PHOENIX SURVEYS, INC.

COMPENSATED DENSITY
COMPENSATED NEUTRON
MICROLOG

Company
Well
Field
County
State/Prv

Company	Noble Energy Inc.
Well	Five Rivers K 15-30D
Field	Wattenberg
County	Weld
State/Province	Colorado

Location SHL: 215' FNL & 246' FEL NE NE
Sec. 16, Twp. 4N, Rge. 66W
BHL: 70' FSL & 251' FEL SE SE
Sec. 9, Twp. 4N, Rge. 66W

Other Services
High
Resolution
Induction

Permanent Datum	GL	Elevation	4730
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4745
D.F. 4744
G.L. 4730

Date	February 15, 2011		
Run Number	1		
Depth Driller	7449		
Depth Logger	7445		
Bottom Logged Interval	7425		
Top Log Interval	2780		
Casing Driller	643		
Casing Logger	Not Logged		
Bit Size	7-7/8"		
Type Fluid in Hole	Polymer Gel		
Density / Viscosity	9.4 / 56		
pH / Fluid Loss	8.0 / 20		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.17 @ 63 F		
Rmf @ Meas. Temp	2.38 @ 63 F		
Rmc @ Meas. Temp	3.96 @ 63 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.00 @ 200 F		
Time Circulation Stopped	1500		
Time Logger on Bottom	2145		
Maximum Recorded Temperature	200 F		
Equipment Number	50		
Location	Brighton, CO		
Recorded By	Maciej Staron	Jeff Loose	
Witnessed By	Tawn Bowman		

