



PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company PALOMINO PETROLEUM, INC.
Well KUNTZ #1
Field WILDCAT
County GOVE
State KANSAS

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Location: API #: 15-063-22321-00-00

Other Services

NE SW NW SW
1831' FSL & 370' FWL
SEC 11 TWP 14S RGE 26W

CNL/CDL
DIL

Permanent Datum GROUND LEVEL Elevation 2478'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2483'
D.F. 2481'
G.L. 2478'

Date 1/14/2018

Run Number	ONE		
Depth Driller	4431'		
Depth Logger	4430'		
Bottom Logged Interval	4429'		
Top Log Interval	3500'		
Casing Driller	8.625" @ 218'		
Casing Logger	217'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	5000		
Density / Viscosity	9.1 41		
pH / Fluid Loss	10.0 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.3 @ 65		
Rmt @ Meas. Temp	0.23 @ 65		
Rmc @ Meas. Temp	0.41 @ 65		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.16 @ 120		
Operating Rig Time	3 HOURS		
Max Rec. Temp. F	120 DEG F		
Equipment Number	108		
Location	HAYS		
Recorded By	T. MARTIN		
Witnessed By	RYAN SEIB		

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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.

QUINTER, APPX 15 S TO K RD, 3 E, N INTO

Log Measured From: KELLY BUSHING 5 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: RYAN SEIB
Secondary Witness:
Secondary Witness:
Secondary Witness:

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 CNSSC	37.48 36.73			CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (168-986)	8.50	4.00	250.00
ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools					7.58	4.00	65.00
MCAL MI MN	19.83 19.83 19.83						
RLL3 RLL3F	15.80 15.79						
CILD	8.00			DIL-M&W (PSI 978)	18.50	3.50	220.00
CILM	4.70						
SP	0.20						
Dataset: palomino_kuntz_#1.db: field/well/stkml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in							

Log Variables

DatabaseC:\ProgramData\Warrior\Data\palomino_kuntz_#1.db
Dataset field/well/stkml/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	120	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	-110	30		4430

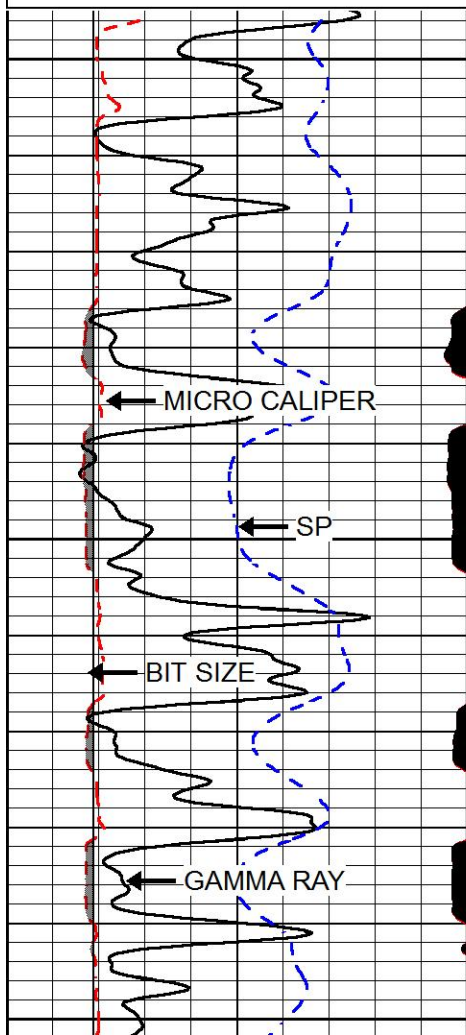


MAIN PASS

Database File palomino_kuntz_#1.db
Dataset Pathname stkml/pass3.1
Presentation Format micro
Dataset Creation Sun Jan 14 09:20:52 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

