PIONEER
Pioneer Energy Services

HIGH RESOLUTION INDUCTION COMPENSATED DENSITY COMPENSATED NEUTRON

Company Augustus Energy Resources, LLC
Well Hays 32-03 2S44W
Field Vernon
County Yuma
State Colorado

Company	Augustus Energy Resources, LLC
Well	Hays 32-03 2S44W
Field	Vernon
County	Yuma
State	Colorado

Location: API # : 05-125-12084

2300' FNL & 2297' FEL SWNE

SEC 3 TWP 2S RGE 44W

Other Services
None

Elevation
K.B. 3852
D.F. 3851
G.L. 3846

Permanent Datum	GL	Elevation	3846
Log Measured From	KB		
Drilling Measured From	KB		

Date	July 23, 2014		
Run Number	1		
Depth Driller	2357		
Depth Logger	2352		
Bottom Logged Interval	2352		
Top Log Interval	Casing		
Casing Driller	484		
Casing Logger	484		
Bit Size	6.25"		
Type Fluid in Hole	WBM		
Density / Viscosity	8.6 / 31		
pH / Fluid Loss	8.6 / 9.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	0.26 @ 70 F		
Rmf @ Meas. Temp	0.20 @ 70 F		
Rmc @ Meas. Temp	0.32 @ 70 F		
Source of Rmf / Rmc	Calc / Calc		
Rm @ BHT	0.18 @ 103 F		
Time Circulation Stopped	0300		
Time Logger on Bottom	0615		
Maximum Recorded Temperature	103 F		
Equipment Number	48		
Location	Ft. Morgan, CO		
Recorded By	Clint Christensen		
Witnessed By	Justin Stone		

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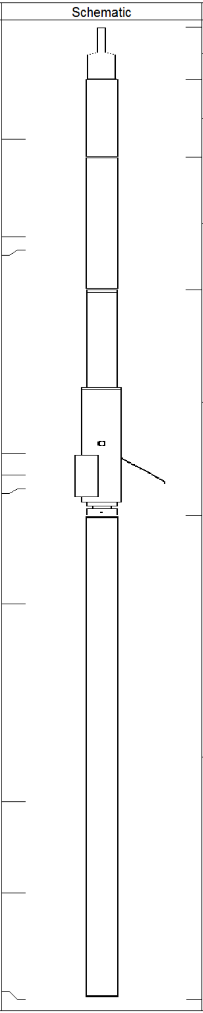
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, 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)
GR	0.00
CNLSC	-3.67
CNSSC	-4.17
DCAL	-11.84
LSD	-12.67
SSD	-13.17
RLL3	-17.52
CILD	-24.97
CILM	-28.42
SP	-32.42

