



DUAL INDUCTION

MIDWEST WIRELINE

Company M3 Helium Corporation
 Well Smith C #2
 Field Hugoton
 County Haskell State Kansas

Location: API #: 15-081-22267-00-00
 NW
 1320 FNL & 1320 FWL
 SEC 3 TWP 28S RGE 33W
 Permanent Datum Ground Level Elevation 2985
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 2992
 D.F.
 G.L. 2985

Date	11/10/2023
Run Number	One
Depth Driller	2972
Depth Logger	2974
Bottom Logged Interval	2973
Top Log Interval	700
Casing Driller	8.625 @ 717
Casing Logger	7.18
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	10000
Density / Viscosity	8.8 48
pH / Fluid Loss	10.5 10.4
Source of Sample	Flowline
Rm @ Meas. Temp	0.6 @ 68
Rmt @ Meas. Temp	0.45 @ 68
Rmc @ Meas. Temp	0.81 @ 68
Source of Rmf / Rmc	Charts
Rm @ BHT	0.39 @ 106
Operating Rig Time	2 Hours
Max Rec. Temp. F	106
Equipment Number	P-24
Location	Hays
Recorded By	T. Martin
Witnessed By	Brad Parker

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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.

Garden City, KS, S on Hwy 83
 to Rd 70, 2.75 W, 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: Brad Parker
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.75		GR-M&W (102)	3.00	3.50	50.00
CNLSC CNSSC	37.65 36.90		CNT-M&W (207)	5.00	3.50	100.00
LCAL	28.21		MWLith-STEP LITHO (704-10) Long Litho Mandrel	8.92	5.00	250.00
LLW8N	28.21		ML-PSIML (401)	7.58	4.00	65.00
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		DIL-M&W (507)	18.25	3.50	220.00
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					

Dataset: m3 helium_smith c #2.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\m3 helium_smith c #2.db
 Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 106	CASEOD in 4.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m 2	SNDERRM mmho/m 0	SPSHIFT mV 260	SRFTEMP degF 50	SZCOR Off	TDEPTH ft 2974		

