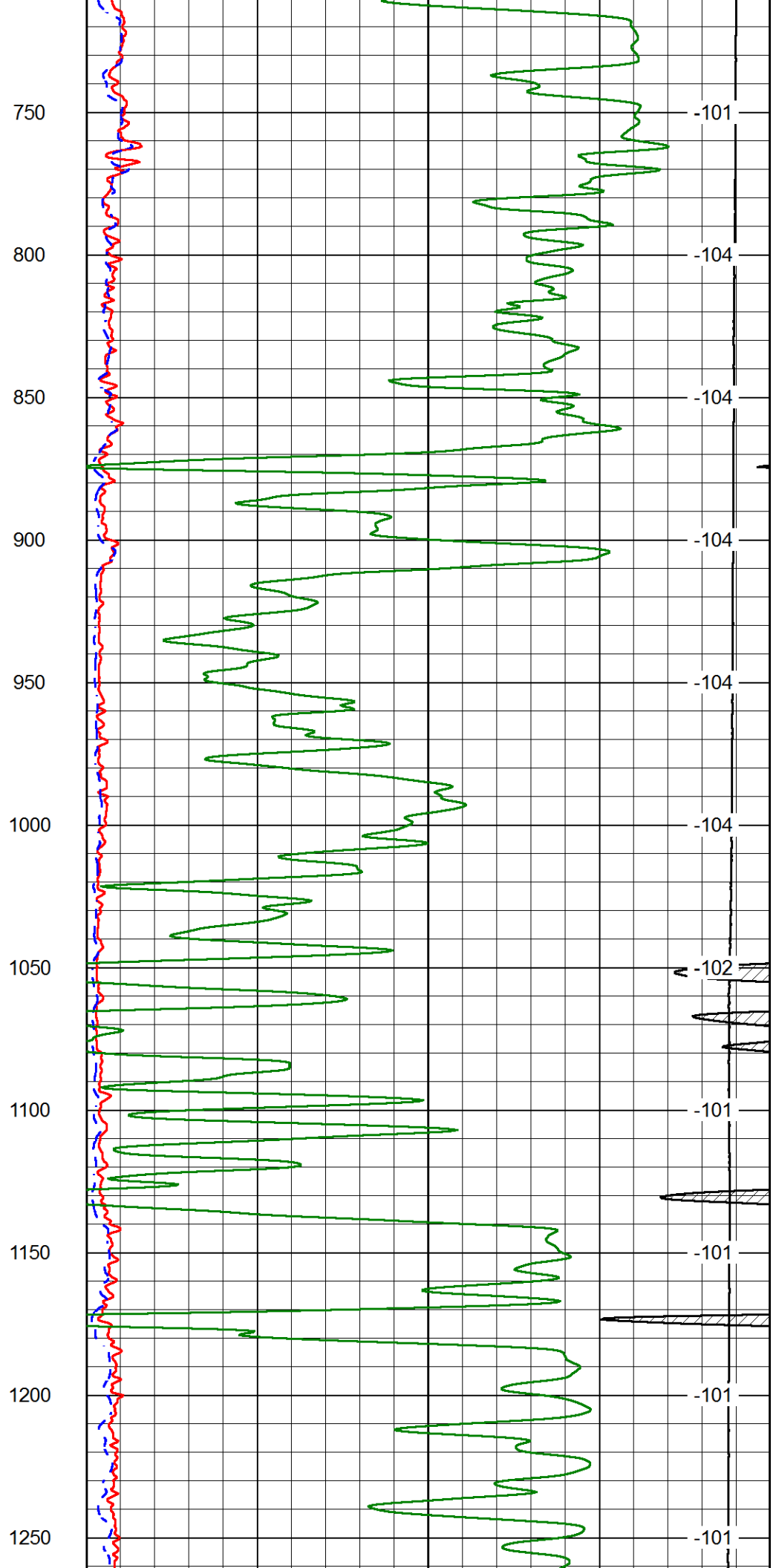
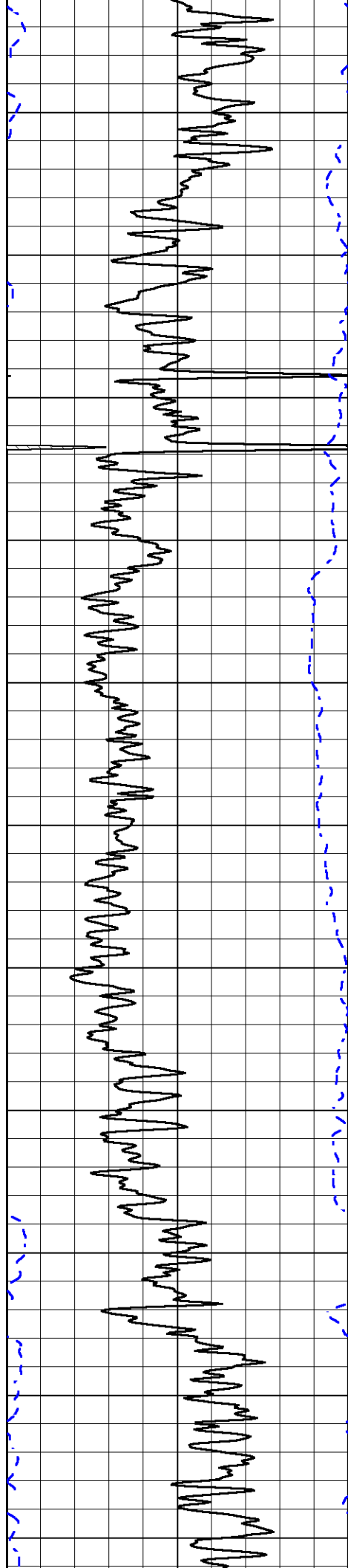
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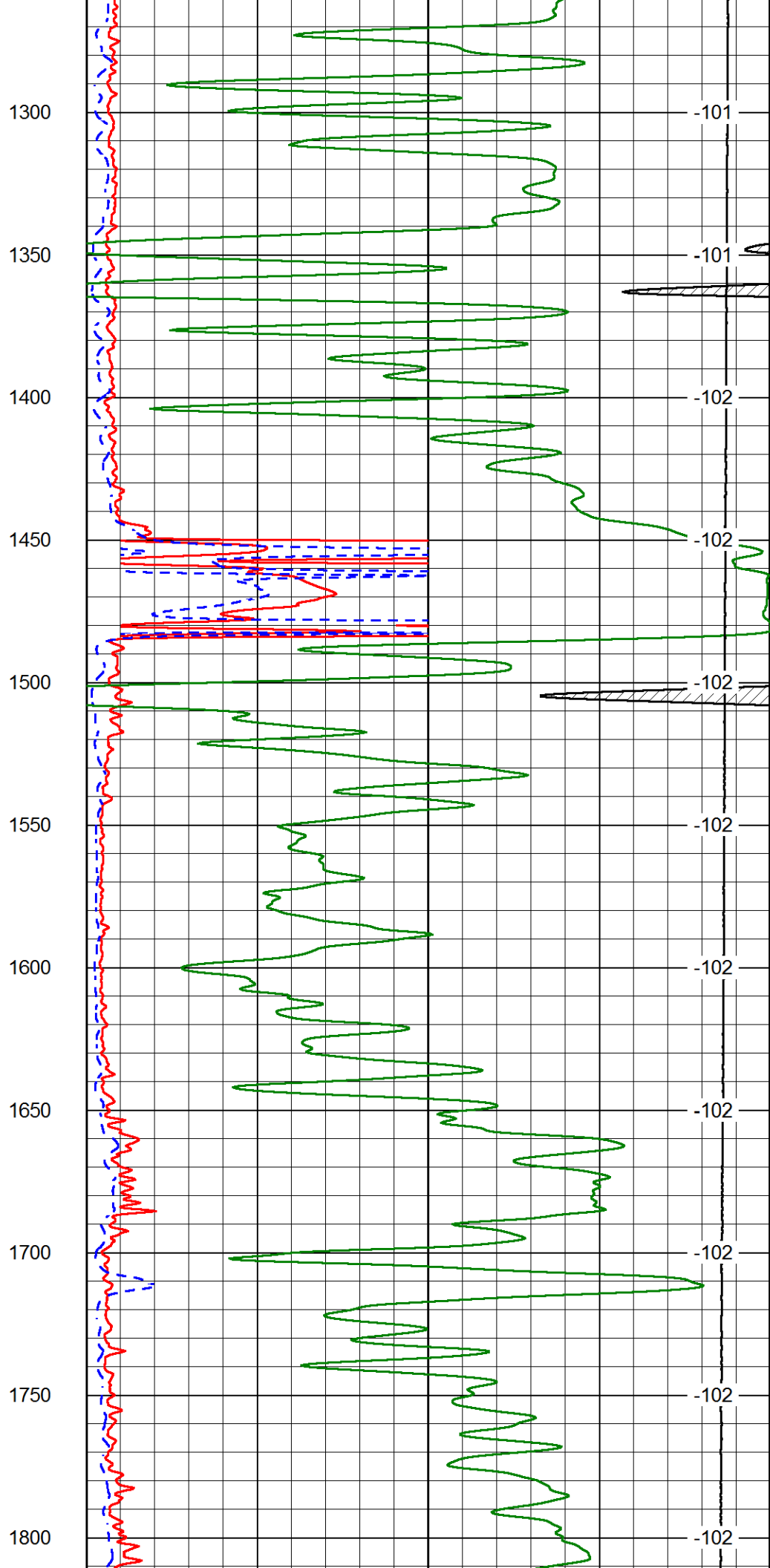
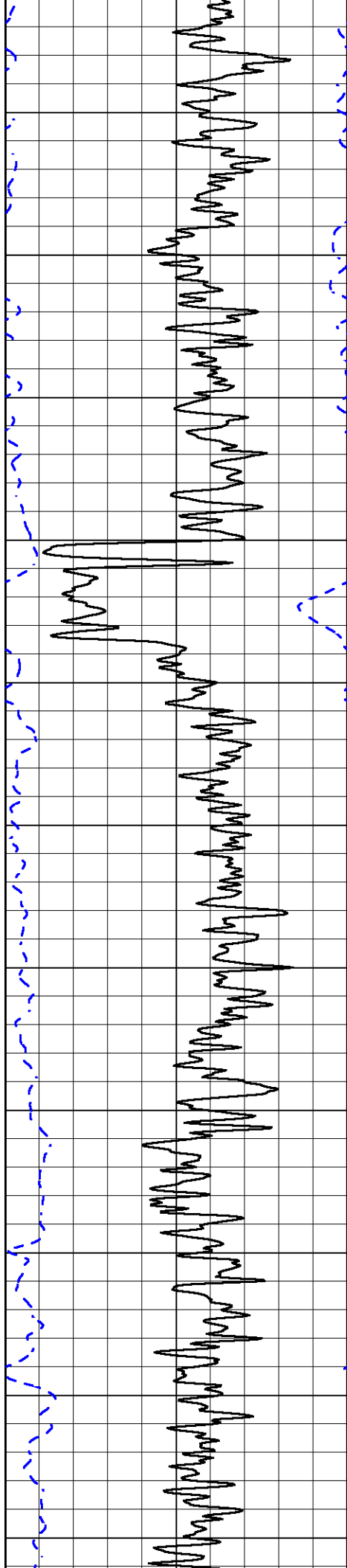
