



# Microresistivity Log

**DIGITAL LOG** (785) 625-3858

|                        |                       |                         |                                     |
|------------------------|-----------------------|-------------------------|-------------------------------------|
| API No.                | 15-009-25,450-00-00   |                         |                                     |
| Company                | L.D. Drilling, Inc.   |                         |                                     |
| Well                   | Voth No.1-19          |                         |                                     |
| Field                  | Fort Zarah North      |                         |                                     |
| County                 | Barton                | State                   | Kansas                              |
| Location               | 1520' FNL & 1020' FEL |                         |                                     |
| Sec: 19                | Twp: 19s              | Rge: 12w                |                                     |
| Permanent Datum        | Ground Level          | Elevation               | 1830                                |
| Log Measured From      | Kelly Bushing         | 5 Ft. Above Perm. Datum |                                     |
| Drilling Measured From | Kelly Bushing         |                         |                                     |
|                        |                       | Other Services          | CNL/CDL<br>DIL                      |
|                        |                       | Elevation               | K.B. 1835<br>D.F. 1830<br>G.L. 1830 |

|                        |               |      |
|------------------------|---------------|------|
| Date                   | 7/25/2010     |      |
| Run Number             | Two           |      |
| Depth Driller          | 3520          |      |
| Depth Logger           | 3519          |      |
| Bottom Logged Interval | 3518          |      |
| Top Log Interval       | 2600          |      |
| Casing Driller         | 8.625 @ 338   |      |
| Casing Logger          | 343           |      |
| Bit Size               | 7.875         |      |
| Type Fluid in Hole     | Chemical      |      |
| Salinity, ppm CL       | 8,000         |      |
| Density / Viscosity    | 9.2           | 43   |
| pH / Fluid Loss        | 9.5           | 11.2 |
| Source of Sample       | Flowline      |      |
| Rm @ Meas. Temp        | .55 @         | 82   |
| Rmf @ Meas. Temp       | .41 @         | 82   |
| Rmc @ Meas. Temp       | .74 @         | 82   |
| Source of Rmf / Rmc    | Charts        |      |
| Rm @ BHT               | .4 @          | 113  |
| Operating Rig Time     | 3 1/2 Hours   |      |
| Max Rec. Temp. F       | 113           |      |
| Equipment Number       | 17            |      |
| Location               | Hays          |      |
| Recorded By            | C. Desaire    |      |
| Witnessed By           | Kim Shoemaker |      |

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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

