



**DUAL  
INDUCTION  
LOG**

Company Palomino Petroleum  
 Well Deeds-Cooper #1  
 Field Beaver Township  
 County Cheyenne  
 State Kansas

Company Palomino Petroleum  
 Well Deeds-Cooper #1  
 Field Beaver Township  
 County Cheyenne State Kansas

Location: API #: 15 023 21503  
 1211' FNL & 2436' FWL  
 SEC 15 TWP 5S RGE 37W  
 Permanent Datum Ground Level Elevation 3392'  
 Log Measured From KB 5' AGL  
 Drilling Measured From KB  
 Other Services  
 CDNL  
 ML  
 Elevation  
 K.B. 3397'  
 D.F. 3396'  
 G.L. 3392'

Date	1-16-19
Run Number	One
Depth Driller	5037'
Depth Logger	5041'
Bottom Logged Interval	5039'
Top Log Interval	320'
Casing Driller	8 5/8" @ 347'
Casing Logger	347'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.3/54
PH / Fluid Loss	11.0/7.2
Source of Sample	Pit
Rm @ Meas. Temp	2.3@64degf
Rmf @ Meas. Temp	1.7@64degf
Rmc @ Meas. Temp	2.8@64degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.2@118degf
Time Circulation Stopped	5:15 a.m
Time Logger on Bottom	8:10 a.m
Maximum Recorded Temperature	118degf
Equipment Number	T127
Location	Hays, KS
Recorded By	C.Patterson
Witnessed By	Mr. Ryan Seib

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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**

Brewster Hwy to Correction Curve EE Rd.(RD A), then west on EE RD. (Rd. A) for 3 mi to 34 RD., Then North on 34 RD. for 3 mi. to D RD.,West 1 mi on D RD. to 33 RD. Then North on 33 RD. 1 mi to E RD. 1/2 mi west on E RD. South into

Thanks for using Gemini Wireline LLC  
 785-625-1182



**MAIN PASS**

Database File ppdeeds-cooper#1oh.db  
 Dataset Pathname pass4.1  
 Presentation Format kdi11inn  
 Dataset Creation Wed Jan 16 11:35:37 2019  
 Charted by Depth in Feet scaled 1:600

0 GR (GAPI) 150

1000 CILD (mmho/m) 0

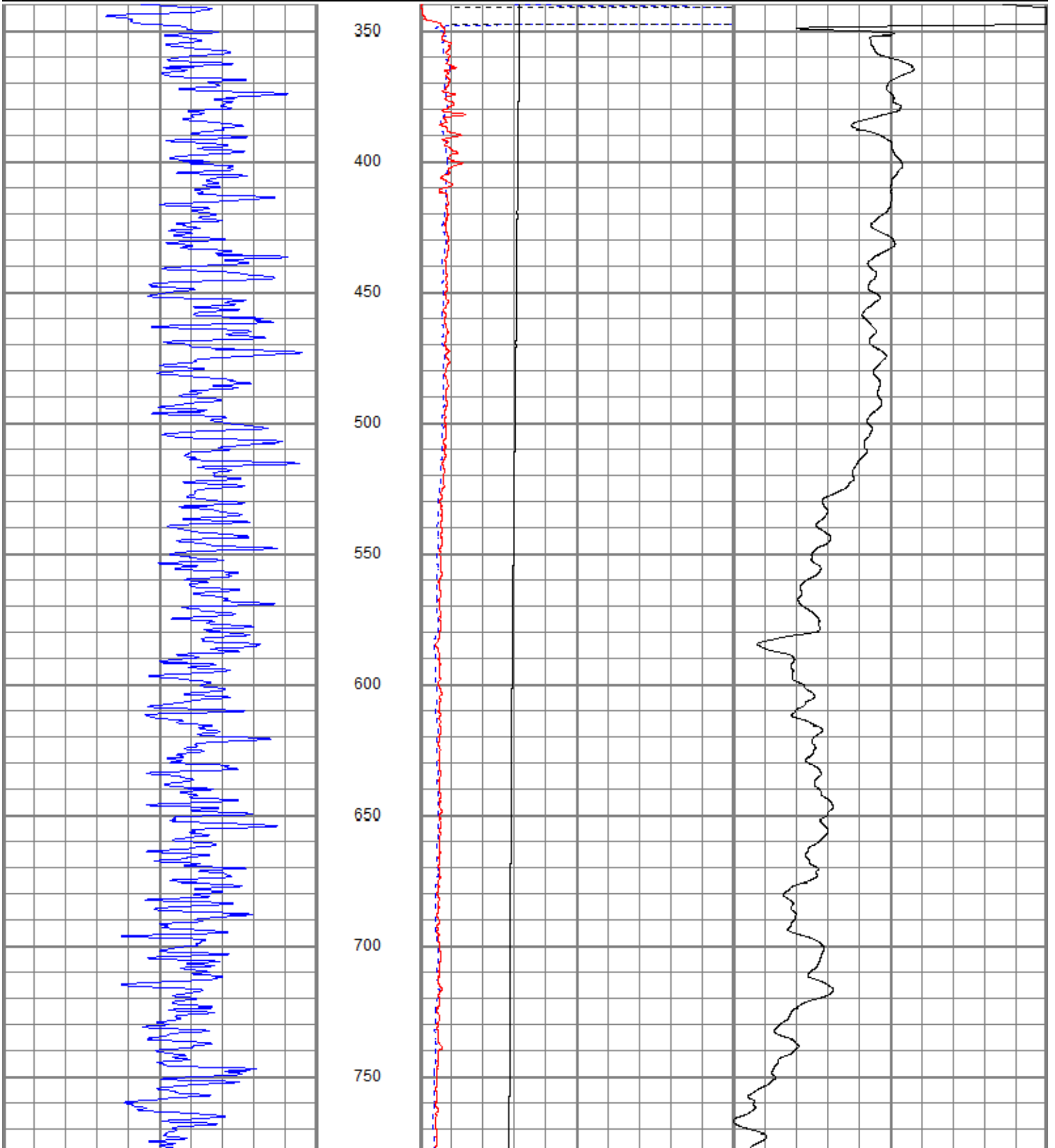
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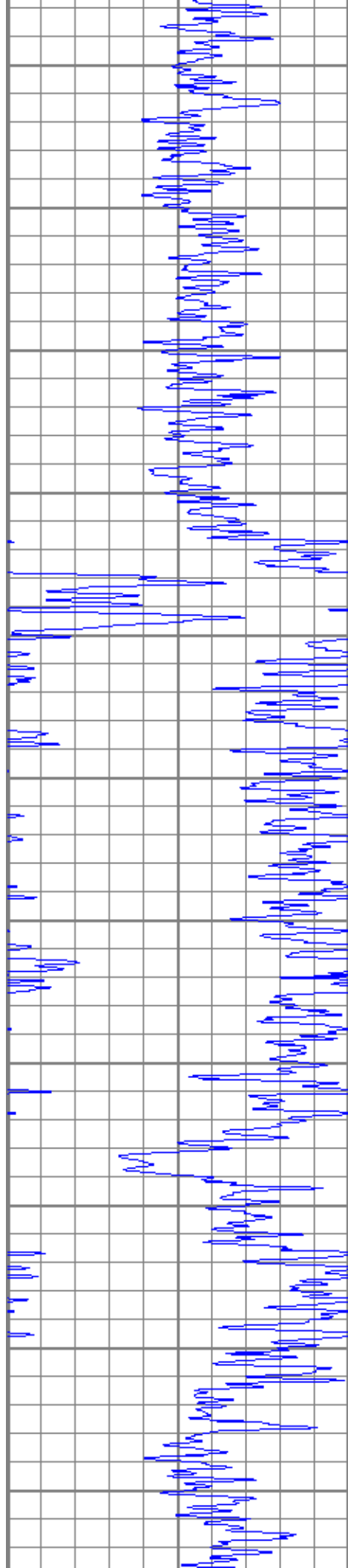
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0 RLL3 (Ohm-m) 50

