PIONEER
Pioneer Energy Services

HIGH RESOLUTION INDUCTION
COMPENSATED DENSITY
COMPENSATED NEUTRON

Company	Sundance Energy Inc.
Well	MLD 21-22
Field	Wattenberg
County	Weld
State	Colorado

Company Sundance Energy Inc.
Well MLD 21-22
Field Wattenberg
County Weld State Colorado

Location: API # : 05123360950000
SHL: 854' FNL & 1350' FWL NWNW
BHL: 628' FNL & 1988' FWL NENW
SEC 22 TWP 4N RGE 68W

Other Services
None

Permanent Datum GL Elevation 4877
Log Measured From KB
Drilling Measured From KB

Elevation
K.B. 4893
D.F. 4892
G.L. 4877

Date	November 9, 2012		
Run Number	1		
Depth Driller	7018		
Depth Logger	7019		
Bottom Logged Interval	7019		
Top Log Interval	Casing		
Casing Driller	572		
Casing Logger	572		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.2 / 65		
pH / Fluid Loss	9.0 / 8.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.25 @ 65 F		
Rmf @ Meas. Temp	2.30 @ 65 F		
Rmc @ Meas. Temp	4.10 @ 65 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.03 @ 205 F		
Time Circulation Stopped	0230		
Time Logger on Bottom	0730		
Maximum Recorded Temperature	205 F		
Equipment Number	49		
Location	Brighton, CO		
Recorded By	Clint Christensen		
Witnessed By	Gene Hudson		