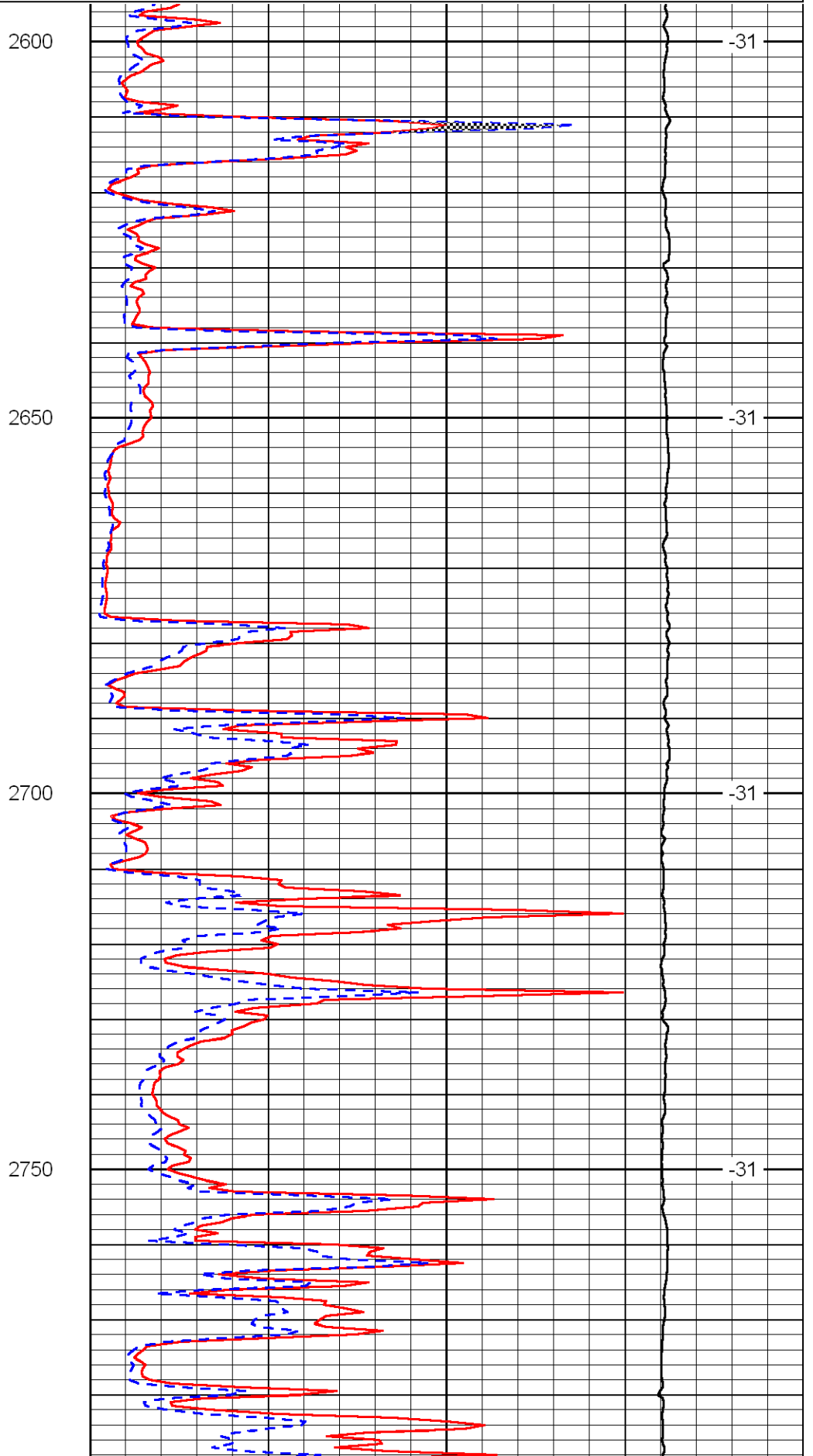
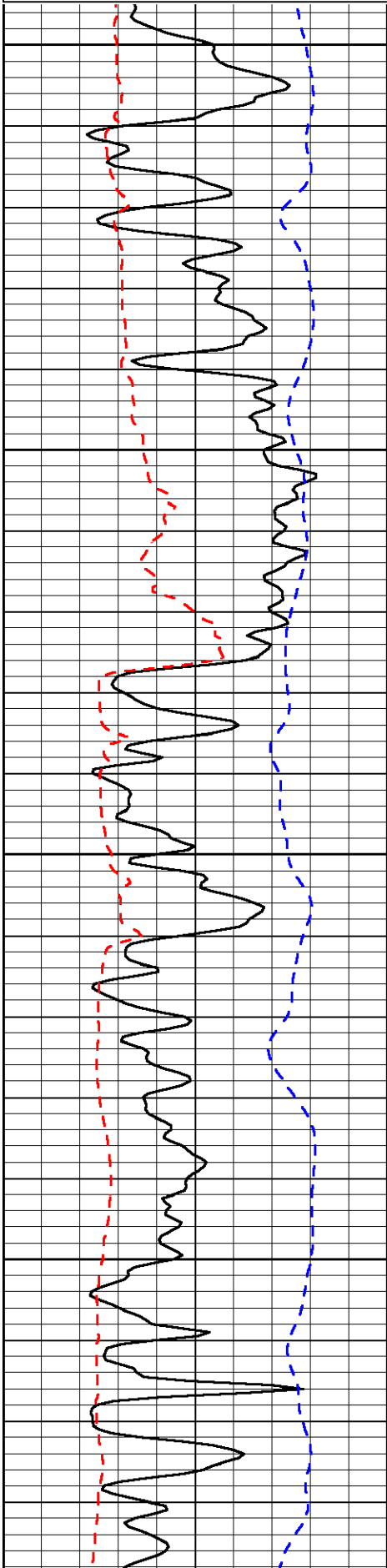
Thank you for using Log-Tech, Inc.  
(785) 625-3858

