



**COMPLETION
& PRODUCTION
SERVICES CO.**

**RADIATION
GUARD LOG**

Company BACH OIL PRODUCTION
Well TUBBS #1
Field WILDCAT
County PHILLIPS
State KANSAS

Company BACH OIL PRODUCTION
Well TUBBS #1
Field WILDCAT
County PHILLIPS State KANSAS

Location: API #: 15-147-20738
2250' FSL & 1920' FEL
SEC 3 TWP 1S RGE 19W
Permanent Datum GROUND LEVEL Elevation 2020
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Elevation
K.B. 2025
D.F.
G.L. 2020

Date	5-31-14
Run Number	ONE
Depth Driller	3507
Depth Logger	3505
Bottom Logged Interval	3504
Top Log Interval	00
Casing Driller	220
Casing Logger	220
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2 / 55
pH / Fluid Loss	10.5 / 4.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.90 @ 78F
Rmf @ Meas. Temp	1.43 @ 78F
Rmc @ Meas. Temp	2.28 @ 78F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	1.35 @ 110F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	5:45 A.M.
Maximum Recorded Temperature	110F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	BOB PETERSEN

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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

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: PHILLIPSBURG, N TO #383, W TO RD. 600, 1N, 1/2W, S INTO.

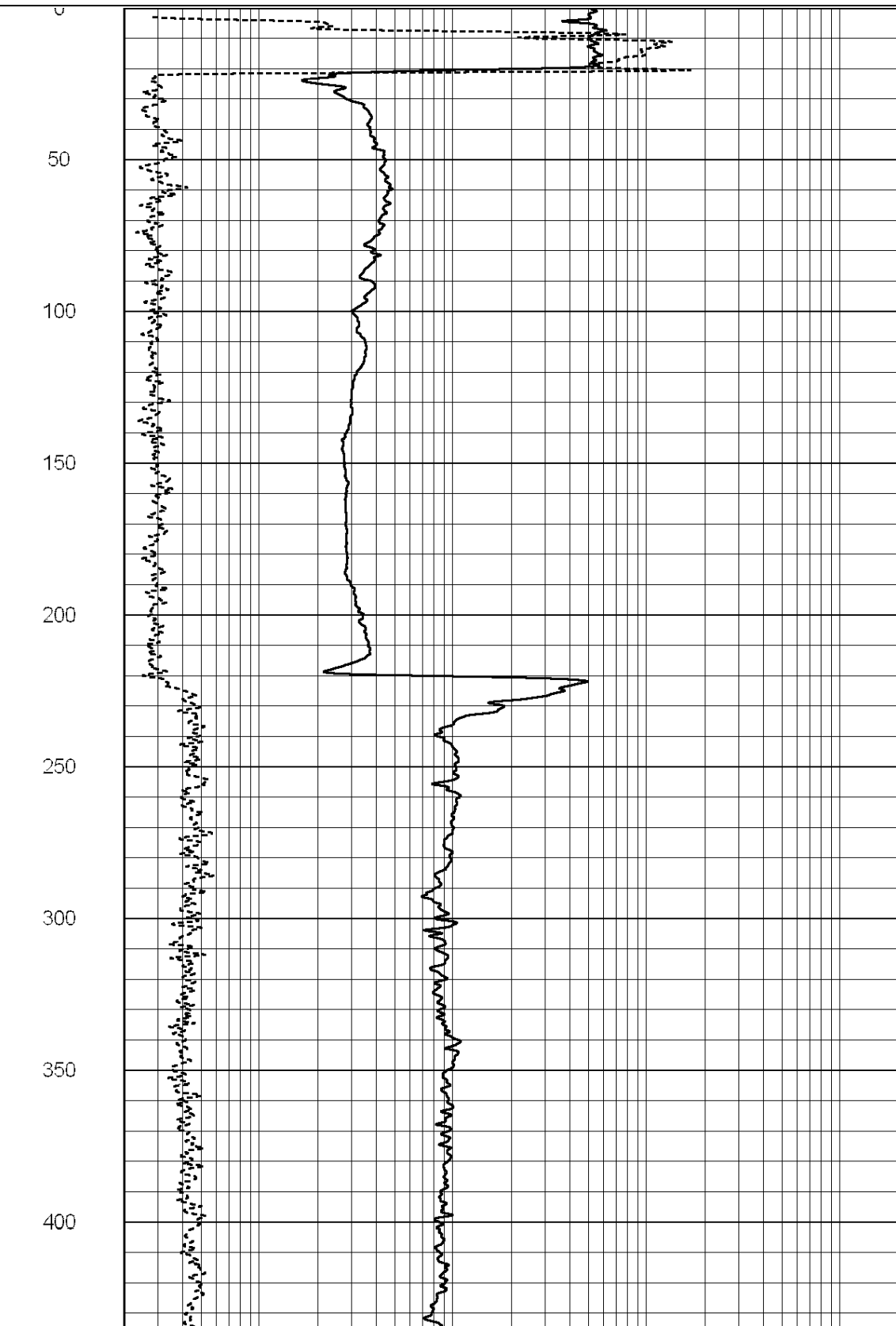
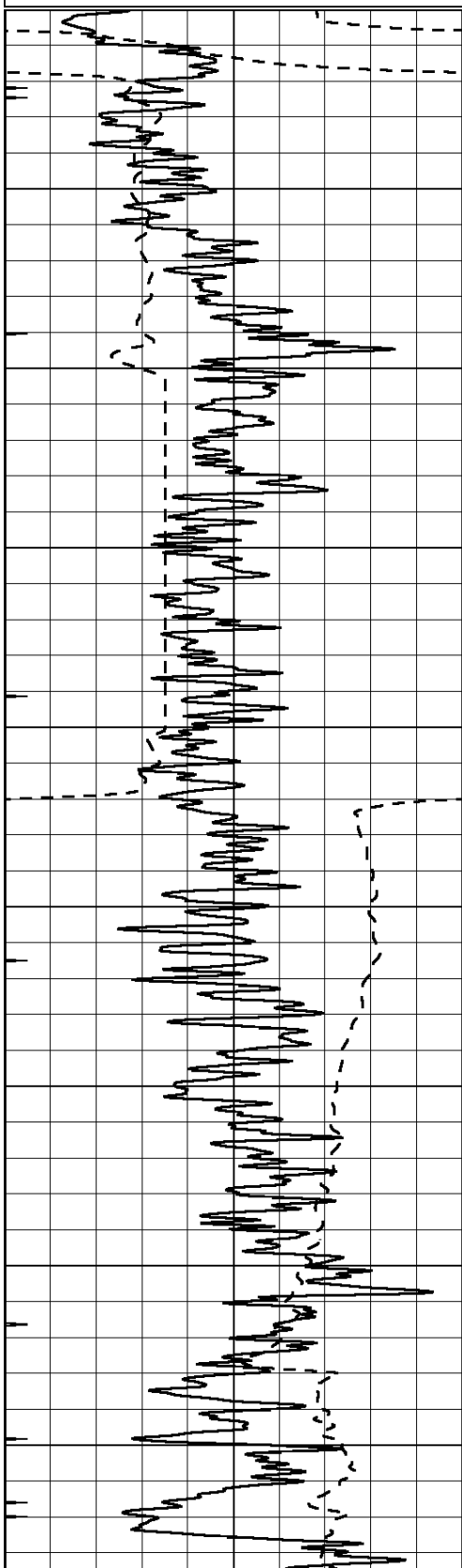


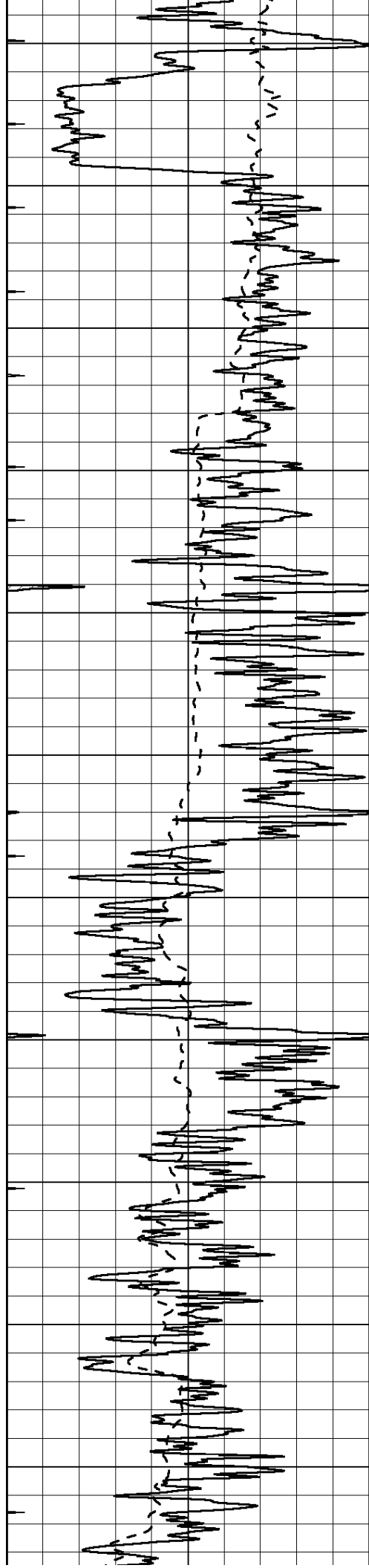
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& PRODUCTION**

