



PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company **RJM COMPANY**
Well **FURY FARMS #1**
Field **UNKNOWN**
County **BARTON** State **KANSAS**

Location: API #: 15-009-26153-00-00

Other Services

SEC 13 TWP 19S RGE 13W
1460' FNL & 560' FWL

CNL/CDL
DIL/BHCS

Permanent Datum GROUND LEVEL Elevation 1890'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1898'
D.F. N/A
G.L. 1890'

Date 10/6/2016

Run Number	TWO	
Depth Driller	3490'	
Depth Logger	3492'	
Bottom Logged Interval	3491'	
Top Log Interval	2700'	
Casing Driller	8.625" @ 320'	
Casing Logger	321'	
Bit Size	7.875"	
Type Fluid in Hole	CHEMICAL	
Salinity, ppm CL	6000	
Density / Viscosity	9.4 48	
pH / Fluid Loss	9.5 9.2	
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	0.56 @ 68	
Rmt @ Meas. Temp	0.42 @ 68	
Rmc @ Meas. Temp	0.76 @ 68	
Source of Rmt / Rmc	CHARTS	
Rm @ BHT	0.34 @ 111	
Operating Rig Time	5 HOURS	
Max Rec. Temp. F	111	
Equipment Number	91	
Location	COLBY	
Recorded By	D. SCHMIDT	
Witnessed By	WYATT URBAN	

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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.

GREAT BEND,
NORTH ON HWY 281 TO 30 RD,
2 1/2 EAST TO 30 AVE, 1/2 SOUTH,
EAST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

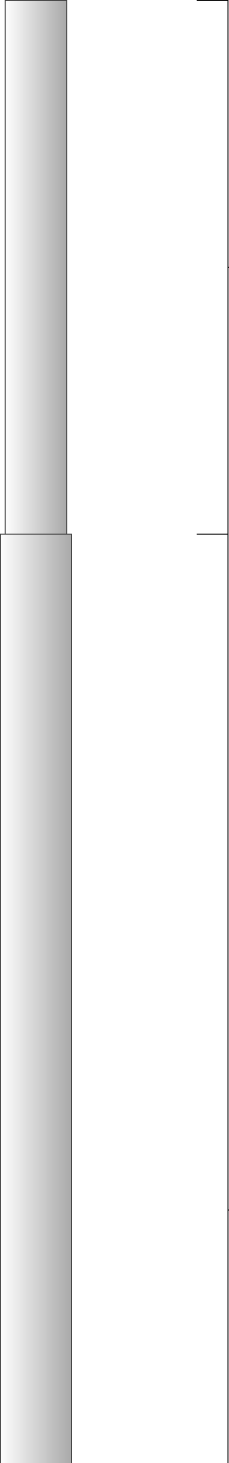
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: WYATT URBAN
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	-138	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	68	0	5.5	0	3491	111	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	8.08		GR-M&W (89)	3.00	3.50	50.00
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00

MCAL 1.33
MI 1.33
MN 1.33

Dataset: rjm_fury farms_1.db: field/well/MEL/pass2
Total length: 10.58 ft
Total weight: 115.00 lb
O.D.: 4.00 in

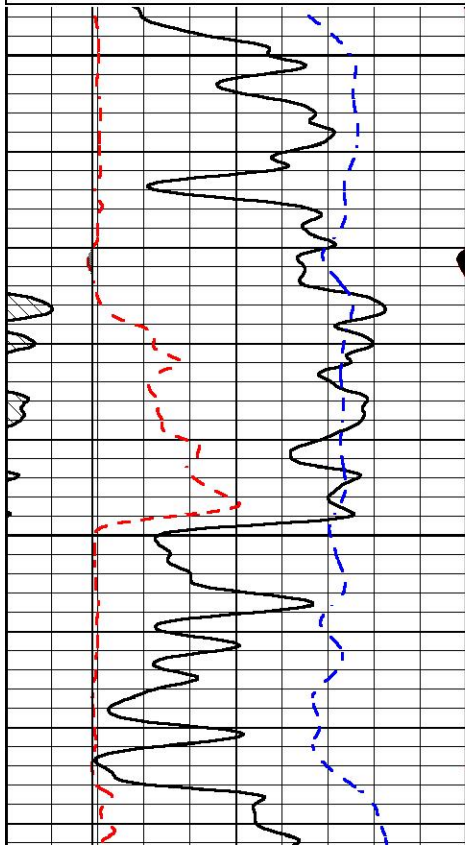


MAIN PASS

Database File rjm_fury farms_1.db
Dataset Pathname STACK/pass4.1
Presentation Format micro
Dataset Creation Thu Oct 06 07:17:29 2016
Charted by Depth in Feet scaled 1:240

