



MICRORESISTIVITY

MIDWEST WIRELINE

Company Satchell Creek Petroleum LLC
 Well Worcester A #11-21
 Field Alda South
 County Graham State Kansas

Location: API #: 15-065-24267-00-00
 SW NW SE SE
 667 FSL & 1310 FEL
 SEC 21 TWP 7S RGE 22W
 Permanent Datum Ground Level Elevation 2268
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 DIL/BHCS
 Elevation
 K.B. 2275
 D.F.
 G.L. 2268

Date	7/14/2023
Run Number	Two
Depth Driller	3849
Depth Logger	3850
Bottom Logged Interval	3849
Top Log Interval	3100
Casing Driller	8:625 @ 222
Casing Logger	221
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	1500
Density / Viscosity	9.5 60
pH / Fluid Loss	10.0 6.8
Source of Sample	Flowline
Rm @ Meas. Temp	0.75 @ 76
Rmt @ Meas. Temp	0.56 @ 76
Rmc @ Meas. Temp	1.01 @ 76
Source of Rmf / Rmc	Charts
Rm @ BHT	0.5 @ 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, E to 310 Rd, 2.5 N, W into @ TB

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)
MCAL MI MN	25.50 25.50 25.50		ML-Pengo (Pengo1)	5.50	3.50	100.00
			CENT-PENGO (4-PENGO)	4.25	3.00	70.00
WVF4 WVF1	12.25 12.25		SLT-PENGO (601) 3 1/2 BHC Sonic	16.00	3.50	300.00
WVF3 WVF2	10.25 10.25					
			CENT-PENGO (3-PENGO)	4.25	3.00	70.00

Dataset: satchell_worcester a #11-21.db: field/well/SonMel/pass3.1
 Total length: 30.00 ft
 Total weight: 540.00 lb
 O.D.: 3.50 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\satchell_worcester a #11-21.db
 Dataset field/well/Stack/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 114	CASEOD in 5.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m 0	SNDERRM mmho/m 0	SPSHIFT mV 120	SRFTEMP degF 80	SZCOR Off	TDEPTH ft 3850		

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 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



