



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company	L.D. DRILLING, INC.	Company	L.D. DRILLING, INC.
Well	ULTRA UNIT #1-13	Well	ULTRA UNIT #1-13
Field	WILDCAT	Field	WILDCAT
County	GOVE	County	GOVE
State	KANSAS	State	KANSAS
Location:	API # : 15-063-22251-00-00 2395' FNL & 2220' FWL SW - SE - SE - NW	Other Services	DIL/MEL
Permanent Datum	SEC 13 TWP 13S RGE 29W	Elevation	
Log Measured From	GROUND LEVEL Elevation 2776 KELLY BUSHING 5' A.G.L	K.B. 2781 D.F. 2779 G.L. 2776	
Drilling Measured From	KELLY BUSHING		
Date	3-25-15		
Run Number	ONE		
Depth Driller	4621		
Depth Logger	4620		
Bottom Logged Interval	4596		
Top Log Interval	3400		
Casing Driller	8 5/8 @ 387		
Casing Logger	387		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,500 PPM	
Density / Viscosity	9.3/55		
pH / Fluid Loss	10.5/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50 @ 68F		
Rmf @ Meas. Temp	1.13 @ 68F		
Rmc @ Meas. Temp	1.80 @ 68F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	0.84 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	122F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	KIM SHOEMAKER		

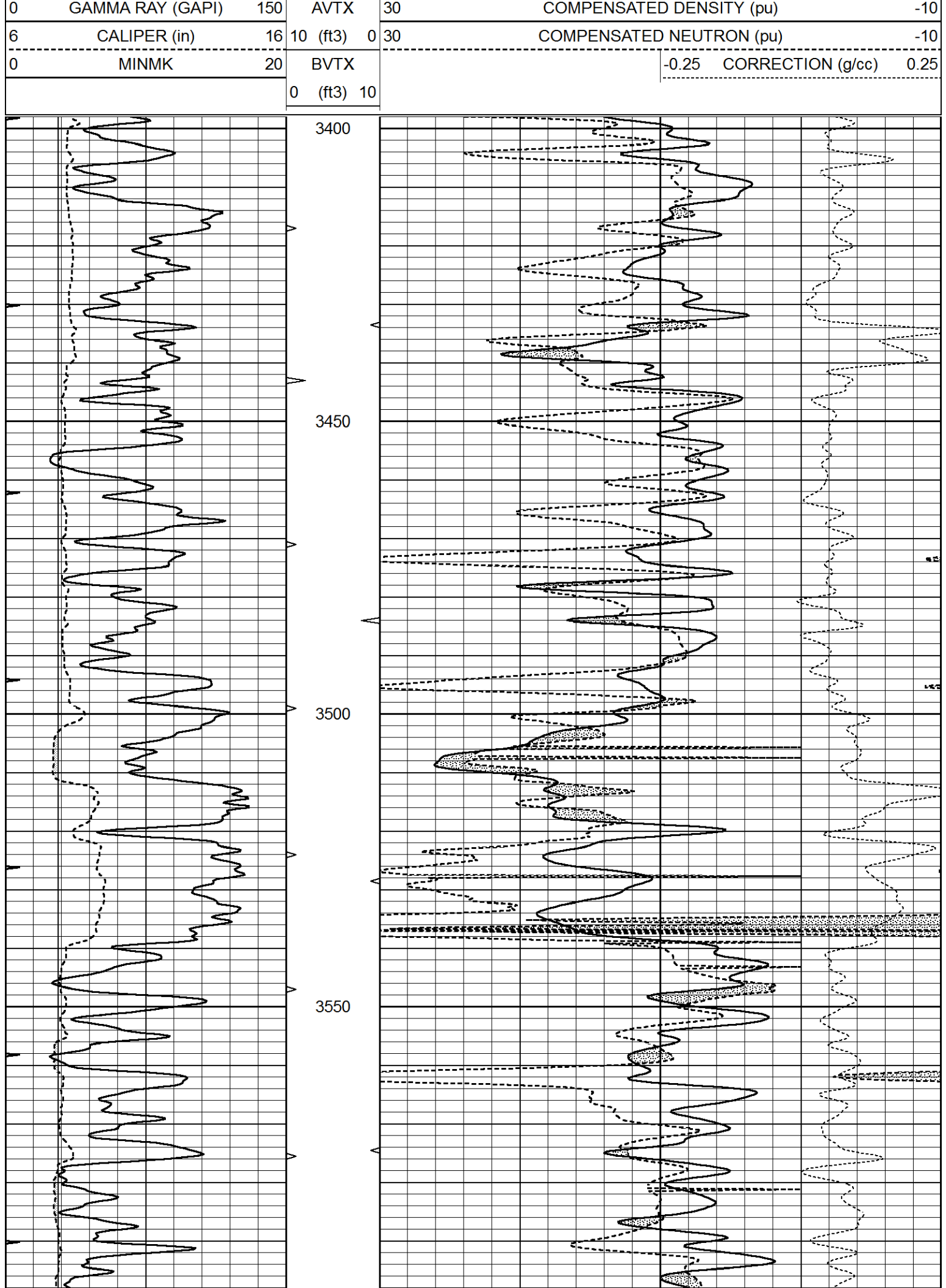
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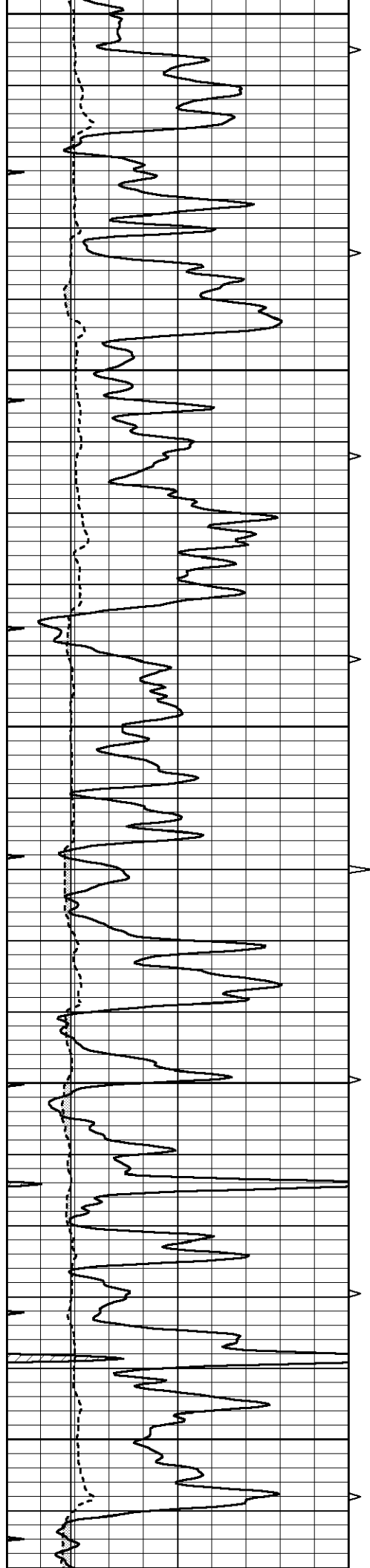
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS : GOVE, KS. - 1 1/2 MILES SOUTH - EAST INTO

