MIDWEST WIRELINE

DUAL INDUCTION

Company Satchell Creek Petroleum LLC
Well Worcester A #1-34
Field Last Hope Northeast
County Graham State Kansas

Location: API # : 15-065-24269-00-00
NE SE SW SE
465 FSL & 1560 FEL
SEC 34 TWP 6S RGE 22W

Other Services
CNL/CDL
MEL/BHCS

Permanent Datum Ground Level Elevation 2245
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Elevation
K.B. 2252
D.F.
G.L. 2245

Date	7/27/2023		
Run Number	One		
Depth Driller	3860		
Depth Logger	3852		
Bottom Logged Interval	3851		
Top Log Interval	200		
Casing Driller	8.625 @ 220		
Casing Logger	223		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	2100		
Density / Viscosity	9.5 42		
pH / Fluid Loss	100.0 8.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	0.74 @ 76		
Rmf @ Meas. Temp	0.56 @ 76		
Rmc @ Meas. Temp	1.00 @ 76		
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.49 @ 115		
Operating Rig Time	3.5 Hours		
Max Rec. Temp. F	115		
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,
7 N to Rd Y, 3/4 E, N 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	This Log Record Was Witnessed By
Engineer: T. Martin	Primary Witness: Sean Deenihan
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	32.75		GR-M&W (105)	3.00	3.50	50.00
CNLSC	29.65					
CNSSC	28.90		CNT-M&W (207)	5.00	3.50	100.00
			CDL-M&W (307-11)	8.50	4.00	250.00
LSD	20.60					
DCAL	20.58					
SSD	20.10					
RLL3F	15.50					
RLL3	15.50					
			DIL-M&W (507)	18.25	3.50	220.00
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: satchell_worcester a #1-34.db: field/well/Stack/pass3.1
Total length: 34.75 ft
Total weight: 620.00 lb
O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\satchell_worcester a #1-34.db
Dataset field/well/Stack/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 115	CASEOD in 5.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m -1.5	SNDERRM mmho/m 2	SPSHIFT mV 480	SRFTEMP degF 98	SZCOR Off	TDEPTH ft 3852		

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

2" SCALE RESISTIVITY

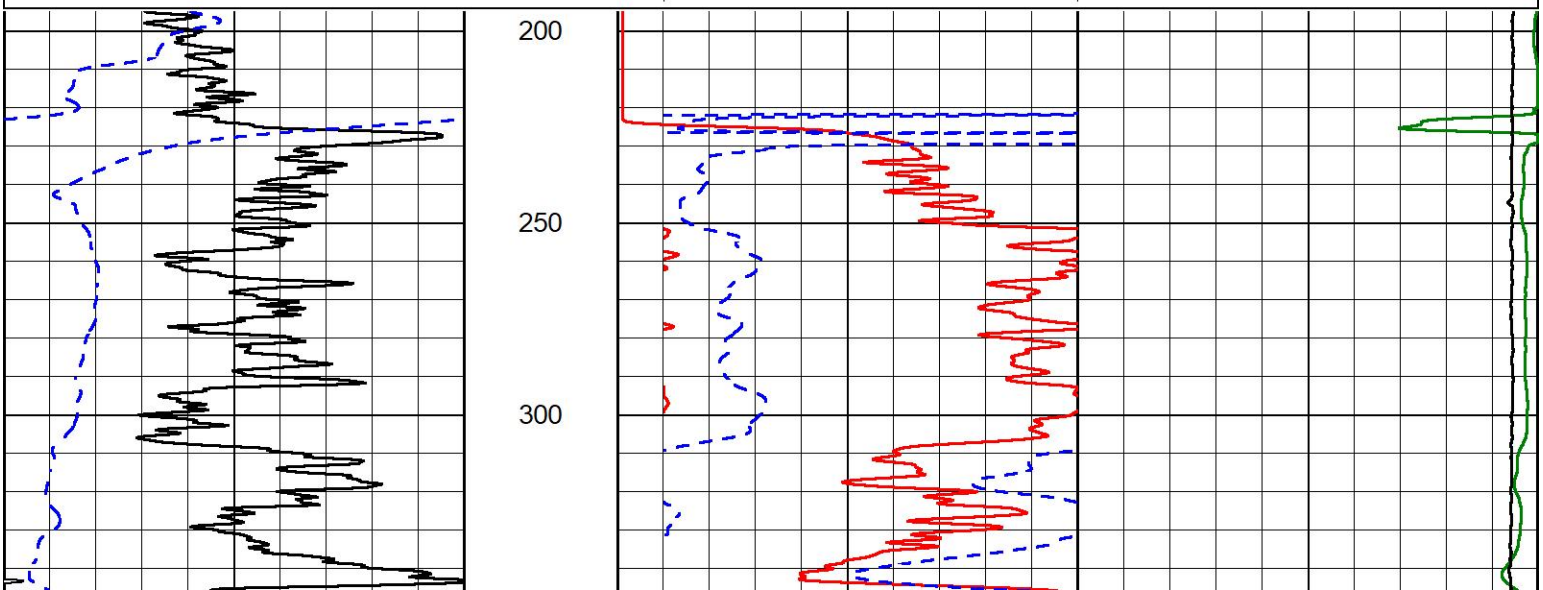
MAIN PASS

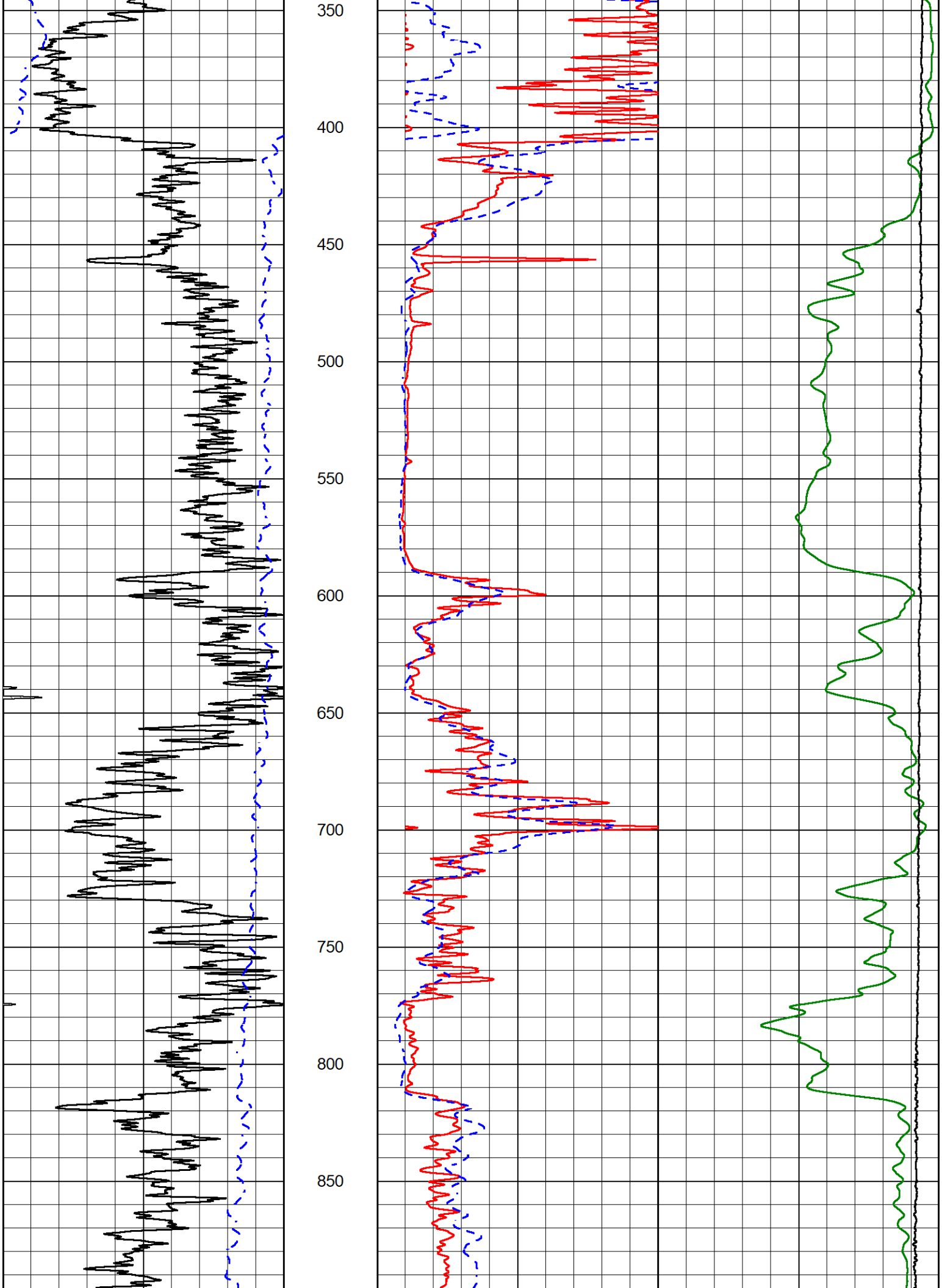
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Dataset Pathname	Stack/pass3.2
Presentation Format	_dil2in
Dataset Creation	Thu Jul 27 15:03:57 2023
Charted by	Depth in Feet scaled 1:600

