KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1046393

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 3842
Name: Larson Engineering, Inc. dba Larson Operating Company
Address 1: 562 W STATE RD 4
Address 2:
City: OLMITZ State: KS Zip: 67564 + 8561
Contact Person: Thomas Larson
Phone: (620) 653-7368
CONTRACTOR: License # 33935
Name: H. D. Drilling, LLC
Wellsite Geologist: Vernon Schrag
Purchaser:

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [x] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] 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 ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

7/10/2010	7/23/2010	7/23/2010
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-101-22250-00-00
Spot Description:
E2 - NW - NW - NE Sec. 23 Twp. 19 S. R. 30 [ ] East [x] West
330 Feet from [x] North / [ ] South Line of Section
2027 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[x] NE [ ] NW [ ] SE [ ] SW
County: Lane
Lease Name: Anchor Cattle Well #: 1-23
Field Name: Clark
Producing Formation: N/A
Elevation: Ground: 2878 Kelly Bushing: 2885
Total Depth: 4700 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 253 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: 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: 23000 ppm Fluid volume: 900 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

- [x] **Letter of Confidentiality Received**
  Date: 11/05/2010
- [x] **Confidential Release Date:** 11/04/2012
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** NAOMI JAMES **Date:** 11/09/2010

Side Two

1046393

Operator Name: Larson Engineering, Inc. dba Larson Operating Company Lease Name: Anchor Cattle Well #: 1-23

Sec. 23 Twp. 19 S. R. 30 ☐ East ☑ West County: Lane

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☐ Yes ☑ No
(If no, Submit Copy)

List All E. Logs Run:

Dual Induction
Dual Comp Porosity
Microresistivity

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	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	12.25	8.625	20	253	Class A	175	2% gel, 3% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 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:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☑ Other *(Specify)* D & A

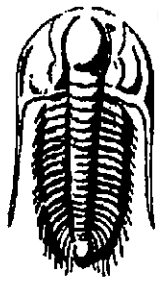
PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Anchor Cattle 1-23
Doc ID	1046393

Tops

Name	Top	Datum
Anhydrite	2160	+725
Base Anhydrite	2216	+669
Heebner	3915	-1030
Lansing	3961	-1076
Stark	4239	-1354
Pawnee	4451	-1566
Cherokee Sh	4519	-1634
Mississippi	4579	-1694



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

23 19s 30w Lane, KS

Anchor Cattle1-23

Start Date: 2010.07.19 @ 23:20:03
End Date: 2010.07.20 @ 07:35:48
Job Ticket #: 37371 DST #: 1

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37371 **DST#: 1**

Test Start: 2010.07.19 @ 23:20:03

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:49:48
Time Test Ended: 07:35:48

Test Type: Conventional Bottom Hole
Tester: Mike Slemp
Unit No: 28

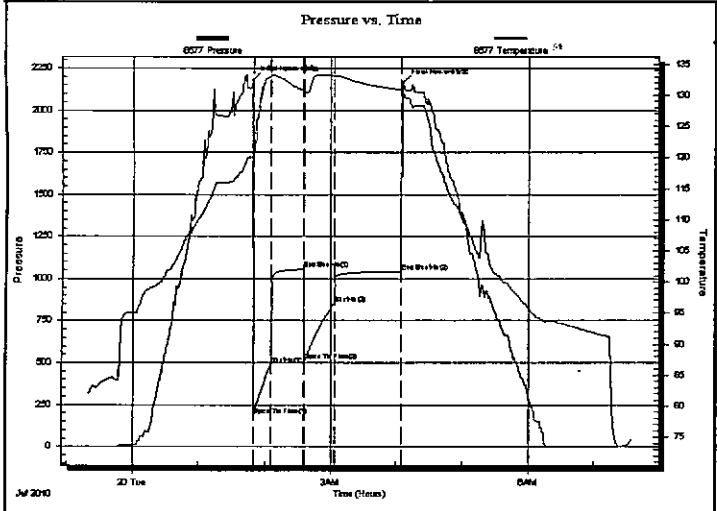
Interval: 4325.00 ft (KB) To 4412.00 ft (KB) (TVD)
Total Depth: 4412.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2884.00 ft (KB)
2878.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8677 Inside
Press@RunDepth: 851.90 psig @ 4327.00 ft (KB)
Start Date: 2010.07.19 End Date: 2010.07.20
Start Time: 23:20:04 End Time: 07:35:48

Capacity: 8000.00 psig
Last Calib.: 2010.07.20
Time On Btm: 2010.07.20 @ 01:48:33
Time Off Btm: 2010.07.20 @ 04:06:03

TEST COMMENT: IF- BOB in 1.5 min
ISI- No blow back
FF- BOB in 5 min
FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2180.44	120.12	Initial Hydro-static
2	184.41	120.46	Open To Flow (1)
17	491.76	133.01	Shut-In(1)
47	1056.15	130.80	End Shut-In(1)
48	509.41	130.56	Open To Flow (2)
75	851.90	133.13	Shut-In(2)
137	1042.20	130.84	End Shut-In(2)
138	2163.99	131.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2180.00	100% Water	29.06
2.00	100% Oil	0.03

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37371 **DST#: 1**

Test Start: 2010.07.19 @ 23:20:03

Tool Information

Drill Pipe:	Length:	4156.00 ft	Diameter:	3.80 inches	Volume:	58.30 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	167.00 ft	Diameter:	2.25 inches	Volume:	0.82 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	59.12 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		25.00 ft					String Weight: Initial	54000.00 lb
Depth to Top Packer:		4325.00 ft					Final	58000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		87.00 ft						
Tool Length:		114.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4299.00		
Shut In Tool	5.00			4304.00		
Hydraulic tool	5.00			4309.00		
Jars	5.00			4314.00		
Safety Joint	2.00			4316.00		
Packer	5.00		Fluid	4321.00	27.00	Bottom Of Top Packer
Packer	4.00			4325.00		
Stubb	1.00			4326.00		
Perforations	1.00			4327.00		
Recorder	0.00	8677	Inside	4327.00		
Recorder	0.00	8678	Inside	4327.00		
Perforations	18.00			4345.00		
Change Over Sub	1.00			4346.00		
Drill Pipe	62.00			4408.00		
Change Over Sub	1.00			4409.00		
Bullnose	3.00			4412.00	87.00	Bottom Packers & Anchor
Total Tool Length:	**114.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37371 **DST#: 1**

Test Start: 2010.07.19 @ 23:20:03

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	48000 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.34 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1900.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

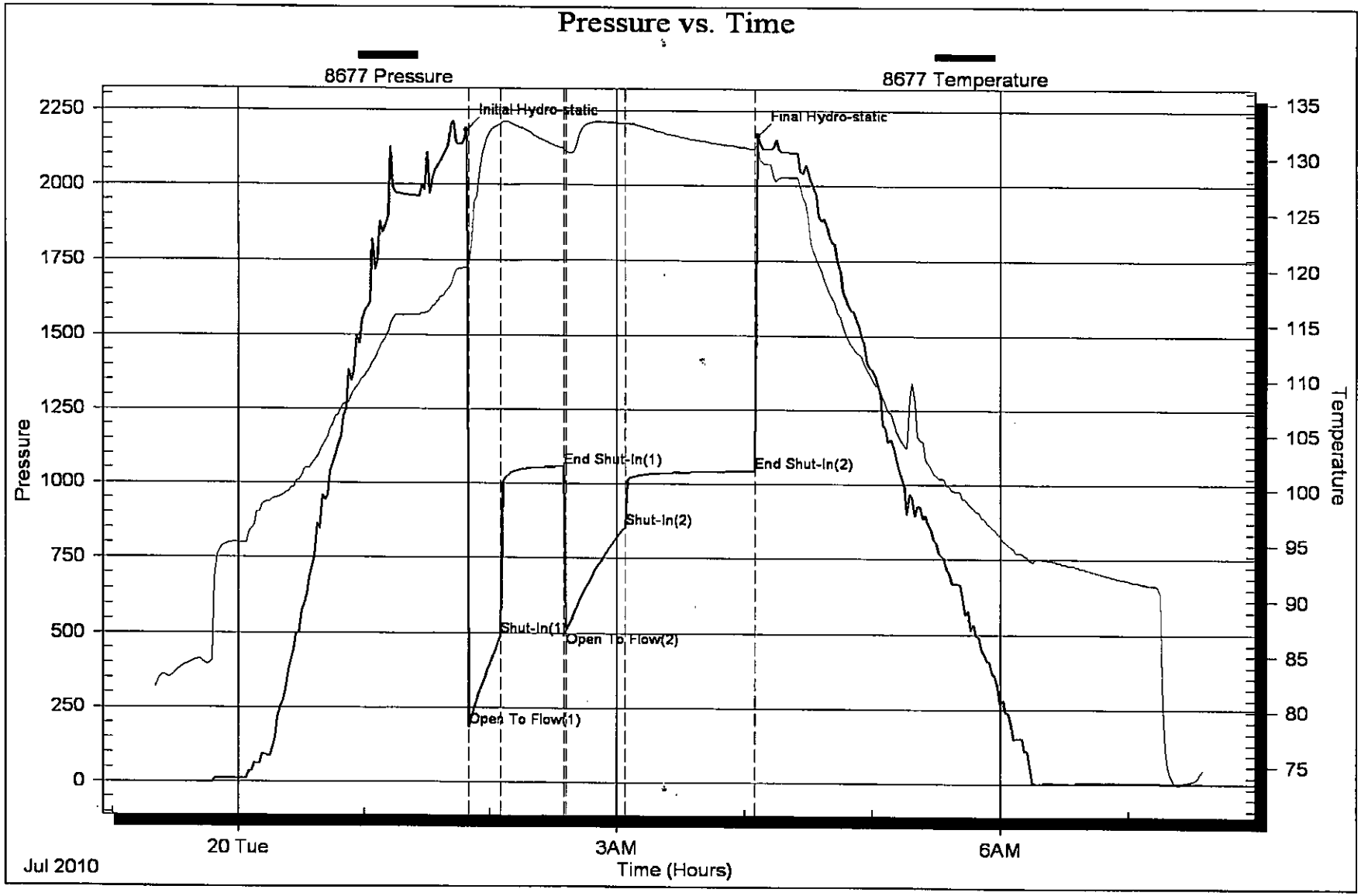
Length ft	Description	Volume bbl
2180.00	100% Water	29.058
2.00	100% Oil	0.028

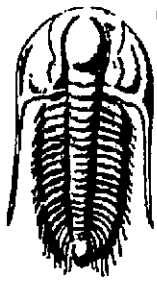
Total Length: 2182.00 ft Total Volume: 29.086 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8677 Pressure
8677 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Shut-In(1)
Open To Flow(2)
Open To Flow(1)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
135
130
125
120
115
110
105
100
95
90
85
80
75
20 Tue
3AM
6AM
Jul 2010
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

23 19s 30w Lane, KS

Anchor Cattle1-23

Start Date: 2010.07.21 @ 03:36:42
End Date: 2010.07.21 @ 09:28:27
Job Ticket #: 37372 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37372 **DST#: 2**

Test Start: 2010.07.21 @ 03:36:42

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:56:57
Time Test Ended: 09:28:27

Test Type: Conventional Bottom Hole
Tester: Mike Slemp
Unit No: 28

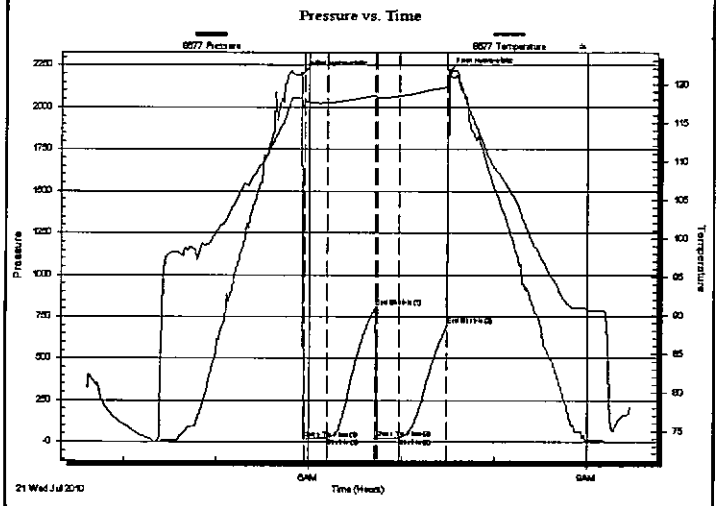
Interval: 4449.00 ft (KB) To 4525.00 ft (KB) (TVD)
Total Depth: 4525.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2884.00 ft (KB)
2878.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8677 Inside
Press@RunDepth: 25.63 psig @ 4451.00 ft (KB)
Start Date: 2010.07.21 End Date: 2010.07.21
Start Time: 03:36:43 End Time: 09:28:27

Capacity: 8000.00 psig
Last Calib.: 2010.07.21
Time On Btm: 2010.07.21 @ 05:54:57
Time Off Btm: 2010.07.21 @ 07:29:57

TEST COMMENT: IF- Surface blow died after 10 min
ISI- No blow back
FF- No blow
FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2197.99	118.43	Initial Hydro-static
2	21.23	117.82	Open To Flow (1)
17	23.08	117.63	Shut-In(1)
48	808.16	118.57	End Shut-In(1)
49	24.71	118.30	Open To Flow (2)
63	25.63	118.50	Shut-In(2)
94	697.84	119.68	End Shut-In(2)
95	2213.35	121.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37372 **DST#: 2**

Test Start: 2010.07.21 @ 03:36:42

Tool Information

Drill Pipe:	Length:	4274.00 ft	Diameter:	3.80 inches	Volume:	59.95 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	168.00 ft	Diameter:	2.25 inches	Volume:	0.83 bbl	Weight to Pull Loose:		60000.00 lb
					Total Volume:	60.78 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight:	Initial	54000.00 lb
Depth to Top Packer:		4449.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		76.00 ft							
Tool Length:		103.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4423.00		
Shut In Tool	5.00			4428.00		
Hydraulic tool	5.00			4433.00		
Jars	5.00			4438.00		
Safety Joint	2.00			4440.00		
Packer	5.00		Fluid	4445.00	27.00	Bottom Of Top Packer
Packer	4.00			4449.00		
Stubb	1.00			4450.00		
Perforations	1.00			4451.00		
Recorder	0.00	8677	Inside	4451.00		
Recorder	0.00	8678	Inside	4451.00		
Perforations	7.00			4458.00		
Change Over Sub	1.00			4459.00		
Drill Pipe	62.00			4521.00		
Change Over Sub	1.00			4522.00		
Bullnose	3.00			4525.00	76.00	Bottom Packers & Anchor
Total Tool Length:	**103.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37372 **DST#: 2**

Test Start: 2010.07.21 @ 03:36:42

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.96 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3500.00 ppm				
Filter Cake:	inches				

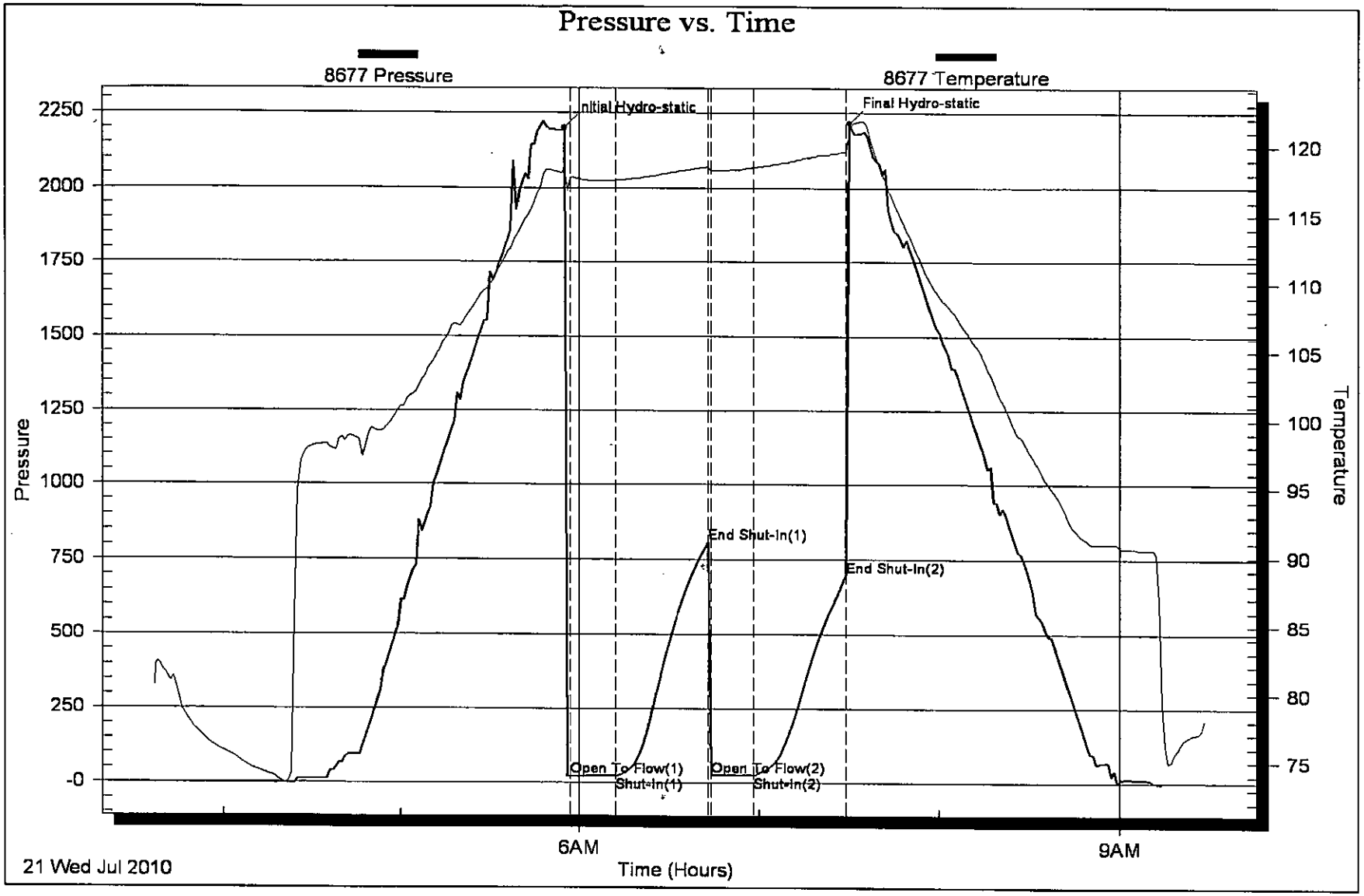
Recovery Information

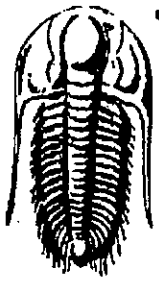
Recovery Table

Length ft	Description	Volume bbl

Total Length: ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
8677 Pressure
8677 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
2250
2000
1750
1500
1250
1000
750
500
250
-0
Pressure
120
115
110
105
100
95
90
85
80
75
Temperature
6AM
9AM
Time (Hours)
21 Wed Jul 2010



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

23 19s 30w Lane, KS

Anchor Cattle1-23

Start Date: 2010.07.21 @ 20:06:32
End Date: 2010.07.22 @ 03:25:32
Job Ticket #: 37373 DST #: 3

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37373 **DST#: 3**

Test Start: 2010.07.21 @ 20:06:32

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:51:47
Time Test Ended: 03:25:32

Test Type: Conventional Bottom Hole
Tester: Mike Slemp
Unit No: 28

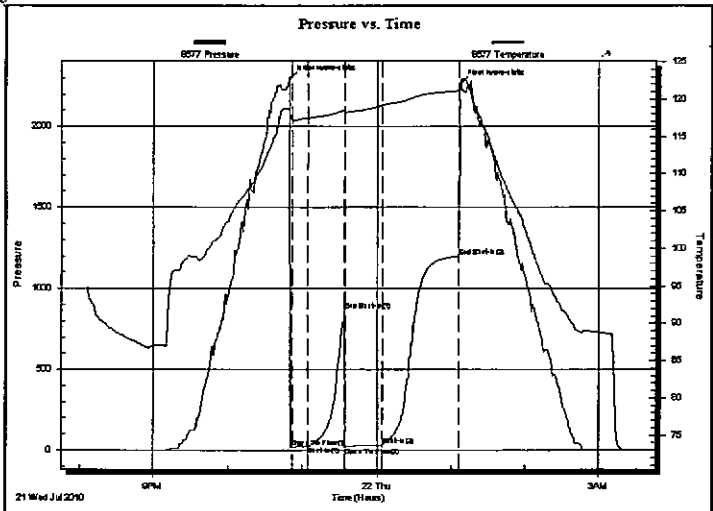
Interval: 4518.00 ft (KB) To 4575.00 ft (KB) (TVD)
Total Depth: 4575.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2884.00 ft (KB)
2878.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8677 **Inside**
Press@RunDepth: 31.93 psig @ 4520.00 ft (KB)
Start Date: 2010.07.21 End Date: 2010.07.22
Start Time: 20:06:33 End Time: 03:25:32

Capacity: 8000.00 psig
Last Calib.: 2010.07.22
Time On Btm: 2010.07.21 @ 22:49:47
Time Off Btm: 2010.07.22 @ 01:07:17

TEST COMMENT: IF- Weak surface blow , 1/2 inch in 15 min
ISI- No blow back
FF- Weak blow 2 inches in 30 min
FSI- No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2294.16	118.37	Initial Hydro-static
2	19.82	117.22	Open To Flow (1)
15	22.15	117.45	Shut-In(1)
44	864.72	118.49	End Shut-In(1)
45	21.09	118.23	Open To Flow (2)
74	31.93	119.15	Shut-In(2)
136	1200.74	121.11	End Shut-In(2)
138	2261.52	122.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	50%oil 50%mud	0.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37373 **DST#: 3**

Test Start: 2010.07.21 @ 20:06:32

Tool Information

Drill Pipe:	Length:	4338.00 ft	Diameter:	3.80 inches	Volume:	60.85 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	168.00 ft	Diameter:	2.25 inches	Volume:	0.83 bbl	Weight to Pull Loose:		60000.00 lb
					Total Volume:	61.68 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	54000.00 lb
Depth to Top Packer:		4518.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		57.00 ft							
Tool Length:		84.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4492.00		
Shut In Tool	5.00			4497.00		
Hydraulic tool	5.00			4502.00		
Jars	5.00			4507.00		
Safety Joint	2.00			4509.00		
Packer	5.00		Fluid	4514.00	27.00	Bottom Of Top Packer
Packer	4.00			4518.00		
Stubb	1.00			4519.00		
Perforations	1.00			4520.00		
Recorder	0.00	8677	Inside	4520.00		
Recorder	0.00	8678	Inside	4520.00		
Perforations	19.00			4539.00		
Change Over Sub	1.00			4540.00		
Drill Pipe	31.00			4571.00		
Change Over Sub	1.00			4572.00		
Bullnose	3.00			4575.00	57.00	Bottom Packers & Anchor
Total Tool Length:	**84.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 37373 **DST#: 3**

Test Start: 2010.07.21 @ 20:06:32

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.96 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3500.00 ppm				
Filter Cake:	inches				

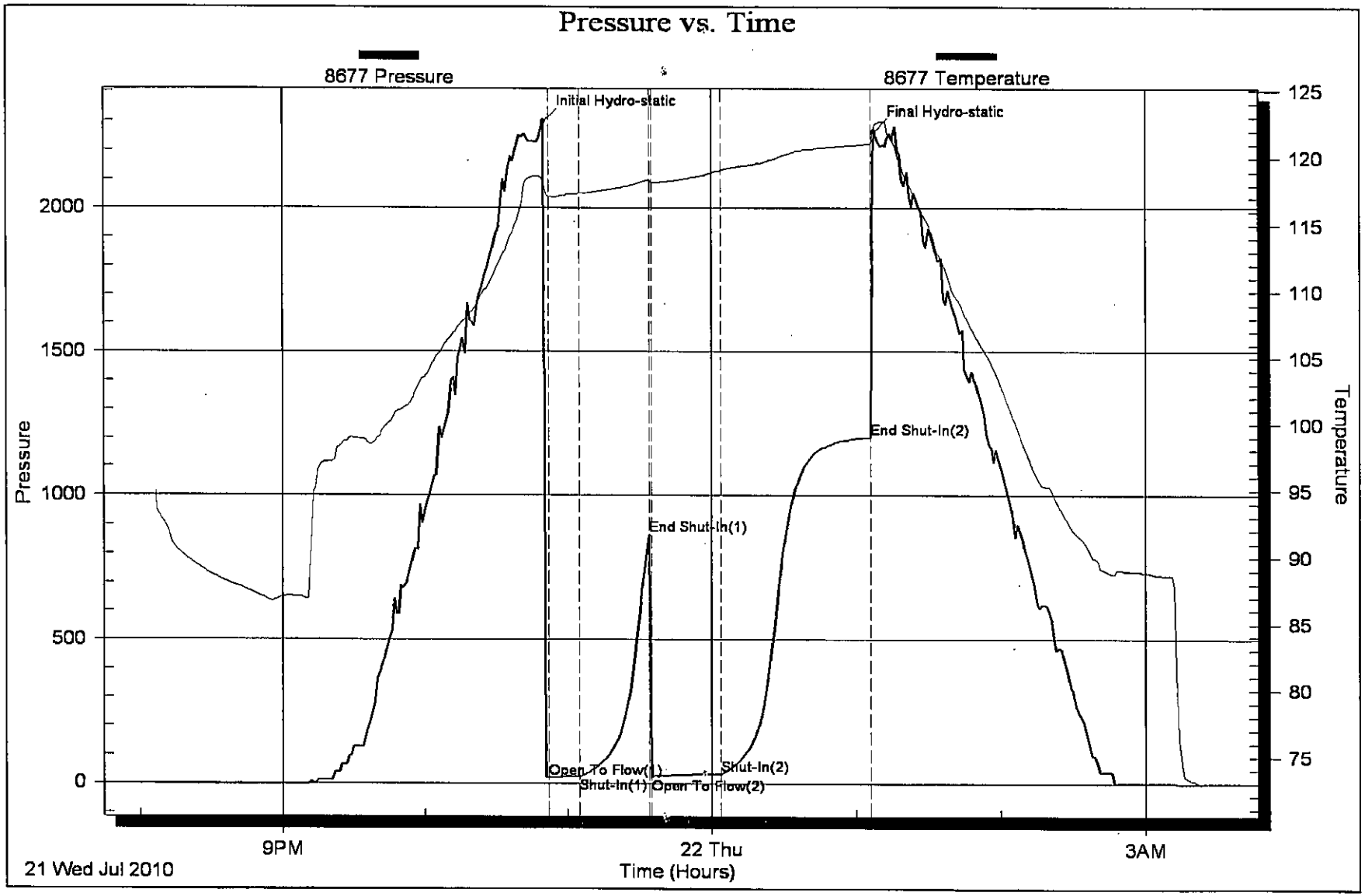
Recovery Information

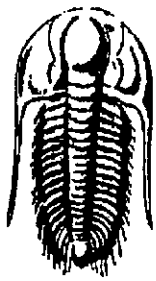
Recovery Table

Length ft	Description	Volume bbl
20.00	50%oil 50%mud	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
8677 Pressure
8677 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(2)
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Shut-In(2)
Open To Flow(2)
Pressure
Temperature
2000
1500
1000
500
0
125
120
115
110
105
100
95
90
85
80
75
9PM
22 Thu
3AM
21 Wed Jul 2010
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

23 19s 30w Lane, KS

Anchor Cattle1-23

Start Date: 2010.07.23 @ 09:49:00
End Date: 2010.07.23 @ 14:59:08
Job Ticket #: 39577 DST #: 4

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39577 **DST#: 4**

Test Start: 2010.07.23 @ 09:49:00

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:53:00
Time Test Ended: 14:59:08

Test Type: Conventional Straddle
Tester: Chuck Smith
Unit No: 37

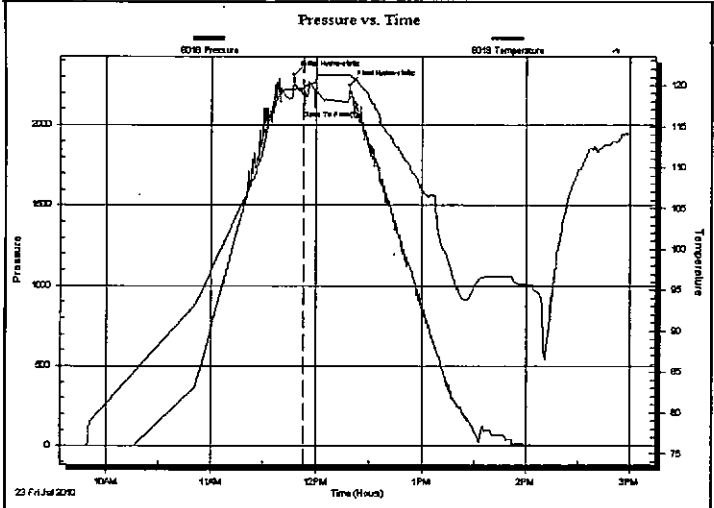
Interval: 4386.00 ft (KB) To 4429.00 ft (KB) (TVD)
Total Depth: 4700.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 2884.00 ft (KB)
2878.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8018 **Inside**
Press@RunDepth: psig @ 4388.00 ft (KB)
Start Date: 2010.07.23 End Date: 2010.07.23
Start Time: 09:49:05 End Time: 14:59:07

Capacity: 8000.00 psig
Last Calib.: 2010.07.23
Time On Btm: 2010.07.23 @ 11:47:00
Time Off Btm: 2010.07.23 @ 12:18:52

TEST COMMENT: IF: Packer seat failed, reset tool, packer seat failed, pulled tool.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2313.23	119.56	Initial Hydro-static
6	2037.14	119.60	Open To Flow (1)
32	2250.82	121.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
210.00	100%M	1.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39577 **DST#: 4**

Test Start: 2010.07.23 @ 09:49:00

Tool Information

Drill Pipe:	Length:	4245.00 ft	Diameter:	3.80 inches	Volume:	59.55 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	137.00 ft	Diameter:	2.25 inches	Volume:	0.67 bbl	Weight to Pull Loose:		60000.00 lb
					Total Volume:	60.22 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		23.50 ft					String Weight:	Initial	60000.00 lb
Depth to Top Packer:		4386.00 ft						Final	61000.00 lb
Depth to Bottom Packer:		4429.00 ft							
Interval between Packers:		43.00 ft							
Tool Length:		342.50 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4359.50		
Shut In Tool	5.00			4364.50		
Hydraulic tool	5.00			4369.50		
Jars	5.00			4374.50		
Safety Joint	2.50			4377.00		
Packer	5.00			4382.00	27.50	Bottom Of Top Packer
Packer	4.00			4386.00		
Stubb	1.00			4387.00		
Perforations	1.00			4388.00		
Recorder	0.00	8018	Inside	4388.00		
Recorder	0.00	8357	Outside	4388.00		
Change Over Sub	1.00			4389.00		
Drill Pipe	30.00			4419.00		
Change Over Sub	1.00			4420.00		
Perforations	5.00			4425.00		
Blank Off Sub	1.00			4426.00		
top of s pack	3.00			4429.00	43.00	Tool Interval
Packer	1.00			4430.00		
Stubb	1.00			4431.00		
Perforations	21.00			4452.00		
Recorder	0.00	6751	Outside	4452.00		
Change Over Sub	1.00			4453.00		
Drill Pipe	244.00			4697.00		
Change Over Sub	1.00			4698.00		
Bullnose	3.00			4701.00	272.00	Bottom Packers & Anchor
Total Tool Length:	**342.50**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39577 **DST#: 4**

Test Start: 2010.07.23 @ 09:49:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3500.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

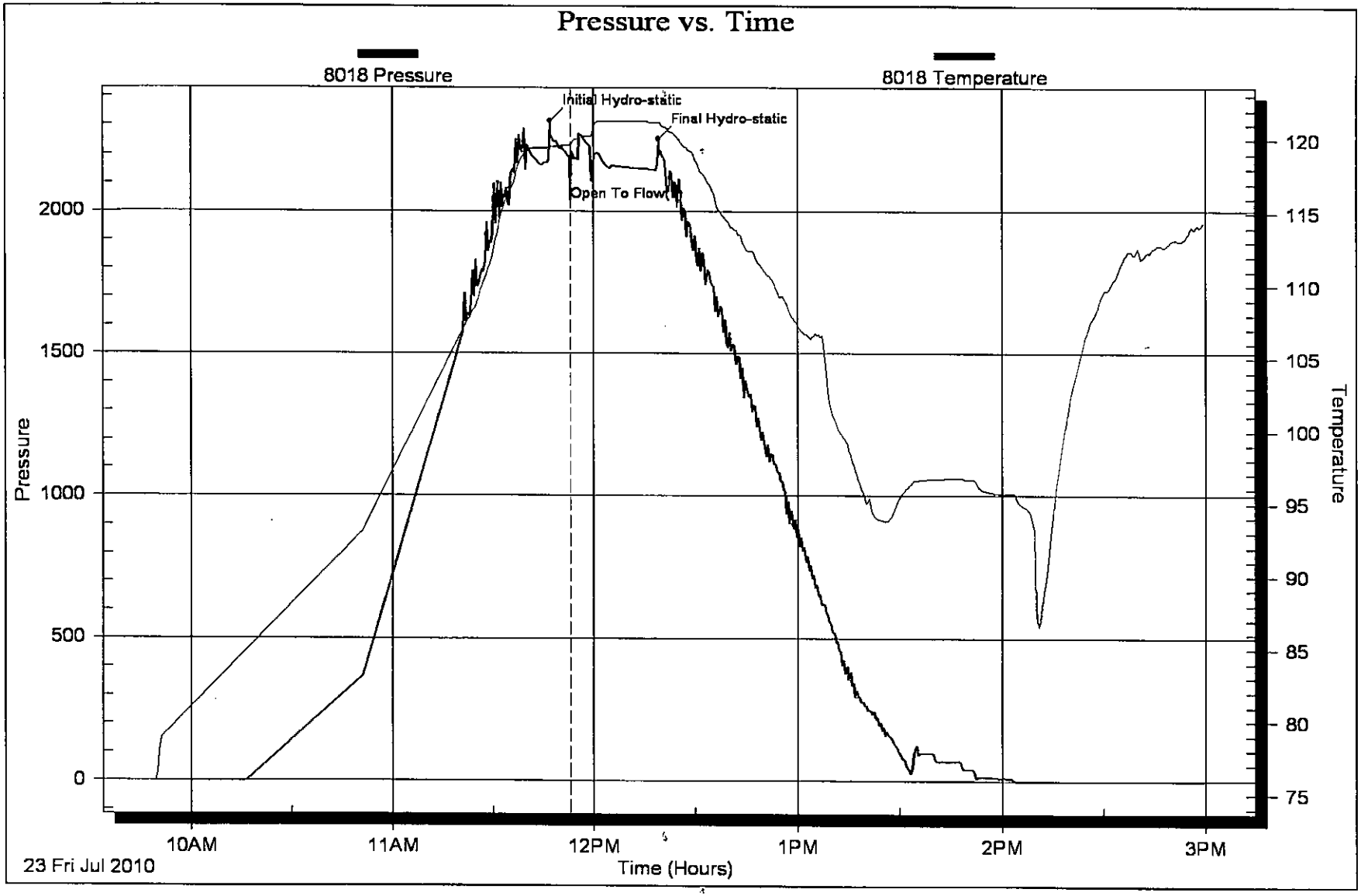
Length ft	Description	Volume bbl
210.00	100%M	1.698

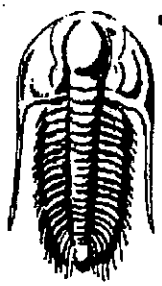
Total Length: 210.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
8018 Pressure
8018 Temperature
Initial Hydro-static
Final Hydro-static
Open To Flow
Pressure
Temperature
2000
1500
1000
500
0
120
115
110
105
100
95
90
85
80
75
10AM
11AM
12PM
1PM
2PM
3PM
Time (Hours)
23 Fri Jul 2010



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

23 19s 30w Lane, KS

Anchor Cattle1-23

Start Date: 2010.07.23 @ 20:59:00
End Date: 2010.07.24 @ 05:03:39
Job Ticket #: 39578 DST #: 5

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39578 **DST#: 5**

Test Start: 2010.07.23 @ 20:59:00

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:43:20
Time Test Ended: 05:03:39

Test Type: Conventional Straddle
Tester: Chuck Smith
Unit No: 37

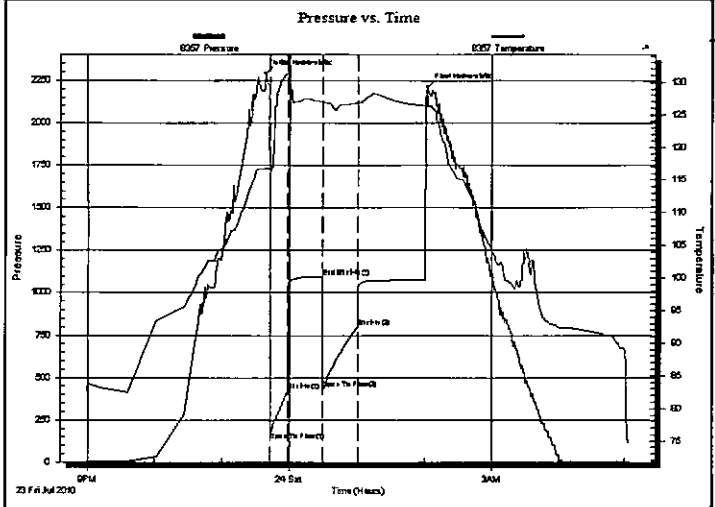
Interval: 4342.00 ft (KB) To 4436.00 ft (KB) (TVD)
Total Depth: 4700.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 2884.00 ft (KB)
2878.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8357 **Outside**
Press@RunDepth: 422.54 psig @ 4452.00 ft (KB)
Start Date: 2010.07.23 End Date: 2010.07.24
Start Time: 20:59:05 End Time: 05:03:40

Capacity: 8000.00 psig
Last Calib.: 2010.07.24
Time On Btm: 2010.07.23 @ 23:38:40
Time Off Btm: 2010.07.24 @ 02:02:09

TEST COMMENT: IF: B.O.B. @ 3 min.
ISI: No return.
FF: B.O.B. @ 3 1/2 min.
FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2290.63	116.74	Initial Hydro-static
5	131.84	116.15	Open To Flow (1)
20	422.54	131.30	Shut-In(1)
51	1093.03	127.00	End Shut-In(1)
51	433.28	126.73	Open To Flow (2)
81	800.55	126.81	Shut-In(2)
144	2210.97	126.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
726.00	GOSMW 5%G 10%M 85%W	8.94
310.00	GOCMW 15%G 1%O 30%M 54%W	4.35
496.00	OSMW 30%M 70%W	6.96
124.00	M 100%M	1.74
0.00	RW: .210 @ 75 Degrees F = 30000 PPM	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39578 **DST#: 5**

Test Start: 2010.07.23 @ 20:59:00

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:43:20
Time Test Ended: 05:03:39

Test Type: Conventional Straddle
Tester: Chuck Smith
Unit No: 37

Interval: 4342.00 ft (KB) To 4436.00 ft (KB) (TVD)
Total Depth: 4700.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Good

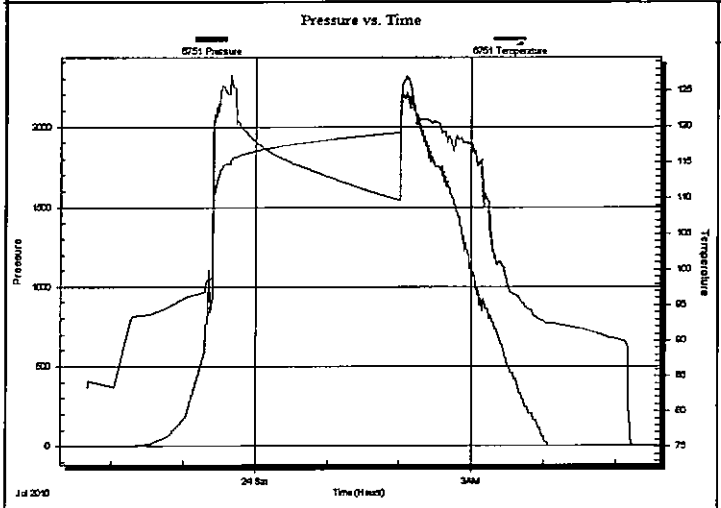
Reference Elevations: 2884.00 ft (KB)
2878.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 6751 **Inside**

Press@RunDepth: psig @ 4350.00 ft (KB)
Start Date: 2010.07.23 End Date: 2010.07.24
Start Time: 21:40:13 End Time: 05:14:37

Capacity: 8000.00 psig
Last Calib.: 2010.07.24
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: B.O.B. @ 3 min.
ISI: No return.
FF: B.O.B. @ 3 1/2 min.
FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
726.00	GOSMW 5%G 10%M 85%W	8.94
310.00	GOCMW 15%G 1%O 30%M 54%W	4.35
496.00	OSMW 30%M 70%W	6.96
124.00	M 100%M	1.74
0.00	RW: .210 @ 75 Degrees F = 30000 PPM	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

562 W St Rd 4
Otmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39578 **DST#: 5**

Test Start: 2010.07.23 @ 20:59:00

Tool Information

Drill Pipe:	Length:	4183.00 ft	Diameter:	3.80 inches	Volume:	58.68 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	137.00 ft	Diameter:	2.25 inches	Volume:	0.67 bbl	
					Total Volume:	59.35 bbl	

Drill Pipe Above KB:	5.50 ft
Depth to Top Packer:	4342.00 ft
Depth to Bottom Packer:	4436.00 ft
Interval between Packers:	94.00 ft
Tool Length:	386.50 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2500.00 lb
Weight set on Packer:	30000.00 lb
Weight to Pull Loose:	75000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	60000.00 lb
Final	67000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4315.50		
Shut In Tool	5.00			4320.50		
Hydraulic tool	5.00			4325.50		
Jars	5.00			4330.50		
Safety Joint	2.50			4333.00		
Packer	5.00			4338.00	27.50	Bottom Of Top Packer
Packer	4.00			4342.00		
Stubb	1.00			4343.00		
Perforations	7.00			4350.00		
Recorder	0.00	8018	Inside	4350.00		
Recorder	0.00	6751	Inside	4350.00		
Change Over Sub	1.00			4351.00		
Drill Pipe	61.00			4412.00		
Change Over Sub	1.00			4413.00		
Perforations	19.00			4432.00		
Blank Off Sub	1.00			4433.00		
top of s pack	3.00			4436.00	94.00	Tool Interval
Packer	1.00			4437.00		
Stubb	1.00			4438.00		
Perforations	14.00			4452.00		
Recorder	0.00	8357	Outside	4452.00		
Change Over Sub	1.00			4453.00		
Drill Pipe	244.00			4697.00		
Change Over Sub	1.00			4698.00		
Bullnose	3.00			4701.00	265.00	Bottom Packers & Anchor
Total Tool Length:	**386.50**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

562 W St Rd 4
Olmitz Ks, 67564

ATTN: Vern Schrag

Anchor Cattle1-23

23 19s 30w Lane, KS

Job Ticket: 39578 **DST#: 5**

Test Start: 2010.07.23 @ 20:59:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	30000 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3500.00 ppm				
Filter Cake:	2.00 inches				

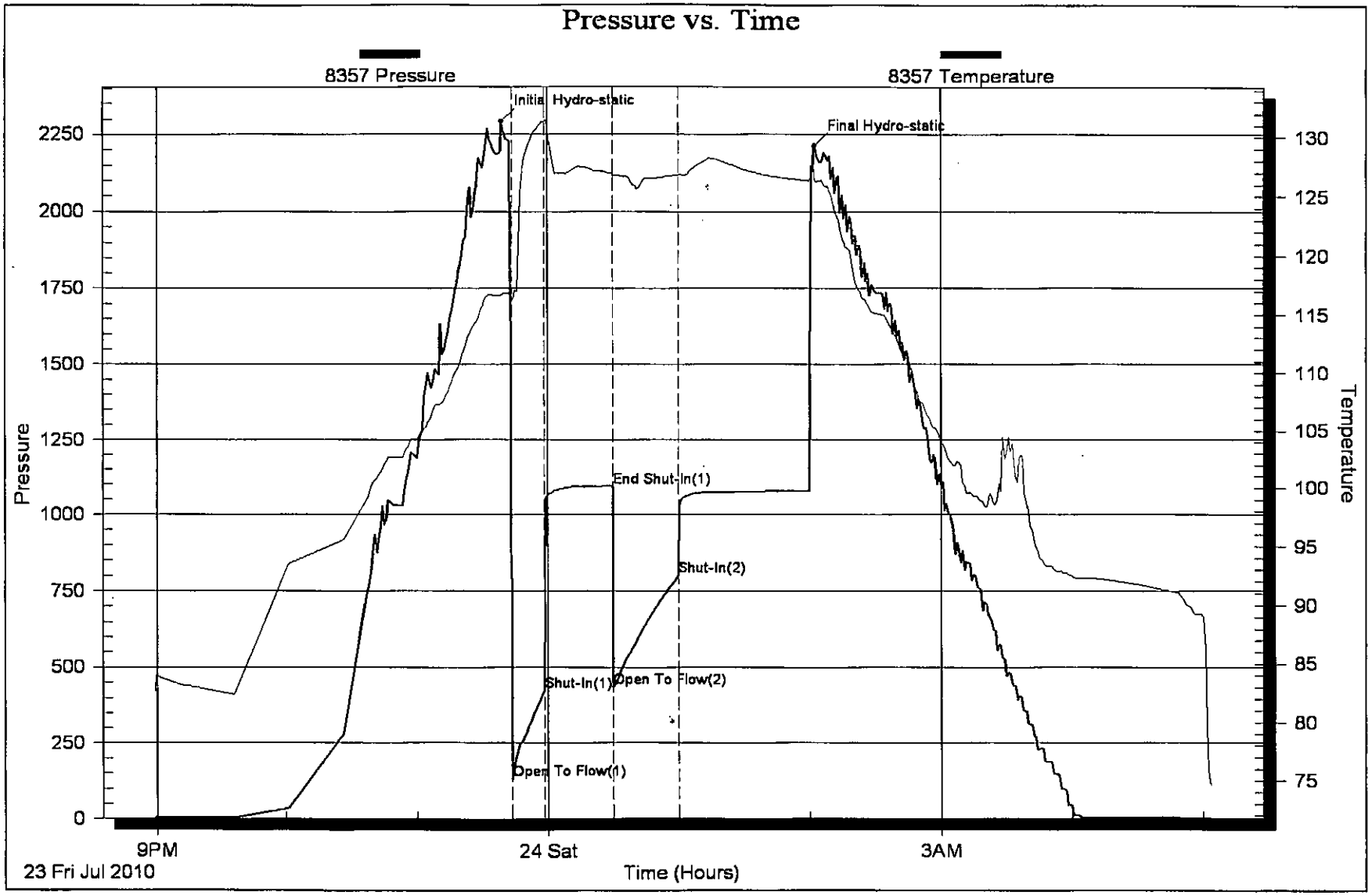
Recovery Information

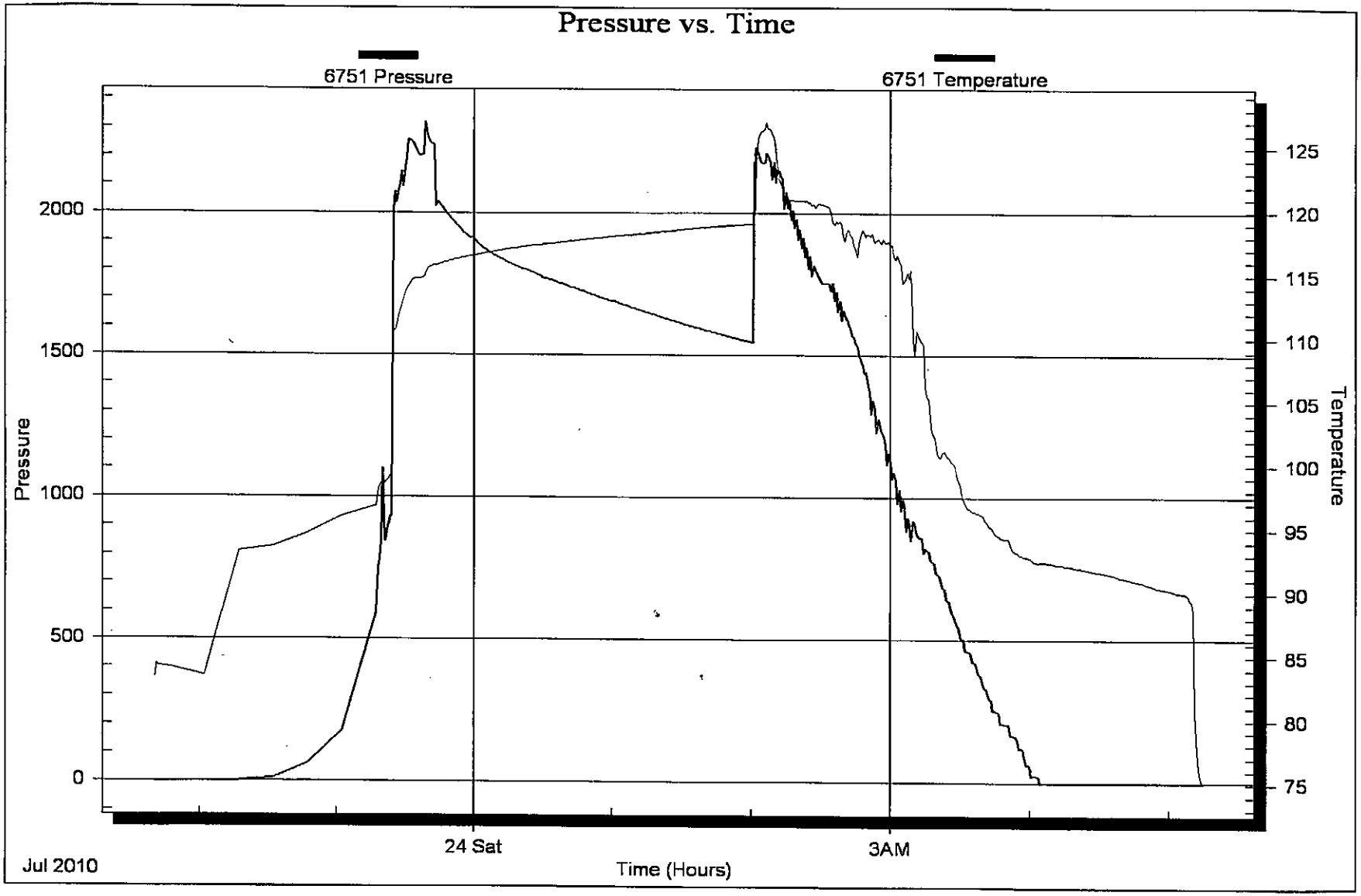
Recovery Table

Length ft	Description	Volume bbl
726.00	GOSMW 5%G 10%M 85%W	8.936
310.00	GOCMW 15%G 1%O 30%M 54%W	4.348
496.00	OSMW 30%M 70%W	6.958
124.00	M 100%M	1.739
0.00	RW: .210 @ 75 Degrees F = 30000 PPM	0.000

Total Length: 1656.00 ft Total Volume: 21.981 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
8357 Pressure
8357 Temperature
Initia Hydro-static
Final Hydro-static
End Shut-In(1)
Shut-In(2)
Shut-In(1)
Open To Flow(2)
Open To Flow(1)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
130
125
120
115
110
105
100
95
90
85
80
75
9PM
24 Sat
3AM
23 Fri Jul 2010
Time (Hours)


Pressure vs. Time
6751 Pressure
6751 Temperature
2000
1500
1000
500
0
Pressure
125
120
115
110
105
100
95
90
85
80
75
Temperature
24 Sat
3AM
Jul 2010
Time (Hours)

ALLIED CEMENTING CO., LLC. 036724

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Great Bend KS

DATE 7-10-10	SEC. 23	TWP. 19S	RANGE 30W	CALLED OUT	ON LOCATION	JOB START 1100	JOB FINISH 1130
LEASE Anchor Cattle	WELL # 123		LOCATION Amy 1 west 6 South ½ East Southside			COUNTY Hamc	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR H-D Rig 3
TYPE OF JOB Surface
HOLE SIZE 12¼ T.D. 256
CASING SIZE 8 5/8 DEPTH 253
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 15 BBLS

OWNER

EQUIPMENT

PUMP TRUCK # 181 CEMENTER Wayne-D
HELPER Wayne D
BULK TRUCK # 344 DRIVER Bob
BULK TRUCK # DRIVER

CEMENT

AMOUNT ORDERED 175 class A 3%cc 2% Gel

COMMON	175	@ 13.50	2362.50
POZMIX		@	
GEL	4	@ 20.25	81.00
CHLORIDE	6	@ 51.50	309.00
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	175	@ 2.25	393.75
MILEAGE	175 x 44 x .10		770.00
		TOTAL	3916.25

REMARKS:

Pipe on Bottom Brecak Circulation With Rig mud Shut Down Hook up To Cement line mix 175 SX class A 3%cc 2% Gel Dis 15 BBLS fresh water Cement did Circulate Wash up Rig Down

SERVICE

DEPTH OF JOB	253		
PUMP TRUCK CHARGE			990.00
EXTRA FOOTAGE		@	
MILEAGE	44	@ 7.00	308.00
MANIFOLD		@	
		@	
		@	
		TOTAL	1298.00

CHARGE TO: Larson Engineering
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
	TOTAL	

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES [redacted]
DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME LeRoyne Trosper

SIGNATURE LeRoyne Trosper

ALLIED CEMENTING CO., LLC. 036782

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Great Bend KS

DATE 7-24-10	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START 300 pm	JOB FINISH 400 pm
LEASE Anchor Cattle	WELL # 1-23		LOCATION Amy KS 1 west To Dodge RD 6 South To 90th 1/2 East s into			COUNTY Lane	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR H-D Rig 3
OWNER Hanson
TYPE OF JOB Rotary plug
HOLE SIZE 7 7/8 T.D. 4700
CASING SIZE 4 1/2 DEPTH 2250
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 13.25 H2O 33 BBLS Rig mud

EQUIPMENT

PUMP TRUCK # 181 CEMENTER Wayne-D
HELPER Wayne-D
BULK TRUCK # 344 DRIVER Bob-R
BULK TRUCK # DRIVER

REMARKS:

1st plug 2250 mix 50sx Dis 5BBLS
23 BBLS Rig mud
2nd plug 1500 mix 80sx Dis 14BBLS
3rd plug 750 mix 50sx Dis 5BBLS
4th plug 270 mix 40sx Dis .25
5th plug 60 mix 20sx
Rat mix 30 sx
wash up Rig Down

CHARGE TO: Hanson
STREET
CITY STATE ZIP

CEMENT

AMOUNT ORDERED 270sx 60/40 4% Gel

		@	
COMMON	162	@ 13.50	2187.00
POZMIX	108	@ 7.55	815.40
GEL	9	@ 20.25	182.25
CHLORIDE		@	
ASC		@	
HANDLING	270	@ 2.25	607.50
MILEAGE	270 x 48 x 10		1296.00
		TOTAL	5088.15

SERVICE

DEPTH OF JOB 2250

		@	
PUMP TRUCK CHARGE			990.00
EXTRA FOOTAGE		@	
MILEAGE	48	@ 7.00	336.00
MANIFOLD		@	
		TOTAL	1326.00

PLUG & FLOAT EQUIPMENT

TOTAL

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME LeWayne Tresner

SIGNATURE [signature]

SALES TAX (If Any)
TOTAL CHARGES
DISCOUNT IF PAID IN 30 DAYS

LOG-TECH

DIGITAL LOG (785) 625-3858

Dual Induction Log

API No. 15-101-22,250-00-00

Company Larson Operating Company

Well Anchor Cattle No.1-23

Field Clark

County Lane State Kansas

Location E2 NW NW NE
330' FNL & 2027' FEL

Sec: 23 Twp: 19S Rge: 30W

Other Services
CNL/CDL
MEL

Elevation
K.B. 2885
D.F.
G.L. 2878

Permanent Datum	Ground Level	Elevation 2878				
Log Measured From	Kelly Bushing	7 Ft. Above Perm. Datum				
Drilling Measured From	Kelly Bushing					
Date	7/23/2010					
Run Number	One					
Depth Driller	4700					
Depth Logger	4700					
Bottom Logged Interval	4699					
Top Log Interval	250					
Casing Driller	8.625 @ 253					
Casing Logger	253					
Bit Size	7.875					
Type Fluid in Hole	Chemical					
Salinity,ppm CL	3,500					
Density / Viscosity	9.3 51					
pH / Fluid Loss	10.5 8.0					
Source of Sample	Flowline					
Rm @ Meas. Temp	.9 @ 85					
Rmf @ Meas. Temp	.68 @ 85					
Rmc @ Meas. Temp	1.22 @ 85					
Source of Rmf / Rmc	Charts					
Rm @ BHT	.61 @ 125					
Operating Rig Time	4 Hours					
Max. Rec. Temp. F	125					
Equipment Number	17					
Location	Hays					
Recorded By	C. Desaire					
Witnessed By	Vern Schrag					

<<< Fold Here >>>

Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

Dighton, 8 W, 6 S, 3/4 E, S Into

Database File:	c:\warrior\data\larson_anchor cattle no.1-23\lrsnhd.db
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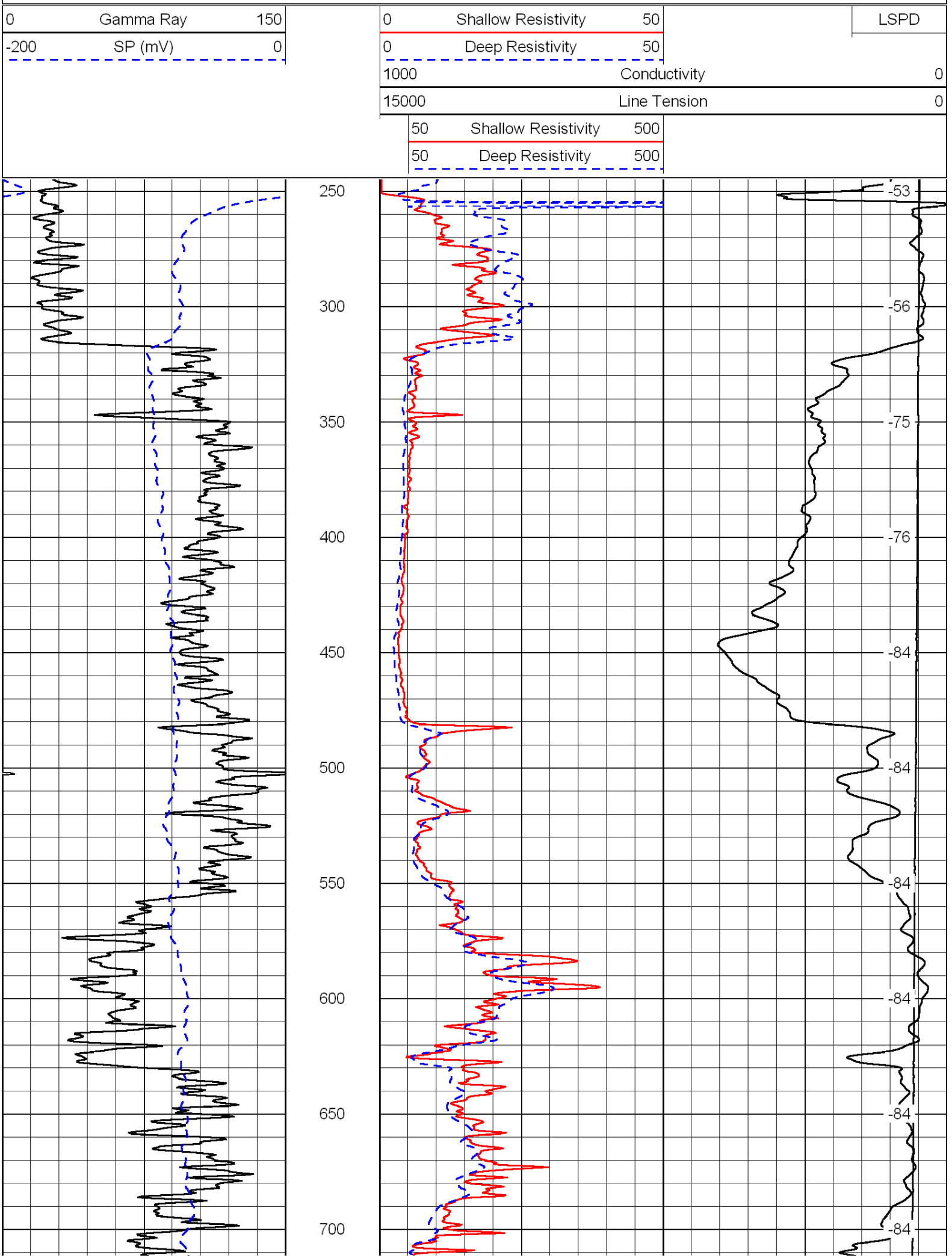
Presentation Format:	dil2in
Dataset Creation:	Fri Jul 23 06:05:12 2010
Charted by:	Depth in Feet scaled 1:600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0 Deep Resistivity 50
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50 Deep Resistivity 500
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250
300
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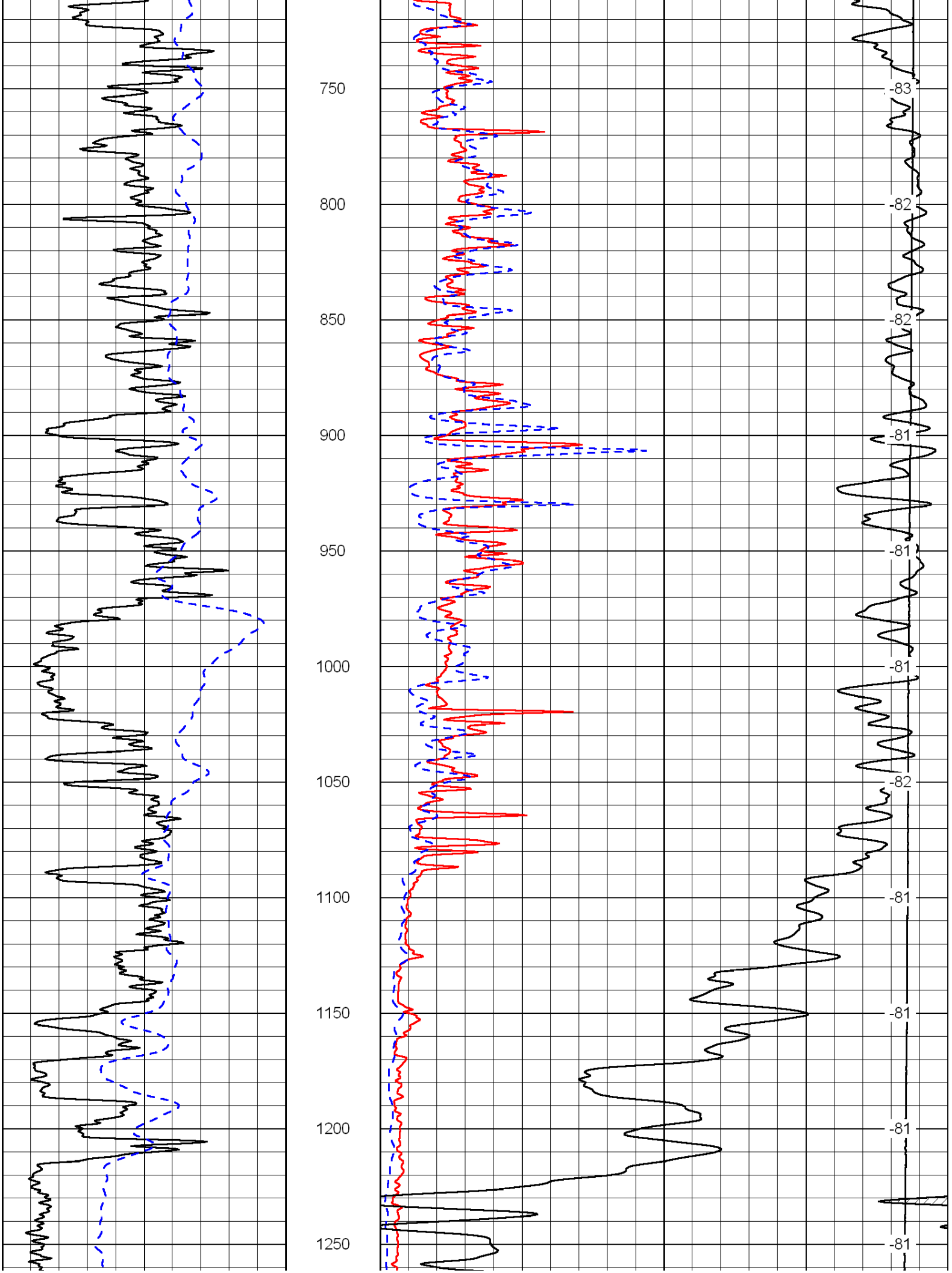
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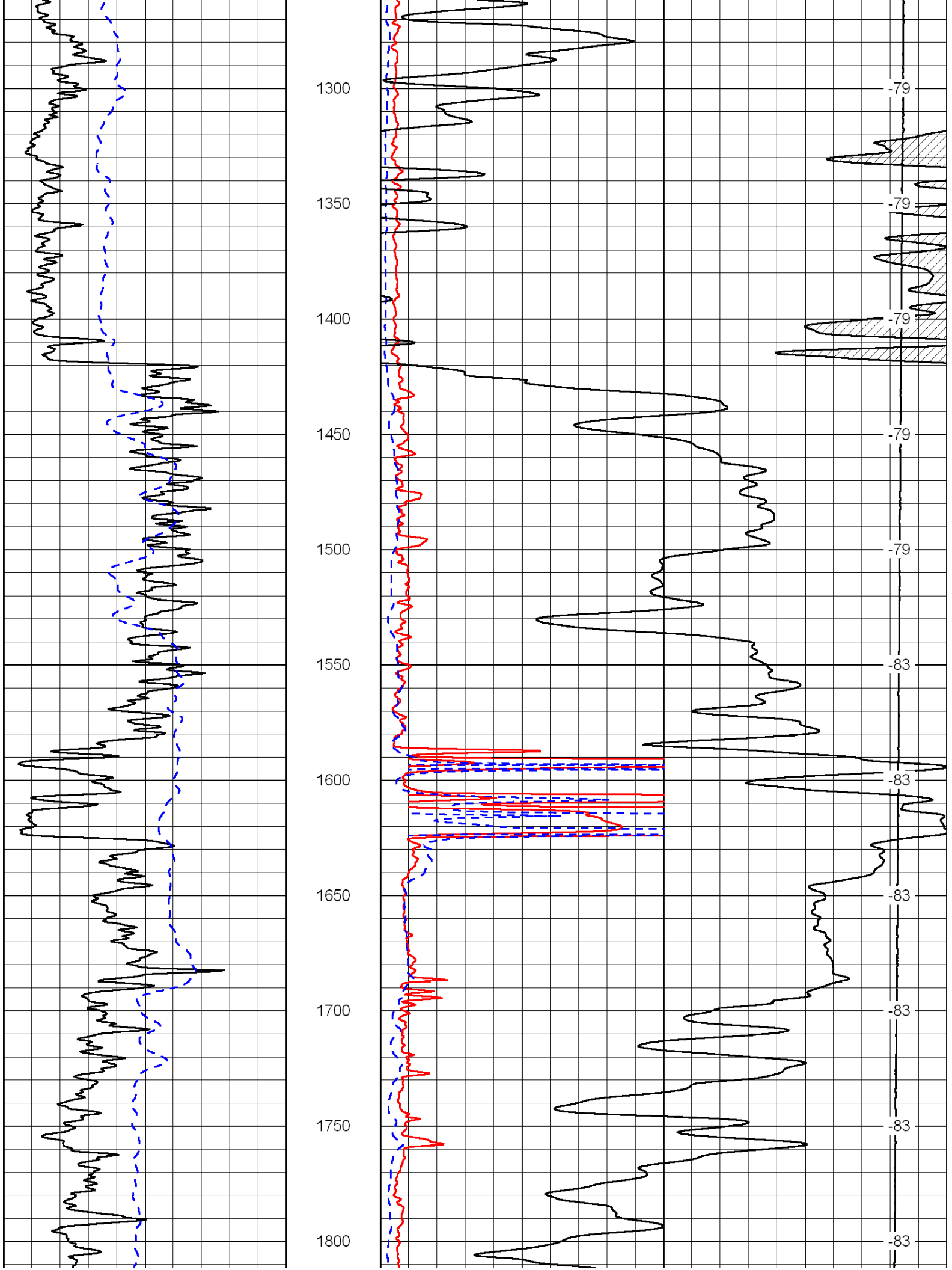
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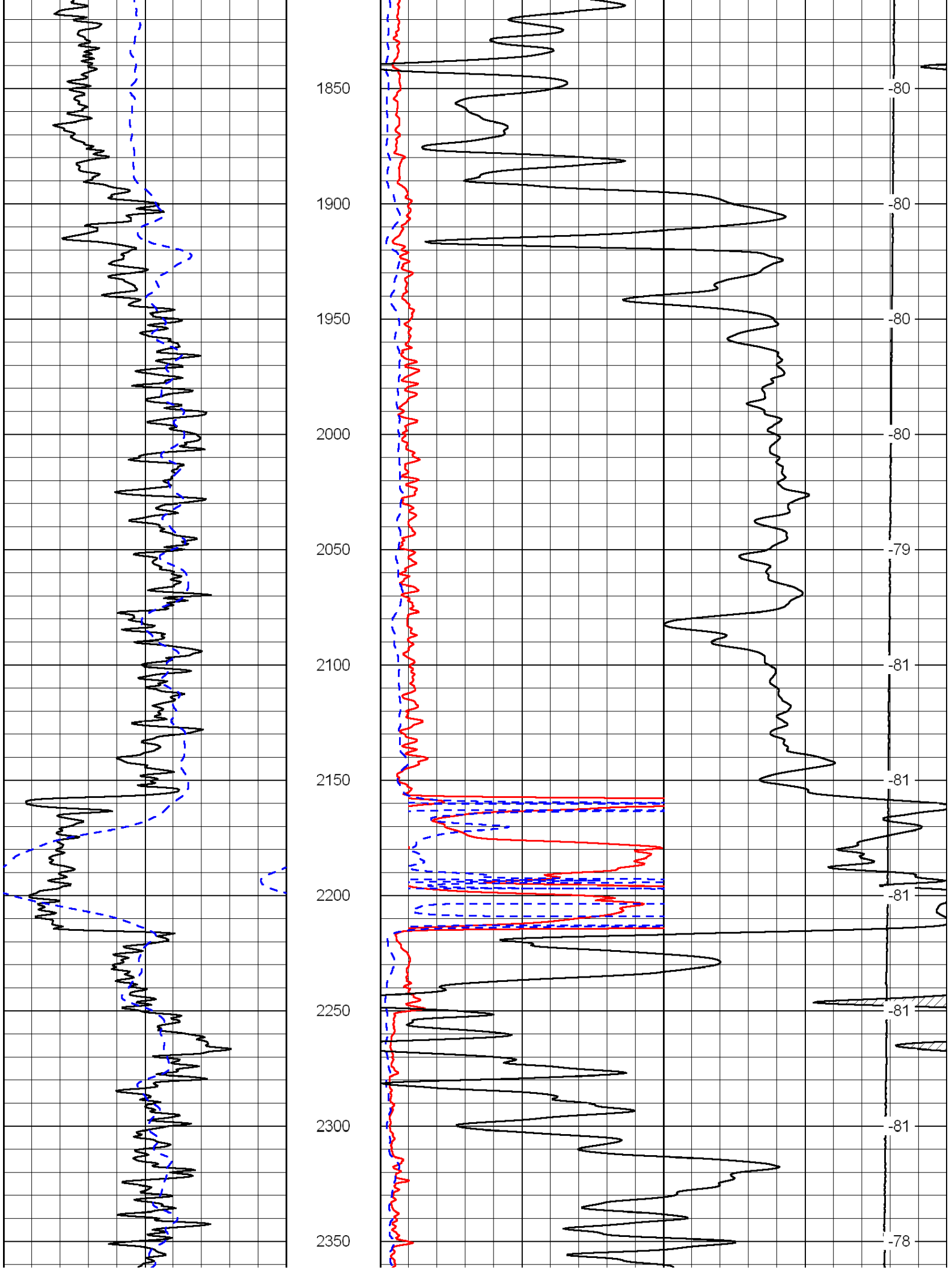
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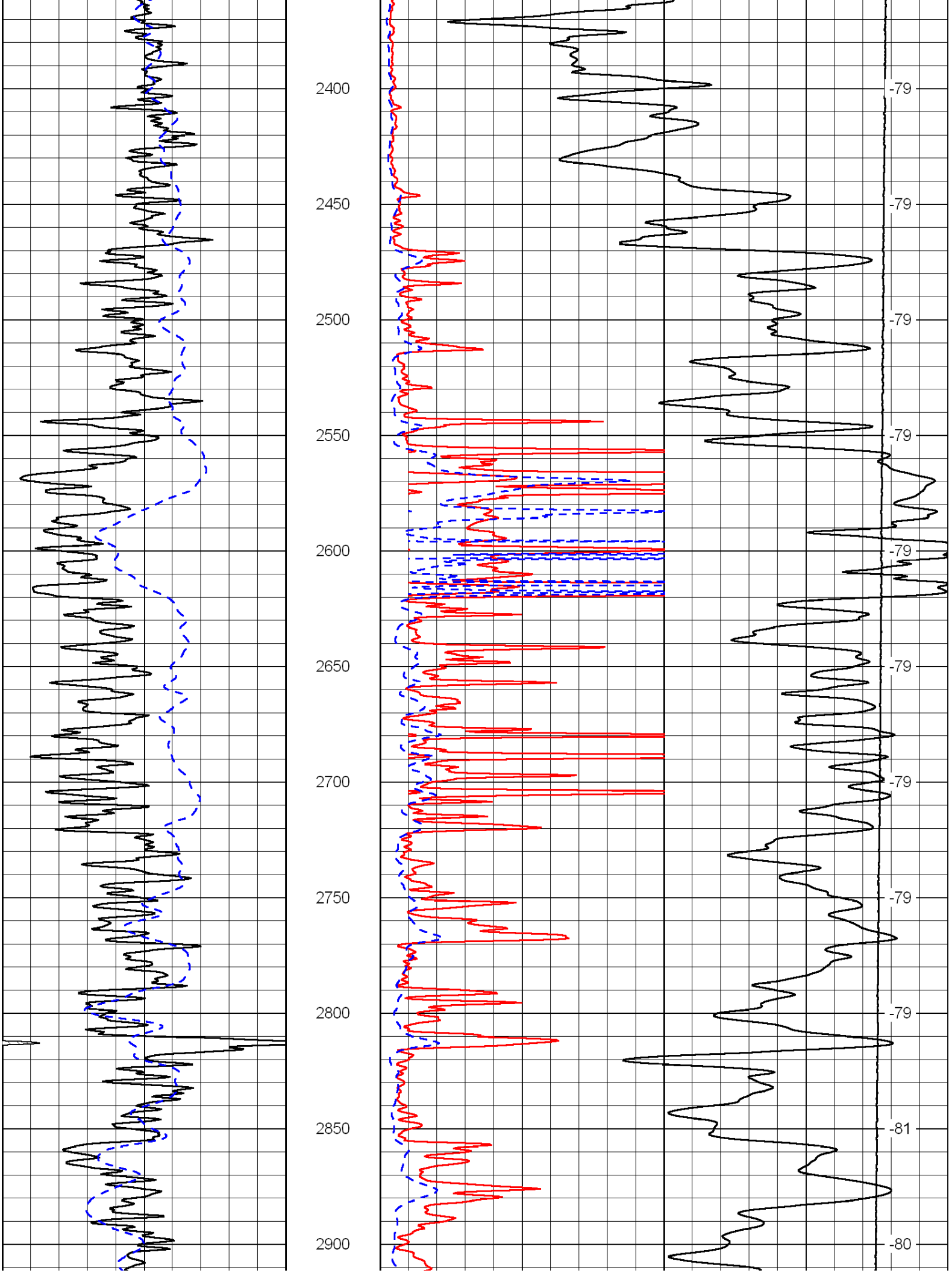
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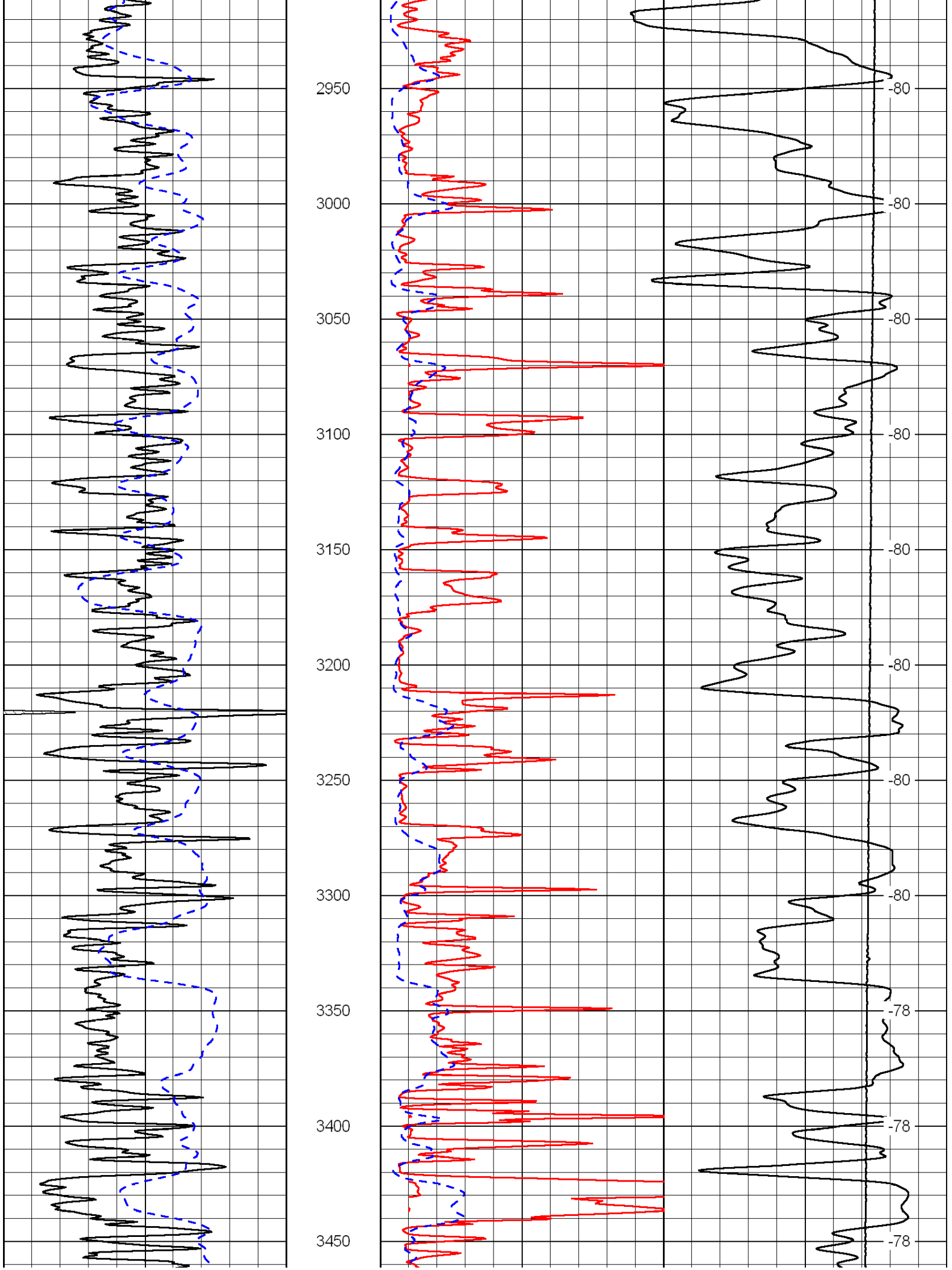
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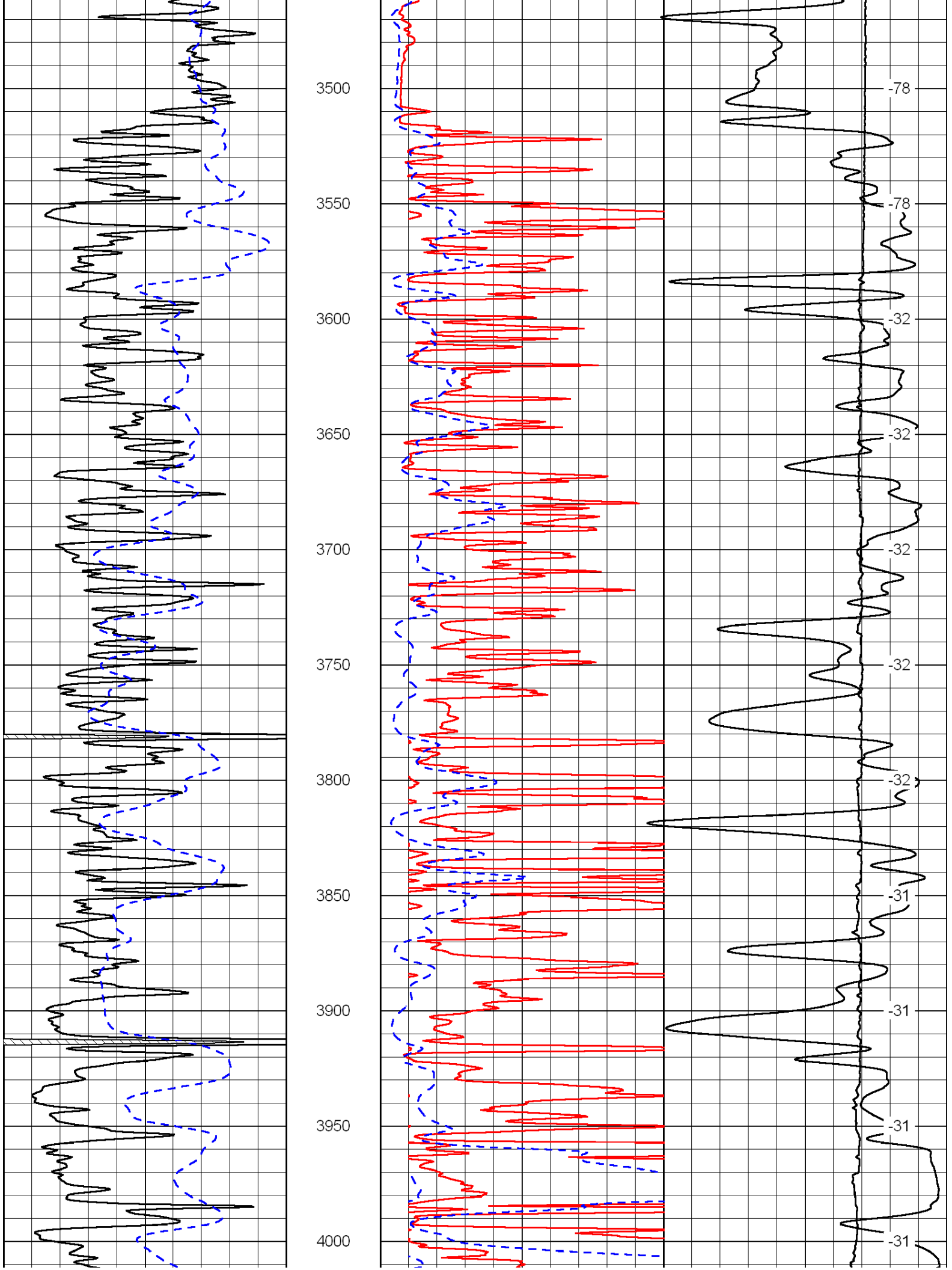
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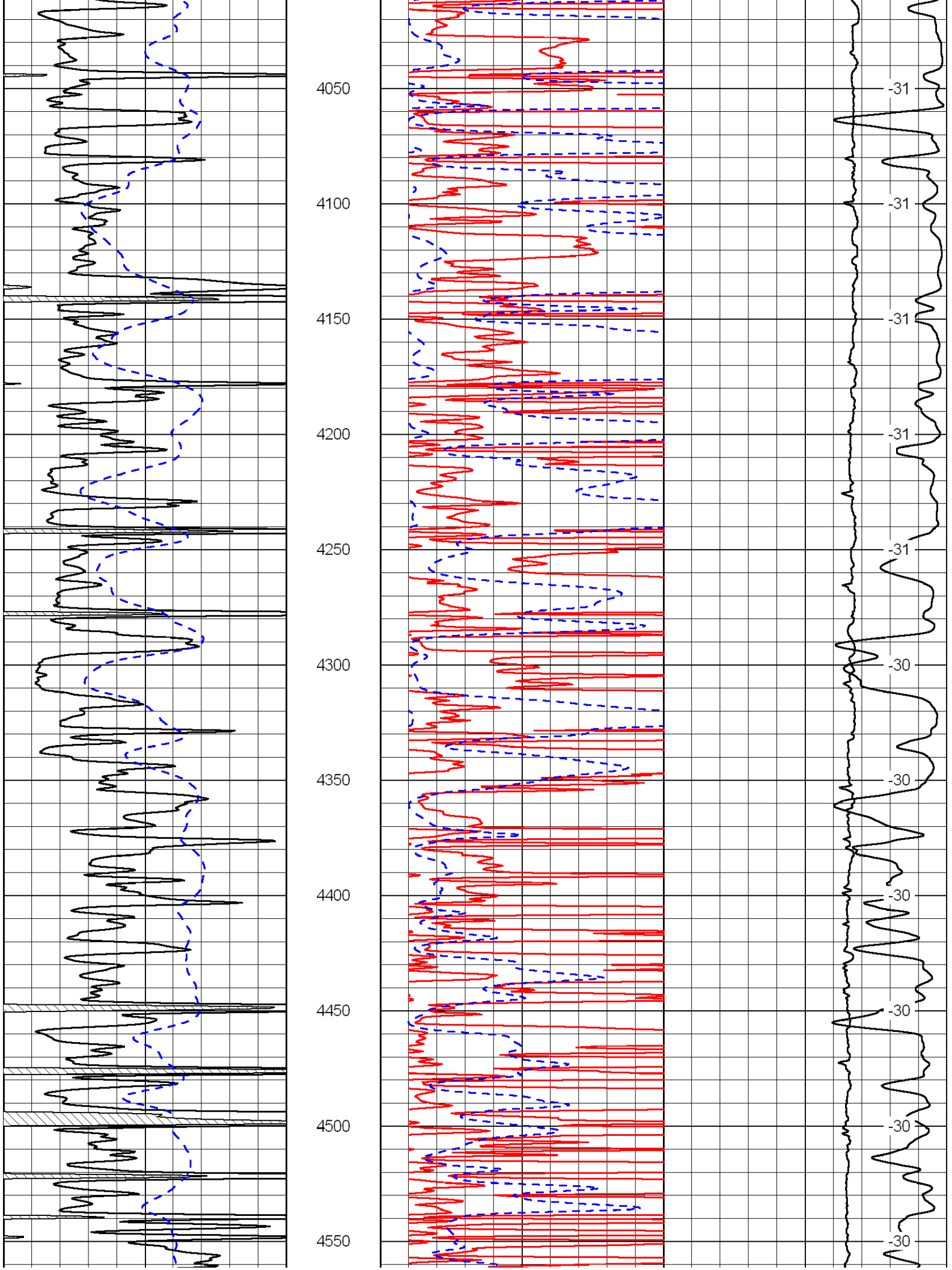
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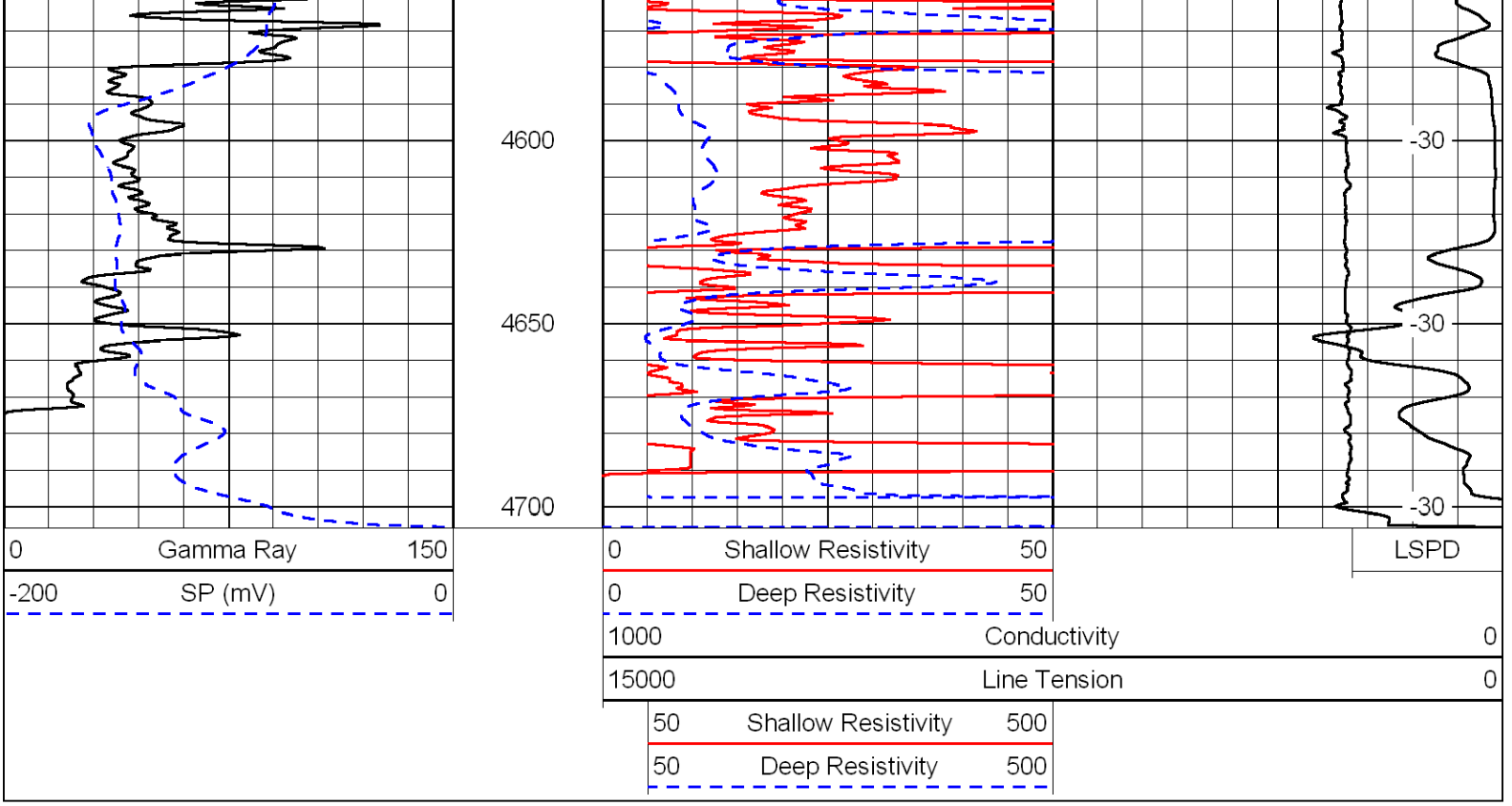

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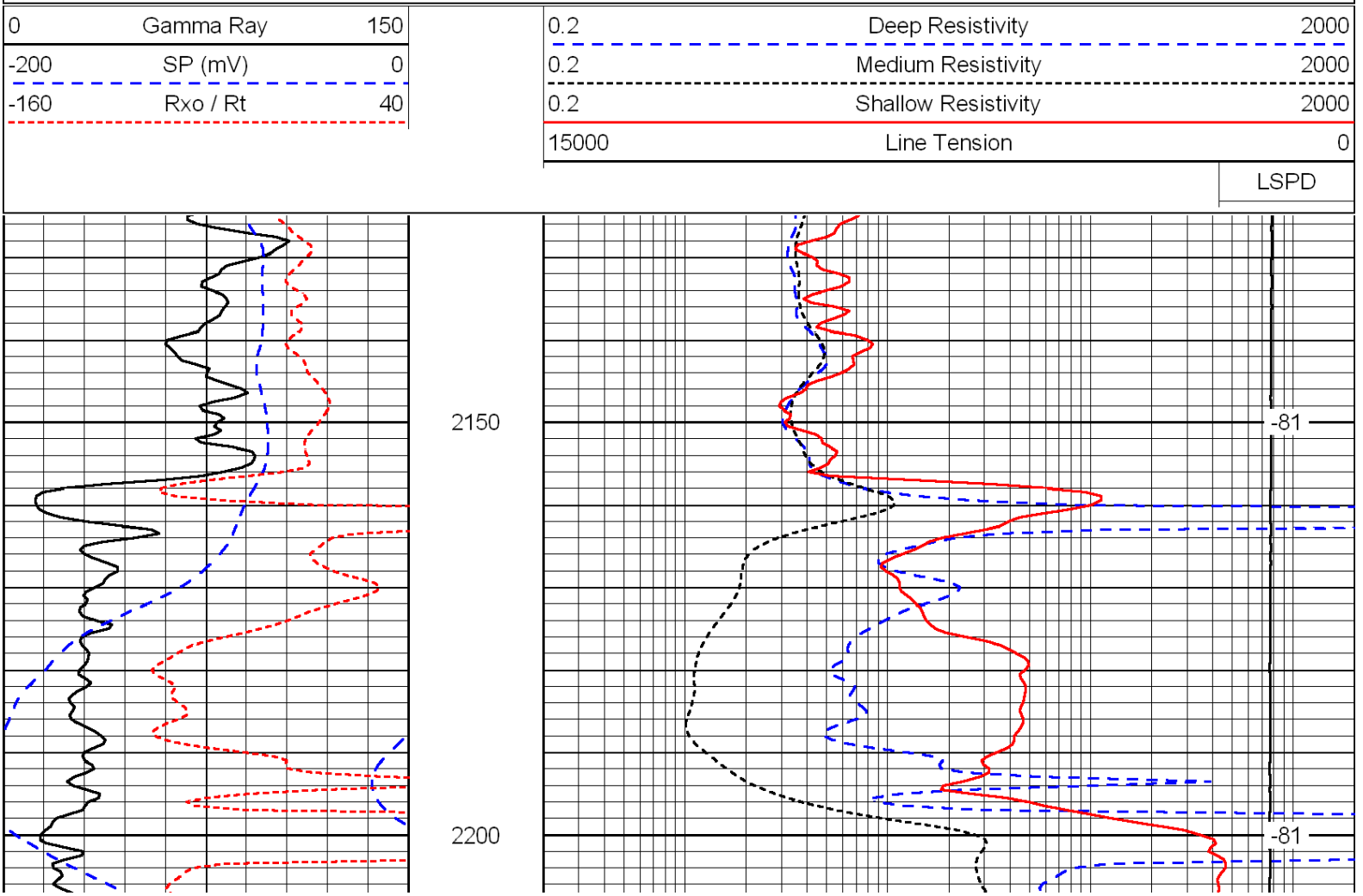
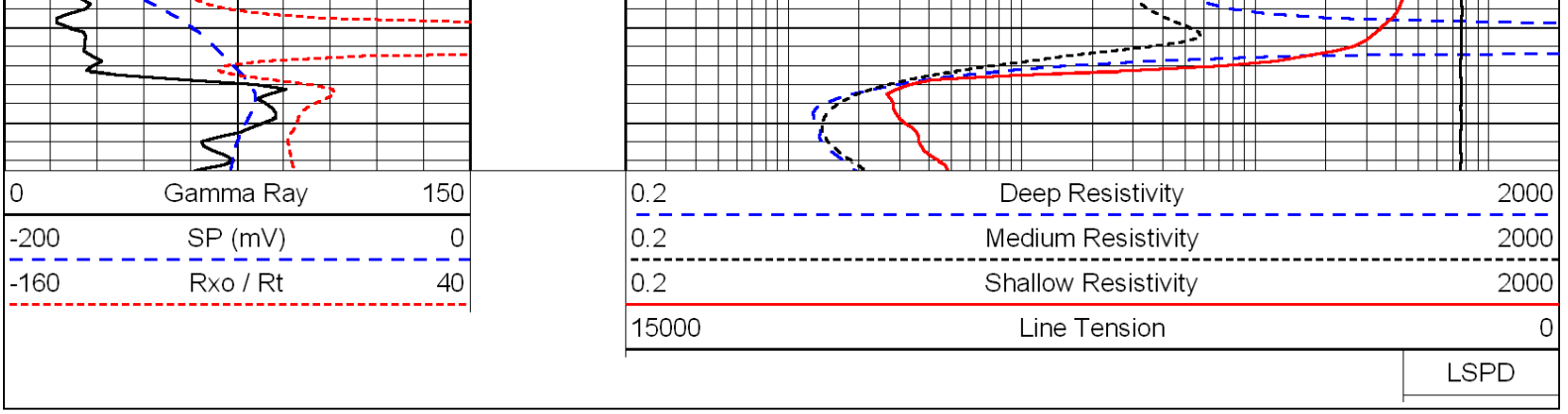
Charted by: Depth in Feet scaled 1:240





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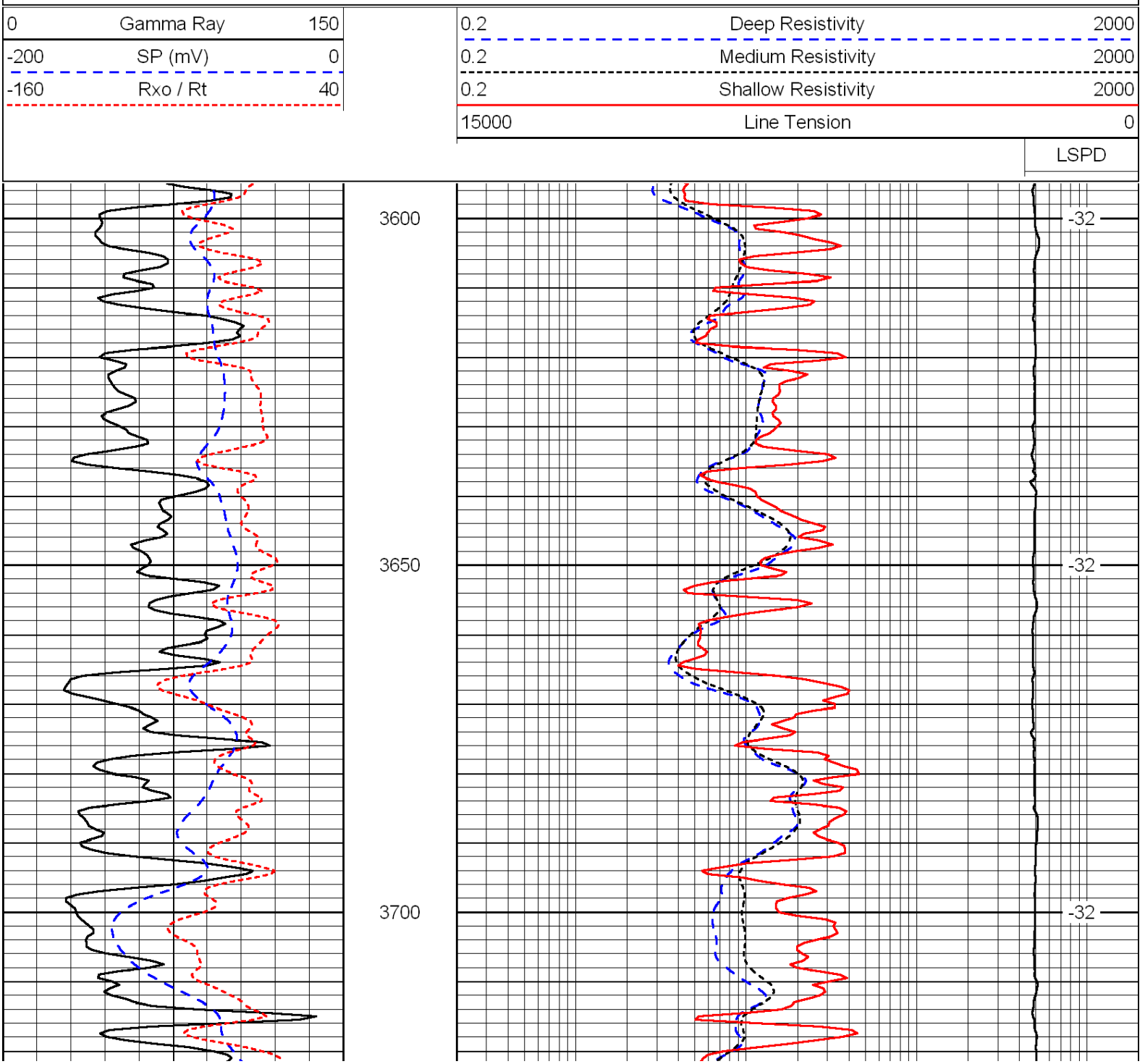
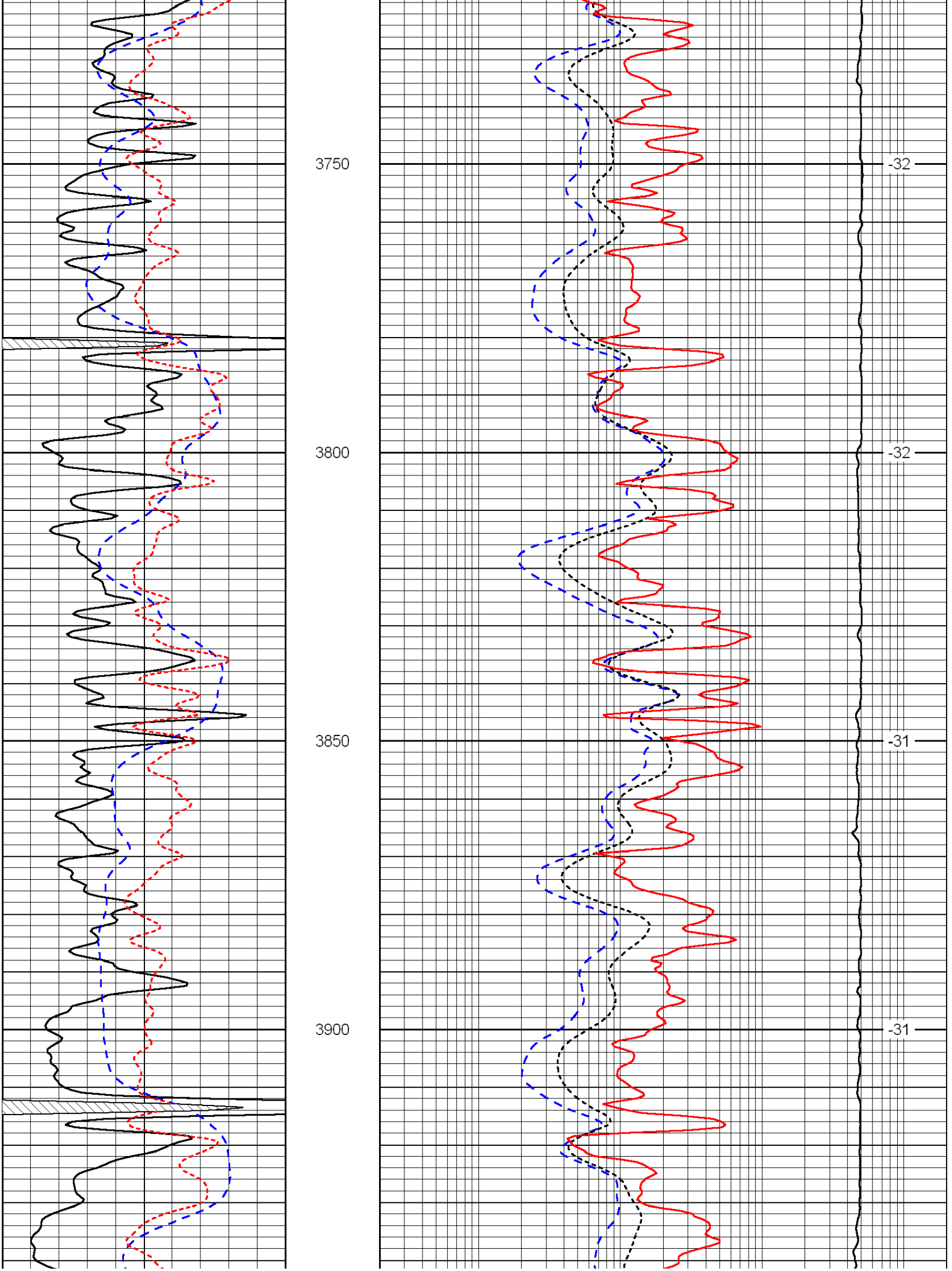
Charted by: Depth in Feet scaled 1:240

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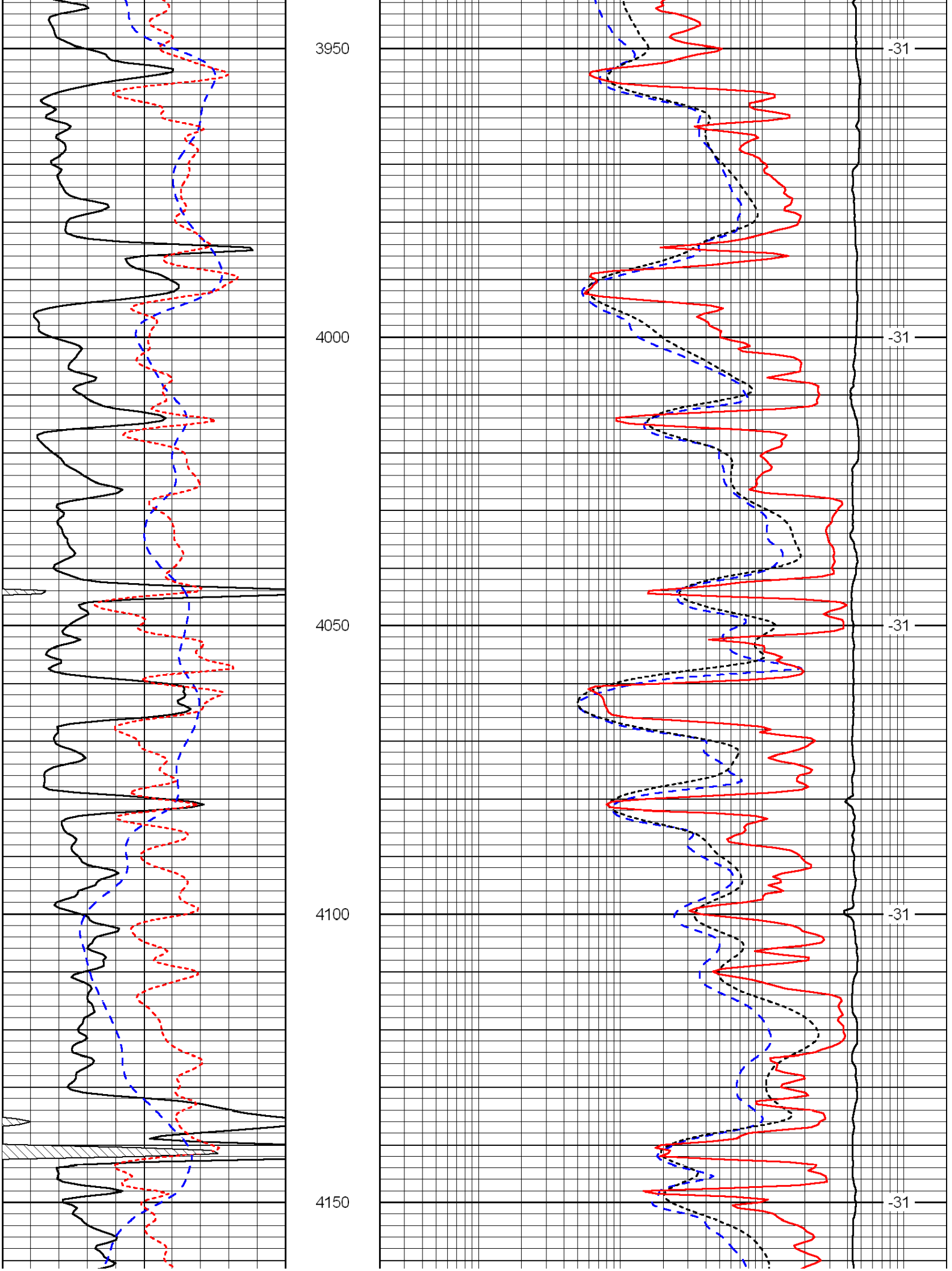
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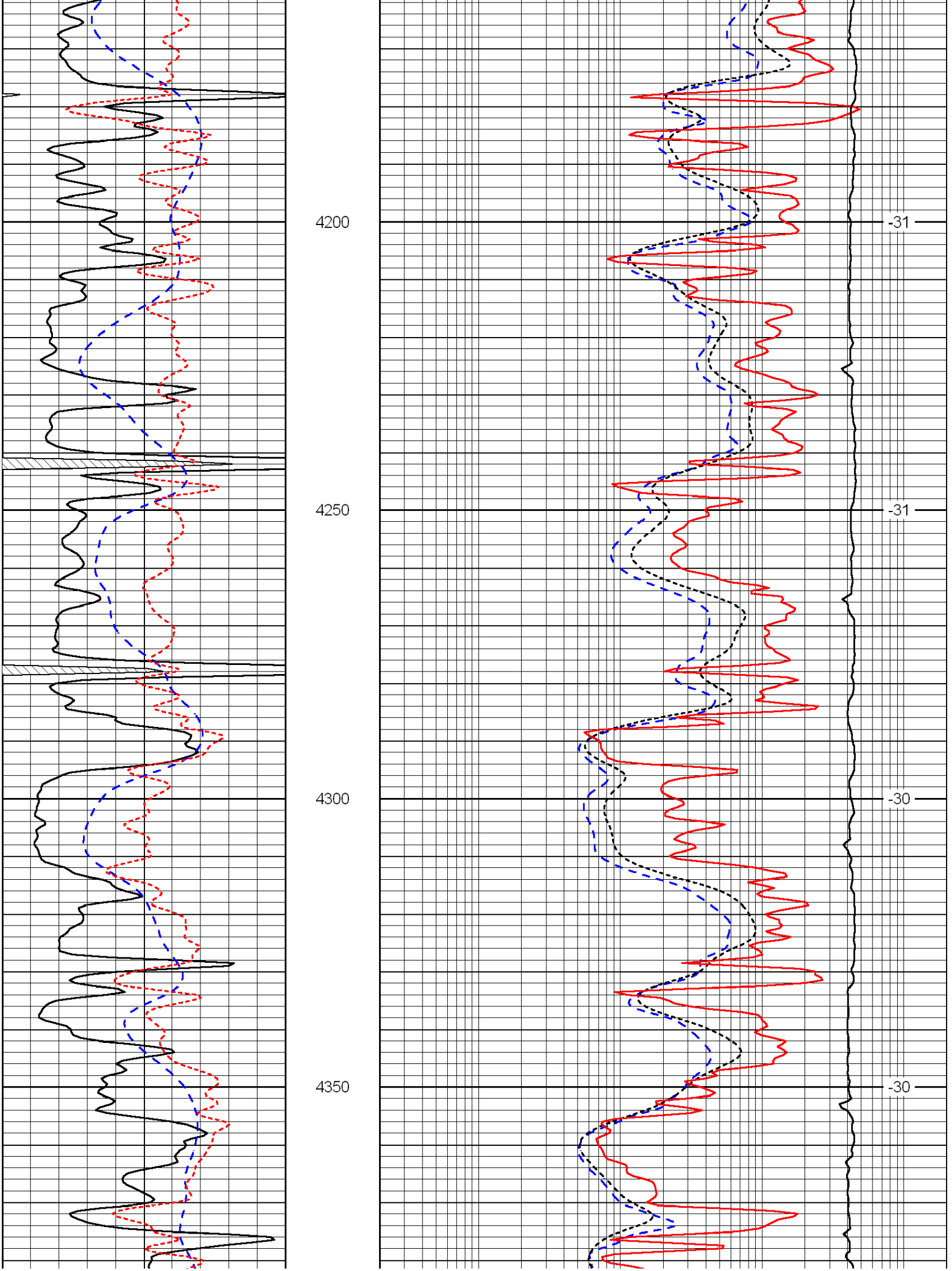
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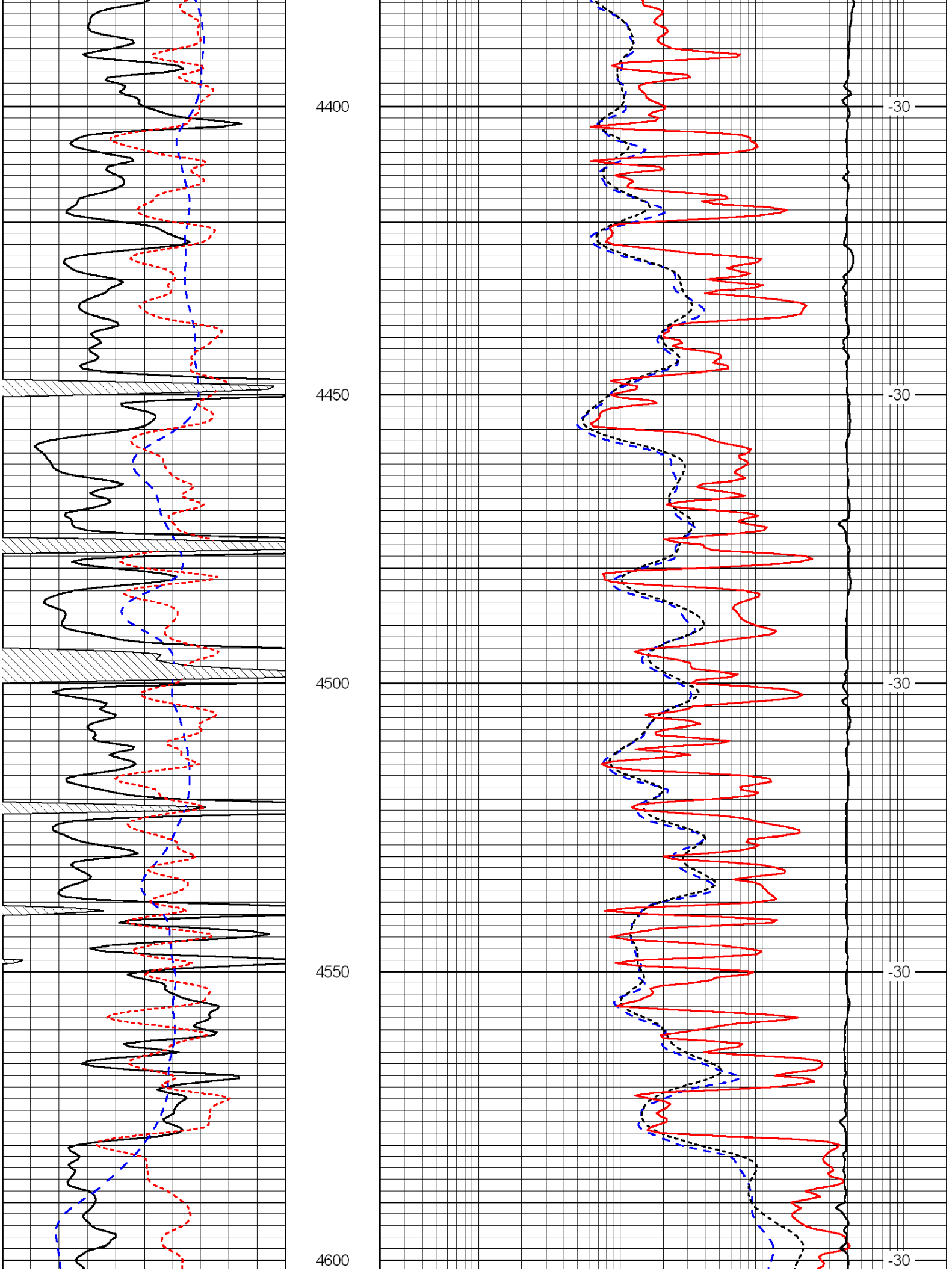
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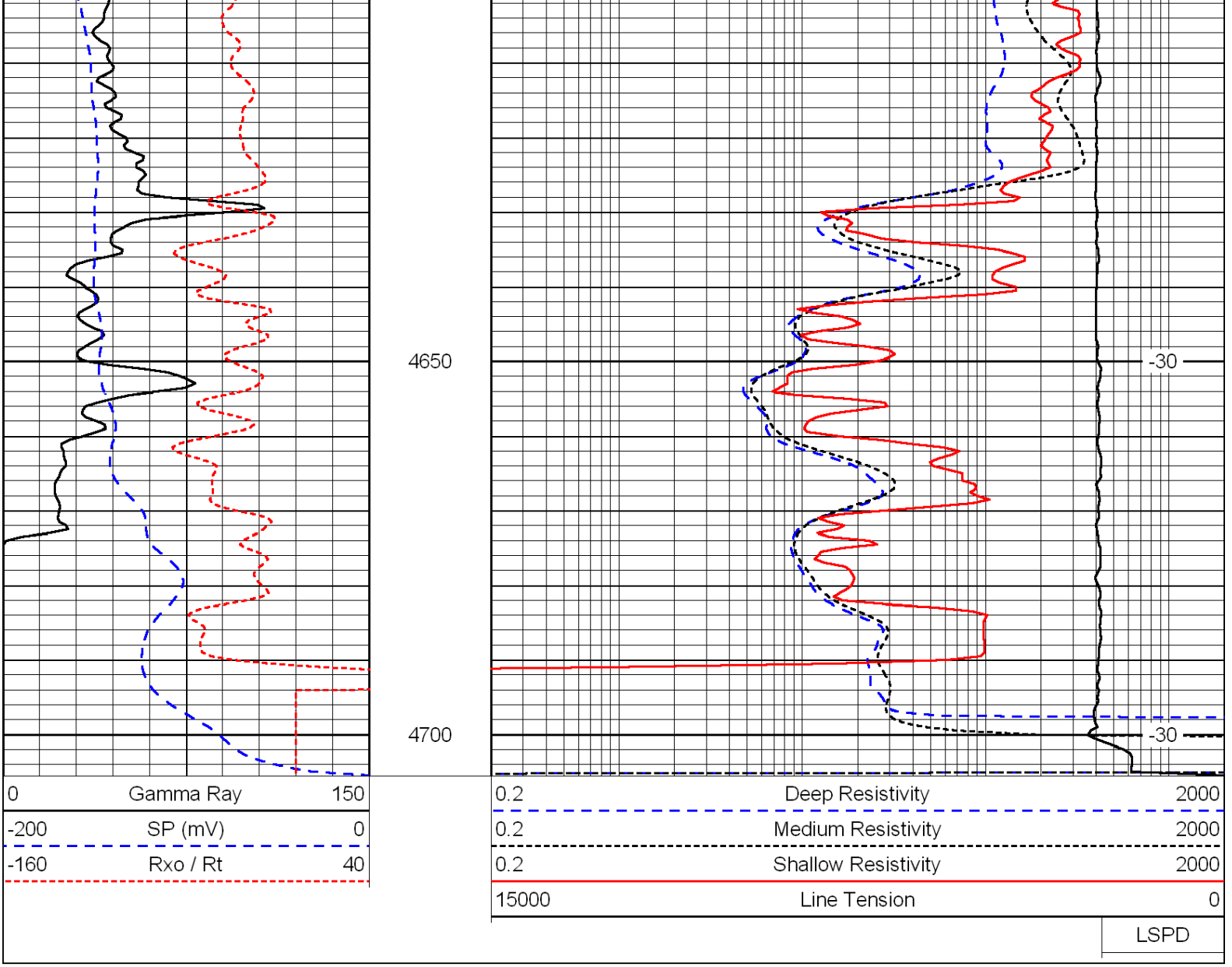

0	Gamma Ray	150
-200	SP (mV)	0
-160	Rxo / Rt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD

LOG-TECH

DIGITAL LOG (785) 625-3858

Dual Compensated Porosity Log

API No. 15-101-22,250-00-00

Company Larson Operating Company

Well Anchor Cattle No.1-23

Field Clark

County Lane State Kansas

Location E2 NW NW NE
330' FNL & 2027' FEL

Sec: 23 Twp: 19S Rge: 30W

Permanent Datum Ground Level Elevation 2878
Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
DIL
MEL

Elevation
K.B. 2885
D.F.
G.L. 2878

Date	7/23/2010
Run Number	One
Type Log	CNL / CDL
Depth Driller	4700
Depth Logger	4700
Bottom Logged Interval	4679
Top Logged Interval	3600
Type Fluid In Hole	Chemical
Salinity, PPM CL	3,500
Density	9.3
Level	Full
Max. Rec. Temp. F	125
Operating Rig Time	4 Hours
Equipment -- Location	17 Hays
Recorded By	C. Desaire
Witnessed By	Vern Schrag

Borehole Record

Run No.	Bit	From	To
1	12.25	00	253
2	7.875	253	4700

Casing Record

Size	Wgt.	From	To
8.625	24#	00	253

<<< Fold Here >>>

Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

Dighton, 8 W, 6 S, 3/4 E, S Into

Database File: c:\warrior\data\larson_anchor cattle no.1-23\lrsnhd.db
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Presentation Format: cdl
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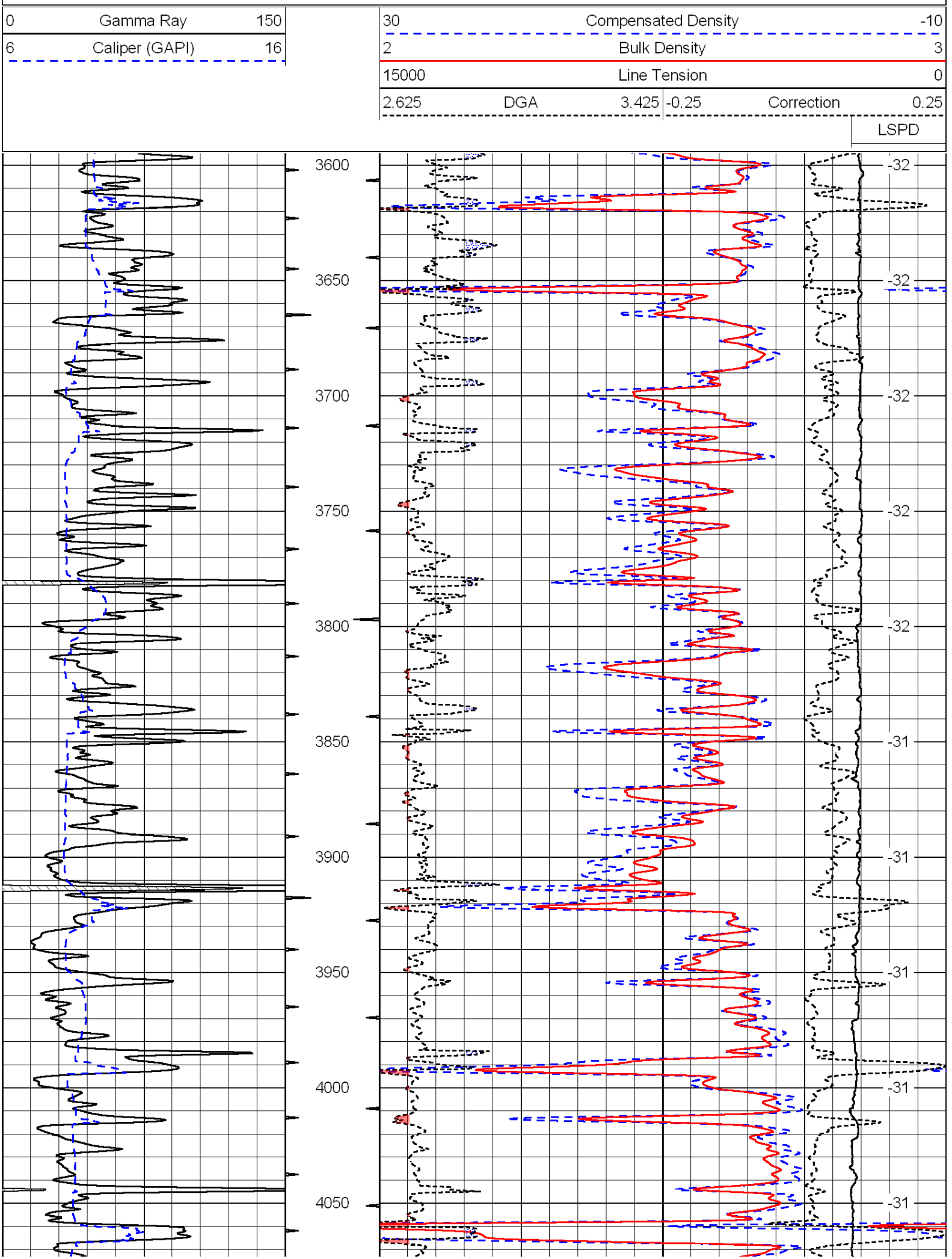
Charted by: Depth in Feet scaled 1:600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6 Caliper (GAPI) 16
30 Compensated Density -10
2 Bulk Density 3
15000 Line Tension 0
2.625 DGA 3.425
-0.25 Correction 0.25
LSPD
3600
3650
3700
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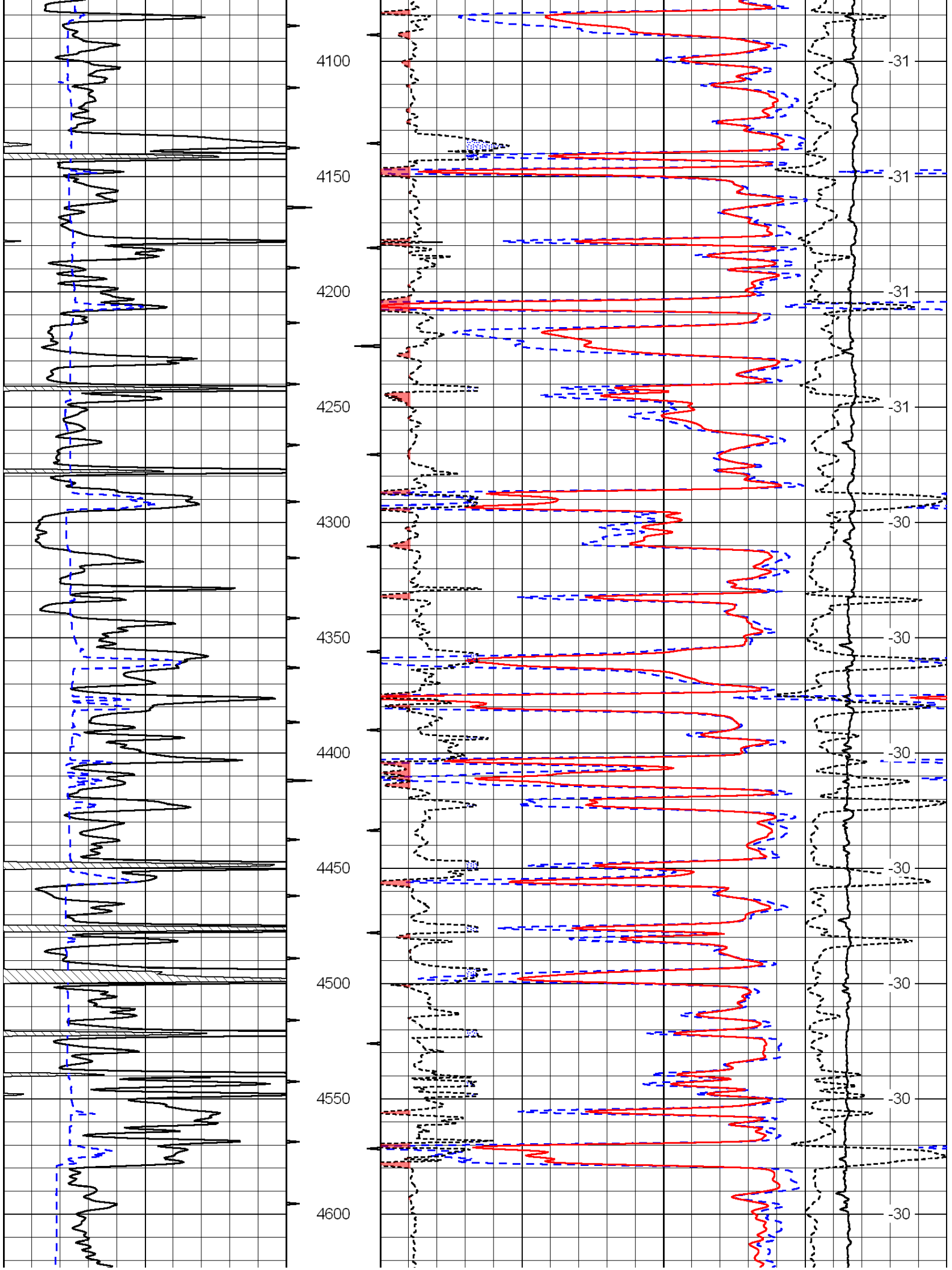
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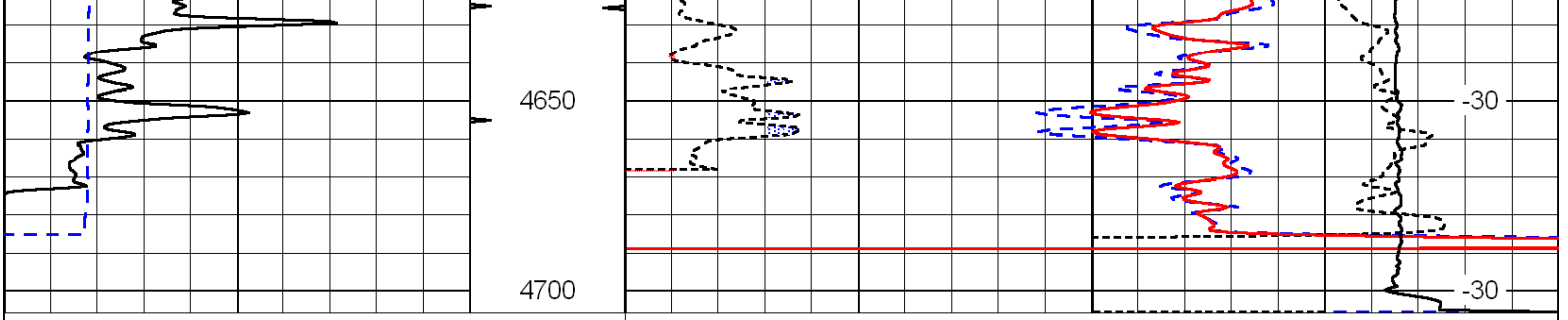

0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Density				-10
2	Bulk Density				3
15000	Line Tension				0
2.625	DGA	3.425	-0.25	Correction	0.25
					LSPD

Database File: c:\warrior\data\larson_anchor cattle no.1-23\lrsnhd.db
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Presentation Format: cndlspec
Dataset Creation: Fri Jul 23 06:05:12 2010
Charted by: Depth in Feet scaled 1:240

