



DUAL COMP POROSITY LOG

Pioneer Energy Services

Company MUSTANG FUEL CORPORATION
Well COMMERFORD NO. 1-13 SWD
Field SALINA
County SALINE
State KANSAS

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Field SALINA
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State KANSAS

Location: API #: 15-169-20,358-00-00

Other Services

SEC 13 TWP 15S RGE 3W
330' FNL & 2,310' FWL

BHV

Permanent Datum GROUND LEVEL Elevation 1257'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1265'
D.F. N/A
G.L. 1257'

Date 8/17/2015

Run Number ONE

Type Log CNL/CDL/ML/DIL

Depth Driller 3438'

Depth Logger 3440'

Bottom Logged Interval 3419'

Top Logged Interval 1400'

Type Fluid In Hole CHEMICAL

Salinity, PPM CL 760

Density 9.5

Level FULL

Max. Rec. Temp. F 110

Operating Rig Time 2 1/2 HOURS

Equipment -- Location 108 Hays

Recorded By J. LONG

Witnessed By ROY BLACK

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	00'	329'	9.625"	36#	00'	329'
TWO	8.750"	329'	TD	7.000"	23#	329'	TD

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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.

SALINA, SOUTH TO WATER WELL ROAD EXIT, 1/3 EAST TO OLD HIGHWAY 81 (9TH STREET),
1 SOUTH TO FARRELLY ROAD, 1/2 EAST, SOUTH INTO (WEST SIDE OF RR TRACKS)

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: J. LONG
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: ROY BLACK
Secondary Witness:
Secondary Witness:
Secondary Witness:

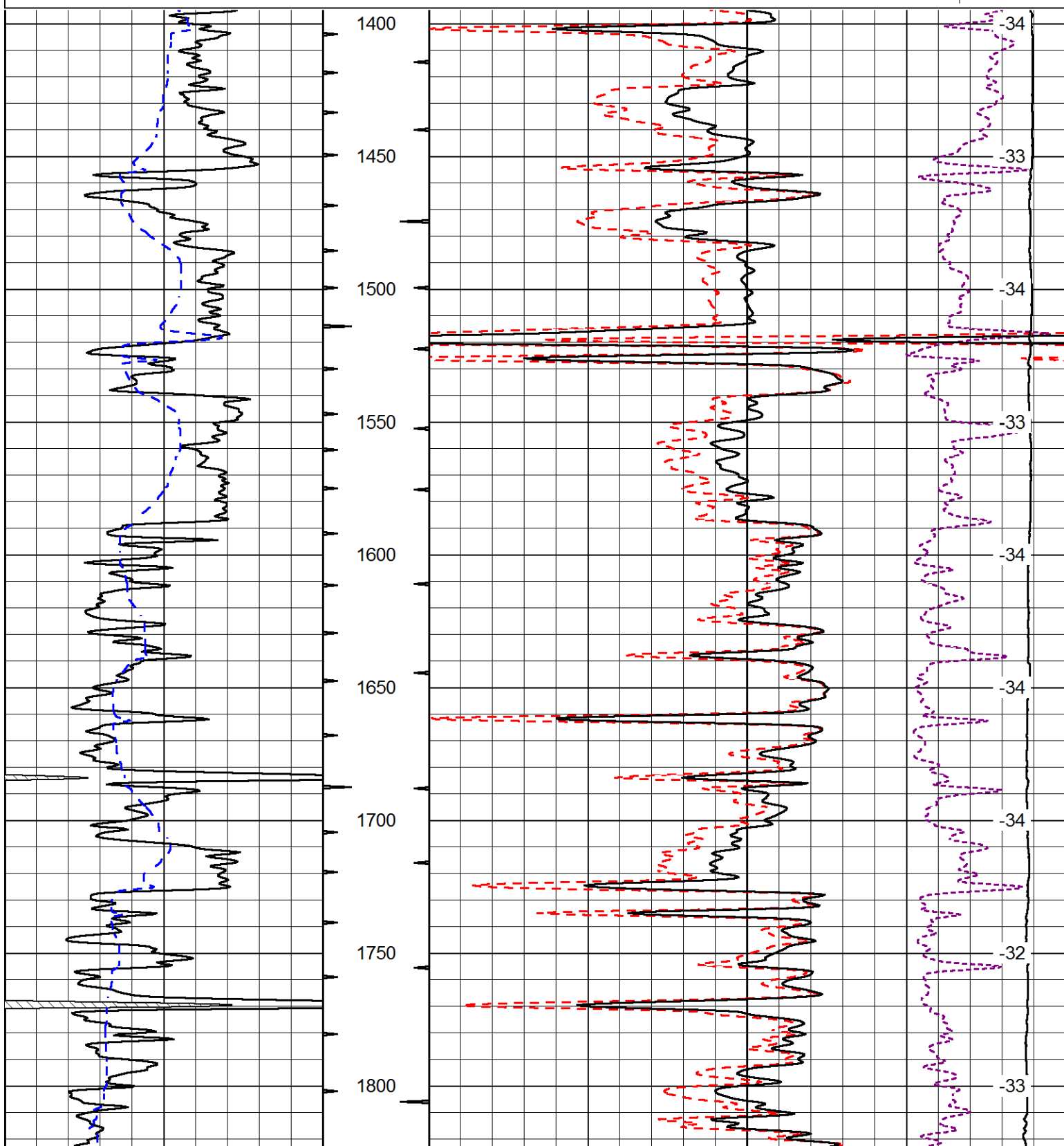
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Dataset Pathname CNLCDL/muststck
Presentation Format cdl
Dataset Creation Mon Aug 17 18:33:54 2015
Charted by Depth in Feet scaled 1:600

