PIONEER
Pioneer Energy Services

COMPENSATED DENSITY
COMPENSATED NEUTRON
GAMMA RAY

Company	Fritzler Resources, Inc./Winslow
Well	Agnas Friedly #1
Field	Sioux
County	Washington
State	Colorado

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Well	Agnas Friedly #1		
Field	Sioux		
County	Washington	State	Colorado

Location: API # : 05121110230000
1800' FNL & 660' FWL
SW NW
SEC 5 TWP 2N RGE 51W

Other Services
Induction

Permanent Datum	GL	Elevation	4490
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4502
D.F. 4501
G.L. 4490

Date	May 22, 2013
Run Number	1
Depth Driller	4550
Depth Logger	4565
Bottom Logged Interval	4545
Top Log Interval	3250
Casing Driller	222
Casing Logger	222
Bit Size	7-7/8"
Type Fluid in Hole	Chem Gel
Density / Viscosity	9.7 / 54
pH / Fluid Loss	9.0 / 14.4
Source of Sample	Flowline
Rm @ Meas. Temp	1.30 @ 63° F
Rmf @ Meas. Temp	1.04 @ 63° F
Rmc @ Meas. Temp	1.56 @ 63° F
Source of Rmf / Rmc	Measure / Calc
Rm @ BHT	0.53 @ 155° F
Time Circulation Stopped	2300 5/21/2013
Time Logger on Bottom	0600
Maximum Recorded Temperature	155° F
Equipment Number	50
Location	Brighton, CO
Recorded By	Kelly Keever
Witnessed By	Dave Winslow

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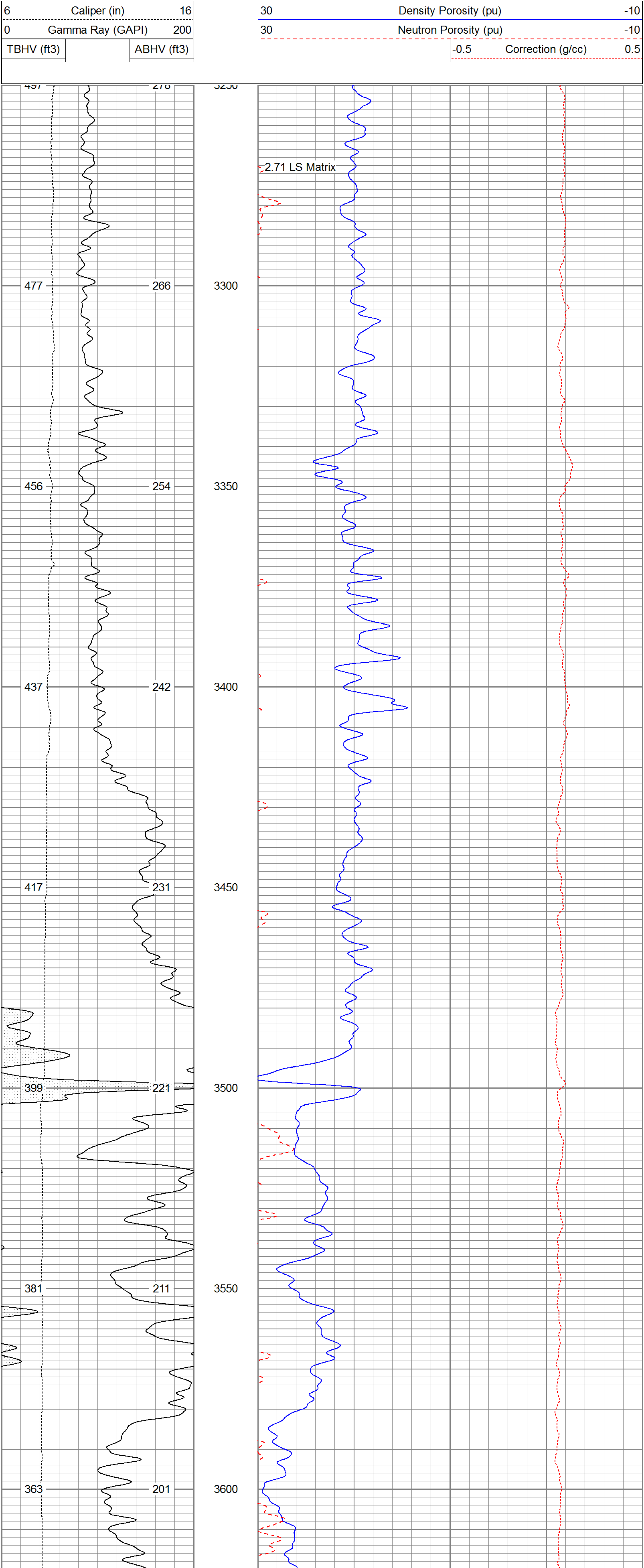
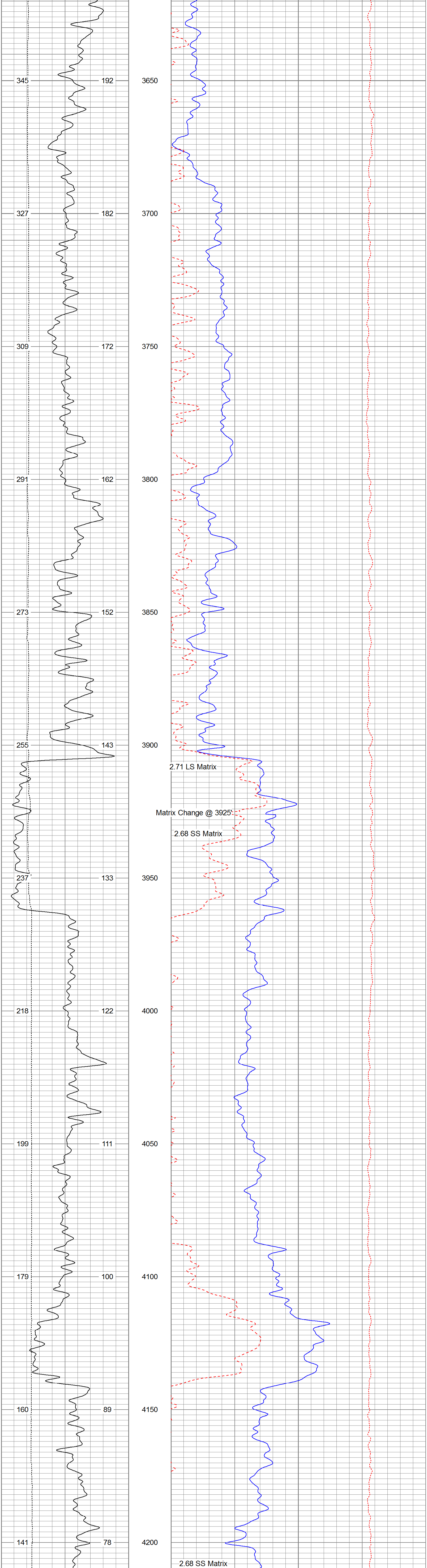
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