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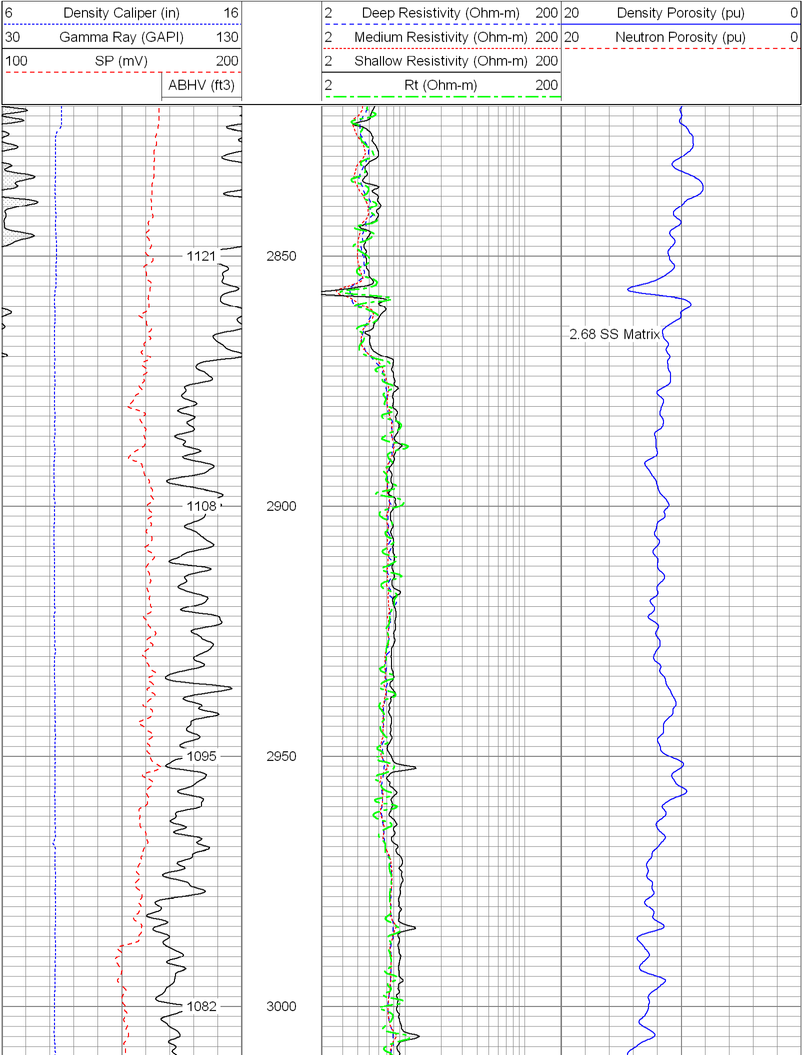
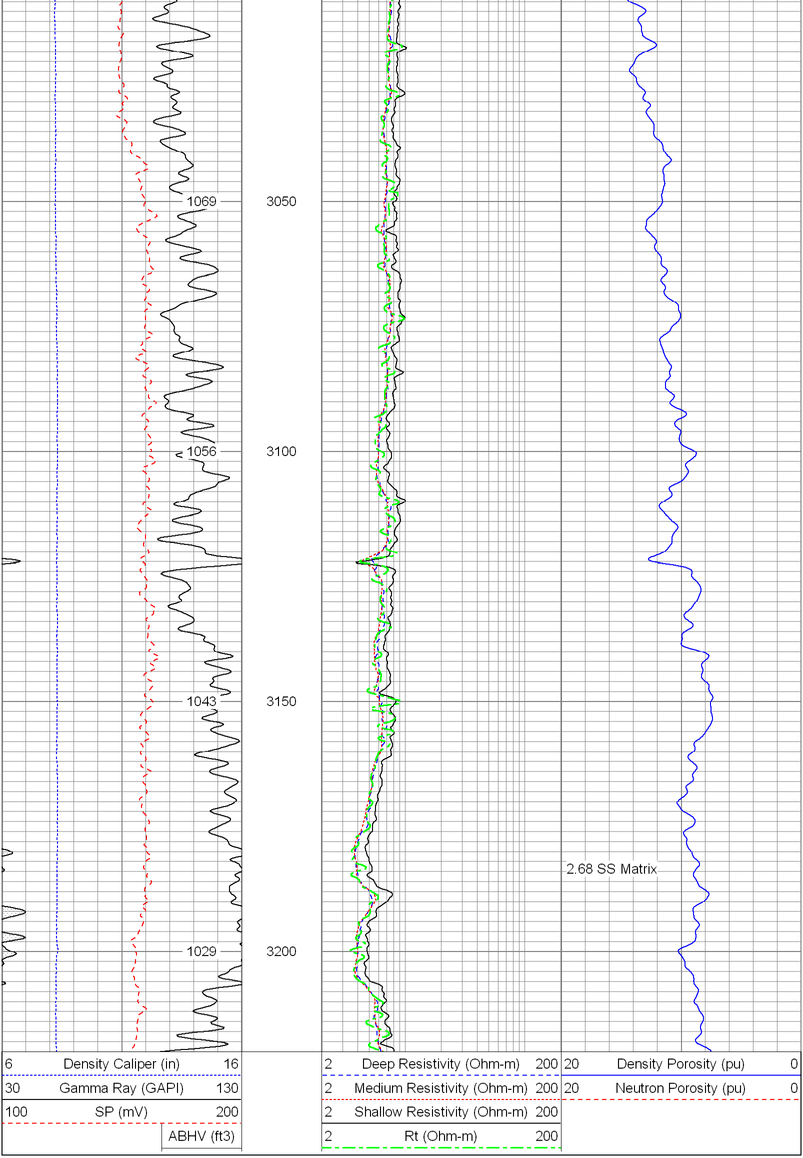
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Rig 128
Thank you for using Phoenix Surveys!!
API #: 05-123-32464-0000

Database File: 11462.db
Dataset Pathname: pass3.5
Presentation Format: pdc1
Dataset Creation: Tue Feb 15 23:14:34 2011
Charted by: Depth in Feet scaled 1:240





