PHOENIX SURVEYS, INC.

DUAL INDUCTION
GUARD LOG
GAMMA RAY

Company
Well
Field
County
State/Prv

Company	**Noble Energy Inc.**
Well	**Wells Ranch USX AE31-10P**
Field	**Wattenberg**
County	**Weld**
State/Province	**Colorado**

Location
1983' FSL & 1839' FEL
NWSE
Sec. 31, Twp. 6N, Rge. 62W

Other Services
Density
Neutron
Microlog

Permanent Datum	GL	Elevation	4697
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4713
D.F. 4712
G.L. 4697

Date	June 30, 2010		
Run Number	1		
Depth Driller	6770		
Depth Logger	6766		
Bottom Logged Interval	6766		
Top Log Interval	Casing		
Casing Driller	563		
Casing Logger	563		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.2 / 40		
pH / Fluid Loss	8.0 / NA		
Source of Sample	Flowline		
Rm @ Meas. Temp	2.70 @ 92° F		
Rmf @ Meas. Temp	2.10 @ 92° F		
Rmc @ Meas. Temp	3.50 @ 92° F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.26 @ 198° F		
Time Circulation Stopped	1700		
Time Logger on Bottom	0030		
Maximum Recorded Temperature	198° F		
Equipment Number	52		
Location	Brighton, CO		
Recorded By	Shaun Schuman		
Witnessed By	Mike Sitton		

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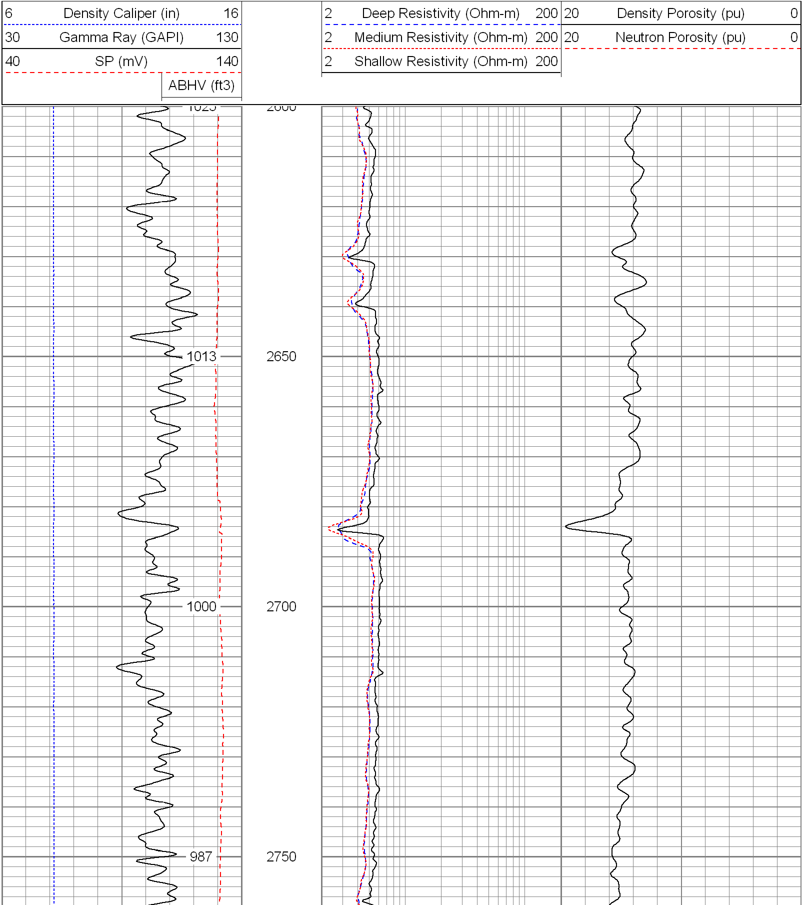
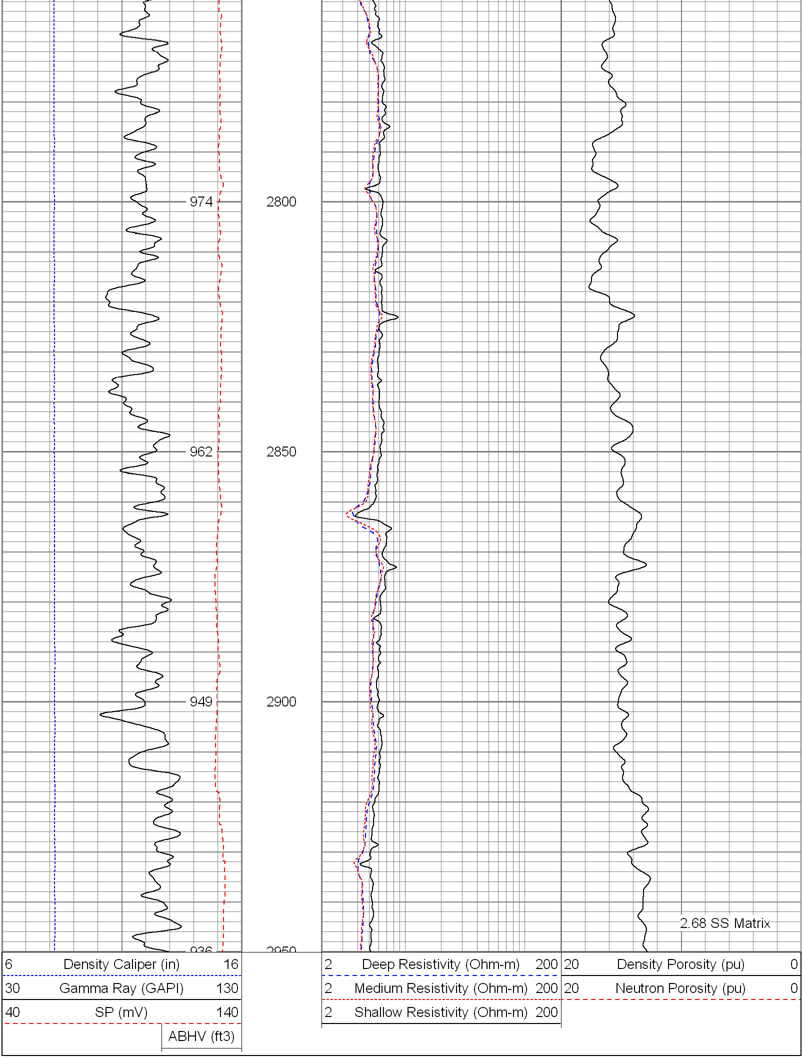
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 55
Thank you for using Phoenix Surveys!!
API #: 05-123-31034

