



## Dual Induction Log

DIGITAL LOG (785) 625-3858

|                        |                                 |                      |                         |                                       |
|------------------------|---------------------------------|----------------------|-------------------------|---------------------------------------|
| API No.                | Company H&C Oil Operating, Inc. |                      |                         |                                       |
|                        | Well Trexler No. 32-1           |                      |                         |                                       |
|                        | Field Wildcat                   |                      |                         |                                       |
|                        | County                          | Graham               | State                   | Kansas                                |
|                        | Location                        | 1980' FNL& 1650' FEL |                         |                                       |
|                        | Sec: 32                         | Twp: 6S              | Rge: 23W                | Other Services<br>CNL/CDL<br>MEL/BHCS |
| Permanent Datum        | Ground Level                    |                      | Elevation 2459          | K.B. 2464                             |
| Log Measured From      | Kelly Bushing                   |                      | 5 Ft. Above Perm. Datum | D.F. 2459                             |
| Drilling Measured From | Kelly Bushing                   |                      |                         | G.L. 2459                             |
| Date                   | 03/09/2010                      |                      |                         |                                       |
| Run Number             | One                             |                      |                         |                                       |
| Depth Driller          | 3960                            |                      |                         |                                       |
| Depth Logger           | 3958                            |                      |                         |                                       |
| Bottom Logged Interval | 3957                            |                      |                         |                                       |
| Top Log Interval       | 300                             |                      |                         |                                       |
| Casing Driller         | 8.625 @ 310                     |                      |                         |                                       |
| Casing Logger          | 311                             |                      |                         |                                       |
| Bit Size               | 7.875                           |                      |                         |                                       |
| Type Fluid in Hole     | Chemical                        |                      |                         |                                       |
| Salinity, ppm CL       | 1,800                           |                      |                         |                                       |
| Density / Viscosity    | 9.1 52                          |                      |                         |                                       |
| pH / Fluid Loss        | 10.0 8.0                        |                      |                         |                                       |
| Source of Sample       | Flowline                        |                      |                         |                                       |
| Rm @ Meas. Temp        | 1.00 @ 59                       |                      |                         |                                       |
| Rmf @ Meas. Temp       | .75 @ 59                        |                      |                         |                                       |
| Rmc @ Meas. Temp       | 1.35 @ 59                       |                      |                         |                                       |
| Source of Rmf / Rmc    | Charts                          |                      |                         |                                       |
| Rm @ BHT               | .50 @ 118                       |                      |                         |                                       |
| Operating Rig Time     | 4 1/2 Hours                     |                      |                         |                                       |
| Max Rec. Temp. F       | 118                             |                      |                         |                                       |
| Equipment Number       | 17                              |                      |                         |                                       |
| Location               | Hays                            |                      |                         |                                       |
| Recorded By            | Mike Garrison                   |                      |                         |                                       |
| Witnessed By           | Marc Downing                    |                      |                         |                                       |

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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

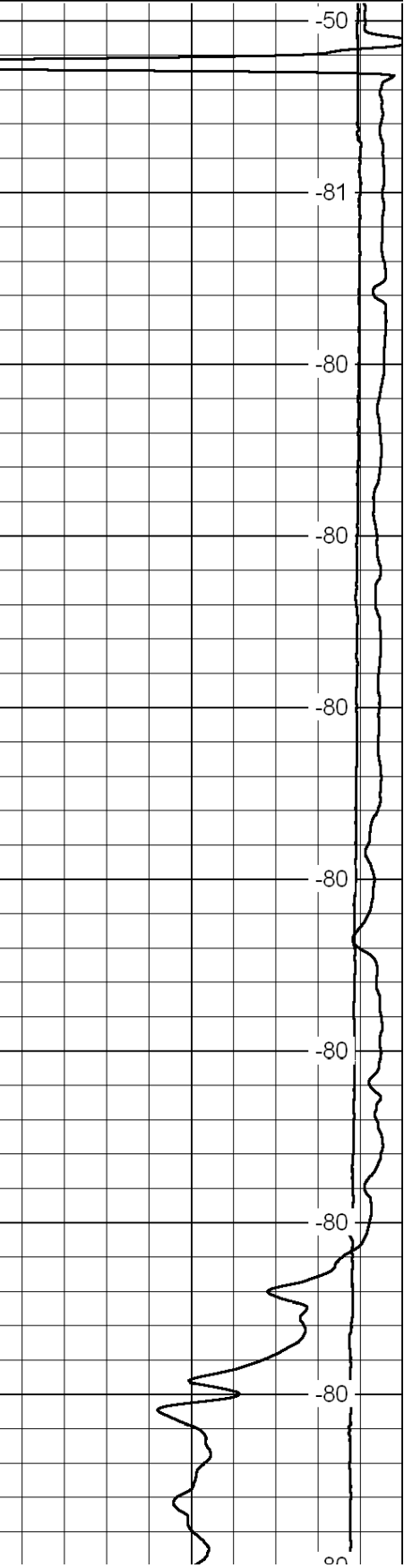
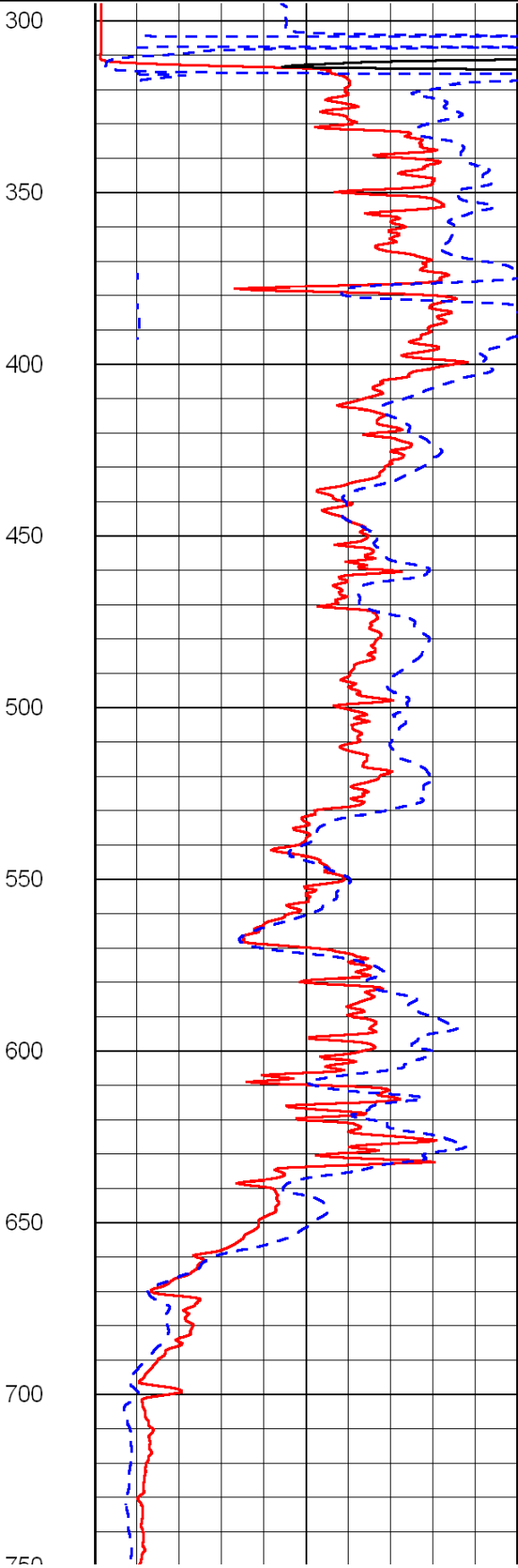
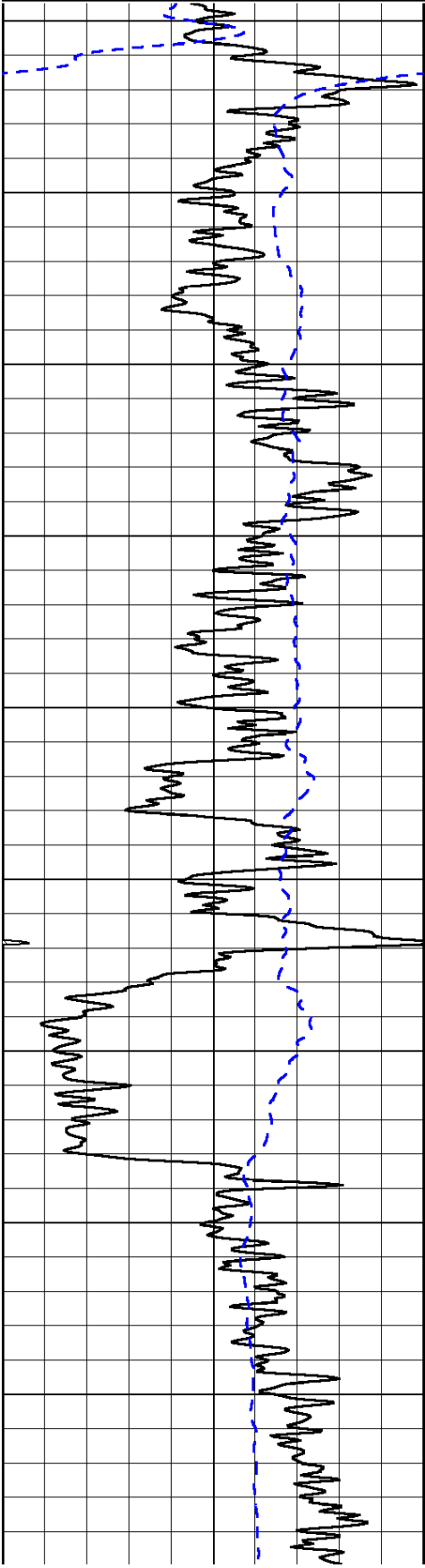
Hill City, 8 North to Y Rd, West to 240th Rd, 1 North, 3/4 East, South Into

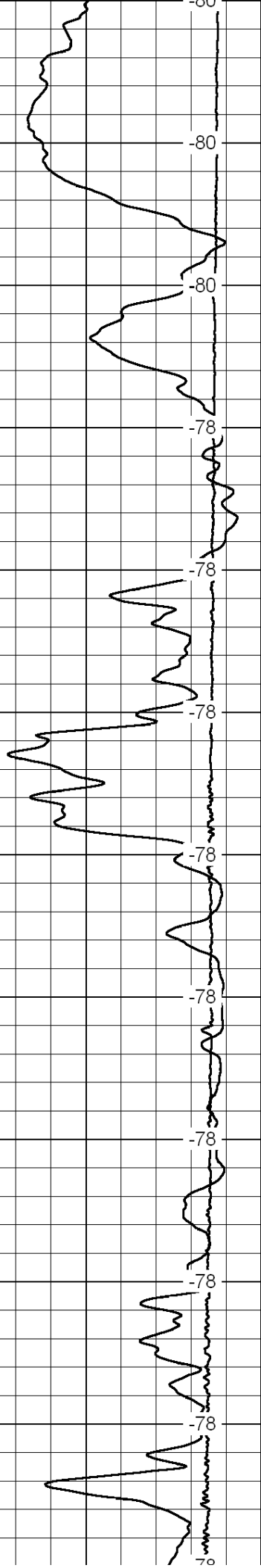
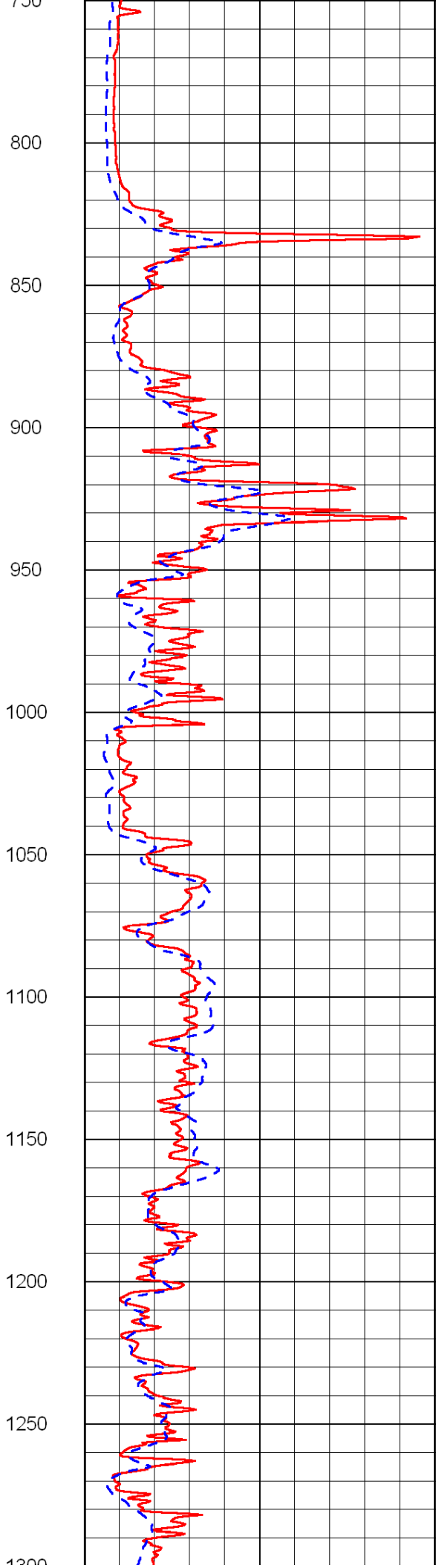
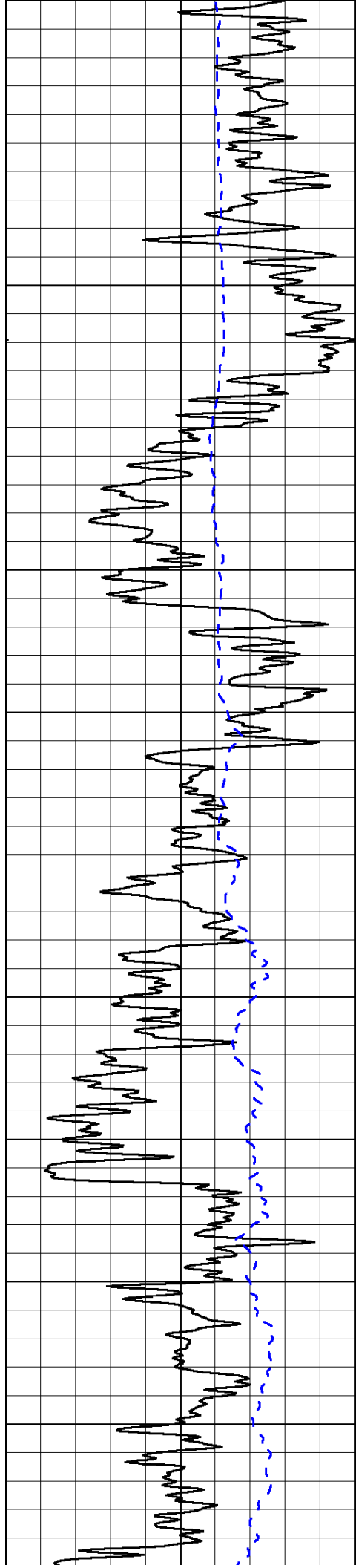
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Charted by: Depth in Feet scaled 1:600

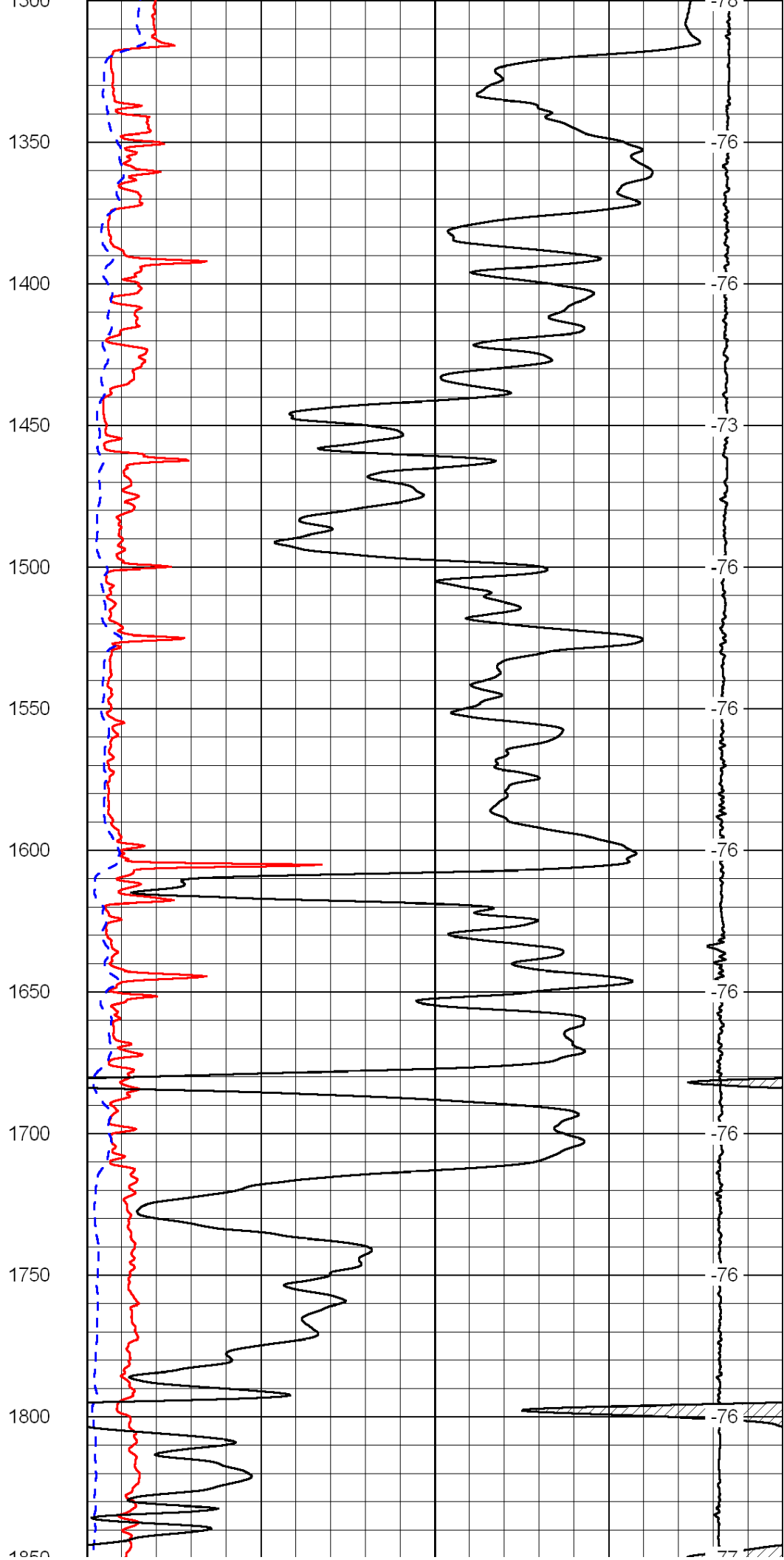
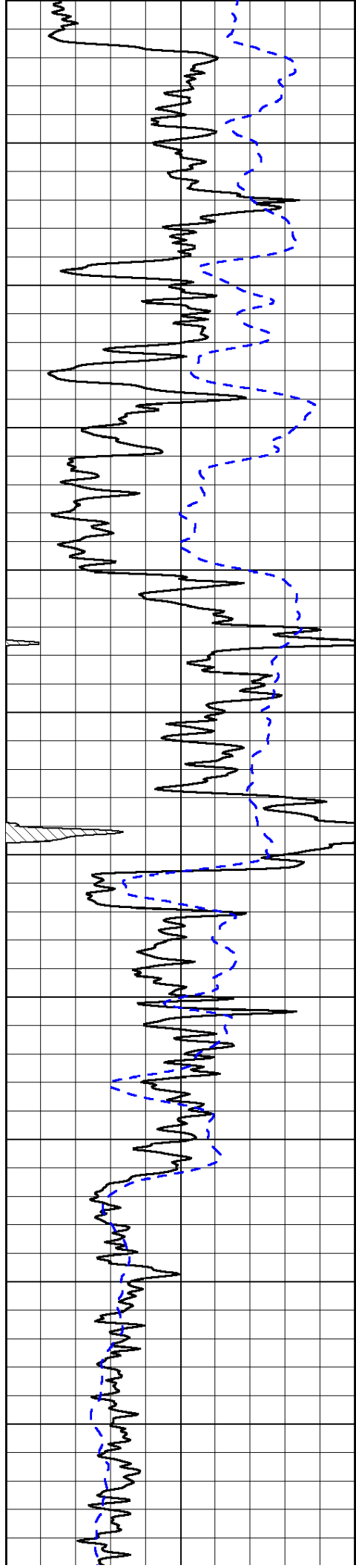
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|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| -200 | SP (MV)   | 0   |

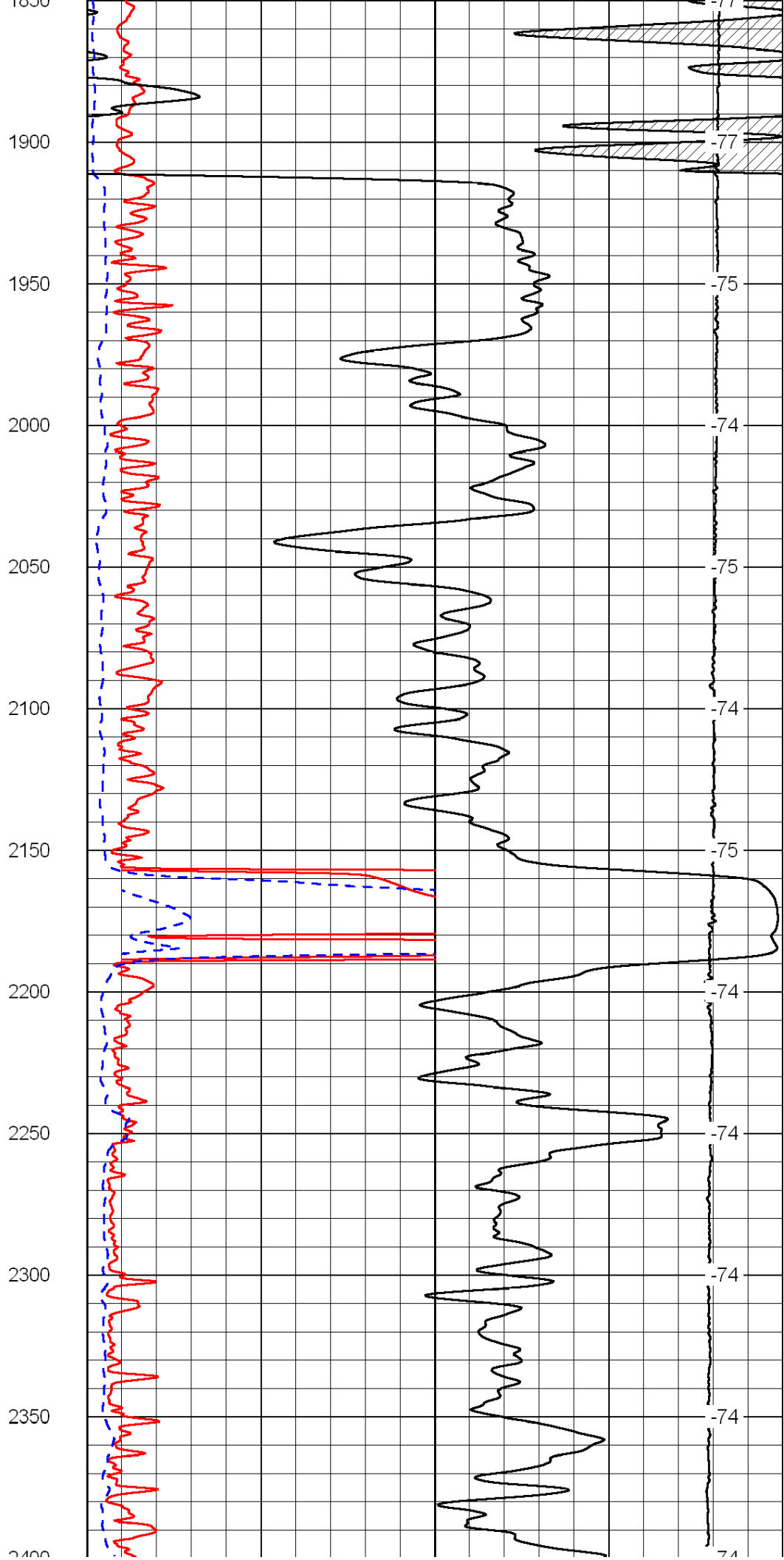
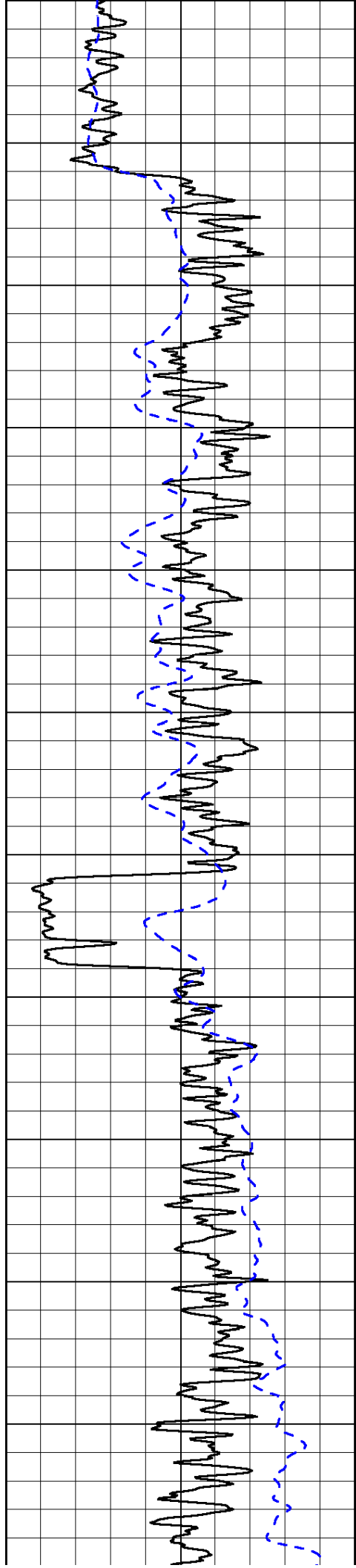
|       |                             |     |
|-------|-----------------------------|-----|
| 0     | Shallow Resistivity (Ohm-m) | 50  |
| 0     | Deep Resistivity (Ohm-m)    | 50  |
| 1000  | Conductivity (mmho/m)       | 0   |
| 15000 | Line Tension (lb)           | 0   |
| 50    | Shallow Resistivity (Ohm-m) | 500 |
| 50    | Deep Resistivity (Ohm-m)    | 500 |

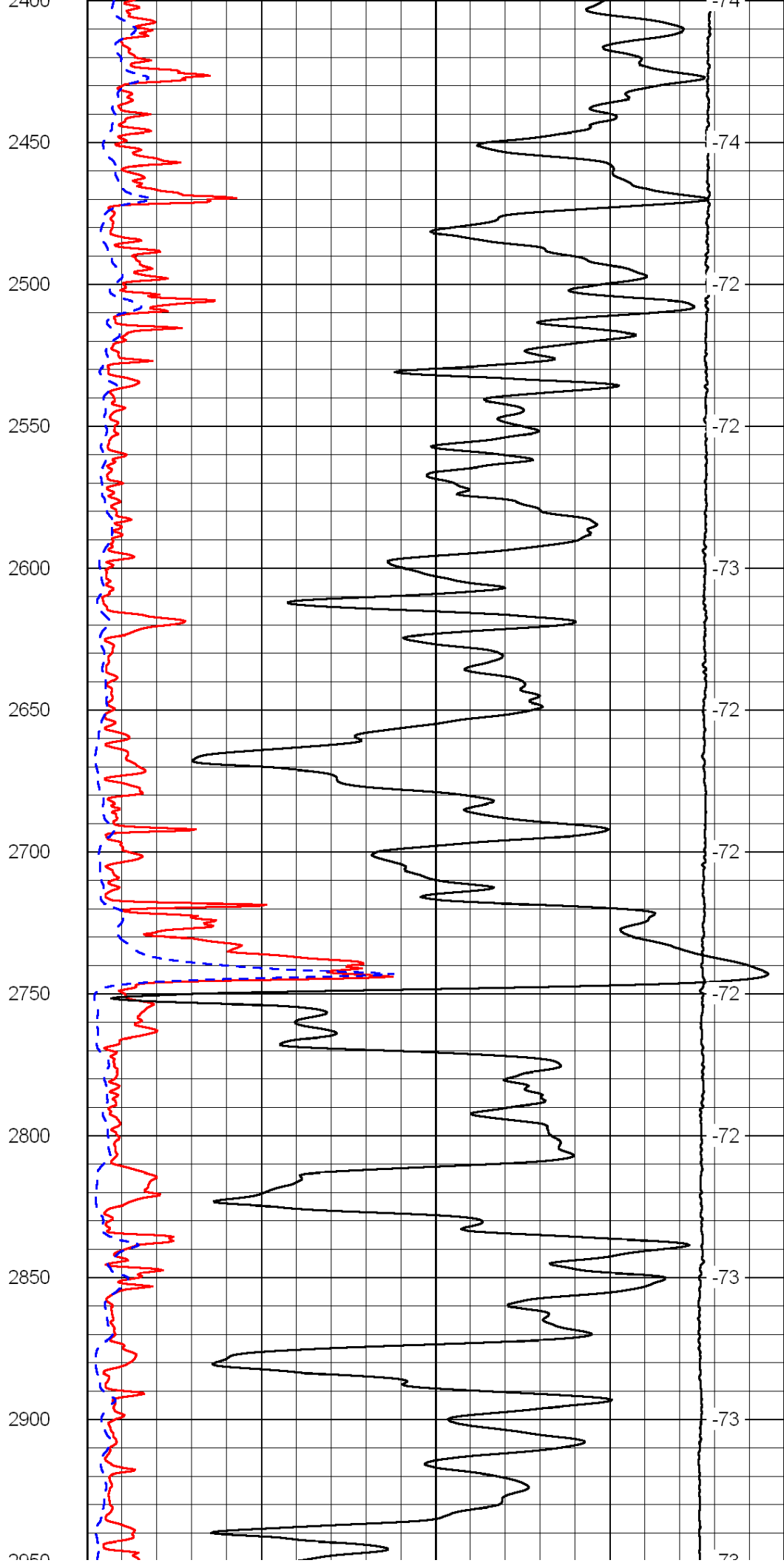
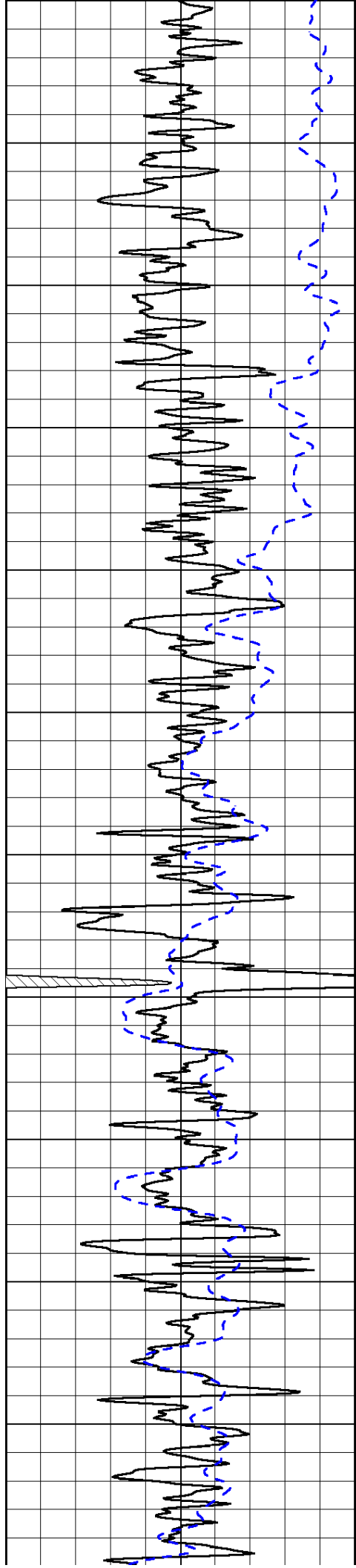
|          |
|----------|
| LSPD     |
| (ft/min) |

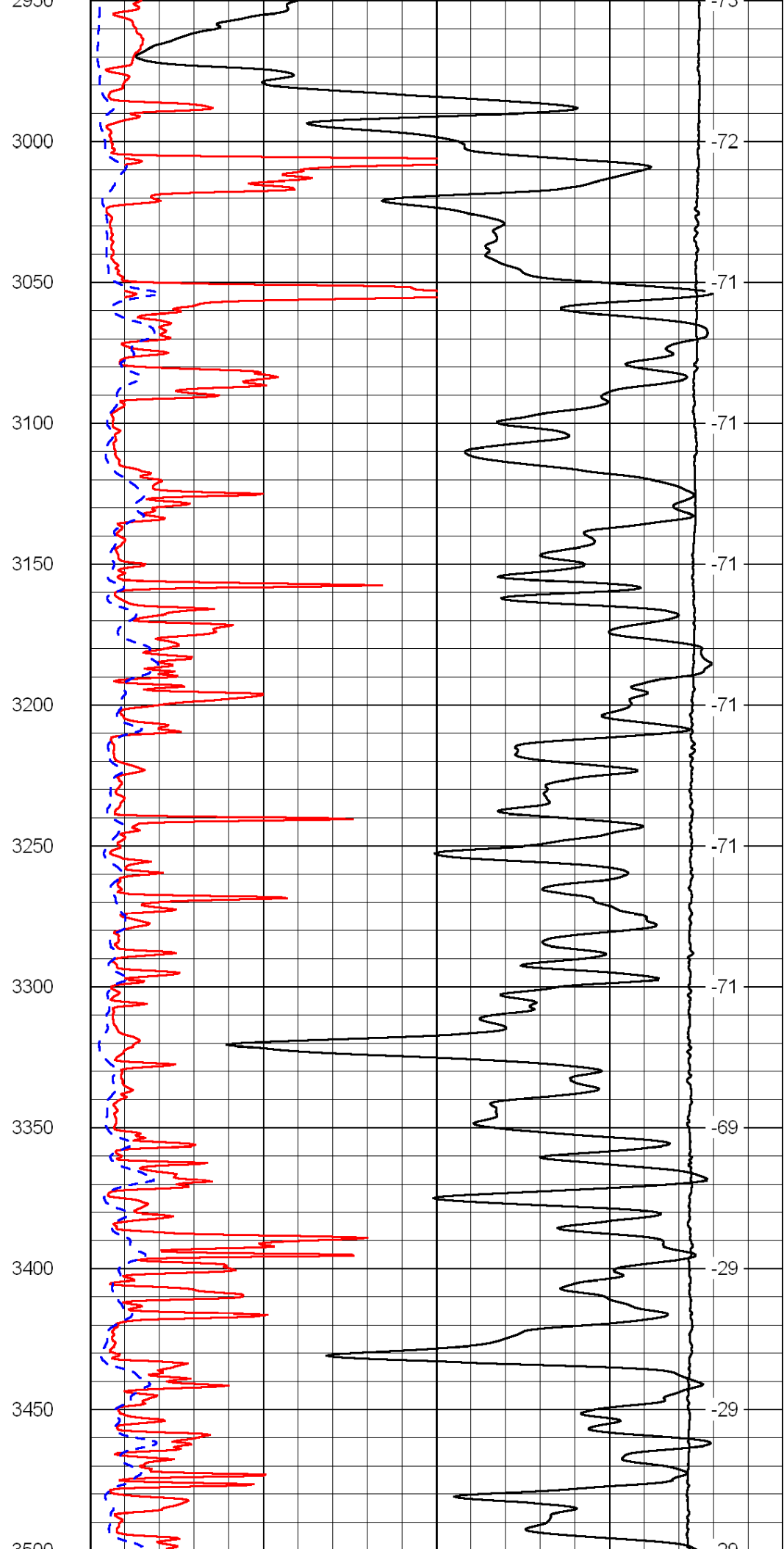
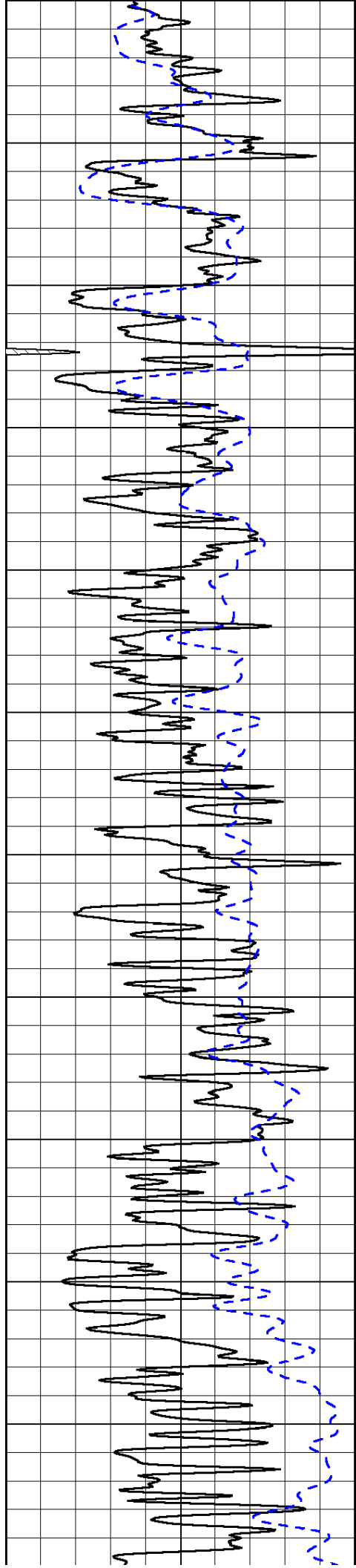


