PHOENIX SURVEYS, INC.

HIGH RESOLUTION INDUCTION
COMPENSATED DENSITY
COMPENSATED NEUTRON

Company	Noble Energy Inc.
Well	LDS D17-24D
Field	Wattenberg
County	Weld
State/Province	Colorado

Company
Well
Field
County
State/Prv

Location
SHL: 2389' FSL & 2465' FWL NESW
BHL: 1394' FSL & 2567' FWL NESW
Sec - 17, Twp - 3N, Rge - 64W

Other Services
Microlog

Elevation
K.B. 4766
D.F. 4765
G.L. 4752

Permanent Datum	GL	Elevation	4752
Log Measured From	KB		
Drilling Measured From	KB		

Date	June 2, 2012		
Run Number	1		
Depth Driller	7792		
Depth Logger	6120	Bridge Out	
Bottom Logged Interval	6120		
Top Log Interval	Casing		
Casing Driller	872		
Casing Logger	872		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.4 / 36		
pH / Fluid Loss	8.0 / 8.8		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.62 @ 70 F		
Rmf @ Meas. Temp	2.90 @ 70 F		
Rmc @ Meas. Temp	4.34 @ 70 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.13 @ 225 F		
Time Circulation Stopped	1800		
Time Logger on Bottom	0430		
Maximum Recorded Temperature	225 F		
Equipment Number	52		
Location	Brighton, CO		
Recorded By	Matt Gill	Clint Christensen	
Witnessed By	John Drahota		