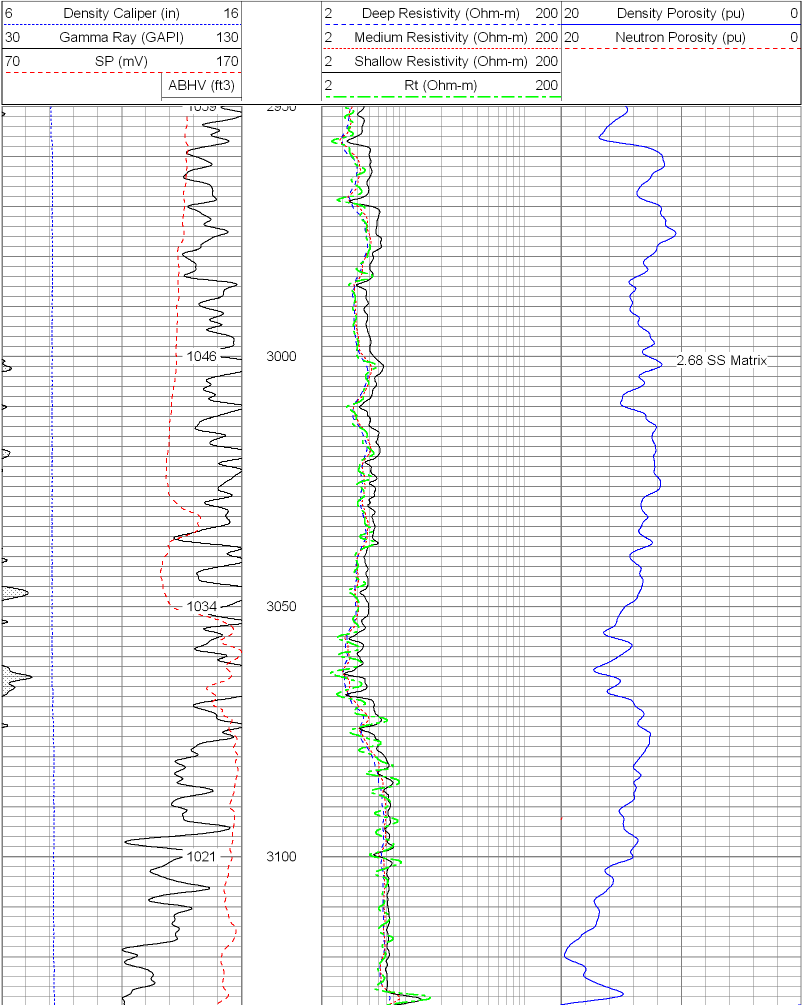
<<< Fold Here >>>

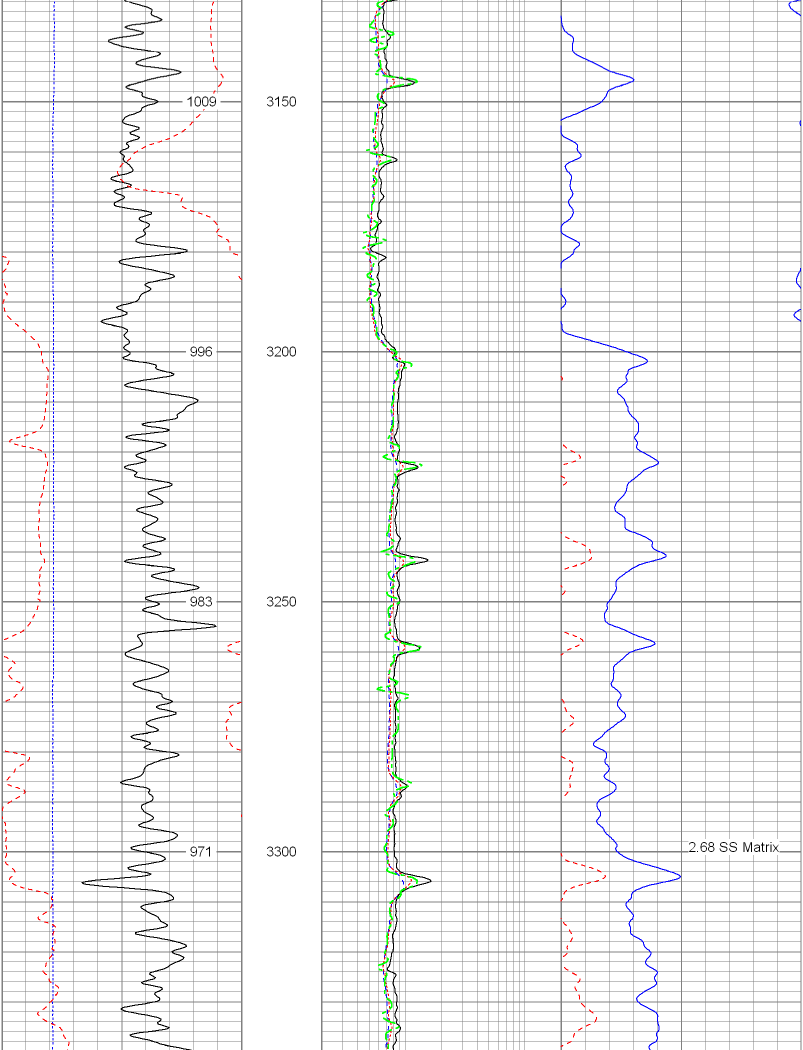
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

