PSI
PHOENIX SURVEYS, INC.

DUAL INDUCTION
GUARD LOG
GAMMA RAY

Company
Well
Field
County
State/Prv

Company	Noble Energy Inc.		
Well	Wells Ranch AF 06-13		
Field	Wattenberg		
County	Weld	State/Province	Colorado

Location
633' FSL & 785' FWL
SW SW
Sec. 6, Twp. 5N, Rge. 62W

Other Services
Density
Neutron
Micrprinciples

Permanent Datum	GL	Elevation	4662
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4678
D.F. 4677
G.L. 4662

Date	April 22, 2010		
Run Number	1		
Depth Driller	6730		
Depth Logger	6729		
Bottom Logged Interval	6729		
Top Log Interval	Casing		
Casing Driller	568		
Casing Logger	568		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.3 / 37		
pH / Fluid Loss	8.0 / 24		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.55 @ 65° F		
Rmf @ Meas. Temp	2.84 @ 65° F		
Rmc @ Meas. Temp	4.26 @ 65° F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.19 @ 201° F		
Time Circulation Stopped	1200		
Time Logger on Bottom	1930		
Maximum Recorded Temperature	201° F		
Equipment Number	50		
Location	Brighton, CO		
Recorded By	Matt Gill		
Witnessed By	Mike Sitton		

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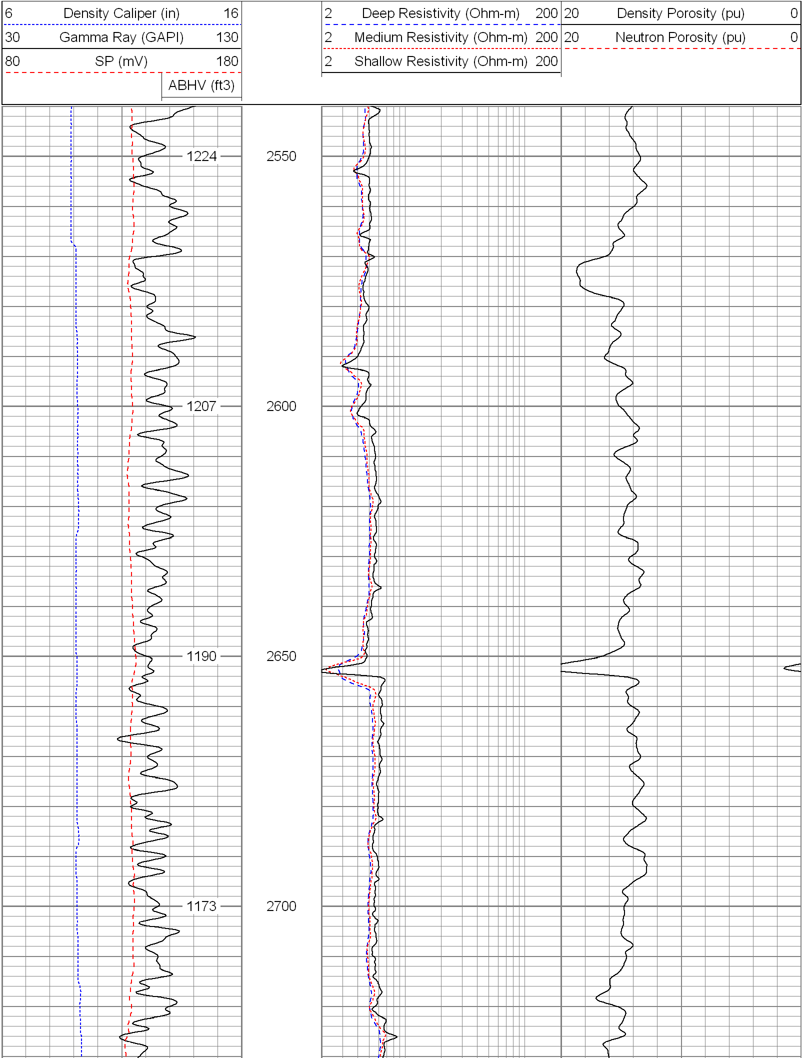
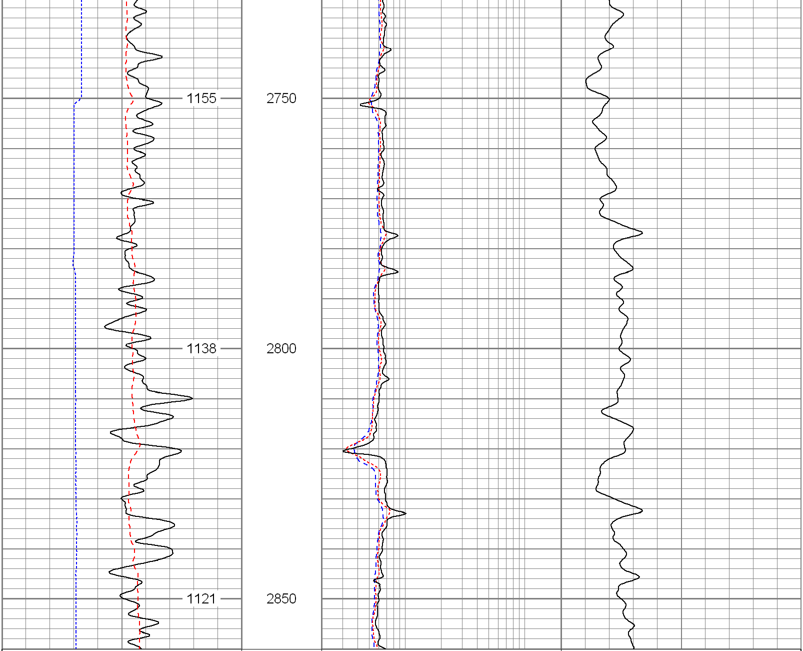
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 #: 05-123-30333-00

