PHOENIX SURVEYS, INC.

HIGH RESOLUTION INDUCTION

Company
Well
Field
County
State/Prv

Company	**Noble Energy Inc.**
Well	**Guttersen D03 - 33D**
Field	**Wattenberg**
County	**Weld**
State/Province	**Colorado**

Location SHL: 710' FSL & 675' FEL SE SE
BHL: 1424' FSL & 197' FEL NE SE
Sec. 4, Twp. 3N, Rge. 64W

Other Services
Density
Neutron
Microlog

Permanent Datum	GL	Elevation	4716'
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4729'
D.F. 4729'
G.L. 4716'

Date	June 05, 2011		
Run Number	1		
Depth Driller	7155'		
Depth Logger	7153'		
Bottom Logged Interval	7153'		
Top Log Interval	Casing		
Casing Driller	534'		
Casing Logger	534'		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.6 / 45		
pH / Fluid Loss	8 / 8.8		
Source of Sample	Flowline		
Rm @ Meas. Temp	2.81 @ 95 F		
Rmf @ Meas. Temp	2.25 @ 95 F		
Rmc @ Meas. Temp	3.37 @ 95 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.27 @ 210 F		
Time Circulation Stopped	0600		
Time Logger on Bottom	1130		
Maximum Recorded Temperature	210 F		
Equipment Number	50		
Location	Brighton, CO		
Recorded By	Shaun Schuman	Josh Gorney	
Witnessed By	Josh Kanwischer		

