



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL  
INDUCTION  
LOG**

Company CASTELLI EXPLORATION, INC.  
Well DUNN SWD #1-25  
Field  
County COMANCHE State KANSAS

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County COMANCHE  
State KANSAS

Location: API #: 15-033-21747-00-00  
SEC 25 TWP 33S RGE 17W  
1650' FNL & 2310' FEL  
Permanent Datum GROUND LEVEL Elevation 1836  
Log Measured From KELLY BUSHING 12' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL  
PE  
Elevation  
K.B. 1848  
D.F. 1846  
G.L. 1836

Date	1-24-14		
Run Number	ONE		
Depth Driller	6150		
Depth Logger	6149		
Bottom Logged Interval	6147		
Top Log Interval	5150		
Casing Driller	13 3/8" @ 320'		
Casing Logger	320'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM	
Density / Viscosity	9.2/56		
pH / Fluid Loss	9.5/9.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.80 @ 72F		
Rmf @ Meas. Temp	0.80 @ 72F		
Rmc @ Meas. Temp	0.96 @ 72F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	0.43 @ 135F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	135F		
Equipment Number	860		
Location	HAYS, KANSAS		
Recorded By	JEFF GRONEWEG		
Witnessed By	RICK POPP		

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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:  
COLDWATER, KS - 9 MILES EAST TO MM #193, RD 22 - 4 MILES SOUTH TO STOP SIGN  
1 MILE EAST TO RD 23 - 5 MILES SOUTH TO CURVE - 1 1/2 MILES EAST  
SOUTH INTO



