



MIDWEST WIRELINE

# DUAL INDUCTION LOG

Company **Darrah Oil Company, LLC**  
 Well **Wyly A #3**  
 Field **Pritchard**  
 County **Barton** State **Kansas**

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 Well **Wyly A #3**  
 Field **Pritchard**  
 County **Barton**  
 State **Kansas**

Location: **1542 FSL & 1872 FEL**  
**SEC 26 TWP 20S RGE 14W**  
 Permanent Datum **Ground Level** Elevation **1898**  
 Log Measured From **Kelly Bushing**  
 Drilling Measured From **Kelly Bushing**  
 Other Services **CNL/CDL MEL/BHCS**  
 Elevation **1909**  
 K.B. **1909**  
 D.F. **1898**  
 G.L.

Date	3/9/2022	
Run Number	One	
Depth Driller	3551	
Depth Logger	3550	
Bottom Logged Interval	3549	
Top Log Interval	300	
Casing Driller	8.625 @ 333	
Casing Logger	330	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	6000	
Density / Viscosity	9.1	58
pH / Fluid Loss	10.0	8.4
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	0.50 @	50
Rmt @ Meas. Temp	0.38 @	50
Rmc @ Meas. Temp	0.68 @	50
Source of Rmf / Rmc	CHARTS	
Rm @ BHT	0.23 @	110
Operating Rig Time	4 Hours	
Max Rec. Temp. F	110	
Equipment Number	P-24	
Location	Hays	
Recorded By	D. Schmidt	
Witnessed By	Roger Martin	

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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.**

**Great Bend,  
 South to 50th, West to 40th, 3/4 South,  
 West into**

**Log Measured From: Kelly Bushing                      5    Ft. Above Permanent Datum**

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

**Your Midwest Wireline Crew**

**Engineer: D. Schmidt  
 Operator:  
 Operator:  
 Operator:**

**This Log Record Was Witnessed By**

**Primary Witness: Roger Martin  
 Secondary Witness:  
 Secondary Witness:  
 Secondary Witness:**

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	32.75		GR-M&W (101)	3.00	3.50	50.00
CNLSC CNSSC	29.65 28.90		CNT-M&W (207-MW)	5.00	3.50	100.00
LSD DCAL SSD	20.60 20.58 20.10		CDL-M&W (305-05)	8.50	4.00	250.00
RLL3F RLL3	15.50 15.50		DIL-M&W (501 HT)	18.25	3.50	220.00
CILD	8.33		CILM	4.50		
SP	0.20					

Dataset: darrah\_wyly a 3.db: field/well/stack/pass5.1  
 Total length: 34.75 ft  
 Total weight: 620.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\darrah\_wyly a 3.db  
 Dataset field/well/stack/pass5.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	110	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-110	30	Off	3351

## 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

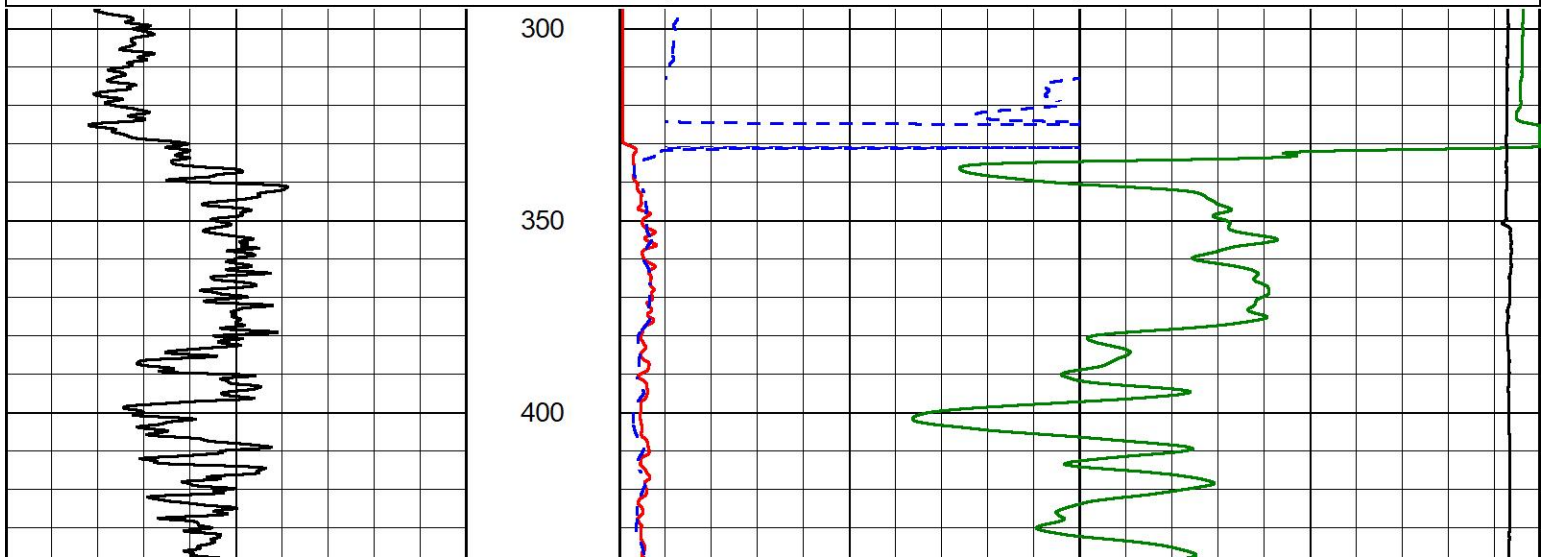


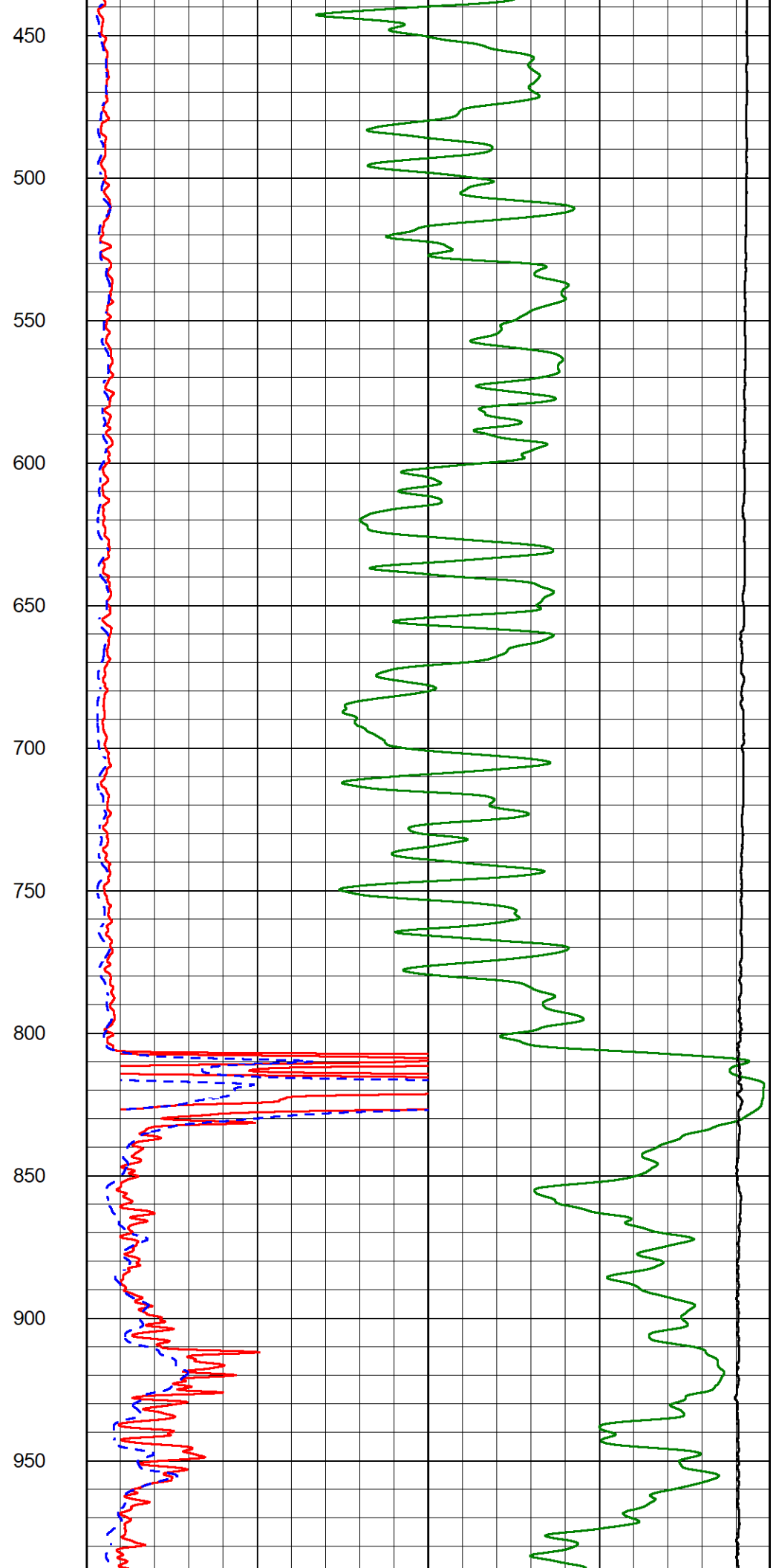
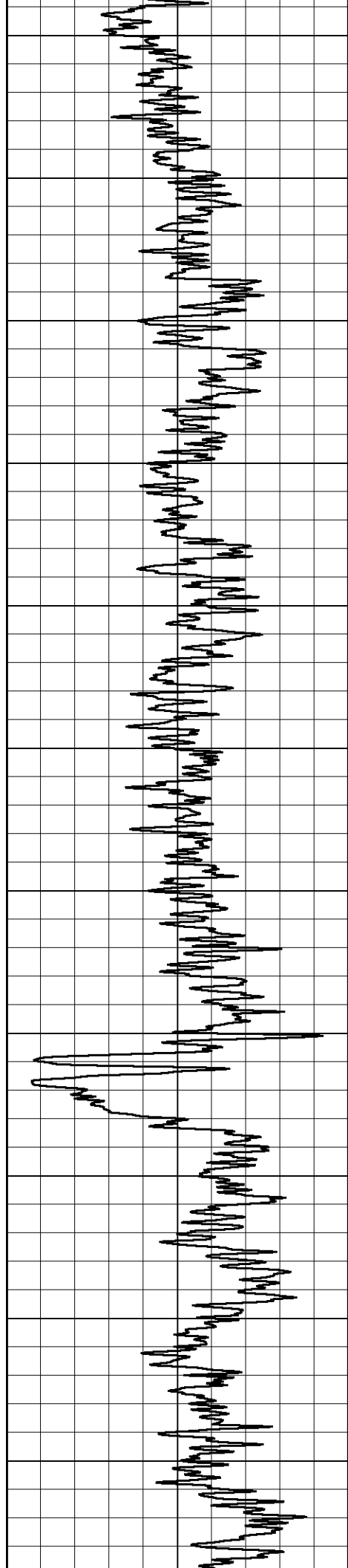
## 2" SCALE RESISTIVITY

