



PIONEER

Pioneer Energy Services

MICRORESISTIVITY LOG

Company VAL ENERGY, INC.
Well HERRON KIRK UNIT NO. 1-21
Field WILDCAT
County SCOTT State KANSAS

Location: API #: 15-171-21180-00-00

Other Services

667' FNL & 2,301' FEL
SEC 21 TWP 17S RGE 33W

CNL/CDL
DIL

Permanent Datum GROUND LEVEL Elevation 2988'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2993'
D.F. N/A
G.L. 2988'

Date 10/6/2016

Run Number ONE

Depth Driller 4760'

Depth Logger 4756'

Bottom Logged Interval 4755'

Top Log Interval 3800'

Casing Driller 8,625" @ 291'

Casing Logger 290'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 8800

Density / Viscosity 9.2 64

pH / Fluid Loss 9.5 10.4

Source of Sample FLOWLINE

Rm @ Meas. Temp .53 @ 66

Rmt @ Meas. Temp .40 @ 66

Rmc @ Meas. Temp .72 @ 66

Source of Rmt / Rmc CHARTS

Rm @ BHT .28 @ 124

Operating Rig Time 2 1/2 HOURS

Max Rec. Temp. F 124 DEG F.

Equipment Number 108

Location COLBY

Recorded By J. LONG

Witnessed By TIM PRIEST

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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.

OAKLEY, SOUTH TO HIGHWAY 4 AND HIGHWAY 83 INTERSECTION (230 ROAD),
4 WEST TO BIG VALLEY DRIVE (HEREFORD ROAD), 2 1/2 SOUTH ON BIG VALLEY DRIVE
(FOLLOW CURVES), EAST 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: J. LONG
Operator: B. BECKER
Operator: J. ROME
Operator:

This Log Record Was Witnessed By

Primary Witness: TIM PRIEST
Secondary Witness:
Secondary Witness:
Secondary Witness:

DatabaseC:\ProgramData\Warrior\Data\valenergy_herronkirk_1-21.db
Dataset field/well/stackmel/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	124	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-335	53	Off	4756

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							
					CDL-M&W (71-914)	8.50	4.00	250.00
LSD	28.43							
DCAL	28.42							
SSD	27.93				ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58	4.00	65.00
MCAL	19.83							
MI	19.83							
MN	19.83							
RLL3	15.80			DIL-M&W (1987)	18.50	3.50	220.00	
RLL3F	15.79							
CILD	8.00							

CILM

4.70

SP

0.20

Dataset: valenergy_herronkirk_1-21.db: field/well/stackmel/pass3
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

