



DUAL COMP POROSITY LOG

Pioneer Energy Services

Company **CASTLE RESOURCES INC.**
 Well **SKOLOUT #1**
 Field **CAHOJ WEST**
 County **RAWLINS** State **KANSAS**

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Location: **API #: 15-153-21247-00-00**
650' FSL & 70' FEL
 SEC 23 TWP 1S RGE 35W
 Permanent Datum **GROUND LEVEL** Elevation **3119'**
 Log Measured From **KELLY BUSHING**
 Drilling Measured From **KELLY BUSHING**
 Other Services **DIL/MEL**
 K.B. **3124'**
 D.F. **N/A**
 G.L. **3119'**

Date	4/4/2020
Run Number	ONE
Type Log	CNL/CDL
Depth Driller	4340'
Depth Logger	4342'
Bottom Logged Interval	4310'
Top Logged Interval	3800'
Type Fluid In Hole	CHEMICAL
Salinity, PPM CL	1000
Density	8.5
Level	FULL
Max. Rec. Temp. F	118
Operating Rig Time	3 HOURS
Equipment -- Location	P-24 HAYS
Recorded By	IAN MABB
Witnessed By	JERRY GREEN

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	219'	8.625"	23#	0'	219'
TWO	7.875"	219'					

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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.
 ATWOOD KS.
 NORTH TO RD Z, WEST 8 MILES TO RD 12,
 1/2 MILES NORTH & 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	This Log Record Was Witnessed By
Engineer: IAN MABB	Primary Witness: JERRY GREEN
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\castle_resources_skolout_1.db
 Dataset field/well/stackmel/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	118	4.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	-6	-4	305	0	Off	0

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00	
CNLSC CNSSC	41.40 40.65		CNT-M&W (207-MW)	5.50	3.50	100.00	
LSD DCAL SSD	32.35 32.33 31.85		CDL-M&W (817-947)	8.50	4.00	250.00	
MCAL MI MN	20.87 20.87 20.87		ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00	
RLL3F RLL3	15.80 15.80						
CILD	8.00			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: castle_resources_skolout_1.db: field/well/stackmel/pass3.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