Database File: 10742.db
Dataset Pathname: main
Presentation Format: pdc1
Dataset Creation: Wed Jun 30 01:58:50 2010
Charted by: Depth in Feet scaled 1:240





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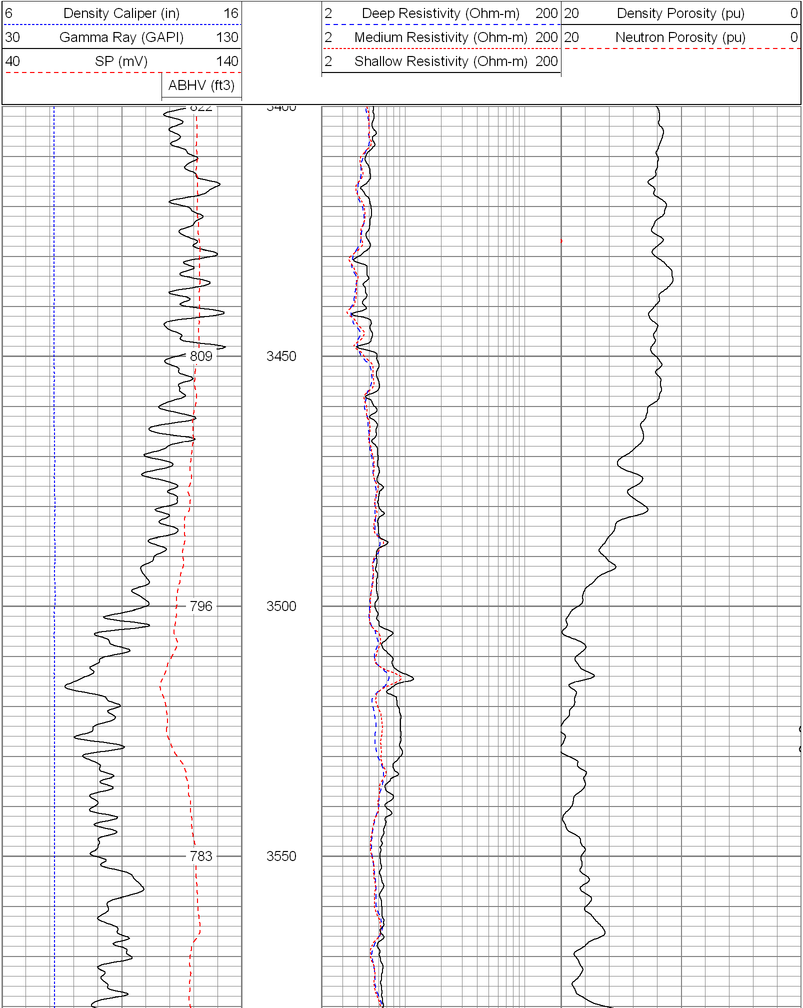