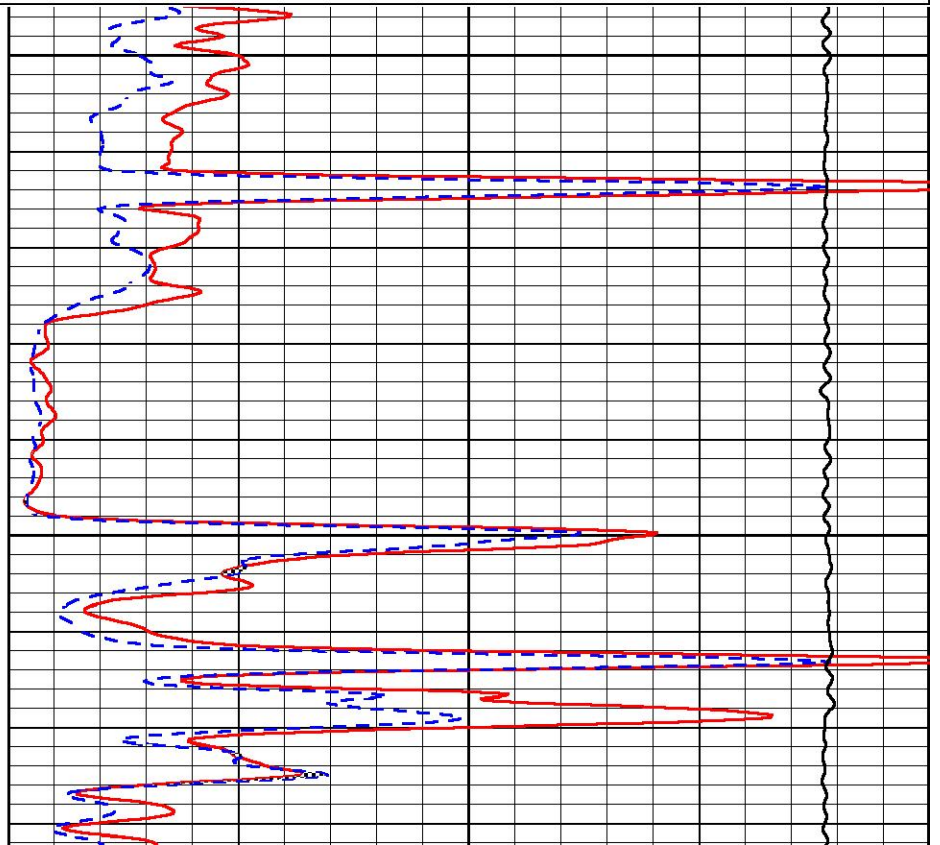
0	Gamma Ray (GAPI)	200
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

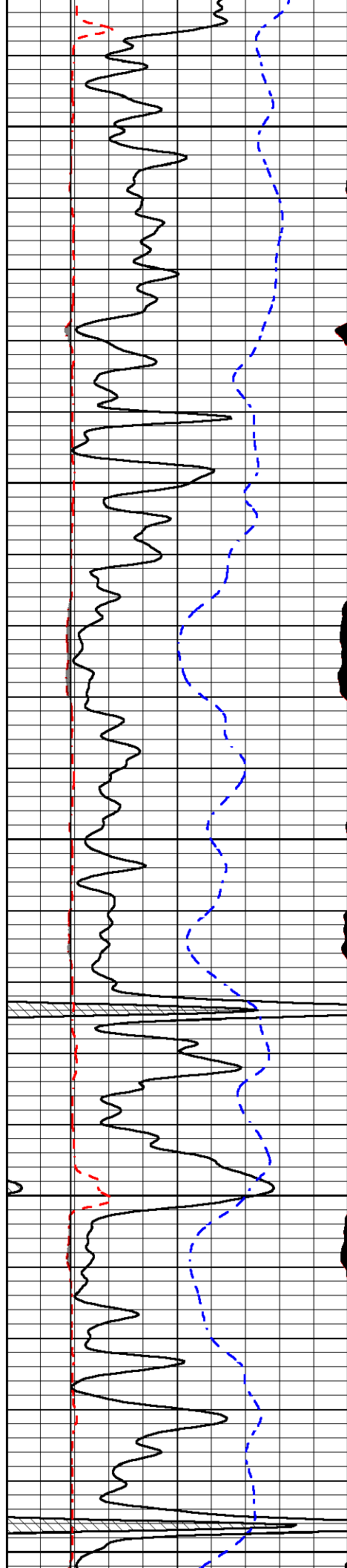
0	Micro Inverese 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2700