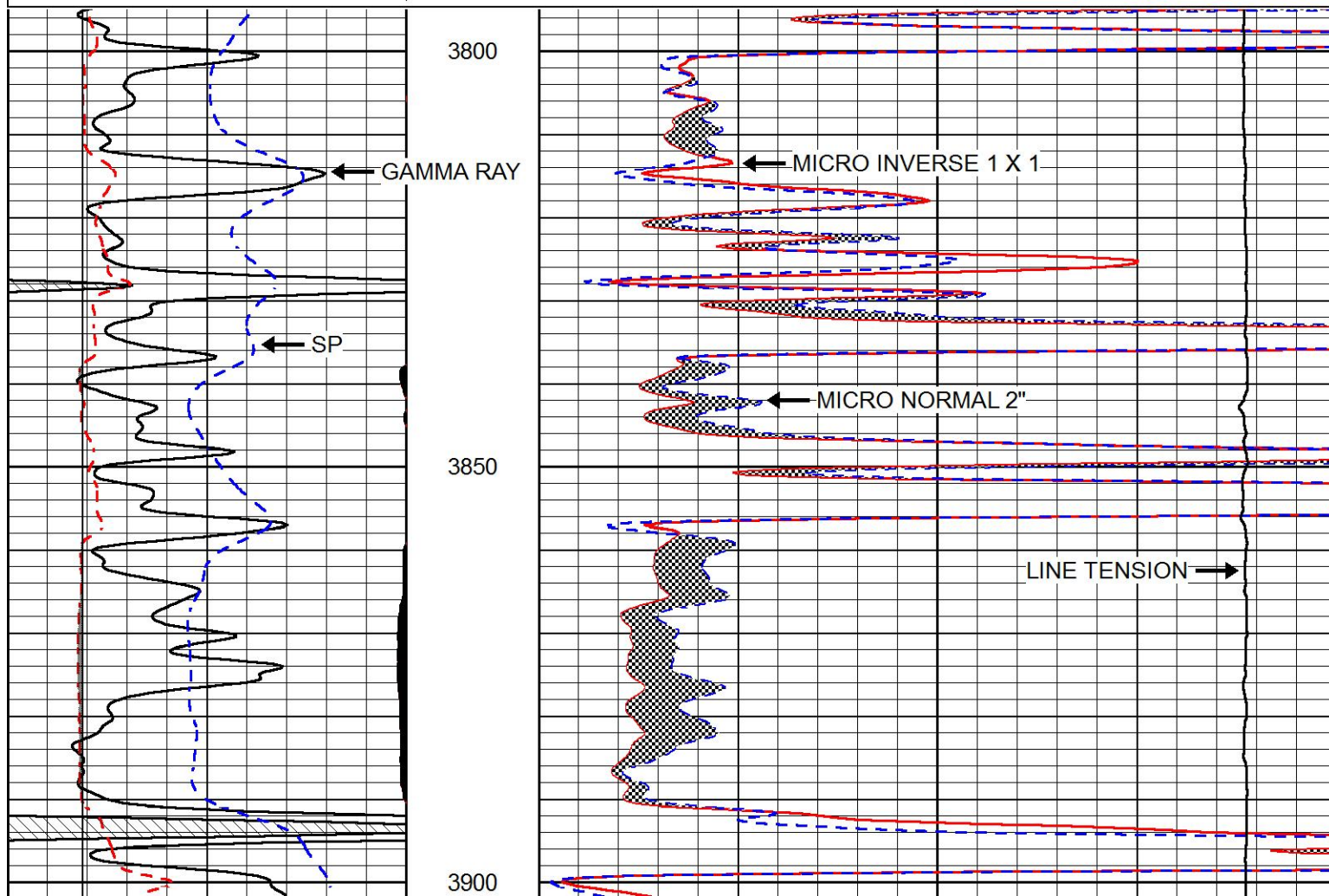


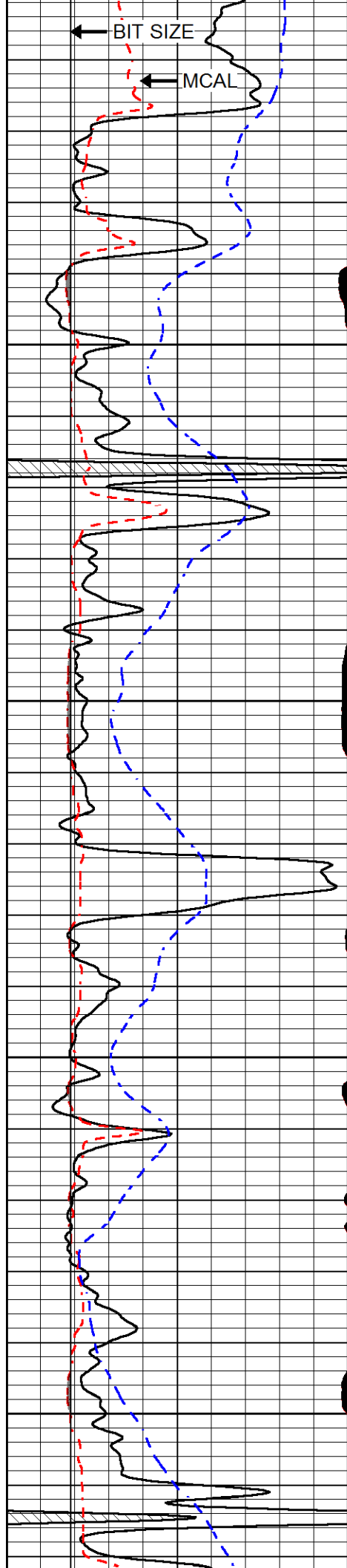
MAIN PASS

Database File valenergy_herronkirk_1-21.db
Dataset Pathname stackmel/pass3.1
Presentation Format micro
Dataset Creation Thu Oct 06 19:38:35 2016
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



