



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL INDUCTION
LOG**

Company PFEIFER EXPLORATIONS, LLC.
Well ALBERT #35-1
Field TOULON
County ELLIS
State KANSAS

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Field TOULON
County ELLIS State KANSAS

Location: API # : 15-051-26611-0000
680' FSL & 330' FWL

SEC 35 TWP 13S RGE 17W

Permanent Datum GROUND LEVEL Elevation 1948
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL
MEL

Elevation
K.B. 1953
D.F. 1951
G.L. 1948

Date	10/16/13
Run Number	ONE
Depth Driller	3532
Depth Logger	3534
Bottom Logged Interval	3532
Top Log Interval	00
Casing Driller	8 5/8"@219'
Casing Logger	220
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4/60
pH / Fluid Loss	10.0/8.0
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.750@60F
Rmf @ Meas. Temp	.563@60F
Rmc @ Meas. Temp	.900@60F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.402@112F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	2:45 A.M.
Maximum Recorded Temperature	112F
Equipment Number	4854
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	ROGER MOSES
	JAY PFEIFER

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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

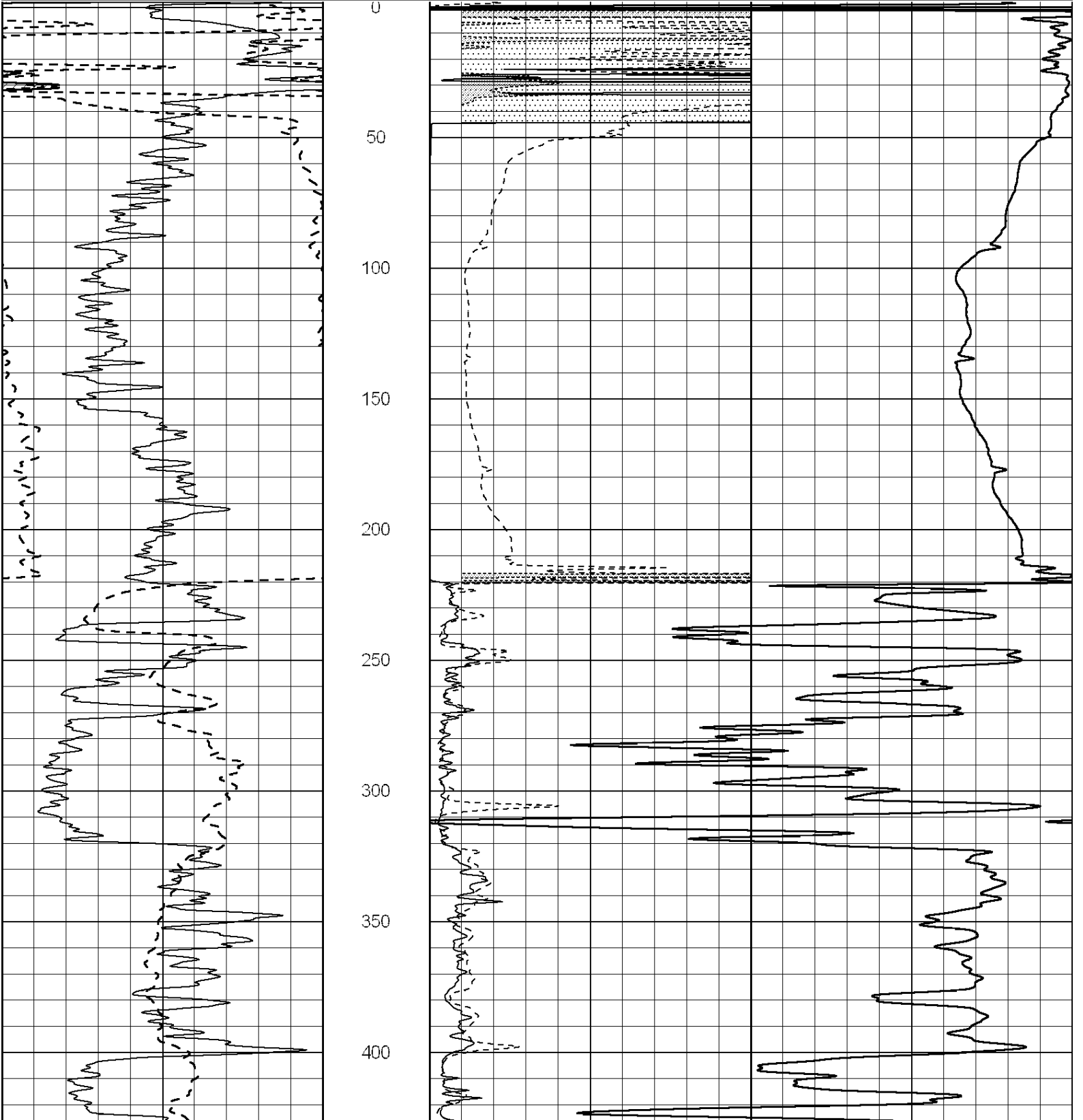
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
VICTORIA, KS. & I-70 EXIT, 1/2S. ON CATHEDRAL TO "VICTORIA RD.", 1 3/4W., N, INTO @TREE ROW

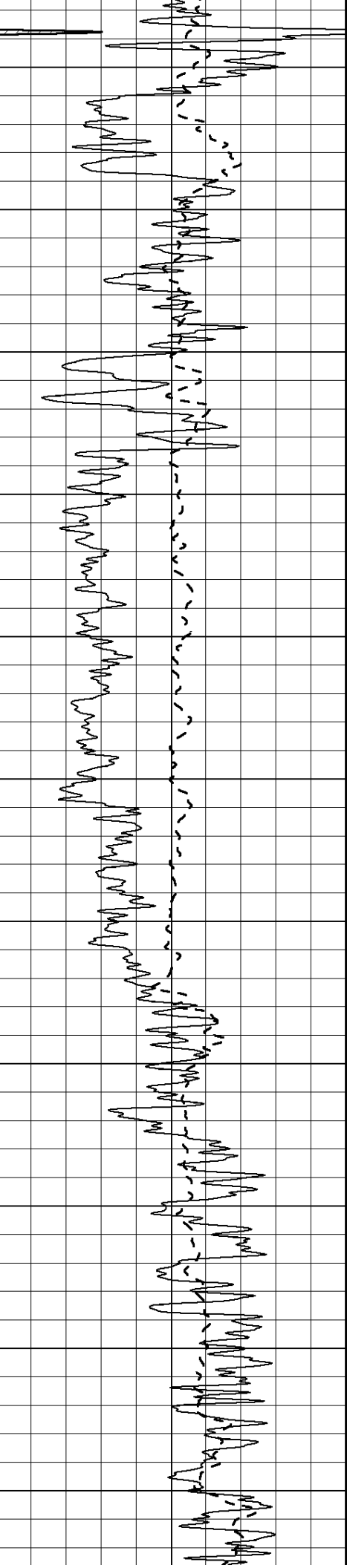


MAIN SECTION

Database File: 011688ddn.db
 Dataset Pathname: pass3.6
 Presentation Format: dil2
 Dataset Creation: Wed Oct 16 03:47:19 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50
-100	SP (mV)	100	0	RILD (Ohm-m)	50
-----			1000	CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500