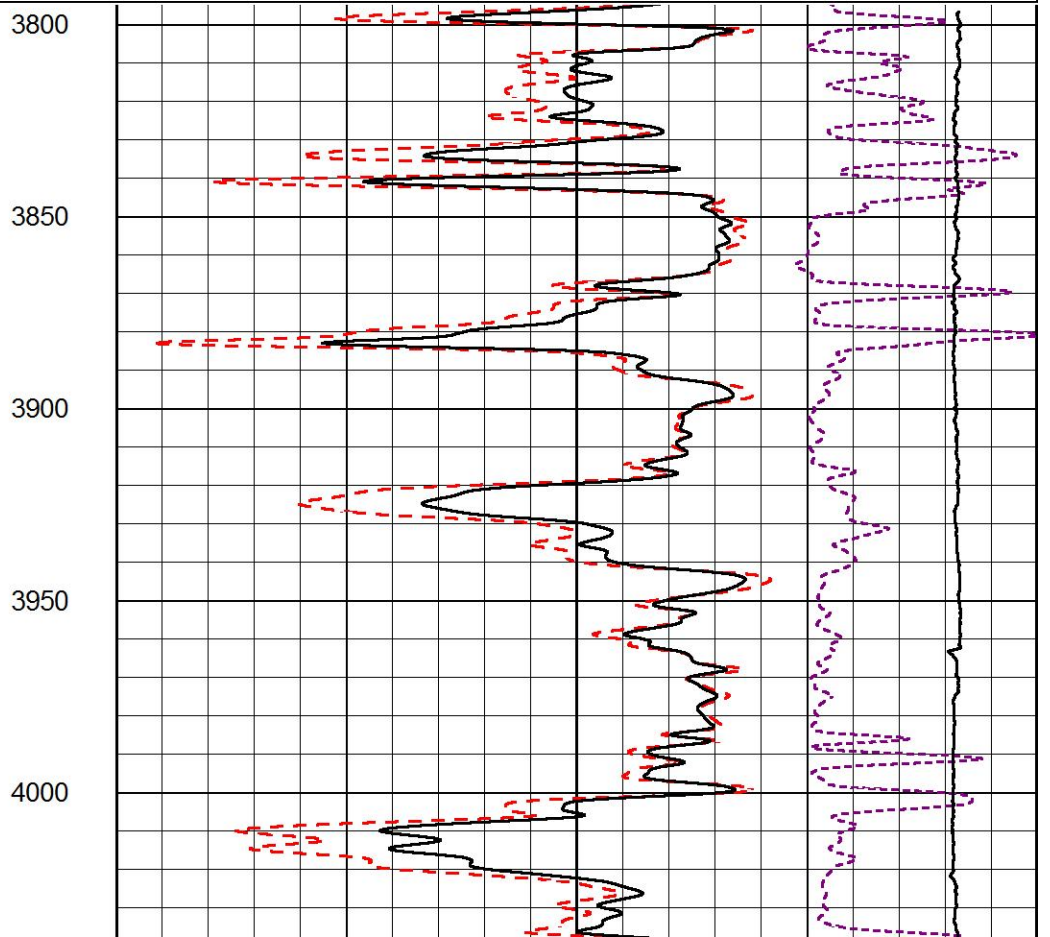
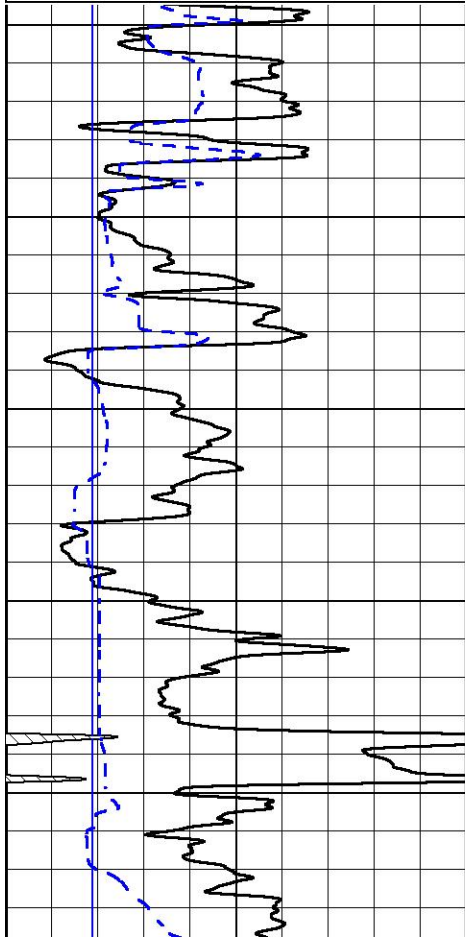