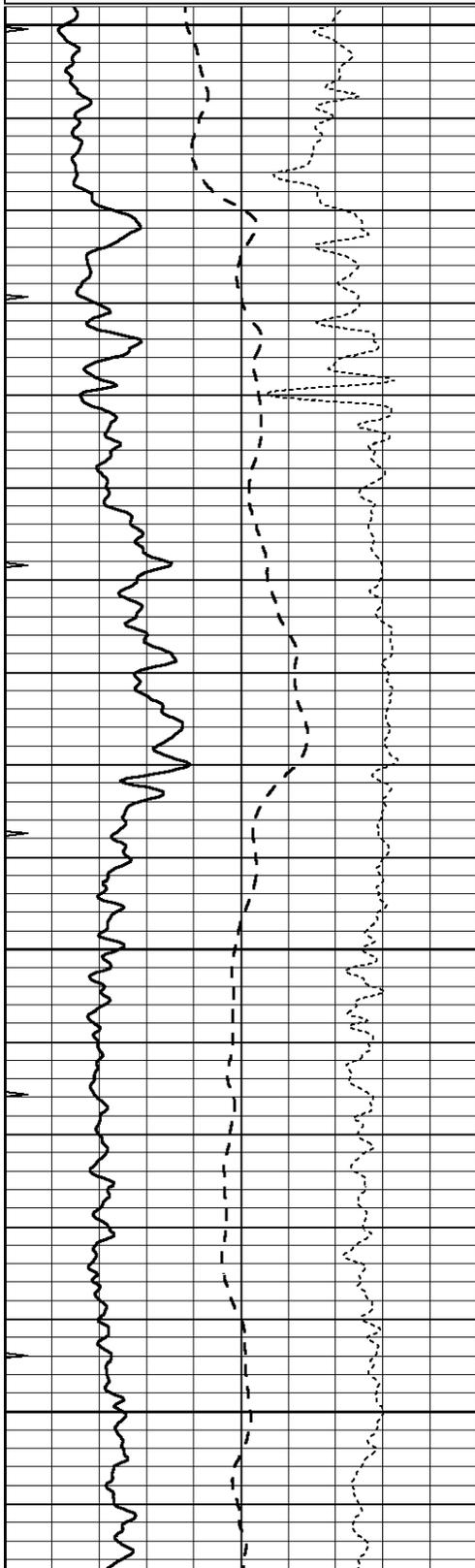
**COMPLETION  
& PRODUCTION**

**REPEAT SECTION**

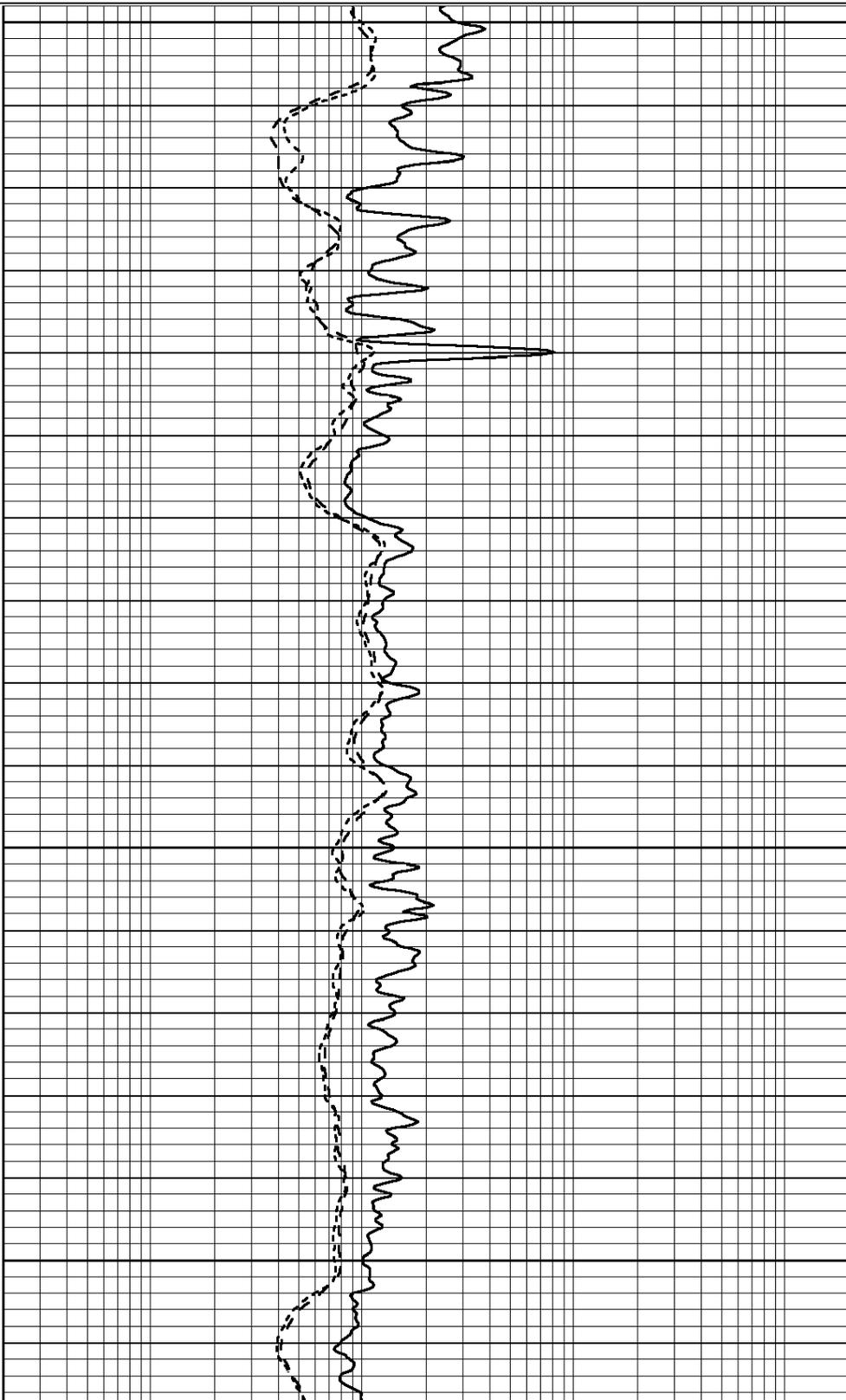
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 Presentation Format: \_dil  
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 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