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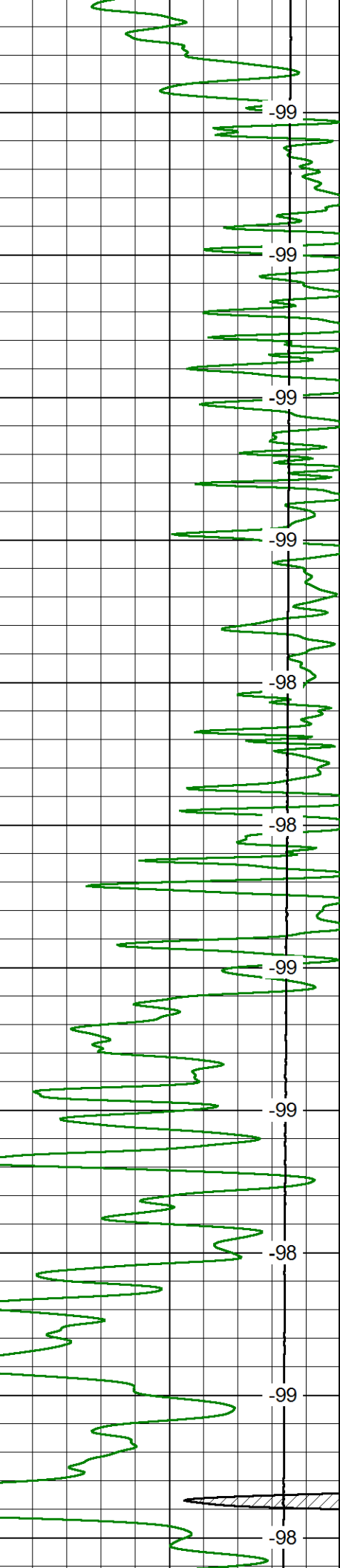
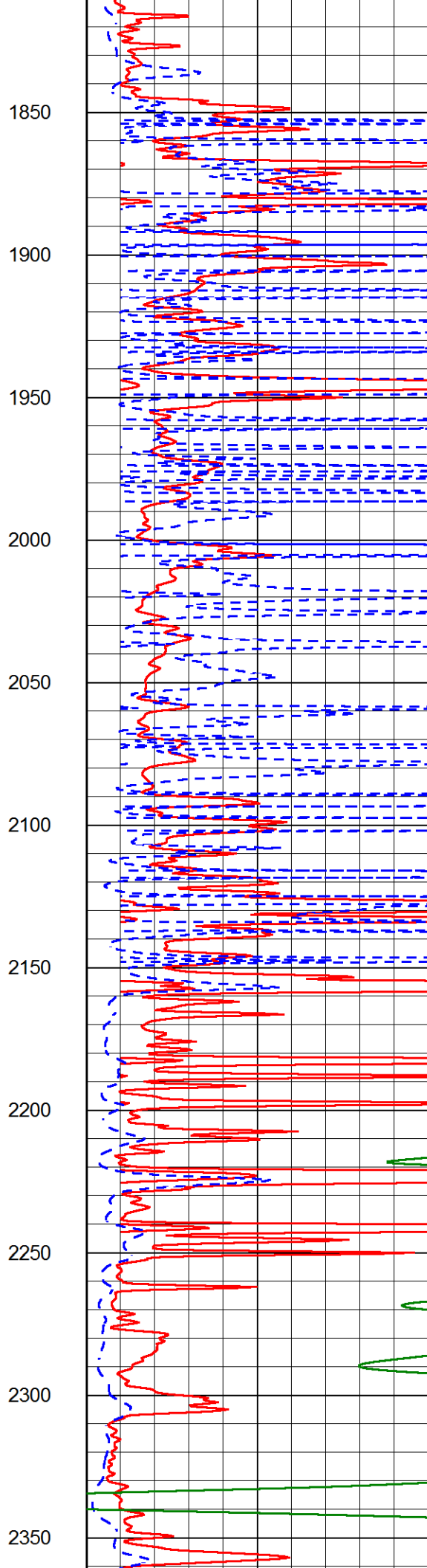
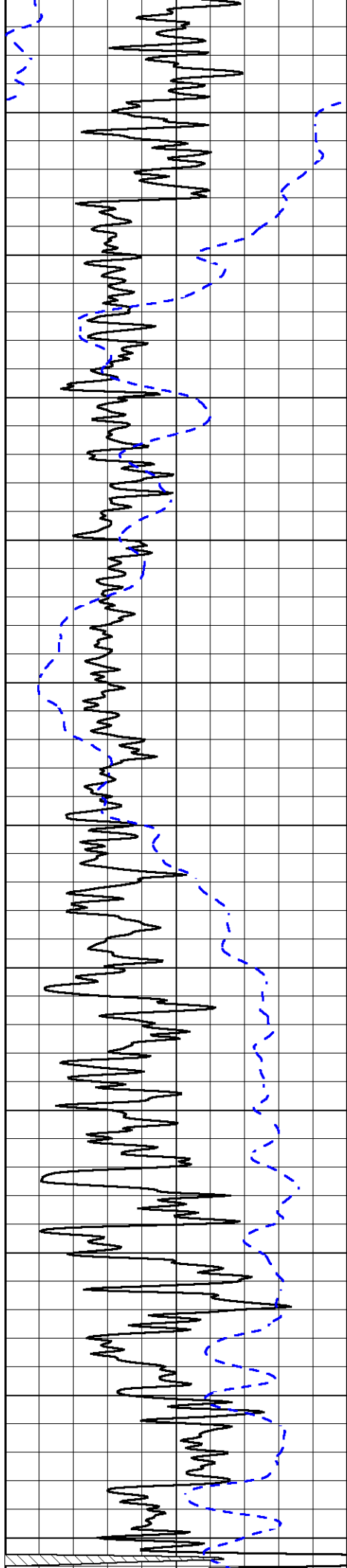
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 (Ohm-m) 500
 50 Deep Resistivity (Ohm-m) 500

