



**COMPENSATED DENSITY
NEUTRON
LOG**

Company JOHN O. FARMER, INC.
Well SAMUELSON #9
Field BEMIS
County ELLIS
State Kansas

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Field BEMIS
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Location: 1753' FNL & 283' FWL
API #: 15 051 27048
Permanent Datum SEC 36 TWP 11S RGE 17W
Log Measured From Ground Level Elevation 2110
Drilling Measured From KB 8' AGL
KB
Elevation
K.B. 2118
D.F. 2116
G.L. 2110

Date	09/25/22
Run Number	One
Depth Driller	3700
Depth Logger	3700
Bottom Logged Interval	3680
Top Log Interval	3000
Casing Driller	8 5/8"@223'
Casing Logger	223
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.0/60
pH / Fluid Loss	10.0/6.8
Source of Sample	Pit
Rm @ Meas. Temp	.9@80degf
Rmf @ Meas. Temp	.68@80degf
Rmc @ Meas. Temp	1.08@80degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	.67@107degf
Time Circulation Stopped	12:30 PM
Time Logger on Bottom	2:30 PM
Maximum Recorded Temperature	107degf
Equipment Number	T-605
Location	Hays, KS.
Recorded By	GUS PFANENSTIEL
Witnessed By	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

NORTH OF HAYS TO SEVERIN RD. EAST TO CODELL RD., NORTH 3.8 MILES
TO FLAGGED CATTLEGUARD, .9 MILE TO FLAGGED LEASE RD.
SOUTH ON RD .7 MILE TO ANOTHER LEASE RD EAST .3
THEN SOUTH .1, WEST AND SOUTH .3 MILES

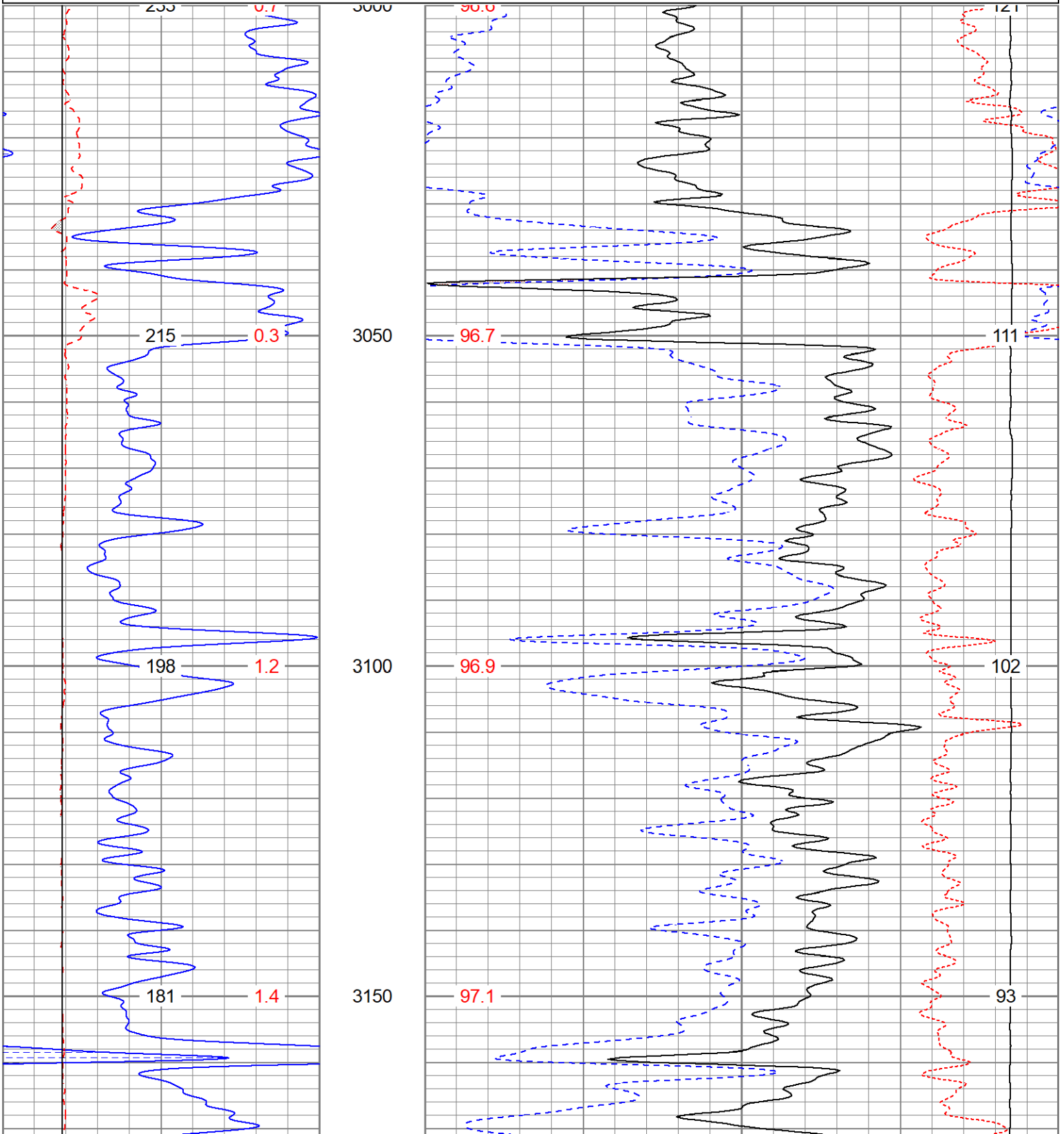
Thanks for using Gemini Wireline LLC
785-625-1182