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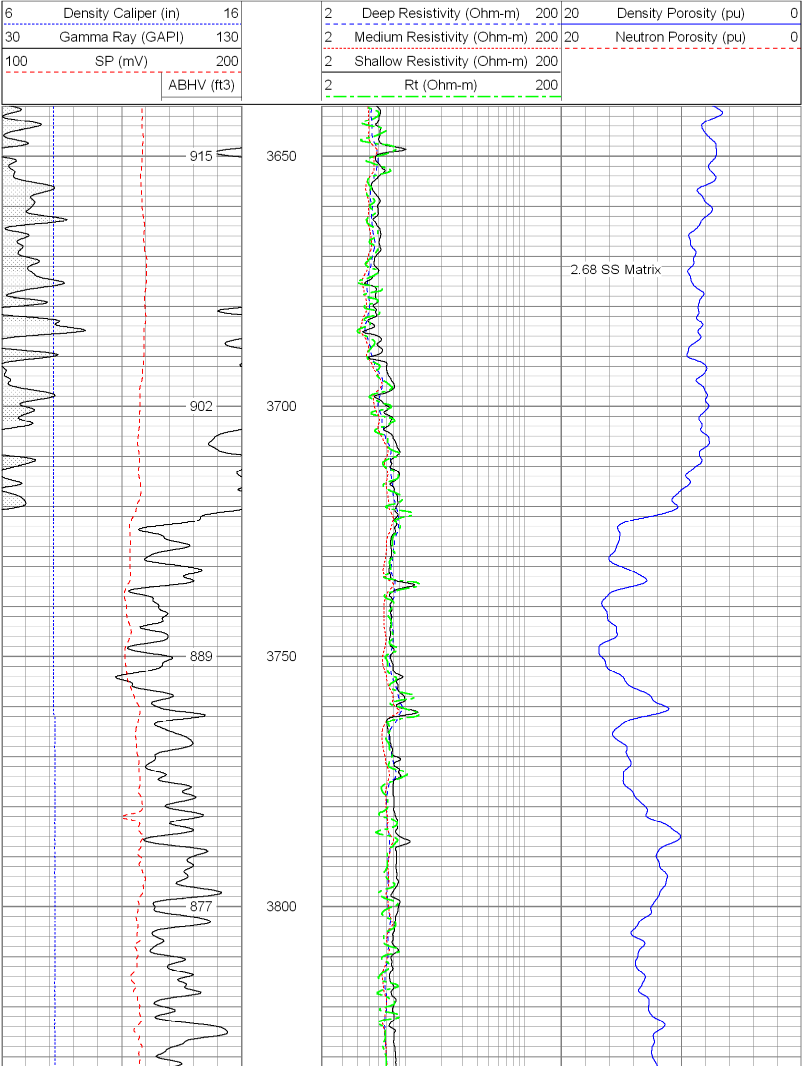

