



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**DUAL  
INDUCTION  
LOG**

Company **DOUBLE D'S LLC.**  
Well **REICHERT #3**  
Field **MARTINA**  
County **ELLIS** State **KANSAS**

Company **DOUBLE D'S LLC.**  
Well **REICHERT #3**  
Field **MARTINA**  
County **ELLIS**  
State **KANSAS**

Location: **API # : 15-051-26553**  
**1610' FNL & 830' FEL**  
**SEC 23 TWP 15S RGE 19W**  
Permanent Datum **GROUND LEVEL** Elevation  
Log Measured From **KELLY BUSHING**  
Drilling Measured From **KELLY BUSHING**

Other Services  
**CDL/CNL  
MICRO**

Elevation

K.B.  
D.F.  
G.L.

|                              |              |  |  |
|------------------------------|--------------|--|--|
| Date                         | 7-1-13       |  |  |
| Run Number                   | ONE          |  |  |
| Depth Driller                | 3751         |  |  |
| Depth Logger                 | 3750         |  |  |
| Bottom Logged Interval       | 3748         |  |  |
| Top Log Interval             | 00           |  |  |
| Casing Driller               | 1169         |  |  |
| Casing Logger                | 1165         |  |  |
| Bit Size                     | 7.875        |  |  |
| Type Fluid in Hole           | CHEMICAL MUD |  |  |
| Density / Viscosity          | 9.1 / 55     |  |  |
| pH / Fluid Loss              | 10.5 / 7.2   |  |  |
| Source of Sample             | FLOWLINE     |  |  |
| Rim @ Meas. Temp             | 0.85 @ 81F   |  |  |
| Rmf @ Meas. Temp             | 0.64 @ 81F   |  |  |
| Rmc @ Meas. Temp             | 1.02 @ 81F   |  |  |
| Source of Rmf / Rmc          | MEASURED     |  |  |
| Rim @ BHT                    | .610 @ 112F  |  |  |
| Time Circulation Stopped     | 2 HOURS      |  |  |
| Time Logger on Bottom        | 4:00 A.M.    |  |  |
| Maximum Recorded Temperature | 112F         |  |  |
| Equipment Number             | 860          |  |  |
| Location                     | HAYS, KS.    |  |  |
| Recorded By                  | RUPP         |  |  |
| Witnessed By                 | ALAN DOWNING |  |  |

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

Comments

NABORS COMPLETION & PRODUCTION SERVICES  
785-628-6395  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: ANTONINO, 3 1/2S, W INTO.

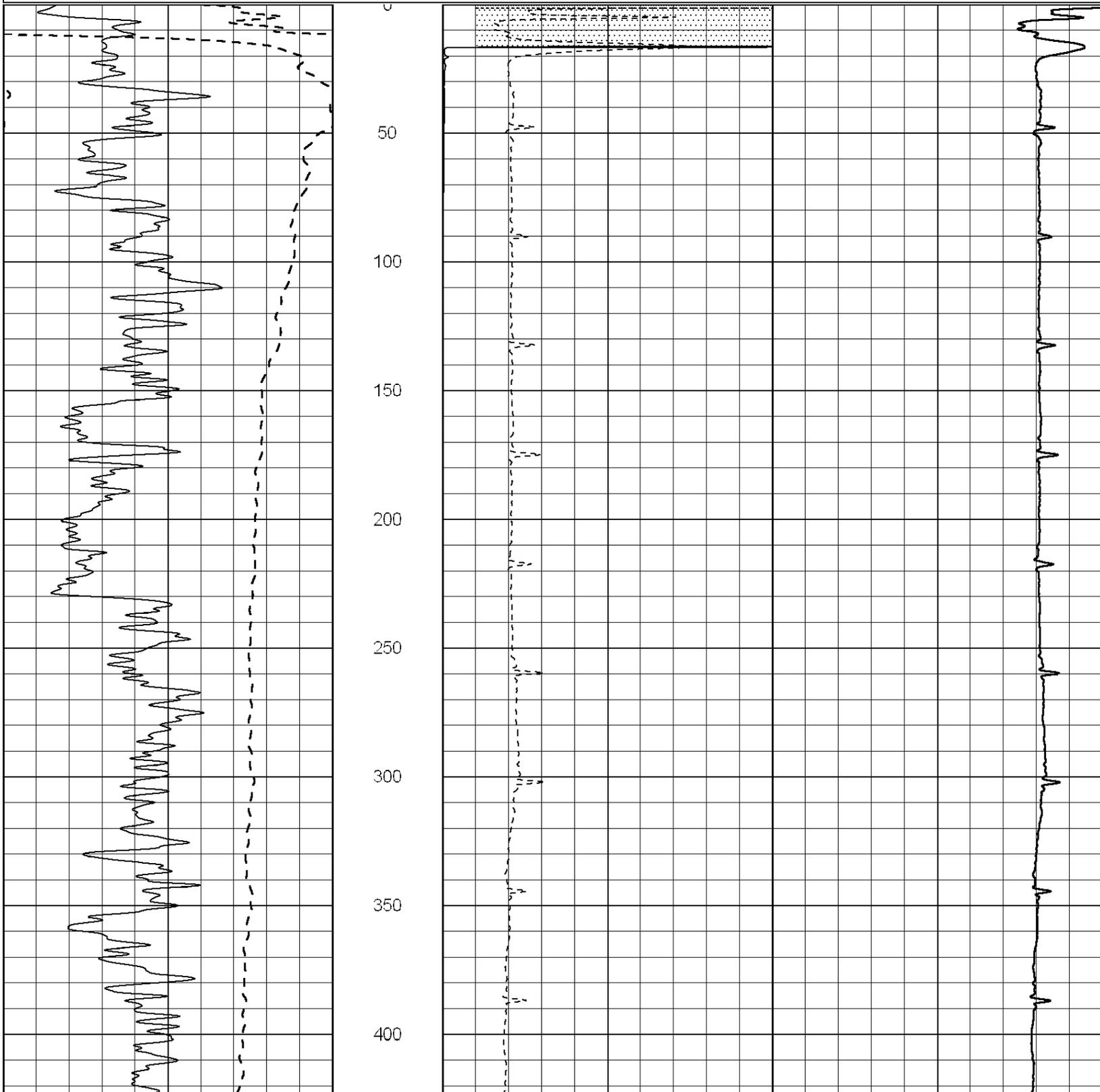


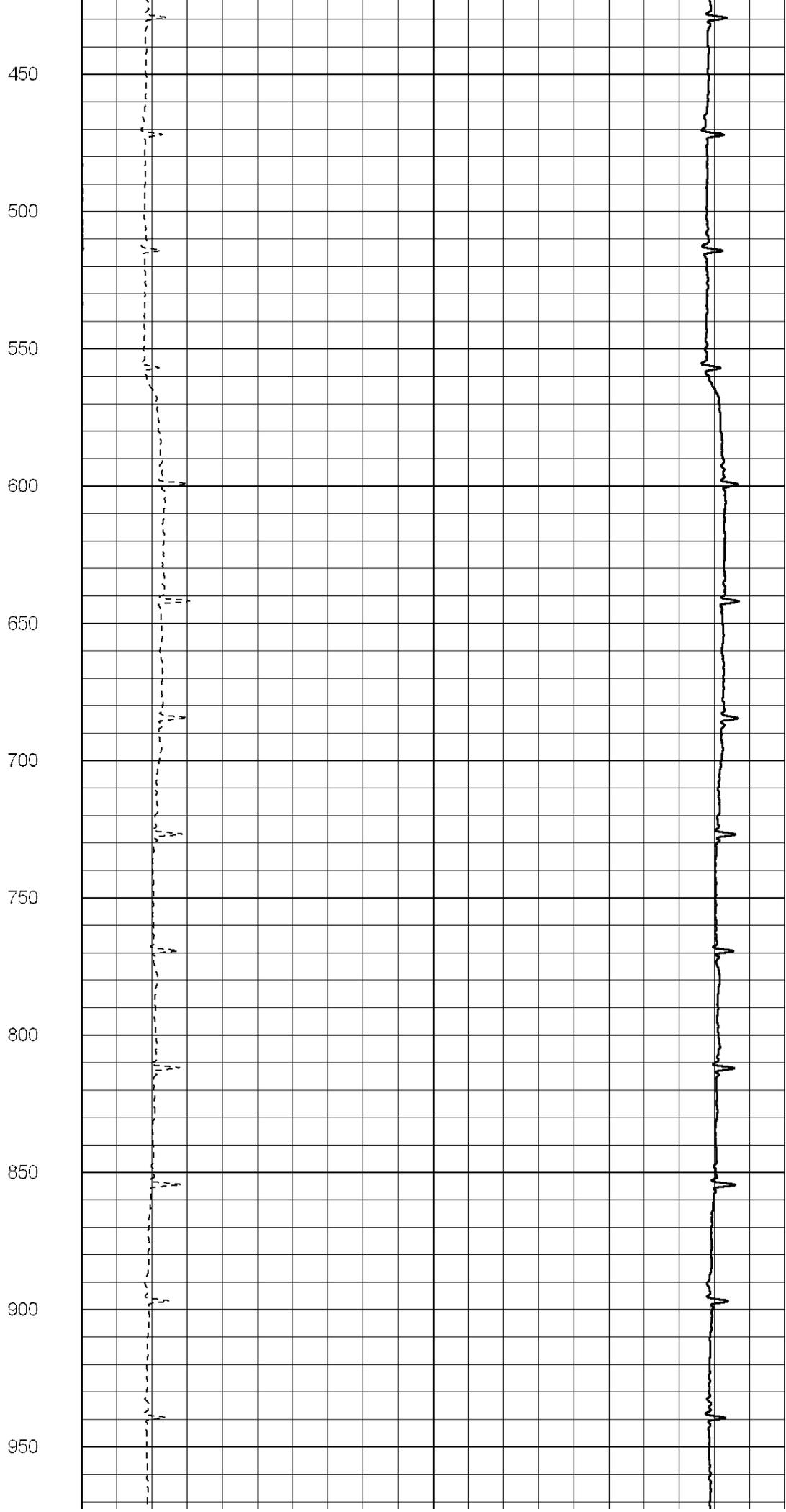
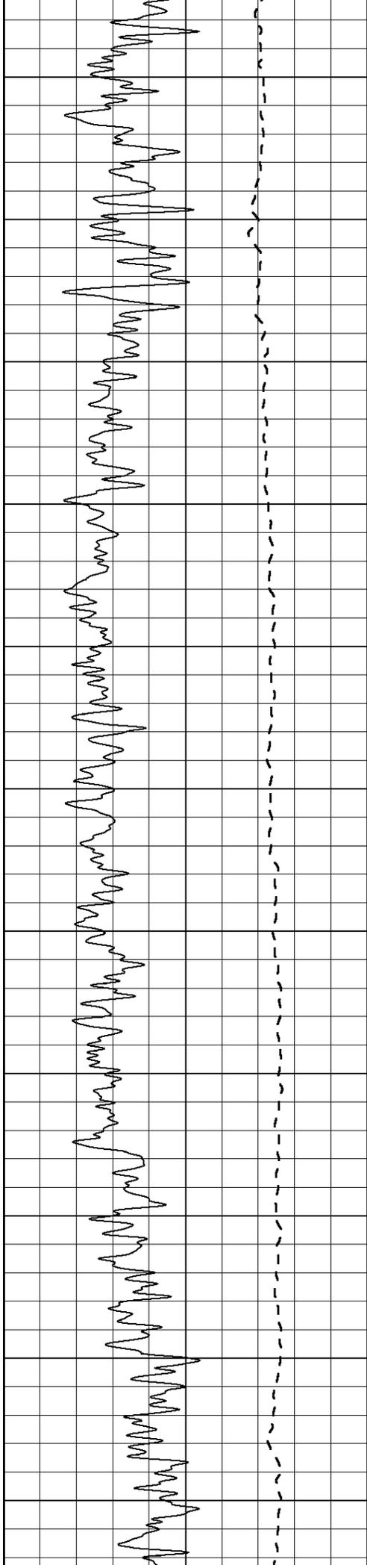
**COMPLETION  
& PRODUCTION**

