



# DUAL INDUCTION LOG

Company ANCHOR BAY PETROLEUM, LLC.

Well RANKIN #2

Field SAUER

County ELLIS State KANSAS

Location: API #: 15-051-27033-0000

3623' FSL & 2310' FEL  
S/2 - NW - SW - NE

SEC 33 TWP 13S RGE 20W

Permanent Datum GROUND LEVEL Elevation 2249  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING

Other Services  
CDL/CNL/PE  
MEL

Elevation

K.B. 2254  
D.F. 2252  
G.L. 2249

|                              |               |
|------------------------------|---------------|
| Date                         | 7/6/22        |
| Run Number                   | ONE           |
| Depth Driller                | 3940          |
| Depth Logger                 | 3940          |
| Bottom Logged Interval       | 3938          |
| Top Log Interval             | 00            |
| Casing Driller               | 8 5/8"@220'   |
| Casing Logger                | 220           |
| Bit Size                     | 7 7/8"        |
| Type Fluid in Hole           | CHEMICAL MUD  |
| Density / Viscosity          | 9.4/60        |
| pH / Fluid Loss              | 10.0/6.8      |
| Source of Sample             | FLOWLINE      |
| Rm @ Meas. Temp              | .800@90F      |
| Rmf @ Meas. Temp             | .600@90F      |
| Rmc @ Meas. Temp             | .960@90F      |
| Source of Rmf / Rmc          | MEASURED      |
| Rm @ BHT                     | .626@115F     |
| Time Circulation Stopped     | 2 HOURS       |
| Time Logger on Bottom        | 6:30 P.M.     |
| Maximum Recorded Temperature | 115F          |
| Equipment Number             | 8916          |
| Location                     | HAYS, KANSAS  |
| Recorded By                  | JEFF LUEBBERS |
| Witnessed By                 | ED GLASSMAN   |

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

### Comments

THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395  
DIRECTIONS:  
ELLIS, KS., 4S. ON BLKTOP TO "AIRBASE RD.", 1/2E., S. INTO

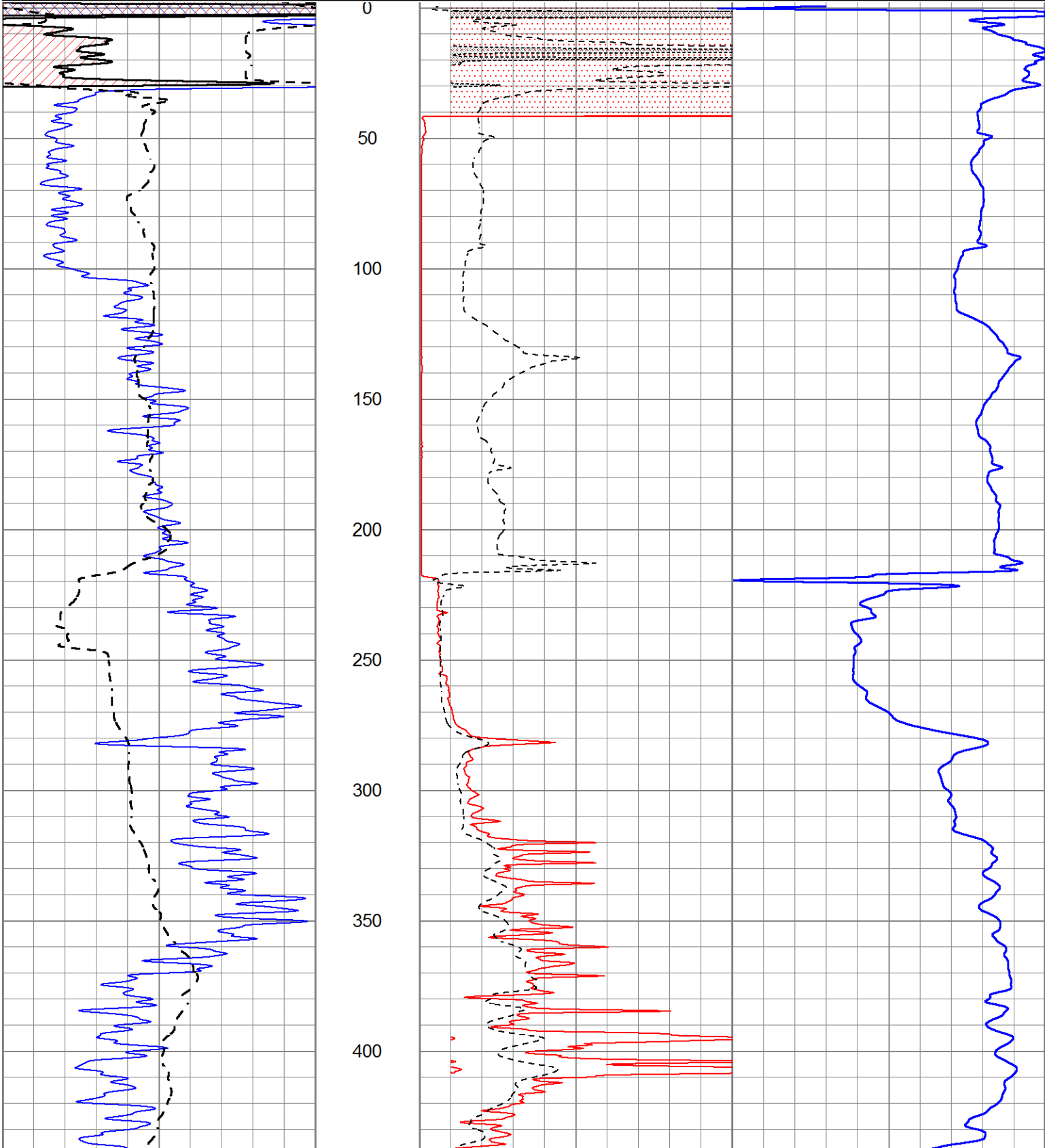


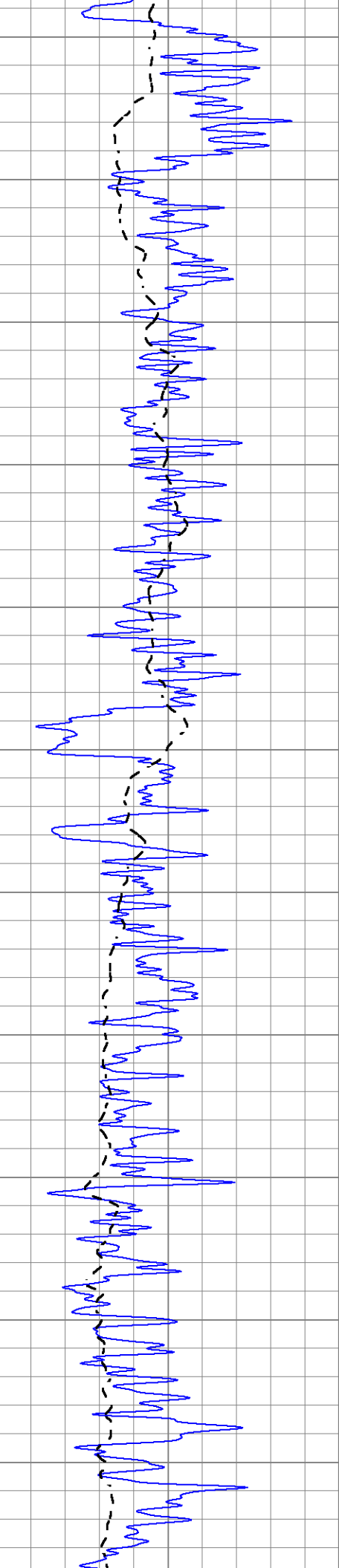
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 Dataset Pathname pass3.1M  
 Presentation Format \_dil2  
 Dataset Creation Wed Jul 06 20:26:36 2022  
 Charted by Depth in Feet scaled 1:600

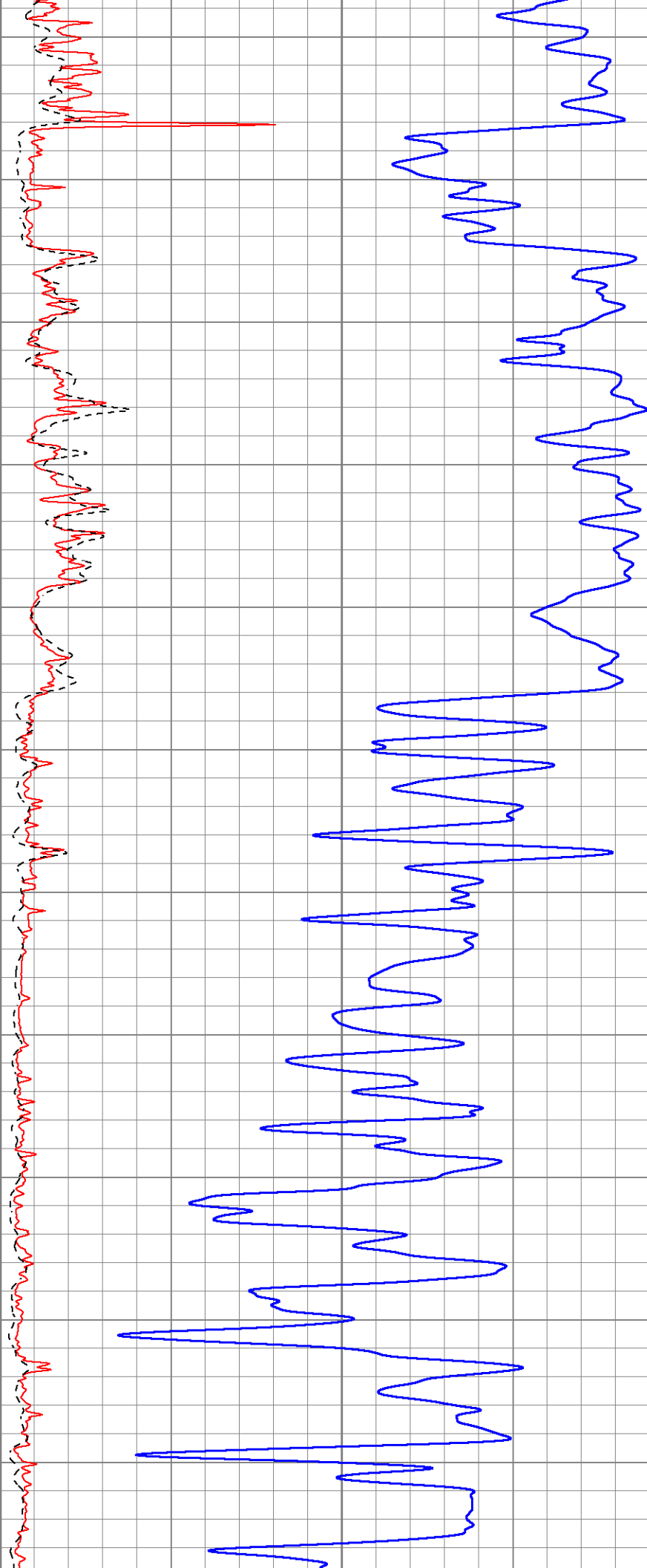
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|------|------------------|-----|
| 0    | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV)          | 100 |

