



**DUAL
INDUCTION
LOG**

Company Meridian Energy Well Hamel 3A Field Lynd County Rooks State KS	Company Meridian Energy Well Hamel 3A Field Lynd County Rooks State KS
Location: 330' FSL & 660' FWL API # : 15 163 24145	Other Services ML CDNL
Permanent Datum SEC 33 TWP 9S RGE 19W Log Measured From Ground Level Elevation 2208' KB 5' AGL Drilling Measured From KB	Elevation K.B. 2213' D.F. 2213' G.L. 2208'

Date	10-16-13
Run Number	One
Depth Driller	3830'
Depth Logger	3830'
Bottom Logged Interval	3829'
Top Log Interval	3000'
Casing Driller	5/8" @ 220'
Casing Logger	220'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical Mud
Density / Viscosity	9.3/58
pH / Fluid Loss	10.0/8.8
Source of Sample	Pit
Rm @ Meas. Temp	1.95@85degf
Rmf @ Meas. Temp	1.56@85degf
Rmc @ Meas. Temp	2.5@85degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.44@115degf
Time Circulation Stopped	5:00 p.m.
Time Logger on Bottom	7:00 p.m.
Maximum Recorded Temperature	115 degf
Equipment Number	T127
Location	Hays, KS.
Recorded By	L. Smith
Witnessed By	Mr. Pat Deenihan

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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 Gemini Wireline
785-625-1182



Main Pass

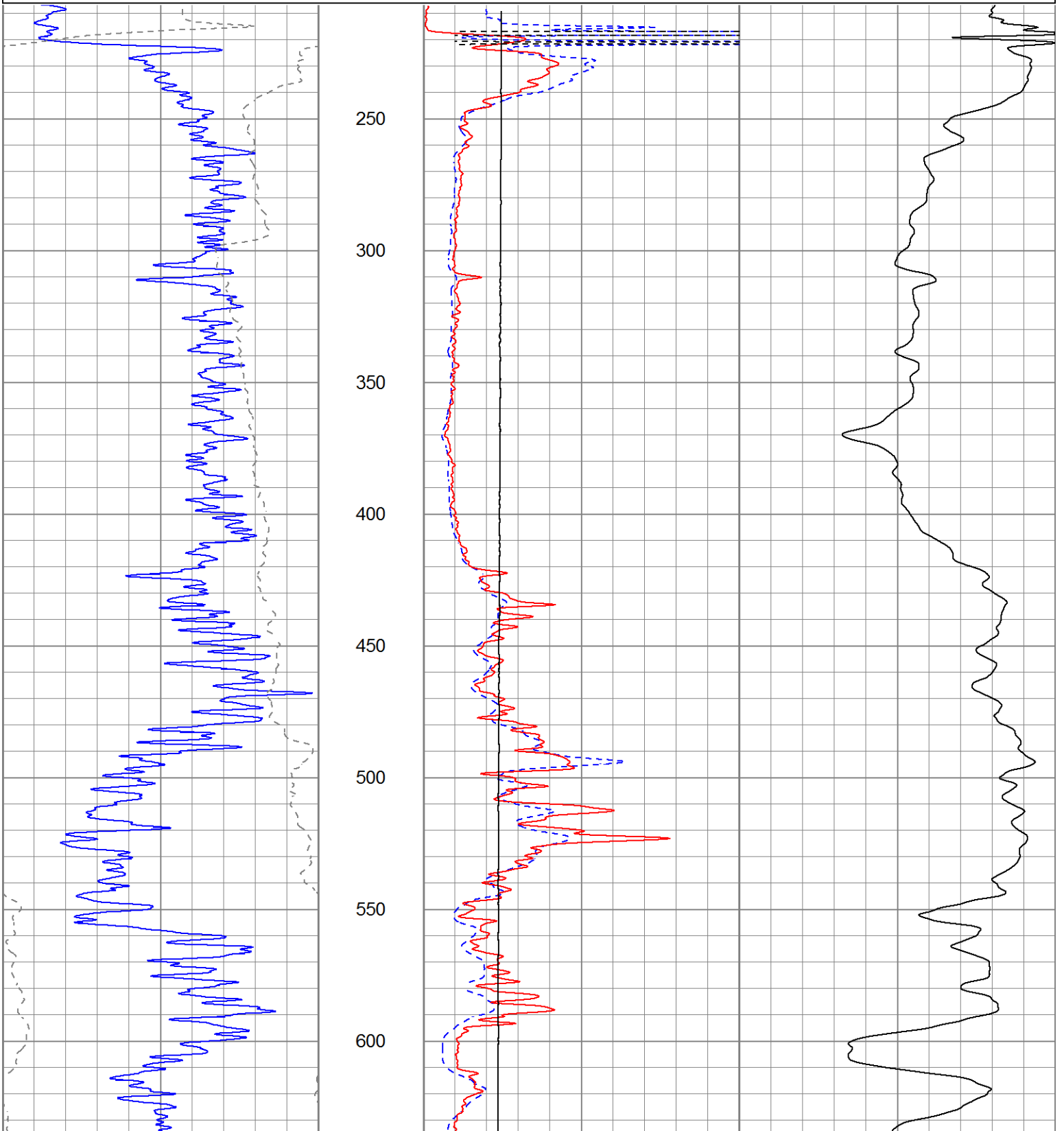
Database File mehame13aoh.db
 Dataset Pathname pass3.1
 Presentation Format kdillin2
 Dataset Creation Wed Oct 16 20:44:09 2013
 Charted by Depth in Feet scaled 1:600

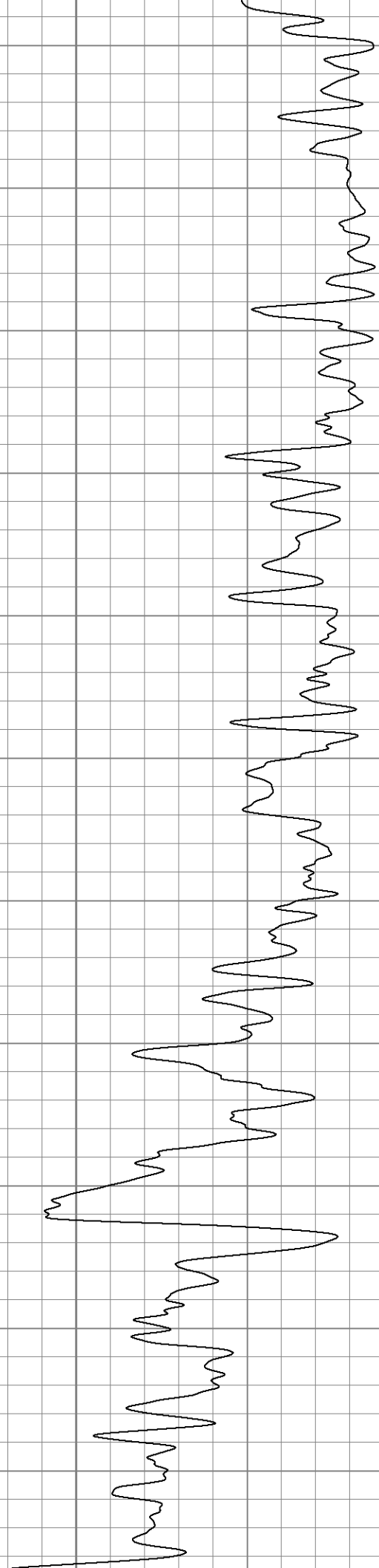
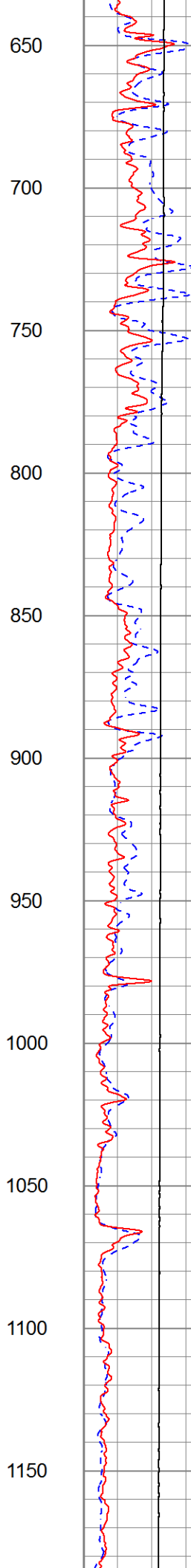
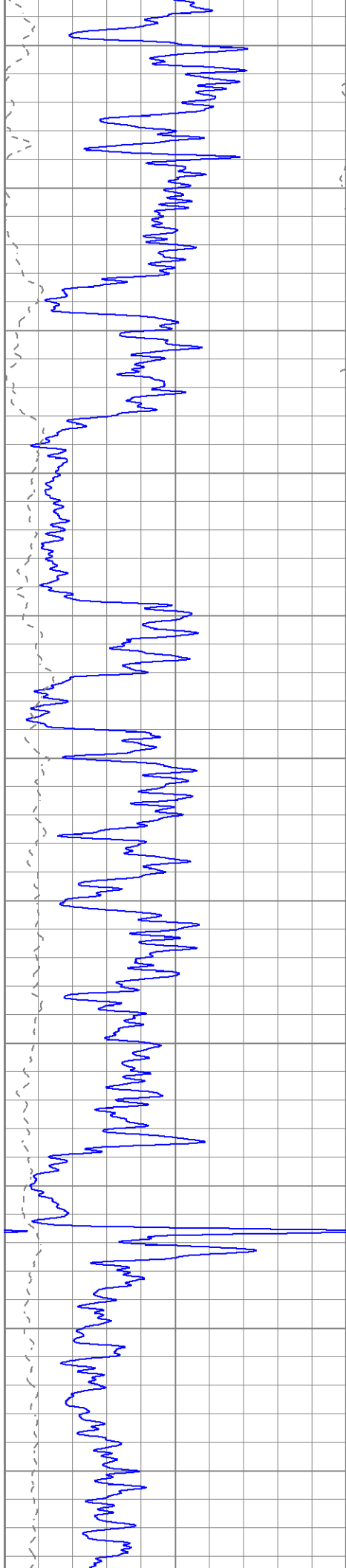
0	GR (GAPI)	150
-200	SP (mV)	0