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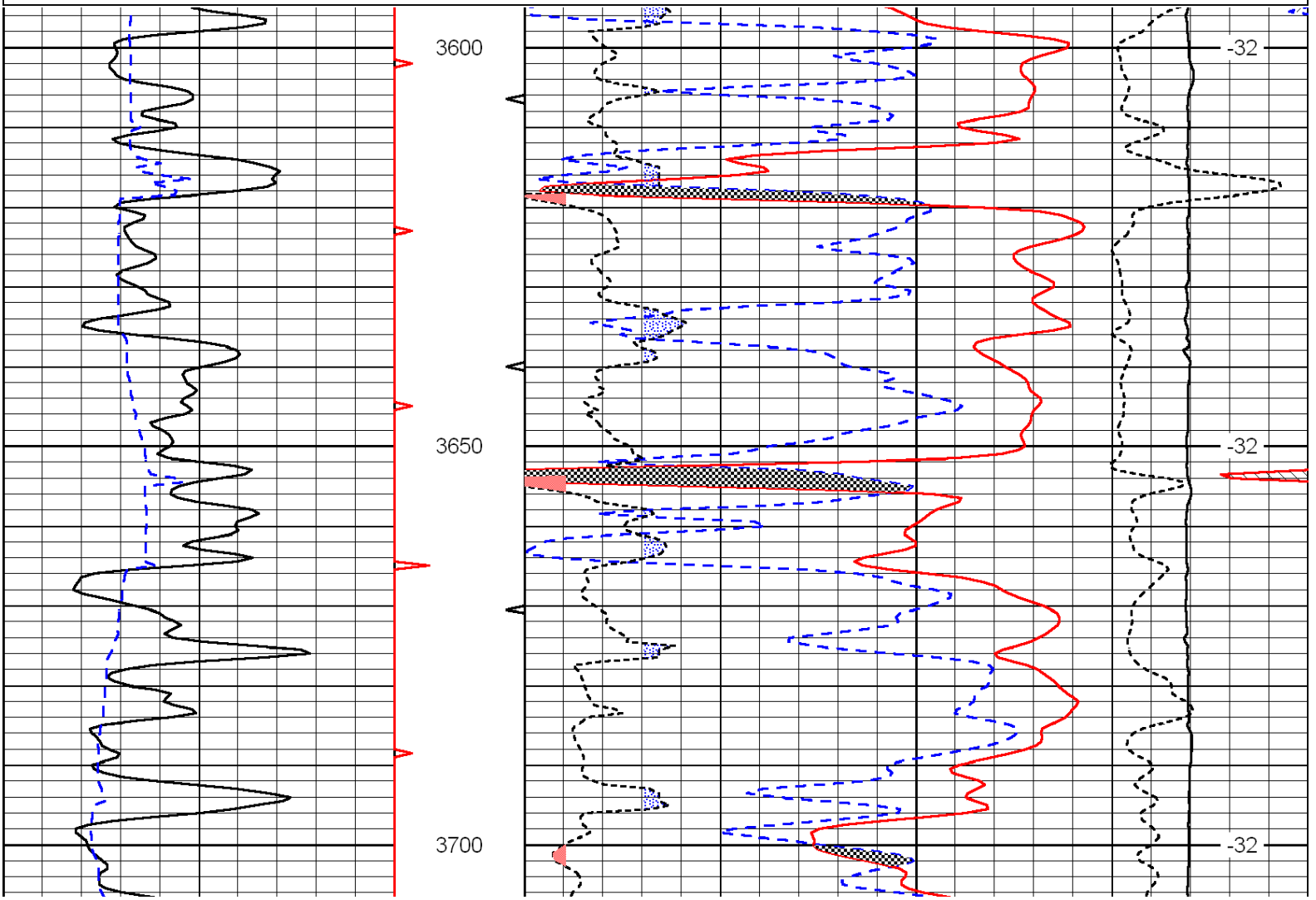
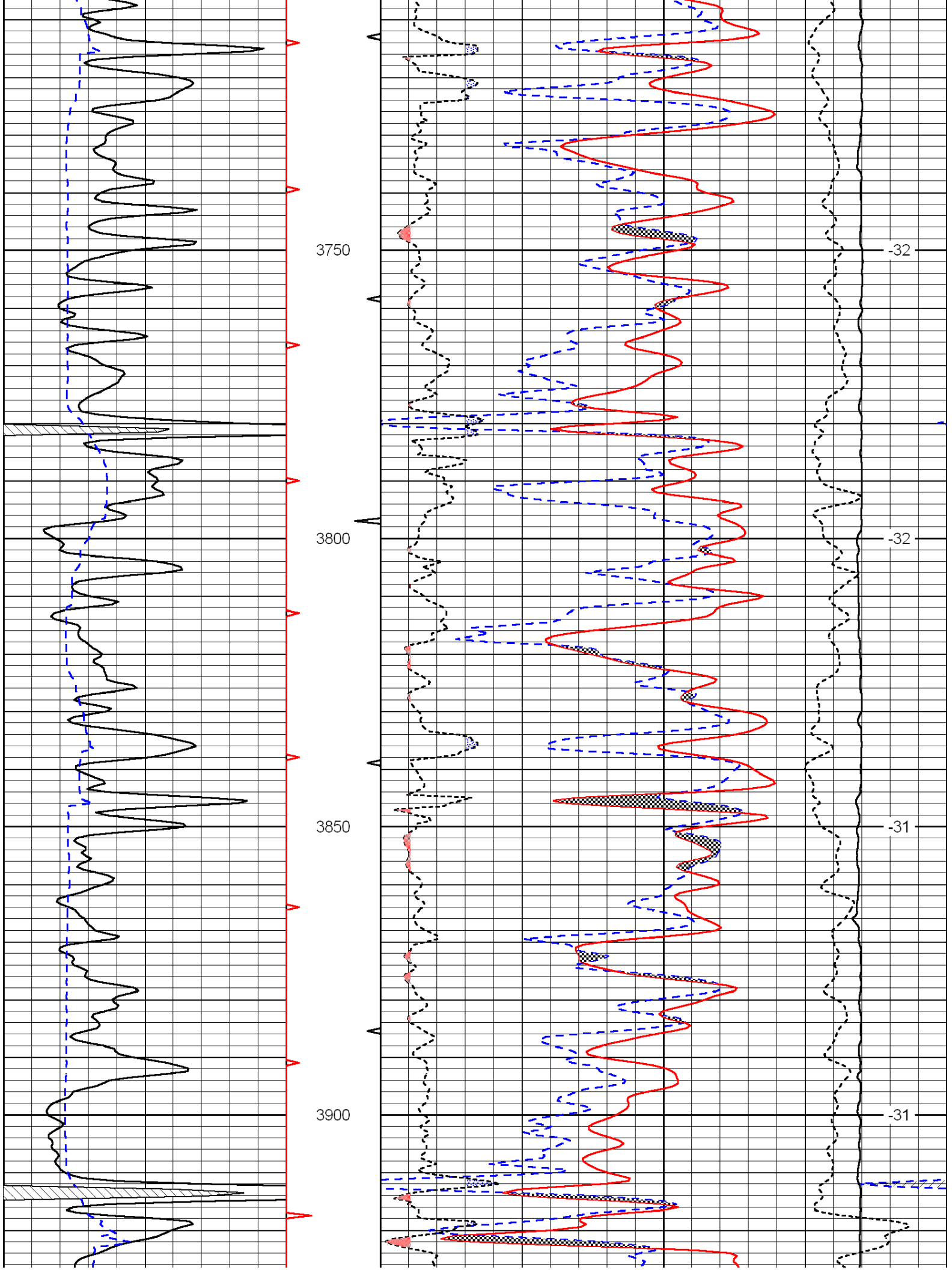
6	Caliper (GAPI)	16

30	Compensated Neutron (Limestone)				-10
30	Compensated Density (2.71 ma)				-10
2.625	DGA	3.425	-0.25	Correction	0.25
15000	Line Tension				0
					LSPD

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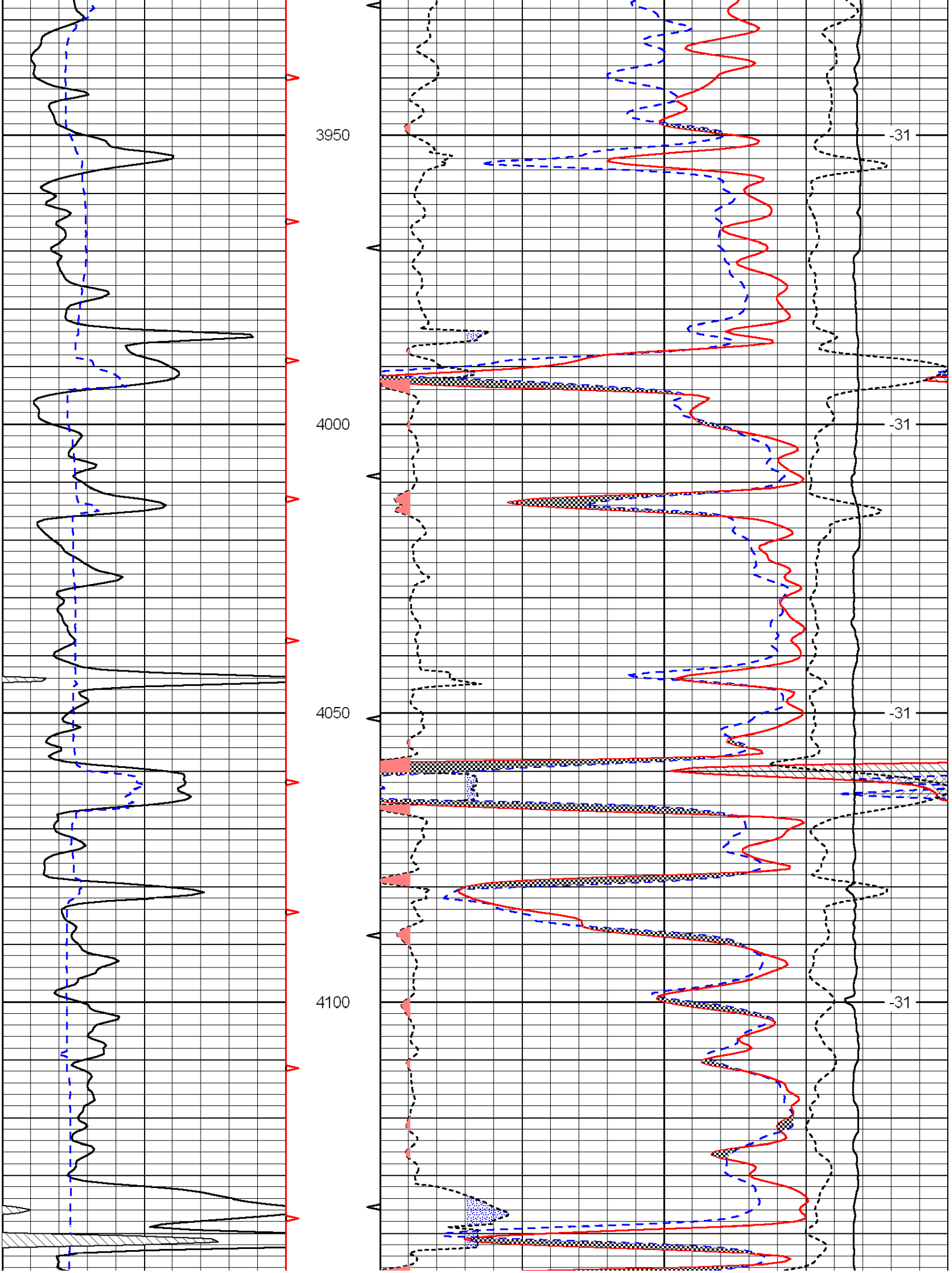
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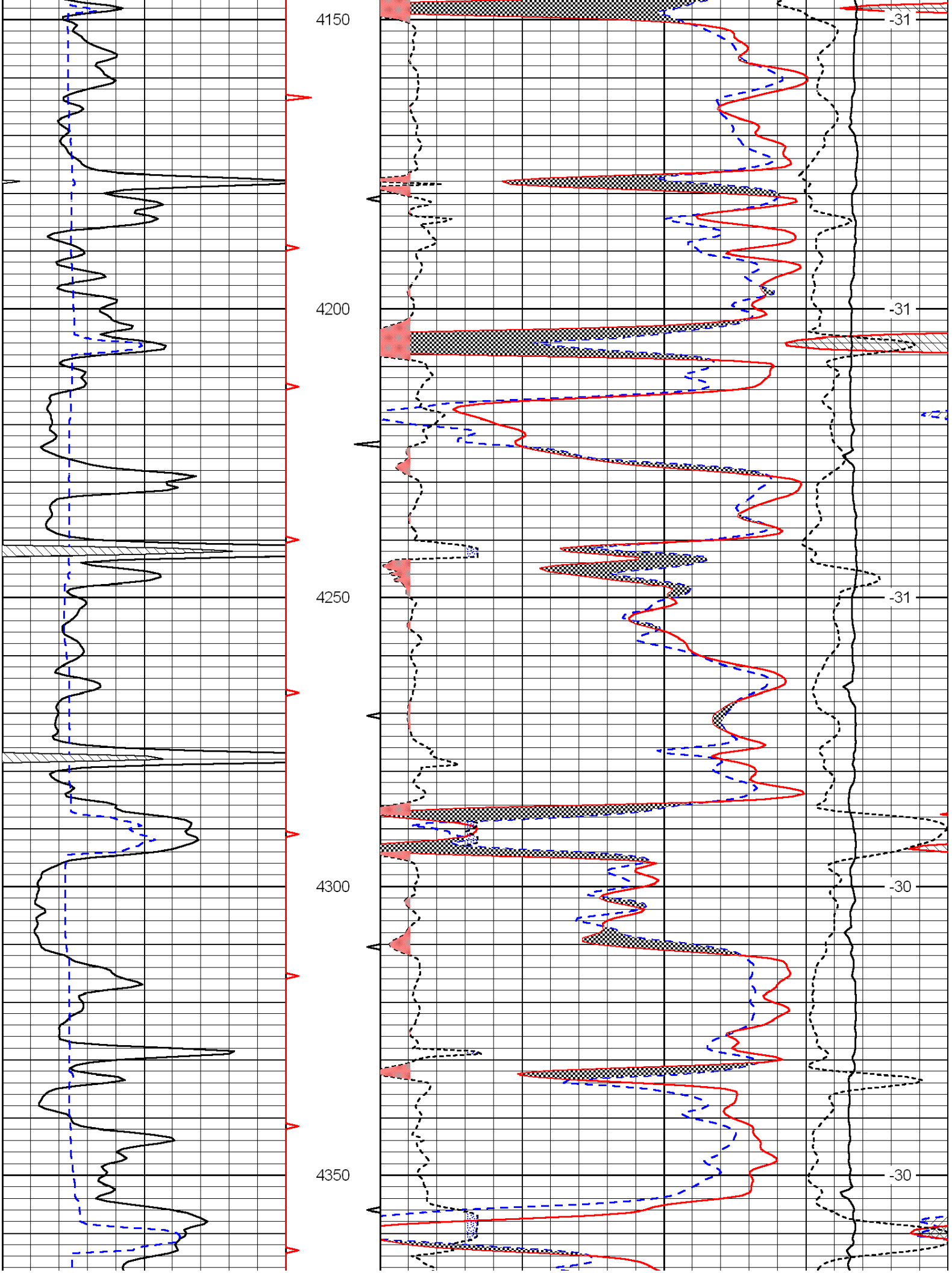
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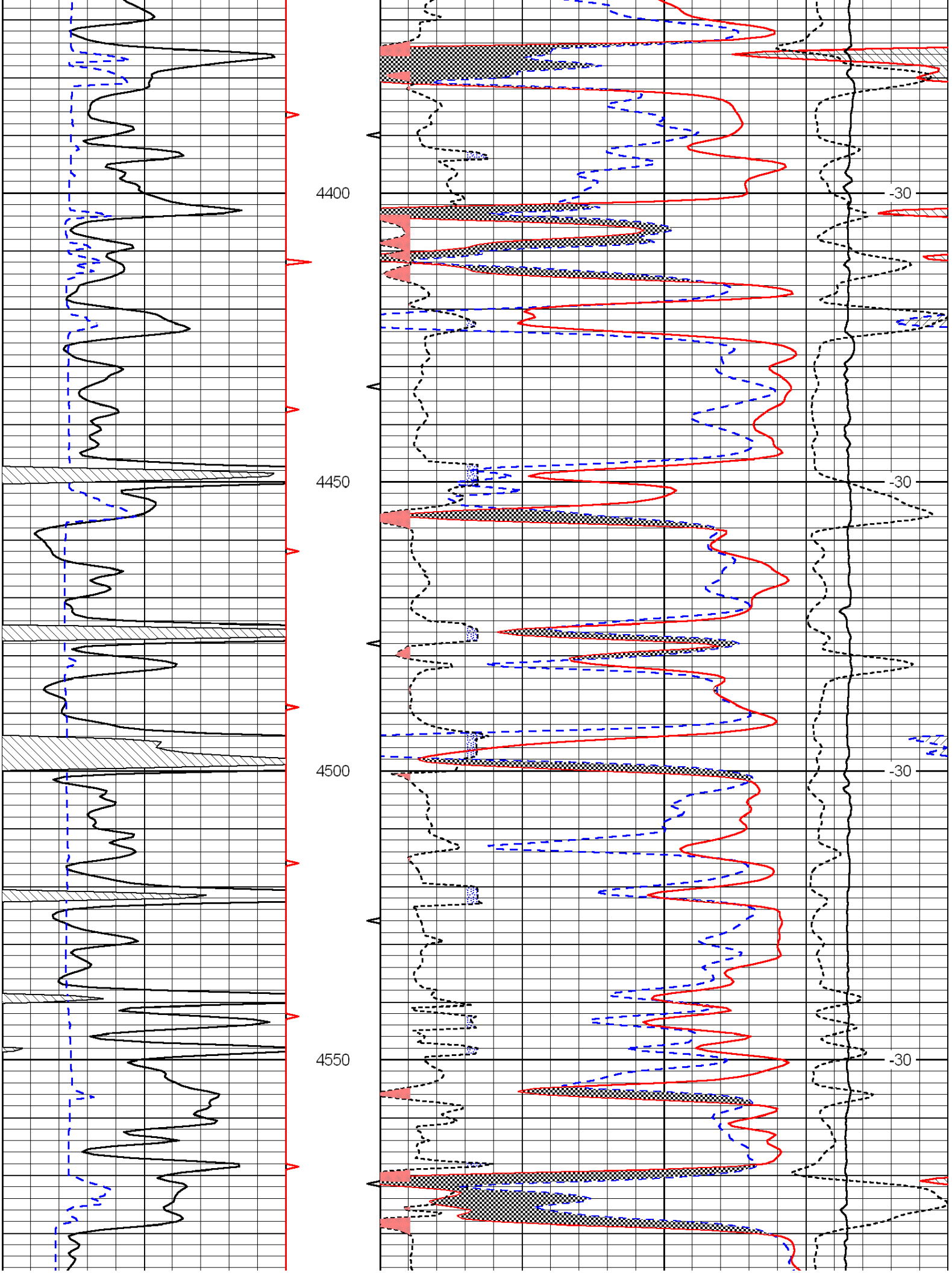
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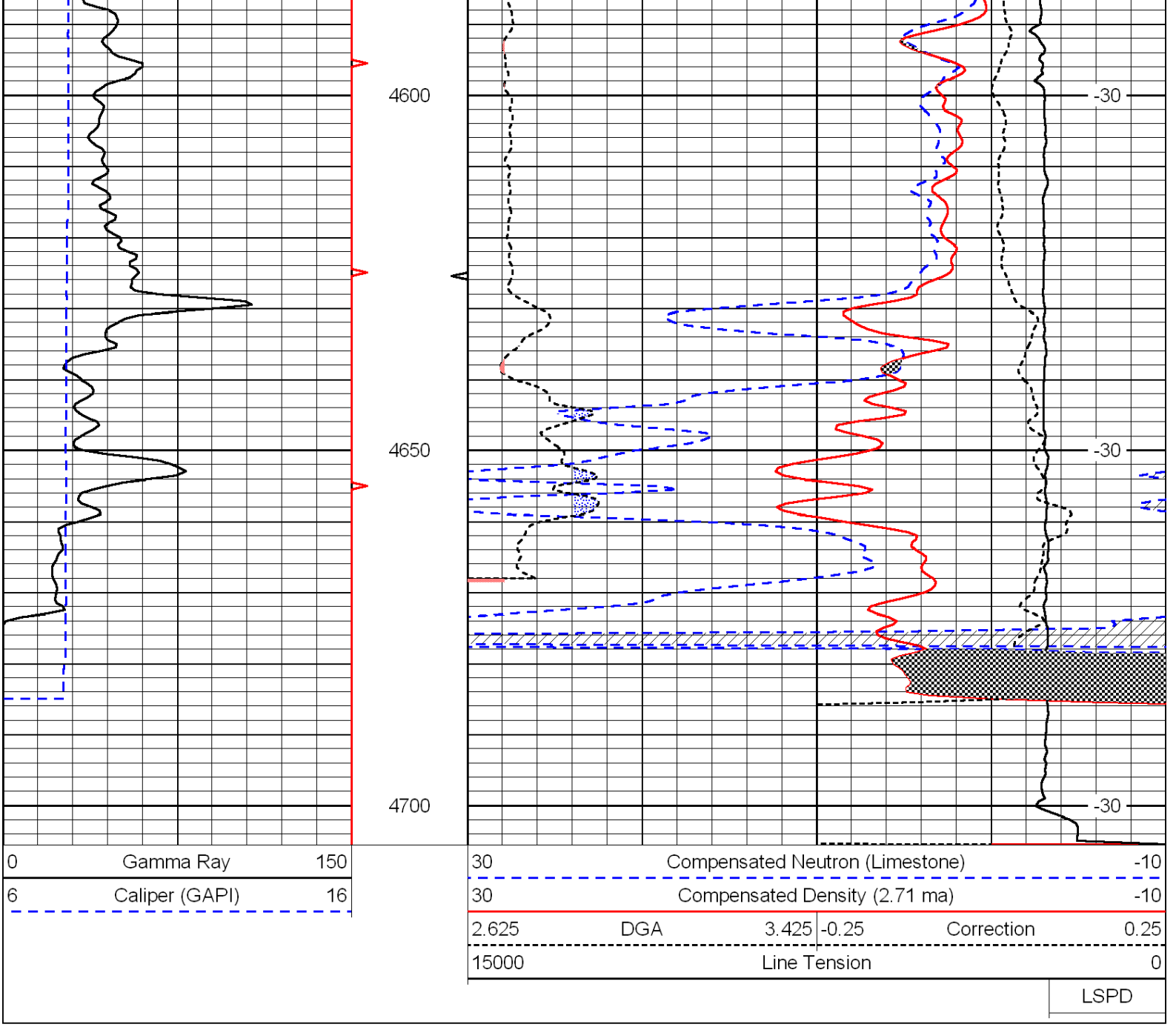

0	Gamma Ray	150
6	Caliper (GAPI)	16

30	Compensated Neutron (Limestone)	-10
30	Compensated Density (2.71 ma)	-10
2.625	DGA	3.425
-0.25	Correction	0.25
15000	Line Tension	0

LSPD

LOG-TECH

DIGITAL LOG (785) 625-3858

Microresistivity Log

API No. 15-101-22,250-00-00

Company Larson Operating Company

Well Anchor Cattle No.1-23

Field Clark

County Lane State Kansas

Location E2 NW NW NE
330' FNL & 2027' FEL
Sec: 23 Twp: 19S Rge: 30W

Other Services
CNL/CDL
DIL

Elevation
K.B. 2885
D.F.
G.L. 2878

Permanent Datum Ground Level Elevation 2878
Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date	7/23/2010			
Run Number	Two			
Depth Driller	4700			
Depth Logger	4700			
Bottom Logged Interval	4699			
Top Log Interval	3600			
Casing Driller	8.625 @ 253			
Casing Logger	253			
Bit Size	7.875			
Type Fluid in Hole	Chemical			
Salinity,ppm CL	3,500			
Density / Viscosity	9.3 51			
pH / Fluid Loss	10.5 8.0			
Source of Sample	Flowline			
Rm @ Meas. Temp	.9 @ 85			
Rmf @ Meas. Temp	.68 @ 85			
Rmc @ Meas. Temp	1.22 @ 85			
Source of Rmf / Rmc	Charts			
Rm @ BHT	.61 @ 125			
Operating Rig Time	4 Hours			
Max. Rec. Temp. F	125			
Equipment Number	17			
Location	Hays			
Recorded By	C. Desaire			
Witnessed By	Vern Schrag			

<<< Fold Here >>>

Comments

Thank you for using Log-Tech, Inc.
(785) 625-3858

Dighton, 8 W, 6 S, 3/4 E, S Into

Database File: c:\warrior\data\larson_anchor cattle no.1-23\lrsnhd.db
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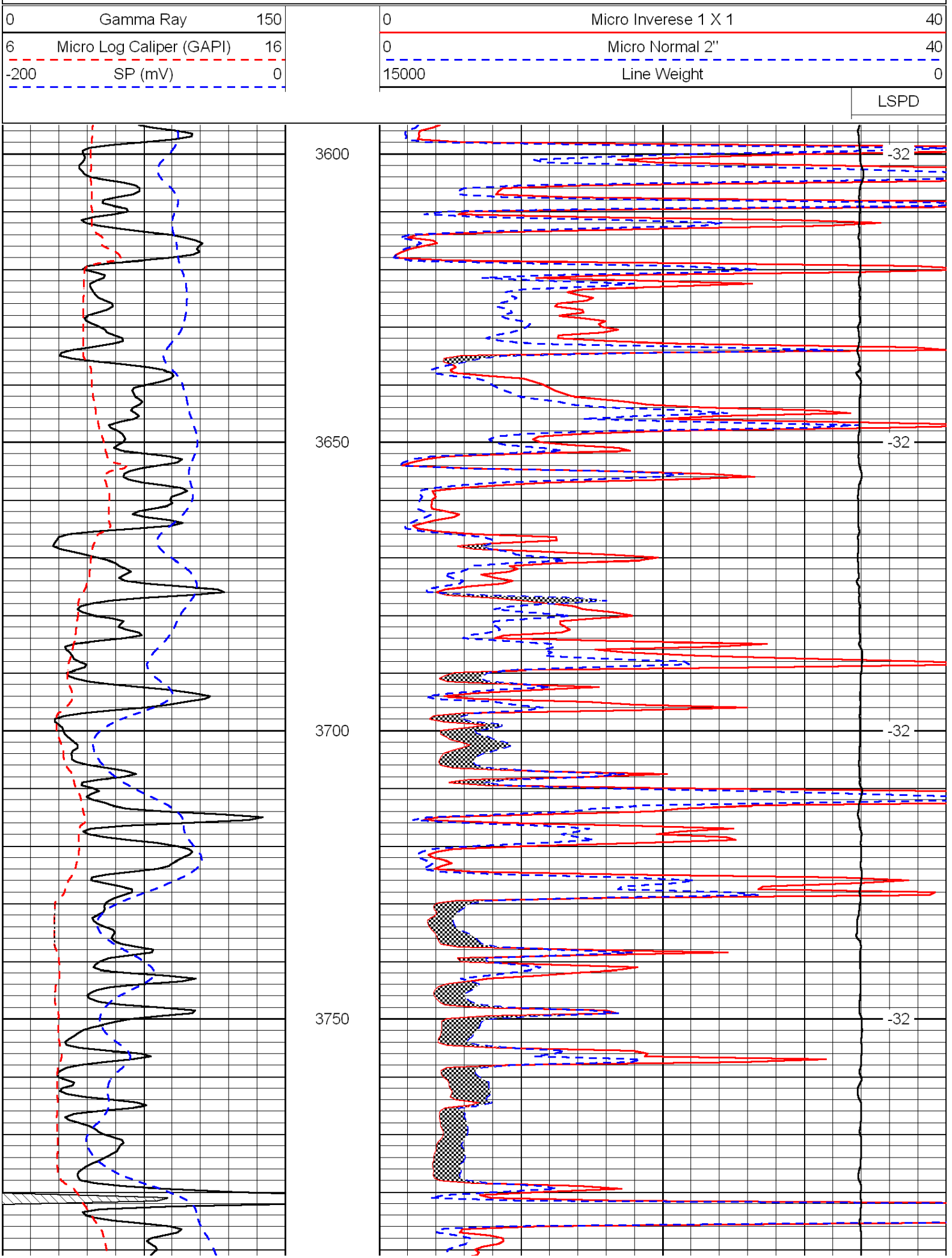
Presentation Format: micro
Dataset Creation: Fri Jul 23 06:05:12 2010
Charted by: Depth in Feet scaled 1:240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Gamma Ray
150
6
Micro Log Caliper (GAPI)
16
-200
SP (mV)
0
0
Micro Inverese 1 X 1
40
0
Micro Normal 2"
40
15000
Line Weight
0
LSPD
3600
3650
3700
3750
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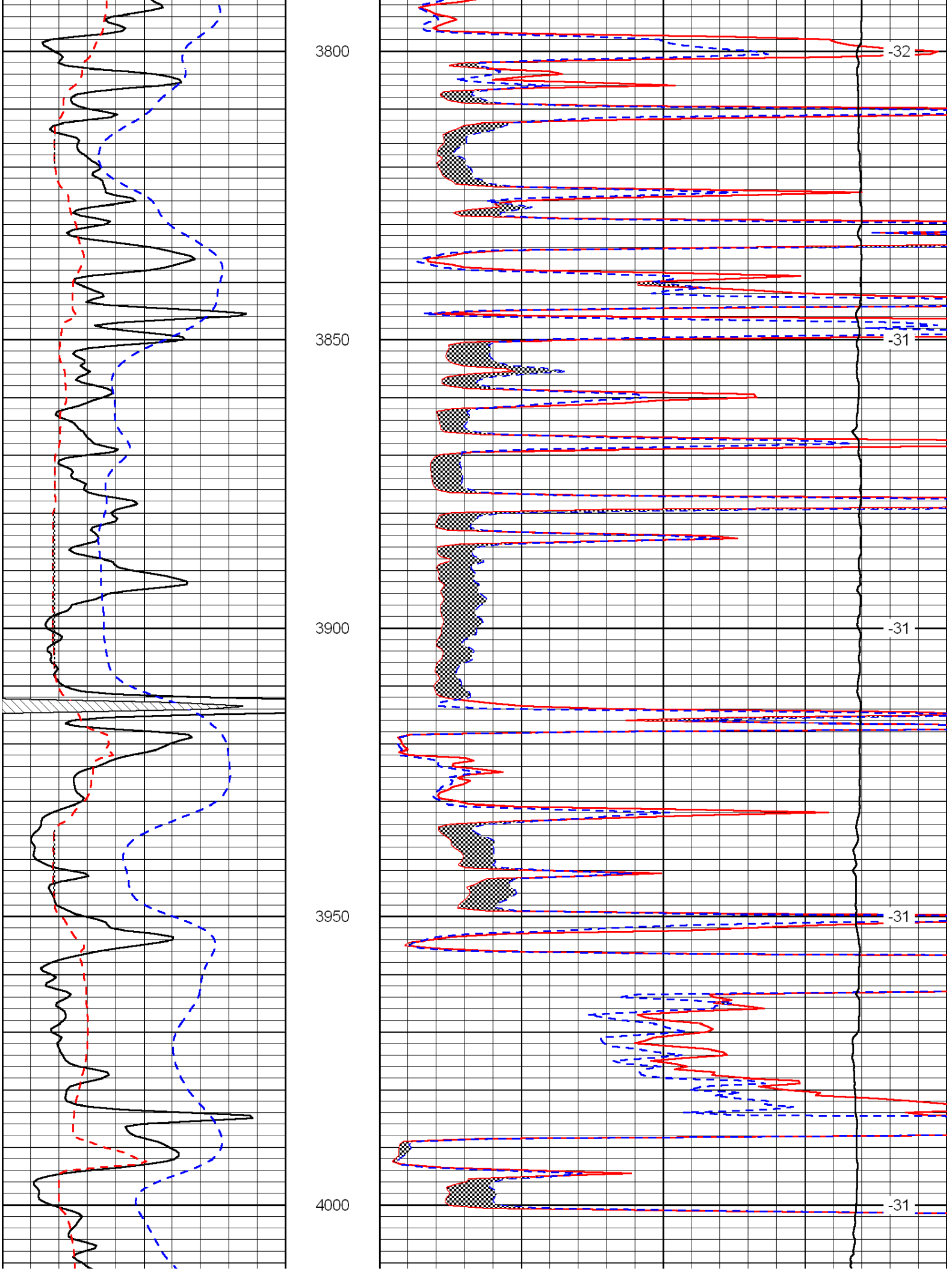
-32
-32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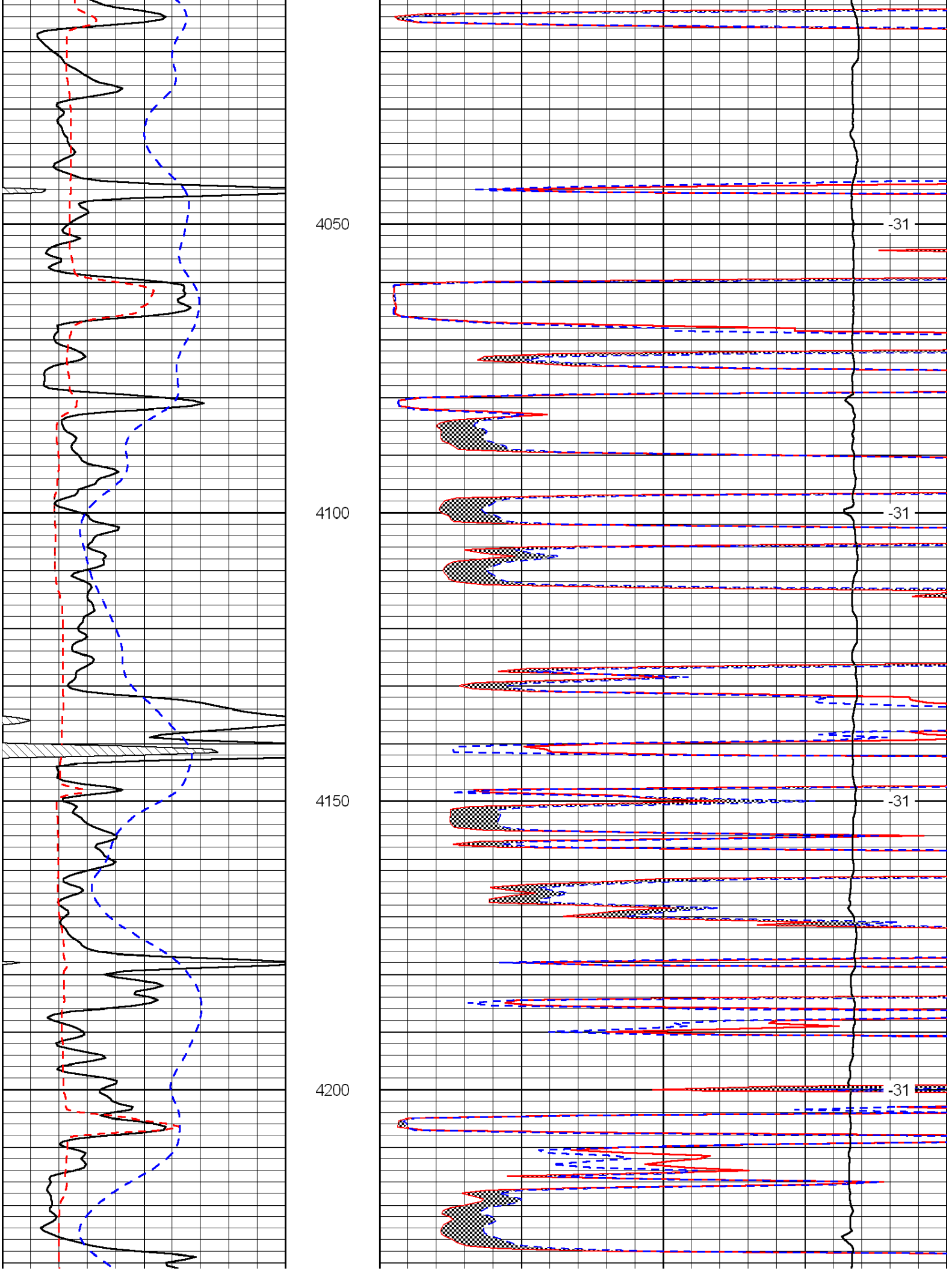
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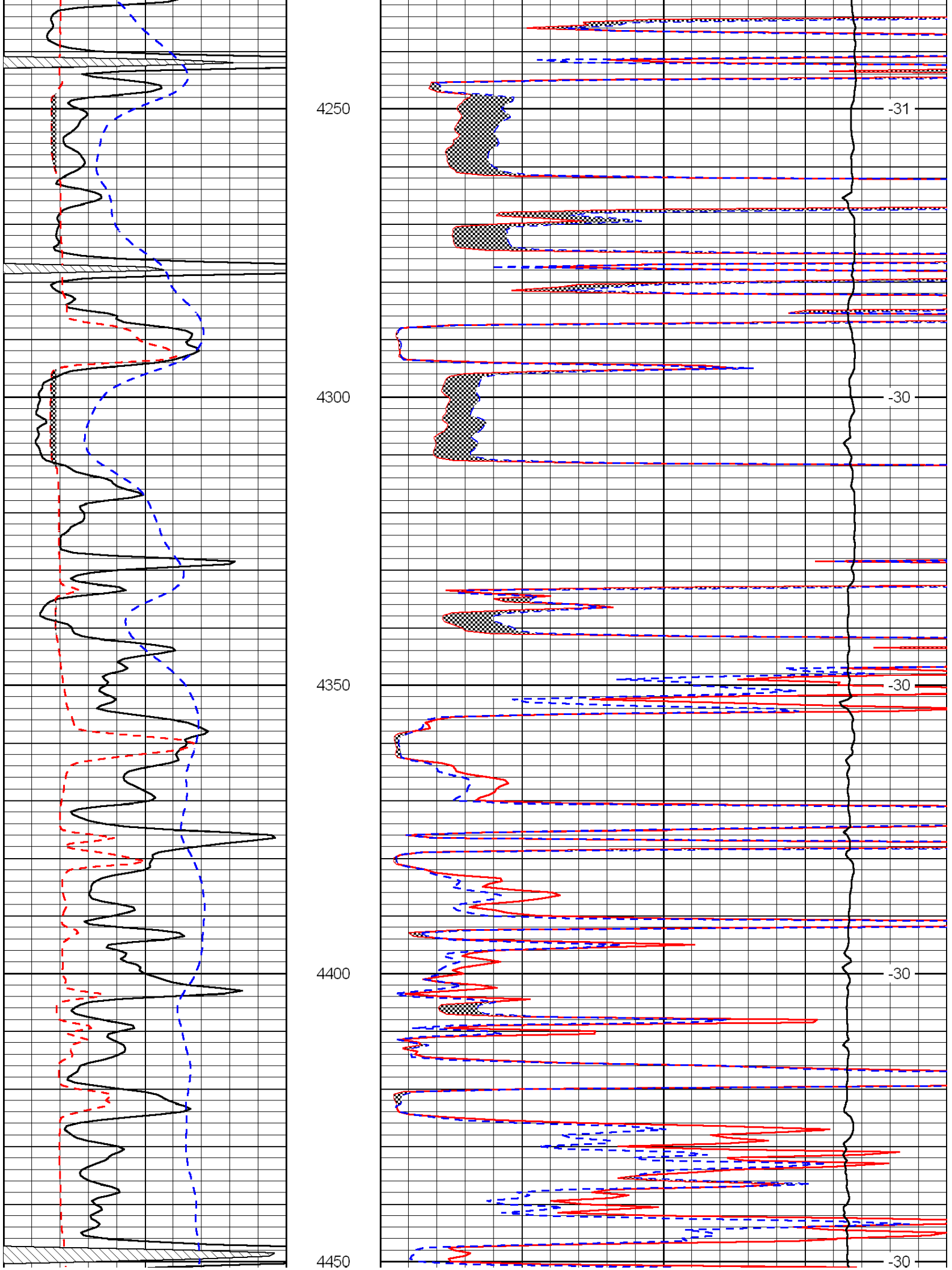
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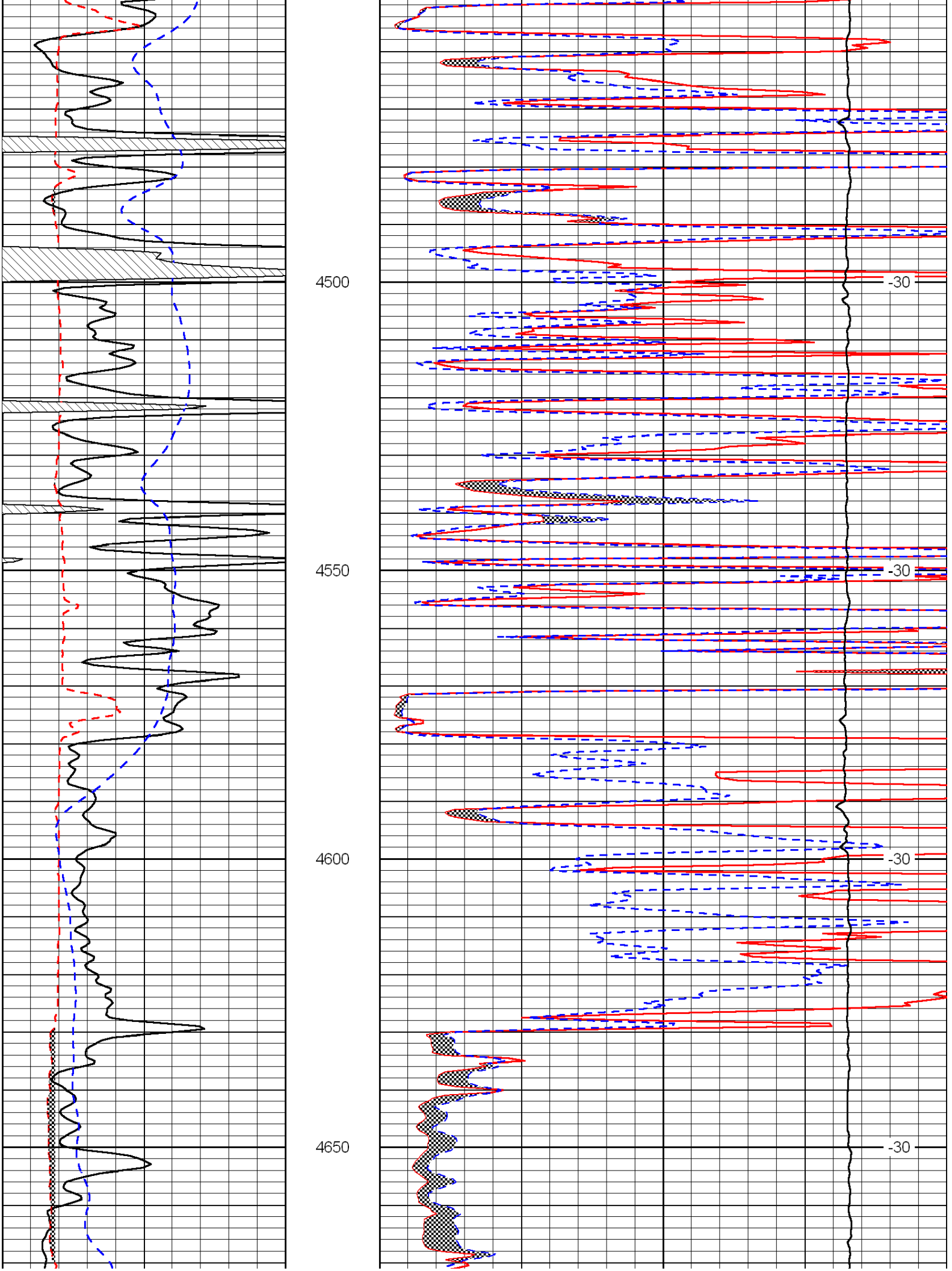
-30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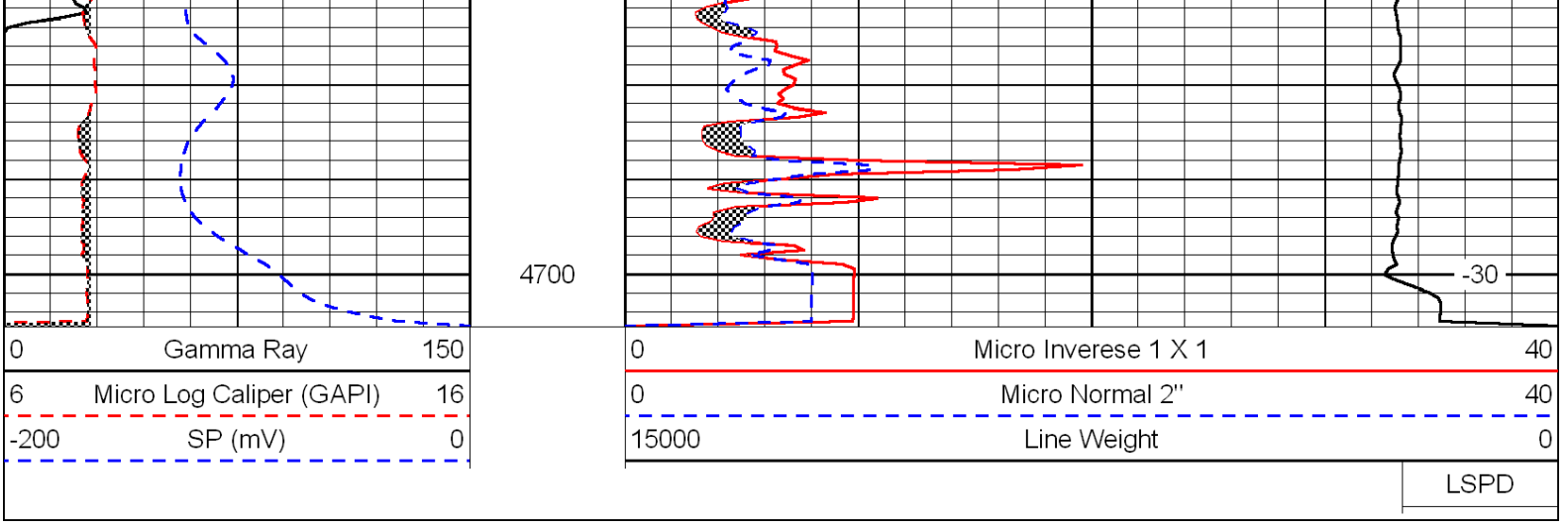

0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

0	Micro Inverese 1 X 1	40
0	Micro Normal 2''	40
15000	Line Weight	0

LSPD

KANSAS
CORPORATION COMMISSION

November 05, 2010

Thomas Larson
Larson Engineering, Inc. dba Larson Operating Company
562 W STATE RD 4
OLMITZ, KS 67564-8561

Re: ACO1
API 15-101-22250-00-00
Anchor Cattle 1-23
NE/4 Sec.23-19S-30W
Lane County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Thomas Larson