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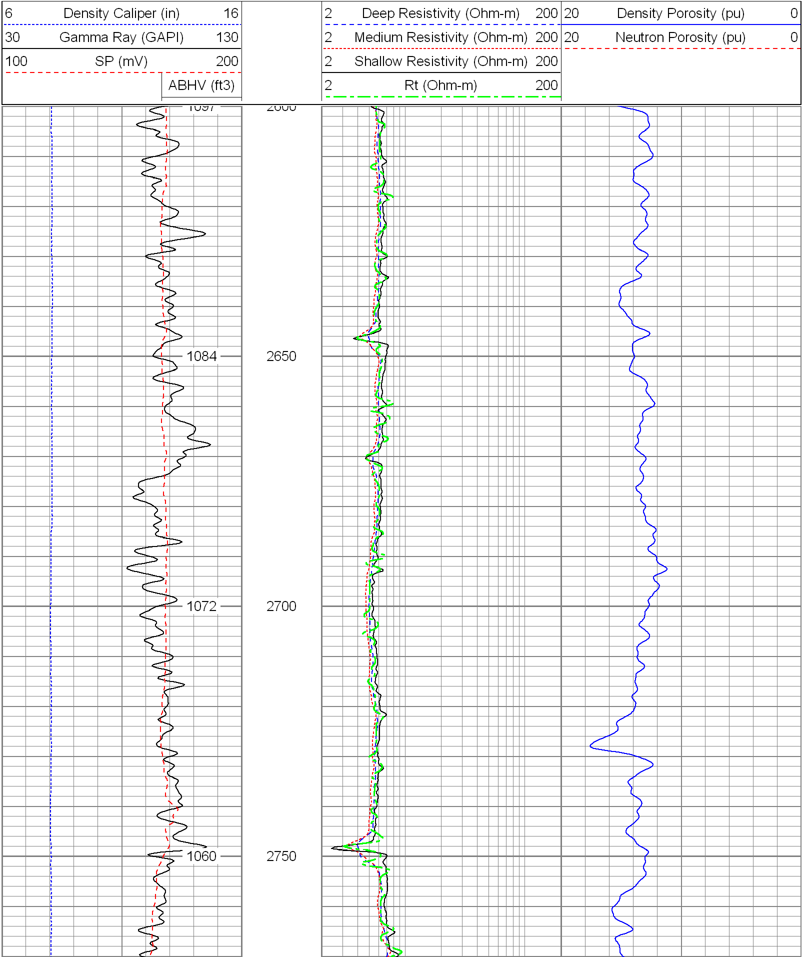
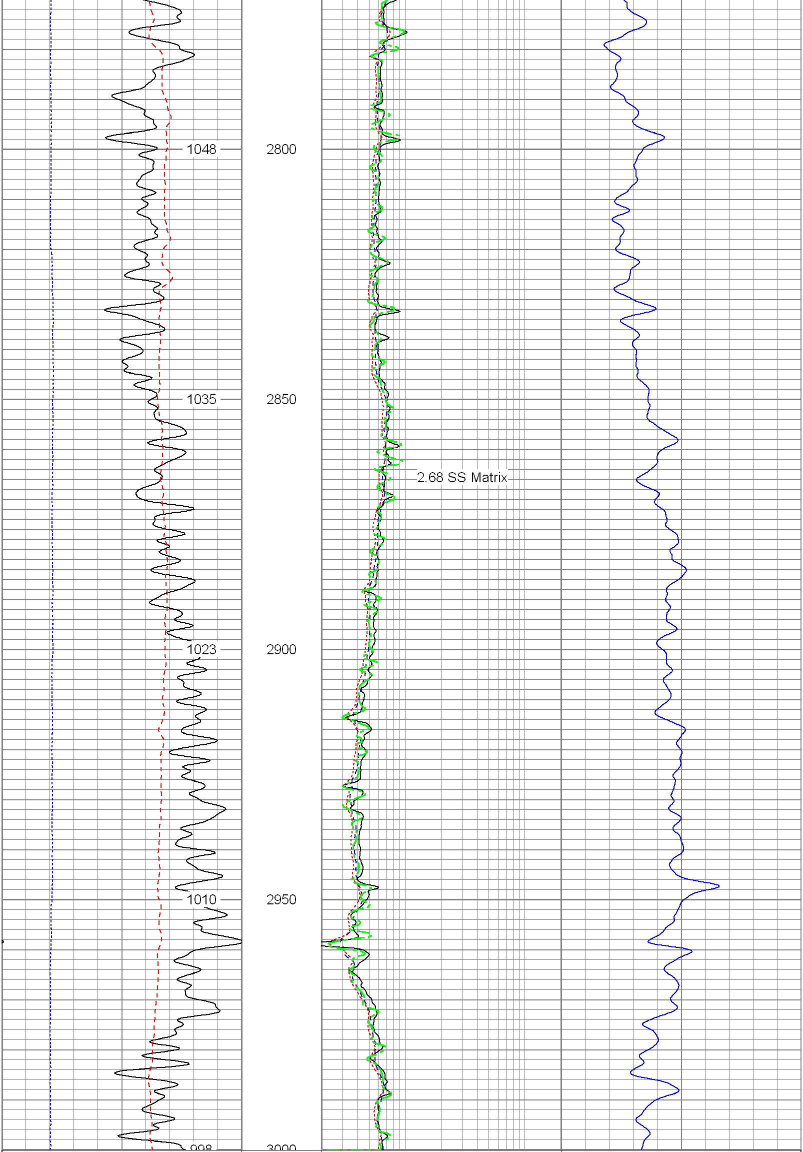
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

Annular volume calculated for 4.5" casing
Ensign 126
Thank you for using Phoenix Surveys!!
API #: 05-123-31910

Database File: 11782.db
Dataset Pathname: MAIN
Presentation Format: pdc1
Dataset Creation: Sun Jun 05 13:35:50 2011
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
100 SP (mV) 200	2 Shallow Resistivity (Ohm-m) 200	
ABHV (ft3)	2 Rt (Ohm-m) 200	

Database File:	11782.db
Dataset Pathname:	MAIN
Presentation Format:	pdc1
Dataset Creation:	Sun Jun 05 13:35:50 2011
Charted by:	Depth in Feet scaled 1:240