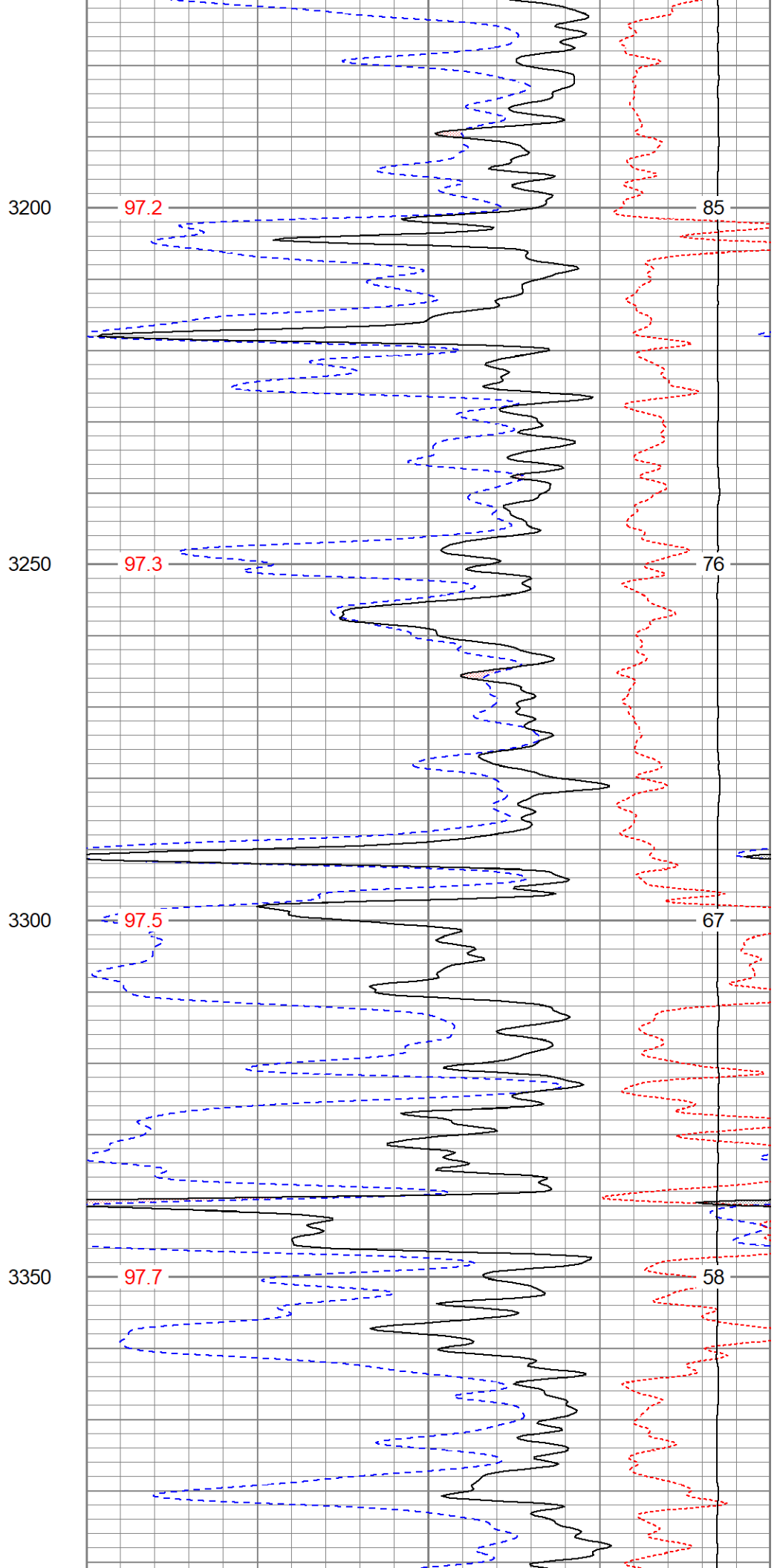
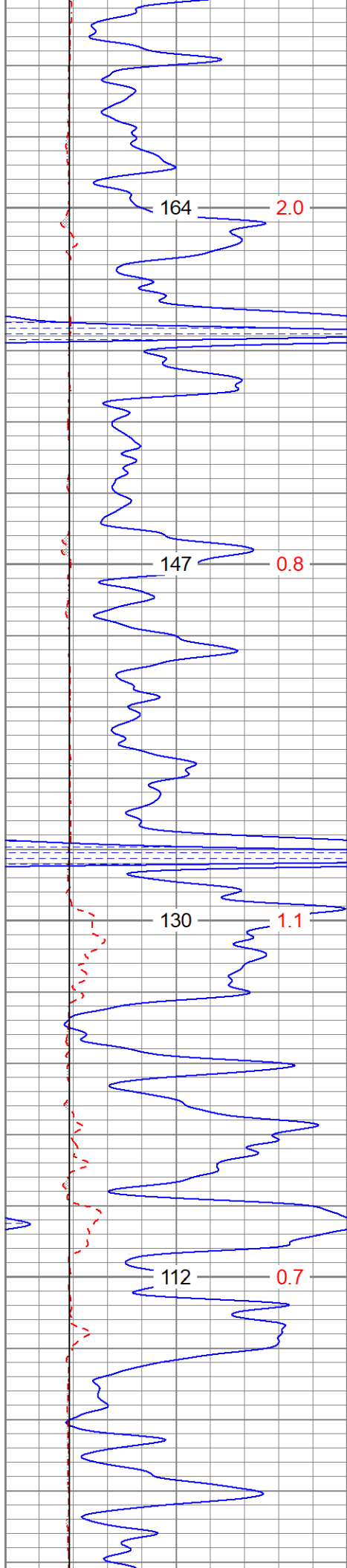


