PHOENIX SURVEYS, INC.

COMPENSATED DENSITY
COMPENSATED NEUTRON
MICROLOG

Company	Noble Energy Inc.
Well	Elliot USX S 31-09P
Field	Baxter Lake
County	Weld
State/Province	Colorado
Location	1825' FSL & 665' FEL NE SE Sec. 31, Twp. 4N, Rge. 68W

Other Services
Dual
Induction

Elevation
K.B. 5021
D.F. 5021
G.L. 5009

Company
Well
Field
County
State/Prv

Permanent Datum	GL	Elevation 5009
Log Measured From	KB	
Drilling Measured From	KB	

Date	May 13, 2010		
Run Number	1		
Depth Driller	7365		
Depth Logger	7358		
Bottom Logged Interval	7338		
Top Log Interval	1720		
Casing Driller	561		
Casing Logger	Not Logged		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.5 / 70		
pH / Fluid Loss	8.0 / NC		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.91 @ 63° F		
Rmf @ Meas. Temp	2.94 @ 63° F		
Rmc @ Meas. Temp	4.89 @ 63° F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.21 @ 203° F		
Time Circulation Stopped	1530		
Time Logger on Bottom	2130		
Maximum Recorded Temperature	203° F		
Equipment Number	50		
Location	Brighton, CO		
Recorded By	Maciej Staron		
Witnessed By	Jeff Cihak		

