



Pioneer Energy Services

Computer Processed
Interpretation

15-135-25,853-00-00

API No.

Company **AMERICAN WARRIOR, INC**
Well **WIEDEMAN NO. 2-20**
Field **HINNERGARDT**
County **NESS** State **KANSAS**

Location **335' FSL & 1,940' FEL**

Sec: **20** Twp: **19S** Rge: **21W**

Permanent Datum **GROUND LEVEL** Elevation **2285**
Log Measured From **KELLY BUSHING** 8 Ft. Above Perm. Datum
Drilling Measured From **KELLY BUSHING**

Other Services
DIL/CNL/CDL
Elevation
K.B. 2293
D.F. G.L. 2285

Date Recorded **4/13/2015**

Depth Logger **4426**

Curve Definitions

SW Water Saturation

SXO Water Saturation In The Flushed Zone

VCL Volume Of Clay

PHIE Density - Neutron Crossplot Shale Corrected

BVW Bulk Volume Water

BVWSXO Bulk Volume Water In Flushed Zone

DCAL Caliper

SPC SP Corrected For Baseline

DGA Apparent Grain Density

Payflag If: PHIE> 2, VCL< 40, SPC> -10, SW< 50 & DCAL< 11

Recorded By **J. LONG**

Witnessed By **MARC DOWNING**

Analysis By **T. MARTIN**

<<< Fold Here >>>

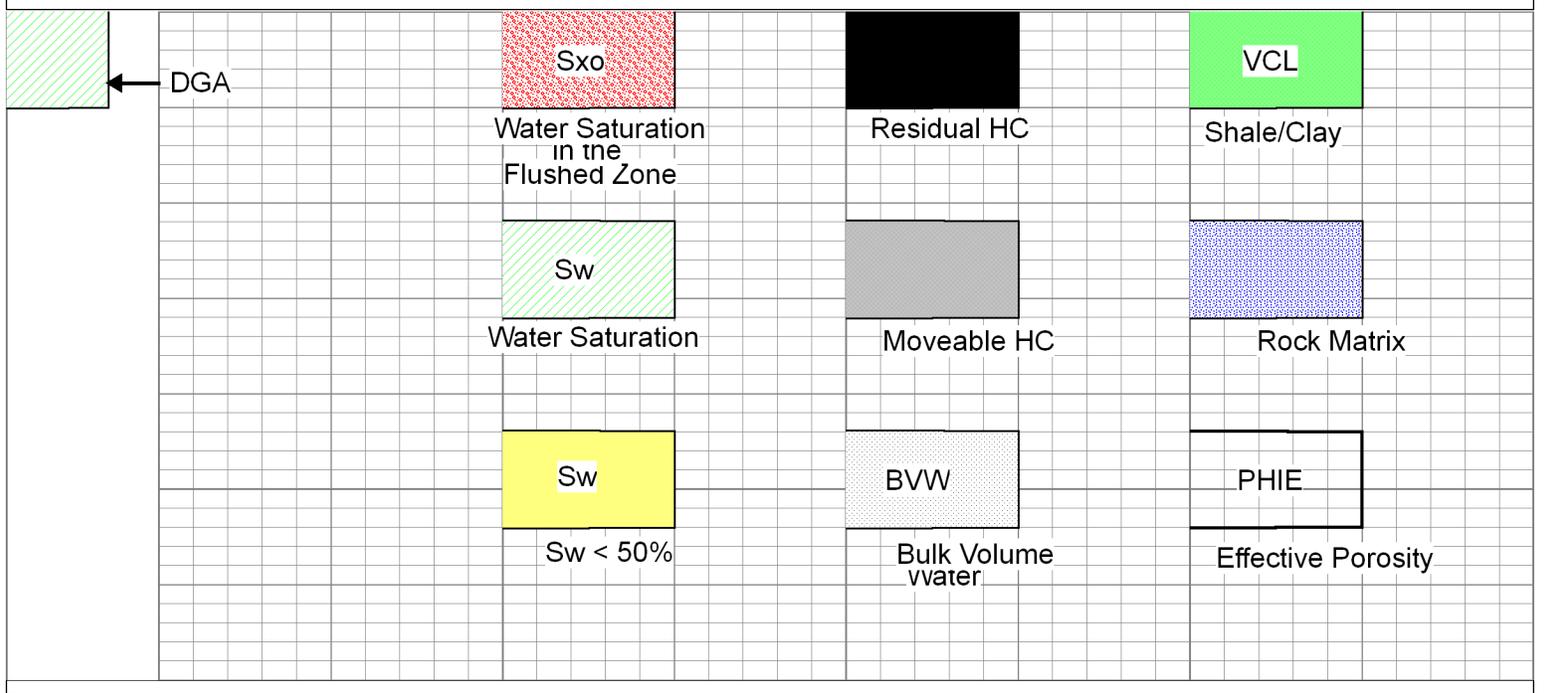
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 Pioneer Energy Services
785.625.3858