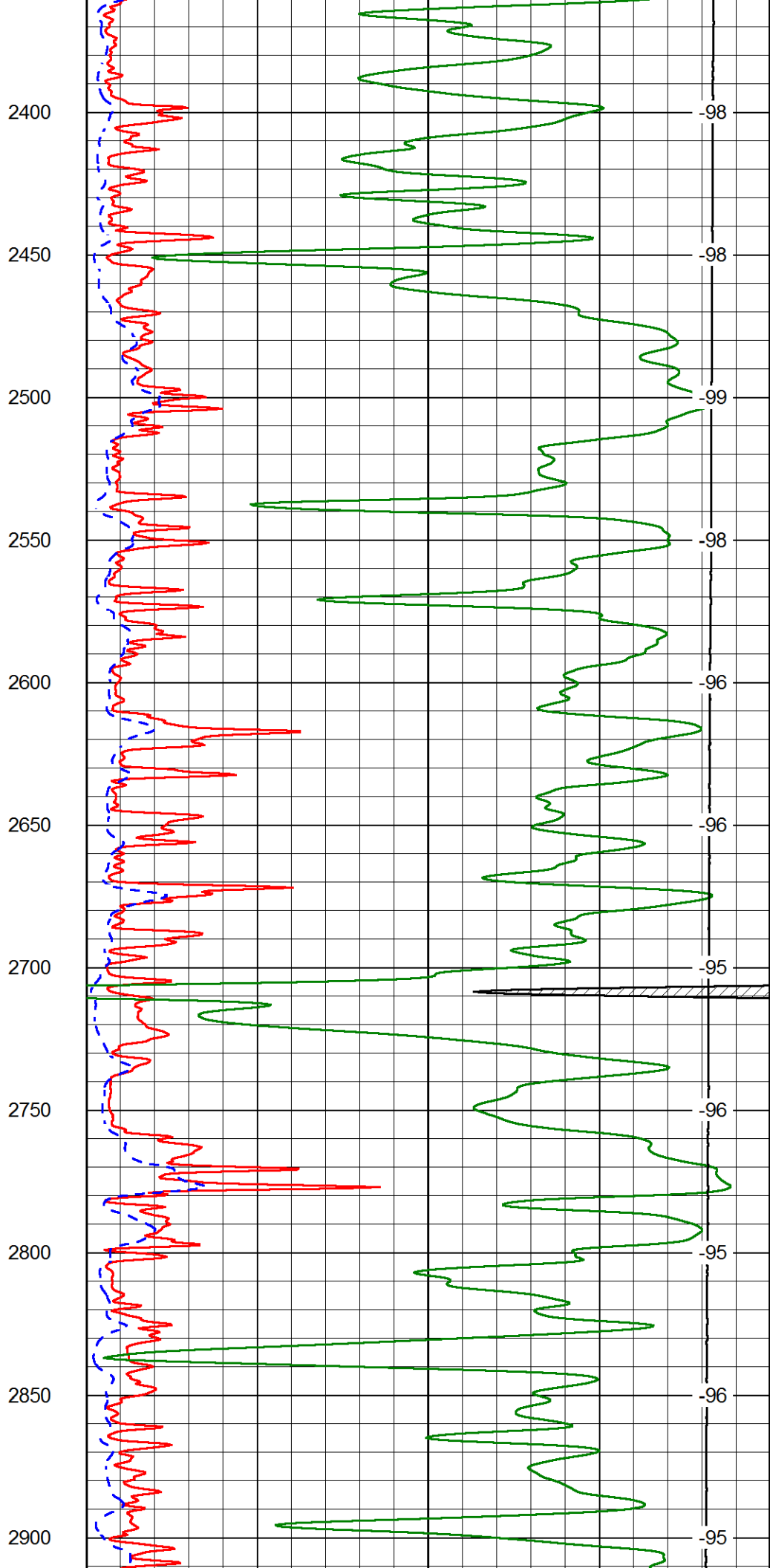
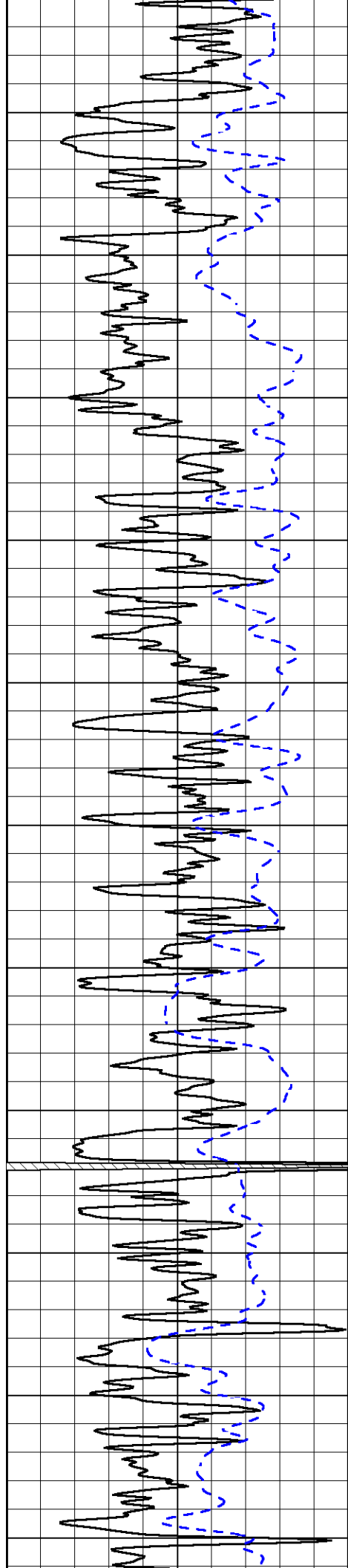
LSPD
 (ft/min)

