



HIGH RESOLUTION INDUCTION COMPENSATED DENSITY COMPENSATED NEUTRON

Company	Augustus Energy Resources, LLC	Company	Augustus Energy Resources, LLC
Well	Lippert 14-05 1S44W	Well	Lippert 14-05 1S44W
Field	Vernon	Field	Vernon
County	Yuma	County	Yuma
State	Colorado	State	Colorado
Location:	311' FSL & 606' FWL SWSW	API # : 05125120850000	Other Services None
Permanent Datum	SEC 5 TWP 1S RGE 44W	Elevation	3985
Log Measured From	KB	Elevation	K.B. 3991 D.F. 3990 G.L. 3985
Drilling Measured From	KB		
Date	July 9, 2014		
Run Number	1		
Depth Driller	2545		
Depth Logger	2541		
Bottom Logged Interval	2541		
Top Log Interval	Casing		
Casing Driller	17# 7" @ 436		
Casing Logger	436		
Bit Size	6.25"		
Type Fluid in Hole	WBM		
Density / Viscosity	8.7 / 33		
pH / Fluid Loss	NA		
Source of Sample	Flowline		
Rm @ Meas. Temp	0.21 @ 90 F		
Rmf @ Meas. Temp	0.16 @ 90 F		
Rmc @ Meas. Temp	0.26 @ 90 F		
Source of Rmf / Rmc	Calc / Calc		
Rm @ BHT	0.18 @ 105 F		
Time Circulation Stopped	0900		
Time Logger on Bottom	1315		
Maximum Recorded Temperature	105 F		
Equipment Number	48		
Location	Ft. Morgan, CO		
Recorded By	Schuman		
Witnessed By	Justin Stone		

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

Annular volume calculated for 4.5" casing
Excell Drilling Rig 2
Thank you for using Pioneer Energy Services.

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD (~0)	2.00	3.50	30.00

GR	0.00		GR-PSI (223)	2.92	3.50	40.00
CNLSC	-3.67		CNT-PSI (853)	5.00	3.50	70.00
CNSSC	-4.17					
			CDL-PSI (770)	8.50	5.00	285.00
DCAL	-11.84					
LSD	-12.67					
SSD	-13.17					
RLL3	-17.52					
			DIL-PSI (1039)	18.25	3.75	175.00
CILD	-24.97					
CILM	-28.42					
SP	-32.42					
<div> <div>Dataset:</div> <div>13523.db: field/well/run1/pass1</div> </div> <div> <div>Total Length:</div> <div>36.67 ft</div> </div> <div> <div>Total Weight:</div> <div>600.00 lb</div> </div> <div> <div>O.D.</div> <div>5.00 in</div> </div>						