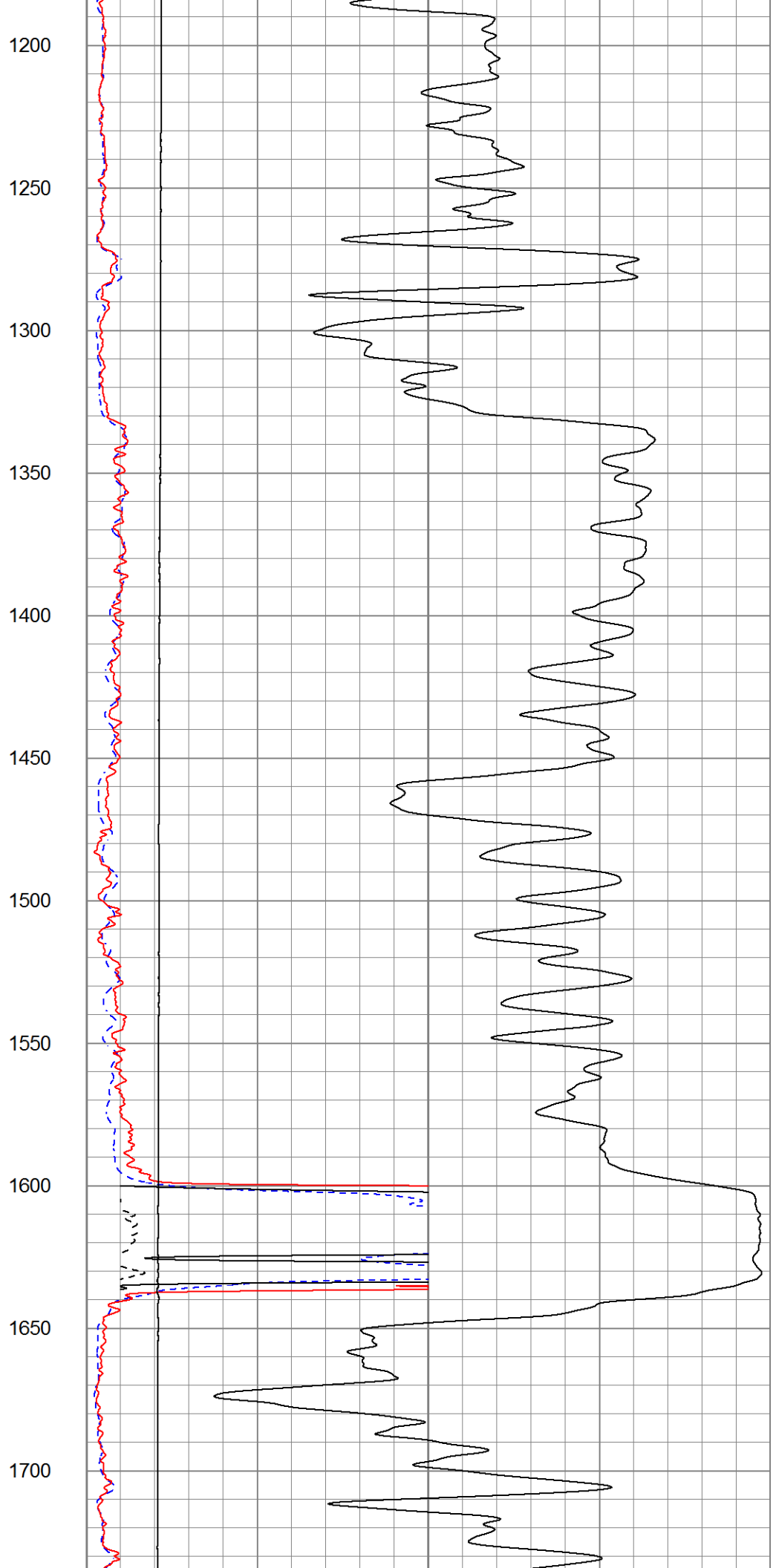
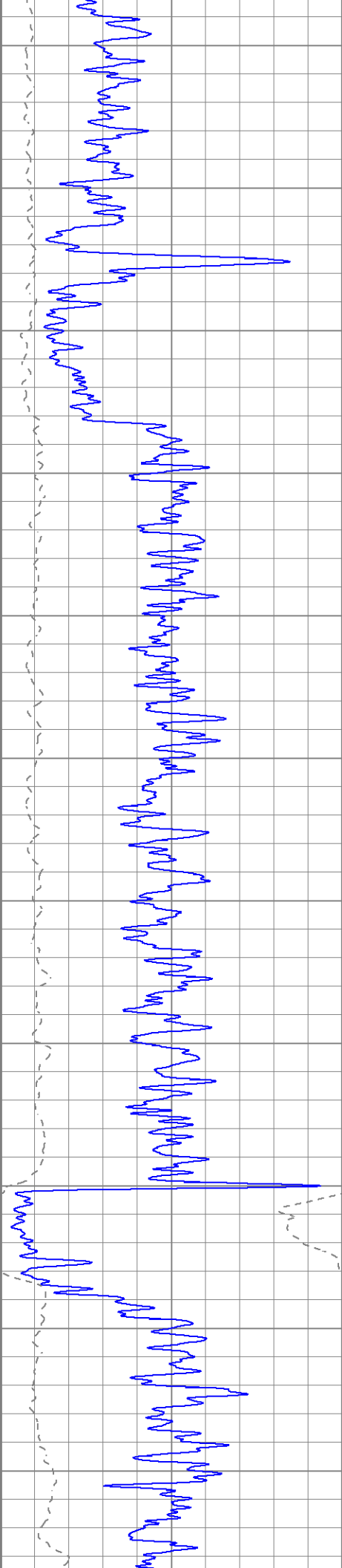
0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50

