



DUAL INDUCTION
LOG

Company REILLY OIL COMPANY, INC.
Well GWEN #1-4
Field SPRUCE
County TREGO State KANSAS

Location: API #: 15-195-23138-0000
2303' FSL & 820' FEL
SE - NW - NE - SE
SEC 4 TWP 14S RGE 22W
Permanent Datum GROUND LEVEL Elevation 2341
Log Measured From KELLY BUSHING 7' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL
Elevation
K.B. 2348
D.F. 2346
G.L. 2341

Date	6/22/22		
Run Number	ONE		
Depth Driller	4290		
Depth Logger	4289		
Bottom Logged Interval	4287		
Top Log Interval	00		
Casing Driller	8 5/8"@218'		
Casing Logger	218		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4.500 PPM	
Density / Viscosity	9.0/52		
pH / Fluid Loss	10.0/5.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.850@84F		
Rmt @ Meas. Temp	.638@84F		
Rmc @ Meas. Temp	1.02@84F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.600@119F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:00 P.M.		
Maximum Recorded Temperature	119F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	COLE ROBBEN		
Witnessed By	DUSTY RHOADES	RICHARD BELL	

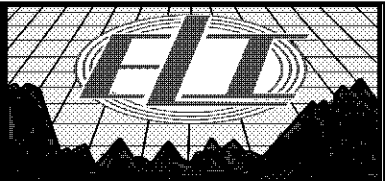
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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:

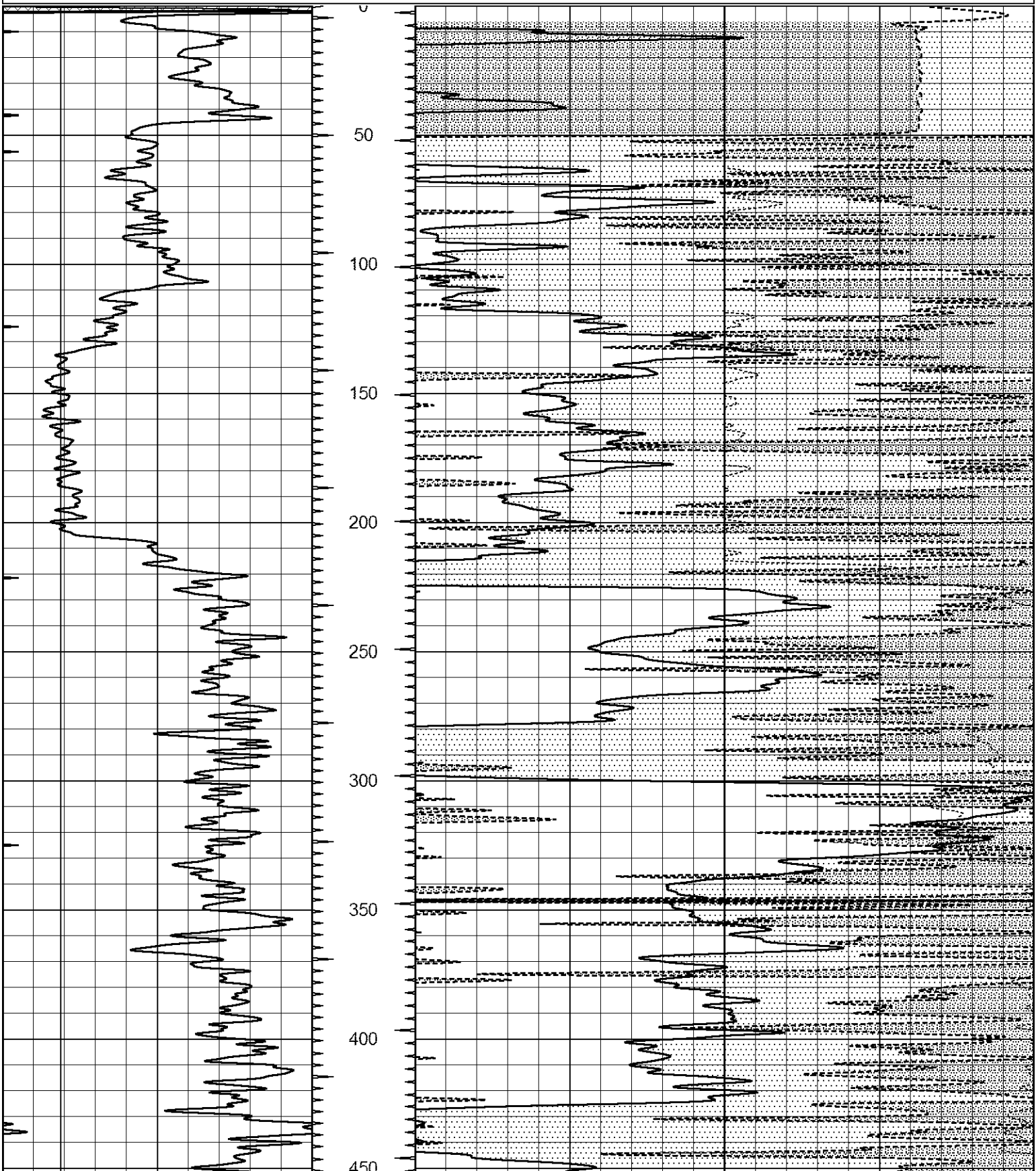
OGALLAH, KS I70 EXIT SOUTH 8 MILES ON RD 147 TO CURVE, 1 MILE
WEST FROM YIELD SIGN TO 320 RD,SOUTH 1/2 MILE, WEST INTO

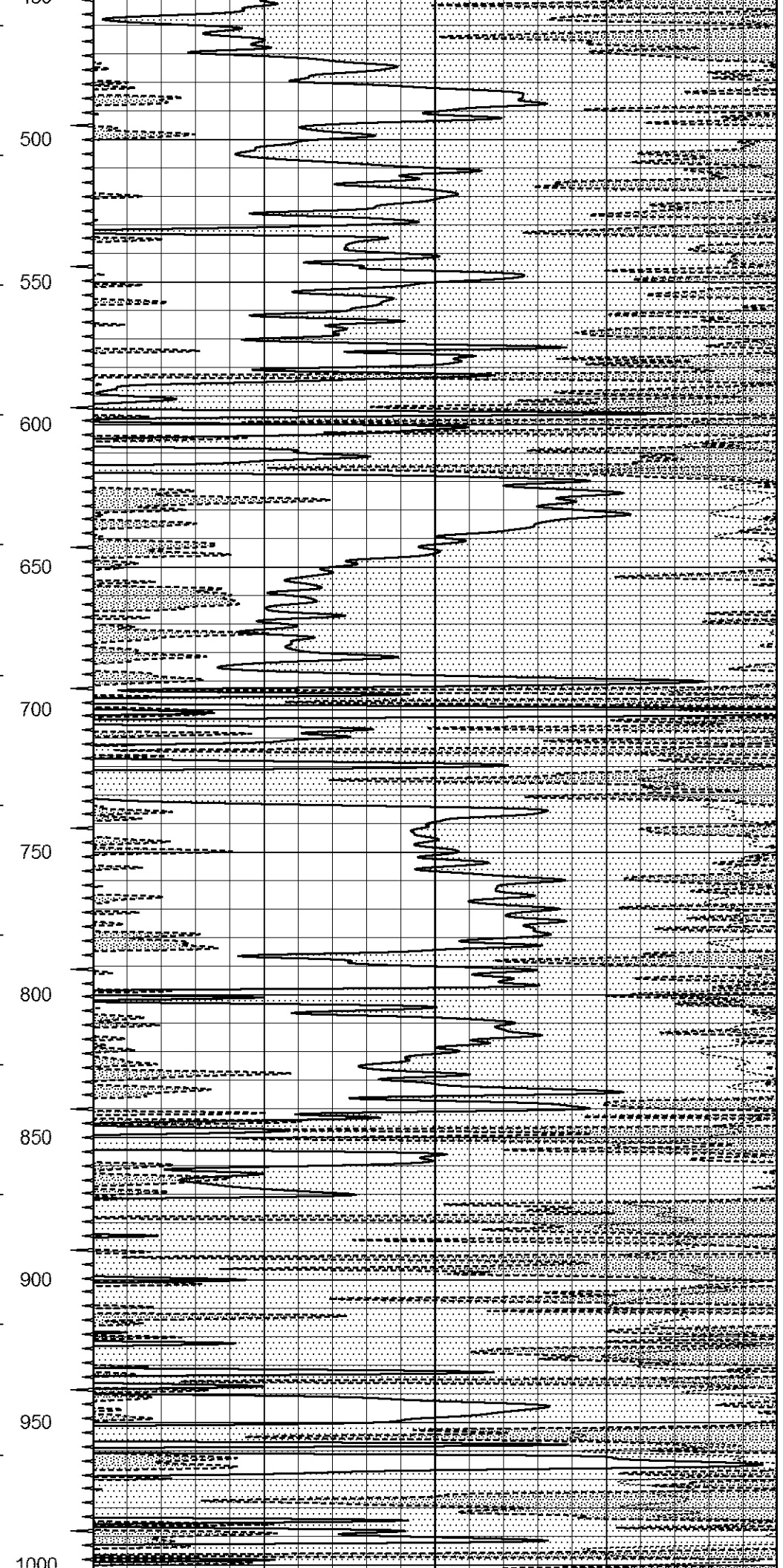
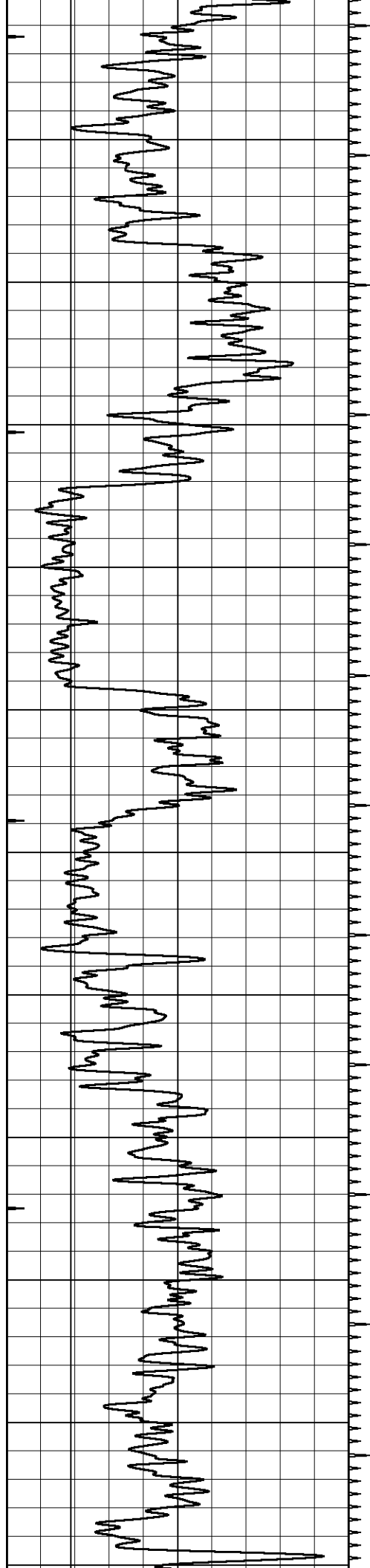