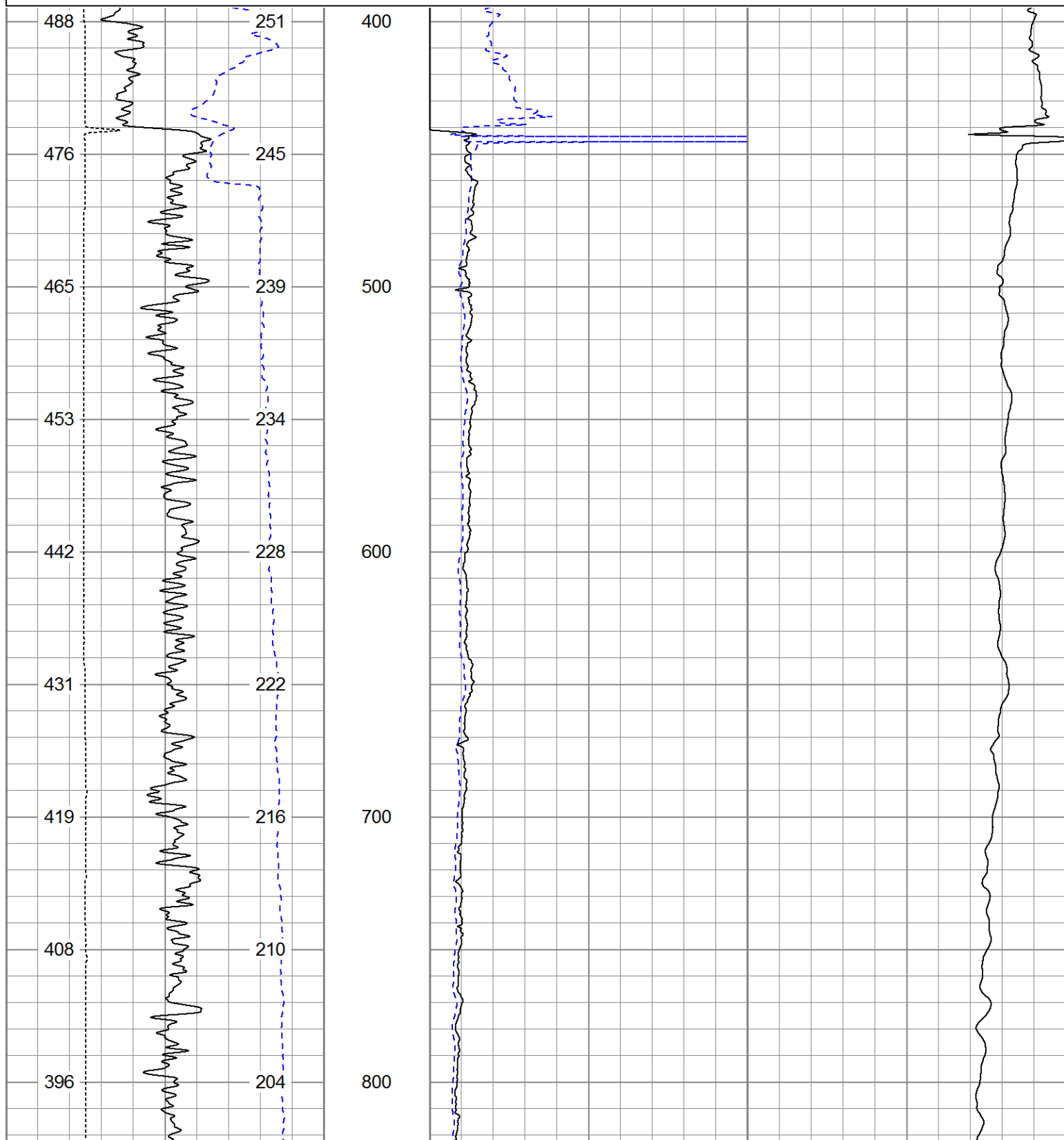


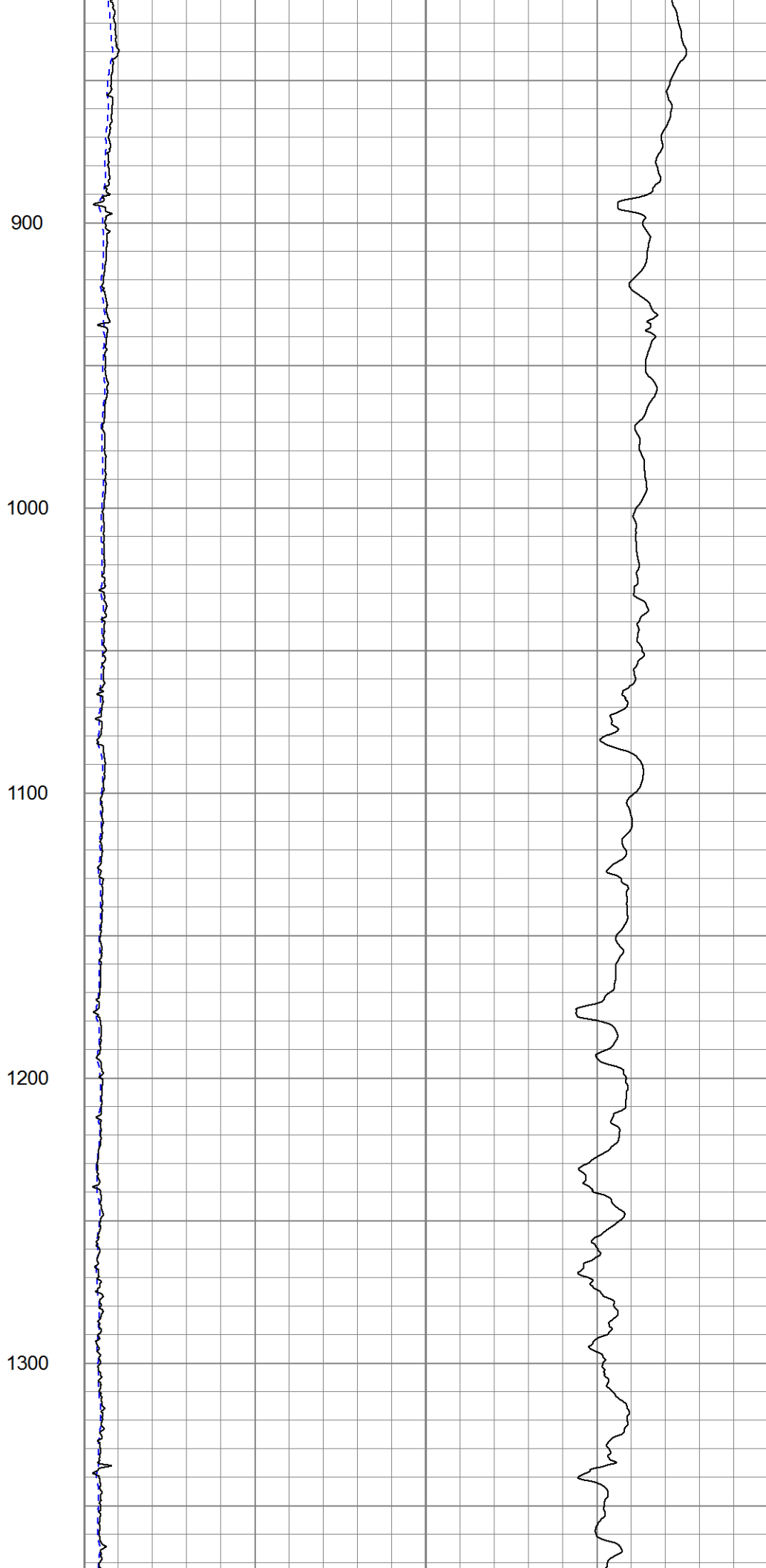
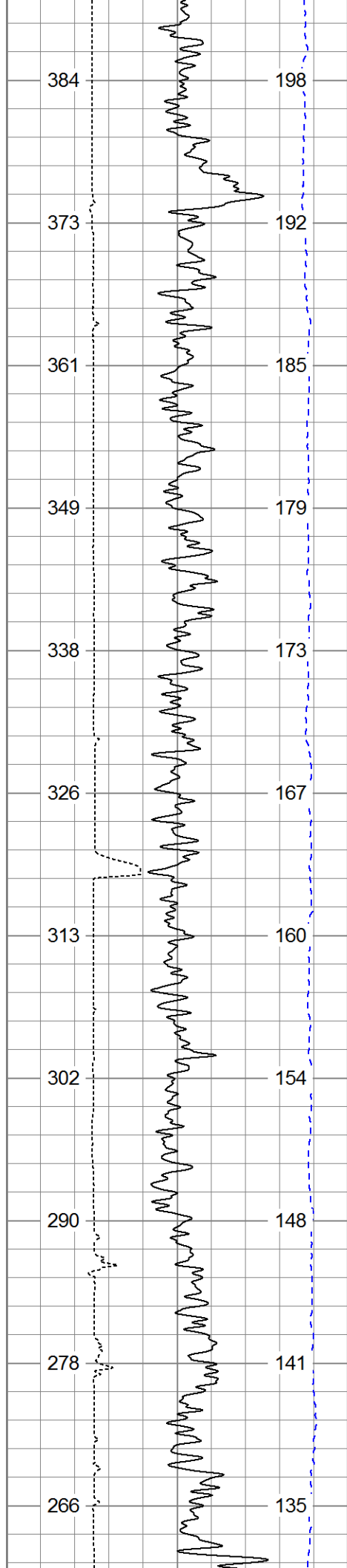
Main Pass