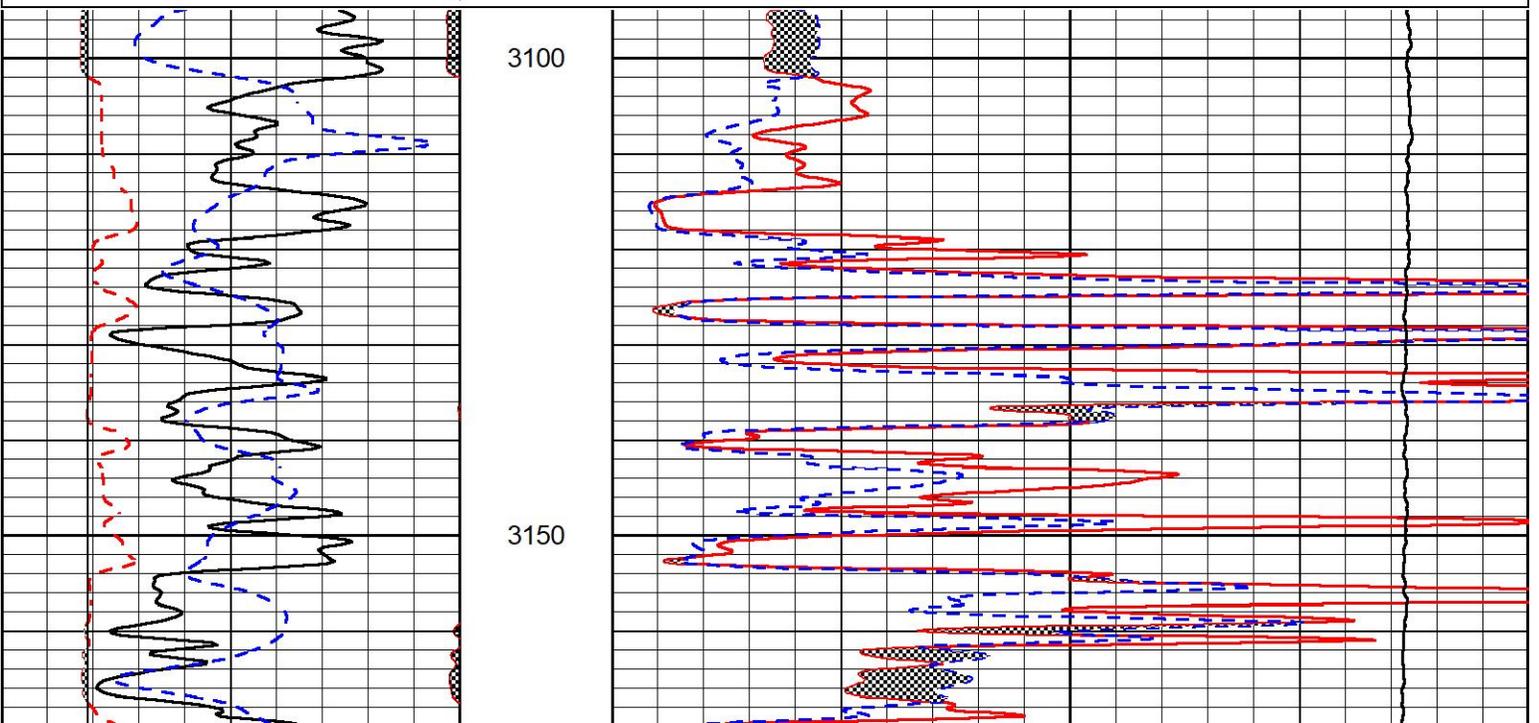
DETAIL SECTION

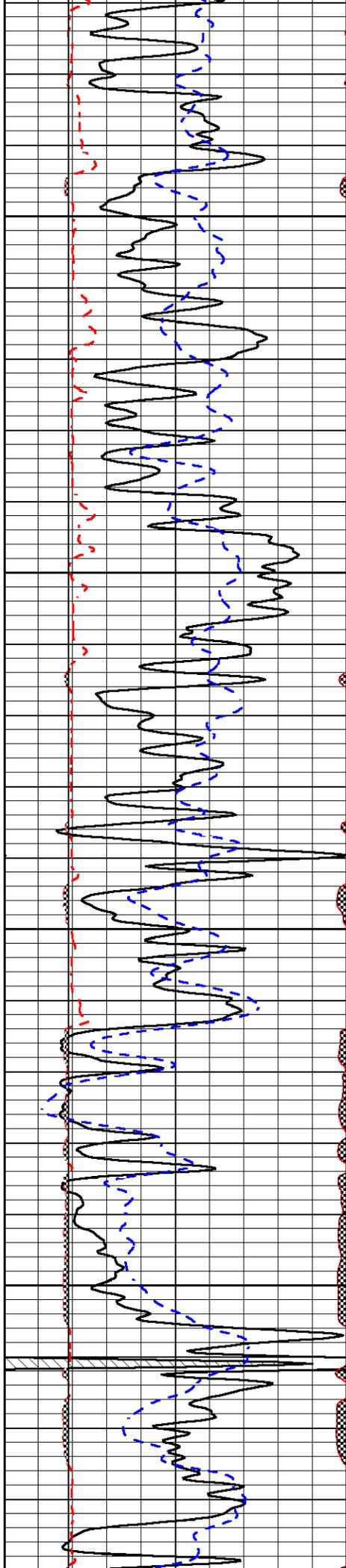
MAIN PASS

Database File satchell_worcester a #11-21.db
 Dataset Pathname Stack/pass3.1
 Presentation Format _micro
 Dataset Creation Fri Jul 14 14:02:44 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



