



PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company PALMER OIL, INC.
Well WILLIS #1-20
Field UNKNOWN
County FINNEY
State KANSAS

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Well WILLIS #1-20
Field UNKNOWN
County FINNEY State KANSAS

Location: API #: 15-055-22478-00-00

Other Services

NE SW SE NE
2038' FNL & 737' FEL
SEC 20 TWP 26S RGE 33W

CNL/CDL
DIL/BHCS

Permanent Datum GROUND LEVEL Elevation 2926'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2937'
D.F. N/A
G.L. 2926'

Date 2/24/2018

Run Number TWO

Depth Driller 5400'

Depth Logger 5400'

Bottom Logged Interval 5399'

Top Log Interval 3800'

Casing Driller 8.625" @ 1780'

Casing Logger 1780'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 2600

Density / Viscosity 9.25 47

pH / Fluid Loss 9.0 9.2

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.55 @ 75

Rmt @ Meas. Temp 0.41 @ 75

Rmc @ Meas. Temp 0.74 @ 75

Source of Rmt / Rmc CHARTS

Rm @ BHT 0.32 @ 130

Operating Rig Time 4 HOURS

Max Rec. Temp. F 130 DEG F

Equipment Number 108

Location HAYS

Recorded By T. MARTIN

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.

GARDEN CITY, S ON 83 APPX 14 MI TO W TV RD,
5 W TO SANDHILL RD, 1/4 S, W INTO

Log Measured From: KELLY BUSHING 11 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: T. MARTIN
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

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

Log Variables

DatabaseC:\ProgramData\Warrior\Data\palmer_willis_#1-20.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	130	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	-210	30		5400