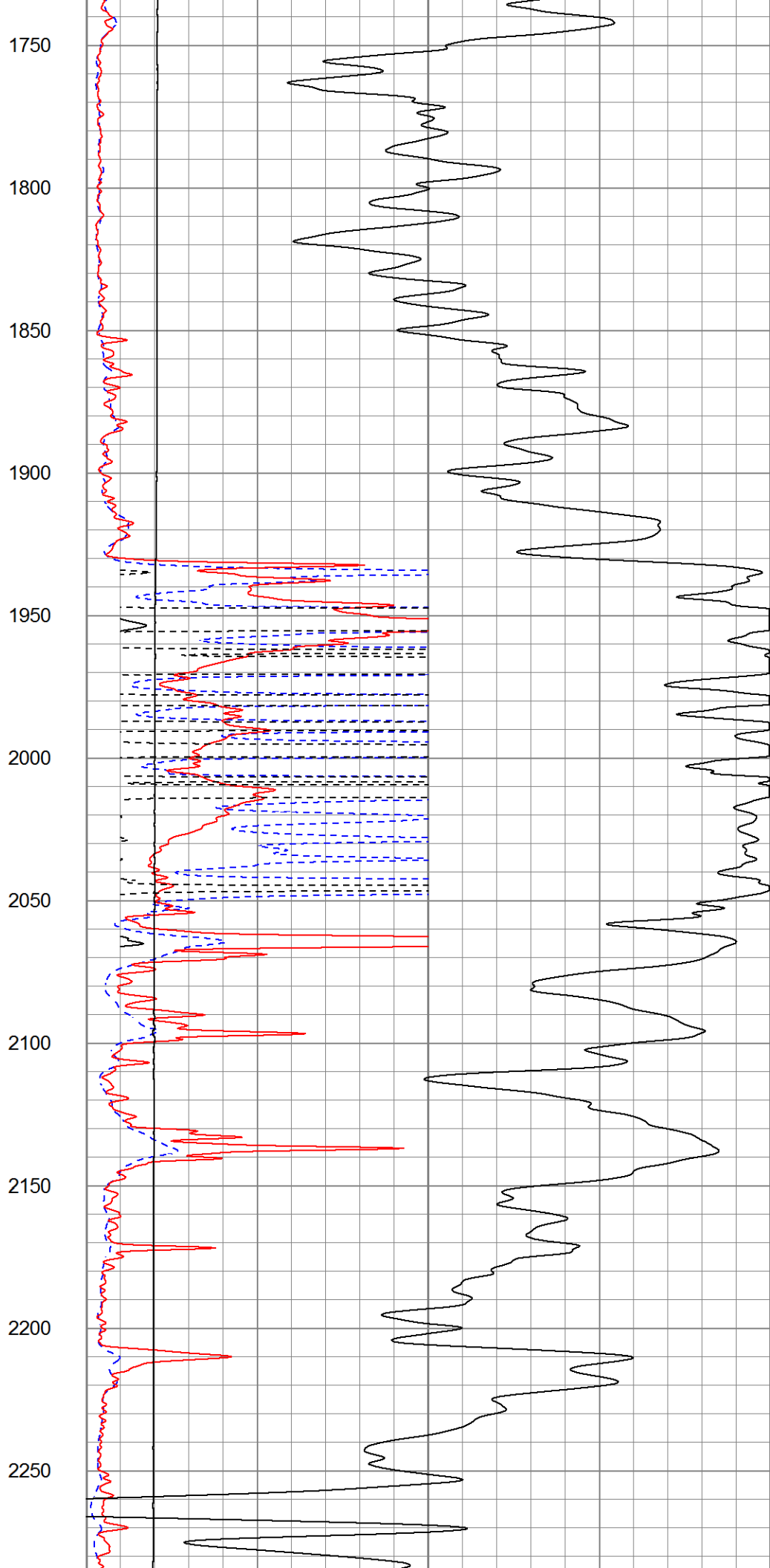
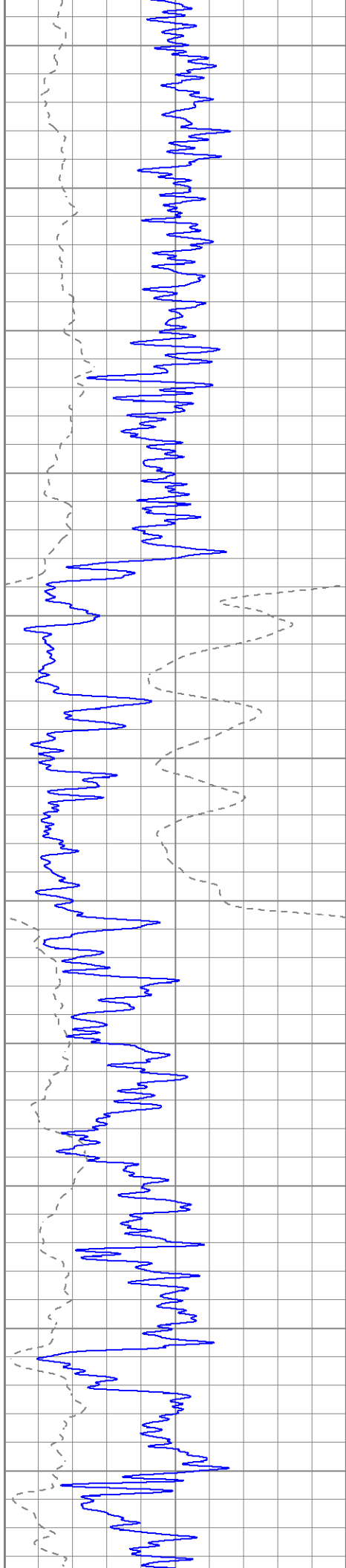
1000	CILD (mmho/m)	0
10000	LTEN (lb)	0

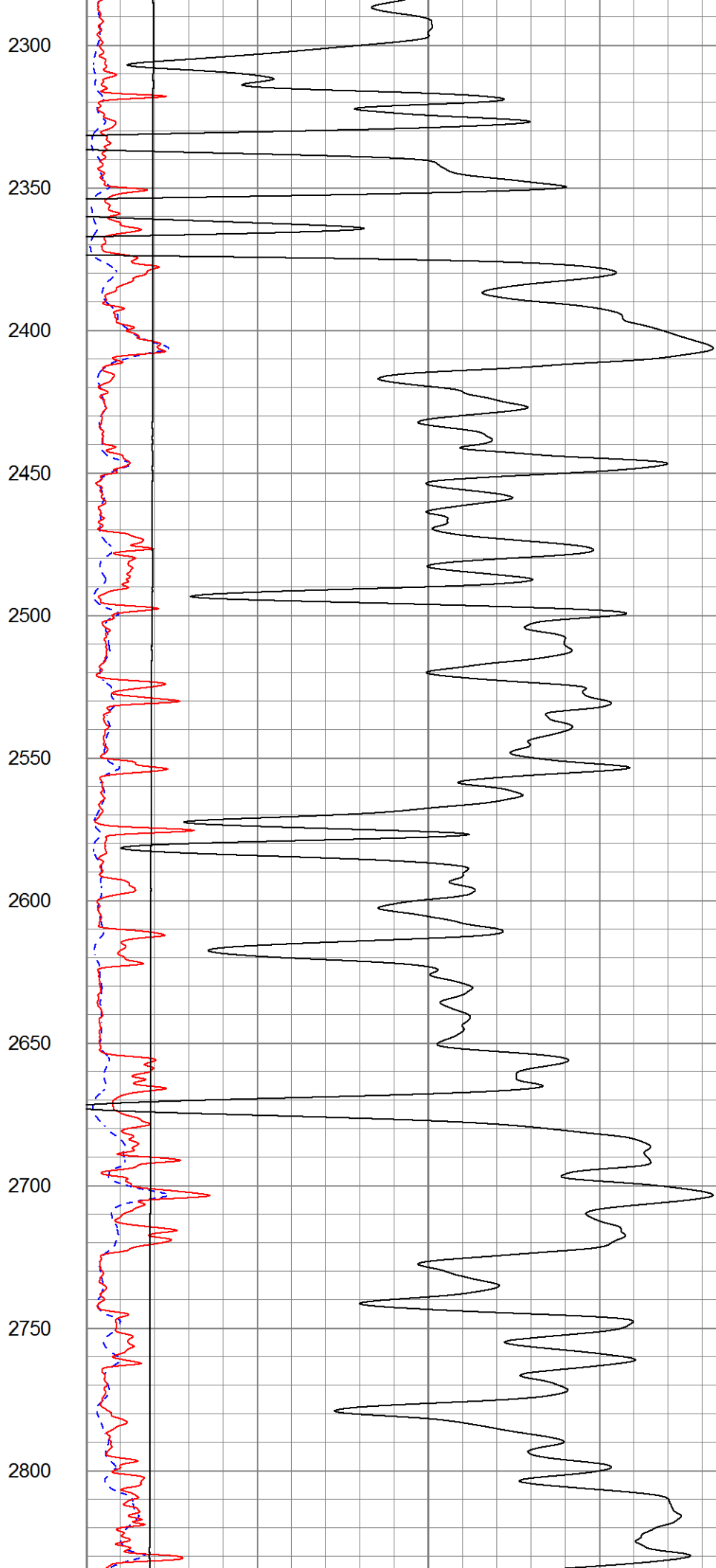
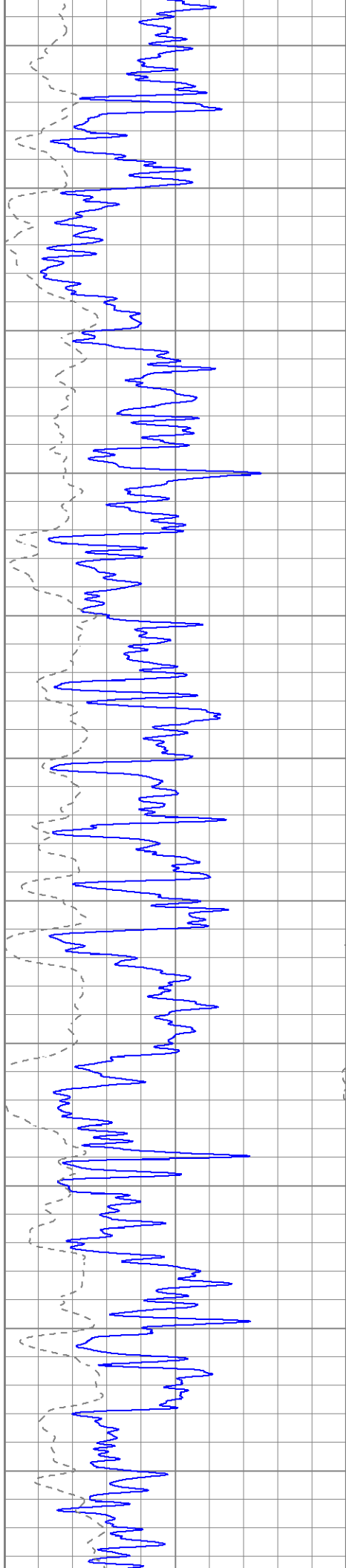
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