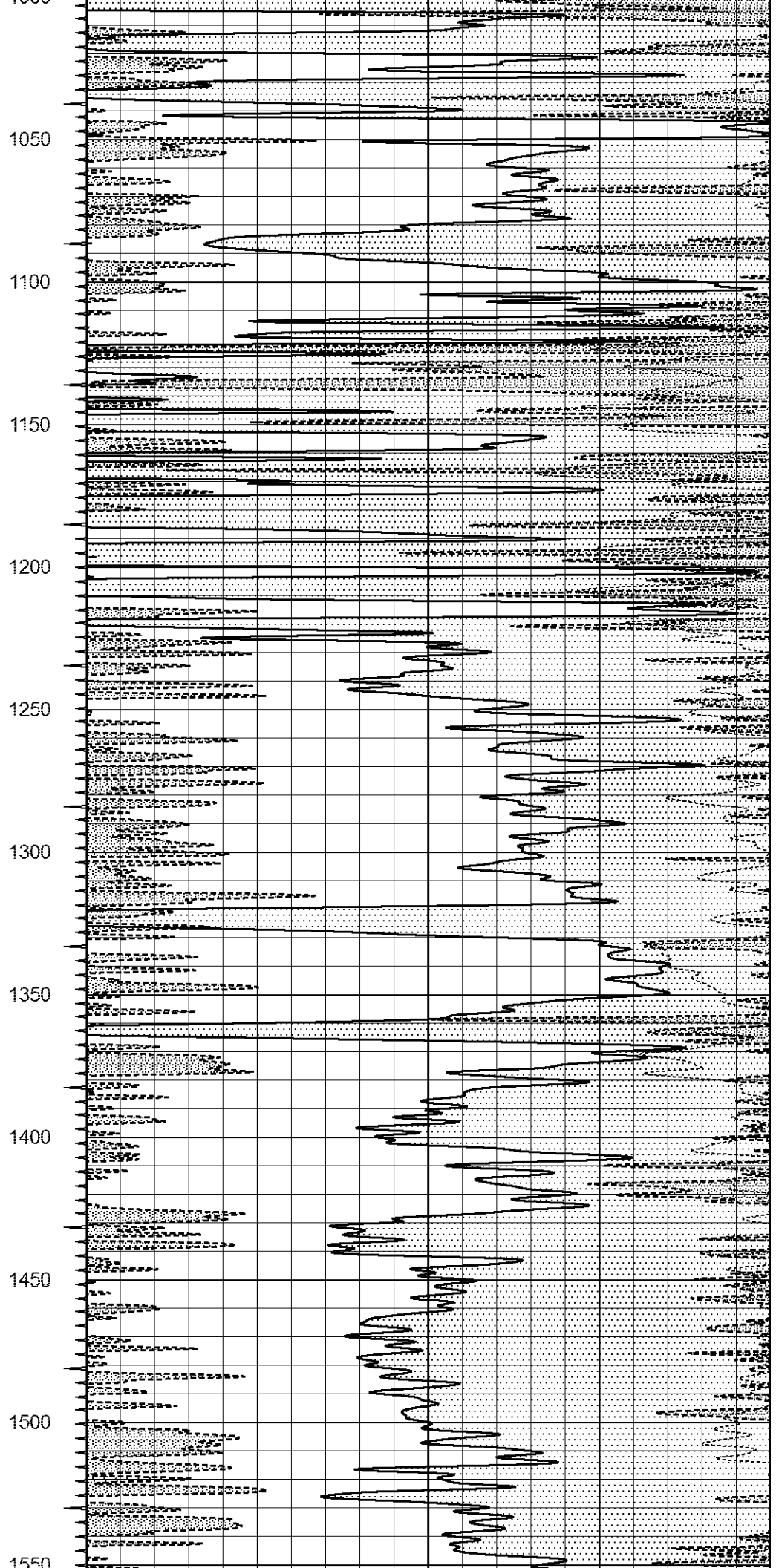
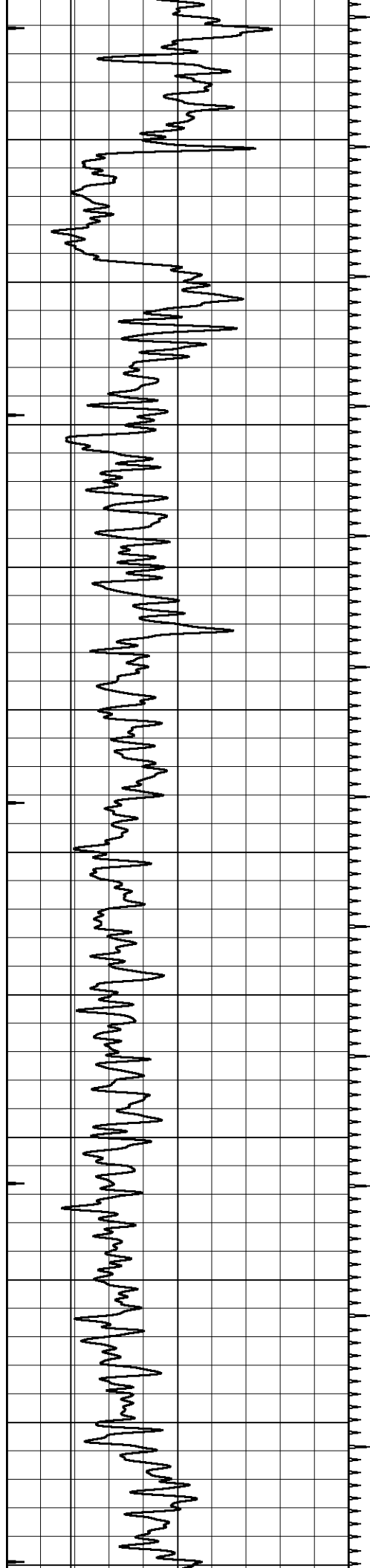
MAIN SECTION