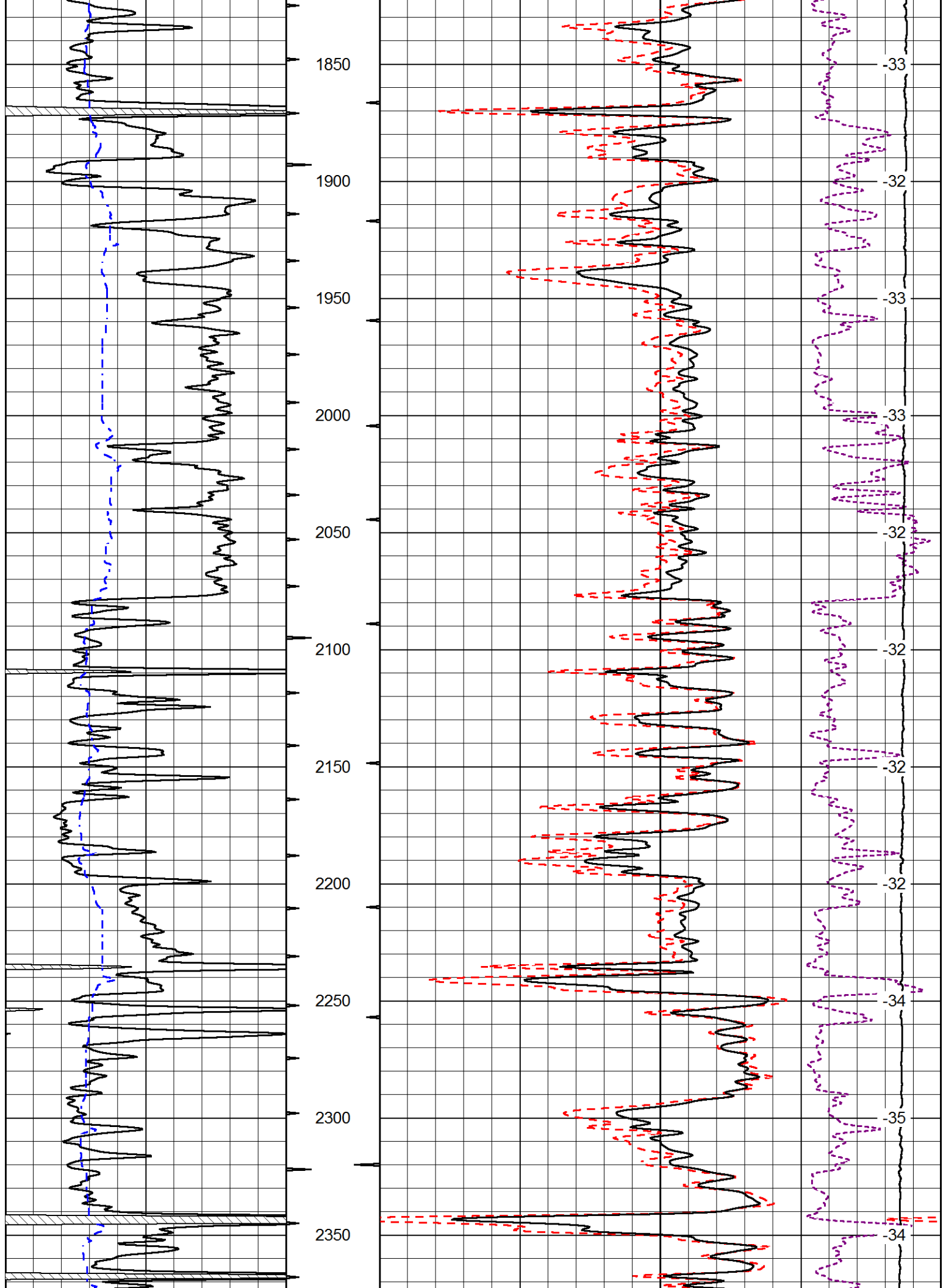
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6	Caliper (in)	16

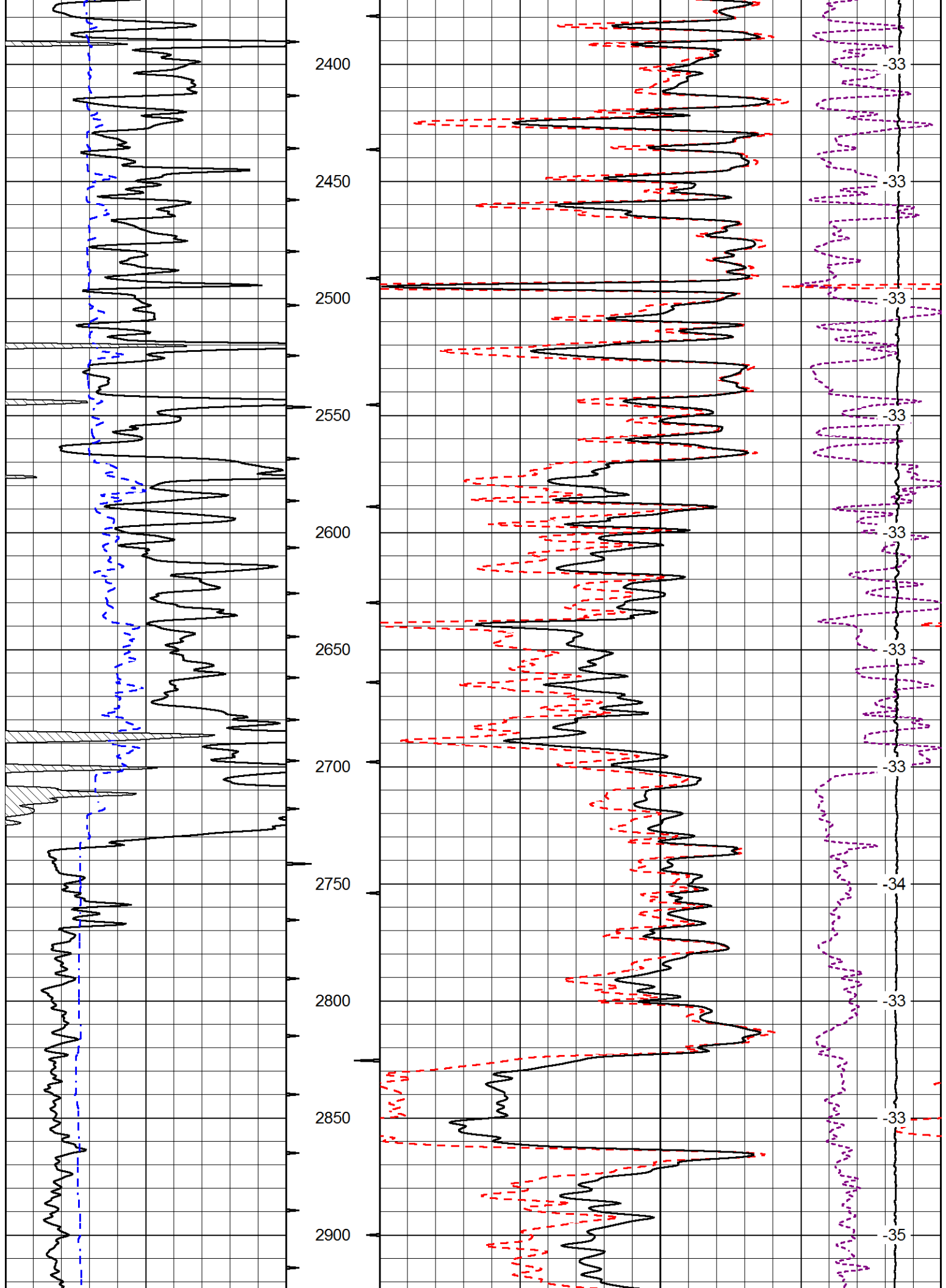
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2	Bulk Density (g/cc)	3
15000	Line Tension (lb)	0

