



**COMPENSATED  
DENSITY/NEUTRON  
LOG**

Company PRATER OIL & GAS OPERATIONS, INC.  
Well STUDER #6  
Field GRIMES  
County PRATT  
State KANSAS

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Location: API #: 15-151-22563-0000  
1650' FSL & 4290' FEL  
SE - NW - SW  
SEC 4 TWP 27S RGE 12W  
Permanent Datum GROUND LEVEL Elevation 1866  
Log Measured From KELLY BUSHING 13' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services DILMEL  
Elevation  
K.B. 1879  
D.F. 1877  
G.L. 1866

Date	2/13/23
Run Number	ONE
Depth Driller	4445
Depth Logger	4446
Bottom Logged Interval	4422
Top Log Interval	3400
Casing Driller	13 3/8"@262'
Casing Logger	262
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/52
pH / Fluid Loss	9.0/9.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.95@61F
Rmf @ Meas. Temp	.713@61F
Rmc @ Meas. Temp	1.14@61F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.483@120F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	2:30 A.M.
Maximum Recorded Temperature	120F
Equipment Number	8916
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	SCOTT ALBERG

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

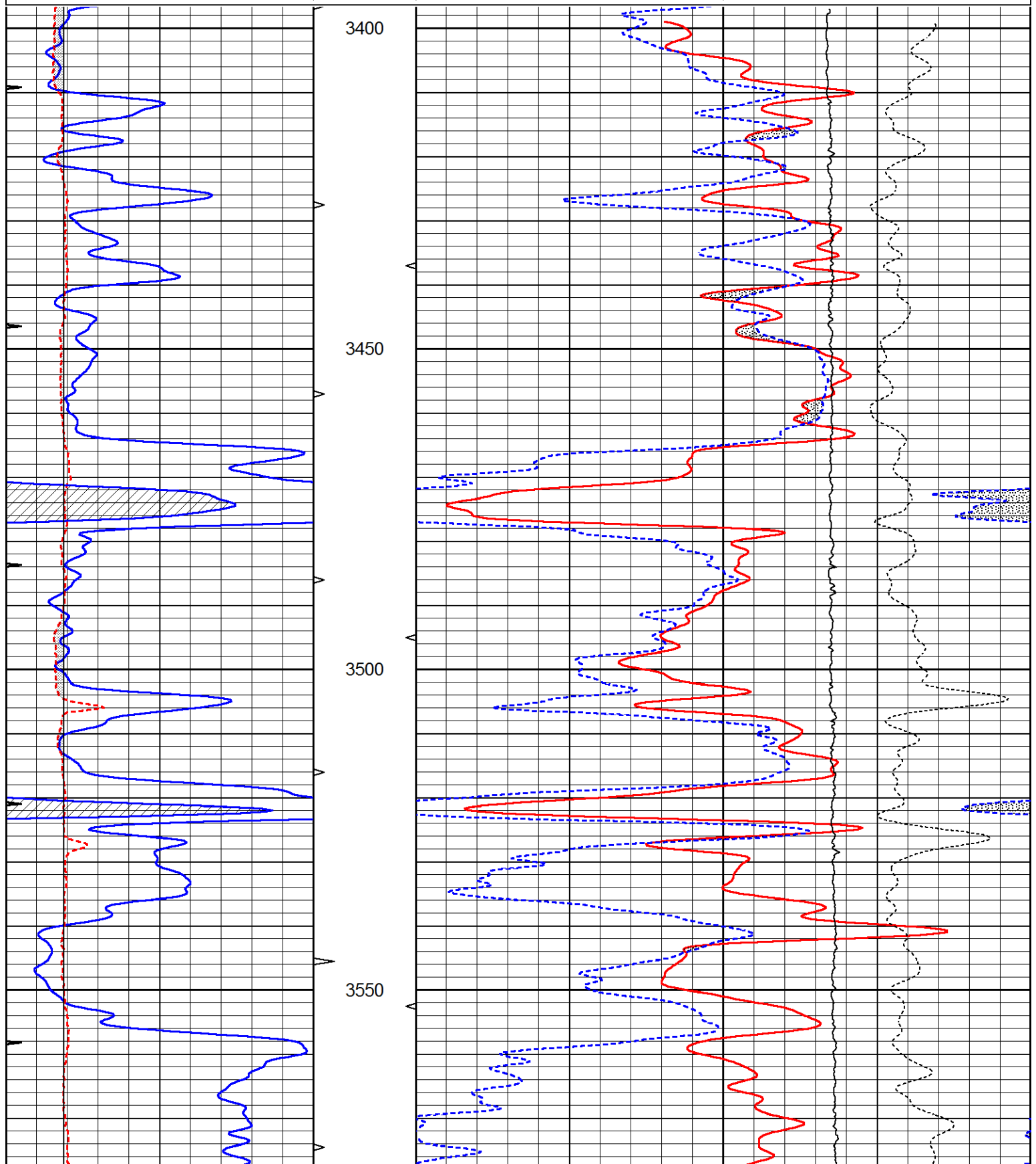
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395  
DIRECTIONS:  
PRATT, KS., 7 MILES N.E. ON HWY 61 TO MM #7 TURN RIGHT ON "NE 50TH AVE.", 1/3 S., TURN LEFT ON"NE 50TH ST." 1/4 MILE, N. INTO

