



COMPENSATED DENSITY/NEUTRON LOG

Company L. D. DRILLING, INC.

Well #1-20 SPORT

Field WILDCAT

County GOVE State KANSAS

Location: API #: 15-063-22379-0000

422' FNL & 2363' FEL

Other Services
DIL/MEL

SEC 20 TWP 15S RGE 29W

Elevation

Permanent Datum GROUND LEVEL Elevation 2492
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

K.B. 2497
D.F. 2495
G.L. 2492

Date 12/13/20

Run Number ONE

Depth Driller 4300

Depth Logger 4308

Bottom Logged Interval 4284

Top Log Interval 3100

Casing Driller 8 5/8" @ 262

Casing Logger 262

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.2/52

pH / Fluid Loss 10.5/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .95 @ 72F

Rmf @ Meas. Temp .71 @ 72F

Rmc @ Meas. Temp 1.14 @ 72F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .57 @ 118F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 1111

Maximum Recorded Temperature 118F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By KIM SHOEMAKER

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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

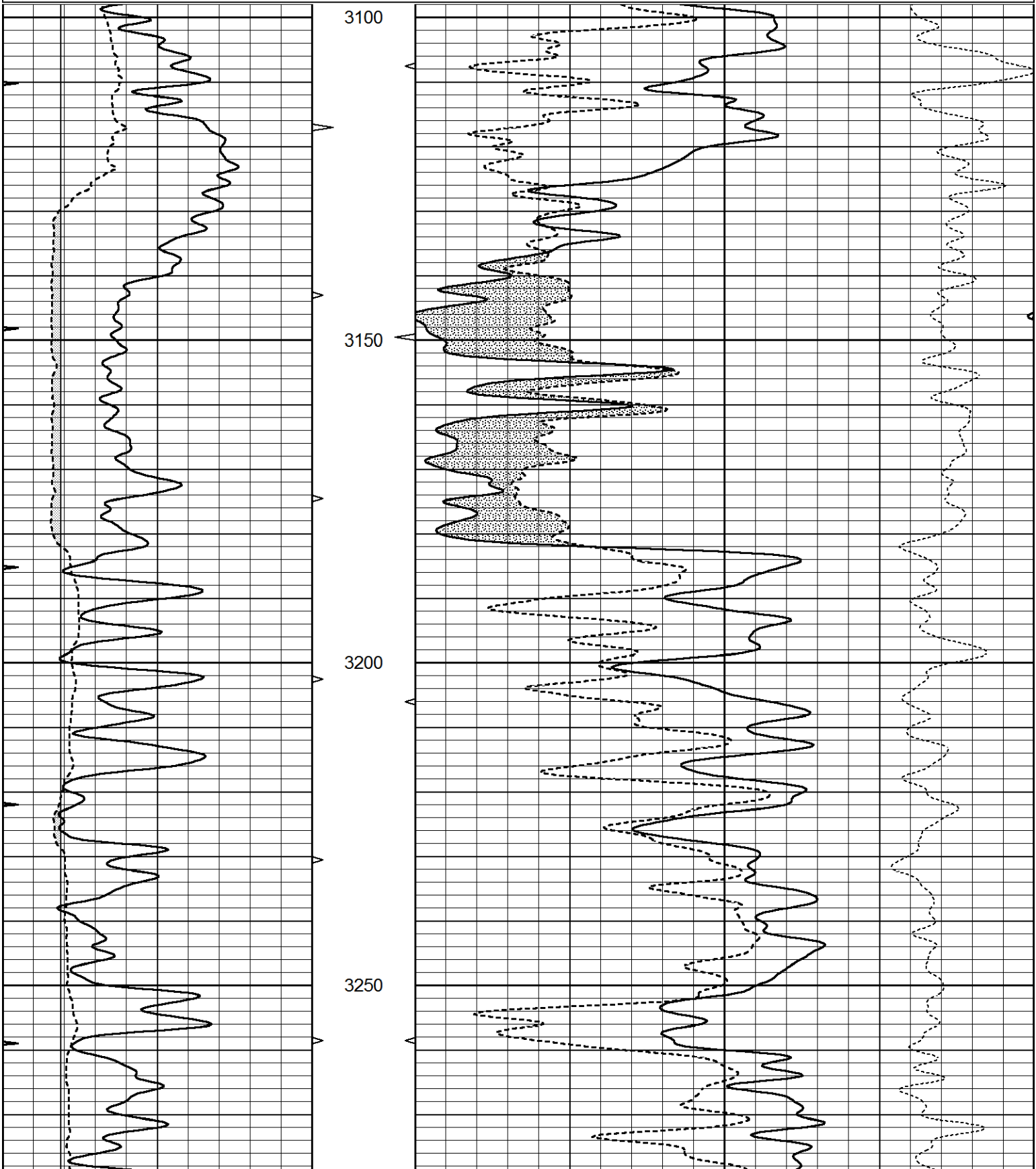
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
GOVE, KS. - SOUTH TO RD. C (2 MILES NORTH OF COUNTY LINE) - 3 1/4 WEST
NORTH INTO

