

COMPENSATED DENSITY/NEUTRON PE LOG

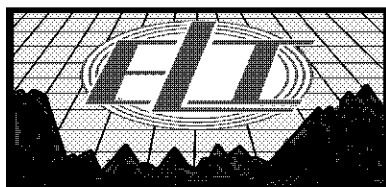
Company NORSTAR PETROLEUM, INC.	
Well	CBCF #6-31
Field	MATTIE
County	TREGO
State	KANSAS
Location: API #: 15-195-23075-0000 1642' FNL & 802' FEL	
Permanent Datum	GROUND LEVEL Elevation 2066
Log Measured From	KELLY BUSHING 7' A.G.L
Drilling Measured From	KELLY BUSHING
Elevation K.B. 2073 D.F. 2071 G.L. 2066	
Date	11/27/18
Run Number	ONE
Depth Driller	4050
Depth Logger	4051
Bottom Logged Interval	4027
Top Log Interval	3100
Casing Driller	8 5/8" @ 225
Casing Logger	225
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.5/50
PH / Fluid Loss	10.0/11.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.25 @ 65F
Rmf @ Meas. Temp	.18 @ 65F
Rmc @ Meas. Temp	.30 @ 65F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.14 @ 116F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	116F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	LARRY FRIEND

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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

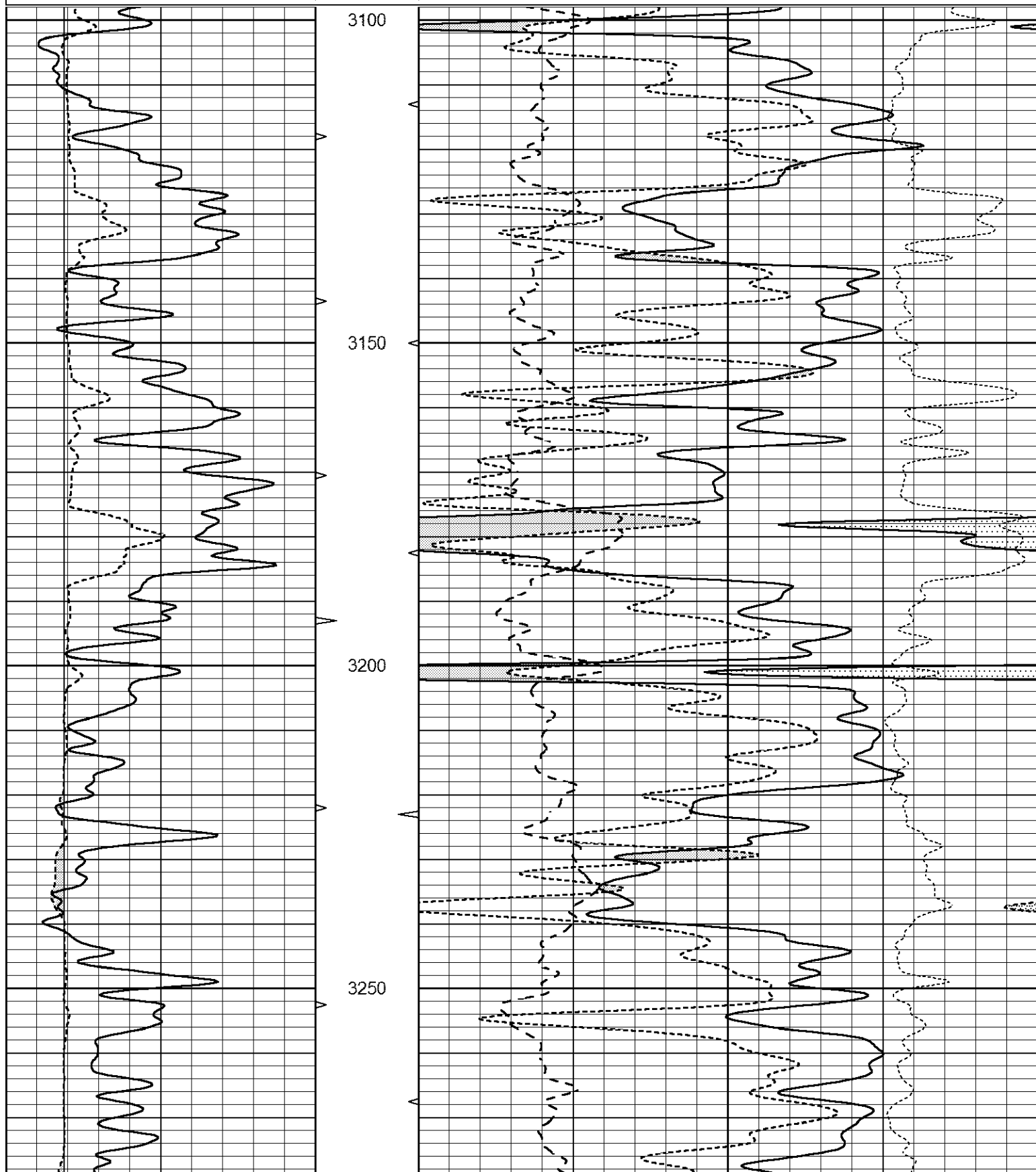
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
CEDAR BLUFF RESERVOIR - TO THE SOUTH SIDE OF DAM
1 1/4 EAST ON Y RD. TO CBCF TANK BATTERY - 1 MILE NORTH & EAST TO
METAL PENS - NORTH 1/4 MILE ACROSS CATTLE GUARD
FOLLOW TRAIL EAST INTO