2750





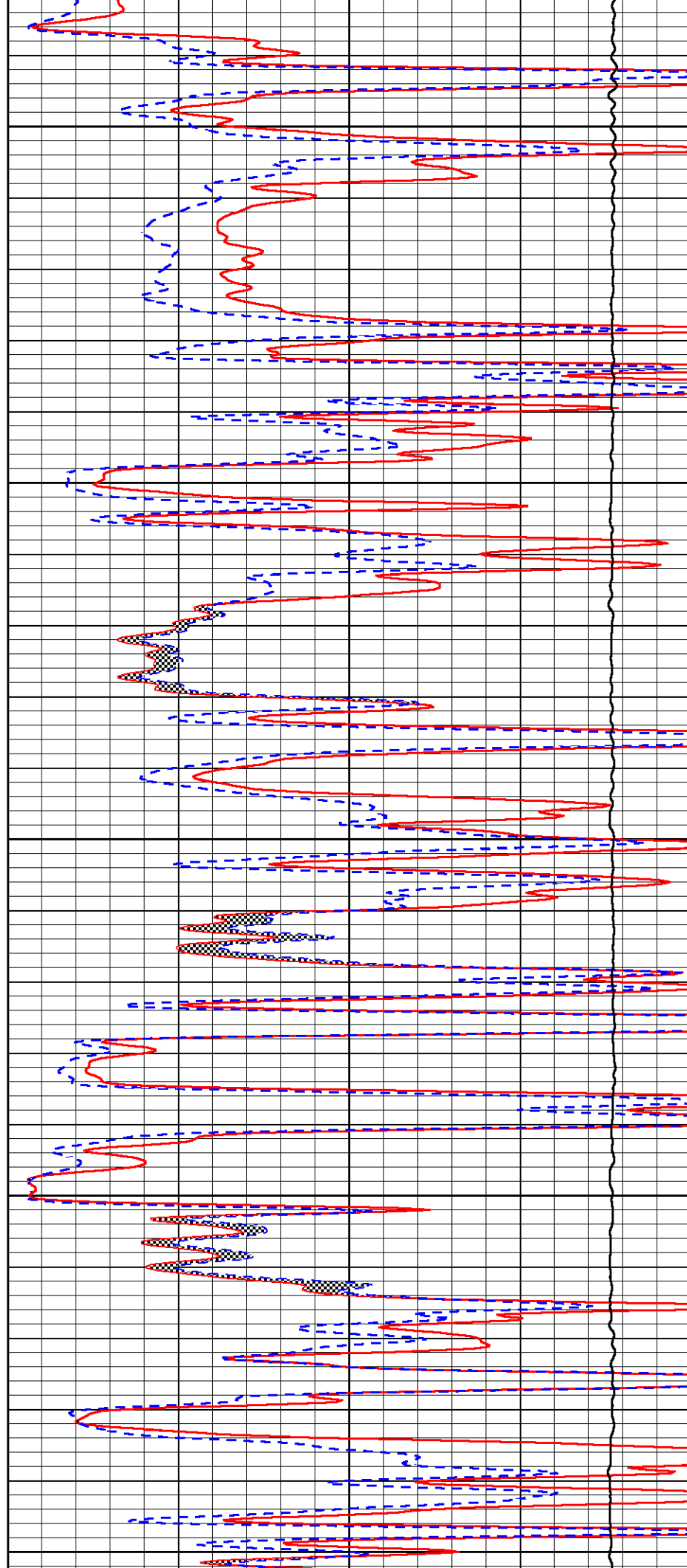
2800

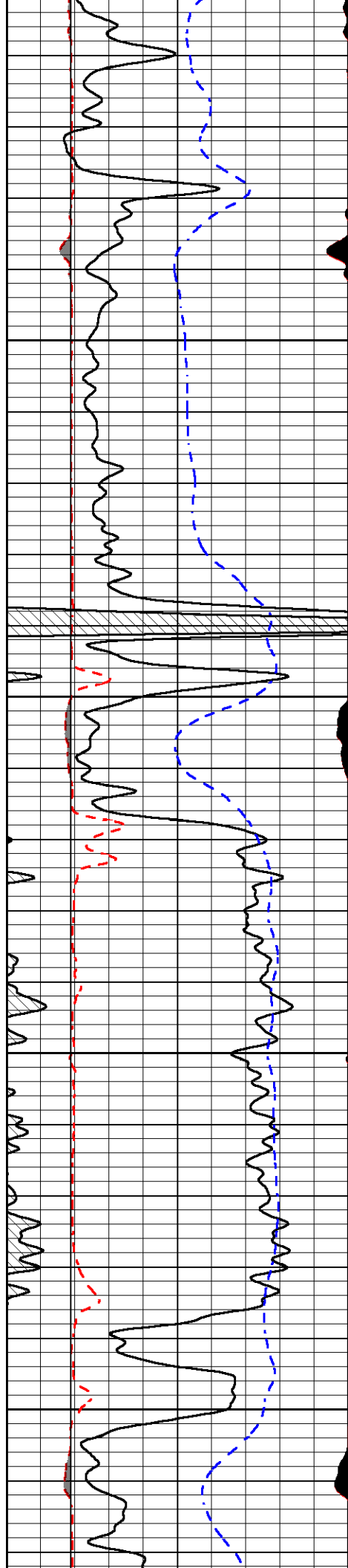