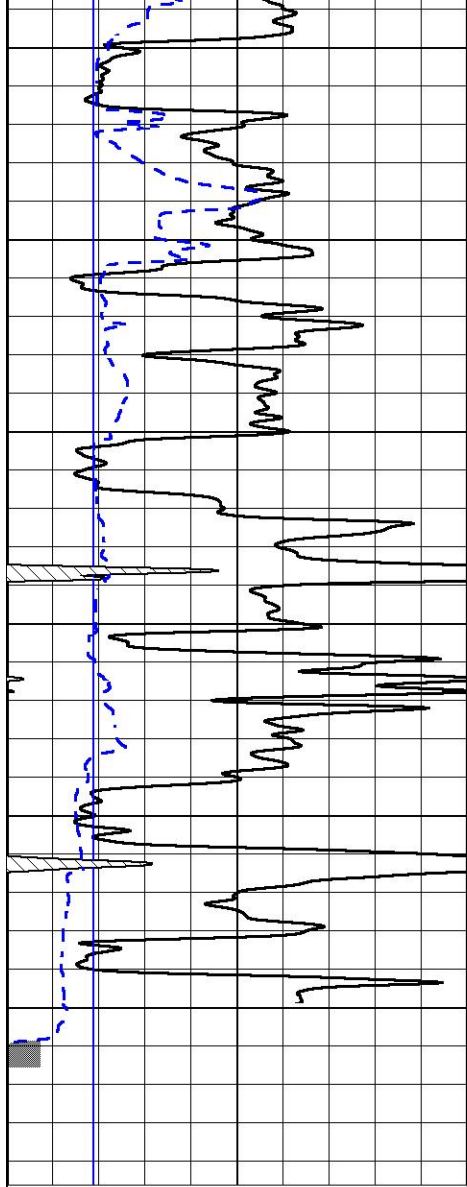
MAIN PASS

Database File castle_resources_skolout_1.db
 Dataset Pathname stackmel/pass3.1
 Presentation Format _cdl
 Dataset Creation Sat Apr 04 19:42:36 2020
 Charted by Depth in Feet scaled 1:600

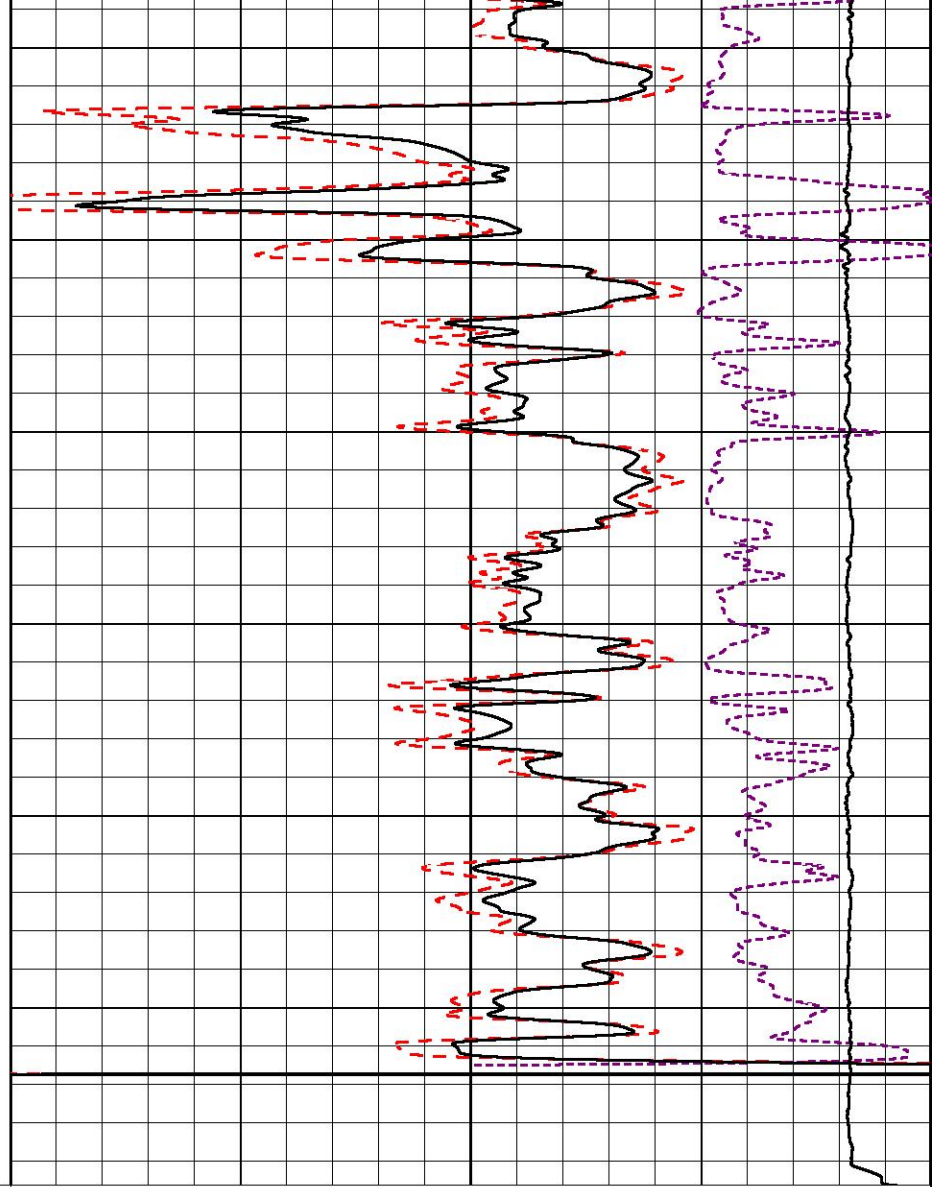
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

