



DUAL INDUCTION LOG

MIDWEST WIRELINE

Company Cobalt Energy, LLC		Company Cobalt Energy, LLC	
Well Marilyn Unit #1-6	Well Marilyn Unit #1-6		
Field Hatcher	Field Hatcher		
County Graham	County Graham		
State Kansas	State Kansas		
Location: API #: 15-065-24196-00-00		Other Services	
SEC 6 TWP 9S RGE 21W		CNL/CDL MEL	
Permanent Datum	Ground Level	Elevation	2173'
Log Measured From	Kelly Bushing	K.B.	2178'
Drilling Measured From	Kelly Bushing	D.F.	N/A
		G.L.	2173'
Date	7/1/2021		
Run Number	One		
Depth Driller	3825'		
Depth Logger	3828'		
Bottom Logged Interval	3827'		
Top Log Interval	200'		
Casing Driller	8.625" @ 220'		
Casing Logger	220'		
Bit Size	7.875"		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	5000		
Density / Viscosity	9.2 57		
pH / Fluid Loss	10.5 7.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.40 @ 60		
Rmf @ Meas. Temp	0.30 @ 60		
Rmc @ Meas. Temp	0.54 @ 60		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.21 @ 114		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	114		
Equipment Number	P-24		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Corey Baker		

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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.

Bogue,
3 South to N Rd, 1 West, 1 South,
East 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: Corey Baker
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73			CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (934-226)	8.50	4.00	250.00
ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics					7.58	4.00	65.00
MCAL MI MN	19.83 19.83 19.83						
RLL3F RLL3	15.80 15.80						
CILD	8.00			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILM	4.70						
SP	0.20						
Dataset: cobalt_marilyn unit 1-6.db: field/well/stkml/pass3.9 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in							

Log Variables

DatabaseC:\ProgramData\Warrior\Data\cobalt_marilyn unit 1-6.db
Dataset field/well/stkml/pass3.9/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	275	60	Off	0

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

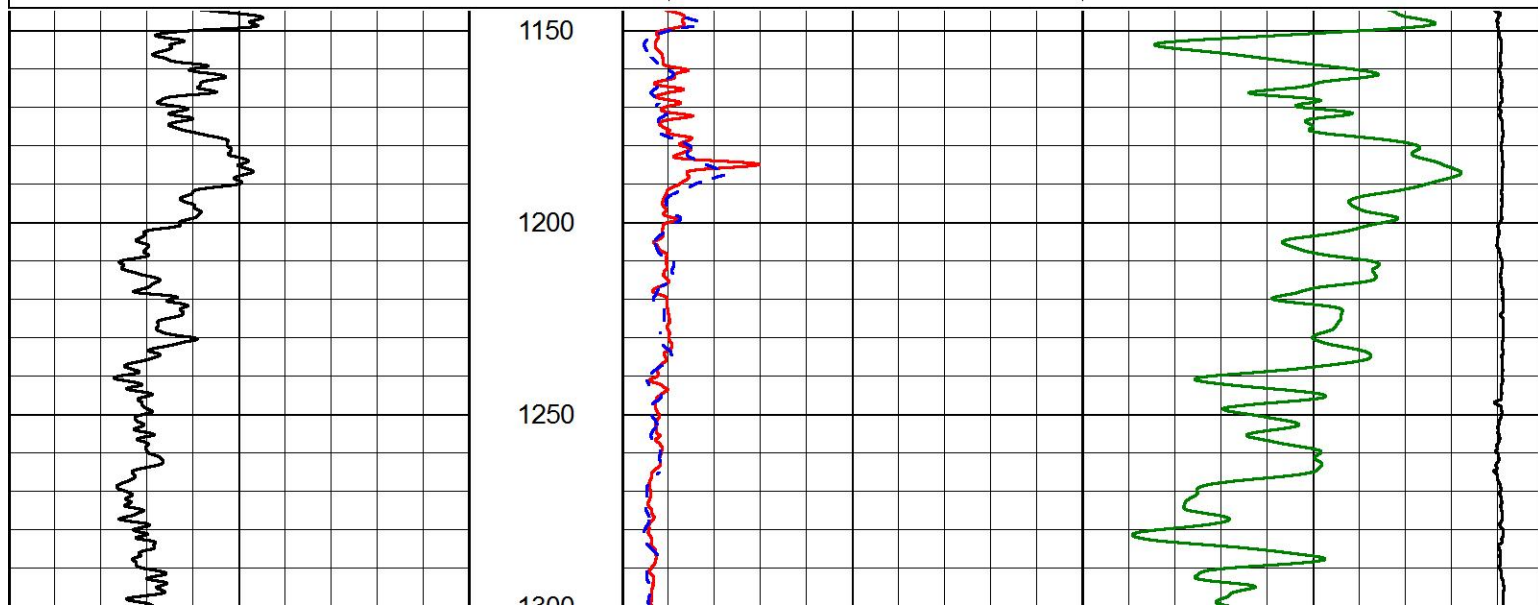


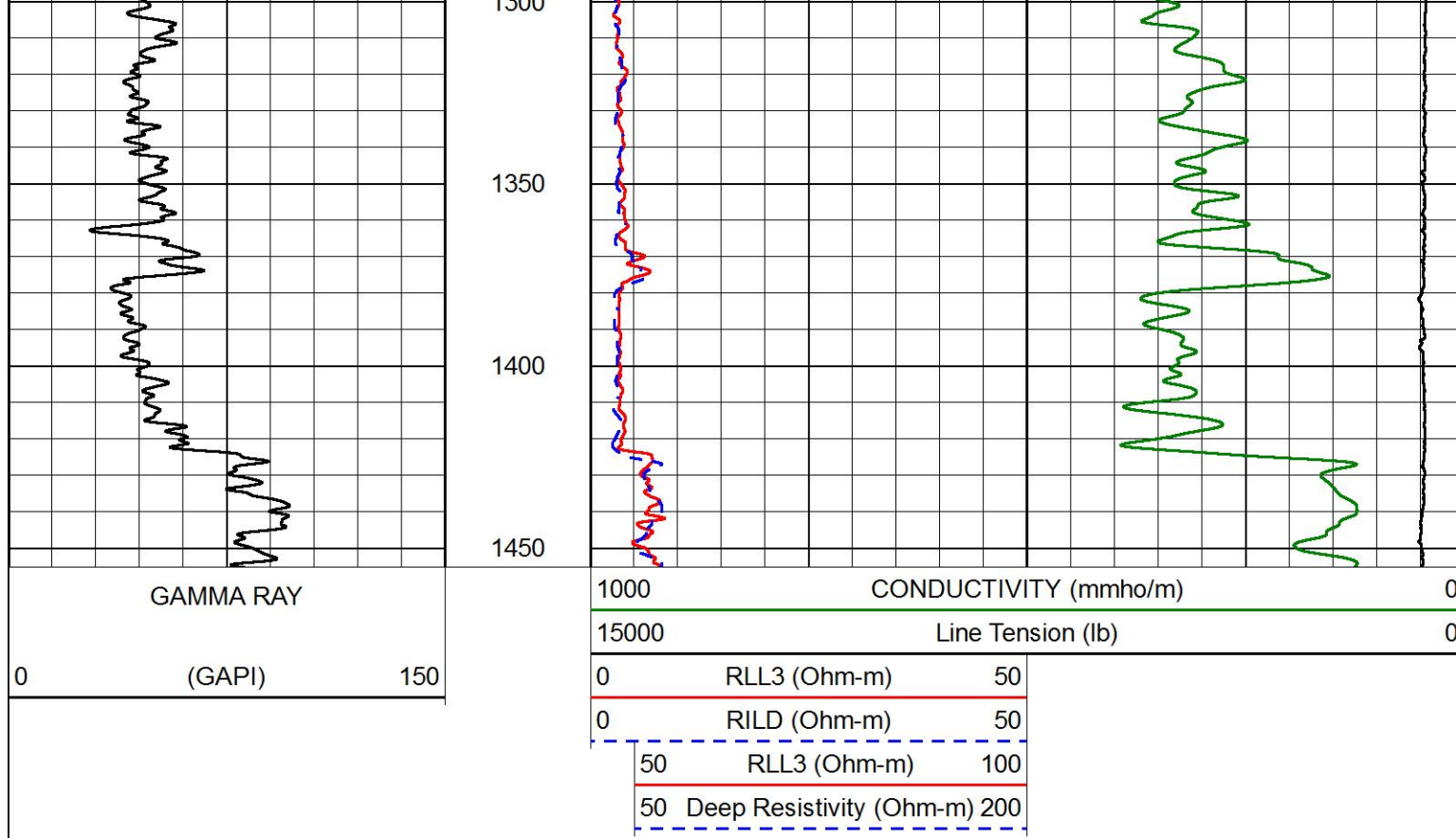
CEDAR HILLS

2" RESISTIVITY

Database File cobalt_marilyn unit 1-6.db
Dataset Pathname stkml/pass8.1
Presentation Format _dil2in
Dataset Creation Thu Jul 01 09:53:07 2021
Charted by Depth in Feet scaled 1:600

0	(GAPI)	150	1000	CONDUCTIVITY (mmho/m)	0
			15000	Line Tension (lb)	0
			0	RLL3 (Ohm-m)	50
			0	RILD (Ohm-m)	50
			50	RLL3 (Ohm-m)	100
			50	Deep Resistivity (Ohm-m)	200