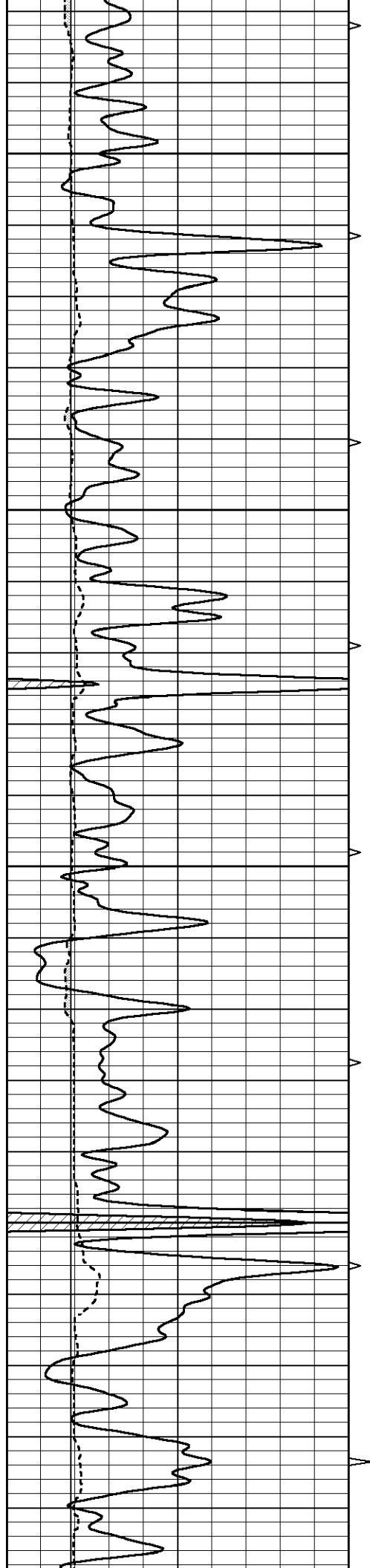


MAIN SECTION

Database File 3021pe8.db
Dataset Pathname pass3.1
Presentation Format _ldt_neu
Dataset Creation Tue Nov 27 20:49:51 2018
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
			TBHV	0	PE	10 -0.25
			0 (ft3) 10	CORRECTION (g/cc) 0.25		



