



DUAL INDUCTION LOG

Company	American Land And Energy LLC.		
Well	Brungardt #1		
Field	N/A		
County	Ellis	State	Kansas
Location:	API # : 15 051 26588		Other Services
	330' FSL & 900' FEL		ML CDNL
Permanent Datum	SEC 7	TWP 15S	RGE 16W
Log Measured From	Ground Level		
Drilling Measured From	KB 6' AGL		
	Elevation 1910'		
	Elevation K.B. 1916' D.F. 1915' G.L. 1910'		
Date	8-27-13		
Run Number	One		
Depth Driller	3600'		
Depth Logger	3600'		
Bottom Logged Interval	3598'		
Top Log Interval	1000'		
Casing Driller	8 5/8"@ 1060'		
Casing Logger	1060'		
Bit Size	7 7/8"		
Type Fluid in Hole	Chemical		
Density / Viscosity	9.3/42		
pH / Fluid Loss	8.0/10.0		
Source of Sample	Pit		
Rm @ Meas. Temp	.5@72degf		
Rmf @ Meas. Temp	.38@72degf		
Rmc @ Meas. Temp	.6@72degf		
Source of Rmf / Rmc	Calculated		
Rm @ BHT	.32@112degf		
Time Circulation Stopped	10:00 p.m.		
Time Logger on Bottom	11:55 p.m.		
Maximum Recorded Temperature	112degf		
Equipment Number	T045		
Location	Hays, KS.		
Recorded By	Gus Pfannenstiel		
Witnessed By	Mr. Rod Andersen		

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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

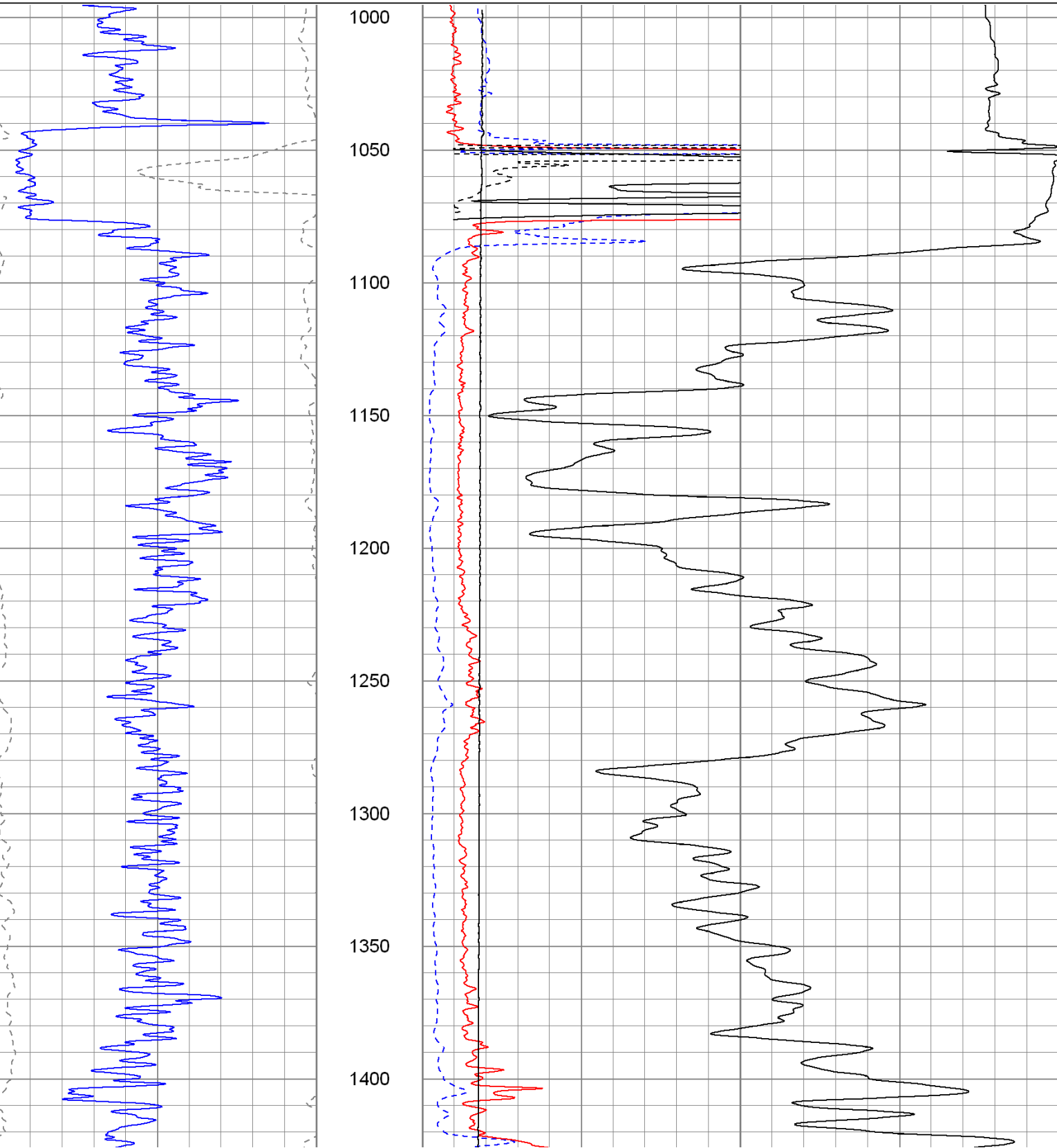
6 miles S of Victoria 1/2 E, N into.