Database File:	10470.db
Dataset Pathname:	final
Presentation Format:	pdc1
Dataset Creation:	Thu Apr 22 20:42:11 2010
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
80	SP (mV)	180	2	Shallow Resistivity (Ohm-m)	200			
	ABHV (ft3)							

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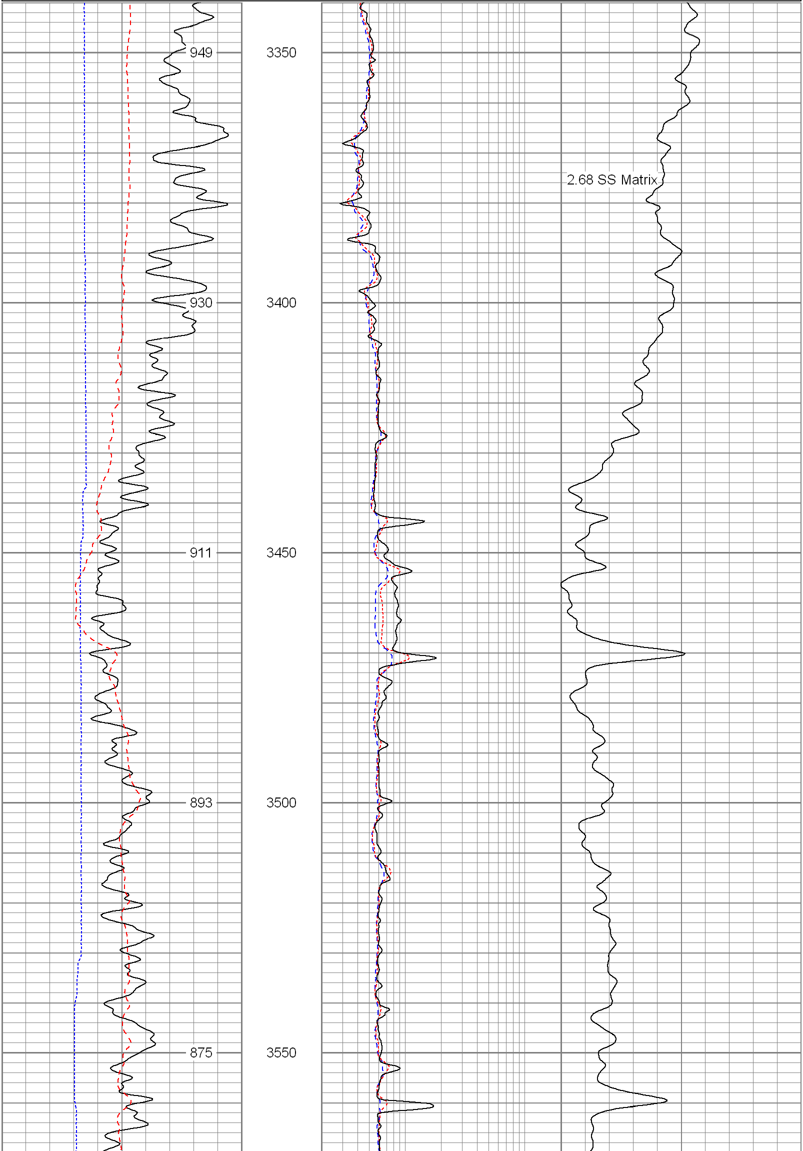