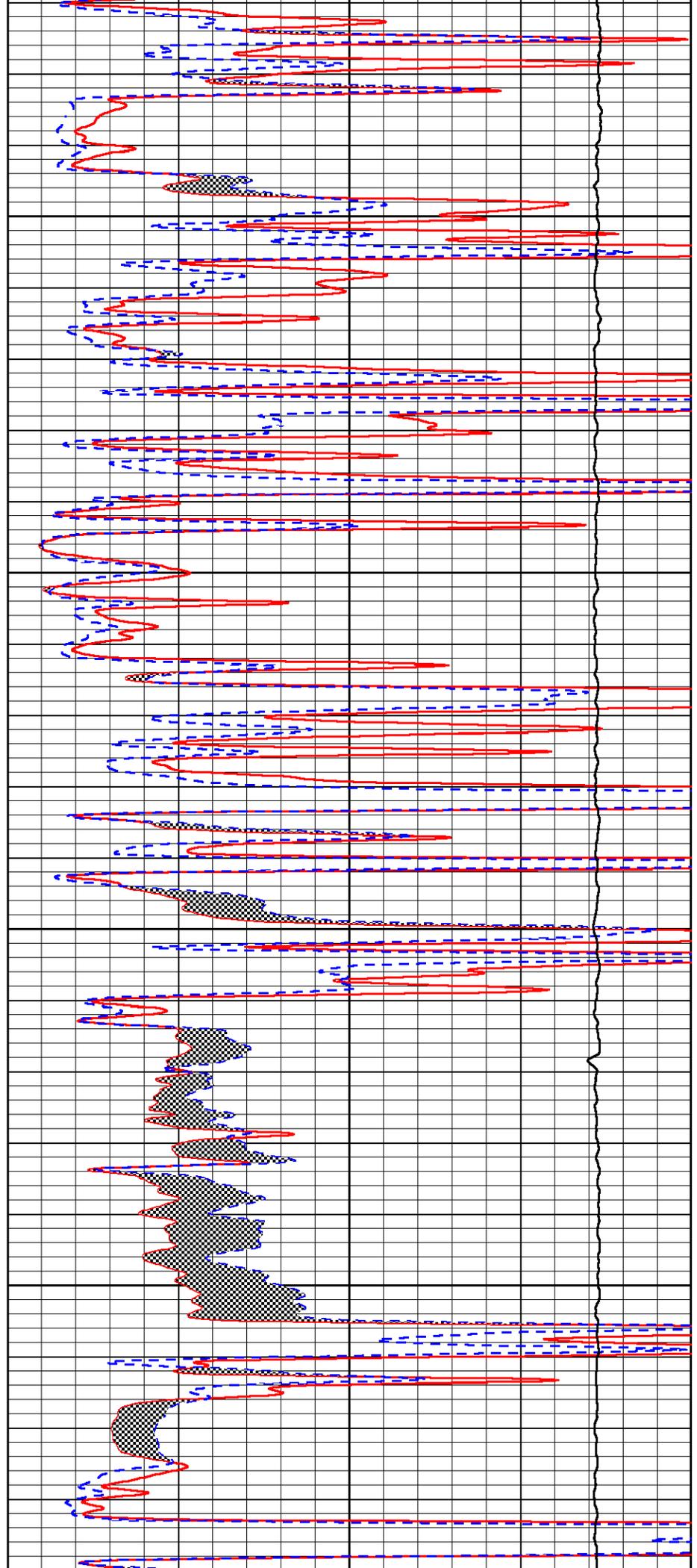


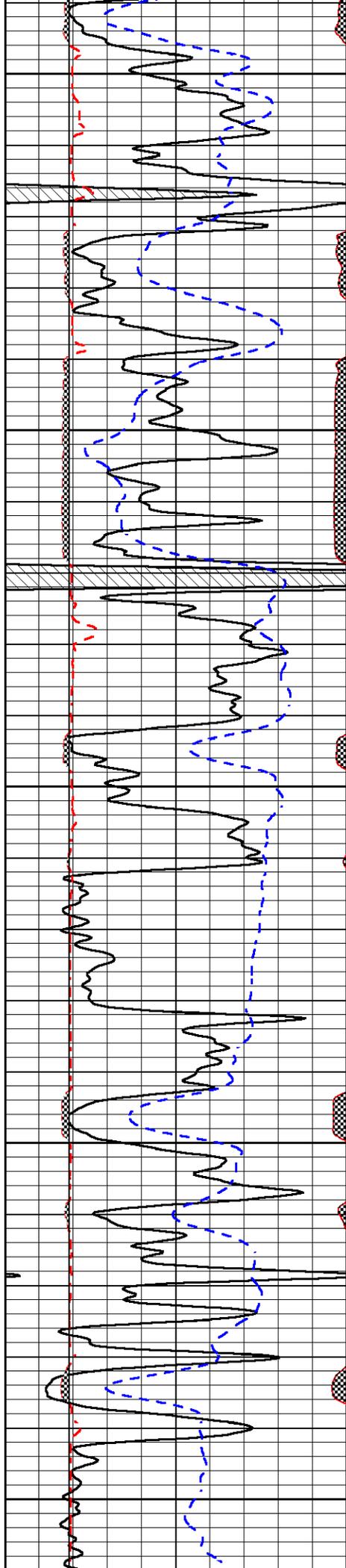
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3250

