



MICRORESISTIVITY LOG

Company VAL ENERGY, INC.
Well GMK KRISS UNIT #1-18
Field UNKNOWN
County THOMAS
State KANSAS

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Field UNKNOWN
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Location: API #: 15-193-20990-00-00
 2618' FNL & 1660' FEL
 SEC 8 TWP 8S RGE 35W
 Permanent Datum GROUND LEVEL Elevation 3329'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services: CNL/CDL DIL/BHCS
 Elevation: K.B. 3334', D.F. N/A, G.L. 3329'

Date	3/27/2017
Run Number	TWO
Depth Driller	4900'
Depth Logger	4900'
Bottom Logged Interval	4899'
Top Log Interval	3800'
Casing Driller	8.625" @ 260'
Casing Logger	260'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	6000
Density / Viscosity	9.3 57
pH / Fluid Loss	11.0 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.40 @ 54
Rmt @ Meas. Temp	0.30 @ 54
Rmc @ Meas. Temp	0.54 @ 54
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.17 @ 125
Operating Rig Time	5 HOURS
Max Rec. Temp. F	125
Equipment Number	91
Location	COLBY
Recorded By	D. SCHMIDT
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.

LEVANT,
 WEST ON OLD 24 TO 9 RD, 1/2 NORTH,
 WEST 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: D. SCHMIDT Operator: Operator: Operator:	This Log Record Was Witnessed By Primary Witness: TIM PRIEST Secondary Witness: Secondary Witness: Secondary Witness:
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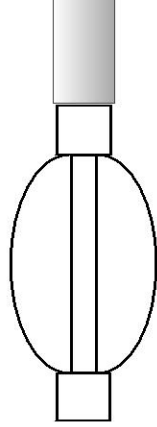
Log Variables

Database C:\ProgramData\Warrior\Data\val_gmk kriss_1-18.db
 Dataset field/well/STACK/pass3.6/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	287	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	40	0	5.5	0	4900	125	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
MCAL MI MN	28.00 28.00 28.00		ML-Armadillo (ARM001) Pengo Mandrel & Armadillo ML Electronics (2014)	5.50	3.50	100.00
			CENT-PENGO (4-PENGO)	5.50	3.00	70.00
WVF4 WVF1	13.50 13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	11.50 11.50					



CENT-PENGO (3-PENGO)

5.50

3.00

70.00

Dataset: val_gmk kriss_1-18.db: field/well/SONMEL/pass2
 Total length: 32.50 ft
 Total weight: 540.00 lb
 O.D.: 3.50 in