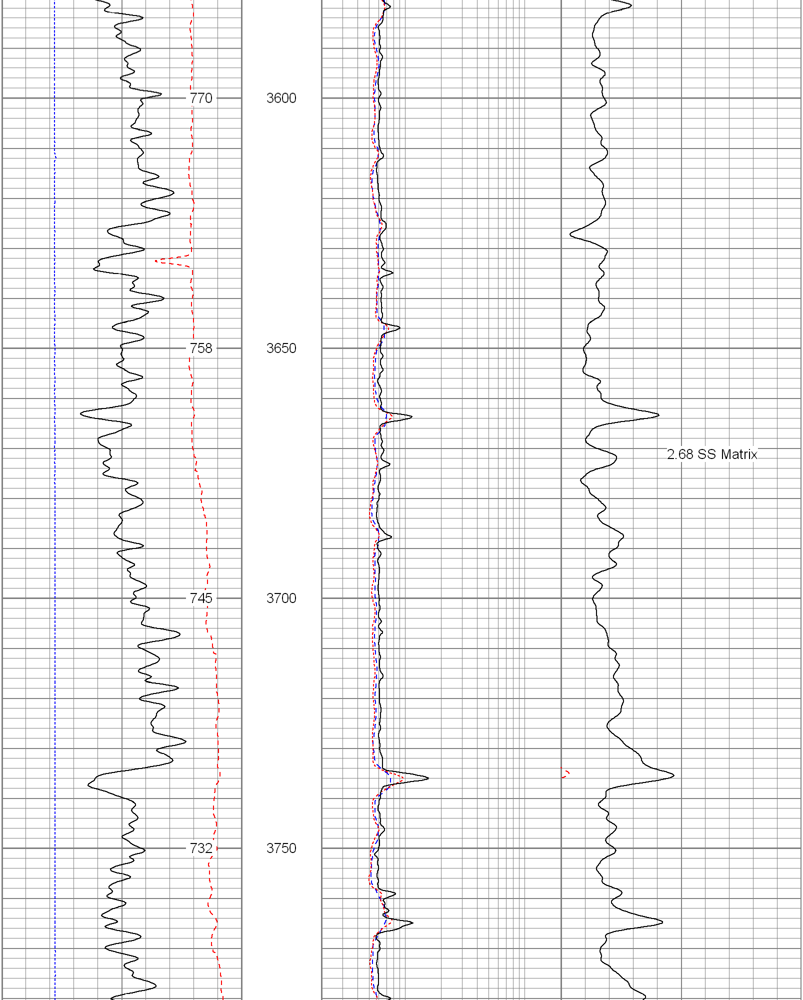

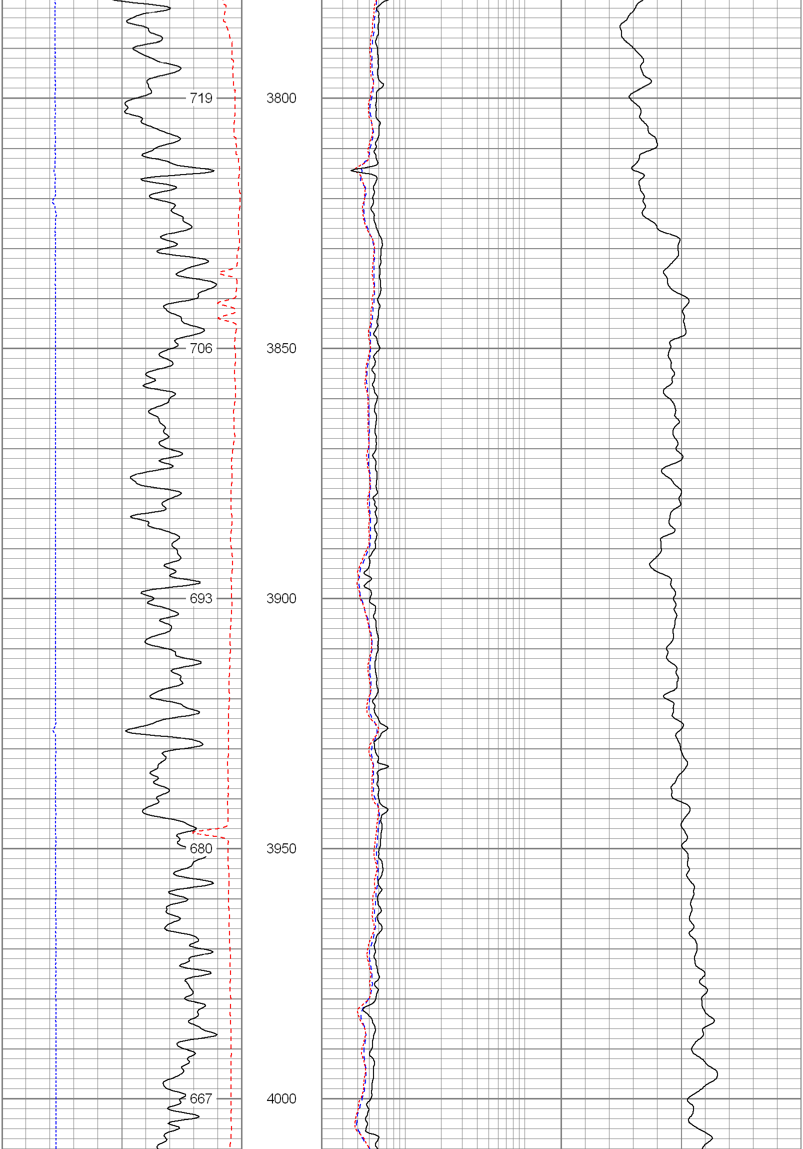

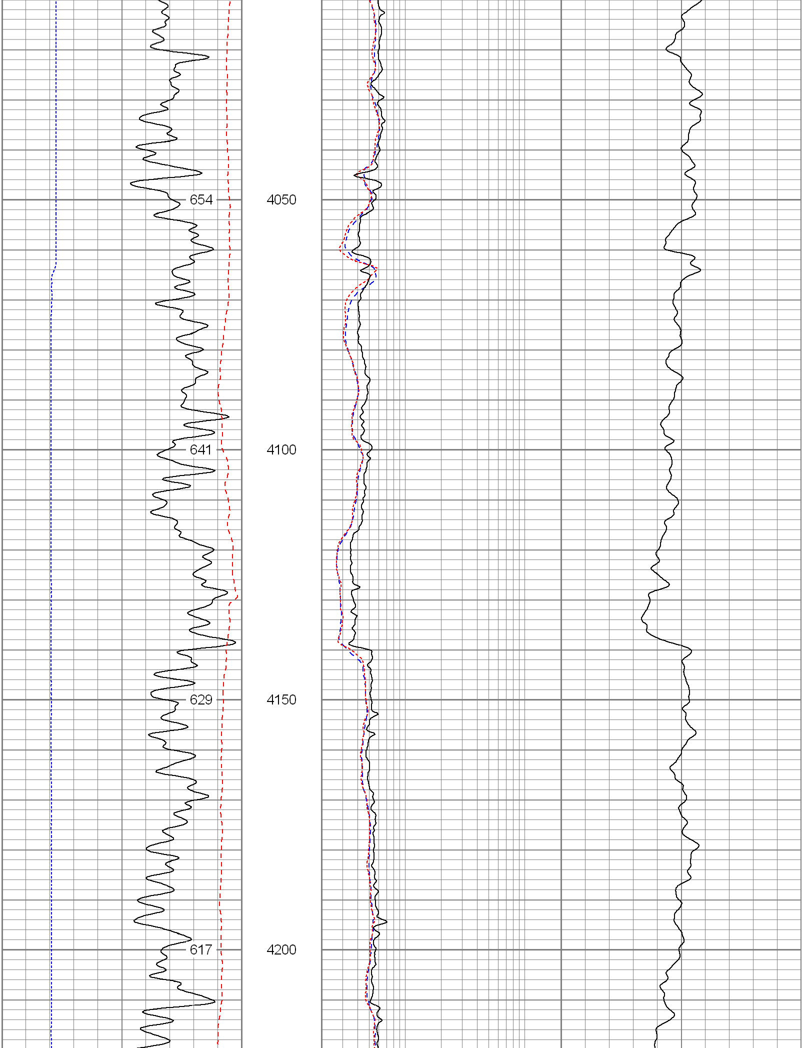