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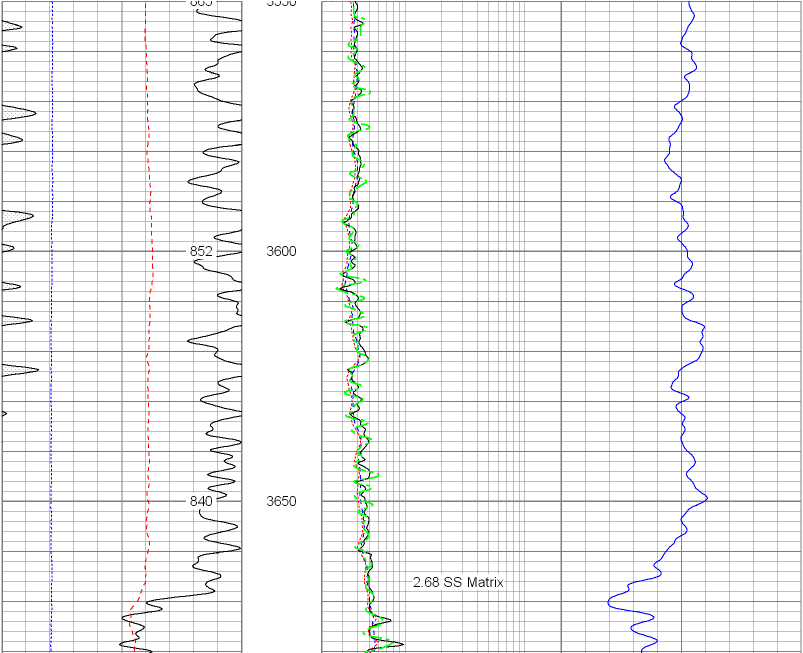