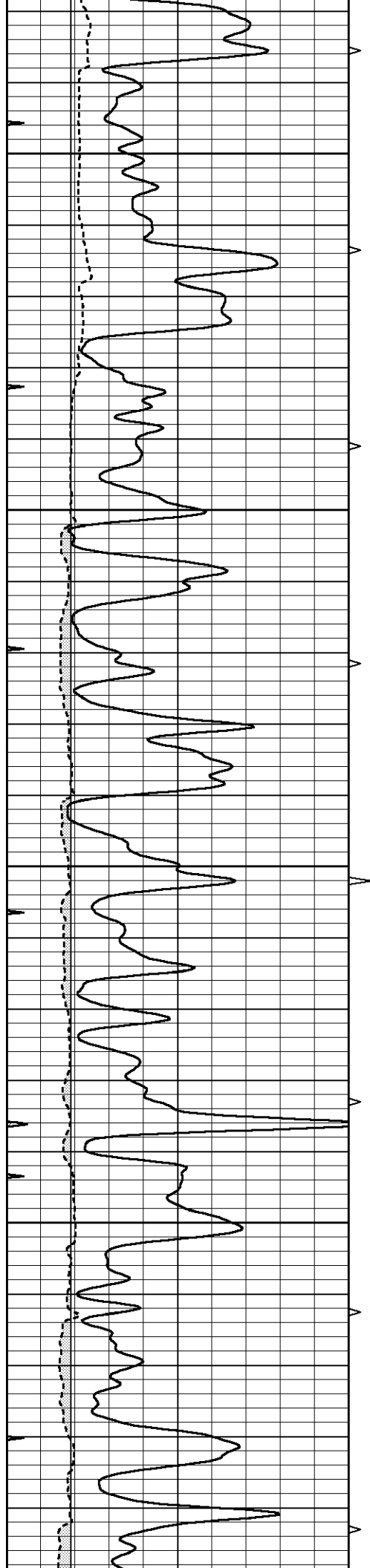


MAIN SECTION

Database File	5246ddn.db
Dataset Pathname	pass3.1
Presentation Format	_den_neu
Dataset Creation	Sun Dec 13 02:36:01 2020
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
0	MINMK	20	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
6	CALIPER (in)	16	BVTX		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			