5150  
5200  
5250  
5300



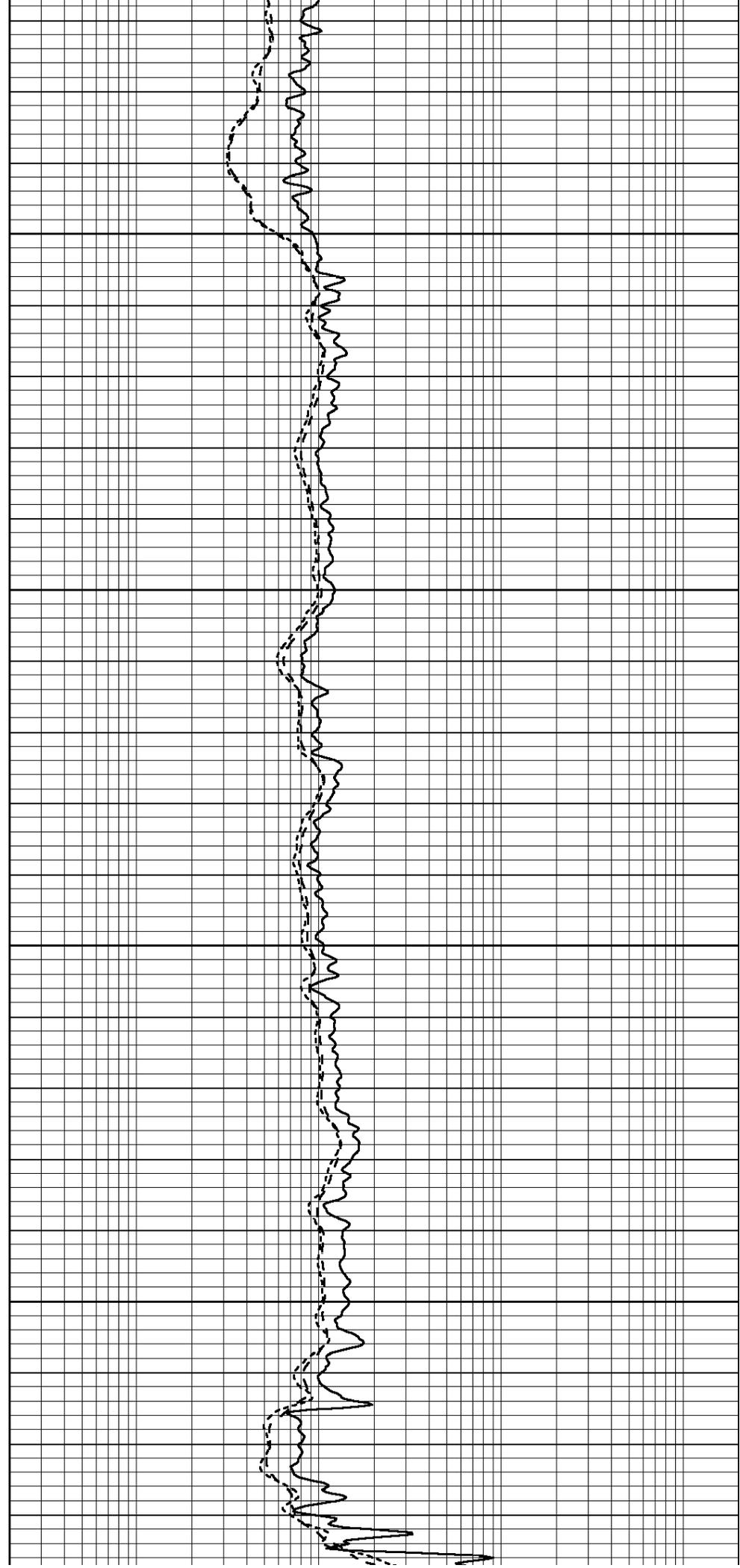


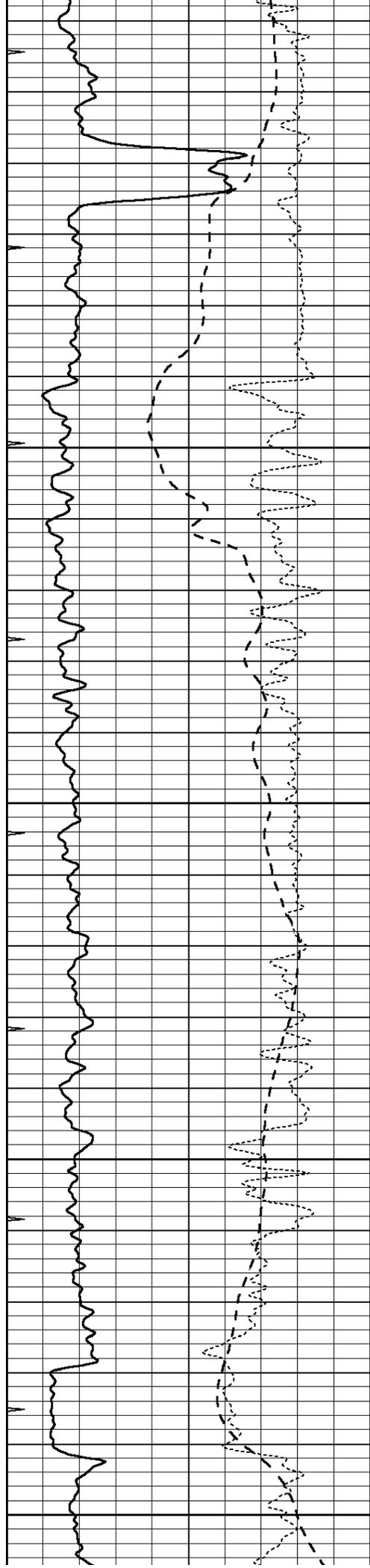
5350

5400

5450

5500





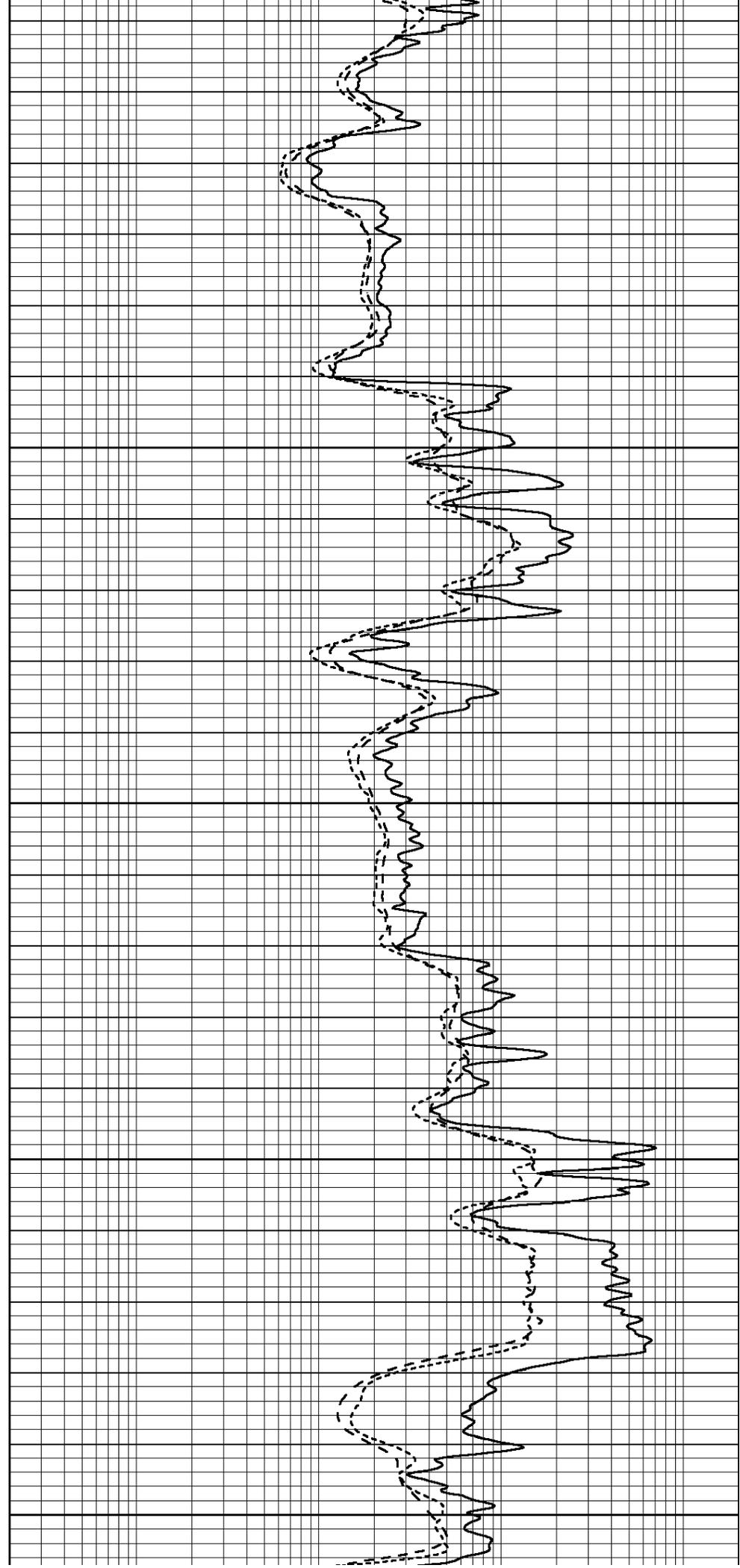
