



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Darrah Oil Company, LLC
 Well Fanshier #1-4
 Field Shaeffer-Rothgarn
 County Stafford
 State Kansas

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 Field Shaeffer-Rothgarn
 County Stafford State Kansas

Location: API #: 15-185-24120-00-00
 1019 FSL & 2241 FWL
 SEC 4 TWP 21S RGE 13W
 Permanent Datum Ground Level Elevation 1888
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 DIL/BHCS
 Elevation
 K.B. 1901
 D.F.
 G.L. 1888

Date	10/10/2022
Run Number	One
Depth Driller	3700
Depth Logger	3701
Bottom Logged Interval	3700
Top Log Interval	2700
Casing Driller	8:625 @ 225
Casing Logger	223
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	5000
Density / Viscosity	9.4 54
pH / Fluid Loss	10.0 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.25 @ 86
Rmt @ Meas. Temp	0.19 @ 86
Rmc @ Meas. Temp	0.34 @ 86
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.19 @ 113
Operating Rig Time	4 Hours
Max Rec. Temp. F	113
Equipment Number	P-108
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Jim Musgrove

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline 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.

Great Bend,
 South to county line, 1 South, 1/2 West

Log Measured From: Kelly Bushing 13 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
 785-625-3858

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: D. Schmidt	Operator:	Primary Witness: Jim Musgrove	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Operator	Offset (ft)	Substrate	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSI STKBL ML (401)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (504 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: darrah)_fانشier 1-4.db: field/well/stkml/pass3.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\darrah)_fanshier 1-4.db
 Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	113	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	557	80	Off	3701

Variable Description

A : Cement Factor (a)
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 M : Cement Exp (m)
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
 PERFS : Perforation Flag
 SNDERR : Deep Sonde Error Correction
 SNDERRM : Medium Sonde Error Correction
 SPSHIFT : S.P. Baseline Offset
 SRFTEMP : Surface Temperature
 SZCOR : CN Size Cor. ?
 TDEPTH : Total Depth



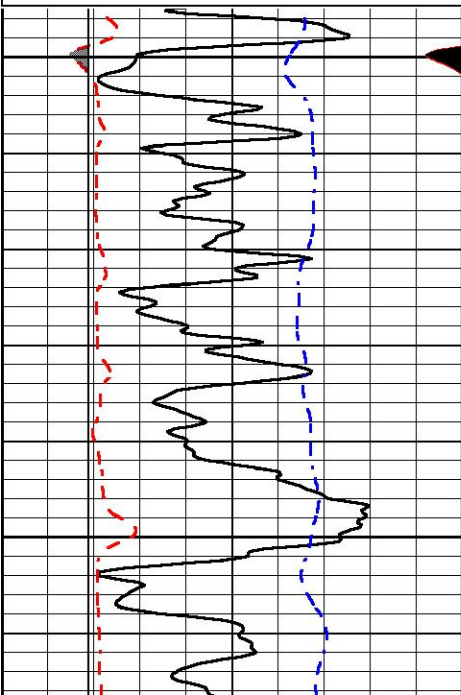
DETAIL SECTION

MAIN PASS

Database File darrah)_fanshier 1-4.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _micro
 Dataset Creation Mon Oct 10 14:36:48 2022
 Charted by Depth in Feet scaled 1:240

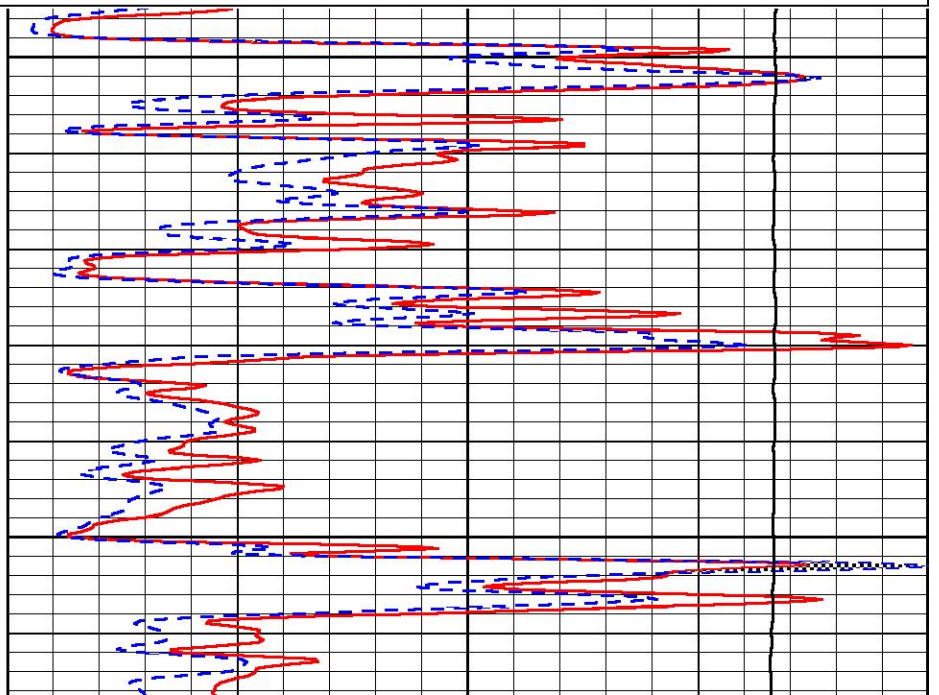
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6	Caliper (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

