



PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company **LEBSACK OIL PRODUCTION, INC.**
Well **PFEIFER-AMXX NO. 1**
Field **TANKER**
County **FINNEY**
State **KANSAS**

Company **LEBSACK OIL PRODUCTION, INC.**
Well **PFEIFER-AMXX NO. 1**
Field **TANKER**
County **FINNEY** State **KANSAS**

Location: API #: 15-055-22473-00-00

Other Services

2200' FSL & 440' FWL
SEC 7 TWP 22S RGE 33W

CNL/CDL
DIL

Permanent Datum **GROUND LEVEL** Elevation **2904'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 2917'
D.F. N/A
G.L. 2904'

Date **12/10/2017**

Run Number	ONE		
Depth Driller	4860'		
Depth Logger	4859'		
Bottom Logged Interval	4858'		
Top Log Interval	3700'		
Casing Driller	8.625" @ 478'		
Casing Logger	476'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	4000		
Density / Viscosity	9.5 55		
pH / Fluid Loss	10.5 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.80 @ 51		
Rmt @ Meas. Temp	.60 @ 51		
Rmc @ Meas. Temp	1.08 @ 51		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	.33 @ 125		
Operating Rig Time	3 HOURS		
Max Rec. Temp. F	125 DEGF		
Equipment Number	108		
Location	HAYS		
Recorded By	J. HENRICKSON		
Witnessed By	JOSH AUSTIN		

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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.

GARDEN CITY KANSAS
NORTH TO TENNIS ROAD, 6 WEST, 1/2 SOUTH, EAST INTO

Log Measured From: **KELLY BUSHING** 13 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: JOSH AUSTIN
Secondary Witness:
Secondary Witness:
Secondary Witness:

DatabaseC:\ProgramData\Warrior\Data\lebsack_pfeifer_amyx_1.db
Dataset field/well/stackml/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 125	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV -485	degF 42	Off	ft 4859

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC	37.48			CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD DCAL SSD	28.43			CDL-M&W (168-986)	8.50	4.00	250.00
	28.42						
	27.93						
	MCAL MI MN		19.83		ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58	4.00
19.83							
19.83							
RLL3 RLL3F	15.80 15.79						
CILD	8.00			DIL-M&W (1987)	18.50	3.50	220.00

CILM

4.70

SP

0.20

Dataset: lebsack_pfeifer_amyx_1.db: field/well/stackml/pass3.1
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

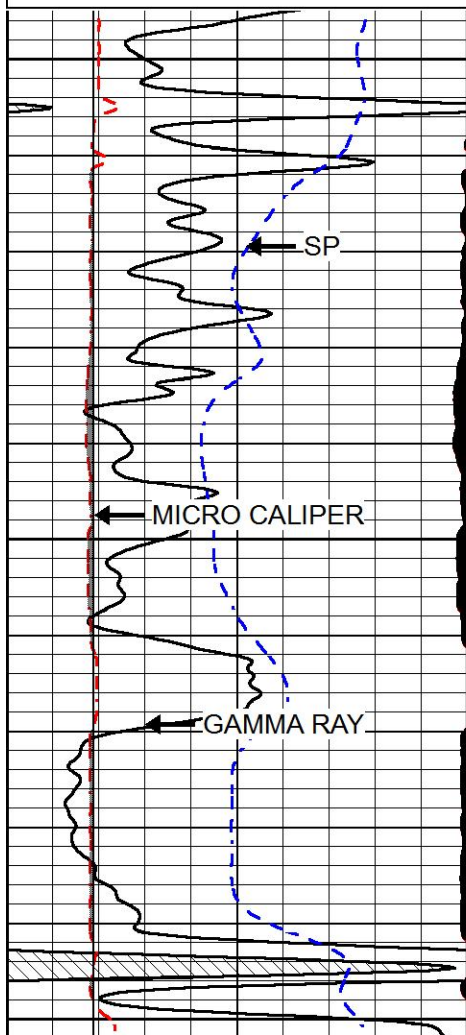


MAIN PASS

Database File lebsack_pfeifer_amyx_1.db
Dataset Pathname stackml/pass3.1
Presentation Format micro
Dataset Creation Sun Dec 10 11:42:42 2017
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