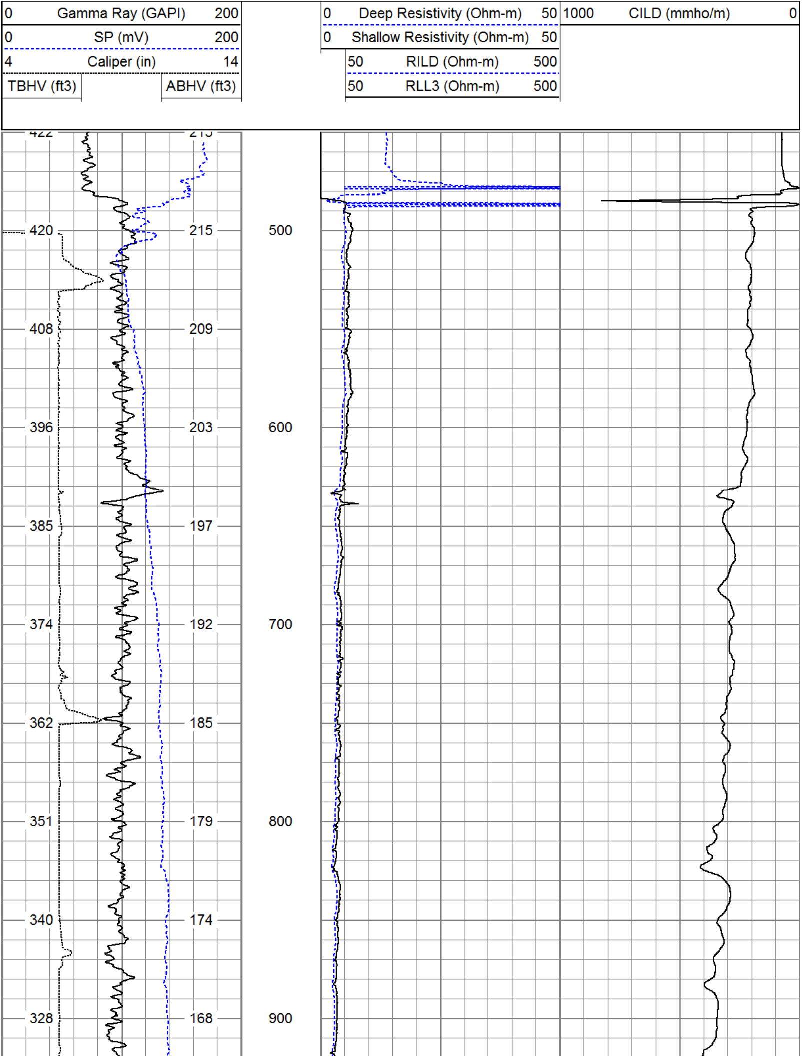
Schematic

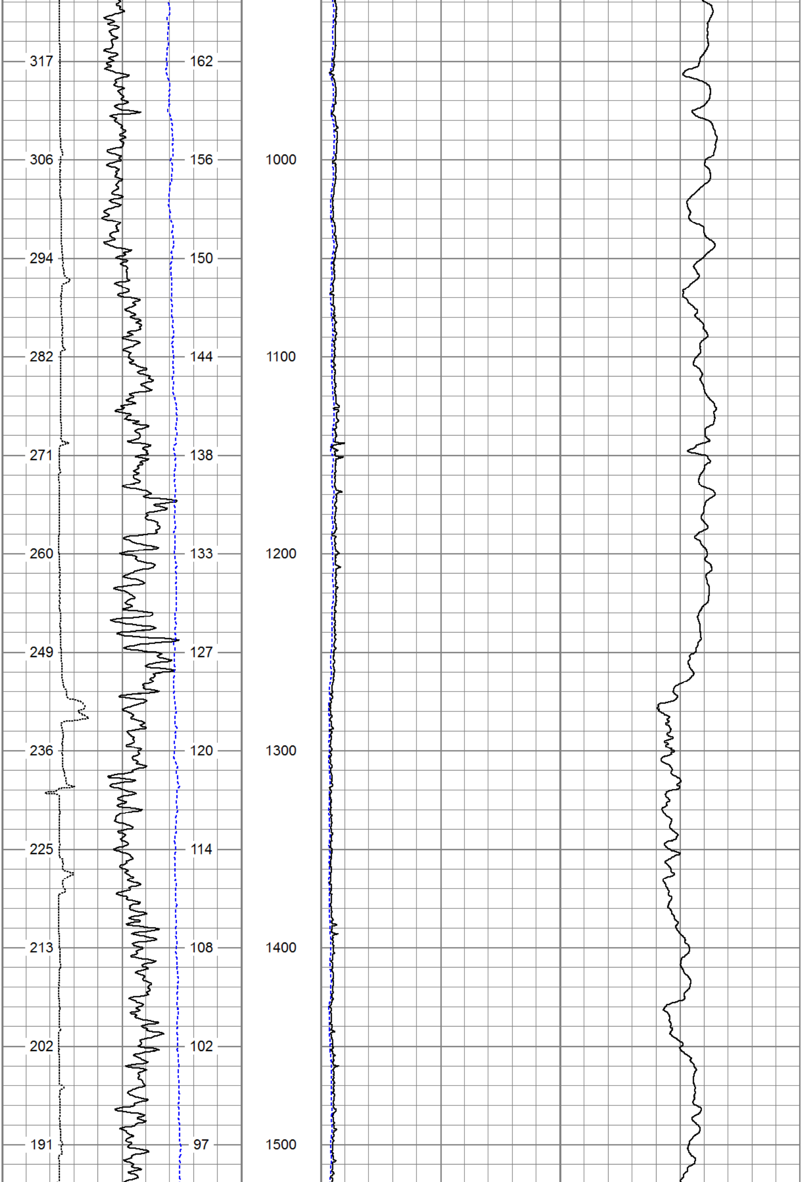


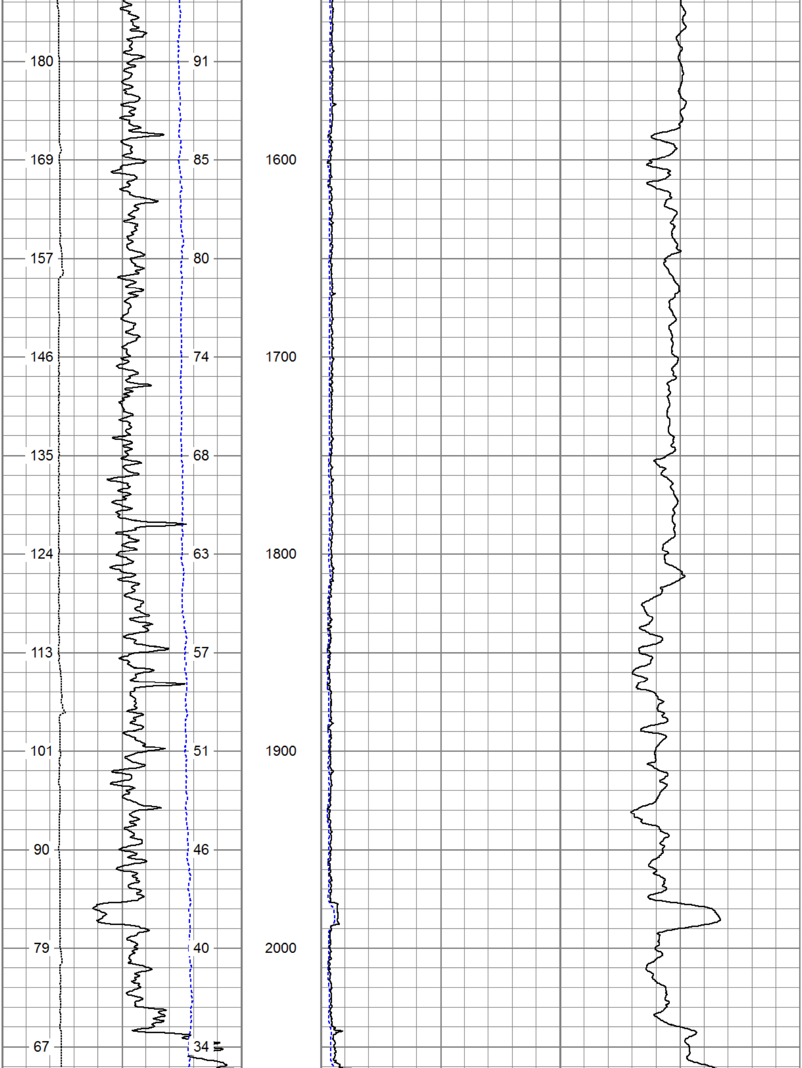
Description	Len (ft)	OD (in)	Wt (lb)
CHD (~0)	2.00	3.50	30.00
GR-PSI (939)	2.92	3.50	40.00
CNT-PSI (826)	5.00	3.50	70.00
CDL-PSI (998)	8.50	5.00	285.00
DIL-PSI (1011)	18.25	3.75	175.00