Database File 26438ddn.db
Dataset Pathname pass8.3
Presentation Format _den_neu
Dataset Creation Wed Mar 25 09:30:54 2015
Charted by Depth in Feet scaled 1:240





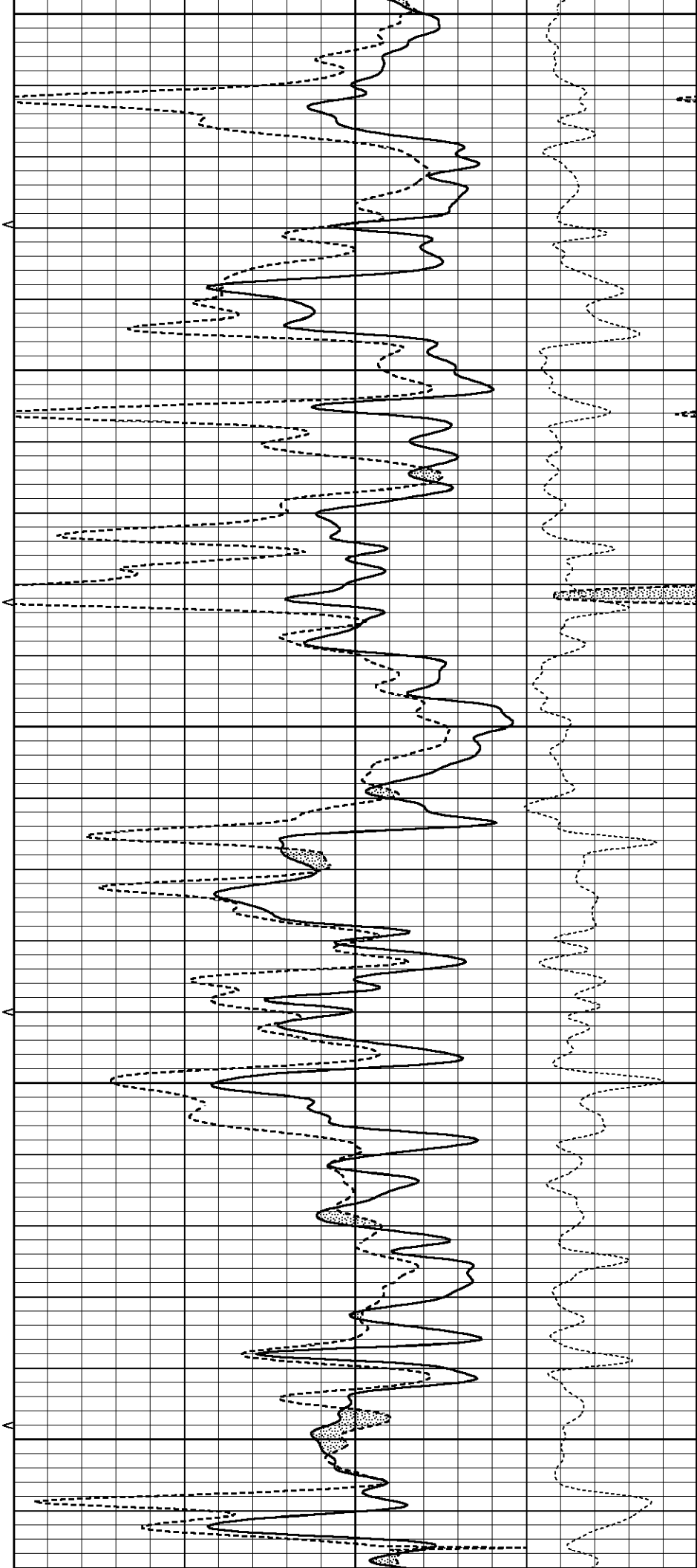