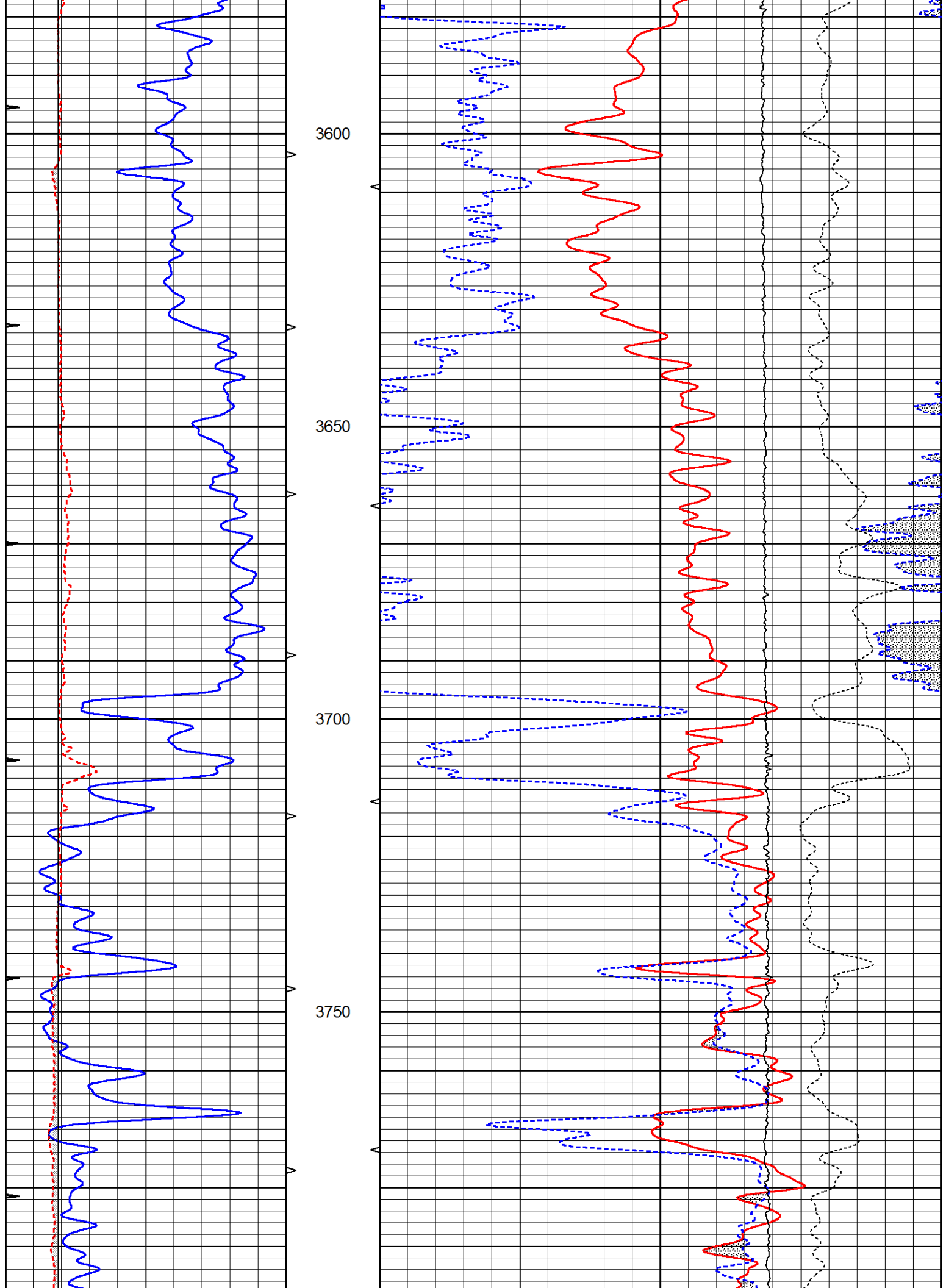


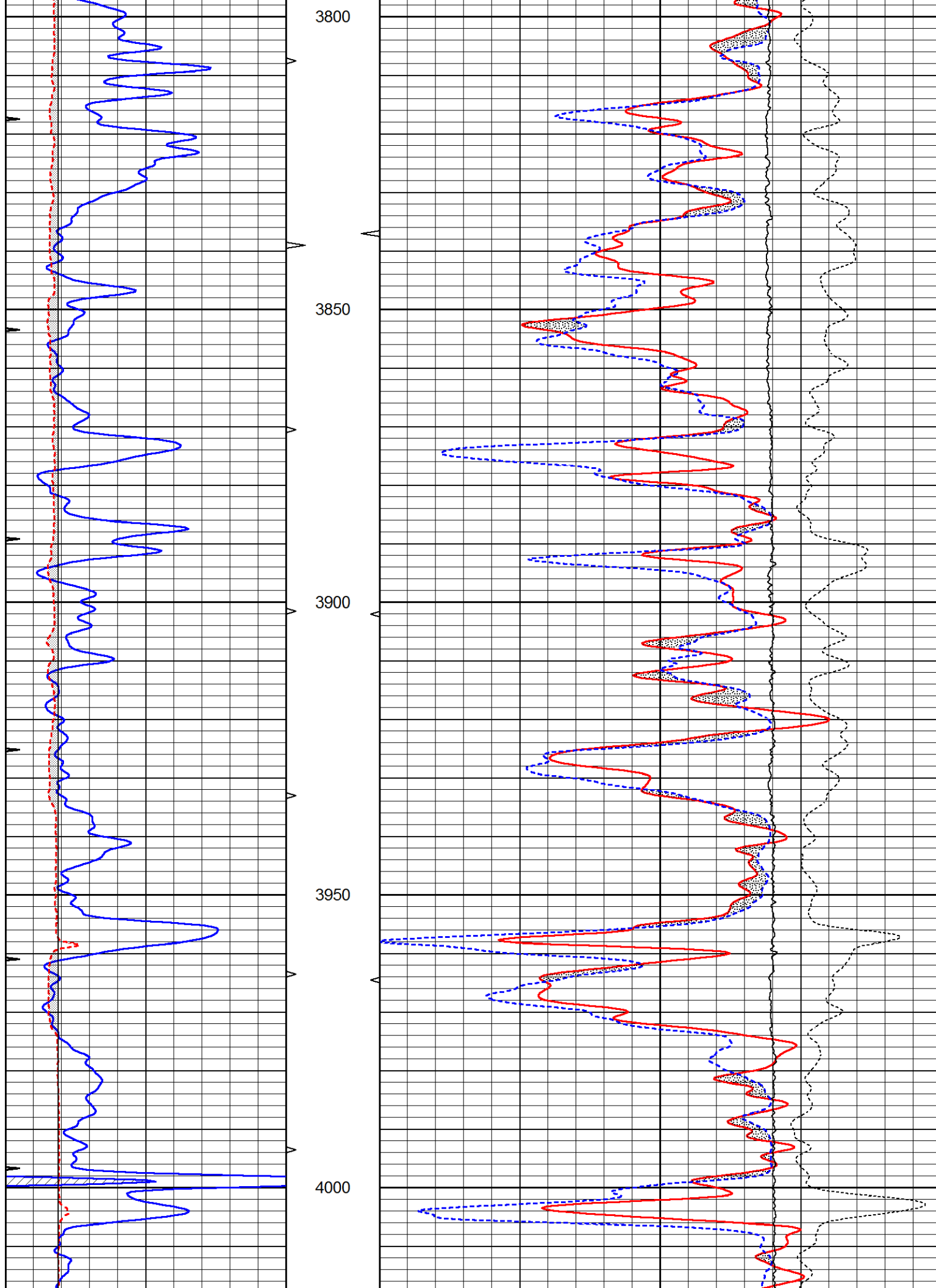
**MAIN SECTION**