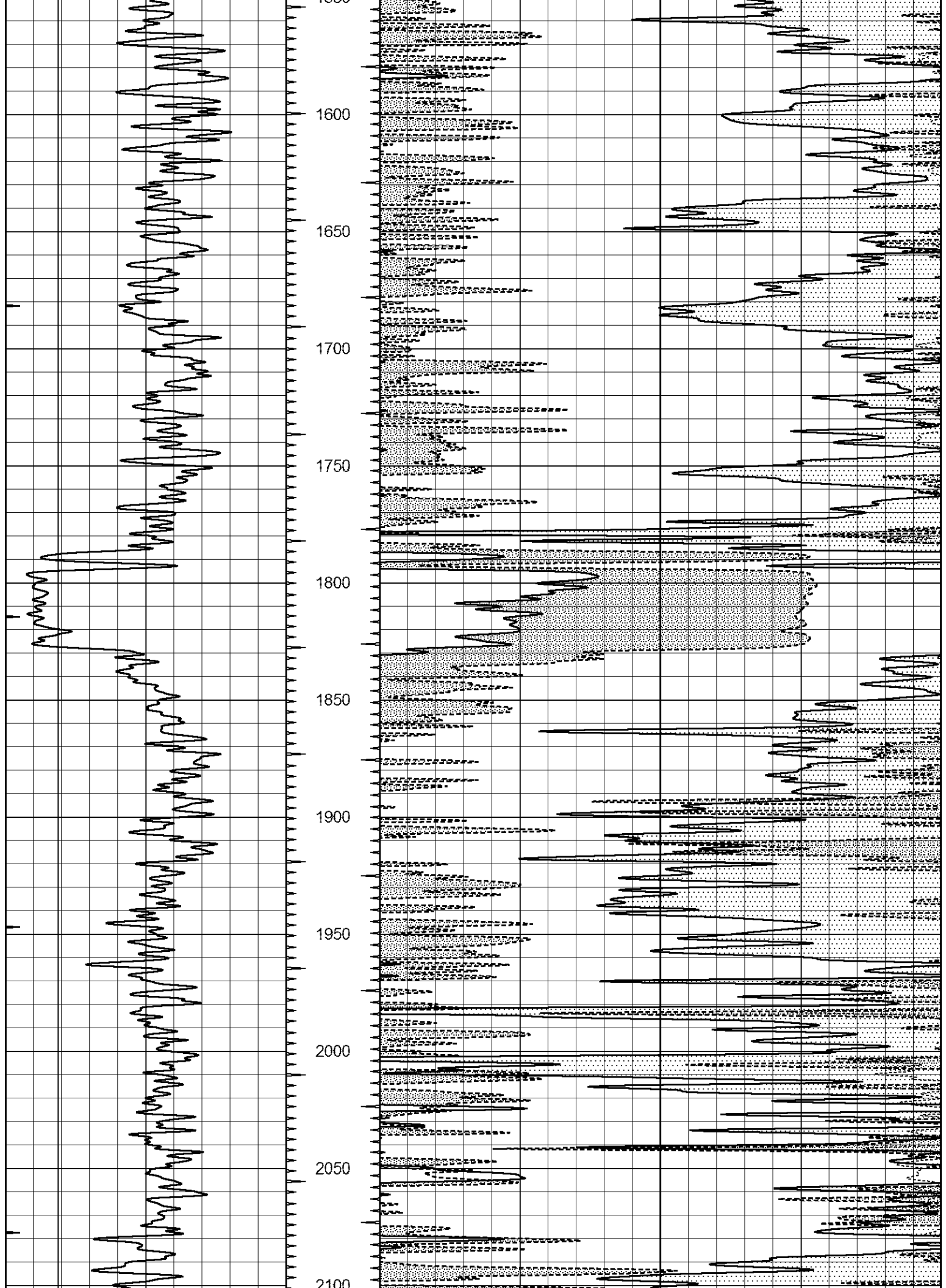
Database File	6545ddn.db
Dataset Pathname	pass3.1M
Presentation Format	_dil2
Dataset Creation	Wed Jun 22 14:44:25 2022
Charted by	Depth in Feet scaled 1:600

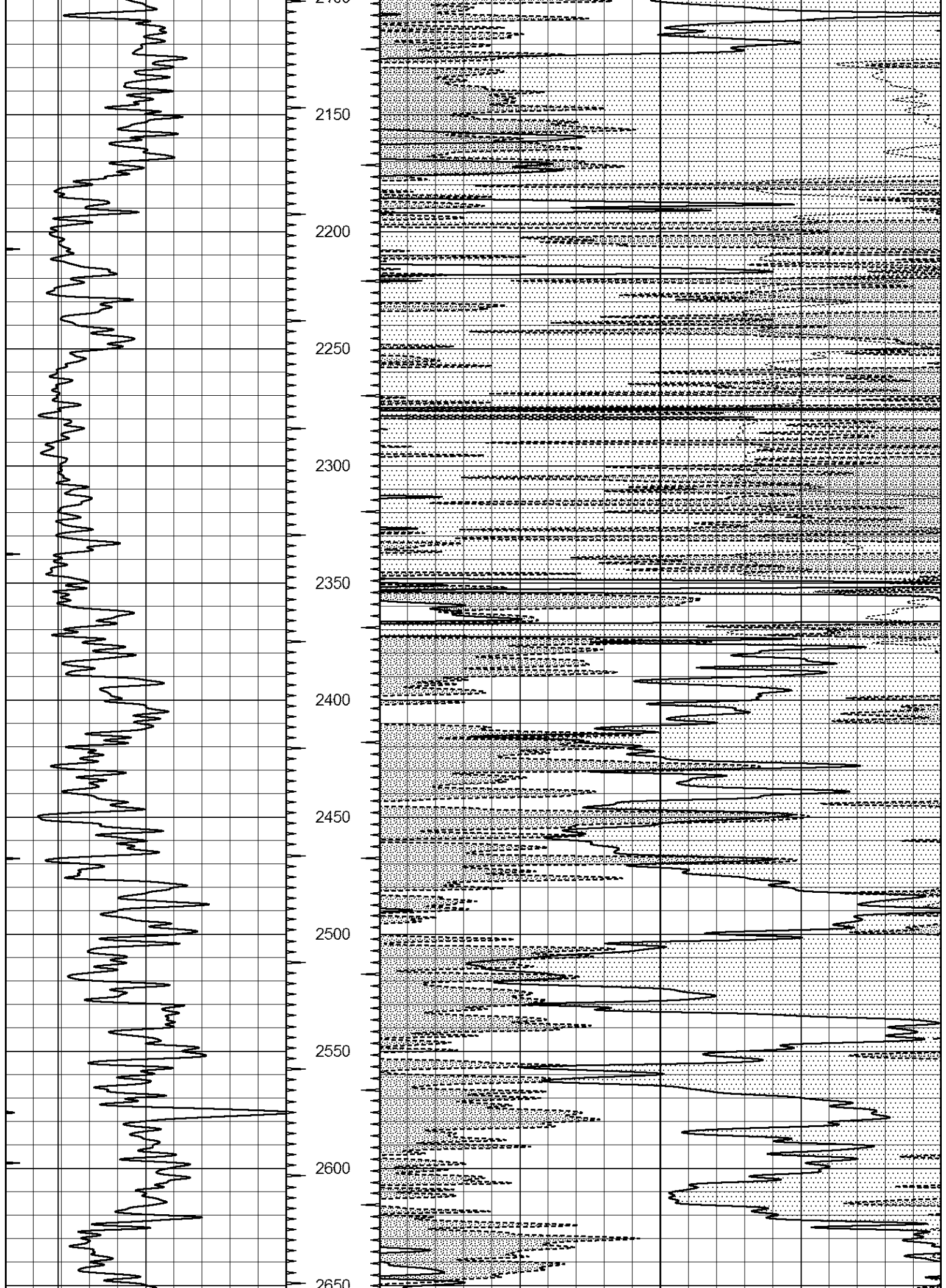
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV			-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10					