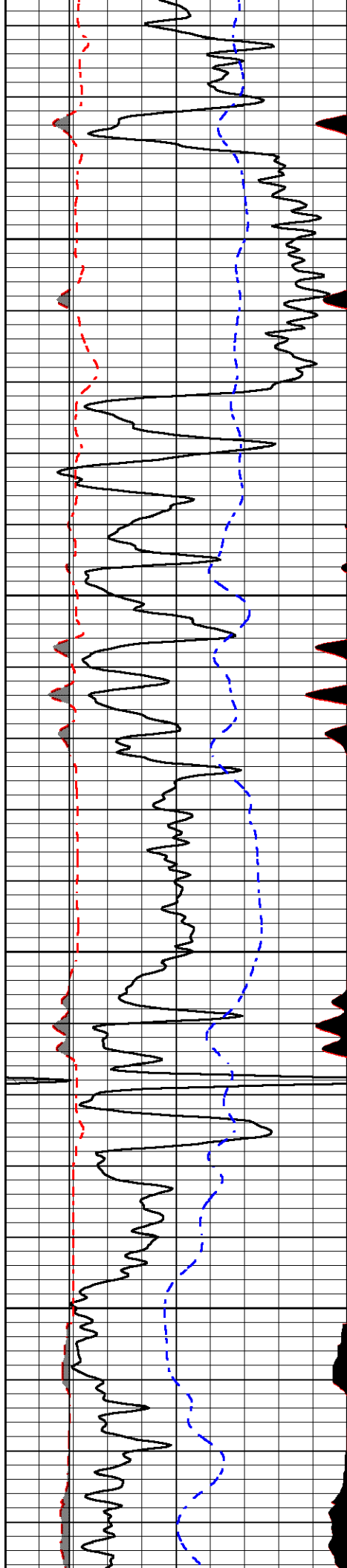
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2700

