



Microresistivity Log

DIGITAL LOG (785) 625-3858

| | | | |
|------------------------|--------------------------------------|-------------------------|----------------------------------|
| API No. | 15-101-22,278-00-00 | | |
| Company | Larson Engineering, Inc. | | |
| Well | Harris Unit No. 1-20 | | |
| Field | Cowdery | | |
| County | Lane | State | Kansas |
| Location | SE NE SE SW 758' FSL & 2,502' FWL | | |
| Sec: 20 | Twp: 18 S | Rge: 30 W | Other Services CNL/CDL DIL |
| Permanent Datum | Ground Level | Elevation | K.B. 2896 |
| Log Measured From | Kelly Bushing | 7 Ft. Above Perm. Datum | D.F. 2889 |
| Drilling Measured From | Kelly Bushing | | G.L. 2889 |

| | | |
|------------------------|--------------|-----|
| Date | 2/21/2011 | |
| Run Number | Two | |
| Depth Driller | 4650 | |
| Depth Logger | 4651 | |
| Bottom Logged Interval | 4650 | |
| Top Log Interval | 3600 | |
| Casing Driller | 8.625 @ 255 | |
| Casing Logger | 254 | |
| Bit Size | 7.875 | |
| Type Fluid in Hole | Chemical | |
| Salinity, ppm CL | 3000 | |
| Density / Viscosity | 9.4 | 58 |
| pH / Fluid Loss | 11.0 | 8.0 |
| Source of Sample | Flowline | |
| Rm @ Meas. Temp | 1.50 @ | 48 |
| Rmf @ Meas. Temp | 1.13 @ | 48 |
| Rmc @ Meas. Temp | 2.03 @ | 48 |
| Source of Rmf / Rmc | Charts | |
| Rm @ BHT | .59 @ | 123 |
| Operating Rig Time | 4 Hours | |
| Max Rec. Temp. F | 123 | |
| Equipment Number | 10 | |
| Location | Hays | |
| Recorded By | Jim Schuler | |
| Witnessed By | Bob Lewellyn | |

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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