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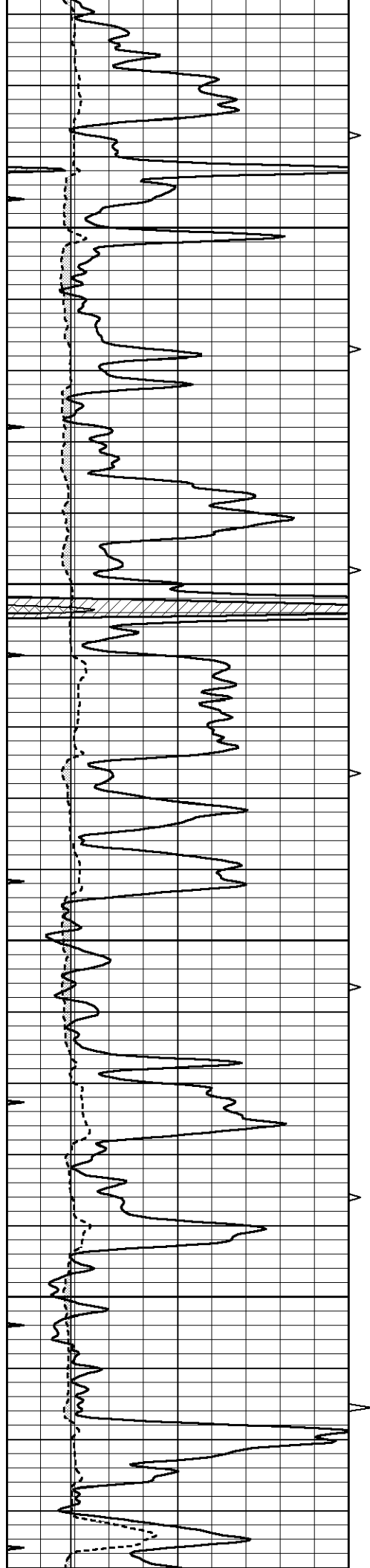
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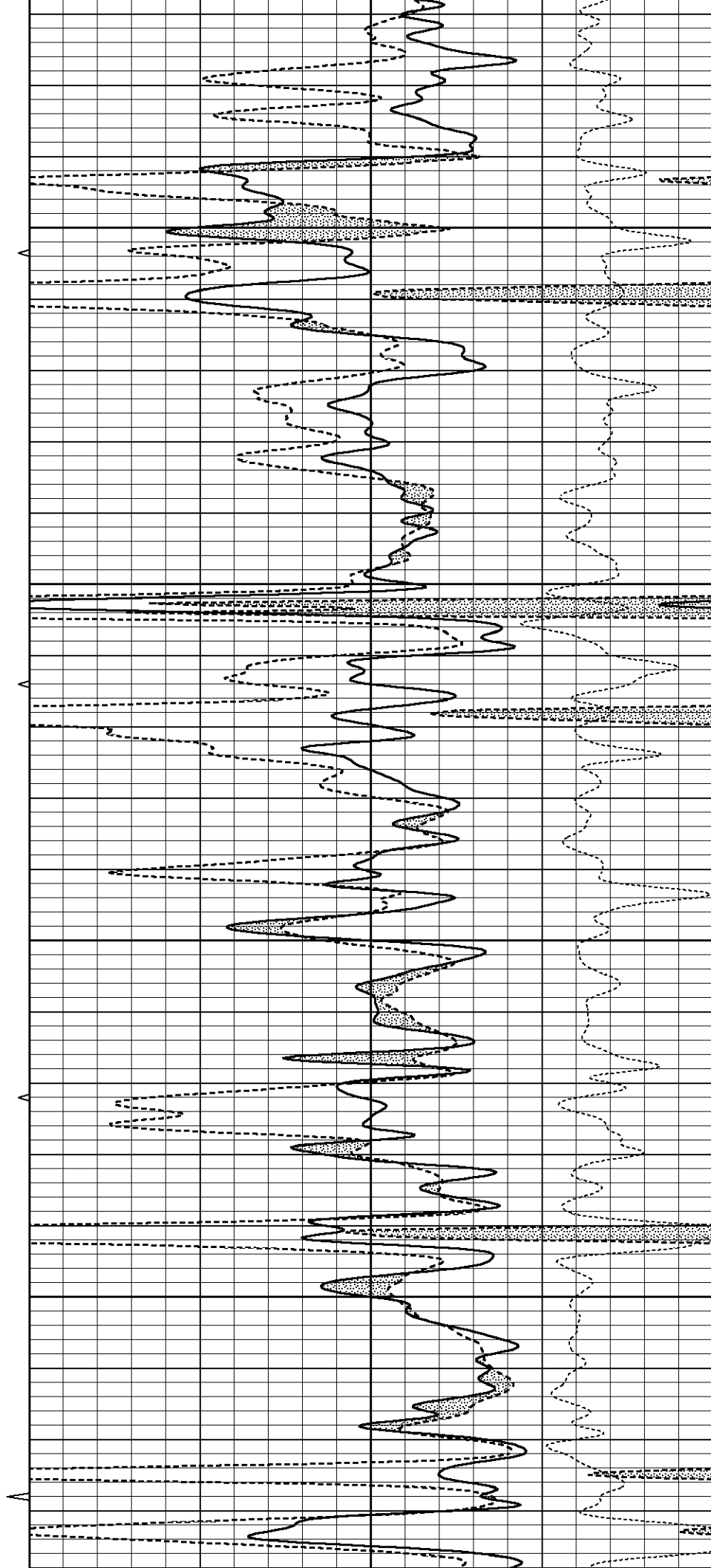


