



**PIONEER**

Pioneer Energy Services

## Microresistivity Log

|                        |                                                                    |                                  |               |
|------------------------|--------------------------------------------------------------------|----------------------------------|---------------|
| API No.                | Company <b>AMERICAN WARRIOR, INC.</b>                              |                                  |               |
|                        | Well <b>TOMASHECK #1-10</b>                                        |                                  |               |
|                        | Field <b>WILDCAT</b>                                               |                                  |               |
|                        | County <b>ROOKS</b>                                                | State                            | <b>KANSAS</b> |
|                        | Location <b>SE NW NW SW<br/>2084' FSL &amp; 432' FWL</b>           | Other Services<br>CNL/CDL<br>DIL |               |
|                        | Sec: 10                                                            | Twp: 10S                         | Rge: 19W      |
|                        | Permanent Datum <b>GROUND LEVEL</b> Elevation <b>2197</b>          |                                  |               |
|                        | Log Measured From <b>KELLY BUSHING</b> 8 Ft. Above Perm. Datum     |                                  |               |
|                        | Drilling Measured From <b>KELLY BUSHING</b> K.B. 2205<br>D.F. 2197 |                                  |               |
| Date                   | 5/25/2015                                                          |                                  |               |
| Run Number             | Two                                                                |                                  |               |
| Depth Driller          | 3830                                                               |                                  |               |
| Depth Logger           | 3828                                                               |                                  |               |
| Bottom Logged Interval | 3827                                                               |                                  |               |
| Top Log Interval       | 3050                                                               |                                  |               |
| Casing Driller         | 8.625 @ 219                                                        |                                  |               |
| Casing Logger          | 217                                                                |                                  |               |
| Bit Size               | 7.875                                                              |                                  |               |
| Type Fluid in Hole     | CHEMICAL                                                           |                                  |               |
| Salinity, ppm CL       | 4500                                                               |                                  |               |
| Density / Viscosity    | 9.4 47                                                             |                                  |               |
| pH / Fluid Loss        | 10 8.0                                                             |                                  |               |
| Source of Sample       | Flowline                                                           |                                  |               |
| Rm @ Meas. Temp        | 0.71 @ 78                                                          |                                  |               |
| Rmf @ Meas. Temp       | 0.53 @ 78                                                          |                                  |               |
| Rmc @ Meas. Temp       | 0.96 @ 78                                                          |                                  |               |
| Source of Rmf / Rmc    | Charts                                                             |                                  |               |
| Rm @ BHT               | 0.48 @ 114                                                         |                                  |               |
| Operating Rig Time     | 4 HOURS                                                            |                                  |               |
| Max Rec. Temp. F       | 114                                                                |                                  |               |
| Equipment Number       | 15                                                                 |                                  |               |
| Location               | HAYS                                                               |                                  |               |
| Recorded By            | D.KERR                                                             |                                  |               |
| 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.