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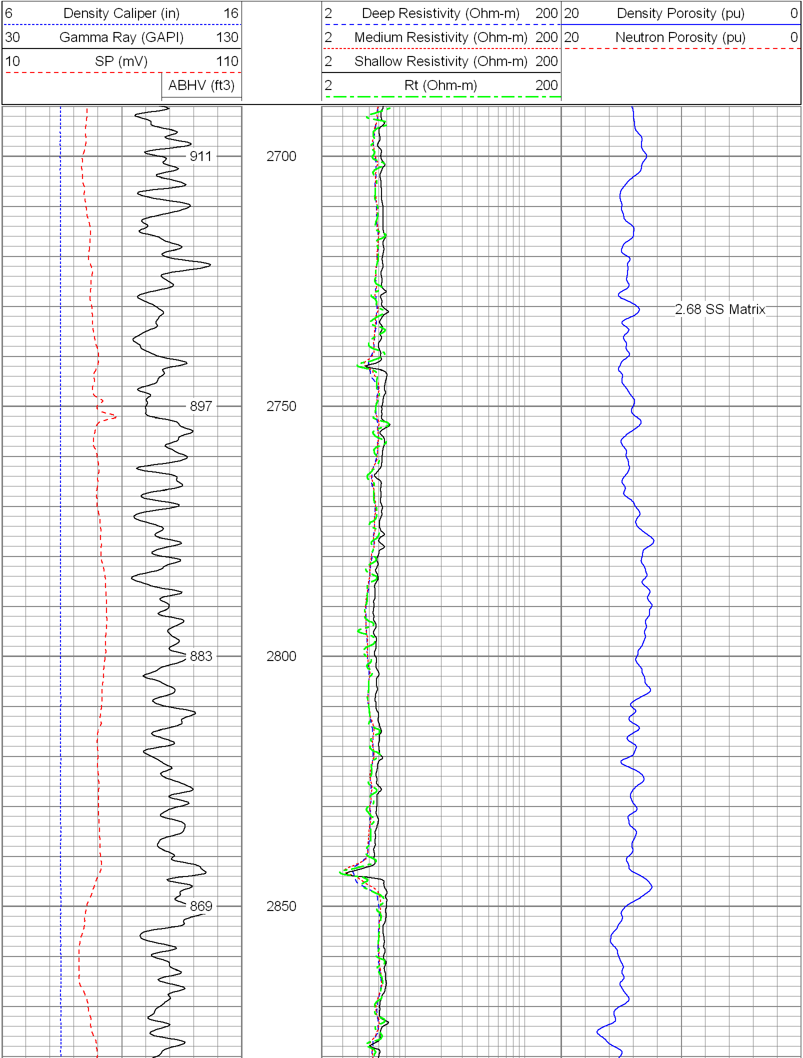
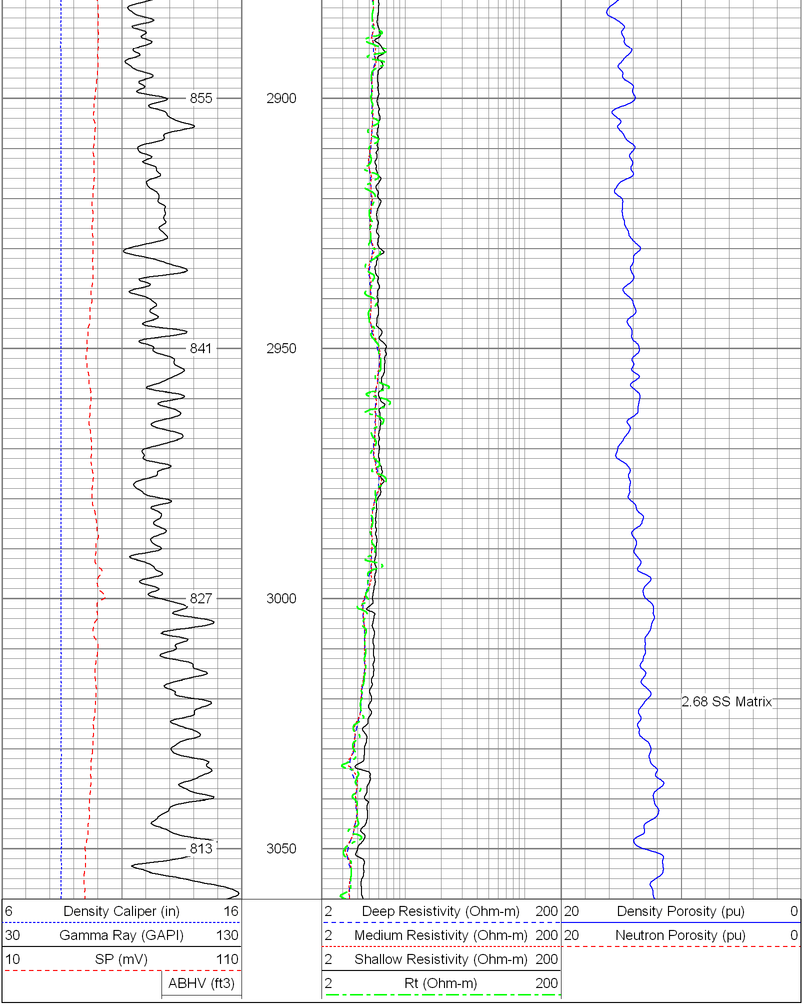
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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
Saxon Drilling Rig 143
Thank you for using Phoenix Surveys!!
API #: 05-123-35321-00

Database File:	12976.db
Dataset Pathname:	final
Presentation Format:	pdc1
Dataset Creation:	Sat Jun 02 04:37:03 2012
Charted by:	Depth in Feet scaled 1:240