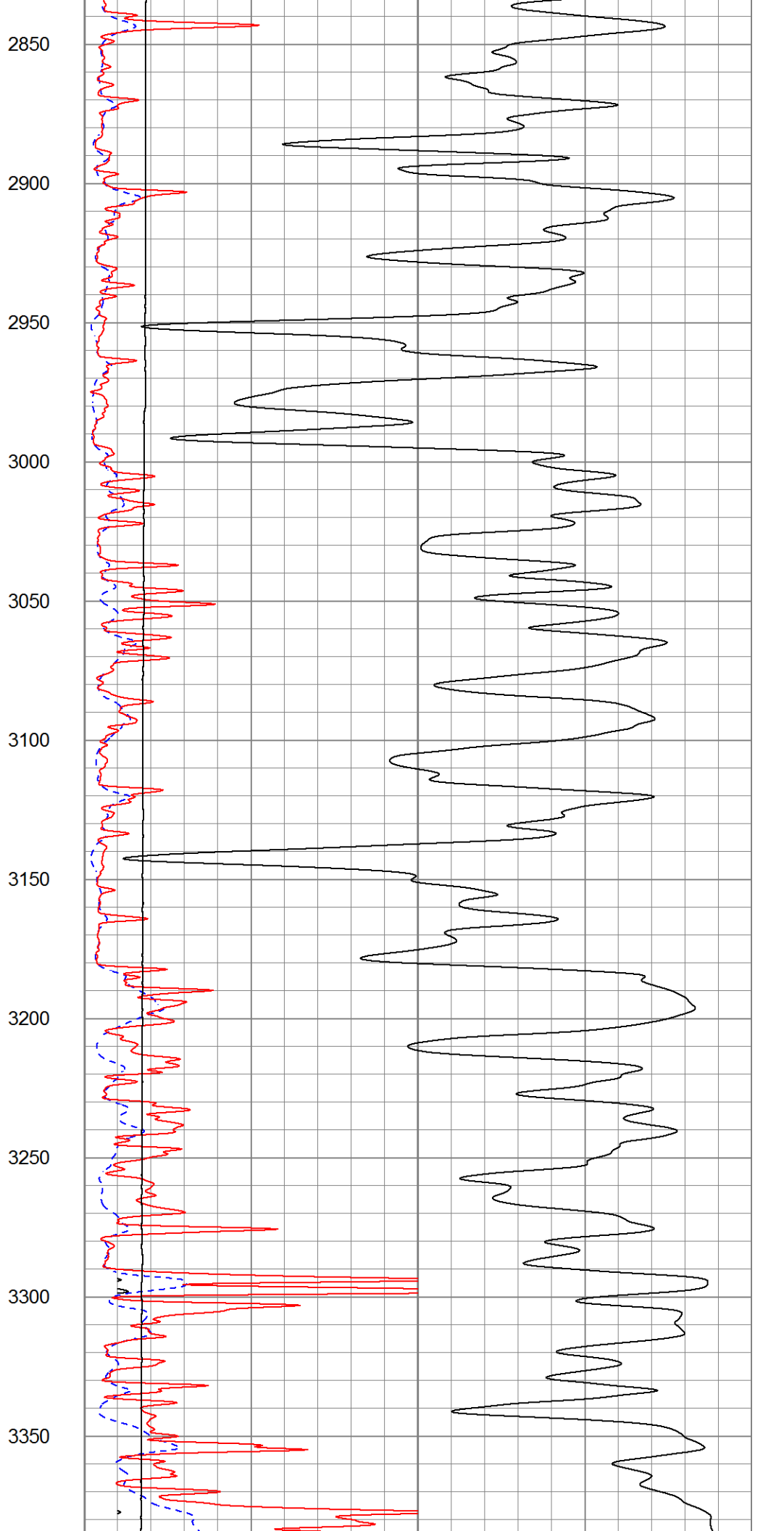
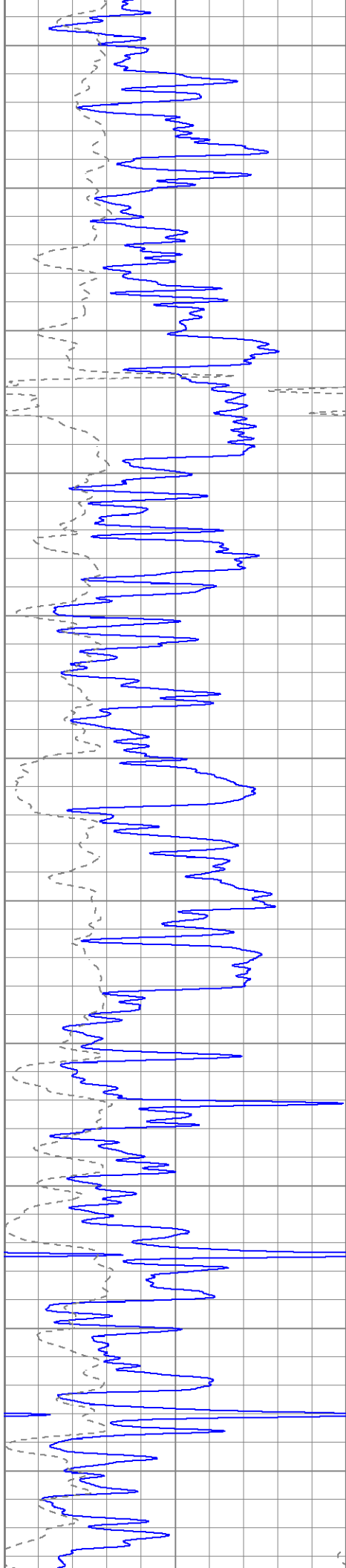