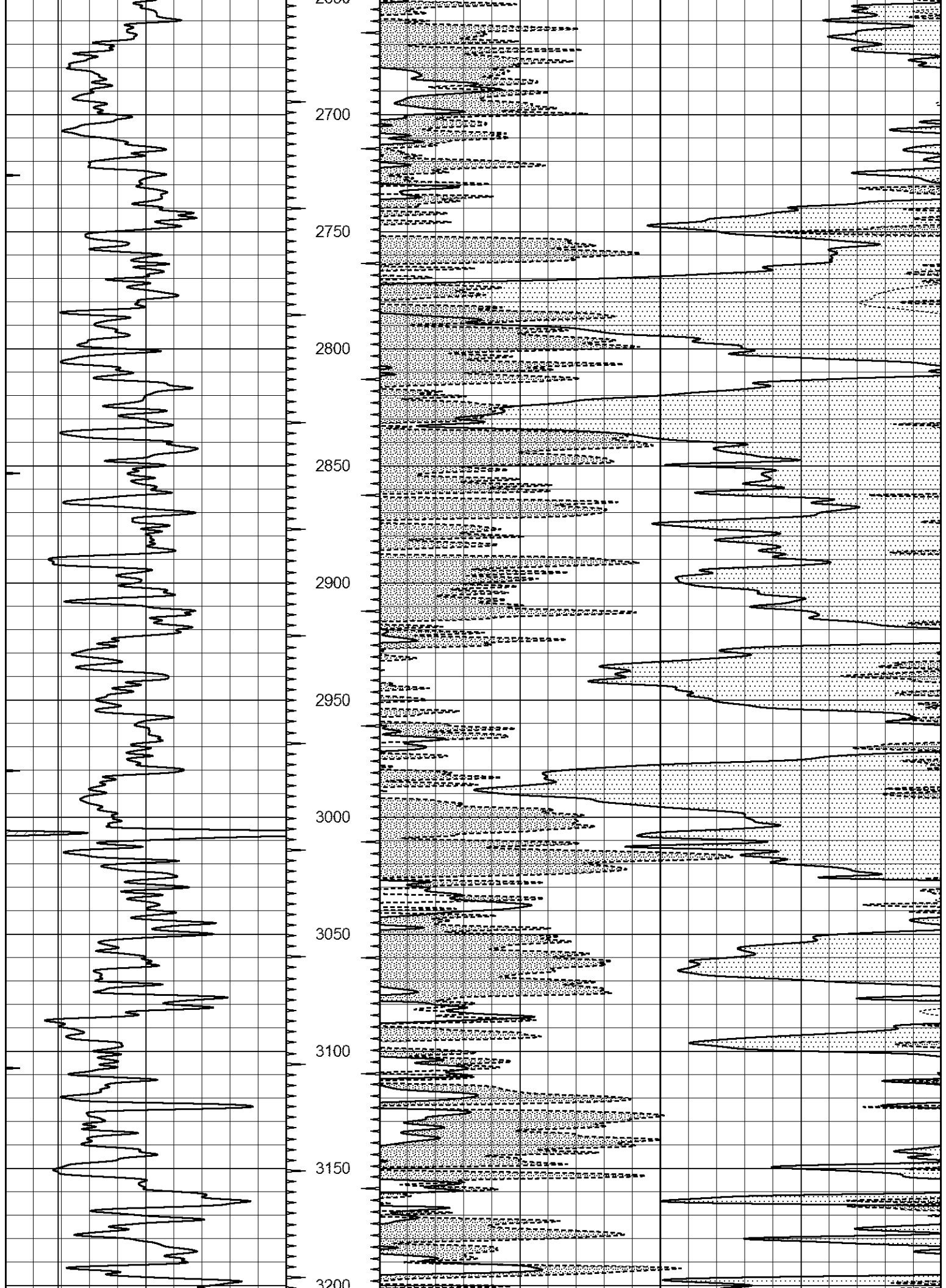


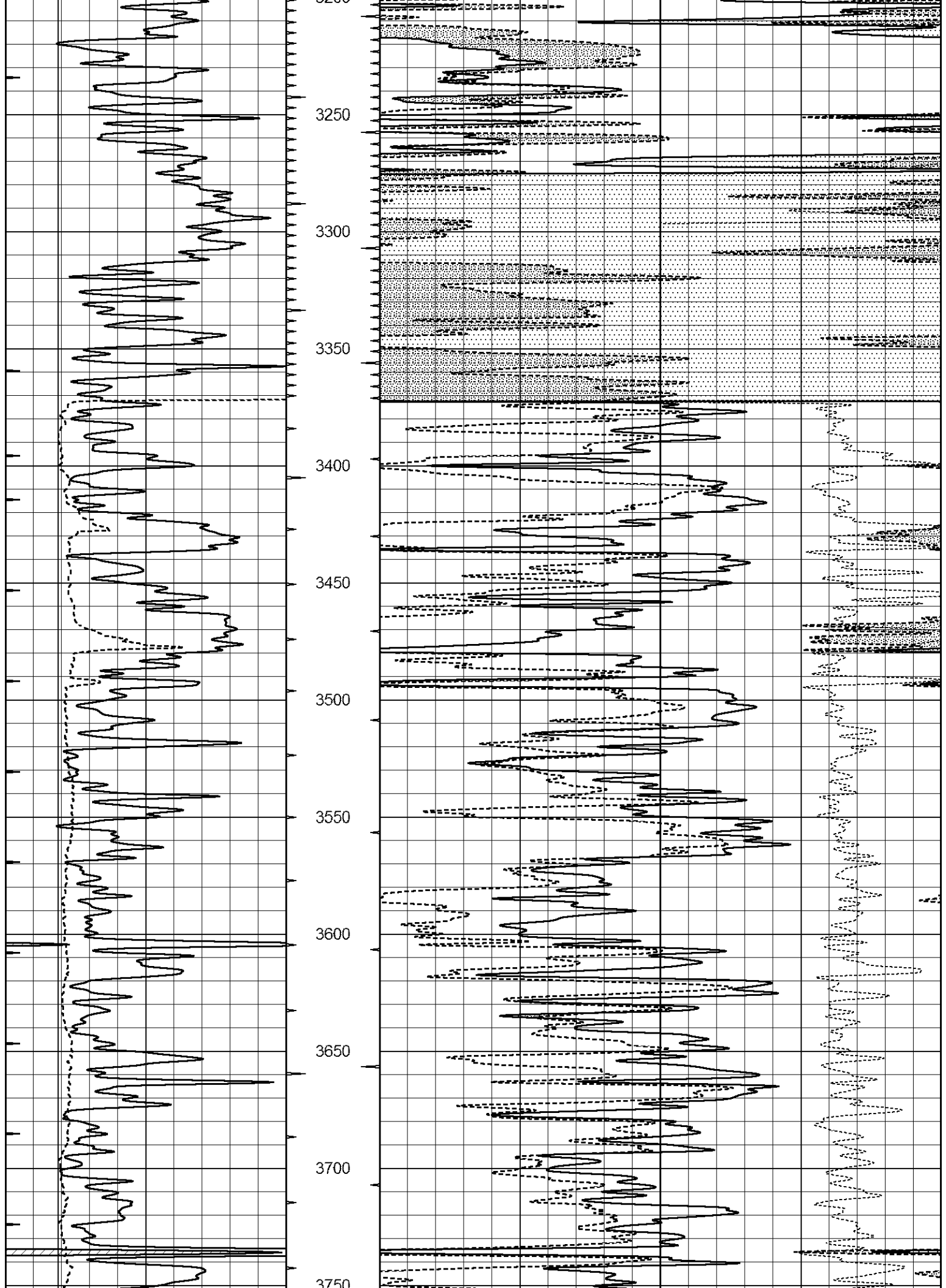


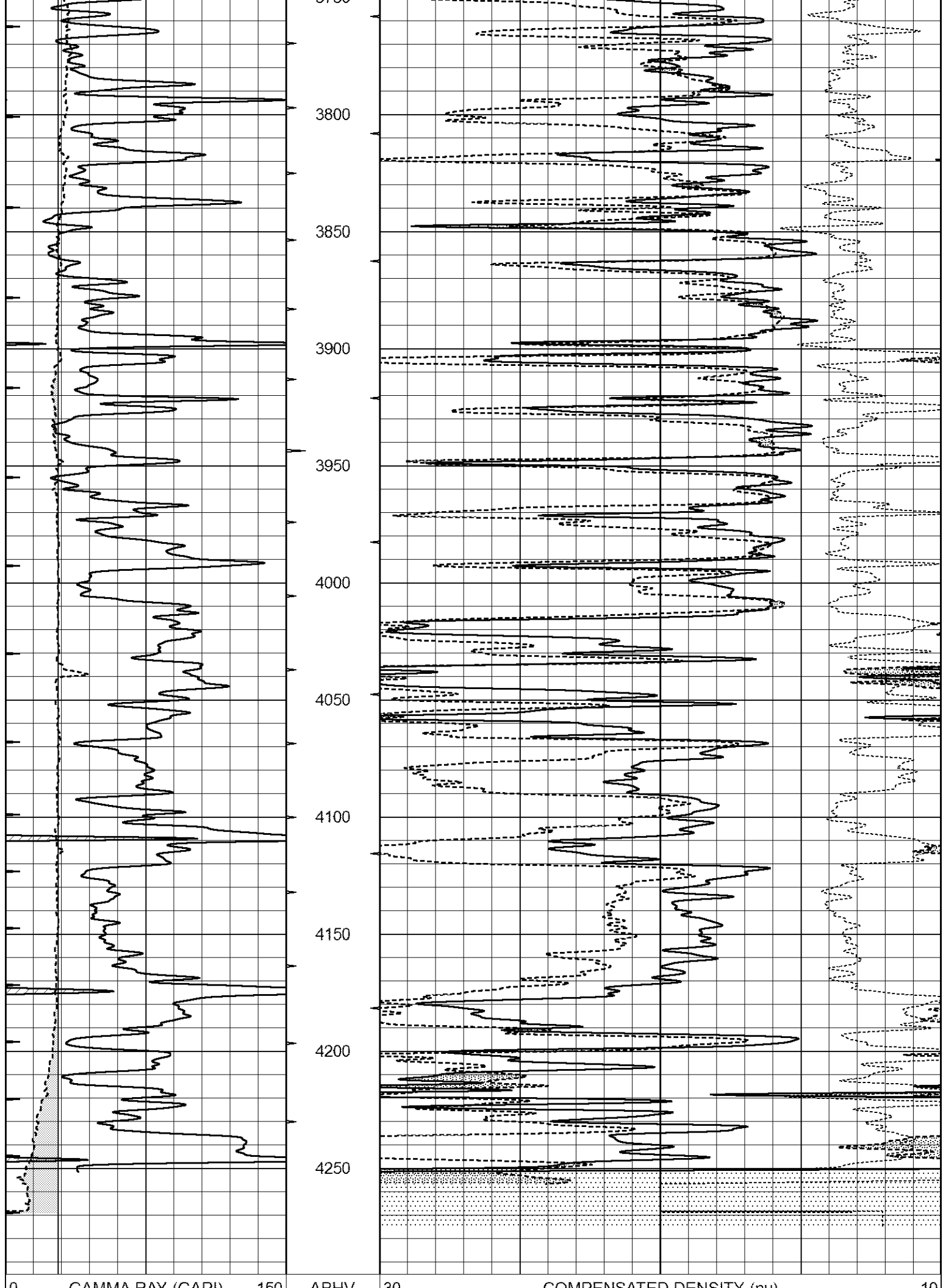




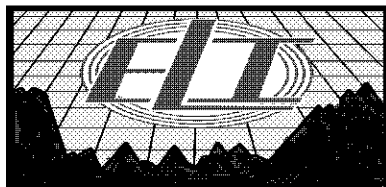








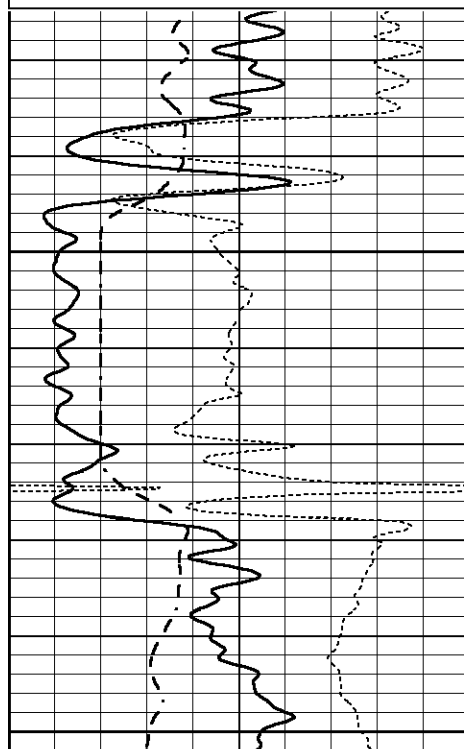
6	GAMMA RAY (GAPI)	150	ABHV	50	COMPENSATED DENSITY (pu)	-10
0	CALIPER (in)	16	10 (ft3)	0	30	
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10		



ANHYDRITE

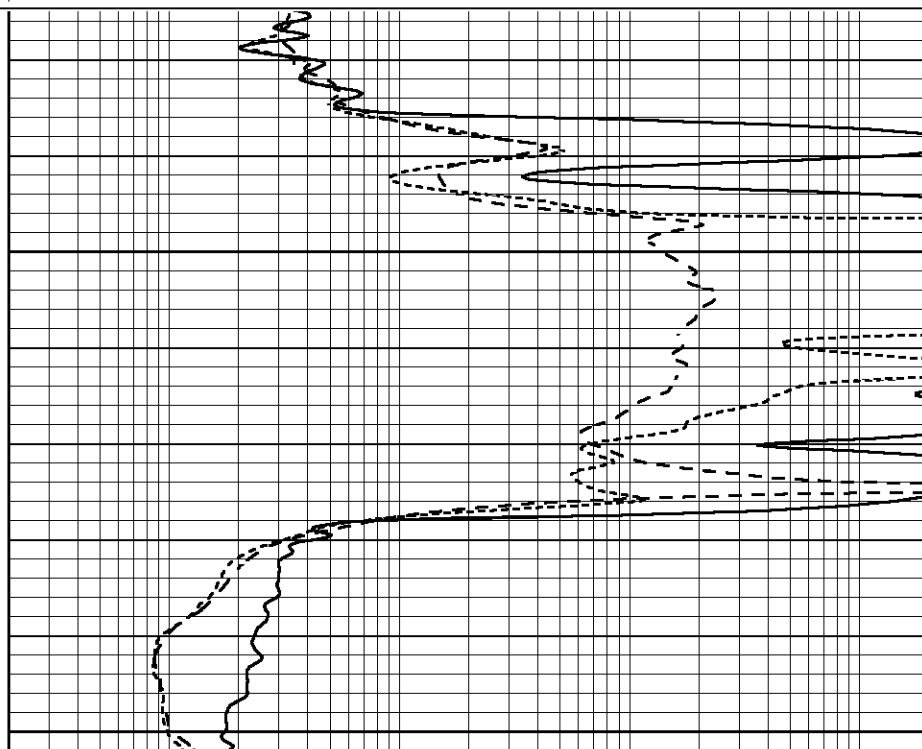
Database File 6545ddn.db
Dataset Pathname pass3.1A
Presentation Format _dil