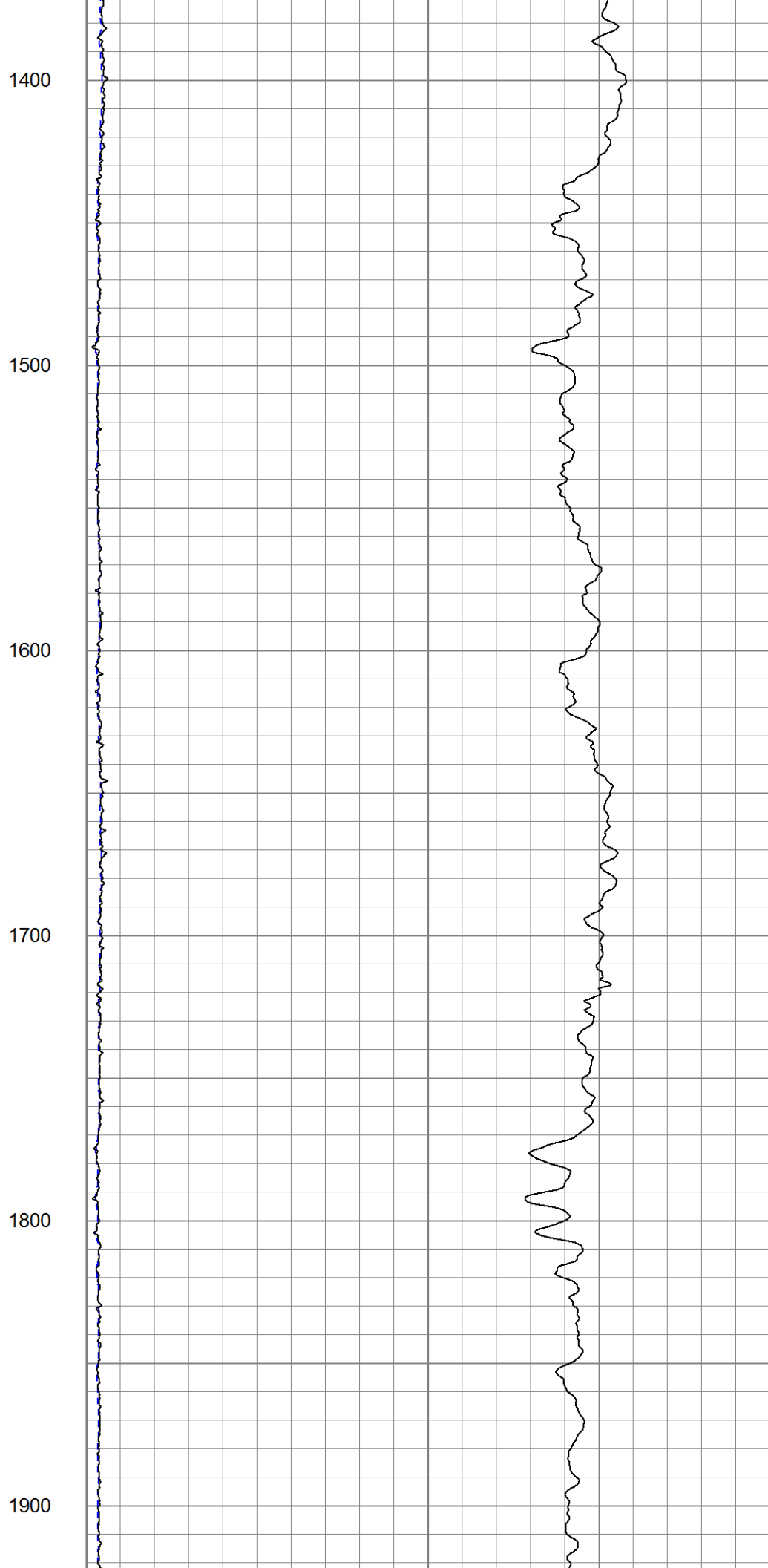
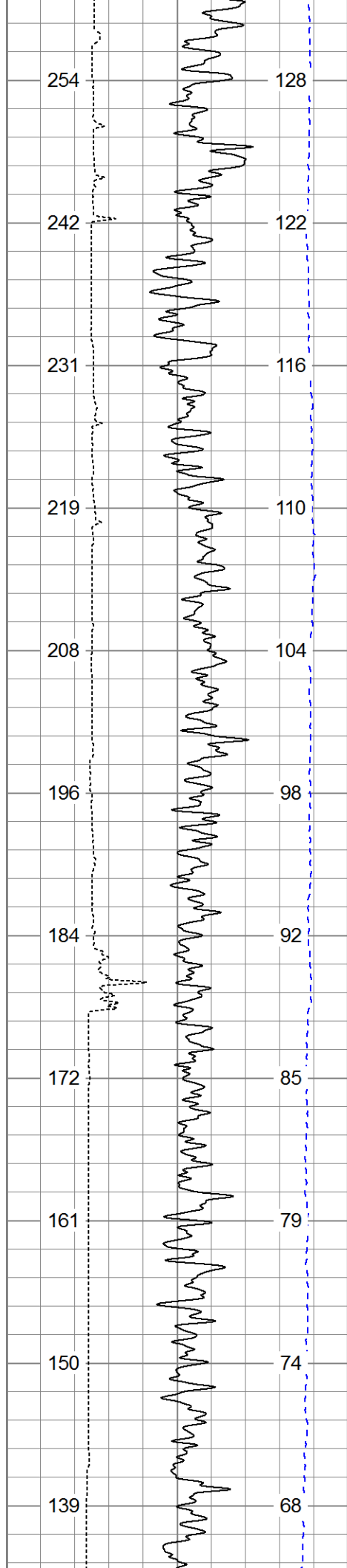
Database File: 13523.db
Dataset Pathname: pass3
Presentation Format: dilin60
Dataset Creation: Wed Jul 09 14:01:32 2014 by Log 0
Charted by: Depth in Feet scaled 1:600

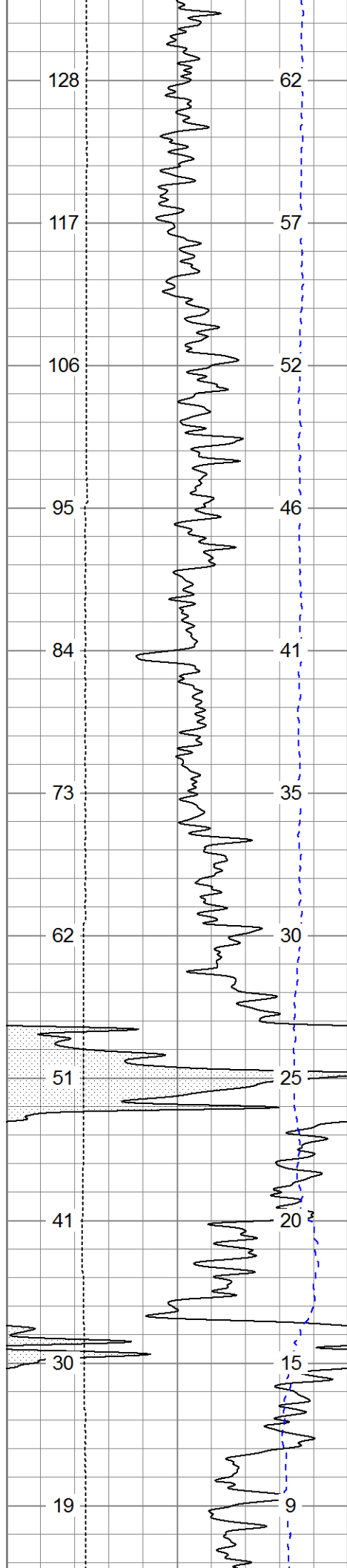
0	Gamma Ray (GAPI)	200
0	SP (mV)	200
4	Caliper (in)	14
TBHV (ft3)		ABHV (ft3)

0	Deep Resistivity (Ohm-m)	50	1000	CILD (mmho/m)	0
0	Shallow Resistivity (Ohm-m)	50			
50	RILD (Ohm-m)	500			
50	RLL3 (Ohm-m)	500			