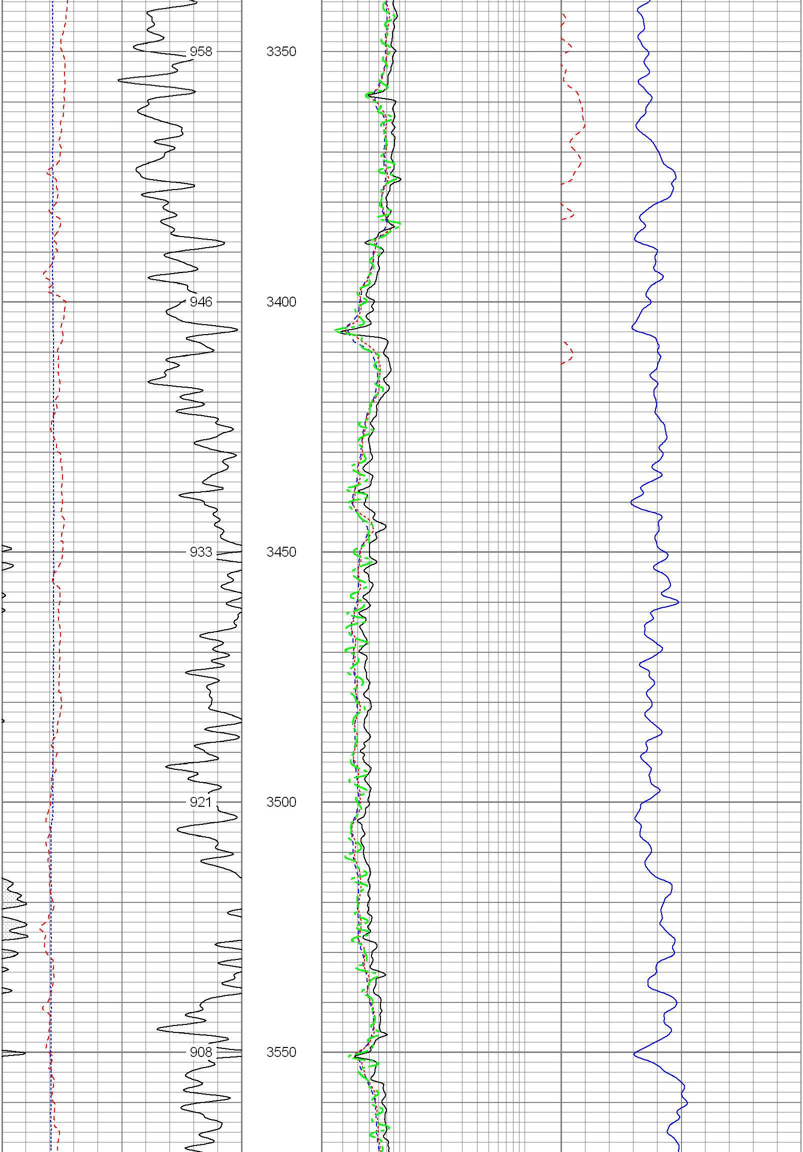
Comments

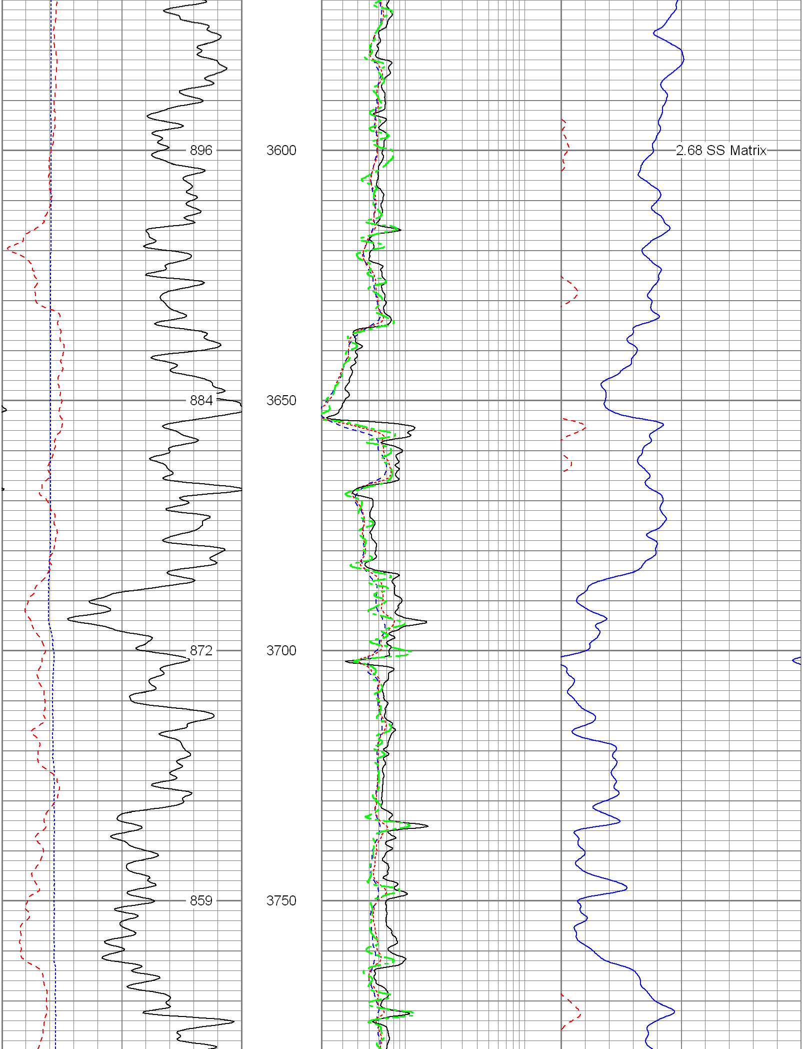
Annular volume calculated for 4.5" casing
Ensign Drilling Rig 55
Thank you for using Pioneer Energy Services.