Dataset Creation Wed Jun 22 14:11:03 2022
Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000



1800

1850



0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

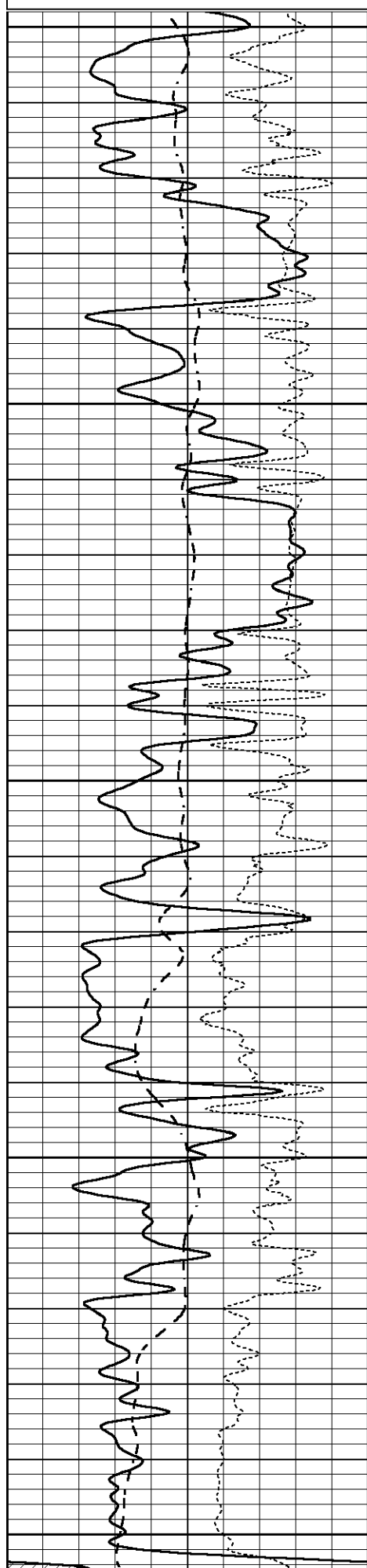


MAIN SECTION

Database File 6545ddn.db
Dataset Pathname pass3.1M
Presentation Format _dil
Dataset Creation Wed Jun 22 14:44:25 2022
Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
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GAMMA RAY (GAPI)		
-100	SP (mV)	100
-250	Rxo/Rt	50