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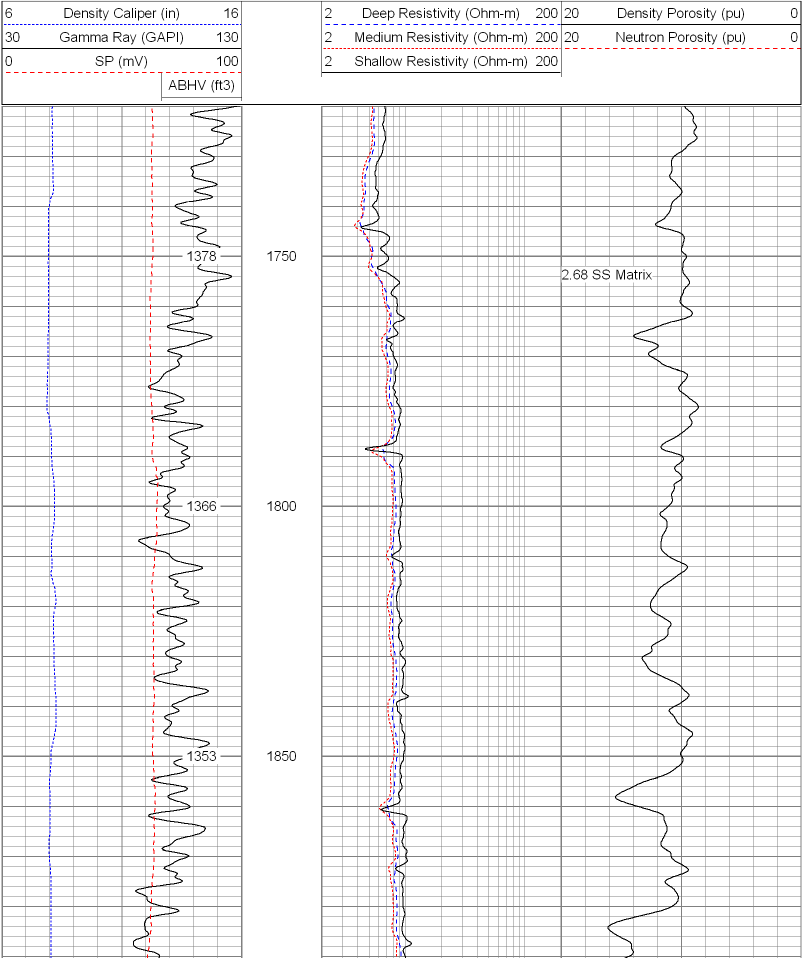
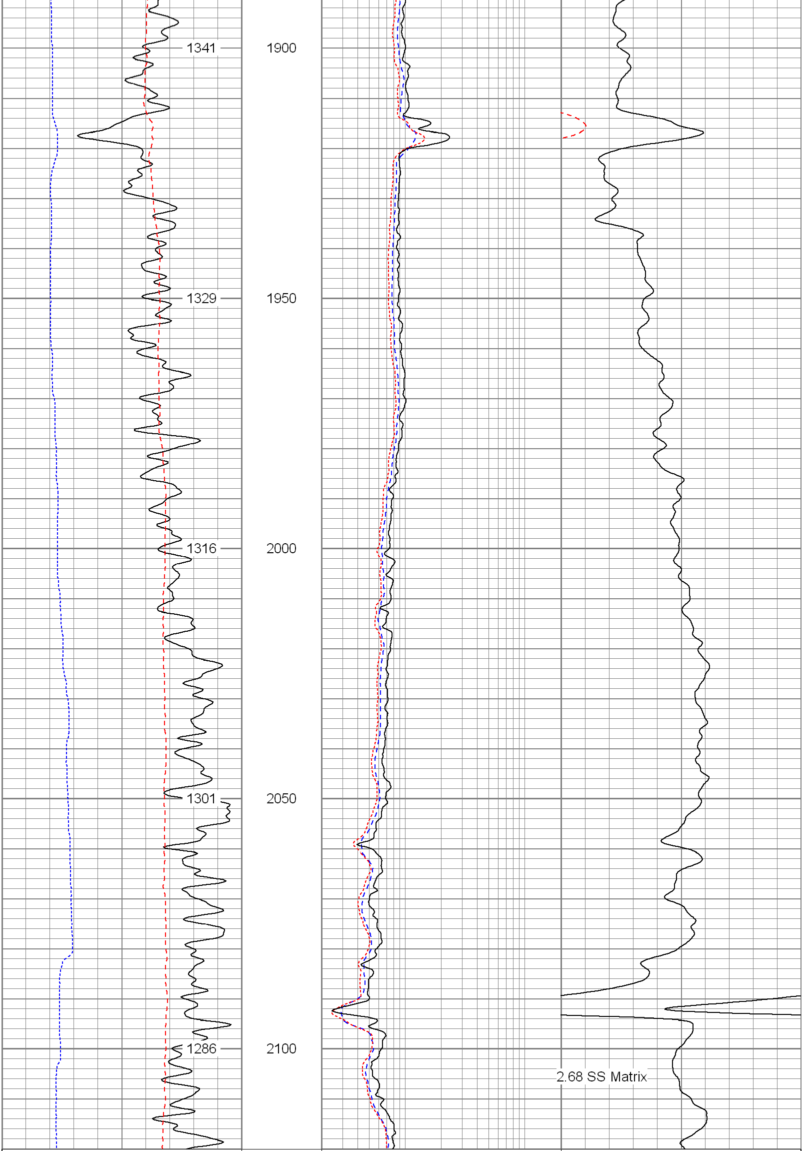
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Drilling Rig 126
Thank you for using Phoenix Surveys!!
API #: 05-123-31240-00
No Repeat due to hole conditions!
Higher Density Porosity in some uphole zones due to hole conditions!

Database File: 10648.db
Dataset Pathname: final
Presentation Format: pdc1
Dataset Creation: Thu May 13 23:43:09 2010
Charted by: Depth in Feet scaled 1:240





