



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **DARRAH OIL**
Well **BRONLEEWEE NO. 2-22**
Field **RICKARD**
County **RICE** State **KANSAS**

Location: API #: 15-159-22860-00-00

Other Services

SEC 22 TWP 18S RGE 9W

Permanent Datum **GROUND LEVEL** Elevation **1727'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 1732'
D.F. N/A
G.L. 1727'

Date 11/6/2018

Run Number ONE

Type Log CNL/CDL

Depth Driller 3330'

Depth Logger 3330'

Bottom Logged Interval 3309'

Top Logged Interval 1900'

Type Fluid In Hole CHEMICAL

Salinity, PPM CL N/A

Density 9.0

Level FULL

Max. Rec. Temp. F 109 DEG/F

Operating Rig Time 4 HOURS

Equipment -- Location 108 HAYS

Recorded By J. HENRICKSON

Witnessed By SETH EVENSON

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	293'	8.625"	23#	0	293'
TWO	7.875"	293'	TD				

<<< 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.

HWY 4 & CHASE BLACKTOP
SOUTH TO AVE D, 3 EAST, 1/8 SOUTH, WEST INTO

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

Engineer: J. HENRICKSON
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: SETH EVENSON
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 109	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 12	mmho/m 0	mV 270	degF 47	Off	ft 3330

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90			CNT-M&W (tk10-MW)	5.50	3.50	100.00
	29.15						
LSD DCAL SSD	20.85 20.83 20.35			CDL-M&W (168-130)	8.50	4.00	250.00
RLL3 RLL3F	15.80 15.79			DIL-M&W (1987)	18.50	3.50	220.00
CILD	8.00						

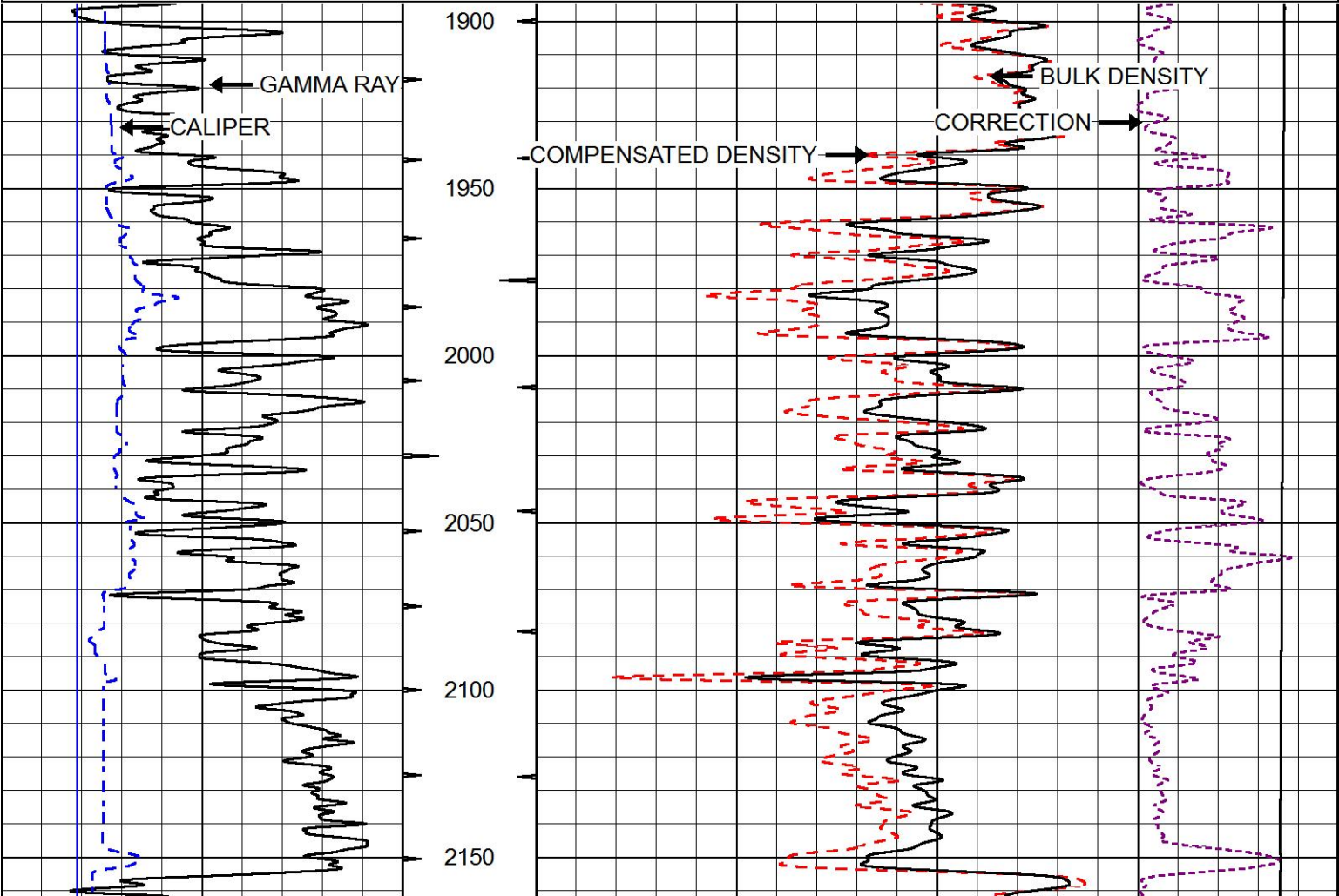
CILM	4.70								
SP	0.20								
Dataset: darrah_bronleewe_2_22.db: field/well/stack/pass5.1 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									