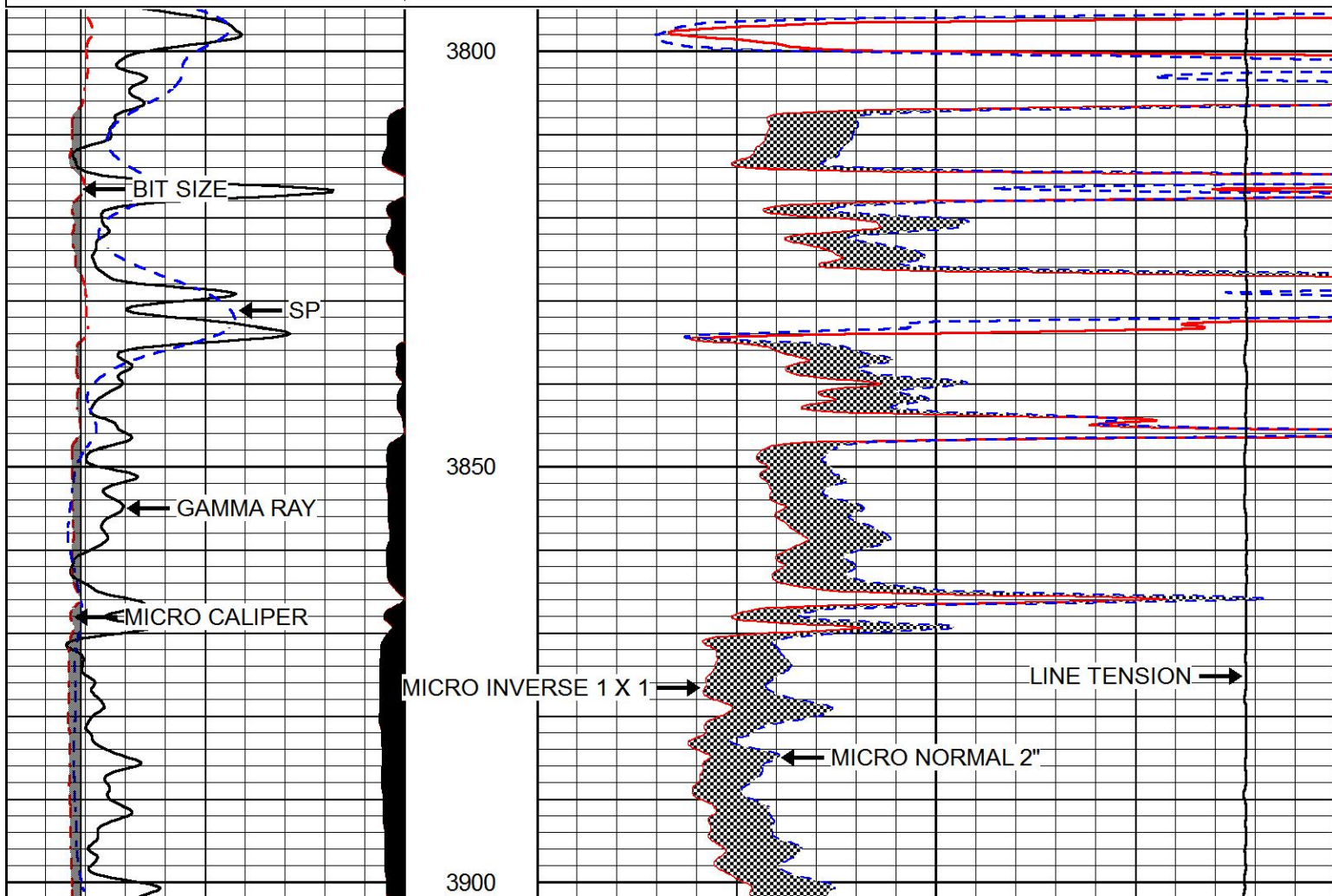


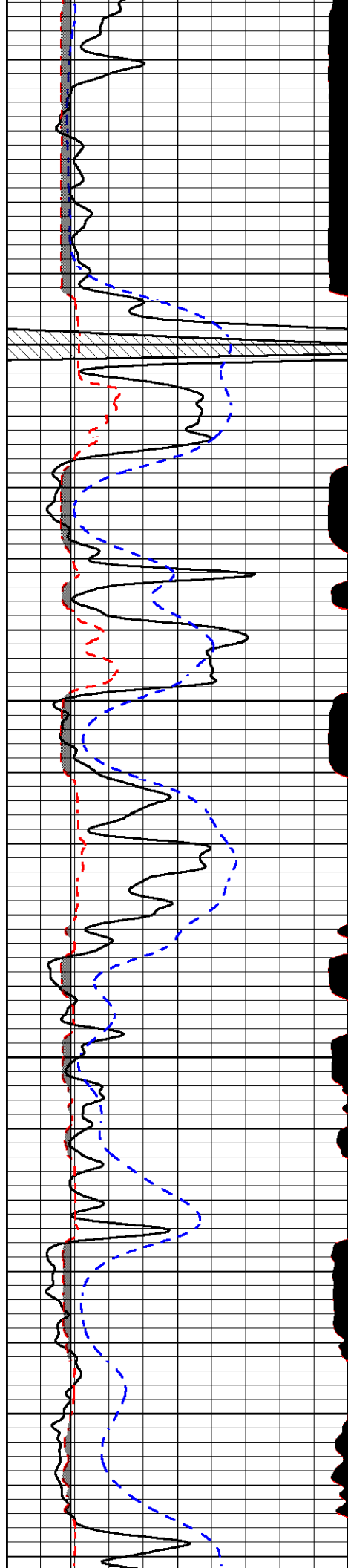
MAIN PASS

Database File palmer_willis_#1-20.db
Dataset Pathname stack/pass3.1
Presentation Format micro
Dataset Creation Sat Feb 24 07:55:27 2018
Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0