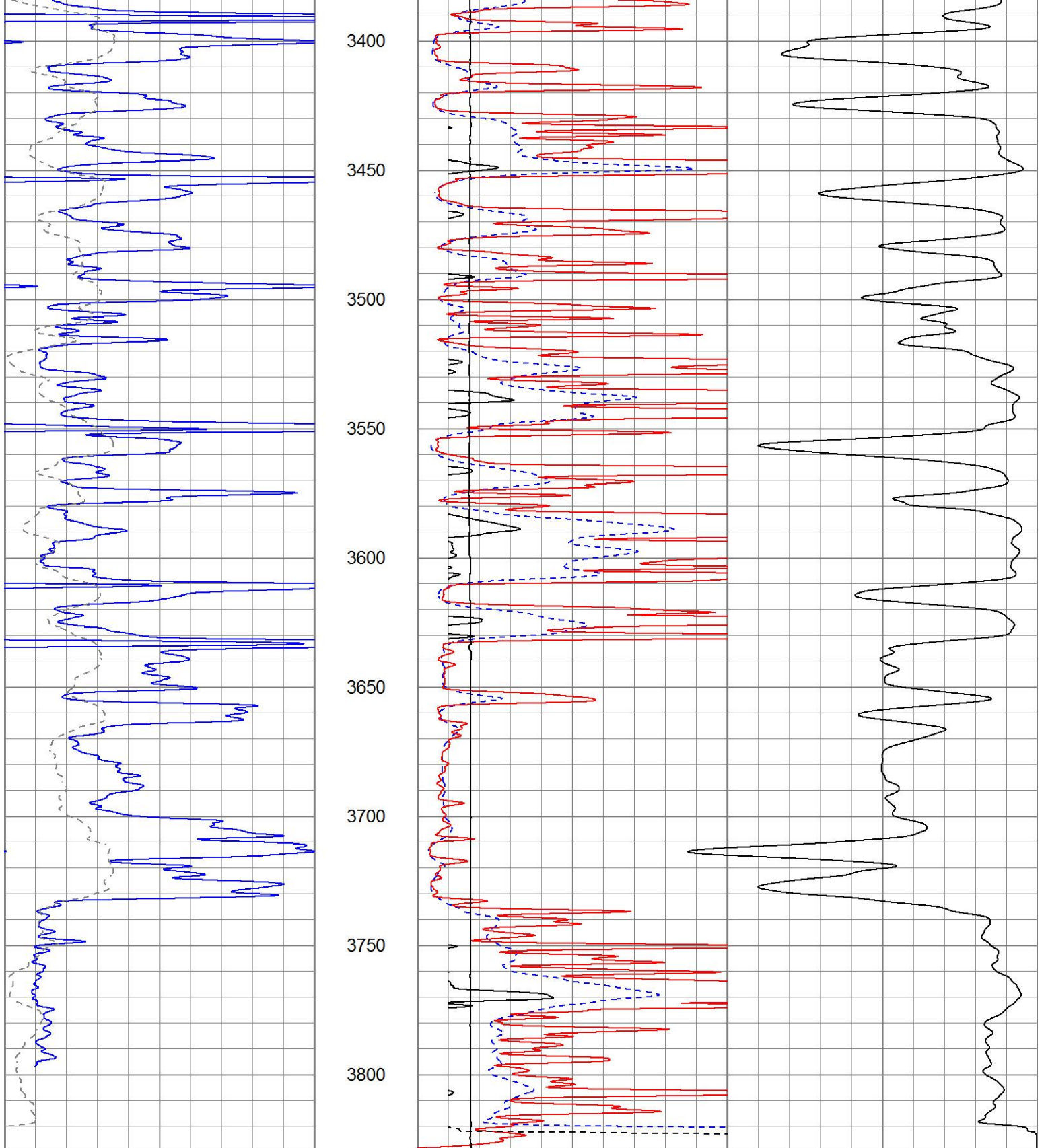












0	GR (GAPI)	150
-200	SP (mV)	0

0	RILD (Ohm-m)	50
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



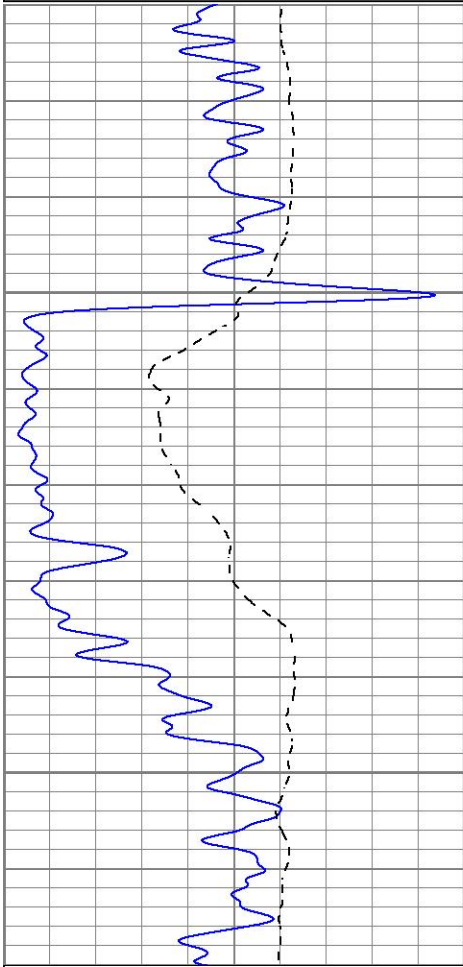


Main Pass

Database File mehamel3aoh.db
 Dataset Pathname pass3.1
 Presentation Format kdil
 Dataset Creation Wed Oct 16 20:44:09 2013
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

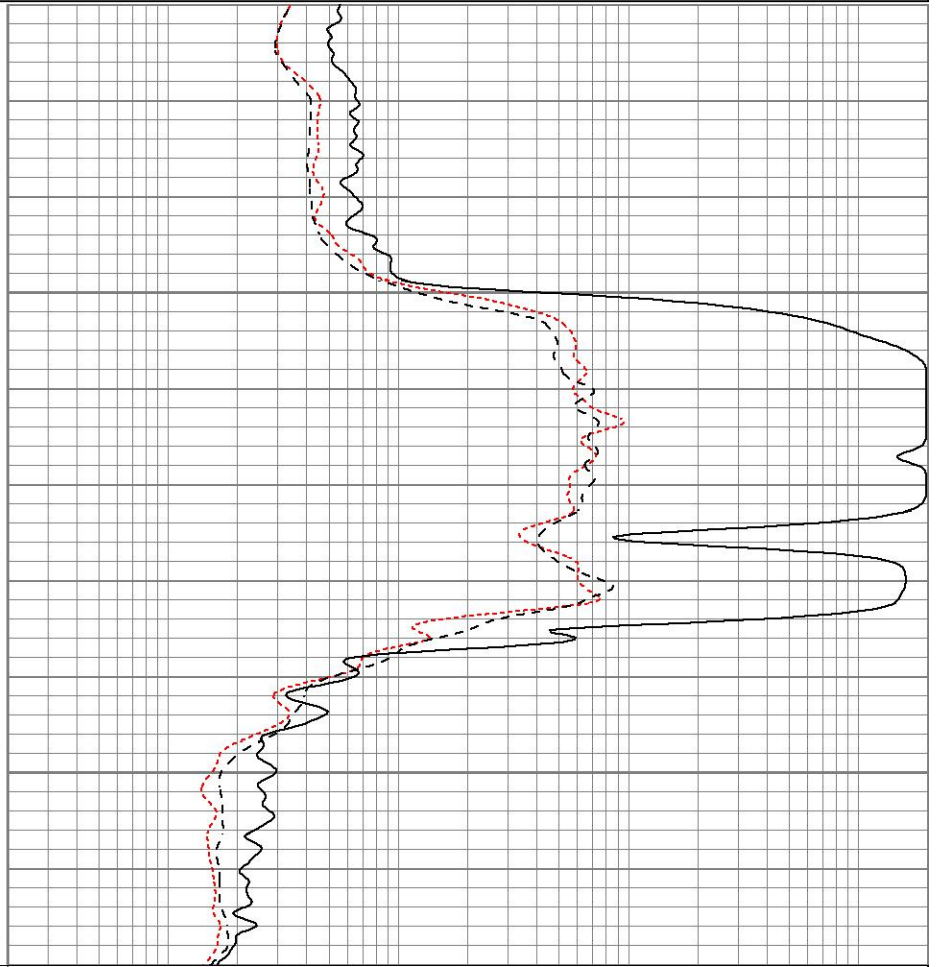
0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000