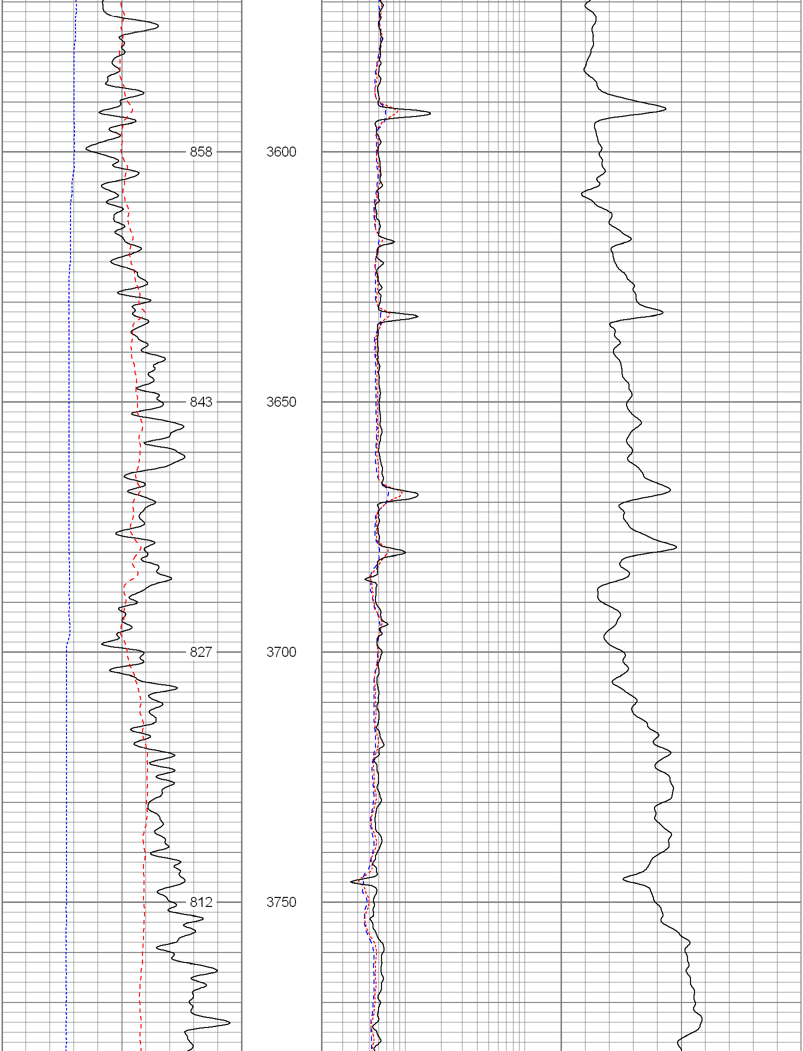

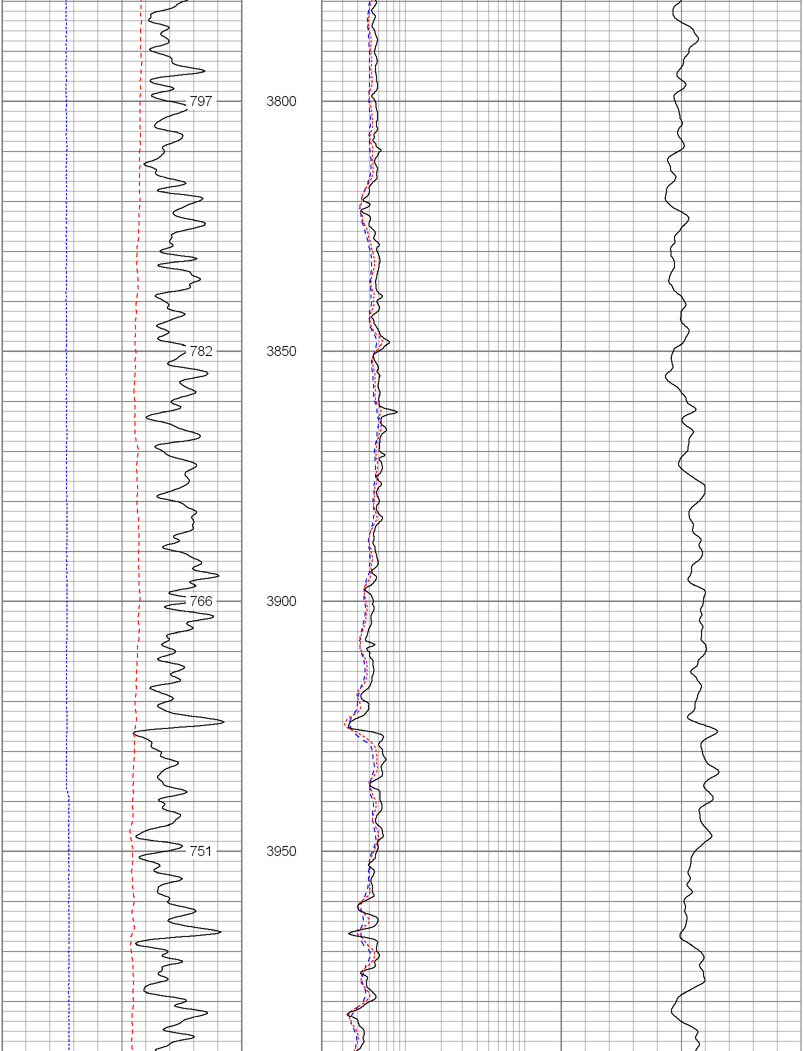