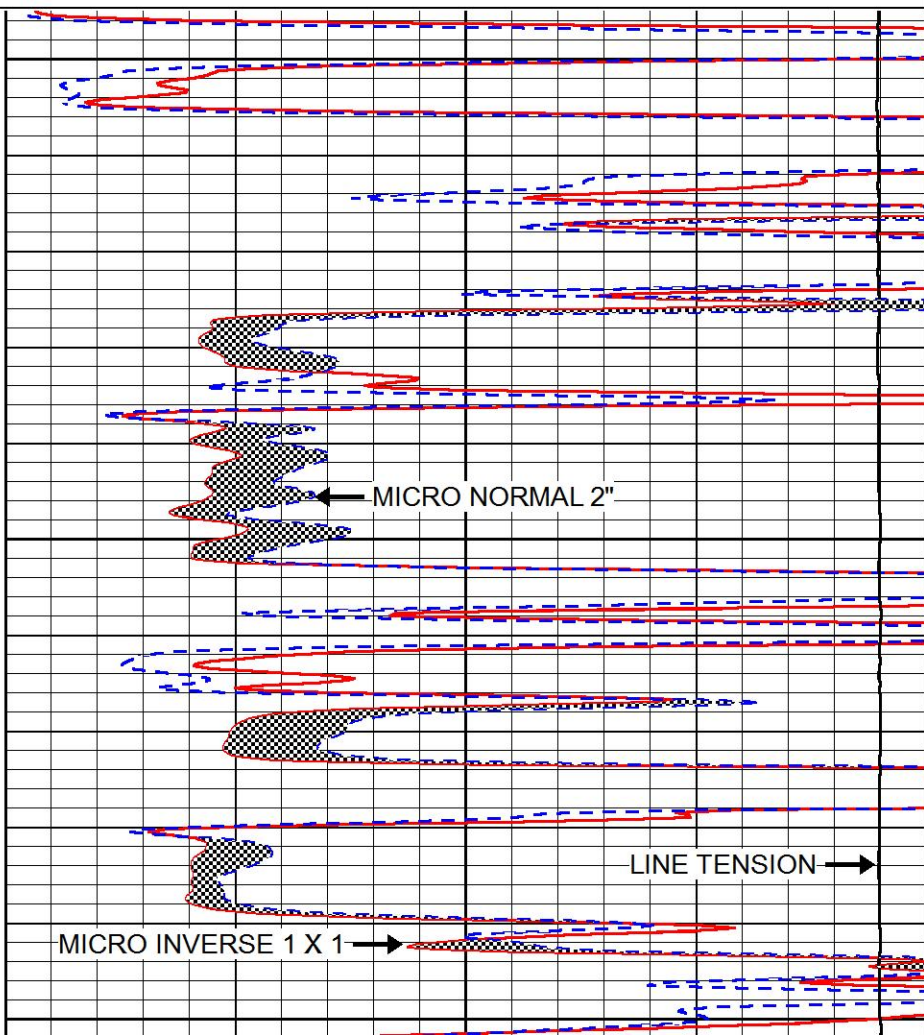
0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
15000	LINE TENSION (lb)	0