3400

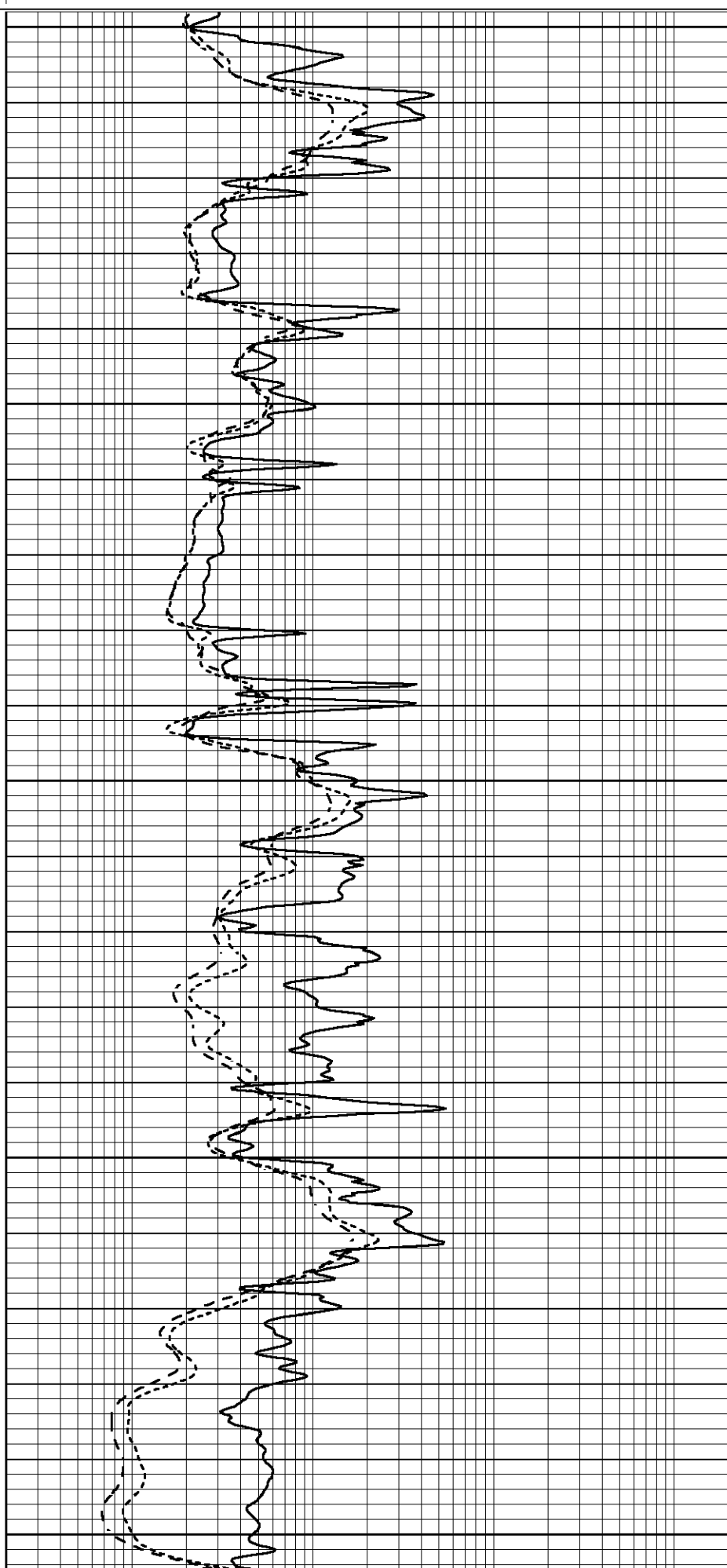
3450

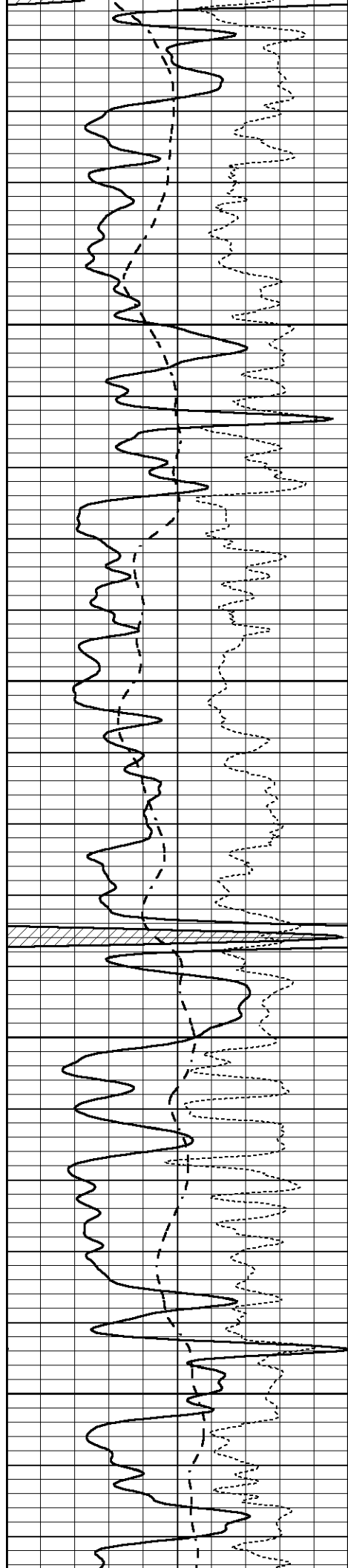
3500

3550

3600

SHALLOW SOARD (OHMFT)		
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



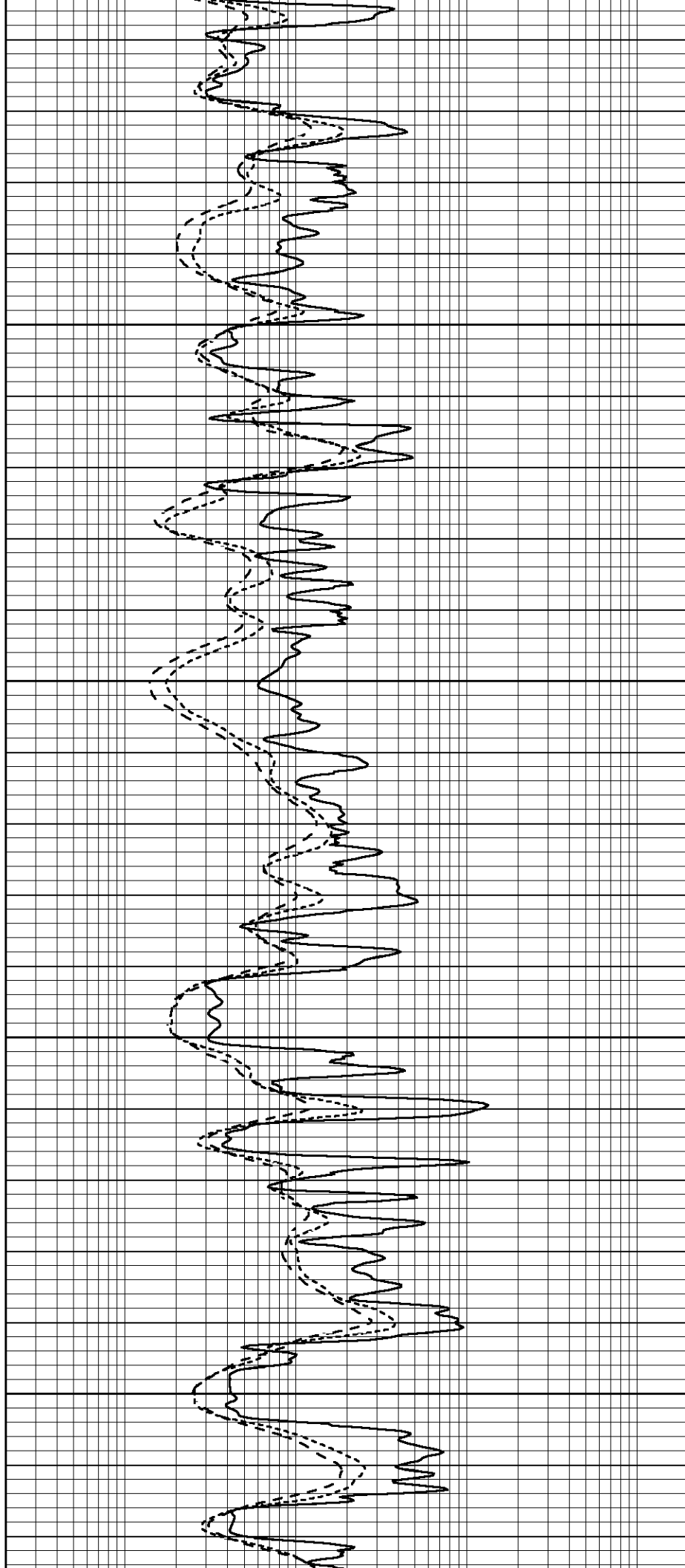


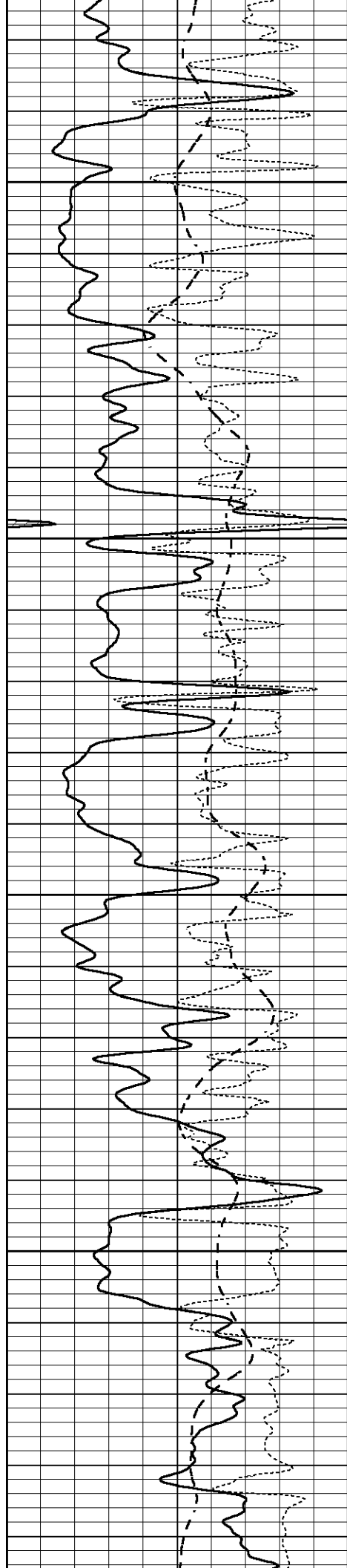
3650

3700

3750

3800



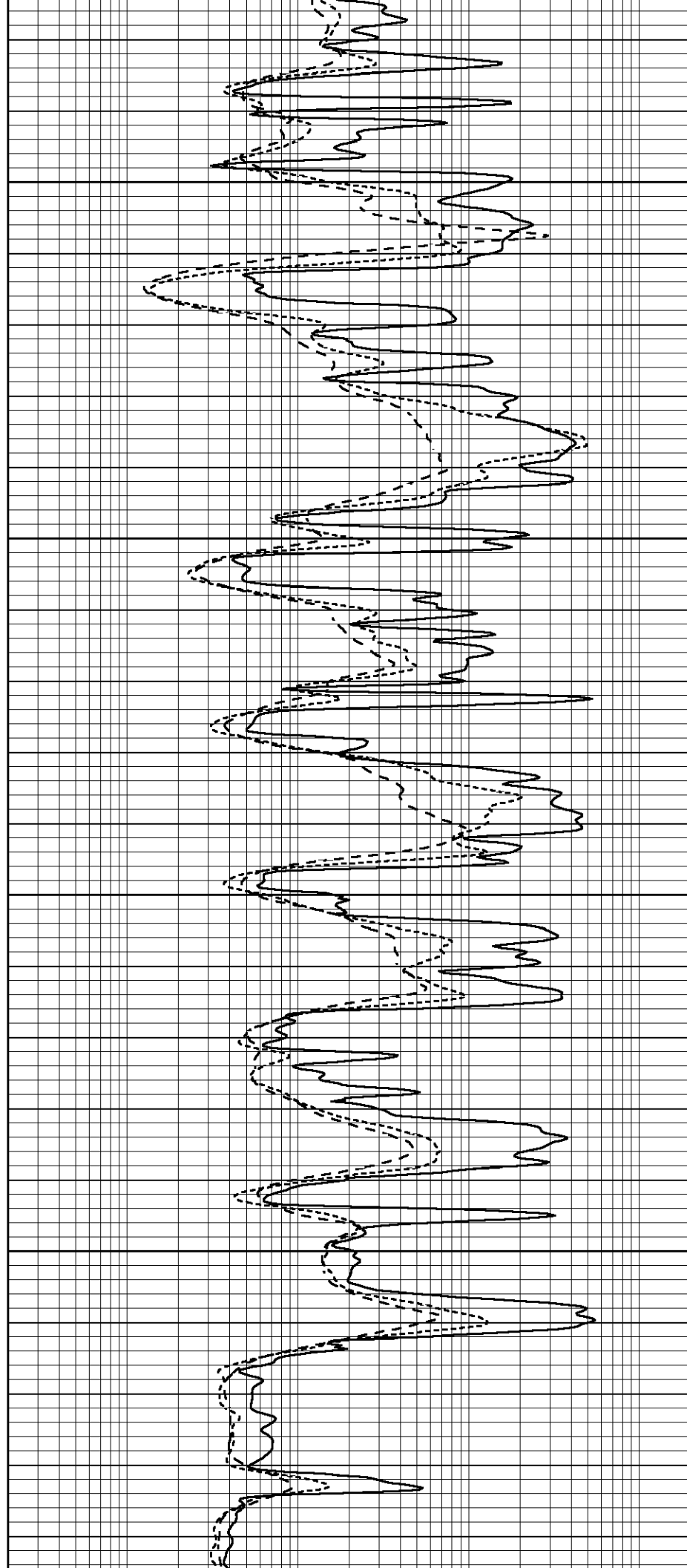


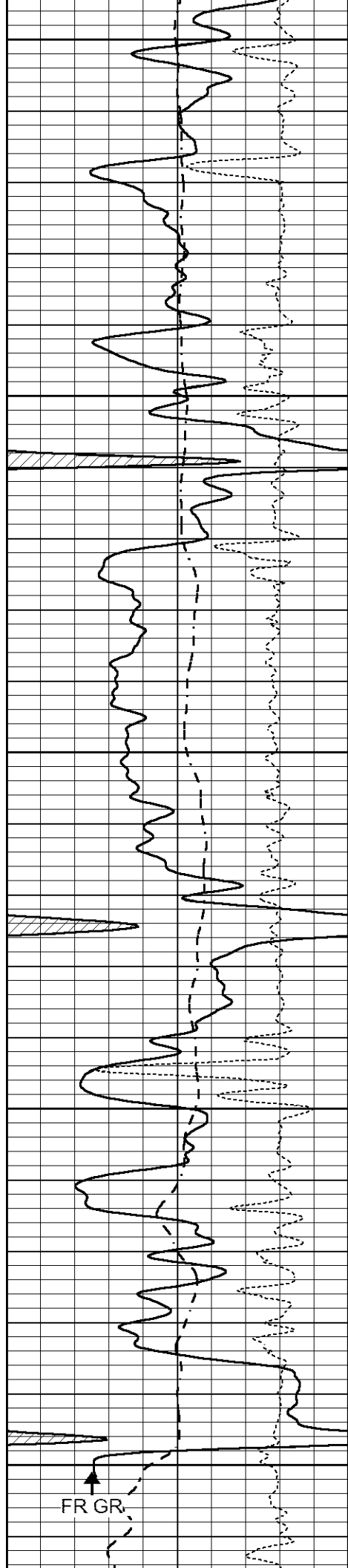
3850

3900

3950

4000





4050

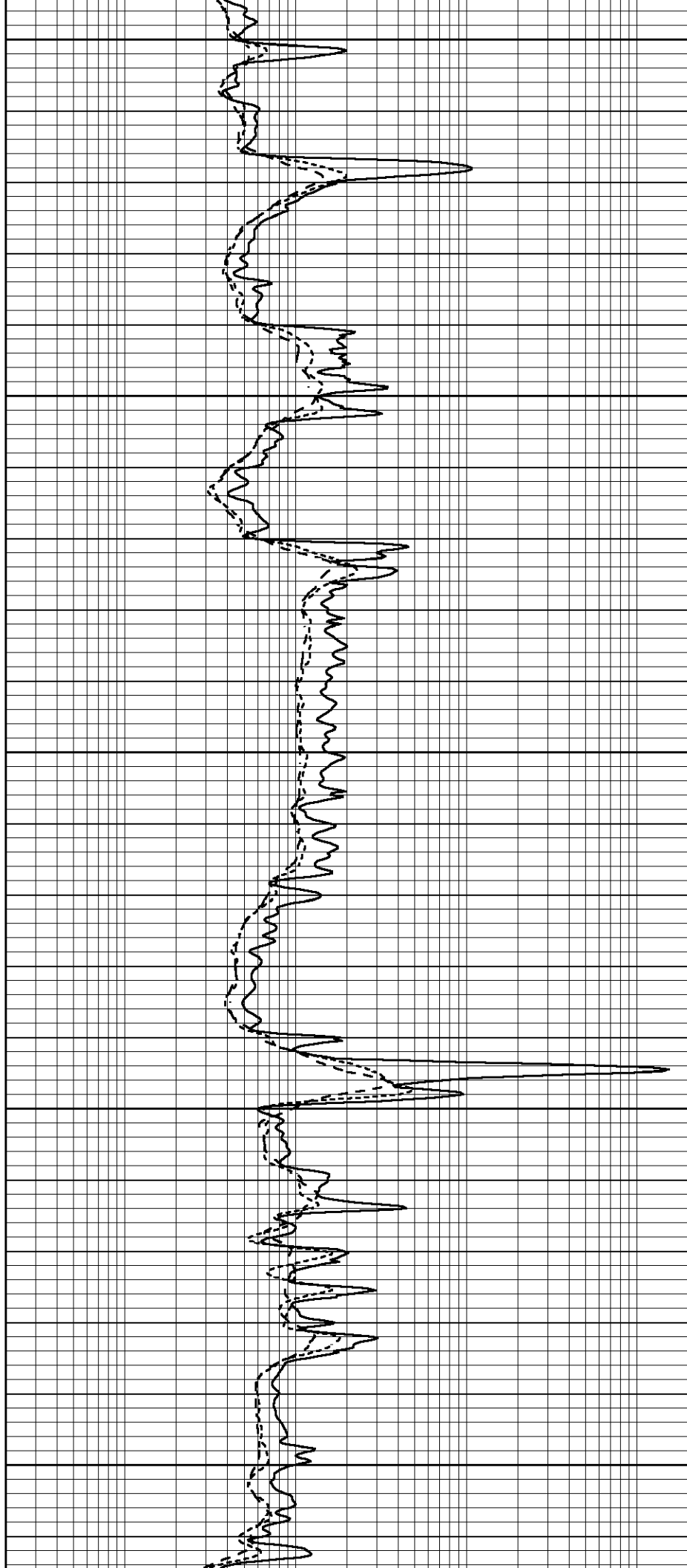