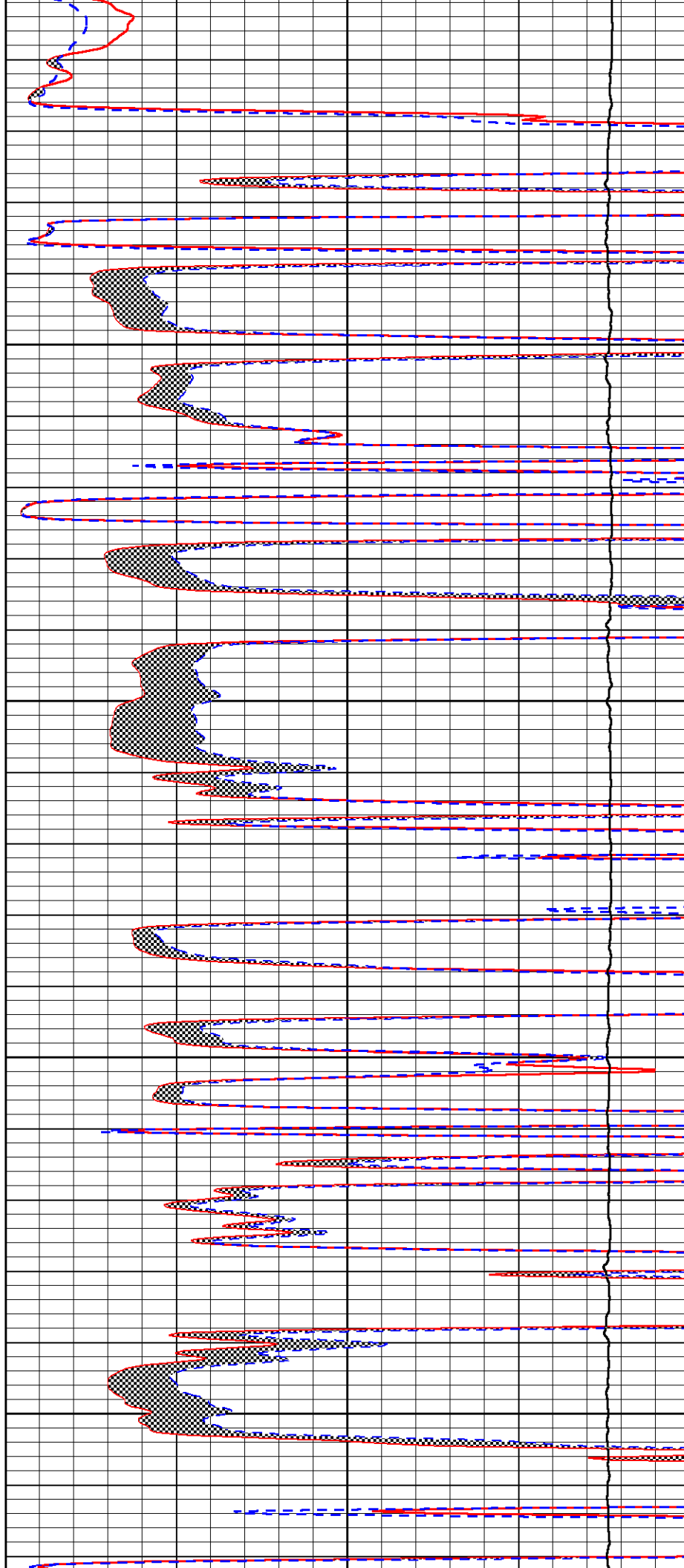


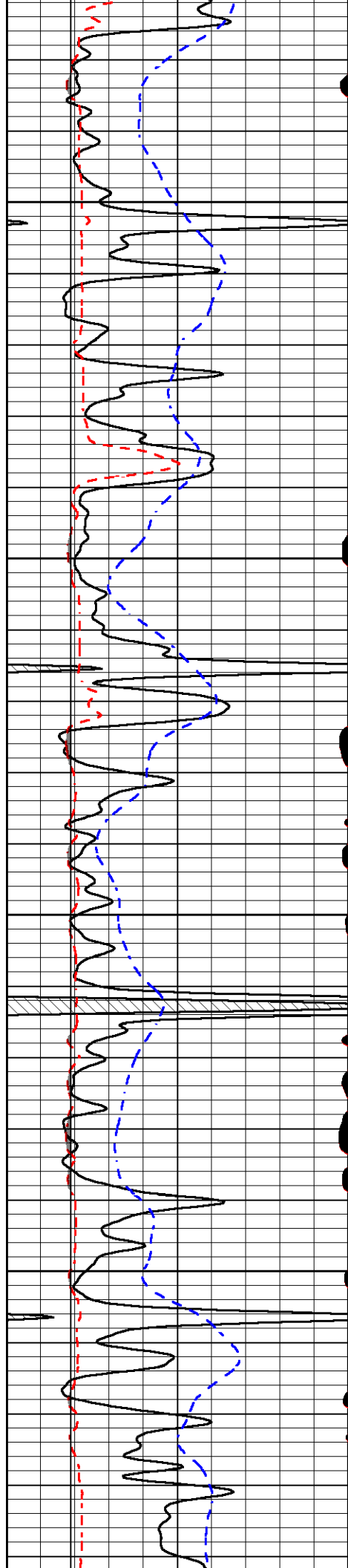
3950

4000

4050

