



# MICRORESISTIVITY

MIDWEST WIRELINE

Company Satchell Creek Petroleum LLC  
 Well Winchester A #5-22  
 Field Alda South  
 County Graham State Kansas

Location: API #: 15-065-24258-00-00  
 E2 NW/NW/SW  
 2310 FSL & 484 FWL  
 SEC 22 TWP 7S RGE 22W  
 Permanent Datum Ground Level Elevation 2270  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 CNL/CDL  
 DIL/BHCS  
 Elevation  
 K.B. 2277  
 D.F.  
 G.L. 2270

Date	6/19/2023
Run Number	One
Depth Driller	3841
Depth Logger	3835
Bottom Logged Interval	3834
Top Log Interval	3100
Casing Driller	8:25 @ 265
Casing Logger	262
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	900
Density / Viscosity	9.1 41
pH / Fluid Loss	10.5 6.0
Source of Sample	Flowline
Rm @ Meas. Temp	0.80 @ 74
Rmt @ Meas. Temp	0.60 @ 74
Rmc @ Meas. Temp	1.08 @ 74
Source of Rmf / Rmc	Charts
Rm @ BHT	0.52 @ 114
Operating Rig Time	4 Hours
Max Rec. Temp. F	114
Equipment Number	P-24
Location	Hays
Recorded By	T. Martin
Witnessed By	Sean Deenihan

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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.

Hill City, KS, 3 E to Rd 310, 3.5 N, E & S into

Log Measured From: Kelly Bushing 7 Ft. Above Permanent Datum

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

### Your Midwest Wireline Crew

Engineer: T. Martin  
 Operator:  
 Operator:  
 Operator:

### This Log Record Was Witnessed By

Primary Witness: Sean Deenihan  
 Secondary Witness:  
 Secondary Witness:  
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (207-MW)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (307-11)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (401)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (507)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: satchell\_winchester a #5-22.db: field/well/StkMI/pass3.1  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\satchell\_winchester a #5-22.db  
 Dataset field/well/StkMI/pass3.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	114	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	-5	-2.5	20	70	Off	3835

## 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



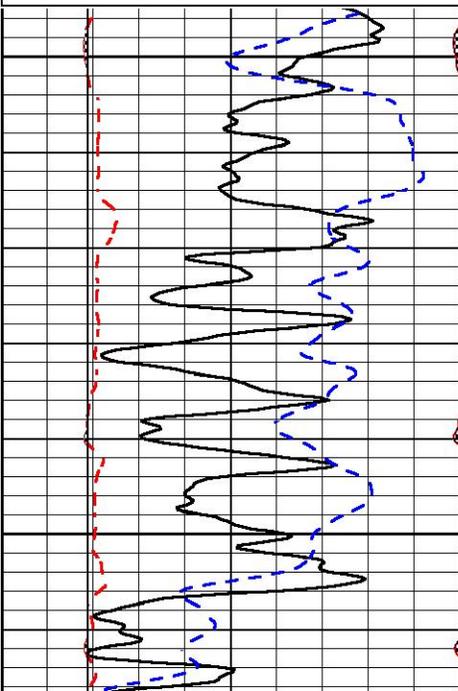
## DETAIL SECTION

### MAIN PASS

Database File satchell\_winchester a #5-22.db  
 Dataset Pathname StkMI/pass3.1  
 Presentation Format \_micro  
 Dataset Creation Mon Jun 19 04:36:21 2023  
 Charted by Depth in Feet scaled 1:240

