PHOENIX SURVEYS, INC.

COMPENSATED DENSITY
COMPENSATED NEUTRON
MICROLOG

Company
Well
Field
County
State/Prv

Company **Noble Energy Inc.**
Well **Guttersen D15-18**
Field **Wattenberg**
County **Weld** State/Province **Colorado**

Location
1107' FNL & 2434' FEL
NW NE
Sec. 15, Twp. 3N, Rge. 64W

Other Services
Dual
Induction

Permanent Datum	GL	Elevation	4807
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4822
D.F. 4821
G.L. 4807

Date	May 24, 2010		
Run Number	1		
Depth Driller	7131		
Depth Logger	7131		
Bottom Logged Interval	7111		
Top Log Interval	2610		
Casing Driller	652		
Casing Logger	Not Logged		
Bit Size	7-7/8"		
Type Fluid in Hole	Chem Gel		
Density / Viscosity	9.0 / 30		
pH / Fluid Loss	7.5 / 24		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.74 @ 70° F		
Rmf @ Meas. Temp	2.81 @ 70° F		
Rmc @ Meas. Temp	4.67 @ 70° F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.30 @ 201° F		
Time Circulation Stopped	2100 05/23/10		
Time Logger on Bottom	0330 05/24/10		
Maximum Recorded Temperature	201° F		
Equipment Number	50		
Location	Brighton, CO		
Recorded By	Maciej Staron		
Witnessed By	Steve Biggs		

