



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company	RITCHIE EXPLORATION, INC.	Company	RITCHIE EXPLORATION, INC.
Well	#1 FREDRICKSON-ASHLEY FARMS	Well	#1 FREDRICKSON-ASHLEY FARMS
Field	WILDCAT	Field	WILDCAT
County	DECATUR	County	DECATUR
State	KANSAS	State	KANSAS
Location:	API # : 15-039-21217-0000	Other Services	DILMEL
	1840' FSL & 127' FWL		
	SEC 32 TWP 5S RGE 29W		
Permanent Datum	GROUND LEVEL	Elevation	2749
Log Measured From	KELLY BUSHING 5' A.G.L.	K.B.	2754
Drilling Measured From	KELLY BUSHING	D.F.	2752
		G.L.	2749

Date	2/10/15
Run Number	ONE
Depth Driller	4420
Depth Logger	4418
Bottom Logged Interval	4394
Top Log Interval	3500
Casing Driller	8 5/8" @ 220
Casing Logger	217
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/59
pH / Fluid Loss	10.5/8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.0 @ 65F
Rmt @ Meas. Temp	.75 @ 65F
Rmc @ Meas. Temp	1.20 @ 65F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.54 @ 120F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	5:00 P.M.
Maximum Recorded Temperature	120
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	MAX LOVELLY

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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

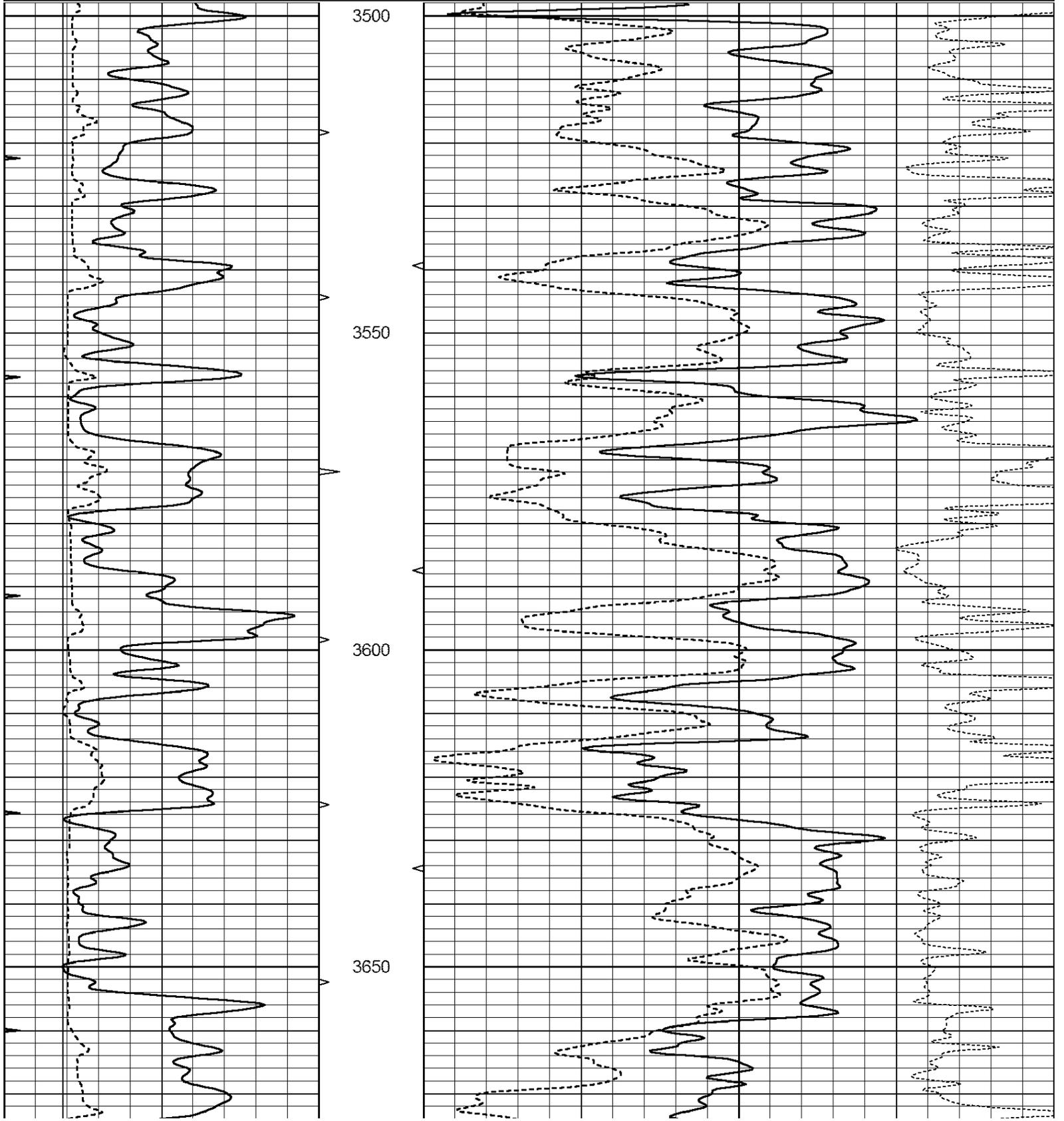
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
SELDEN, KS. - 2 MILES SOUTHWEST TO 90 RD. - NORTH TO JOG IN THE ROAD
1/2 NORTH - EAST INTO