2850

2900

2950

3000



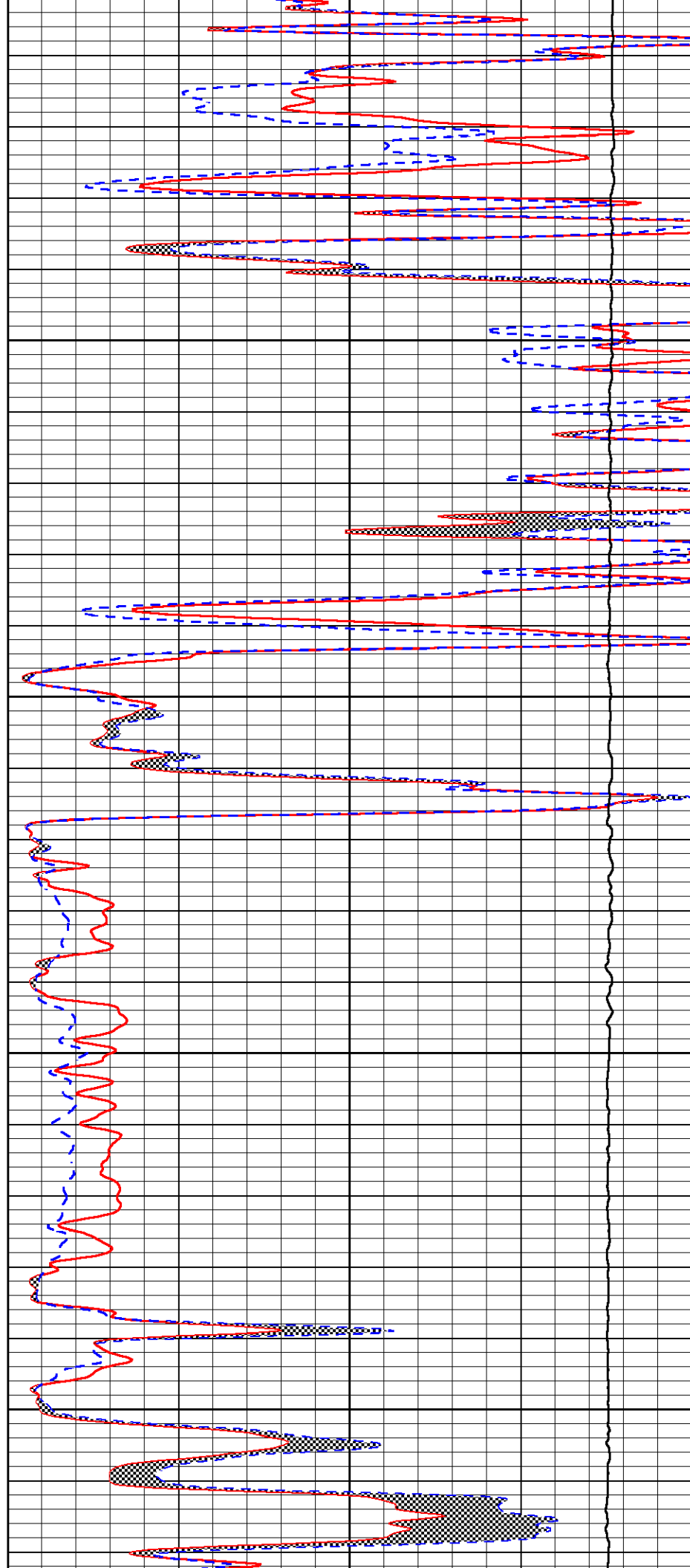


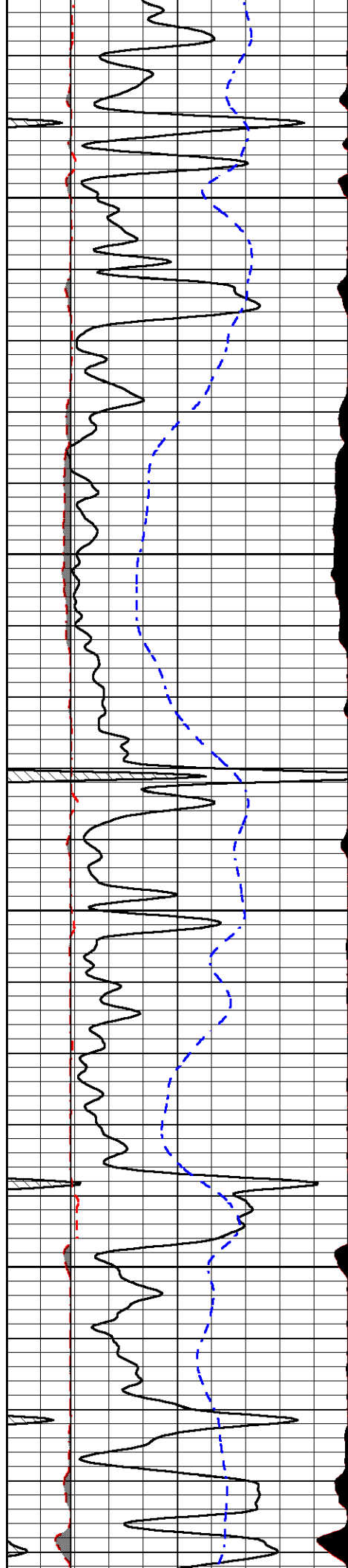