MAIN SECTION

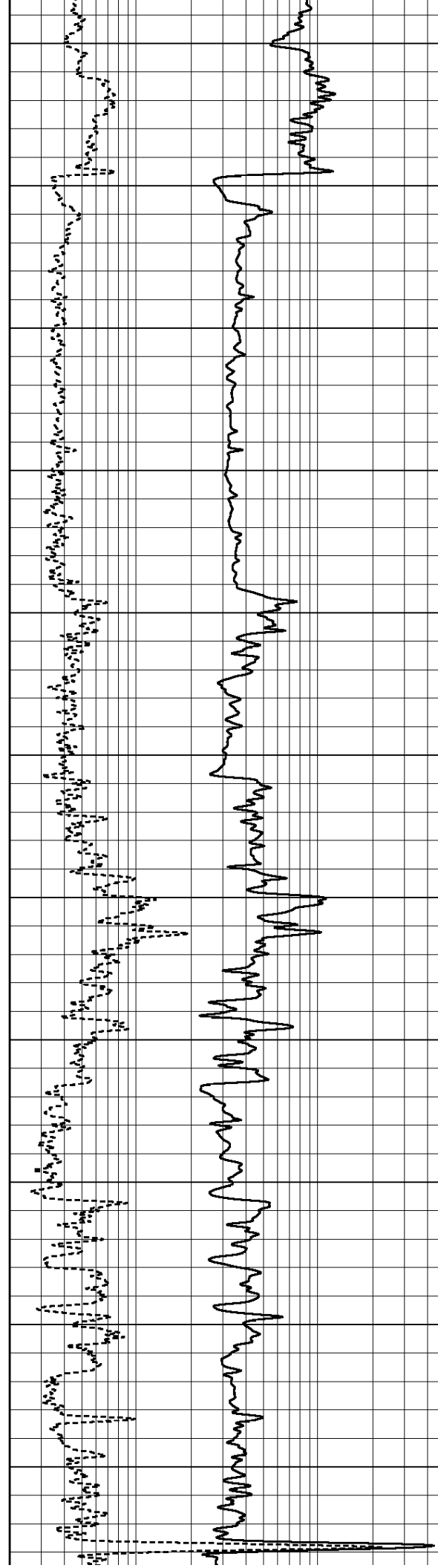
Database File: 24444rag.db
 Dataset Pathname: pass3.1
 Presentation Format: rag2
 Dataset Creation: Sat May 31 07:32:08 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:600

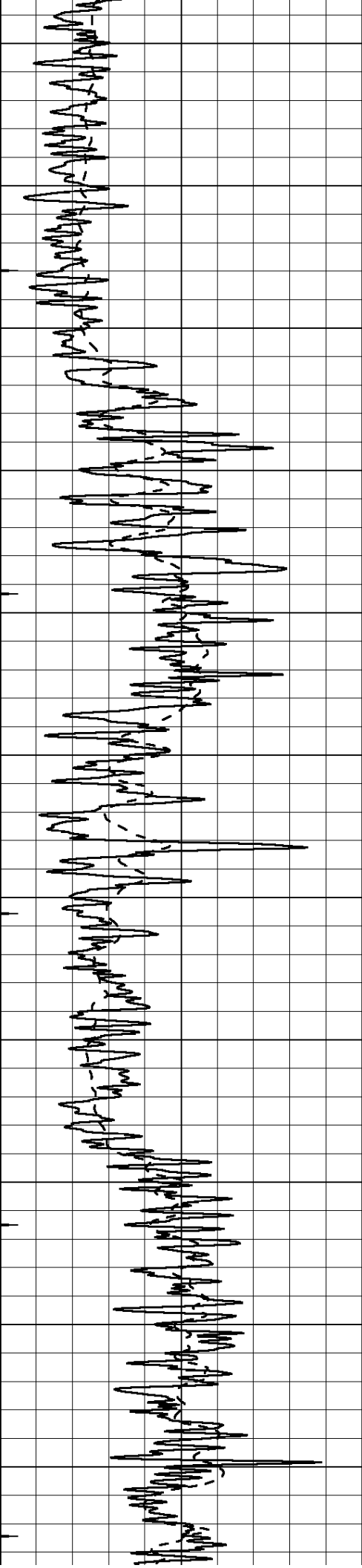
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-100	SP (mV)	100		0	NEUTRON (NAPI)	1000
-----			TBHV (ft3)	-----		



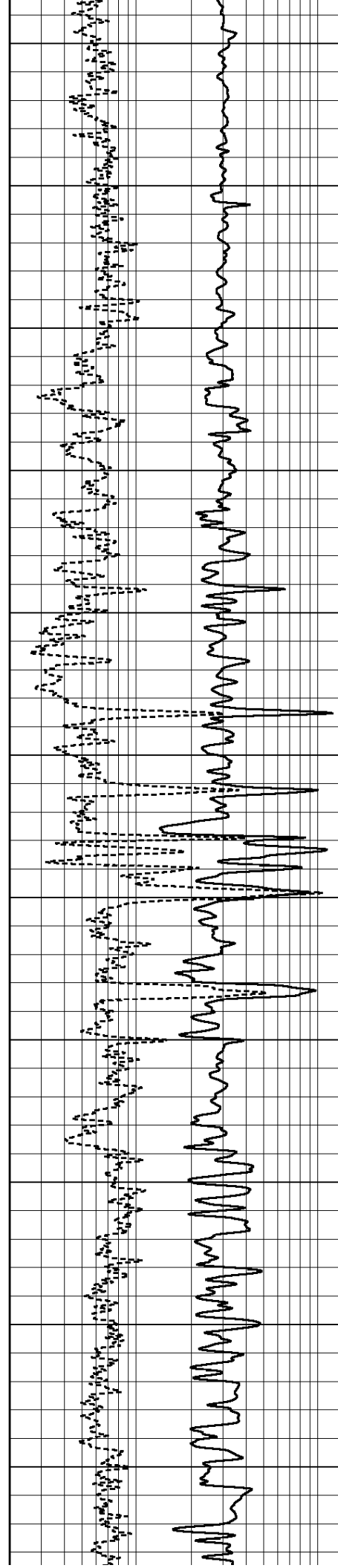


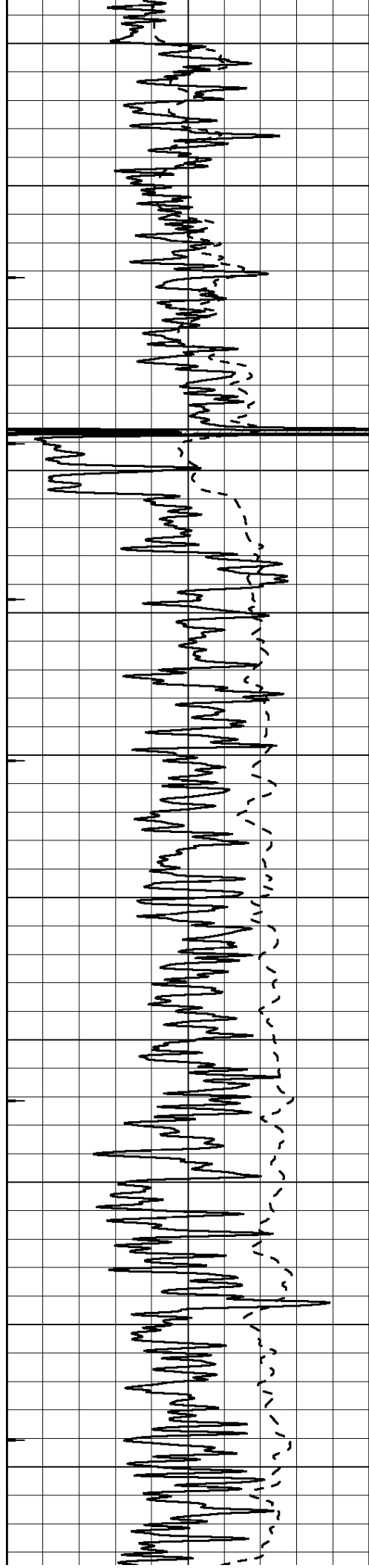
450
500
550
600
650
700
750
800
850
900
950