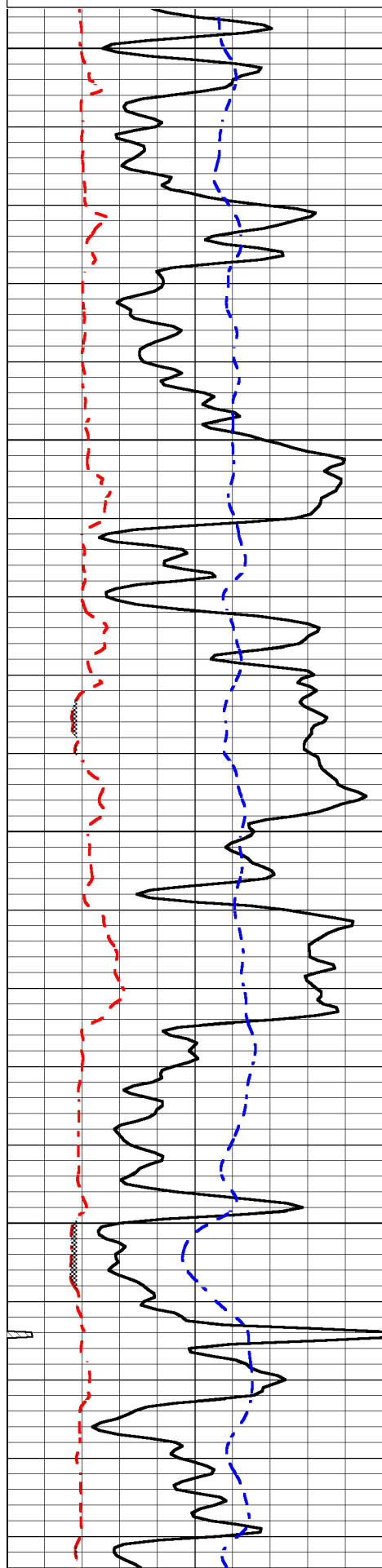
### Comments

Thank you for using Pioneer Energy Services  
www.pioneerres.com  
785 625 3858

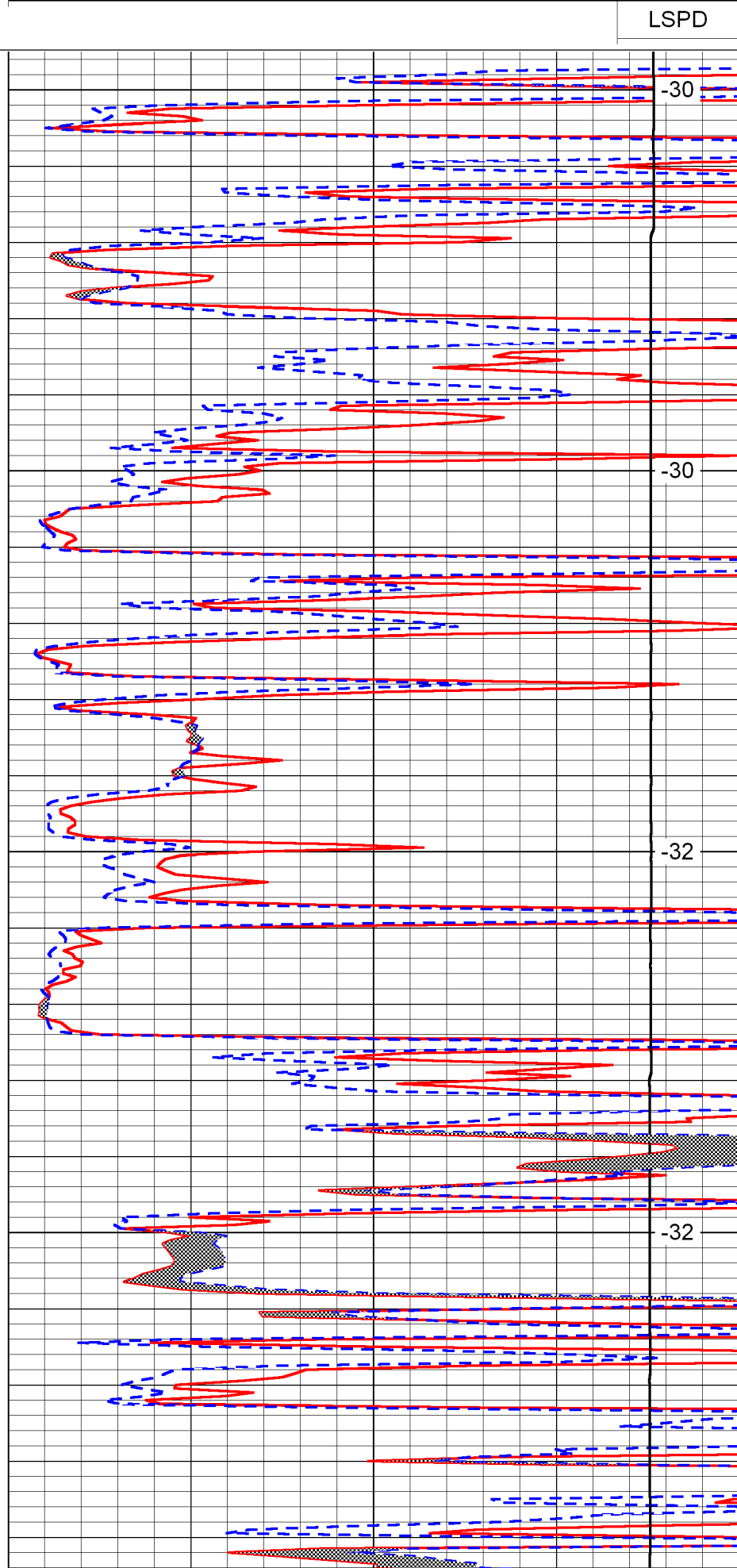
PLAINVILLE KS, SOUTH TO AA RD,  
7 1/2 WEST, 1/4 NORTH, EAST INTO

