



**COMPENSATED
DENSITY / NEUTRON
LOG**

Company I. A. OPERATING, INC.
Well TEEL #7-1
Field WILDCAT
County GRAHAM
State KANSAS

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Field WILDCAT
County GRAHAM State KANSAS

Location: API # : 15-065-24124-0000
1978' FNL & 2310' FEL
S/2 - NW - SW - NE
SEC 7 TWP 6S RGE 25W
Permanent Datum GROUND LEVEL Elevation 2518
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL/MEL
SONIIC
Elevation
K.B. 2526
D.F. 2524
G.L. 2518

Date	12/6/16		
Run Number	ONE		
Depth Driller	3849		
Depth Logger	3852		
Bottom Logged Interval	3828		
Top Log Interval	3200		
Casing Driller	8 5/8"@306'		
Casing Logger	306		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,200 PPM	
Density / Viscosity	9.2/5.1		
pH / Fluid Loss	11.0/6.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.10@70F		
Rmf @ Meas. Temp	.825@70F		
Rmc @ Meas. Temp	1.32@70F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.670@115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:30 A.M.		
Maximum Recorded Temperature	115F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JEFF LAWLER		

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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

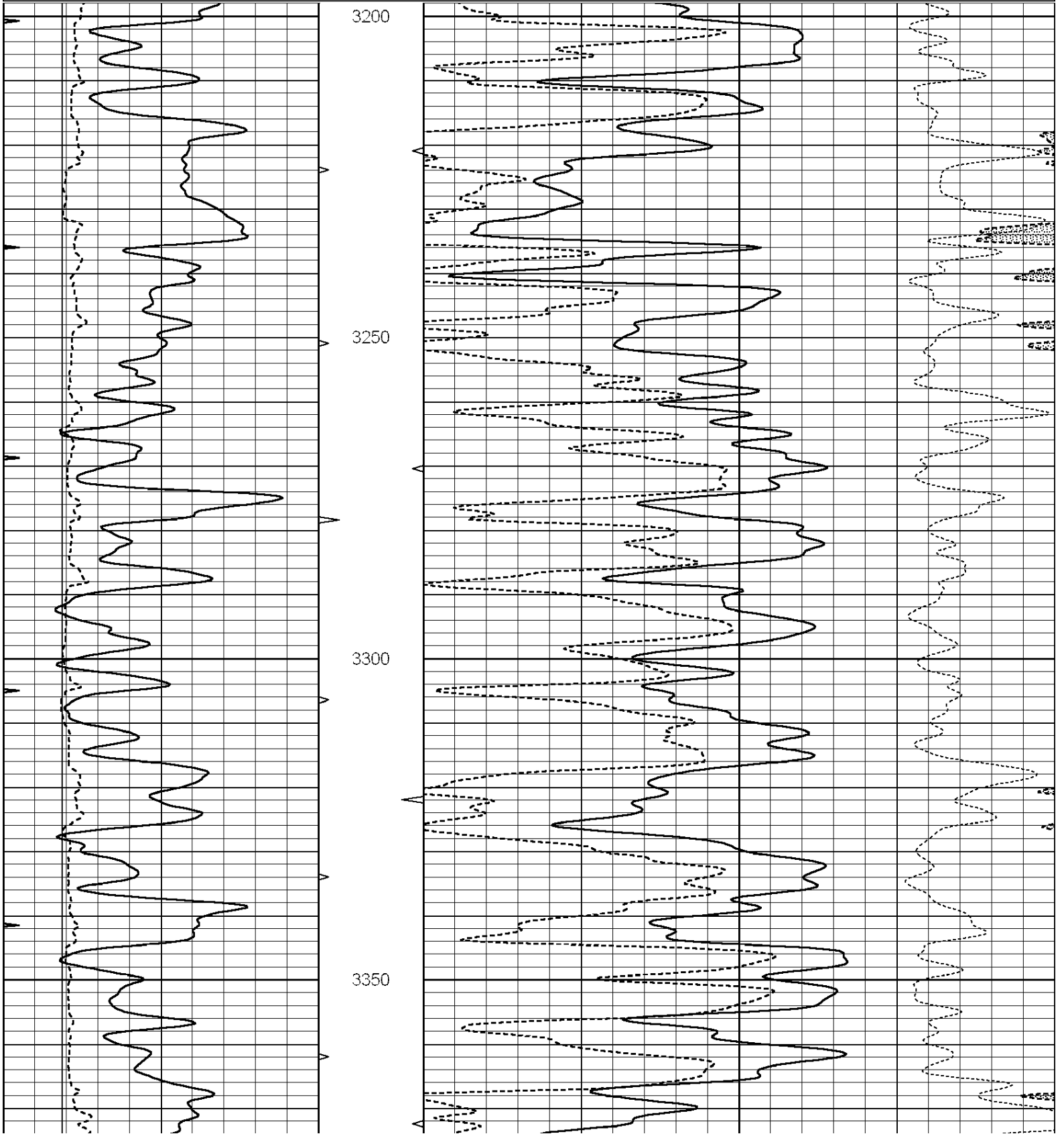
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
STUDLEY, KS., E. SIDE (HWY 24 & RD. 100), 13 1/2N., E. INTO ACROSS FROM FARM