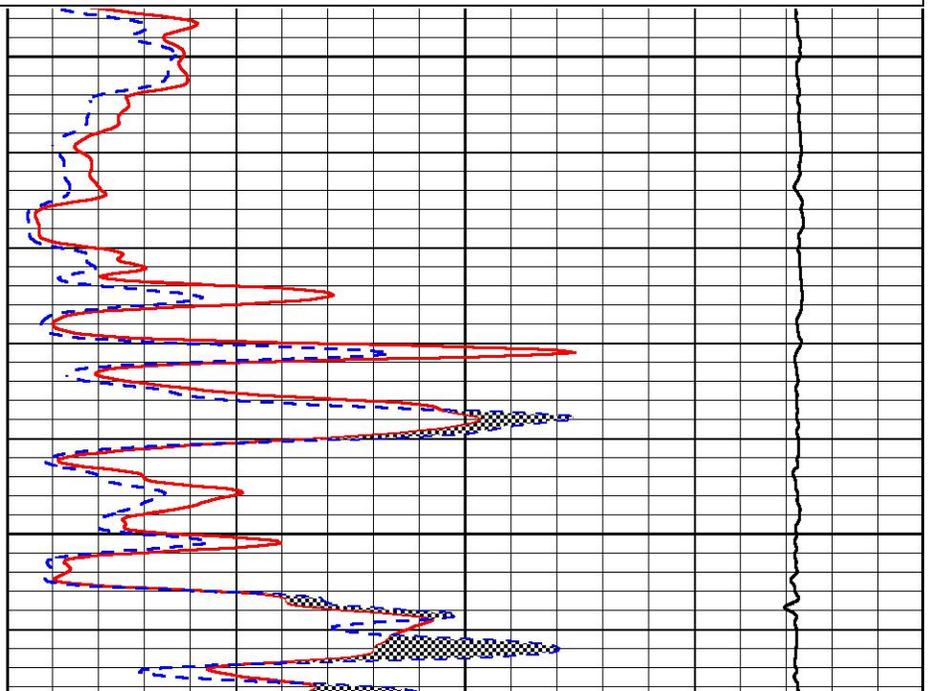
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-200	sp (mV)	0

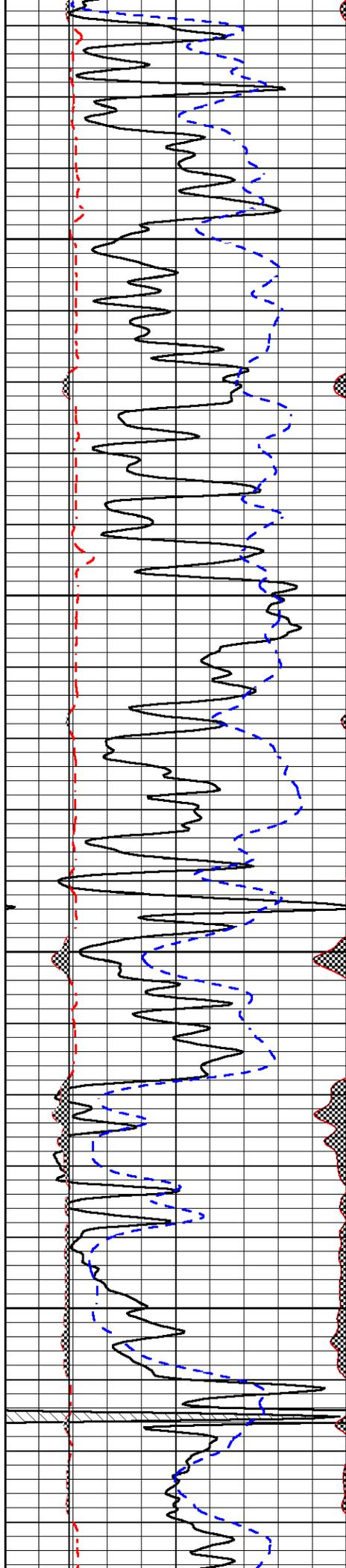
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