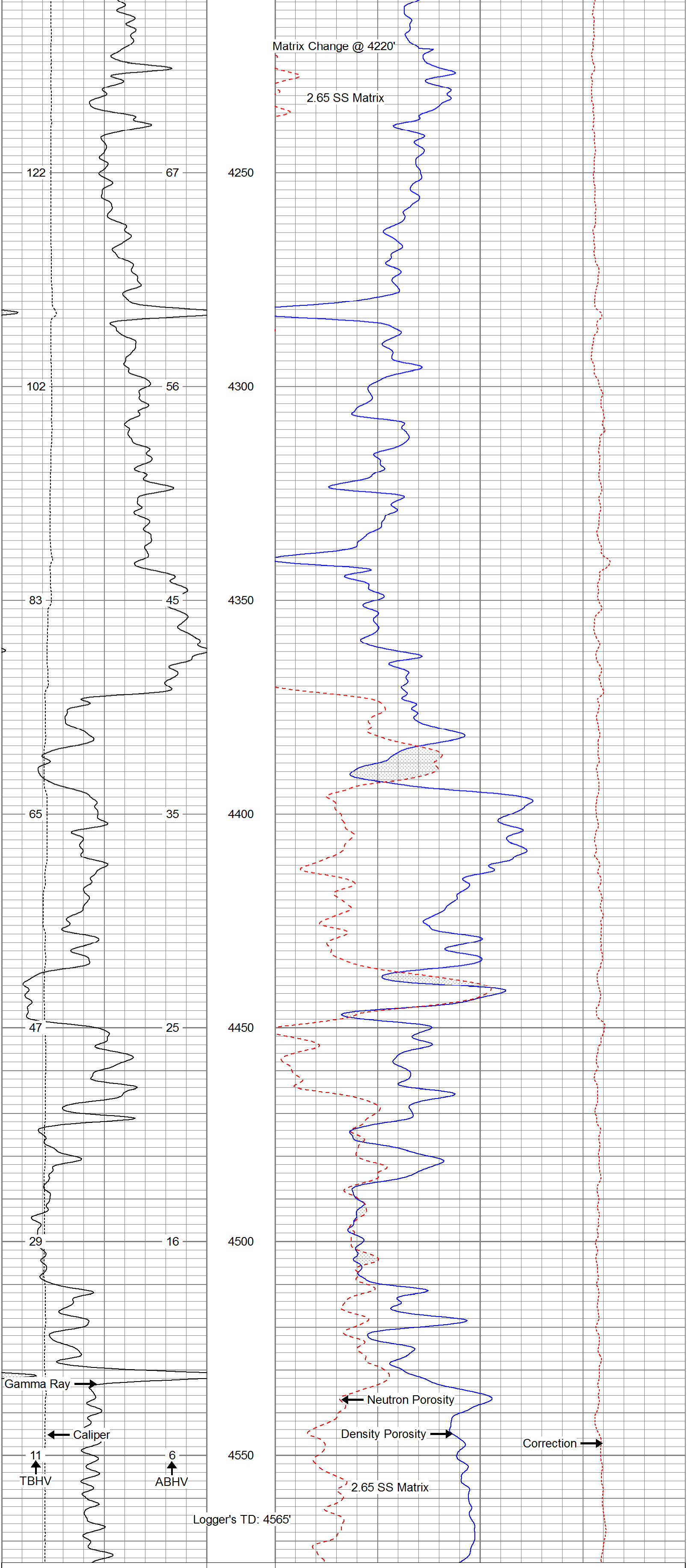
Comments

Annular volume calculated for 5-1/2" casing
NEBCO Drilling Rig 8
Thank you for using Pioneer Energy Services.

Database File: 12769.db
Dataset Pathname: main
Presentation Format: poro
Dataset Creation: Wed May 22 07:34:01 2013
Charted by: Depth in Feet scaled 1:240







6 Caliper (in) 16 | 30 Density Porosity (pu) -10
0 Gamma Ray (GAPI) 200 | 30 Neutron Porosity (pu) -10
TBHV (ft3) ABHV (ft3) | -0.5 Correction (g/cc) 0.5