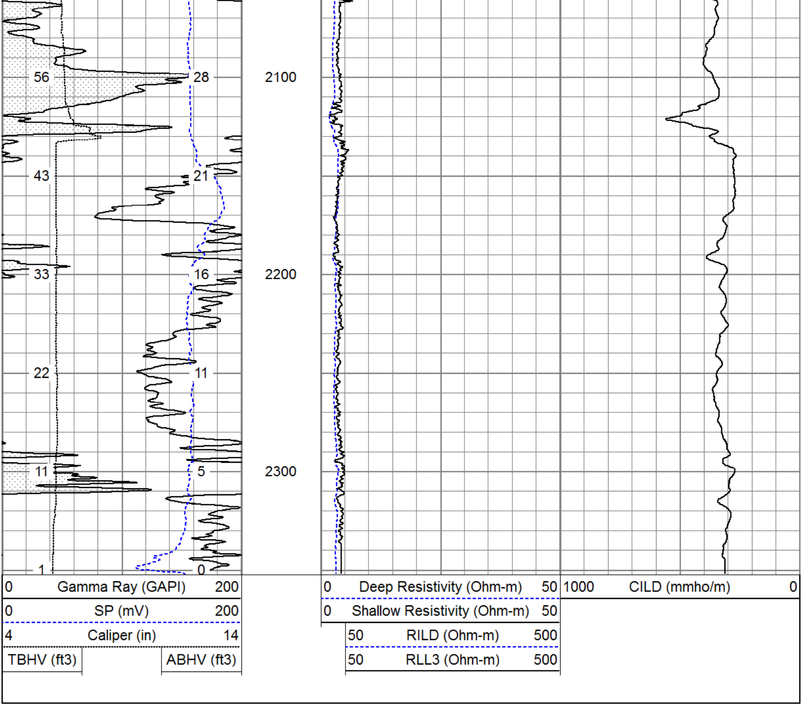
Dataset: 13611.db: field/well/run1/pass1
Total Length: 36.67 ft
Total Weight: 600.00 lb
O.D. 5.00 in

Database File: 13611.db
Dataset Pathname: Final
Presentation Format: dilin60
Dataset Creation: Wed Jul 23 07:27:05 2014
Charted by: Depth in Feet scaled 1:600







