



COMPENSATED DENSITY NEUTRON LOG

Company	John O. Farmer, Inc.	Well	Lawson D#1
Field	Norton	County	Norton
Location:	1815 FSL & 1815 FEL	State	KS
APR #:	15 137 20879	Other Services	ML DIL
SEC 36	TMP 3S	RCE	24W
Log Measured From	KB 5 ADL	Elevation	2414'
Drilling Measured From	KB	Elevation	KB 2419 DL 2418 GL 2414
Date	12-6-13	Run Number	One
Depth Driller	3820'	Bottom Logger	3812'
Bottom Logged Interval	3789'	Top Log Interval	3820'
Casing Inner	3828'	Casing Outer	3828'
Bit Size Logger	7 7/8"	Type Fluid in Hole	Chemical Mud
Density/Viscosity	6.880	pH / Fluid Loss	11.5/5.4
Source of Sample	Fit	Form @ Meas. Temp	2.8@70degf
Form @ Meas. Temp	2.1@70degf	Form @ Meas. Temp	3.3@69.7degf
Source of Form / Form	Calculator	Form @ BHT	1.6@8.11degf
Time Circulation Stopped	4:30 p.m.	Time Circulation Stopped	7:00 p.m.
Maximum Recorded Temperature	112.7	Equipment Number	1127
Recorded By	L. Smith	Witnessed By	M. Austin Reus

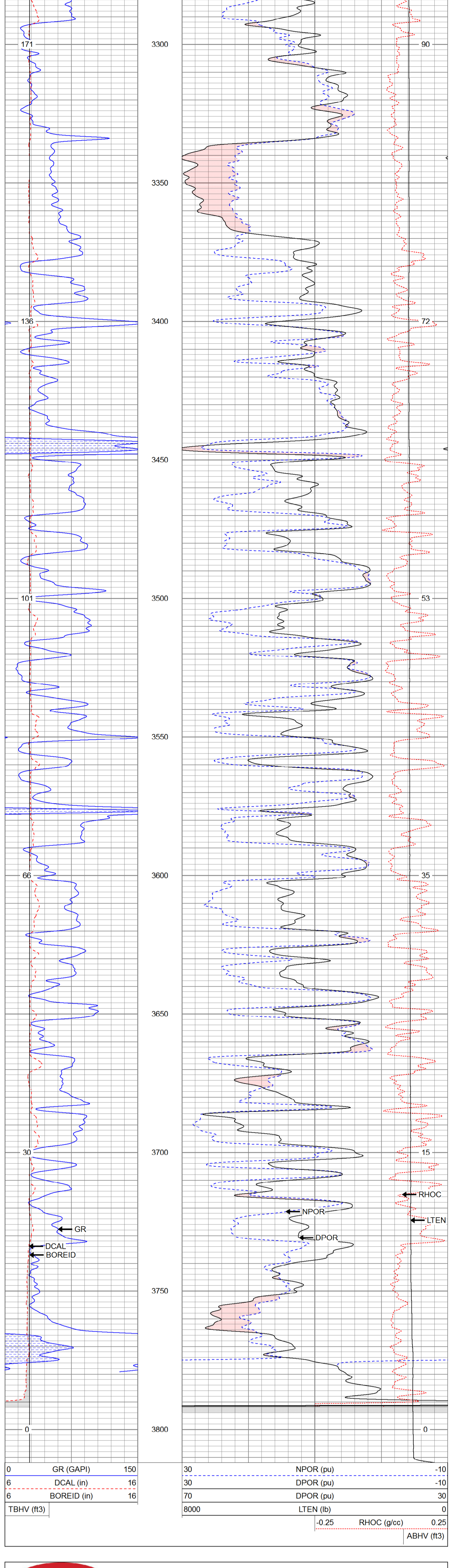
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Gemini Wireline
785-625-1182