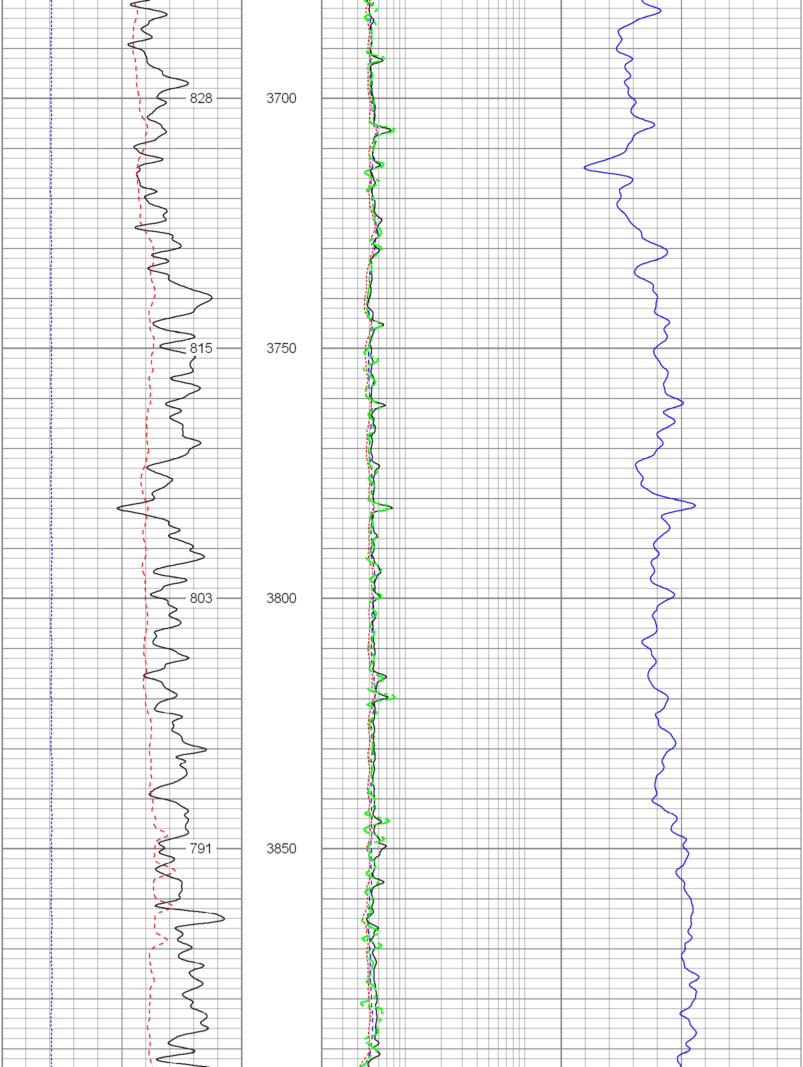

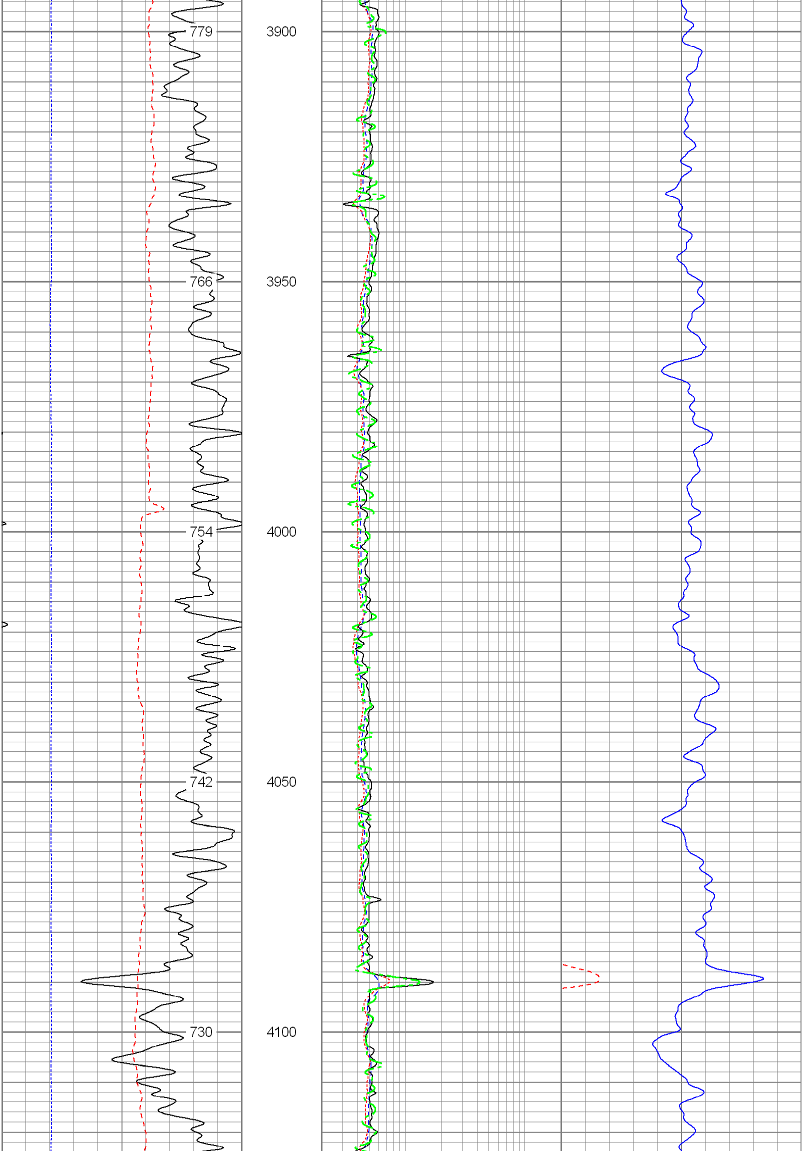

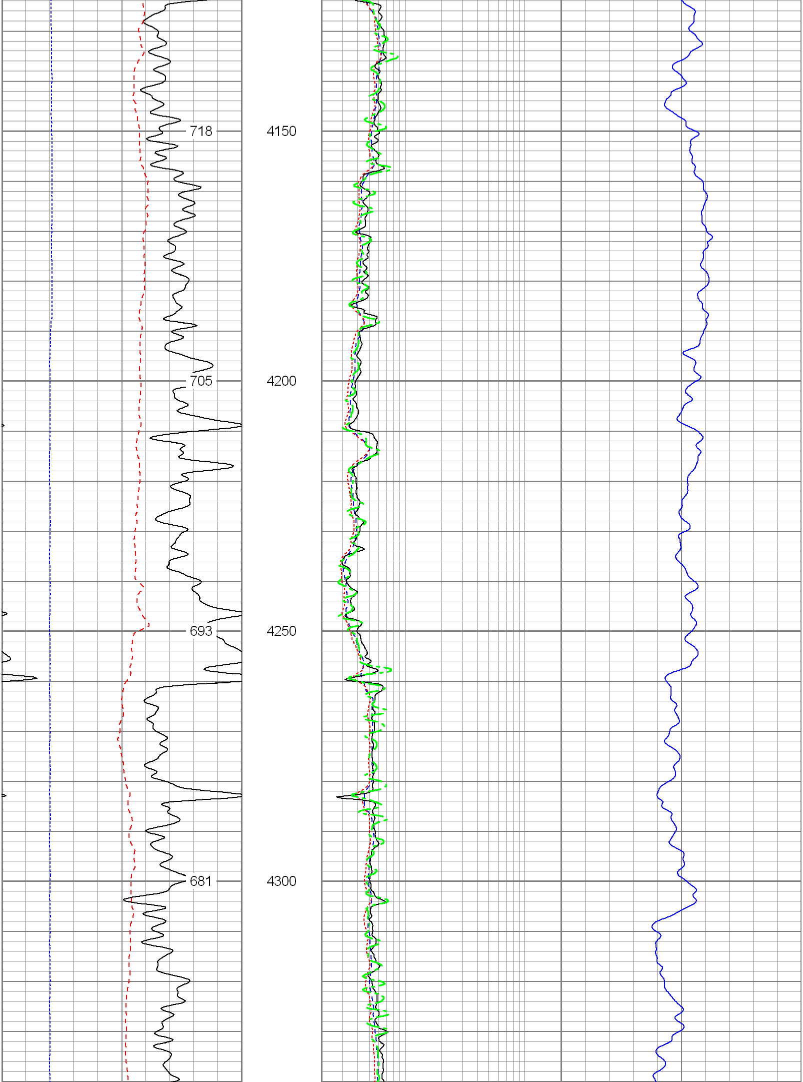

