



COMPENSATED
DENSITY/NEUTRON
LOG

Company JASPAR CO.		Company JASPAR CO.	
Well LIZA #1	Well LIZA #1		
Field	Field		
County ROOKS	County ROOKS	State KANSAS	
State KANSAS	Location: API #: 15-163-24373-0000		Other Services DIL/MEL
Permanent Datum SEC 29 TWP 9S RGE 19W		GROUND LEVEL Elevation 2183	Elevation
Log Measured From KELLY BUSHING 5' A.G.L	KELLY BUSHING		K.B. 2188
Drilling Measured From			D.F. 2186
			G.L. 2183
Date 9/27/18	Run Number ONE		
Depth Driller 3700			
Depth Logger 3701			
Bottom Logged Interval 3777			
Top Log Interval 3040			
Casing Driller 8 5/8" @ 260			
Casing Logger 260			
Bit Size 7 7/8			
Type Fluid in Hole CHEMICAL MUD	CHLORIDES 6000 PPM		
Density / Viscosity 9.0/52			
pH / Fluid Loss 10.5/7.2			
Source of Sample FLOWLINE			
Rm @ Meas. Temp .50 @ 77F			
Rmf @ Meas. Temp .37 @ 77F			
Rmc @ Meas. Temp .60 @ 77F			
Source of Rmf / Rmc MEASUREMENT			
Rm @ BHT .34 @ 113F			
Time Circulation Stopped 2 HOURS			
Time Logger on Bottom	////		
Maximum Recorded Temperature 113F			
Equipment Number 3802			
Location HAYS, KANSAS			
Recorded By JASON CAPPELLUCCI			
Witnessed By JEFF LAWLER			

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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

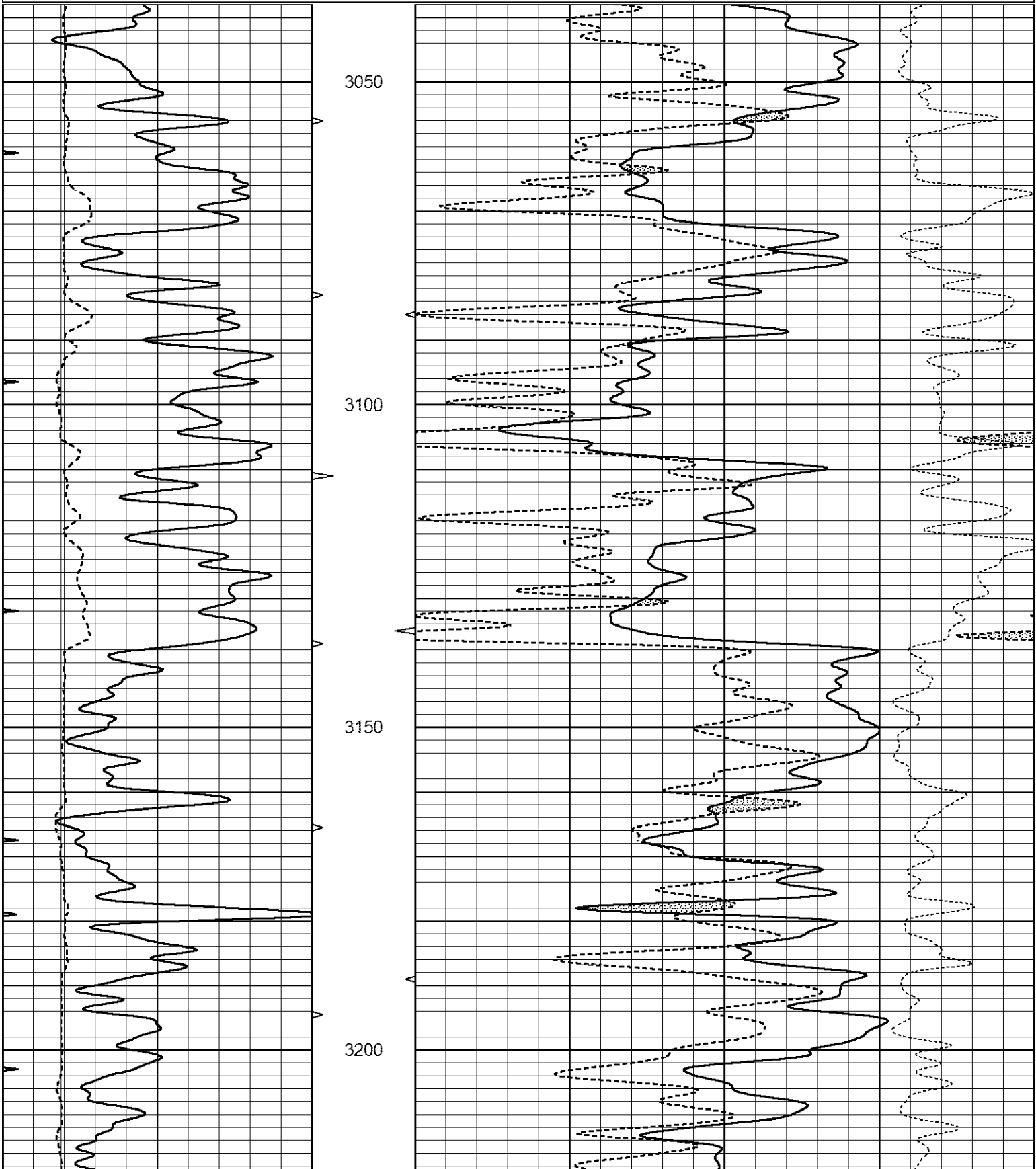
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
ZURICH, KS. - 1 WEST TO RD. 9 - 3/4 NORTH - WEST INTO