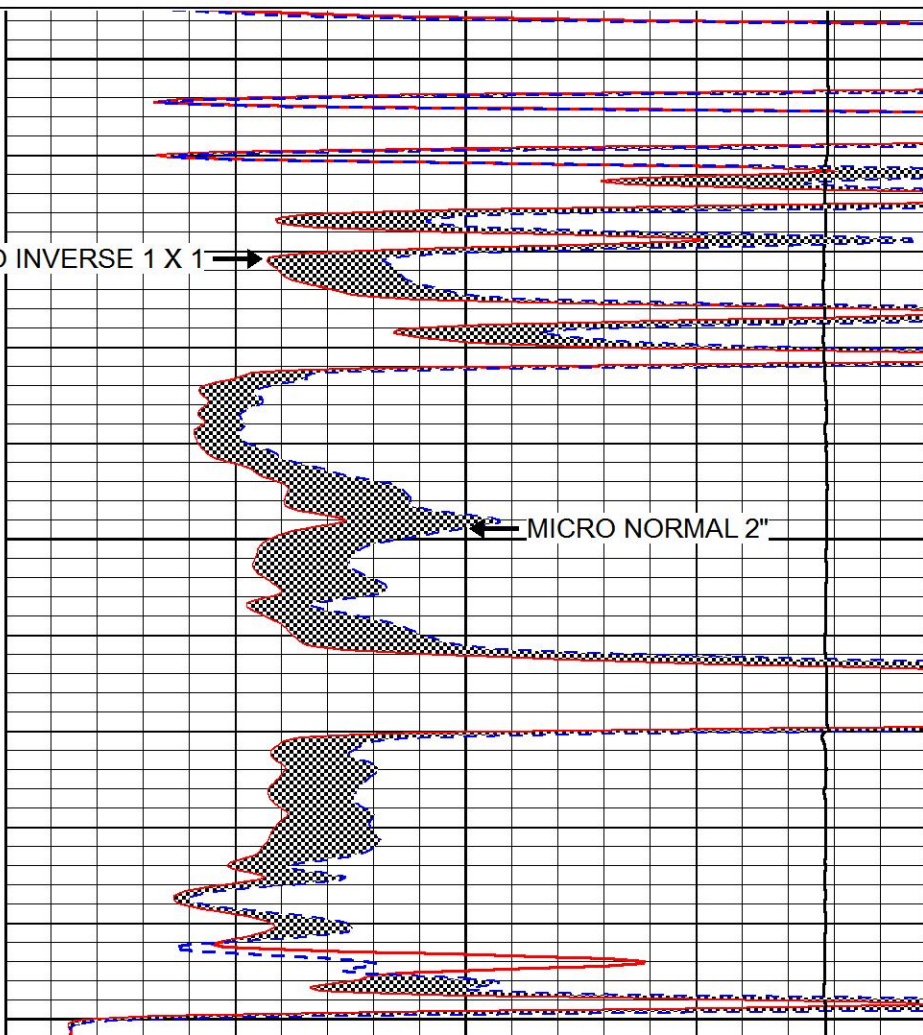
3700

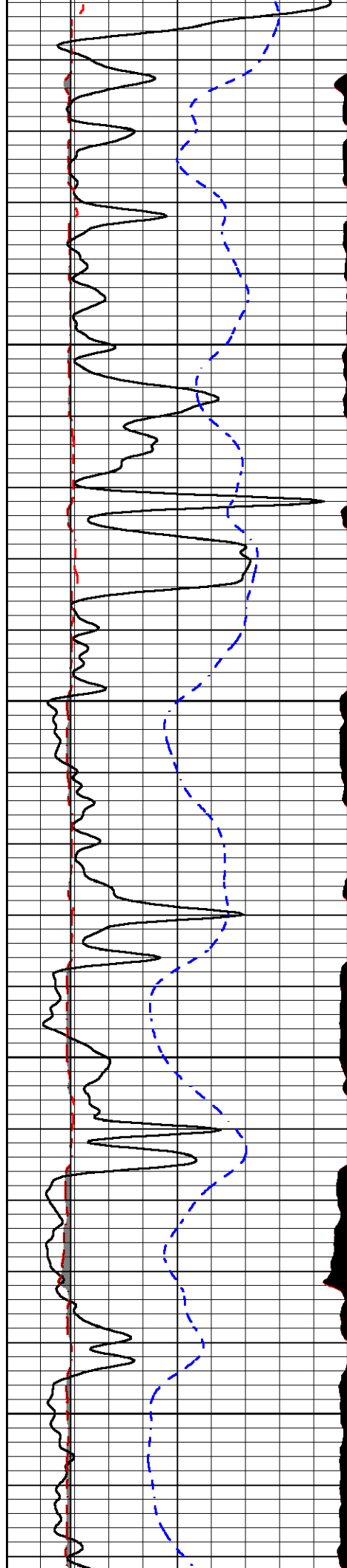
MICRO INVERSE 1 X 1 →

3750

← MICRO NORMAL 2"