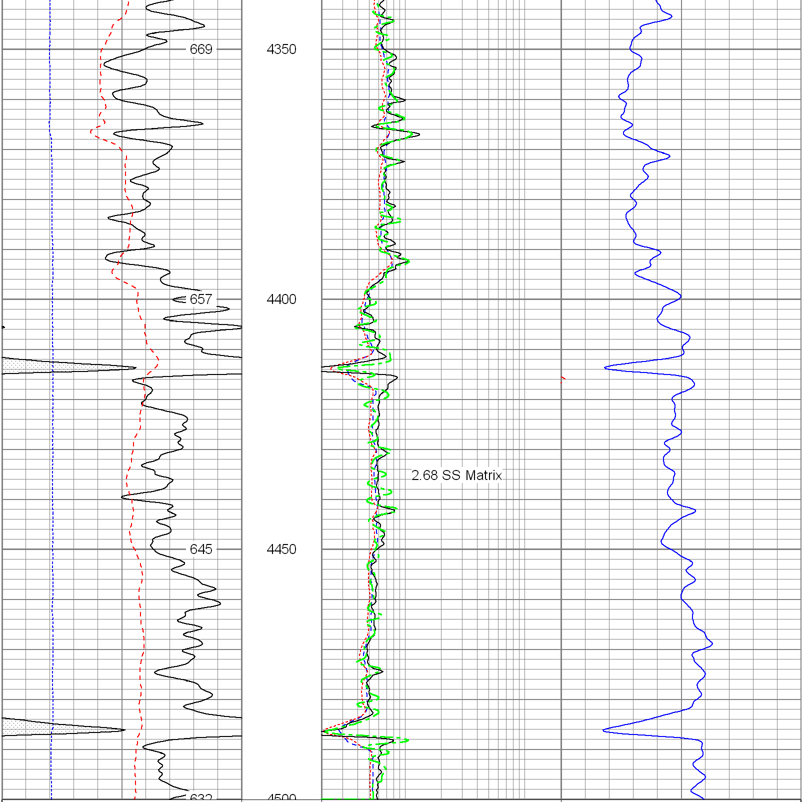

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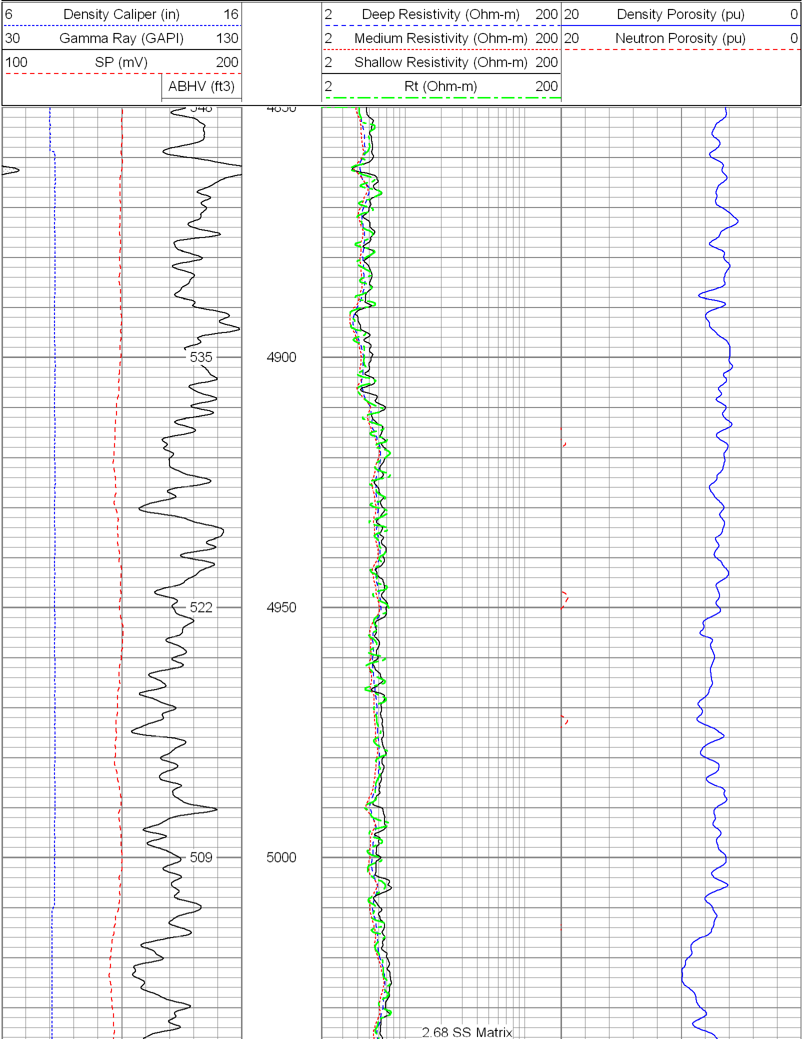

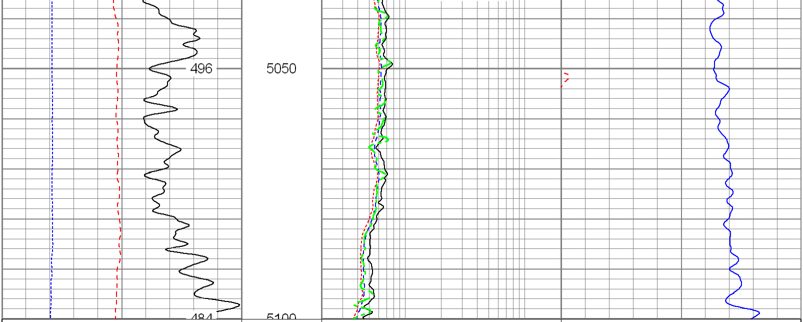

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ABHV (ft3)