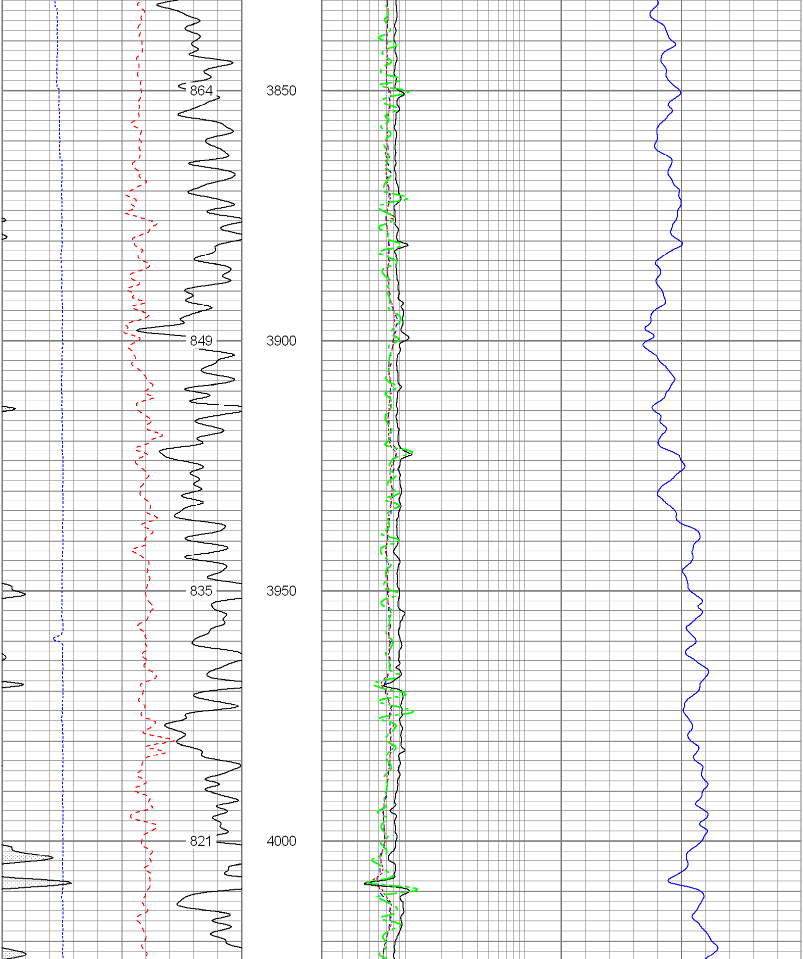

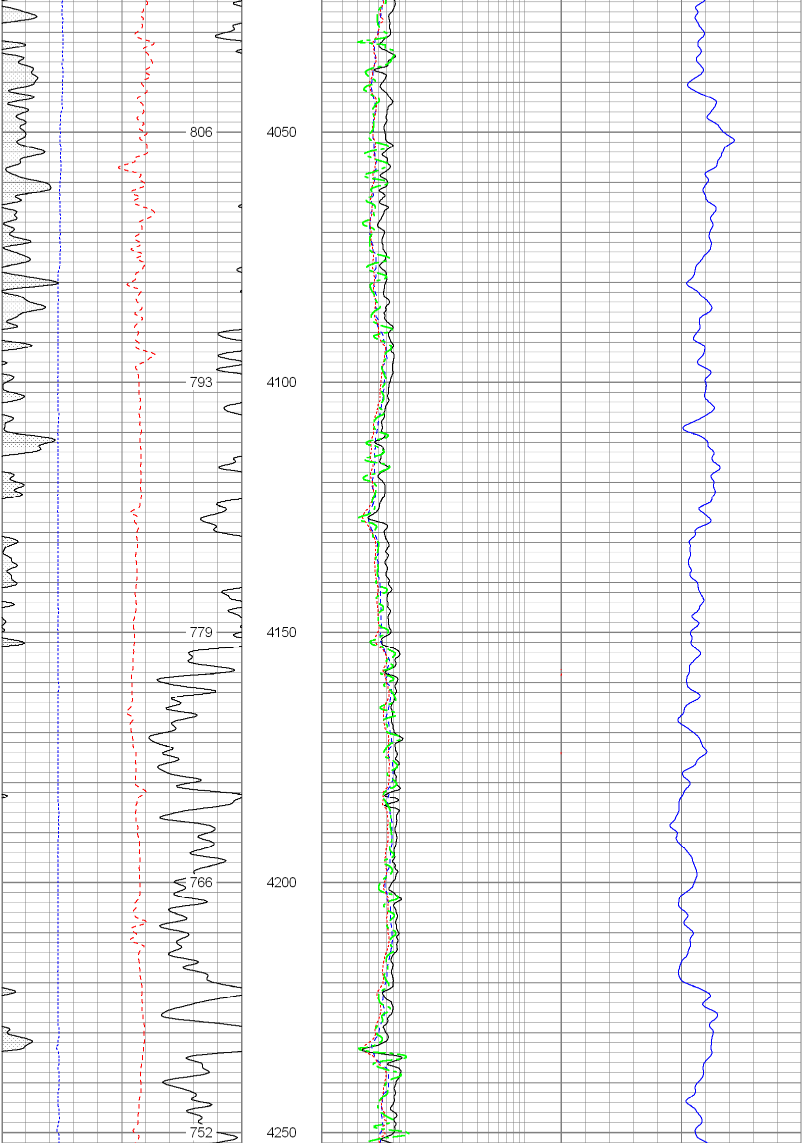

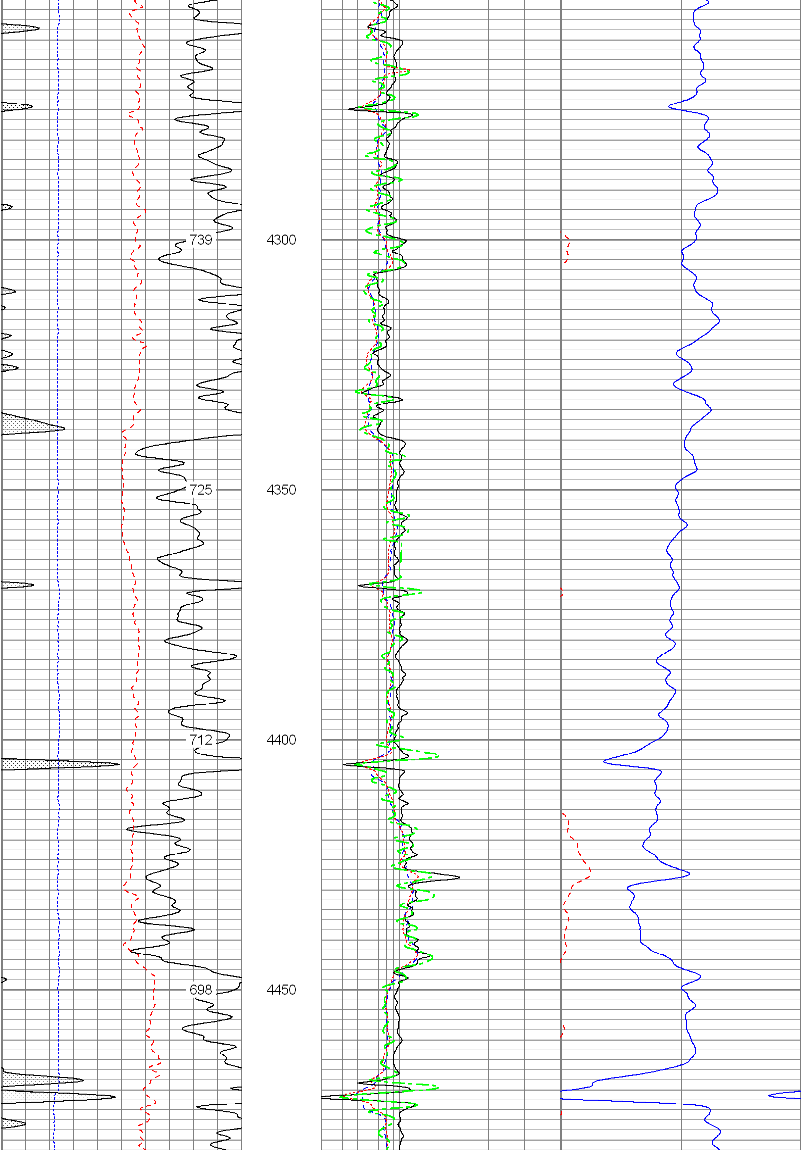

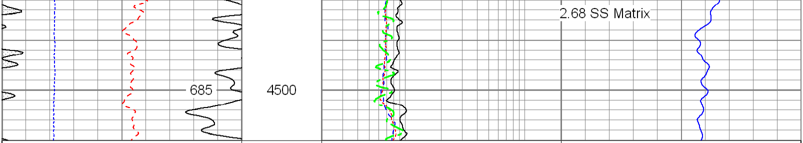