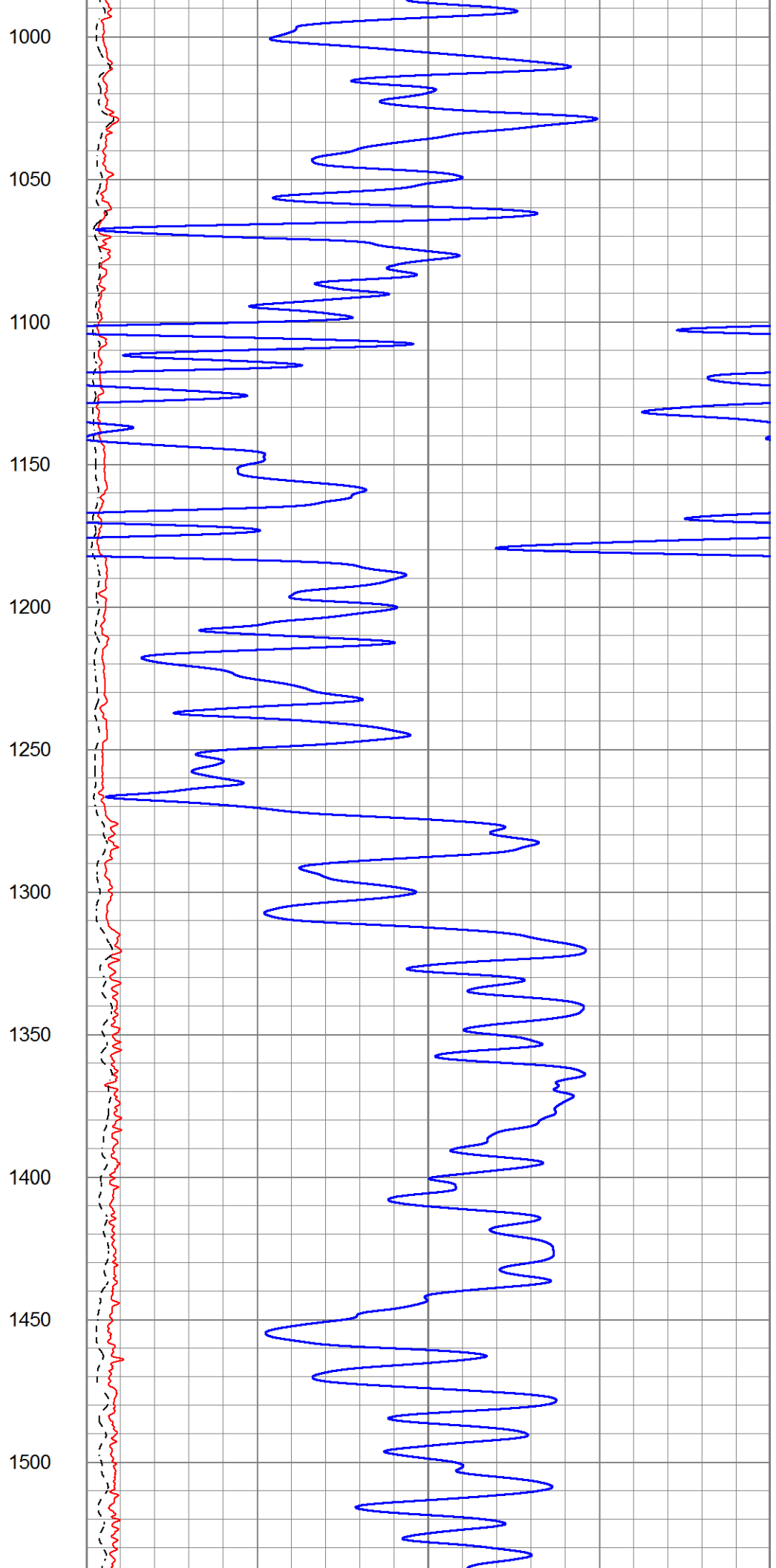
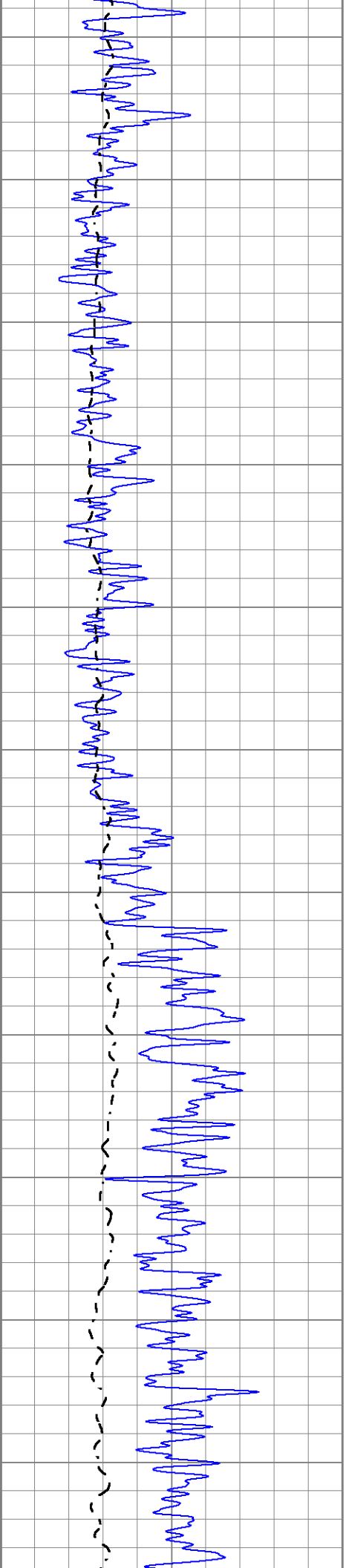
|      |                  |     |
|------|------------------|-----|
| 1000 | CILD (mmho/m)    | 0   |
| 0    | RLL3 (Ohm-m)     | 50  |
| 0    | RILD (Ohm-m)     | 50  |
| 50   | RILD X10 (Ohm-m) | 500 |
| 50   | RLL3 X10 (Ohm-m) | 500 |

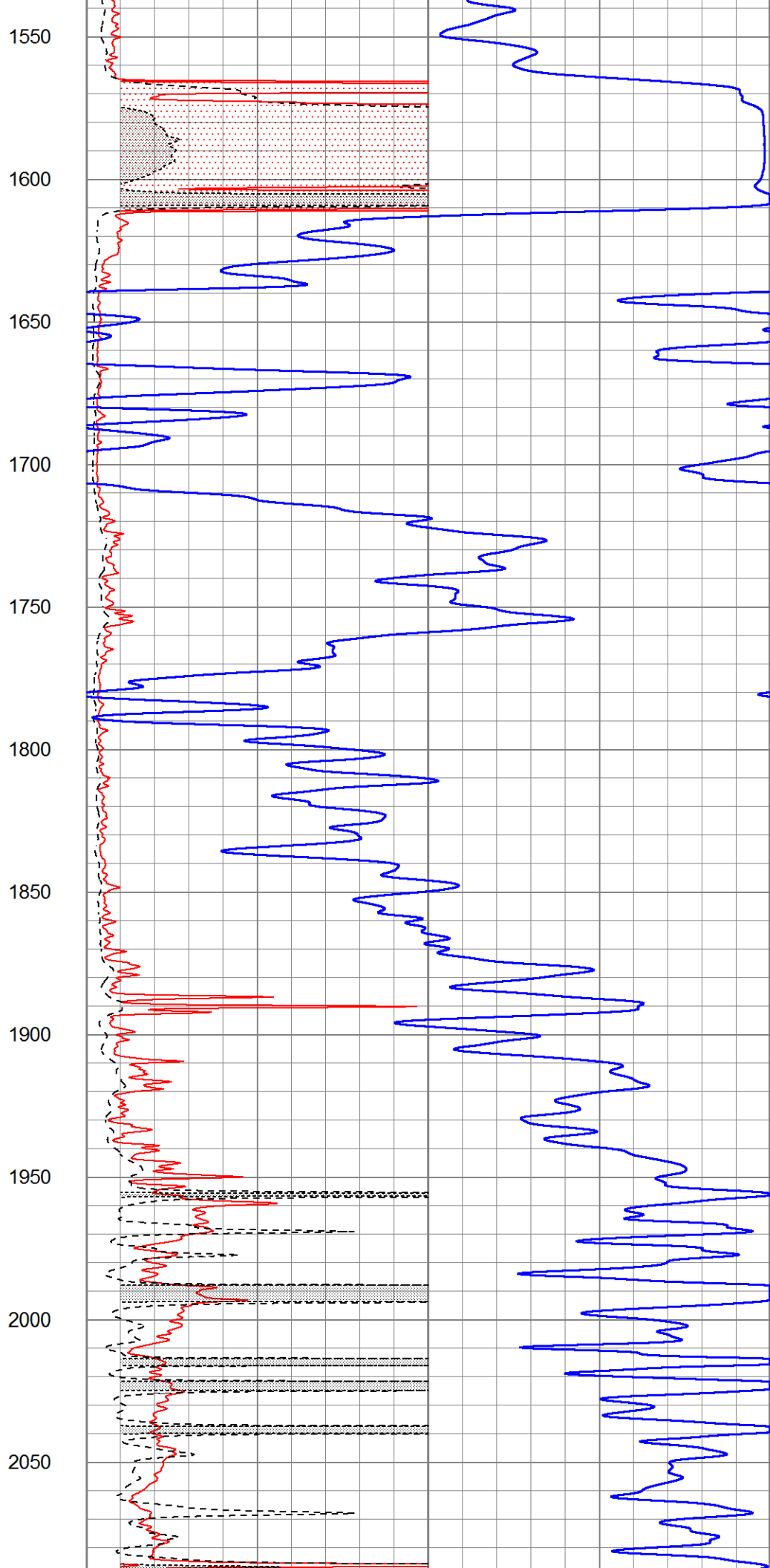
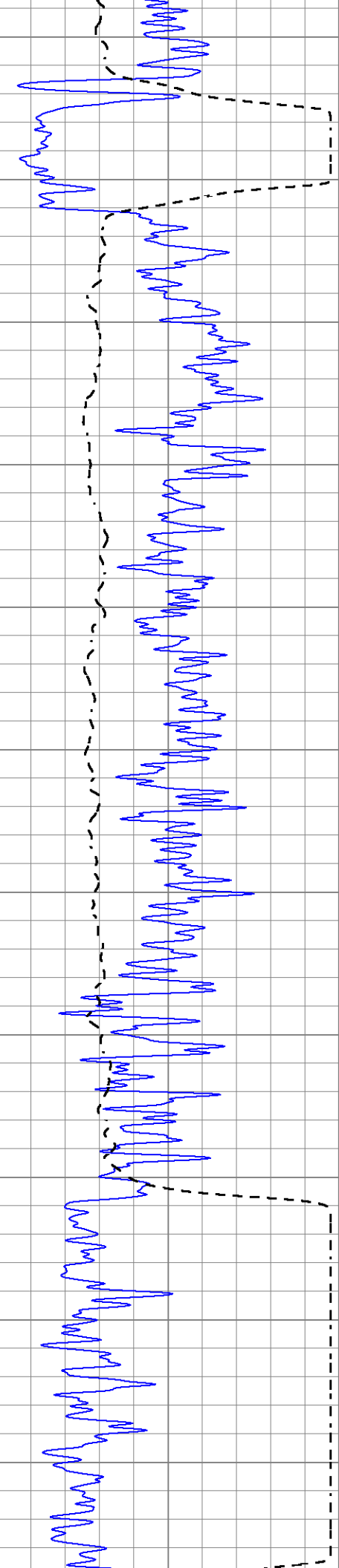


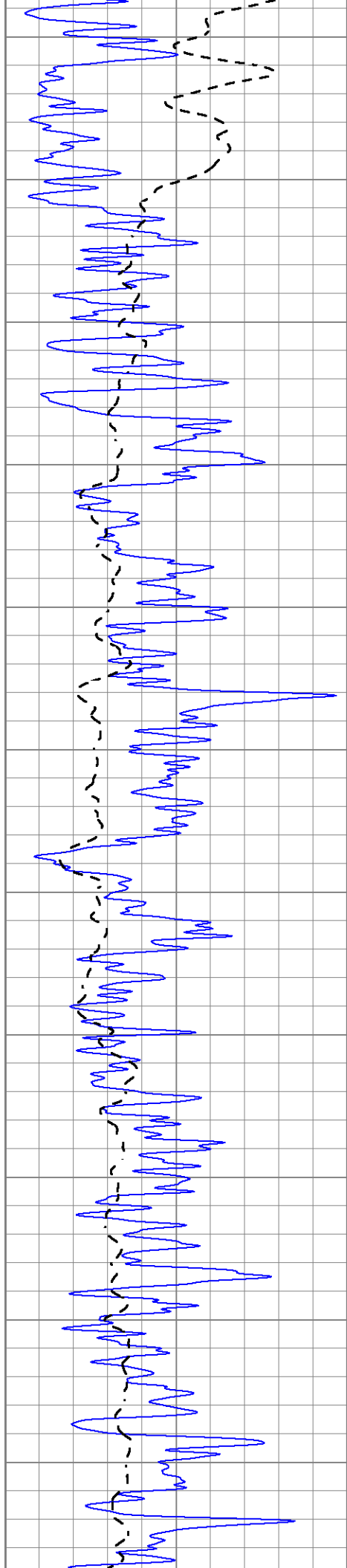


450  
500  
550  
600  
650  
700  
750  
800  
850  
900  
950









2100

2150

2200

2250

2300

2350

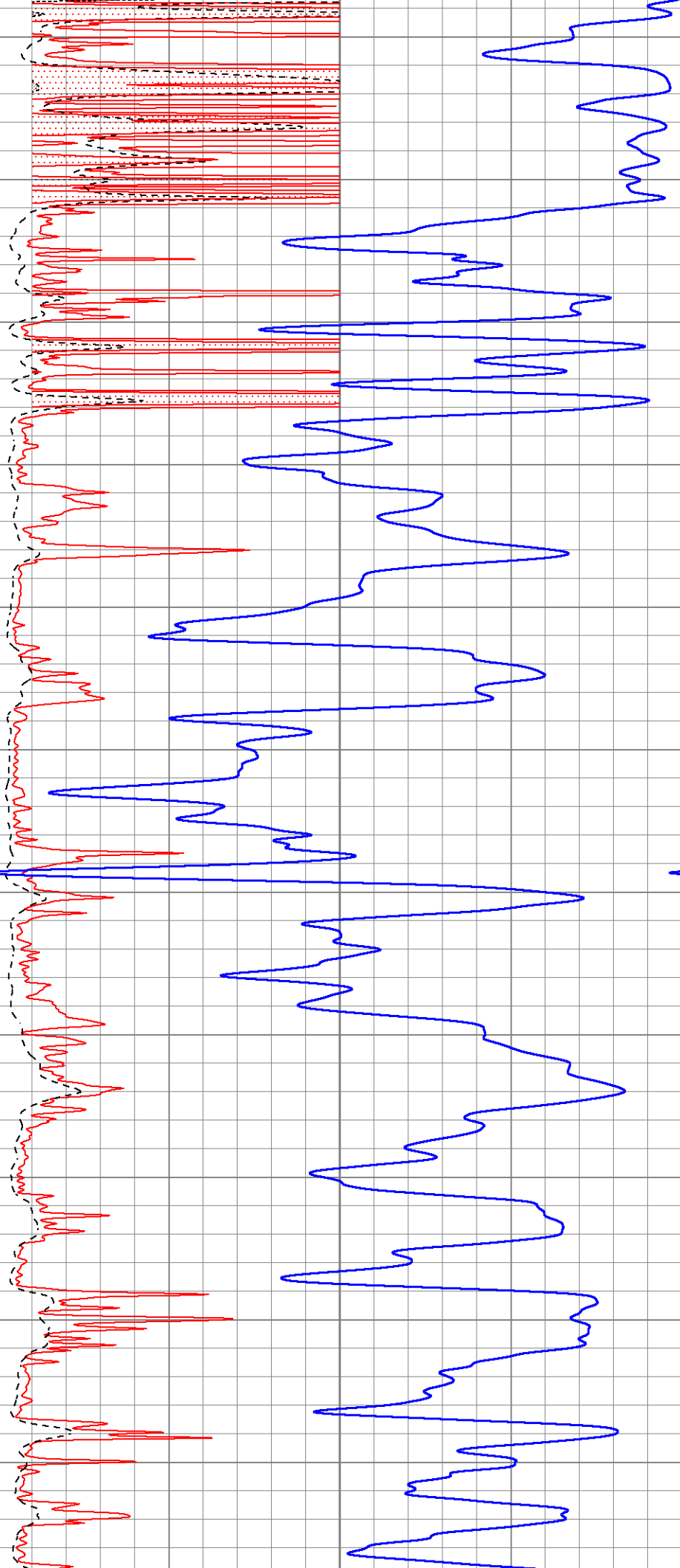
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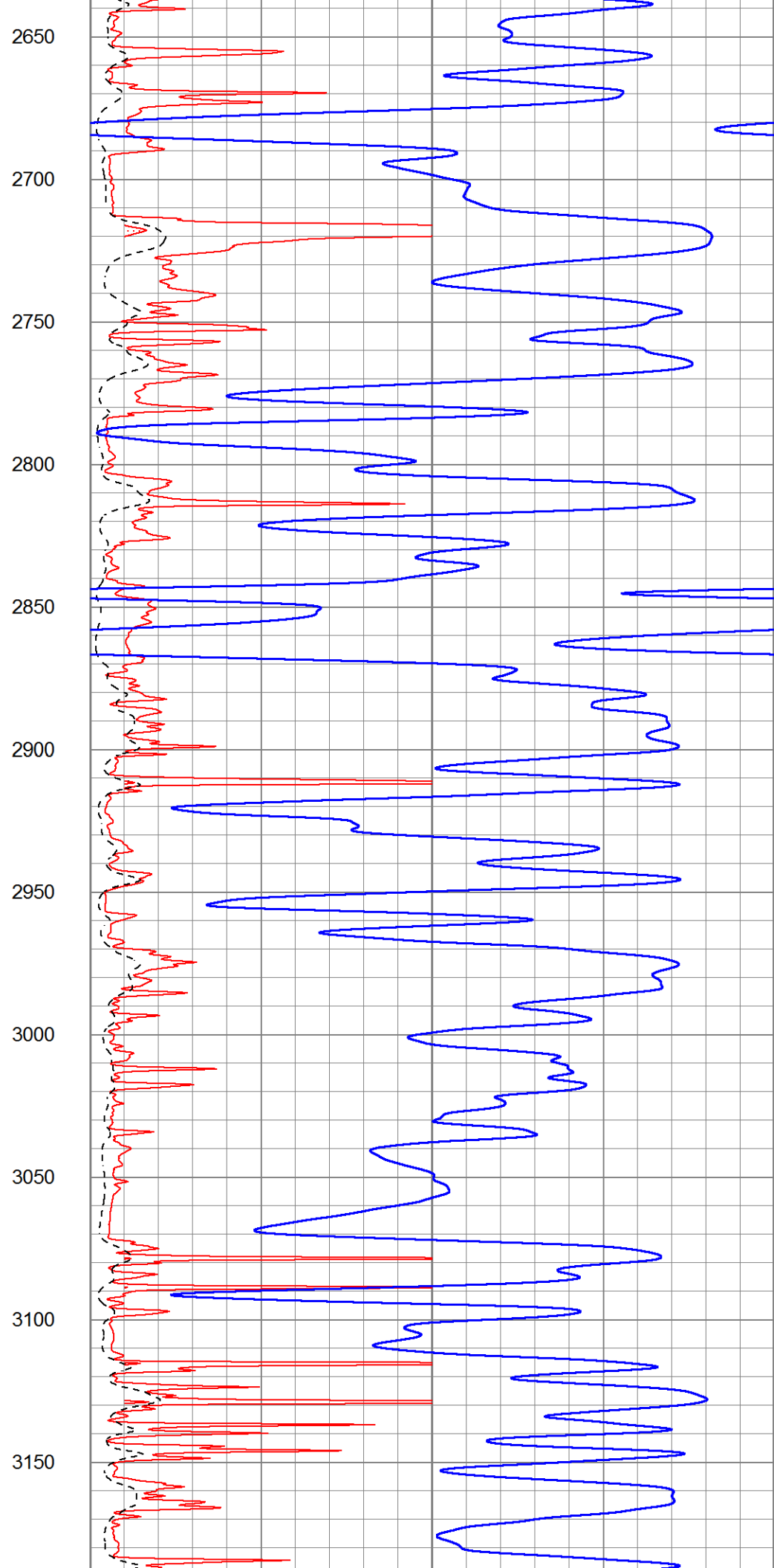
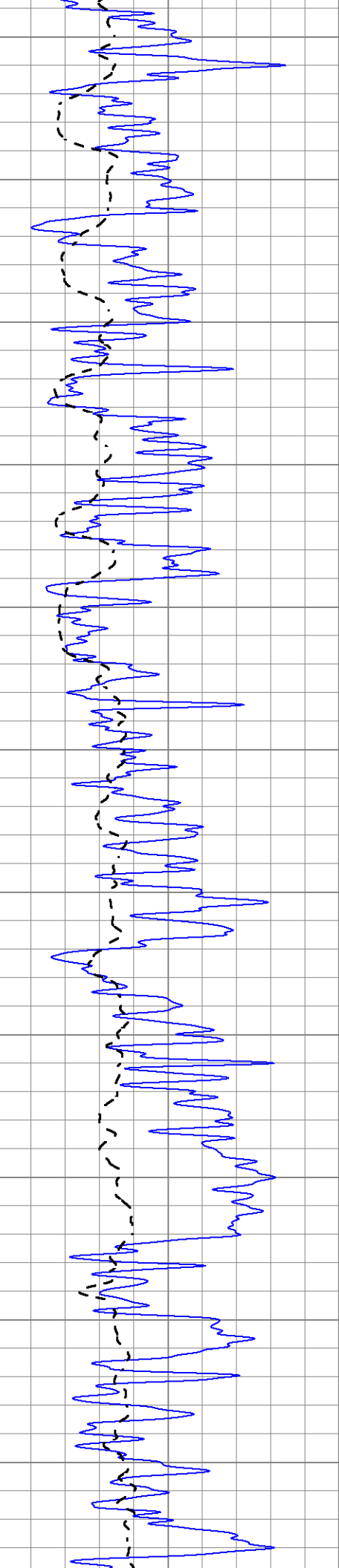