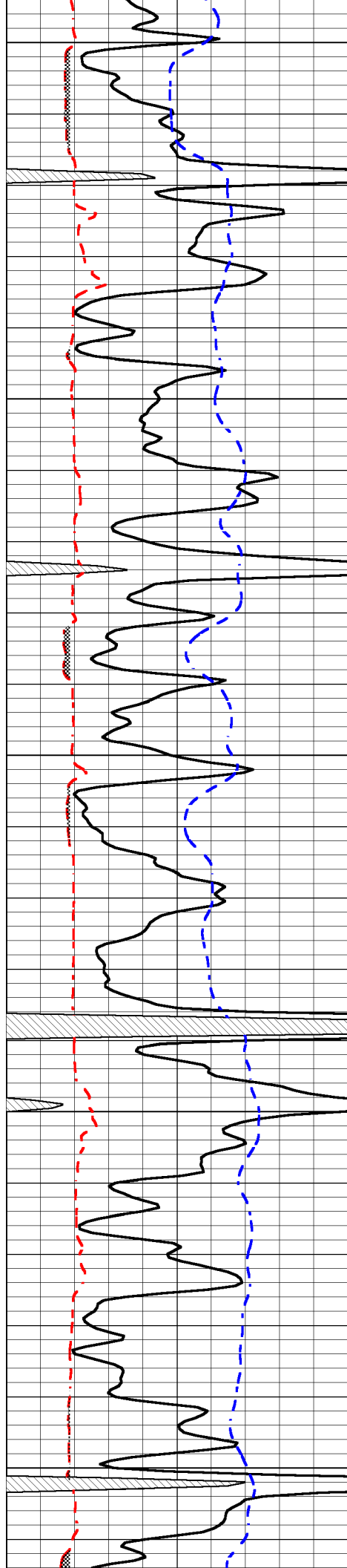
|                     |                                                           |
|---------------------|-----------------------------------------------------------|
| Database File       | amwar_tomasheck #1-10\americanwarrior_tomasheck_1_10hd.db |
| Dataset Pathname    | DIL/awstk                                                 |
| Presentation Format | micro                                                     |
| Dataset Creation    | Mon May 25 09:30:51 2015                                  |
| Charted by          | Depth in Feet scaled 1:240                                |

|      |           |     |
|------|-----------|-----|
| 0    | Gamma Ray | 150 |
| 6    | MCAL (in) | 16  |
| -200 | SP (mV)   | 0   |



