



MIDWEST WIRELINE

BOREHOLE COMPENSATED SONIC LOG

Company Petroleum Property Services, Inc.
 Well Richards-Fund A #4
 Field McClain
 County Nemaha
 State Kansas

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Location: API #: 15-131-20248-00-00
 SW SE NW SE
 1436 FSL & 1958 FEL
 SEC 7 TWP 4S RGE 14E
 Permanent Datum Ground Level Elevation 1241
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL/DIL
 Elevation
 K.B. 1249
 D.F.
 G.L. 1241

| | | | | | | | |
|------------------------|--------------|------|-----|-------|------|------|-----|
| Date | 10/11/2022 | | | | | | |
| Run Number | Two | | | | | | |
| Type Log | BHGS | | | | | | |
| Depth Driller | 3740 | | | | | | |
| Depth Logger | 3736 | | | | | | |
| Bottom Logged Interval | 3724 | | | | | | |
| Top Logged Interval | 350 | | | | | | |
| Type Fluid In Hole | Chemical | | | | | | |
| Salinity, PPM CL | 1200 | | | | | | |
| Density | 8.9 | | | | | | |
| Level | Full | | | | | | |
| Max. Rec. Temp. F | 118 | | | | | | |
| Operating Rig Time | 4 Hours | | | | | | |
| Equipment -- Location | P-24 Hays | | | | | | |
| Recorded By | T. Martin | | | | | | |
| Witnessed By | Curtis Covey | | | | | | |
| Borehole Record | | | | | | | |
| Run No. | Bit | From | To | Size | Wgt. | From | To |
| One | 12.25 | 00 | 381 | 8.625 | 23 | 00 | 381 |
| Two | 7.875 | 381 | TD | | | | |
| Casing Record | | | | | | | |

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

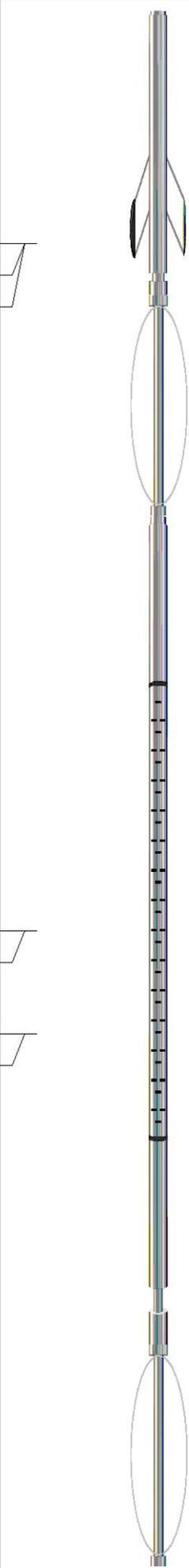
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Wetmore, KS, 5 W on Hwy 9 to South Rd,
 4 N to 80th Rd, 1/2 E, N into

Log Measured From: Kelly Bushing 8 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
 785-625-3858

| | |
|----------------------------|----------------------------------|
| Your Midwest Wireline Crew | This Log Record Was Witnessed By |
| Engineer: T. Martin | Primary Witness: Curtis Covey |
| Operator: | Secondary Witness: |
| Operator: | Secondary Witness: |
| Operator: | Secondary Witness: |

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|------------------|-------------------------|---|------------------------------------|-------------|-----------|-------------|
| MCAL MI MN | 25.50 25.50 25.50 |  | ML-Pengo (Pengo1) | 5.50 | 3.50 | 100.00 |
| | | | CENT-PENGO (4-PENGO) | 4.25 | 3.00 | 70.00 |
| WVF4 WVF1 | 12.25 12.25 | | SLT-PENGO (603) 3 1/2 BHC Sonic | 16.00 | 3.50 | 300.00 |
| WVF3 WVF2 | 10.25 10.25 | | | | | |
| | | | CENT-PENGO (3-PENGO) | 4.25 | 3.00 | 70.00 |

Dataset: ppsi_richards-fund a #4.db: field/well/SonMel/pass3
 Total length: 30.00 ft
 Total weight: 540.00 lb
 O.D.: 3.50 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\ppsi_richards-fund a #4.db
 Dataset field/well/Stack/pass3.1/_vars_

Top - Bottom

| | | | | | | | |
|-----------|--------------|------------------|-------------------|----------------|------------------|-------|------------------|
| A | BOREID in | BOTTEMP degF | CASEOD in | CASETHCK in | FLUIDDEN g/cc | M | MATRXDEN g/cc |
| 1 | 7.875 | 118 | 5.5 | 0 | 1 | 2 | 2.71 |
| NPORSEL | PERFS | SNDERR mmho/m | SNDERRM mmho/m | SPSHIFT mV | SRFTEMP degF | SZCOR | TDEPTH ft |
| Limestone | 0 | 0 | 0 | -40 | 80 | Off | 3736 |

Variable Description

A : Cement Factor (a)
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 M : Cement Exp (m)
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
 PERFS : Perforation Flag
 SNDERR : Deep Sonde Error Correction
 SNDERRM : Medium Sonde Error Correction
 SPSHIFT : S.P. Baseline Offset
 SRFTEMP : Surface Temperature
 SZCOR : CN Size Cor. ?
 TDEPTH : Total Depth

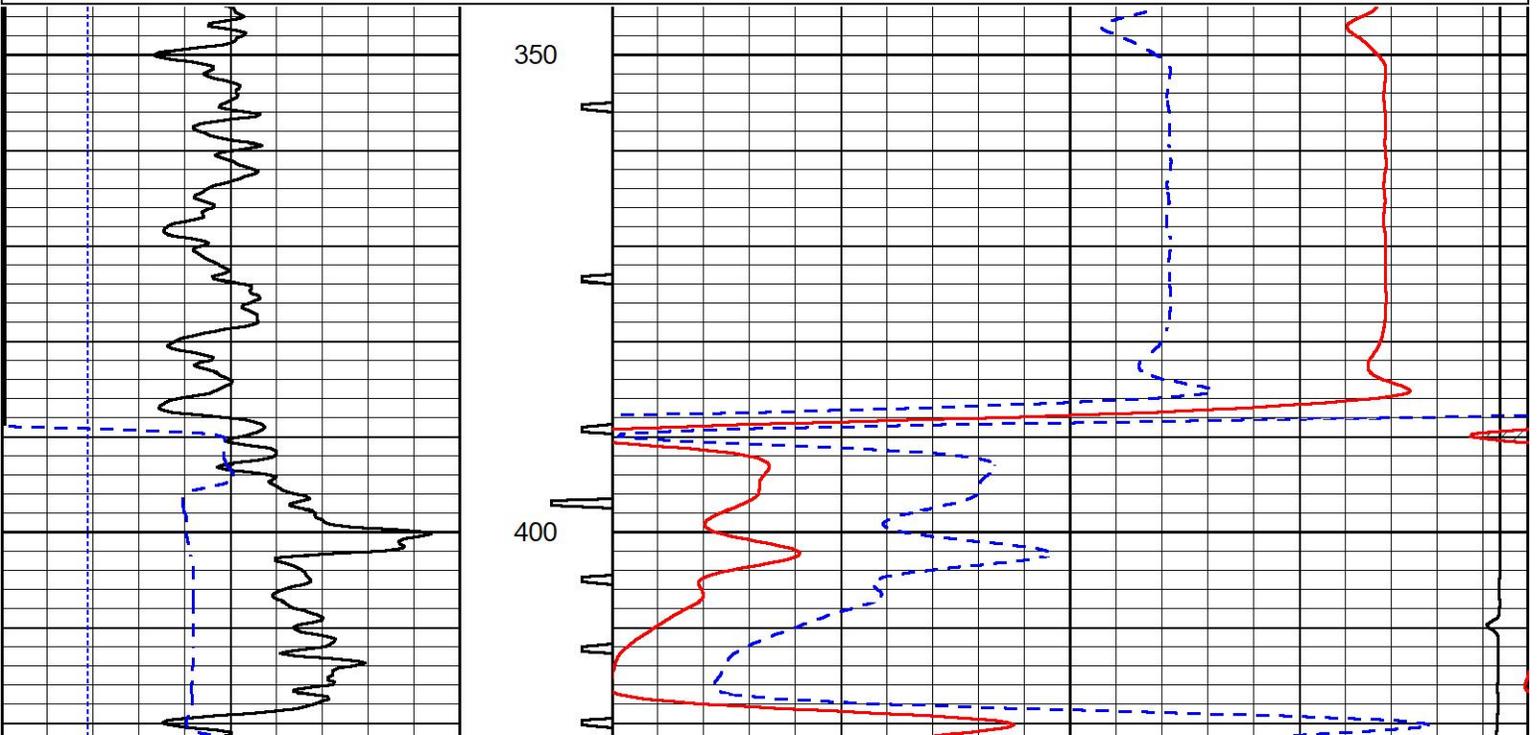


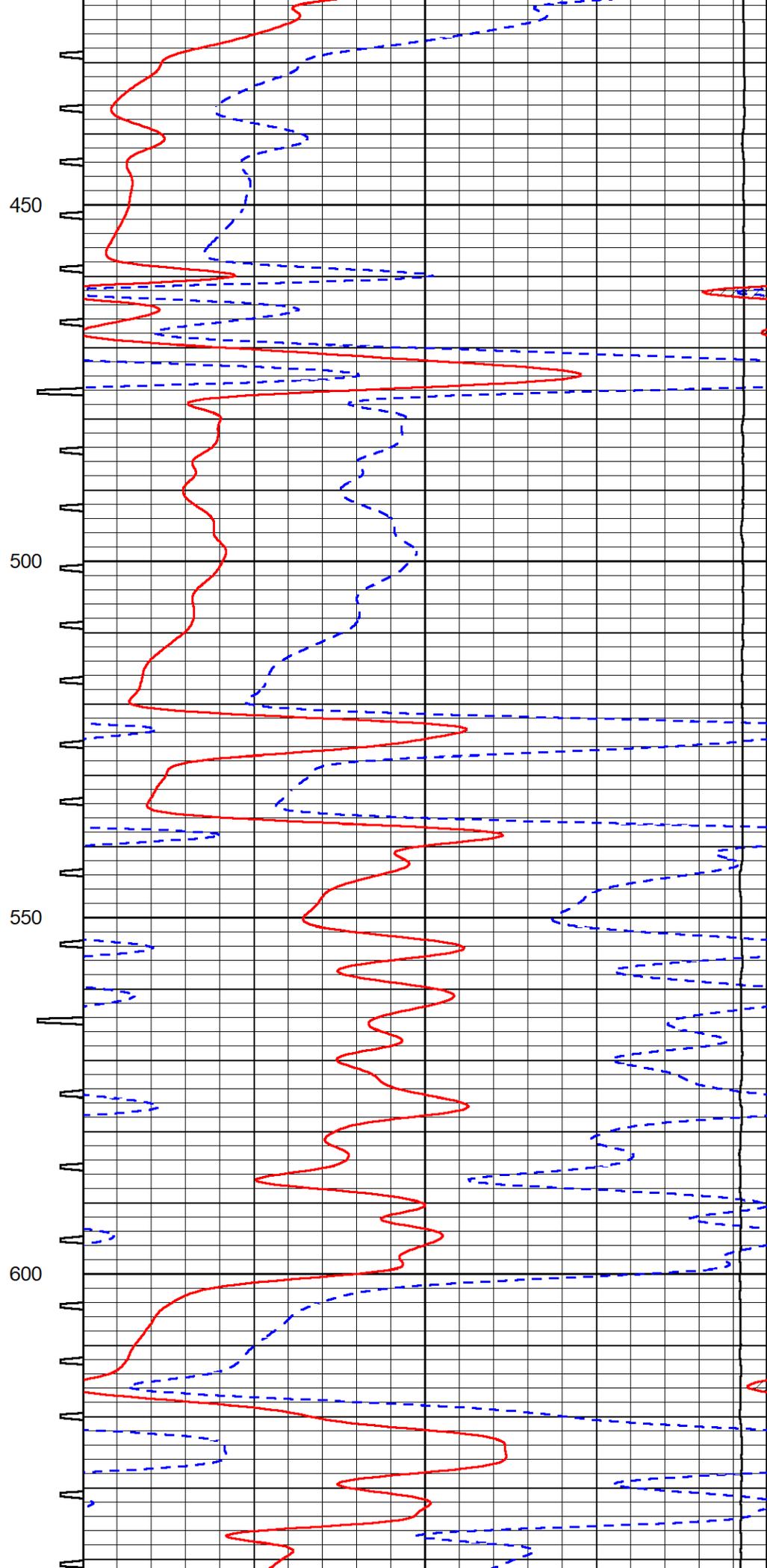
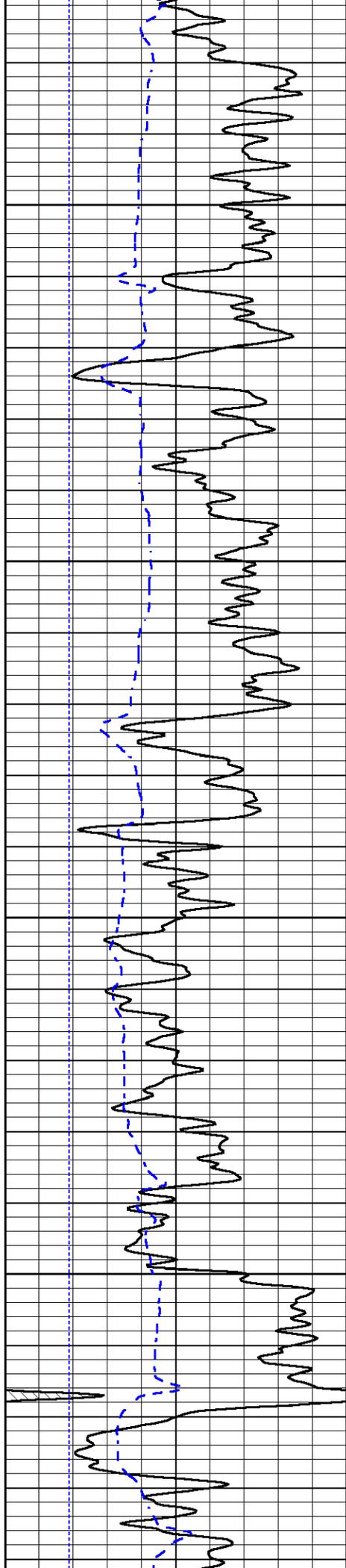
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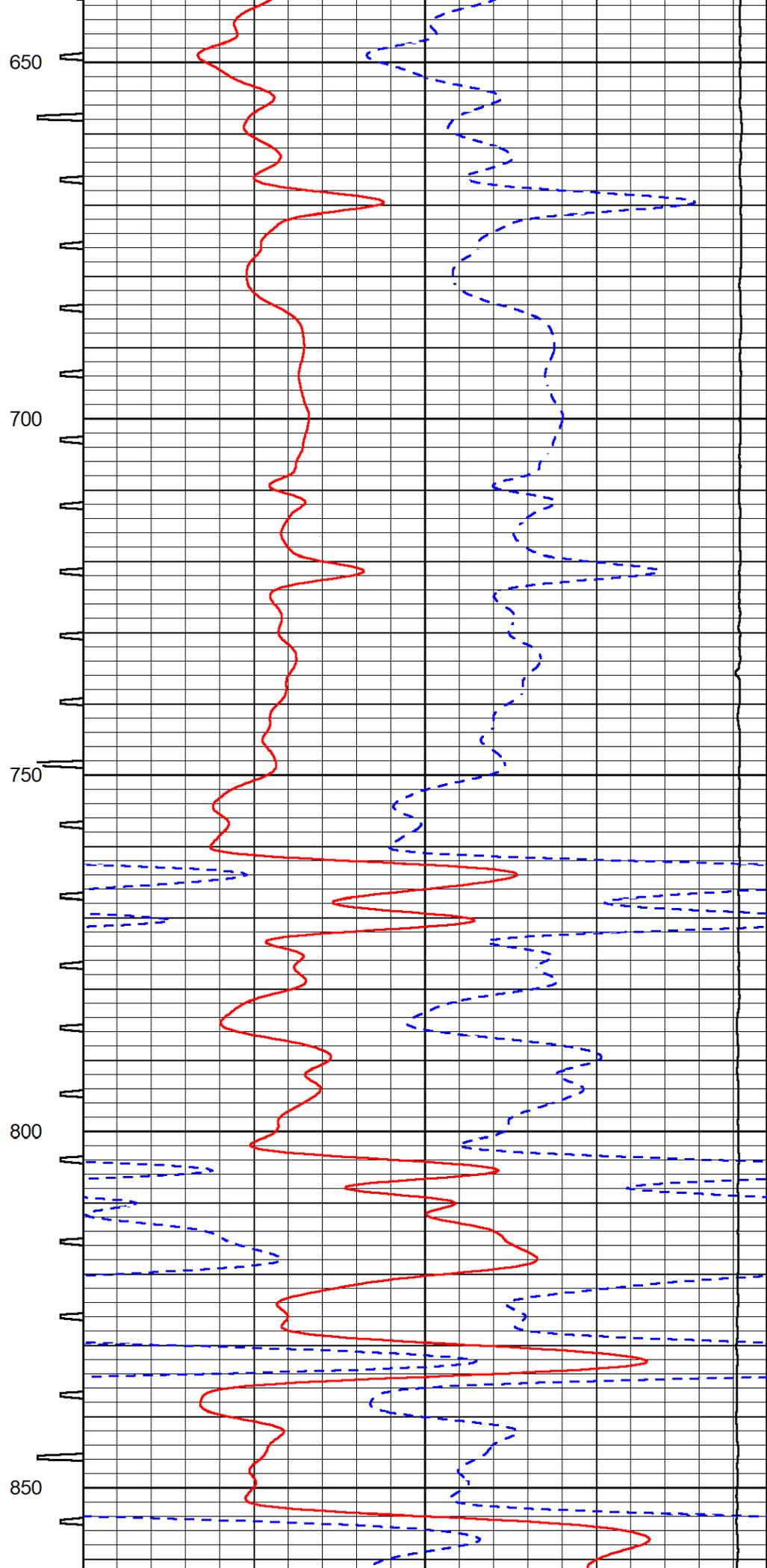
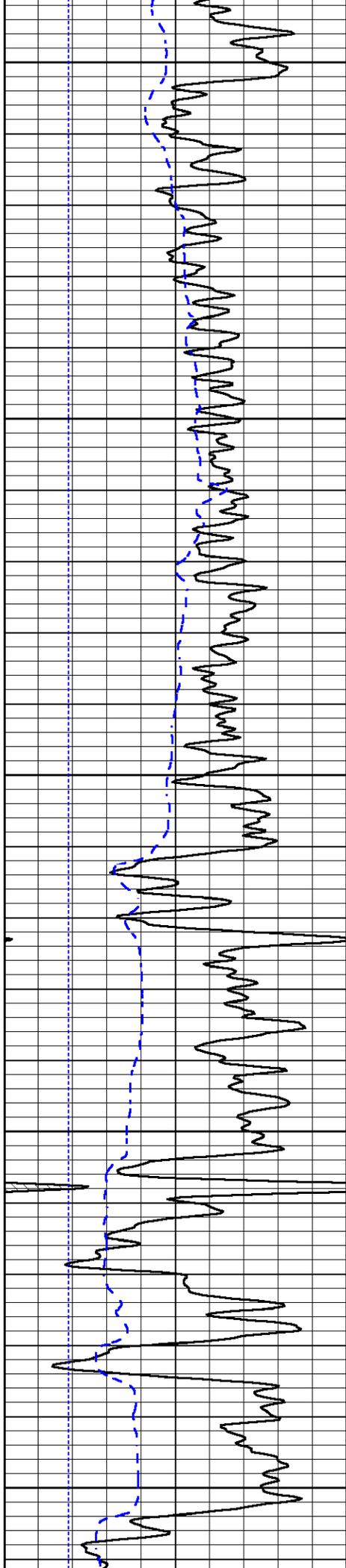
MAIN PASS

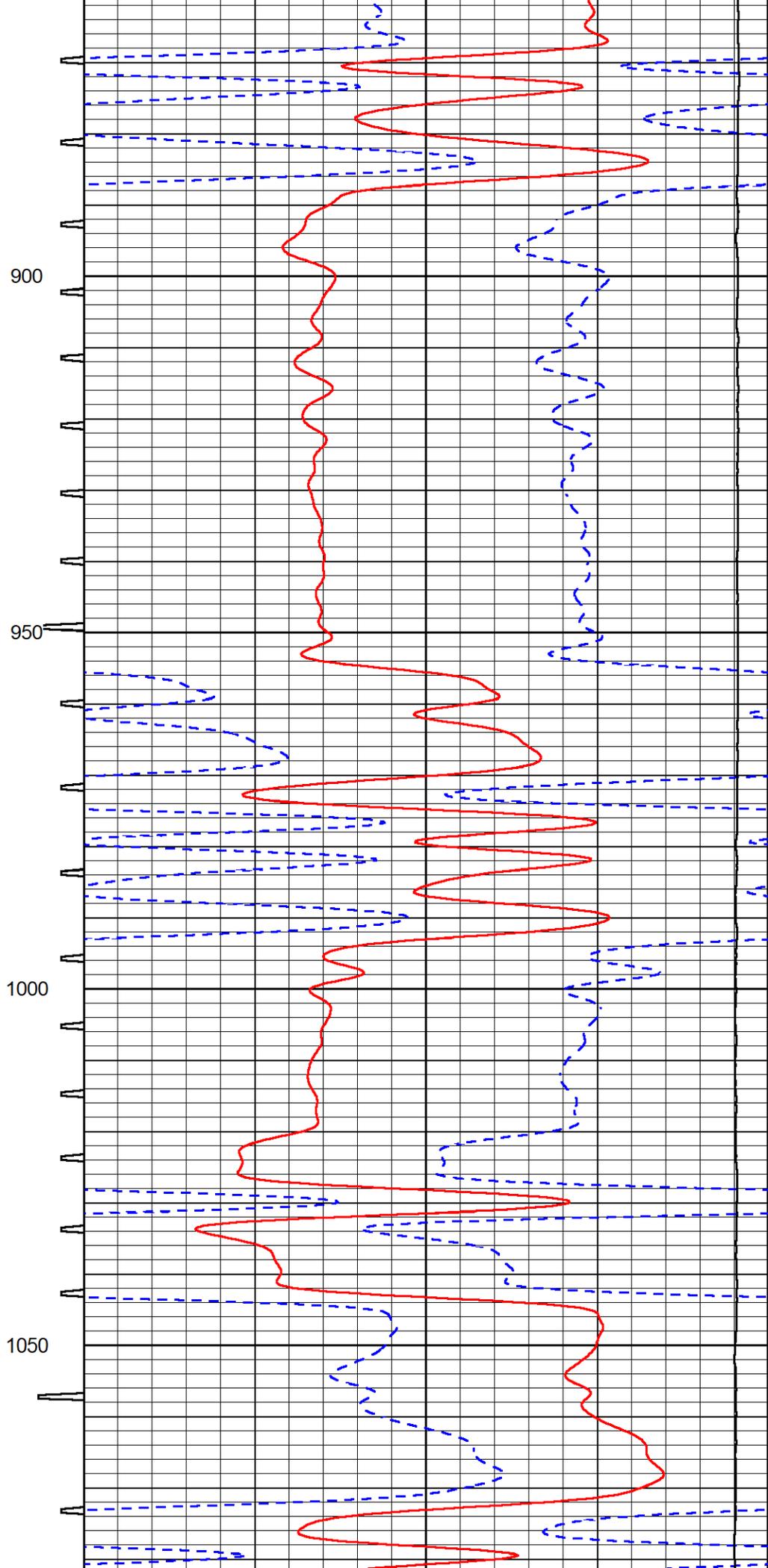
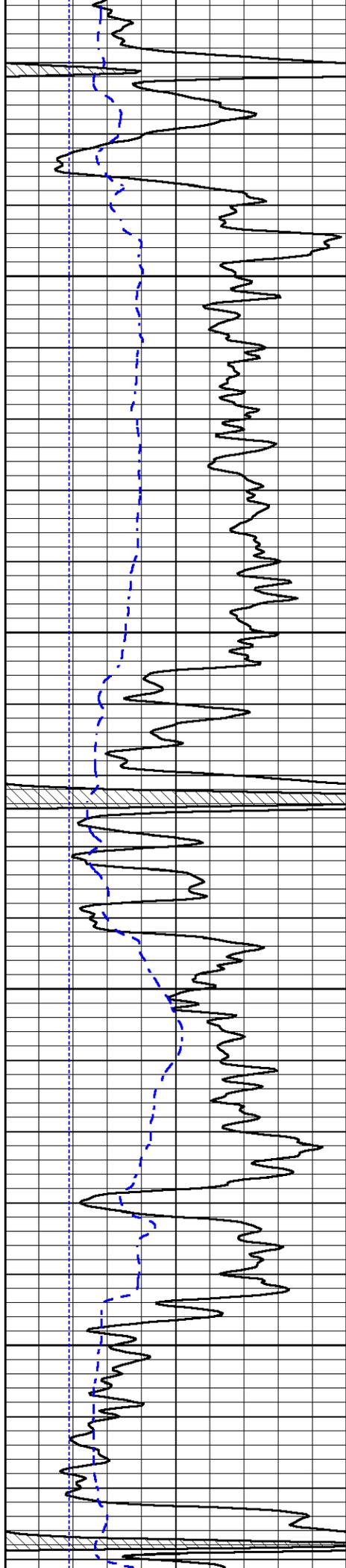
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 Presentation Format _sonic
 Dataset Creation Tue Oct 11 21:23:03 2022
 Charted by Depth in Feet scaled 1:240