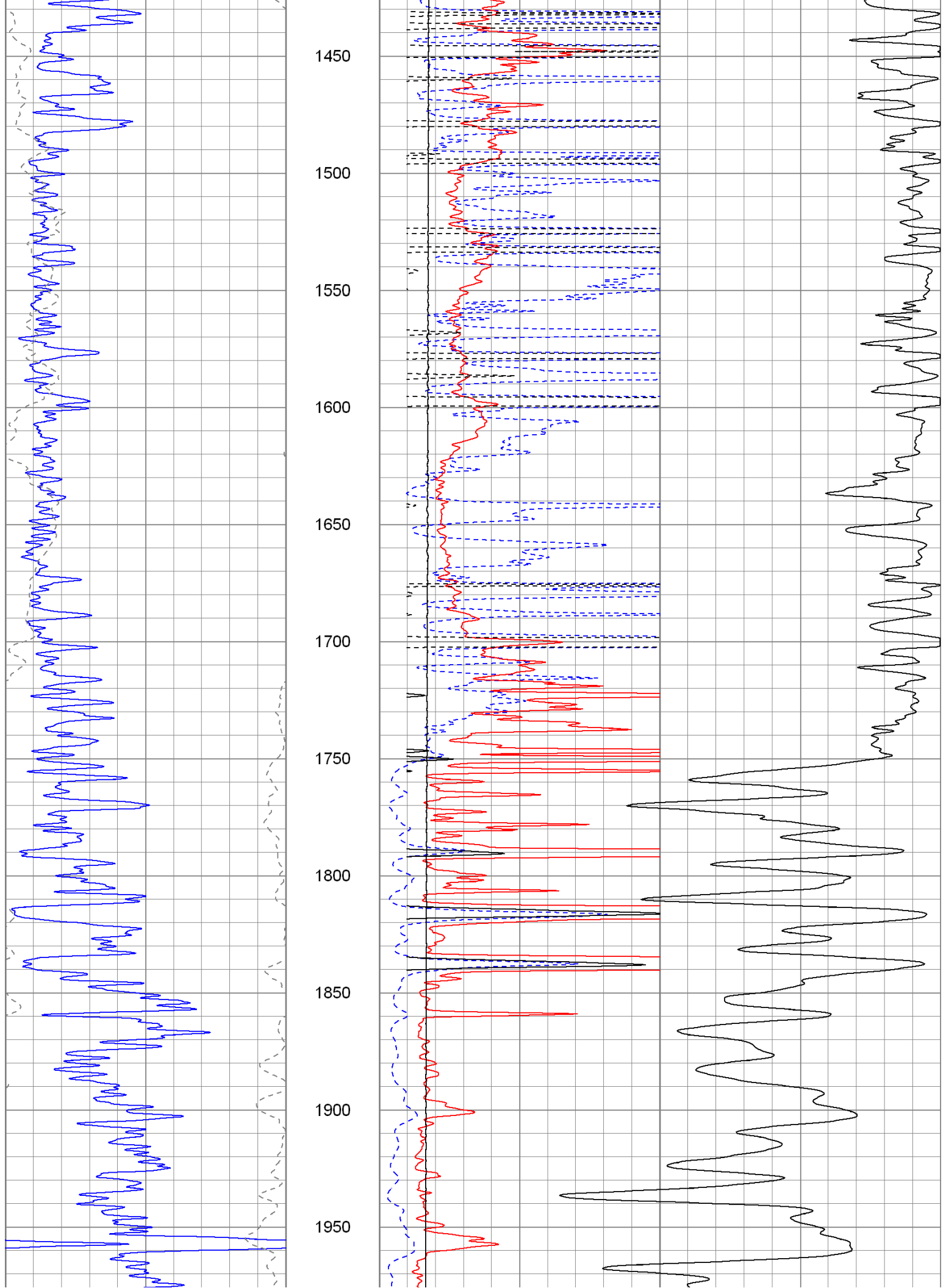


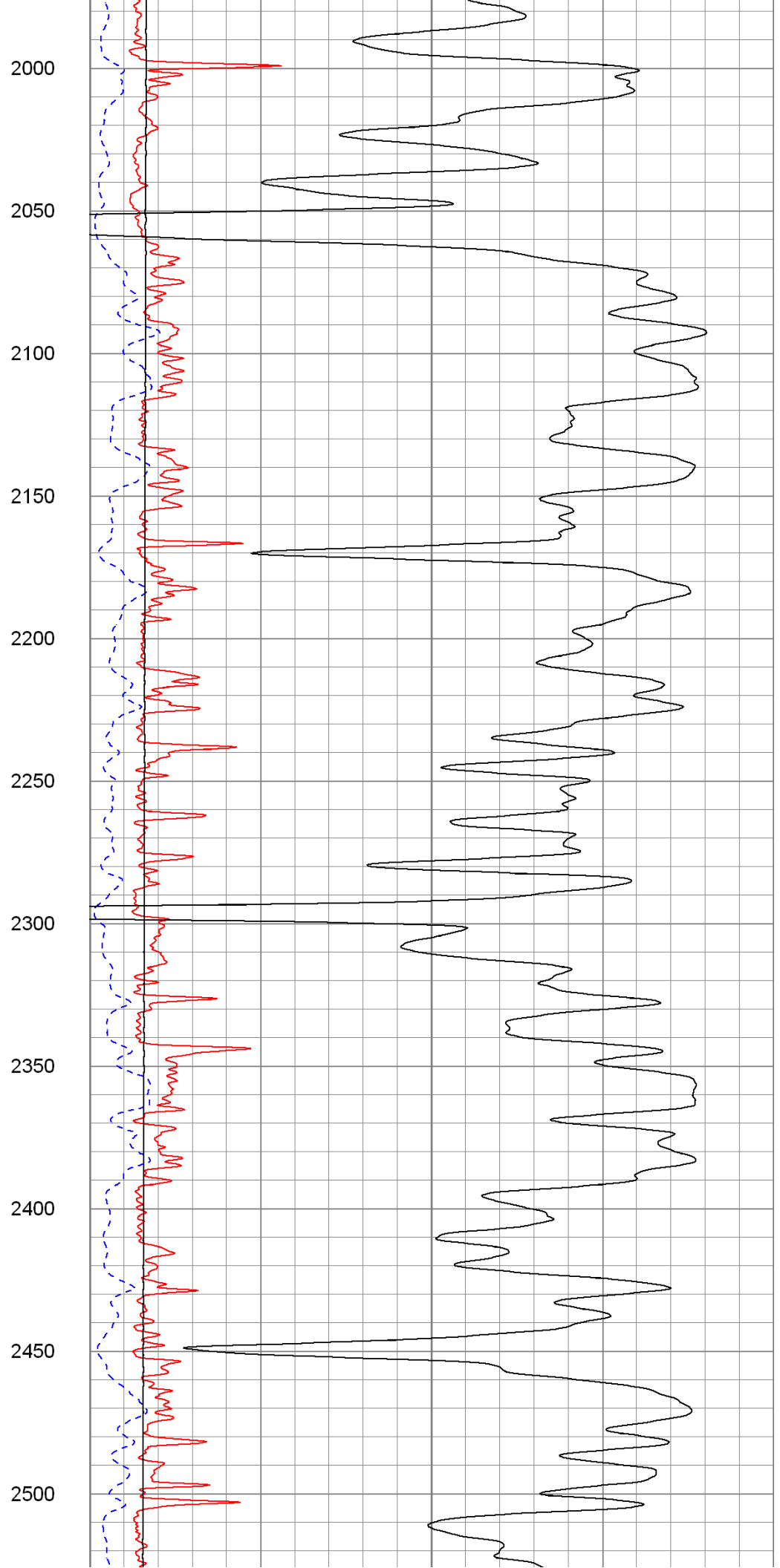
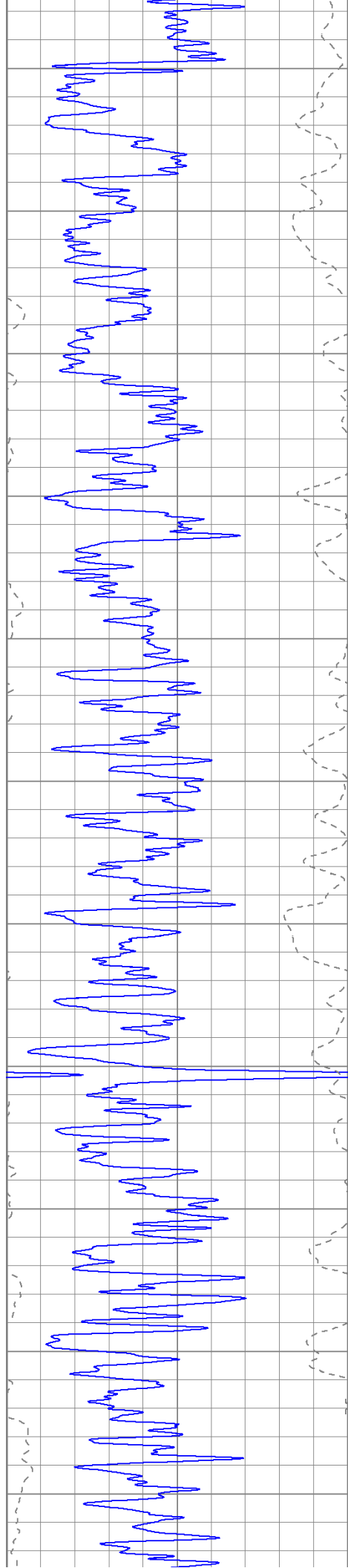
Main Pass

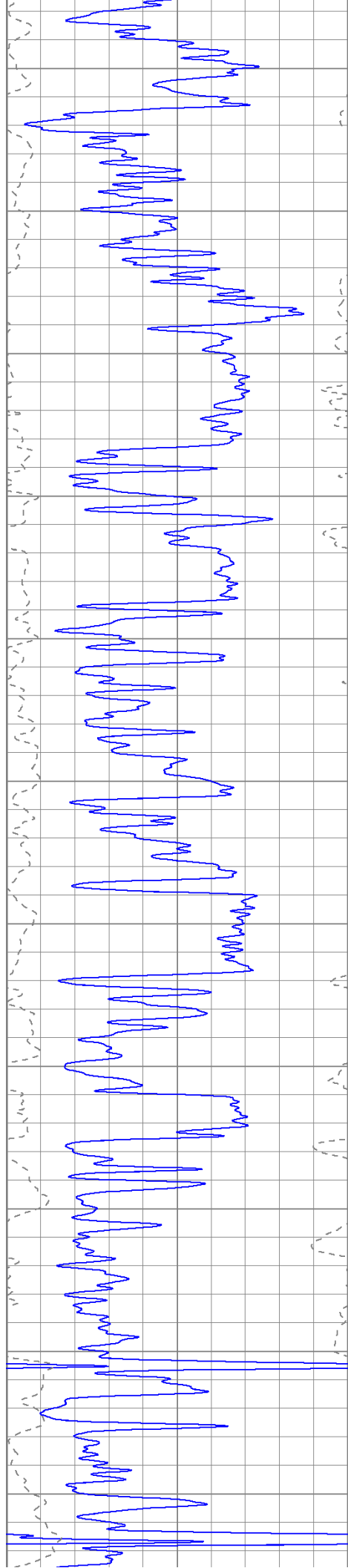
Database File: albrungardt#1oh.db
Dataset Pathname: pass2.3
Presentation Format: kdrilln2
Dataset Creation: Wed Aug 28 13:50:20 2013 by Calc Open-Cased 100827
Charted by: Depth in Feet scaled 1:600

