



HIGH RESOLUTION INDUCTION COMPENSATED DENSITY COMPENSATED NEUTRON

Pioneer Energy Services

Company Augustus Energy Resources, LLC
Well Gelvin 12-18 1S44W
Field Vernon
County Yuma State Colorado

Location: API #: 05125120960000

2337' FNL & 712' FWL
NENW

SEC 18 TWP 1S RGE 44W

Permanent Datum GL Elevation 3959
Log Measured From KB
Drilling Measured From KB

Other Services
None

Elevation
K.B. 3965
D.F. 3964
G.L. 3959

Date July 29, 2014

Run Number 1

Depth Driller 2507

Depth Logger 2503

Bottom Logged Interval 2501

Top Log Interval Casing

Casing Driller 17# 7" @ 489

Casing Logger 489

Bit Size 6.25"

Type Fluid in Hole WBM

Density / Viscosity 8.6 / 28

pH / Fluid Loss NA

Source of Sample Flowline

Rm @ Meas. Temp 0.30 @ 70 F

Rmf @ Meas. Temp 0.23 @ 70 F

Rmc @ Meas. Temp 0.40 @ 70 F

Source of Rmf / Rmc Calc / Calc

Rm @ BHT 0.20 @ 104 F

Time Circulation Stopped 0230

Time Logger on Bottom 0500

Maximum Recorded Temperature 104 F

Equipment Number 48

Location Ft. Morgan, CO

Recorded By Schuman

Witnessed By Mr. Justin Stone

<<< Fold Here >>>

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>13638.db: field/well/run1/pass1</div> <div>Total Length:</div> <div>36.67 ft</div> <div>Total Weight:</div> <div>600.00 lb</div> <div>O.D.</div> <div>5.00 in</div> </div>						