450

500

550

600

650

700

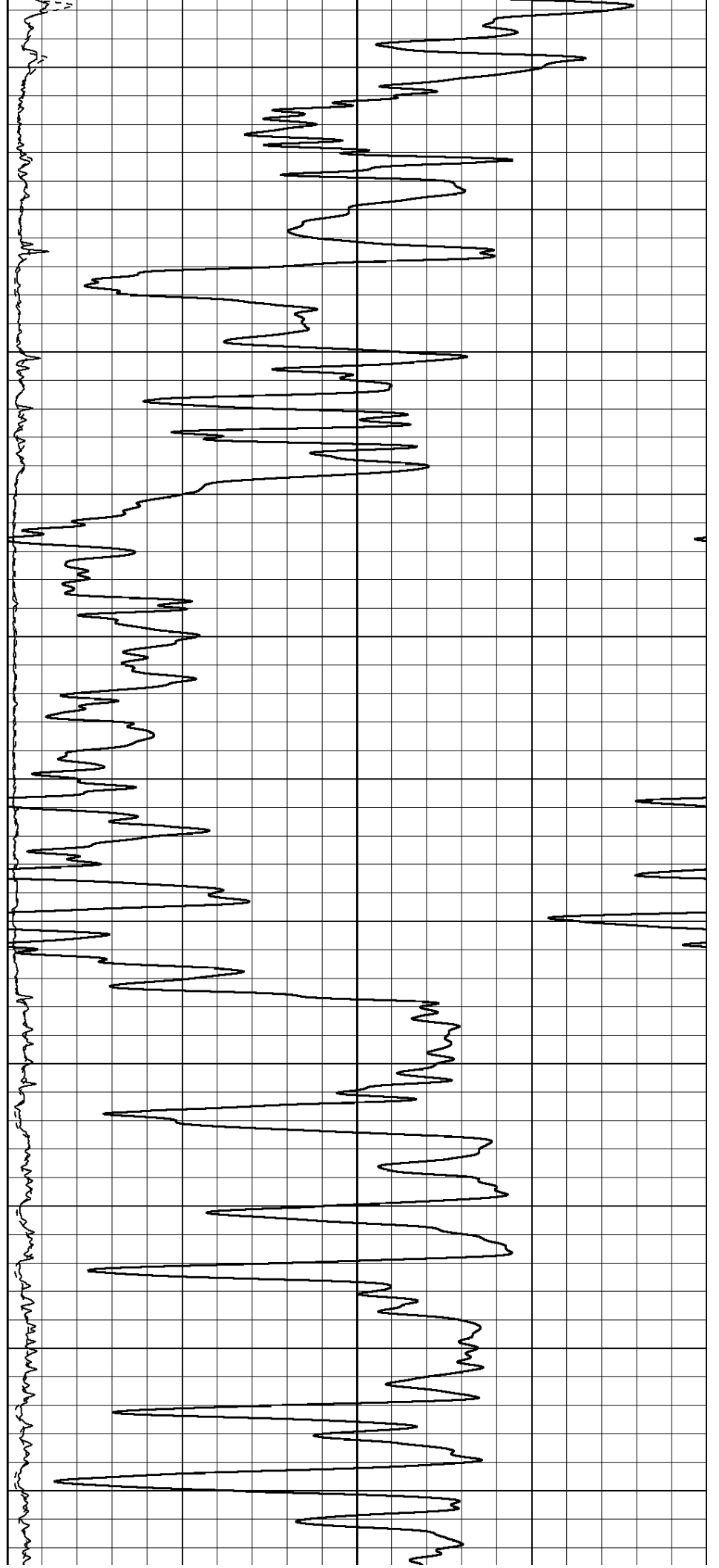
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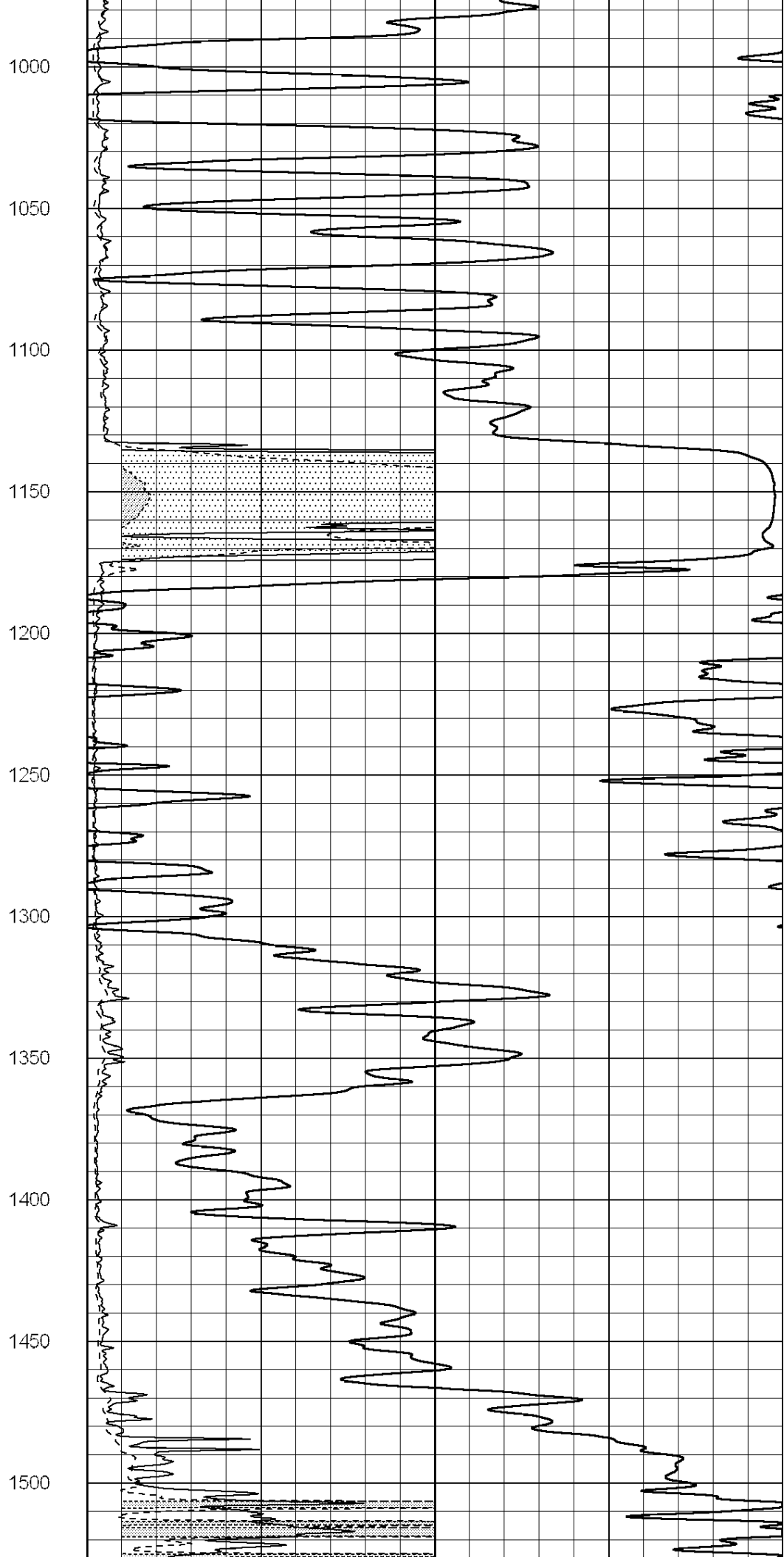
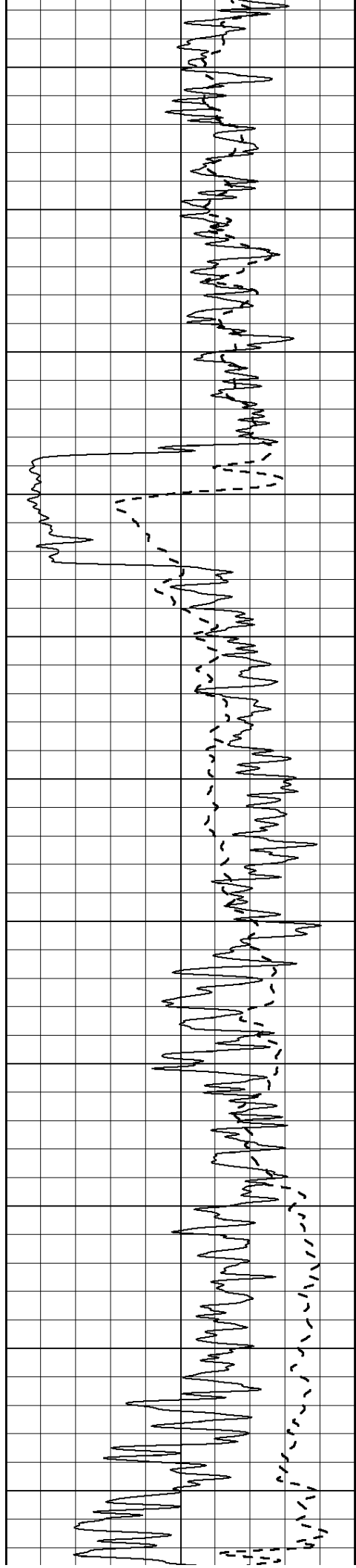
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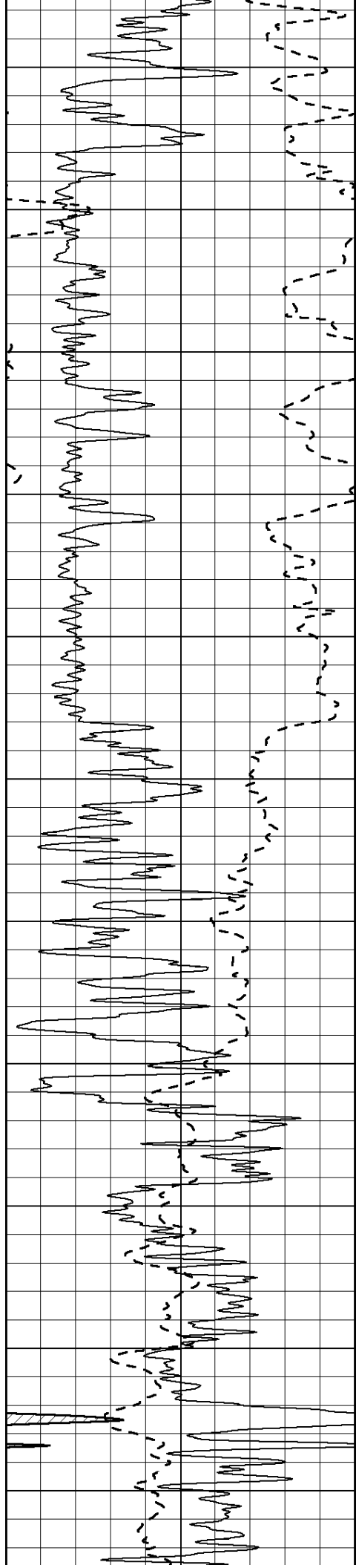
850