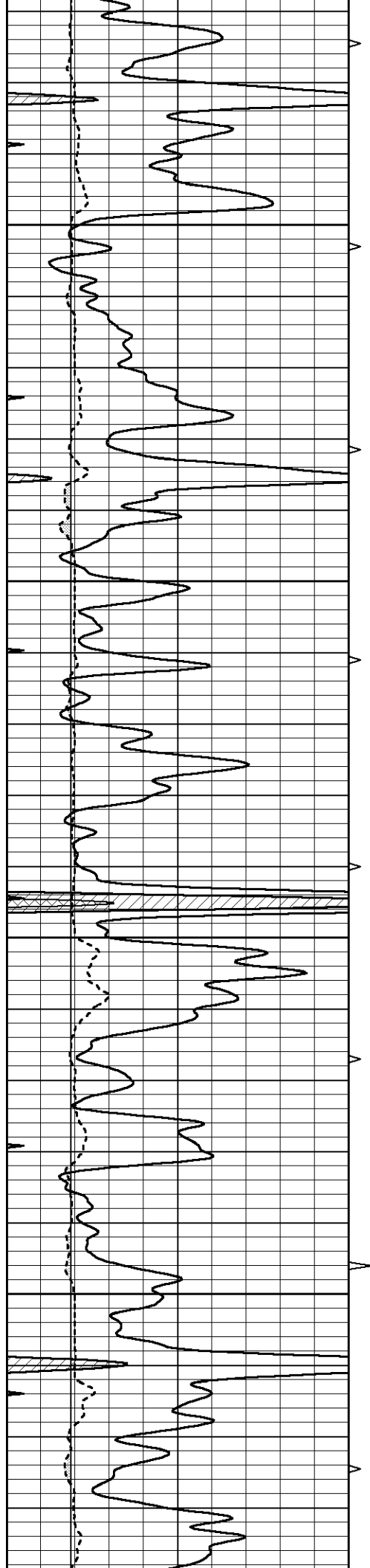


MAIN SECTION

Database File	3005ddn.db
Dataset Pathname	pass3.1
Presentation Format	_den_neu
Dataset Creation	Thu Sep 27 10:35:10 2018
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			