3100

3150



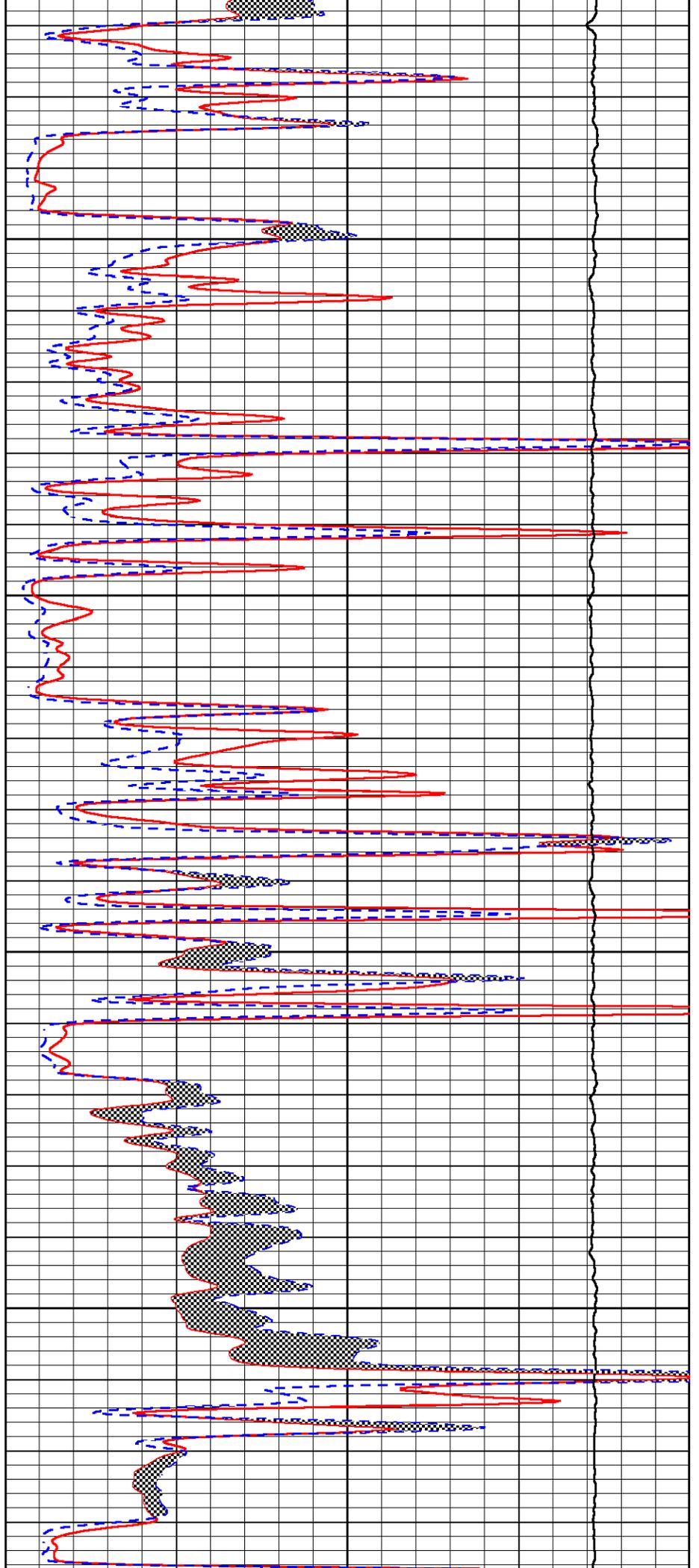


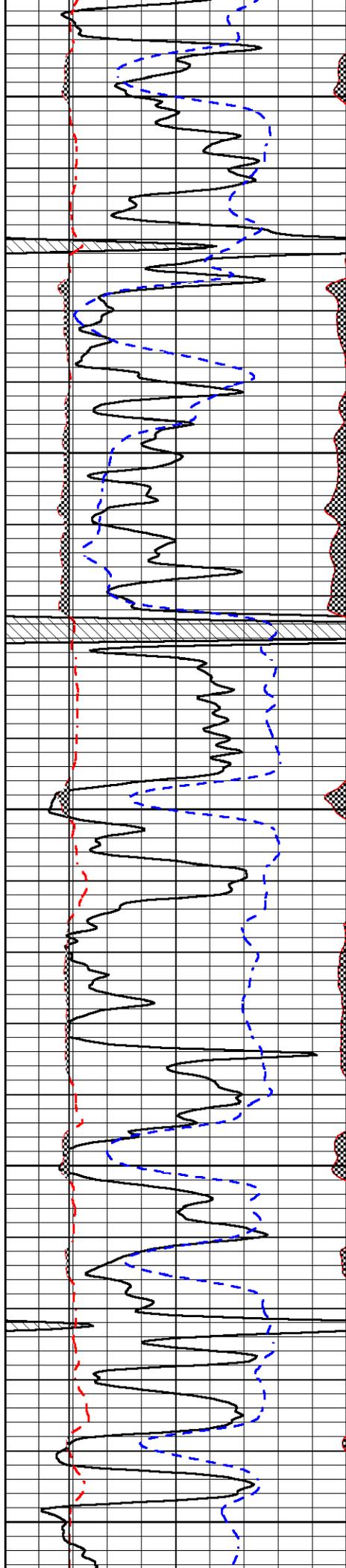
3200

3250

3300

3350





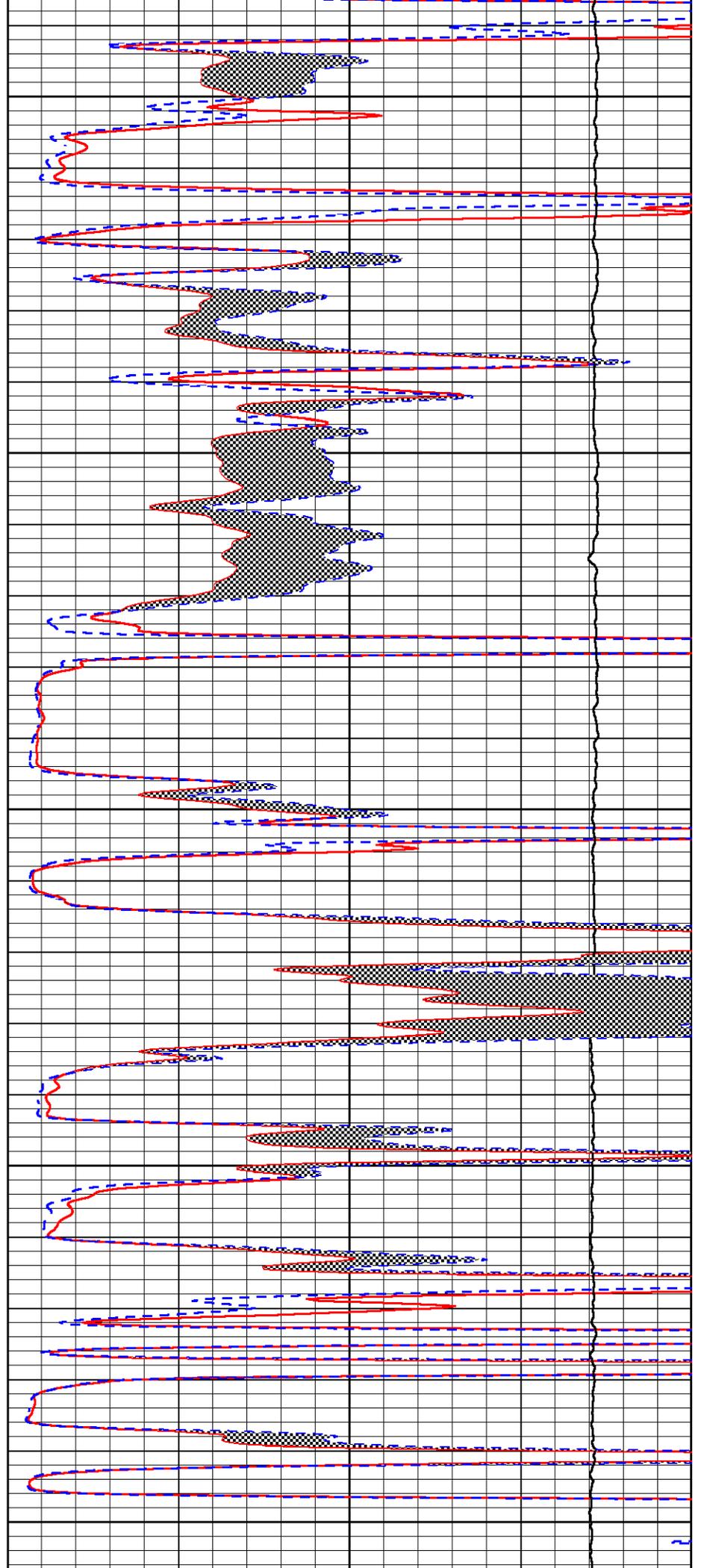