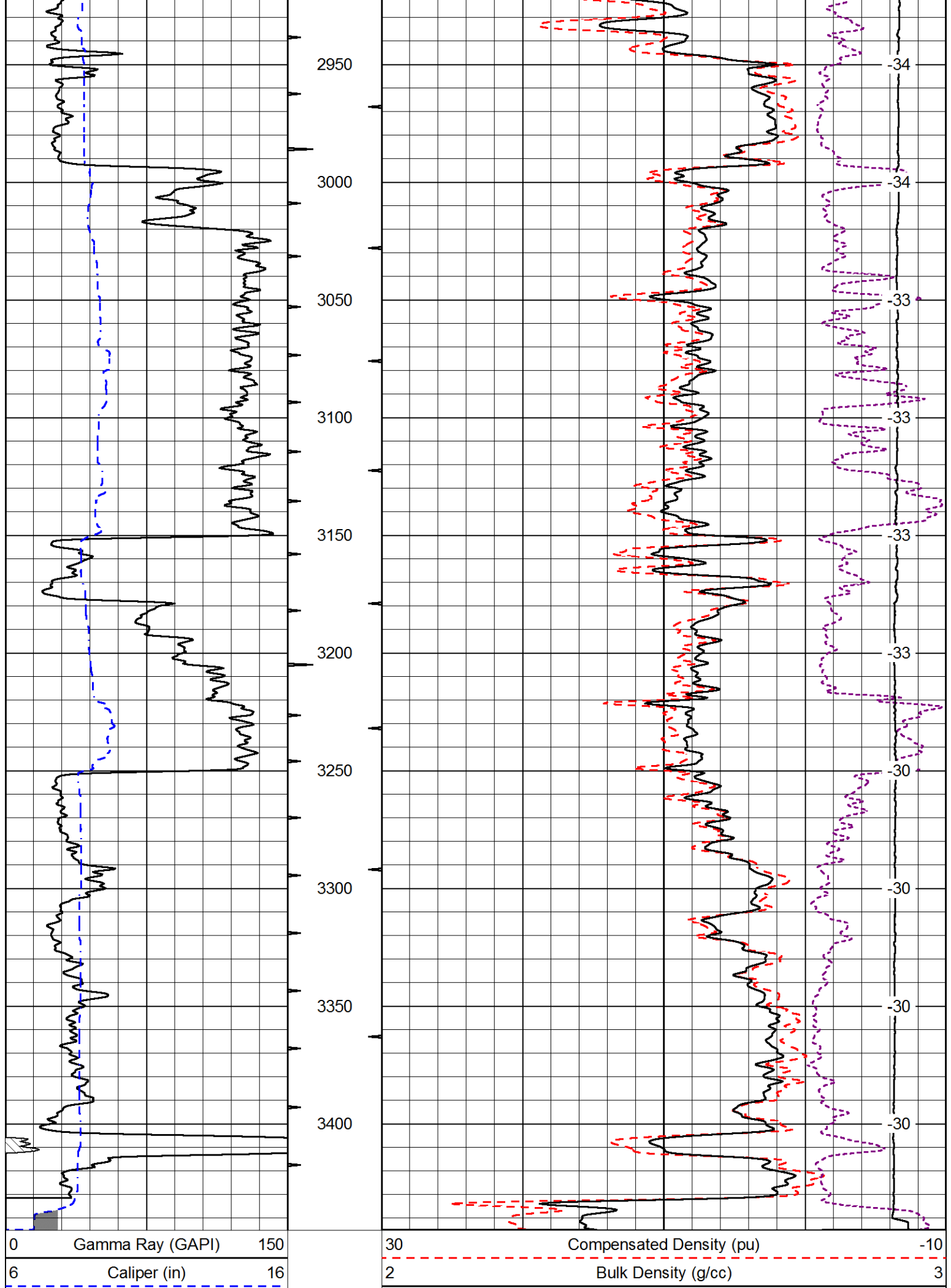
-0.25	Correction (g/cc)	0.25
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LSPD
(ft/min)