3050

3100

3150

3200



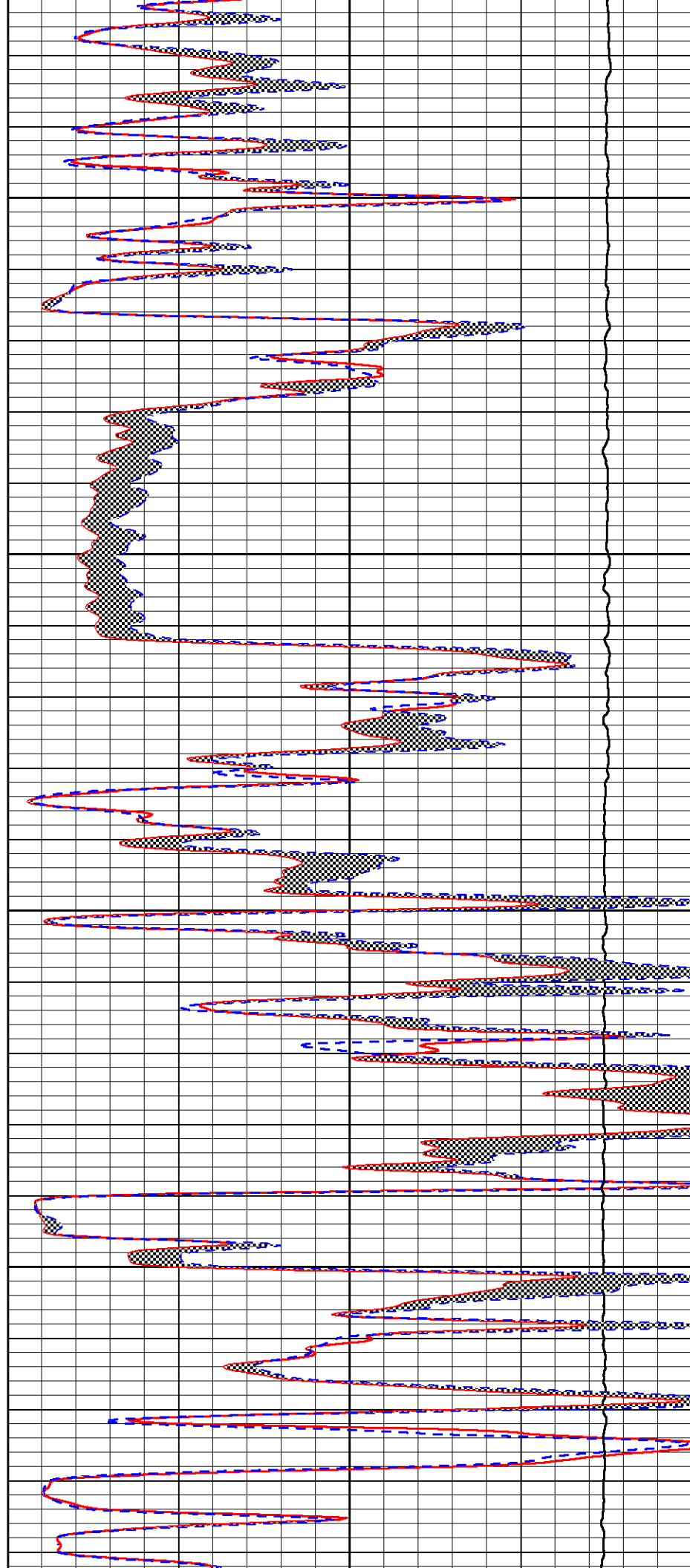


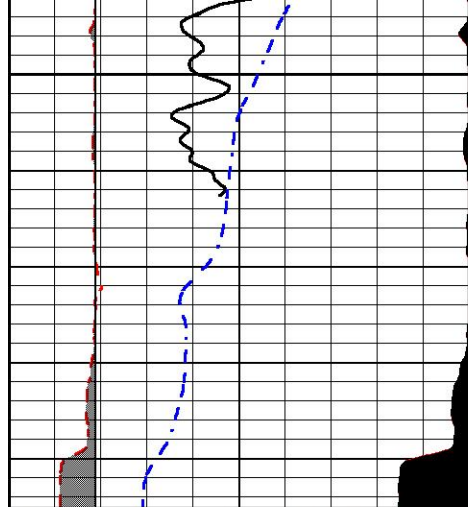
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3300