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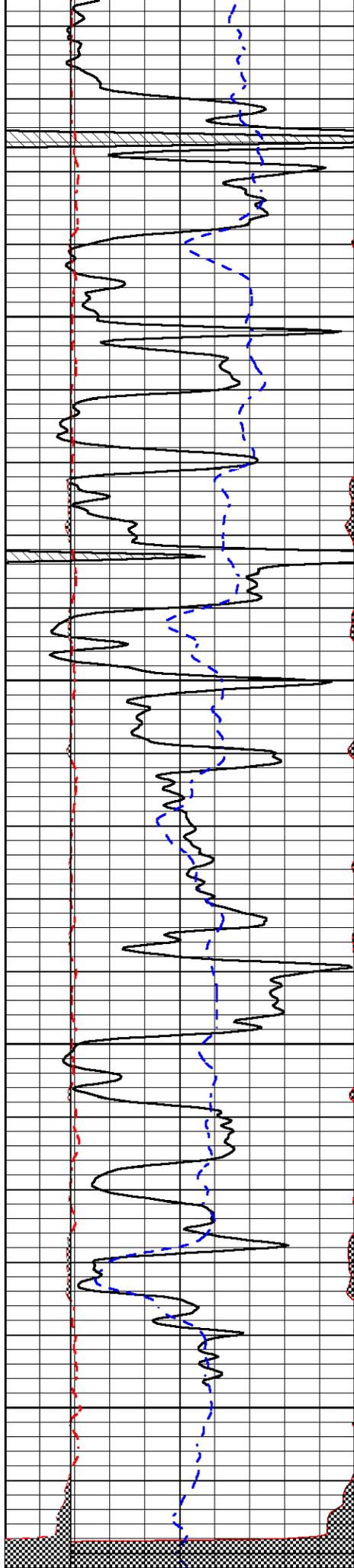
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3500