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

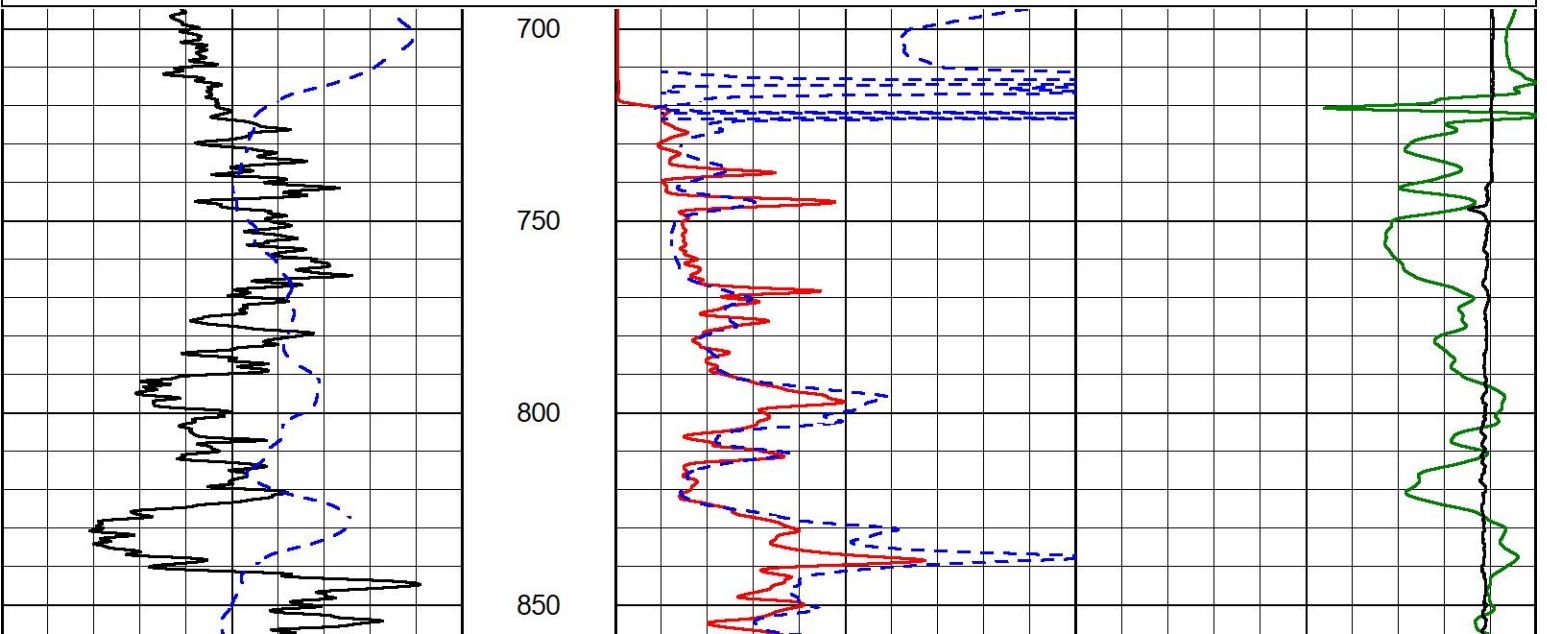


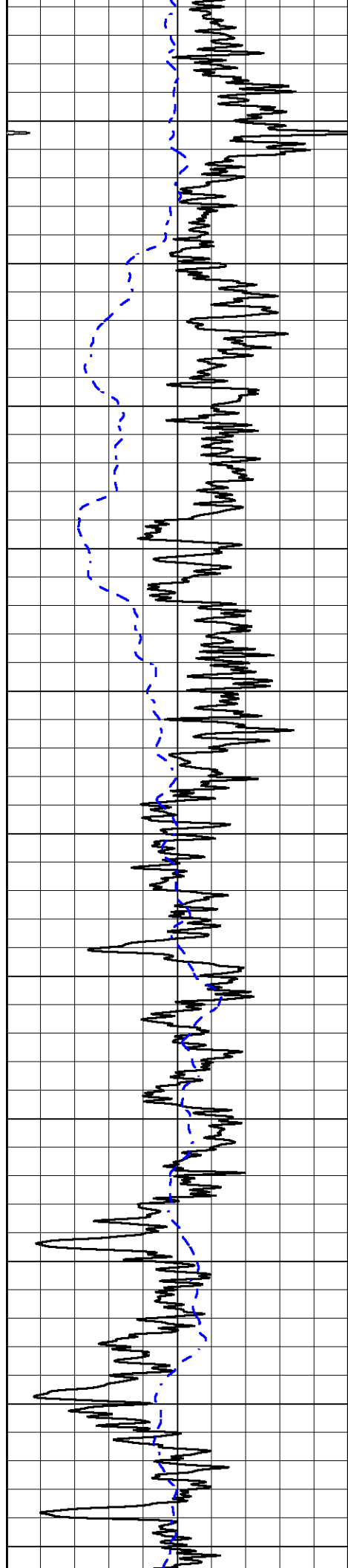
2" SCALE RESISTIVITY

MAIN PASS

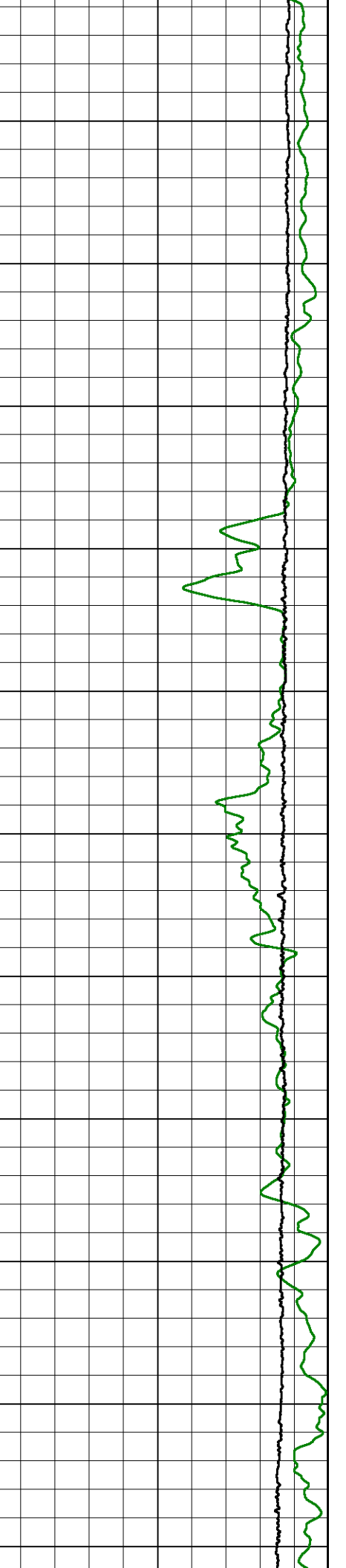
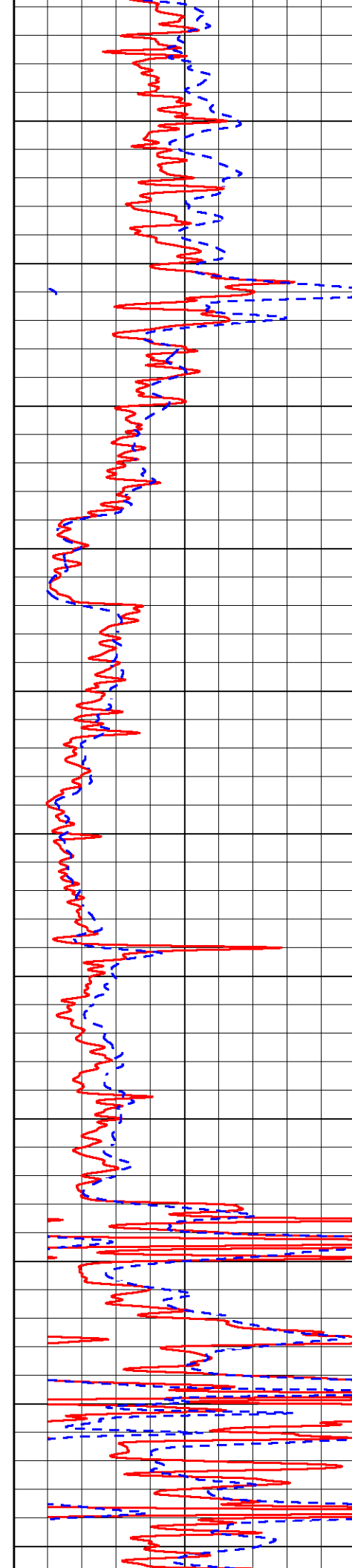
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 Presentation Format _dil2in
 Dataset Creation Fri Nov 10 23:33:09 2023
 Charted by Depth in Feet scaled 1:600

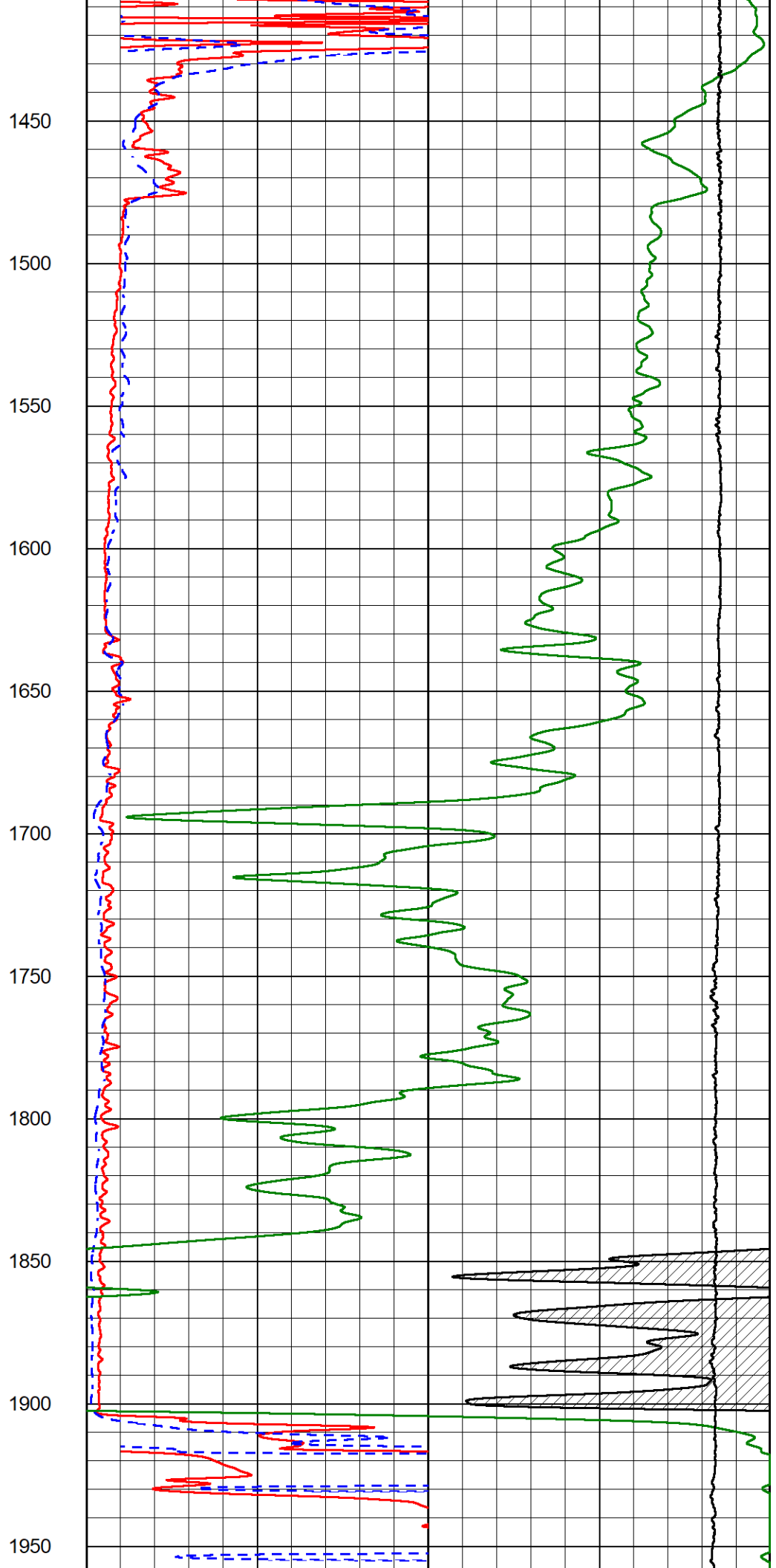
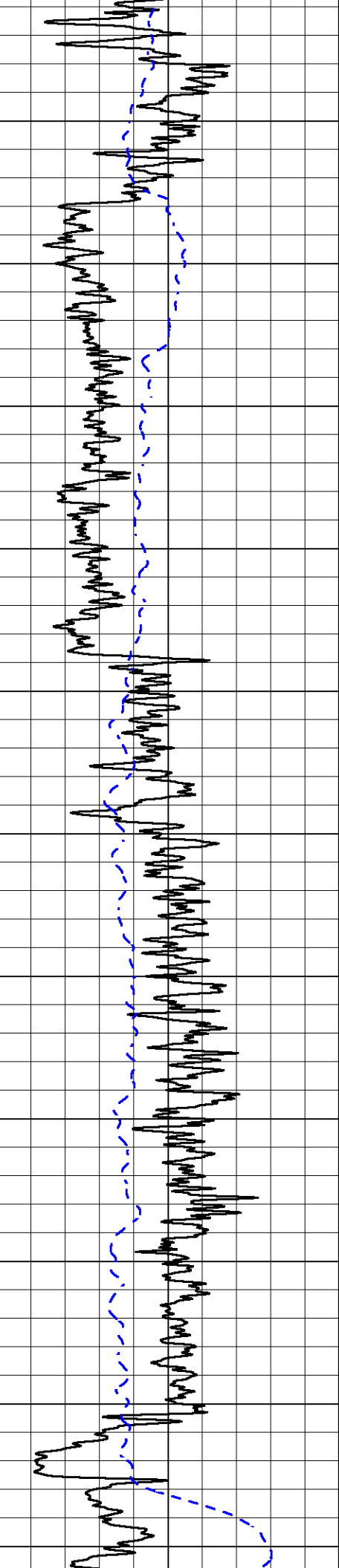
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
-200	SP (mV)	0	15000	Line Tension (lb)	0
			0	RLL3 (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			50	RLL3 (Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200