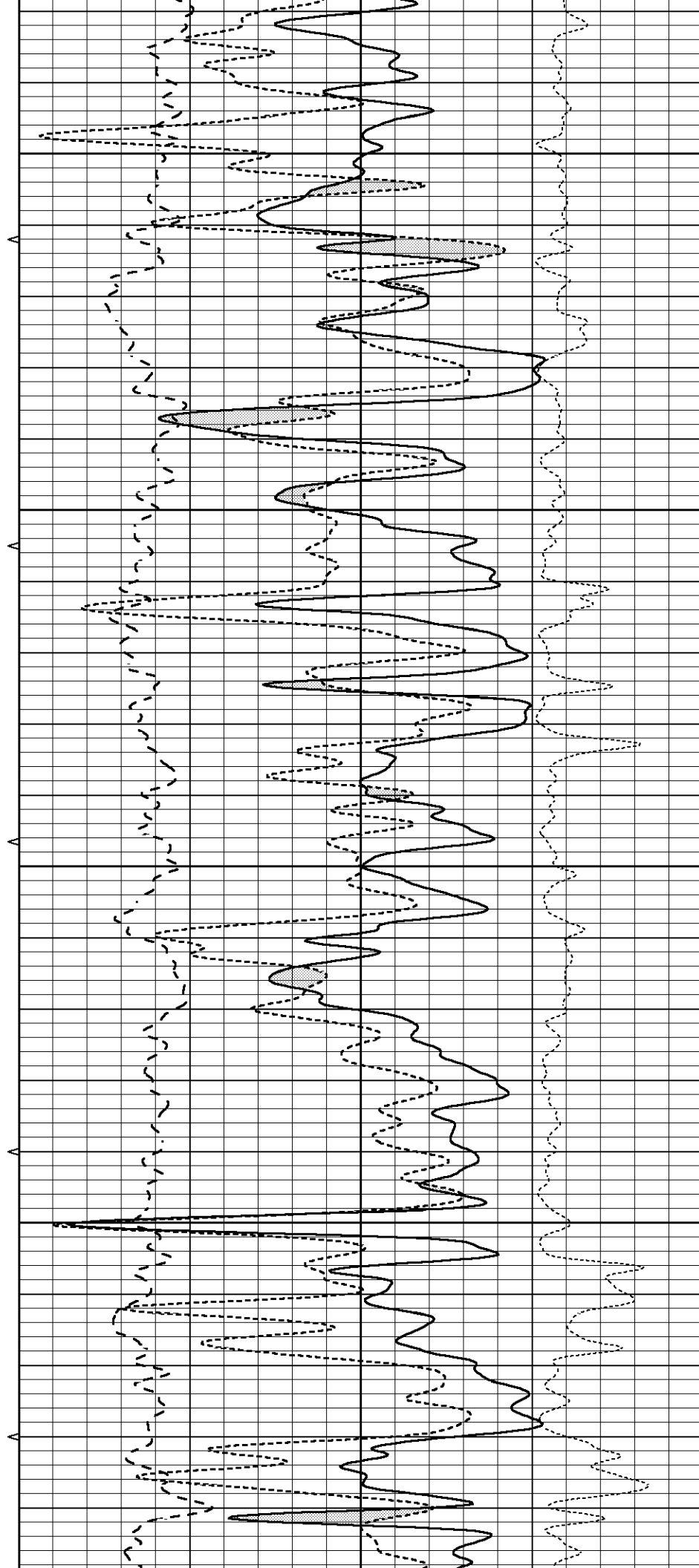


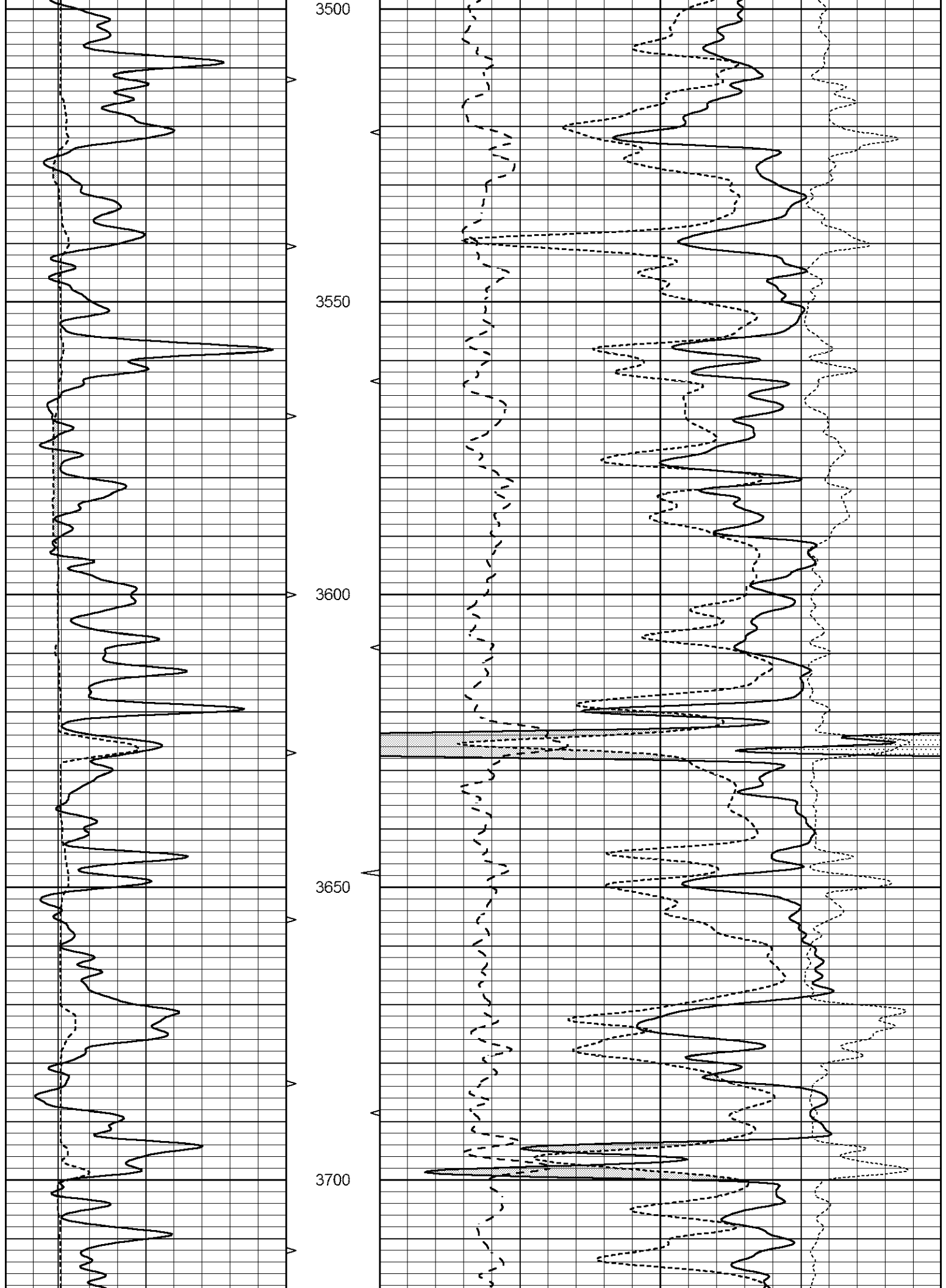
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