6 Density Caliper (in) 16
30 Gamma Ray (GAPI) 130
100 SP (mV) 200
ABHV (ft3)

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

20 Density Porosity (pu) 0
20 Neutron Porosity (pu) 0

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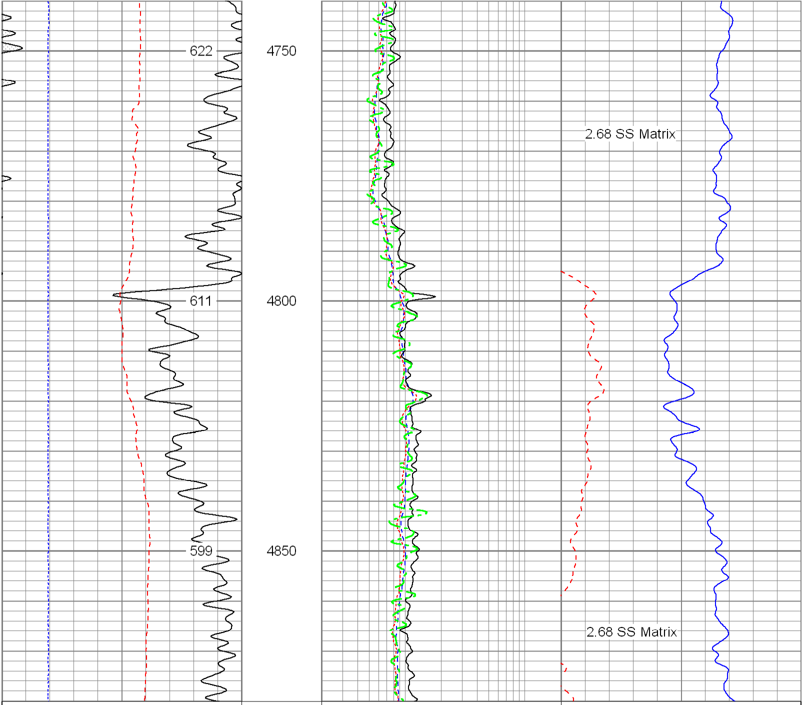