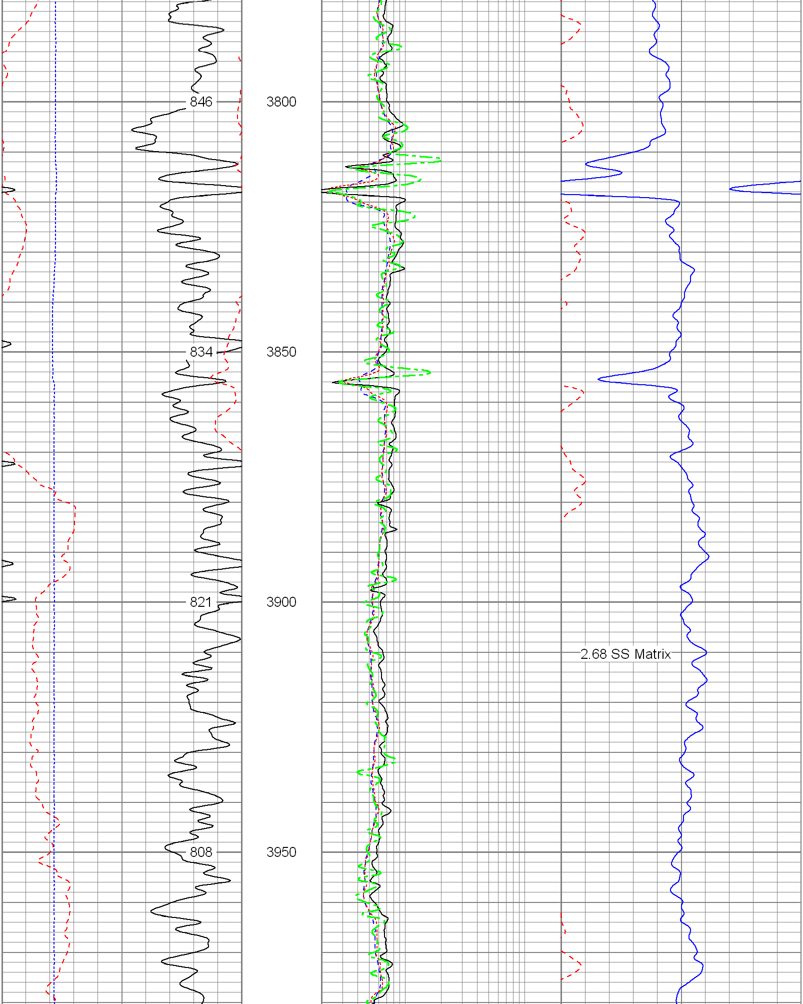
Database File:	13206.db
Dataset Pathname:	final
Presentation Format:	pdc1
Dataset Creation:	Fri Nov 09 08:43:52 2012
Charted by:	Depth in Feet scaled 1:240