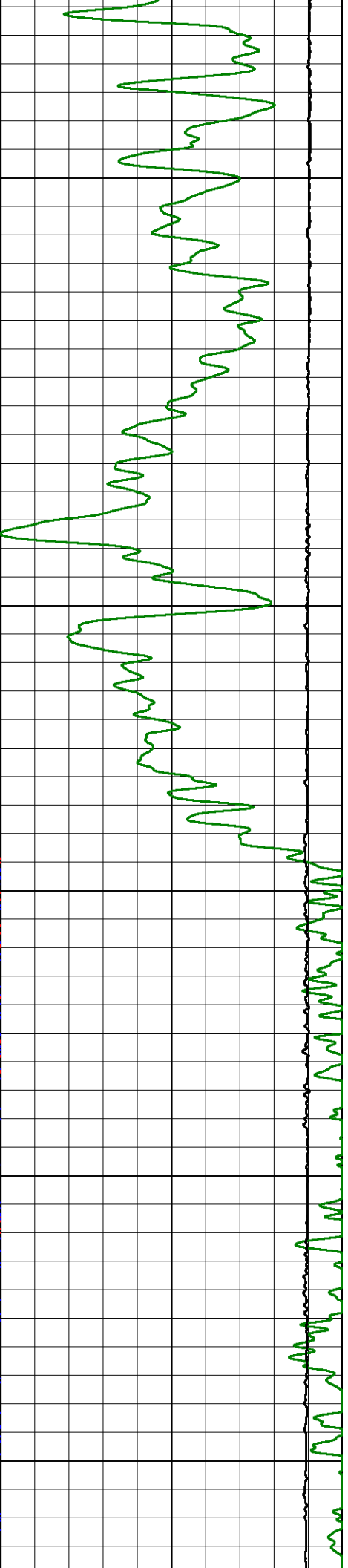
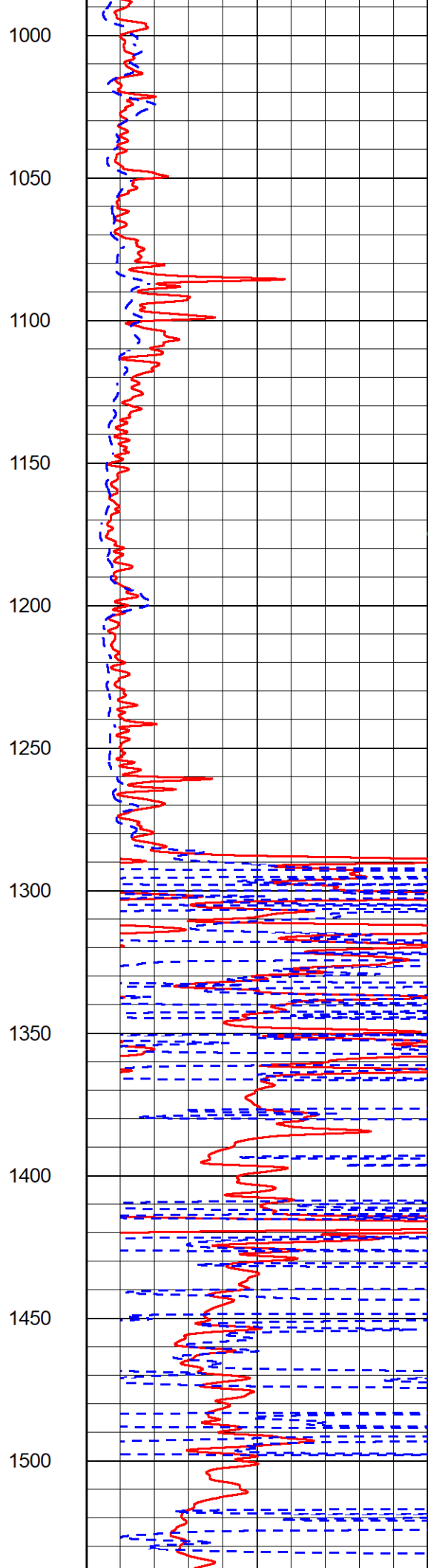
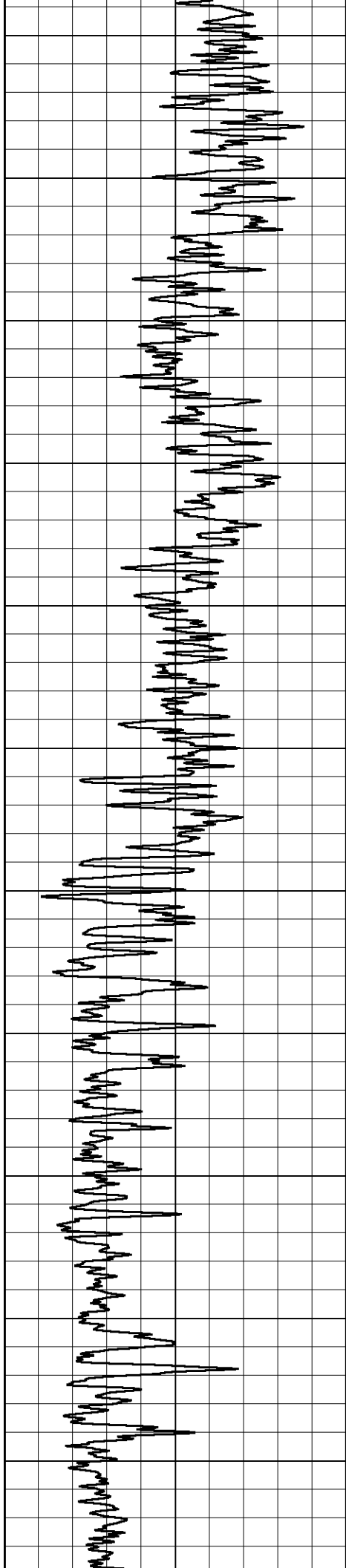
### MAIN PASS