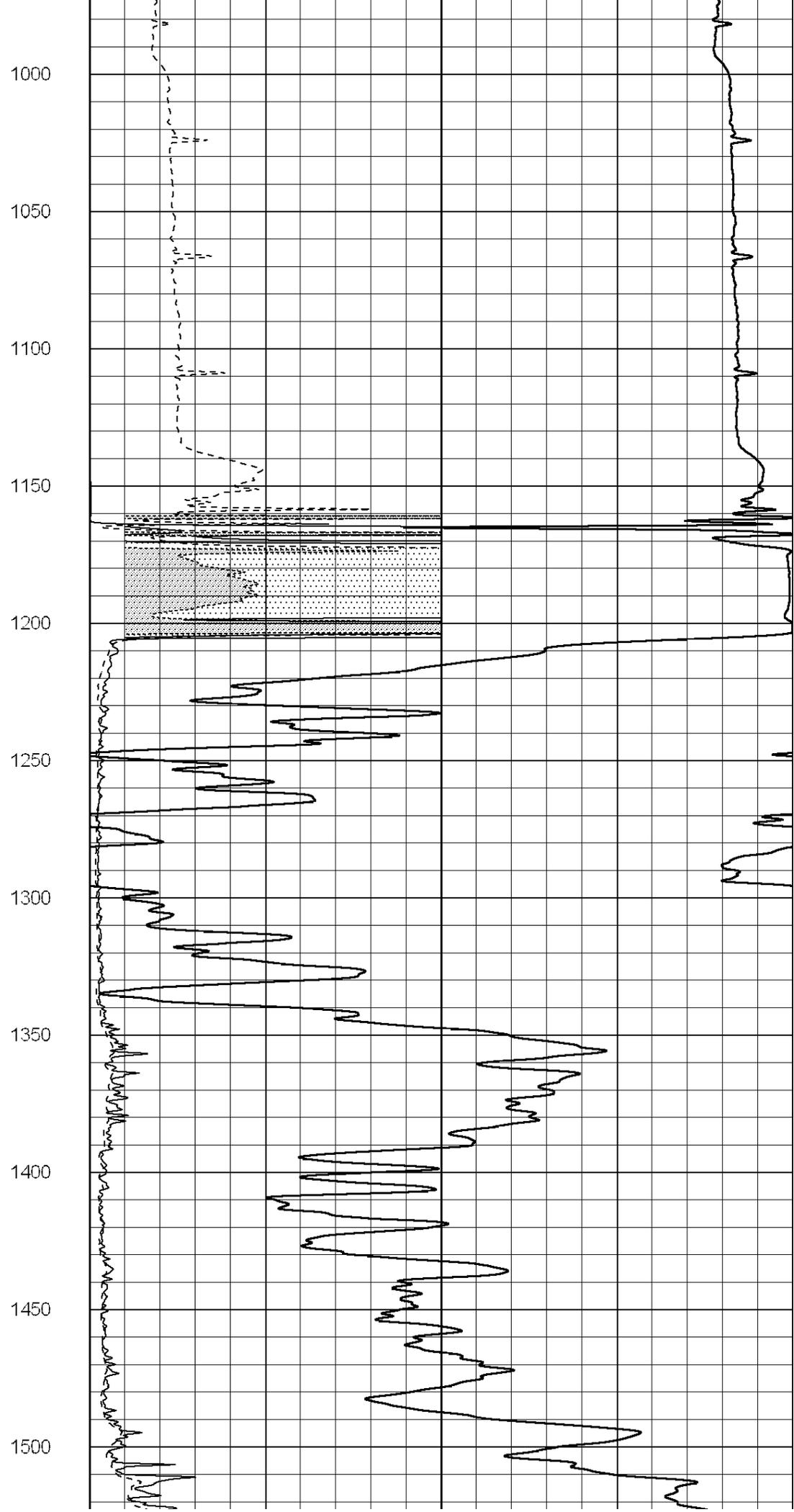
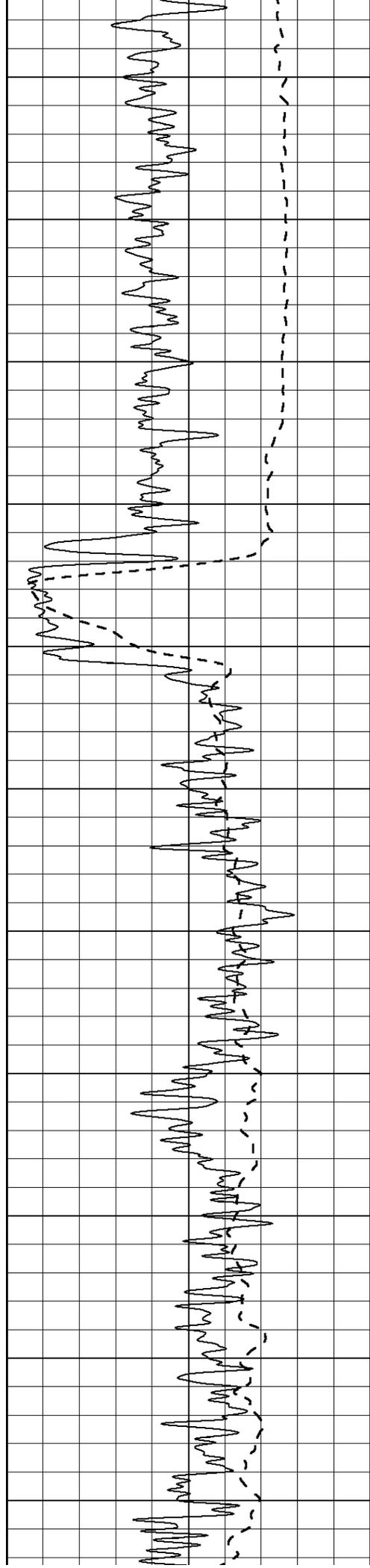
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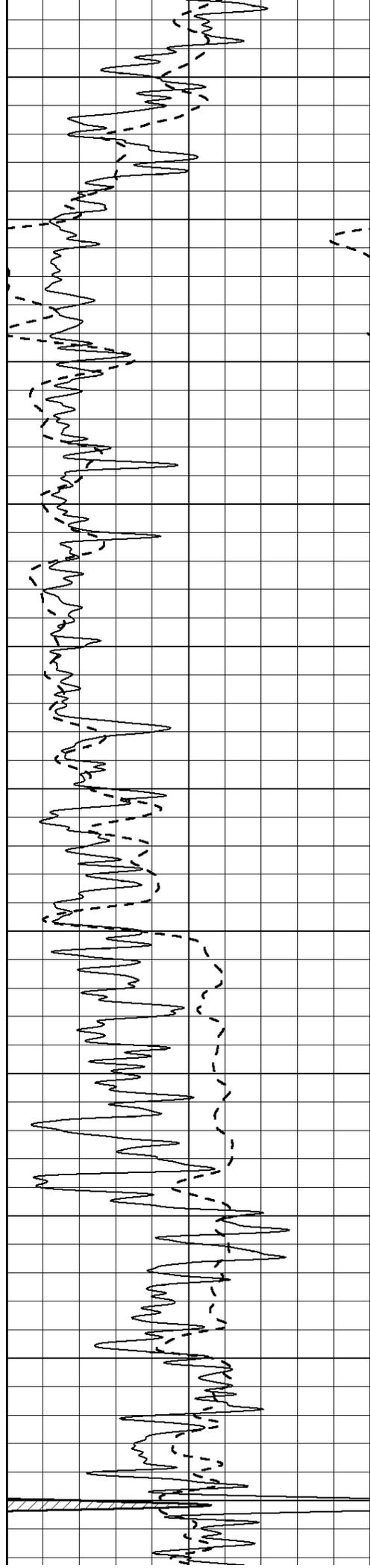
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 Charted by: Depth in Feet scaled 1:600

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| 0 | Gamma Ray (GAPI) | 150 | 0    | RLL3 (Ohm-m)           | 50  |
|   |                  |     | 0    | Deep Induction (Ohm-m) | 50  |
|   |                  |     | 1000 | CILD (mmho/m)          | 0   |
|   |                  |     | 50   | RILD X10 (Ohm-m)       | 500 |
|   |                  |     | 50   | RLL3 X10 (Ohm-m)       | 500 |