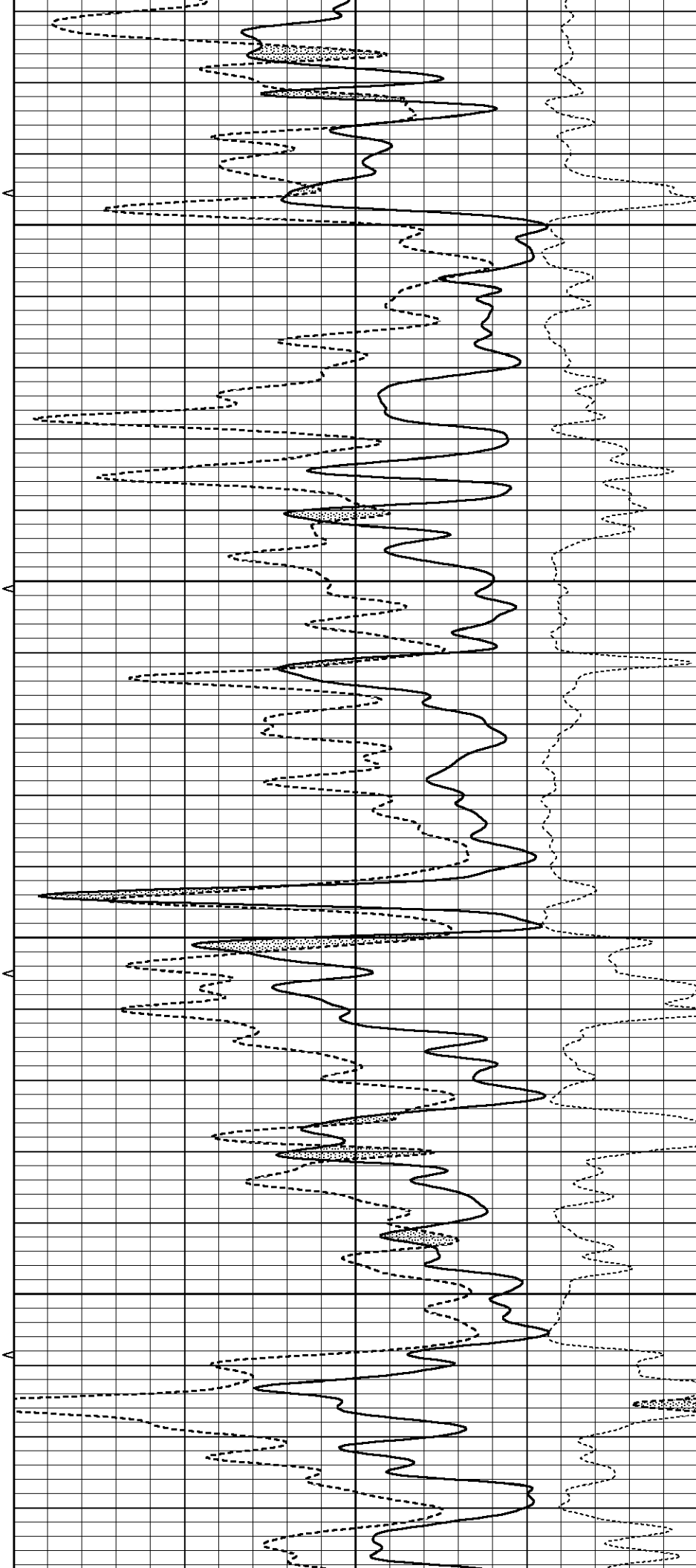


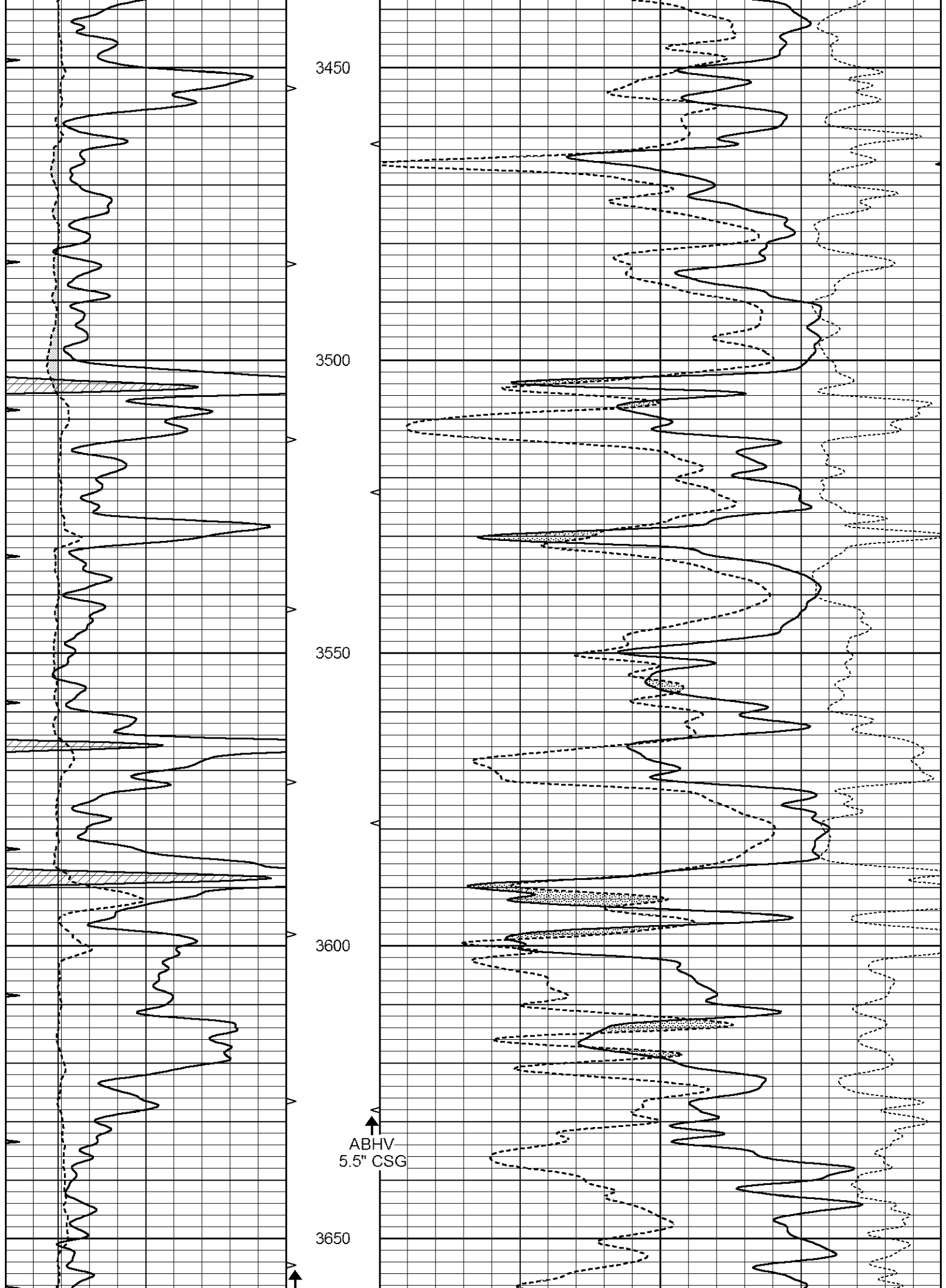