3550

3600



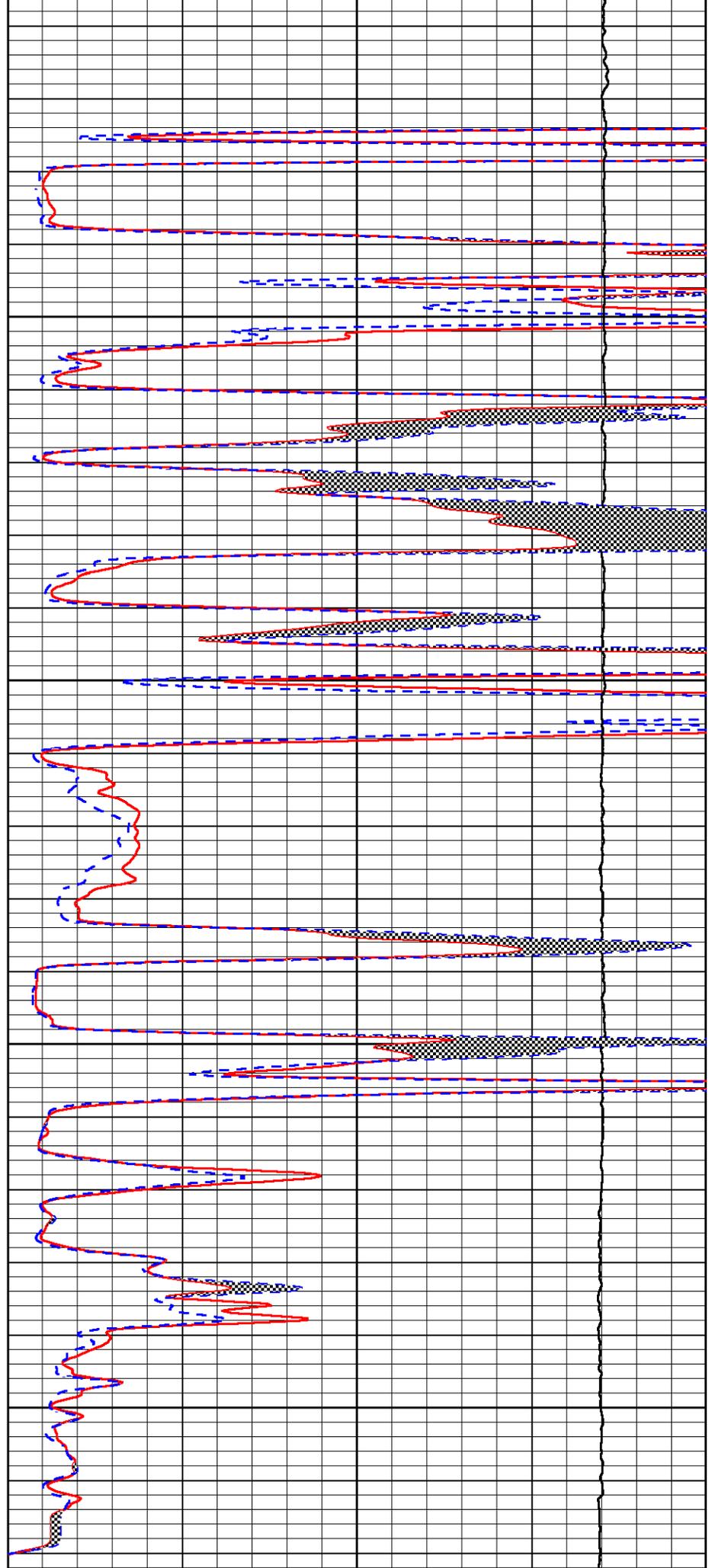


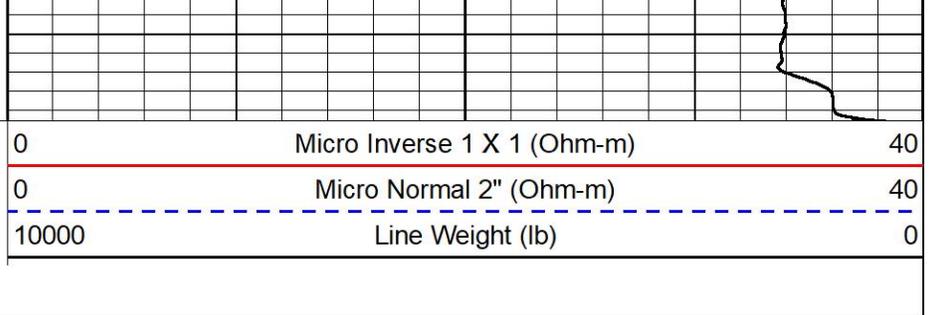
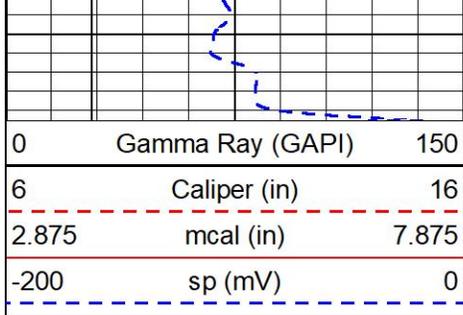
3650

