

**DUAL INDUCTION
DUAL COMPENSATED POROSITY
MICRORESISTIVITY**

MIDWEST WIRELINE

Company		Satchell Creek Petroleum LLC					
Well	Hobbs A #5-34						
Field							
County	Graham	State	Kansas				
Location:	API #: 15-065-24287-00-00		Other Services				
SE SW NW NE 993 FNL & 2184 FEL		None					
Permanent Datum	Ground Level	Elevation	2486				
Log Measured From	Kelly Bushing	K.B.	2493				
Drilling Measured From	Kelly Bushing	D.F.					
		G.L.	2486				
Date	9/6/2023						
Run Number	One						
Type Log	CNL/CDL/ML/DIL						
Depth Driller	4444						
Depth Logger	4438						
Bottom Logged Interval	4437						
Top Logged Interval	3300						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	1700						
Density	9.2						
Level	Full						
Max. Rec. Temp. F	120						
Operating Rig Time	4 Hours						
Equipment -- Location	P-24 Hays						
Recorded By	T. Martin						
Witnessed By	Sydney Smith						
Borehole Record		Casing Record					
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	220	8.625	23	00	220
Two	7.875	220	TD				

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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.

St Peter, KS, S to Graham Co Rd B,
1/4 W, S then W 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: Sydney Smith
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	40.75		GR-M&W (106)	3.00	3.50	50.00	
CNLSC CNSSC	37.65 36.90		CNT-M&W (207)	5.00	3.50	100.00	
			MWLith-STEP LITHO (704-10) Long Litho Mandrel	8.92	5.00	250.00	
LCAL	28.21						
LLW8N	28.21						
LLW7N	28.21						
LLW6N	28.21						
LLW5N	28.21						
LLW4N	28.21						
LLW3N	28.21						
LLW2N	28.21						
LLW1N	28.21						
LSLOCK	27.96						
LLLOCK	27.96						
PELTMPR	27.96						
LSHVNG	27.96						
LLHVNG	27.96						
LSW8N	27.71						
LSW7N	27.71						
LSW6N	27.71						
LSW5N	27.71						
LSW4N	27.71						
LSW3N	27.71						
LSW2N	27.71						
LSW1N	27.71						
MCAL	19.58						
MI	19.58						
MN	19.58						
RLL3F	15.50						
RLL3	15.50						
CILD	8.33						
CILM	4.50						
SP	0.20						
			DIL-M&W (507)	18.25	3.50	220.00	

Dataset: satchell_hobbs a #5-34.db: field/well/StkMI/pass3.1
Total length: 42.75 ft
Total weight: 685.00 lb
O.D.: 5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\satchell_hobbs a #5-34.db
Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 120	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 -6	SPSHIFT mV 590	SRFTEMP degF 80	SZCOR Off	TDEPTH ft 4438		

