

**COMPENSATED
DENSITY/NEUTRON
PE LOG**

Company STEWART PRODUCERS, INC.
Well VOGEL #1
Field
County NESS State KANSAS

Location: API #: 15-135-26033-0000
335' FSL & 2305' FWL
SEC 23 TWP 19S RGE 26W
Permanent Datum GROUND LEVEL Elevation 2597
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation K.B. 2602
D.F. 2600
G.L. 2597

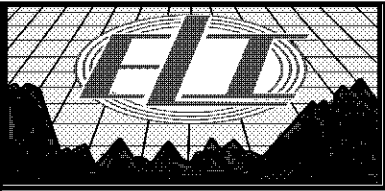
Date	12/13/18
Run Number	ONE
Depth Driller	4640
Depth Logger	4643
Bottom Logged Interval	4619
Top Log Interval	3800
Casing Driller	8 5/8" @ 220
Casing Logger	220
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.5/56
PH / Fluid Loss	9.5/8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.80 @ 62F
Rmt @ Meas. Temp	.60 @ 62F
Rmc @ Meas. Temp	.96 @ 62F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.40 @ 122F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	122F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	DAVE GOLDAK

<<< Fold Here >>>

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

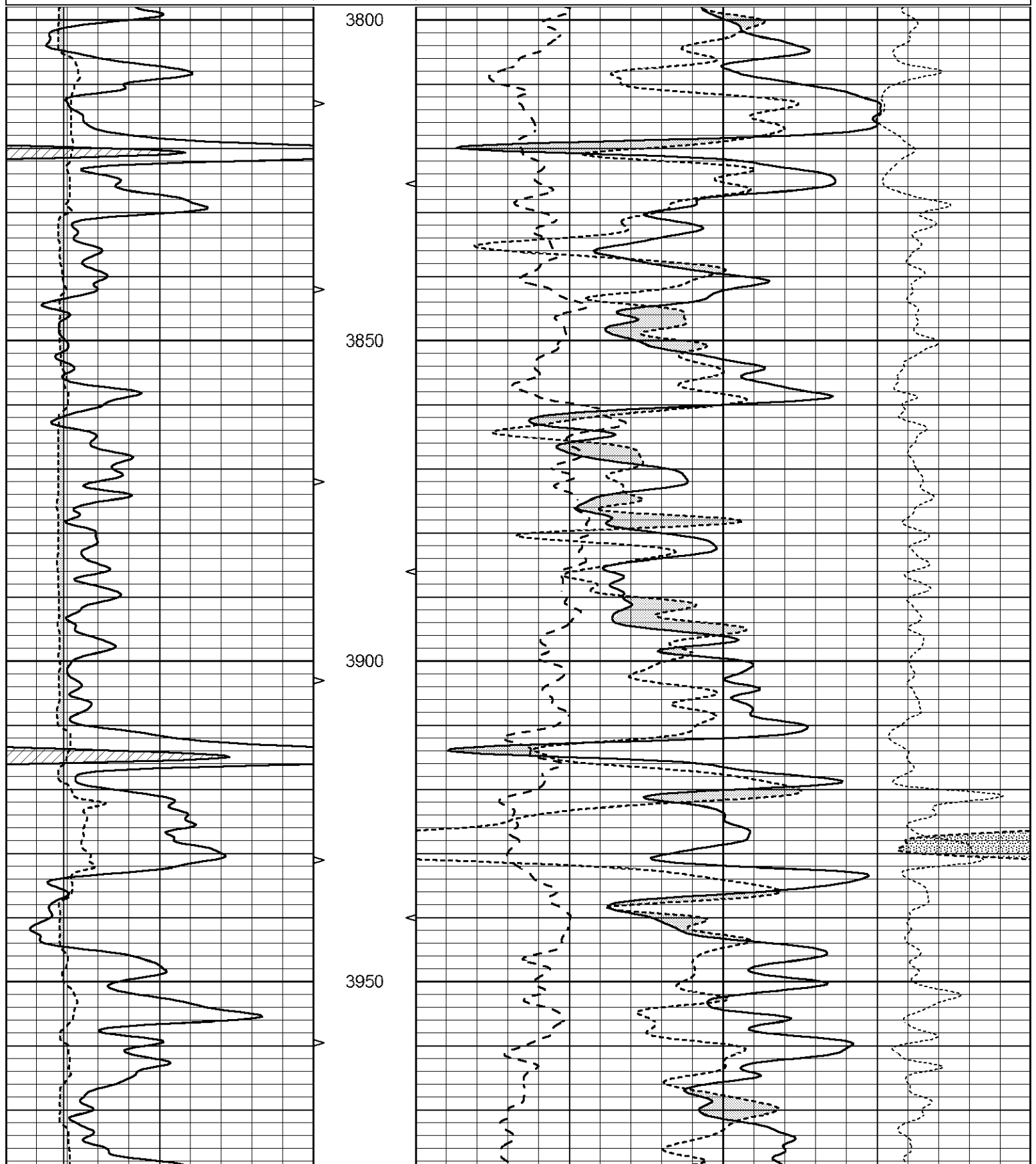
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
BEELER, KS. - 5 SOUTH TO RD. 80 - 1 1/2 EAST - NORTH INTO