2750



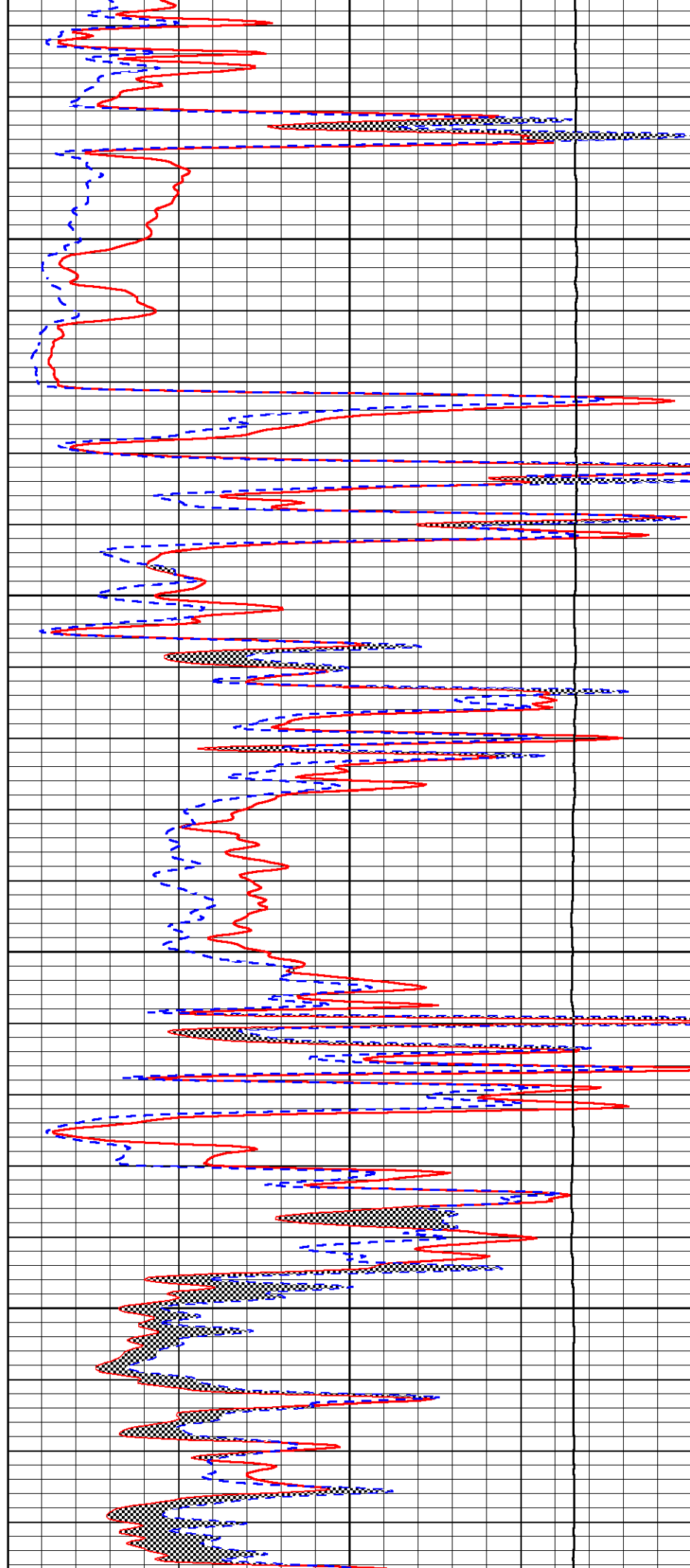


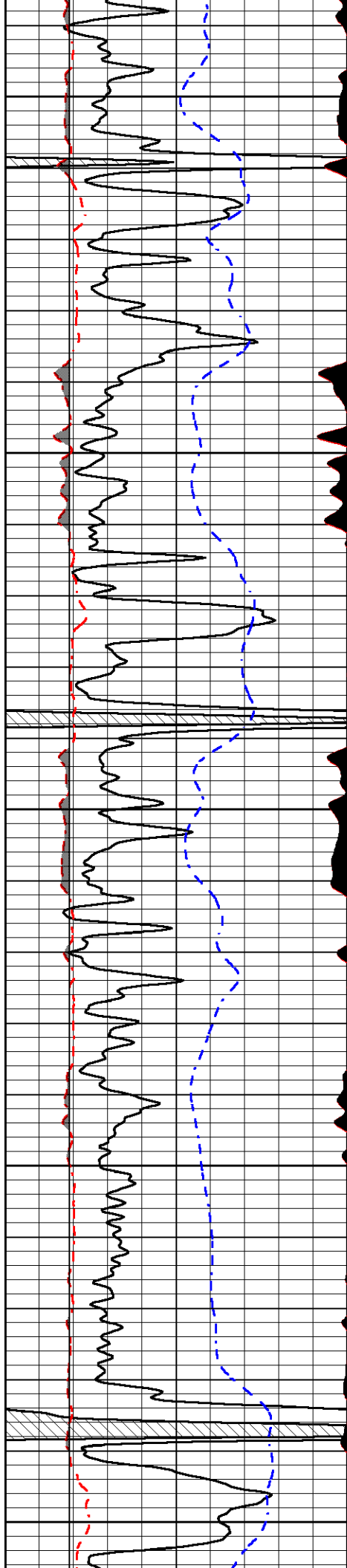
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2850