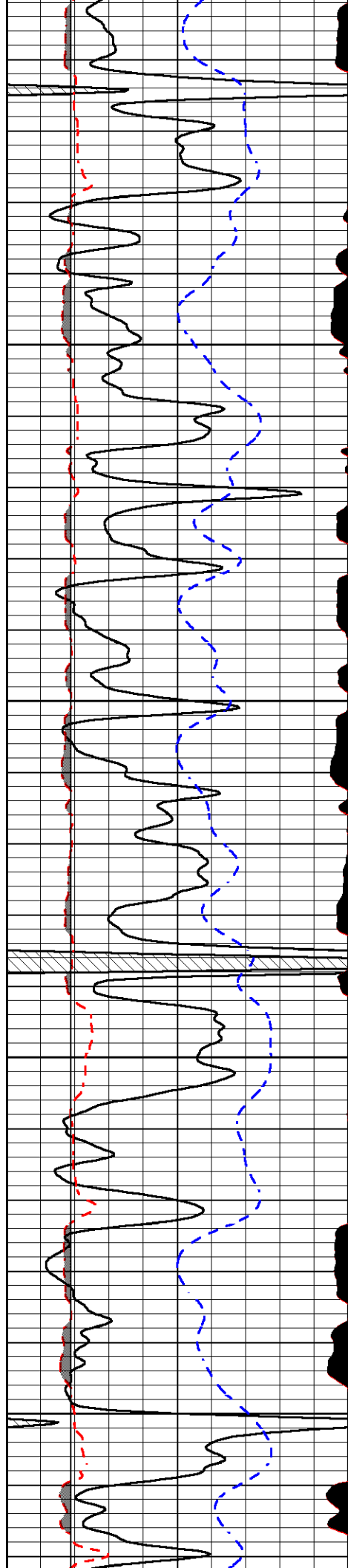


3500

3550

3600



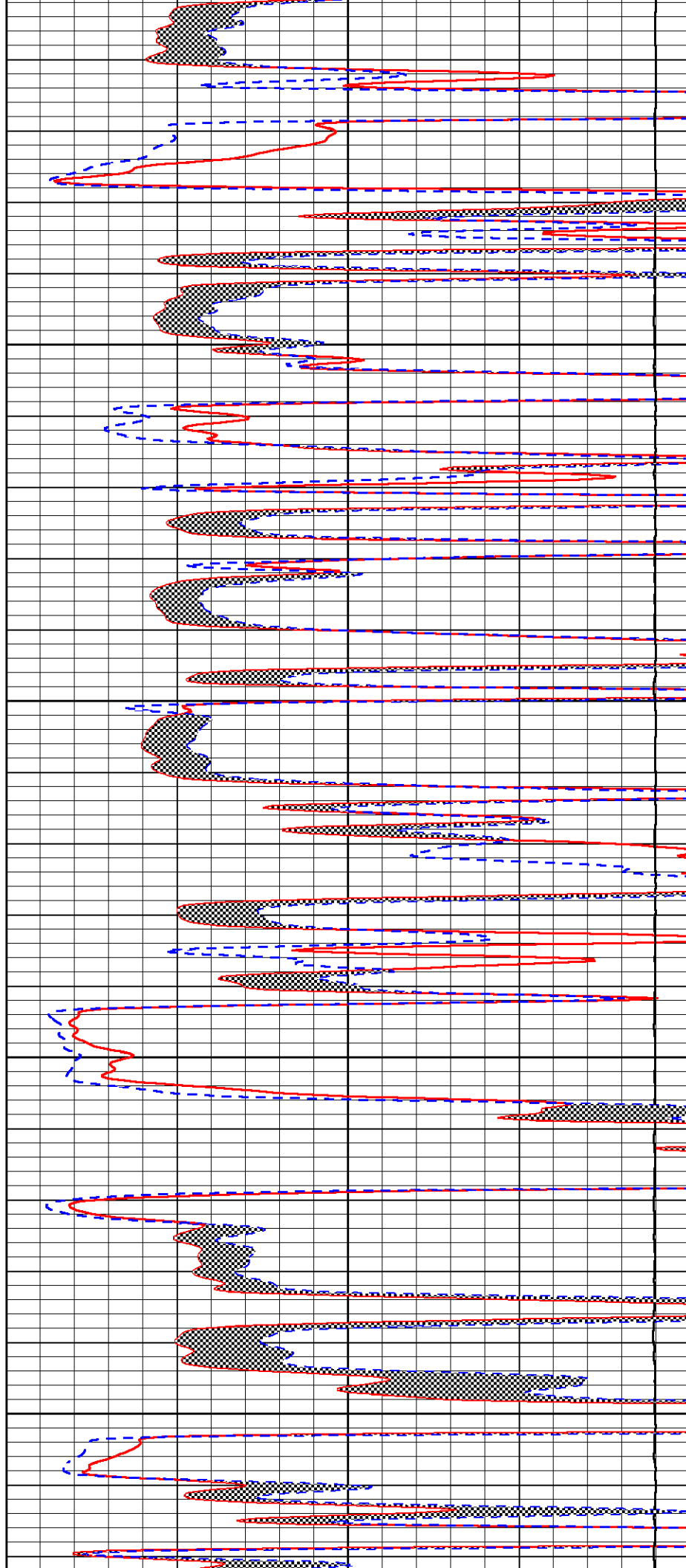