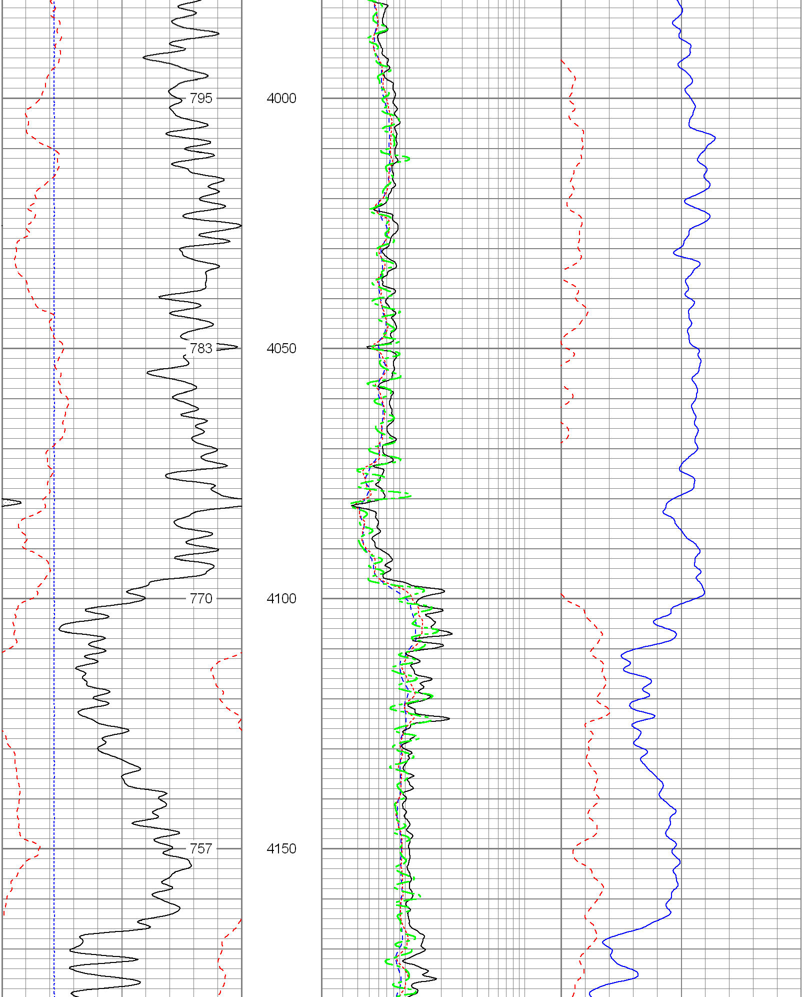


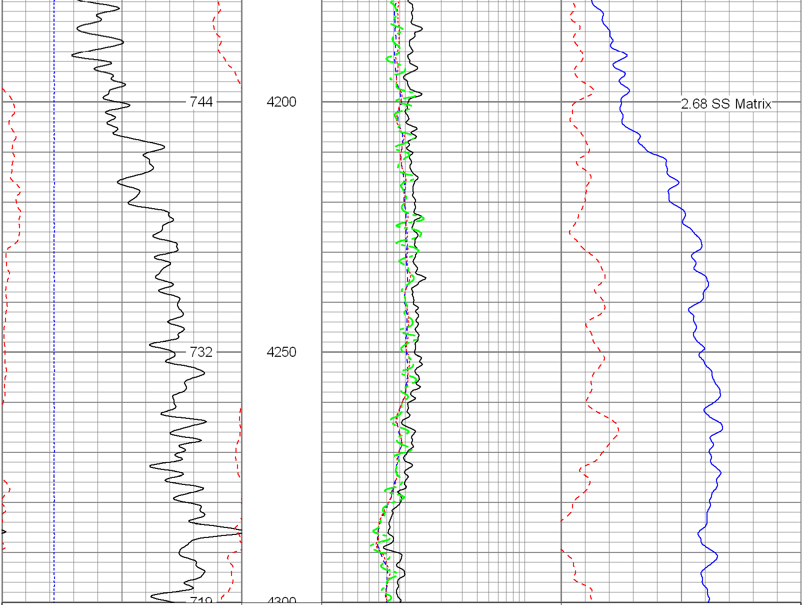






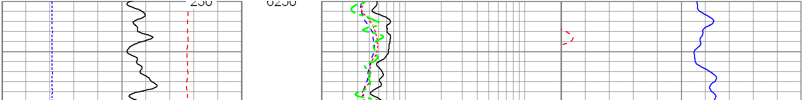
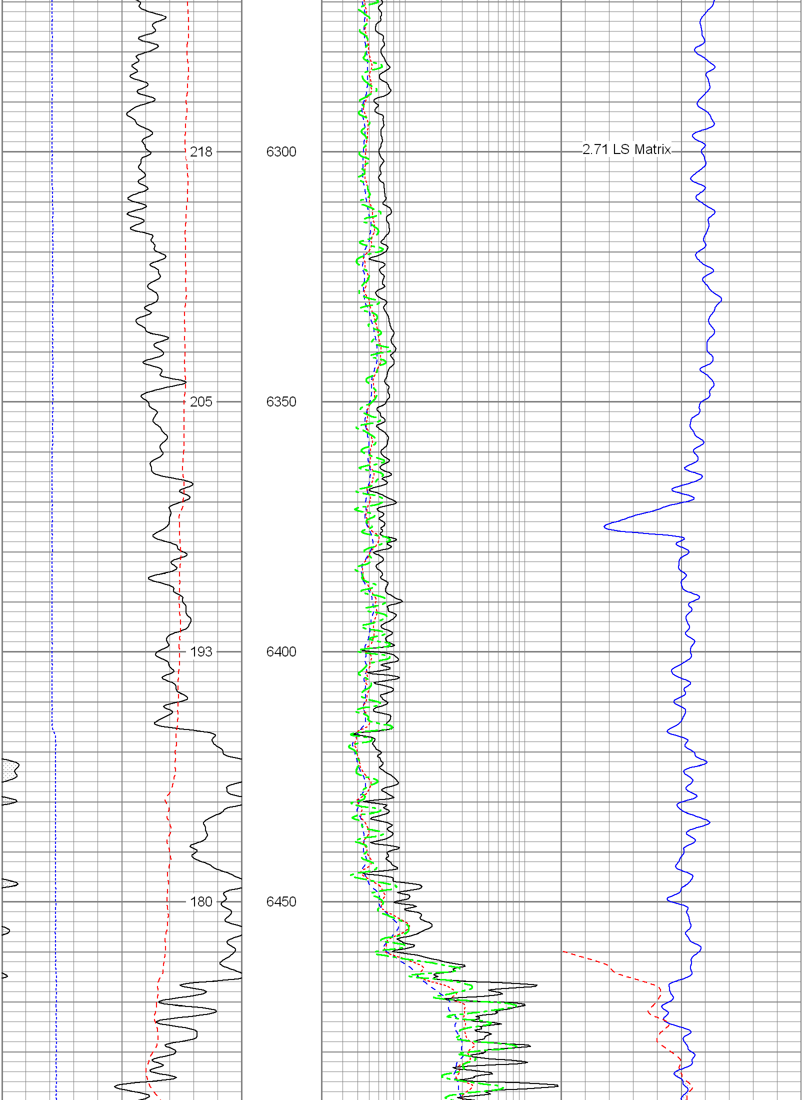
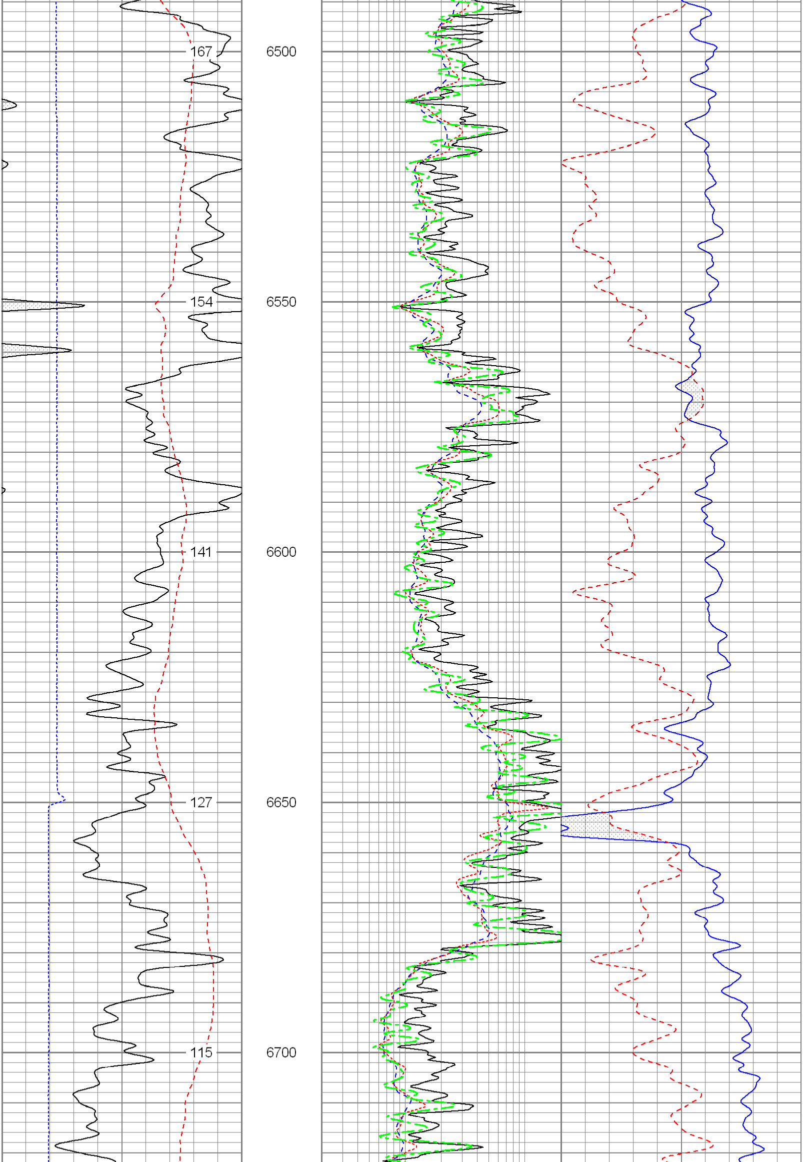