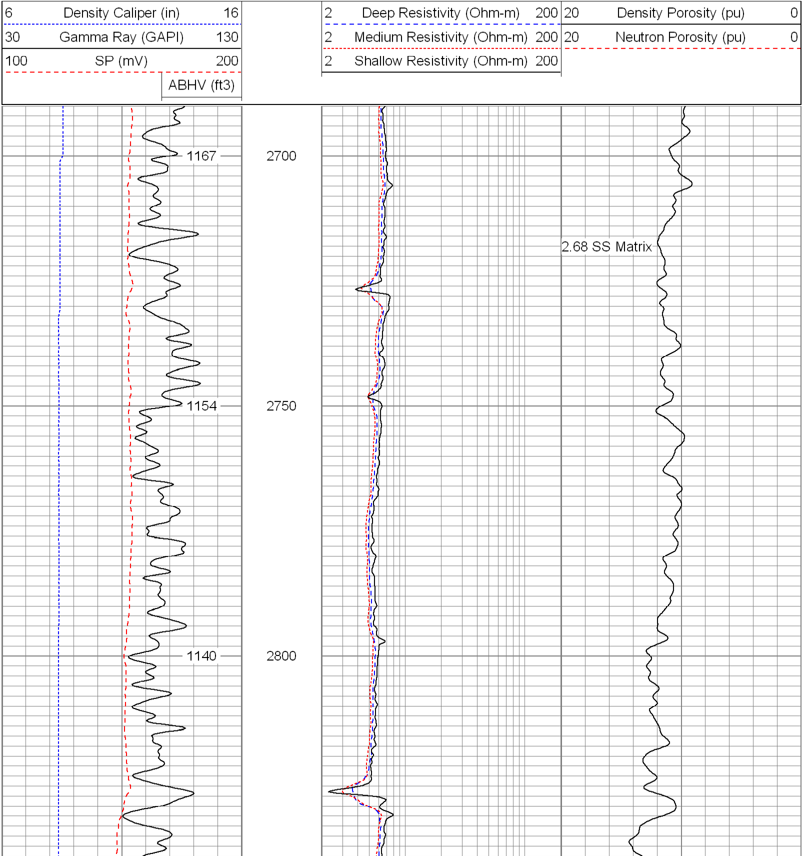
<<< Fold Here >>>

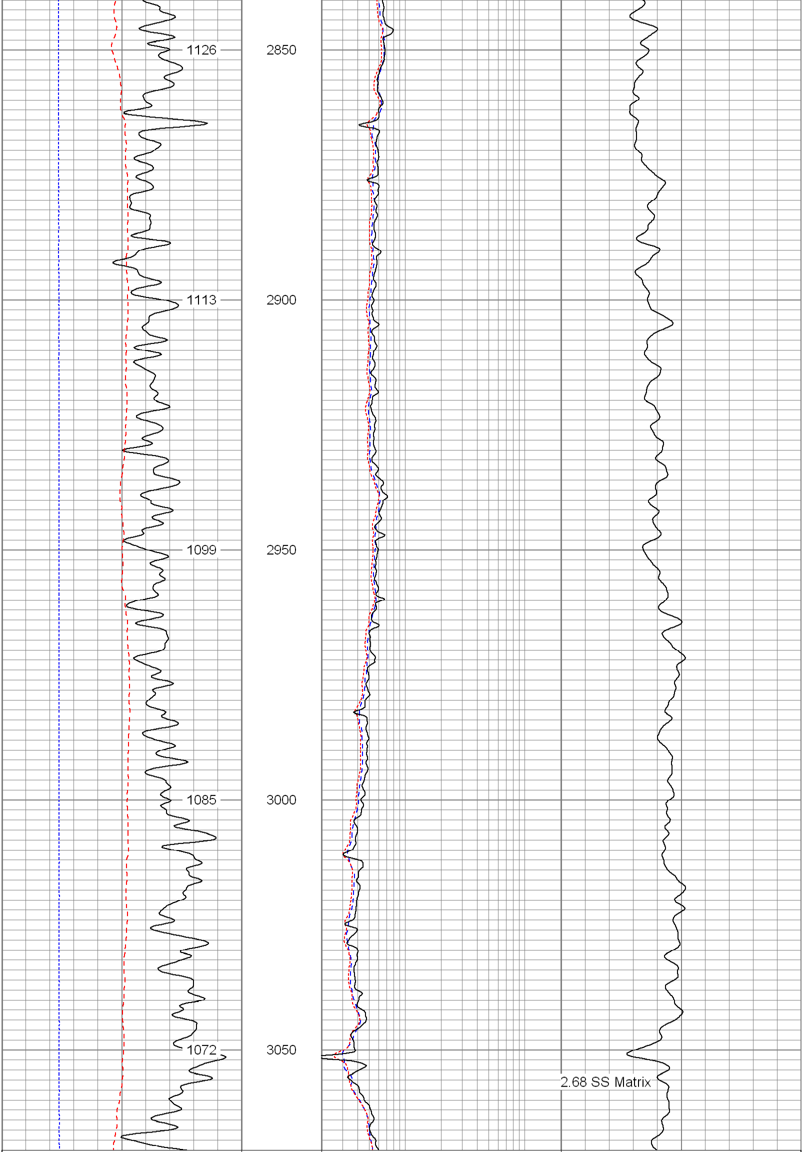
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 128
Thank you for using Phoenix Surveys!!
API #: 05-123-30732-00

Database File: 10702.db
Dataset Pathname: pass3.2
Presentation Format: pdc1
Dataset Creation: Mon May 24 04:36:54 2010
Charted by: Depth in Feet scaled 1:240