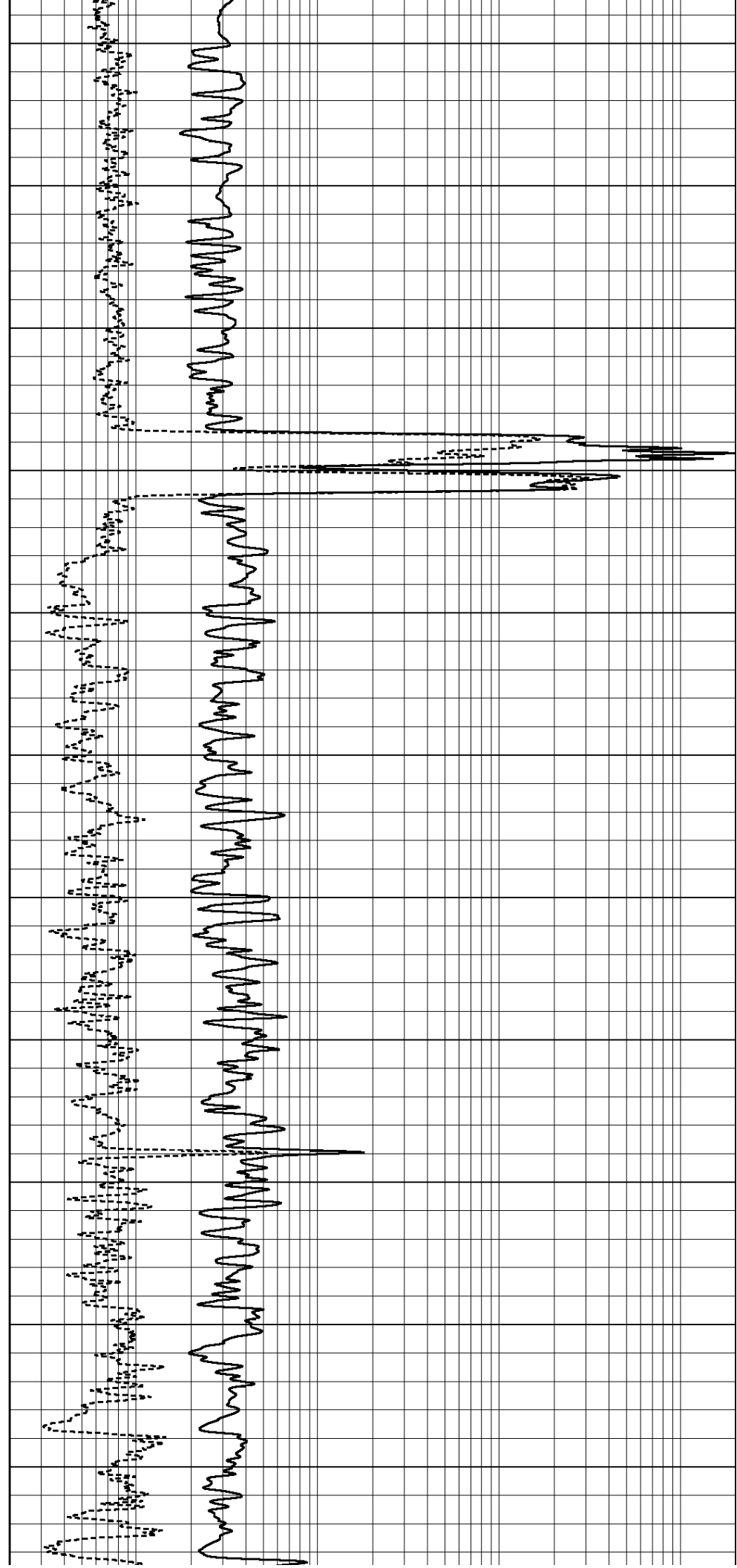


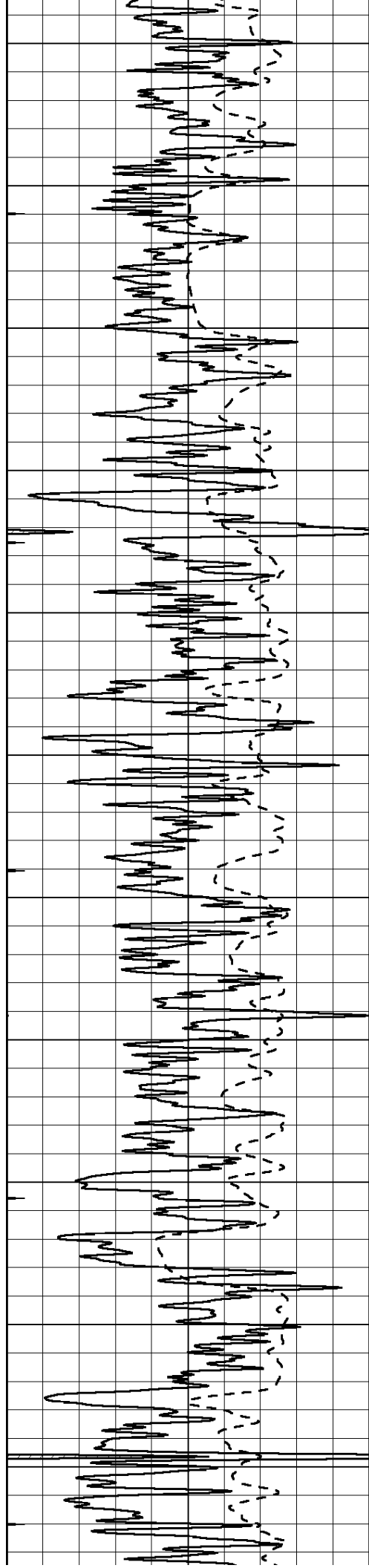
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050





2100

2150

2200

2250

2300

2350

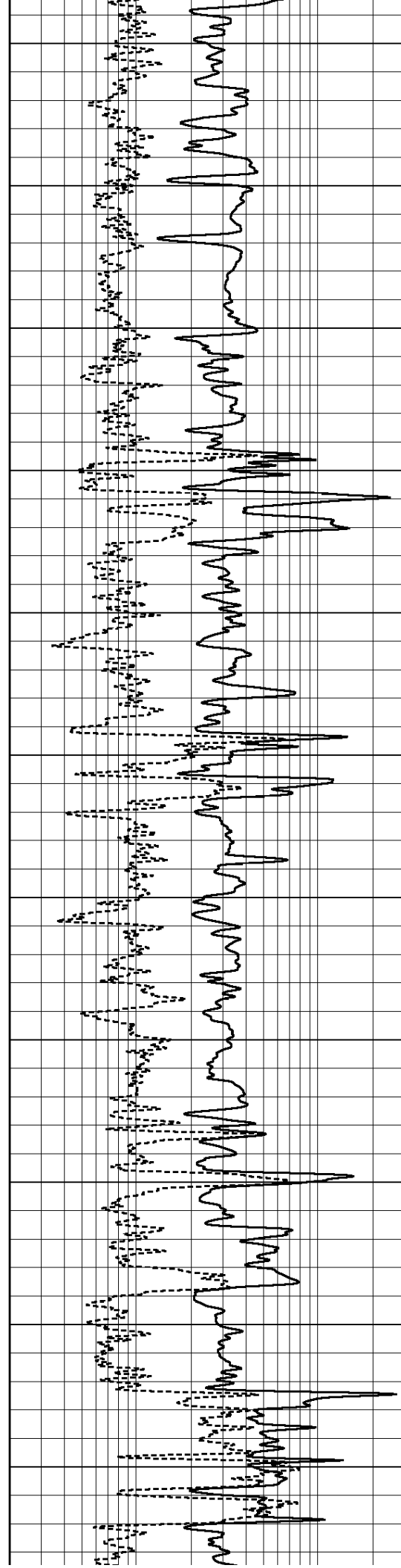
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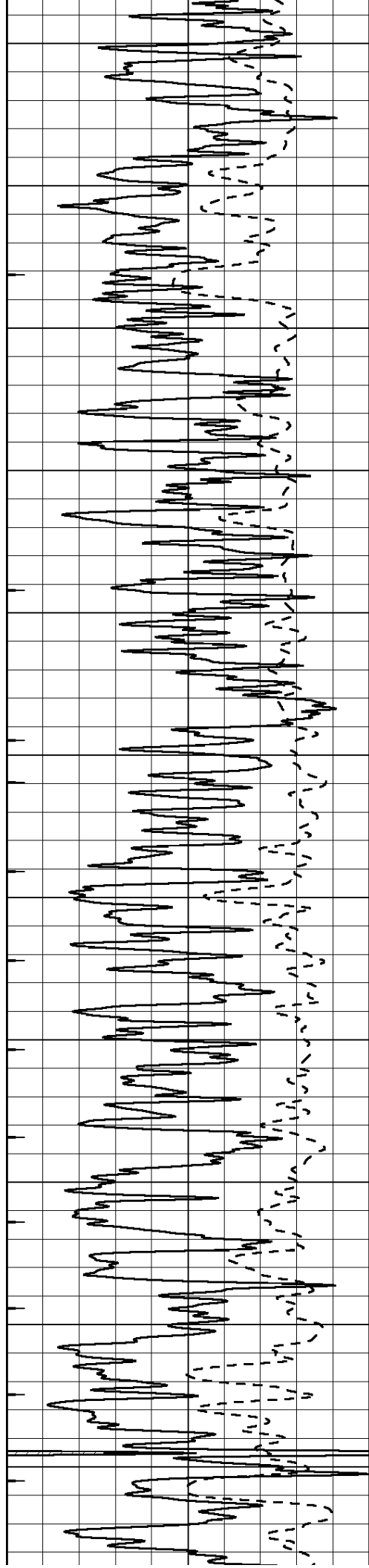
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2500