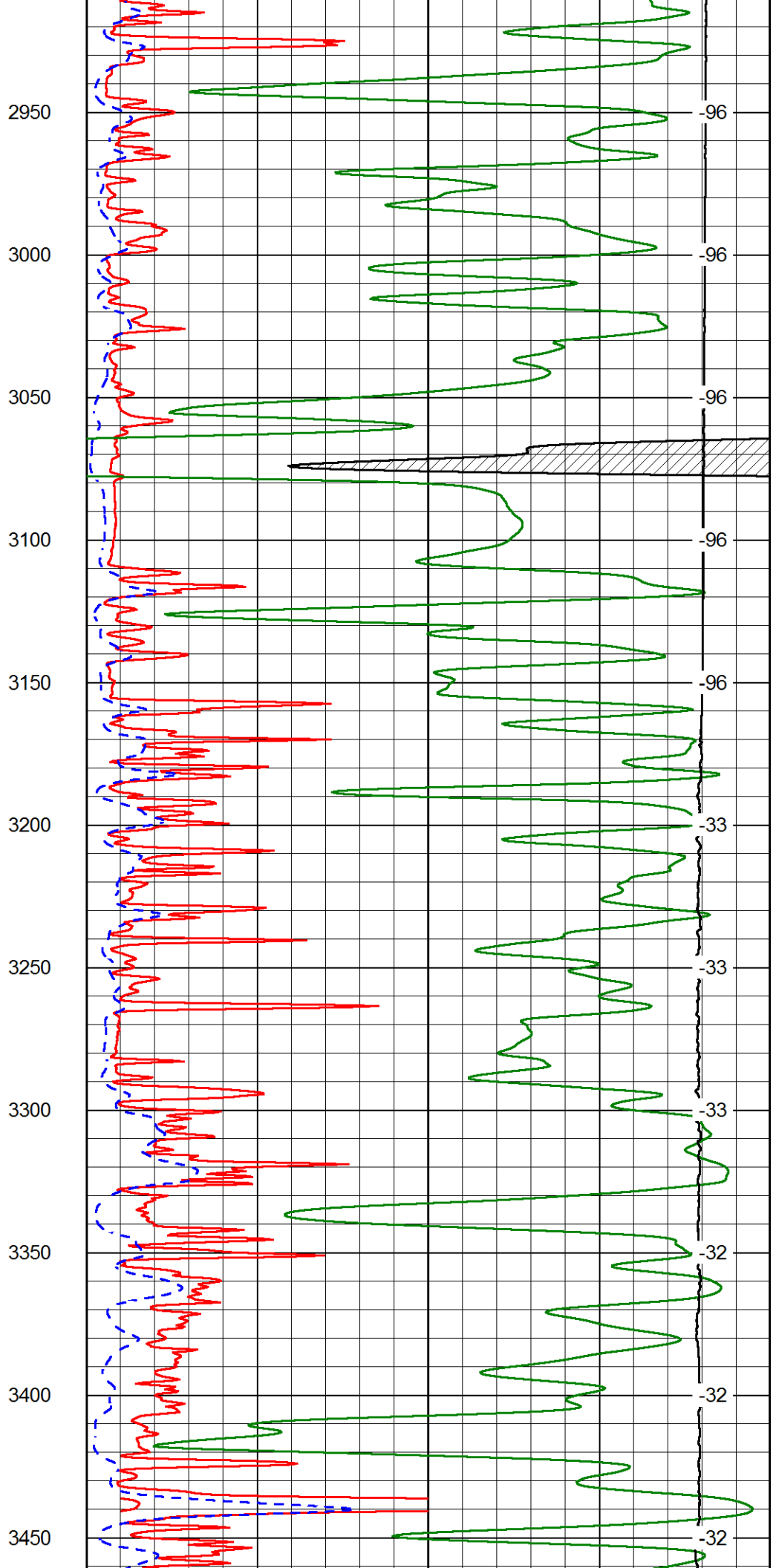
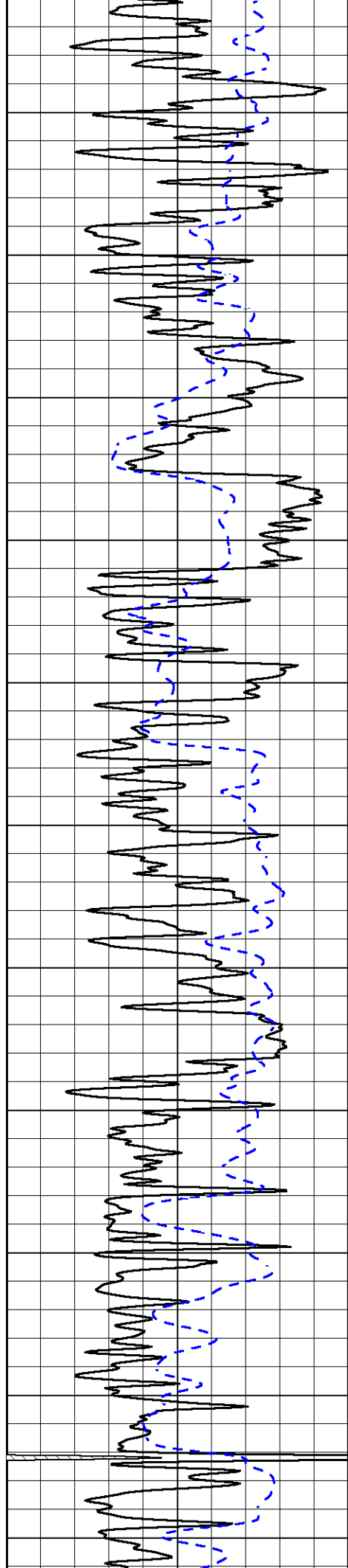