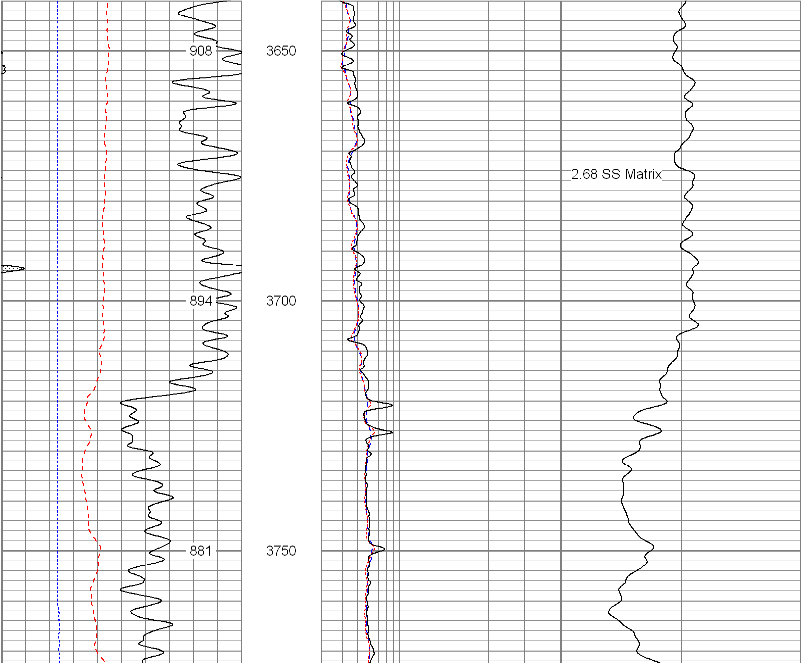


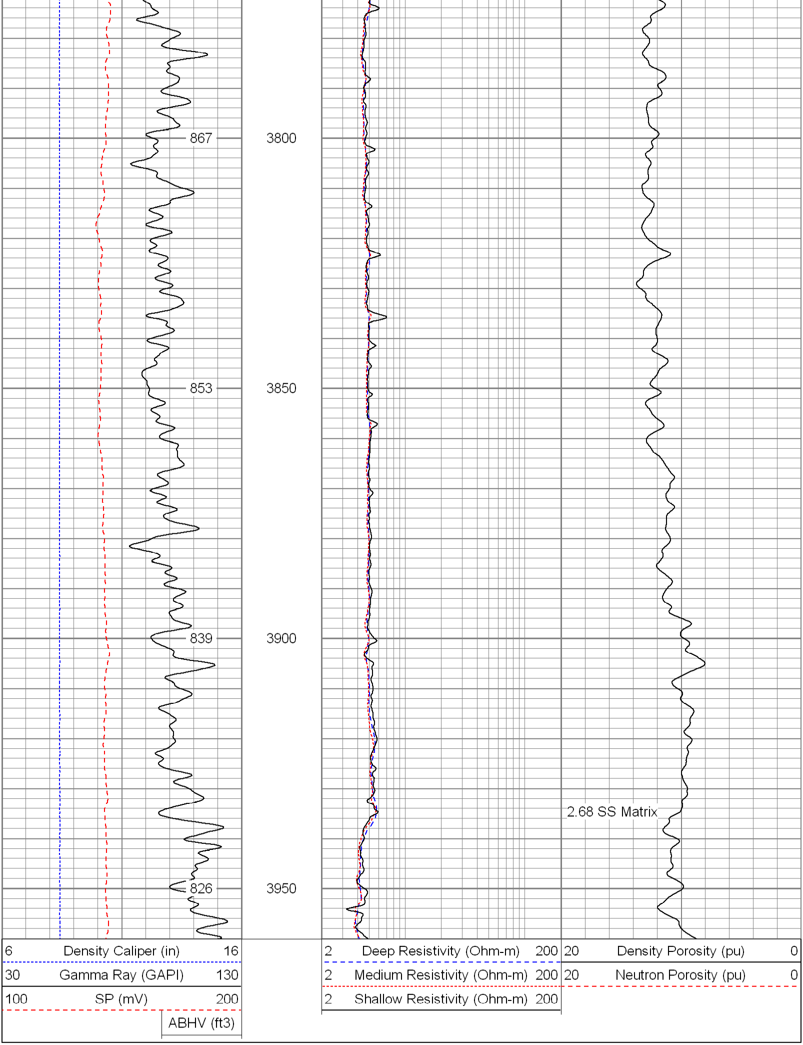


6 Density Caliper (in) 16	2 Deep Resistivity (Ohm-m) 200	20 Density Porosity (pu) 0
30 Gamma Ray (GAPI) 130	2 Medium Resistivity (Ohm-m) 200	20 Neutron Porosity (pu) 0
100 SP (mV) 200	2 Shallow Resistivity (Ohm-m) 200	
ABHV (ft3)		

Database File:	10702.db
Dataset Pathname:	pass3.2
Presentation Format:	pdc1
Dataset Creation:	Mon May 24 04:36:54 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
100 SP (mV) 200	2 Shallow Resistivity (Ohm-m) 200	
ABHV (ft3)		



