



**COMPENSATED DENSITY
NEUTRON
LOG**

Company John O. Farmer, Inc.		API #: 15 111 20536		Other Services ML DIL
Well Nielsen #1	Field Wildcat	Location: 215' FSL & 420' FWL		
County Lyon	State KS	SEC 25 TWP 16S RGE 10E		Elevation
Permanent Datum	Ground Level	Elevation	1332'	K.B. 1340'
Log Measured From	KB 8' AGL			D.F. 1339'
Drilling Measured From	KB			G.L. 1332'

Date	5-9-18
Run Number	One
Depth Driller	3200'
Depth Logger	3199'
Bottom Logged Interval	3177'
Top Log Interval	2400'
Casing Driller	8 5/8" @ 220'
Casing Logger	220'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical Mud
Density / Viscosity	9.3/43
PH / Fluid Loss	10.5/9.6
Source of Sample	Pit
Rm @ Meas. Temp	2.6@88degf
Rmf @ Meas. Temp	2.1@88degf
Rmc @ Meas. Temp	3.33@88degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	2.12@108degf
Time Circulation Stopped	7:30 p.m
Time Logger on Bottom	9:30 p.m
Maximum Recorded Temperature	108degf
Equipment Number	T127
Location	Hays, KS.
Recorded By	C.Patterson
Witnessed By	Mr. Austin Klaus

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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

East out of Council Grove 12 mi. to F Rd., South on F Rd. 2.6 mi. to Rd.320,
East on Rd, 320 for 10 yards, North into