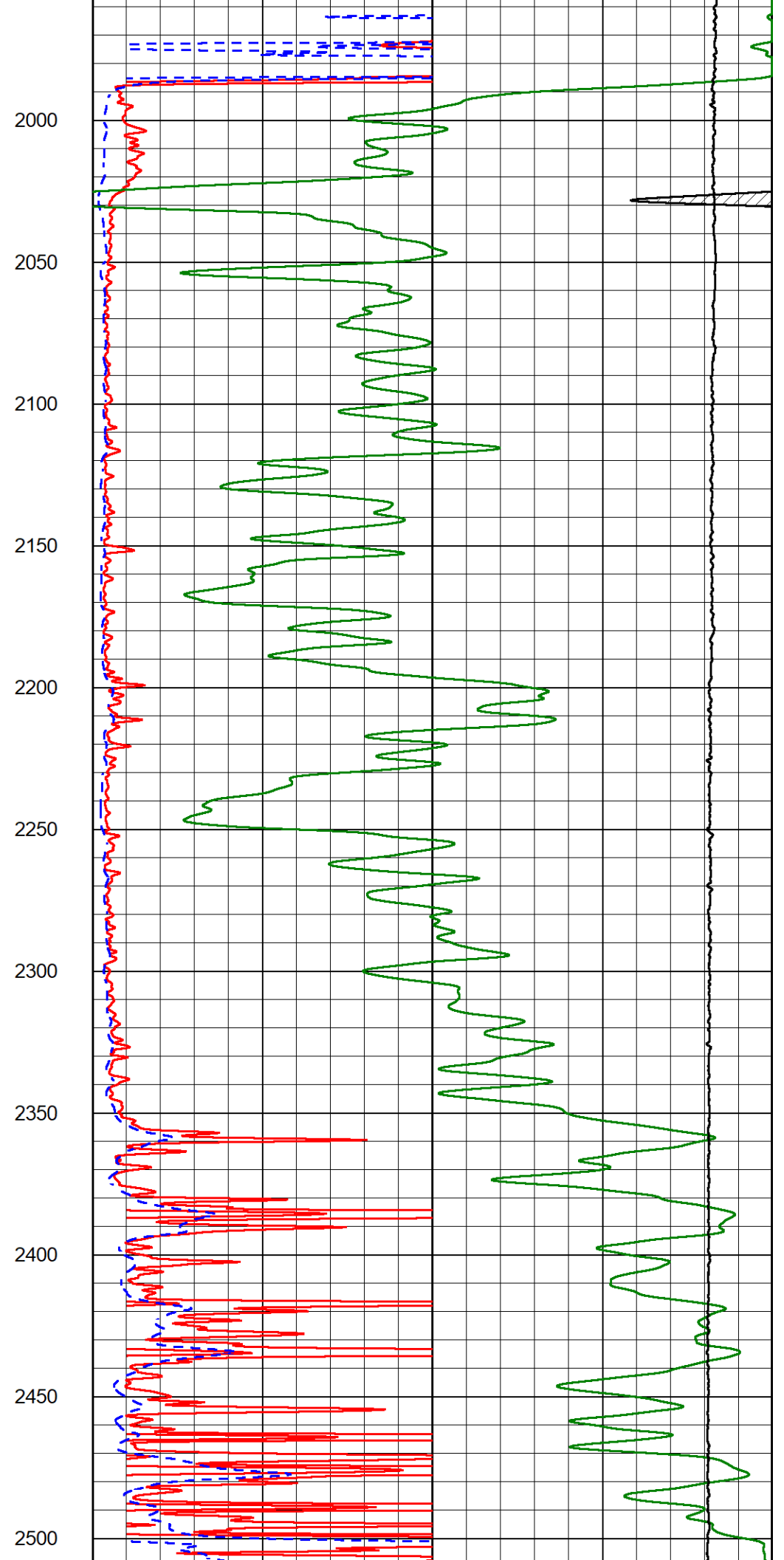
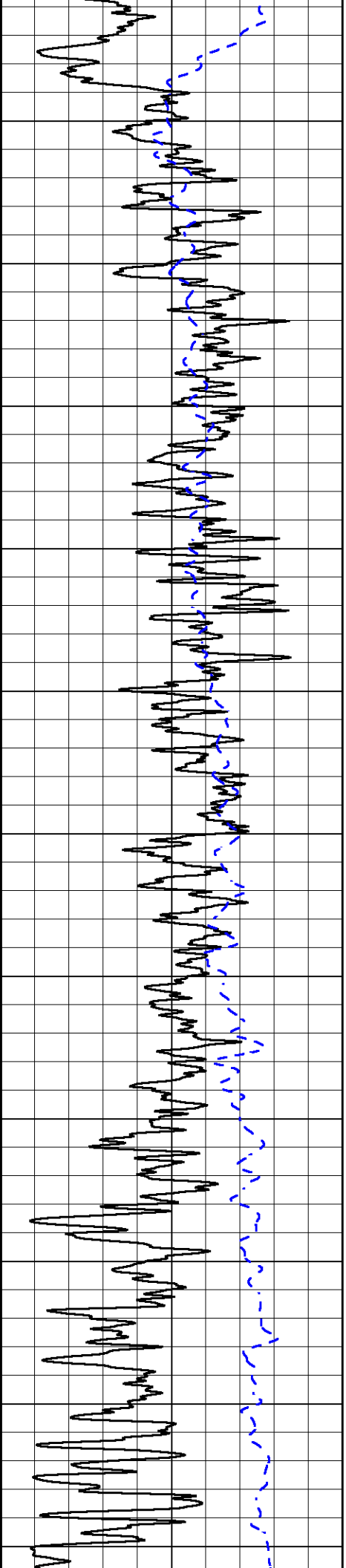