2900

2950





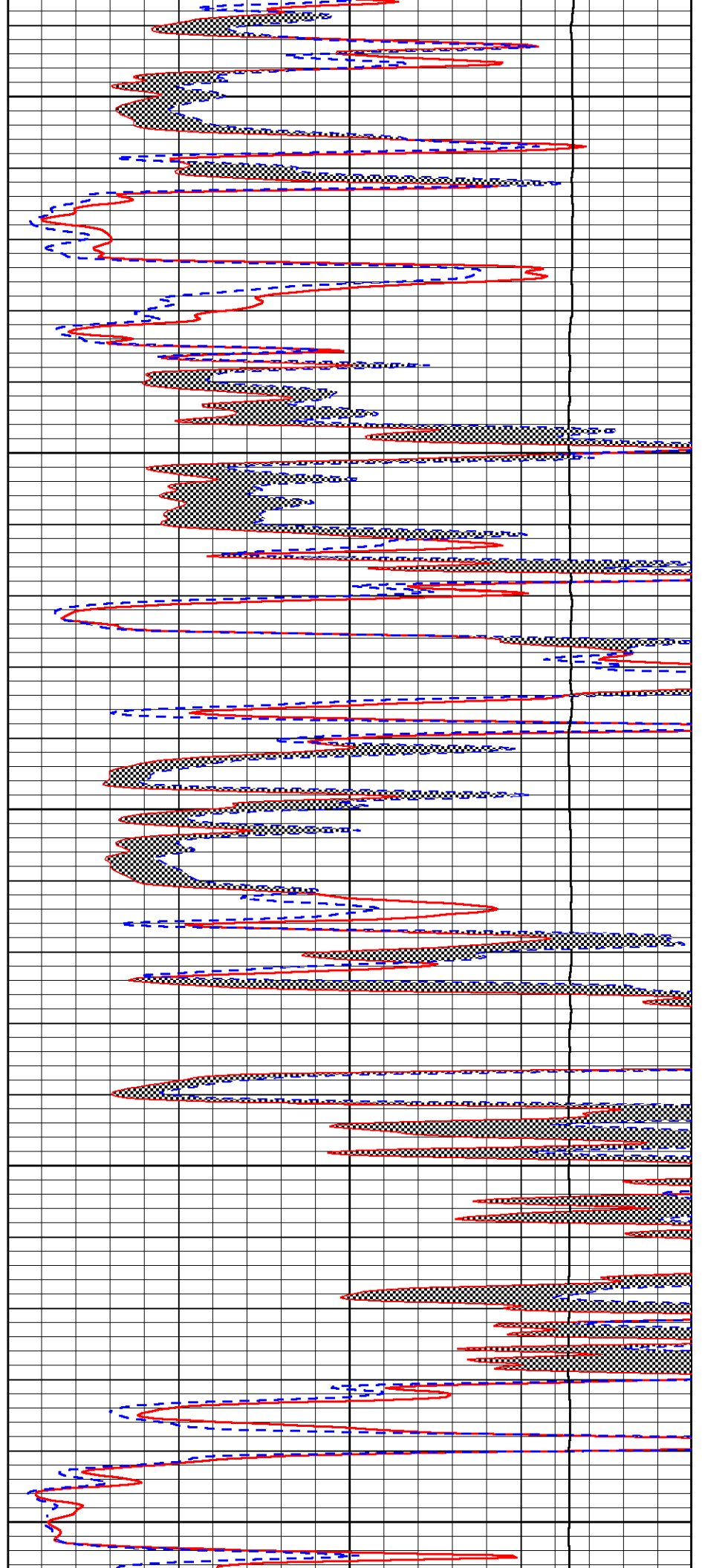
3000

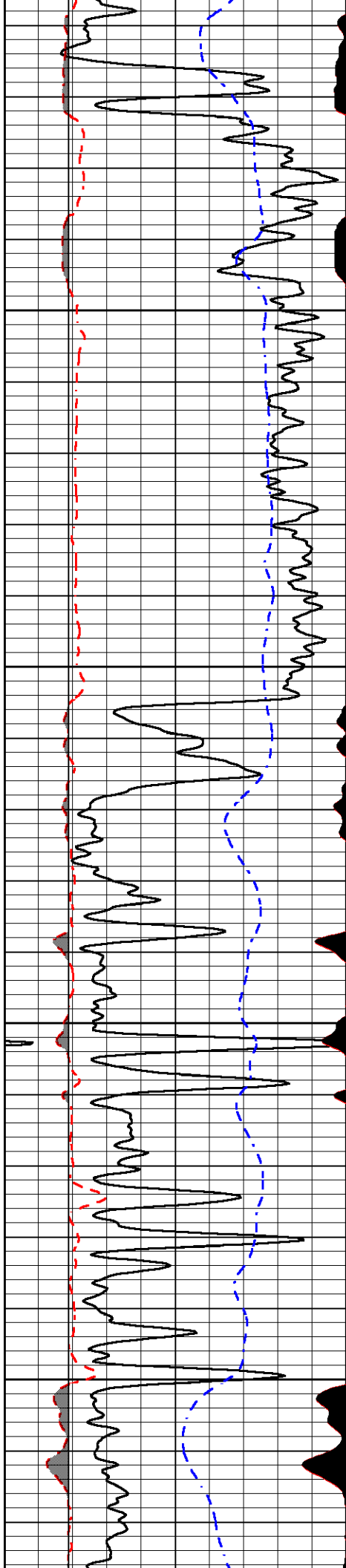
3050

3100

3150

3200