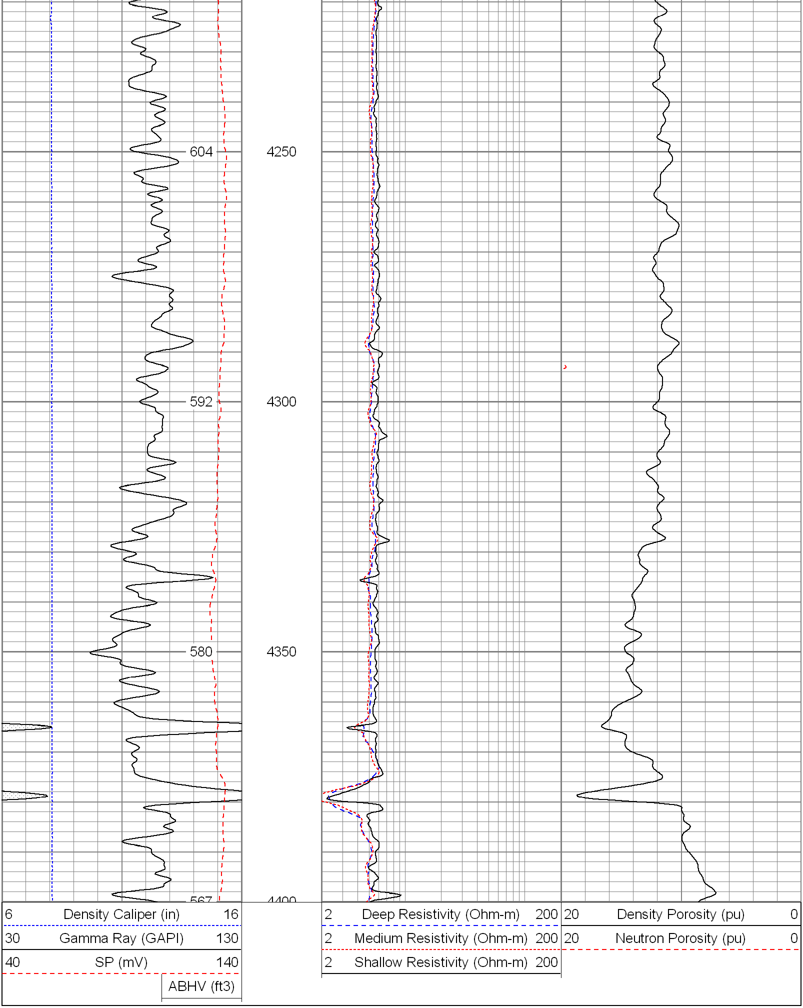

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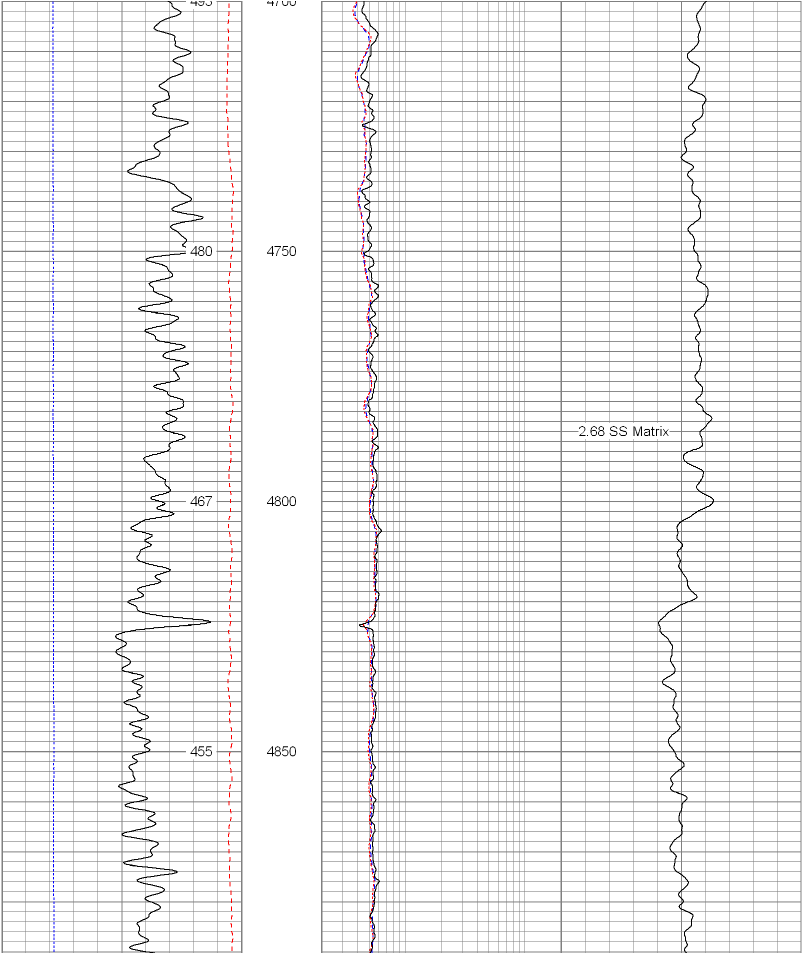