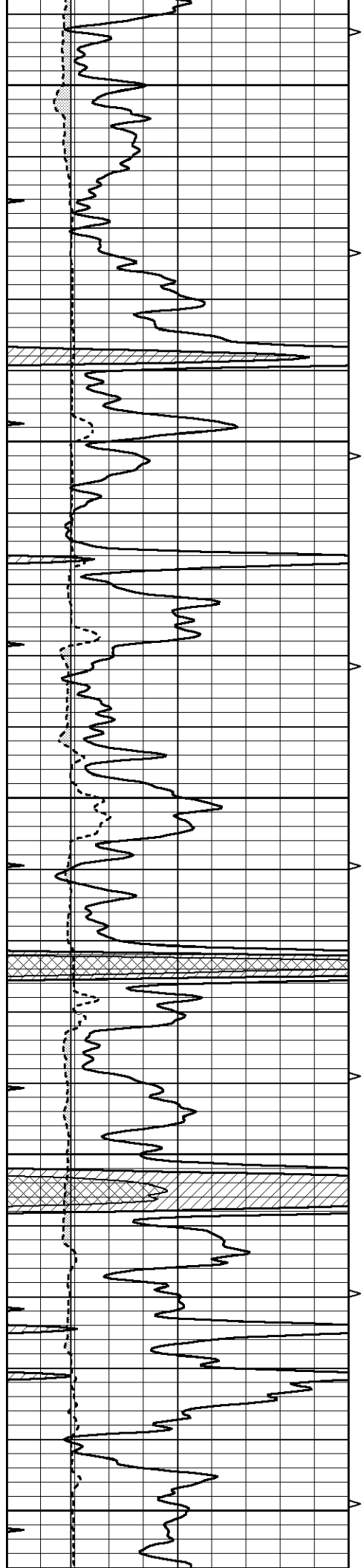
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4000