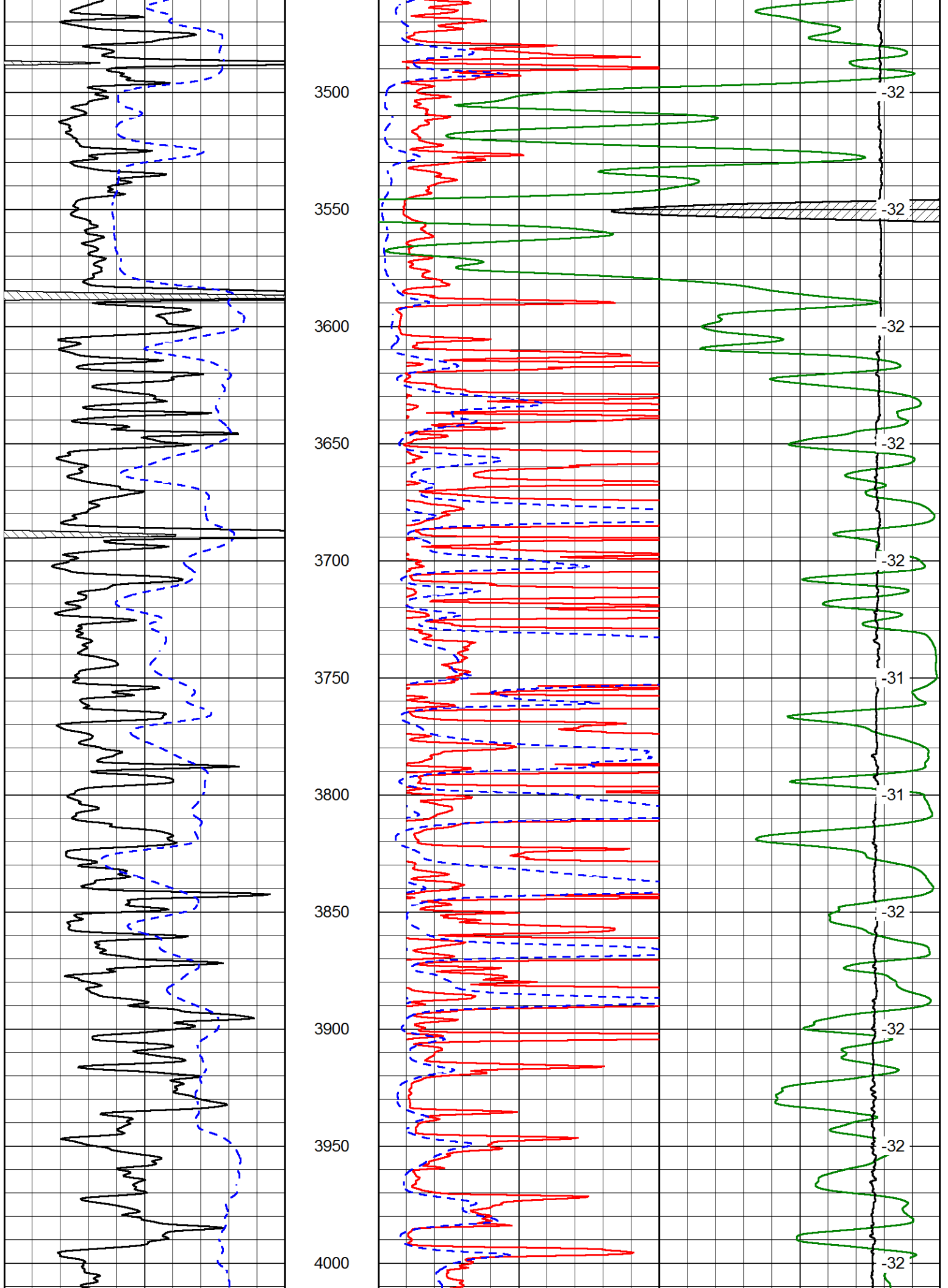


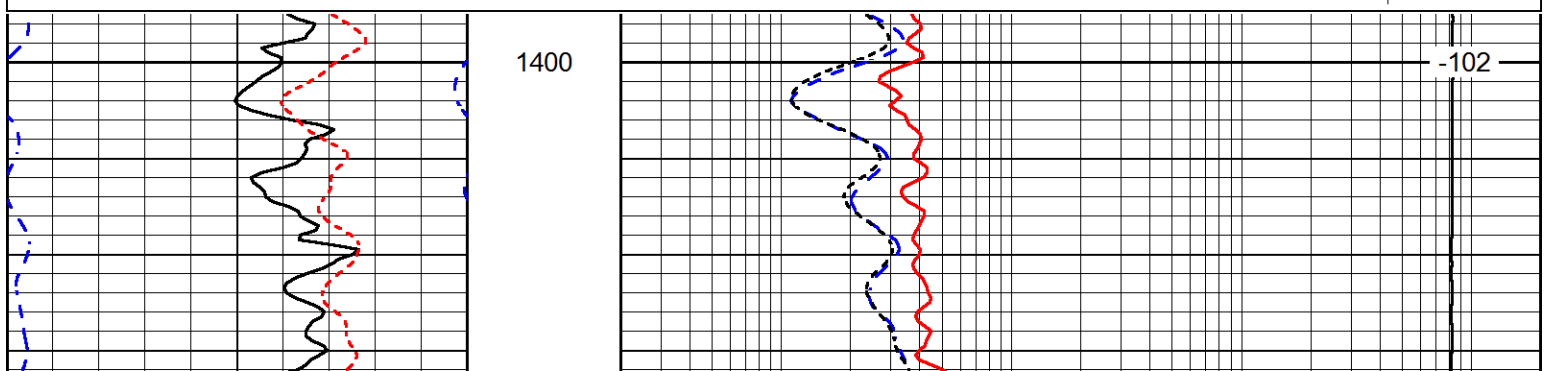
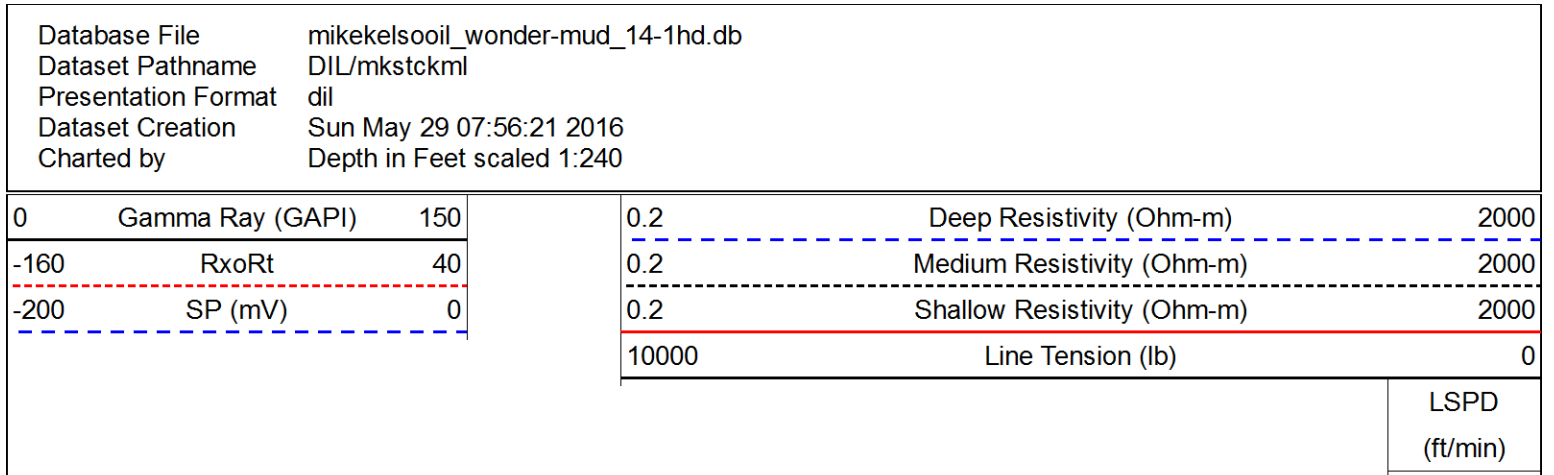
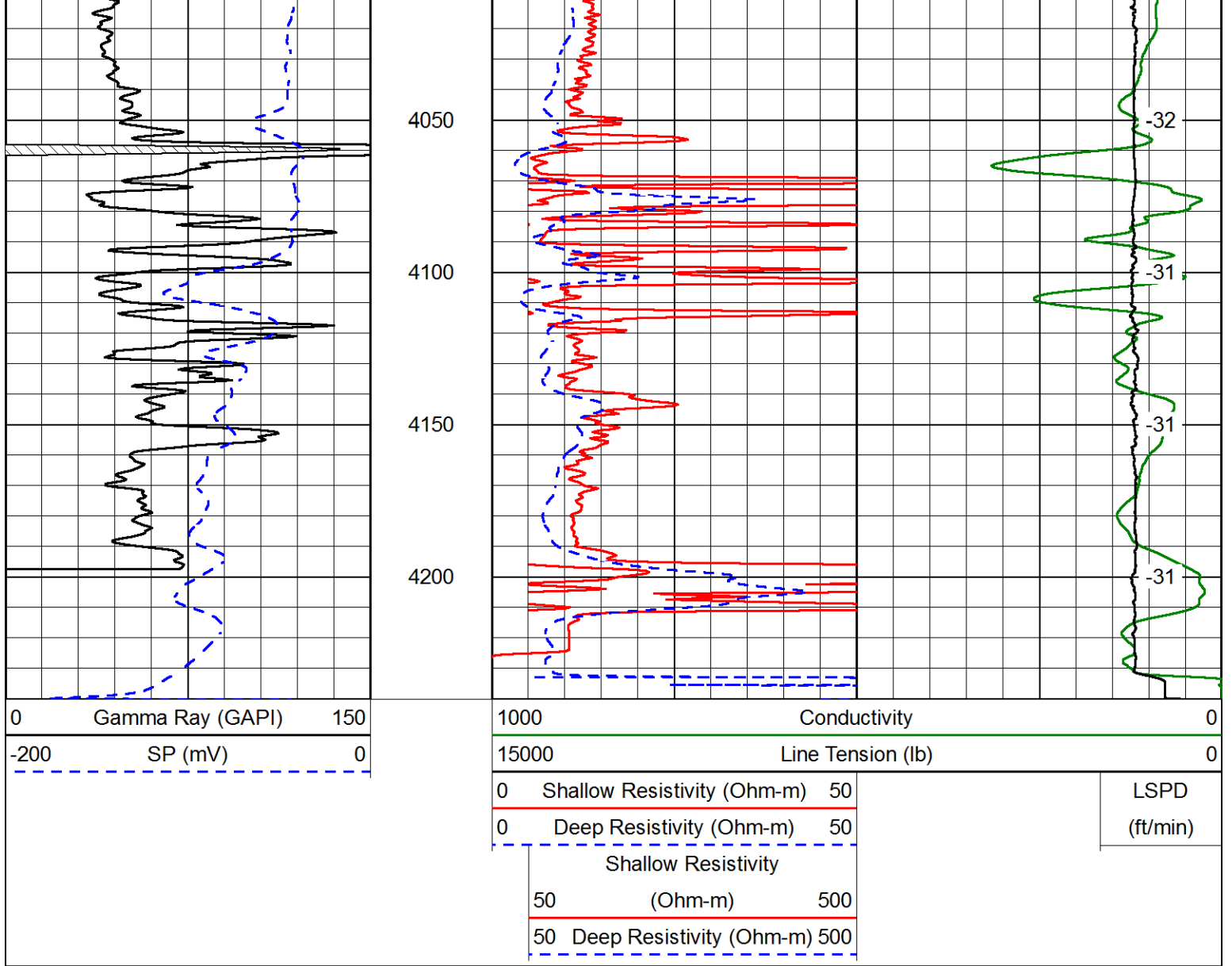