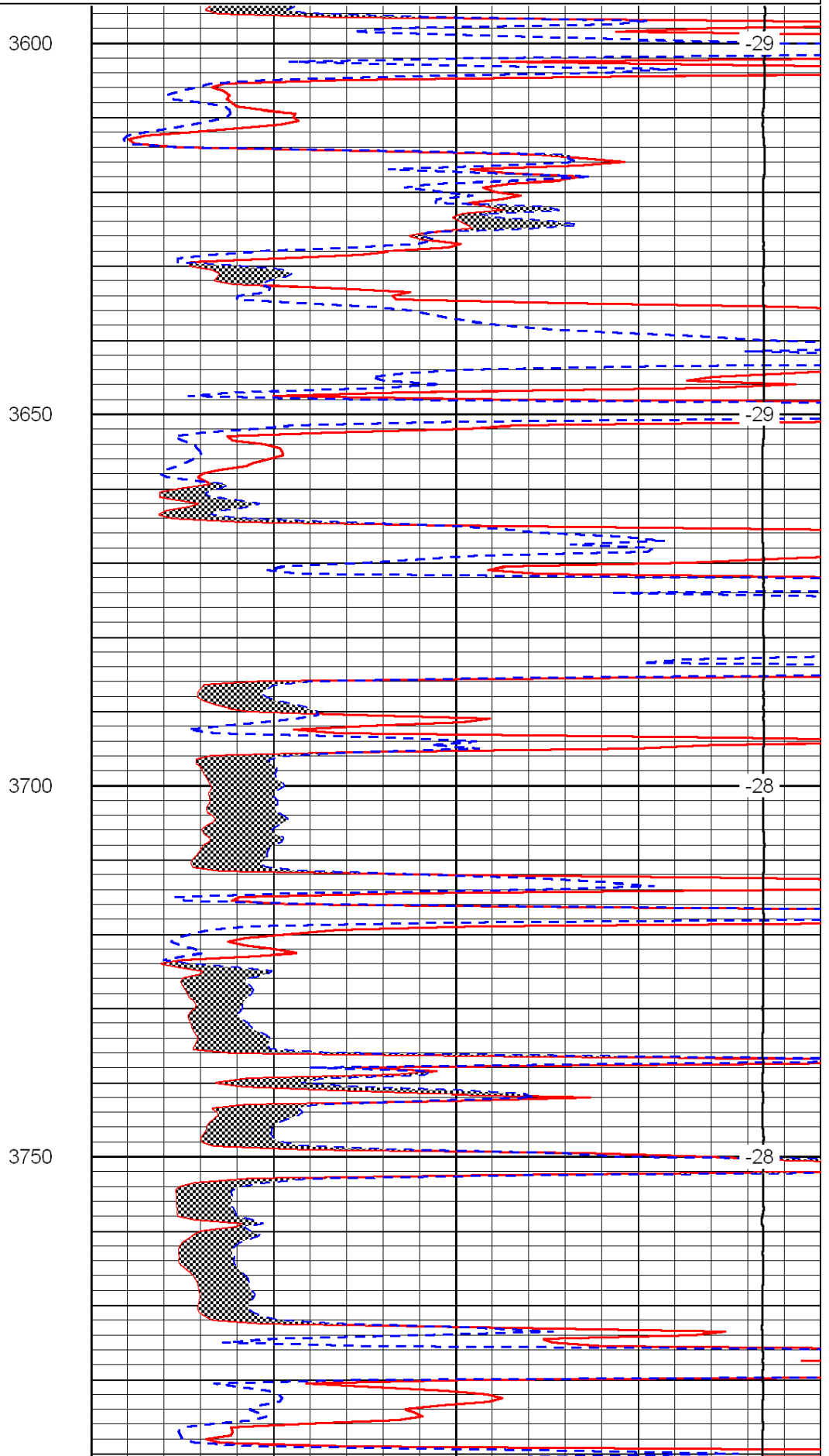
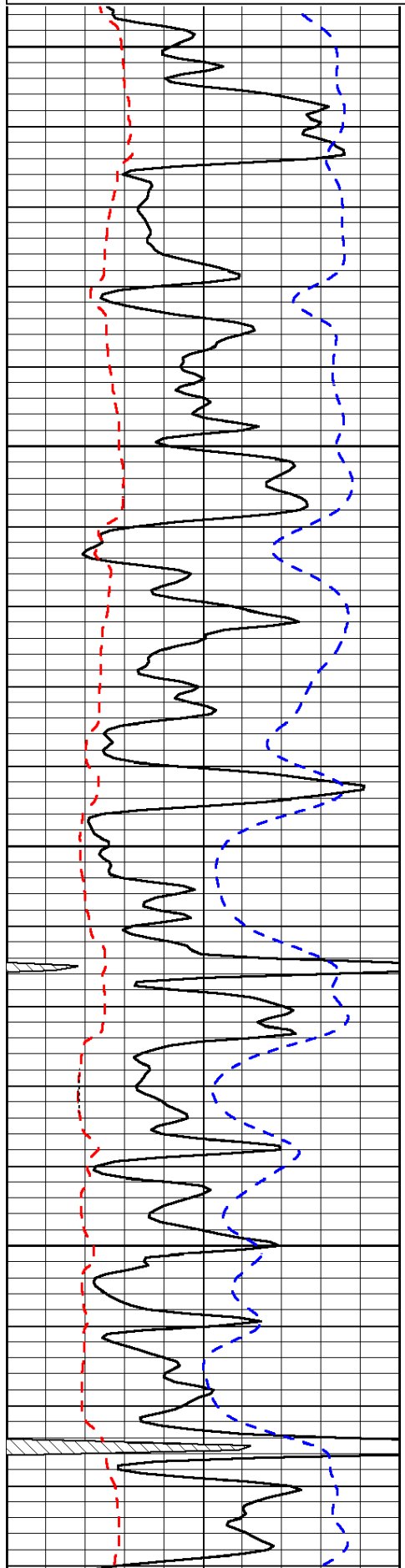
Thank you for using Log-Tech, Inc.
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