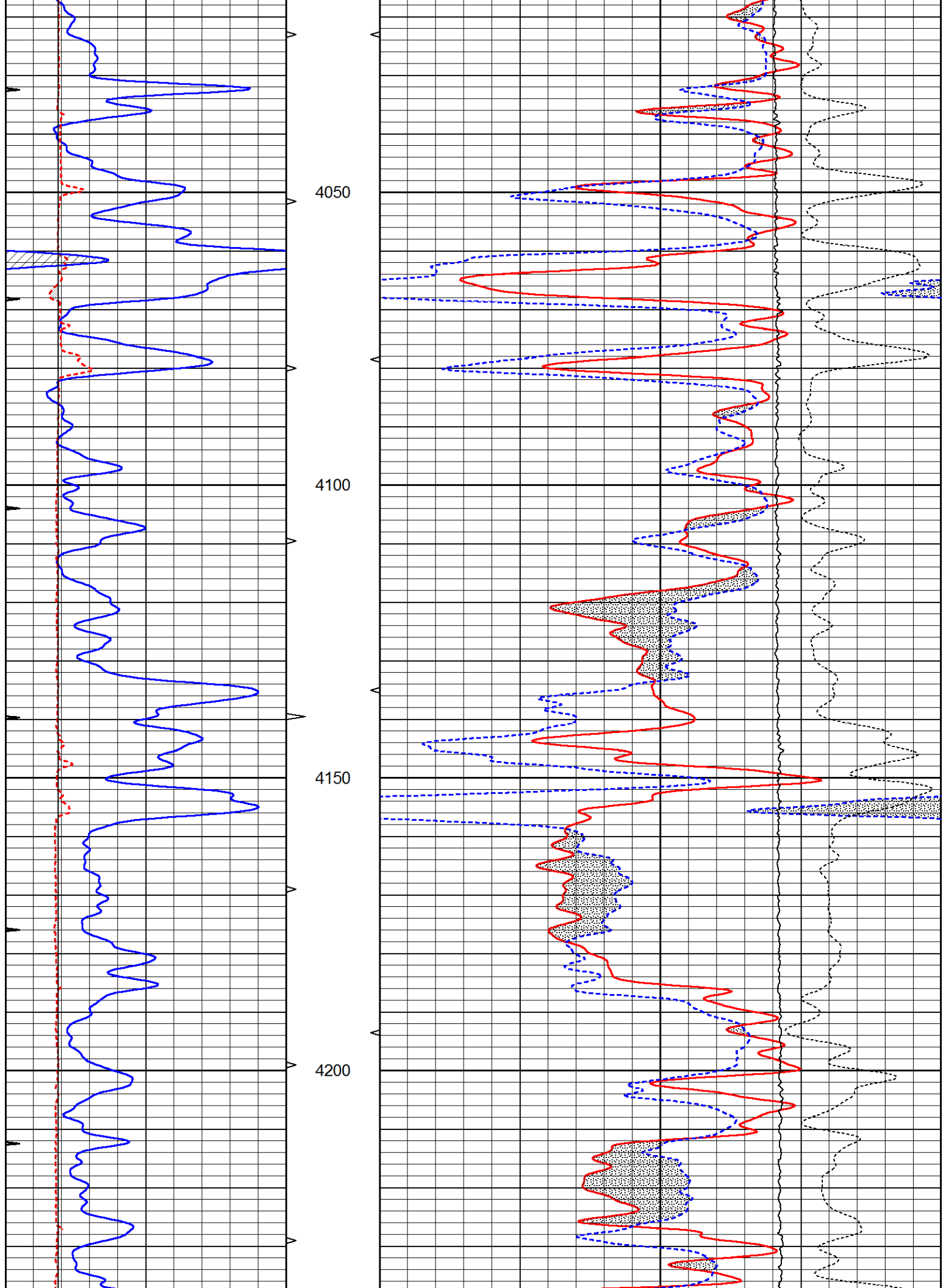
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 Dataset Pathname pass7.1M  
 Presentation Format den\_neu  
 Dataset Creation Mon Feb 13 06:20:33 2023  
 Charted by Depth in Feet scaled 1:240