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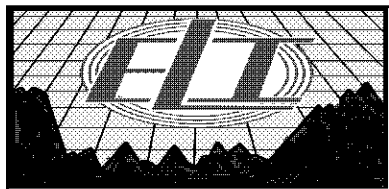
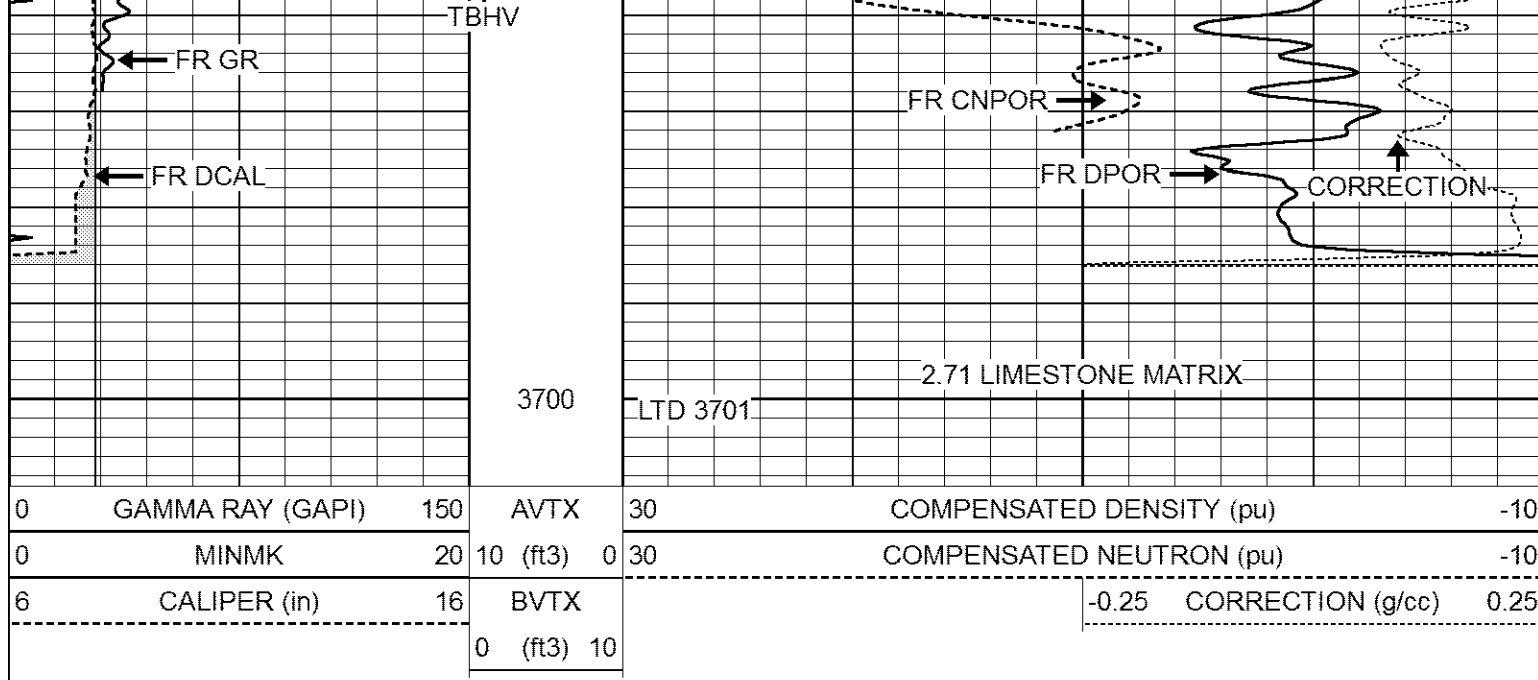
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3350