3300

3350





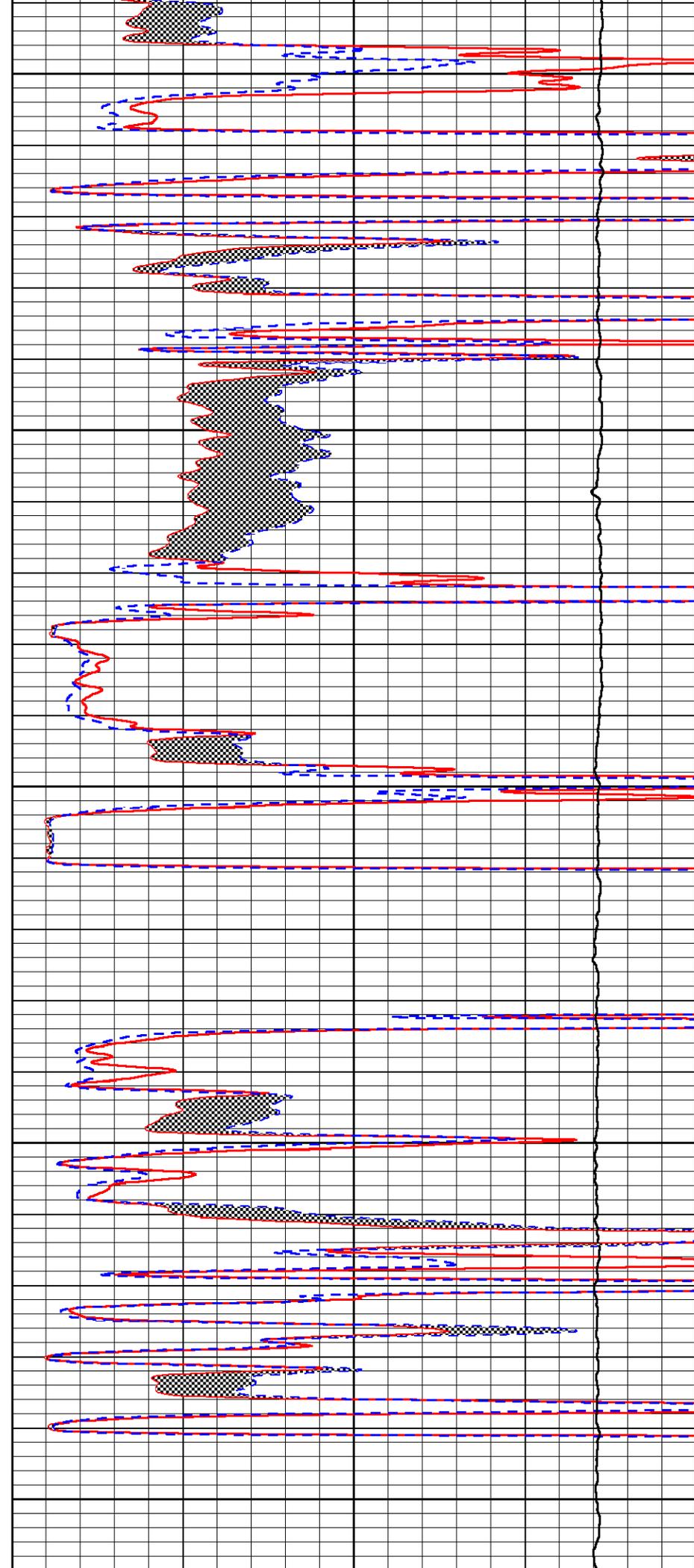
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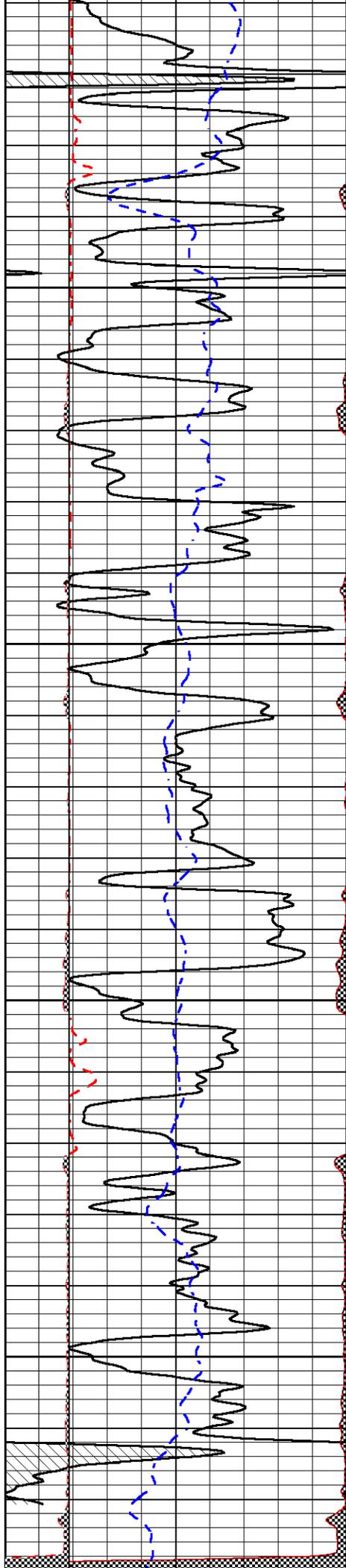
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3500