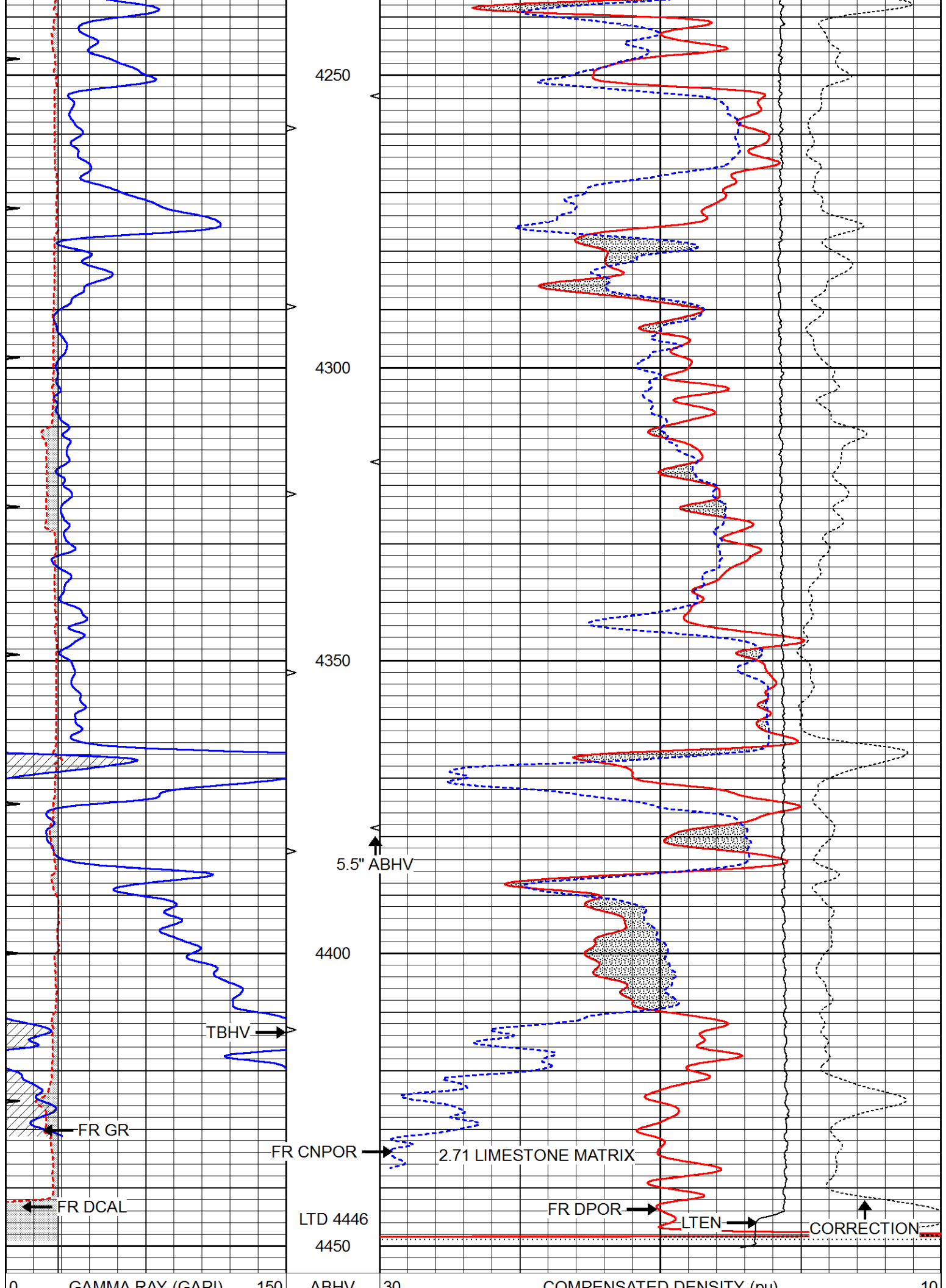
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV			-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10		0	LTEN (lb)	5000	