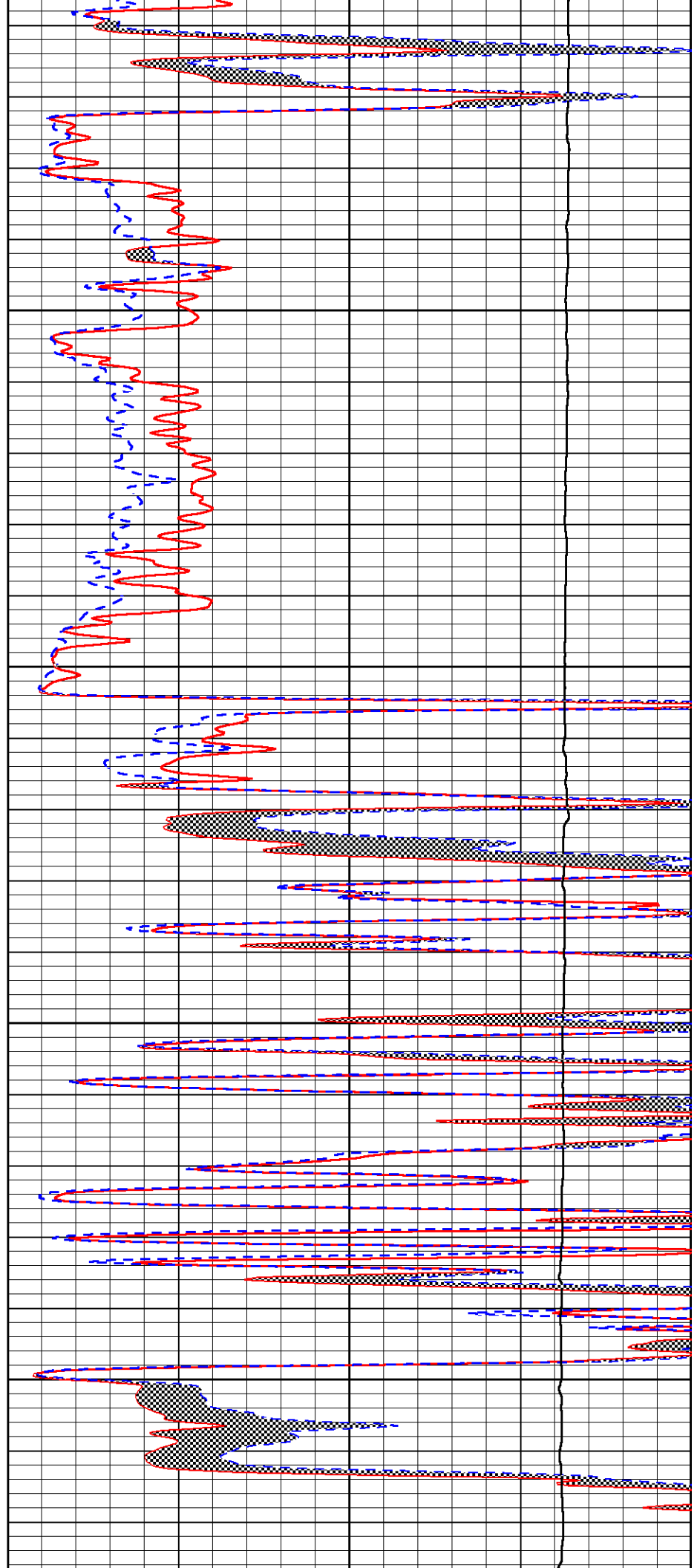


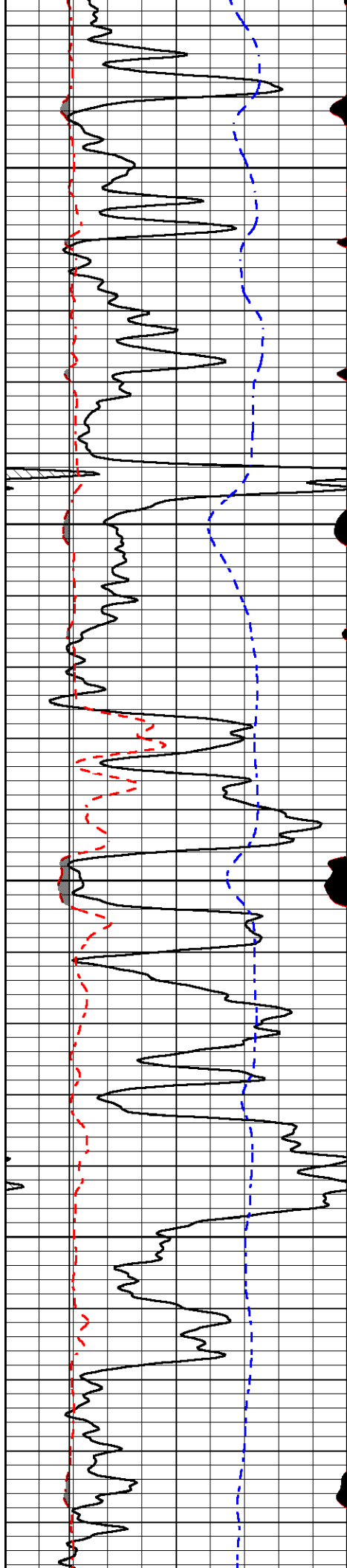
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3300