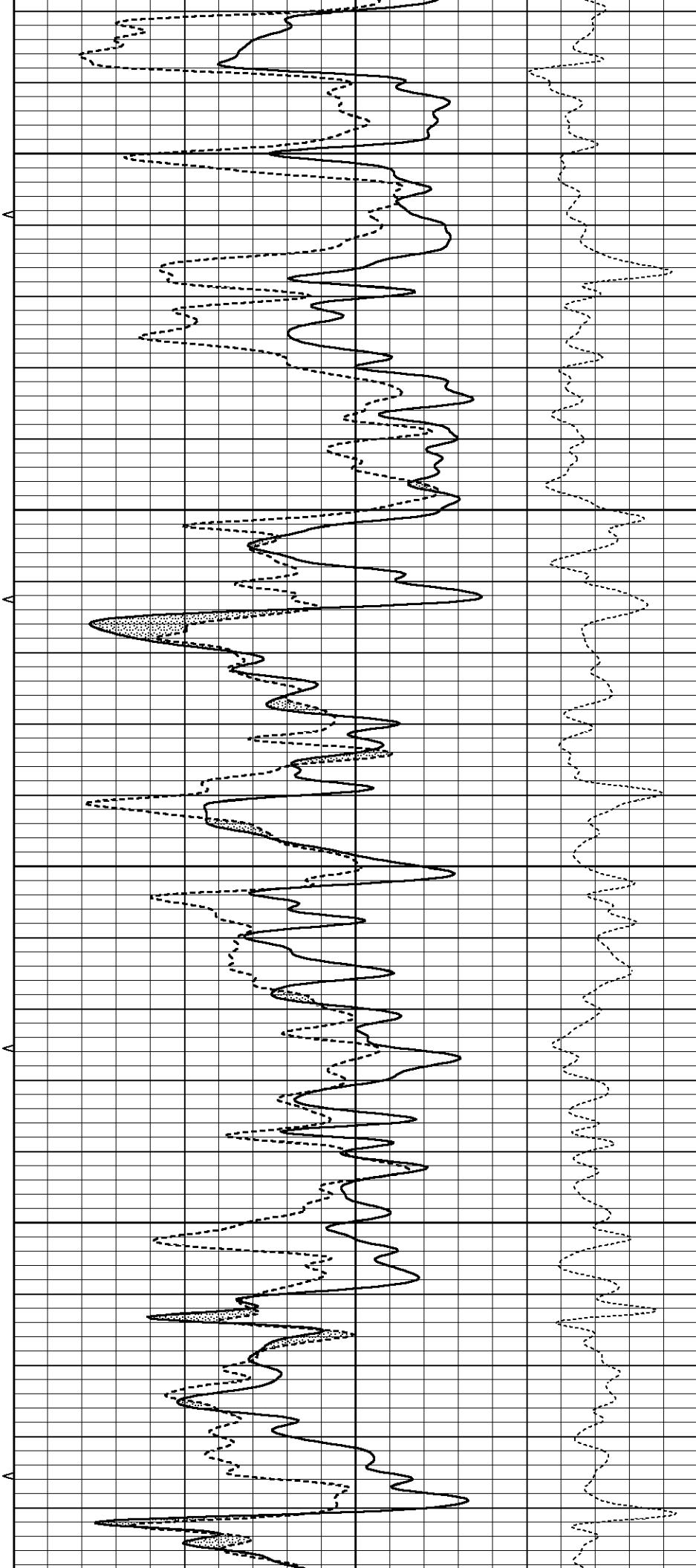


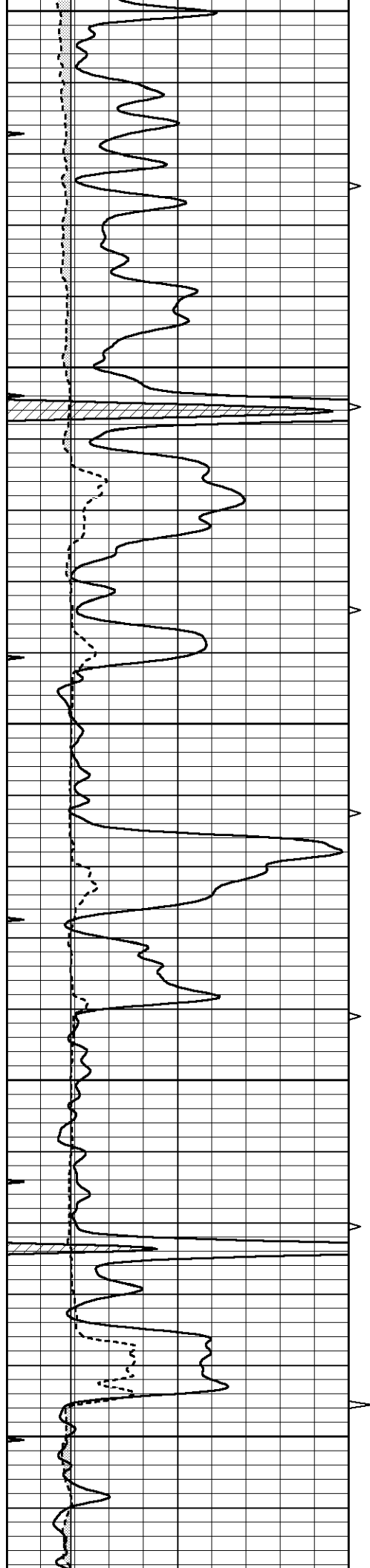
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3350