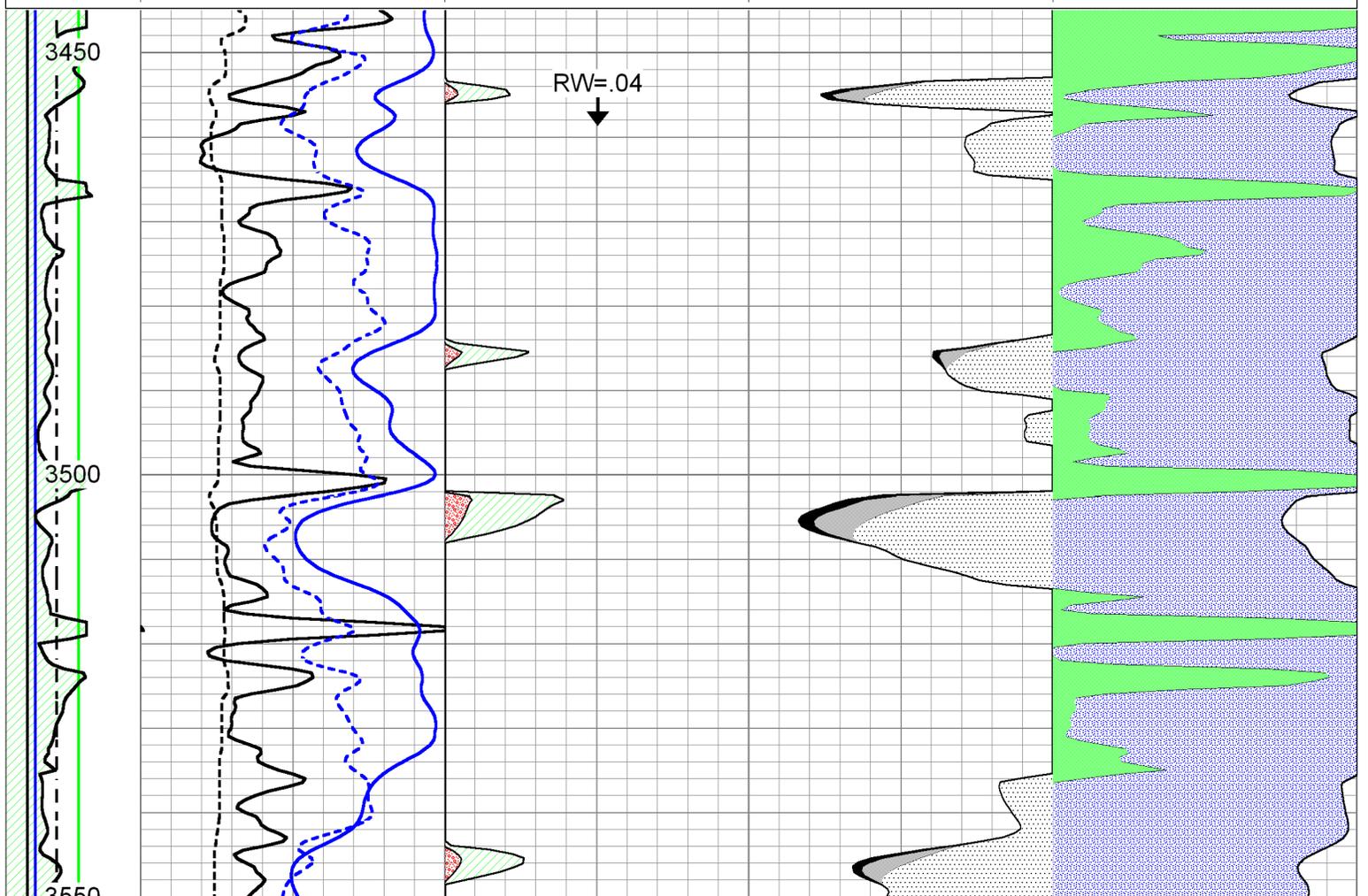
ALEXANDER, WEST TO GG ROAD, SOUTH TO 100 ROAD, 1 WEST TO FF ROAD,
2 SOUTH TO 80 ROAD, 1/4 WEST, NORTH INTO