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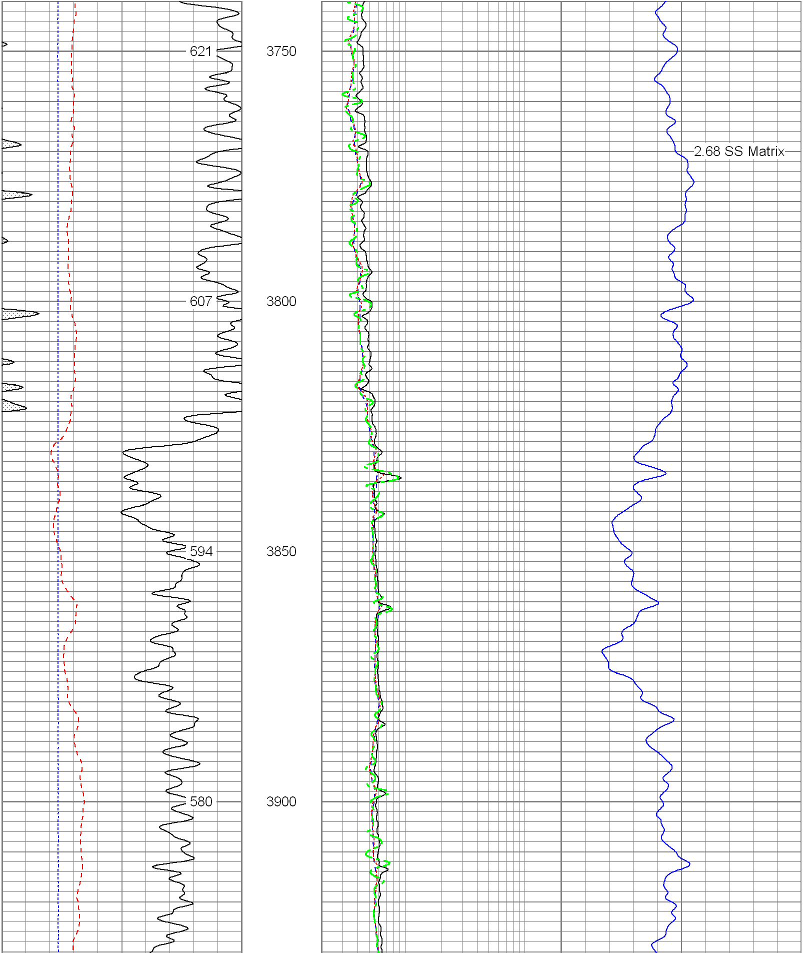
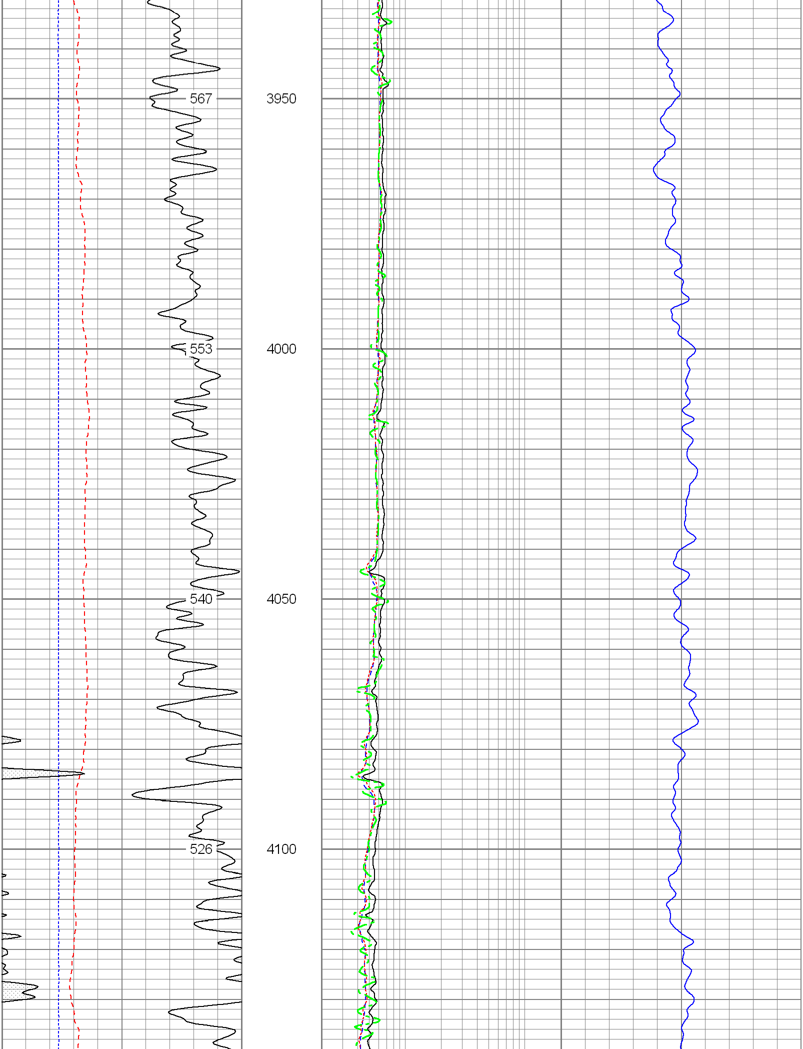
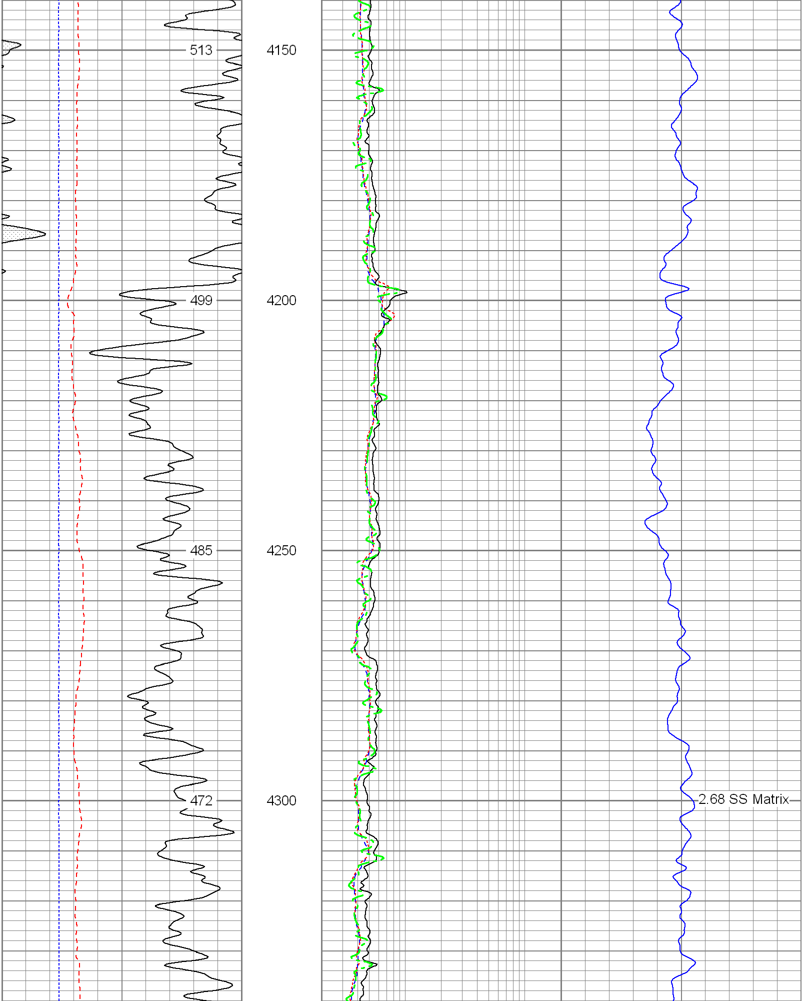
