



## Pioneer Energy Services

## Dual Compensated Porosity Log

APL No.

15-203-20287-00-00

Company **Red Oak Energy, Inc.**

Well Collingwood Trust #1-27

Field **Wildcat**

Location

Sec: 27 Twp: 20S Rge: 38W

## Elevation

|                   |               |                          |
|-------------------|---------------|--------------------------|
| Permanent Datum   | Ground Level  | Elevation 3405           |
| Log Measured From | Kelly Bushing | 17 Ft. Above Perm. Datum |

Drilling Measured From Kelly Bushing

|      |           |  |
|------|-----------|--|
| Date | 11/9/2014 |  |
|------|-----------|--|

| Type Log | CNL / CDL |
|----------|-----------|
|----------|-----------|

|              |      |  |
|--------------|------|--|
| Depth Logger | 4999 |  |
|--------------|------|--|

|                     |     |  |
|---------------------|-----|--|
| Top Logged Interval | 300 |  |
|---------------------|-----|--|

|                  |      |  |
|------------------|------|--|
| Salinity, PPM CL | 4500 |  |
| g                | 8.1  |  |

| Level  | Full |
|--------|------|
| Master | 400  |

|                    |         |       |
|--------------------|---------|-------|
| Operating Rig Time | 5 Hours |       |
| Equipment Section  | 15      | 11ave |

|              |             |  |
|--------------|-------------|--|
| Recorded By  | R. Barnhart |  |
| Witnessed By | Scott Parks |  |

|              |              |  |
|--------------|--------------|--|
| Willesseu Dy |              |  |
|              | Scull Dalins |  |

|                  |            |
|------------------|------------|
| Boleilille Reuol | Casillig R |
|------------------|------------|

| Run No. | Bit | From | To | Size | Wgt. | From | To |
|---------|-----|------|----|------|------|------|----|
|         |     | 10   |    |      |      |      |    |

|     |       |    |     |       |     |    |
|-----|-------|----|-----|-------|-----|----|
| One | 12.23 | 00 | 337 | 8.023 | 23# | 00 |
|-----|-------|----|-----|-------|-----|----|

|     |       |     |    |  |  |
|-----|-------|-----|----|--|--|
| IWO | 1.815 | 337 | 1D |  |  |
|-----|-------|-----|----|--|--|

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

## Comments

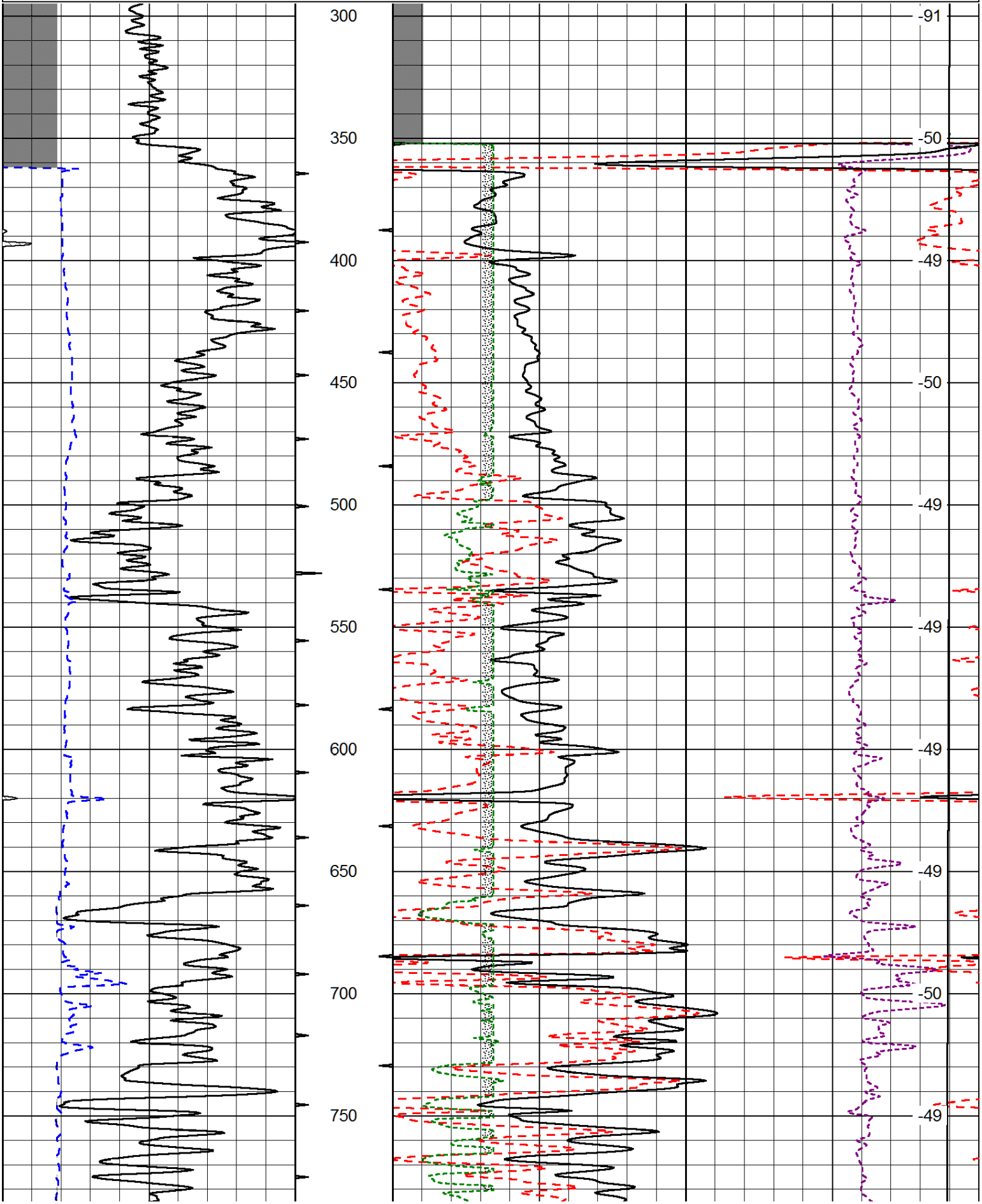
Thank you for using Log-Tech, Inc.  
(785) 625-3858

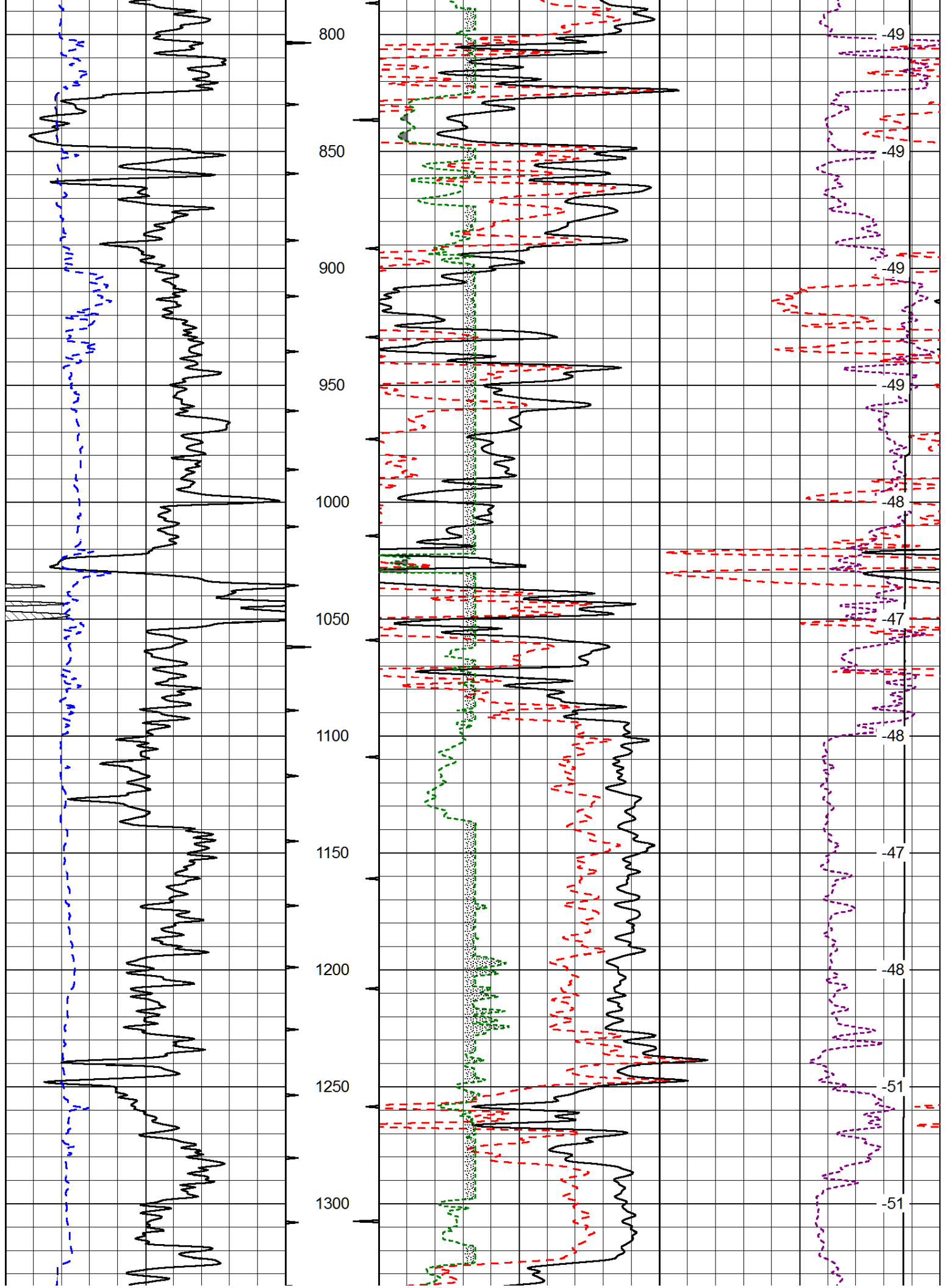
Leoti, KS:  
W to 3 Rd., 13S. 1E. N into

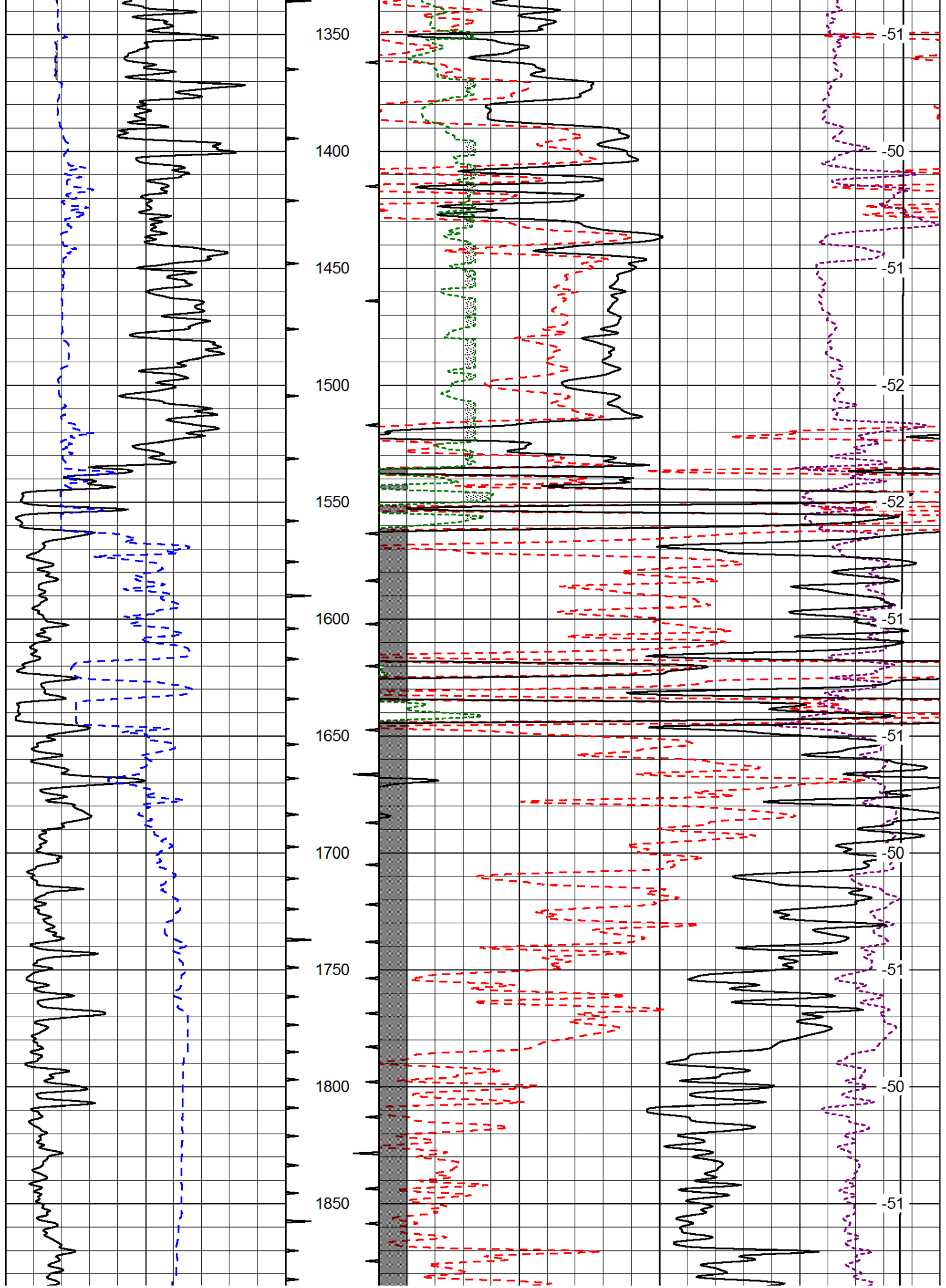
Database File: redoak\_hd.db  
Dataset Pathname: dil/romain  
Presentation Format: cdl  
Dataset Creation: Mon Nov 10 02:05:37 2014  
Charted by: Depth in Feet scaled 1:600