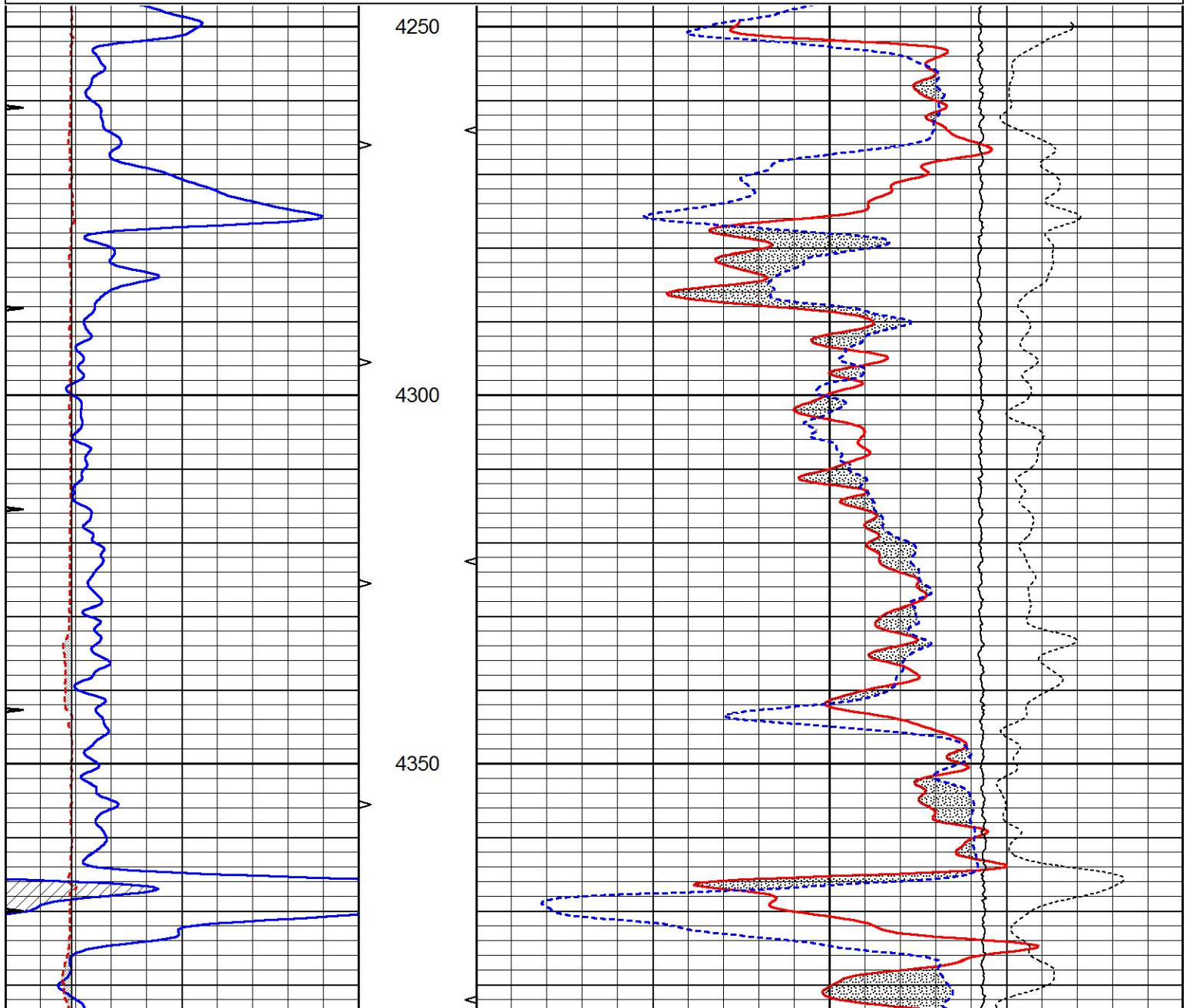
6	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10	0 LTEN (lb)	5000