3400

3450





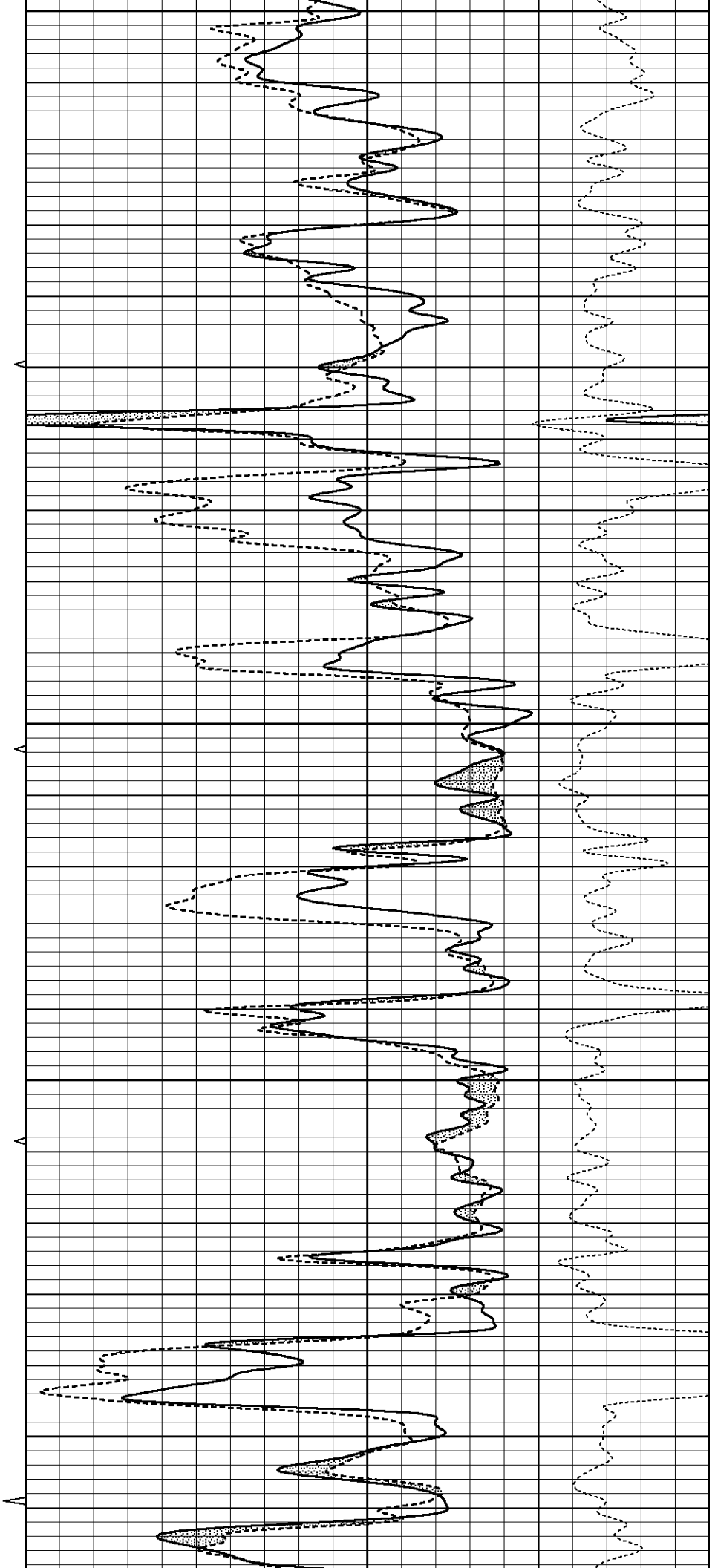
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