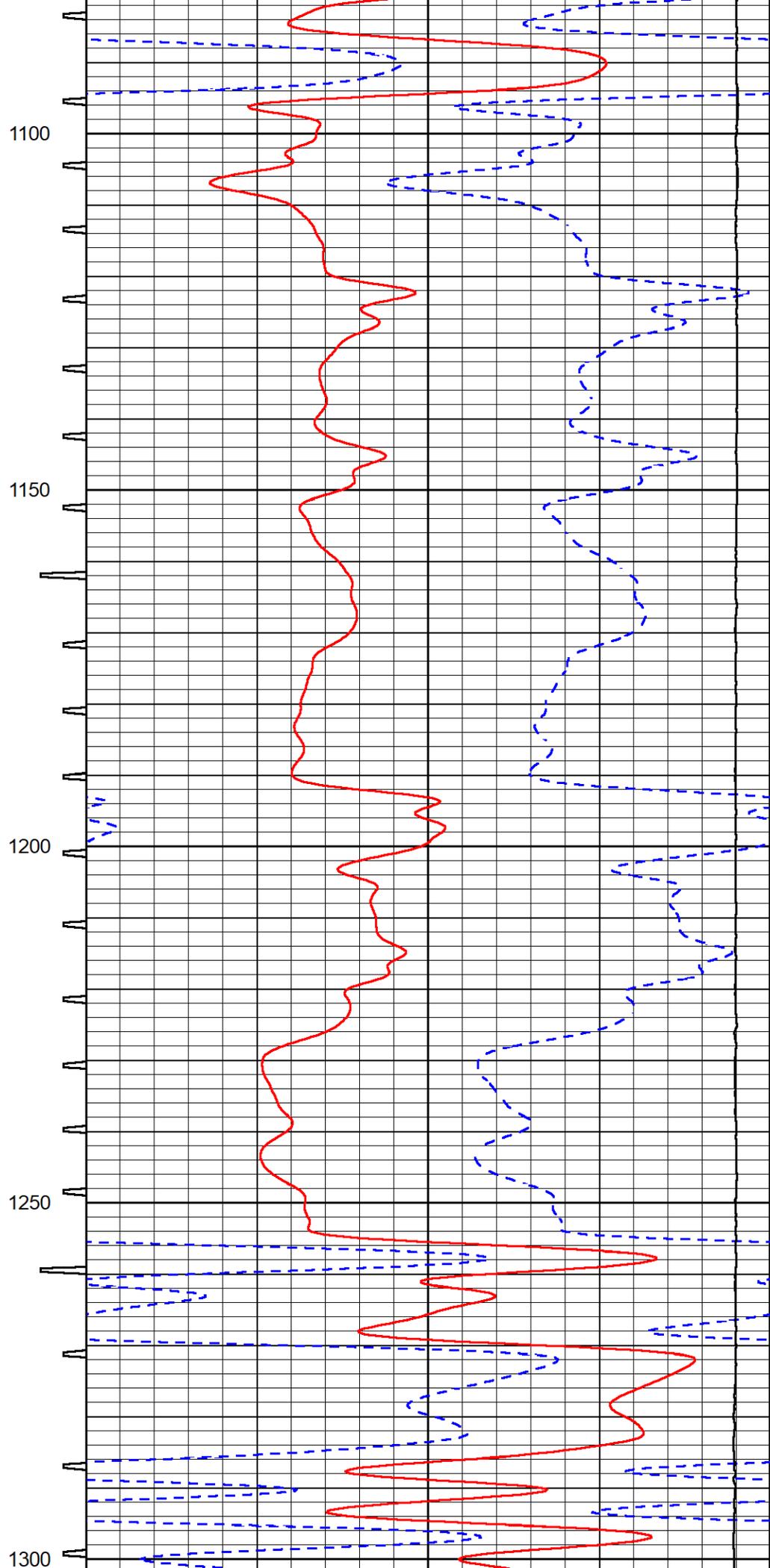
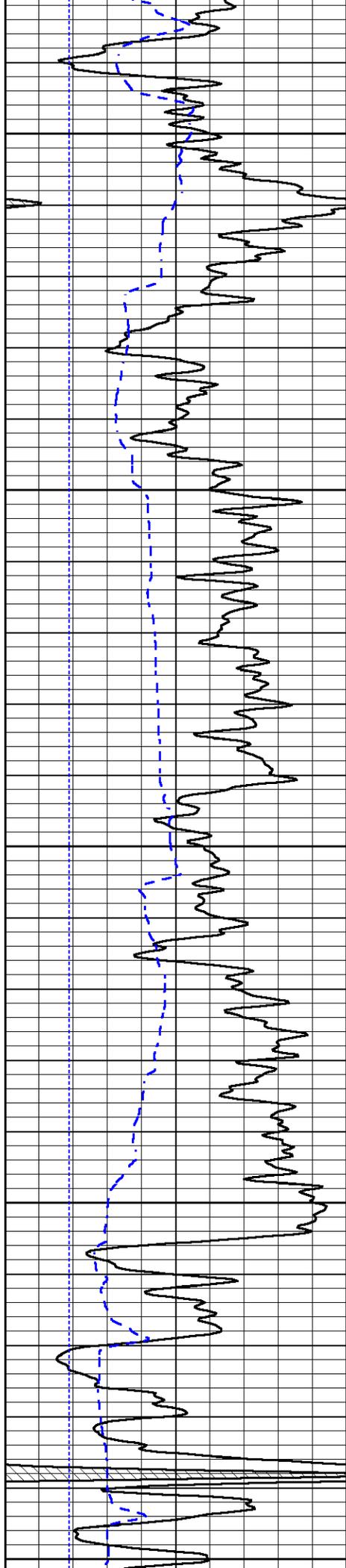
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|-----|------------------|-----|------------|-------|--------------------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 | Sonic Int | 140 | Delta Time (usec/ft) (usec/ft) | 40 |
| 150 | GR (GAPI) | 300 | 5 (msec) 0 | 30 | Sonic Porosity (pu) (pu) | -10 |
| 6 | Caliper (in) | 16 | | 15000 | Line Tension (lb) | 0 |

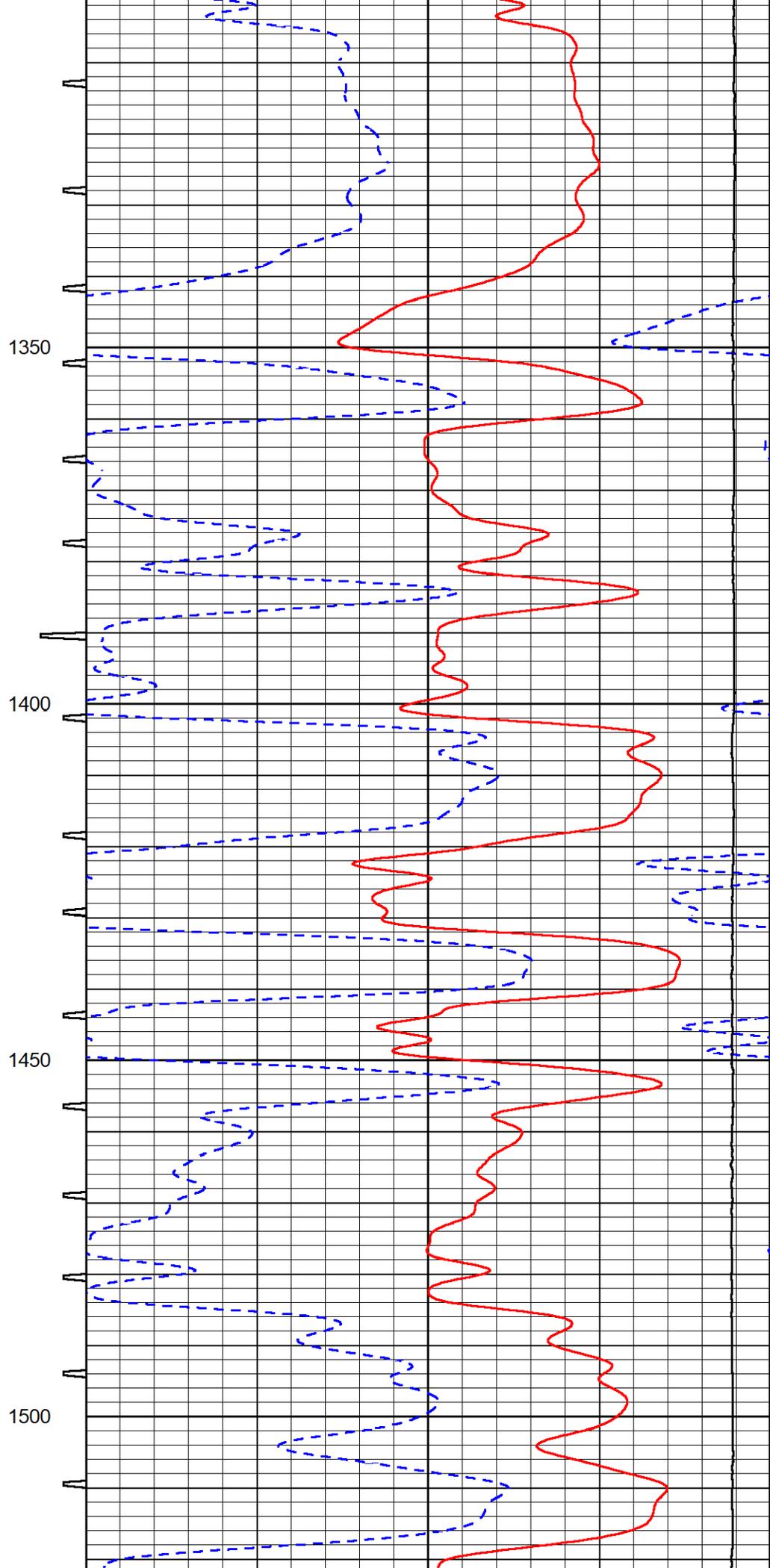
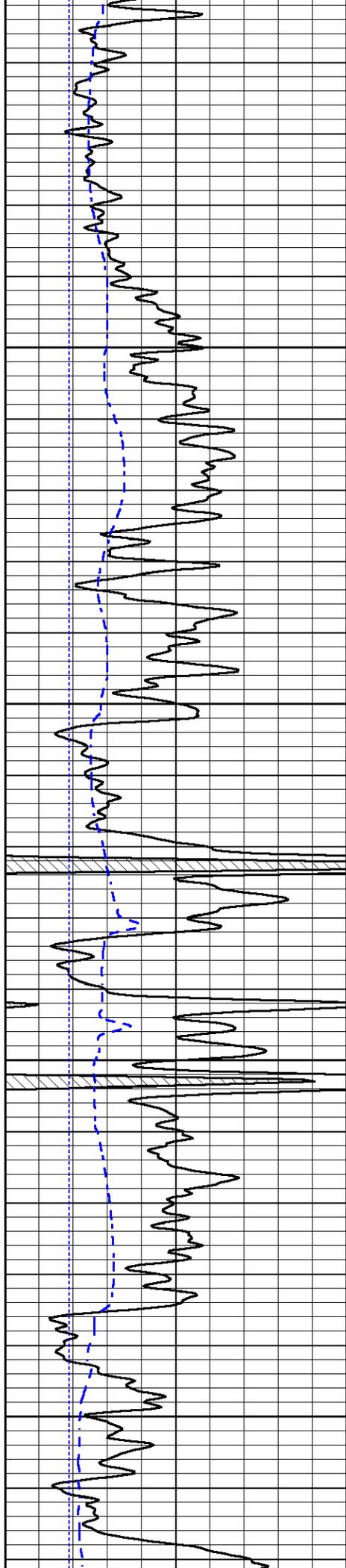


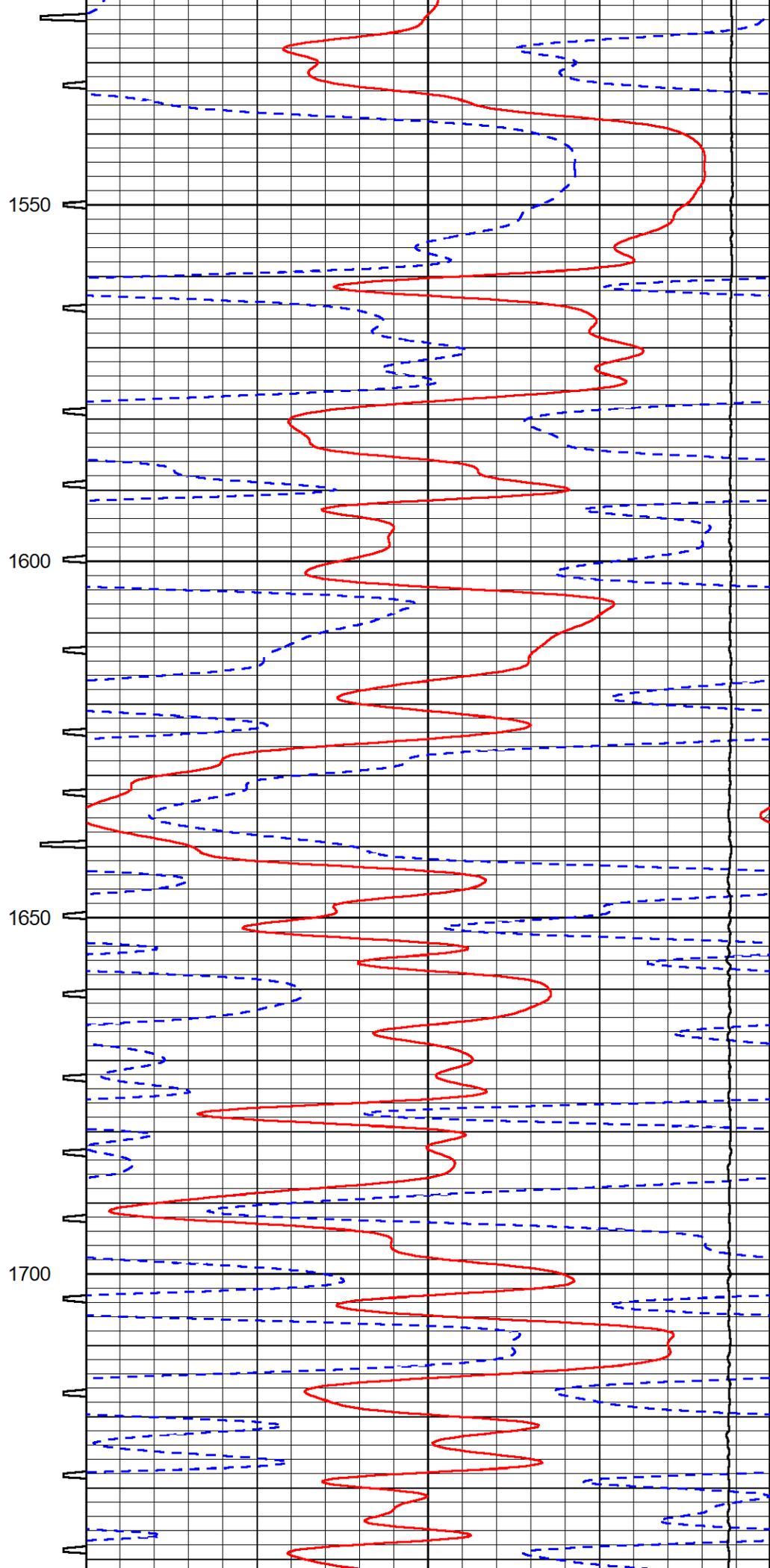
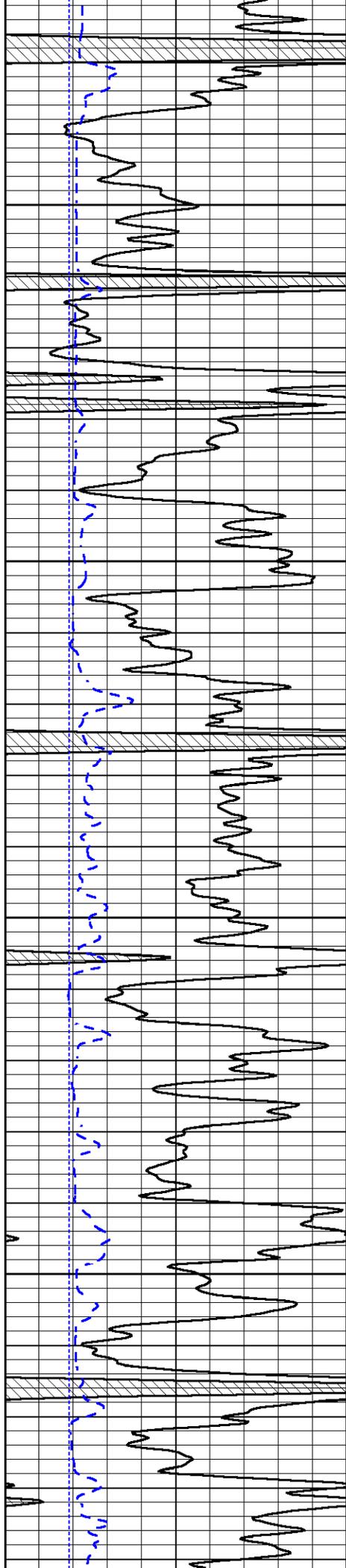


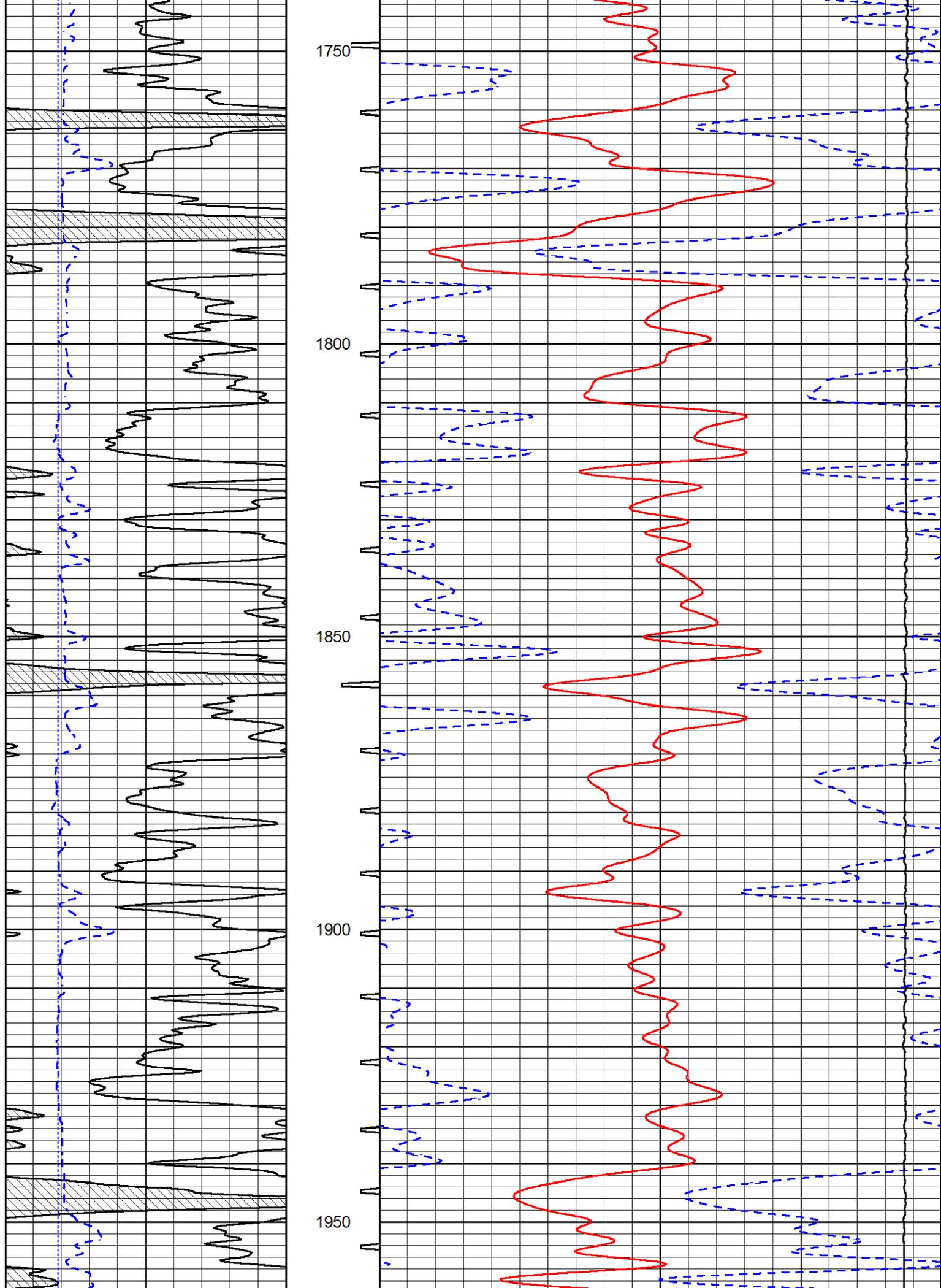


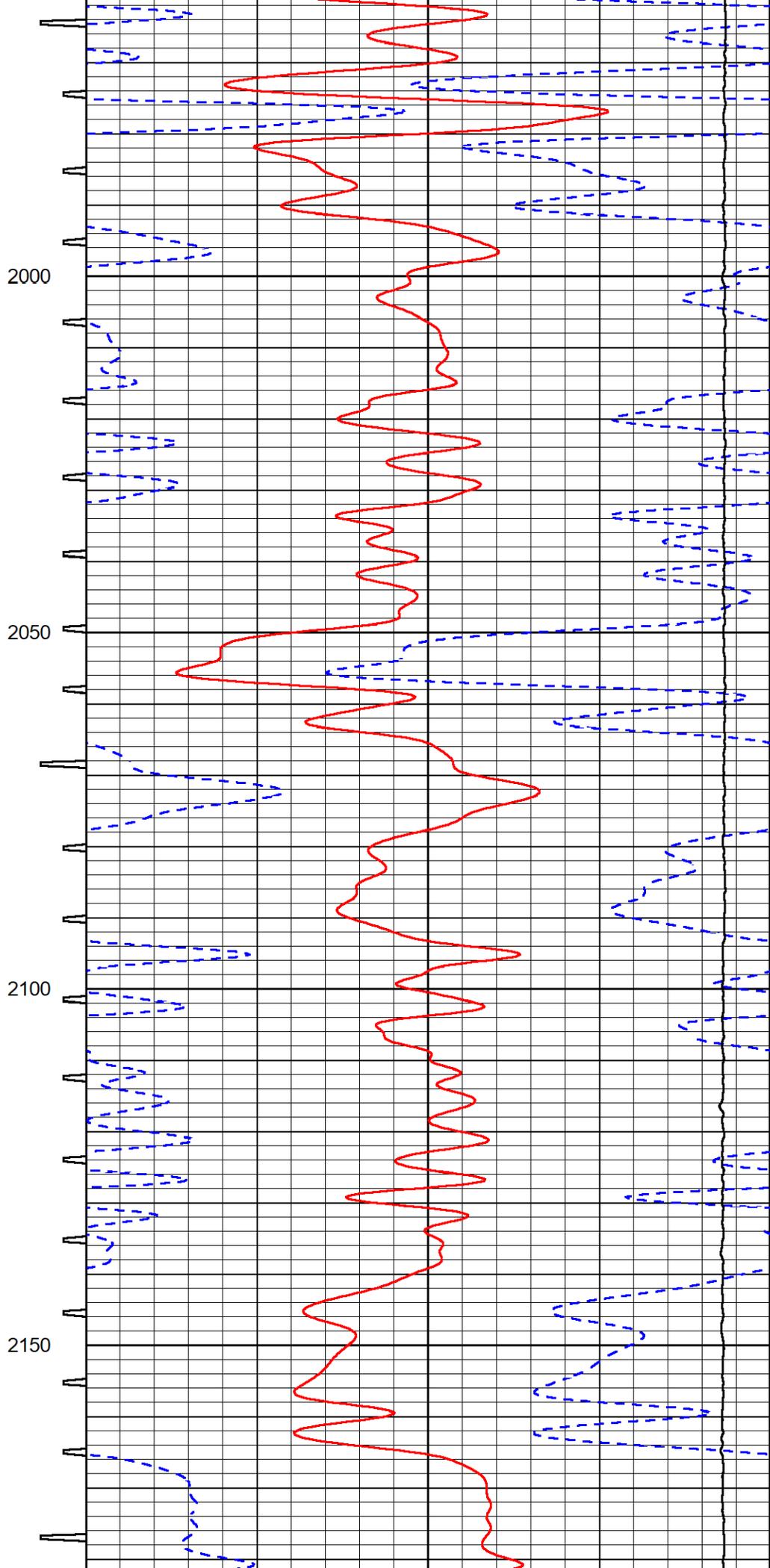
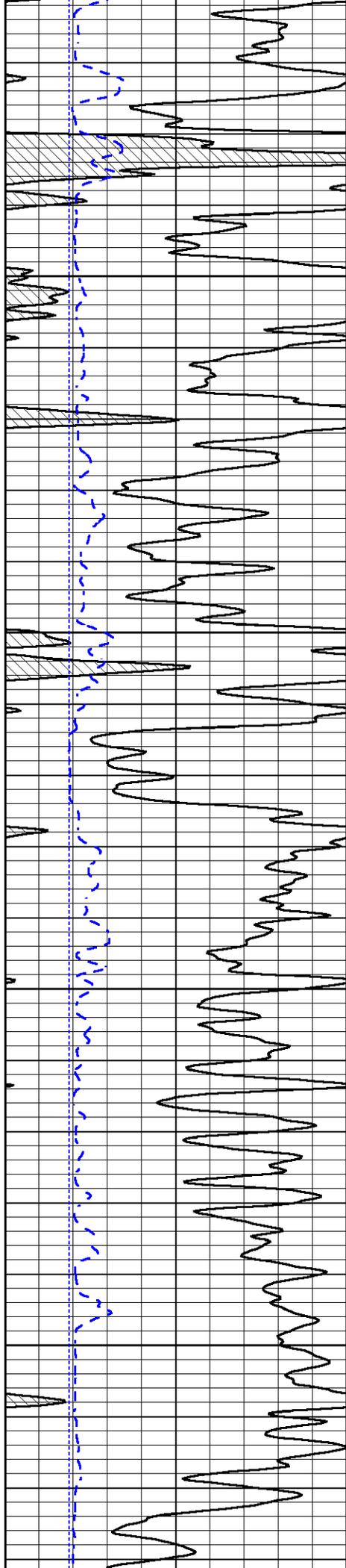


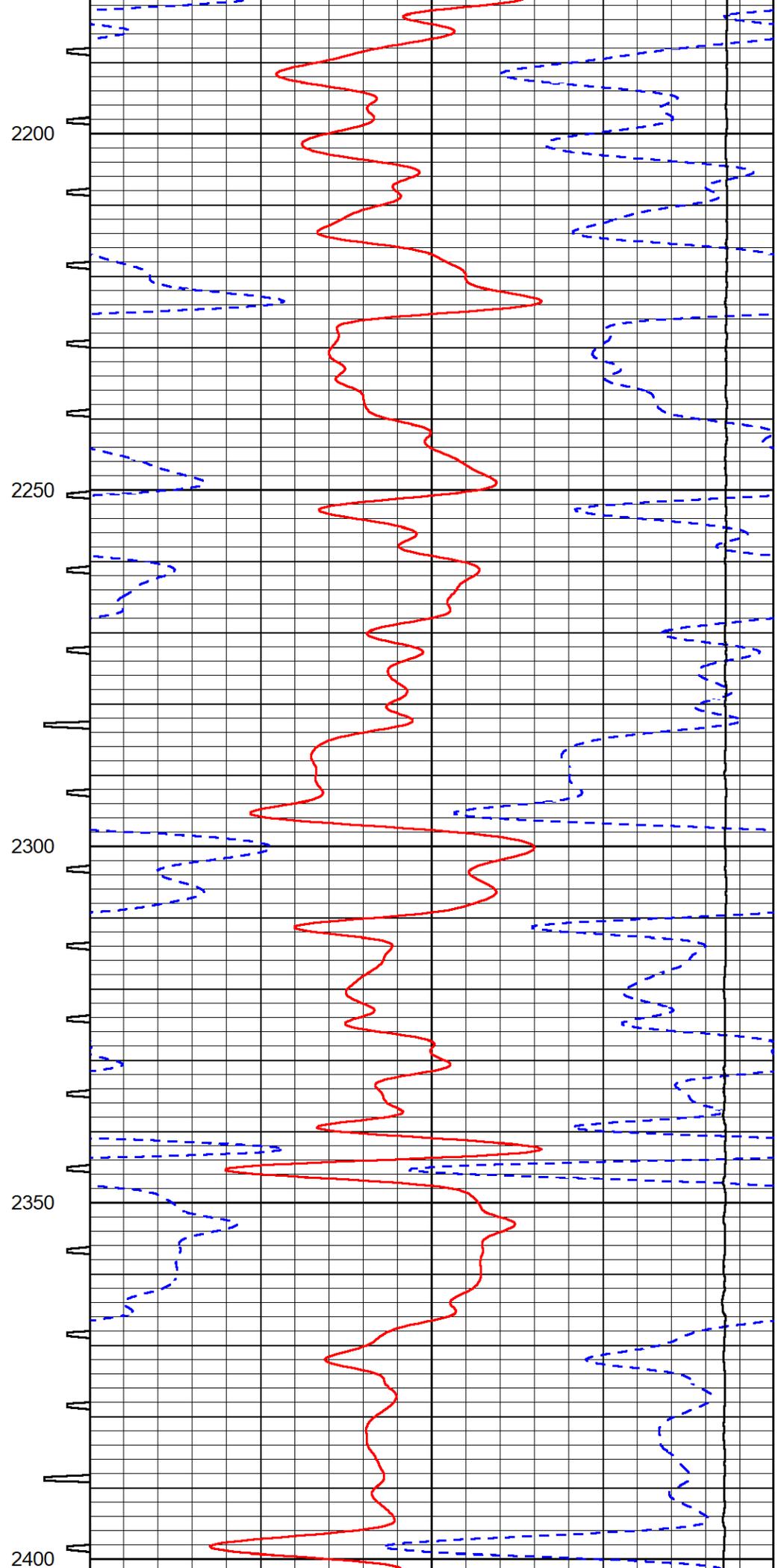
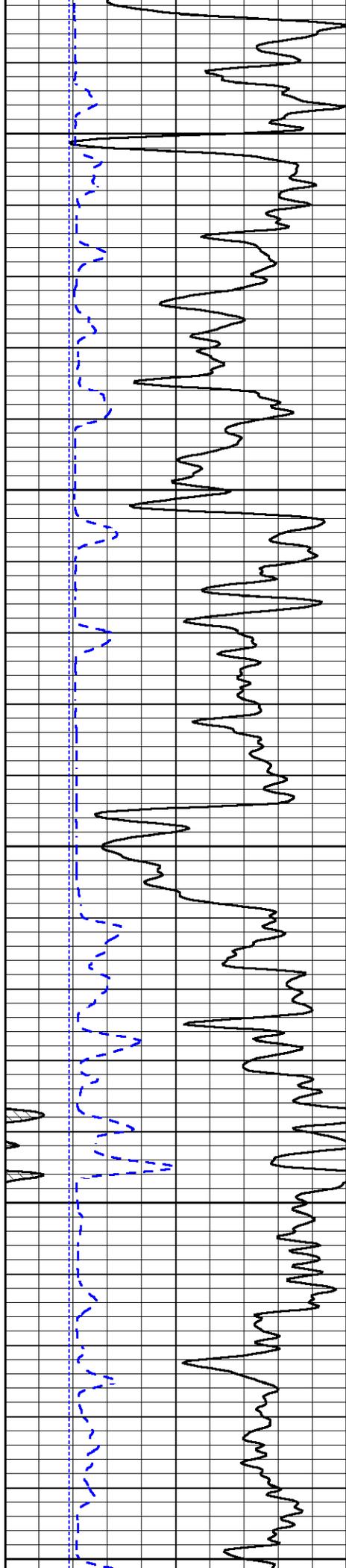


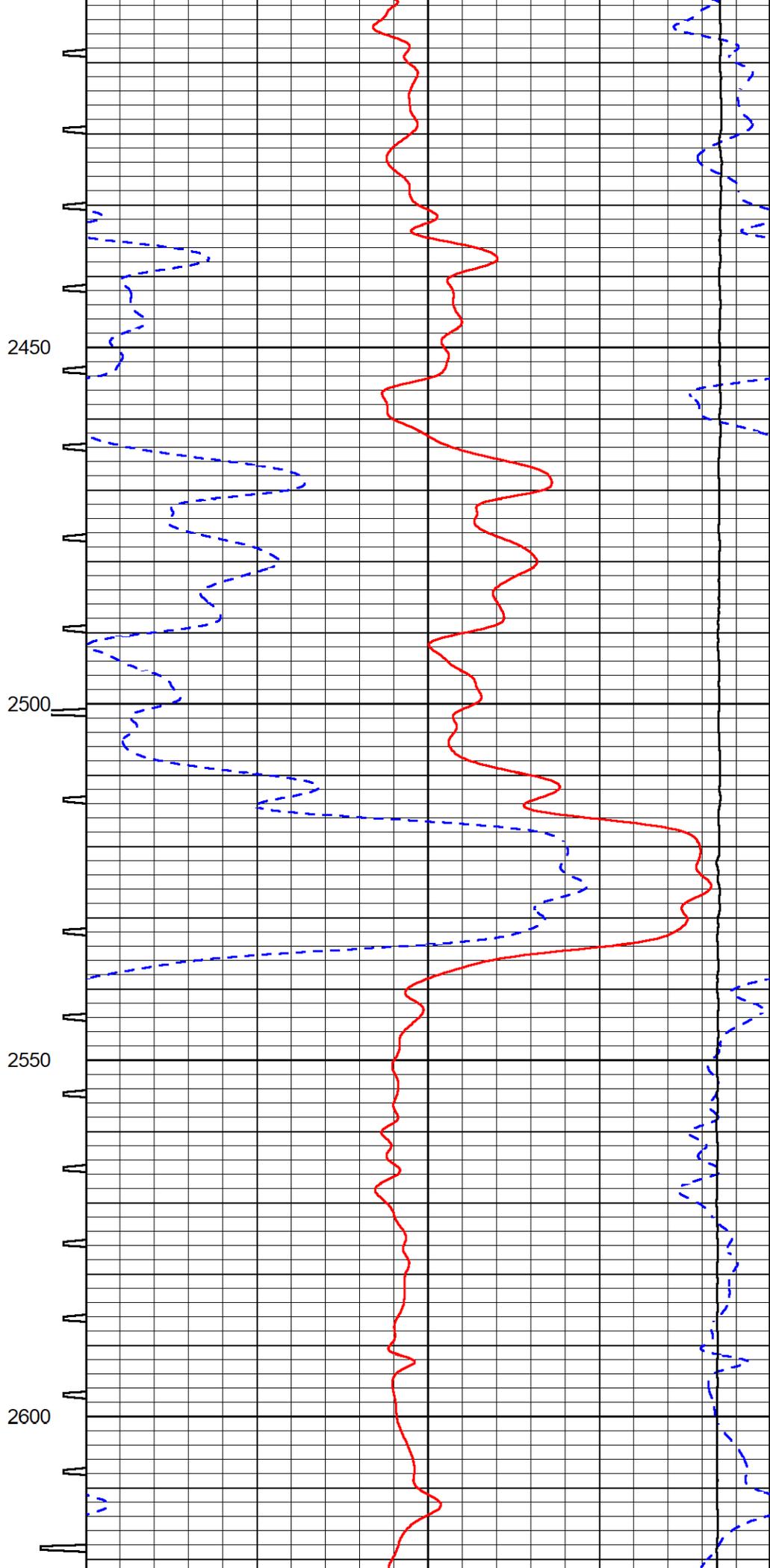
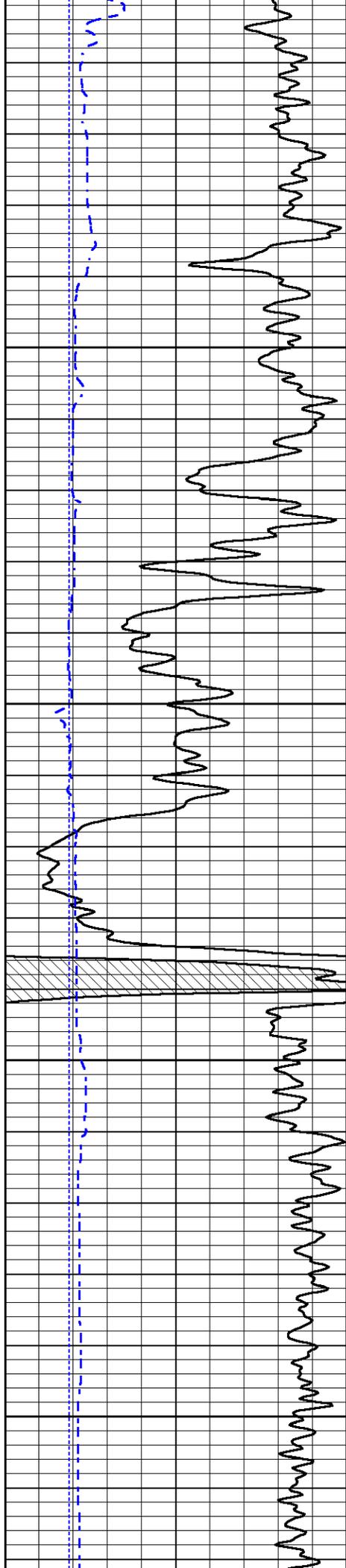


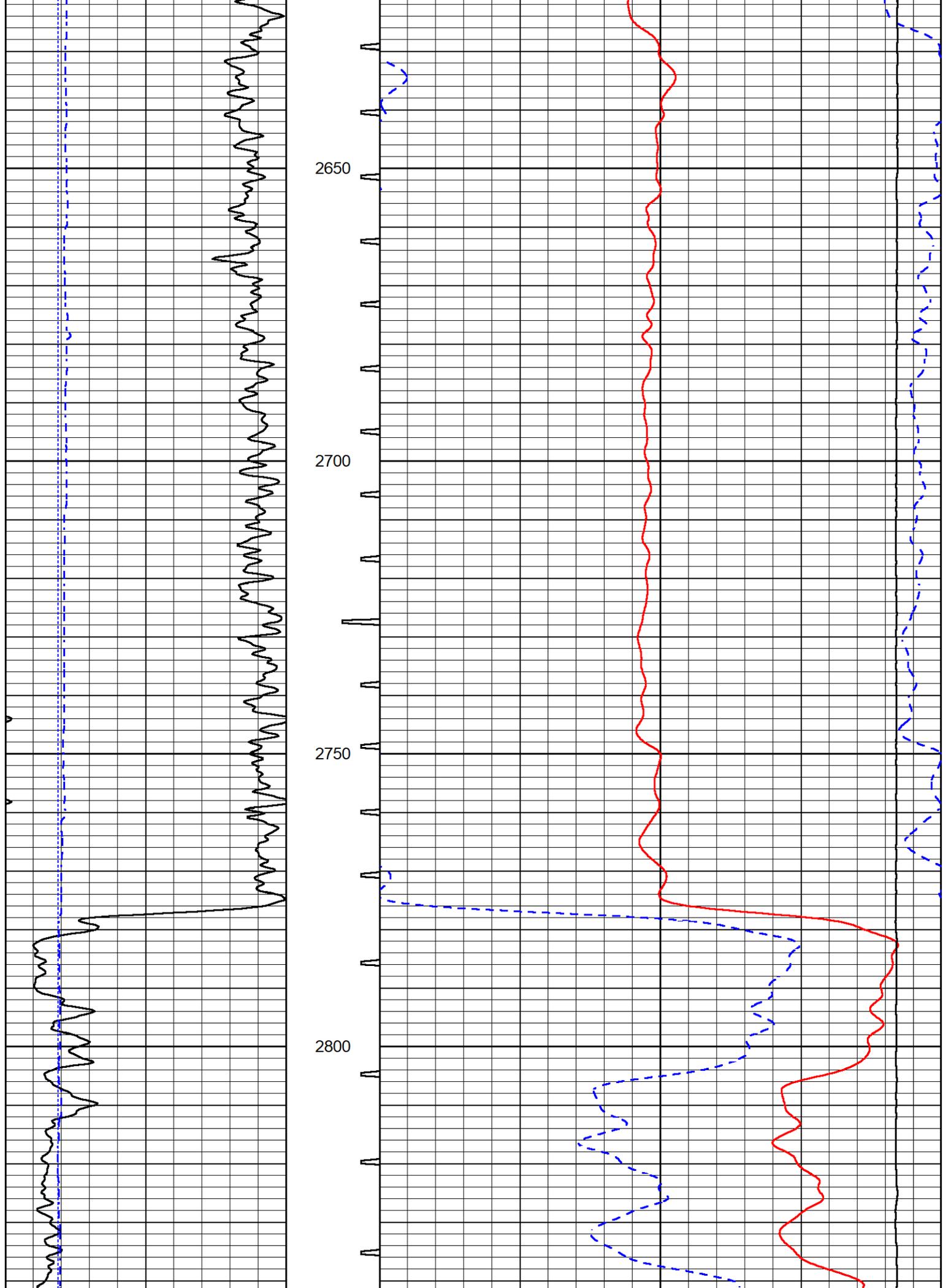


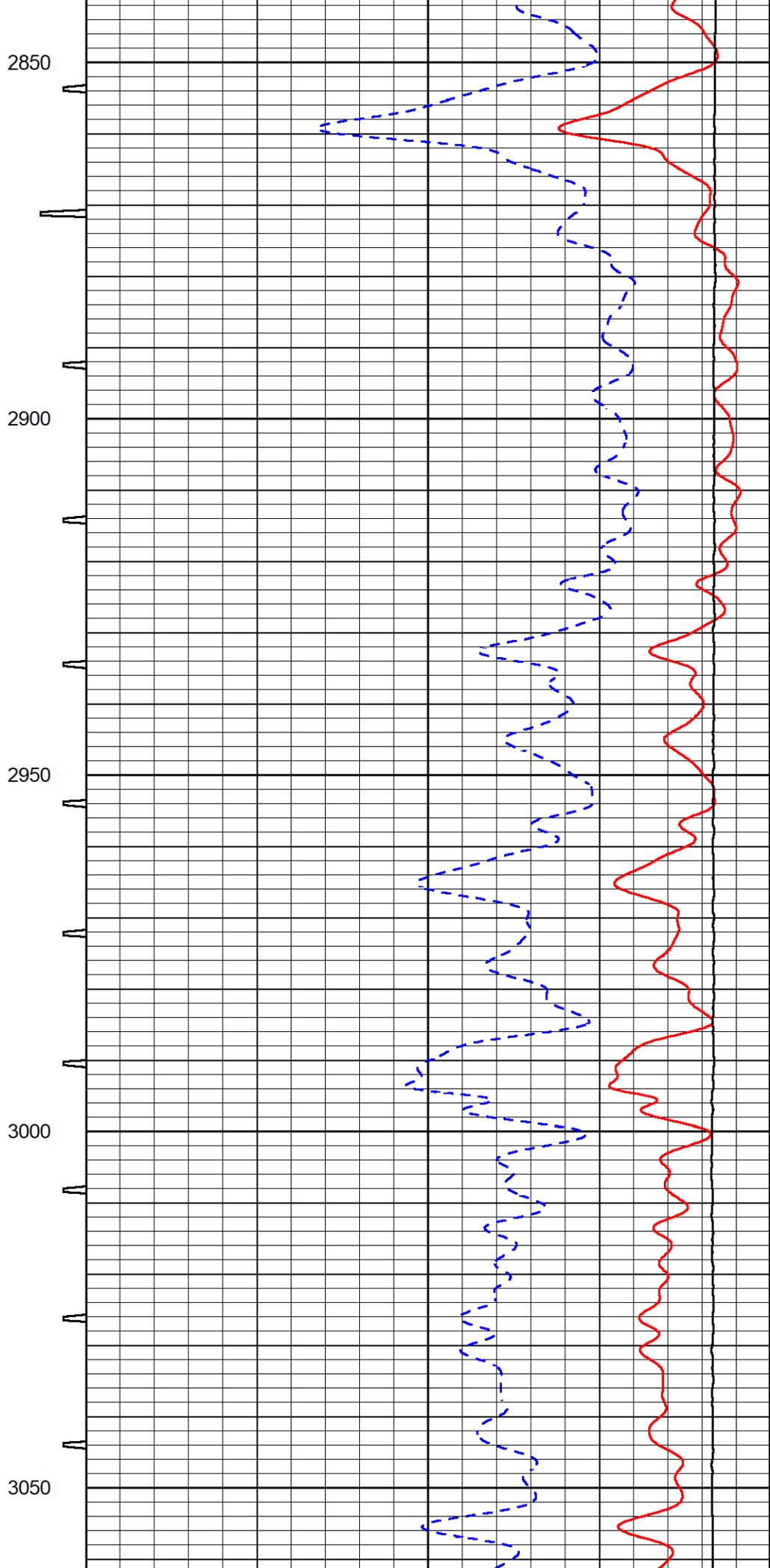
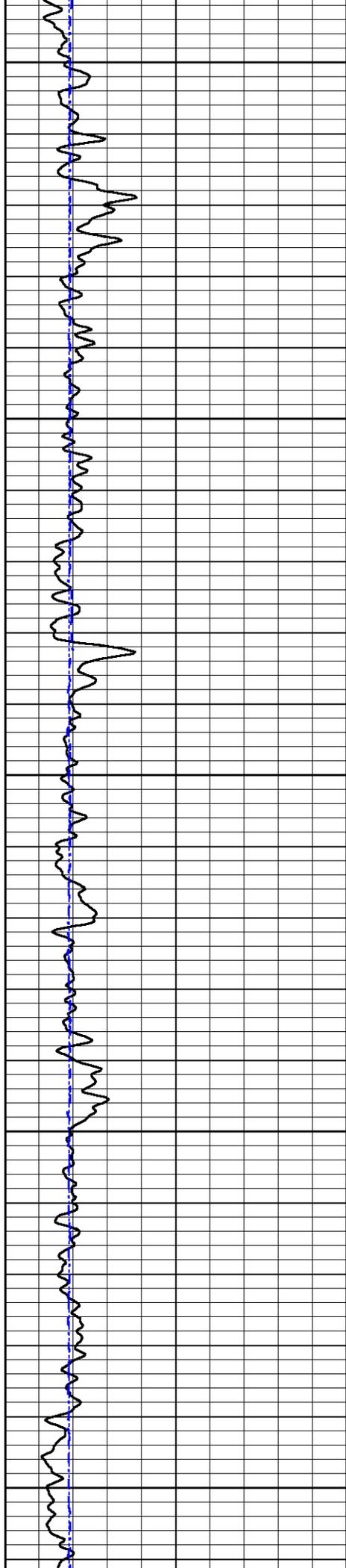


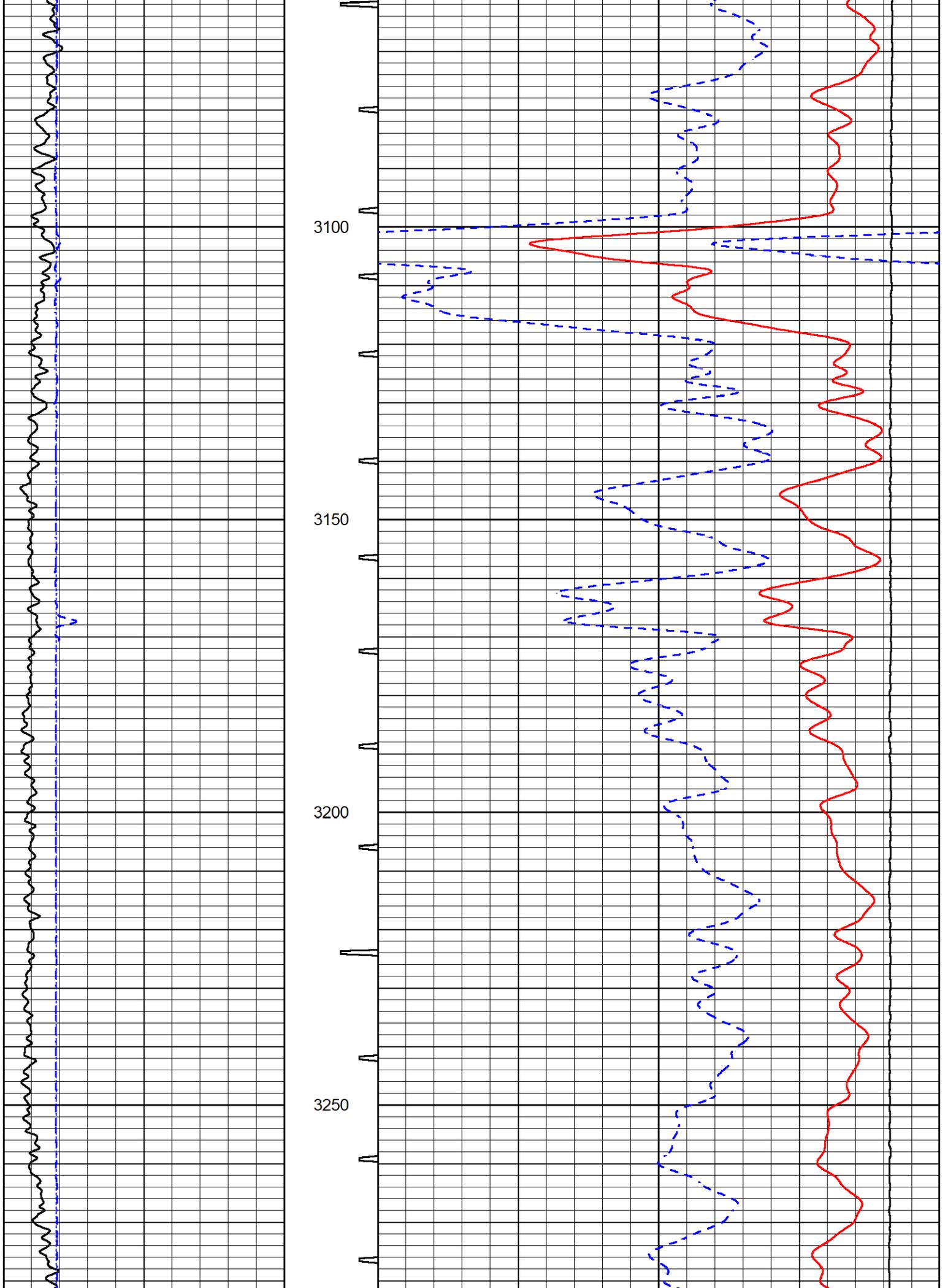


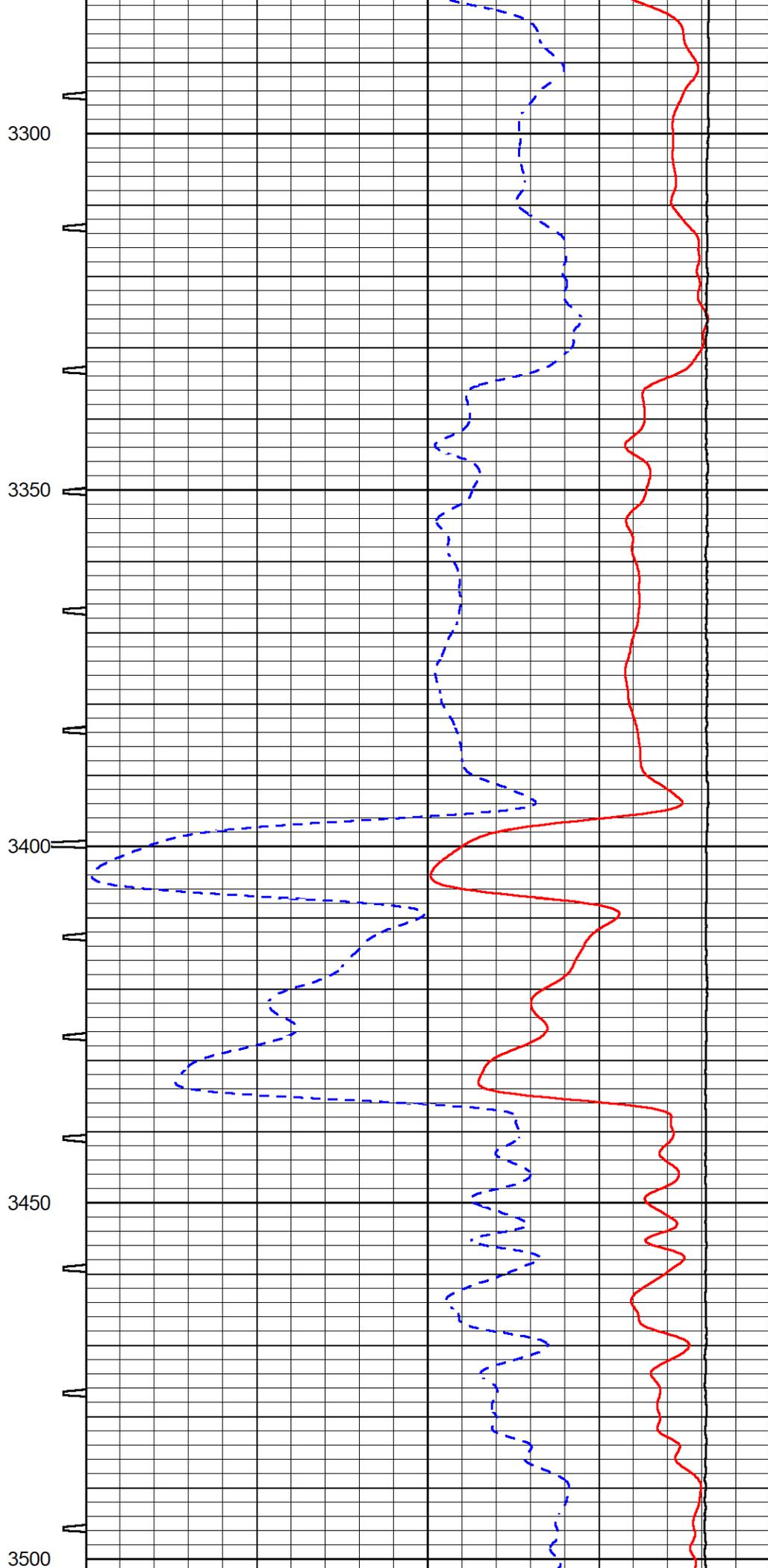
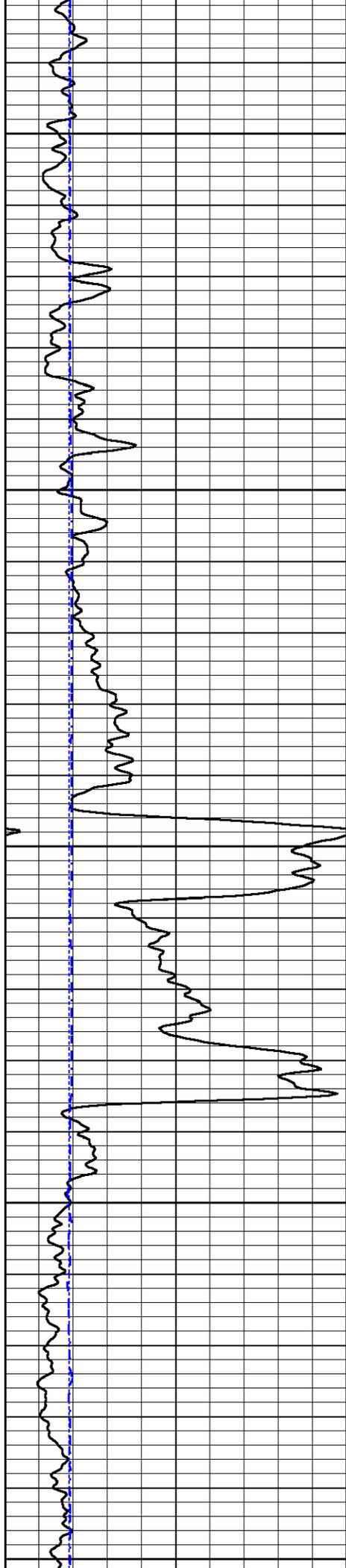


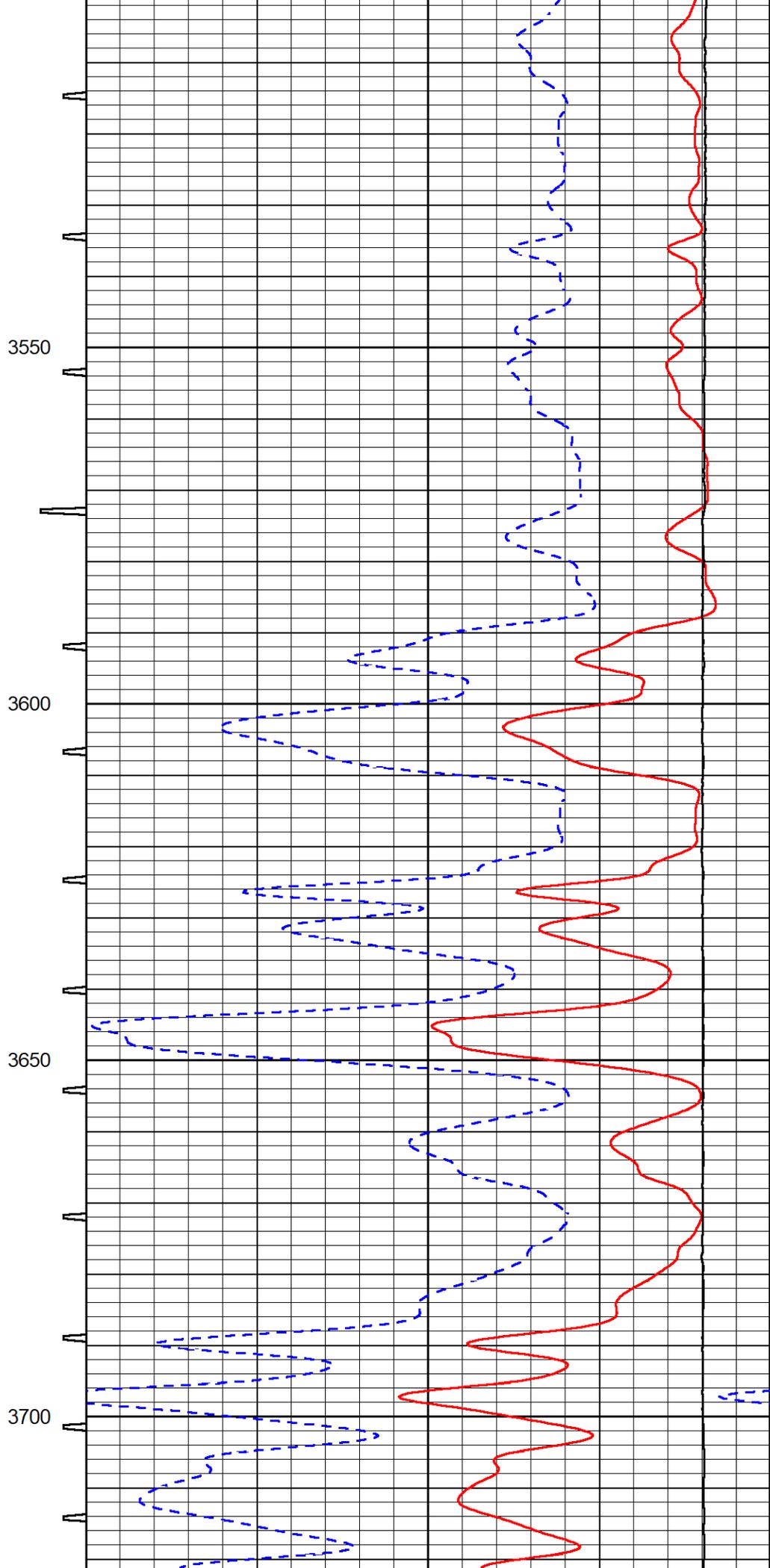
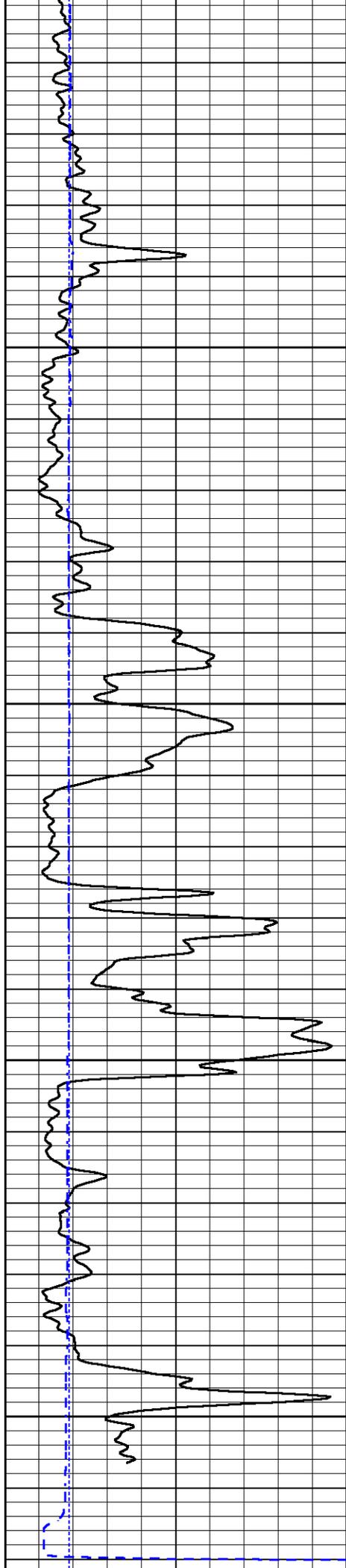