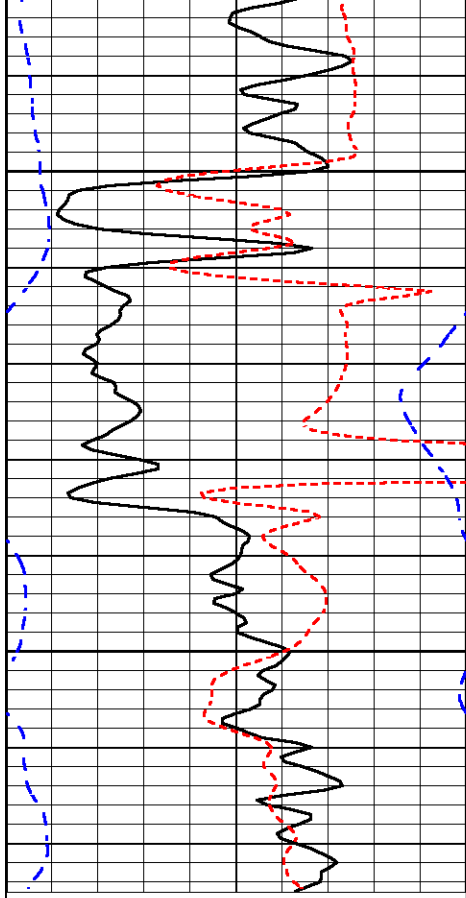








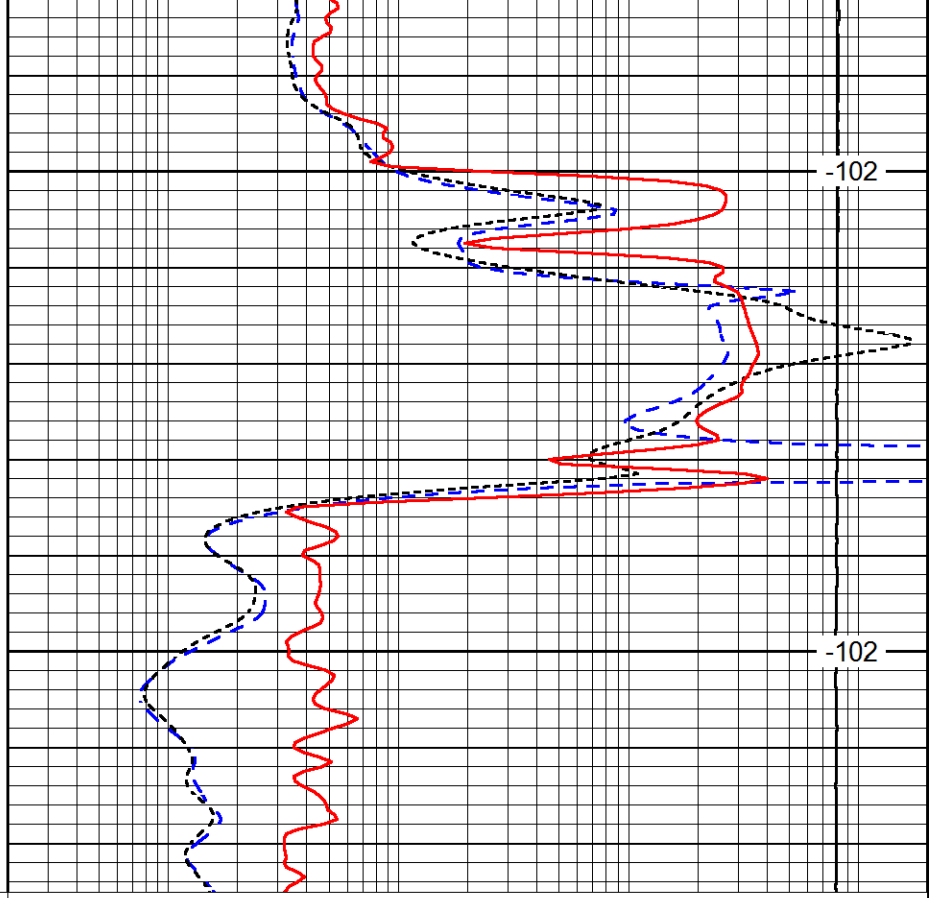




0	Gamma Ray (GAPI)	150
-160	RxoRt	40
-200	SP (mV)	0

1450

1500



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

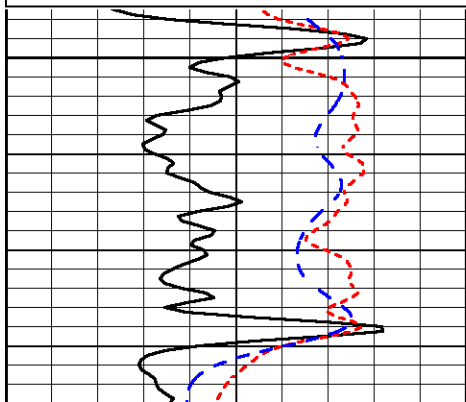
LSPD
(ft/min)

Database File mikekelsooil_wonder-mud_14-1hd.db
 Dataset Pathname DIL/mkstckml
 Presentation Format dil
 Dataset Creation Sun May 29 07:56:21 2016
 Charted by Depth in Feet scaled 1:240

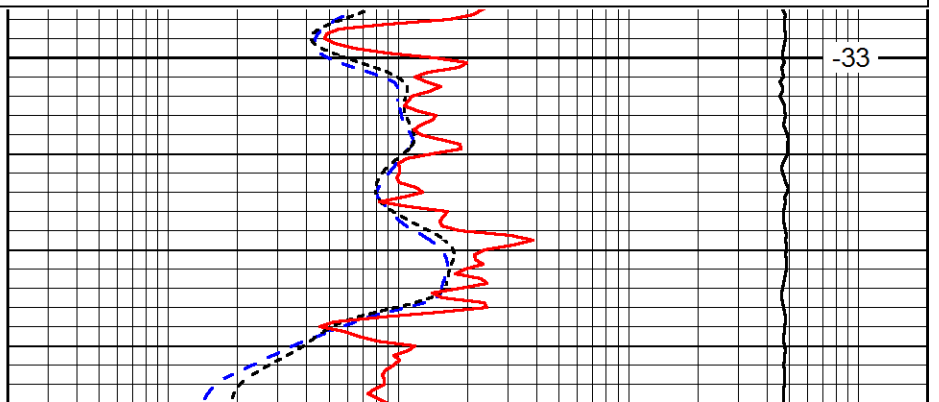
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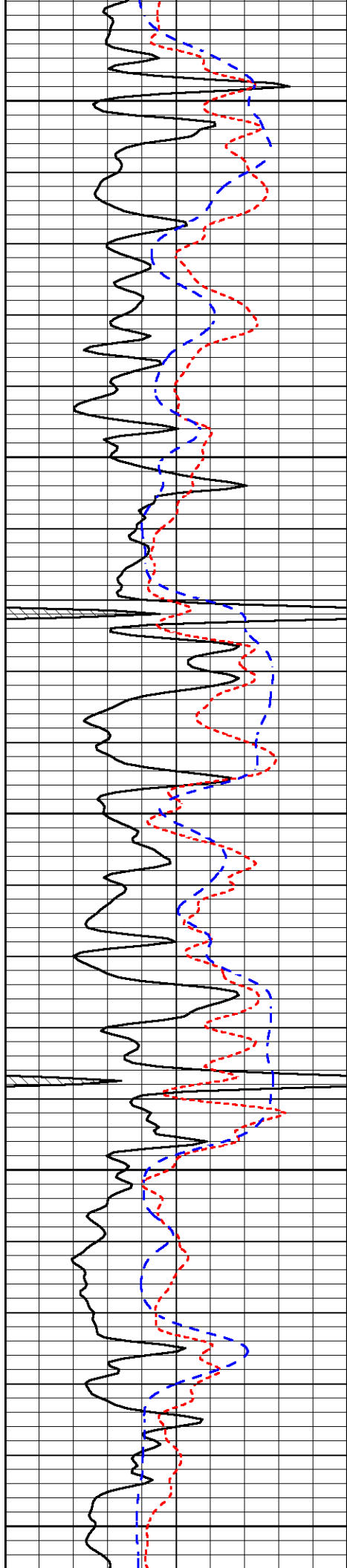
LSPD
(ft/min)