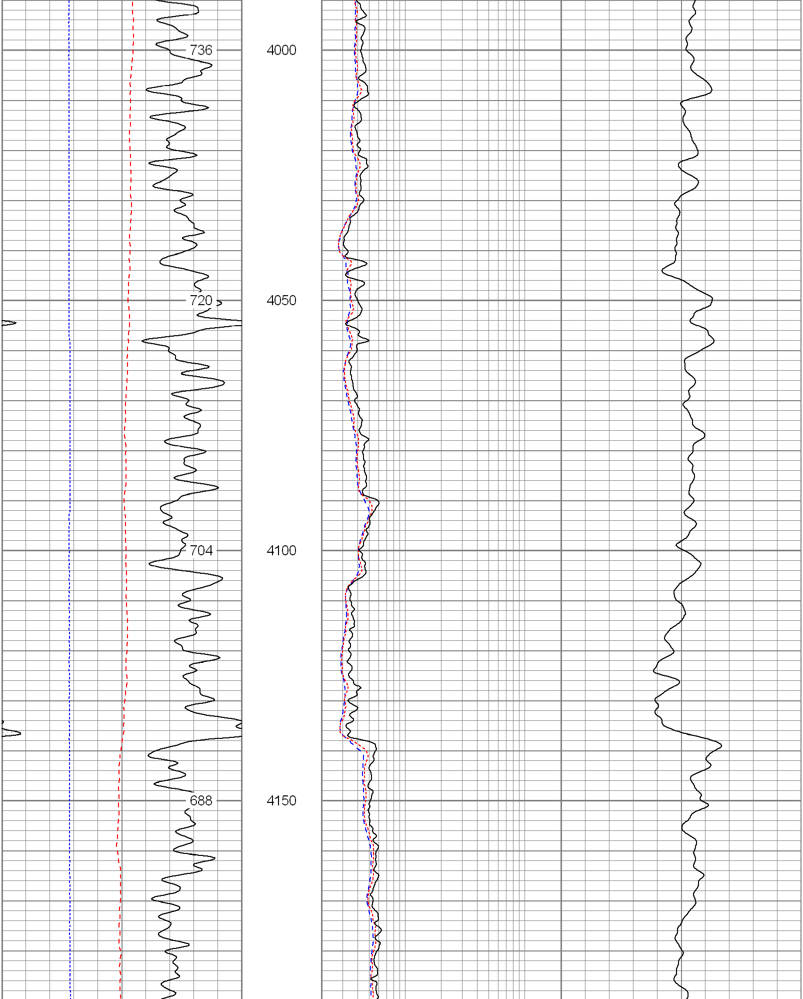

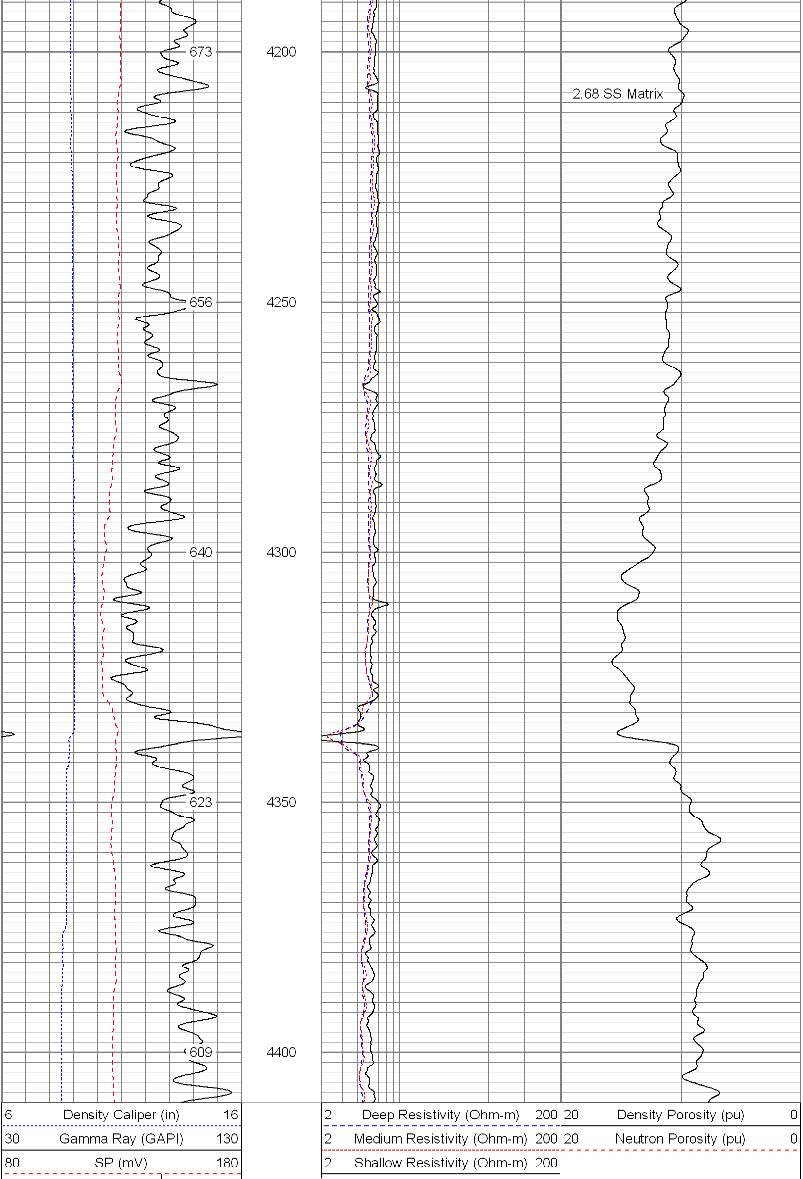