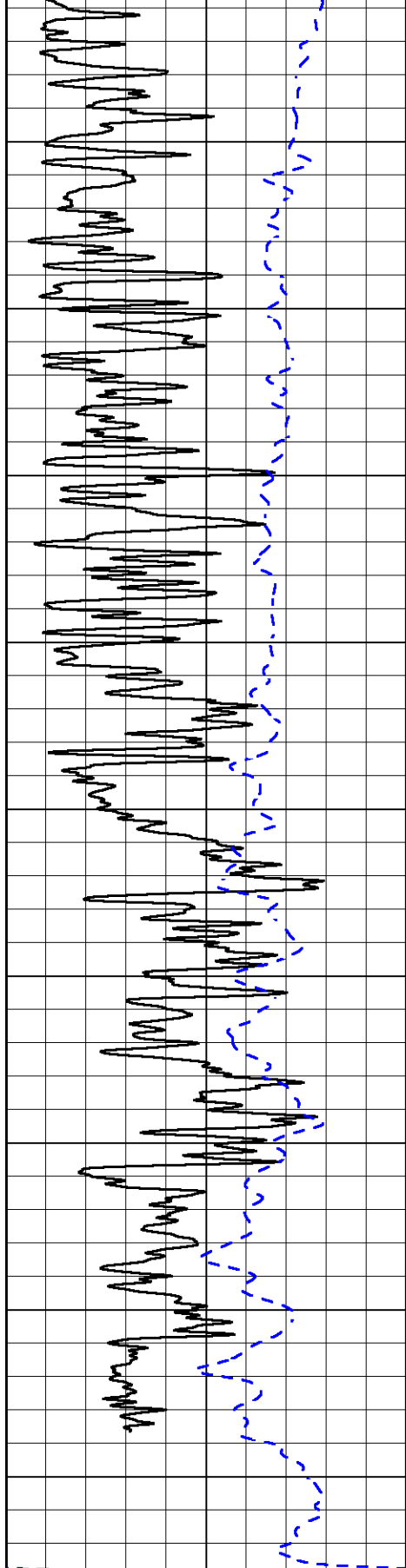


900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400

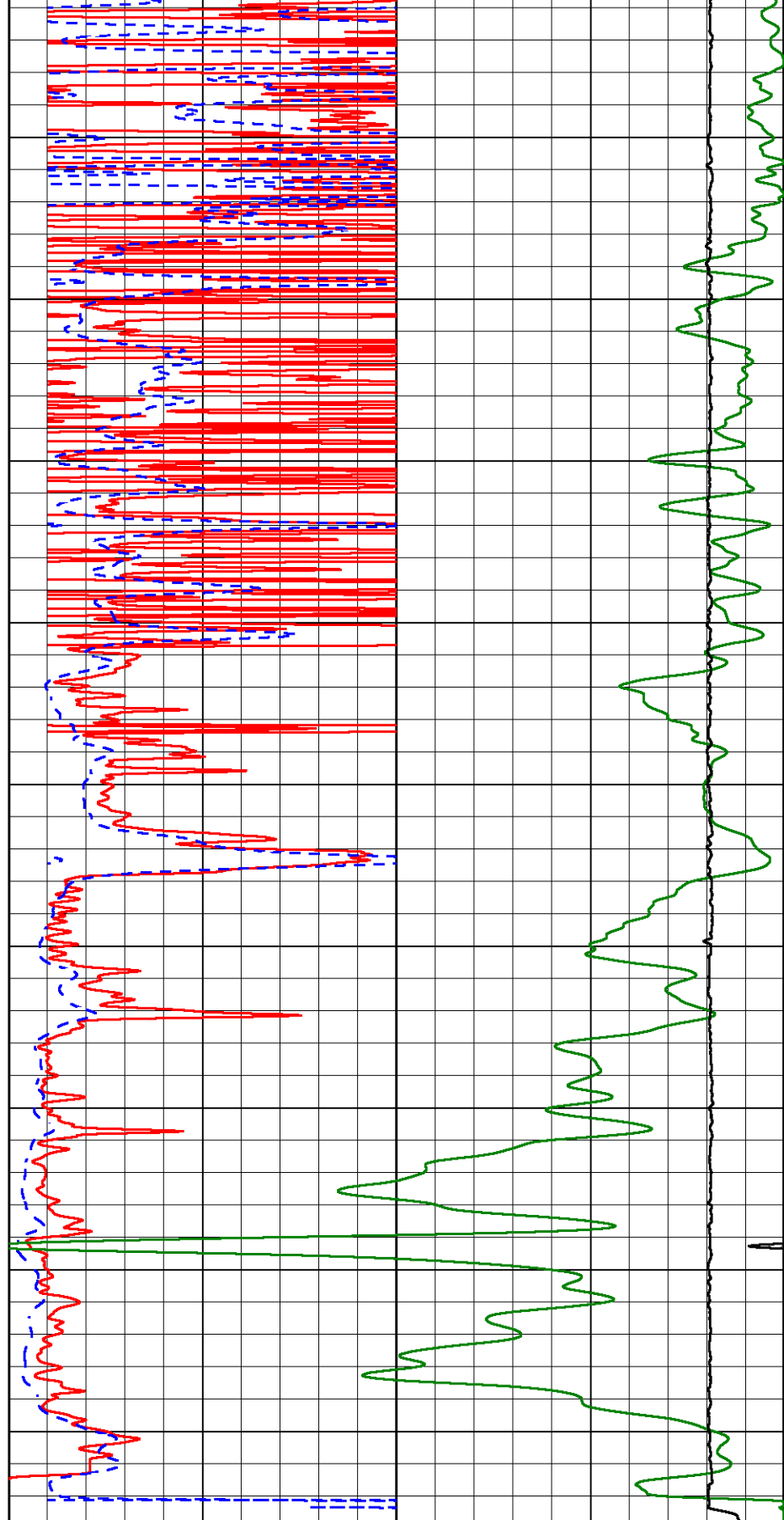








2550
2600
2650
2700
2750
2800
2850
2900
2950



0 Gamma Ray (GAPI) 150
-200 SP (mV) 0

1000 Conductivity (mmho/m) 0
15000 Line Tension (lb) 0

0	RLL3 (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
50	RLL3 (Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200



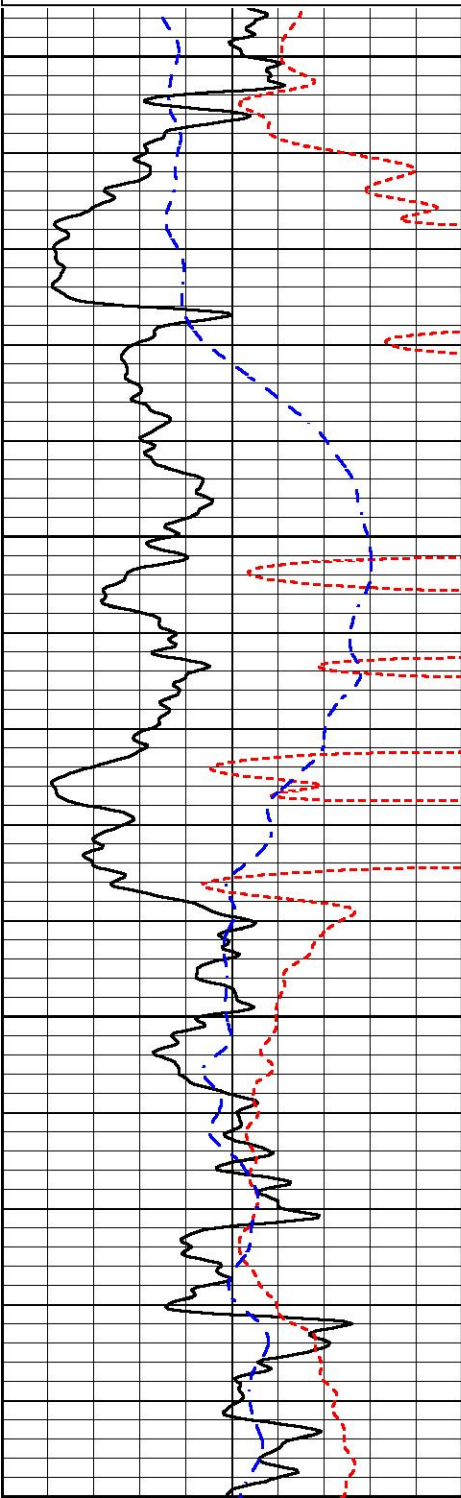
DETAIL SECTION

MAIN PASS

Database File m3 helium_smith c #2.db
 Dataset Pathname StkMI/pass3.1
 Presentation Format _dil
 Dataset Creation Fri Nov 10 23:33:19 2023
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