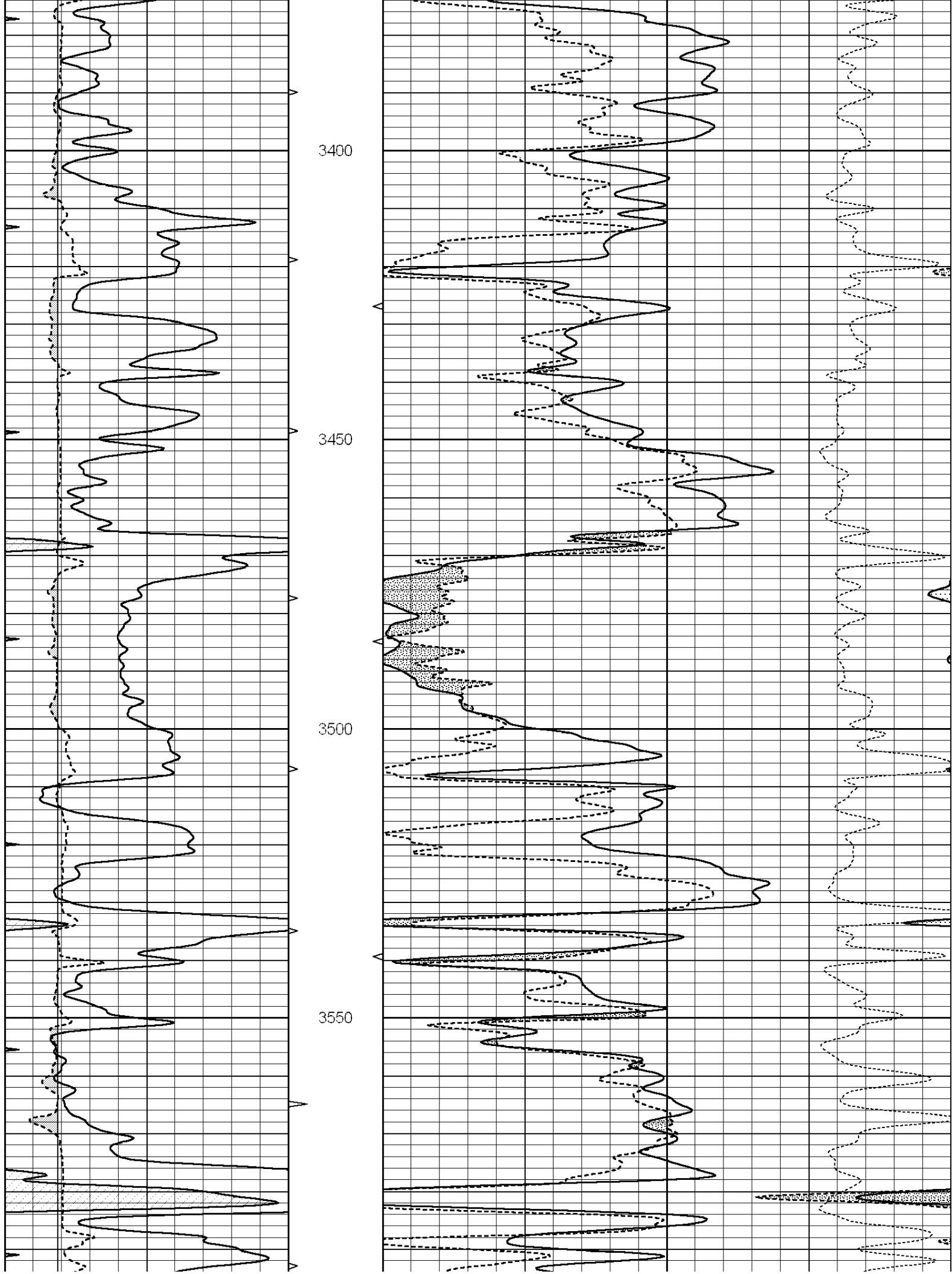


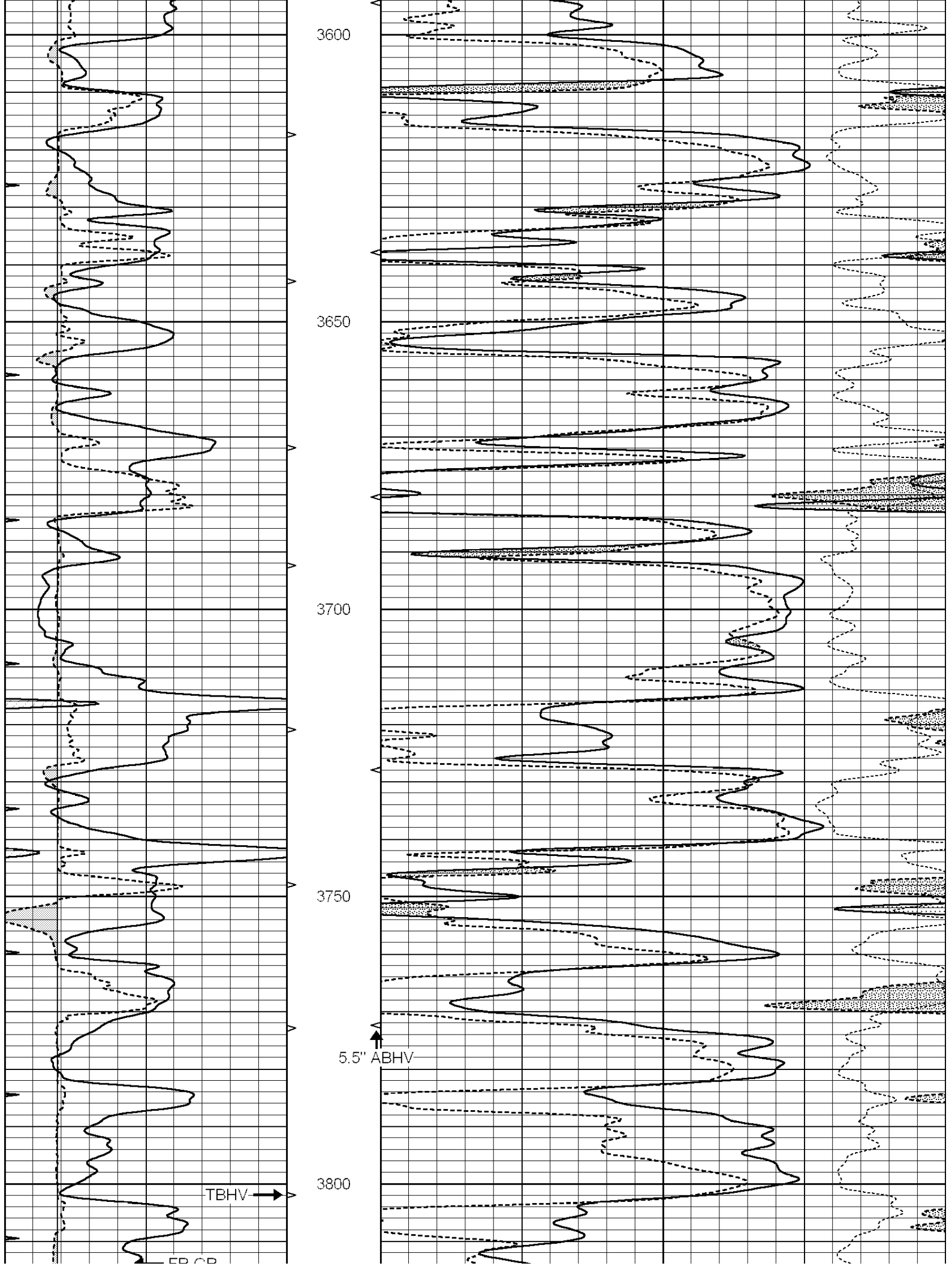
MAIN SECTION

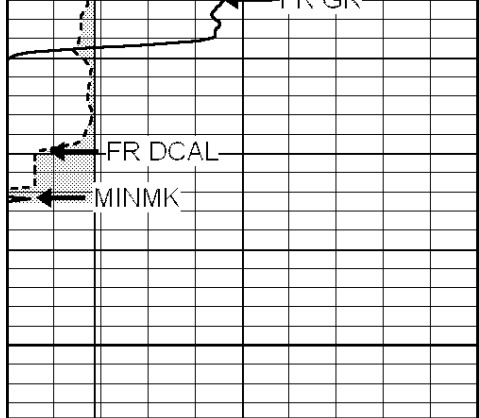
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 Dataset Creation: Tue Dec 06 02:48:56 2016 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