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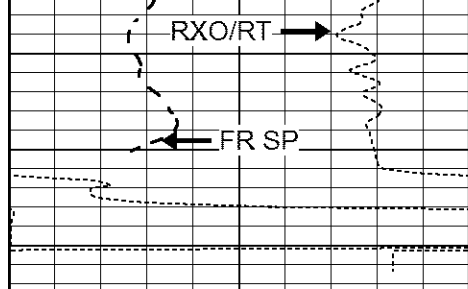
4150

4200

4250

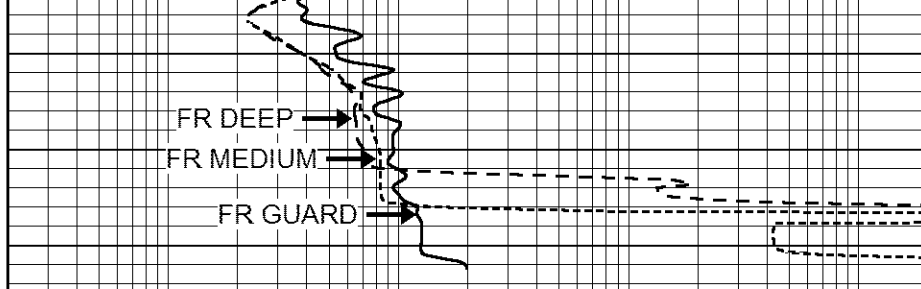
FR GR



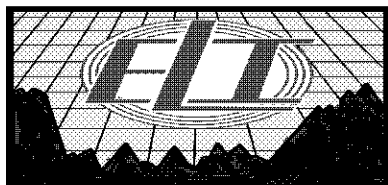


LTD 4289

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



REPEAT SECTION

Database File 6545ddn.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Wed Jun 22 14:55:04 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