2550

2600





2650

2700

2750

2800

2850

2900

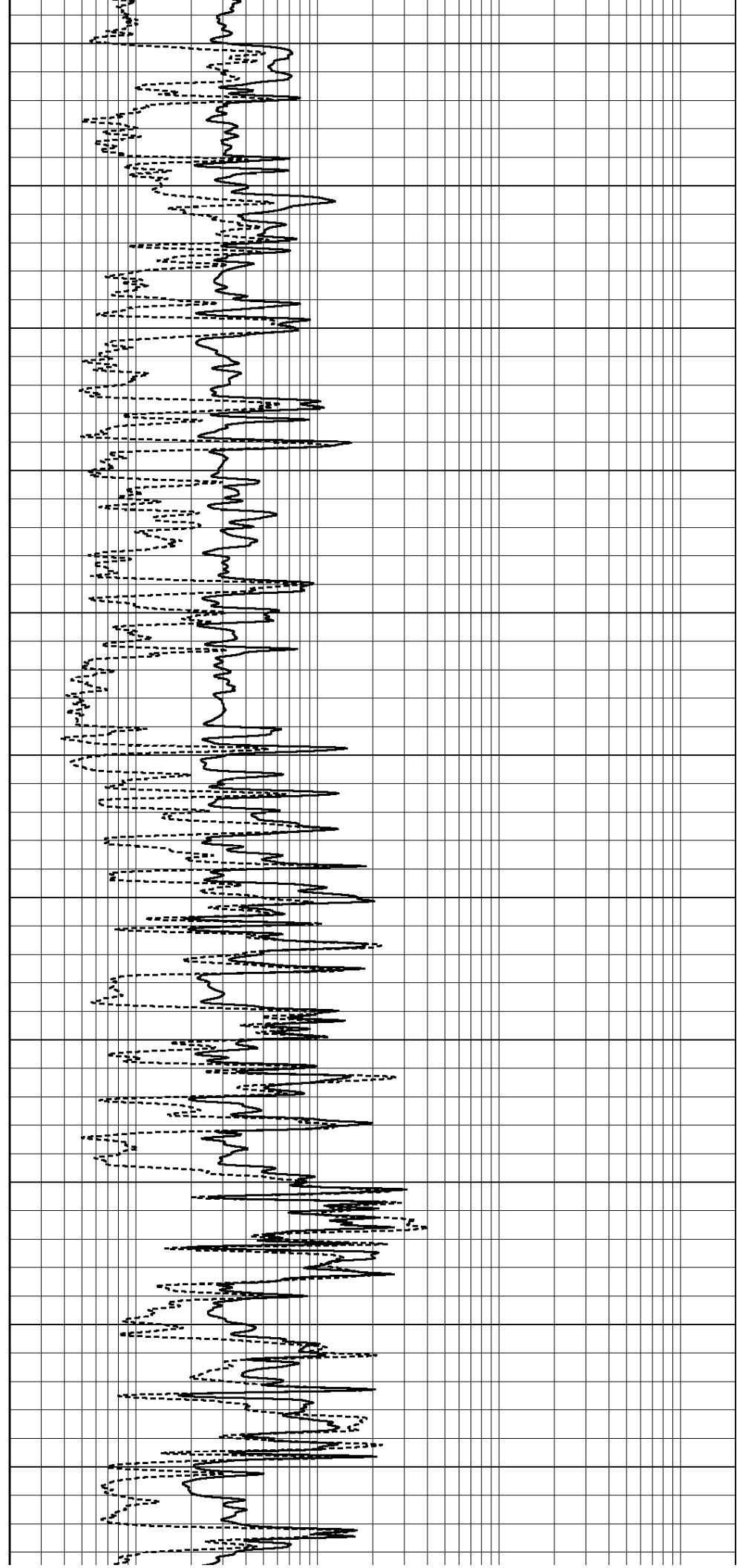
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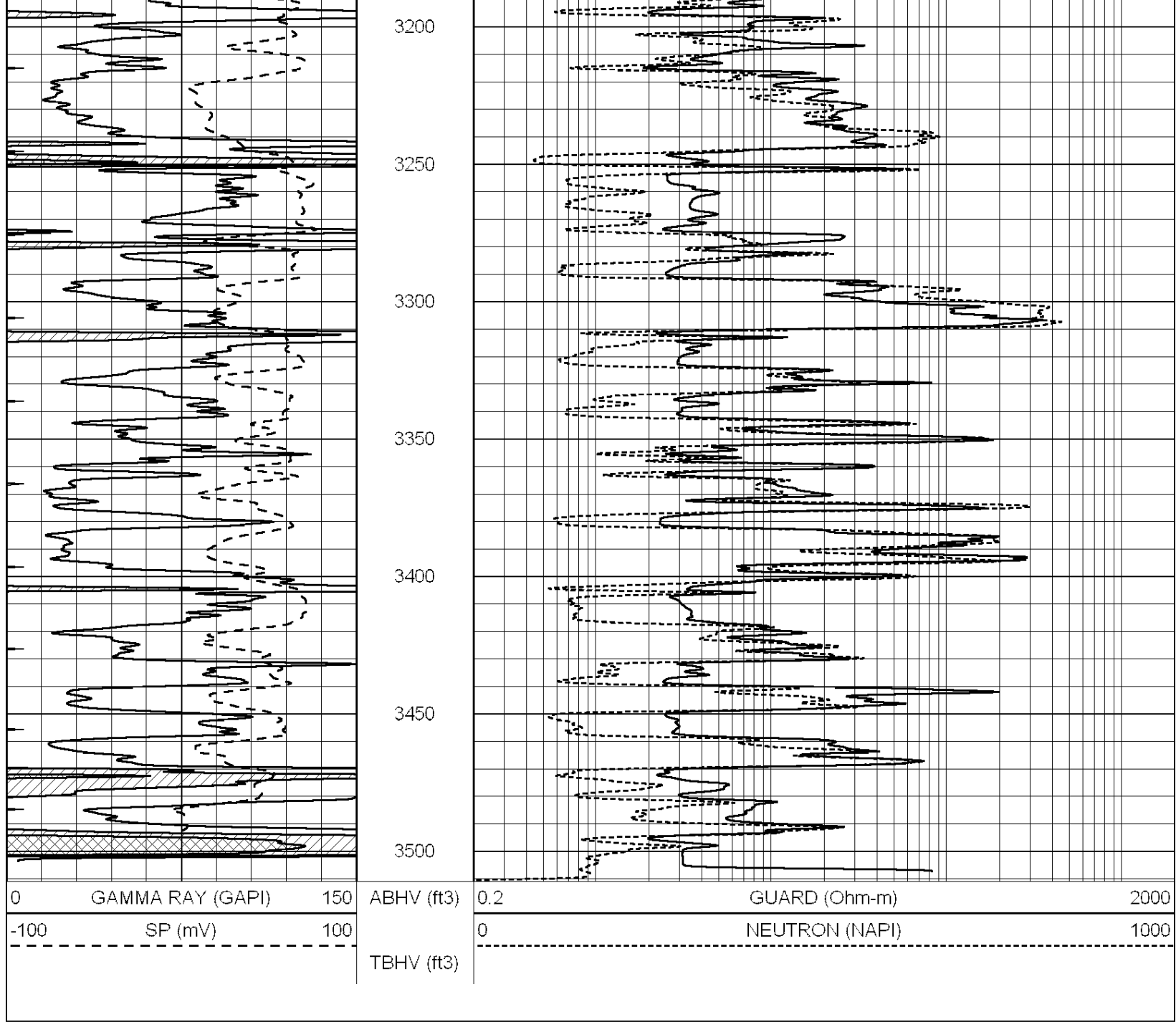
3000