3350

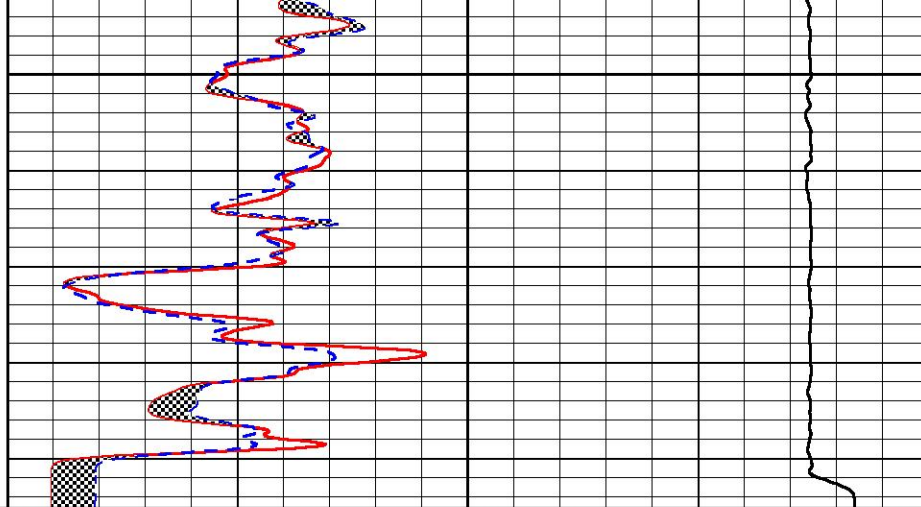
3400





3450

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



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

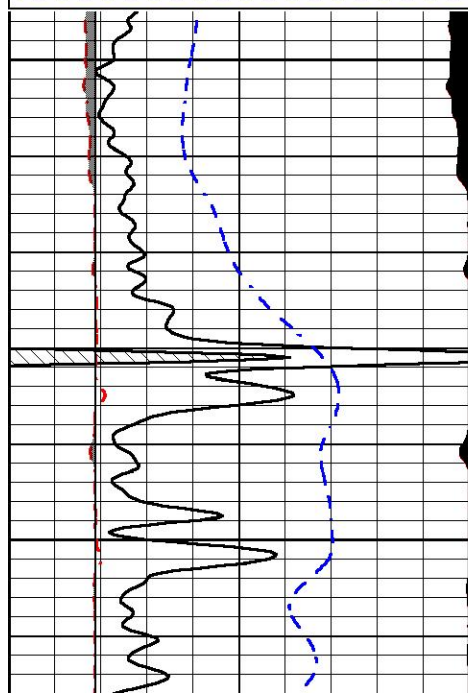


REPEAT SECTION

Database File rjm_fury farms_1.db
 Dataset Pathname STACK/pass2.3
 Presentation Format micro
 Dataset Creation Thu Oct 06 06:58:44 2016
 Charted by Depth in Feet scaled 1:240

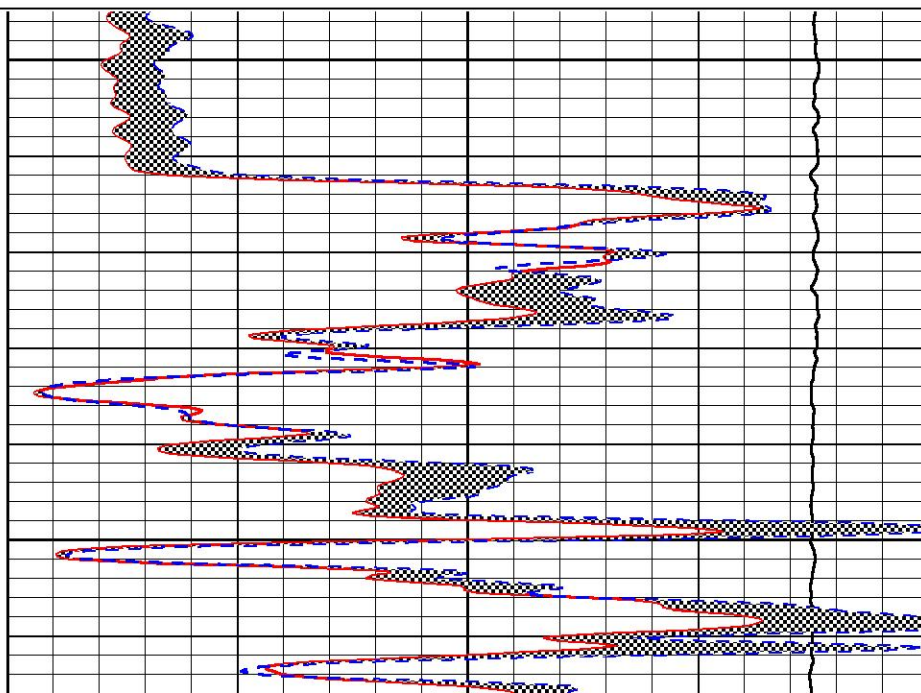
0	Gamma Ray (GAPI)	200
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