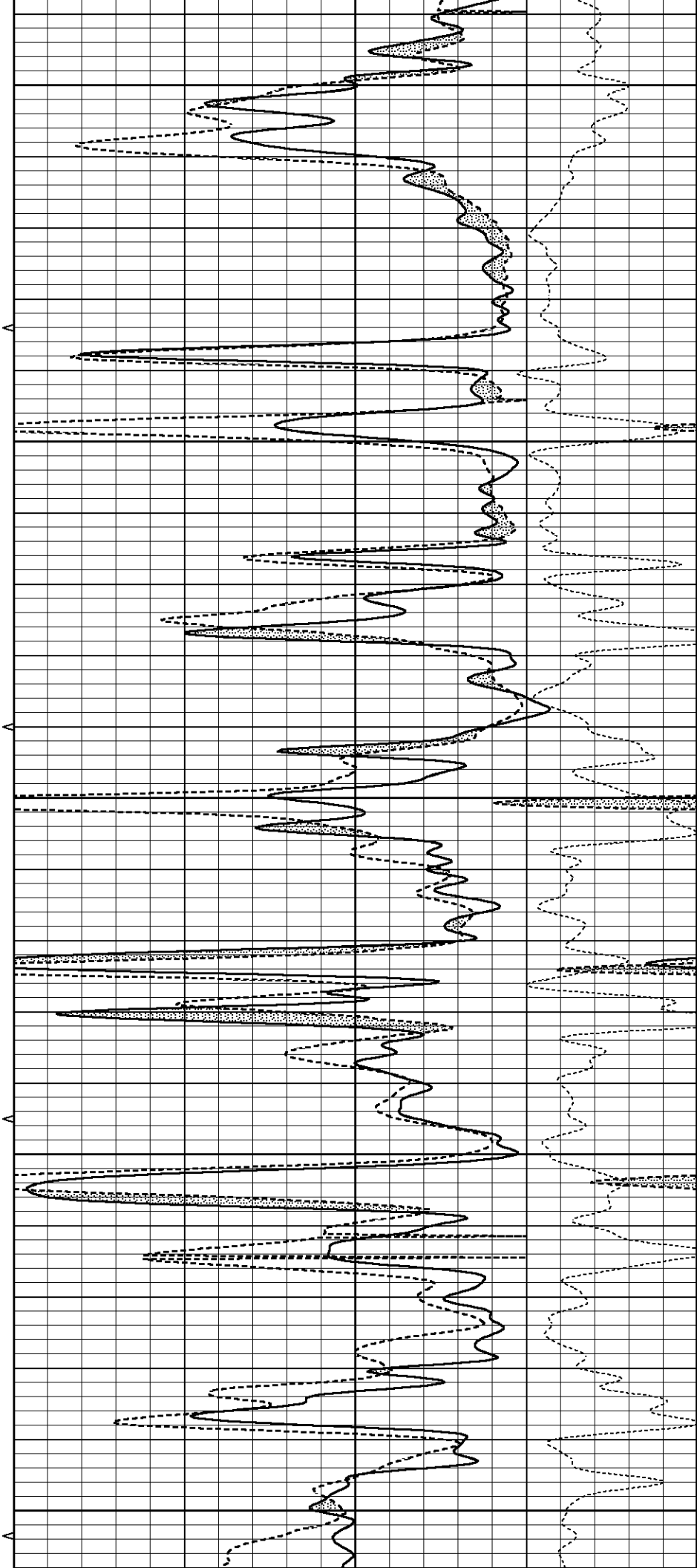
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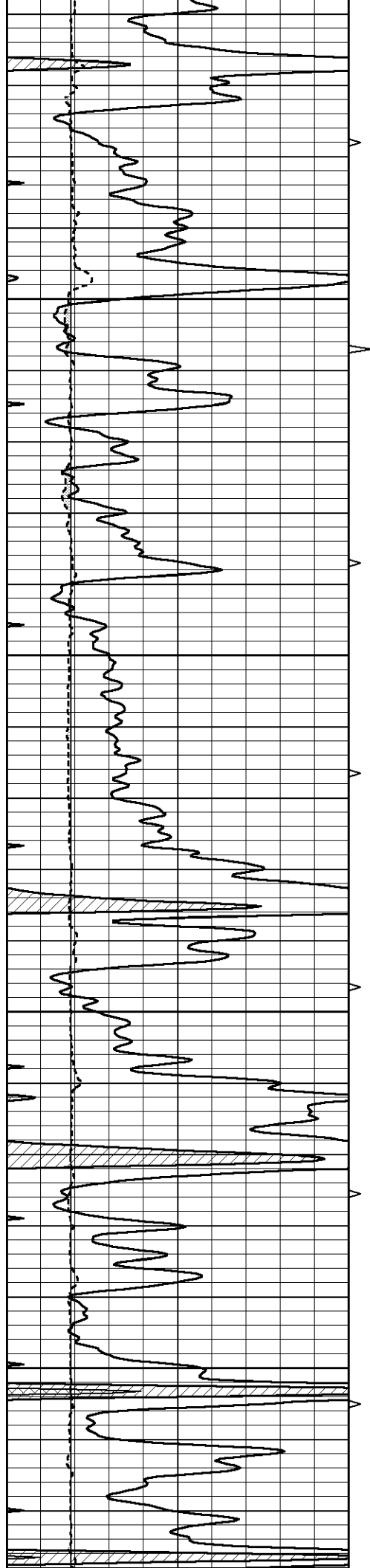