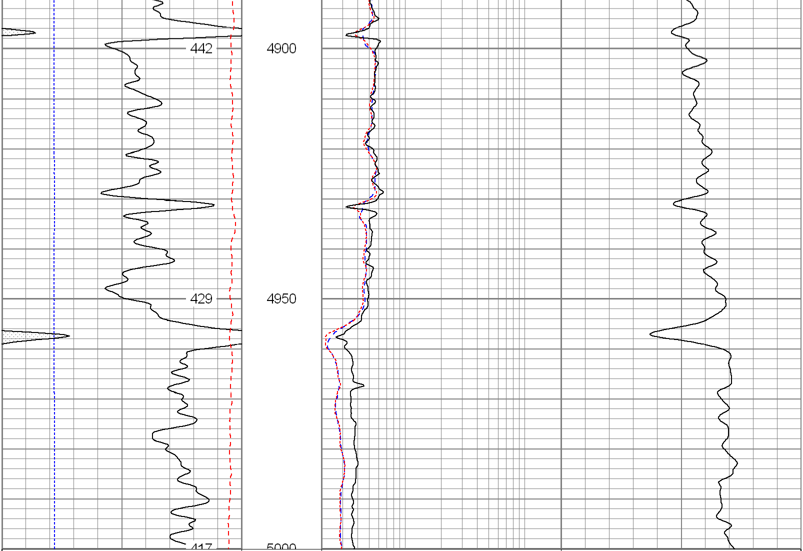
Min	Curve	Max
6	Density Caliper (in)	16
30	Gamma Ray (GAPI)	130
40	SP (mV)	140
	ABHV (ft3)	
2	Deep Resistivity (Ohm-m)	200
2	Medium Resistivity (Ohm-m)	200
2	Shallow Resistivity (Ohm-m)	200
20	Density Porosity (pu)	0
20	Neutron Porosity (pu)	0