0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0



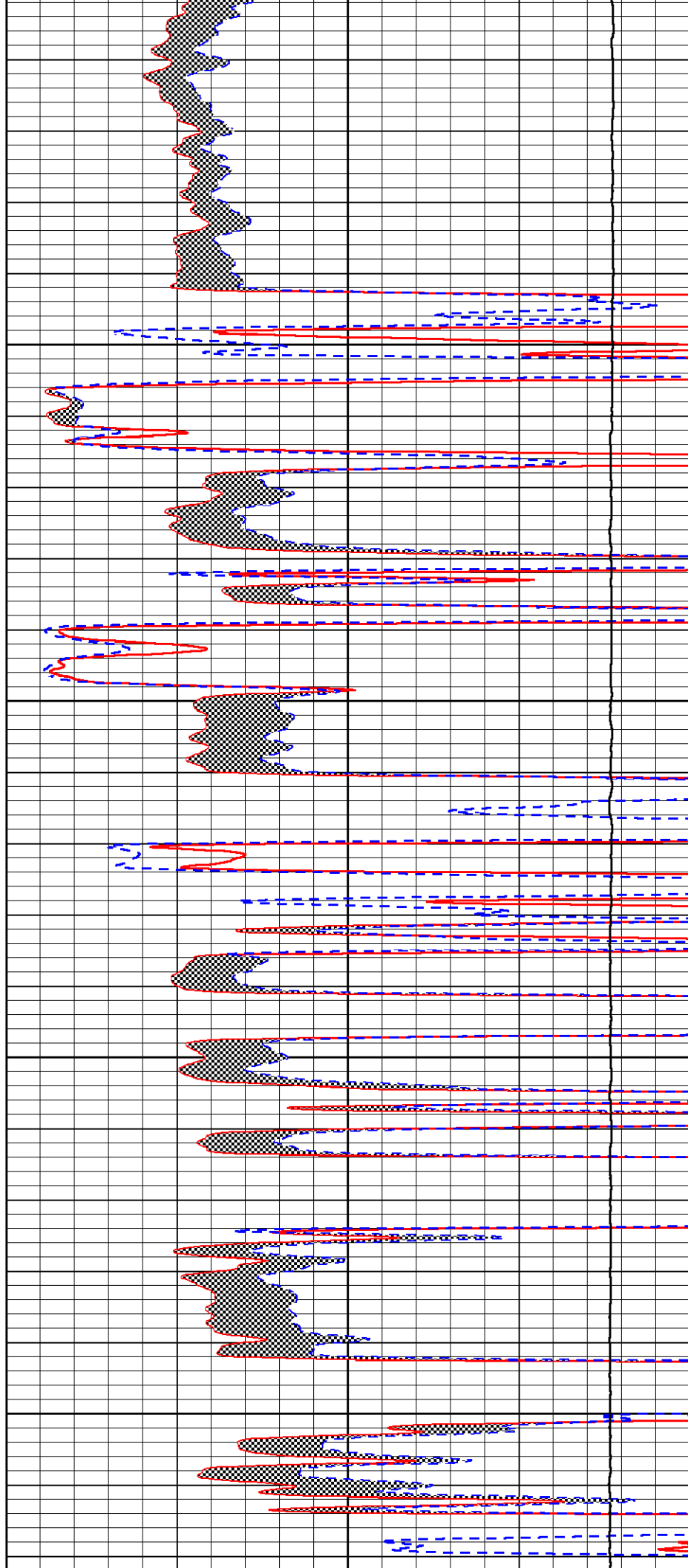


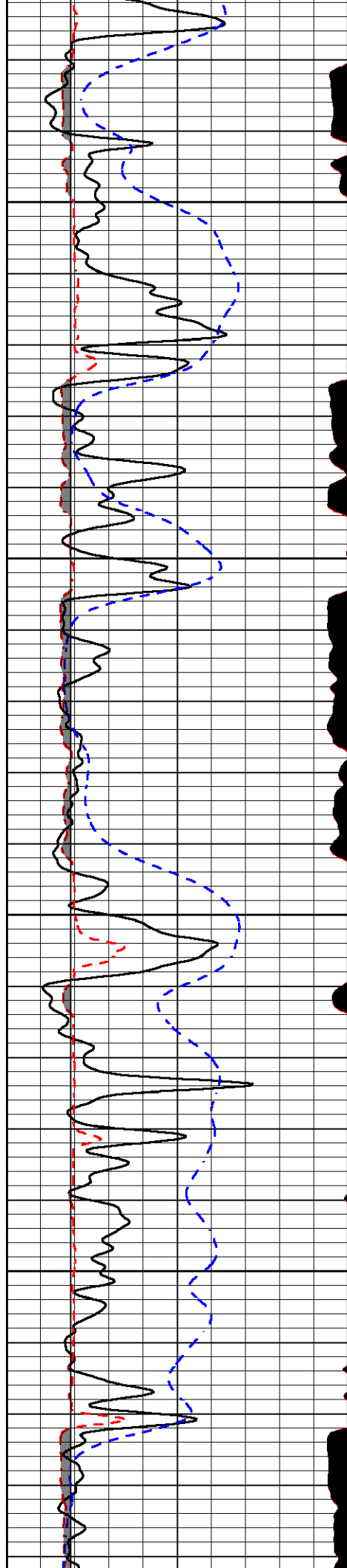
3950

4000

4050

4100



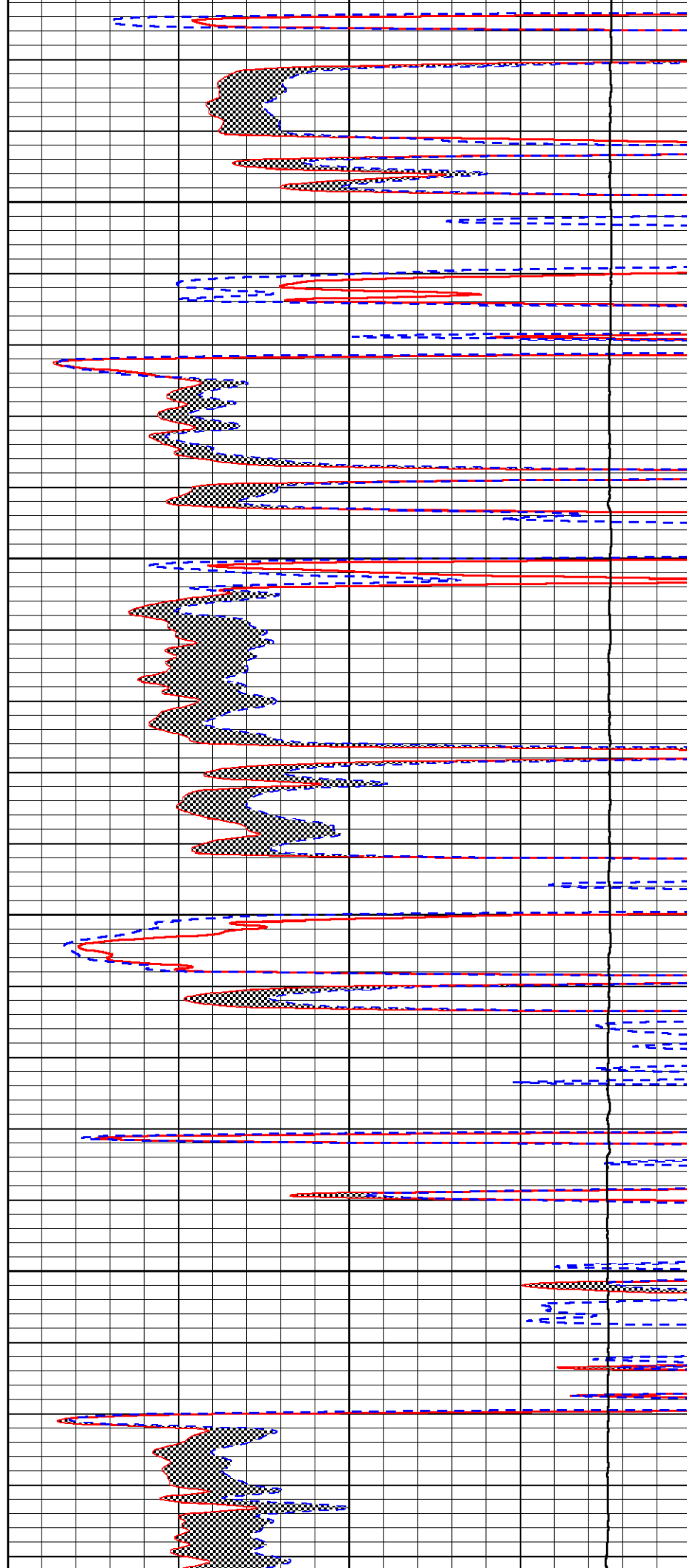