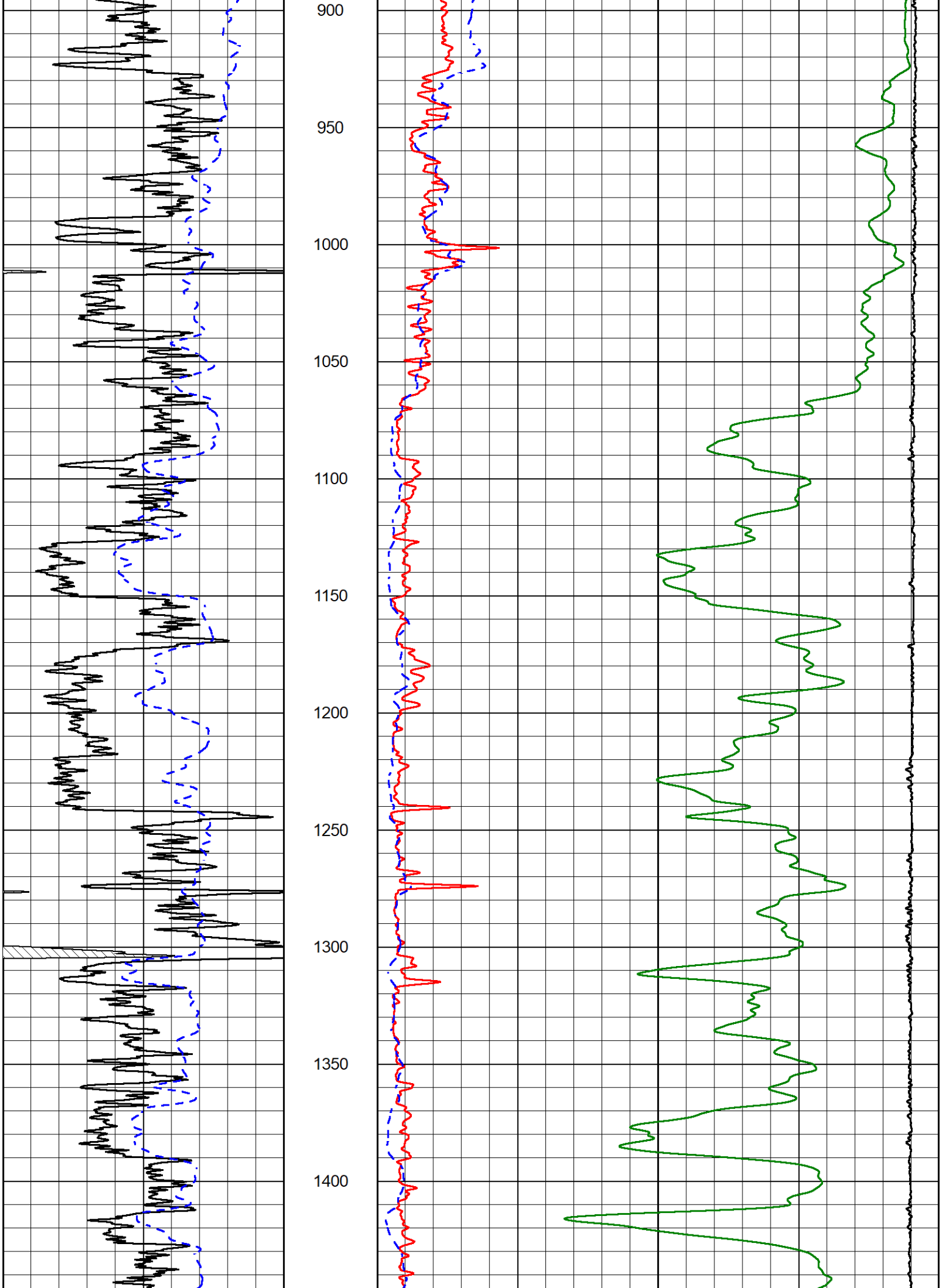
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

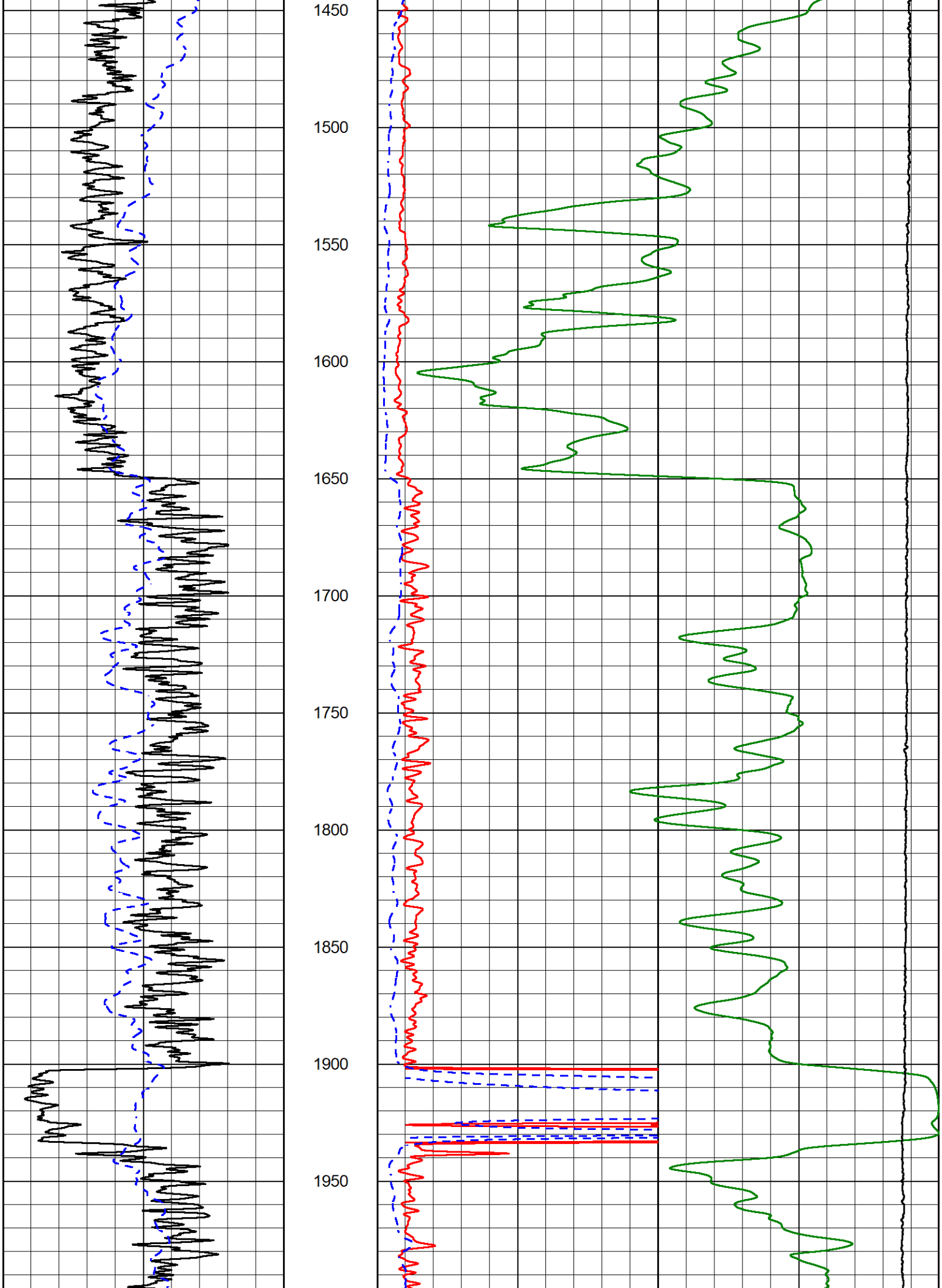
1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	Shallow Resisitivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50