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



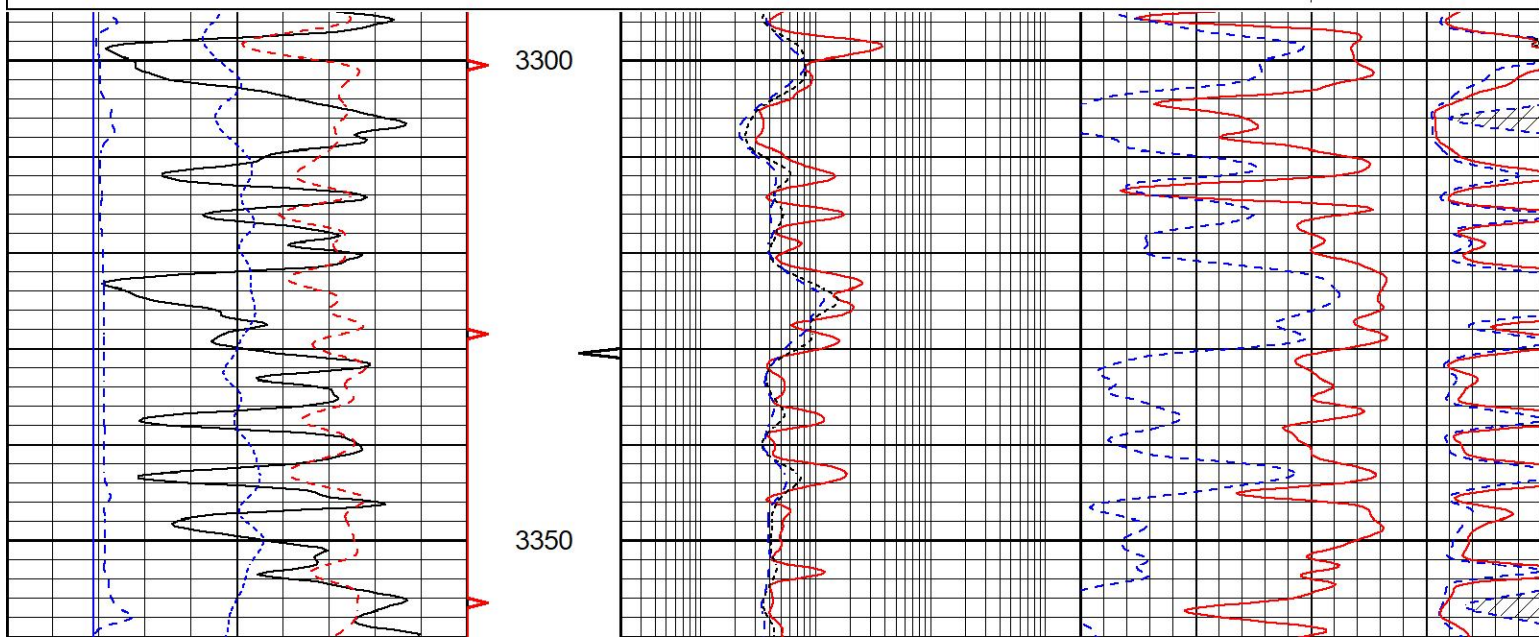
MIDWEST WIRELINE

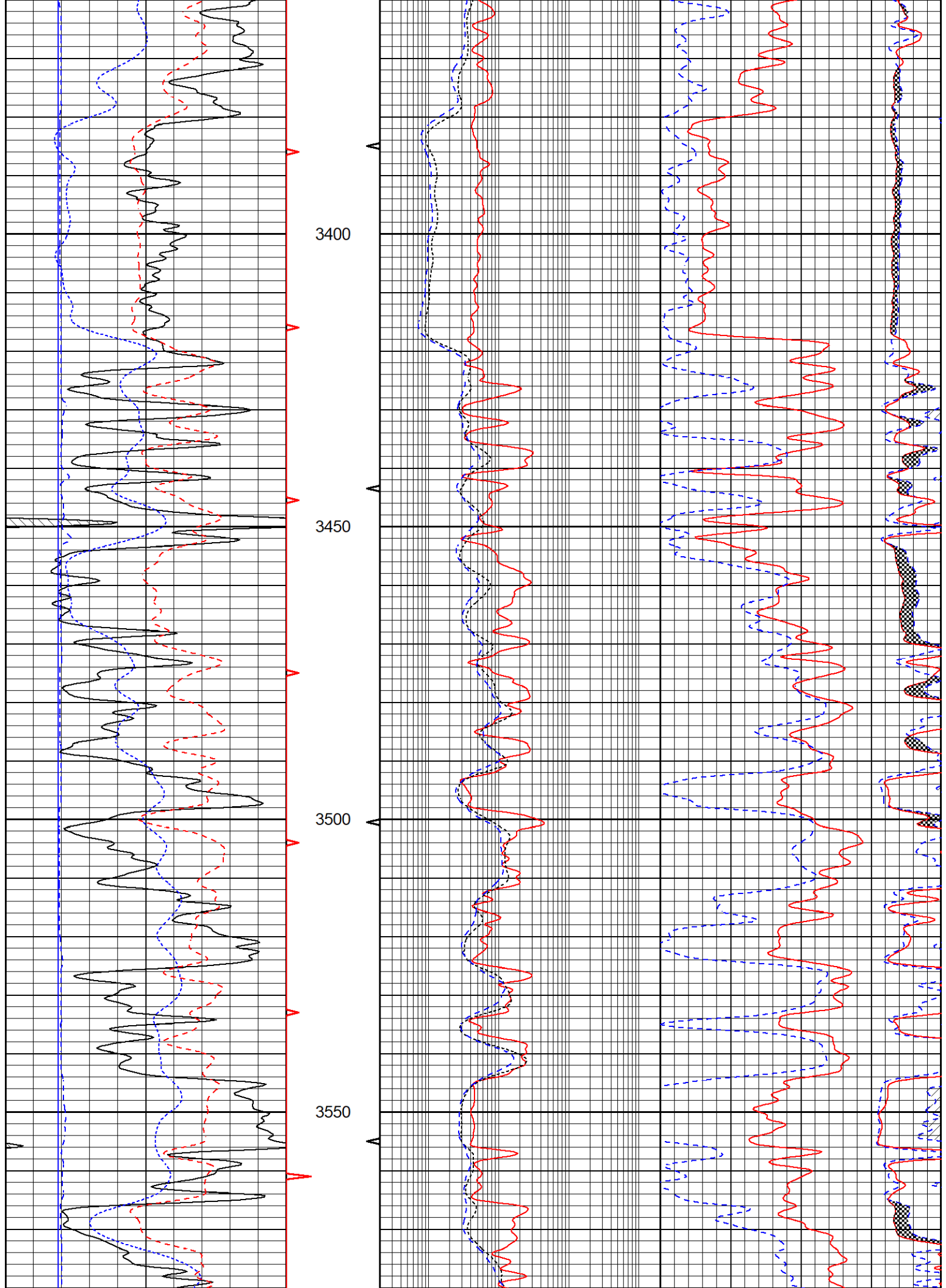