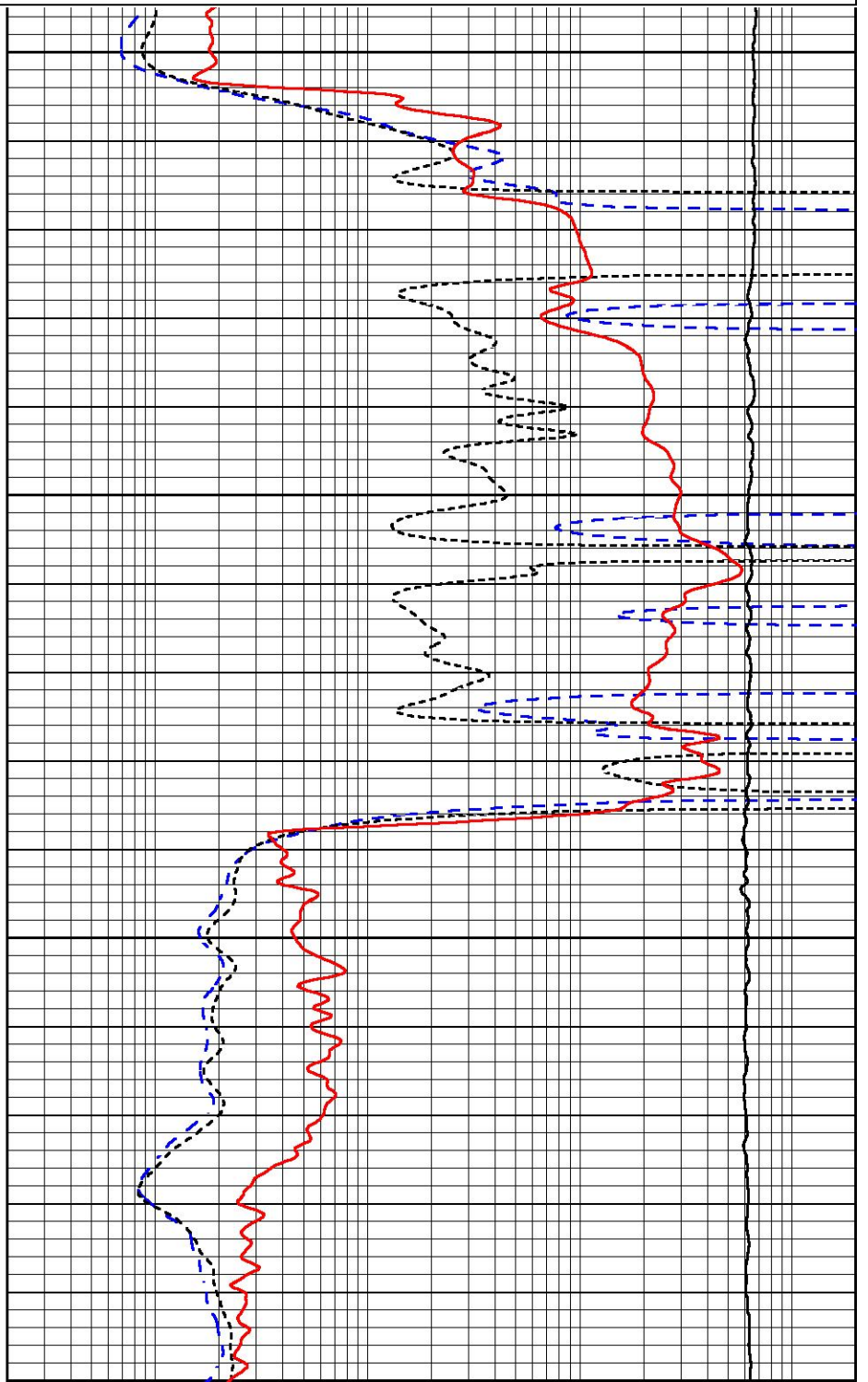


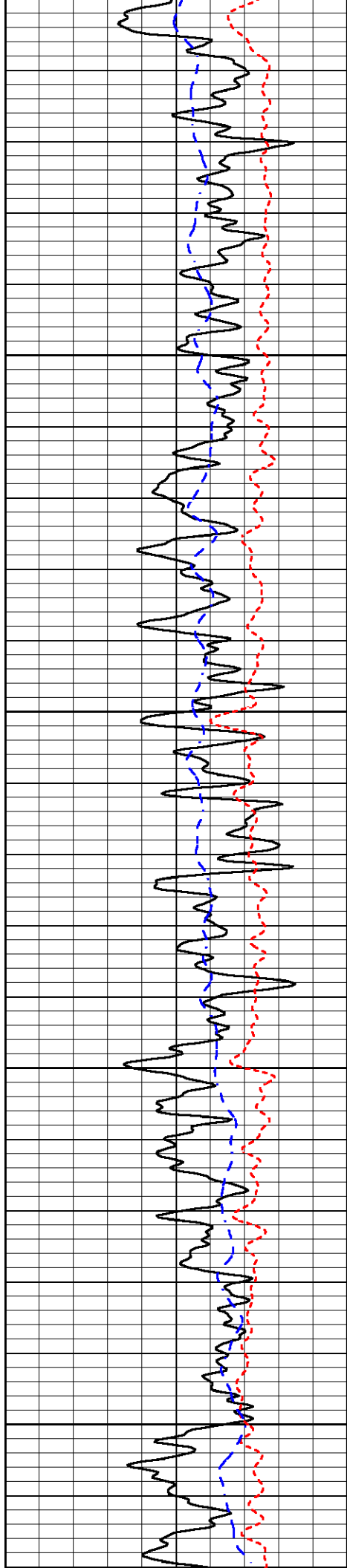
1900

1950

2000

2050





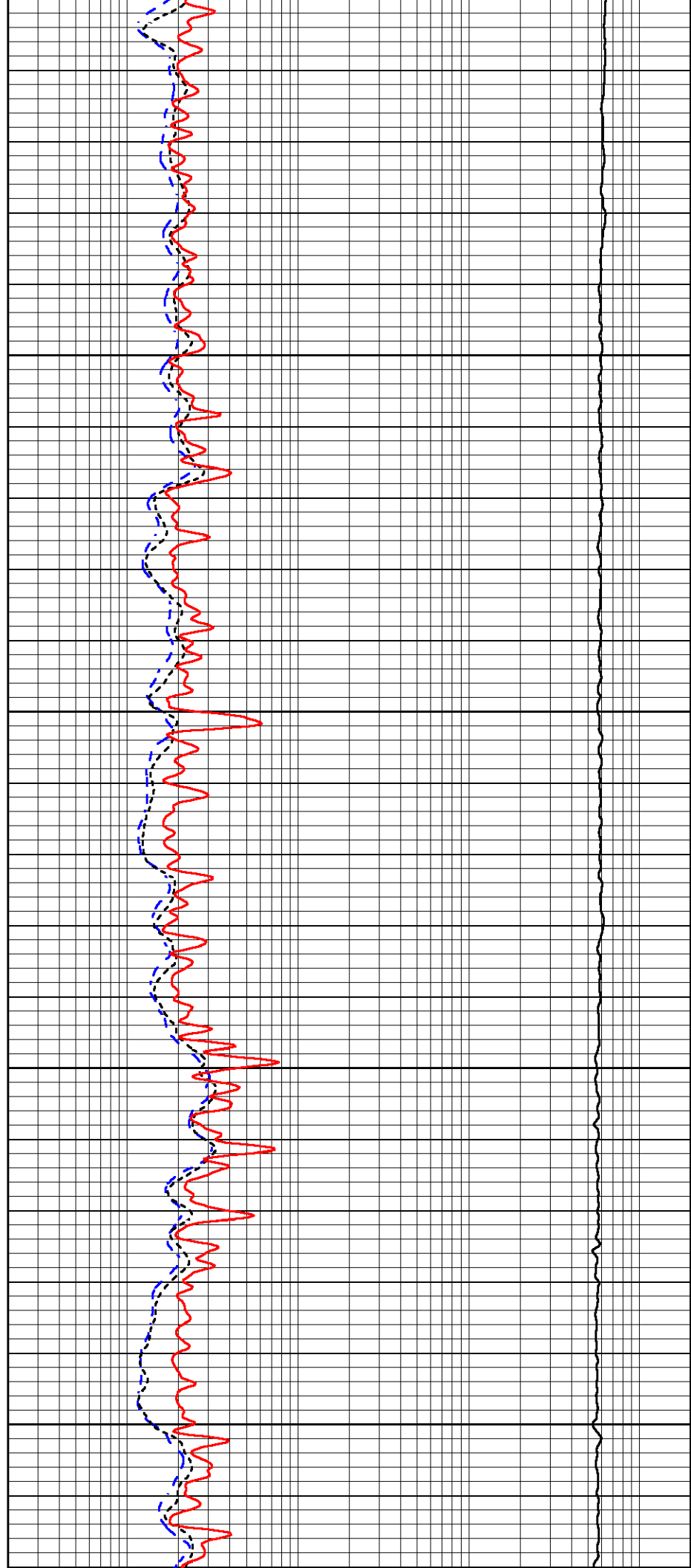
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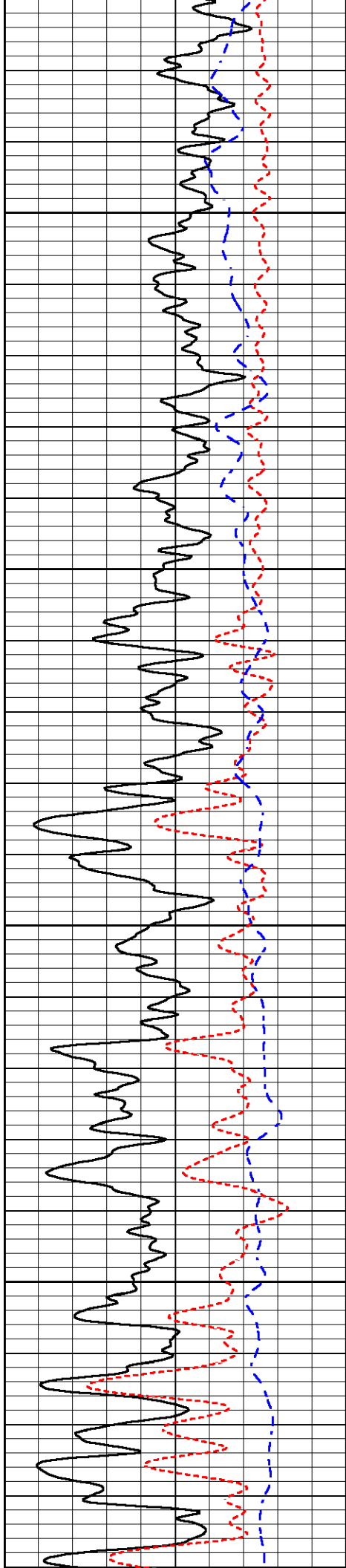
2100