4100



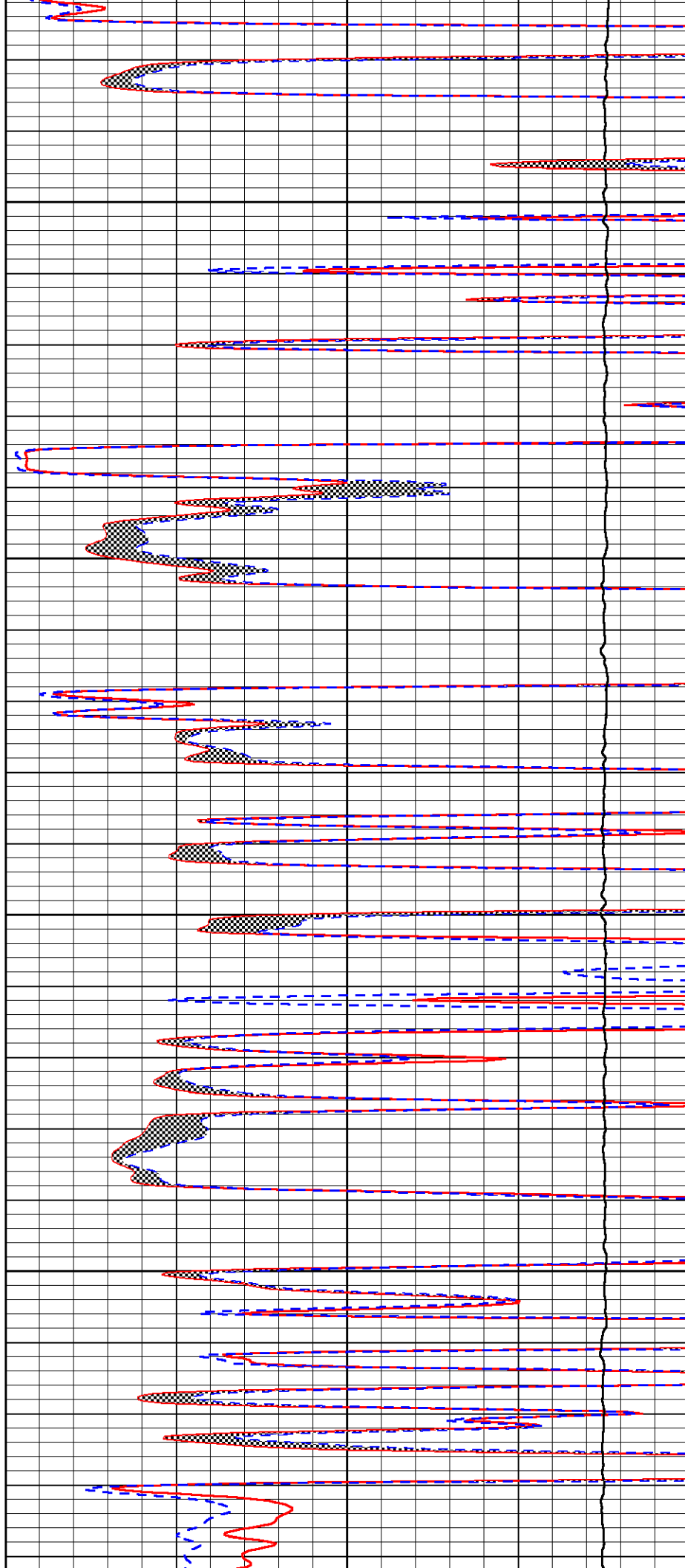


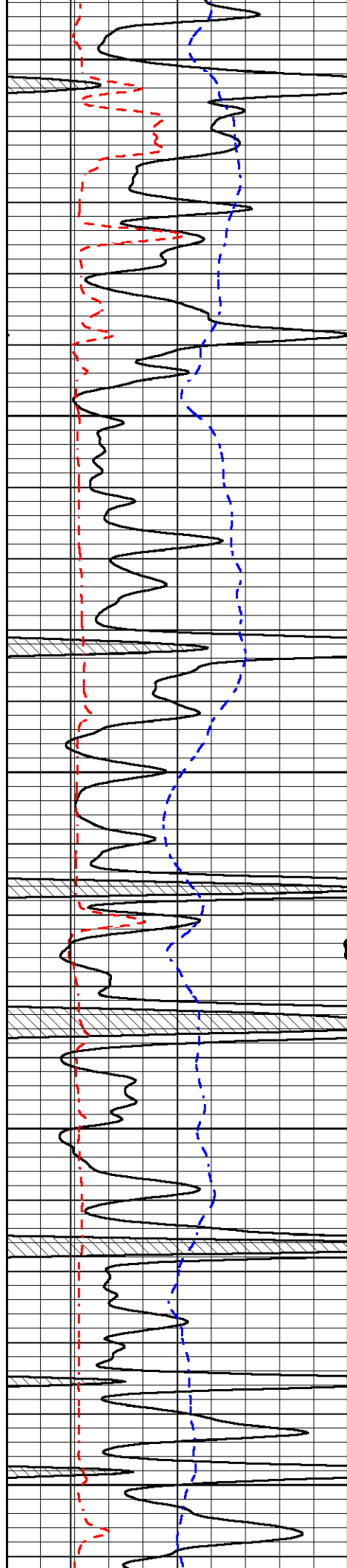
4150