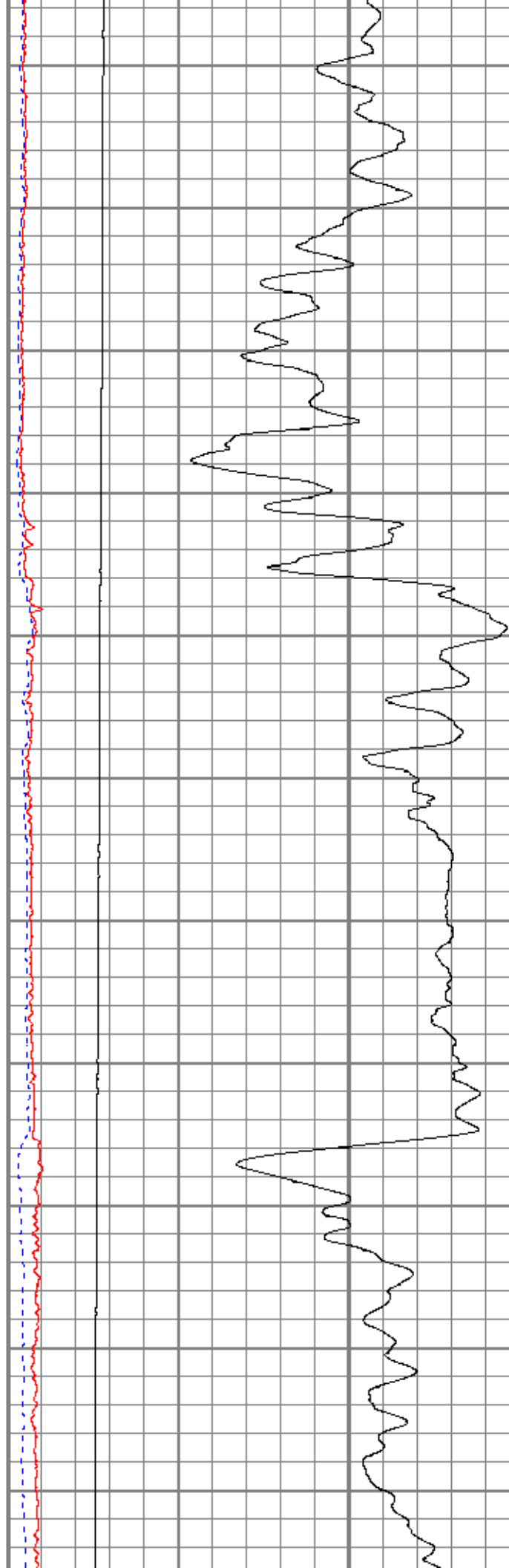
50 RILD x 10 (Ohm-m) 500

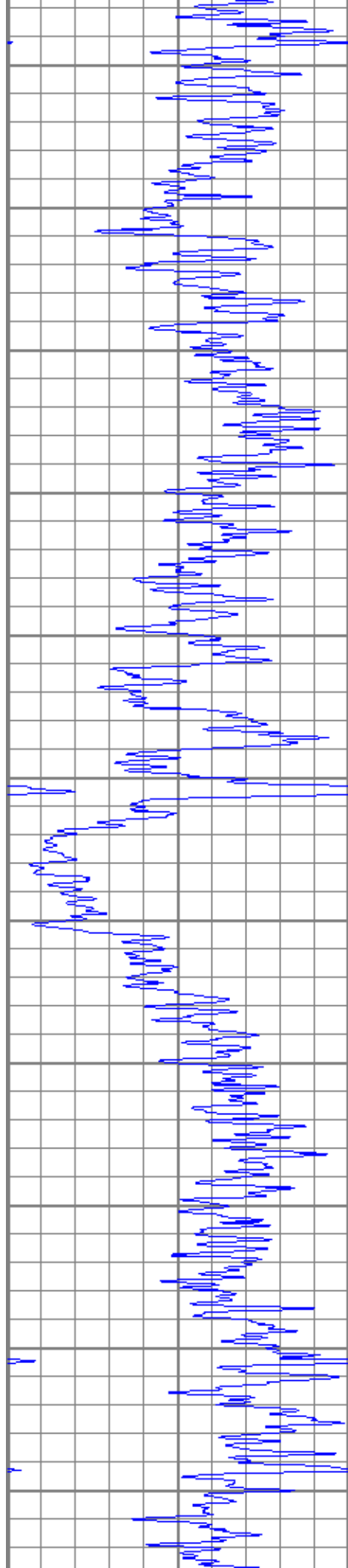
50 RLL3 x 10 (Ohm-m) 500



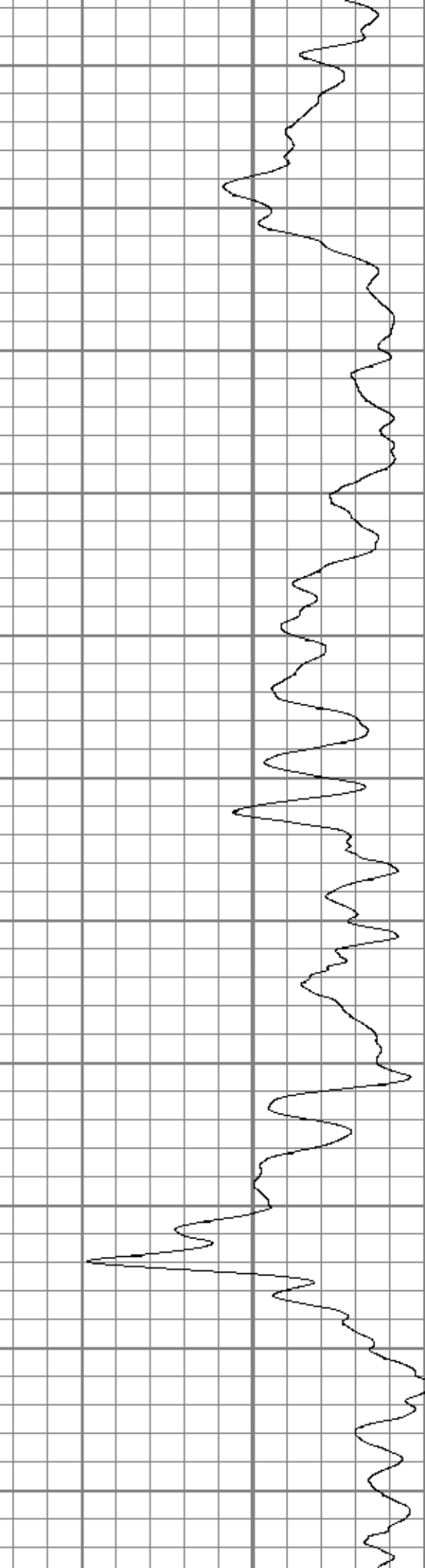
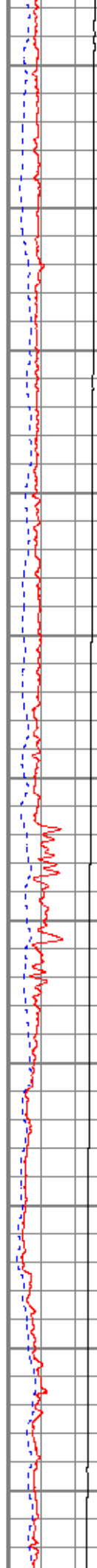


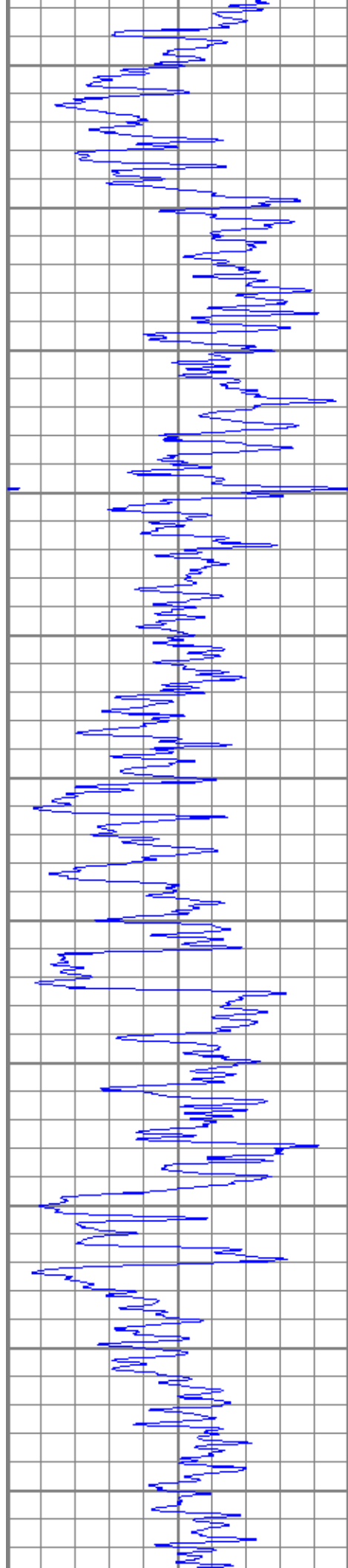
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1050  
1100  
1150  
1200  
1250  
1300



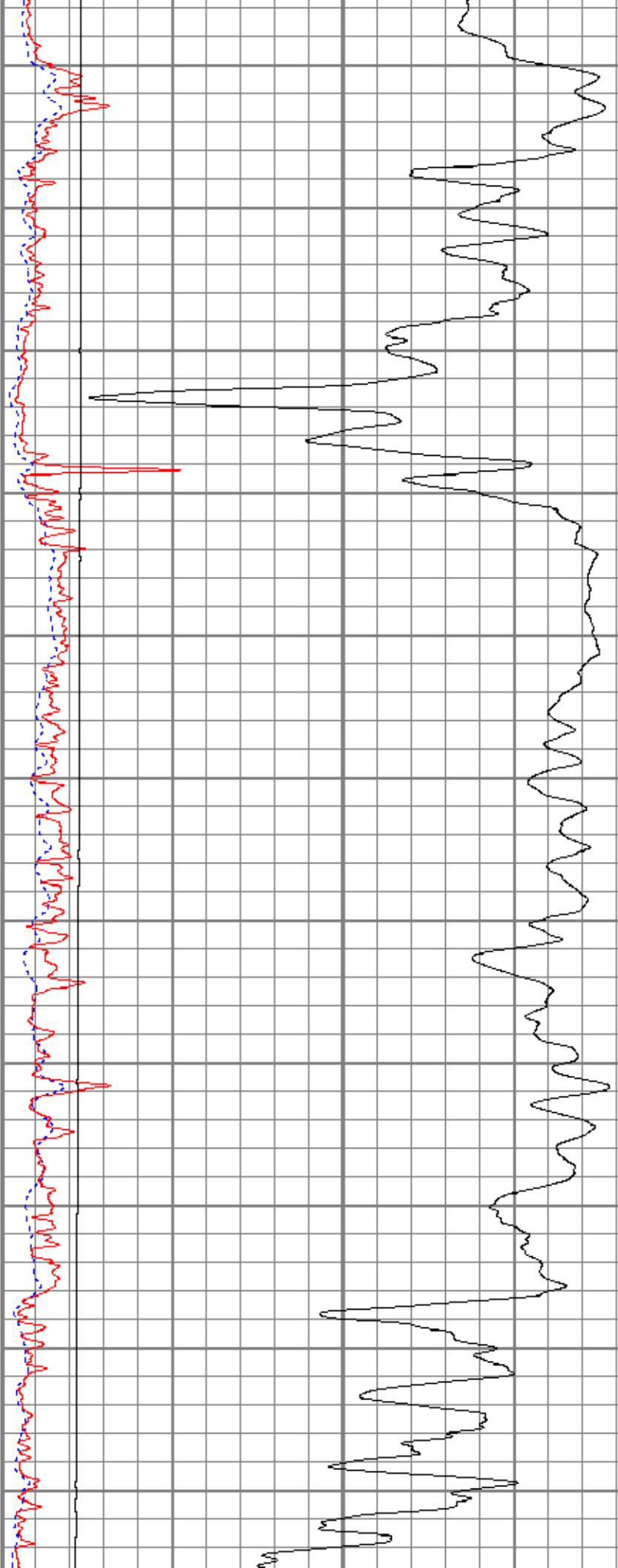


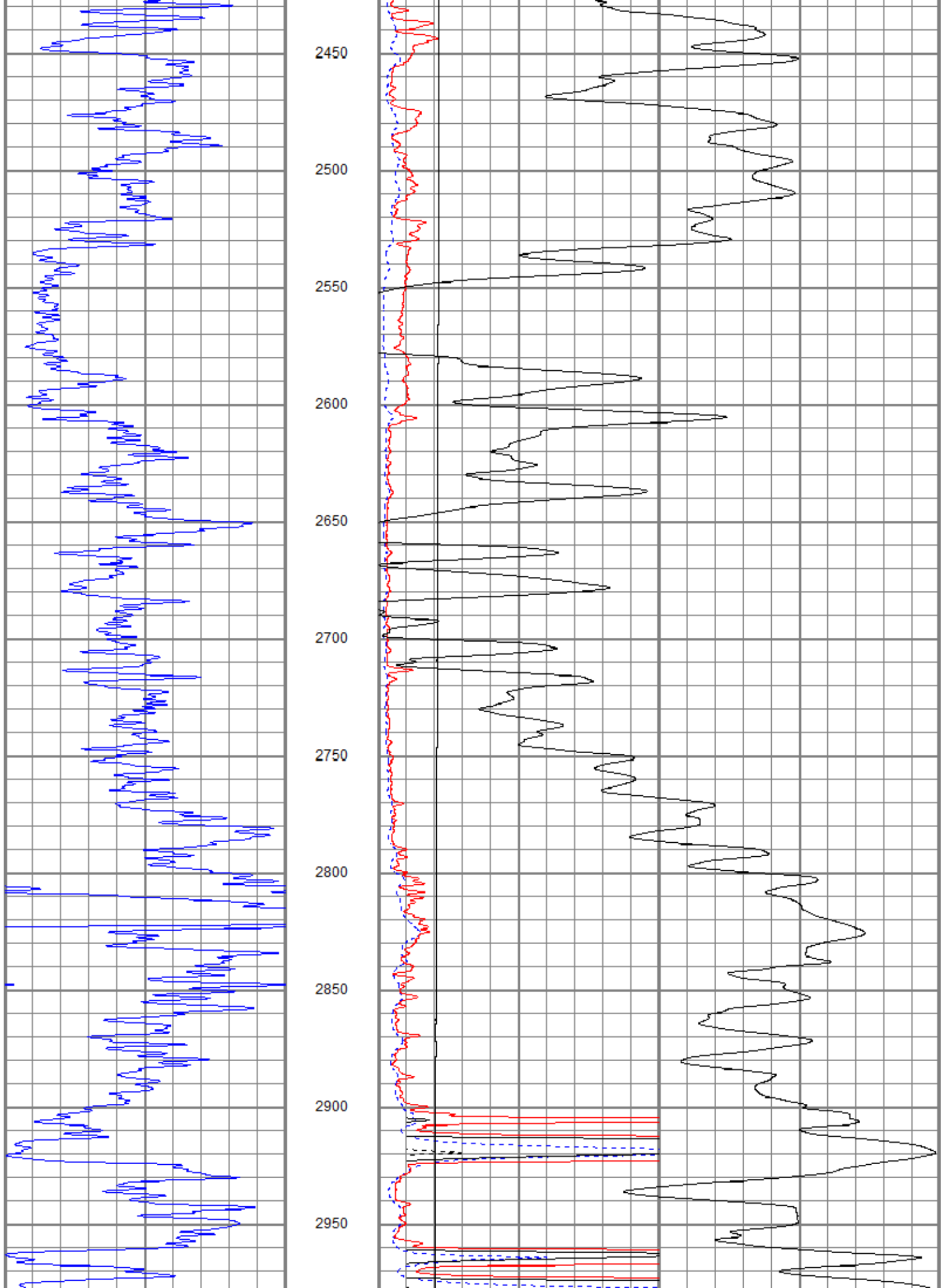
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1800  
1850