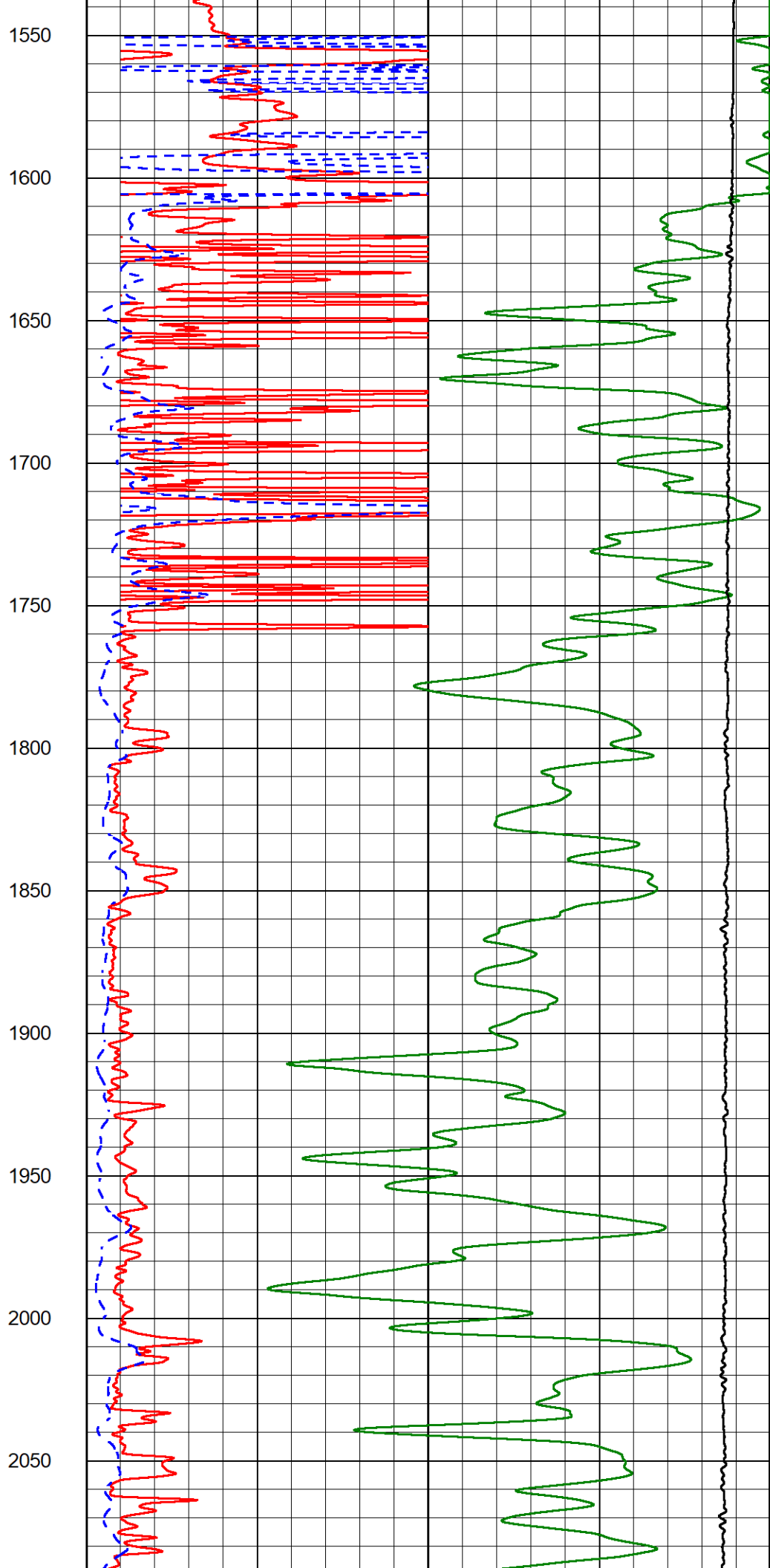
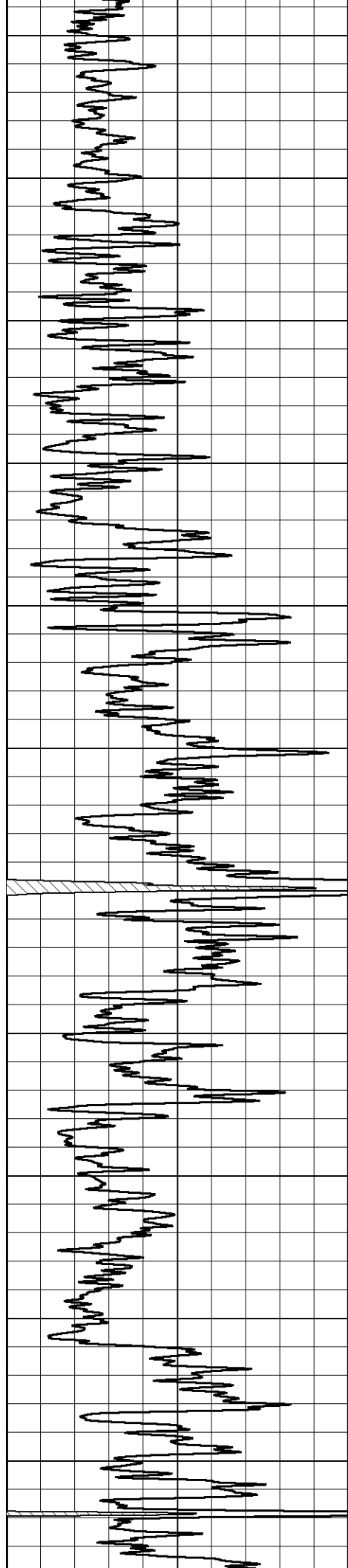
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 Dataset Pathname stack/pass5.3  
 Presentation Format \_dil2in  
 Dataset Creation Wed Mar 09 12:59:27 2022  
 Charted by Depth in Feet scaled 1:600

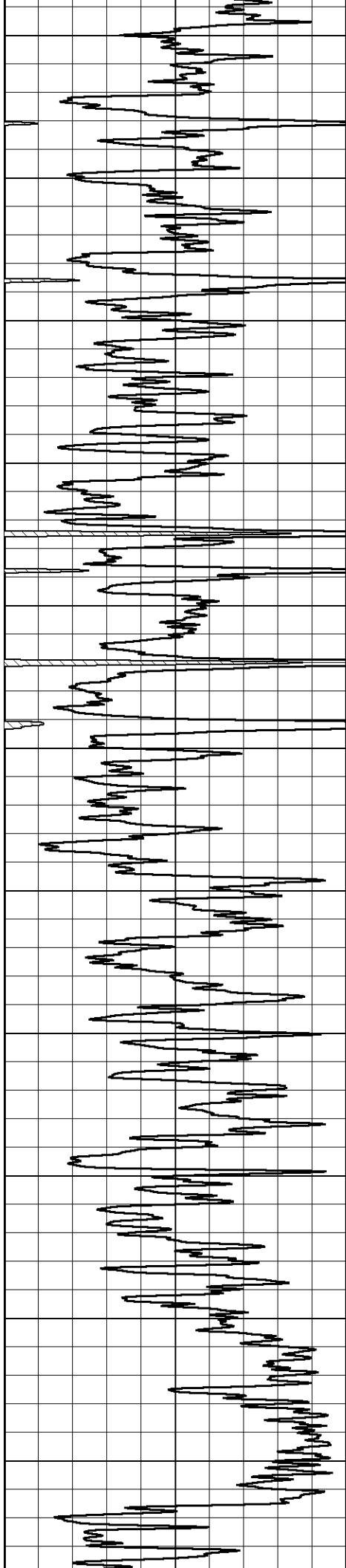
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
			15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50			
0	Deep Resistivity (Ohm-m)	50			
	Shallow Resistivity				
50	(Ohm-m)	200			
50	Deep Resistivity (Ohm-m)	200			



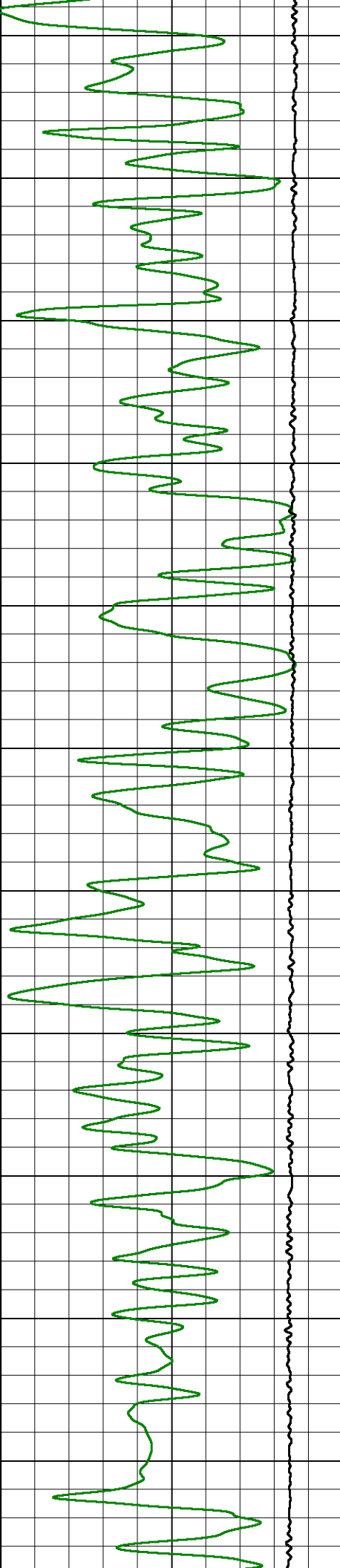
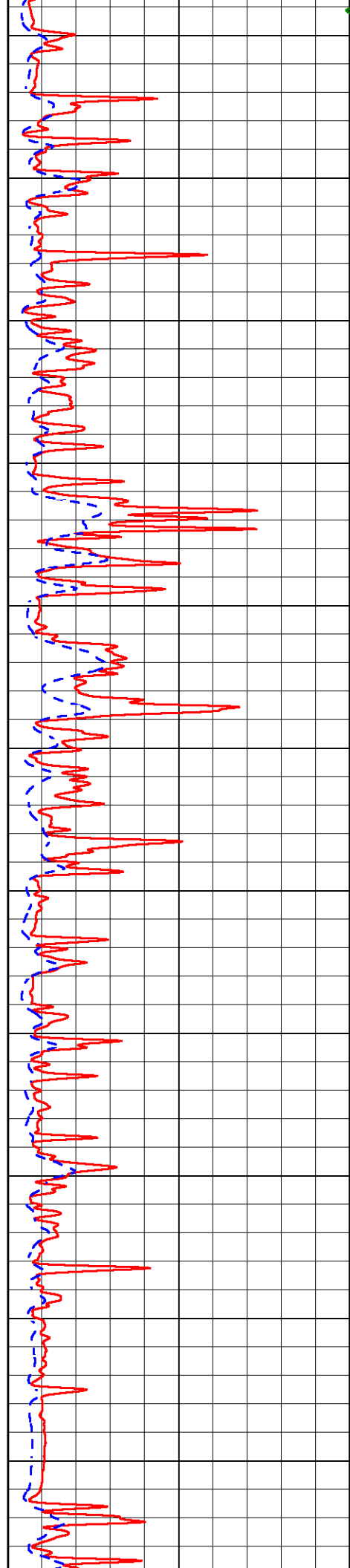