DETAIL SECTION

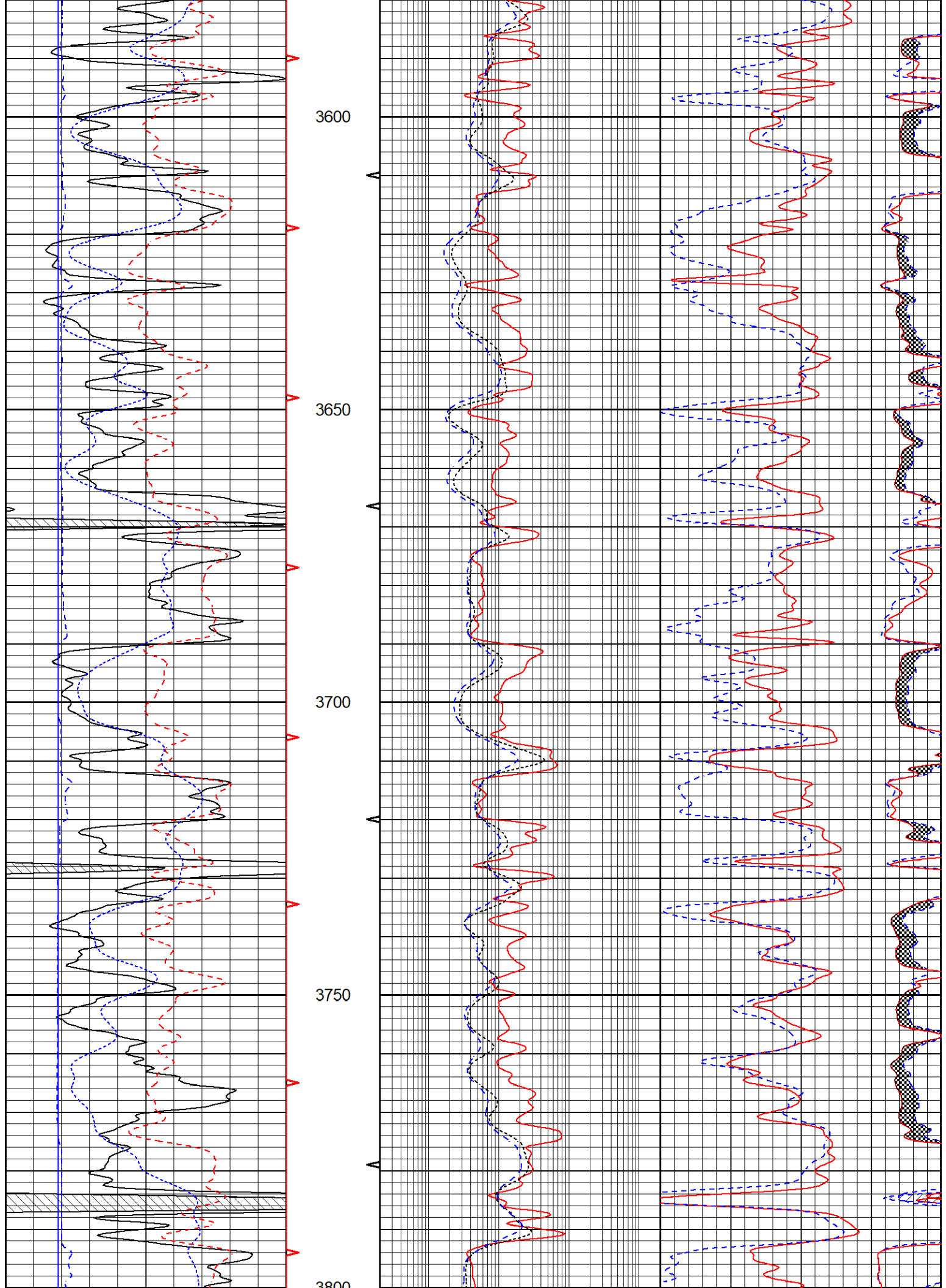
MAIN PASS

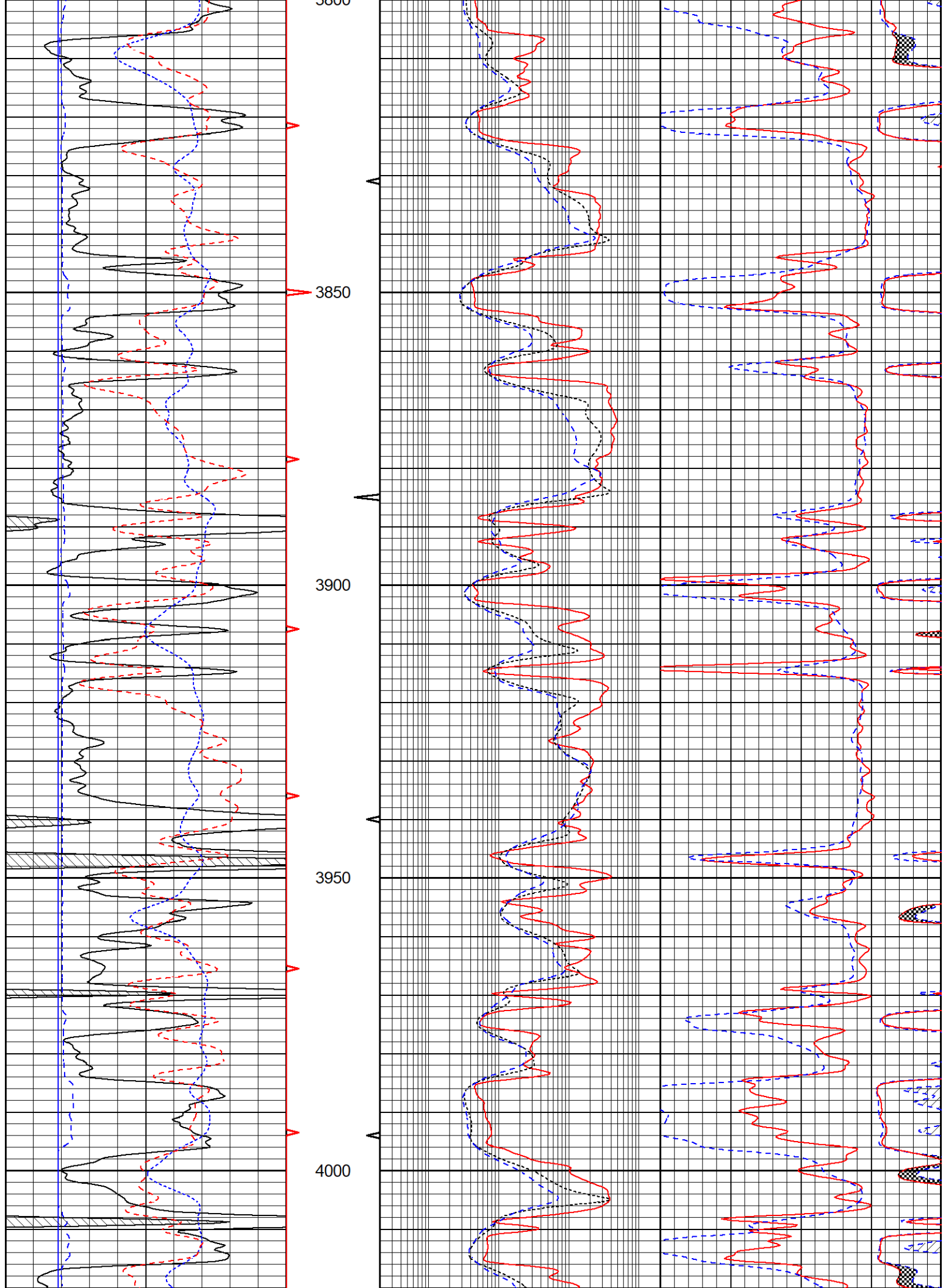
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Dataset Pathname StkMI/pass3.1
Presentation Format SUBFF3~1
Dataset Creation Wed Sep 06 03:46:09 2023
Charted by Depth in Feet scaled 1:240