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

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

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

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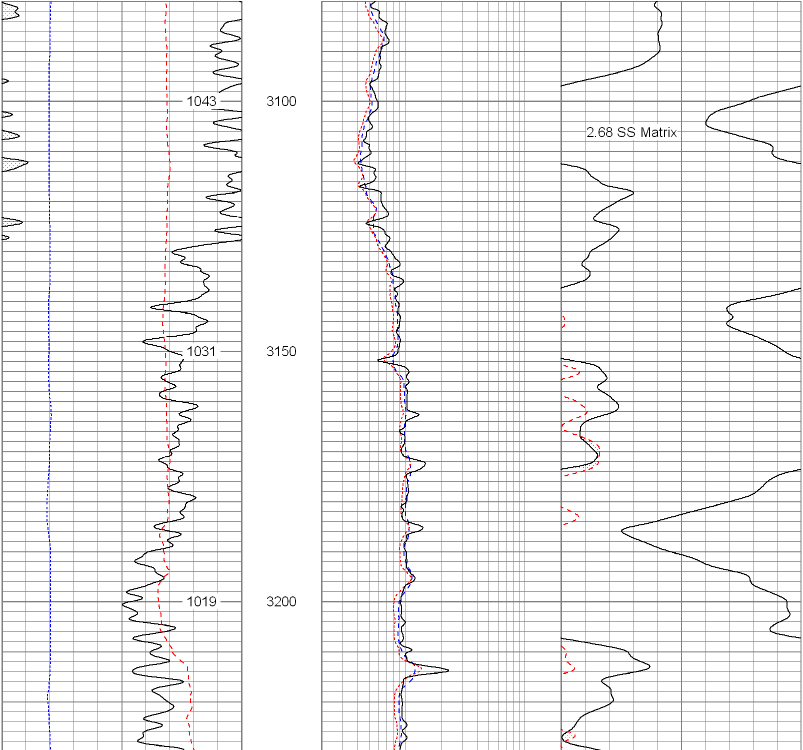