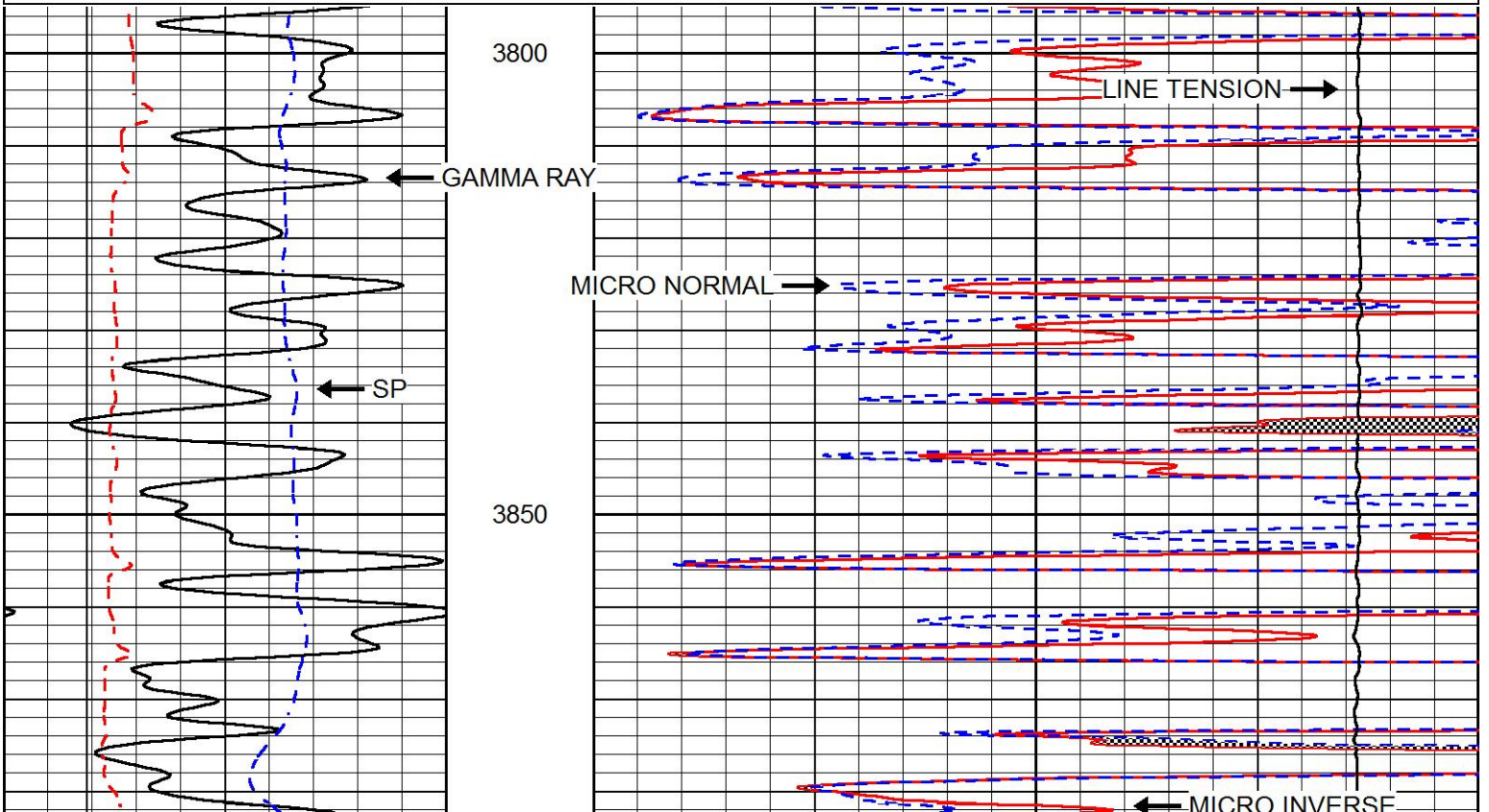


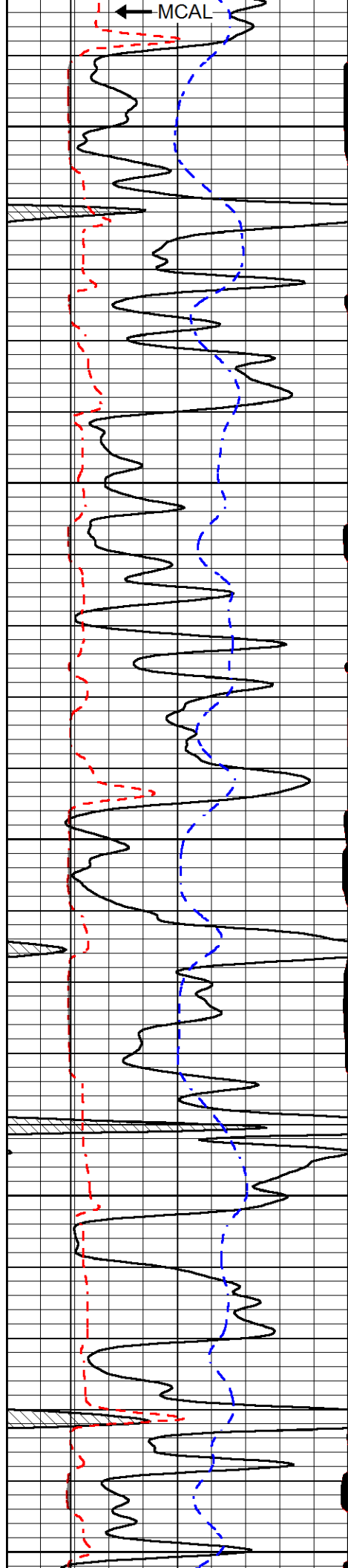
MAIN PASS

Database File val_gmk kriss_1-18.db
 Dataset Pathname STACK/pass4.1
 Presentation Format micro
 Dataset Creation Mon Mar 27 11:21:43 2017
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
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
10000	Line Weight (lb)	0