3550

3600



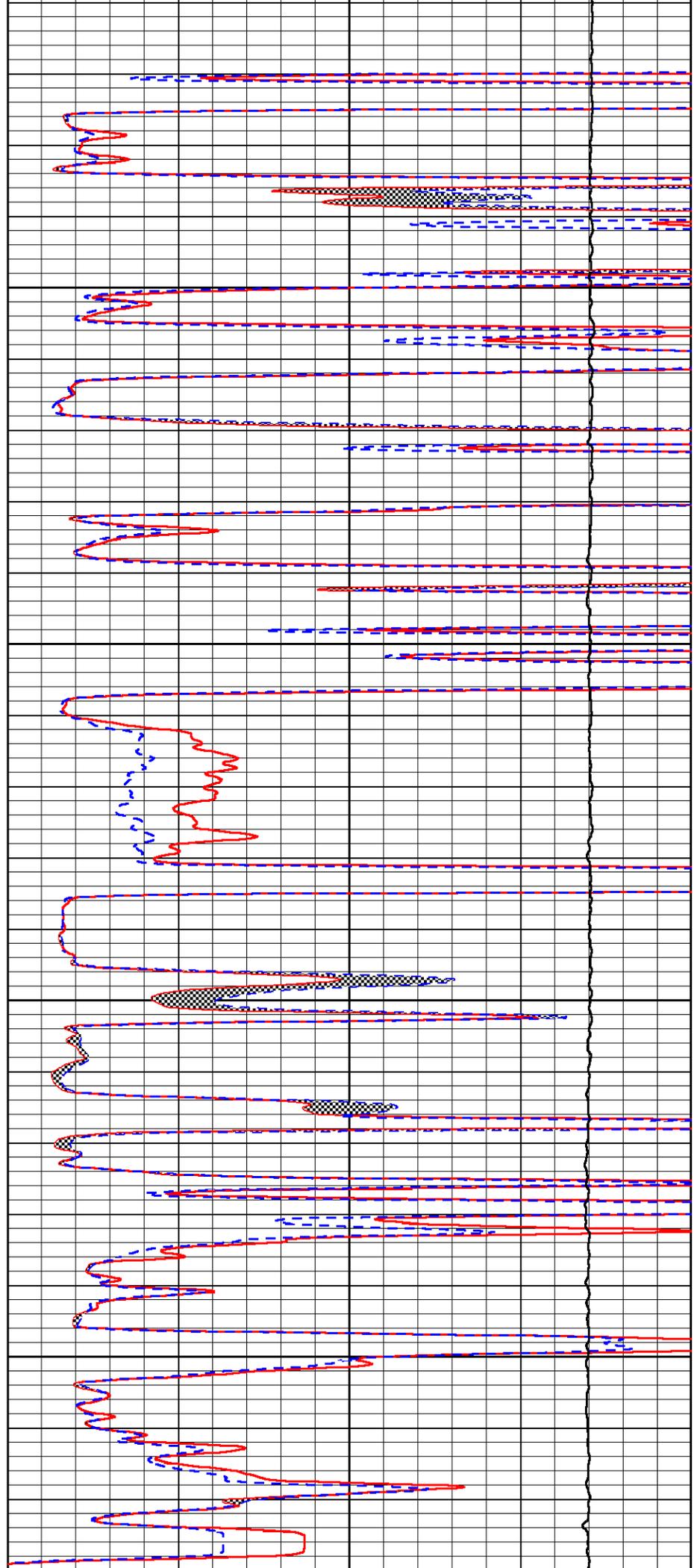


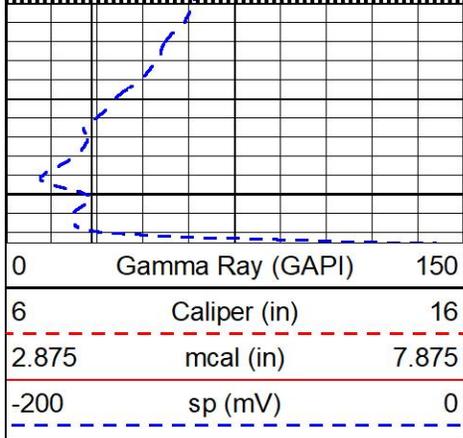
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