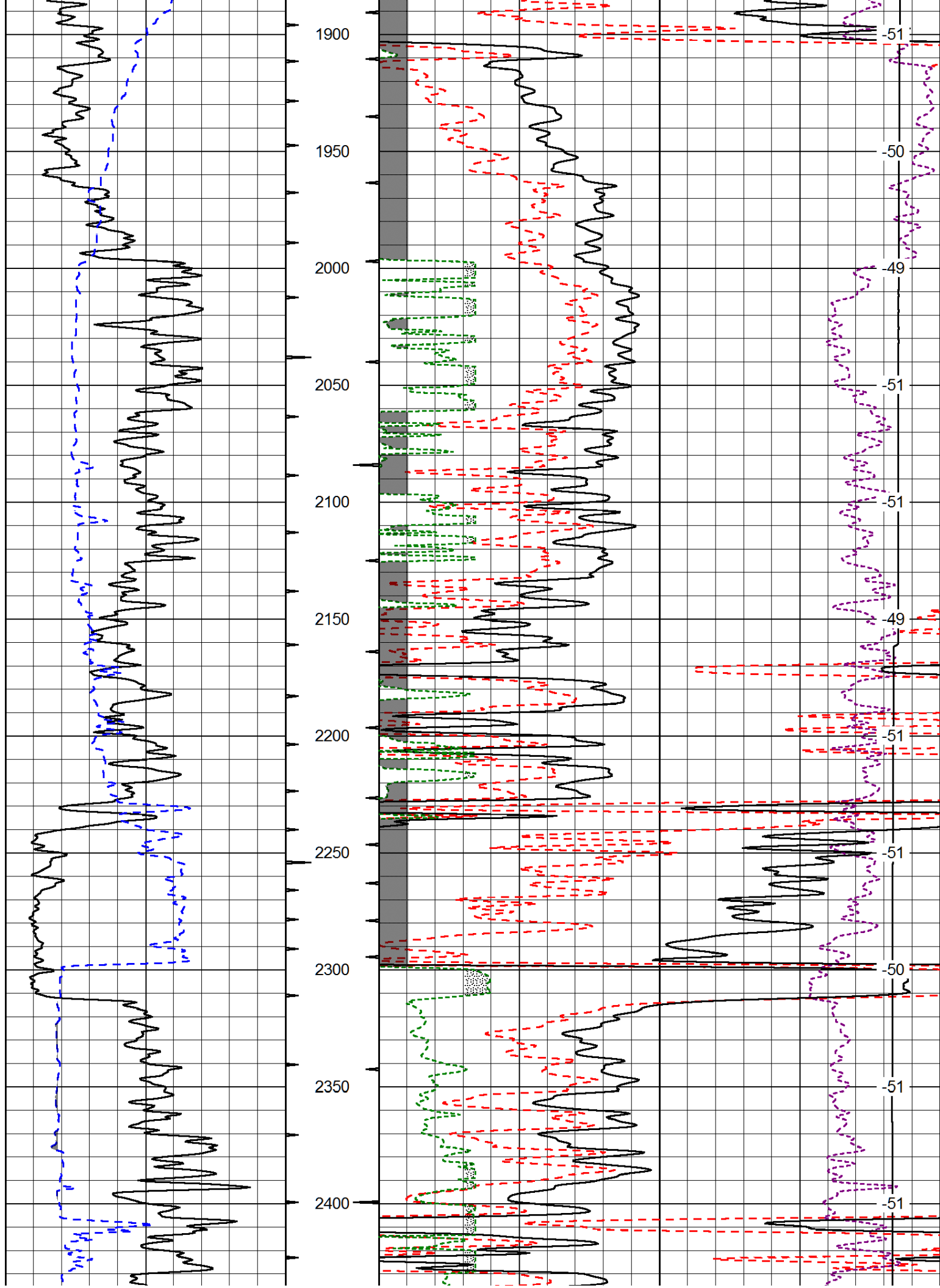
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|---|----------------|-----|
| 0 | Gamma Ray      | 150 |
| 6 | Caliper (GAPI) | 16  |

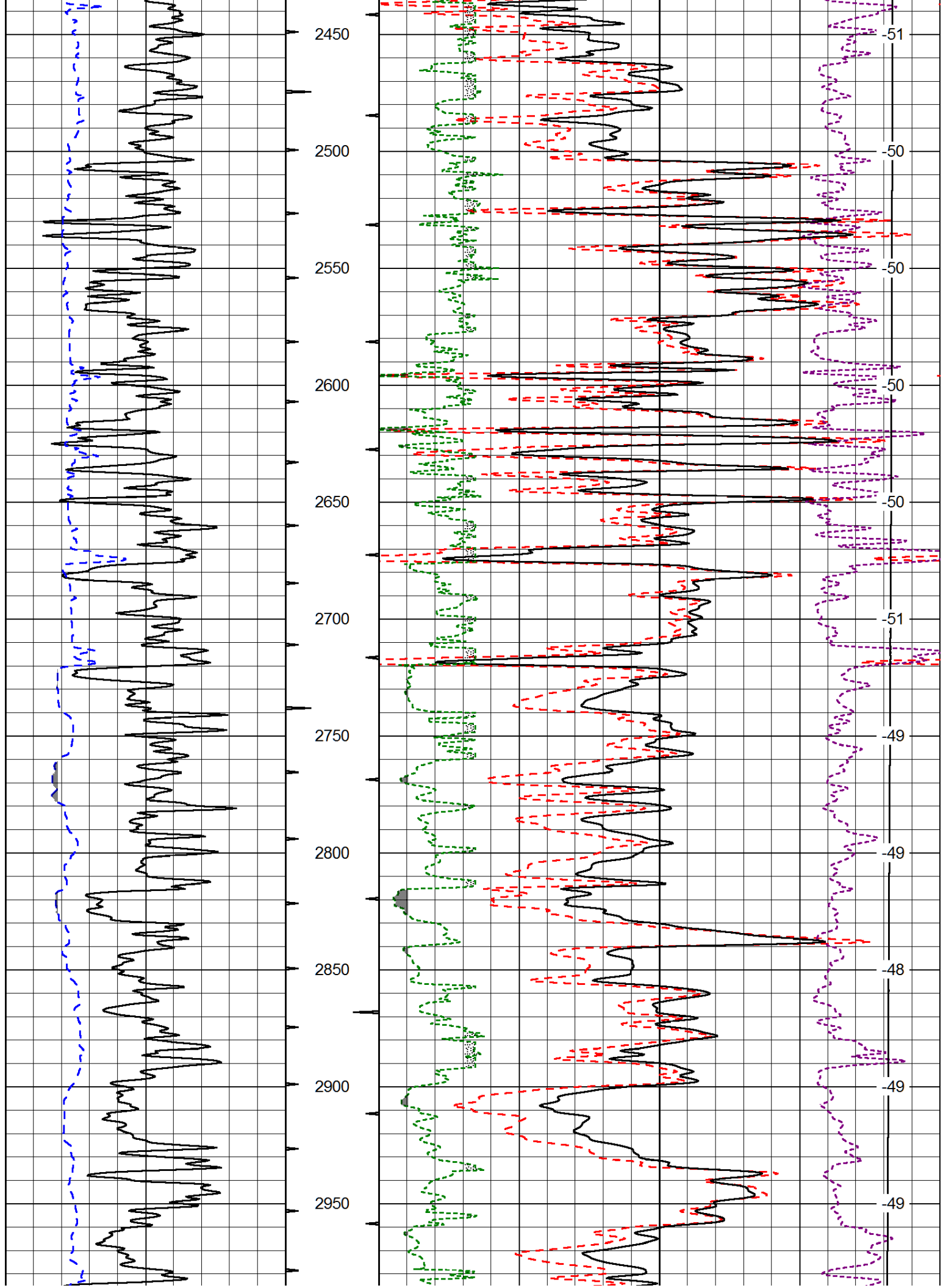
|            |                     |       |       |
|------------|---------------------|-------|-------|
| 30         | Compensated Density |       | -10   |
| 2          | Bulk Density        |       | 3     |
| 15000      | Line Tension        |       | 0     |
| 2.625      | DGA                 |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

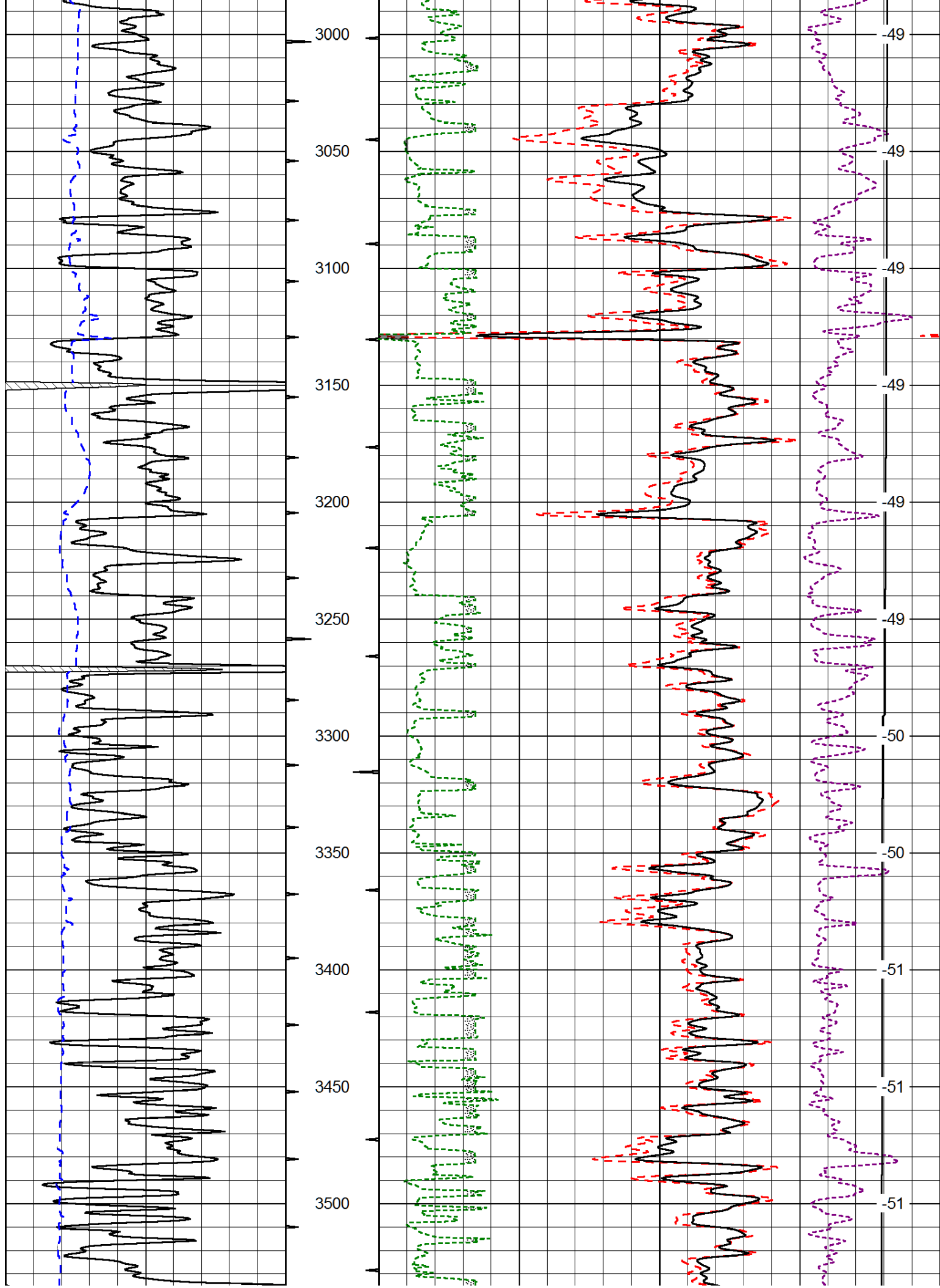




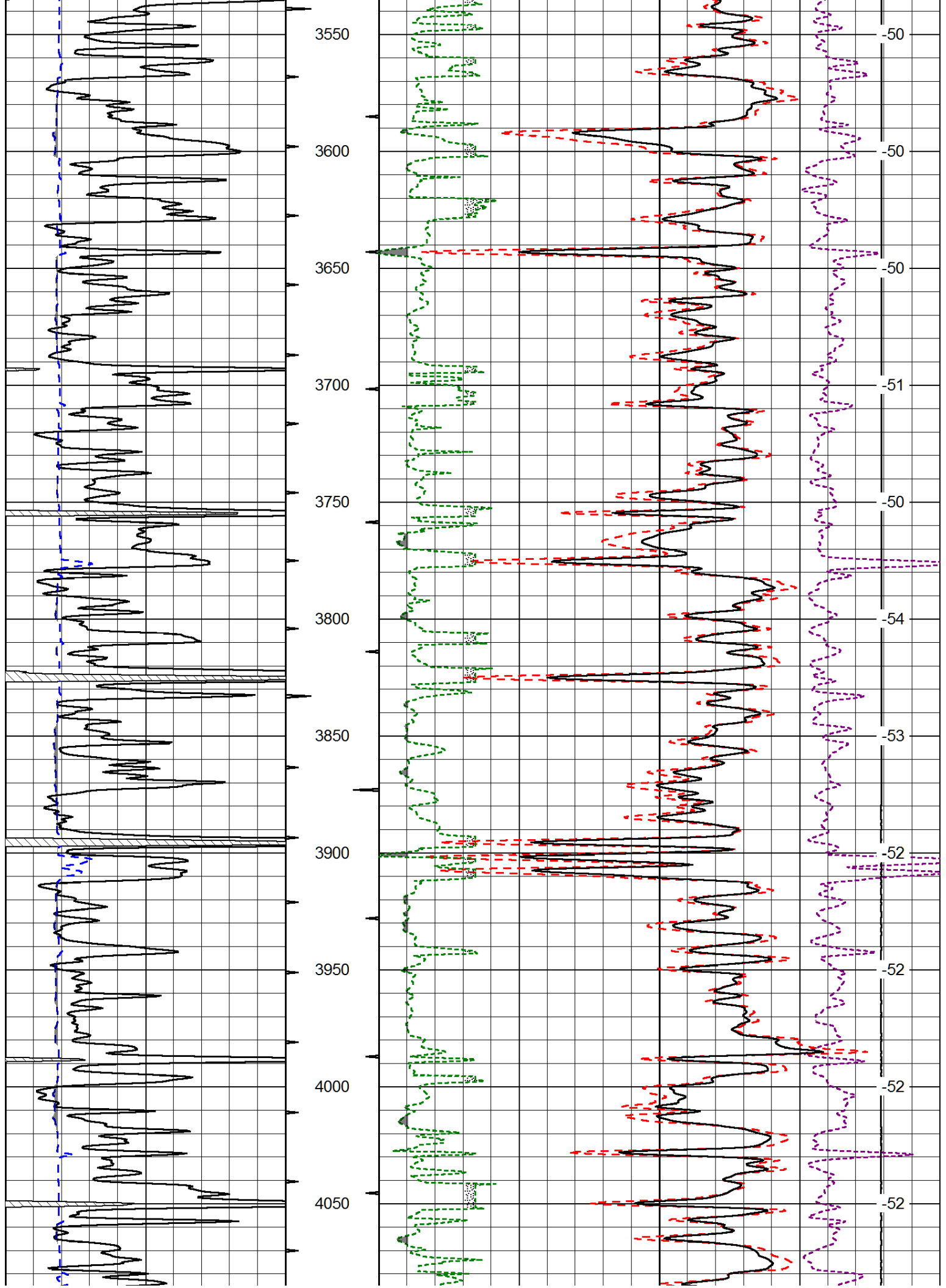




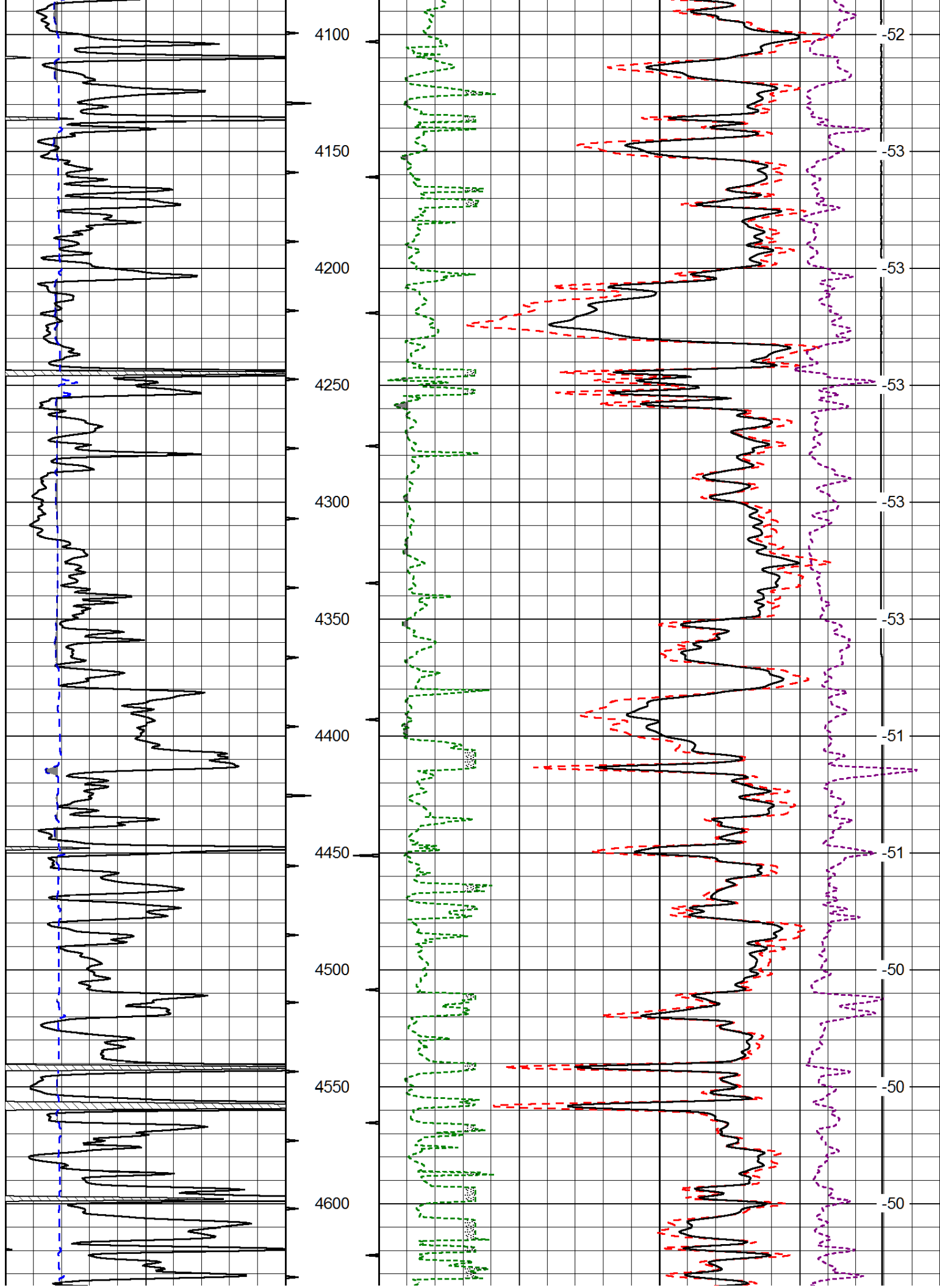




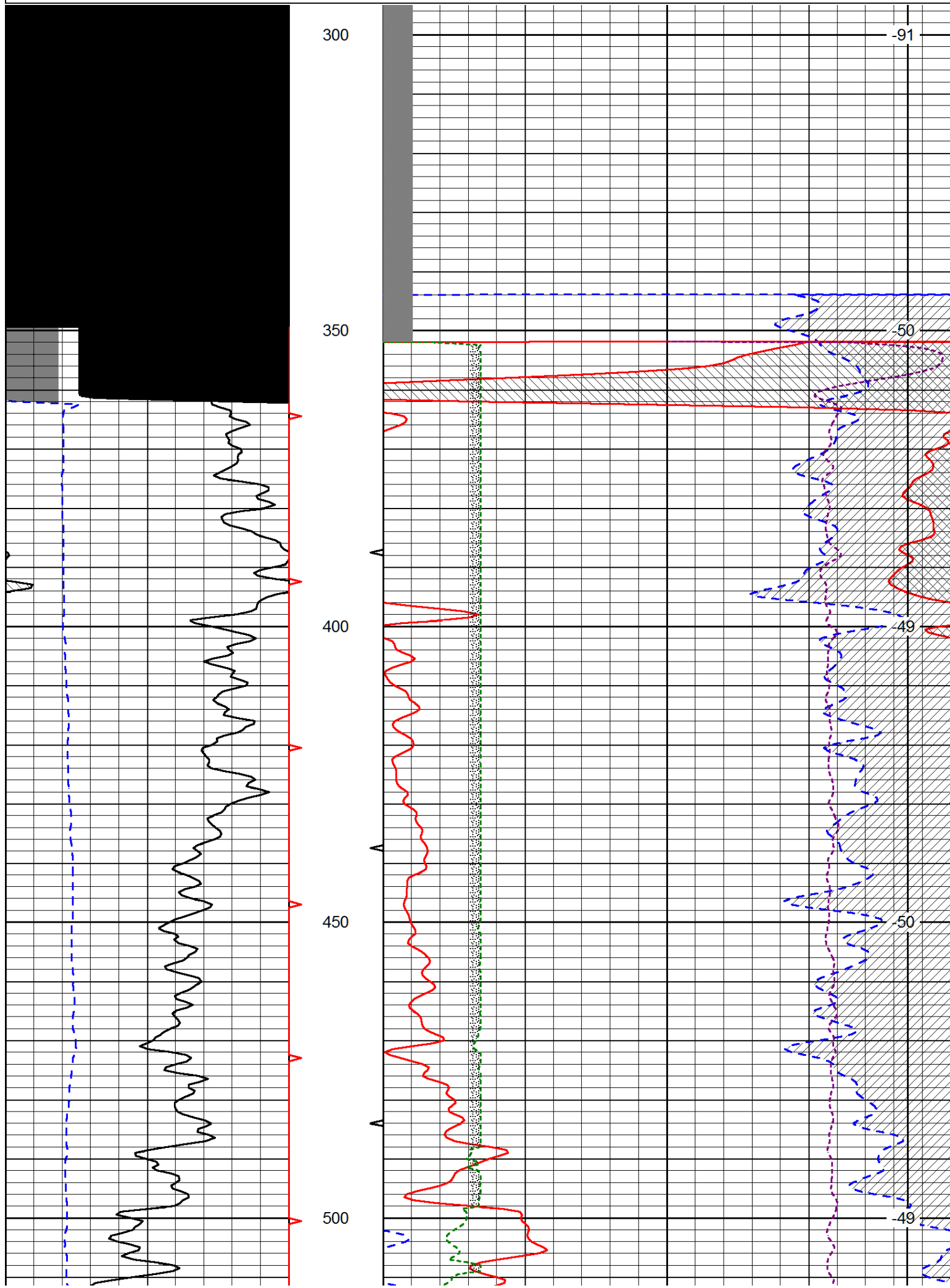


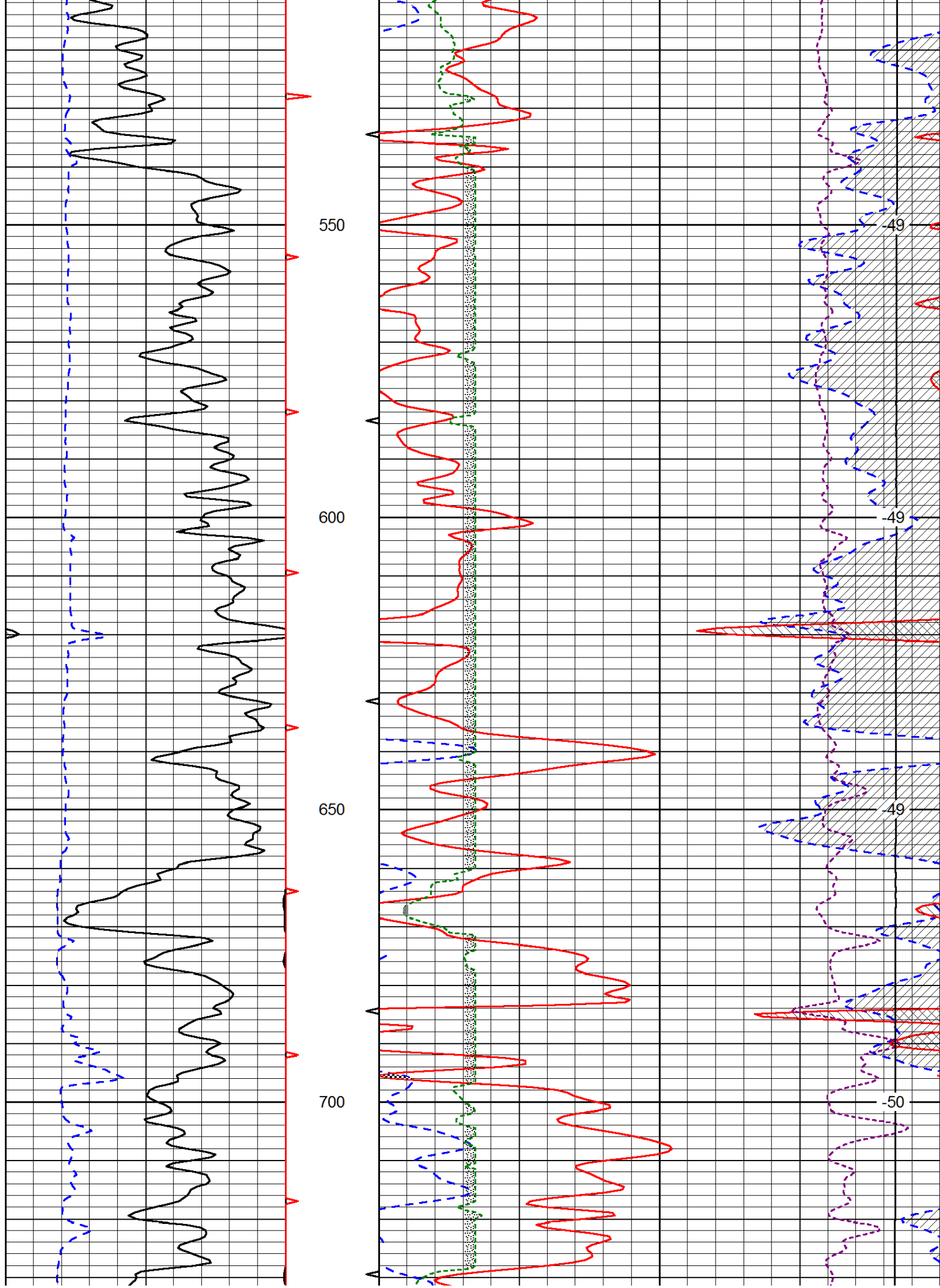


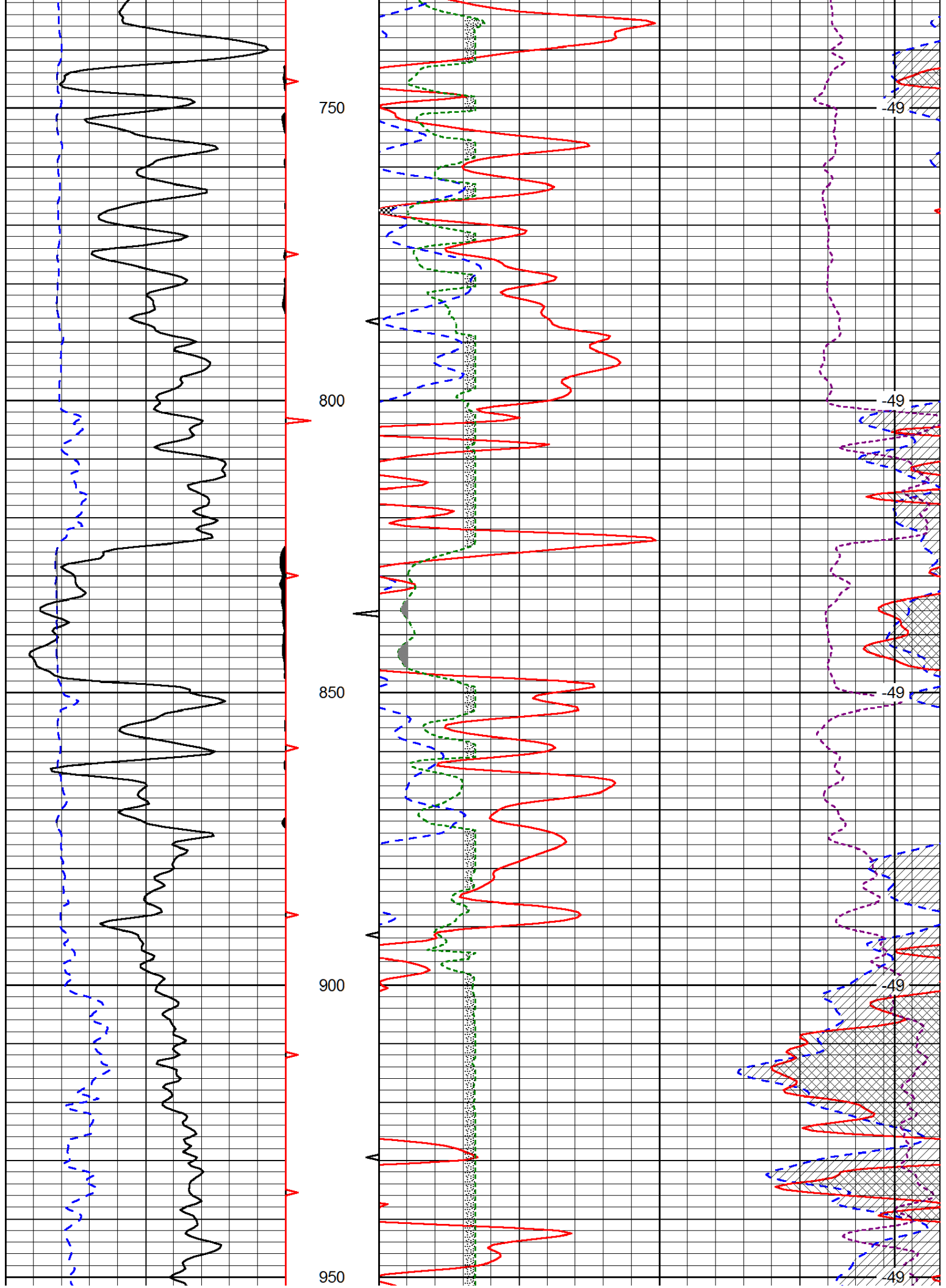


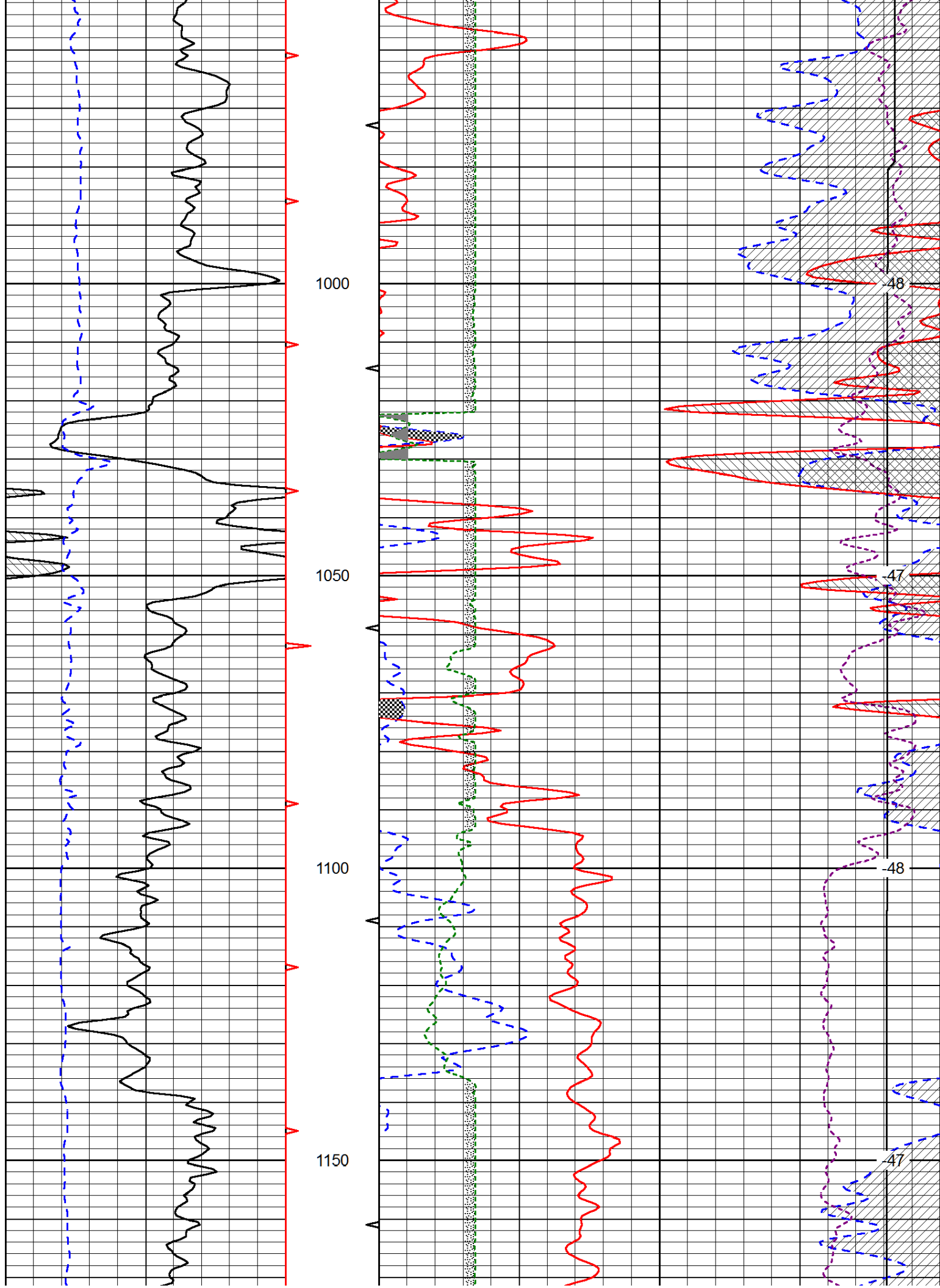


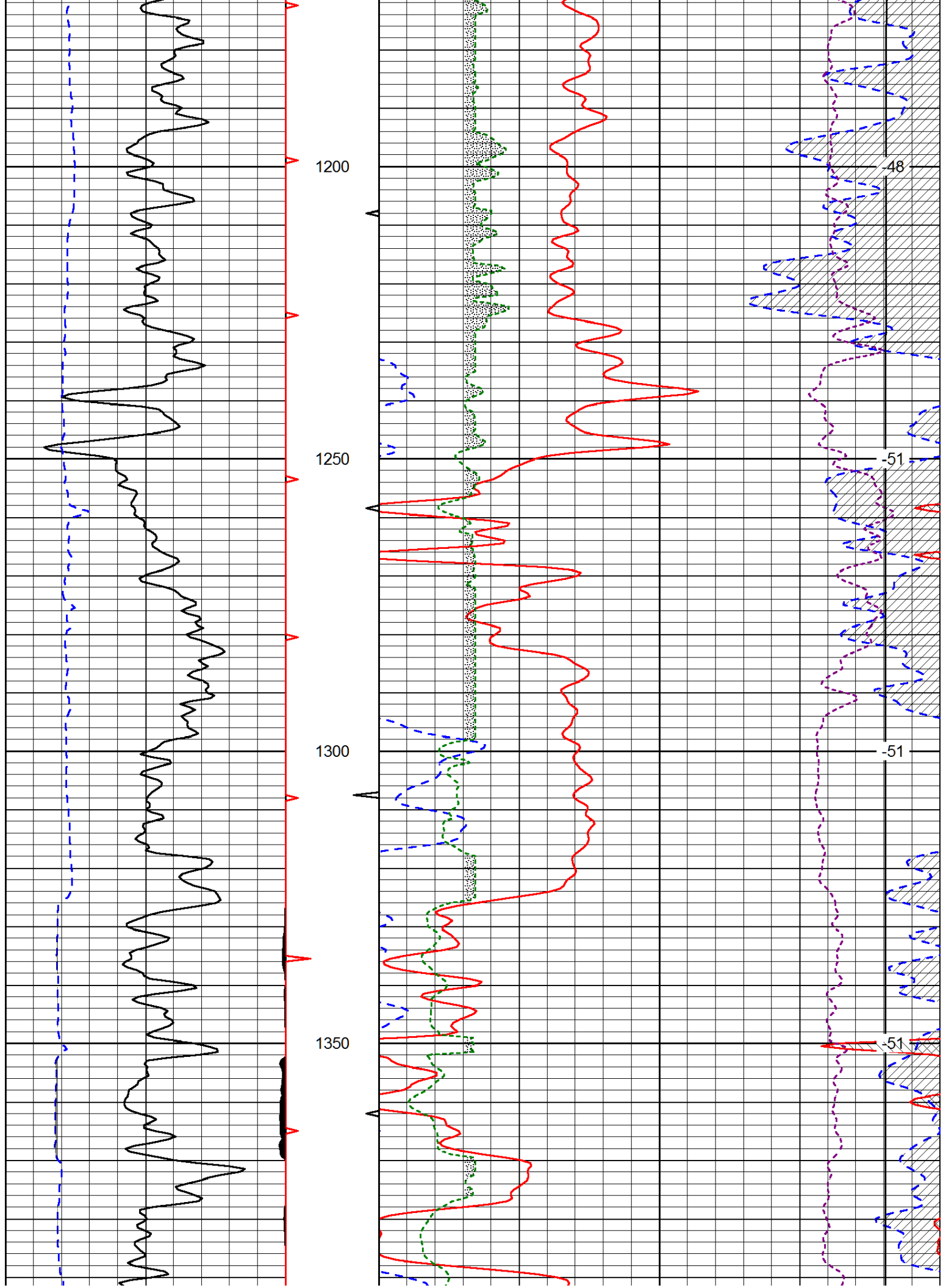




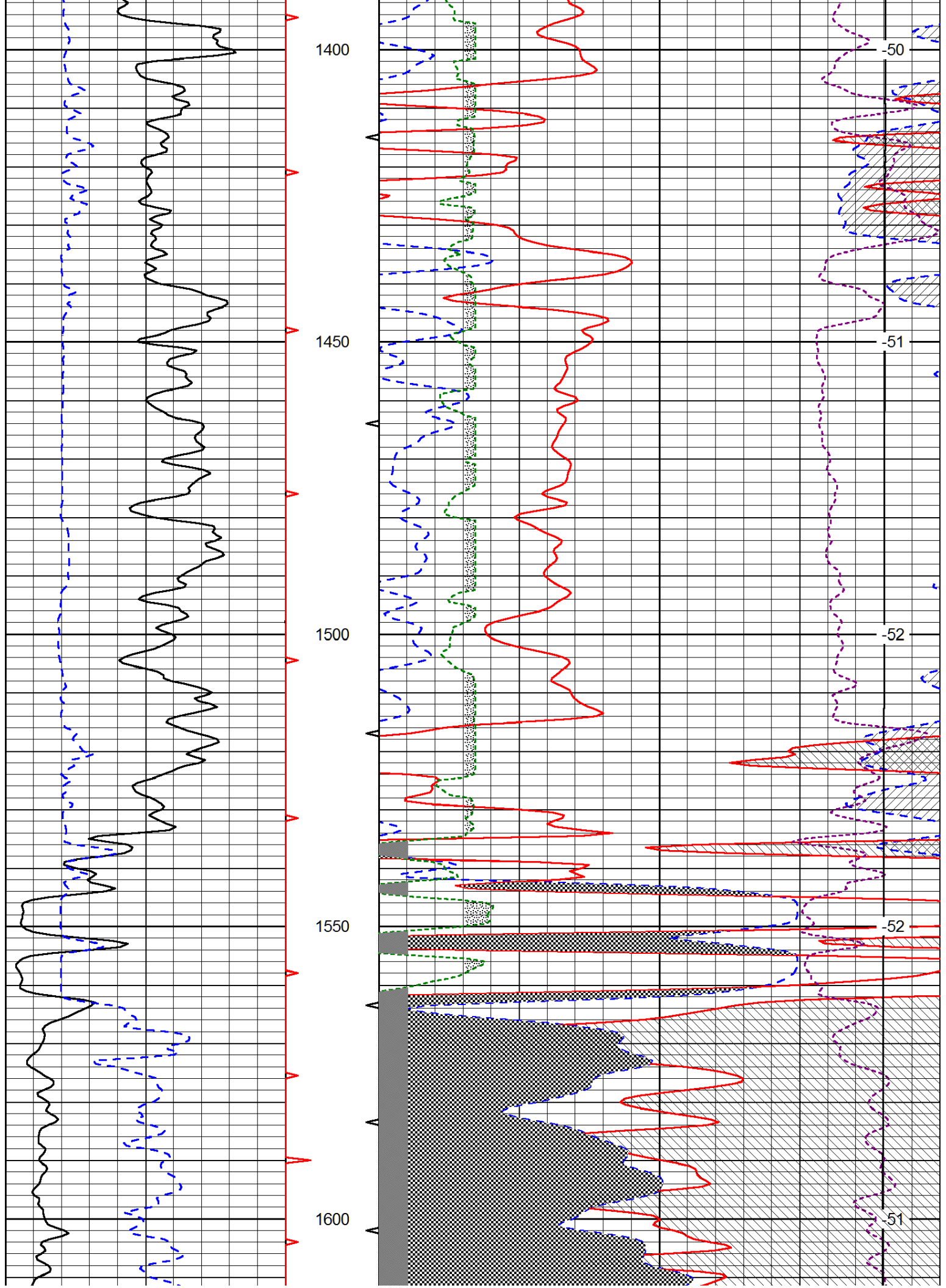


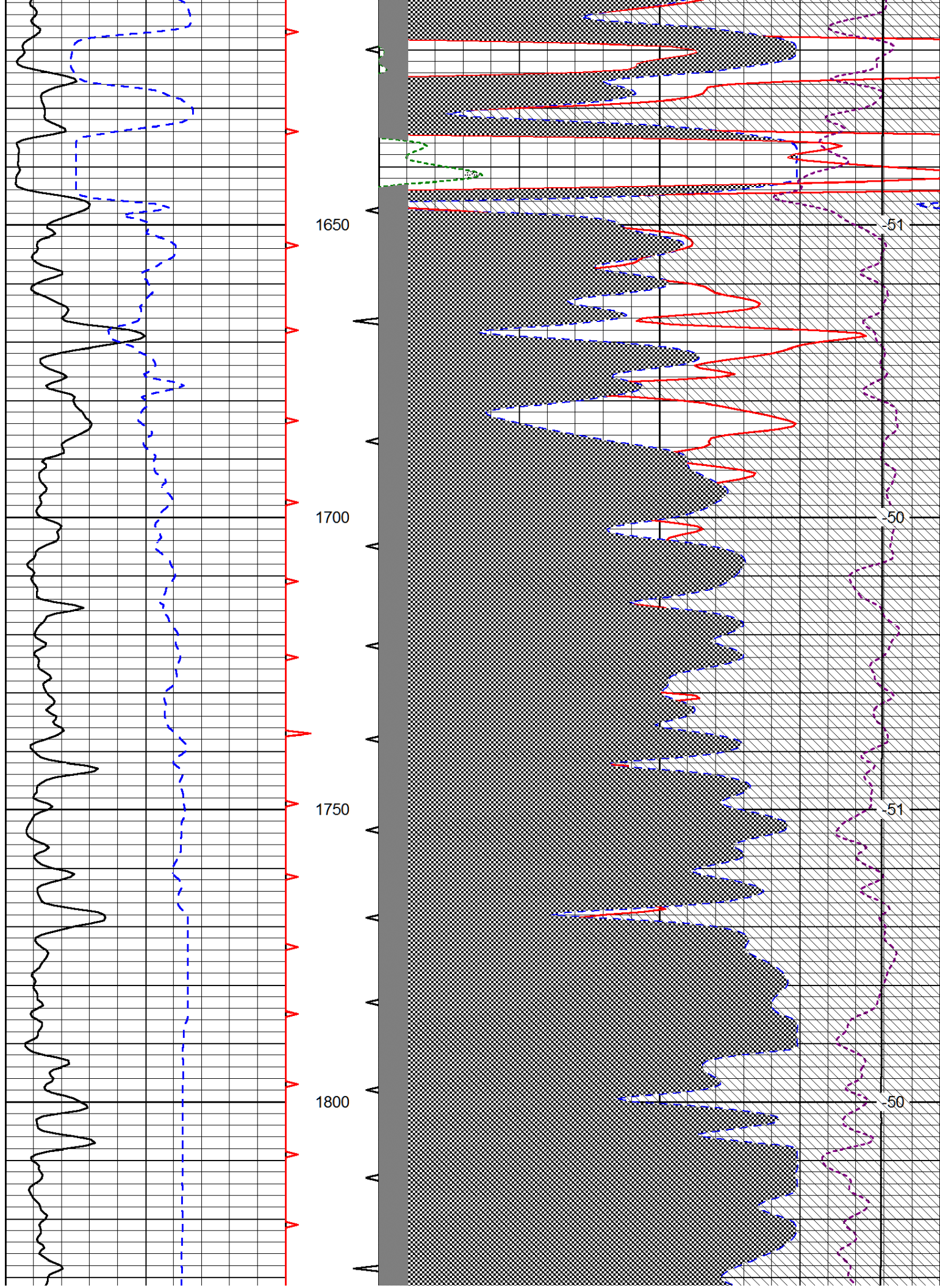


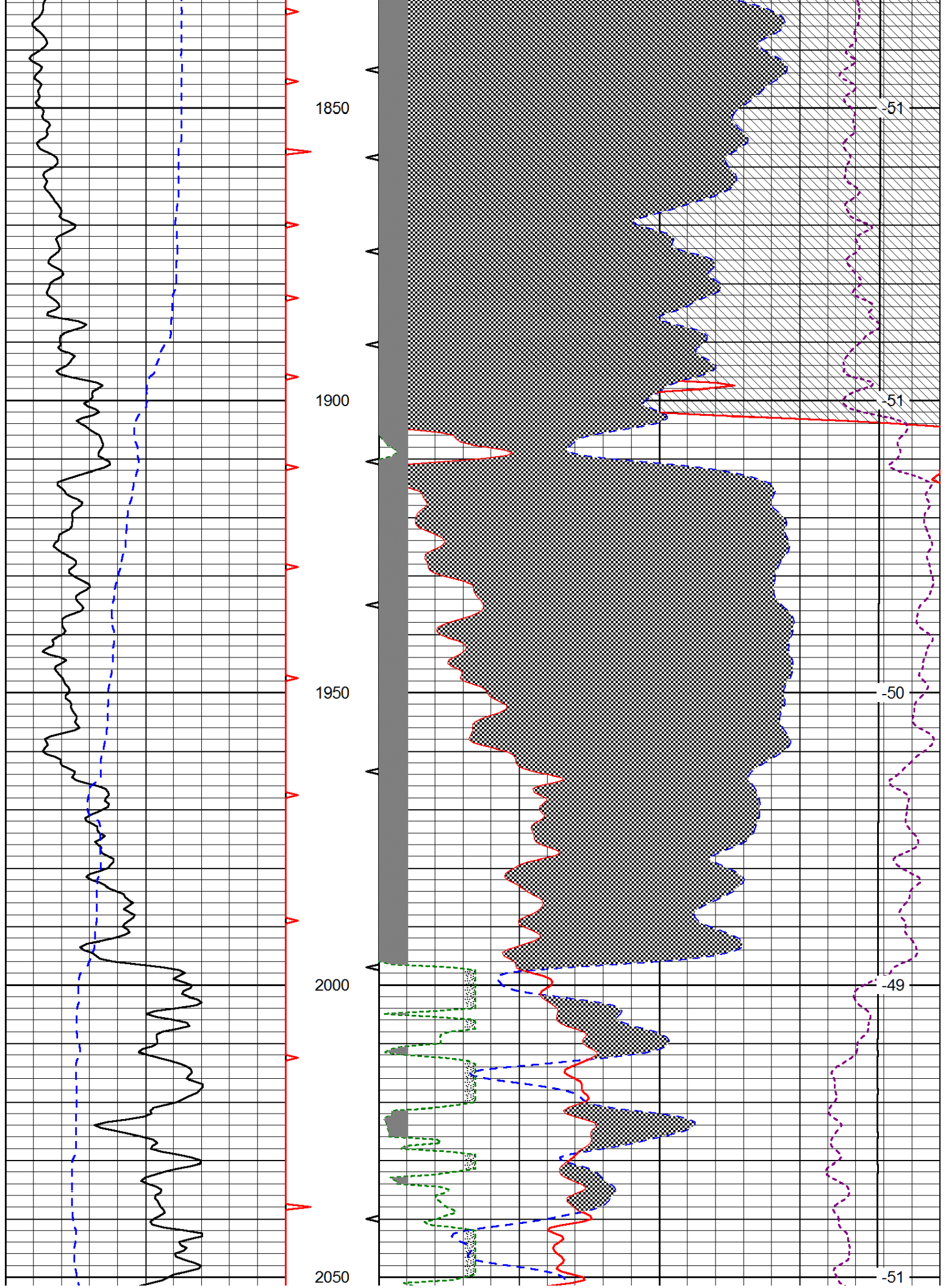




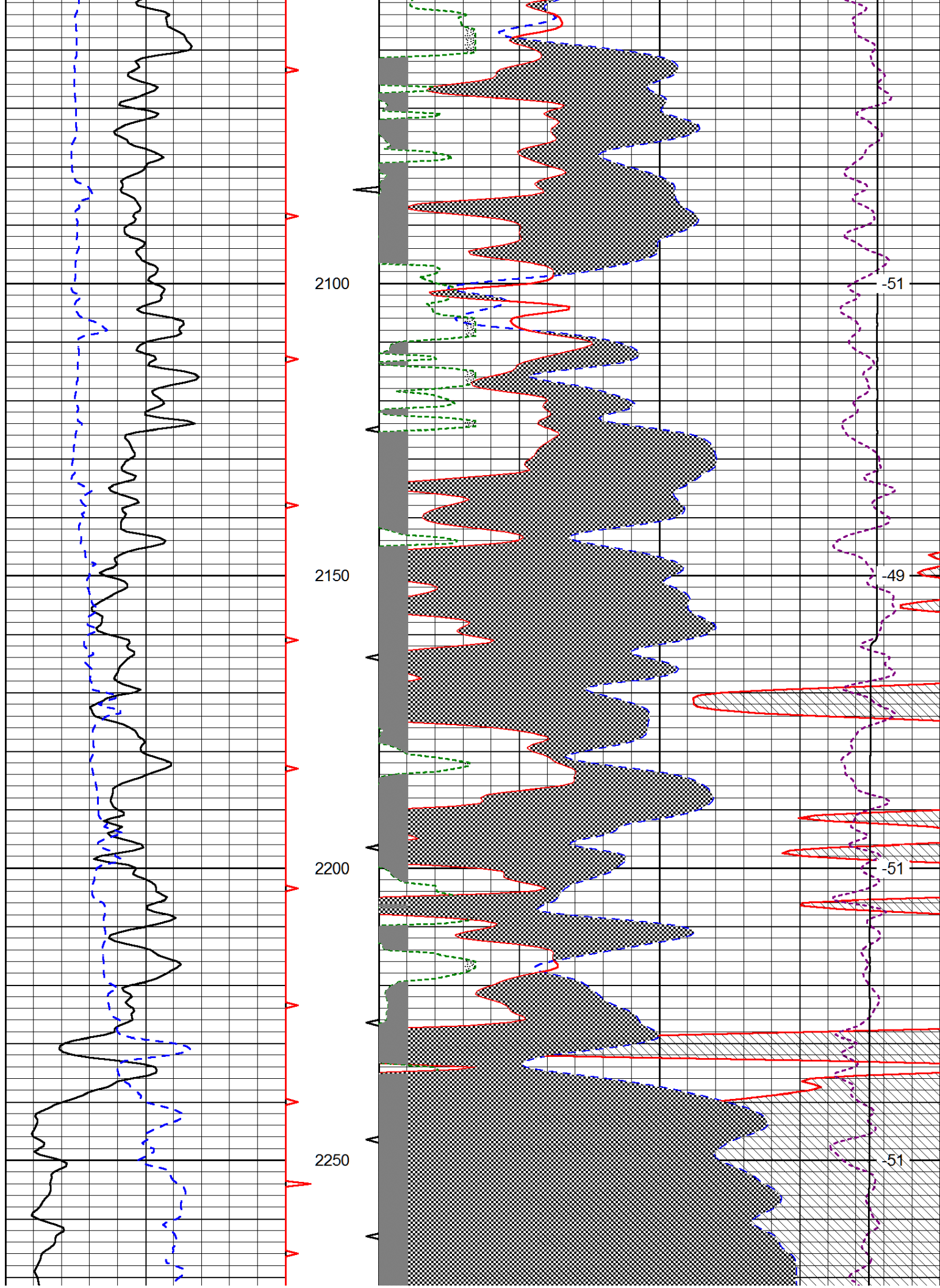


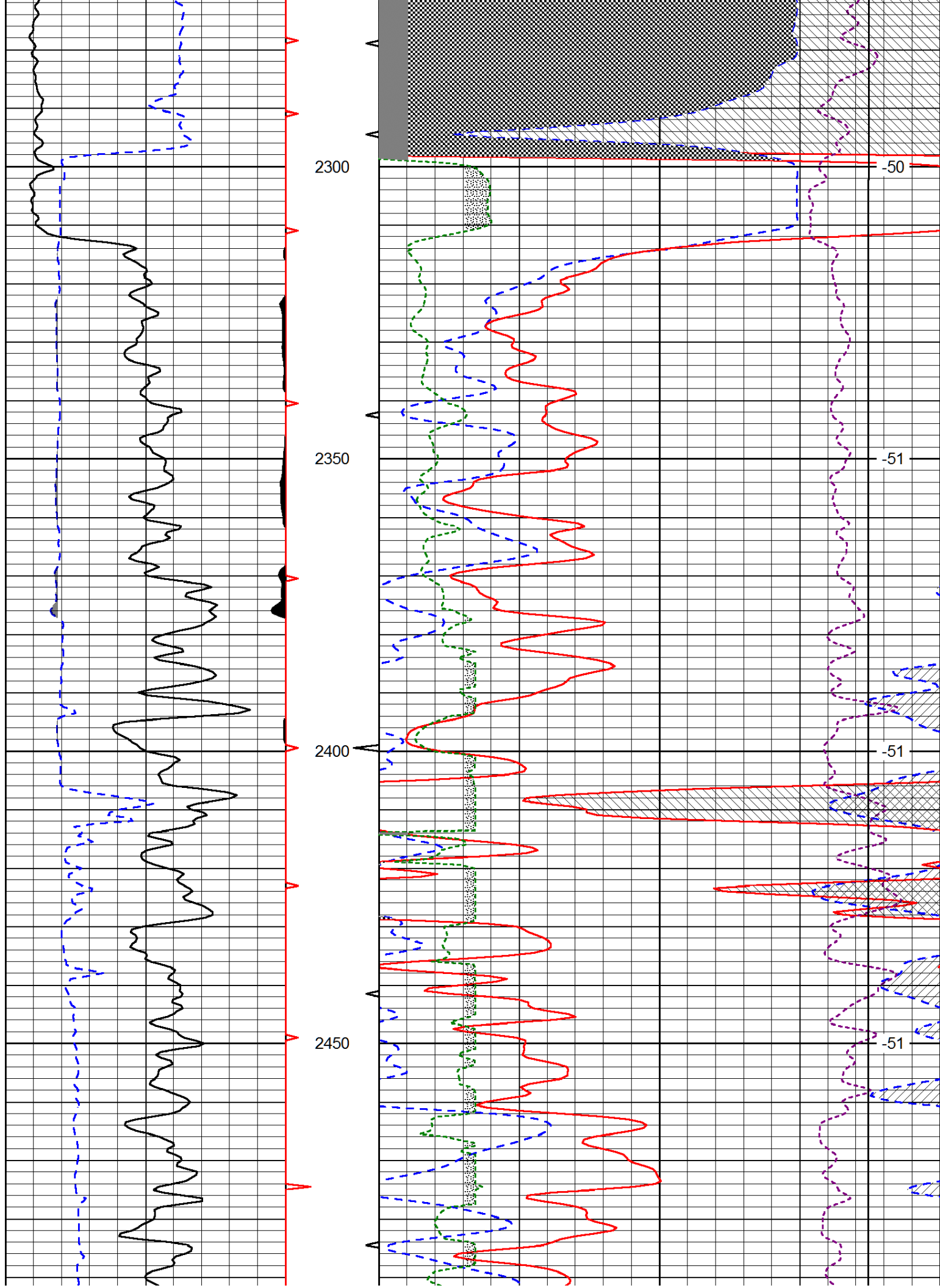


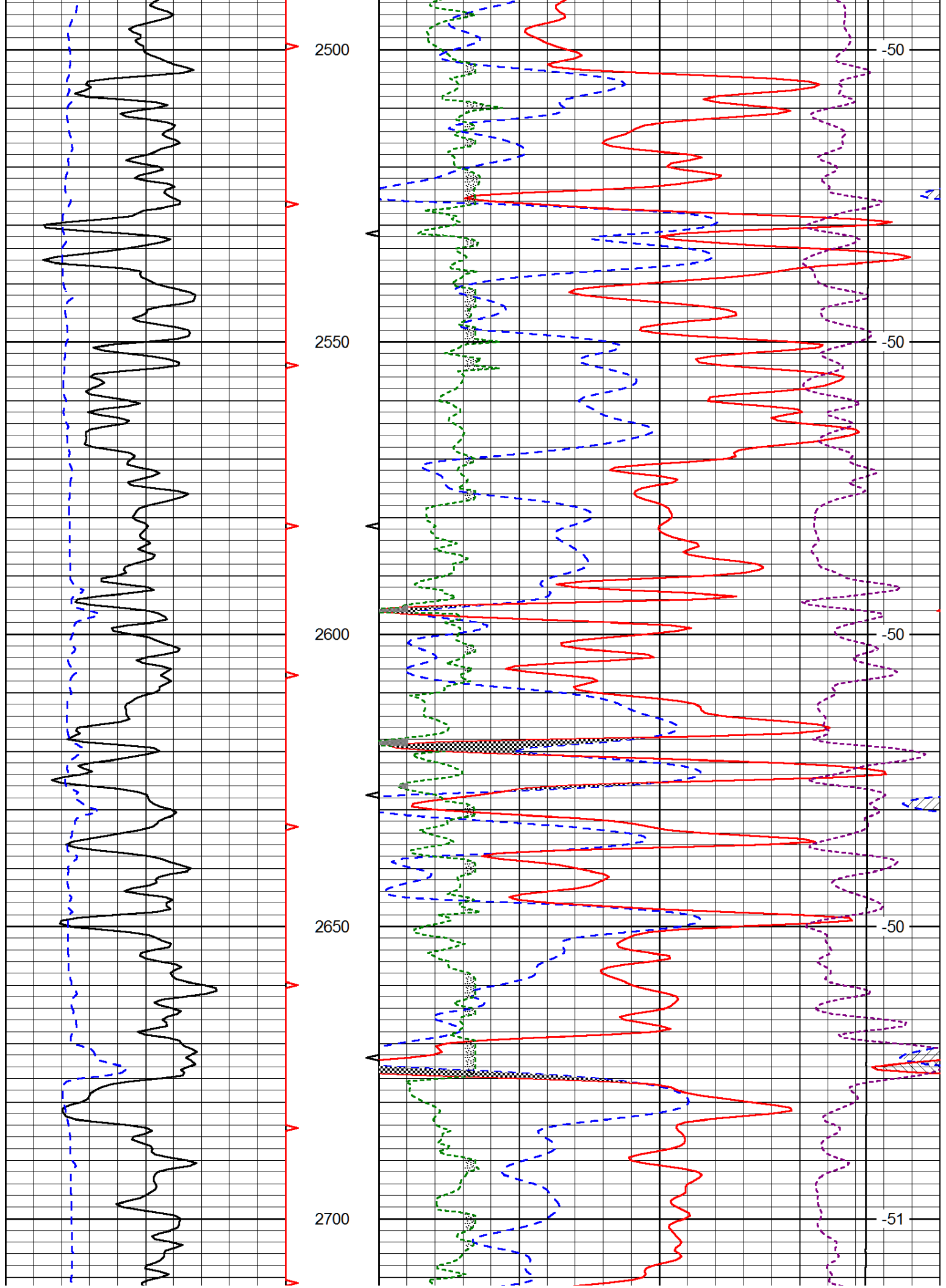


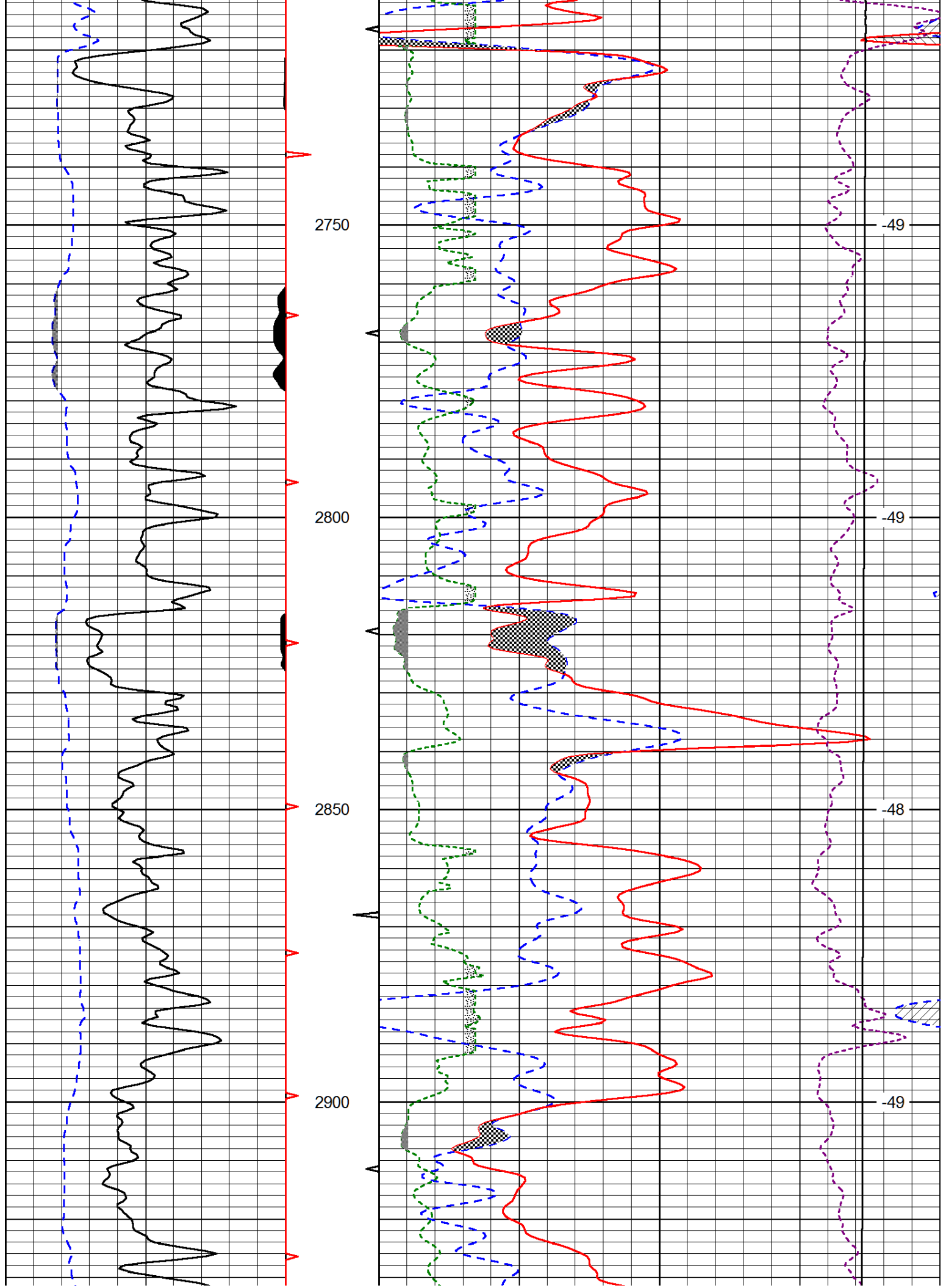




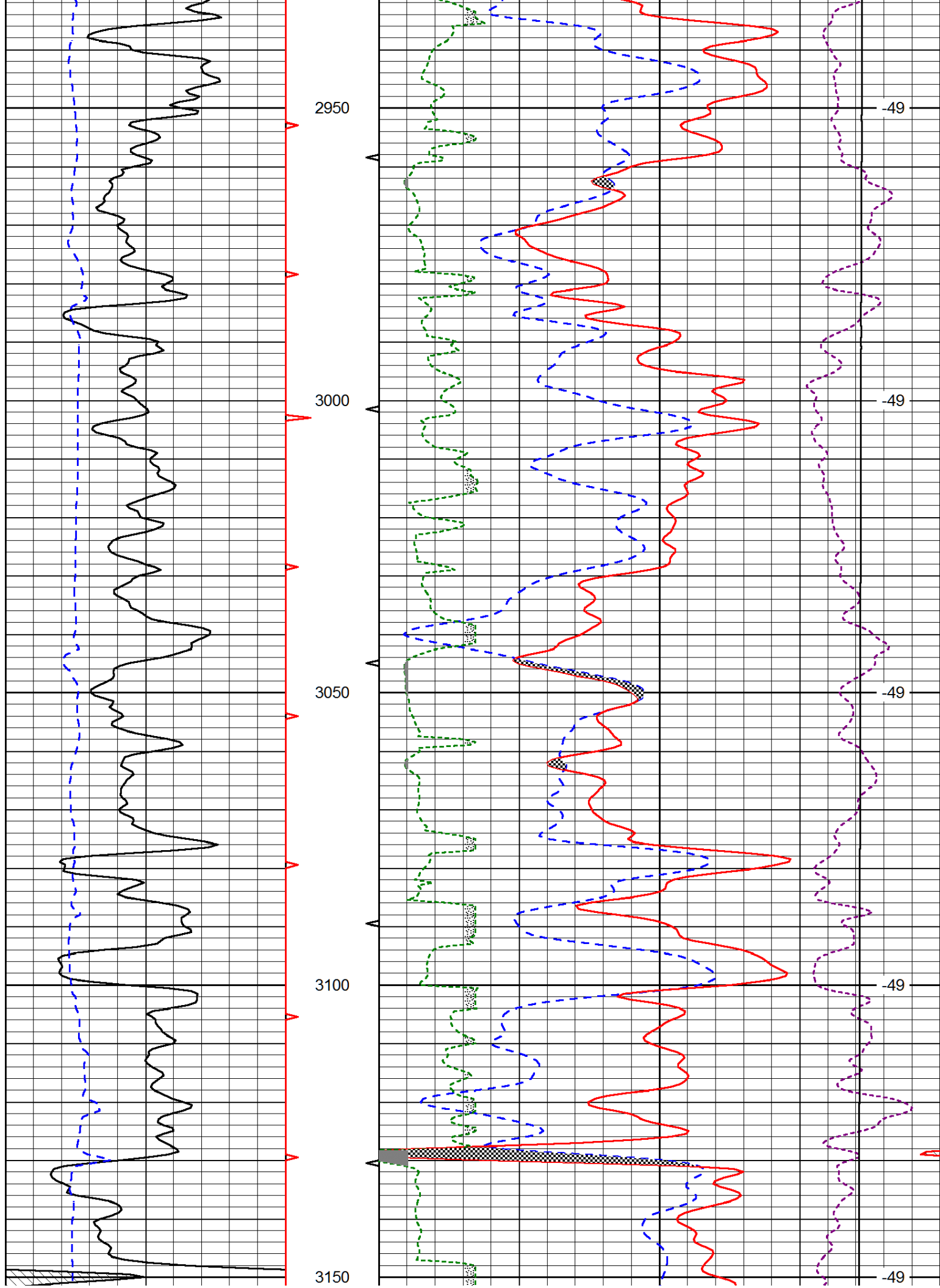


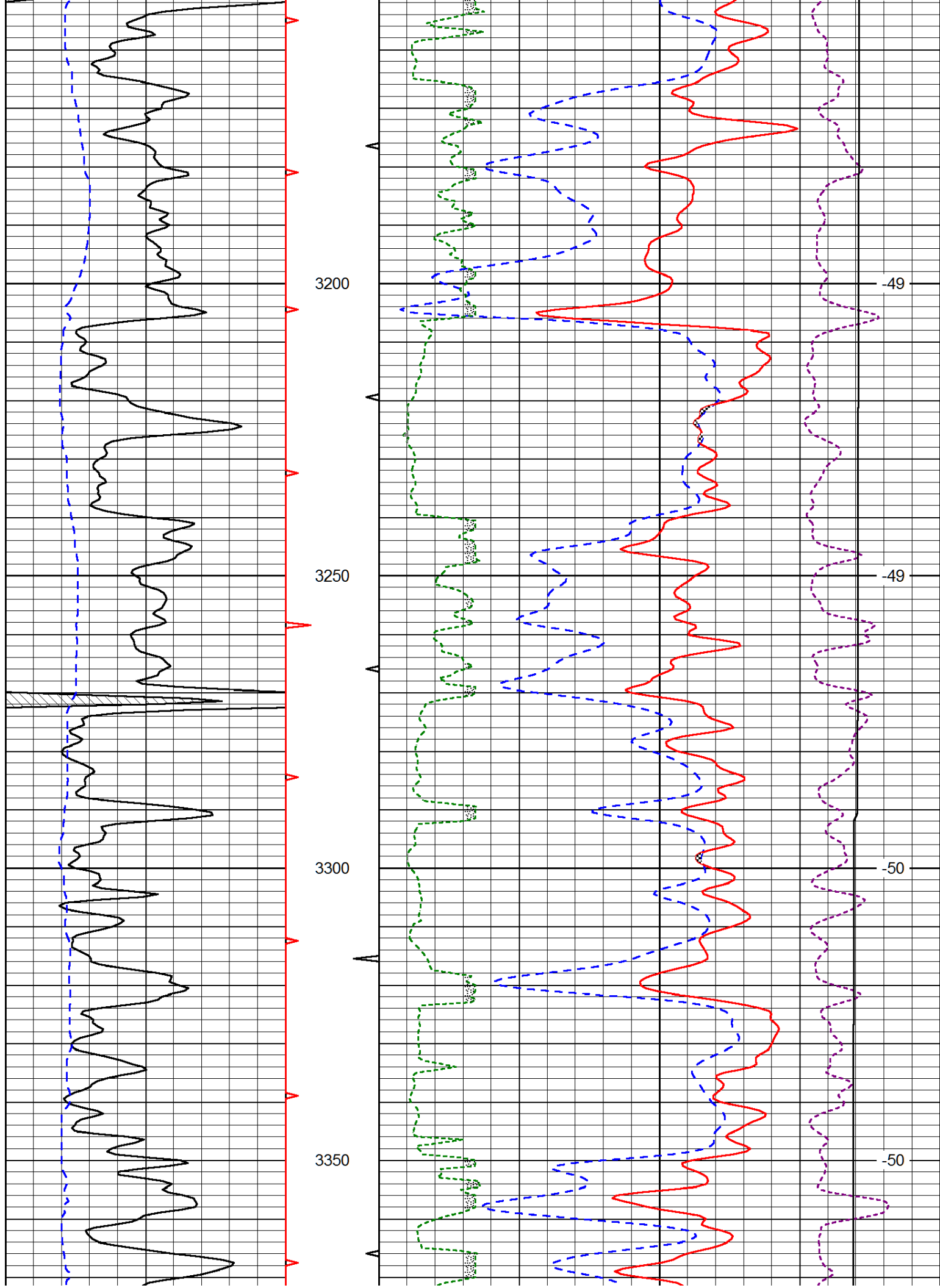


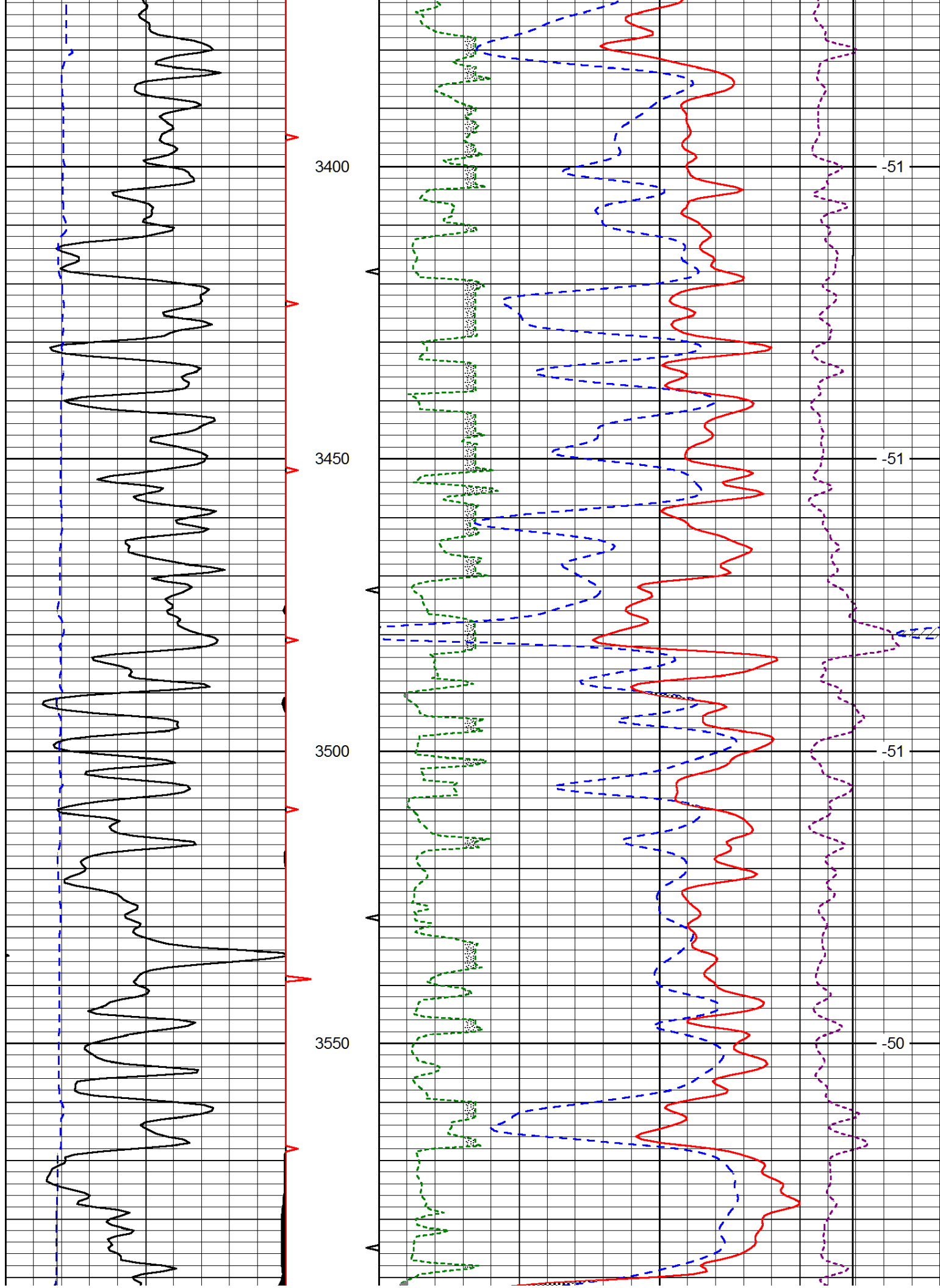


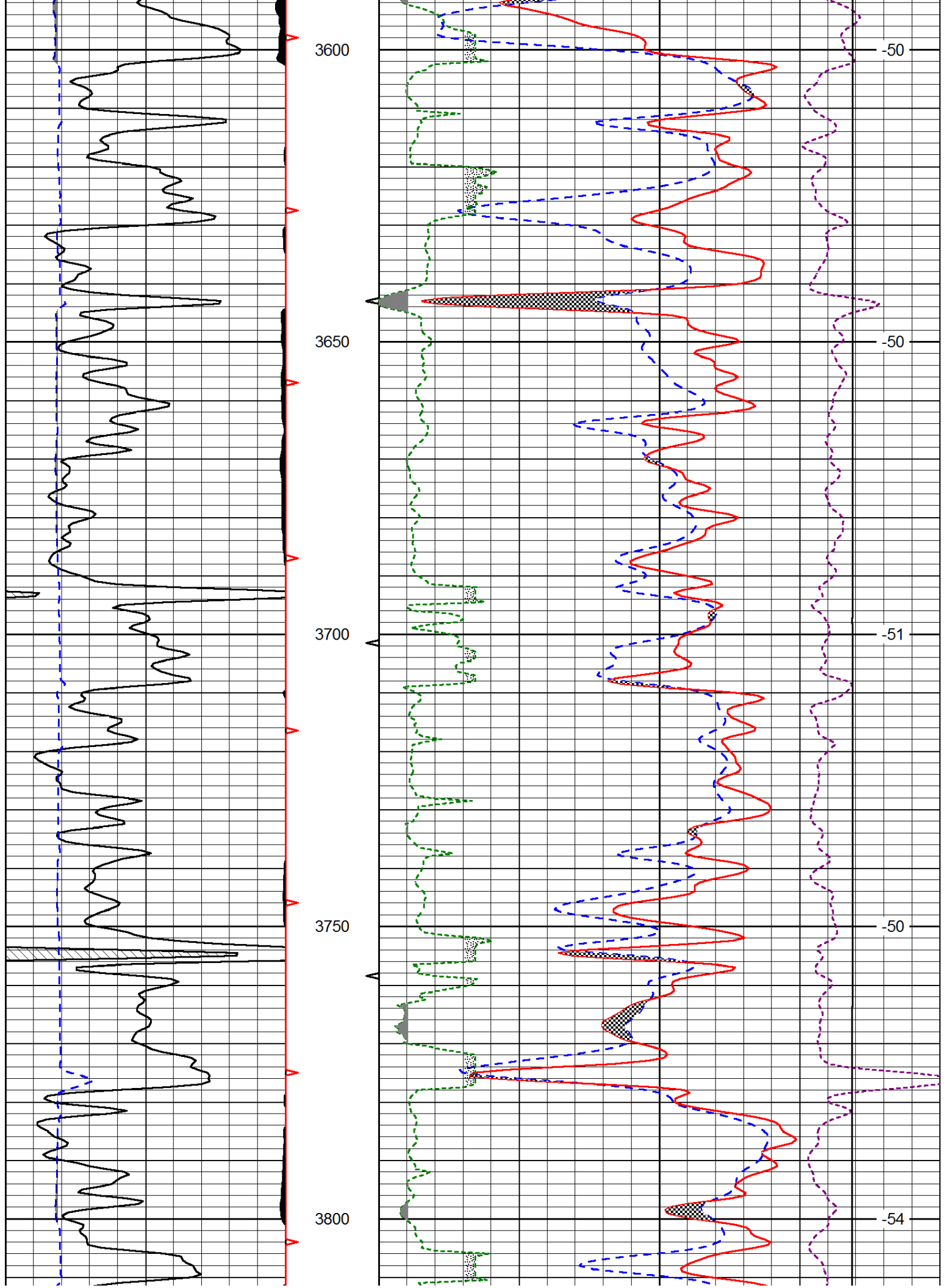


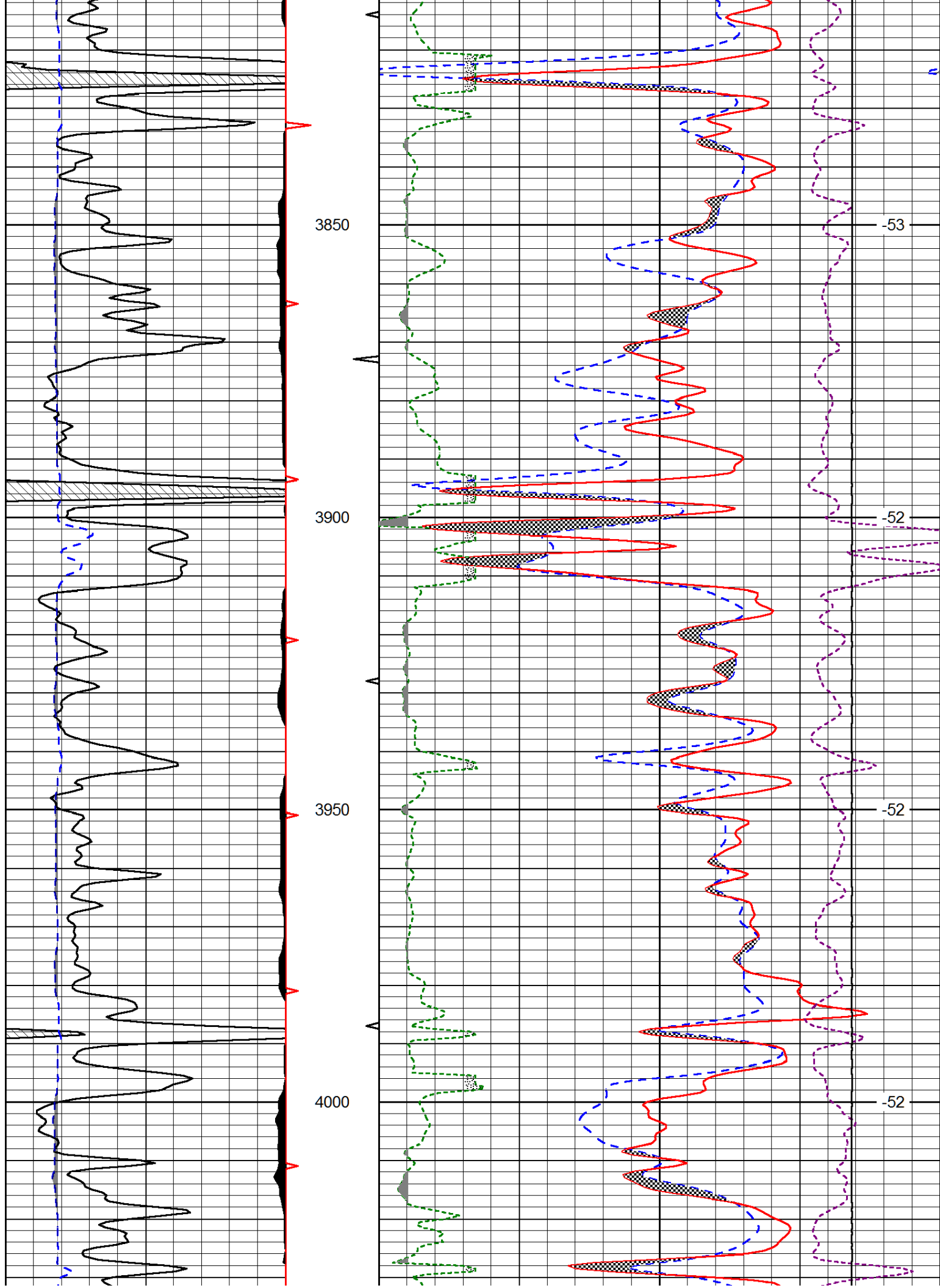


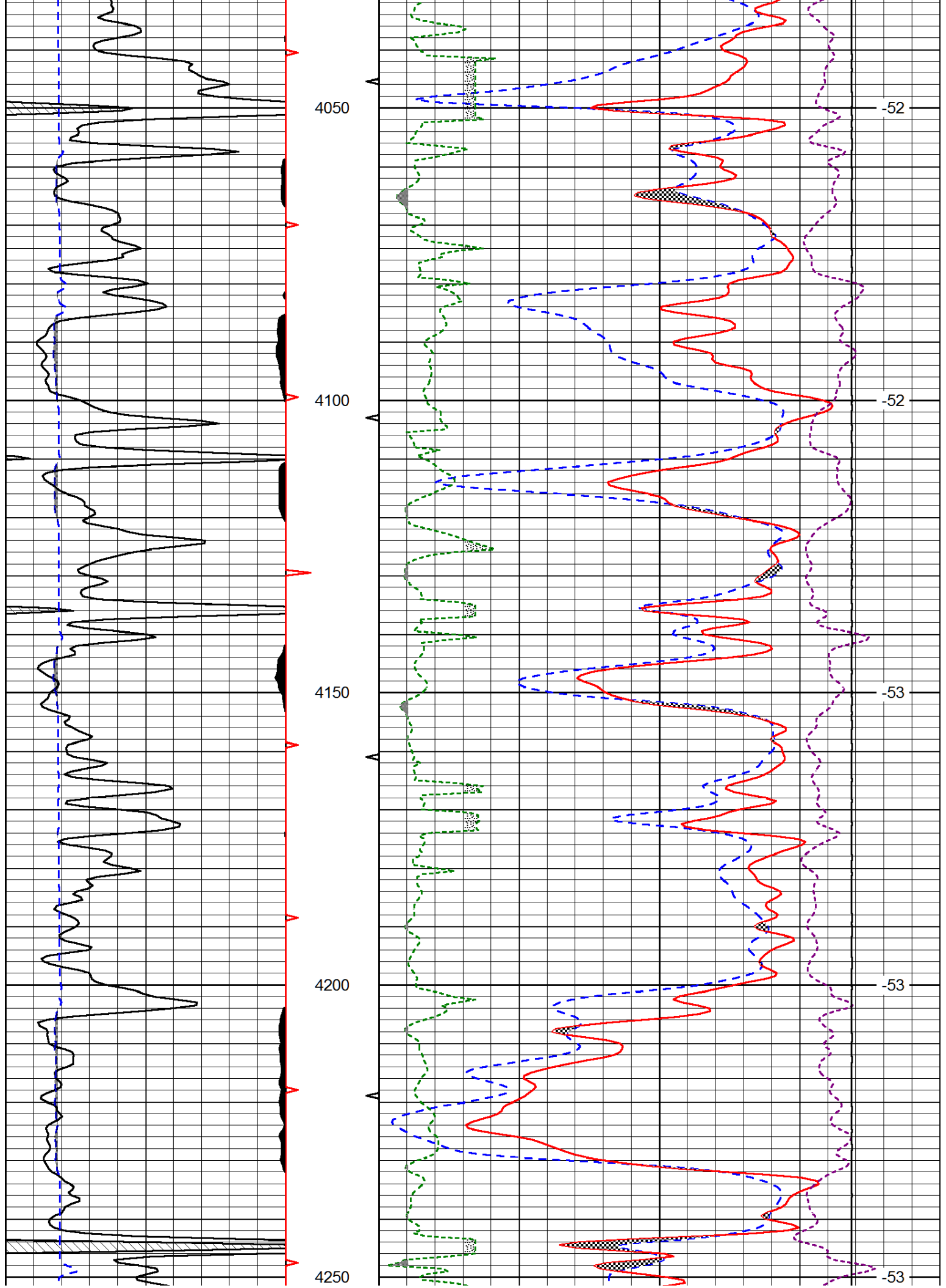