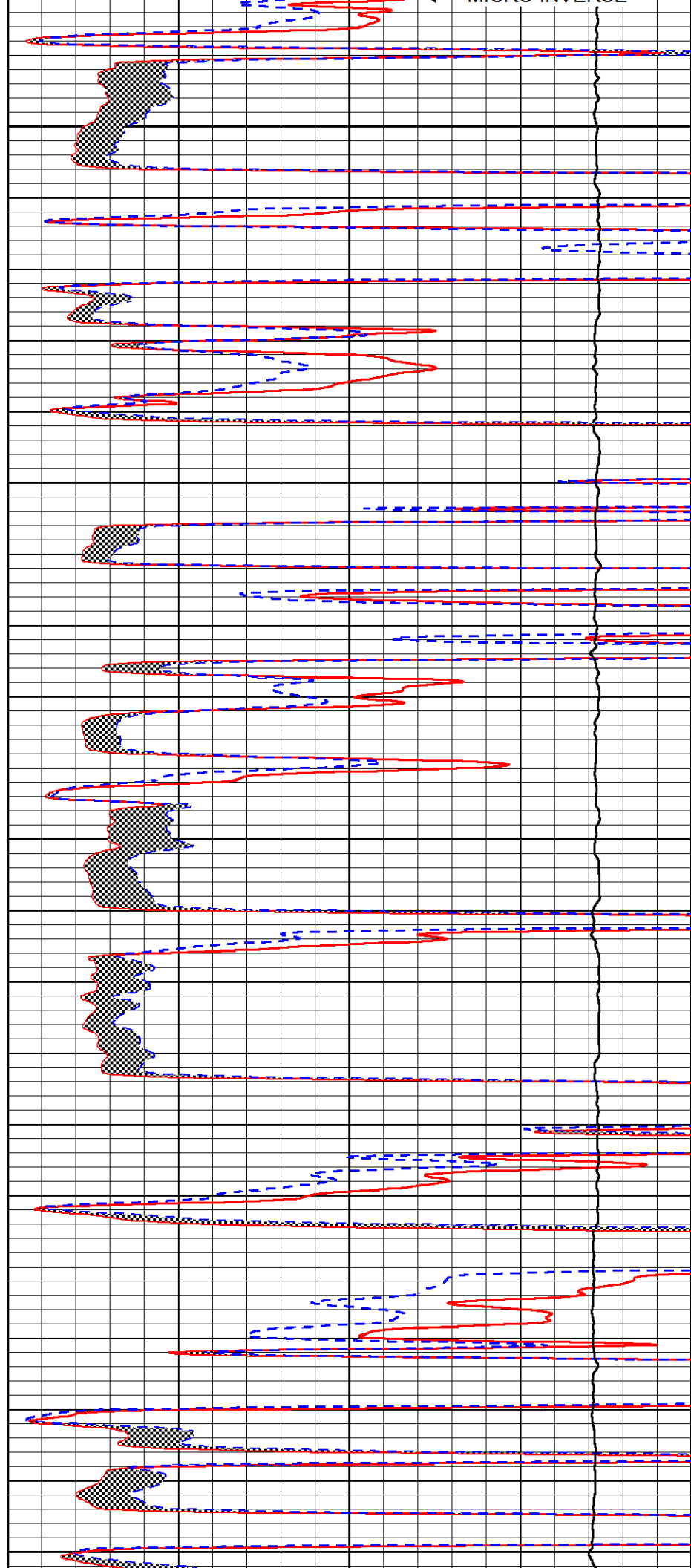
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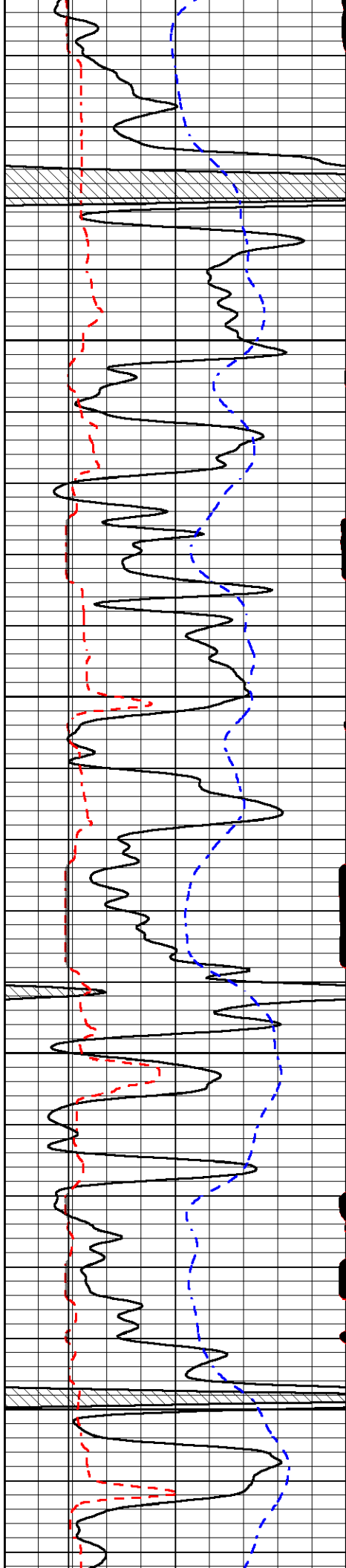
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4000