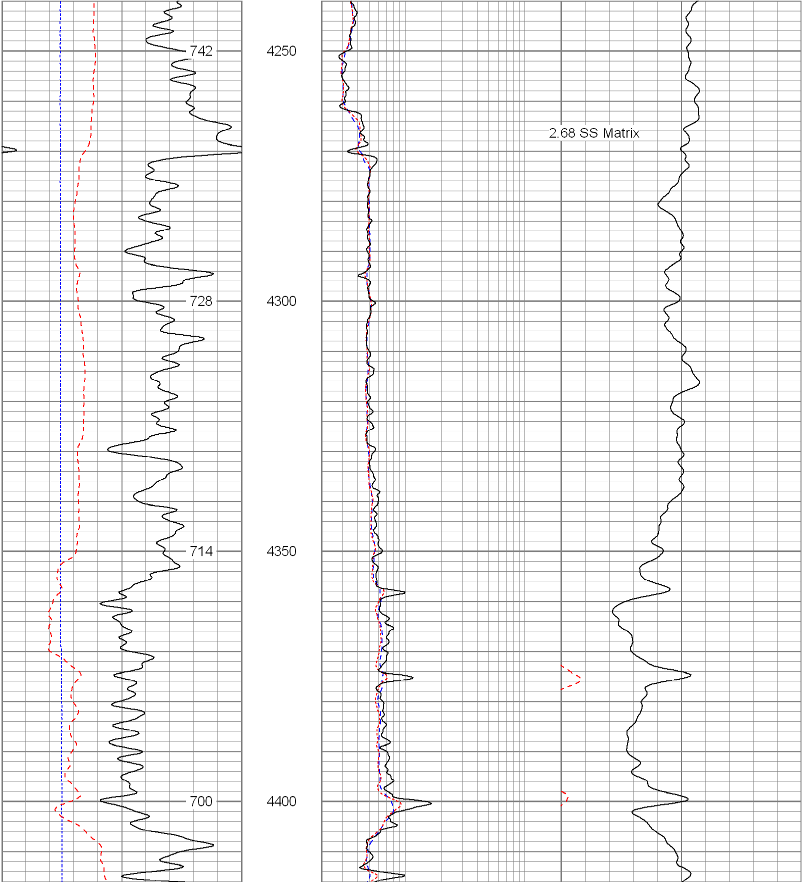


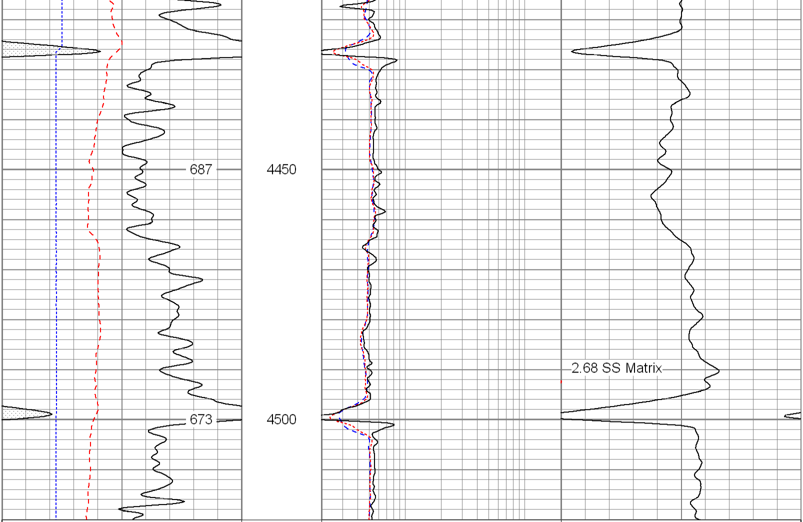
Database File: 10702.db
Dataset Pathname: pass3.2
Presentation Format: pdc1
Dataset Creation: Mon May 24 04:36:54 2010
Charted by: Depth in Feet scaled 1:240

