PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company CARMEN SCHMITT, INC.
Well GLEASON #1
Field HORACEK
County HODGEMAN State KANSAS

Location: API # : 15-083-21943-00-00
1390' FNL & 330' FEL
SEC 14 TWP 23S RGE 21W

Other Services: CNL/CDL

Elevation: K.B. 2334' D.F. N/A G.L. 2329'

Permanent Datum GROUND LEVEL Elevation 2329'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Company CARMEN SCHMITT, INC.
Well GLEASON #1
Field HORACEK
County HODGEMAN
State KANSAS

Date	9/13/2017			
Run Number	ONE			
Depth Driller	4598'			
Depth Logger	4599'			
Bottom Logged Interval	4598'			
Top Log Interval	200'			
Casing Driller	8.625" @ 218'			
Casing Logger	218'			
Bit Size	7.875"			
Type Fluid in Hole	CHEMICAL			
Salinity,ppm CL	3050			
Density / Viscosity	9.3	58		
pH / Fluid Loss	11.0	8.4		
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	0.65 @ 80			
Rmf @ Meas. Temp	0.49 @ 80			
Rmc @ Meas. Temp	0.88 @ 80			
Source of Rmf / Rmc	CHARTS			
Rm @ BHT	0.43 @ 122			
Operating Rig Time	3 1/2 HOURS			
Max Rec. Temp. F	122			
Equipment Number	91			
Location	HAYS			
Recorded By	D. SCHMIDT			
Witnessed By	BRAD RINE			

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, 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.

BURDETT,
10 SOUTH ON 340TH TO D RD, 4 WEST TO 235 RD, 1/2 NORTH,
WEST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneeres.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: BRAD RINE
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

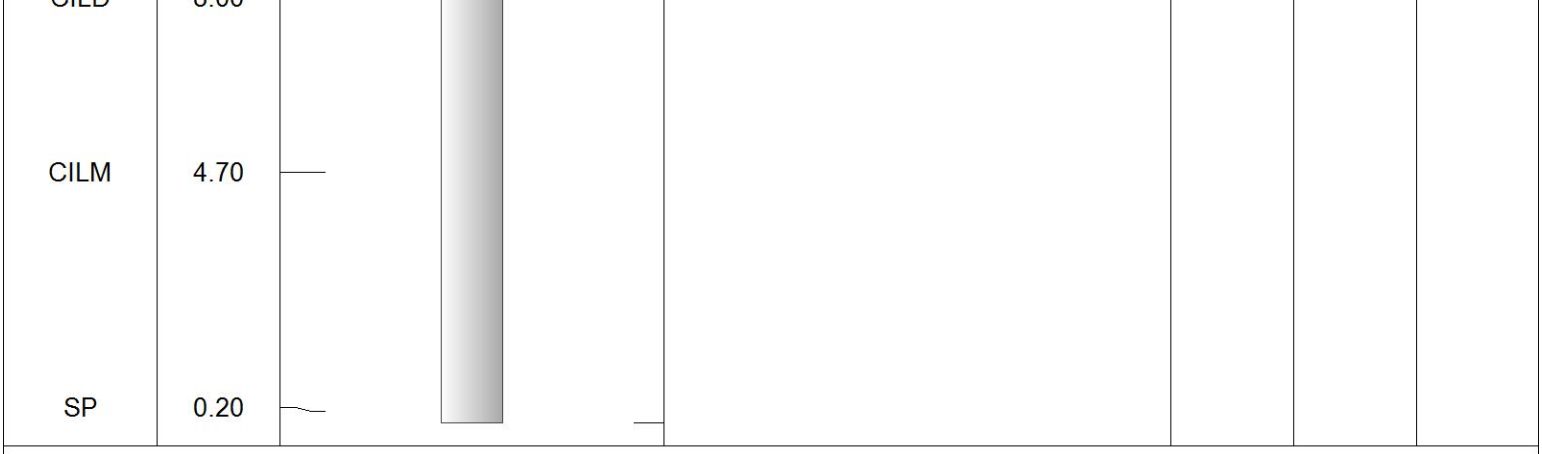
Database C:\ProgramData\Warrior\Data\carmen schmitt_gleason 1.db
Dataset field/well/STACK/pass3.4/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	238	0

SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	4599	122	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			GR-M&W (89)	3.00	3.50	50.00
GR	33.00					
CNLSC	29.90		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	29.15					
			CDL-M&W (90-1031)	8.50	4.00	250.00
LSD	20.85					
DCAL	20.83					
SSD	20.35					
RLL3F	15.80					
RLL3	15.80					
			DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00					