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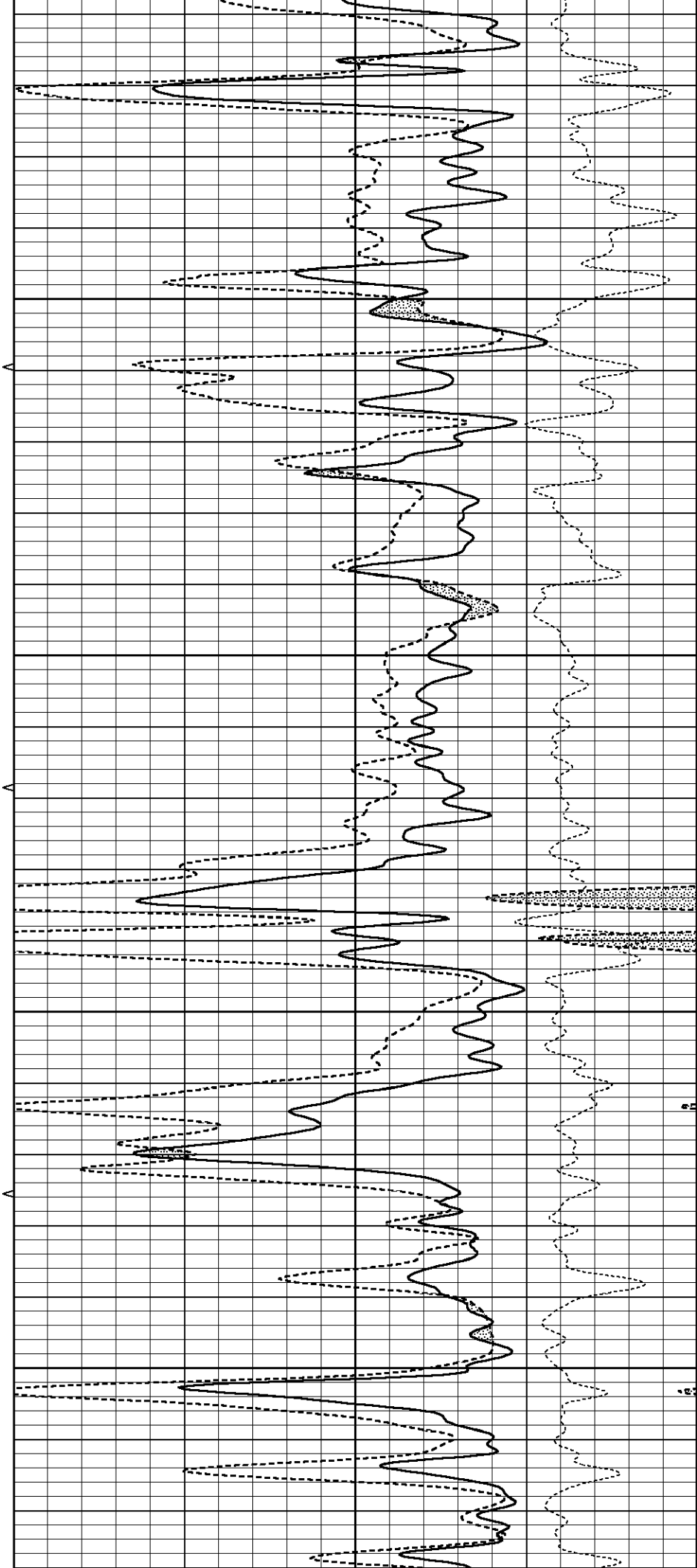