3400



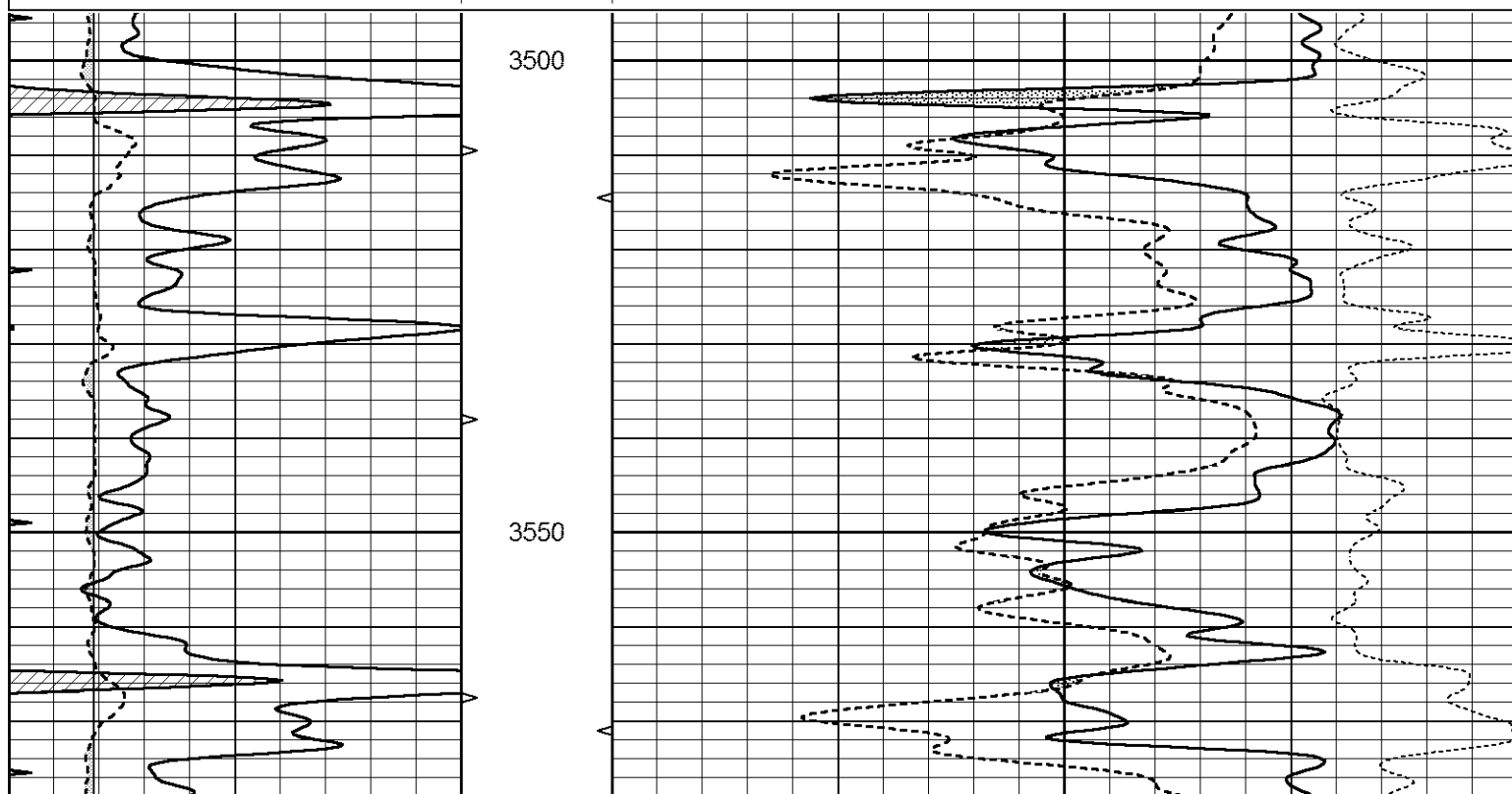


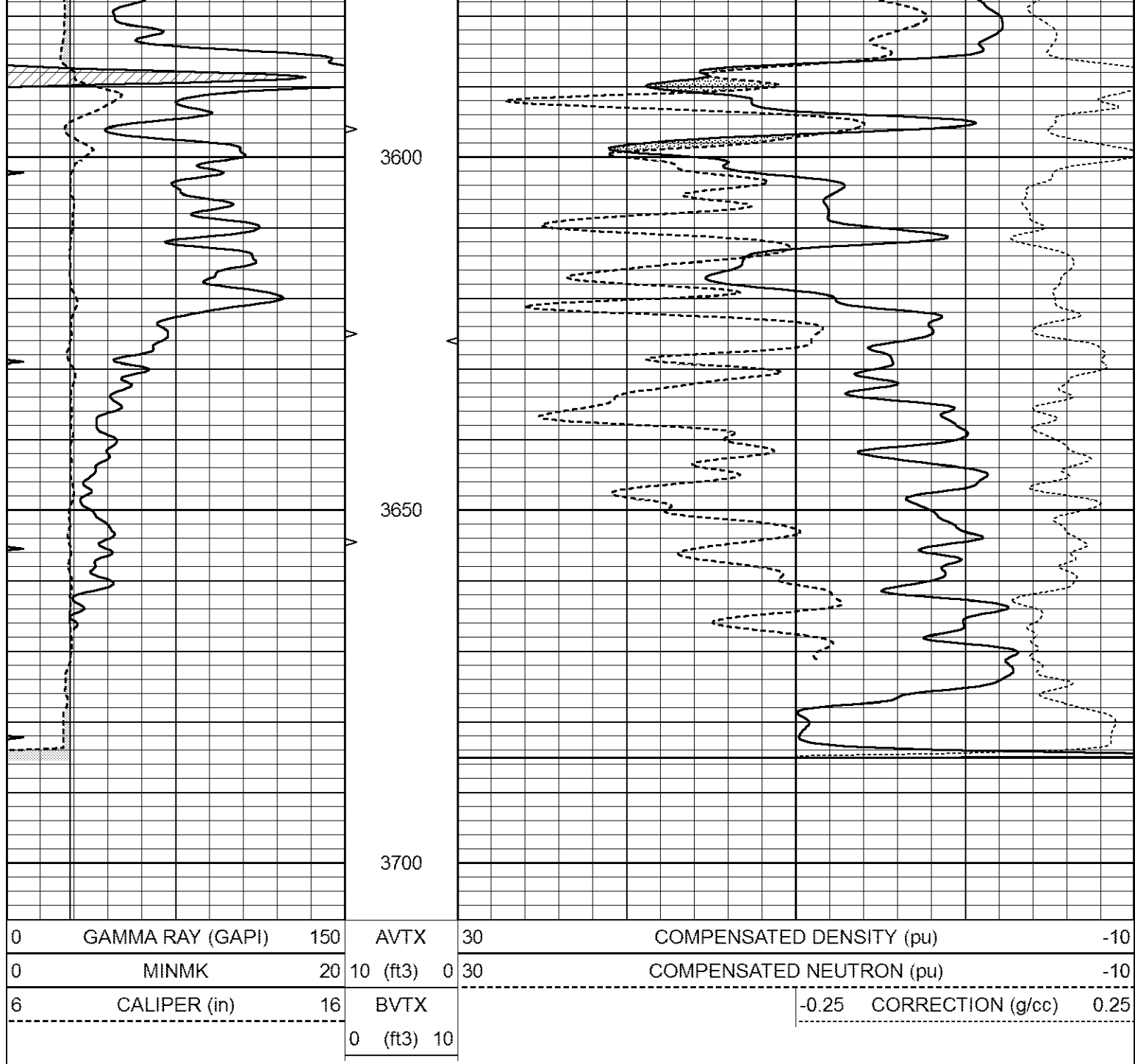


REPEAT SECTION

Database File 3005ddn.db
 Dataset Pathname pass2.1
 Presentation Format _den_neu
 Dataset Creation Thu Sep 27 10:34:20 2018
 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			





Calibration Report

Database File 3005ddn.db
 Dataset Pathname pass2.1
 Dataset Creation Thu Sep 27 10:34:20 2018

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Mon May 22 14:23:32 2017
 Downhole Cal Performed: Thu Mar 12 09:29:20 2015
 After Survey Verification Performed: Thu Mar 12 09:29:20 2015

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251
Downhole Calibration								
	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		
After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		
Compensated Neutron Calibration Report								
Serial Number:			080621PMC					
Tool Model:			NABORS					
PRE-SURVEY VERIFICATION								
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:			Wed Jun 29 11:10:58 2016					
Calibrator Value:			1.0		GAPI			
Background Reading:			0.0		cps			
Calibrator Reading:			1.0		cps			
Sensitivity:			0.4300		GAPI/cps			