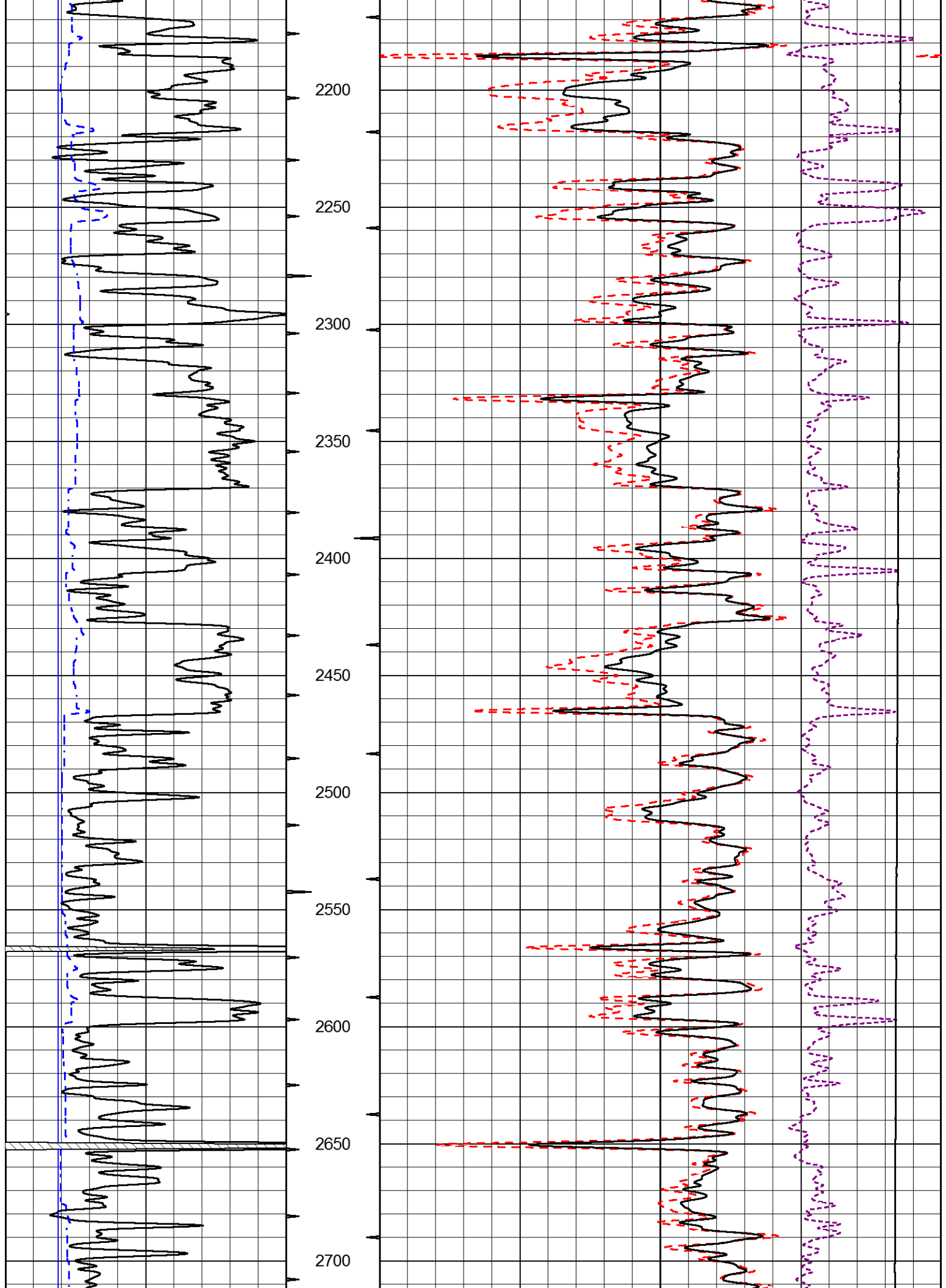


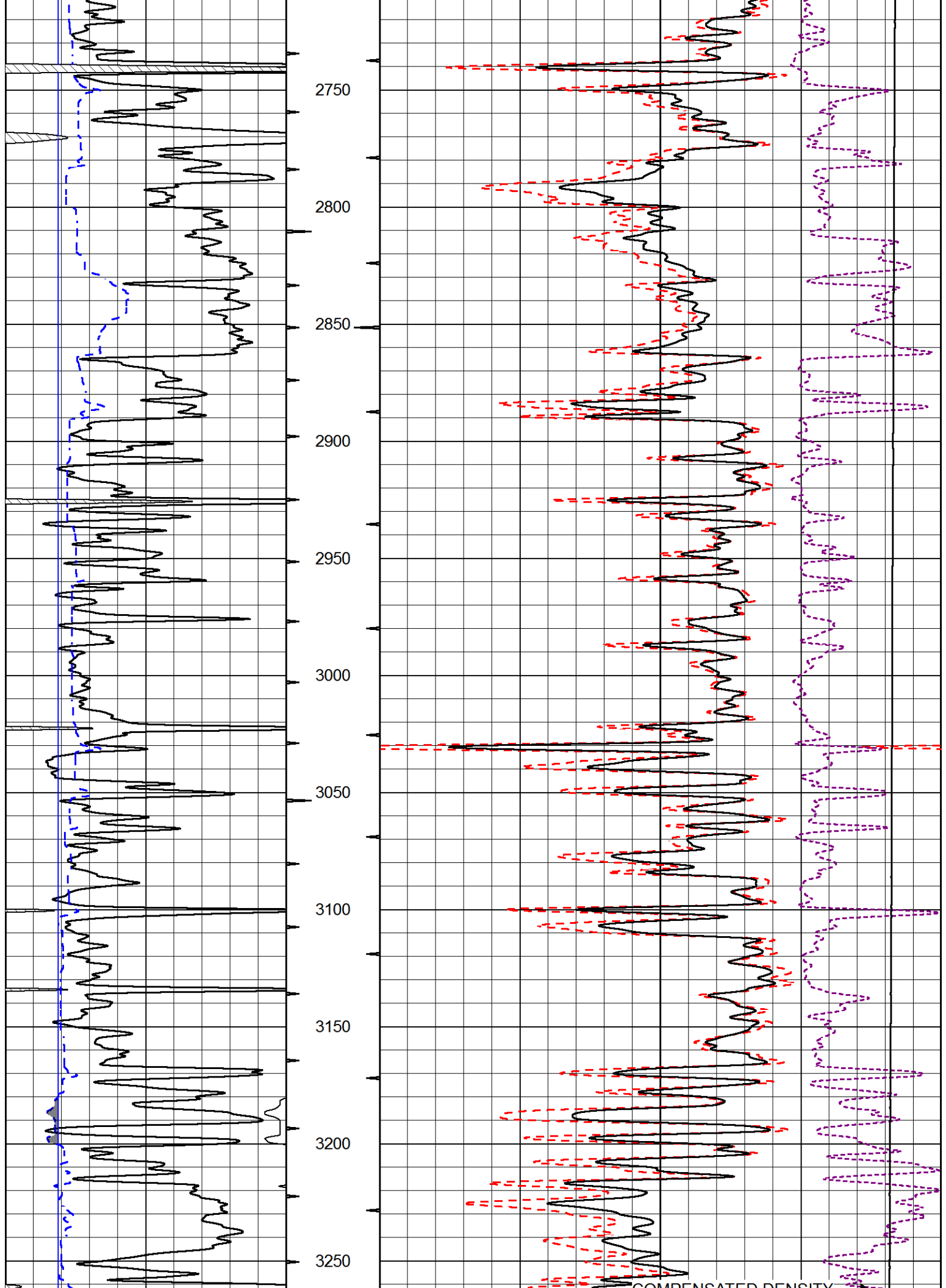
MAIN PASS

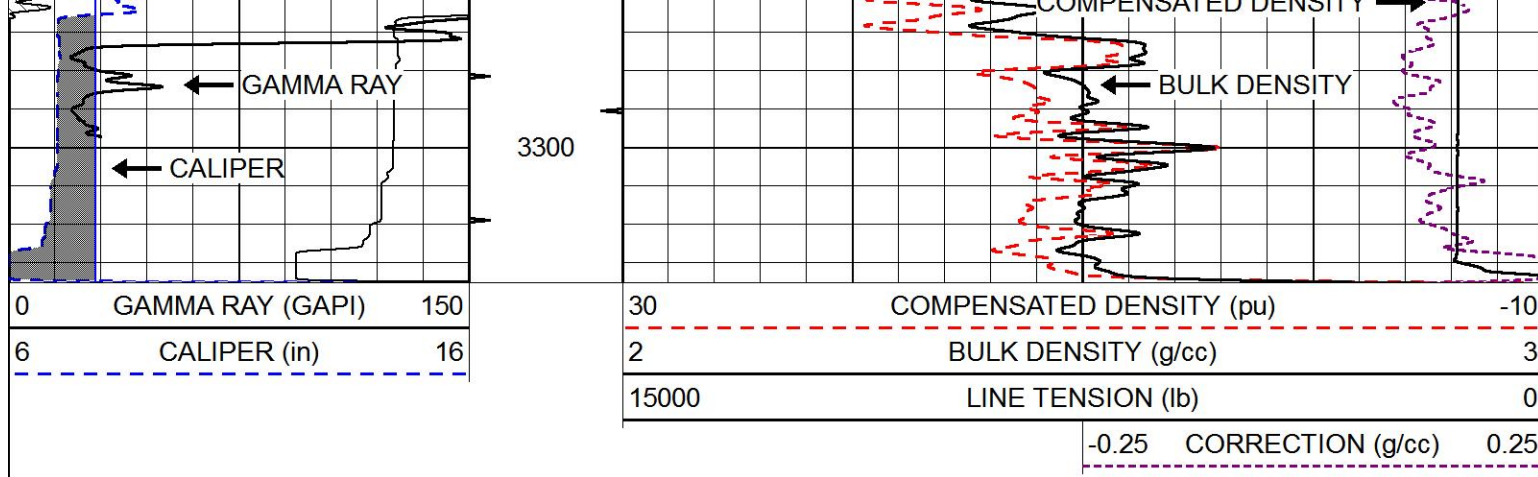
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Dataset Pathname	stack/pass5.1
Presentation Format	cdl
Dataset Creation	Tue Nov 06 13:03:25 2018