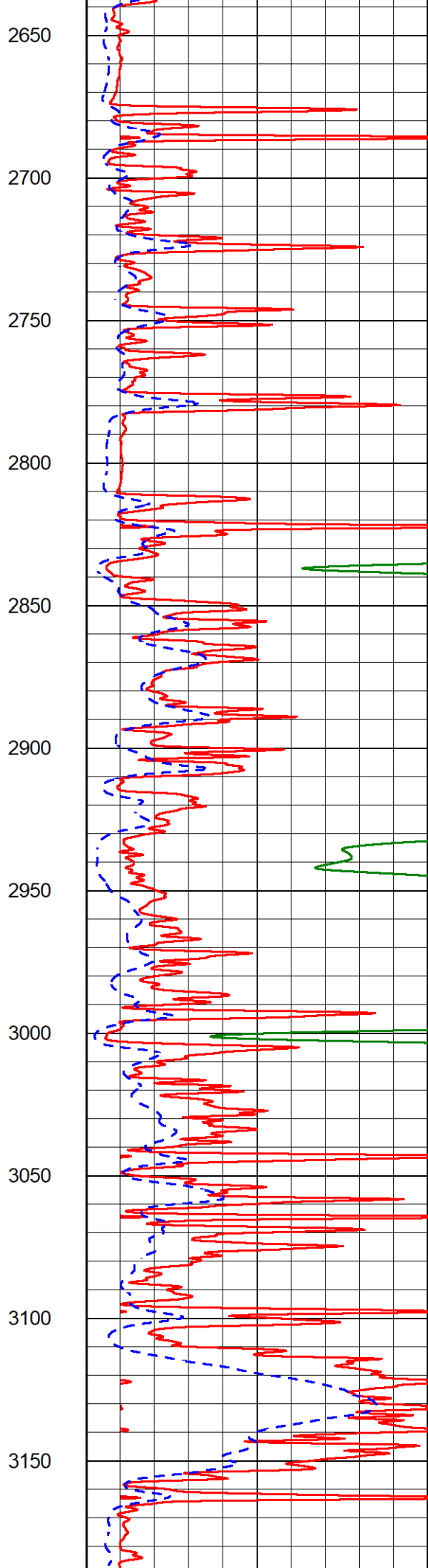
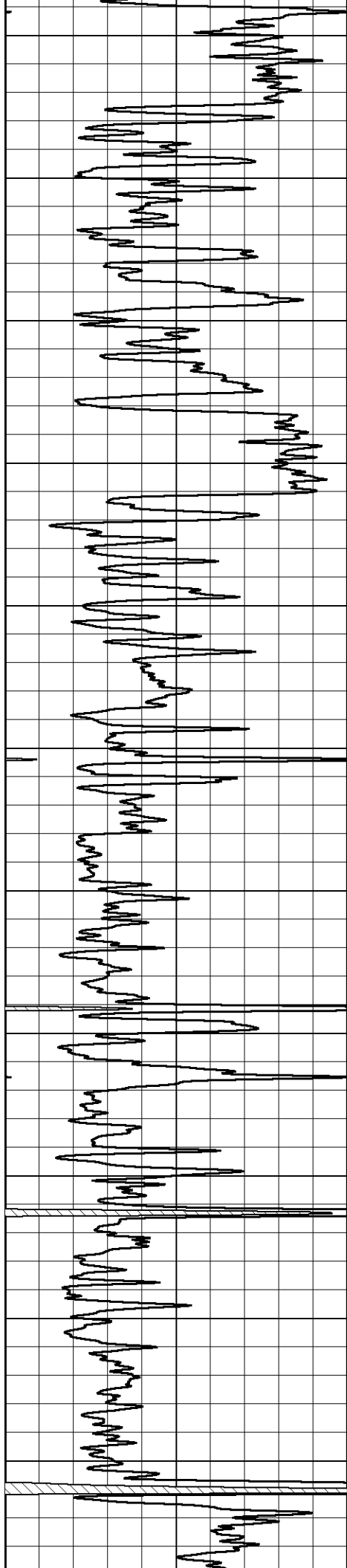


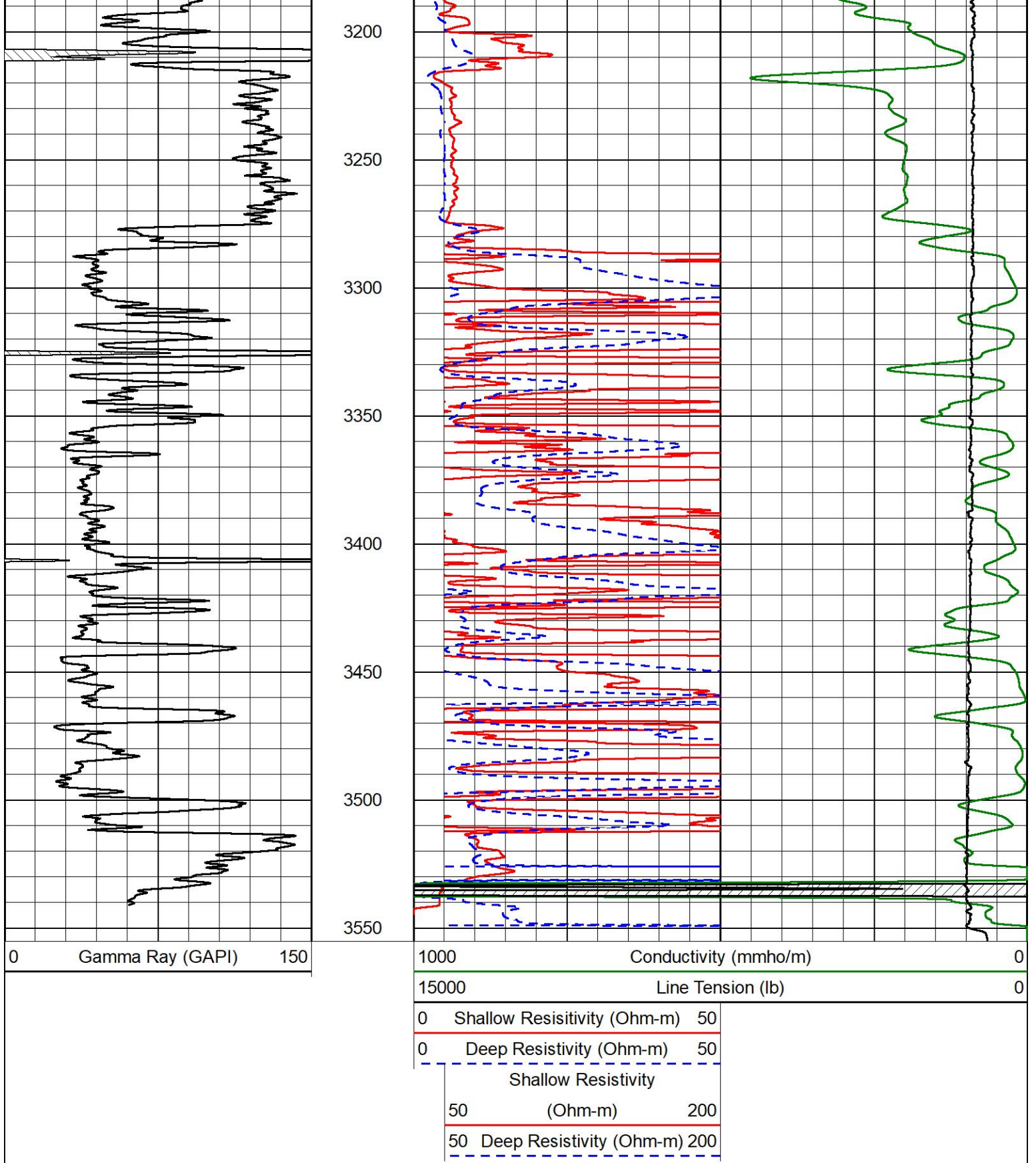




2100  
2150  
2200  
2250  
2300  
2350  
2400  
2450  
2500  
2550  
2600







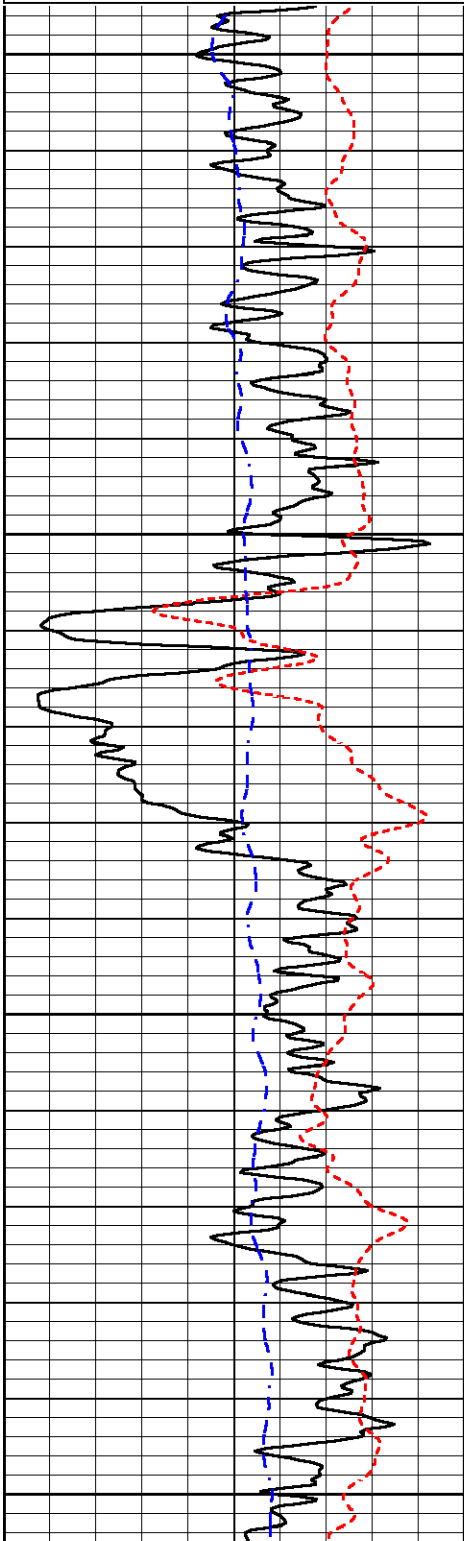
# ANHYDRITE SECTION

## MAIN PASS

Database File darrah\_wyly a 3.db  
 Dataset Pathname stack/pass5.4  
 Presentation Format \_dil  
 Dataset Creation Wed Mar 09 12:50:33 2022

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	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