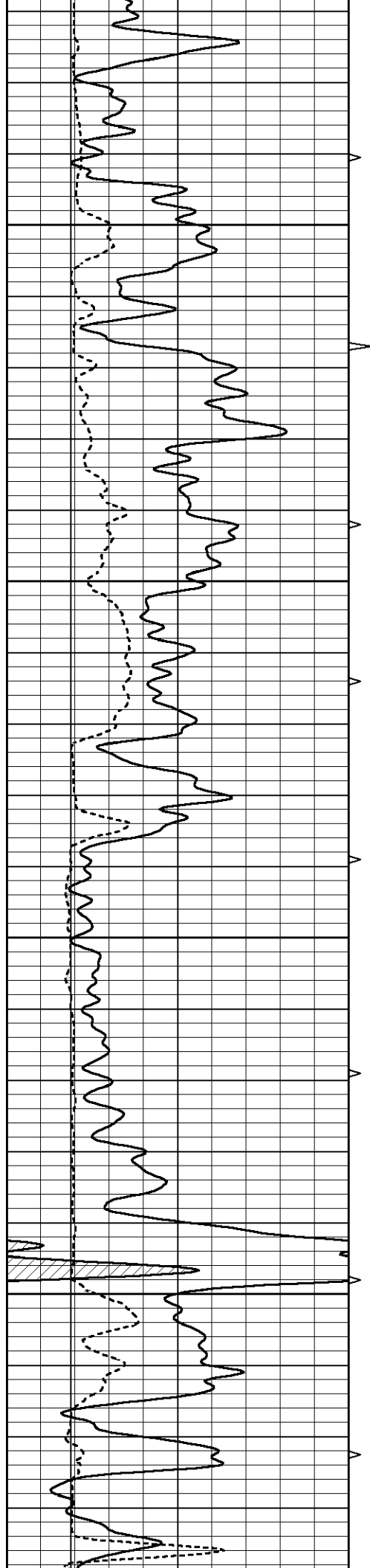
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3400