Charted by	Depth in Feet scaled 1:600

0	GAMMA RAY (GAPI)	150	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	2	BULK DENSITY (g/cc)	3
			15000	LINE TENSION (lb)	0
			-0.25 CORRECTION (g/cc) 0.25		



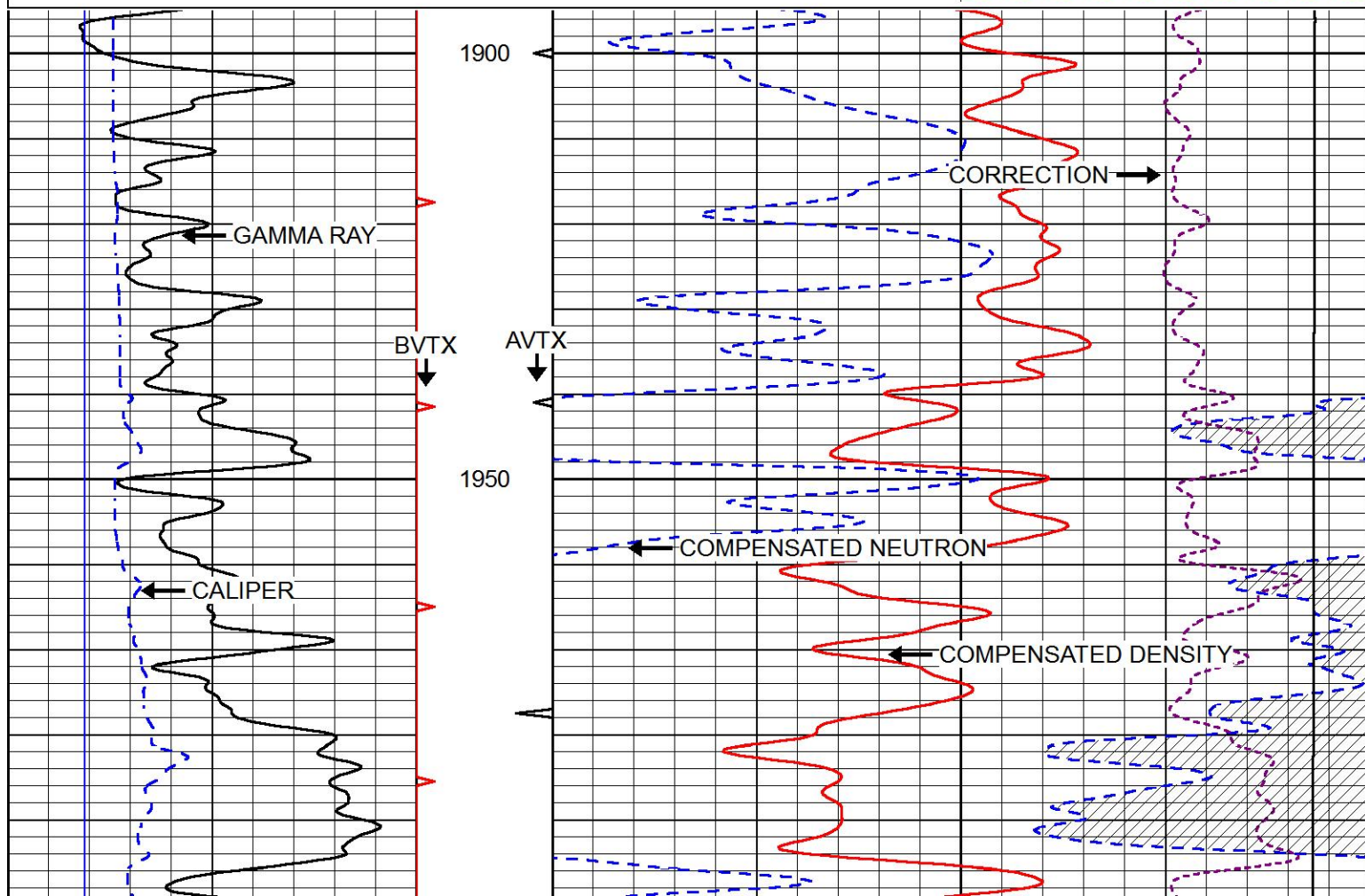
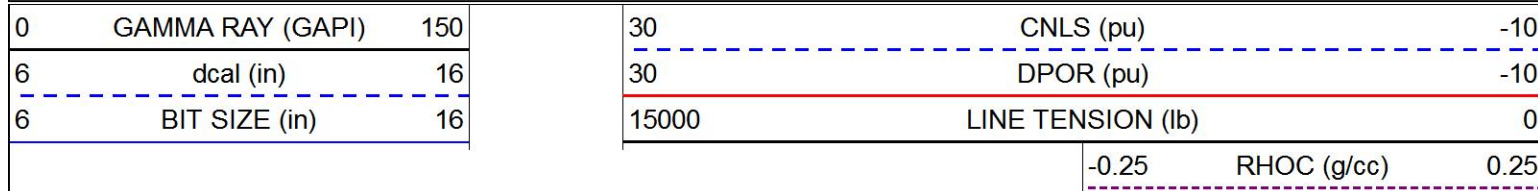


