

HALLIBURTON

ARRAY COMPENSATED  
TRUE RESISTIVITY  
LOG

|                                                                |                 |                                                    |                                                 |
|----------------------------------------------------------------|-----------------|----------------------------------------------------|-------------------------------------------------|
| COMPANY                                                        |                 | SHELBY RESOURCES LLC                               |                                                 |
| WELL                                                           |                 | BRUBAKER 1-17H                                     |                                                 |
| FIELD/BLOCK                                                    |                 | WILDCAT                                            |                                                 |
| COUNTY                                                         |                 | PRATT                                              |                                                 |
| STATE                                                          |                 | KANSAS                                             |                                                 |
| Permanent Datum<br>Log measured from<br>Drilling measured from | GL              | COMPANY SHELBY RESOURCES LLC                       |                                                 |
|                                                                | KB              | WELL BRUBAKER 1-17H                                |                                                 |
|                                                                | KB              | FIELD/BLOCK WILDCAT                                |                                                 |
|                                                                | KB              | COUNTY PRATT                                       |                                                 |
|                                                                | KB              | STATE KANSAS                                       |                                                 |
| Date                                                           | 13-Aug-18       | API No. 15-151-22474-01-00                         | Other Services:<br>GTET<br>DSNT<br>SDLT<br>ACRT |
| Run No.                                                        | ONE             | Location (SHL) 1800' FSL & 299' FEL<br>SE NW NE SE |                                                 |
| Depth - Driller                                                | 10799.0 ft      |                                                    |                                                 |
| Depth - Logger                                                 | 10779.0 ft      |                                                    |                                                 |
| Bottom - Logged Interval                                       | 10770.0 ft      |                                                    |                                                 |
| Top - Logged Interval                                          | 4854.0 ft       |                                                    |                                                 |
| Casing - Driller                                               | 7.000 in        |                                                    |                                                 |
| Casing - Logger                                                | 4854.0 ft       |                                                    |                                                 |
| Bit Size                                                       | 6.125 in        |                                                    |                                                 |
| Type Fluid in Hole                                             | Water Based Mud |                                                    |                                                 |
| Density                                                        | 8.8 ppg         |                                                    |                                                 |
| PH                                                             | 8.50 pH         |                                                    |                                                 |
| Source of Sample                                               | MUDPIT          |                                                    |                                                 |
| Rm @ Meas. Temperature                                         | 2.08 ohmm       |                                                    |                                                 |
| Rmf @ Meas. Temperature                                        | 1.66 ohmm       |                                                    |                                                 |
| Rmc @ Meas. Temperature                                        | 2.50 ohmm       |                                                    |                                                 |
| Source Rmf                                                     | MEAS            |                                                    |                                                 |
| Rm @ BHT                                                       | 1.06 ohmm       |                                                    |                                                 |
| Time Since Circulation                                         | 37.14 hr        |                                                    |                                                 |
| Time on Bottom                                                 | 15-Aug-18 02:36 |                                                    |                                                 |
| Max. Rec. Temperature                                          | 154.00 degF     |                                                    |                                                 |
| Equipment                                                      | 12147634        |                                                    |                                                 |
| Recorded By                                                    | SEAN WOLTEMATH  |                                                    |                                                 |
| Witnessed By                                                   | JASON GOSS      |                                                    |                                                 |

|                                         |            |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
|-----------------------------------------|------------|-----|--------------|-----------------------------|-----|----------------------------|-----------------|-----------------------------------------|-----------------|----------|-----------|----|
| Service Ticket No.: 904936929           |            |     |              | API No.: 15-151-22474-01-00 |     |                            |                 | PGM Version: WL INSITE R5.6.0 (Build 2) |                 |          |           |    |
| CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE |            |     |              |                             |     | RESISTIVITY SCALE CHANGES  |                 |                                         |                 |          |           |    |
| Date                                    | Sample No. |     |              |                             |     | Type Log                   | Depth           | Scale Up Hole                           | Scale Down Hole |          |           |    |
| Depth-Driller                           |            |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
| Type Fluid in Hole                      |            |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
| Density                                 | Viscosity  |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
| Ph                                      | Fluid Loss |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
| Source of Sample                        |            |     |              |                             |     | RESISTIVITY EQUIPMENT DATA |                 |                                         |                 |          |           |    |
| Rm @ Meas. Temp                         |            | @   |              | @                           |     | Run No.                    | Tool Type & No. | Pad Type                                | Tool Pos.       | Other    |           |    |
| Rmf @ Meas. Temp.                       |            | @   |              | @                           |     | ONE                        | ACRT            | N/A                                     | ECEN            | N/A      |           |    |
| Rmc @ Meas. Temp.                       |            | @   |              | @                           |     |                            | I-11026095      |                                         |                 |          |           |    |
| Source Rmf                              | Rmc        |     |              |                             |     |                            | S-11005908      |                                         |                 |          |           |    |
| Rm @ BHT                                |            | @   |              | @                           |     |                            |                 |                                         |                 |          |           |    |
| Rmf @ BHT                               |            | @   |              | @                           |     |                            |                 |                                         |                 |          |           |    |
| Rmc @ BHT                               |            | @   |              | @                           |     |                            |                 |                                         |                 |          |           |    |
| EQUIPMENT DATA                          |            |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
| GAMMA                                   |            |     | ACOUSTIC     |                             |     | DENSITY                    |                 |                                         | NEUTRON         |          |           |    |
| Run No.                                 | ONE        |     | Run No.      |                             |     | Run No.                    | ONE             |                                         | Run No.         | ONE      |           |    |
| Serial No.                              | 10971172   |     | Serial No.   |                             |     | Serial No.                 | 10865873        |                                         | Serial No.      | 11020487 |           |    |
| Model No.                               | GTET       |     | Model No.    |                             |     | Model No.                  | SDLT            |                                         | Model No.       | DSNT     |           |    |
| Diameter                                | 3.625"     |     | No. of Cent. |                             |     | Diameter                   | 5.5"            |                                         | Diameter        | 3.625"   |           |    |
| Detector Model No.                      | GTET       |     | Spacing      |                             |     | Log Type                   | GAM-GAM         |                                         | Log Type        | NEU-NEU  |           |    |
| Type                                    | SCINT      |     |              |                             |     | Source Type                | Cs-137          |                                         | Source Type     | Am241Be  |           |    |
| Length                                  | 8"         |     | LSA [Y/N]    |                             |     | Serial No.                 | 5471GW          |                                         | Serial No.      | DSN-424  |           |    |
| Distance to Source                      | 10'        |     | FWDA [Y/N ]  |                             |     | Strength                   | 1.78 Ci         |                                         | Strength        | 15.0 Ci  |           |    |
| LOGGING DATA                            |            |     |              |                             |     |                            |                 |                                         |                 |          |           |    |
| GENERAL                                 |            |     |              | GAMMA                       |     | ACOUSTIC                   |                 |                                         | DENSITY         |          | NEUTRON   |    |
| Run                                     | Depth      |     | Speed        | Scale                       |     | Scale                      |                 | Matrix                                  | Scale           |          | Scale     |    |
| No.                                     | From       | To  | ft/min       | L                           | R   | L                          | R               |                                         | L               | R        | L         | R  |
| ONE                                     | TD         | CSG | REC          | 0                           | 150 |                            |                 |                                         | 30              | 10       | 2.71 g/cc | 30 |

[illegible]

**HALLIBURTON**

Plot Time: 15-Aug-18 17:11:57

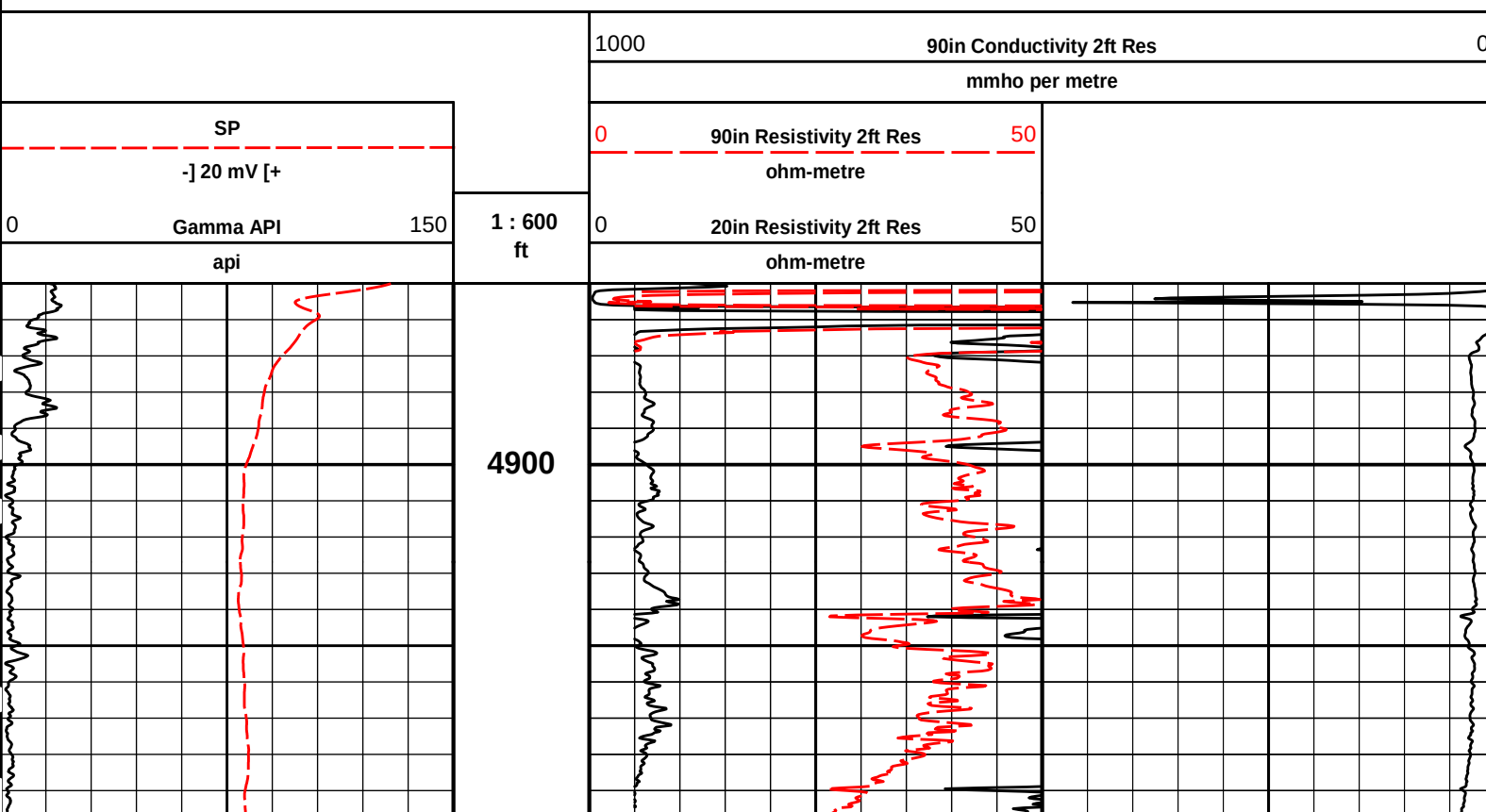
Plot Range: 4850 ft to 10779.3 ft

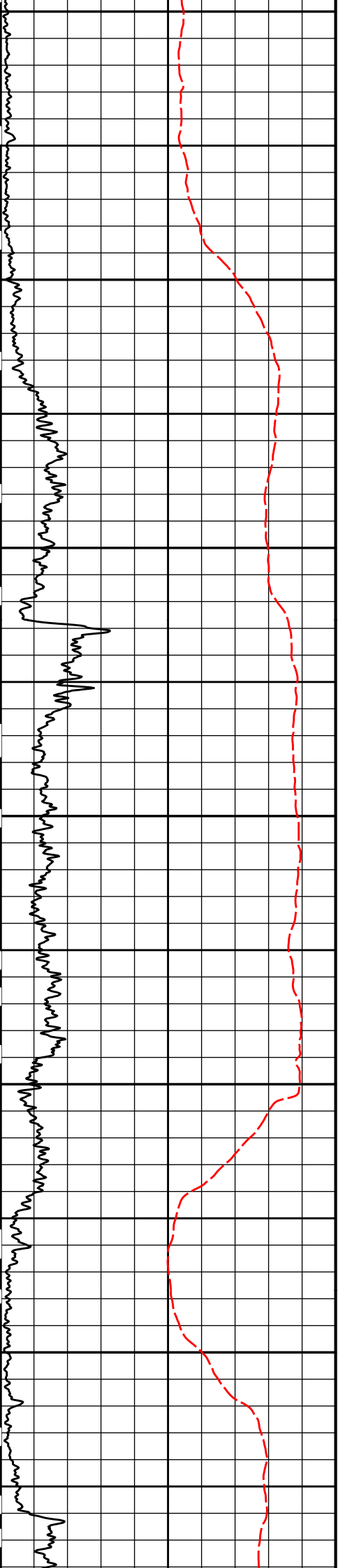
Data: BRUBAKER\_1-17H\Well Based\\*

Plot File: \\-LOCAL-INPSU 35-2\\Well Based\\ACRT\\ACRT 2 main

## 2 INCH MAIN LOG

## 2 INCH MAIN LOG





5000

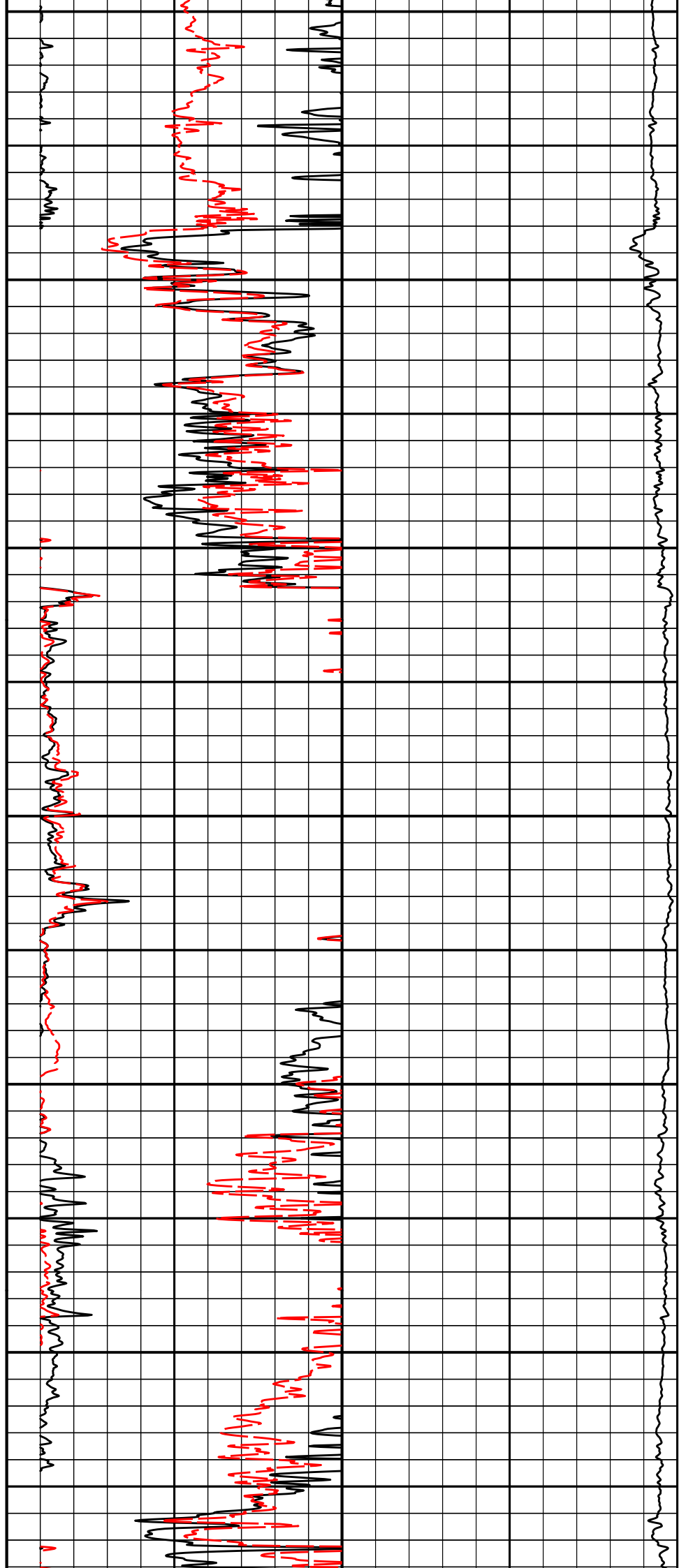
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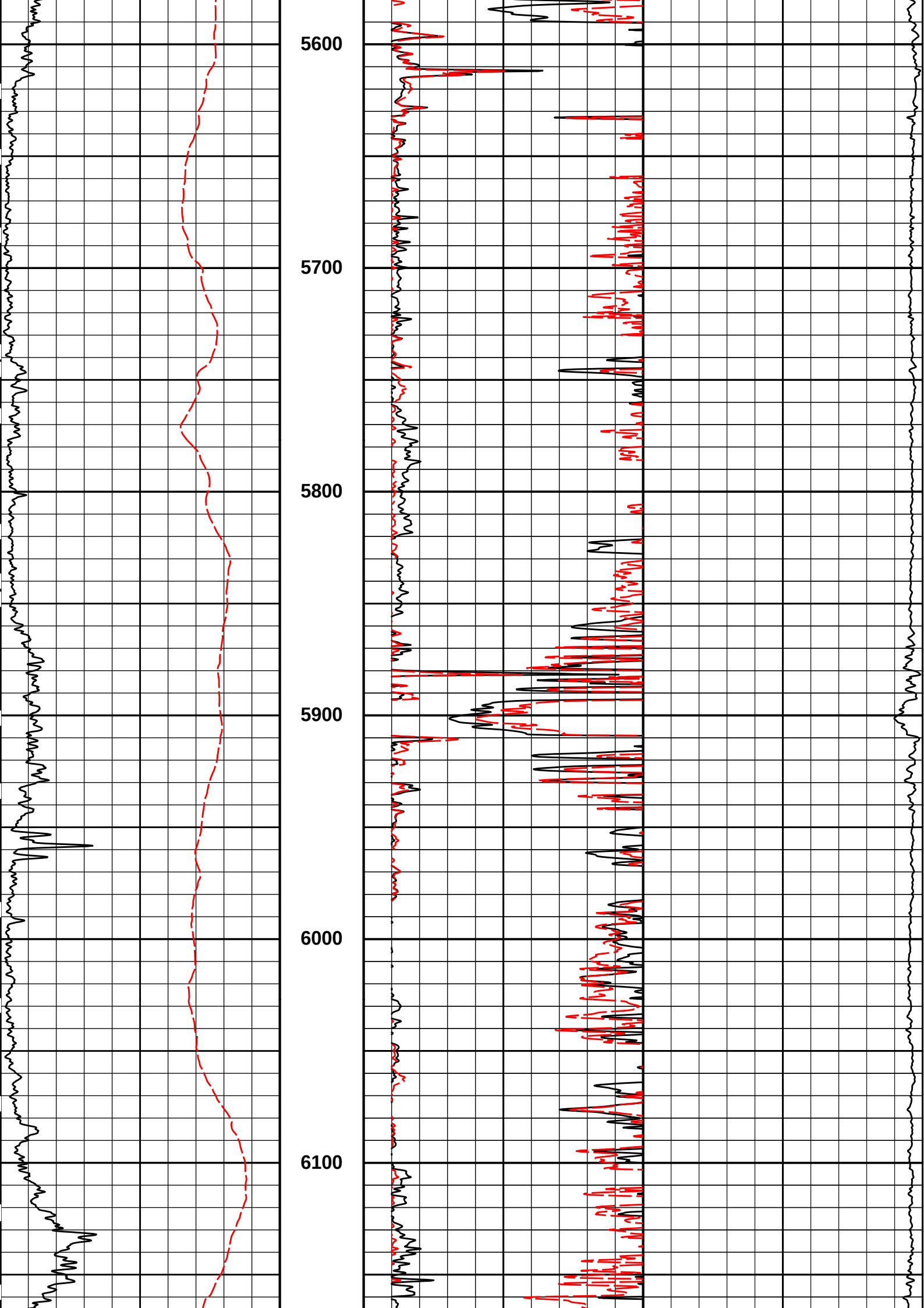
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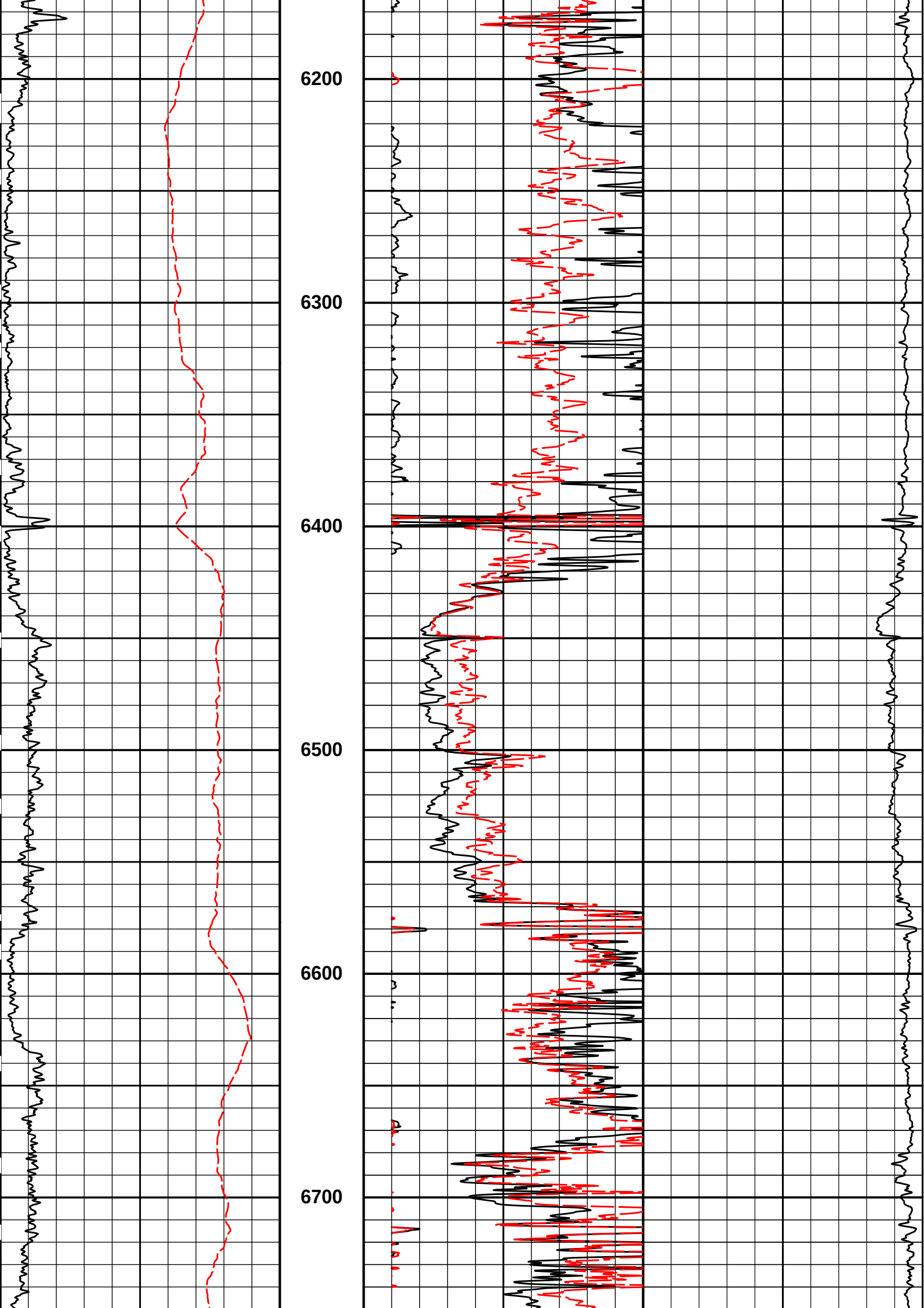
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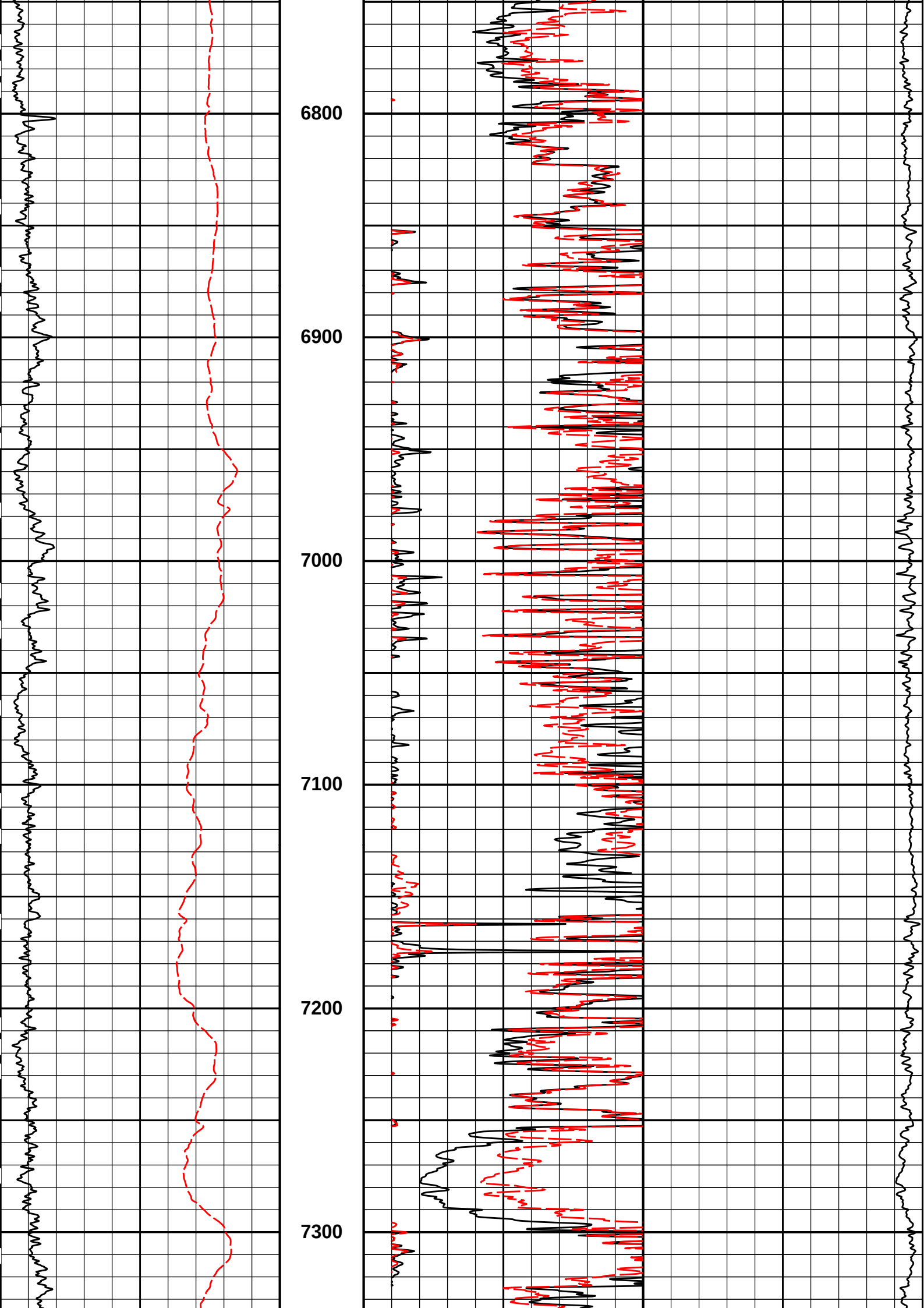
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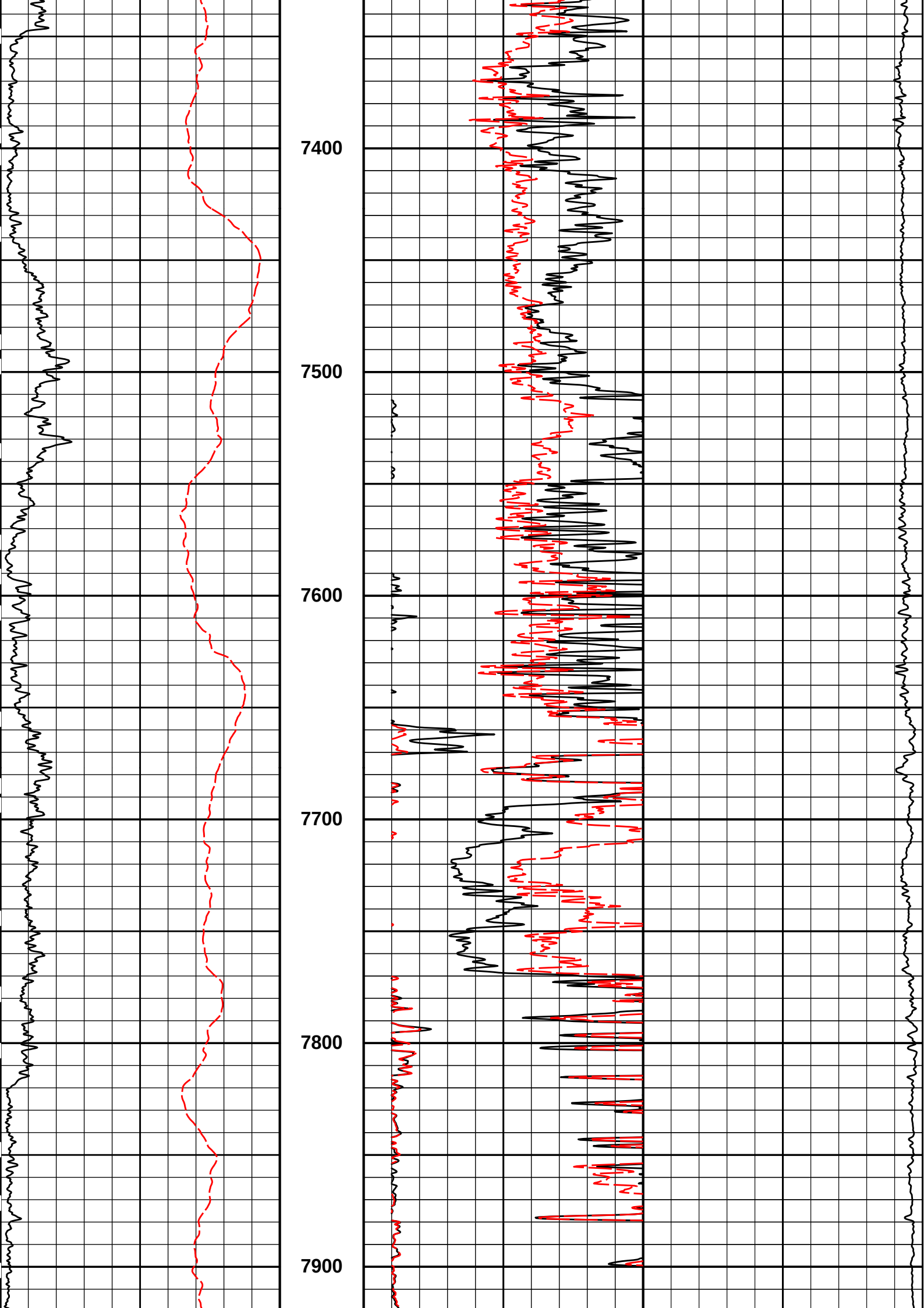
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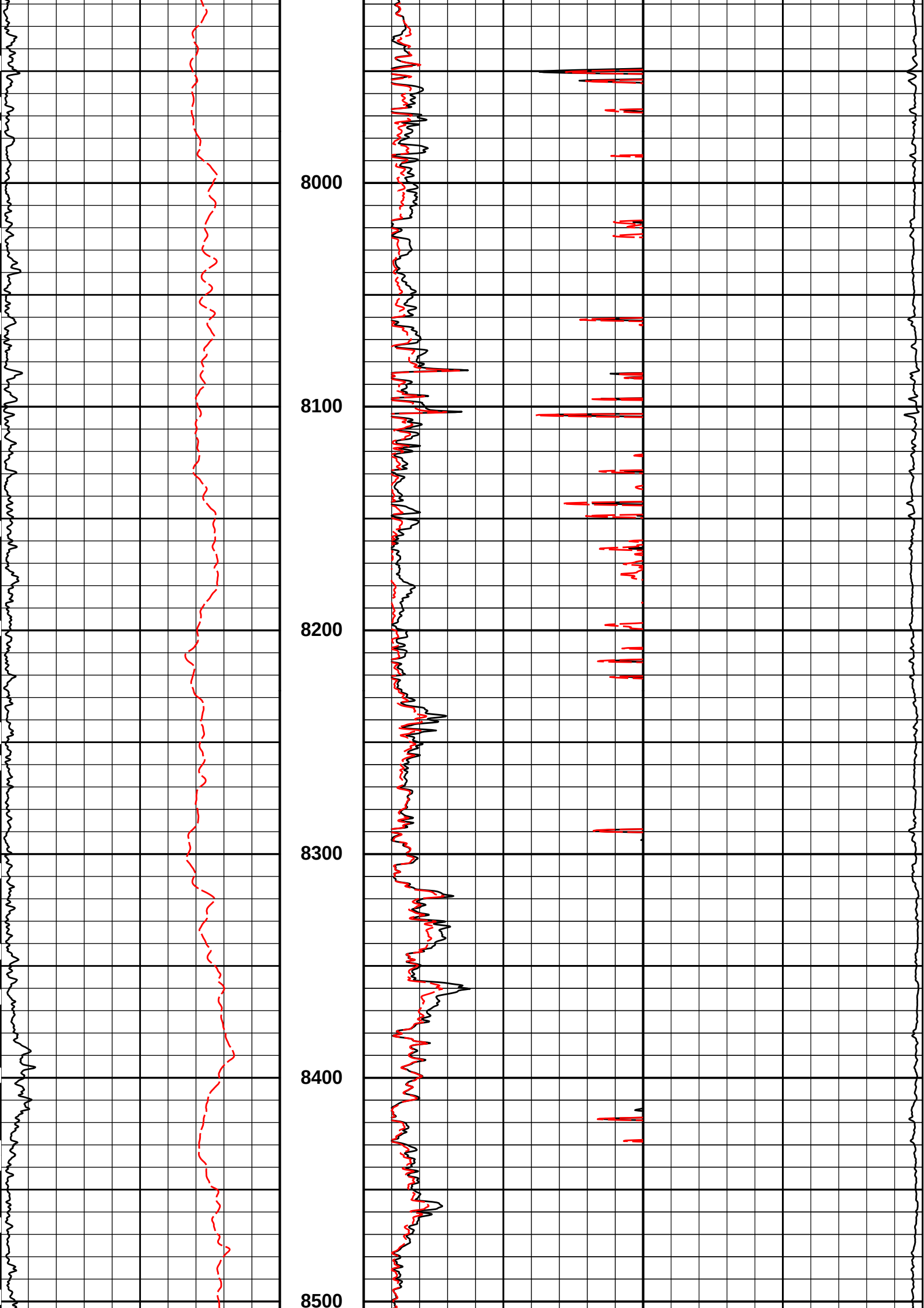




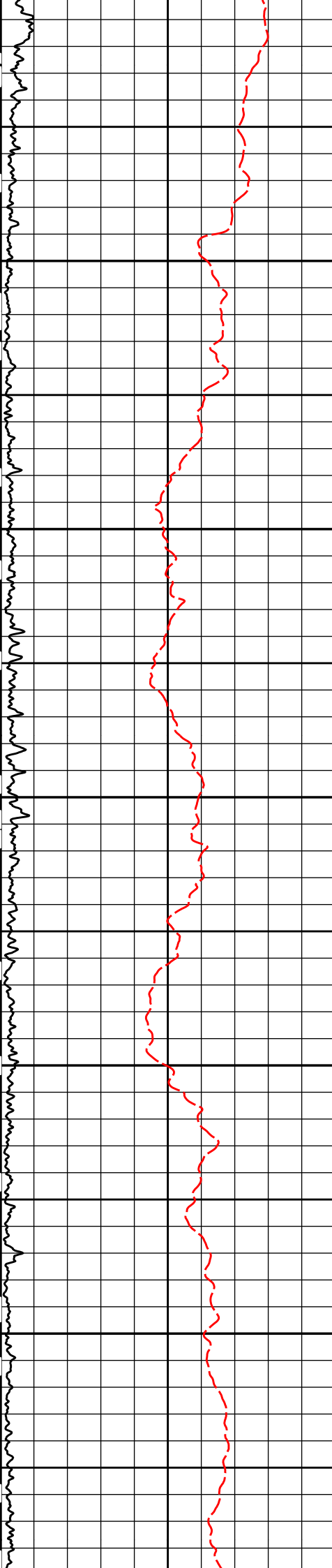












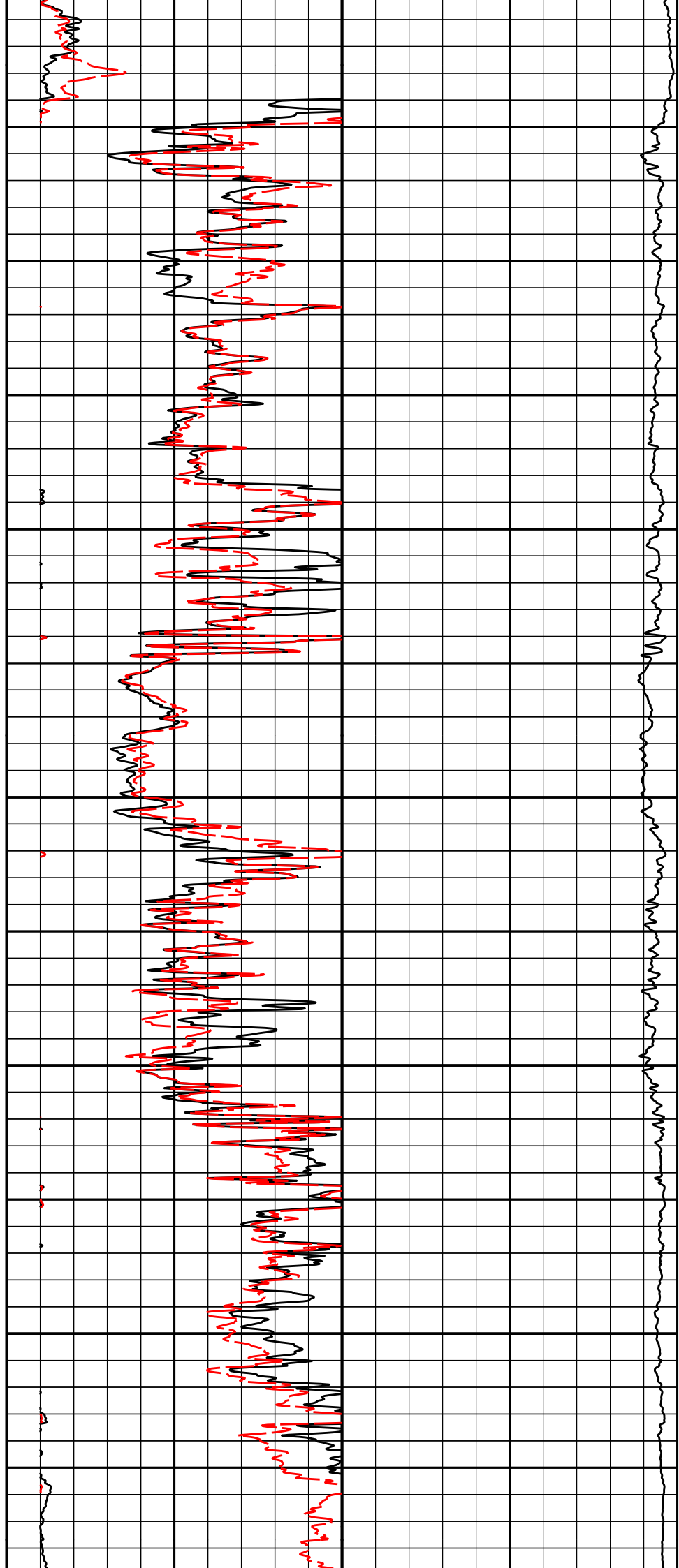
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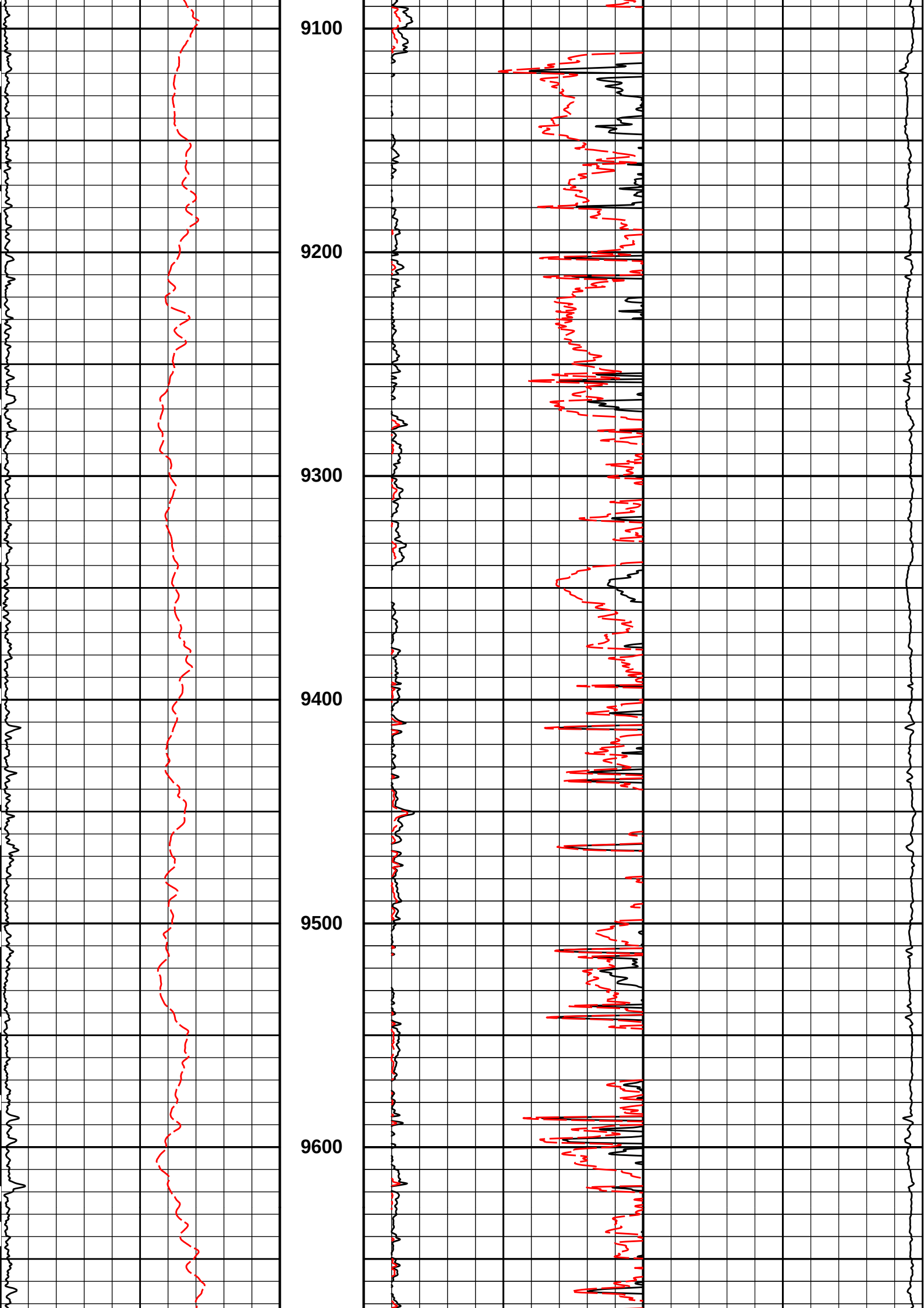
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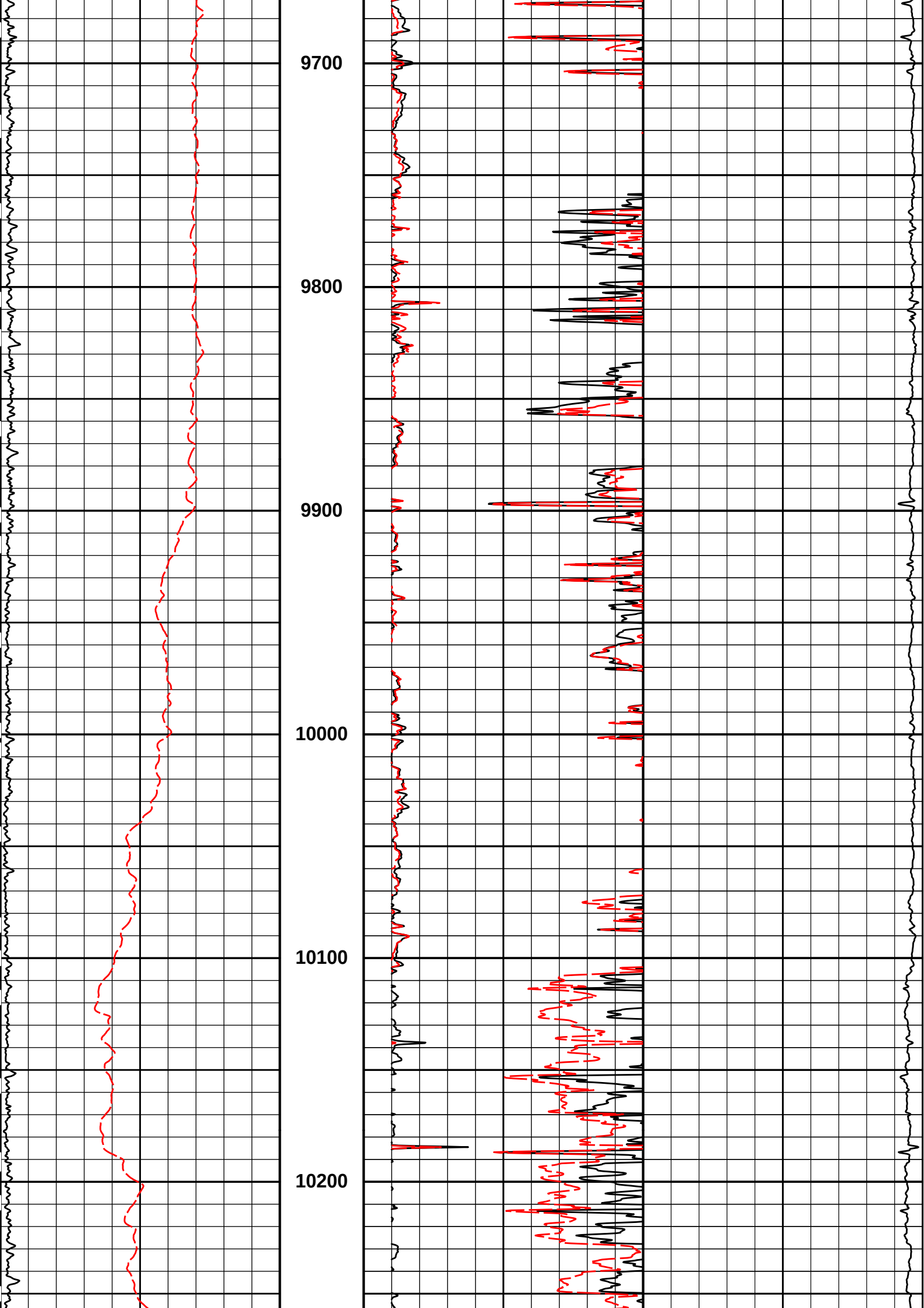
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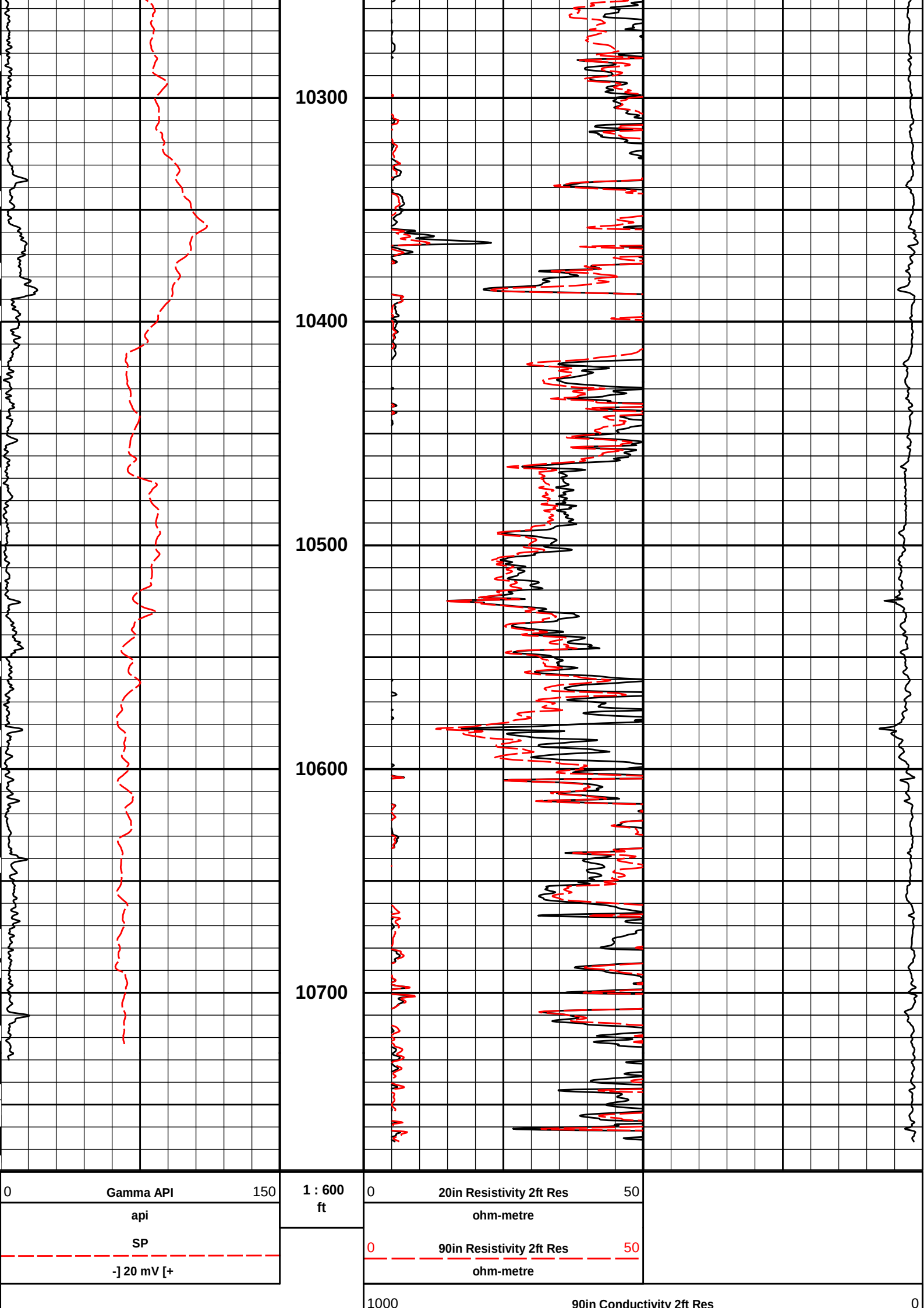
8900

9000









|   |              |     |               |      |                           |    |   |
|---|--------------|-----|---------------|------|---------------------------|----|---|
| 0 | Gamma API    | 150 | 1 : 600<br>ft | 0    | 20in Resistivity 2ft Res  | 50 |   |
|   | api          |     |               |      | ohm-metre                 |    |   |
|   | SP           |     |               | 0    | 90in Resistivity 2ft Res  | 50 |   |
|   | -] 20 mV [+] |     |               |      | ohm-metre                 |    |   |
|   |              |     |               | 1000 | 90in Conductivity 2ft Res |    | 0 |

HALLIBURTON

Plot Time: 15-Aug-18 17:12:01  
Plot Range: 4850 ft to 10779.3 ft  
Data: BRUBAKER\_1-17H\Well Based\*\  
Plot File: \\-LOCAL-INPSU\_35-2\Well Based\ACRT\ACRT\_2\_main

2 INCH MAIN LOG

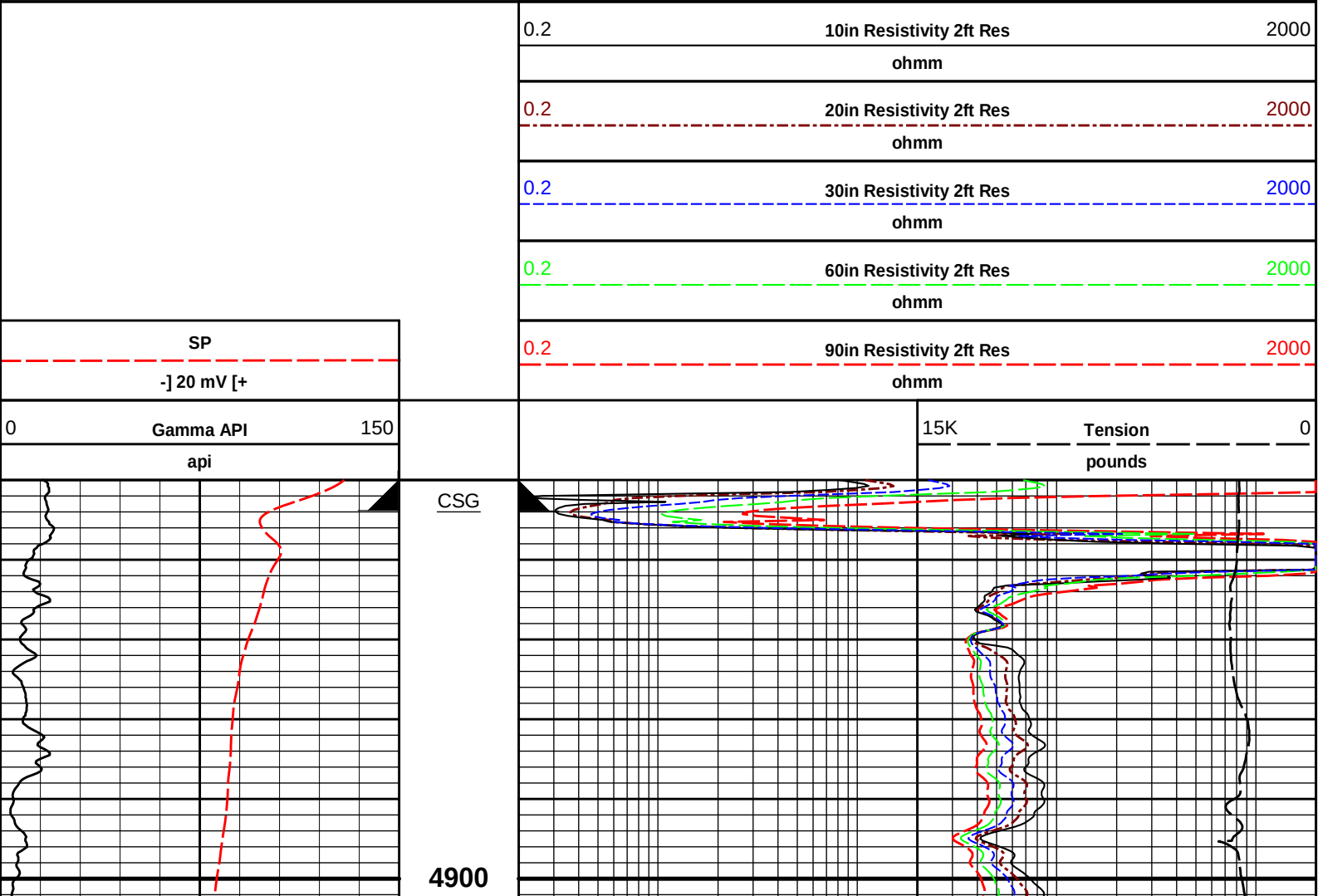
2 INCH MAIN LOG

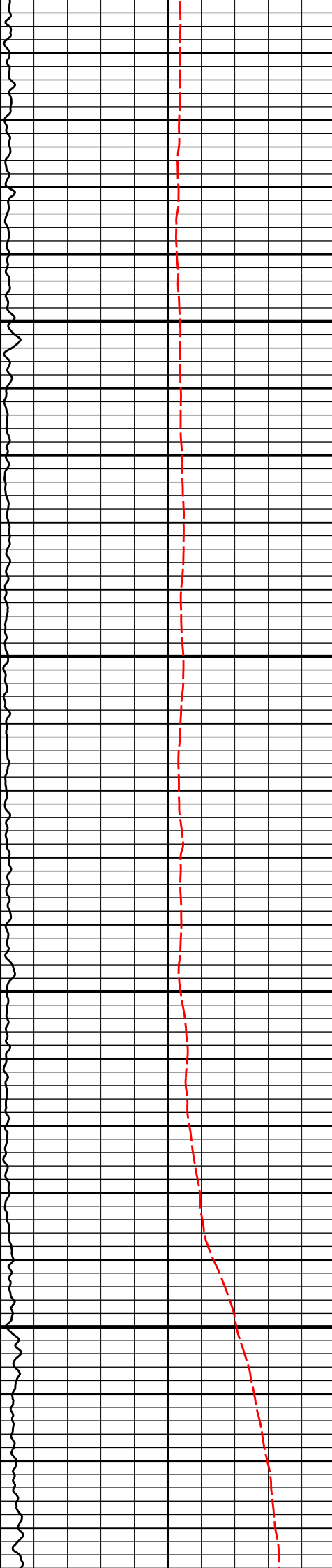
HALLIBURTON

Plot Time: 15-Aug-18 17:12:01  
Plot Range: 4850 ft to 10779.3 ft  
Data: BRUBAKER\_1-17H\Well Based\*\  
Plot File: \\-LOCAL-INPSU\_35-2\Well Based\ACRT\ACRT\_5inch\_main

5 INCH MAIN LOG

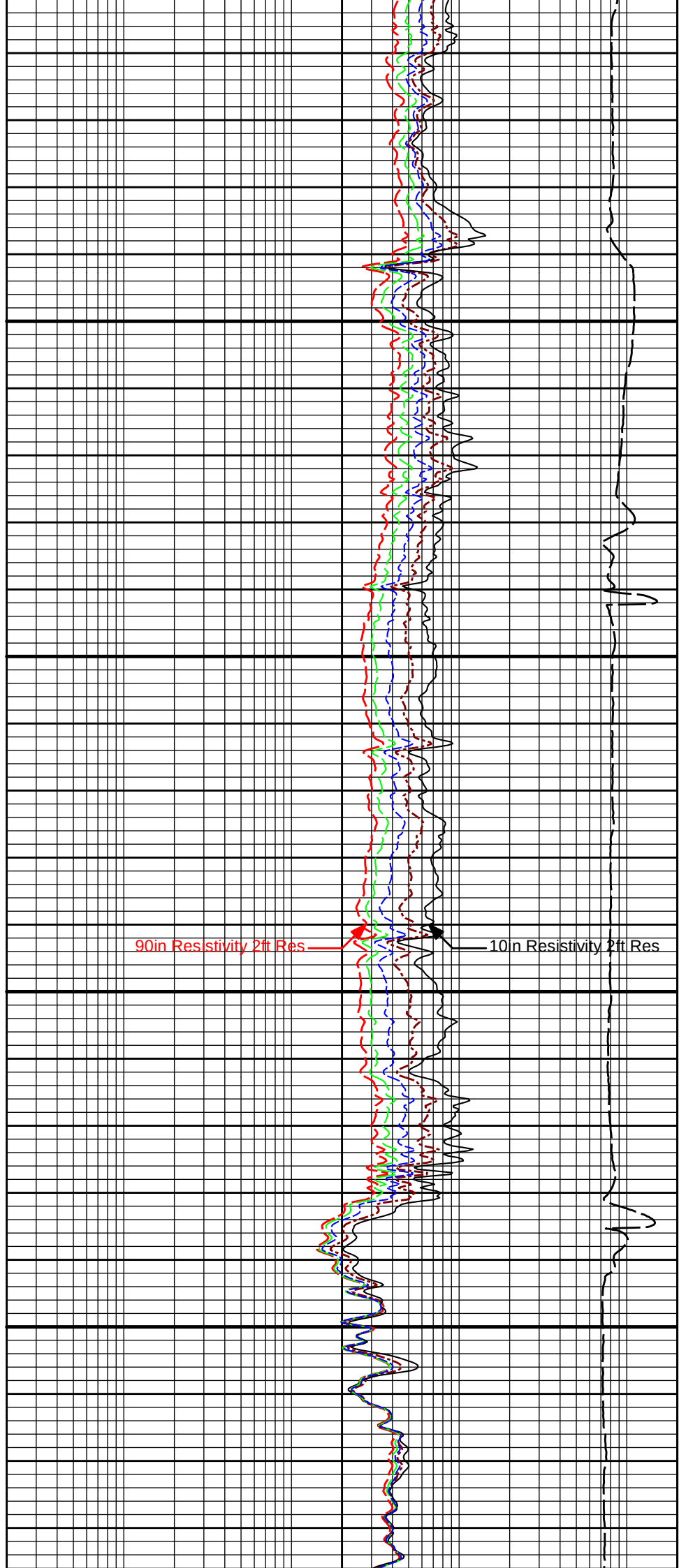
5 INCH MAIN LOG





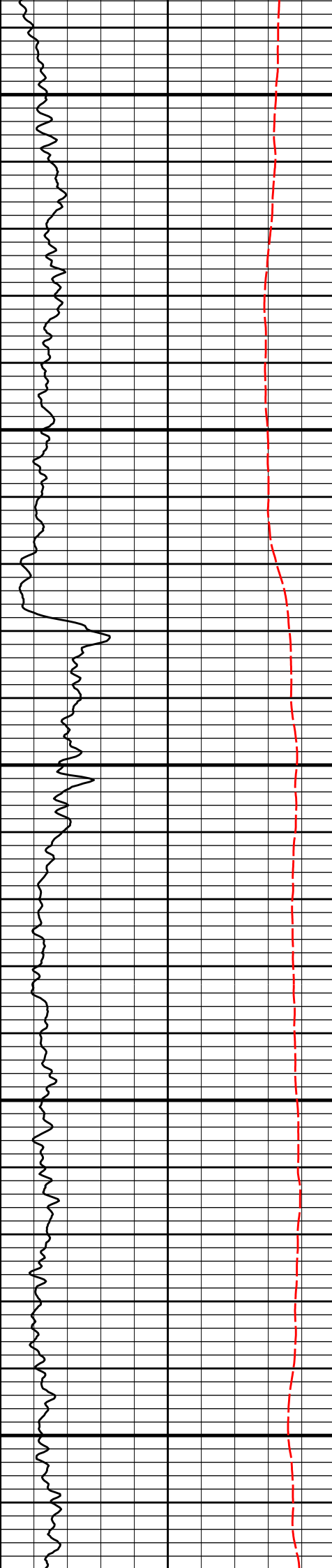
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5100



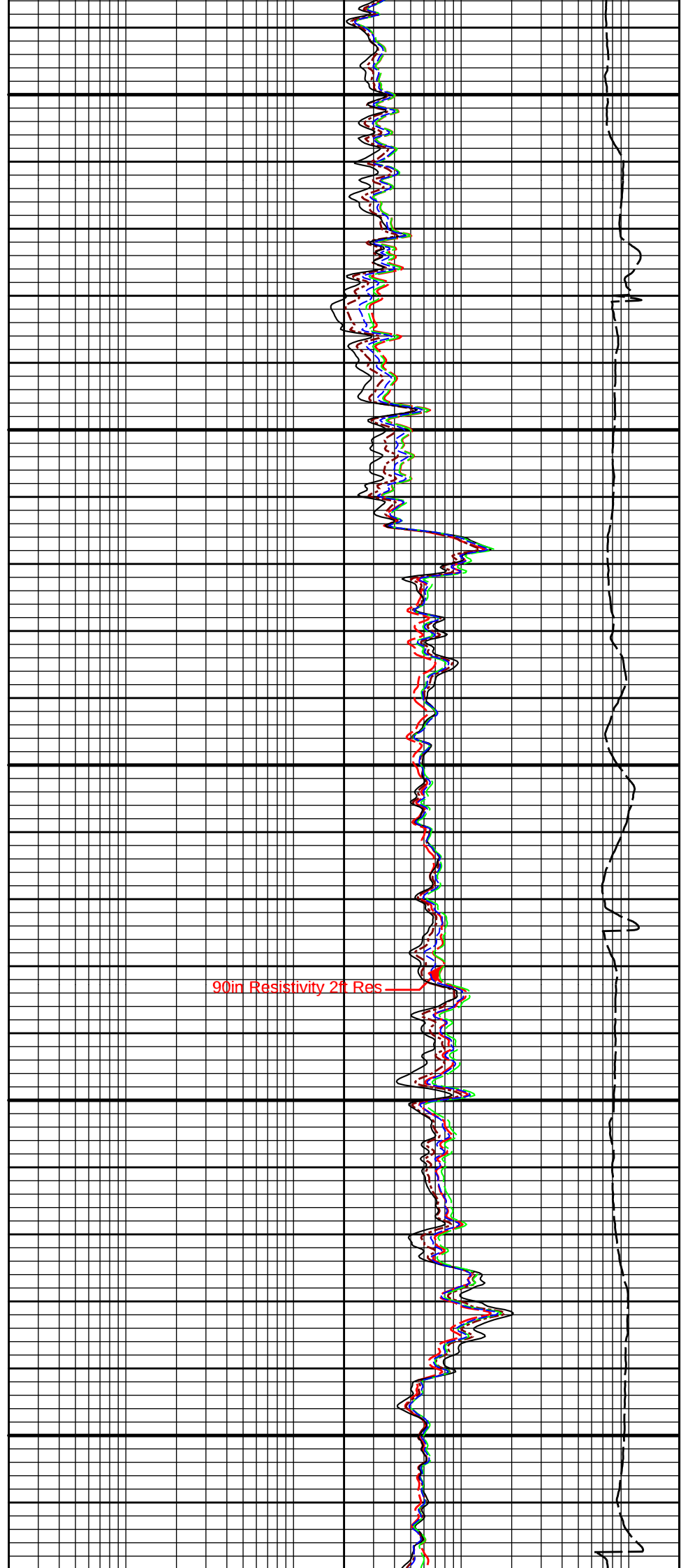
90in Resistivity 2ft Res

10in Resistivity 2ft Res



5200

5300



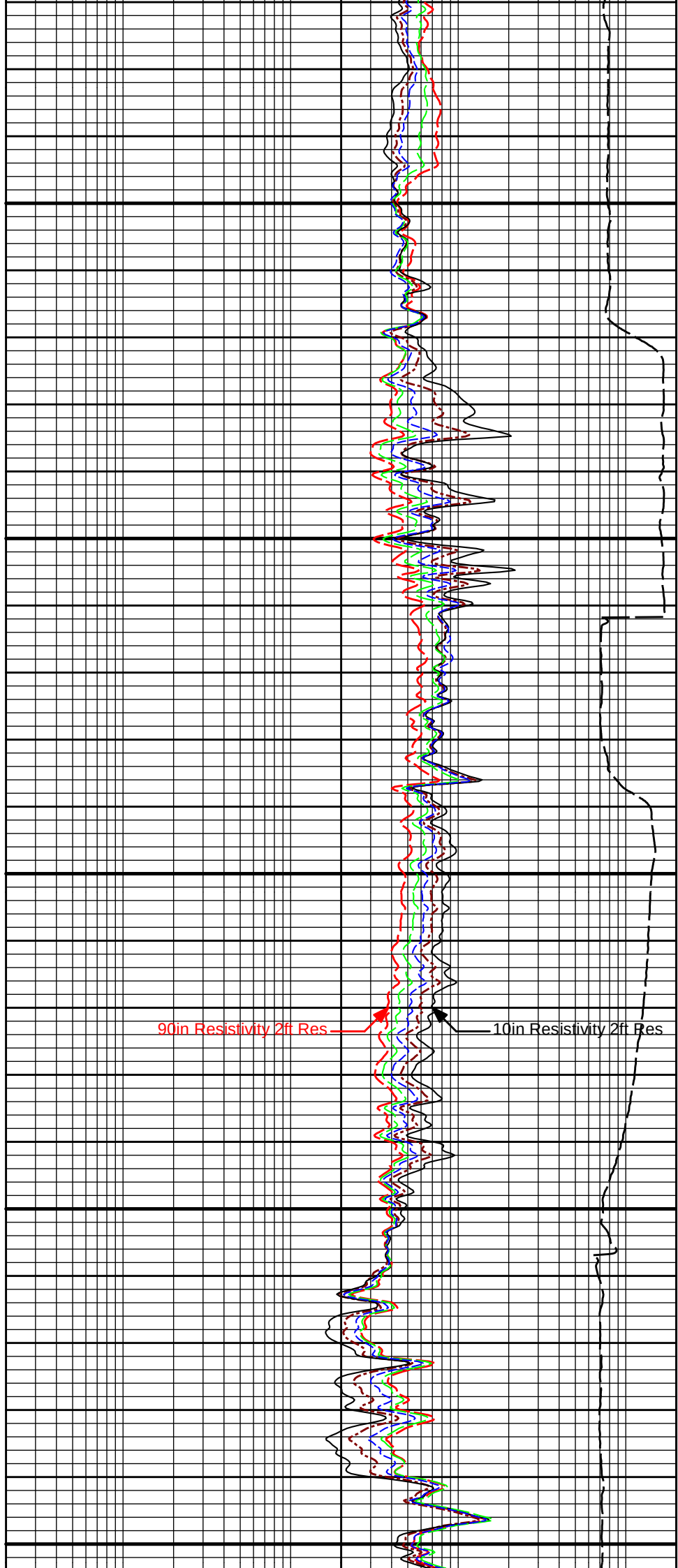
90in Resistivity 2ft Res



5400

5500

5600



90in Resistivity 2ft Res

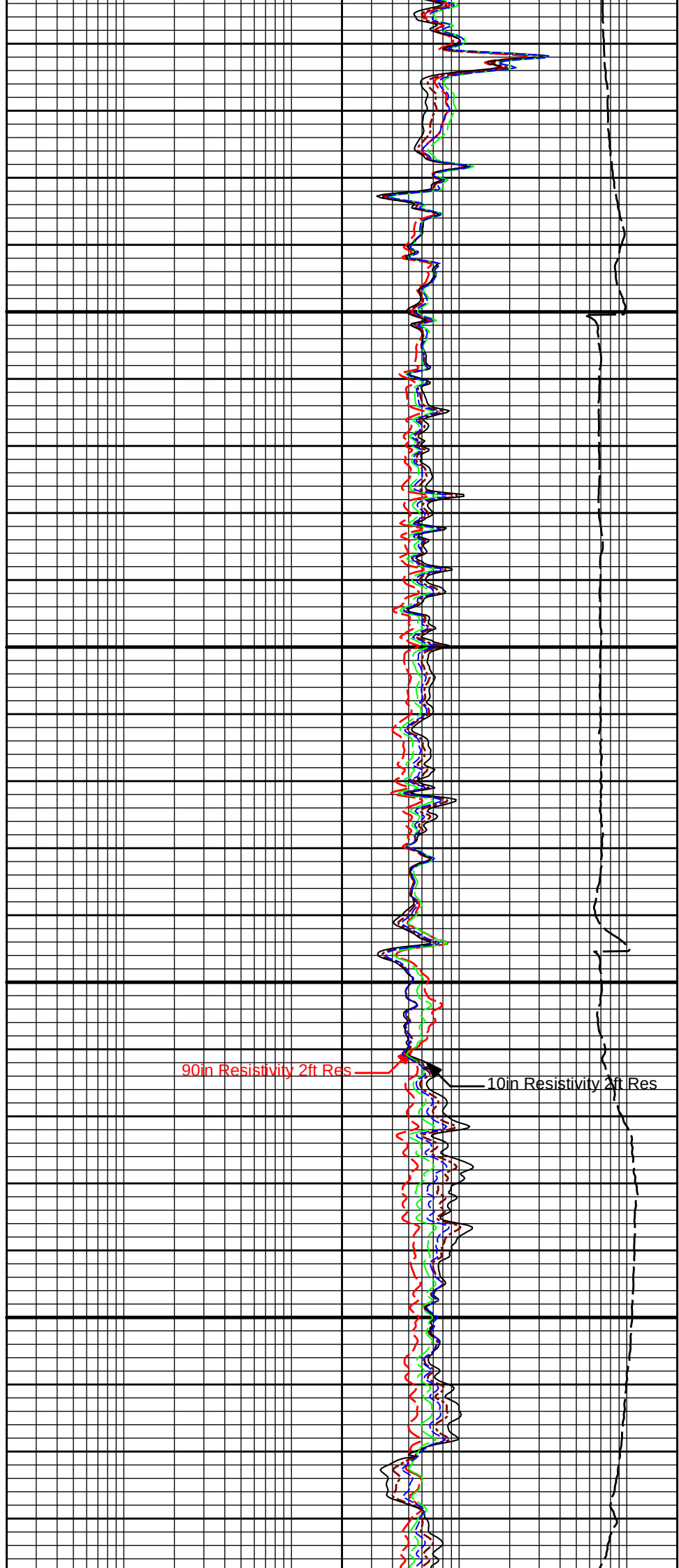
10in Resistivity 2ft Res





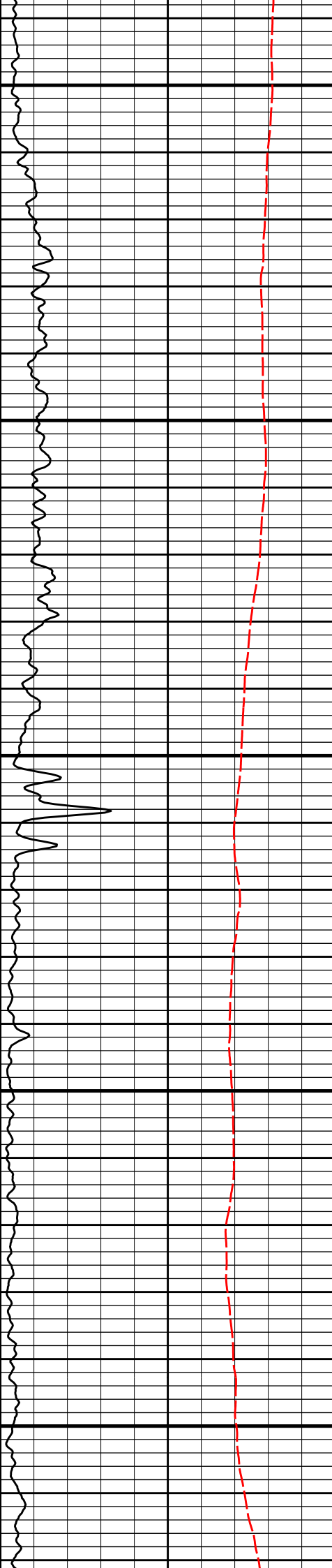
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5800



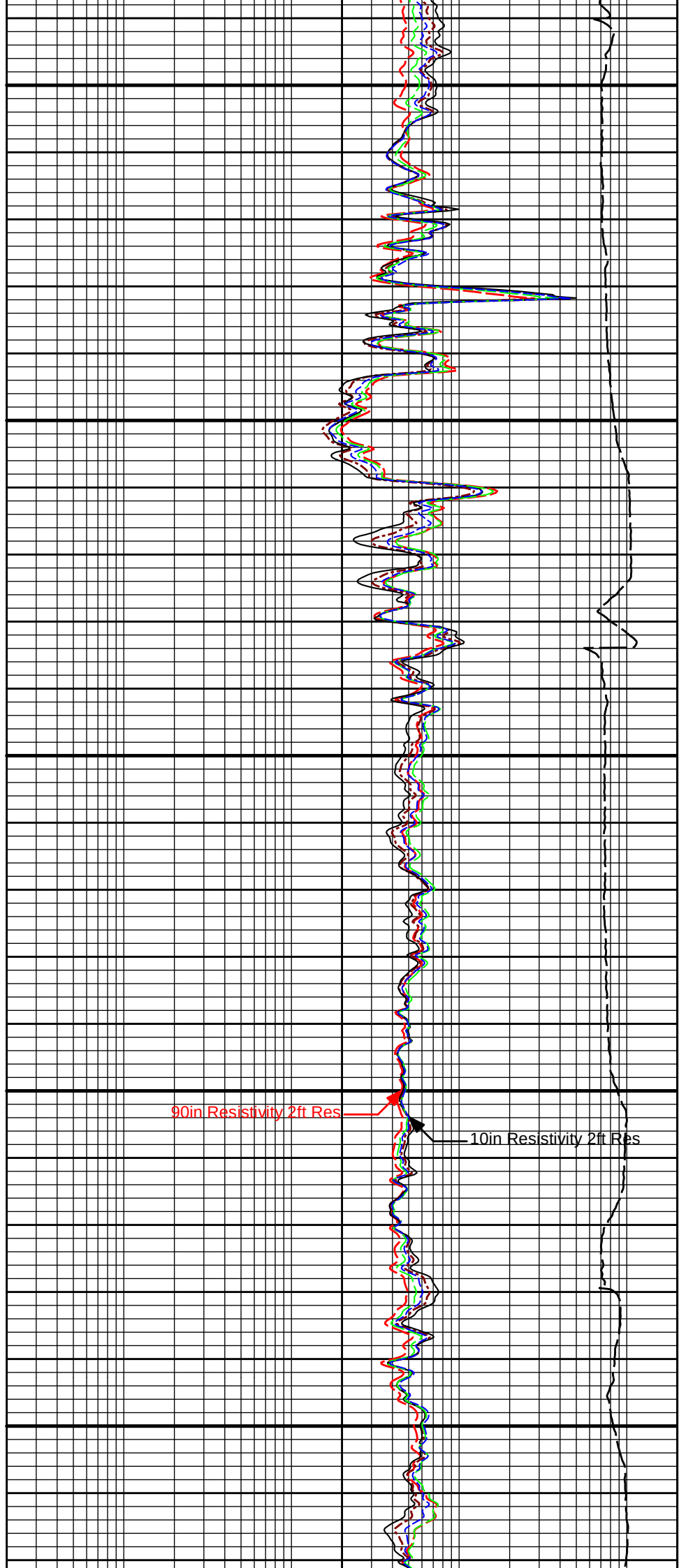
90in Resistivity 2ft Res

10in Resistivity 2ft Res



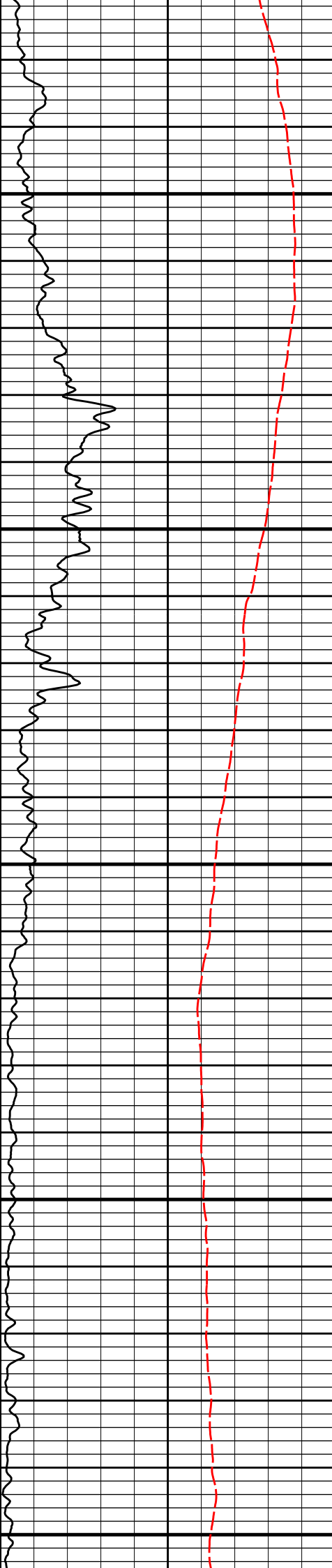
5900

6000



90in Resistivity 2ft Res

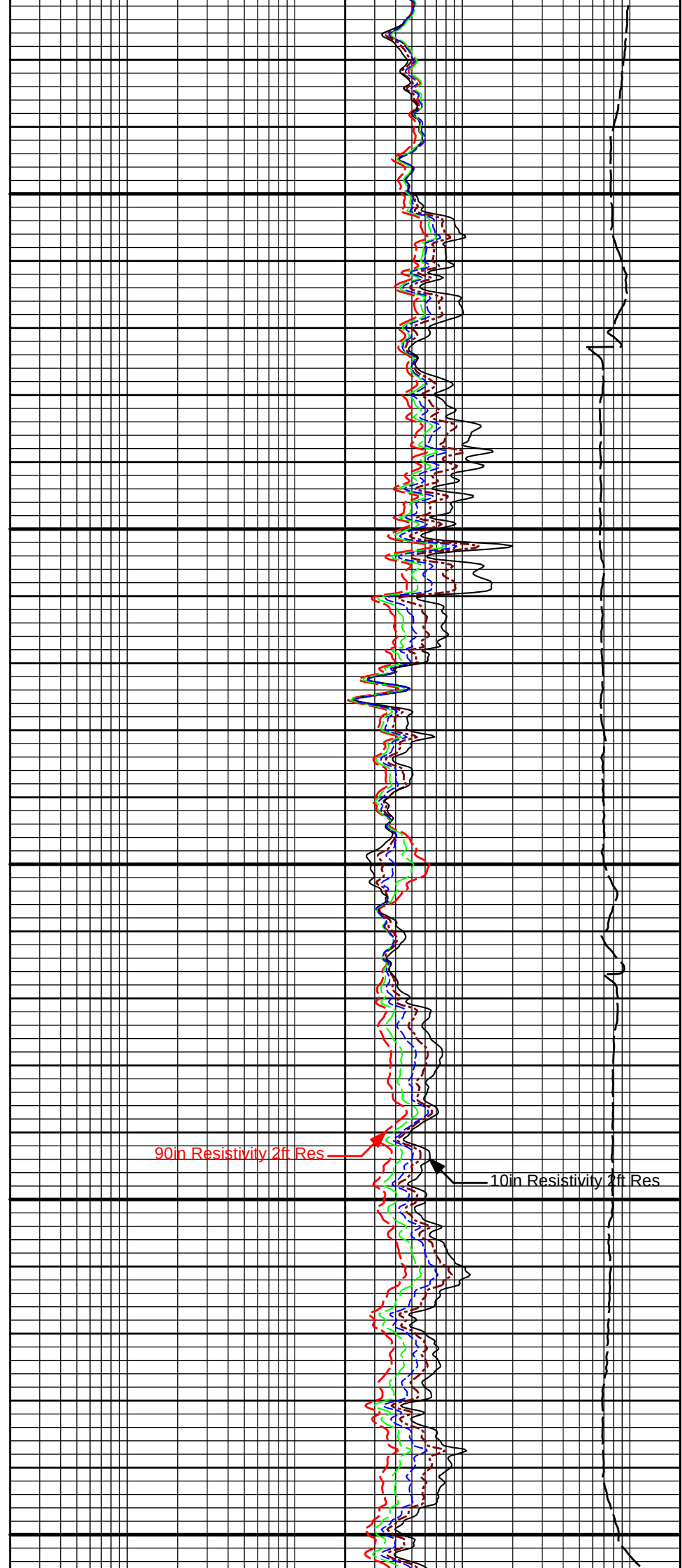
10in Resistivity 2ft Res



6100

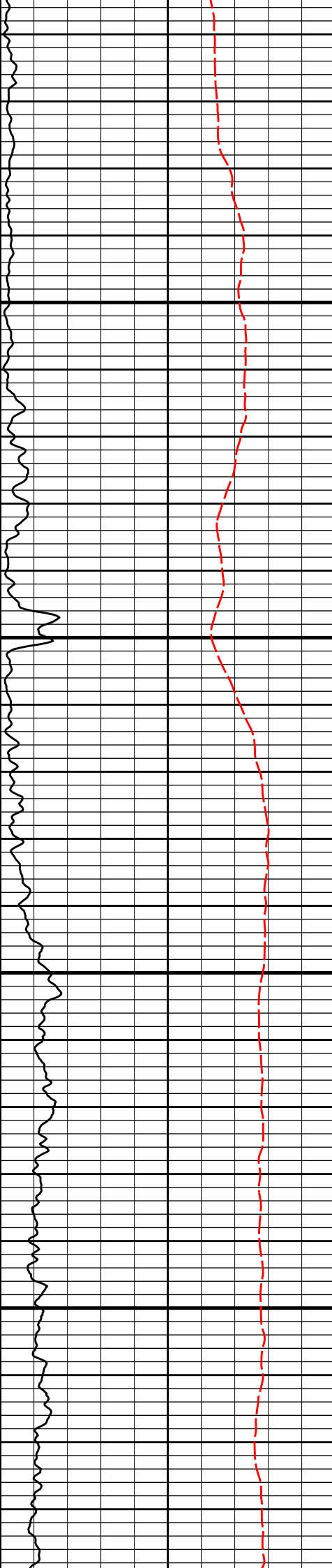
6200

6300



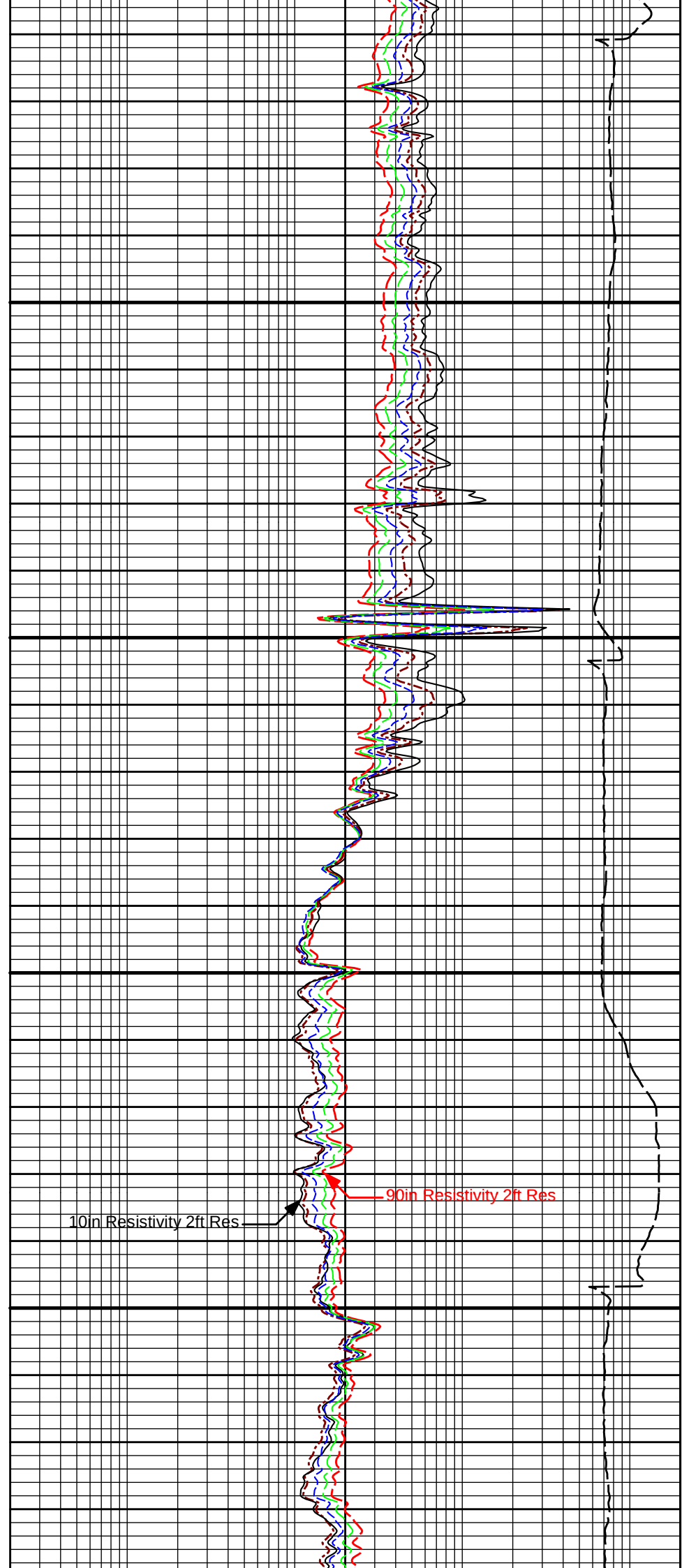
90in Resistivity 2ft Res

10in Resistivity 2ft Res



6400

6500



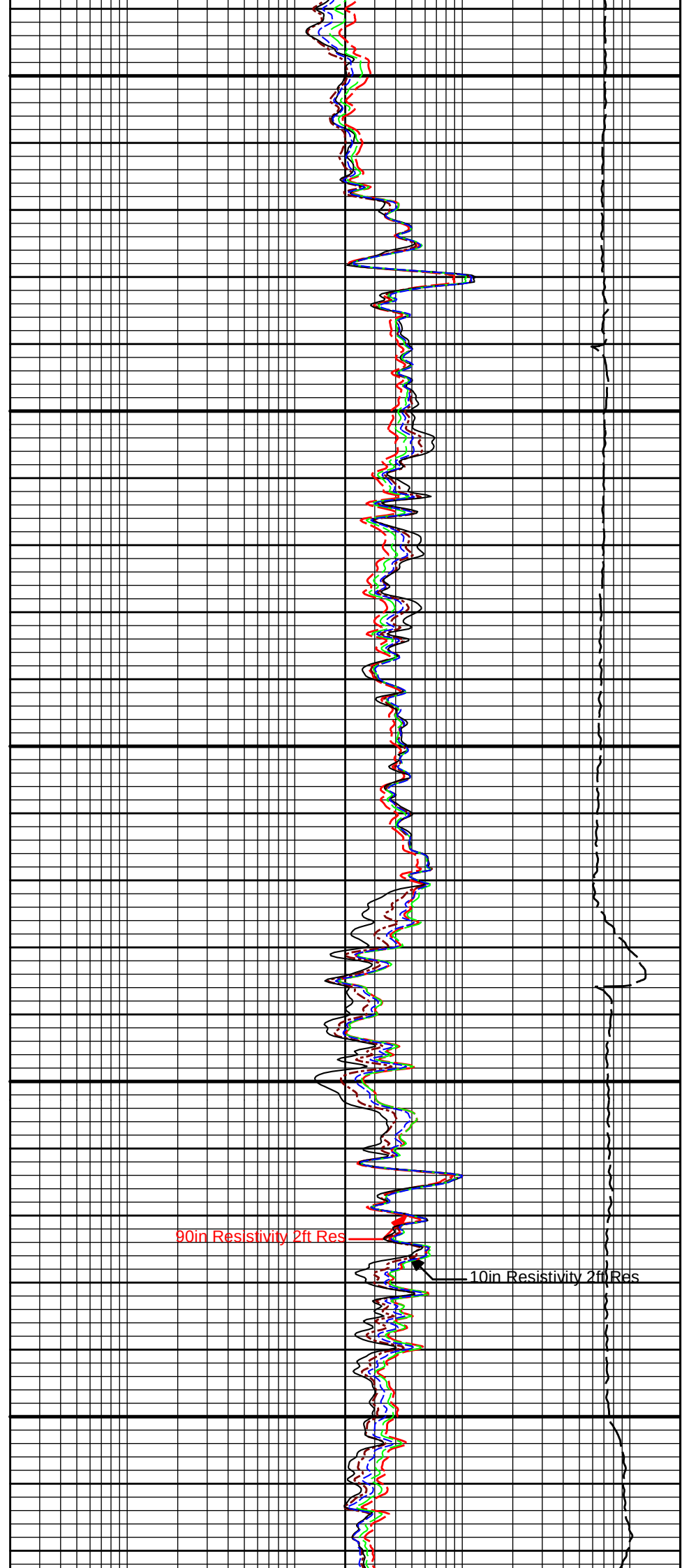
10in Resistivity 2ft Res

90in Resistivity 2ft Res



6600

6700



90in Resistivity 2ft Res

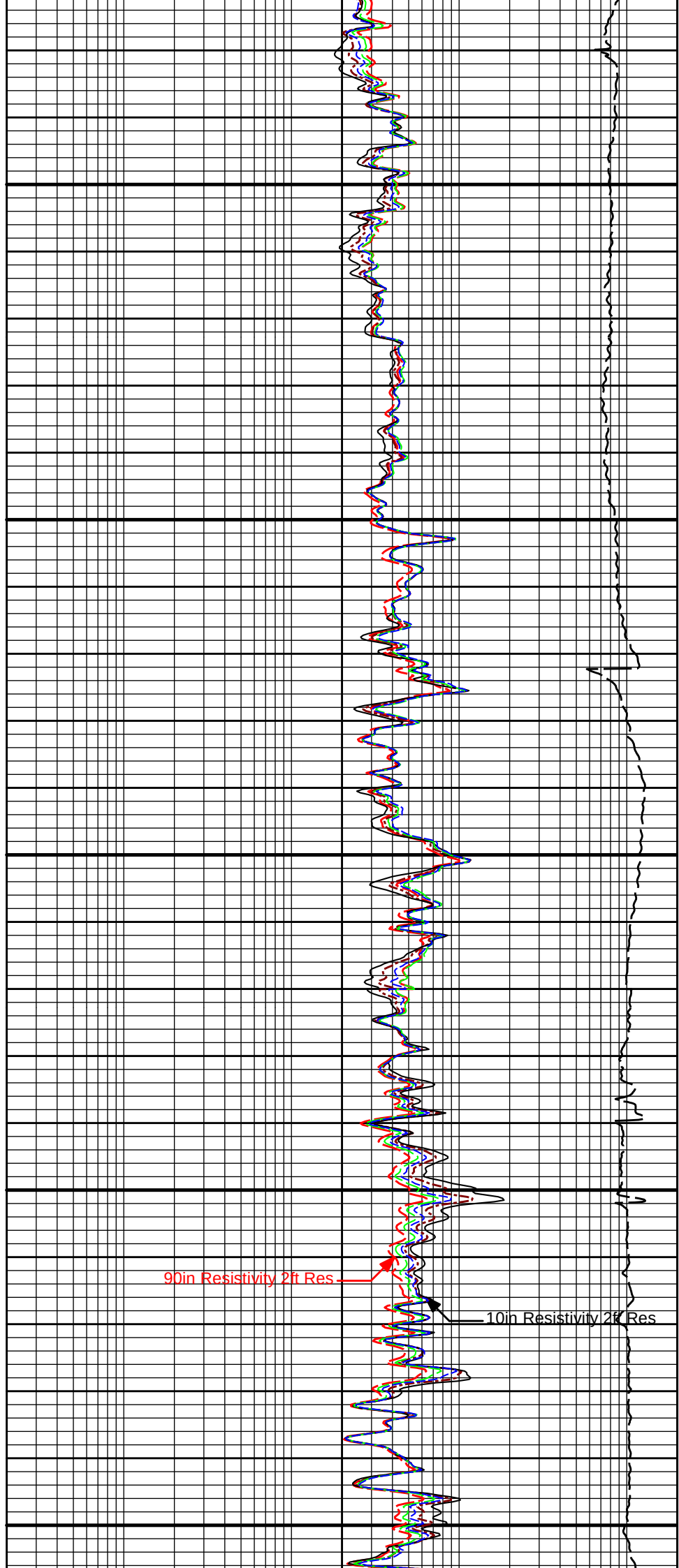
10in Resistivity 2ft Res



6800

6900

7000



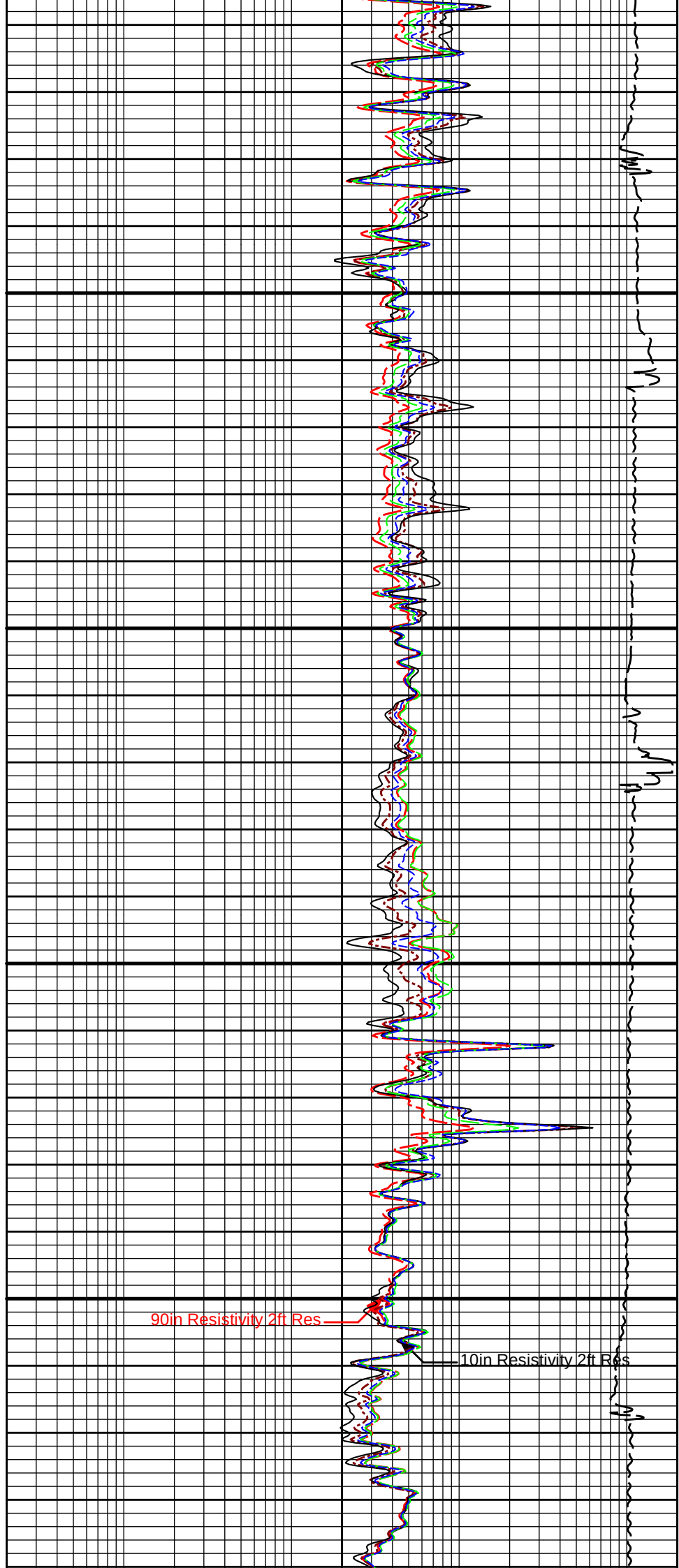
90in Resistivity 2ft Res

10in Resistivity 2ft Res



7100

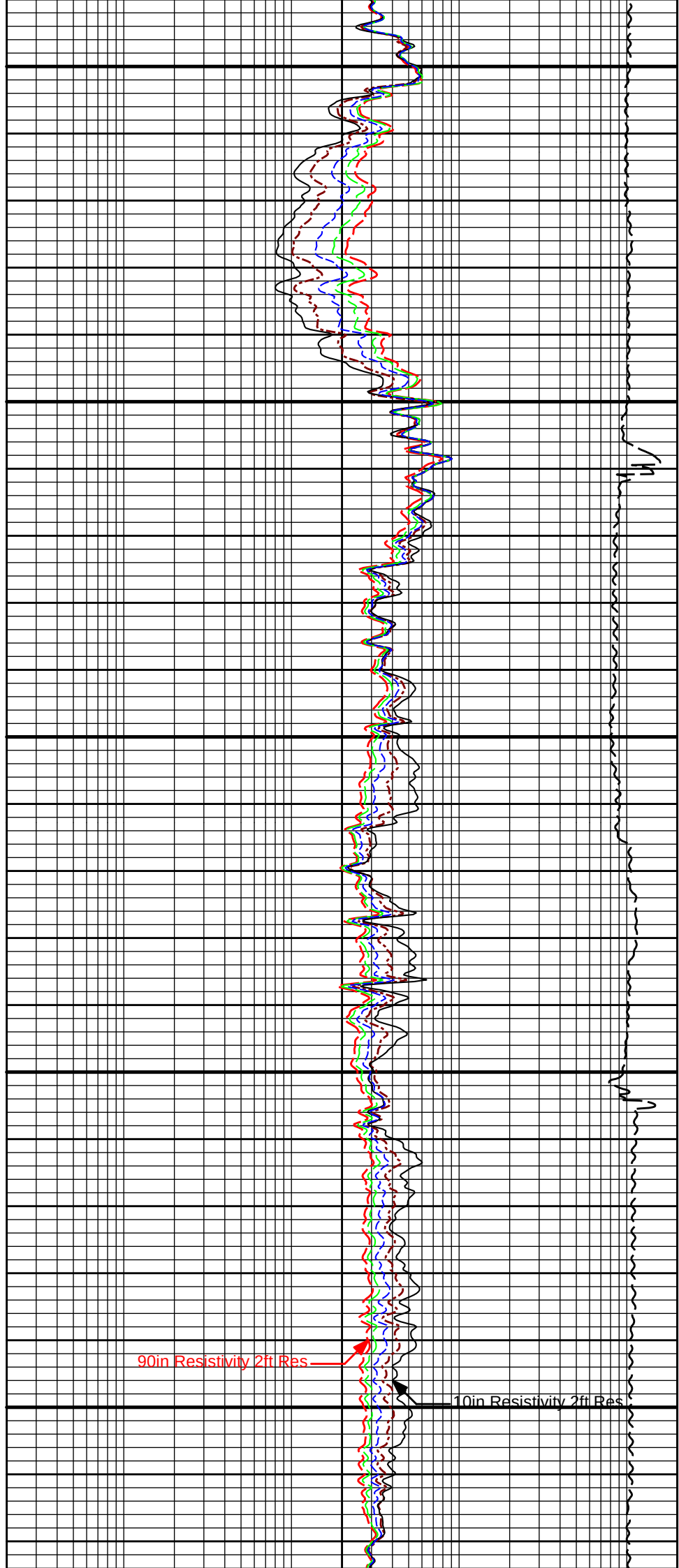
7200





7300

7400



90in Resistivity 2ft Res.

10in Resistivity 2ft Res.

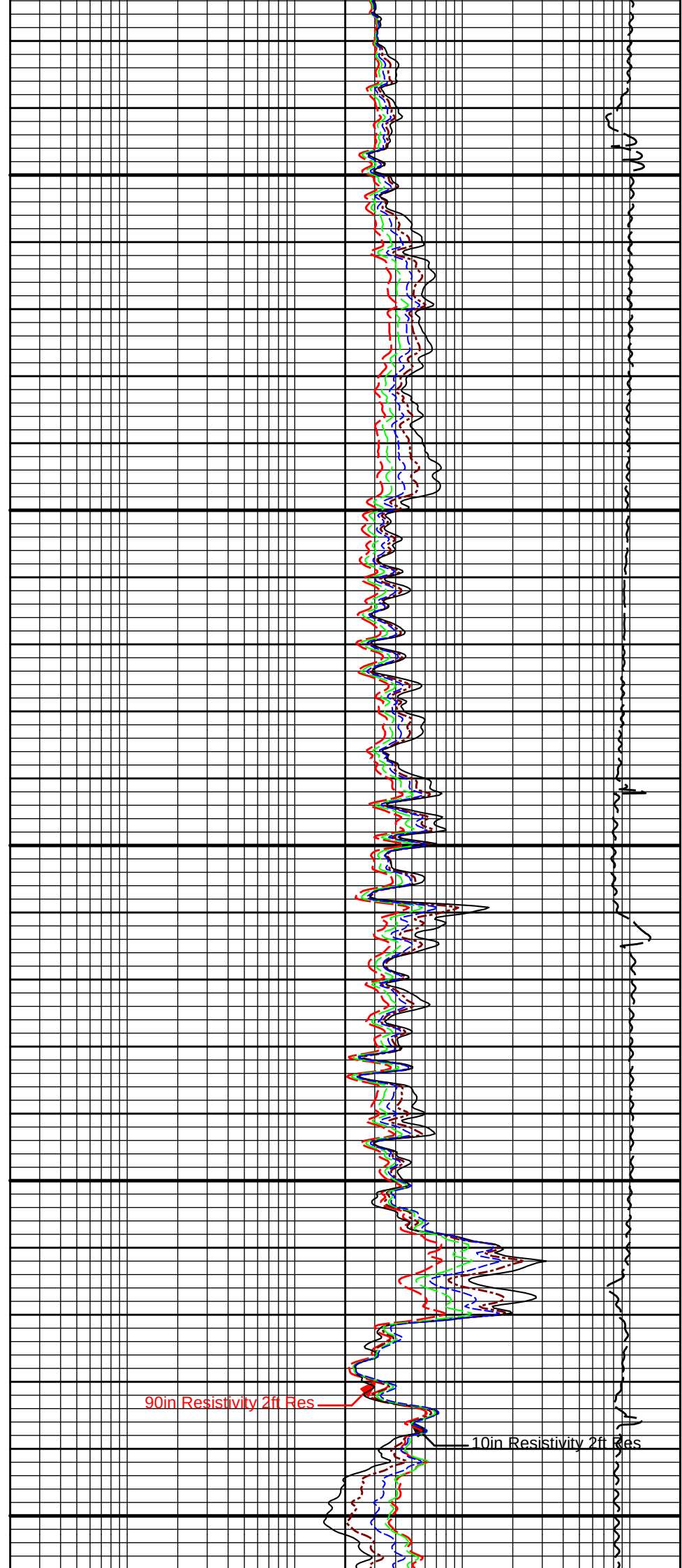




7500

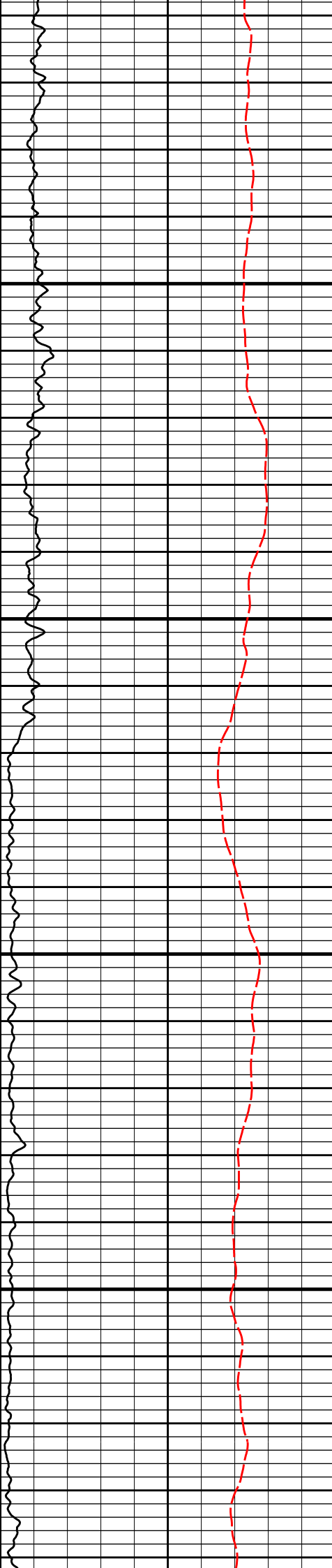
7600

7700



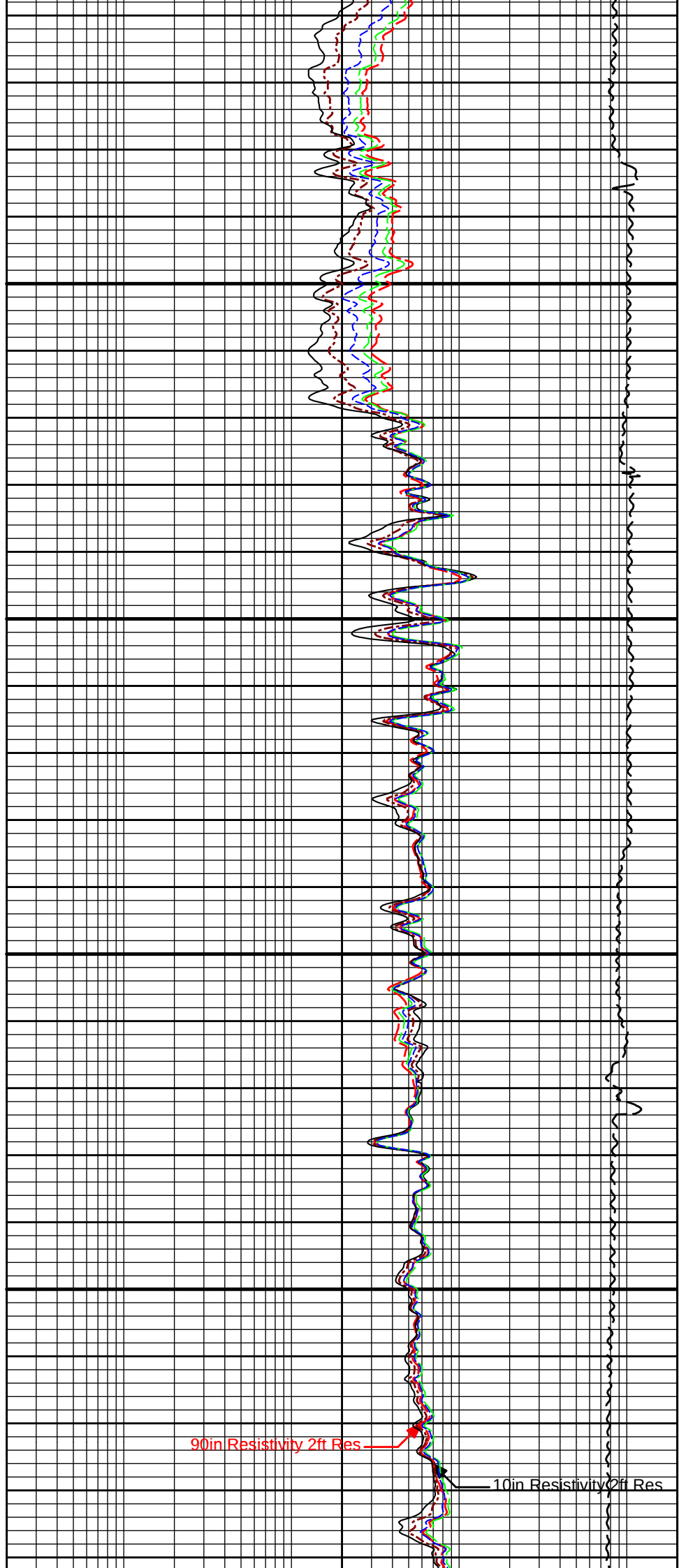
90in Resistivity 2ft Res

10in Resistivity 2ft Res



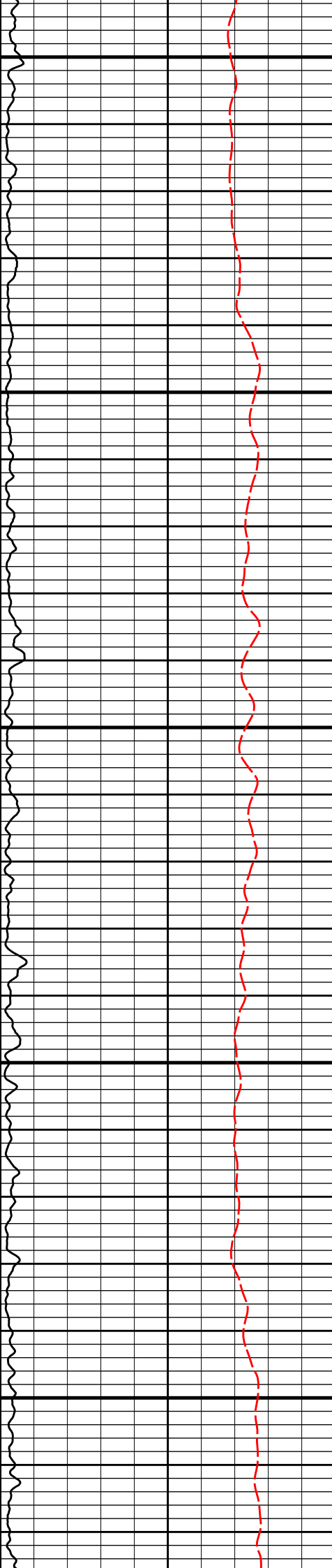
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7900



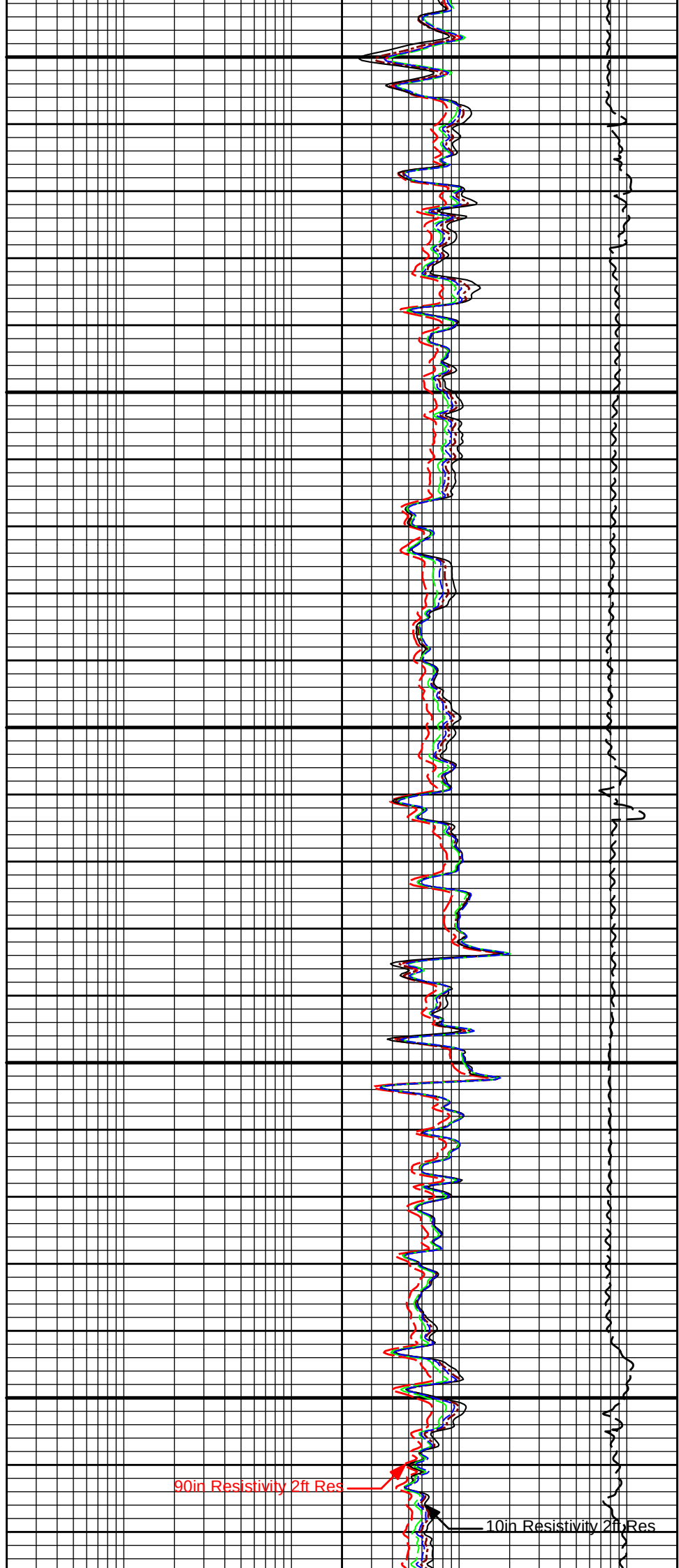
90in Resistivity 2ft Res

10in Resistivity 2ft Res



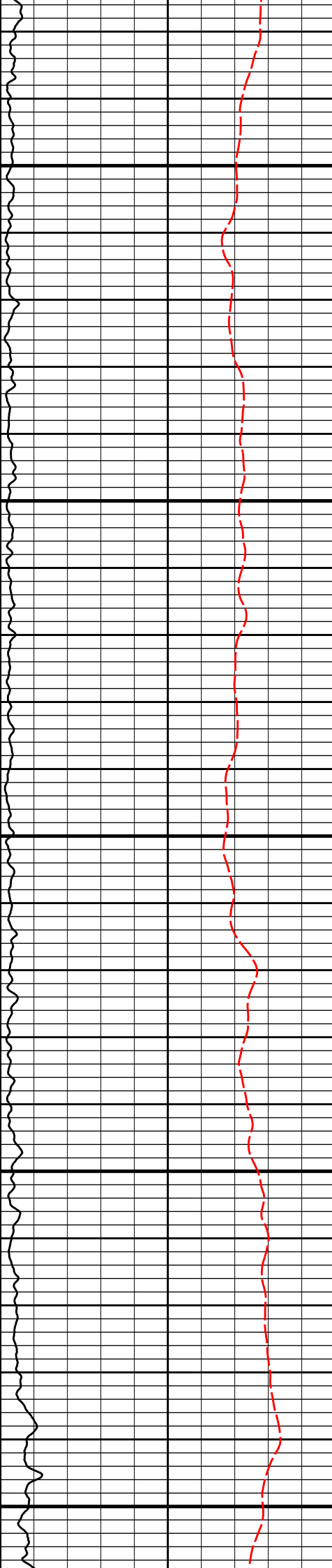
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8100



90in Resistivity 2ft Res

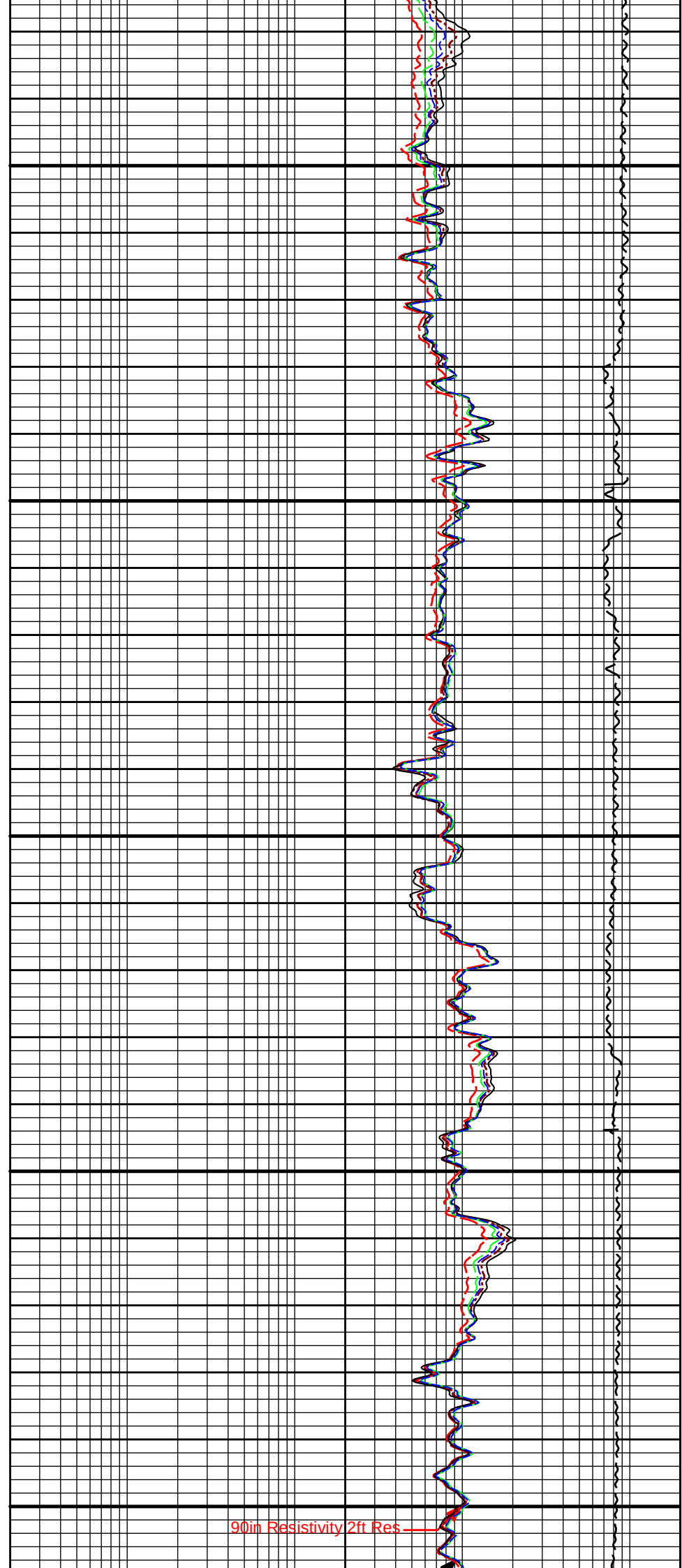
10in Resistivity 2ft Res



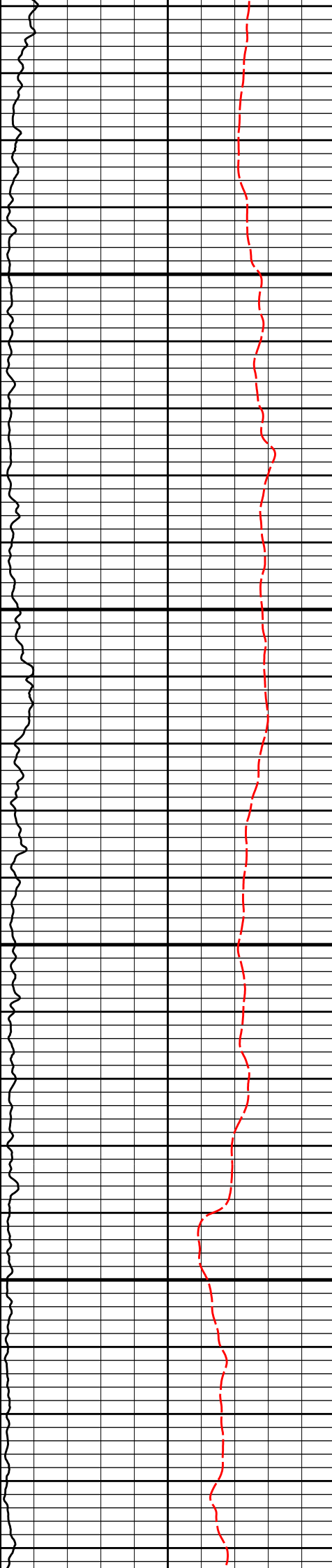
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8300

8400



90in Resistivity 2ft Res

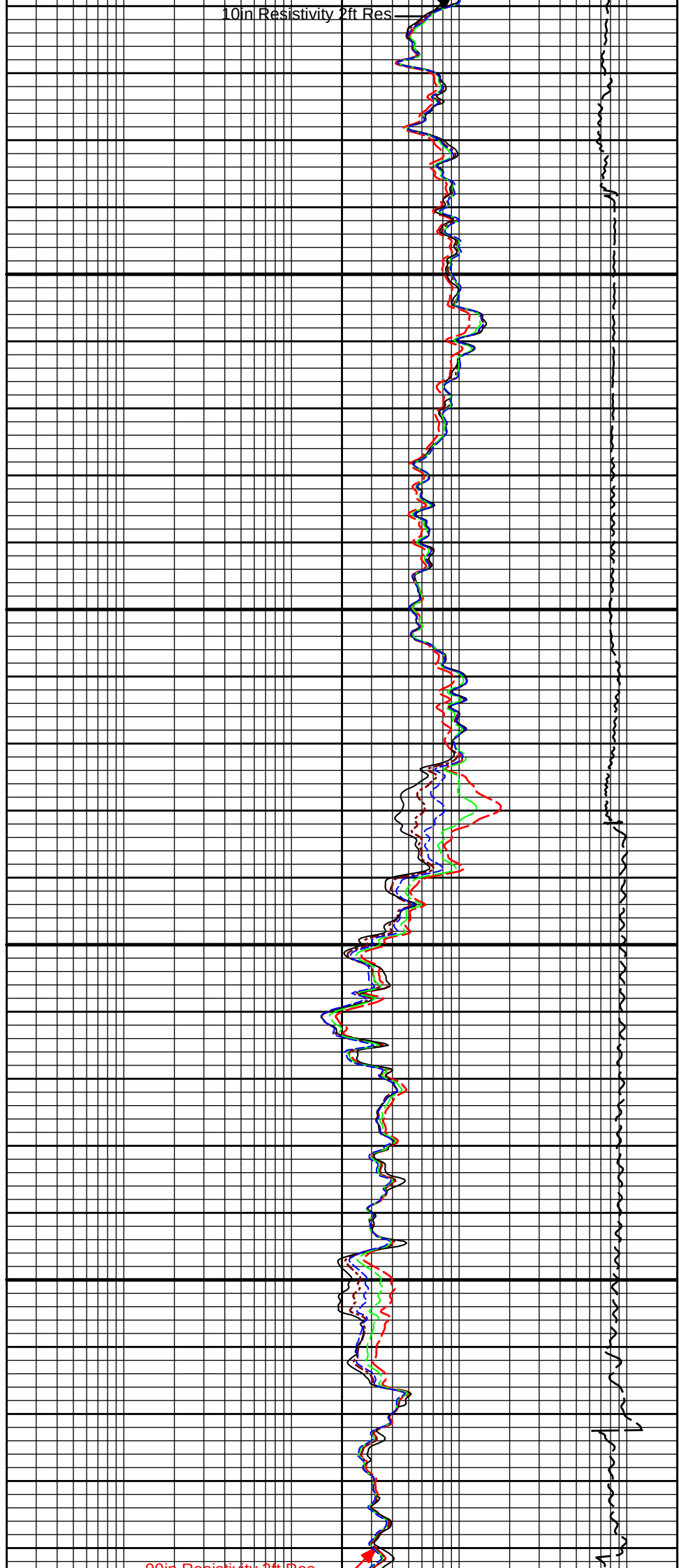


8500

8600

10in Resistivity 2ft Res

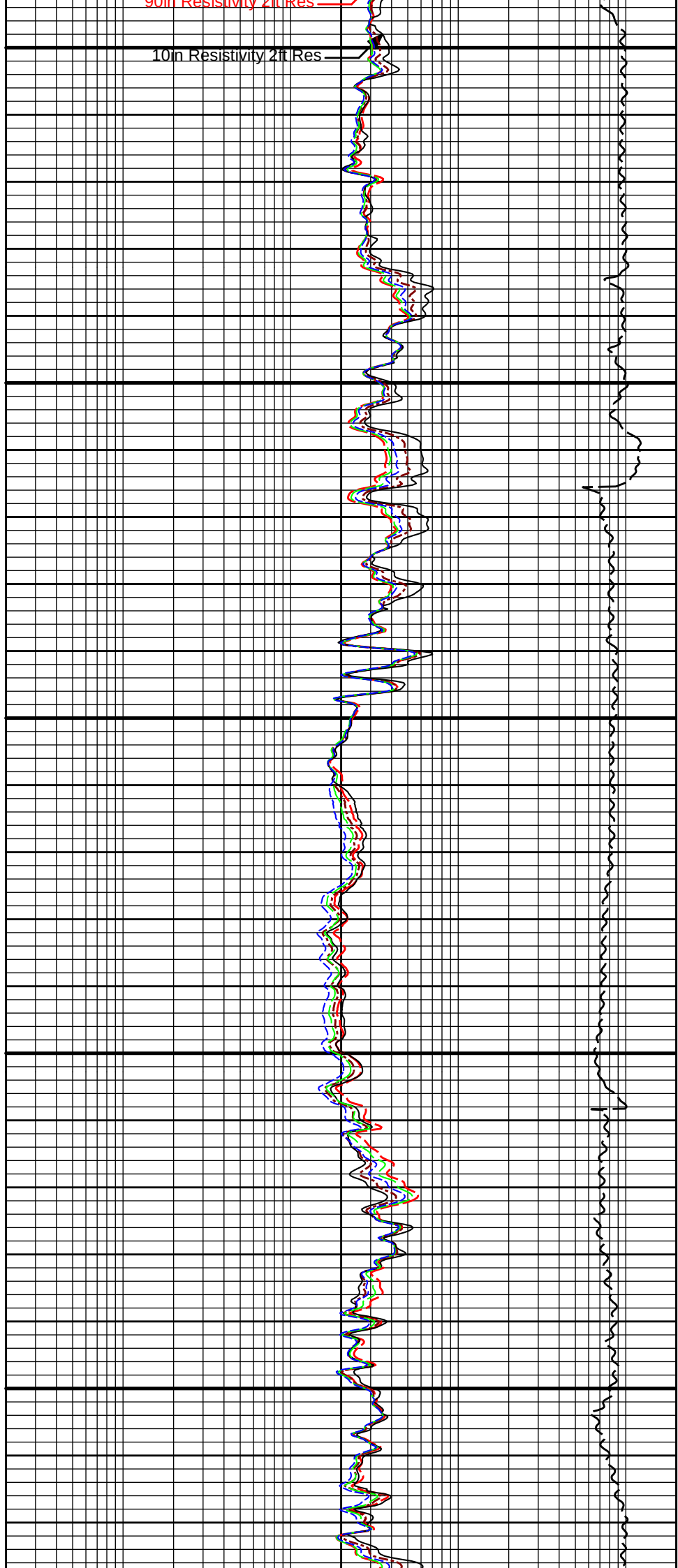
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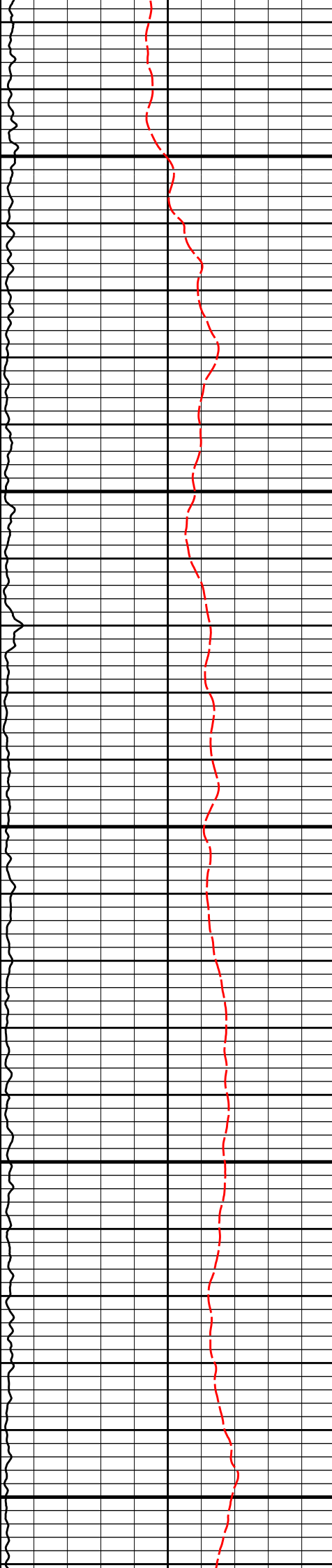
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8800



10in Resistivity 2ft Res

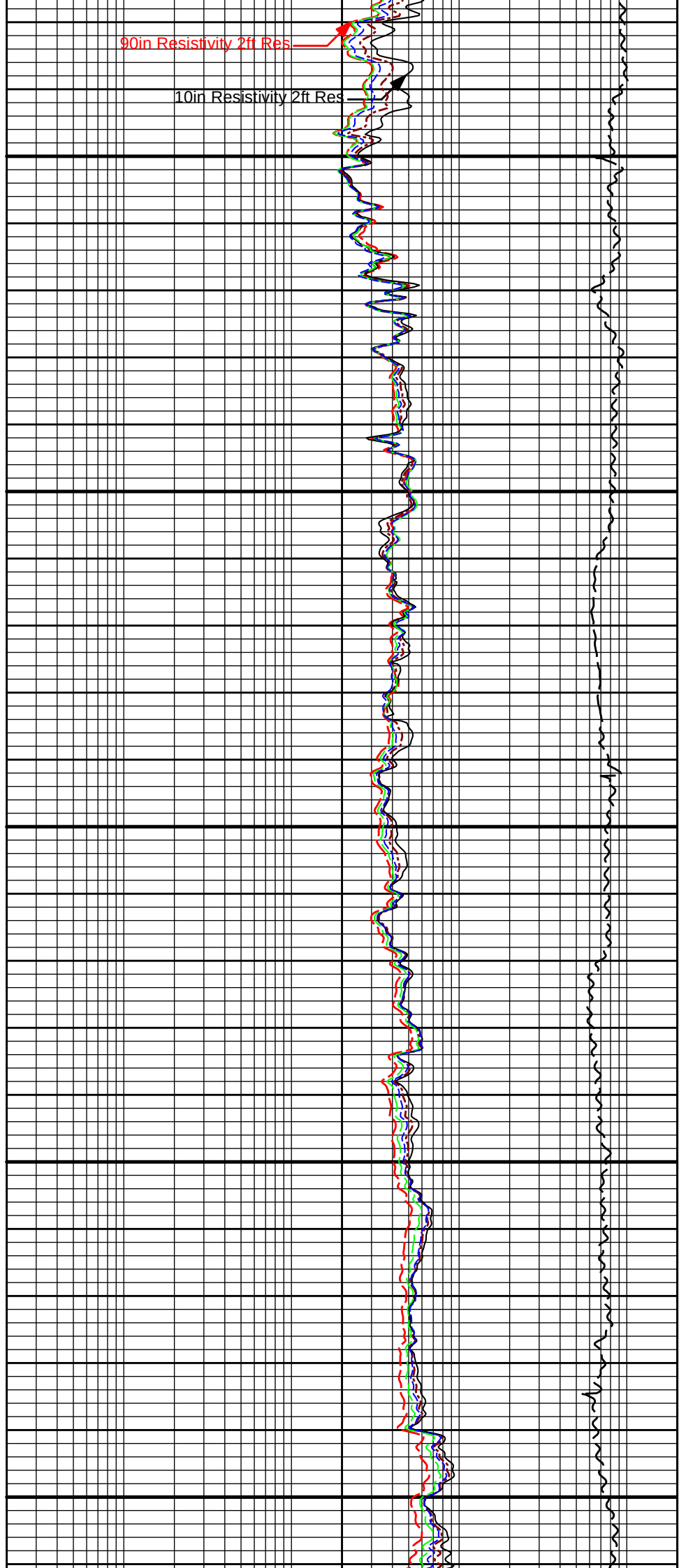
90in Resistivity 2ft Res



8900

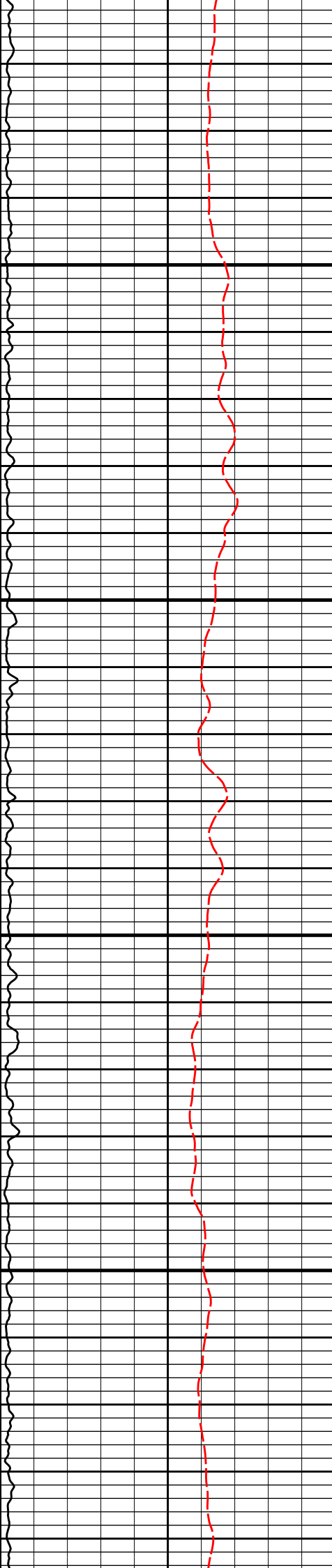
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9100



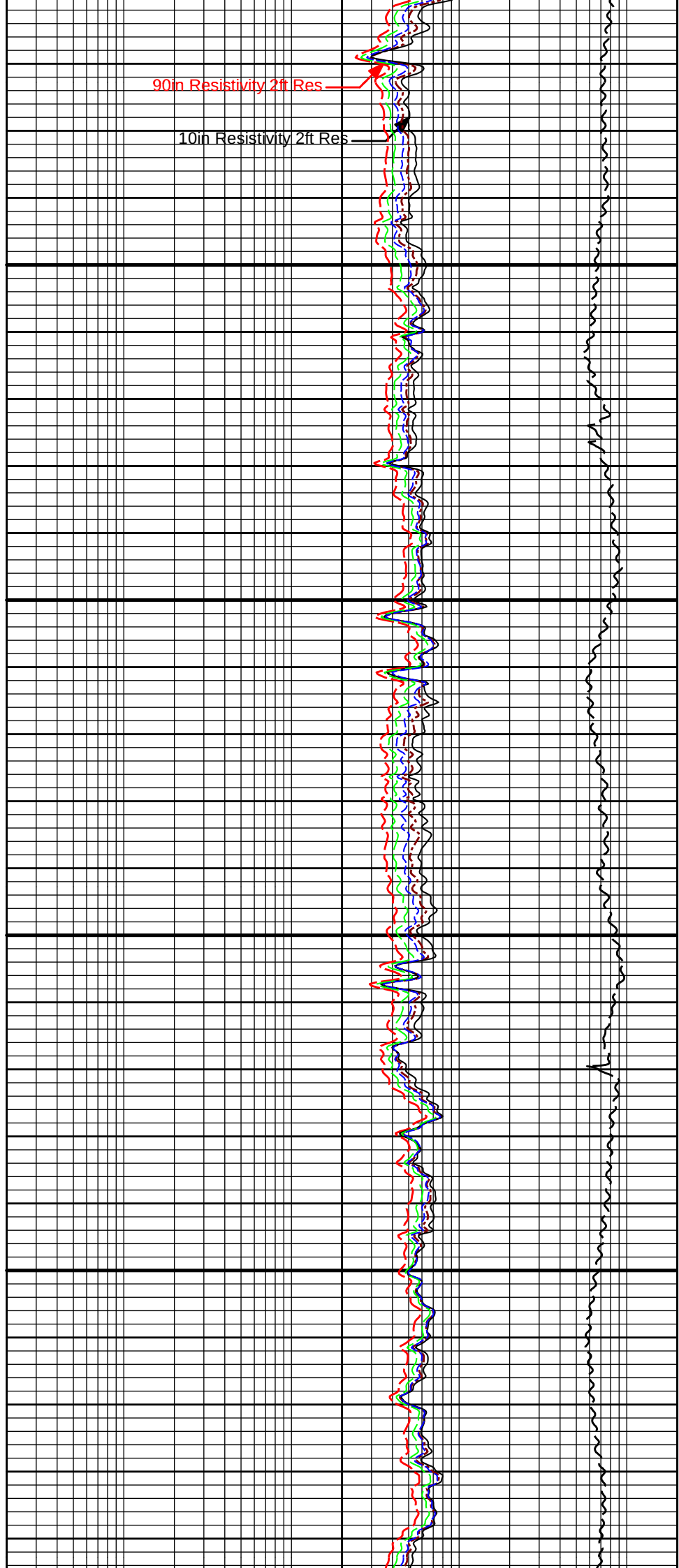
90in Resistivity 2ft Res

10in Resistivity 2ft Res



9200

9300

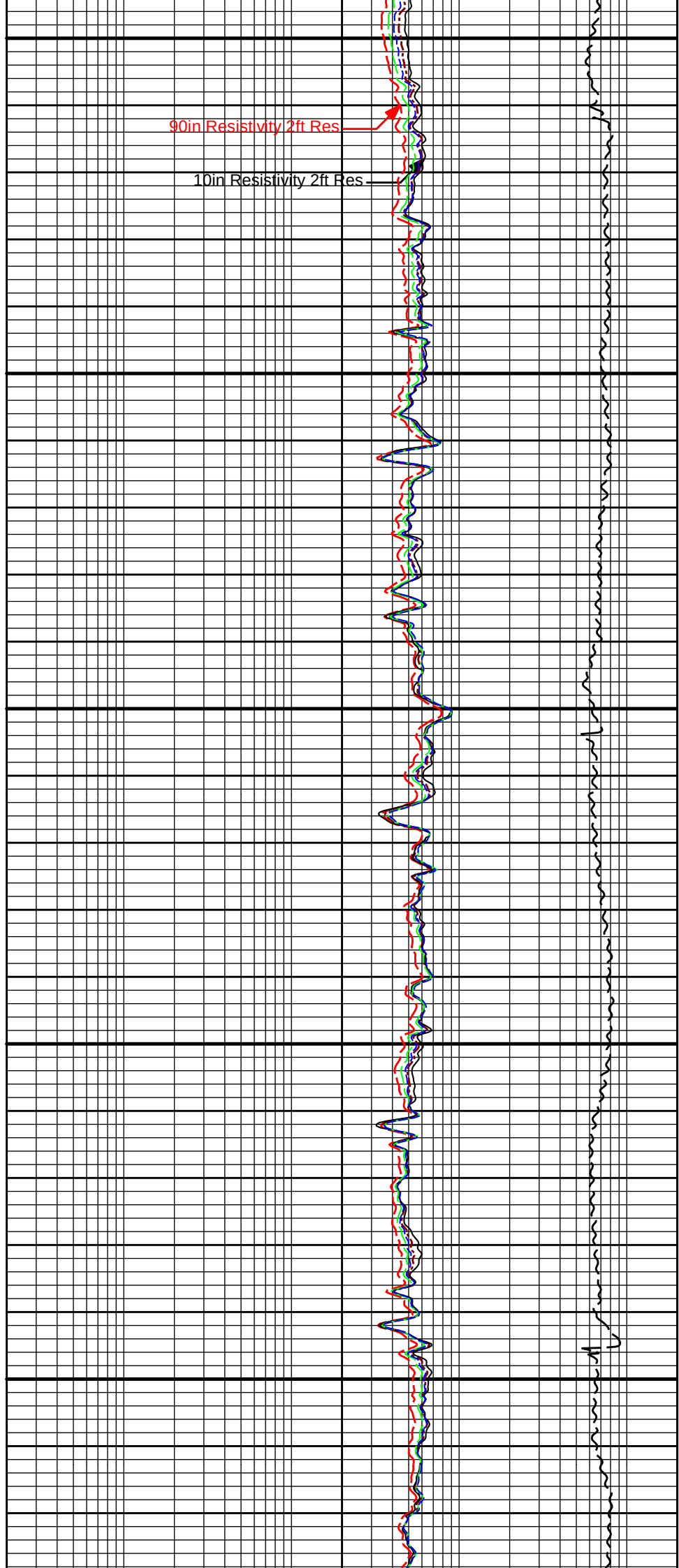






9400

9500



90in Resistivity 2ft Res

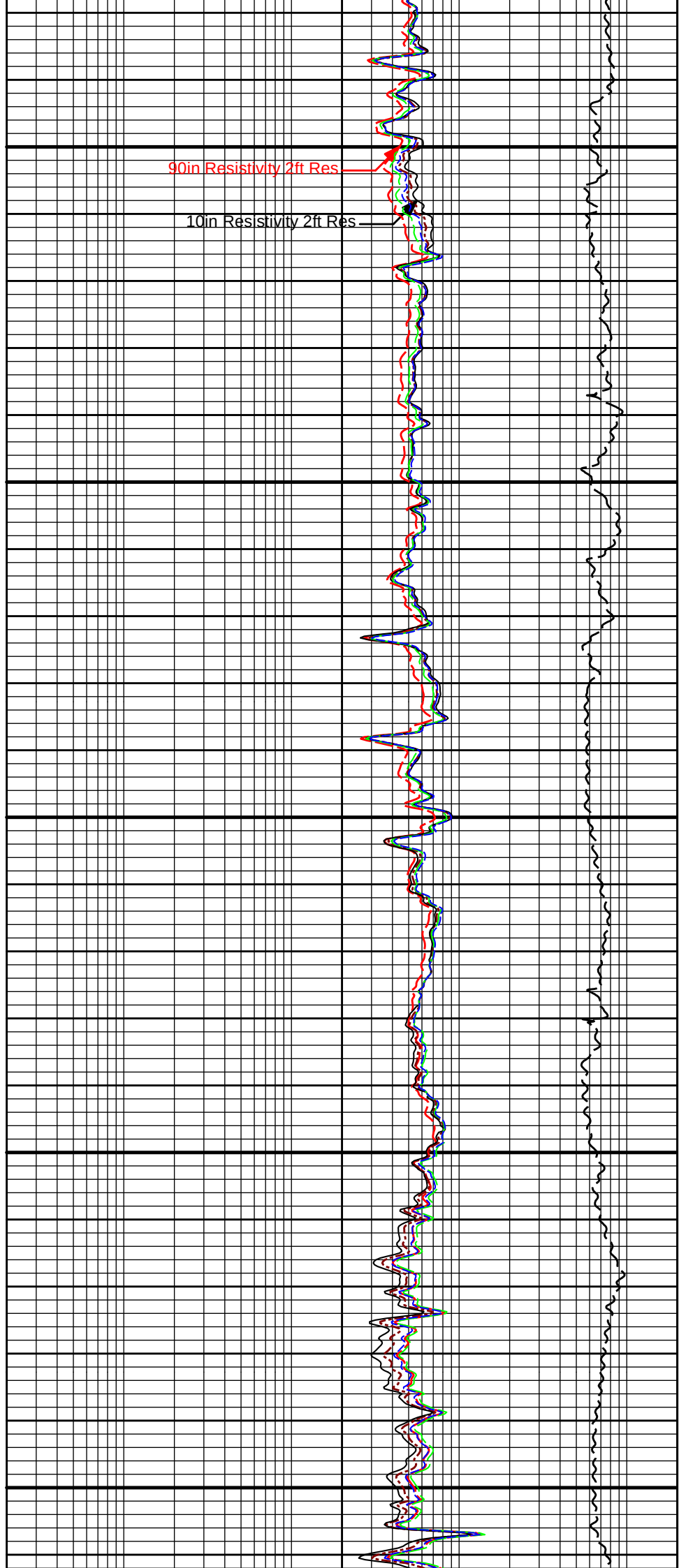
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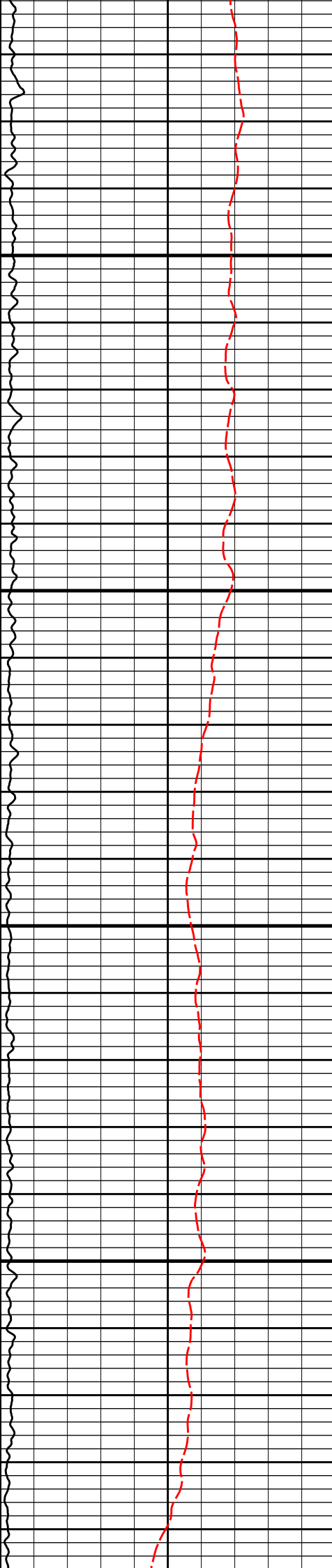


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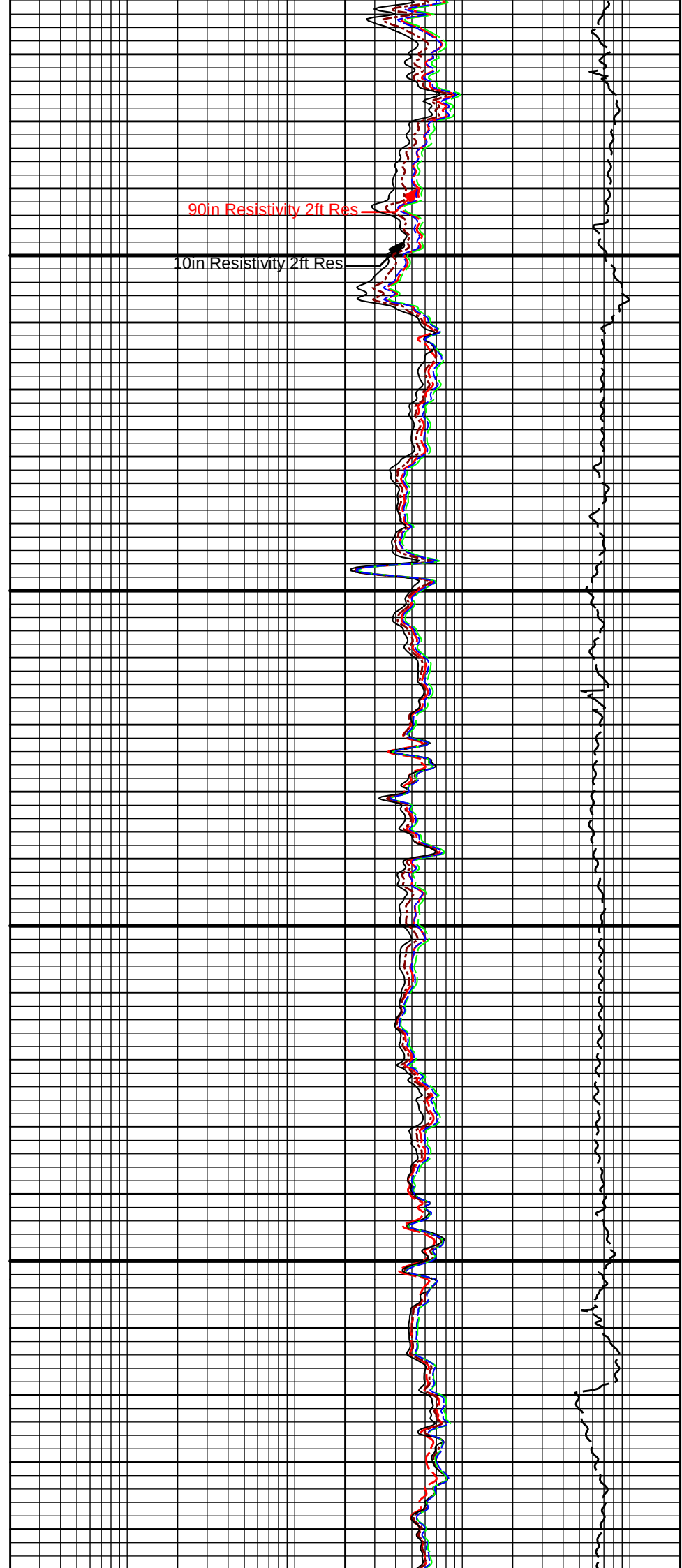
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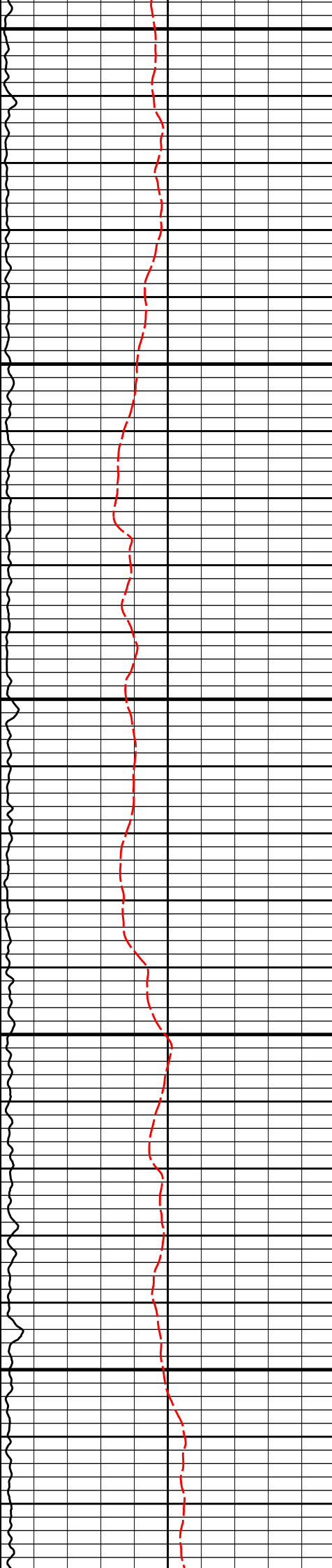




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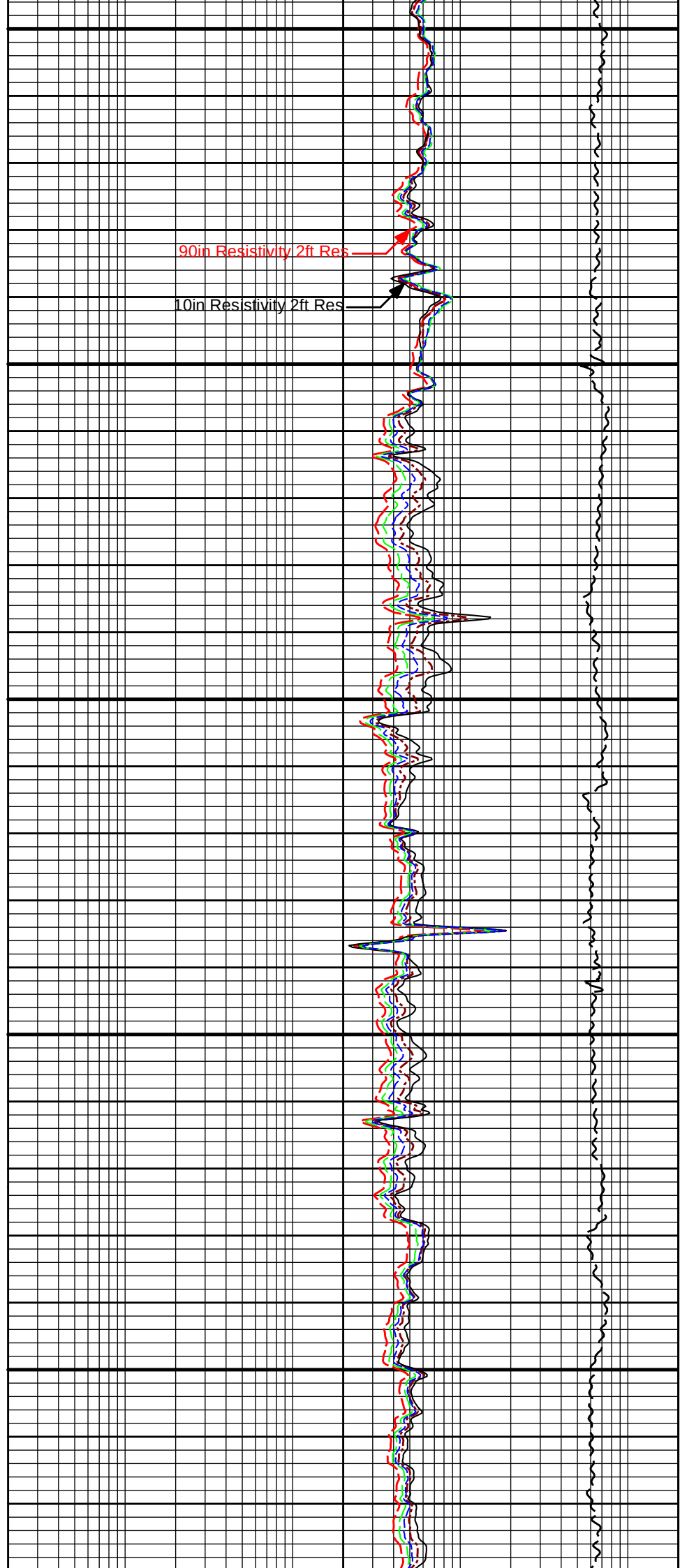
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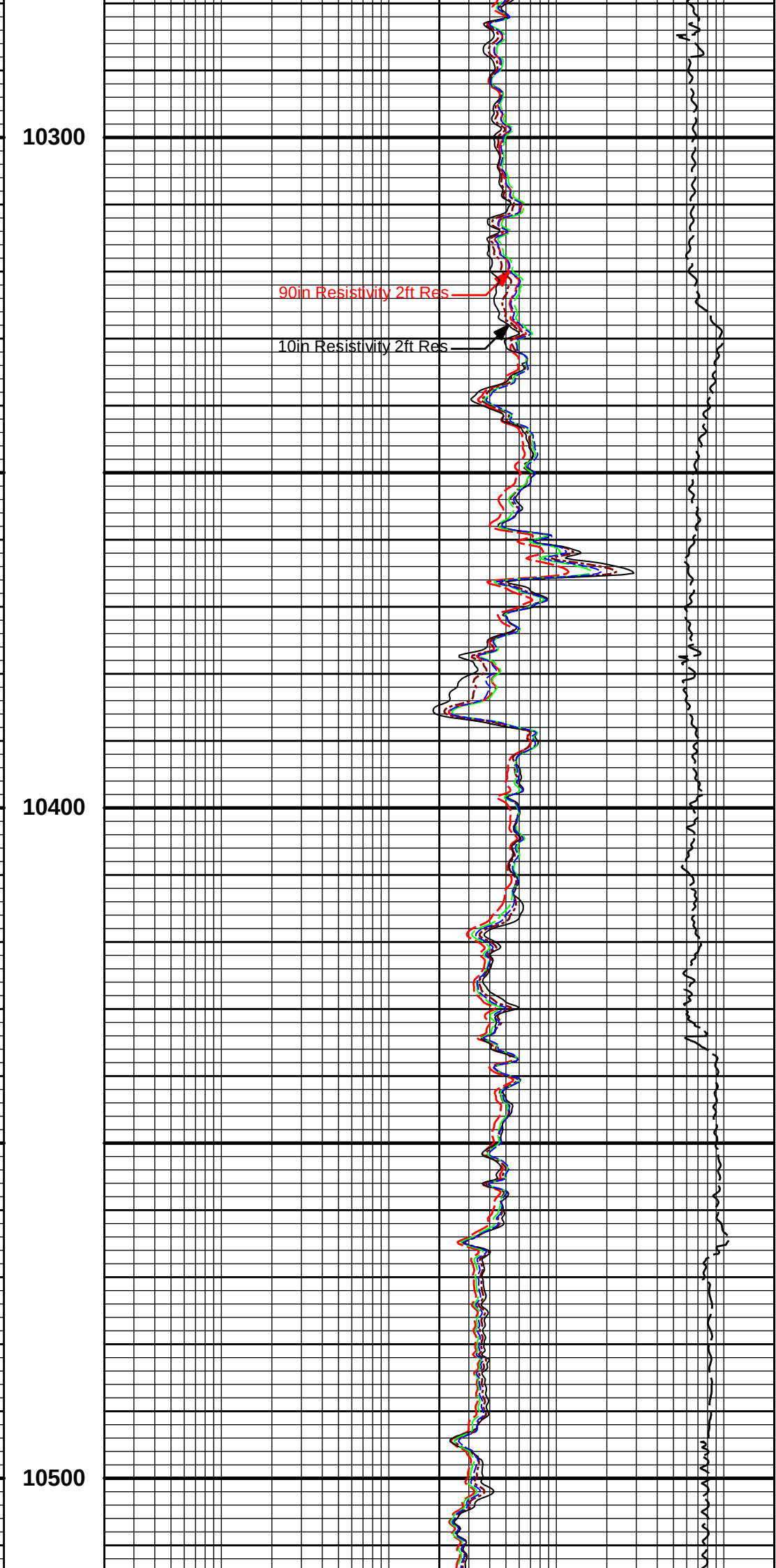
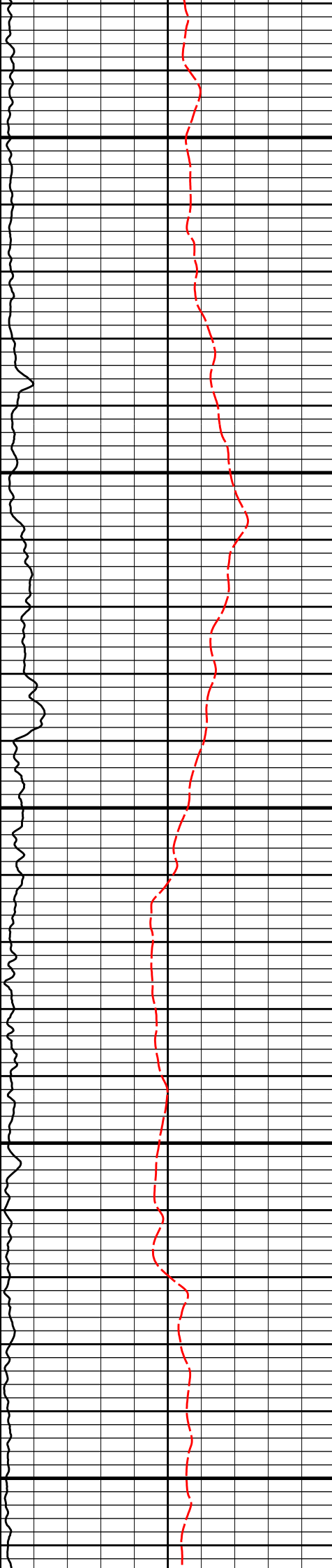




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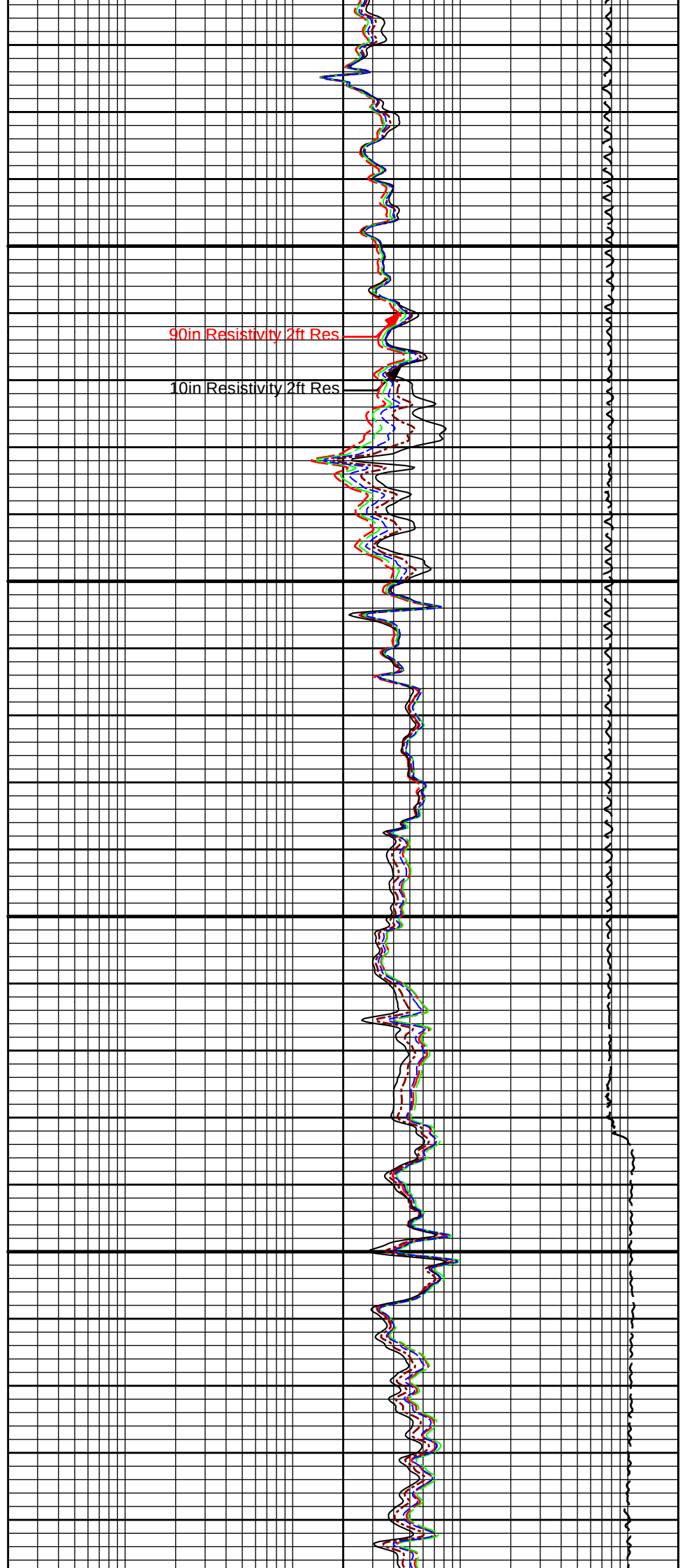


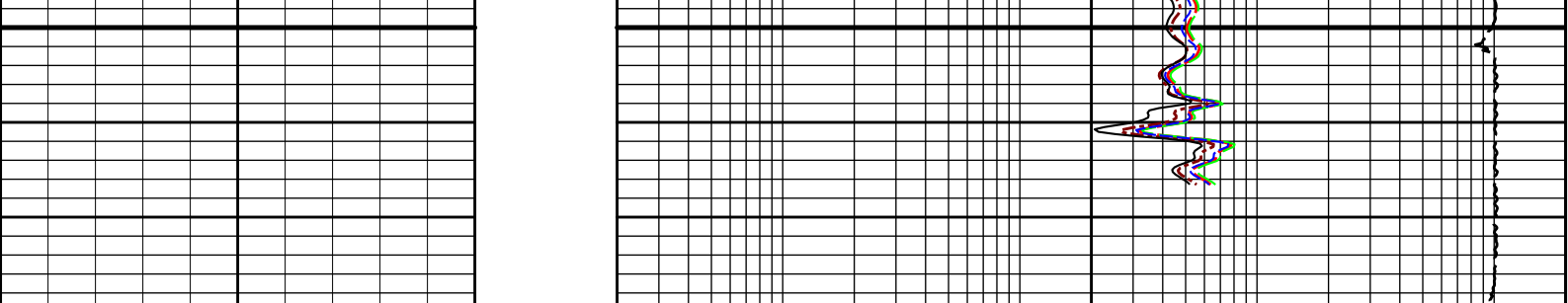




10600

10700





|   |              |     |  |     |                          |         |      |
|---|--------------|-----|--|-----|--------------------------|---------|------|
| 0 | Gamma API    | 150 |  |     | 15K                      | Tension | 0    |
|   | api          |     |  |     |                          | pounds  |      |
|   | SP           |     |  | 0.2 | 90in Resistivity 2ft Res |         | 2000 |
|   | -] 20 mV [+] |     |  |     | ohmm                     |         |      |
|   |              |     |  | 0.2 | 60in Resistivity 2ft Res |         | 2000 |
|   |              |     |  |     | ohmm                     |         |      |
|   |              |     |  | 0.2 | 30in Resistivity 2ft Res |         | 2000 |
|   |              |     |  |     | ohmm                     |         |      |
|   |              |     |  | 0.2 | 20in Resistivity 2ft Res |         | 2000 |
|   |              |     |  |     | ohmm                     |         |      |
|   |              |     |  | 0.2 | 10in Resistivity 2ft Res |         | 2000 |
|   |              |     |  |     | ohmm                     |         |      |

**HALLIBURTON**

Plot Time: 15-Aug-18 17:12:07  
Plot Range: 4850 ft to 10779.3 ft  
Data: BRUBAKER\_1-17H\Well Based\\*l  
Plot File: \\LOCAL-INPSU\_35-2\Well Based\ACRT\ACRT\_5inch\_main

5 INCH MAIN LOG

5 INCH MAIN LOG

**HALLIBURTON**

PARAMETERS REPORT

| Depth (ft) | Tool Name | Mnemonic | Description                                           | Value   | Units |
|------------|-----------|----------|-------------------------------------------------------|---------|-------|
| TOP        |           |          |                                                       |         |       |
|            | SHARED    | BS       | Bit Size                                              | 6.125   | in    |
|            | SHARED    | UBS      | Use Bit Size instead of Caliper for all applications. | No      |       |
|            | SHARED    | MDBS     | Mud Base                                              | Water   |       |
|            | SHARED    | MDWT     | Borehole Fluid Weight                                 | 8.800   | ppg   |
|            | SHARED    | WAGT     | Weighting Agent                                       | Natural |       |
|            | SHARED    | BSAL     | Borehole salinity                                     | 0.00    | ppm   |
|            | SHARED    | FSAL     | Formation Salinity NaCl                               | 0.00    | ppm   |
|            | SHARED    | KPCT     | Percent K in Mud by Weight?                           | 0.00    | %     |
|            | SHARED    | RMUD     | Mud Resistivity                                       | 2.000   | ohmm  |
|            | SHARED    | TRM      | Temperature of Mud                                    | 75.0    | degF  |
|            | SHARED    | CSD      | Logging Interval is Cased?                            | No      |       |
|            | SHARED    | ICOD     | AHV Casing OD                                         | 4.500   | in    |
|            | SHARED    | CSTR     | Compressive Strength                                  | 1000.00 | psia  |
|            | SHARED    | ST       | Surface Temperature                                   | 75.0    | degF  |

|                 |      |                                              |                 |      |
|-----------------|------|----------------------------------------------|-----------------|------|
| SHARED          | ST   | Surface Temperature                          | 75.0            | degF |
| SHARED          | TD   | Total Well Depth                             | 10799.00        | ft   |
| SHARED          | BHT  | Bottom Hole Temperature                      | 170.0           | degF |
| SHARED          | SVTM | Navigation and Survey Master Tool            | NONE            |      |
| SHARED          | AZTM | High Res Z Accelerometer Master Tool         | GTET            |      |
| SHARED          | TEMM | CBM Temperature Master Tool                  | GTET            |      |
| SHARED          | SOCI | Source of Casing Information                 | Parameters      |      |
| SHARED          | MSAL | Water-base mud filtrate salinity             | 0.00            | ppm  |
| Rwa / CrossPlot | XPOK | Process Crossplot?                           | Yes             |      |
| Rwa / CrossPlot | FCHO | Select Source of F                           | Automatic       |      |
| Rwa / CrossPlot | AFAC | Archie A factor                              | 0.6200          |      |
| Rwa / CrossPlot | MFAC | Archie M factor                              | 2.1500          |      |
| Rwa / CrossPlot | RMFR | Rmf Reference                                | 0.10            | ohmm |
| Rwa / CrossPlot | TMFR | Rmf Ref Temp                                 | 75.00           | degF |
| Rwa / CrossPlot | RWA  | Resistivity of Formation Water               | 0.05            | ohmm |
| Rwa / CrossPlot | ADP  | Use Air Porosity to calculate CrossplotPhi   | No              |      |
| Rwa / CrossPlot | BHSM | Borehole Size Source Tool                    | SDLT            |      |
| Rwa / CrossPlot | ROIN | Input for RO Calculation                     | Rwa             |      |
| GTET            | GROK | Process Gamma Ray?                           | Yes             |      |
| GTET            | GEOK | Process Gamma Ray EVR?                       | No              |      |
| GTET            | TPOS | Tool Position for Gamma Ray Tools.           | Eccentered      |      |
| GTET            | BHSM | Borehole Size Source Tool                    | SDLT            |      |
| DSNT            | DNOK | Process DSN?                                 | Yes             |      |
| DSNT            | DEOK | Process DSN EVR?                             | No              |      |
| DSNT            | NLIT | Neutron Lithology                            | Limestone       |      |
| DSNT            | DNSO | DSN Standoff - 0.25 in (6.35 mm) Recommended | 0.250           | in   |
| DSNT            | DNTT | Temperature Correction Type                  | None            |      |
| DSNT            | DPRS | DSN Pressure Correction Type                 | None            |      |
| DSNT            | SHCO | View More Correction Options                 | No              |      |
| DSNT            | UTVD | Use TVD for Gradient Corrections?            | No              |      |
| DSNT            | LHWT | Logging Horizontal Water Tank?               | No              |      |
| DSNT            | UCLA | Classic Neutron Parameter utilized?          | No              |      |
| DSNT            | BHSM | Borehole Size Source Tool                    | SDLT            |      |
| SDLT            | CLOK | Process Caliper Outputs?                     | Yes             |      |
| Microlog Pad    | MLOK | Process MicroLog Outputs?                    | Yes             |      |
| SDLT Pad        | DNOK | Process Density?                             | Yes             |      |
| SDLT Pad        | DNOK | Process Density EVR?                         | No              |      |
| SDLT Pad        | CB   | Logging Calibration Blocks?                  | No              |      |
| SDLT Pad        | SPVT | SDLT Pad Temperature Valid?                  | Yes             |      |
| SDLT Pad        | DTWN | Disable temperature warning                  | No              |      |
| SDLT Pad        | DMA  | Formation Density Matrix                     | 2.710           | g/cc |
| SDLT Pad        | DFL  | Formation Density Fluid                      | 1.000           | g/cc |
| SDLT Pad        | BHSM | Borehole Size Source Tool                    | SDLT            |      |
| ACRt Sonde      | RTOK | Process ACRT?                                | Yes             |      |
| ACRt Sonde      | MNSO | Minimum Tool Standoff                        | 1.50            | in   |
| ACRt Sonde      | TCS1 | Temperature Correction Source                | FP Lwr & FP Upr |      |
| ACRt Sonde      | TPOS | Tool Position                                | Free Hanging    |      |
| ACRt Sonde      | RMOP | Rmud Source                                  | Mud Cell        |      |
| ACRt Sonde      | RMIN | Minimum Resistivity for MAP                  | 0.20            | ohmm |
| ACRt Sonde      | RMAX | Maximum Resistivity for MAP                  | 200.00          | ohmm |
| ACRt Sonde      | THQY | Threshold Quality                            | 0.50            |      |
| ACRt Sonde      | MRFX | Fixed mud resistivity                        | 2000            | ohmm |
| ACRt Sonde      | BHSM | Borehole Size Source Tool                    | SDLT            |      |
| ACRt Sonde      | MBFL | Apply Corkscrew Effect?                      | No              |      |





CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:GTET - 10971172

Reference Calibration Date:23-Jul-18 10:19:40

Engineer:JORGE ORLANDO PEREZ

Calibration Date:23-Jul-18 10:24:24

Software Version:WL INSITE R5.6.0 (Build 2)

Calibration Version:1

Calibrator Source S/N: TB-146  
Calibrator API Reference:225.00 api  
Equivalent Calibrator API Reference:228.9 api

| Measurement             | Measured | Calibrated | Units |
|-------------------------|----------|------------|-------|
| Background              | 23.5     | 23.2       | api   |
| Background + Calibrator | 255.8    | 252.1      | api   |
| Calibrator              | 232.3    | 228.9      | api   |

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:GTET - 10971172

Reference Calibration Date:23-Jul-18 10:24:24

Engineer:JORGE ORLANDO PEREZ

Calibration Date:23-Jul-18 10:28:05

Software Version:WL INSITE R5.6.0 (Build 2)

Calibration Version:1

Calibrator Source S/N: TB-146  
Calibrator API Reference:225.00 api  
Equivalent Calibrator API Reference:228.9 api

| Field Verification      | Shop  | Field | Units |
|-------------------------|-------|-------|-------|
| Background              | 23.2  | 23.1  | api   |
| Background + Calibrator | 252.1 | 254.0 | api   |
| Calibrator              | 228.9 | 230.9 | api   |

| Shop  | Field | Difference | Tolerance |
|-------|-------|------------|-----------|
| 228.9 | 230.9 | -2.0       | +/- 9.00  |

ACCELEROMETER SHOP CALIBRATION

Tool Name:GTET - 10971172

Reference Calibration Date:01-Jan-70 00:00:00

Engineer:WHITLOCK

Calibration Date:20-Oct-08 14:40:55

Software Version:WL INSITE R2.2 (Build 2)

Calibration Version:1

| Horizontal-1 Telemetry | Horizontal-2 Telemetry | Vertical Telemetry | Units |
|------------------------|------------------------|--------------------|-------|
| -85.64                 | -67.18                 | -16422.00          | cnts  |

| Coefficient | Coefficient Value | Tolerance       |
|-------------|-------------------|-----------------|
| Gain        | -0.000061         | -----           |
| Offset      | -0.005            | -----           |
| Noise       | 0.0000            | 0.0000 - 0.0000 |

| Orientation | Measured  | Tolerance    | Calibrated | Tolerance    |
|-------------|-----------|--------------|------------|--------------|
| Horizontal  | -76.41    | -0.10 - 0.10 | 0.00       | -0.10 - 0.10 |
| Vertical    | -16422.00 | 0.90 - 1.10  | 1.00       | 0.90 - 1.10  |

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:DSNT - 11020487

Reference Calibration Date:02-Jun-18 12:06:48

Engineer:SEAN WOLTEMATH

Calibration Date:02-Jun-18 12:32:43

| Software Version:    WL INSITE R5.6.0 (Build 2)                                                                                                                                                                                                                                                                                                                                                                                                  |                                  | Calibration Version:    1 |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------|----------------------------|--------------------------------------------|--|-------------------|-------------|-------------------|---------------|----------------------------------|----------------------------|-------------------|-------------------------|------------------|---------------|--------|--------|------------|-------------------|---------|---------|-------|-----------|
| Logging Source S/N: DSN-424<br>Tank Serial Number: 12345678<br>Reference value assigned to Tank: 56.100<br>Snow Block S/N: 12345678<br>Calibration Tank Water Temperature: 68 degF<br>Min. Tool Housing Outside Diameter: 3.625 in                                                                                                                                                                                                               |                                  |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| <table><tr><th colspan="4">CALIBRATION CONSTANTS</th></tr><tr><th>Measurement</th><th>Prev. Value</th><th>New Value</th><th>Control Limit On New Value</th></tr><tr><td>Gain:</td><td>1.00899</td><td>1.00539</td><td>0.900 - 1.100</td></tr></table>                                                                                                                                                                                            |                                  |                           |                            | CALIBRATION CONSTANTS                      |  |                   |             | Measurement       | Prev. Value   | New Value                        | Control Limit On New Value | Gain:             | 1.00899                 | 1.00539          | 0.900 - 1.100 |        |        |            |                   |         |         |       |           |
| CALIBRATION CONSTANTS                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Measurement                                                                                                                                                                                                                                                                                                                                                                                                                                      | Prev. Value                      | New Value                 | Control Limit On New Value |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Gain:                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.00899                          | 1.00539                   | 0.900 - 1.100              |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| <table><tr><th colspan="5">WATER TANK SUMMARY (Horizontal Water Tank)</th></tr><tr><th>Measurement</th><th>Current Reading (Previous Coef.)</th><th>Calibrated (New Coef.)</th><th>Change</th><th>Control Limit On Change</th></tr><tr><td>Porosity (decp):</td><td>0.2369</td><td>0.2358</td><td>0.0011</td><td>+/- 0.0020</td></tr><tr><td>Calibrated Ratio:</td><td>10.5973</td><td>10.5595</td><td>0.038</td><td>+/- 0.050</td></tr></table> |                                  |                           |                            | WATER TANK SUMMARY (Horizontal Water Tank) |  |                   |             |                   | Measurement   | Current Reading (Previous Coef.) | Calibrated (New Coef.)     | Change            | Control Limit On Change | Porosity (decp): | 0.2369        | 0.2358 | 0.0011 | +/- 0.0020 | Calibrated Ratio: | 10.5973 | 10.5595 | 0.038 | +/- 0.050 |
| WATER TANK SUMMARY (Horizontal Water Tank)                                                                                                                                                                                                                                                                                                                                                                                                       |                                  |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Measurement                                                                                                                                                                                                                                                                                                                                                                                                                                      | Current Reading (Previous Coef.) | Calibrated (New Coef.)    | Change                     | Control Limit On Change                    |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Porosity (decp):                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.2369                           | 0.2358                    | 0.0011                     | +/- 0.0020                                 |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Calibrated Ratio:                                                                                                                                                                                                                                                                                                                                                                                                                                | 10.5973                          | 10.5595                   | 0.038                      | +/- 0.050                                  |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| <table><tr><th colspan="3">VERIFIER</th></tr><tr><th>Measurement</th><th>Value</th><th>Control Limit</th></tr><tr><td>Snow-Block Porosity (decp):</td><td>0.0737</td><td>0.02000 - 0.09000</td></tr></table>                                                                                                                                                                                                                                     |                                  |                           |                            | VERIFIER                                   |  |                   | Measurement | Value             | Control Limit | Snow-Block Porosity (decp):      | 0.0737                     | 0.02000 - 0.09000 |                         |                  |               |        |        |            |                   |         |         |       |           |
| VERIFIER                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Measurement                                                                                                                                                                                                                                                                                                                                                                                                                                      | Value                            | Control Limit             |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Snow-Block Porosity (decp):                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.0737                           | 0.02000 - 0.09000         |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| <table><tr><th colspan="2">PASS/FAIL SUMMARY</th></tr><tr><td>Background Check:</td><td>Passed</td></tr><tr><td>Gain-Range Check:</td><td>Passed</td></tr><tr><td>Snow-Block Check:</td><td>Passed</td></tr></table>                                                                                                                                                                                                                             |                                  |                           |                            | PASS/FAIL SUMMARY                          |  | Background Check: | Passed      | Gain-Range Check: | Passed        | Snow-Block Check:                | Passed                     |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| PASS/FAIL SUMMARY                                                                                                                                                                                                                                                                                                                                                                                                                                |                                  |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Background Check:                                                                                                                                                                                                                                                                                                                                                                                                                                | Passed                           |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Gain-Range Check:                                                                                                                                                                                                                                                                                                                                                                                                                                | Passed                           |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |
| Snow-Block Check:                                                                                                                                                                                                                                                                                                                                                                                                                                | Passed                           |                           |                            |                                            |  |                   |             |                   |               |                                  |                            |                   |                         |                  |               |        |        |            |                   |         |         |       |           |

|                                       |                            |                             |                    |
|---------------------------------------|----------------------------|-----------------------------|--------------------|
| DUAL SPACED NEUTRON FIELD CALIBRATION |                            |                             |                    |
| Tool Name:                            | DSNT - 11020487            | Reference Calibration Date: | 02-Jun-18 12:32:43 |
| Engineer:                             | SEAN WOLTEMATH             | Calibration Date:           | 17-Jul-18 11:46:32 |
| Software Version:                     | WL INSITE R5.6.0 (Build 2) | Calibration Version:        | 1                  |

| Logging Source S/N: DSN-424<br>Snow Block S/N: 12345678                                                                                                                                                                                                                                |        |        |            |                             |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|------------|-----------------------------|--|---------------------|--------|------------------------|--------|--------------------|--------|------------|-------------------------|-----------------------------|--------|--------|---------|------------|
| <table><tr><th colspan="5">NEUTRON FIELD-CHECK SUMMARY</th></tr><tr><th></th><th>Shop</th><th>Field</th><th>Difference</th><th>Control Limit On Change</th></tr><tr><td>Snow-Block Porosity (decp):</td><td>0.0737</td><td>0.0615</td><td>-0.0122</td><td>+/- 0.0150</td></tr></table> |        |        |            | NEUTRON FIELD-CHECK SUMMARY |  |                     |        |                        |        | Shop               | Field  | Difference | Control Limit On Change | Snow-Block Porosity (decp): | 0.0737 | 0.0615 | -0.0122 | +/- 0.0150 |
| NEUTRON FIELD-CHECK SUMMARY                                                                                                                                                                                                                                                            |        |        |            |                             |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
|                                                                                                                                                                                                                                                                                        | Shop   | Field  | Difference | Control Limit On Change     |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
| Snow-Block Porosity (decp):                                                                                                                                                                                                                                                            | 0.0737 | 0.0615 | -0.0122    | +/- 0.0150                  |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
| <table><tr><th colspan="2">PASS/FAIL SUMMARY</th></tr><tr><td>Block Change Check:</td><td>Passed</td></tr><tr><td>Snow Block Stat Check:</td><td>Passed</td></tr><tr><td>Temperature Check:</td><td>Passed</td></tr></table>                                                           |        |        |            | PASS/FAIL SUMMARY           |  | Block Change Check: | Passed | Snow Block Stat Check: | Passed | Temperature Check: | Passed |            |                         |                             |        |        |         |            |
| PASS/FAIL SUMMARY                                                                                                                                                                                                                                                                      |        |        |            |                             |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
| Block Change Check:                                                                                                                                                                                                                                                                    | Passed |        |            |                             |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
| Snow Block Stat Check:                                                                                                                                                                                                                                                                 | Passed |        |            |                             |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |
| Temperature Check:                                                                                                                                                                                                                                                                     | Passed |        |            |                             |  |                     |        |                        |        |                    |        |            |                         |                             |        |        |         |            |

|                                  |                            |                             |                    |
|----------------------------------|----------------------------|-----------------------------|--------------------|
| DENSITY CALIPER SHOP CALIBRATION |                            |                             |                    |
| Tool Name:                       | SDLT - 10951315            | Reference Calibration Date: | 05-Jun-18 15:52:51 |
| Engineer:                        | SEAN WOLTEMATH             | Calibration Date:           | 12-Jul-18 10:21:55 |
| Software Version:                | WL INSITE R5.6.0 (Build 2) | Calibration Version:        | 1                  |
| Host Tool Name:                  | DSNT - 11020487            |                             |                    |

|  |                          |                |           |                            |
|--|--------------------------|----------------|-----------|----------------------------|
|  | CALIBRATION COEFFICIENTS |                |           |                            |
|  | Measurement              | Previous Value | New Value | Control Limit On New Value |
|  | Pad Offset               | -3384.37       | -3428.66  | -7000.00 - -1000.00        |
|  | Pad Gain                 | 0.0003746      | 0.0003776 | 0.0002000 - 0.0006000      |
|  | Arm Offset               | -2796.96       | -2996.48  | -5000.00 - 3000.00         |
|  | Arm Gain                 | 0.0005327      | 0.0005516 | 0.000300 - 0.000700        |

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

| CALIBRATION RINGS |                                      |                            |        |                               |  |
|-------------------|--------------------------------------|----------------------------|--------|-------------------------------|--|
| Measurement       | Current Reading<br>(Previous Coeff.) | Calibrated<br>(New Coeff.) | Change | Control Limit On<br>New Value |  |
| PAD EXTENSION:    |                                      |                            |        |                               |  |
| Small Ring (in)   | 2.00                                 | 2.00                       | 0.00   | +/- 0.20                      |  |
| Medium Ring (in)  | 3.74                                 | 3.75                       | 0.01   | +/- 0.20                      |  |
| RING DIAMETER:    |                                      |                            |        |                               |  |
| Small Ring (in)   | 6.56                                 | 6.50                       | -0.06  | +/- 0.20                      |  |
| Medium Ring (in)  | 8.26                                 | 8.25                       | -0.01  | +/- 0.20                      |  |
| Large Ring (in)   | 14.98                                | 15.00                      | 0.02   | +/- 0.20                      |  |

| PASS/FAIL SUMMARY                     |        |
|---------------------------------------|--------|
| Calibration-Coefficients Range Check: | Passed |
| Ring-Measurement Check:               | Passed |
| PASS/FAIL SUMMARY                     |        |
| Calibration-Coefficients Range Check: | Passed |

MICRO LOG SHOP CALIBRATION

|                   |                            |                             |                    |
|-------------------|----------------------------|-----------------------------|--------------------|
| Tool Name:        | Microlog Pad - 10951315    | Reference Calibration Date: | 05-Jun-18 16:17:44 |
| Engineer:         | JORGE ORLANDO PEREZ        | Calibration Date:           | 05-Jun-18 16:20:19 |
| Software Version: | WL INSITE R5.6.0 (Build 2) | Calibration Version:        | 1                  |
| Host Tool Name:   | DSNT - 11020487            |                             |                    |

| CALIBRATION COEFFICIENT SUMMARY |                                |            |                                 |            |       |
|---------------------------------|--------------------------------|------------|---------------------------------|------------|-------|
| Measurement                     | Micro Log Normal               |            | Micro Log Lateral               |            | Units |
|                                 | Measured                       | Calibrated | Measured                        | Calibrated |       |
| Tool Zero                       | -0.08                          | -0.09      | -0.00                           | -0.00      | ohmm  |
| Calibration Point #1            | 0.01                           | 0.00       | 0.00                            | 0.00       | ohmm  |
| Calibration Point #2            | 20.00                          | 20.00      | 20.01                           | 20.00      | ohmm  |
| Internal Reference              | 19.92                          | 19.91      | 20.01                           | 20.01      | ohmm  |
|                                 |                                |            |                                 |            |       |
| Measurement                     | Micro Log Normal<br>Tool Value |            | Micro Log Lateral<br>Tool Value |            | Units |
| Tool Zero                       | -2.58                          |            | 1.07                            |            | V     |
| Calibration Point #1            | 22.26                          |            | 2.44                            |            | V     |
| Calibration Point #2            | 5354.48                        |            | 6944.42                         |            | V     |
| Internal Reference              | 5330.80                        |            | 6946.23                         |            | V     |

MICRO LOG FIELD CHECK

|                   |                            |                             |                    |
|-------------------|----------------------------|-----------------------------|--------------------|
| Tool Name:        | Microlog Pad - 10951315    | Reference Calibration Date: | 05-Jun-18 16:20:19 |
| Engineer:         | JORGE ORLANDO PEREZ        | Calibration Date:           | 23-Jul-18 10:07:26 |
| Software Version: | WL INSITE R5.6.0 (Build 2) | Calibration Version:        | 1                  |

| Measurement        | Micro Log Normal |       | Micro Log Lateral |       | Units     |
|--------------------|------------------|-------|-------------------|-------|-----------|
|                    | Shop             | Field | Shop              | Field |           |
| Tool Zero          | -0.09            | -0.08 | -0.00             | -0.01 | ohmm      |
| Internal Reference | 19.91            | 19.88 | 20.01             | 19.96 | ohmm      |
| Summary            |                  |       |                   |       |           |
| Signal             | Shop             | Field | Difference        |       | Tolerance |
| Microlog Normal    | 19.91            | 19.88 | 0.03              |       | +/- 0.80  |
| Microlog Lateral   | 20.01            | 19.96 | 0.05              |       | +/- 0.80  |

SPECTRAL DENSITY SHOP CALIBRATION

|            |                      |                             |                    |
|------------|----------------------|-----------------------------|--------------------|
| Tool Name: | SDI T Pad - 10865873 | Reference Calibration Date: | 07-Jun-18 09:45:44 |
|------------|----------------------|-----------------------------|--------------------|

Logging Source S/N: 5471GW

Aluminum Block S/N: EL RENO STD ALUMINUM

Magnesium Block S/N: EL RENO

Density: 2.581g/cc

Density: 1.687g/cc

Pe: 3.170

Pe: 2.594

| DENSITY CALIBRATION SUMMARY |                |           |               |
|-----------------------------|----------------|-----------|---------------|
| Measurement                 | Previous Value | New Value | Control Limit |
| Near Bar Gain               | 1.0237         | 1.0324    | 0.90 - 1.10   |
| Near Dens Gain              | 1.0143         | 1.0165    | 0.90 - 1.10   |
| Near Peak Gain              | 1.0353         | 1.0338    | 0.90 - 1.10   |
| Near Lith Gain              | 1.0390         | 1.0348    | 0.90 - 1.10   |
| Far Bar Gain                | 1.0089         | 1.0082    | 0.90 - 1.10   |
| Far Dens Gain               | 1.0003         | 1.0003    | 0.90 - 1.10   |
| Far Peak Gain               | 1.0005         | 0.9992    | 0.90 - 1.10   |
| Far Lith Gain               | 0.9773         | 0.9763    | 0.90 - 1.10   |
|                             |                |           |               |
| Near Bar Offset             | -0.1478        | -0.2291   | NONE          |
| Near Dens Offset            | -0.0668        | -0.0857   | NONE          |
| Near Peak Offset            | -0.2518        | -0.2374   | NONE          |
| Near Lith Offset            | -0.3043        | -0.2679   | NONE          |
| Far Bar Offset              | -0.0330        | -0.0259   | NONE          |
| Far Dens Offset             | 0.0141         | 0.0136    | NONE          |
| Far Peak Offset             | -0.0280        | -0.0190   | NONE          |
| Far Lith Offset             | 0.1016         | 0.1099    | NONE          |
|                             |                |           |               |
| Near Bar Background         | 817.02         | 819.19    | 700 - 1450    |
| Near Dens Background        | 268.27         | 268.51    | 230 - 480     |
| Near Peak Background        | 118.83         | 120.08    | 100 - 210     |
| Near Lith Background        | 144.34         | 141.71    | 125 - 260     |
| Far Bar Background          | 599.84         | 599.35    | 450 - 900     |
| Far Dens Background         | 235.92         | 235.85    | 175 - 345     |
| Far Peak Background         | 92.65          | 93.06     | 70 - 140      |
| Far Lith Background         | 95.74          | 95.63     | 75 - 145      |

| CALIBRATION BLOCK SUMMARY |                                    |                          |        |                            |
|---------------------------|------------------------------------|--------------------------|--------|----------------------------|
| Measurement               | Current Reading<br>(Previous Coef) | Calibrated<br>(New Coef) | Change | Control Limit<br>On Change |
| MAGNESIUM                 |                                    |                          |        |                            |
| Density (g/cc)            | 1.686                              | 1.687                    | 0.001  | +/- 0.015                  |
| Pe                        | 2.563                              | 2.559                    | -0.004 | +/- 0.150                  |
| ALUMINUM                  |                                    |                          |        |                            |
| Density (g/cc)            | 2.581                              | 2.581                    | 0.000  | +/- 0.01500                |
| Pe                        | 3.151                              | 3.132                    | -0.019 | +/- 0.150                  |

| TOOL SUMMARY               |               |                |              |                |
|----------------------------|---------------|----------------|--------------|----------------|
| Measurement                | Near Detector |                | Far Detector |                |
|                            | Value         | Control Limits | Value        | Control Limits |
| QUALITY                    |               |                |              |                |
| Background                 | 0.0015        | +/- 0.0110     | 0.0004       | +/- 0.0140     |
| Magnesium Block            | -0.0011       | +/- 0.0110     | -0.0001      | +/- 0.0140     |
| Aluminum Block             | -0.0005       | +/- 0.0110     | 0.0001       | +/- 0.0140     |
| Resolution                 | 10.01         | 6.00 - 11.50   | 8.92         | 6.00 - 11.50   |
| Internal Verifier(B+D+P+L) | 1349          | 1200 - 2700    | 1024         | 800 - 1700     |

|  |                                |        |
|--|--------------------------------|--------|
|  | Background Quality Check:      | Passed |
|  | Background Range Check:        | Passed |
|  | Background Resolution Check:   | Passed |
|  | Background Verification Check: | Passed |
|  | Magnesium Quality Check:       | Passed |
|  | Aluminum Quality Check:        | Passed |
|  | Gains Check:                   | Passed |
|  | Changes in Calibration Blocks: | Passed |

| SPECTRAL DENSITY FIELD CHECK |                            |                             |                    |
|------------------------------|----------------------------|-----------------------------|--------------------|
| Tool Name:                   | SDLT Pad - 10865873        | Reference Calibration Date: | 07-Jun-18 10:06:09 |
| Engineer:                    | JORGE ORLANDO PEREZ        | Calibration Date:           | 23-Jul-18 10:13:53 |
| Software Version:            | WL INSITE R5.6.0 (Build 2) | Calibration Version:        | 1                  |

| Pad Temperature: 73.4 degF        |          |          |        |                   |
|-----------------------------------|----------|----------|--------|-------------------|
| DENSITY FIELD CALIBRATION SUMMARY |          |          |        |                   |
| Measurement                       | Shop     | Field    | Change | Control Limit +/- |
| Near (B+D+P+L) cps                | 1349.485 | 1347.028 | -2.457 | 14.854            |
| Far (B+D+P+L) cps                 | 1023.890 | 1020.740 | -3.150 | 17.067            |
| Near Resolution                   | 10.01    | 10.00    | -0.010 | 0.50              |
| Far Resolution                    | 8.92     | 8.99     | 0.070  | 1.00              |
| PASS/FAIL SUMMARY                 |          |          |        |                   |
| Bkg Quality Check:                |          |          | Passed |                   |
| Bkg Resolution Check:             |          |          | Passed |                   |
| Bkg Verification Check:           |          |          | Passed |                   |

| ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION |                            |                             |                    |
|-----------------------------------------------------|----------------------------|-----------------------------|--------------------|
| Tool Name:                                          | ACRt Sonde - 11005908      | Reference Calibration Date: | 12-Sep-17 09:46:32 |
| Engineer:                                           | JORGE ORLANDO PEREZ        | Calibration Date:           | 06-Jun-18 11:09:43 |
| Software Version:                                   | WL INSITE R5.6.3 (Build 4) | Calibration Version:        | 1                  |
| Host Tool Name:                                     | ACRt Instrument - 11026095 |                             |                    |

| TYPICAL GAIN RANGE |        |          |       |        |          |       |        |          |       |
|--------------------|--------|----------|-------|--------|----------|-------|--------|----------|-------|
| Subarray           | R12KHz |          |       | R36KHz |          |       | R72KHz |          |       |
|                    | Lower  | (mmho/m) | Upper | Lower  | (mmho/m) | Upper | Lower  | (mmho/m) | Upper |
| A1 (80")           | 0.95   | 1.0428   | 1.05  | 0.95   | 1.0248   | 1.05  | 0.95   | 1.0160   | 1.05  |
| A2 (50")           | 0.95   | 1.0376   | 1.05  | 0.95   | 1.0200   | 1.05  | 0.95   | 1.0143   | 1.05  |
| A3 (29")           | 0.95   | 1.0342   | 1.05  | 0.95   | 1.0155   | 1.05  | 0.95   | 1.0062   | 1.05  |
| A4 (17")           | 0.95   | 1.0432   | 1.05  | 0.95   | 1.0223   | 1.05  | 0.95   | 1.0141   | 1.05  |
| A5 (10")           | N/A    | N/A      | N/A   | 0.95   | 1.0162   | 1.05  | 0.95   | 1.0071   | 1.05  |
| A6 (6")            | N/A    | N/A      | N/A   | 0.95   | 1.0000   | 1.05  | 0.95   | 0.9905   | 1.05  |

| SONDE OFFSET |          |  |  |          |  |  |          |  |  |
|--------------|----------|--|--|----------|--|--|----------|--|--|
| Subarray     | R12KHz   |  |  | R36KHz   |  |  | R72KHz   |  |  |
|              | (mmho/m) |  |  | (mmho/m) |  |  | (mmho/m) |  |  |
| A1 (80")     | 1.334    |  |  | -4.052   |  |  | -5.782   |  |  |
| A2 (50")     | -0.783   |  |  | -4.054   |  |  | -5.057   |  |  |
| A3 (29")     | -14.308  |  |  | -4.509   |  |  | -3.767   |  |  |
| A4 (17")     | -93.379  |  |  | -29.338  |  |  | -24.647  |  |  |
| A5 (10")     | N/A      |  |  | -111.483 |  |  | -49.304  |  |  |
| A6 (6")      | N/A      |  |  | 353.379  |  |  | 183.122  |  |  |

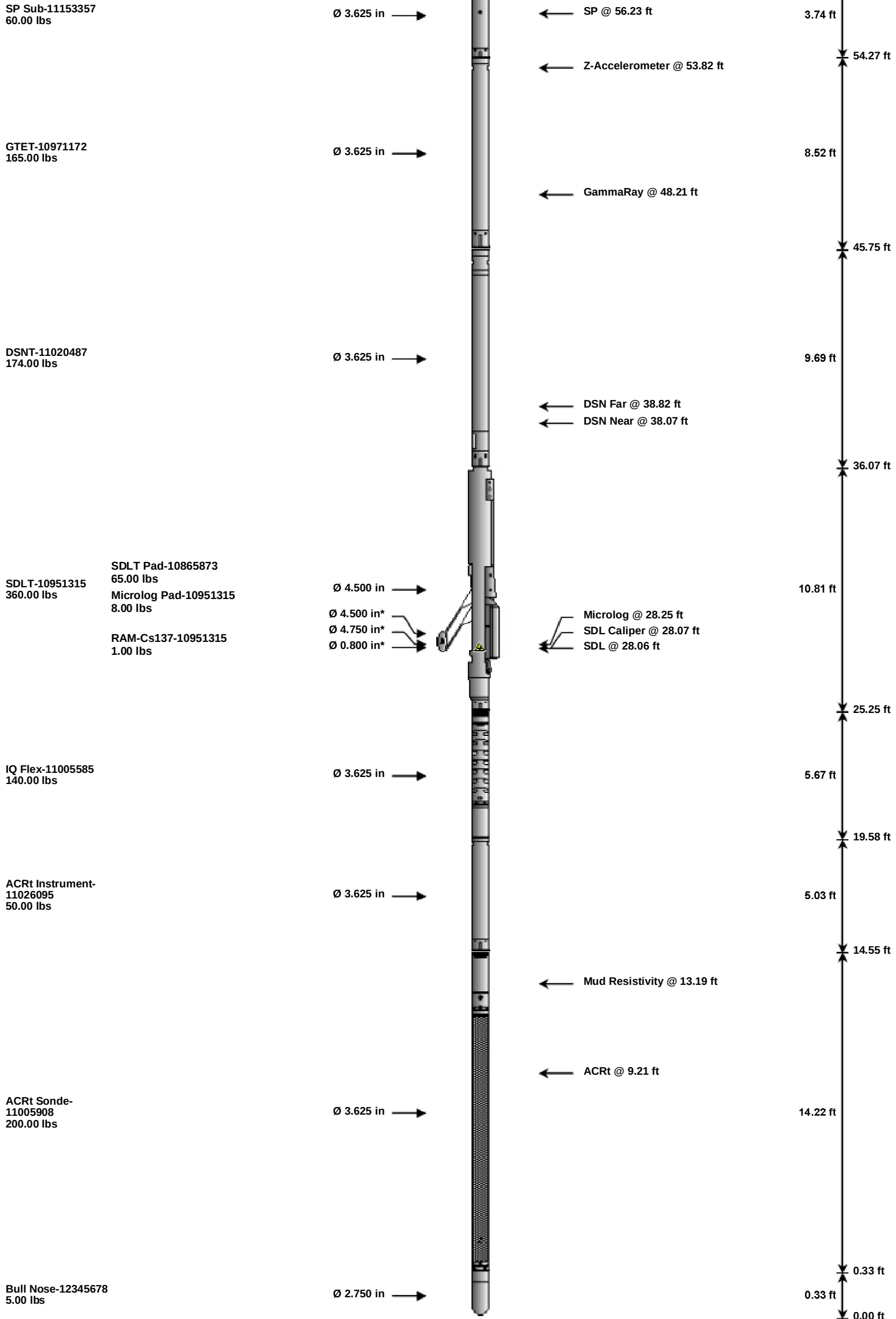
| TRANSMITTER CURRENT GAIN |       |   |       |  | R-MUD VERIFICATION |               |                  |               |
|--------------------------|-------|---|-------|--|--------------------|---------------|------------------|---------------|
| Signal                   | Lower | R | Upper |  | Signal             | Lower (ohm-m) | Measured (ohm-m) | Upper (ohm-m) |

|                   |     |      |     |          |      | (Gmm-Fm) | (Gmm-Fm) | (Gmm-Fm) |
|-------------------|-----|------|-----|----------|------|----------|----------|----------|
| 12K               | 0.6 | 0.97 | 1.3 | Mud Cell | 0.95 | 1.00     | 1.05     |          |
| 36K               | 1.0 | 1.94 | 2.0 |          |      |          |          |          |
| 72K               | 1.0 | 1.32 | 2.0 |          |      |          |          |          |
|                   |     |      |     |          |      |          |          |          |
| PASS/FAIL SUMMARY |     |      |     |          |      |          |          |          |
| GAIN RANGE CHK    |     |      |     |          | PASS |          |          |          |
| SONDE OFFSET CHK  |     |      |     |          | PASS |          |          |          |
|                   |     |      |     |          |      |          |          |          |
| TOOL OK TO LOG    |     |      |     |          |      |          |          |          |

| CALIBRATION SUMMARY                                   |          |          |       |            |            |       |
|-------------------------------------------------------|----------|----------|-------|------------|------------|-------|
| Sensor                                                | Shop     | Field    | Post  | Difference | Tolerance  | Units |
| GTET-10971172                                         |          |          |       |            |            |       |
| Gamma Ray Calibrator                                  | 228.9    | 230.9    | ----- | -2.0       | +/- 9.00   | api   |
| DSNT-11020487                                         |          |          |       |            |            |       |
| Snow-Block Porosity                                   | 0.0737   | 0.0615   | ----- | 0.0122     | +/- 0.0150 | decp  |
| SDLT-10951315                                         |          |          |       |            |            |       |
| Pad Extension                                         | 3.75     | -----    | ----- | 0.00       | +/-0.20    | in    |
| Ring Diameter                                         | 8.25     | -----    | ----- | 0.00       | +/-0.20    | in    |
| Microlog Pad-10951315                                 |          |          |       |            |            |       |
| MicroLog Normal                                       | 19.91    | 19.88    | ----- | 0.03       | +/-0.80    | ohmm  |
| MicroLog Lateral                                      | 20.01    | 19.96    | ----- | 0.05       | +/-0.80    | ohmm  |
| SDLT Pad-10865873                                     |          |          |       |            |            |       |
| Near(B+D+P+L)                                         | 1349.485 | 1347.028 | ----- | 2.457      | +/-14.854  | cps   |
| Far(B+D+P+L)                                          | 1023.890 | 1020.740 | ----- | 3.150      | +/-17.067  | cps   |
| ACRt Sonde-11005908                                   |          |          |       |            |            |       |
| Mud Cell                                              | 1.00     | -----    | ----- | 0          | -----      | ohm-m |
| Data: BRUBAKER_1-17HI0001 TPL-GTET-DSNT-SDLT-ACRTIDLE |          |          |       |            |            |       |
| Date: 15-Aug-18 02:45:07                              |          |          |       |            |            |       |

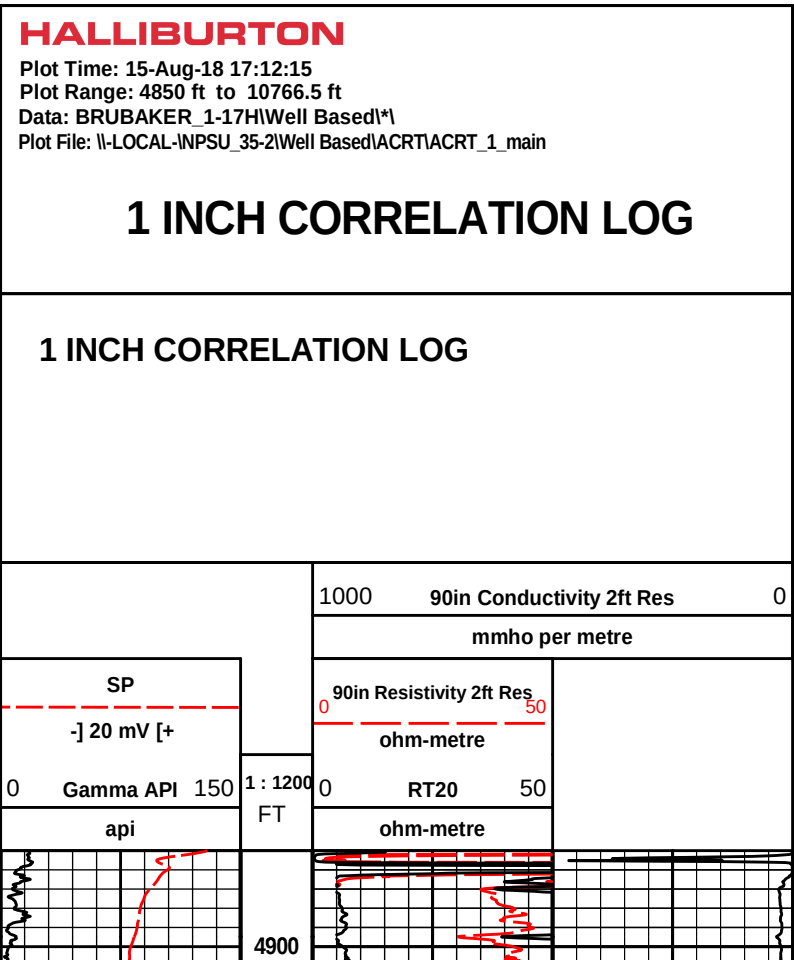
|                                                                           |  |
|---------------------------------------------------------------------------|--|
| <div> <div>HALLIBURTON</div> <div>TOOL STRING DIAGRAM REPORT</div> </div> |  |
|---------------------------------------------------------------------------|--|

| Description                       | Overbody Description | O.D.         | Diagram | Sensors @ Delays         | Length   | Accumulated Length |
|-----------------------------------|----------------------|--------------|---------|--------------------------|----------|--------------------|
| Spacer-12345678<br>100.00 lbs     |                      | Ø 3.625 in → |         |                          | 6.08 ft  | 77.55 ft           |
| Flex Joint-10271064<br>140.00 lbs |                      | Ø 3.625 in → |         |                          | 71.47 ft |                    |
| HDDS-A-10746201<br>125.00 lbs     |                      | Ø 4.060 in → |         |                          | 65.80 ft |                    |
| DTDD-11411576<br>90.00 lbs        |                      | Ø 3.625 in → |         |                          | 4.13 ft  |                    |
|                                   |                      |              |         | ← Load Cell @ 60.58 ft   | 61.67 ft |                    |
|                                   |                      |              |         | ← Pad Locator @ 58.99 ft | 3.66 ft  |                    |
|                                   |                      |              |         |                          | 58.01 ft |                    |

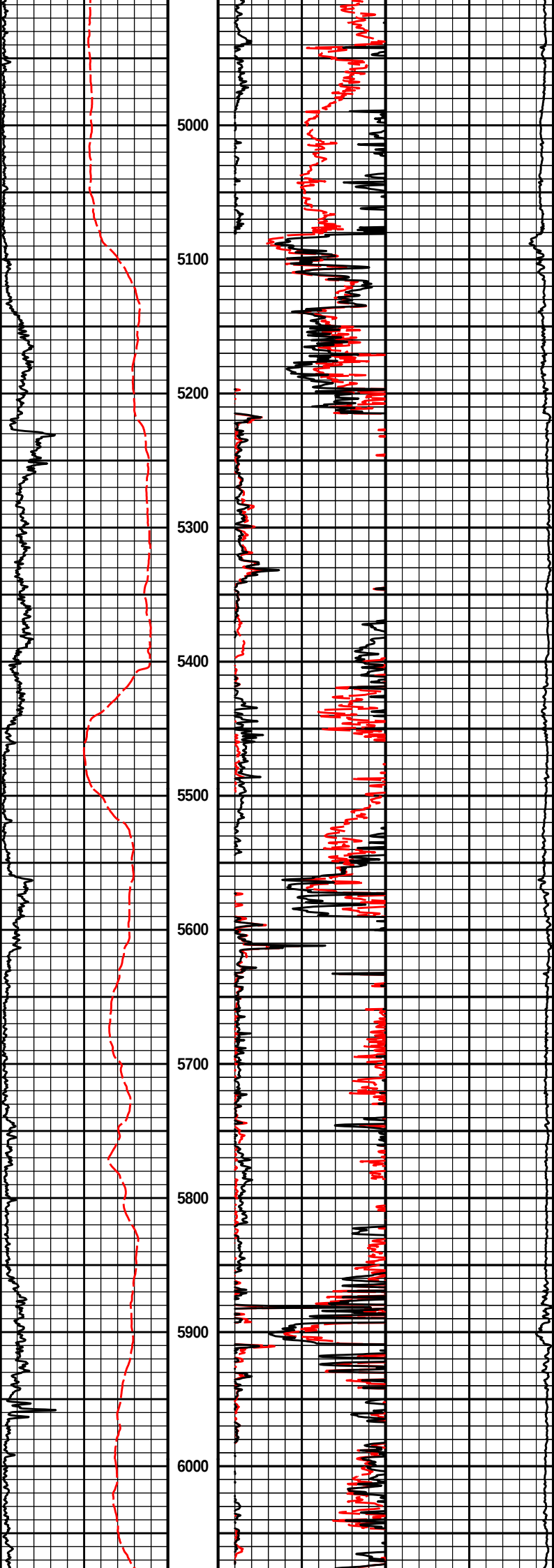


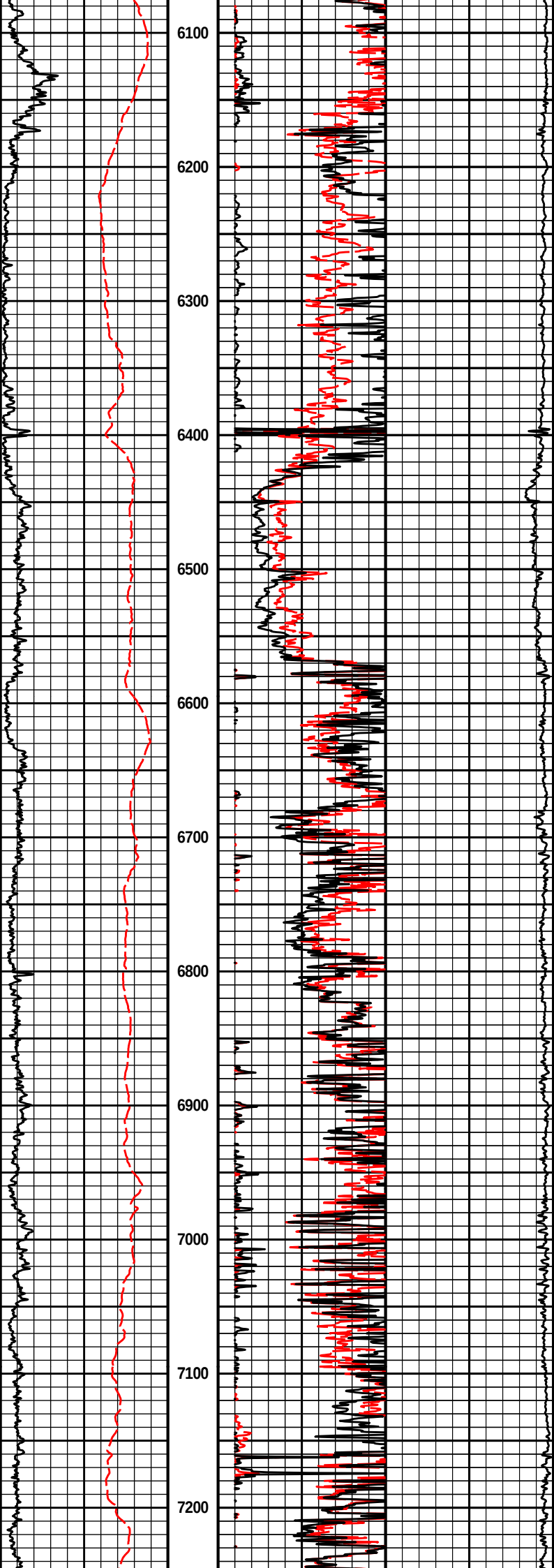
| Mnemonic                                                                          | Tool Name                                             | Serial Number | Weight (lbs) | Length (ft) | Accumulated Length (ft)  | Max.Log. Speed (fpm) |
|-----------------------------------------------------------------------------------|-------------------------------------------------------|---------------|--------------|-------------|--------------------------|----------------------|
| SPC                                                                               | Test                                                  | 12345678      | 100.00       | 6.08        | 71.47                    | 100.00               |
| FLEX                                                                              | Flex Joint                                            | 10271064      | 140.00       | 5.67        | 65.80                    | 300.00               |
| HDDS-A                                                                            | Heavy Duty DITS Swivel tool.                          | 10746201      | 125.00       | 4.13        | 61.67                    | 300.00               |
| DTDD                                                                              | Downhole Tension Device                               | 11411576      | 90.00        | 3.66        | 58.01                    | 300.00               |
| SP                                                                                | SP Sub                                                | 11153357      | 60.00        | 3.74        | 54.27                    | 300.00               |
| GTET                                                                              | Gamma Telemetry Tool                                  | 10971172      | 165.00       | 8.52        | 45.75                    | 60.00                |
| DSNT                                                                              | Dual Spaced Neutron                                   | 11020487      | 174.00       | 9.69        | 36.07                    | 60.00                |
| SDLT                                                                              | Spectral Density Tool                                 | 10951315      | 360.00       | 10.81       | 25.25                    | 60.00                |
| SDLP                                                                              | Density Insite Pad                                    | 10865873      | 65.00        | 2.55        | * 27.46                  | 60.00                |
| Cs137                                                                             | Logging Source, SDLT-I, 1.78 Ci - Cs137               | 10951315      | 1.00         | 0.80        | * 27.69                  | 300.00               |
| MICP                                                                              | Microlog Pad                                          | 10951315      | 8.00         | 1.00        | * 27.75                  | 60.00                |
| IQF                                                                               | IQ Flex tool                                          | 11005585      | 140.00       | 5.67        | 19.58                    | 300.00               |
| ACRt                                                                              | Array Compensated True Resistivity Instrument Section | 11026095      | 50.00        | 5.03        | 14.55                    | 120.00               |
| ACRt                                                                              | Array Compensated True Resistivity Sonde Section      | 11005908      | 200.00       | 14.22       | 0.33                     | 120.00               |
| BLNS                                                                              | Bull Nose                                             | 12345678      | 5.00         | 0.33        | 0.00                     | 300.00               |
| Total                                                                             |                                                       |               | 1,683.00     | 77.55       |                          |                      |
| * Not included in Total Length and Length Accumulation.                           |                                                       |               |              |             |                          |                      |
| Data: BRUBAKER_1-17H\0001 TPL-GTET-DSNT-SDLT-ACRT\005 15-Aug-18 02:33 Up 10779.5f |                                                       |               |              |             | Date: 15-Aug-18 02:42:29 |                      |

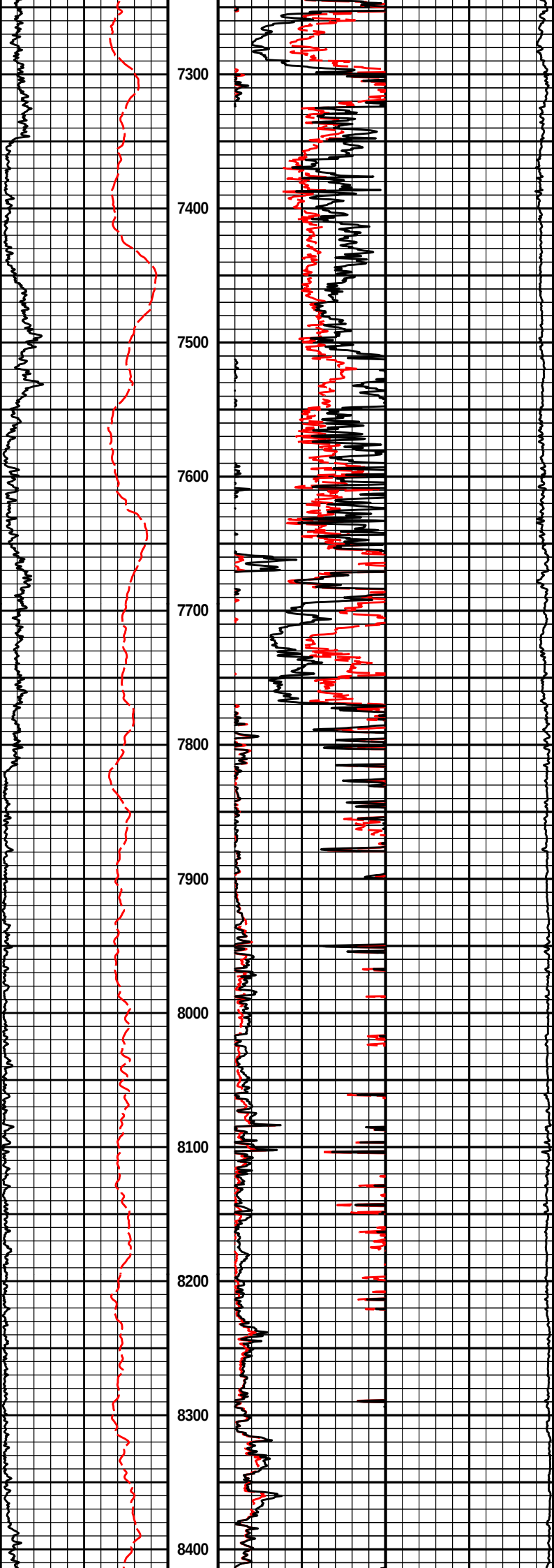
|                        |                      |                                                           |        |
|------------------------|----------------------|-----------------------------------------------------------|--------|
| COMPANY                | SHELBY RESOURCES LLC |                                                           |        |
| WELL                   | BRUBAKER 1-17H       |                                                           |        |
| FIELD                  | WILDCAT              |                                                           |        |
| COUNTY                 | PRATT                | STATE                                                     | KANSAS |
| <div>HALLIBURTON</div> |                      | <div>ARRAY COMPENSATED<br/>TRUE RESISTIVITY<br/>LOG</div> |        |

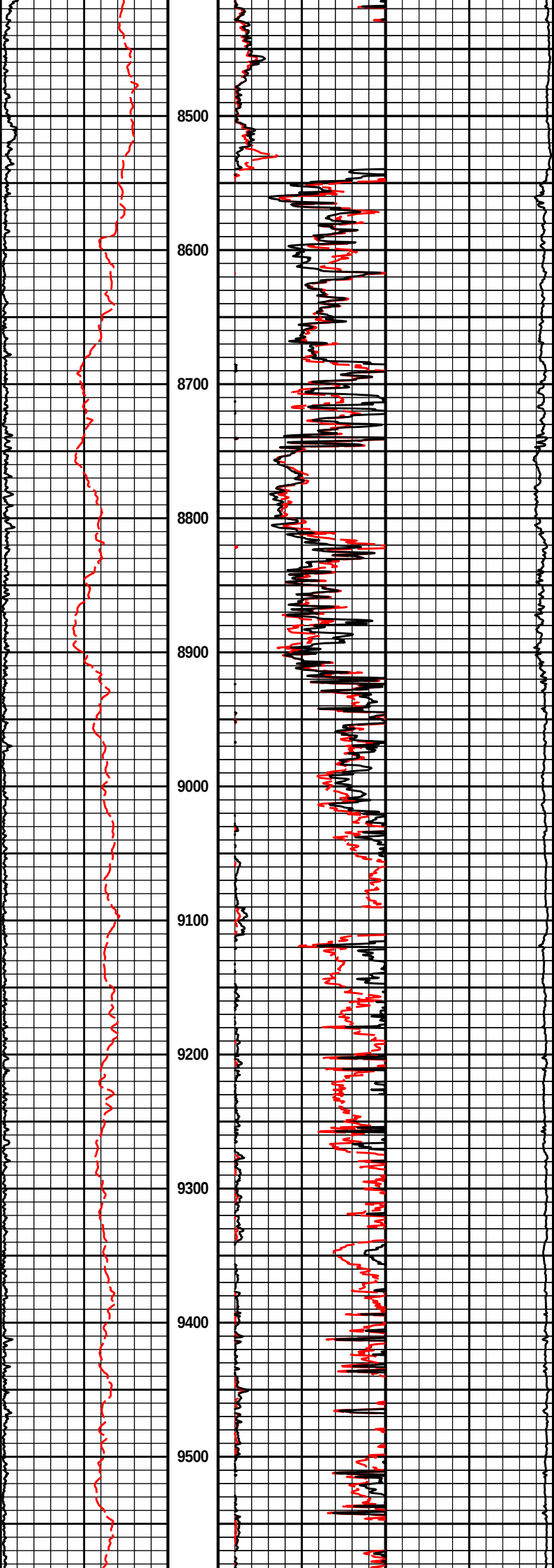


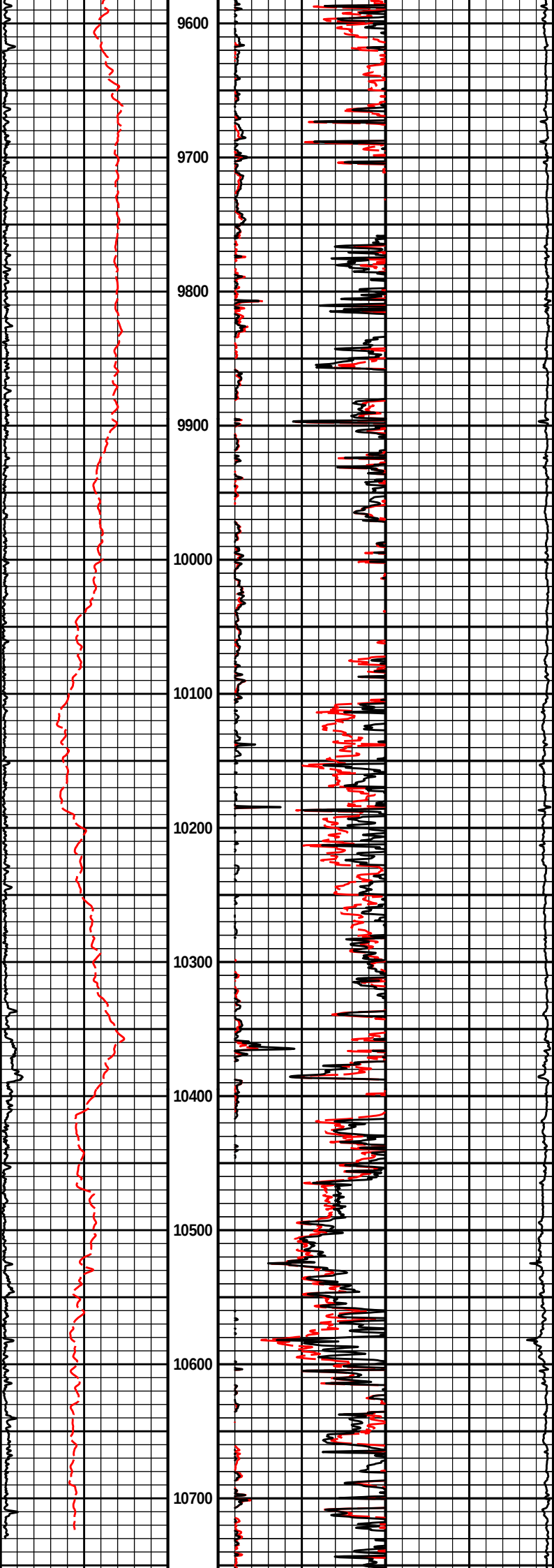












|   |              |     |          |      |                           |    |   |
|---|--------------|-----|----------|------|---------------------------|----|---|
| 0 | Gamma API    | 150 | 1 : 1200 | 0    | RT20                      | 50 |   |
|   | api          |     | FT       |      | ohm-metre                 |    |   |
|   | SP           |     |          | 0    | 90in Resistivity 2ft Res  | 50 |   |
|   | -] 20 mV [+] |     |          |      | ohm-metre                 |    |   |
|   |              |     |          | 1000 | 90in Conductivity 2ft Res |    | 0 |
|   |              |     |          |      | mmho per metre            |    |   |

**HALLIBURTON**

Plot Time: 15-Aug-18 17:12:17  
Plot Range: 4850 ft to 10766.5 ft  
Data: BRUBAKER\_1-17HIWell BasedI\*  
Plot File: \\-LOCAL-INPSU\_35-2IWell BasedIACRTIACRT\_1\_main

**1 INCH CORRELATION LOG**

**1 INCH CORRELATION LOG**