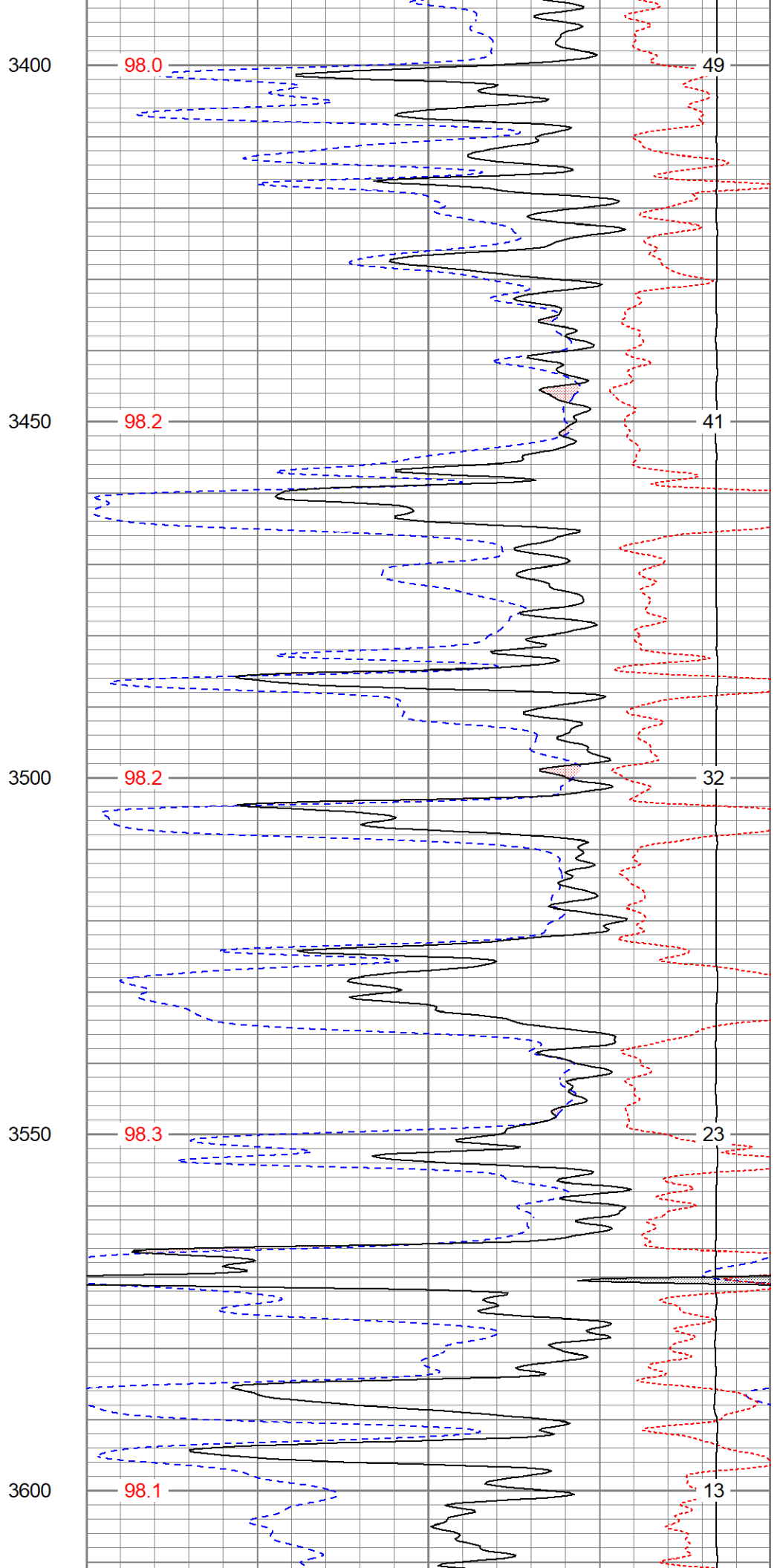