1550

1600

1650

1700

1750

1800

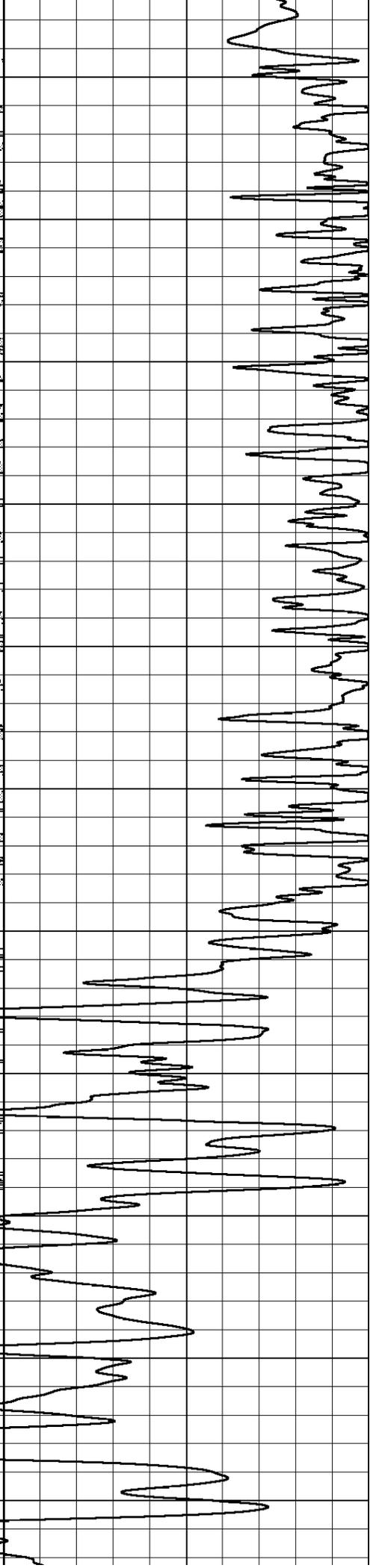
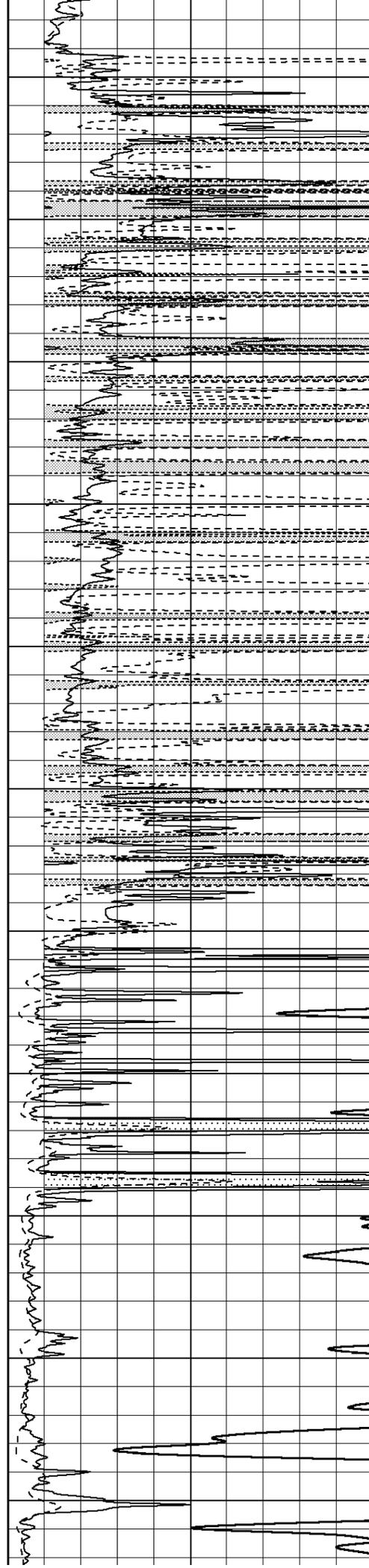
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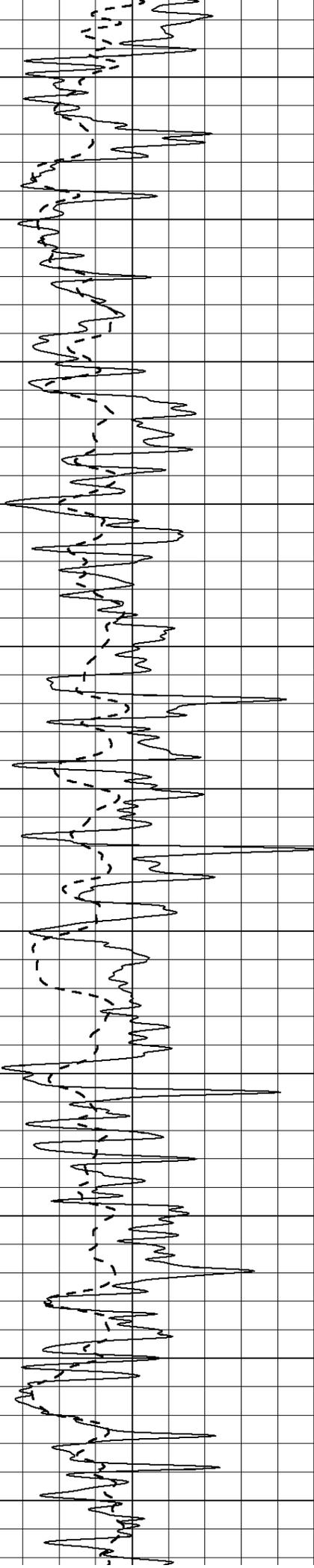
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1950

2000

2050





2100

2150

2200

2250

2300

2350

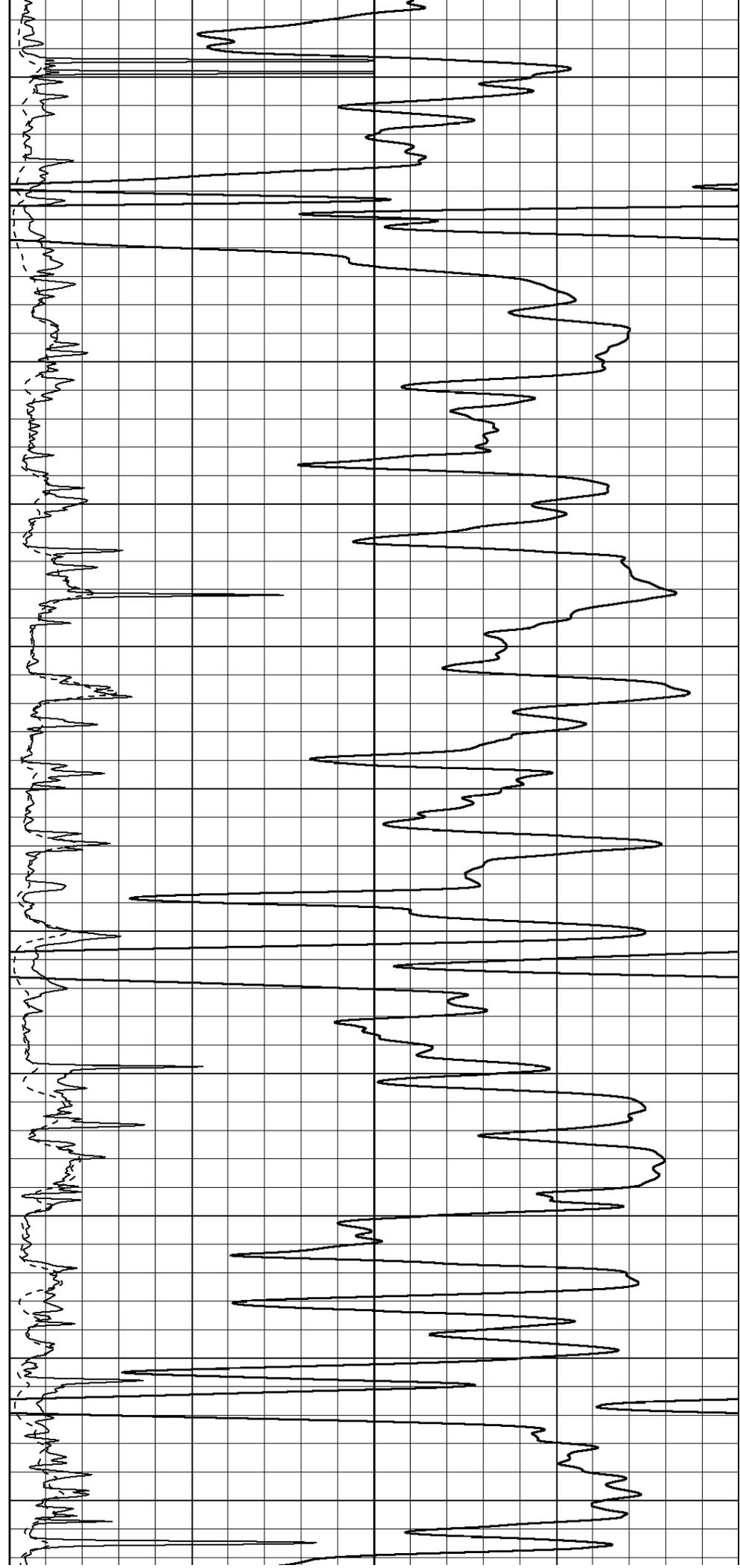
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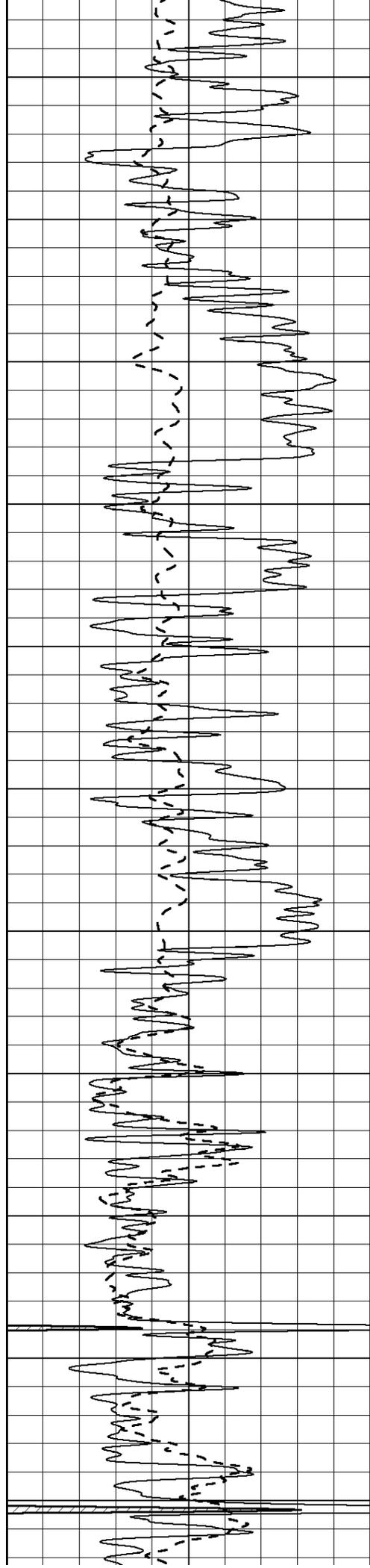
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2500