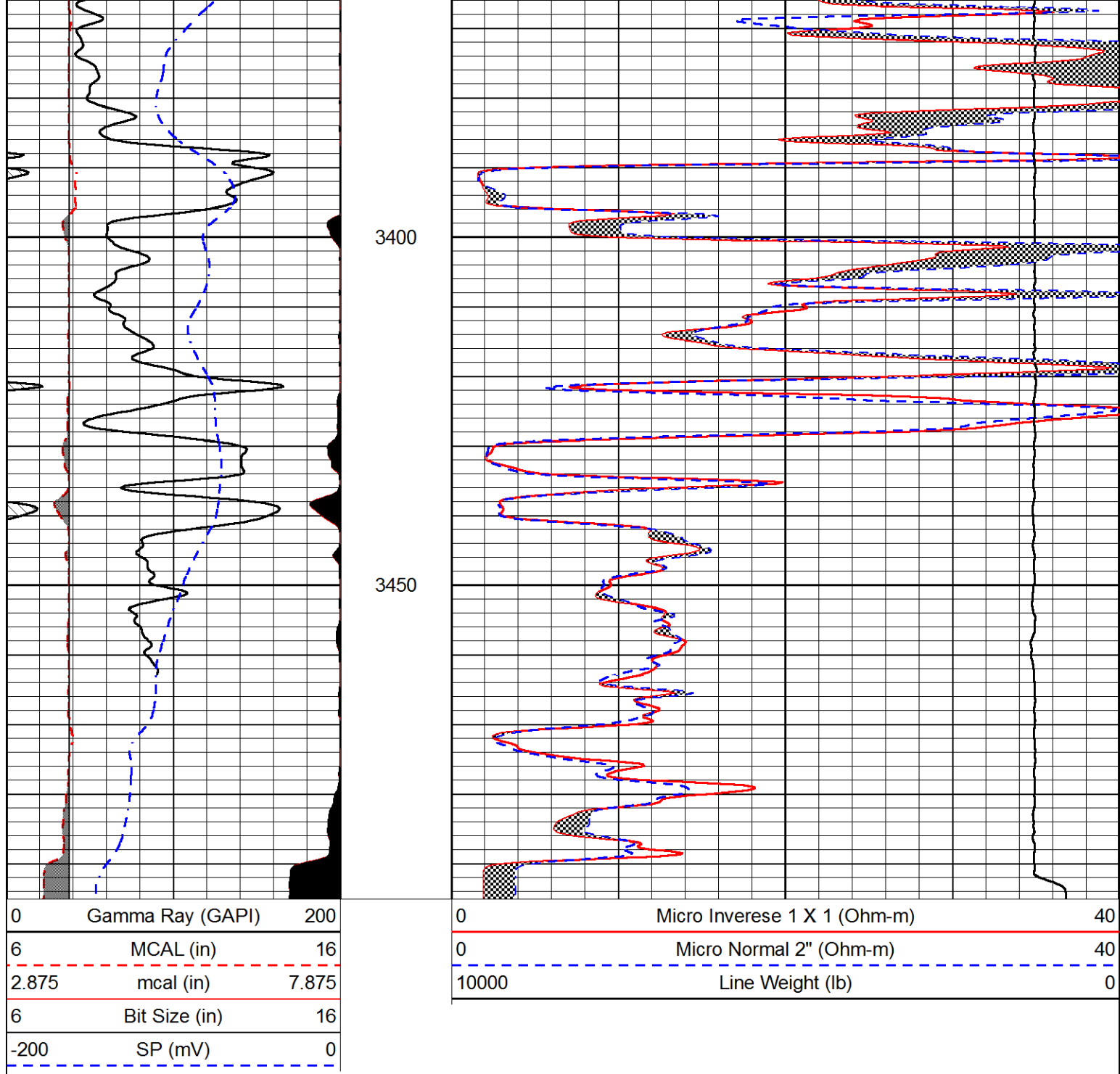
0	Micro Inverese 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



3300

3350





Calibration Report

Database File rjm_fury farms_1.db
 Dataset Pathname STACK/pass4.1
 Dataset Creation Thu Oct 06 07:17:29 2016

Dual Induction Calibration Report

Serial-Model: PSI 13-M&W
 Calibration Performed: Thu Oct 06 06:17:37 2016

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-29.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.370	-29.000

Compensated Density Calibration Report					
Serial-Model:		90-1031-M&W			
Source / Verifier:		16955B / 2ci			
Master Calibration Performed:		Thu Sep 29 18:47:07 2016			
Master Calibration					
	<u>Density</u>		<u>Far Detector</u>	<u>Near Detector</u>	
Magnesium	1.755	g/cc	5174.18	6425.27	cps
Aluminum	2.665	g/cc	963.17	4037.42	cps
Spine Angle = 74.55			Density/Spine Ratio = 0.522		
	<u>Size</u>		<u>Reading</u>		
Small Ring	6.00	in	1.83		
Large Ring	16.00	in	1.48		

Compensated Neutron Calibration Report					
Serial Number:		207-MW			
Tool Model:		M&W			
Calibration Performed:		Wed Sep 28 10:30:30 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			
Tool Model:		M&W			
Calibration Performed:		Thu Sep 29 18:47:18 2016			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.6500	GAPI/cps		

Calibration Report	
Database File	rjm_fury farms_1.db
Dataset Pathname	MEL/pass2
Dataset Creation	Thu Oct 06 09:34:30 2016

Microlog Calibration Report							
Serial-Model:		PSI-01-PSIML					
Performed:		Thu Sep 29 18:47:00 2016					
		Readings		References		Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	23000.0000	-0.6000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	29500.0000	-0.5000
Caliper	1.0001	1.1397	6.5000	18.5000	in	70.0000	-65.7500

Gamma Ray Calibration Report

Serial Number:	89	
Tool Model:	M&W	
Calibration Performed:	Thu Sep 29 18:47:18 2016	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps



Company	RJM COMPANY
Well	FURY FARMS #1
Field	UNKNOWN
County	BARTON
State	KANSAS