1600

1650

0	GR (GAPI)	150
-100	SP (mV)	100



0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000

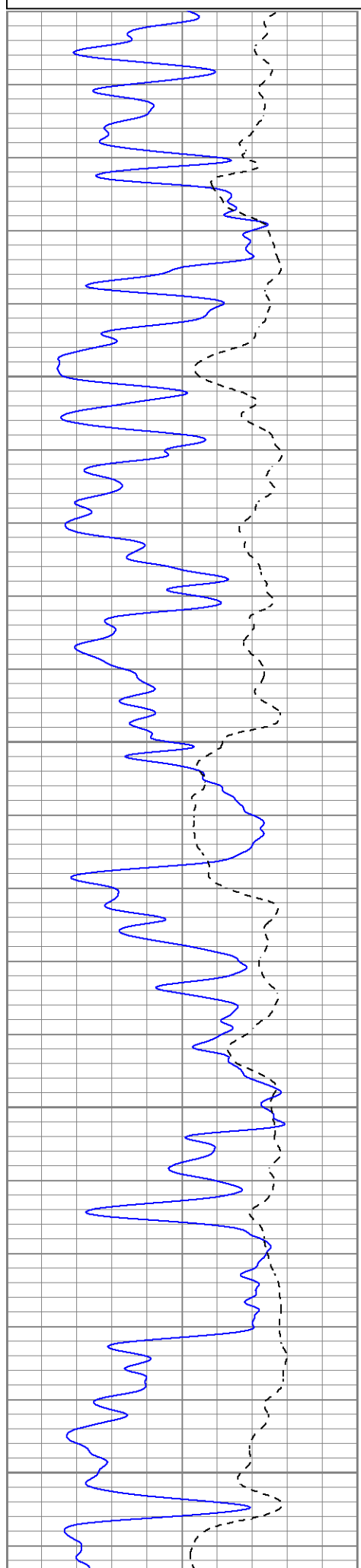


Main Pass

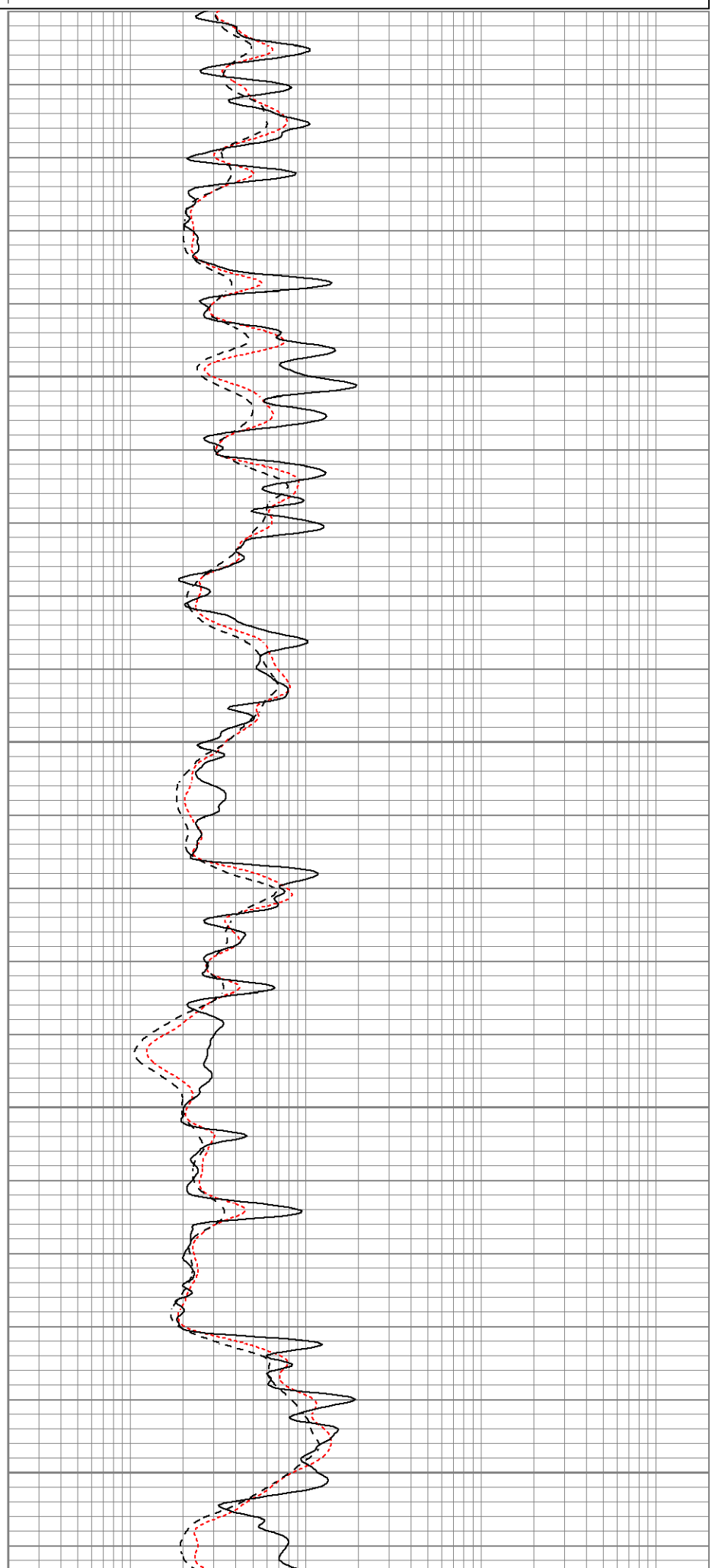
Database File mehamel3aoh.db
 Dataset Pathname pass3.1
 Presentation Format kdil
 Dataset Creation Wed Oct 16 20:44:09 2013
 Charted by Depth in Feet scaled 1:240

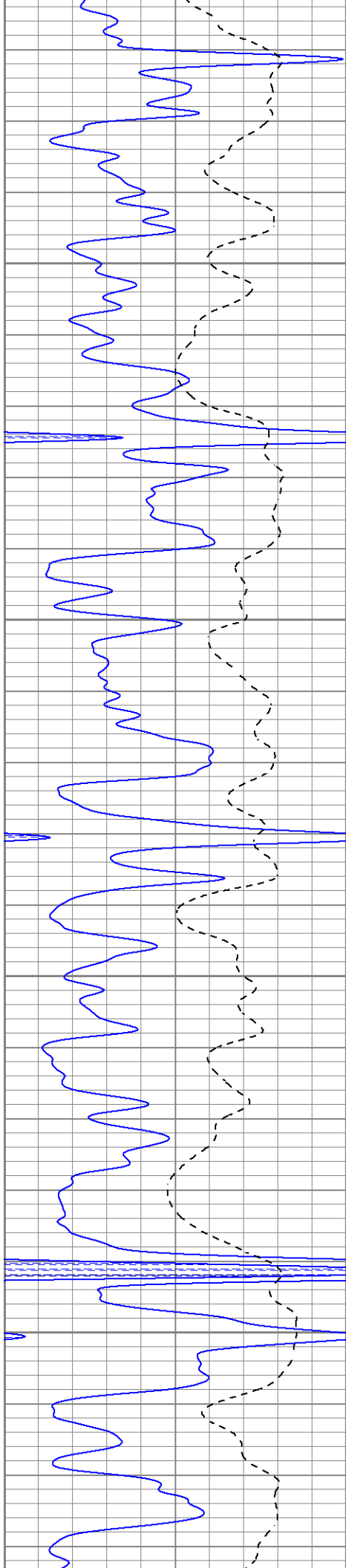
0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000