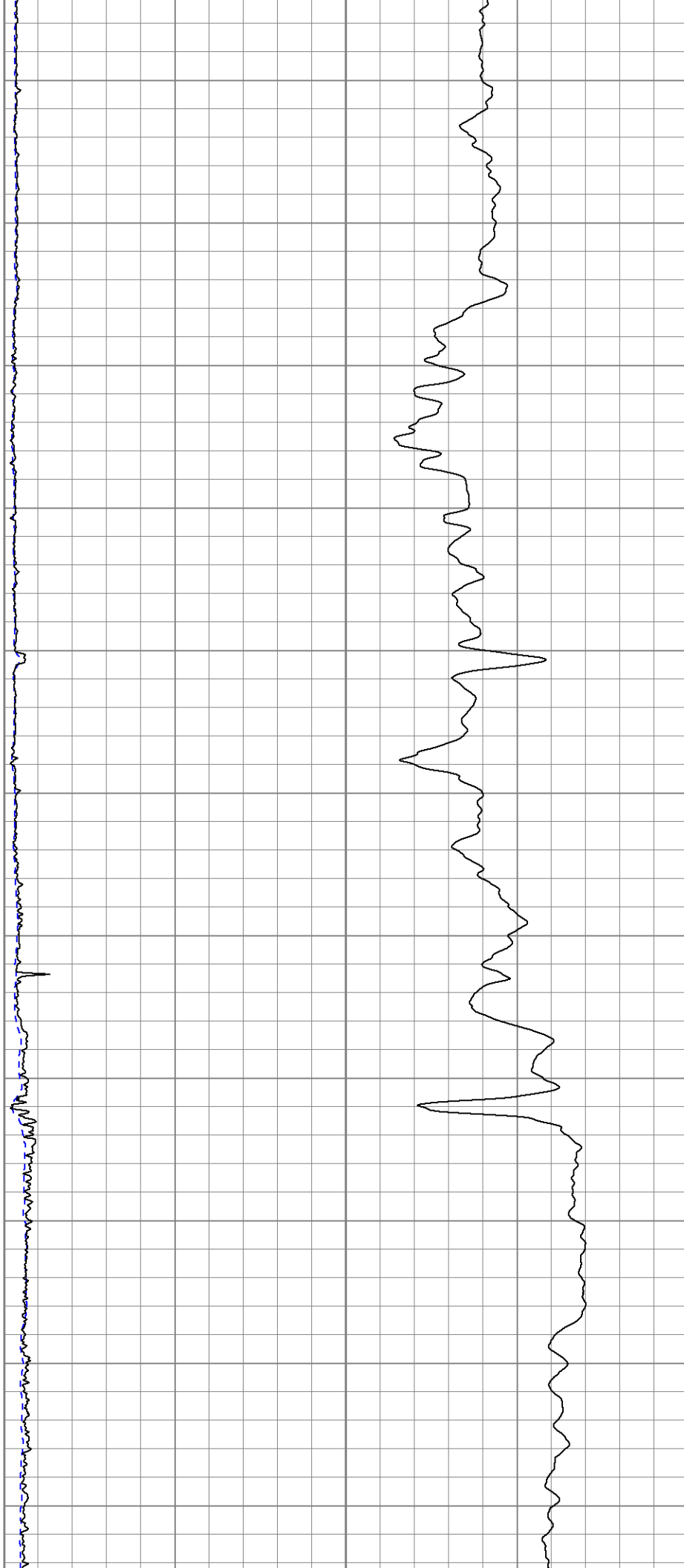
2000

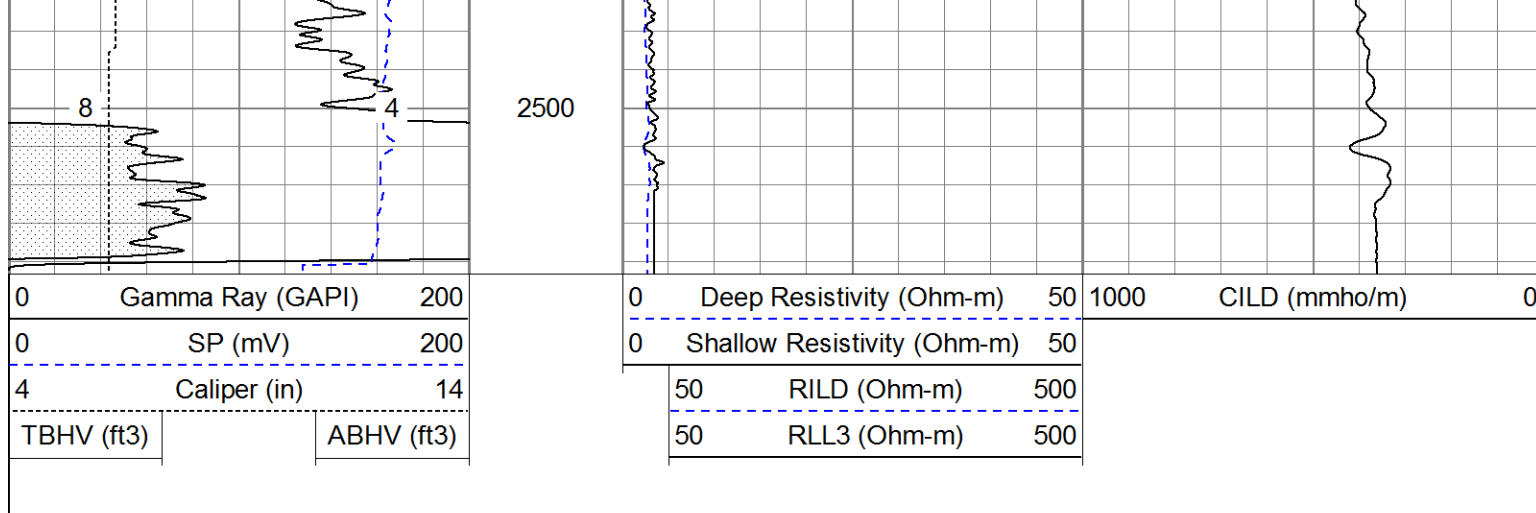
2100

2200

2300

2400



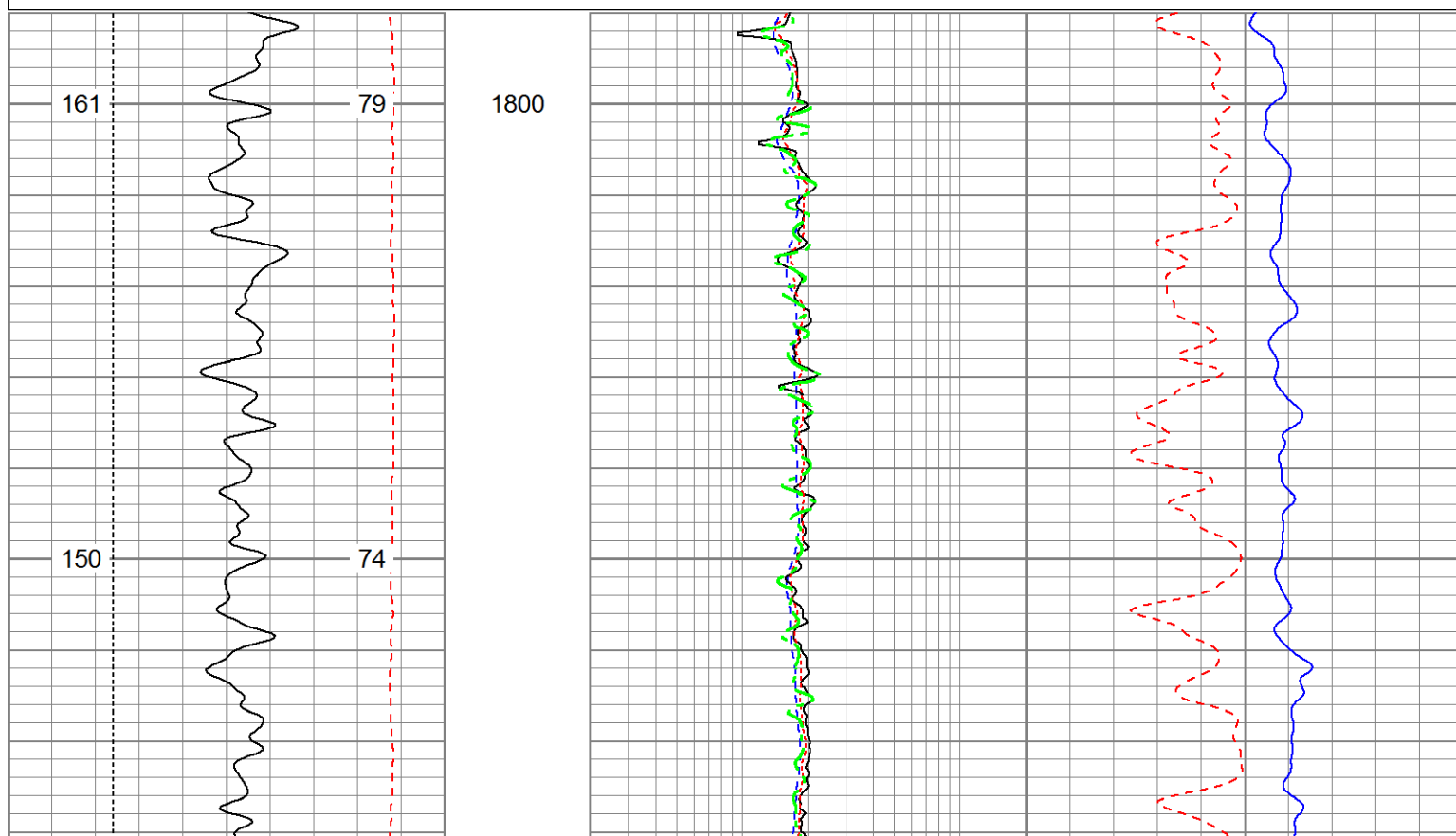


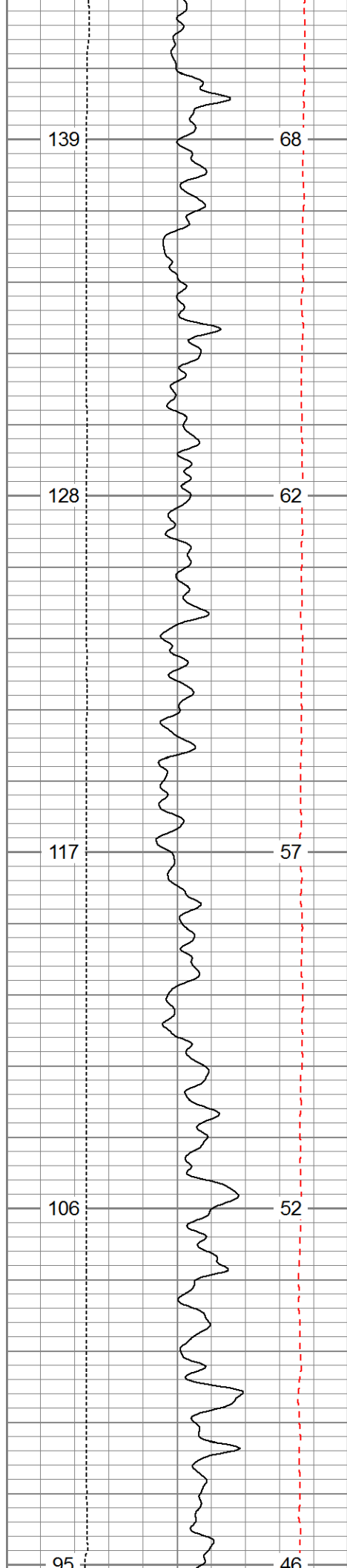
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Main Pass

Database File: 13523.db
 Dataset Pathname: pass3
 Presentation Format: pdce
 Dataset Creation: Wed Jul 09 14:01:32 2014 by Log 0
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	200	0.2	Deep Resistivity (Ohm-m)	20	60	Density Porosity (pu)	0
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	20	60	Neutron Porosity (pu)	0
4	Caliper (in)	14	0.2	Medium Resistivity (Ohm-m)	20			
TBHV (cu. ft.)		ABHV (cu. ft.)	0.2	Rt (Ohm-m)	20			
(ft3)	(ft3)							