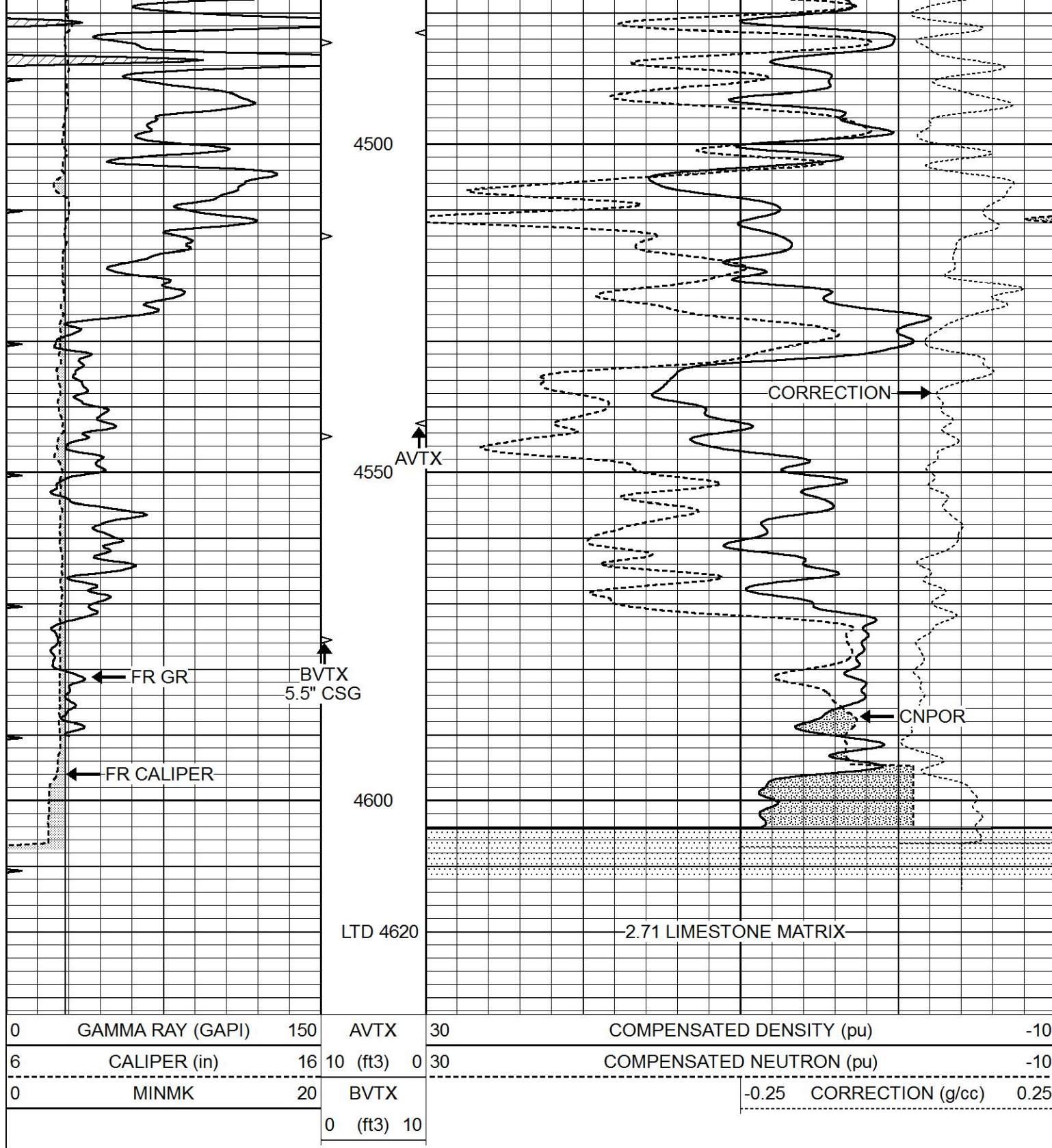
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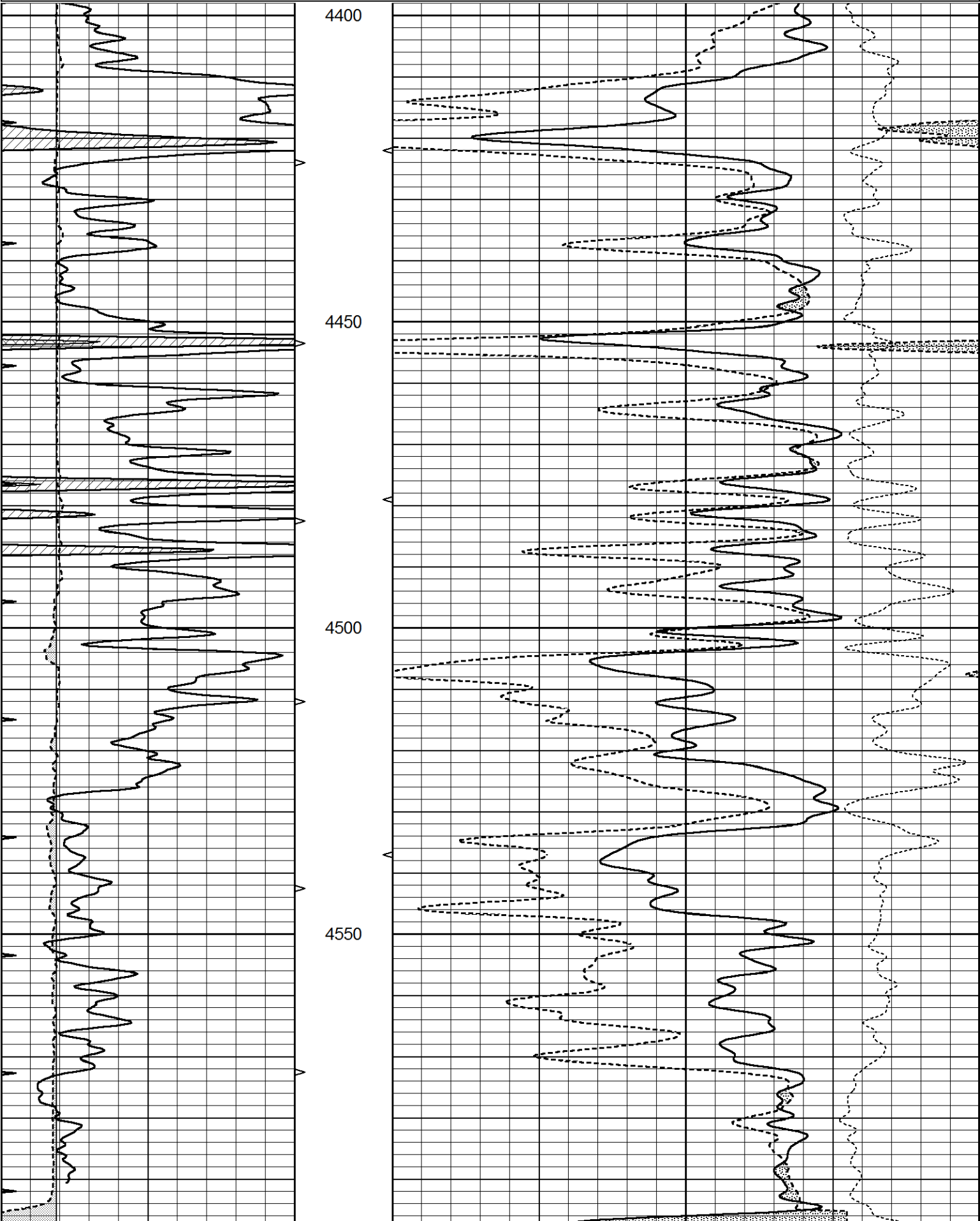
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0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			