4200

4250

4300





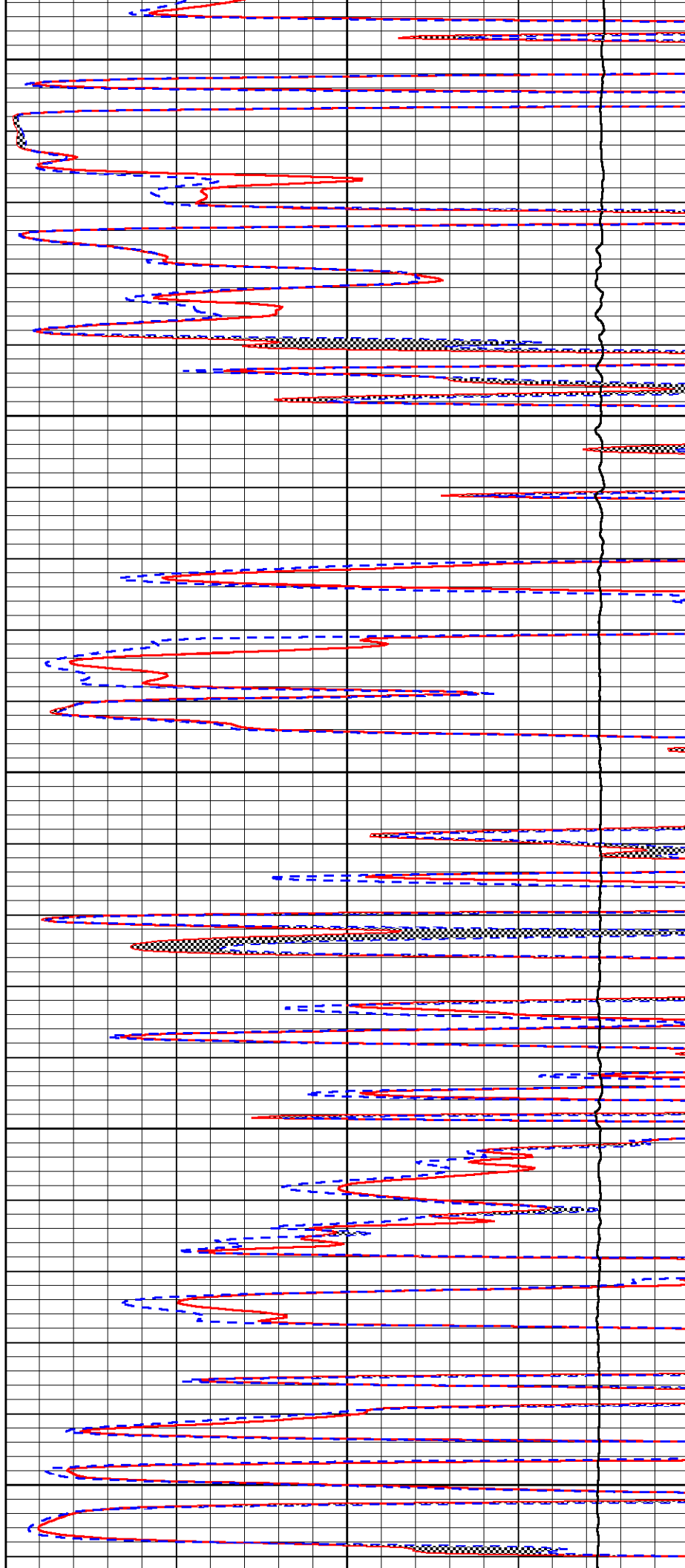
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