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





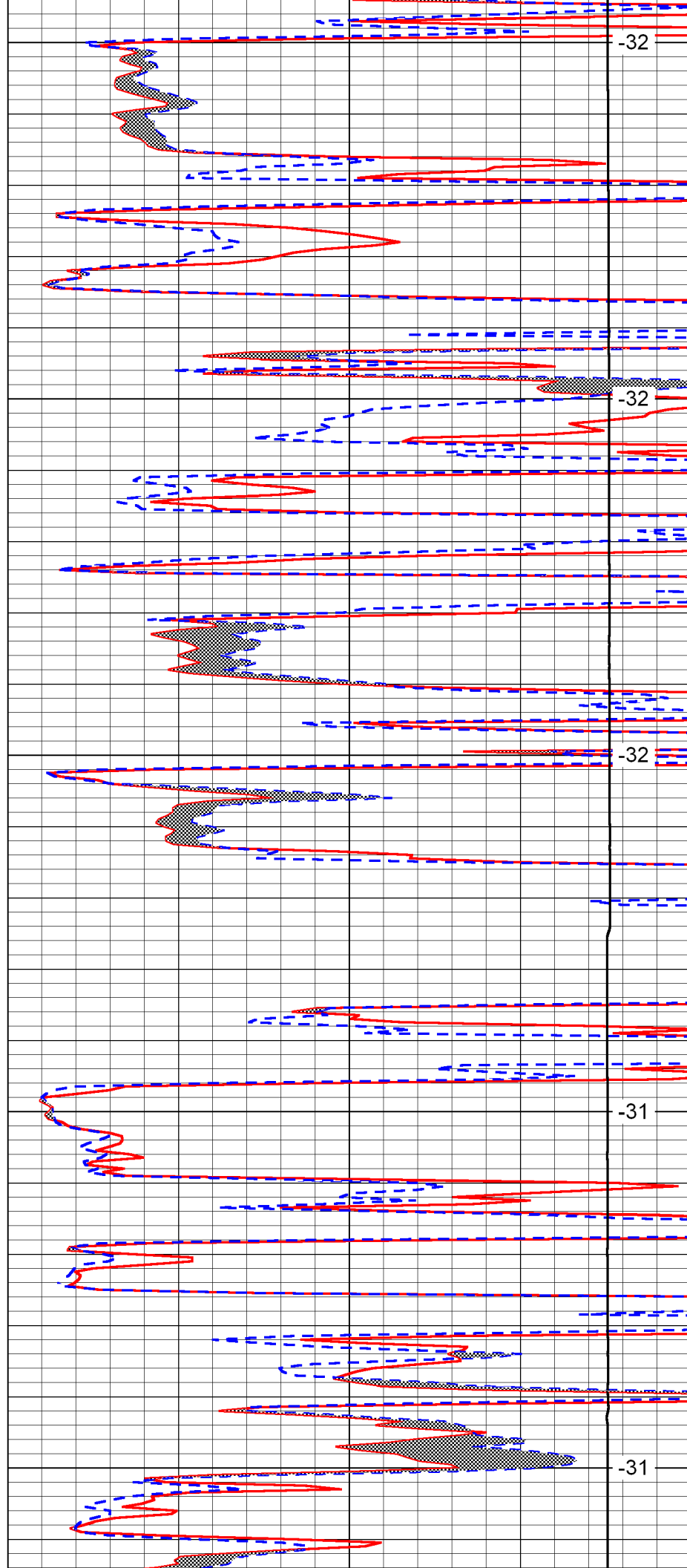
3250

3300

3350

3400

3450



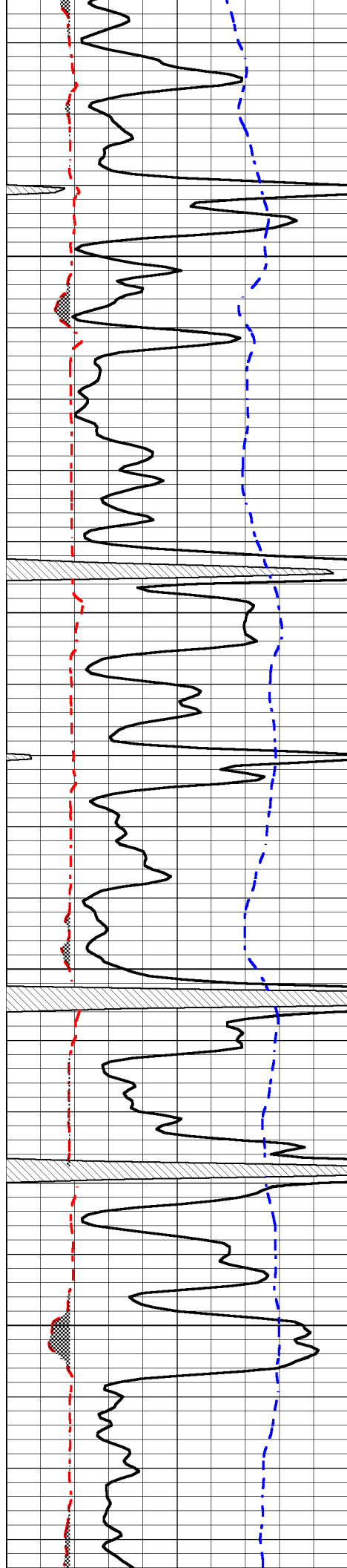
-32

-32

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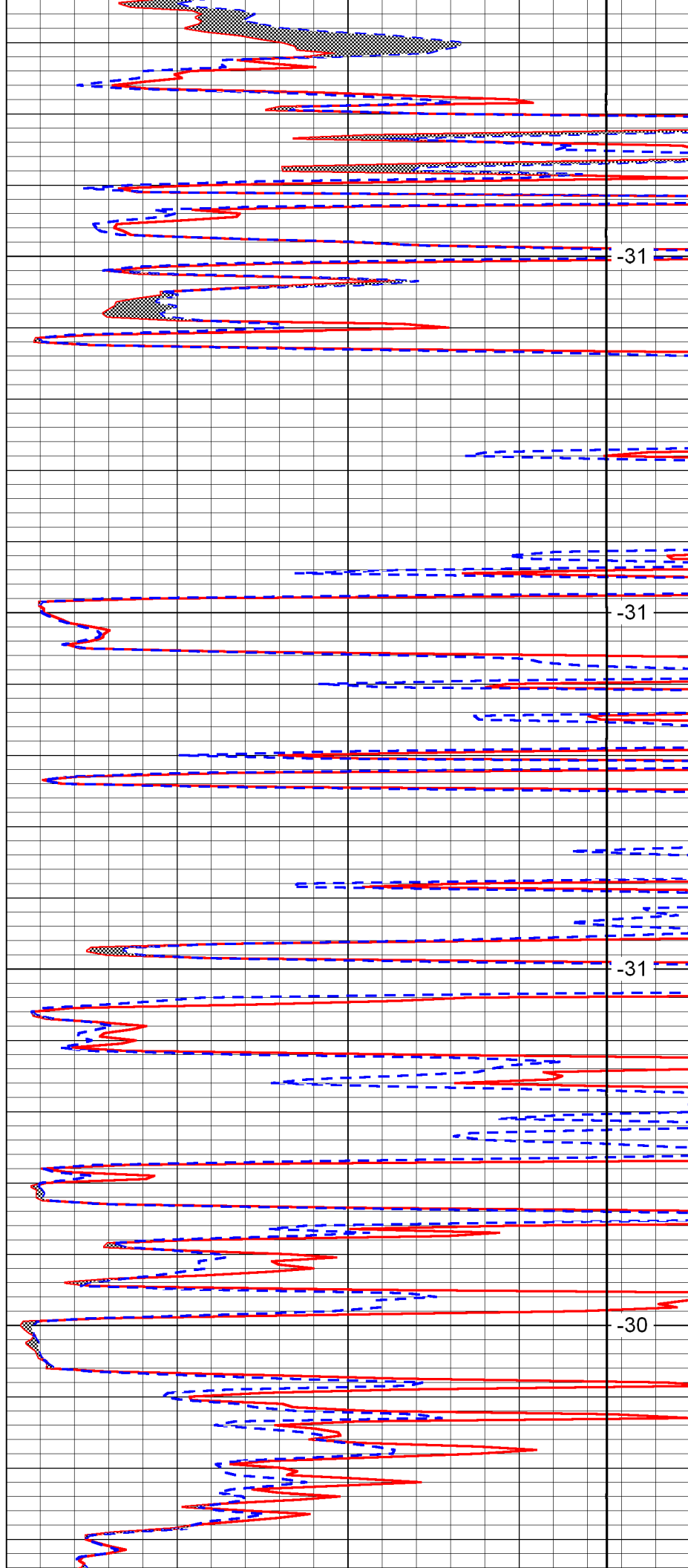