Thank you for using Gemini Wireline
785-625-1182

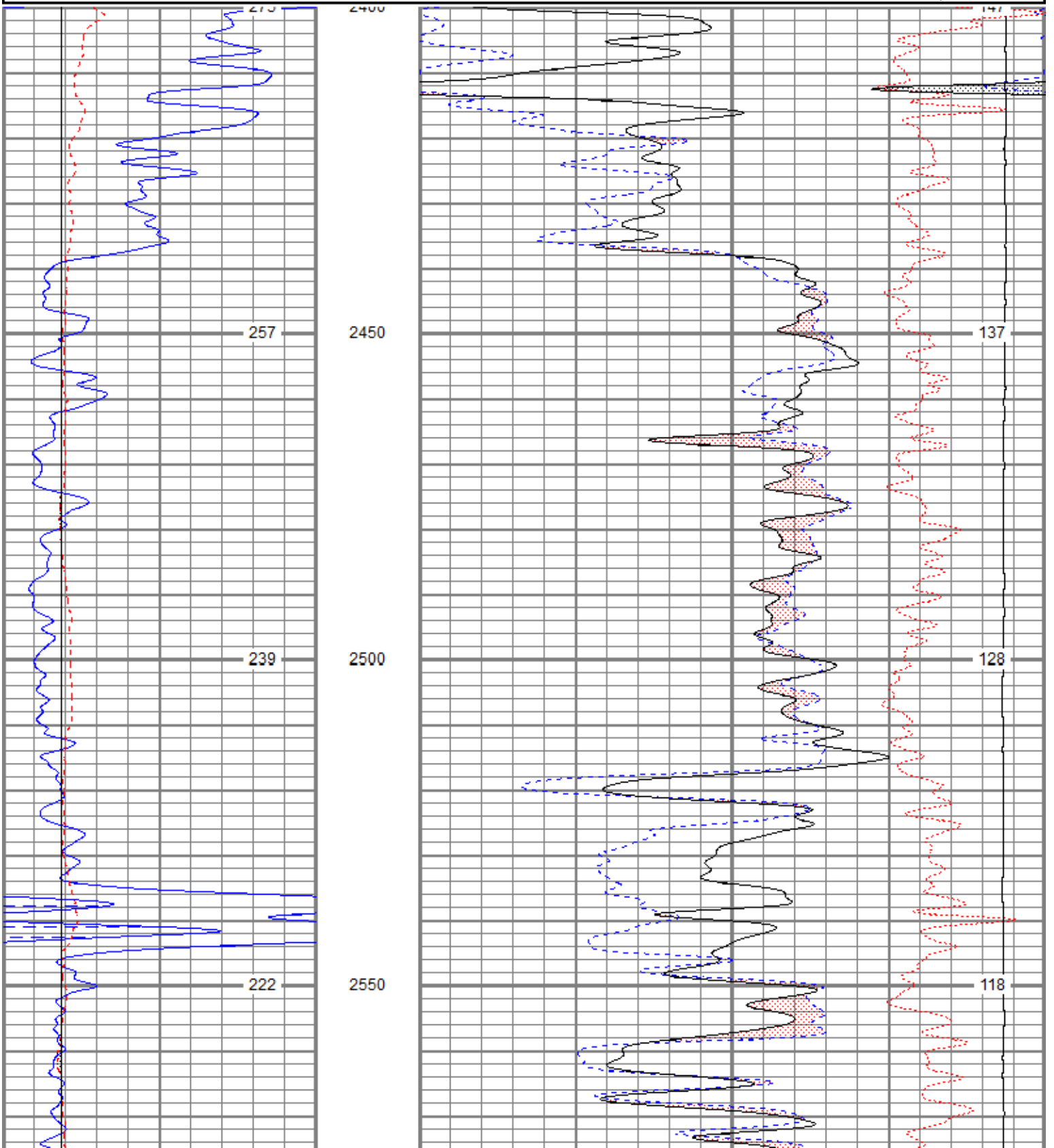