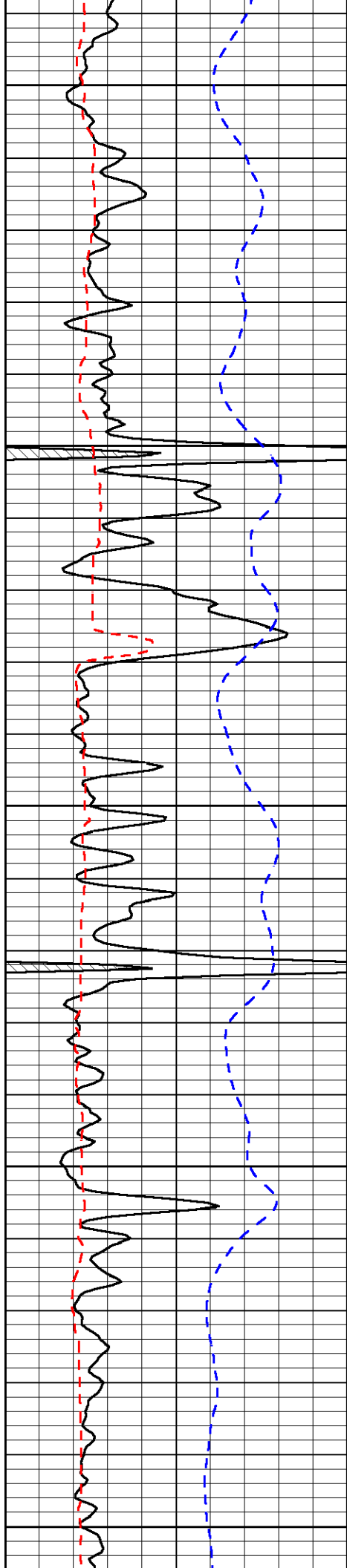
Great Bend, E to Doonans,  
2 N, 1/2 W, S Into

Database File: ldhd.db  
 Dataset Pathname: dil/ldstk  
 Presentation Format: micro  
 Dataset Creation: Sun Jul 25 21:47:28 2010  
 Charted by: Depth in Feet scaled 1:240

|       |                 |       |
|-------|-----------------|-------|
| 0     | Gamma Ray       | 150   |
| 6     | MCAL (GAPI)     | 16    |
| 2.875 | Mud Cake (GAPI) | 7.875 |
| -200  | SP (mV)         | 0     |

|       |                             |               |
|-------|-----------------------------|---------------|
| 0     | Micro Inverse 1 X 1 (Ohm-m) | 40            |
| 0     | Micro Normal 2" (Ohm-m)     | 40            |
| 10000 | Line Weight (lb)            | 0             |
|       |                             | LSPD (ft/min) |