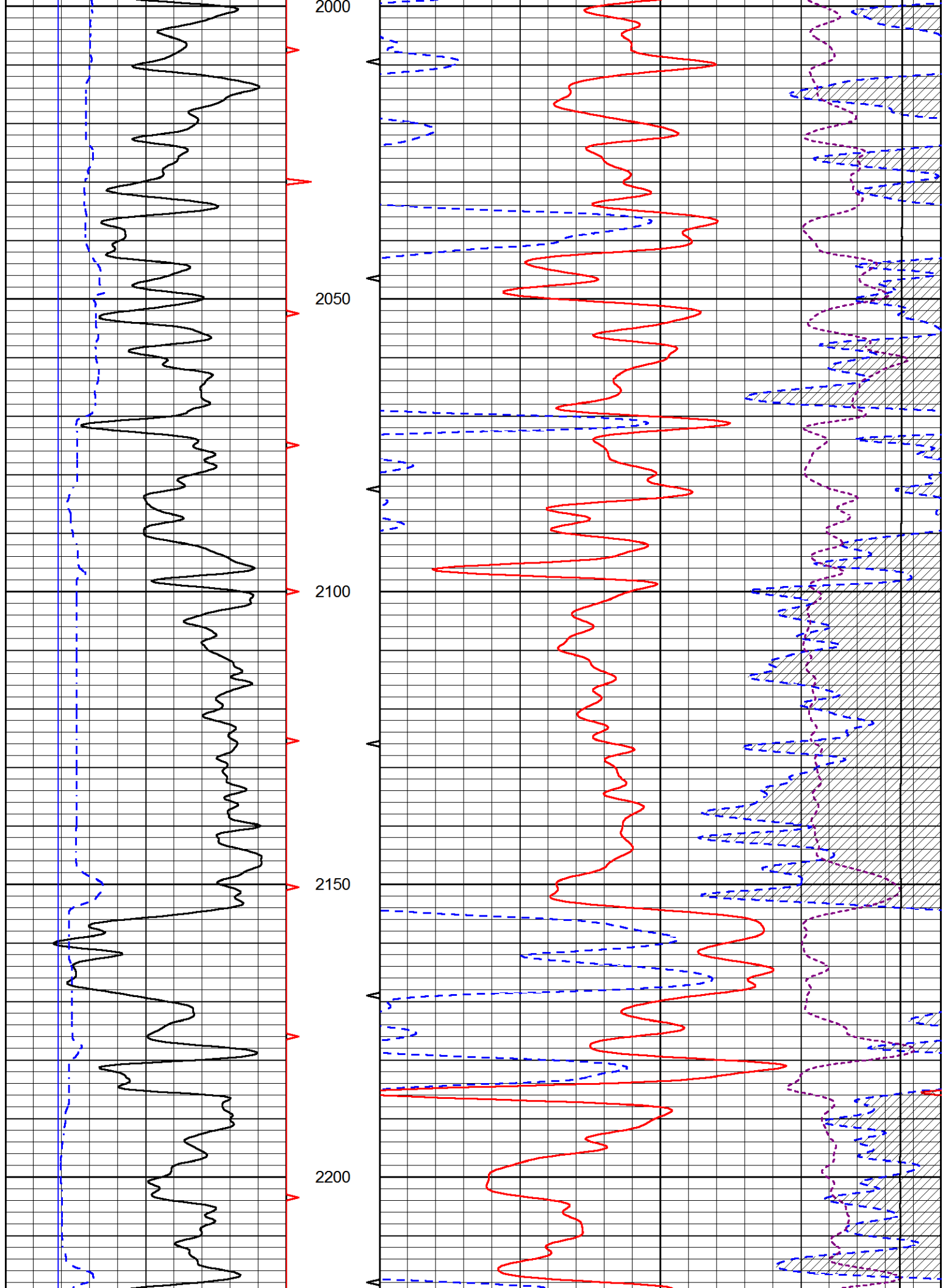


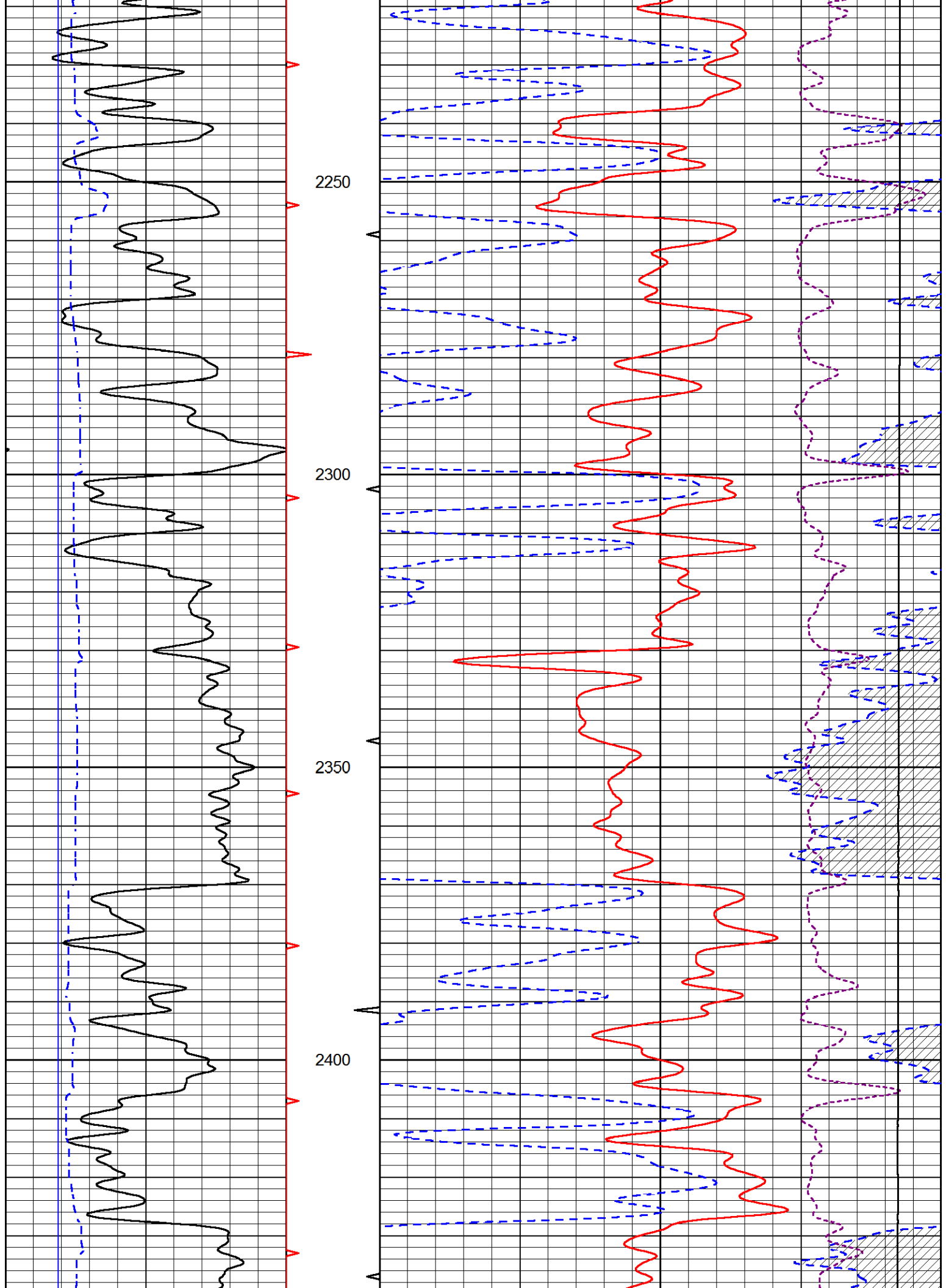


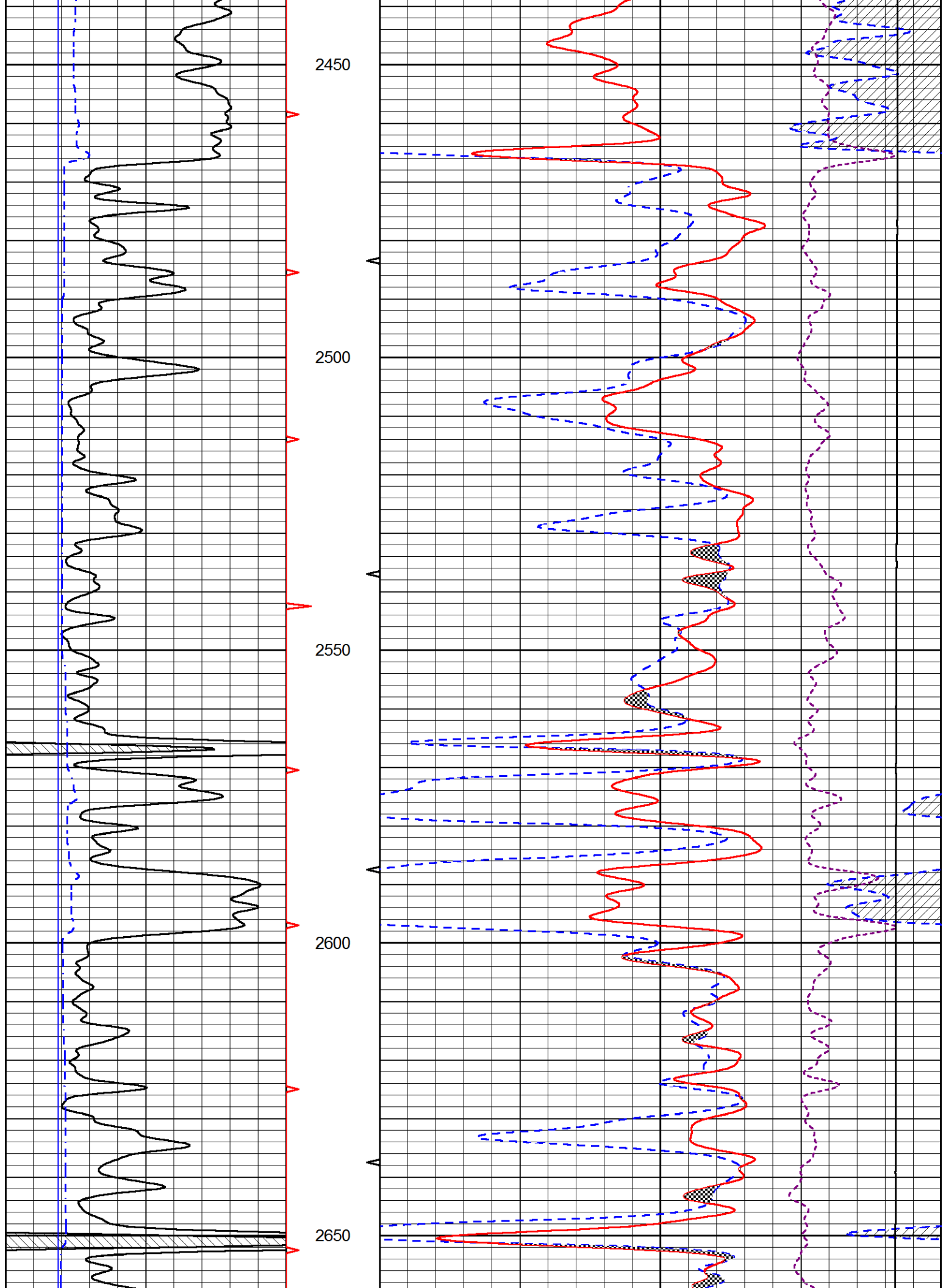
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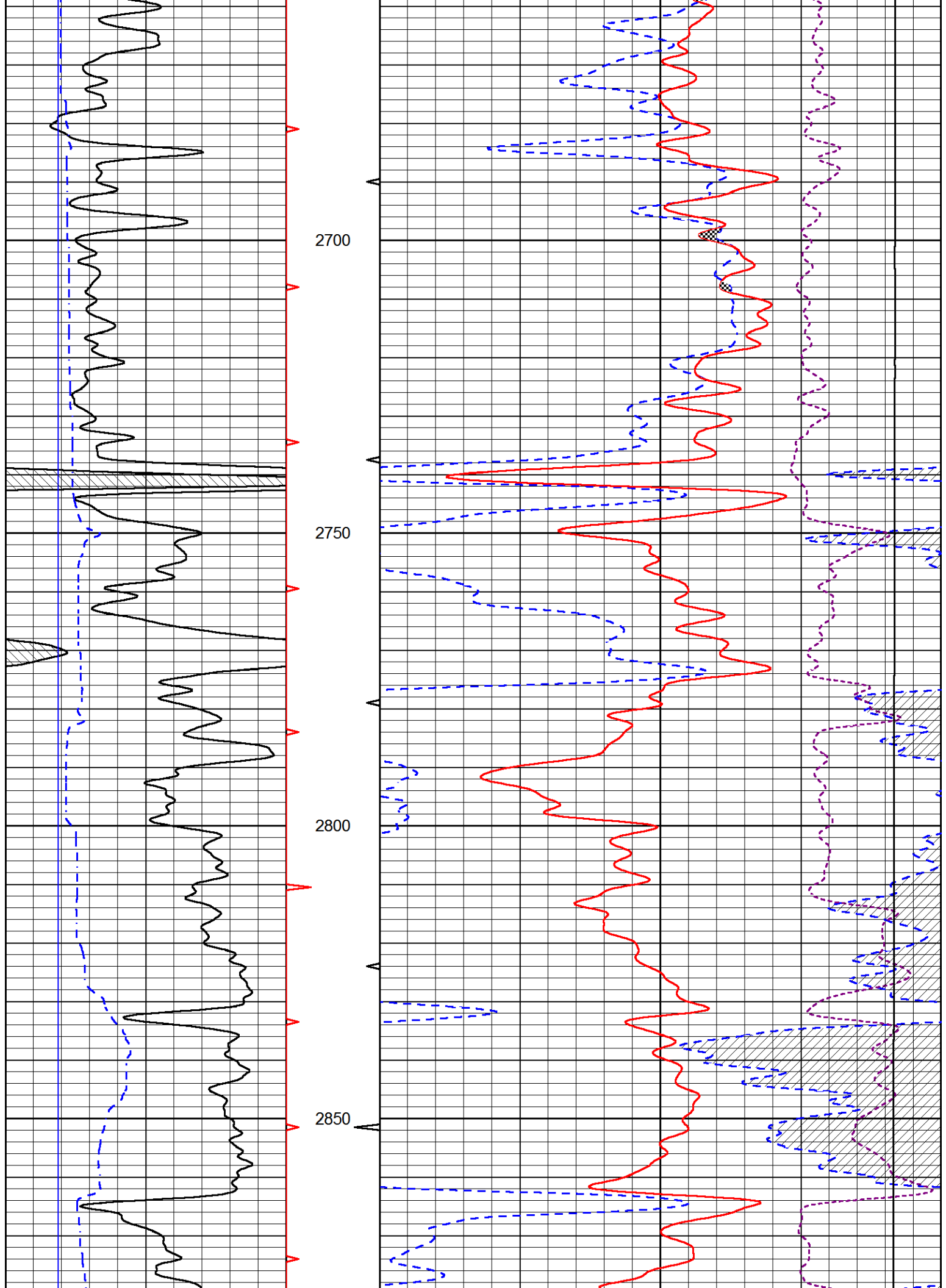
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 Dataset Pathname stack/pass5.1
 Presentation Format cndlspec
 Dataset Creation Tue Nov 06 13:03:25 2018
 Charted by Depth in Feet scaled 1:240