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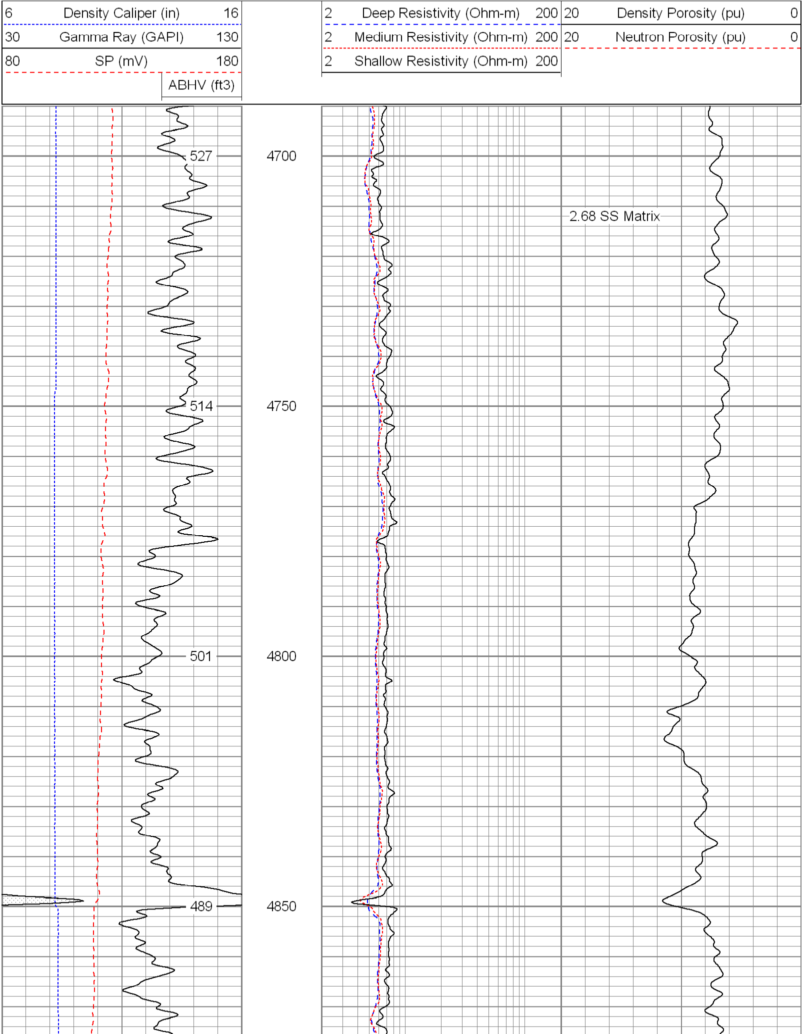