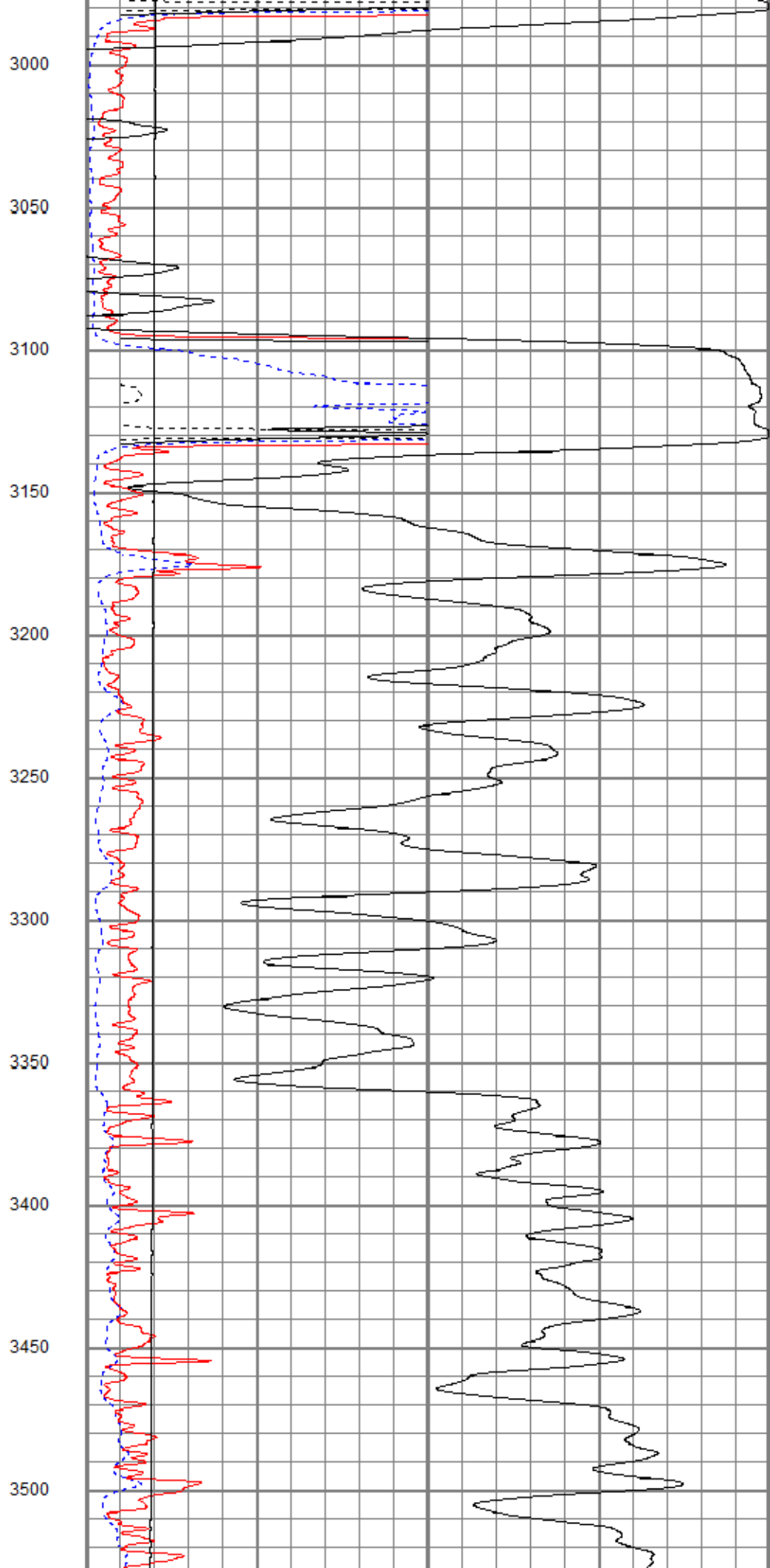
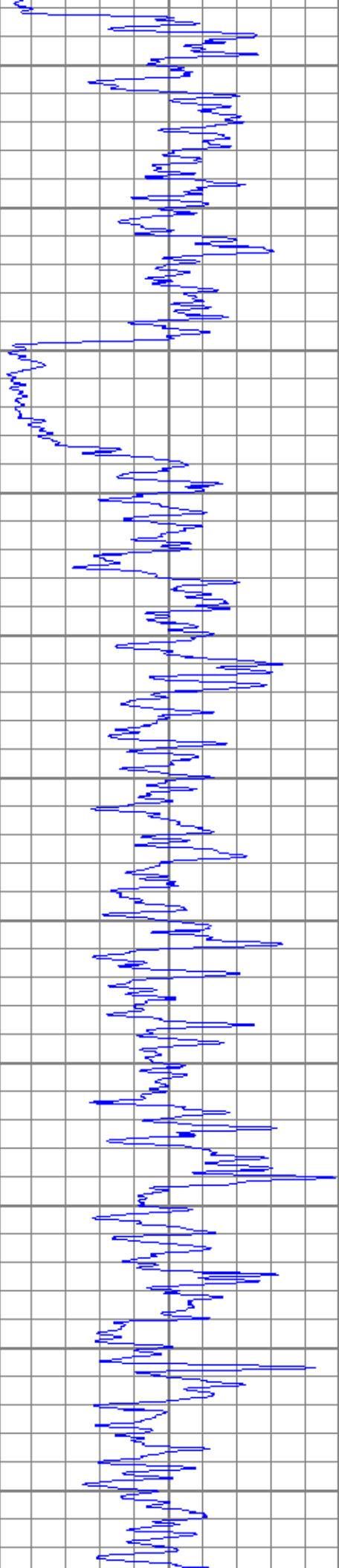


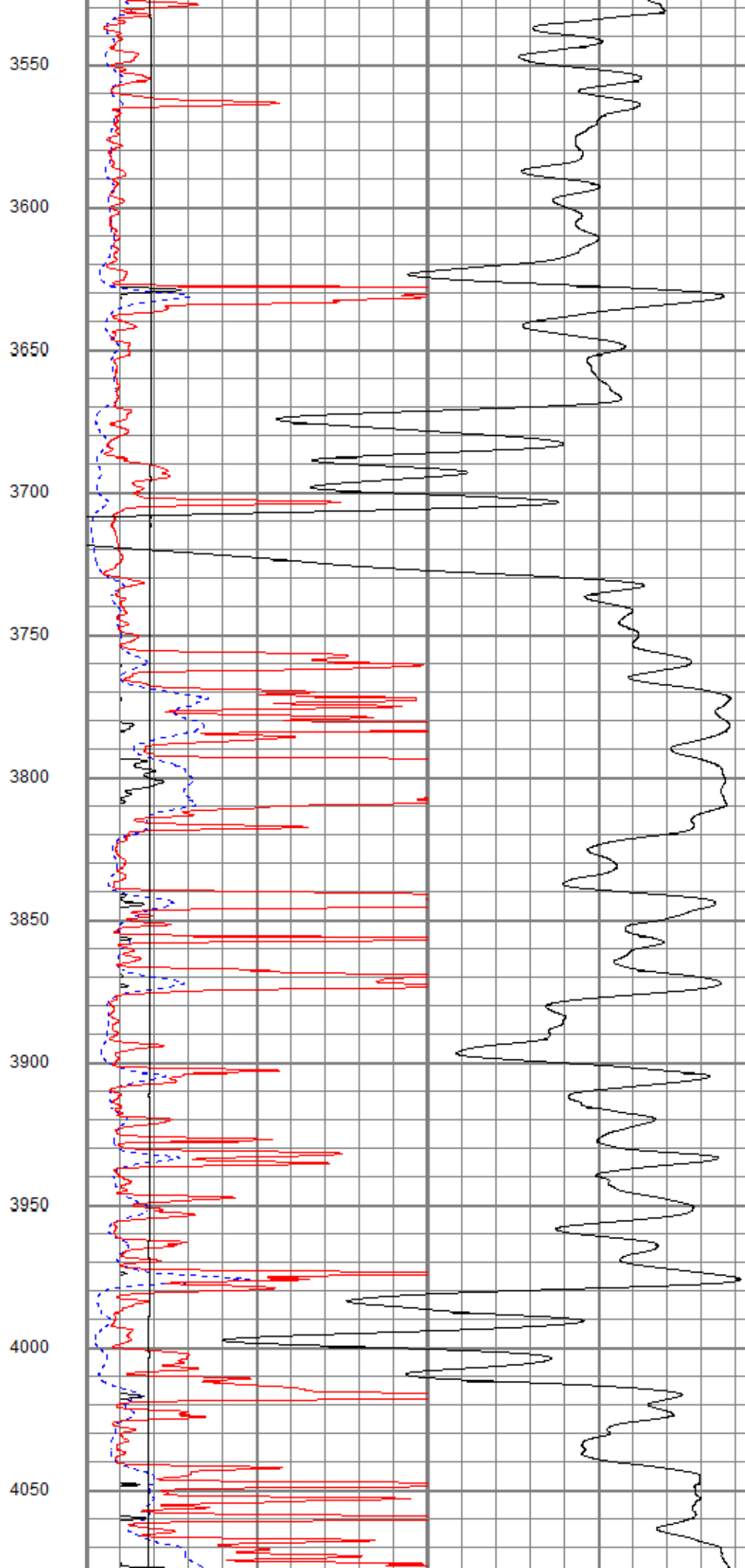
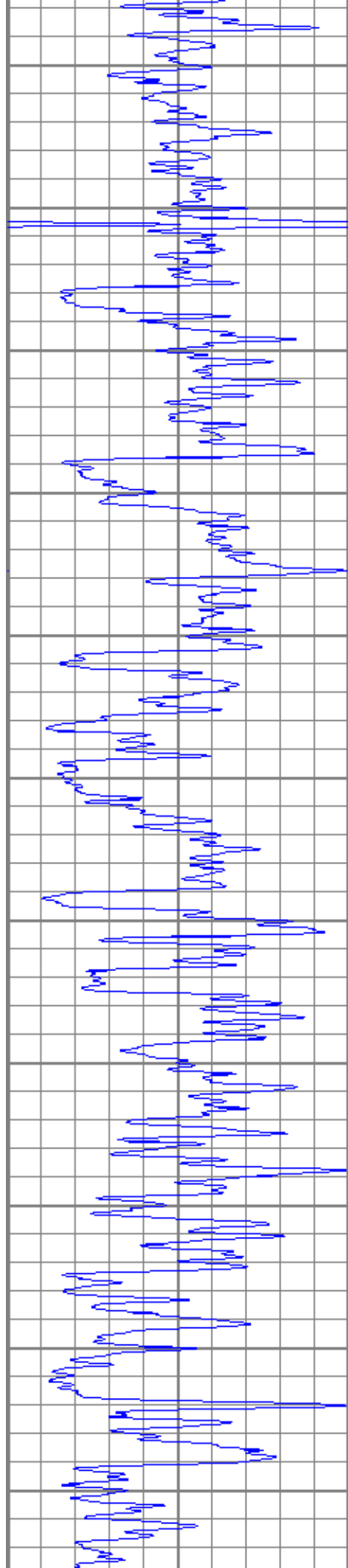