2150

2200

2250



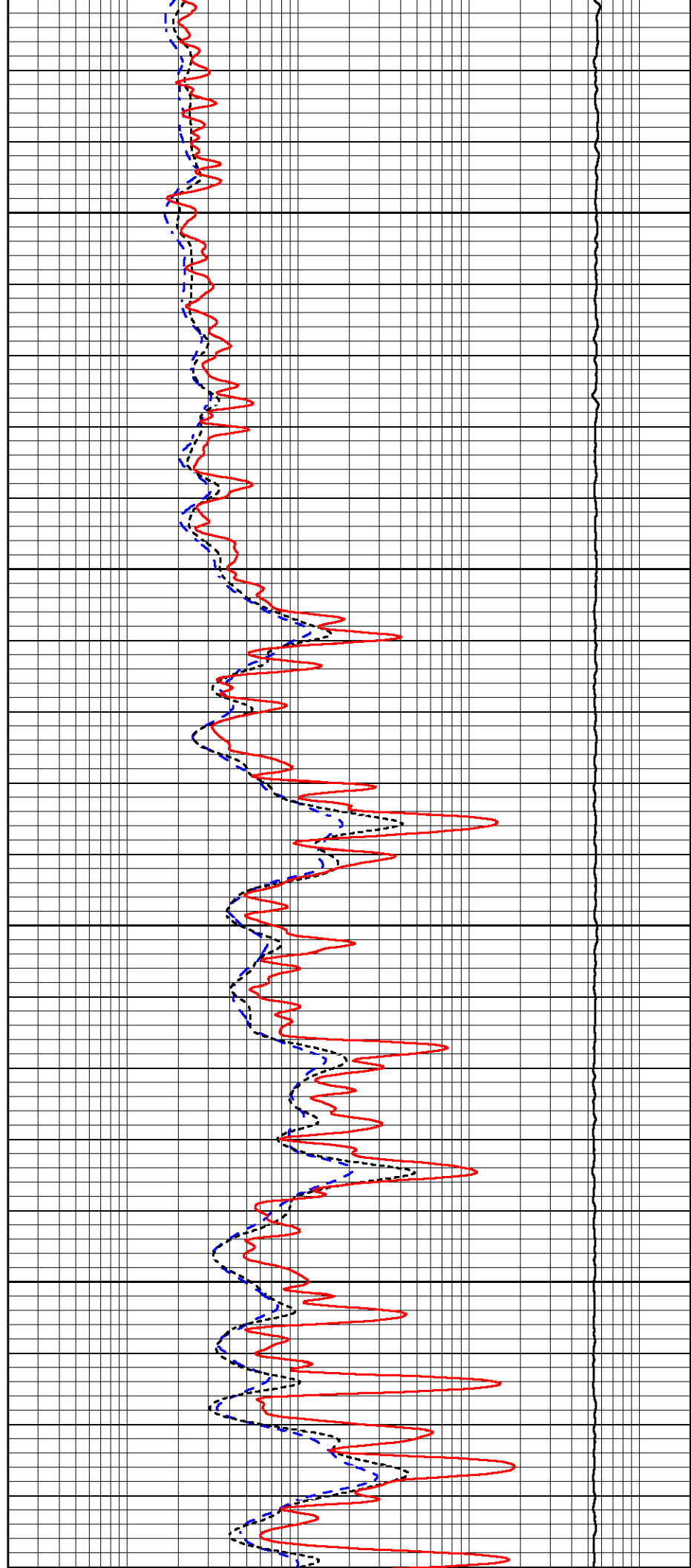


2300

2350

2400

2450

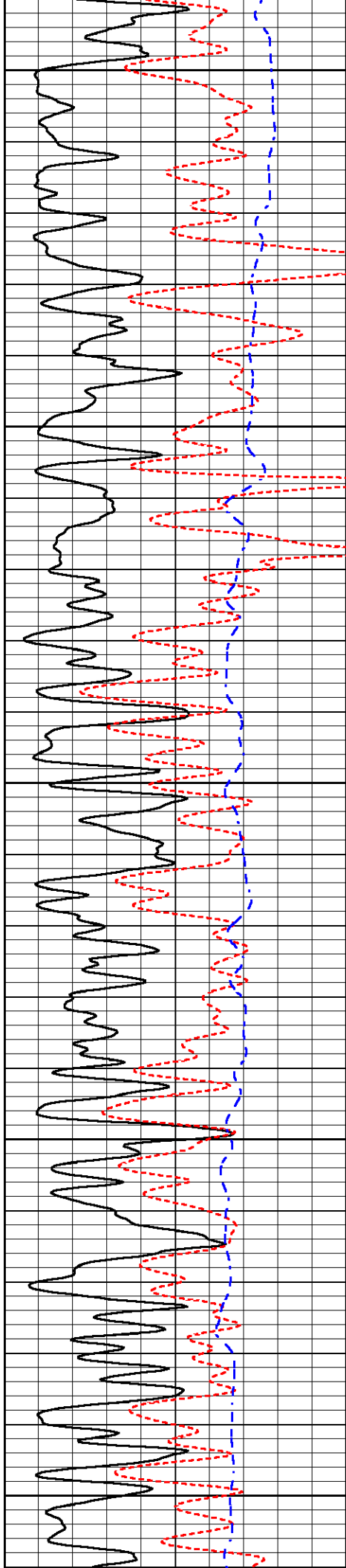


2300

2350

2400

2450



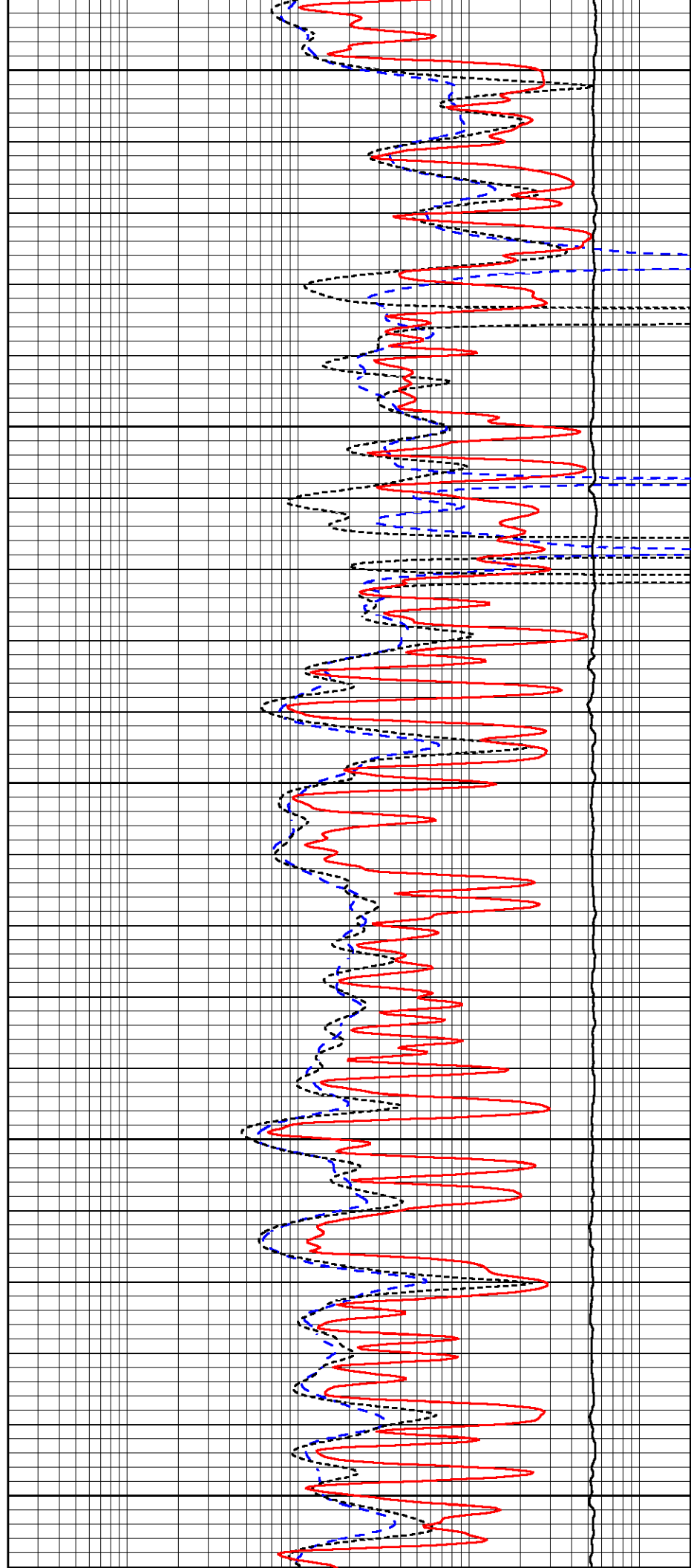
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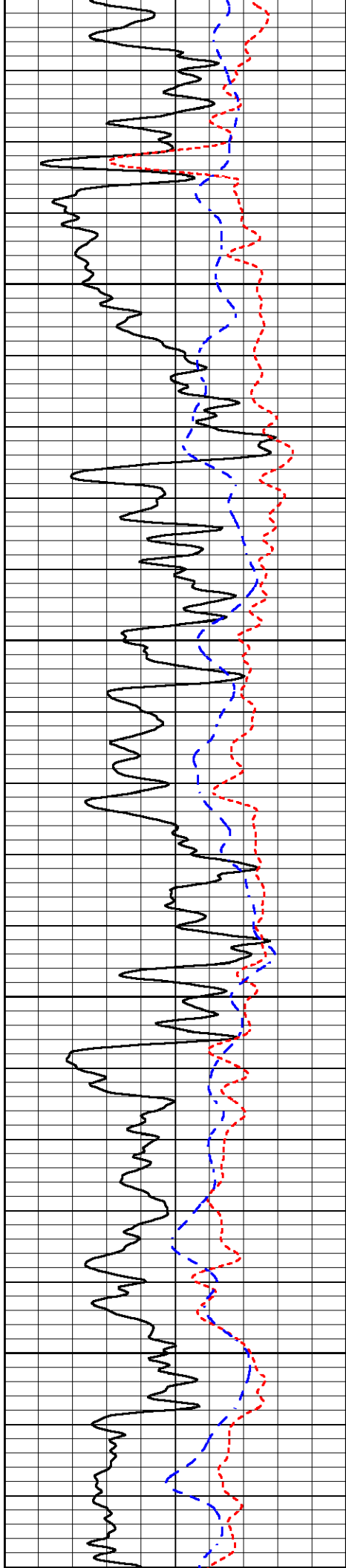
2550