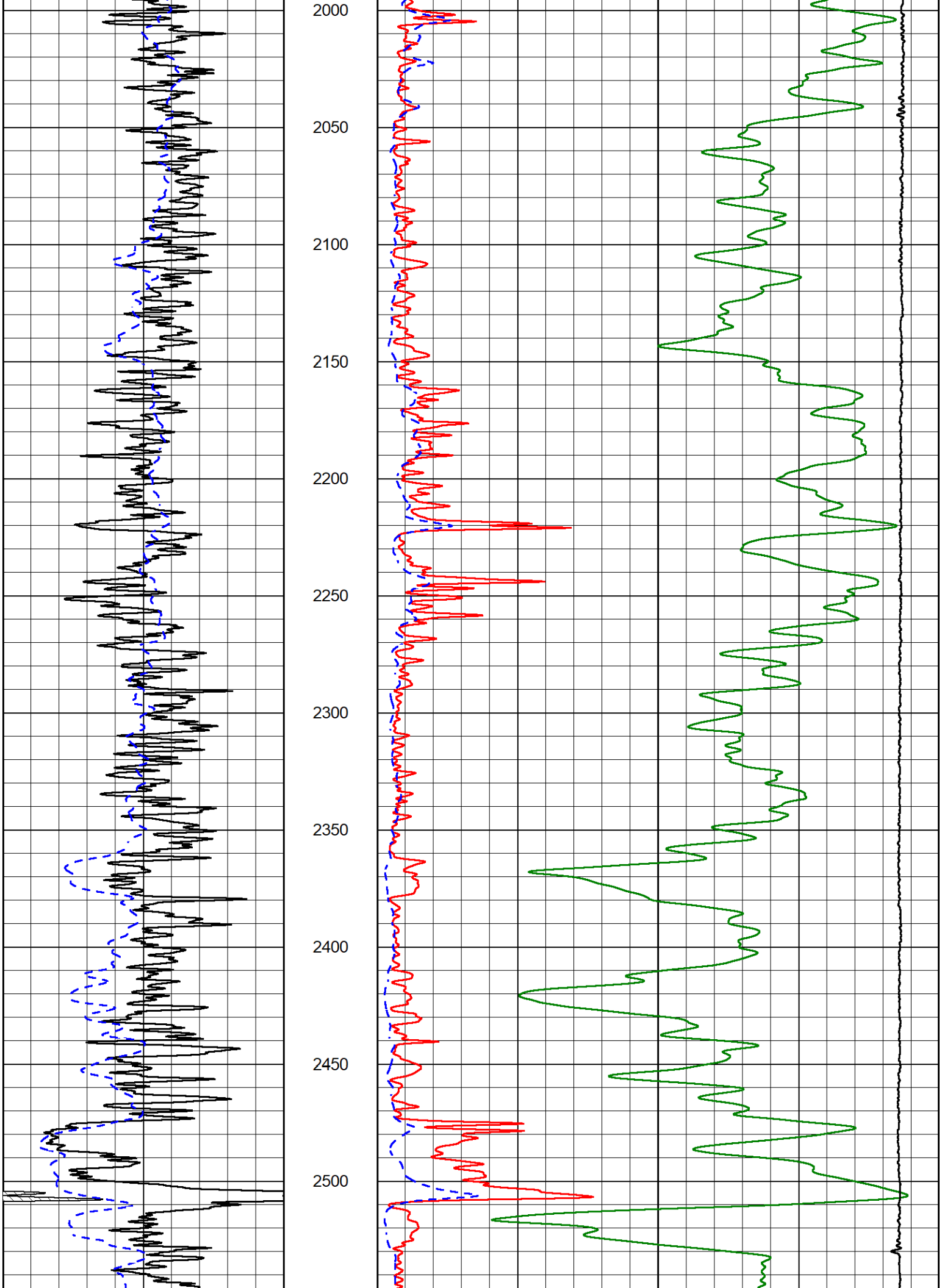
	Shallow Resistivity	
50	(Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200