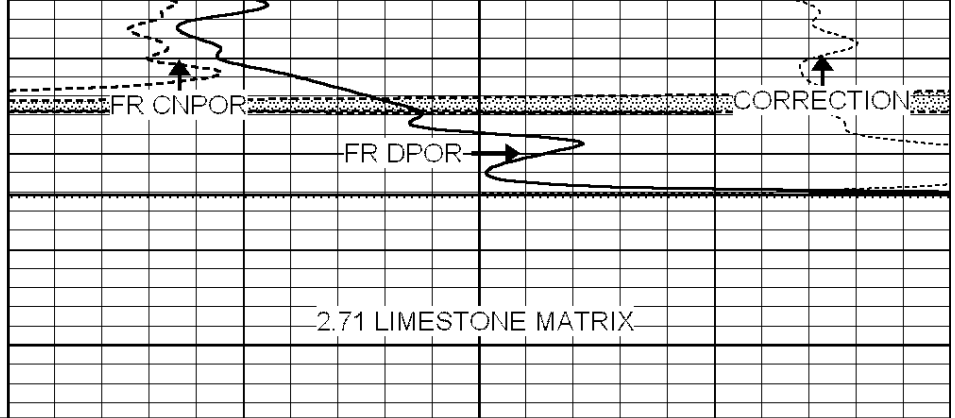




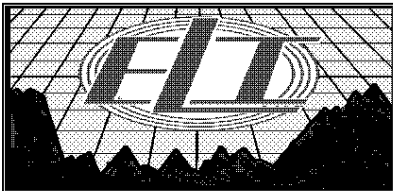




3850
LTD 3852



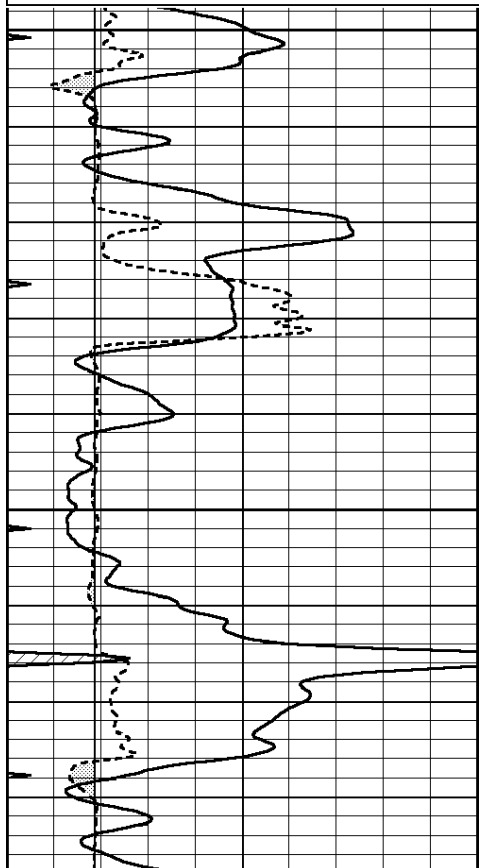
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6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		