3800



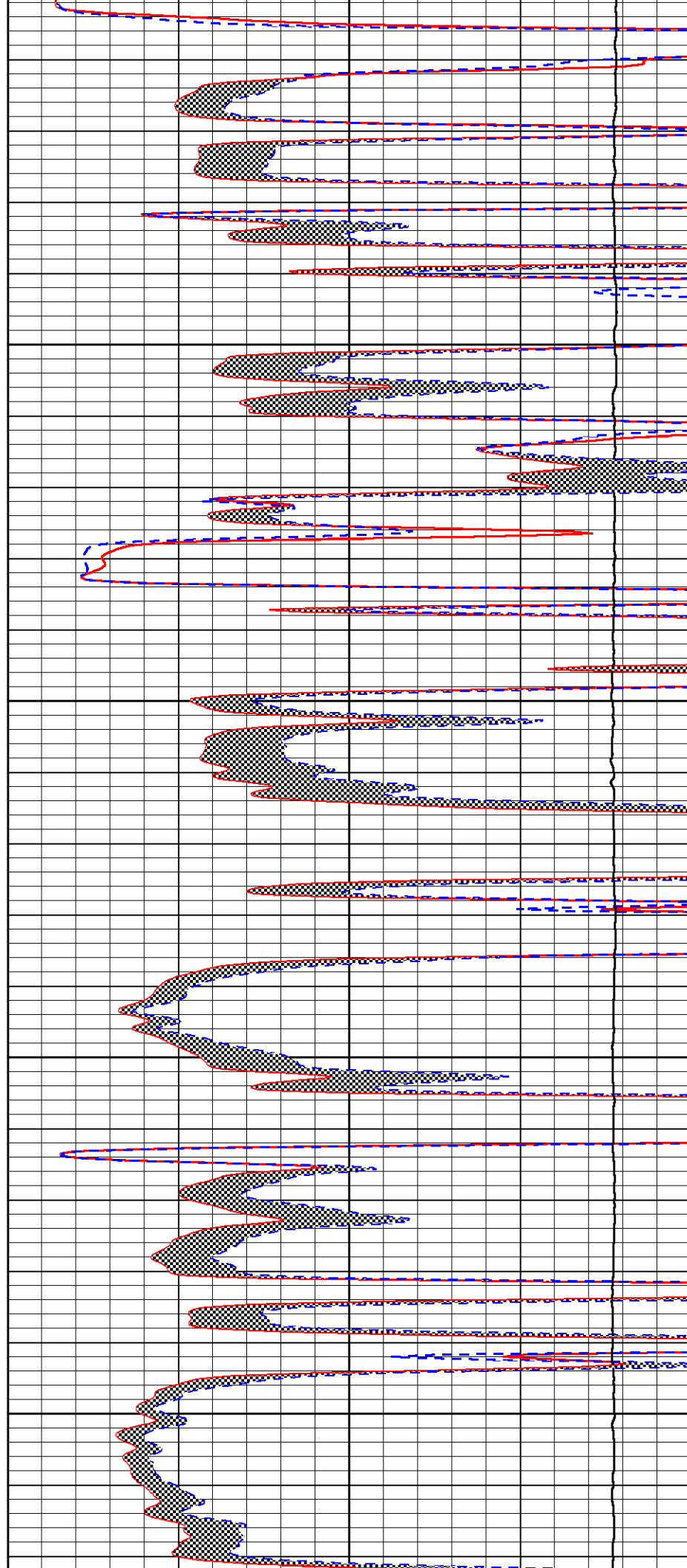


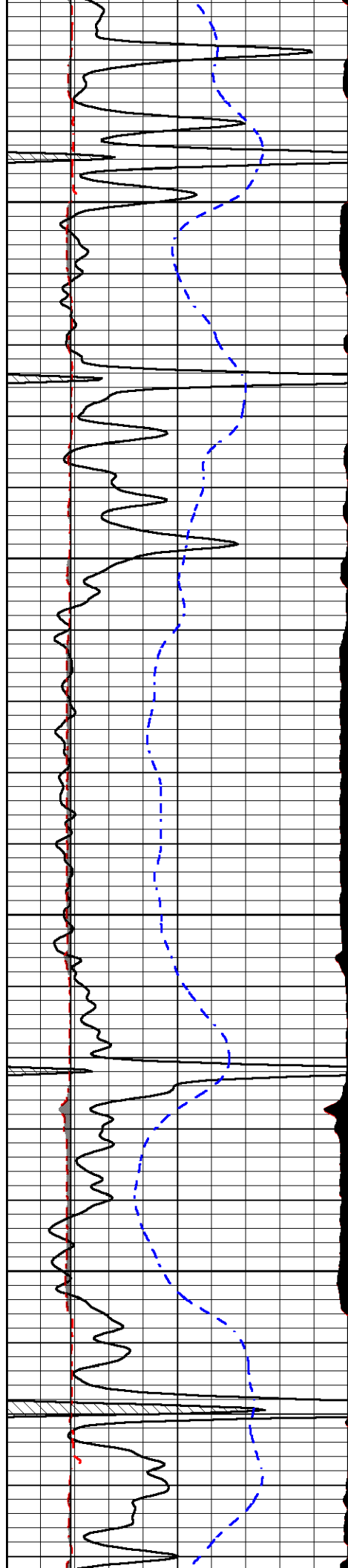
3850

3900

3950

4000