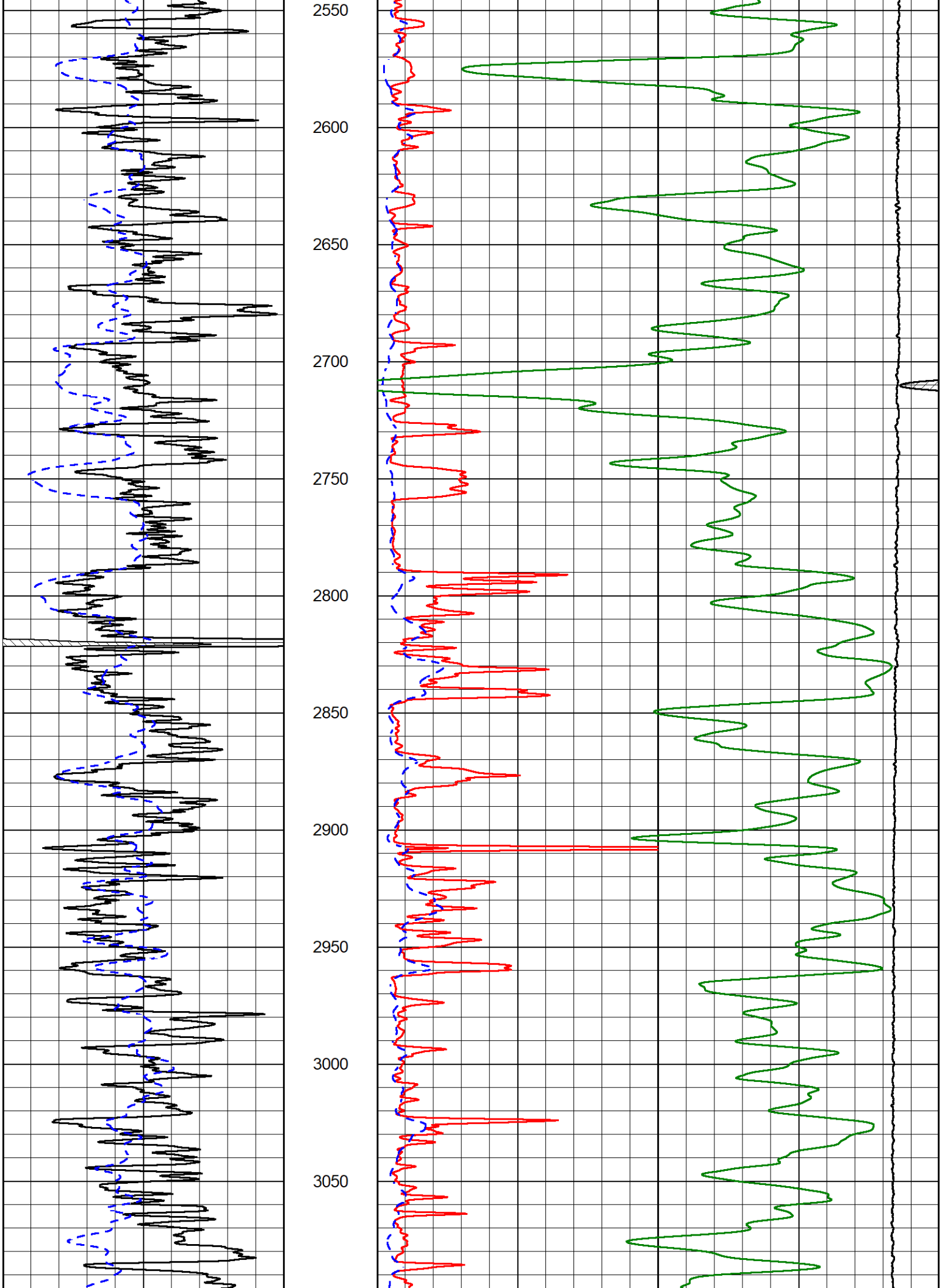


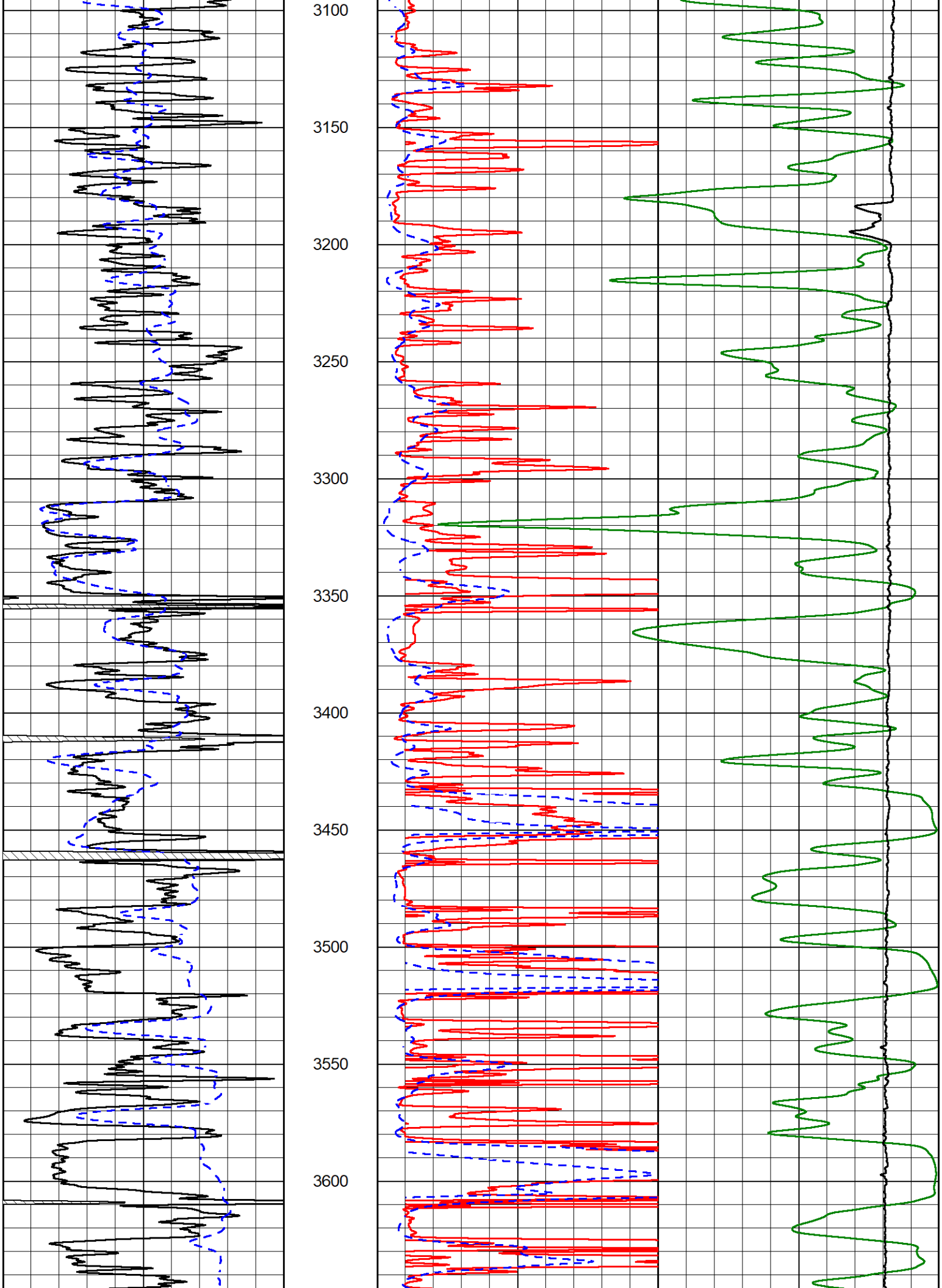

350
400
450
500
550
600
650
700
750
800
850

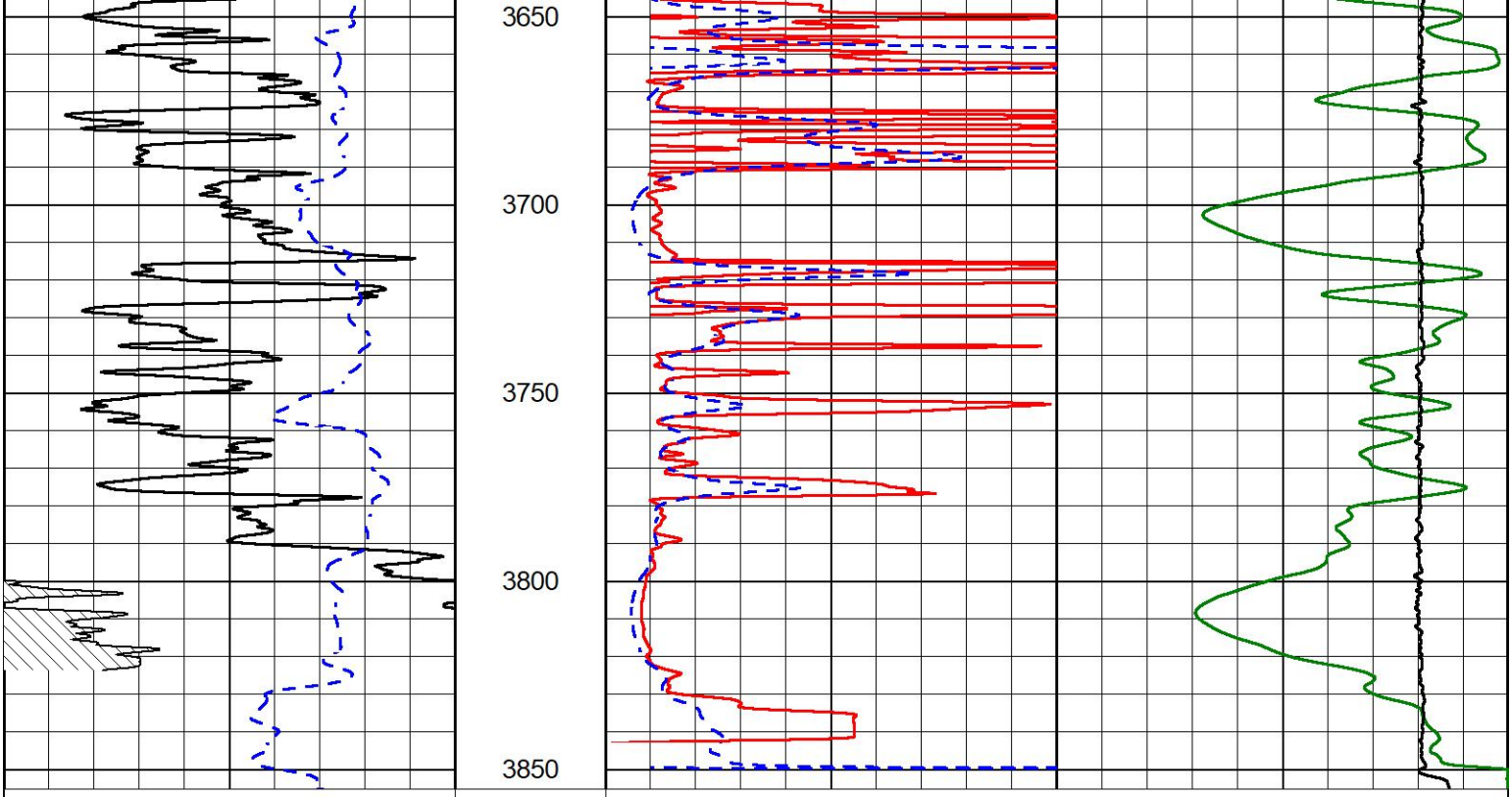

900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400


1450
1500
1550
1600
1650
1700
1750
1800
1850
1900
1950


2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
2500


2550
2600
2650
2700
2750
2800
2850
2900
2950
3000
3050


3100
3150
3200
3250
3300
3350
3400
3450
3500
3550
3600



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