REPEAT SECTION

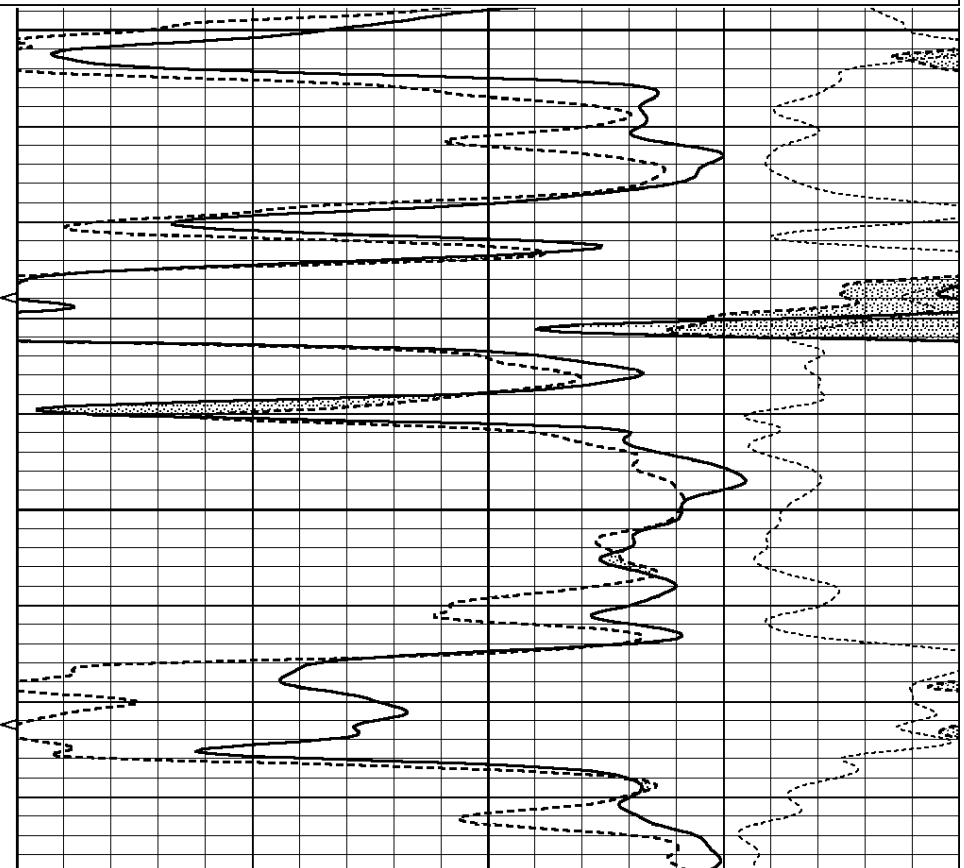
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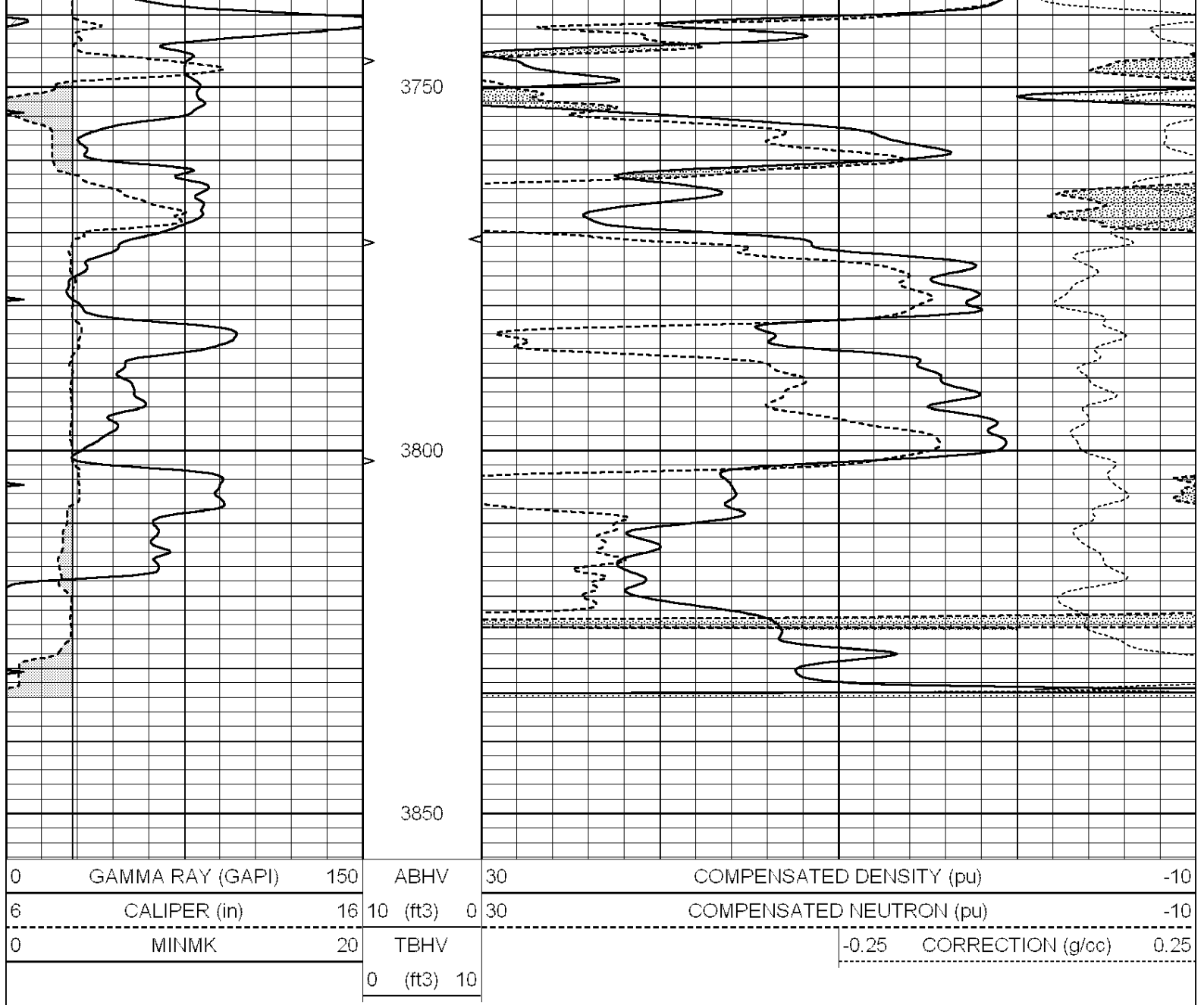
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		