0	GR (GAPI)	150	0	RILD (Ohm-m)	50
-200	SP (mV)	0	0	RLL3 (Ohm-m)	50
			1000	CILD (mmho/m)	0
			10000	LTEN (lb)	0
			50	RILD x 10 (Ohm-m)	500
			50	RLL3 x 10 (Ohm-m)	500









2550

2600

2650

2700

2750

2800

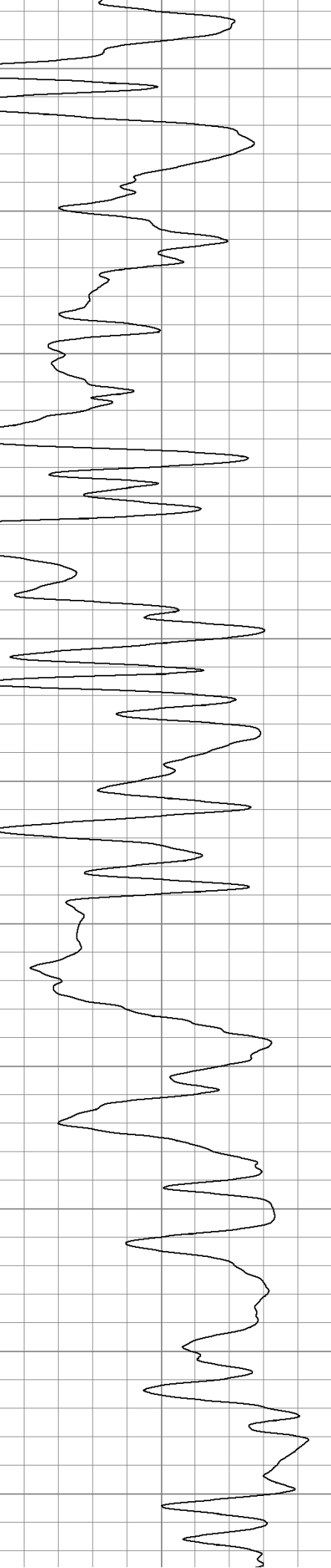
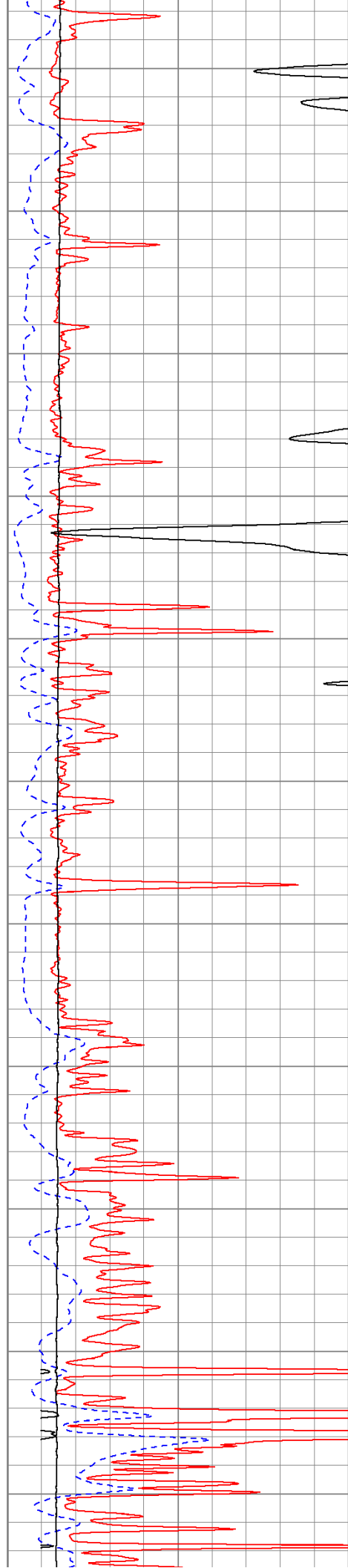
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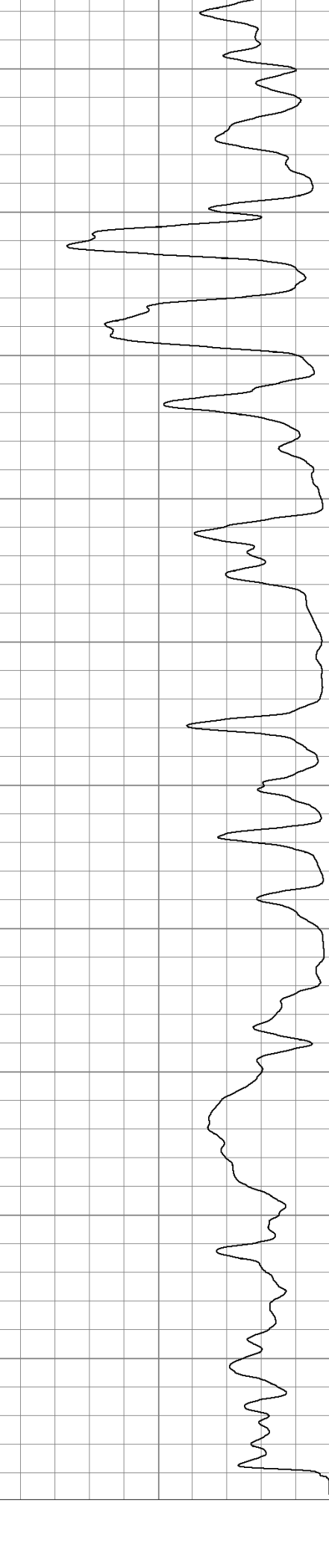
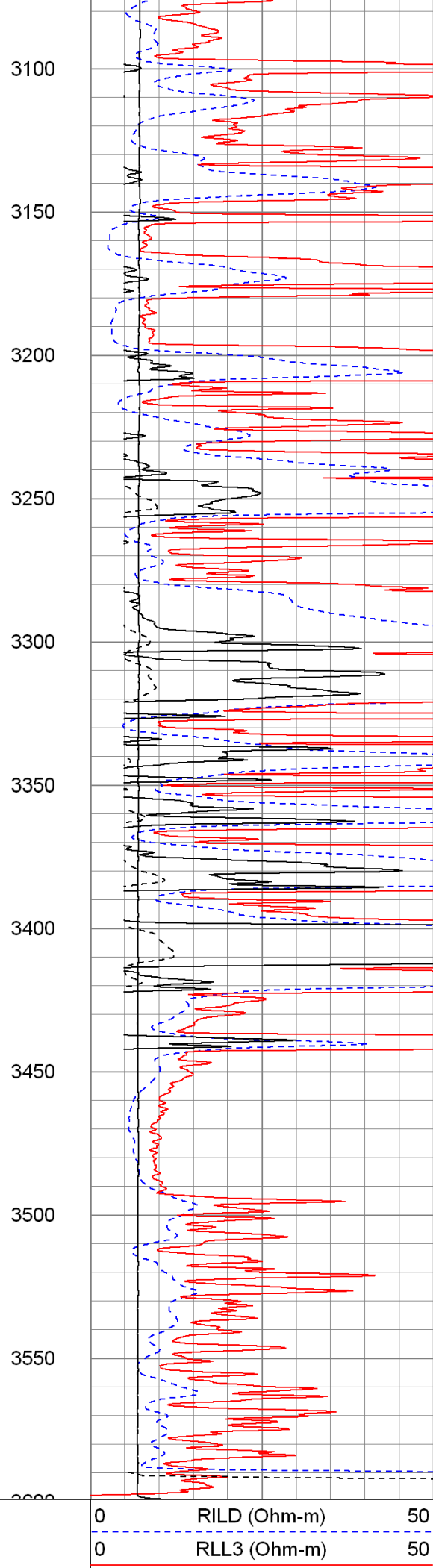
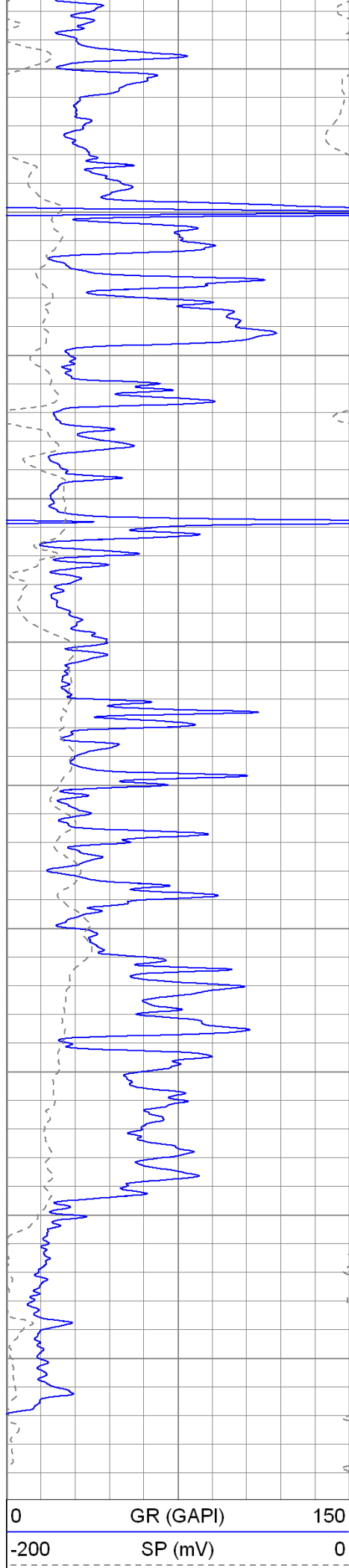
2900