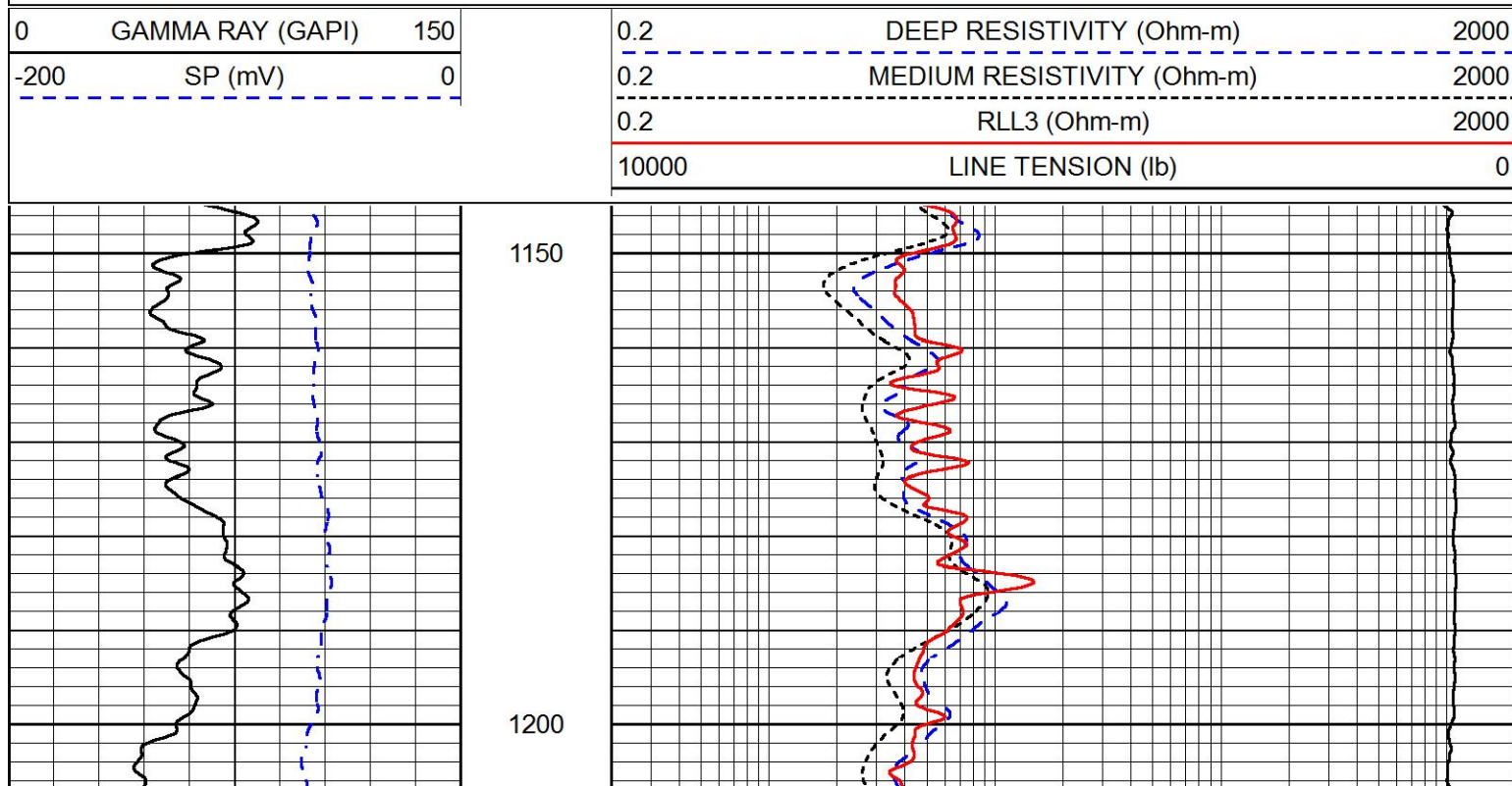


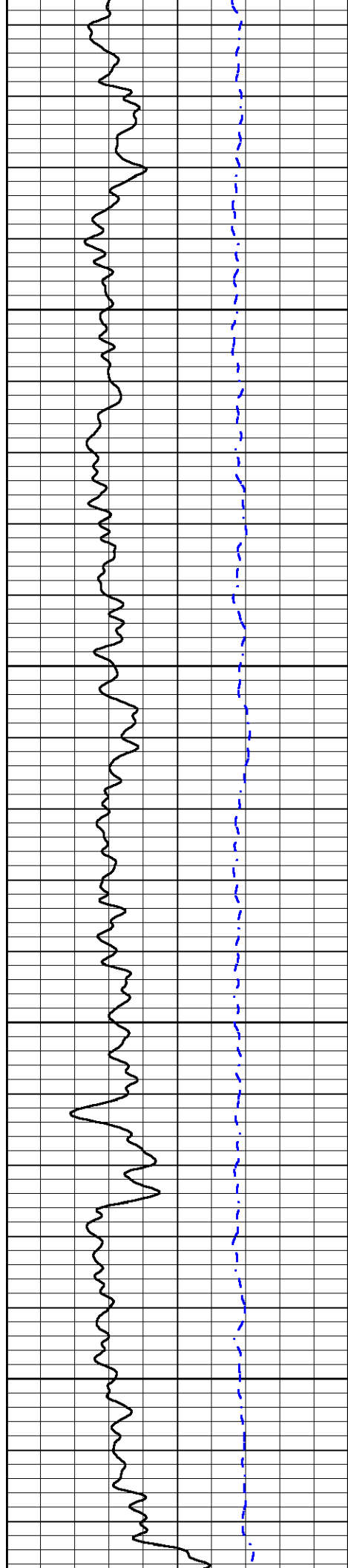


CEDAR HILLS

5" DETAIL SECTION

Database File cobalt_marilyn unit 1-6.db
 Dataset Pathname stkml/pass9.1
 Presentation Format _dil
 Dataset Creation Thu Jul 01 09:53:23 2021
 Charted by Depth in Feet scaled 1:240



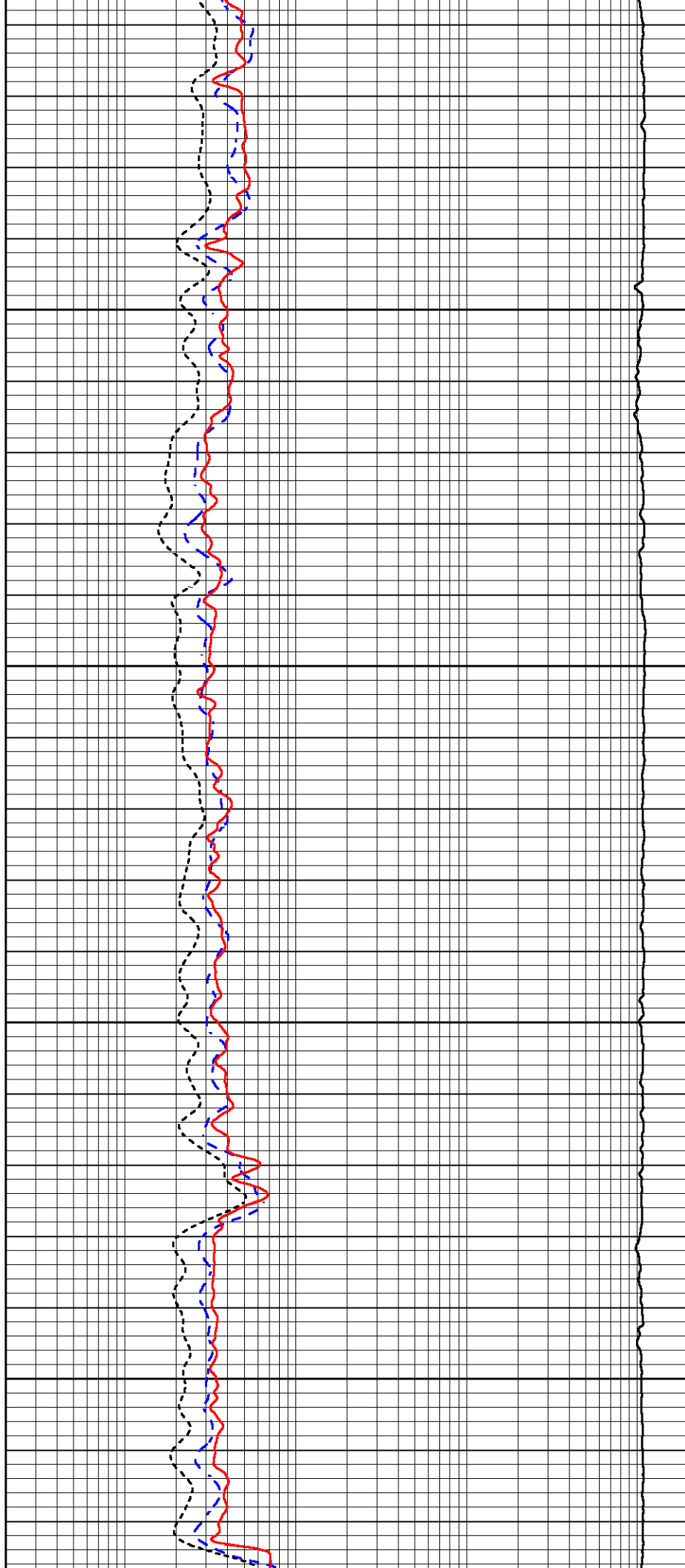


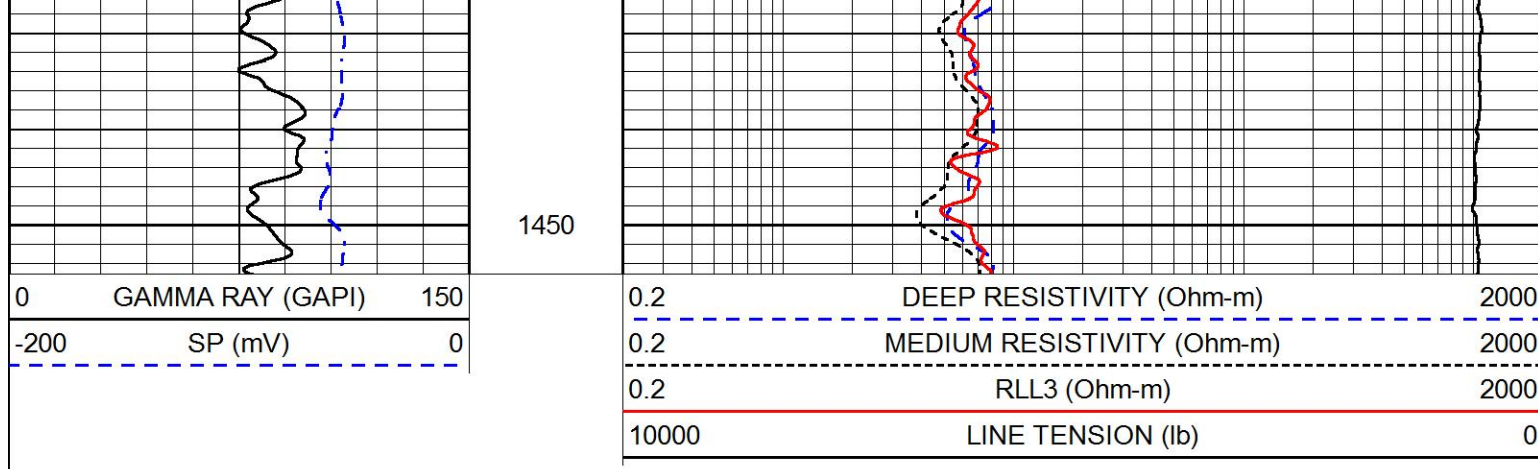
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1300

1350

1400



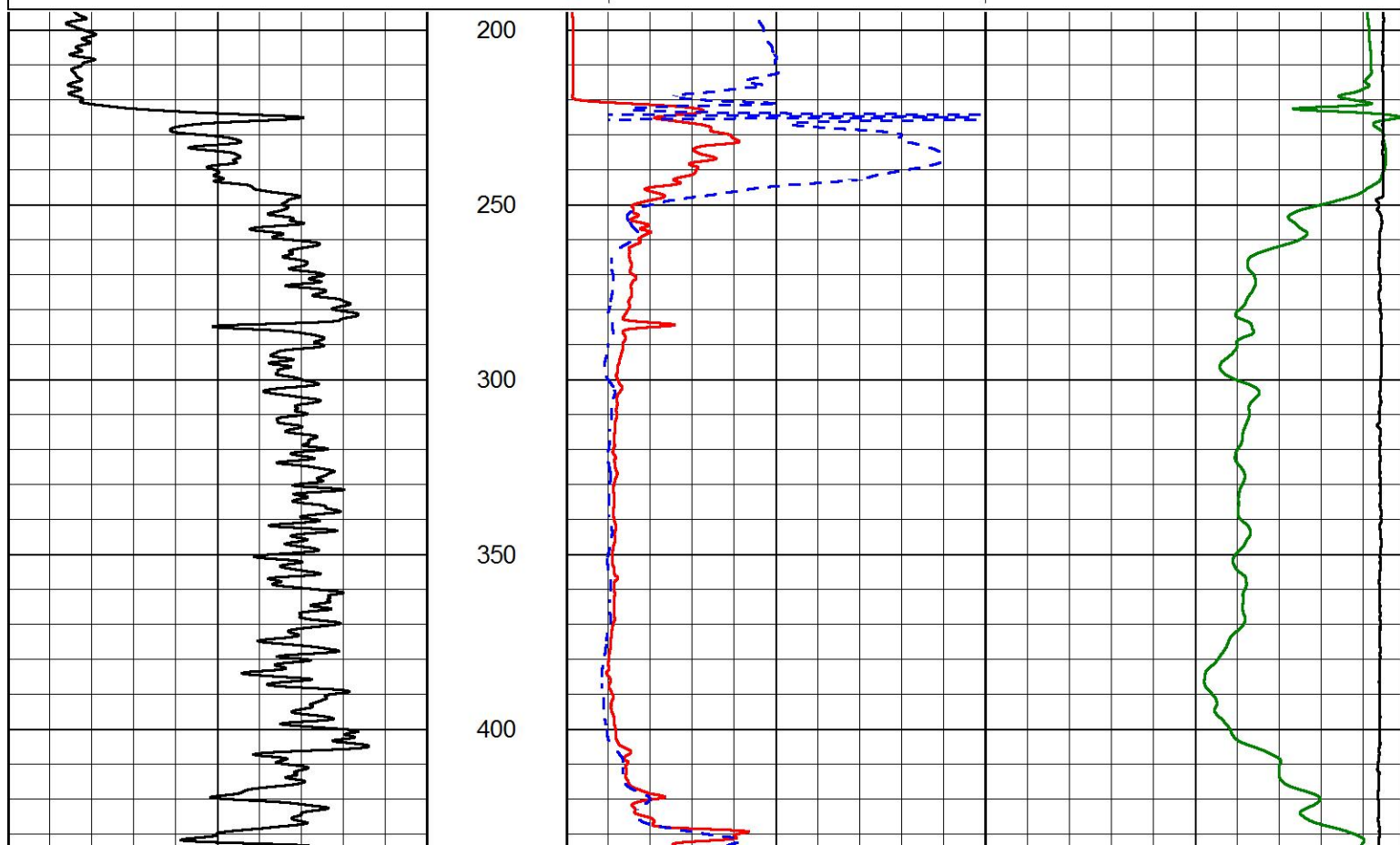


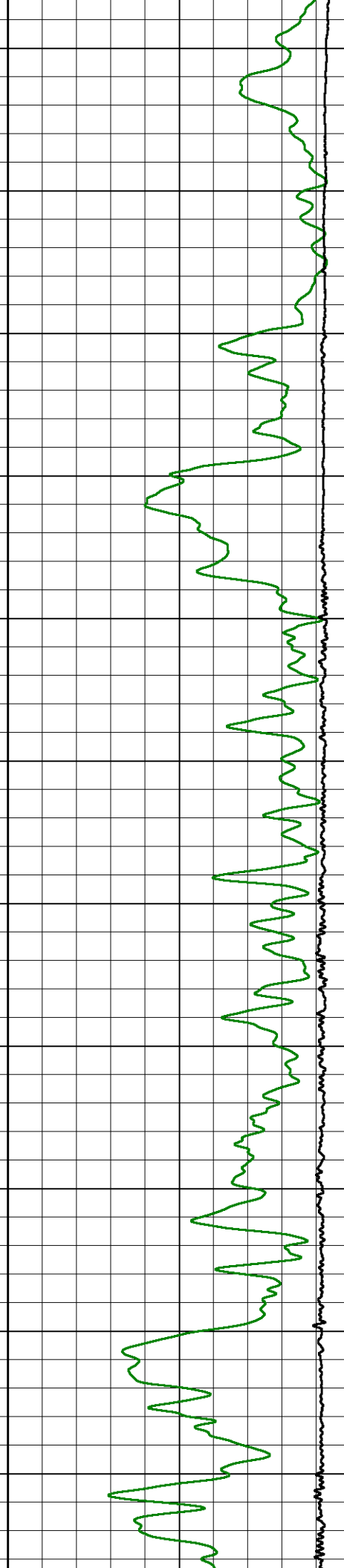
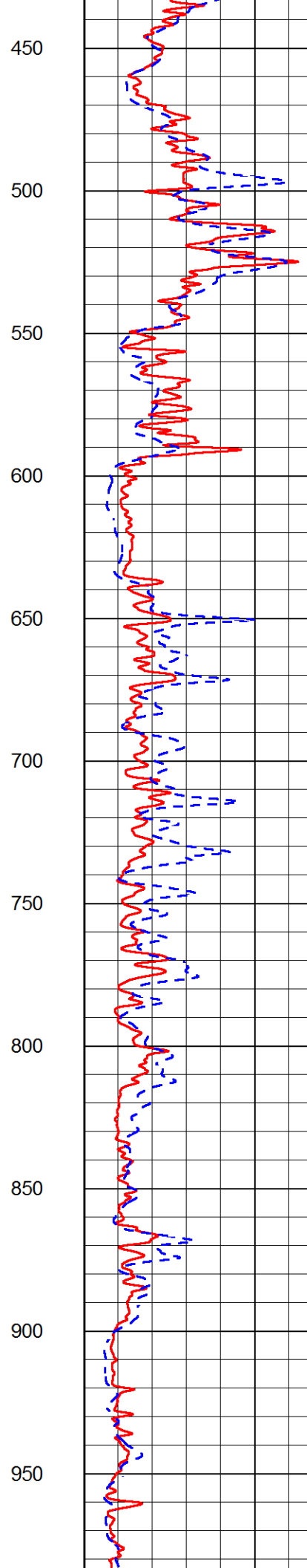
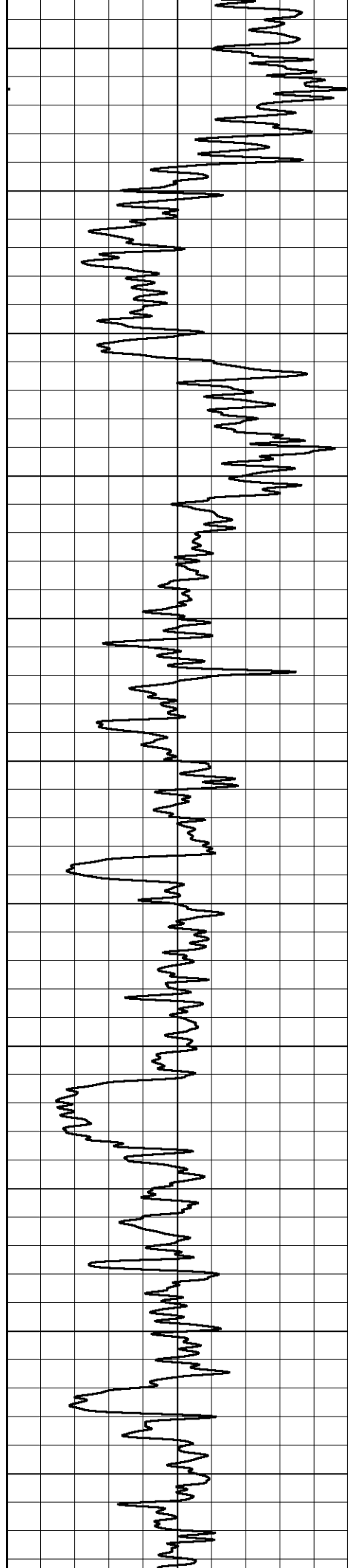
2" SCALE RESISTIVITY

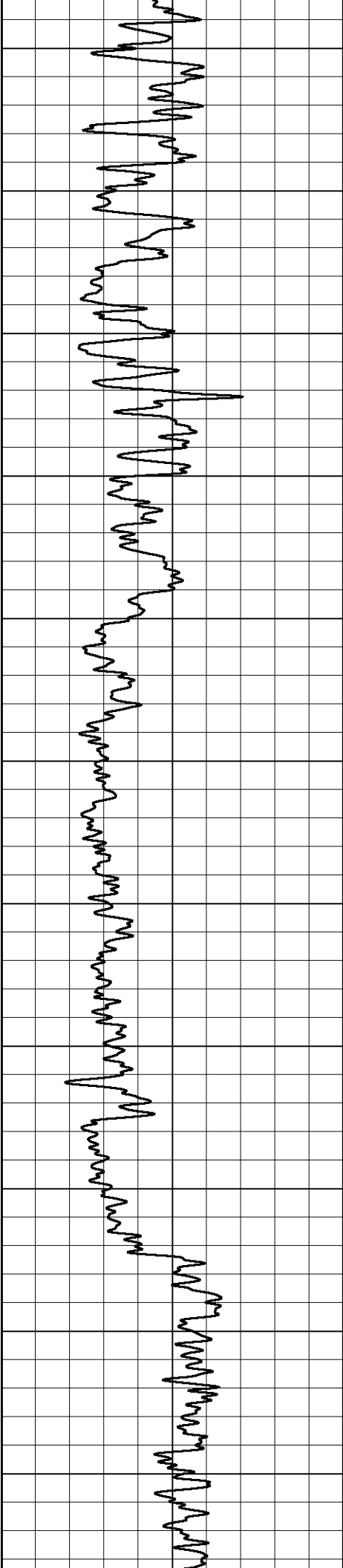
MAIN PASS

Database File cobalt_marilyn unit 1-6.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _dil2in
 Dataset Creation Thu Jul 01 10:08:24 2021
 Charted by Depth in Feet scaled 1:600

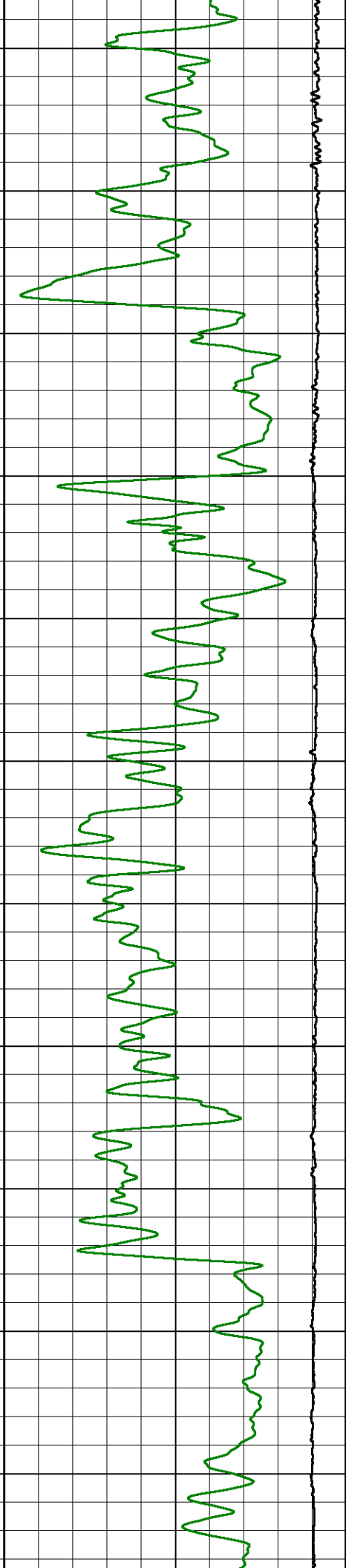
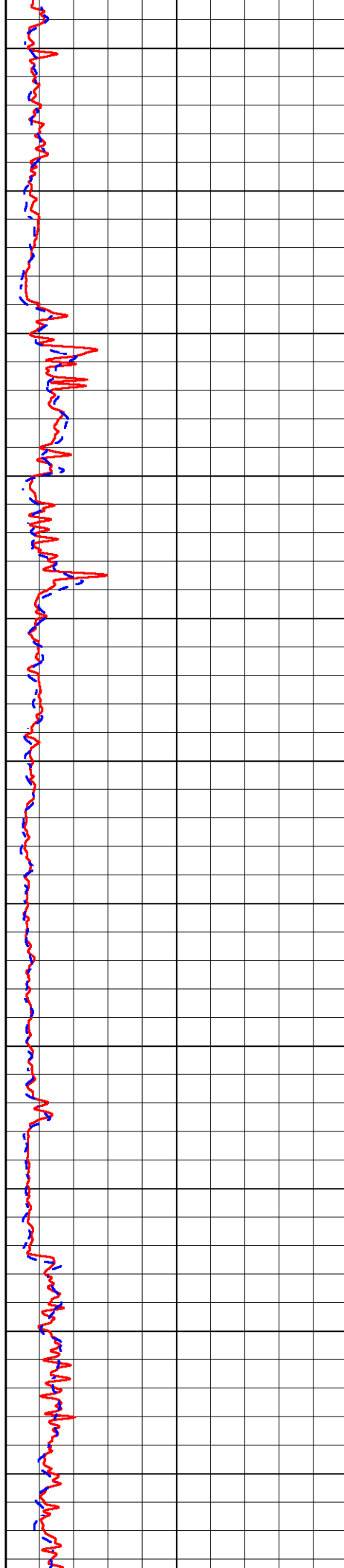
GAMMA RAY	1000 CONDUCTIVITY (mmho/m)		0
	15000 Line Tension (lb)		0
0 (GAPI) 150	0 RLL3 (Ohm-m)	50	
	0 RILD (Ohm-m)	50	
	50 RLL3 (Ohm-m)	100	
	50 Deep Resistivity (Ohm-m)	200	

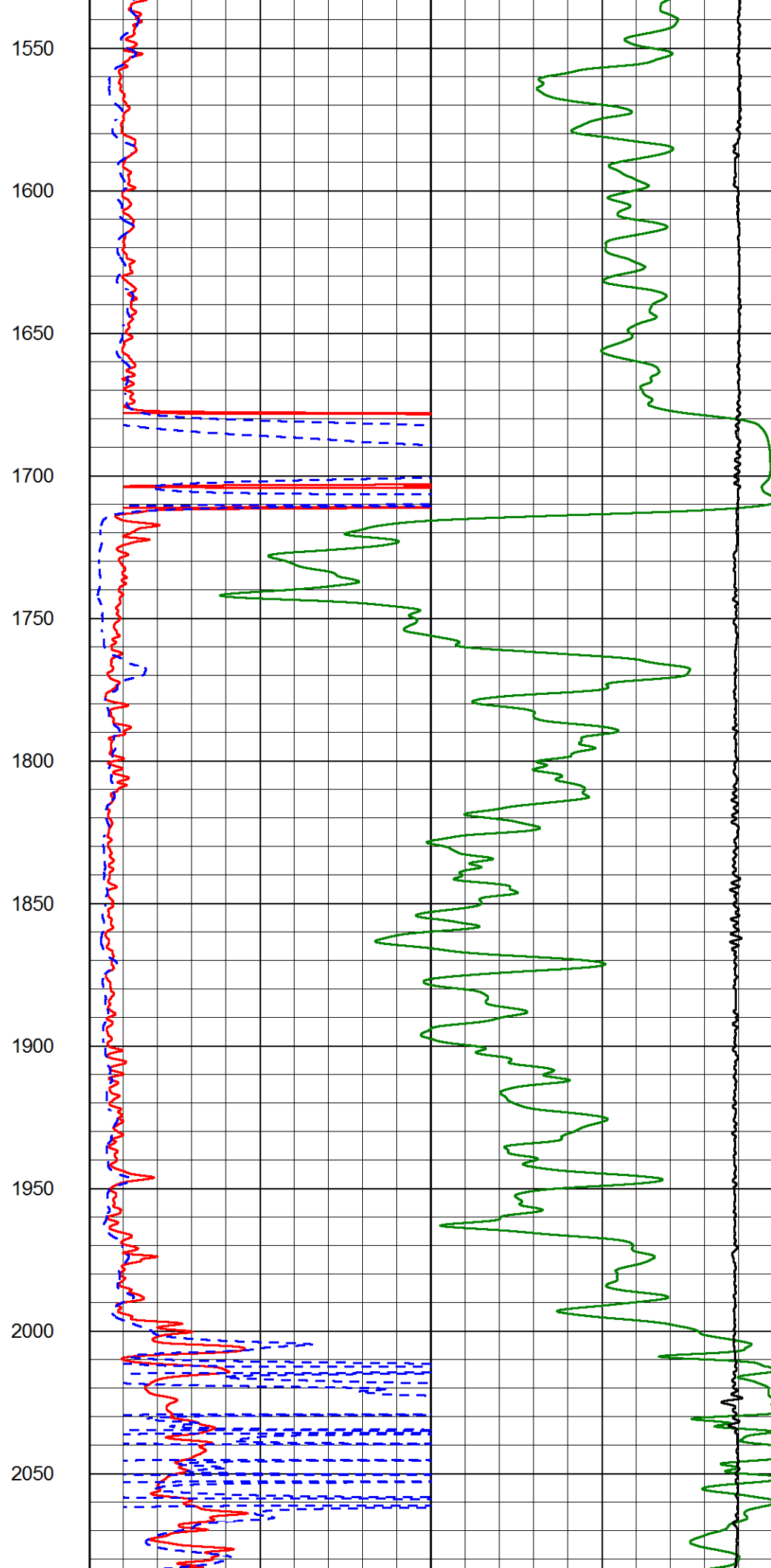
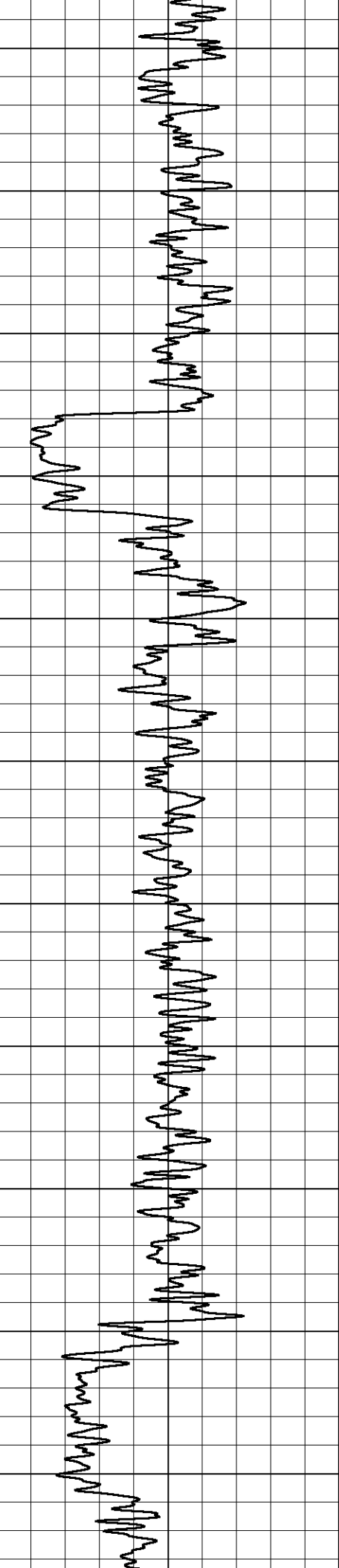


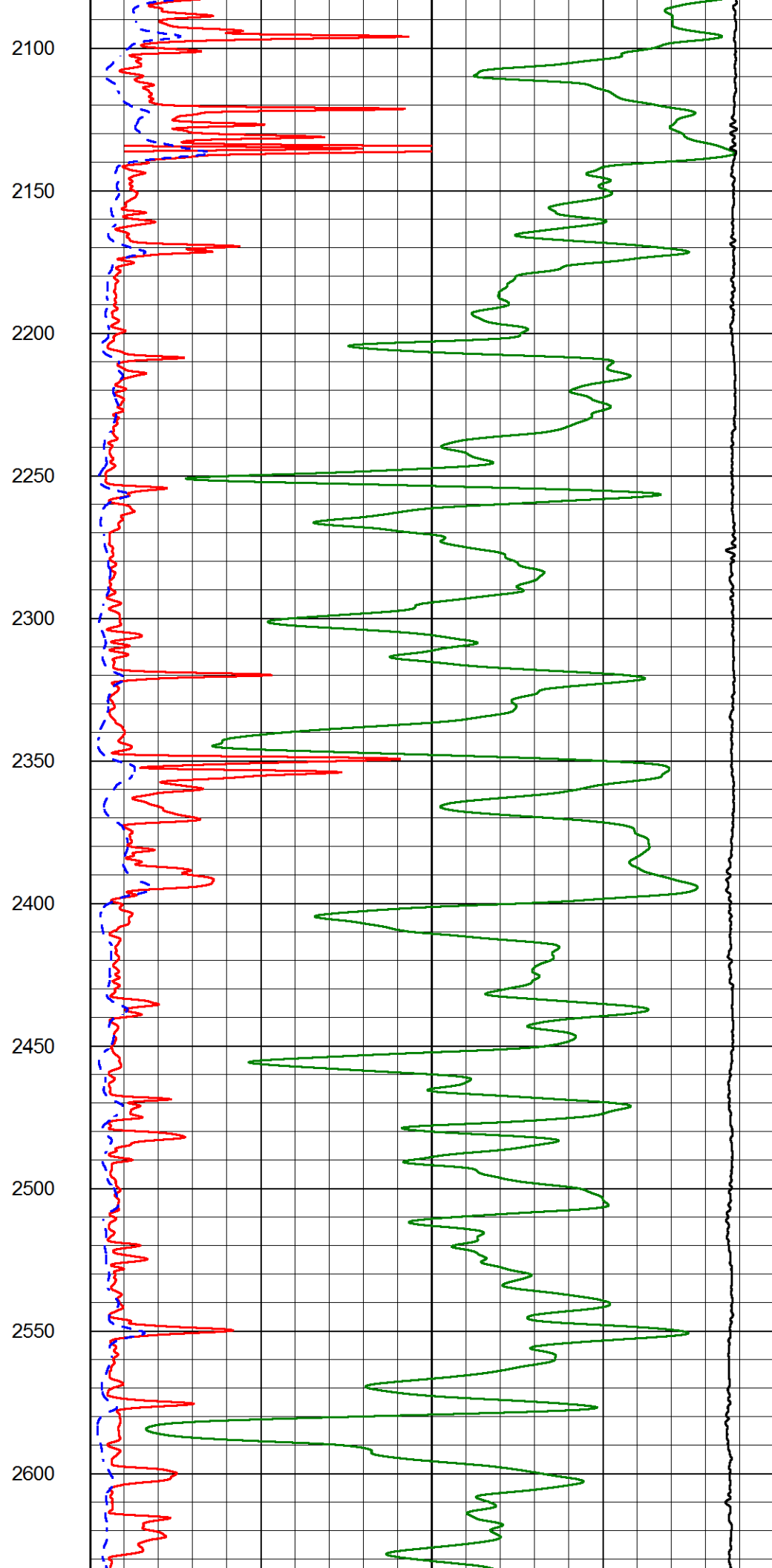
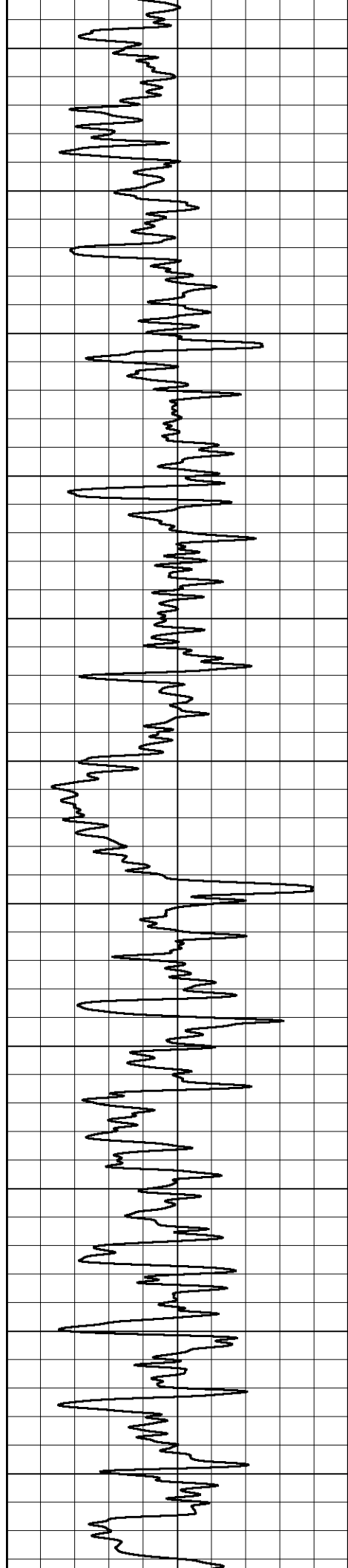


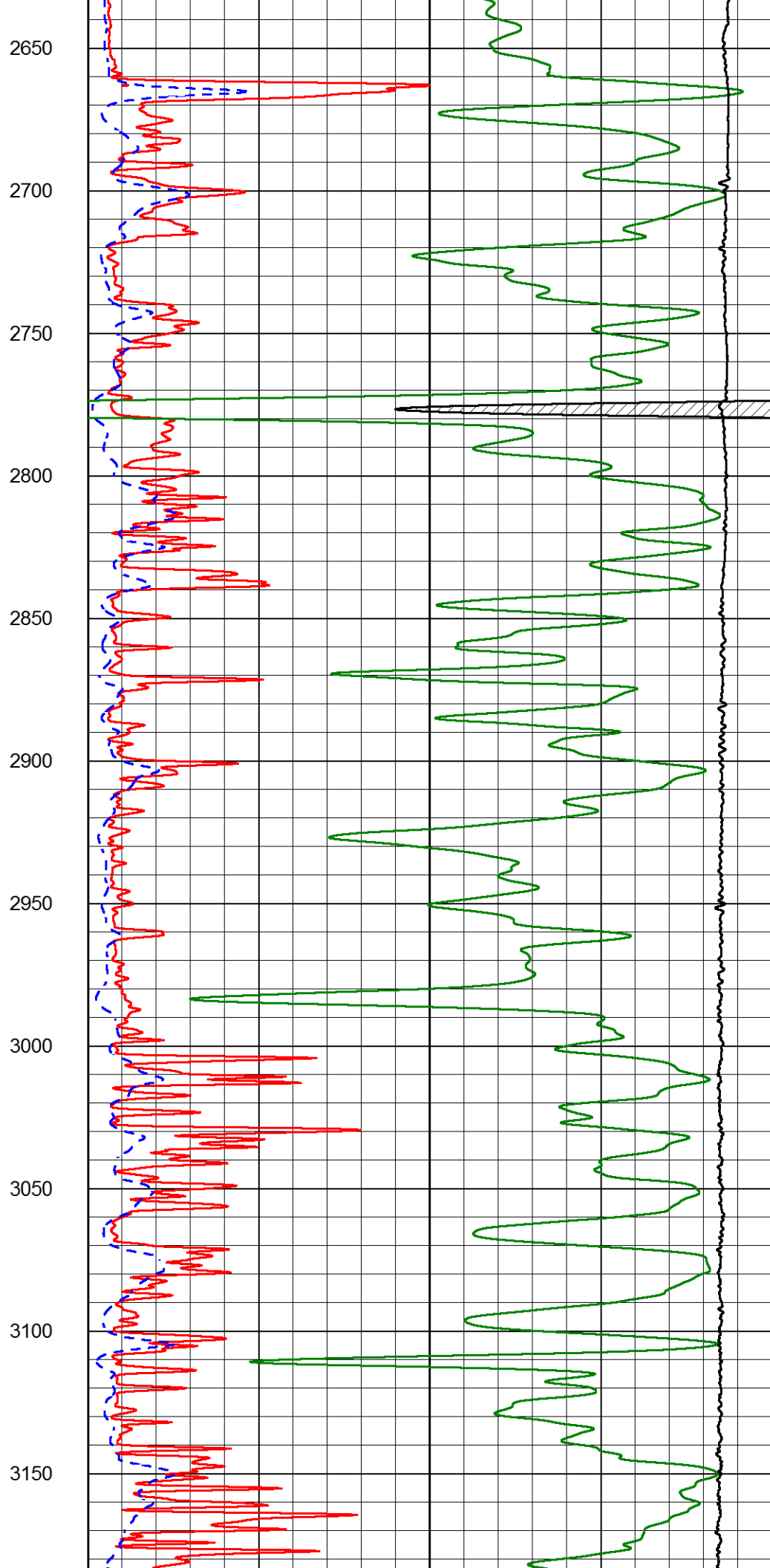
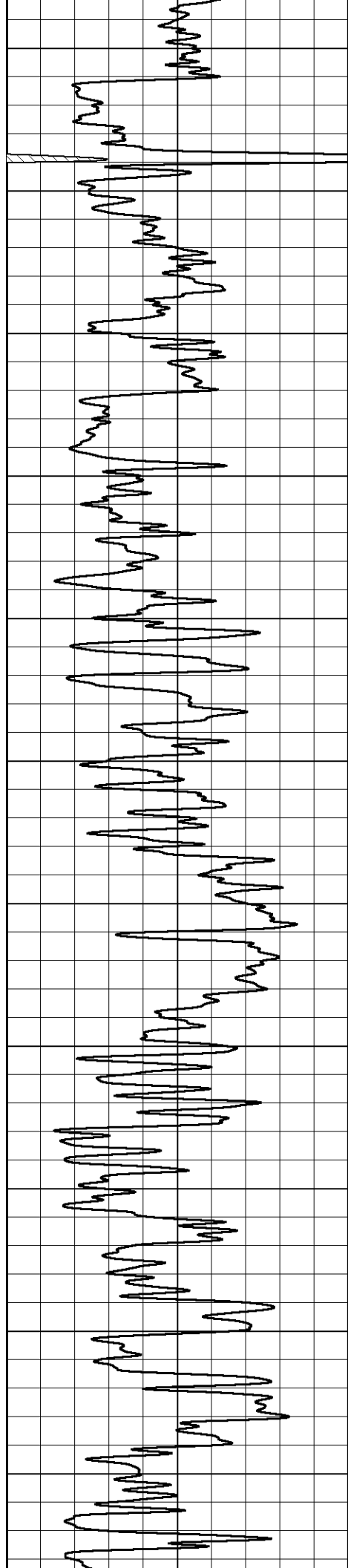


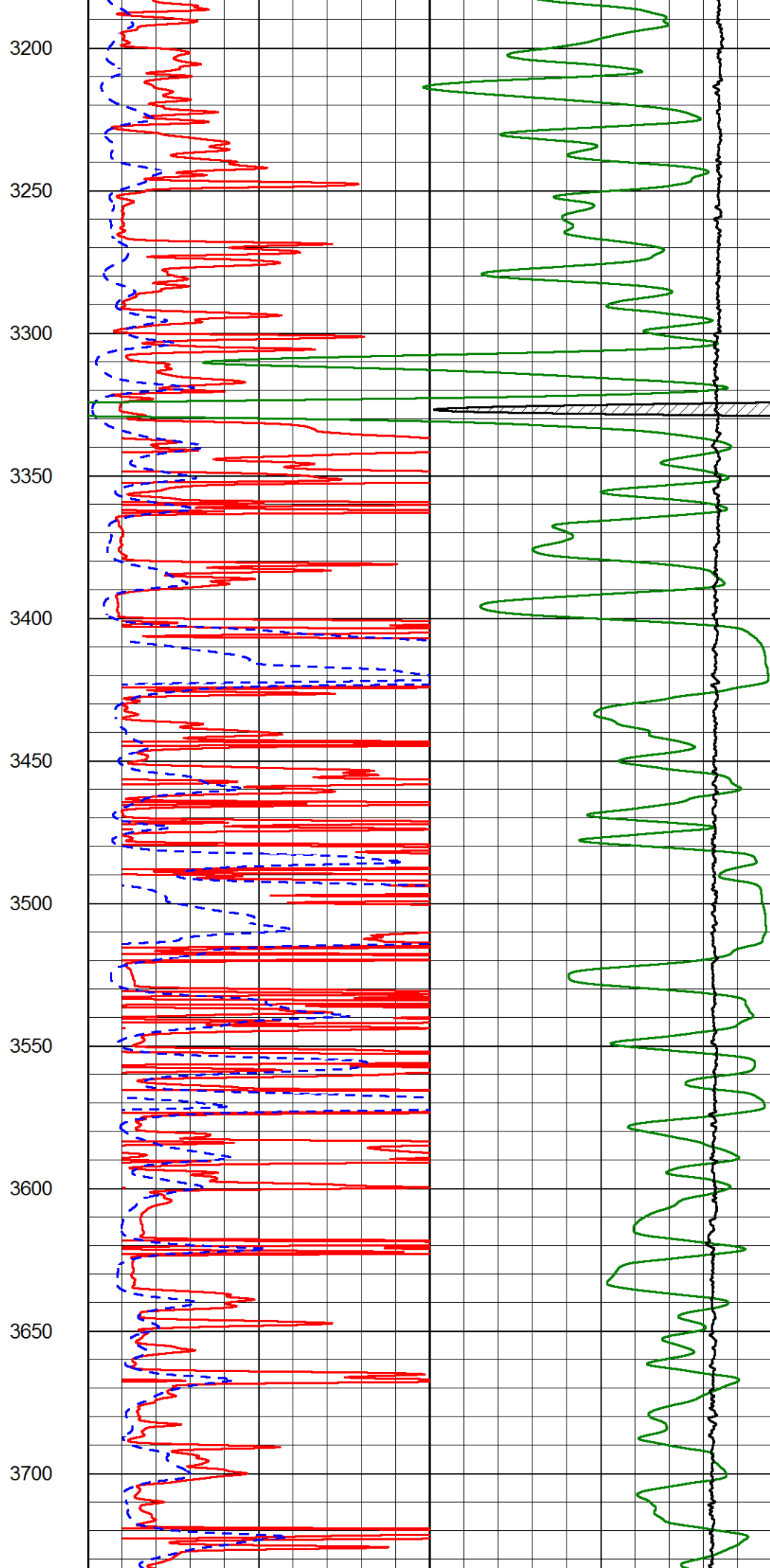
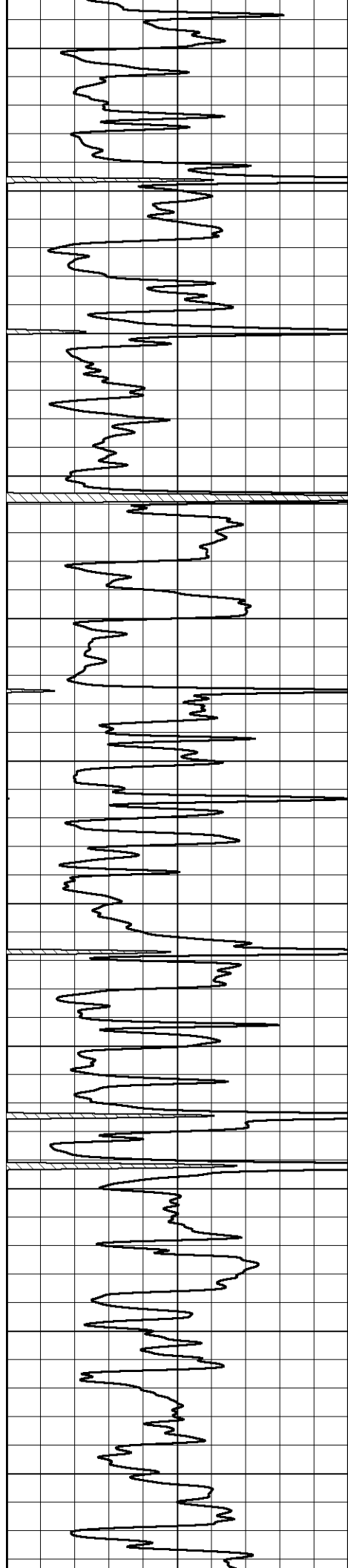
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

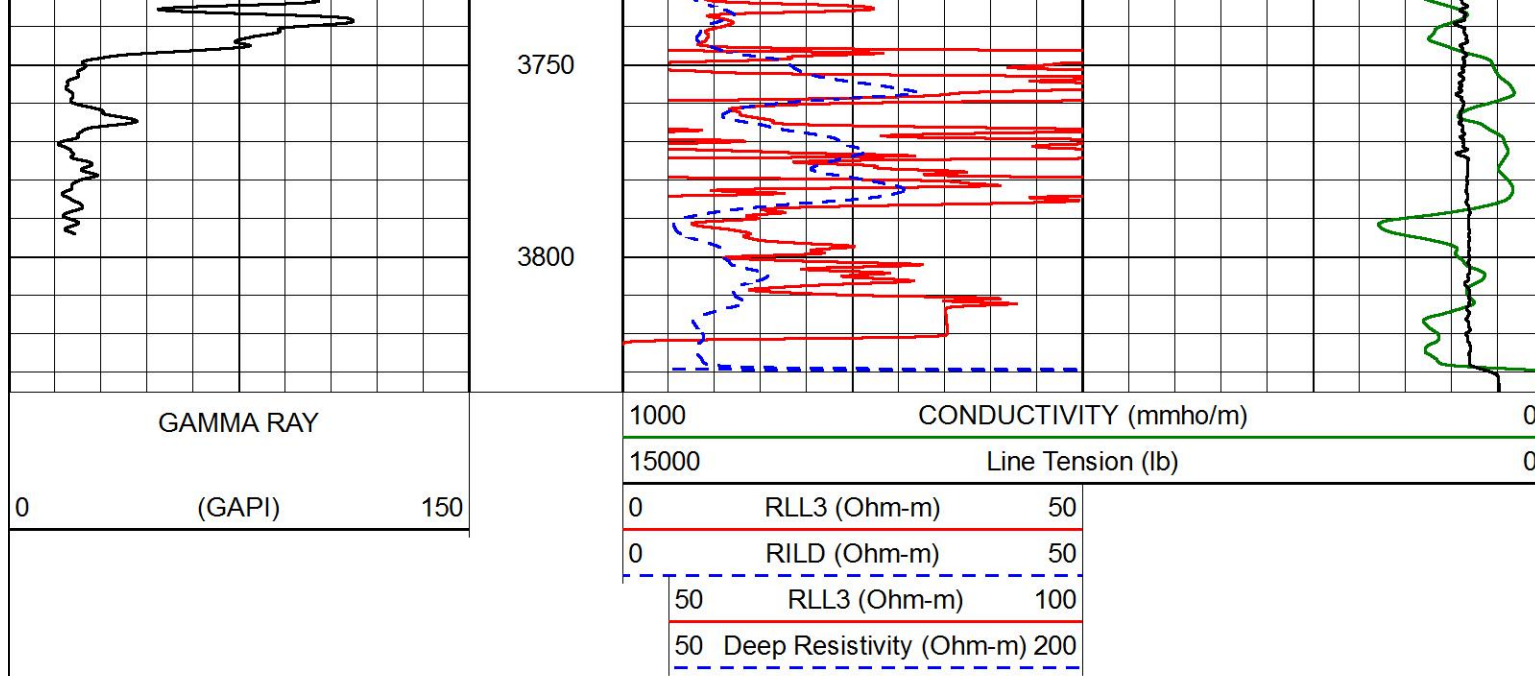










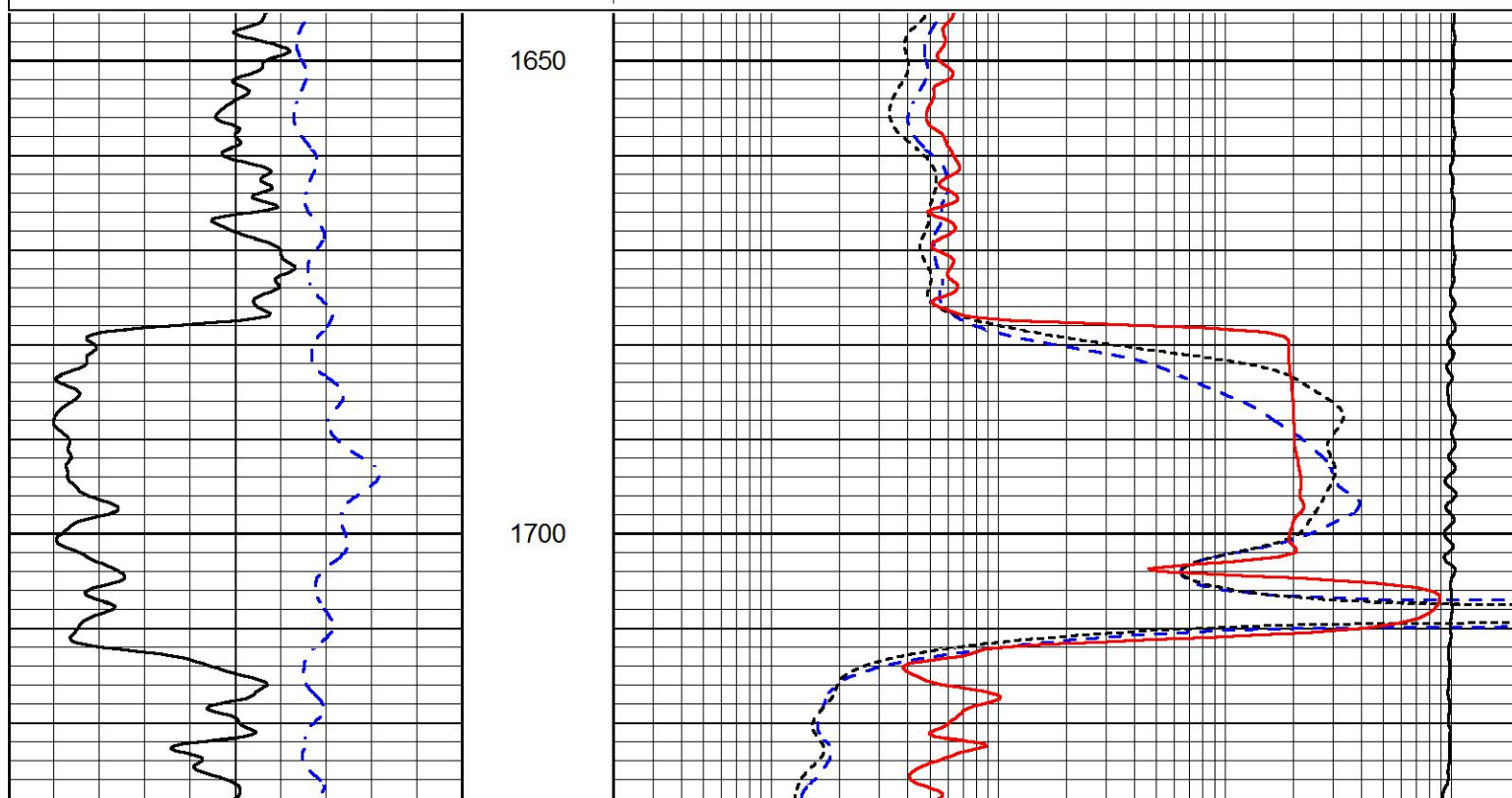


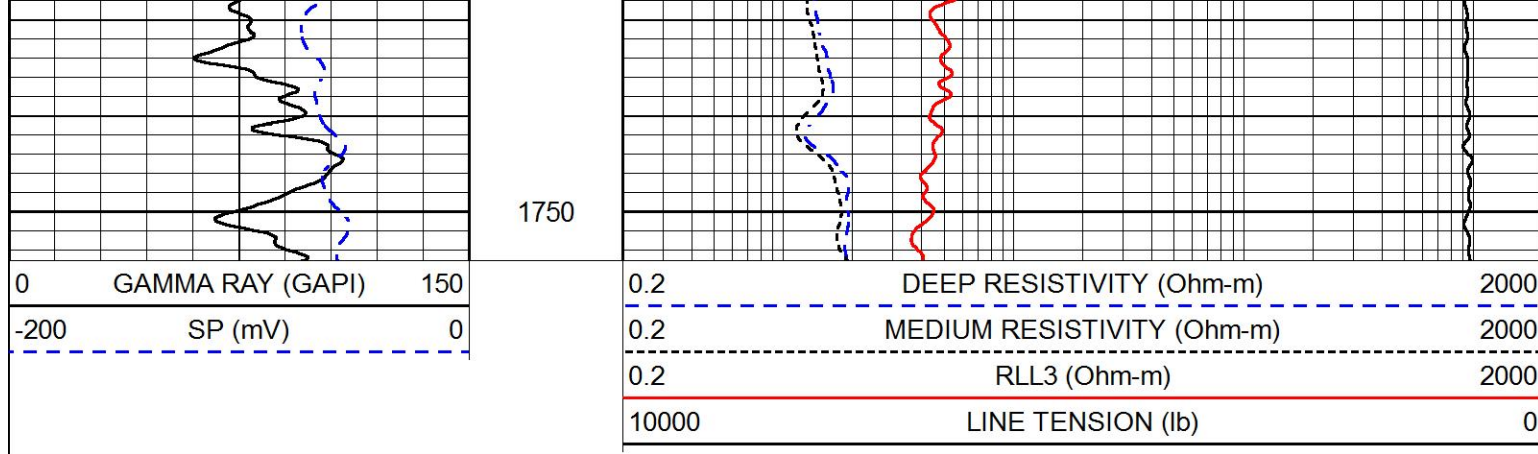
ANHYDRITE SECTION

MAIN PASS

Database File cobalt_marilyn unit 1-6.db
 Dataset Pathname stkml/pass11.1
 Presentation Format _dil
 Dataset Creation Thu Jul 01 10:16:42 2021
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0



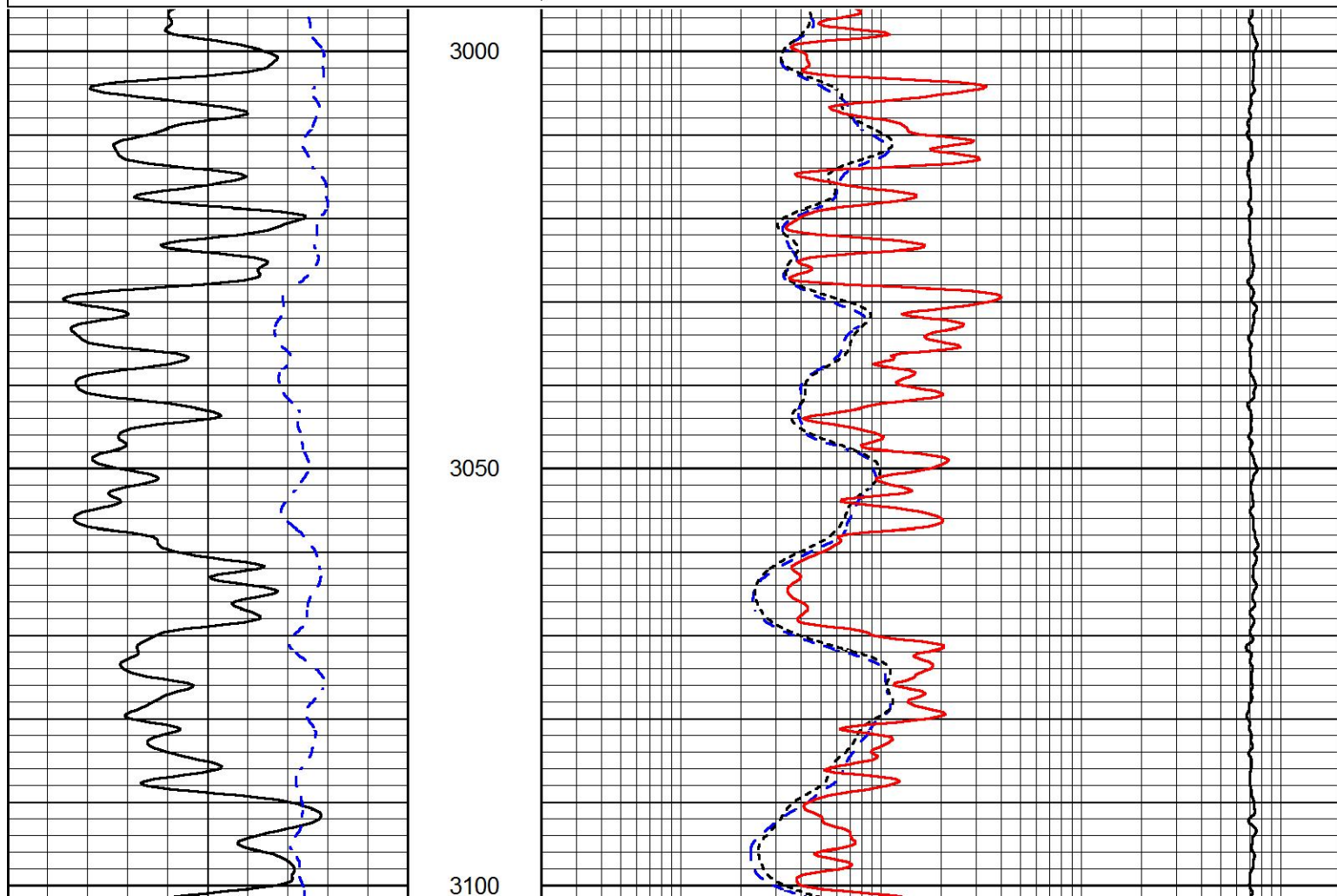
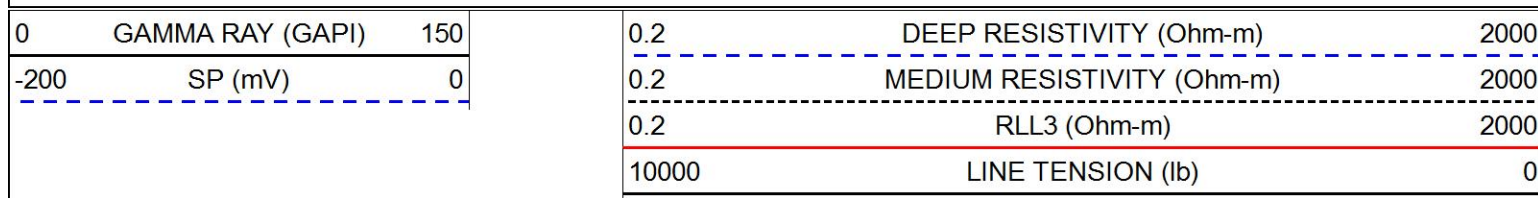


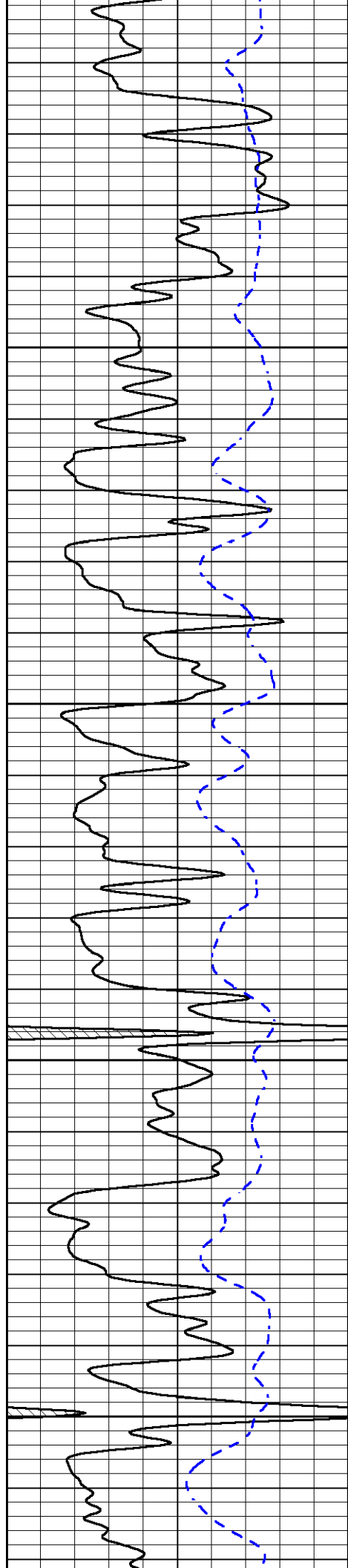
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

Database File cobalt_marilyn unit 1-6.db
 Dataset Pathname stkml/pass7.1
 Presentation Format _dil
 Dataset Creation Thu Jul 01 09:52:41 2021
 Charted by Depth in Feet scaled 1:240



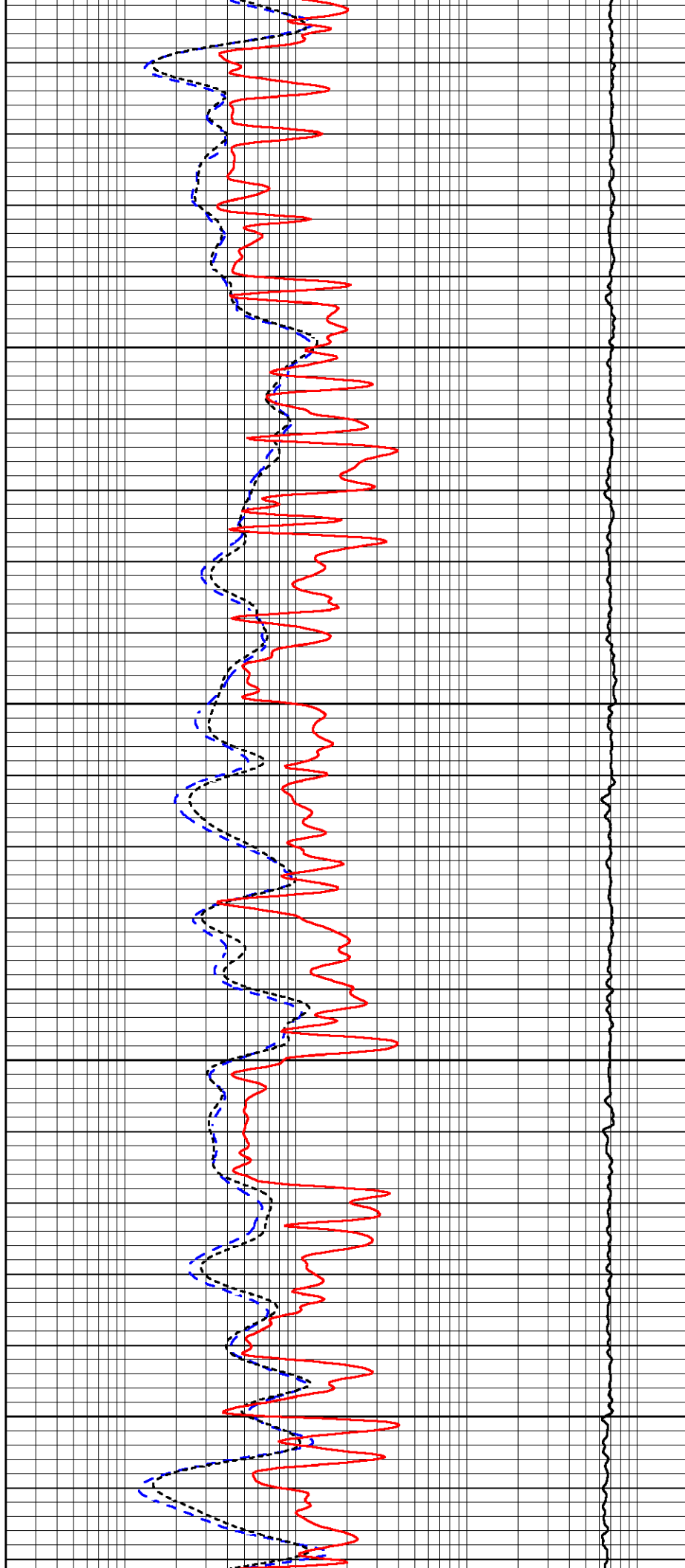


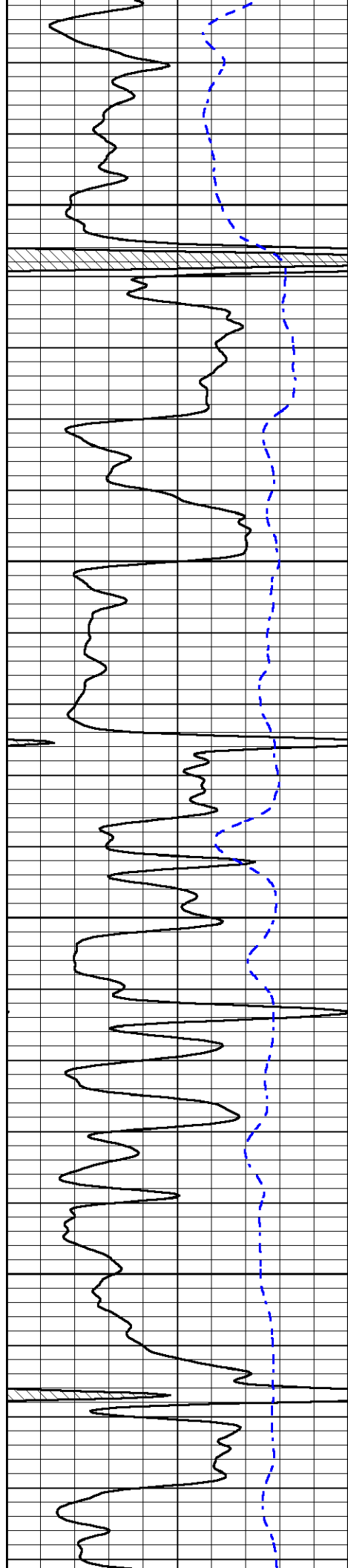
3150

3200

3250

3300



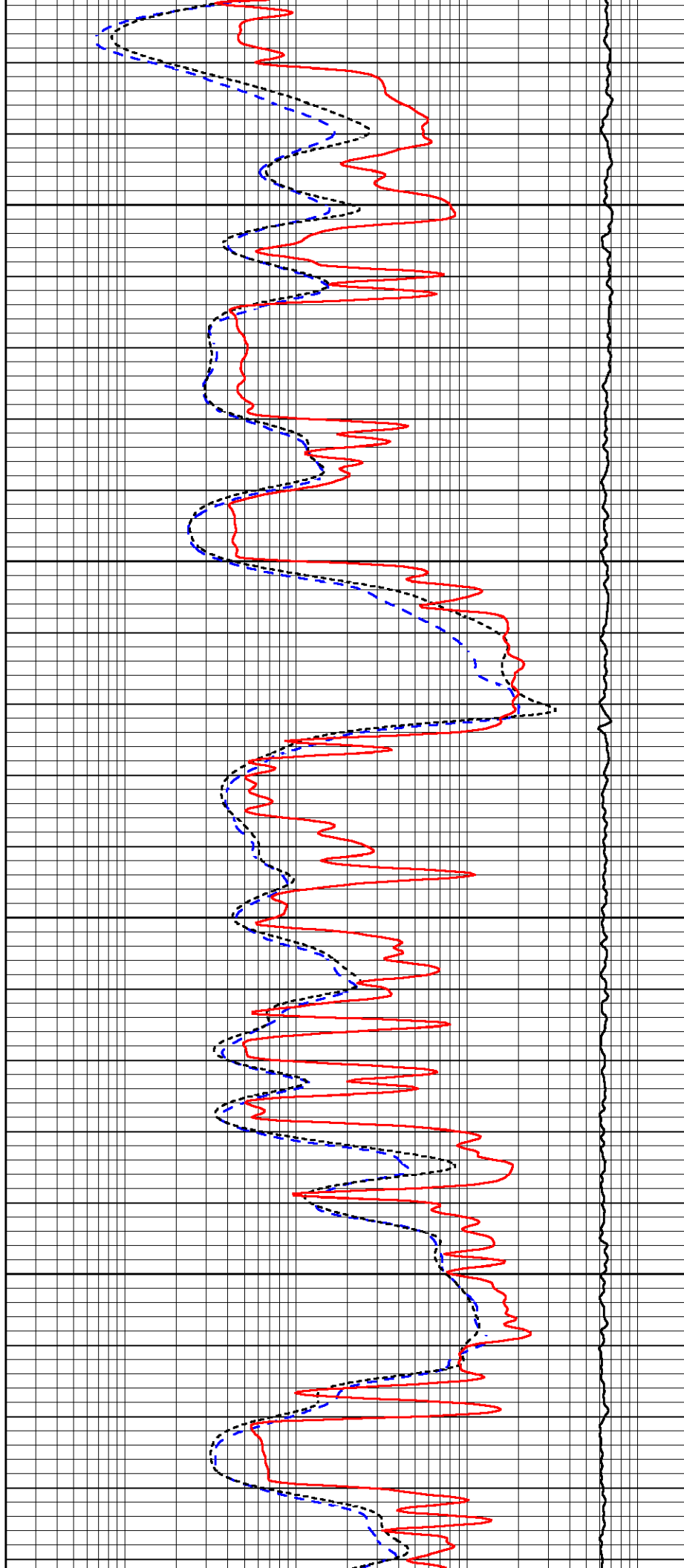


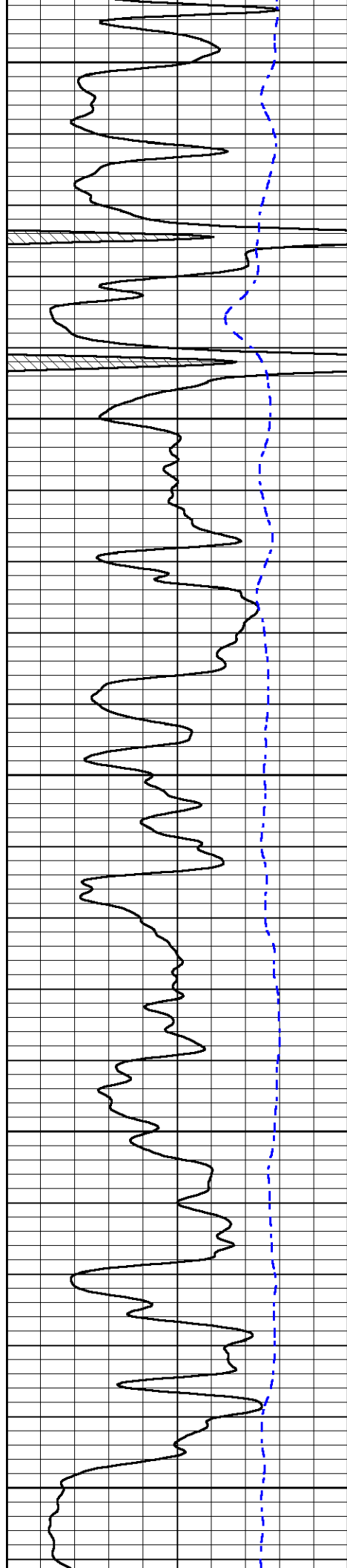
3350

3400

3450

3500





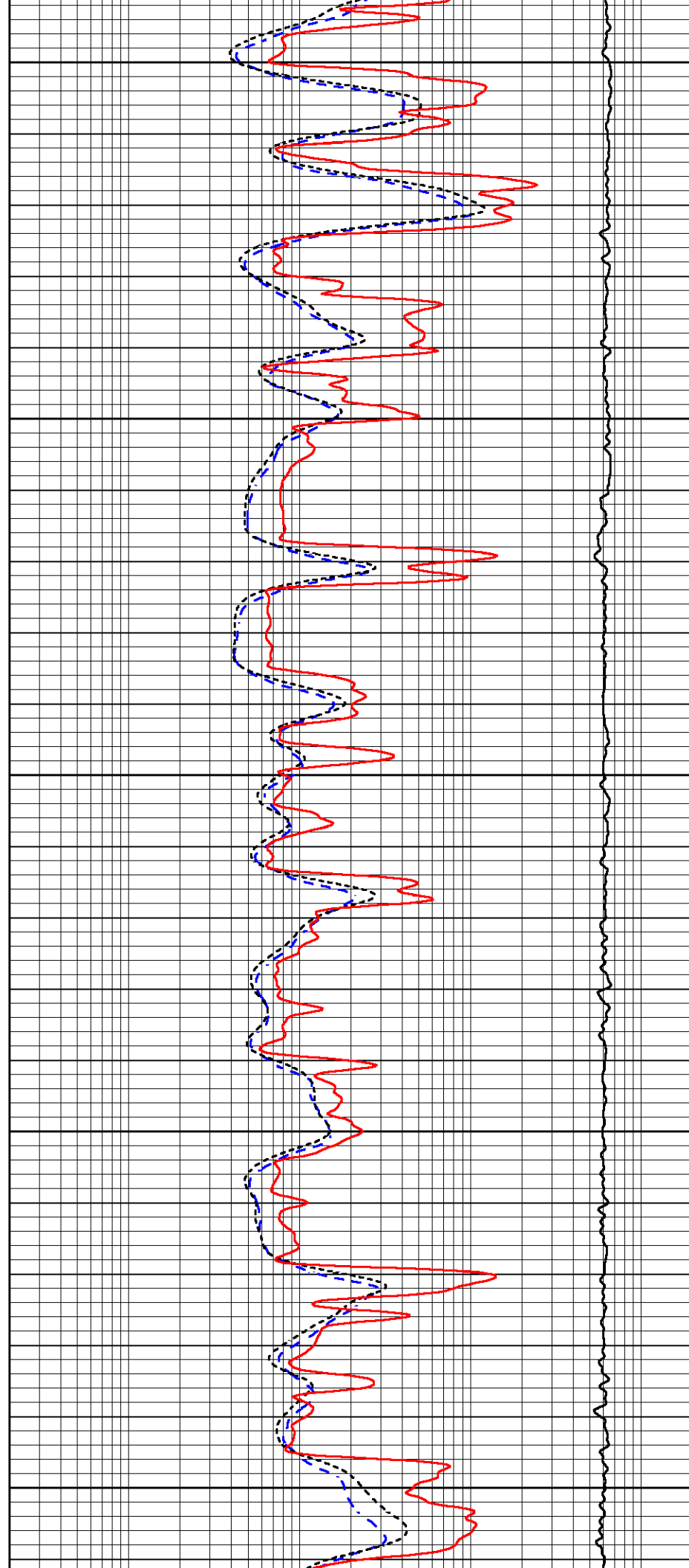
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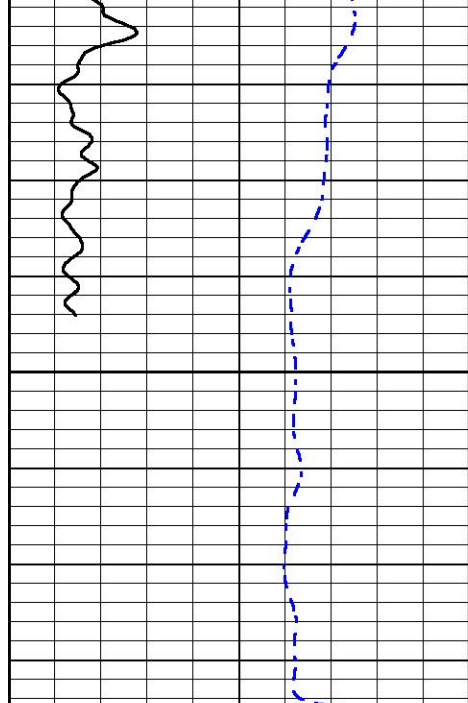
3600