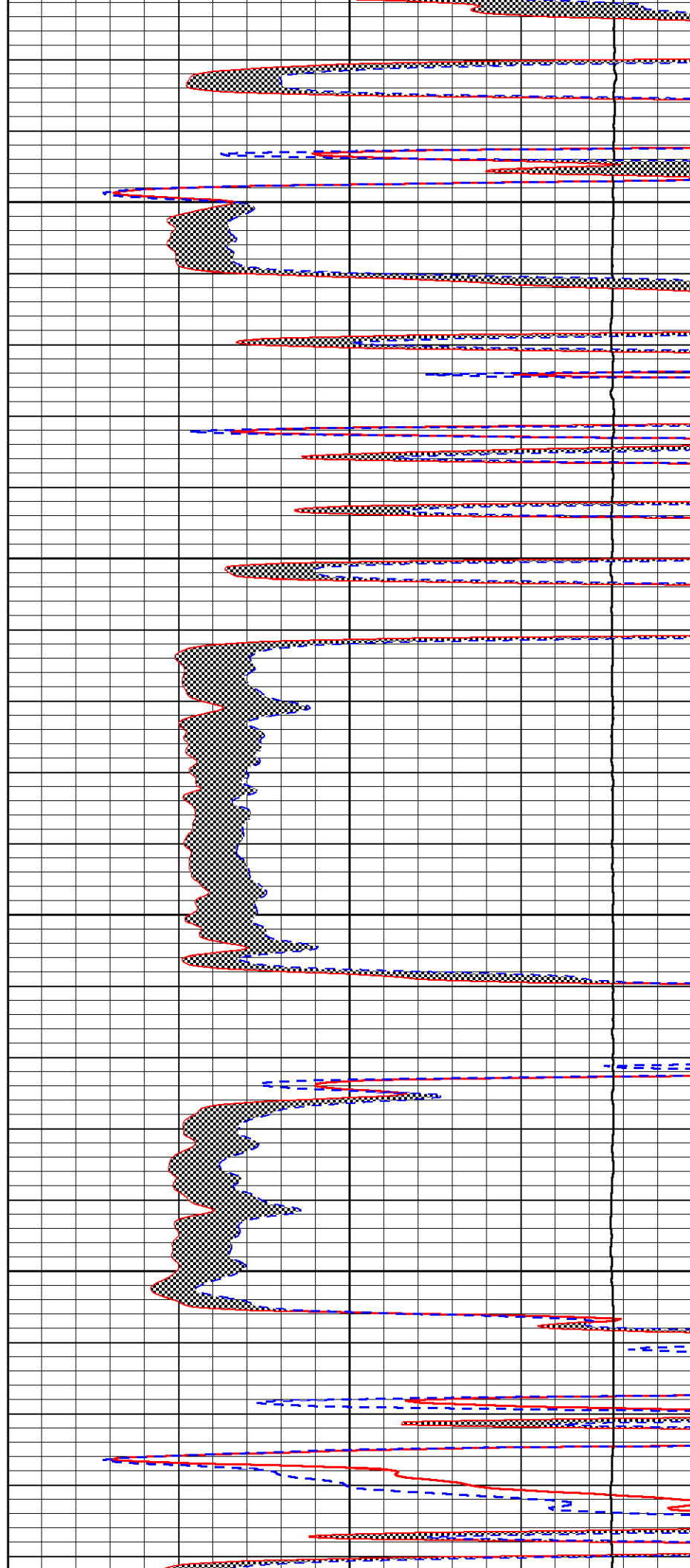


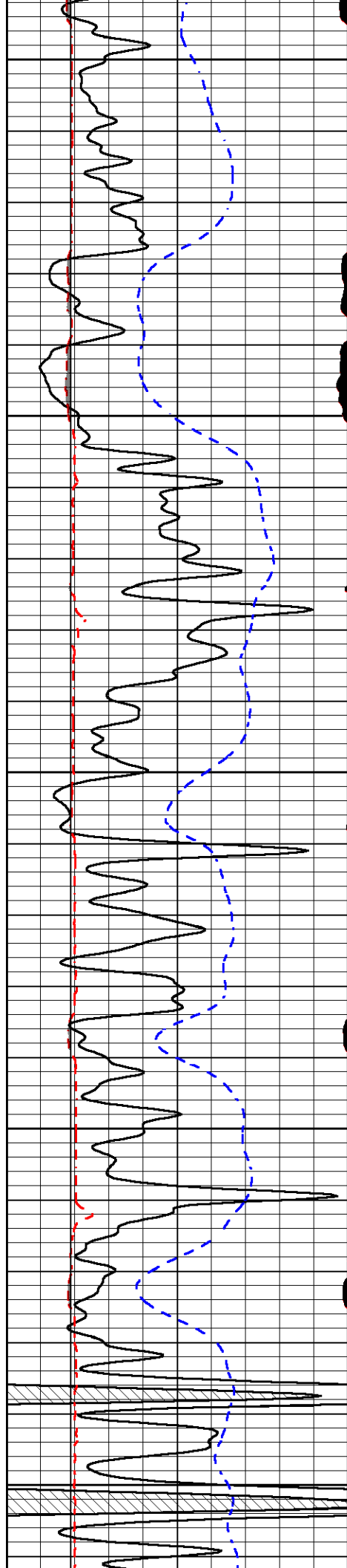
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4100