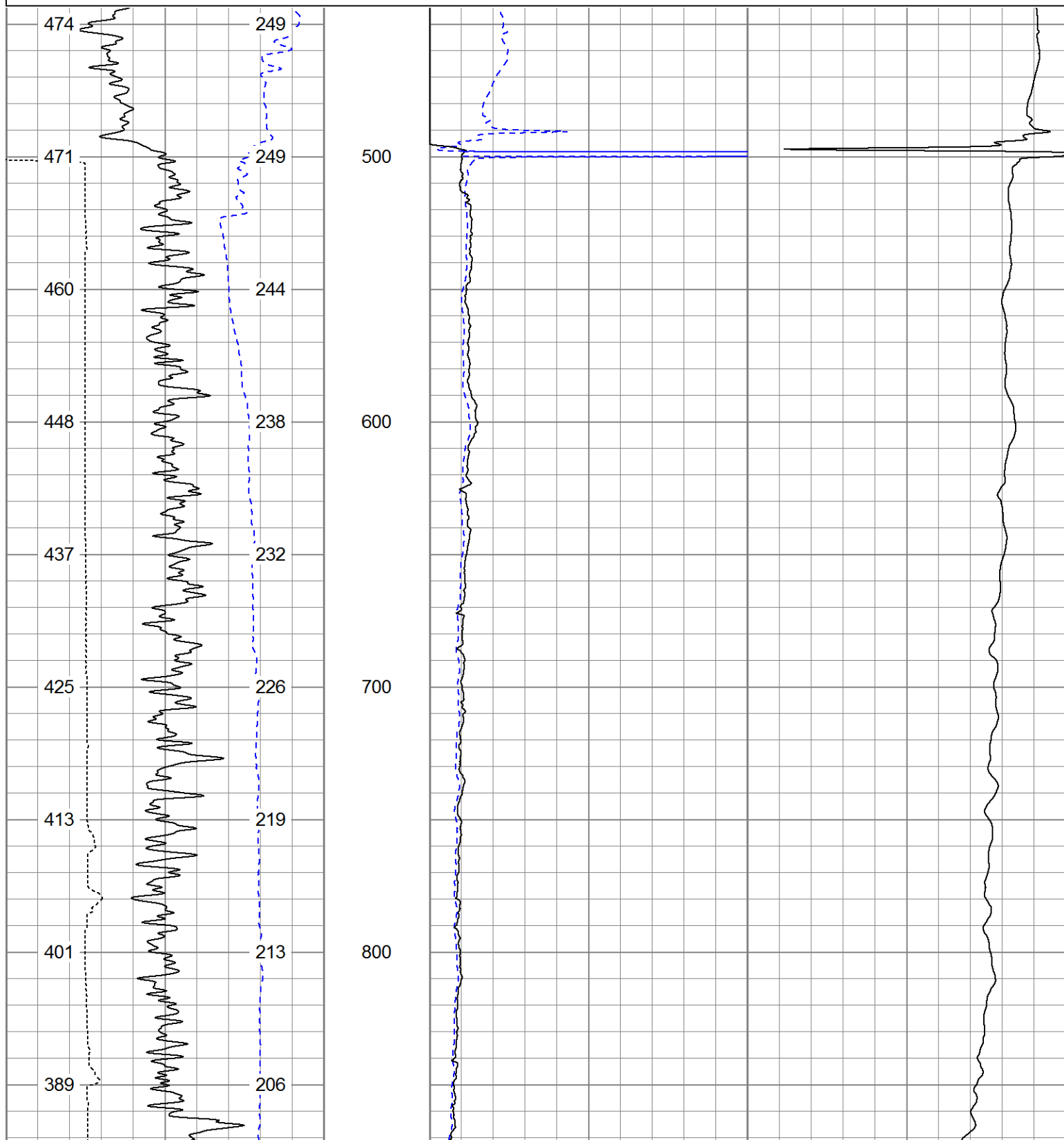


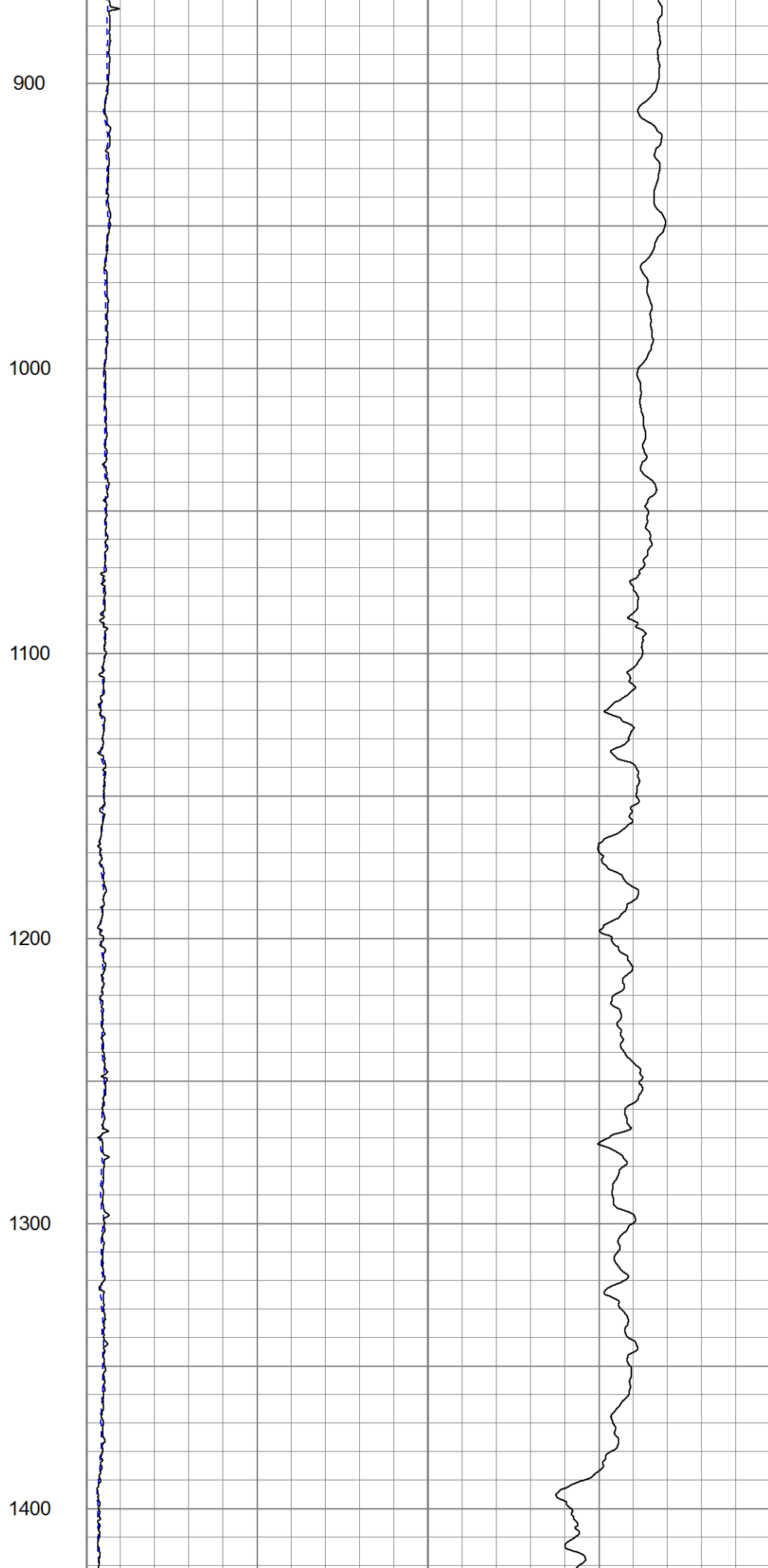
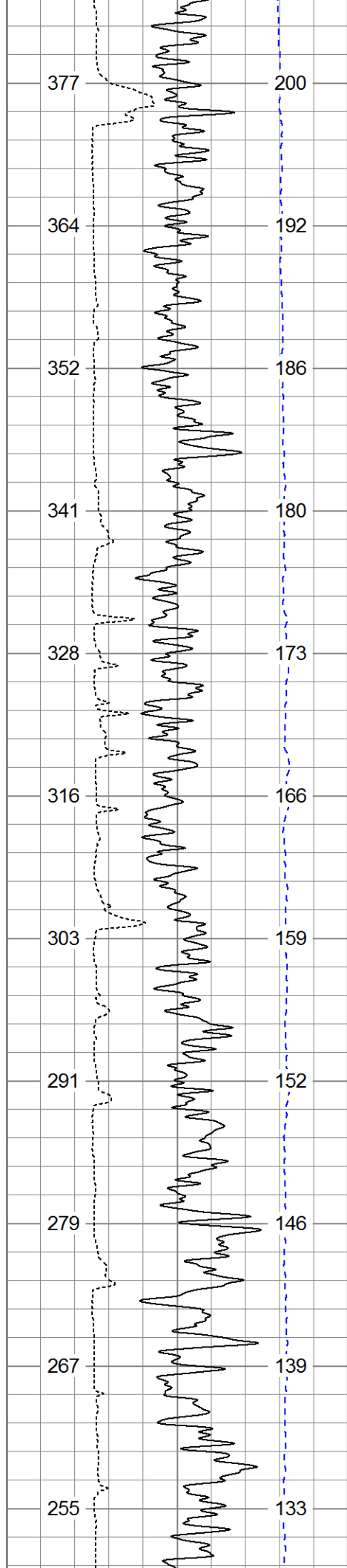
Main Pass

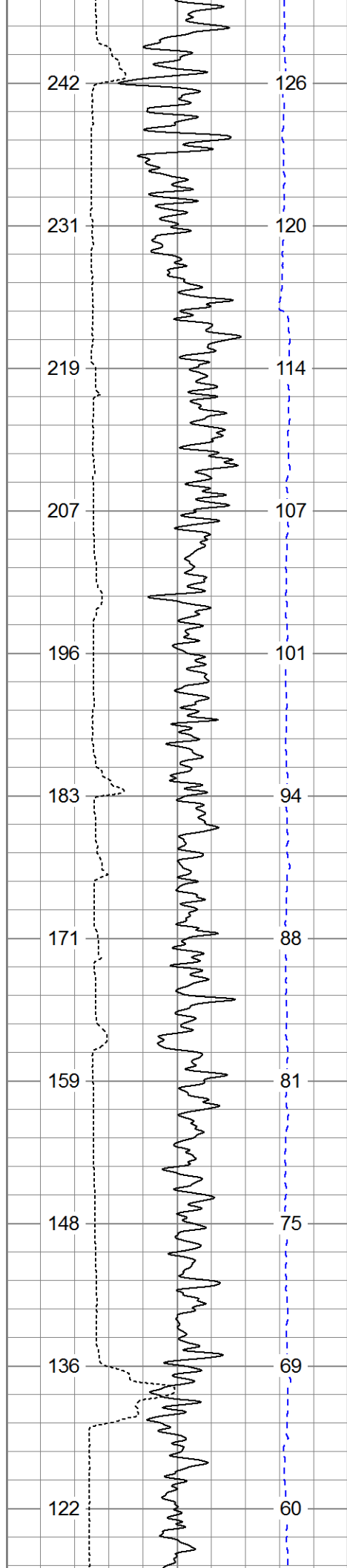
Database File: 13638.db
Dataset Pathname: pass3
Presentation Format: dilin60
Dataset Creation: Tue Jul 29 05:20:46 2014 by Log 0
Charted by: Depth in Feet scaled 1:600