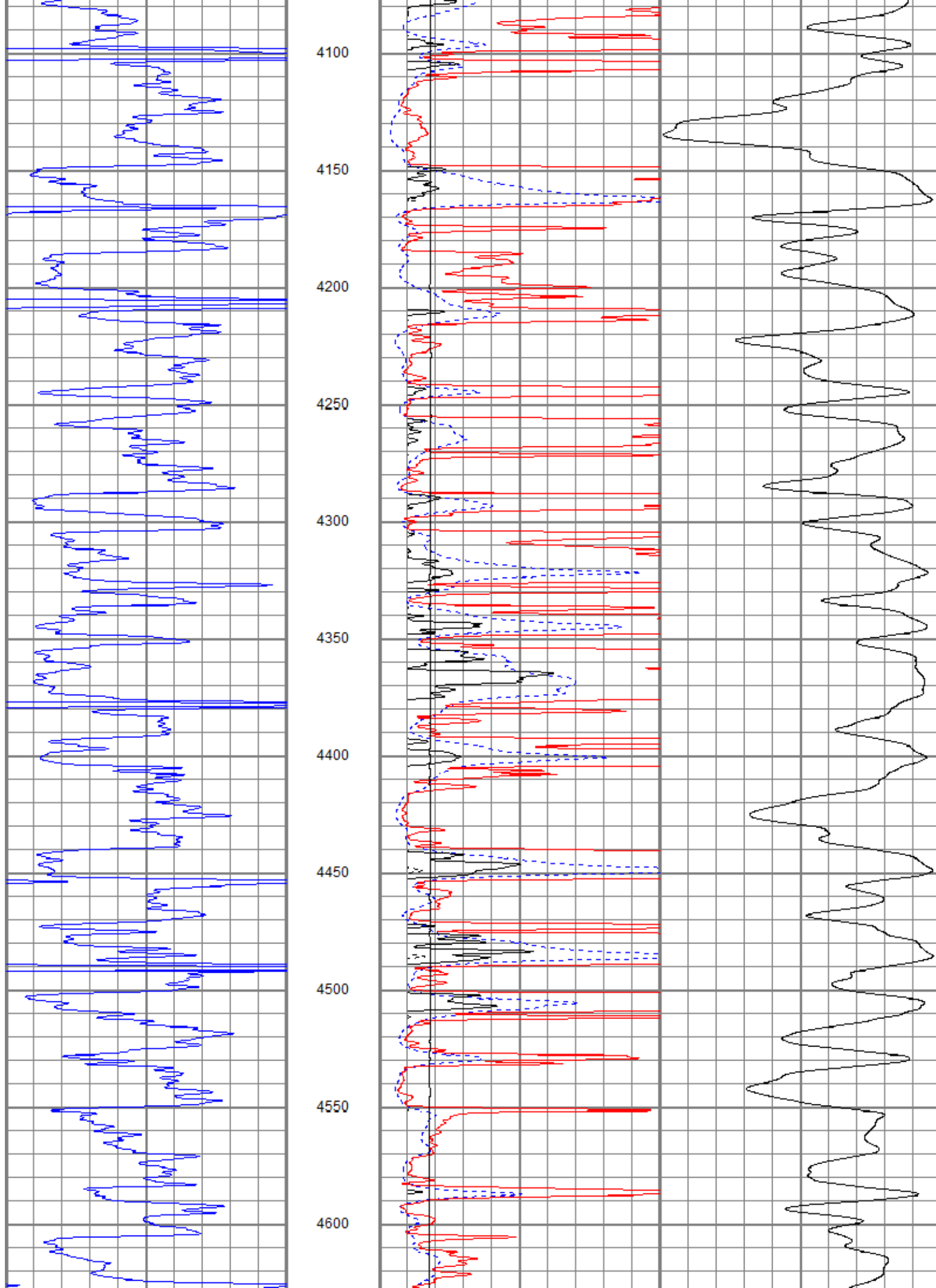
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2100  
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2250  
2300  
2350  
2400

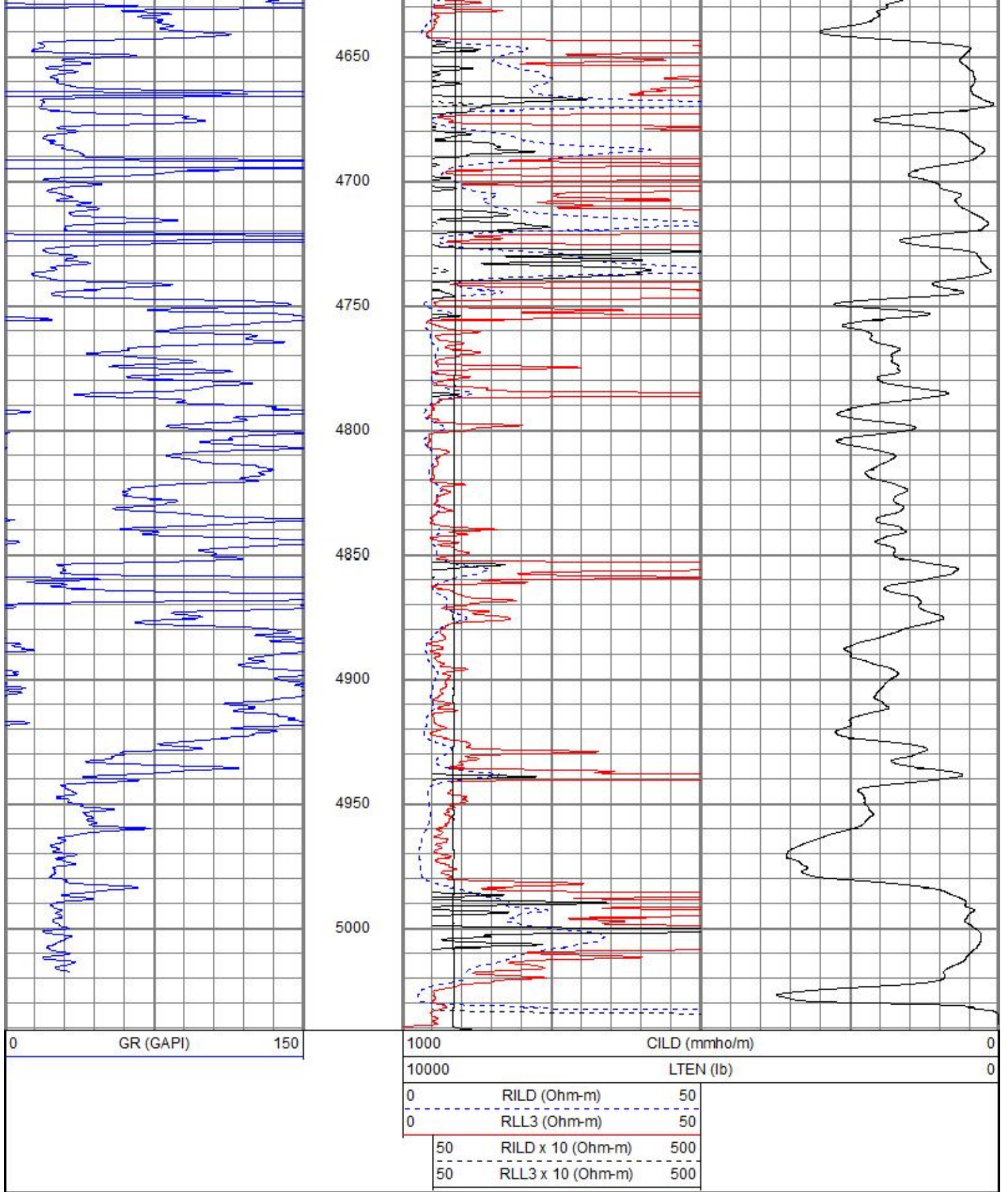










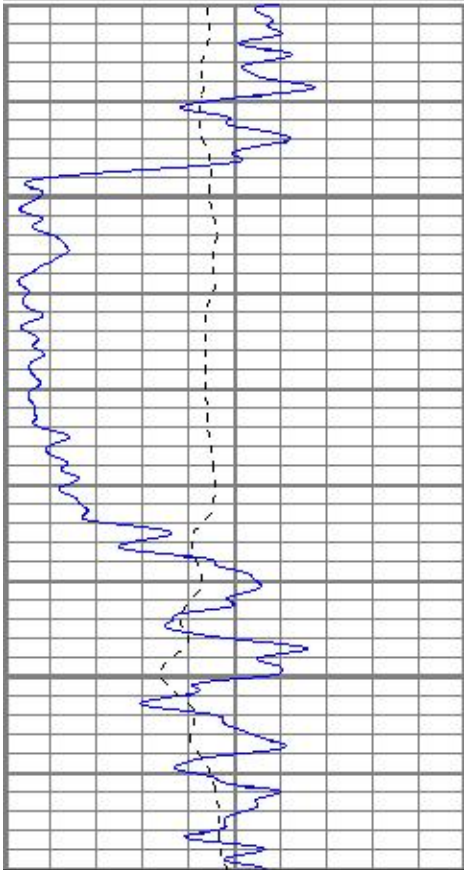


# MAIN PASS

Database File ppdeeds-cooper#10h.db  
 Dataset Pathname pass4.1  
 Presentation Format kdil  
 Dataset Creation Wed Jan 16 11:35:37 2019  
 Charted by Depth in Feet scaled 1:240