4150

4200





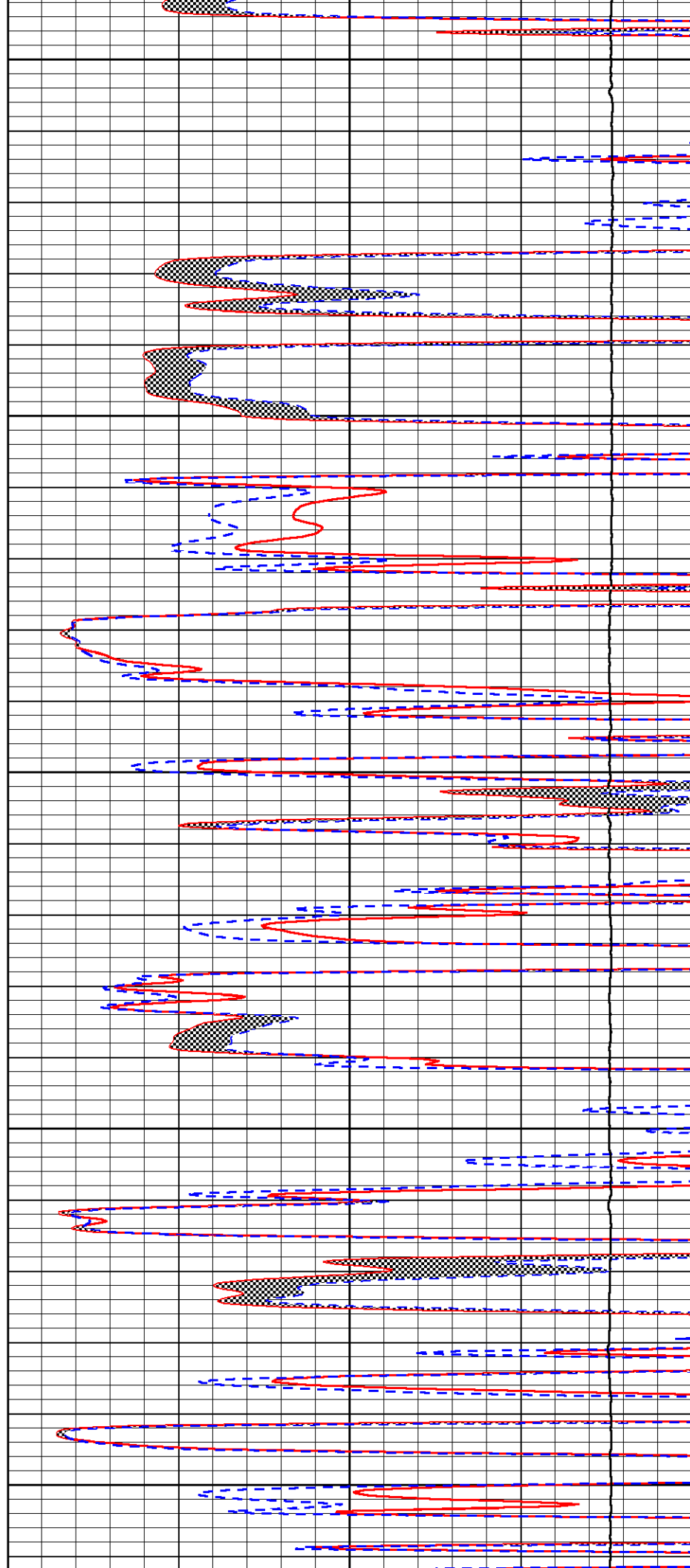
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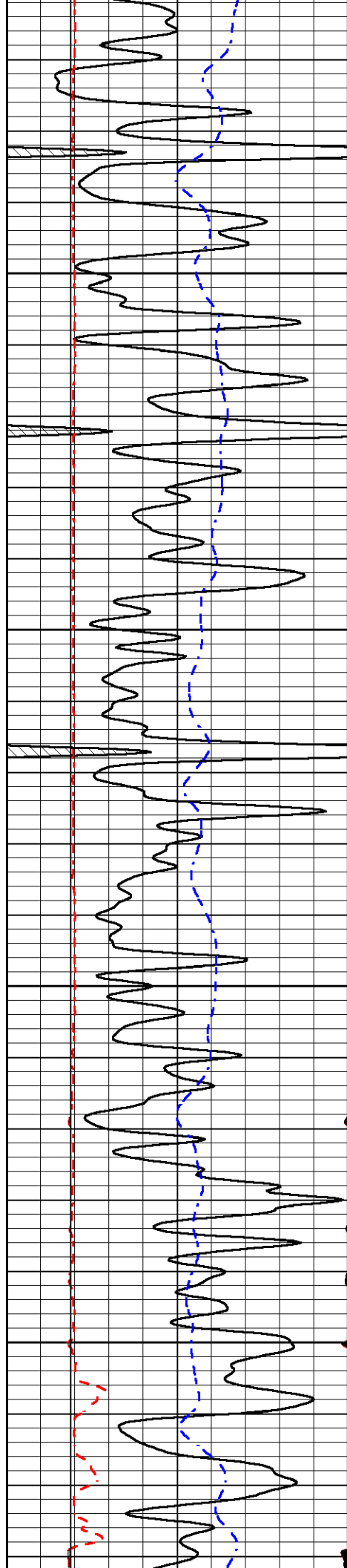
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4350