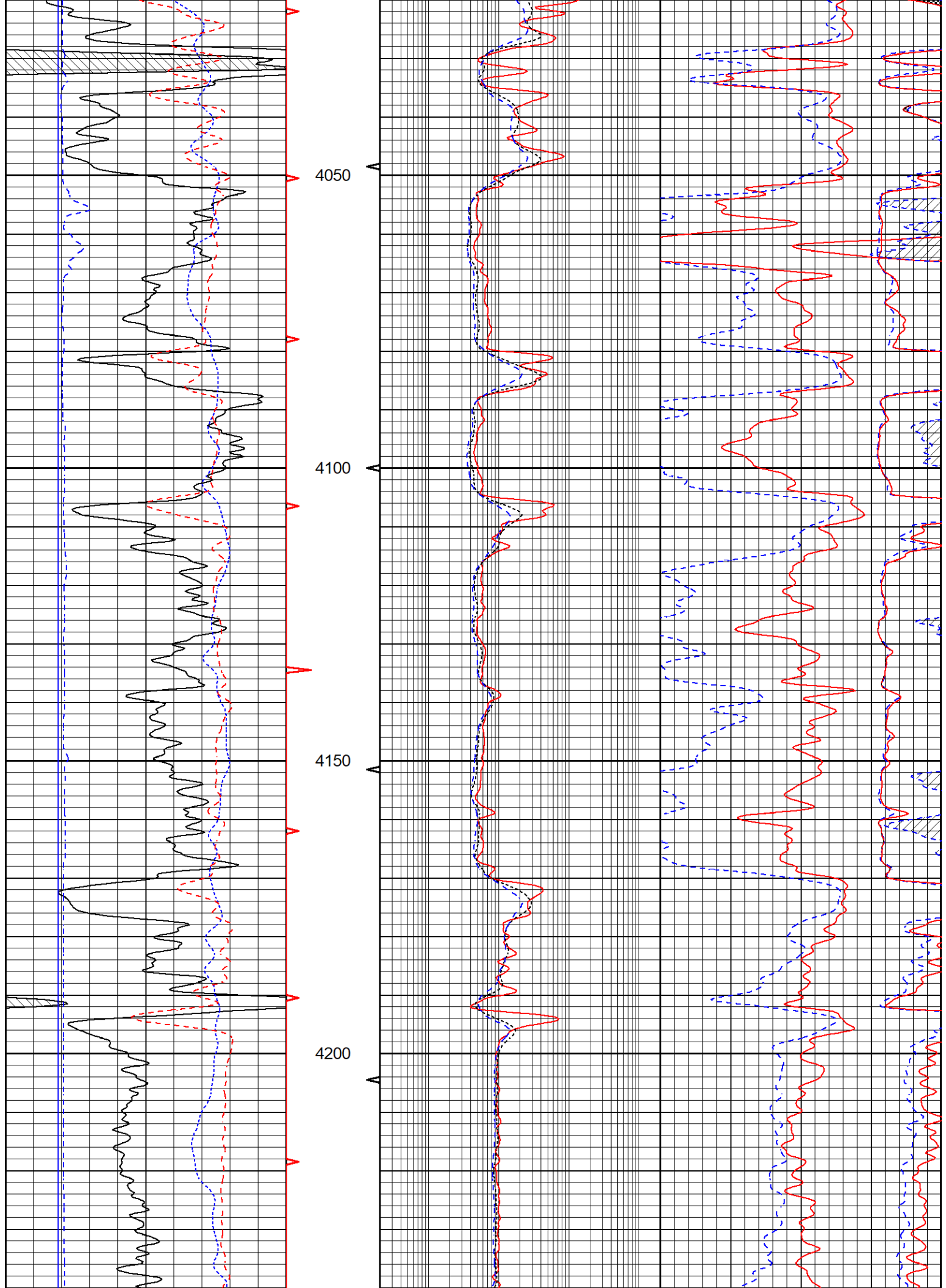
0	Gamma Ray (GAPI)	150	Shallow Resistivity	30	PORL (pu)	-10
6	LCAL (in)	16	0.2 (Ohm-m)	2000	30	Compensated Neutron (pu) -10
-200	SP (mV)	0	Medium Resistivity			MN
-160	RXORT	40	0.2 (Ohm-m)	2000		-20 (Ohm-m) 20
			0.2 Deep Resistivity (Ohm-m)	2000		MI
						-20 (Ohm-m) 20











