



**DUAL IND / DUAL COMP
POROSITY LOG**

Pioneer Energy Services

Company SUEMAUR EXPLOR. & PROD., LLC
Well CAMPBELL NO. 1
Field WILDCAT
County SHERIDAN
State KANSAS

Company SUEMAUR EXPLOR. & PROD., LLC
Well CAMPBELL NO. 1
Field WILDCAT
County SHERIDAN State KANSAS

Location: API #: 15-179-21,413-00-00
1,448' FSL & 546' FWL
SEC 3 TWP 7S RGE 28W
Permanent Datum GROUND LEVEL Elevation 2767'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING
Elevation
K.B. 2772'
D.F. N/A
G.L. 2767'

Date	12/7/2015
Run Number	ONE
Depth Driller	4510'
Depth Logger	4511'
Bottom Logged Interval	4510'
Top Log Interval	300'
Casing Driller	8.625" @ 333'
Casing Logger	334'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	1800
Density / Viscosity	9.3 76
pH / Fluid Loss	11.0 6.4
Source of Sample	Flowline
Rm @ Meas. Temp	.90 @ 60
Rmt @ Meas. Temp	.68 @ 60
Rmc @ Meas. Temp	1.22 @ 60
Source of Rmf / Rmc	Charts
Rm @ BHT	.45 @ 121
Operating Rig Time	5 HOURS
Max Rec. Temp. F	121 DEG F
Equipment Number	108
Location	Hays
Recorded By	J. LONG
Witnessed By	BOB PETERSEN

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
HOXIE, 8 NORTH TO ROAD 80 N, 1/8 EAST,
NORTH INTO (FOLLOW EDGE OF FIELD WEST AND NORTH)

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: J. LONG	Primary Witness: BOB PETERSEN
Operator: J. HENRICKSON	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

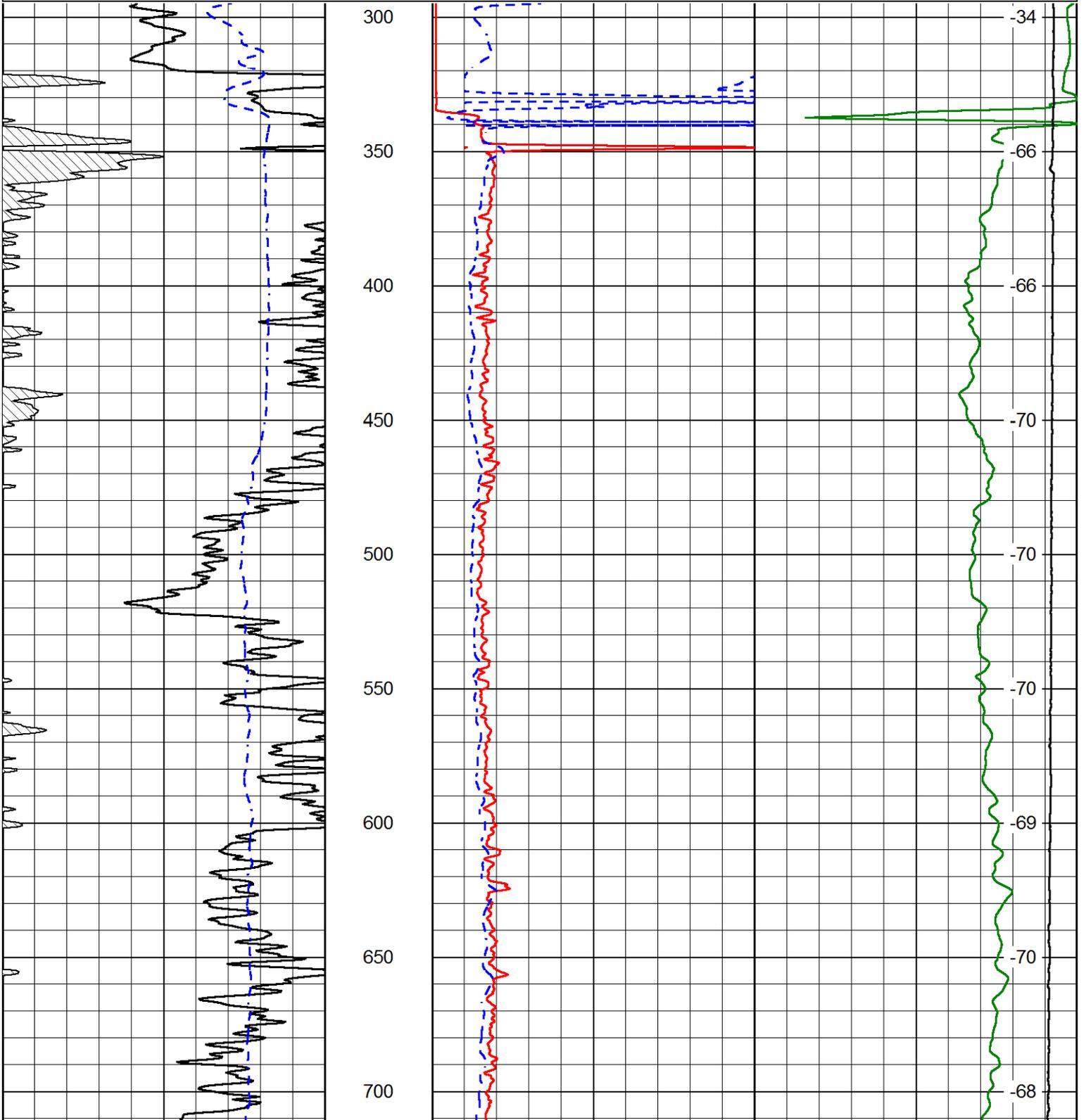
Database File suemaur_campbell_1hd.db
 Dataset Pathname DILDUCP/suestck2
 Presentation Format dil2in
 Dataset Creation Mon Dec 07 22:37:21 2015
 Charted by Depth in Feet scaled 1:600

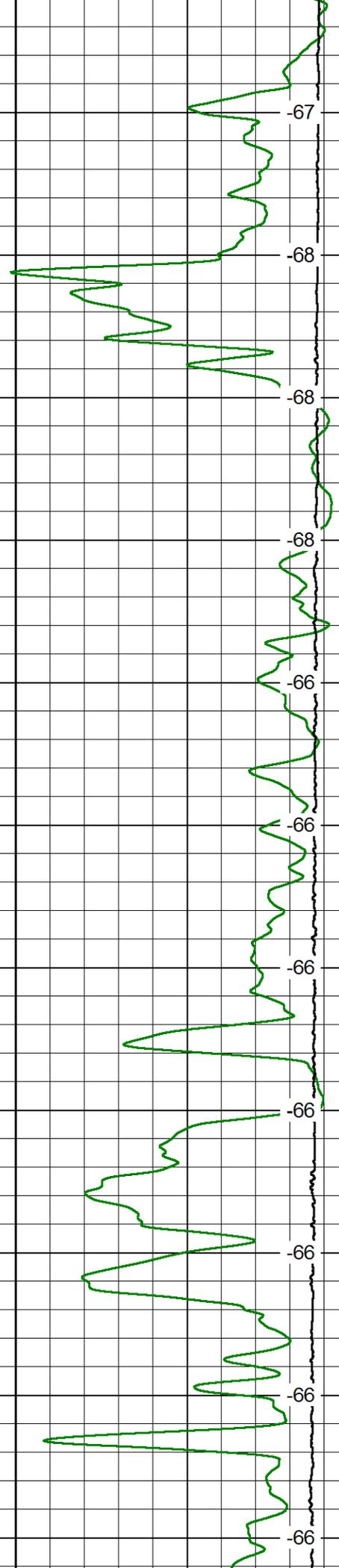
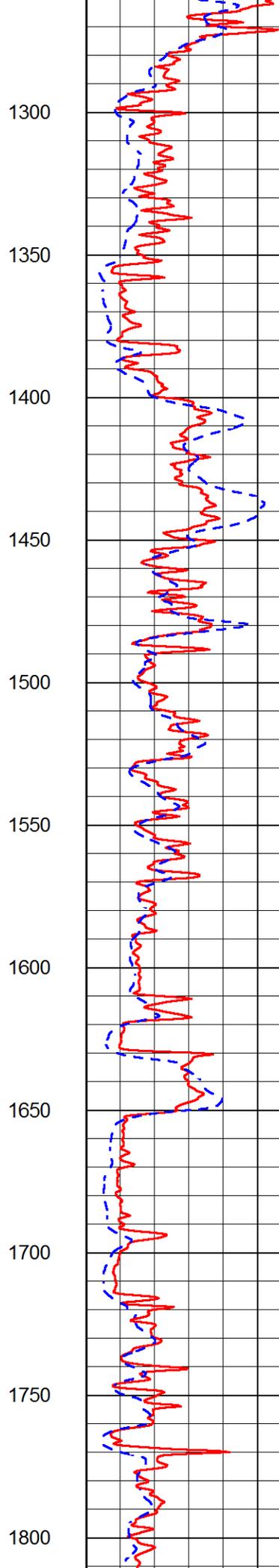
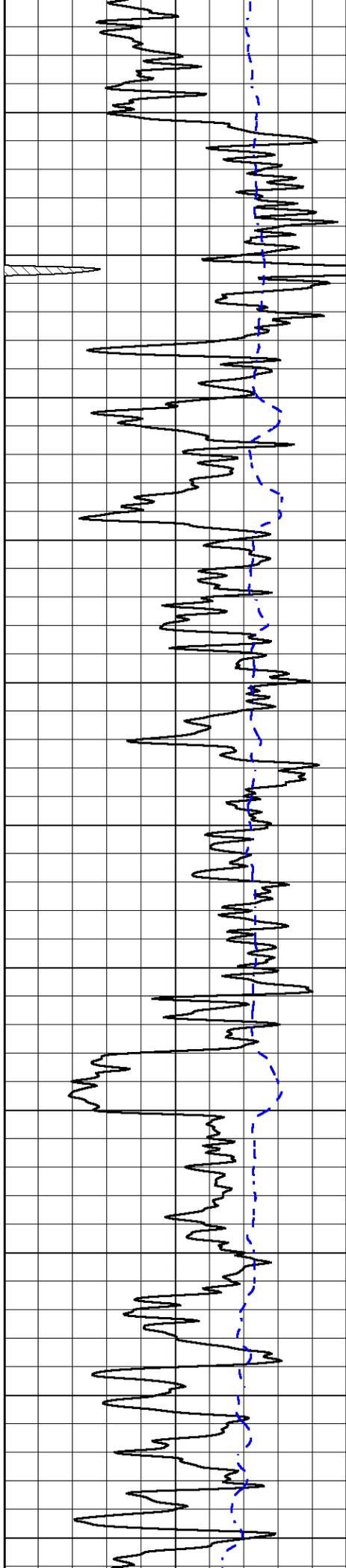
0 Gamma Ray (GAPI) 150
 -200 SP (mV) 0