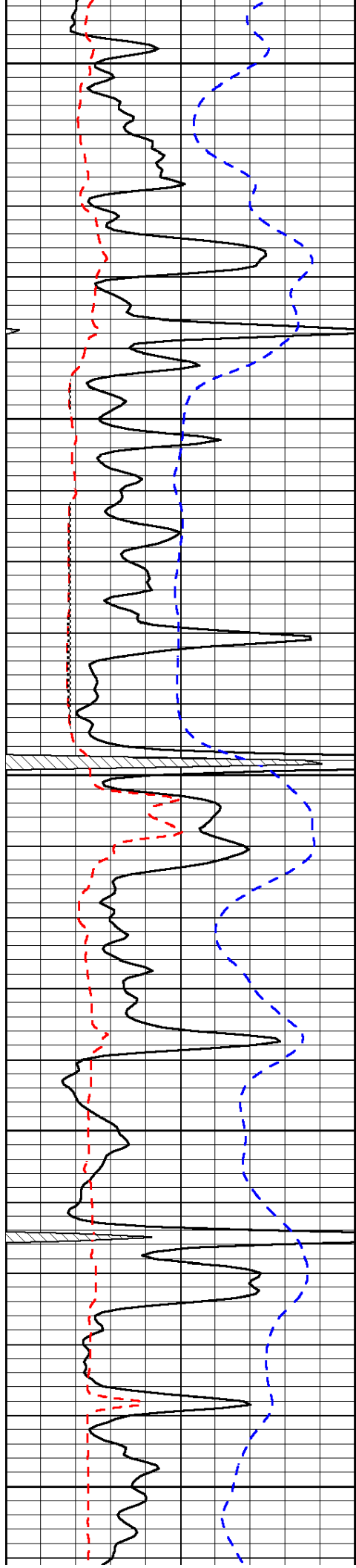
Dighton, Kansas, 10 Miles West to Bison Road,
1 Mile South to 140 RD, West 1/2 Mile, North Into