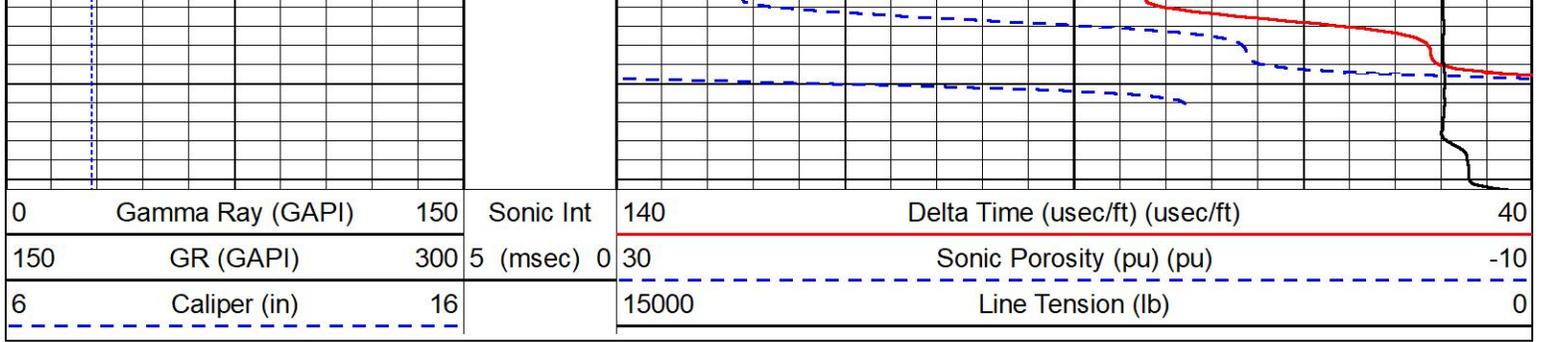










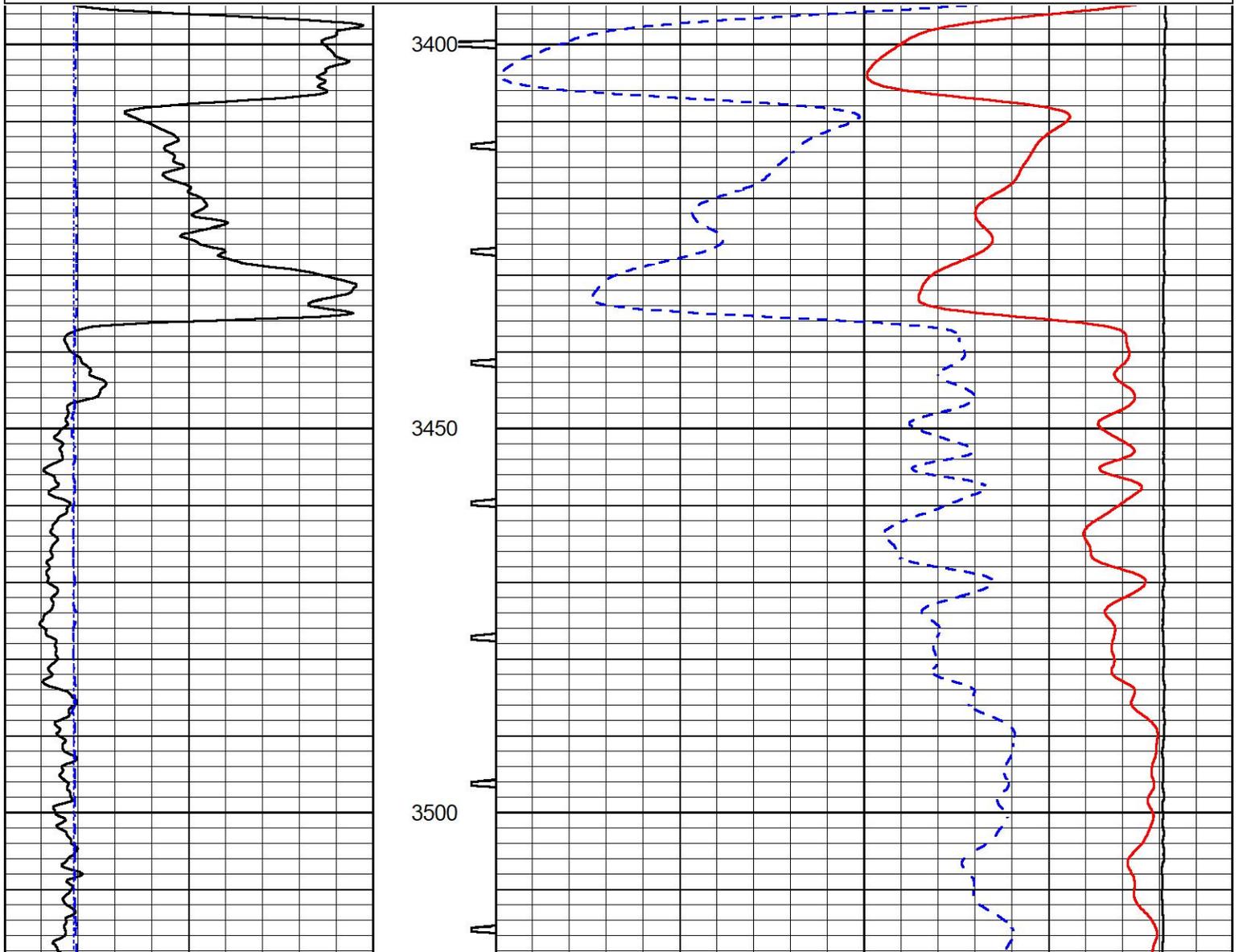
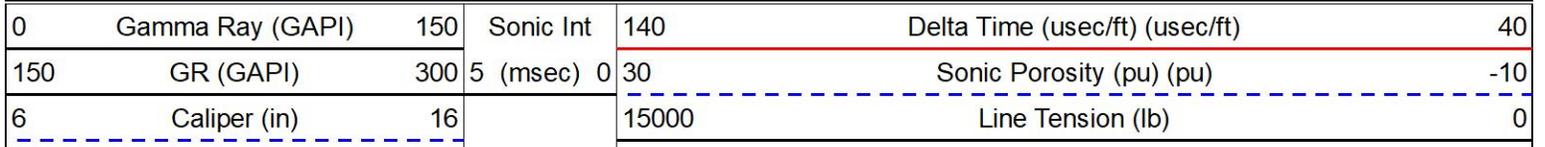


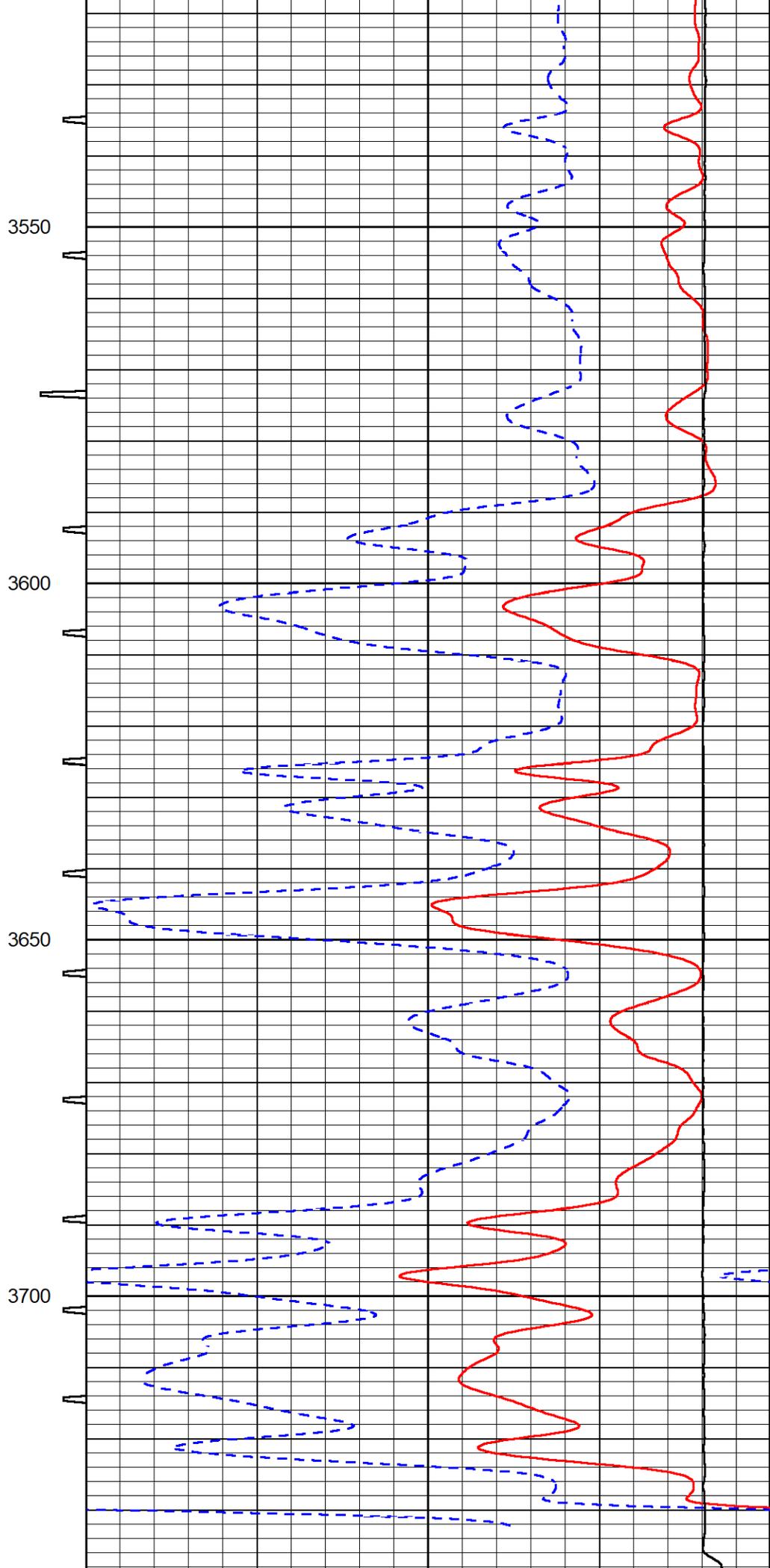
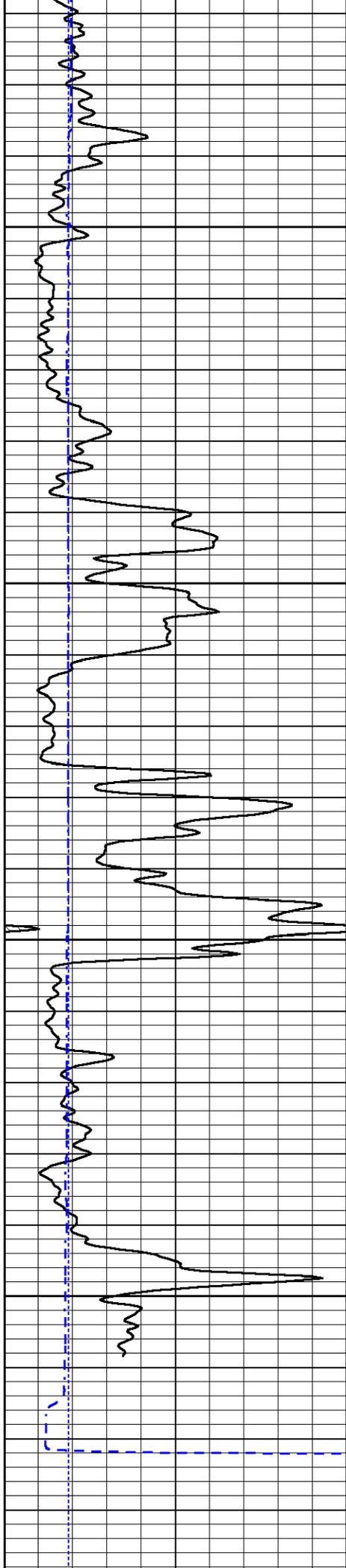
MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File ppsi_richards-fund a #4.db
 Dataset Pathname Stack/pass2.1
 Presentation Format _sonic
 Dataset Creation Tue Oct 11 20:37:40 2022
 Charted by Depth in Feet scaled 1:240





| | | | | | | |
|-----|------------------|-----|------------|-------|--------------------------------|-----|
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