



**SUPERIOR**  
**Hays,**  
**Kansas**

**DUAL**  
**INDUCTION**  
**LOG**

|                              |                    |                           |  |
|------------------------------|--------------------|---------------------------|--|
| Company                      |                    | SHELBY RESOURCES, LLC.    |  |
| Well                         |                    | RGW #1-16                 |  |
| Field                        |                    | WILDCAT                   |  |
| County                       |                    | PAWNEE                    |  |
| State                        |                    | KANSAS                    |  |
| Location:                    |                    | APL # : 15-145-21659-0000 |  |
| Permanent Datum              |                    | GROUND LEVEL              |  |
| Log Measured From            |                    | KELLY BUSHING 11' A.G.L.  |  |
| Drilling Measured From       |                    | KELLY BUSHING             |  |
| SEC 16                       |                    | TWP 21S                   |  |
| RGE 16W                      |                    | Elevation                 |  |
| CDL/CNL                      |                    | DIL/SON                   |  |
| K.B. 2002                    |                    | D.F. 2000                 |  |
| G.L. 1991                    |                    |                           |  |
| Date                         | 12/14/11           |                           |  |
| Run Number                   | ONE                |                           |  |
| Depth Driller                | 3900               |                           |  |
| Depth Logger                 | 3898               |                           |  |
| Bottom Logged Interval       | 3896               |                           |  |
| Top Log Interval             | 0                  |                           |  |
| Casing Driller               | 8 5/8" @ 1032      |                           |  |
| Casing Logger                | 1008               |                           |  |
| Bit Size                     | 7 7/8              |                           |  |
| Type Fluid in Hole           | CHEMICAL MUD       | CHLORIDES 8600 PPM        |  |
| Density / Viscosity          | 9.3/42             |                           |  |
| pH / Fluid Loss              | 10.0/8.0           |                           |  |
| Source of Sample             | FLOWLINE           |                           |  |
| Rm @ Meas. Temp              | 0.95 @ 74F         |                           |  |
| Rmf @ Meas. Temp             | 0.71 @ 74F         |                           |  |
| Rmc @ Meas. Temp             | 1.14 @ 74F         |                           |  |
| Source of Rmf / Rmc          | MEASURED           |                           |  |
| Rm @ BHT                     | 0.61 @ 115F        |                           |  |
| Time Circulation Stopped     | 2 HOURS            |                           |  |
| Time Logger on Bottom        |                    |                           |  |
| Maximum Recorded Temperature | 115F               |                           |  |
| Equipment Number             | 680                |                           |  |
| Location                     | HAYS, KS.          |                           |  |
| Recorded By                  | JEFF GRONEMEG      |                           |  |
| Witnessed By                 | CHARLIE STURDAVANT |                           |  |