3000
3050
3100
3150
3200



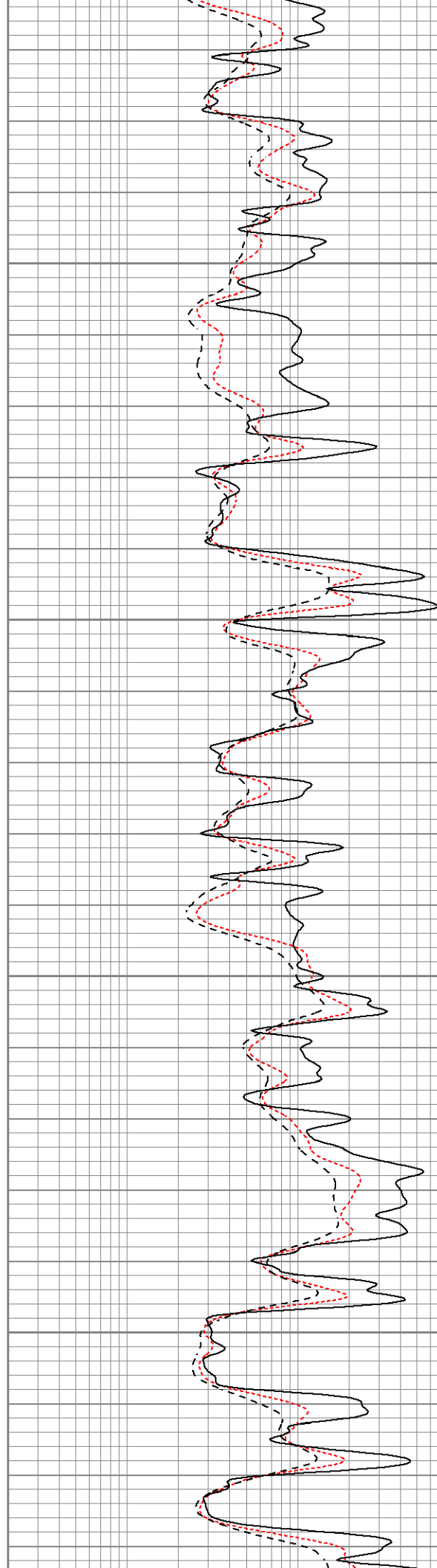


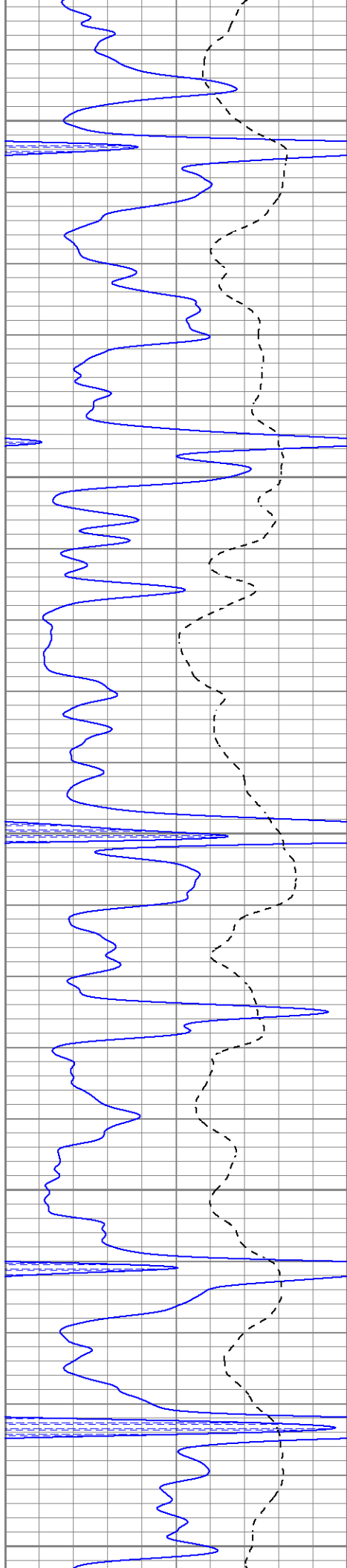
3250

3300

3350

3400





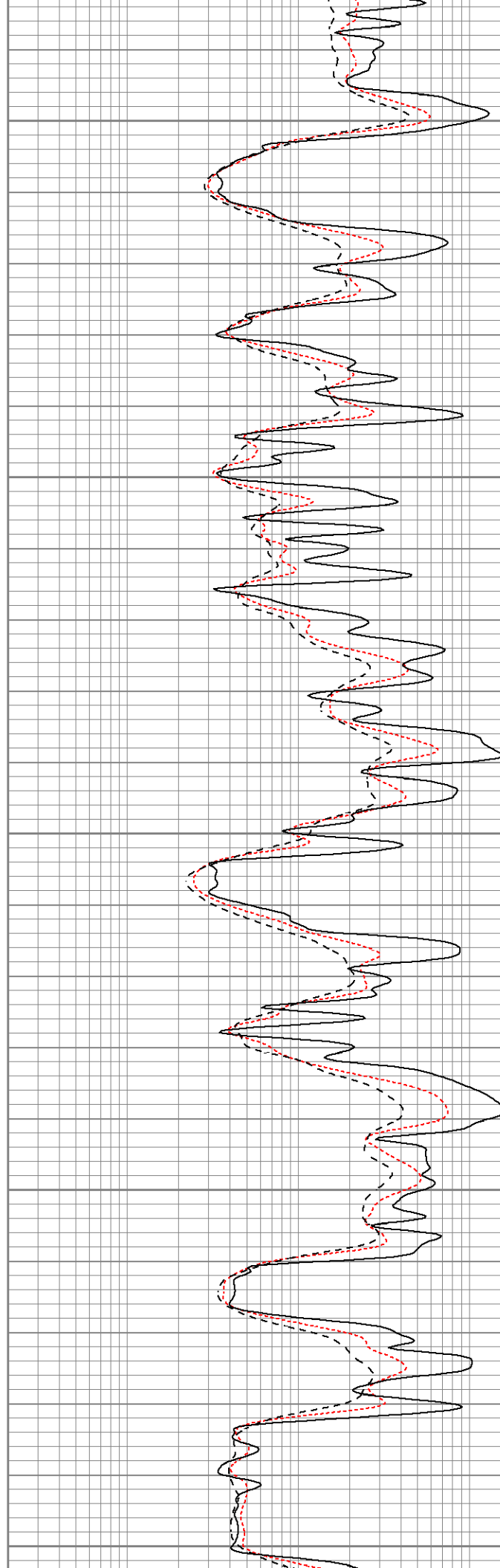
3450

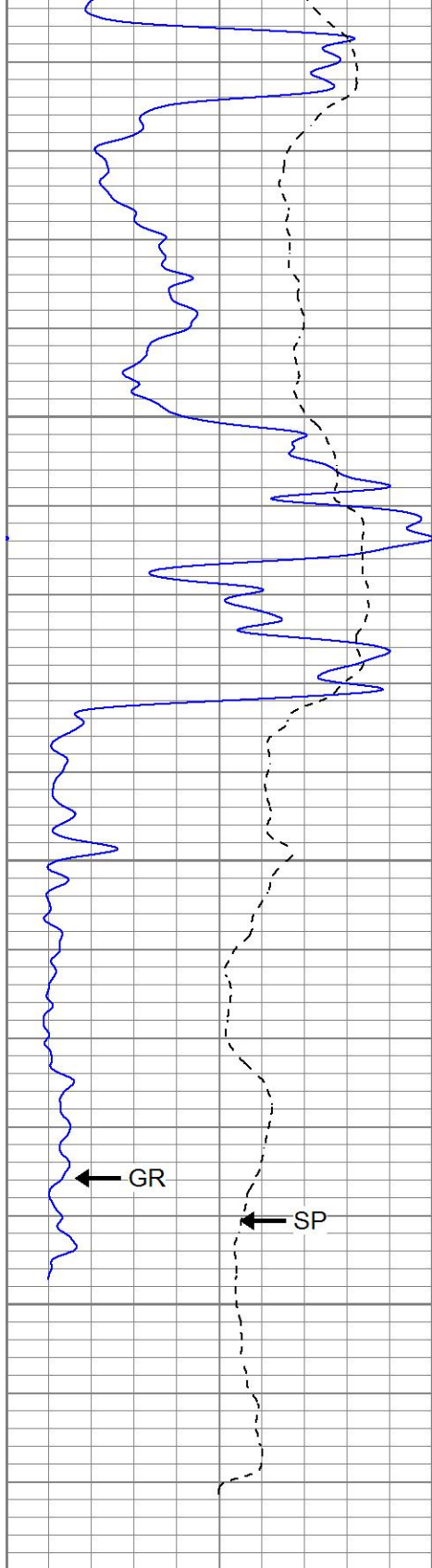
3500

3550

3600

3650



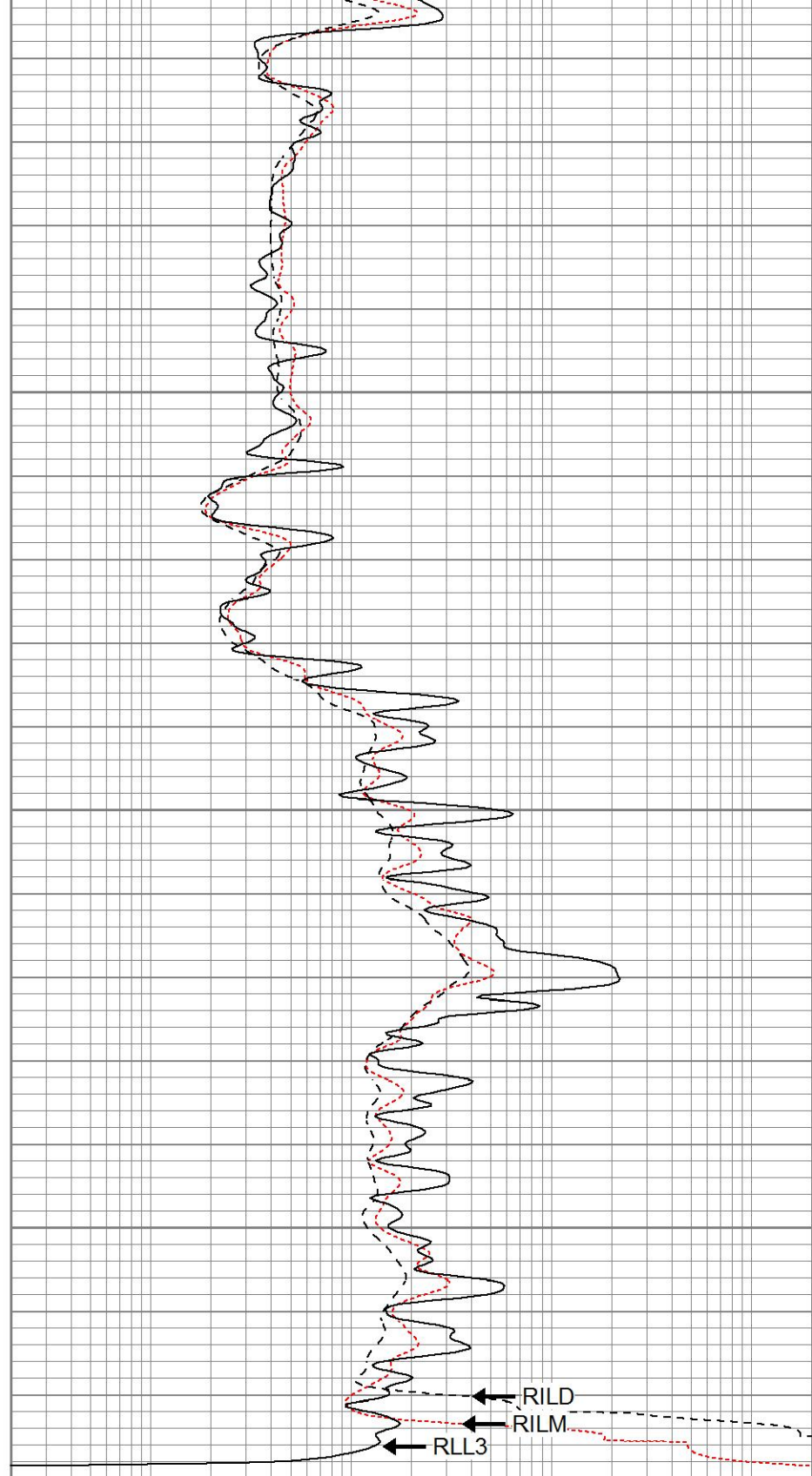


0	GR (GAPI)	150
-100	SP (mV)	100

3700

3750

3800



0.2	RILM (Ohm-m)	2000
0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000

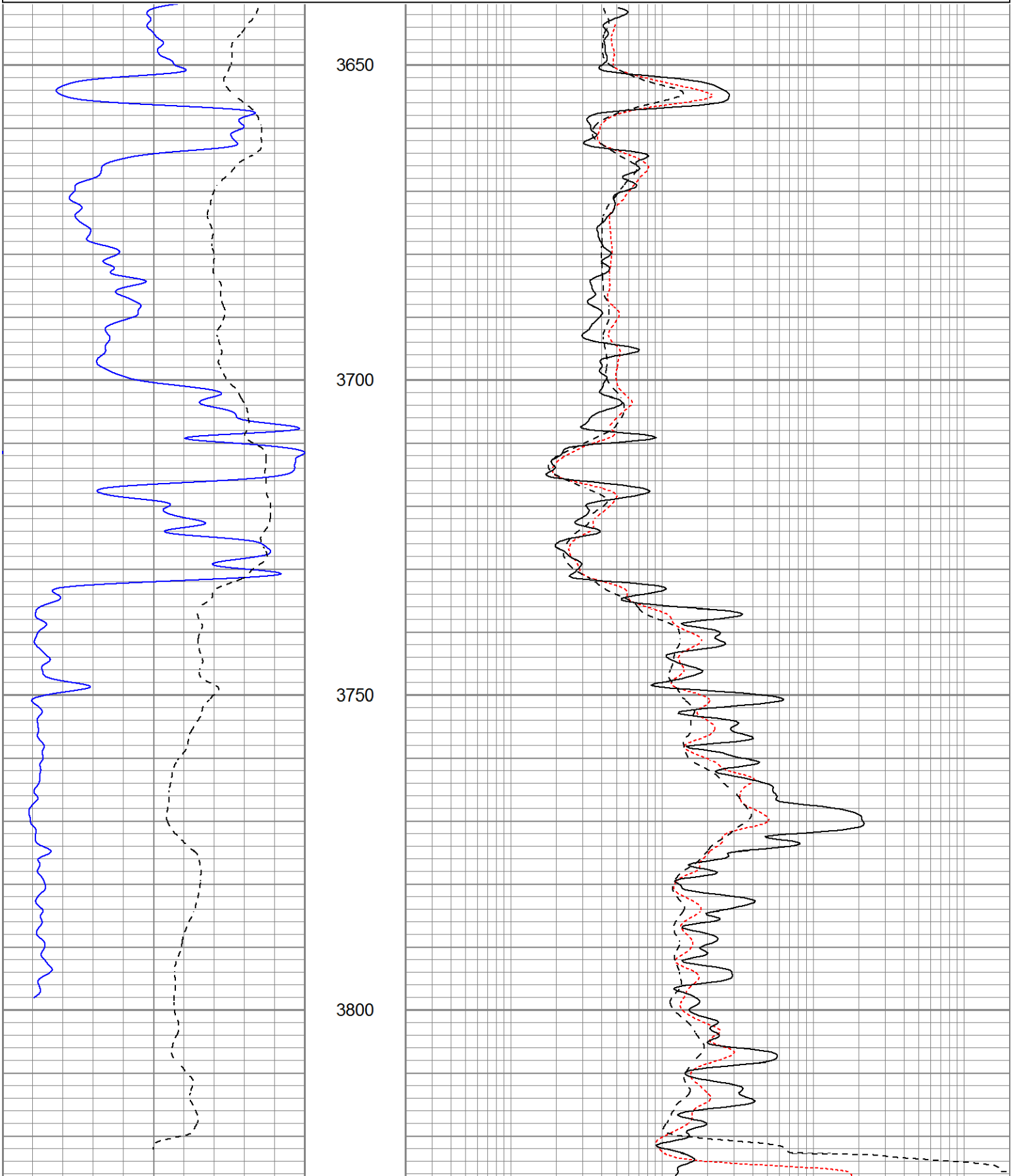


Repeat Pass

Database File mehamel3aoh.db
 Dataset Pathname pass2.1
 Presentation Format kdil
 Dataset Creation Wed Oct 16 19:59:39 2013
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILM (Ohm-m)	2000
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 mehamel3aoh.db
 Dataset Pathname pass2.1
 Dataset Creation Wed Oct 16 19:59:39 2013

Dual Induction Calibration Report

Serial-Model: 1842-ADM
 Surface Cal Performed: Wed Oct 16 17:05:25 2013
 Downhole Cal Performed: Wed Oct 16 17:05:29 2013
 After Survey Verification Performed: Wed Oct 16 17:05:31 2013

Surface Calibration

Loop:	Readings			V	References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.014	0.660		0.000	350.000	mmho/m	541.845	-7.742	
Medium	0.003	0.761		0.000	400.000	mmho/m	527.924	-1.569	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.013	0.663	V	0.000	350.000	mmho/m	538.740	-6.964	
Medium	0.003	0.761	V	0.000	550.000	mmho/m	726.060	-2.265	

Downhole Calibration

Internal:	Readings			V	References			Results	
	Zero	Cal			Zero	Cal		m	b
Deep	-0.857	351.396	mmho/m	-0.737	351.280	mmho/m	0.999	0.118	
Medium	0.187	400.090	mmho/m	0.077	399.987	mmho/m	1.000	-0.110	