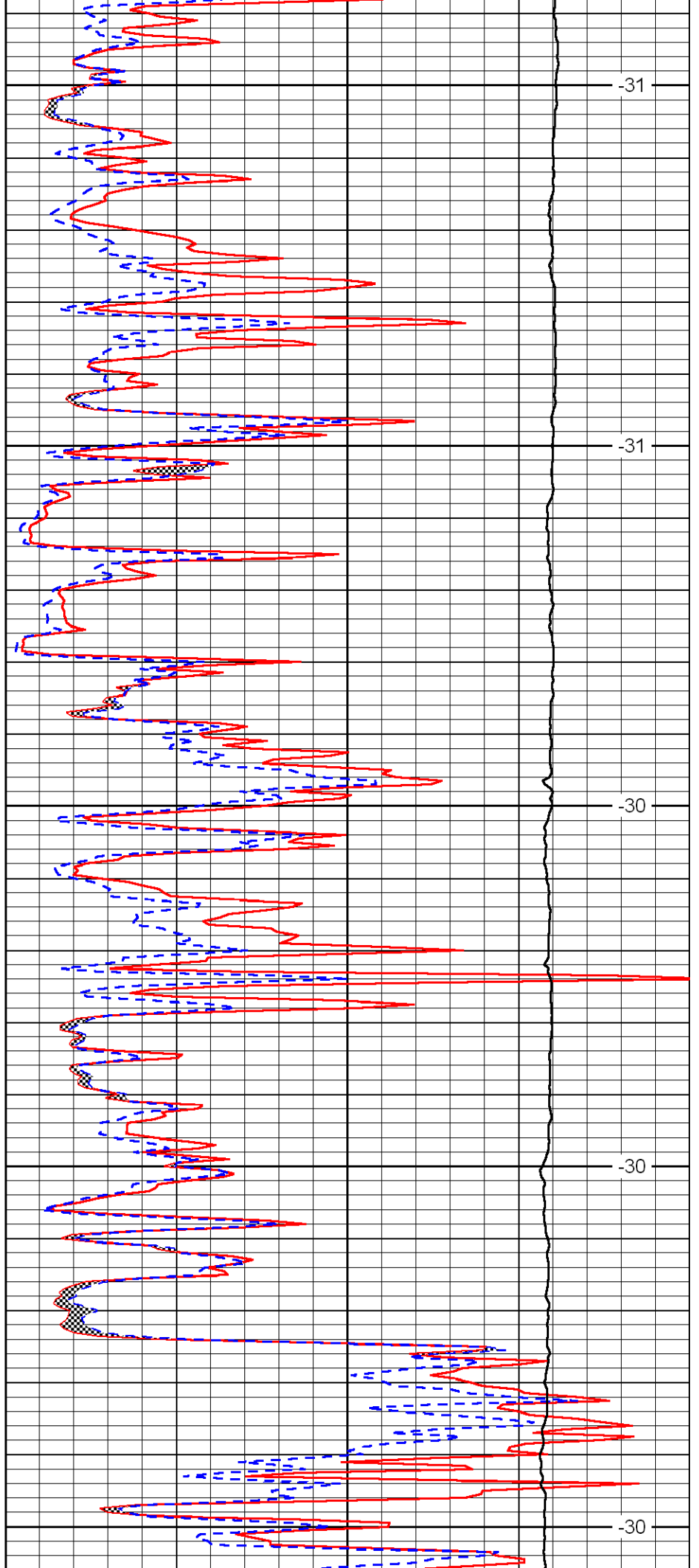
2800

2850

2900

2950

3000



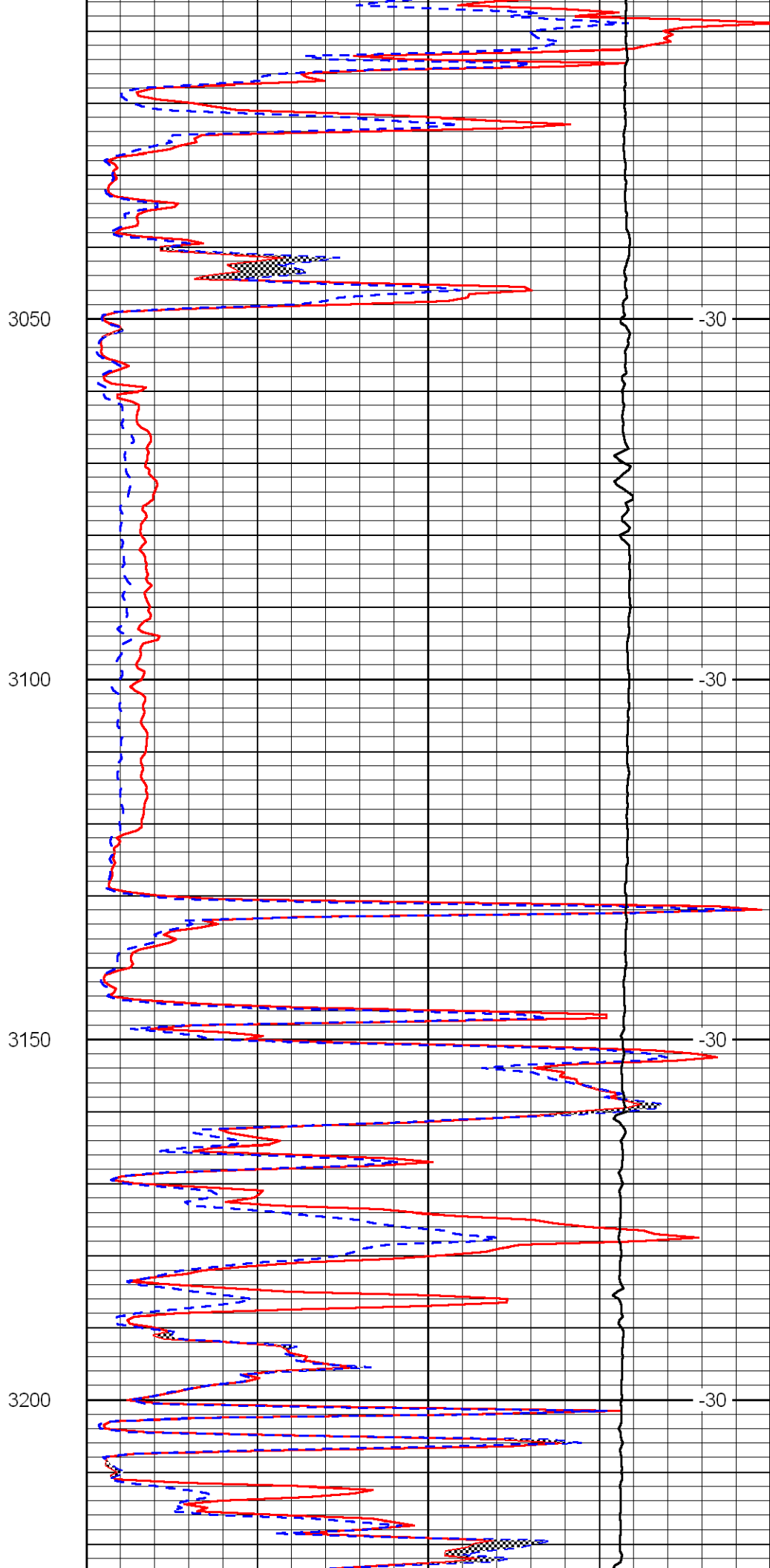