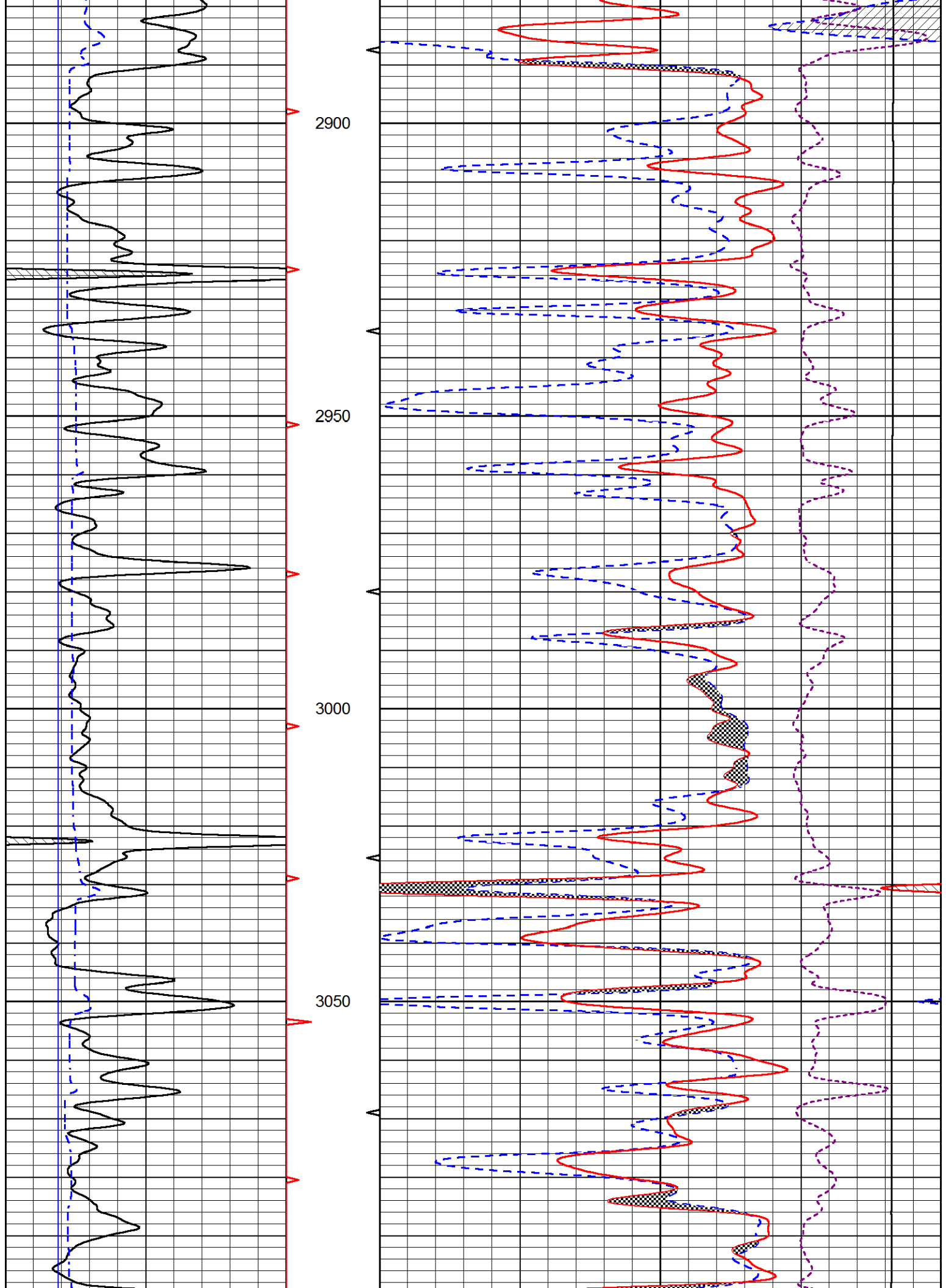


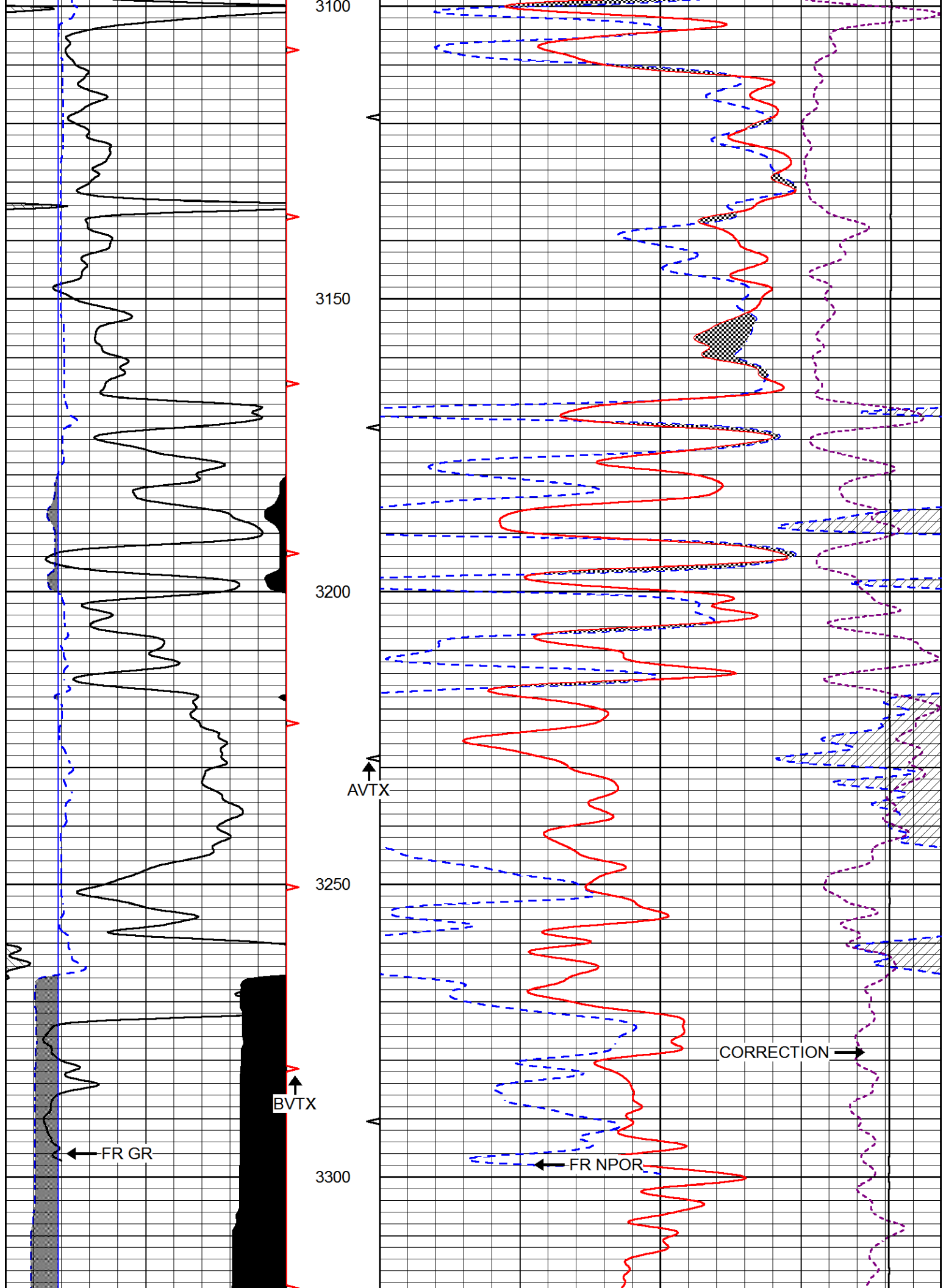


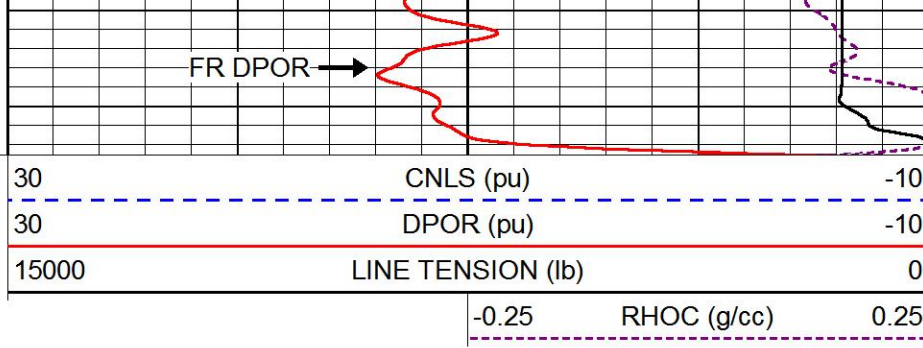
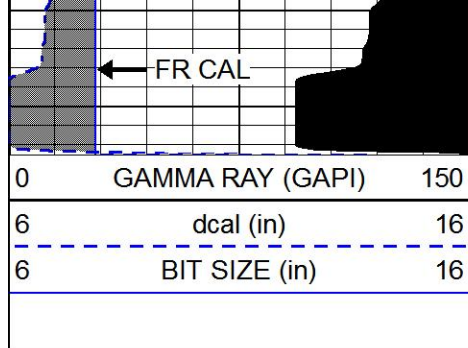