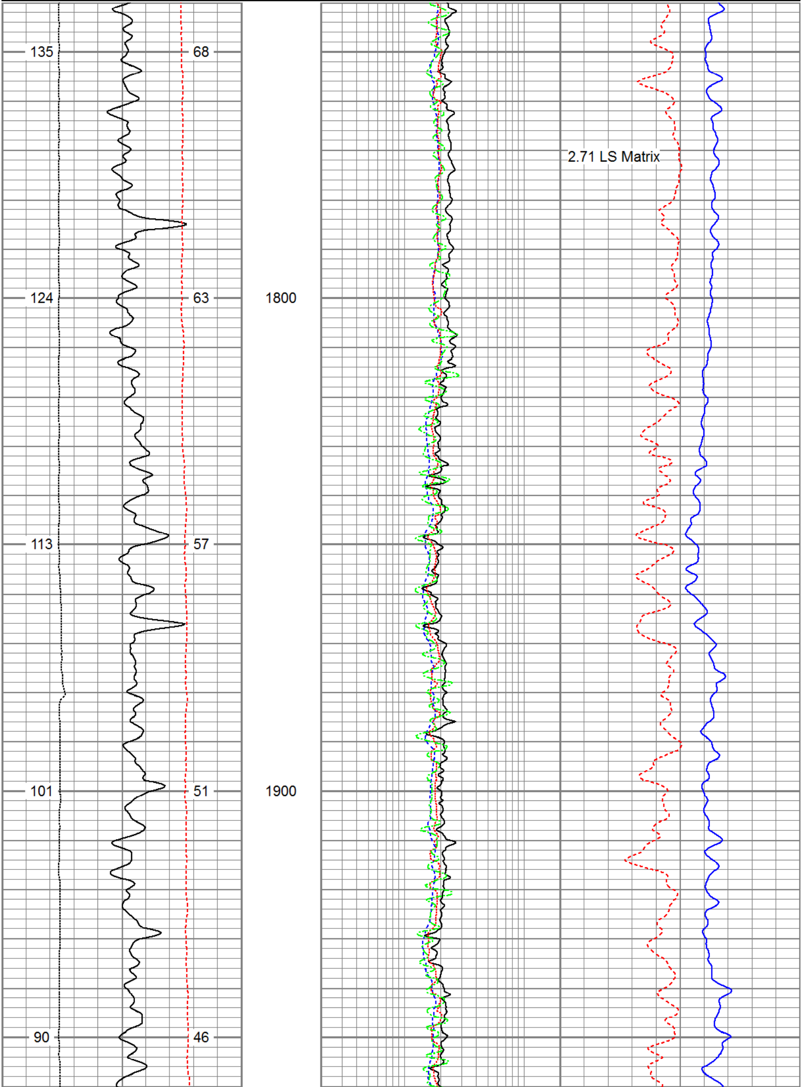


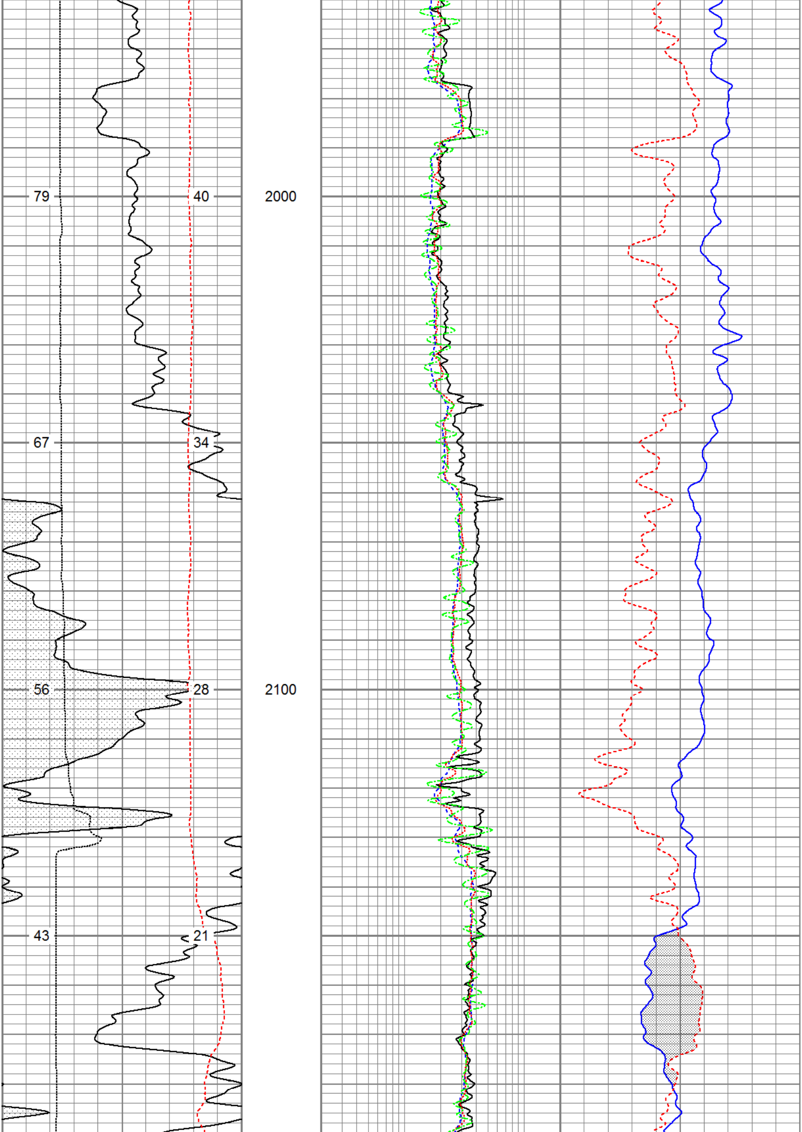
Database File:	13611.db
Dataset Pathname:	Final
Presentation Format:	pdce
Dataset Creation:	Wed Jul 23 07:27:05 2014
Charted by:	Depth in Feet scaled 1:240