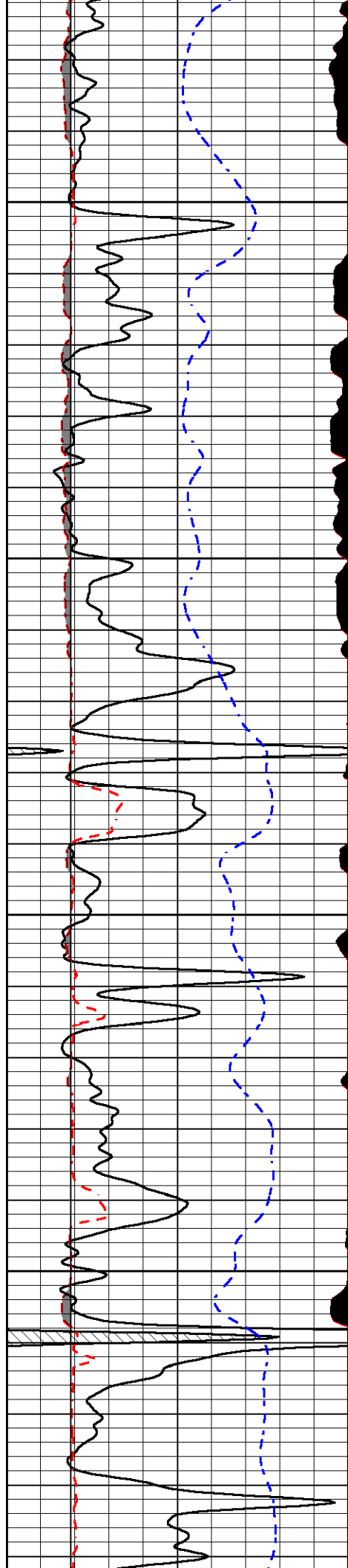
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3700