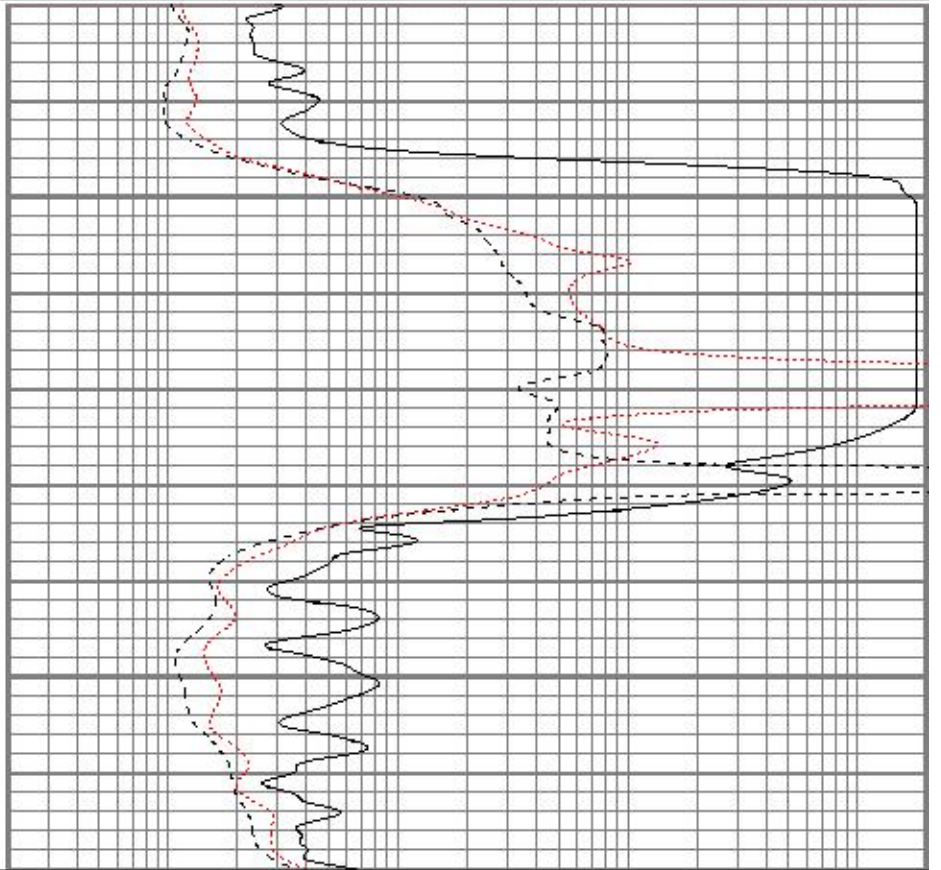
0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



3100

3150



0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

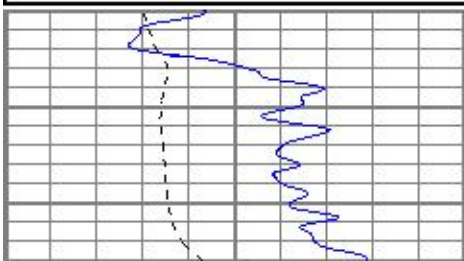


# MAIN PASS

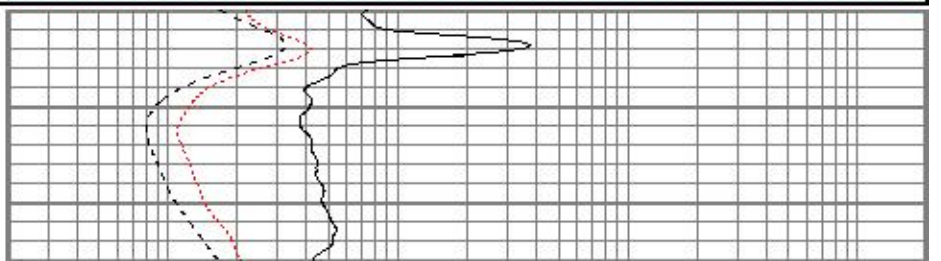
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 Dataset Pathname pass4.1  
 Presentation Format kdil  
 Dataset Creation Wed Jan 16 11:35:37 2019  
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



3100

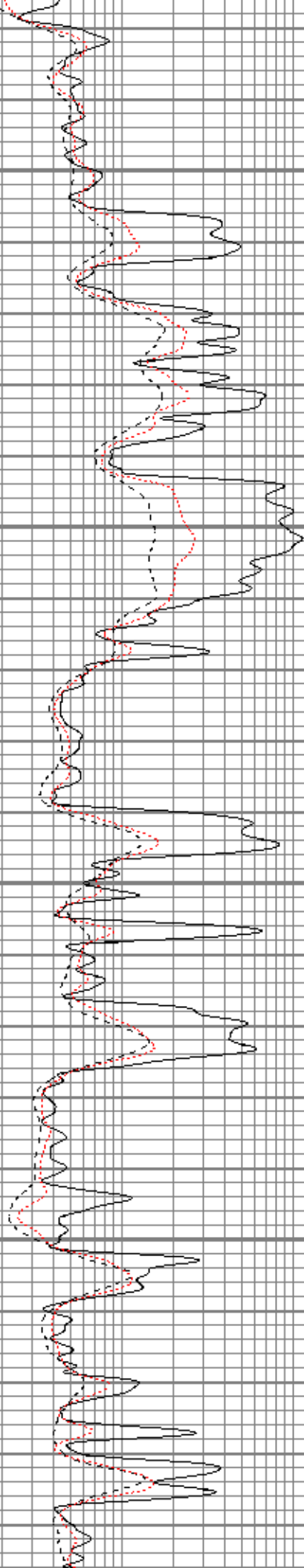
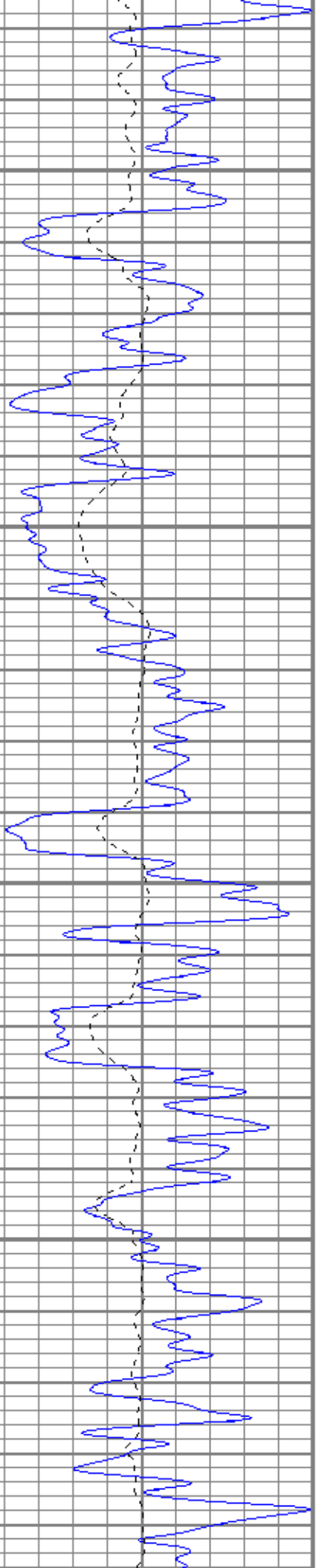


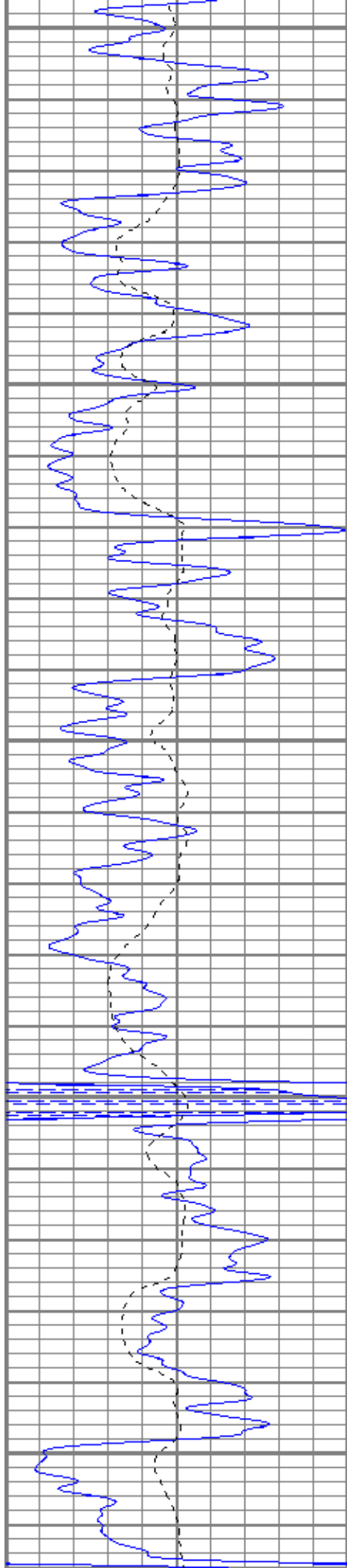
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3800

3850

3900





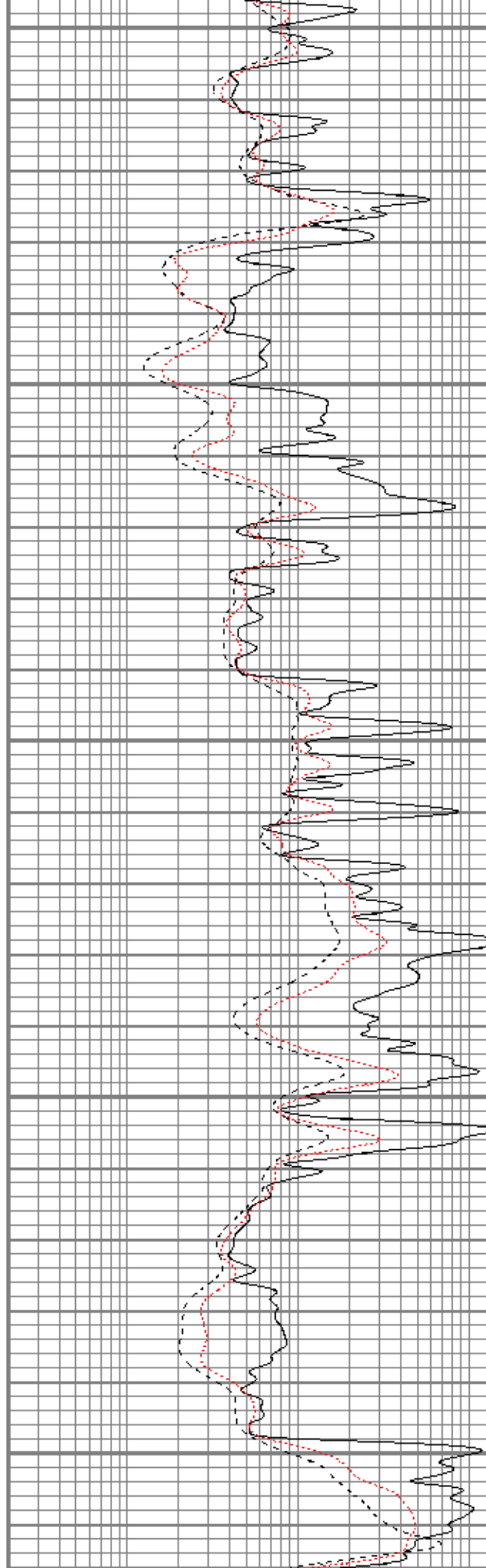
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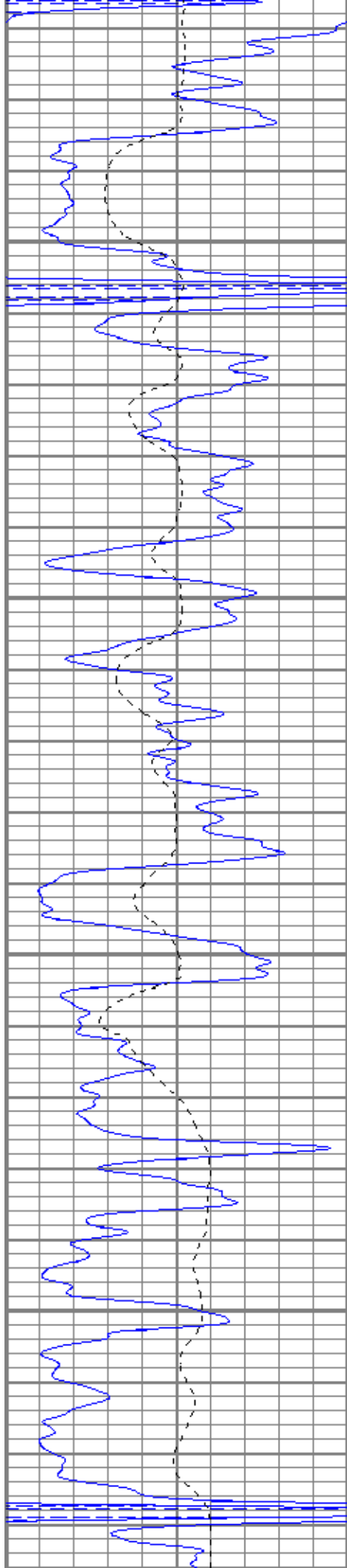
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4050