4050

4100



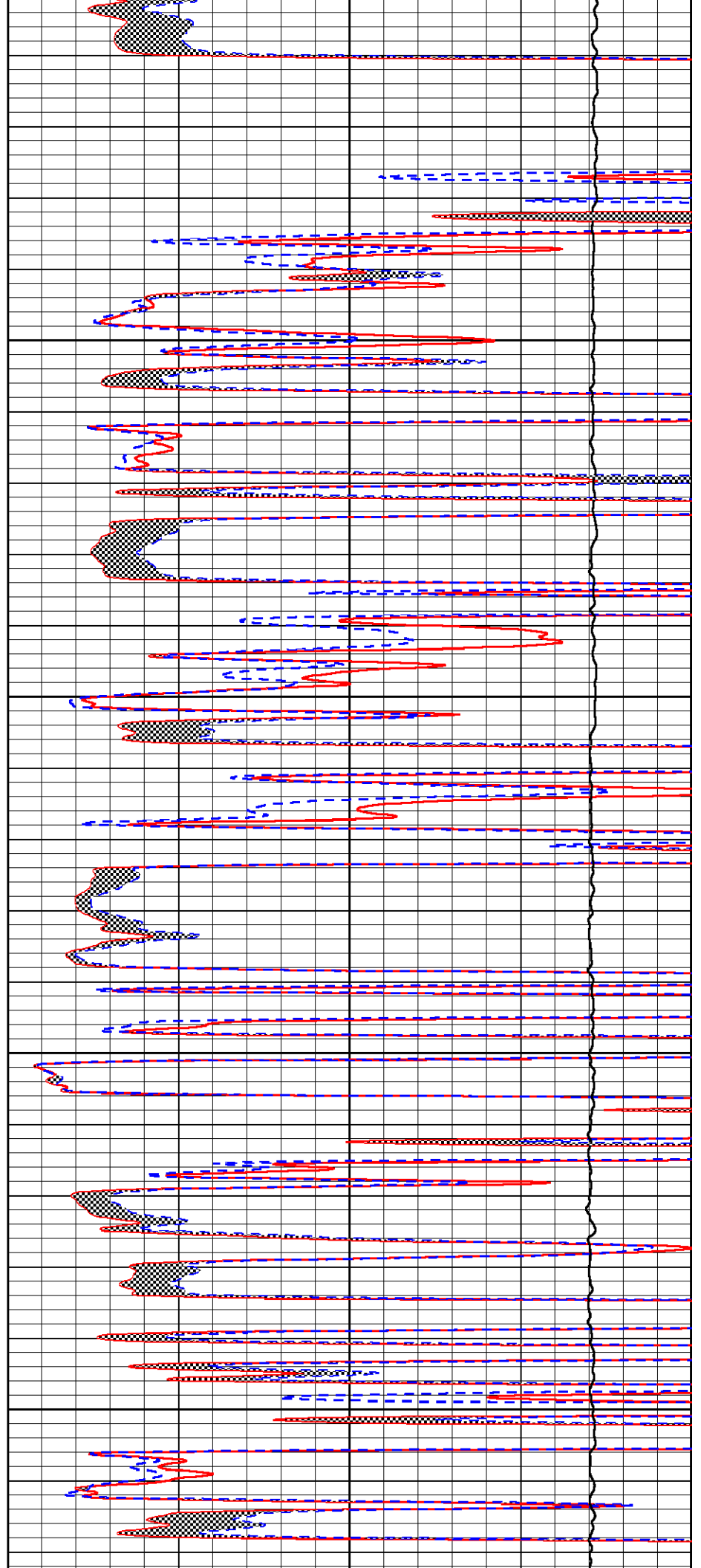


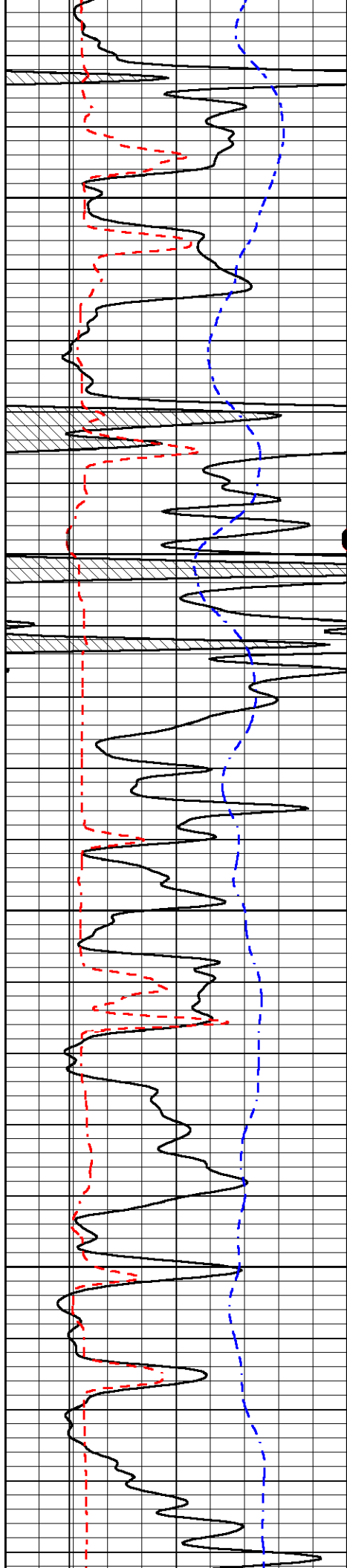
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4200