900

950







1550

1600

1650

1700

1750

1800

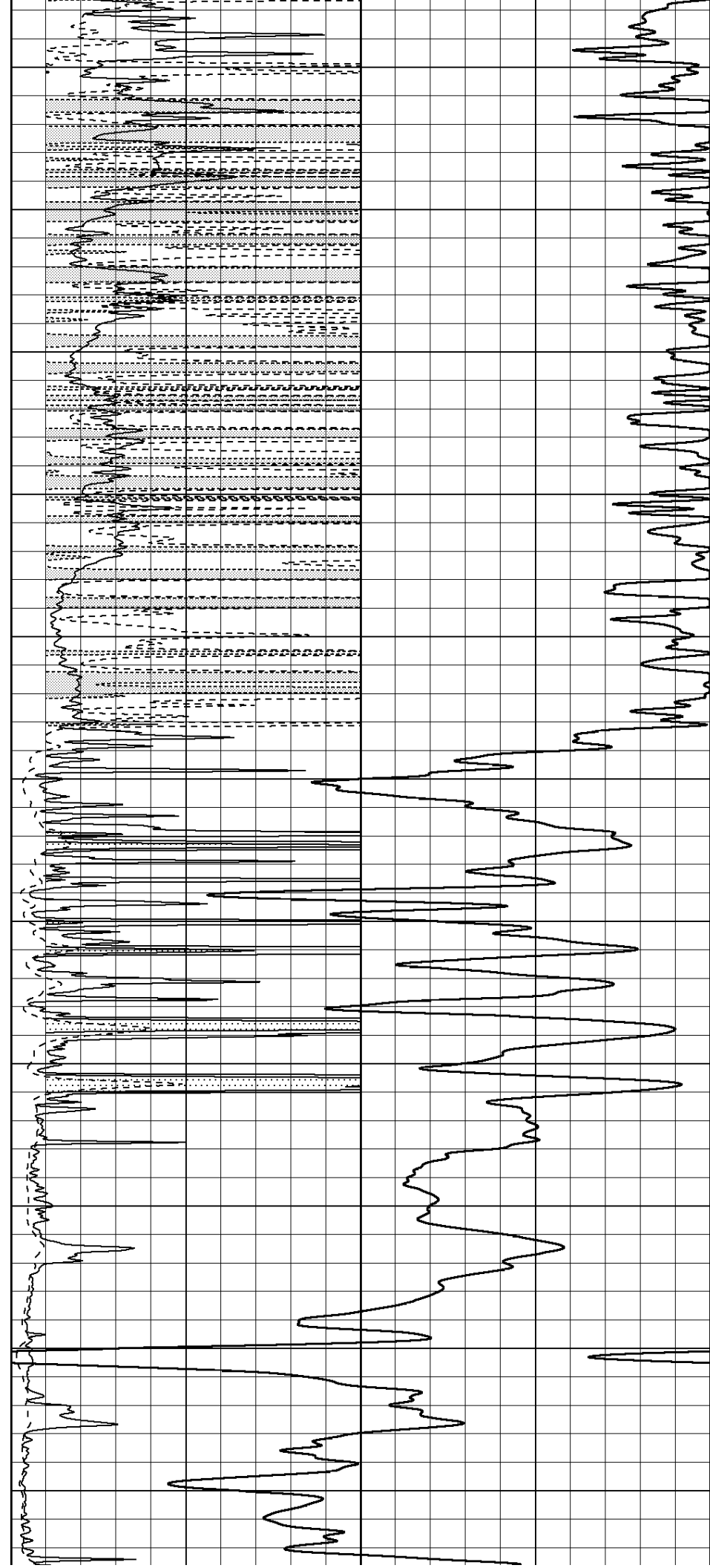
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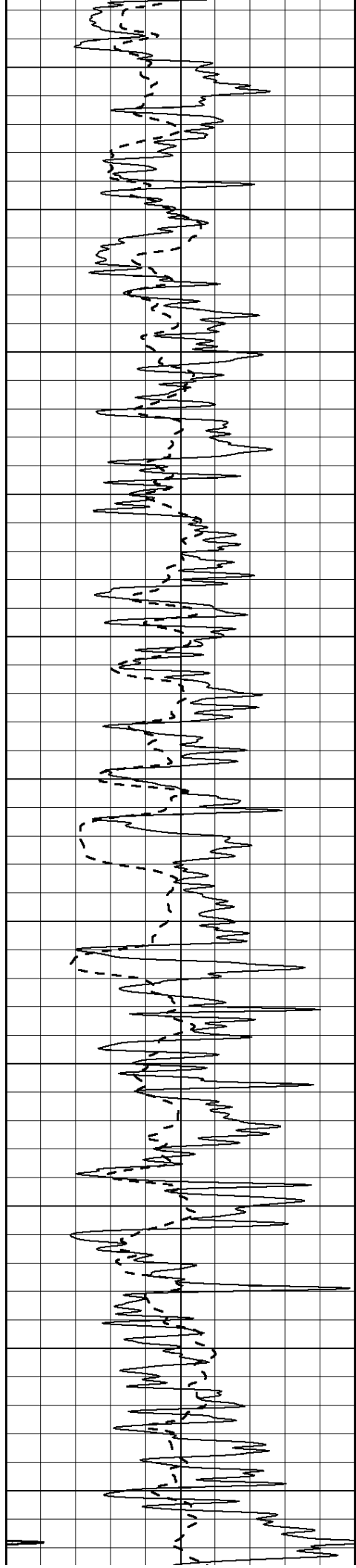
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