Master Calibration Performed: Wed Feb 11 16:57:09 2015

	Background	Aluminum	Magnesium		
Window 1	594.39	6349.98	29204.00	cps	
Window 2	47.14	1460.46	7334.94	cps	
Window 4	261.52	1478.45	6338.23	cps	
Window 5	633.19	10381.10	19565.80	cps	
Window 6	49.78	1758.01	3436.39	cps	
Window 8	302.39	3297.16	6093.06	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8570	SS Alpha:	: -0.7600	LS CPE:	: 1.1652
LS Beta:	: 157430.0395	SS Beta:	: 22665.8398	SS CPE:	: 1.4739

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 Feb 11 16:57:09 2015

Results	Readings	References (in)		Gain	Offset
Low	High	Low	High		
5280.9	9455.1	8.6	14.0	0.0	1.3

Before Survey Caliper Verification Performed:

Reference	Reading
_____	_____
Caliper (in)	

After Survey Caliper Verification Performed:

Reference	Reading
_____	_____
Caliper (in)	

Type / Serial: Probe / 080621
Source / Verifier: 22 / N/A
Temperature: 60.0 degF

SHOP CALIBRATION

Wed Mar 11 10:37:04 2015

	Cal Tube	Units
Tank Ratio	0.737	SS/LS
Tank Porosity	11.06	pu
LS Detector	147.9	cps
SS Detector	118.0	cps
Tool Ratio	0.798	SS/LS
Tool Porosity	11.20	pu

Tool Constant = 0.924

Field Verifier	SS Detector	LS Detector	Ratio	Porosity
	0.0	0.0	0.000	0.00

PRE-SURVEY VERIFICATION

SS Detector	LS Detector	Ratio	Porosity
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POST-SURVEY VERIFICATION

SS Detector	LS Detector	Ratio	Porosity
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Gamma Ray Calibration Report

Serial Number:	46001
Tool Model:	Probe1
Performed:	Mon Nov 24 09:45:18 2014

Calibrator Value:	1.0	GAPI
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Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps

Sensitivity:	0.2600	GAPI/cps
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