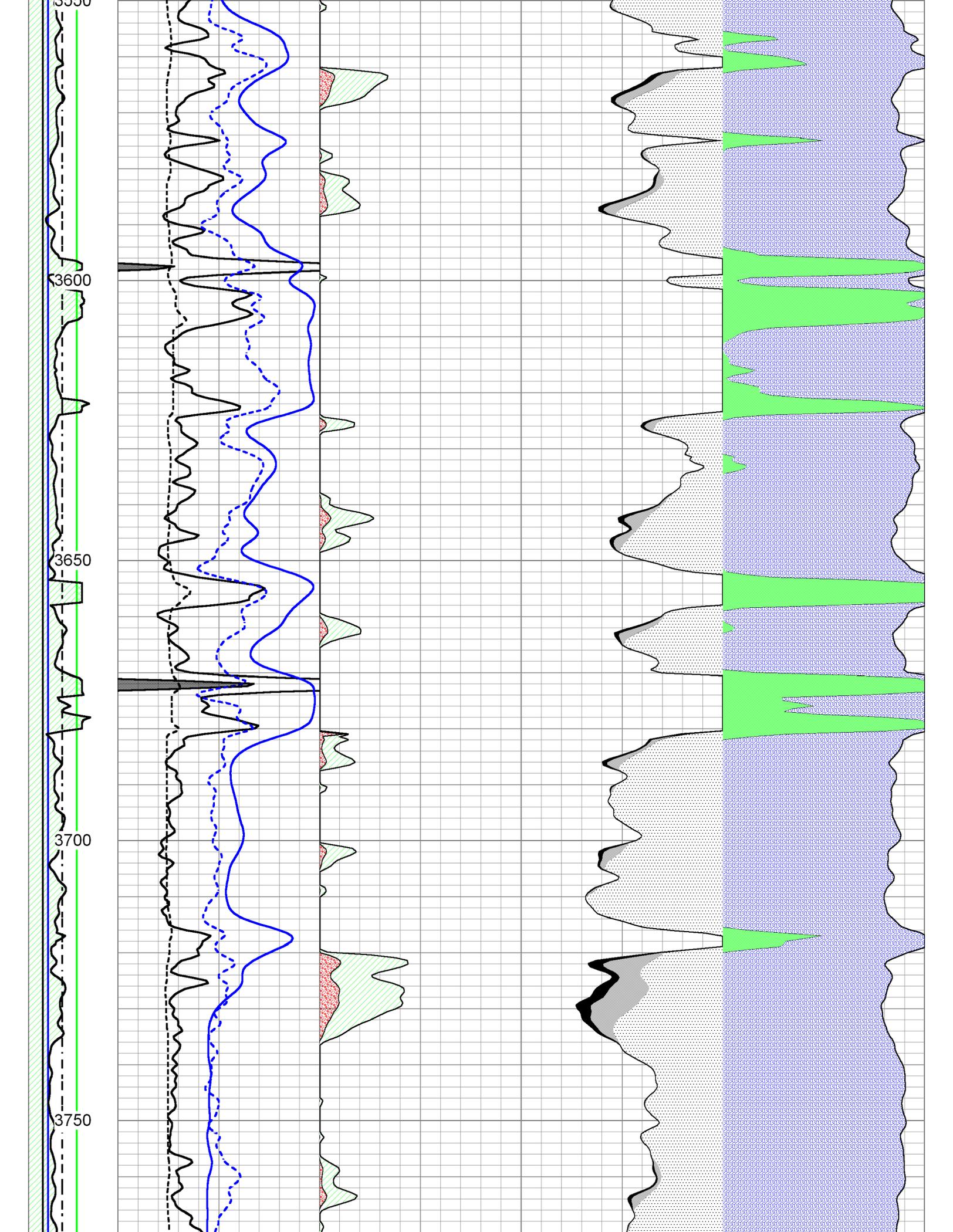
Database File cross plots\2wxplt.db
Dataset Pathname litho
Presentation Format 2wxplt
Dataset Creation Thu Apr 24 14:32:02 1997
Charted by Depth in Feet scaled 1:240