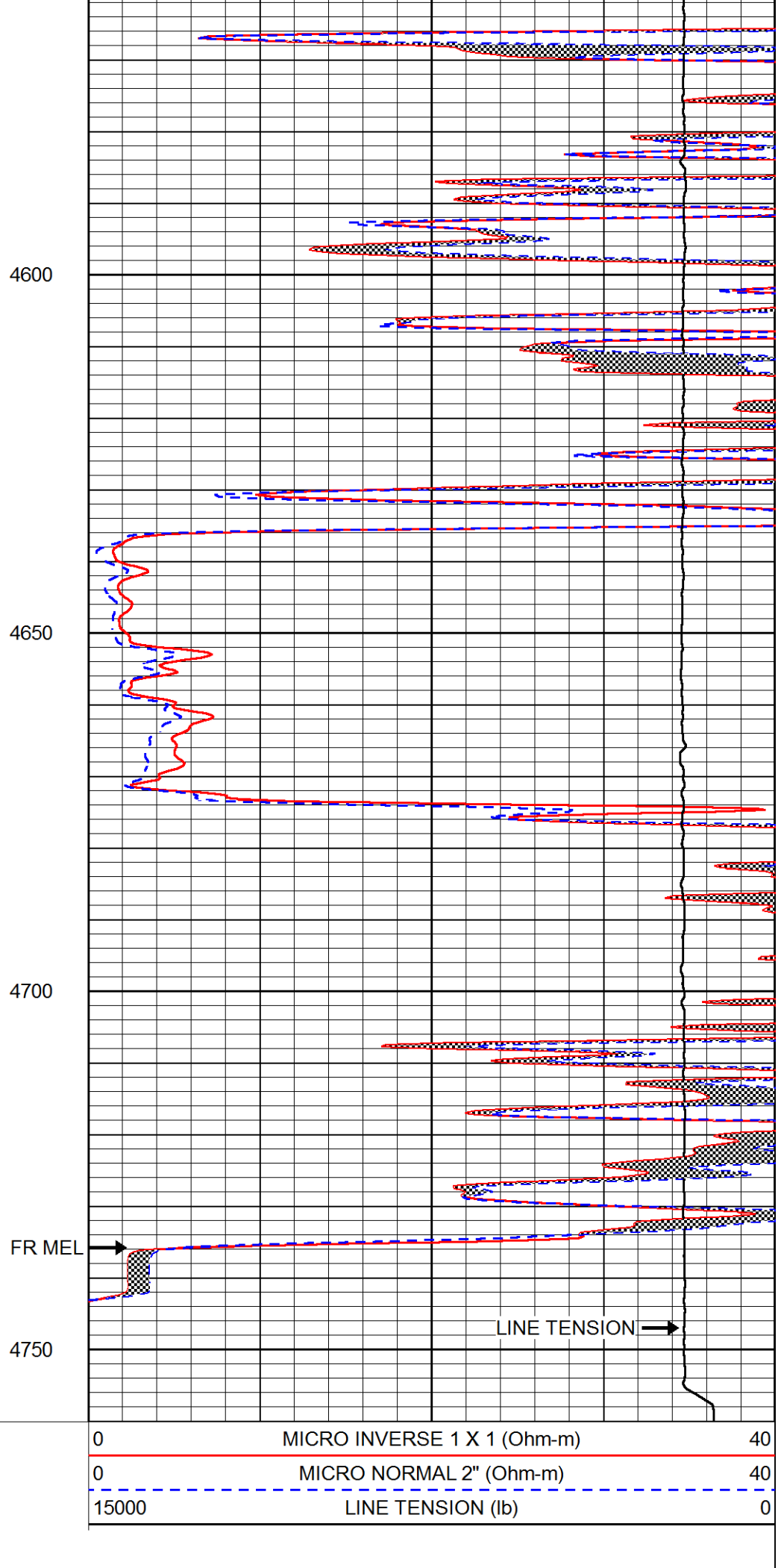
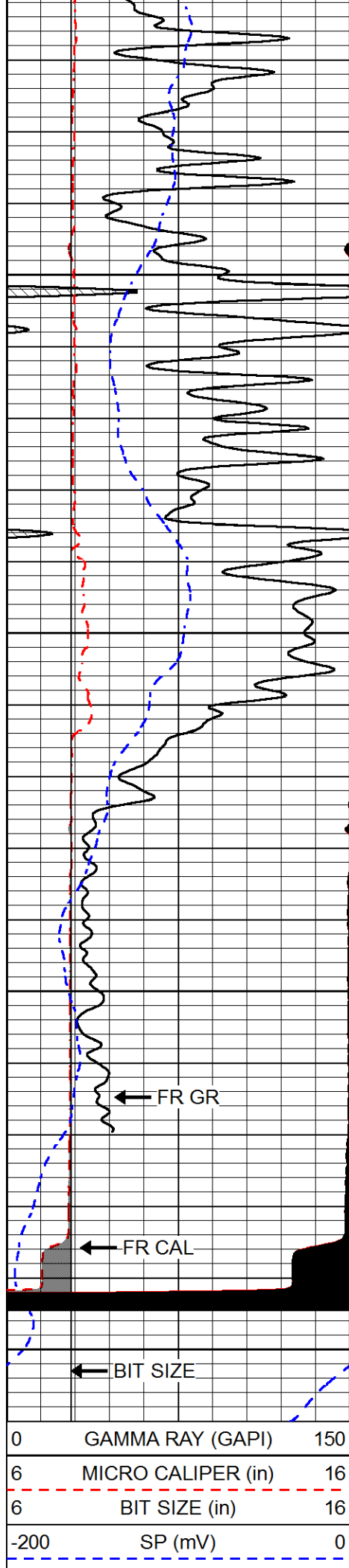
4400