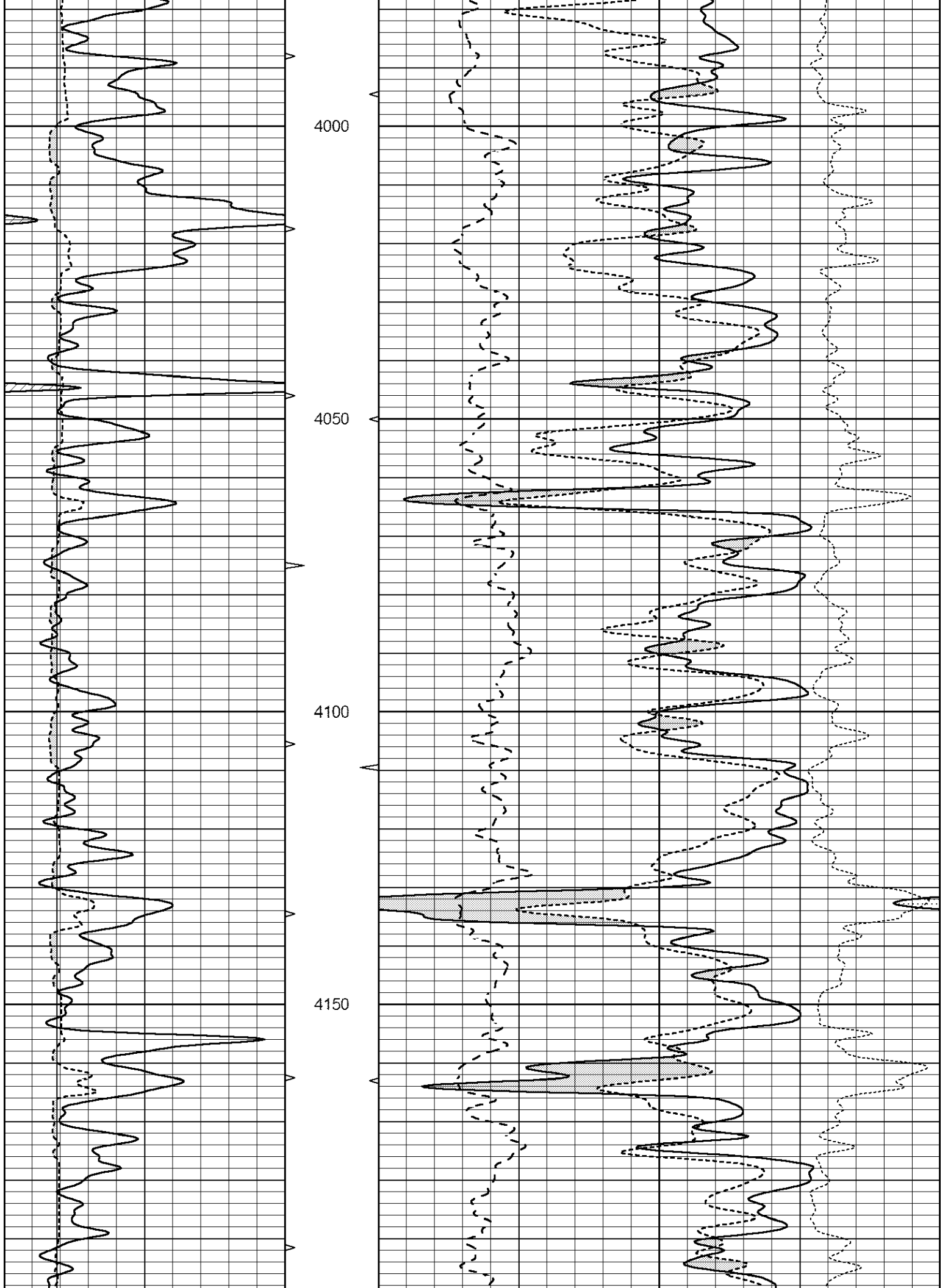


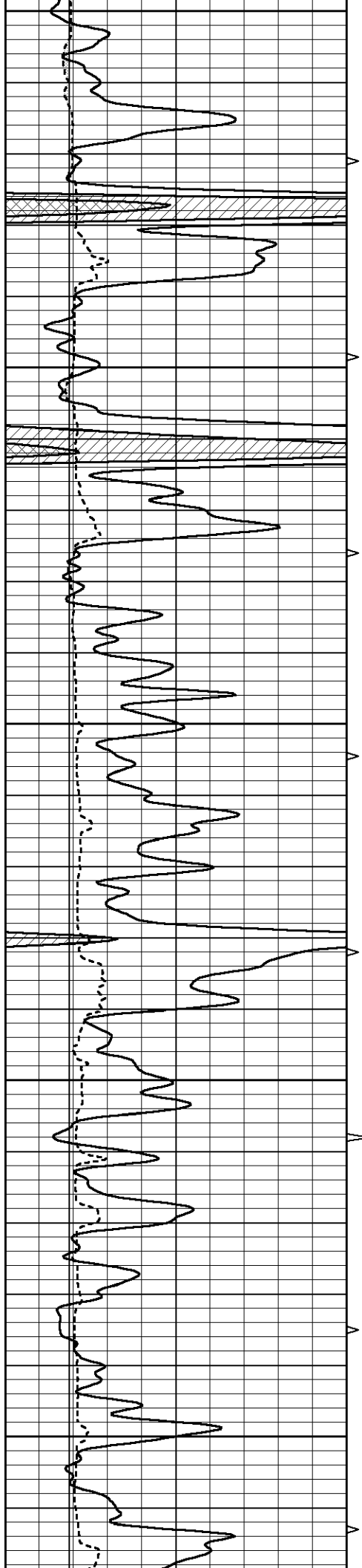
MAIN SECTION

Database File 3429pe8.db
 Dataset Pathname pass3.1
 Presentation Format _ldt_neu
 Dataset Creation Thu Dec 13 21:30:33 2018
 Charted by Depth in Feet scaled 1:240

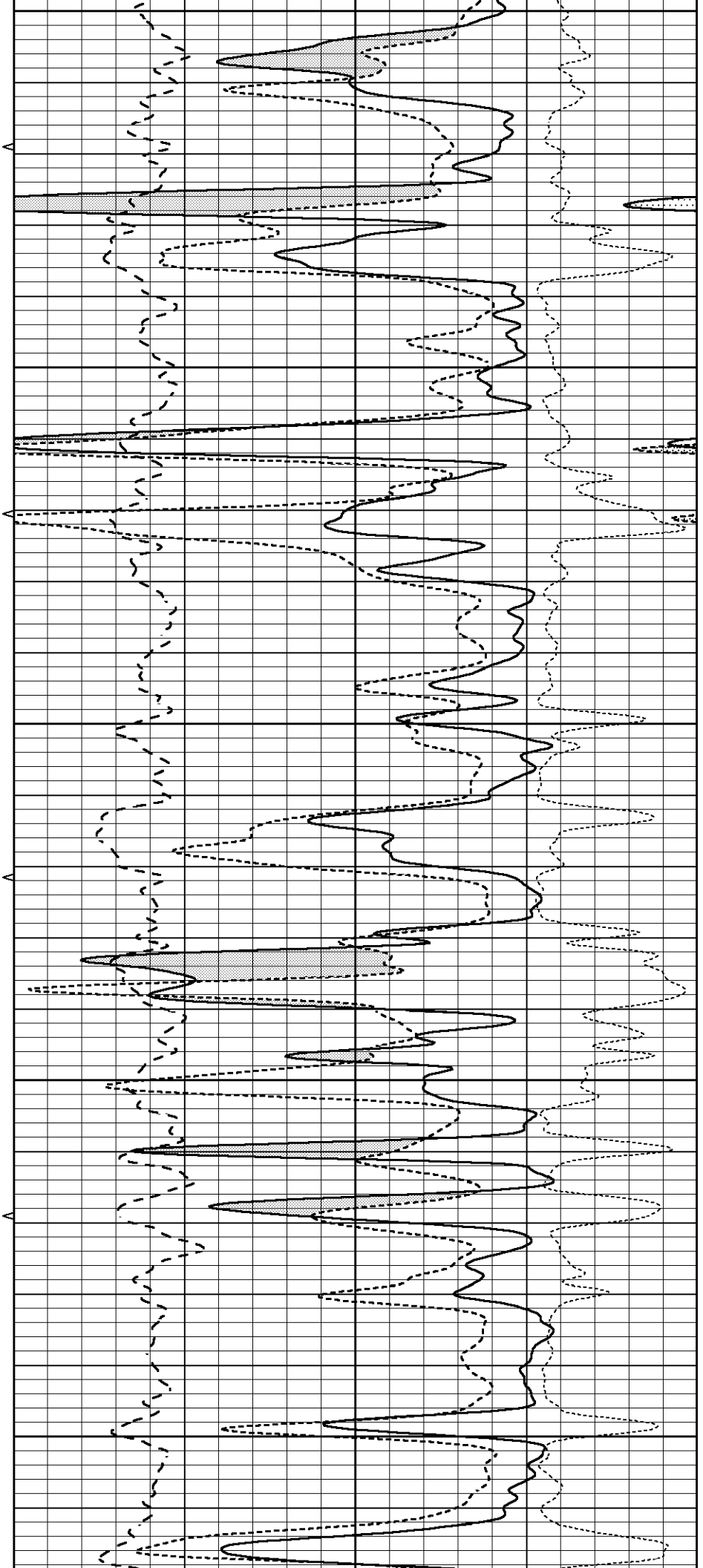
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-10
			TBHV	0	PE	10 -0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10			

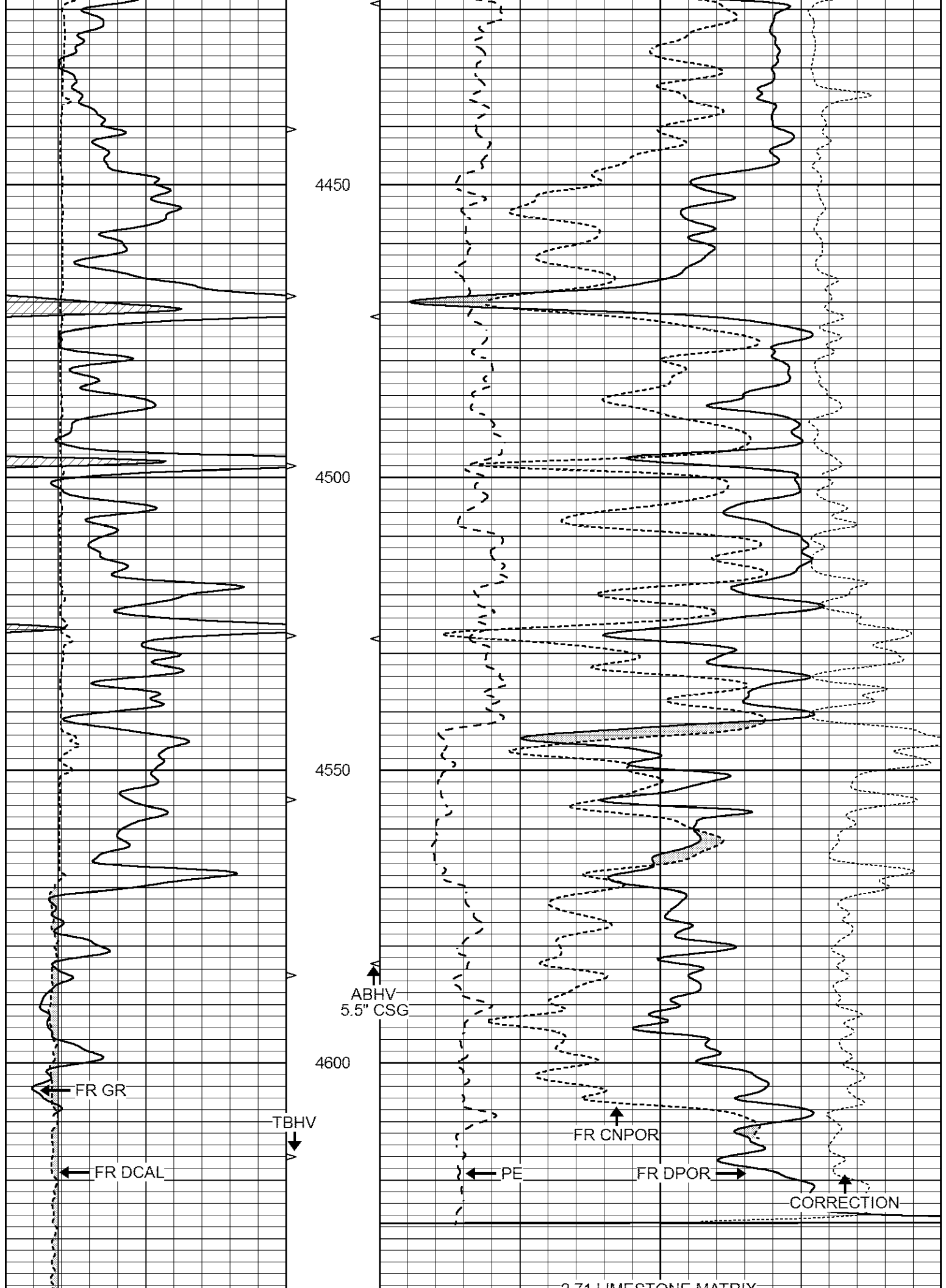






4200
4250
300
350
4400





4450

4500

4550

4600

↑
ABHV
5.5" CSG

← FR GR

↓ TBHV

← FR DCAL

↑ FR CNPOR

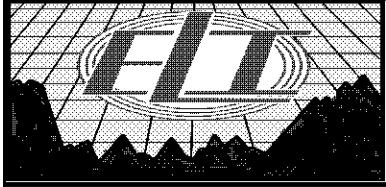
← PE

→ FR DPOR

↑ CORRECTION