2600

2650

2700



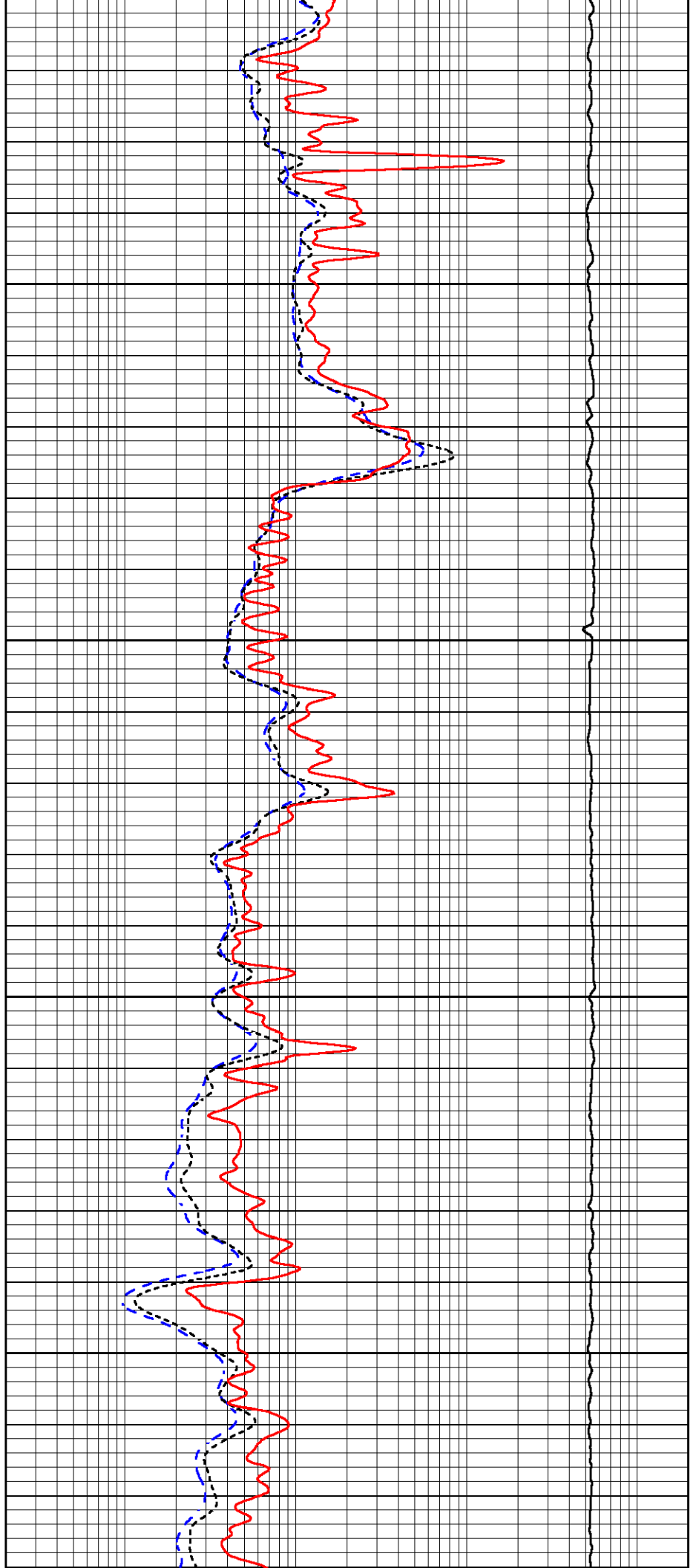


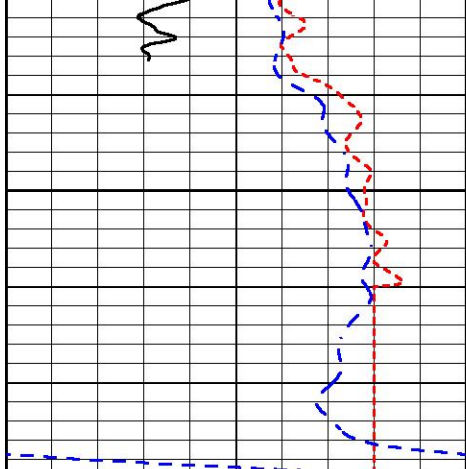
2750

2800

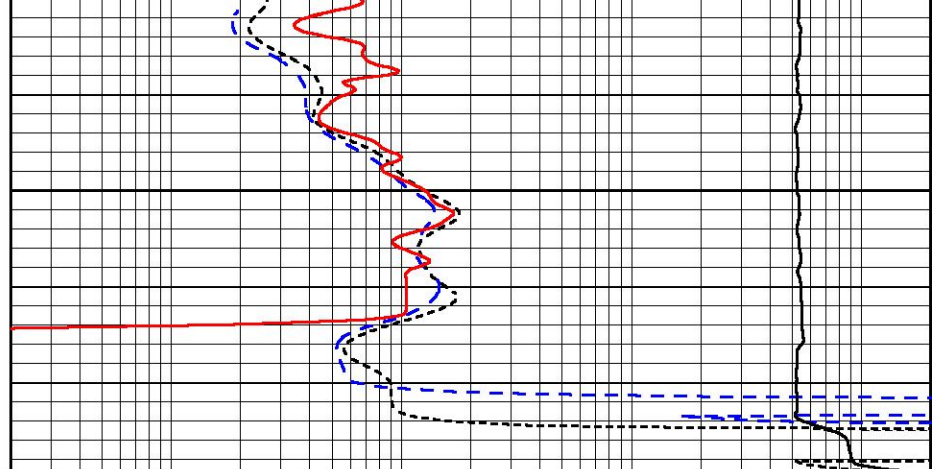
2850

2900





2950



0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0



MIDWEST WIRELINE

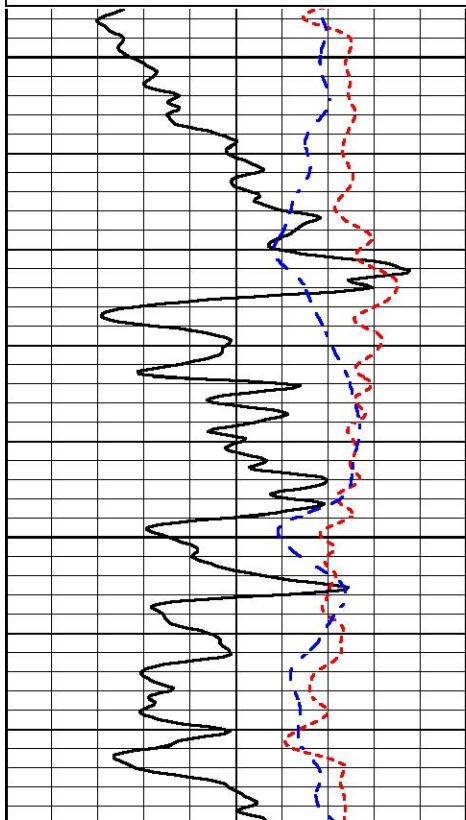
REPEAT SECTION

REPEAT PASS

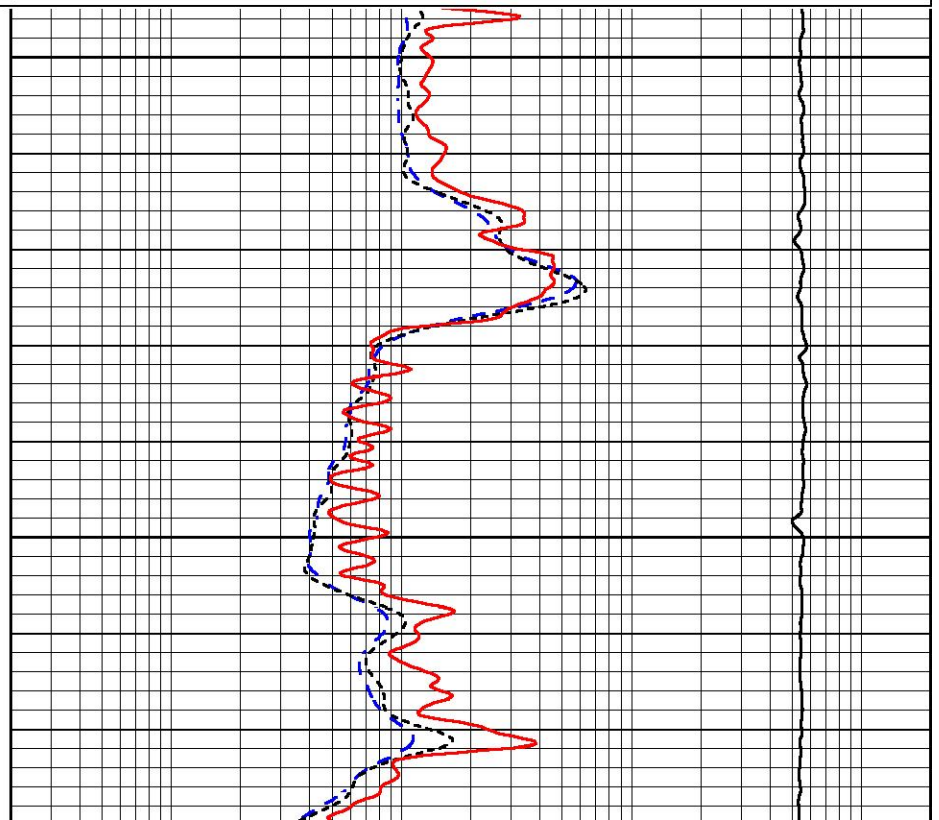
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 Presentation Format _dil
 Dataset Creation Fri Nov 10 23:08:03 2023
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

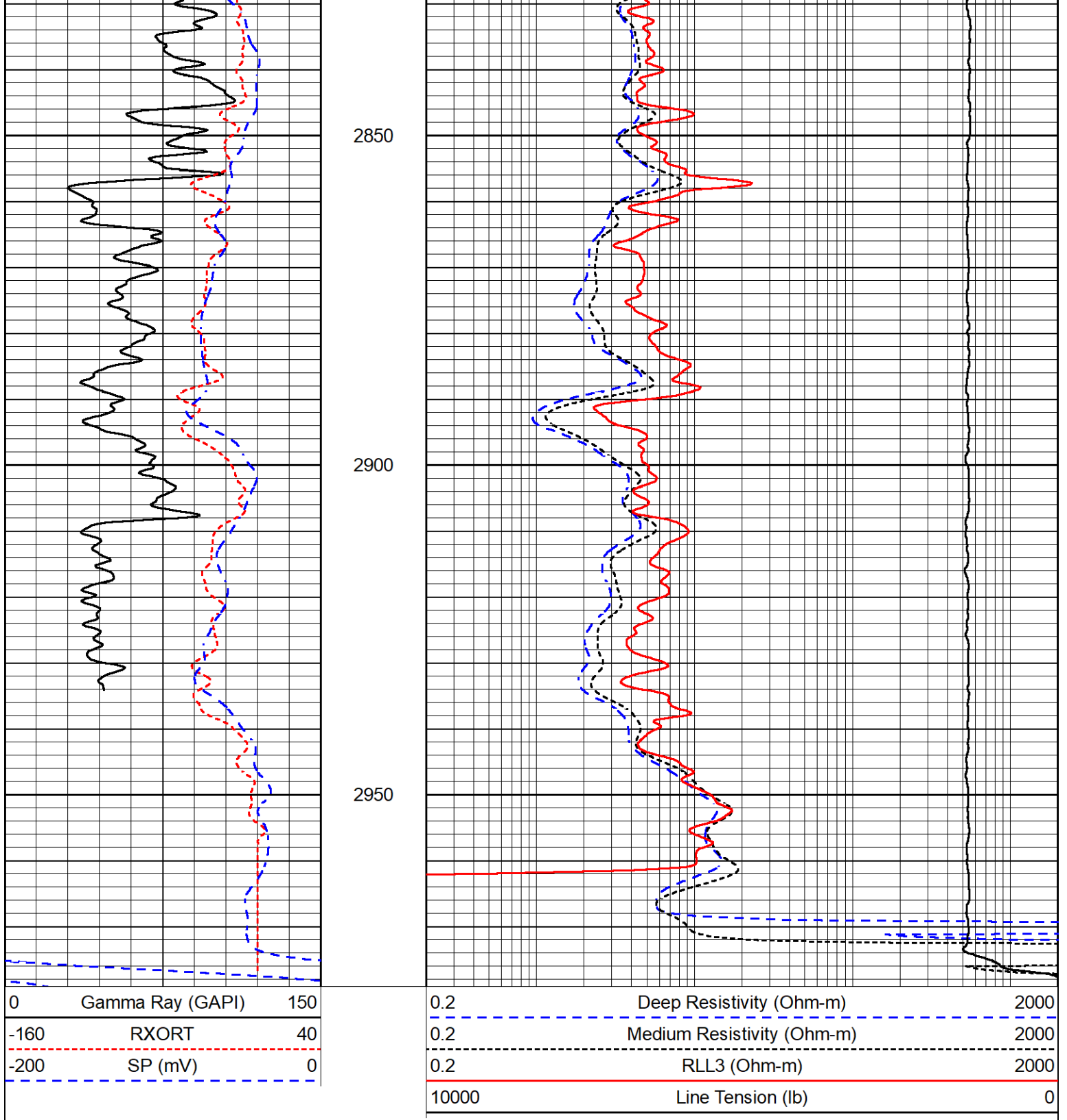
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0



2750



2800



Calibration Report

Database File m3 helium_smith c #2.db
 Dataset Pathname StkMI/pass3.1
 Dataset Creation Fri Nov 10 23:33:19 2023

Dual Induction Calibration Report

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

Readings

References

Results

Loop:	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	0.450	-79.000

Microlog Calibration Report

Serial-Model: 401-PSIML
 Performed: Mon Sep 25 22:02:56 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	26500.0000	-0.3000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22500.0000	-0.0500
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-138.8600

LITHODENSITY Calibration Report

Serial Number: 704-10
 Tool Model: STEP LITHO
 Performed: Wed Oct 11 14:52:04 2023

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	52	56	202	260	22	71	45	1	cps
