



# Dual Induction Log

DIGITAL LOG (785) 625-3858

|                |                                  |              |
|----------------|----------------------------------|--------------|
| API No.        | 15-065-23,712-00-00              |              |
| Company        | H&C Oil Operating, Inc.          |              |
| Well           | Bakel #30-1                      |              |
| Field          | Wildcat                          |              |
| County         | Graham                           | State Kansas |
| Location       | NW SW NW<br>1650' FNL & 330' FWL |              |
| Sec: 30        | Twp: 9 S                         | Rge: 24 W    |
| Other Services | CNL/CDL<br>MEL/BHCS              |              |

|                        |               |                         |
|------------------------|---------------|-------------------------|
| Permanent Datum        | Ground Level  | Elevation 2569          |
| Log Measured From      | Kelly Bushing | 5 Ft. Above Perm. Datum |
| Drilling Measured From | Kelly Bushing |                         |
| Date                   | 2/2/2011      |                         |
| Run Number             | One           |                         |
| Depth Driller          | 4174          |                         |
| Depth Logger           | 4175          |                         |
| Bottom Logged Interval | 4174          |                         |
| Top Log Interval       | 250           |                         |
| Casing Driller         | 8.625 @ 259   |                         |
| Casing Logger          | 255           |                         |
| Bit Size               | 7.875         |                         |
| Type Fluid in Hole     | Chemical      |                         |
| Salinity, ppm CL       | 3.000         |                         |
| Density / Viscosity    | 9.0           | 61                      |
| pH / Fluid Loss        | 9.0           | 8.0                     |
| Source of Sample       | Flowline      |                         |
| Rm @ Meas. Temp        | 1.4 @         | 45                      |
| Rmf @ Meas. Temp       | 1.05 @        | 45                      |
| Rmc @ Meas. Temp       | 1.9 @         | 45                      |
| Source of Rmf / Rmc    | Charts        |                         |
| Rm @ BHT               | .54 @         | 118                     |
| Operating Rig Time     | 4 Hours       |                         |
| Max Rec. Temp. F       | 118           |                         |
| Equipment Number       | 17            |                         |
| Location               | Hays          |                         |
| Recorded By            | T. Martin     |                         |
| 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, S to Redline Rd, approx 12 W to 160 Rd,  
1/2 N, E into

Database File: c:\warrior\data\h&c\_bakel #30-1\h&chd.db  
 Dataset Pathname: dil/hcstk  
 Presentation Format: dil2in  
 Dataset Creation: Wed Feb 02 23:55:22 2011  
 Charted by: Depth in Feet scaled 1:600

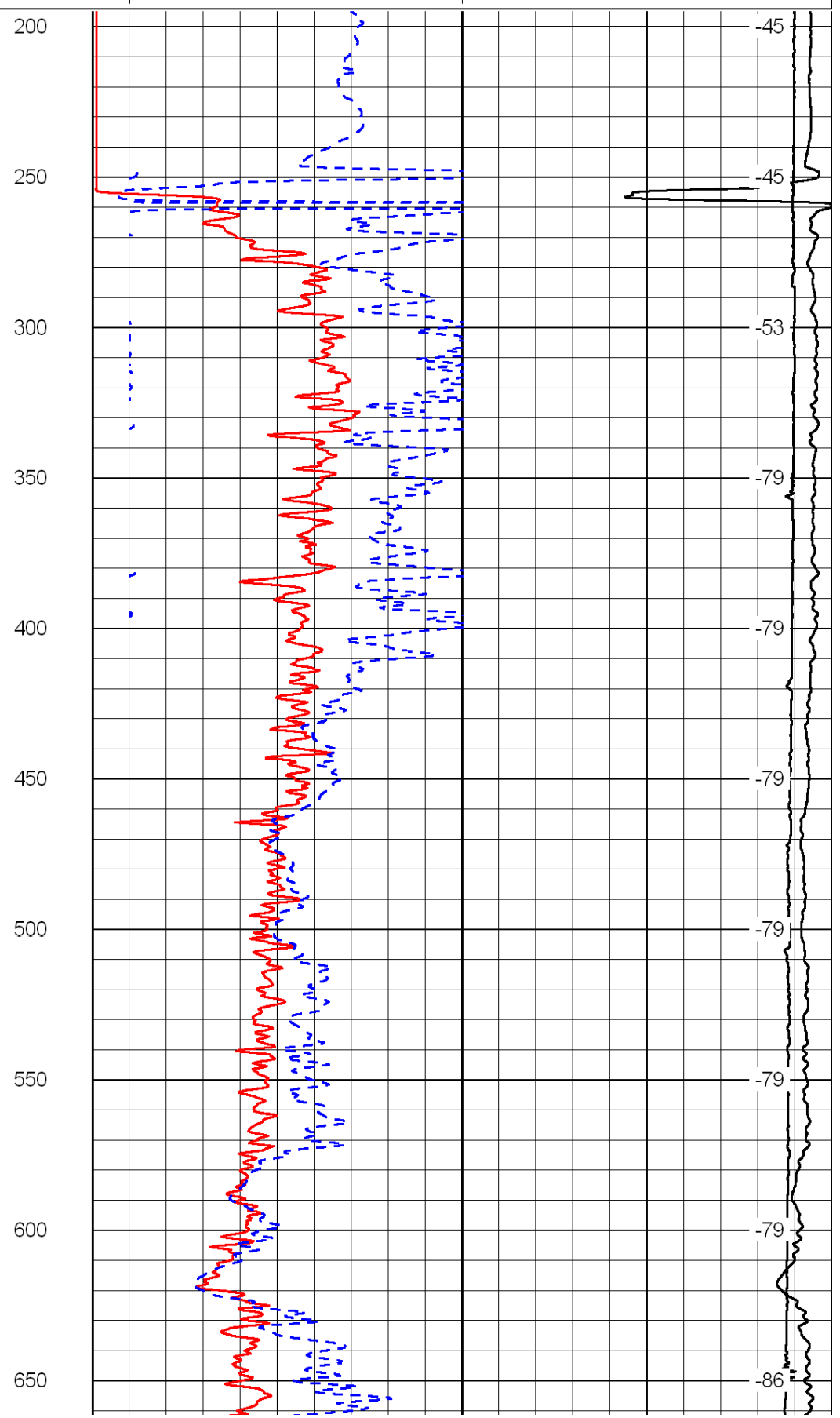
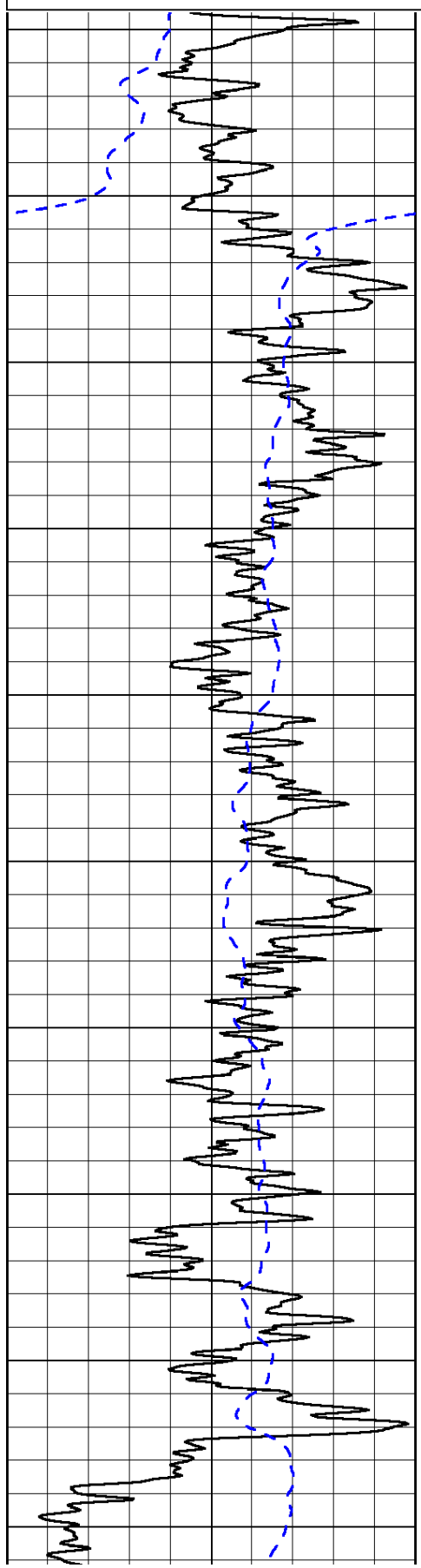
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|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| -200 | SP (mV)   | 0   |