100	RXORT	40
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0.2	(Ohm-m)	2000
0.2	Deep Resistivity (Ohm-m)	2000

-20 (Ohm-m)	20
MI	
-20 (Ohm-m)	20



MIDWEST WIRELINE

REPEAT SECTION

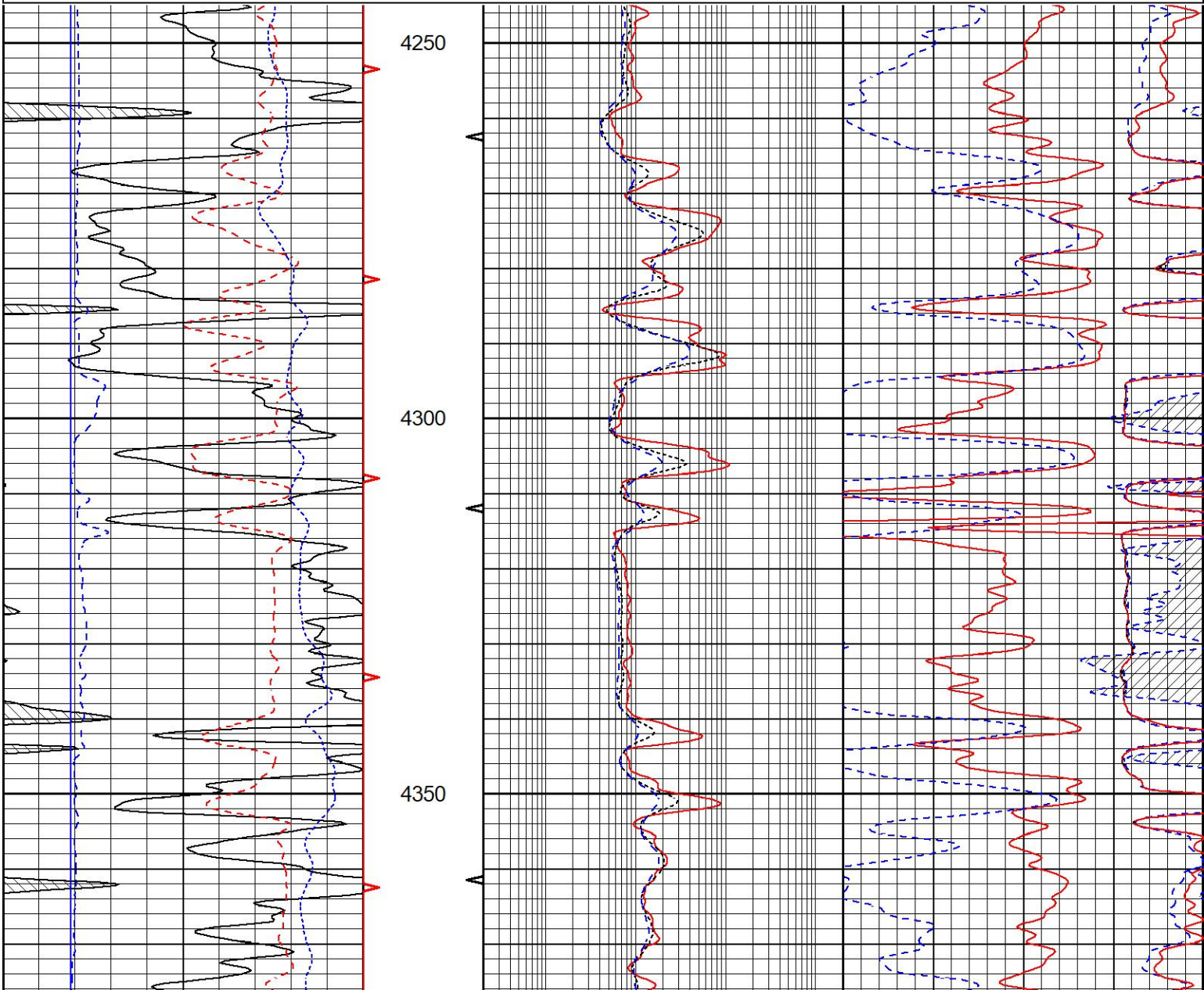
REPEAT PASS

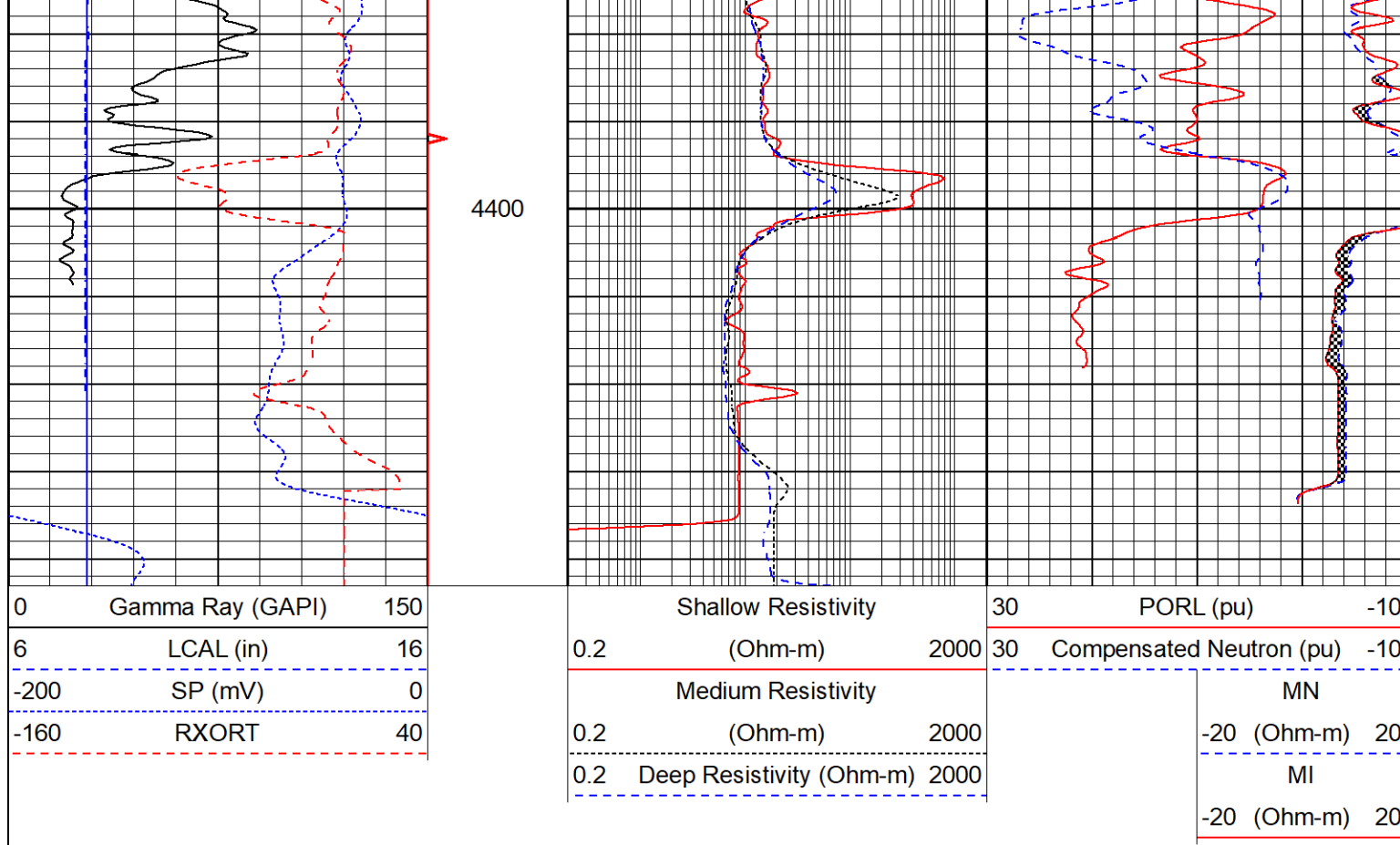
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Dataset Pathname StkMI/pass2.1
Presentation Format SUBFF3~1
Dataset Creation Wed Sep 06 03:08:21 2023
Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	LCAL (in)	16
-200	SP (mV)	0
-160	RXORT	40