2950

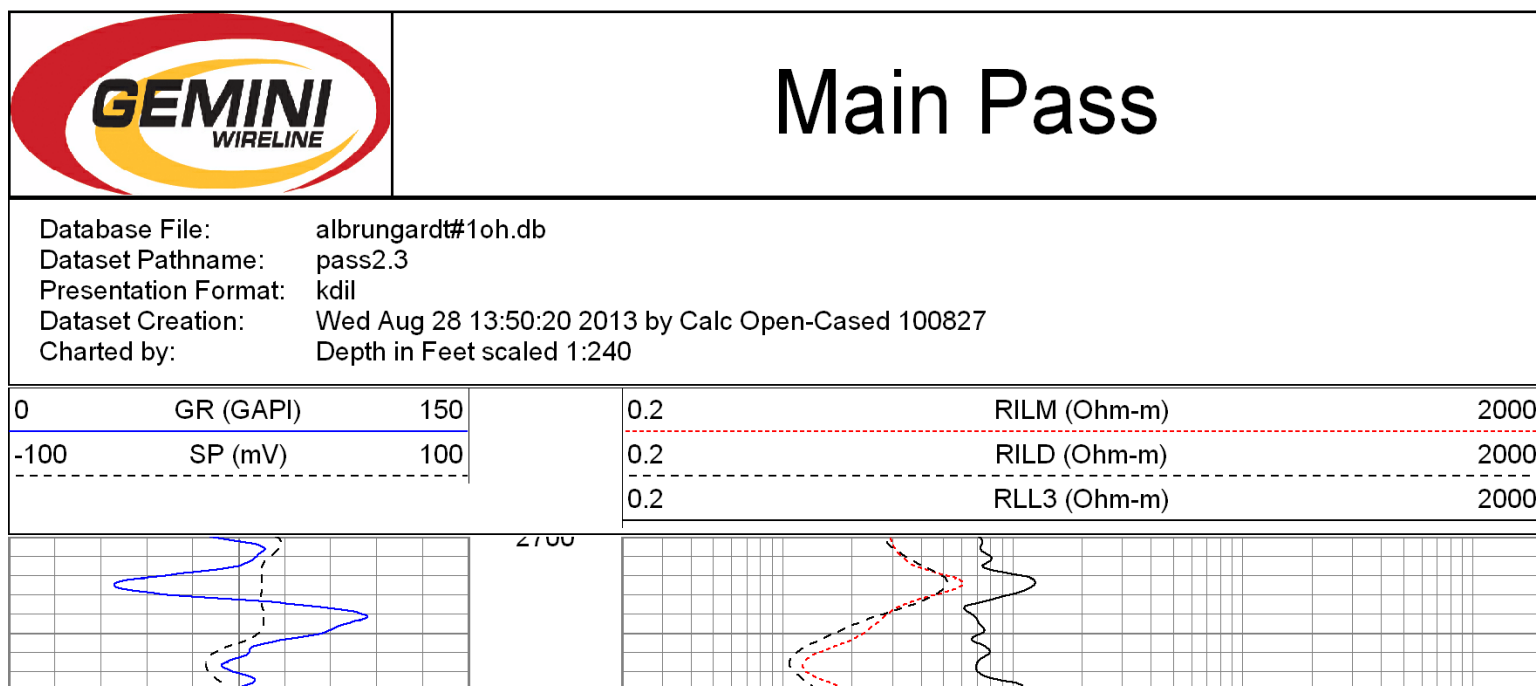
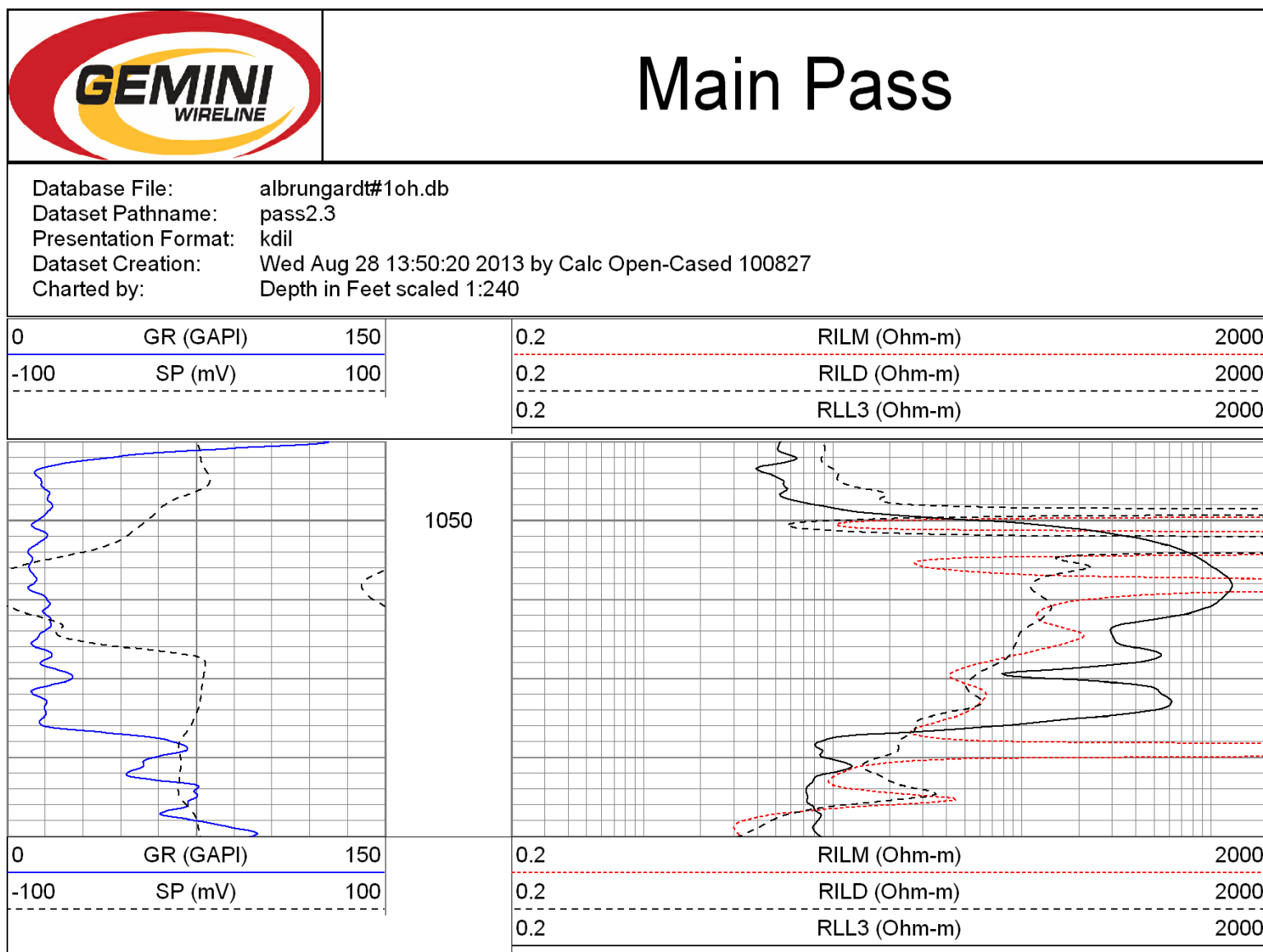
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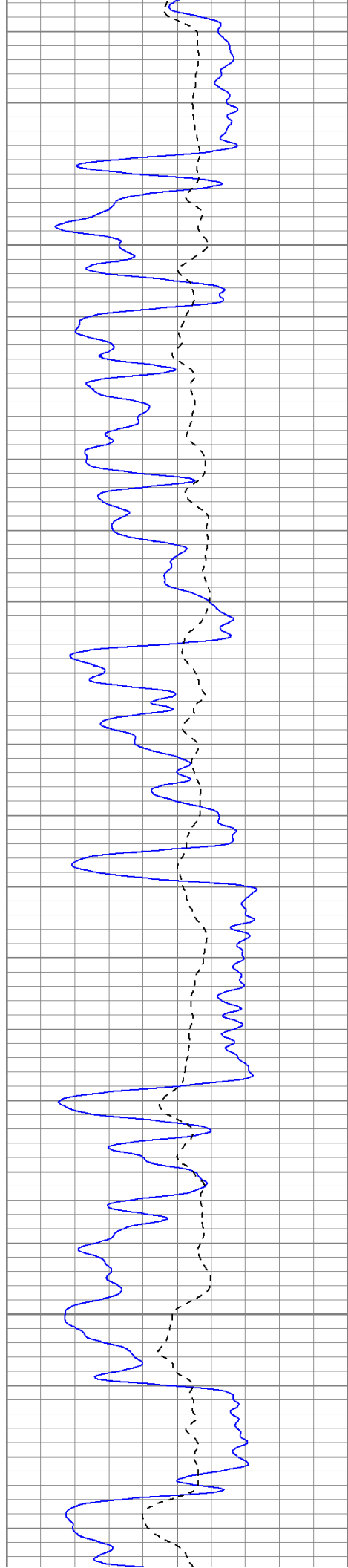
3050