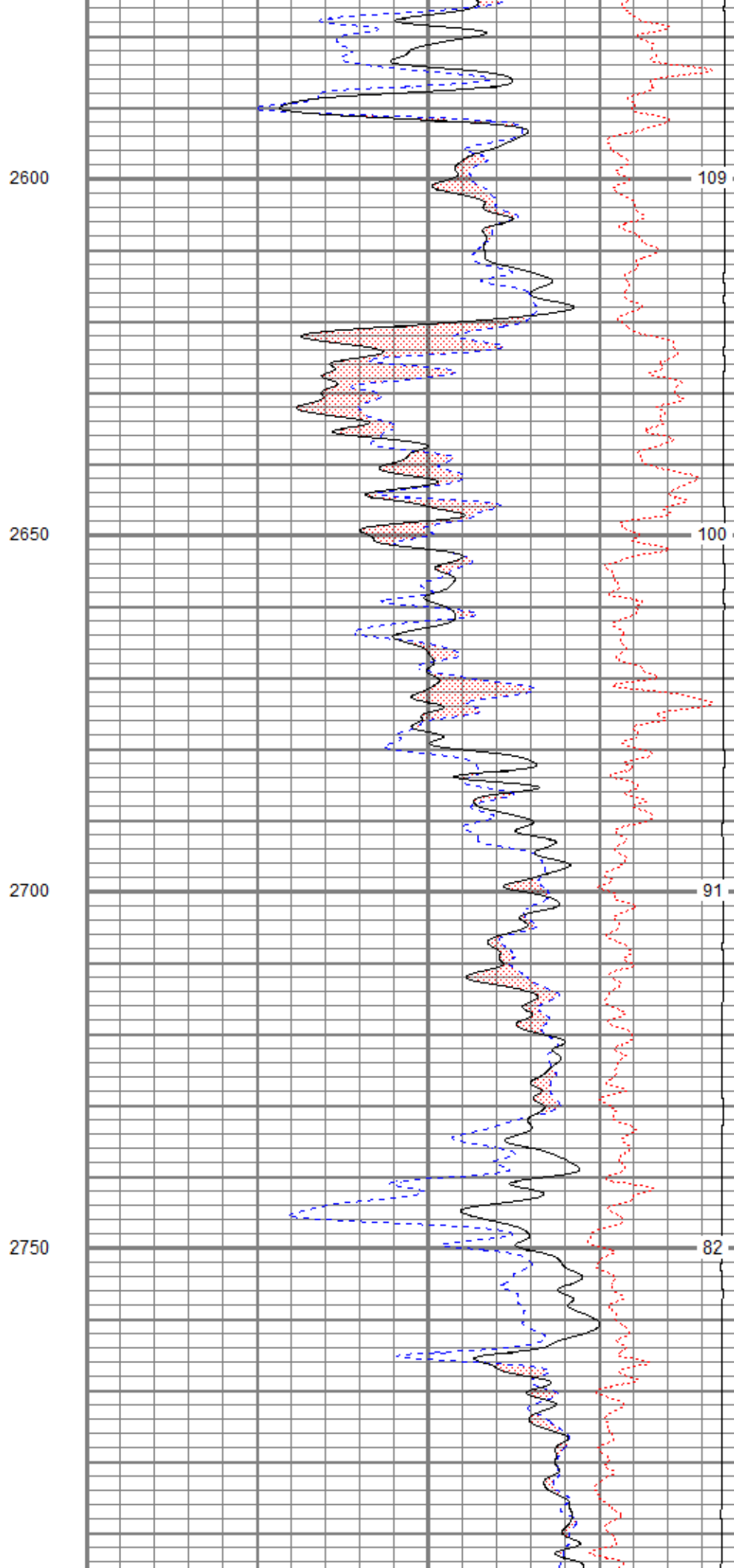
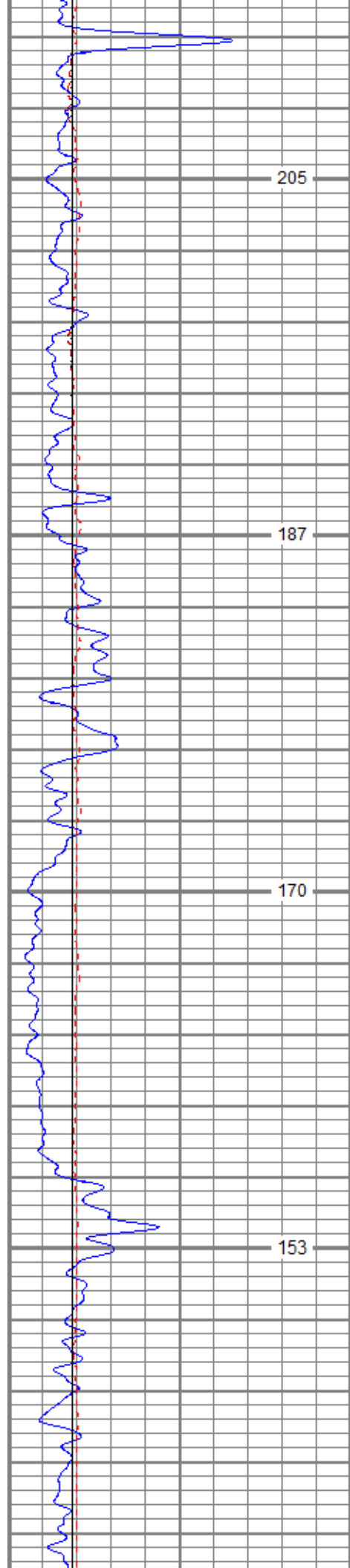
MAIN PASS