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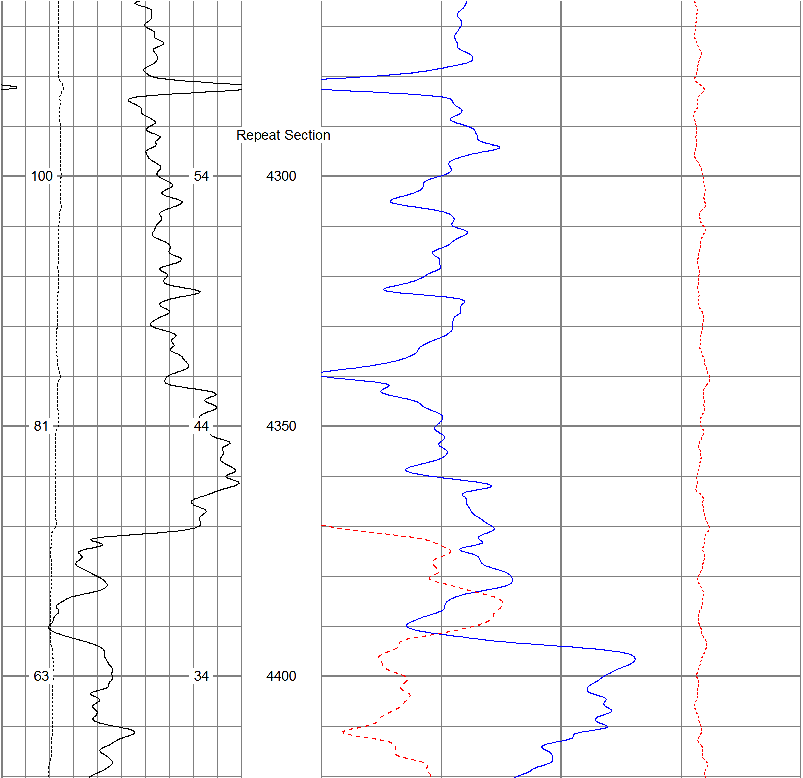
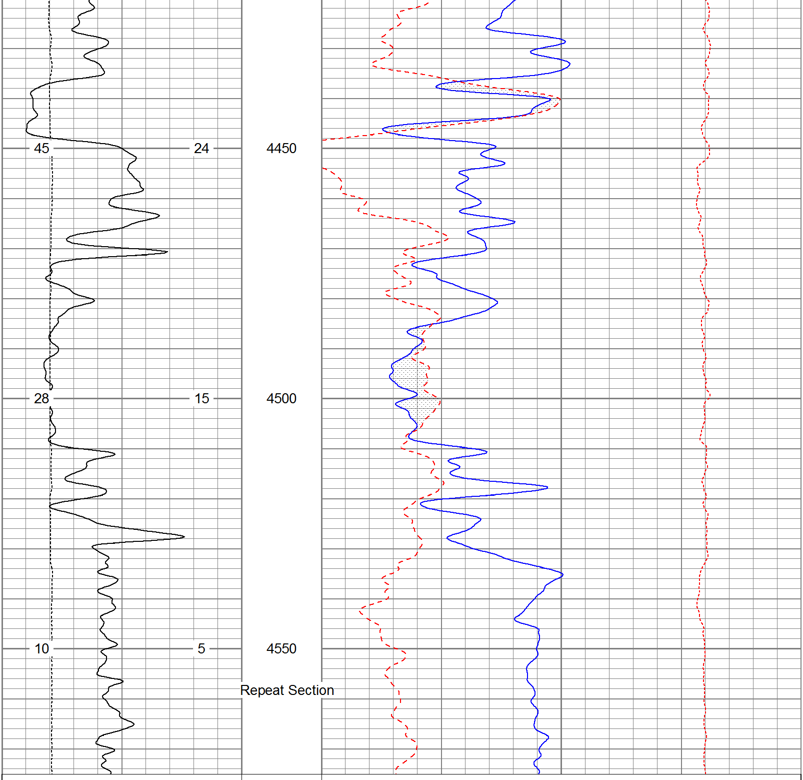
REPEAT SECTION

Database File:	12769.db
Dataset Pathname:	pass3
Presentation Format:	poro
Dataset Creation:	Wed May 22 05:58:35 2013 by Log 0
Charted by:	Depth in Feet scaled 1:240

6 Caliper (in) 16 | 30 Density Porosity (pu) -10
0 Gamma Ray (GAPI) 200 | 30 Neutron Porosity (pu) -10
TBHV (ft3) ABHV (ft3) | -0.5 Correction (g/cc) 0.5





6	Caliper (in)	16	30	Density Porosity (pu)	-10
0	Gamma Ray (GAPI)	200	30	Neutron Porosity (pu)	-10
TBHV (ft3)		ABHV (ft3)	-0.5	Correction (g/cc)	0.5