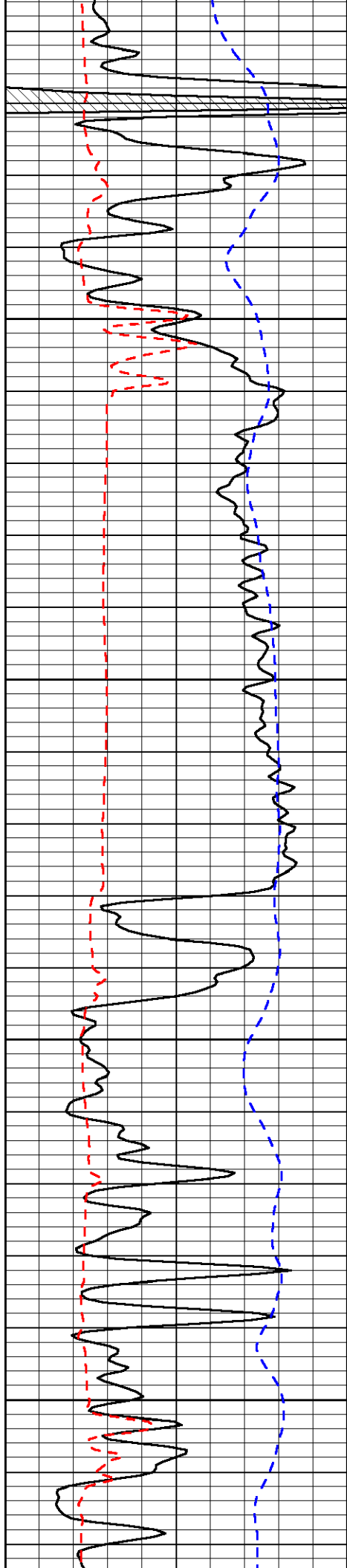
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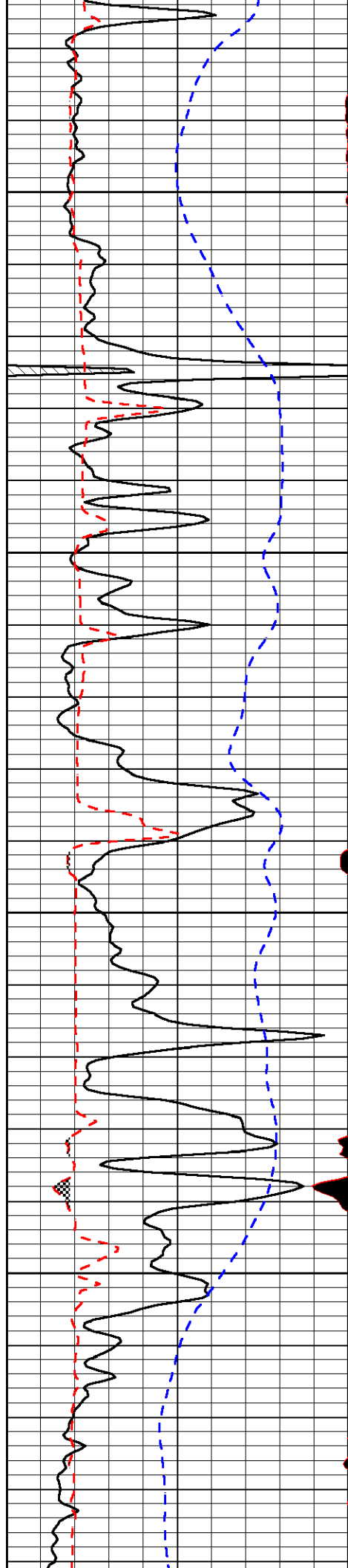
-31