3750

3800



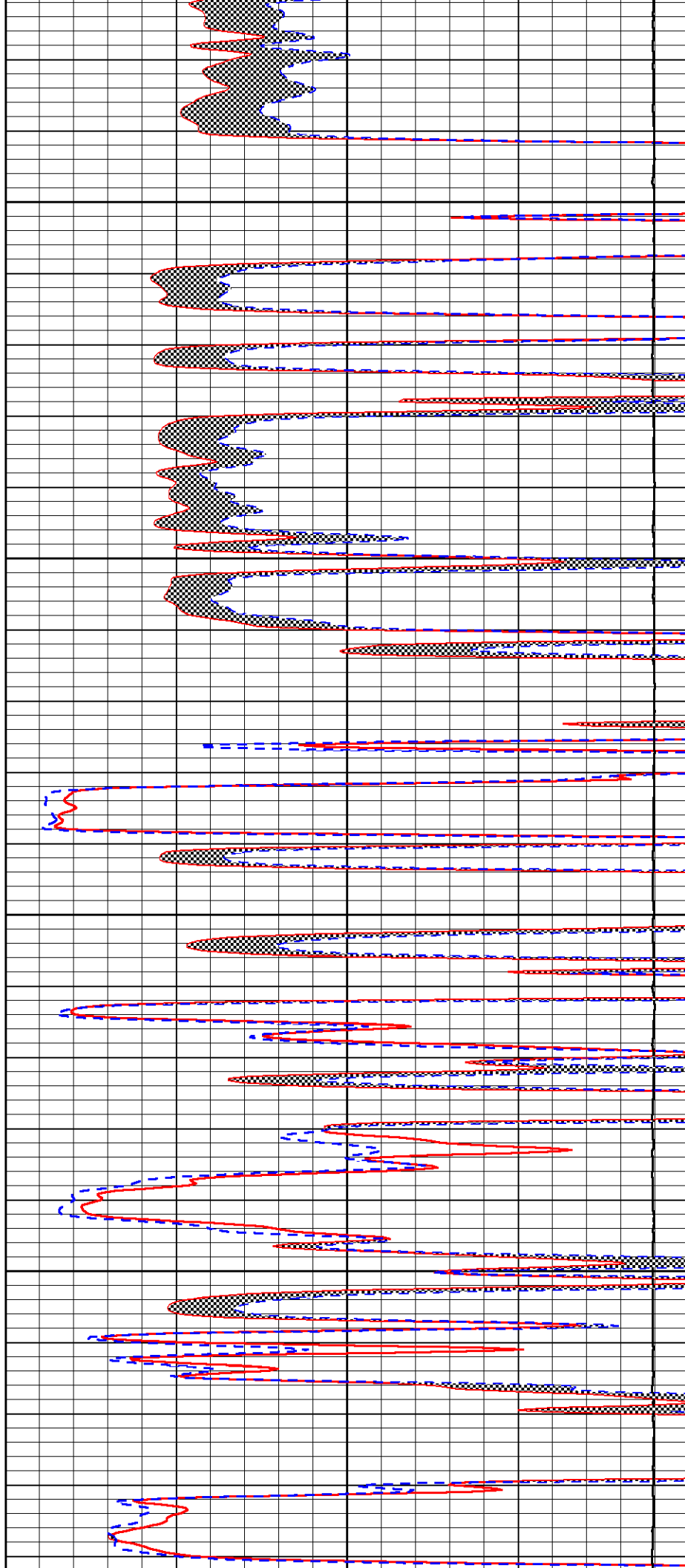


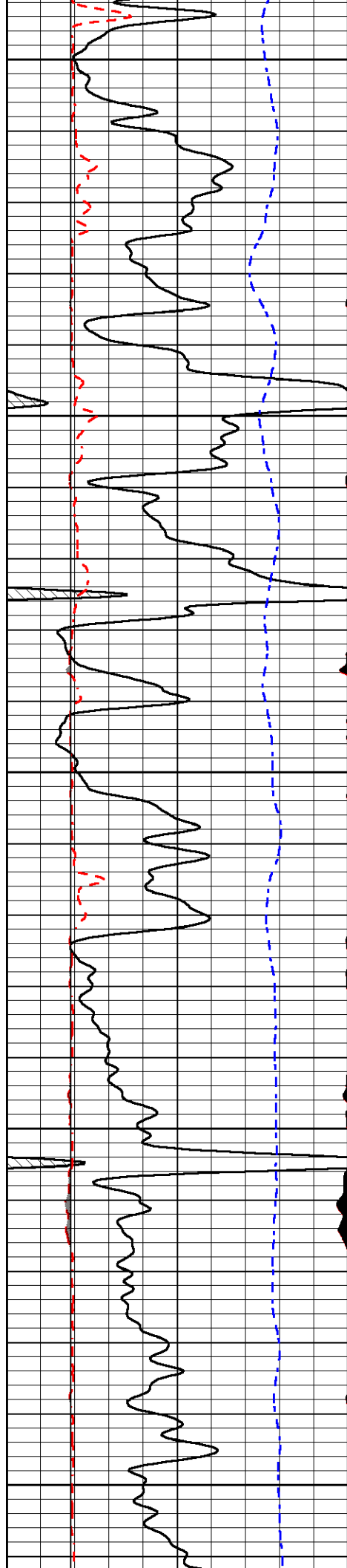
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3900