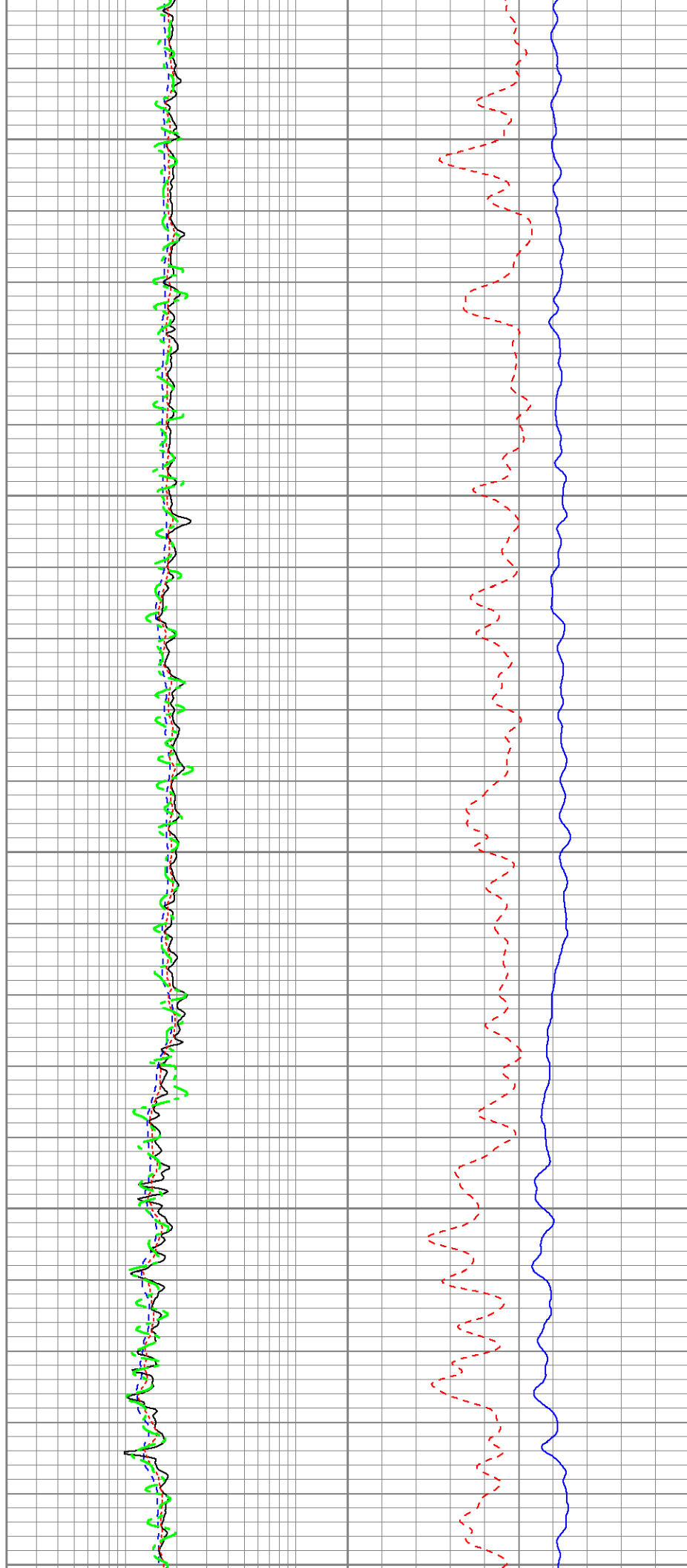


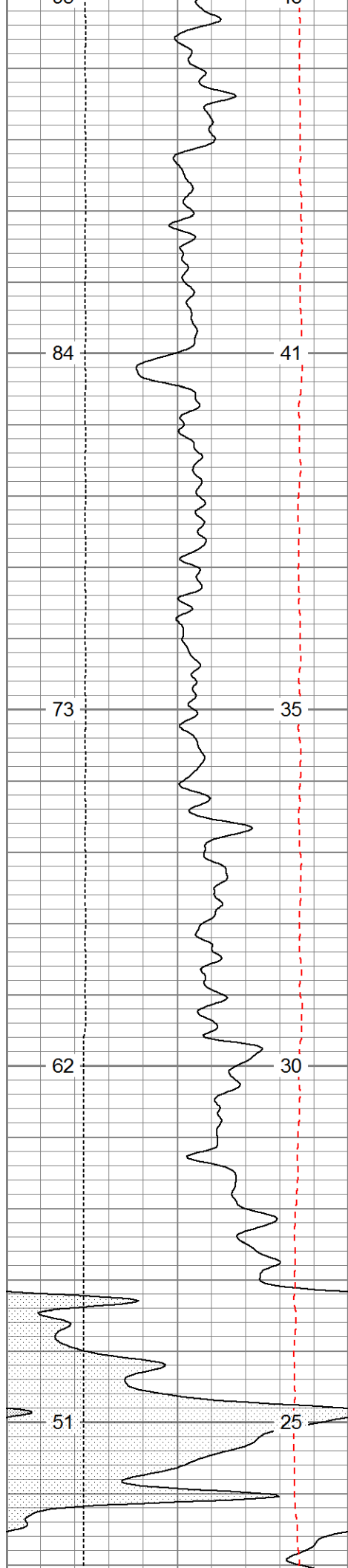


1900

2000

2100

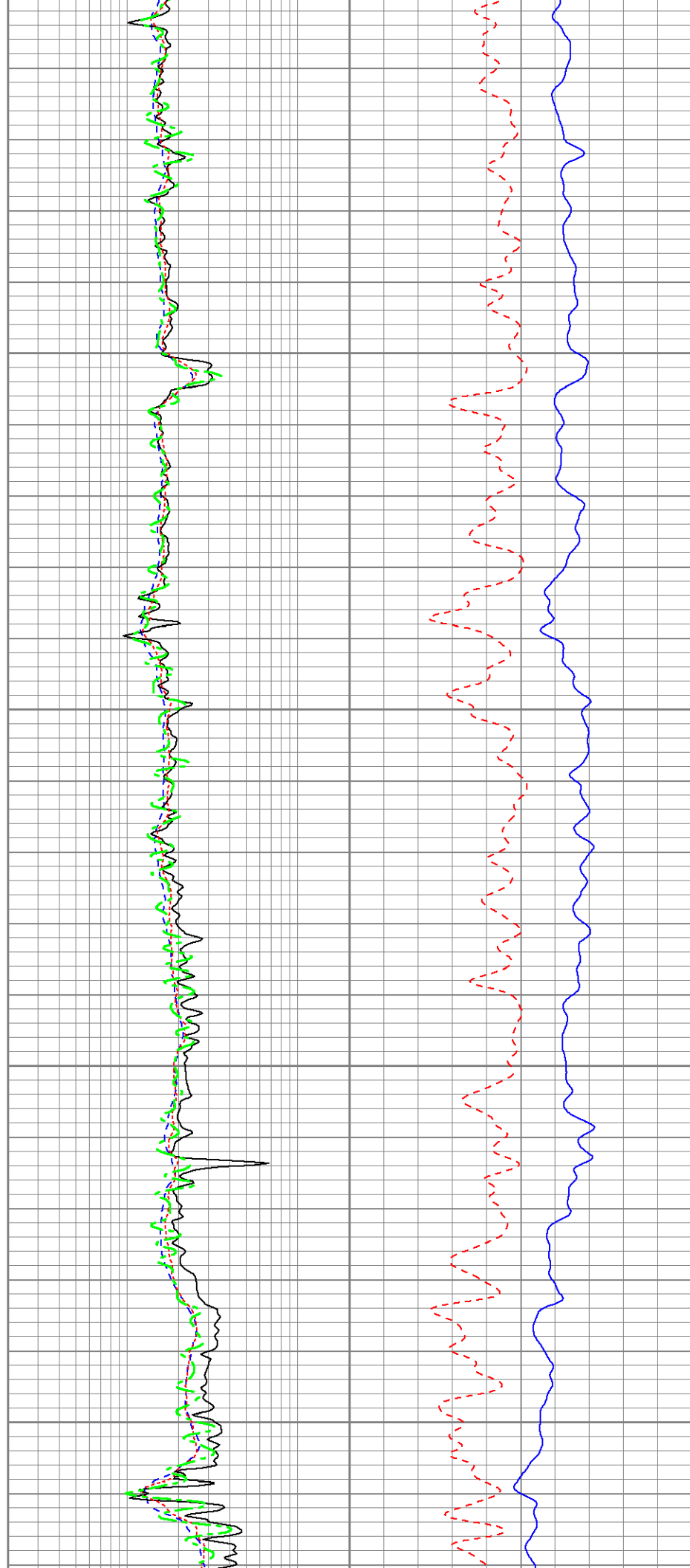


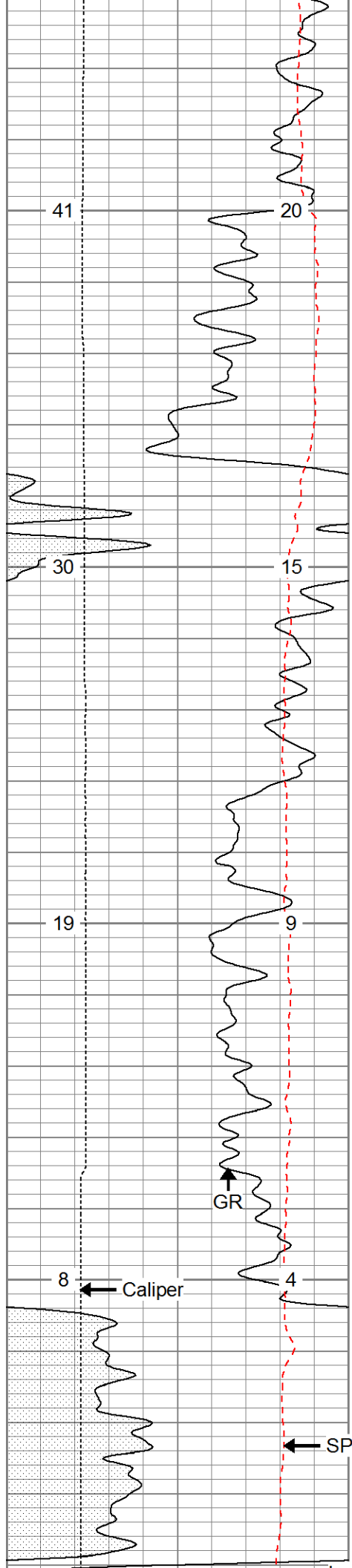


2100

2200

2300

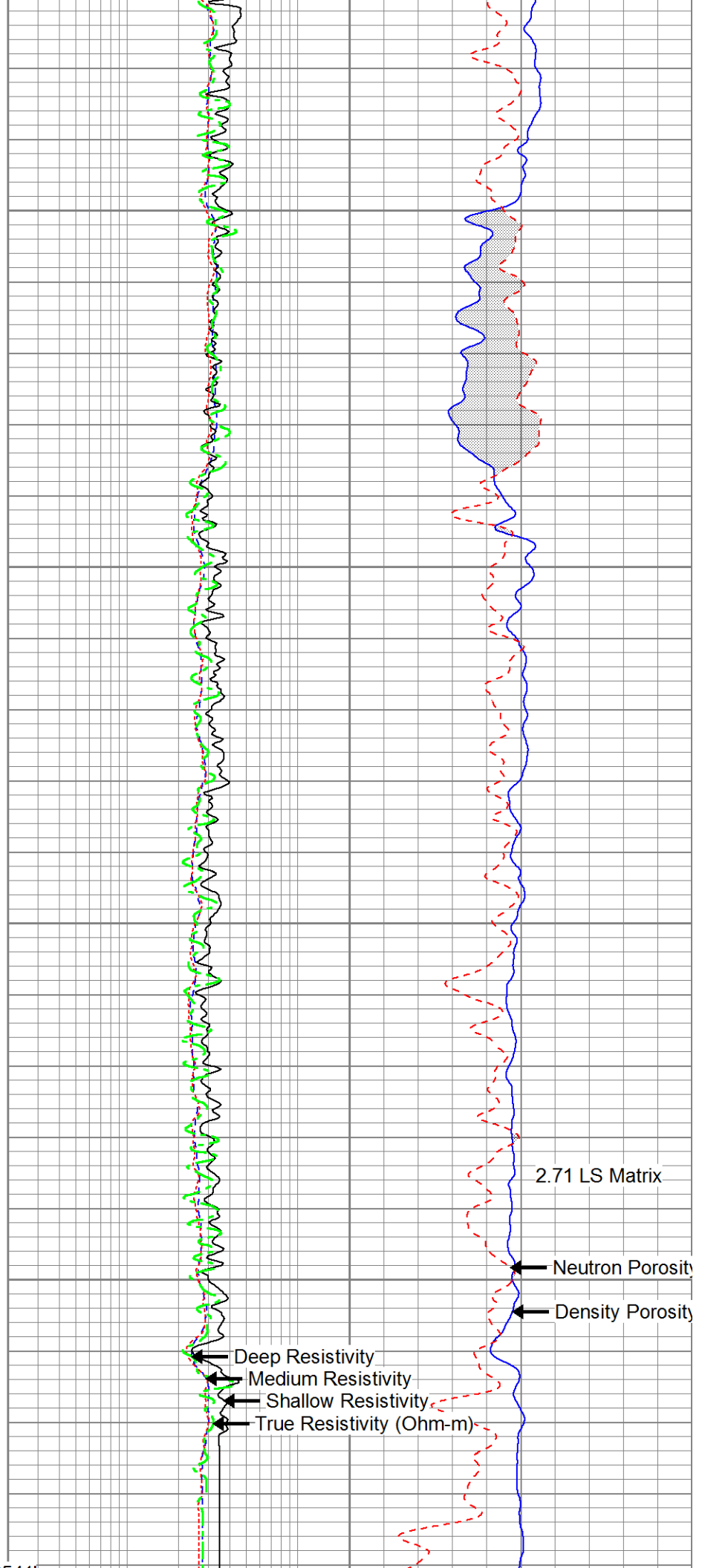





2400

2500

1. TD 2514'



Logger's ID: 2541					
0	Gamma Ray (GAPI)	200	0.2	Deep Resistivity (Ohm-m)	20