2550

2600





2650

2700

2750

2800

2850

2900

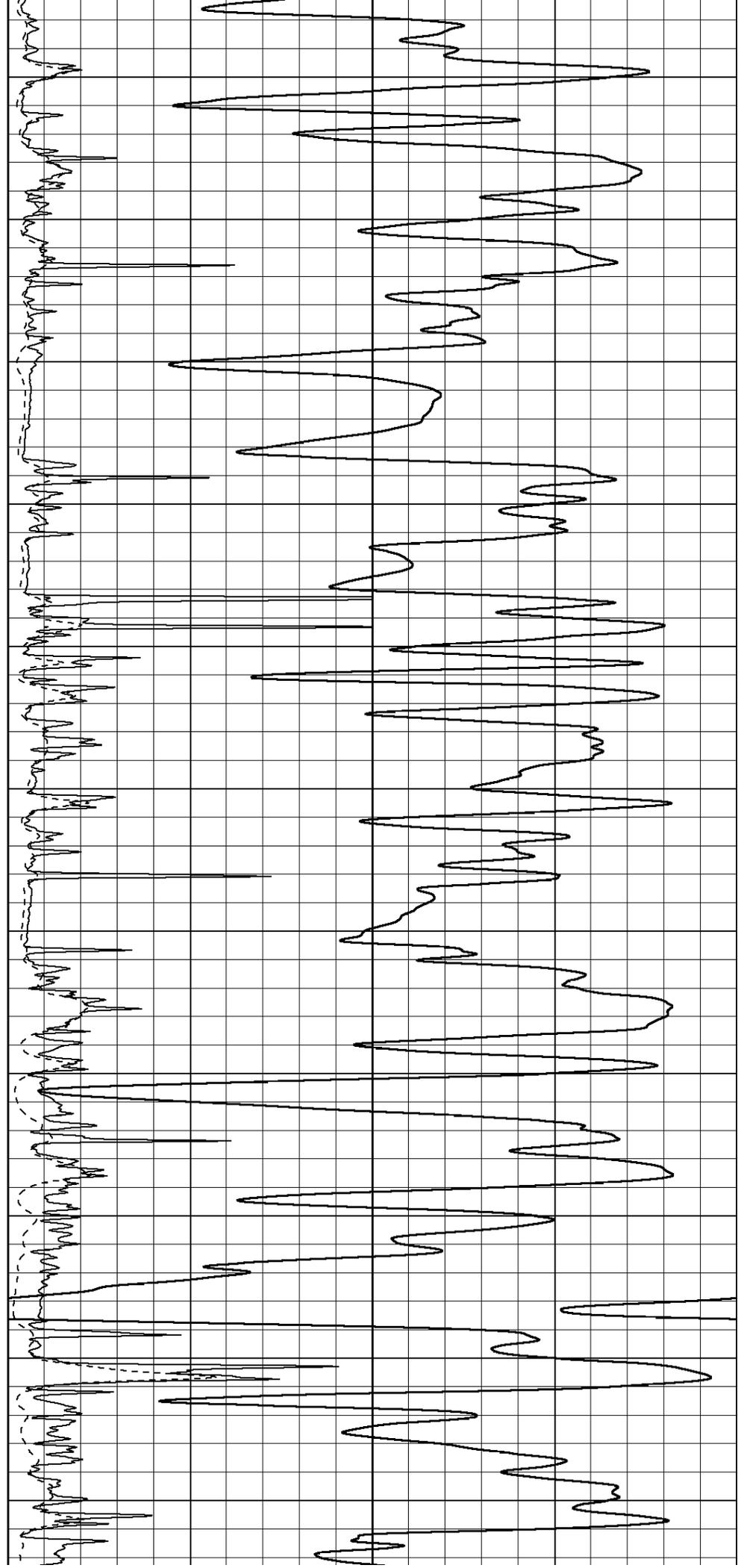
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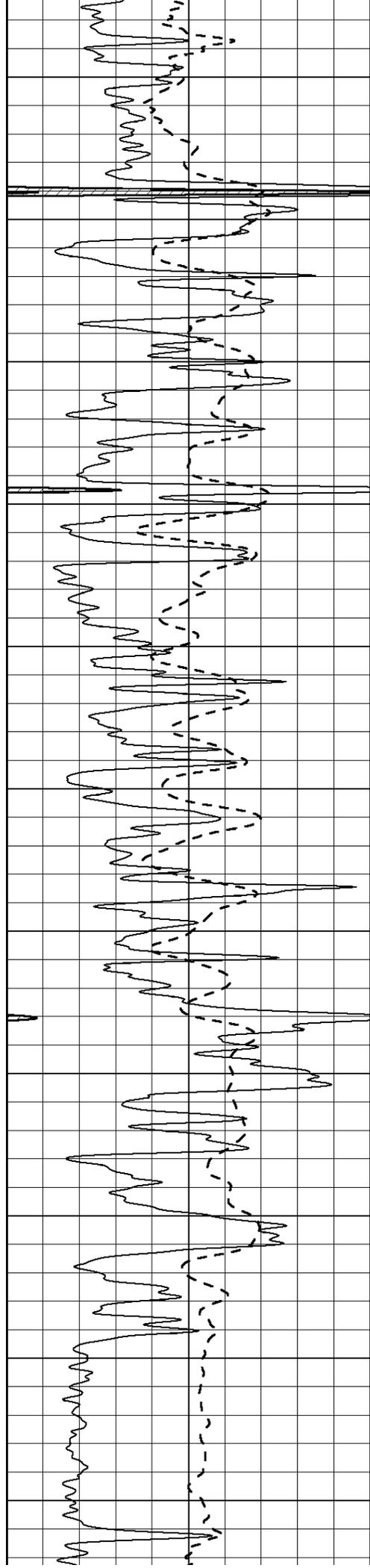
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3050

3100

3150





3200

3250

3300

3350

3400

3450

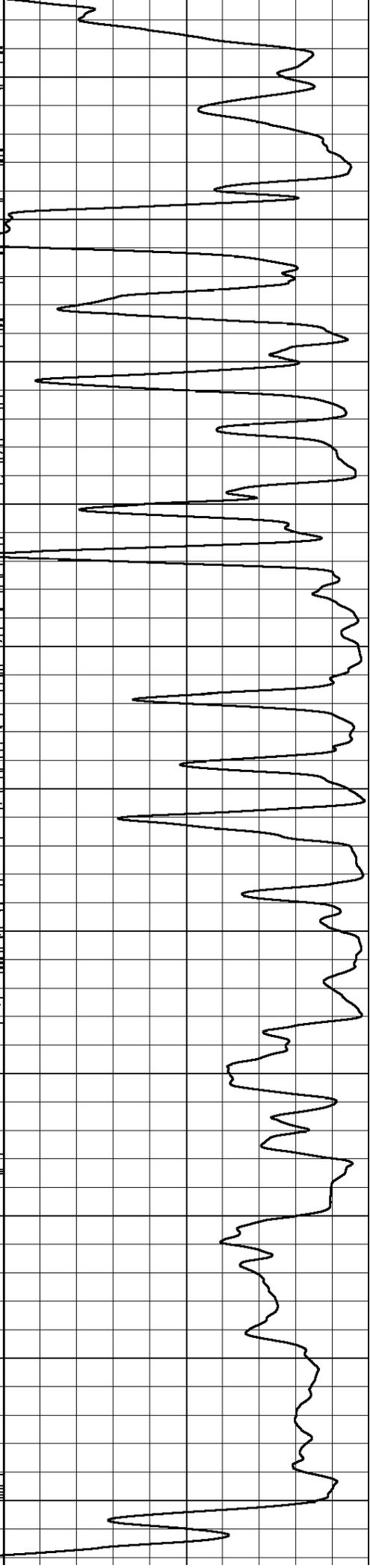
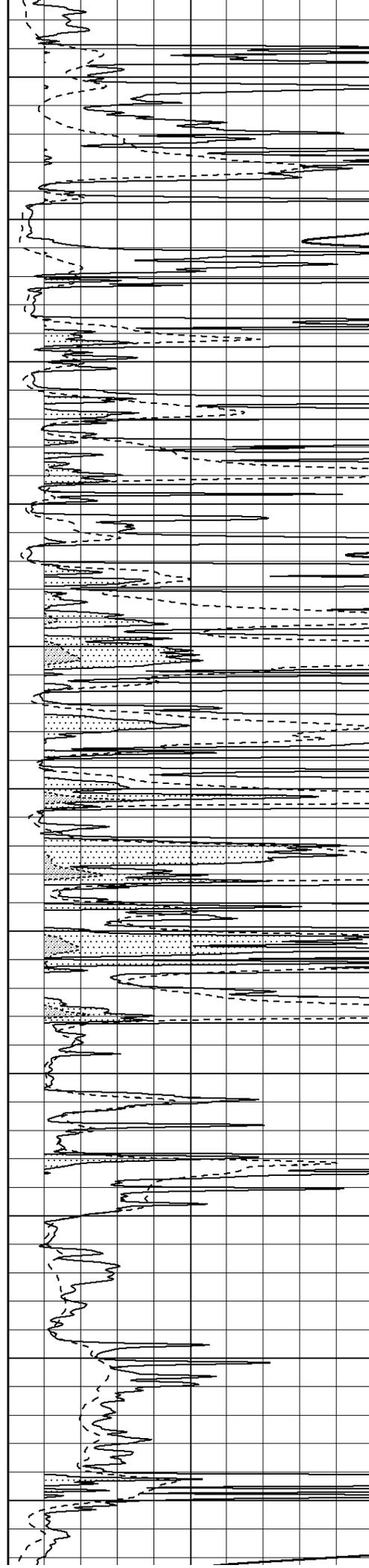
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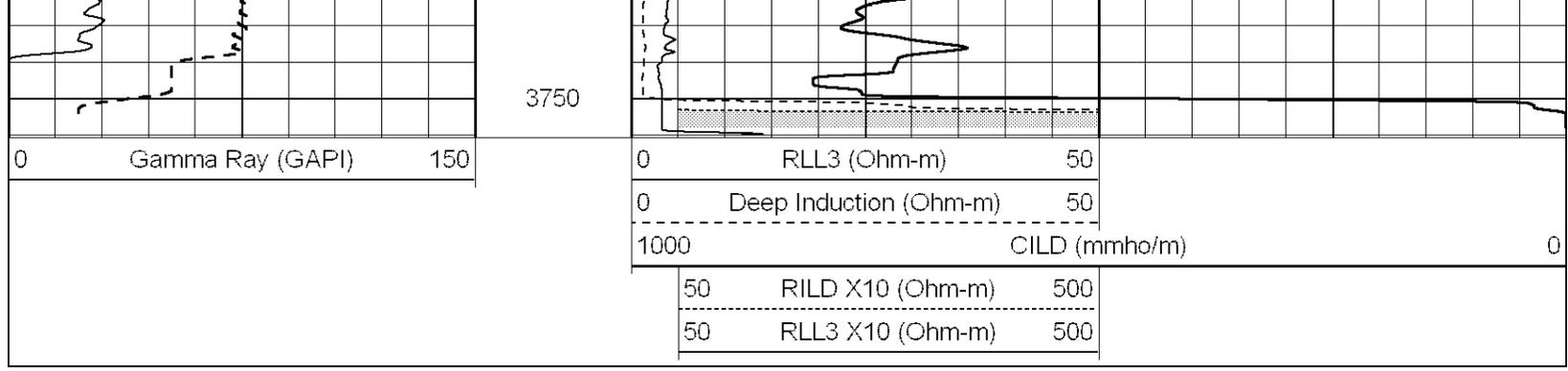
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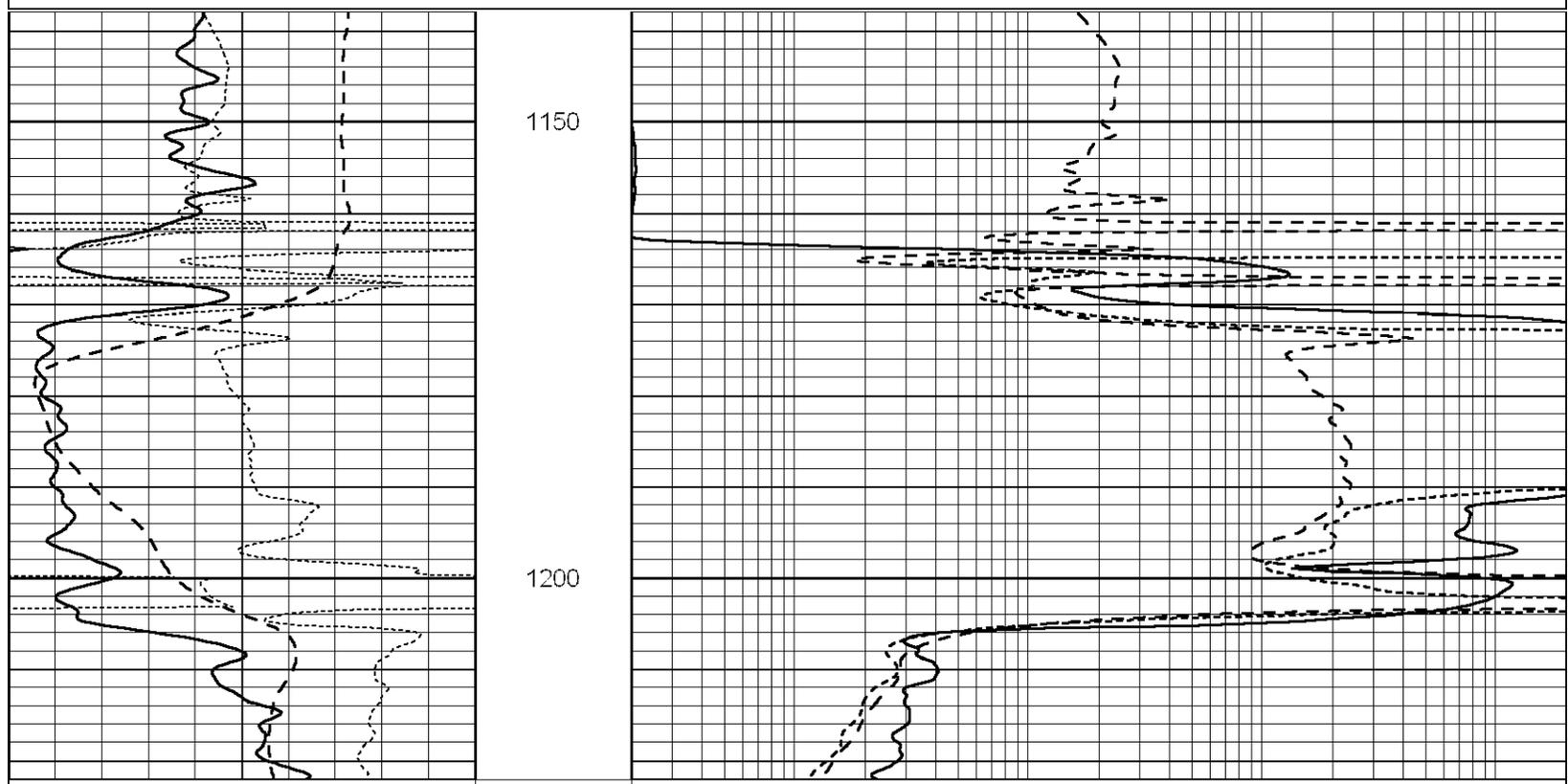