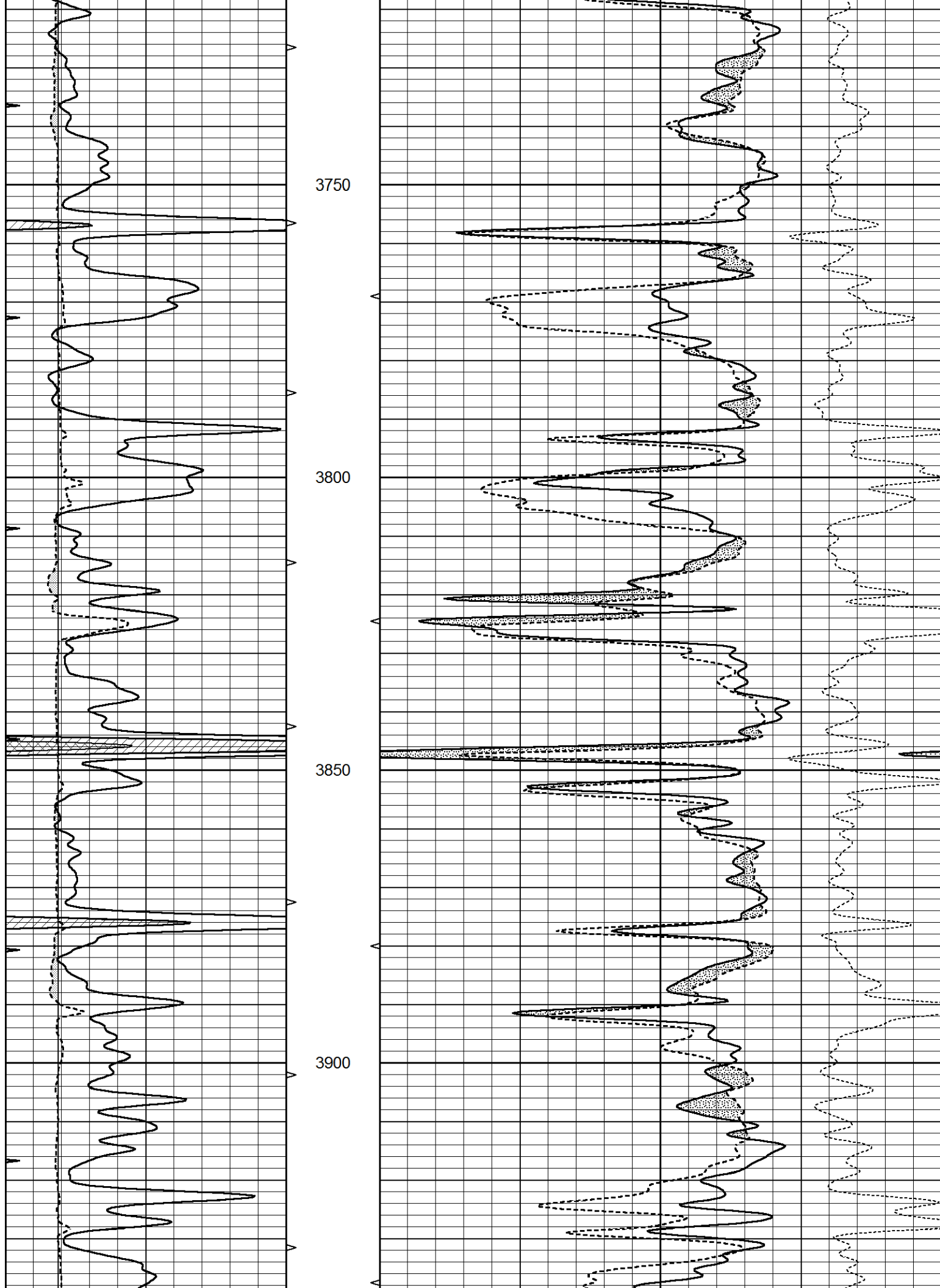
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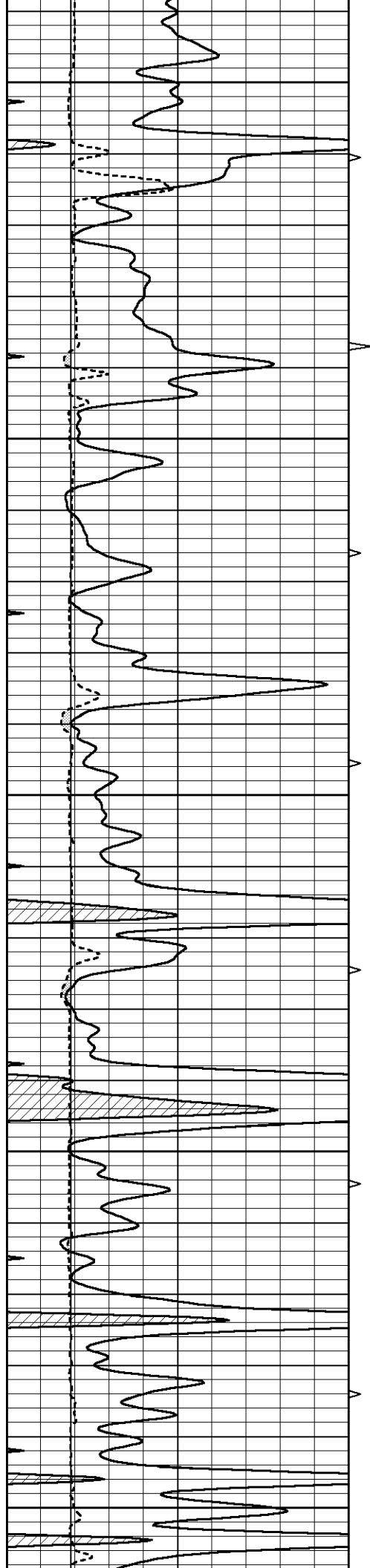