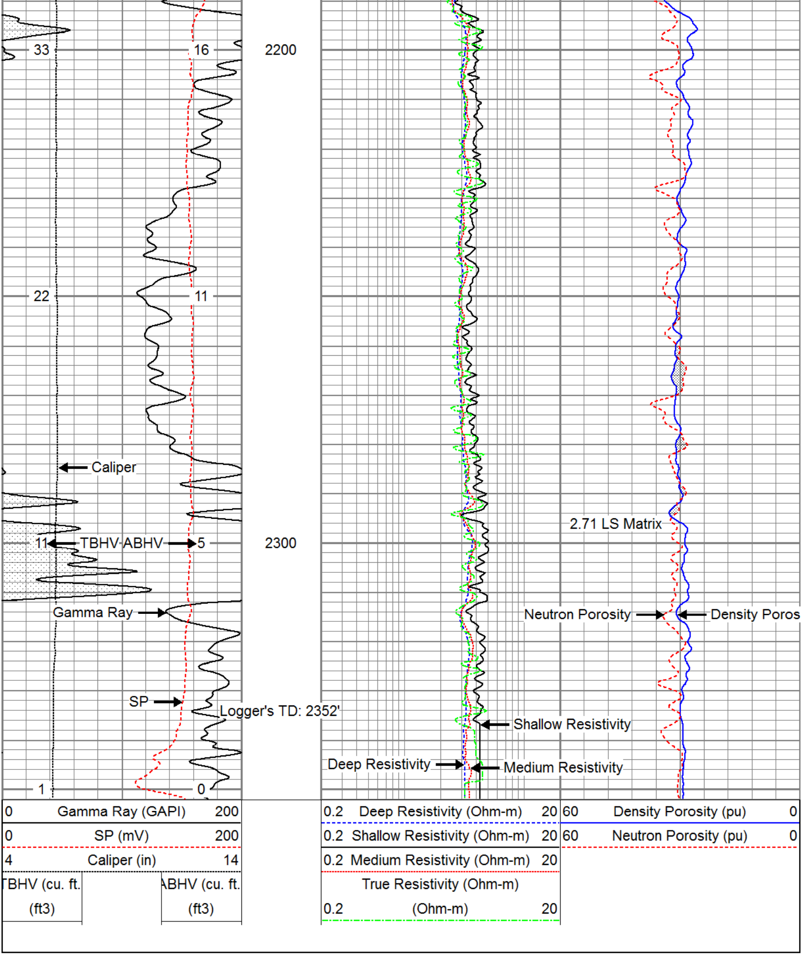
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (cu. ft. (ft3)
ABHV (cu. ft. (ft3)