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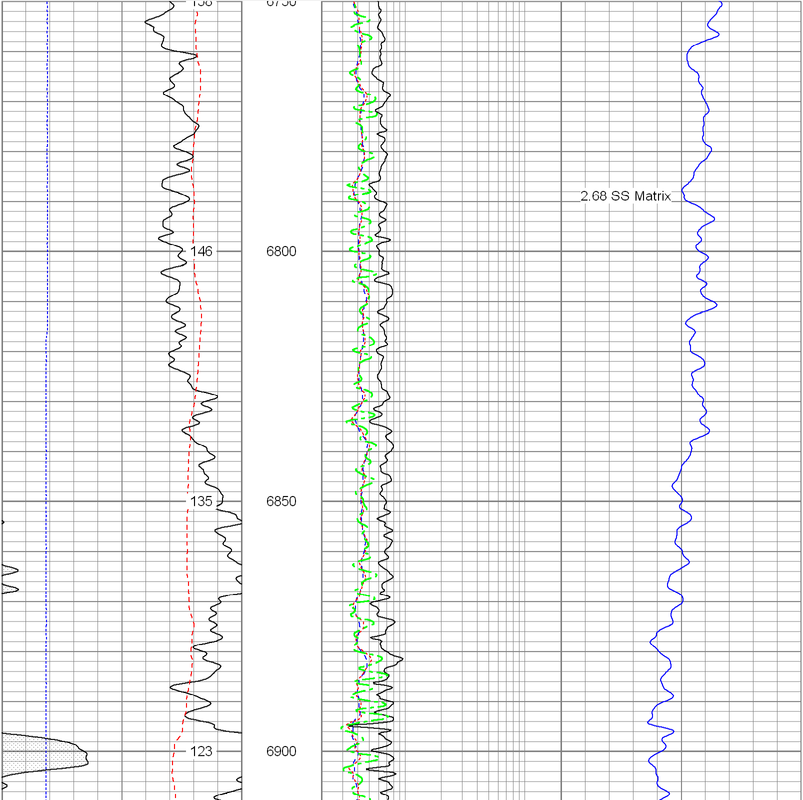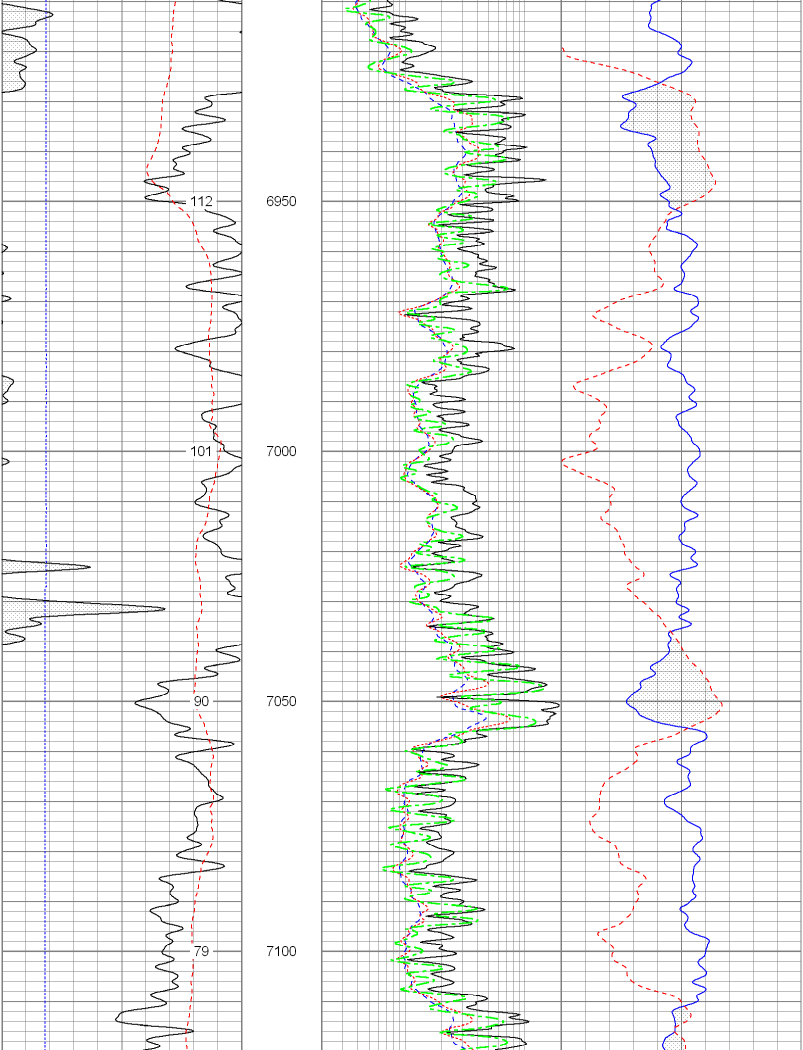