30	COMPENSATED DENSITY (2.71 MA)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25





4050
4100
4150
4200
4250
4300



0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

COMPENSATED DENSITY (2.71 MA)		
30	(pu)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25

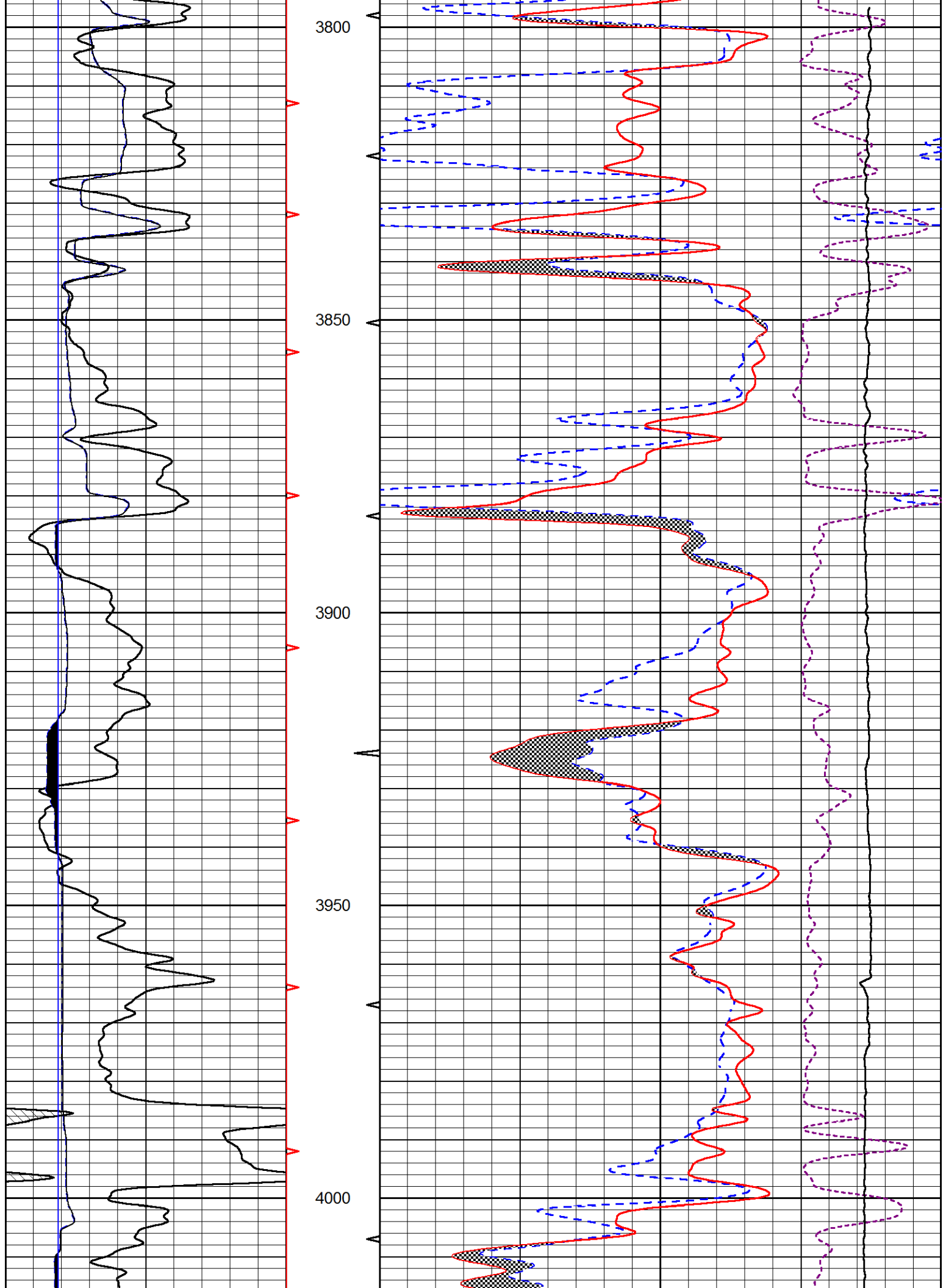


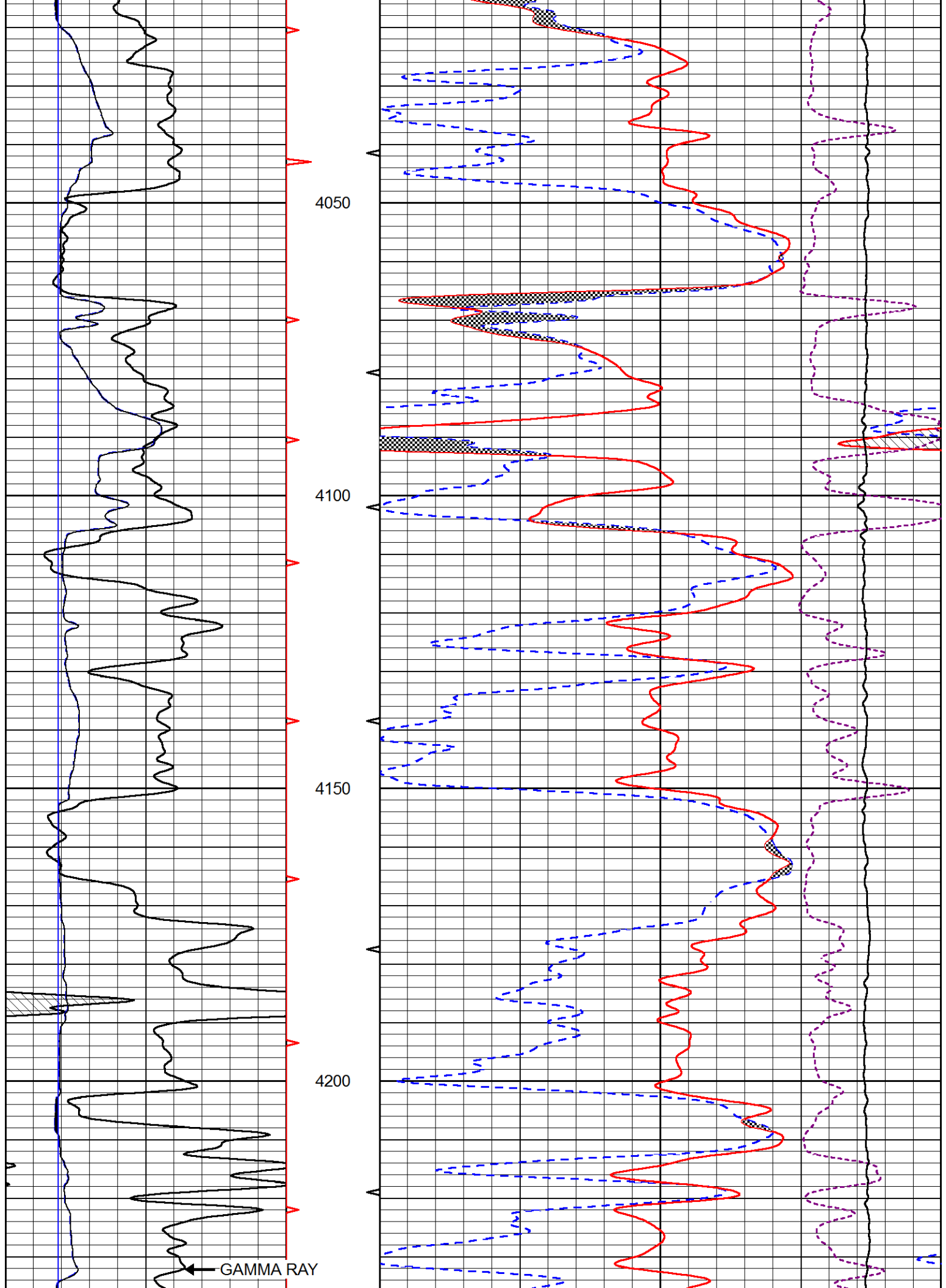
MAIN PASS

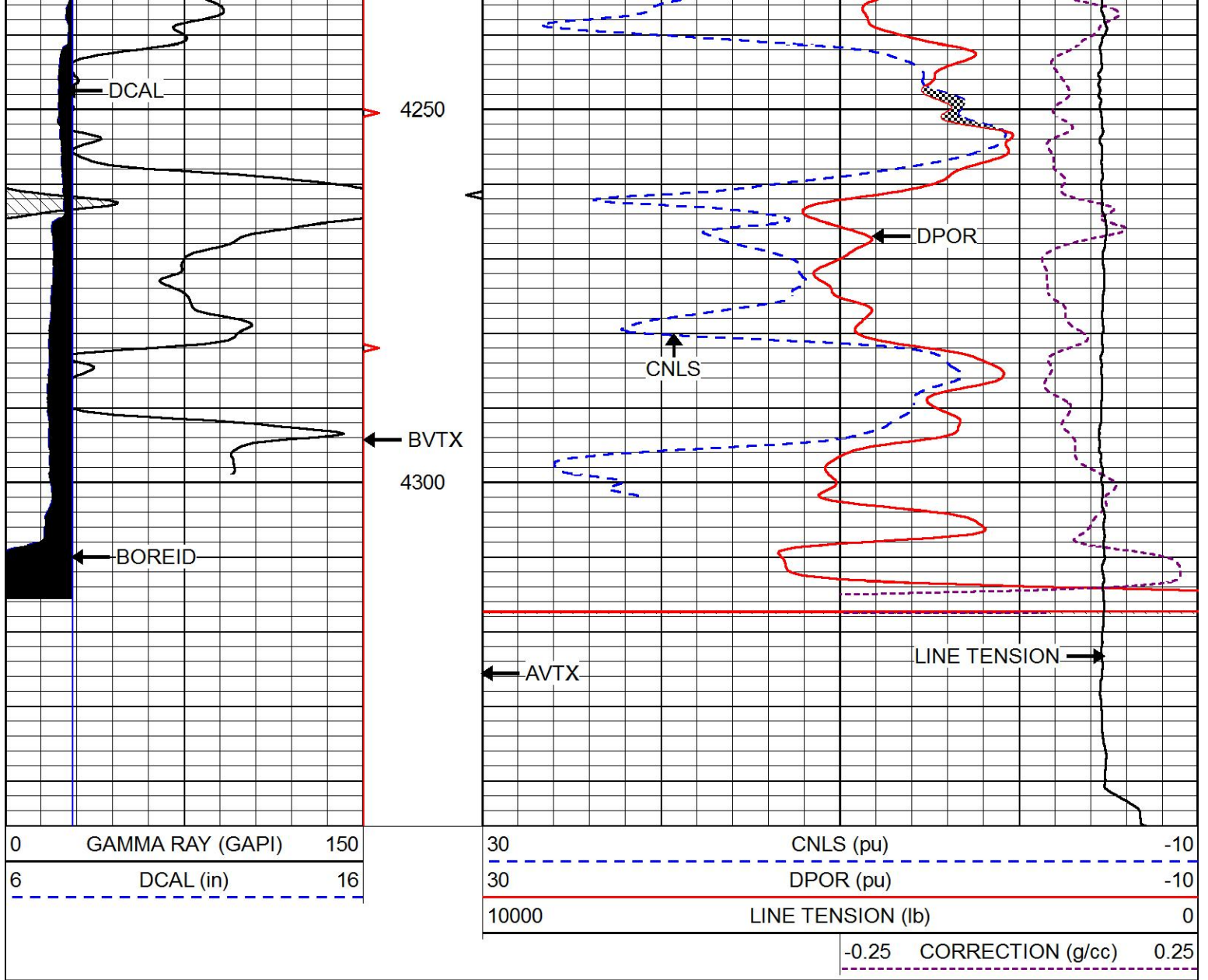
Database File castle_resources_skolout_1.db
 Dataset Pathname stackmel/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Sat Apr 04 19:42:36 2020
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