3350

3400



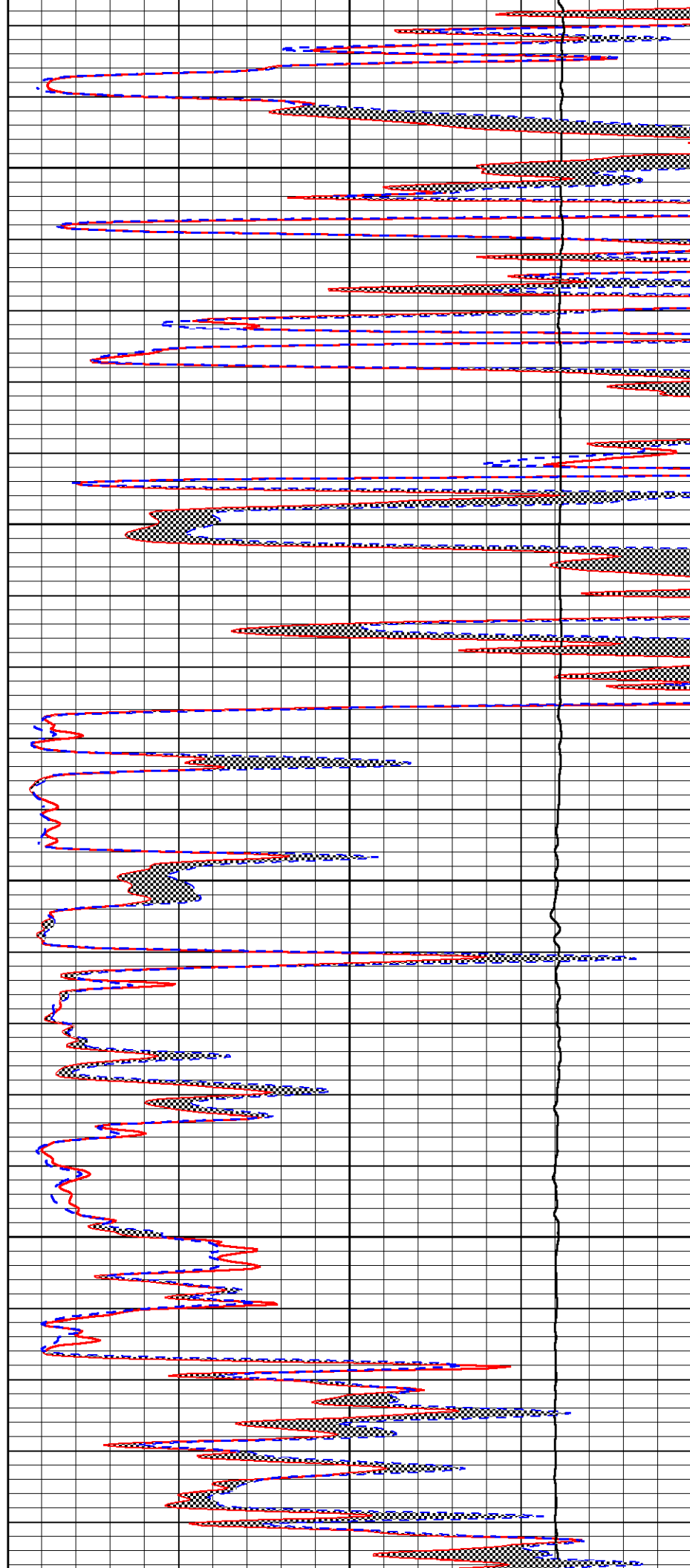


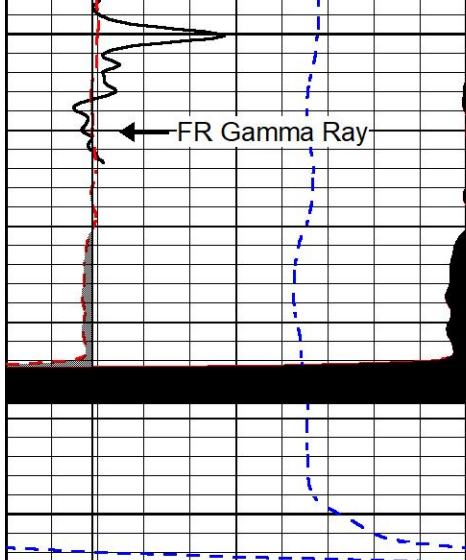
3450

3500

3550

3600

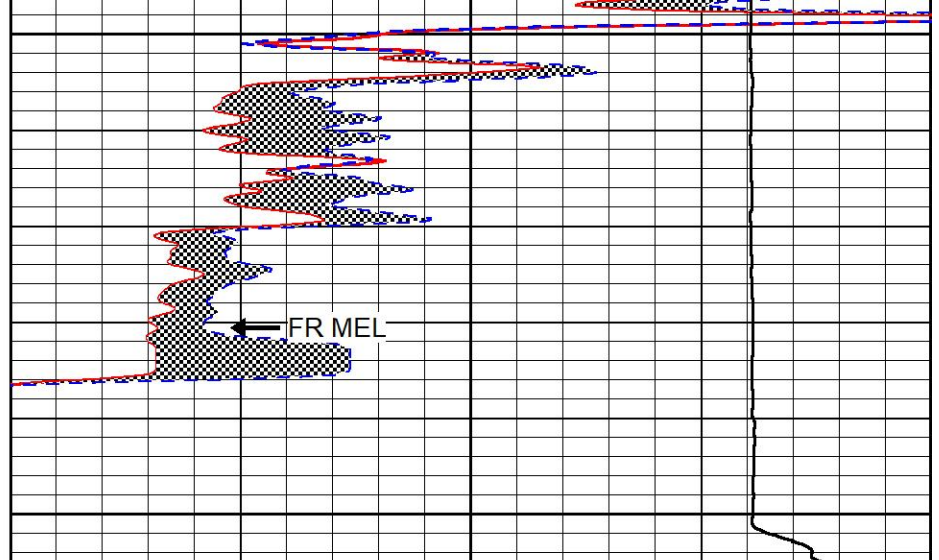




3650

3700

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-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



MIDWEST WIRELINE

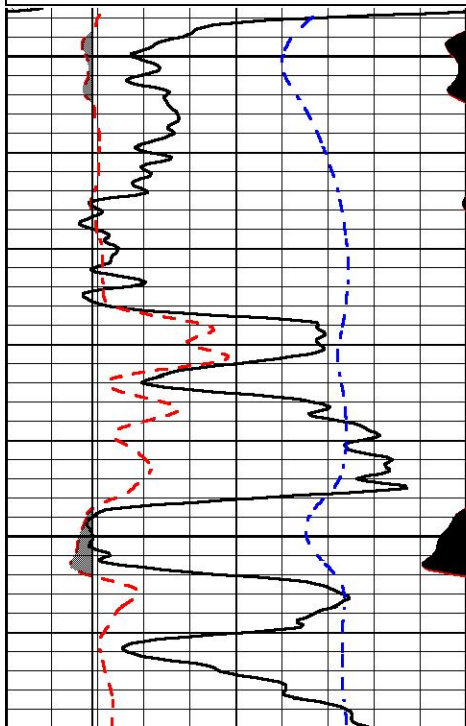
REPEAT SECTION

REPEAT PASS

Database File darrah_fanshier 1-4.db
 Dataset Pathname stkml/pass2.11
 Presentation Format _micro
 Dataset Creation Mon Oct 10 14:00:09 2022
 Charted by Depth in Feet scaled 1:240