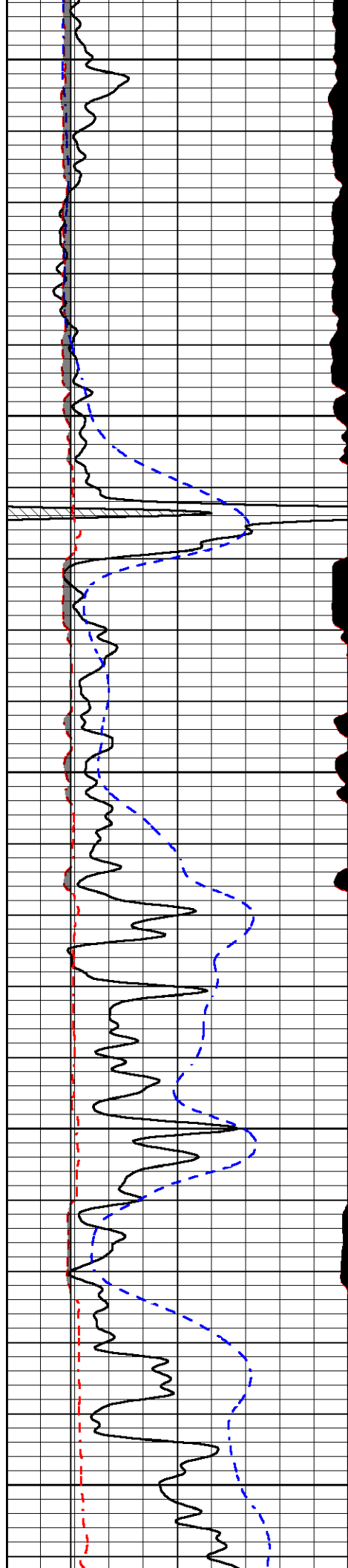
4150

4200

4250

4300





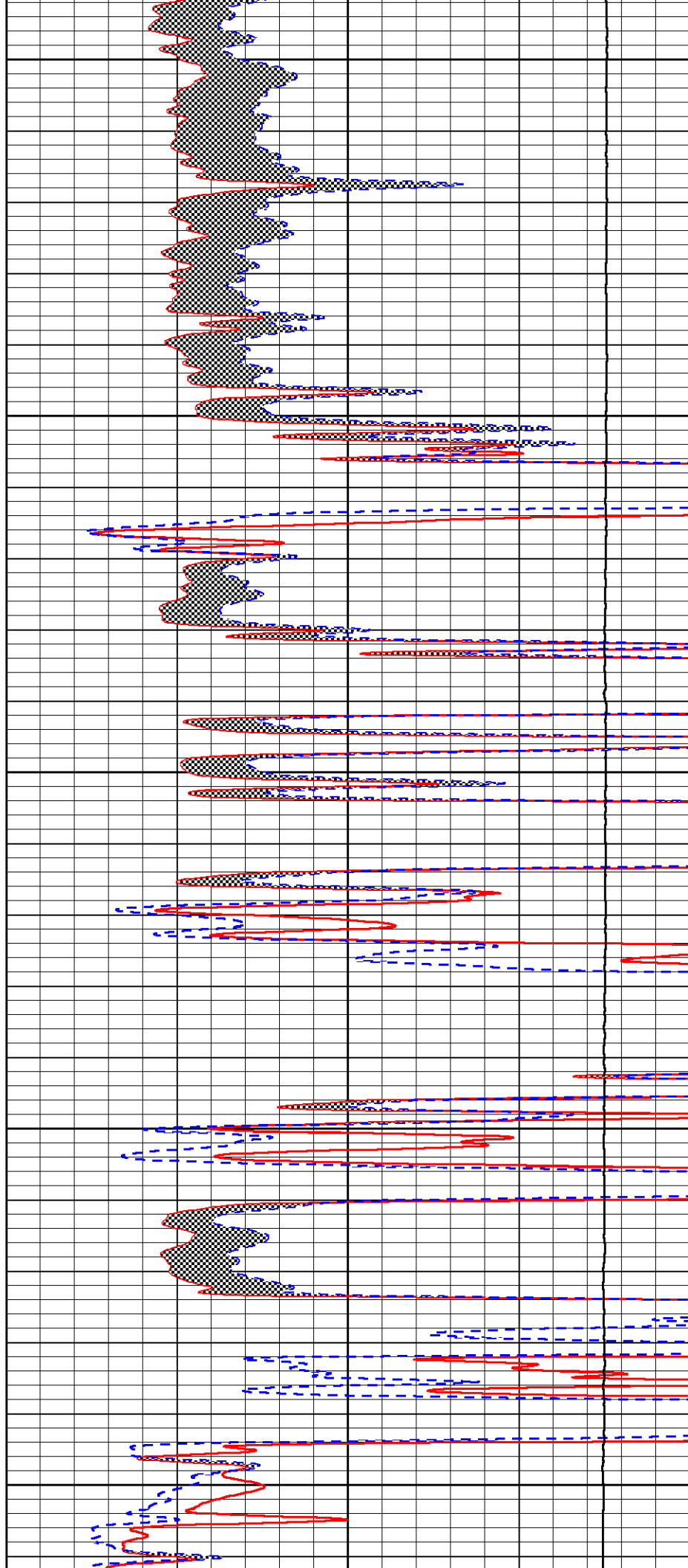
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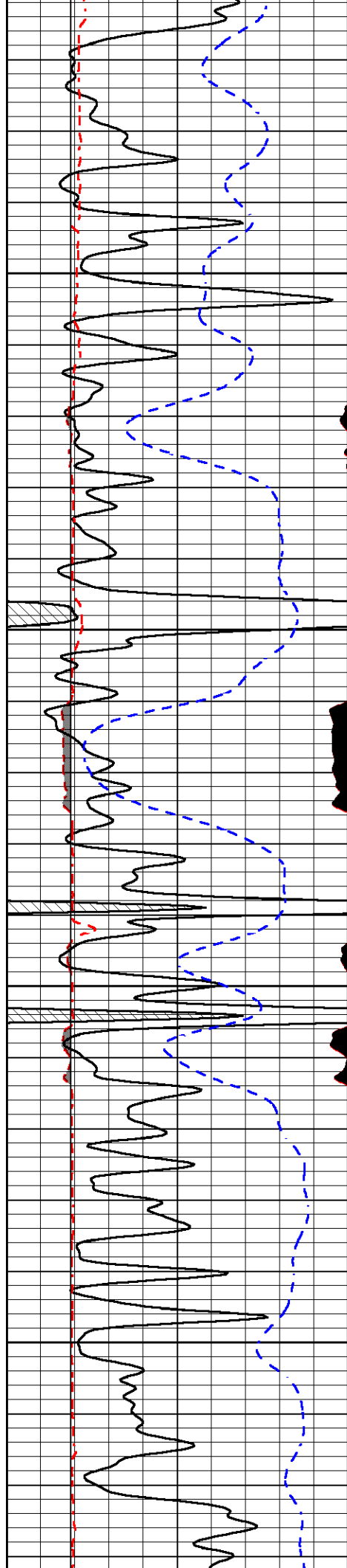
4400