1000	CILD (mmho/m)	0
10000	LTEN (lb)	0
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500



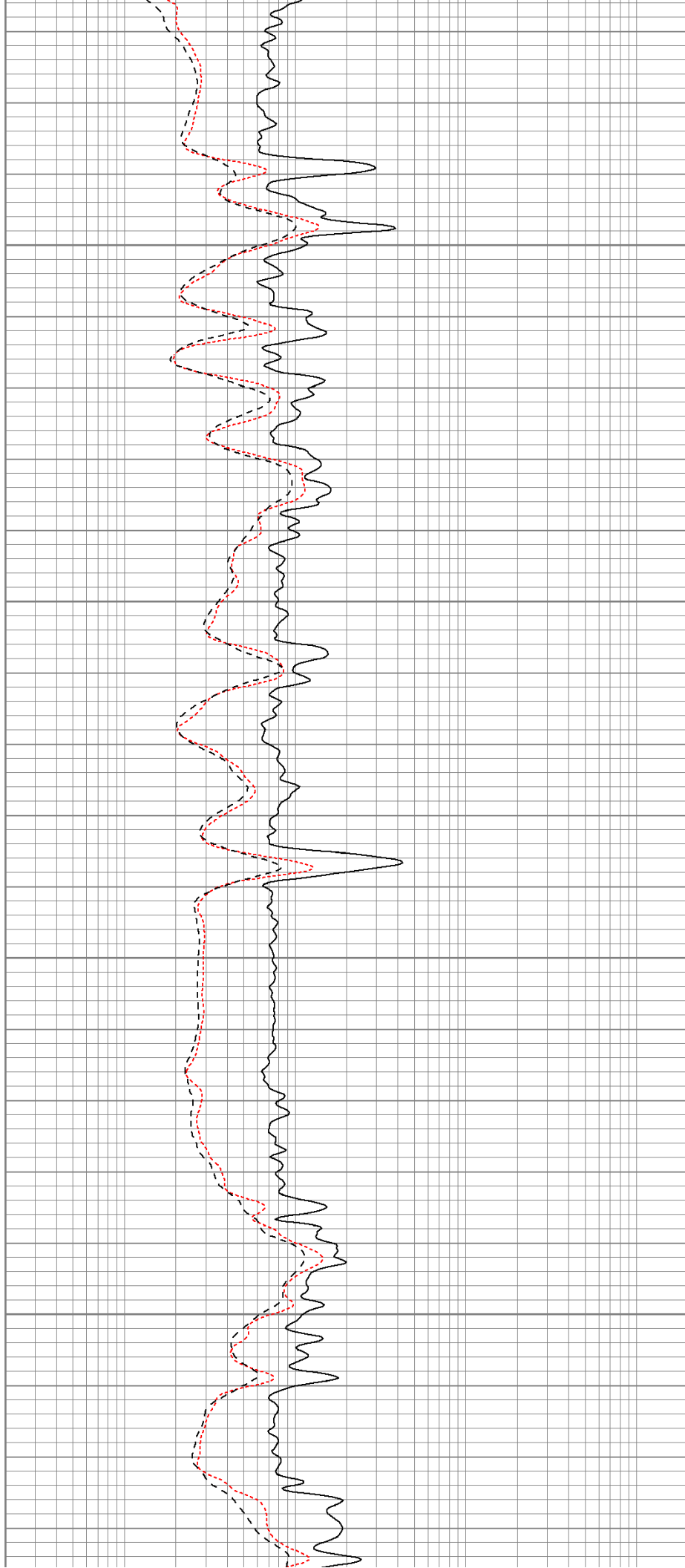


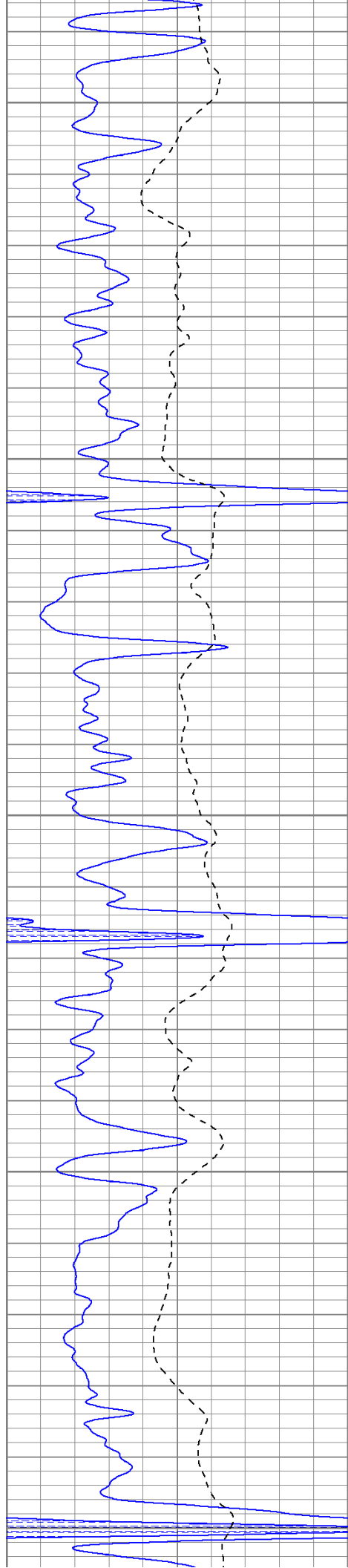
2750

2800

2850

2900





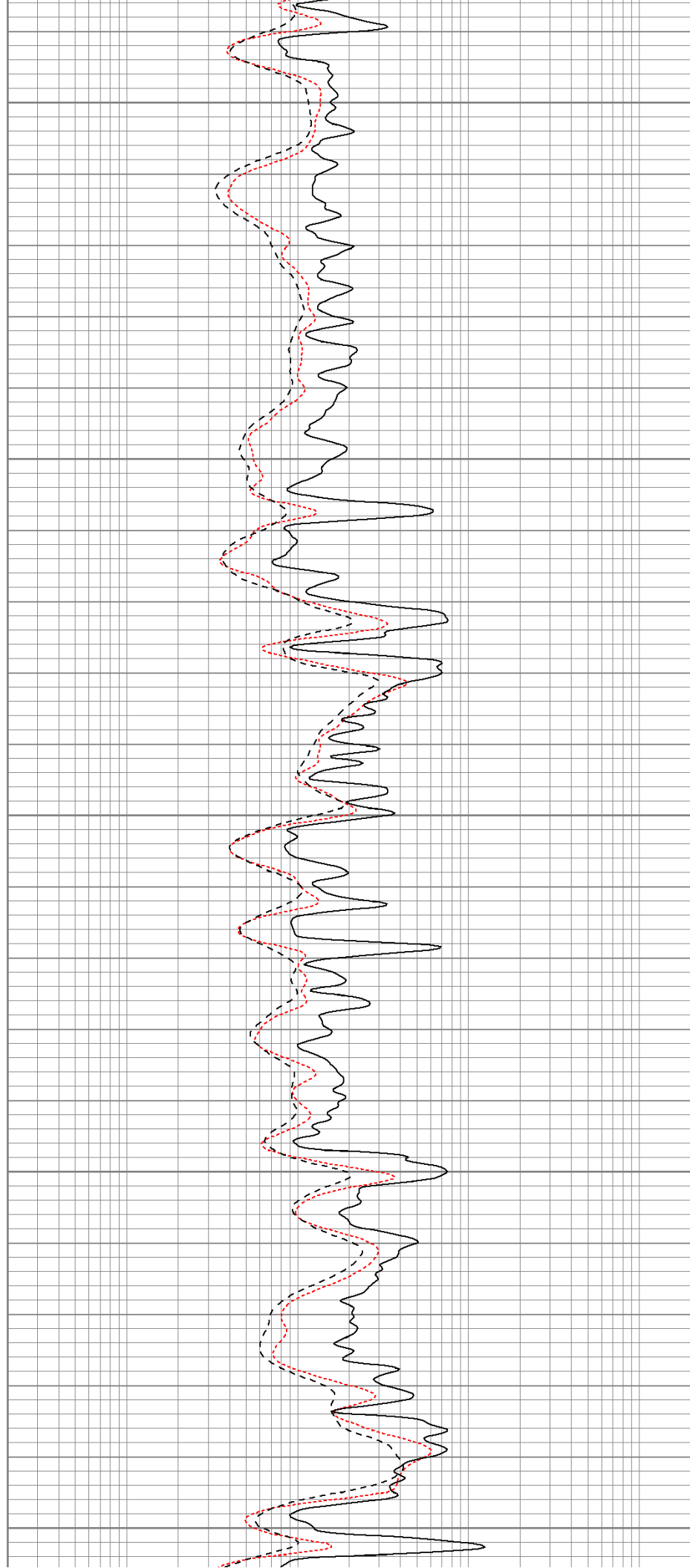
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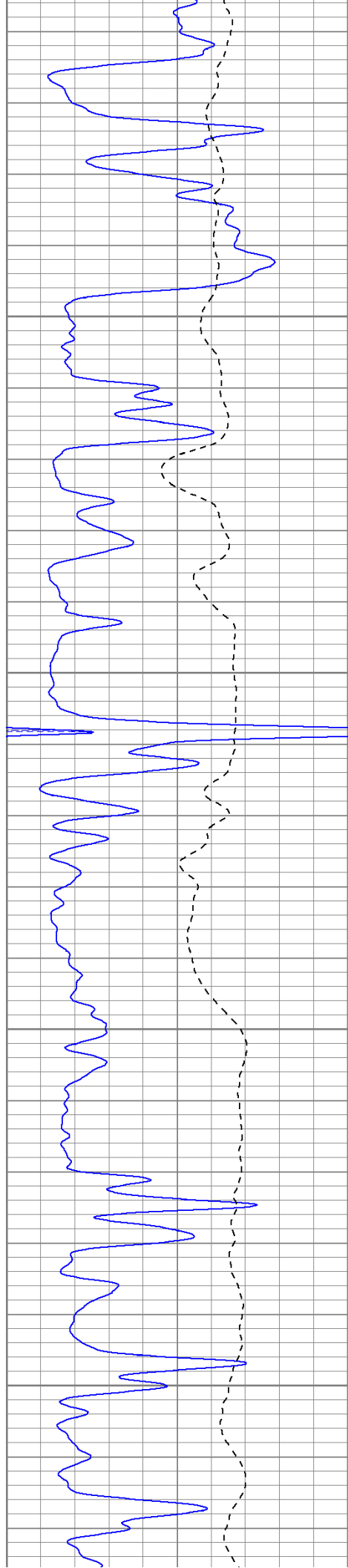
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3050