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# MAIN SECTION

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 Charted by: Depth in Feet scaled 1:240

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|------|------------------|-----|-----|--------------------------|------|
| 0    | GAMMA RAY (GAPI) | 150 | 0.2 | RLL3 (Ohm-m)             | 2000 |
| -100 | SP (mV)          | 100 | 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| -250 | RxoRt            | 50  | 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0    | MINMK            | 20  |     |                          |      |



|      |                  |     |     |                          |      |
|------|------------------|-----|-----|--------------------------|------|
| 0    | GAMMA RAY (GAPI) | 150 | 0.2 | RLL3 (Ohm-m)             | 2000 |
| -100 | SP (mV)          | 100 | 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| -250 | RxoRt            | 50  | 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0    | MINMK            | 20  |     |                          |      |



# NABORS

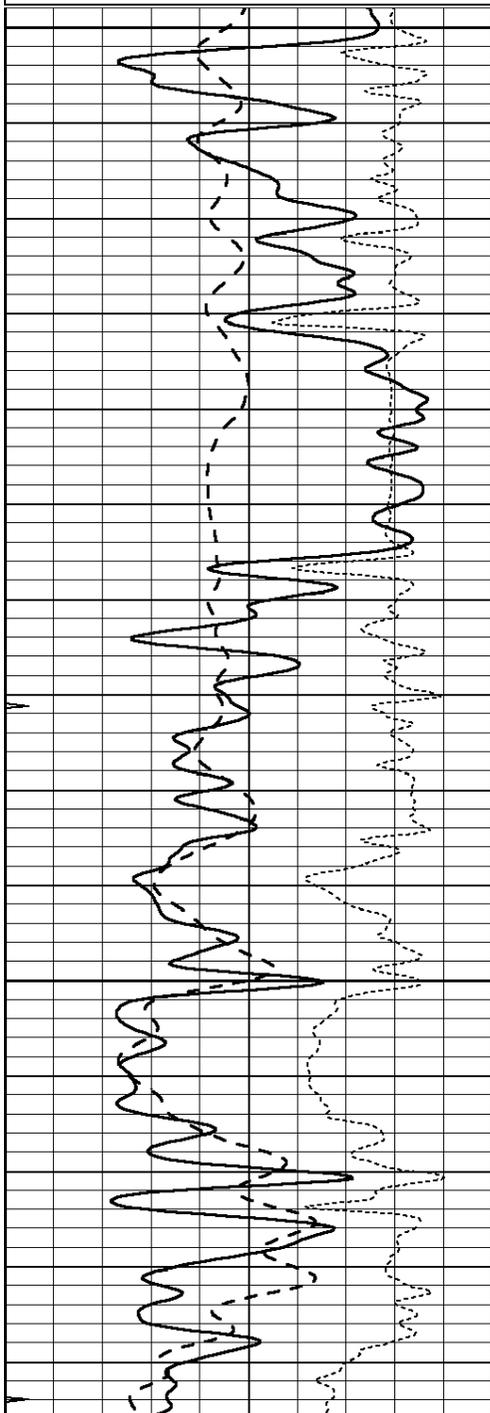
## COMPLETION & PRODUCTION SERVICES CO.

# MAIN SECTION

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 Charted by: Depth in Feet scaled 1:240

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

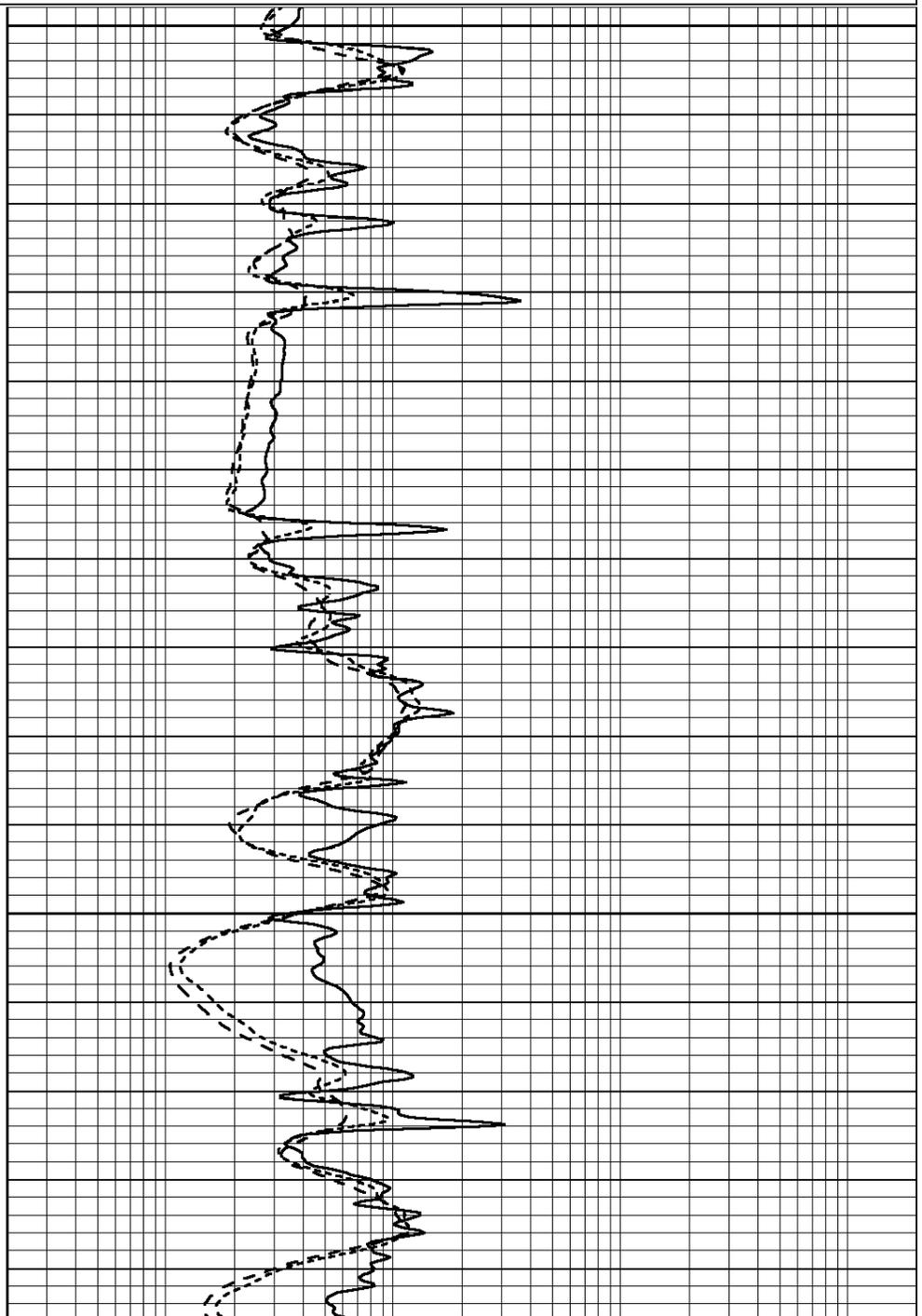
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|-----|--------------------------|------|
| 0.2 | RLL3 (Ohm-m)             | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