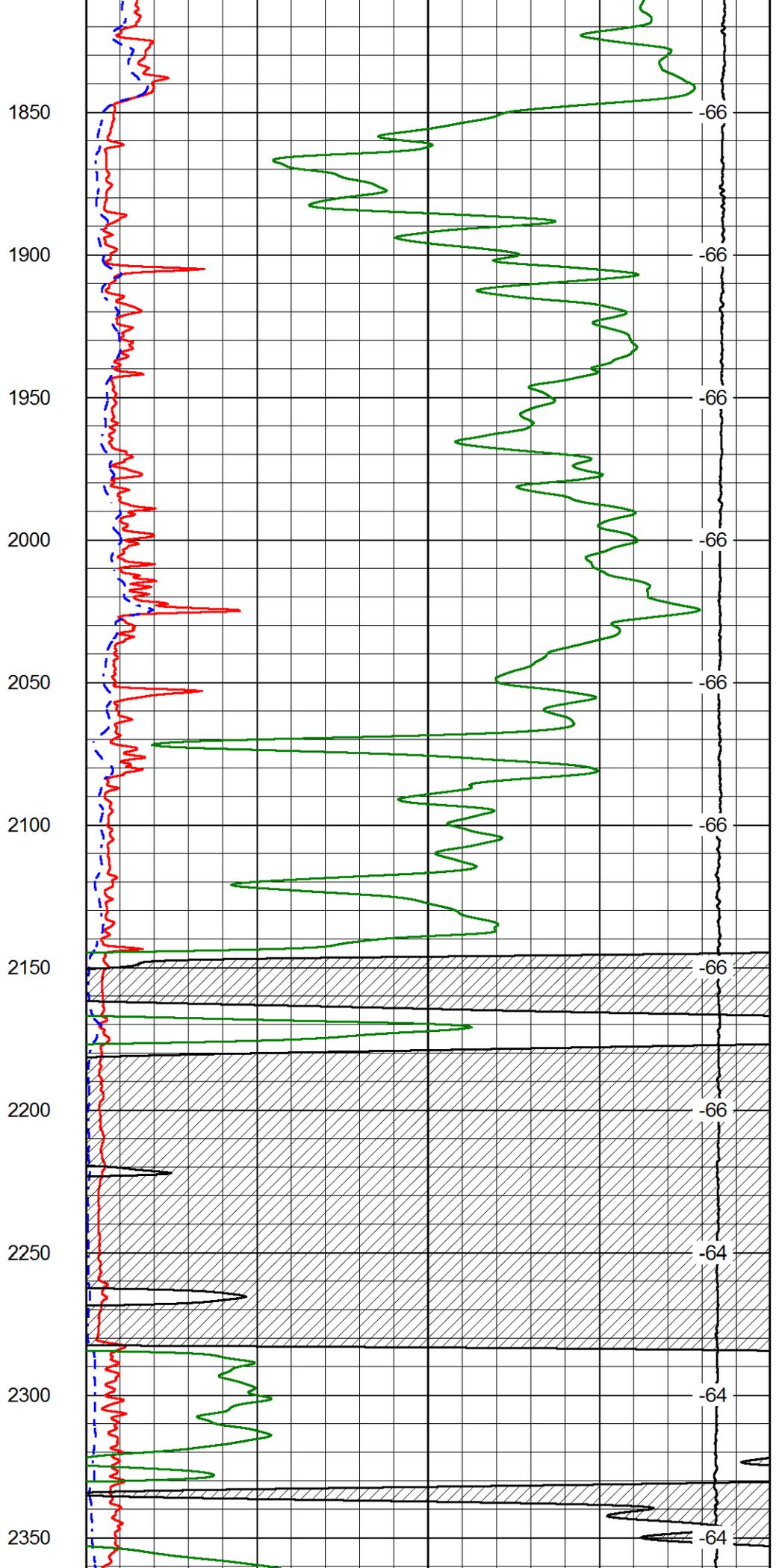
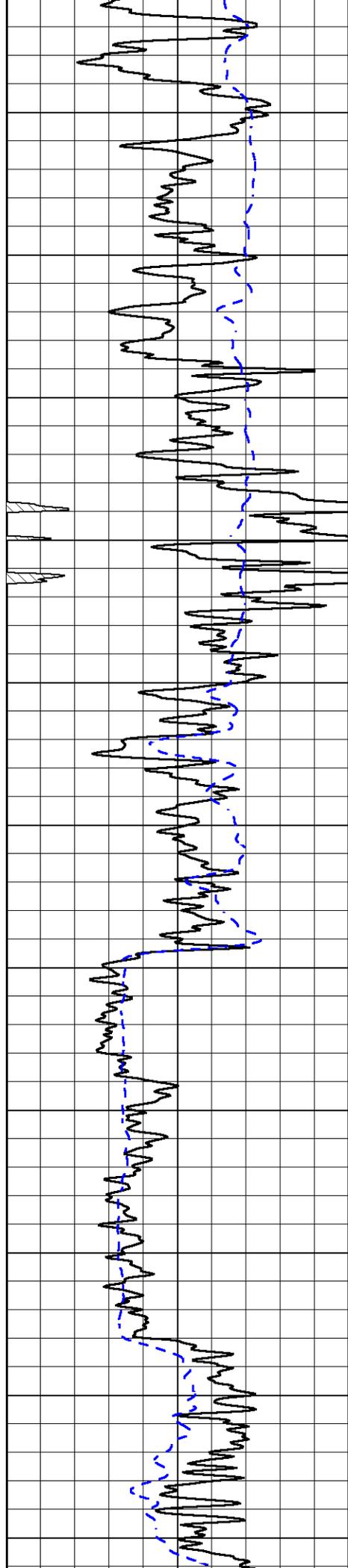
1000 Conductivity 0
 15000 Line Tension (lb) 0

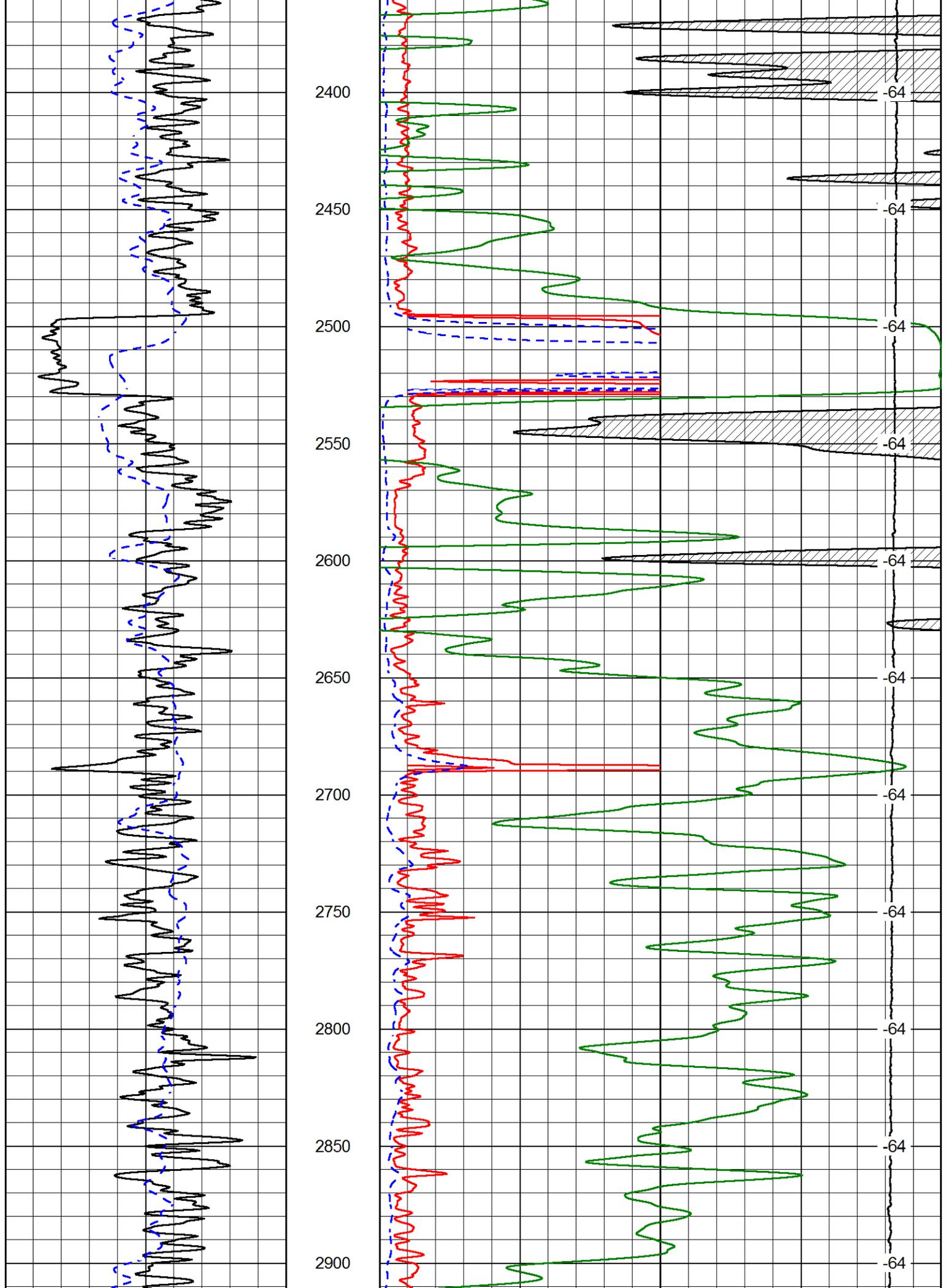
0 Shallow Resistivity (Ohm-m) 50
 0 Deep Resistivity (Ohm-m) 50
 Shallow Resistivity
 50 (Ohm-m) 500
 50 Deep Resistivity (Ohm-m) 500

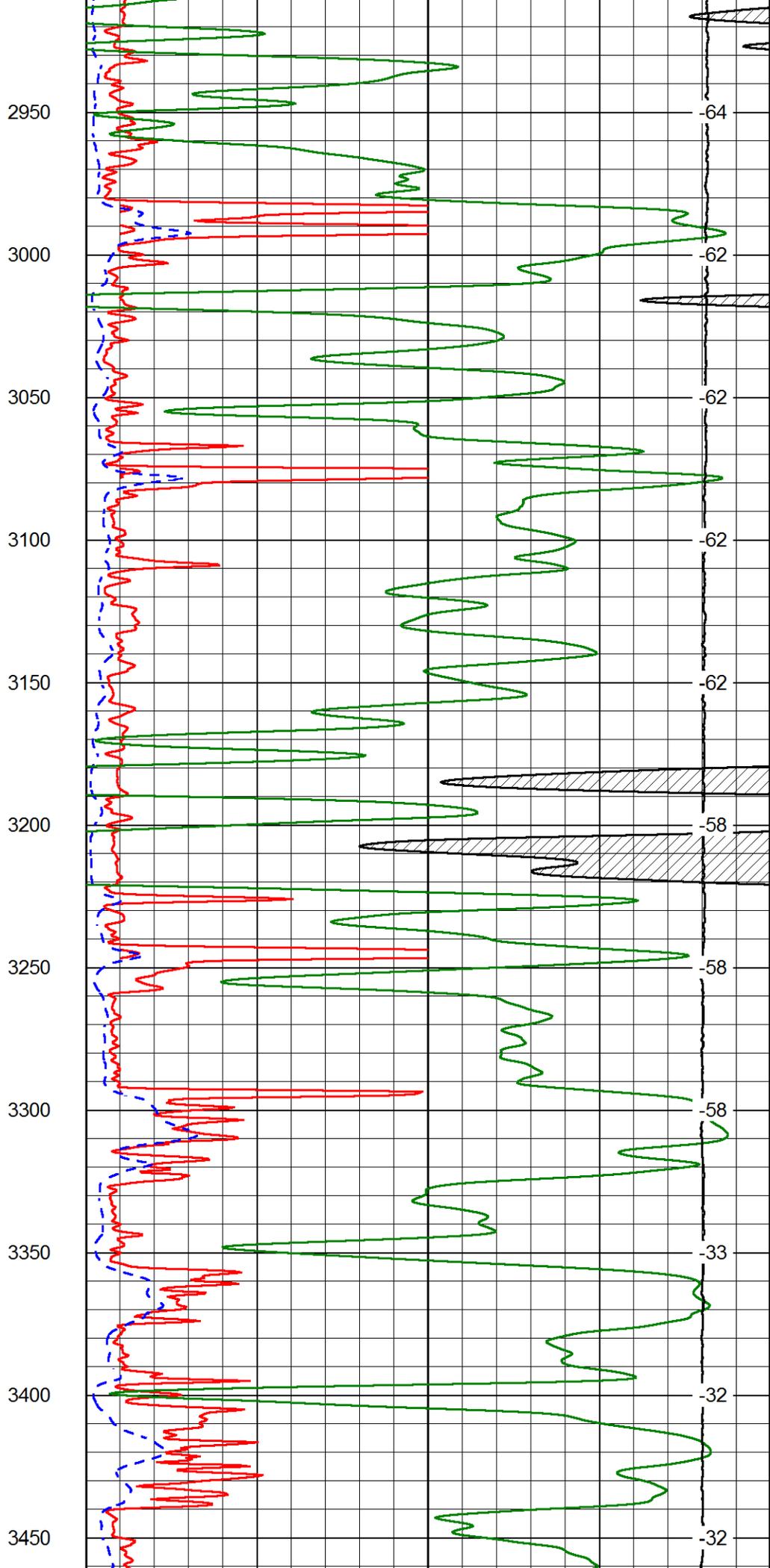
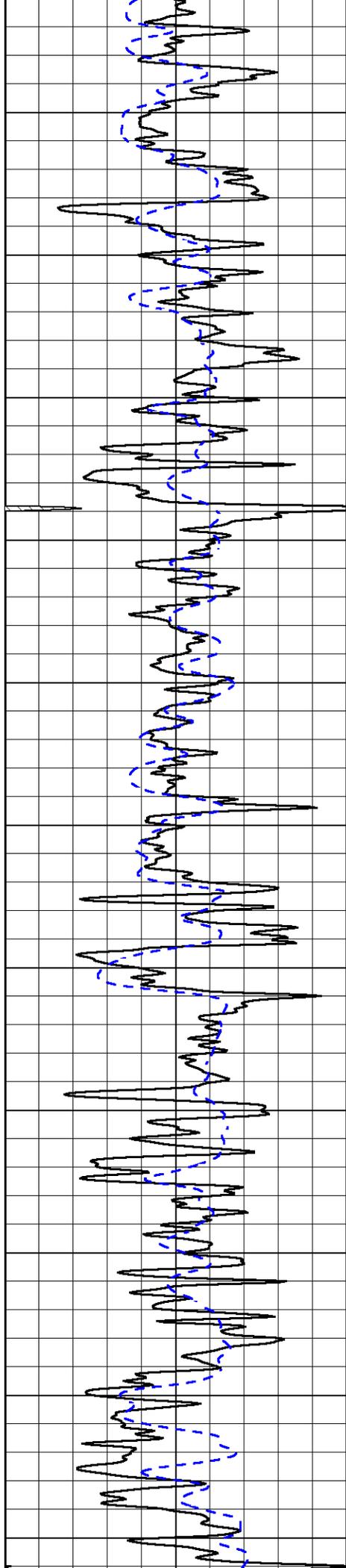
LSPD
 (ft/min)