Shallow Resistivity		
0.2	(Ohm-m)	2000
Medium Resistivity		
0.2	(Ohm-m)	2000
0.2	Deep Resistivity (Ohm-m)	2000

30	PORL (pu)	-10
30	Compensated Neutron (pu)	-10
MN		
-20 (Ohm-m)	20	
MI		
-20 (Ohm-m)	20	





Calibration Report		
Database File	satchell_hobbs a #5-34.db	
Dataset Pathname	StkMI/pass3.1	
Dataset Creation	Wed Sep 06 03:46:09 2023	

Dual Induction Calibration Report

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

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	68.570	638.100	0.000	255.800	mmho/m	0.500	-37.000
Medium	184.288	716.191	0.000	255.800	mmho/m	0.430	-75.000

Microlog Calibration Report

Serial-Model:	401-PSIML
Performed:	Sat Sep 2 13:05:02 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	18500.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	17000.0000	-0.7500
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-138.8000

LITHODENSITY Calibration Report

Serial Number:	704-10
Tool Model:	STEP LITHO

Performed: Fri Jun 23 15:26:01 2023 Source:									
	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	51	54	202	252	21	70	42	1	cps
LS:	85	96	363	462	53	147	97	3	cps
Aluminum:									
SS:	870	1018	2321	2004	37	71	43	2	cps
LS:	1057	1828	3315	1570	61	147	91	5	cps
Magnesium:									
SS:	1459	1669	3829	2914	42	70	46	3	cps
LS:	4526	7550	13047	4982	98	135	93	13	cps
Aluminum+Iron:									
SS:	553	719	1939	1750	37	72	45	2	cps
LS:	613	1297	2812	1404	60	146	96	4	cps
		Density			PE				
		Actual	Calibrated		Actual	Calibrated	Quality		
Background:									
SS:							0.245		
LS:							0.205		
Aluminum:									
SS:		2.6000	2.6000	g/cc			0.240		
LS:		2.6000	2.6000	g/cc			0.236		
Magnesium:									
SS:		1.6800	1.6800	g/cc	2.5700	2.5700	0.210		
LS:		1.6800	1.6800	g/cc	2.5700	2.5700	0.184		
Aluminum+Iron:									
SS:						6.1800	0.228		
LS:						6.1800	0.206		
Before Survey Performed: Wed Feb 9 13:15:42 2022 SS: 0 LS: 1370 0 0 0 0 0 0 0 0 0 cps 0 0 0 0 0 0 0 0 0 cps									
After Survey Performed: Wed Feb 9 13:16:02 2022 SS: 0 LS: 1400 0 0 0 0 0 0 0 0 0 cps 0 0 0 0 0 0 0 0 0 cps									
Caliper: Small Ring: Large Ring: Gain: Offset: Reference: 6.0 in 15.0 in 16.161 1.070 Reading: 0.2 0.8									
Compensated Neutron Calibration Report									
Serial Number: 207 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 Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	
3)	Short Space Long Space	cps cps	pu	

POST-SURVEY VERIFICATION

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

Gamma Ray Calibration Report

Serial Number:	106	
Tool Model:	M&W	
Performed:	Tue Aug 22 07:35:27 2023	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.6000	GAPI/cps



MIDWEST WIRELINE

Company	Satchell Creek Petroleum LLC
Well	Hobbs A #5-34
Field	
County	Graham
State	Kansas