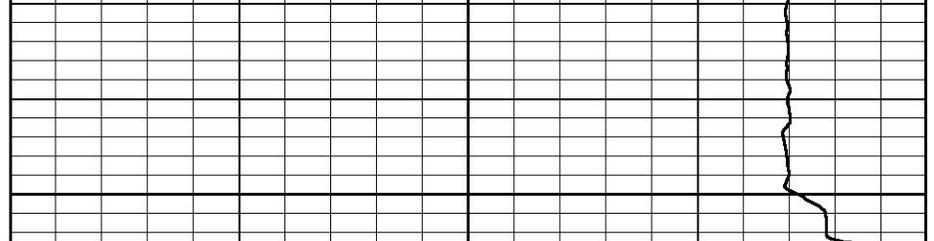
3750

3800





3850



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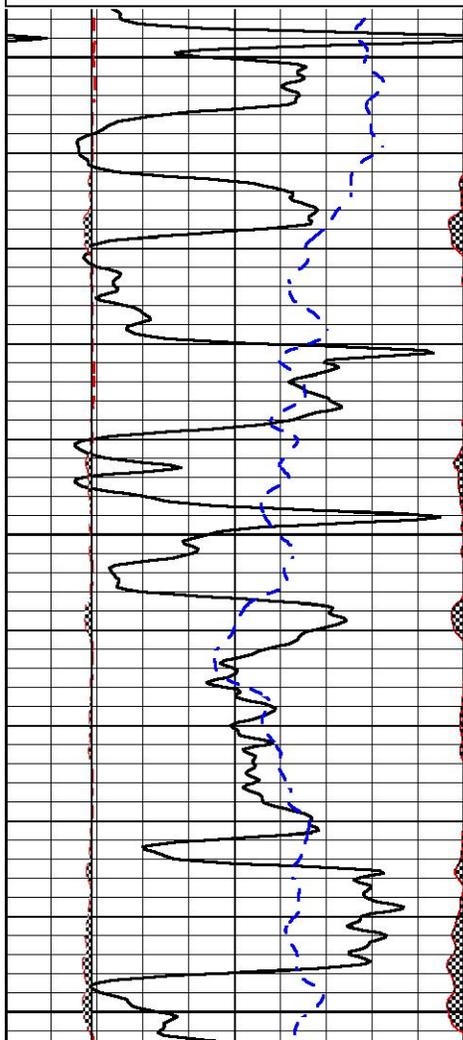
REPEAT SECTION