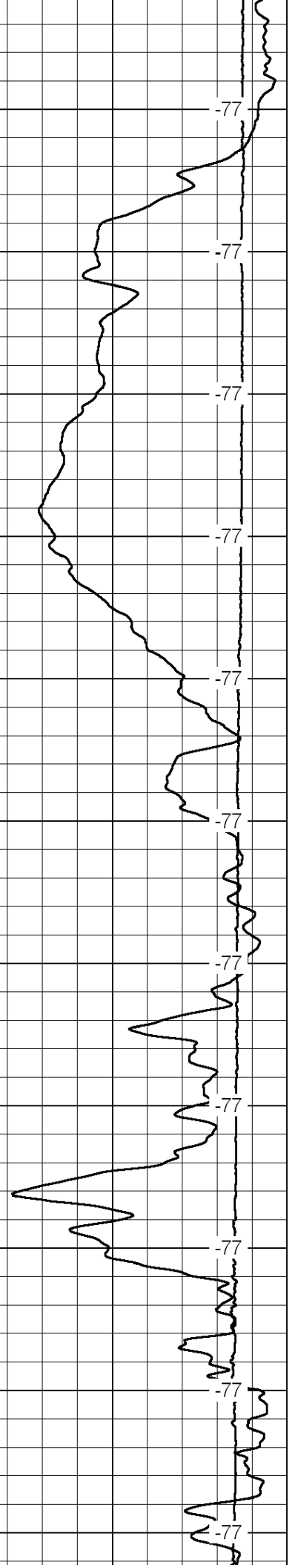
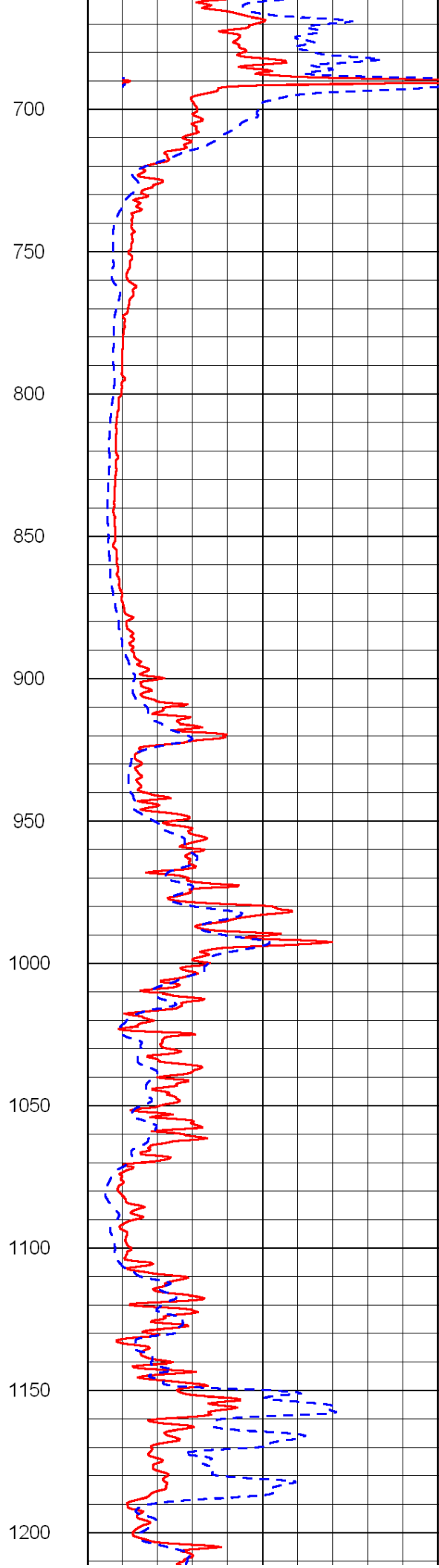
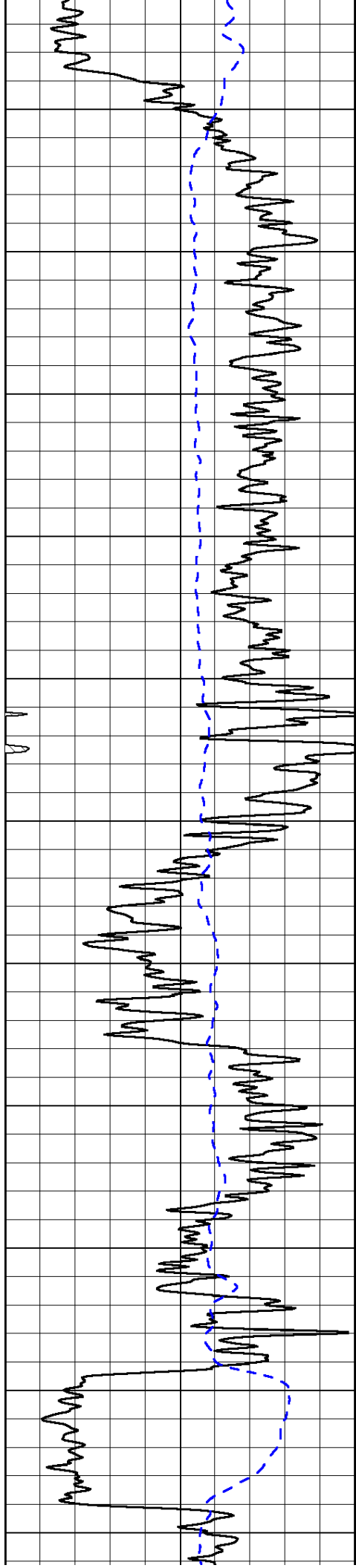
|   |                     |    |
|---|---------------------|----|
| 0 | Shallow Resistivity | 50 |
| 0 | Deep Resistivity    | 50 |

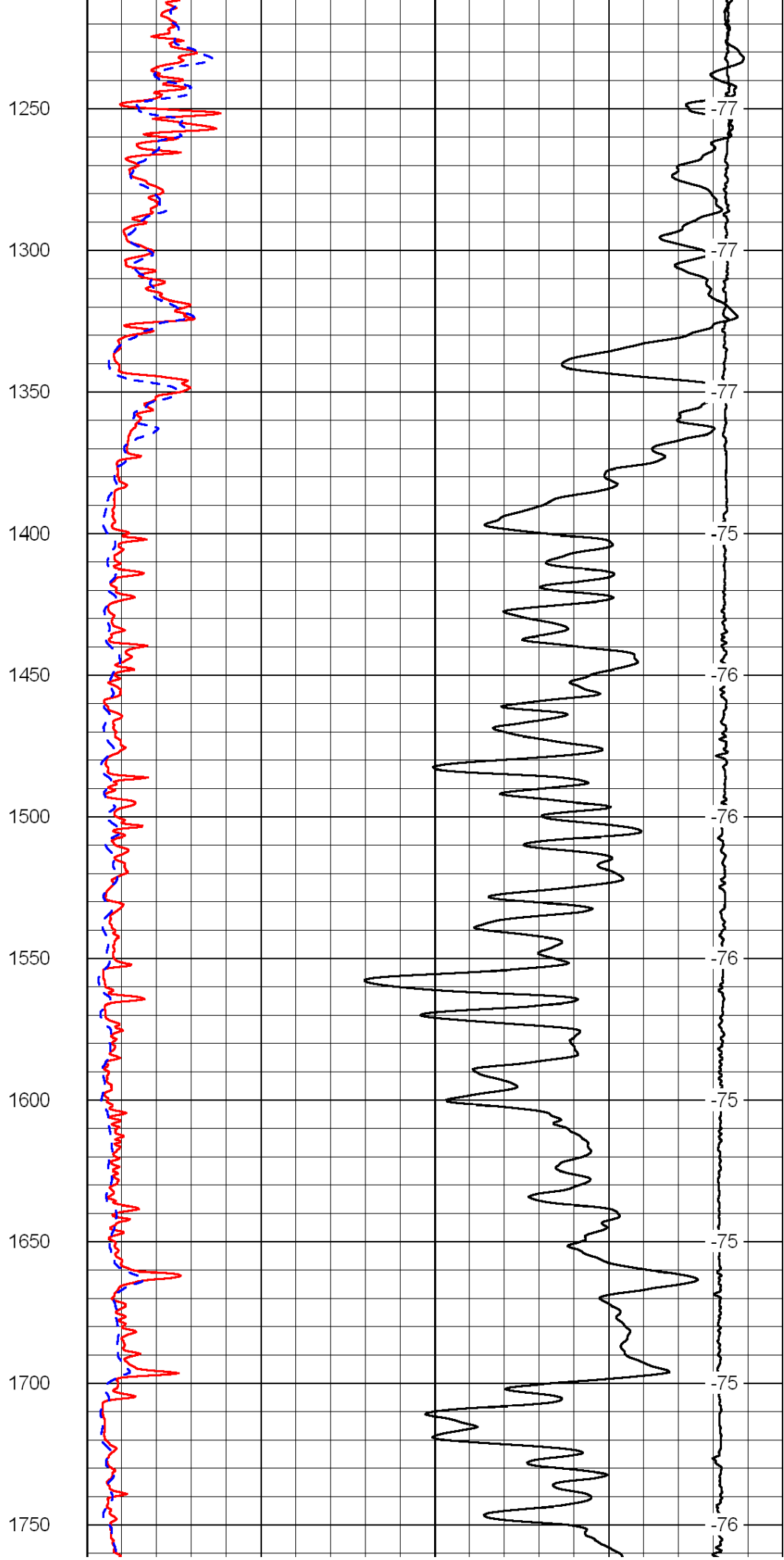
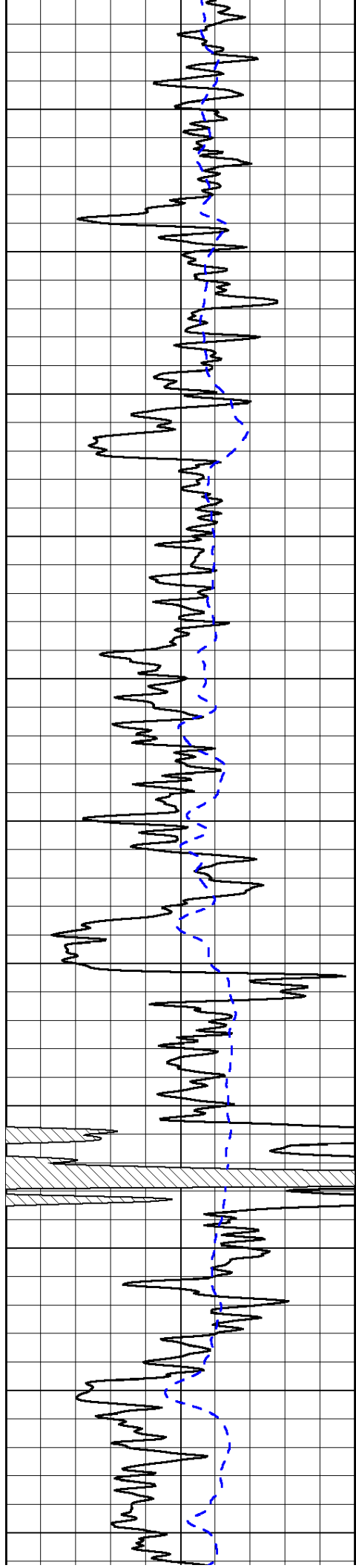
LSPD