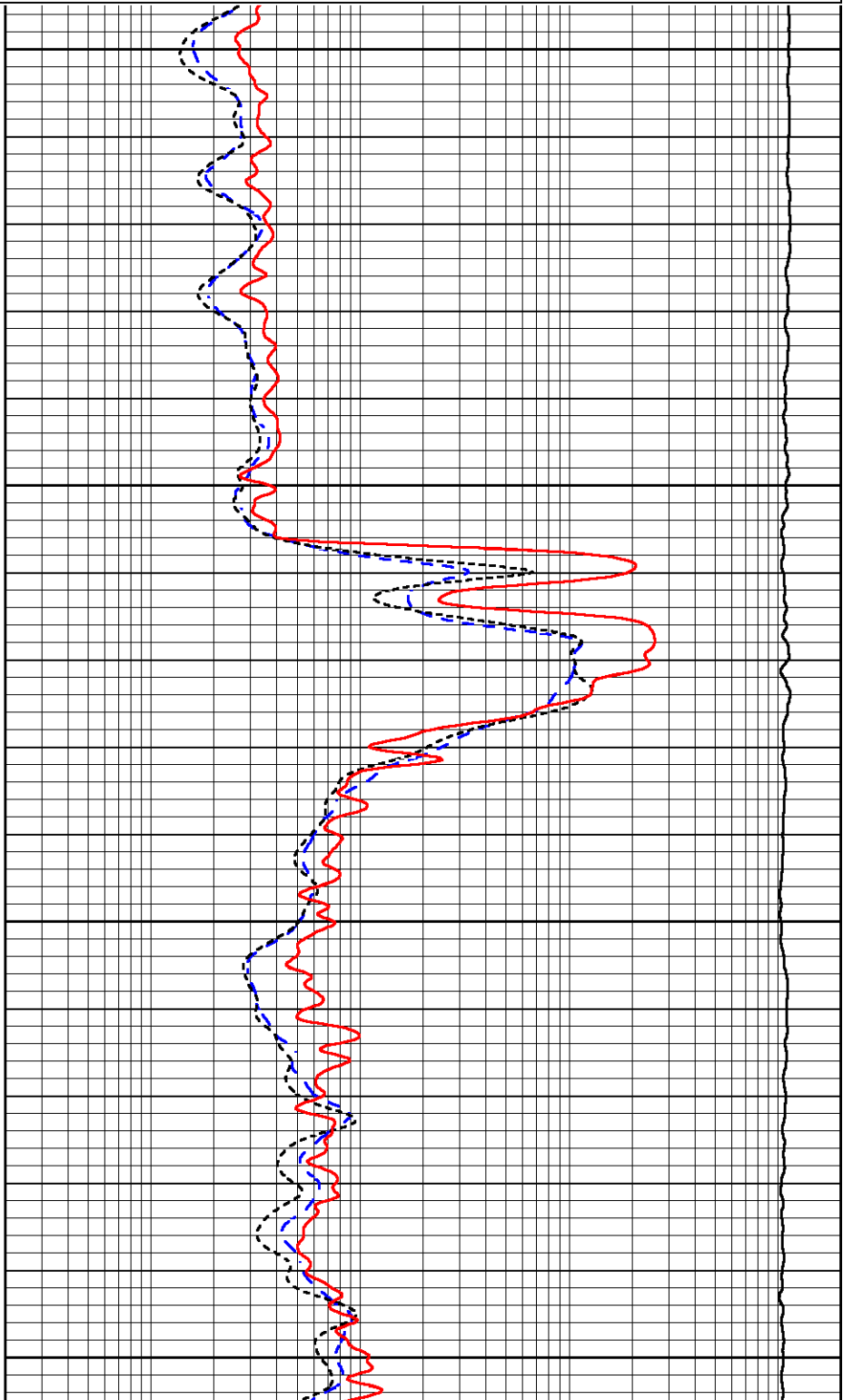


750

800

850

900



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	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0



DETAIL SECTION

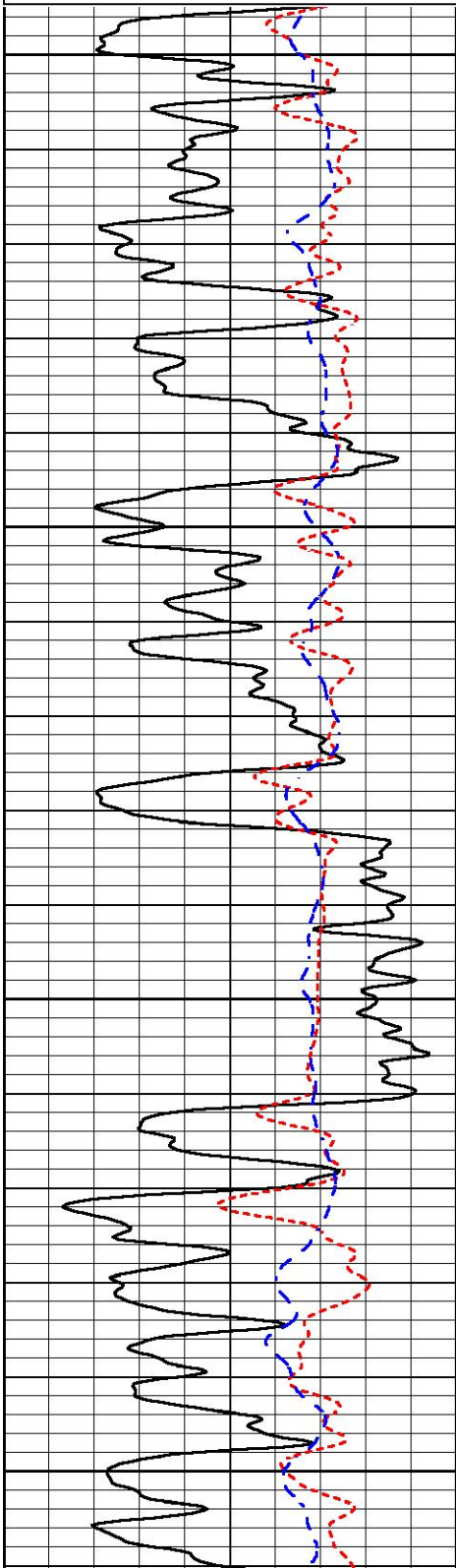


MAIN PASS

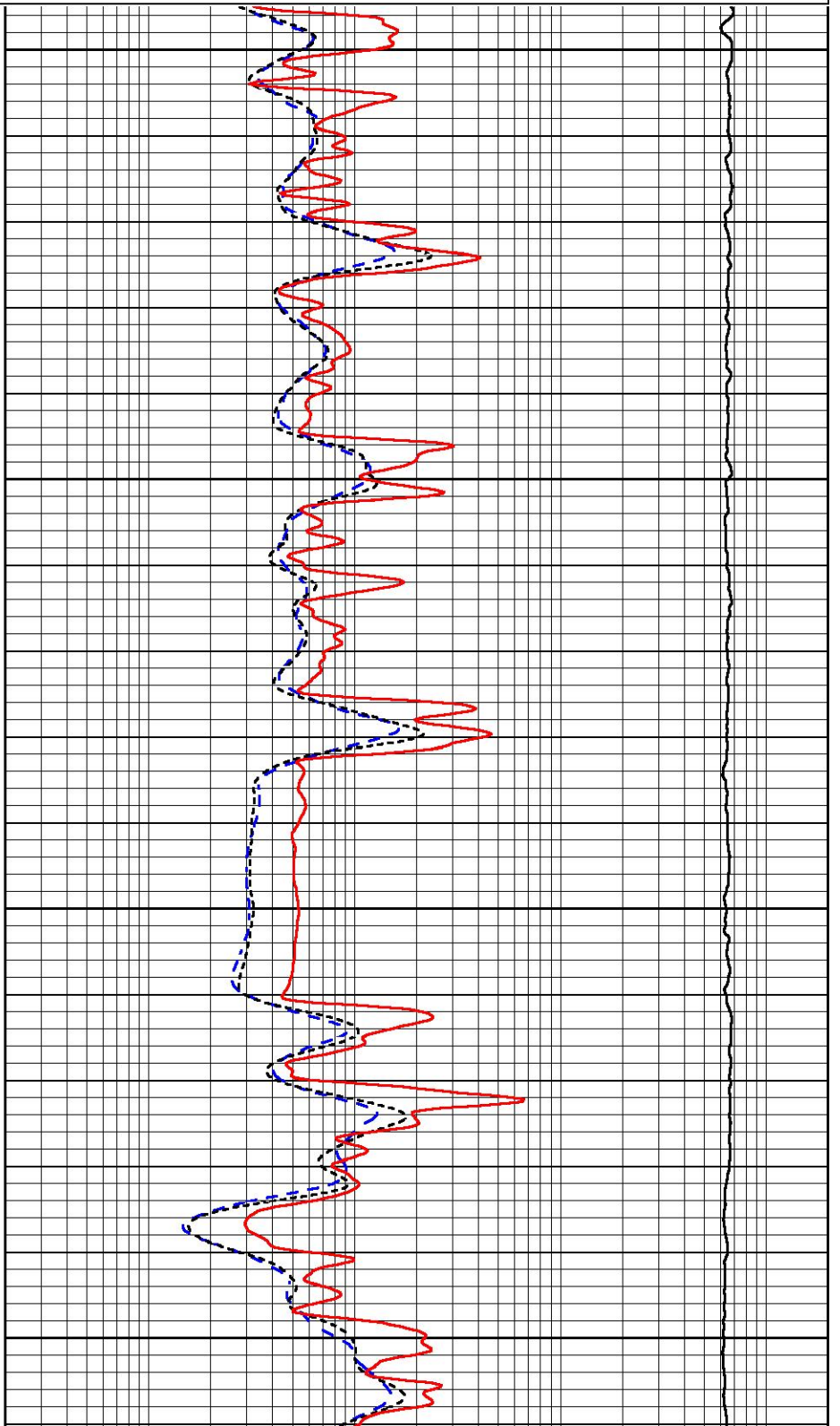
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 Presentation Format \_dil  
 Dataset Creation Wed Mar 09 12:54:59 2022  
 Charted by Depth in Feet scaled 1:240