4450

4500

4550



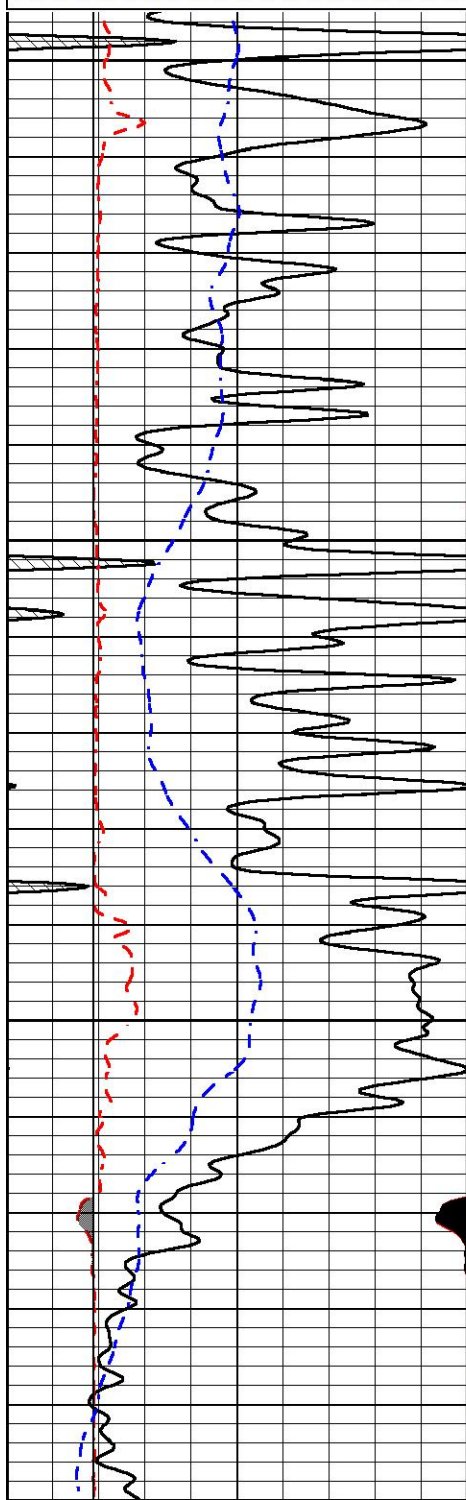


REPEAT SECTION

Database File valenergy_herronkirk_1-21.db
Dataset Pathname stackmel/pass2.1
Presentation Format micro
Dataset Creation Thu Oct 06 19:46:28 2016
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