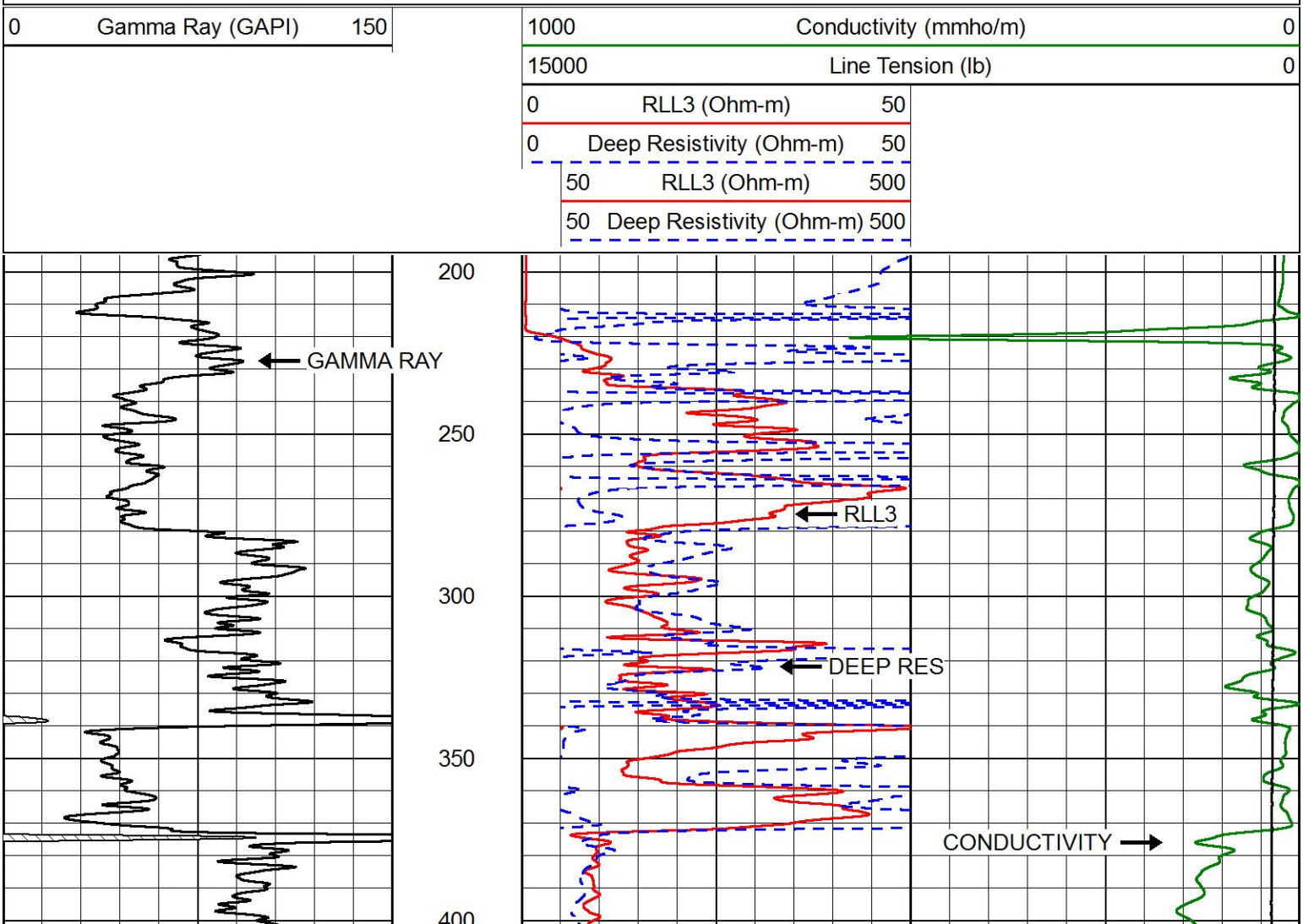


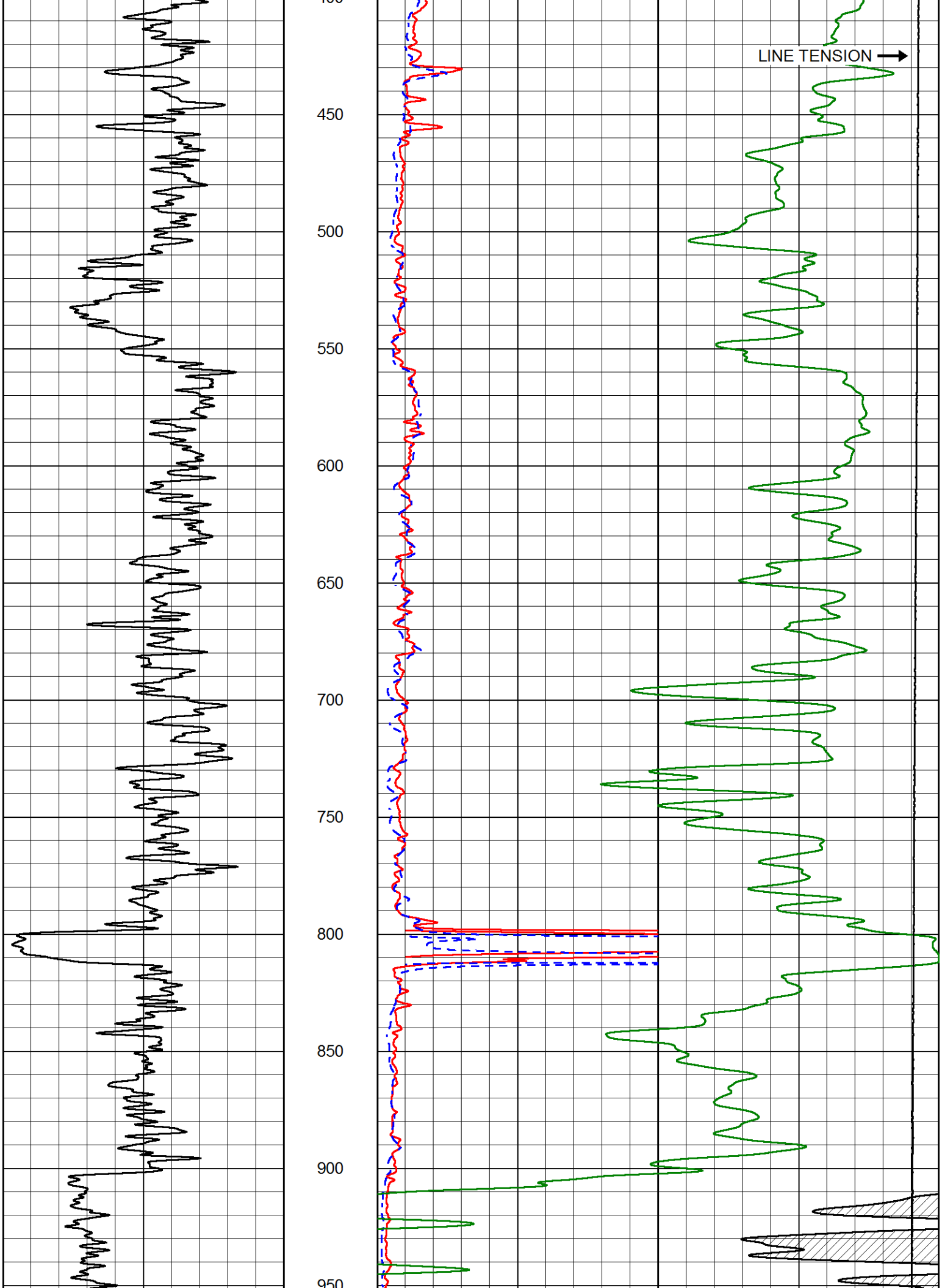
Dataset: carmen schmitt_gleason 1.db: field/well/STACK/pass3.4
Total length: 35.50 ft
Total weight: 620.00 lb
O.D.: 4.00 in