4250

4300



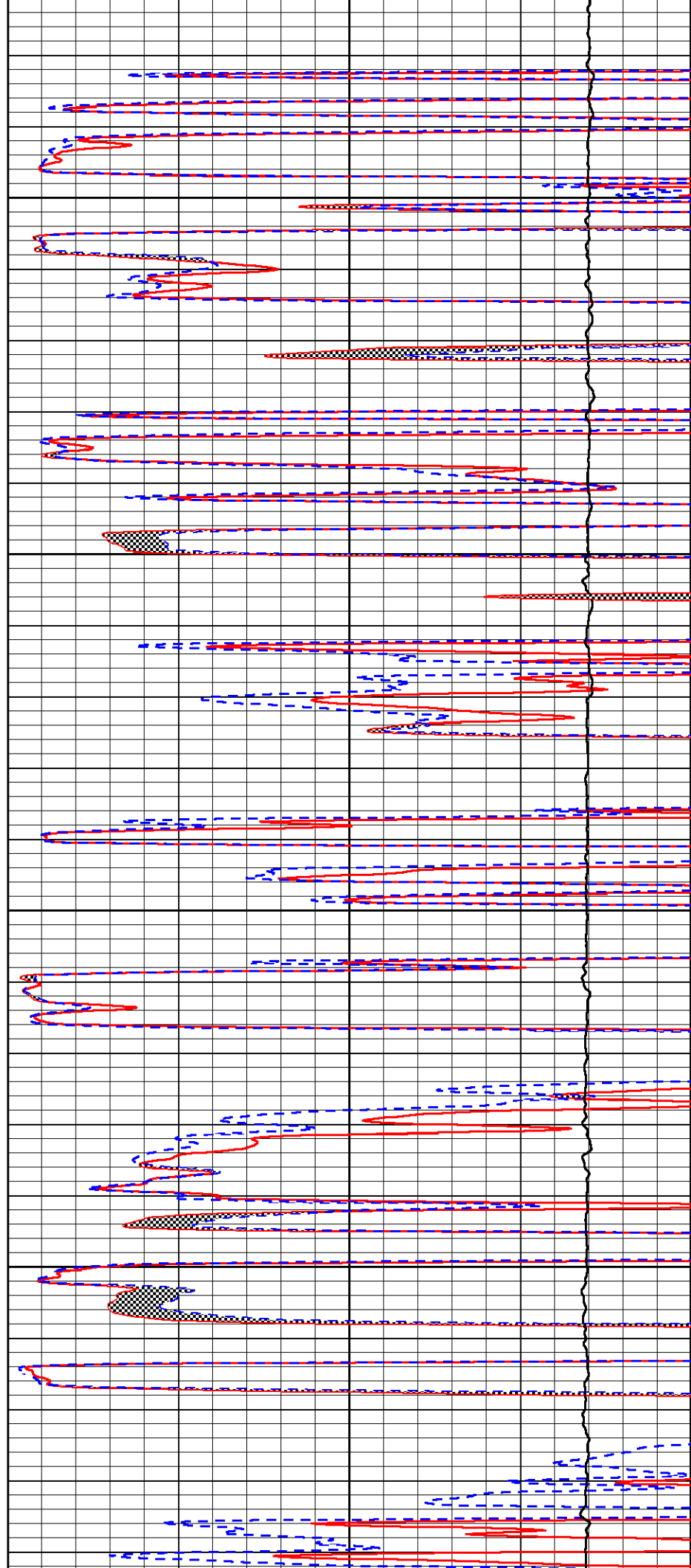


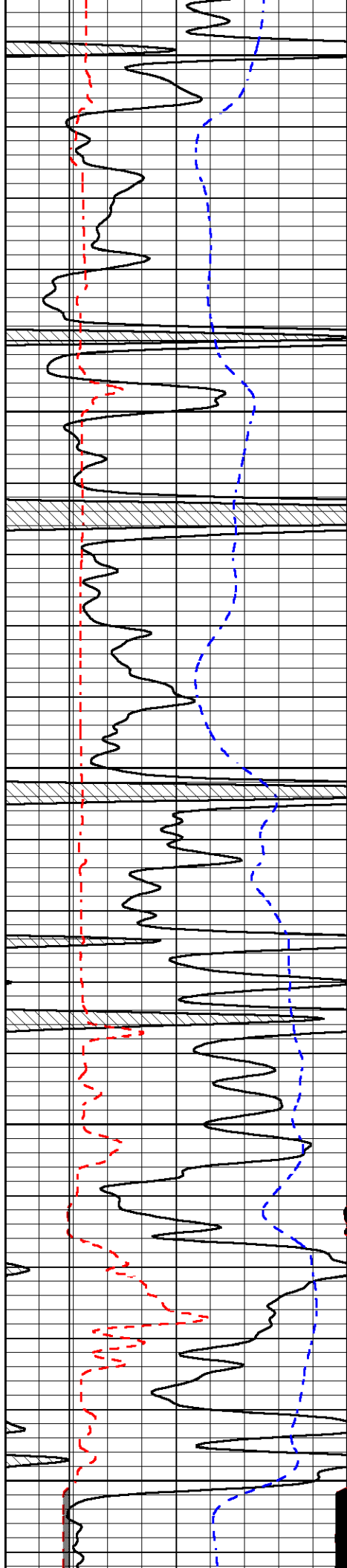
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4400