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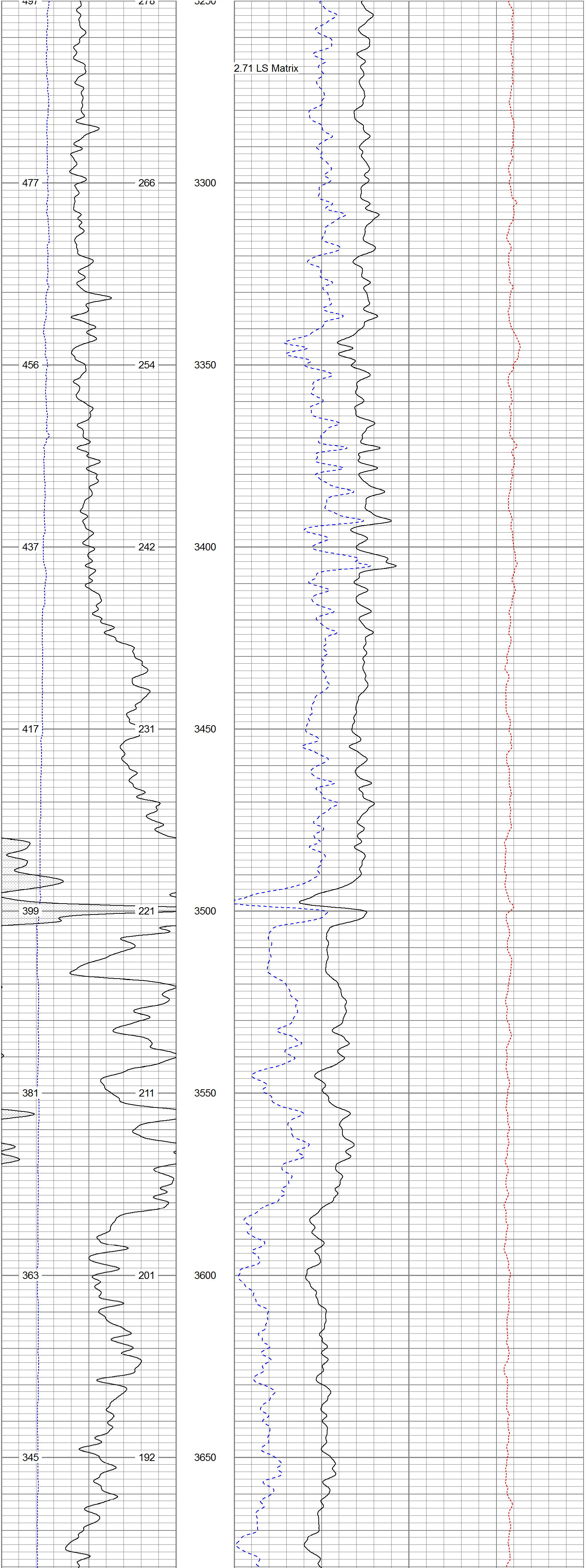