4450

4500

4550



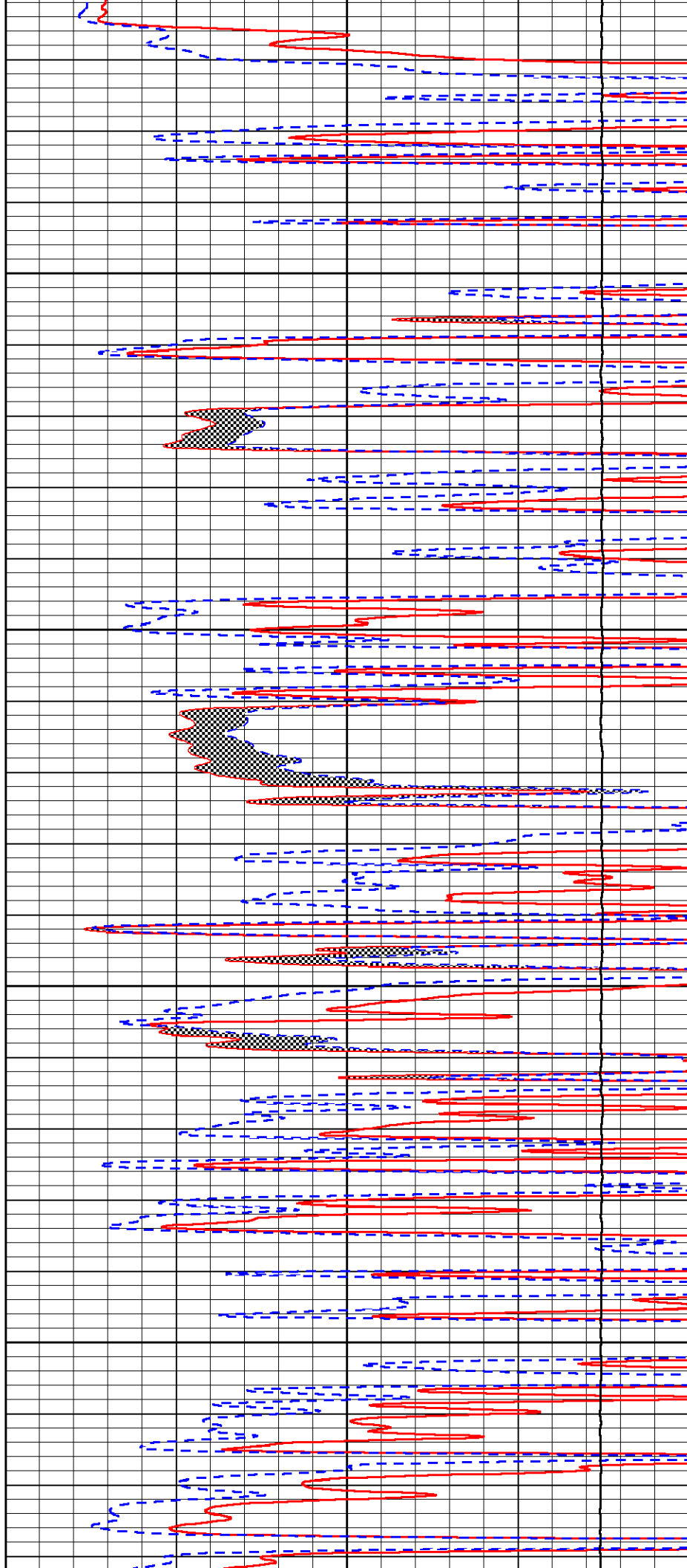


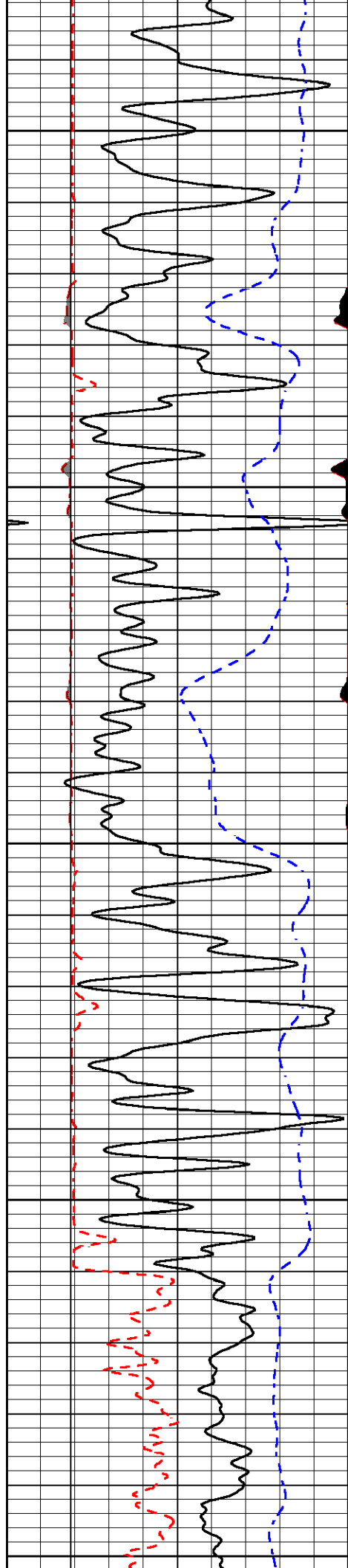
4600

4650

4700

4750





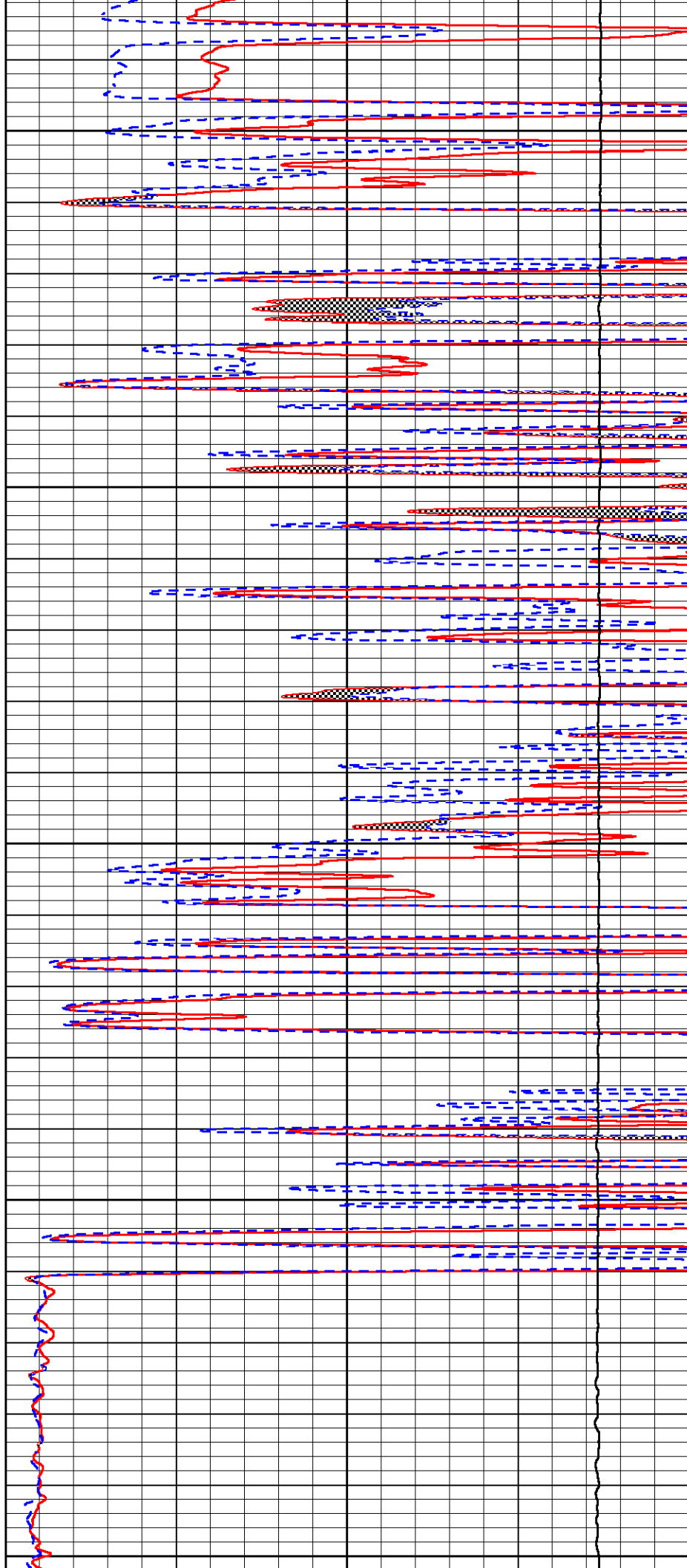