4450

4500





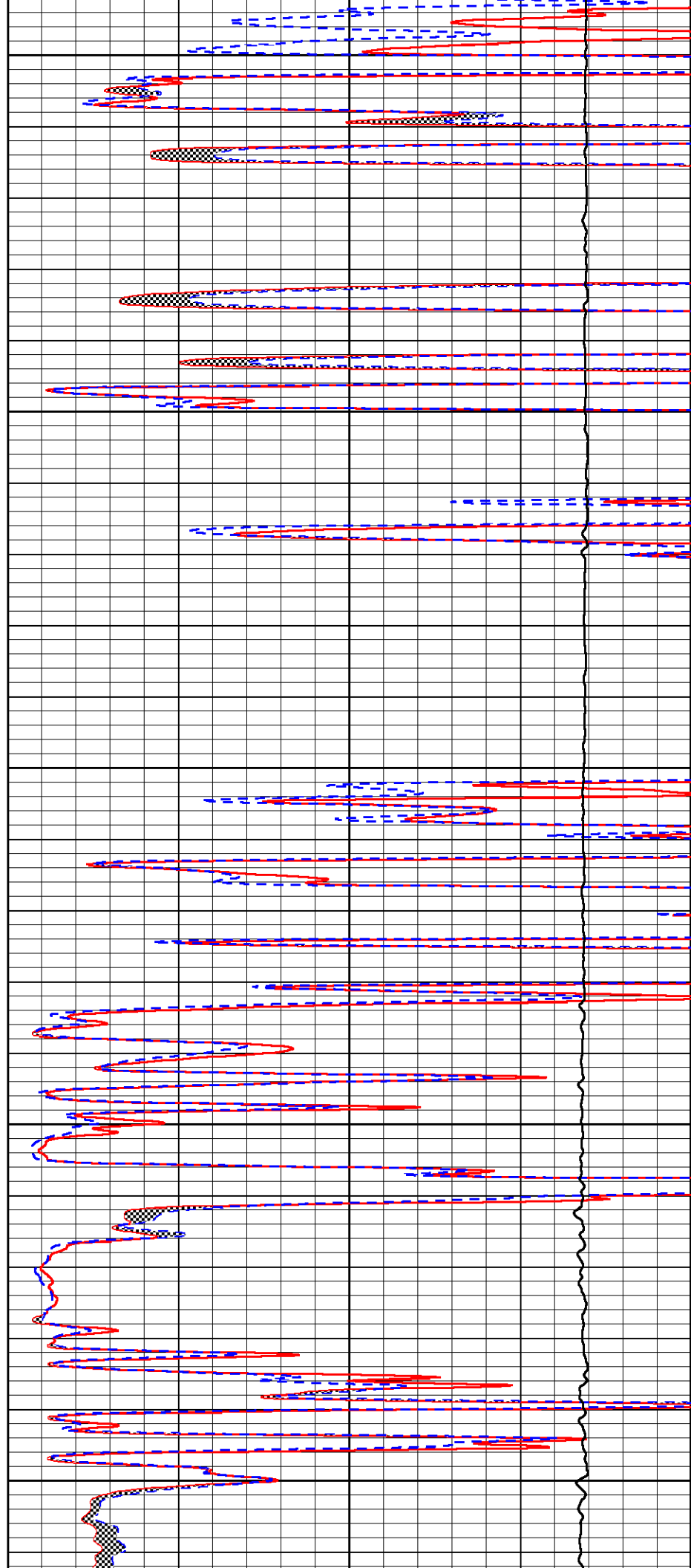
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