4400

4450



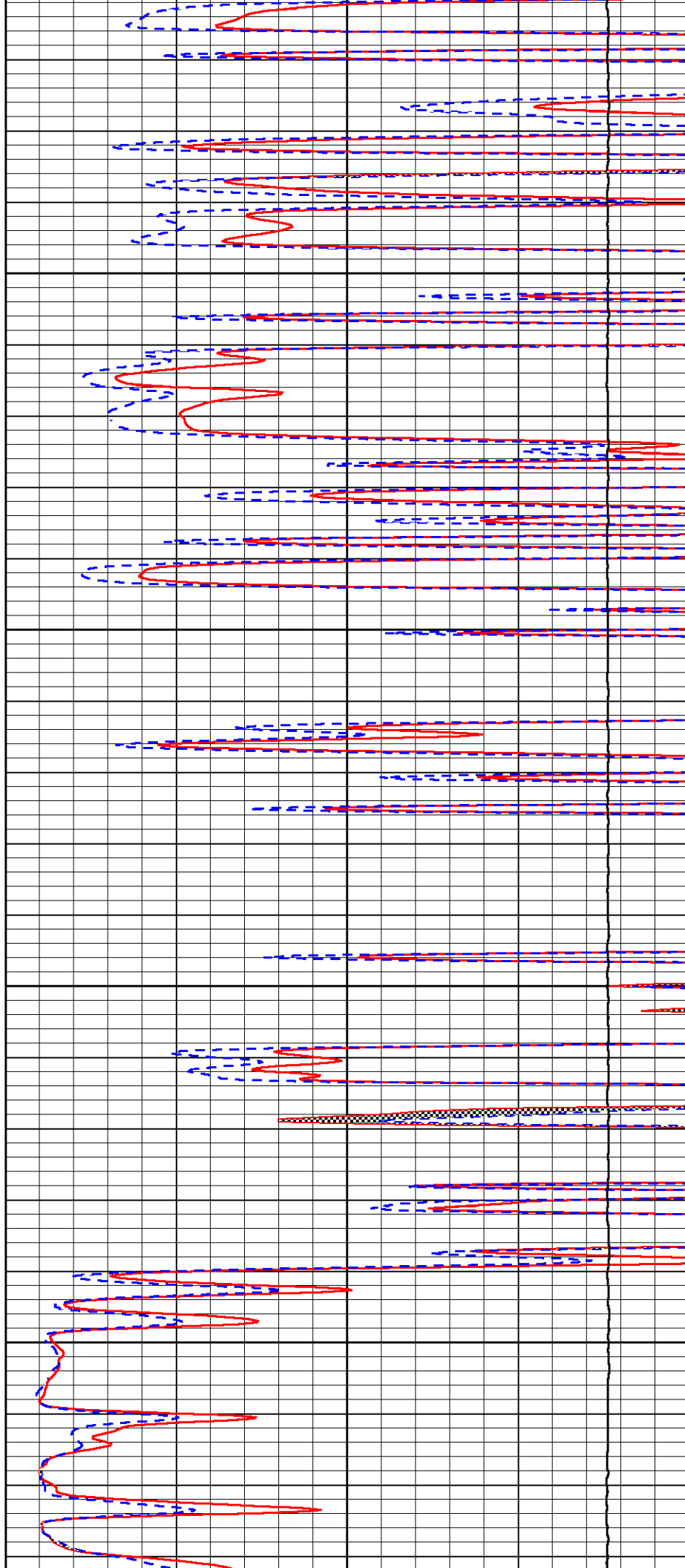


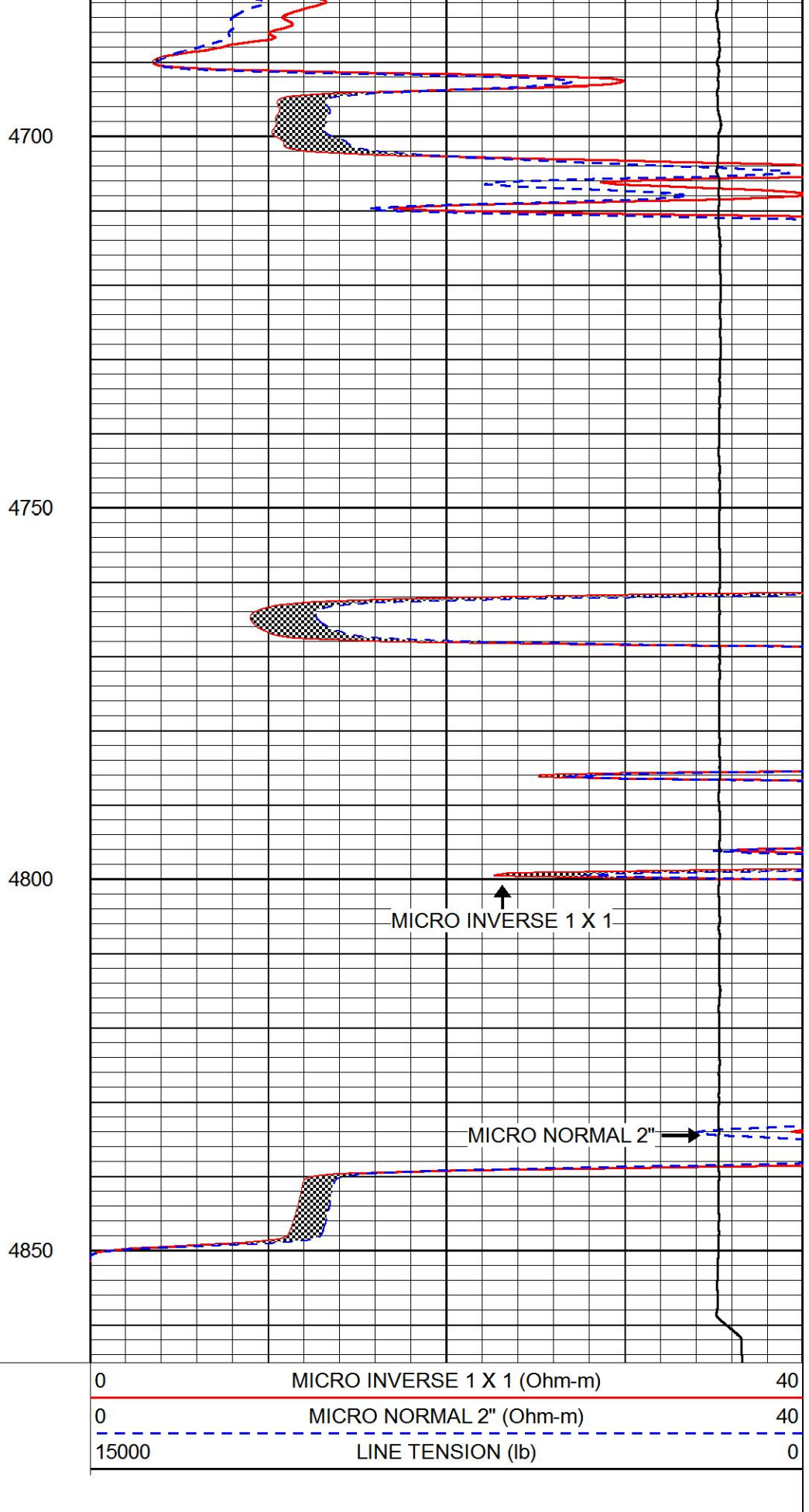