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			







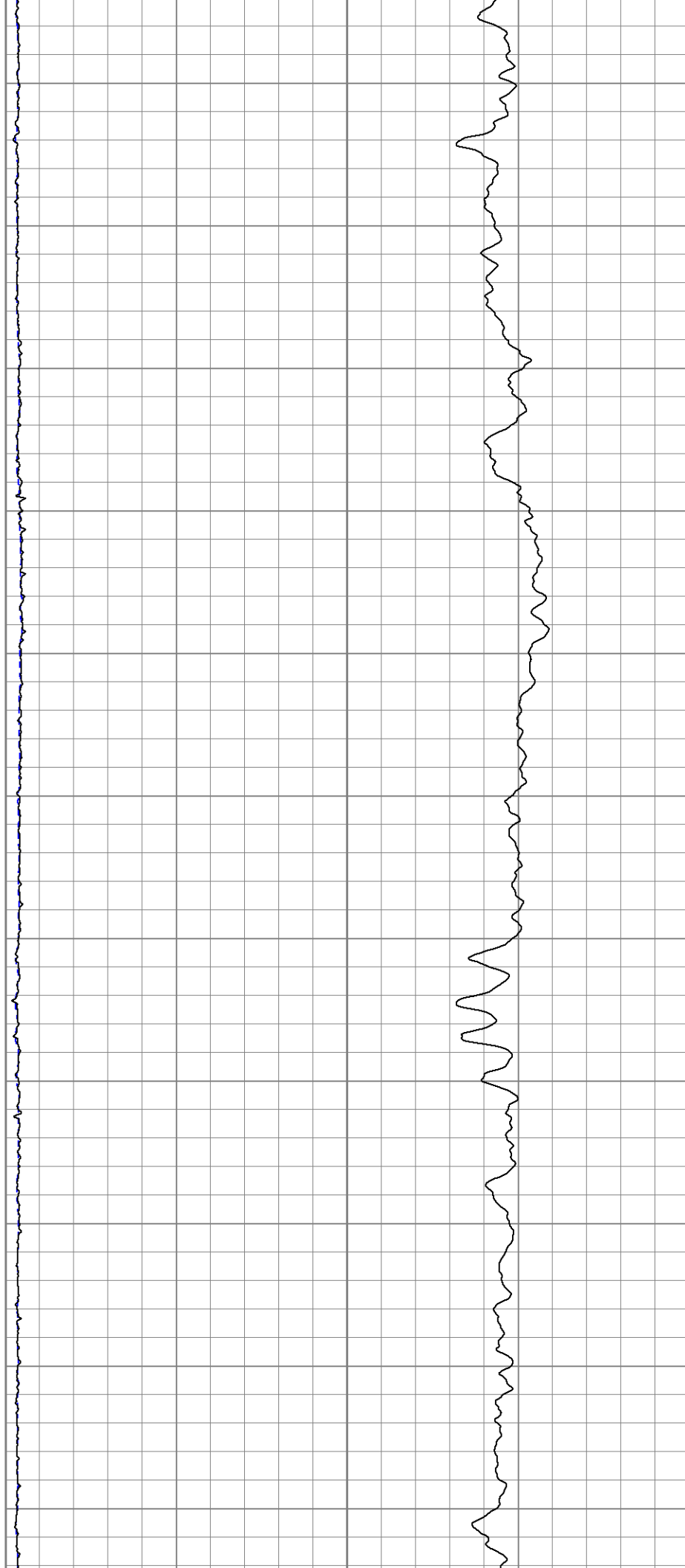
1500

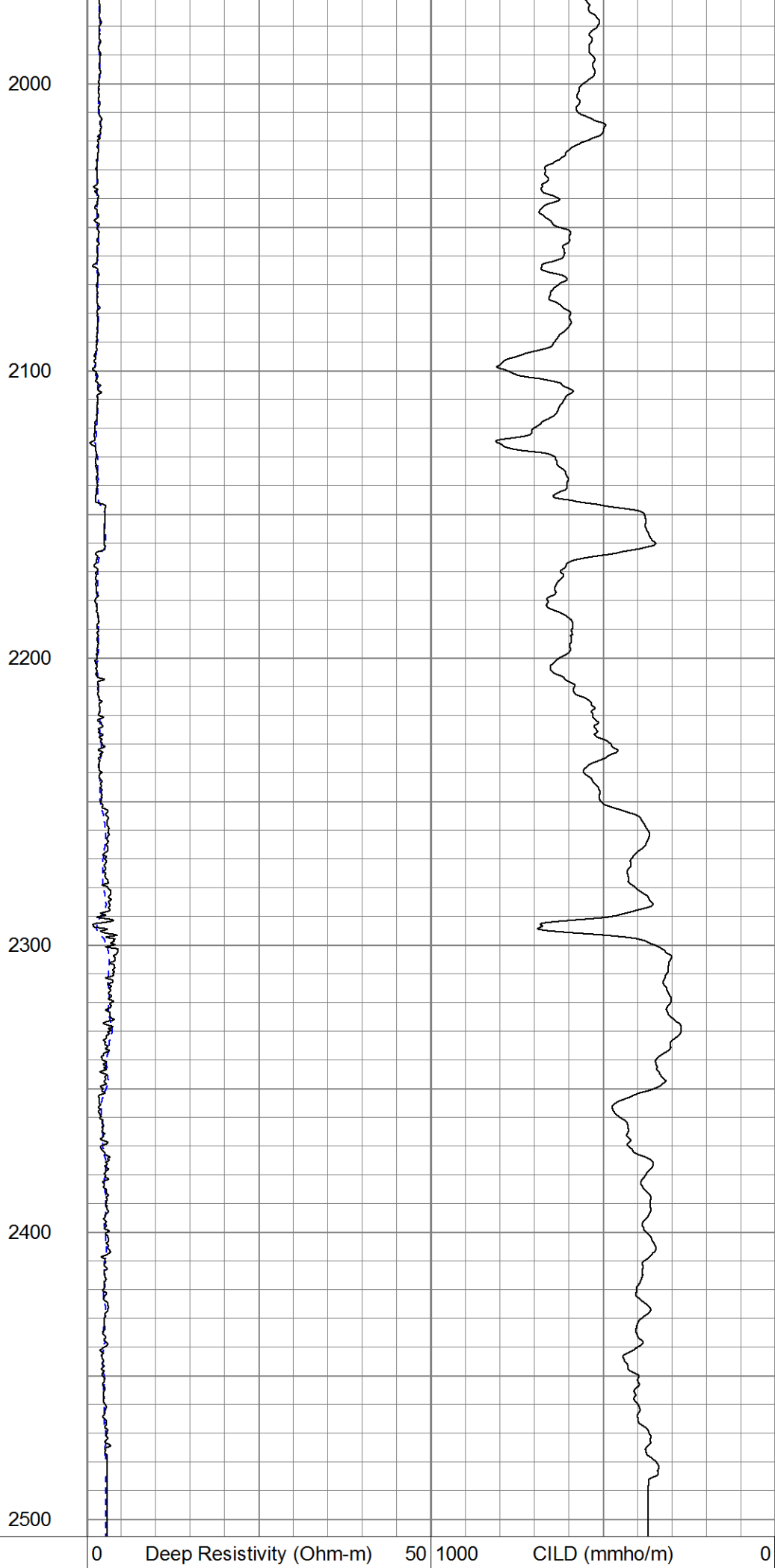
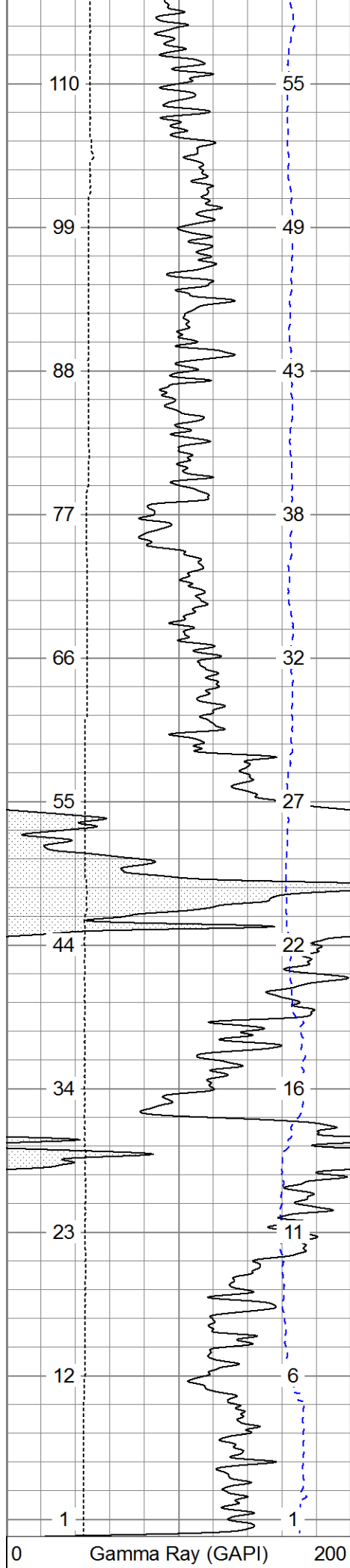
1600

1700

1800

1900





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

0	Shallow Resistivity (Ohm-m)	50
50	RILD (Ohm-m)	500
50	RLL3 (Ohm-m)	500



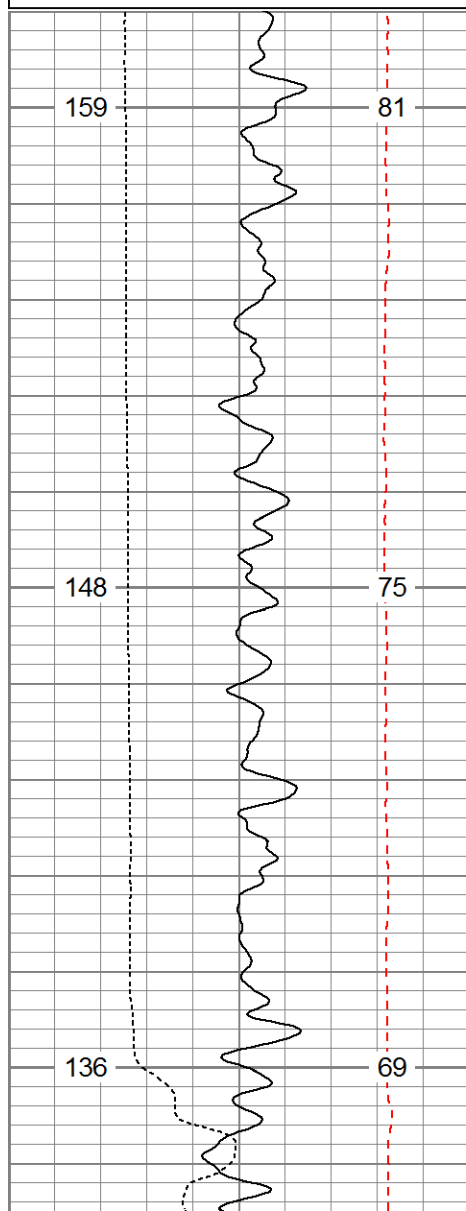
Main Pass

Database File: 13638.db
 Dataset Pathname: main
 Presentation Format: pdce
 Dataset Creation: Tue Jul 29 05:58:16 2014
 Charted by: Depth in Feet scaled 1:240