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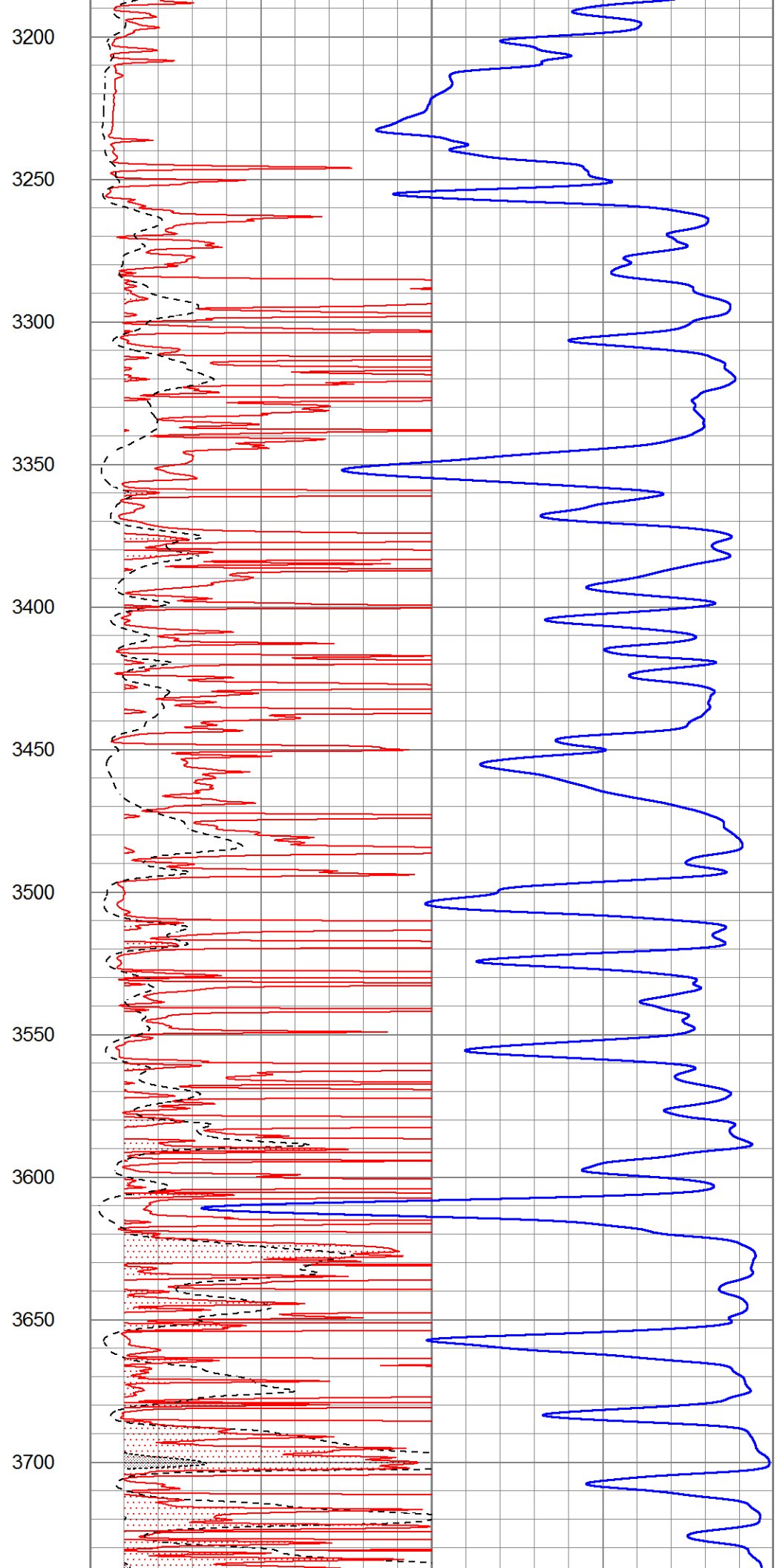
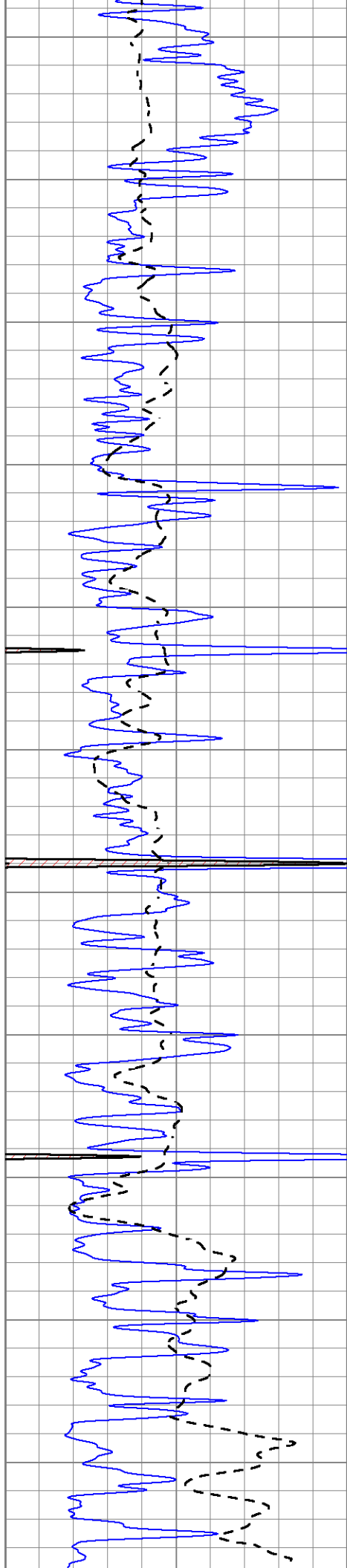
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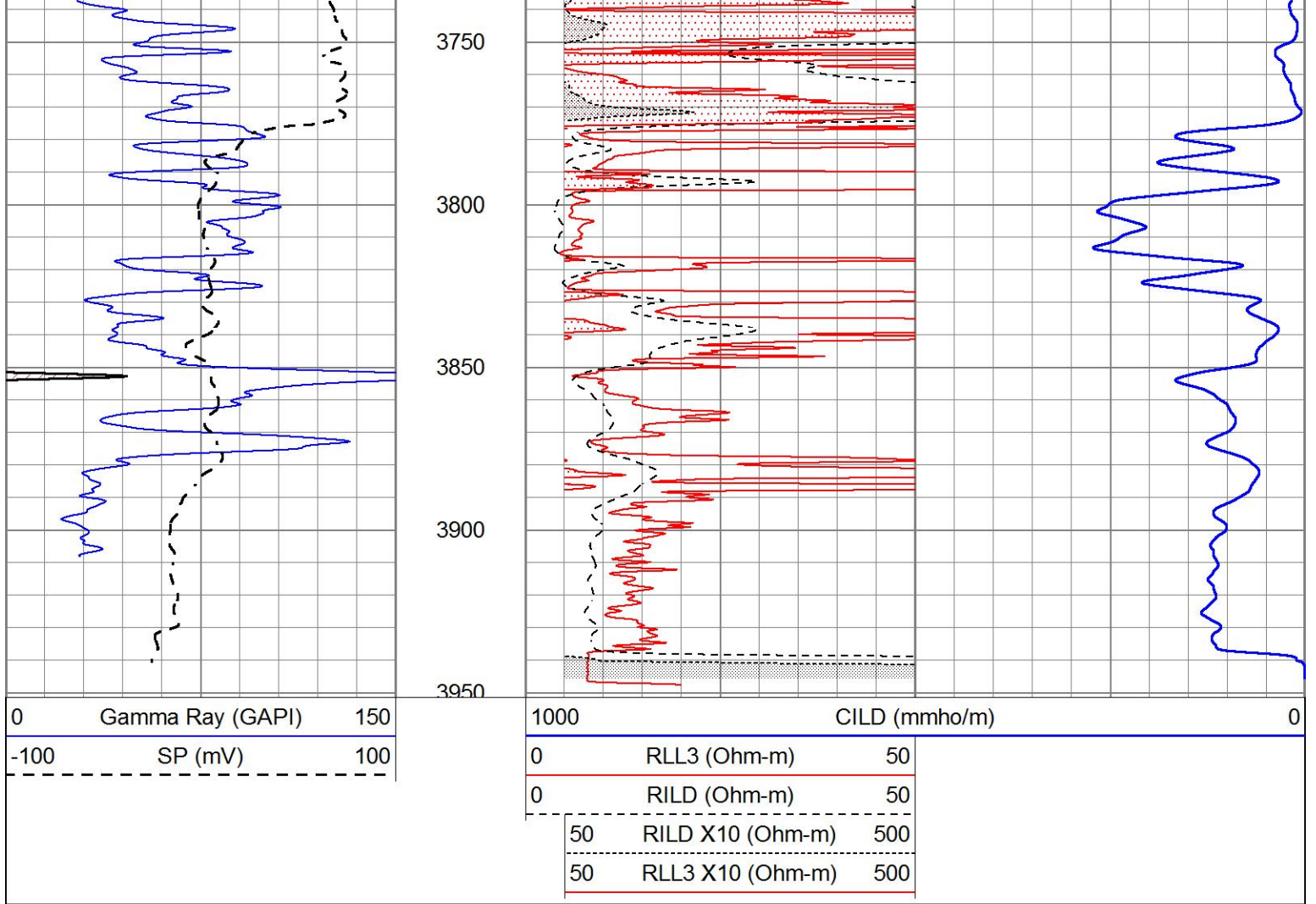
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2600







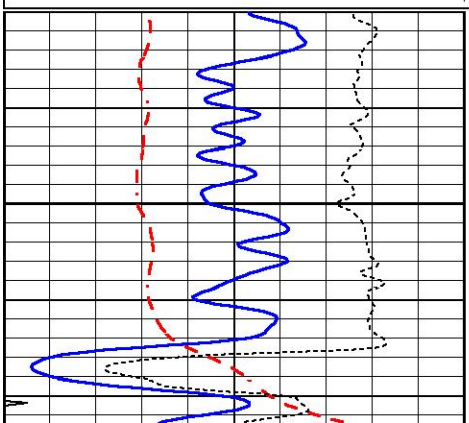


# ANHYDRITE

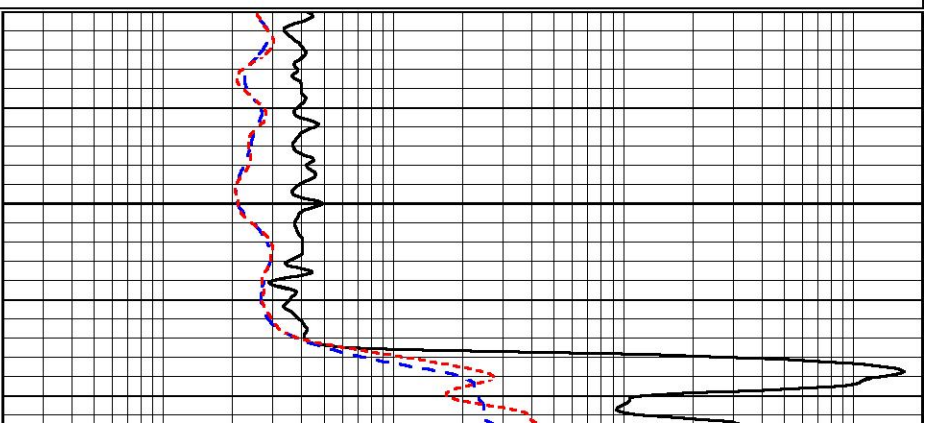
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 Dataset Creation Wed Jul 06 20:26:46 2022  
 Charted by Depth in Feet scaled 1:240

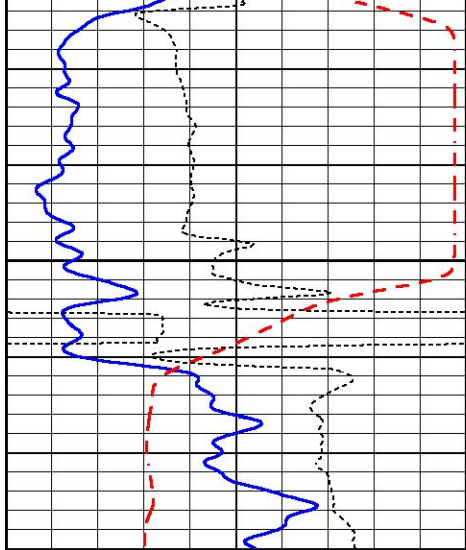
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|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



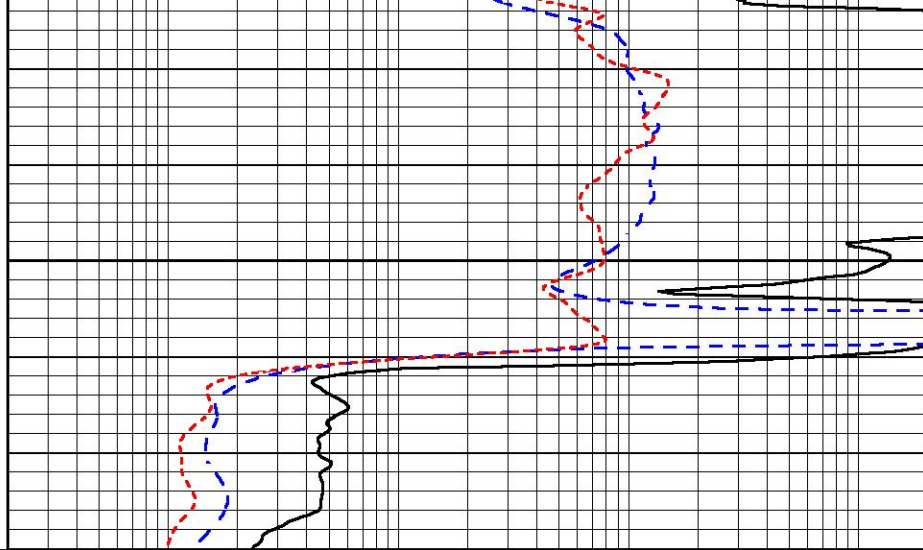
1550





|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

1600



|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

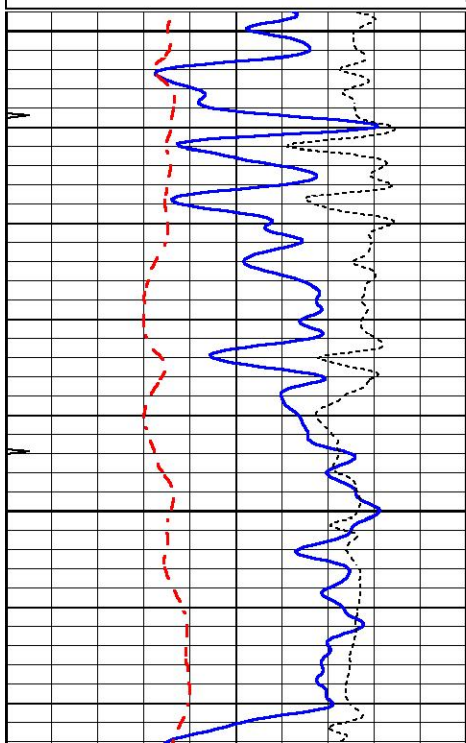


# MAIN SECTION

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 Dataset Pathname pass3.1M  
 Presentation Format \_dil  
 Dataset Creation Wed Jul 06 20:26:36 2022  
 Charted by Depth in Feet scaled 1:240

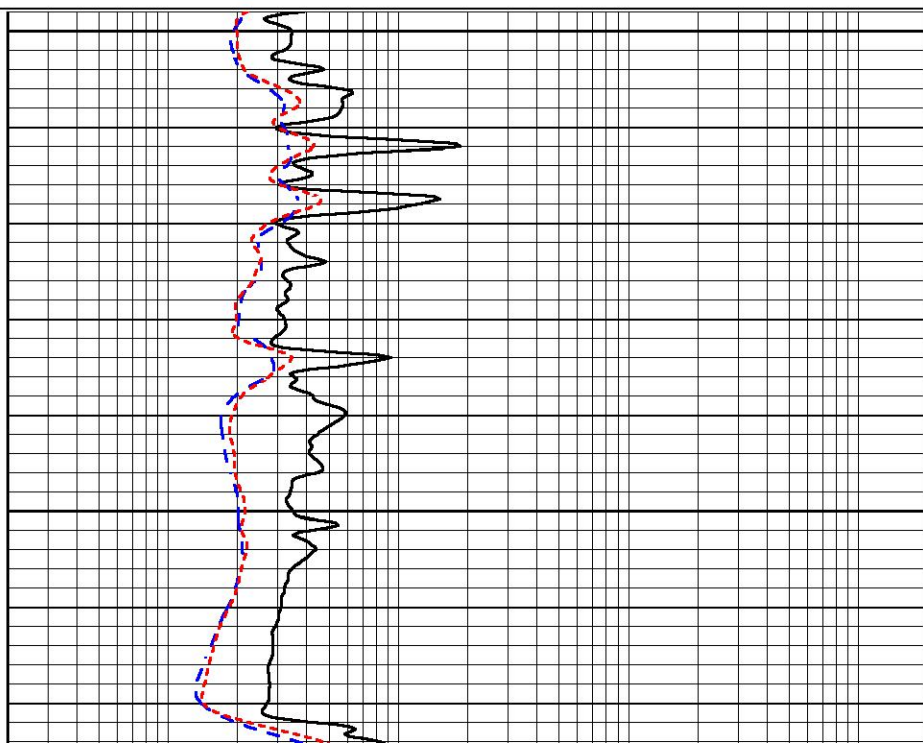
|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

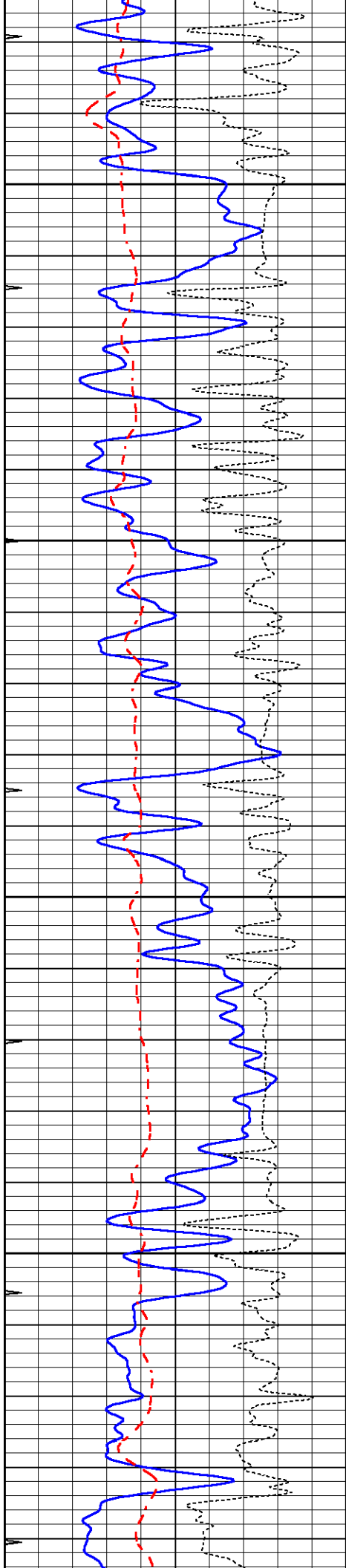
|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



3000

3050



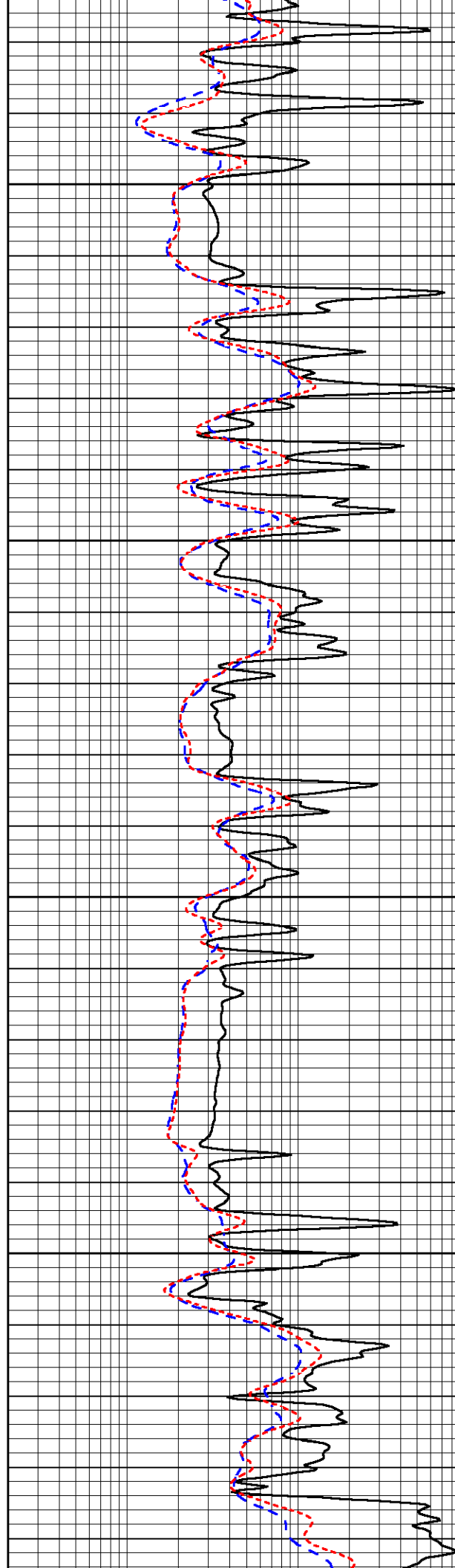


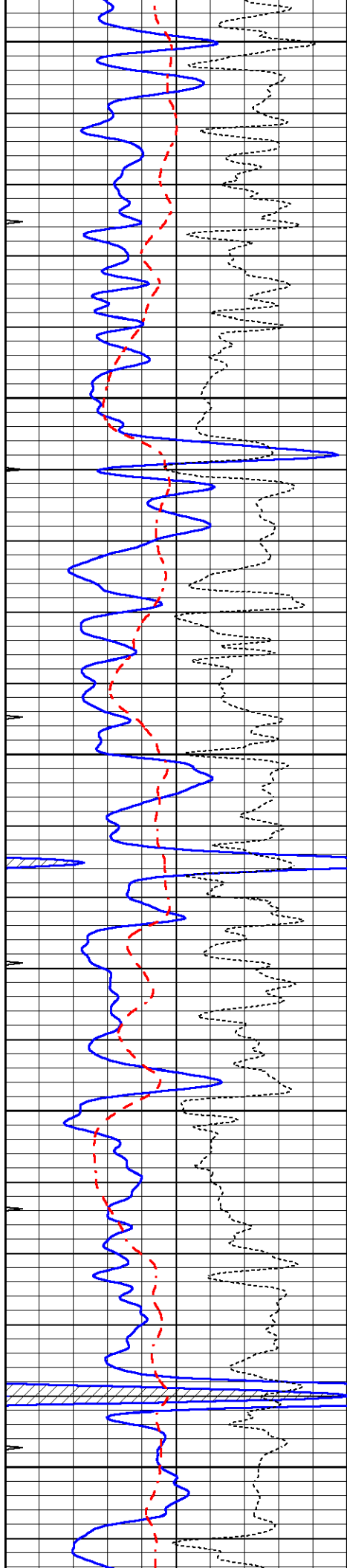
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3150

3200

3250





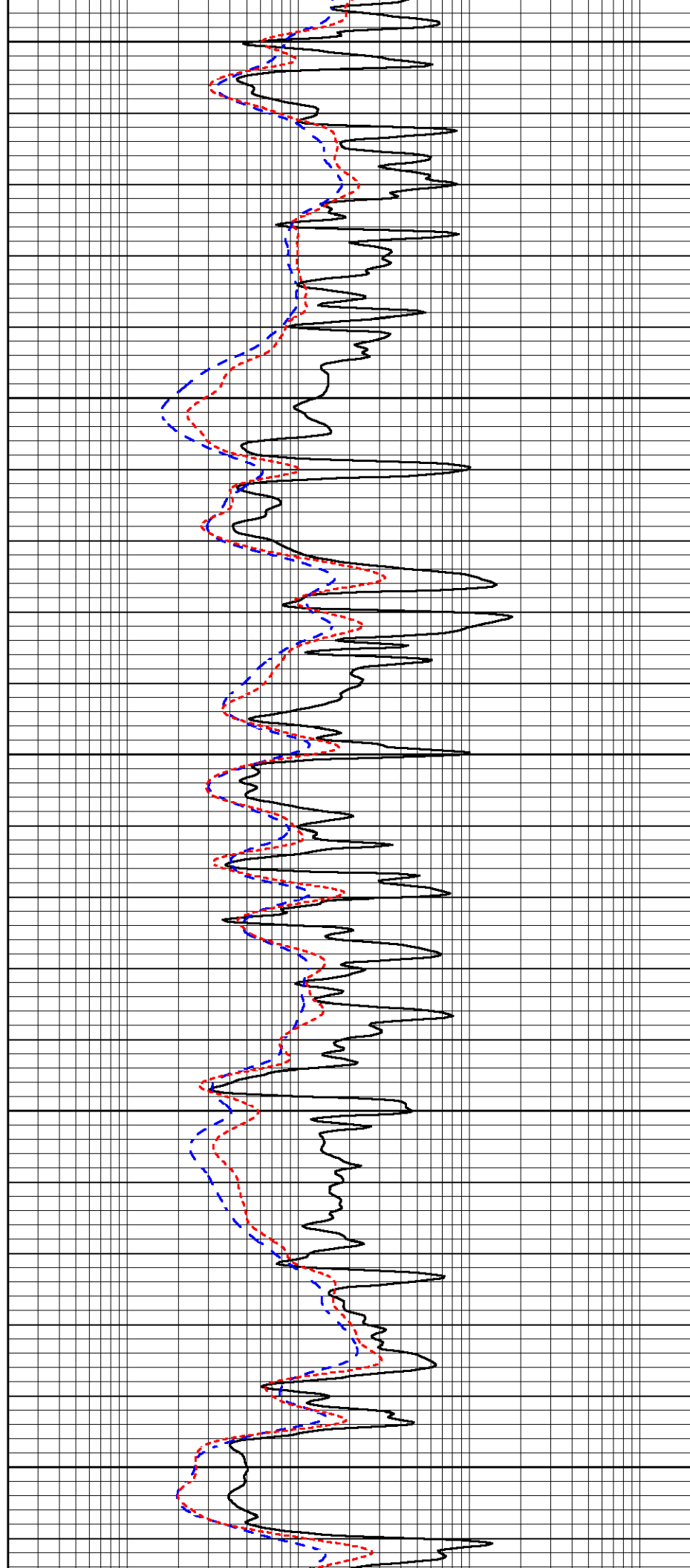
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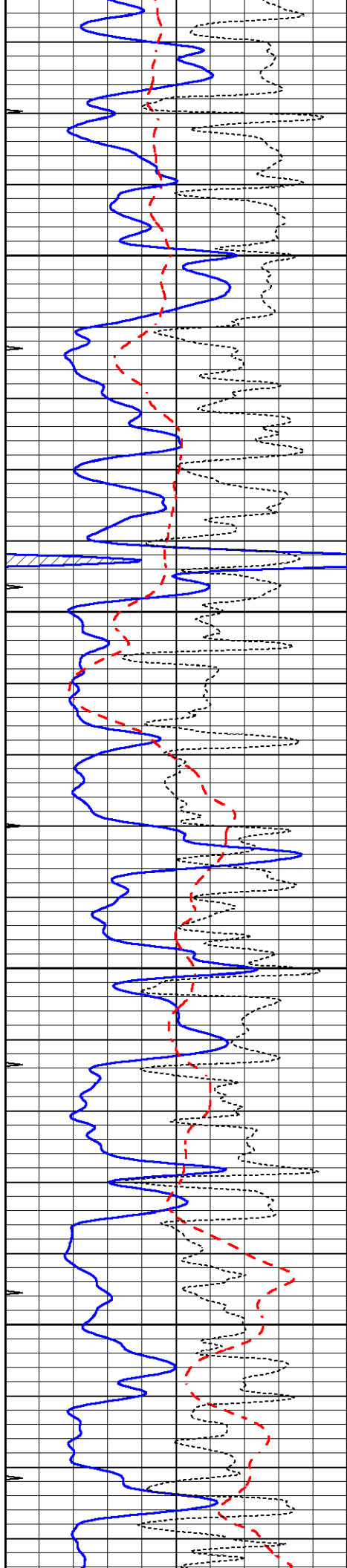
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3400

3450

3500



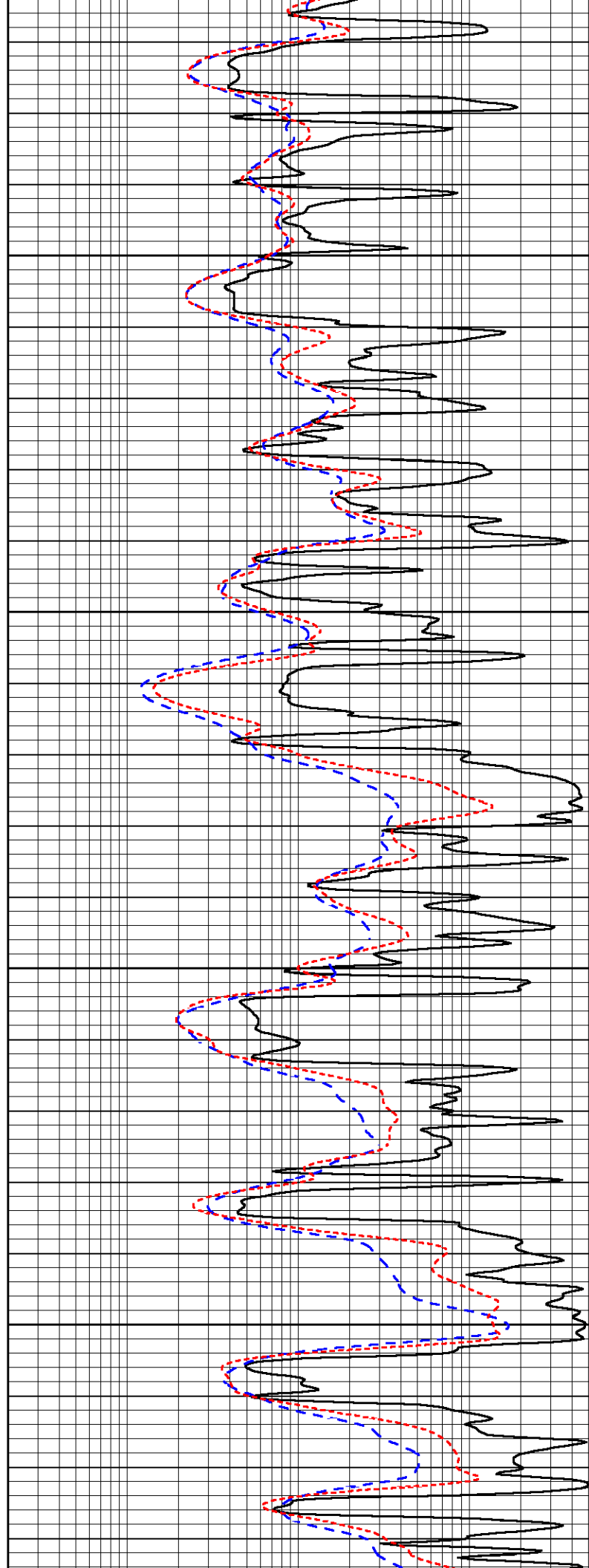


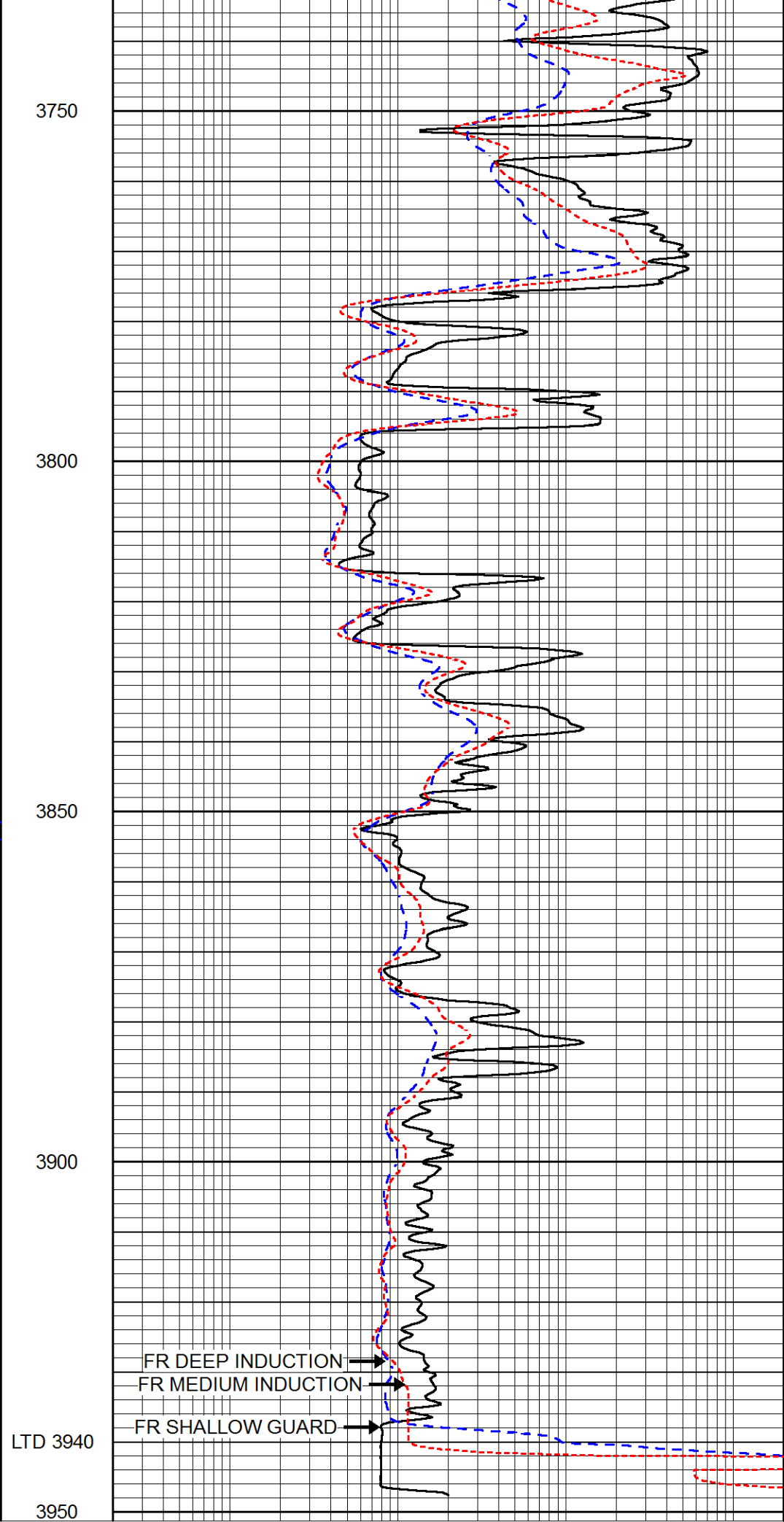
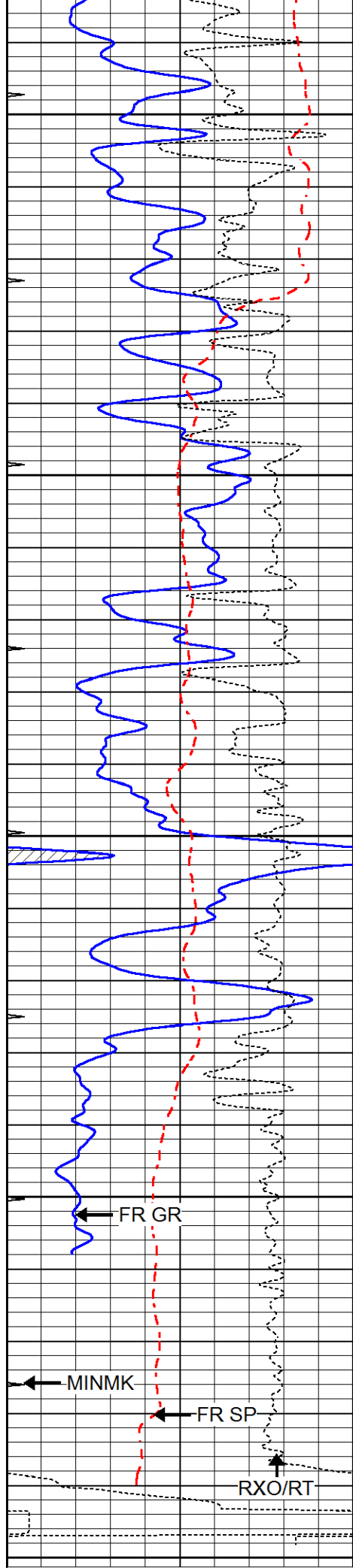
3550

3600

3650

3700





|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 100 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

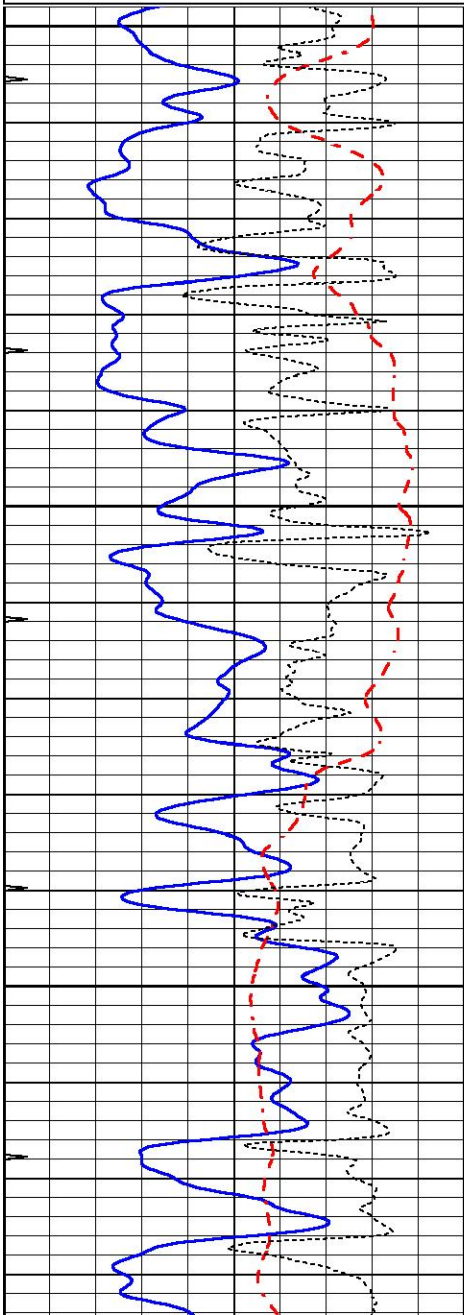


# REPEAT SECTION

Database File 6706pe.db  
 Dataset Pathname pass2.1R  
 Presentation Format \_dil  
 Dataset Creation Wed Jul 06 20:02:07 2022  
 Charted by Depth in Feet scaled 1:240

|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |
| 0    | MINMK            | 20  |

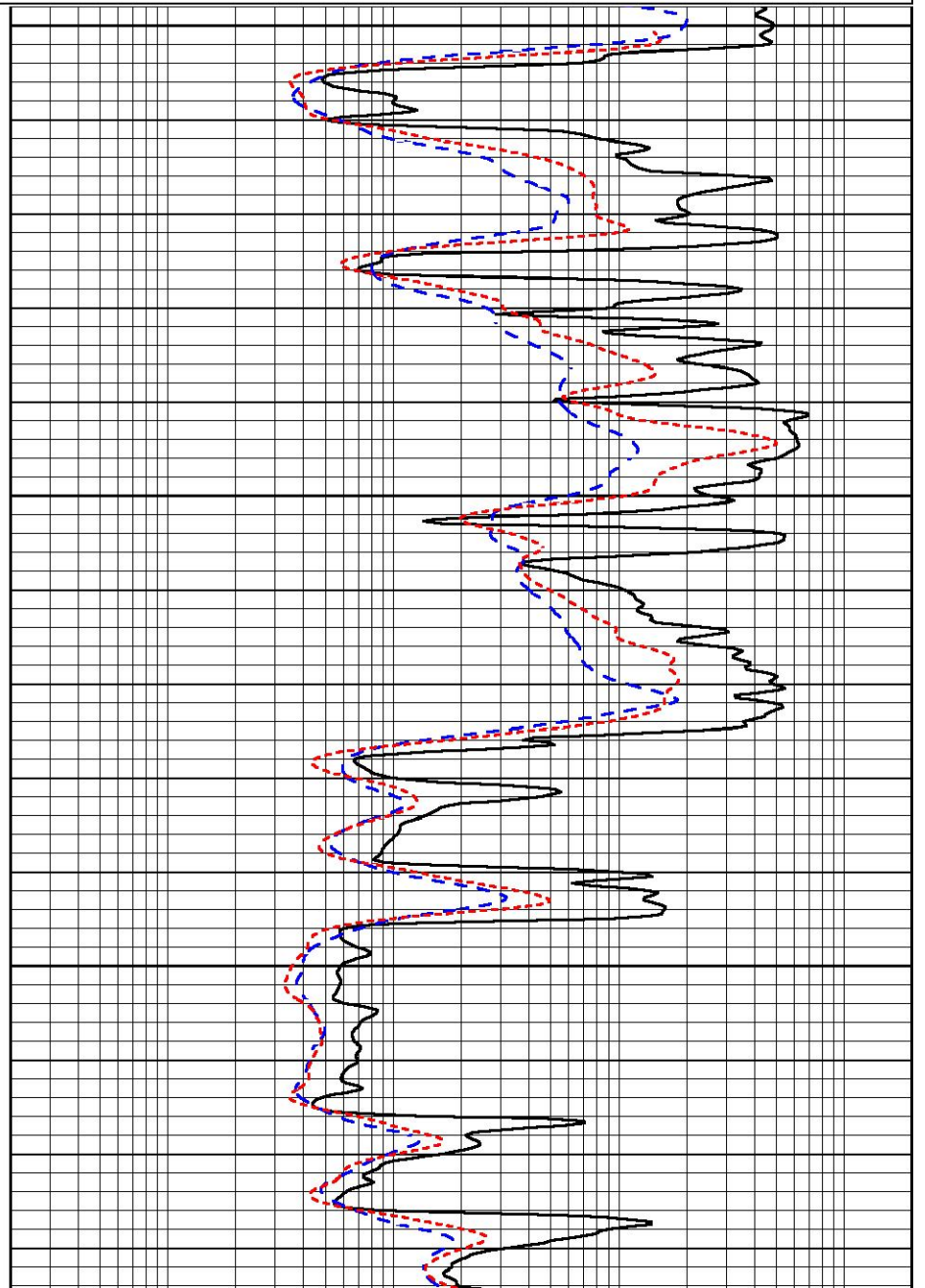
|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

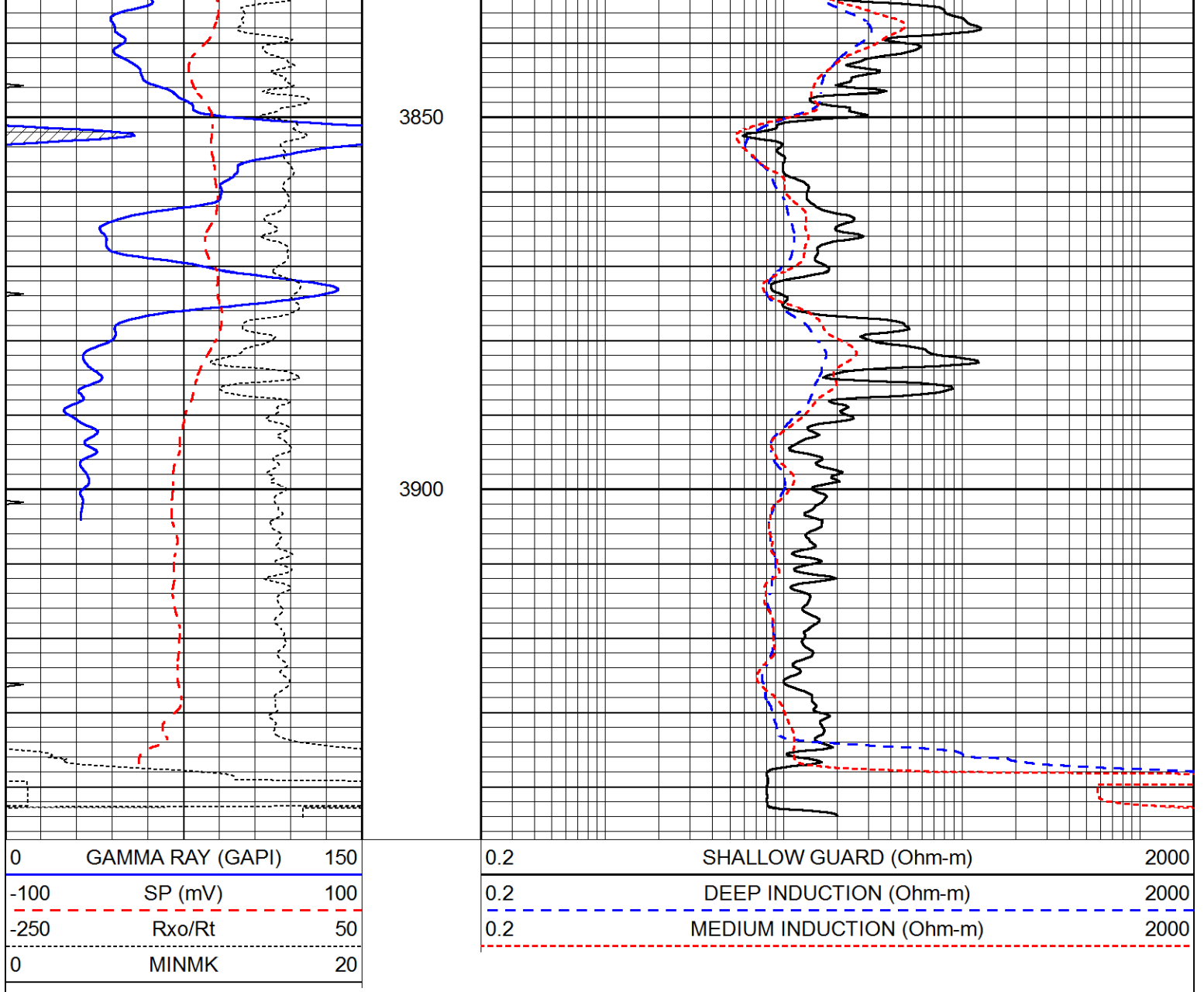


3700

3750

3800





### Calibration Report

Database File 6706pe.db  
 Dataset Pathname pass3.1M  
 Dataset Creation Wed Jul 06 20:26:36 2022

### Dual Induction Calibration Report

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Wed Jul 06 19:19:08 2022  
 Downhole Cal Performed: Mon Sep 10 14:28:38 2018  
 After Survey Verification Performed: Mon Sep 10 14:28:40 2018

#### Surface Calibration

| Loop:     | Readings |       |   |       | References |        | Results |         |
|-----------|----------|-------|---|-------|------------|--------|---------|---------|
|           | Air      | Loop  |   |       | Air        | Loop   | m       | b       |
| Deep      | 0.015    | 0.648 | V | 0.000 | 400.000    | mmho/m | 620.000 | 5.000   |
| Medium    | 0.029    | 0.796 | V | 0.000 | 464.000    | mmho/m | 600.000 | -11.000 |
| Internal: | Zero     | Cal   |   | Zero  | Cal        |        | m       | b       |
| Deep      | 0.017    | 0.657 | V | 0.000 | 400.000    | mmho/m | 625.153 | -10.619 |
| Medium    | 0.016    | 0.757 | V | 0.000 | 464.000    | mmho/m | 625.992 | -9.739  |

| Downhole Calibration |          |        |        | References |          |        | Results |       |
|----------------------|----------|--------|--------|------------|----------|--------|---------|-------|
|                      | Readings |        |        | References |          |        | Results |       |
|                      | Zero     | Cal    |        | Zero       | Cal      |        | m'      | b'    |
| Deep                 | 0.000    | 0.000  | mmho/m | 2.011      | 405.777  | mmho/m | 1.000   | 0.000 |
| Medium               | 0.000    | 0.000  | mmho/m | 7.590      | 503.393  | mmho/m | 1.000   | 0.000 |
| LL3                  |          | 7.500  | V      |            | 1500.000 | Ohm-m  |         |       |
|                      |          | 0.000  | V      |            | 20.000   | Ohm-m  |         |       |
|                      |          | -7.200 | V      |            | 3800.000 | mmho-m |         |       |

| After Survey Verification |          |       |        | Targets |       |        | Results |       |
|---------------------------|----------|-------|--------|---------|-------|--------|---------|-------|
|                           | Readings |       |        | Targets |       |        | Results |       |
|                           | Zero     | Cal   |        | Zero    | Cal   |        | m'      | b'    |
| Deep                      | 0.000    | 0.000 | mmho/m | 0.000   | 0.000 | mmho/m | 0.000   | 0.000 |
| Medium                    | 0.000    | 0.000 | mmho/m | 0.000   | 0.000 | mmho/m | 0.000   | 0.000 |
| LL3                       |          | 1.000 | Ohm-m  |         | 1.000 | Ohm-m  |         |       |
|                           |          | 0.000 | Ohm-m  |         | 0.000 | Ohm-m  |         |       |
|                           |          | 1.000 | mmho-m |         | 1.000 | mmho-m |         |       |

Litho Density Calibration Report  
Serial: 002N Model: PRB

| Master Calibration |            | Performed Tue Mar 10 15:08:00 2020 |          |                     |         |  |
|--------------------|------------|------------------------------------|----------|---------------------|---------|--|
|                    | Background | Magnesium                          | Aluminum | Aluminum+Fe         |         |  |
| Window 1           | 780.1      | 6981.9                             | 2088.6   | 1871.2              | cps     |  |
| Window 2           | 718.6      | 5898.2                             | 1813.8   | 1664.1              | cps     |  |
| Window 3           | 580.0      | 2989.5                             | 1088.0   | 1039.1              | cps     |  |
| Window 4           | 172.8      | 175.7                              | 175.3    | 173.5               | cps     |  |
| Long Space         | 0.0        | 5179.6                             | 1095.2   | 945.5               | cps     |  |
| Short Space        | 1.1        | 1228.6                             | 821.2    | 690.4               | cps     |  |
| Rho                |            | 1.7100                             | 2.5900   | 0.0000              | g/cc    |  |
| Pe                 |            | 2.0000                             | 2.7500   | 5.7900              |         |  |
| Rib Angle          | : 45.5     | Rib Slope                          | : 1.016  | Density/Spine Ratio | : 0.548 |  |
| Spine Angle        | : 75.5     | Spine Slope                        | : 3.857  | Spine Intercept     | : -18.9 |  |

| Before Survey Verification |            | Performed Wed Dec 31 18:00:00 1969 |          |             |      |  |
|----------------------------|------------|------------------------------------|----------|-------------|------|--|
|                            | Background | Magnesium                          | Aluminum | Aluminum+Fe |      |  |
| Window 1                   | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Window 2                   | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Window 3                   | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Window 4                   | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Long Space                 | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Short Space                | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Measured Rho               |            | 0.0000                             | 0.0000   | 0.0000      | g/cc |  |
| Measured Correction        |            | 0.0000                             | 0.0000   | 0.0000      | g/cc |  |
| Measured Pe                |            |                                    | 0.0000   | 0.0000      |      |  |

| After Survey Verification |            | Performed Wed Dec 31 18:00:00 1969 |          |             |      |  |
|---------------------------|------------|------------------------------------|----------|-------------|------|--|
|                           | Background | Magnesium                          | Aluminum | Aluminum+Fe |      |  |
| Window 1                  | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Window 2                  | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Window 3                  | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Window 4                  | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Long Space                | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Short Space               | 0.0        | 0.0                                | 0.0      | 0.0         | cps  |  |
| Measured Rho              |            | 0.0000                             | 0.0000   | 0.0000      | g/cc |  |
| Measured Correction       |            | 0.0000                             | 0.0000   | 0.0000      | g/cc |  |

Measured Correction  
Measured Pe

0.0000

0.0000  
0.0000

0.0000  
0.0000

g/cc

### Compensated Neutron Calibration Report

Serial Number: 6I  
Tool Model: G

#### CALIBRATION

| Detector    | Readings | Target   | Normalization |
|-------------|----------|----------|---------------|
| Short Space | 1.00 cps | 1.00 cps | 1.0000        |
| Long Space  | 1.00 cps | 1.00 cps | 1.0000        |

#### PRE-SURVEY VERIFICATION

|    | Detector    | Readings | Measured | Target |
|----|-------------|----------|----------|--------|
| 1) | Short Space | cps      |          |        |
|    | Long Space  | cps      | pu       | pu     |
| 2) | Short Space | cps      |          |        |
|    | Long Space  | cps      | pu       |        |
| 3) | Short Space | cps      |          |        |
|    | Long Space  | cps      | pu       |        |

#### POST-SURVEY VERIFICATION

|    | Detector    | Readings | Measured | Target |
|----|-------------|----------|----------|--------|
| 1) | Short Space | cps      |          |        |
|    | Long Space  | cps      | pu       | pu     |
| 2) | Short Space | cps      |          |        |
|    | Long Space  | cps      | pu       | pu     |
| 3) | Short Space | cps      |          |        |
|    | Long Space  | cps      | pu       | pu     |

### Gamma Ray Calibration Report

Serial Number: GR6  
Tool Model: OPEN  
Performed: Mon Jun 20 01:31:16 2022

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 276.0 cps

Sensitivity: 0.8500 GAPI/cps