-30

-30

-30



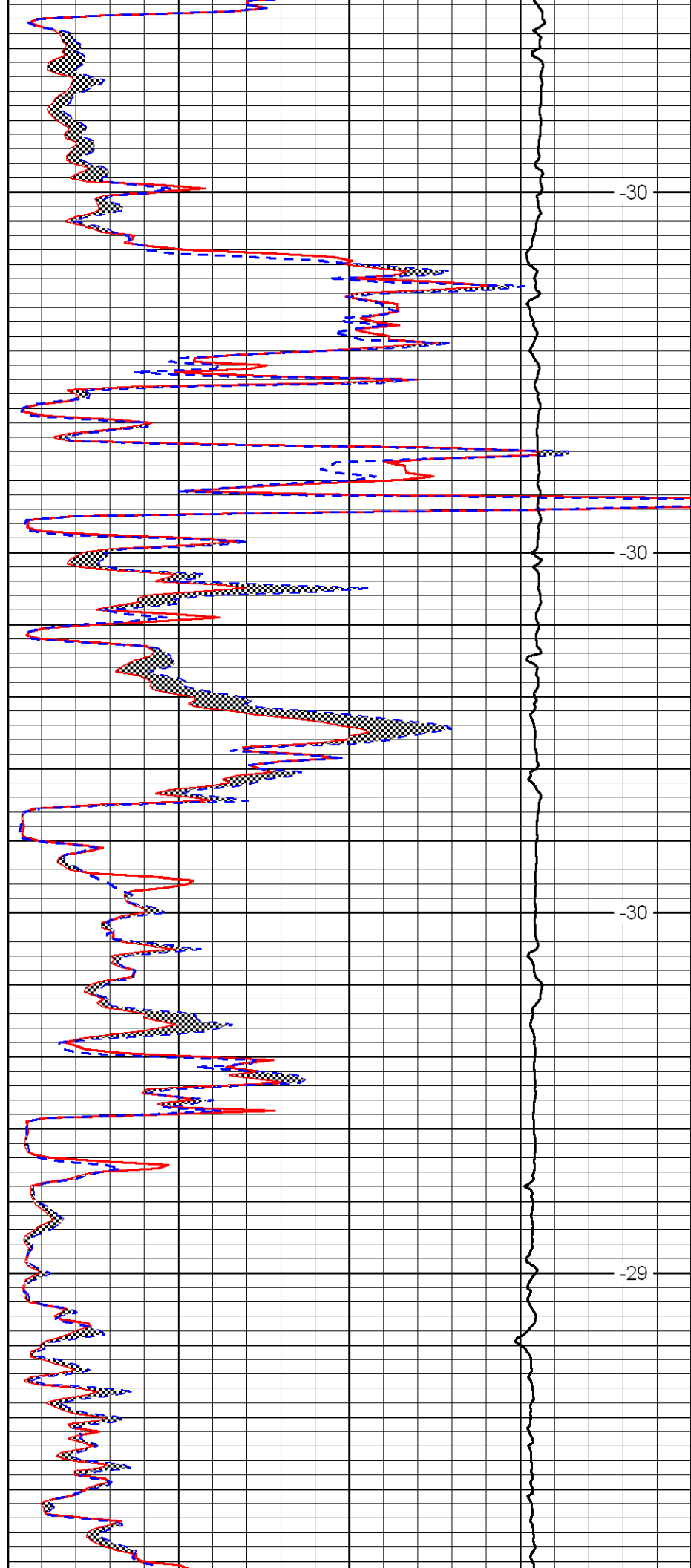


3250

3300

3350

3400

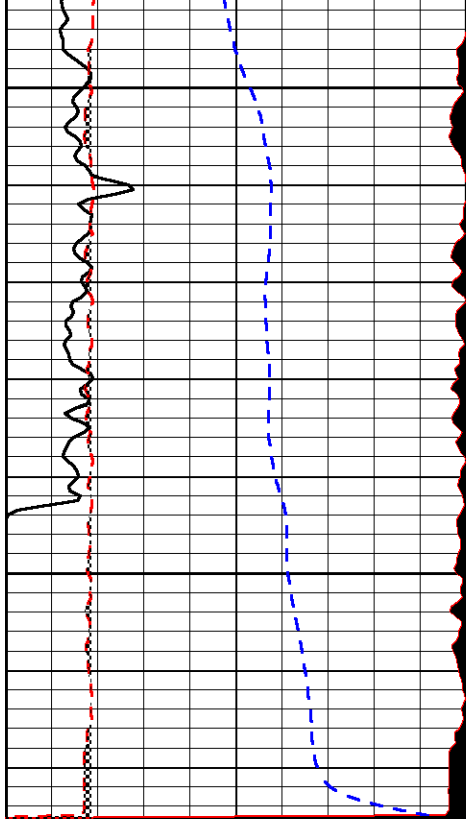