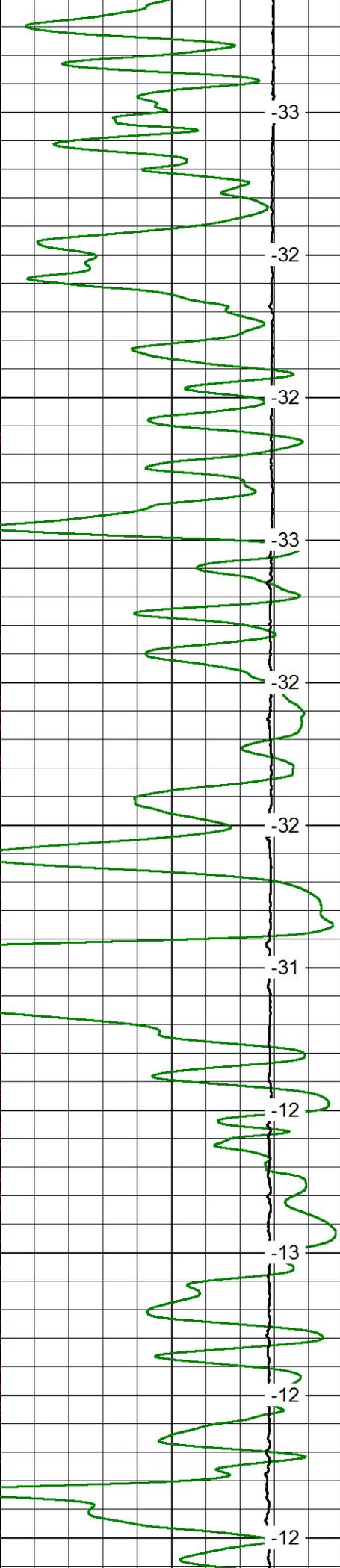
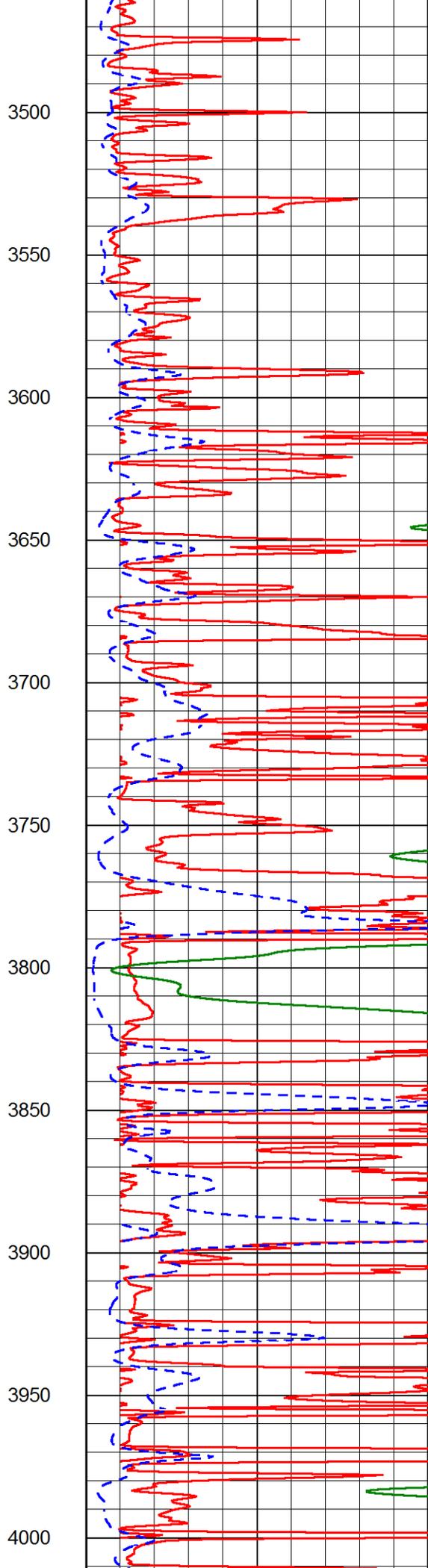
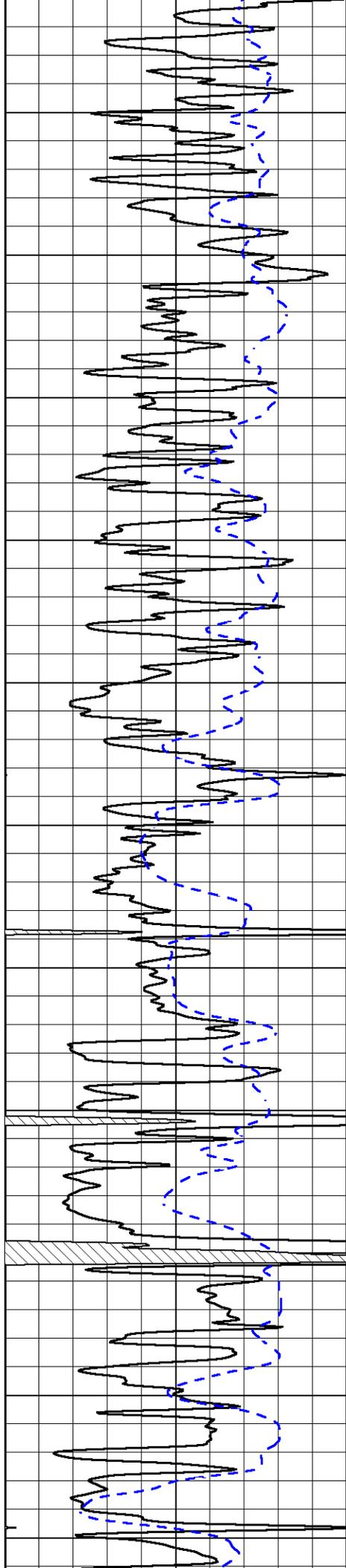


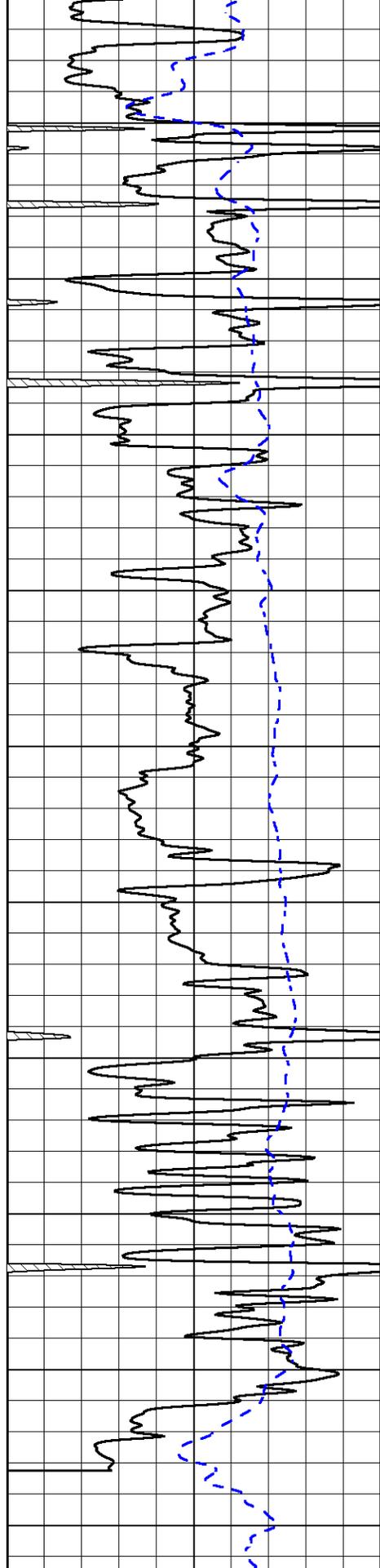




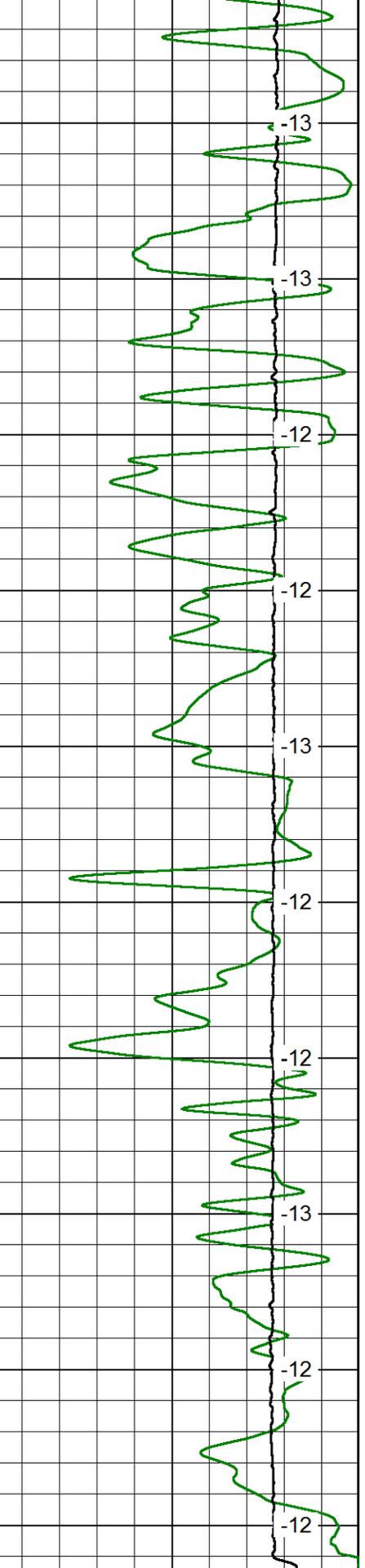
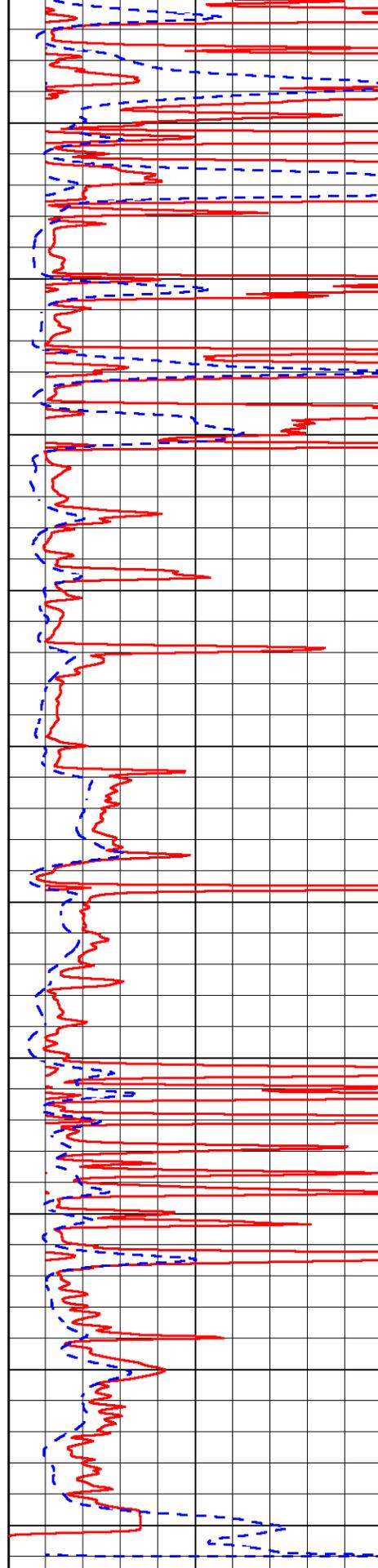








4050
4100
4150
4200
4250
4300
4350
4400
4450
4500



0 Gamma Ray (GAPI) 150
-200 SP (mV) 0

1000 Conductivity 0
15000 Line Tension (lb) 0

0	Shallow Resistivity (Ohm-m)	50	LSPD (ft/min)
0	Deep Resistivity (Ohm-m)	50	

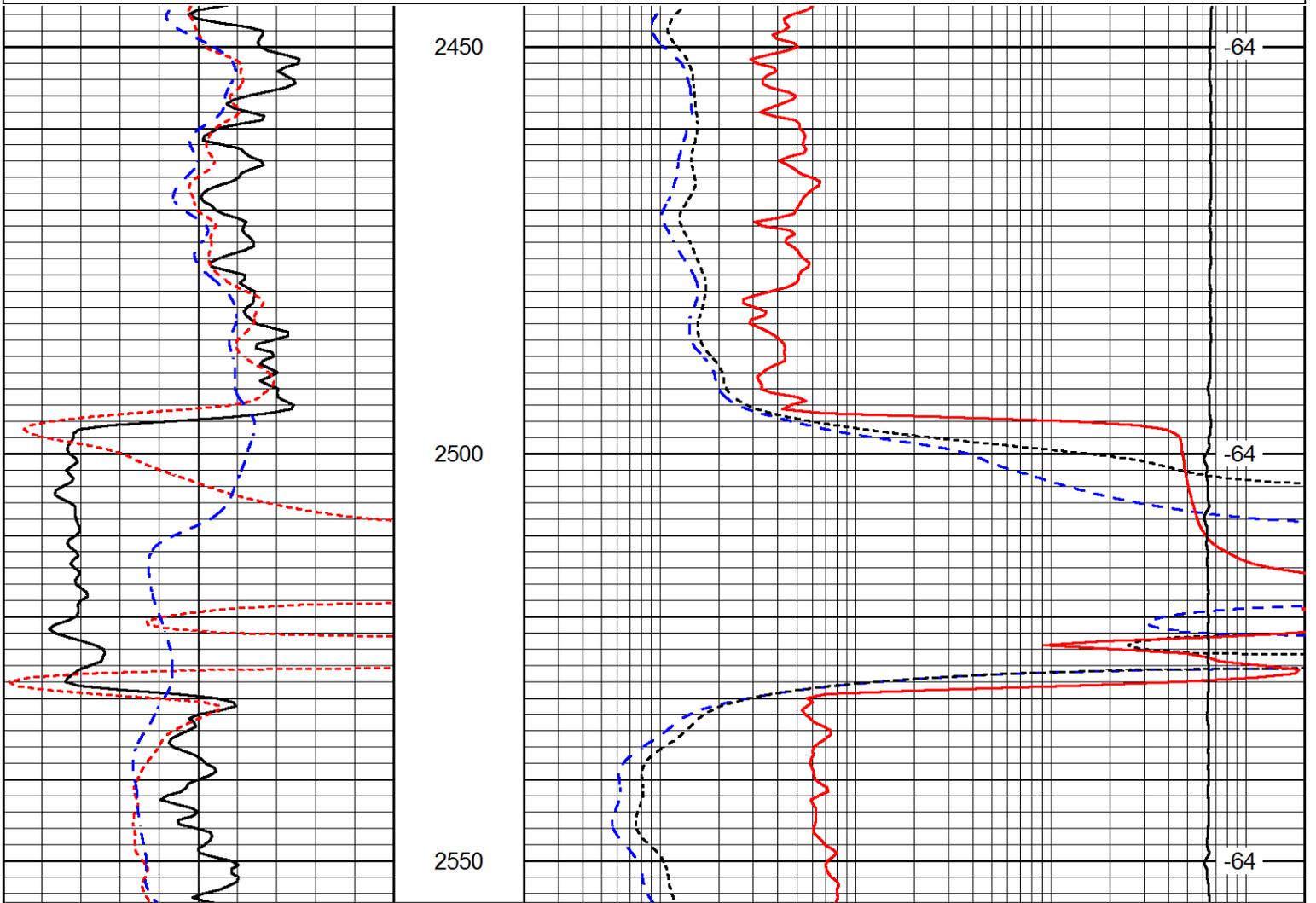
Shallow Resistivity		
50	(Ohm-m)	500
50 Deep Resistivity (Ohm-m) 500		