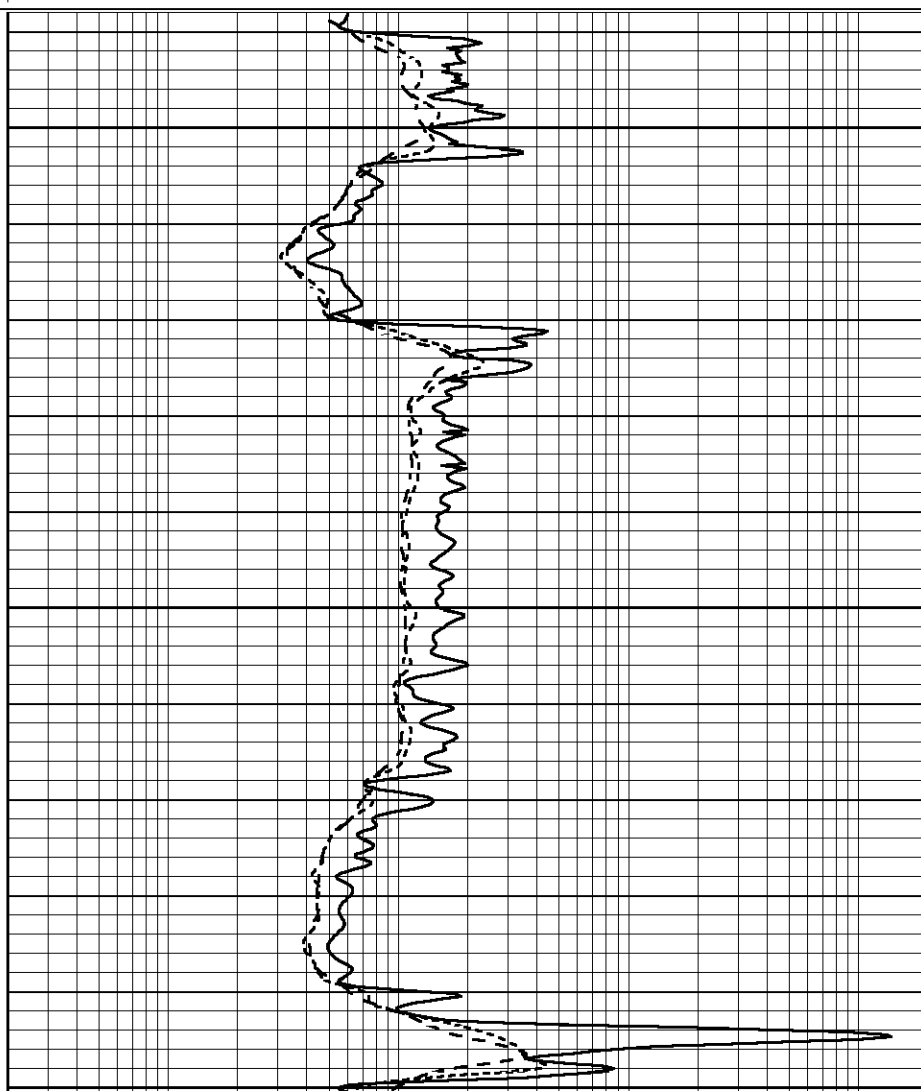
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

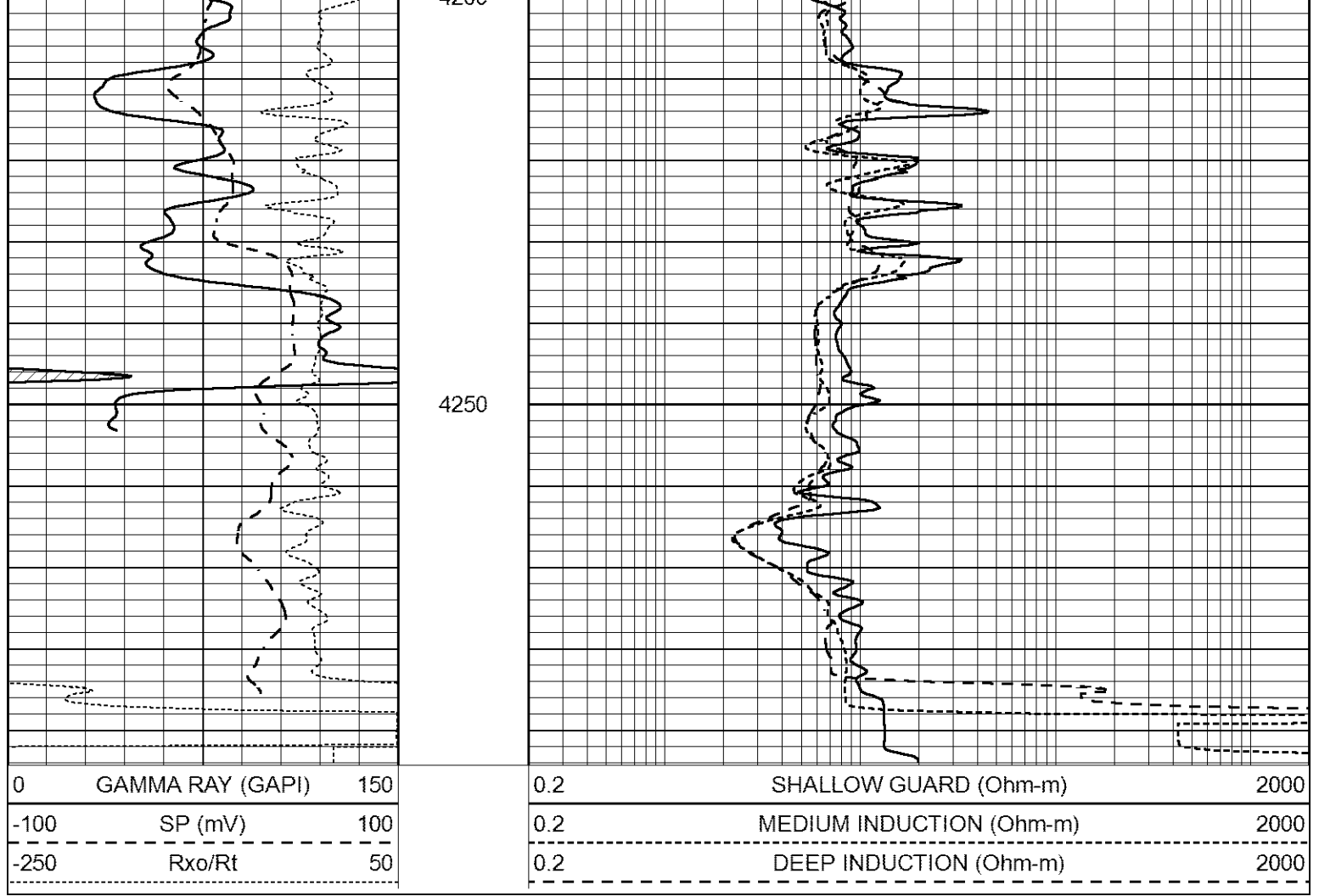


4100

4150

4200





Calibration Report								
Database File	6545ddn.db							
Dataset Pathname	pass3.1M							
Dataset Creation	Wed Jun 22 14:44:25 2022							
Dual Induction Calibration Report								
Serial-Model:			FW1410-55-Probe					
Surface Cal Performed:			Sun May 15 19:17:36 2022					
Downhole Cal Performed:			Tue Feb 19 11:44:24 2019					
After Survey Verification Performed:			Tue Feb 19 11:44:27 2019					
Surface Calibration								
Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	650.000	-2.000
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	-12.000
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		

Litho Density Calibration Report Serial: 140704 Model: V4_10P Source Number: 74GBq-19								
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Master Calibration				Performed: Mon May 23 14:22:47 2022				
	Background	Aluminum	Magnesium					
Window 1	511.07	5437.36	23664.68	cps				
Window 2	40.76	1220.39	5745.34	cps				
Window 4	223.73	1233.64	5301.27	cps				
Window 5	531.57	7878.13	15405.81	cps				
Window 6	48.52	1245.17	2497.97	cps				
Window 8	246.02	2578.14	4974.07	cps				
Bulk Density	-	2.6020	1.6830	g/cc				
Pe	-	3.0000	2.5070	b/e				
LS Alpha:	: -1.8413	SS Alpha:	: -0.8034	LS CPE:		: 1.1579		
LS Beta:	: 124864.8423	SS Beta:	: 19537.1506	SS CPE:		: 1.6371		

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: Mon May 23 14:22:47 2022				
Results	Readings		References (in)					
	Low	High	Low	High	Gain		Offset	
	8210.8	12139.3	7.0	14.0	0.0		-6.6	

Before Survey Caliper Verification				Performed:				
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	Reference	Reading
Caliper (in)		
After Survey Caliper Verification		Performed:
	Reference	Reading
Caliper (in)		
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:	Thu May 26 08:56:46 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps