KOLAR Document ID: 1374083

CORRECTION #1

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 4058
Name: American Warrior, Inc.
Address 1: PO BOX 399
Address 2:
City: GARDEN CITY State: KS Zip: 67846 + ____
Contact Person: Octavio D Morales
Phone: (620) 275-2963
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Luke Thompson
Purchaser:

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover
☑ Oil ☐ WSW ☐ SWD
☐ Gas ☐ DH ☐ EOR
☐ OG ☐ GSW
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:
Operator:
Well Name:
Original Comp. Date: Original Total Depth:
☐ Deepening ☐ Re-perf. ☐ Conv. to EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ EOR Permit #:
☐ GSW Permit #:

8/3/2017 Spud Date or Recompletion Date
8/11/2017 Date Reached TD
9/11/2017 Completion Date or Recompletion Date

API No.: 15-199-20444-00-00
Spot Description:
NW - SE - SW - SE Sec. 6 Twp. 15 S. R. 41 ☐ East ☑ West
335 Feet from ☐ North / ☑ South Line of Section
1800 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Wallace
Lease Name: BLAESI Well #: 9-6
Field Name:
Producing Formation: Morrow
Elevation: Ground: 3779 Kelly Bushing: 3783
Total Vertical Depth: 5200 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 366 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2729 Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 15000 ppm Fluid volume: 80 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT
I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY
☑ **Confidentiality Requested**
Date: 09/13/2017
☑ **Confidential Release Date:** 09/13/2019
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Karen Ritter **Date:** 11/27/2017

CORRECTION #1

Page Two

Operator Name: American Warrior, Inc. Lease Name: BLAESI Well #: 9-6

Sec. 6 Twp. 15 S. R. 41 ☐ East ☑ West County: Wallace

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken *(Attach Additional Sheets)*	☐ Yes	☑ No	☐ Log Formation (Top), Depth and Datum ☐ Sample
Samples Sent to Geological Survey	☐ Yes	☑ No	Name: Attached Top: Attached Datum: Attached
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☐ Yes	☑ No	

List All E. Logs Run:

Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.250	8.625	23	366	Common	225	2%gel/3% CC
Production	7.875	5.5	15.5	5193	EA-2	200	1/4 Flocele

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/ Injection: 10/06/2017	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL: Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	4994	5002

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4	4994	5002			

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	BLAESI 9-6
Doc ID	1374083

Tops

Name	Top	Datum
Anhydrite	2750	1033
Base	2778	1005
Heebner	4109	-326
Lansing	4171	-388
Stark	4436	-653
BKC	4518	-735
Marmaton	4568	-785
Pawnee	4674	-891
Fort Scott	4720	-937
Cherokee	4736	-953
Morrow	4976	-1193
Morrow Sand	4994	-1211
Miss	5180	-1397
RTD	5200	-1417
LTD	5200	-1419

Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	BLAESI 9-6
Doc ID	1374083

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
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Production	7.875	5.5	15.5	5193	EA-2	200	1/4 Flocele

Summary of Changes

Lease Name and Number: BLAESI 9-6

API/Permit #: 15-199-20444-00-00

Doc ID: 1374083

Correction Number: 1

Approved By: Karen Ritter

Field Name	Previous Value	New Value
Approved Date	09/13/2017	11/27/2017
Date of First or Resumed Production or SWD or Enhr		10/06/2017
Method Of Completion - Perf	No	Yes
Perf_perf1bottom		5002
Perf_perf1top		4994
Perf_shots1		4
Producing Method Pumping	No	Yes
Production Interval #1		4994
Production Interval #3		5002

Confidentiality Requested:
☑ Yes ☐ No

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1366895

Form ACO-1
November 2016
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(Data must be collected from the Reserve Pit)

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Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ Confidentiality Requested
Date: 09/13/2017
☐ Confidential Release Date:
☑ Wireline Log Received ☐ Drill Stem Tests Received
☑ Geologist Report / Mud Logs Received
☐ UIC Distribution
ALT ☐ I ☑ II ☐ III Approved by: Karen Ritter Date: 09/13/2017

SWIFT Services, Inc.

CHARGE TO: AMERICAN WARRIOR INC.
ADDRESS
CITY, STATE, ZIP CODE

TICKET 30344

PAGE 1 OF 2

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. NESS CITY, KS	9-6	BLAESI	WALLACE	KS		8-11-17	SAME

TICKET TYPE	CONTRACTOR	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	ORDER NO.
☒ SERVICE ☐ SALES	DISCOVERY DRLG #1		CT	LOCATION	

WELL TYPE	WELL CATEGORY	JOB PURPOSE	WELL PERMIT NO.	WELL LOCATION
OIL	DEVELOPMENT	5½" LONGSTRING		SW/ SHARON SPRINGS, KS

REFERRAL LOCATION
INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE # 112	150	MI			5 00	750 00
578		1			PUMP CHARGE - LONGSTRING	1	JOB	5192	FT	1250 00	1250 00
221		1			LIQUID KCL	2	GAL			25 00	50 00
281		1			MUD FLUSH	500	GAL			1 25	625 00
402		1			CENTRALIZERS	8	EA	5½"		60 00	480 00
403		1			CEMENT BASKETS	2	EA			250 00	500 00
404		1			PORT COLLAR	1	EA	2729	FT	2500 00	2500 00
406		1			LATCH DOWN PLUG - BAFFLE	1	EA			225 00	225 00
407		1			INSERT FLOAT SHOE W/ AUTO FILL	1	EA			300 00	300 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X [signature]

DATE SIGNED 8-11-17 | TIME SIGNED 2200 | ☐ A.M. ☒ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL #1	6680 00
#2	5834 13
TAX Wallace	12514 13 584 25
TOTAL	13098 38

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR WAYNE WILSON | APPROVAL

Thank You!

SWIFT Services, Inc.

PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 30344

CUSTOMER: AMERICAN WARRIOR INC. | WELL: BURST 9-6 | DATE: 8-11-17 | PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	TIME	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
325		1				STANDARD CEMENT EA-2	200	SKS			12 25	2450 00
276		1				FLOCELE	50	LBS			2 25	112 50
283		1				SALT	1000	LBS			20	200 00
284		1				CALSEAL	9	SKS	900	LBS	30 00	270 00
292		1				HALAD-322	150	LBS			8 00	1200 00
290		1				D-AIR	3	GAL			42 00	126 00
581		1				SERVICE CHARGE	CUBIC FEET		200		1 50	300 00
583		1				MILEAGE CHARGE TOTAL WEIGHT 20900 LOADED MILES 150	TON MILES		1567.50		75	1175 63

CONTINUATION TOTAL 5834.13

JOB LOG

SWIFT Services, Inc.

DATE 8-11-17 | PAGE NO. 1

CUSTOMER: American Warrior Inc | WELL NO.: 9-6 | LEASE: Blaesi | JOB TYPE: 5½" Longstring | TICKET NO.: 30244

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	2200							On Location
	2315							Start 5½" Casing In Well
								TD - 5200 Set @ 5192'
								TP - 5192 5½ # 15.5
								SJ - 24'
								Centralizers - 1, 3, 5, 7, 9, 11, 13, 58
								Cmt Bskts - 1, 59
								Port Collar @ 2729' Top Jt # 59
	0115							Drop Ball - Circulate
	0140	6	12		✓		400	Pump 500 gal mudflush
	0142	6	20		✓		400	Pump 20 bbls KCl flush
	0155		7 - 5					Plug RH (30 sks) MH (20 sks)
	0205	4½	40		✓		200	Mix Cement 150 sks EA2 @ 15.1 ppg
	0215							Wash Out Pump - Lines
	0215							Release Latch Down Plug
	0225	7	0		✓			Displace Plug
		7	120				700	
	0242	5	123				1500	Plug Down - Psi Up Latch In Plug
	0245						OK	Release Psi - Held
								Wash Truck
	0400							Job Complete
								Thank You
								Wayne, Preston, Kirby

SWIFT Services, Inc.

CHARGE TO: American Warrior
ADDRESS
CITY, STATE, ZIP CODE

TICKET 30760

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Ness City KS	# 9-6	Blaesi	Wallace	KS	Sharon Springs	9-7-17	Same
2.	TICKET TYPE ☒ SERVICE ☐ SALES / CONTRACTOR: Co Tools		RIG NAME/NO.: # 1	SHIPPED VIA: CT	DELIVERED TO: Location	ORDER NO.	
3.	WELL TYPE: Oil	WELL CATEGORY: Development	JOB PURPOSE: Cement 5½" Port Collar		WELL PERMIT NO.	WELL LOCATION: Sharon Springs - 9w, 8s, 1w to	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE Trk # 112			150	mi	5 00	750 00
576 D		1			Pump Charge - Port Collar			1	job	1250 00	1250 00
330		1			SMD Cement			325	sks	15 75	5118 75
276		1			Flocele	¼	lb	75	lbs	2 25	168 75
290		1			D-Air			3	gal	42 00	126 00
288		1			Sand (20/40)			2	sks	22 00	44 00
105		1			Port Collar Tool Rental	5½	in	1	job	275 00	275 00
581		1			Service Charge Cement			325	sks	1 50	487 50
583		1			Drayage	32325	lbs	2424	TM	00 75	1818 00

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MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X

DATE SIGNED 9-7-17 | TIME SIGNED 1300 ☐ A.M. ☒ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	10,038 00
Wallace TAX 6.5%	372 61
TOTAL	10410 61

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR David Kuehn | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 9-7-17 | PAGE NO. 1

CUSTOMER: American Warrior | WELL NO.: #9-6 | LEASE: Blaesi | JOB TYPE: Port Collar | TICKET NO.: #30760

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0900							on location 2 3/8 x 5 1/2"
								RBP - 2866' P.C. - 2730'
	0915	4 1/2	70	✓		300		Load Hole
	0930	ø	ø	✓		1000		Test Plug *Hold*
	0940	ø	10 1/2	✓		100		Spot 2 sks sand
								let fall
	1040							Open P.C.
	1050	3 1/2	5	✓		500		Injection Rate
	1055	3 1/2	180	✓		500		mix 325 sks SMD 1/4# Flo @ 11.2 ppg
								Circulate Cement to Pit *10 sks*
	1150	3 1/2	10	✓		700		~~close~~ Displace Cement
	1200	ø	ø	✓			1000	Close P.C. *Hold*
								Run 5 Jts
	1215	2 1/2	40		✓		300	Reverse cement/sand clean
								Latch onto Plug
								wash up truck
	1300							Job Complete
								Thank You
								Dave Preston Isaac

SWIFT Services, Inc.

CHARGE TO: American Warrior
ADDRESS
CITY, STATE, ZIP CODE

TICKET 30571

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Ness City KS	9-6	Blaesi	Wallace		Sharon Springs	3 AUG 17	
2.	TICKET TYPE ☐ SERVICE ☐ SALES	CONTRACTOR Discovery	RIG NAME/NO. 1	SHIPPED VIA CT	DELIVERED TO location	ORDER NO.	
3.	WELL TYPE Oil	WELL CATEGORY Development	JOB PURPOSE cement surface pipe		WELL PERMIT NO.	WELL LOCATION 6-15-41	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE TRK 114	150	mi			5 00	750 00
576S		1			Pump Charge	1	ea			800 00	800 00
325		1			Standard cement	225	sk			12 25	2756 25
279		1			Bentonite gel	~~2~~	%	4	sk	25 00	100 00
278		1			Calcium Chloride	3	%	~~500~~	lbsk	40 00	400 00
290		1			D-AIR	1	gal			42 00	42 00
581		1			service charge	225	sk			1 50	337 50
		1			Drayage	22050	lb	1654	TM	0 75	1240 50

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X

DATE SIGNED | TIME SIGNED | ☐ A.M. ☑ P.M. 1700

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	6426 25
Wallace TAX	214 39
TOTAL	6640 64

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SWIFT OPERATOR | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 3 AUG 17 | PAGE NO. -1-

CUSTOMER American Warrior | WELL NO. 9-6 | LEASE Blaesi | JOB TYPE cement surface pipe | TICKET NO. 30571

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								225 sk Standard cement 2%gel 3%CC
								8⅝" x 23# casing 9 joints 366'
	1330							on loc TRK 114
	1453							start 8⅝ x 23# casing in well
	1540							circulate well
	1555	4	57			+	100	mix STD 2% 3% 225 sk @ 14.7 ppg
	1612	3					100	Displace w/ H_2O
								→ cement to surface ←
	1615	3	22				100	Plug down
								shut in 8⅝
	1625							wash truck
								Rack up
	1700							job complete
								thanks
								Blaine, Flint & Isaac

{225 sk mixed 15 to pit}

American Warrior, Inc.

Luke Thompson - Geologist
3118 Cummings Rd
Garden City, KS 67846
(785) 493-1254 cell
(620) 275-5067 office

WELL	API #:	LOCATION:	Elevation
Blaesi #9-6	**15-199-20444-00-00**	Wallace County, KS 335' FSL & 1800' FEL 6-15s-41w	KB: 3783' GL: 3775' Measurements from KB

Lithology Key

- Limestone
- Silty Limestone
- Shaley Limestone
- Sandy Limestone
- Fossil Limestone
- Cherty Limestone
- Oolitic Limestone
- Shale Interbed
- Limestone Interbed
- Black Shale
- Shale
- Silty Shale
- Siltstone
- Sandstone
- Conglomerate
- Dolomite
- Cherty Dolomite
- CFS

Curve Data:

Left Column:
ROP (min/foot)
Gamma Ray

Right Column:
Gas (units)
Density Porosity
Neutron Porosity

Geologist: Luke Thompson (American Warrior, Inc.)

Drilling Contractor: Discovery Rig #1

Samples from: 4500' - RTD

Drilling time from: 4000' - TD

Geological Supervision from: 4500' - TD

Correlating Log: Blaesi #4-6 (6-15s-41w)

Surface Casing: 366' 8 5/8" 23#

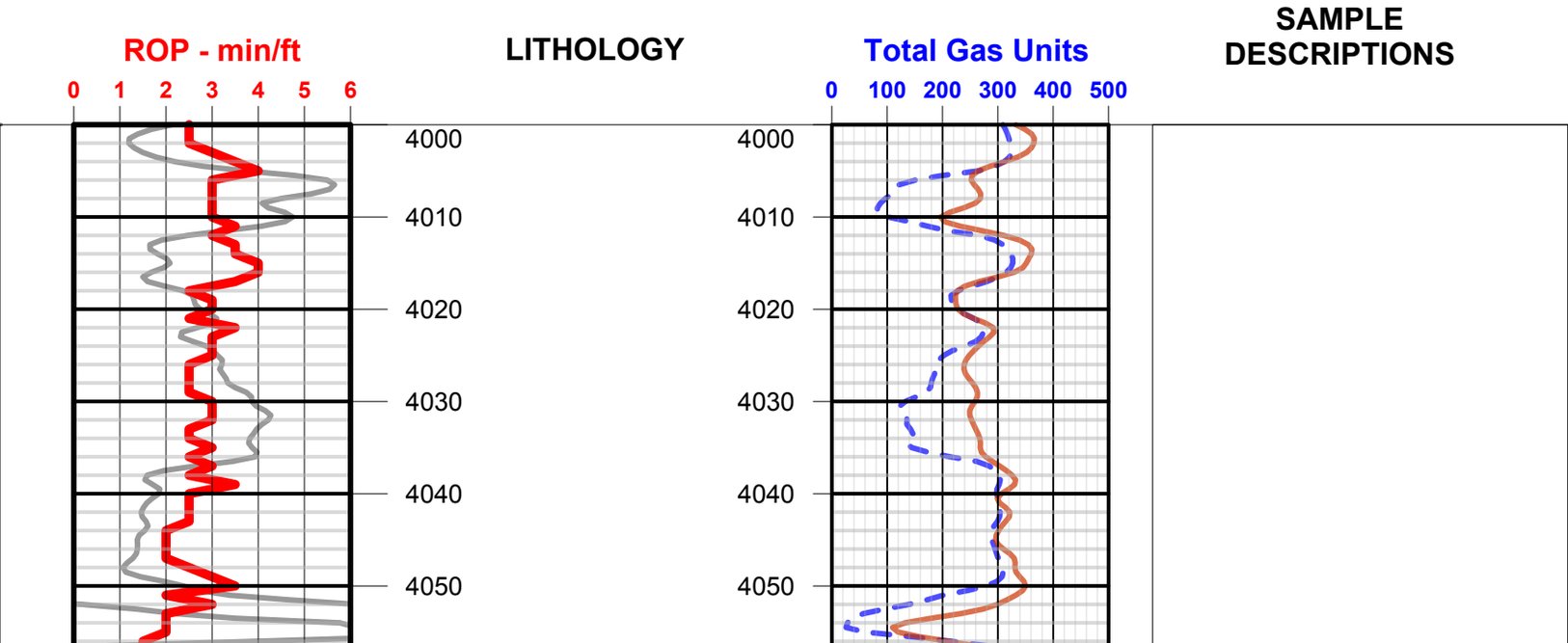
Production Casing: 5193' 5 1/2" 15.5#

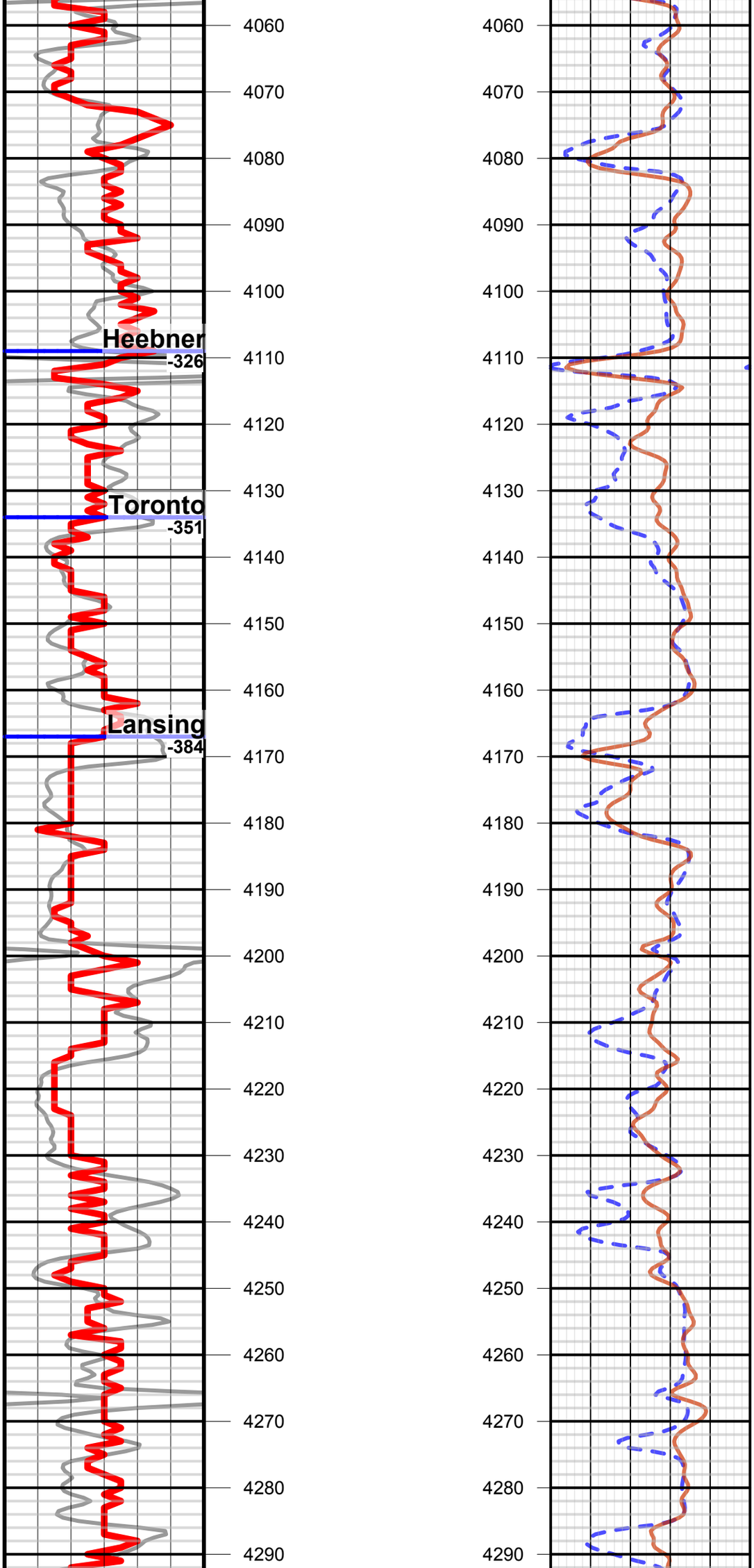
RTD: 5200'

LTD: 5202'

Formation	Log Top	Log Datum	Sample Top	Sample Datum	Correlating Well Structural Comparison
Heebner	4109	-326	4109	-326	+2
Toronto	4136	-353	4134	-351	-1
Lansing	4171	-388	4167	-384	-3
Stark	4436	-653	4433	-650	-1
Hush	4482	-699	4482	-699	-1
BKC	4518	-735	4516	-733	-3
Marmaton	4568	-785	4568	-785	-3
Pawnee	4674	-891	4671	-888	-12
Fort Scott	4720	-937	4721	-938	-13
Cherokee	4736	-953	4736	-953	-15
Morrow	4976	-1193	4979	-1196	-25
Morrow Sand	4994	-1211	Not Called		-25
St. Gen	5180	-1397	5180	-1397	-41

Status: Oil

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-326
Toronto
-351
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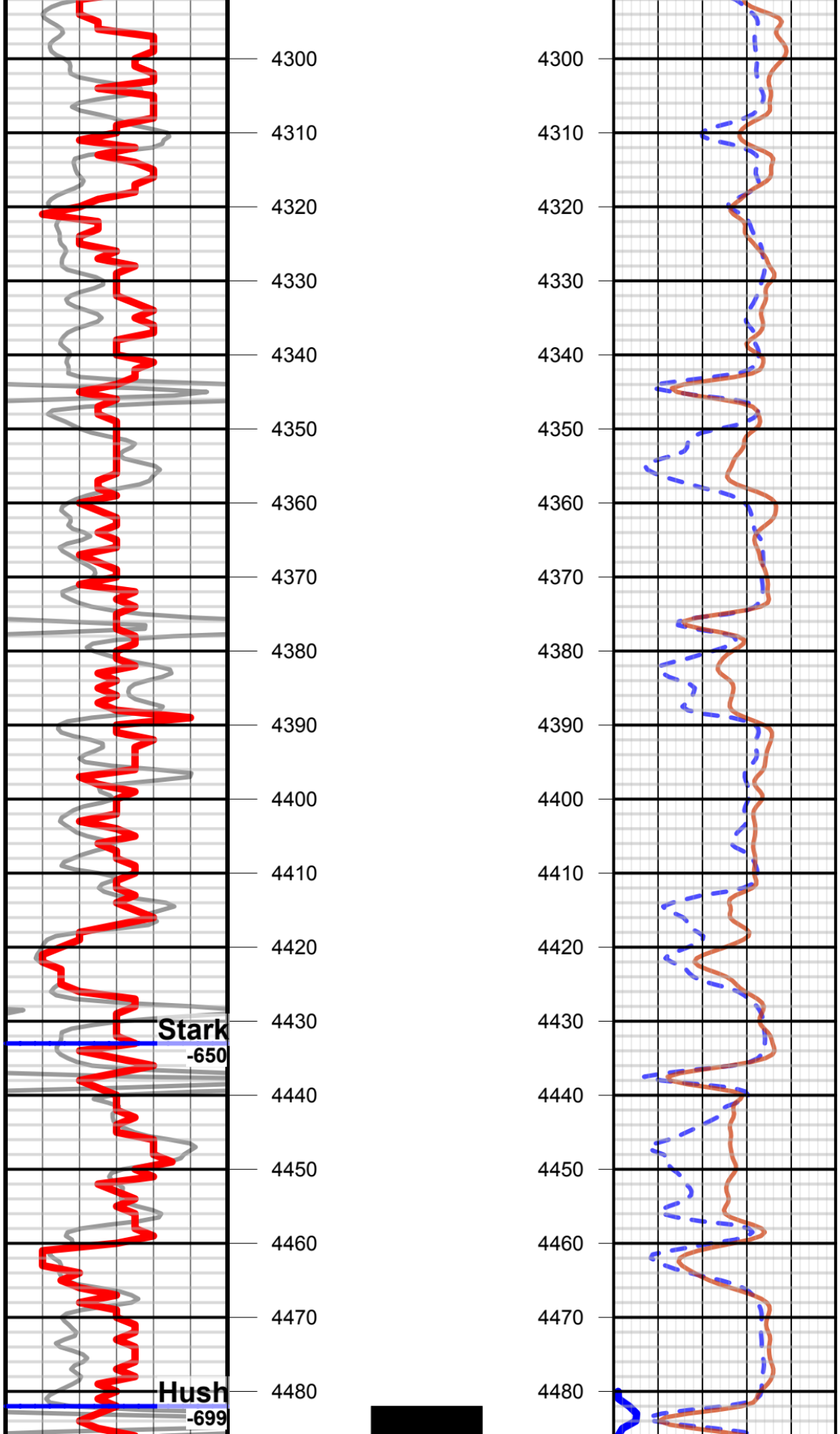
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4450
4460
4470
4480
Hush
-699
4300
4310
4320
4330
4340
4350
4360
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4410
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4430
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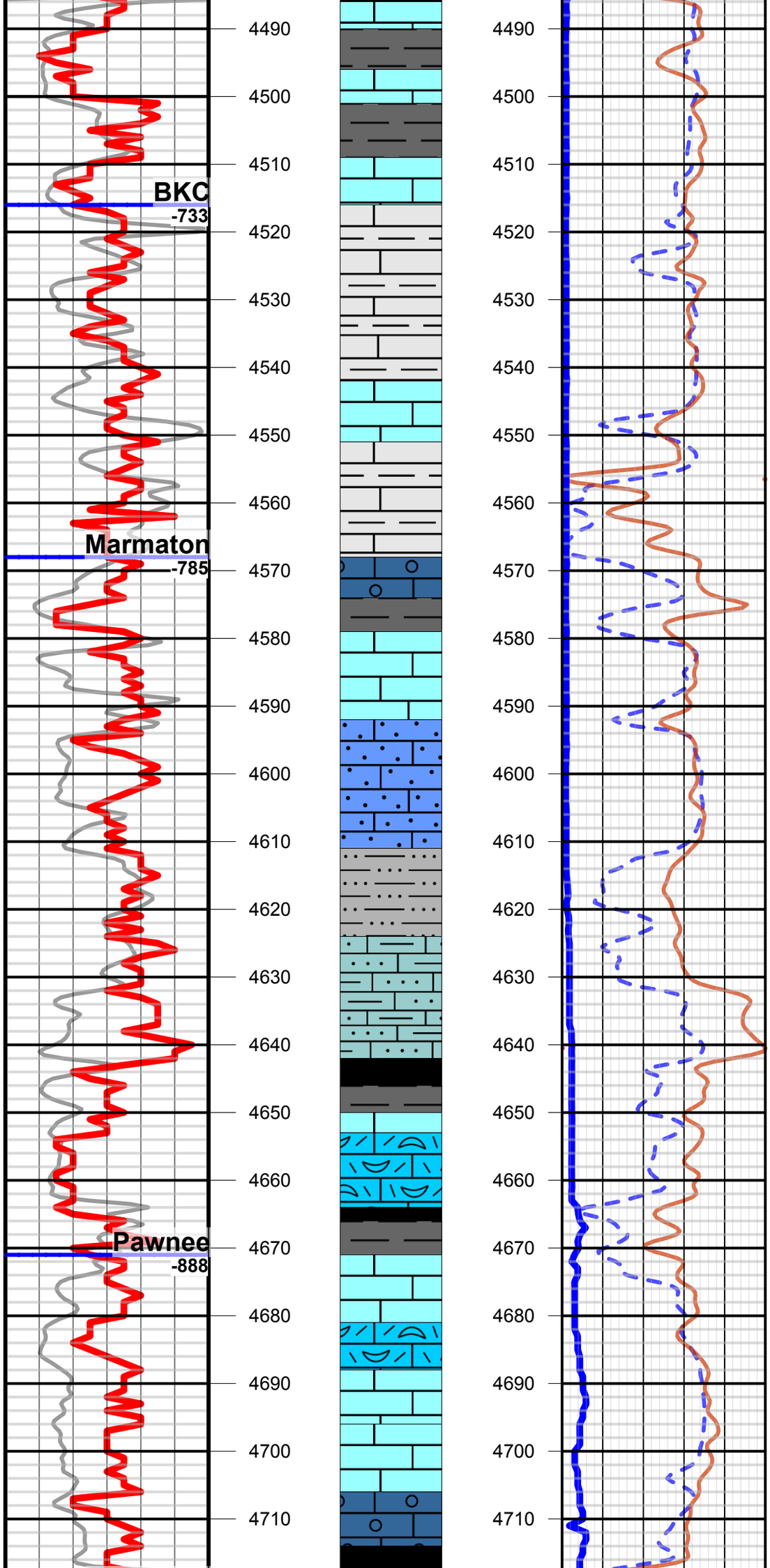
4450
4460
4470
4480

Sh, blk, carb



Ls, tn/crm, fn xln, dense, NSFO

Sh, gry/rd, soft

Ls, crm/tn, fn xln, NSFO

Sh, gry/blk/rd, sl silt

Ls, crm/wht, fn xln, sl chlky, NSFO

Ls, crm/tn/gry, sub-fn xln, sl fos, scat silty/sandy, occ chlky, NSFO; Sh, rd/gry/brn, soft

◑ Ls, crm/tn, fn xln, occ chlky, scat Dolo recrys, tight, sl fleeting odor, vpr-no stn or sat, vpr SFO in Dolo, no cut

Ls, gry/tn, fn xln, dense, NSFO; Sh, rd/gry, sl silt

Ls, crm/wht, ool wack-packstone, chlky, (ool crushed), NSFO

Sh, gry, soft

Ls, gry, fn xln (scat sub xln), sl fos, NSFO

Ls, tn, sub-fn xln, silty/sandy, chlky, NSFO

Sh, rd/gry/brn/aqua/purp, silty; Siltstone, lt gry, soft

Ls, gry, sub-fn xln, chlky, silty, scat shaley, NSFO

Sh, blk/brn, carb

Sh, brn/gry/rd, organic, coaly

Ls, crm/tn, sub xln, sl fos, sl chlky, NSFO

Ls, tn/gry/mottled, ool fos hash, packstone, sl chlky, pr inter gran poro, NSFO

Sh, blk, carb

Sh, gry/blk

Ls, tn/gry, fn xln, dense, occ fos, NSFO

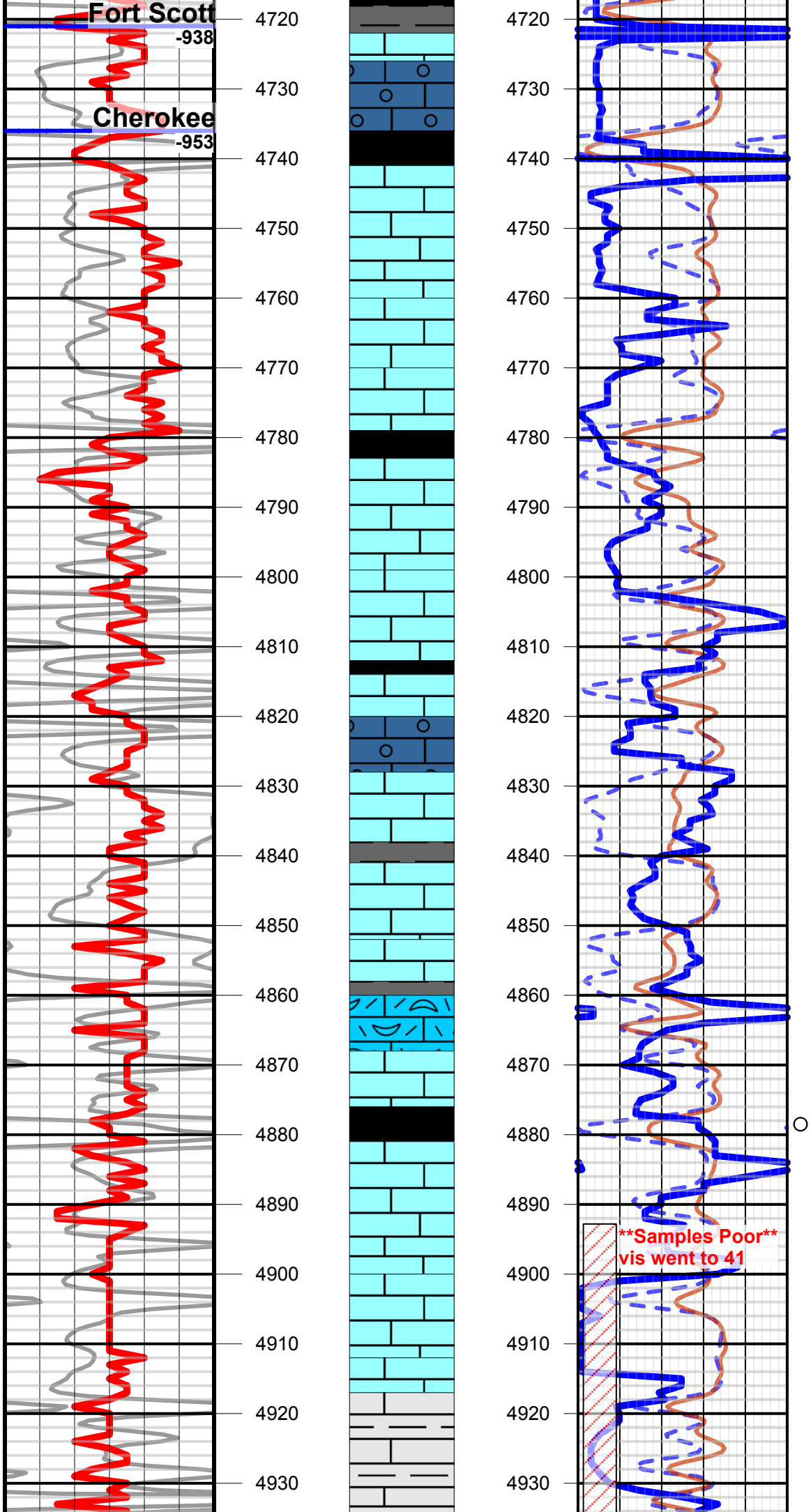
Ls, tn/gry, fos hash, sl ool, wack-packstone, sl chlk, NSFO

Ls, gry, fn xln, dense, sl frosted, NSFO

Ls, tn/brn, fn xln, dense, NSFO

Ls, tn, ool hash, tight, NSFO

Sh, blk, carb



Sh, gry/rd, soft, sl platy

Ls, gry/tn, fn xln, dense, NSFO

Ls, crm, ool packstone, chlky, pr-fr oolicat poro, NSFO

Sh, blk, carb

Ls, crm/lt gry, sub xln, chlky, sl ool, NSFO

Ls, tn/gry, fn xln, dense, NSFO

Ls, crm/lt gry, sub xln, chlky, sl ool, NSFO

Sh, blk, carb

Ls, crm/tn, sub xln, chlky, fos frags, NSFO

Ls, tn/lt gry, fn xln, dense, frosted, NSFO

Sh, blk, carb

Ls, crm, sub xln, chlky, occ fos, NSFO

Ls, tn/crm, sub xln, ool-sub ool hash, chlky, Cht, brn/wht, NSFO

Ls, crm/lt gry, fn xln, sl chlky, NSFO

Sh, gry, soft/gummy

Ls, tn/crm, fn xln, sl fos, occ chlk, NSFO

Ls, tn/lt gry, fn xln, dense, NSFO

Sh, gry

Ls, tn/gry/mottled, fn xln, fos hash, (crinoid), NSFO

Ls, tn/lt gry, fn xln, occ fos, sl chlky, NSFO

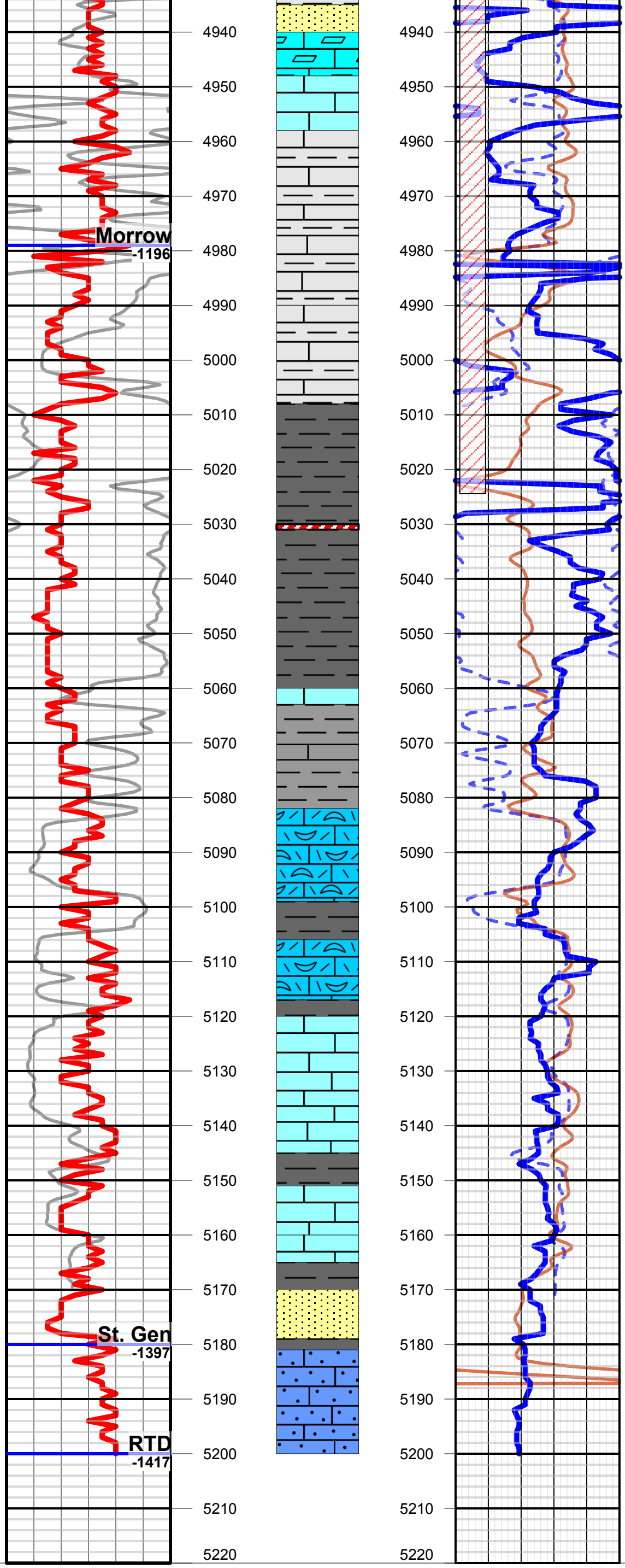
Sh, blk/gry, carb, Diesel odor

Ls, tn/crm/lt gry, fn xln, dense, occ chlk, Cht, blk, NSFO

Ls, crm/tn/lt gry, fn-sub xln, chlky, occ fos,NSFO

Ls, gry/tn/mottle, sub-fn xln, chlky, occ os, NSFO

Ls, tn/lt gry, sub-fn xln, occ fos, chalky, Cht, wht/brn, ool, NSFO; Sh, gry/blk, soft



Ss, clr/wht/org, coarse grn, sub ang, sub sphere, (Loose no clusters), no odor, few oil spots trapped in grain, NSFO

Ls, tn/gry/mottled, fn xln, chalky, Cht, gry, sl fos, NSFO

Ls, gry/mottled, fn-sub xln, chalky, occ fos, occ Cht, gry/wht/yllw, NSFO

Samples extremly fine with uphole cuttings mixed in. Ls, tn, fn-sub xln, occ fos, NSFO; Sh, gry/rd, sl silt; Sand, scat loose grains, clr,/yllw, fn-coarse grn, sub rnd, semi sphere, NSFO

Samples extremly fine with uphole cuttings mixed in. Ls, tn, fn-sub xln, occ fos, NSFO; Sh, gry/rd, sl silt; Ss, vr few tiny clusters, wht/clr, fn gr, sub rnd, semi sphere, well sorted, well cement, NSFO

Sh, blk/gry/rd/aqua, very soft, gummy, sticky

Mud vis @ 41 CFS 1.5 Hr to circ mud

Sh, blk/gry/rd/aqua, very soft, gummy, sticky

Ls, tn, fn xln, dense, NSFO

Sh, blk/gry/aqua/tn, soft, sl gummy; Ls, tn/crm, fn-sub xln, NSFO

Ls, crm, xln-fn xln, fos hash, chalky, sl sandy, glauconitic, NSFO (KEYES??)

Sh, gry, platy

Ls, crm/brn, sub xln, chalky, fos hash, scat Dolo recrys in chlk, occ sand grain, occ glauc, NSFO

Sh, gry/bl/yllw, smooth

Ls, crm, sub-fn xln, sl chlky, occ fos, sl glauc, NSFO

Sh, gry/brn/rd/bl, sl silt

Ls, tn/brn, fn xln, chalky, occ glauc, occ fos, NSFO

Ls, tn/brn, fn xln, sl chlky, occ glauc, NSFO

Sh, blk/gry/lt gry, soft

Ss, wht/clr, fn gr, sub rnd, semi sphere, well sorted, fr-pr cement, fr inter-xln poro, sl glauc, NSFO

Sh, blk/gry, platy

Ls, crm/wht, sub xln, sandy, chlky, NSFO

Geological Report

American Warrior, Inc.

Blaesi #9-6

335’ FSL & 1800’ FEL

Sec 6, T15s, R41w

Wallace County, Kansas

American Warrior, Inc.

General Data

Well Data:	American Warrior, Inc. Blaesi #9-6 335’ FSL & 1800’ FEL Sec. 6, T15s, R41w Wallace County, Kansas API # 15-199-20444-00-00
Drilling Contractor:	Discovery Drilling Rig #1
Geologist:	Luke Thompson
Spud Date:	August 3, 2017
Completion Date:	August 11, 2017
Elevation	3775’ G.L. 3783’ K.B.
Directions:	From the North side of Sharon Springs, KS at the intersection of Hwy. 40 & Hwy. 27. – Now go 8.8 miles West on Hwy. 40 – Now go 7.7 miles South on Rd. Wa S-9 to Field Rd. – Now go approx. 0.3 mile West on Field Rd. (trail) to ingress stake N into at existing lease Rd.
Casing:	366’ 8 5/8” #23 Surface Casing 5193’ 5 ½” #15.5 Production Casing
Samples:	4500’ to RTD 10’ Wet & Dry
Drilling Time:	4000’ to RTD
Electric Logs:	Pioneer Energy Services “D. Schmidt” Stack Micro
Drillstem Tests:	no tests
Problems:	none encountered

Formation Tops

Blaesi #9-6

Sec. 6, T15s, R41w

335’ FSL & 1800’ FEL

Anhydrite	**2750’ +1033**
Base	**2778’ +1005**
Heebner	**4109’ -326**
Lansing	**4171’ -388**
Stark	**4436’ -653**
BKC	**4518’ -735**
Marmaton	**4568’ -785**
Pawnee	**4674’ -891**
Fort Scott	**4720’ -937**
Cherokee	**4736’ -953**
Morrow	**4976’ -1193**
Morrow Sand	**4994’ -1211**
Miss	**5180’ -1397**
RTD	**5200’ -1417**
LTD	**5202’ -1419**

Sample Zone Descriptions

Morrow Sand (4995', -1212): No DST

Samples very fine and poor due to low mud viscosity, with many up-hole cuttings included. Sandstone (very few clusters), white/clear, fine grained, sub-round, semi-spherical, well sorted, well cement, fair to good inter-crystalline porosity, no odor, no show of free oil. Gas 450 units hotwire.

Structural Comparison

Formation	American Warrior, Inc. Blaesi #9-6 Sec. 6, T15s, R41w 335' FSL & 1800' FEL		American Warrior, Inc. Blaesi #4-6 Sec. 6, T15s, R41w 335' FSL & 1112' FEL		Quinque Operating Co. Great Bend Trust #1 Sec. 7, T15s, R41w 335' FNL & 1760' FEL
Heebner	**4109' -326**	**2**	4108' -328	**+1**	4106' -327
Lansing	**4171' -388**	**-3**	4165' -385	**-1**	4166' -387
Stark	**4436' -653**	**-1**	4432' -652	**+2**	4434' -655
BKC	**4518' -735**	**-3**	4512' -732	**0**	4514' -735
Marmaton	**4568' -785**	**-3**	4562' -782	**0**	4564' -785
Pawnee	**4674' -891**	**-12**	4659' -879	**-1**	4669' -890
Fort Scott	**4720' -937**	**-13**	4704' -924	**0**	4716' -937
Cherokee	**4736' -953**	**-15**	4718' -938	**0**	4732' -953
Morrow	**4976' -1193**	**-25**	4948' -1168	**-2**	4970' -1191
Morrow Sd	**4994' -1211**	**-25**	4966' -1186	**-4**	4986' -1207
Miss	**5180' -1397**	**-41**	5136' -1356	**-54**	5122' -1343

Summary

The location for the Blaesi #9-6 well was found via 3-D seismic survey. The new well ran structurally as expected. No drill stem tests were conducted. After all the gathered data had been examined, the decision was made to run 5 ½" production casing to further evaluate the Blaesi #9-6 well.

Perforations

Primary: **Morrow** **(4994' – 5002')** **not tested**

Respectfully Submitted,

Lukas Thompson
American Warrior, Inc.

PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company AMERIAN WARRIOR, INC.
Well BLAESI #9-6
Field UNKNOWN
County WALLACE State KANSAS
Location: API #: 15-199-20444-00-00
335' FSL & 1800' FEL
SEC 6 TWP 15S RGE 41W

Other Services: CNL/CDL, MEL

Permanent Datum: GROUND LEVEL Elevation 3775'
Log Measured From: KELLY BUSHING
Drilling Measured From: KELLY BUSHING

Elevation: K.B. 3783', D.F. N/A, G.L. 3775'

Company AMERIAN WARRIOR, INC.
Well BLAESI #9-6
Field UNKNOWN
County WALLACE
State KANSAS

Date	8/11/2017		
Run Number	ONE		
Depth Driller	5200'		
Depth Logger	5202'		
Bottom Logged Interval	5201'		
Top Log Interval	350'		
Casing Driller	8.625" @ 366'		
Casing Logger	364'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity,ppm CL	5000		
Density / Viscosity	9.4 58		
pH / Fluid Loss	9.5 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.60 @ 80		
Rmf @ Meas. Temp	0.45 @ 80		
Rmc @ Meas. Temp	0.81 @ 80		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.38 @ 128		
Operating Rig Time	4 HOURS		
Max Rec. Temp. F	128		
Equipment Number	91		
Location	HAYS		
Recorded By	D. SCHMIDT		
Witnessed By	LUKE THOMPSON		

<<< Fold Here >>>

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

SHARON SPRINGS,
9 WEST TO 9 RD, 8 SOUTH,
WEST AND NORTH TO LOCATION

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

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

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: LUKE THOMPSON
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

Database C:\ProgramData\Warrior\Data\american warrior_blaesi_9-6.db
Dataset field/well/STKML/pass3.7/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	500	0

SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	5202	128	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC	37.48		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73					
			CDL-M&W (90-1031)	8.50	4.00	250.00
LSD	28.43					
DCAL	28.42					
SSD	27.93					
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
MCAL	19.83					
MI	19.83					
MN	19.83					
RLL3F	15.80					
RLL3	15.80					

			DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset: american warrior_blaesi_9-6.db: field/well/STKML/pass3.7
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

PIONEER
Pioneer Energy Services

MAIN PASS

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Presentation Format: dil2in
Dataset Creation: Fri Aug 11 13:47:38 2017
Charted by: Depth in Feet scaled 1:600

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1000 Conductivity (mmho/m) 0

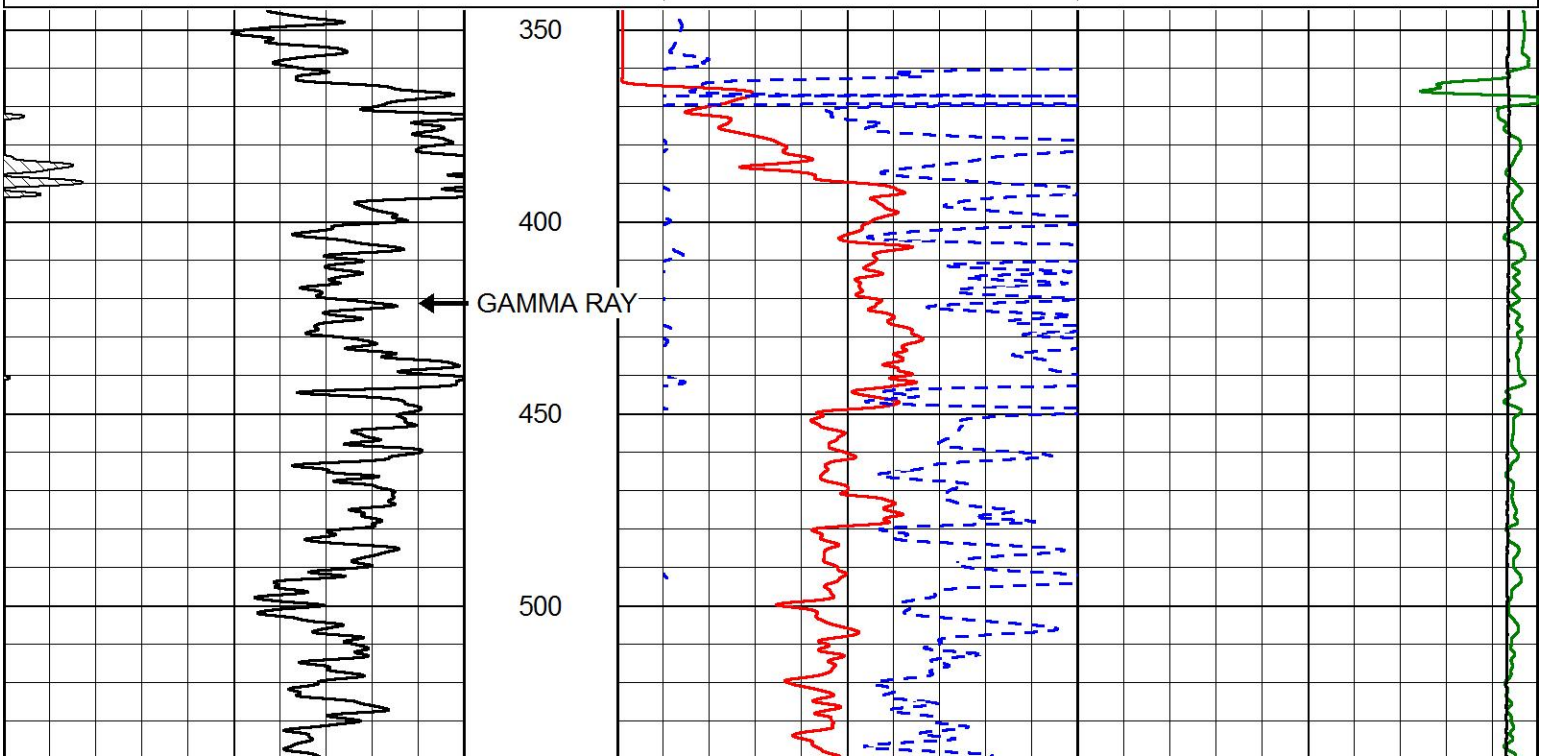
15000 Line Tension (lb) 0

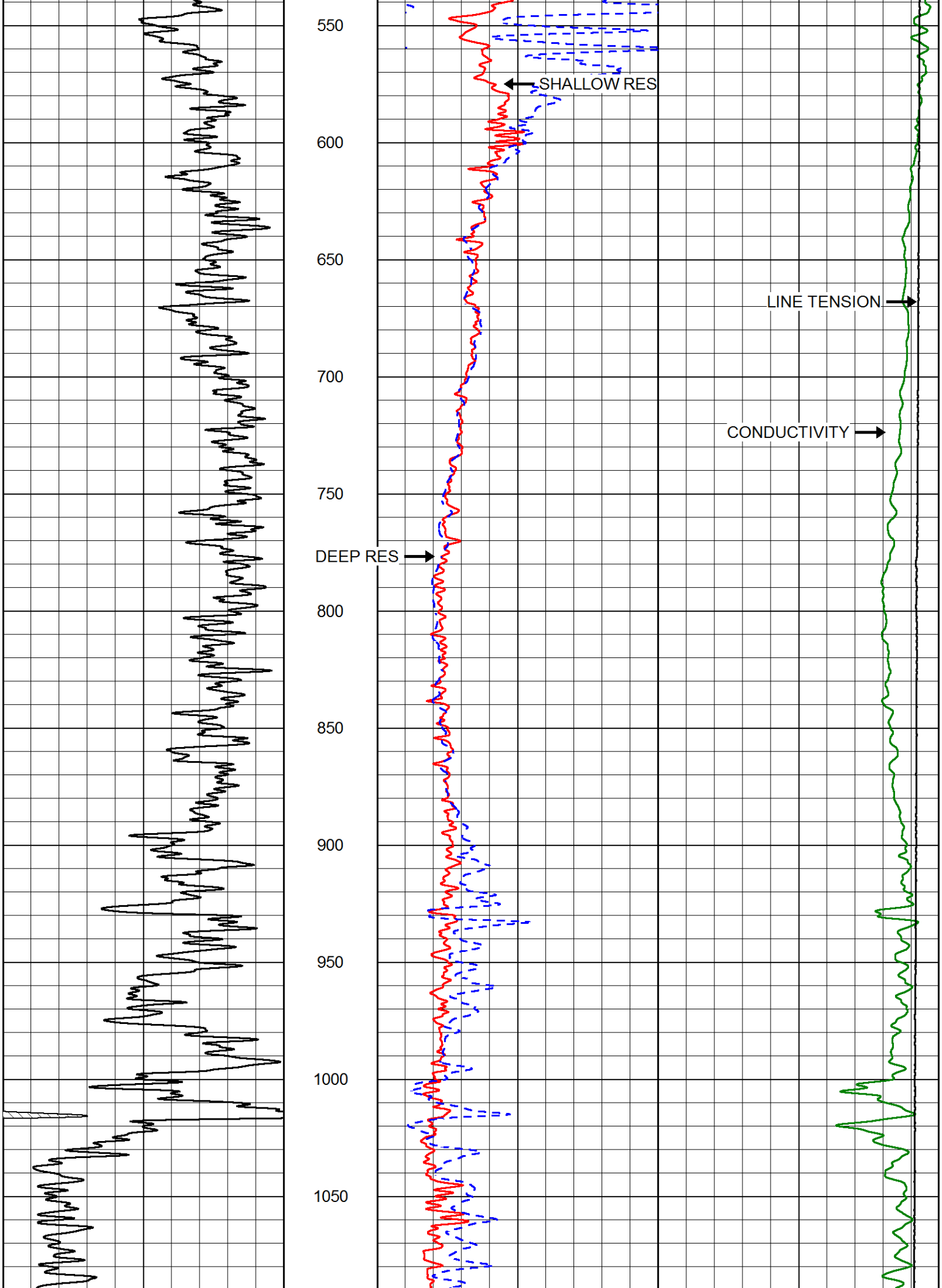
0 Shallow Resistivity (Ohm-m) 50

0 Deep Resistivity (Ohm-m) 50

Shallow Resistivity
50 (Ohm-m) 500

50 Deep Resistivity (Ohm-m) 500

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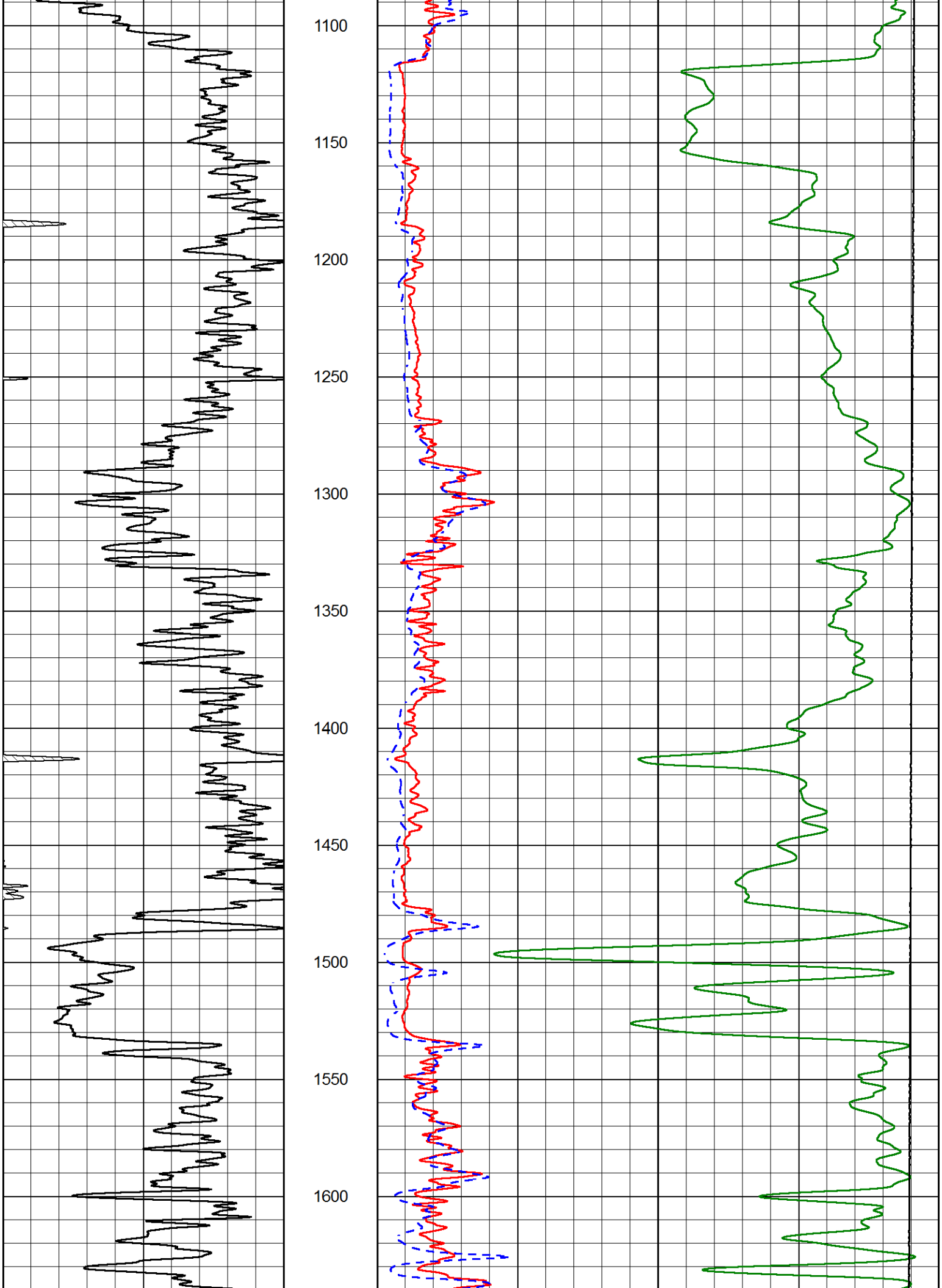
CONDUCTIVITY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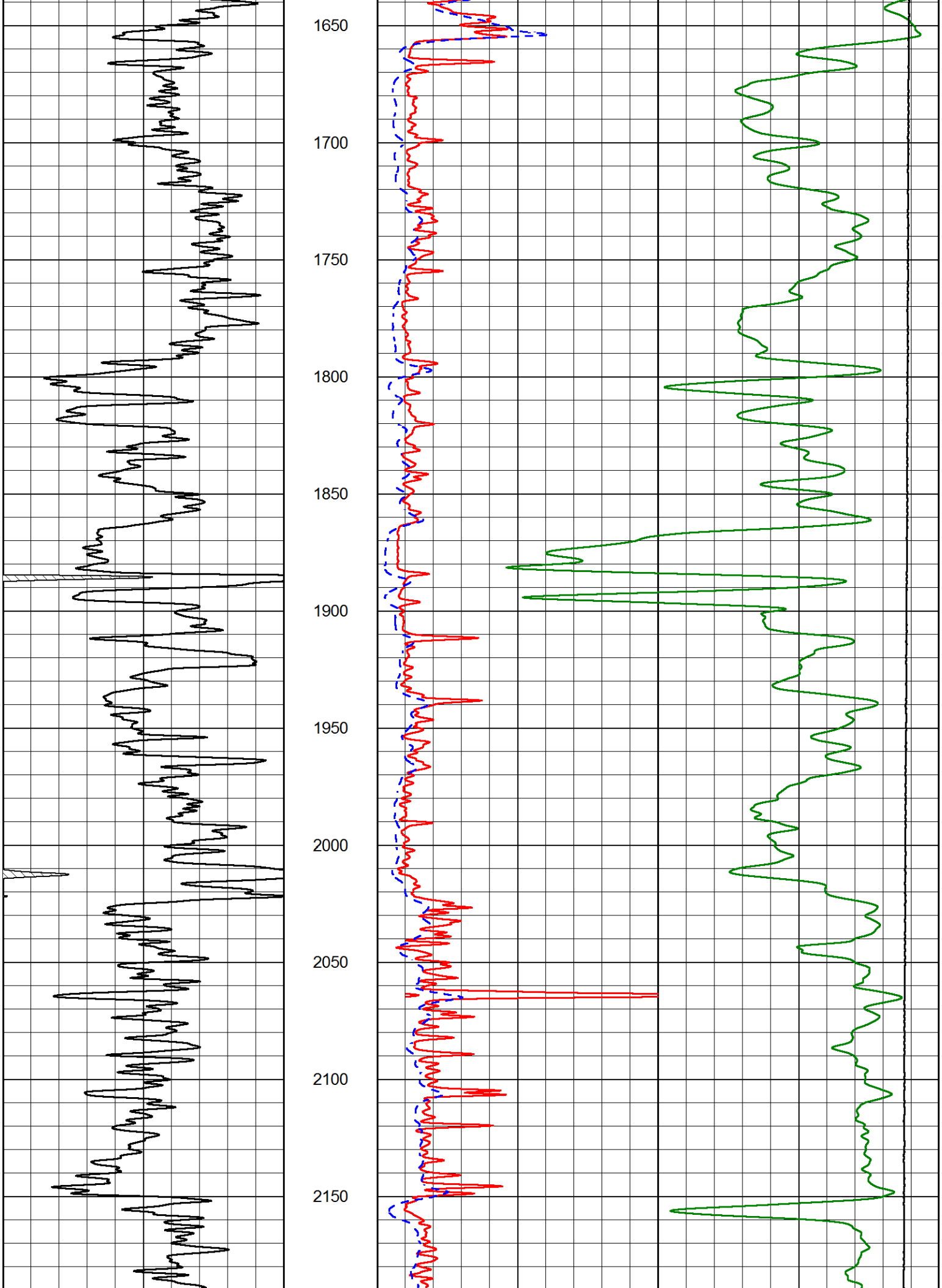
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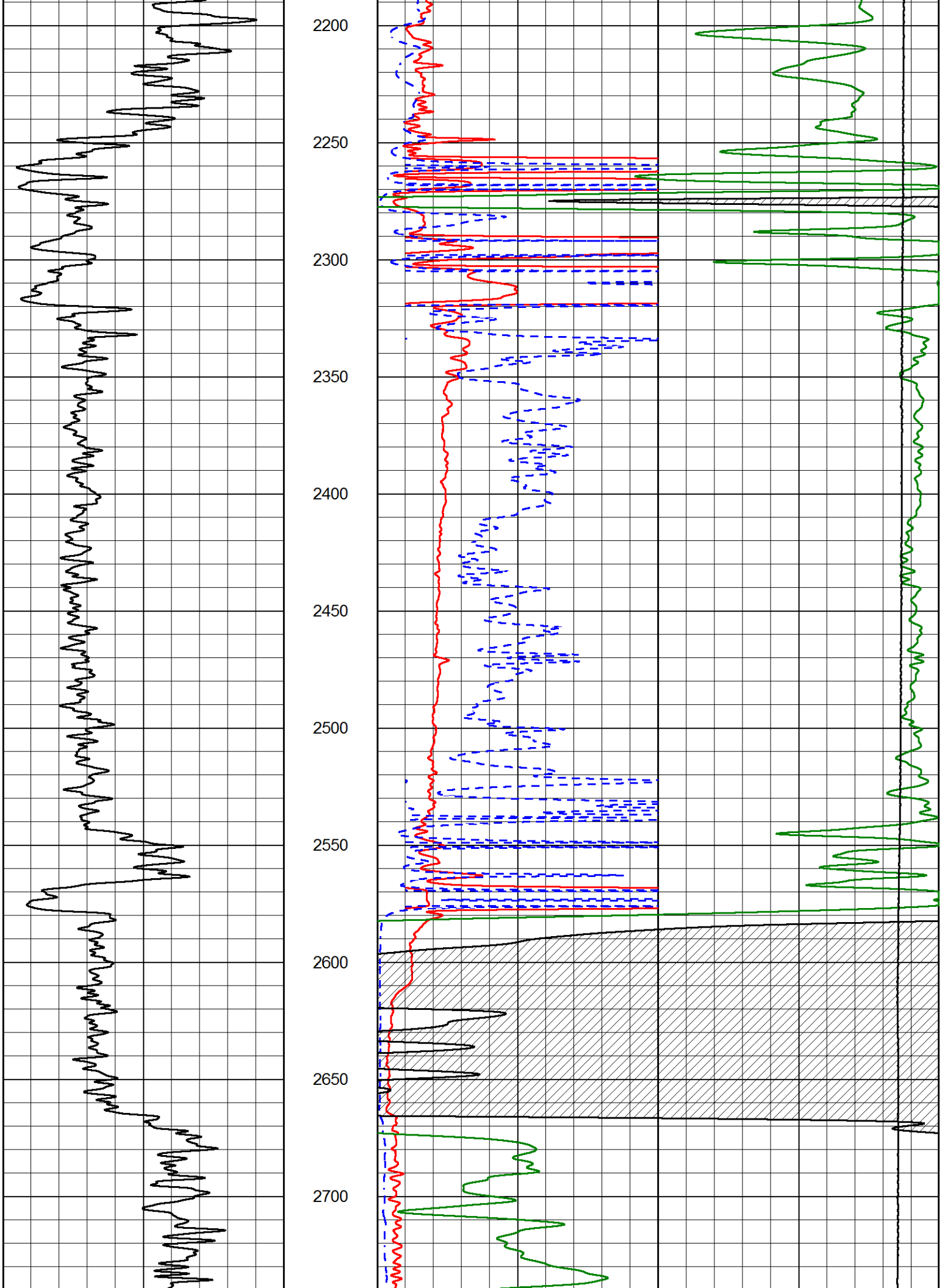
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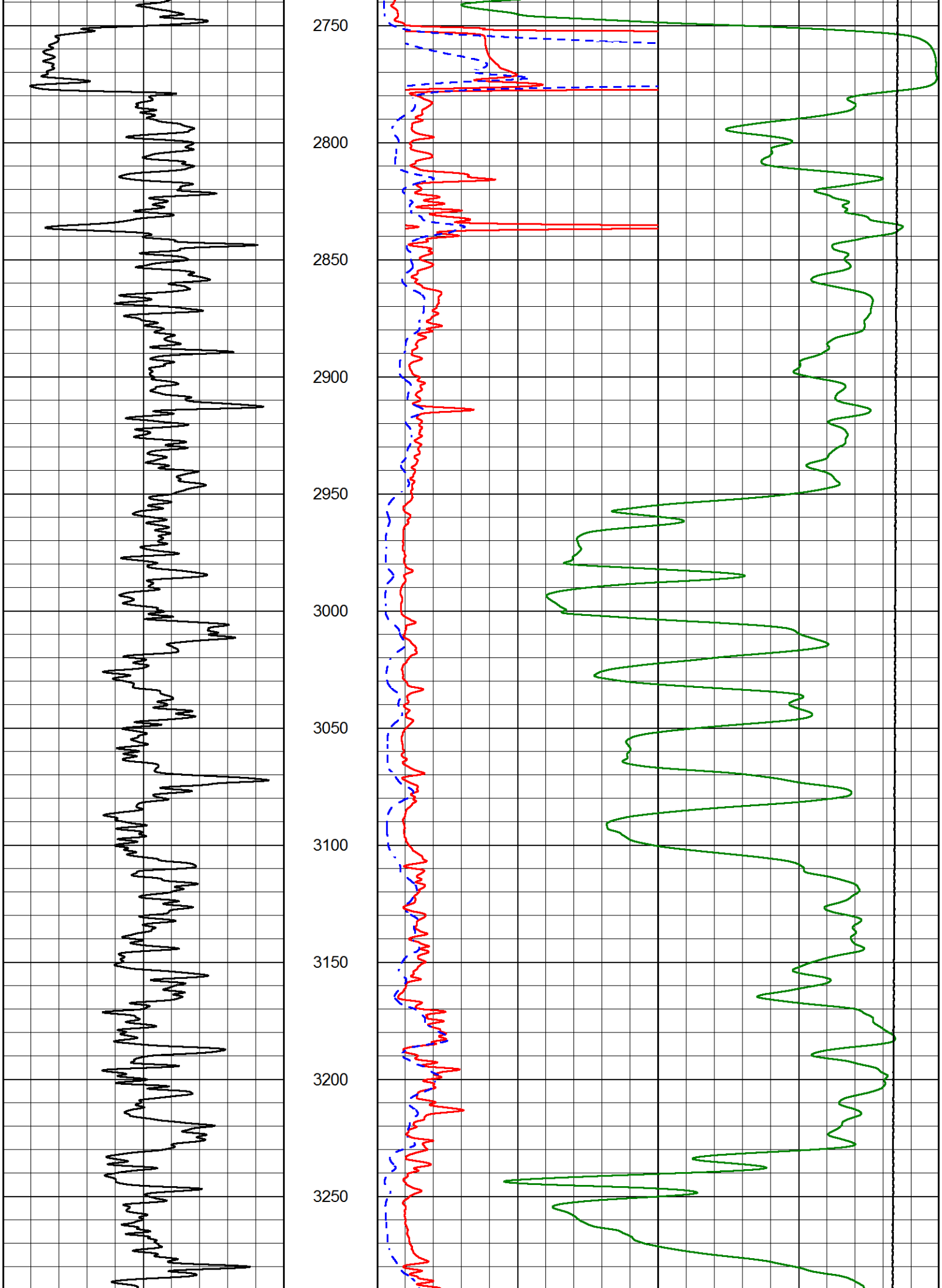
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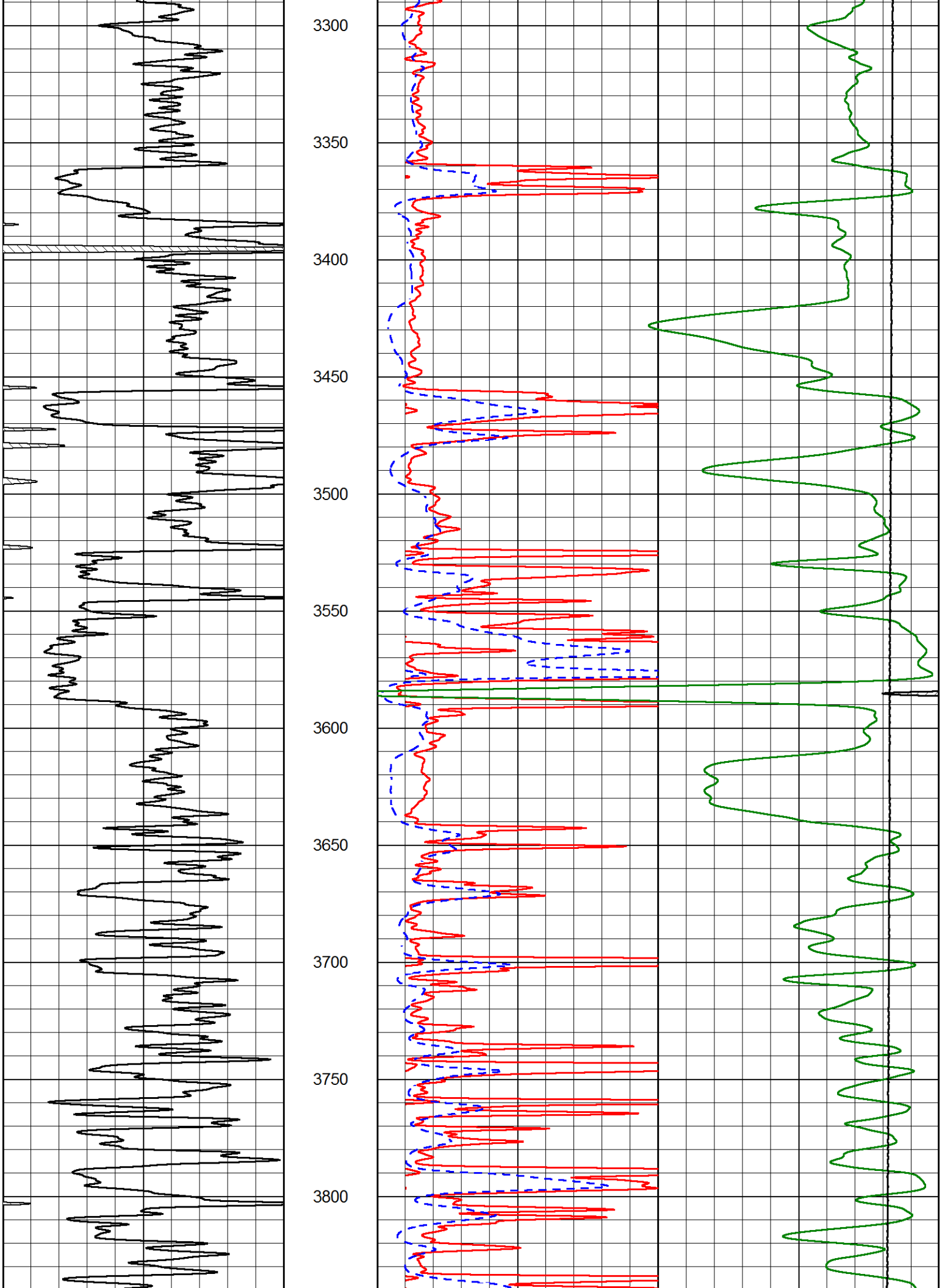
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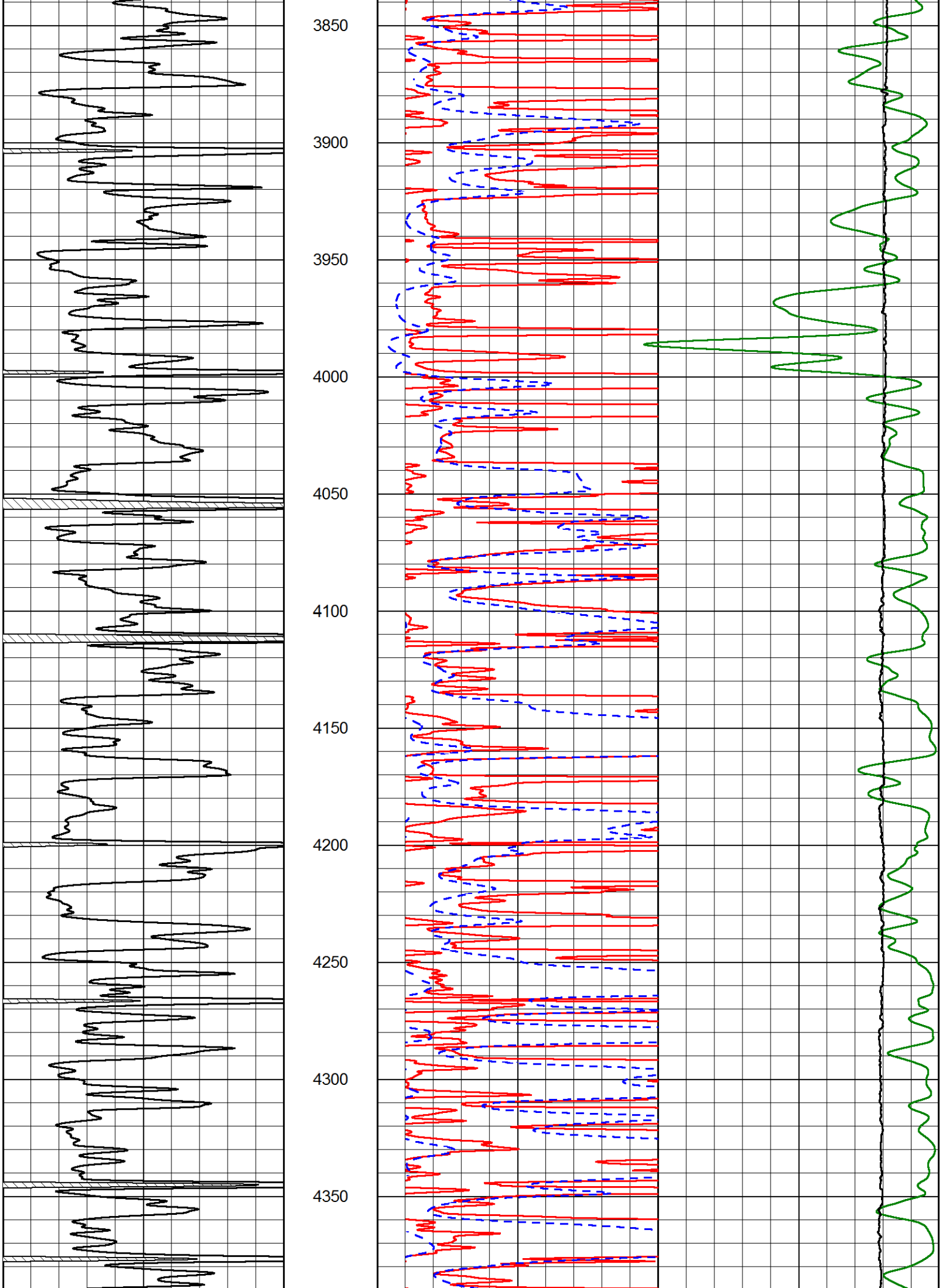
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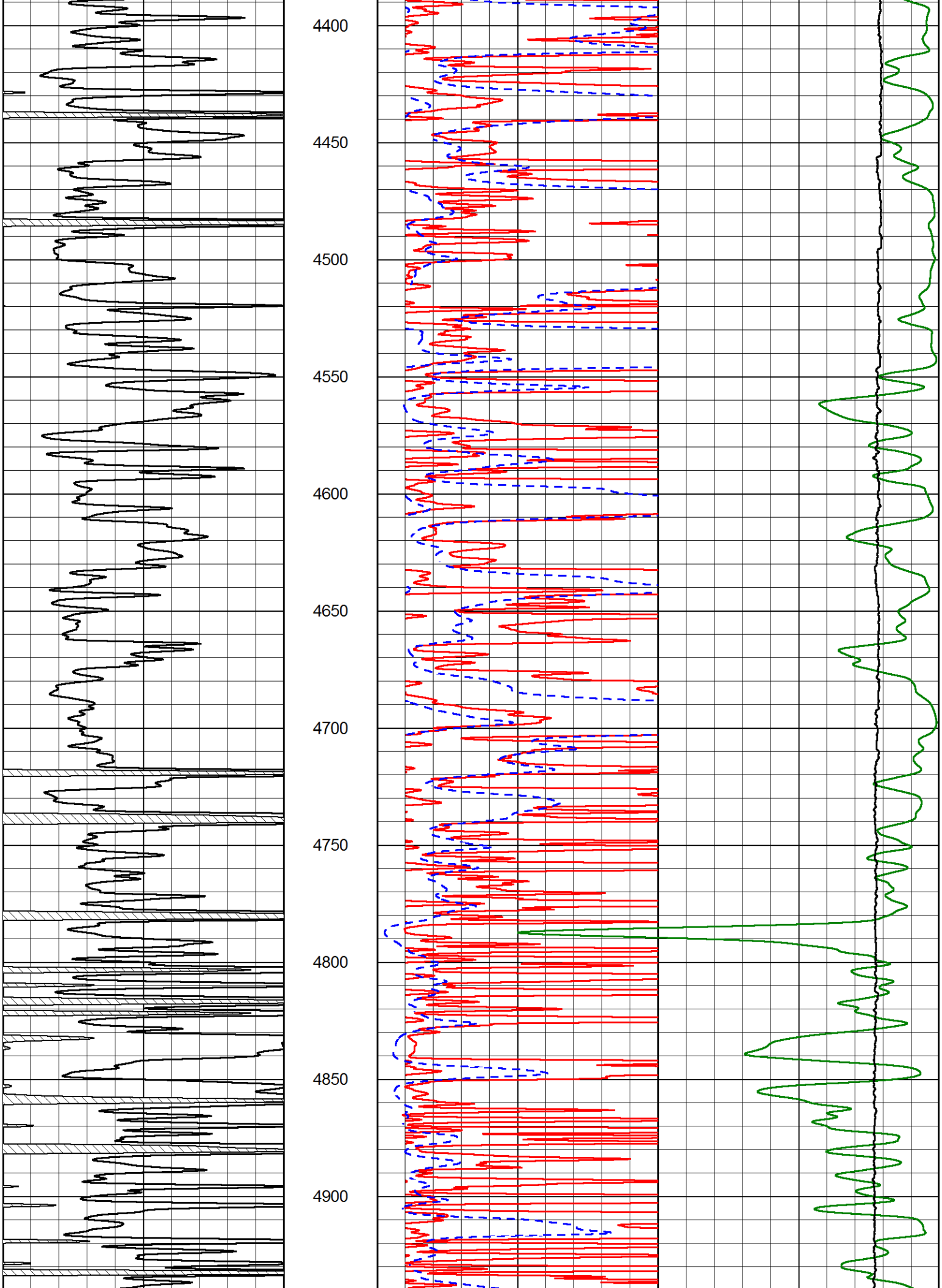
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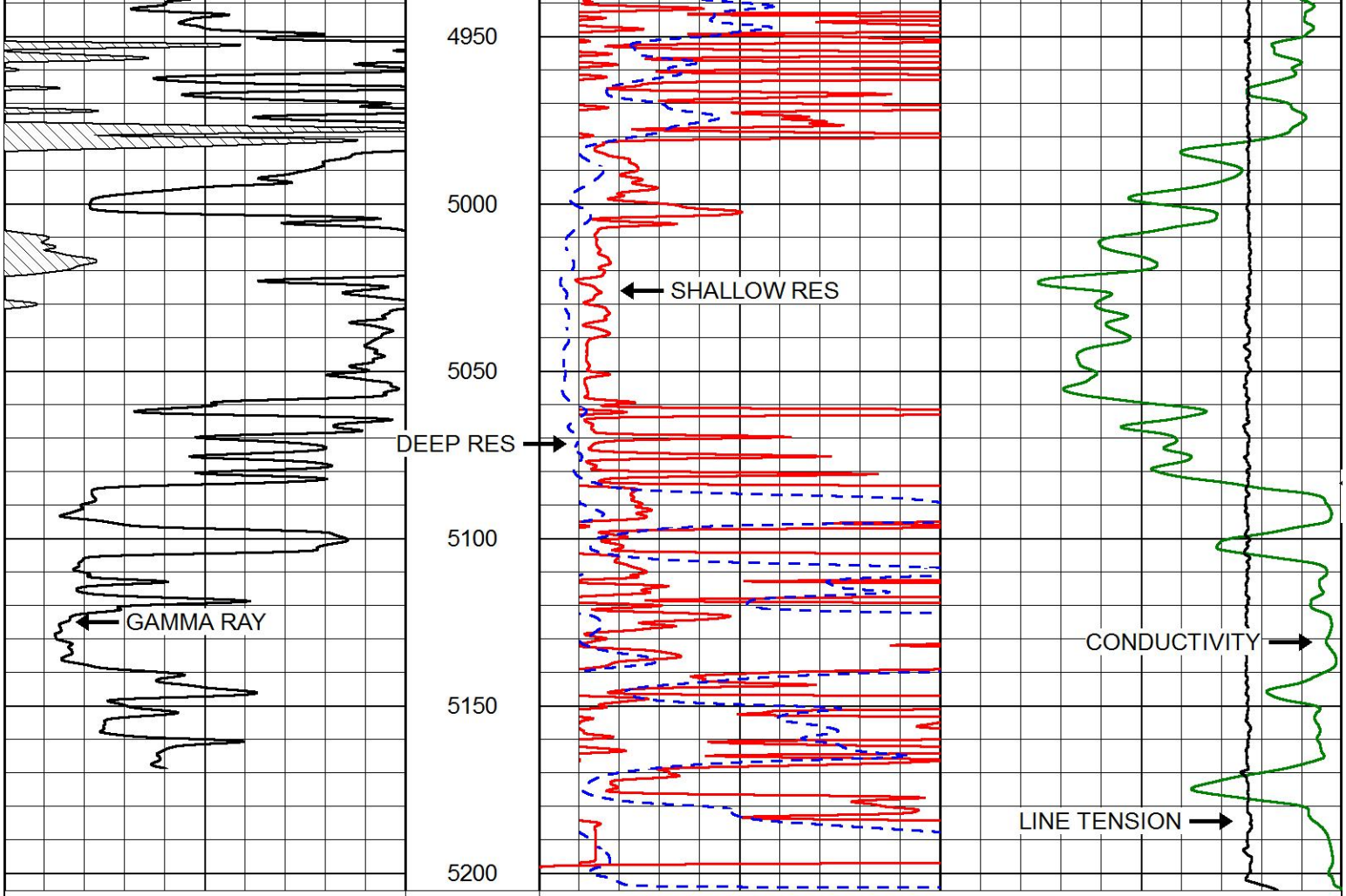

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MAIN PASS

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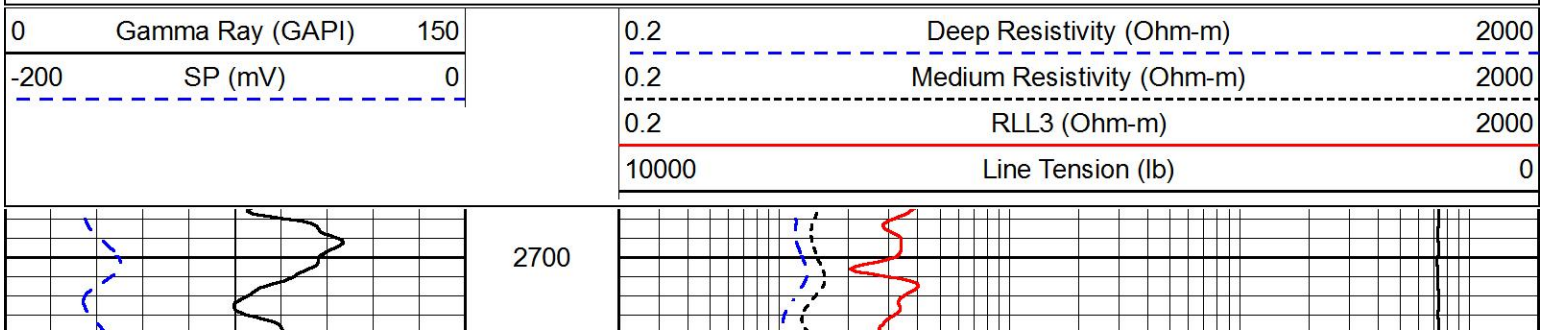
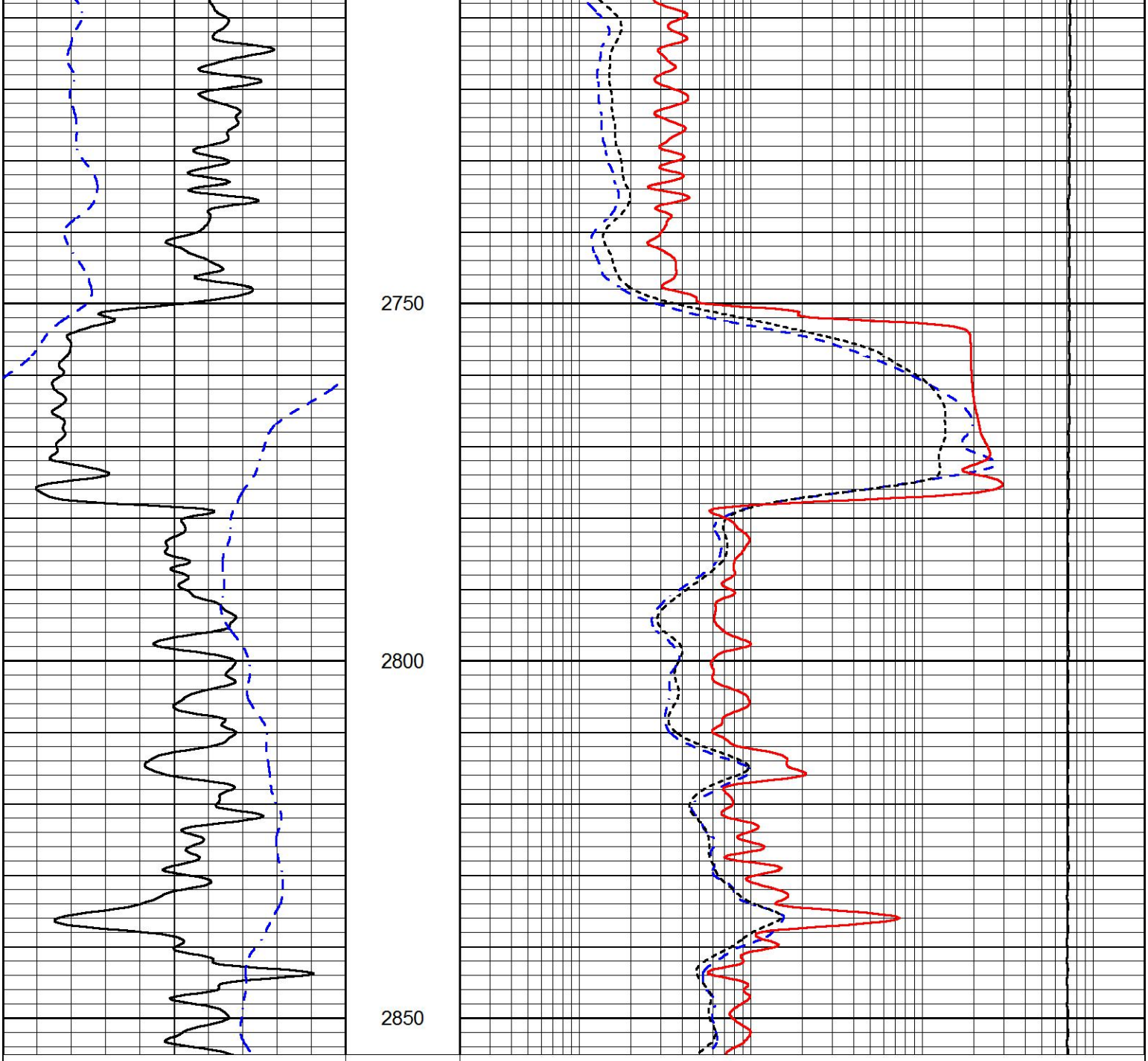




0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

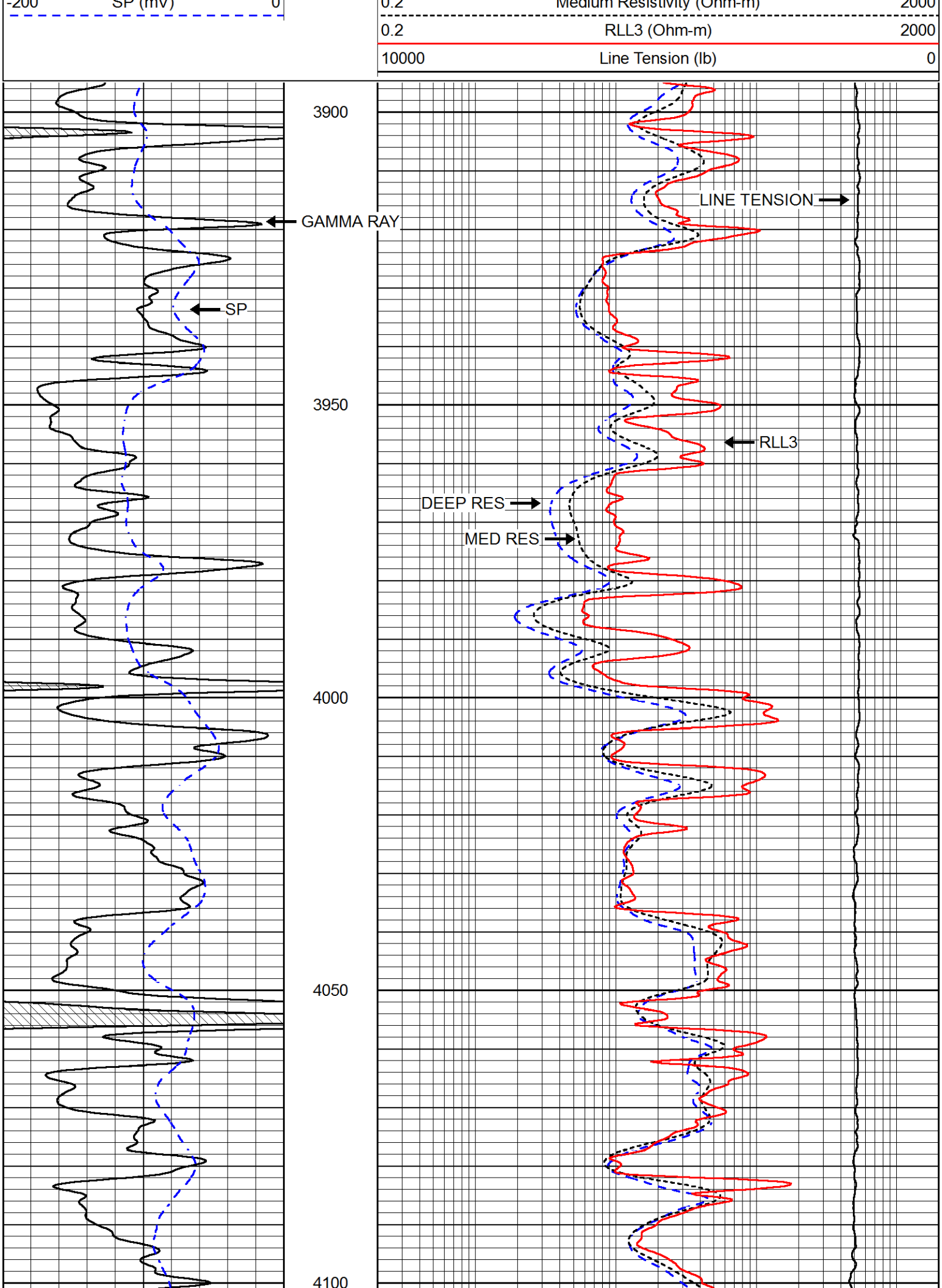
PIONEER
Pioneer Energy Services

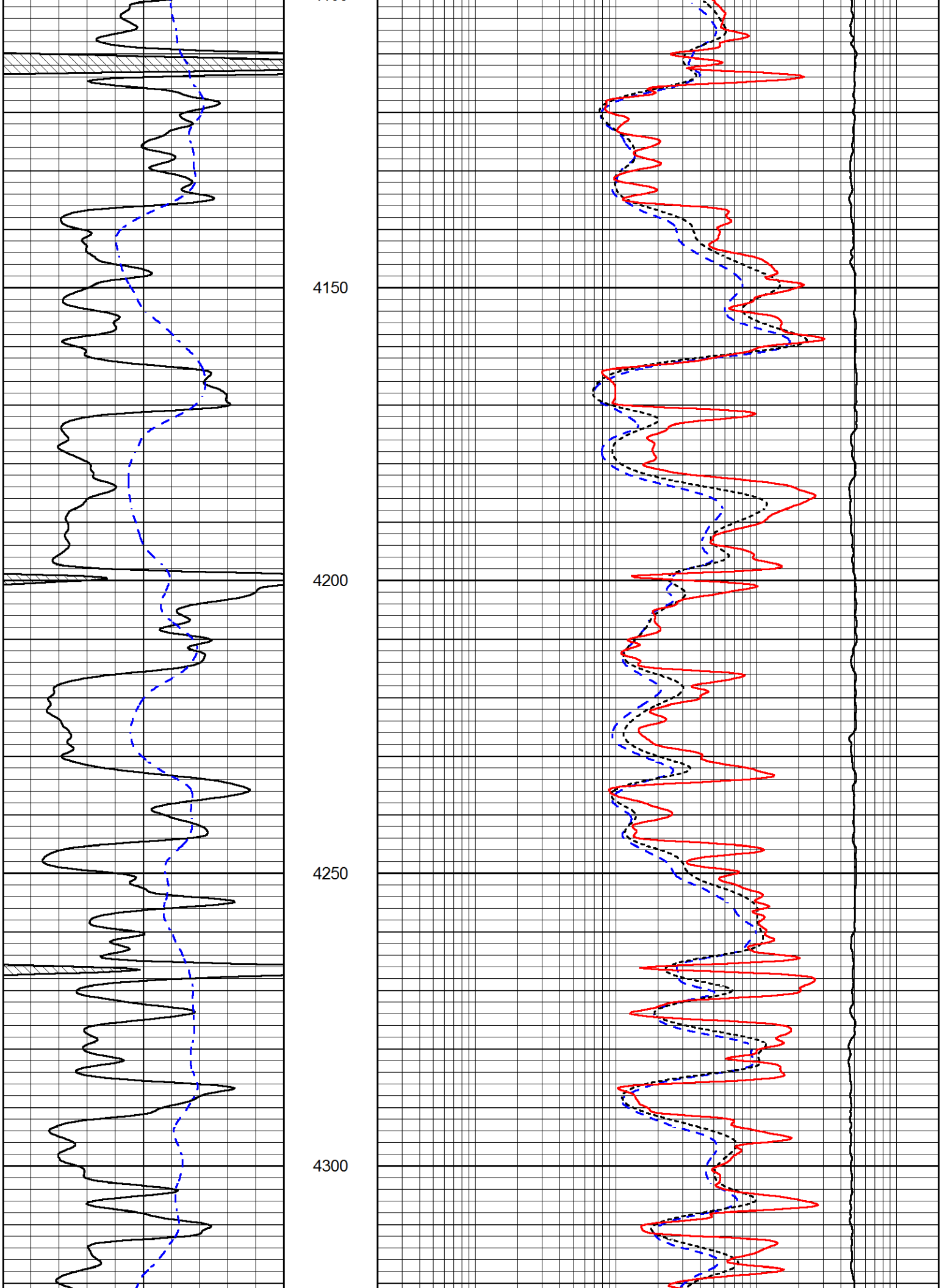
MAIN PASS

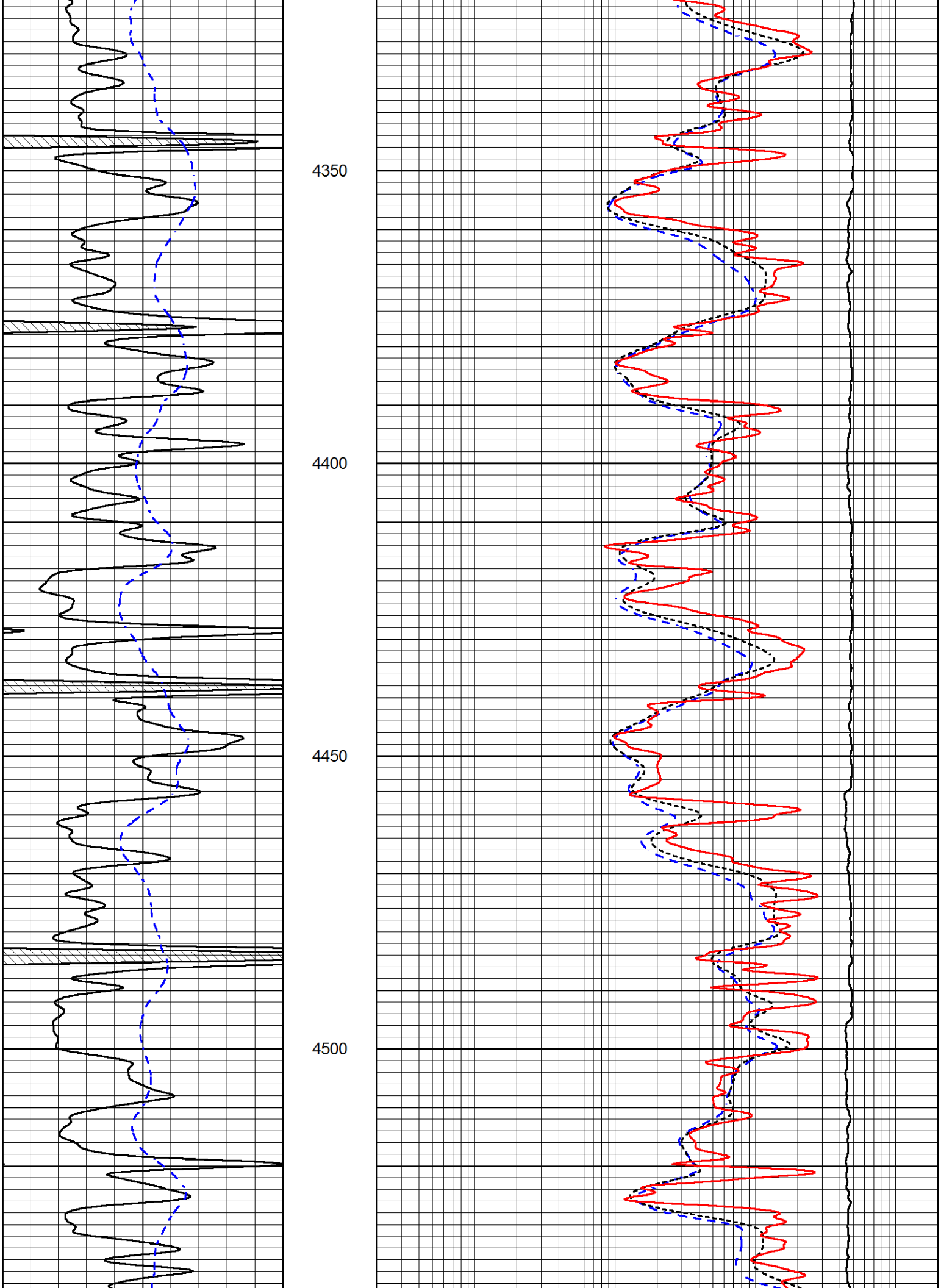
Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.1
Presentation Format	dil
Dataset Creation	Fri Aug 11 13:20:09 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150

0.2	Deep Resistivity (Ohm-m)	2000


-200
SP (mV)
0
0.2
Medium Resistivity (Ohm-m)
2000
0.2
RLL3 (Ohm-m)
2000
10000
Line Tension (lb)
0
3900
3950
4000
4050
4100
GAMMA RAY
SP
LINE TENSION
RLL3
DEEP RES
MED RES


4150
4200
4250
4300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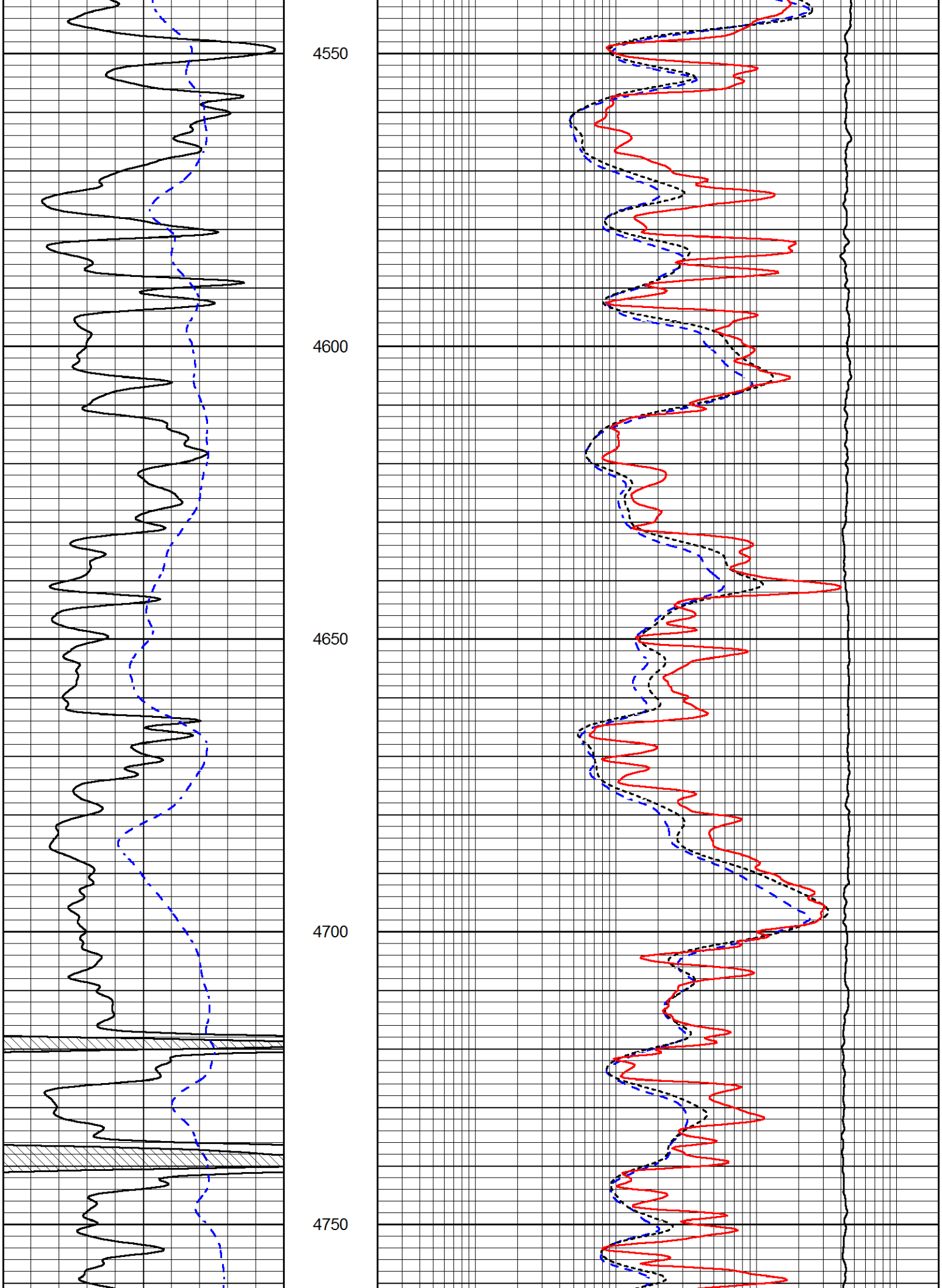
4400
4450
4500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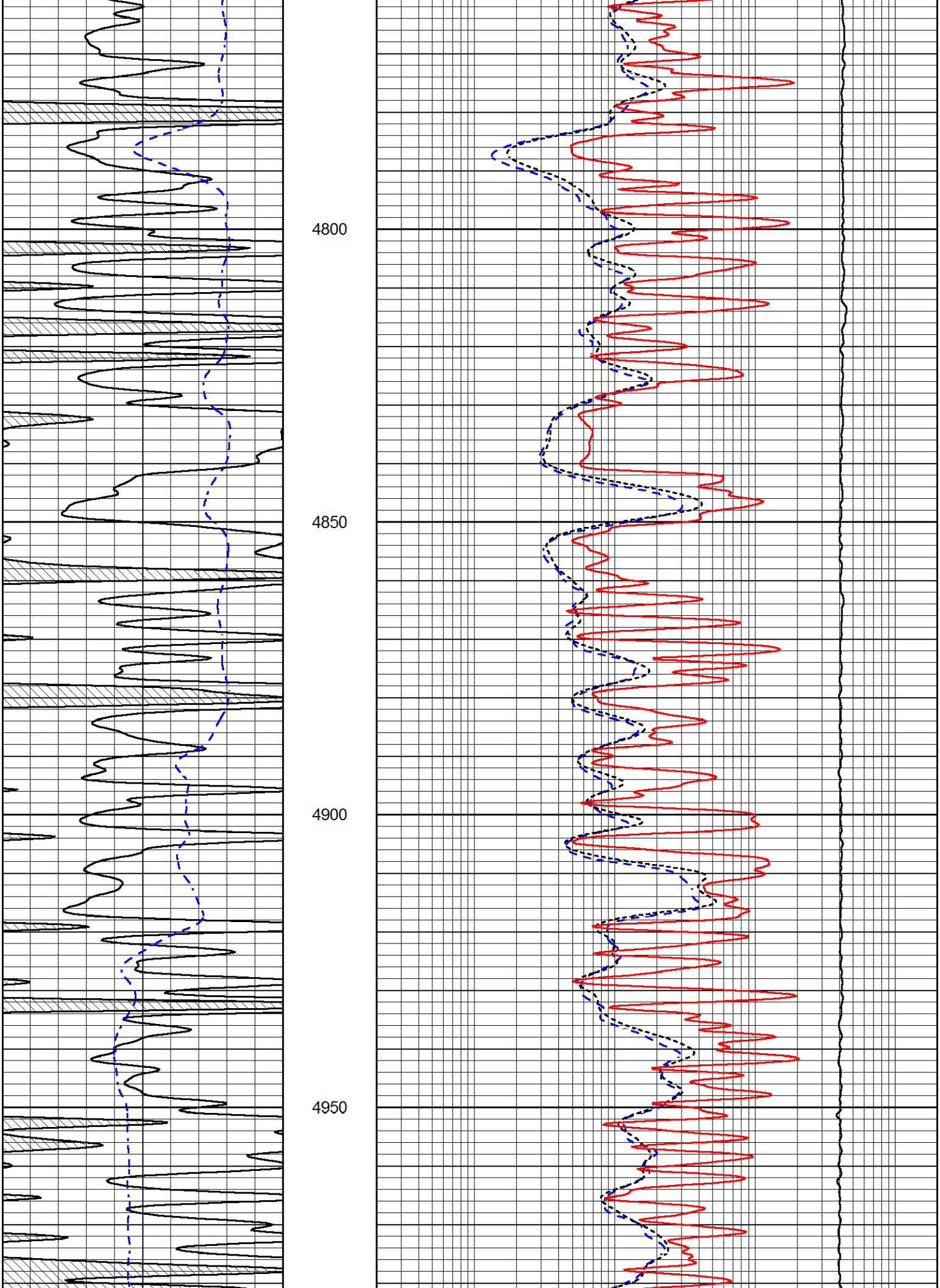
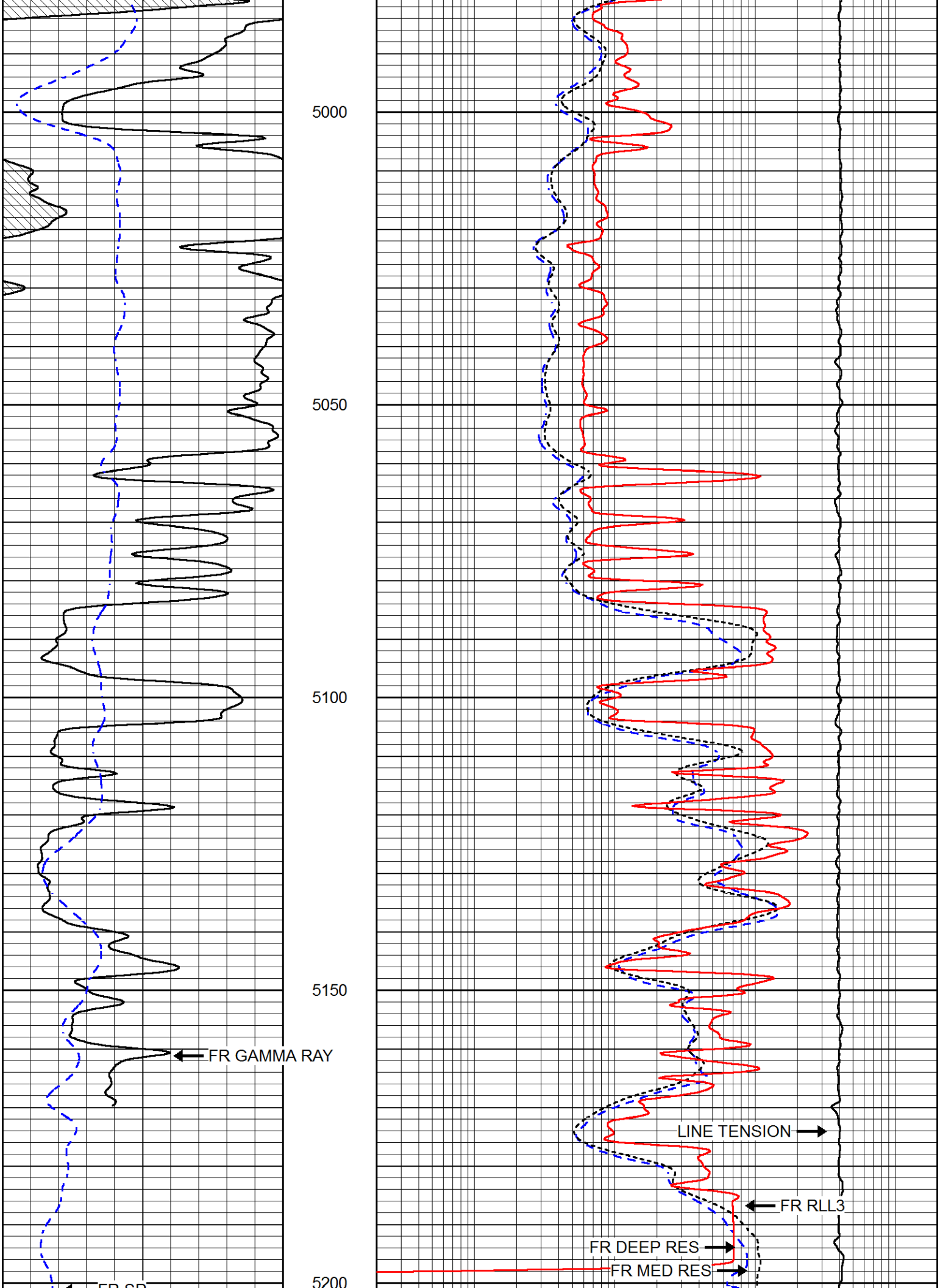

4800
4850
4900
4950


5000
5050
5100
5150
5200
FR GAMMA RAY
LINE TENSION
FR RLL3
FR DEEP RES
FR MED RES

FR SP

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

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

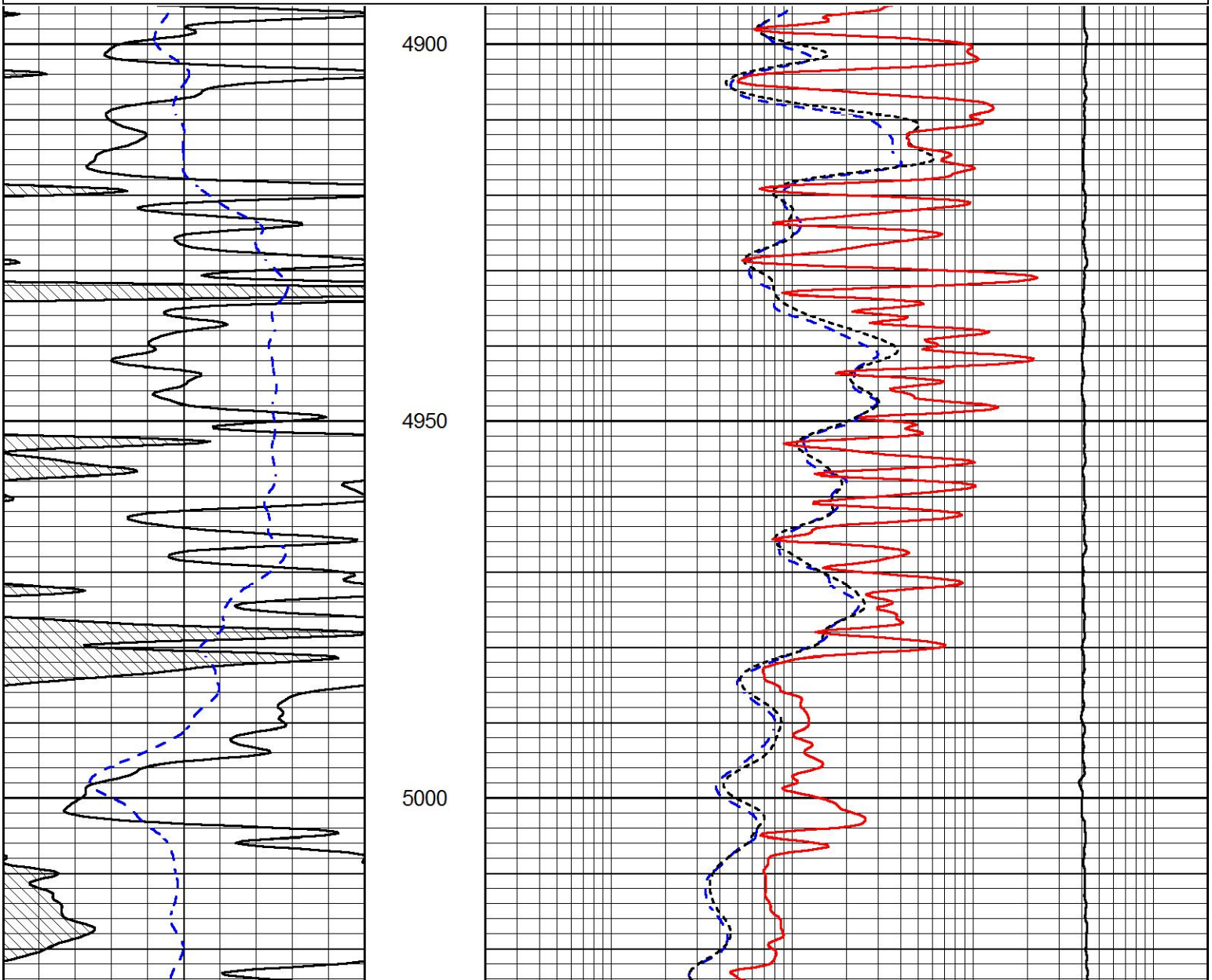
PIONEER
Pioneer Energy Services

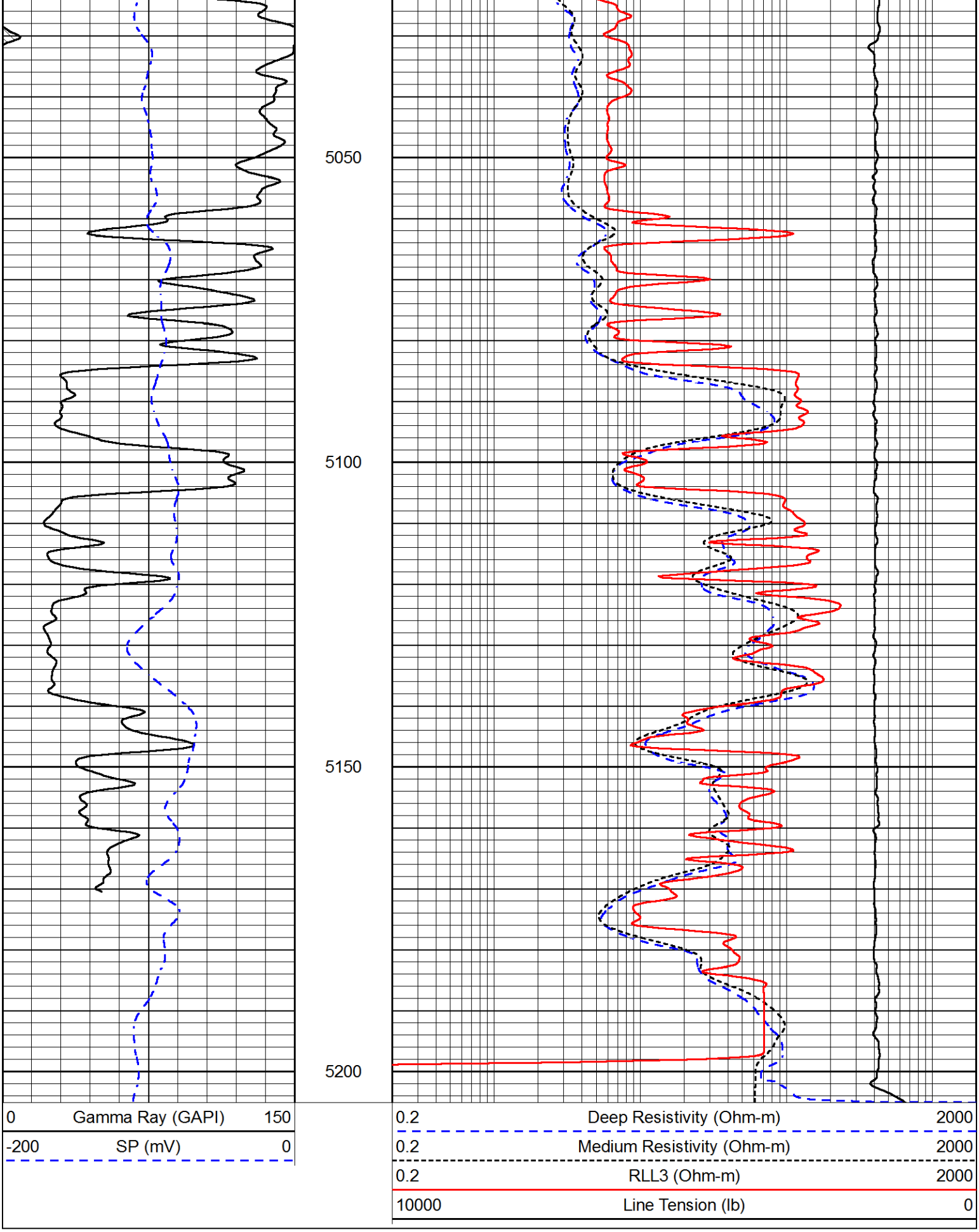
REPEAT SECTION

Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass2.1
Presentation Format	dil
Dataset Creation	Fri Aug 11 13:26:14 2017
Charted by	Depth in Feet scaled 1:240

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

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0





Calibration Report

Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.7
Dataset Creation	Fri Aug 11 12:48:38 2017

Dataset Creation: Fri Aug 11 12:46:58 2017

Dual Induction Calibration Report

Serial-Model: PSI 91-M&W
Calibration Performed: Thu Aug 10 08:41:25 2017

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-32.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-31.000

Microlog Calibration Report

Serial-Model: PSI-01-PSIML
Performed: Fri Aug 11 11:41:38 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	21500.0000	-0.6000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	26000.0000	-0.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.3300

Compensated Density Calibration Report

Serial-Model: 90-1031-M&W
Source / Verifier: 16955B / 2ci
Master Calibration Performed: Wed Aug 02 00:28:57 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.685	g/cc	934.50	4021.31	cps

Spine Angle = 75.61

Density/Spine Ratio = 0.543

	Size		Reading
Small Ring	8.00	in	1.84
Large Ring	22.00	in	1.46

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: Tues Aug 1 10:30:30 2017

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
Tool Model: M&W

Calibration Performed:	Wed Aug 02 00:29:15 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

PIONEER
Pioneer Energy Services

Company	AMERIAN WARRIOR, INC.
Well	BLAESI #9-6
Field	UNKNOWN
County	WALLACE
State	KANSAS

PIONEER
Pioneer Energy Services

DUAL COMP POROSITY LOG

Company AMERIAN WARRIOR, INC.
Well BLAESI #9-6
Field UNKNOWN
County WALLACE State KANSAS

Location: API #: 15-199-20444-00-00
335' FSL & 1800' FEL
SEC 6 TWP 15S RGE 41W

Other Services: DIL/MEL

Elevation: K.B. 3783' D.F. N/A G.L. 3775'

Permanent Datum: GROUND LEVEL Elevation 3775'
Log Measured From: KELLY BUSHING
Drilling Measured From: KELLY BUSHING

Date	8/11/2017
Run Number	ONE
Type Log	CNL/CDL
Depth Driller	5200'
Depth Logger	5202'
Bottom Logged Interval	5173'
Top Logged Interval	3900'
Type Fluid In Hole	CHEMICAL
Salinity, PPM CL	5000
Density	9.4
Level	FULL
Max. Rec. Temp. F	128
Operating Rig Time	4 HOURS
Equipment -- Location	91 HAYS
Recorded By	D. SCHMIDT
Witnessed By	LUKE THOMPSON

Borehole Record

Run No.	Bit	From	To
ONE	12.25"	0'	366'
TWO	7.875"	366'	TD

Casing Record

Size	Wgt.	From	To
8.625"	23#	0'	366'

<<< Fold Here >>>

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

SHARON SPRINGS,
9 WEST TO 9 RD, 8 SOUTH,
WEST AND NORTH TO LOCATION

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

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

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: LUKE THOMPSON
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

Database C:\ProgramData\Warrior\Data\american warrior_blaesi_9-6.db
Dataset field/well/STKML/pass3.7/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	500	0

SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	5202	128	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC	37.48		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73					
			CDL-M&W (90-1031)	8.50	4.00	250.00
LSD	28.43					
DCAL	28.42					
SSD	27.93					
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
MCAL	19.83					
MI	19.83					
MN	19.83					
RLL3F	15.80					
RLL3	15.80					

			DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset:	american warrior_blaesi_9-6.db: field/well/STKML/pass3.7
Total length:	43.08 ft
Total weight:	685.00 lb
O.D.:	4.00 in

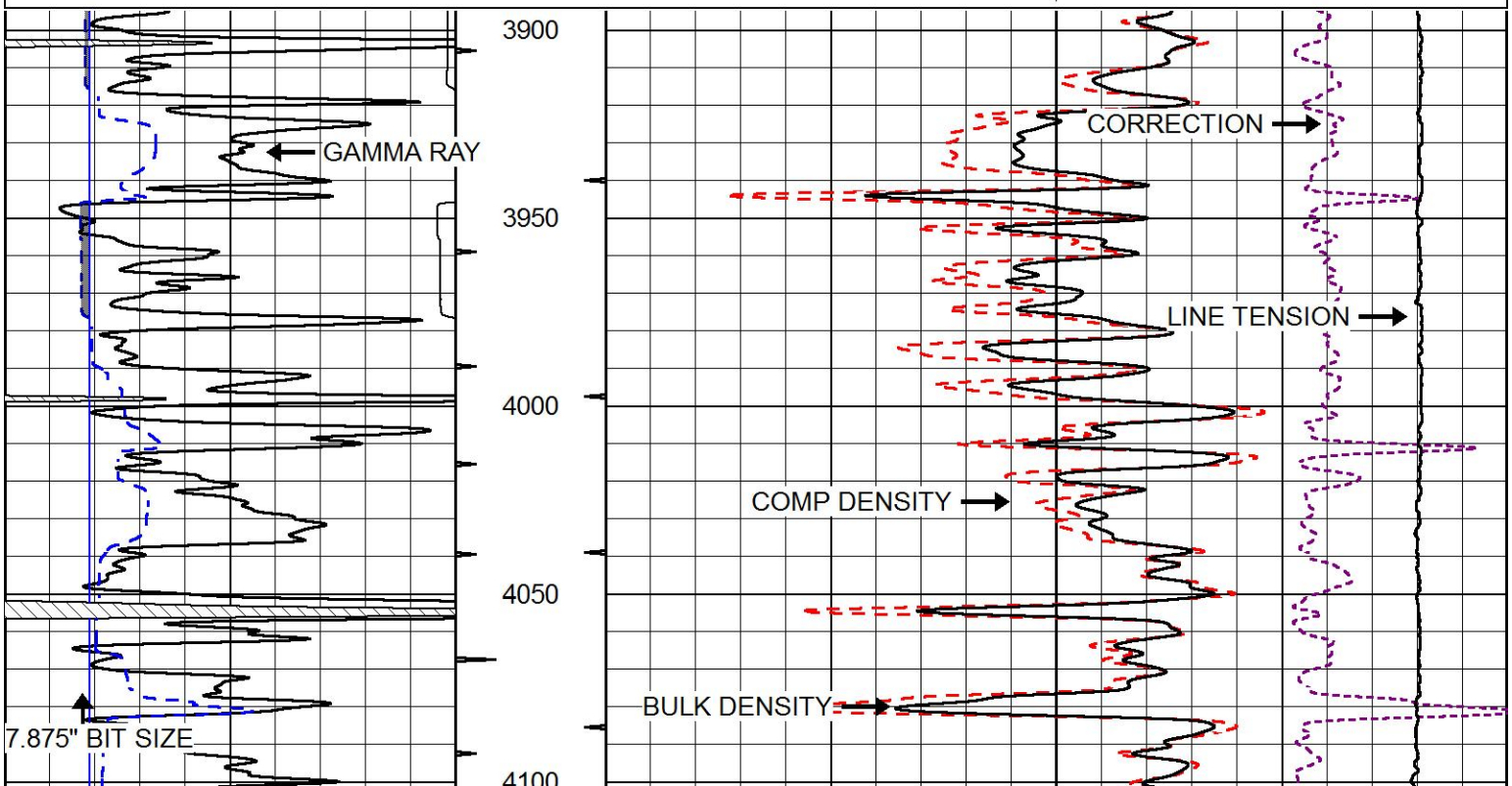
PIONEER
Pioneer Energy Services

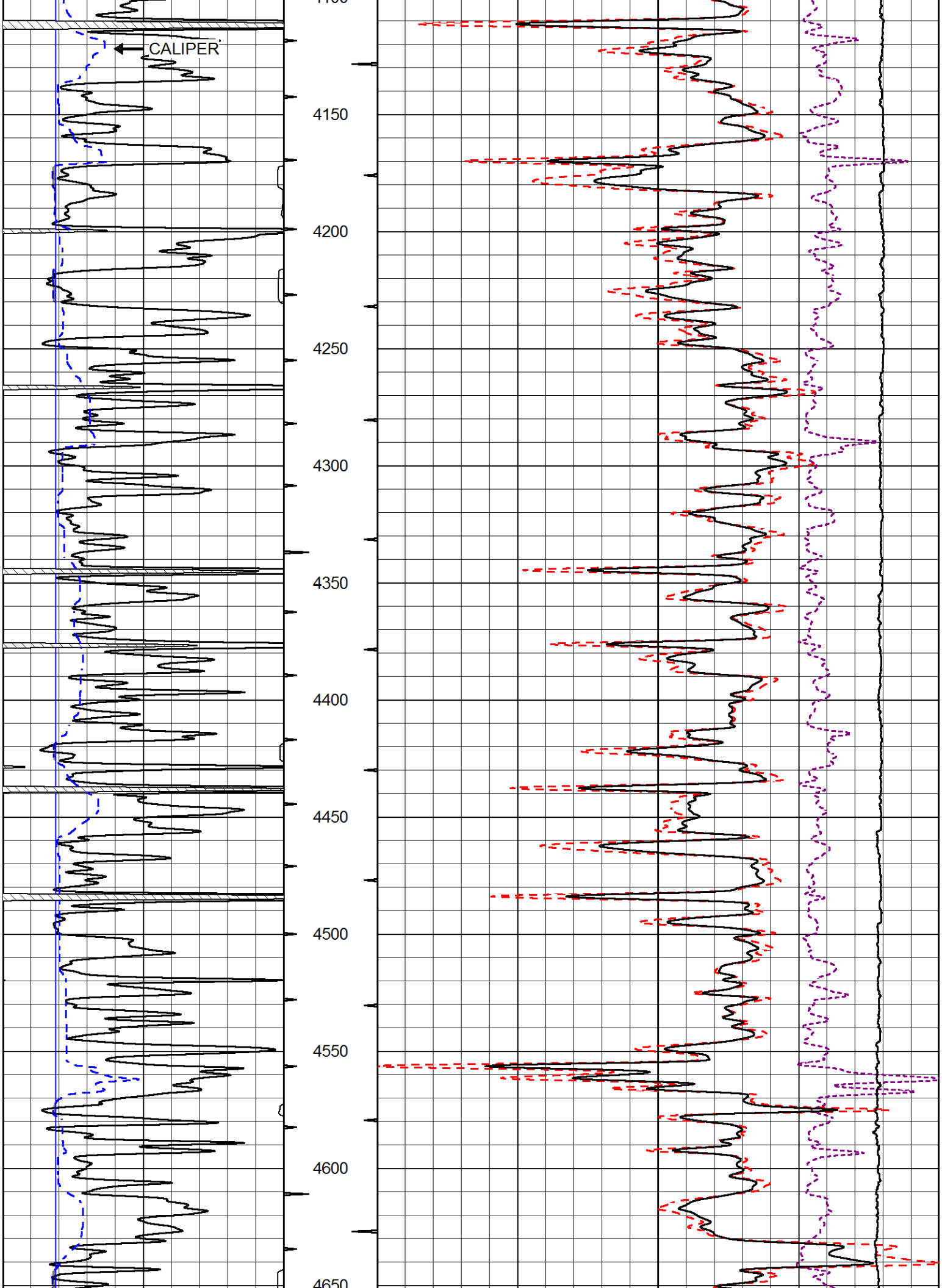
MAIN PASS

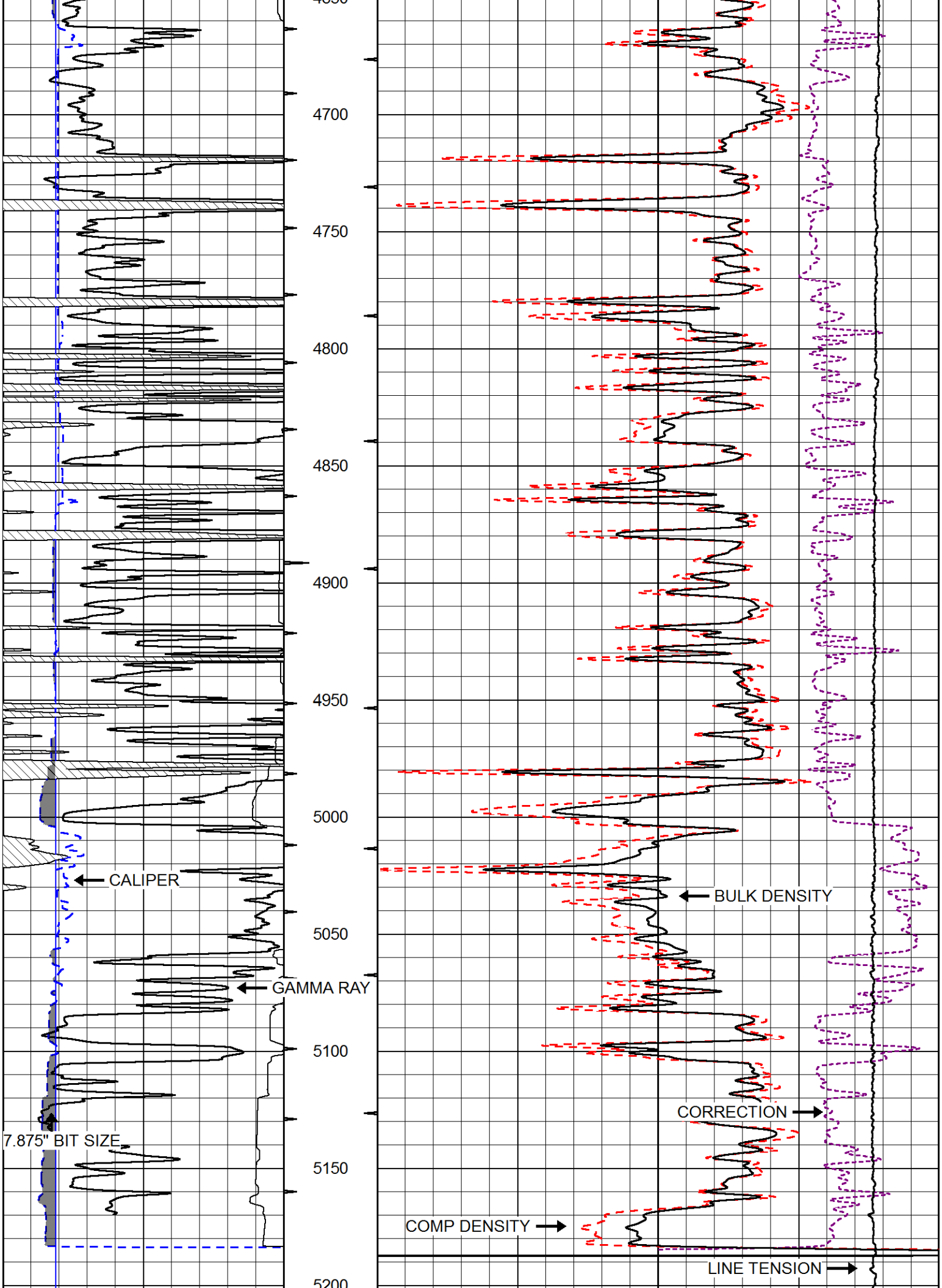
Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.1
Presentation Format	cdl
Dataset Creation	Fri Aug 11 13:20:09 2017
Charted by	Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
6	Caliper (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




CALIPER
4150
4200
4250
4300
4350
4400
4450
4500
4550
4600
4650


4700
4750
4800
4850
4900
4950
5000
5050
5100
5150
5200
CALIPER
GAMMA RAY
7.875" BIT SIZE
BULK DENSITY
CORRECTION
COMP DENSITY
LINE TENSION

0	Gamma Ray (GAPI)	150
6	Caliper (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	

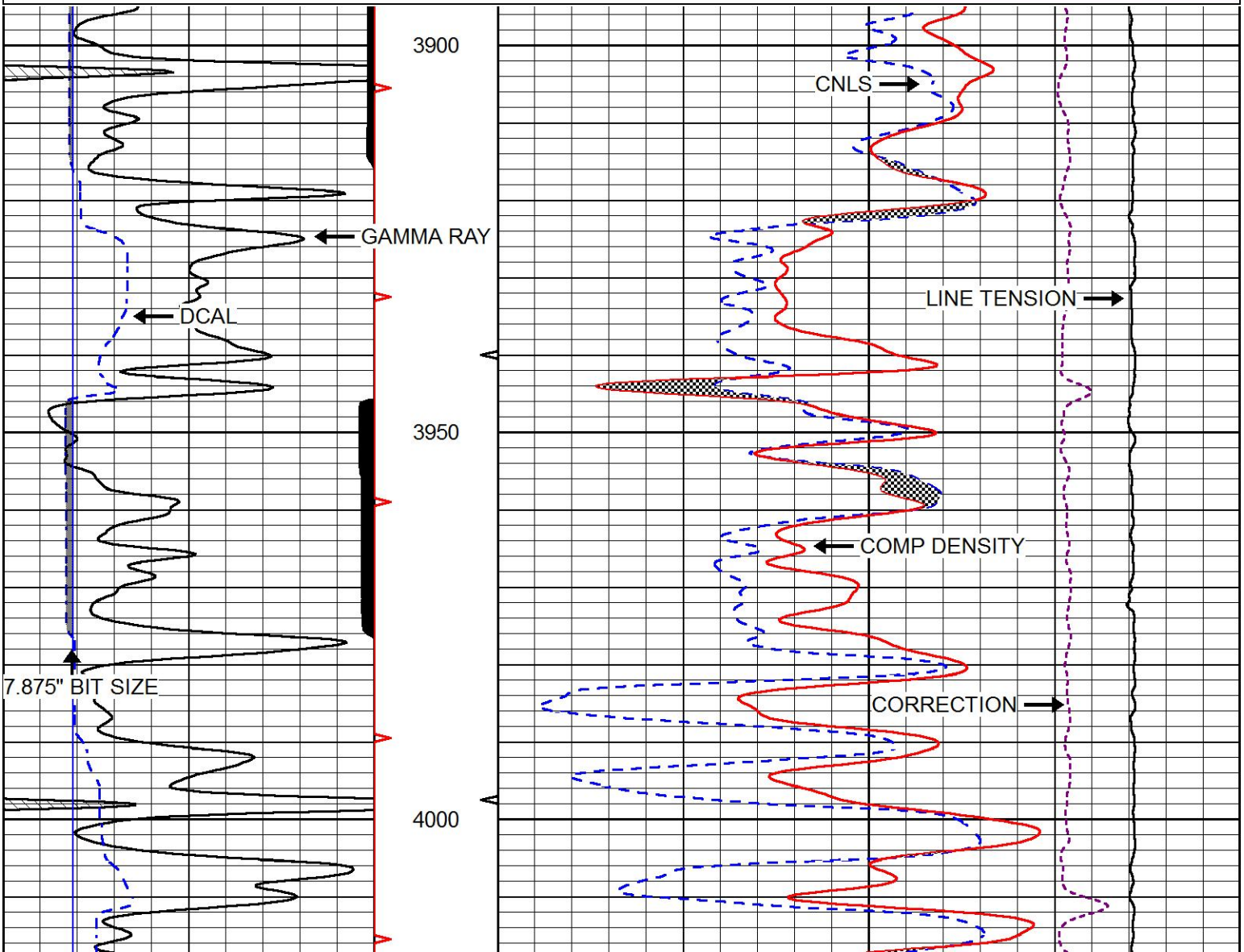
PIONEER
Pioneer Energy Services

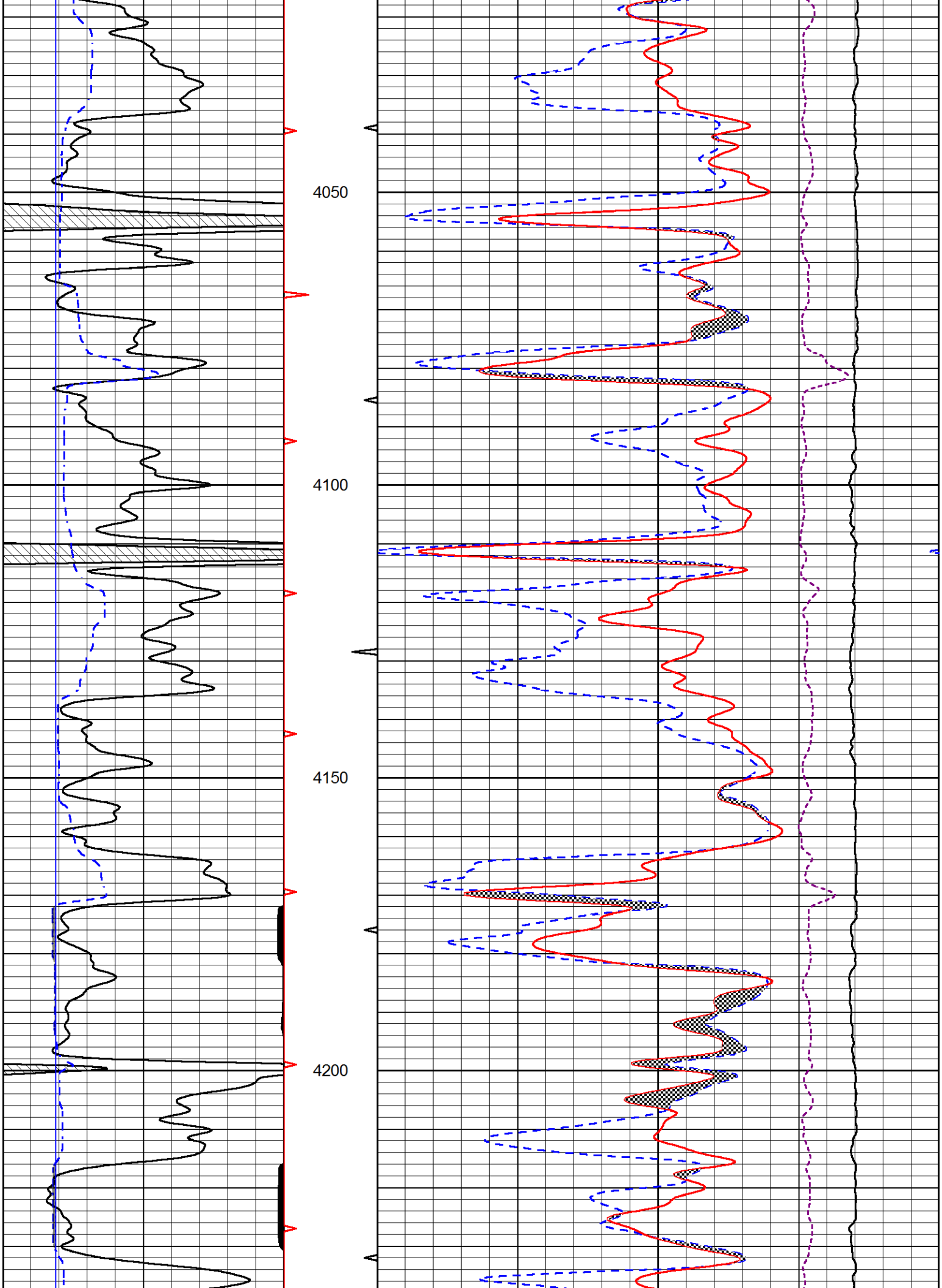
MAIN PASS

Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.1
Presentation Format	cndlspec
Dataset Creation	Fri Aug 11 13:20:09 2017
Charted by	Depth in Feet scaled 1:240

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

30	CNLS (pu)	-10
30	Compensated Density 2.71 g/cc (pu)	-10
10000	Line Tension (lb)	0
	-0.75 Correction (g/cc) 0.75	

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4100
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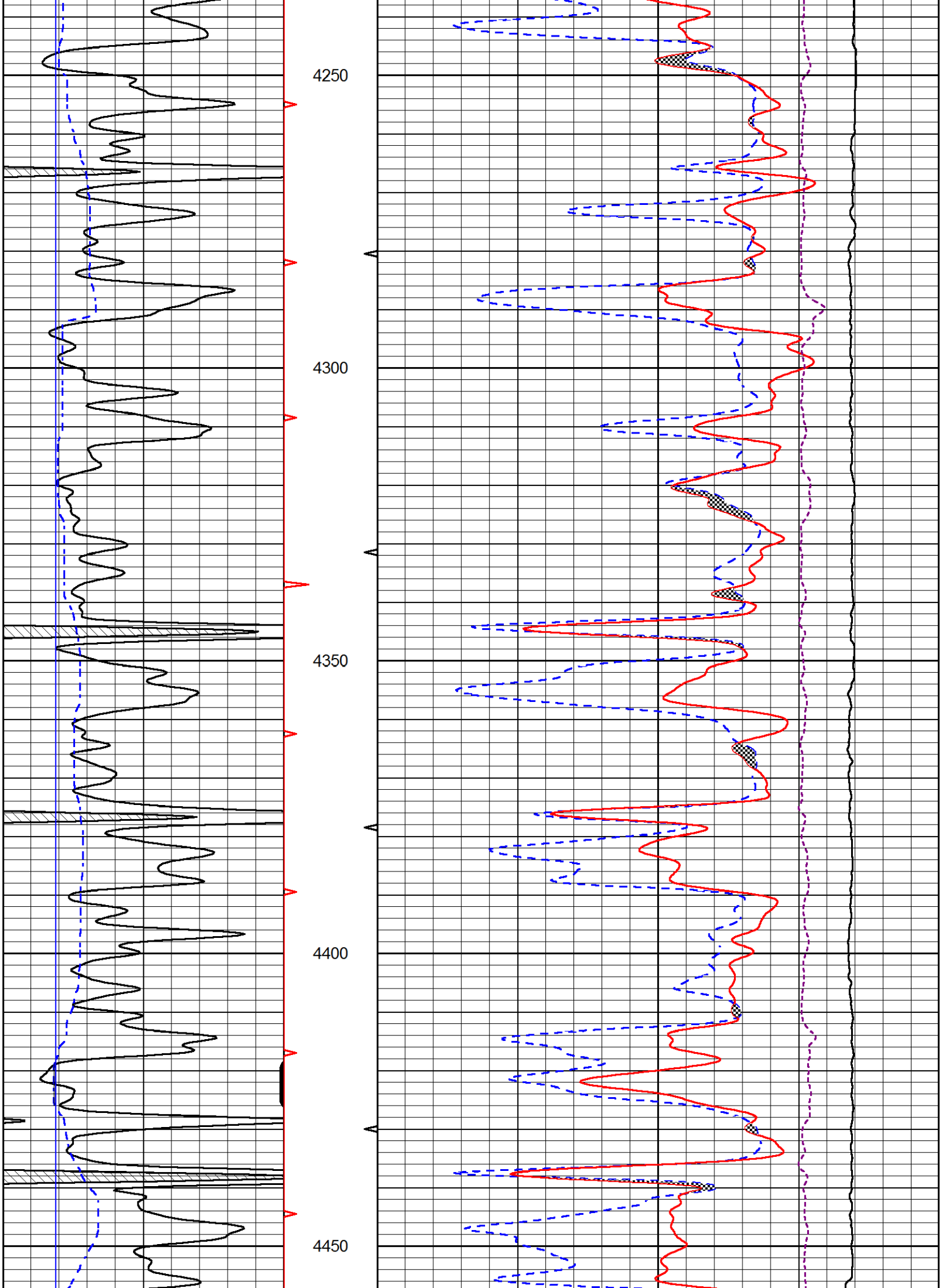
4200


4250
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4350
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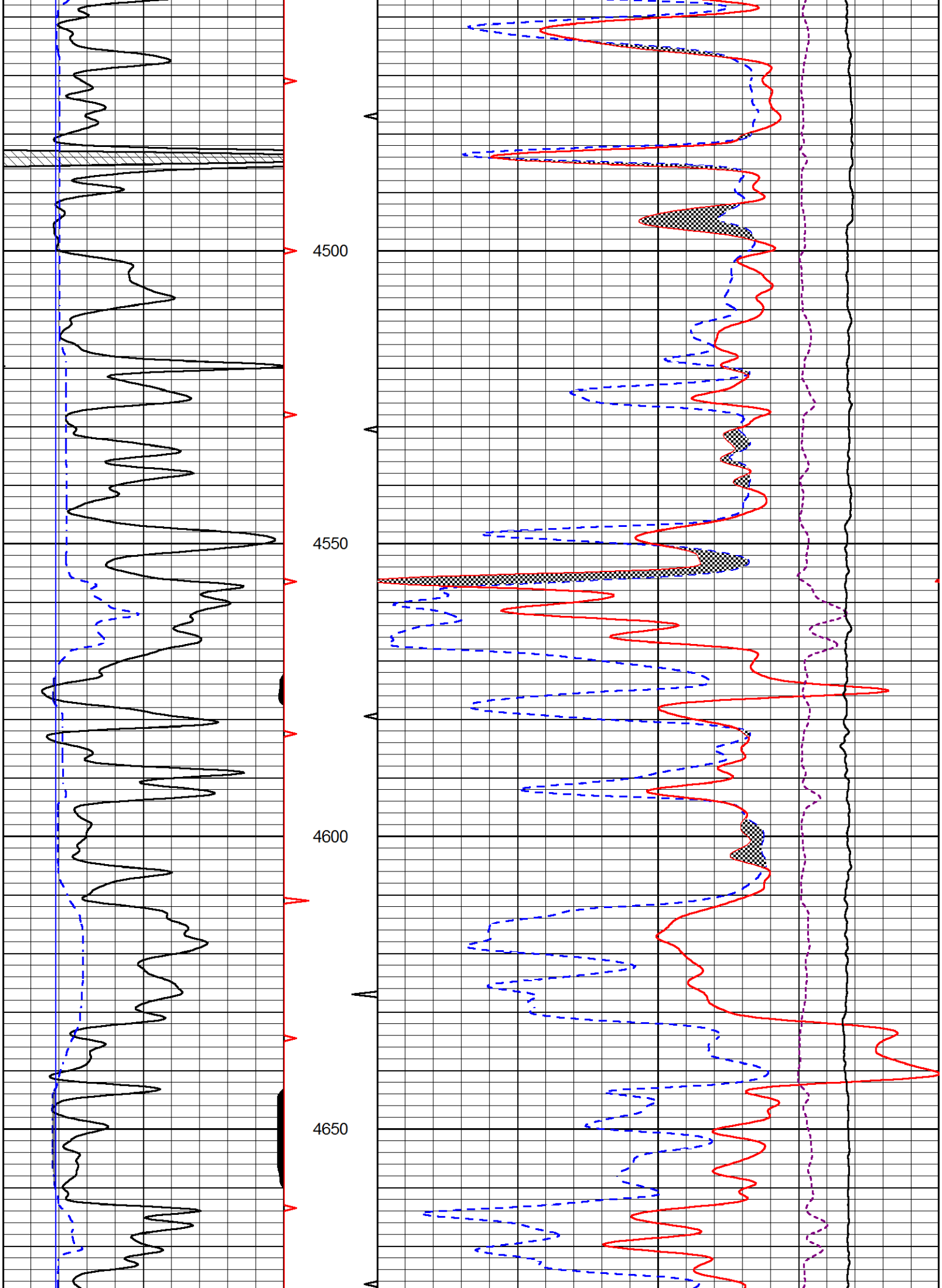
4450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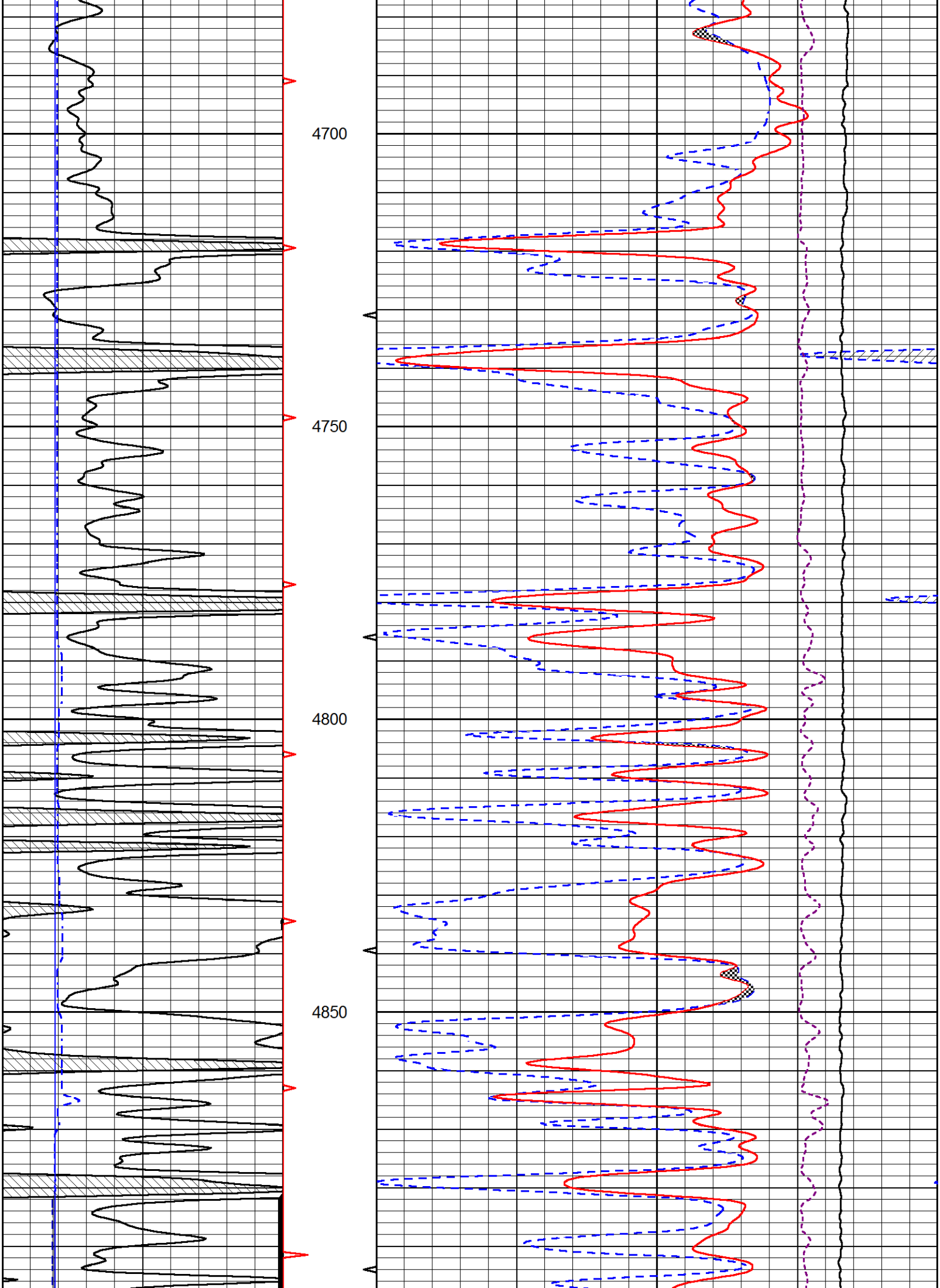
4650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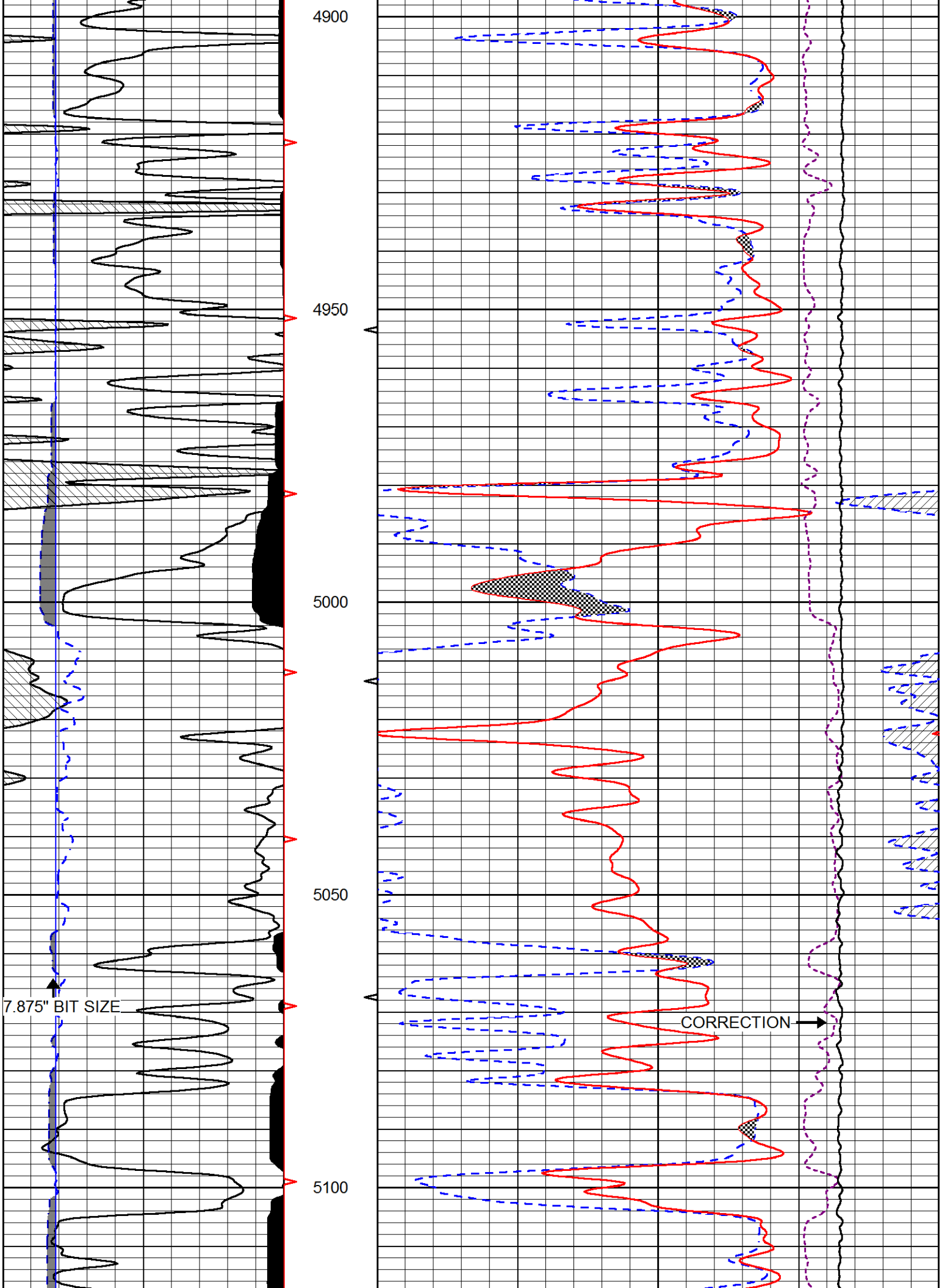
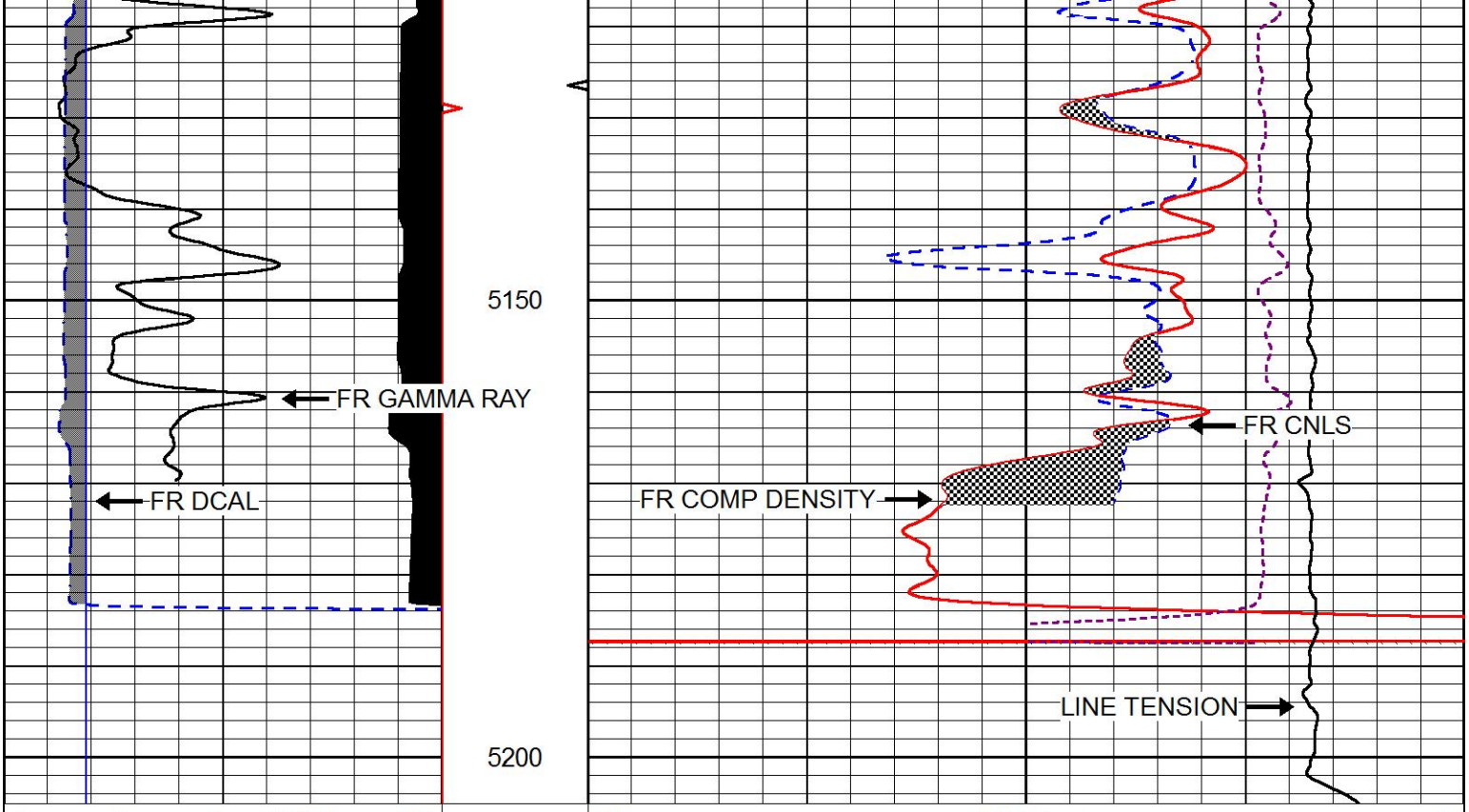

4900
4950
5000
5050
5100
7.875" BIT SIZE
CORRECTION



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

30	CNLS (pu)	-10
30	Compensated Density 2.71 g/cc (pu)	-10
10000	Line Tension (lb)	0
-0.75	Correction (g/cc)	0.75

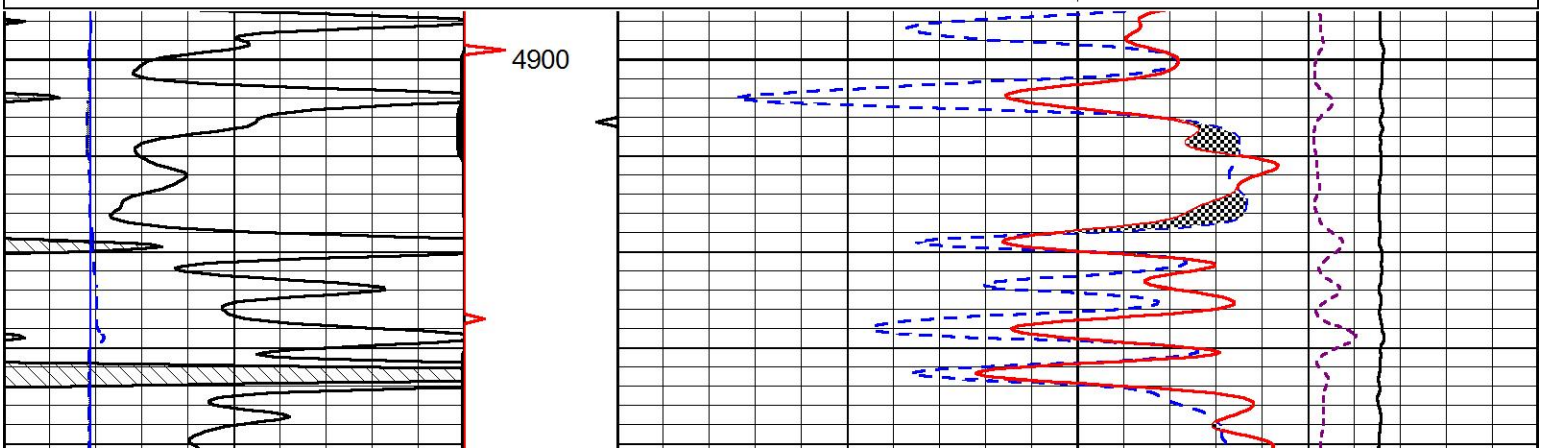
PIONEER
Pioneer Energy Services

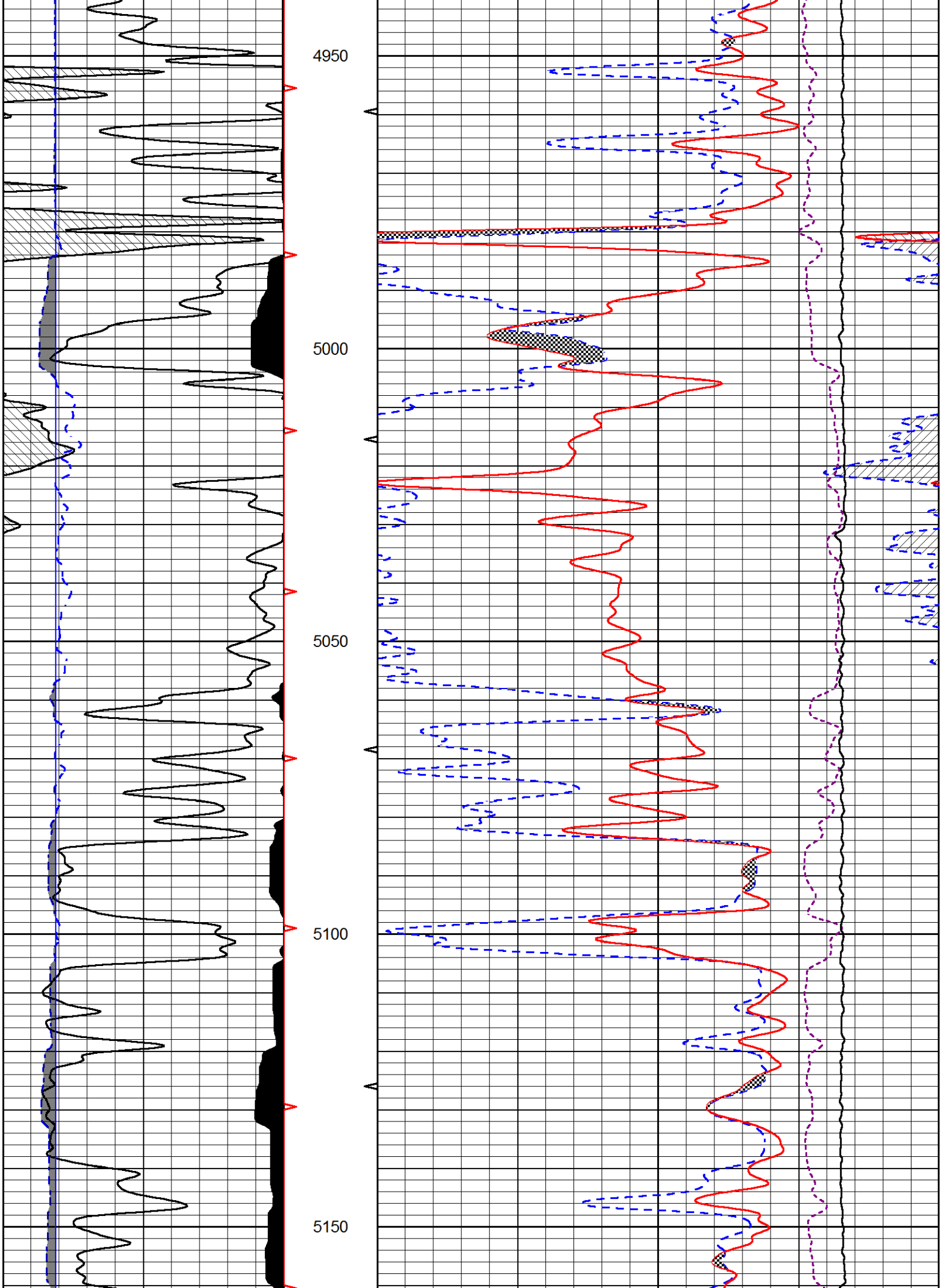
REPEAT SECTION

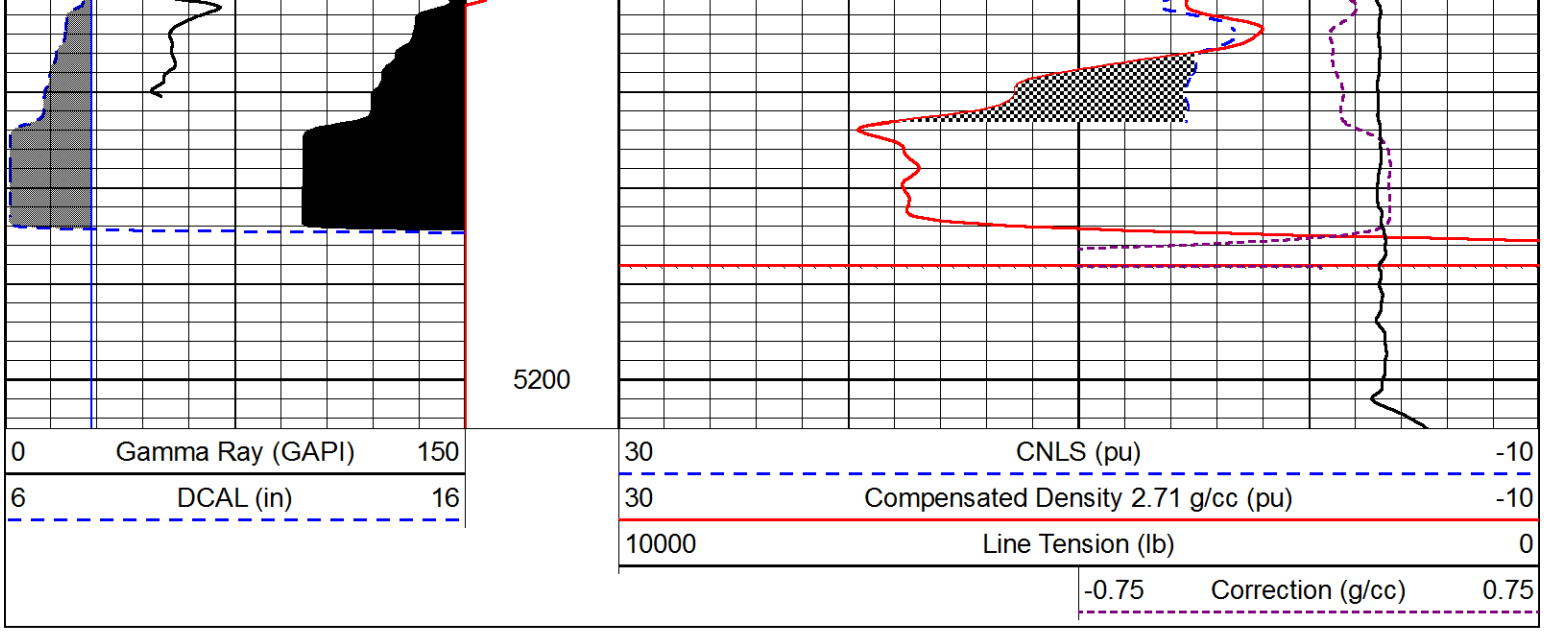
Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass2.1
Presentation Format	cndlspec
Dataset Creation	Fri Aug 11 13:26:14 2017
Charted by	Depth in Feet scaled 1:240

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

30	CNLS (pu)	-10
30	Compensated Density 2.71 g/cc (pu)	-10
10000	Line Tension (lb)	0
-0.75	Correction (g/cc)	0.75




4950
5000
5050
5100
5150



Calibration Report

Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.7
Dataset Creation	Fri Aug 11 12:48:38 2017

Dual Induction Calibration Report

Serial-Model:	PSI 91-M&W
Calibration Performed:	Thu Aug 10 08:41:25 2017

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-32.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-31.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Fri Aug 11 11:41:38 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	21500.0000	-0.6000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	26000.0000	-0.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.3300

Compensated Density Calibration Report

Serial-Model:	90-1031-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Wed Aug 02 00:28:57 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps

Aluminum	2.685	g/cc	934.50	4021.31	cps

Spine Angle = 75.61 Density/Spine Ratio = 0.543

	Size		Reading
Small Ring	8.00	in	1.84
Large Ring	22.00	in	1.46

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: Tues Aug 1 10:30:30 2017

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
Tool Model: M&W
Calibration Performed: Wed Aug 02 00:29:15 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps

PIONEER
Pioneer Energy Services

Company	AMERIAN WARRIOR, INC.
Well	BLAESI #9-6
Field	UNKNOWN
County	WALLACE
State	KANSAS

PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company AMERIAN WARRIOR, INC.
Well BLAESI #9-6
Field UNKNOWN
County WALLACE State KANSAS

Location: API # : 15-199-20444-00-00
335' FSL & 1800' FEL
SEC 6 TWP 15S RGE 41W

Other Services
CNL/CDL
DIL

Permanent Datum GROUND LEVEL Elevation 3775'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 3783'
D.F. N/A
G.L. 3775'

Date	8/11/2017		
Run Number	ONE		
Depth Driller	5200'		
Depth Logger	5202'		
Bottom Logged Interval	5201'		
Top Log Interval	3900'		
Casing Driller	8.625" @ 366'		
Casing Logger	364'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity,ppm CL	5000		
Density / Viscosity	9.4 58		
pH / Fluid Loss	9.5 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.60 @ 80		
Rmf @ Meas. Temp	0.45 @ 80		
Rmc @ Meas. Temp	0.81 @ 80		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.38 @ 128		
Operating Rig Time	4 HOURS		
Max Rec. Temp. F	128		
Equipment Number	91		
Location	HAYS		
Recorded By	D. SCHMIDT		
Witnessed By	LUKE THOMPSON		

<<< Fold Here >>>

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

SHARON SPRINGS,
9 WEST TO 9 RD, 8 SOUTH,
WEST AND NORTH TO LOCATION

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

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

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: LUKE THOMPSON
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

Database C:\ProgramData\Warrior\Data\american warrior_blaesi_9-6.db
Dataset field/well/STKML/pass3.7/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	500	0

SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	5202	128	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC	37.48		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73					
			CDL-M&W (90-1031)	8.50	4.00	250.00
LSD	28.43					
DCAL	28.42					
SSD	27.93					
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
MCAL	19.83					
MI	19.83					
MN	19.83					
RLL3F	15.80					
RLL3	15.80					

			DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset:	american warrior_blaesi_9-6.db: field/well/STKML/pass3.7
Total length:	43.08 ft
Total weight:	685.00 lb
O.D.:	4.00 in

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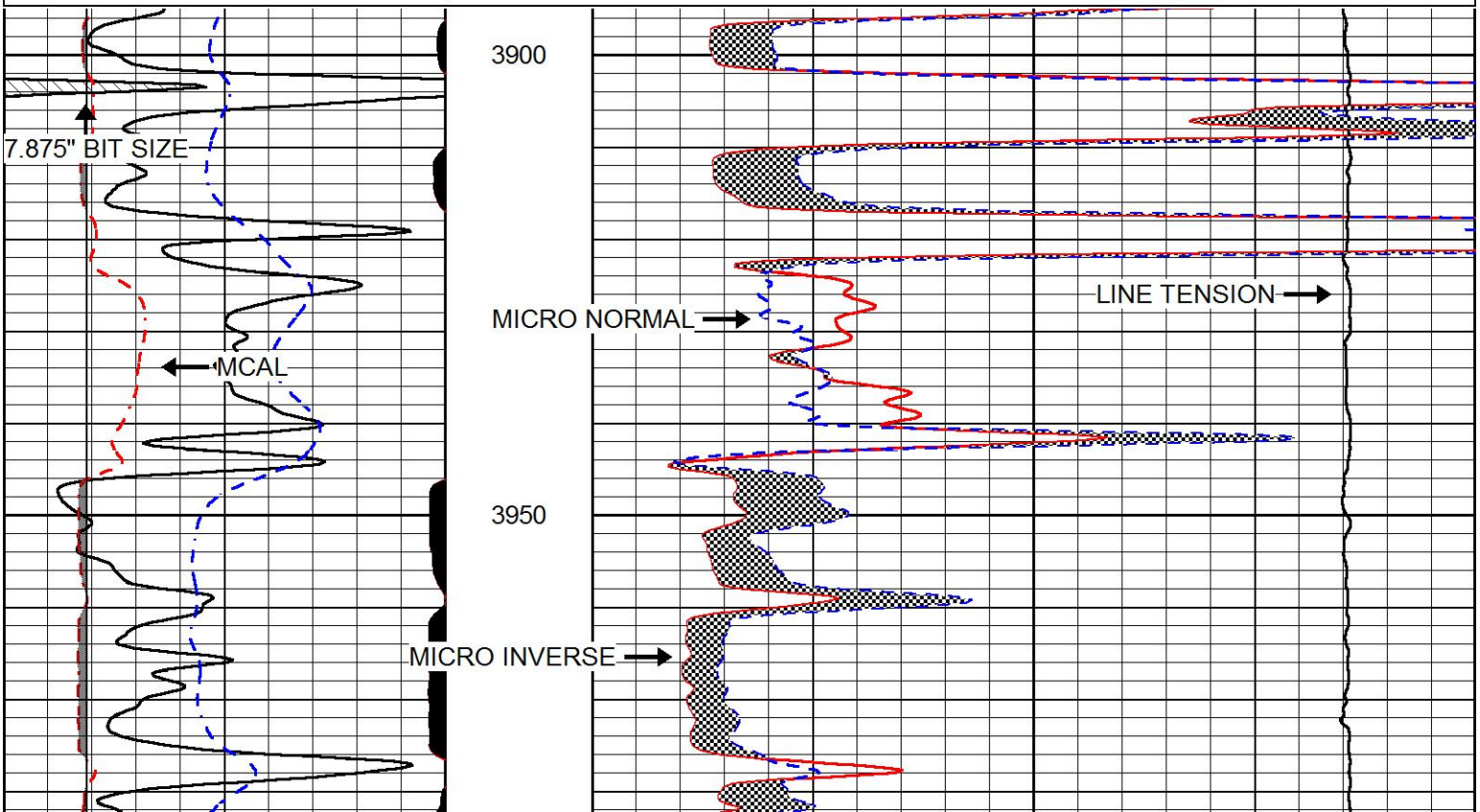
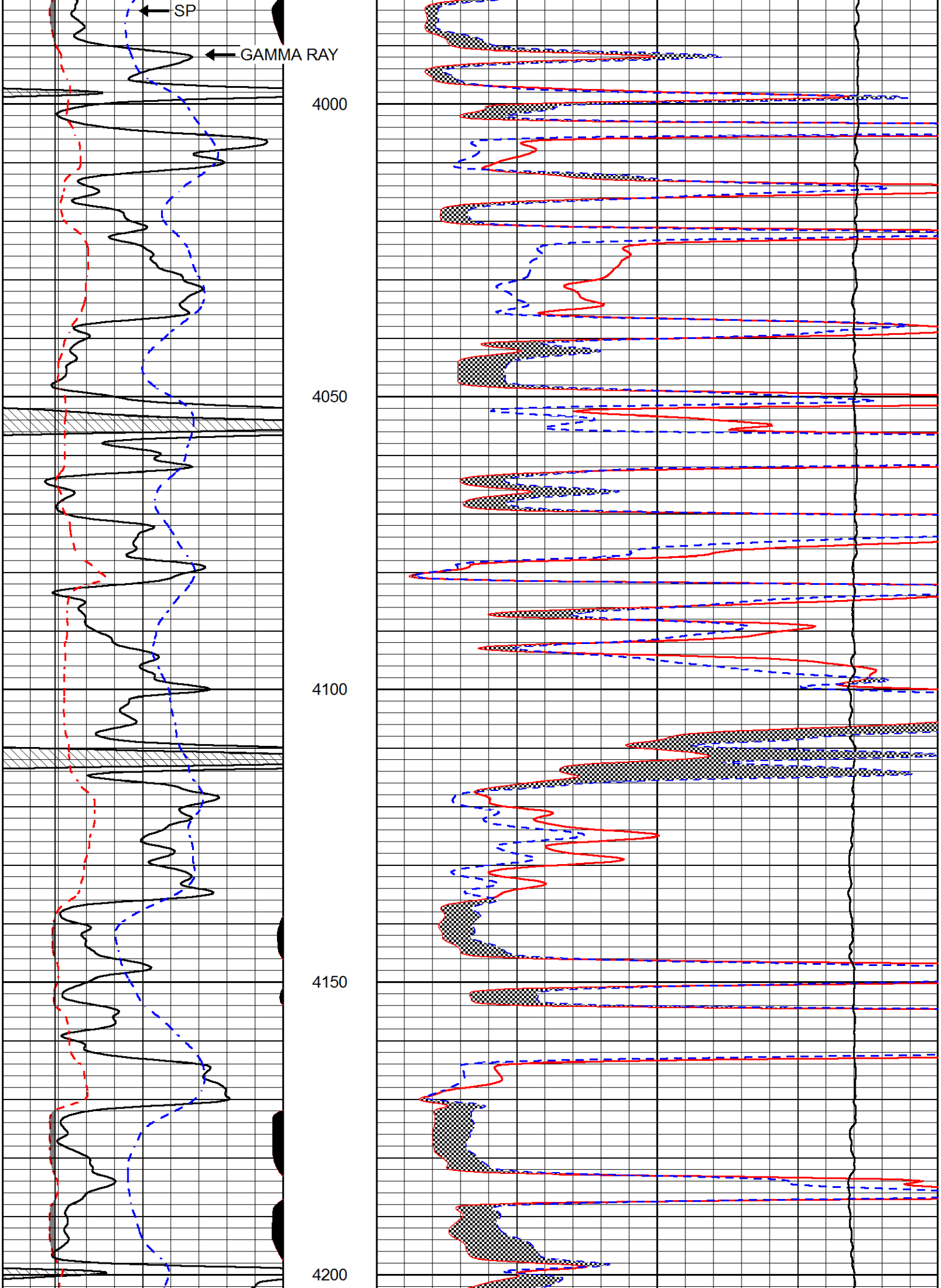
MAIN PASS