3050

3100

3150





0	GAMMA RAY (GAPI)	150	ABHV (ft3)	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100	TBHV (ft3)	0	NEUTRON (NAPI)	1000

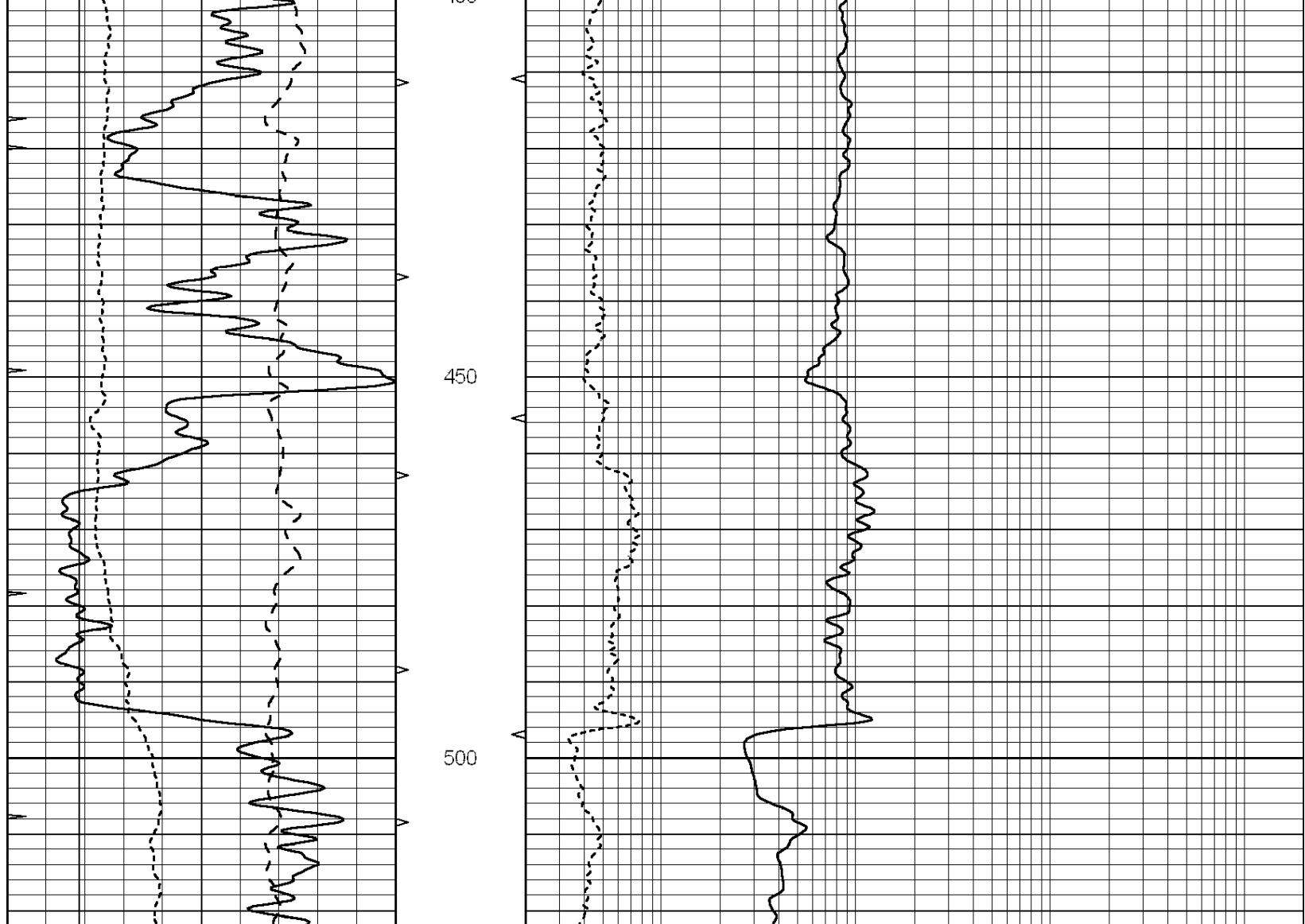


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MAIN SECTION

Database File: 24444rag.db
 Dataset Pathname: pass3.1
 Presentation Format: _rag
 Dataset Creation: Sat May 31 07:32:08 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100	10 (ft3)	0	NEUTRON (NAPI)	1000
6	CALIPER (in)	16	TBHV			
			0 (ft3)	10		



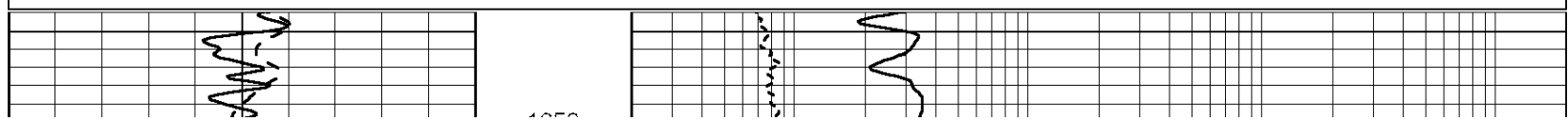
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-100	SP (mV)	100	10 (ft3)	0	NEUTRON (NAPI)	1000
6	CALIPER (in)	16	TBHV			
			0 (ft3)	10		