3700

3750

3800



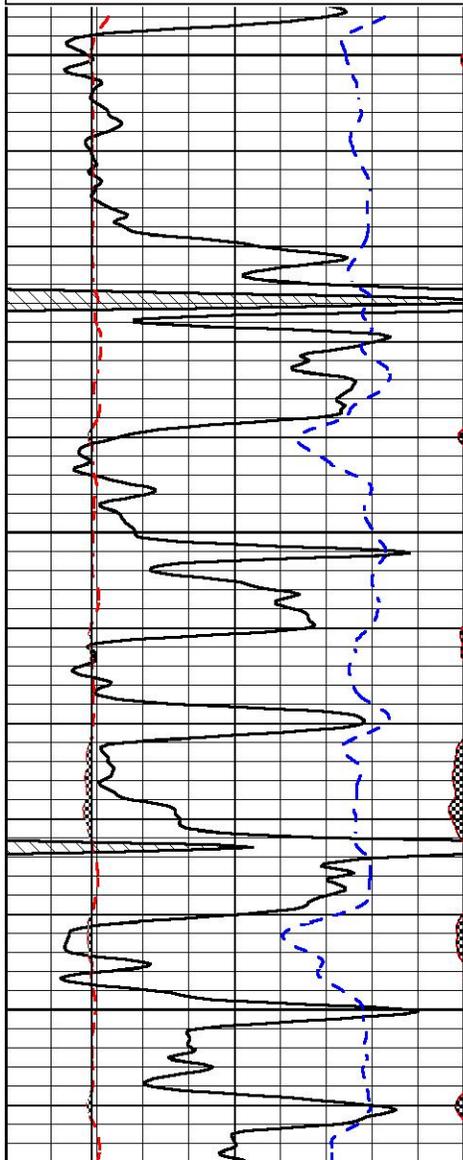
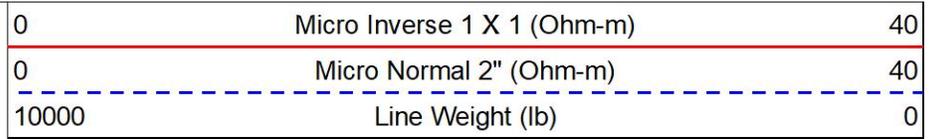
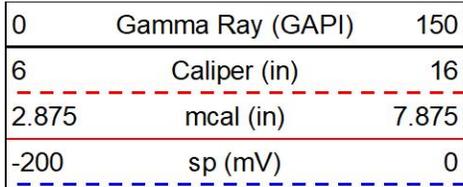