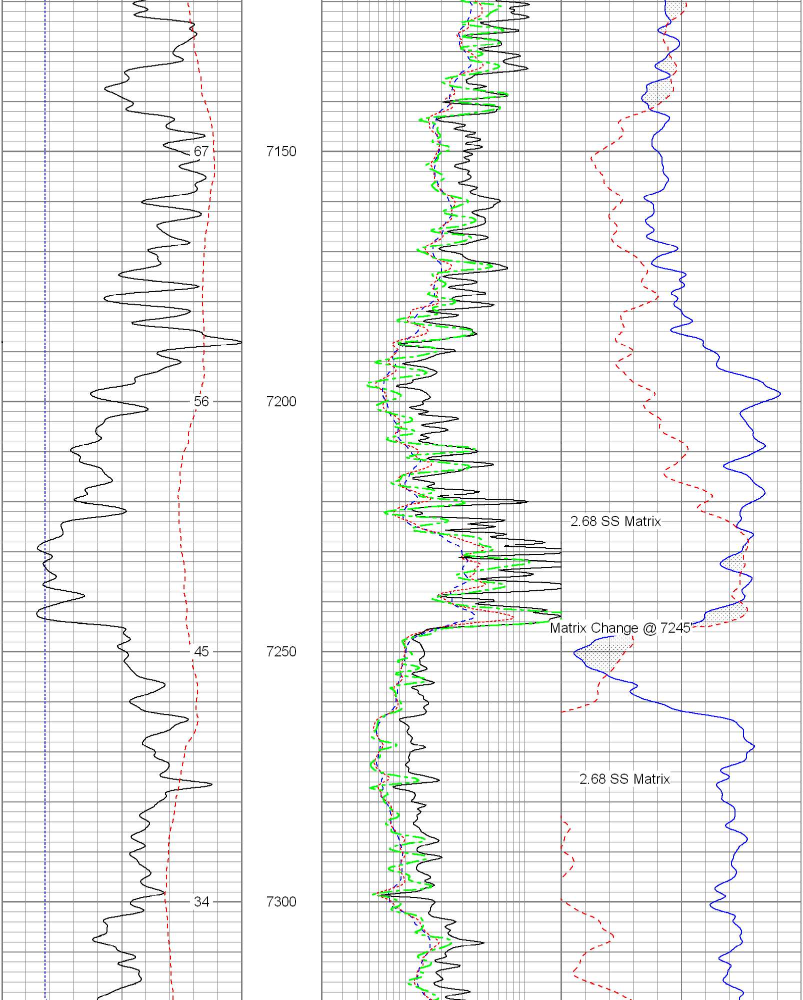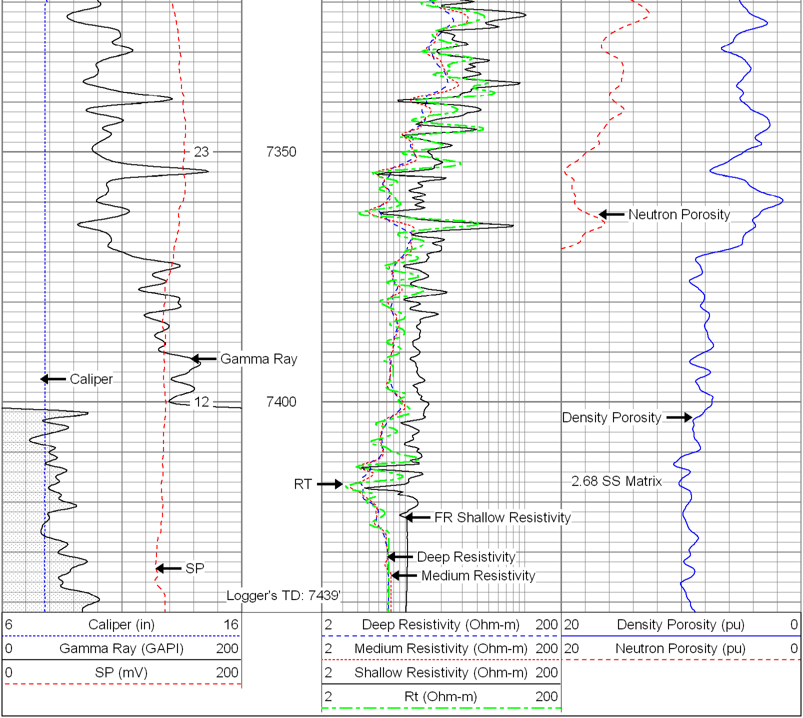20	Density Porosity (pu)	0
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