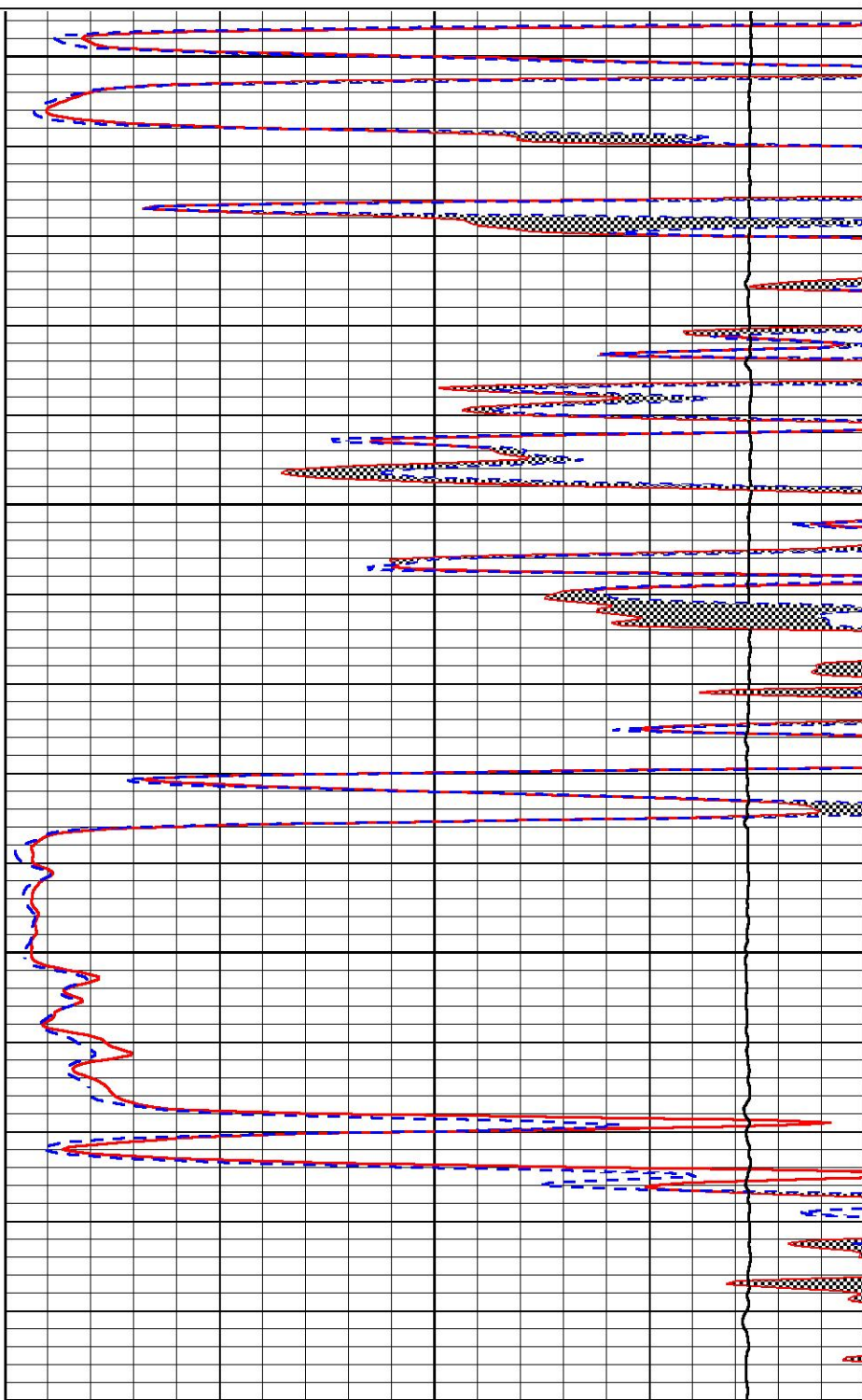


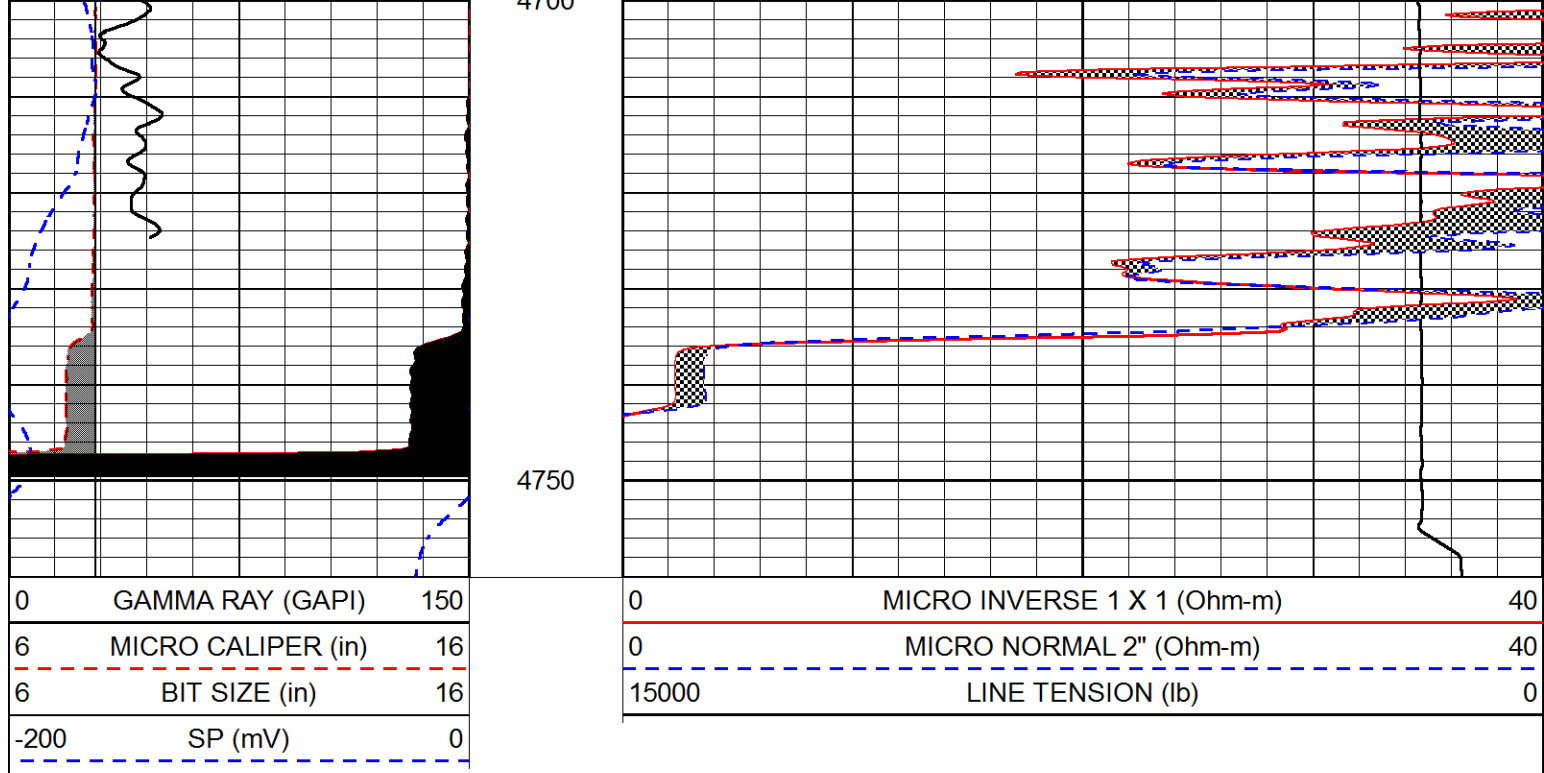
4550

4600

4650

4700





Calibration Report

Database File valenergy_herronkirk_1-21.db
Dataset Pathname stackmel/pass2
Dataset Creation Thu Oct 06 18:46:48 2016

Dual Induction Calibration Report

Serial-Model: 1987-M&W
Calibration Performed: Tue Aug 30 16:23:58 2016

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

Compensated Density Calibration Report

Serial-Model: 71-914-M&W
Source / Verifier: /
Master Calibration Performed: Mon Oct 03 08:53:06 2016

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4314.49	5307.52	cps
Aluminum	2.670	g/cc	822.19	3456.36	cps
Spine Angle = 75.49			Density/Spine Ratio = 0.534		
	Size		Reading		
Small Ring	4.00	in	1.16		
Large Ring	14.00	in	1.57		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Sat Oct 1 10:01:53 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: Fri Sep 30 22:06:47 2016

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



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