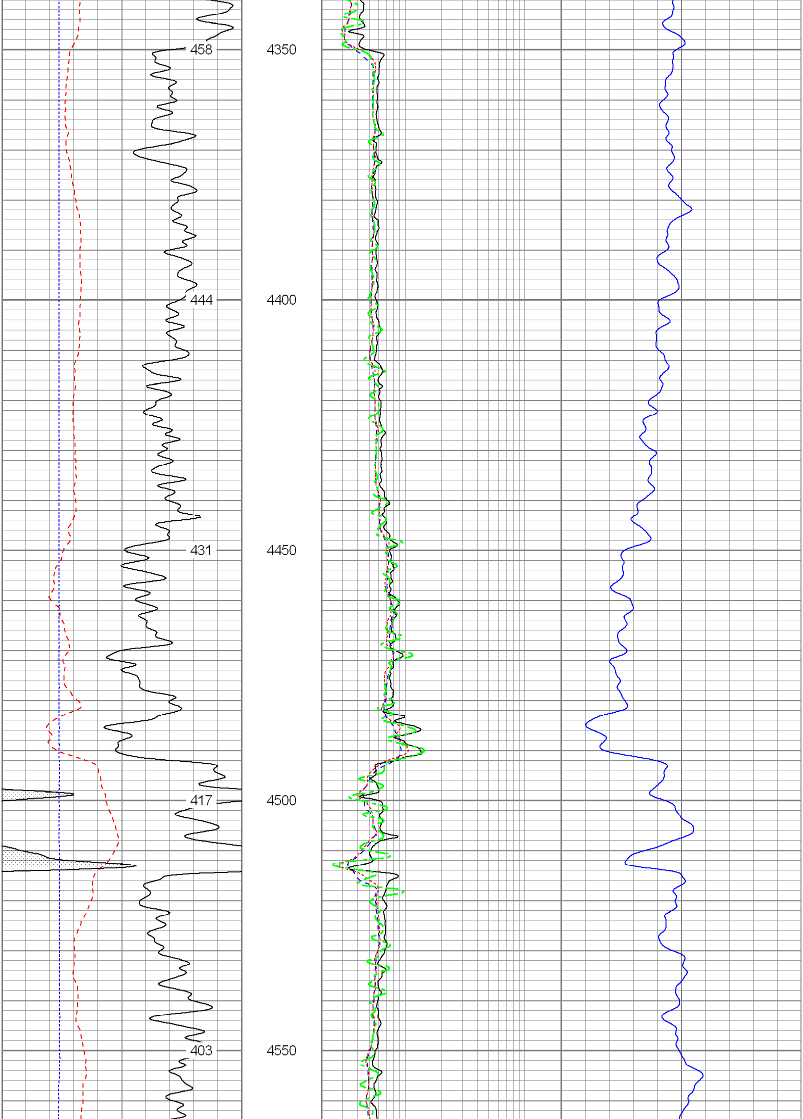
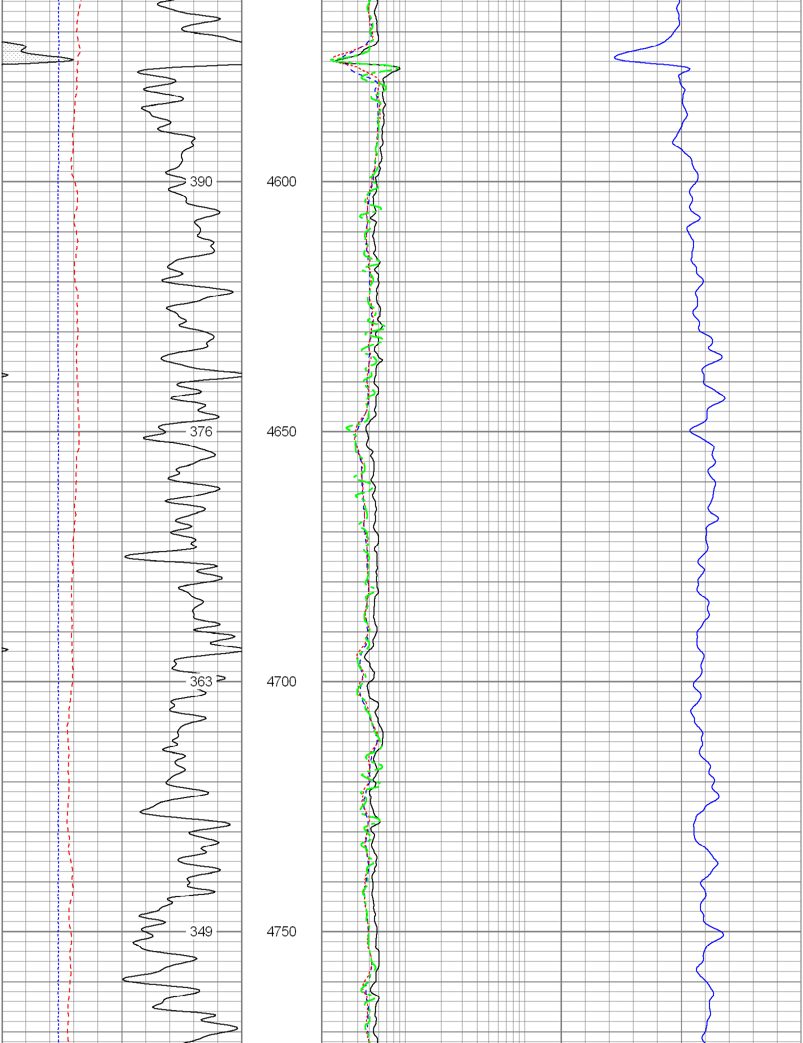
6	Density Caliper (in)	16	2	Deep Resistivity (Ohm-m)	200	20	Density Porosity (pu)	0
30	Gamma Ray (GAPI)	130	2	Medium Resistivity (Ohm-m)	200	20	Neutron Porosity (pu)	0
10	SP (mV)	110	2	Shallow Resistivity (Ohm-m)	200			
	ABHV (ft3)		2	Rt (Ohm-m)	200			