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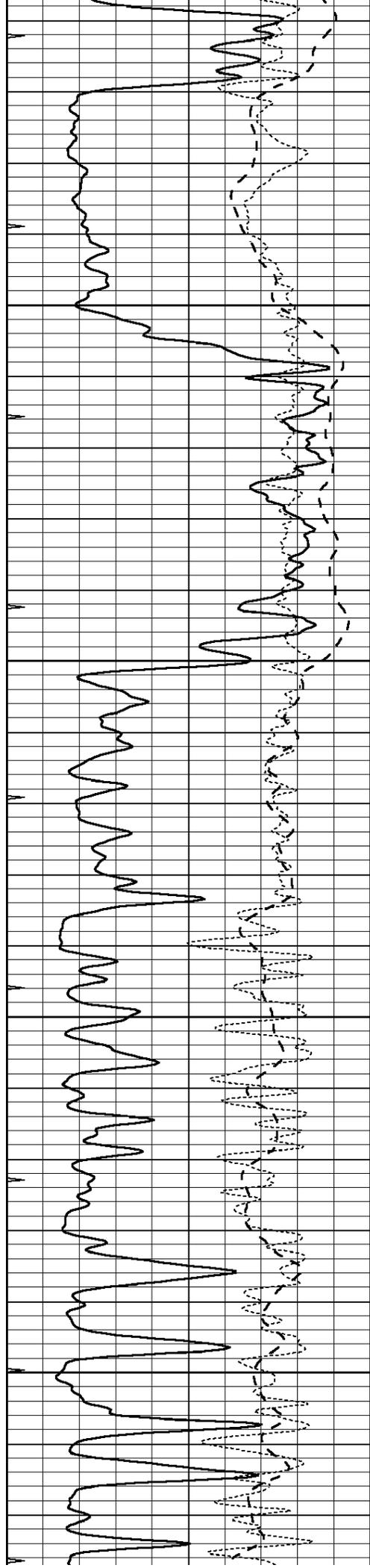
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5650