3950

4000





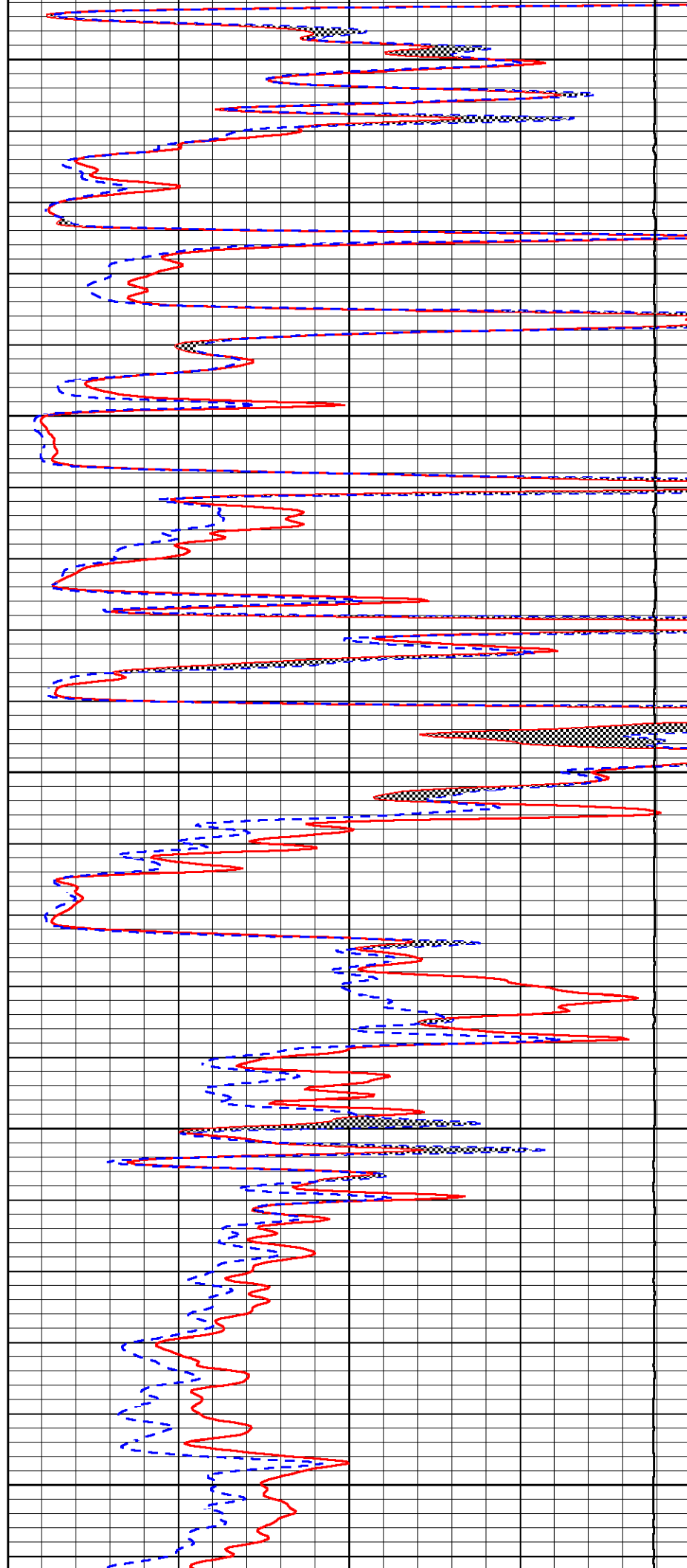
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