3100

3150



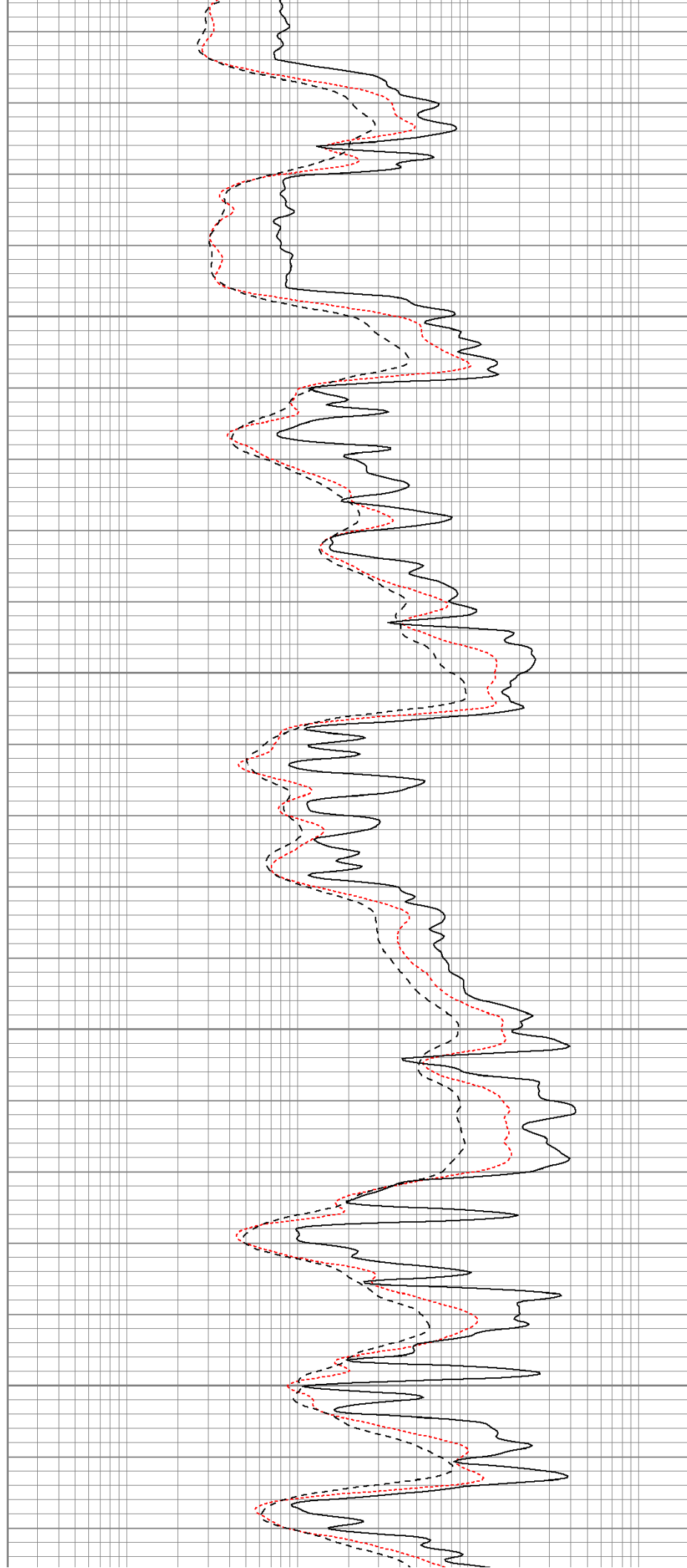


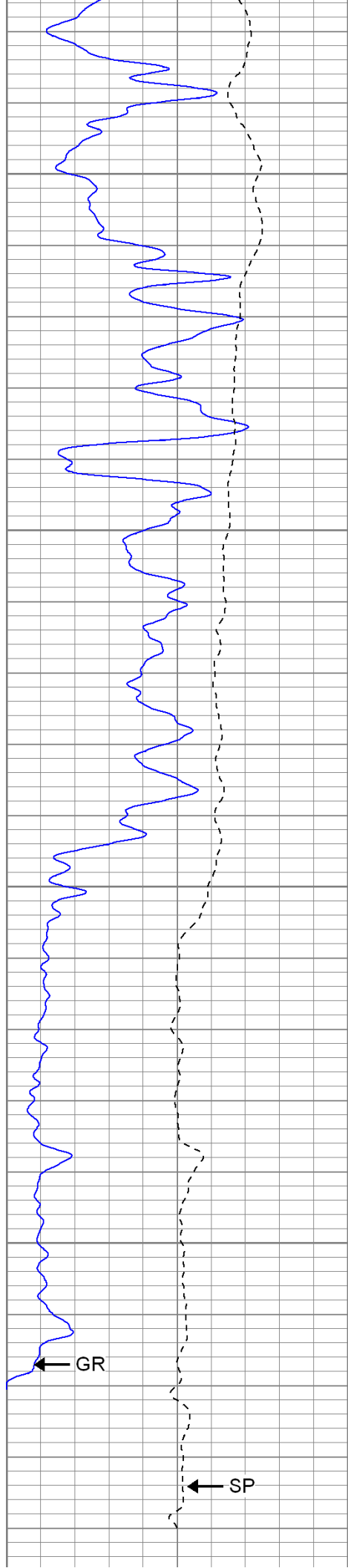
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3250