Shallow	2.543	0.024	V	500.000	2.000	Ohm-m	197.760	-4.200	

After Survey Verification

Internal:	Readings			V	Targets			Results	
	Zero	Cal			Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.857	351.396	mmho/m	0.999	0.118	
Medium	0.000	0.000	mmho/m	0.187	400.090	mmho/m	1.000	-0.110	
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000	

Compensated Density Calibration Report

Serial-Model: 2388DHT-DHT
 Source / Verifier: csv j12 / csv j12
 Master Calibration Performed: Mon Oct 14 17:07:01 2013
 Before Survey Verification Performed:
 After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	637.65	312.75	cps
Aluminum	2.650	g/cc	121.25	205.62	cps

Spine Angle = 75.82

Density/Spine Ratio = 0.526

	Size		Reading
Small Ring	8.30	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

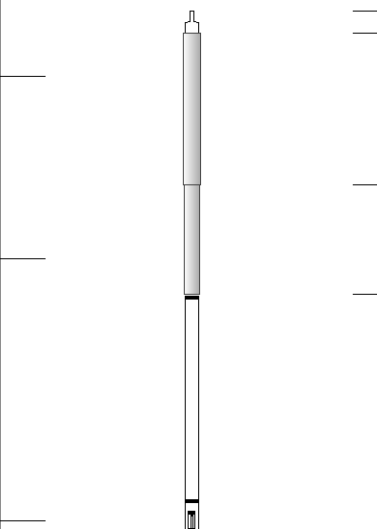
After Survey Verification			
	Target		Measured
		g/cc	g/cc
		g/cc	g/cc
		g/cc	g/cc

Gamma Ray Calibration Report

Serial Number:	2001		
Tool Model:	OH		
Performed:	Mon Oct 14 17:07:10 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 Oct 14 17:07:15 2013		
Calibrator Value:	1	NAPI	
Calibrator Reading:	1	cps	
Sensitivity:	1	NAPI/cps	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (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
LSD	22.02		DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00

DCAL	21.73				
SSD	21.48				
HEADVOLT	19.71				
SP	10.60				
CILD	10.60		DIL-ADM (1842) Dual Induction	19.71	4.00
CILM	6.89				
RLL3	1.70				

Dataset:	mehamel3aoh.db: field/well/run1/pass2.1
Total length:	38.63 ft
Total weight:	631.00 lb
O.D.:	4.00 in