1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	Shallow Resisitivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
50	Shallow Resistivity (Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200

ANHYDRITE SECTION

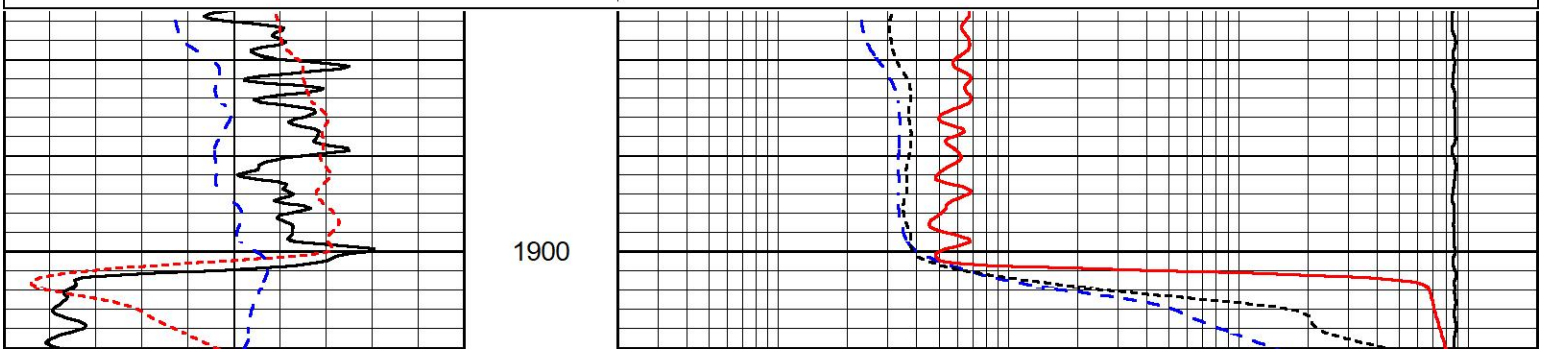
MAIN PASS

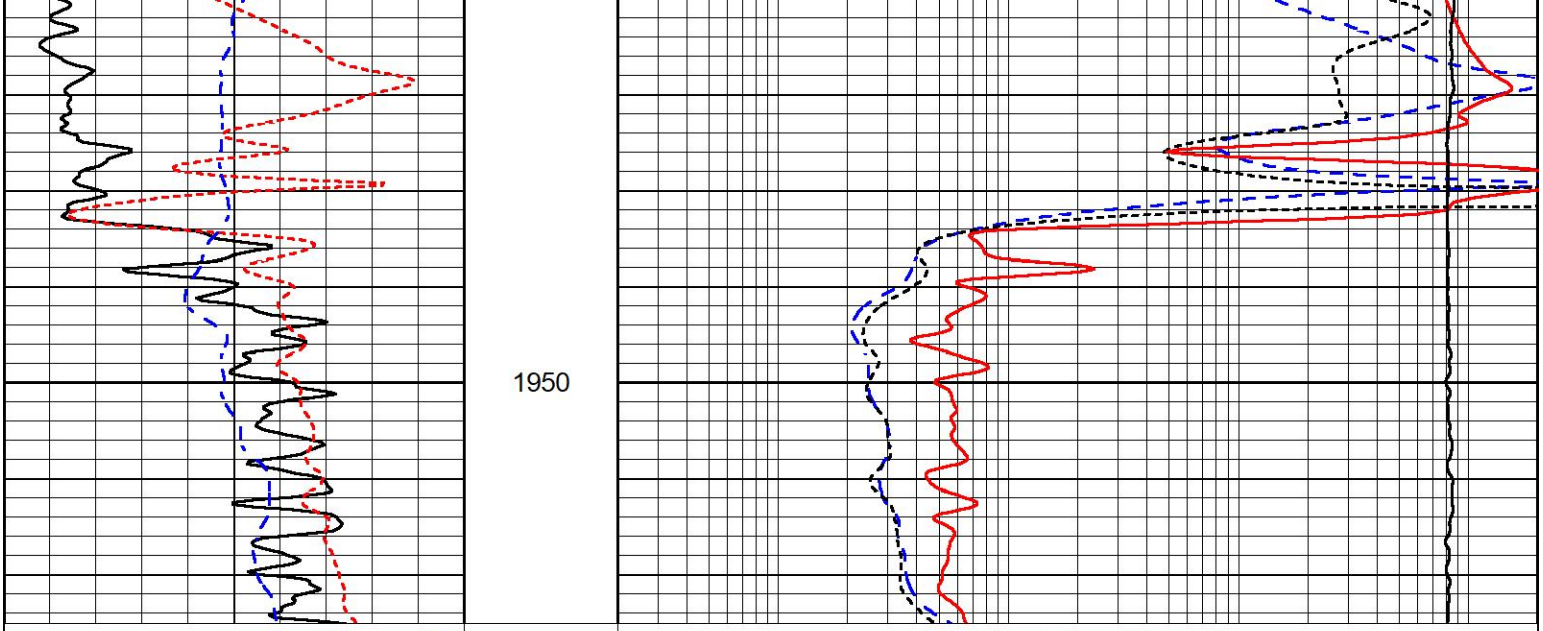
MIDWEST WIRELINE

Database File	satchell_worcester a #1-34.db
Dataset Pathname	Stack/pass3.4
Presentation Format	_dil
Dataset Creation	Thu Jul 27 14:44:45 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