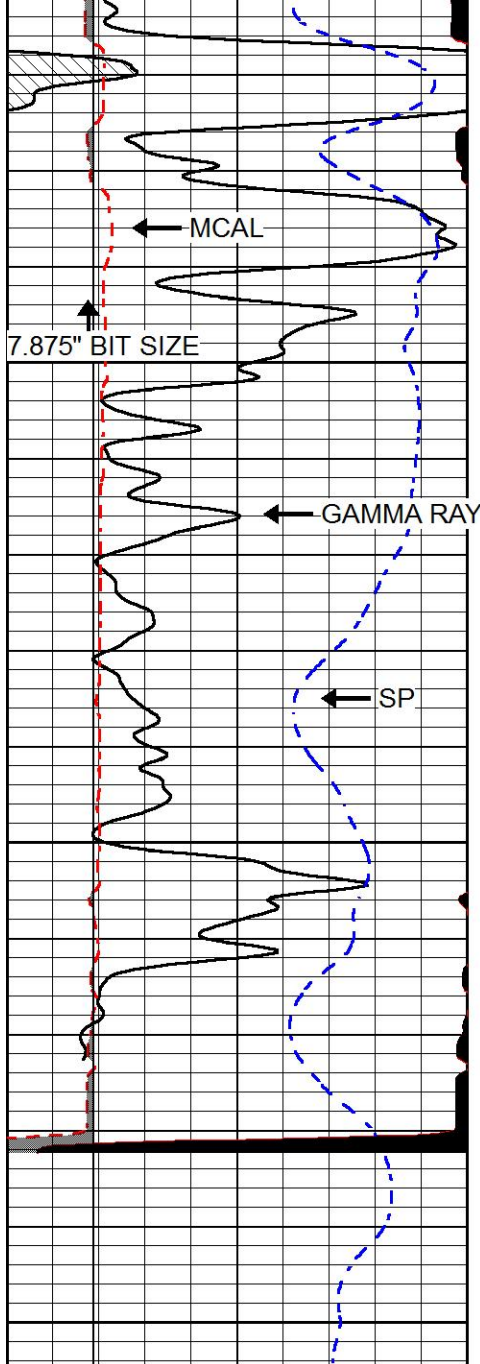
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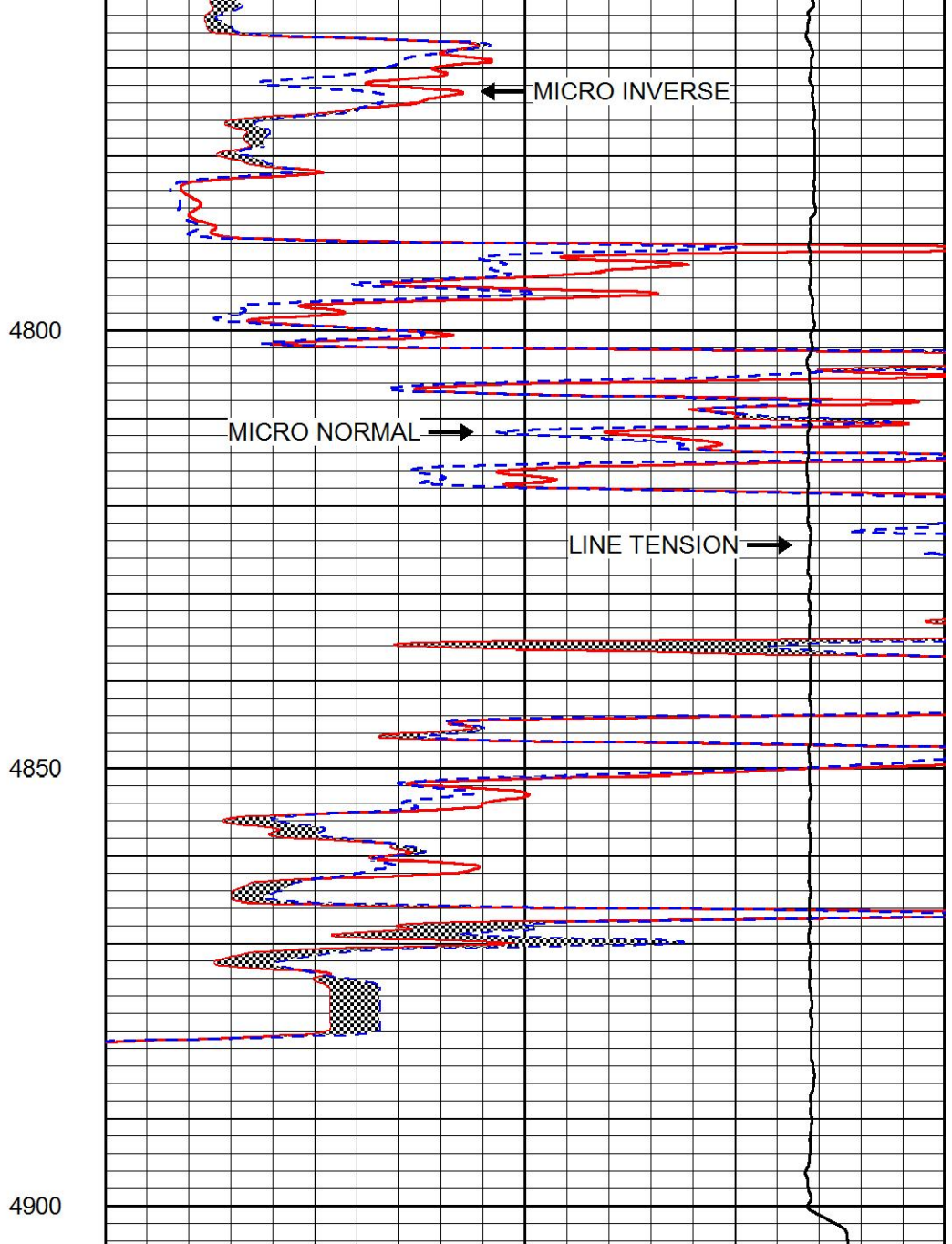
4700