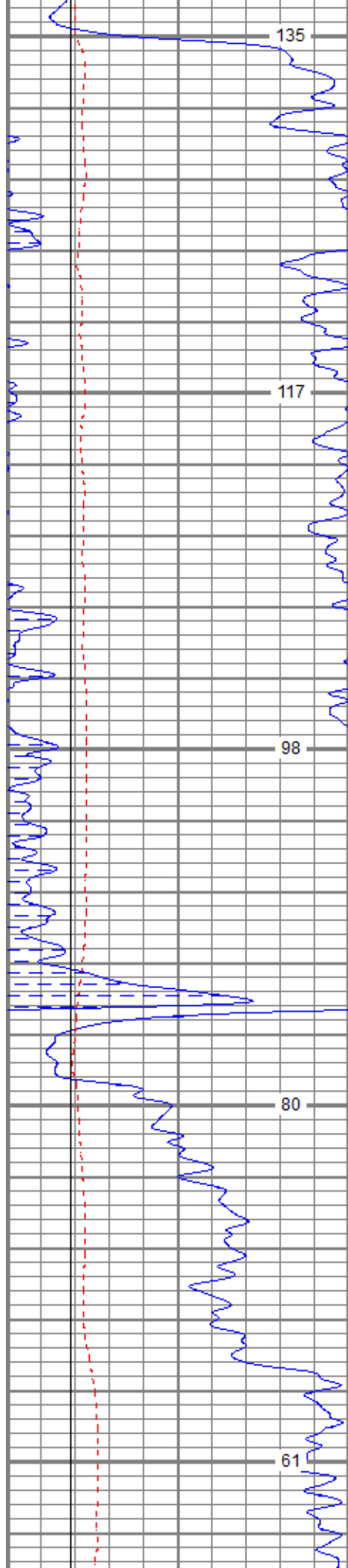
Database File jofnielsen10h.db
 Dataset Pathname pass4.2
 Presentation Format kcdnl
 Dataset Creation Wed May 09 23:28:24 2018
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
6	BOREID (in)	16
	TBHV (ft3)	