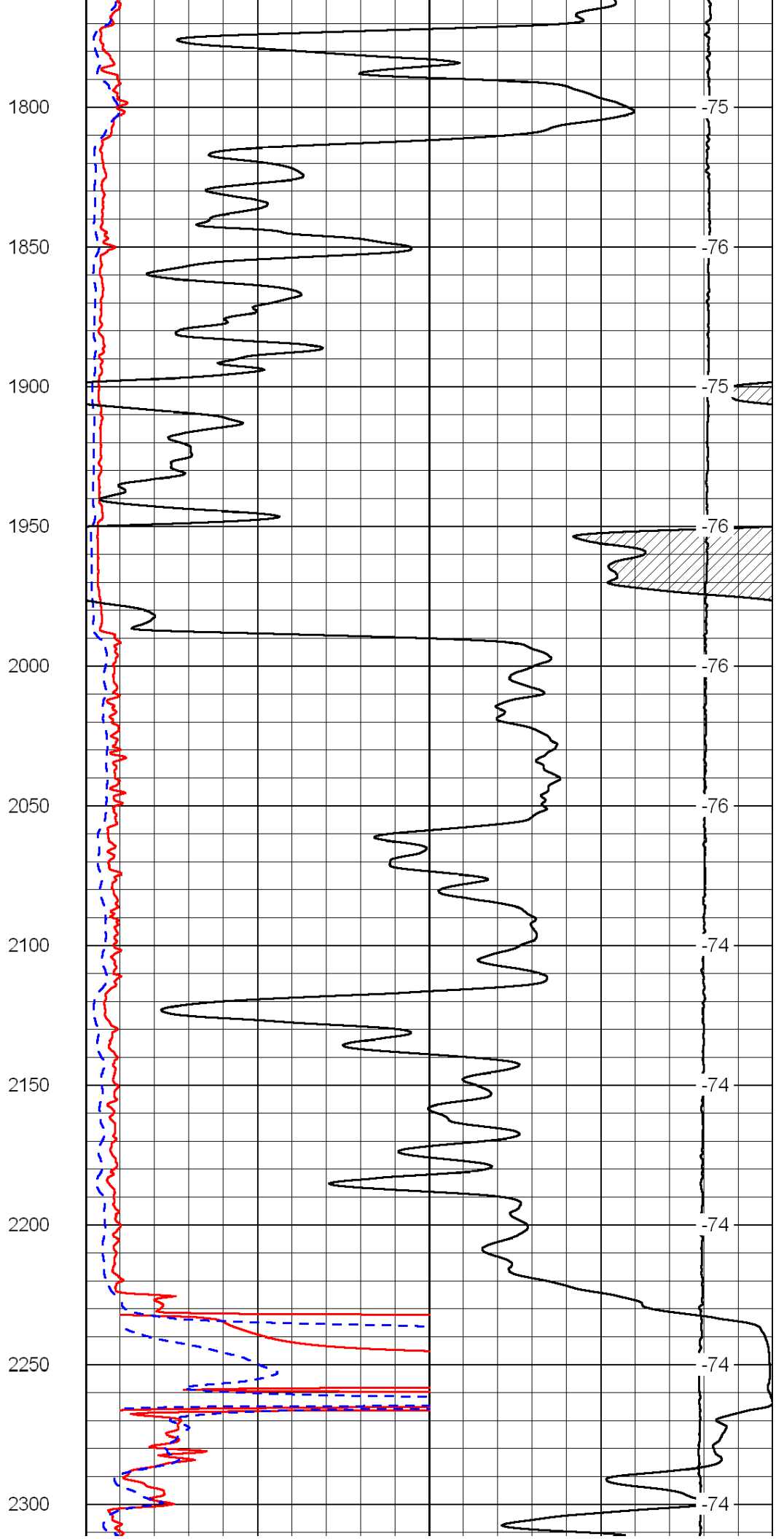
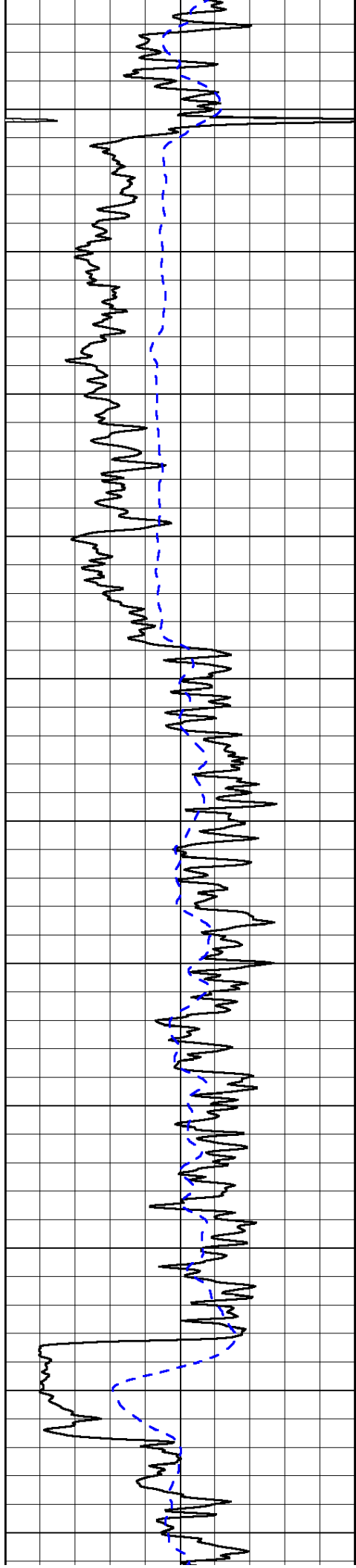
|       |              |   |
|-------|--------------|---|
| 1000  | Conductivity | 0 |
| 15000 | Line Tension | 0 |