3650

3700





Calibration Report

Database File: 1332ddn.db
 Dataset Pathname: pass3.2
 Dataset Creation: Tue Dec 06 02:48:56 2016 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Thu Nov 03 11:12:55 2016
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			V	References		Results	
	Air	Loop			Air	Loop	m	b
Deep	-0.014	0.629		0.000	400.000	mmho/m	625.000	-12.000
Medium	0.039	0.728		0.000	464.000	mmho/m	675.000	-53.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610		0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712		0.000	464.000	mmho/m	655.677	2.102

Downhole Calibration								
	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report
Serial: 004N Model: PRB

Master Calibration		Performed Fri May 30 11:01:00 2014				
	Background	Magnesium	Aluminum	Sandstone		
Window 1	1378.8	10804.6	3492.0	12453.4	cps	
Window 2	1262.4	9313.5	3076.7	10594.7	cps	
Window 3	1077.6	5668.7	2076.0	6314.8	cps	
Window 4	306.4	313.0	306.4	315.6	cps	
Long Space	0.0	8051.0	1814.3	9332.3	cps	
Short Space	1.9	1706.1	1146.0	1707.6	cps	
Rho		1.7100	2.5900	1.3800	g/cc	
Pe		0.0000	2.5700	1.5500		
Rib Angle	: 45.0	Rib Slope	: 1.002	Density/Spine Ratio	: 0.571	
Spine Angle	: 75.0	Spine Slope	: 3.745	Spine Intercept	: -18.9	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969				
	Background	Magnesium	Aluminum	Sandstone		
Window 1	0.0	0.0	0.0	0.0	cps	
Window 2	0.0	0.0	0.0	0.0	cps	
Window 3	0.0	0.0	0.0	0.0	cps	
Window 4	0.0	0.0	0.0	0.0	cps	
Long Space	0.0	0.0	0.0	0.0	cps	
Short Space	0.0	0.0	0.0	0.0	cps	
Measured Rho		0.0000	0.0000	0.0000	g/cc	
Measured Correction		0.0000	0.0000	0.0000	g/cc	
Measured Pe			0.0000	0.0000		

After Survey Verification		Performed Wed Dec 31 18:00:00 1969				
	Background	Magnesium	Aluminum	Sandstone		
Window 1	0.0	0.0	0.0	0.0	cps	
Window 2	0.0	0.0	0.0	0.0	cps	
Window 3	0.0	0.0	0.0	0.0	cps	
Window 4	0.0	0.0	0.0	0.0	cps	
Long Space	0.0	0.0	0.0	0.0	cps	
Short Space	0.0	0.0	0.0	0.0	cps	
Measured Rho		0.0000	0.0000	0.0000	g/cc	

Measured Correction	0.0000	0.0000	0.0000	g/cc
Measured Pe		0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 070558
Tool Model: OPEN_GR
Performed: Mon Aug 22 01:00:15 2016

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2800 GAPI/cps