Database File suemaur_campbell_1hd.db
 Dataset Pathname DILDUCP/suestck2
 Presentation Format dil
 Dataset Creation Mon Dec 07 22:37:21 2015
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RxoRt	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)



0	Gamma Ray (GAPI)	150
-160	RxoRt	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

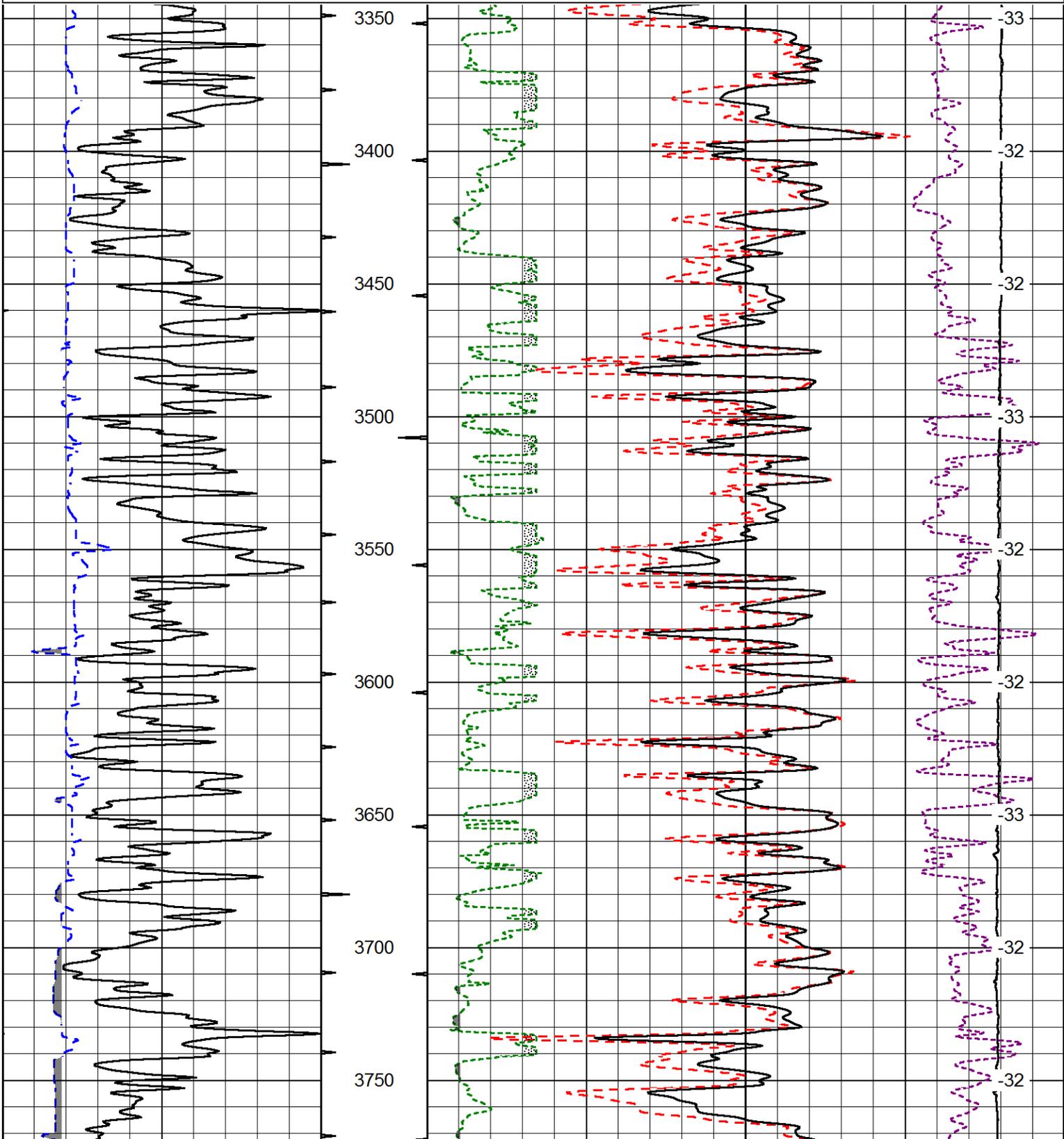
LSPD
(ft/min)

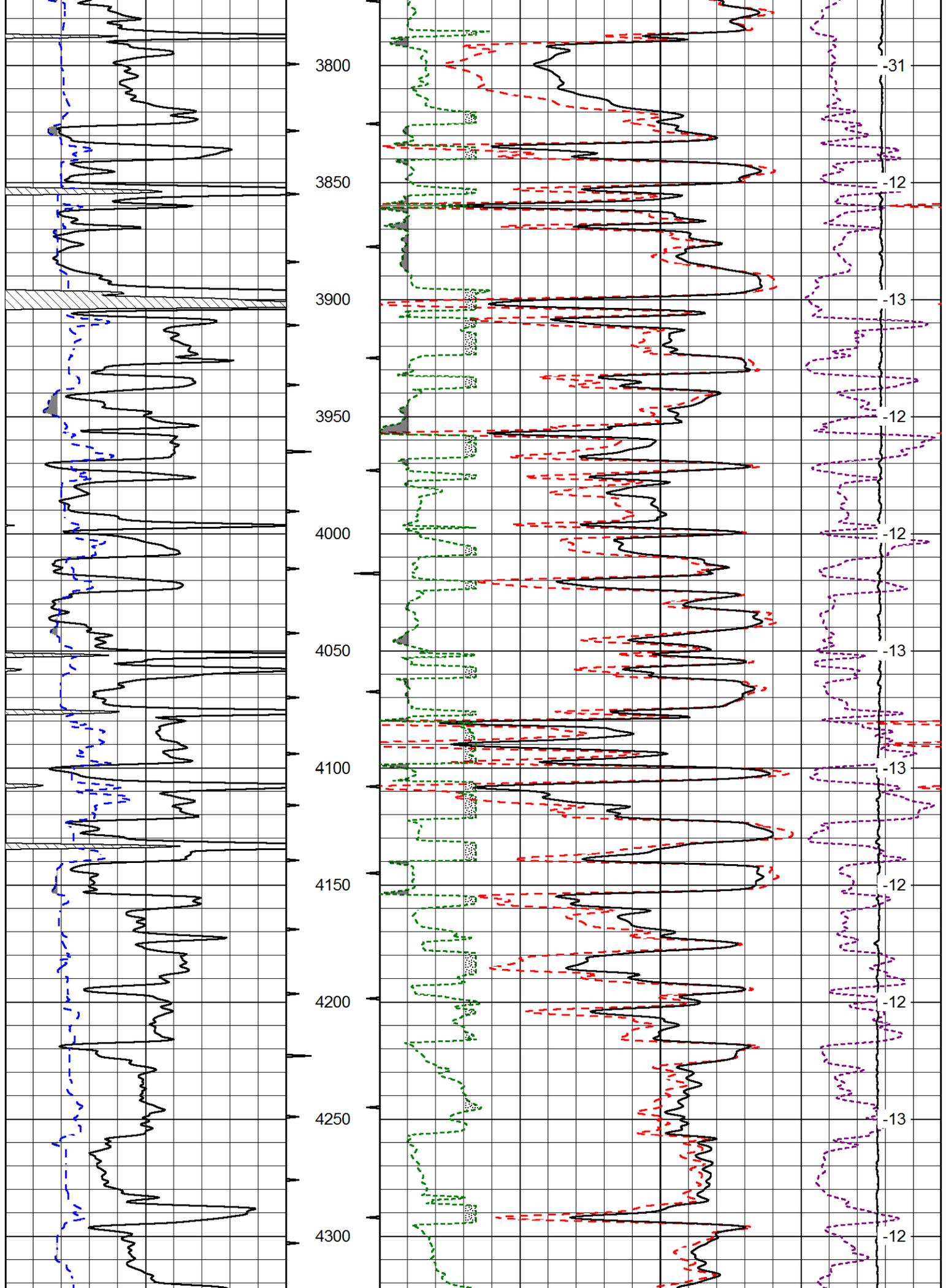
Database File suemaur_campbell_1hd.db
 Dataset Pathname DILDUCP/suestck2
 Presentation Format cdl
 Dataset Creation Mon Dec 07 22:37:21 2015
 Charted by Depth in Feet scaled 1:600

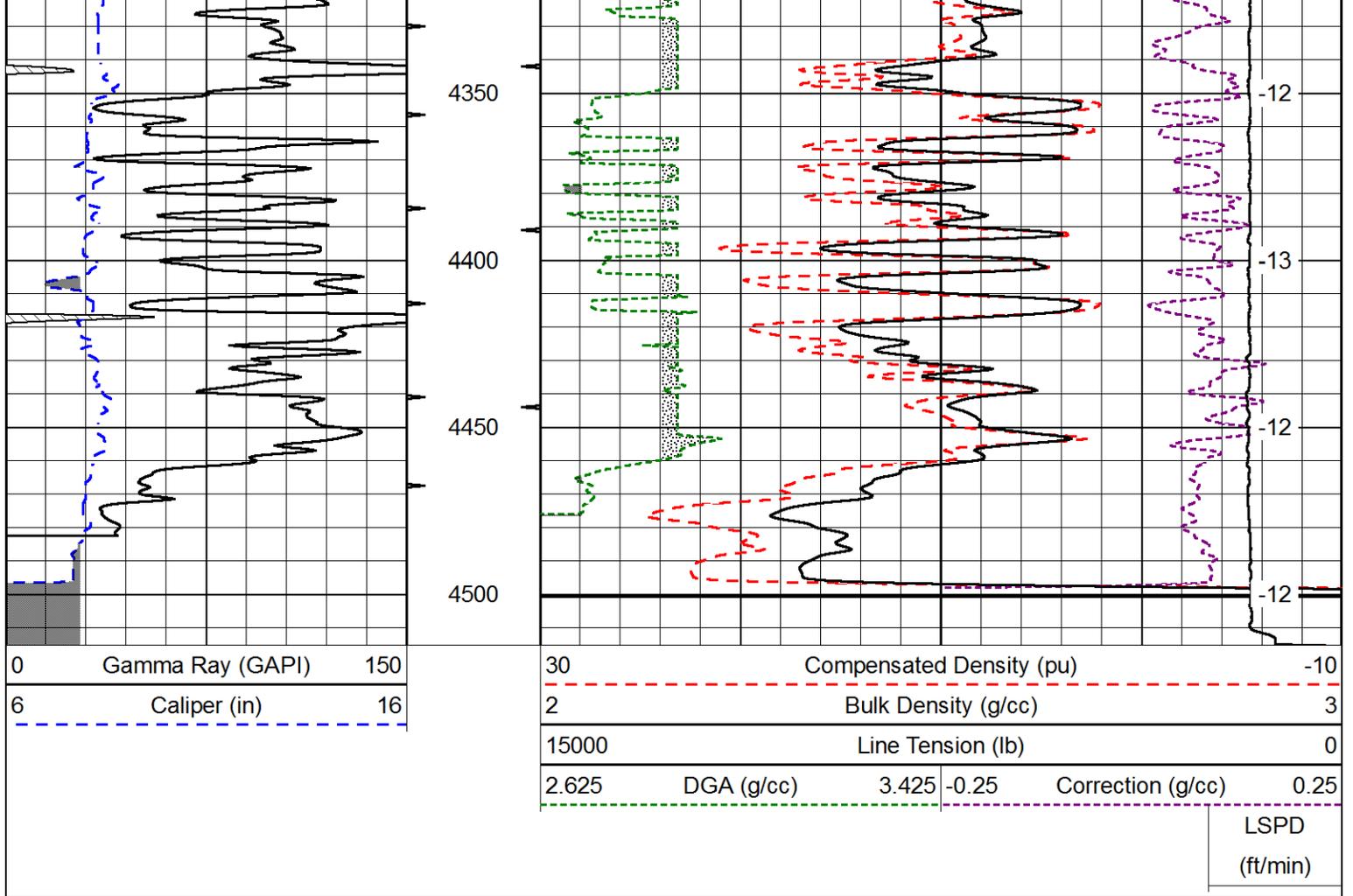
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	Compensated Density (pu)		-10
2	Bulk Density (g/cc)		3
15000	Line Tension (lb)		0
2.625	DGA (g/cc)	3.425	-0.25
		Correction (g/cc)	0.25