5700

5750



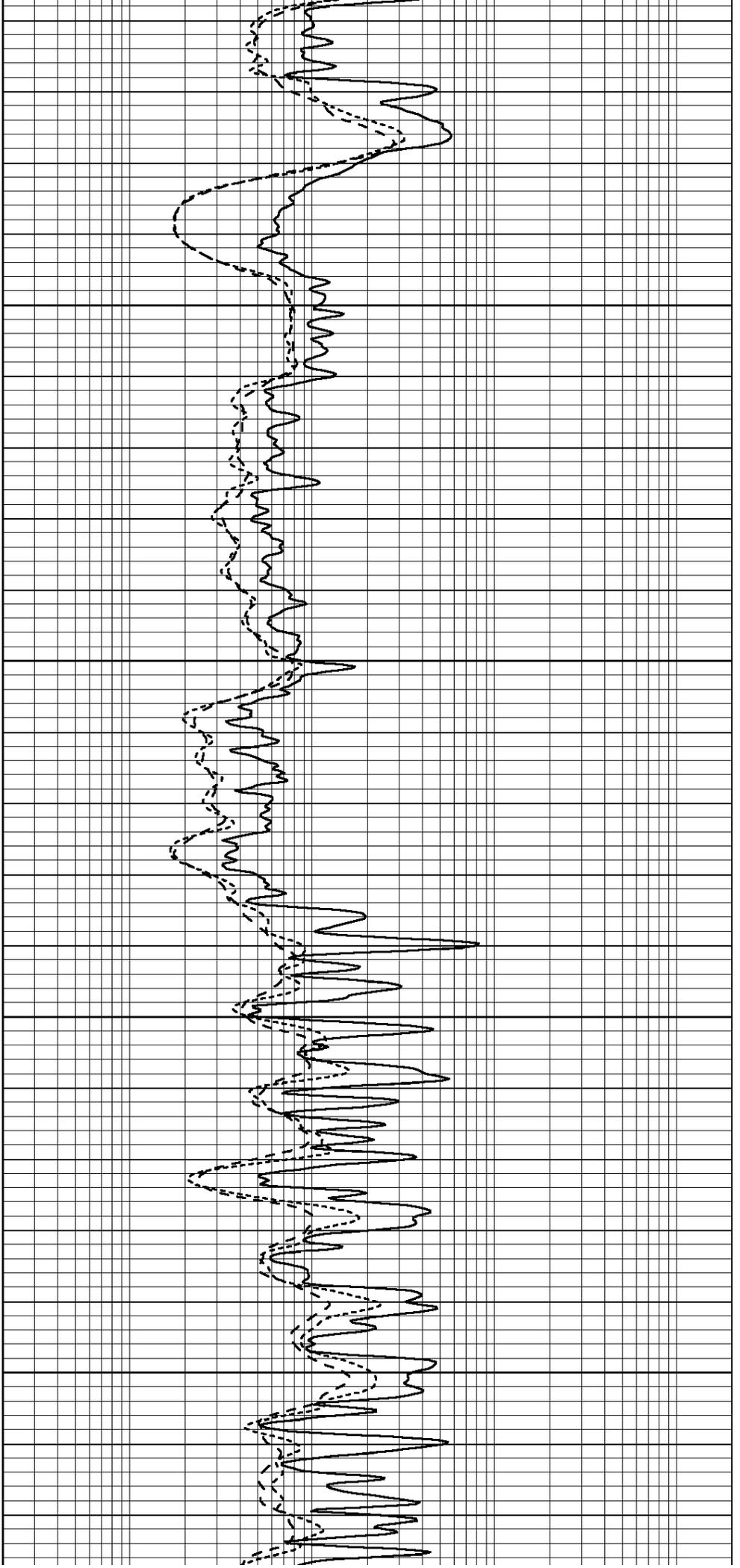


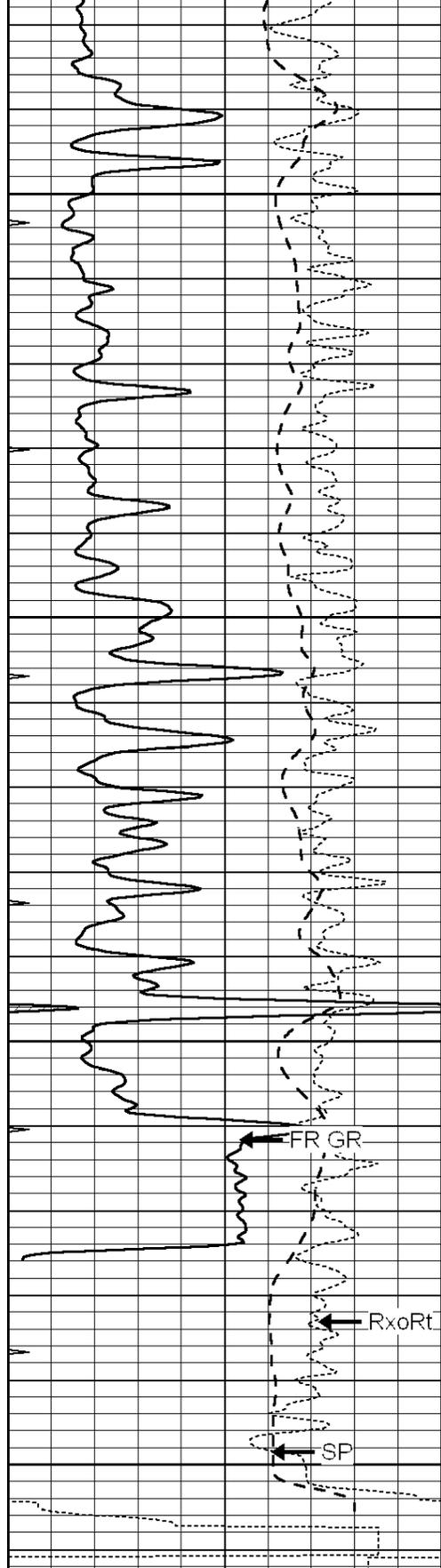
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5850