4750





0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcals (in)	7.875
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
10000	Line Weight (lb)	0



REPEAT SECTION

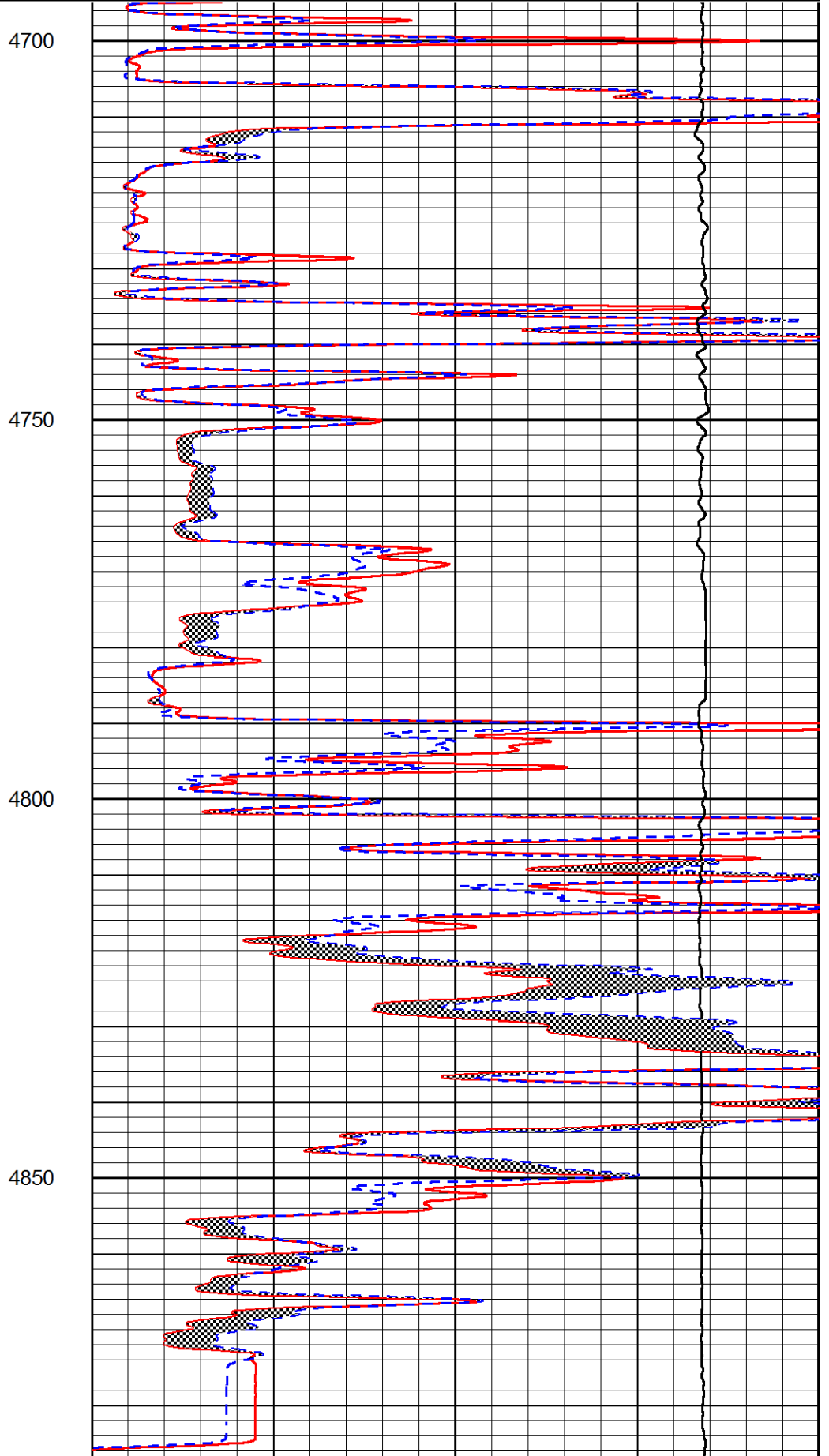
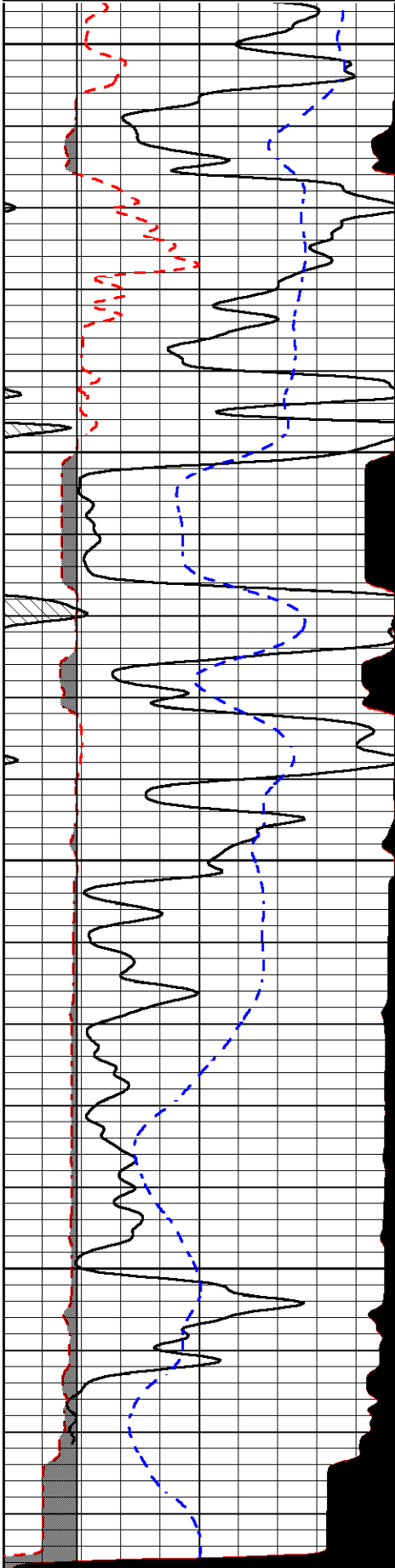
Database File val_gmk kriss_1-18.db
 Dataset Pathname STACK/pass2.1
 Presentation Format micro
 Dataset Creation Mon Mar 27 10:37:25 2017
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40

6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

0	Micro Normal Z' (Ohm-m)	40
10000	Line Weight (lb)	0



Serial Number: 89
 Tool Model: M&W
 Calibration Performed: Thu Mar 02 20:45:00 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps

Calibration Report

Database File val_gmk kriss_1-18.db
 Dataset Pathname SONMEL/pass2
 Dataset Creation Mon Mar 27 12:11:47 2017

Microlog Calibration Report

Serial-Model: ARM001-Armadillo
 Performed: Mon Mar 27 11:44:26 2017

Readings

References

Results

	Zero	Cal		Zero	Cal		m	b
Normal	0.0127	0.6730	V	0.0000	10.0000	Ohm-m	21.5000	-1.8000
Inverse	0.0029	0.8729	V	0.0000	10.0000	Ohm-m	18.0000	-1.0000
Caliper	1.1319	8.2966	V	6.0000	19.0000	in	3.4000	0.0000



PIONEER
 Pioneer Energy Services

Company VAL ENERGY, INC.
 Well GMK KRISS UNIT #1-18
 Field UNKNOWN
 County THOMAS
 State KANSAS