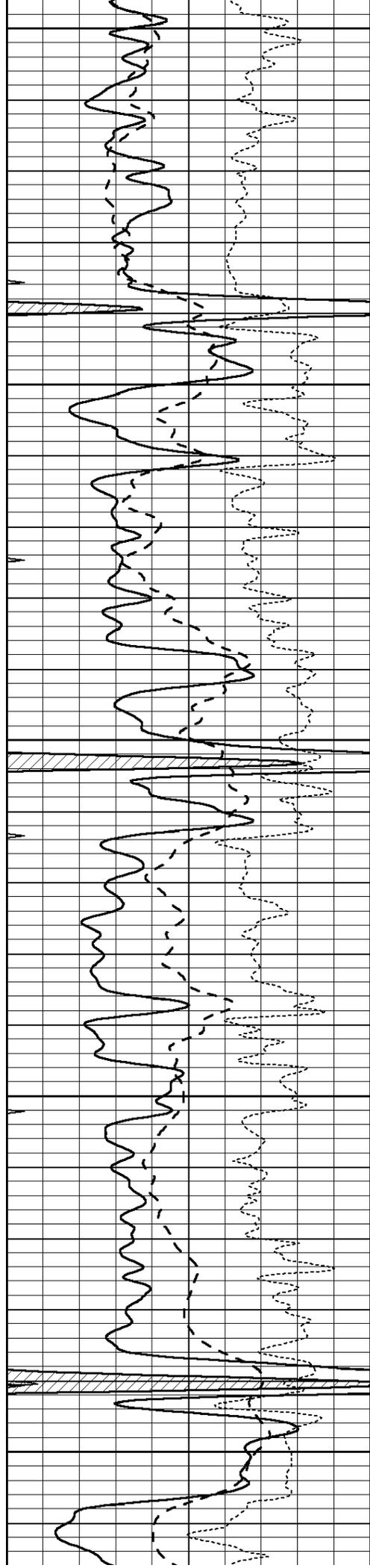


2900

2950

3000





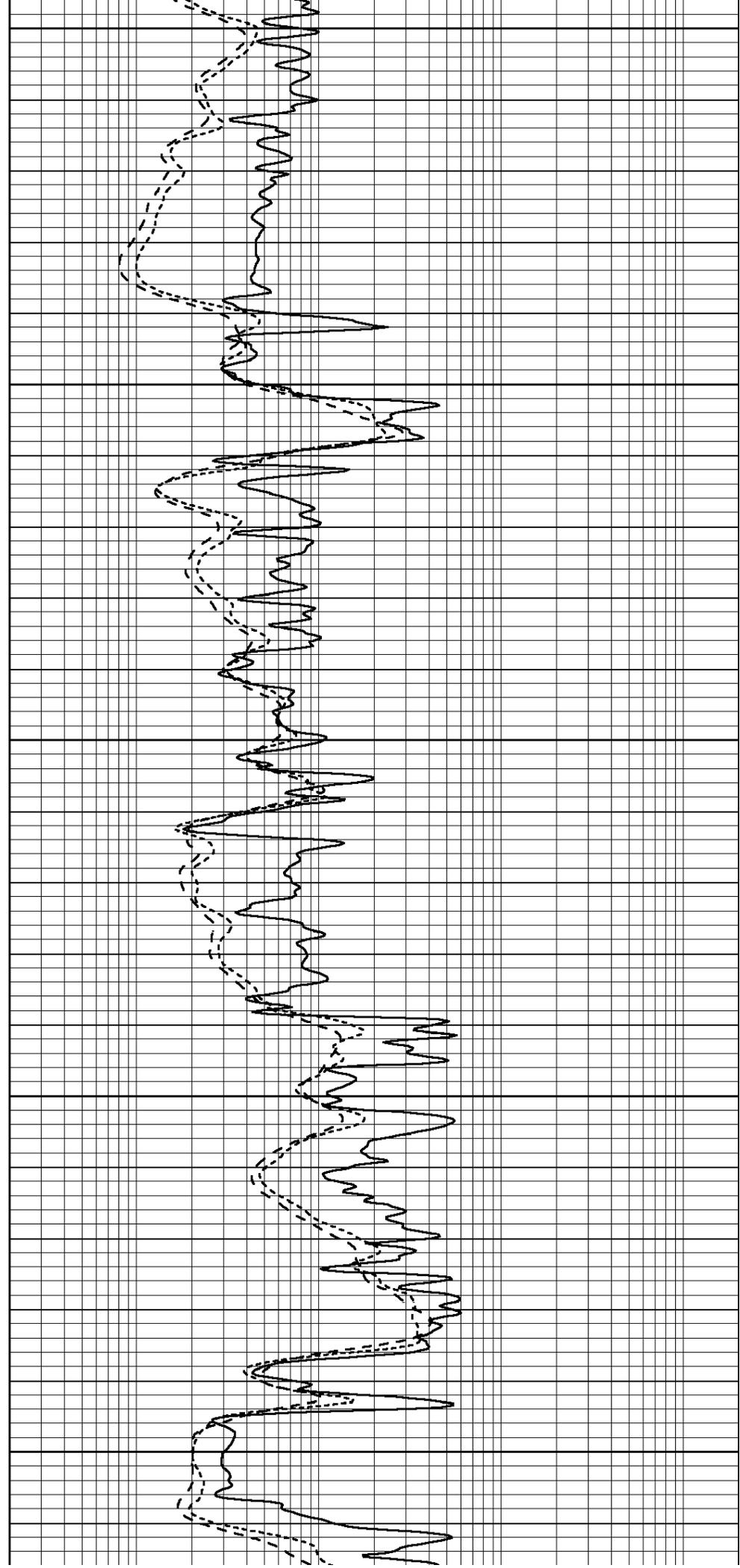
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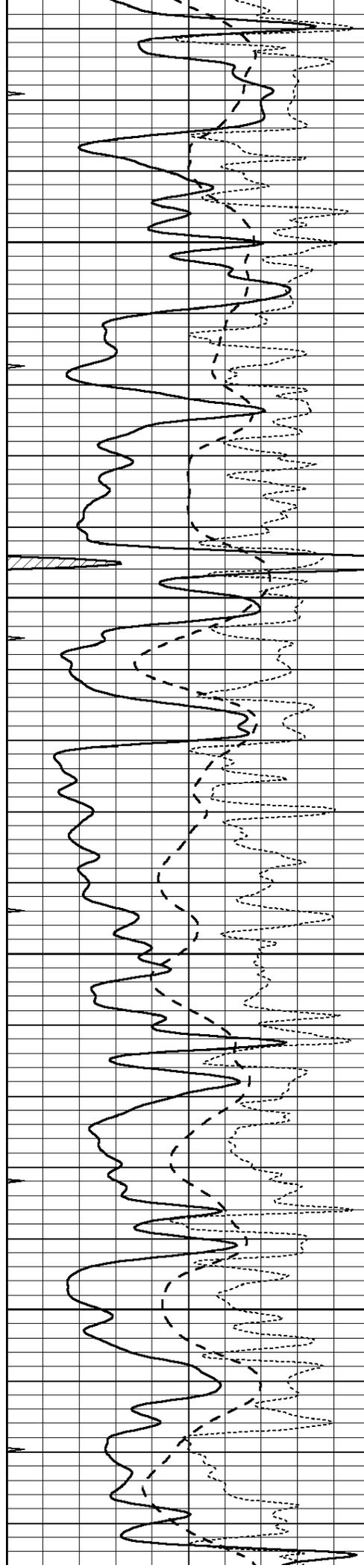
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3150

3200

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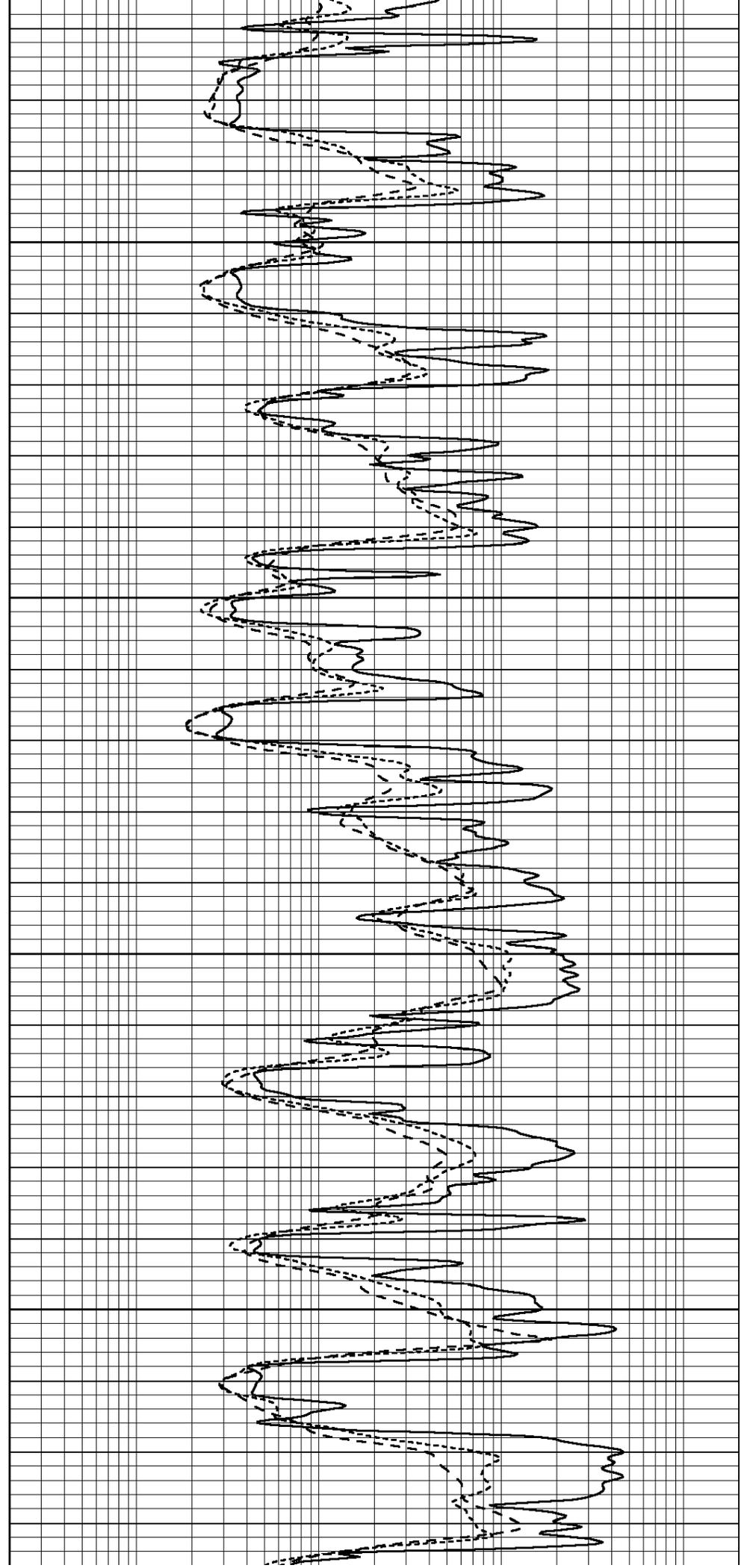