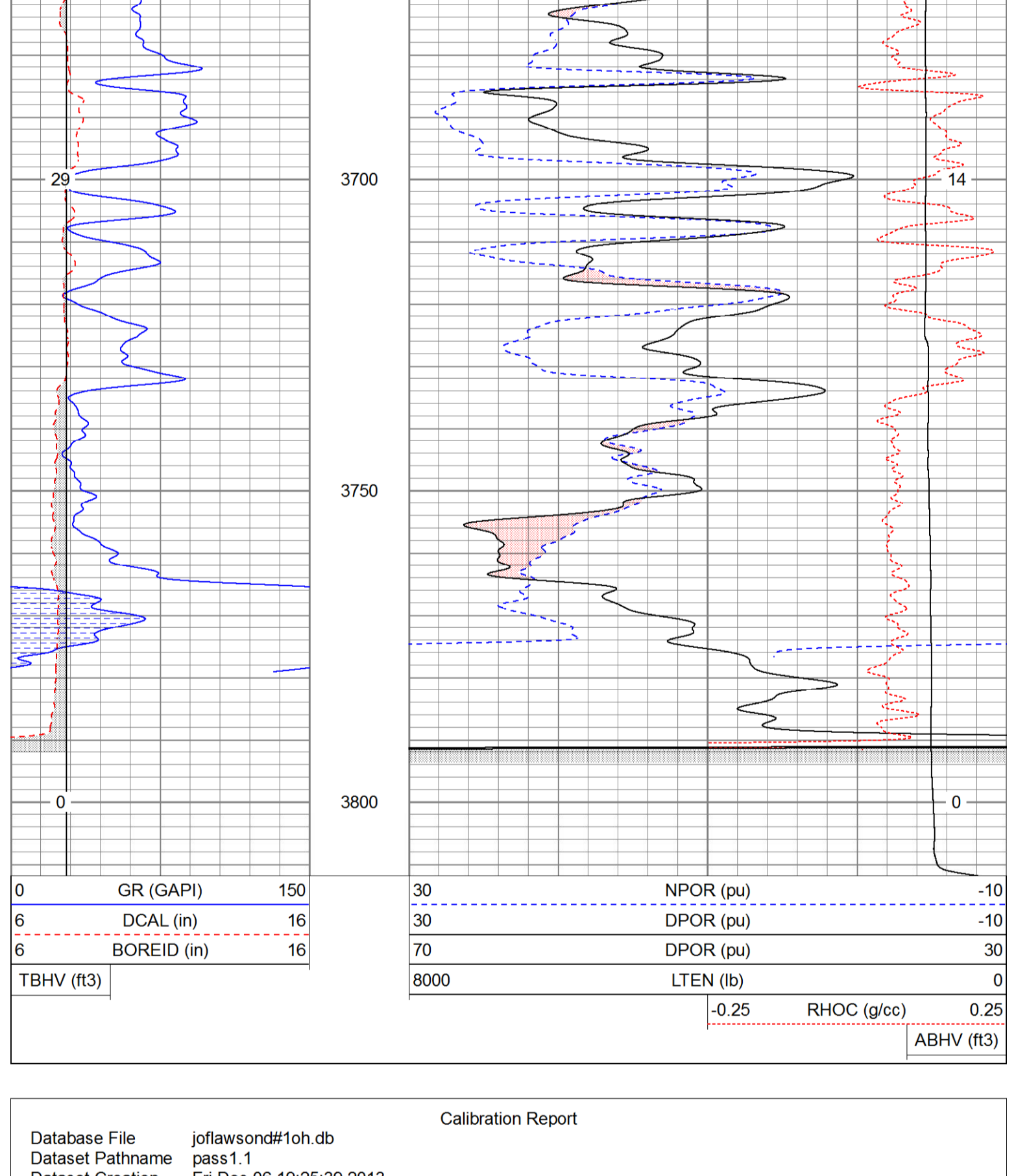
Main Pass

Database File	joflawsond#10h.db
Dataset Pathname	pass2.1
Presentation Format	kcdnl
Dataset Creation	Fri Dec 06 19:55:32 2013
Charted by	Depth in Feet scaled 1:240



Repeat Pass

Database File	joflawsond#10h.db
Dataset Pathname	pass1.1
Presentation Format	kcdnl
Dataset Creation	Fri Dec 06 19:25:39 2013
Charted by	Depth in Feet scaled 1:240



Calibration Report

Database File	joflawsond#10h.db
Dataset Pathname	pass1.1
Dataset Creation	Fri Dec 06 19:25:39 2013

Dual Induction Calibration Report

Serial-Model:	1842-ADM	1842-ADM
Surface Cal Performed:	Fri Dec 06 16:12:09 2013	Fri Dec 06 16:12:09 2013
Downhole Cal Performed:	Fri Dec 06 16:12:12 2013	Fri Dec 06 16:12:12 2013
After Survey Verification Performed:	Fri Dec 06 16:12:14 2013	Fri Dec 06 16:12:14 2013

Loop:	Readings			References		Results	
	Air	Loop	V	Air	Loop	m	b
Deep	0.014	0.660	V	0.000	350.000	mmho/m	541.845
Medium	0.003	0.761	V	0.000	400.000	mmho/m	527.924

Internal:	Readings			References		Results	
	Zero	Cal	V	Zero	Cal	m	b
Deep	0.013	0.663	V	0.000	350.000	mmho/m	538.740
Medium	0.003	0.761	V	0.000	550.000	mmho/m	726.060

Internal:	Readings			References		Results	
	Zero	Cal	V	Zero	Cal	m	b
Deep	-0.857	351.396	mmho/m	-0.737	351.280	mmho/m	0.999
Medium	0.187	400.090	mmho/m	0.077	399.987	mmho/m	1.000
Shallow	2.543	0.024	Ohm-m	500.000	2.000	Ohm-m	197.760

Compensated Density Calibration Report

Serial-Model:	2501DHT-DHT
Source / Verifier:	csv-12 /
Master Calibration Performed:	Fri Dec 06 16:12:36 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

	Density		Far Detector		Near Detector	
	g/cc	g/cc	g/cc	g/cc	cps	cps
Magnesium	1.750	2.660	729.27	137.64	293.87	190.18
Aluminum						

Spine Angle = 75.37	Density/Spine Ratio = 0.528
Size	Reading
Small Ring	8.35 in
Large Ring	14.00 in

	Target	Measured
	g/cc	g/cc
	g/cc	g/cc

	Target	Measured
	g/cc	g/cc
	g/cc	g/cc

Gamma Ray Calibration Report

Serial Number:	2001
Tool Model:	OH
Performed:	Fri Dec 06 16:11:56 2013
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.2300 GAPI/cps

Neutron Calibration Report

Serial Number:	5109
Tool Model:	P
Performed:	Mon Feb 06 08:44:38 2012
Calibrator Value:	1 NAPI
Calibrator Reading:	1 cps
Sensitivity:	1 NAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
NEU	36.92		None	0.75	1.50	5.00
			NEU-P (5109) Probe	4.92	3.63	85.00
GR	30.56		GR-OH (2001) 2001	3.56	3.25	40.00
			DHT (2501DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
LSD	22.02					
DCAL	21.73					
SSD	21.48					
HEADVOLT	19.71					
			DIL-ADM (1842) Dual Induction	19.71	4.00	300.00
SP	10.60					
CILD	10.60					
CILM	6.89					
RLL3	1.70					

Dataset: joflawsond#10h.db; field/well/run1/pass1.1
Total length: 38.63 ft
Total weight: 631.00 lb
O.D.: 4.00 in