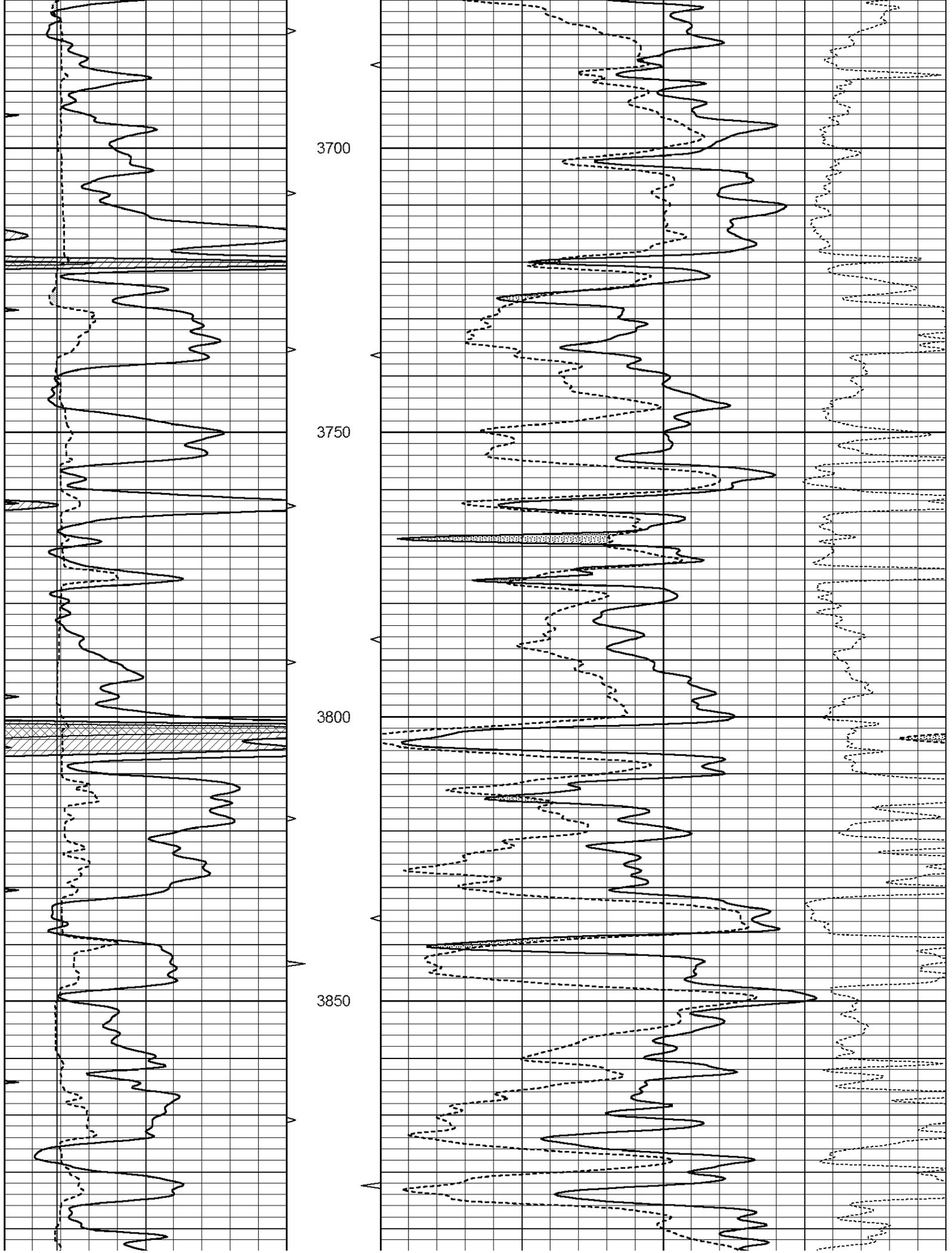


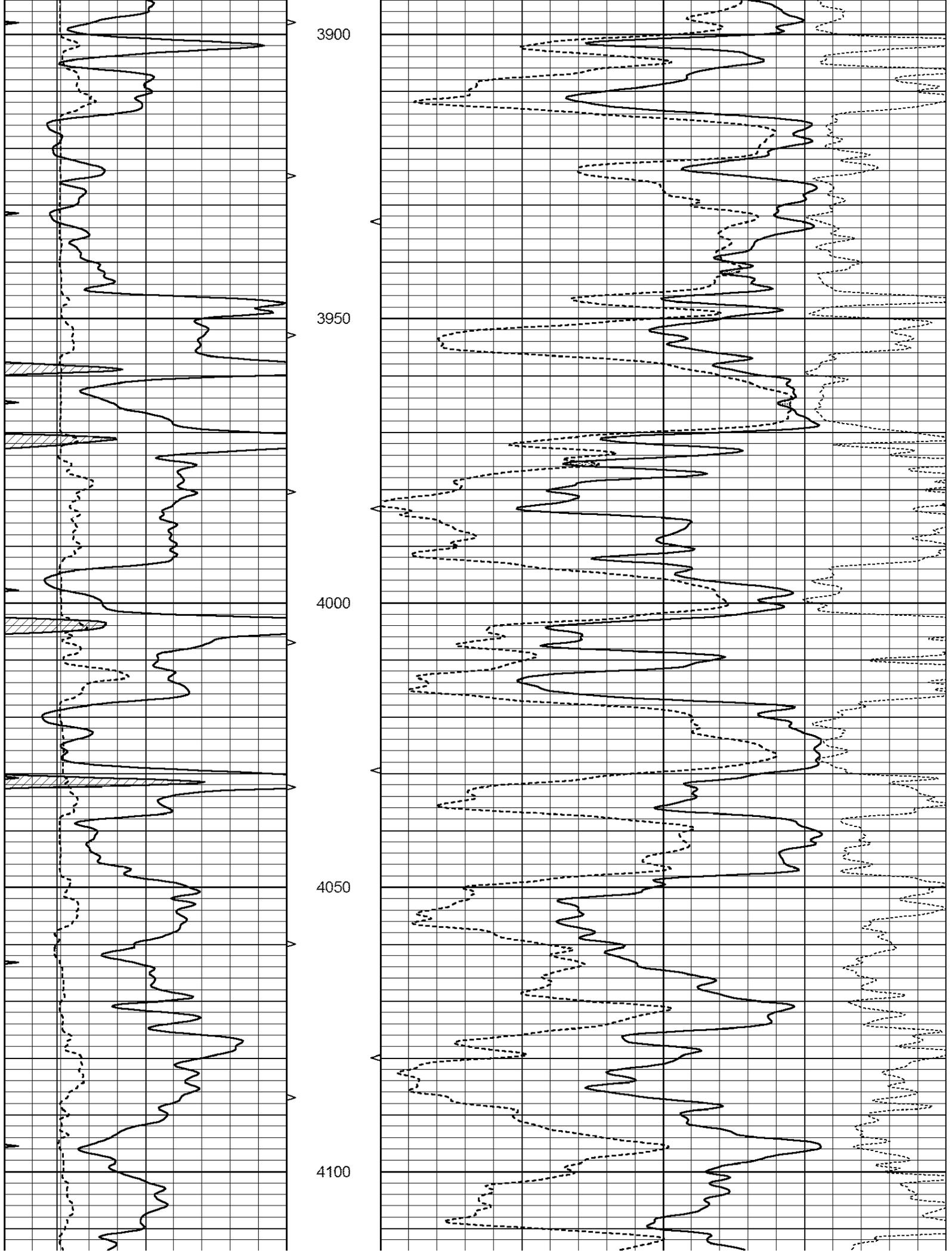
MAIN SECTION

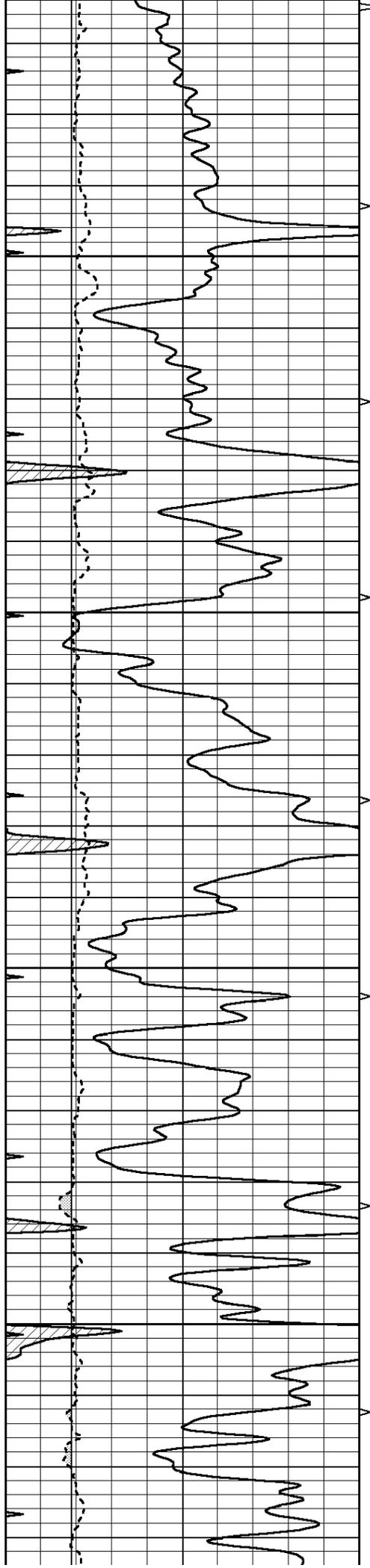
Database File: 26534ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: den_neu
 Dataset Creation: Tue Feb 10 17:49:06 2015 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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