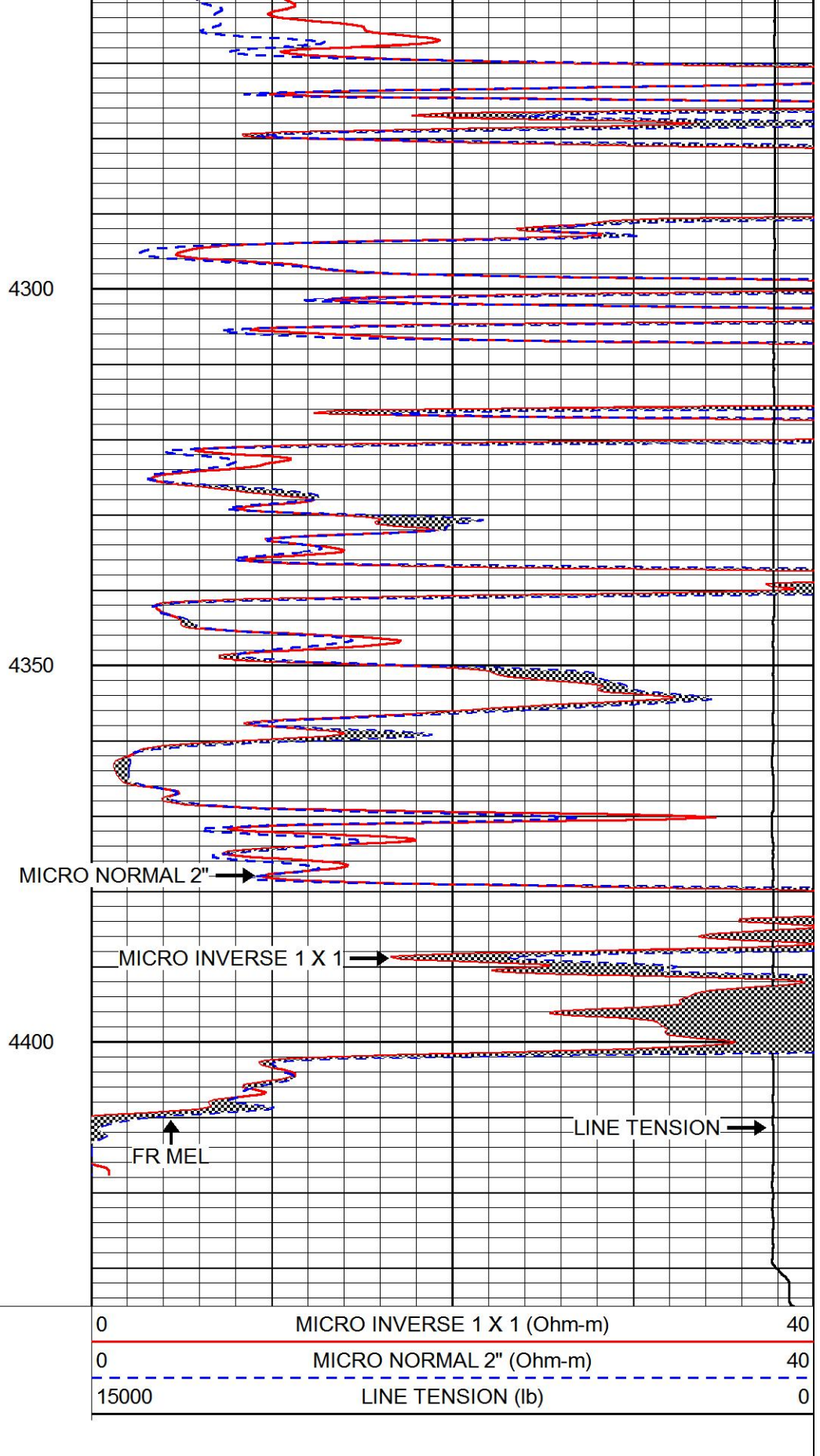
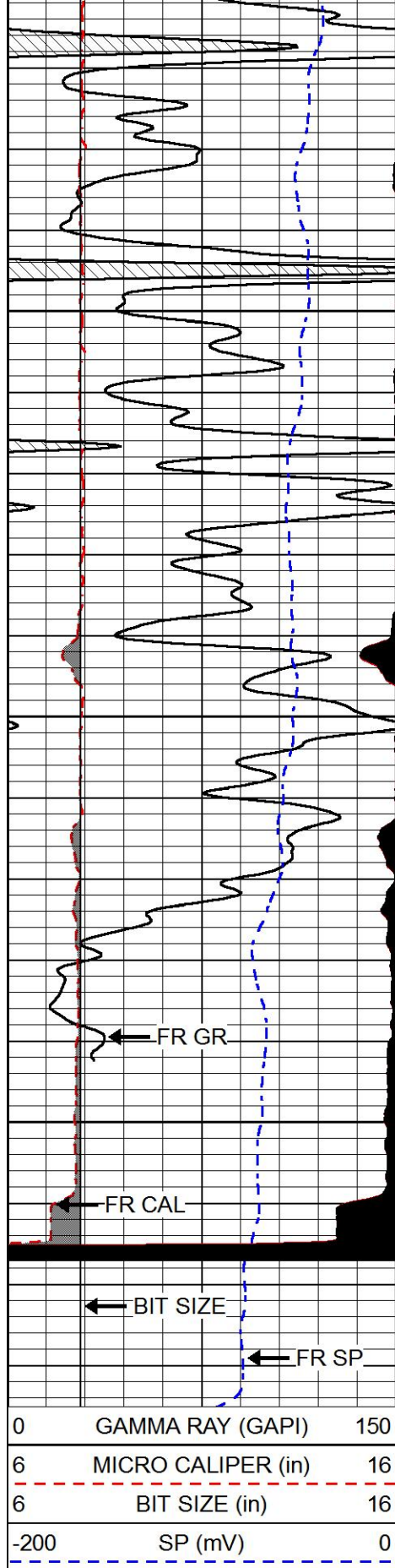
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4150