3300



-33



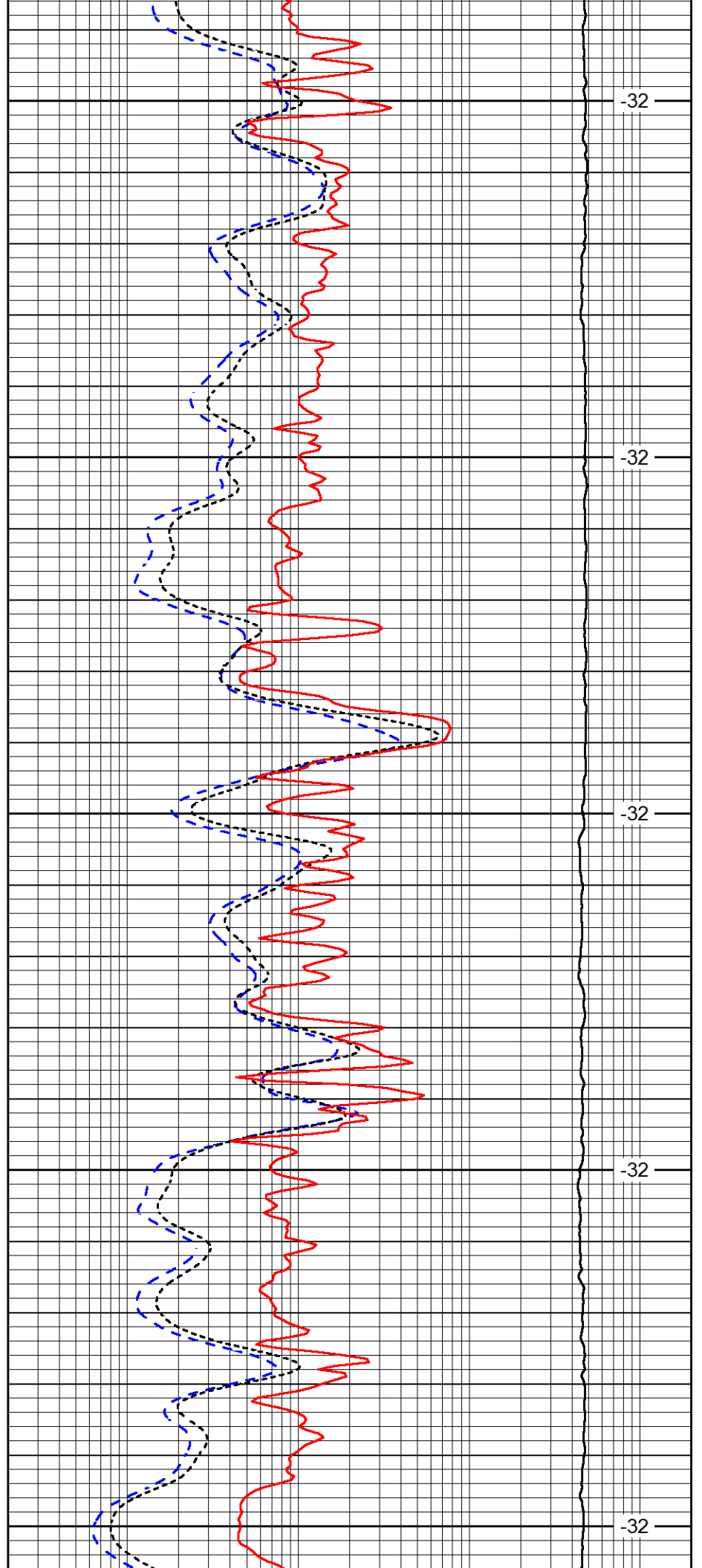
3350

3400

3450

3500

3550



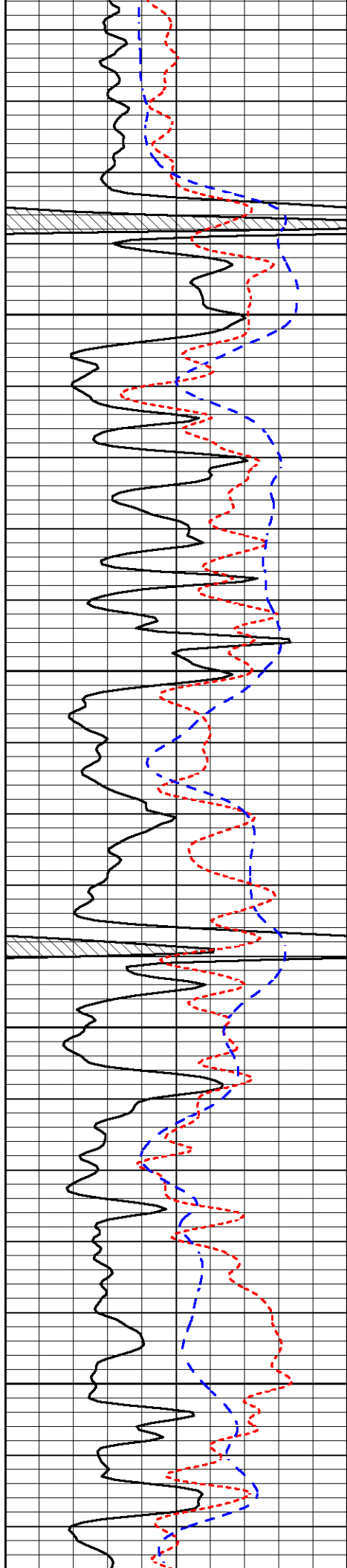
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-32