3300

3350





3400

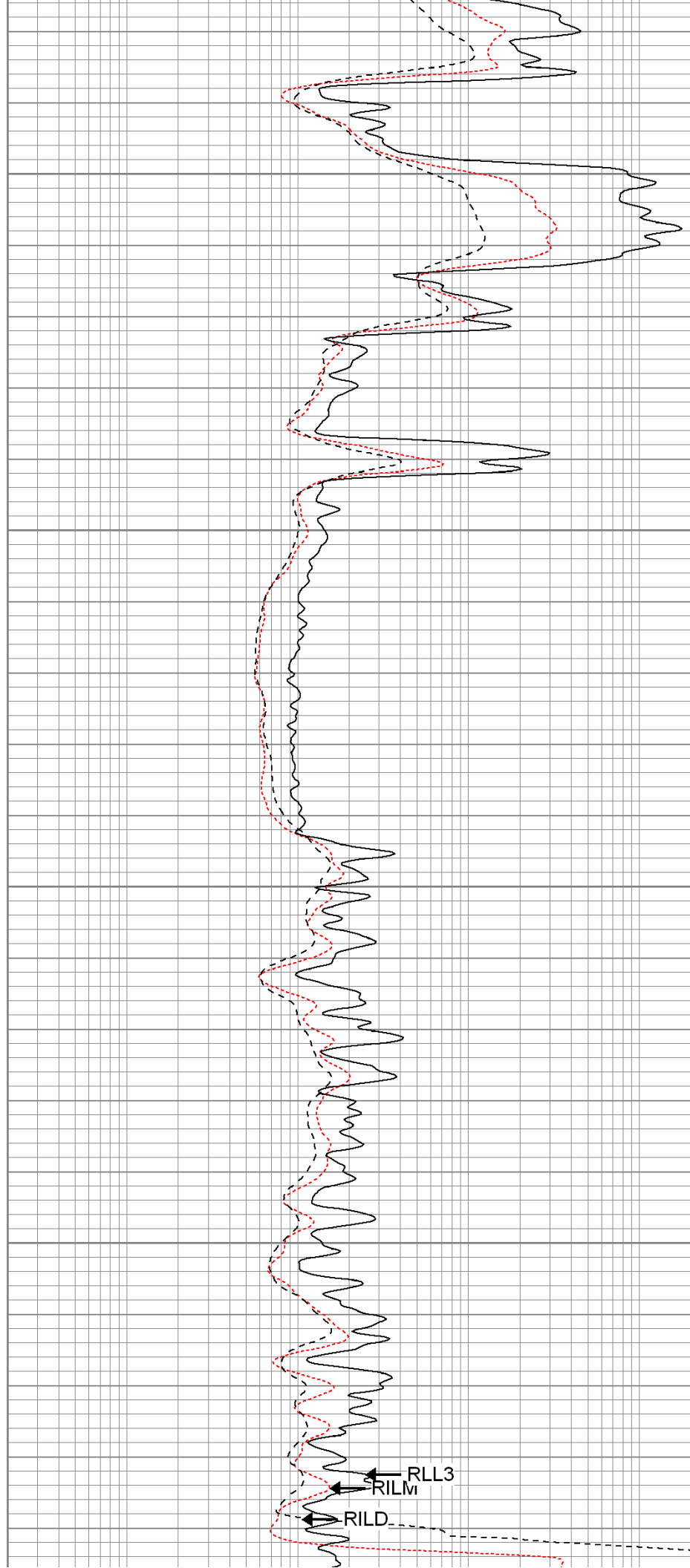
3450

3500

3550

← GR

← SP



← RLL3

← RILM

← RILD

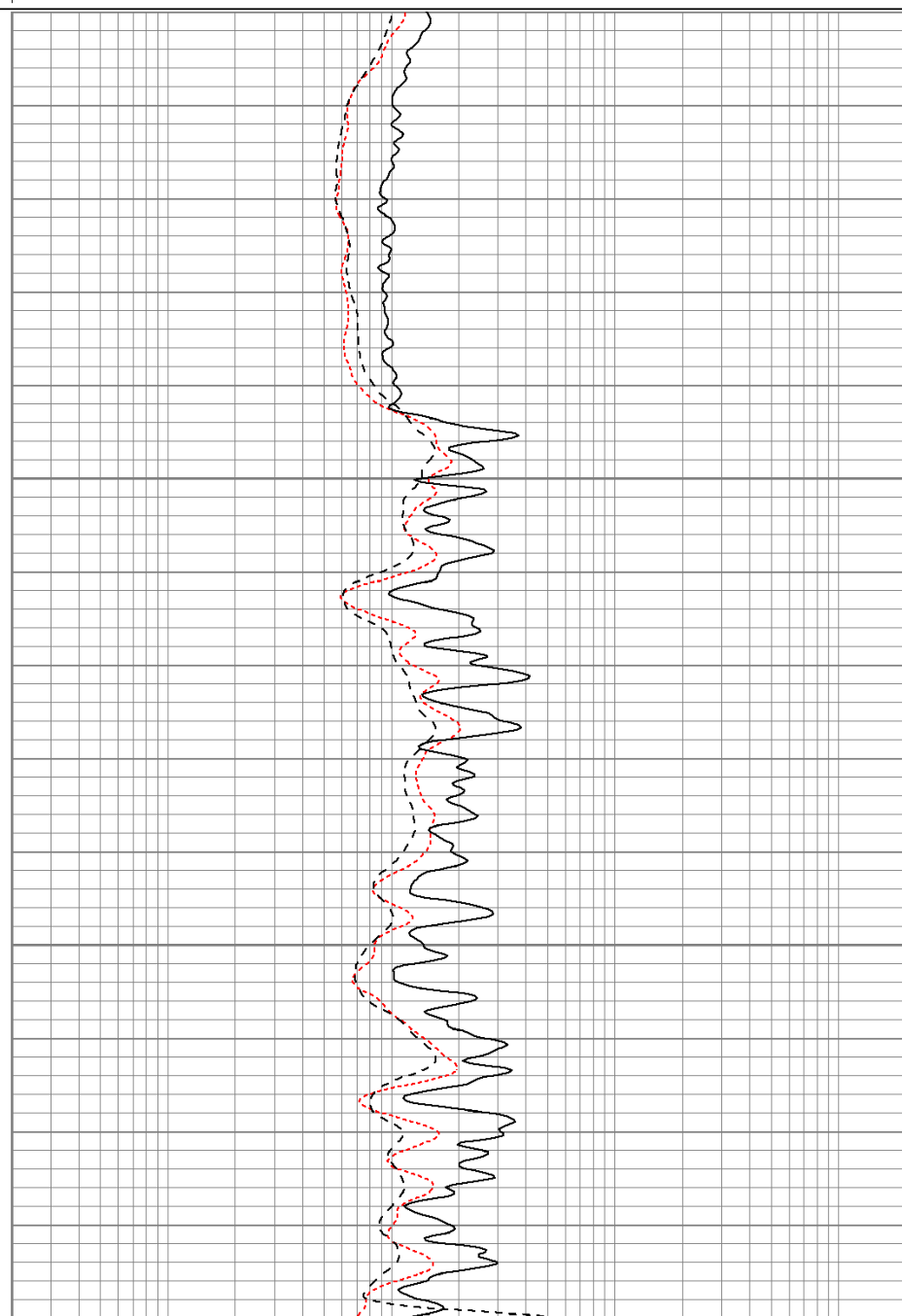
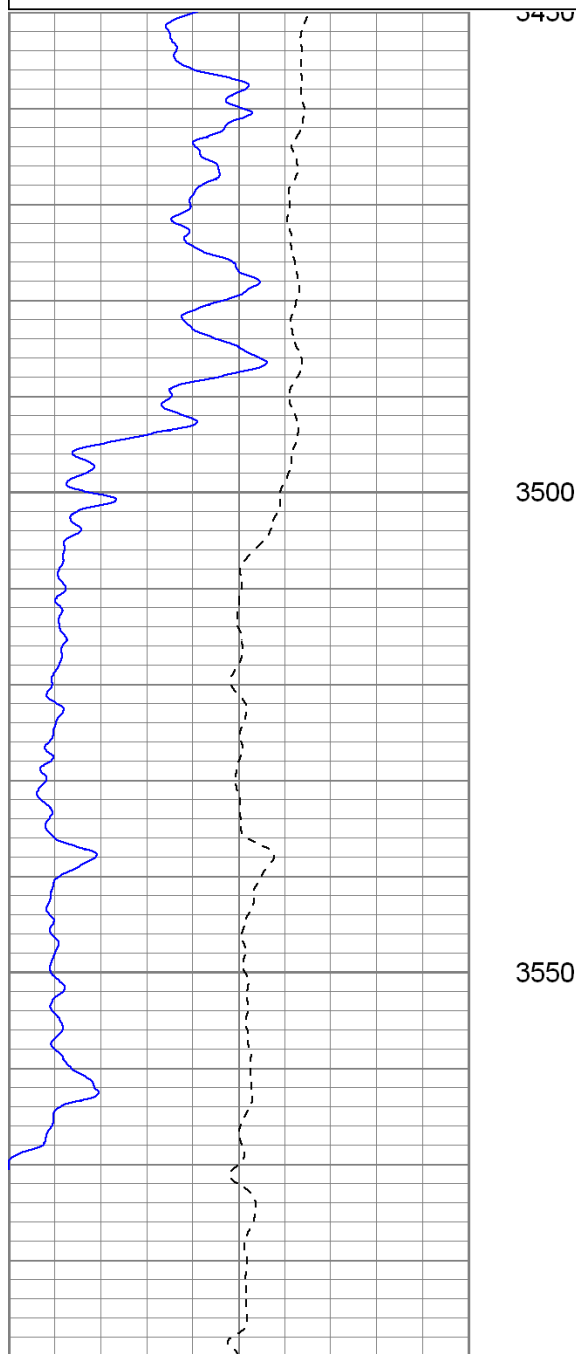
0	GR (GAPI)	150	0.2	RILM (Ohm-m)	2000
-100	SP (mV)	100	0.2	RILD (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000



Repeat Pass

Database File: albrungardt#1oh.db
 Dataset Pathname: pass1.2
 Presentation Format: kdil
 Dataset Creation: Wed Aug 28 12:59:24 2013 by Calc Open-Cased 100827
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	0.2	RILM (Ohm-m)	2000
-100	SP (mV)	100	0.2	RILD (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000



0	GR (GAPI)	150	0.2	RILM (Ohm-m)	2000
-100	SP (mV)	100	0.2	RILD (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000

Calibration Report	
Database File:	albrungardt#1oh.db
Dataset Pathname:	pass1.2
Dataset Creation:	Wed Aug 28 12:59:24 2013 by Calc Open-Cased 100827

Dual Induction Calibration Report

Serial-Model:	1842-ADM
Surface Cal Performed:	Tue Jan 29 07:47:45 2013
Downhole Cal Performed:	Tue Jan 29 07:48:26 2013
After Survey Verification Performed:	Tue Jan 29 07:48:26 2013

Surface Calibration									
Readings				References			Results		
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.013	0.660	V	0.000	350.000	mmho/m	541.472	-7.152	
Medium	0.001	0.762	V	0.000	400.000	mmho/m	525.242	-0.298	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.013	0.660	V	0.000	350.000	mmho/m	541.063	-7.295	
Medium	0.001	0.763	V	0.000	550.000	mmho/m	721.525	-0.493	

Downhole Calibration									
Readings				References			Results		
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	-0.274	349.822	mmho/m	0.149	350.413	mmho/m	1.000	0.423	
Medium	-0.202	399.974	mmho/m	0.061	400.439	mmho/m	1.000	0.263	