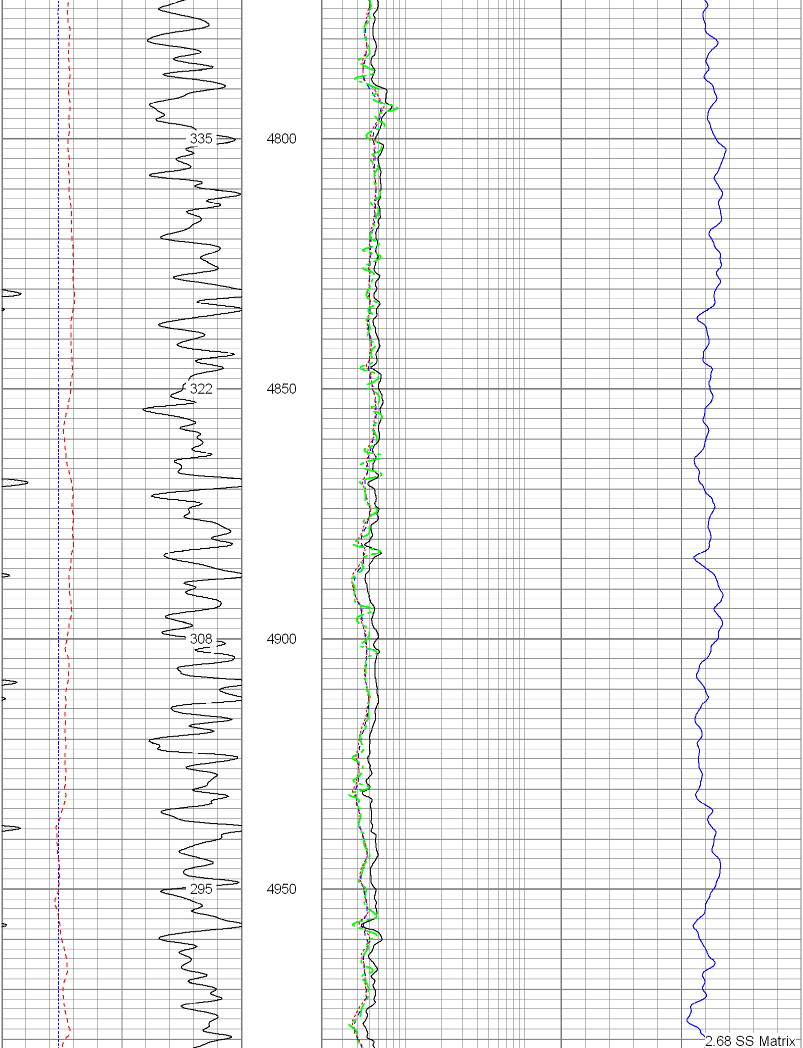


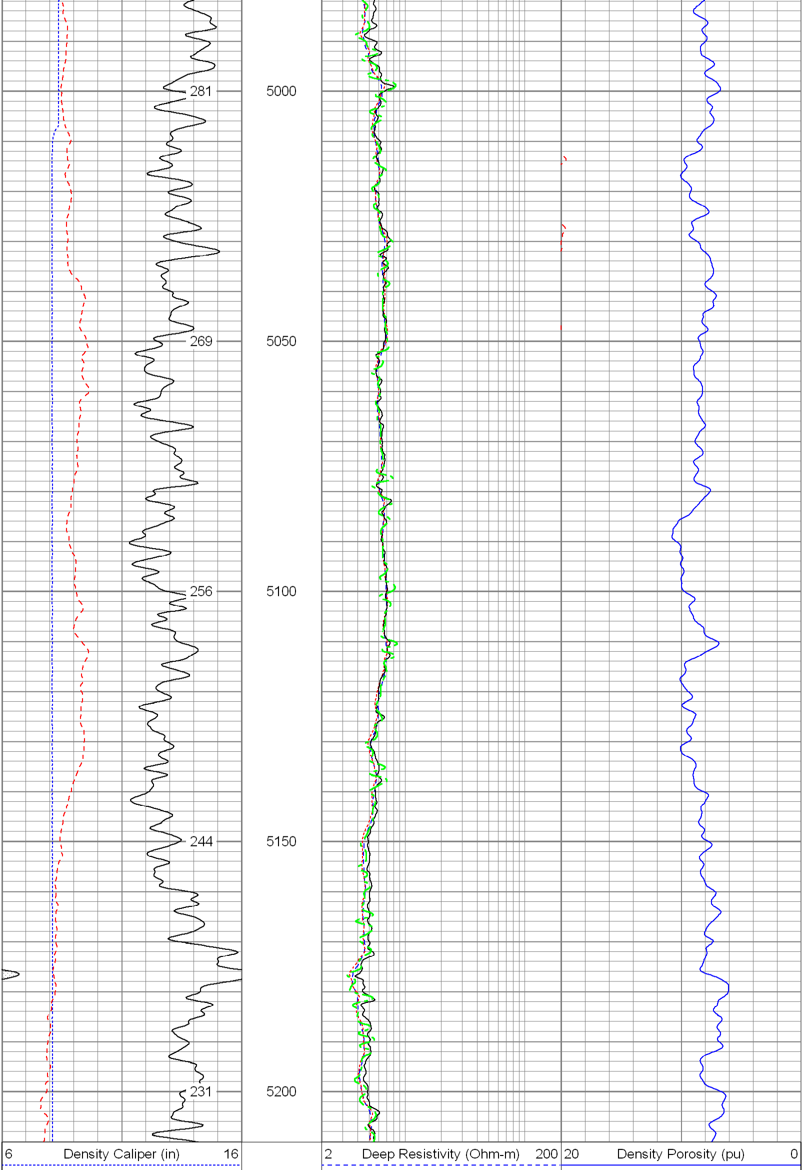












30 Gamma Ray (GAPI) 130
10 SP (mV) 110
ABHV (ft3)

2 Medium Resistivity (Ohm-m) 200
2 Shallow Resistivity (Ohm-m) 200
2 Rt (Ohm-m) 200

20 Neutron Porosity (pu) 0

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6 Caliper (in) 16