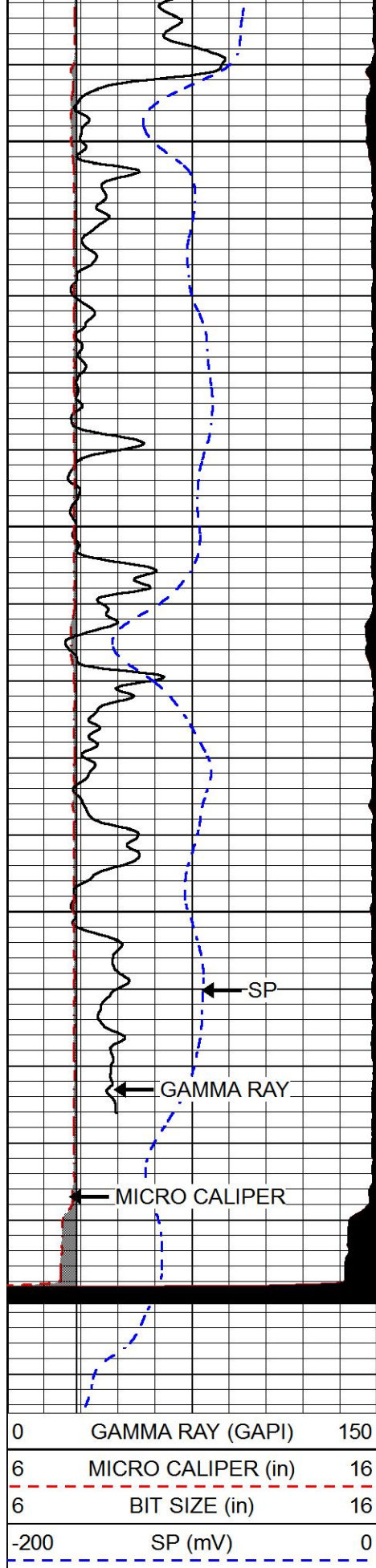
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4550