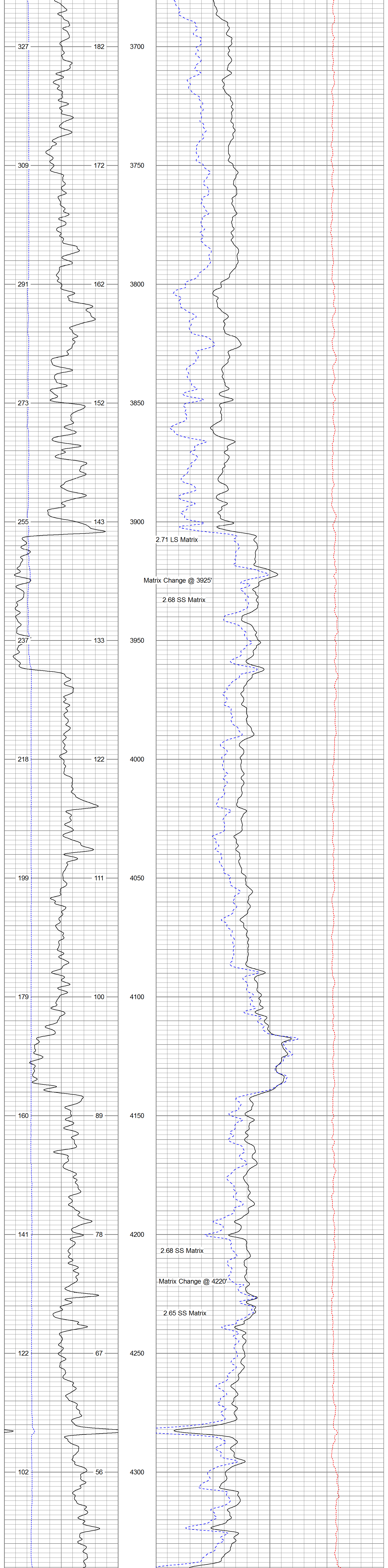
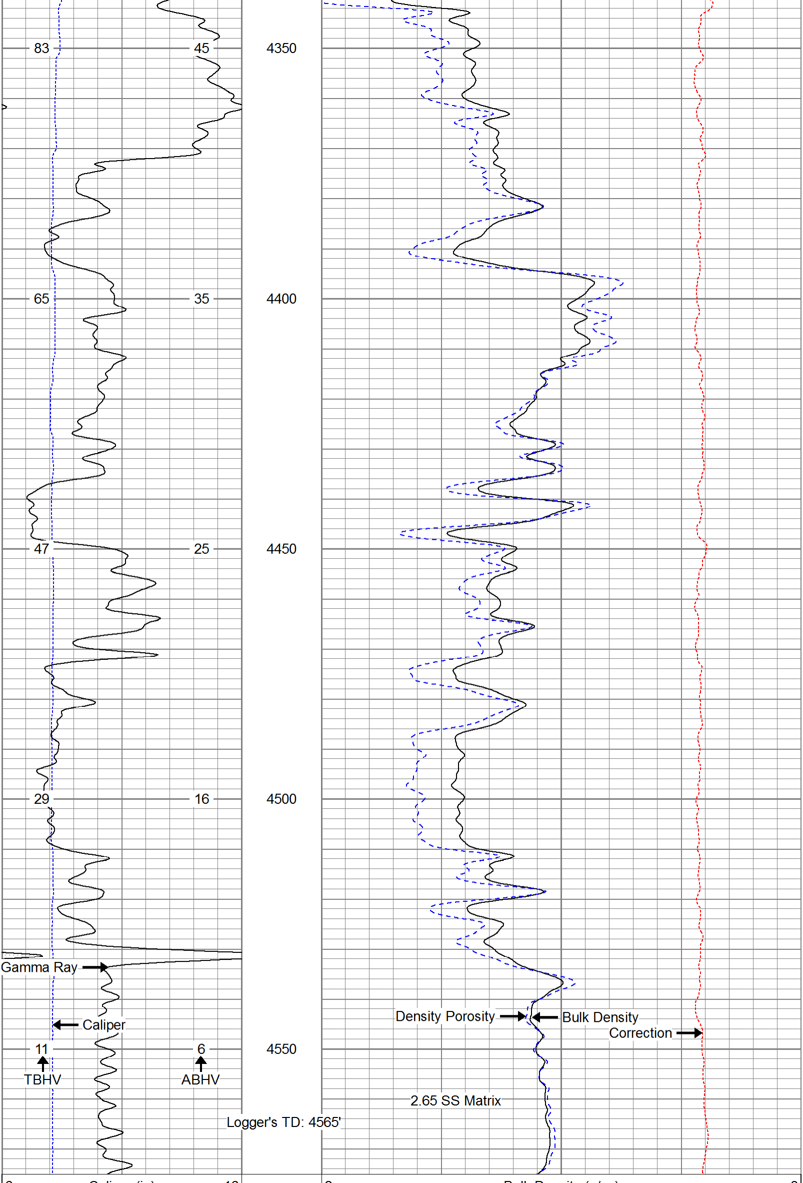
REPEAT SECTION