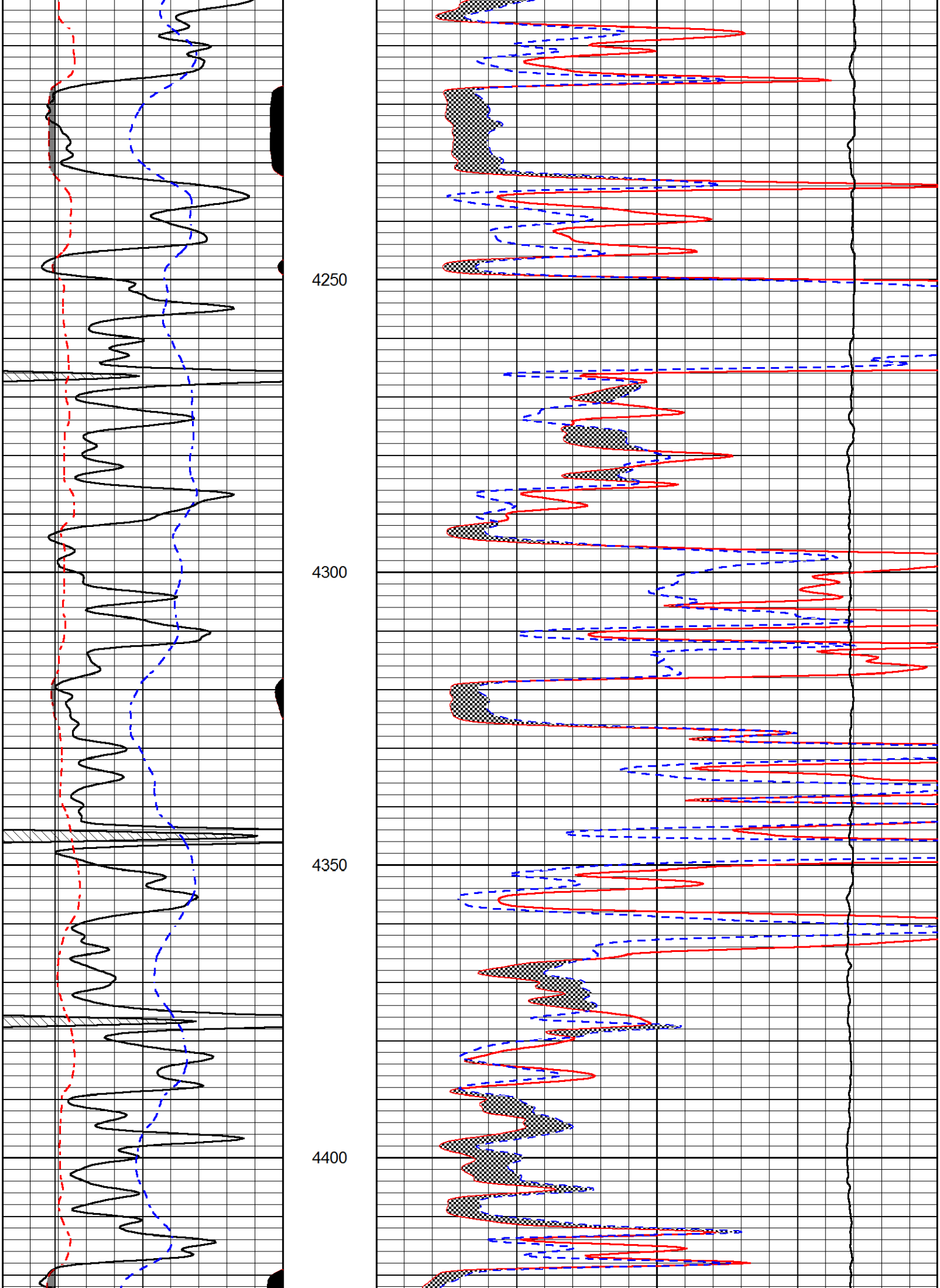
Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.1
Presentation Format	micro
Dataset Creation	Fri Aug 11 13:20:09 2017
Charted by	Depth in Feet scaled 1:240

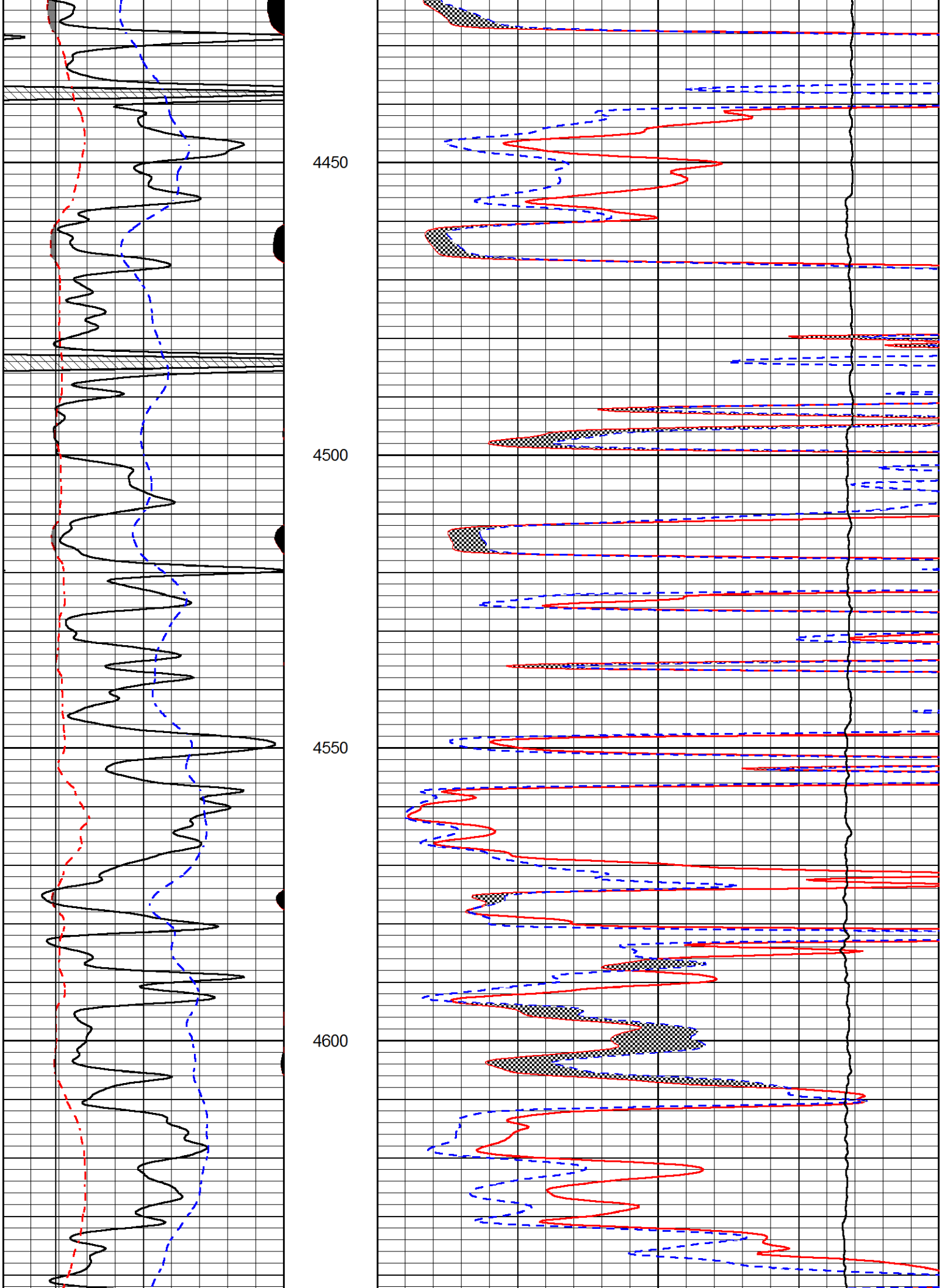
0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

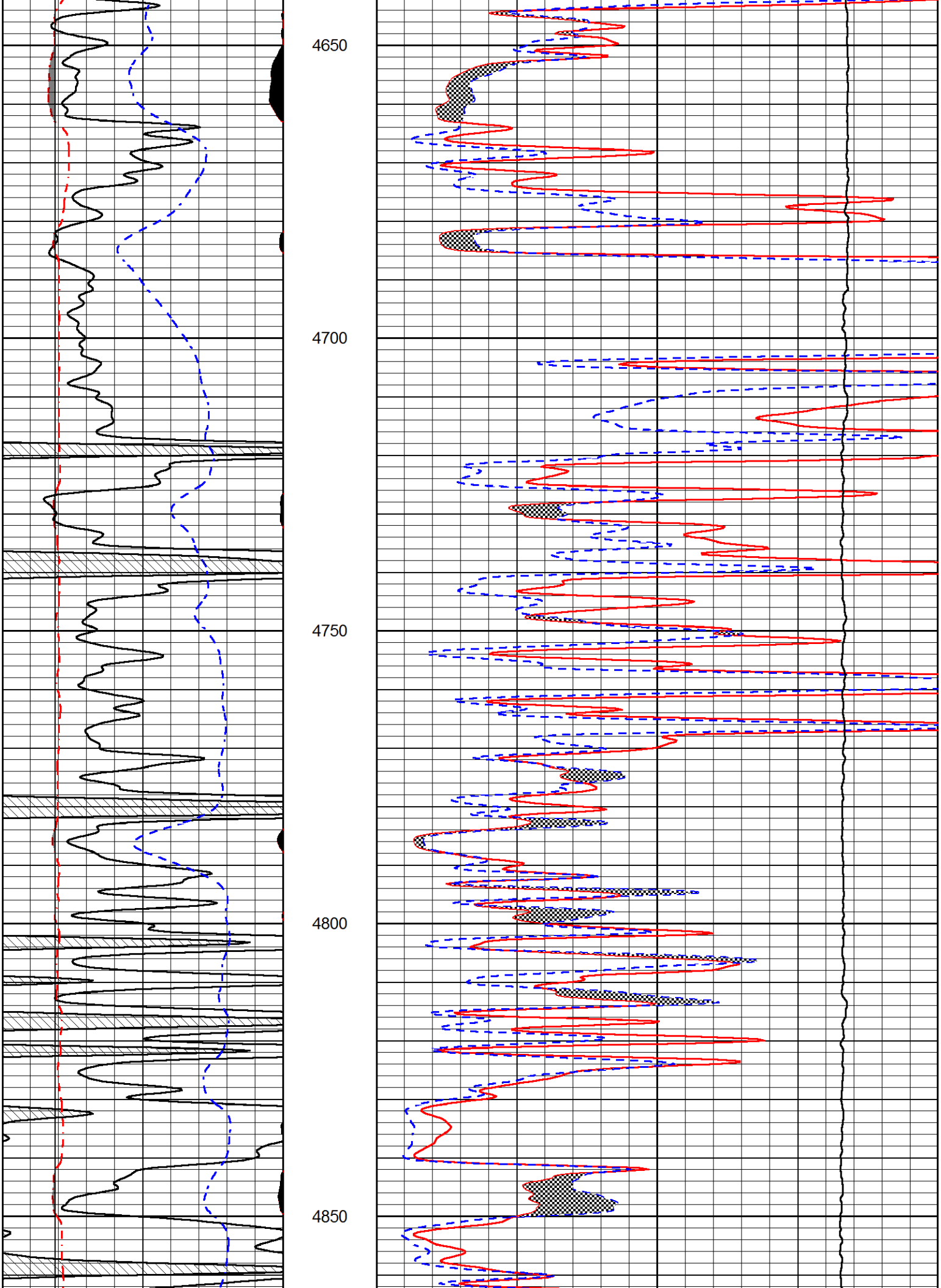
0	Micro Inverese 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

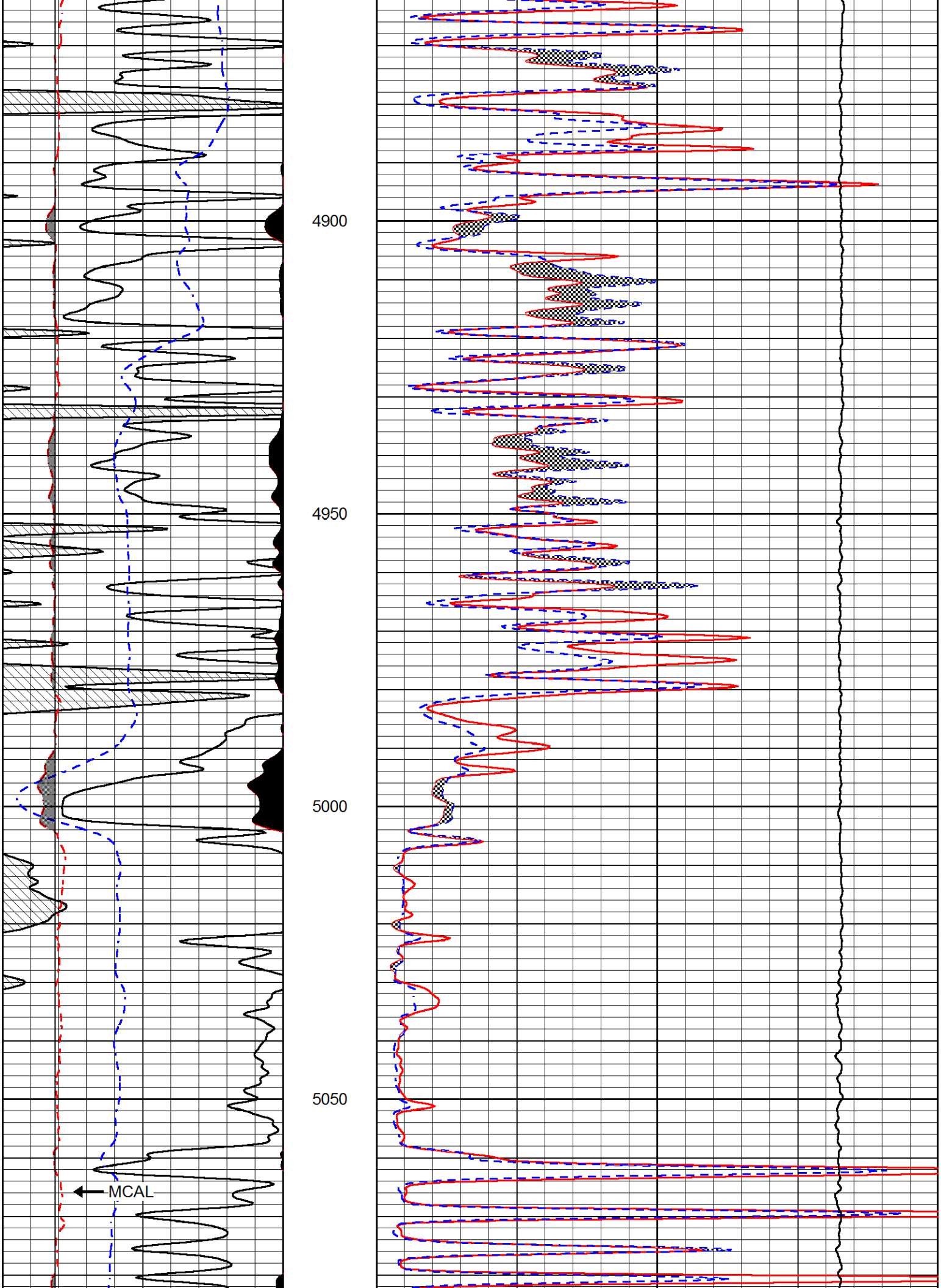


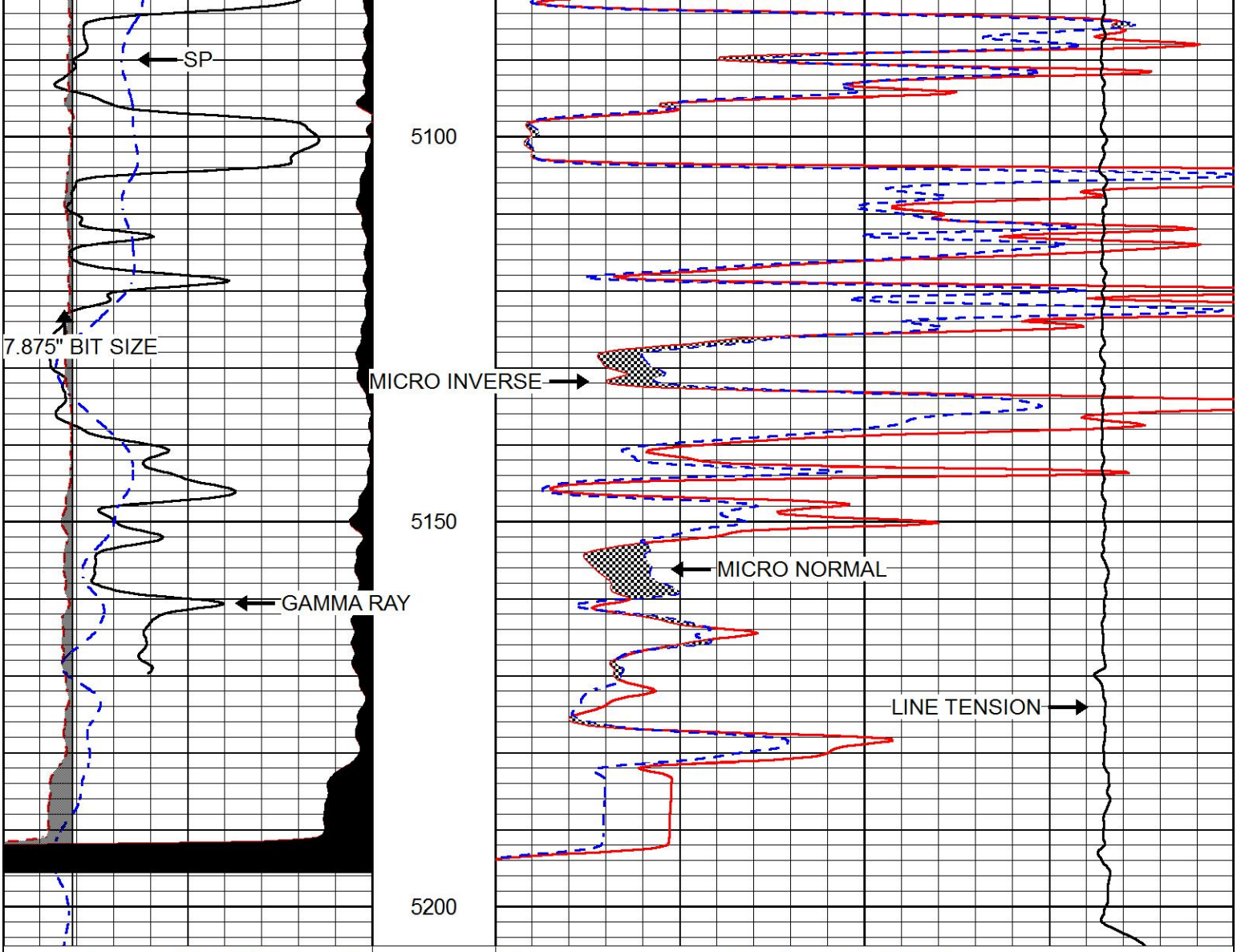

SP
GAMMA RAY
4000
4050
4100
4150
4200


4250
4300
4350
4400


4450
4500
4550
4600


4650
4700
4750
4800
4850


4900
4950
5000
5050
MCAL



0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

0	Micro Inverese 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

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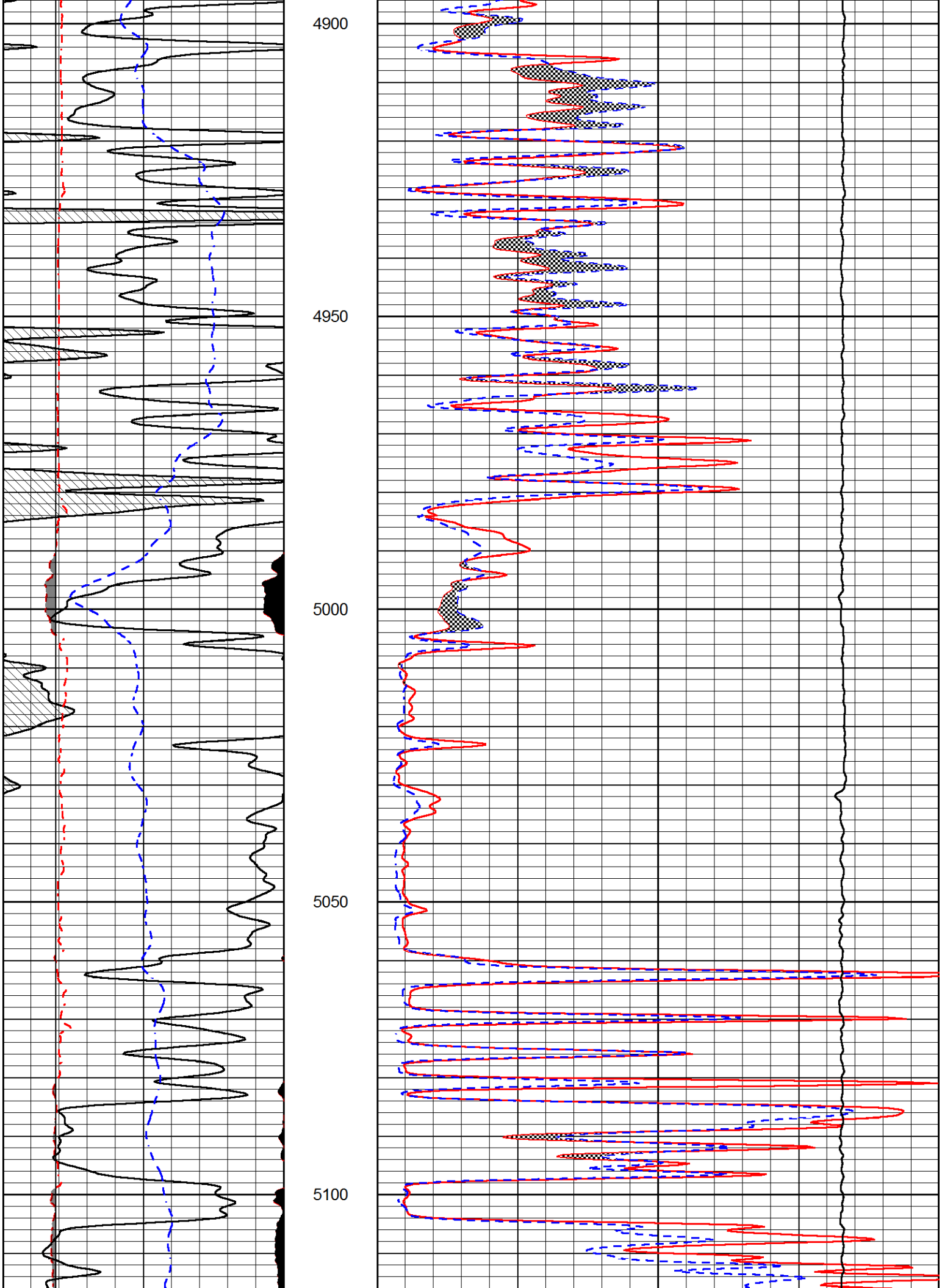
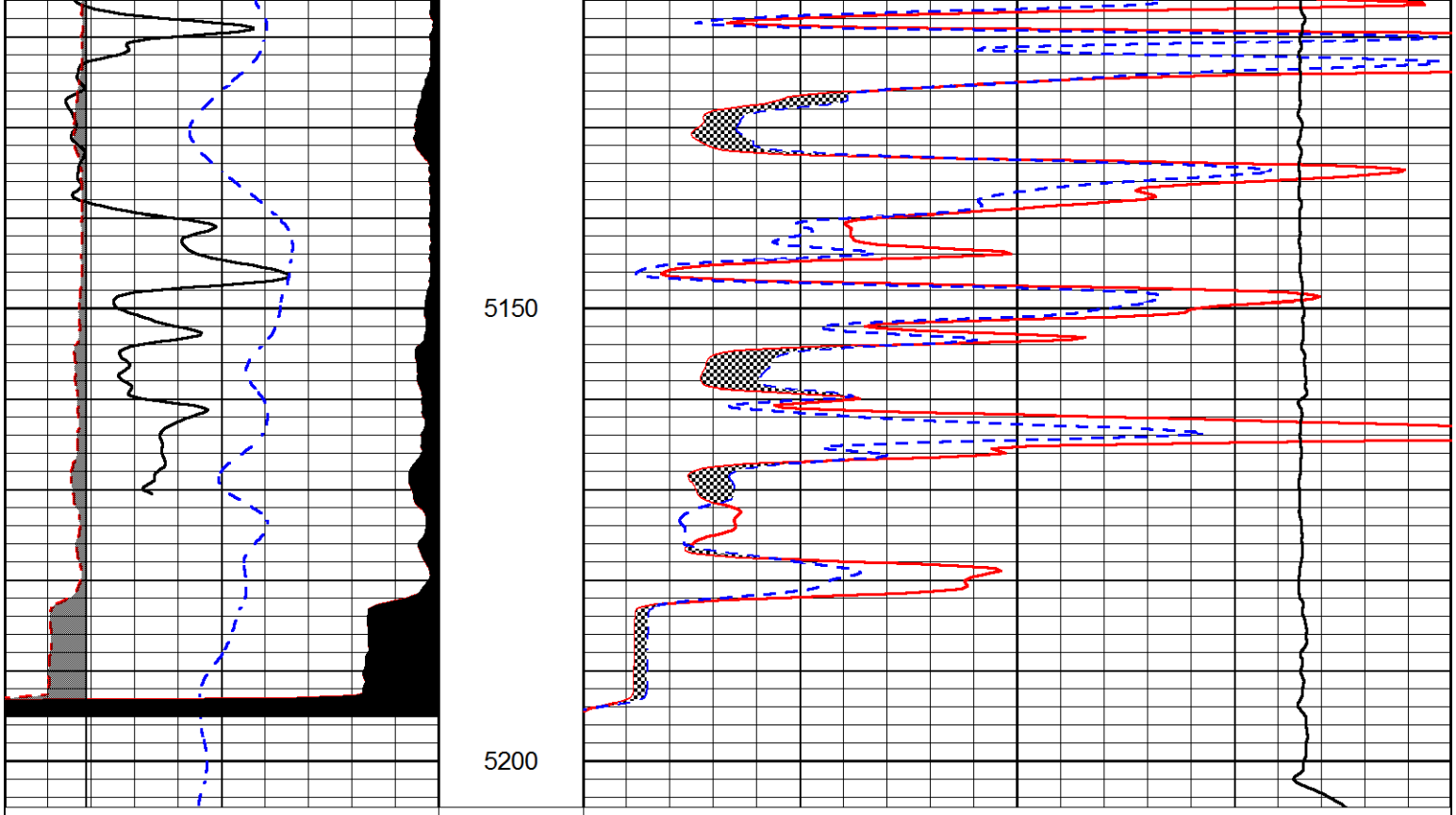
REPEAT SECTION

Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass2.1
Presentation Format	micro
Dataset Creation	Fri Aug 11 13:26:14 2017
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

0	Micro Inverese 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0


4900
4950
5000
5050
5100



0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

0	Micro Inverese 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0

Calibration Report

Database File	american warrior_blaesi_9-6.db
Dataset Pathname	STKML/pass3.7
Dataset Creation	Fri Aug 11 12:48:38 2017

Dual Induction Calibration Report

Serial-Model:	PSI 91-M&W
Calibration Performed:	Thu Aug 10 08:41:25 2017

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-32.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-31.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Fri Aug 11 11:41:38 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	21500.0000	-0.6000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	26000.0000	-0.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	97.3300

Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.3500

Compensated Density Calibration Report

Serial-Model: 90-1031-M&W
Source / Verifier: 16955B / 2ci
Master Calibration Performed: Wed Aug 02 00:28:57 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.685	g/cc	934.50	4021.31	cps

Spine Angle = 75.61 Density/Spine Ratio = 0.543

	Size		Reading
Small Ring	8.00	in	1.84
Large Ring	22.00	in	1.46

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: Tues Aug 1 10:30:30 2017

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
Tool Model: M&W
Calibration Performed: Wed Aug 02 00:29:15 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps

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Company AMERIAN WARRIOR, INC.
Well BLAESI #9-6
Field UNKNOWN
County WALLACE
State KANSAS