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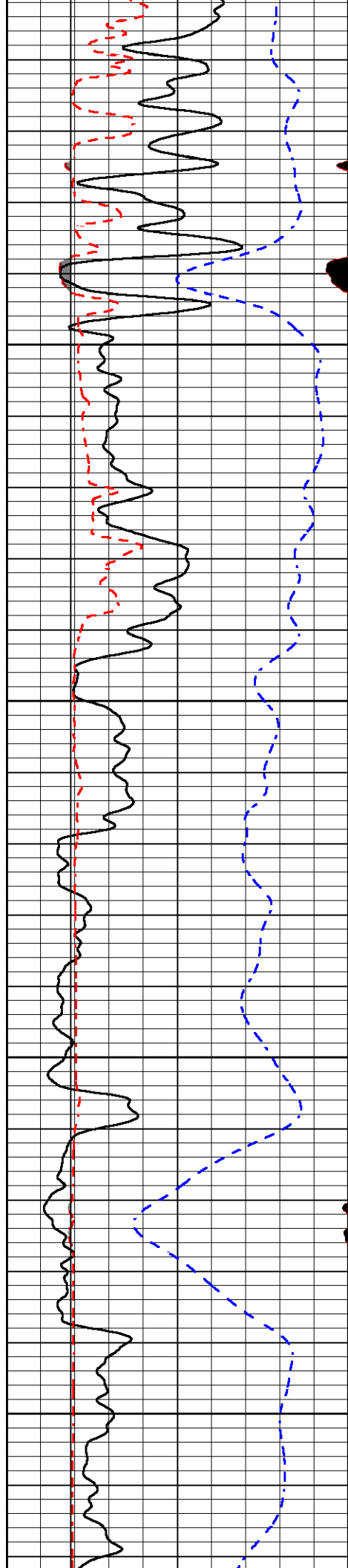
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4900