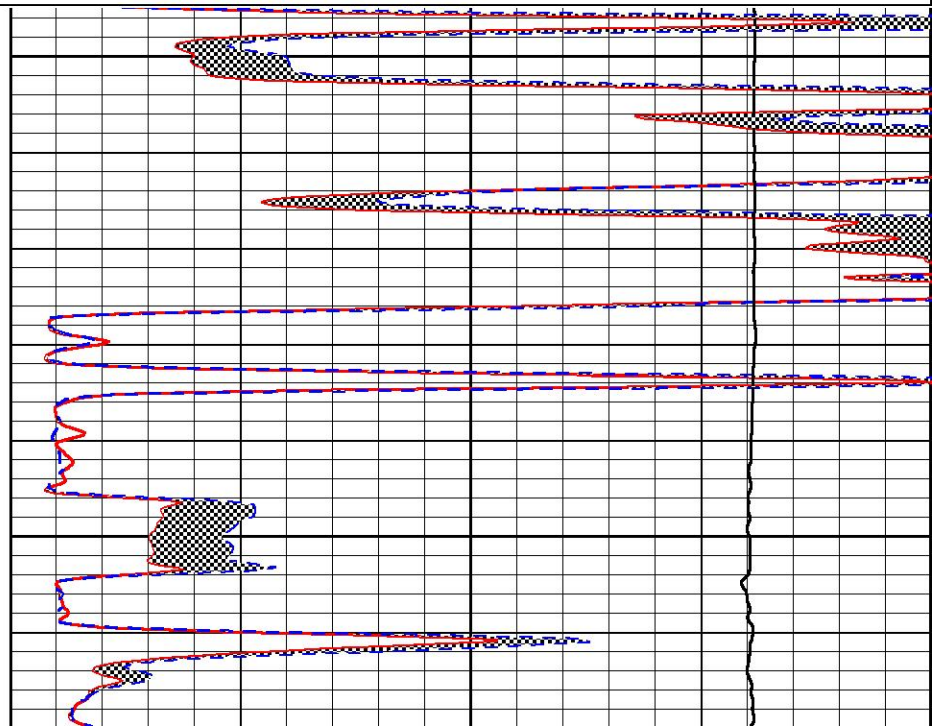
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

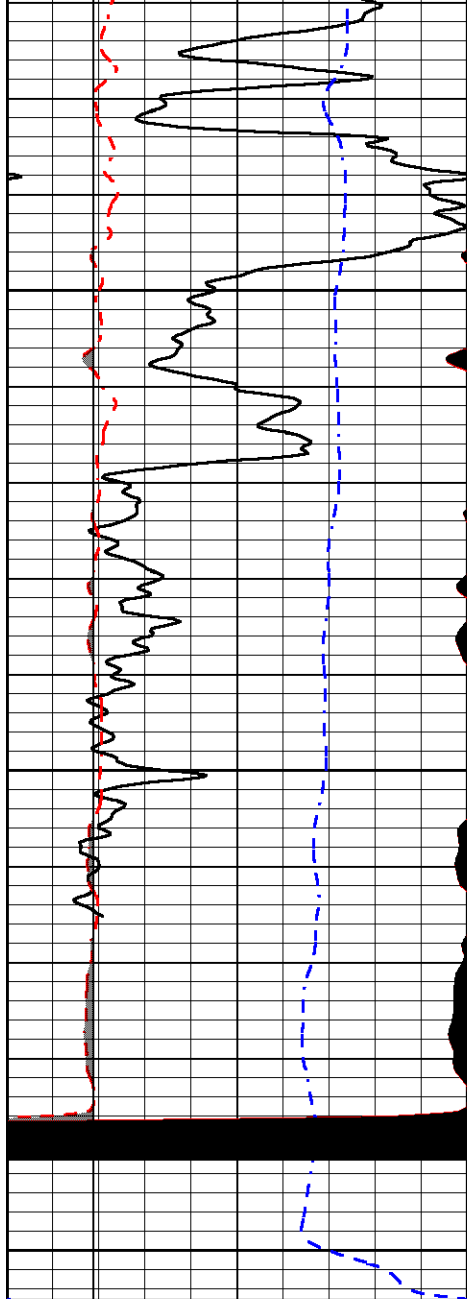
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