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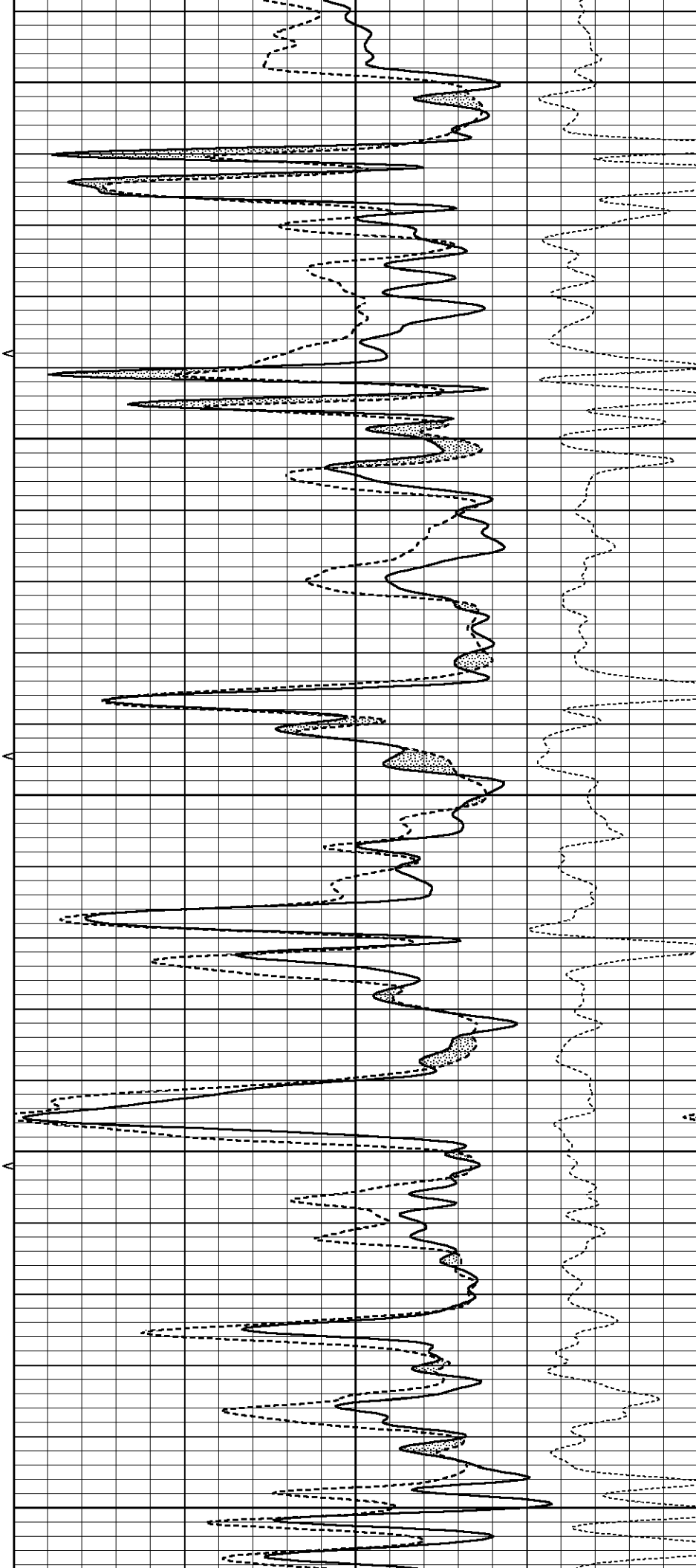
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