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

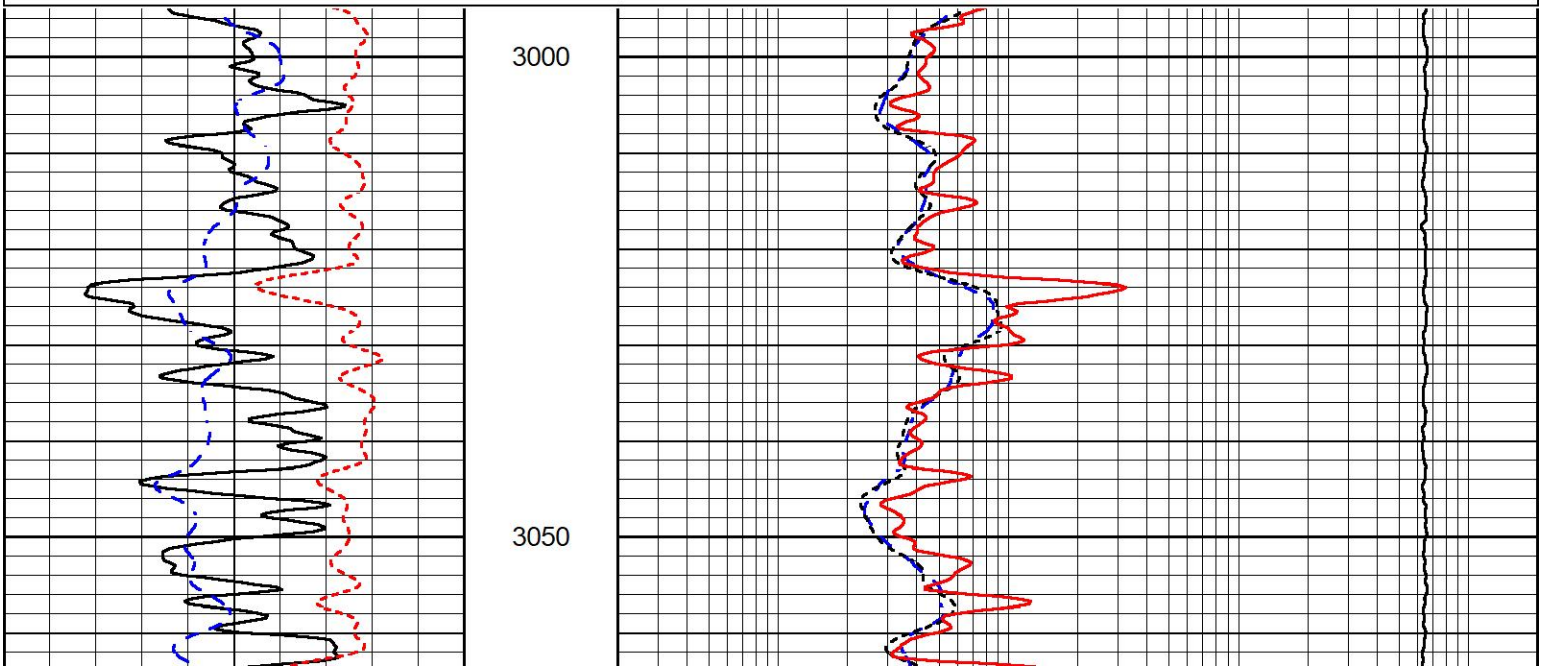
DETAIL SECTION

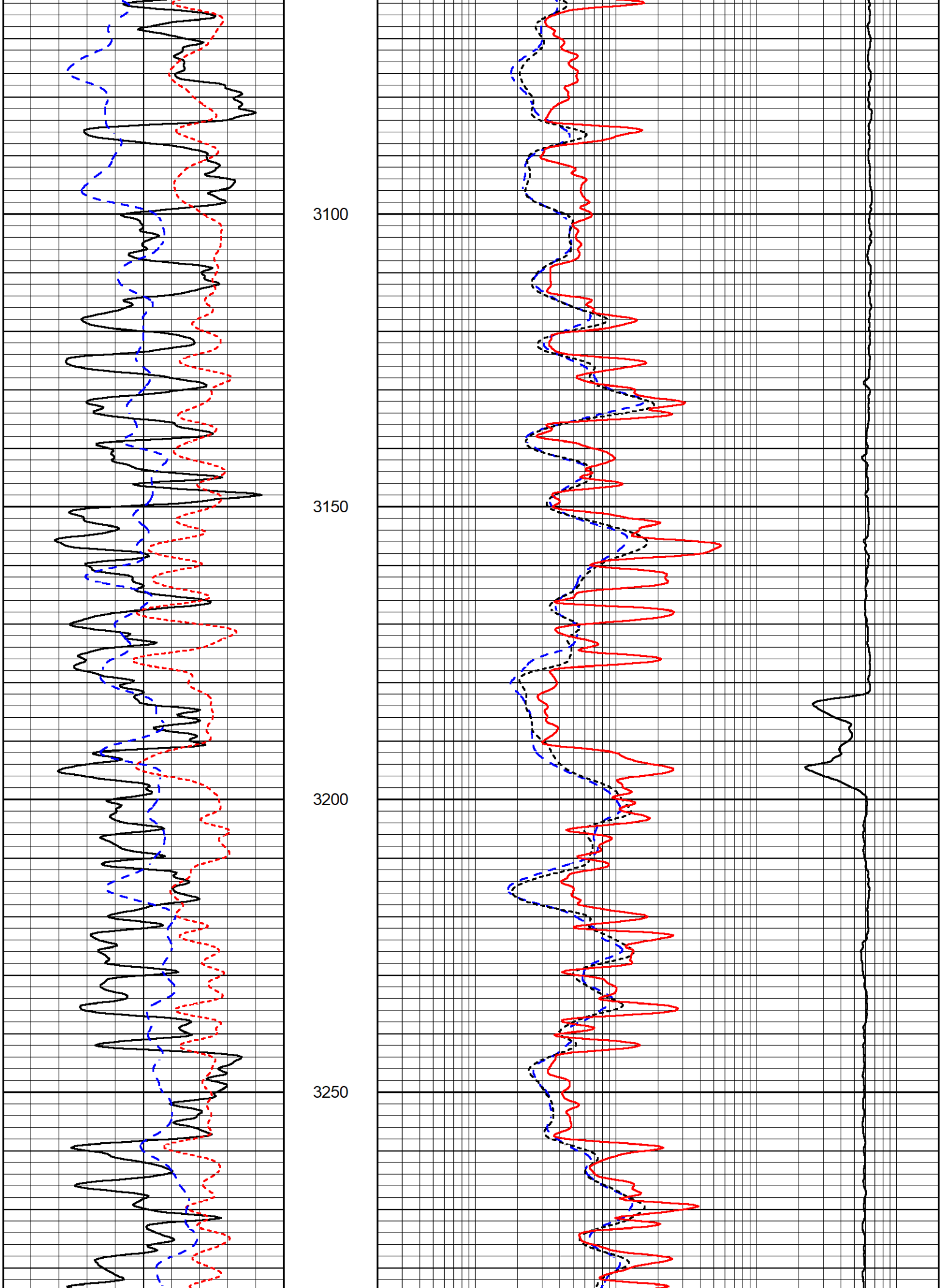
MAIN PASS

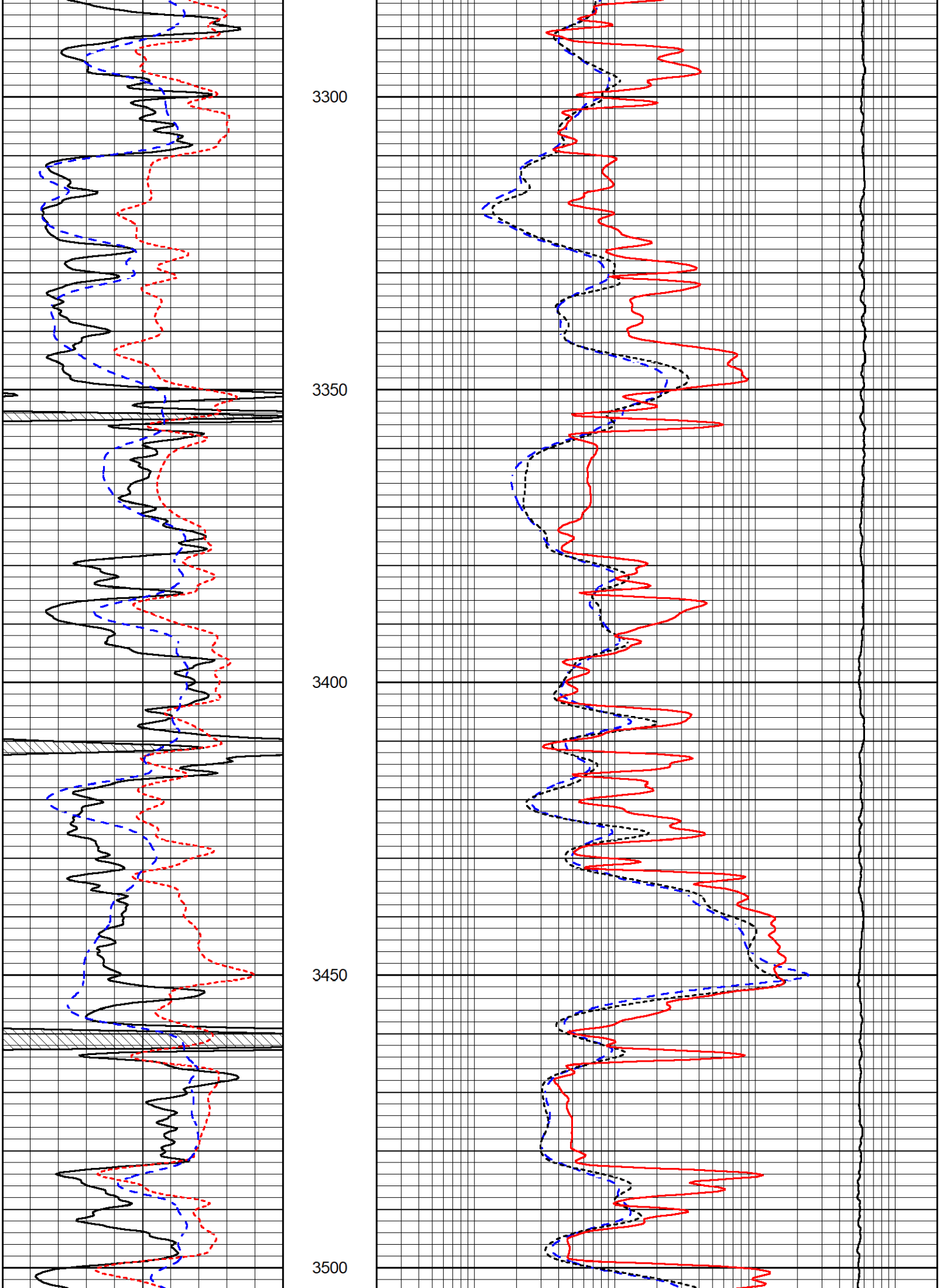
Database File	satchell_worcester a #1-34.db