REPEAT PASS

Database File satchell_worcester a #11-21.db
 Dataset Pathname Stack/pass2.1
 Presentation Format _micro
 Dataset Creation Fri Jul 14 13:24:03 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

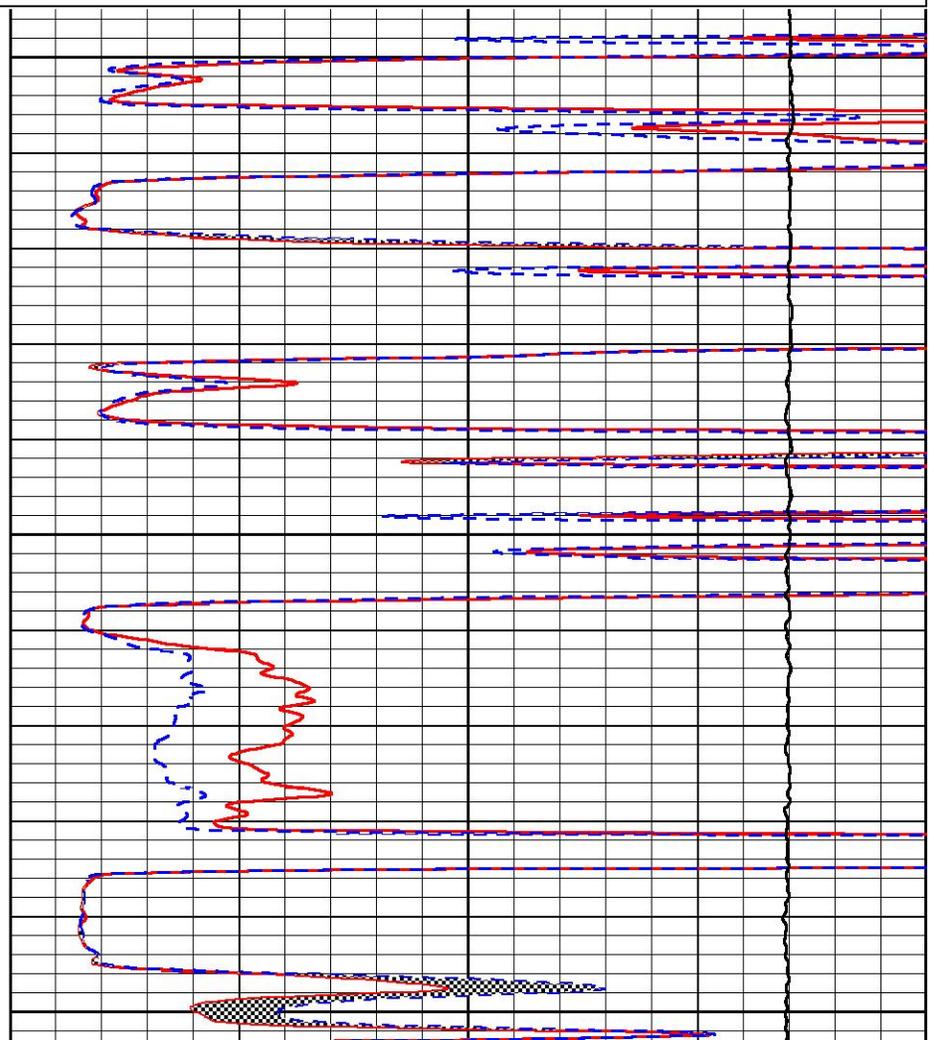
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