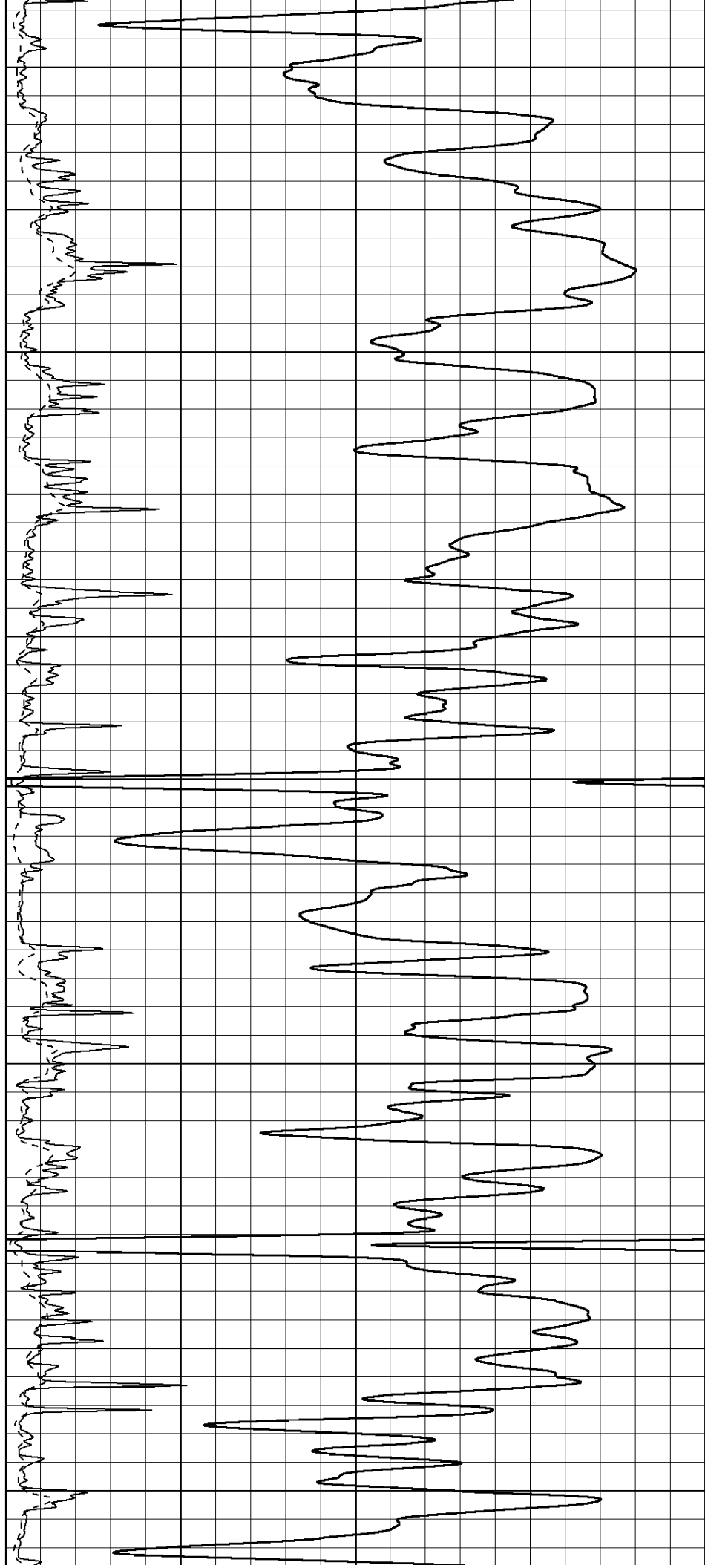
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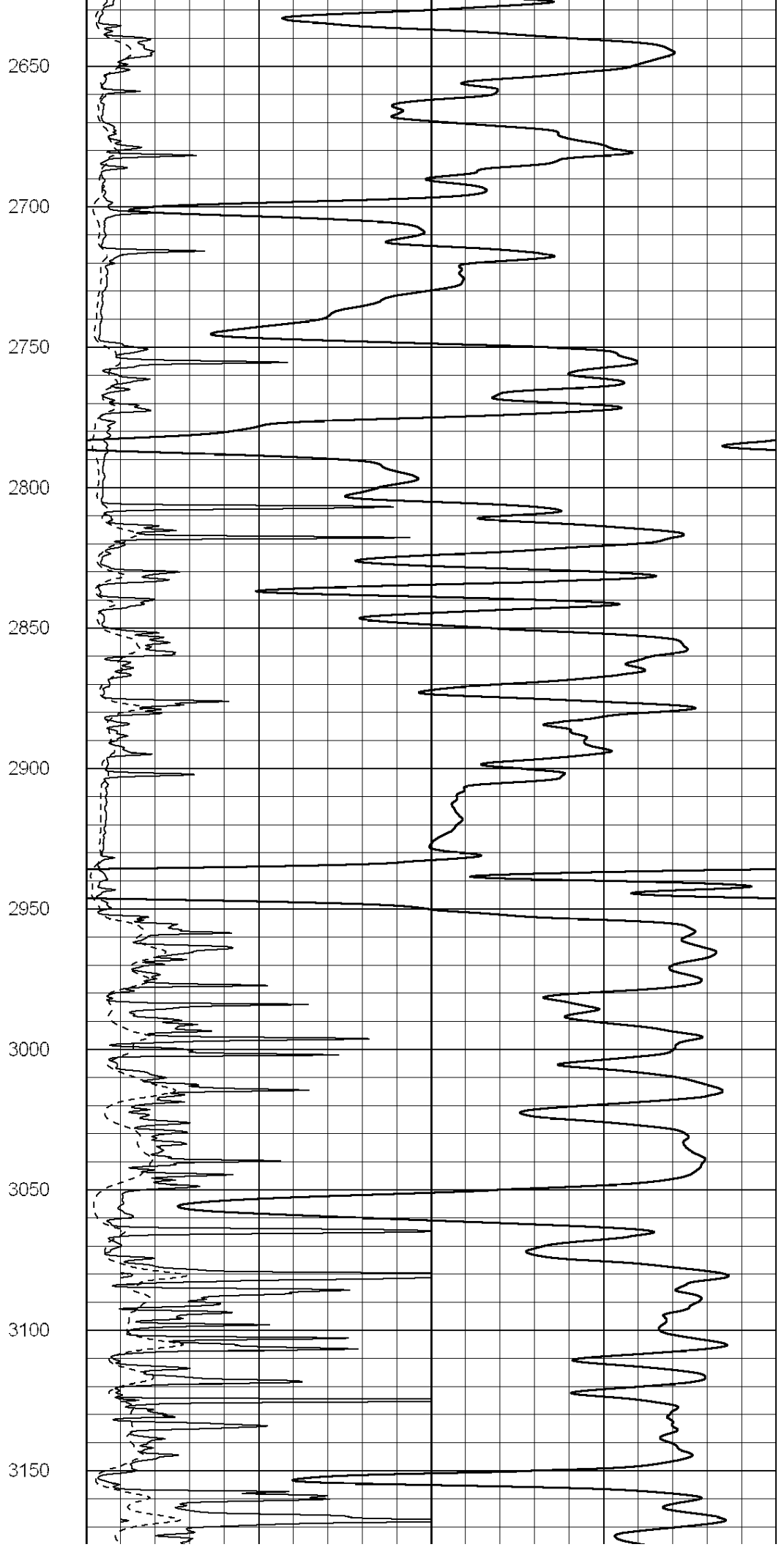
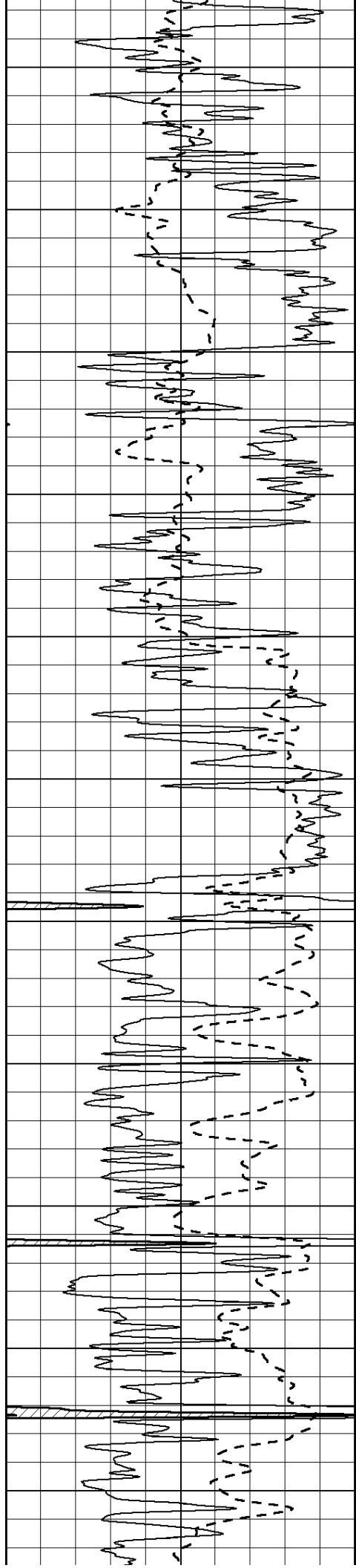
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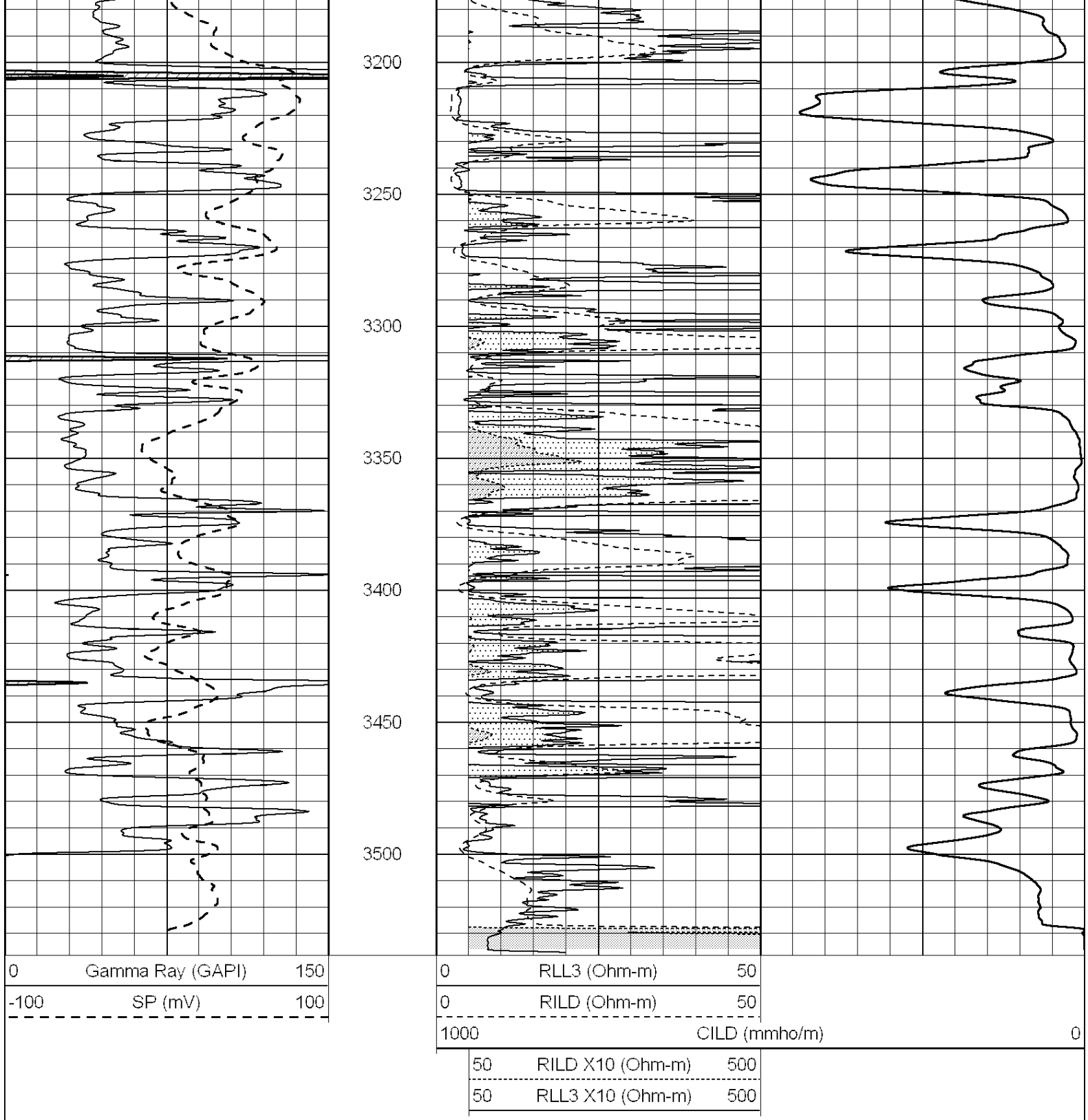
2500

2550

2600







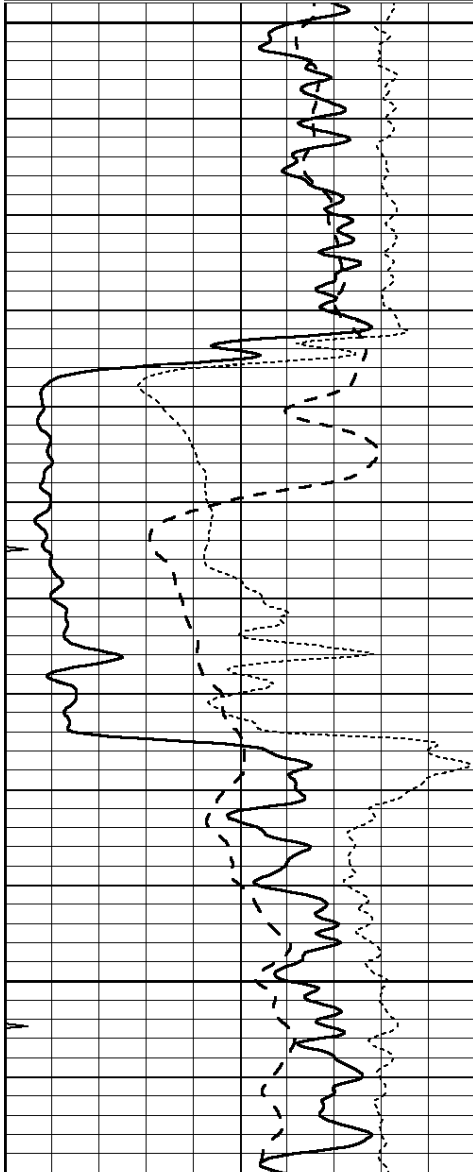
ANHYDRITE

Database File: 011688ddn.db
 Dataset Pathname: pass3.7
 Presentation Format: _dil
 Dataset Creation: Wed Oct 16 03:48:32 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240



-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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

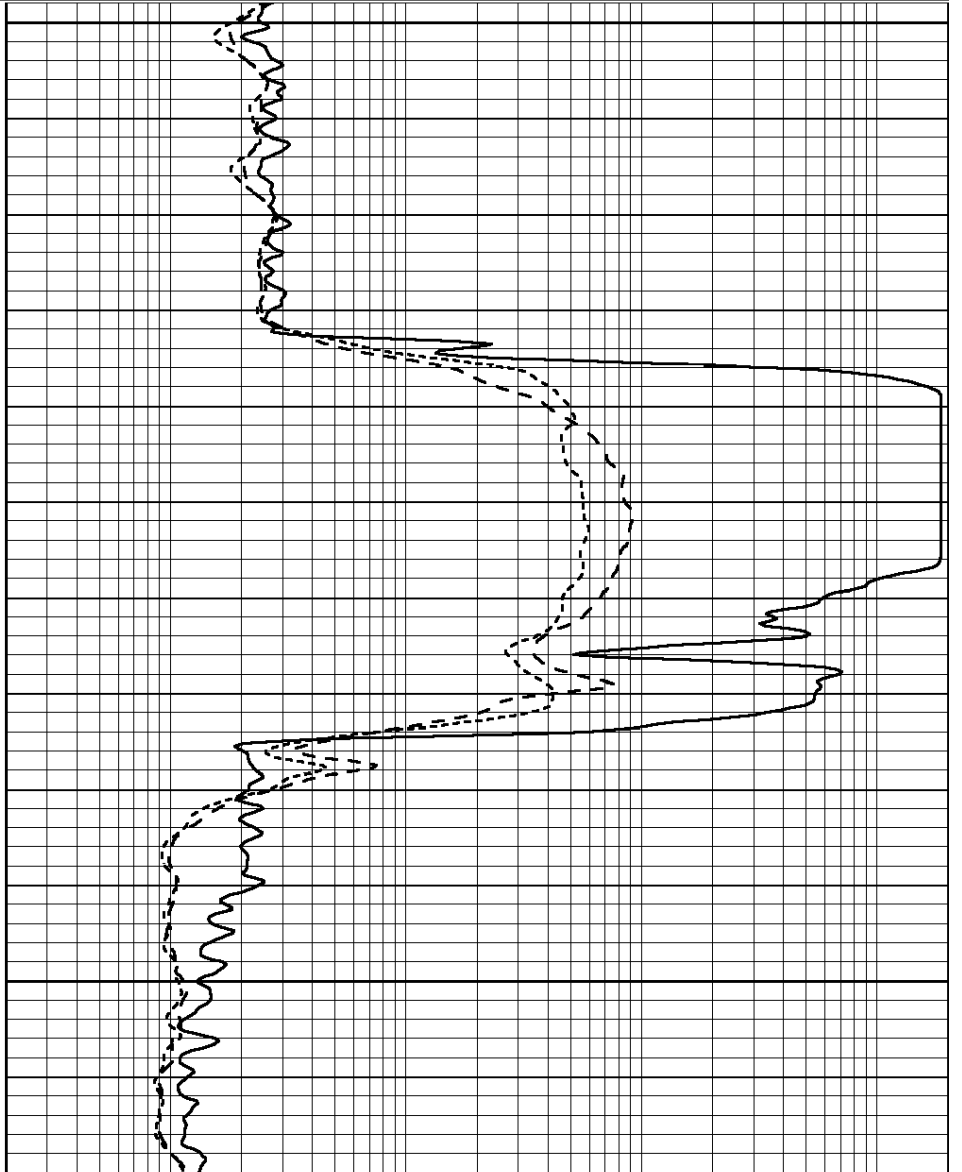


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

1100

1150

1200



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



MAIN SECTION

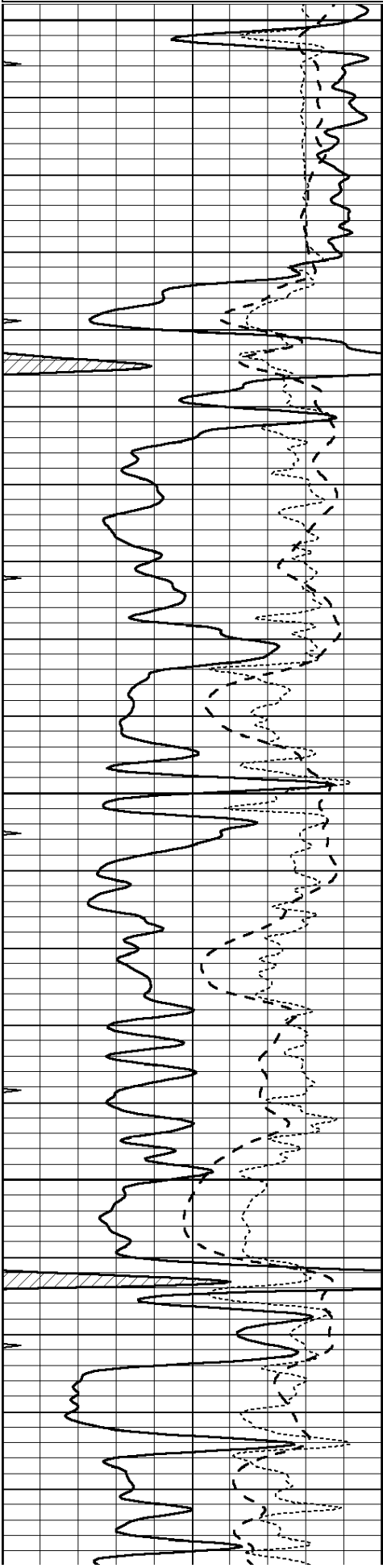
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 Dataset Pathname: pass3.6
 Presentation Format: dil
 Dataset Creation: Wed Oct 16 03:47:19 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100

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

100	GR (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



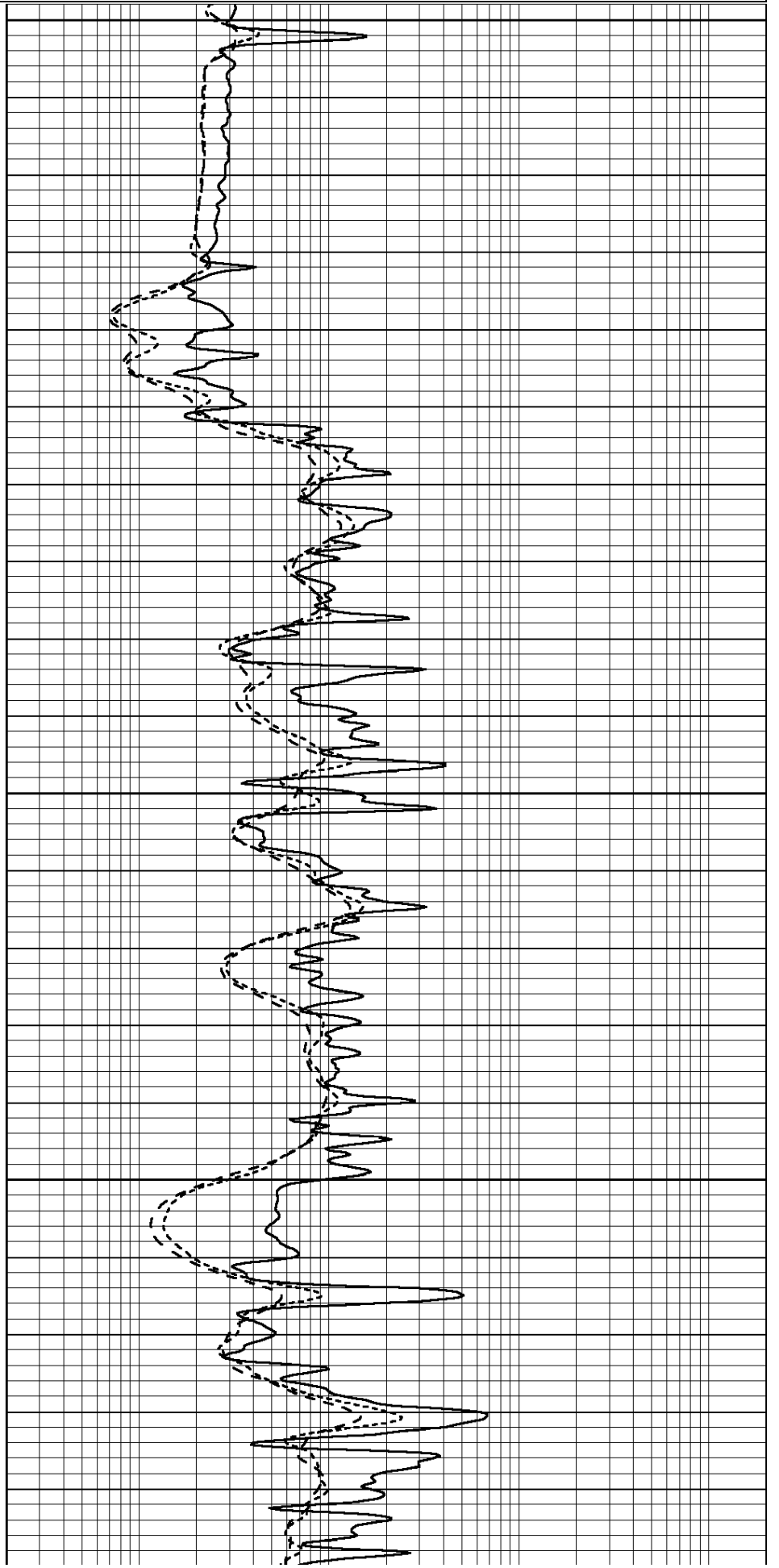
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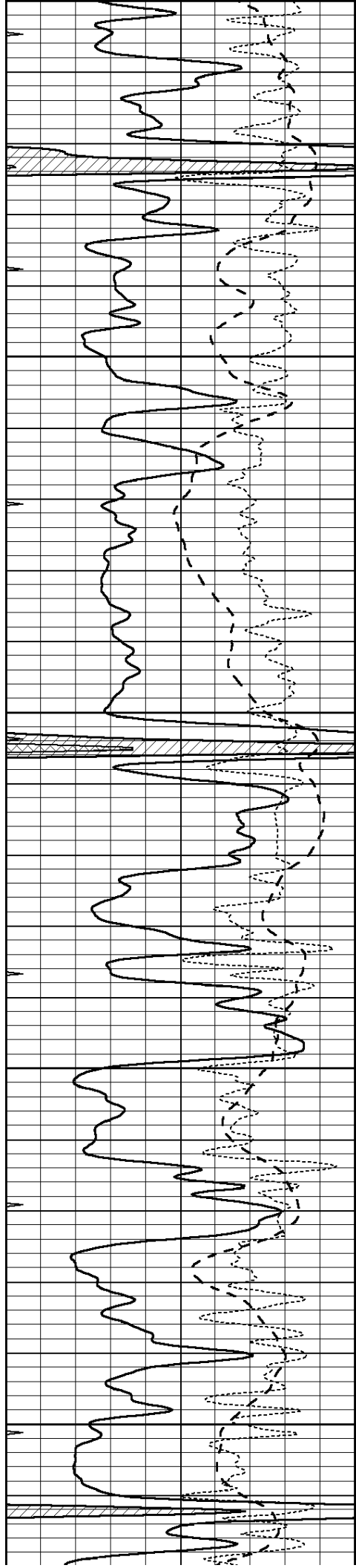
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3000

3050

3100





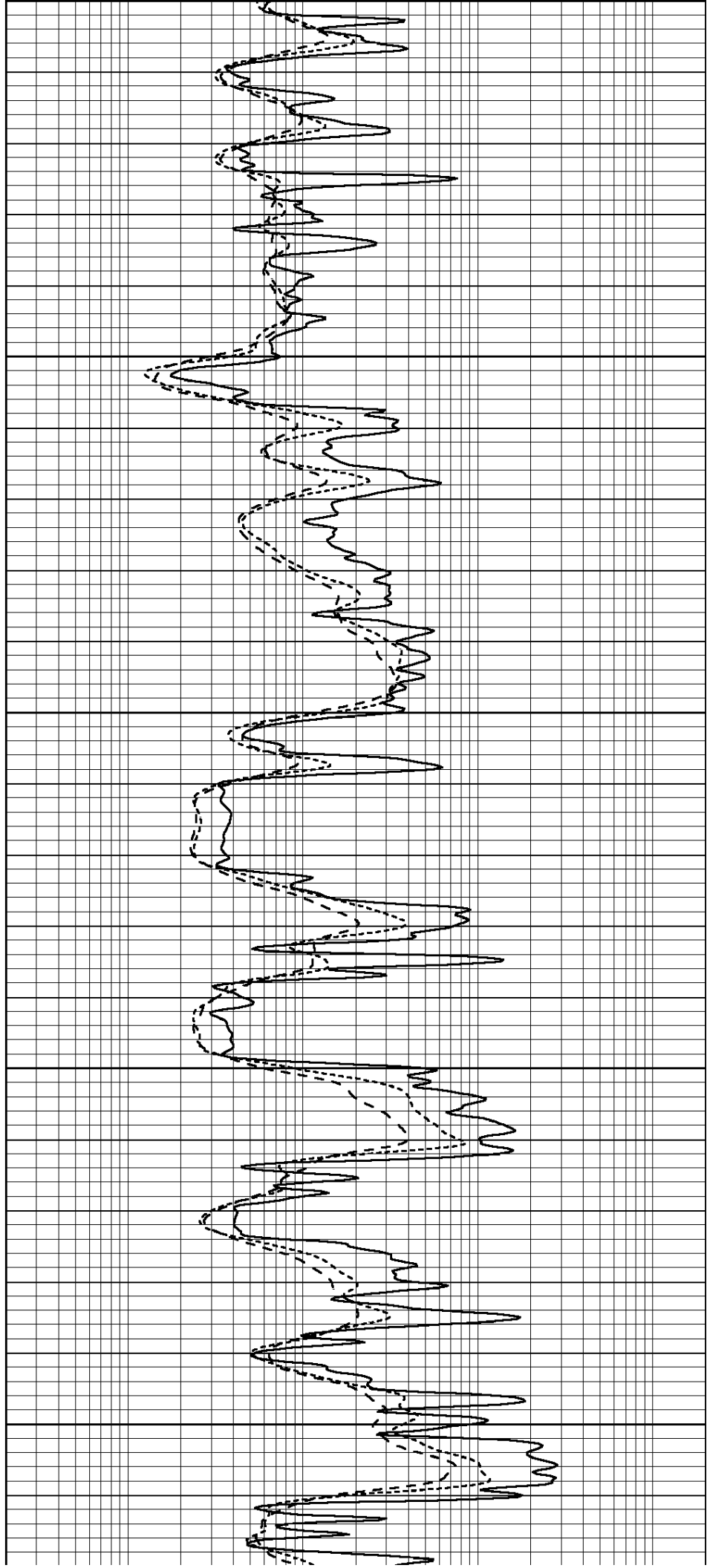
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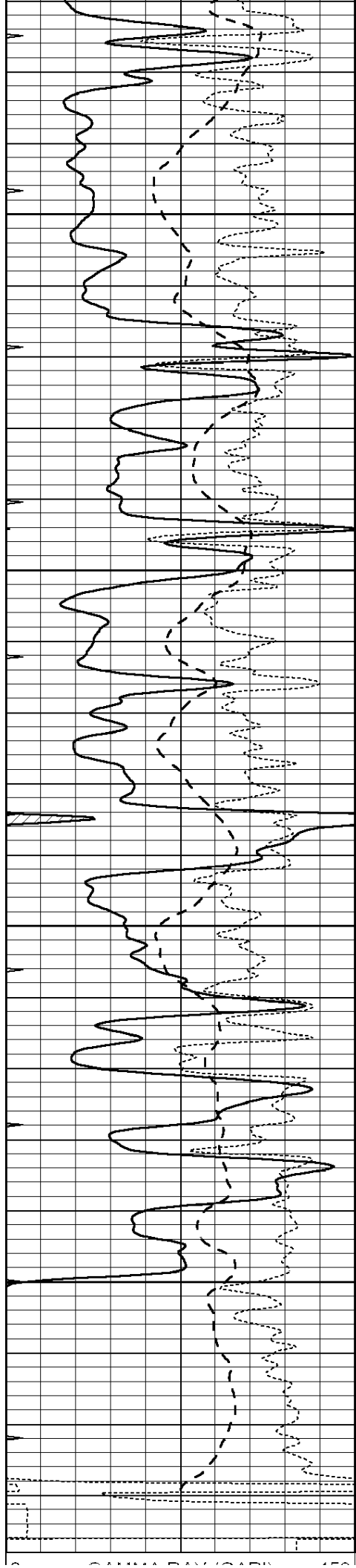
3150

3200

3250

3300





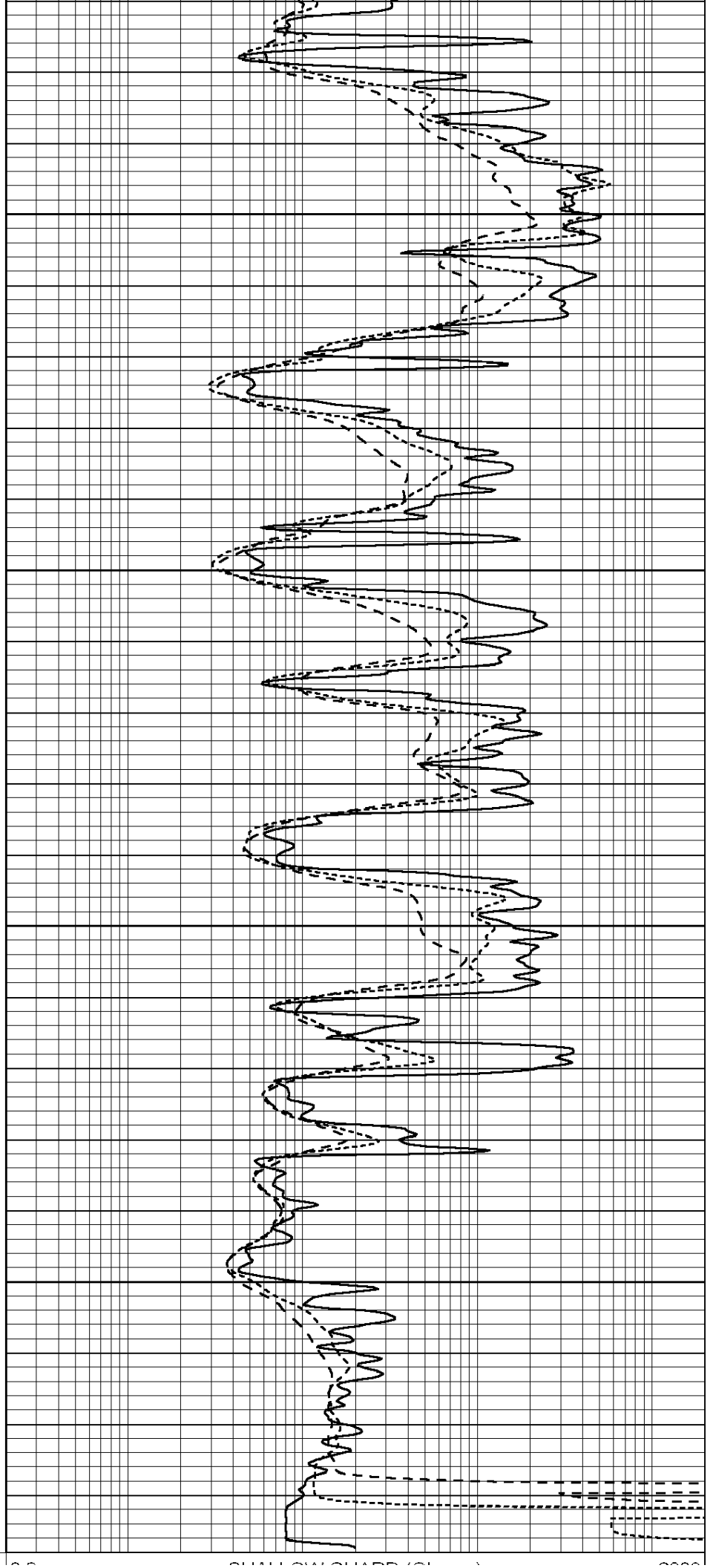
3350

3400

3450

3500

2 GAMMA RAY COUNT (GR) 450



2 QUAL GAMMA RAY COUNT (GR) 450

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



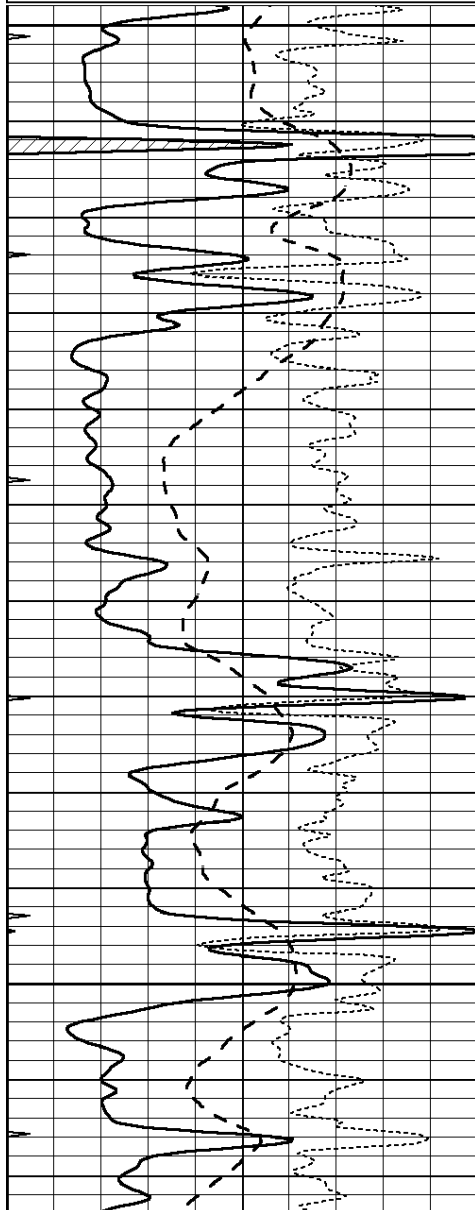
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REPEAT SECTION

Database File: 011688ddn.db
 Dataset Pathname: pass2.4
 Presentation Format: dil
 Dataset Creation: Wed Oct 16 03:23:16 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