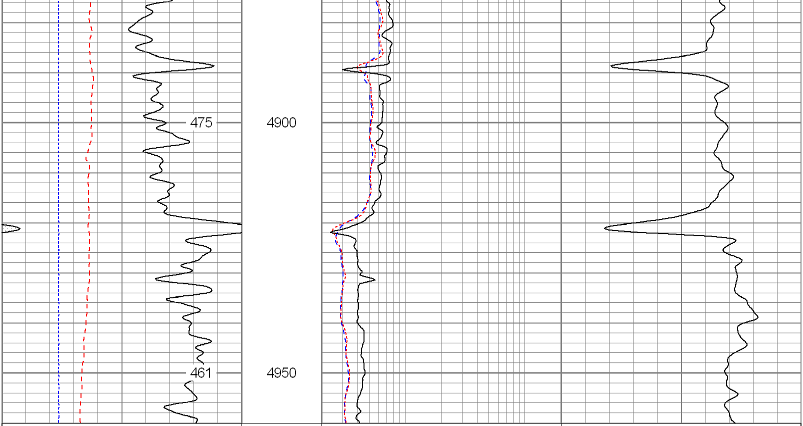

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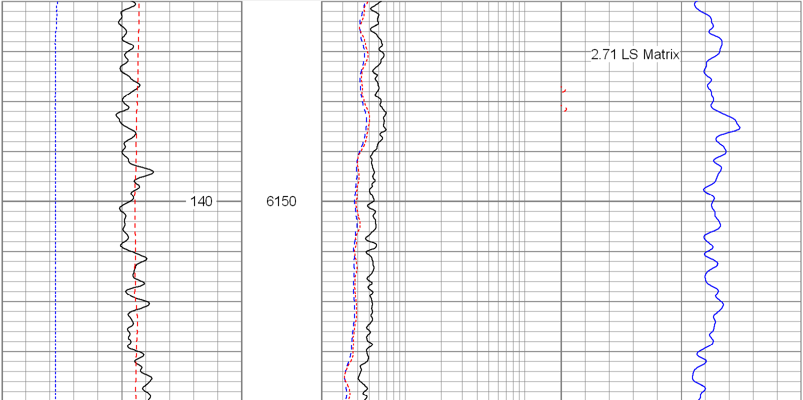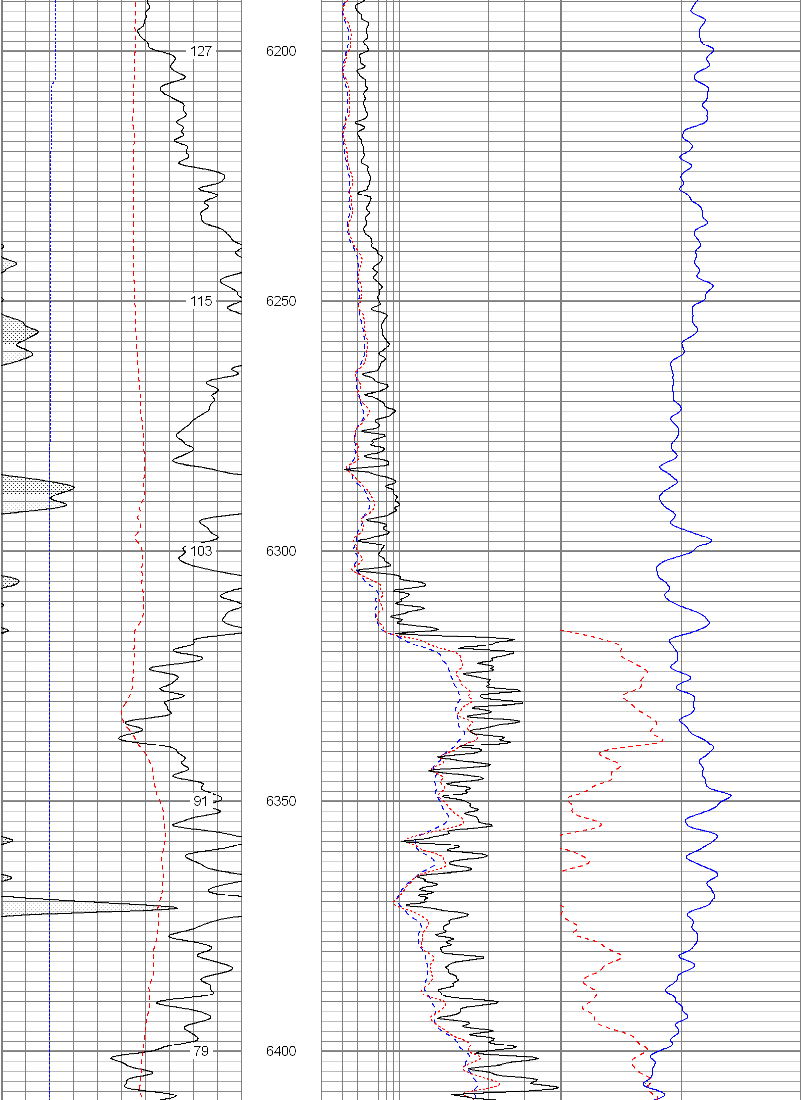