4100

4150



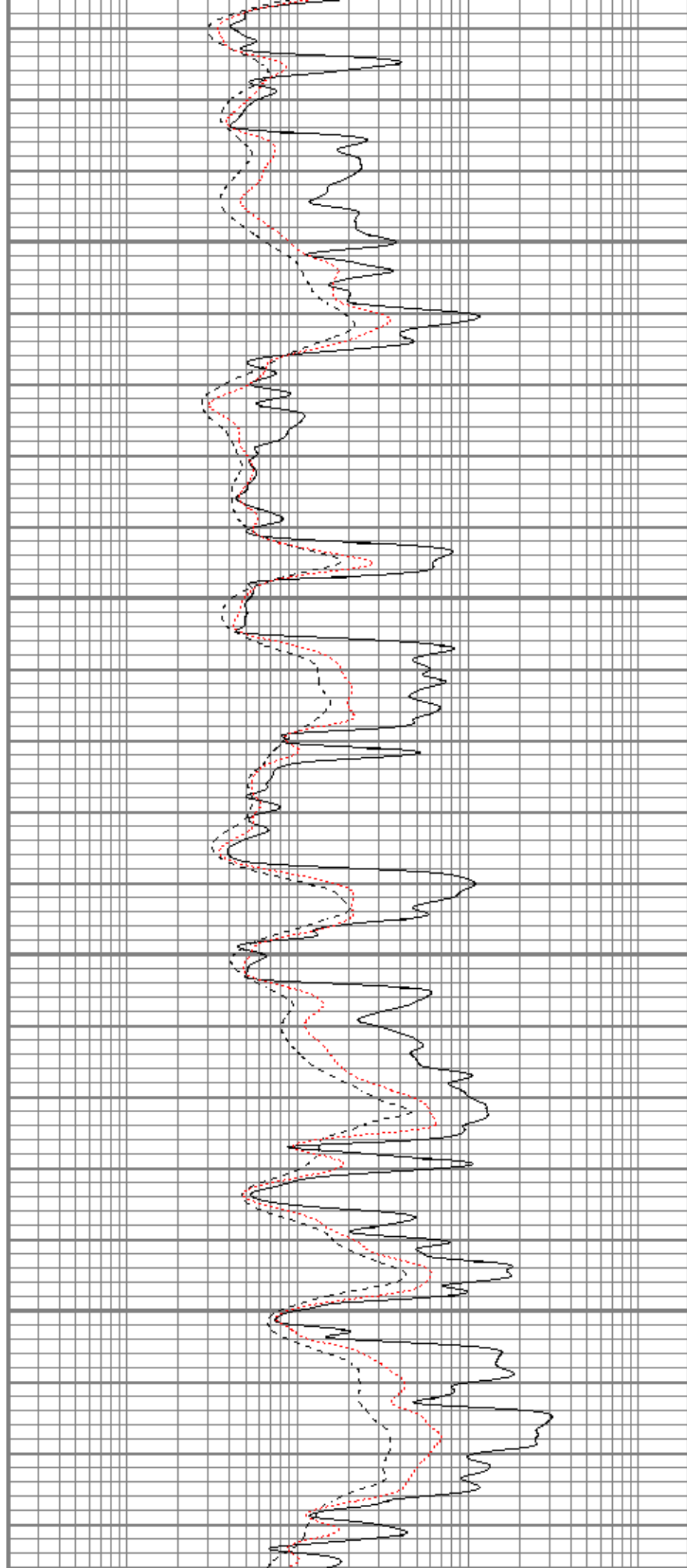


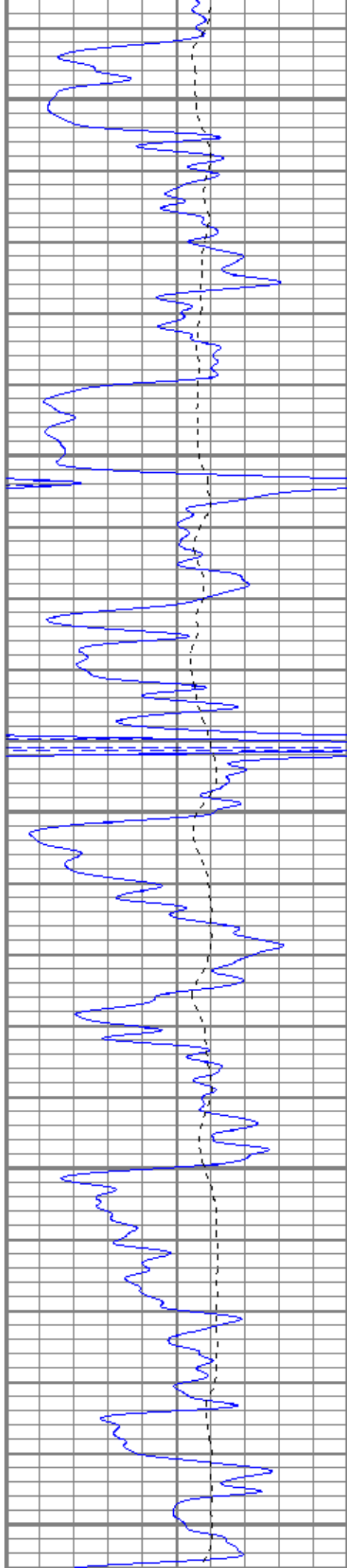
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4250

3300

4350





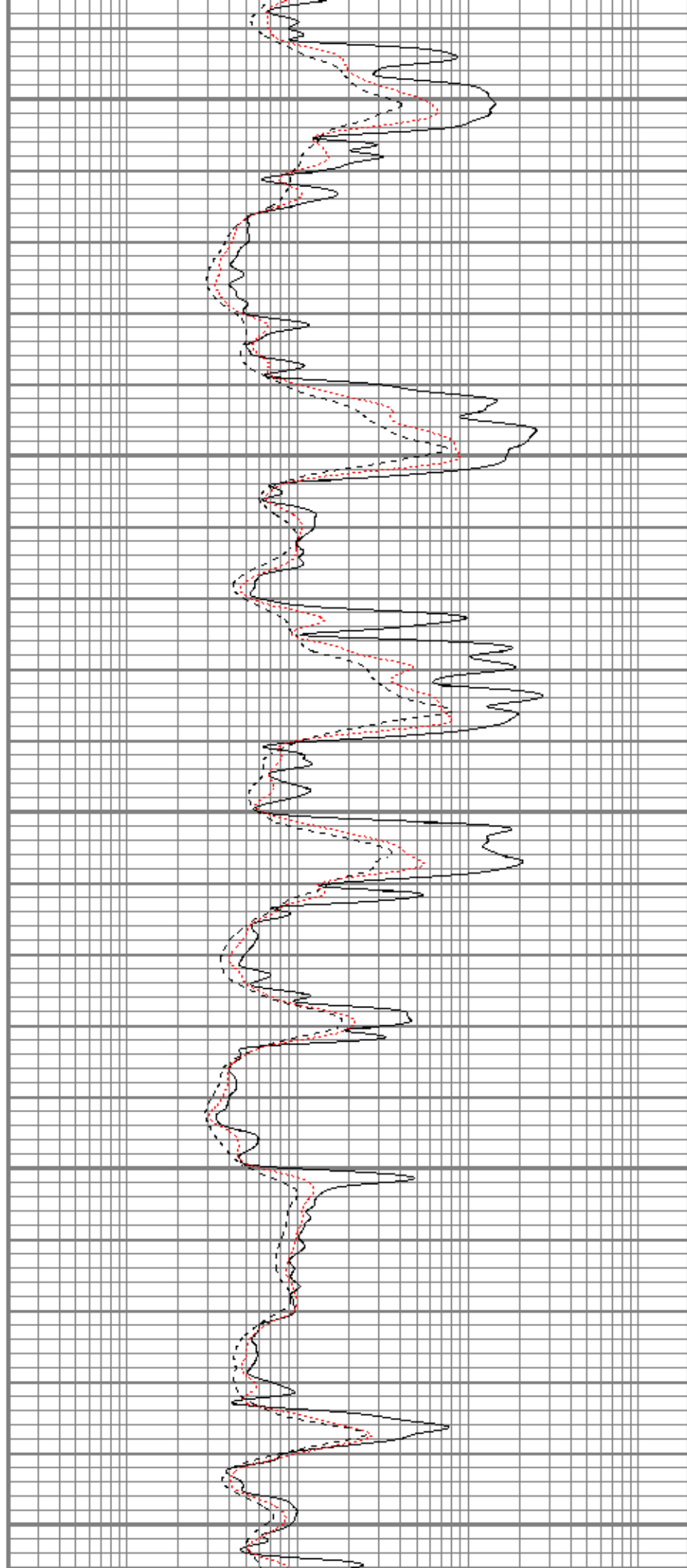
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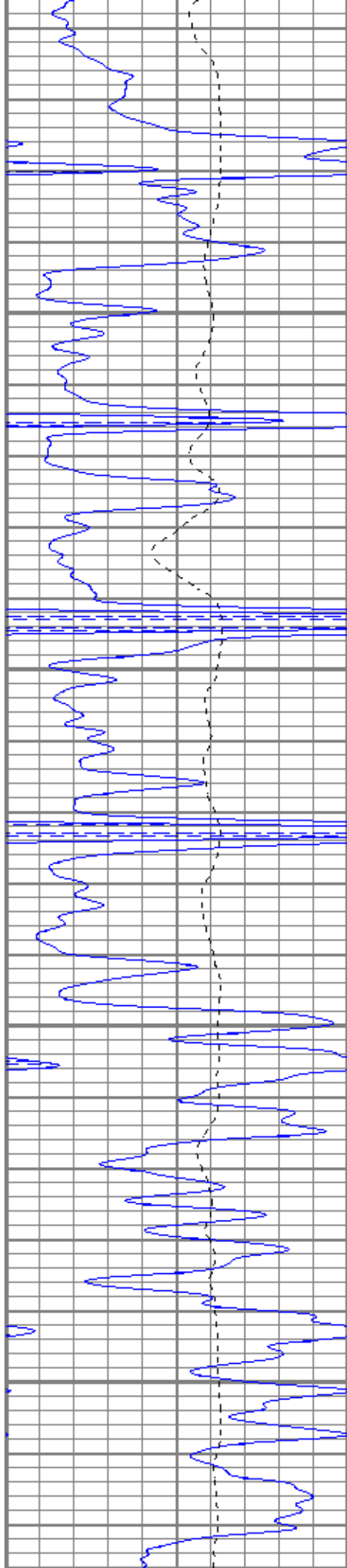
4450