30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0
	ABHV (ft3)	







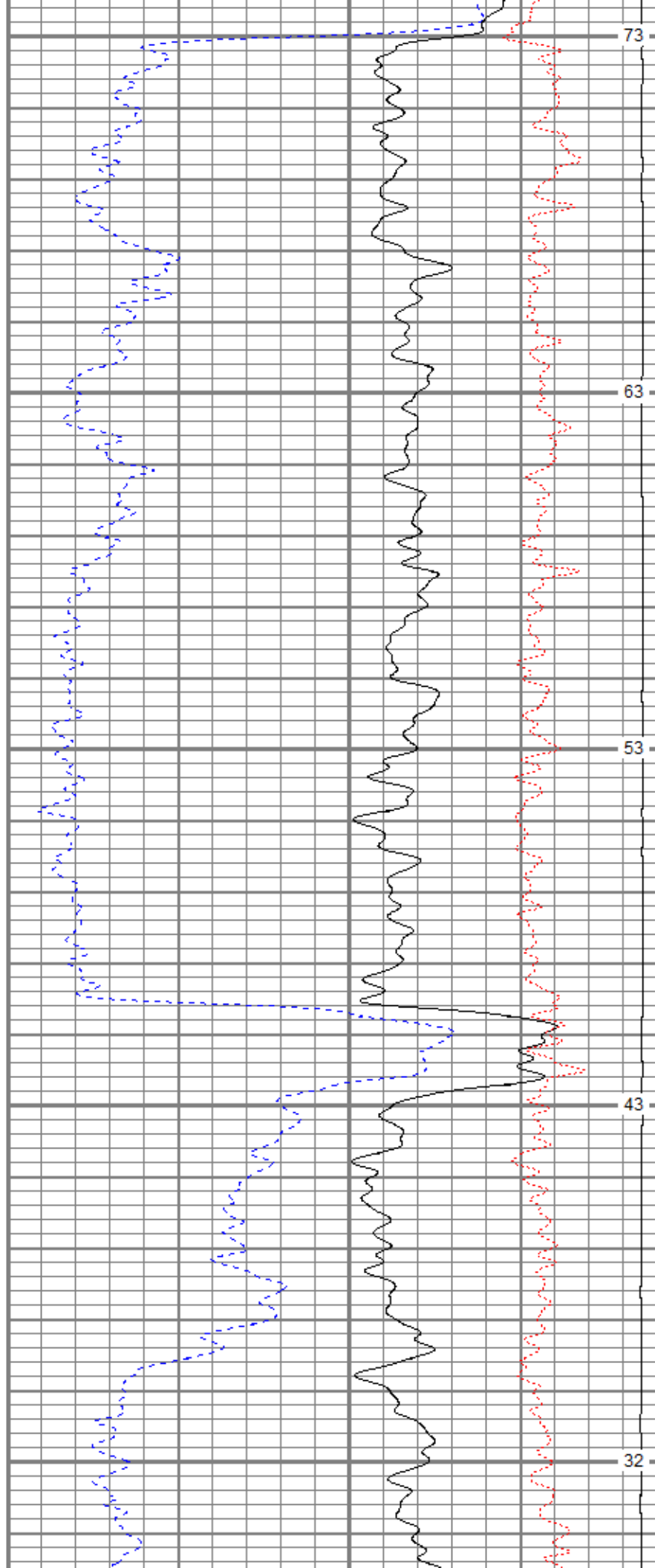
2800

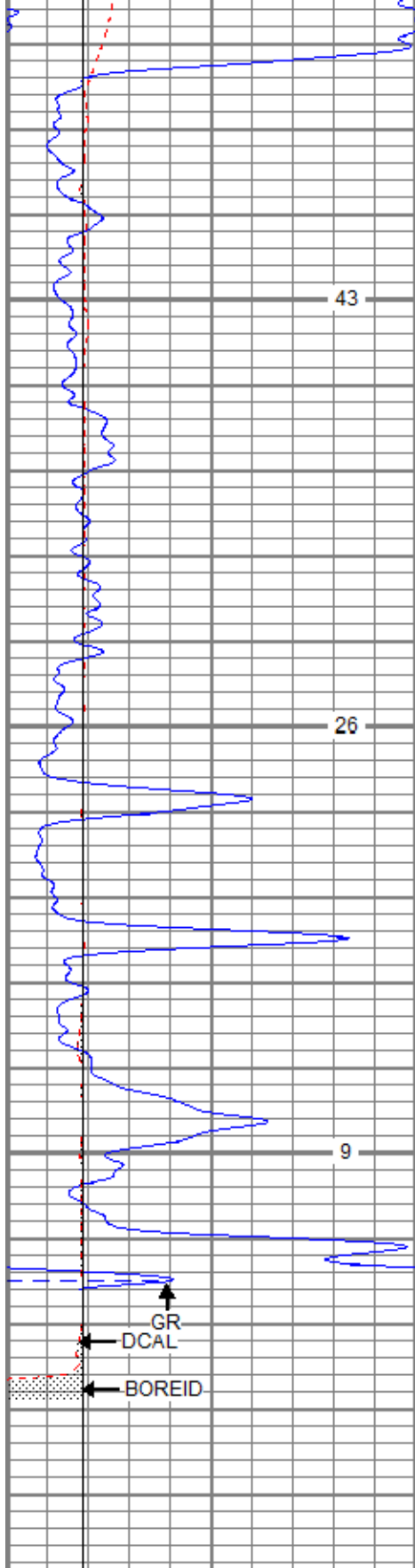
2850

2900

2950

3000





0	GR (GAPI)	150
6	DCAL (in)	16
6	BOREID (in)	16
6	BOREID (in)	16
TBHV (ft3)		

3050

3100

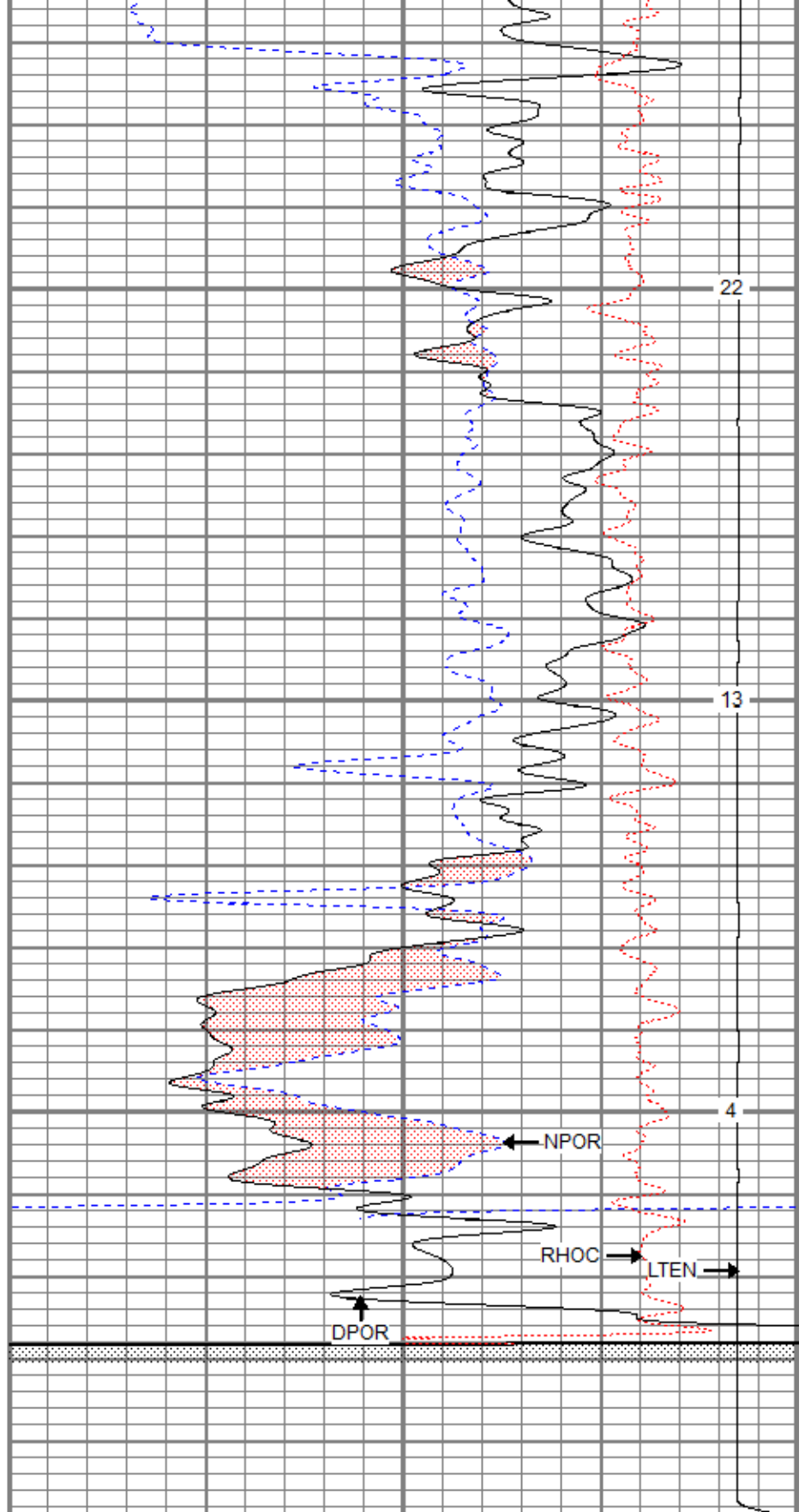
3150

43

26

9

GR
DCAL
BOREID



30	NPOR (pu)	-10
30	DPOR (pu)	-10
70	DPOR (pu)	30
-0.25	RHOC (g/cc)	0.25
8000	LTEN (lb)	0
ABHV (ft3)		

22

13

4

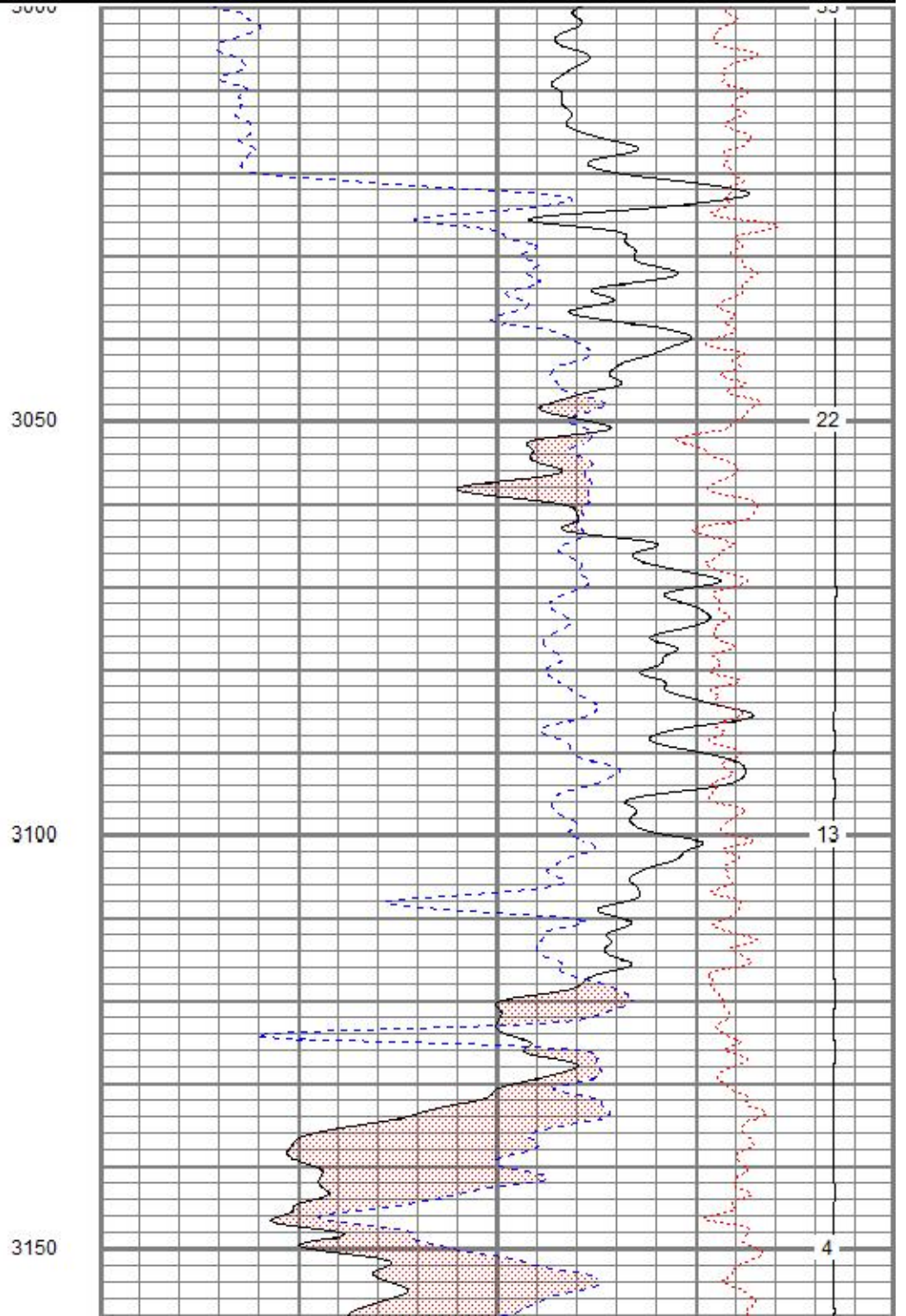
NPOR
RHOC
LTEN
DPOR

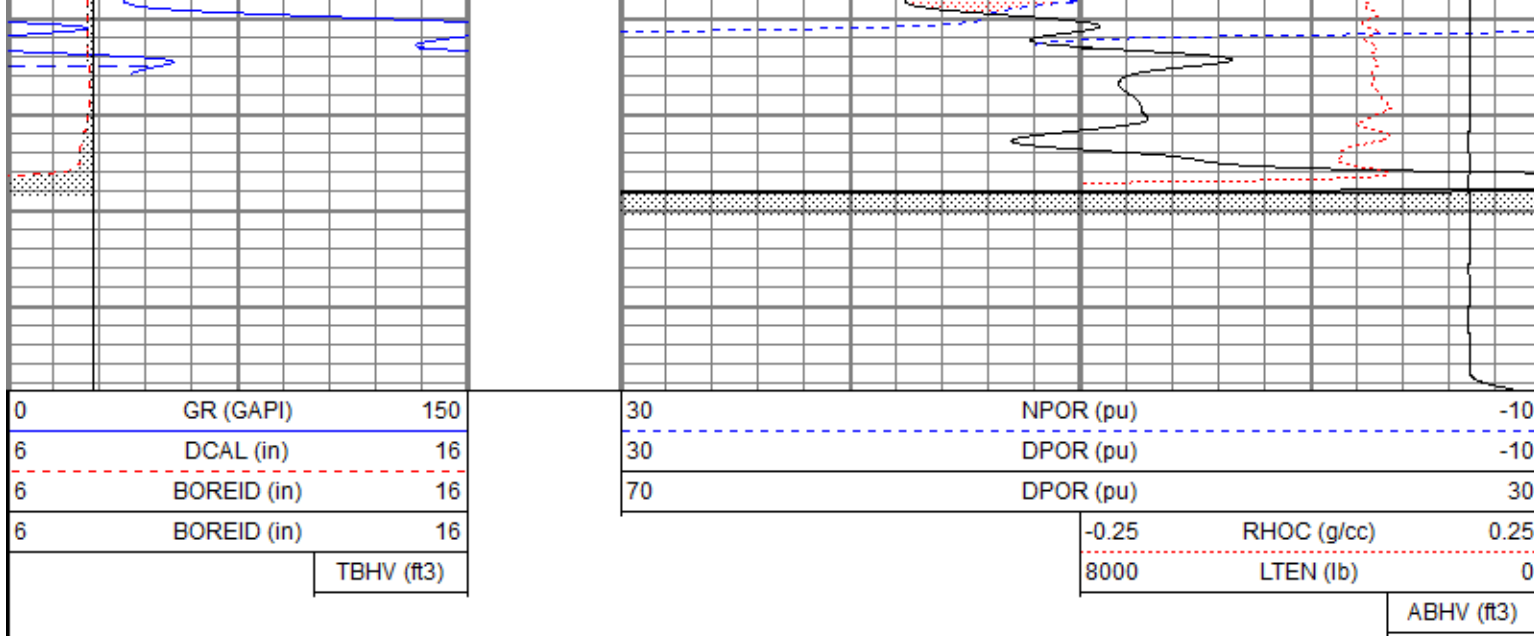


REPEAT SECTION

Database File jofnielsen1oh.db
 Dataset Pathname pass2.4
 Presentation Format kcdnl
 Dataset Creation Wed May 09 23:39:20 2018
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	NPOR (pu)	-10	
6	DCAL (in)	16	30	DPOR (pu)	-10	
6	BOREID (in)	16	70	DPOR (pu)	30	
6	BOREID (in)	16				