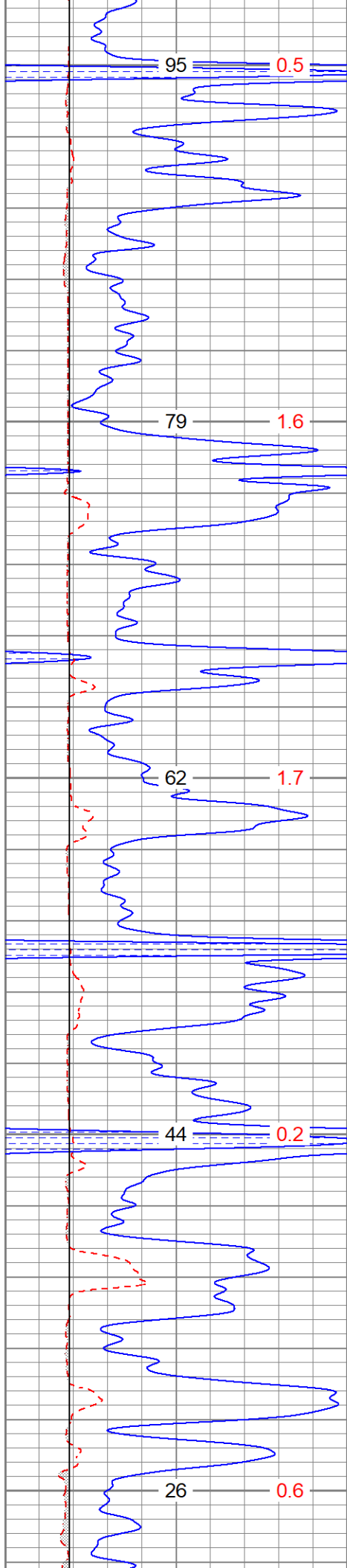
MAIN PASS