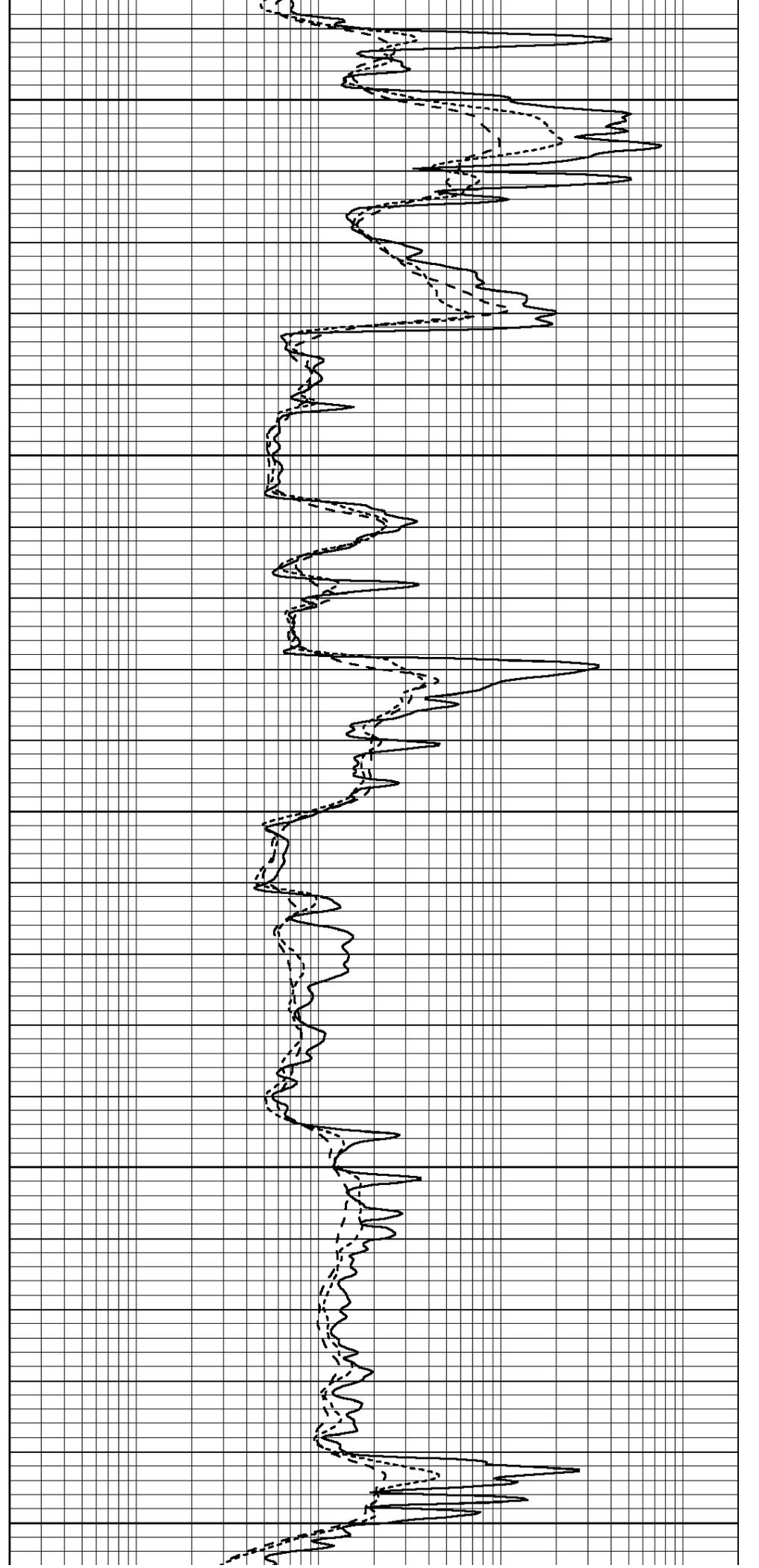
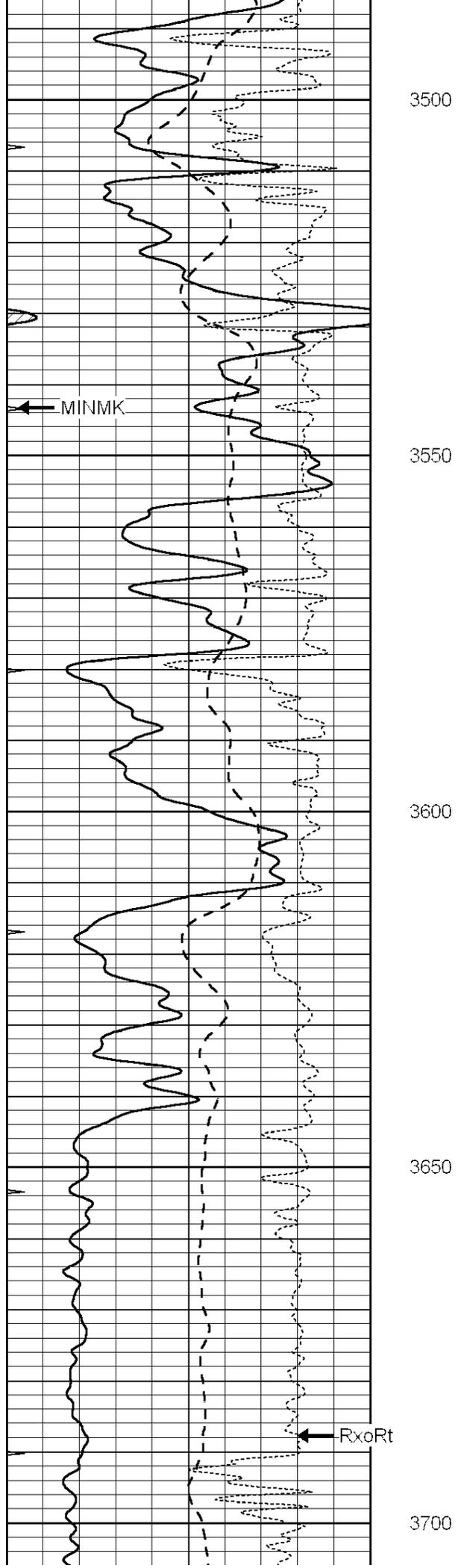
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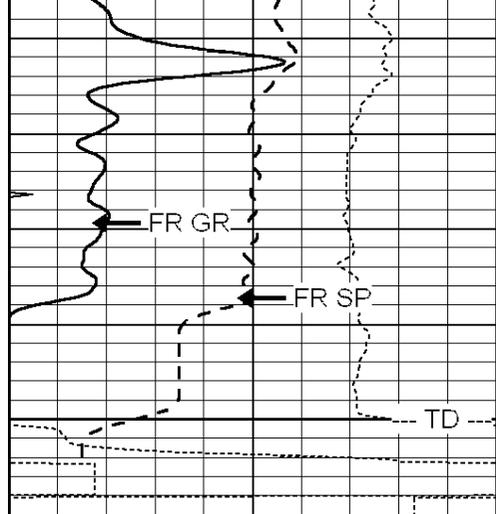
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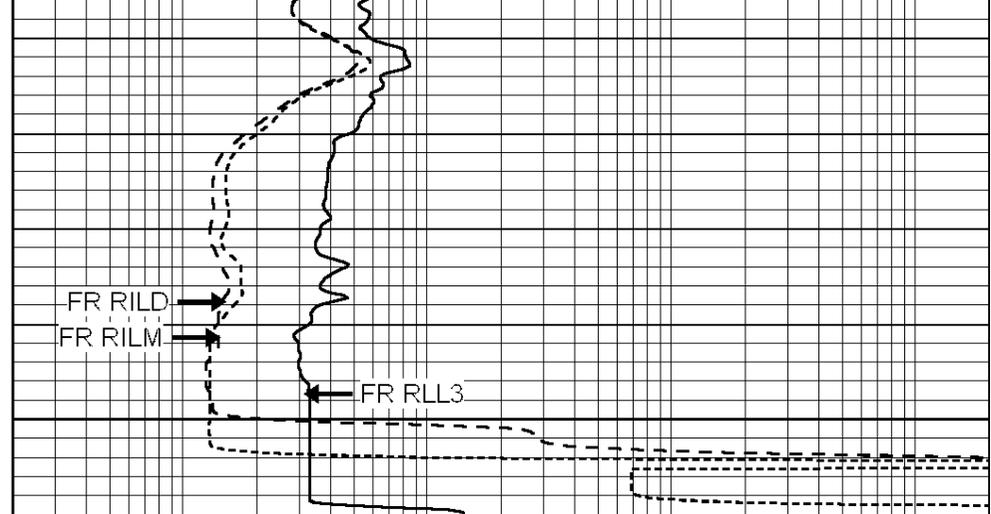






|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | RxoRt            | 50  |
| 0    | MINMK            | 20  |

3750



|     |                          |      |
|-----|--------------------------|------|
| 0.2 | RLL3 (Ohm-m)             | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |

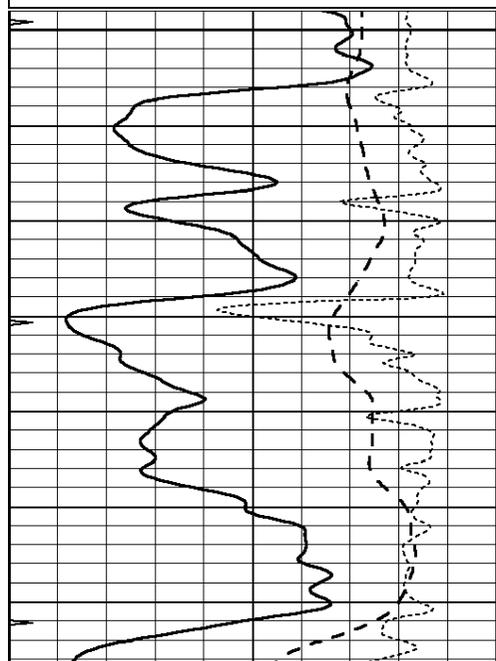


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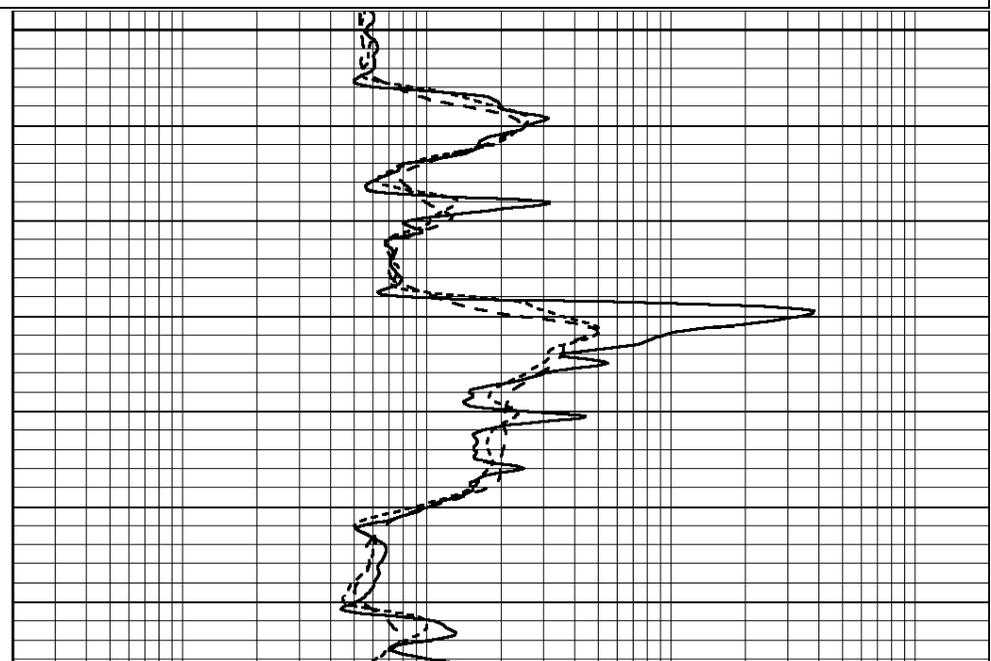
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|------|------------------|-----|
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| -100 | SP (mV)          | 100 |
| -250 | RxoRt            | 50  |
| 0    | MINMK            | 20  |

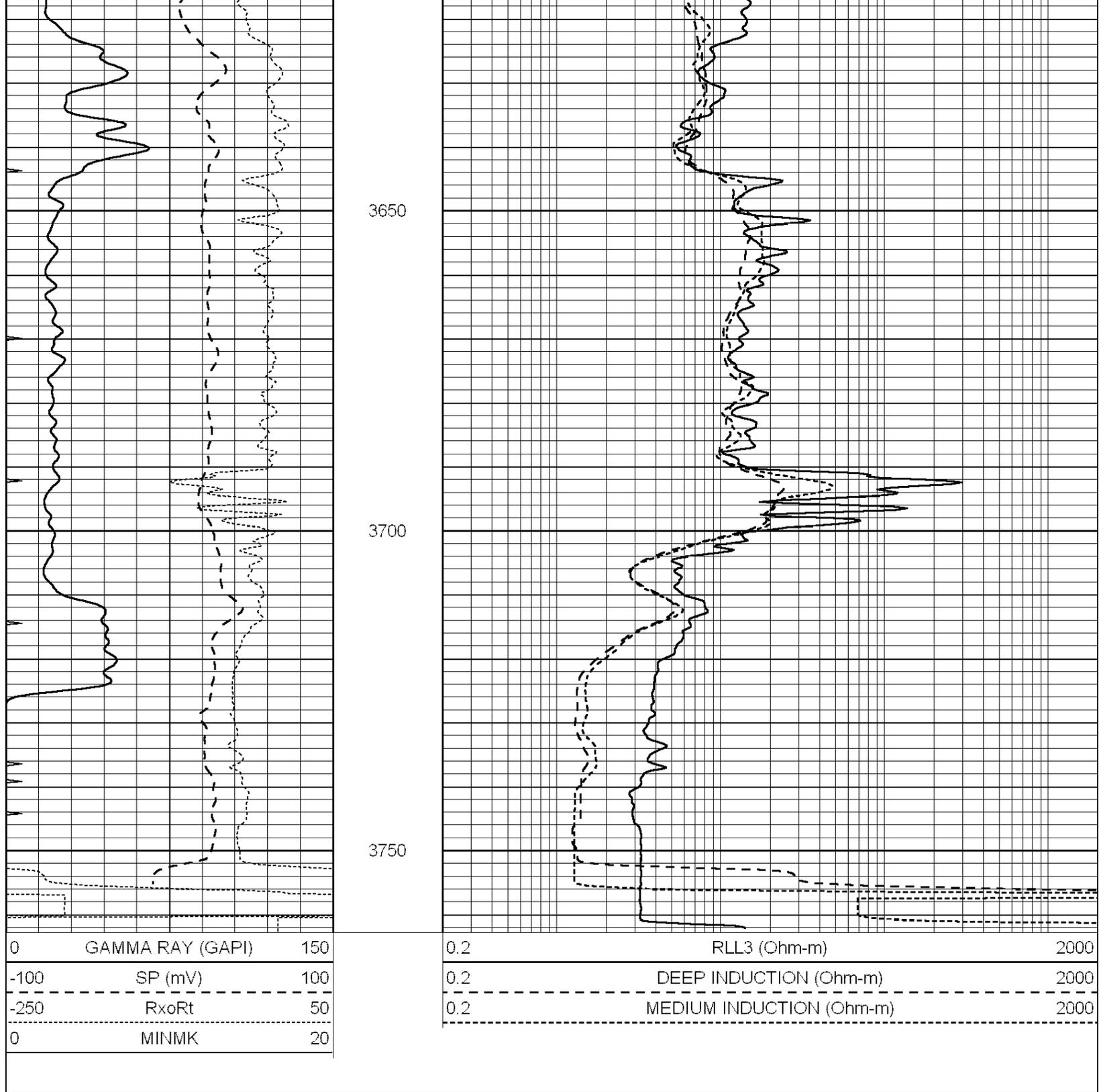
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|-----|--------------------------|------|
| 0.2 | RLL3 (Ohm-m)             | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



3550

3600





### Calibration Report

Database File: 011352ddn.db  
 Dataset Pathname: pass7.1  
 Dataset Creation: Mon Jul 01 07:56:35 2013 by Calc Open-Cased 090629

### Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Mon Jul 01 07:10:41 2013  
 Downhole Cal Performed: Sat Jan 19 19:51:38 2013  
 After Survey Verification Performed: Sat Jan 19 19:51:38 2013

Surface Calibration

| Loop:     | Readings |       |   | References |         |        | Results |         |
|-----------|----------|-------|---|------------|---------|--------|---------|---------|
|           | Air      | Loop  |   | Air        | Loop    |        | m       | b       |
| Deep      | 0.793    | 0.790 | V | 0.000      | 400.000 | mmho/m | 620.000 | 22.000  |
| Medium    | 0.992    | 1.002 | V | 0.000      | 464.000 | mmho/m | 660.000 | -30.000 |
| Internal: | Zero     | Cal   |   | Zero       | Cal     |        | m       | b       |
| Deep      | 0.041    | 0.642 | V | 0.000      | 400.000 | mmho/m | 664.874 | -27.011 |
| Medium    | 0.035    | 0.802 | V | 0.000      | 464.000 | mmho/m | 604.936 | -21.367 |

| Downhole Calibration |            |           |        |            |            |        |         |         |
|----------------------|------------|-----------|--------|------------|------------|--------|---------|---------|
|                      | Readings   |           |        |            | References |        | Results |         |
|                      | Zero       | Cal       |        |            | Zero       | Cal    | m'      | b'      |
| Deep                 | 135384.000 | 27094.500 | mmho/m | 135400.000 | 27082.400  | mmho/m | 1.000   | -19.259 |
| Medium               | -47330.100 | -9381.740 | mmho/m | -47327.100 | -9389.280  | mmho/m | 1.000   | -10.154 |
| LL3                  |            | 7.322     | V      |            | 1400.000   | Ohm-m  |         |         |
|                      |            | 0.038     | V      |            | 20.000     | Ohm-m  |         |         |
|                      |            | -7.273    | V      |            | 4000.000   | mmho-m |         |         |

| After Survey Verification |          |       |        |            |           |        |         |       |
|---------------------------|----------|-------|--------|------------|-----------|--------|---------|-------|
|                           | Readings |       |        |            | Targets   |        | Results |       |
|                           | Zero     | Cal   |        |            | Zero      | Cal    | m'      | b'    |
| Deep                      | 0.000    | 0.000 | mmho/m | 135384.000 | 27094.500 | mmho/m | 1.000   | 0.000 |
| Medium                    | 0.000    | 0.000 | mmho/m | -47330.100 | -9381.740 | mmho/m | 1.000   | 0.000 |
| LL3                       |          | 0.000 | Ohm-m  |            | 1400.000  | Ohm-m  |         |       |
|                           |          | 0.000 | Ohm-m  |            | 20.000    | Ohm-m  |         |       |
|                           |          | 0.000 | mmho-m |            | 4000.000  | mmho-m |         |       |

| Gamma Ray Calibration Report |                          |  |  |          |  |  |  |  |
|------------------------------|--------------------------|--|--|----------|--|--|--|--|
| Serial Number:               | GR5                      |  |  |          |  |  |  |  |
| Tool Model:                  | OPEN                     |  |  |          |  |  |  |  |
| Performed:                   | Mon Jul 01 05:22:08 2013 |  |  |          |  |  |  |  |
| Calibrator Value:            | 1.0                      |  |  | GAPI     |  |  |  |  |
| Background Reading:          | 0.0                      |  |  | cps      |  |  |  |  |
| Calibrator Reading:          | 1.0                      |  |  | cps      |  |  |  |  |
| Sensitivity:                 | 0.9000                   |  |  | GAPI/cps |  |  |  |  |