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

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





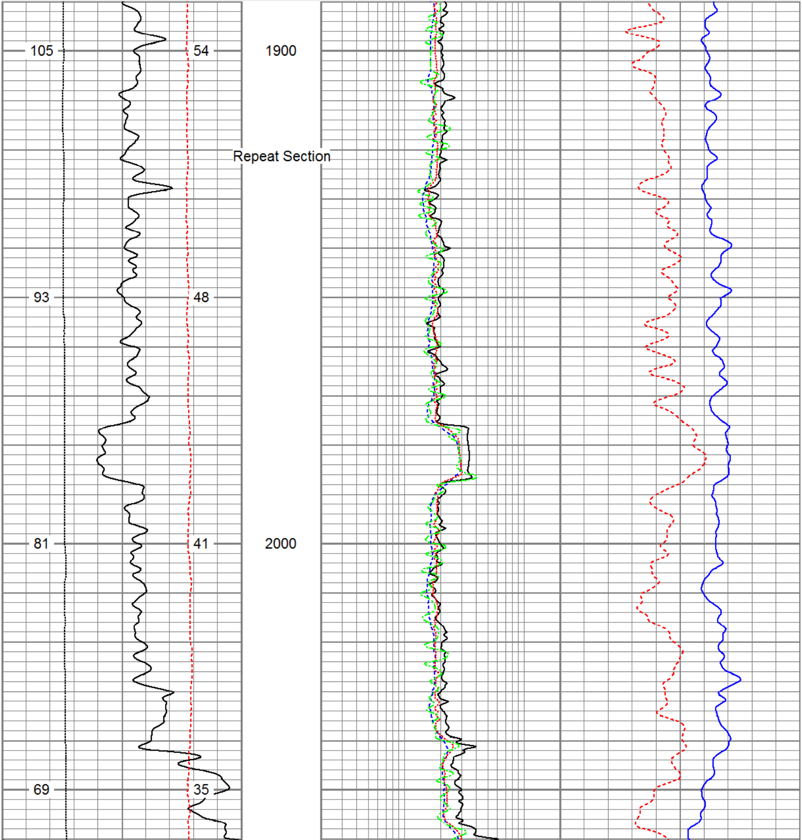


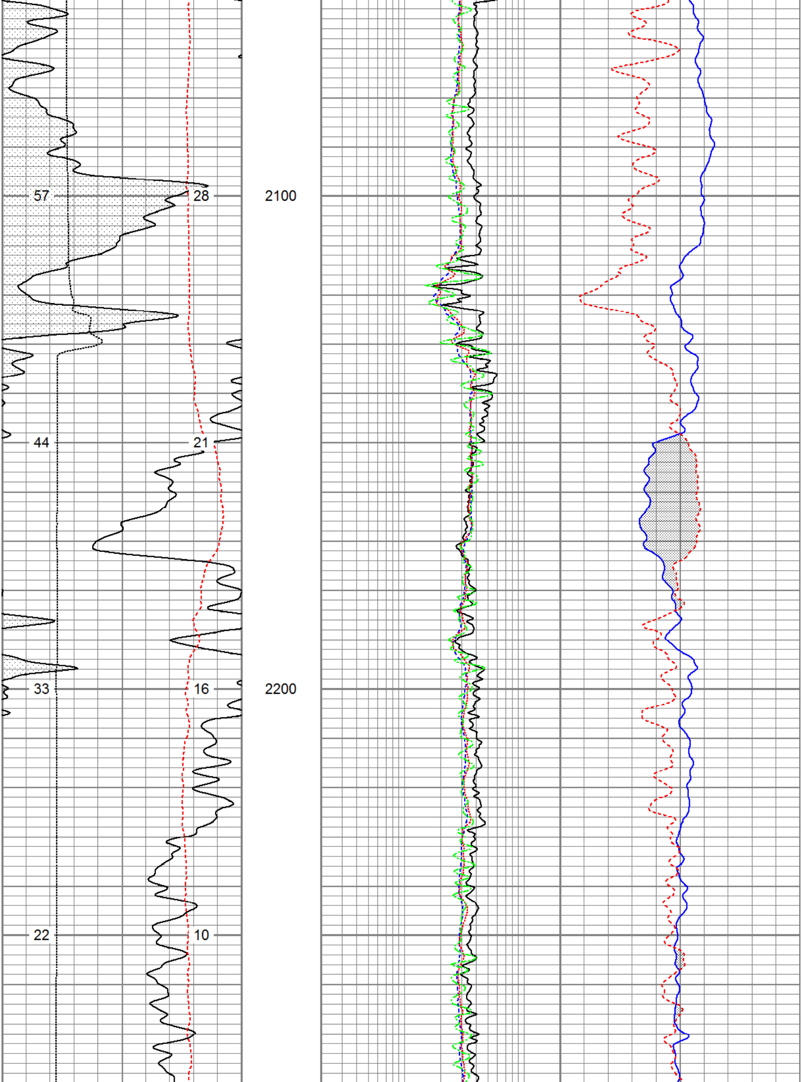
Database File:	13611.db
Dataset Pathname:	pass2.1
Presentation Format:	pdce
Dataset Creation:	Wed Jul 23 06:19:54 2014 by Calc 0
Charted by:	Depth in Feet scaled 1:240

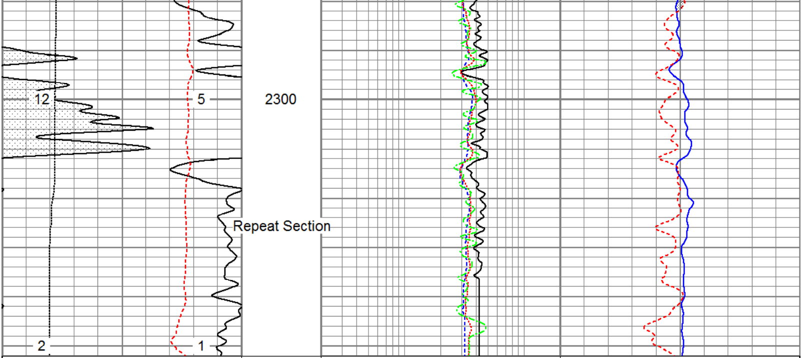
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
4 Caliper (in) 14
TBHV (cu. ft. (ft3)
ABHV (cu. ft. (ft3)