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

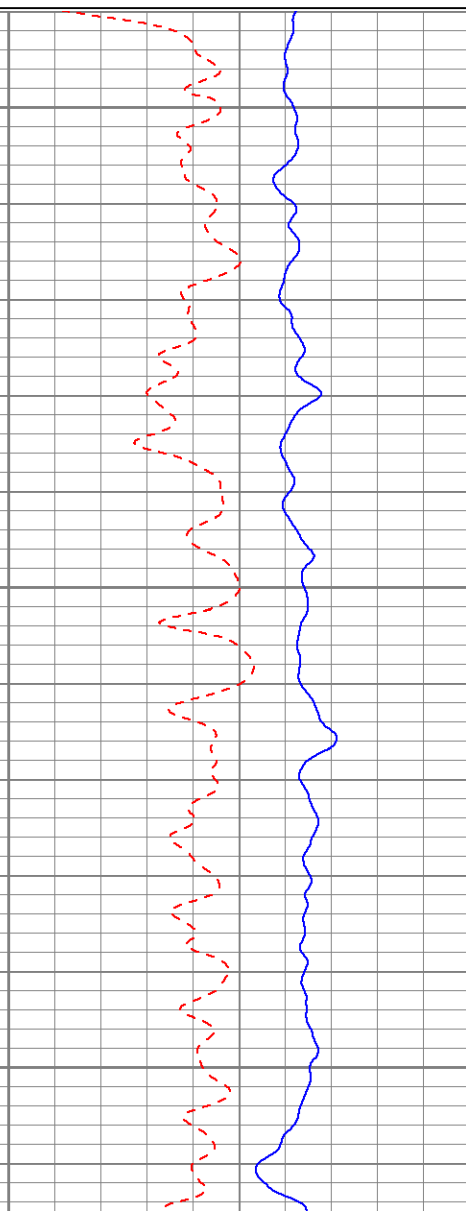
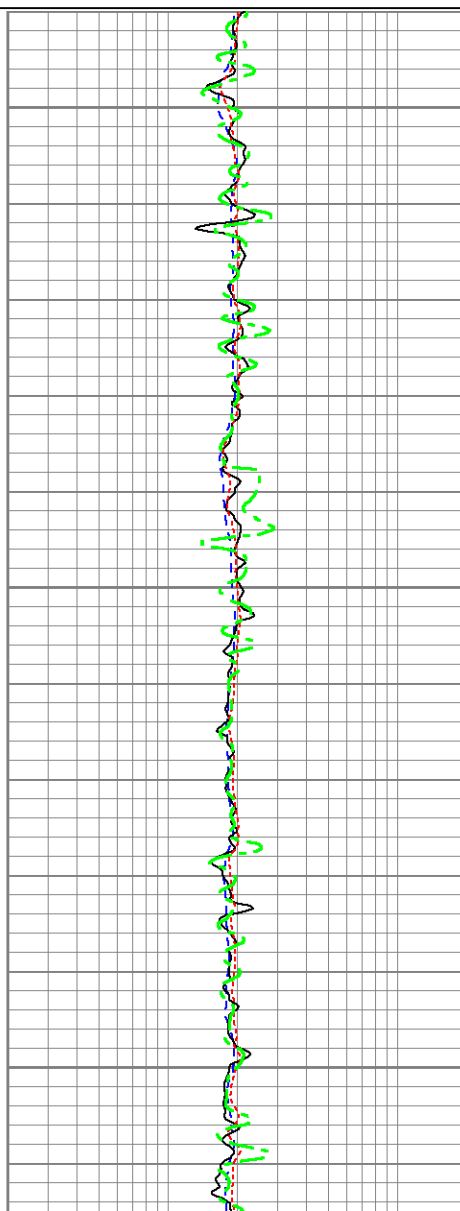
0.2	Deep Resistivity (Ohm-m)	20
0.2	Shallow Resistivity (Ohm-m)	20
0.2	Medium Resistivity (Ohm-m)	20
0.2	Rt (Ohm-m)	20

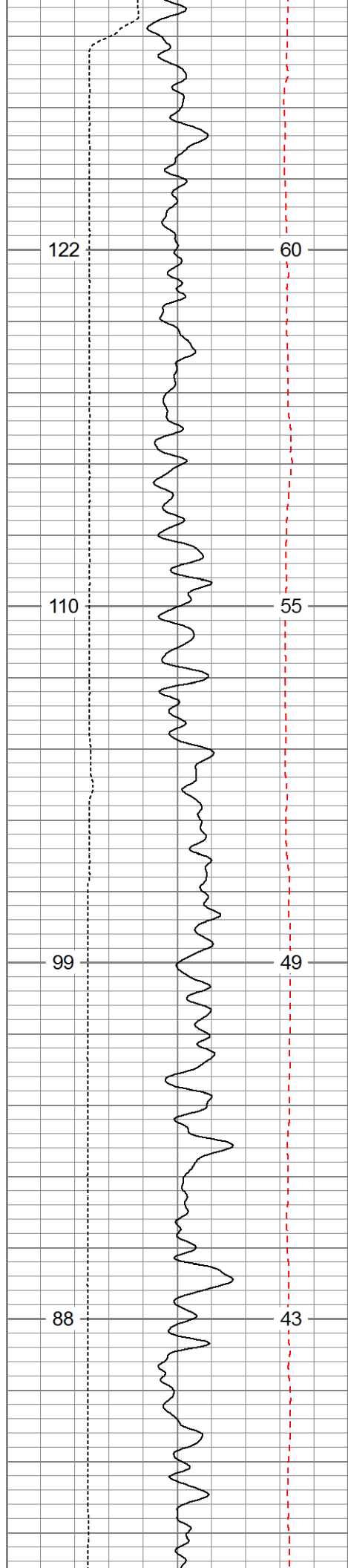
60	Density Porosity (pu)	0
60	Neutron Porosity (pu)	0