5900

5950





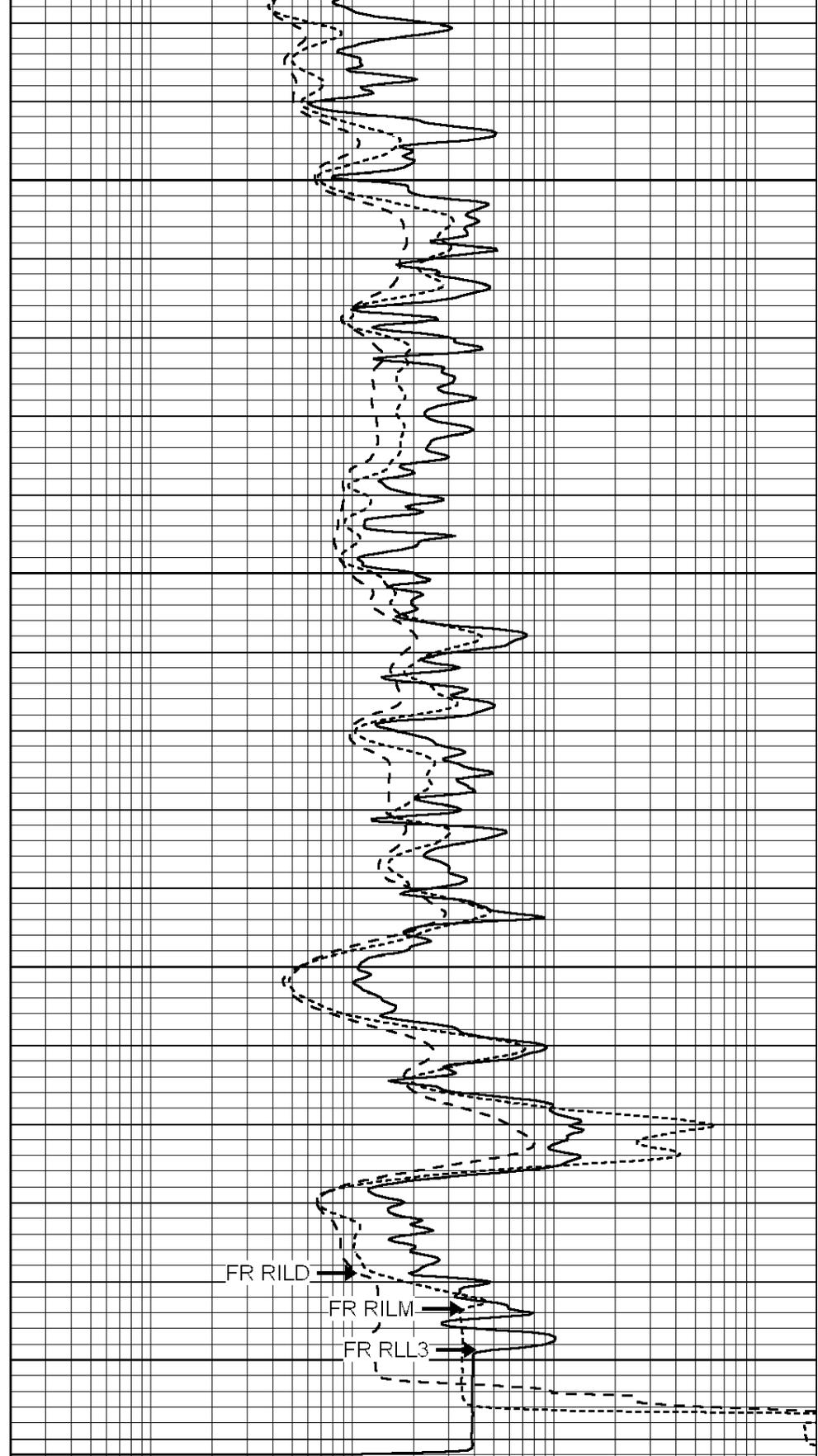
6000

6050

6100

LTD 6149

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

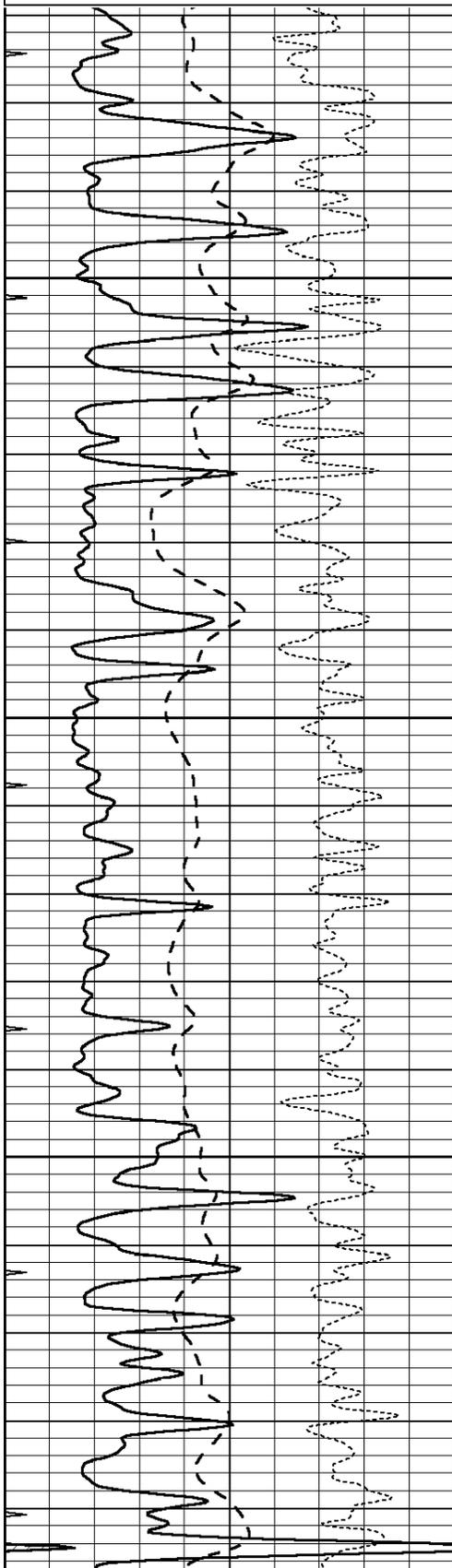


0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