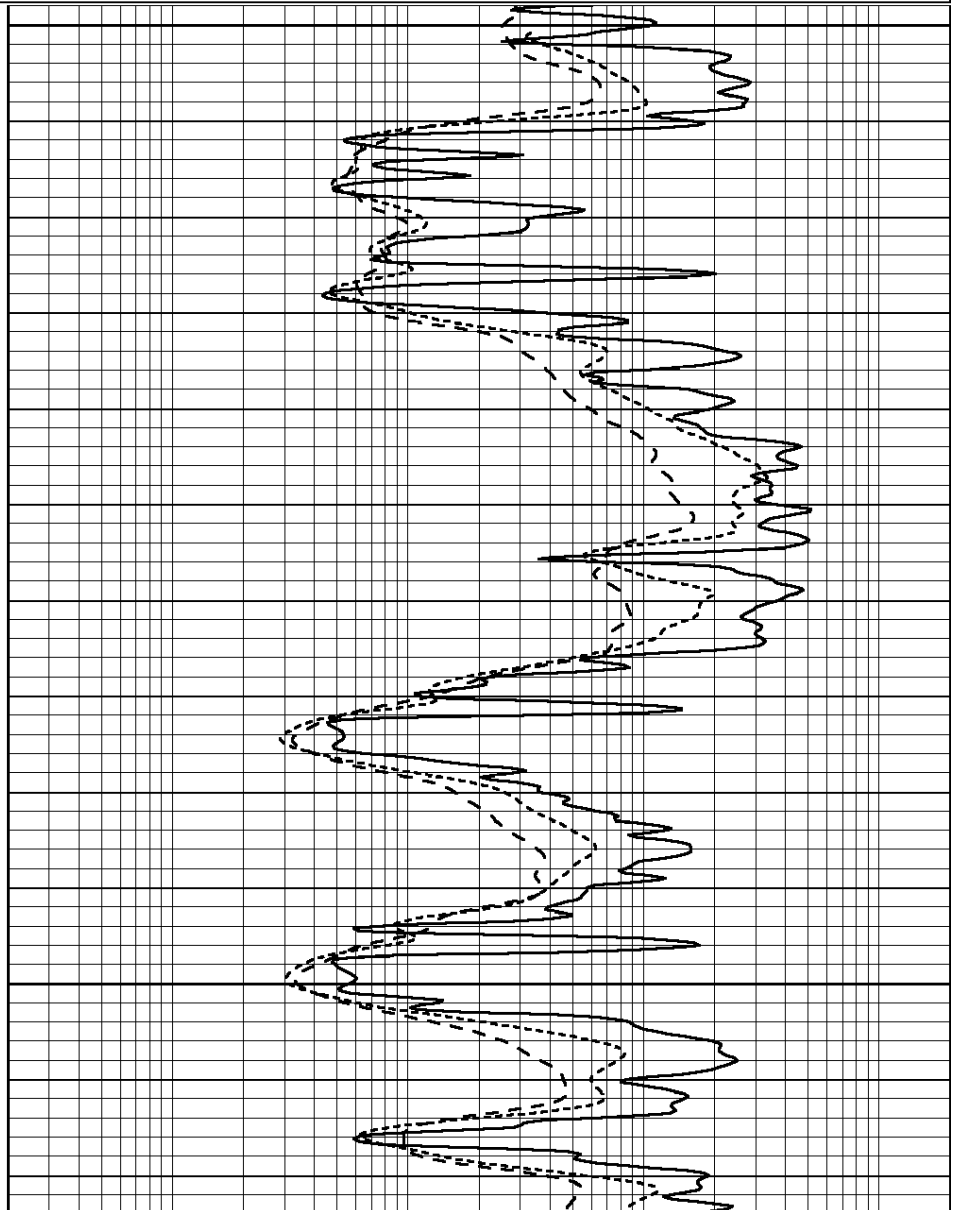
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

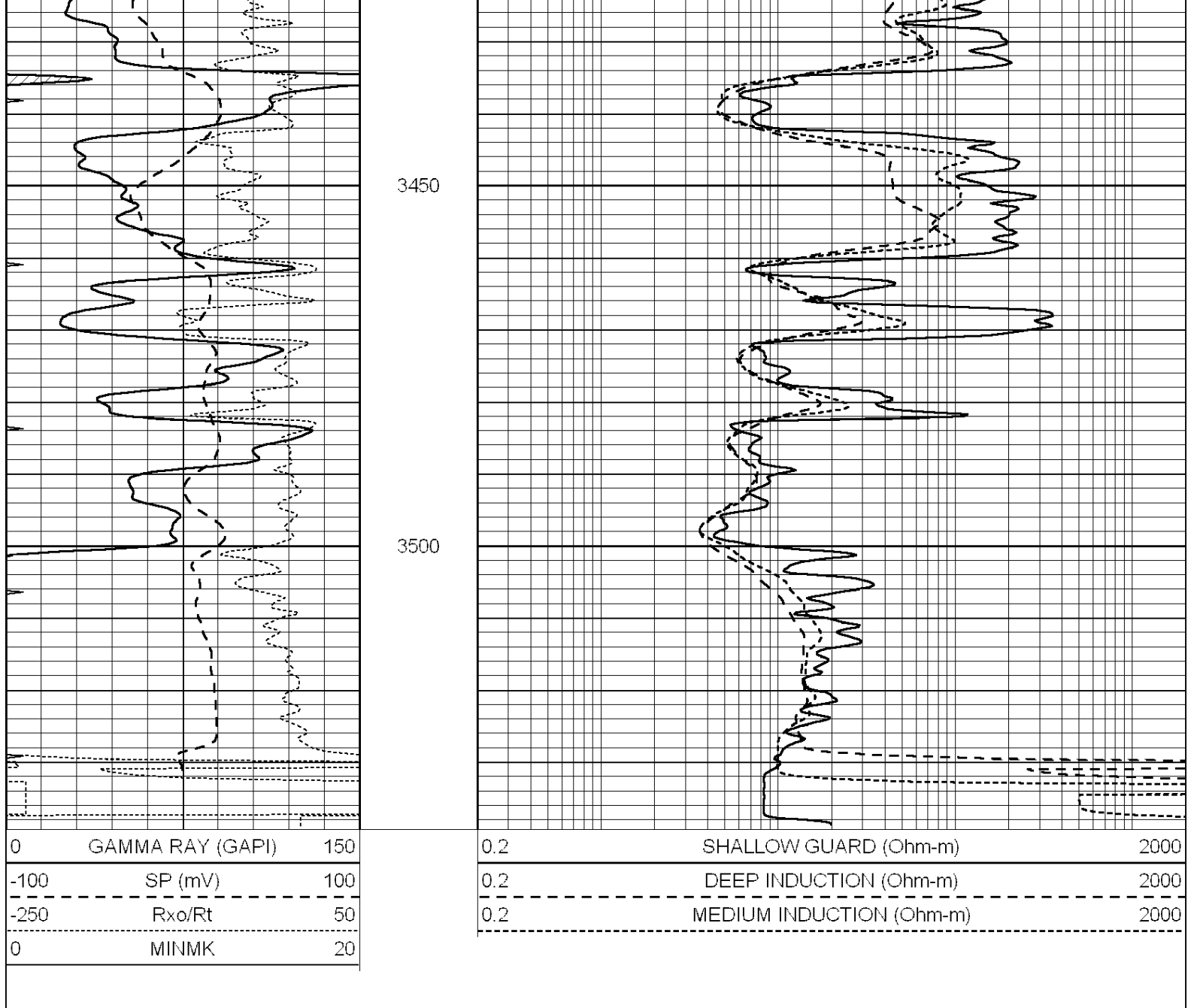


3300

3350

3400





Calibration Report

Database File: 011688ddn.db
 Dataset Pathname: pass3.6
 Dataset Creation: Wed Oct 16 03:47:19 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Wed Oct 16 00:28:49 2013
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	650.000	-6.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-9.500
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256

Medium		0.005	0.712	V	0.008	464.000	mmho/m	655.677	-3.102	
Downhole Calibration										
Readings				References			Results			
		Zero	Cal			Zero	Cal	m'	b'	
Deep		0.000	0.000	mmho/m		14.508	388.384	mmho/m	1.000	0.000
Medium		0.000	0.000	mmho/m		166.367	504.400	mmho/m	1.000	0.000
LL3			7.500	V			1400.000	Ohm-m		
			0.000	V			20.000	Ohm-m		
			-7.200	V			4000.000	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		

Litho Density Calibration Report
Serial: 004N Model: PRB

Master Calibration										
Performed Mon Jun 03 09:36:56 2013										
		Background	Magnesium			Aluminum			Sandstone	
Window 1		1417.6	10391.4			3464.6		11537.5		cps
Window 2		1295.0	8959.7			3050.1		9816.4		cps
Window 3		1105.1	5464.2			2051.0		5838.8		cps
Window 4		315.0	317.7			312.9		319.8		cps
Long Space		0.0	7664.6			1755.0		8521.3		cps
Short Space		1.8	1582.4			1040.8		1699.4		cps
Rho			1.7100			2.5900		1.3800		g/cc
Pe			0.0000			2.5700		1.5500		
Rib Angle	: 44.1		Rib Slope	: 0.970		Density/Spine Ratio				: 0.574
Spine Angle	: 74.1		Spine Slope	: 3.519		Spine Intercept				: -17.0

Before Survey Verification										
Performed Wed Dec 31 18:00:00 1969										
Window 1		0.0	0.0			0.0		0.0		cps
Window 2		0.0	0.0			0.0		0.0		cps
Window 3		0.0	0.0			0.0		0.0		cps
Window 4		0.0	0.0			0.0		0.0		cps
Long Space		0.0	0.0			0.0		0.0		cps
Short Space		0.0	0.0			0.0		0.0		cps
Measured Rho			0.0000			0.0000		0.0000		g/cc
Measured Correction			0.0000			0.0000		0.0000		g/cc
Measured Pe						0.0000		0.0000		

After Survey Verification										
Performed Wed Dec 31 18:00:00 1969										
Window 1		0.0	0.0			0.0		0.0		cps
Window 2		0.0	0.0			0.0		0.0		cps
Window 3		0.0	0.0			0.0		0.0		cps
Window 4		0.0	0.0			0.0		0.0		cps
Long Space		0.0	0.0			0.0		0.0		cps
Short Space		0.0	0.0			0.0		0.0		cps
Measured Rho			0.0000			0.0000		0.0000		g/cc

Measured Pm	0.0000	0.0000	0.0000	g/cc
Measured Correction	0.0000	0.0000	0.0000	
Measured Pe		0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808
 Tool Model: Probe

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: 070559
 Tool Model: OPEN_GR
 Performed: Wed Oct 16 03:19:01 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps