



**PIONEER**  
Pioneer Energy Services

## RADIATION GUARD LOG

Company **BENNETT & SCHULTE OIL CO.**  
Well **G MAULER #22-1**  
Field **N/A**  
County **BARTON**  
State **KANSAS**

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Well **G MAULER #22-1**  
Field **N/A**  
County **BARTON** State **KANSAS**

Location: API #: 15-009-26213-00-00

SEC 22 TWP 18S RGE 15W  
2146' FSL & 1294' FEL

Permanent Datum **GROUND LEVEL** Elevation **1924'**  
Log Measured From **KELLY BUSHING**  
Drilling Measured From **KELLY BUSHING**

Other Services  
**MEL**  
Elevation  
K.B. 1930'  
D.F. N/A  
G.L. 1924'

|                        |               |  |  |
|------------------------|---------------|--|--|
| Date                   | 4/26/2018     |  |  |
| Run Number             | ONE           |  |  |
| Depth Driller          | 3631'         |  |  |
| Depth Logger           | 3629'         |  |  |
| Bottom Logged Interval | 3628'         |  |  |
| Top Log Interval       | 900'          |  |  |
| Casing Driller         | 8.625" @ 935' |  |  |
| Casing Logger          | 934'          |  |  |
| Bit Size               | 7.875"        |  |  |
| Type Fluid in Hole     | CHEMICAL      |  |  |
| Salinity, ppm CL       | 5000          |  |  |
| Density / Viscosity    | 9.4 50        |  |  |
| pH / Fluid Loss        | 9.0 8.2       |  |  |
| Source of Sample       | FLOWLINE      |  |  |
| Rm @ Meas. Temp        | 0.60 @ 50     |  |  |
| Rmt @ Meas. Temp       | 0.45 @ 50     |  |  |
| Rmc @ Meas. Temp       | 0.81 @ 50     |  |  |
| Source of Rmt / Rmc    | CHARTS        |  |  |
| Rm @ BHT               | 0.27 @ 112    |  |  |
| Operating Rig Time     | 4 HOURS       |  |  |
| Max Rec. Temp. F       | 112           |  |  |
| Equipment Number       | 91            |  |  |
| Location               | HAYS          |  |  |
| Recorded By            | D. SCHMIDT    |  |  |
| Witnessed By           | BOB HOPKINS   |  |  |

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

### Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

OLMITZ,  
3 SOUTH OF HWY 4,  
1 WEST, 1 1/2 SOUTH,  
WEST INTO

Log Measured From: **KELLY BUSHING** 6 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
[www.pioneerenergy.com](http://www.pioneerenergy.com) 785-625-3858

### Your Pioneer Energy Services Crew

Engineer: **D. SCHMIDT**  
Operator:  
Operator:  
Operator:

### This Log Record Was Witnessed By

Primary Witness: **BOB HOPKINS**  
Secondary Witness:  
Secondary Witness:  
Secondary Witness:

Top - Bottom

|                      |                        |                          |                         |                       |                     |                     |                |
|----------------------|------------------------|--------------------------|-------------------------|-----------------------|---------------------|---------------------|----------------|
| SPSHIFT<br>mV<br>-10 | AIR_HOLE?<br><br>No    | NPORSEL<br><br>Limestone | MudWgt<br>lb/gal<br>9.5 | SRFTEMP<br>degF<br>50 | CASETHCK<br>in<br>0 | CASEOD<br>in<br>5.5 | PERFS<br><br>0 |
| TDEPTH<br>ft<br>3629 | BOTTEMP<br>degF<br>112 | BOREID<br>in<br>7.875    |                         |                       |                     |                     |                |

| Sensor | Offset (ft) | Schematic                                                                           | Description                         | Length (ft) | O.D. (in) | Weight (lb) |
|--------|-------------|-------------------------------------------------------------------------------------|-------------------------------------|-------------|-----------|-------------|
| GR     | 15.00       |    | GR-M&W (89)                         | 3.00        | 3.50      | 50.00       |
|        |             |                                                                                     | LGRD-M&W (177)<br>Simlec Long Guard | 4.00        | 3.50      | 40.00       |
| LGRD   | 11.00       |   |                                     |             |           |             |
| SCAL   | 5.10        |  | SWN-M&W-SP (SP162-87)               | 10.50       | 4.00      | 190.00      |
| SWN    | 4.45        |  |                                     |             |           |             |

SP

0.20

Dataset: bennett schulte\_g mauler 22-1.db: field/well/RAG/pass3.2  
Total length: 17.50 ft  
Total weight: 280.00 lb  
O.D.: 4.00 in



# MAIN PASS

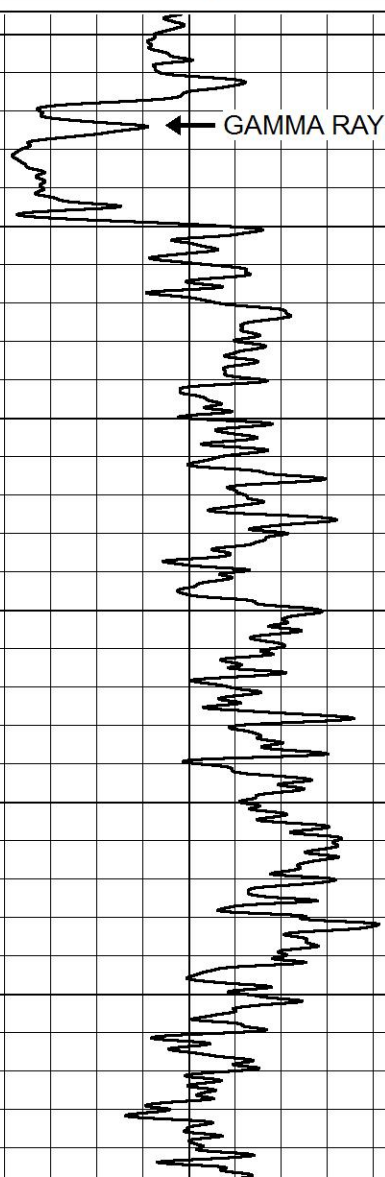
Database File bennett schulte\_g mauler 22-1.db  
Dataset Pathname RAG/pass3.1  
Presentation Format rag2in  
Dataset Creation Thu Apr 26 07:36:41 2018  
Charted by Depth in Feet scaled 1:600

0 Gamma Ray (GAPI) 150

0.2

lgd (Ohm-m)

2000



900

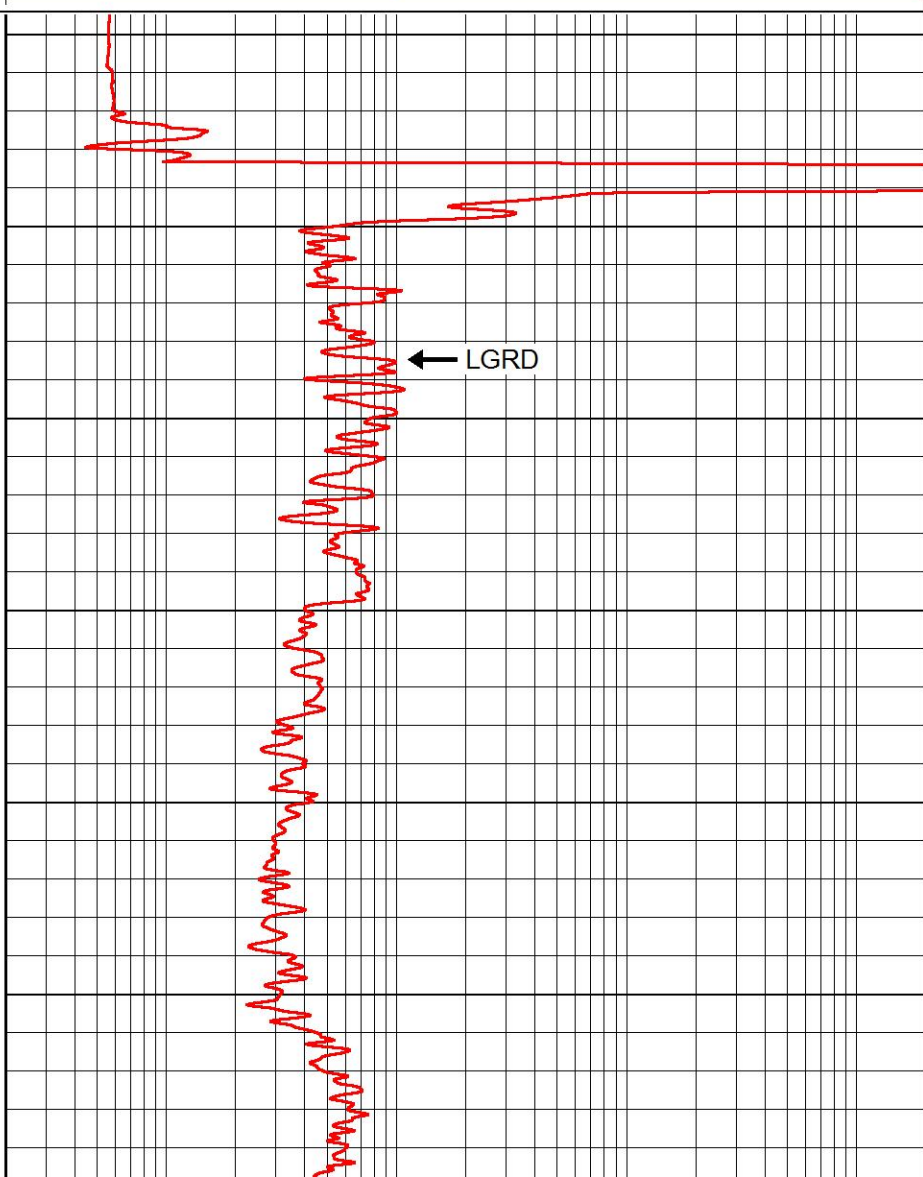
950

1000

1050

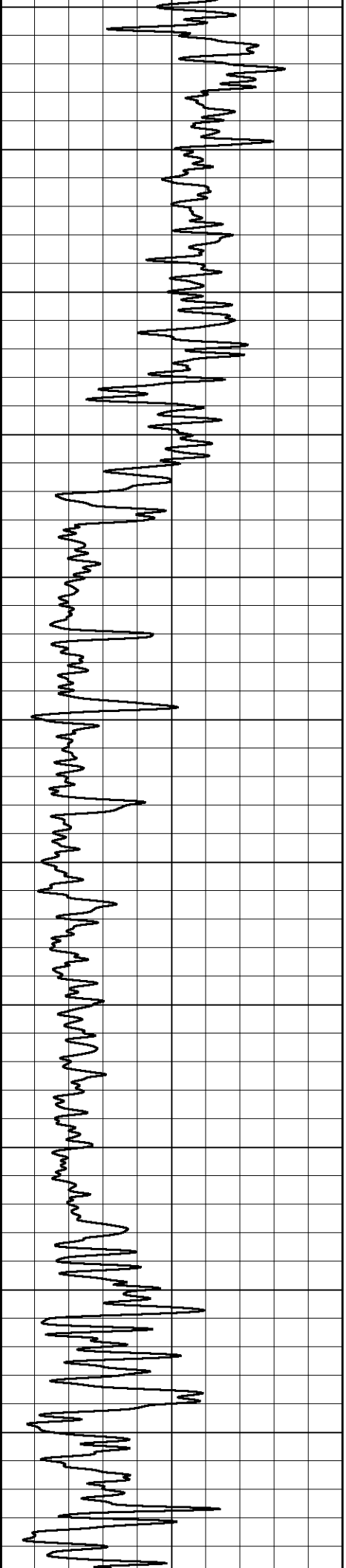
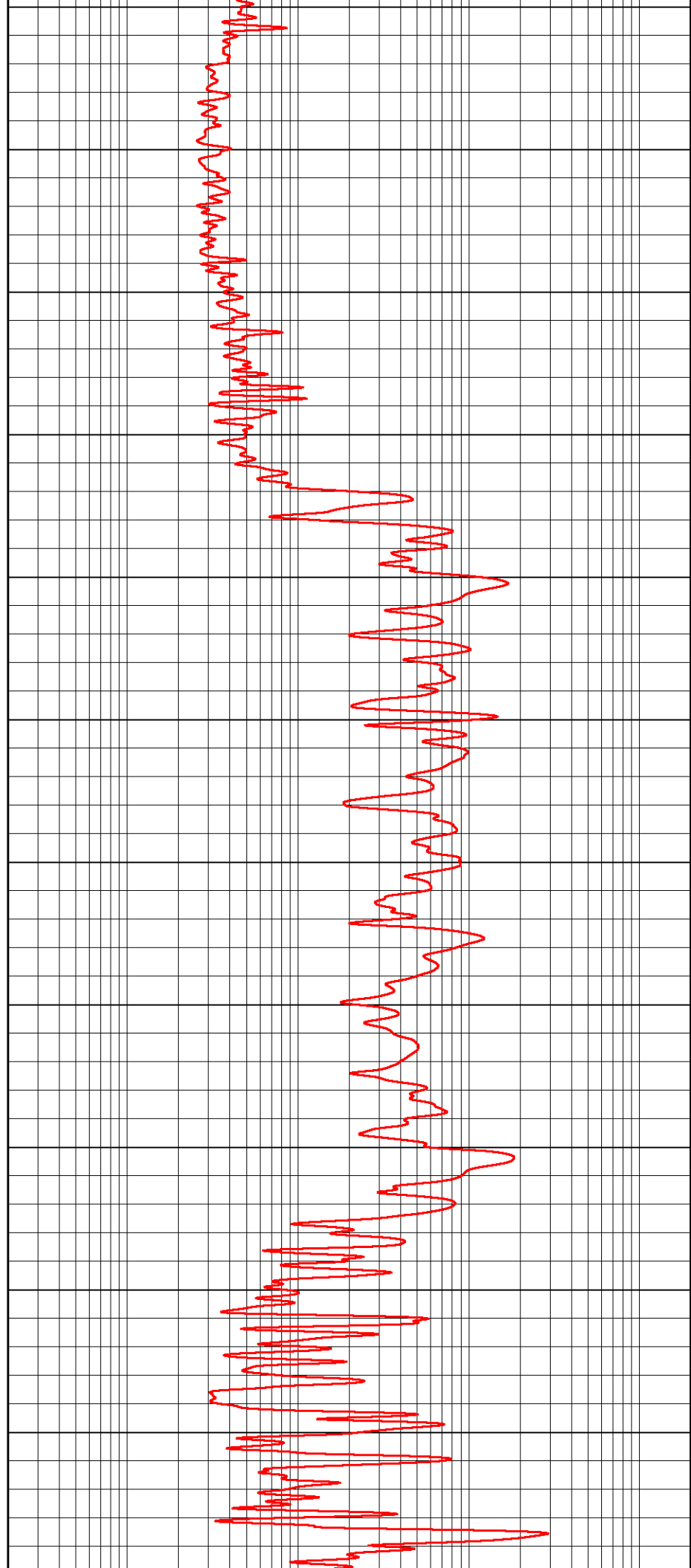
1100

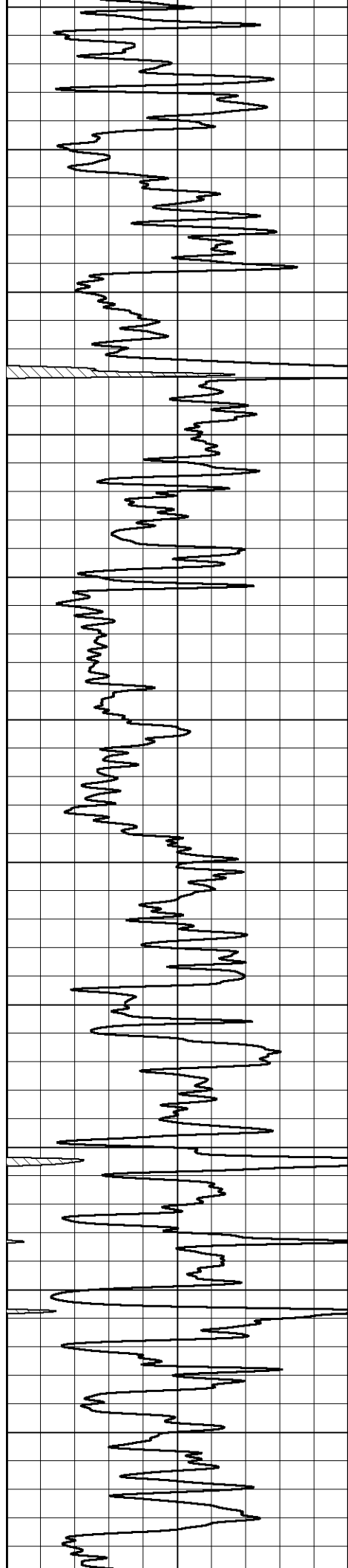
1150



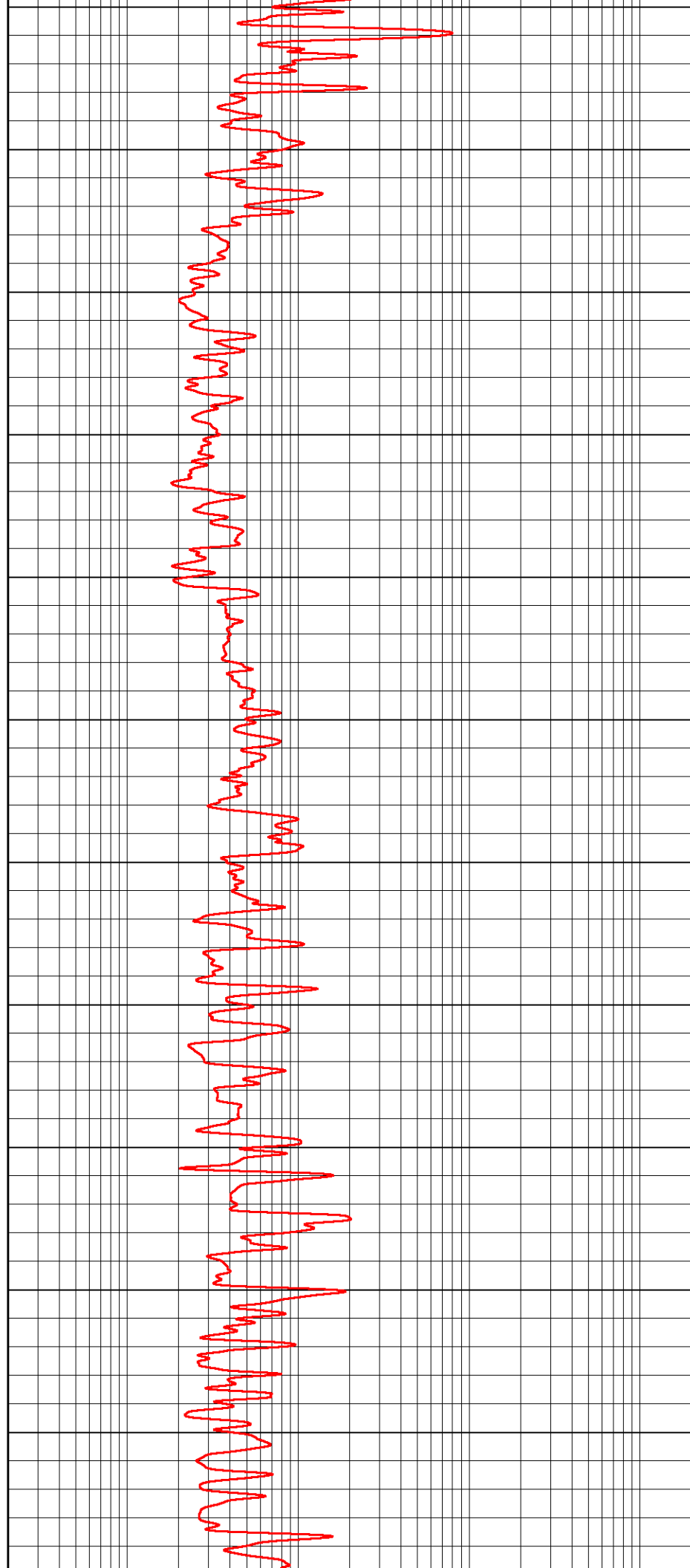
LGRD

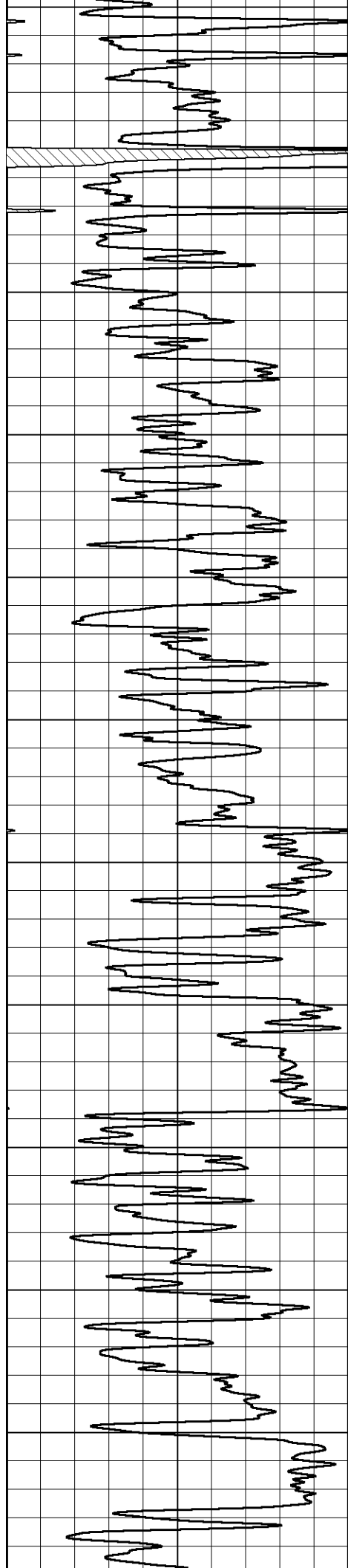
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1250  
1300  
1350  
1400  
1450  
1500  
1550  
1600  
1650  
1700



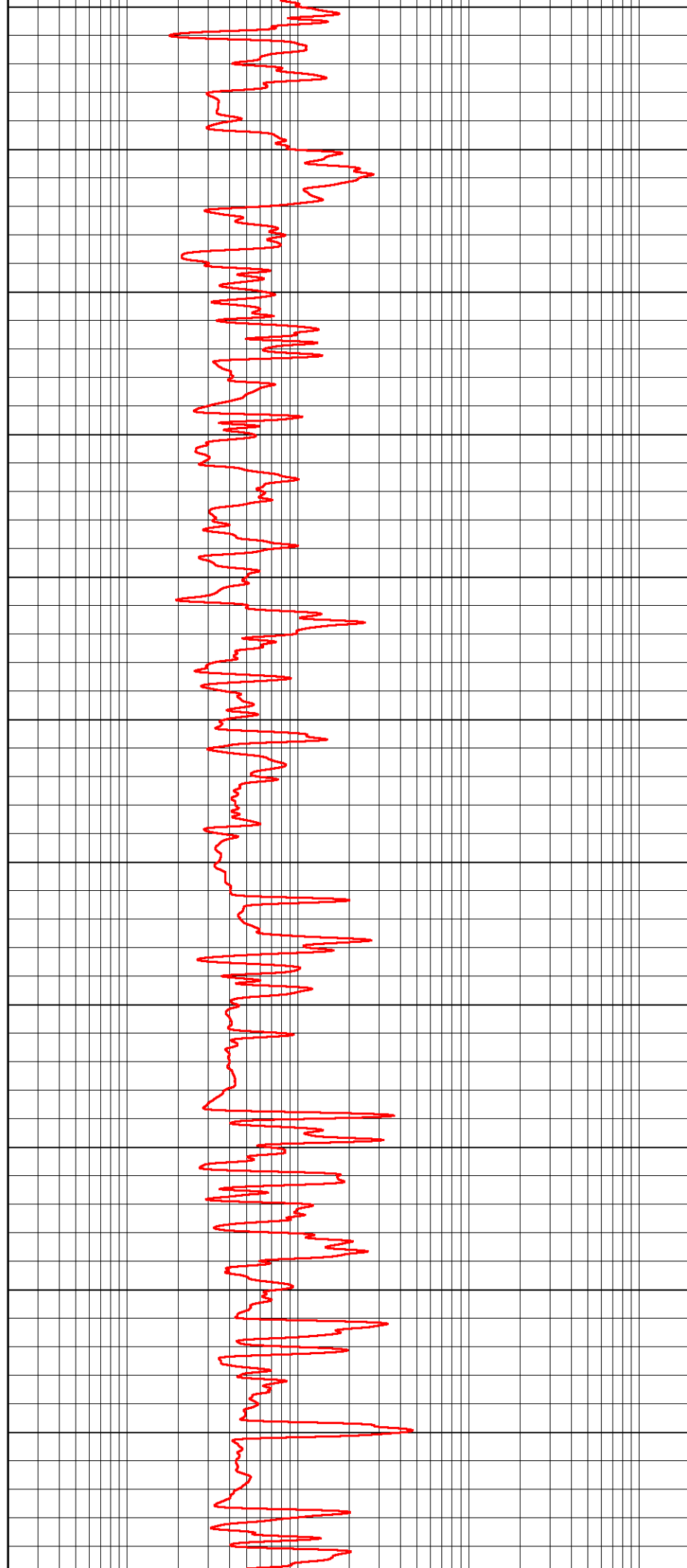


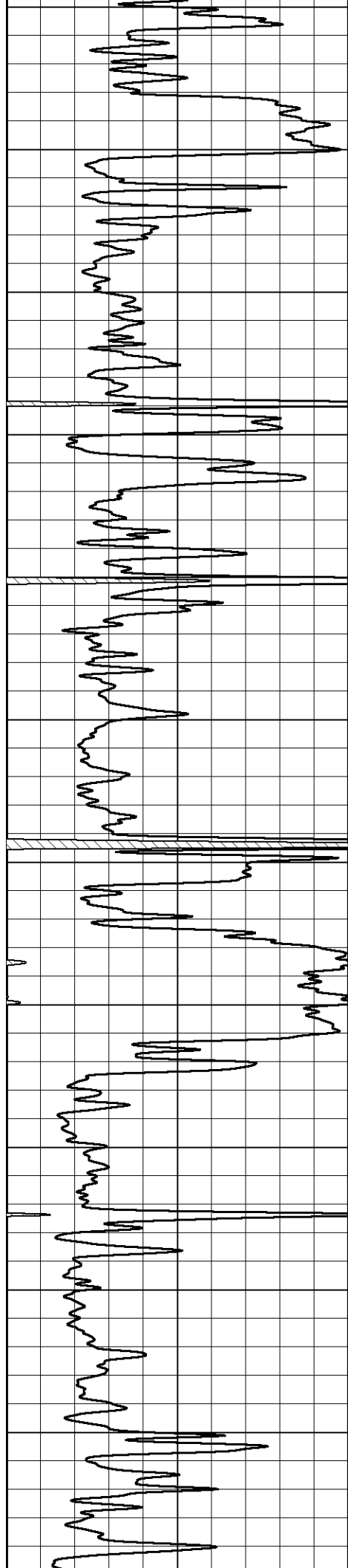
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1800  
1850  
1900  
1950  
2000  
2050  
2100  
2150  
2200  
2250



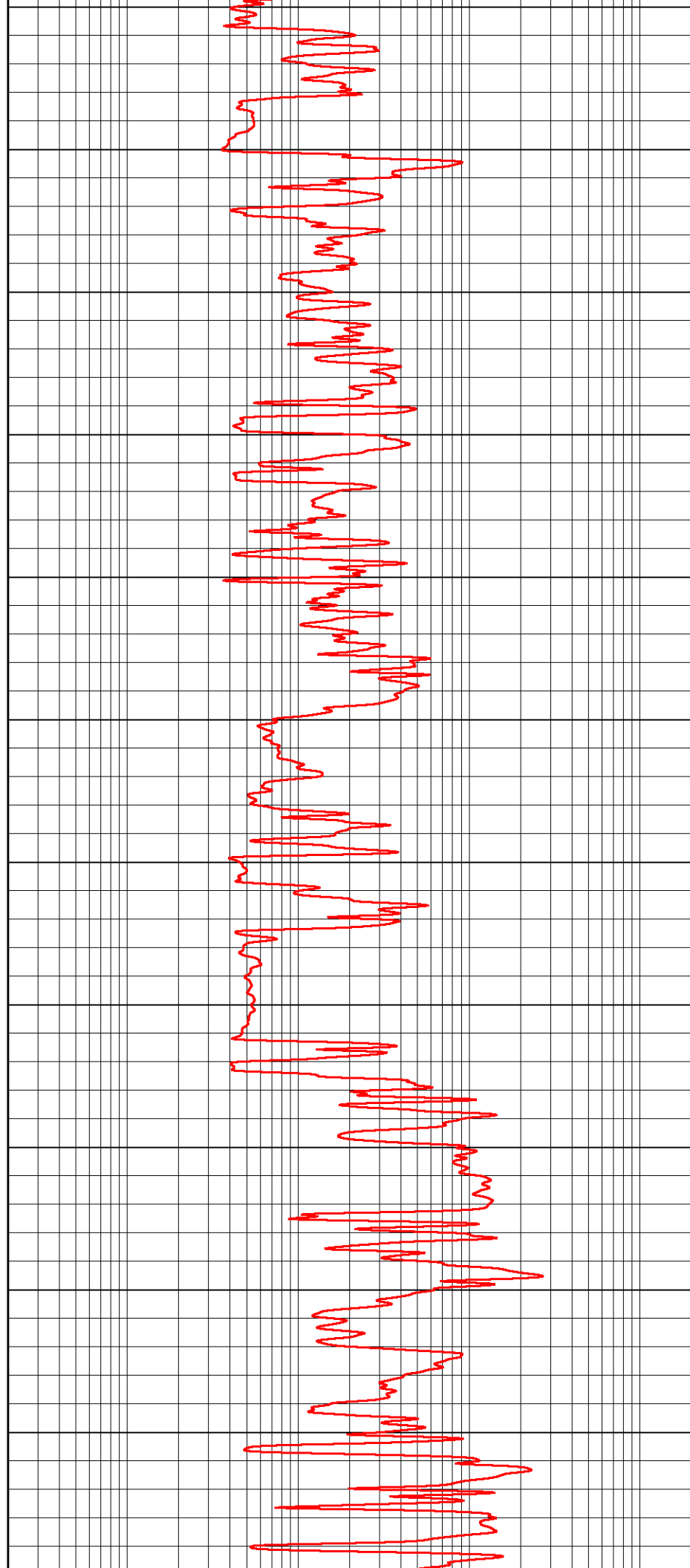


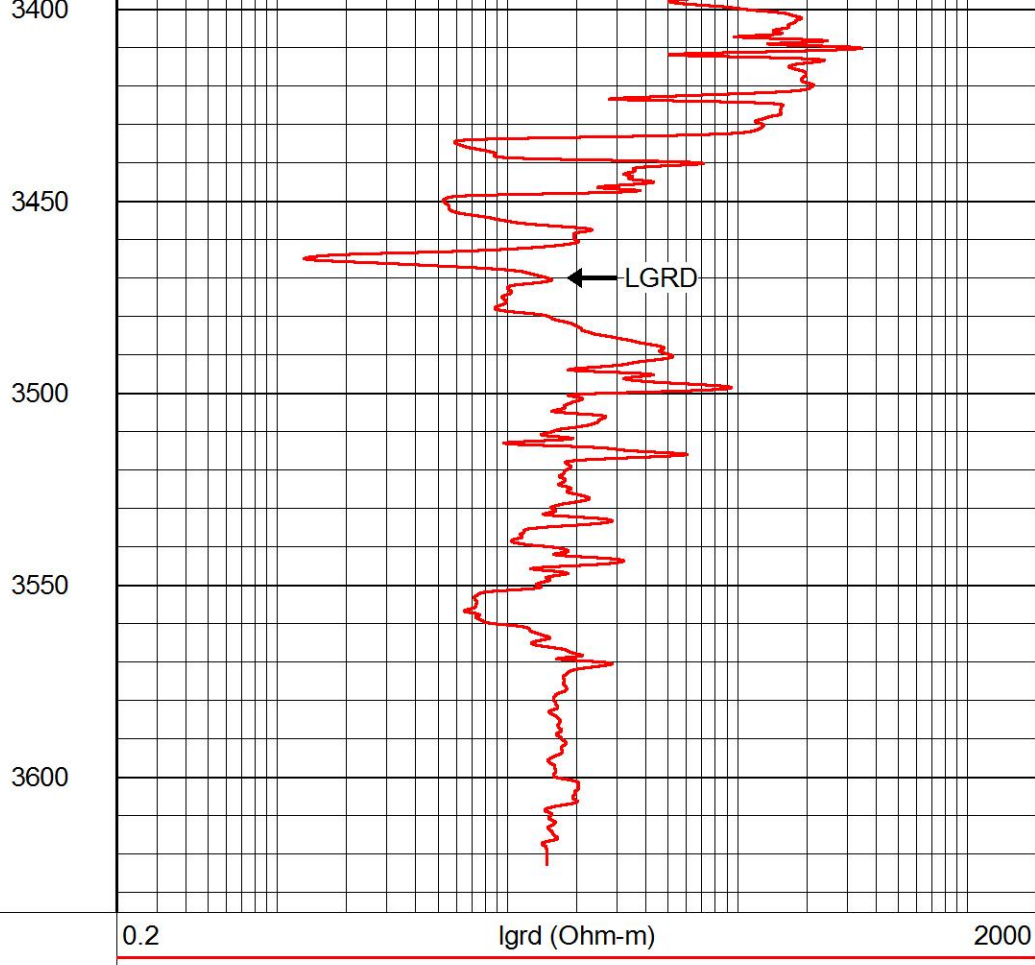
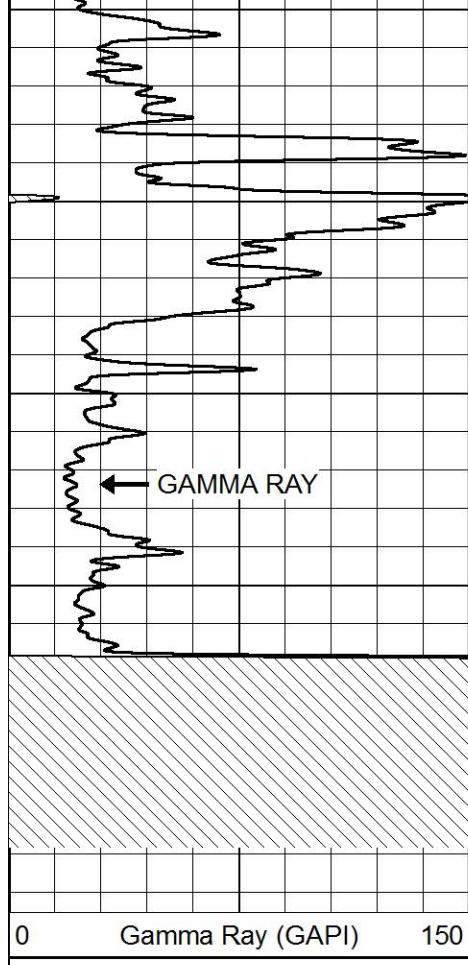
2300  
2350  
2400  
2450  
2500  
2550  
2600  
2650  
2700  
2750  
2800





2850  
2900  
2950  
3000  
3050  
3100  
3150  
3200  
3250  
3300  
3350



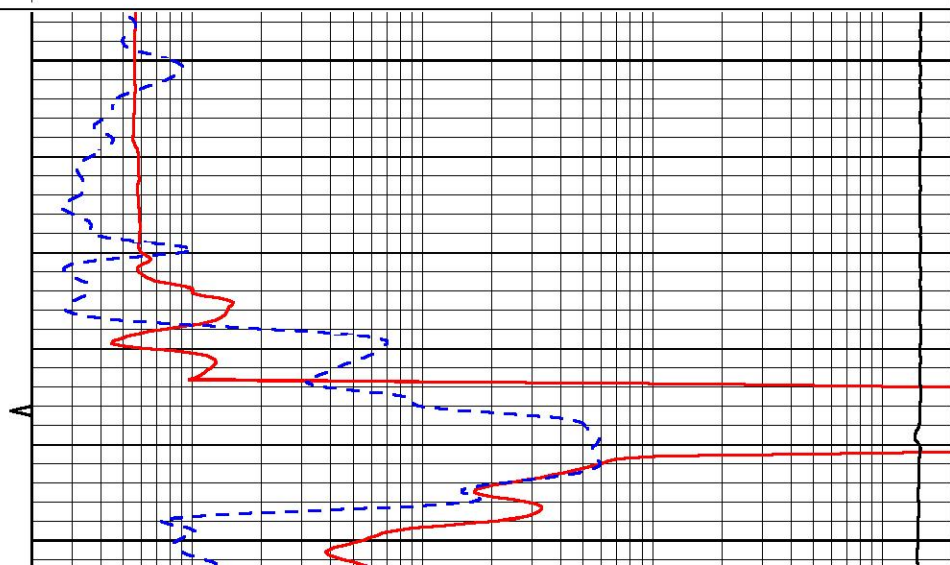
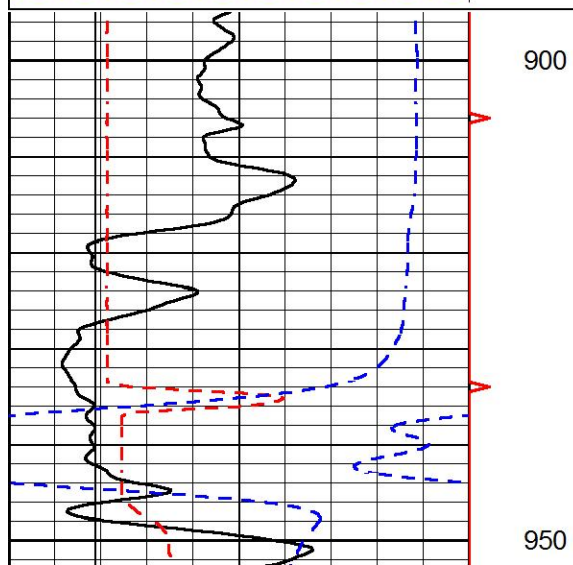


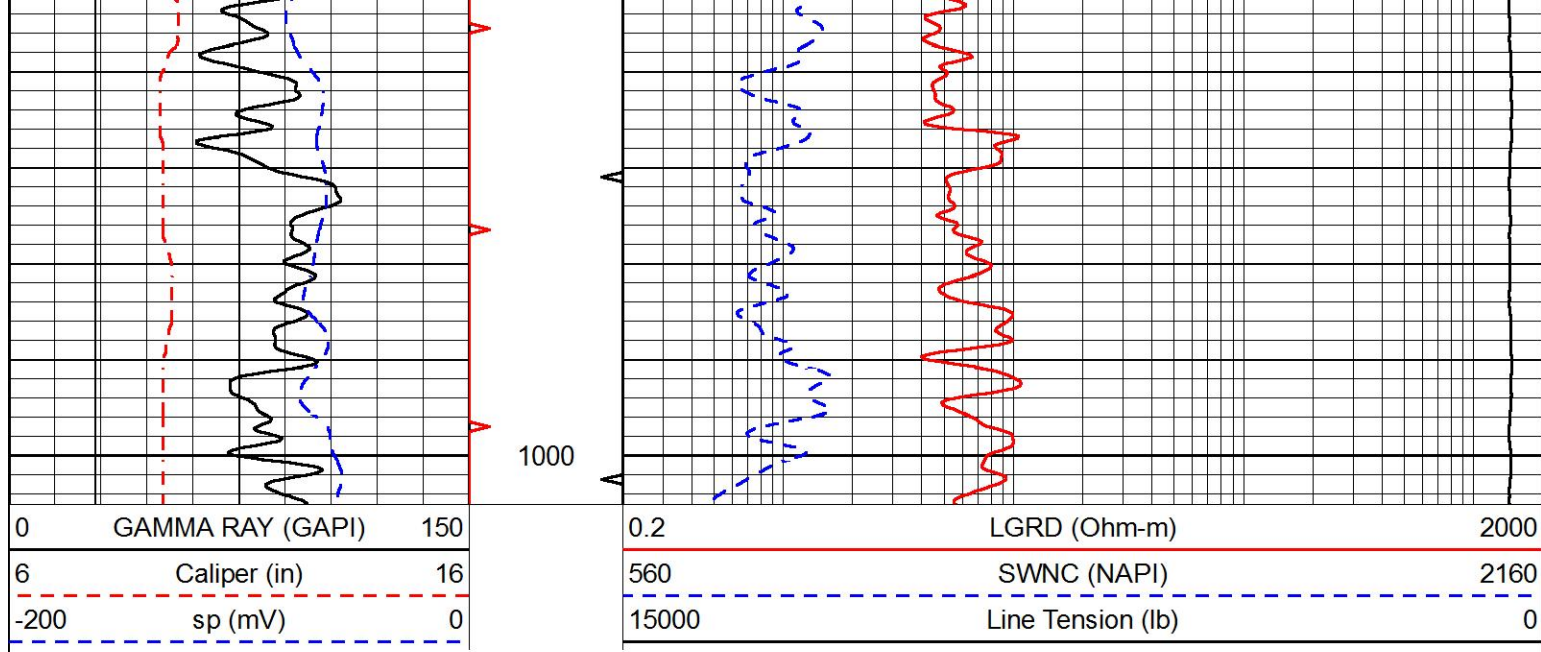
# MAIN PASS

Database File      bennett schulte\_g mauler 22-1.db  
 Dataset Pathname      RAG/pass3.1  
 Presentation Format      rag  
 Dataset Creation      Thu Apr 26 07:36:41 2018  
 Charted by      Depth in Feet scaled 1:240

|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| 6    | Caliper (in)     | 16  |
| -200 | sp (mV)          | 0   |

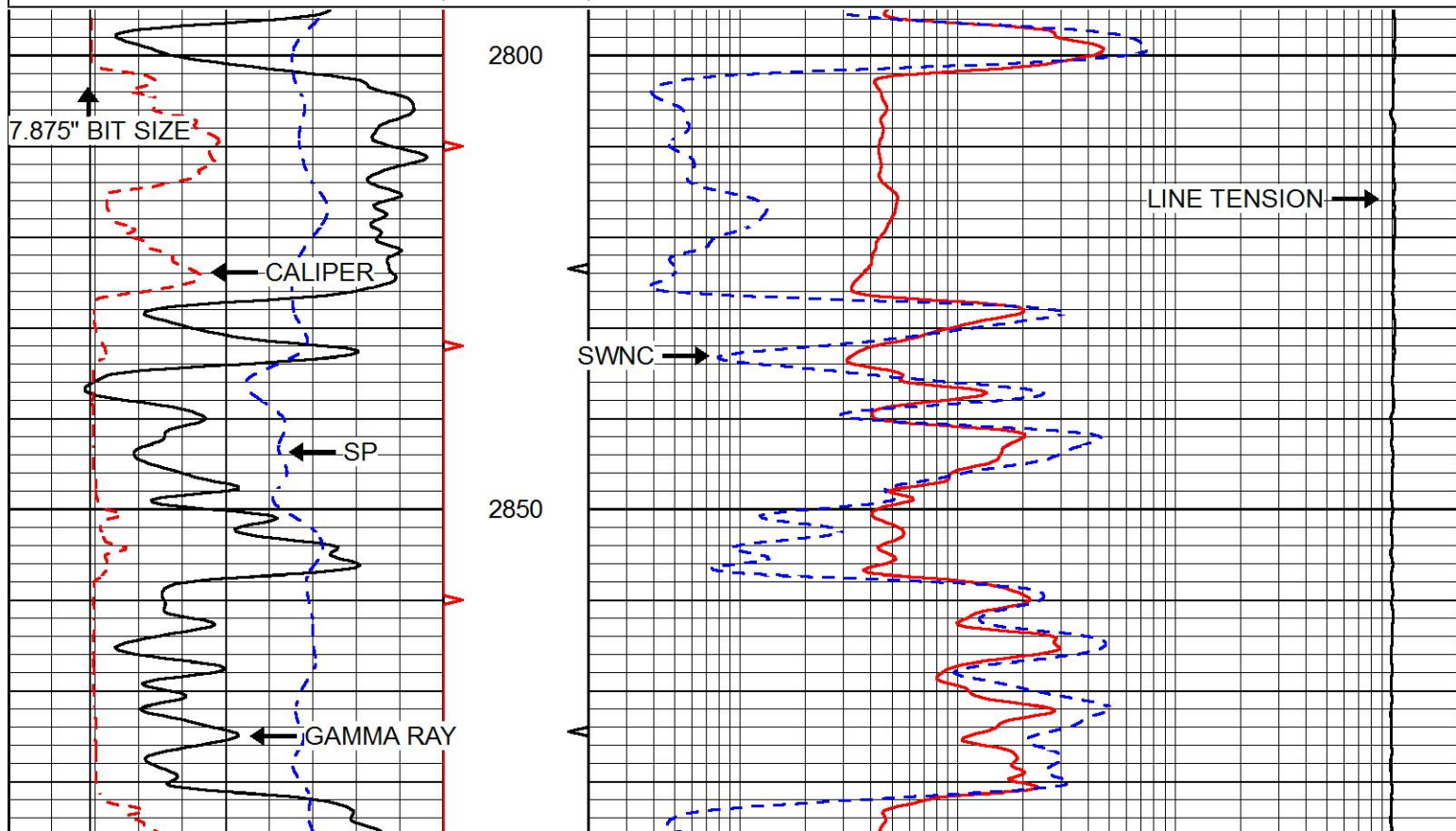
|       |                   |      |
|-------|-------------------|------|
| 0.2   | LGRD (Ohm-m)      | 2000 |
| 560   | SWNC (NAPI)       | 2160 |
| 15000 | Line Tension (lb) | 0    |

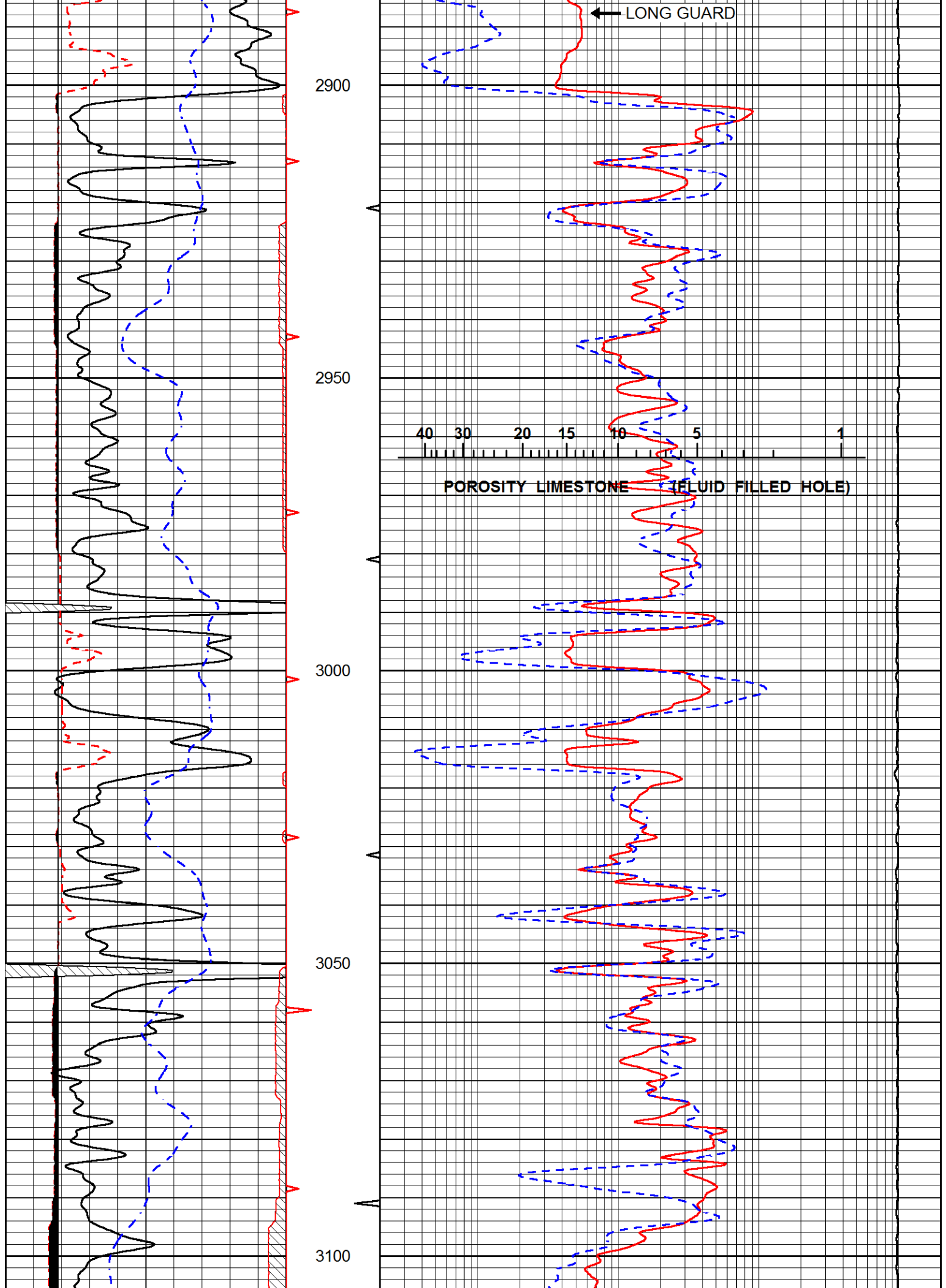


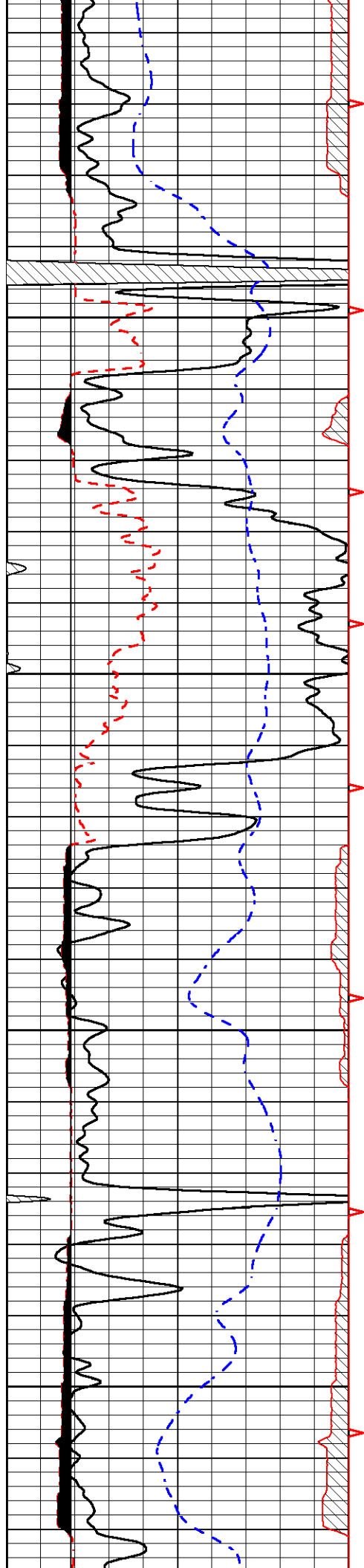


# MAIN PASS

Database File bennett schulte\_g mauler 22-1.db  
 Dataset Pathname RAG/pass3.1  
 Presentation Format rag  
 Dataset Creation Thu Apr 26 07:36:41 2018  
 Charted by Depth in Feet scaled 1:240





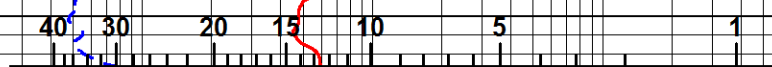


3150

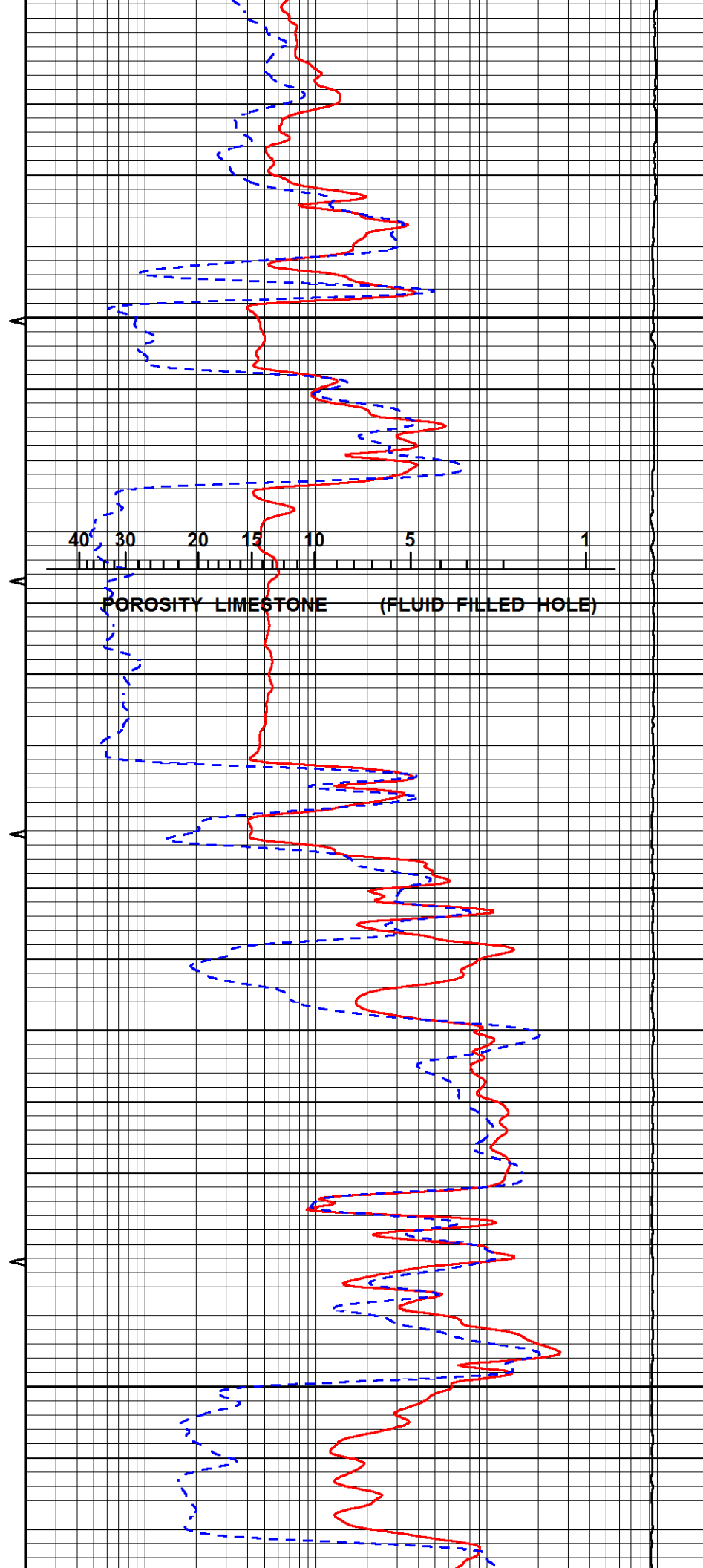
3200

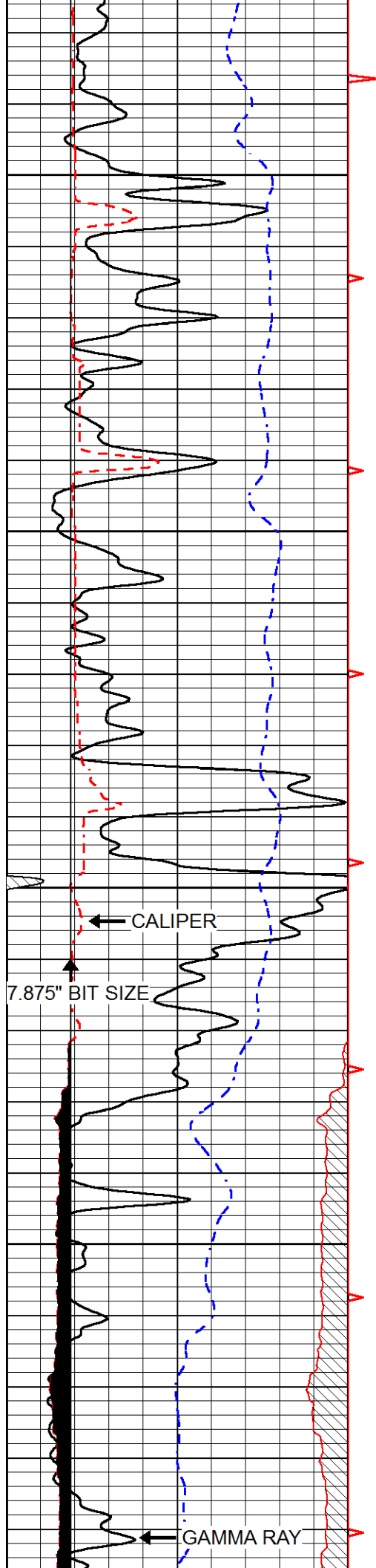
3250

3300



**POROSITY LIMESTONE (FLUID FILLED HOLE)**



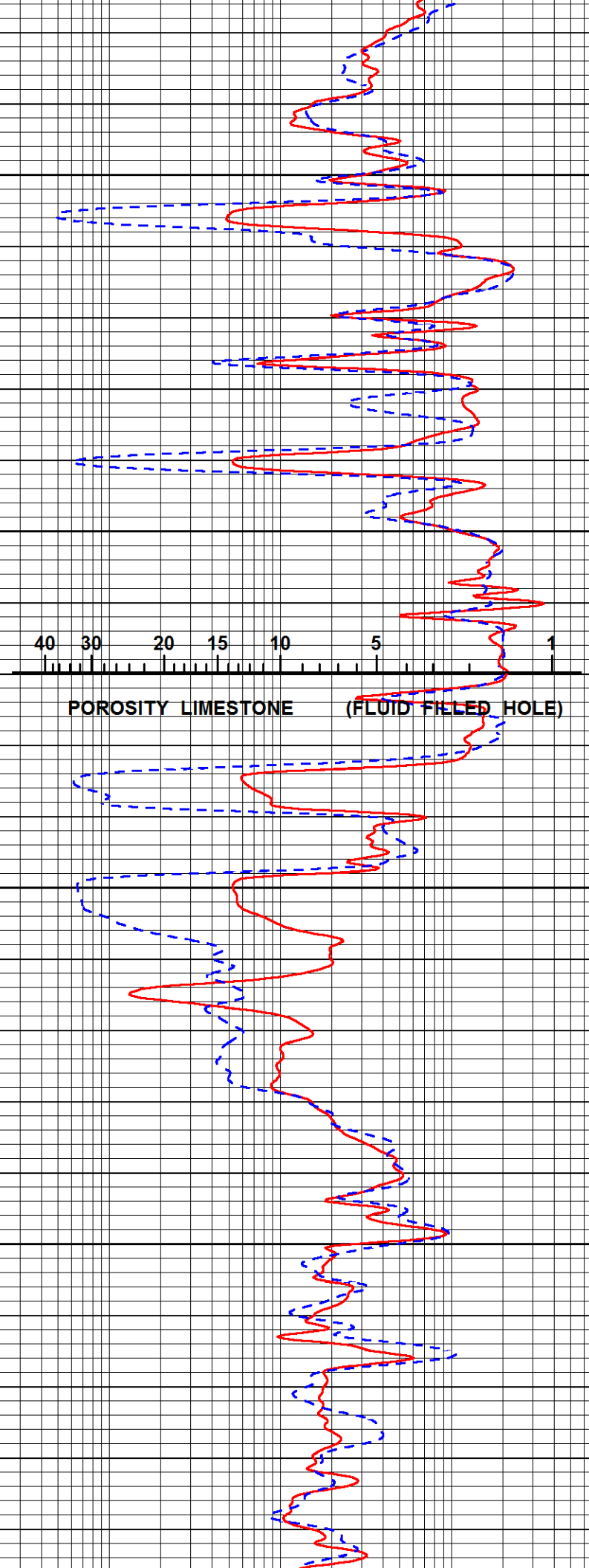


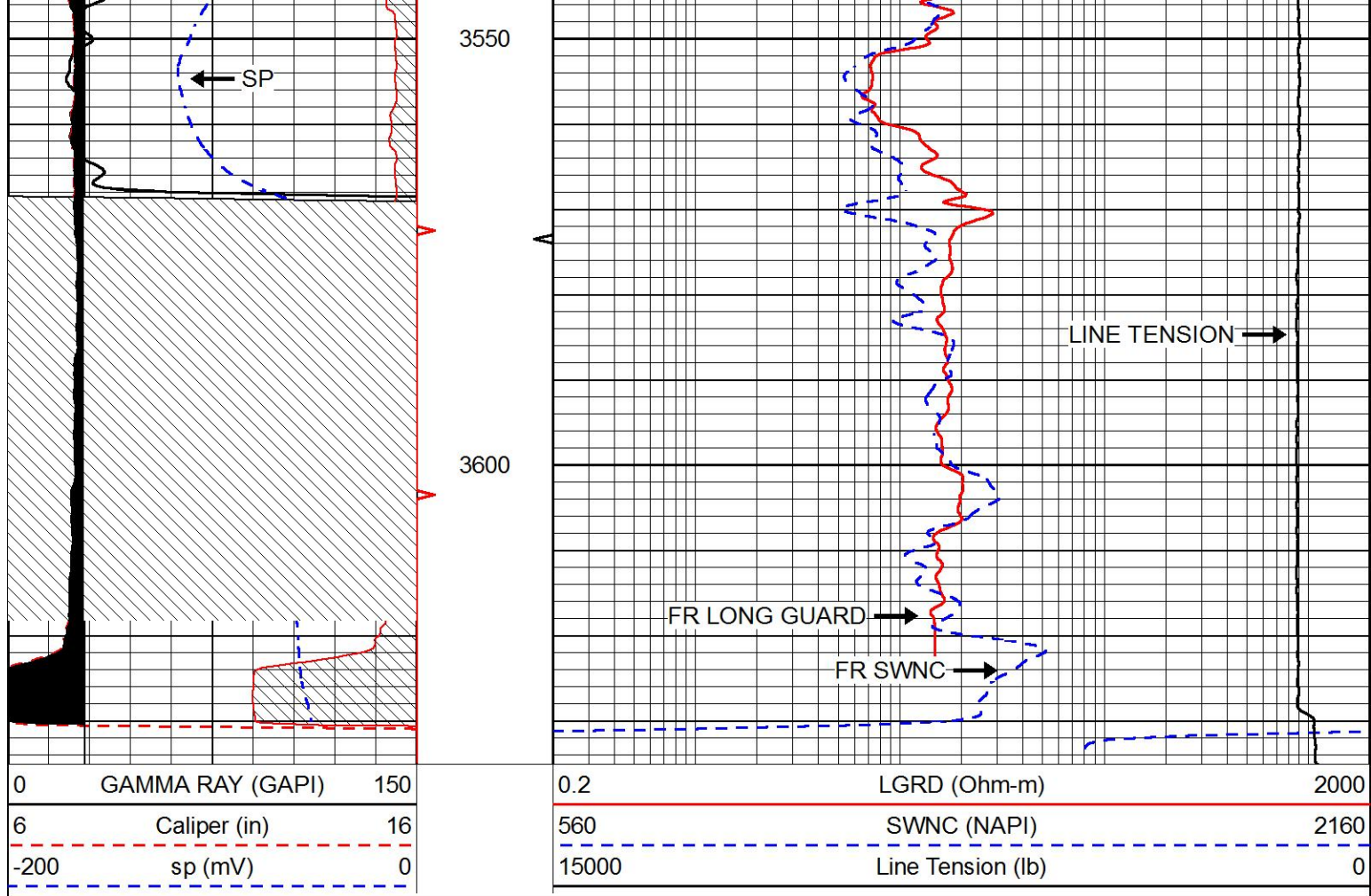
3350

3400

3450

3500

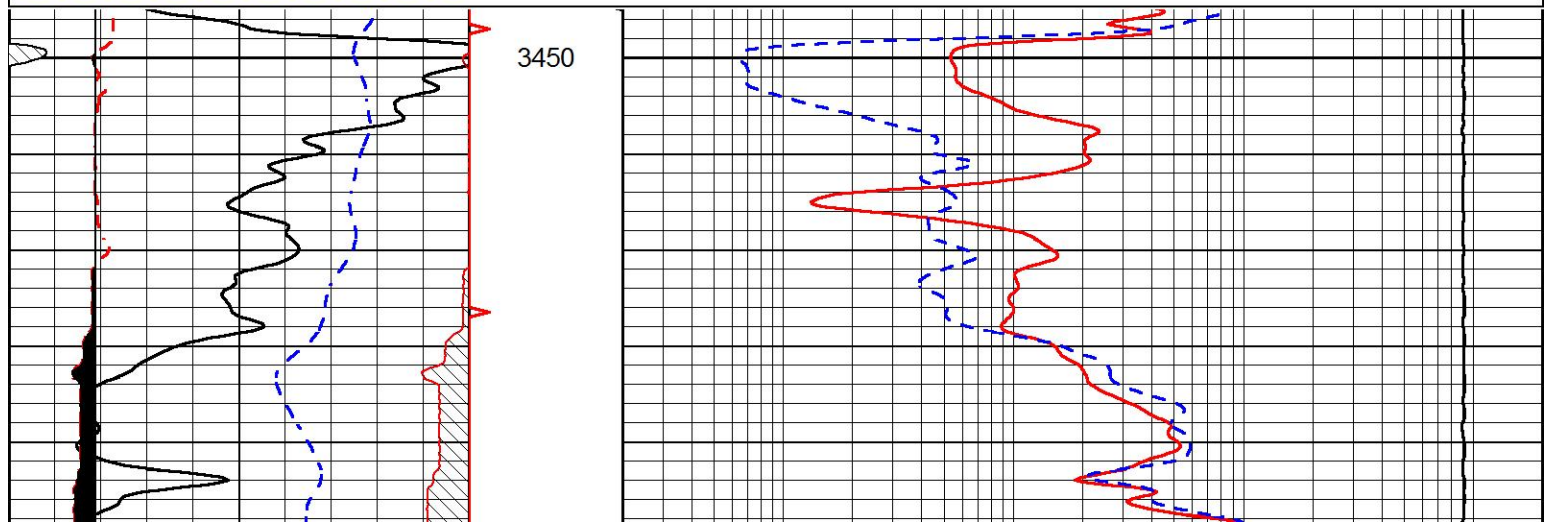
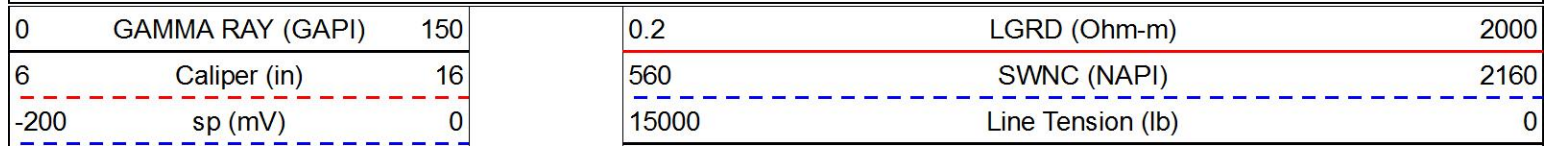


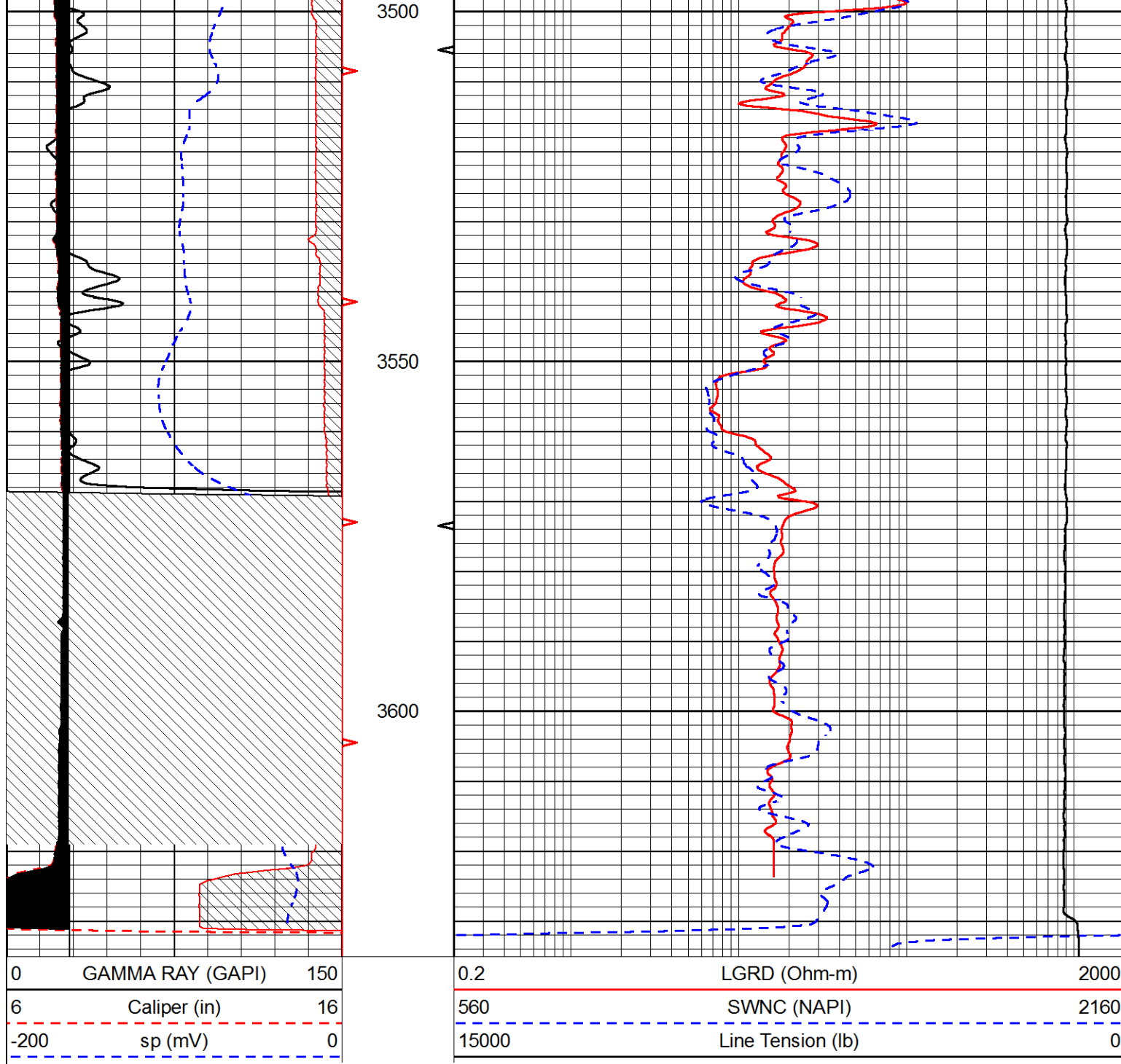




# REPEAT SECTION

Database File      bennett schulte\_g mauler 22-1.db  
 Dataset Pathname      RAG/pass2.1  
 Presentation Format      rag  
 Dataset Creation      Thu Apr 26 07:02:12 2018  
 Charted by      Depth in Feet scaled 1:240





### Calibration Report

Database File bennett schulte\_g mauler 22-1.db  
 Dataset Pathname RAG/pass3.2  
 Dataset Creation Thu Apr 26 07:00:56 2018

### Sidewall Neutron Calibration Report

Serial Number: SP162-87  
 Tool Model: M&W-SP

SWN Calibration Mon Aug 08 12:41:49 2016

Readings 2566.42 cps  
 Target 1085.00 cps  
 Normalization 0.5300

Caliper Calibration Mon Aug 08 12:41:49 2016

Readings 0.86  
 Reference 4.00  
 Gain -24.00  
 Offset 21.70

0.26

14.00

## Gamma Ray Calibration Report

|                        |                          |          |
|------------------------|--------------------------|----------|
| Serial Number:         | 89                       |          |
| Tool Model:            | M&W                      |          |
| Calibration Performed: | Mon Jan 15 11:20:44 2018 |          |
| Calibrator Value:      | 1.0                      | GAPI     |
| Background Reading:    | 0.0                      | cps      |
| Calibrator Reading:    | 1.0                      | cps      |
| Sensitivity:           | 0.6000                   | GAPI/cps |



|         |                           |
|---------|---------------------------|
| Company | BENNETT & SCHULTE OIL CO. |
| Well    | G MAULER #22-1            |
| Field   | N/A                       |
| County  | BARTON                    |
| State   | KANSAS                    |