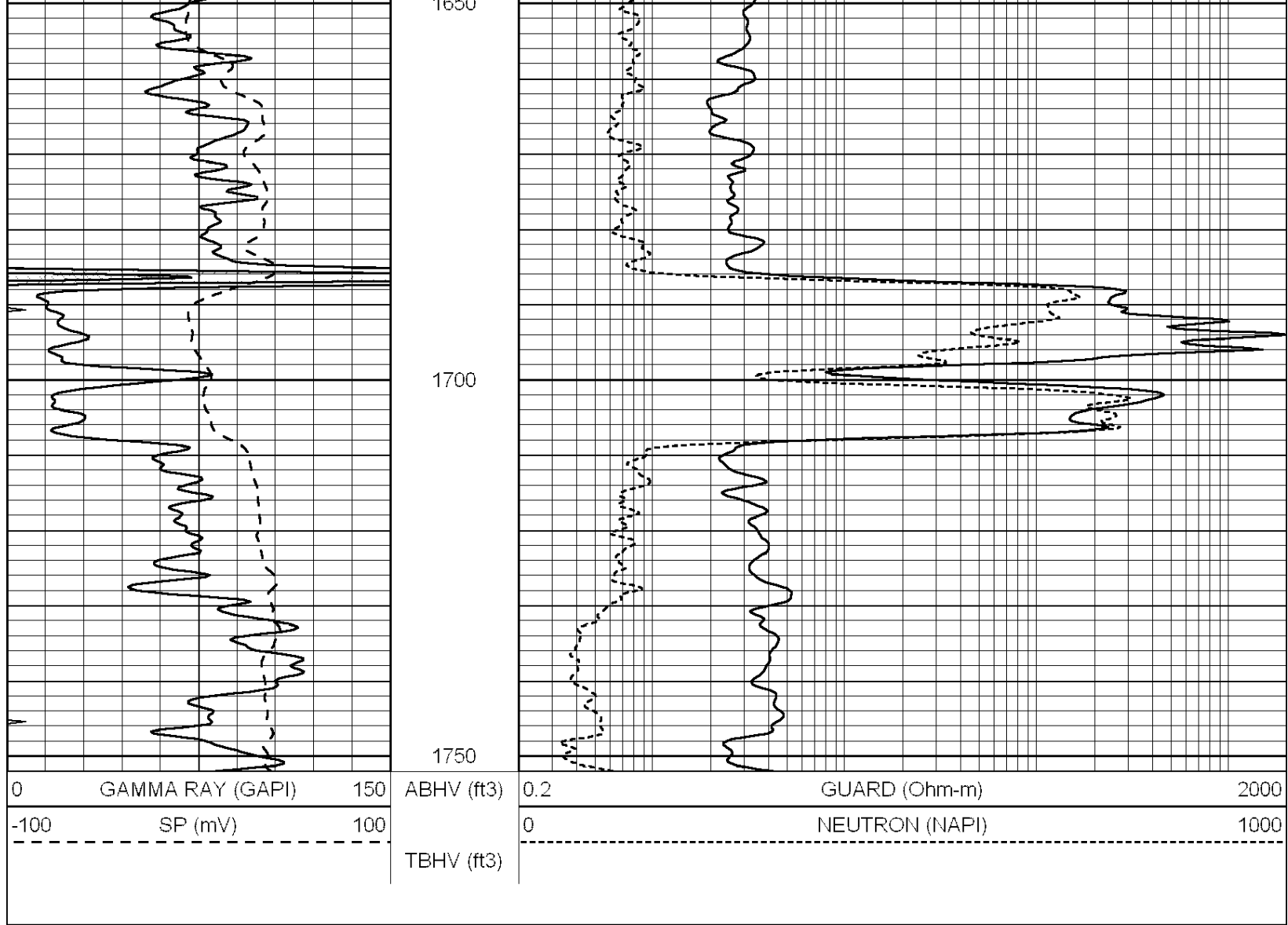


MAIN SECTION

Database File: 24444rag.db
 Dataset Pathname: pass3.1
 Presentation Format: rag2
 Dataset Creation: Sat May 31 07:32:08 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

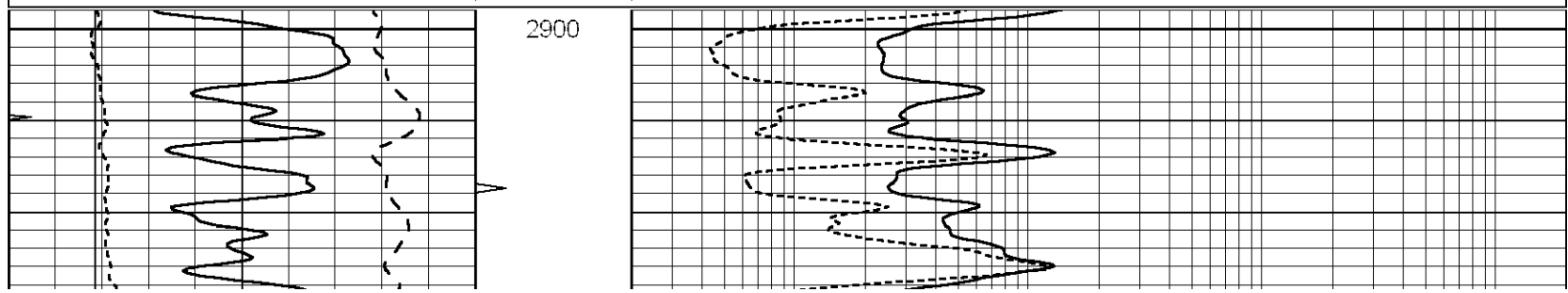
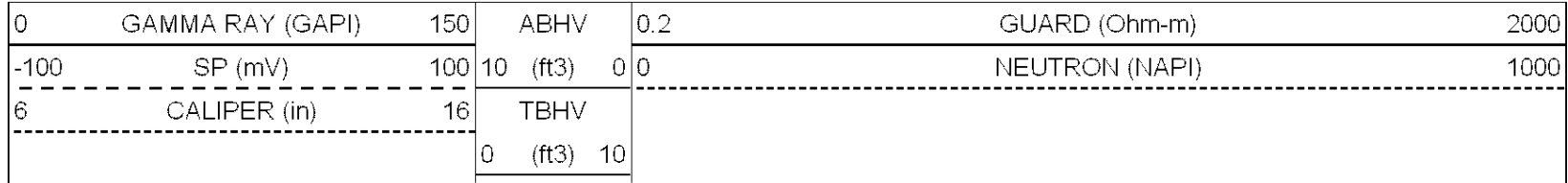
0	GAMMA RAY (GAPI)	150	ABHV (ft3)	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100		0	NEUTRON (NAPI)	1000
			TBHV (ft3)			

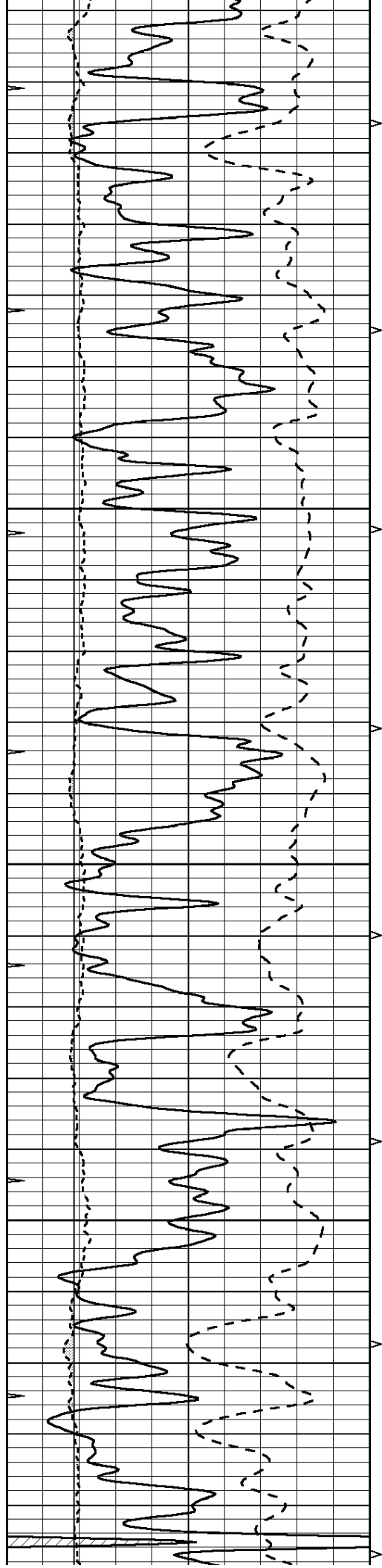




MAIN SECTION

Database File: 24444rag.db
 Dataset Pathname: pass3.1
 Presentation Format: _rag
 Dataset Creation: Sat May 31 07:32:08 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240