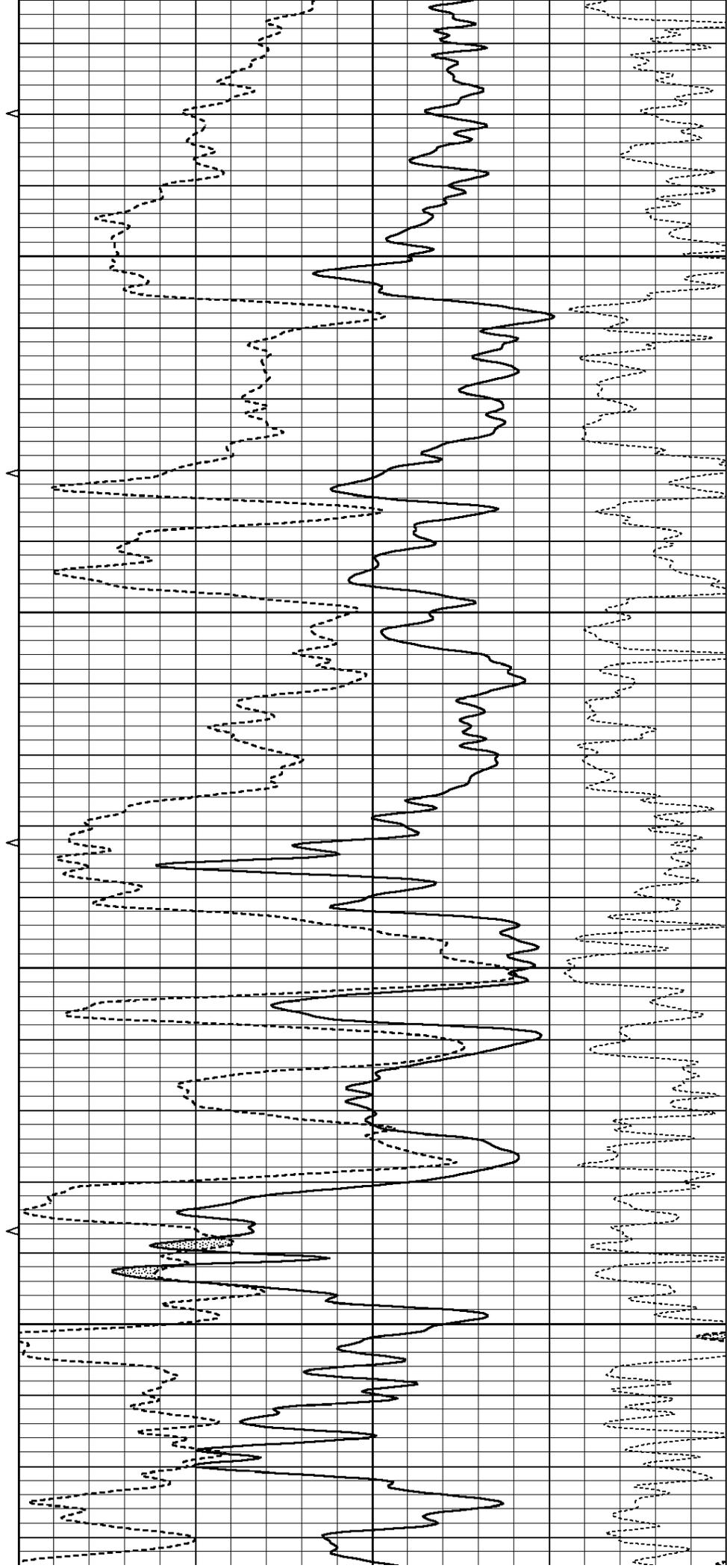


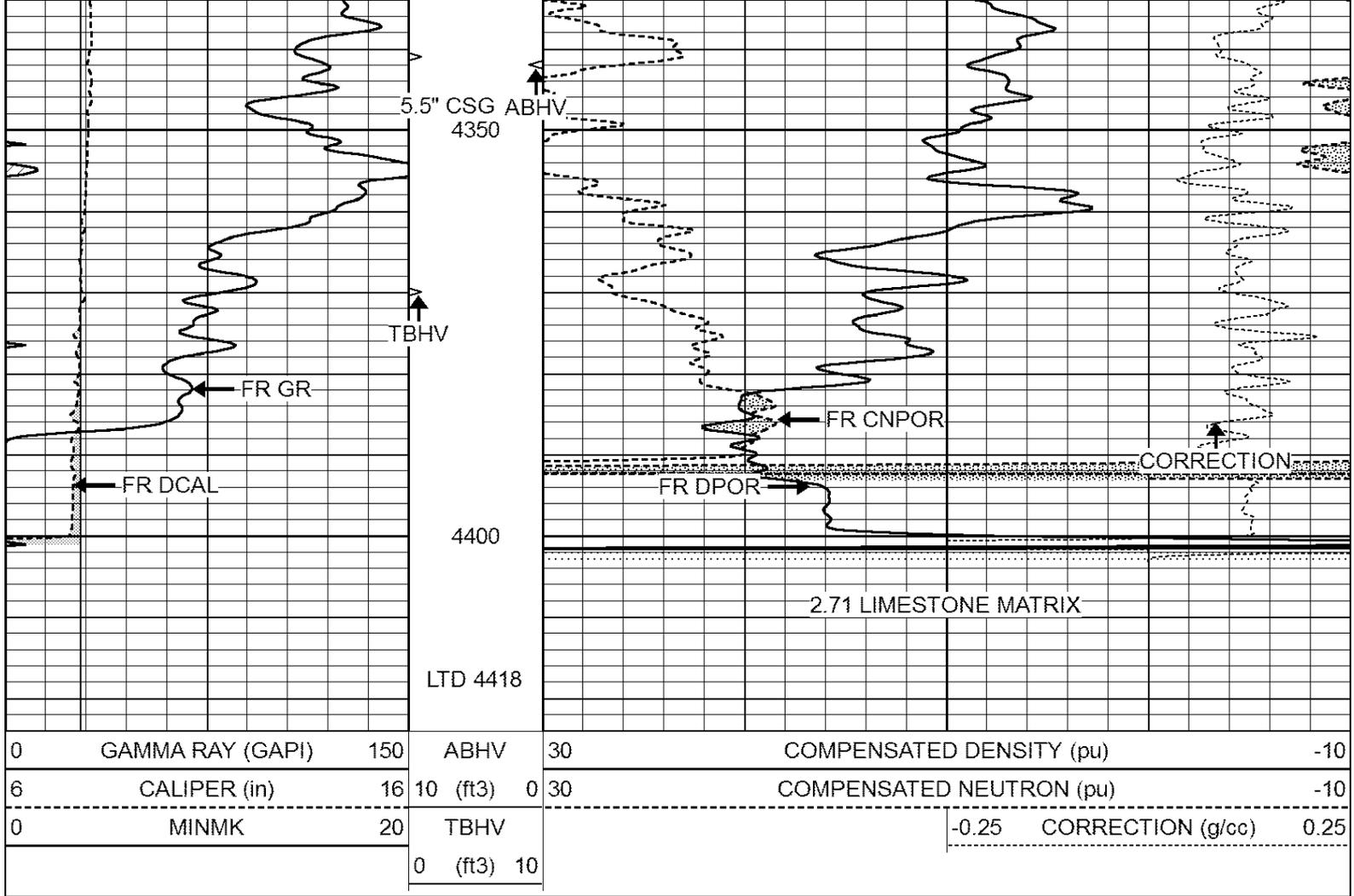
4150

4200

4250

4300

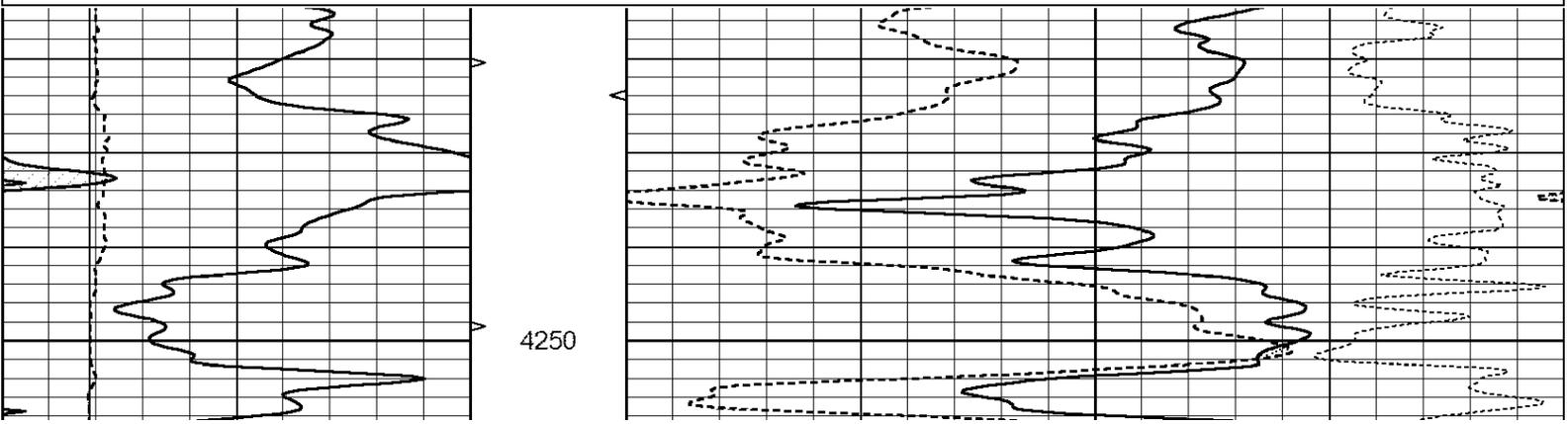


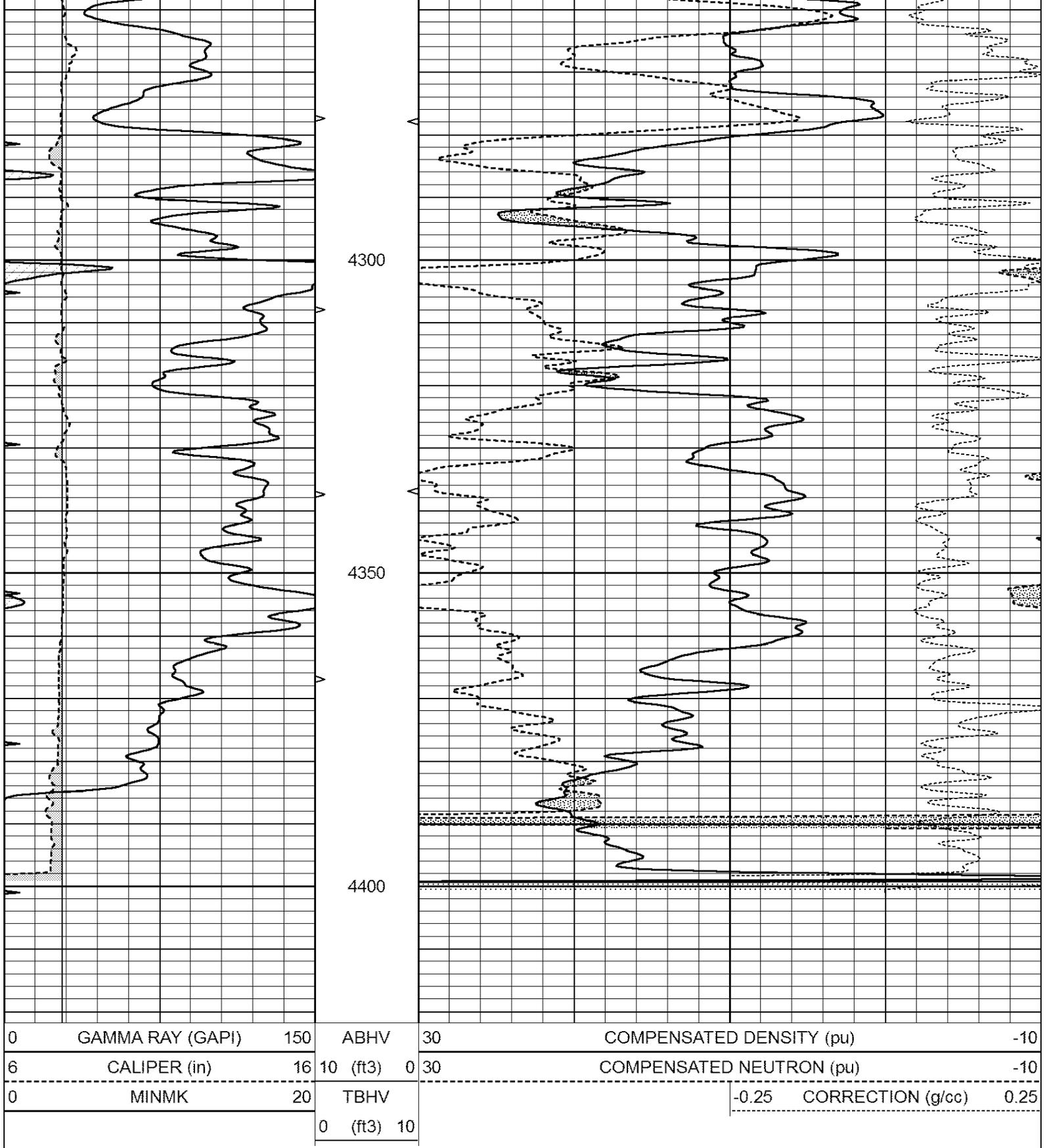


REPEAT SECTION

Database File: 26534ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Tue Feb 10 17:59:15 2015 by Calc Open-Cased 090629
 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
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





Calibration Report

Database File: 26534ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Tue Feb 10 17:59:15 2015 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Sun Aug 17 08:09:53 2014

Surface Calibration								
Readings			References				Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	-2.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-16.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration								
Readings			References				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification								
Readings			Targets				Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Compensated Density Calibration Report

Serial-Model: GEAR3-GEARHART
 Source / Verifier: 143 / 143
 Master Calibration Performed: Tue Oct 28 11:14:59 2014
 Before Survey Verification Performed:
 After Survey Verification Performed:

Master Calibration								
Density			Far Detector		Near Detector			
Magnesium	1.710	g/cc		881.29	468.35	cps		
Aluminum	2.580	g/cc		210.51	354.56	cps		
Spine Angle = 79.00			Density/Spine Ratio = 0.596					
Size			Reading					
Small Ring	8.00	in		4.29	V			
Large Ring	14.00	in		6.24	V			

Before Survey Verification								
Target			Measured					
		g/cc				g/cc		
		g/cc				g/cc		
		g/cc				g/cc		

After Survey Verification

		Target				Measured	
		g/cc				g/cc	
		g/cc				g/cc	
		g/cc				g/cc	
Compensated Neutron Calibration Report							
		Serial Number:		6I			
		Tool Model:		G			
CALIBRATION							
	Detector	Readings		Target		Normalization	
	Short Space	1.00	cps	1.00	cps	1.0000	
	Long Space	1.00	cps	1.00	cps	1.0000	
PRE-SURVEY VERIFICATION							
	Detector	Readings		Measured		Target	
1)	Short Space	cps					
	Long Space	cps		pu		pu	
2)	Short Space	cps					
	Long Space	cps		pu			
3)	Short Space	cps					
	Long Space	cps		pu			
POST-SURVEY VERIFICATION							
	Detector	Readings		Measured		Target	
1)	Short Space	cps					
	Long Space	cps		pu		pu	
2)	Short Space	cps					
	Long Space	cps		pu		pu	
3)	Short Space	cps					
	Long Space	cps		pu		pu	
Gamma Ray Calibration Report							
Serial Number:		GR6					
Tool Model:		OPEN					
Performed:		Wed Dec 10 11:09:24 2014					
Calibrator Value:		150.0		GAPI			
Background Reading:		0.0		cps			
Calibrator Reading:		276.0		cps			
Sensitivity:		0.8000		GAPI/cps			