3450





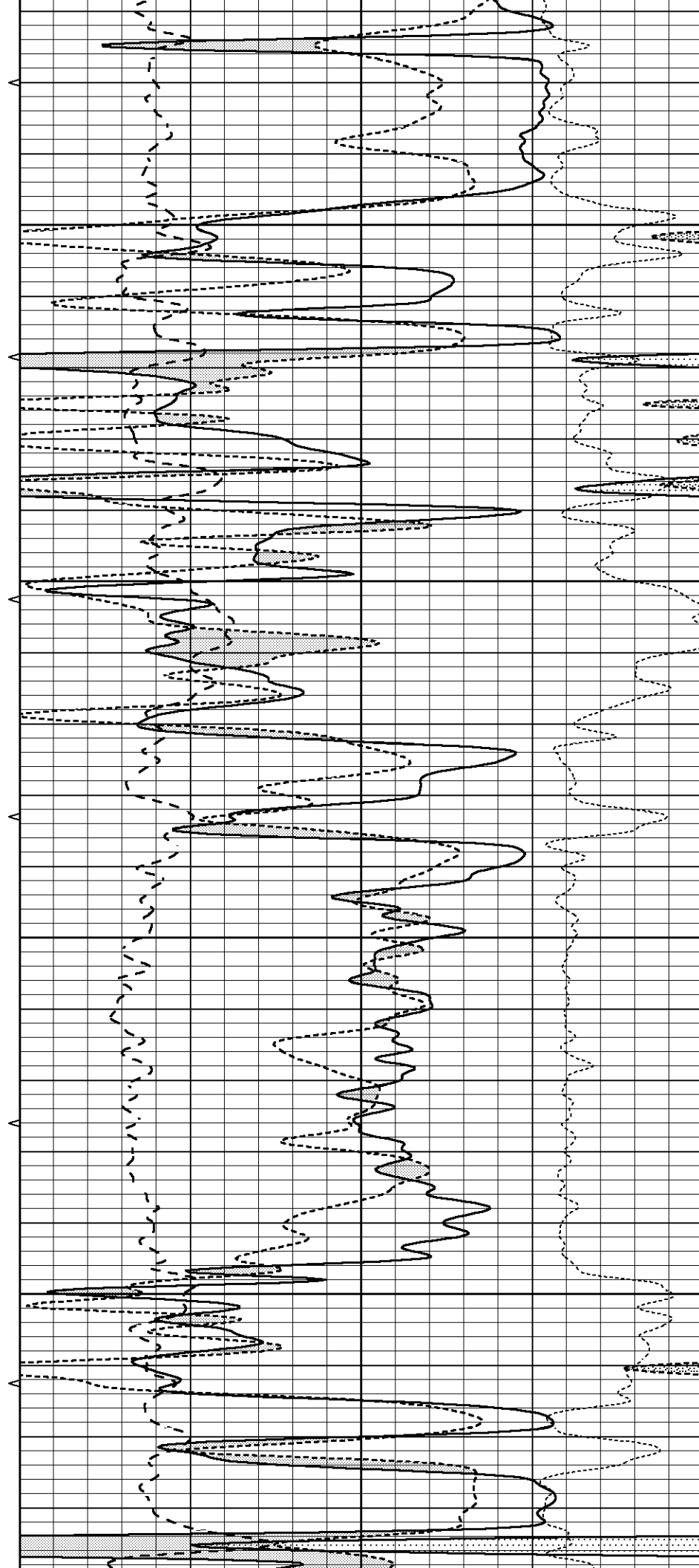


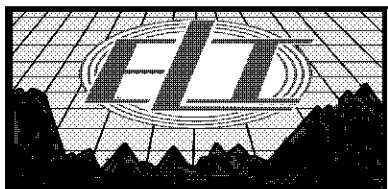
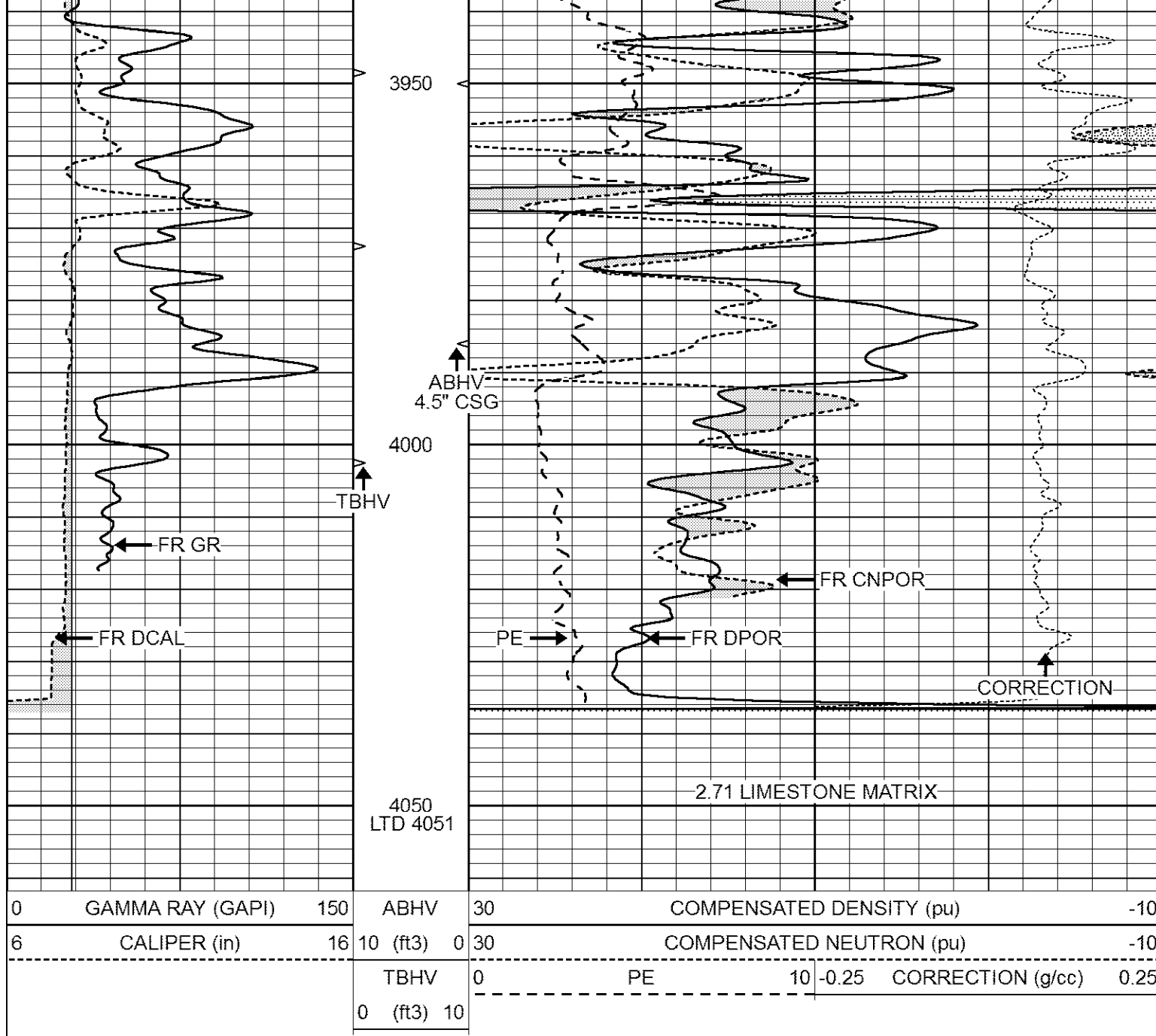
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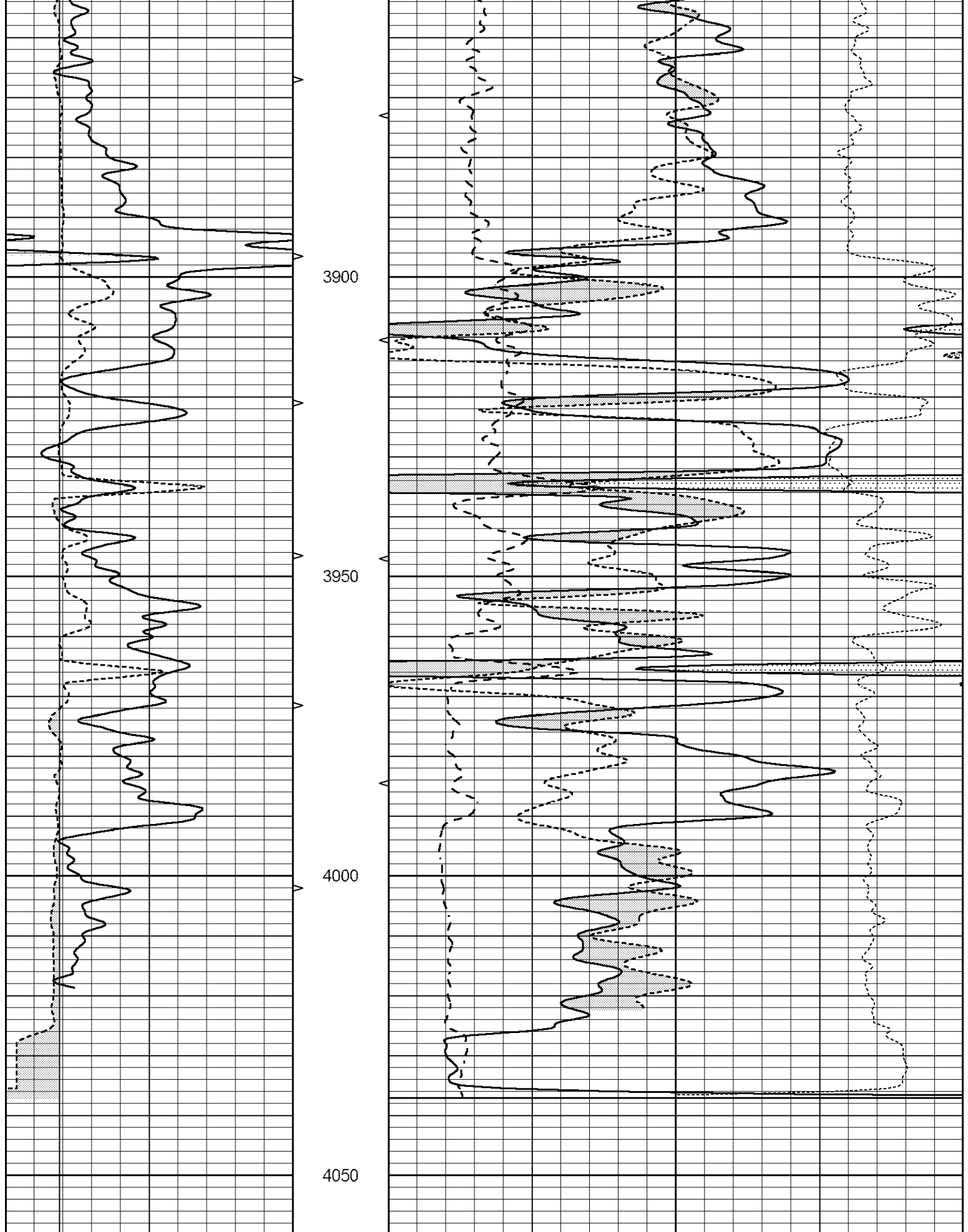


REPEAT SECTION

Database File 3021pe8.db
 Dataset Pathname pass2.1
 Presentation Format _ldt_neu
 Dataset Creation Tue Nov 27 20:34:42 2018
 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
			TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10						





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

Calibration Report

Database File 3021pe8.db
 Dataset Pathname pass2.1
 Dataset Creation Tue Nov 27 20:34:42 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
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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	