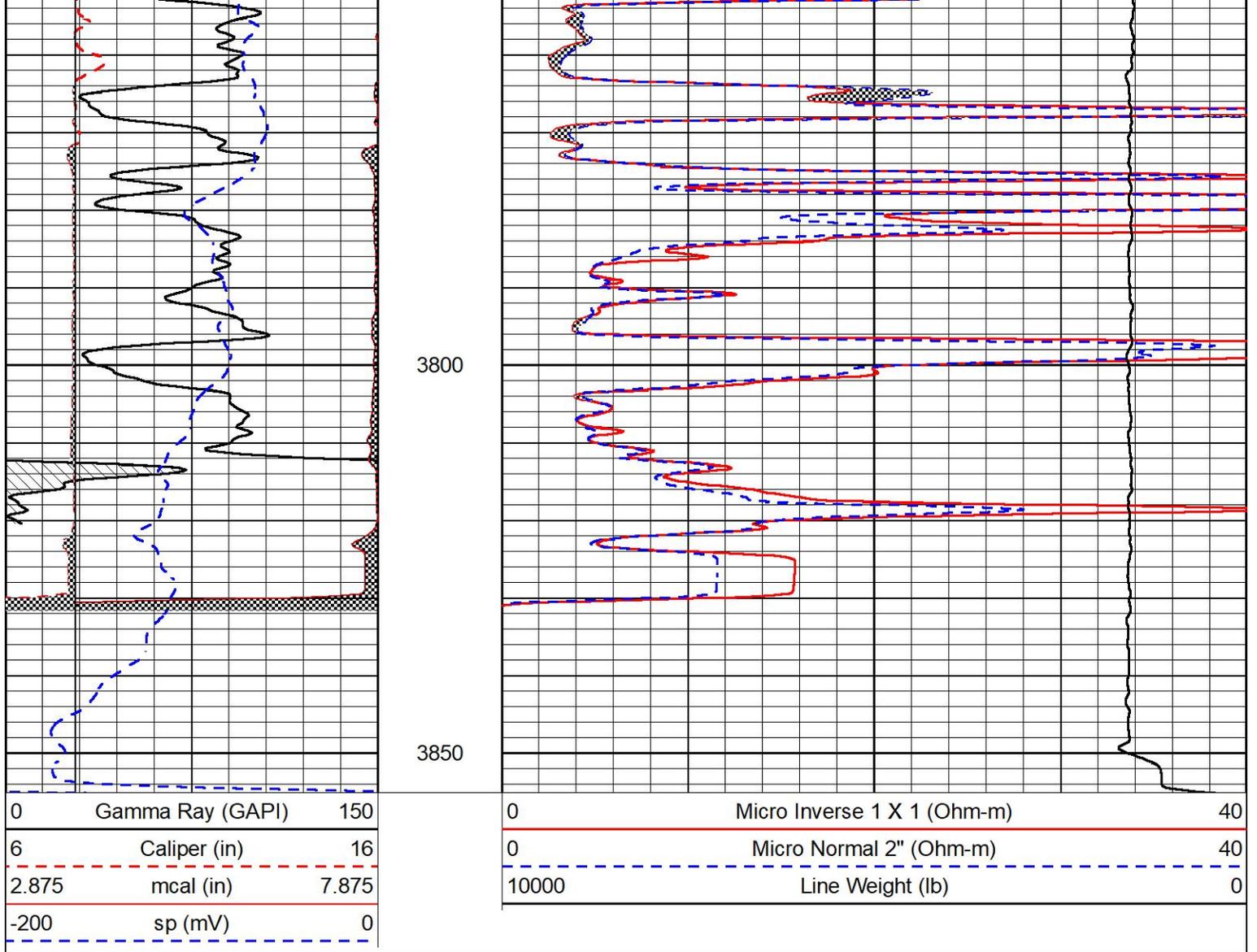


3650

3700

3750





Calibration Report

Database File satchell_worcester a #11-21.db
 Dataset Pathname SonMel/pass3.1
 Dataset Creation Fri Jul 14 15:17:40 2023

Microlog Calibration Report

Serial-Model: Pengo1-Pengo
 Performed: Sat Jun 24 10:05:50 2023

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Normal	-0.0394	0.4595	V	0.0000	10.0000	Ohm-m	26.5000	-1.0000
Inverse	0.0179	0.4655	V	0.0000	10.0000	Ohm-m	21.0000	-0.5000
Caliper	-0.0023	0.0718	V	5.5000	18.5000	in	1.9000	2.4500



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Company Satchell Creek Petroleum LLC
 Well Worcester A #11-21
 Field Alda South
 County Graham
 State Kansas