4600

4650



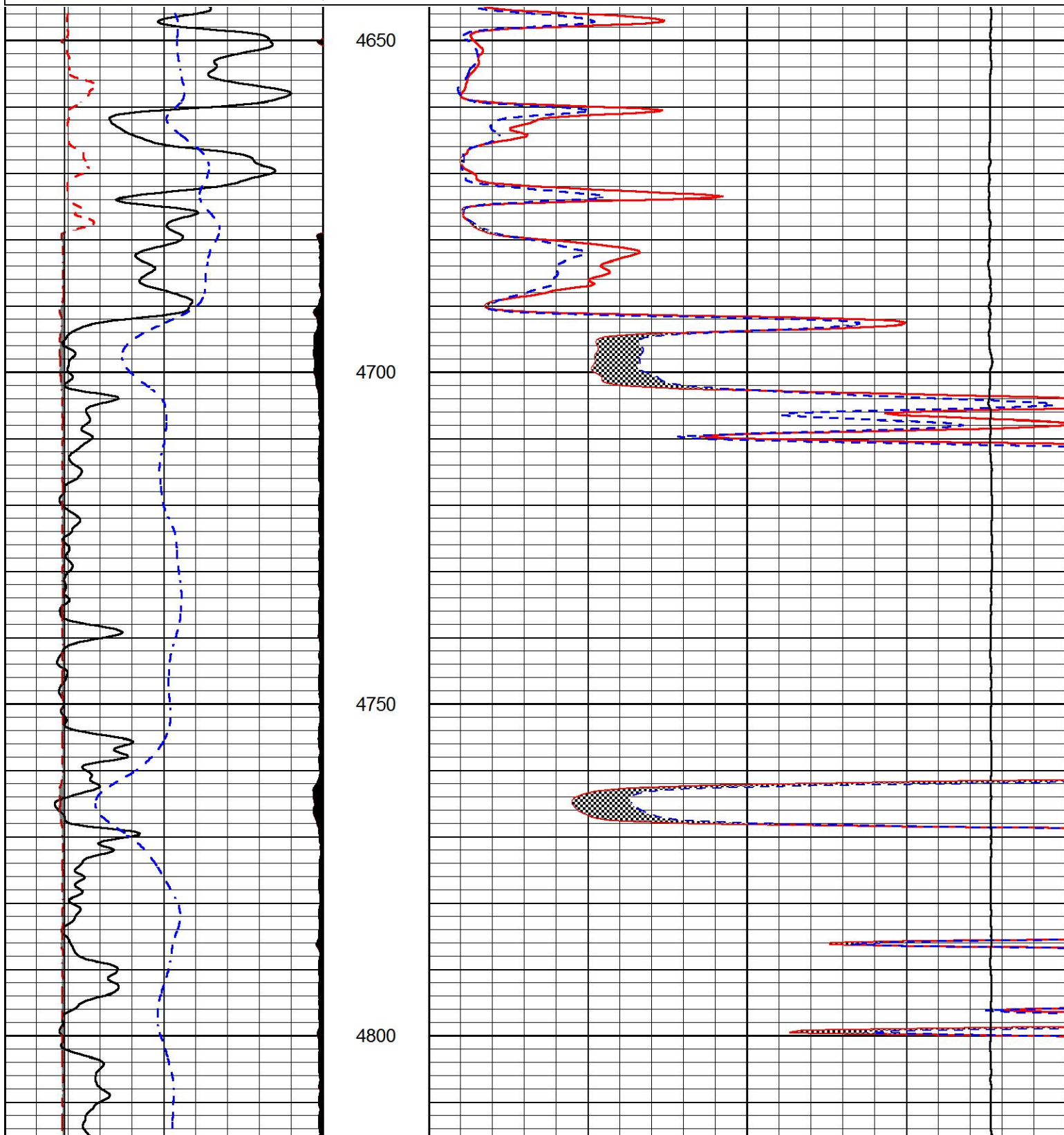


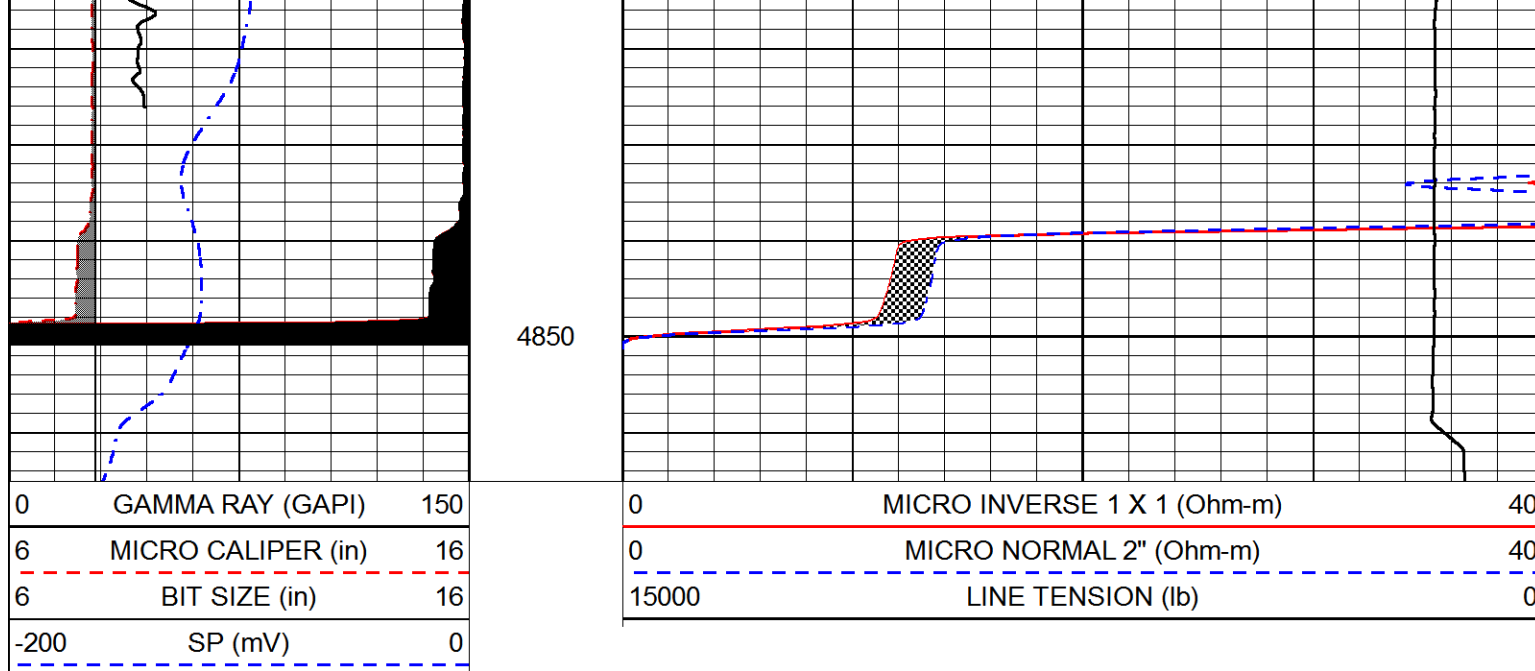
REPEAT SECTION

Database File lebsack_pfeifer_amyx_1.db
 Dataset Pathname stackml/pass2.1
 Presentation Format micro
 Dataset Creation Sun Dec 10 11:43:58 2017
 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





Calibration Report		
Database File	lebsack_pfeifer_amyx_1.db	
Dataset Pathname	stackml/pass3.1	
Dataset Creation	Sun Dec 10 11:42:42 2017	

Dual Induction Calibration Report

Serial-Model:	1987-M&W
Calibration Performed:	Tue Apr 11 17:07:38 2017

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.530	-36.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.440	-110.500

Microlog Calibration Report

Serial-Model:	PSI-02-PSI STKBL ML
Performed:	Fri Jun 23 01:25:19 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	15000.0000	0.0000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	17000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.4000

Compensated Density Calibration Report

Serial-Model:	168-986-M&W
Source / Verifier:	/
Master Calibration Performed:	Tue Apr 11 17:07:47 2017

Master Calibration			
Density	Far Detector	Near Detector	

Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.705	g/cc	859.57	3020.22	cps

Spine Angle = 74.61

Density/Spine Ratio = 0.540

	Size		Reading
Small Ring	4.00	in	1.03
Large Ring	14.00	in	1.23

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
Tool Model: M&W
Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



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