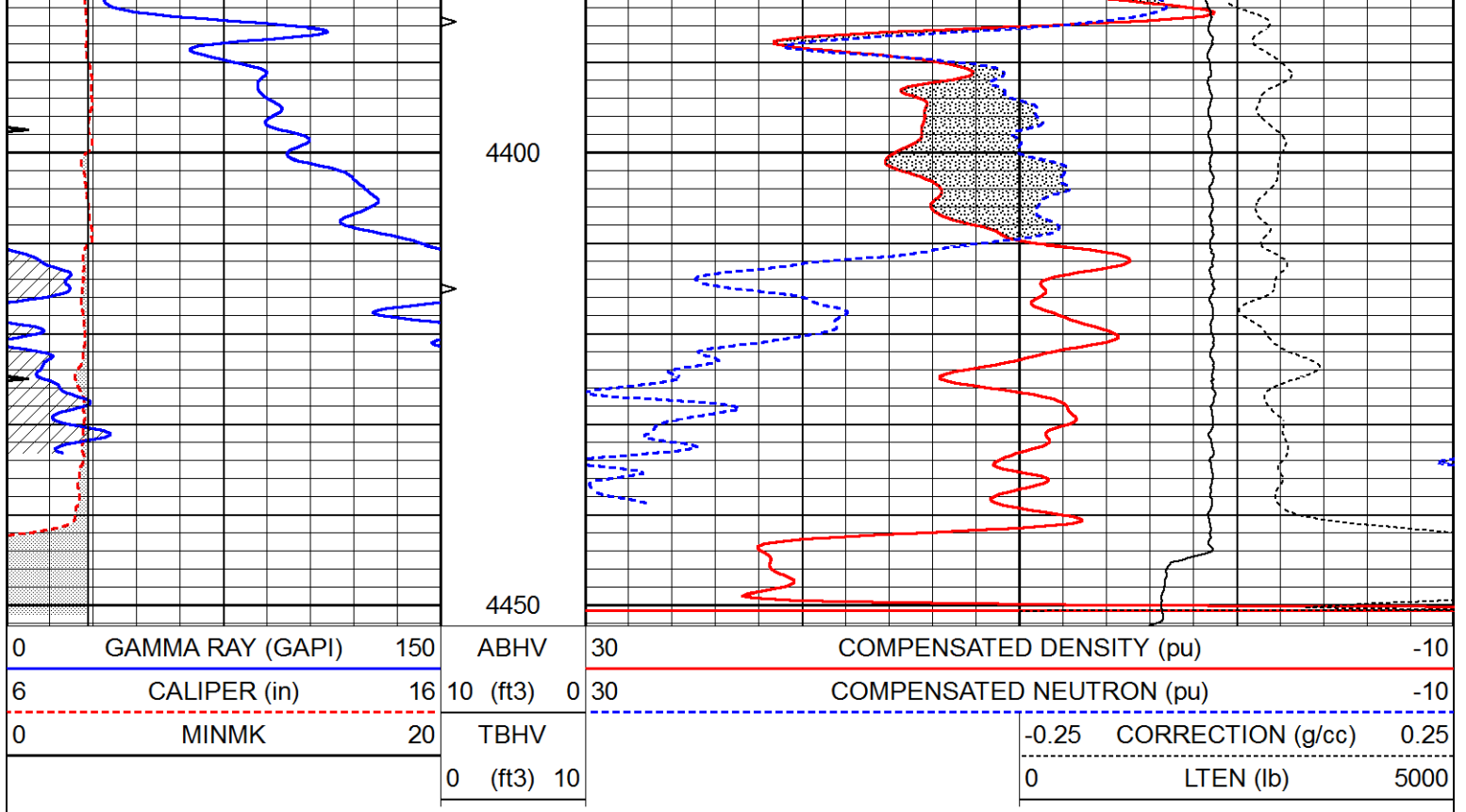


# REPEAT SECTION

Database File 7508ddn.db  
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 Presentation Format den\_neu  
 Dataset Creation Mon Feb 13 06:28:50 2023  
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10	0 LTEN (lb)	5000





### Calibration Report

Database File 7508ddn.db  
 Dataset Pathname pass7.1M  
 Dataset Creation Mon Feb 13 06:20:33 2023

### Litho Density Calibration Report

Serial: 004 Model: PRB

#### Master Calibration

Performed Fri Nov 04 15:19:59 2022

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1153.2	7232.1	2536.8	2279.5	cps
Window 2	1055.6	6225.5	2222.3	2030.5	cps
Window 3	902.5	3849.3	1546.4	1462.0	cps
Window 4	254.4	258.2	253.1	253.9	cps
Long Space	0.0	5169.9	1166.7	974.9	cps
Short Space	4.7	1383.0	950.5	792.1	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 45.9	Rib Slope	: 1.031	Density/Spine Ratio	: 0.573
Spine Angle	: 75.9	Spine Slope	: 3.970	Spine Intercept	: -20.2

#### Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 6l  
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

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: GR6  
 Tool Model: OPEN  
 Performed: Mon Feb 13 04:57:01 2023

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 276.0 cps

Sensitivity: 0.8500 GAPI/cps