LSPD
(ft/min)

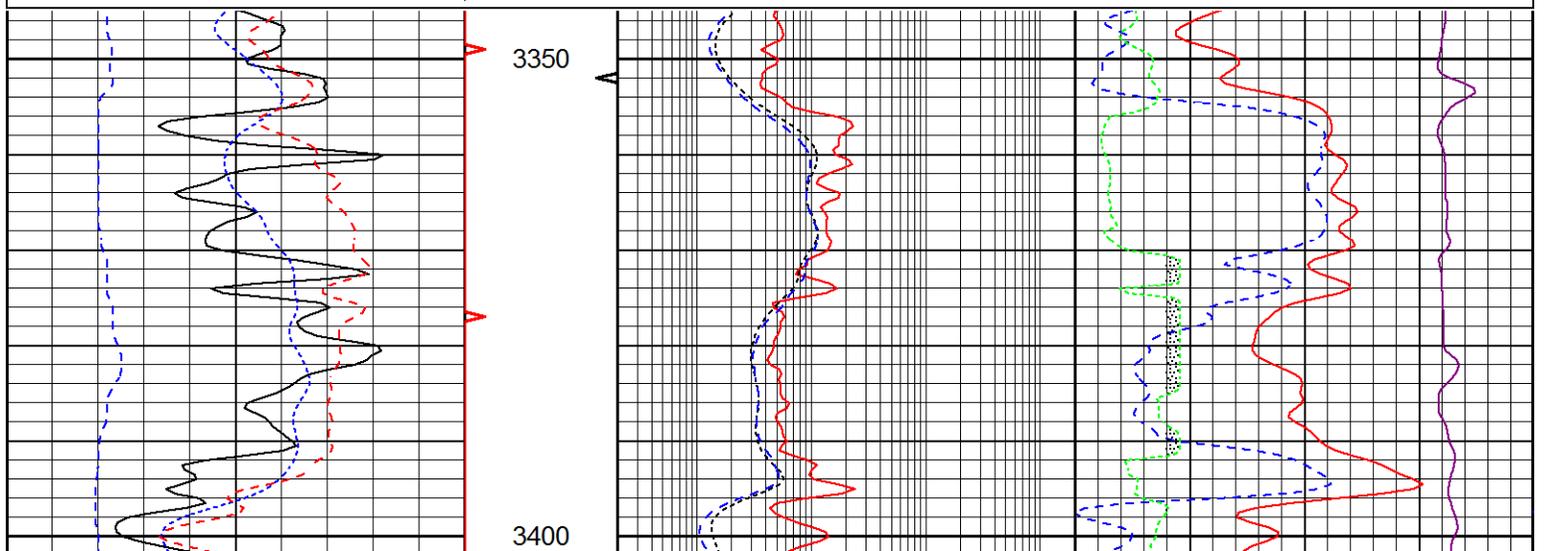


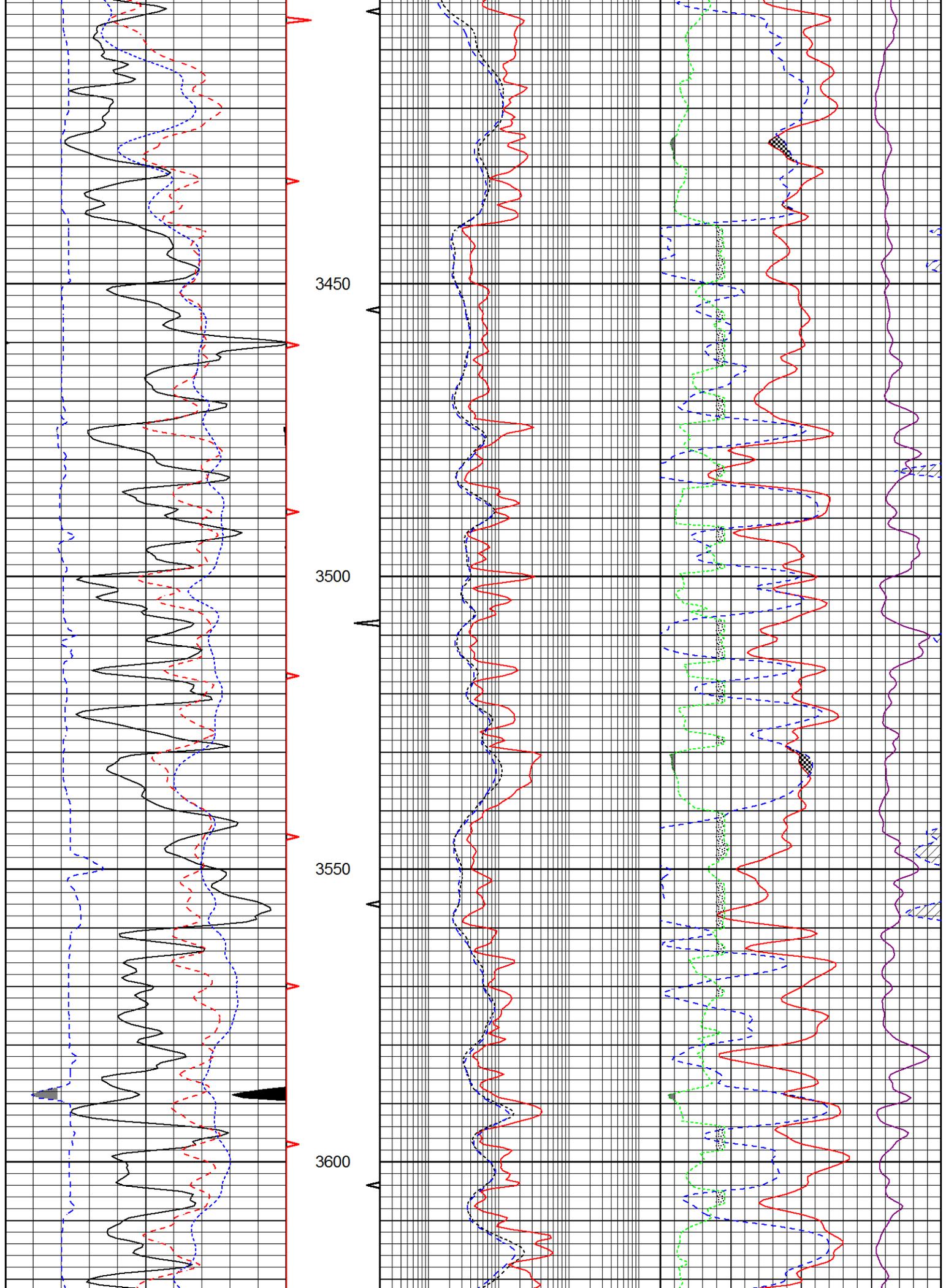


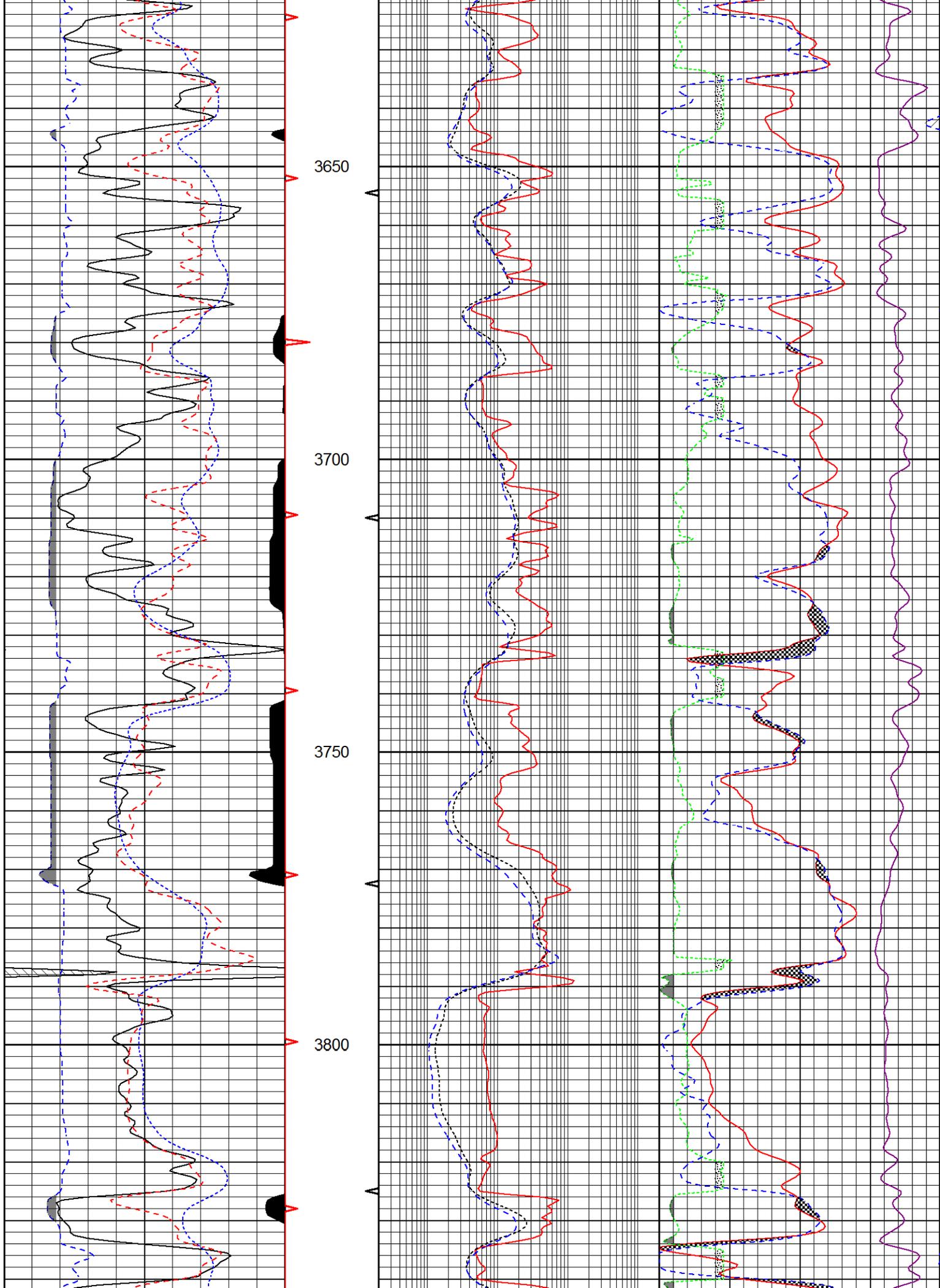


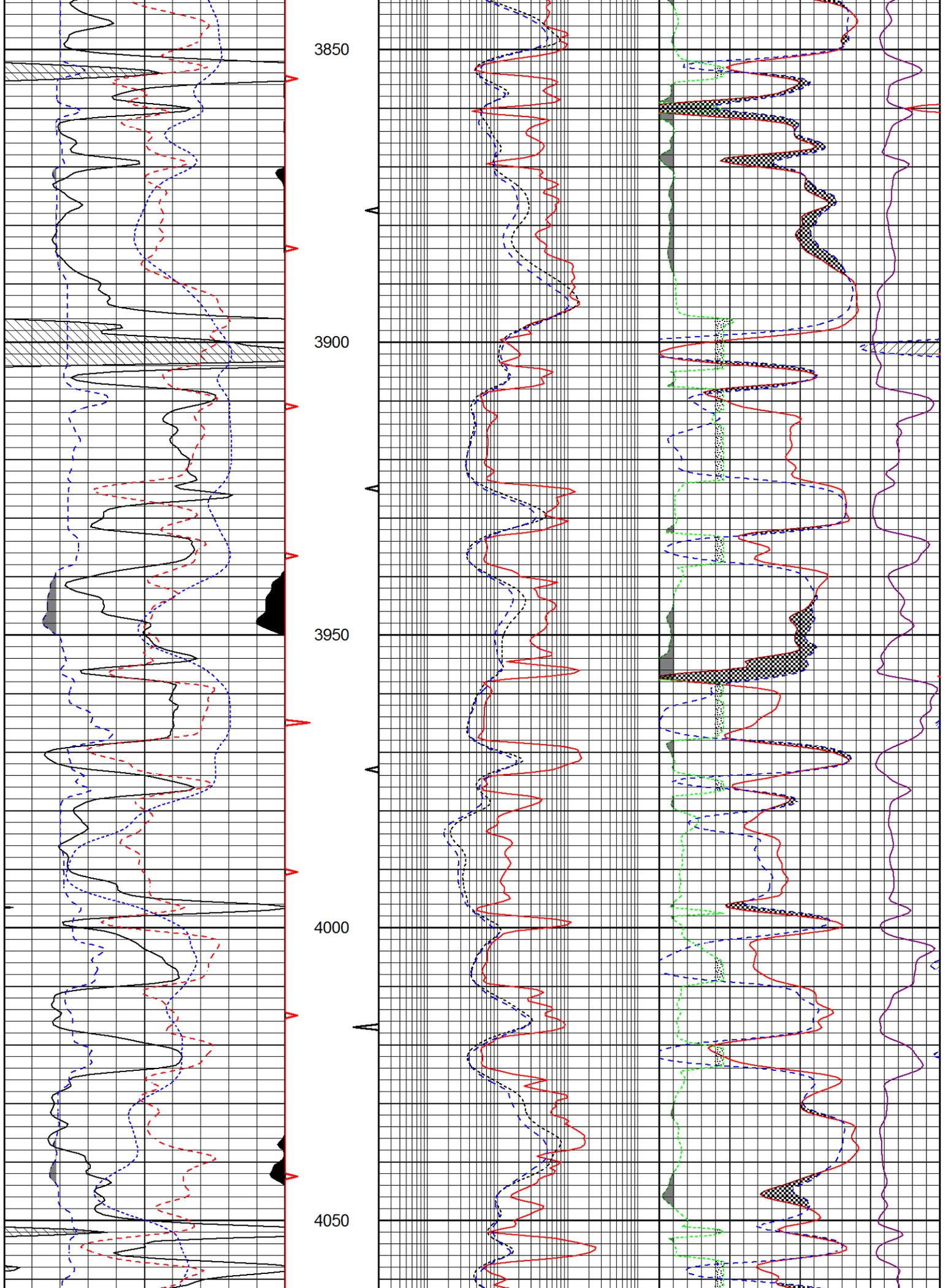
Database File	suemaur_campbell_1hd.db	
Dataset Pathname	DILDUCP/suestck2	
Presentation Format	suemaur	
Dataset Creation	Mon Dec 07 22:37:21 2015	
Charted by	Depth in Feet scaled 1:240	