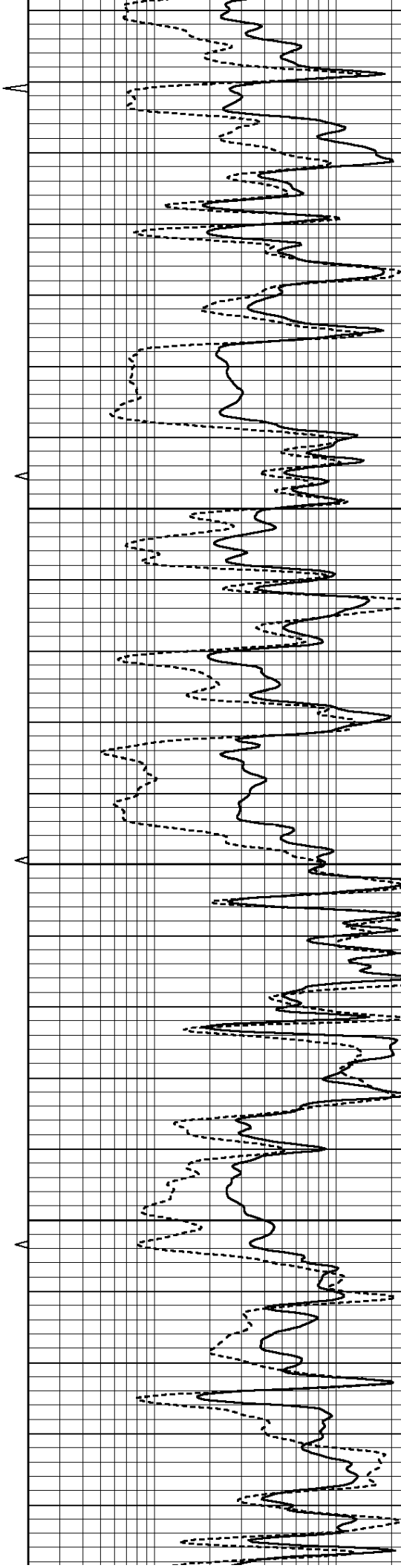


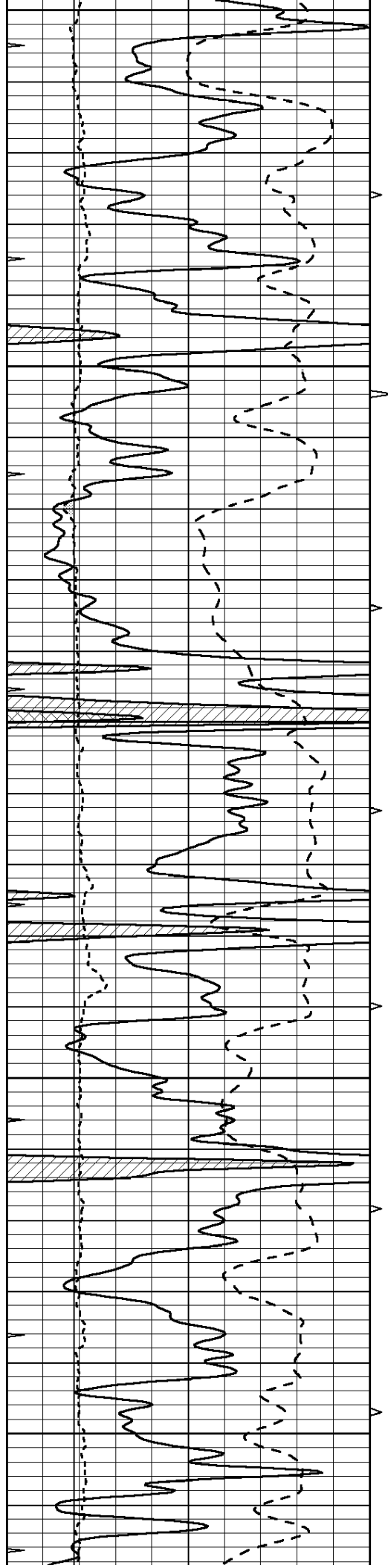
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3000

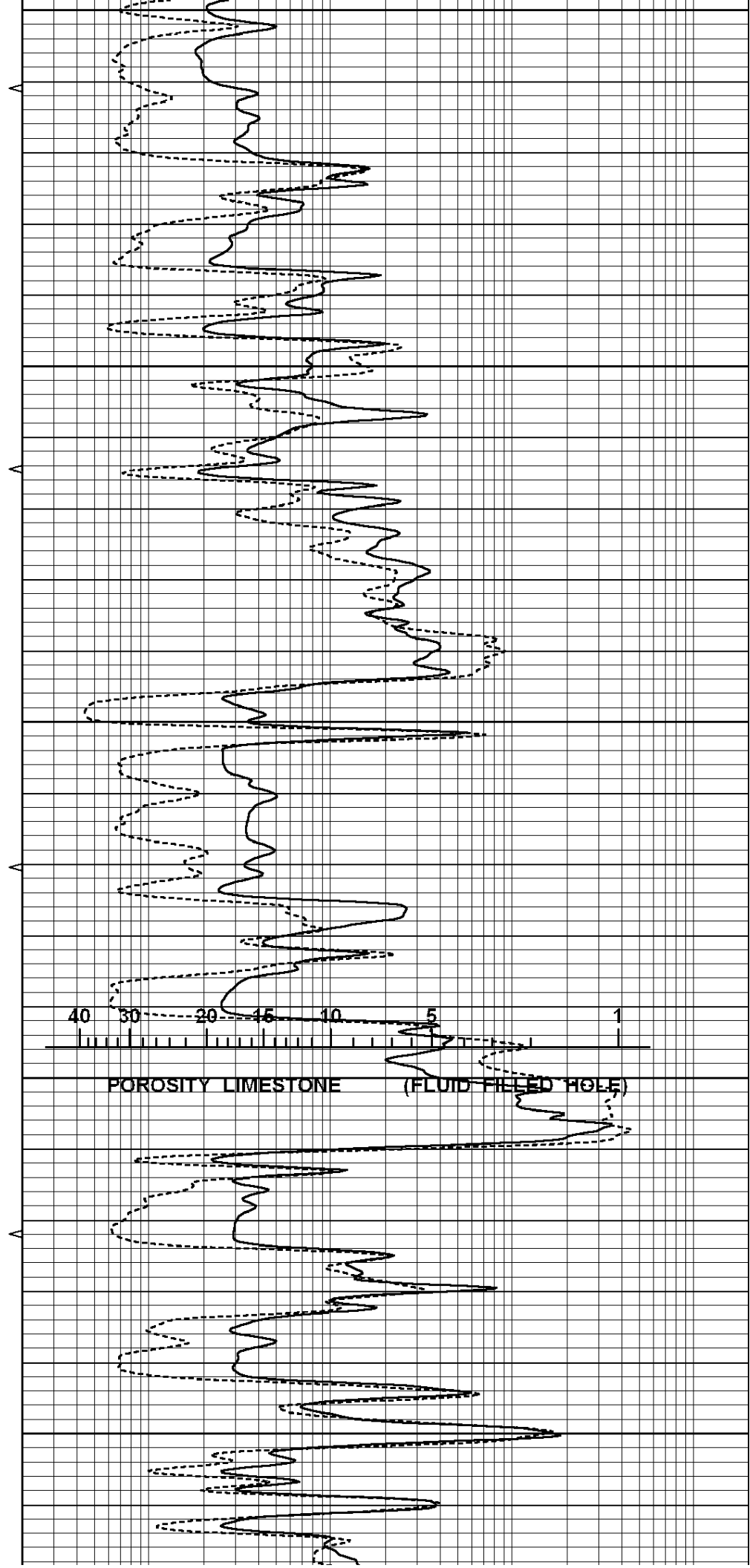
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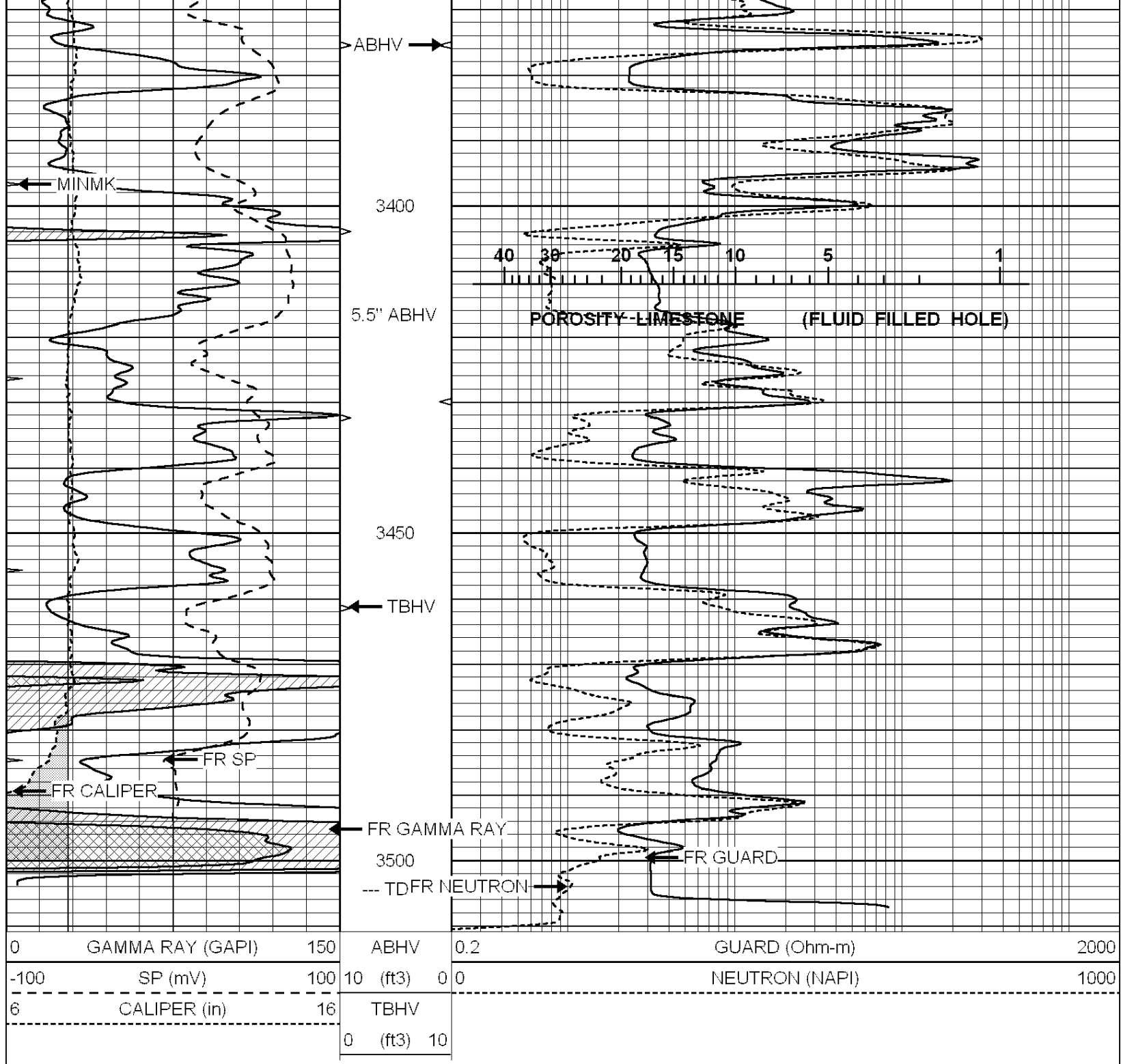