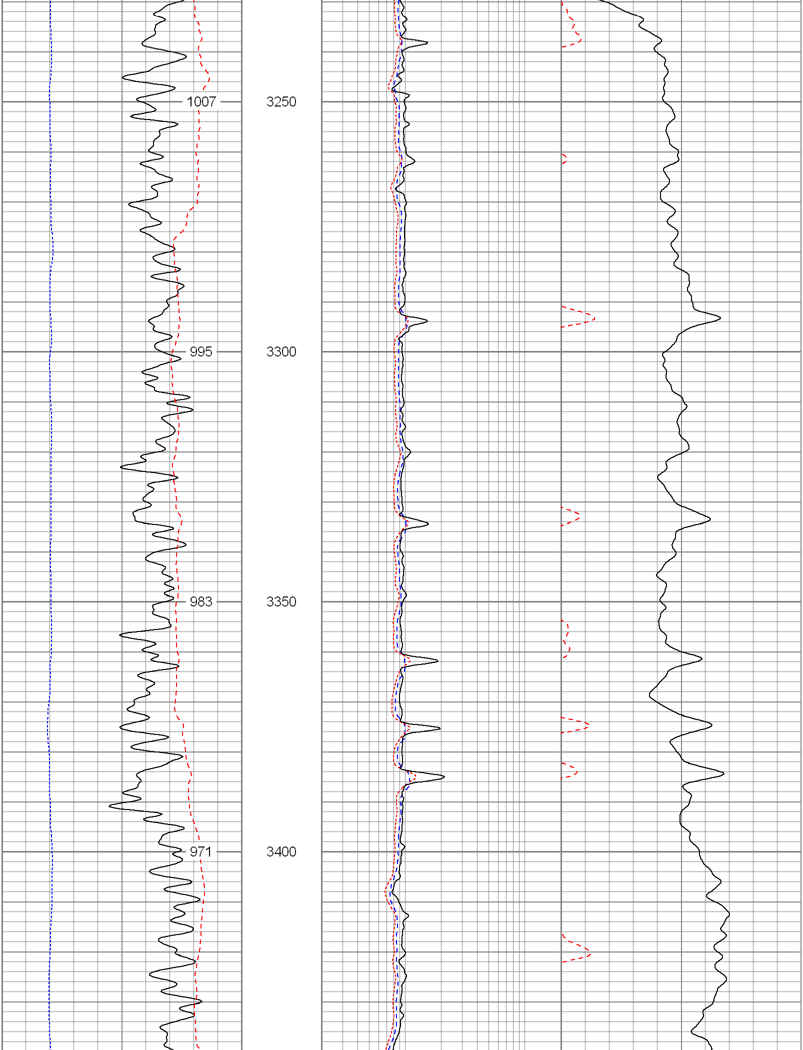

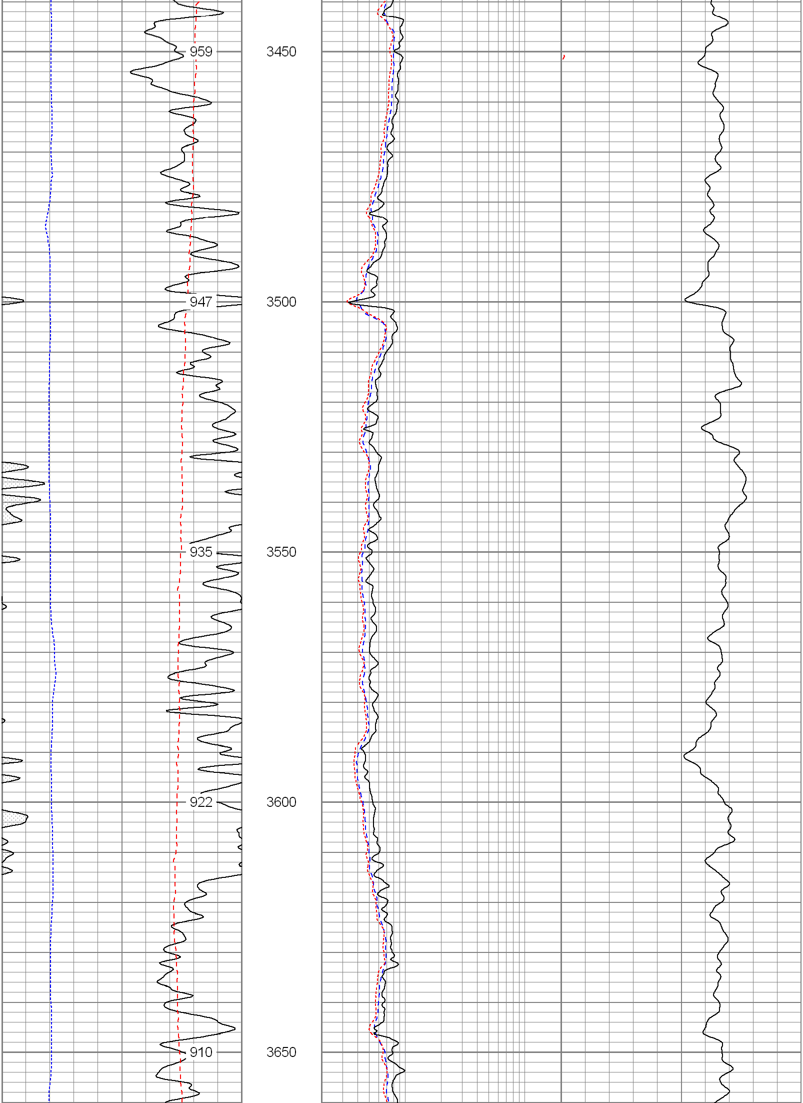

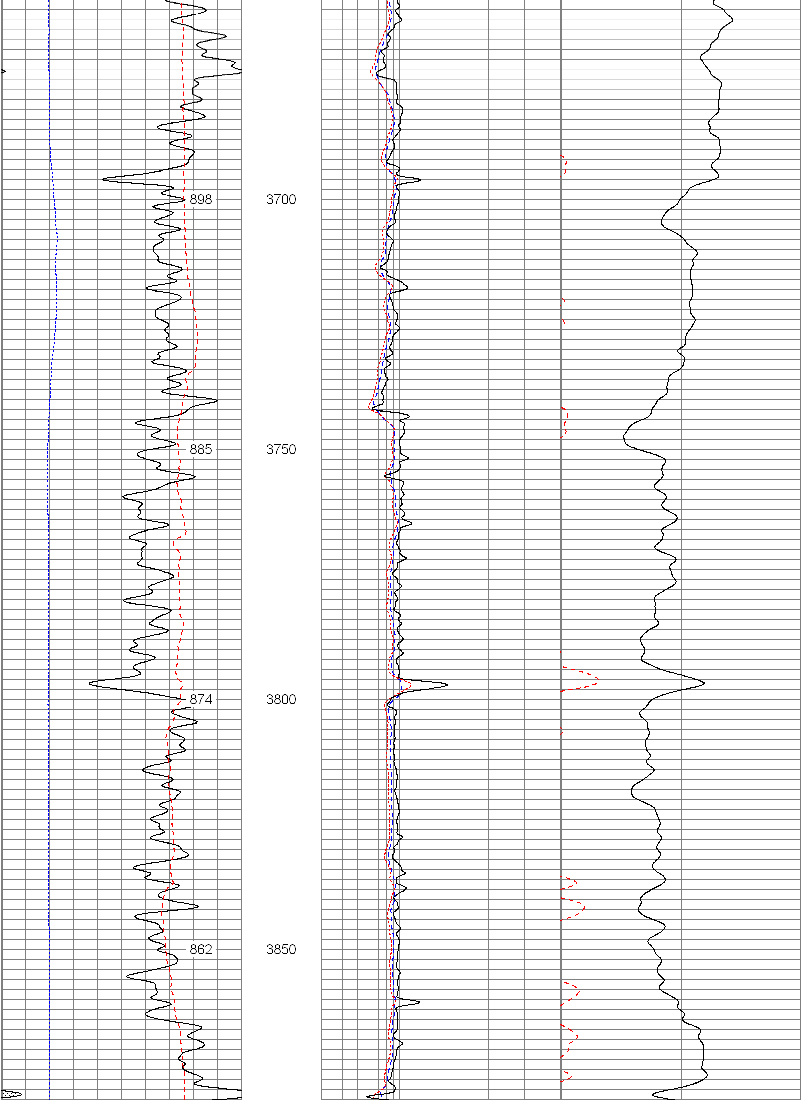