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

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





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

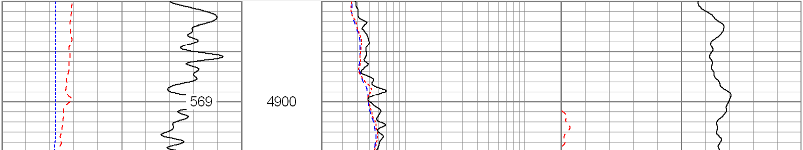
20 Density Porosity (pu) 0
20 Neutron Porosity (pu) 0

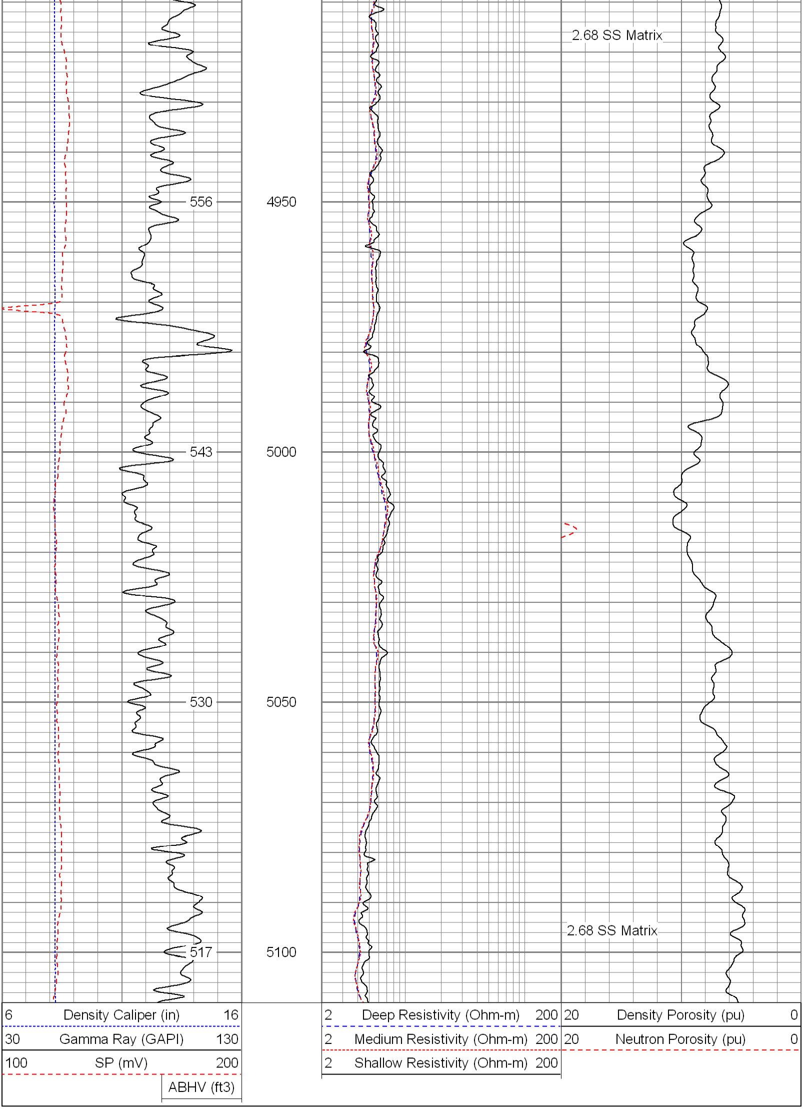
Database File:	10702.db
Dataset Pathname:	pass3.2
Presentation Format:	pdc1
Dataset Creation:	Mon May 24 04:36:54 2010
Charted by:	Depth in Feet scaled 1:240