4950

5000



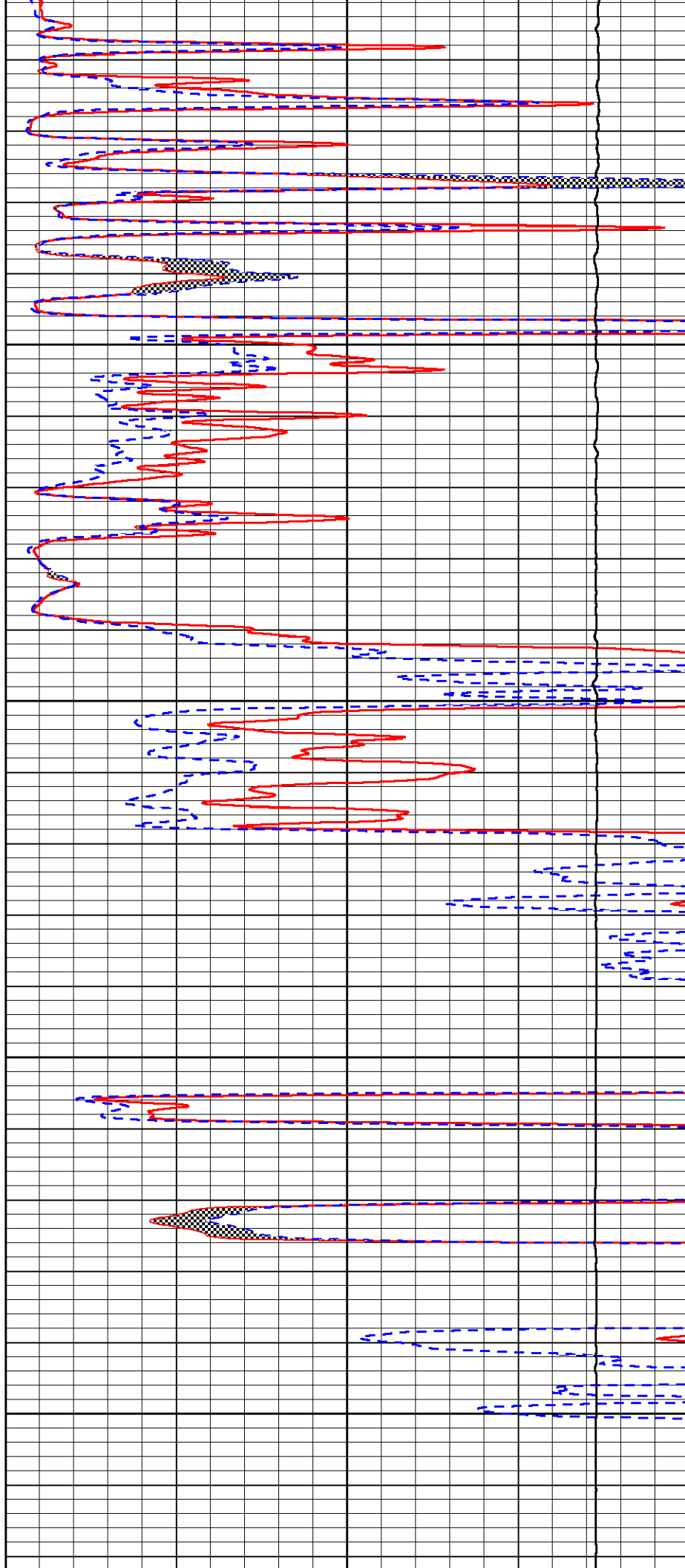


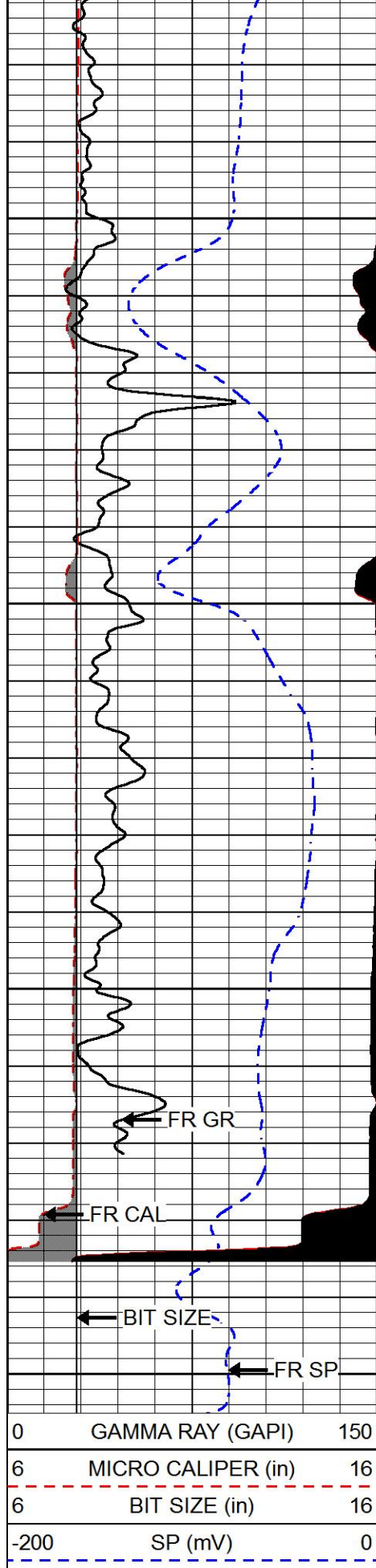
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5100