| | | |
|------|--------------------------|-----|
| 0 | Gamma Ray | 150 |
| 6 | Micro Log Caliper (GAPI) | 16 |
| -200 | SP (mV) | 0 |

| | | |
|-------|---------------------|----|
| 0 | Micro Inverse 1 X 1 | 40 |
| 0 | Micro Normal 2" | 40 |
| 15000 | Line Weight | 0 |

LSPD





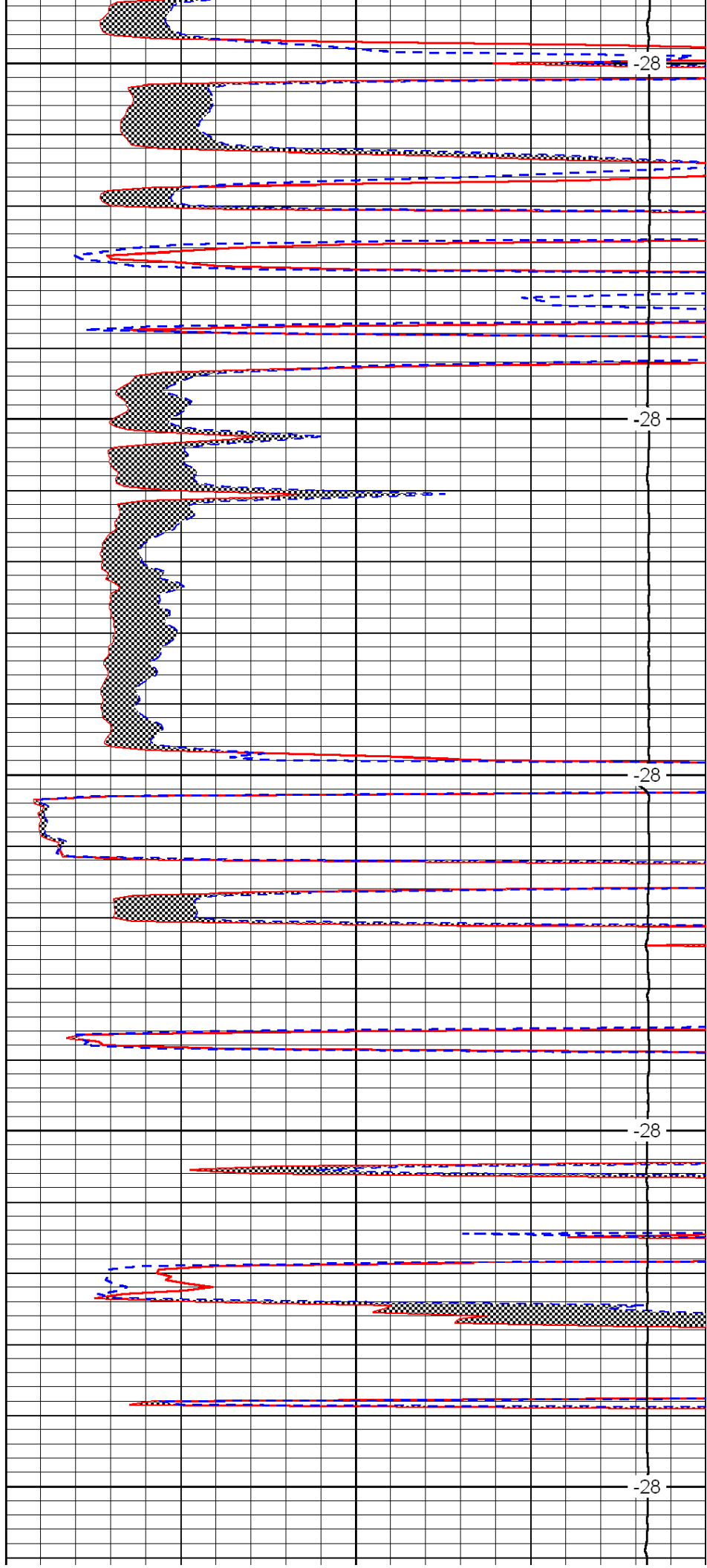
3800

3850

3900

3950

4000



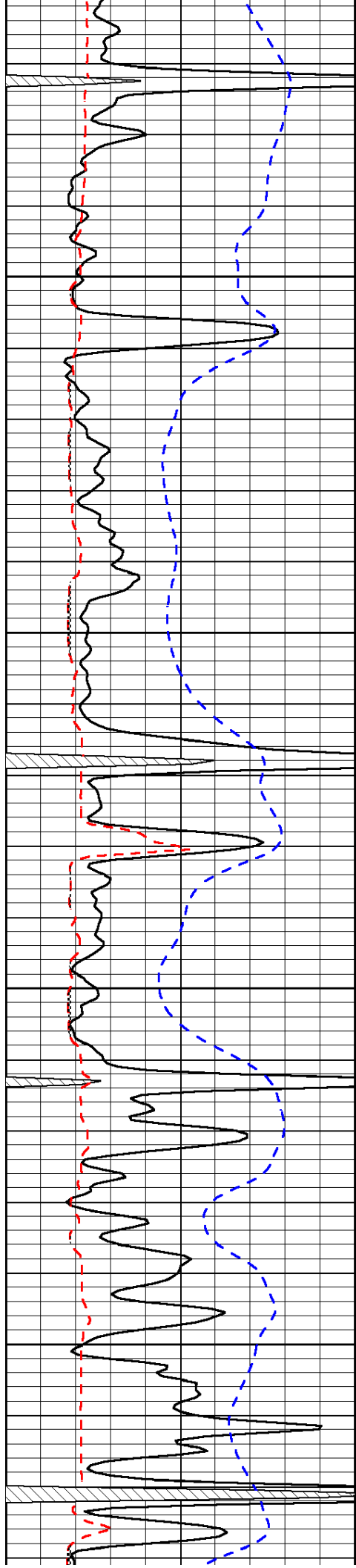
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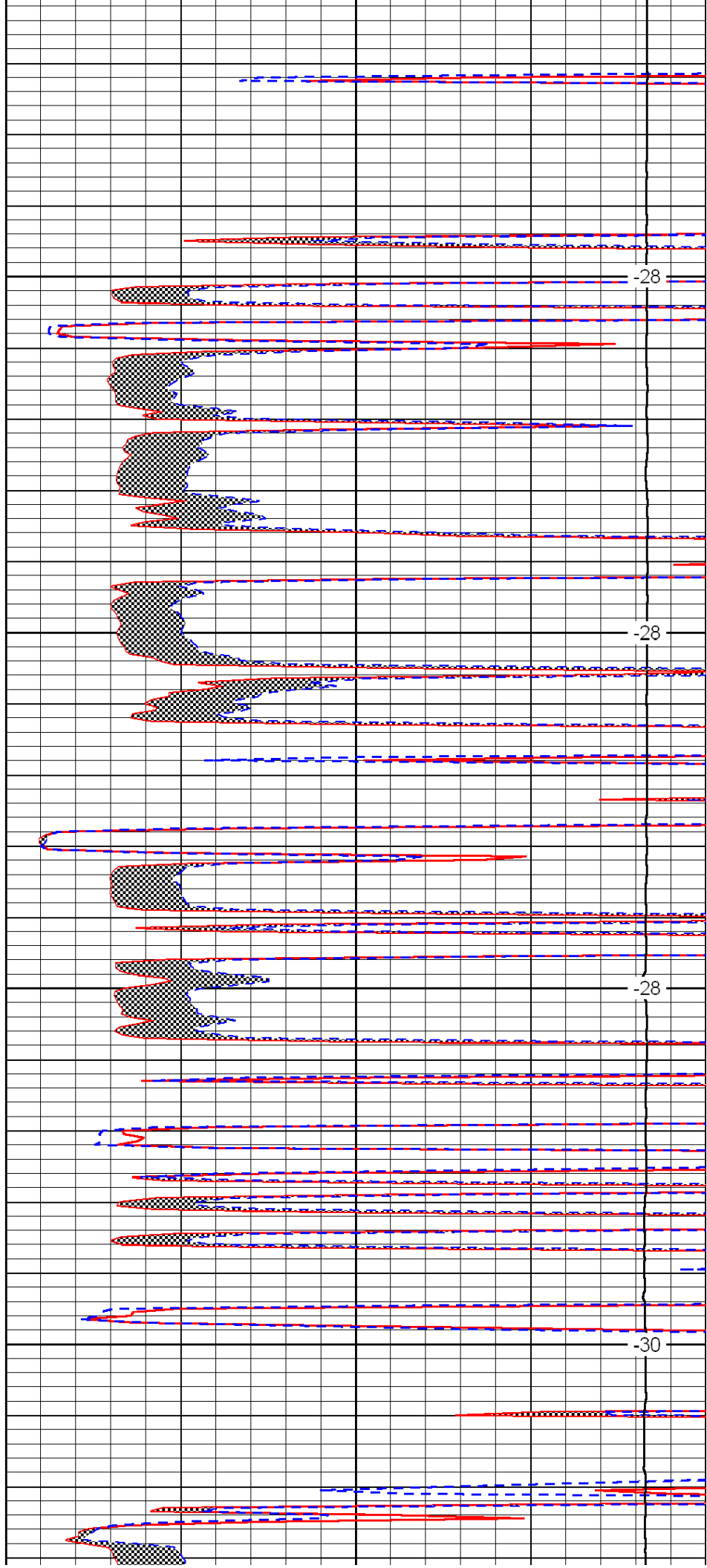