4500

4550

4600



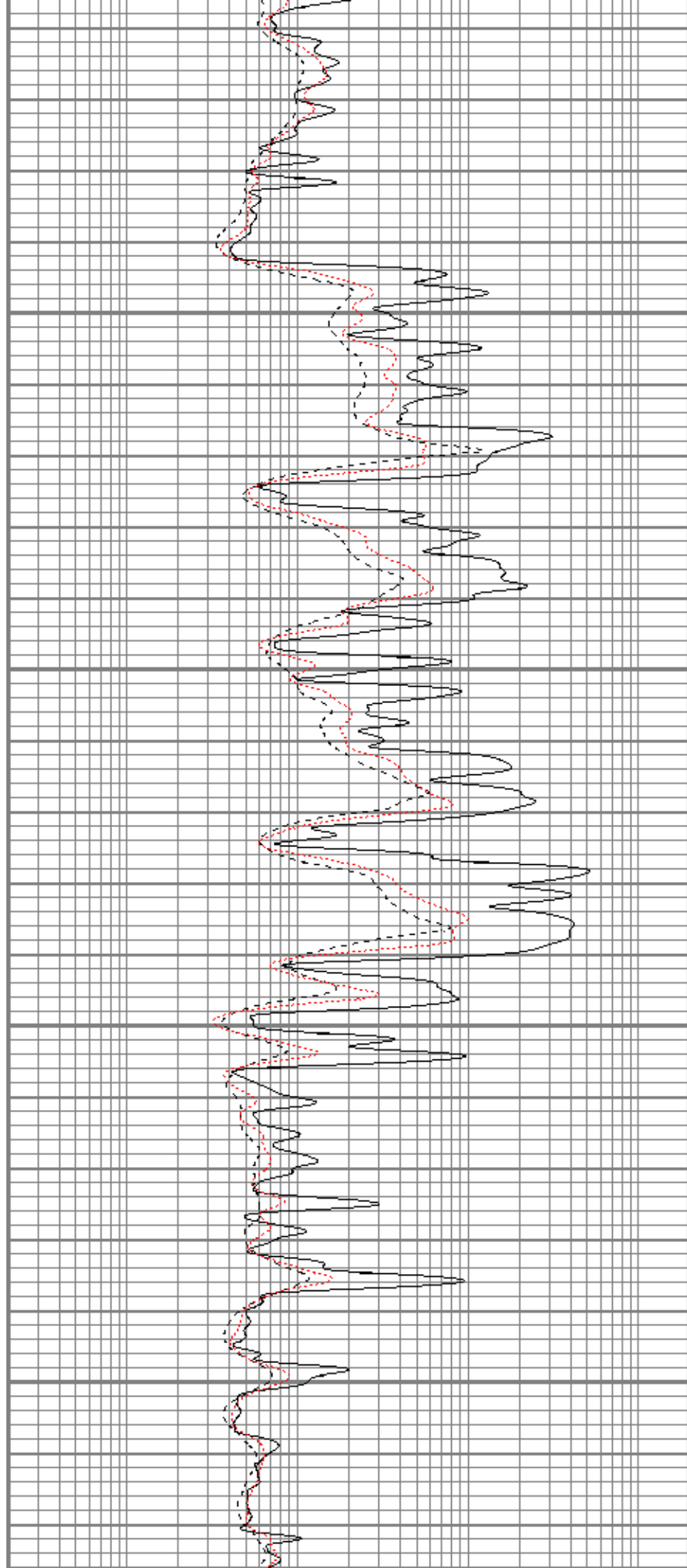


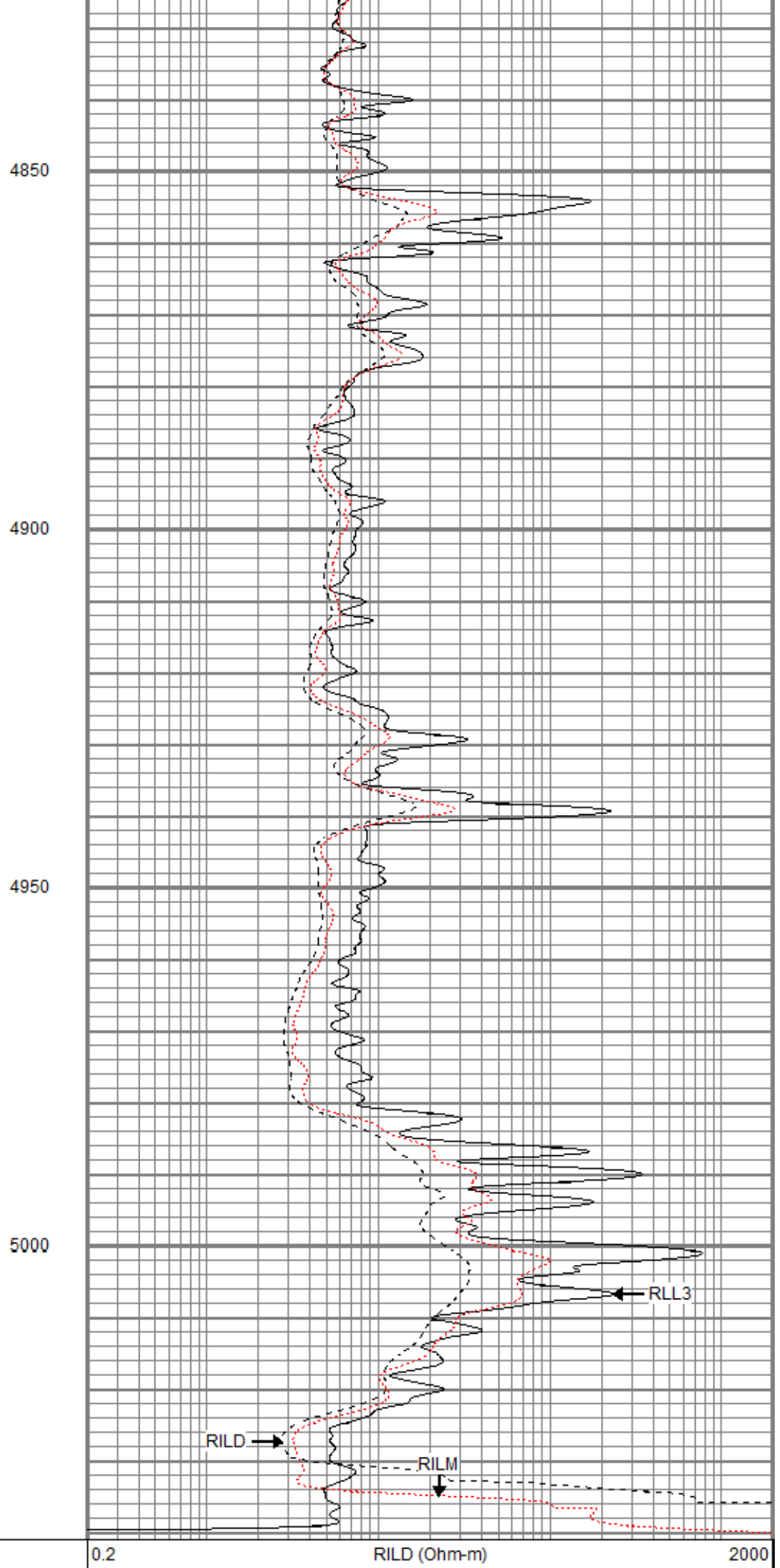
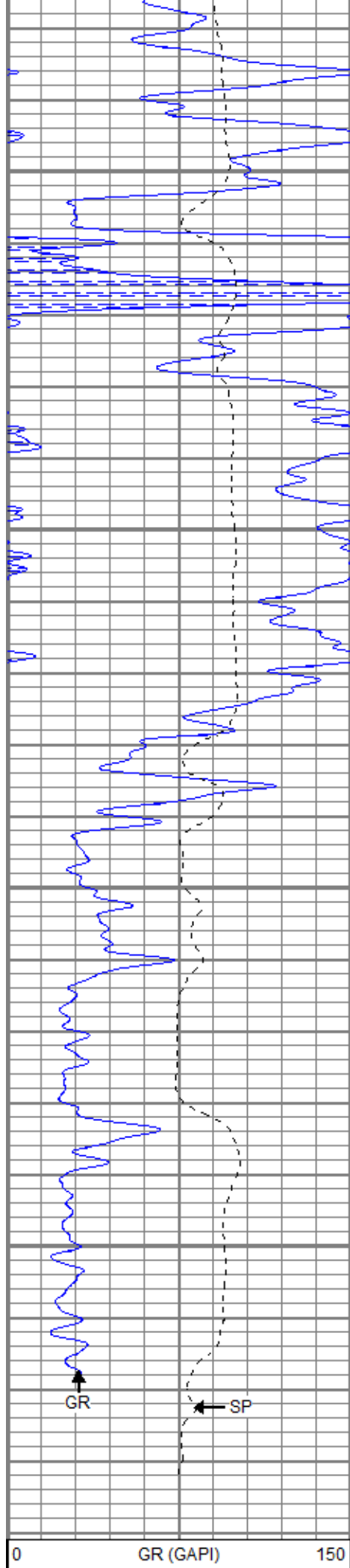
4650

4700

4750

4800





100	SP (mV)	100
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0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