3500

3550



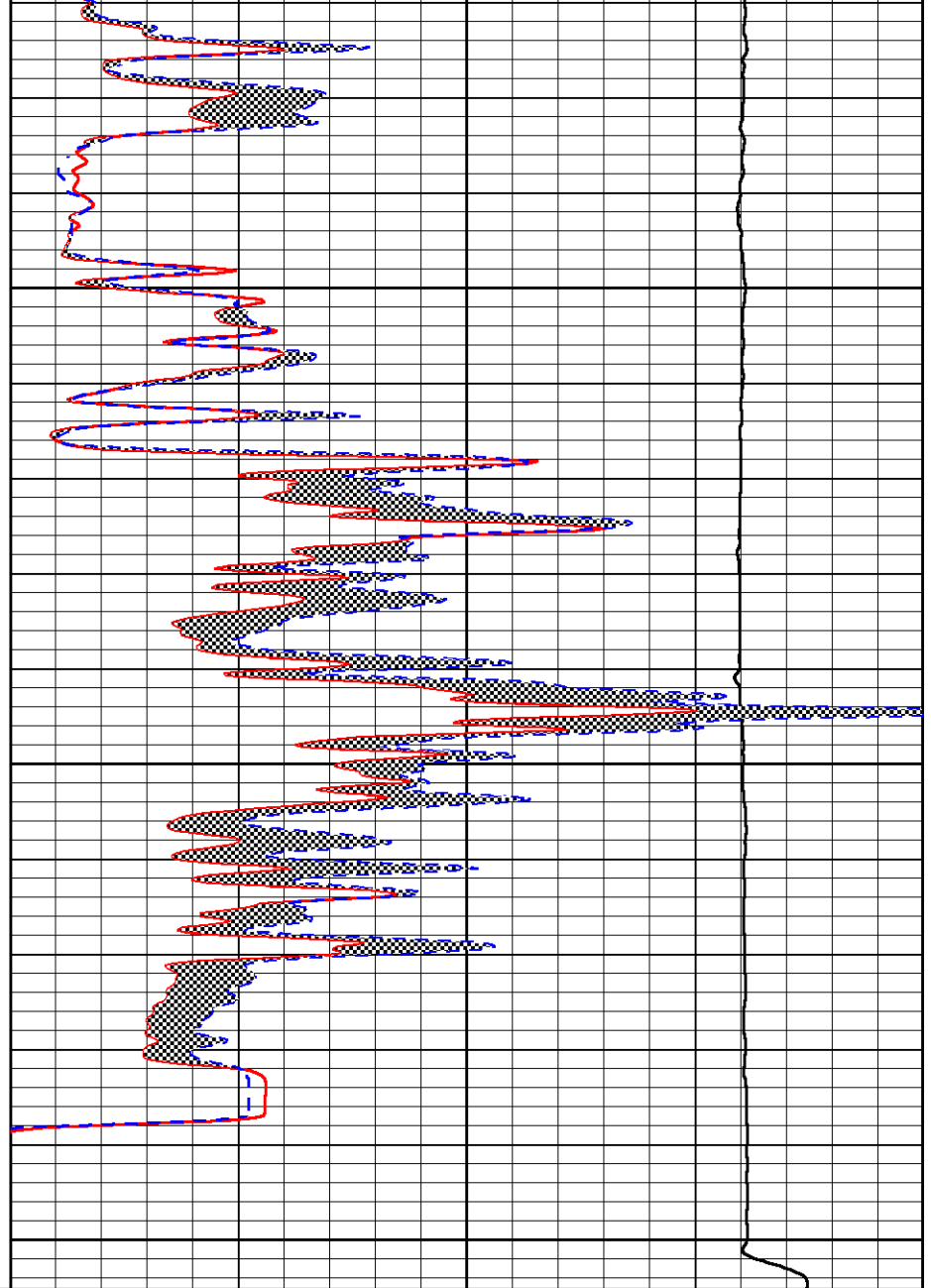


3600

3650

3700

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-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

Calibration Report

Database File darrah)_fanshier 1-4.db
 Dataset Pathname stkml/pass3.1
 Dataset Creation Mon Oct 10 14:36:48 2022

Dual Induction Calibration Report

Serial-Model: 504 HT-M&W
 Surface Cal Performed: Mon Aug 1 06:26:43 2022

Loop:	Readings		References		Results		
	Air	Loop	Air	Loop	m	b	
Deep	178.615	710.235	0.000	255.800	mmho/m	0.680	-19.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.450	-46.000

Microlog Calibration Report

Serial-Model: 401-PSI STKBL ML
 Performed: Mon Oct 10 13:25:02 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	24000.0000	-1.8000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	27000.0000	-1.0000
Caliper	1.0049	1.0846	5.5000	20.0000	in	135.0000	-131.2500

Compensated Density Calibration Report

Serial-Model: 303-03-M&W
 Source #: 21170B
 Master Calibration Performed: Mon Oct 10 13:32:26 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.647	g/cc	700.98	3068.49	cps
Spine Angle = 73.06			Density/Spine Ratio = 0.502		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.04		

Compensated Neutron Calibration Report

Serial-Model: 210-M&W
 Source #: N-1238
 Master Calibration Performed: Fri Dec 3 09:16:24 2021

Master Calibration

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: 103
 Tool Model: M&W
 Performed: Fri Dec 3 12:13:24 2021

Calibrator Value: 500.0 GAPI

Background Reading: 28.0 cps
 Calibrator Reading: 986.0 cps

Sensitivity: 0.5700 GAPI/cps



Company Darrah Oil Company, LLC
 Well #14



Well	Fanshier #1-4
Field	Shaeffer-Rothgarn
County	Stafford
State	Kansas