3150
3200
3250
3300
3350



40 30 20 15 10 5 1

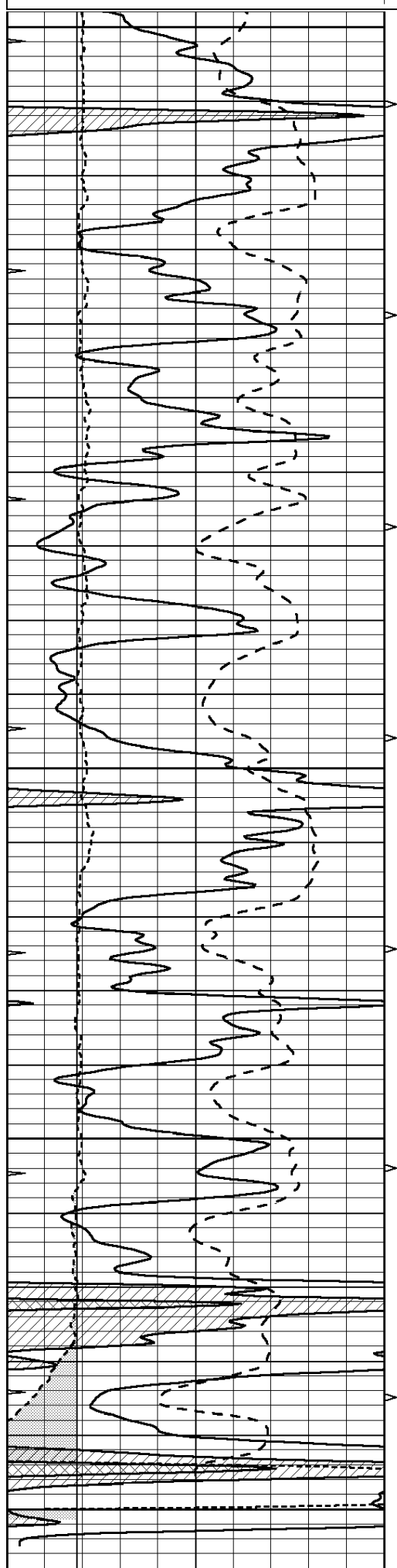
POROSITY LIMESTONE (FLUID FILLED HOLE)



REPEAT SECTION

Database File: 24444rag.db
 Dataset Pathname: pass2.A
 Presentation Format: _rag
 Dataset Creation: Sat May 31 07:20:54 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100	10 (ft3)	0 0	NEUTRON (NAPI)	1000
6	CALIPER (in)	16	TBHV			
			0 (ft3)	10		



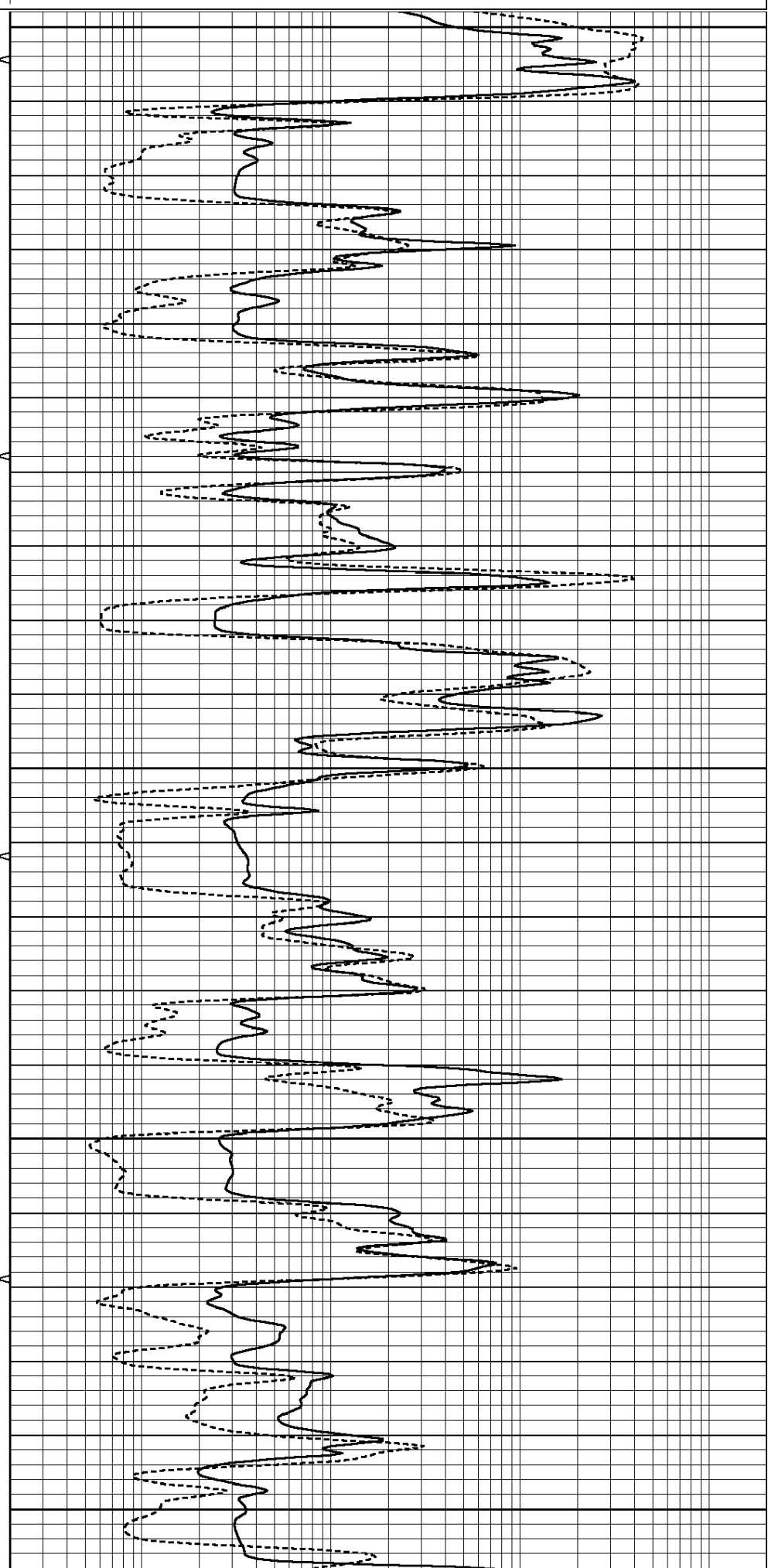
3300

3350

3400

3450

3500



0	GAMMA RAY (GAPI)	150	ABHV	0.2	GUARD (Ohm-m)	2000
-100	SP (mV)	100	10 (ft3)	0 0	NEUTRON (NAPI)	1000
6	CALIPER (in)	16	TBHV			
			0 (ft3)	10		

Calibration Report

Database File: 24444rag.db
Dataset Pathname: pass3.1
Dataset Creation: Sat May 31 07:32:08 2014 by Calc Open-Cased 090629

Neutron Calibration Report

Serial Number: RAG1
Tool Model: RAG
Performed: Sat May 31 06:19:16 2014

Calibrator Values: 0 1 NAPI
Calibrator Readings: 0 1 cps

Sensitivity: 1.15 NAPI/cps

Micro Spherically Focused Log Calibration Report

Serial-Model: RAG1-A
Performed: Sat May 31 07:19:39 2014

	Readings			References			Results	
	Low	High		Low	High		m	b
Conductivity	0.0110	0.9000	V	10.0000	1000.0000	mmho	2400.0000	12.0000
Caliper	0.2723	0.3535	V	7.8000	14.0000	in	76.3942	-12.7000

Gamma Ray Calibration Report

Serial Number: RAG1
Tool Model: RAG
Performed: Sat May 31 06:00:54 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.9 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.8000 GAPI/cps