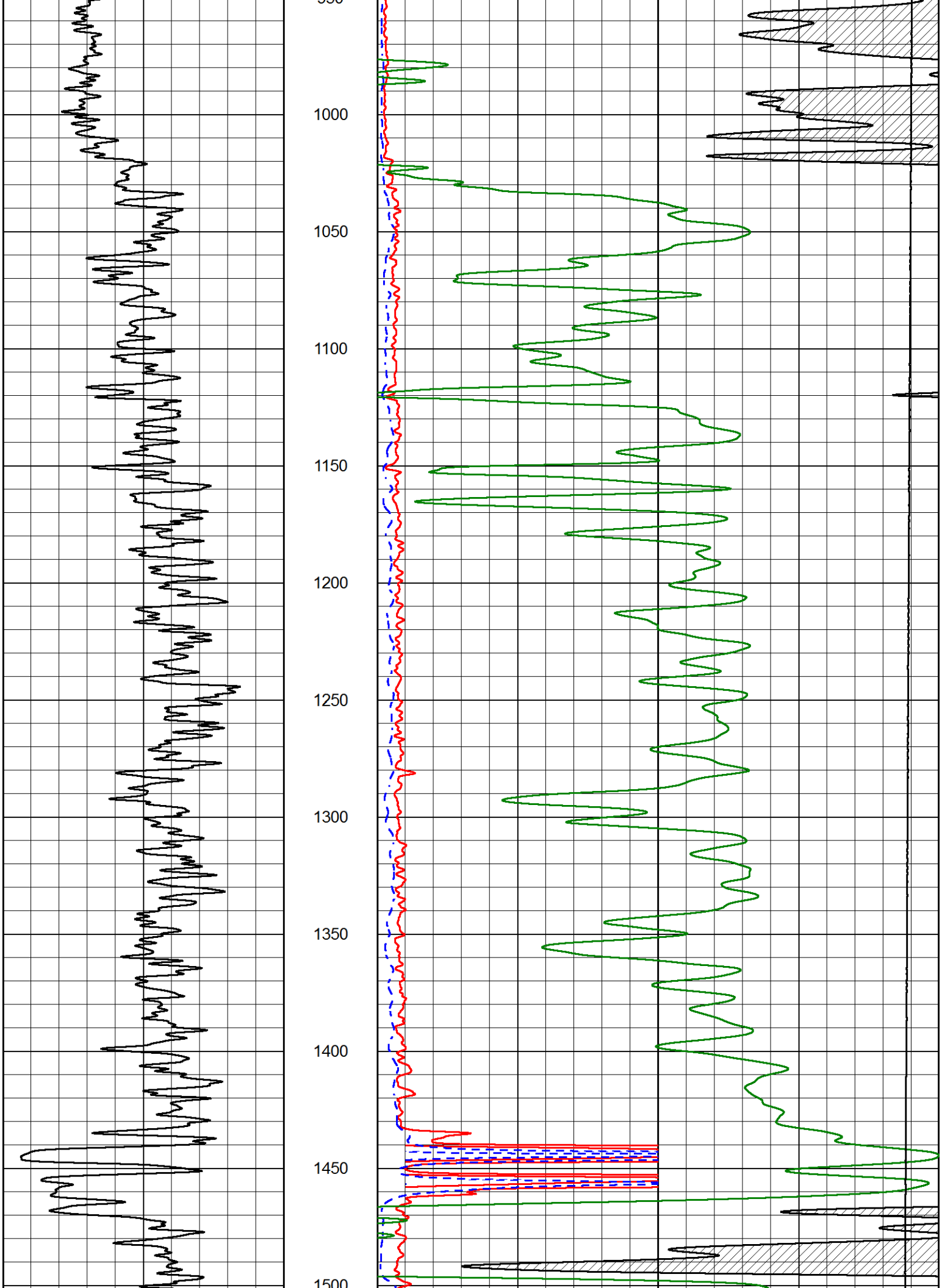
PIONEER
Pioneer Energy Services

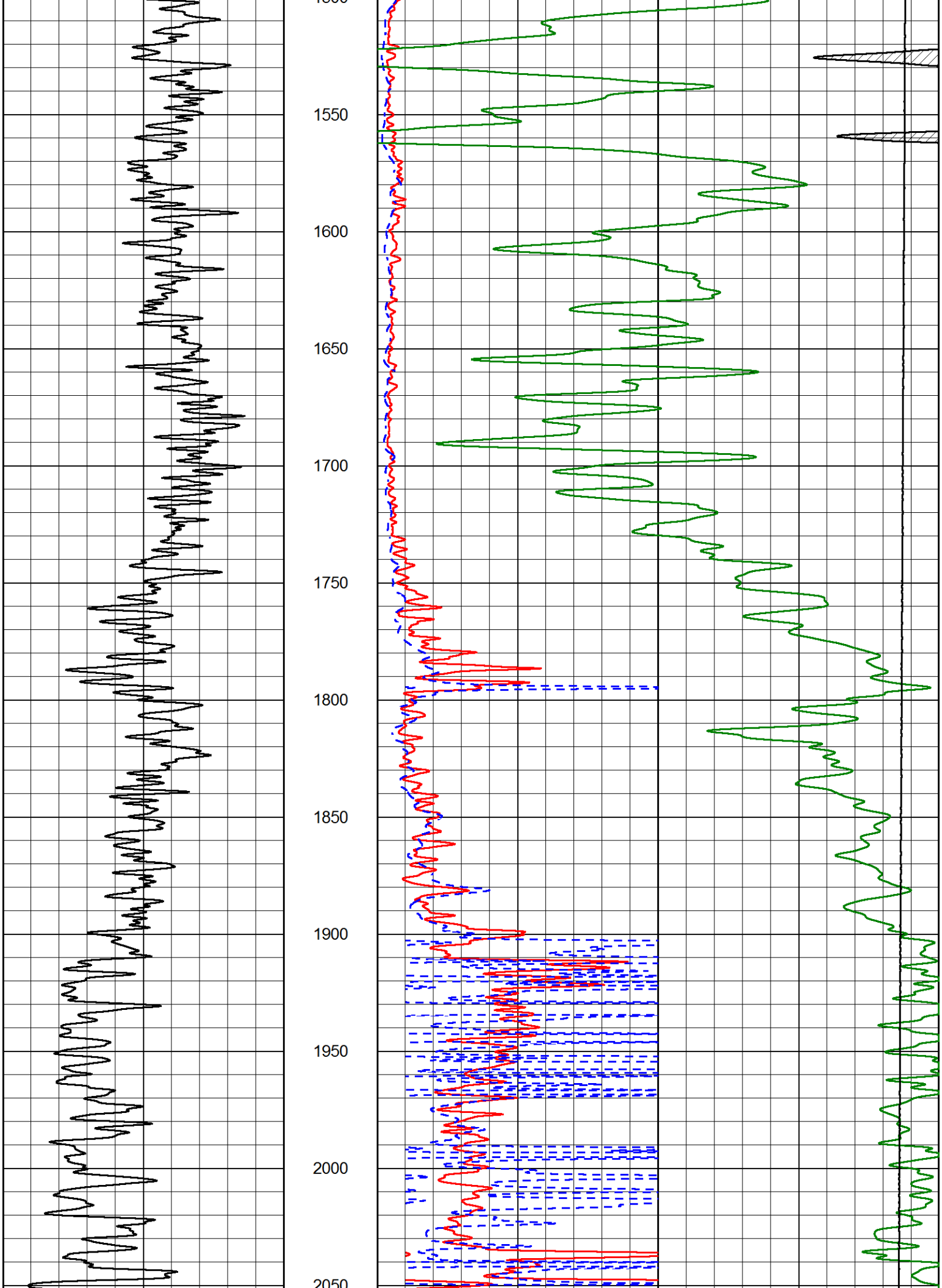
MAIN PASS

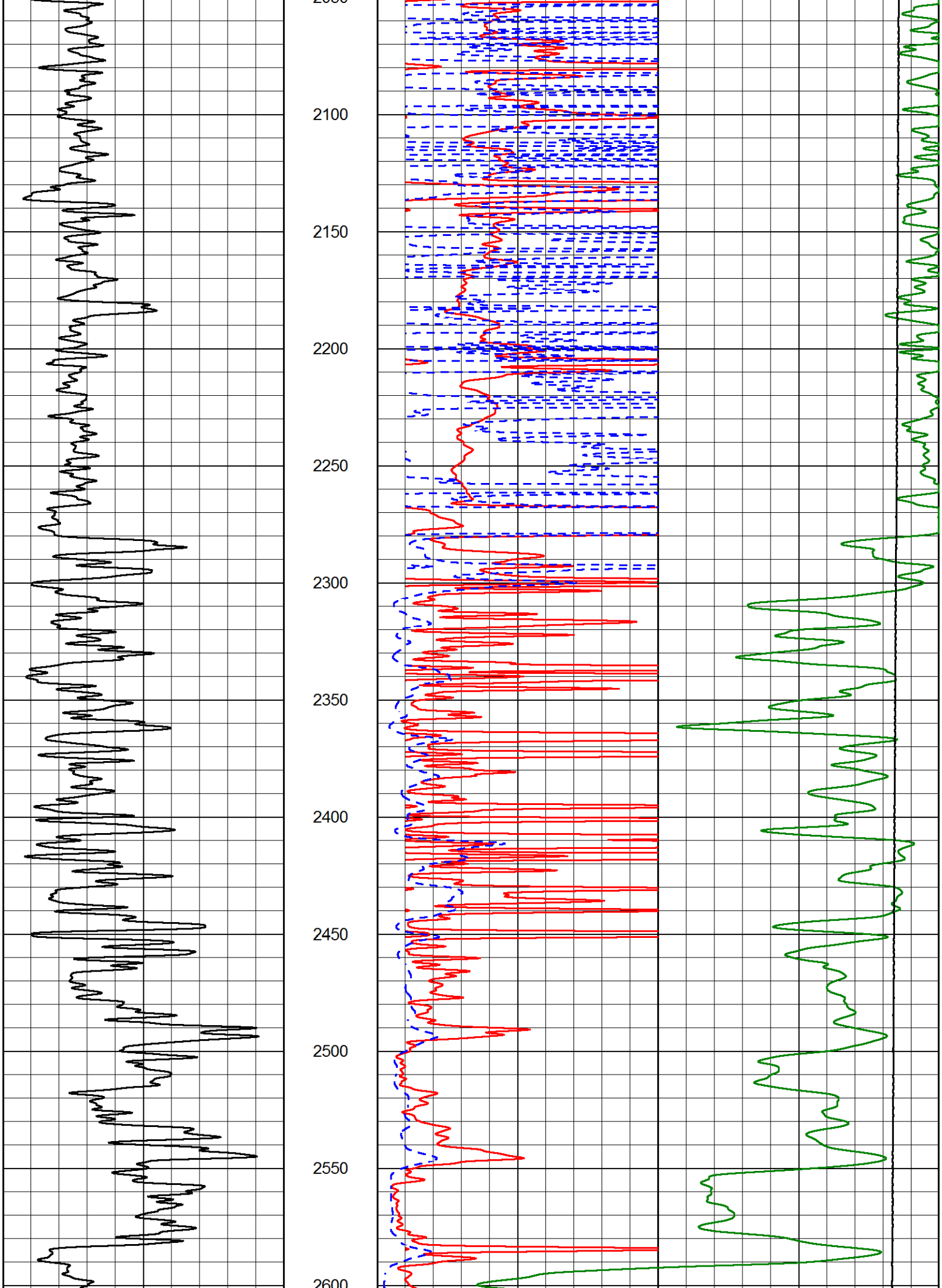
Database File	carmen schmitt_gleason 1.db
Dataset Pathname	STACK/pass3.7
Presentation Format	dil2in
Dataset Creation	Wed Sep 13 23:49:27 2017
Charted by	Depth in Feet scaled 1:600