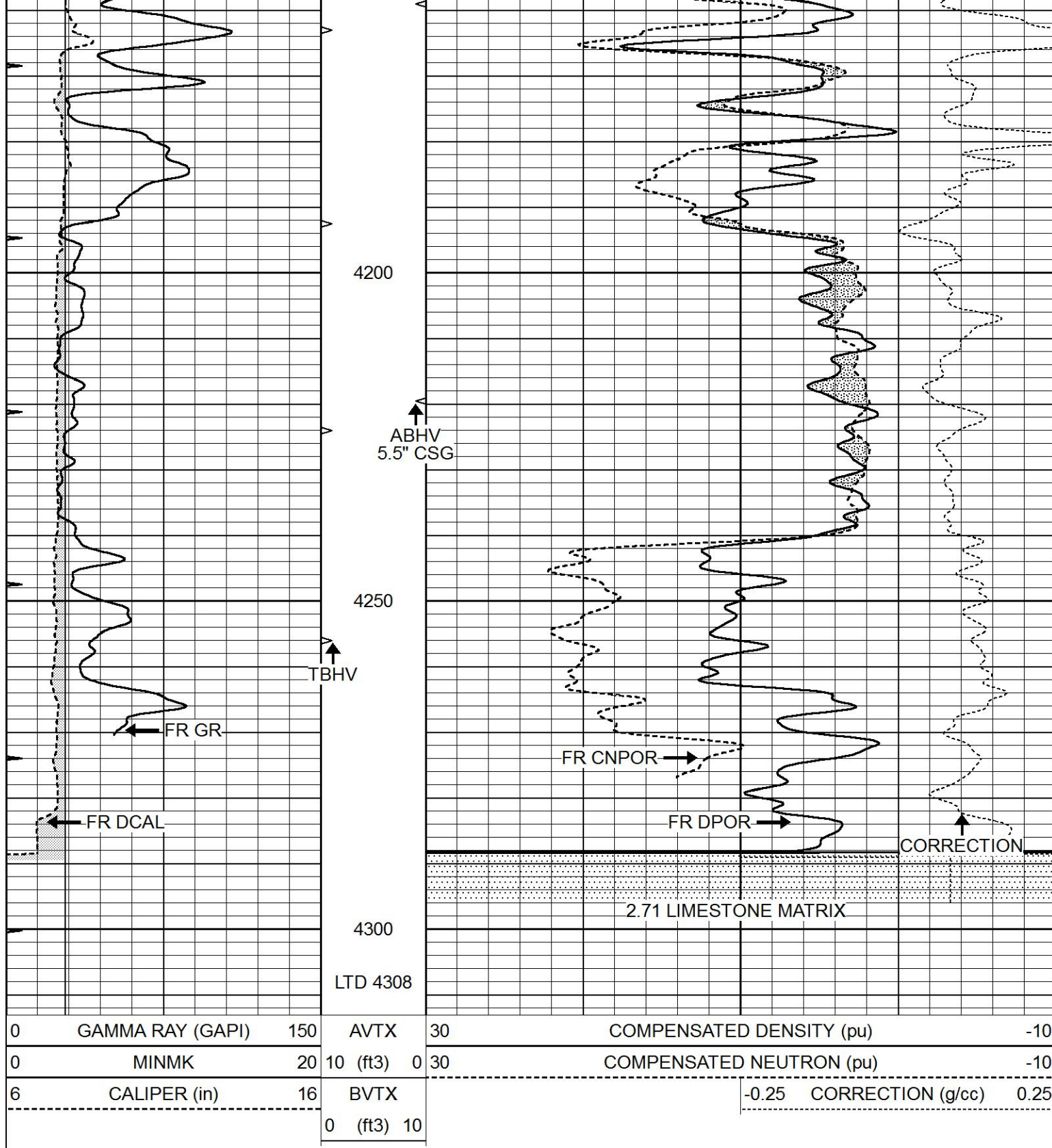
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4050