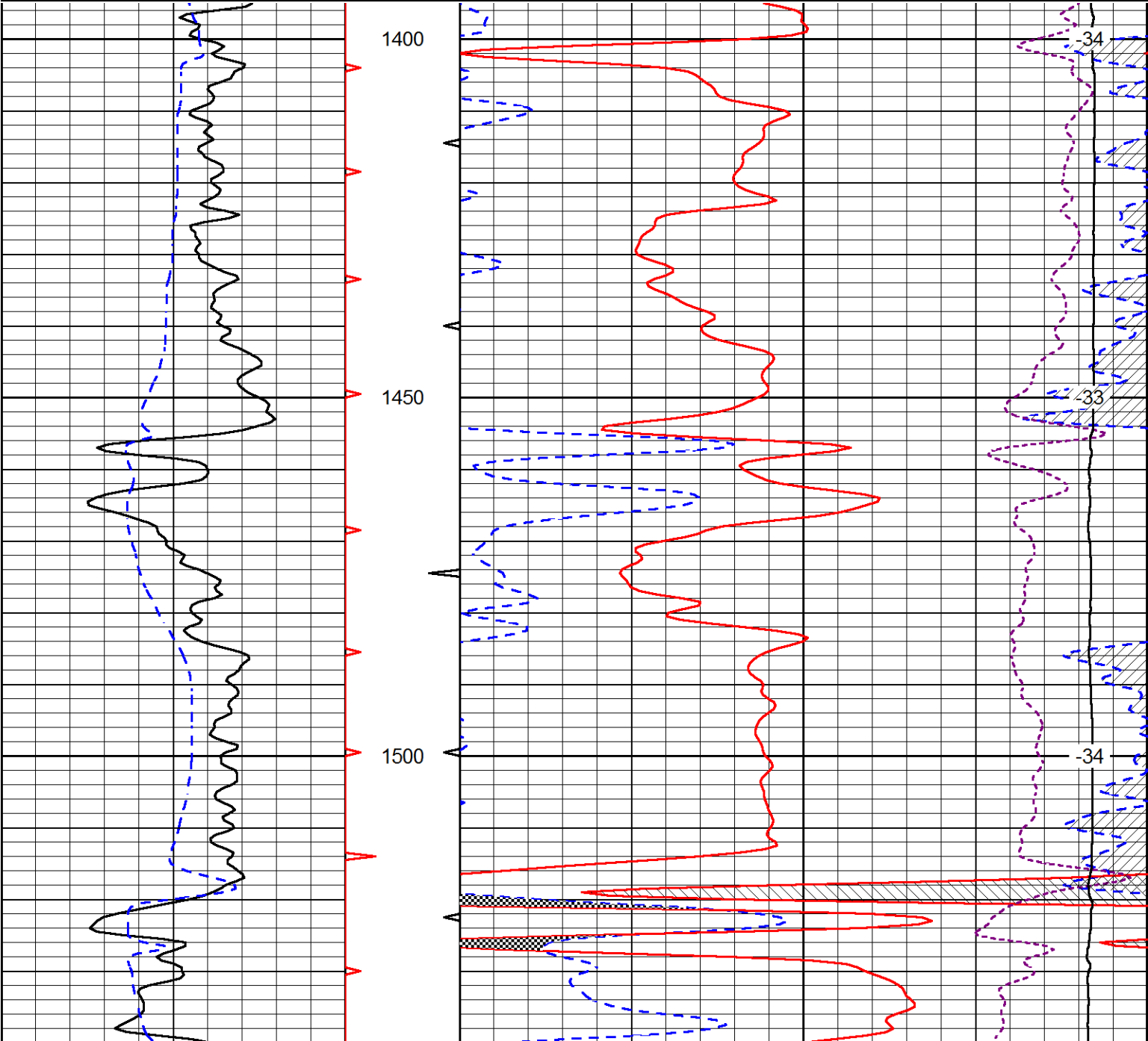


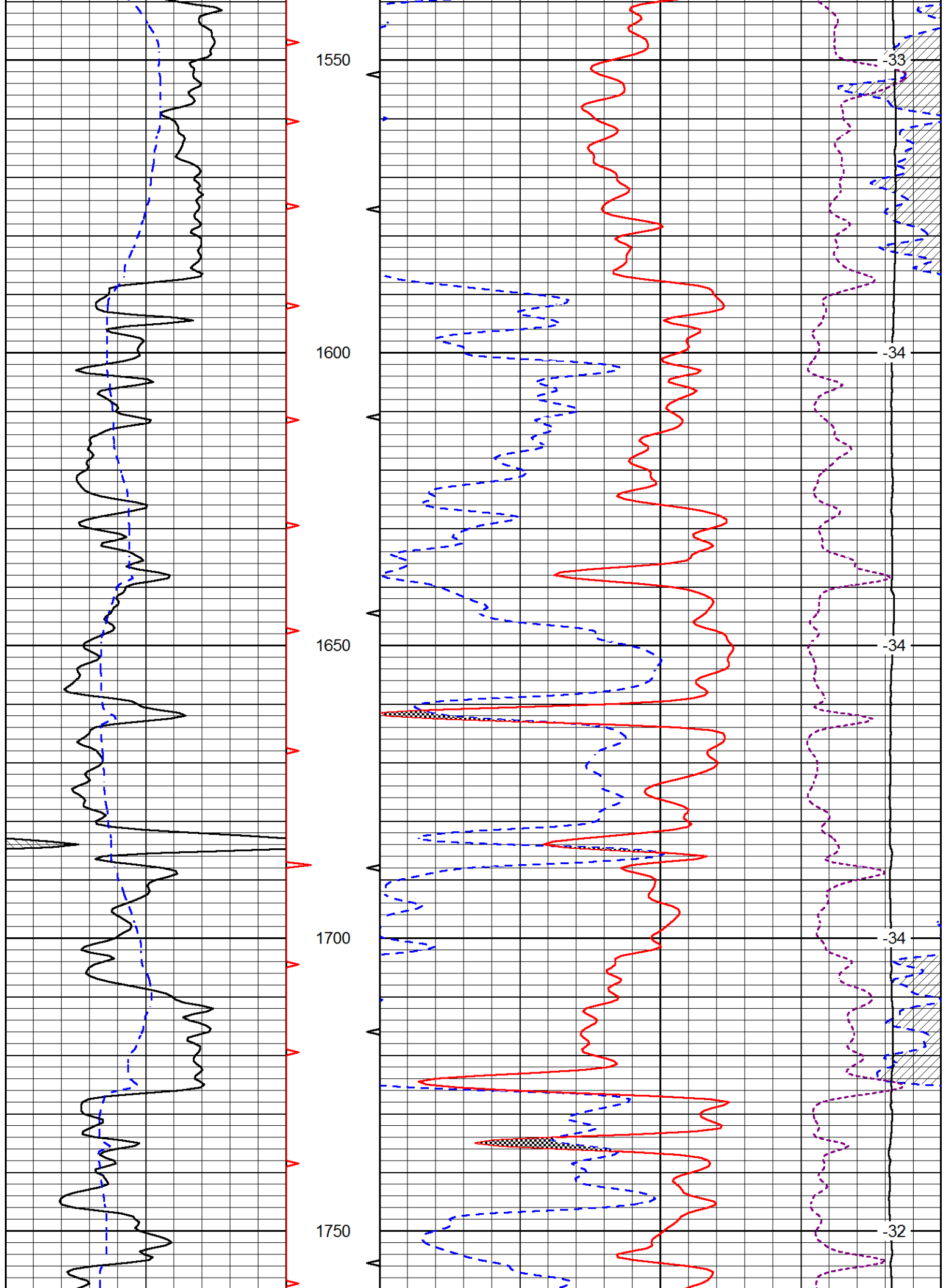


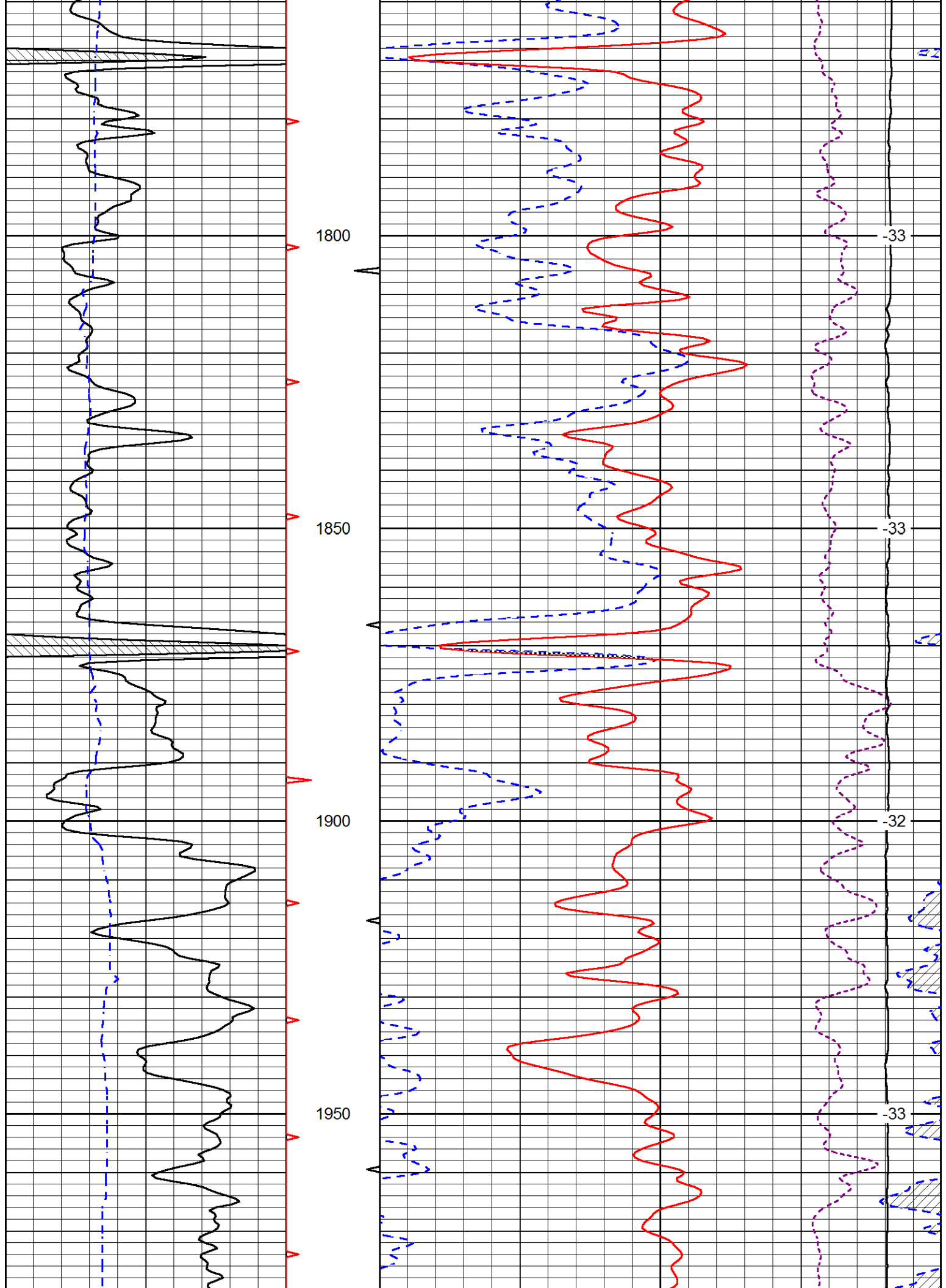
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		-0.25	Correction (g/cc)	0.25
		LSPD		
		(ft/min)		