1800

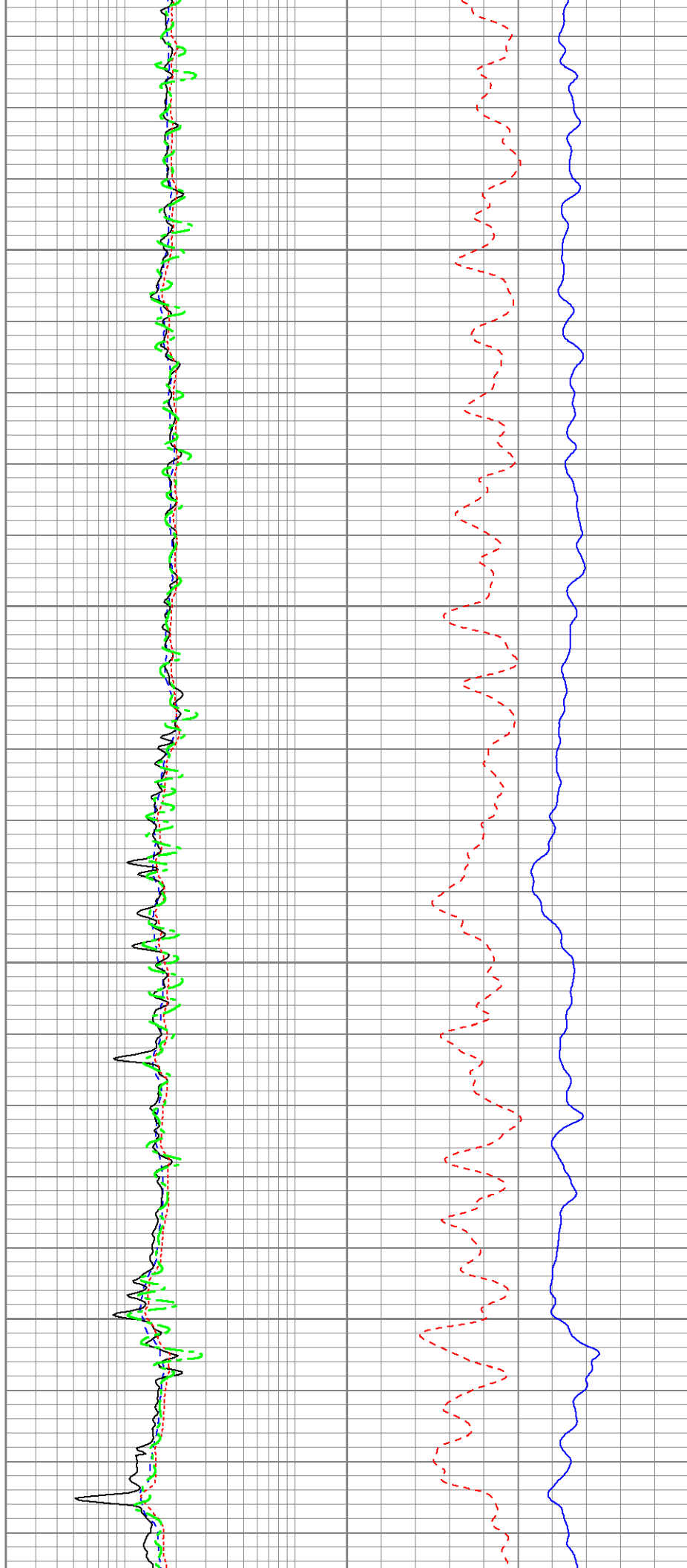
1900

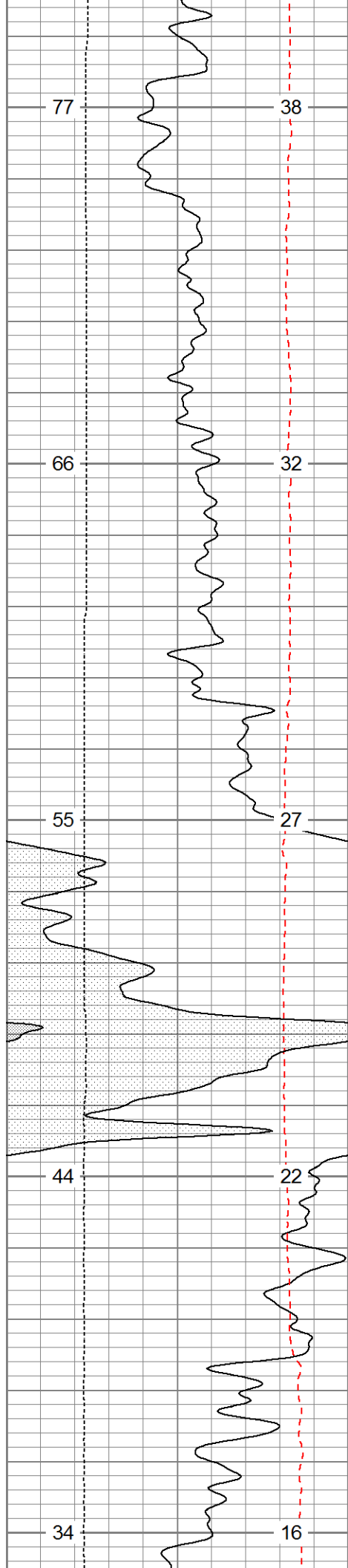




2000

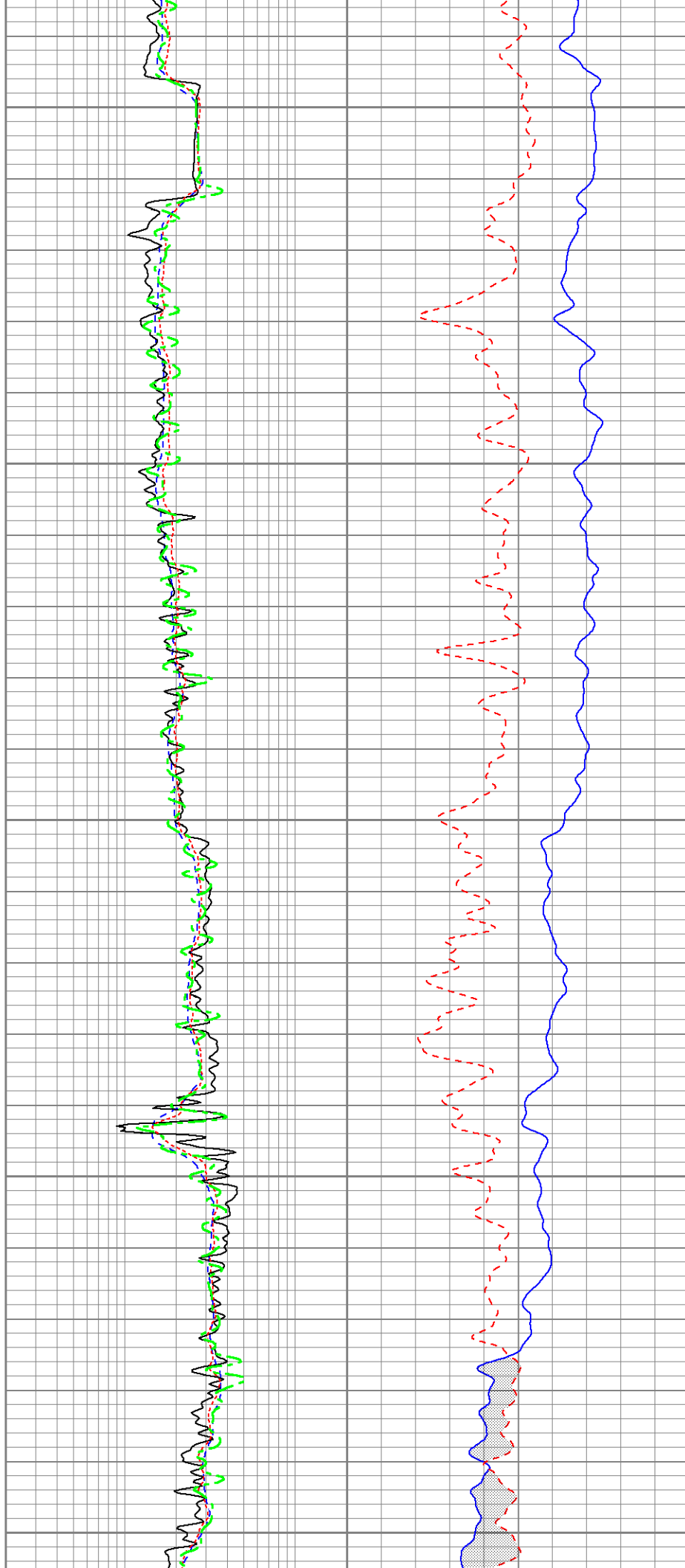
2100

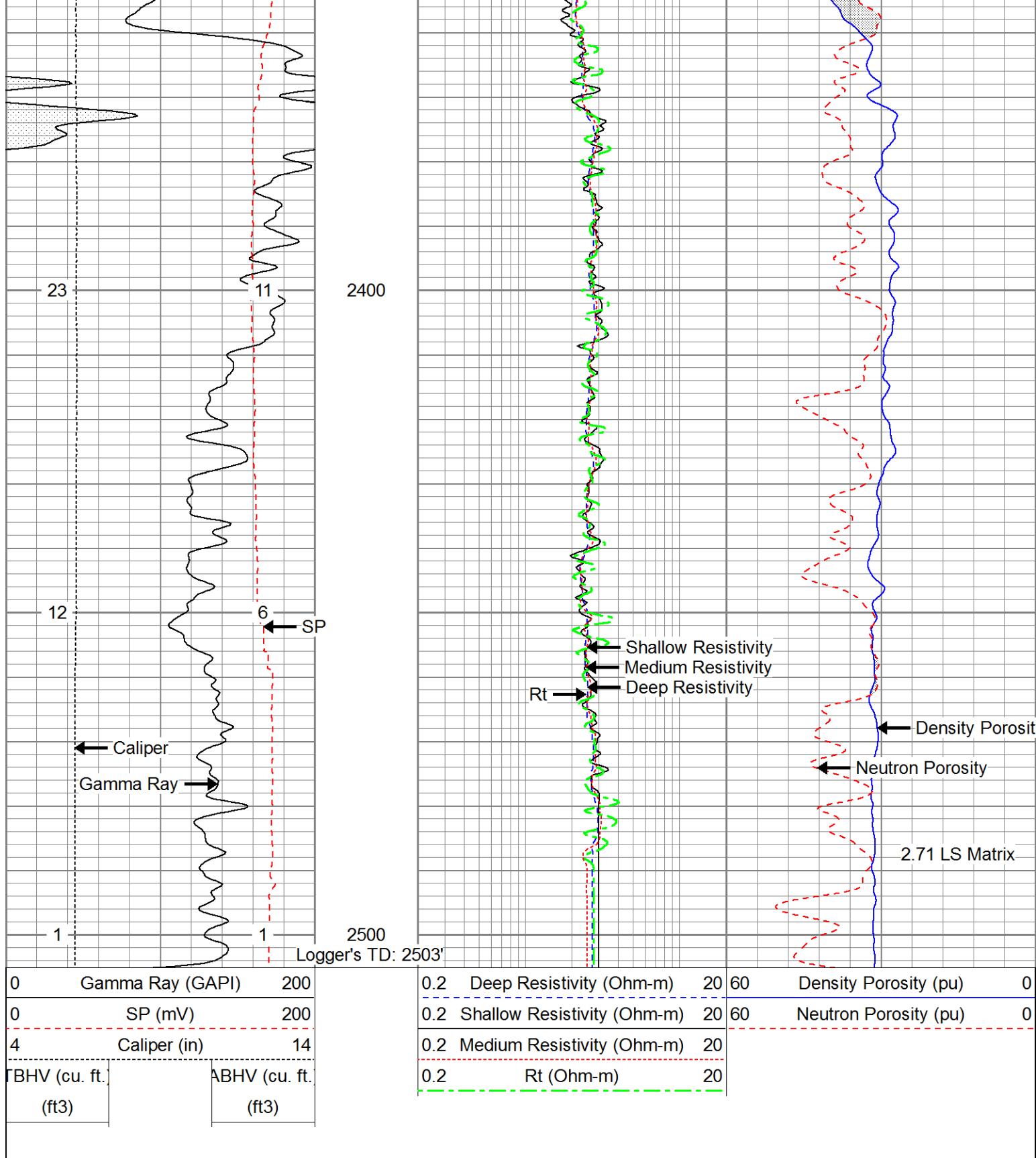




2200

2300

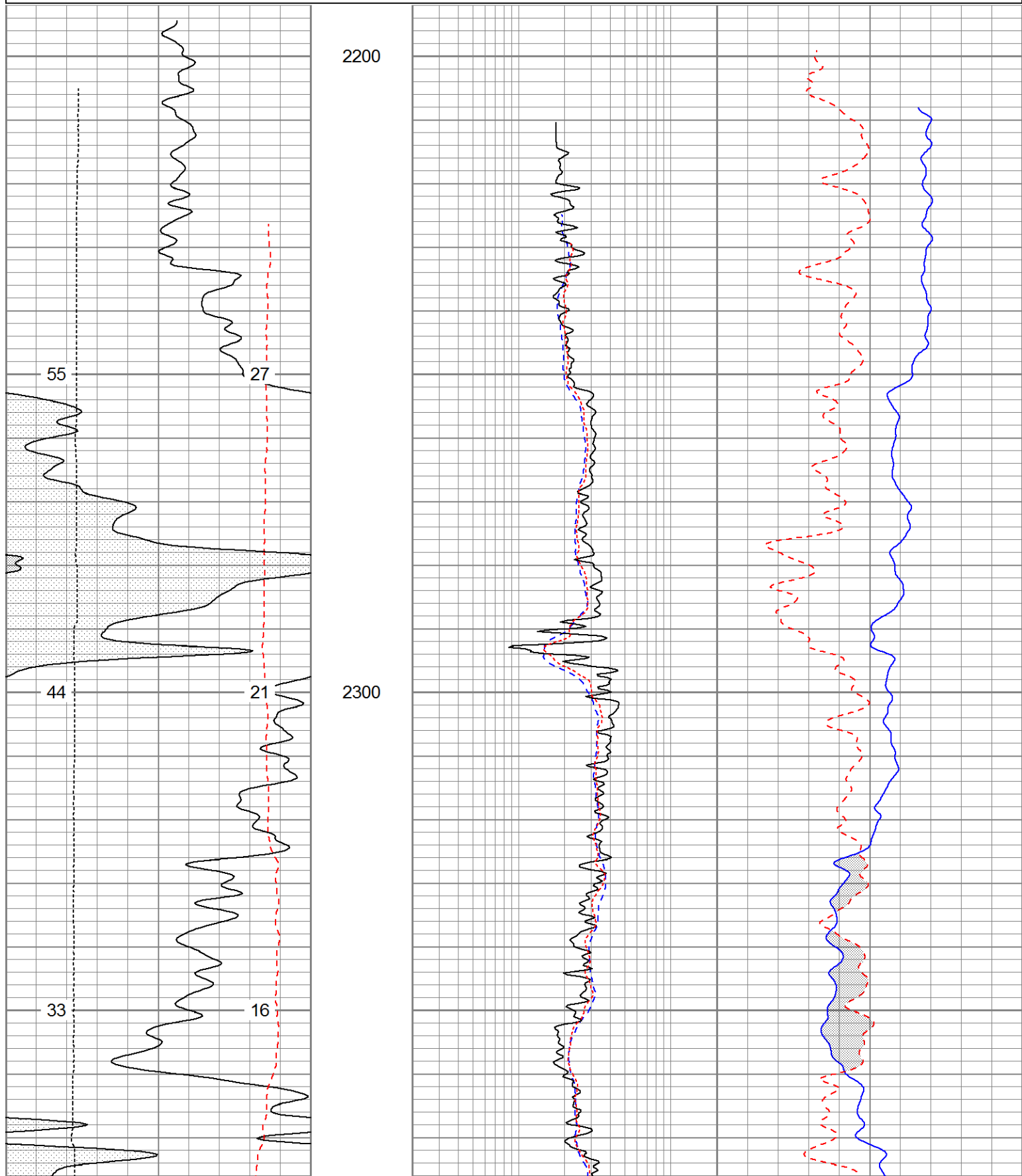


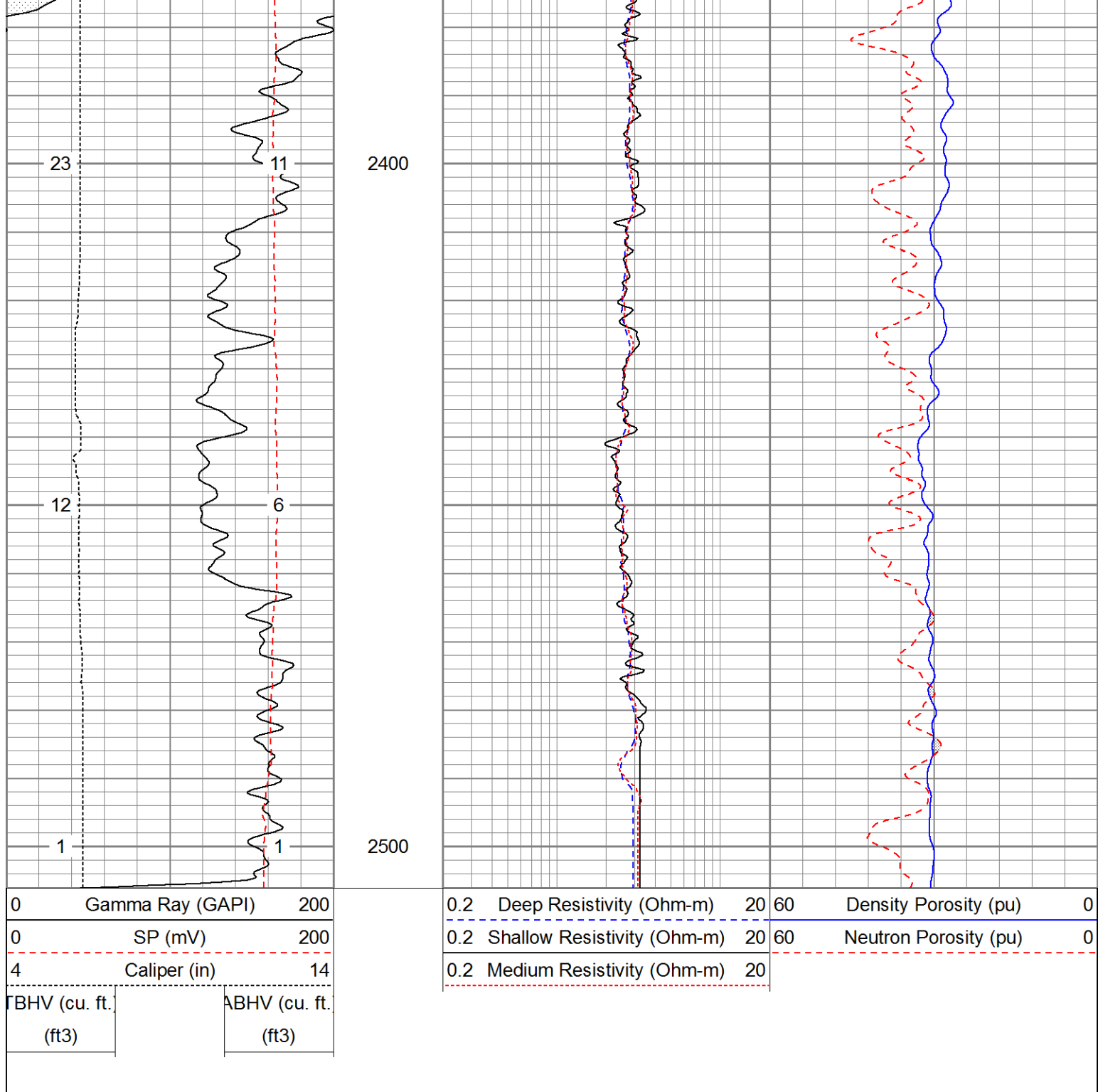


Charted by:

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)						





Calibration Report

Database File: 13638.db
 Dataset Pathname: pass1
 Dataset Creation: Tue Jul 29 04:50:12 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1039-PSI
 Surface Cal Performed:

Readings

References


Results

Loop:	Air	Loop	Air	Loop	mmho/m	m	b
Deep	0.000	1.000	0.000	1.000		0.595	-45.000
Medium	0.000	1.000	0.000	1.000		0.175	10.000

Medium	0.000	1.000	0.000	1.000	mmho/m	0.475	-40.000
Compensated Density Calibration Report							
Serial-Model:			770-PSI				
Source / Verifier:			4400 / PSI				
Master Calibration Performed:			Mon Jul 21 02:13:30 2014				
Before Survey Verification Performed:							
After Survey Verification Performed:							
Master Calibration							
	Density			Far Detector		Near Detector	
	<hr/>			<hr/>		<hr/>	
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			
	<hr/>			<hr/>			
Small Ring	4.50	in		1.80			
Large Ring	13.00	in		1.46			

Compensated Neutron Calibration Report						
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	1.9400

Gamma Ray Calibration Report							
Serial Number:		223					
Tool Model:		PSI					
Performed:		Mon Jul 21 02:13:45 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	Gelvin 12-18 1S44W
		Field	Vernon
		County	Yuma
		State	Colorado