4100

4150

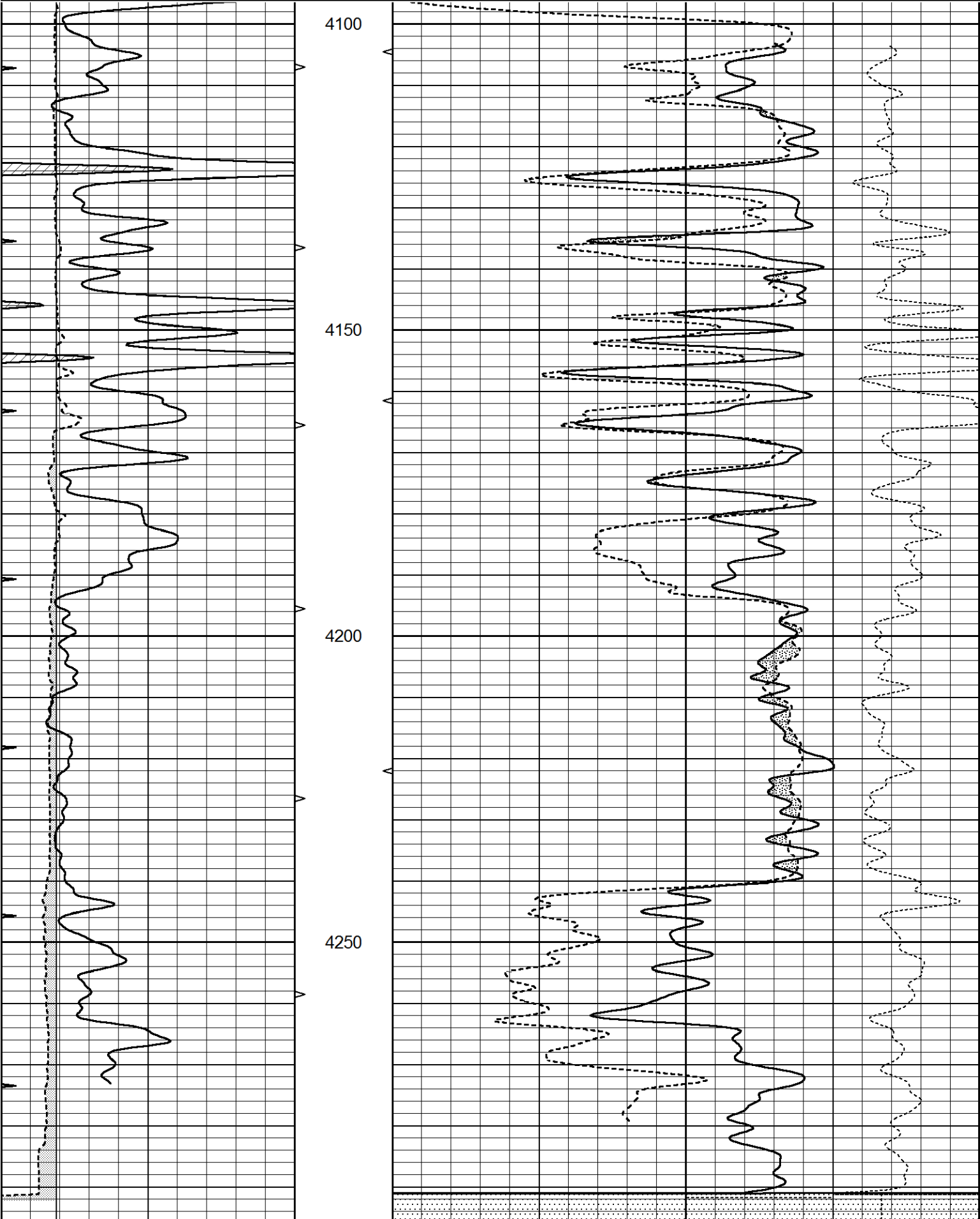




REPEAT SECTION

Database File 5246ddn.db
 Dataset Pathname pass2.1
 Presentation Format _den_neu
 Dataset Creation Sun Dec 13 02:34:58 2020
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
0	MINMK	20	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
6	CALIPER (in)	16	BVTX	-0.25 CORRECTION (g/cc) 0.25		
			0 (ft3) 10			



[illegible]

Master Calibration

	Background	Aluminum	Magnesium		
Window 1	595.38	5386.50	23898.92	cps	
Window 2	52.78	1248.21	5993.75	cps	
Window 4	251.36	1200.30	5155.55	cps	
Window 5	545.15	9066.30	17240.12	cps	
Window 6	43.35	1491.73	2929.24	cps	
Window 8	258.76	2917.82	5450.26	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8726	SS Alpha:	: -0.7656	LS CPE:	: 1.0742
LS Beta:	: 127345.0723	SS Beta:	: 20293.3834	SS CPE:	: 1.5427

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

Lithodensity Caliper Calibration			Performed: Wed Dec 02 12:04:44 2020		
Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
8003.0	11159.9	8.0	14.0	0.0	-7.2

Before Survey Caliper Verification			Performed:		
	Reference	Reading			
	_____	_____			
Caliper (in)					

After Survey Caliper Verification			Performed:		
	Reference	Reading			
	_____	_____			
Caliper (in)					

Compensated Neutron Calibration Report					
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Serial Number:		080621PMC			
Tool Model:		NABORS			

PRE-SURVEY VERIFICATION					
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Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	7		
Tool Model:	Probe1		
Performed:	Tue Dec 10 10:02:55 2019		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.4800	GAPI/cps	