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	20
4	Caliper (in)	14	0.2	Medium Resistivity (Ohm-m)	20
TBHV (cu. ft.)		ABHV (cu. ft.)	0.2	Rt (Ohm-m)	20
(ft3)		(ft3)			



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Repeat Pass

Database File: 13523.db

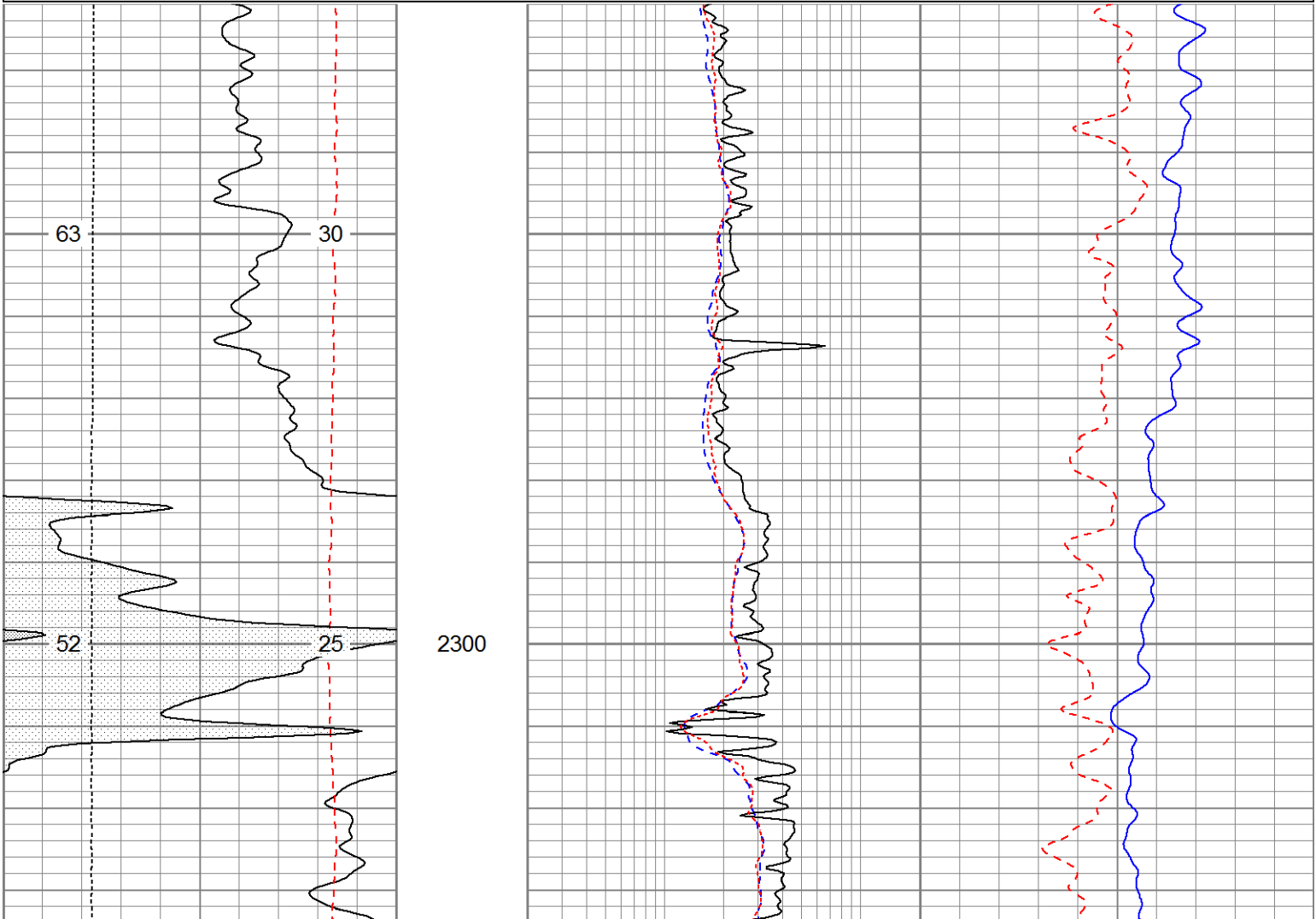
Dataset Pathname: pass2.3

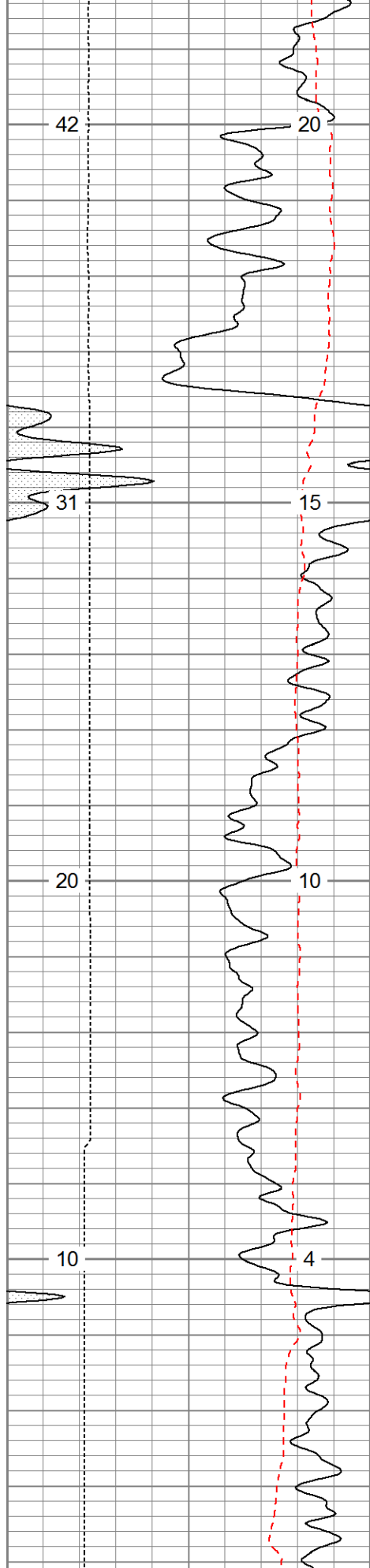
Presentation Format: pdce

Dataset Creation: Wed Jul 09 14:09:55 2014 by Calc 0

Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	200	0.2	Deep Resistivity (Ohm-m)	20	60	Density Porosity (pu)	0
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	20	60	Neutron Porosity (pu)	0
4	Caliper (in)	14	0.2	Medium Resistivity (Ohm-m)	20			
TBHV (cu. ft.)		ABHV (cu. ft.)						
(ft3)		(ft3)						