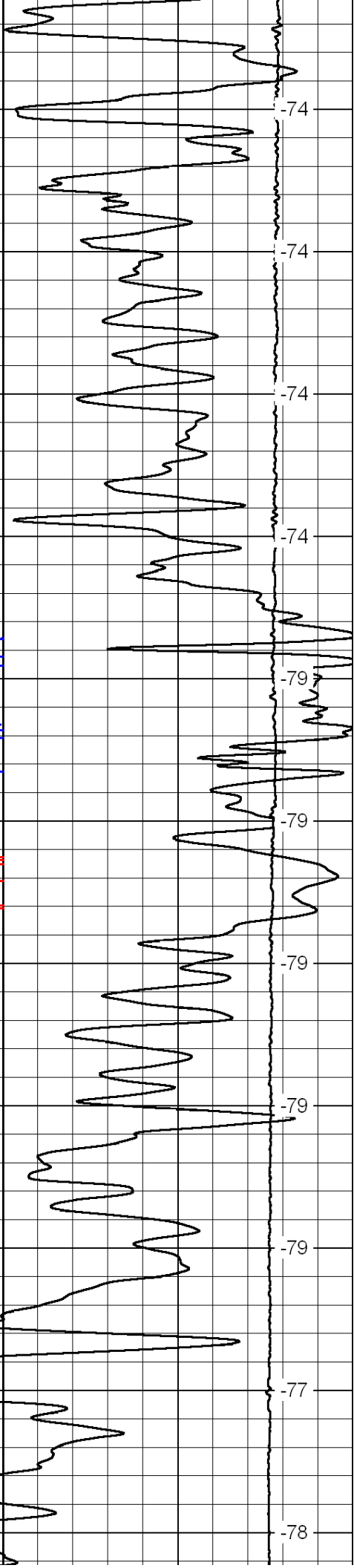
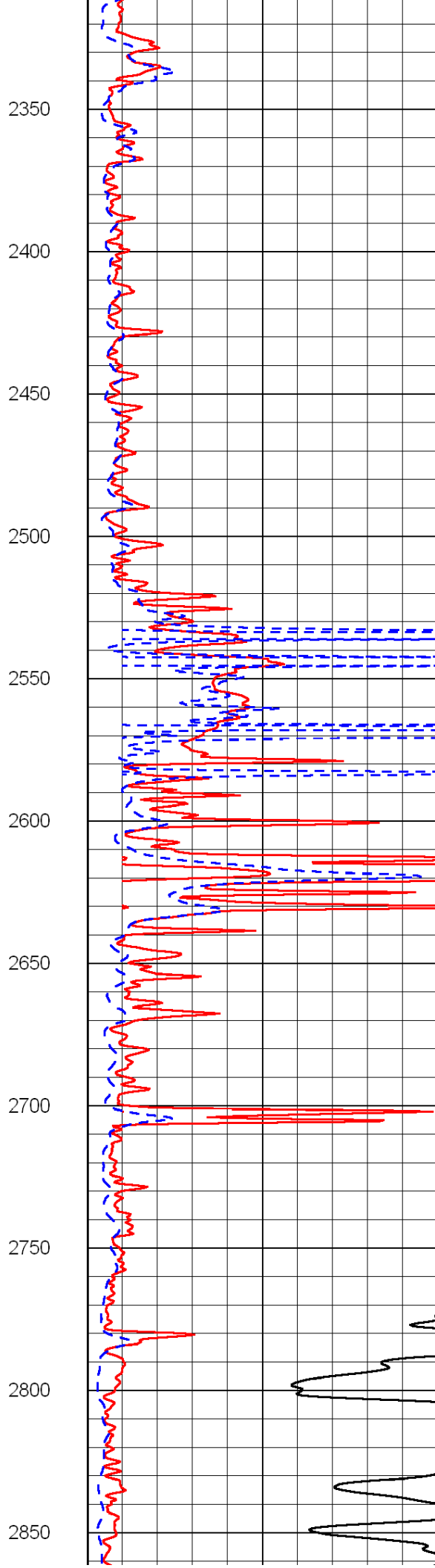
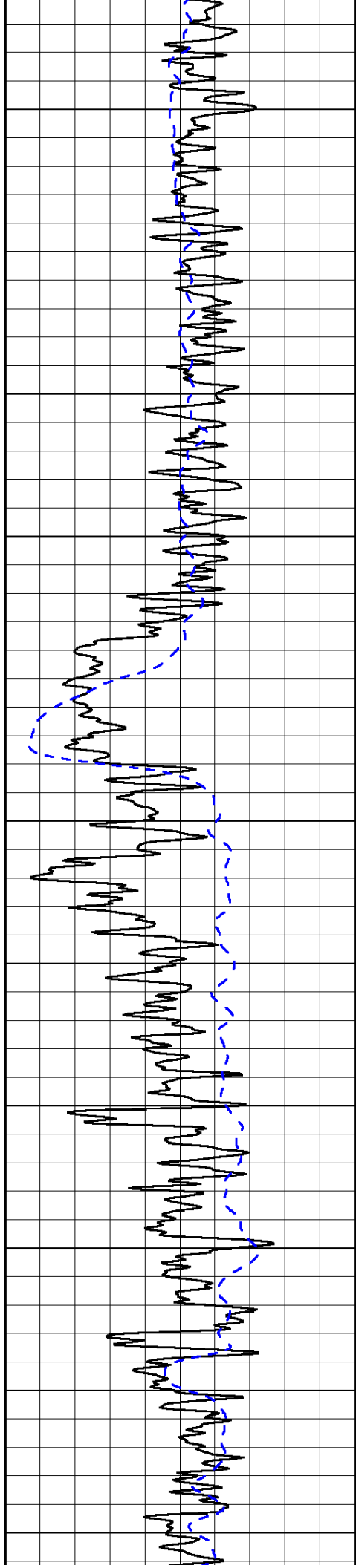
|    |                     |     |
|----|---------------------|-----|
| 50 | Shallow Resistivity | 500 |
| 50 | Deep Resistivity    | 500 |

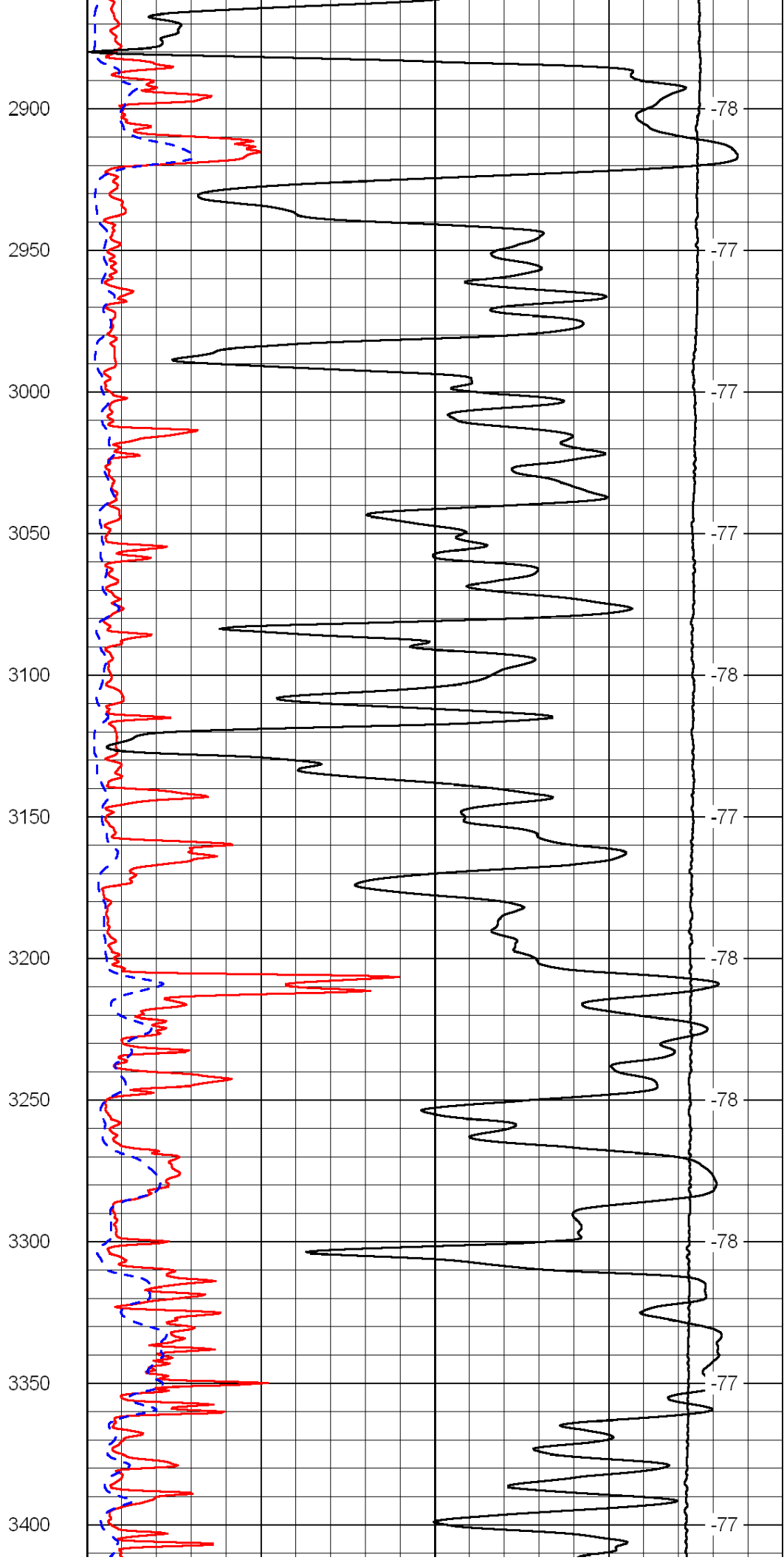
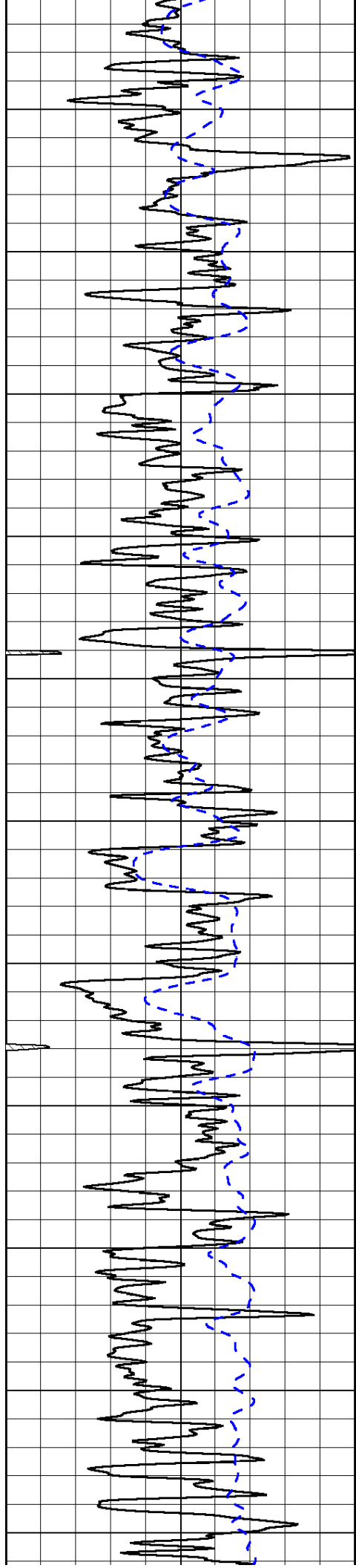


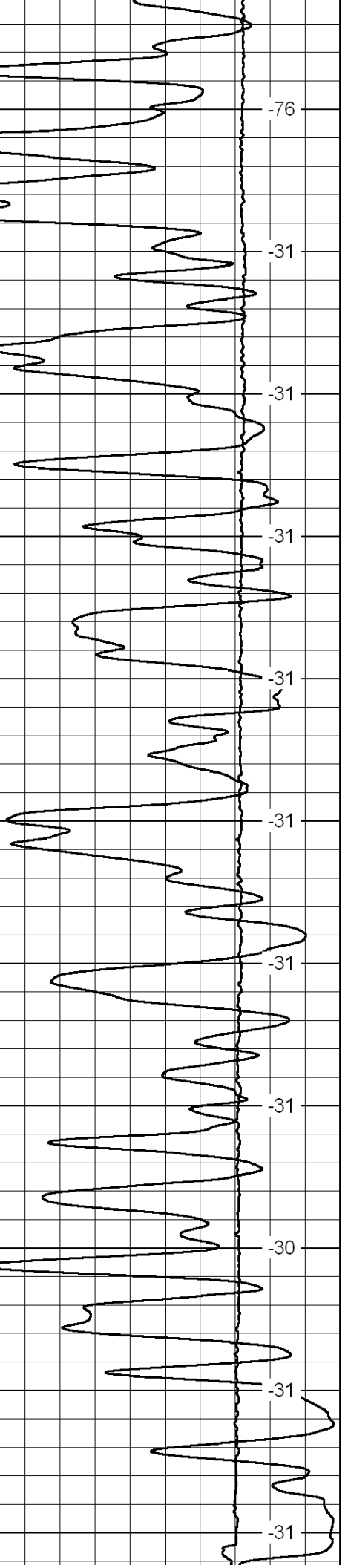
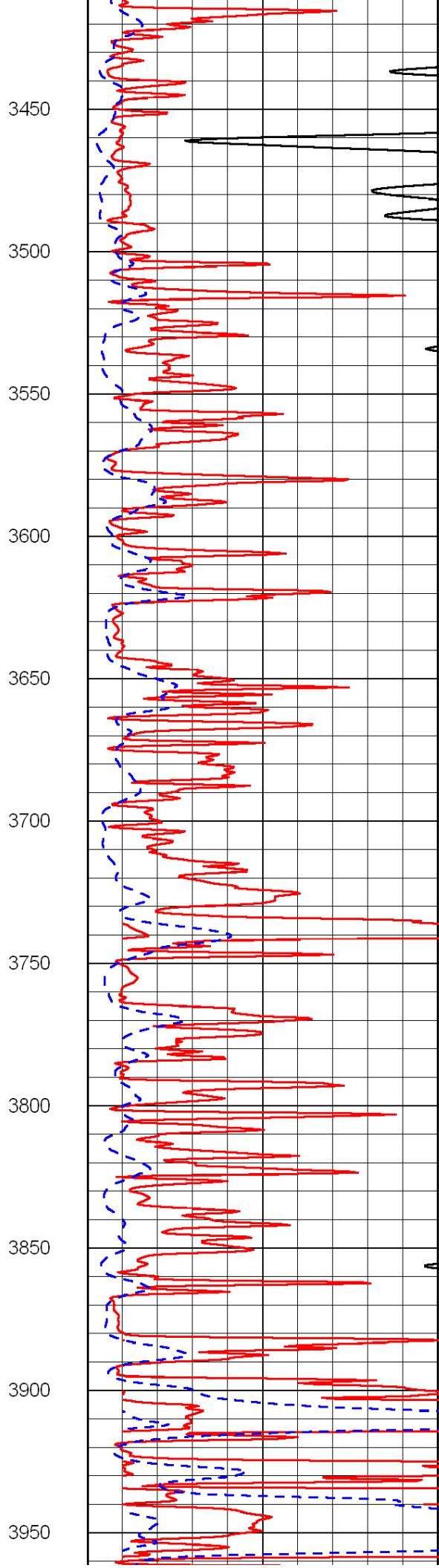
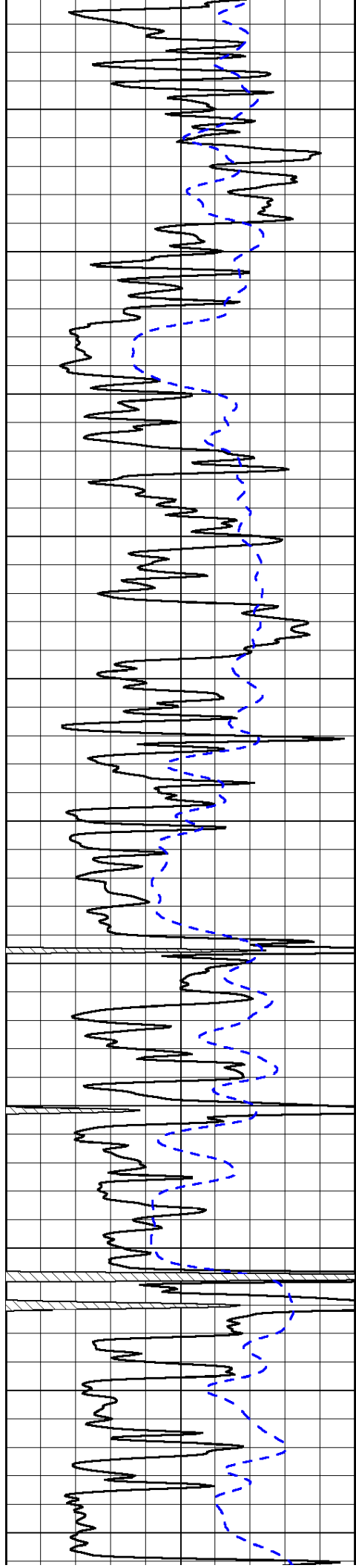