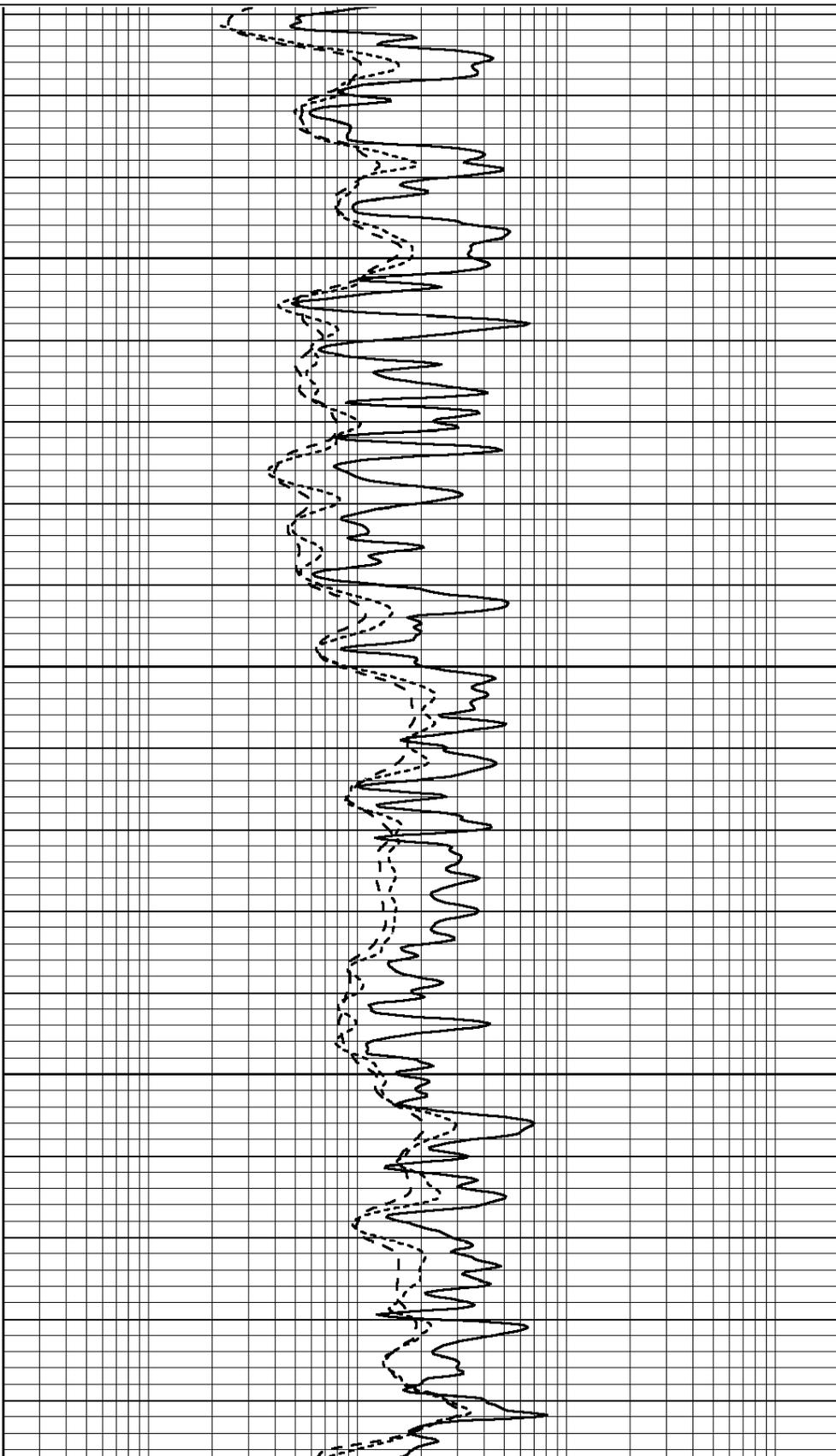
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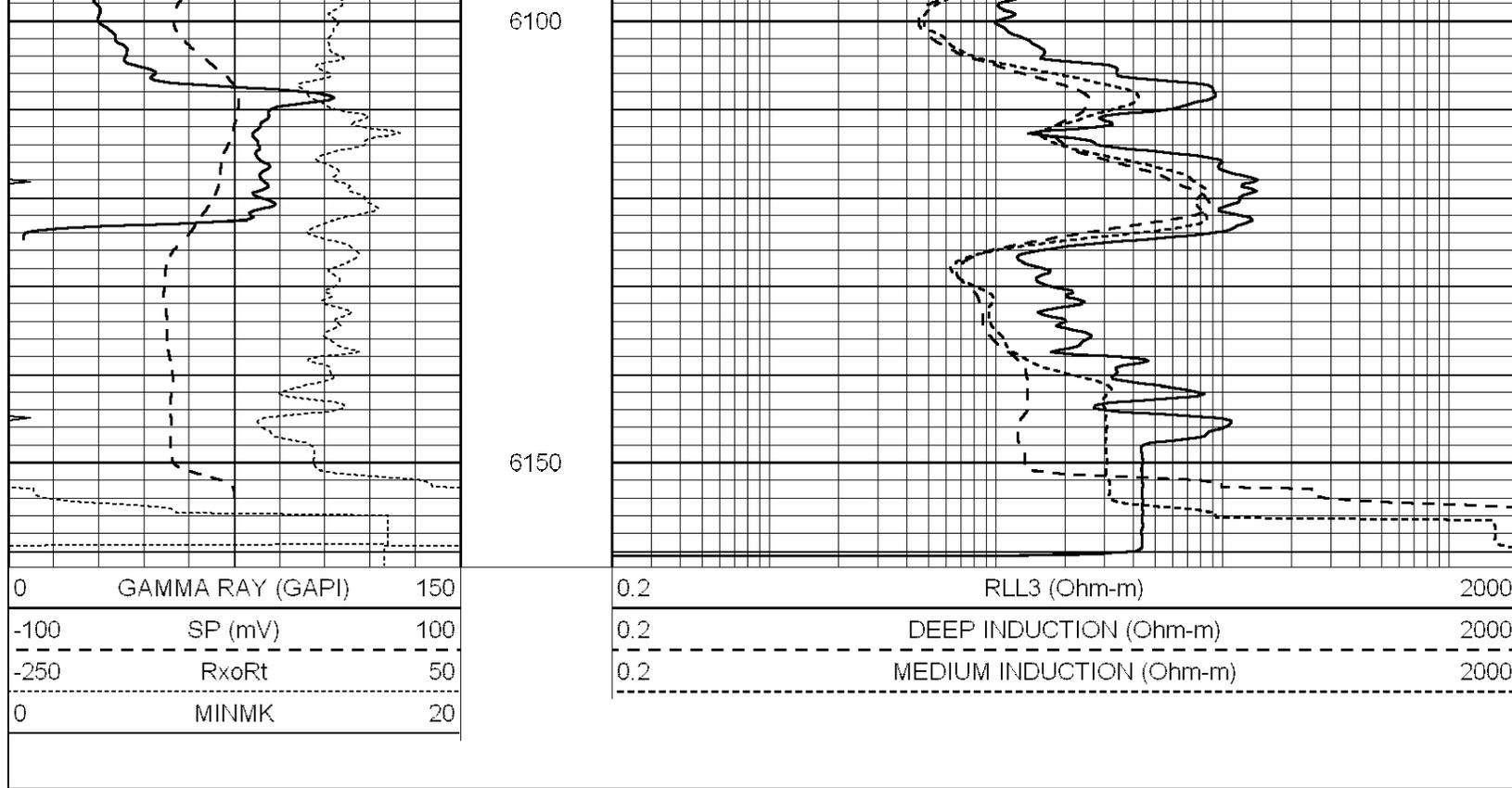
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