Shallow	2.544	0.014	V	500.000	2.000	Ohm-m	196.863	-2.840	

After Survey Verification									
Readings				Targets			Results		
Internal:	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	-0.274	349.822	mmho/m	1.000	0.423	
Medium	0.000	0.000	mmho/m	-0.202	399.974	mmho/m	1.000	0.263	
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000	

Compensated Density Calibration Report
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Serial-Model:	2388DHT-DHT
Source / Verifier:	/
Master Calibration Performed:	Mon Jan 07 17:00:17 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration									
Density				Far Detector		Near Detector			
Magnesium	1.750	g/cc		717.11		305.57	cps		

Aluminum	2.620	g/cc	140.63	218.93	cps
		Spine Angle = 78.43	Density/Spine Ratio = 0.523		
	Size		Reading		
Small Ring	8.05	in	5771.32		
Large Ring	14.00	in	10165.20		

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	

Gamma Ray Calibration Report

Serial Number:	2001	
Tool Model:	OH	
Performed:	Mon Jan 07 17:00:47 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2300	GAPI/cps

Neutron Calibration Report

Serial Number:	5108	
Tool Model:	PROBE	
Performed:	Mon Jan 07 17:00:44 2013	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
NEU	36.50		None	0.75	1.50	5.00
			NEU-PROBE (5108) Probe	4.92	3.63	85.00
GR	30.56		GR-OH (2001) 2001	3.56	3.25	40.00
			CDL-DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
LSD	22.02					
DCAL	21.73					
SSD	21.48					
HEADVOLT	19.71					

CILD	10.60						
SP	10.60						
CILM	6.89						
RLL3	1.70						
				DIL-ADM (1842) Dual Induction	19.71	4.00	300.00
Dataset: albrungardt#1oh.db: field/well/run1/pass1.2							
Total Length: 38.63 ft							
Total Weight: 631.00 lb							
O.D. 4.00 in							