30	CNLS (pu)	-10
30	DPOR (pu)	-10
10000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25

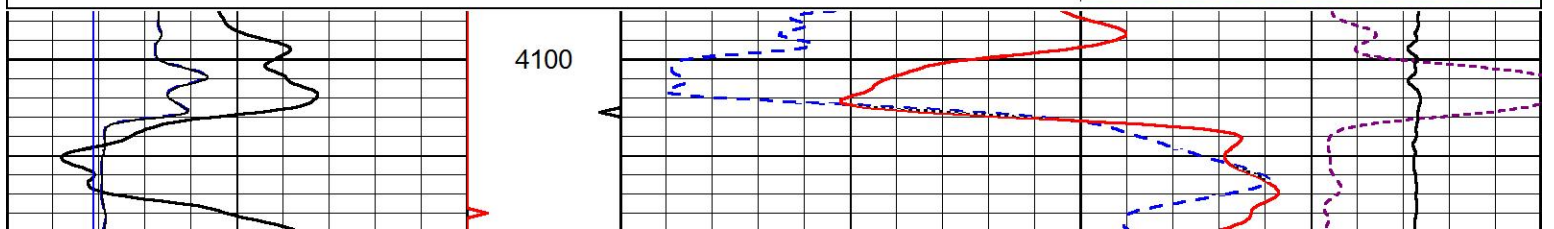
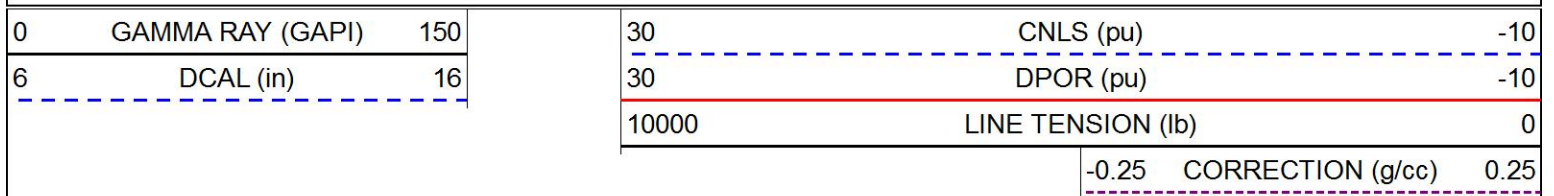