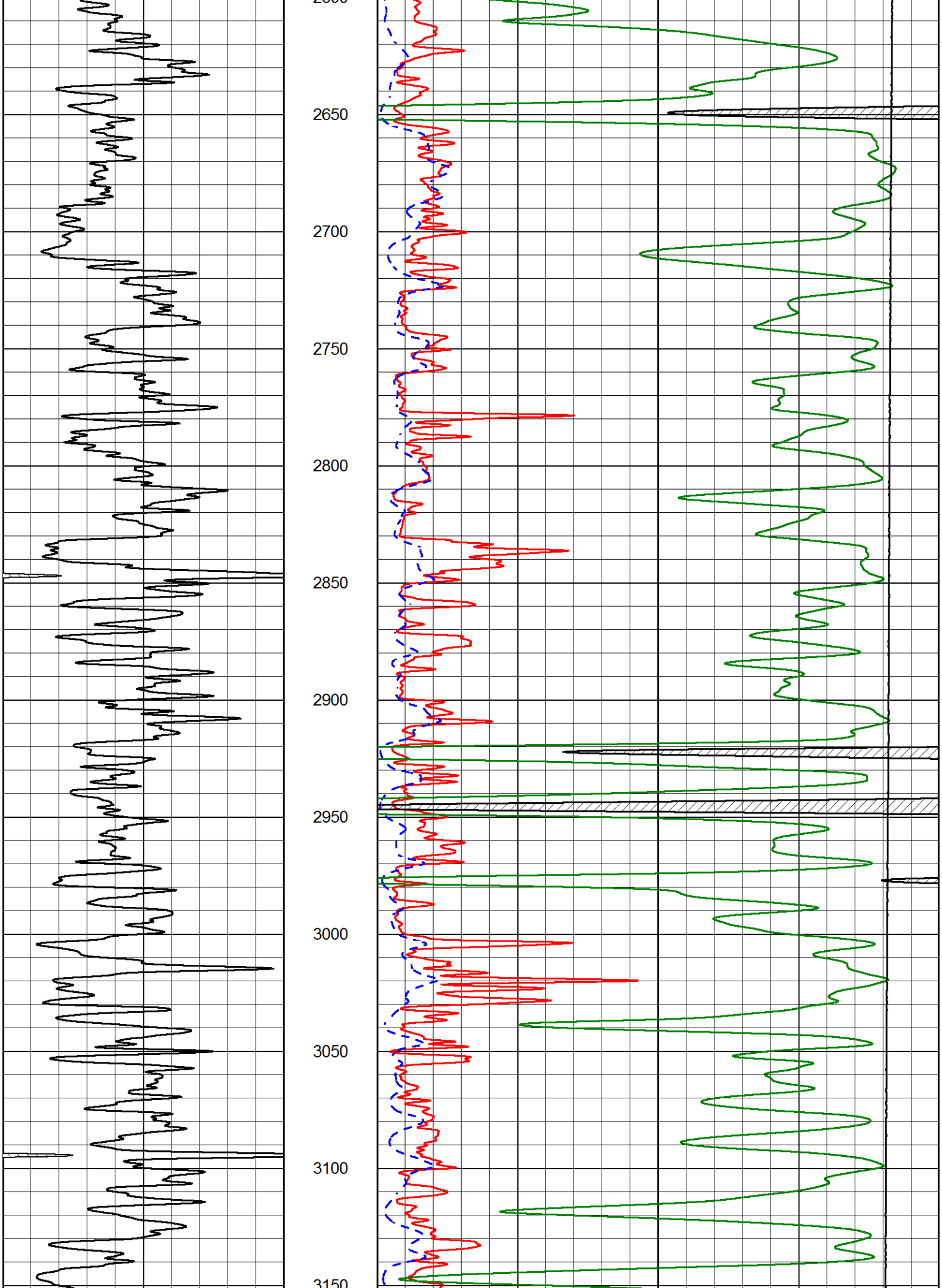


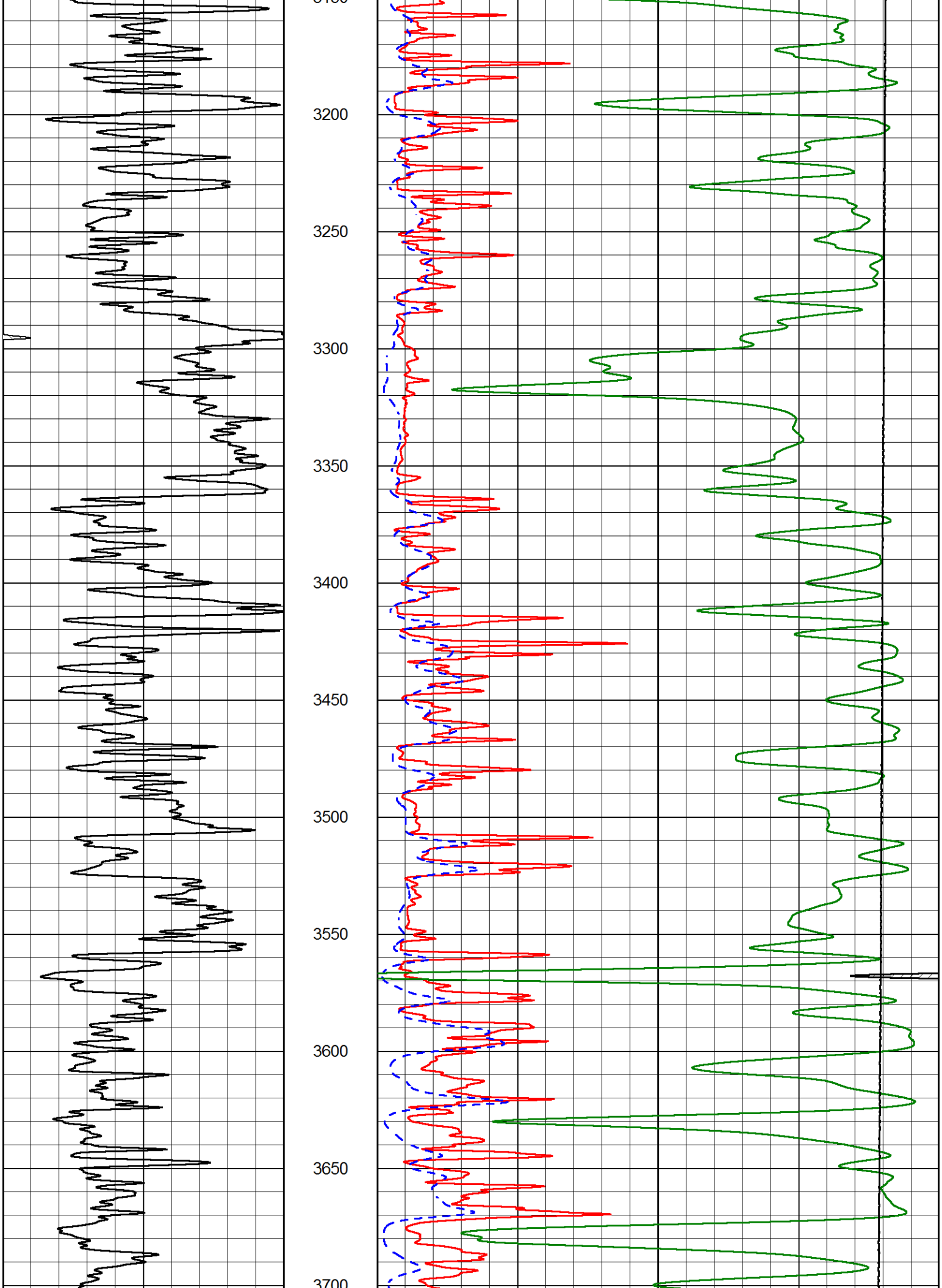

LINE TENSION
450
500
550
600
650
700
750
800
850
900
950

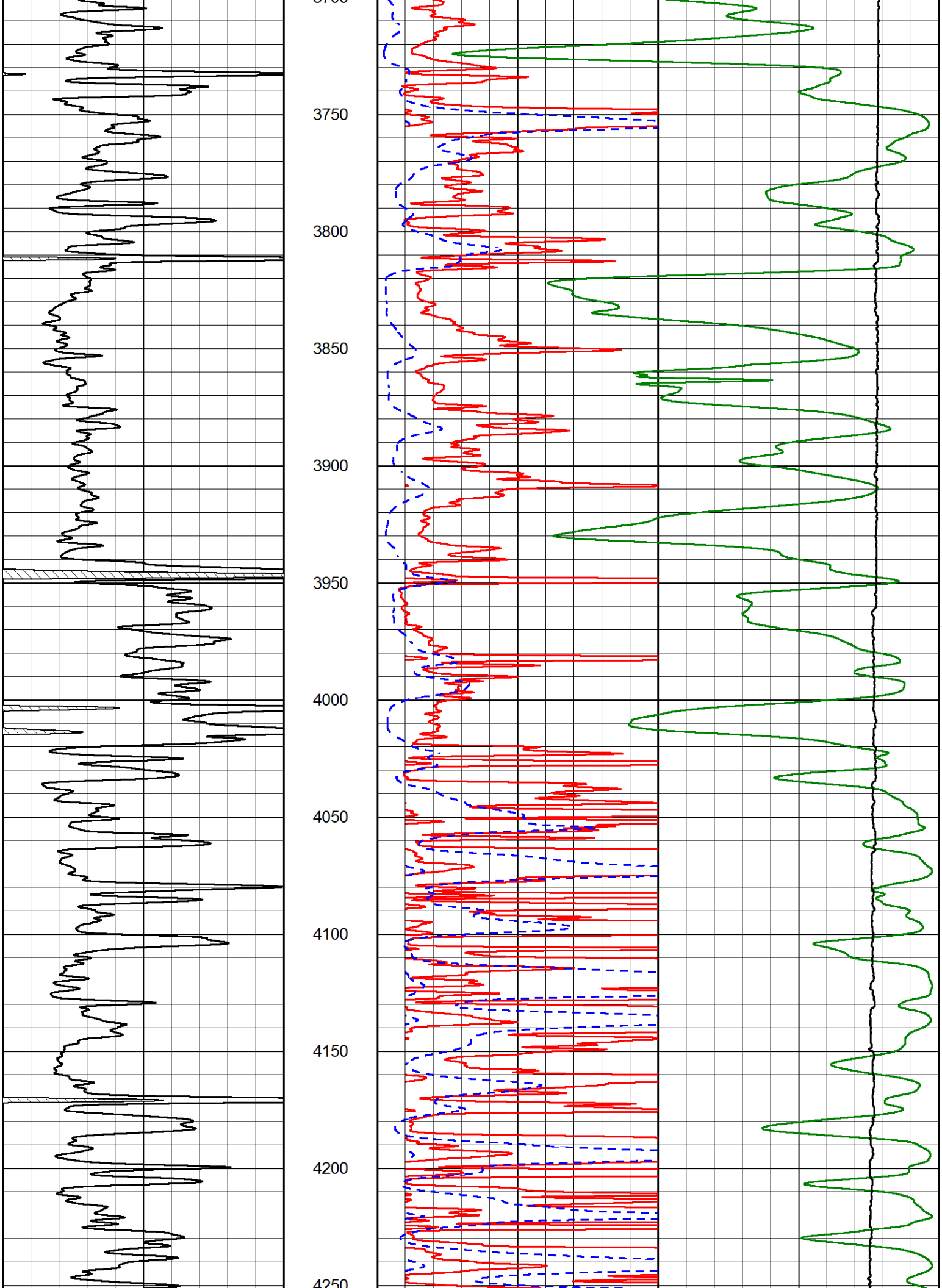

1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

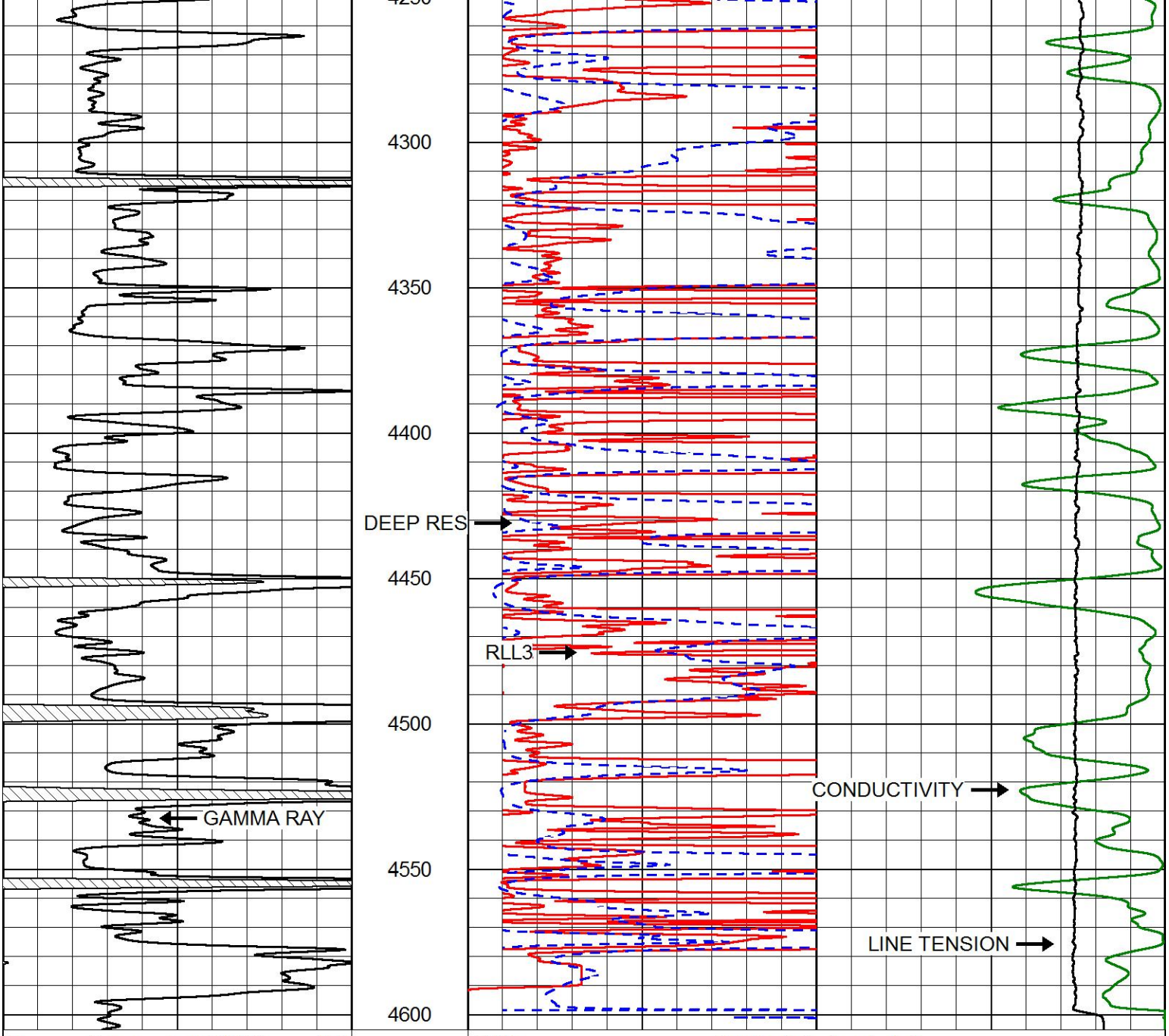

1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050


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
3650
3700


3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250

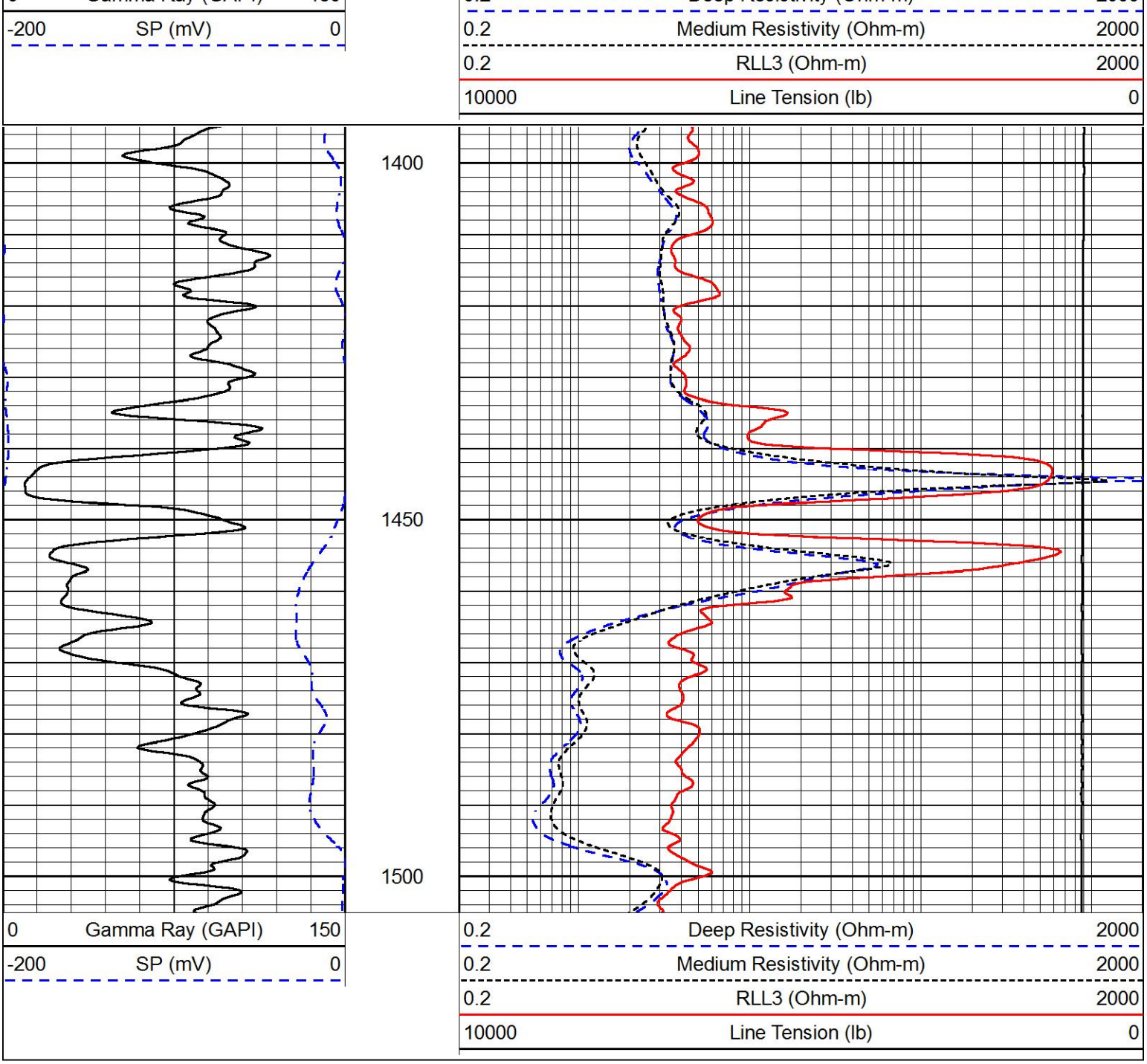


PIONEER
Pioneer Energy Services

MAIN PASS

Database File	carmen schmitt_gleason 1.db
Dataset Pathname	STACK/pass3.7
Presentation Format	dil
Dataset Creation	Wed Sep 13 23:49:27 2017
Charted by	Depth in Feet scaled 1:240

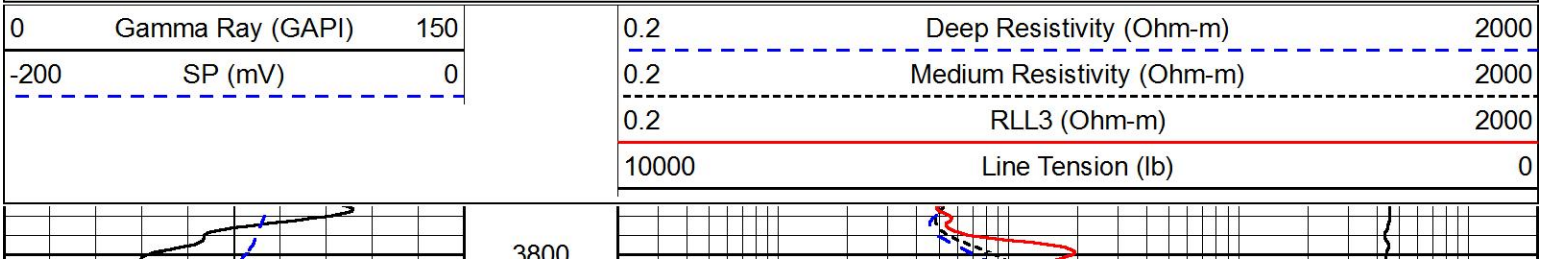
0	Gamma Ray (GAPI) 150	0.2	Deep Resistivity (Ohm-m) 2000