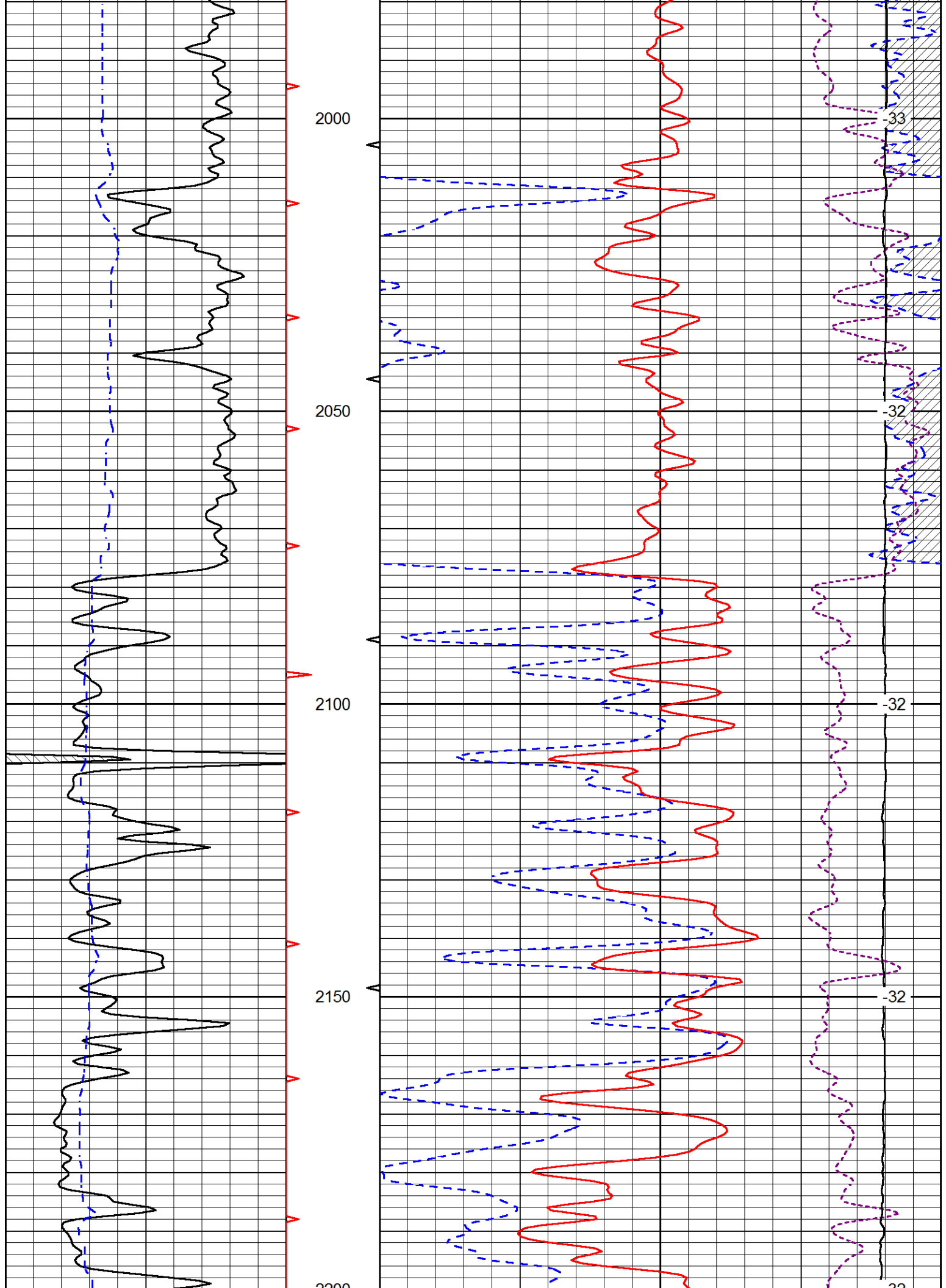
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Charted by	Depth in Feet scaled 1:240				

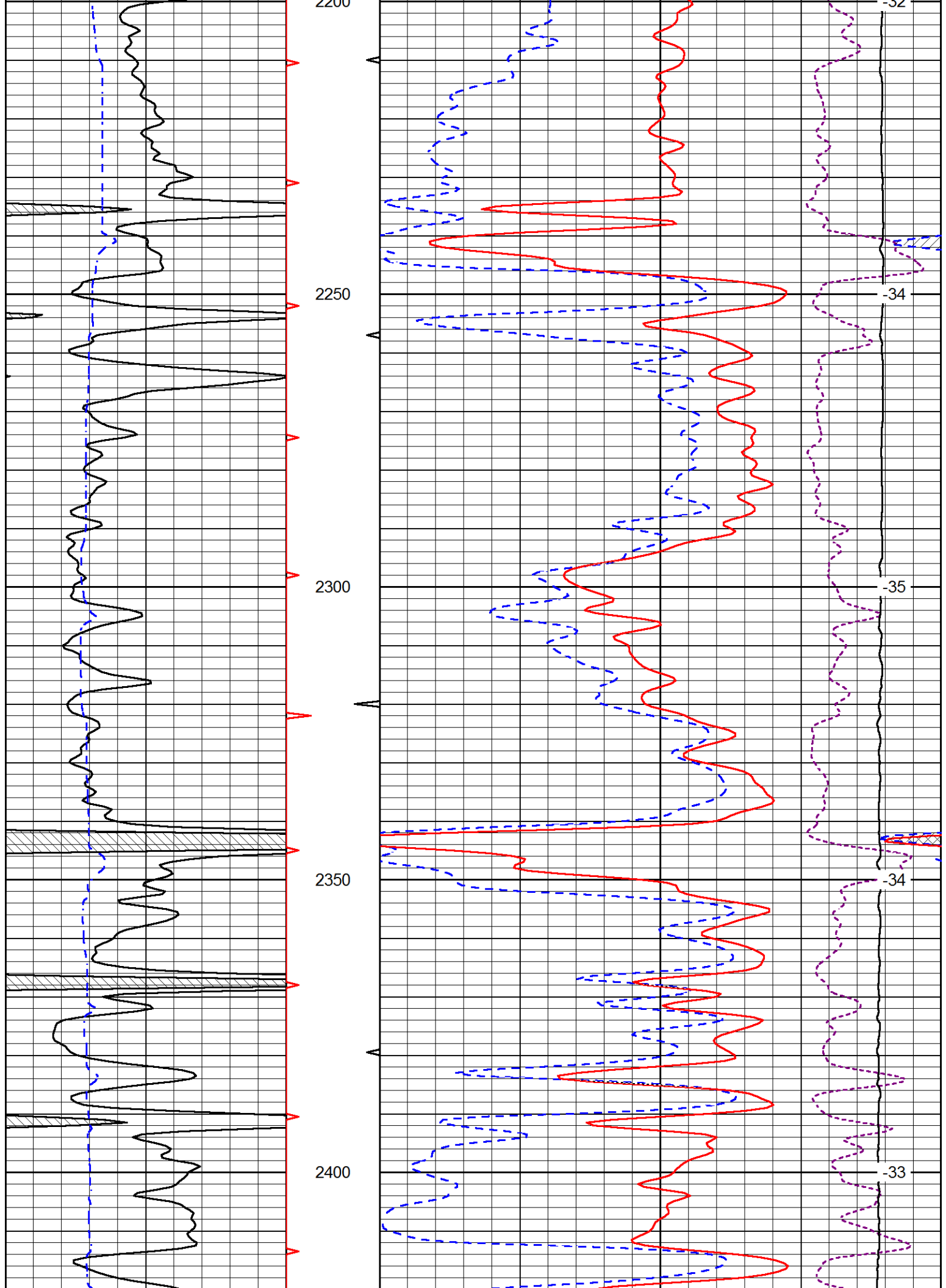
0	Gamma Ray (GAPI)	150	30	CNLS (pu)	-10	
6	Caliper (in)	16	30	Compensated Density (2.71 ma) (pu)	-10	
			10000	Line Tension (lb)	0	
				-0.25	Correction (g/cc)	0.25
					LSPD	
					(ft/min)	