5950  
 6000  
 6050





### Calibration Report

Database File: 23913pe.db  
 Dataset Pathname: pass3.4  
 Dataset Creation: Mon Feb 24 22:10:24 2014 by Calc Open-Cased 090629

### Dual Induction Calibration Report

Serial-Model: DIL3-GEAR  
 Performed: Fri Feb 21 19:05:50 2014

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	500.000	6.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	580.000	10.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000

### Litho Density Calibration Report

Serial: 06 Model: PRB  
 Performed Thu Feb 20 14:11:10 2014

#### Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1296.4	6852.3	2581.2	7844.9	cps
Window 2	1221.7	5730.6	2241.1	6466.3	cps
Window 3	935.6	2954.5	1353.9	3244.3	cps
Window 4	453.3	514.3	561.2	561.7	cps
Long Space	0.0	4509.0	1019.4	5244.7	cps
Short Space	1.6	1583.7	1069.9	1740.6	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.576
Spine Angle	: 75.2	Spine Slope	: 3.792	Spine Intercept	: -19.5

Caliper			
Low Ref	Readings	Reference	
High Ref	3.9	8.4	
	5.6	14.0	
	Gain: 3.3		Offset: -6.7

Compensated Neutron Calibration Report

Serial Number:	080620
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:	7	
Tool Model:	Probe1	
Performed:	Fri Feb 21 19:05:18 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.4500	GAPI/cps