2.74 LIMESTONE MATRIX

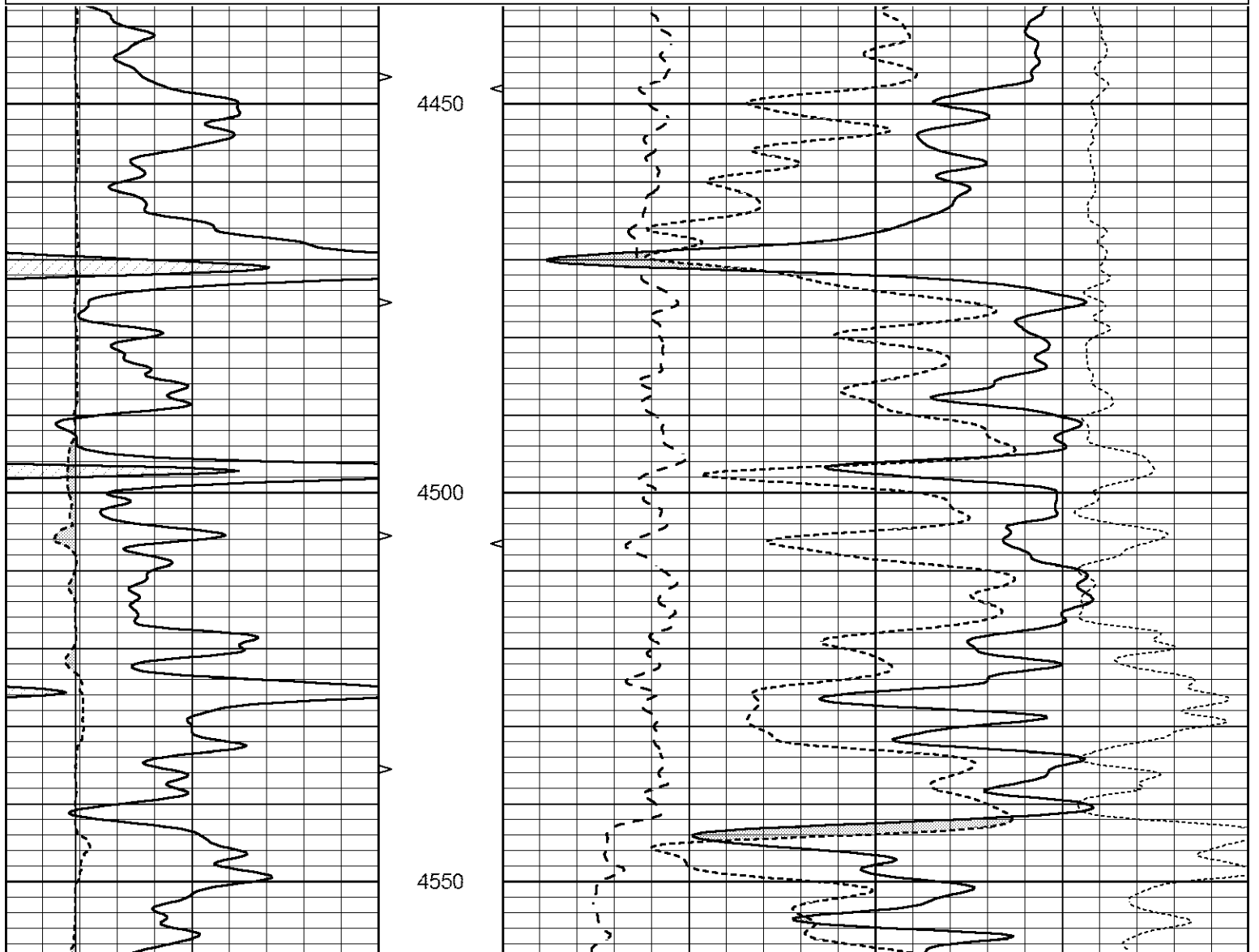
			LTD 4643			2.77 LIMESTONE MATRIX			
			1650						
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
			TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					