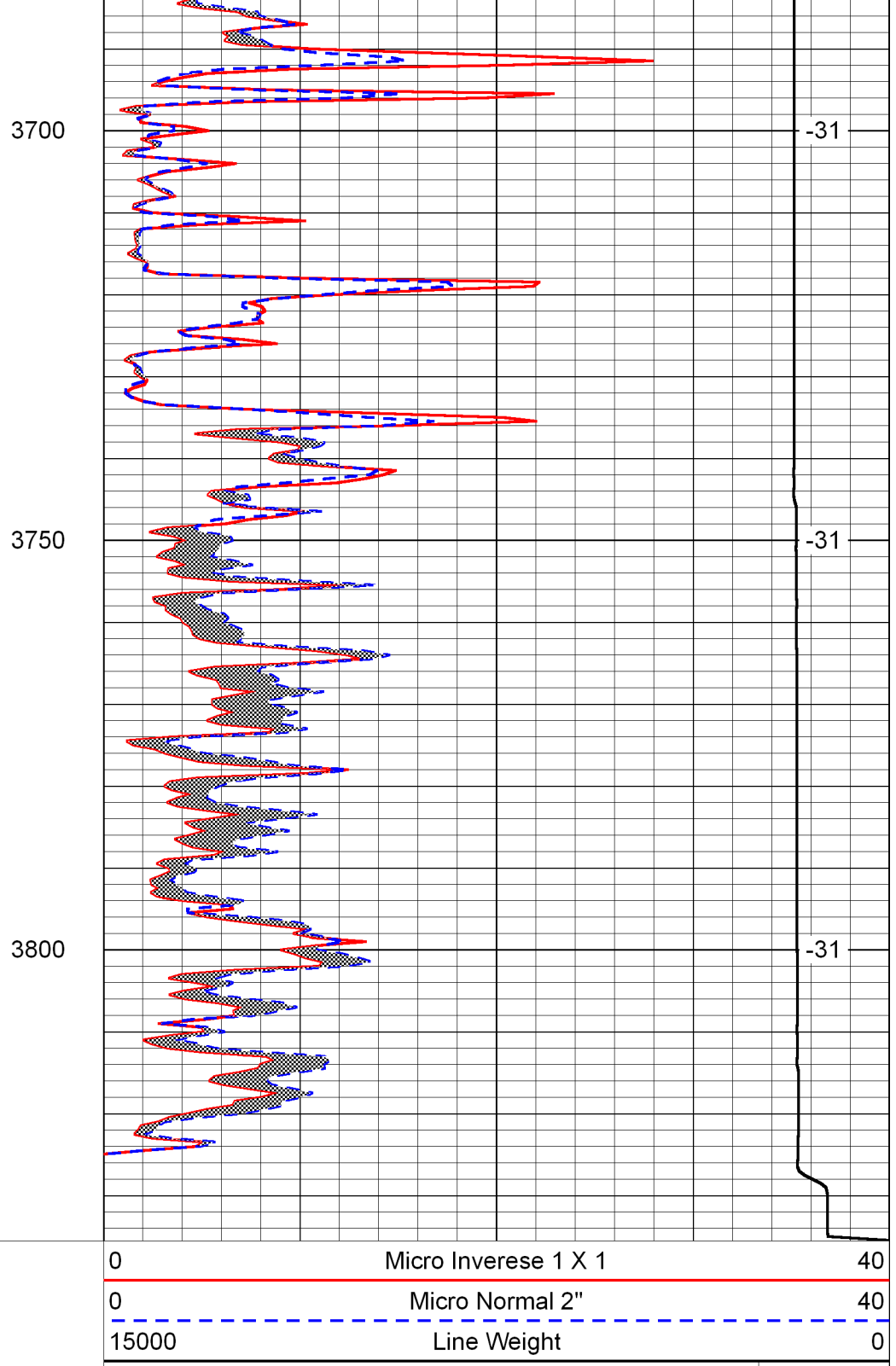
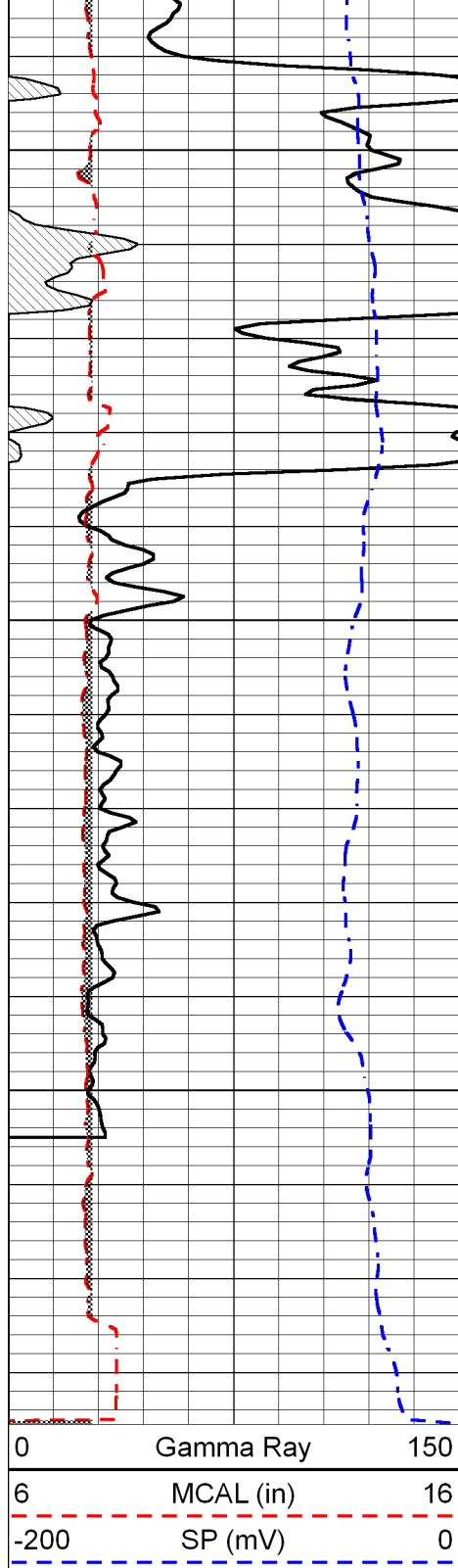
3500

3550

3600

3650





LSPD