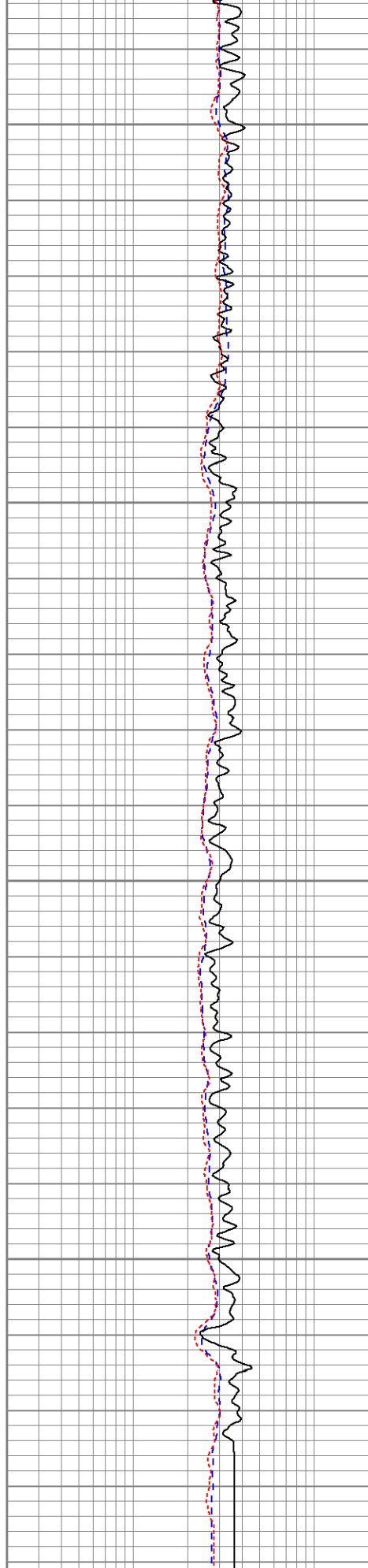




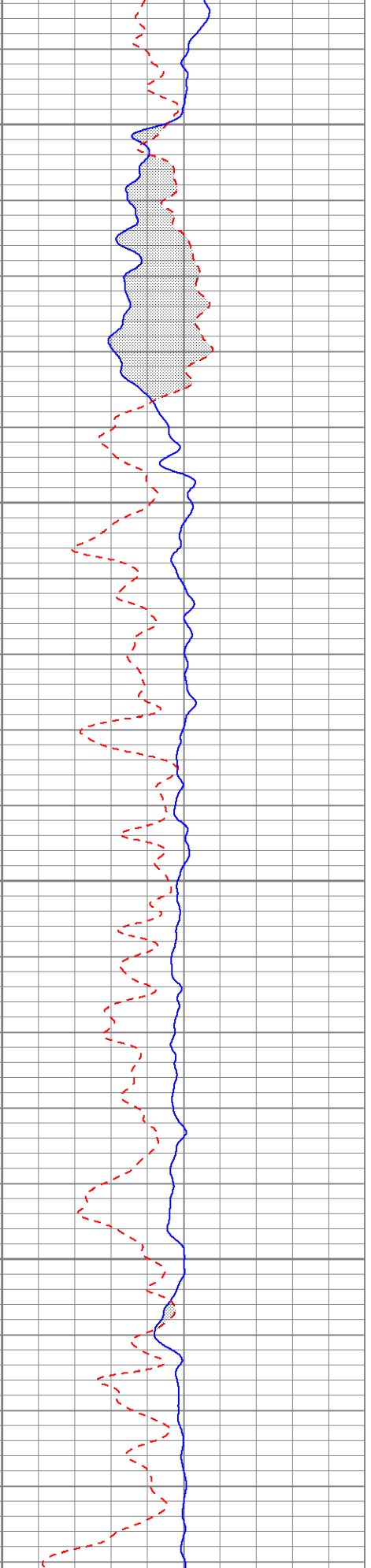
2400

2500

0	Gamma Ray (GAPI)	200
0	SP (mV)	200
4	Caliper (in)	14



0.2	Deep Resistivity (Ohm-m)	20	60
0.2	Shallow Resistivity (Ohm-m)	20	60
0.2	Medium Resistivity (Ohm-m)	20	60



0	Density Porosity (pu)	0	60
0	Neutron Porosity (pu)	0	60

Caliper (in)	1.1	0.2 Medium Resistivity (Ohm in) 20
BHV (cu. ft. (ft3)	ABHV (cu. ft. (ft3)	

Calibration Report	
Database File:	13523.db
Dataset Pathname:	pass1
Dataset Creation:	Wed Jul 09 13:19:26 2014 by Log 0

Dual Induction Calibration Report

Serial-Model:	1039-PSI
Surface Cal Performed:	

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.570	-45.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.490	-40.000

Compensated Density Calibration Report
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Serial-Model:	770-PSI
Source / Verifier:	4400 / PSI
Master Calibration Performed:	Wed Jun 04 12:13:48 2014
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	6052.27	9575.17	cps
Aluminum	2.690	g/cc	1090.90	5872.16	cps
Spine Angle = 74.07			Density/Spine Ratio = 0.528		
	Size		Reading		
Small Ring	4.50	in	1.80		
Large Ring	13.00	in	1.46		


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	

Compensated Neutron Calibration Report
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Serial Number:	853
Tool Model:	PSI

CALIBRATION						
Detector		Readings		Target		Normalization
Short Space		1.00	cps	1.00	cps	1.9000
Long Space		1.00	cps	1.00	cps	2.0600
PRE-SURVEY VERIFICATION						
Detector		Readings		Measured	Target	
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		
3)	Short Space		cps			
	Long Space		cps	pu		
POST-SURVEY VERIFICATION						
Detector		Readings		Measured	Target	
1)	Short Space		cps			
	Long Space		cps	pu		pu
2)	Short Space		cps			
	Long Space		cps	pu		pu
3)	Short Space		cps			
	Long Space		cps	pu		pu
Gamma Ray Calibration Report						
Serial Number:		223				
Tool Model:		PSI				
Performed:		Tue Apr 29 09:44:02 2014				
Calibrator Value:		253.0		GAPI		
Background Reading:		30.0		cps		
Calibrator Reading:		380.0		cps		
Sensitivity:		0.6300		GAPI/cps		

 Pioneer Energy Services		Company Augustus Energy Resources, LLC Well Lippert 14-05 1S44W Field Vernon County Yuma State Colorado
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