LS:	82	93	356	462	52	144	94	3	cps
Aluminum:									
SS:	868	1009	2312	2012	39	73	47	2	cps
LS:	1063	1847	3324	1556	63	146	95	6	cps
Magnesium:									
SS:	1458	1686	3853	2923	42	73	48	3	cps
LS:	4604	7631	13124	4967	100	134	94	14	cps
Aluminum+Iron:									
SS:	538	708	1910	1720	37	73	47	1	cps
LS:	619	1309	2817	1400	60	147	97	5	cps
		Density			PE				
		Actual	Calibrated		Actual	Calibrated	Quality		
Background:									
SS:							0.225		
LS:							0.208		
Aluminum:									
SS:		2.6000	2.6000	g/cc			0.210		
LS:		2.6000	2.6000	g/cc			0.210		
Magnesium:									
SS:		1.6800	1.6800	g/cc	2.5700	2.5700	0.207		
LS:		1.6800	1.6800	g/cc	2.5700	2.5700	0.173		
Aluminum+Iron:									
SS:						6.1800	0.215		
LS:						6.1800	0.205		

Before Survey
 Performed: Wed Feb 9 13:15:42 2022

SS:	0	0	0	0	0	0	0	0	cps
LS:	1370	1580	3705	3037	48	80	50	4	cps

After Survey
 Performed: Wed Feb 9 13:16:02 2022

SS:	0	0	0	0	0	0	0	0	cps
LS:	1400	1600	3800	3100	60	100	70	6	cps

Caliper:	Reference:	Reading:
Small Ring:	6.0 in	0.2
Large Ring:	15.0 in	0.8
Gain:	16.161	
Offset:	1.130	

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	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:	102
Tool Model:	M&W
Performed:	Mon Sep 25 22:02:33 2023
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.5250 GAPI/cps



MIDWEST WIRELINE

Company	M3 Helium Corporation
Well	Smith C #2
Field	Hugoton
County	Haskell
State	Kansas