Dataset Pathname	Stack/pass3.1
Presentation Format	_dil
Dataset Creation	Thu Jul 27 15:03:48 2023
Charted by	Depth in Feet scaled 1:240

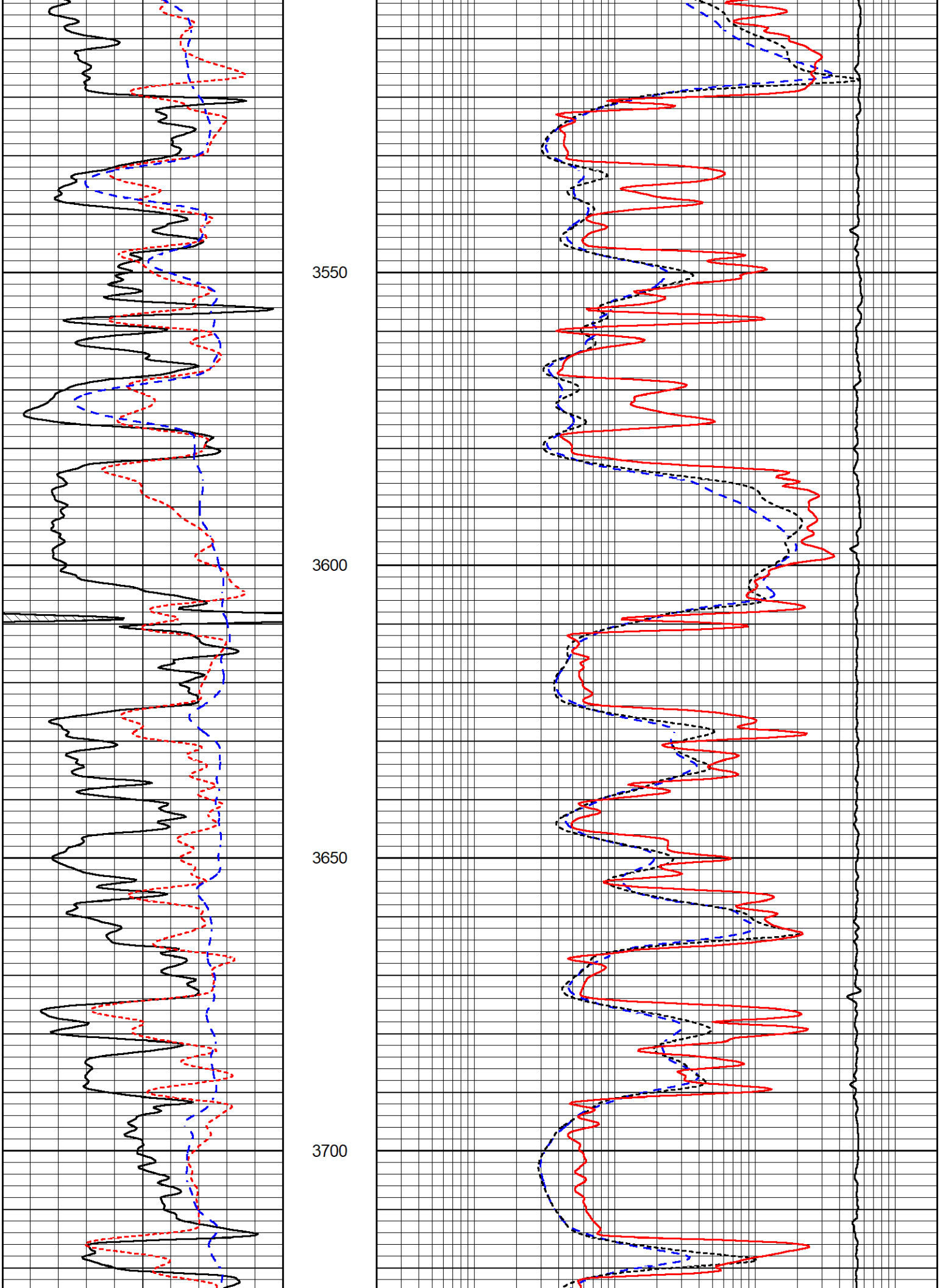
0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