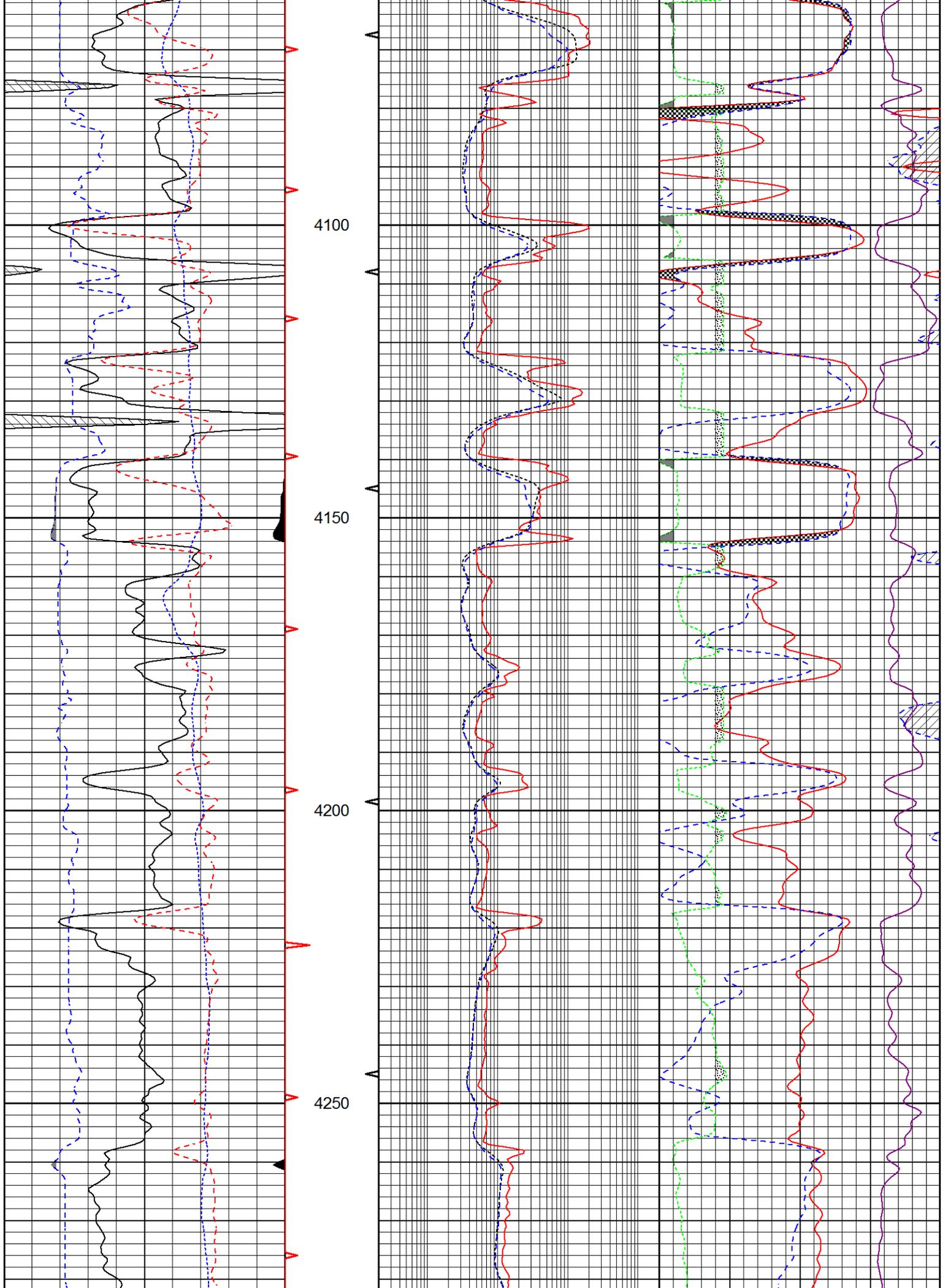
0	Gamma Ray (GAPI)	150	0.2	Shallow Guard (Ohm-m)	2000	30	Density Porosity (pu)	-10
150	GR (GAPI)	300	0.2	Medium Induction (Ohm-m)	2000	30	Neutron Porosity (pu)	-10
6	Caliper (in)	16	0.2	Deep Induction (Ohm-m)	2000	2.65	dga (g/cc)	3.75
2.875	DCAL (in)	7.875					RHOC	
-200	SP (mV)	0					-0.25 (g/cc)	0.25
-160	Rxo/Rt	40						

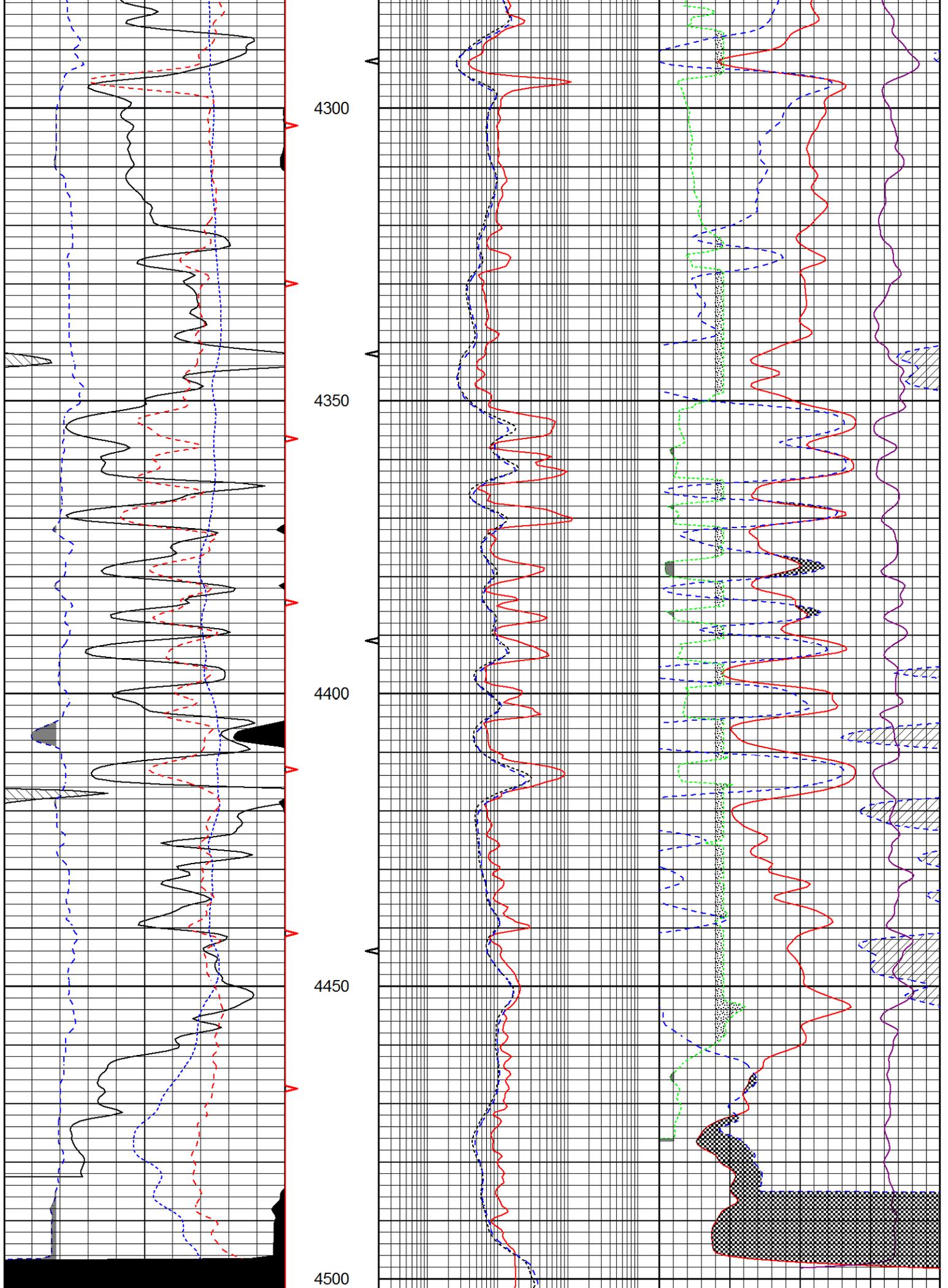












0	Gamma Ray (GAPI)	150
150	GR (GAPI)	300
6	Caliper (in)	16
2.875	DCAL (in)	7.875
-200	SP (mV)	0
-160	Rxo/Rt	40

0.2	Shallow Guard (Ohm-m)	2000	30	Density Porosity (pu)	-10
0.2	Medium Induction (Ohm-m)	2000	30	Neutron Porosity (pu)	-10
0.2	Deep Induction (Ohm-m)	2000	2.65	dga (g/cc)	3.75
RHOC					
-0.25 (g/cc) 0.25					