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0 SP (mV) 200

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2 Shallow Resistivity (Ohm-m) 200

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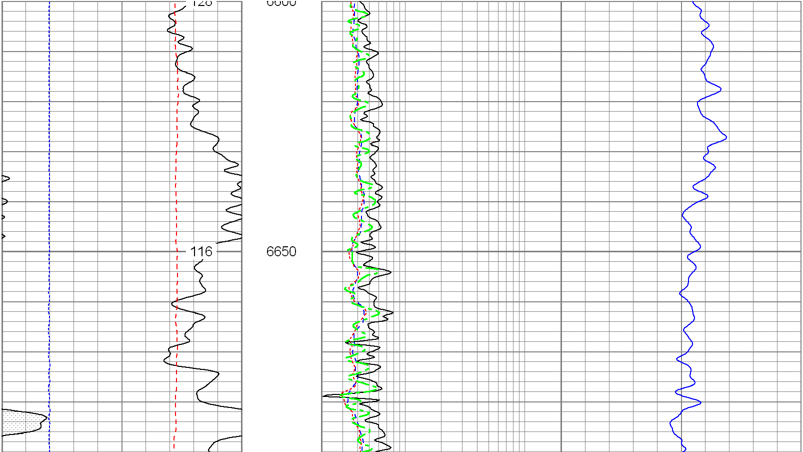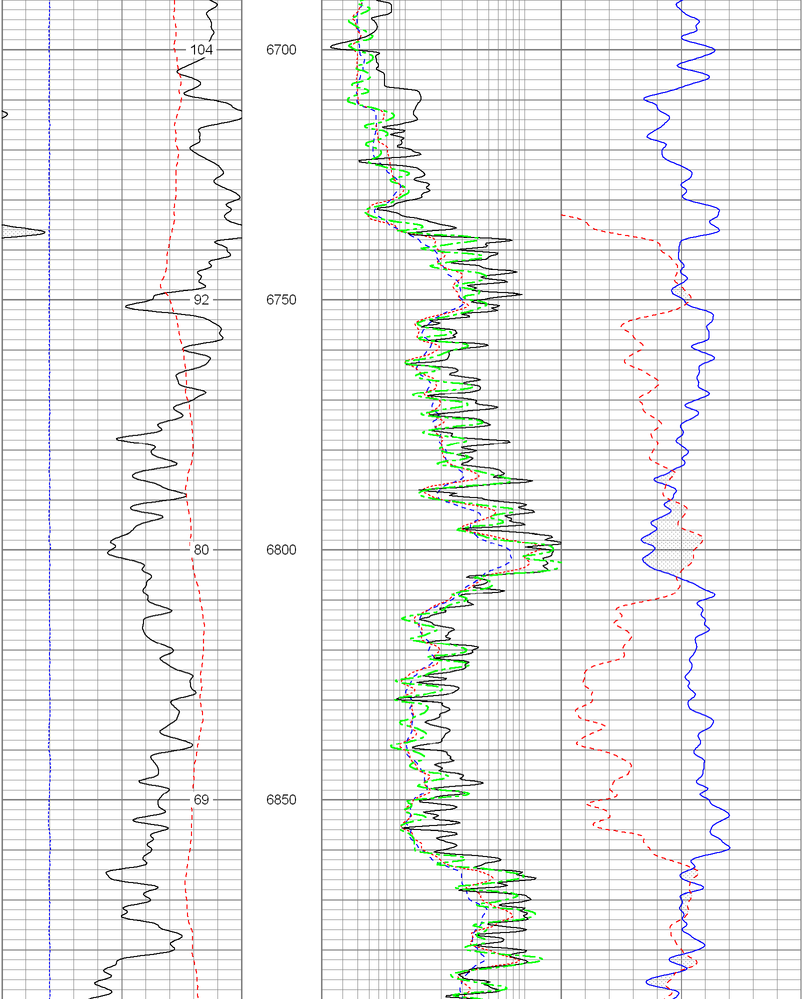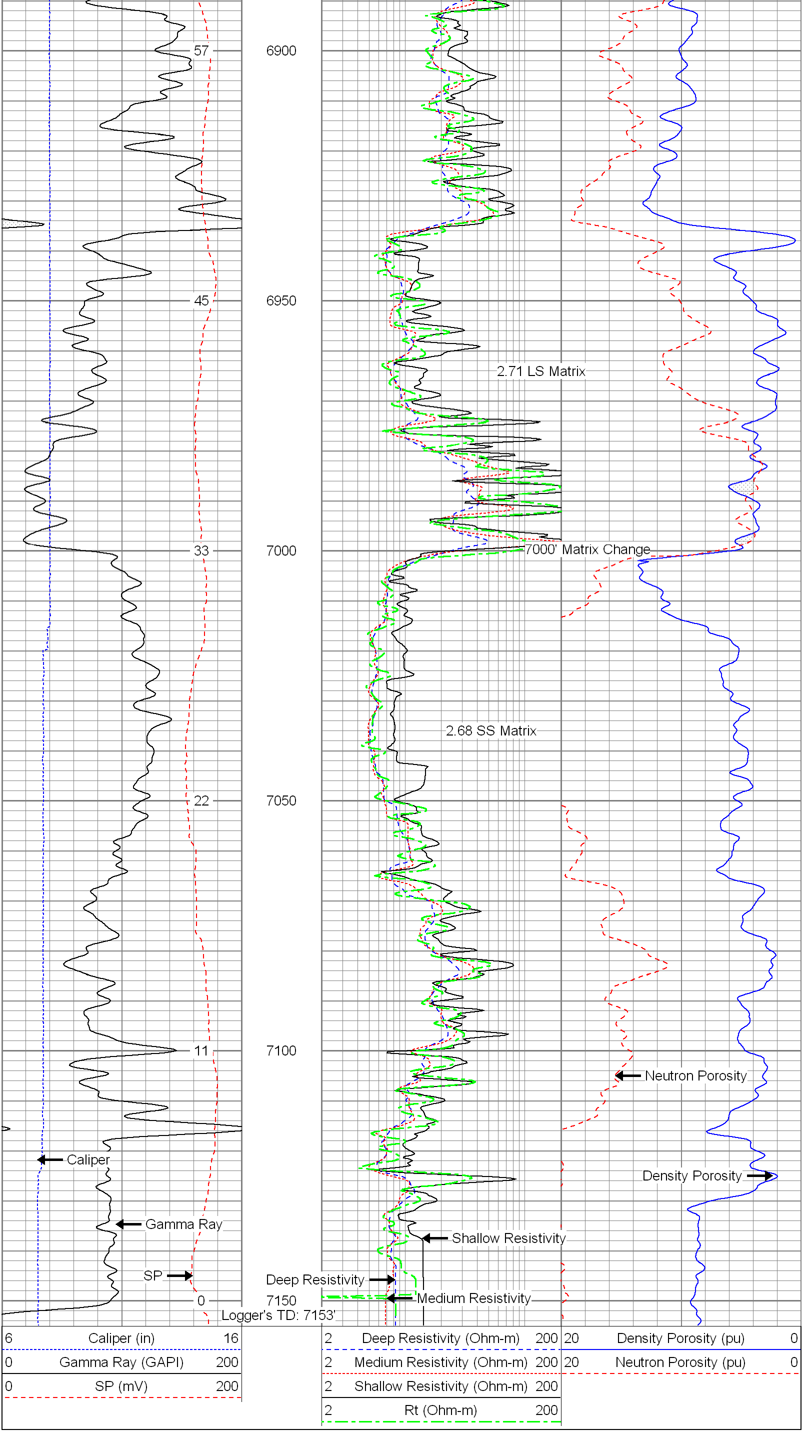20 Neutron Porosity (pu) 0