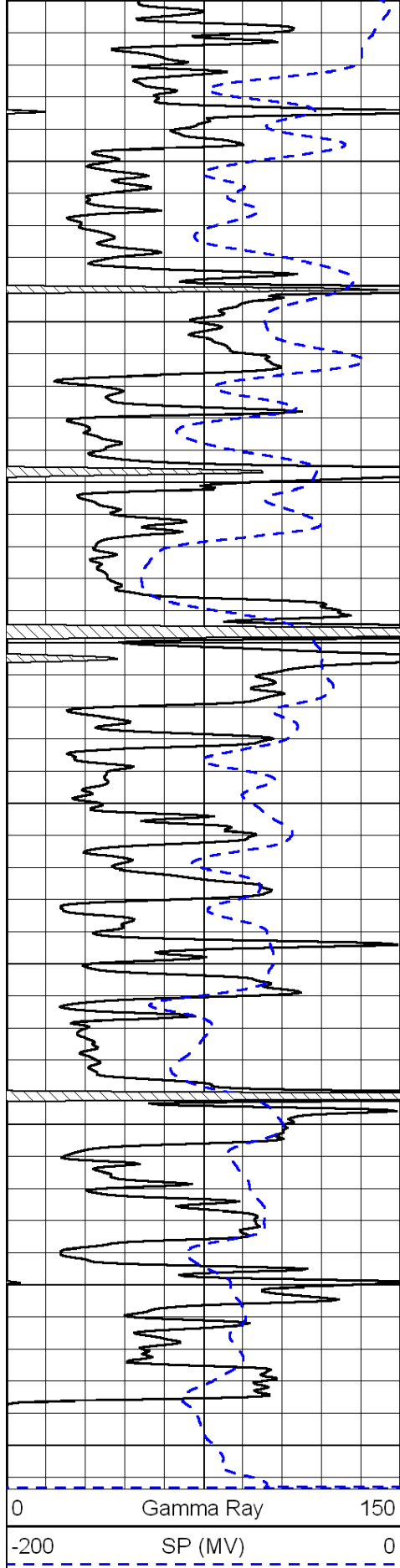




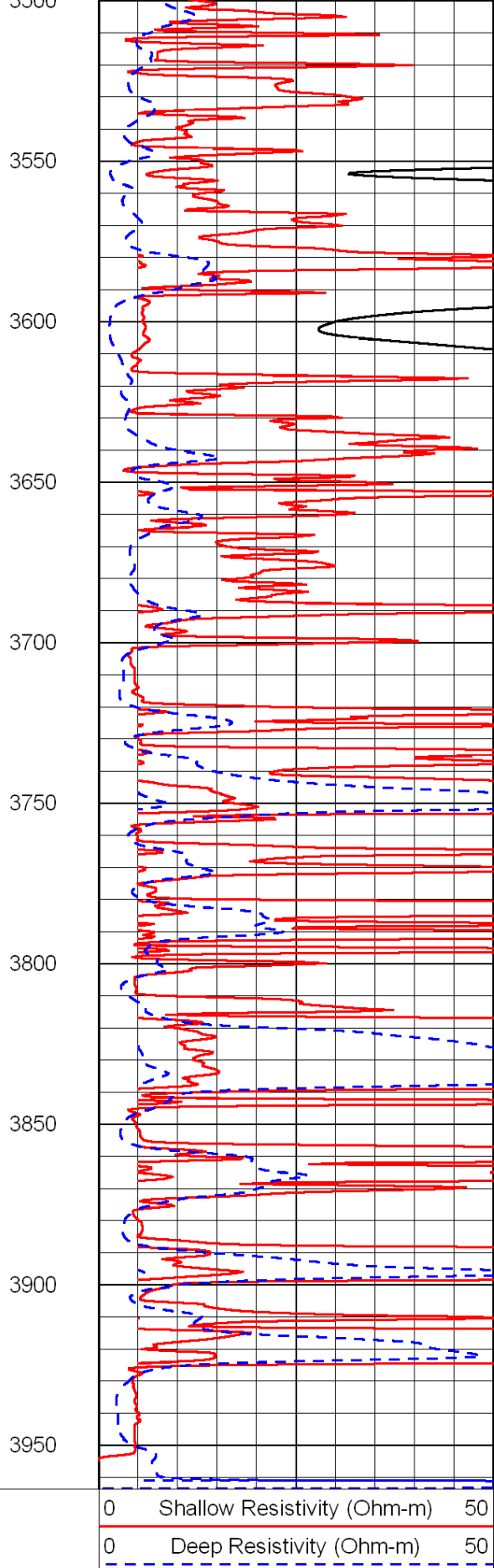




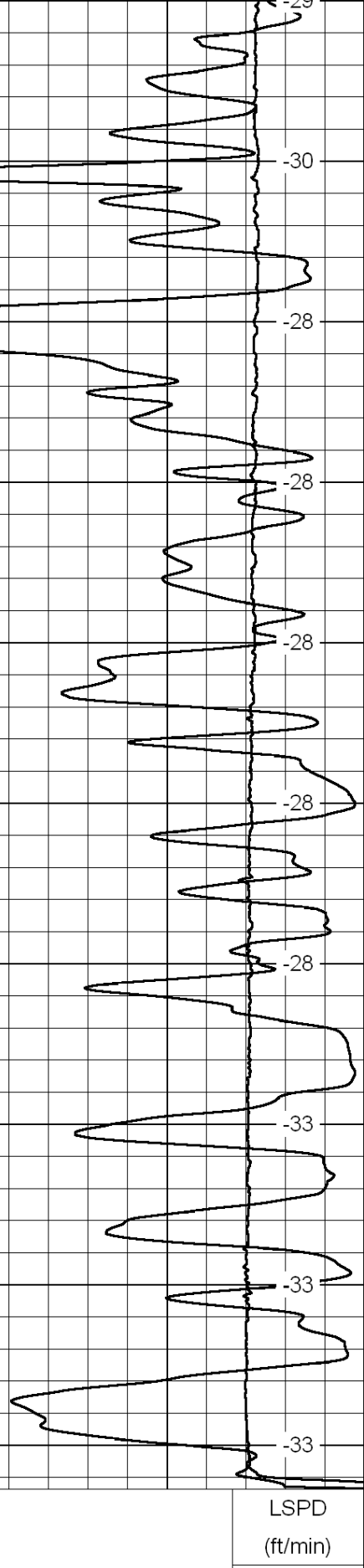




0 Gamma Ray 150  
-200 SP (MV) 0



0 Shallow Resistivity (Ohm-m) 50  
0 Deep Resistivity (Ohm-m) 50  
1000 Conductivity (mmho/m)  
15000 Line Tension (lb)



LSPD  
(ft/min)

Shallow Resistivity  
50 (Ohm-m) 500  
50 Deep Resistivity (Ohm-m) 500

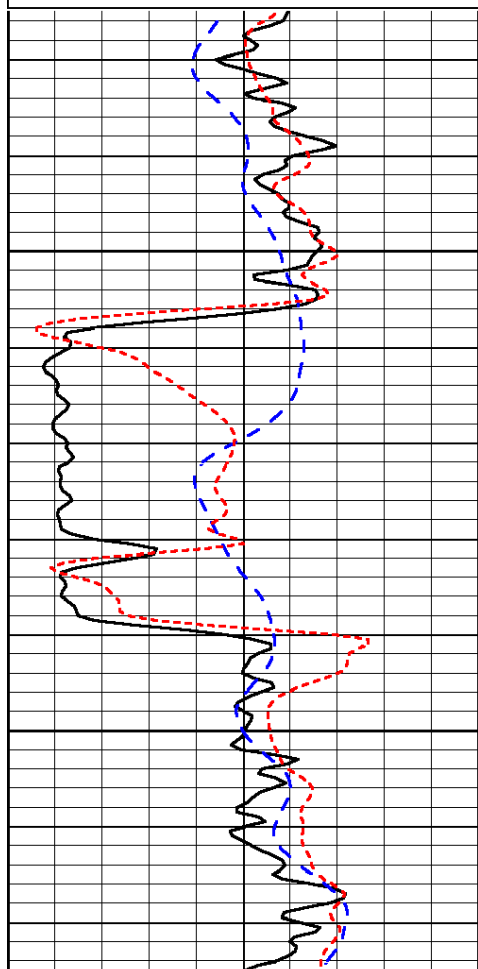


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Presentation Format: dil  
Dataset Creation: Tue Mar 09 23:47:45 2010  
Charted by: Depth in Feet scaled 1:240

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

|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 15000 | Line Tension (lb)           | 0    |

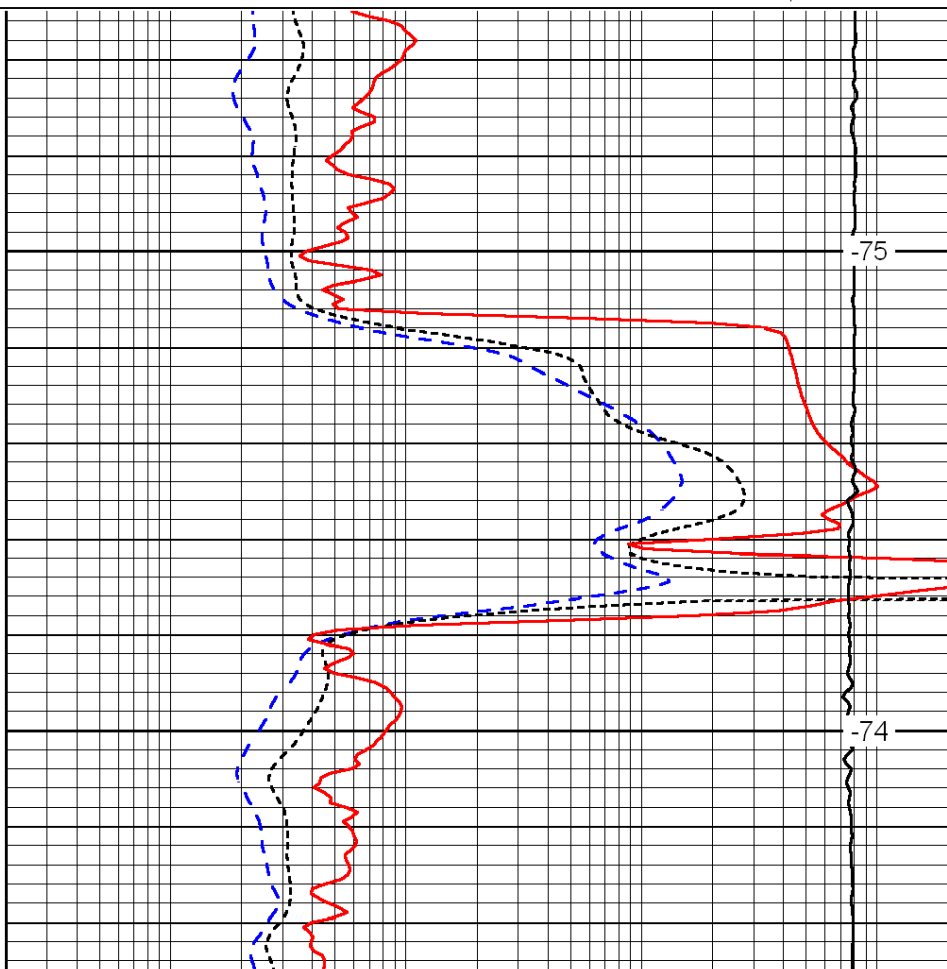
LSPD  
(ft/min)



2150

2200

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



-75

-74

|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 15000 | Line Tension (lb)           | 0    |

LSPD  
(ft/min)

Database File: c:\warrior\data\h&c\_trexler no. 32-1\h&chd.db  
Dataset Pathname: dil/hcstck  
Presentation Format: dil  
Dataset Creation: Tue Mar 09 23:47:45 2010  
Charted by: Depth in Feet scaled 1:240

|      |           |     |
|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| -200 | SP (MV)   | 0   |

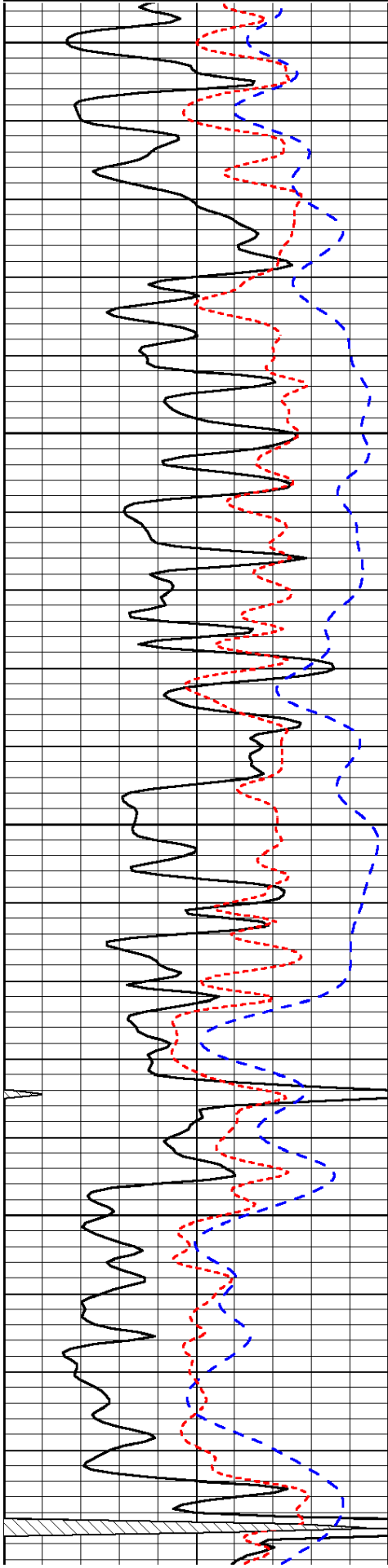
|     |                            |      |
|-----|----------------------------|------|
| 0.2 | Deep Resistivity (Ohm-m)   | 2000 |
| 0.2 | Medium Resistivity (Ohm-m) | 2000 |

-160 Rxo / Rt 40

0.2 Shallow Resistivity (Ohm-m) 2000

15000 Line Tension (lb) 0

LSPD  
(ft/min)

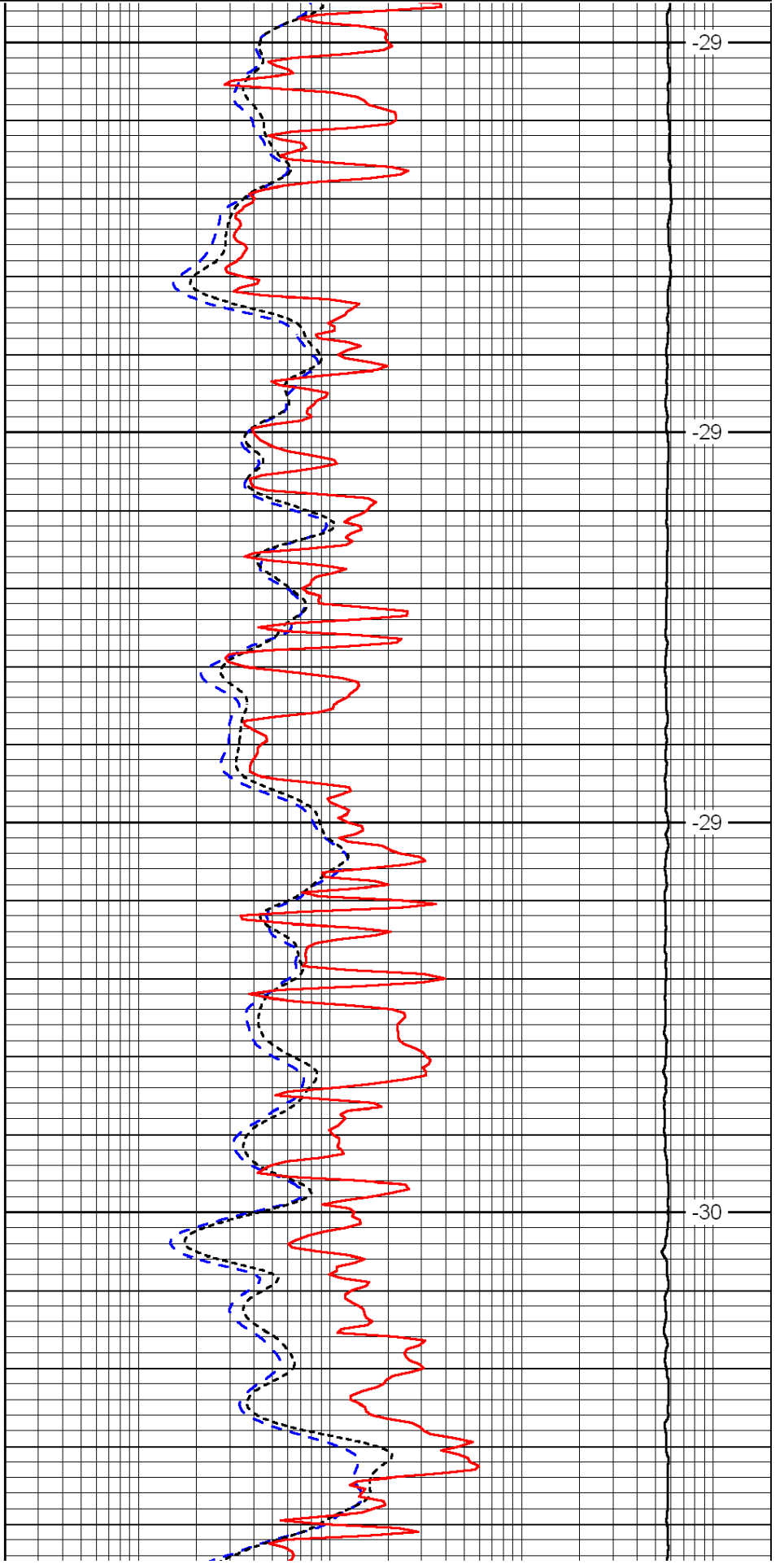


3400

3450

3500

3550

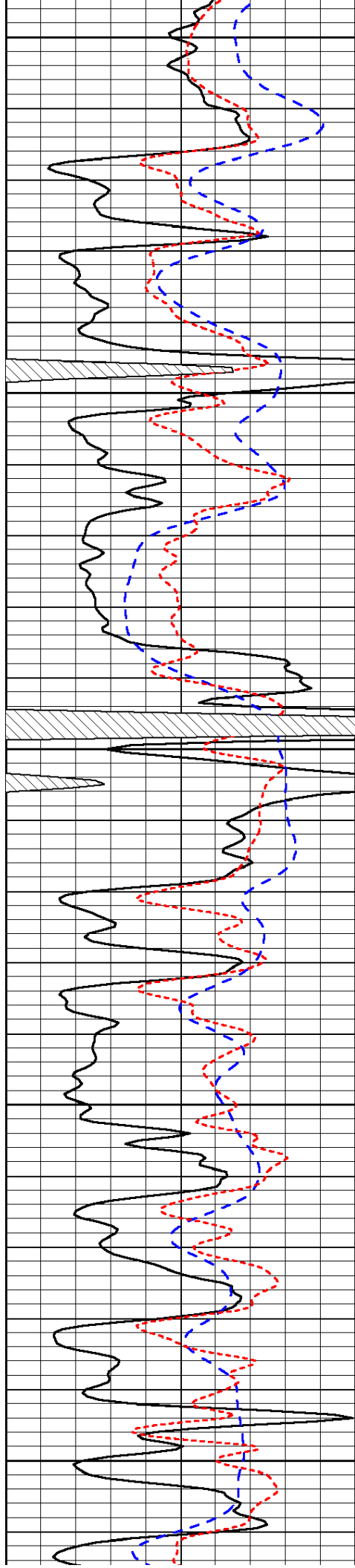


-29

-29

-29

-30



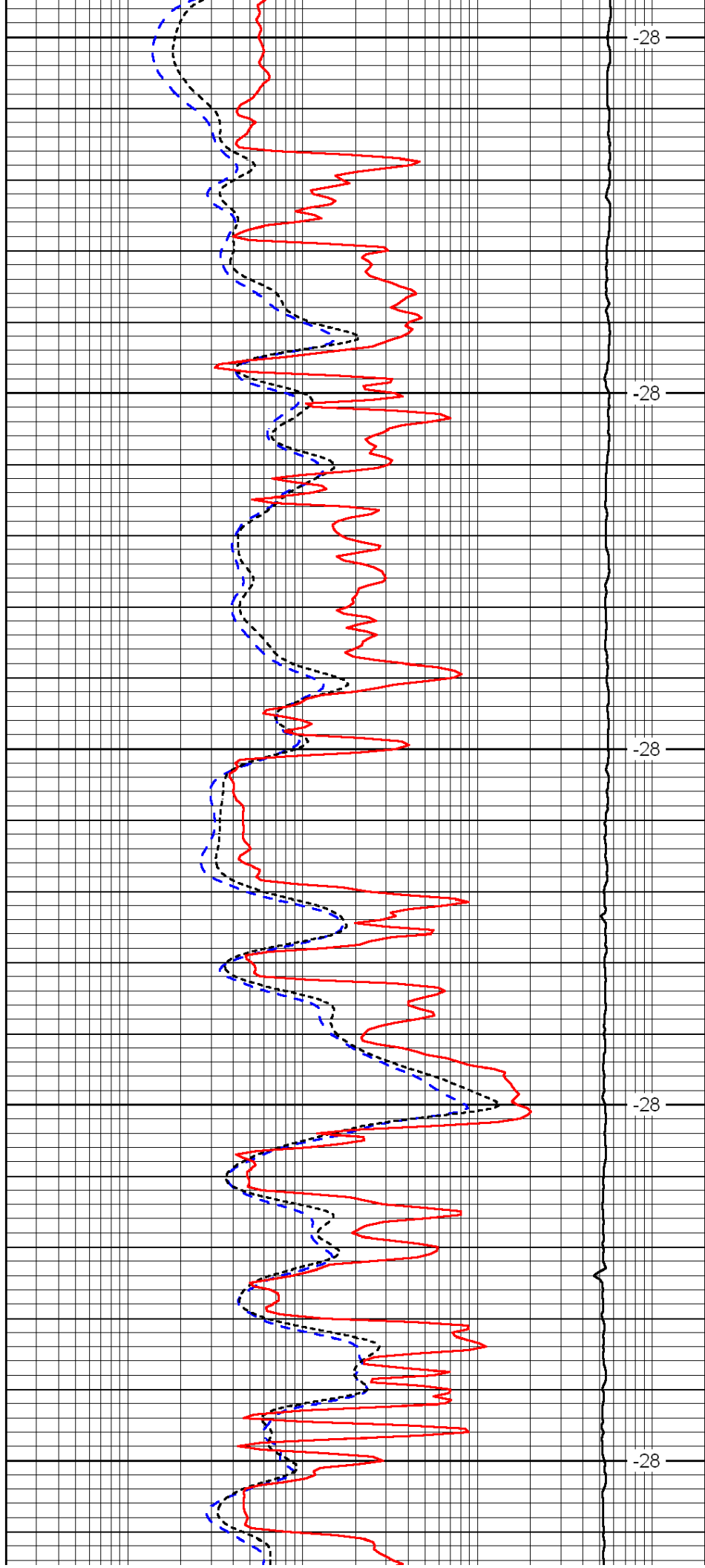
3600

3650

3700

3750

3800



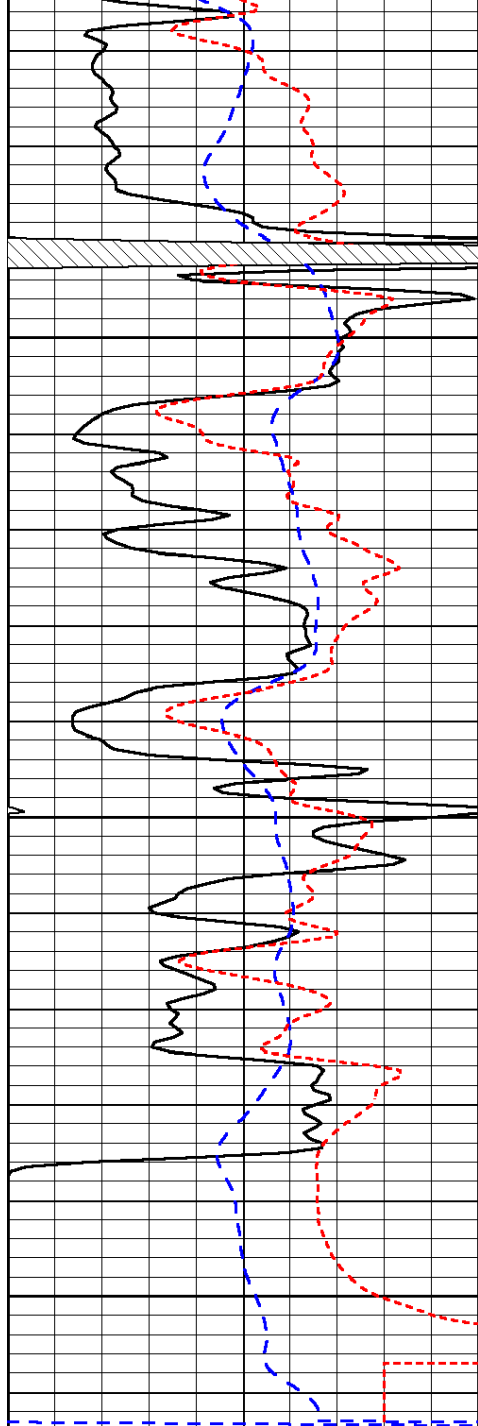
-28

-28

-28

-28

-28

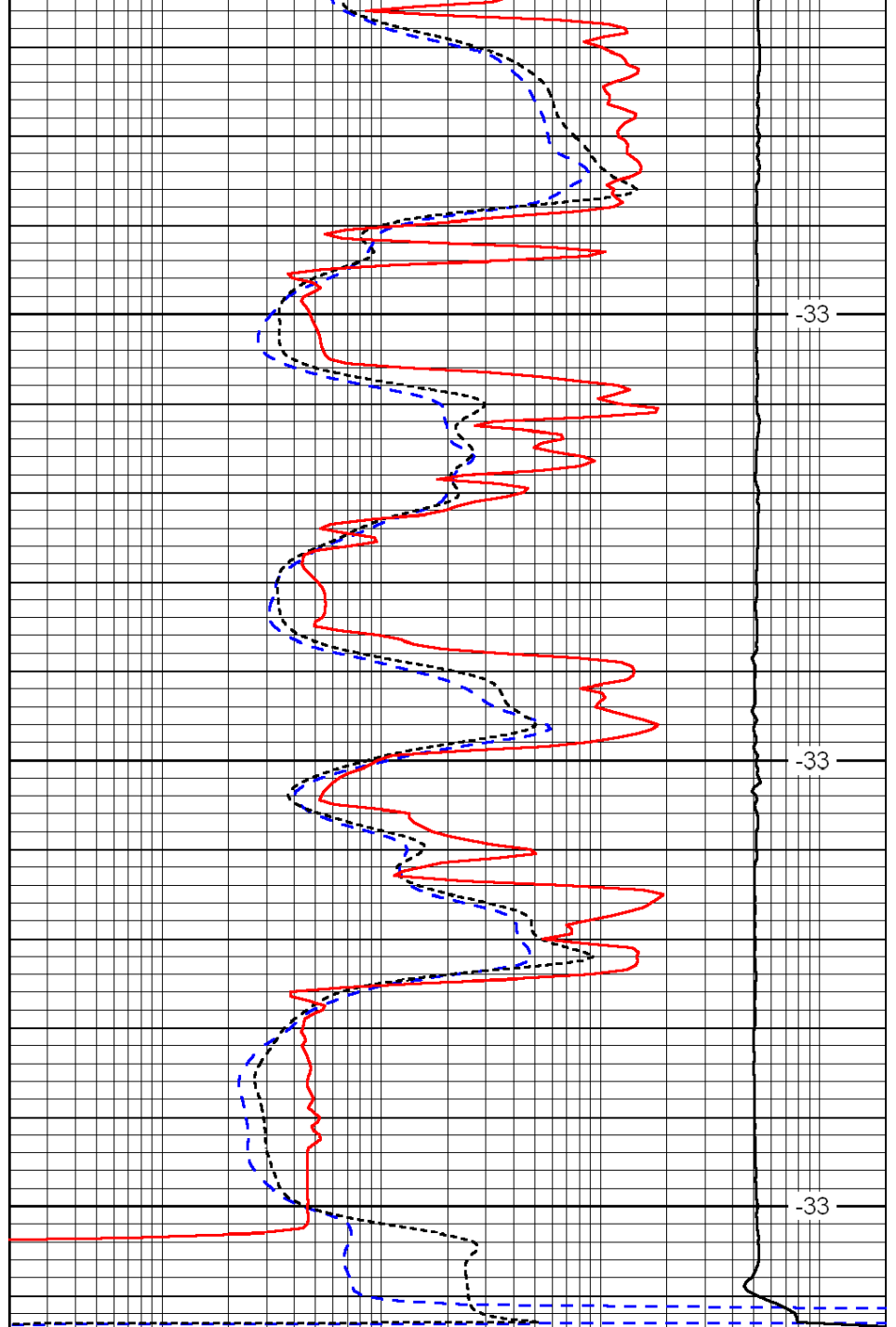


|      |           |     |
|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| -200 | SP (MV)   | 0   |
| -160 | Rxo / Rt  | 40  |

3850

3900

3950



|       |                             |      |
|-------|-----------------------------|------|
| 0.2   | Deep Resistivity (Ohm-m)    | 2000 |
| 0.2   | Medium Resistivity (Ohm-m)  | 2000 |
| 0.2   | Shallow Resistivity (Ohm-m) | 2000 |
| 15000 | Line Tension (lb)           | 0    |

LSPD  
(ft/min)