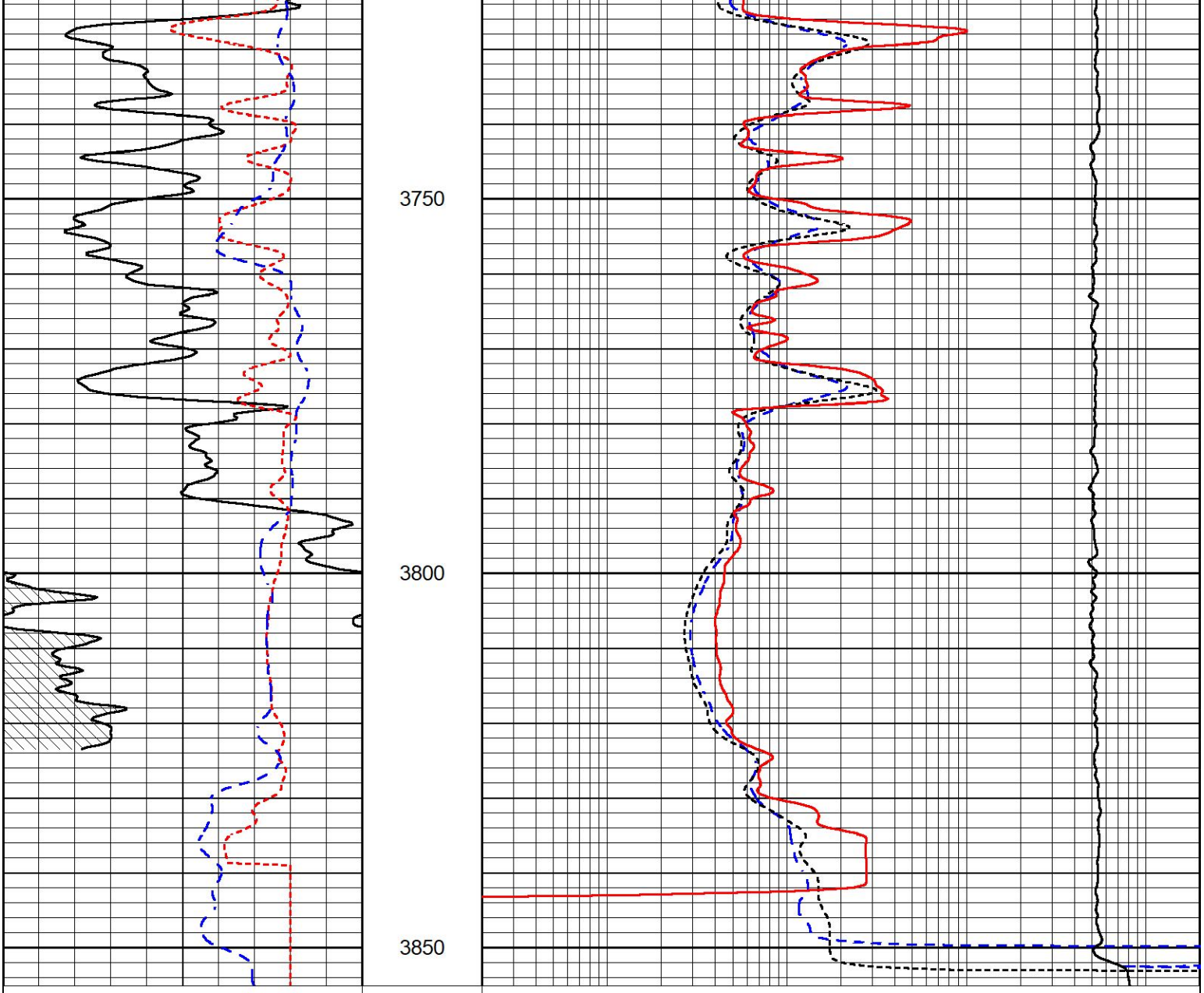
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0




3100
3150
3200
3250


3300
3350
3400
3450
3500


3550
3600
3650
3700



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

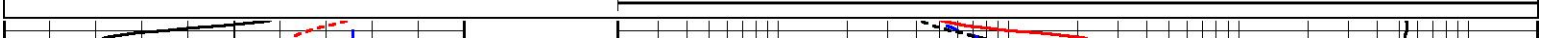
REPEAT SECTION

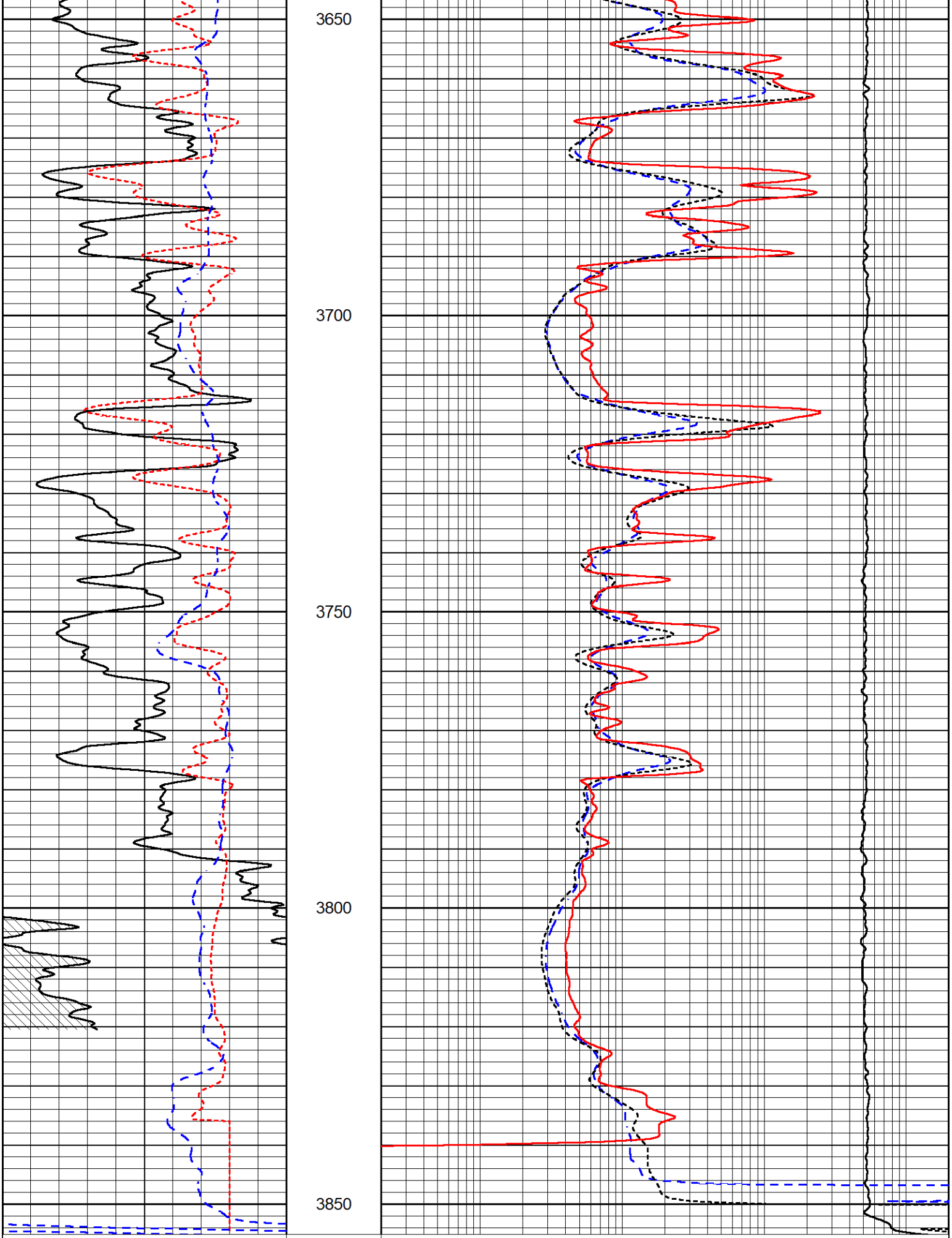
REPEAT PASS

Database File	satchell_worcester a #1-34.db
Dataset Pathname	Stack/pass2.1
Presentation Format	_dil
Dataset Creation	Thu Jul 27 14:23:48 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




3650
3700
3750
3800
3850
0
Gamma Ray (GAPI)
150
-160
RXORT
40
0.2
Deep Resistivity (Ohm-m)
2000
0.2
Medium Resistivity (Ohm-m)
2000

-200	SP (mV)	0
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

Calibration Report

Database File	satchell_worcester a #1-34.db
Dataset Pathname	Stack/pass3.1
Dataset Creation	Thu Jul 27 15:03:48 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	0.470	-84.000

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	2.600	g/cc	822.19	3221.38	cps

Spine Angle = 75.50 Density/Spine Ratio = 0.545

	Size		Reading
Small Ring	6.00	in	1.16
Large Ring	18.00	in	1.01

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

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

Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.6000	GAPI/cps

MIDWEST WIRELINE

Company	Satchell Creek Petroleum LLC
Well	Worcester A #1-34
Field	Last Hope Northeast
County	Graham
State	Kansas