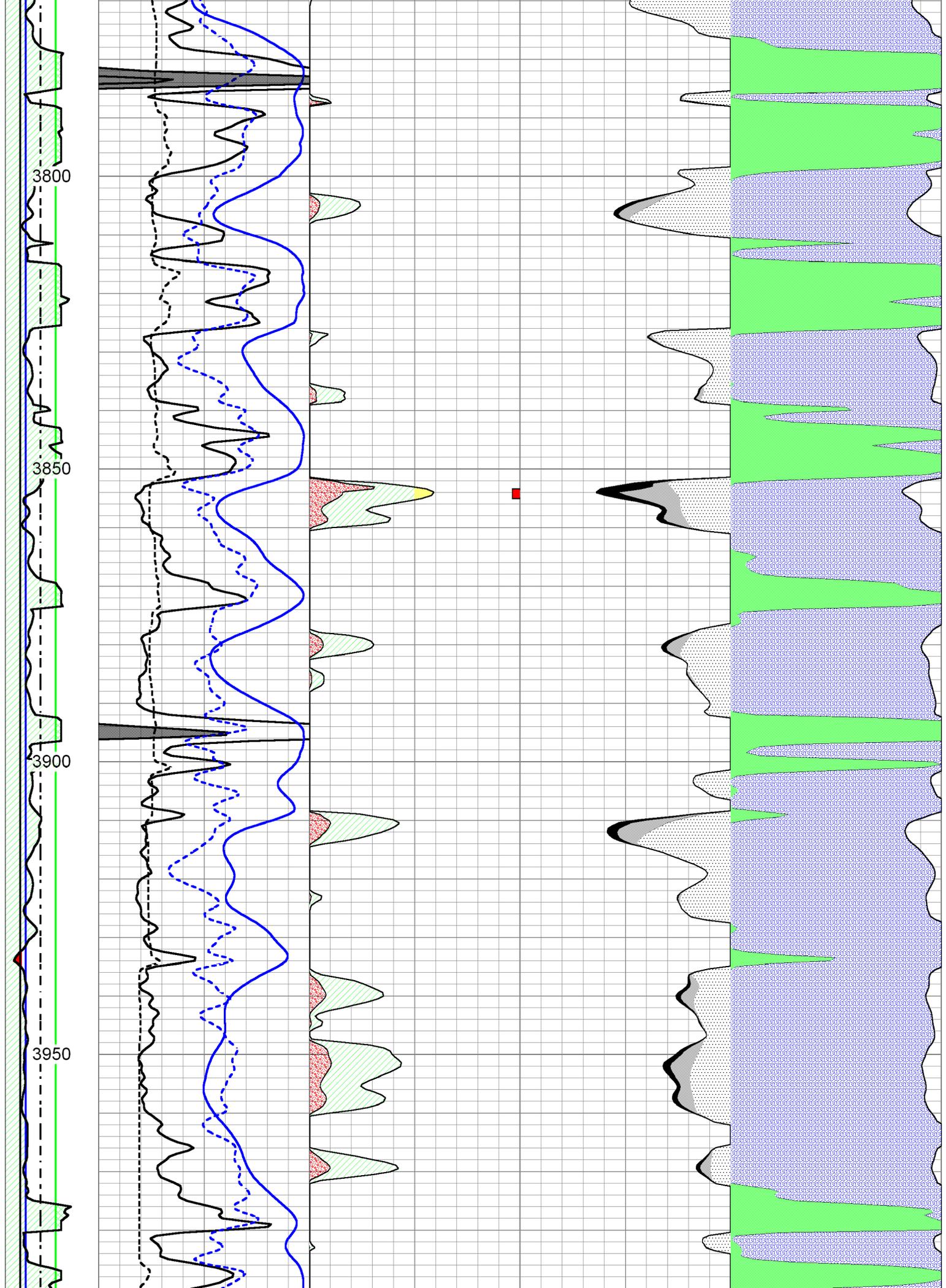


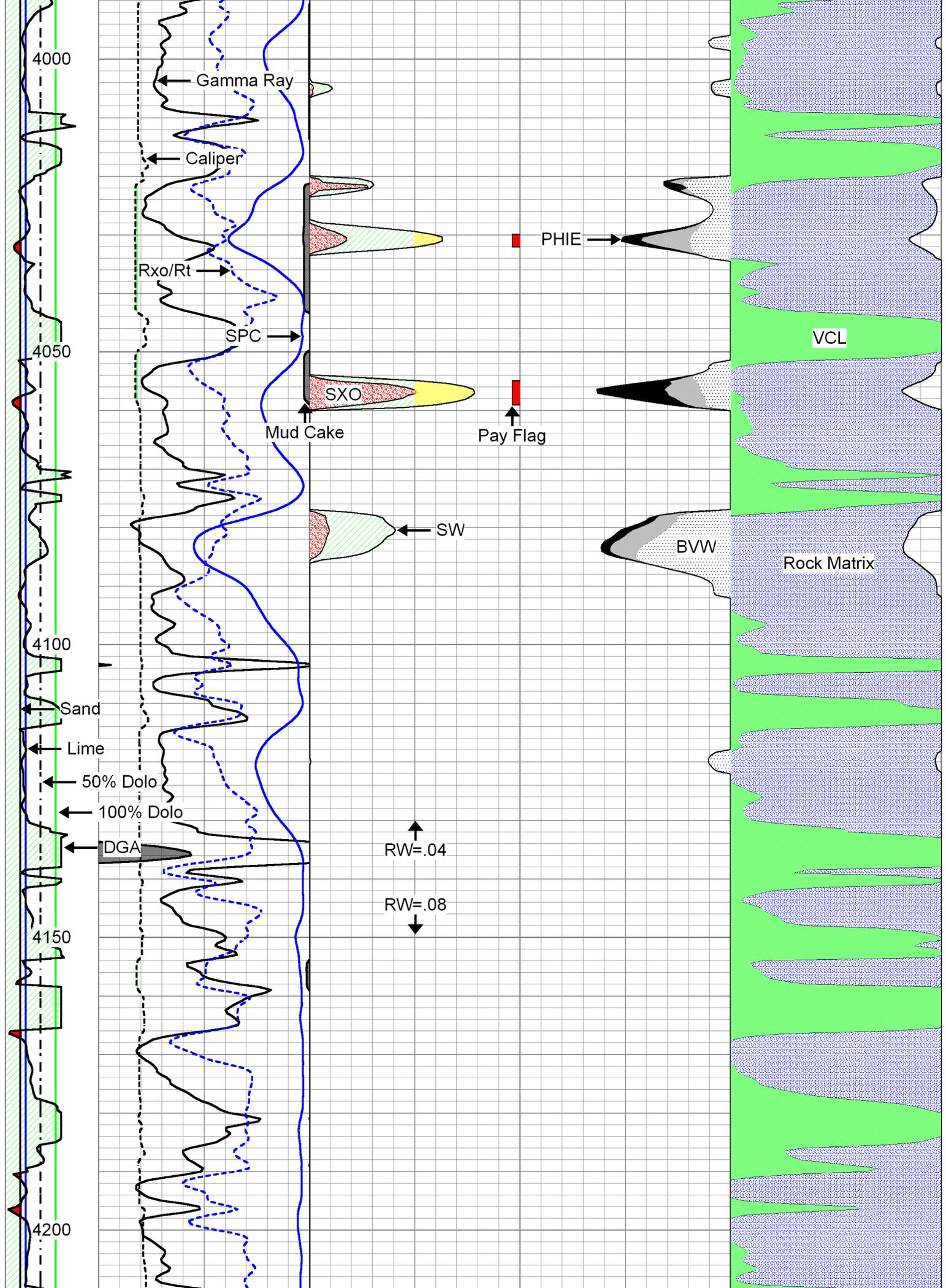
Database File: amwarrior_wiedeman_2-20hd.db
 Dataset Pathname: dil/awcpi
 Presentation Format: calc
 Dataset Creation: Mon Apr 13 04:17:01 2015
 Charted by: Depth in Feet scaled 1:240