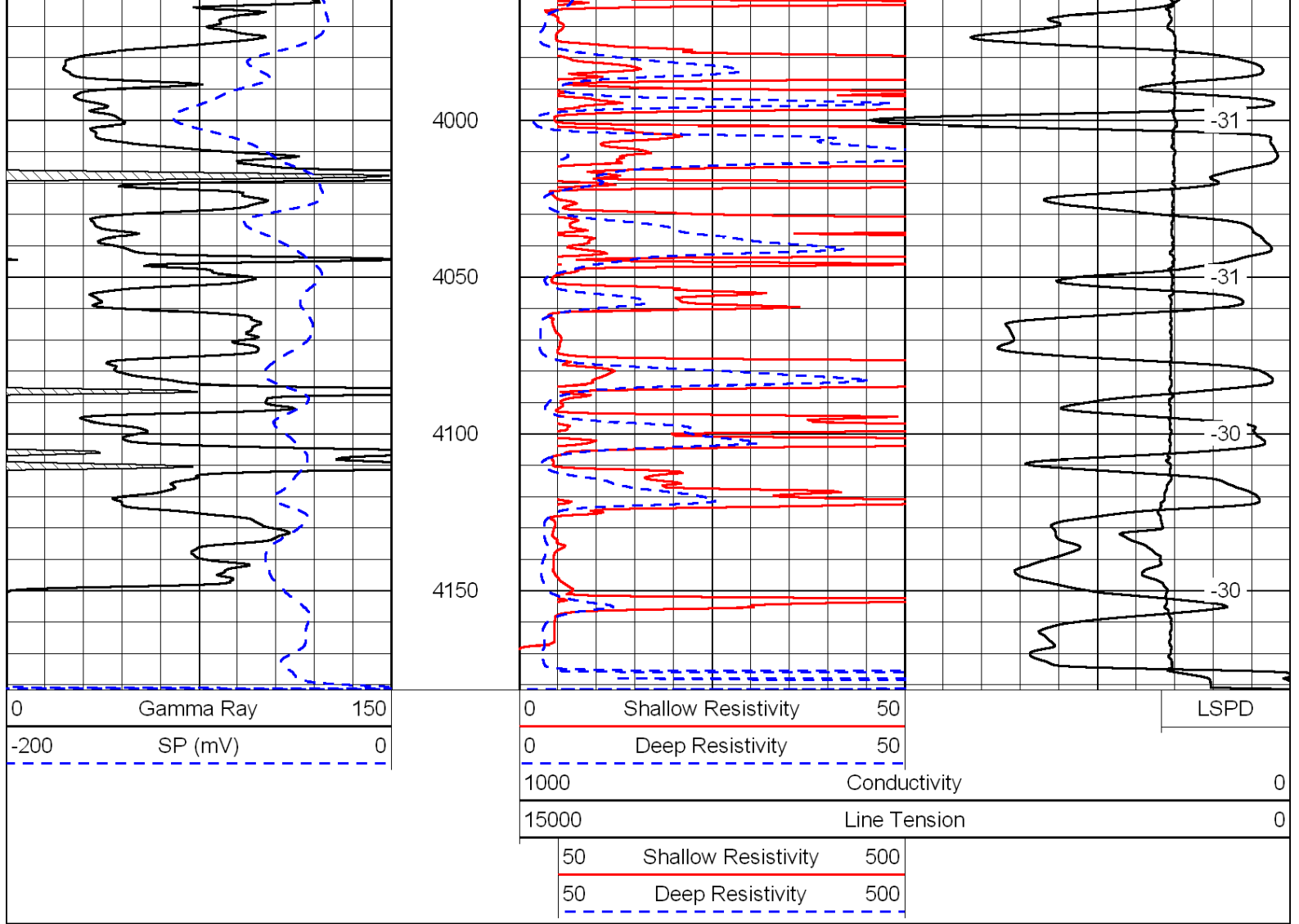




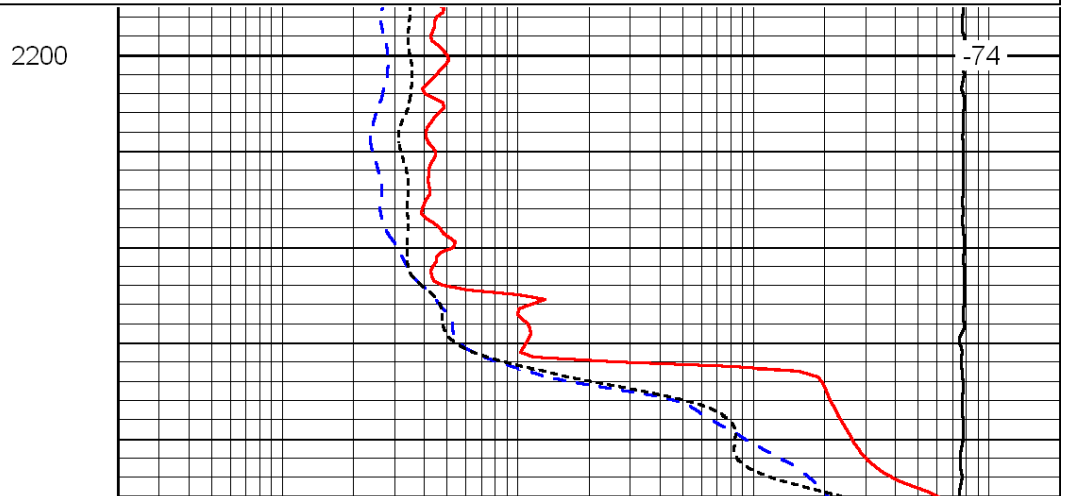
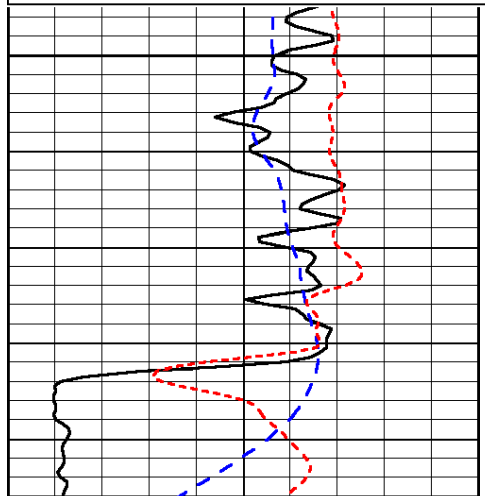
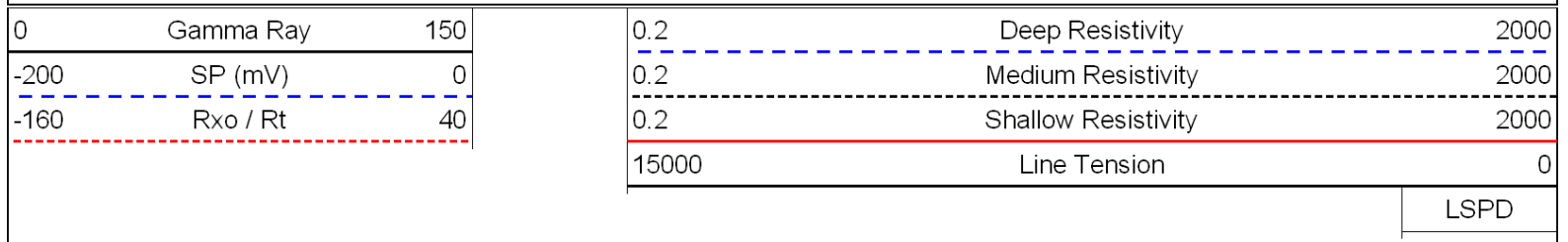


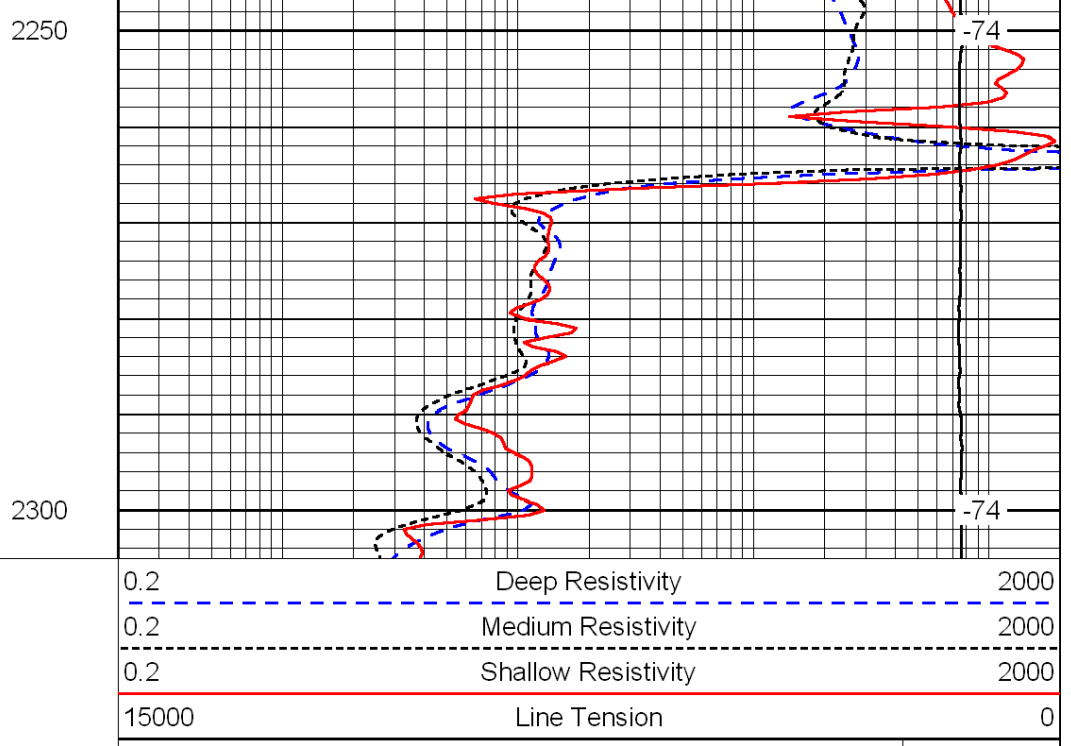
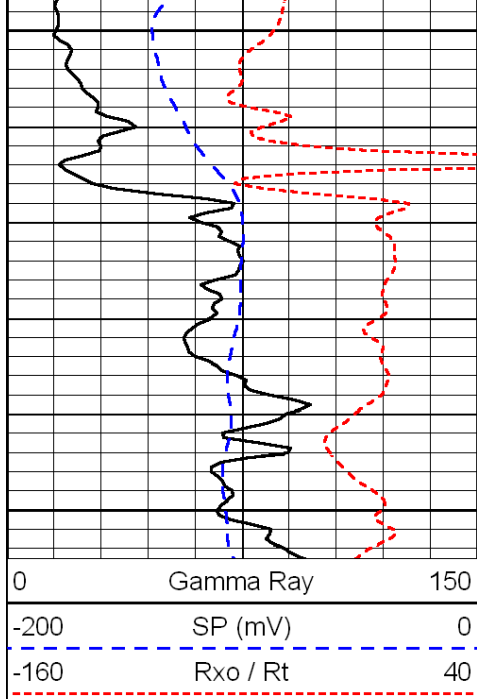






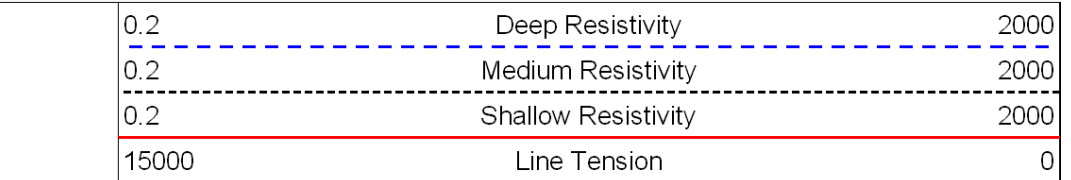
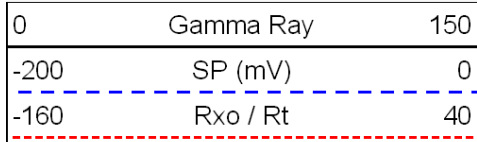
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 Presentation Format: dil  
 Dataset Creation: Wed Feb 02 23:55:22 2011  
 Charted by: Depth in Feet scaled 1:240