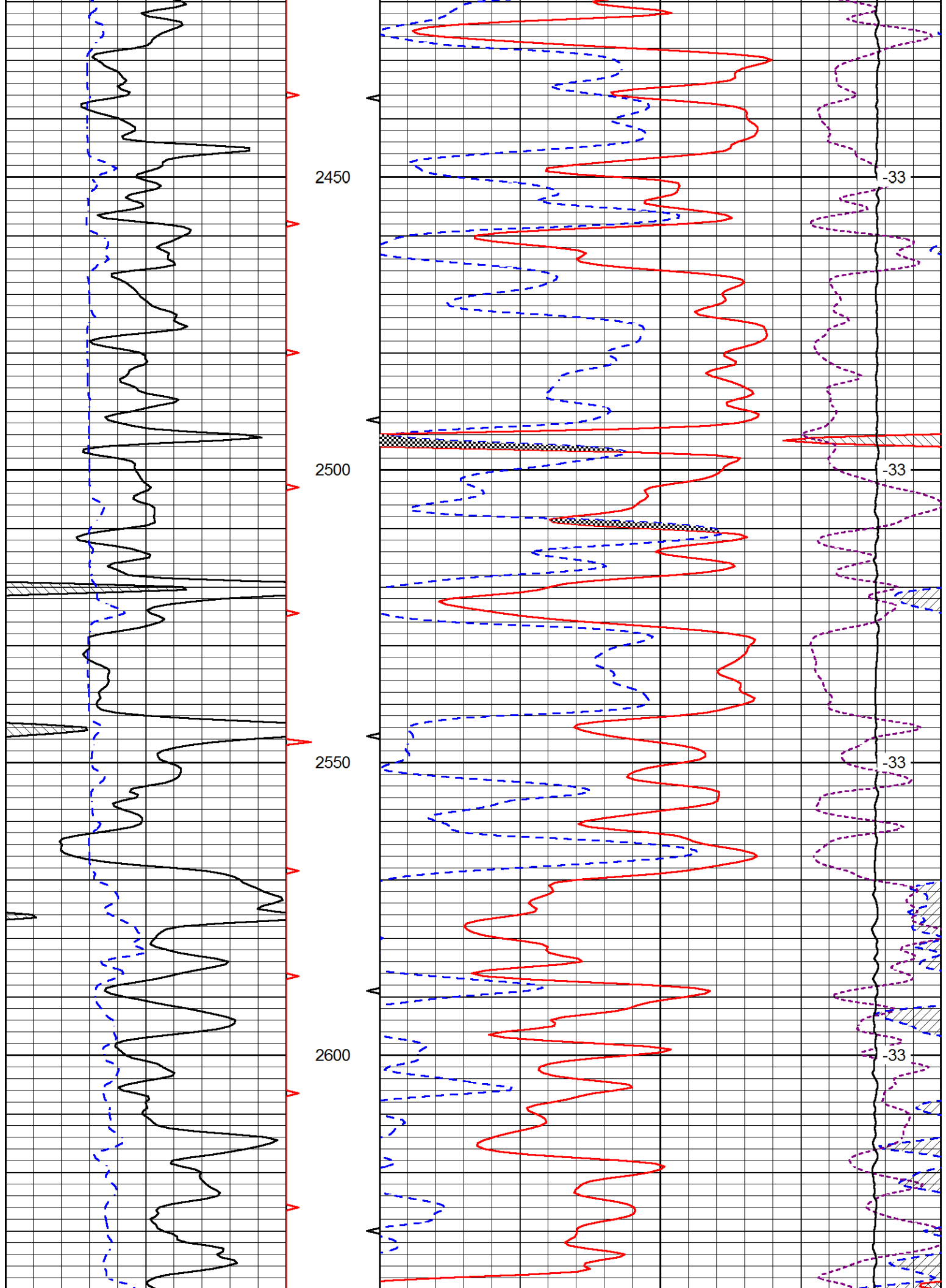


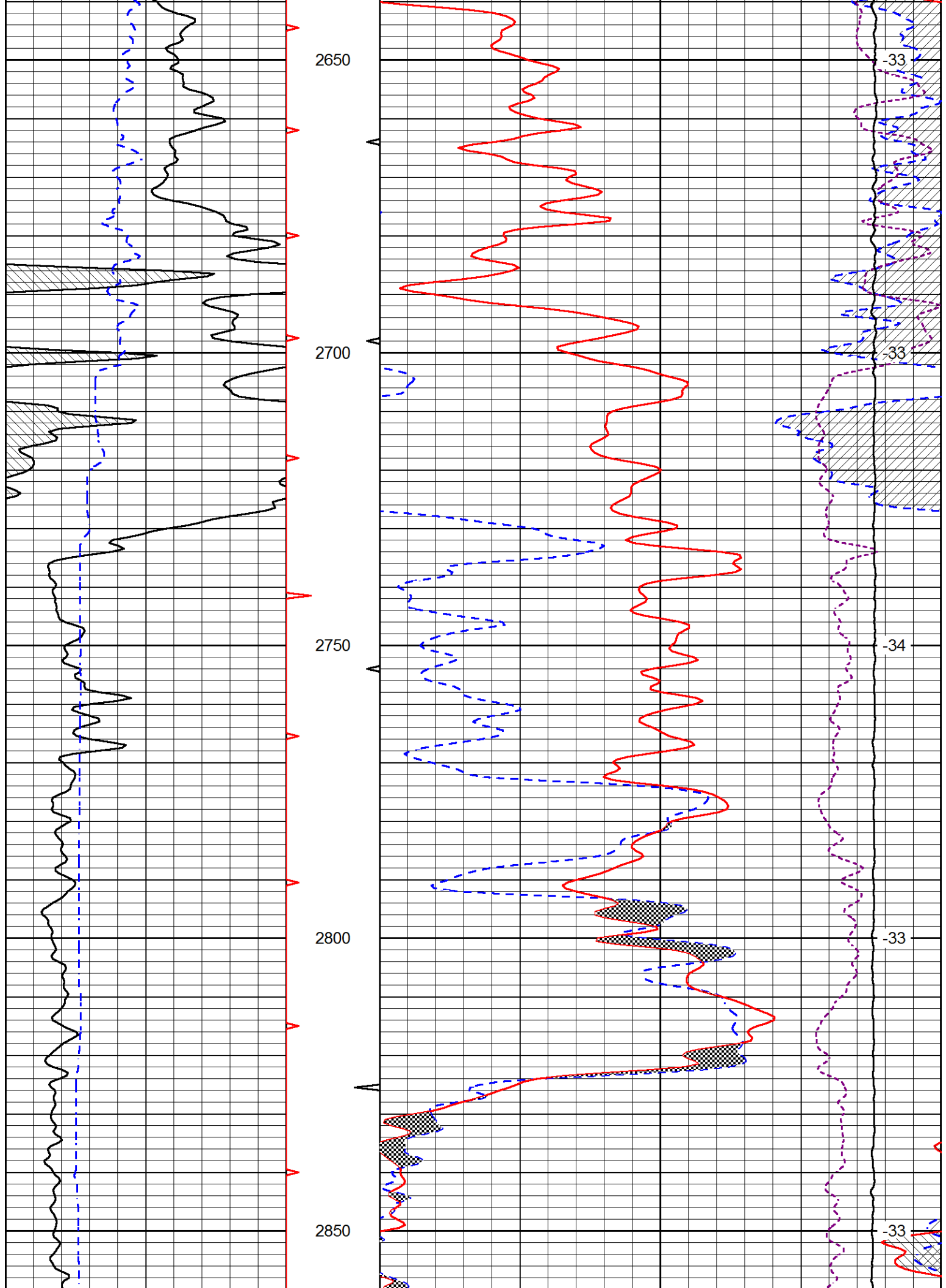


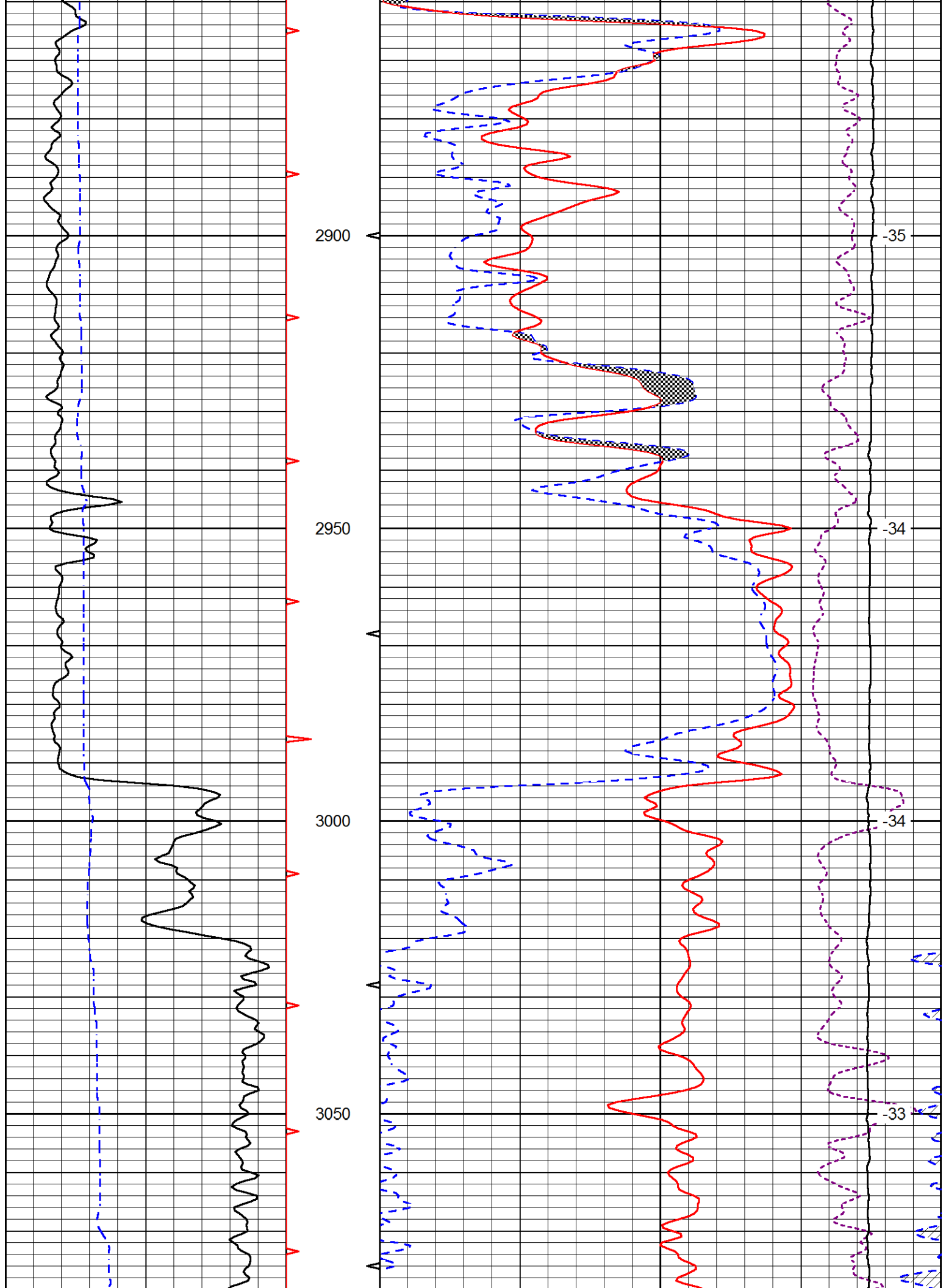