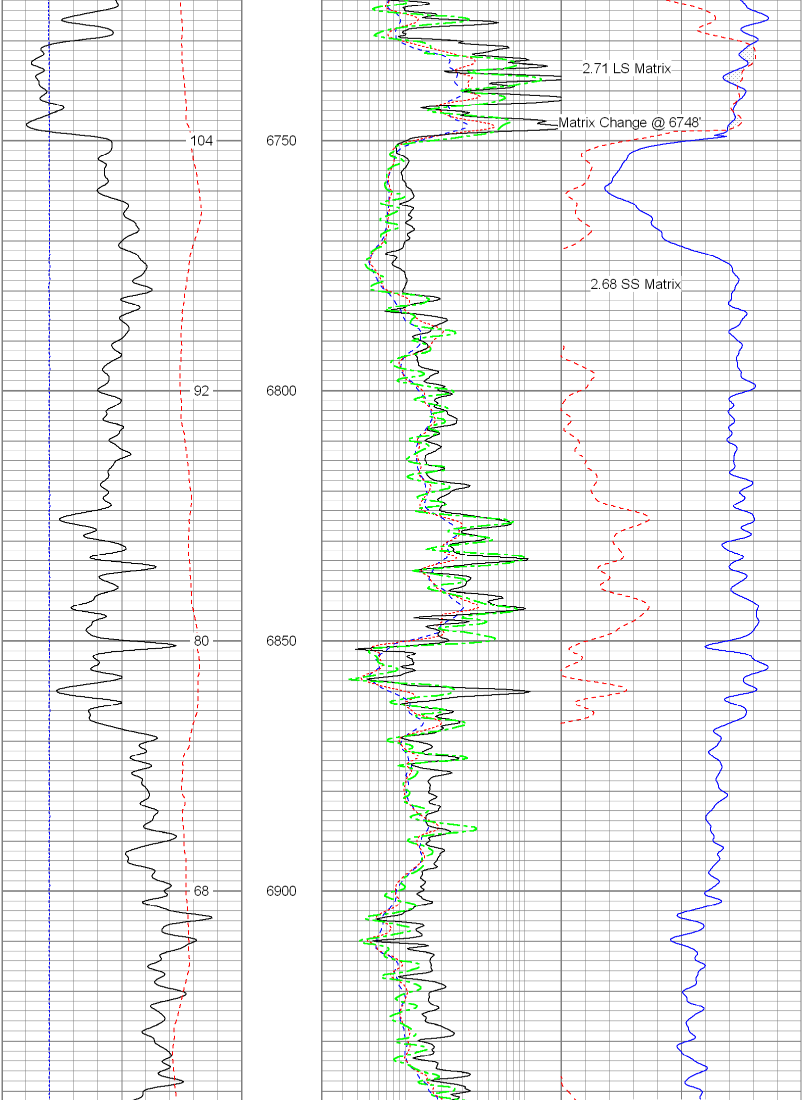
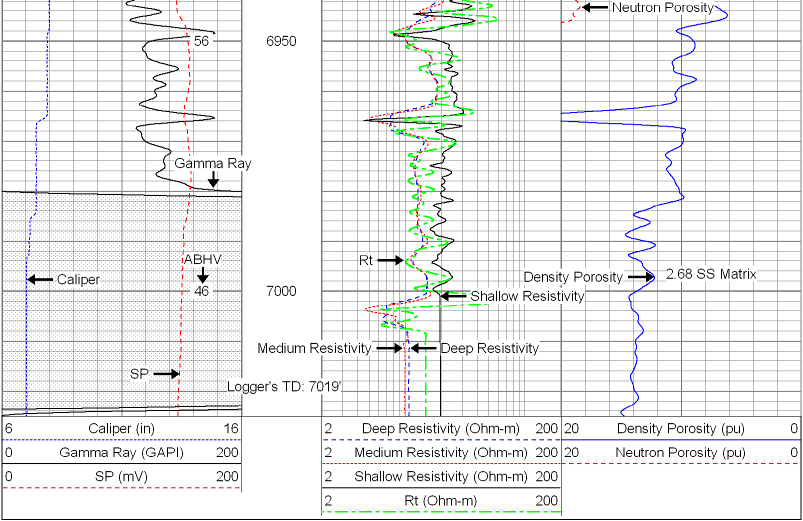






6 Density Caliper (in) 16	2 Deep Resistivity (Ohm-m) 200	20 Density Porosity (pu) 0
30 Gamma Ray (GAPI) 130	2 Medium Resistivity (Ohm-m) 200	20 Neutron Porosity (pu) 0
70 SP (mV) 170	2 Shallow Resistivity (Ohm-m) 200	
ABHV (ft3)	2 Rt (Ohm-m) 200	

Database File:	13206.db
Dataset Pathname:	final
Presentation Format:	pdc
Dataset Creation:	Fri Nov 09 08:43:52 2012
Charted by:	Depth in Feet scaled 1:240

6 Caliper (in) 16	2 Deep Resistivity (Ohm-m) 200	20 Density Porosity (pu) 0
0 Gamma Ray (GAPI) 200	2 Medium Resistivity (Ohm-m) 200	20 Neutron Porosity (pu) 0
0 SP (mV) 200	2 Shallow Resistivity (Ohm-m) 200	
	2 Rt (Ohm-m) 200