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

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







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

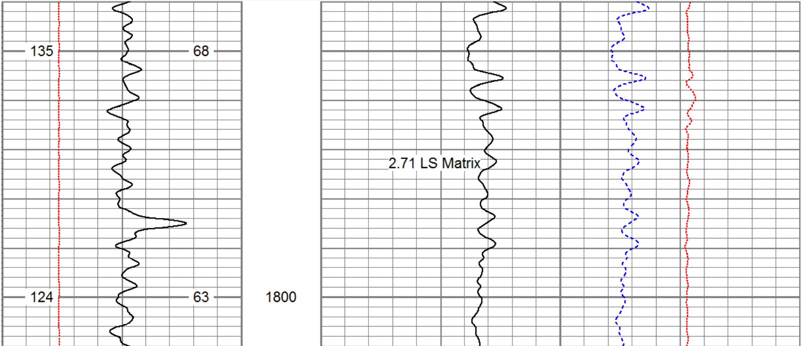
0.2 Deep Resistivity (Ohm-m) 20
0.2 Shallow Resistivity (Ohm-m) 20
0.2 Medium Resistivity (Ohm-m) 20
True Resistivity (Ohm-m)
0.2 (Ohm-m) 20

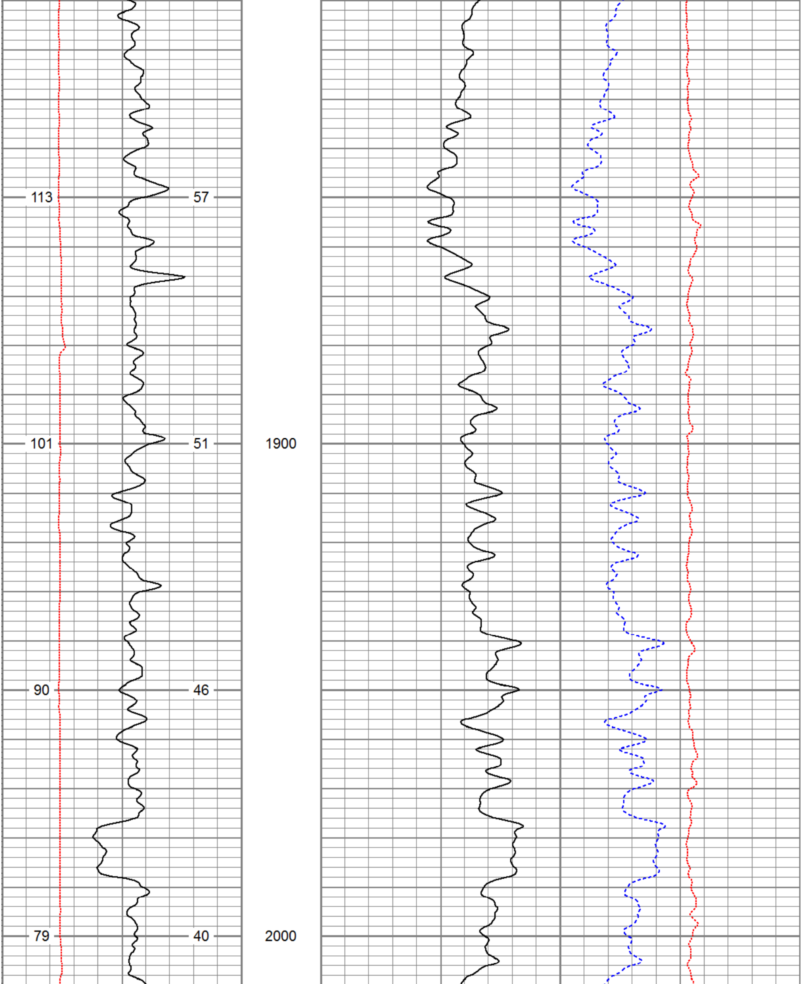
60 Density Porosity (pu) 0
60 Neutron Porosity (pu) 0