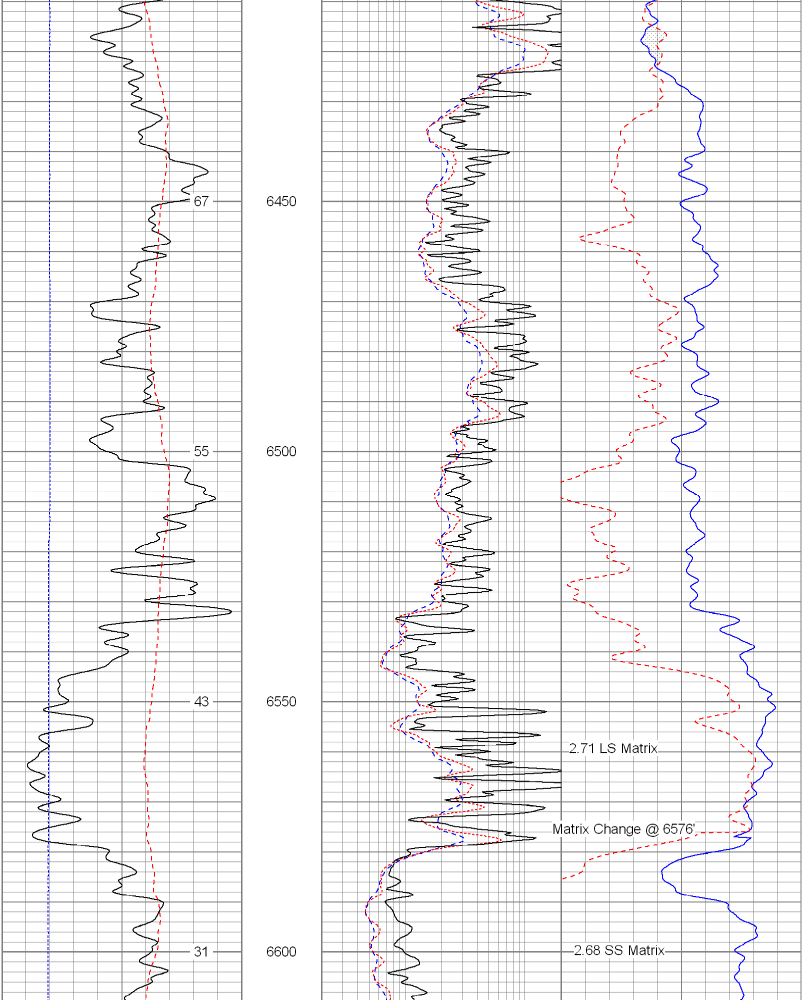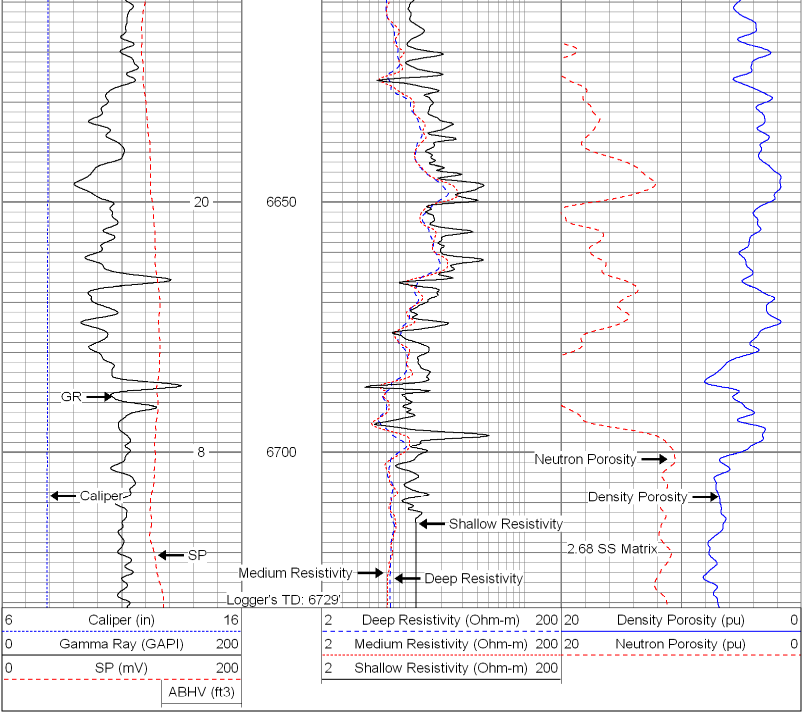6 Caliper (in) 16	2 Deep Resistivity (Ohm-m) 200	20 Density Porosity (pu) 0
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