4050

4100

4150

4200

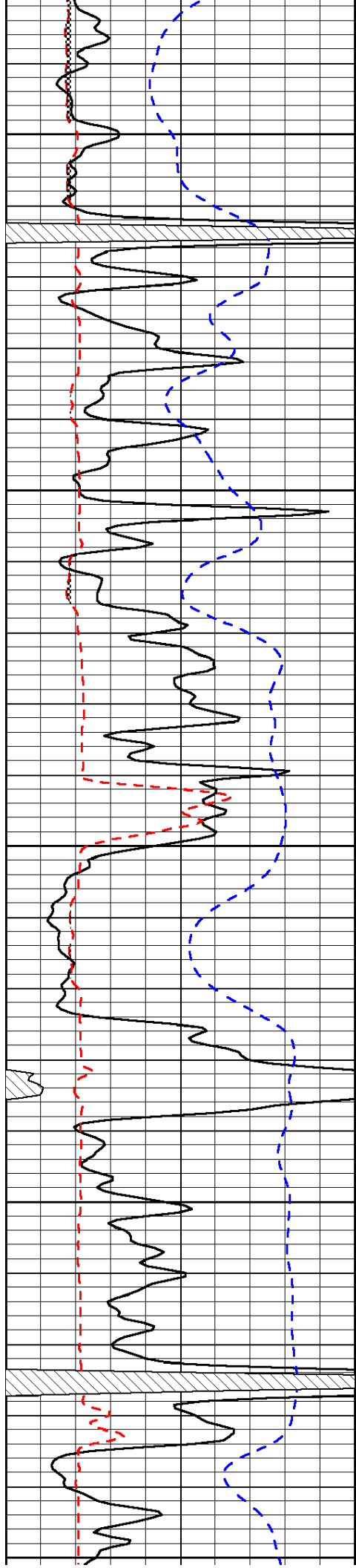


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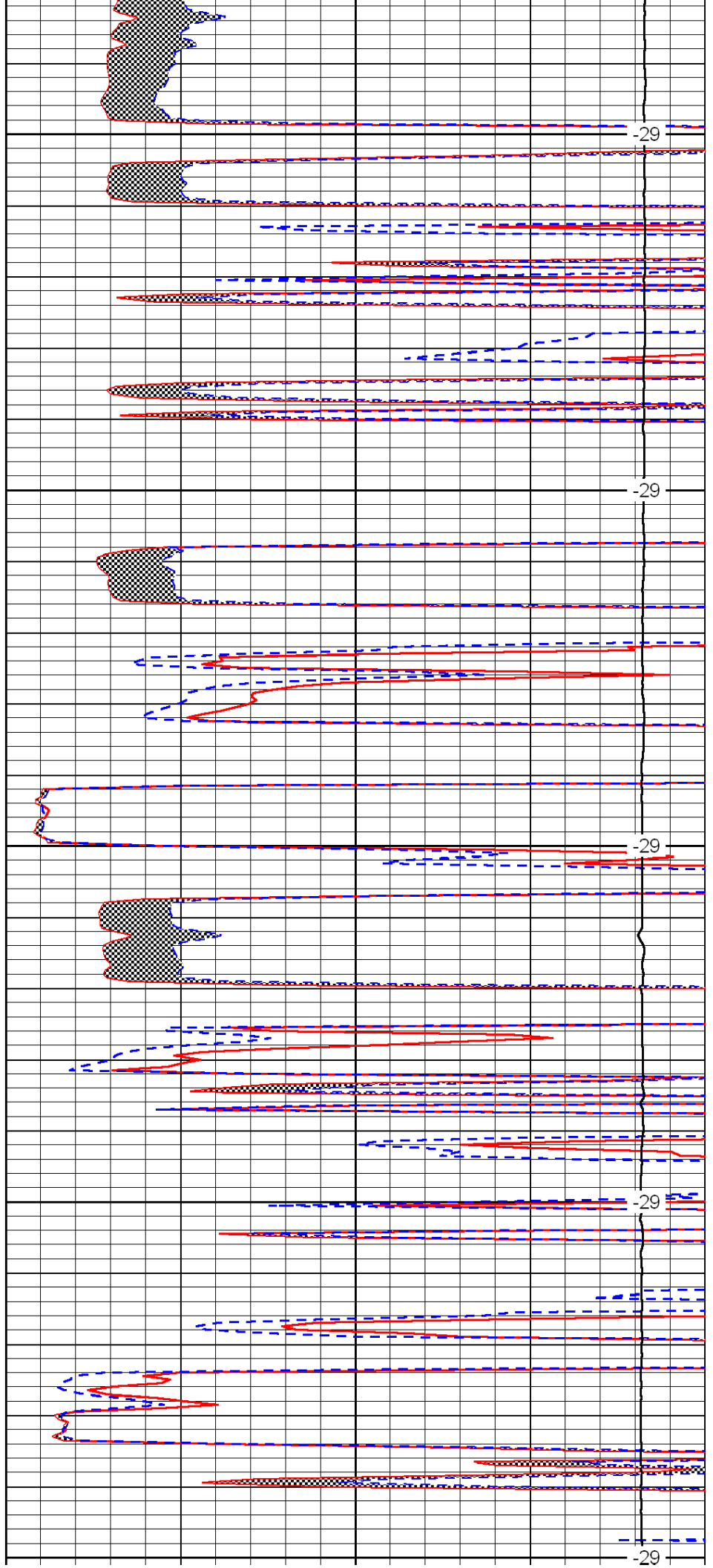
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4250
4300
4350
4400
4450



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-29
-29
-29
-29