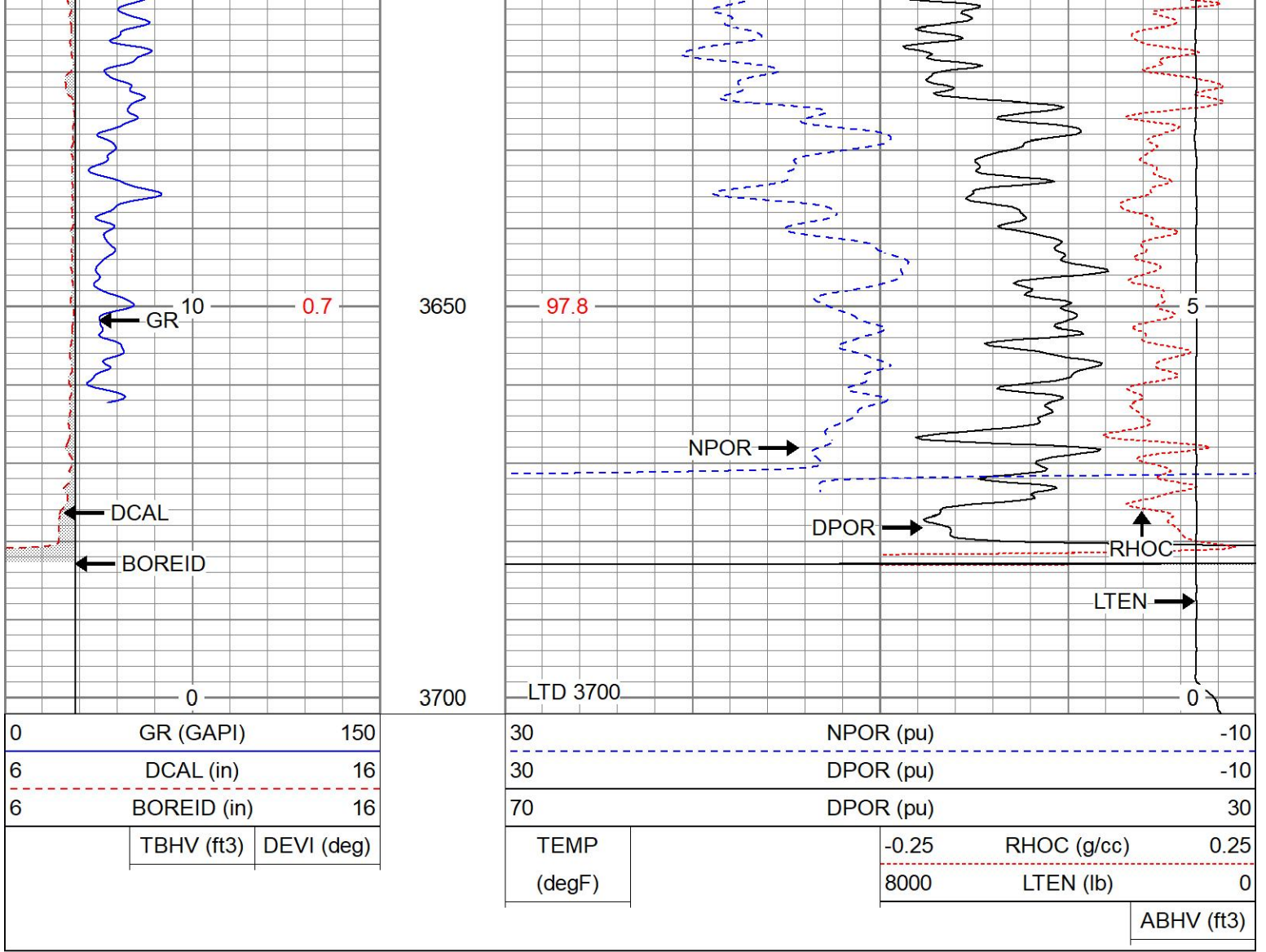
Database File jofsamuelson#9oh.db
 Dataset Pathname pass3.1
 Presentation Format digital_kcdnl
 Dataset Creation Sun Sep 25 15:43:26 2022
 Charted by Depth in Feet scaled 1:240