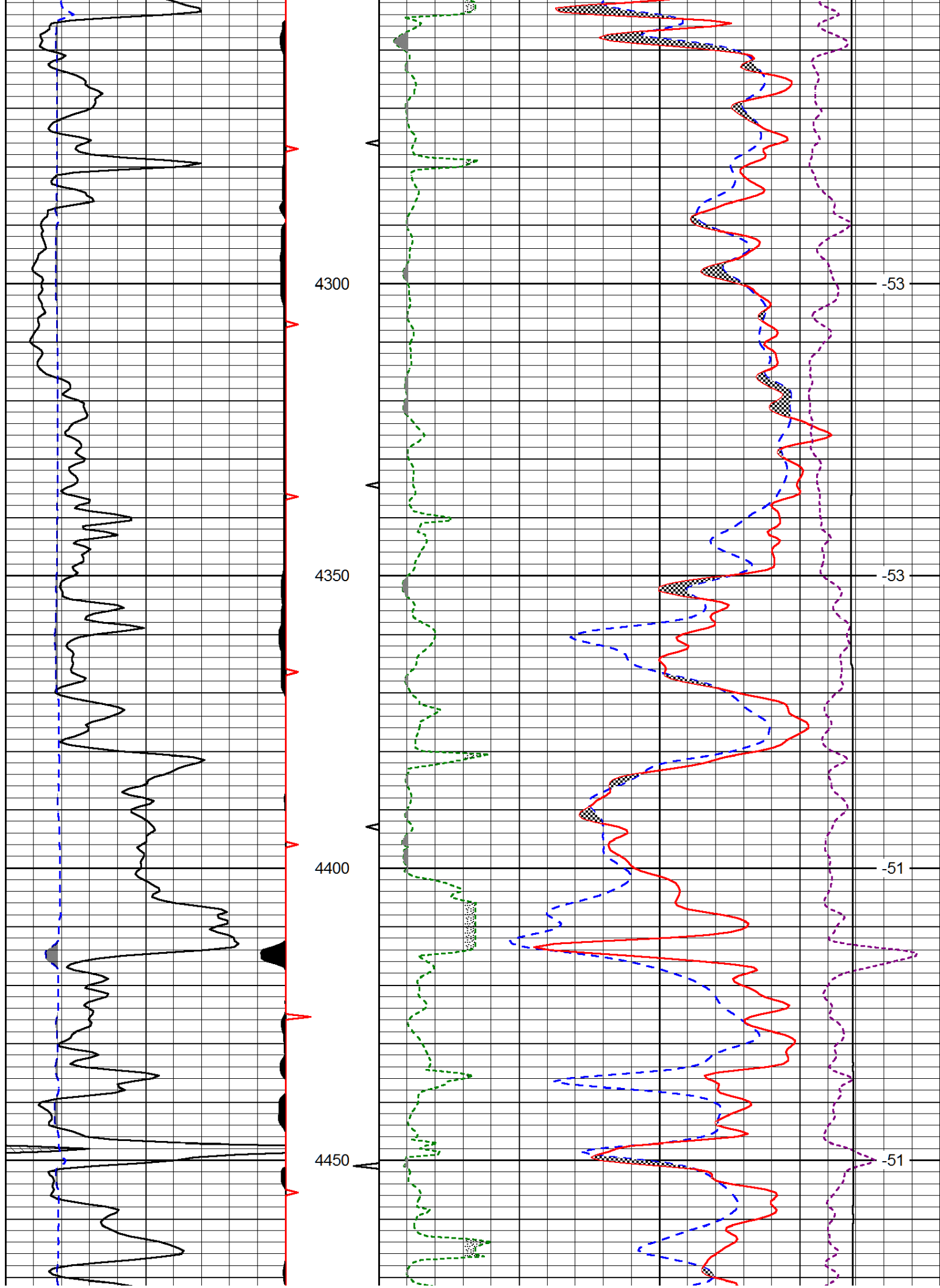


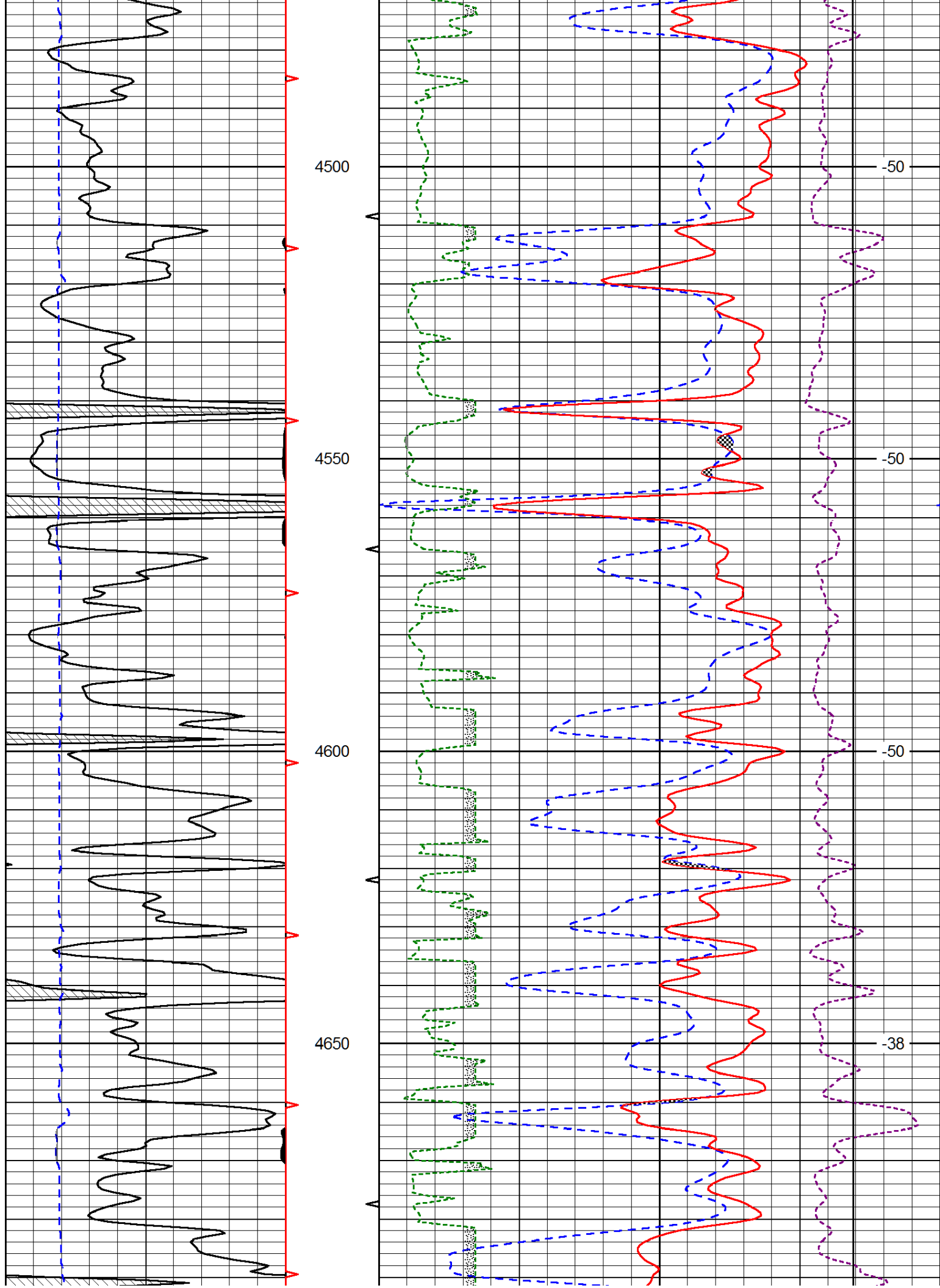


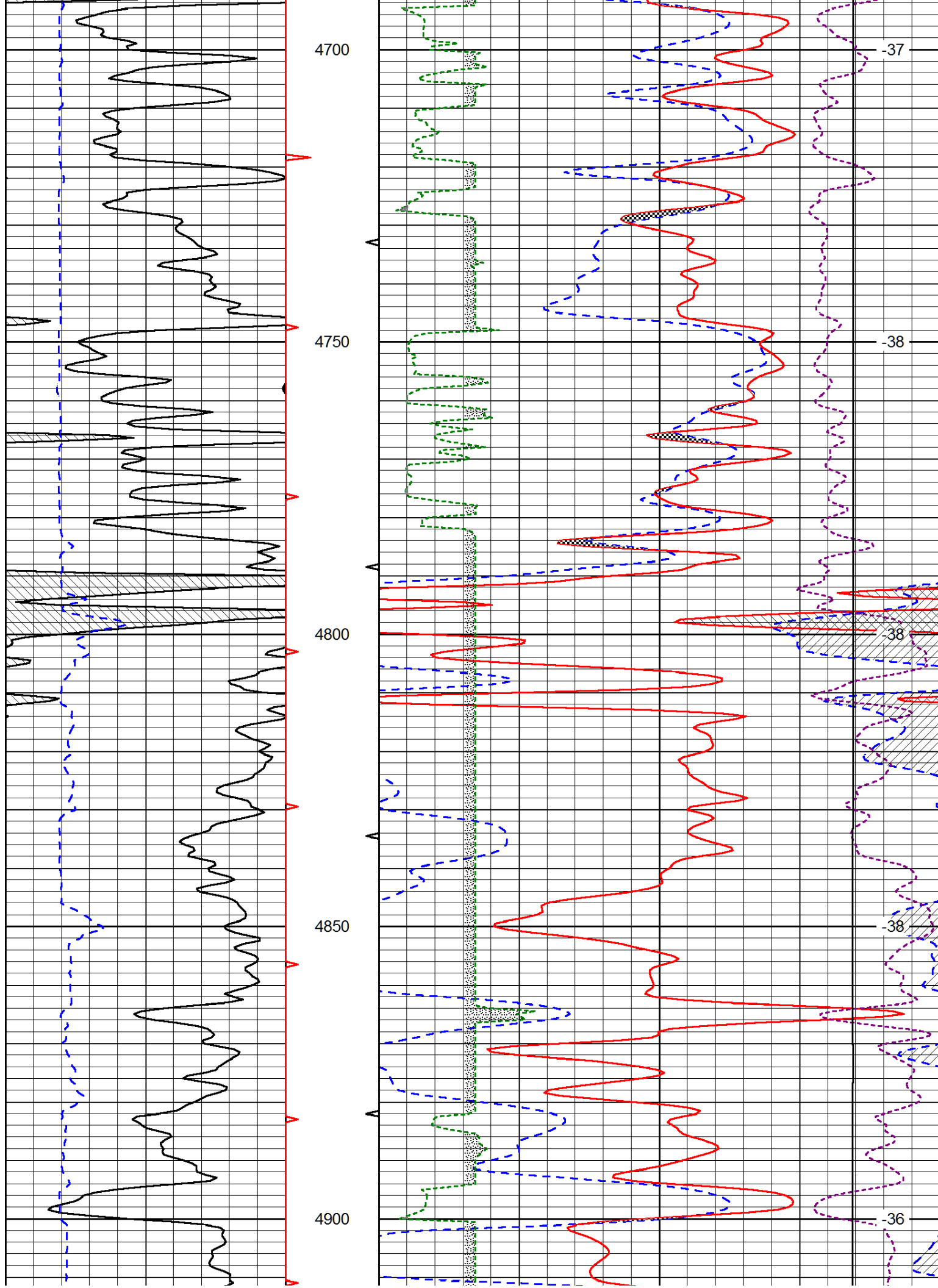


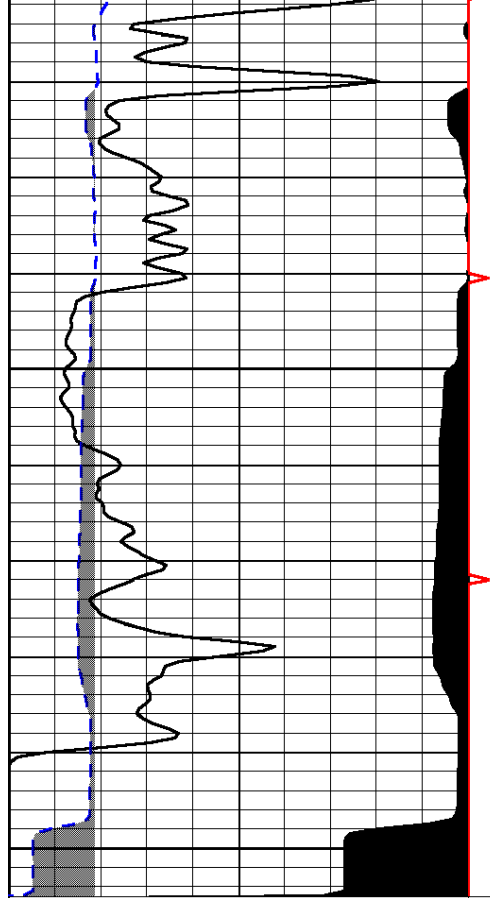








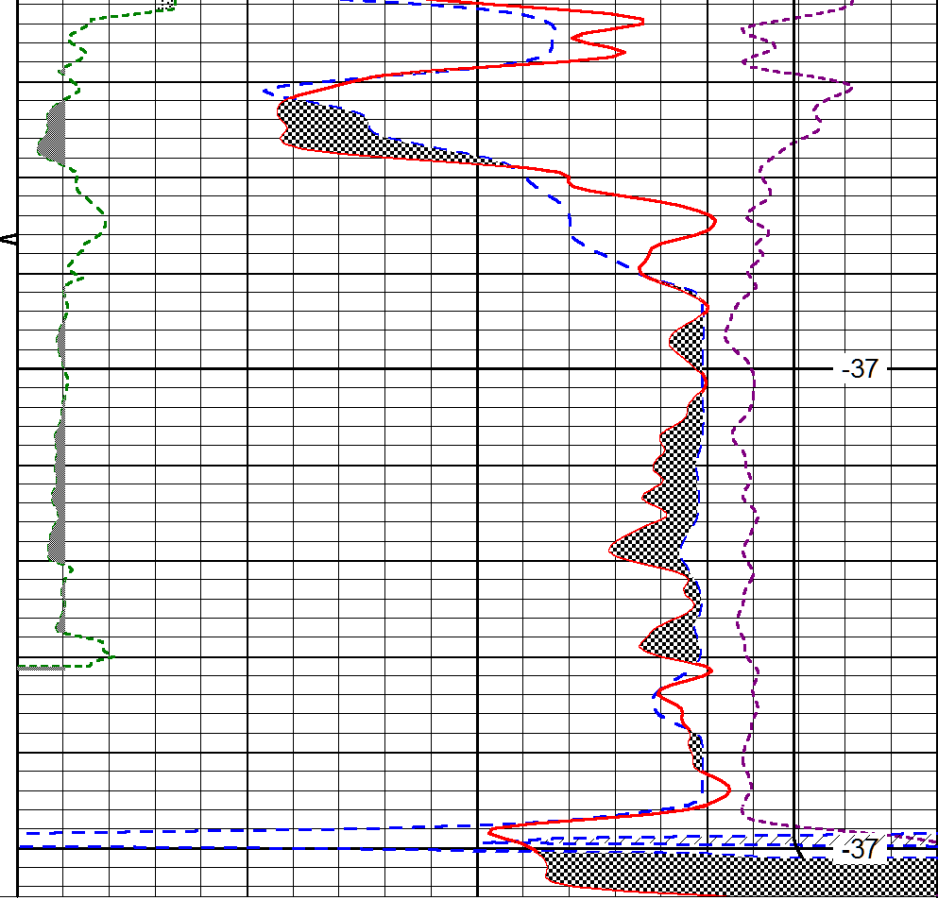




|   |                |     |
|---|----------------|-----|
| 0 | Gamma Ray      | 150 |
| 6 | Caliper (GAPI) | 16  |

4950

5000



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-37

|       |                               |       |       |            |      |
|-------|-------------------------------|-------|-------|------------|------|
| 30    | CNLS                          |       |       |            | -10  |
| 30    | Compensated Density (2.71 ma) |       |       |            | -10  |
| 2.625 | DGA                           | 3.425 | -0.25 | Correction | 0.25 |
| 10000 | Line Tension                  |       |       |            | 0    |

LSPD