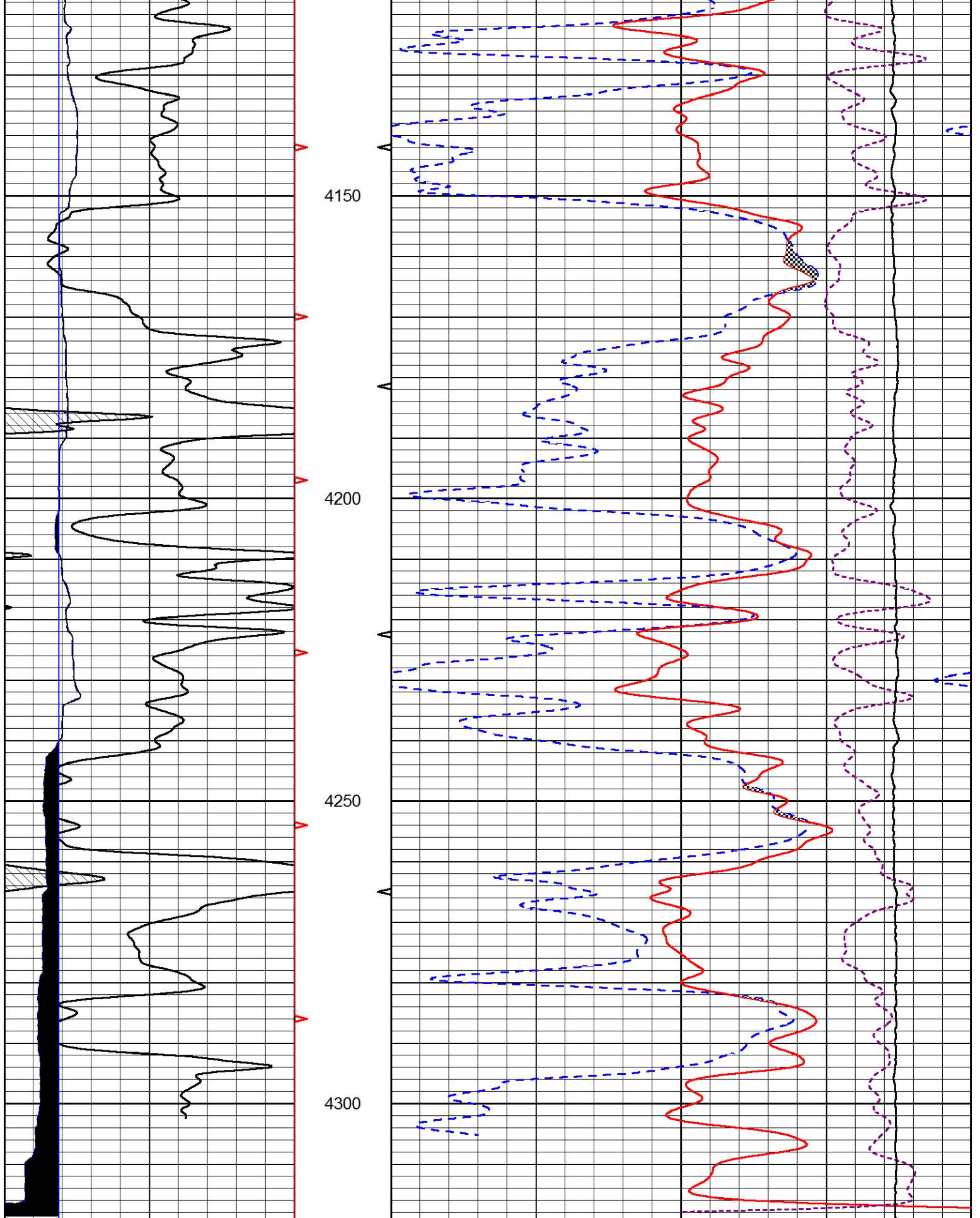




REPEAT SECTION

Database File castle_resources_skolout_1.db
 Dataset Pathname stackmel/pass2.1
 Presentation Format _cndlspec
 Dataset Creation Sat Apr 04 20:04:18 2020
 Charted by Depth in Feet scaled 1:240





0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
			10000	LINE TENSION (lb)	0
				-0.25 CORRECTION (g/cc)	0.25

Calibration Report

Database File castle_resources_skolout_1.db
 Dataset Pathname stackmel/pass3.1
 Dataset Creation Sat Apr 04 19:42:36 2020

Dual Induction Calibration Report

Serial-Model: 952-828-PSI HIGH TEMP
 Calibration Performed: Sun Mar 01 09:43:59 2020

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.500	-27.500
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.350	-27.000

Microlog Calibration Report

Serial-Model: UDM-01-PSI UDM ML
 Performed: Sun Jan 05 15:35:23 2020

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	7000.0000	0.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	7000.0000	0.0000
Caliper	1.0020	1.2631	6.5000	21.0000	in	55.5374	-49.9000

Compensated Density Calibration Report

Serial-Model: 817-947-M&W
 Source / Verifier: 16955B / 2ci
 Master Calibration Performed: Tue Sep 24 21:18:50 2019

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.680	g/cc	1141.85	3762.09	cps

Spine Angle = 74.89

Density/Spine Ratio = 0.532

	Size		Reading
Small Ring	4.50	in	1.02
Large Ring	15.00	in	1.33

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: WED FEB 13 10:30:30 2019

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: 233-M&W
Tool Model: M&W
Calibration Performed: Fri Feb 07 01:42:40 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.5500 GAPI/cps



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