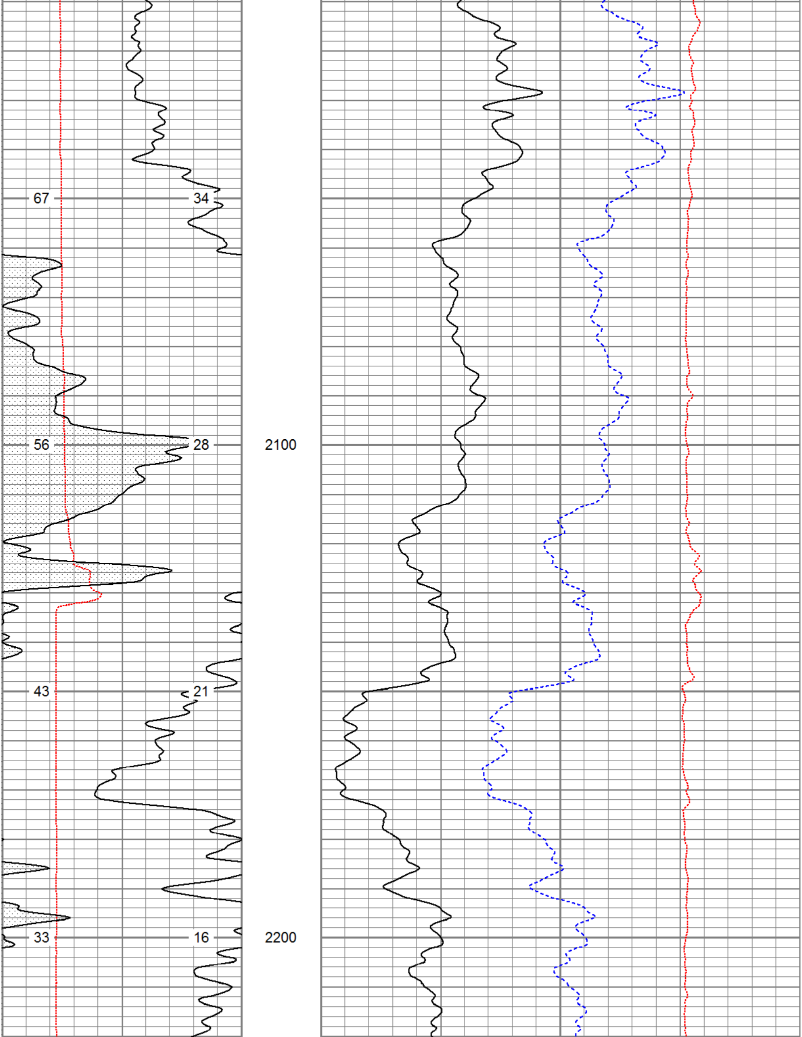
Database File:	13611.db
Dataset Pathname:	Final
Presentation Format:	cdl60
Dataset Creation:	Wed Jul 23 07:27:05 2014
Charted by:	Depth in Feet scaled 1:240

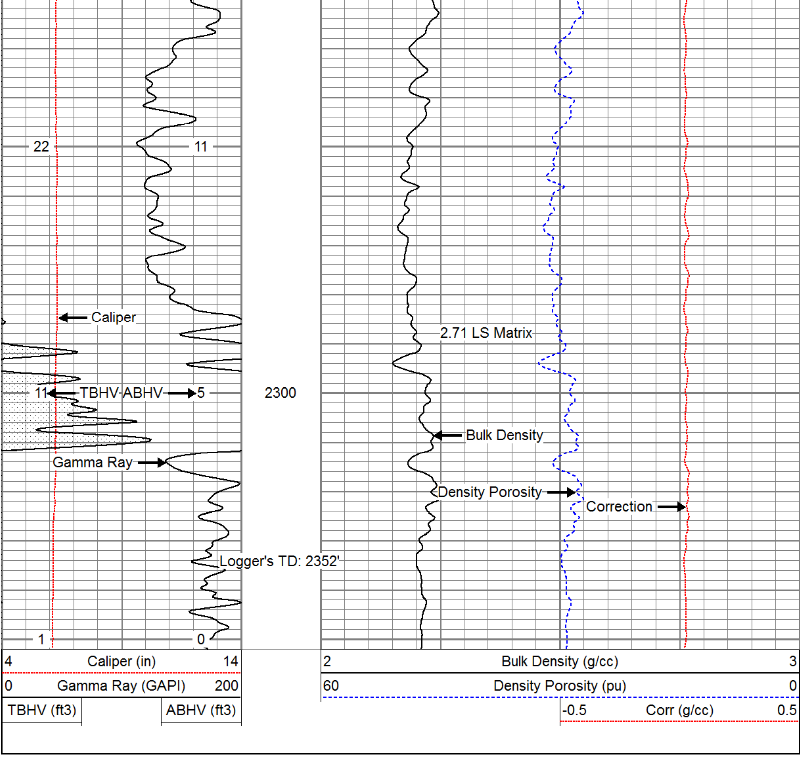
4 Caliper (in) 14
0 Gamma Ray (GAPI) 200
TBHV (ft3)
ABHV (ft3)

2 Bulk Density (g/cc) 3
60 Density Porosity (pu) 0
-0.5 Corr (g/cc) 0.5









Calibration Report

Database File: 13611.db
Dataset Pathname: pass1
Dataset Creation: Wed Jul 23 05:41:29 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1011-PSI
Surface Cal Performed:

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.520	-8.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.470	-18.000

Compensated Density Calibration Report

Serial-Model: 998-PSI
Master Calibration Performed: Sat Jul 19 01:41:20 2014

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	7210.00	9816.00	cps
Aluminum	2.690	g/cc	1326.00	6231.00	cps

	Size		Reading
Small Ring		in	
Medium Ring		in	
Large Ring		in	

Compensated Neutron Calibration Report

Serial Number: 826
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	2.1500

Gamma Ray Calibration Report

Serial Number:	939	
Tool Model:	PSI	
Performed:	Sat Jul 19 01:41:30 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6200	GAPI/cps