MIDWEST WIRELINE

# REPEAT SECTION

## REPEAT PASS

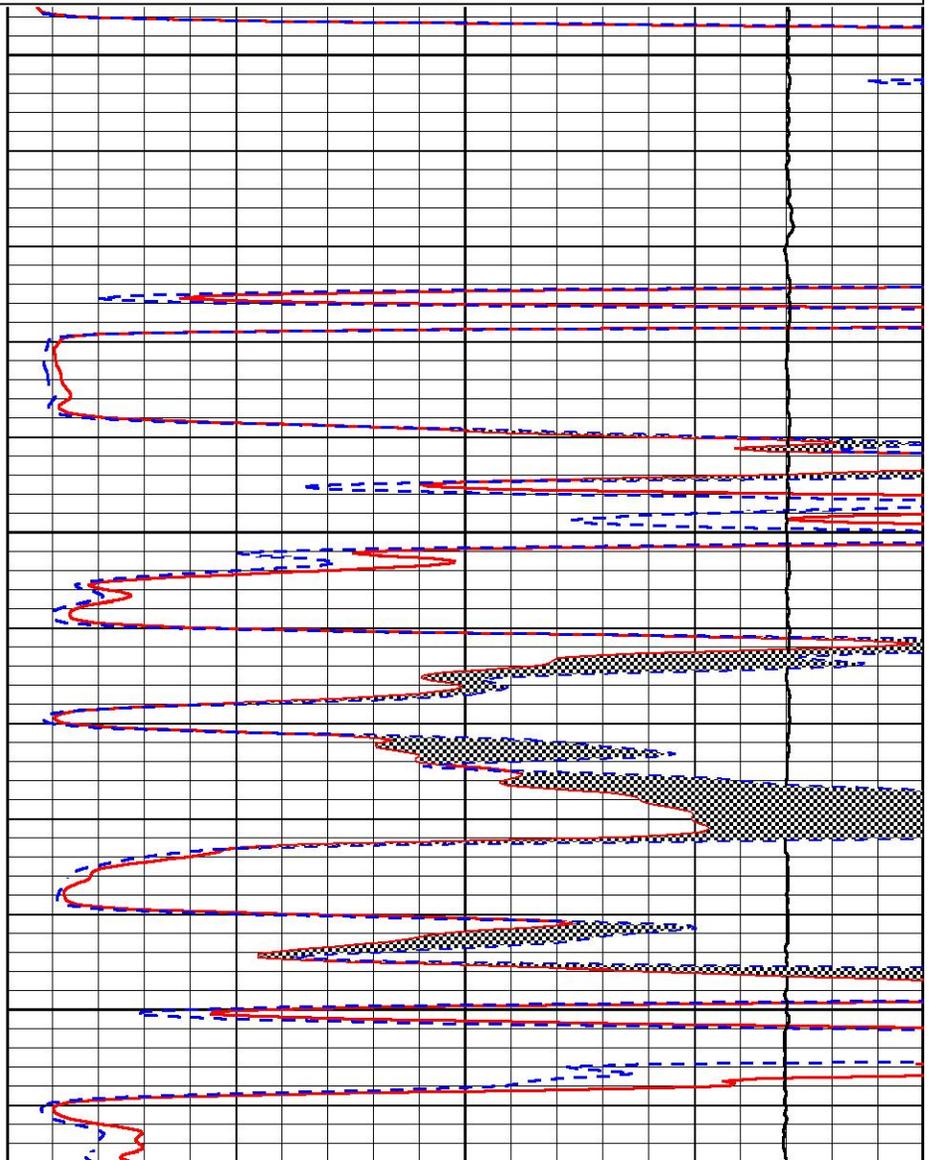
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 Dataset Pathname    StkMI/pass2.1  
 Presentation Format    \_micro  
 Dataset Creation      Mon Jun 19 03:59:45 2023  
 Charted by            Depth in Feet scaled 1:240