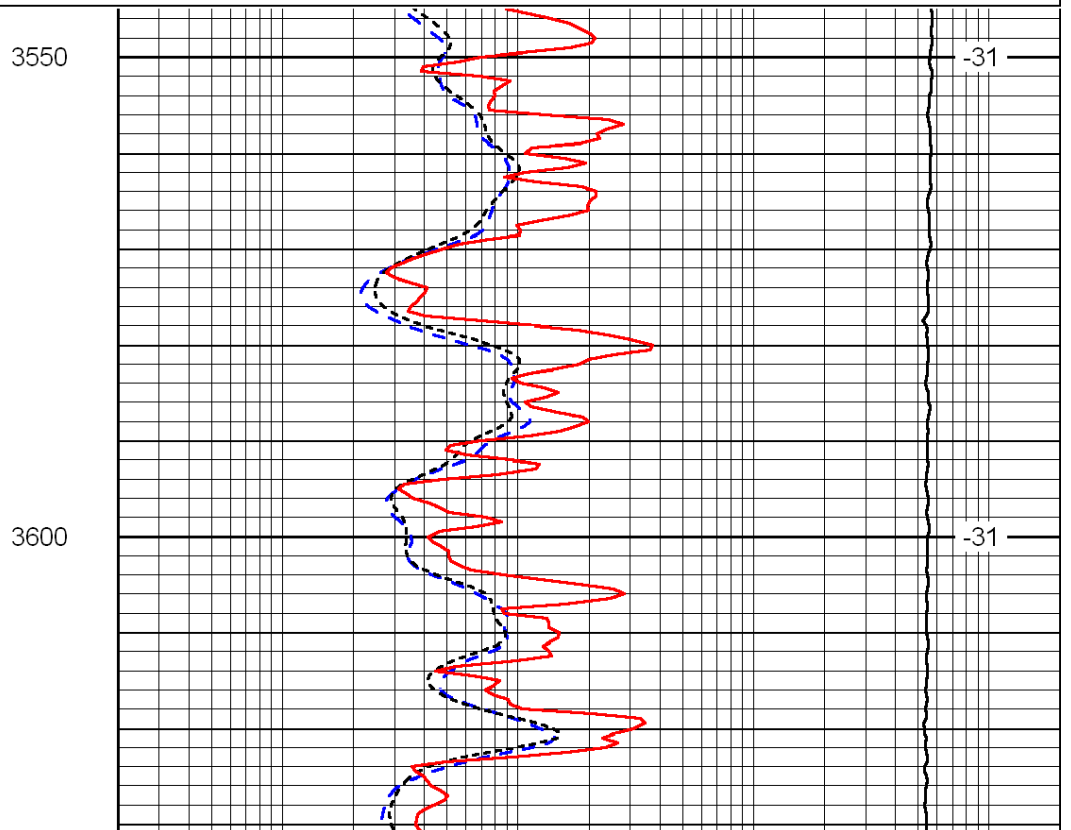
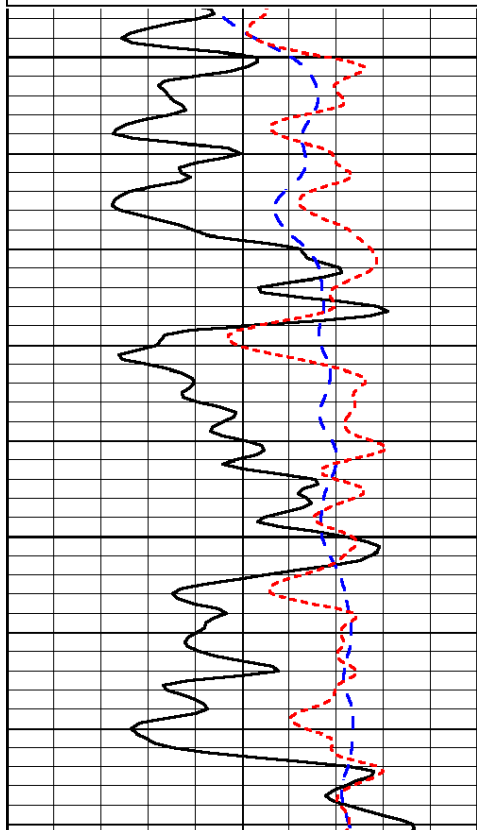


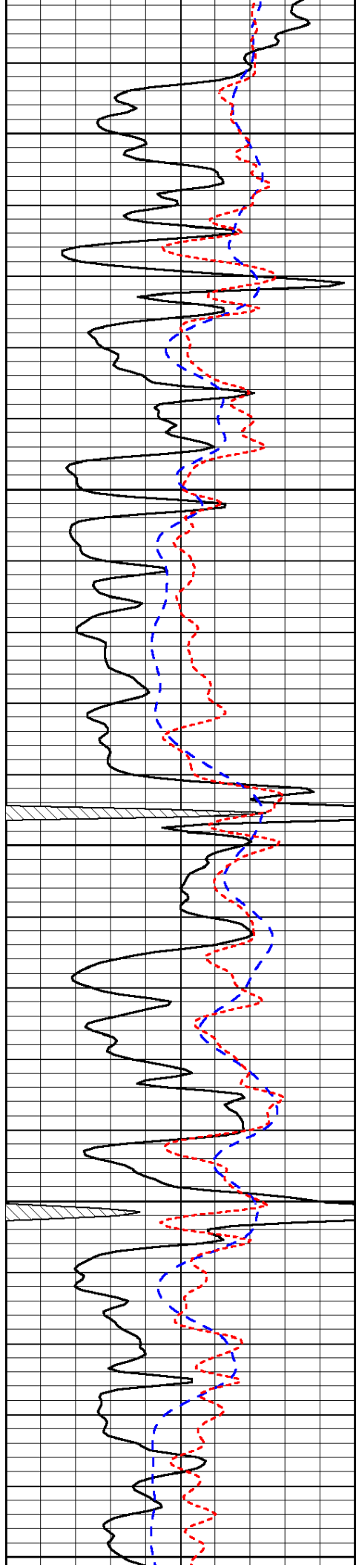
LSPD

Database File: c:\warrior\data\h&c\_bakel #30-1\h&chd.db  
 Dataset Pathname: dil/hcstk  
 Presentation Format: dil  
 Dataset Creation: Wed Feb 02 23:55:22 2011  
 Charted by: Depth in Feet scaled 1:240