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

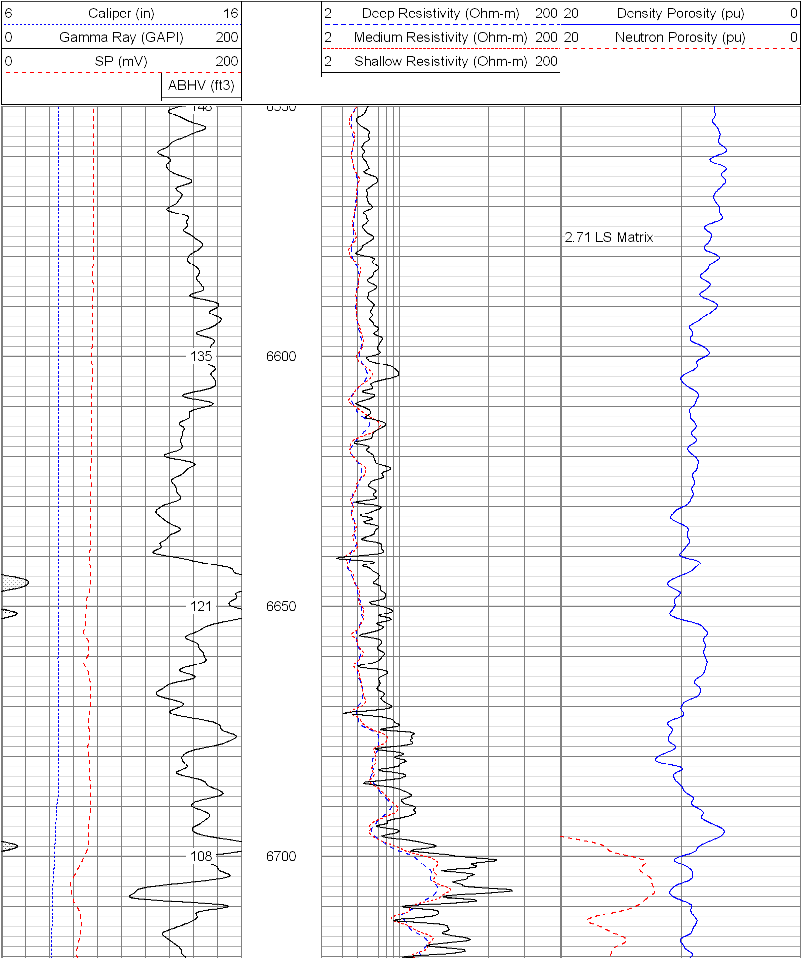
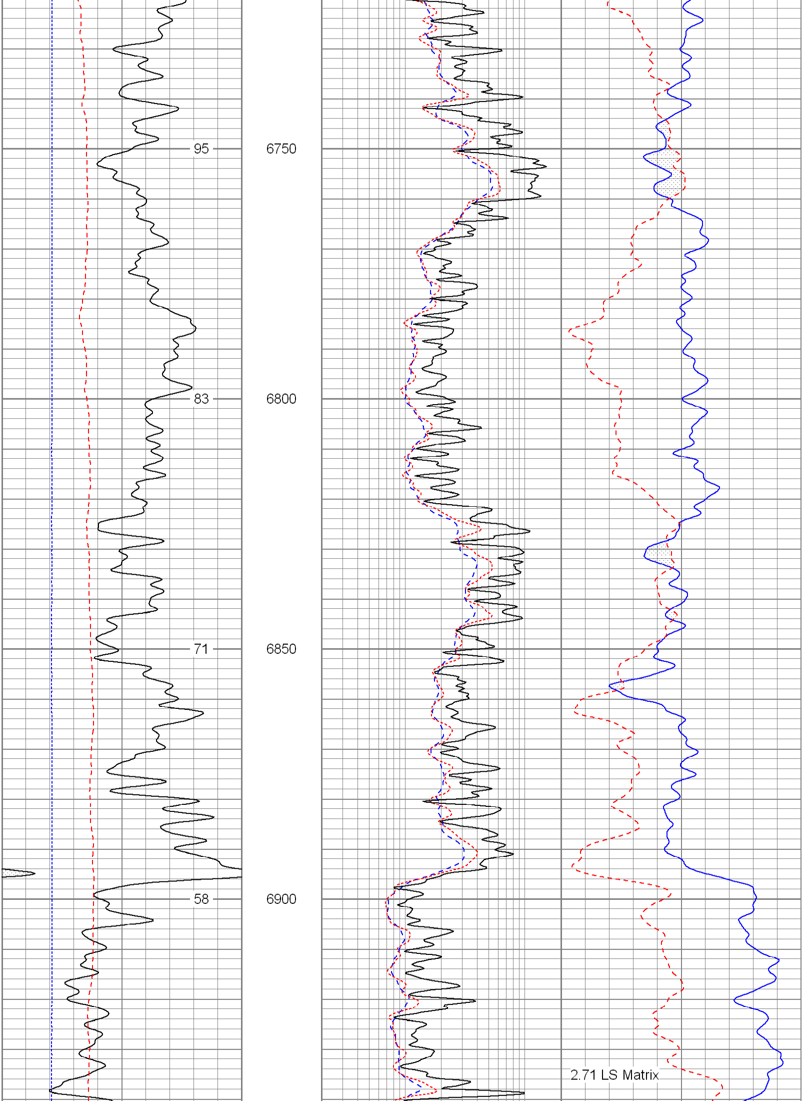
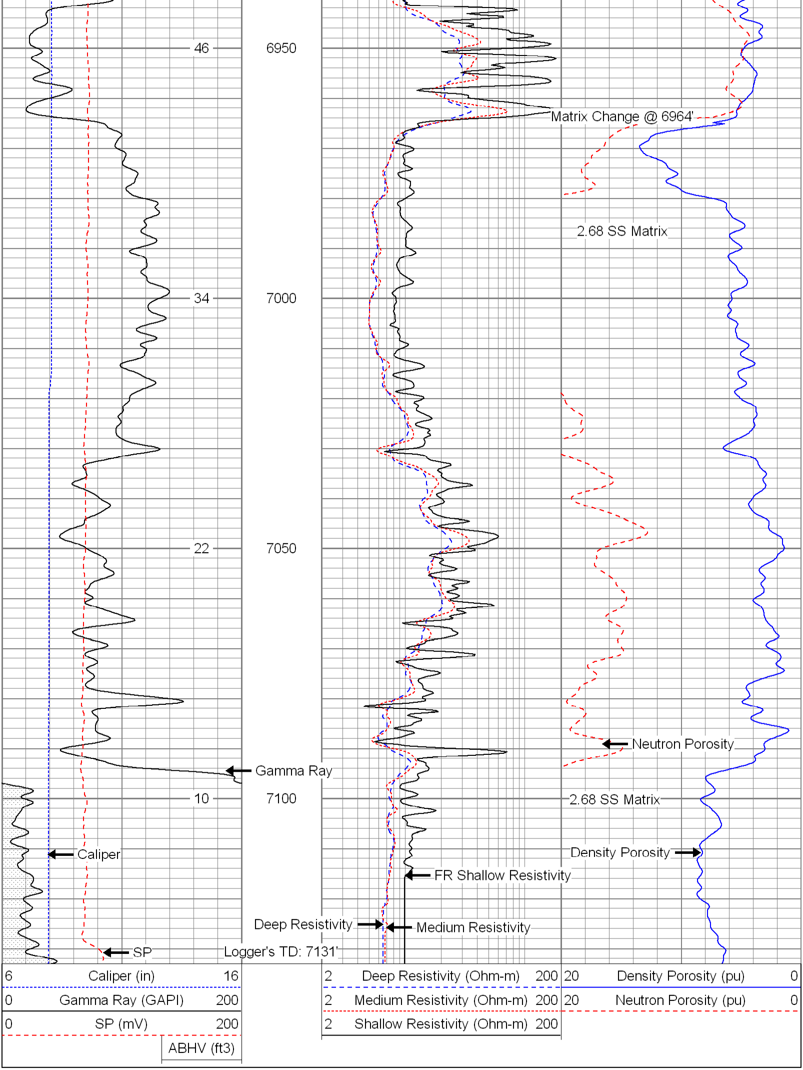
2 Deep Resistivity (Ohm-m) 200
2 Medium Resistivity (Ohm-m) 200
2 Shallow Resistivity (Ohm-m) 200

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





Database File:	10702.db
Dataset Pathname:	pass3.2
Presentation Format:	pdc
Dataset Creation:	Mon May 24 04:36:54 2010
Charted by:	Depth in Feet scaled 1:240


6 Caliper (in) 16
0 Gamma Ray (GAPI) 200
0 SP (mV) 200
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
135
121
108
6600
6650
6700
2.71 LS Matrix