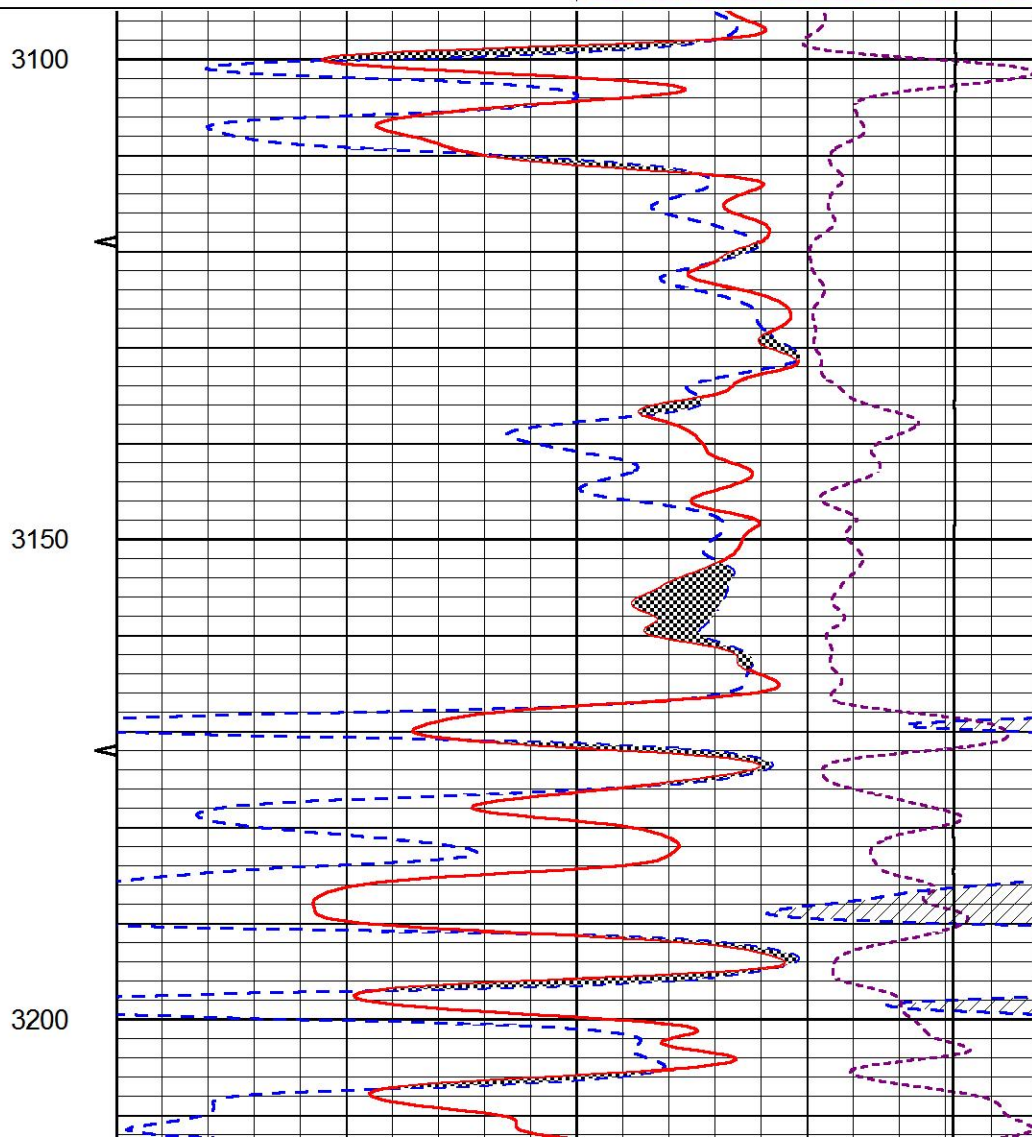
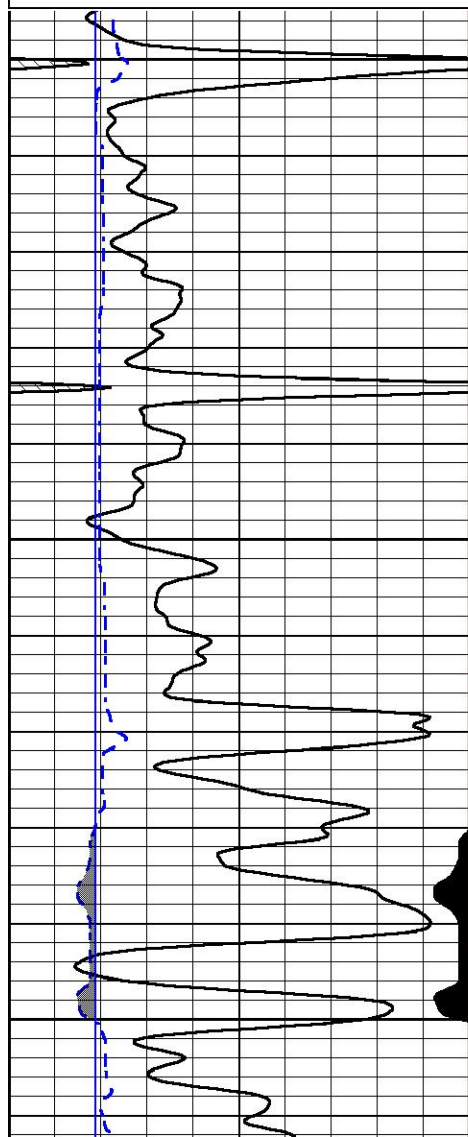
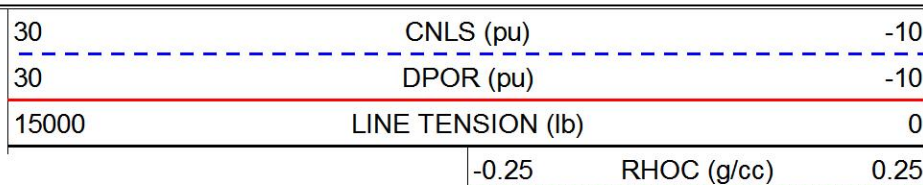
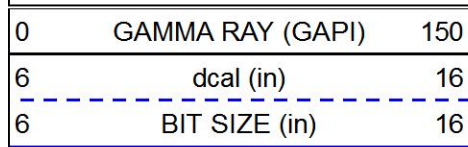