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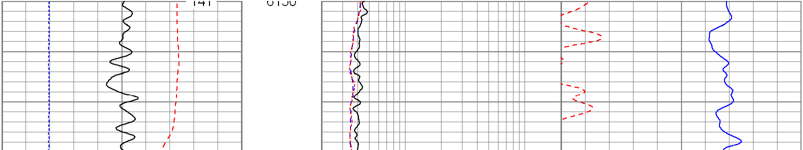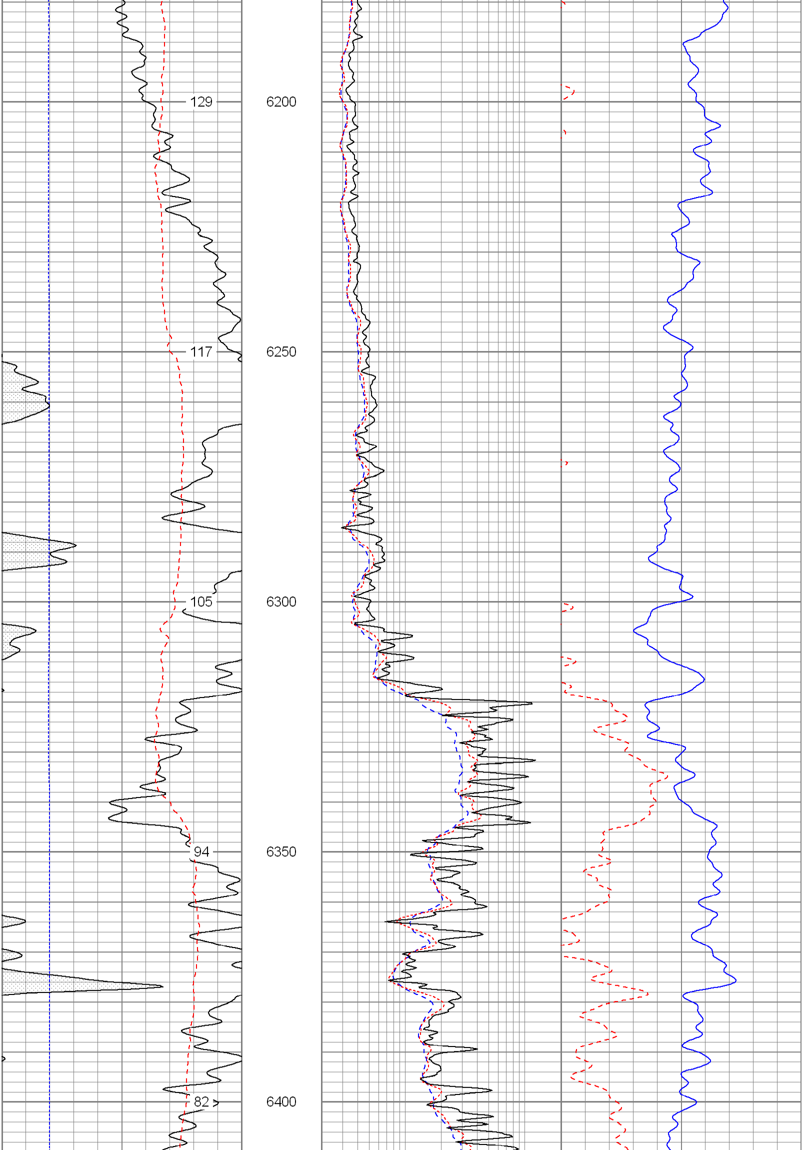