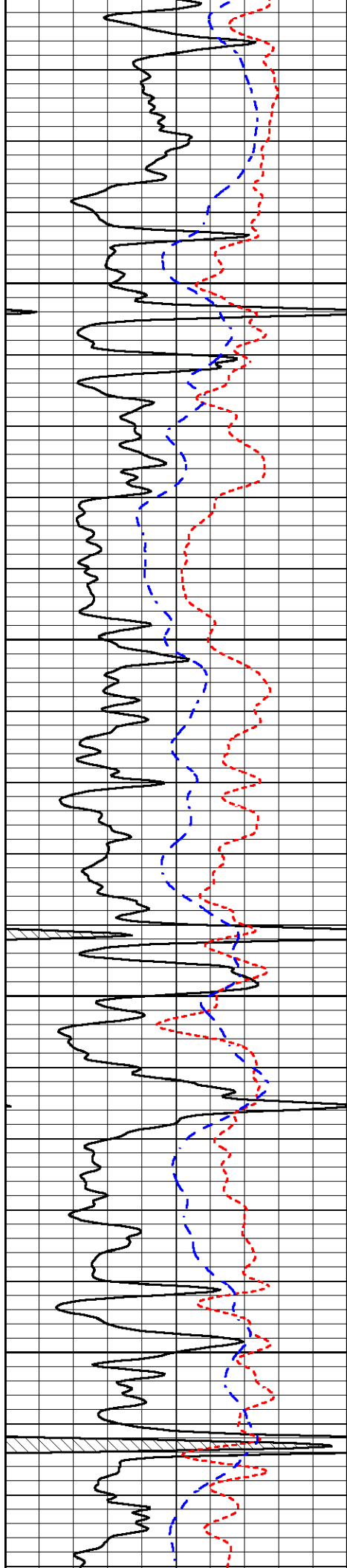
0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