	TBHV (ft3)			-0.25	RHOC (g/cc)	0.25
				8000	LTEN (lb)	0
						ABHV (ft3)





Calibration Report

Database File jofnielsen1oh.db
 Dataset Pathname pass4.2
 Dataset Creation Wed May 09 23:28:24 2018

Dual Induction Calibration Report

Serial-Model: 1989-ADM
 Surface Cal Performed: Wed Feb 14 05:11:38 2018
 Downhole Cal Performed: Wed Feb 14 05:12:25 2018
 After Survey Verification Performed: Wed Feb 14 05:12:25 2018

Surface Calibration

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	-0.009	0.667	V	0.000	350.000	mmho/m	517.989	4.543	
Medium	-0.004	0.750	V	0.000	400.000	mmho/m	530.106	2.252	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	-0.009	0.665	V	0.000	350.000	mmho/m	519.279	4.570	
Medium	-0.005	0.750	V	0.000	550.000	mmho/m	728.849	3.479	

Downhole Calibration

Internal:	Readings				References			Results	
	Zero	Cal			Zero	Cal		m	b
Deep	0.003	350.326	mmho/m	-0.016	349.115	mmho/m	0.997	-0.019	
Medium	-0.828	398.900	mmho/m	-0.278	399.748	mmho/m	1.001	0.551	
Shallow	2.506	0.018	V	500.000	2.000	Ohm-m	205.206	-4.659	

After Survey Verification

Internal:	Readings				Targets			Results	
	Zero	Cal			Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.003	350.326	mmho/m	0.997	-0.019	
Medium	0.000	0.000	mmho/m	-0.828	398.900	mmho/m	1.001	0.551	
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000	

Compensated Density Calibration Report

Serial-Model: 0300DUT-DUT

Serial Model:
 Source / Verifier:
 Master Calibration Performed:
 Before Survey Verification Performed:
 After Survey Verification Performed:

2388DHT-DHT
 csv j12 / csv j12
 Sun Aug 13 21:51:41 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.750	g/cc	825.09	253.60	cps
Aluminum	2.680	g/cc	159.18	174.22	cps
Spine Angle = 77.15			Density/Spine Ratio = 0.551		
	Size		Reading		
Small Ring	8.30	in	5982.32		
Large Ring	16.00	in	10612.00		

Before Survey Verification

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

After Survey Verification


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

Gamma Ray Calibration Report

Serial Number: 2001
 Tool Model: OH
 Performed: Sun Nov 12 16:26:41 2017
 Calibrator Value: 1.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps
 Sensitivity: 0.7000 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		CHD-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

LSD	22.02			CDL-DHT (2388DHT) Digital High Temp CDL Tool	9.69	4.00	201.00
DCAL	21.73						
SSD	21.48						
HEADVOLT	19.71						
SP	10.60			DIL-ADM (1989) Dual Induction	19.71	4.00	300.00
CILD	10.60						
CILM	6.89						
RLL3	1.70						

Dataset: jofnielsen1oh.db: field/well/run1/pass4.2
 Total length: 38.63 ft
 Total weight: 631.00 lb
 O.D.: 4.00 in