0 Gamma Ray (GAPI) 200
0 SP (mV) 200

2 Deep Resistivity (Ohm-m) 200
2 Medium Resistivity (Ohm-m) 200
2 Shallow Resistivity (Ohm-m) 200
2 Rt (Ohm-m) 200

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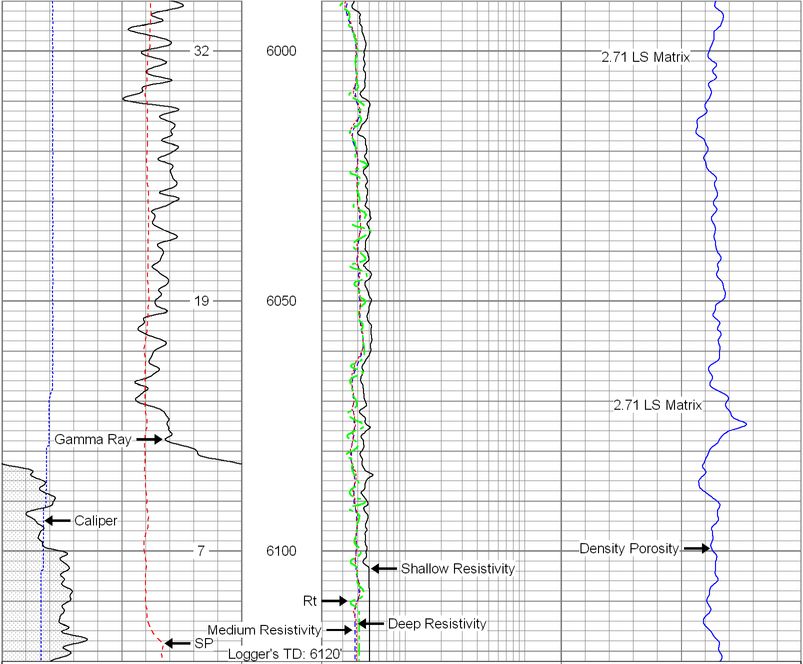

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