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



2700  
2750  
2800  
2850



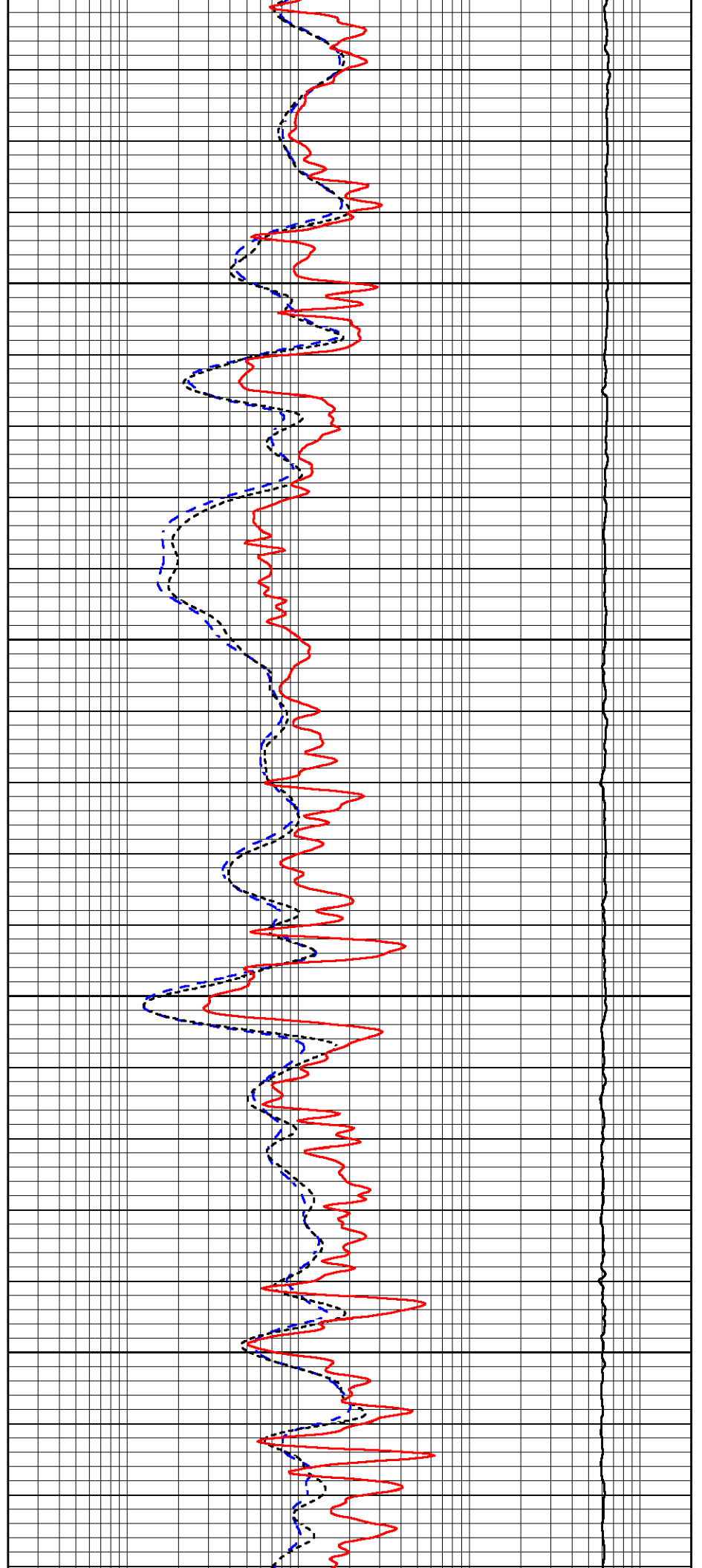


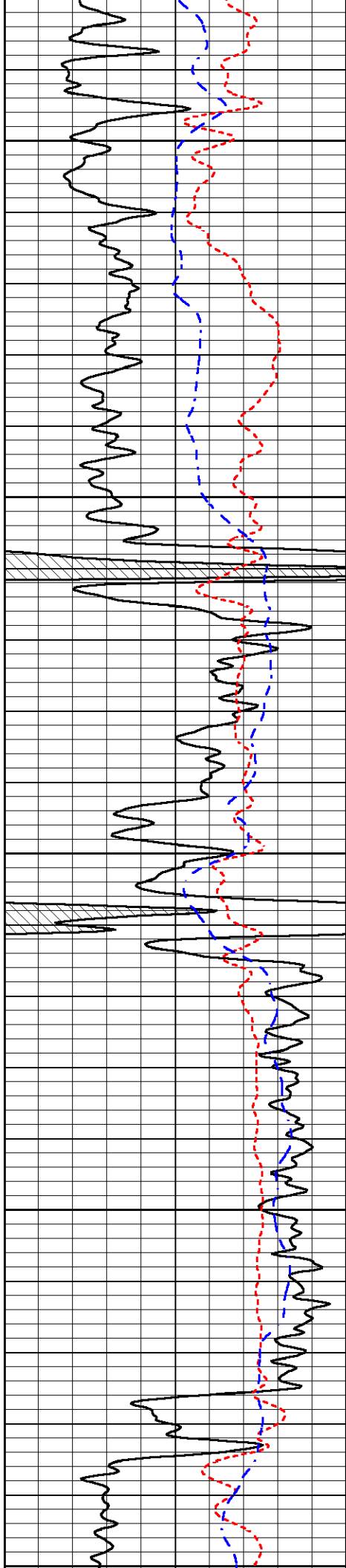
2900

2950

3000

3050





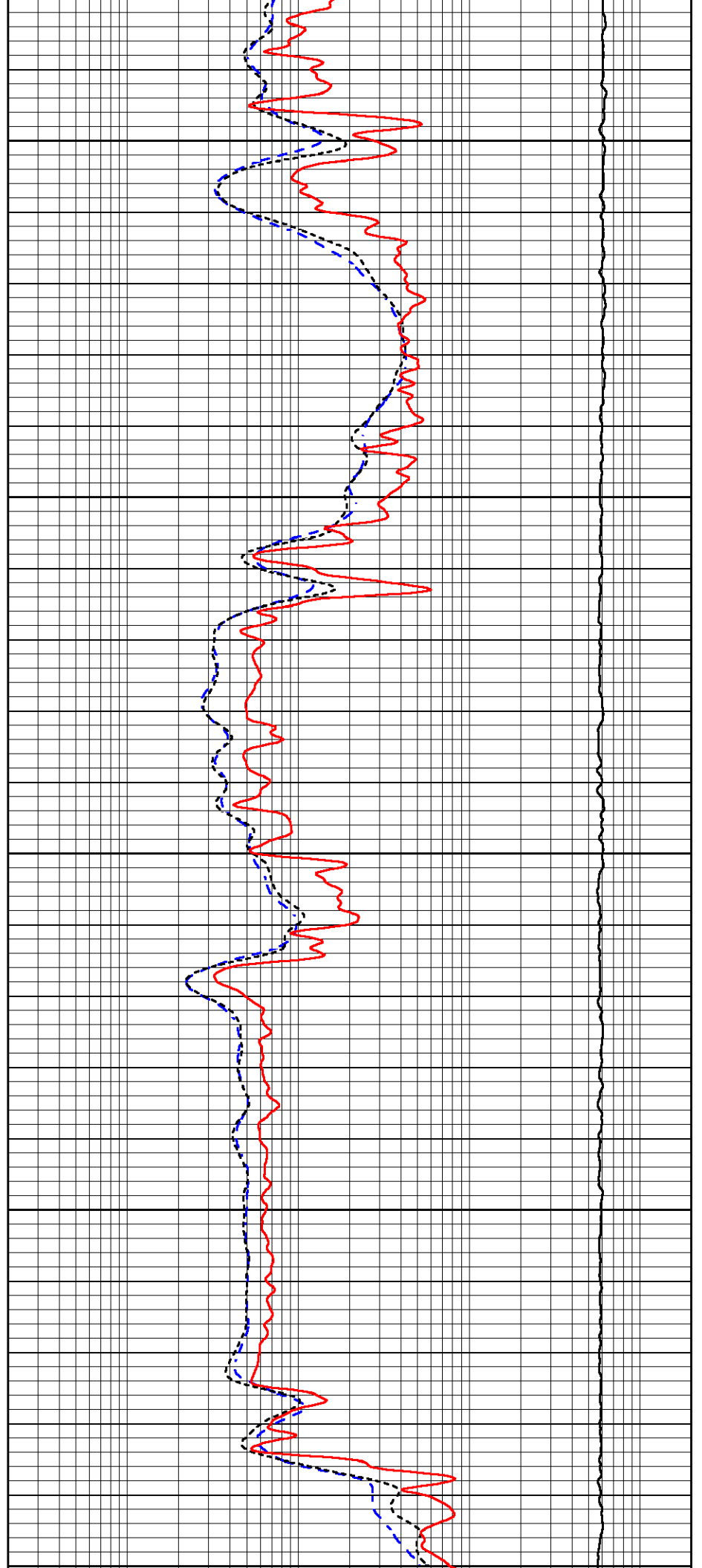
3100

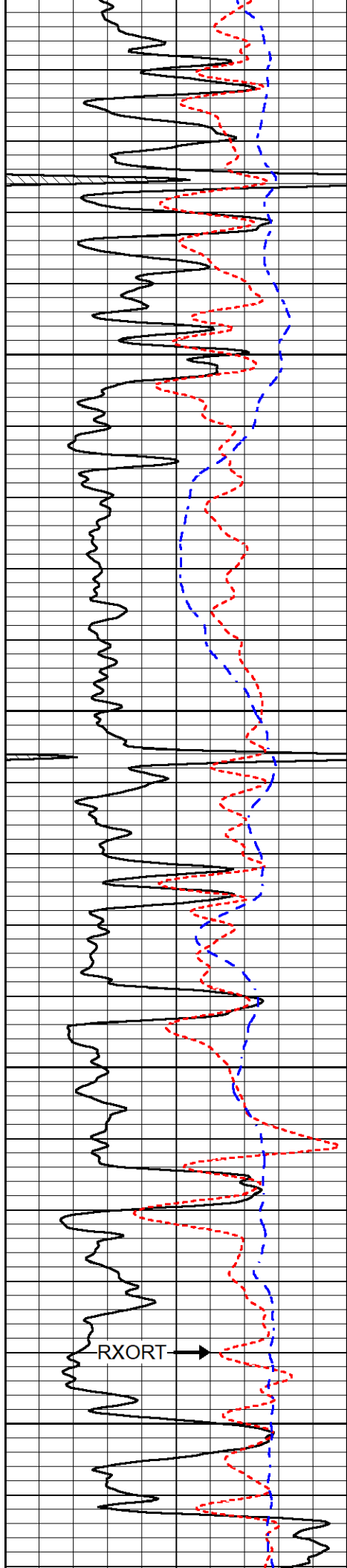
3150

3200

3250

3300





3300

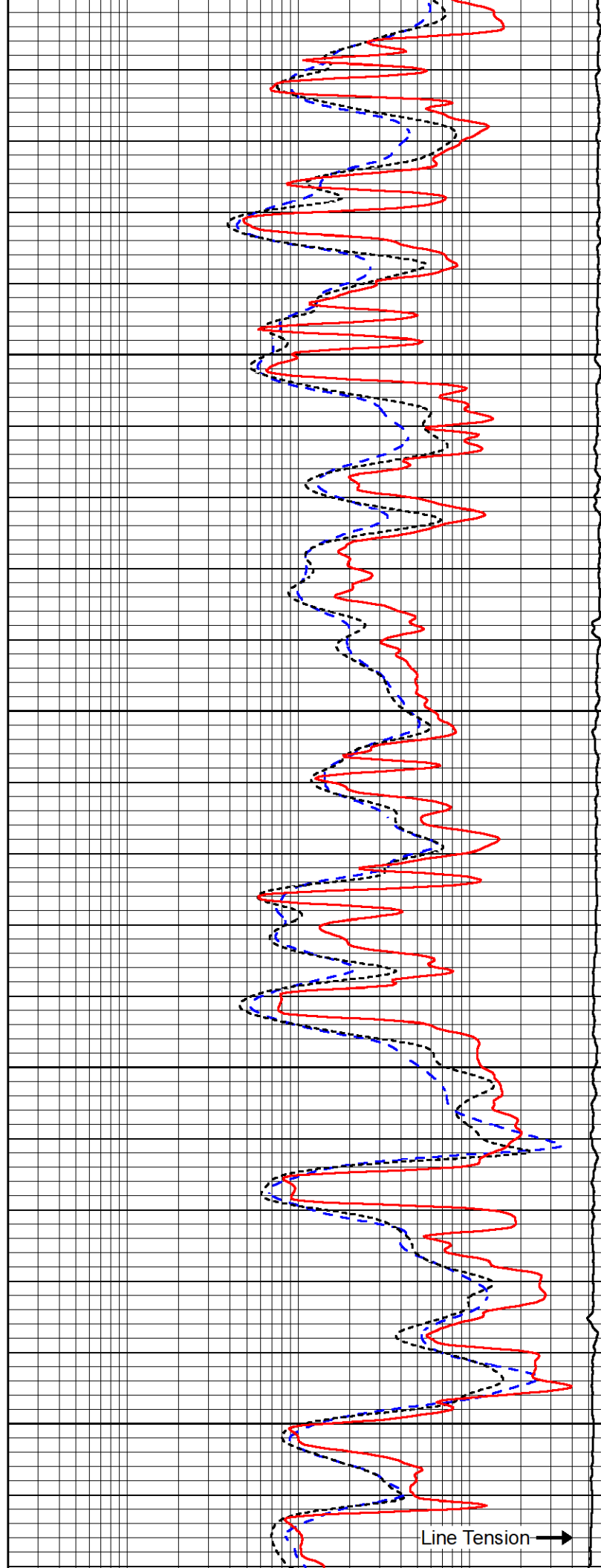
3350

3400

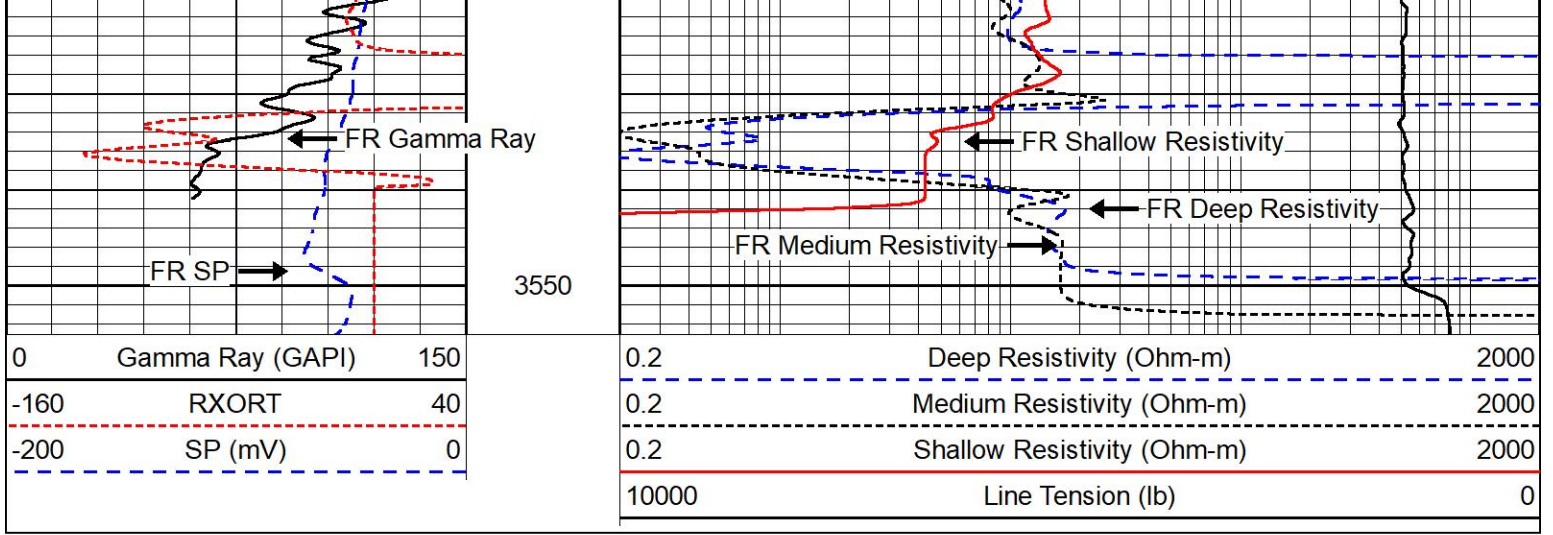
3450

3500

RXORT →



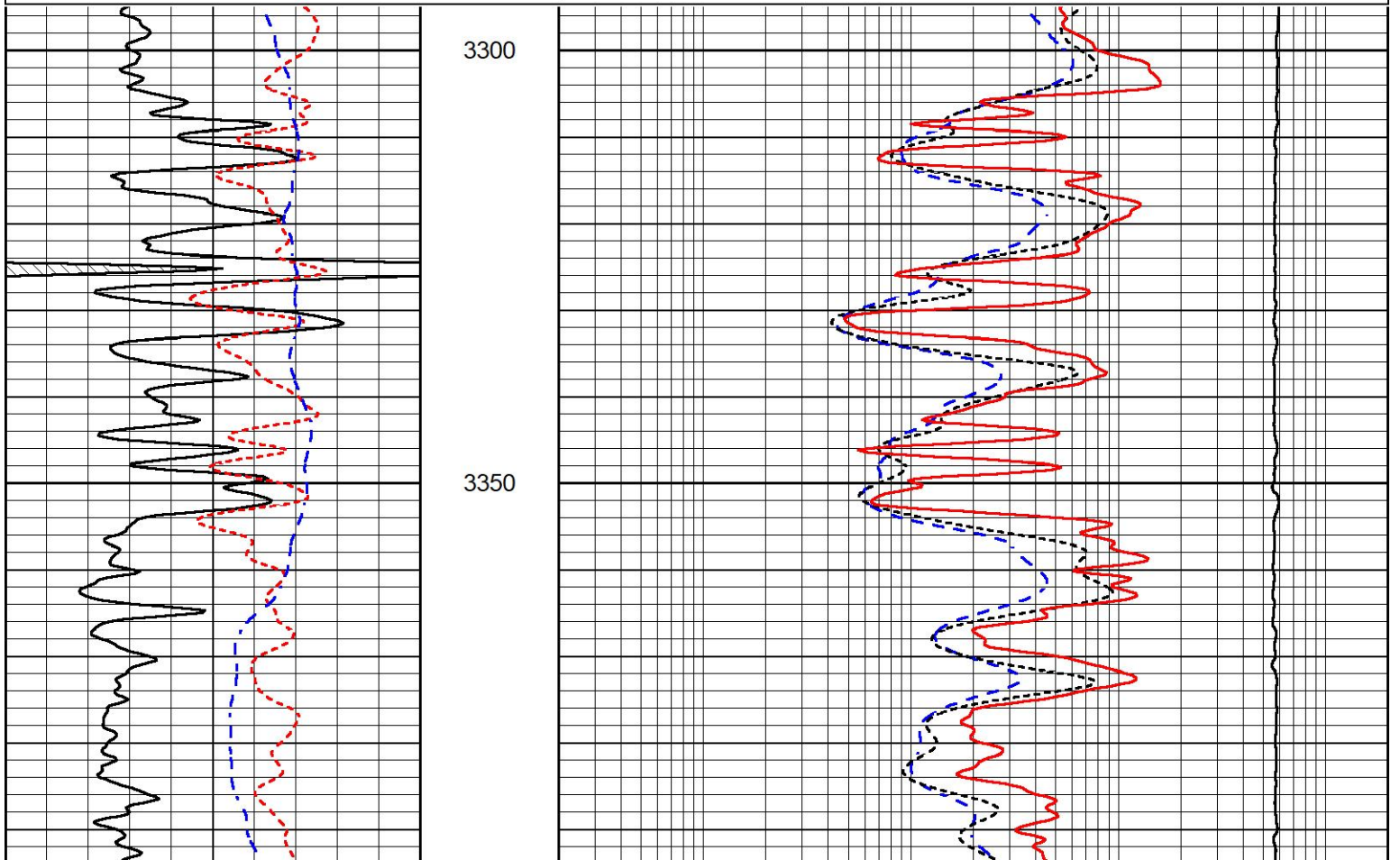
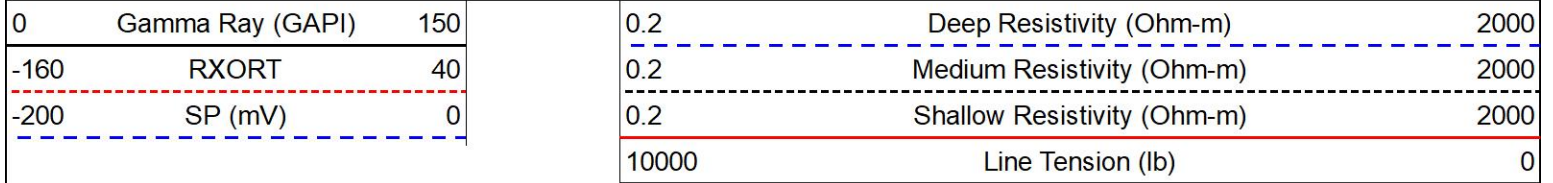
Line Tension →

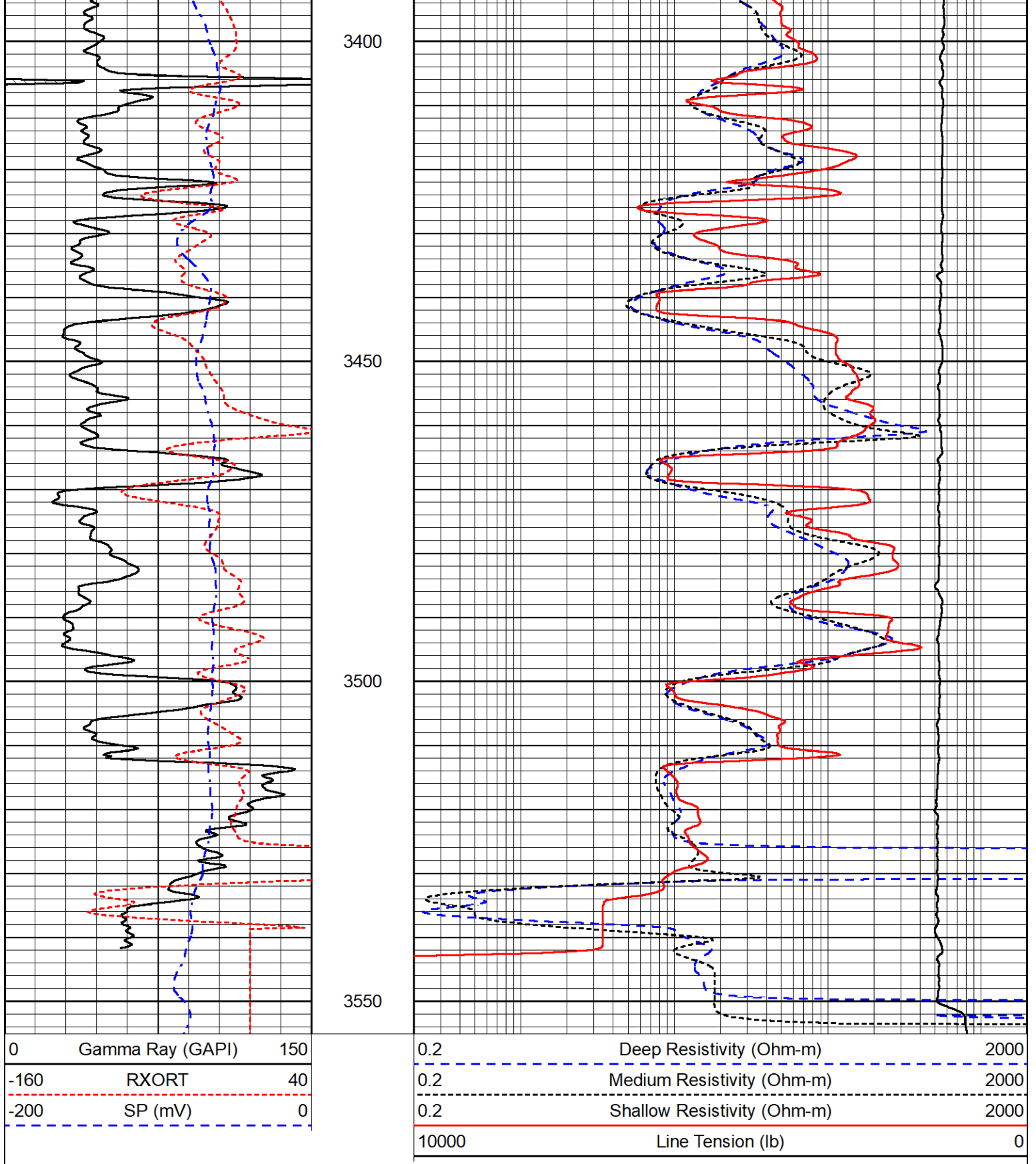


# REPEAT SECTION

## REPEAT PASS

Database File darrah\_wyly a 3.db  
 Dataset Pathname stack/pass4.1  
 Presentation Format \_dil  
 Dataset Creation Wed Mar 09 12:07:18 2022  
 Charted by Depth in Feet scaled 1:240





### Calibration Report

Database File     darrah\_wyly a 3.db  
 Dataset Pathname     stack/pass5.1  
 Dataset Creation     Wed Mar 09 12:54:59 2022

### Dual Induction Calibration Report

Serial-Model:                     501 HT-M&W  
 Surface Cal Performed:             Wed Feb 23 19:44:50 2022

Loop:	Readings		References		Results		