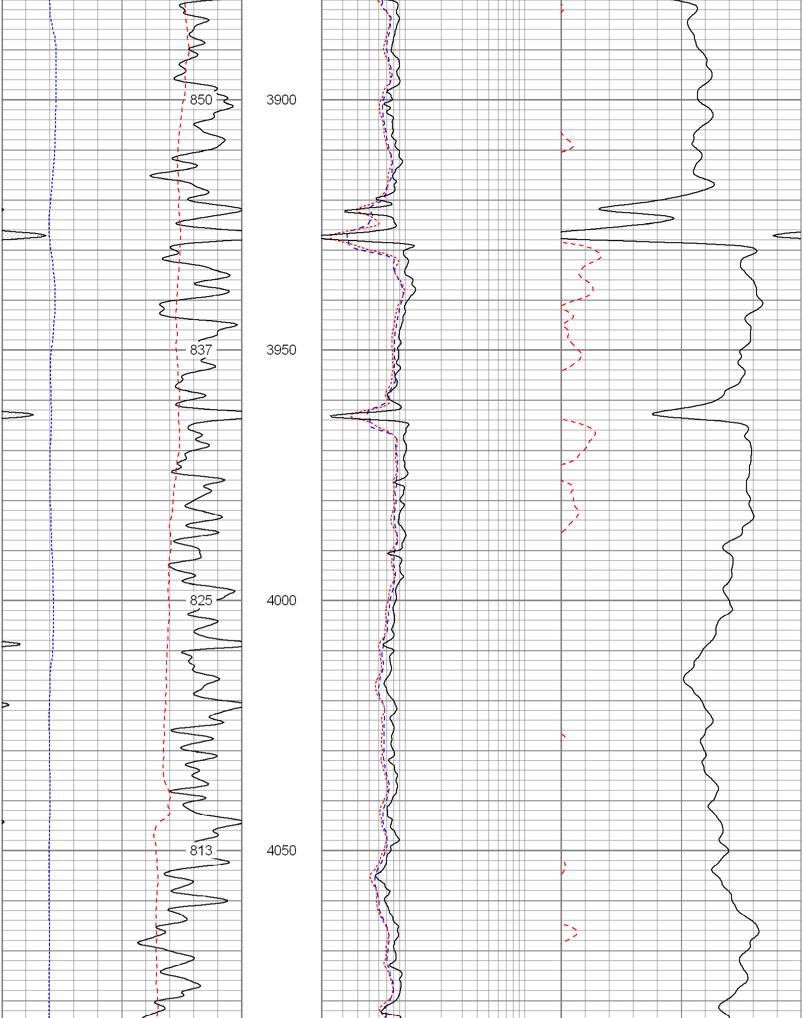

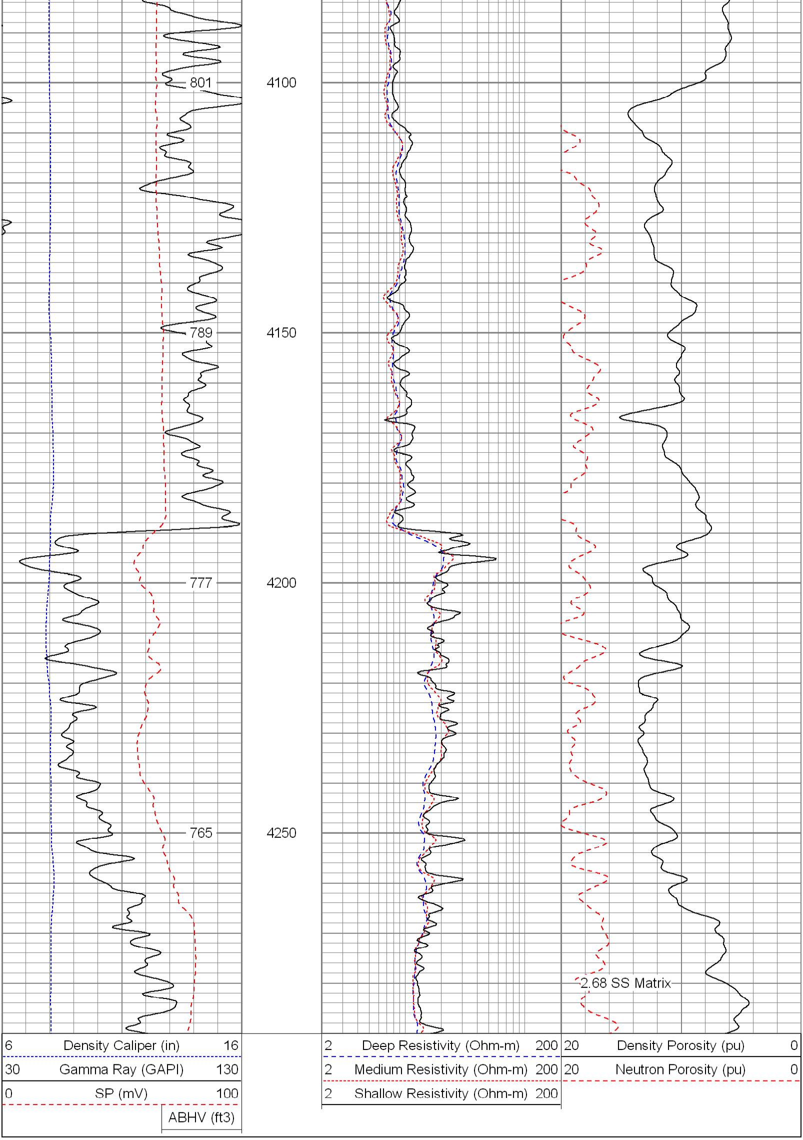

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