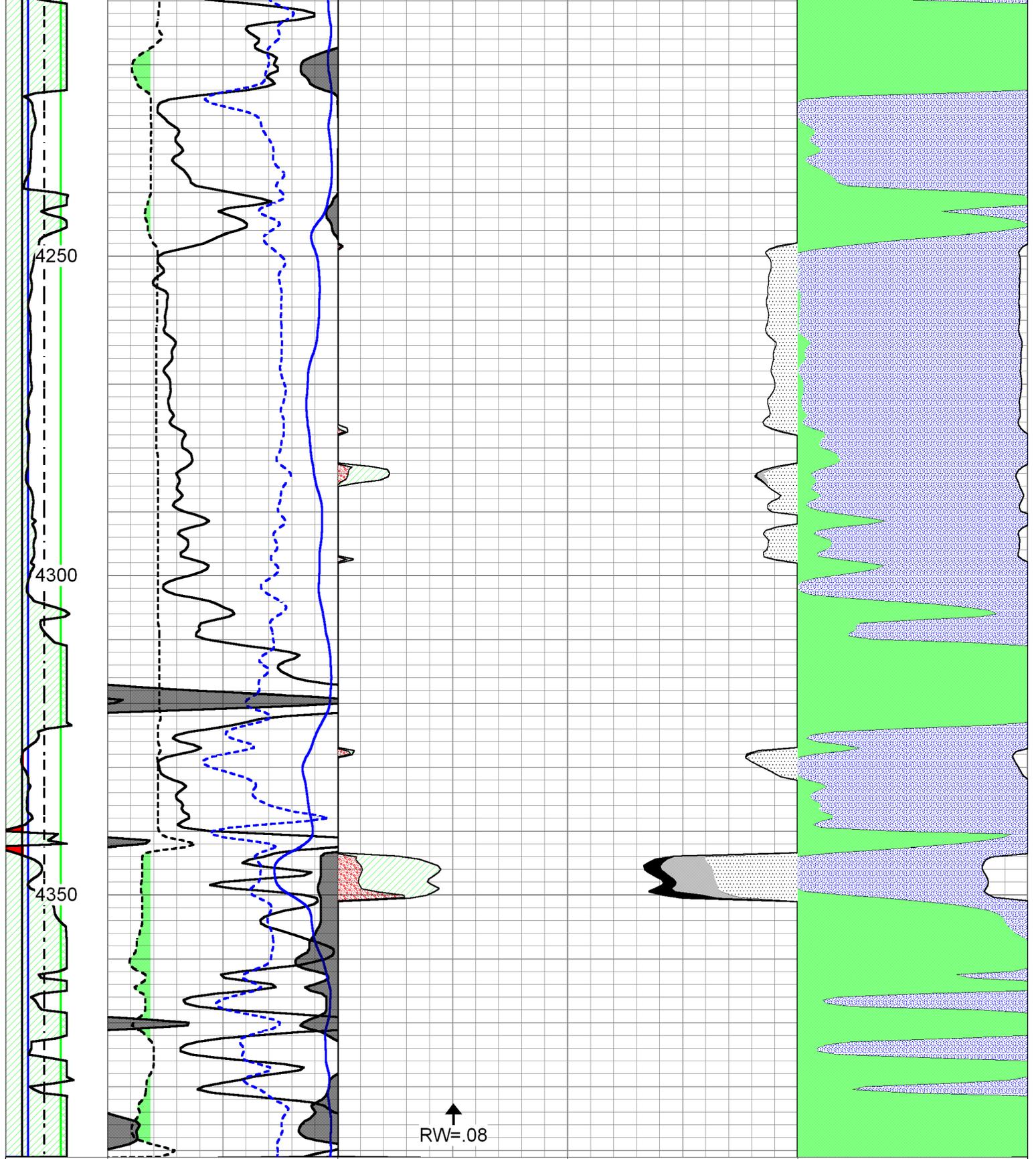
DGA	0	Gamma Ray	150	1	SW	0	0.3	PHIE	0	0	VCL	1	
2.6	3.1	6	DCAL (GAPI)	16	30	PAYFLAG	0	0.3	BVW	0	1	PHIE	0
		-150	SPC (mV)	0	1	SXO	0	0.3	BVWSXO	0			











DGA	0	Gamma Ray	150	1	SW	0	0.3	PHIE	0	0	VCL	1	
2.6	3.1	6	DCAL (GAPI)	16	30	PAYFLAG	0	0.3	BVW	0	1	PHIE	0
		-150	SPC (mV)	0	1	SXO	0	0.3	BVWSXO	0			