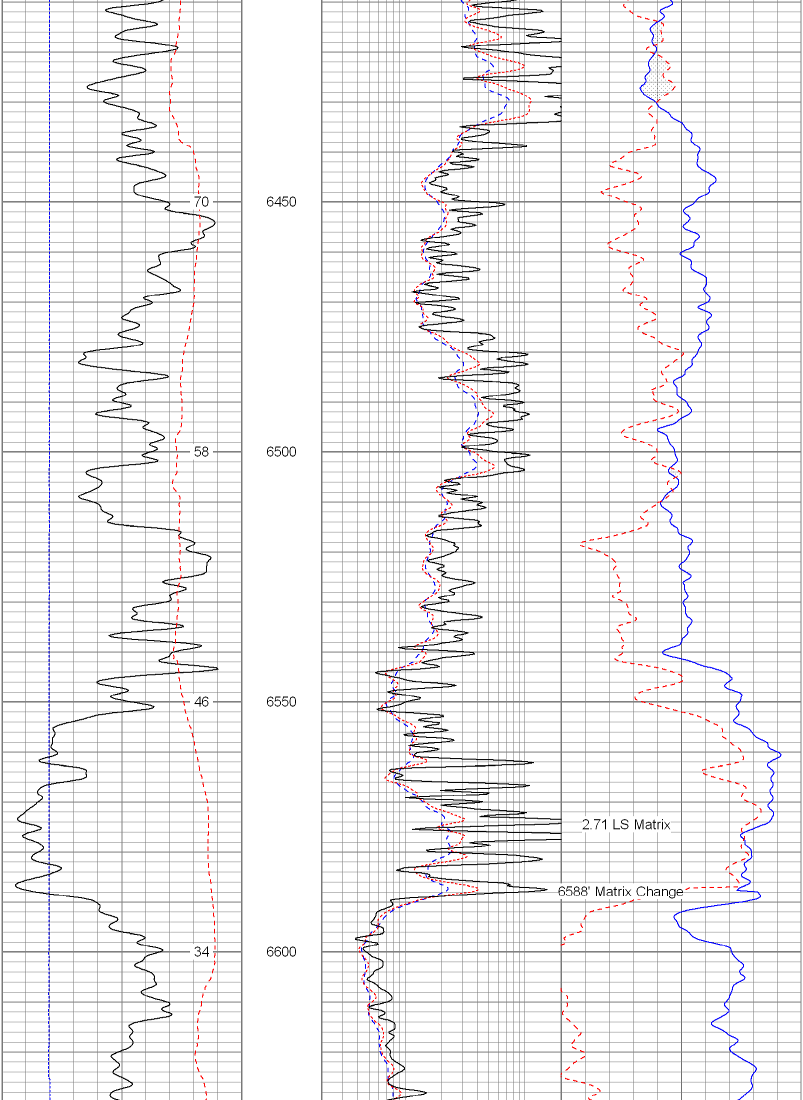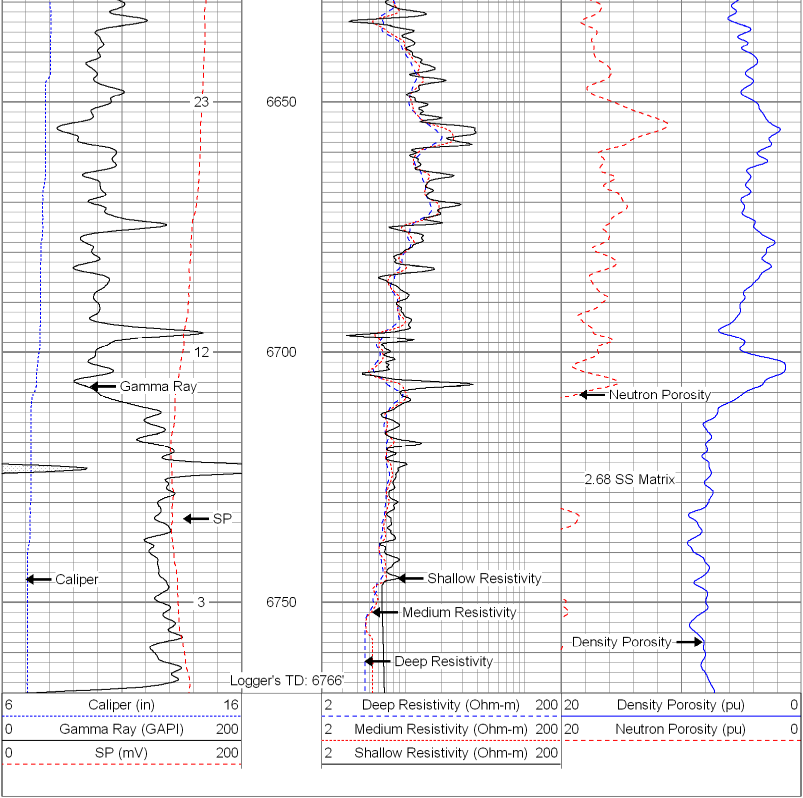20	Density Porosity (pu)	0
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