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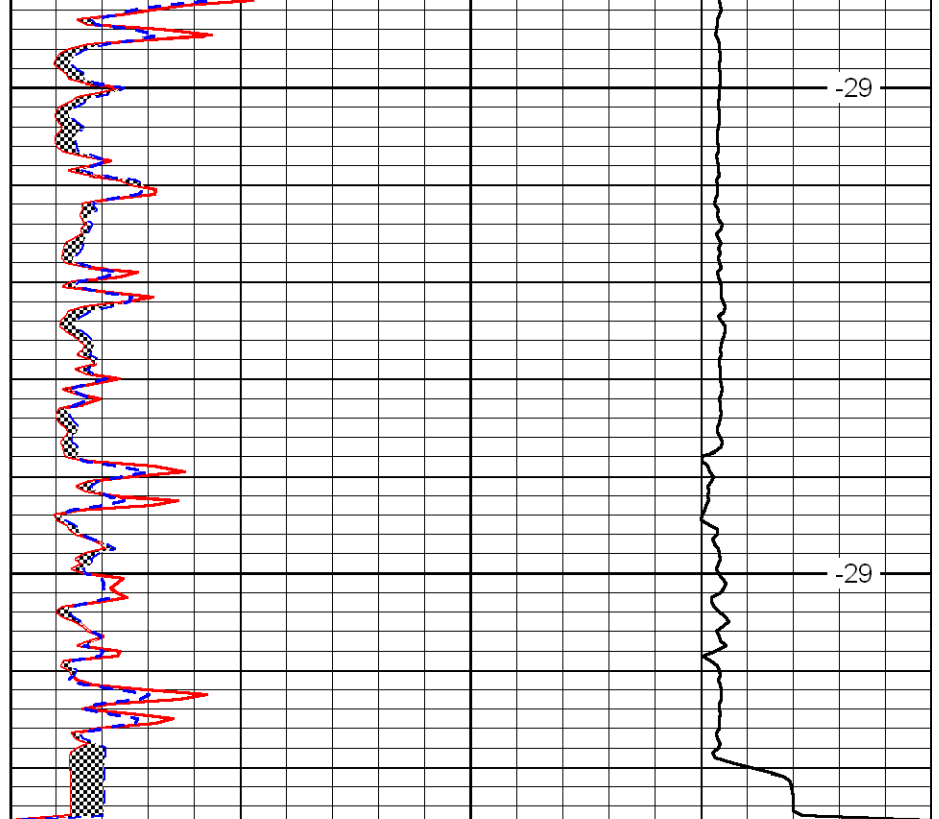
-29



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LSPD  
(ft/min)

-29

-29