-32

-32

-32

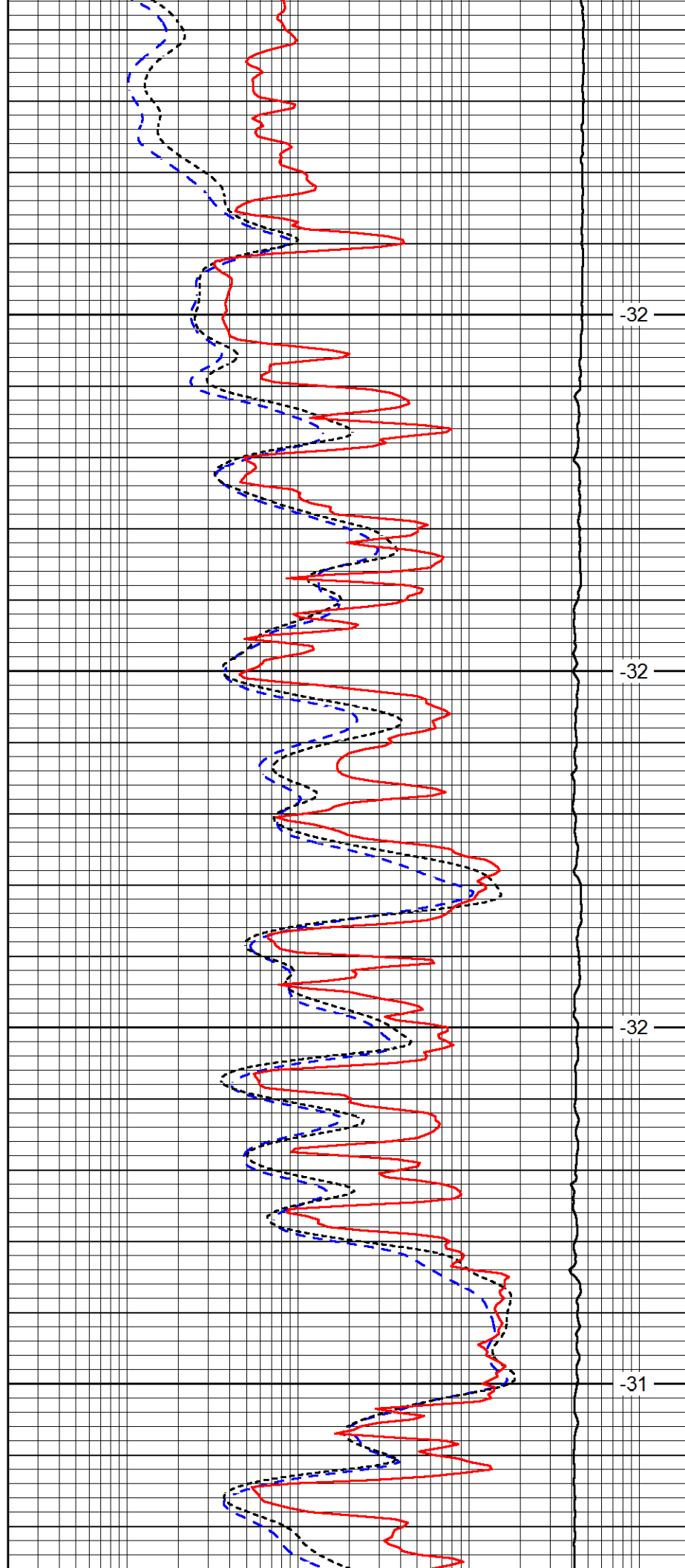


3600

3650

3700

3750

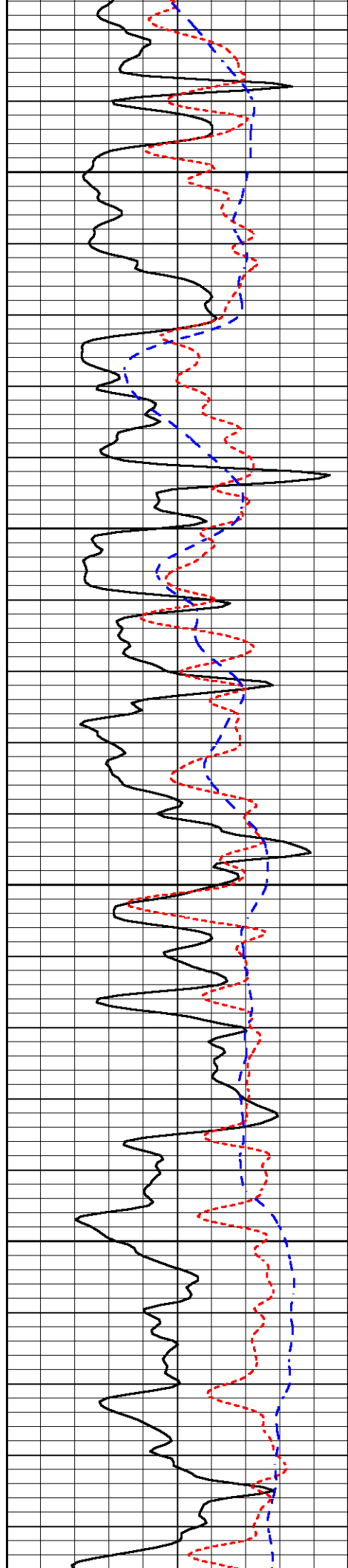


-32

-32

-32

-31

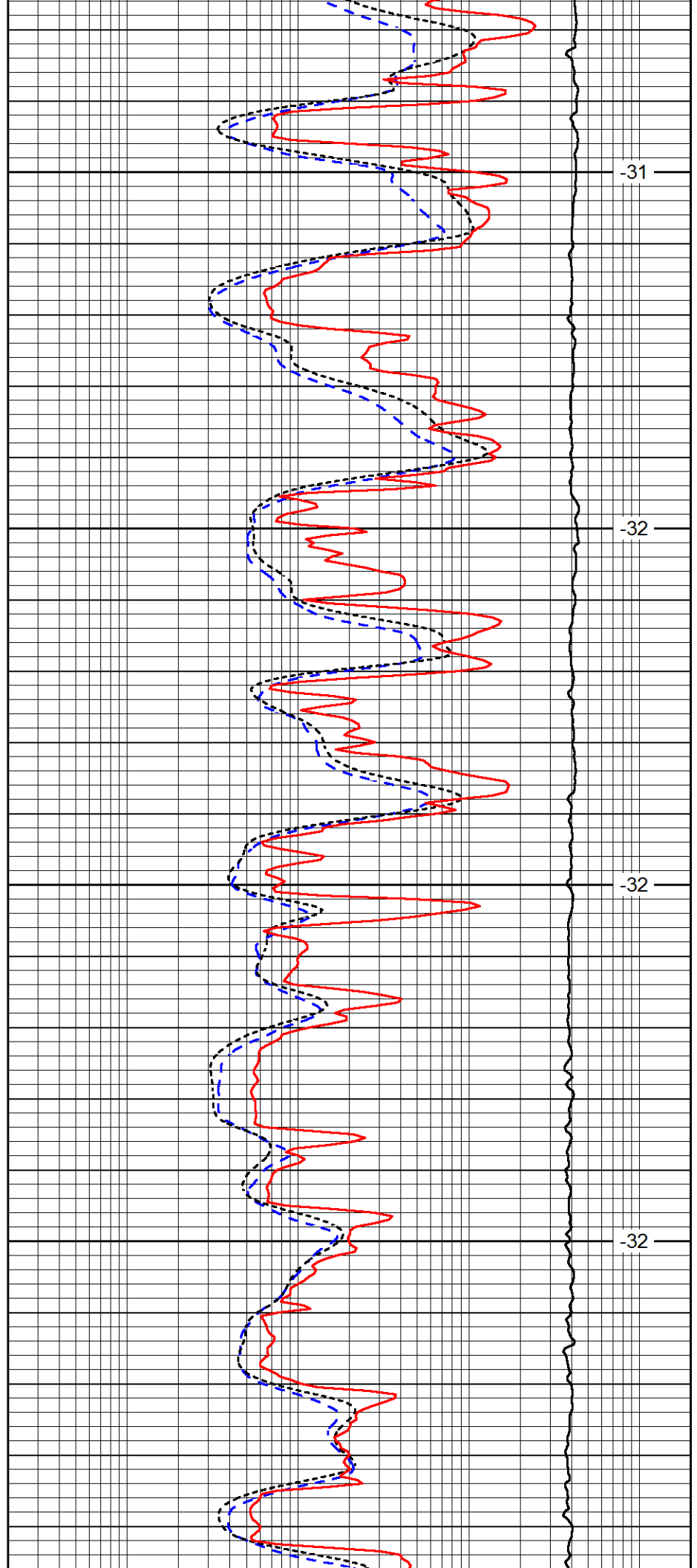


3800

3850

3900

3950

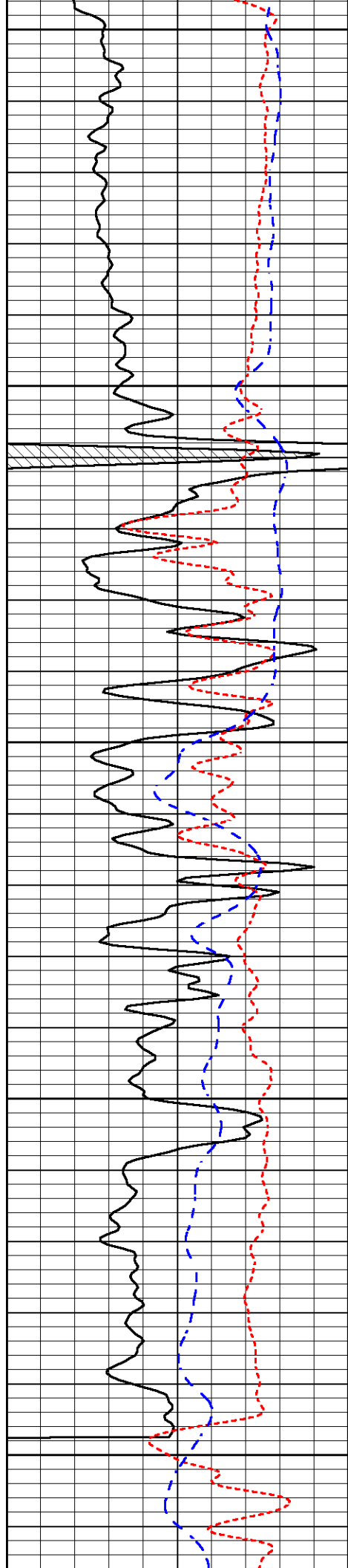


-31

-32

-32

-32



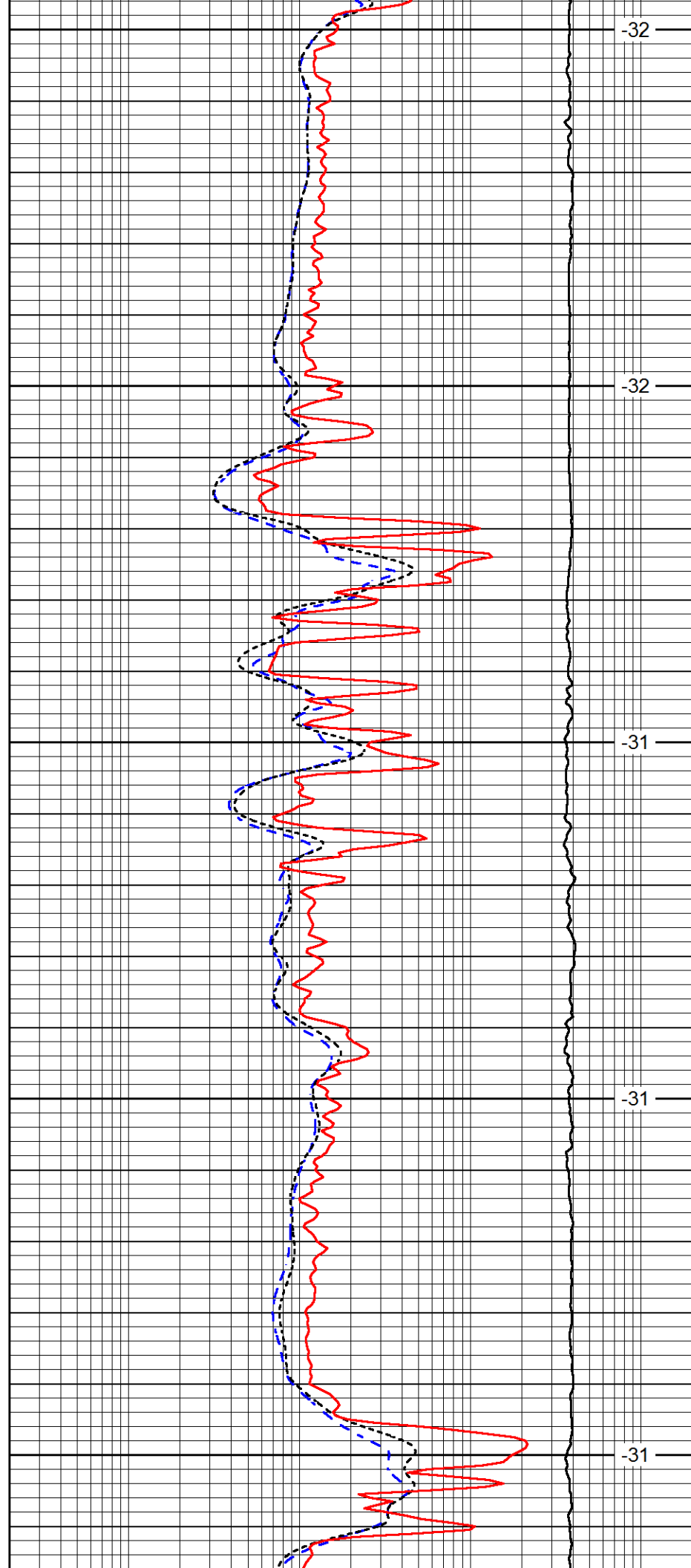
4000

4050

4100

4150

4200



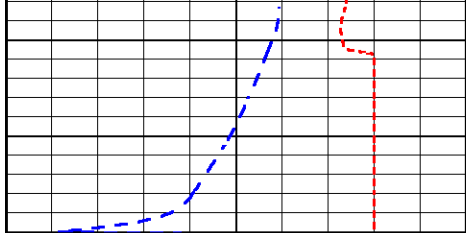
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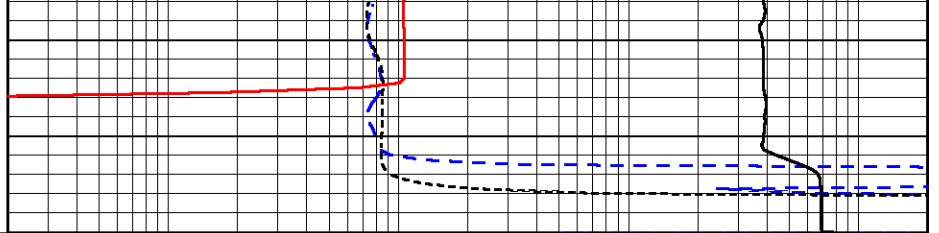
-31

-31

-31



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LSPD
(ft/min)