4200

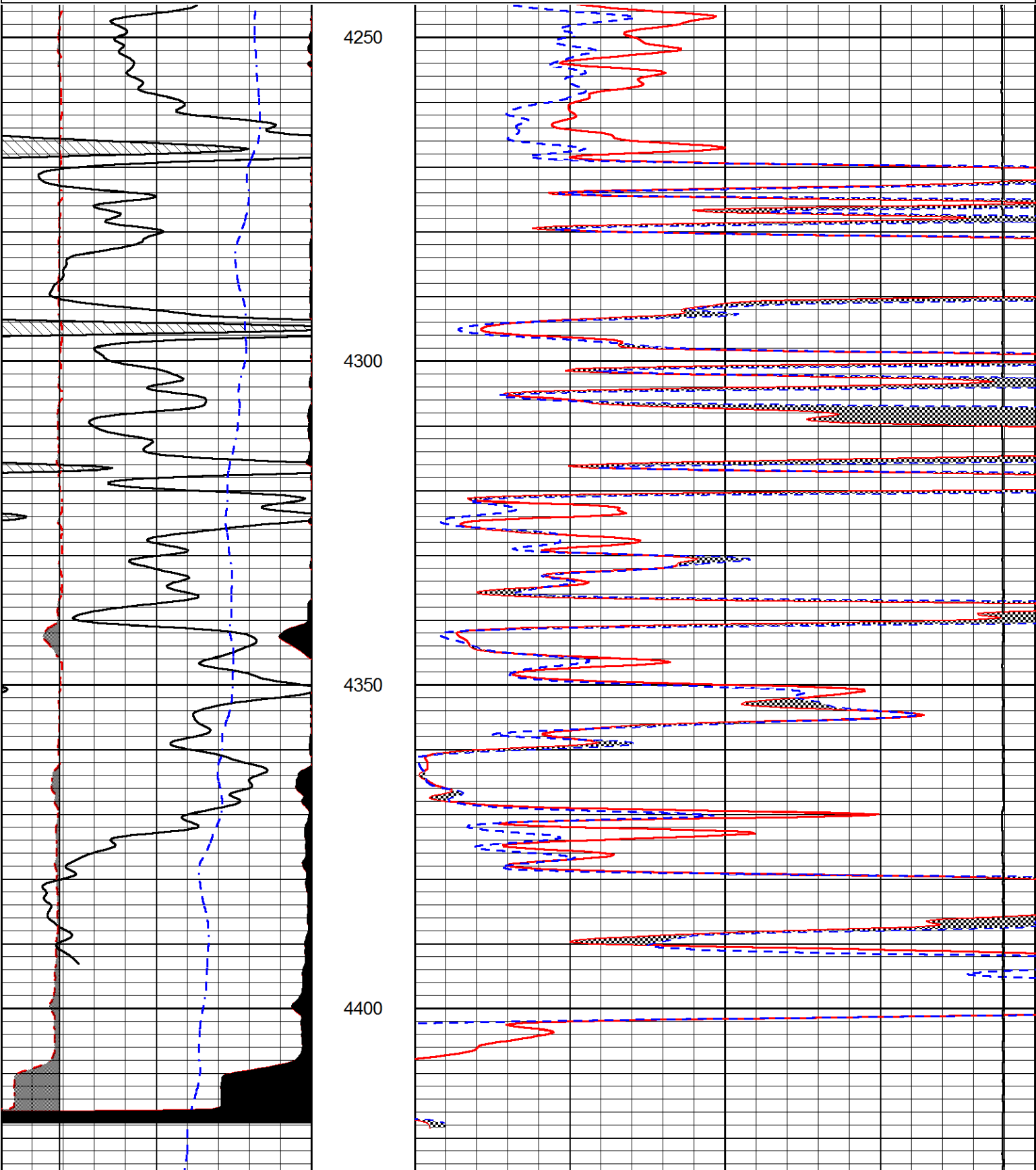
4250





Database File	palomino_kuntz_#1.db
Dataset Pathname	stkml/pass2.1
Presentation Format	micro
Dataset Creation	Sun Jan 14 08:54:56 2018
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0	MICRO INVERSE 1 X 1 (Ohm-m)	40
6	MICRO CALIPER (in)	16	0	MICRO NORMAL 2" (Ohm-m)	40
6	BIT SIZE (in)	16	15000	LINE TENSION (lb)	0
-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

Database File	palomino_kuntz_#1.db
Dataset Pathname	stkml/pass3.1
Dataset Creation	Sun Jan 14 09:20:52 2018

Serial-Model: PSI 978-M&W
Calibration Performed: Wed Dec 13 12:45:09 2017

		Readings		References		Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-41.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.420	-37.000

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	18000.0000	0.0000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	21000.0000	1.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.4500

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

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.675	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.523		
	Size		Reading		
Small Ring	4.00	in	1.00		
Large Ring	14.00	in	1.20		

Compensated Neutron Calibration Report

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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