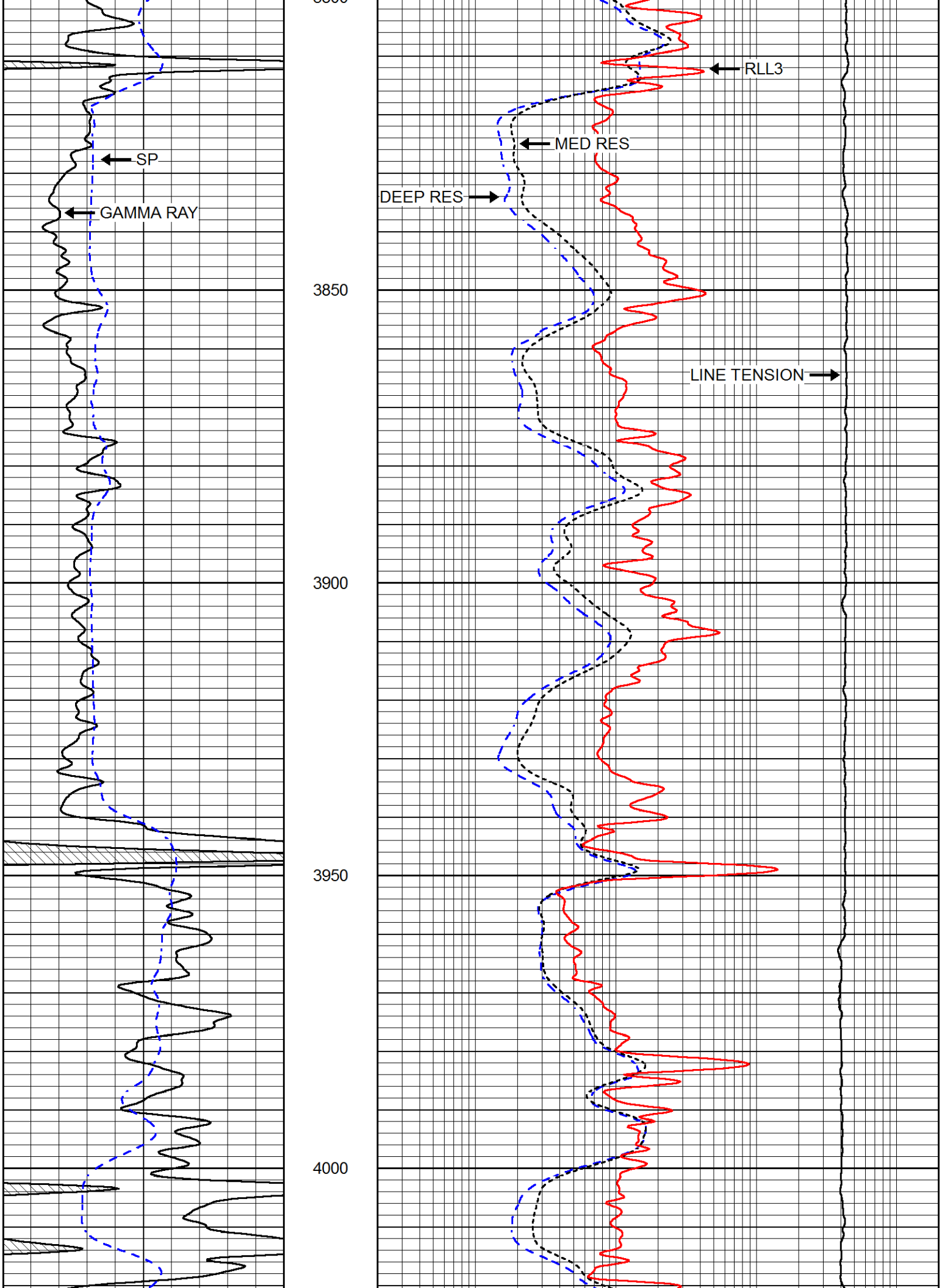


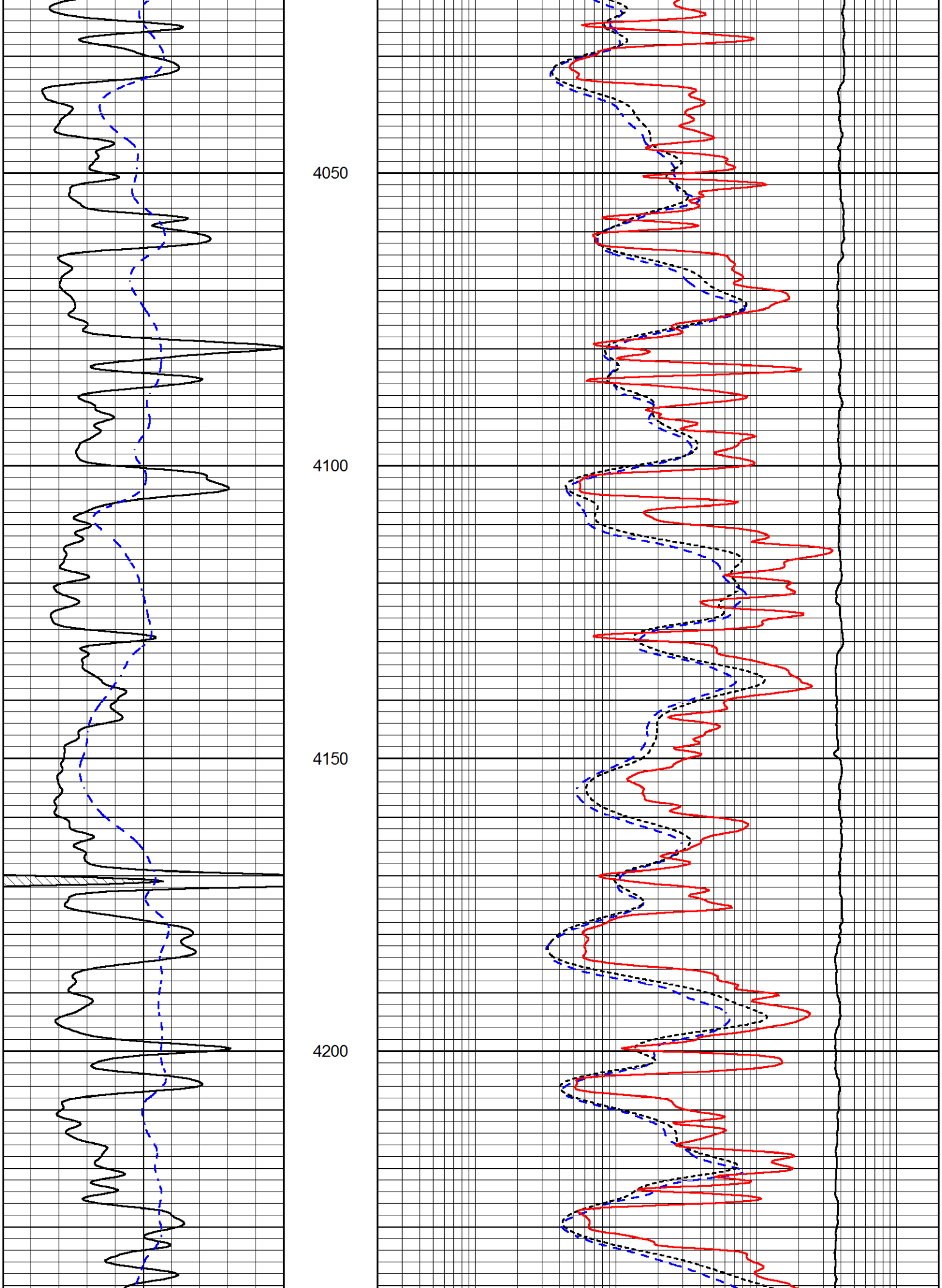
PIONEER
Pioneer Energy Services

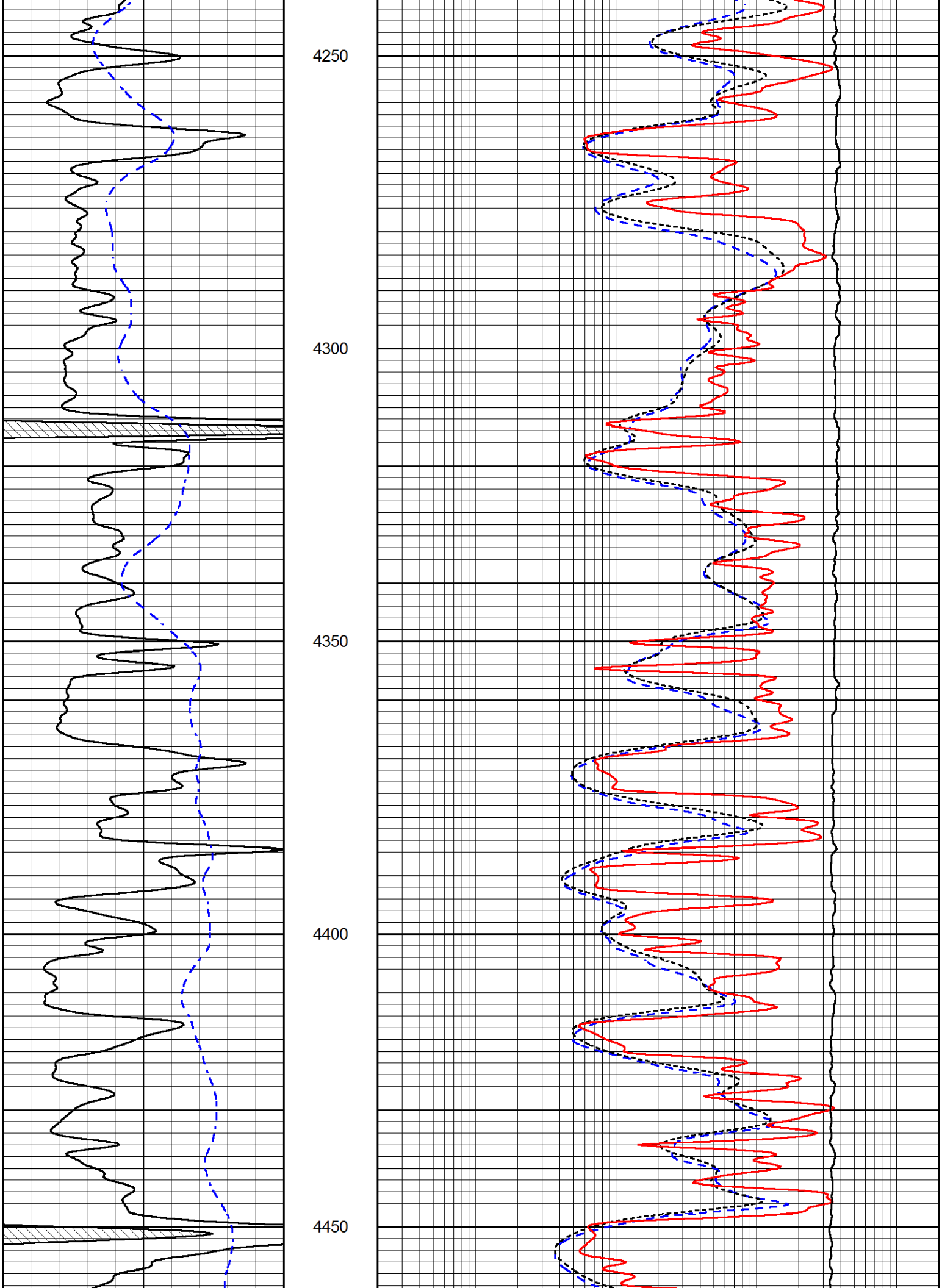
MAIN PASS

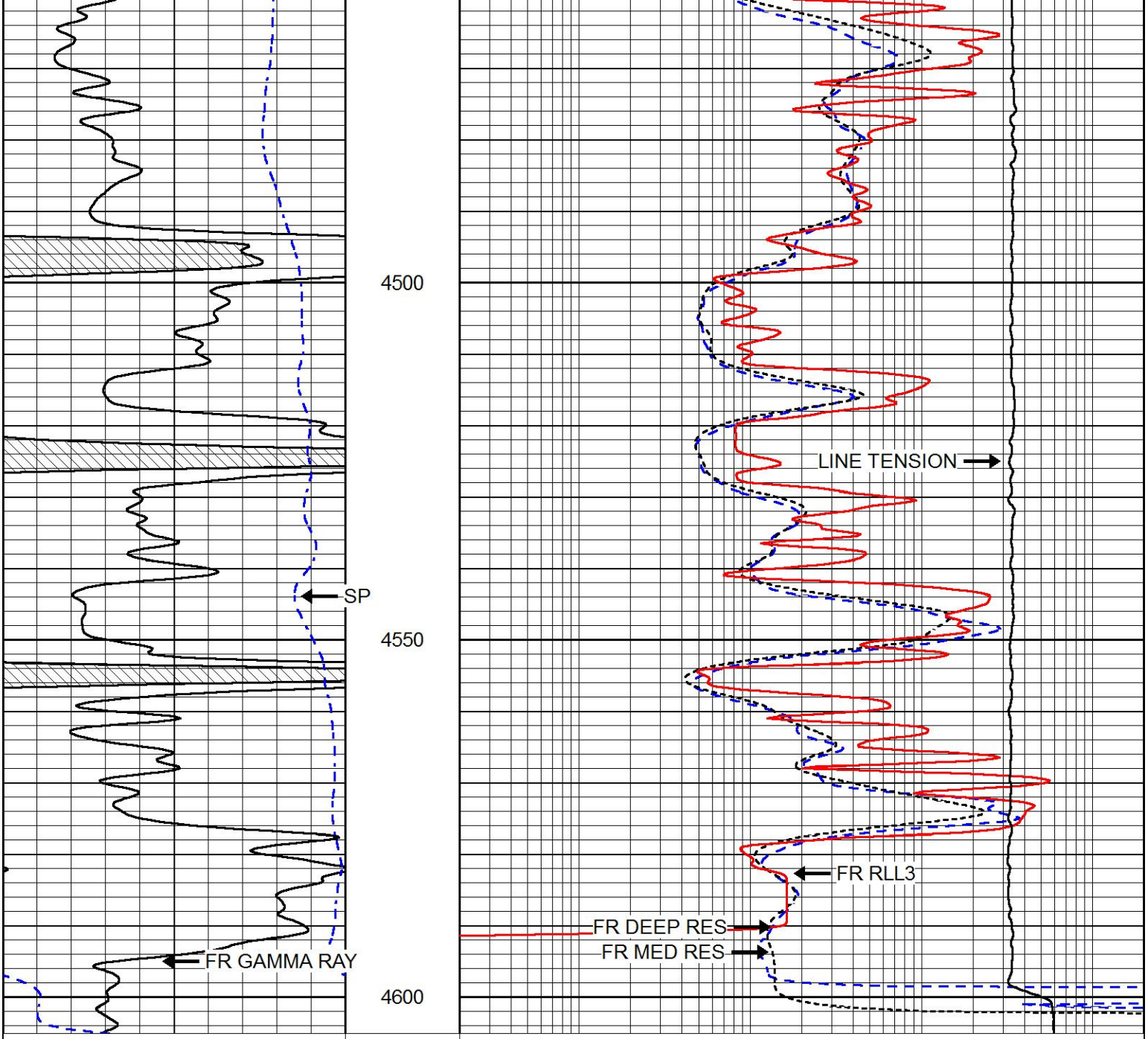
Database File	carmen schmitt_gleason 1.db
Dataset Pathname	STACK/pass3.1
Presentation Format	dil
Dataset Creation	Wed Sep 13 23:11:31 2017
Charted by	Depth in Feet scaled 1:240