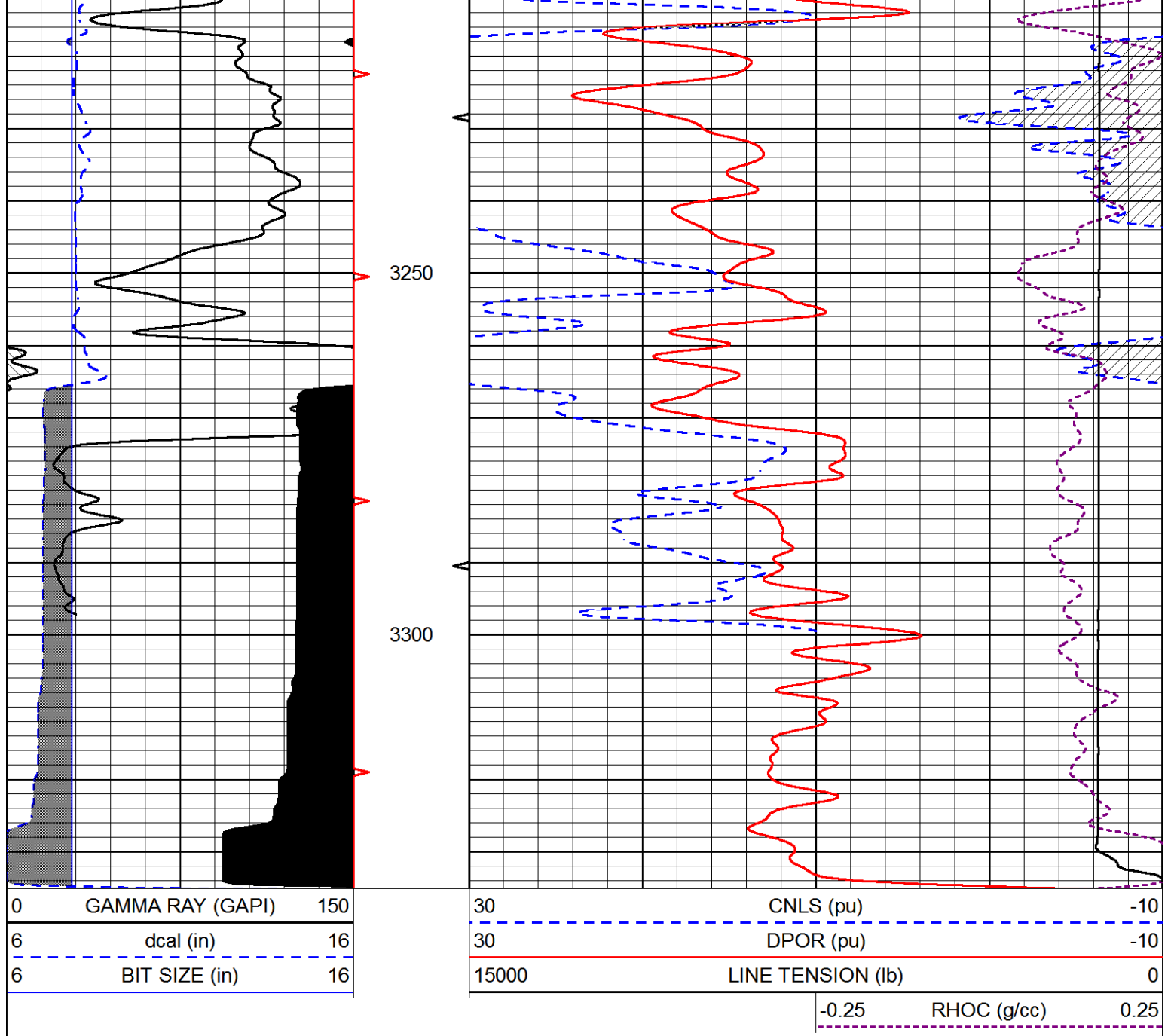




REPEAT SECTION

Database File darrah_bronleewe_2_22.db
 Dataset Pathname stack/pass2.1
 Presentation Format cndlspec
 Dataset Creation Tue Nov 06 13:30:30 2018
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File darrah_bronleewe_2_22.db
 Dataset Pathname stack/pass5.1
 Dataset Creation Tue Nov 06 13:03:25 2018

Dual Induction Calibration Report

Serial-Model: 1987-M&W
 Calibration Performed: Thu Aug 09 22:42:18 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.550	-36.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.400	-110.500

Compensated Density Calibration Report

Serial Model: 168.130 M&W

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4659.47	5064.14	cps
Aluminum	2.680	g/cc	853.93	3180.74	cps
Spine Angle = 74.67			Density/Spine Ratio = 0.526		
	Size		Reading		
Small Ring	4.00	in	0.90		
Large Ring	14.00	in	0.21		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings		Target	Normalization
Short Space	6240.00	cps	1000.00 cps	1.6025
Long Space	460.00	cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017
 Calibrator Value: 1000.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps
 Sensitivity: 0.5200 GAPI/cps



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