	Air	Loop	Air	Loop	m	b	
Deep	83.639	487.104	0.000	183.000	mmho/m	0.455	-34.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.320	-31.000

**Compensated Density Calibration Report**

Serial-Model: 305-05-M&W  
Source #: 20762B  
Master Calibration Performed: Mon Feb 28 14:58:34 2022

**Master Calibration**

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	8758.11	9709.36	cps
Aluminum	2.620	g/cc	1513.14	5652.54	cps
Spine Angle = 72.88			Density/Spine Ratio = 0.471		
	Size		Reading		
Small Ring	4.00	in	1.75		
Large Ring	14.00	in	1.38		

**Compensated Neutron Calibration Report**

Serial-Model: 207-MW-M&W  
Source #: 100046B  
Master Calibration Performed: Mon Nov 29 15:06:24 2021

**Master 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

**Gamma Ray Calibration Report**

Serial Number: 101  
Tool Model: M&W  
Performed: Mon Jan 24 19:14:46 2022

Calibrator Value: 500.0      GAPI

Background Reading: 24.0      cps  
Calibrator Reading: 637.0      cps

Sensitivity: 0.5500      GAPI/cps



Company: Darrah Oil Company, LLC  
Well: Wyly A #3  
Field: Pritchard  
County: Barton  
State: Kansas

MIDWEST WIRELINE

STATE NEWS