SP
GAMMA RAY
RLL3
MED RES
DEEP RES
LINE TENSION
3850
3900
3950
4000


4050
4100
4150
4200


4250
4300
4350
4400
4450



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

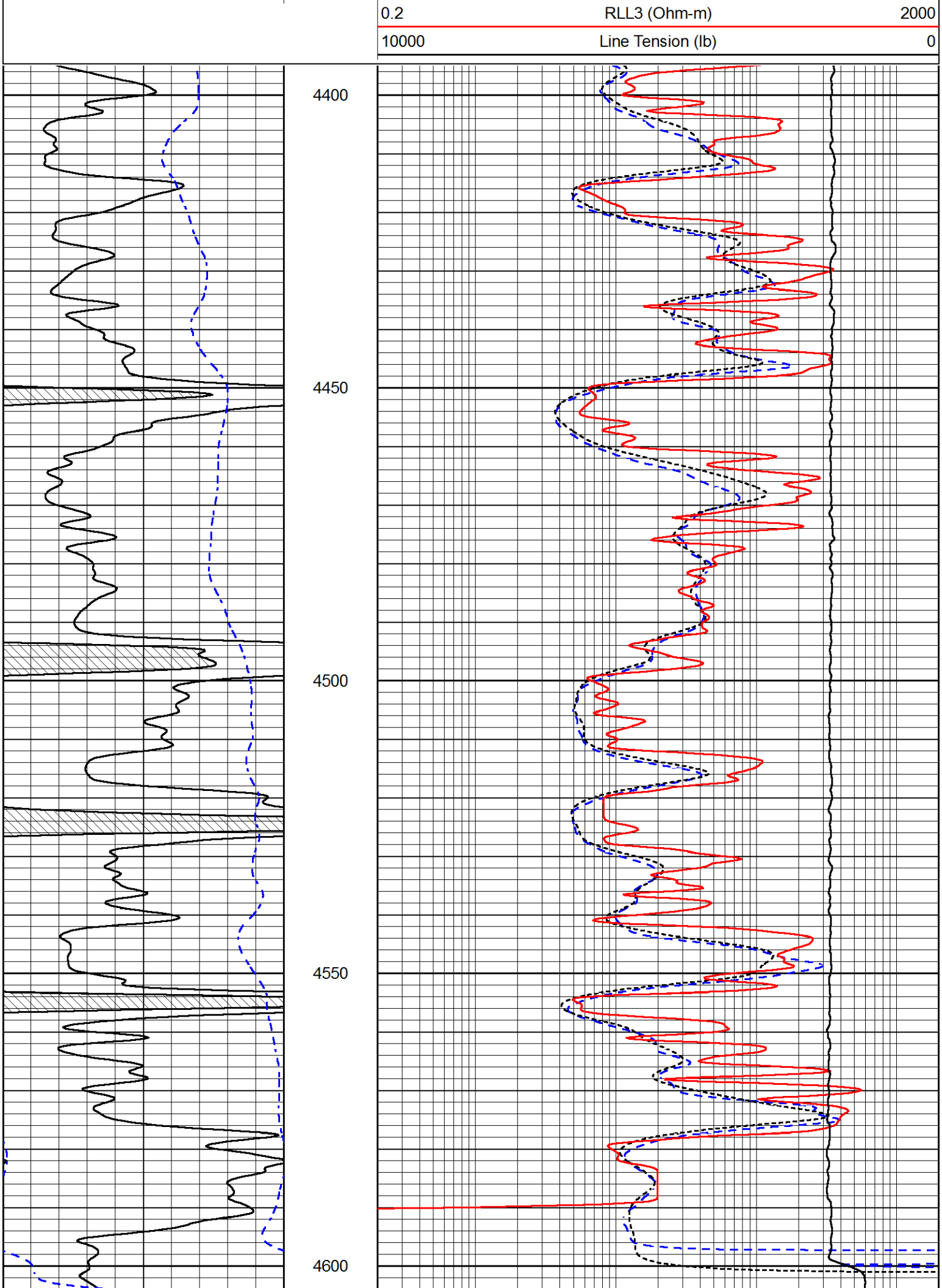
PIONEER
Pioneer Energy Services

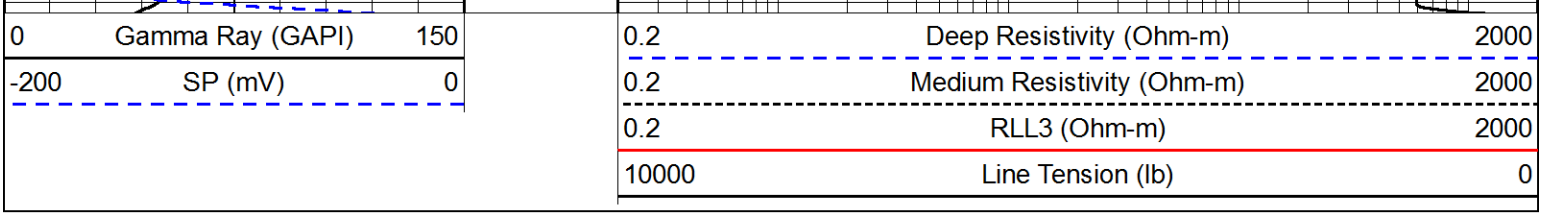
REPEAT SECTION

Database File	carmen schmitt_gleason 1.db
Dataset Pathname	STACK/pass2.2
Presentation Format	dil
Dataset Creation	Wed Sep 13 23:00:29 2017
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
4400
4450
4500
4550
4600



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

Calibration Report

Database File carmen schmitt_gleason 1.db
Dataset Pathname STACK/pass3.4
Dataset Creation Wed Sep 13 22:57:41 2017

Dual Induction Calibration Report

Serial-Model: PSI 91-M&W
Calibration Performed: Wed Sep 13 22:23:16 2017

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-33.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-31.000

Compensated Density Calibration Report

Serial-Model: 90-1031-M&W
Source / Verifier: 16955B / 2ci
Master Calibration Performed: Wed Sep 06 19:51:03 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.685	g/cc	934.50	4021.31	cps

Spine Angle = 75.61 Density/Spine Ratio = 0.543

	Size		Reading
Small Ring	8.00	in	1.84
Large Ring	22.00	in	1.46

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: WED SEP 6 10:30:30 2017

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: 89
Tool Model: M&W
Calibration Performed: Wed Sep 06 19:51:14 2017

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

PIONEER
Pioneer Energy Services

Company	CARMEN SCHMITT, INC.
Well	GLEASON #1
Field	HORACEK
County	HODGEMAN
State	KANSAS