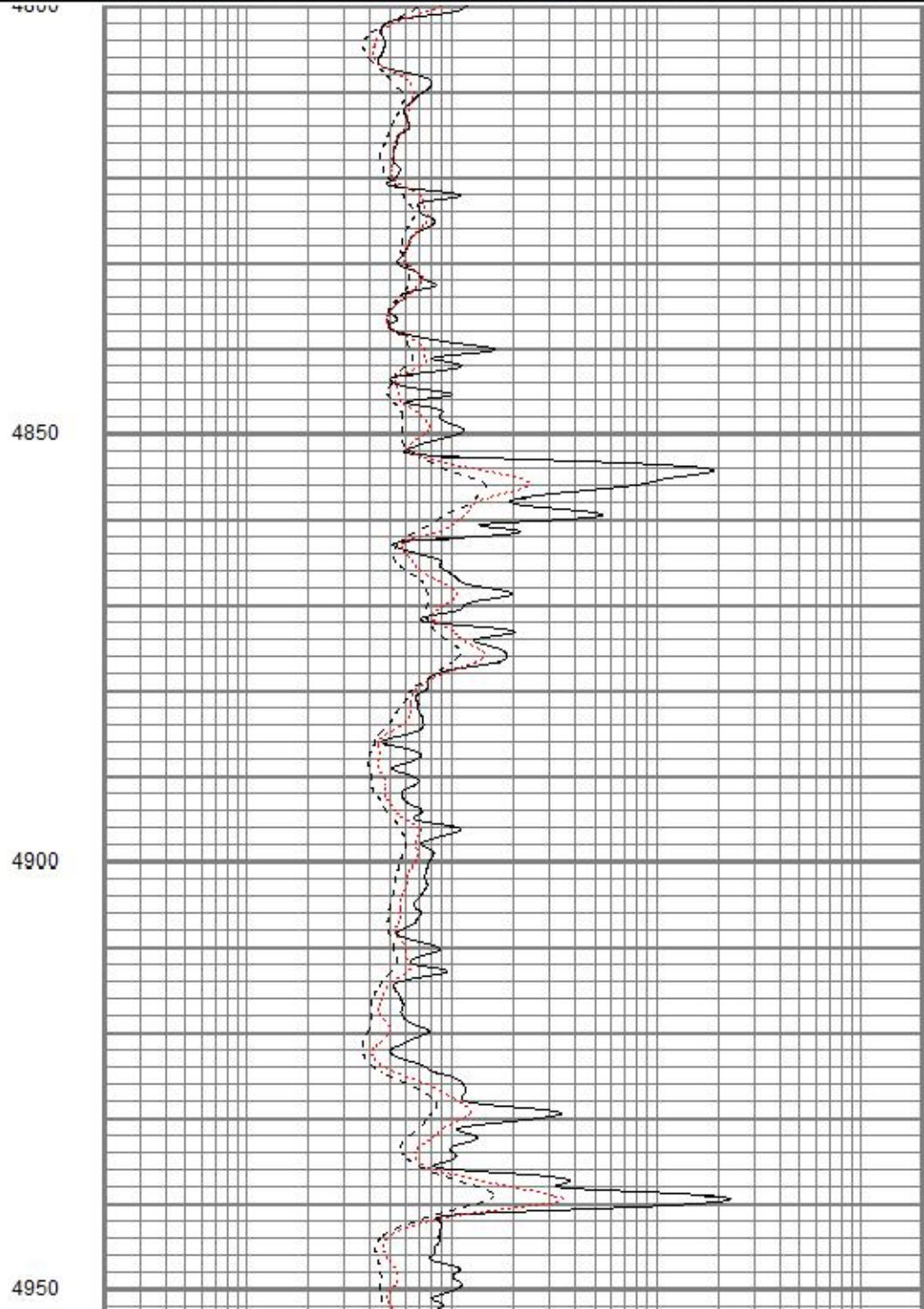
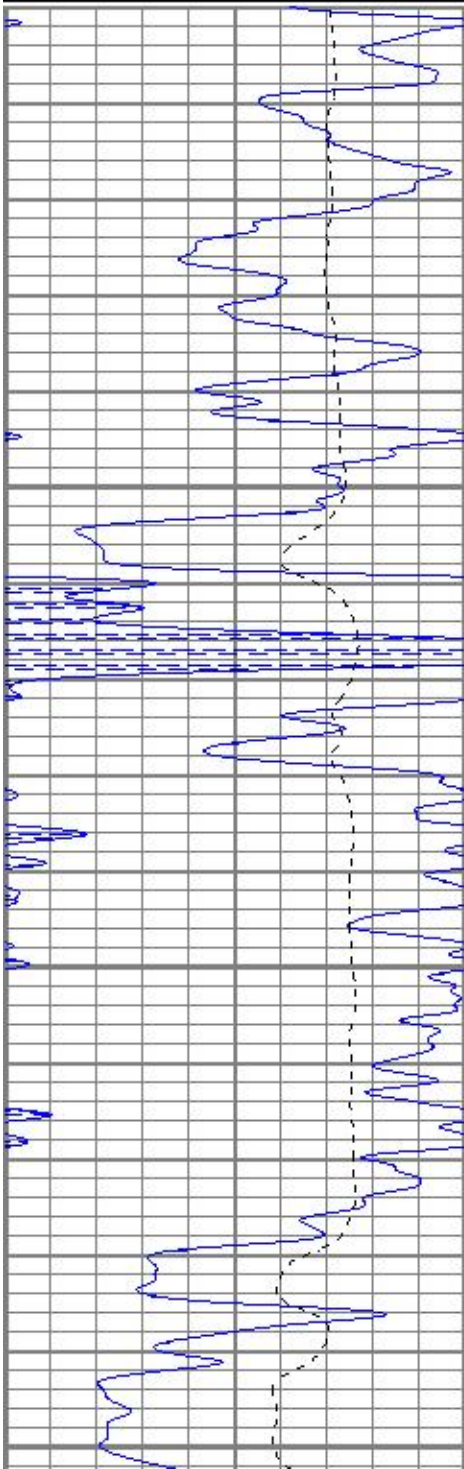


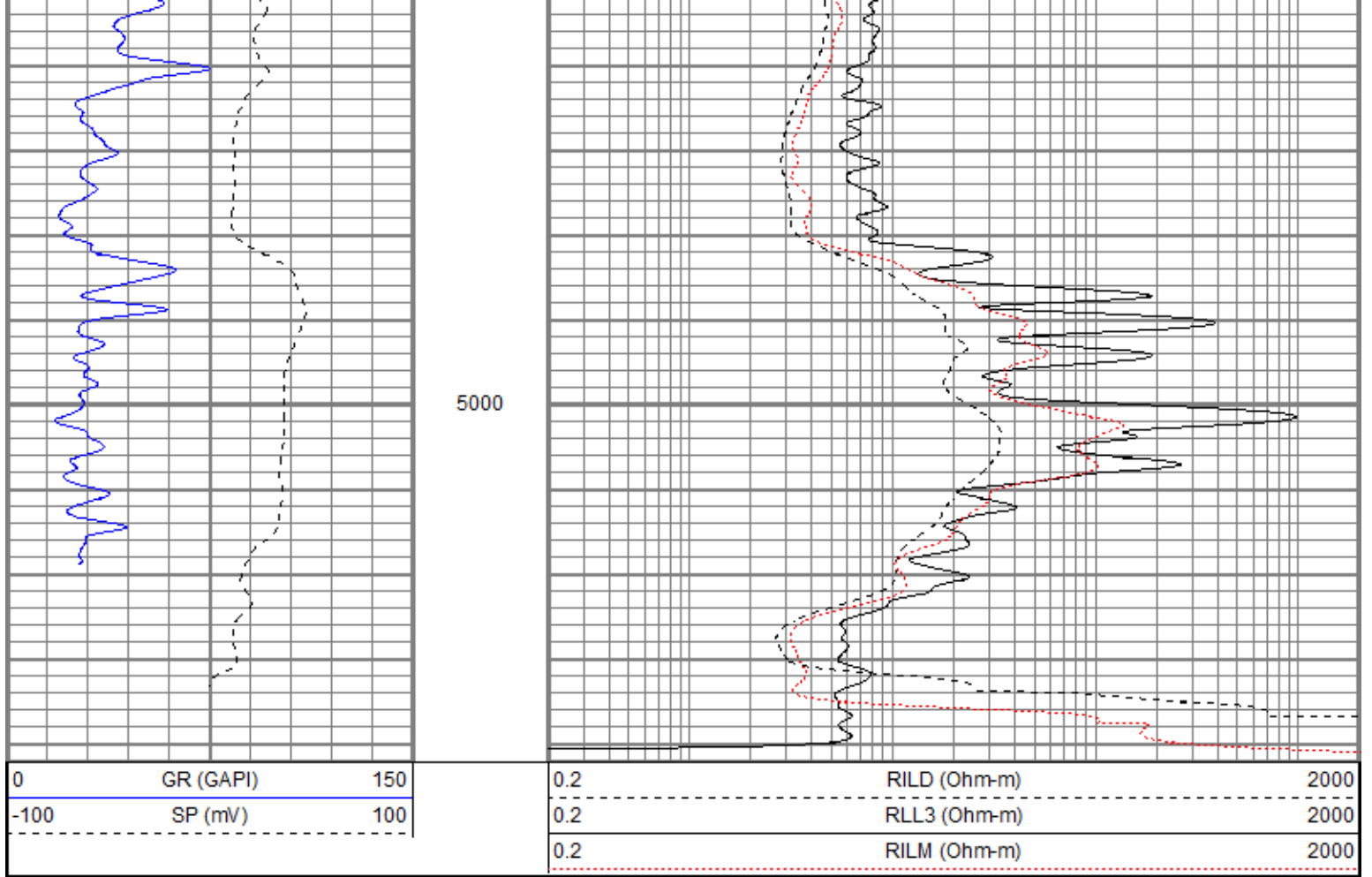
# REPEAT SECTION

Database File: ppdeeds-cooper#1oh.db  
 Dataset Pathname: pass3.1  
 Presentation Format: kdil  
 Dataset Creation: Wed Jan 16 11:41:30 2019  
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000





### Calibration Report

Database File    ppdeeds-cooper#1oh.db  
 Dataset Pathname    pass4.1  
 Dataset Creation    Wed Jan 16 11:35:37 2019

### Dual Induction Calibration Report

Serial-Model:                    1989-ADM  
 Surface Cal Performed:        Wed Jun 06 19:34:10 2018  
 Downhole Cal Performed:      Wed Jun 06 19:34:10 2018  
 After Survey Verification Performed:    Wed Jun 06 19:34:10 2018

#### Surface Calibration

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	-0.012	0.665	V	0.000	450.000	mmho/m	664.390	7.887
Medium	-0.013	0.752	V	0.000	530.000	mmho/m	692.289	9.258
Internal:	Zero				Cal		m	b
Deep	-0.011	0.668	V	0.000	350.000	mmho/m	515.730	5.704
Medium	-0.015	0.752	V	0.000	550.000	mmho/m	716.653	10.787


#### Downhole Calibration

Internal:	Readings				References		Results	
	Zero	Cal			Zero	Cal	m	b
Deep	0.000	0.000	mmho/m	0.419	351.110	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-0.877	400.105	mmho/m	1.000	0.000
Shallow	2.502	0.040	V	500.000	2.000	Ohm-m	180.323	-1.126

Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	1.000	0.000
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Gamma Ray Calibration Report

Serial Number: 2001  
 Tool Model: OH  
 Performed: Sun Nov 12 16:26:41 2017  
  
 Calibrator Value: 1.0 GAPI  
  
 Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps  
  
 Sensitivity: 0.7000 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	20.88		CHD-None	0.75	1.50	5.00
			GR-OH (2001) 2001	3.56	3.25	40.00
SP CILD	10.60 10.60		DIL-ADM (1989) Dual Induction	19.71	4.00	300.00
CILM	6.89					
RLL3	1.70					

Dataset: ppdeeds-cooper#1oh.db: field/well/run1/pass4.1  
 Total length: 24.02 ft  
 Total weight: 345.00 lb  
 O.D.: 4.00 in