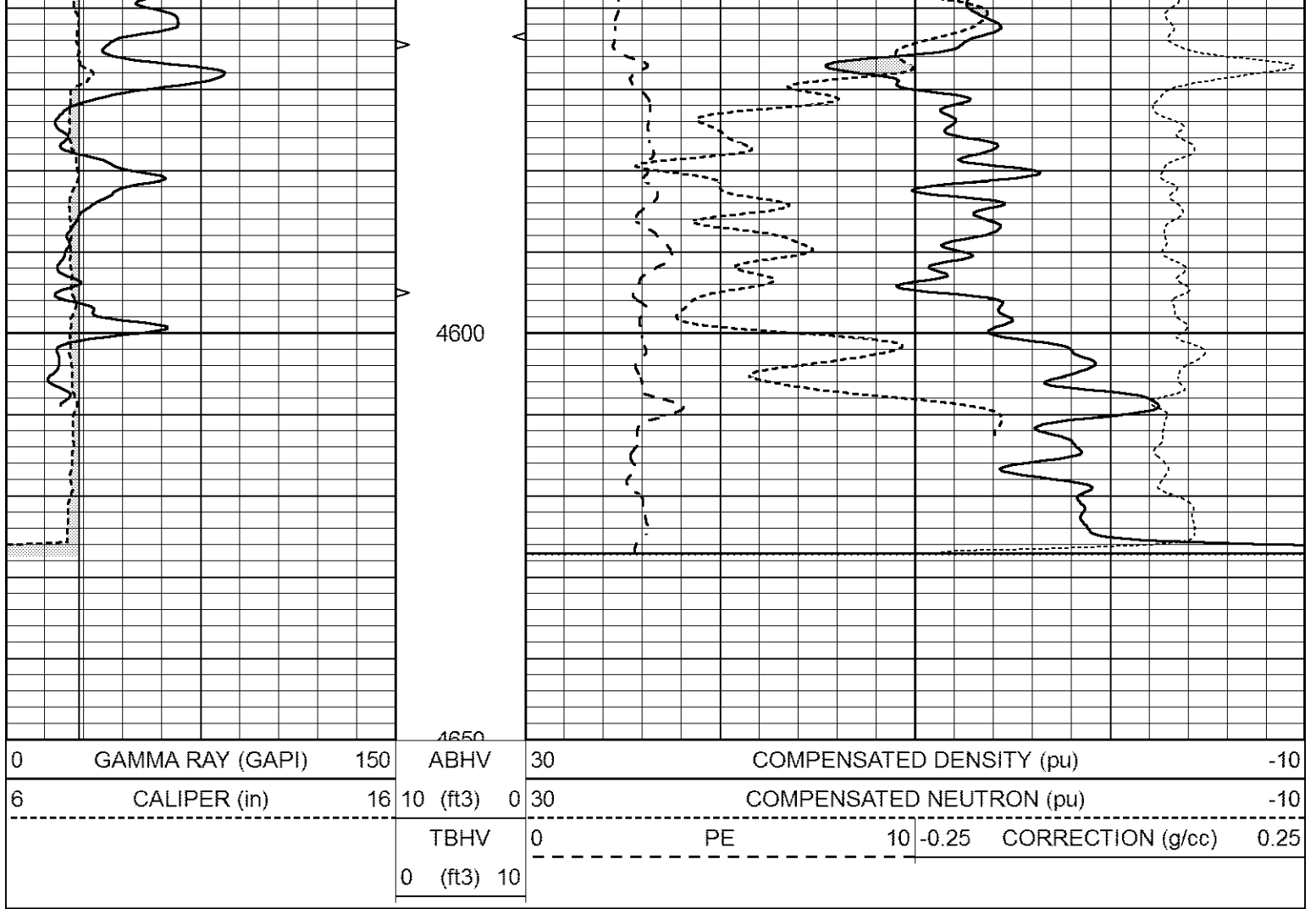


REPEAT SECTION

Database File 3429pe8.db
 Dataset Pathname pass2.2
 Presentation Format _ldt_neu
 Dataset Creation Thu Dec 13 21:32:23 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					





Calibration Report

Database File 3429pe8.db
 Dataset Pathname pass2.2
 Dataset Creation Thu Dec 13 21:32:23 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	V	Air	Loop	mmho/m	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	mmho/m	Zero	Cal	mmho/m	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	471.500	mmho/m	1.001	0.099

Medium	0.000	471.327	mmho/m	0.465	471.350	mmho/m	1.000	-0.000
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 Dec 05 01:26:33 2018

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.4300 GAPI/cps