Database File: 12769.db
Dataset Pathname: main
Presentation Format: cdl
Dataset Creation: Wed May 22 07:34:01 2013
Charted by: Depth in Feet scaled 1:240

6	Caliper (in)	16	2	Bulk Density (g/cc)	3
0	Gamma Ray (GAPI)	200	30	Density Porosity (pu)	-10
TBHV (ft3)		ABHV (ft3)	-0.5	Correction (g/cc)	0.5







6	Caliper (in)	16	2	Bulk Density (g/cc)	3
0	Gamma Ray (GAPI)	200	30	Density Porosity (pu)	-10
TBHV (ft3)		ABHV (ft3)	-0.5	Correction (g/cc)	0.5

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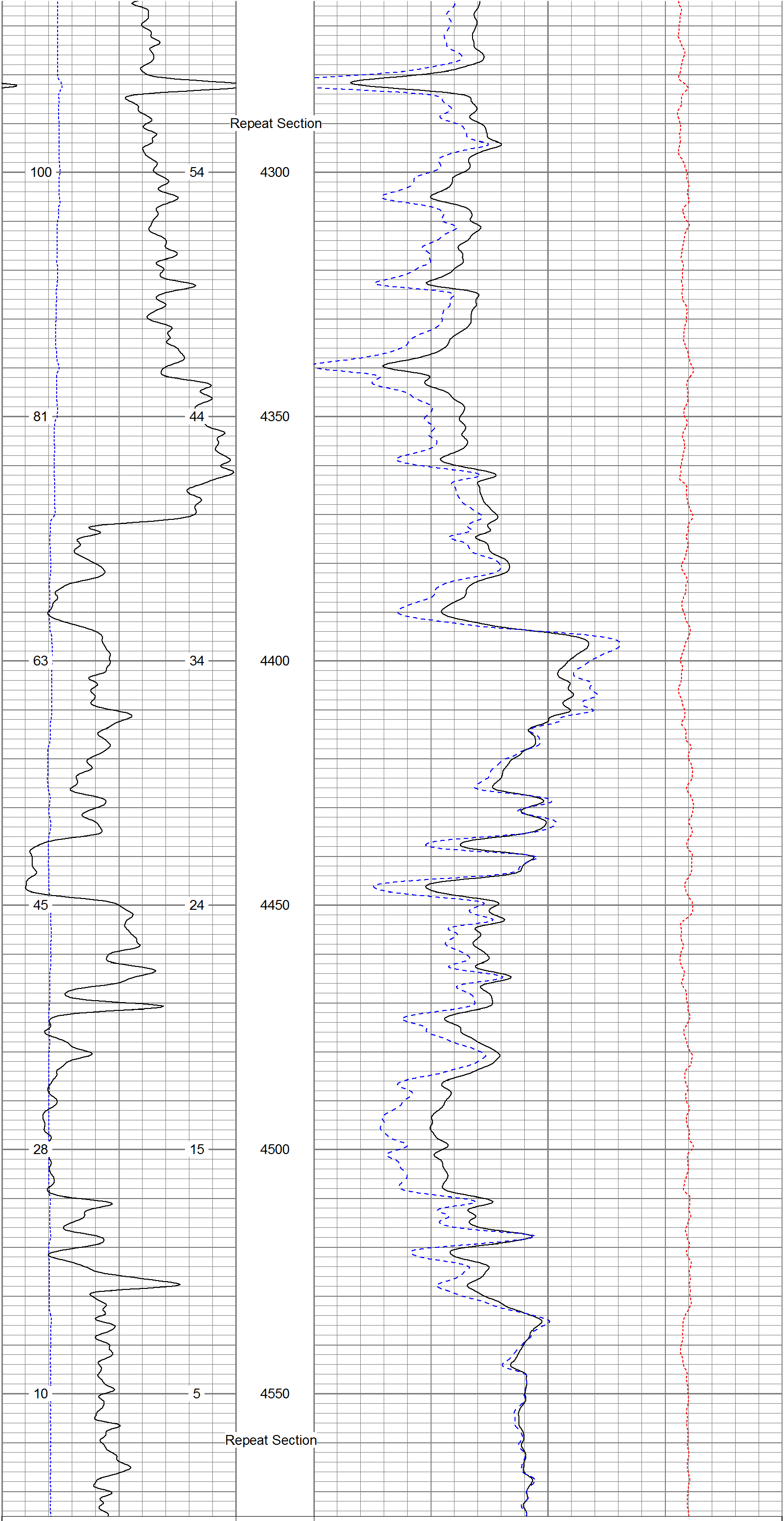
REPEAT SECTION

Database File:	12769.db
Dataset Pathname:	pass3
Presentation Format:	cdl
Dataset Creation:	Wed May 22 05:58:35 2013 by Log 0
Charted by:	Depth in Feet scaled 1:240

6	Caliper (in)	16	2	Bulk Density (g/cc)	3
0	Gamma Ray (GAPI)	200	30	Density Porosity (pu)	-10
TBHV (ft3)		ABHV (ft3)	-0.5	Correction (g/cc)	0.5



6	Caliper (in)	16	2	Bulk Density (g/cc)	3
0	Gamma Ray (GAPI)	200	30	Density Porosity (pu)	-10
TBHV (ft3)		ABHV (ft3)	-0.5	Correction (g/cc)	0.5

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REPEAT SECTION

Calibration Report

Database File:	12769.db
Dataset Pathname:	pass1
Dataset Creation:	Wed May 22 02:17:44 2013 by Log 0

Dual Induction Calibration Report

Serial-Model:	1017-PSI
Surface Cal Performed:	

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	4908.160	12644.400	9.000	365.000	mmho/m	0.620	-45.000
Medium	2818.360	8491.080	9.000	288.000	mmho/m	0.532	-39.000

Compensated Density Calibration Report

Serial-Model:	128-PSI
Master Calibration Performed:	Tue May 07 09:27:22 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	5228.74	2679.22	cps
Aluminum	2.690	g/cc	986.64	1690.57	cps

	Size		Reading
Small Ring		in	
Medium Ring		in	
Large Ring		in	

Compensated Neutron Calibration Report

Serial Number:	853
Tool Model:	PSI

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.9000
Long Space	1.00	cps	1.00	cps	2.0250

Gamma Ray Calibration Report

Serial Number:	921
Tool Model:	PSI
Performed:	Mon May 13 11:24:27 2013

Cali

Bac
Cali

Sen

brator Value:

kground Reading:
brator Reading:

sitivity:

248.0

35.0
350.0

0.5700

GAPI

cps
cps

GAPI/cps