LSPD





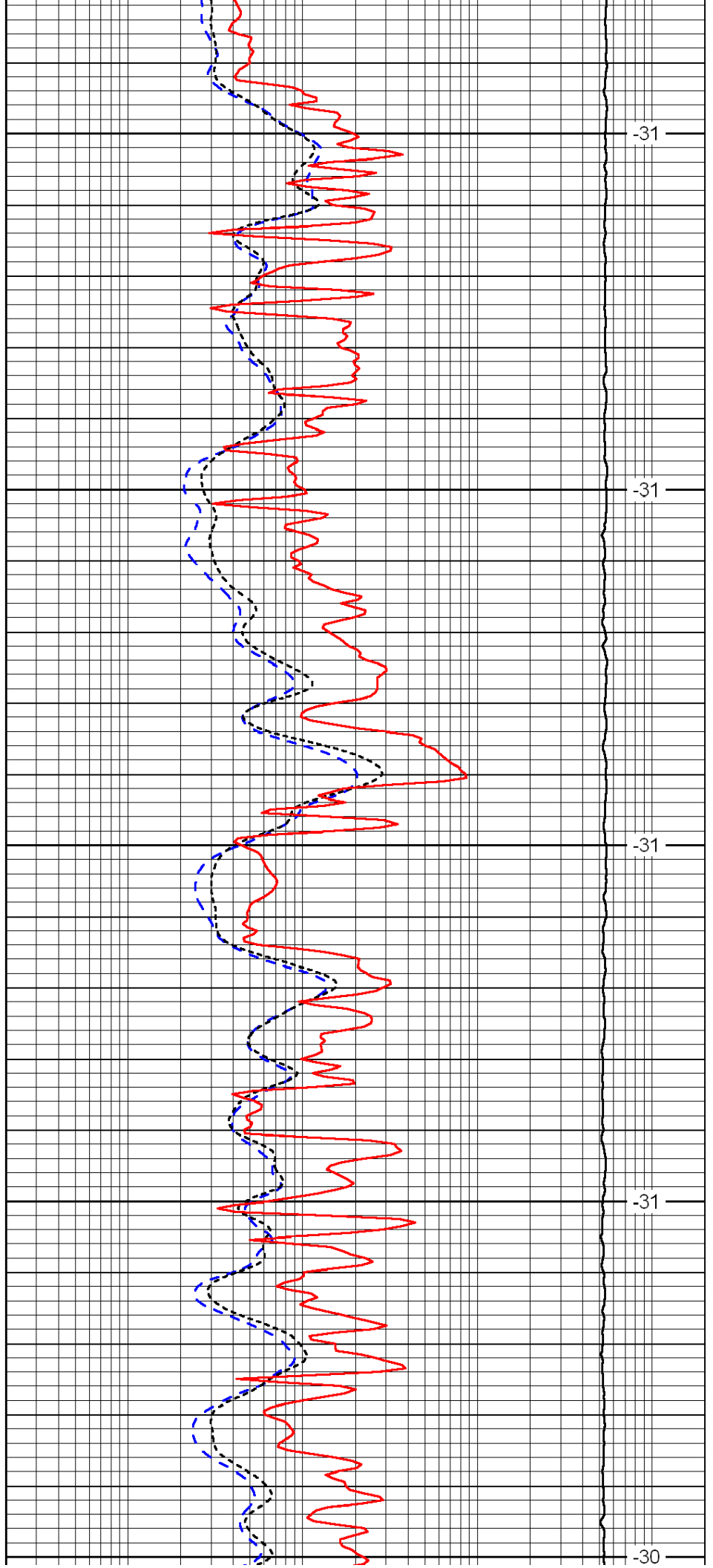
3650

3700

3750

3800

3850



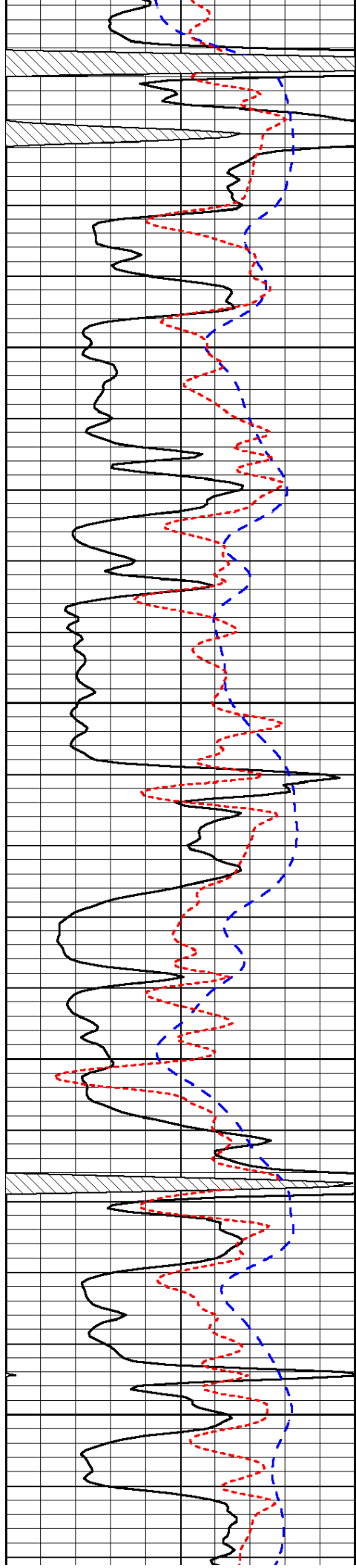
-31

-31

-31

-31

-30

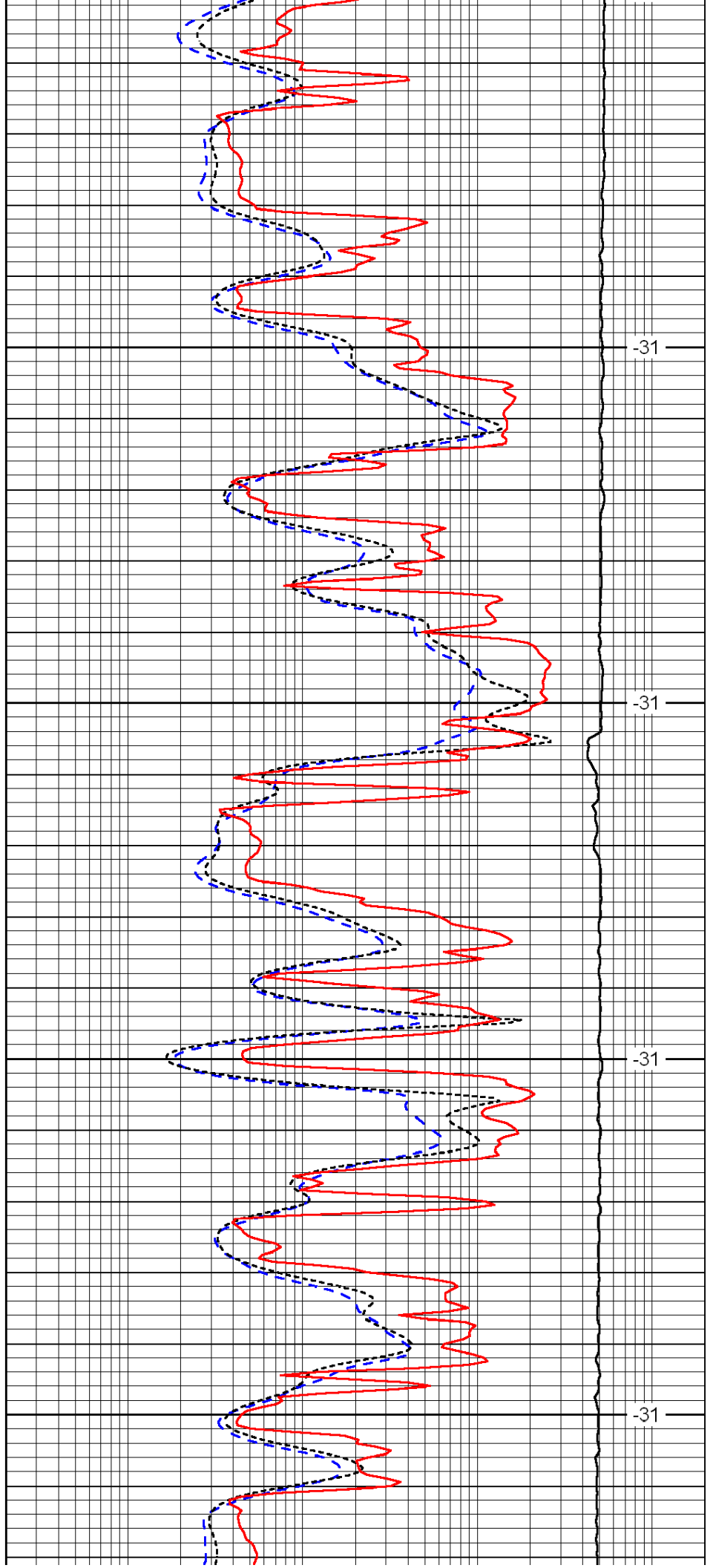


3900

3950

4000

4050

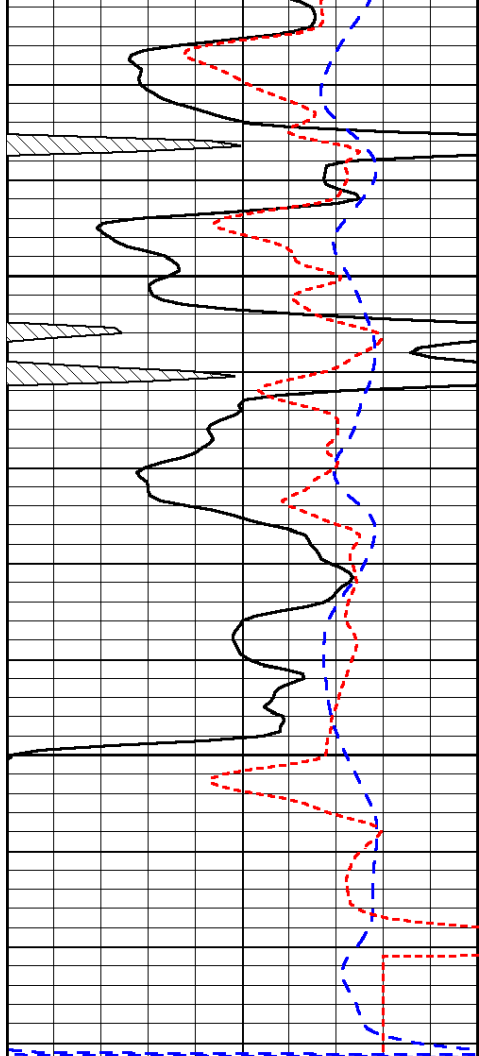


-31

-31

-31

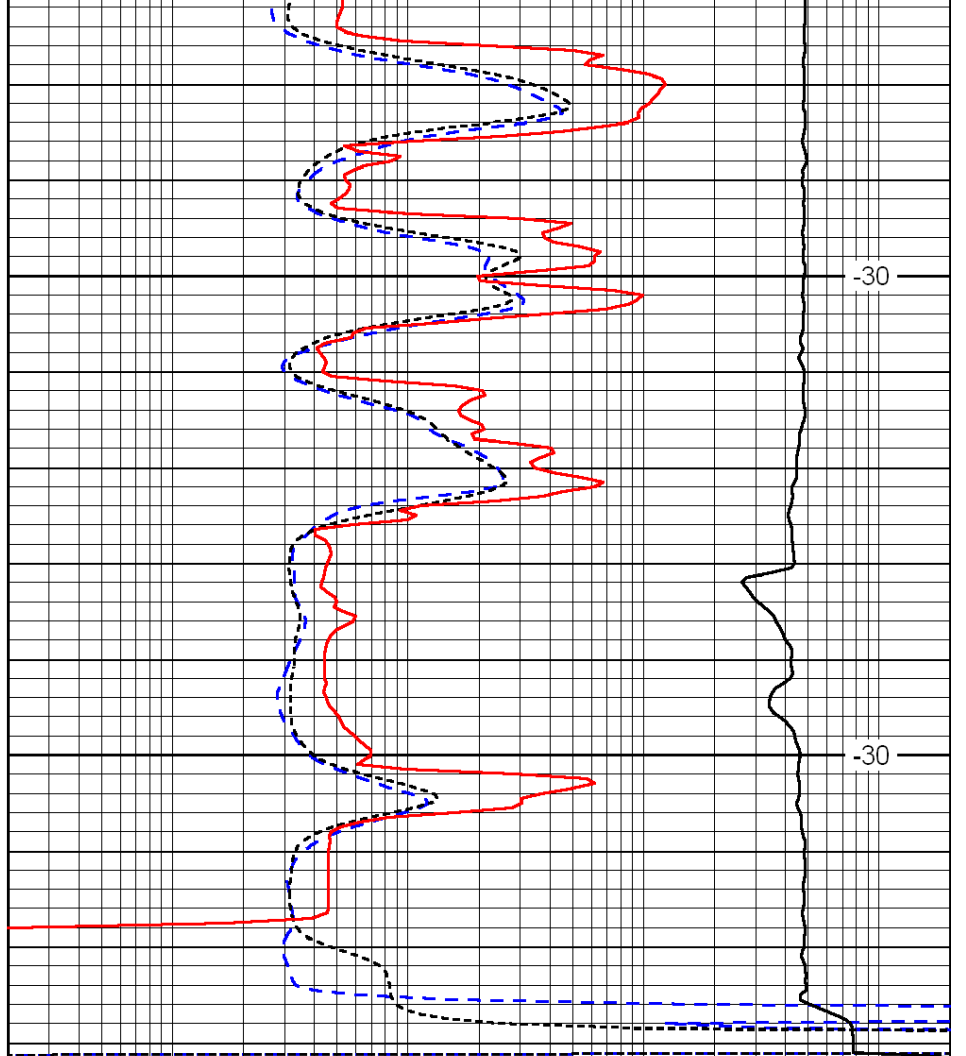
-31



4100

4150

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



-30

-30

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

LSPD