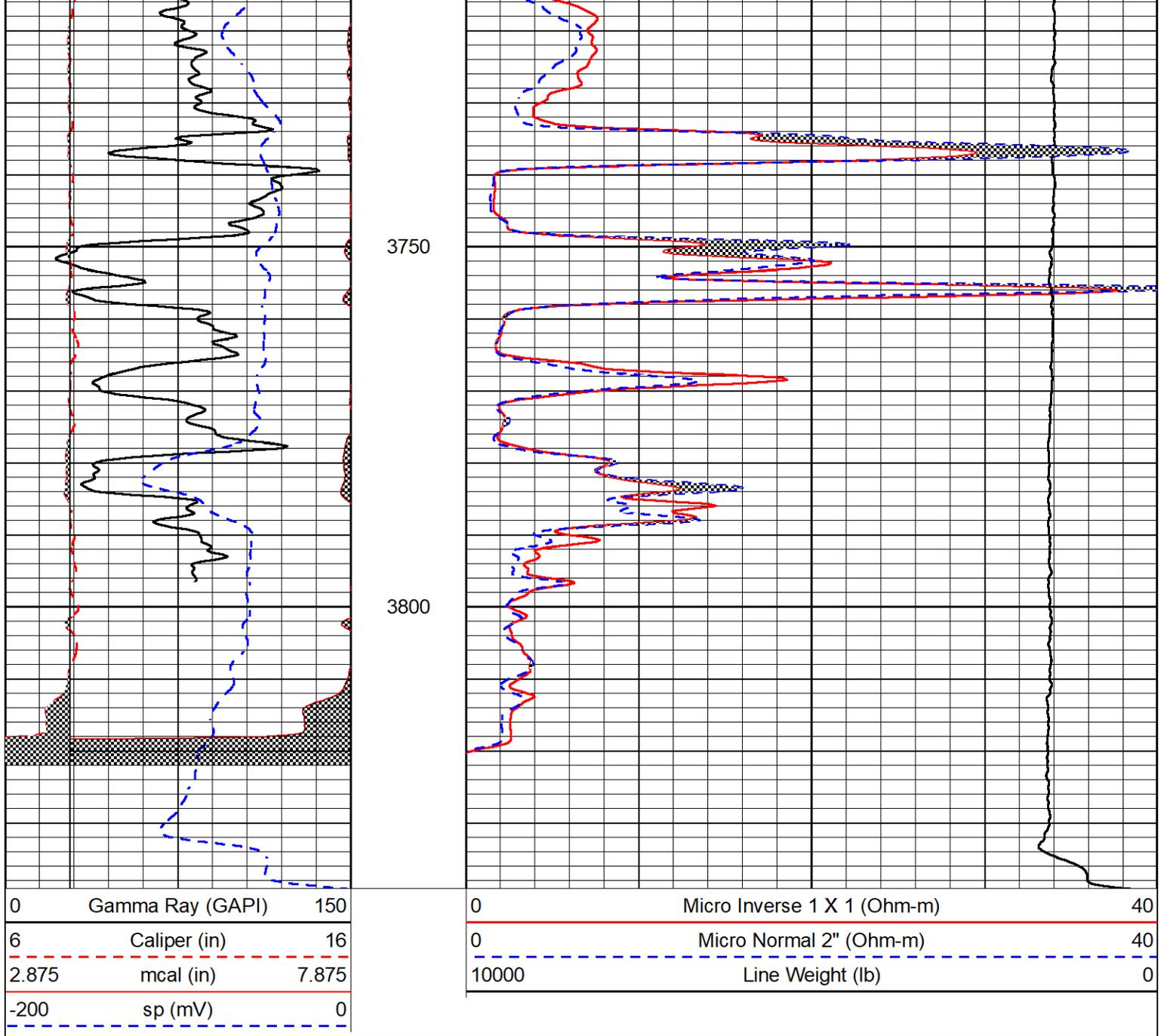


3600

3650

3700





### Calibration Report

Database File satchell\_winchester a #5-22.db  
 Dataset Pathname StkMI/pass3.1  
 Dataset Creation Mon Jun 19 04:36:21 2023

### Dual Induction Calibration Report

Serial-Model: 507-M&W  
 Surface Cal Performed:

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	m	b
Deep	67.445	566.296	0.000	255.800	mmho/m	0.450	-30.000
Medium	192.026	839.715	0.000	255.800	mmho/m	0.420	-84.000

### Microlog Calibration Report

Serial-Model: 401-DSMI

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	9000.0000	-0.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	9000.0000	-0.2500
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-138.9500

Compensated Density Calibration Report

Serial-Model: 307-11-M&W  
 Source / Verifier: 20762B / 2ci  
 Master Calibration Performed: Tue Jun 6 21:48:20 2023  
 Before Survey Verification Performed:  
 After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3689.70	4749.82	cps
Aluminum	2.590	g/cc	822.19	3221.38	cps
Spine Angle = 75.50			Density/Spine Ratio = 0.538		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

Before Survey Verification

Target	Measured
g/cc	g/cc
g/cc	g/cc
g/cc	g/cc

After Survey Verification

Target	Measured
g/cc	g/cc
g/cc	g/cc
g/cc	g/cc

Compensated Neutron Calibration Report

Serial Number: 207-MW  
 Tool Model: M&W

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

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		

	Long Space	cps	pu
3)	Short Space	cps	
	Long Space	cps	pu

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	105	
Tool Model:	M&W	
Performed:	Fri Dec 3 15:10:46 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.5500	GAPI/cps



<b>Company</b>	Satchell Creek Petroleum LLC
<b>Well</b>	Winchester A #5-22
<b>Field</b>	Alda South
<b>County</b>	Graham
<b>State</b>	Kansas