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



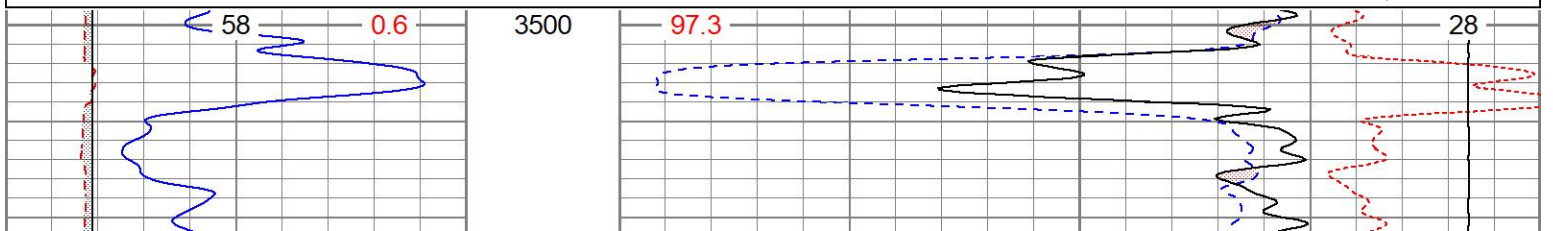
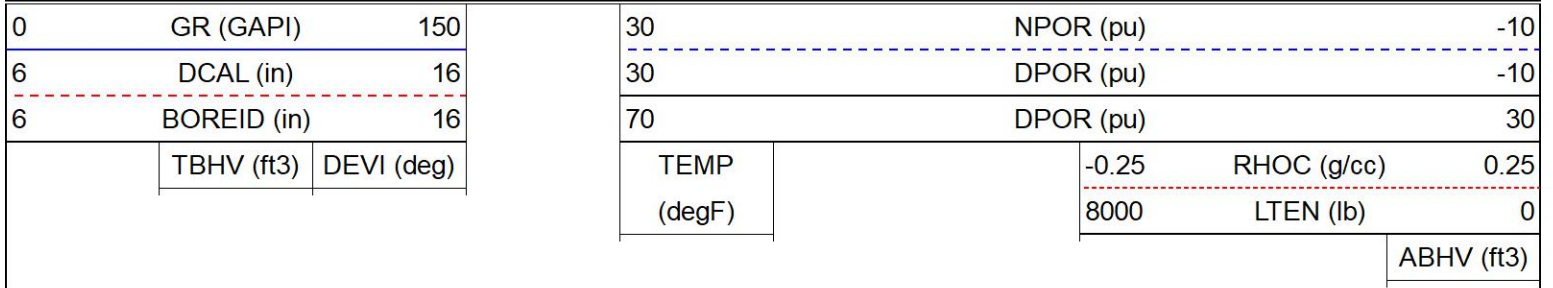