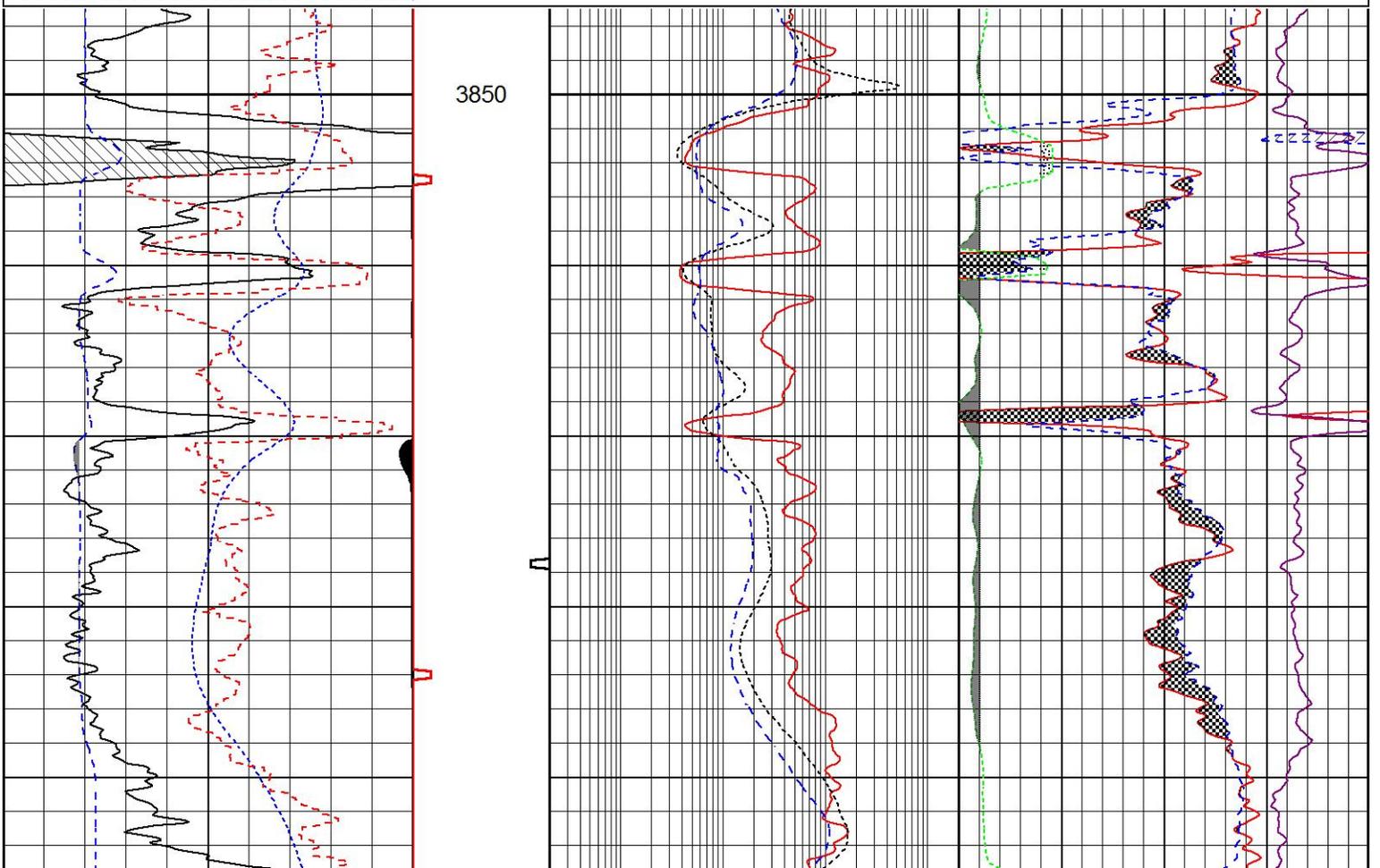


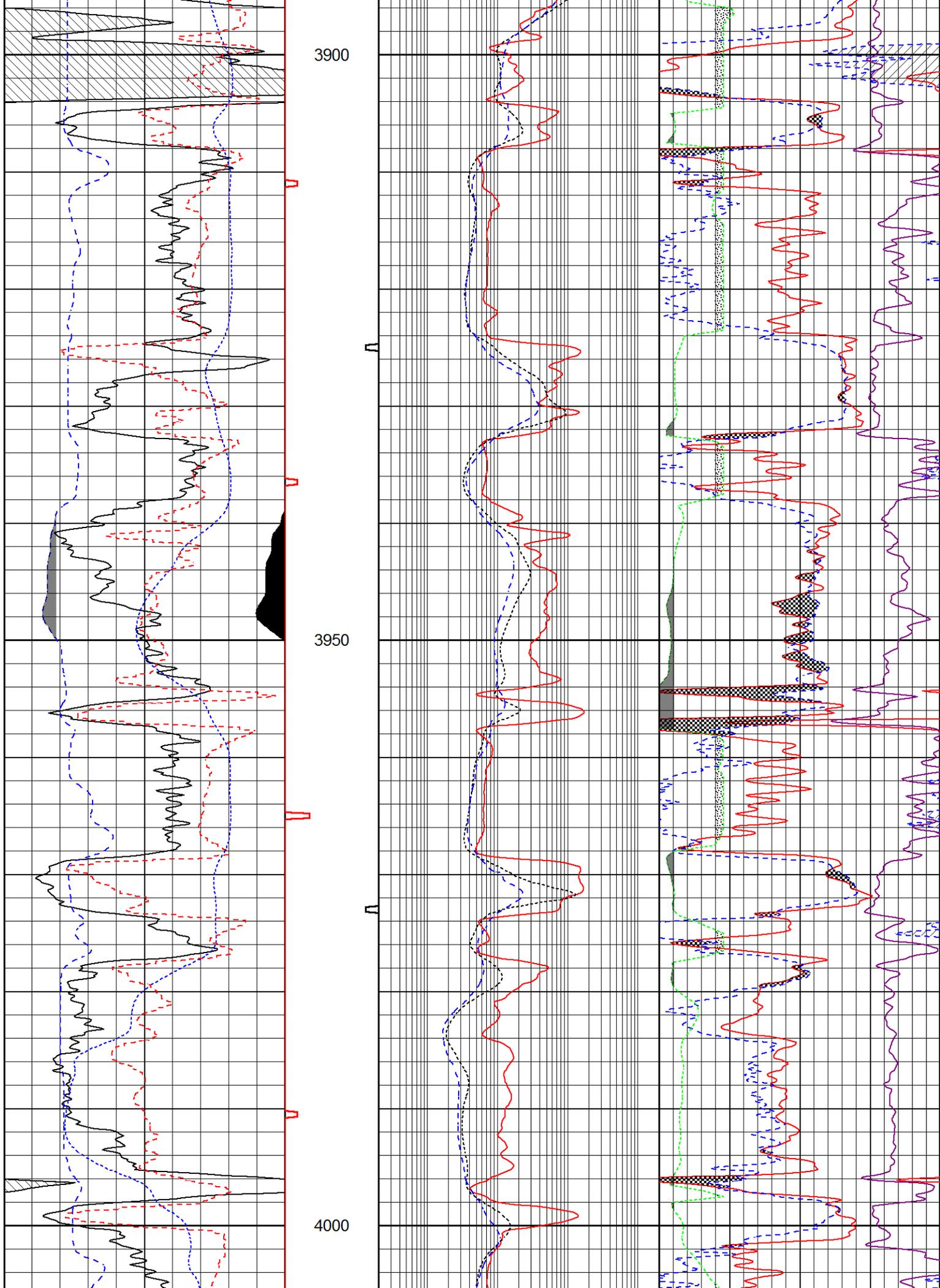
High Resolution

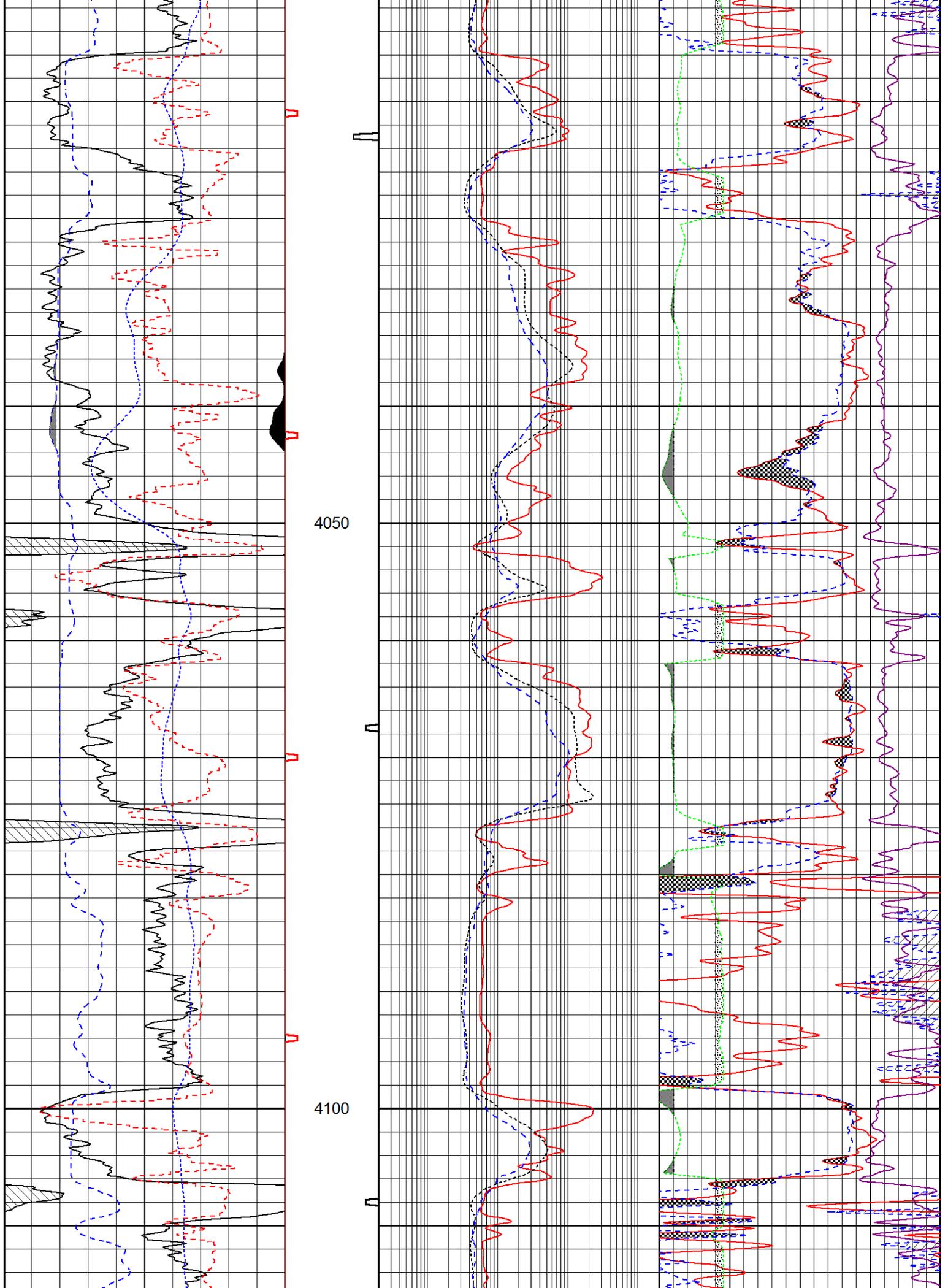
Database File: suemaur_campbell_1hd.db
 Dataset Pathname: DILDUCP/suhires
 Presentation Format: suemaur
 Dataset Creation: Mon Dec 07 22:05:33 2015
 Charted by: Depth in Feet scaled 1:120

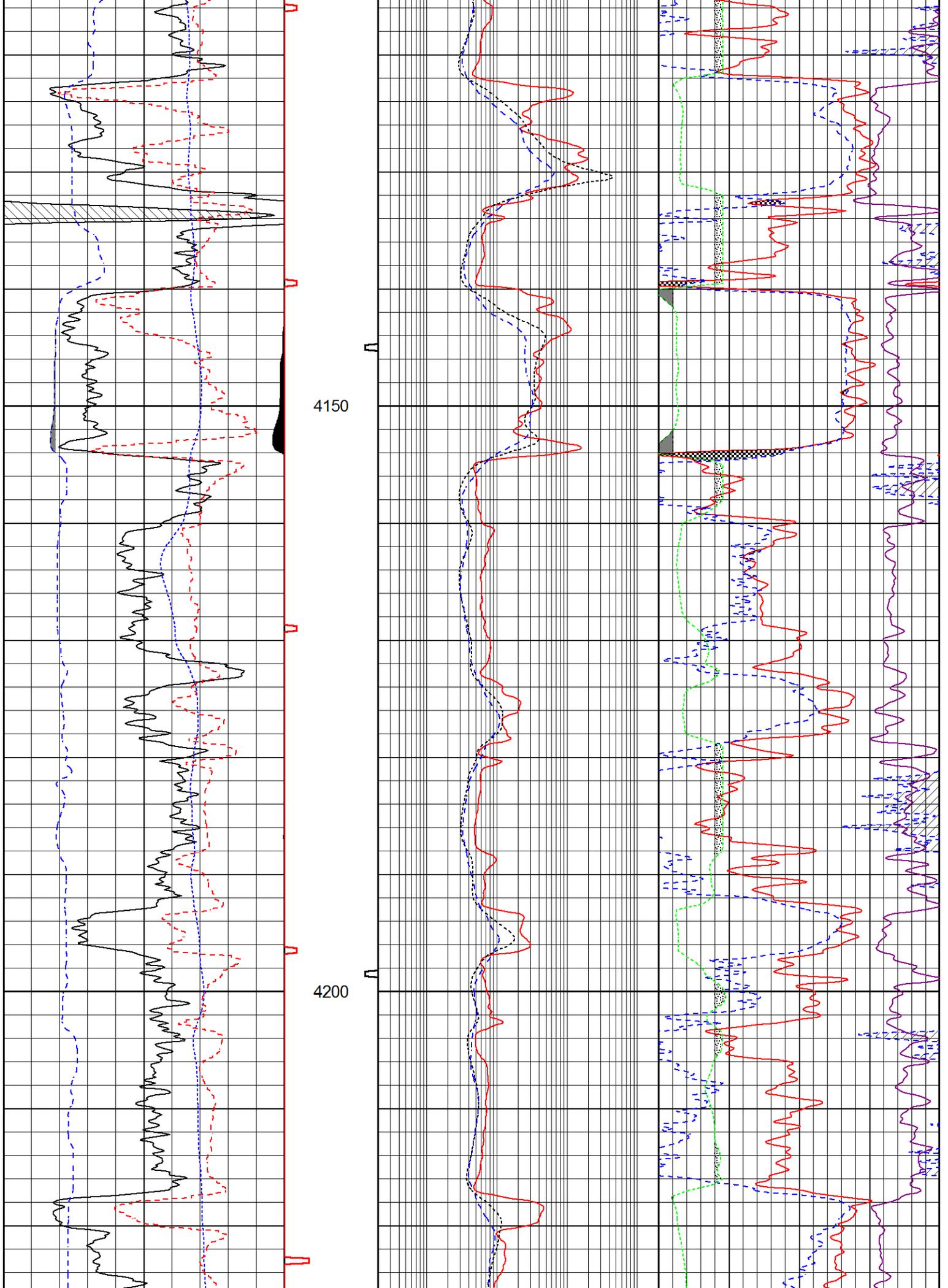
0	Gamma Ray (GAPI)	150
150	GR (GAPI)	300
6	Caliper (in)	16
2.875	DCAL (in)	7.875
-200	SP (mV)	0
-160	Rxo/Rt	40