5150

5200



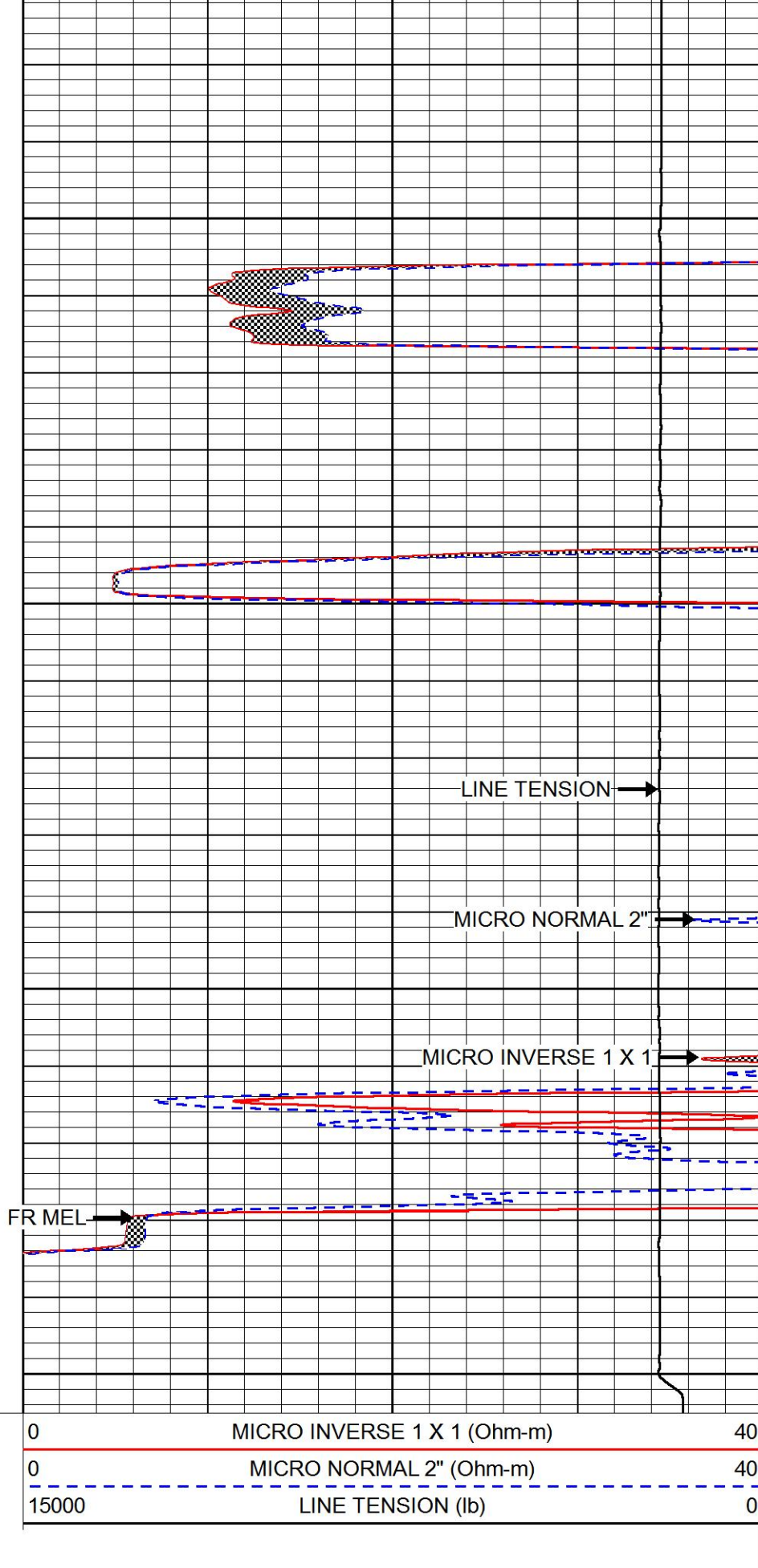


5250

5300

5350

5400

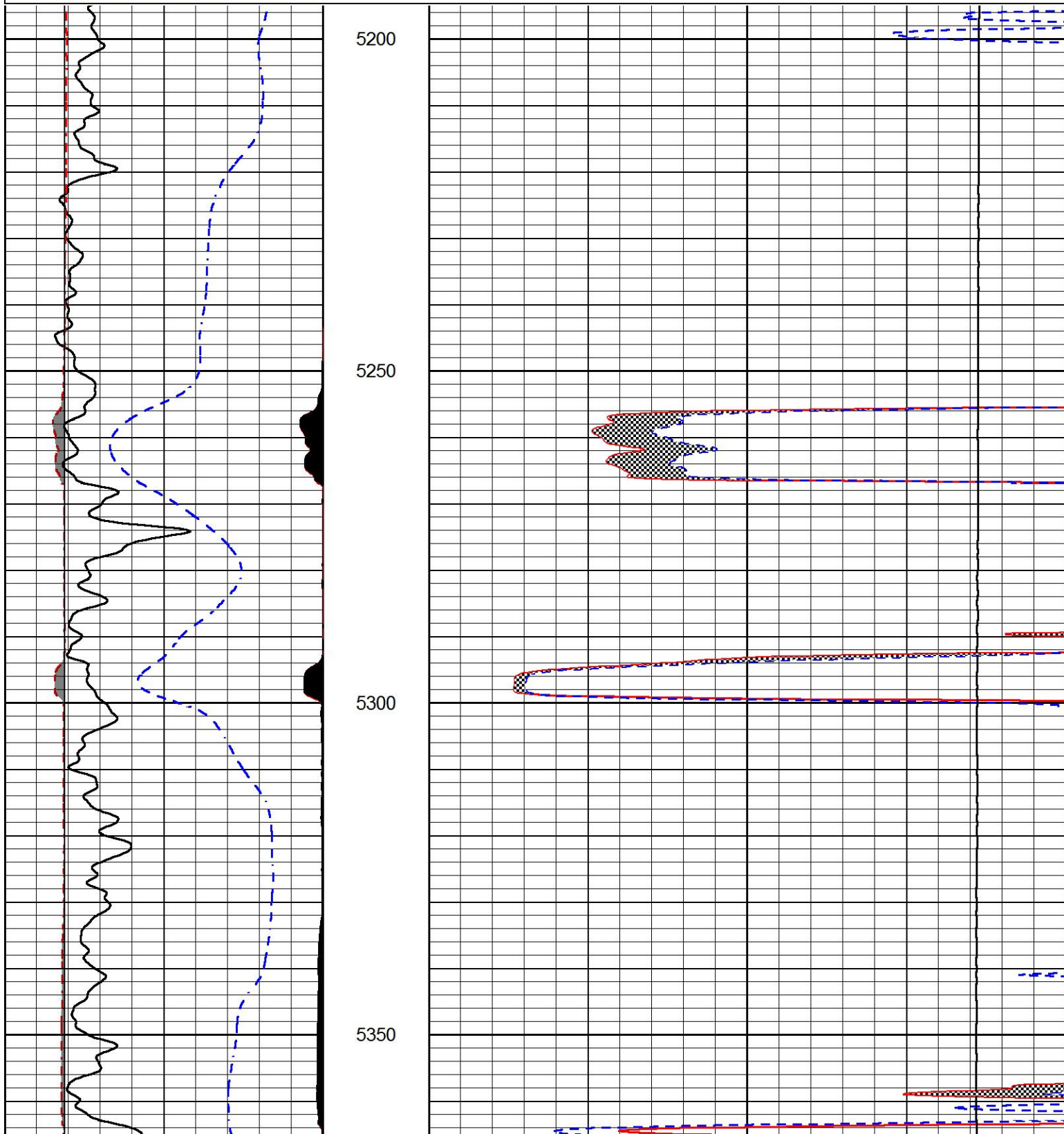


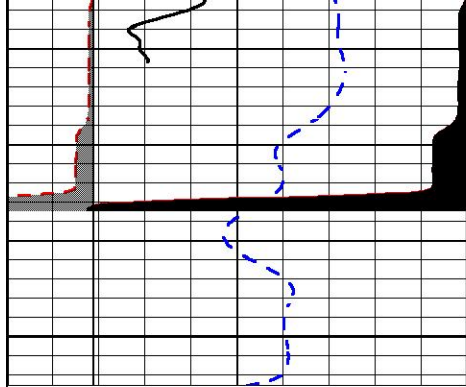
REPEAT SECTION

Database File palmer_willis_#1-20.db
 Dataset Pathname stack/pass2.1
 Presentation Format micro
 Dataset Creation Sat Feb 24 07:09:43 2018
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0

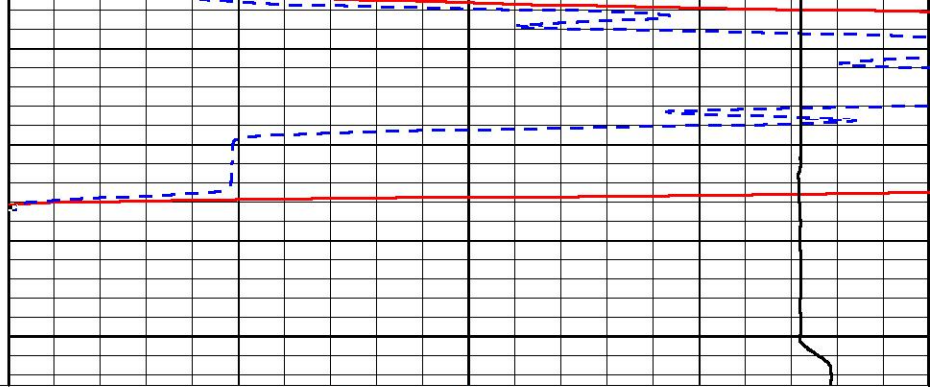
0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0





5400

0	GAMMA RAY (GAPI)	150
6	MICRO CALIPER (in)	16
6	BIT SIZE (in)	16
-200	SP (mV)	0



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0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0



Company	PALMER OIL, INC.
Well	WILLIS #1-20
Field	UNKNOWN
County	FINNEY
State	KANSAS