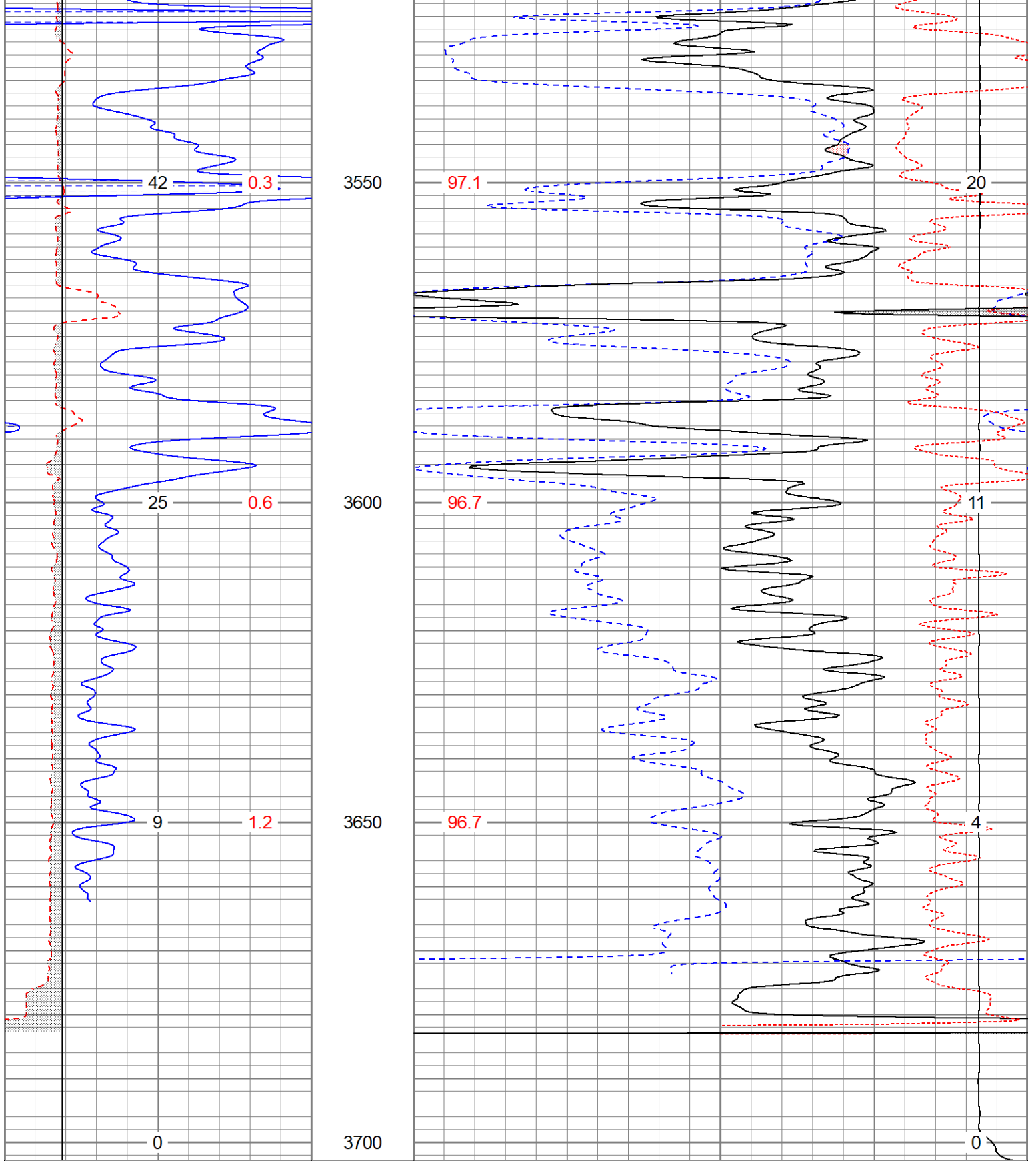




REPEAT SECTION

Database File jofsamuelson#9oh.db
 Dataset Pathname pass2.1
 Presentation Format digital_kcdnl
 Dataset Creation Sun Sep 25 14:56:50 2022
 Charted by Depth in Feet scaled 1:240





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

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

Database File jofsamuelson#9oh.db
 Dataset Pathname pass2.1
 Dataset Creation Sun Sep 25 14:56:50 2022

Dual Induction Calibration Report

Serial-Model: 1842-ADM
 Surface Cal Performed: Mon Sep 20 22:00:42 2021
 Downhole Cal Performed: Mon Sep 20 22:00:24 2021
 After Survey Verification Performed: Mon Sep 20 22:05:52 2021

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.018	0.672	V	0.000	350.000	mmho/m	535.475	-9.896
Medium	0.003	0.769	V	0.000	400.000	mmho/m	522.607	-1.745
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.018	0.672	V	0.000	350.000	mmho/m	535.240	-9.549
Medium	0.003	0.768	V	0.000	550.000	mmho/m	718.637	-2.088

Downhole Calibration

Internal:	Readings			References			Results	
	Zero	Cal		Zero	Cal		m	b
Deep	-0.219	349.905	mmho/m	-0.343	349.810	mmho/m	1.000	-3.124
Medium	-0.118	399.722	mmho/m	-0.226	399.745	mmho/m	1.000	-3.108
Shallow	2.536	0.025	V	500.000	2.000	Ohm-m	165.330	-1.504

After Survey Verification

Internal:	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.219	349.905	mmho/m	1.000	-3.124
Medium	0.000	0.000	mmho/m	-0.118	399.722	mmho/m	1.000	-3.108