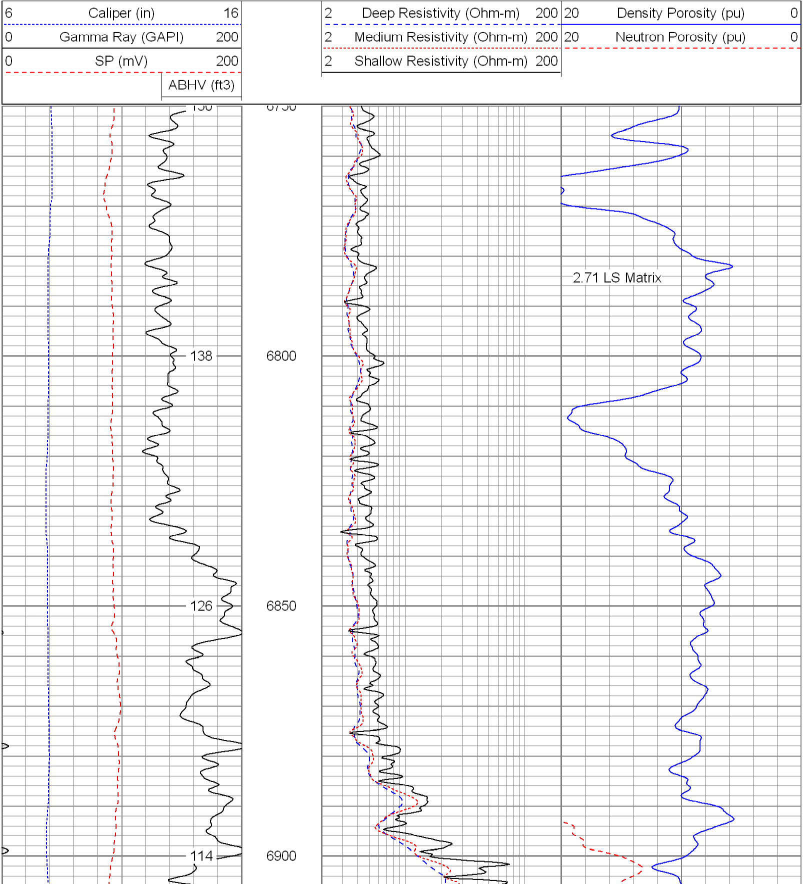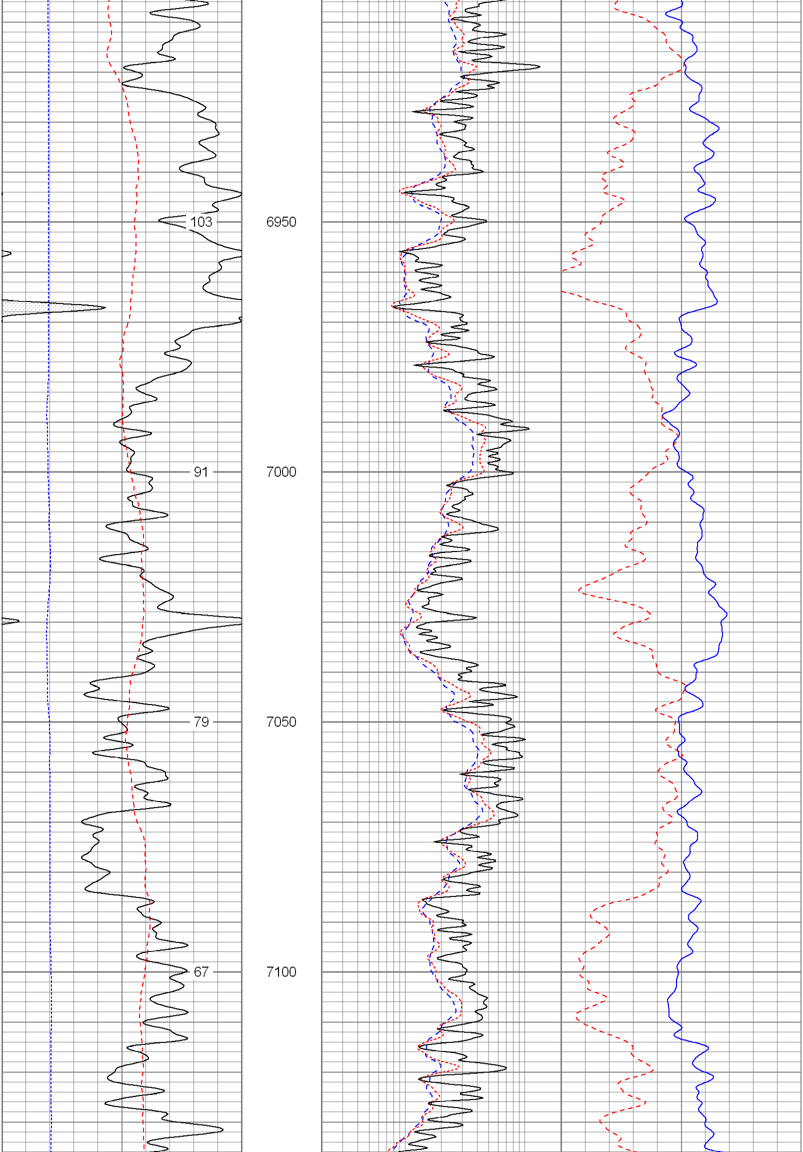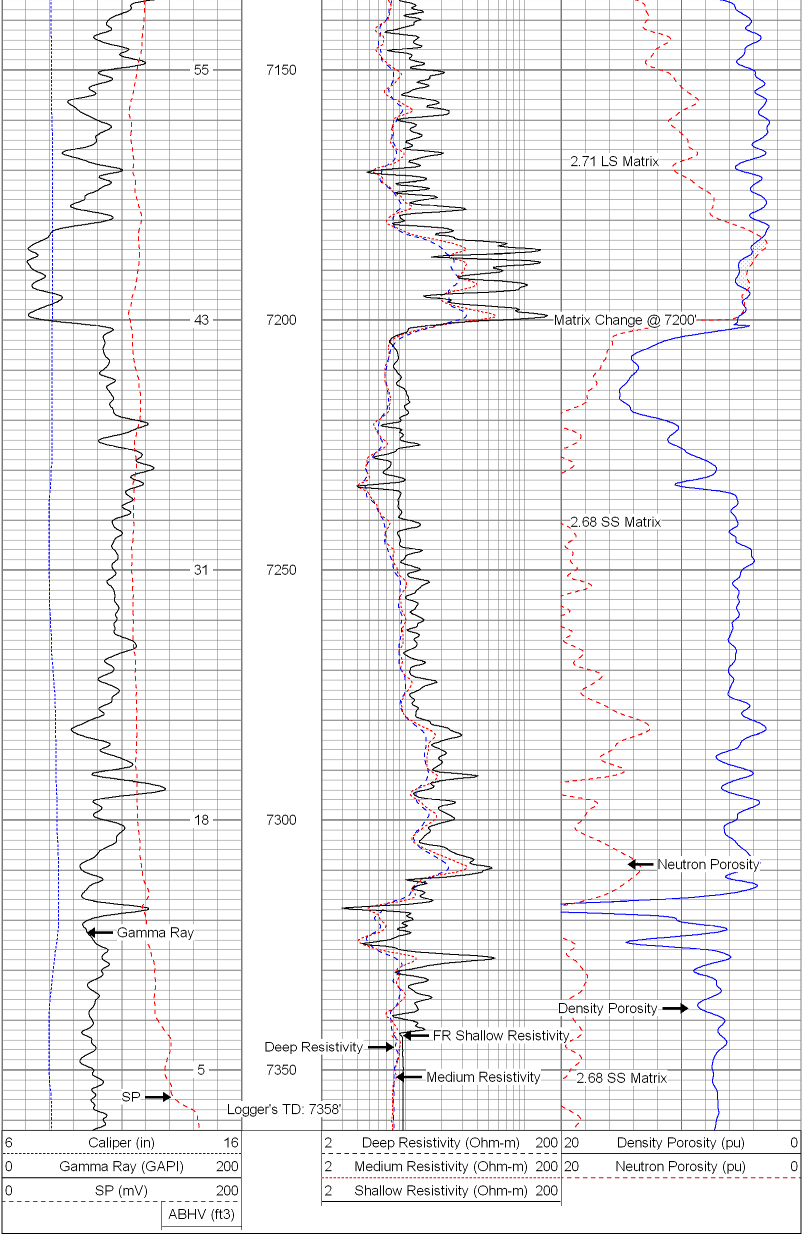
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ABHV (ft3)
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2 Medium Resistivity (Ohm-m) 200
2 Shallow Resistivity (Ohm-m) 200
20 Density Porosity (pu) 0
20 Neutron Porosity (pu) 0
2.71 LS Matrix
150
6750
138
6800
126
6850
114
6900