3650

3700

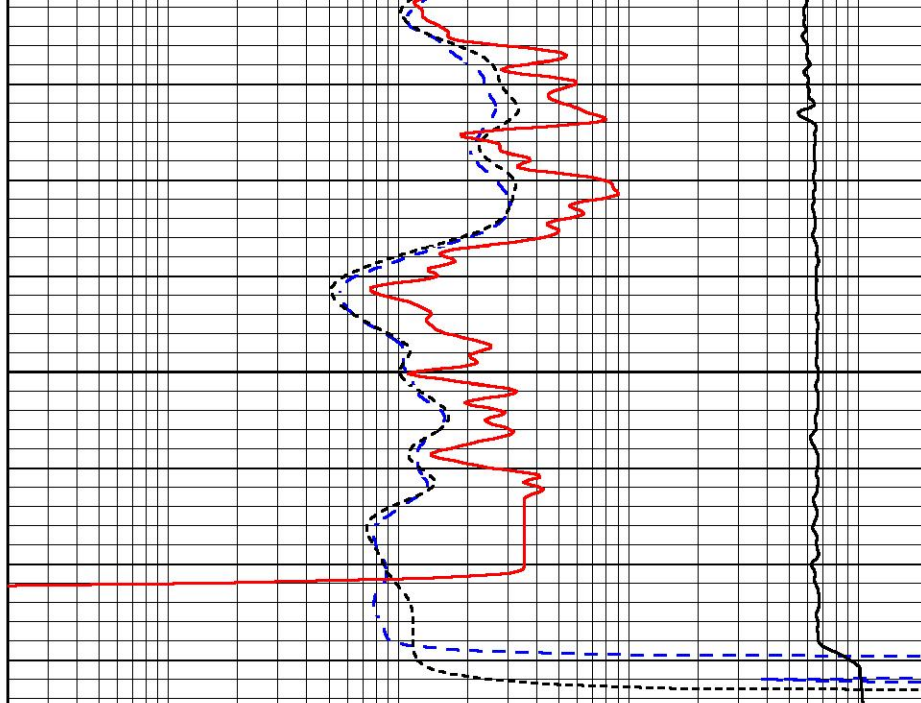
3750





0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

3800



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

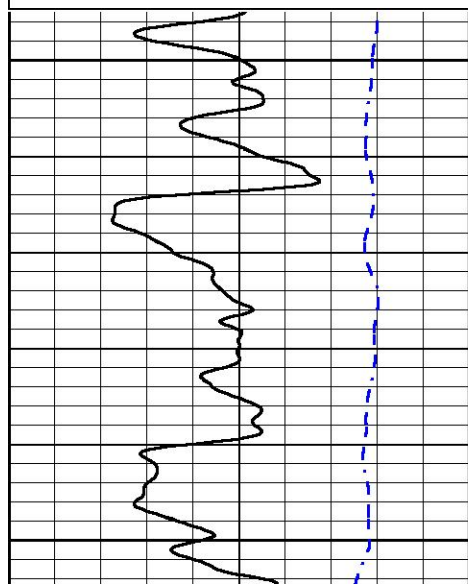
REPEAT SECTION

REPEAT PASS

Database File cobalt_marilyn unit 1-6.db
 Dataset Pathname stkml/pass2.4
 Presentation Format _dil
 Dataset Creation Thu Jul 01 09:25:10 2021
 Charted by Depth in Feet scaled 1:240

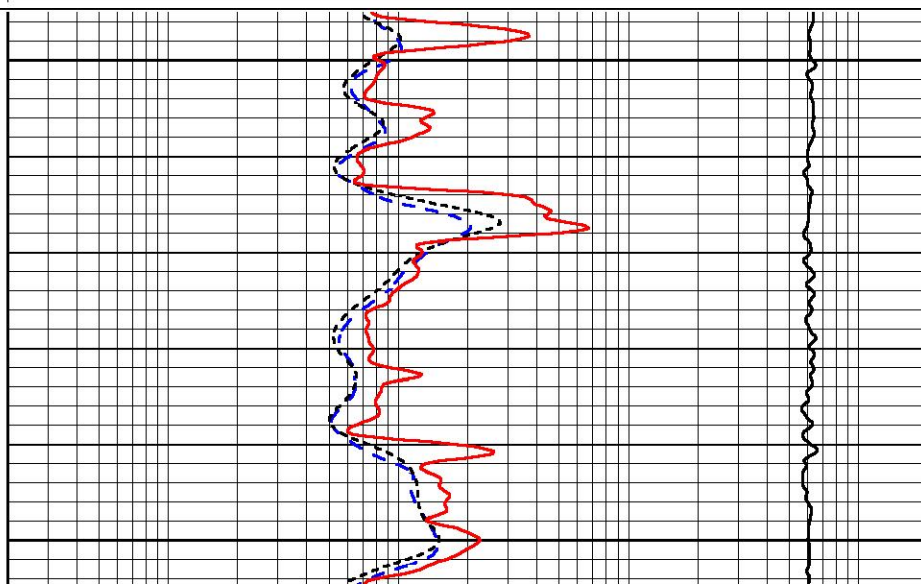
0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

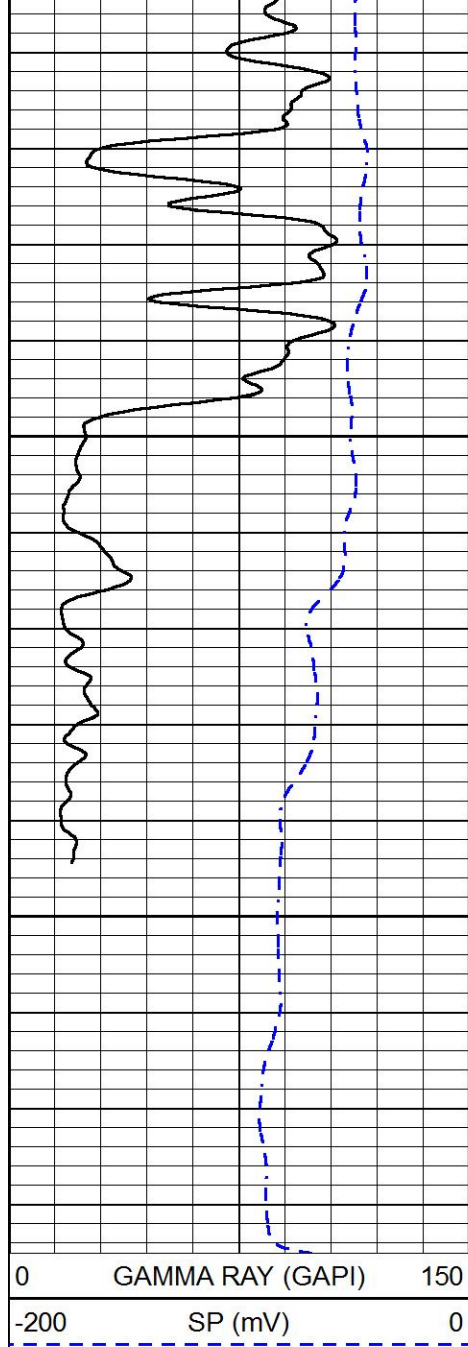
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0



3650

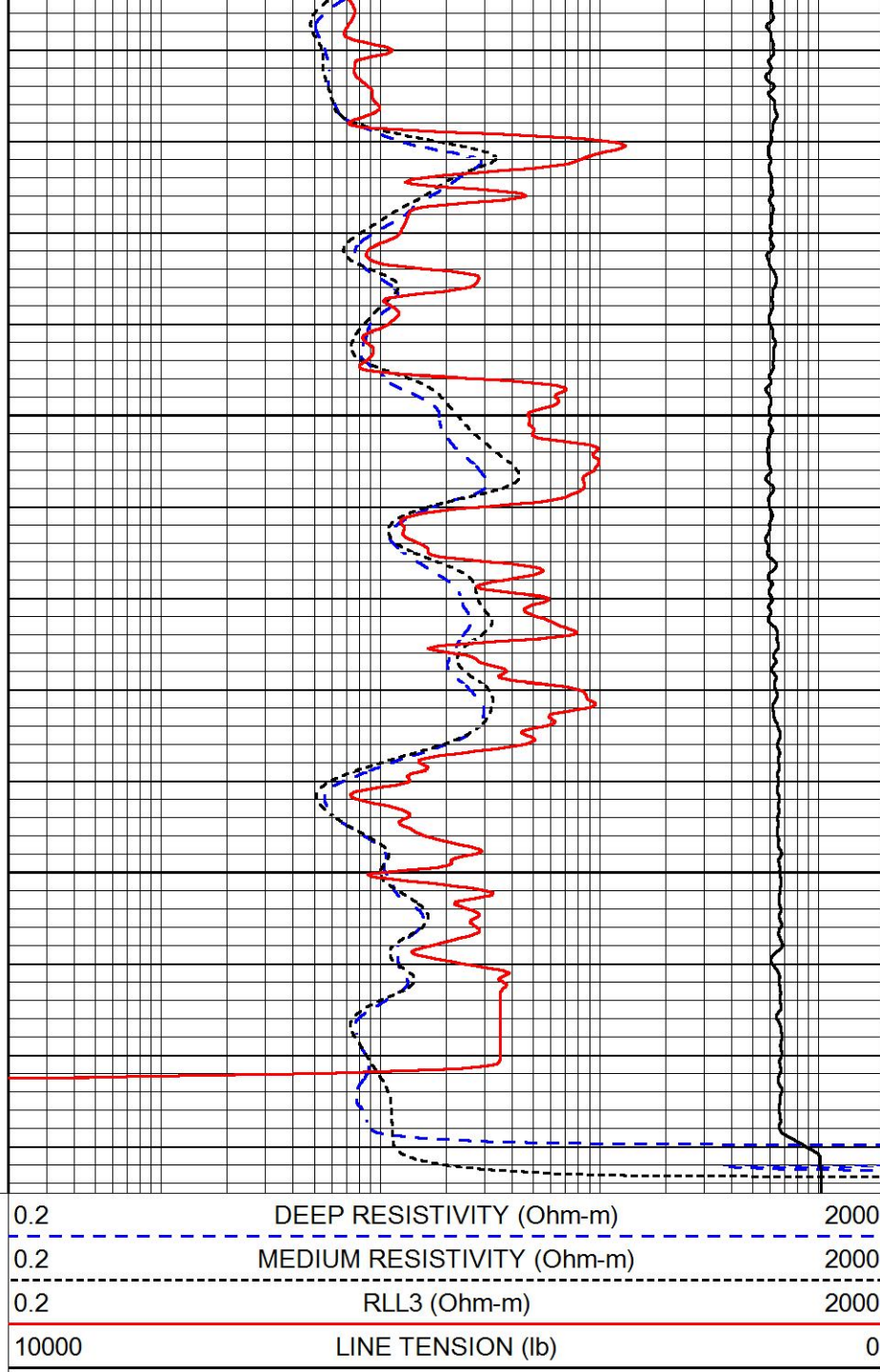
3700





3750

3800



MIDWEST WIRELINE

Company	Cobalt Energy, LLC
Well	Marilyn Unit #1-6
Field	Hatcher
County	Graham
State	Kansas