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Admyr Lithodensity Calibration Report

Serial-Model: 1C-C
 Source: Blue2
 Master Calibration Performed: Tue Aug 30 10:20:37 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.670	g/cc	6362.49	3546.71	cps
Aluminium	2.640	g/cc	1733.54	2362.69	cps
Aluminium+Sleeve	2.617	g/cc	1657.01	2197.69	cps

Spine Angle = 72.65

Density/Spine Ratio = 0.712

	PE		NLITH	NHARD	
Magnesium	1.900	barn	5031.16	2670.10	cps
Aluminium	2.400	barn	925.14	1260.20	cps
Aluminium+Sleeve	5.000	barn	816.33	1216.63	cps

M = 0.191

B = 0.171

R = 0.787

	Size		Reading	
Small Ring	8.00	in	8.61	V
Large Ring	14.30	in	12.40	V

Neutron Calibration Report

Serial Number:	AD5139			
Tool Model:	ADMY5139			
Performed:	(Not Performed)			
Calibrator Value:	1		NAPI	
Calibrator Reading:	1		cps	
Sensitivity:	1		NAPI/cps	

Temperature Calibration Report

Serial Number:	WithMC			
Tool Model:	WMC			
Performed:	Fri Apr 19 12:15:04 2019			
		Reference		Reading
Low Reference:	0.00	degF	0.00	degF
High Reference:	1.00	degF	1.00	degF
Gain:	1.00			
Offset:	0.00			
Delta Spacing	1			

Inclinometer Calibration Report

Performed:	Wed May 5 19:20:48 2021				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

Gamma Ray Calibration Report

Serial Number:	WithMC			
Tool Model:	WMC			
Performed:	Wed Jun 15 11:53:49 2022			
Calibrator Value:	1.0		GAPI	
Background Reading:	0.0		cps	
Calibrator Reading:	1.0		cps	
Sensitivity:	1.1000		GAPI/cps	