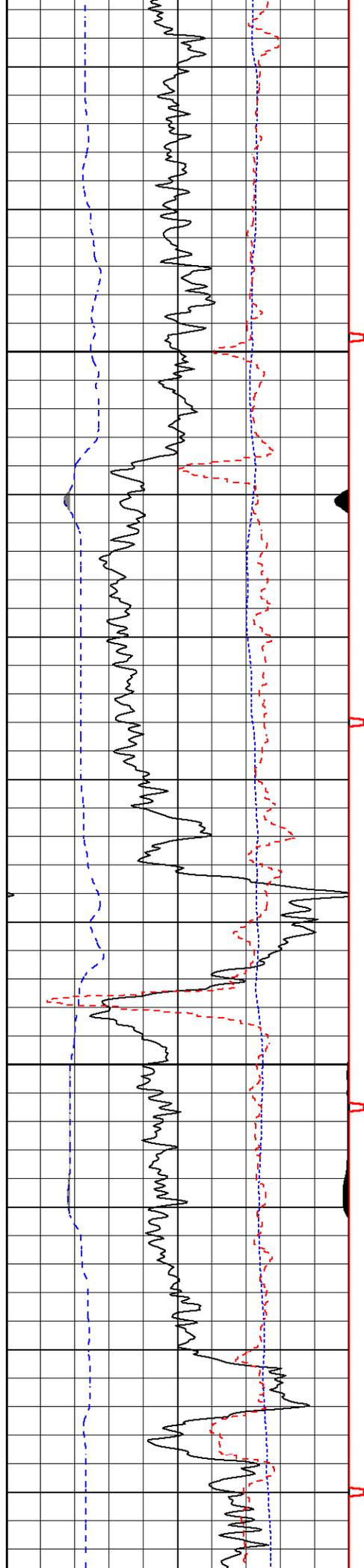
0.2	Shallow Guard (Ohm-m)	2000	30	Density Porosity (pu)	-10
0.2	Medium Induction (Ohm-m)	2000	30	Neutron Porosity (pu)	-10
0.2	Deep Induction (Ohm-m)	2000	2.65	dga (g/cc)	3.75
RHOC					
-0.25 (g/cc) 0.25					





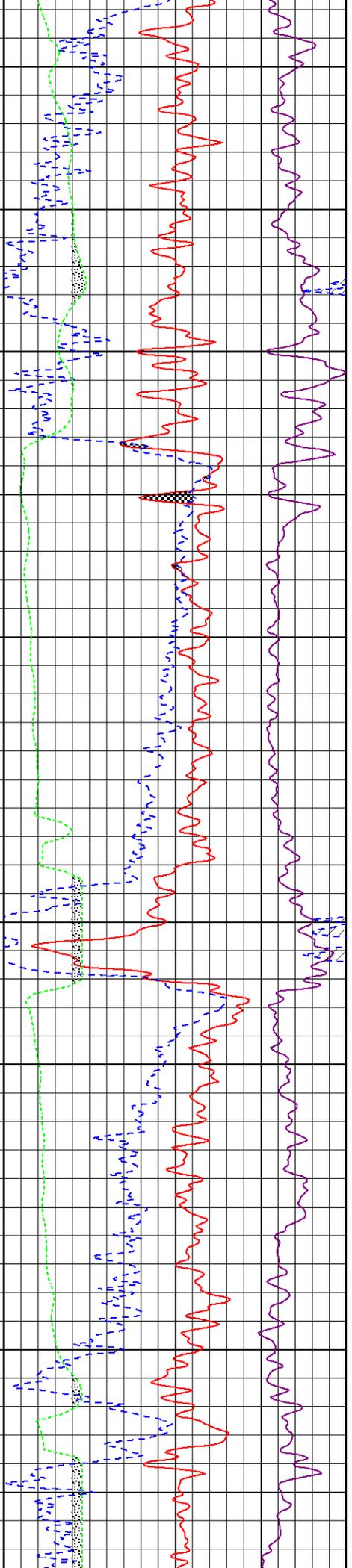
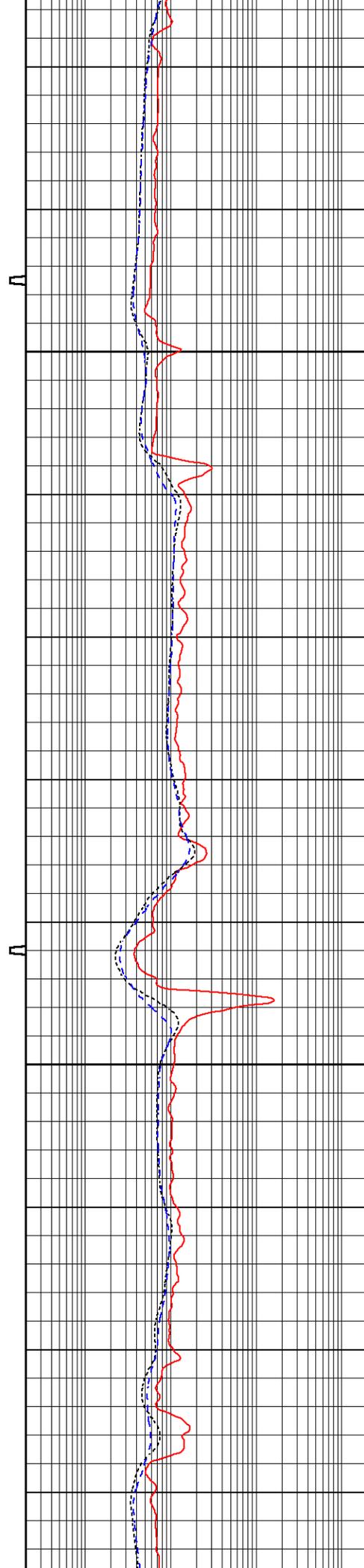


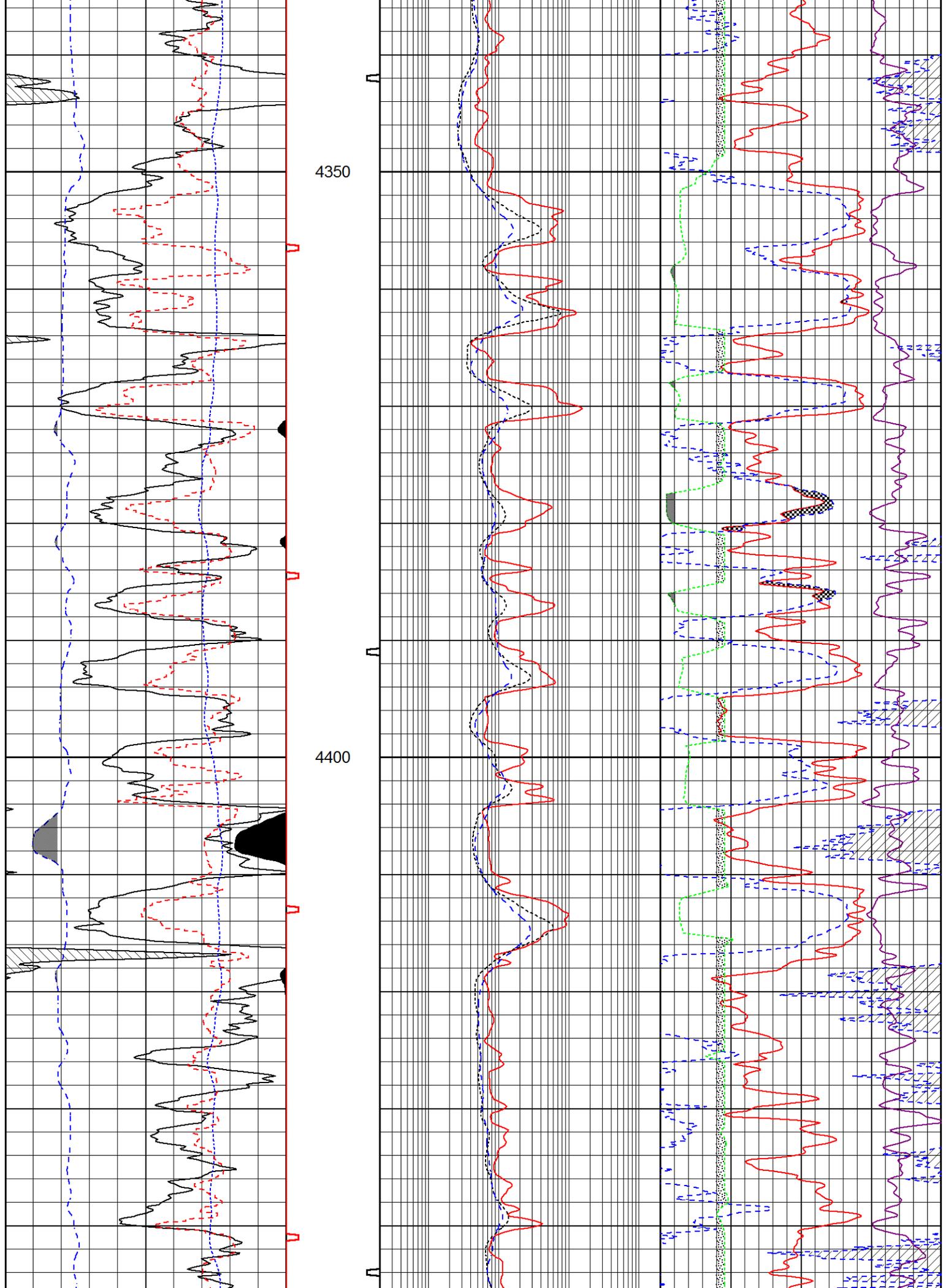


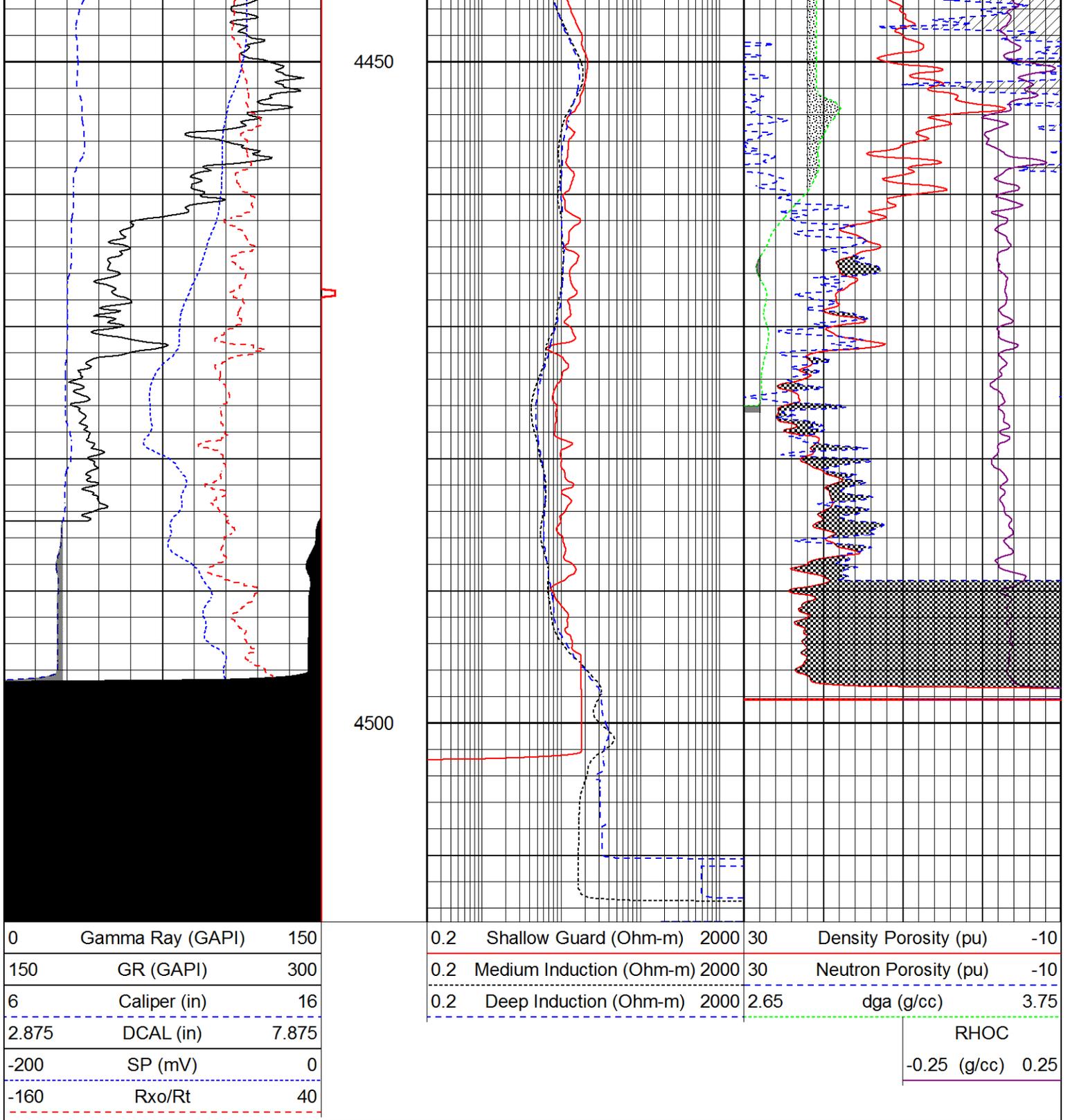


4250

4300







0	Gamma Ray (GAPI)	150
150	GR (GAPI)	300
6	Caliper (in)	16
2.875	DCAL (in)	7.875
-200	SP (mV)	0
-160	Rxo/Rt	40

0.2	Shallow Guard (Ohm-m)	2000	30	Density Porosity (pu)	-10
0.2	Medium Induction (Ohm-m)	2000	30	Neutron Porosity (pu)	-10
0.2	Deep Induction (Ohm-m)	2000	2.65	dga (g/cc)	3.75
				RHOC	
				-0.25 (g/cc)	0.25