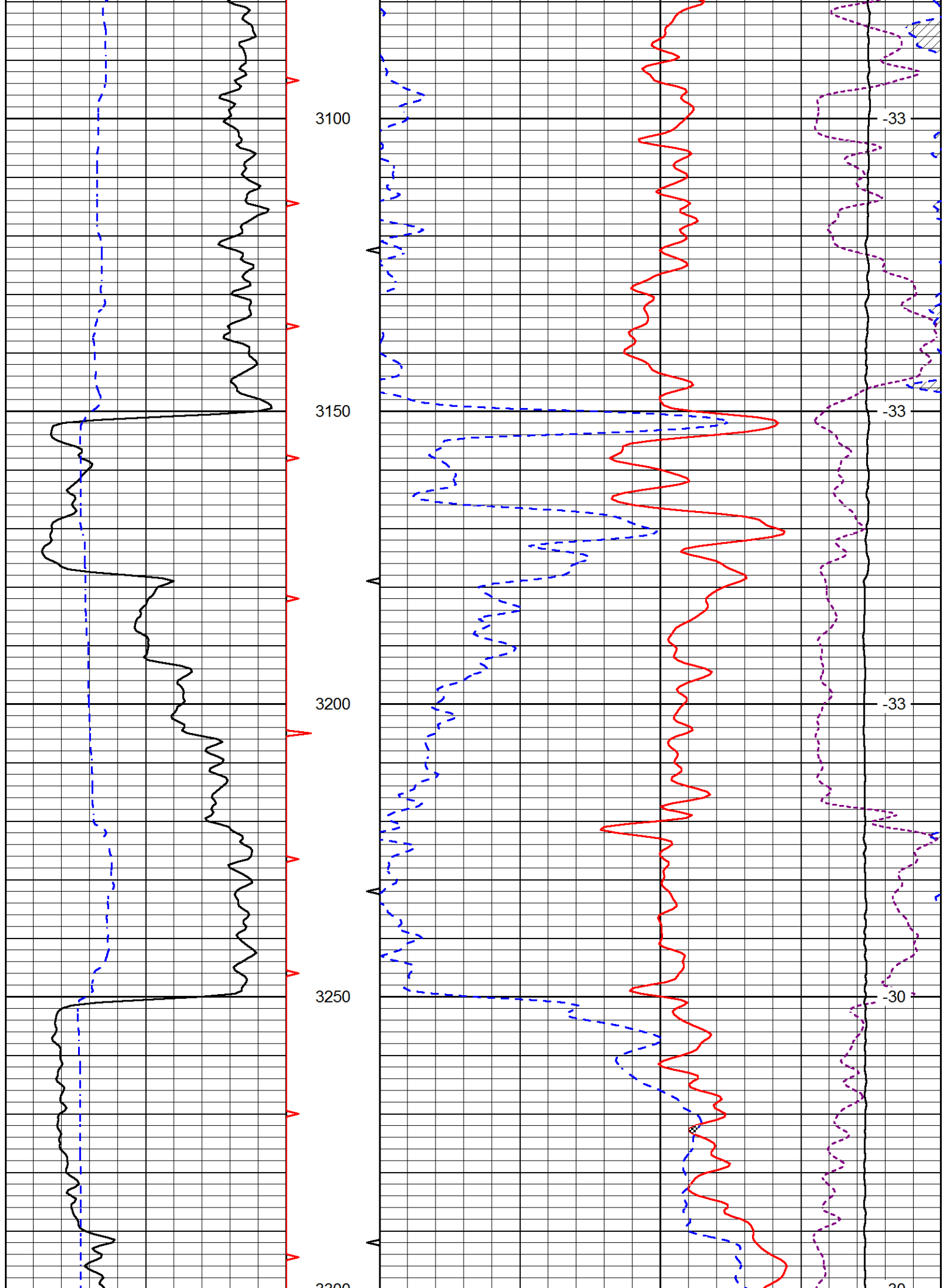


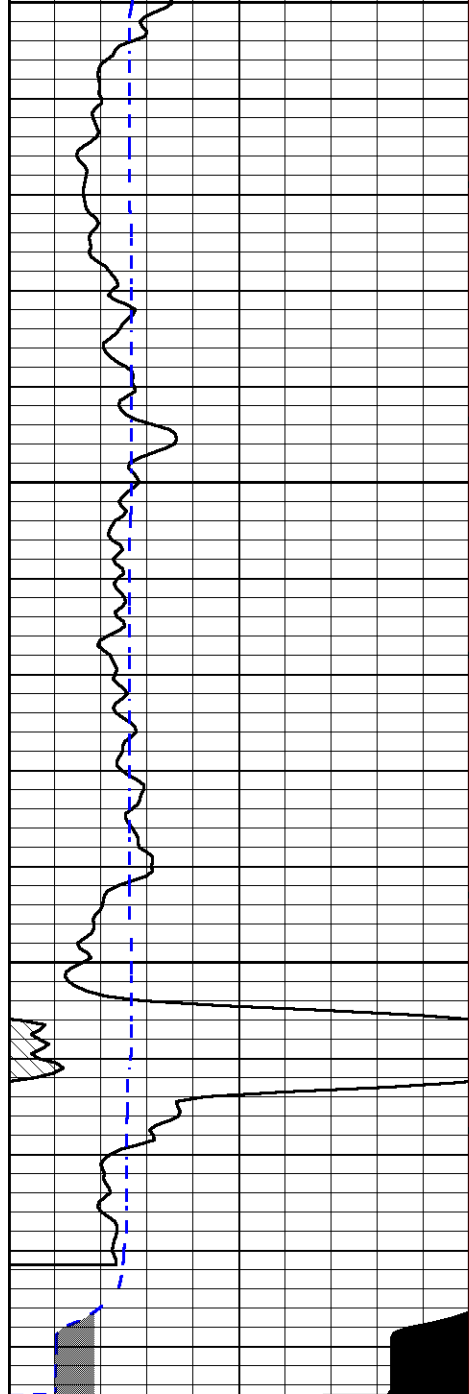




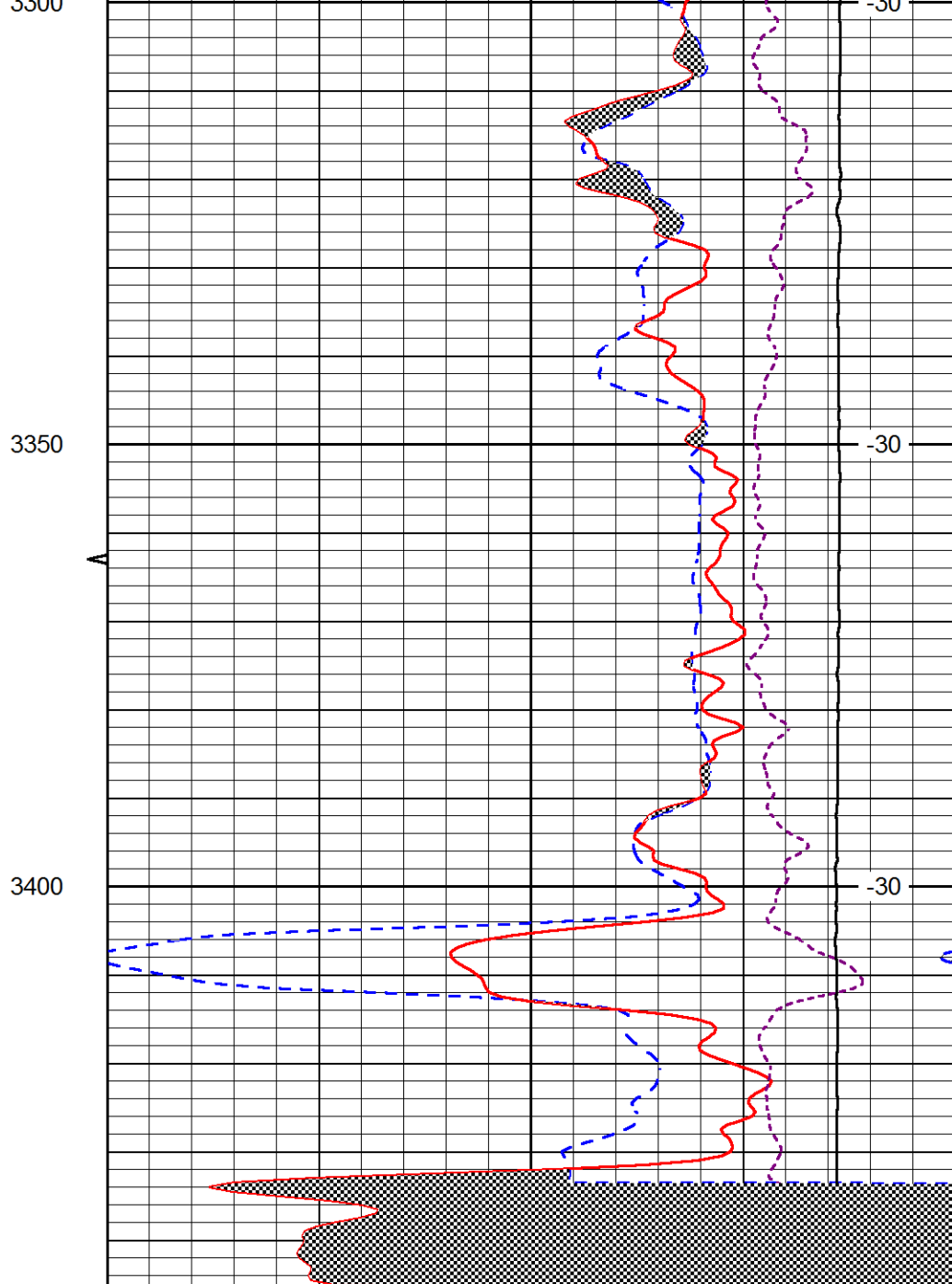








0	Gamma Ray (GAPI)	150
6	Caliper (in)	16



30	CNLS (pu)	-10
30	Compensated Density (2.71 ma) (pu)	-10
10000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25
		LSPD (ft/min)