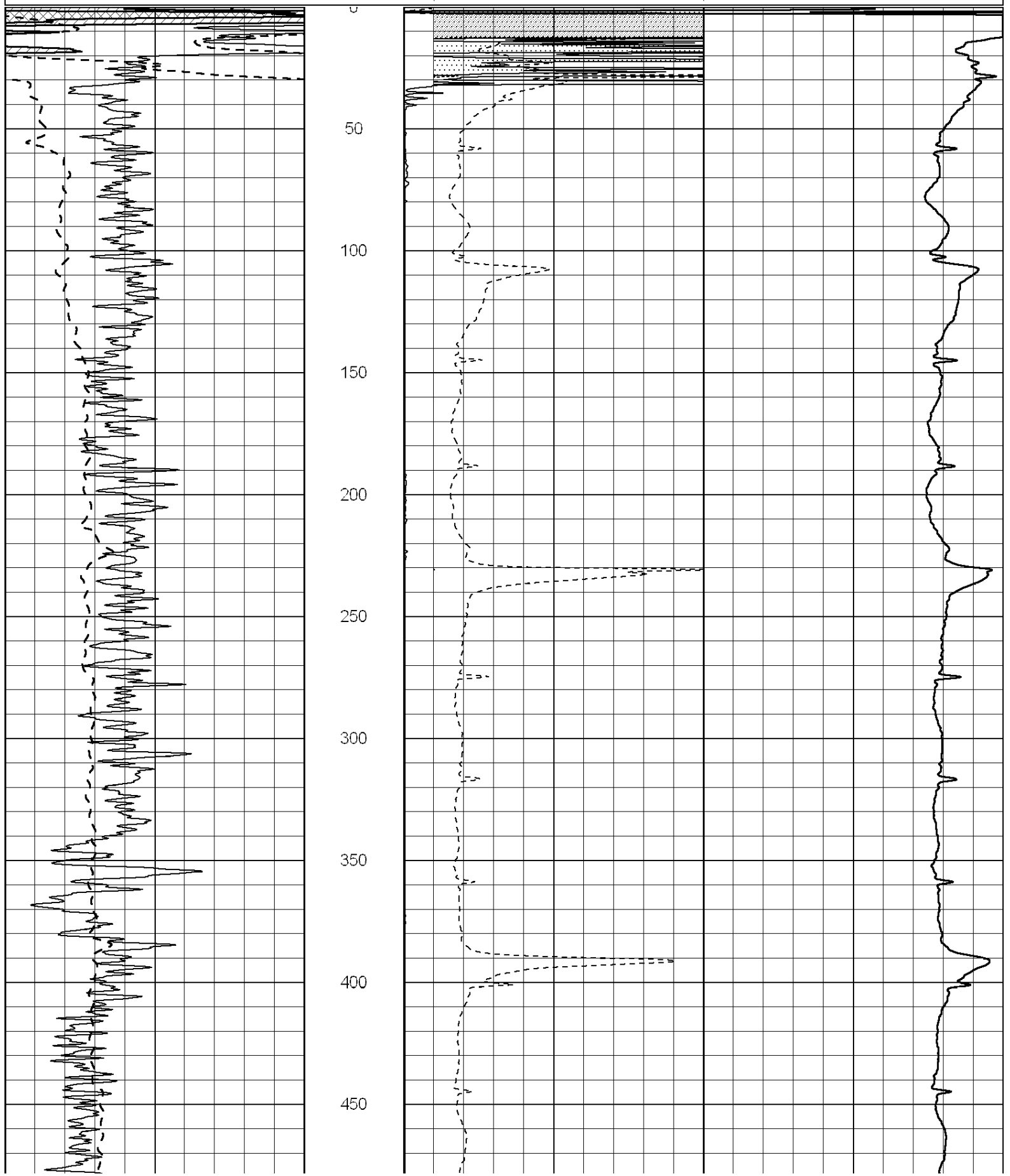
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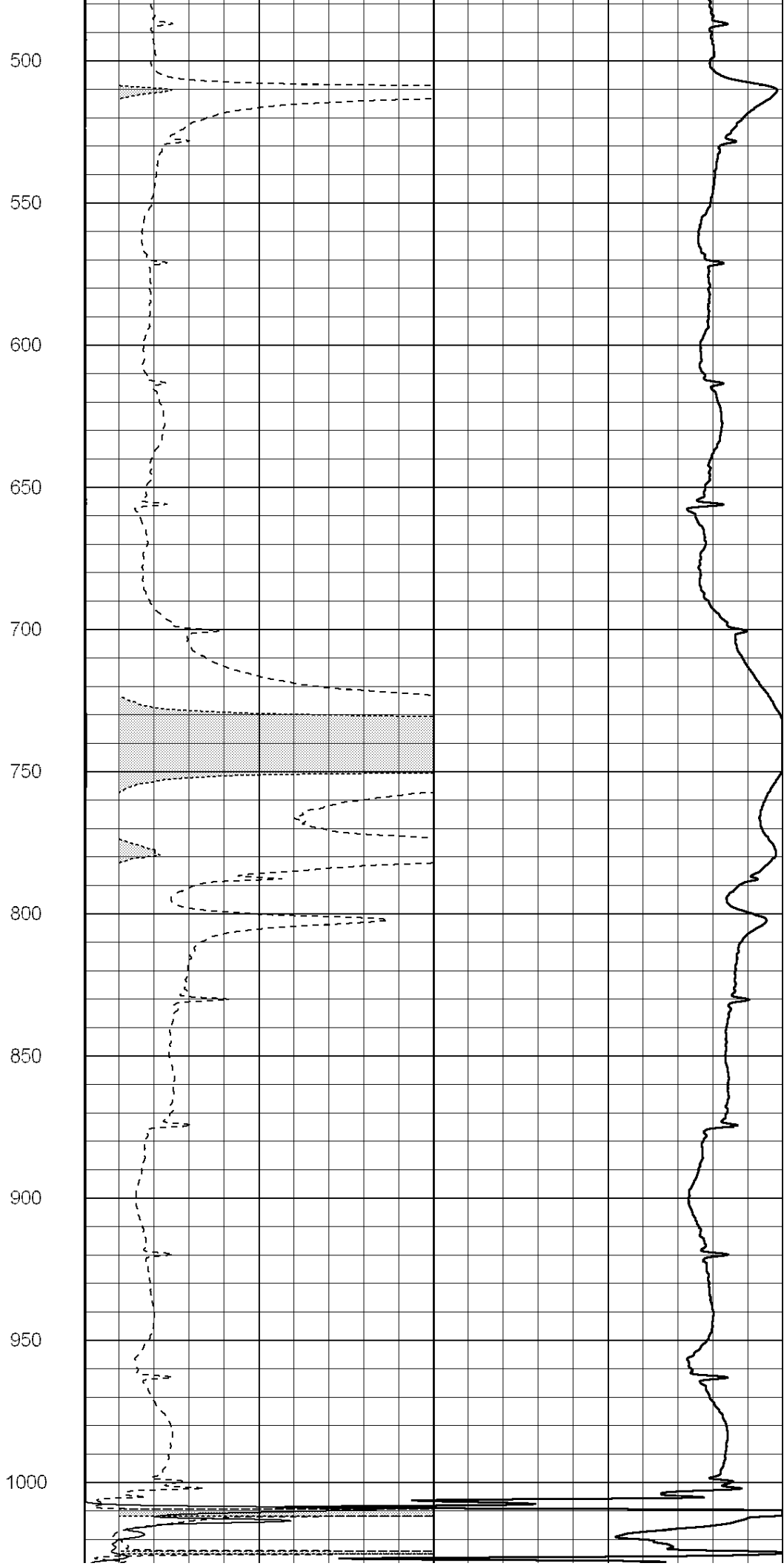
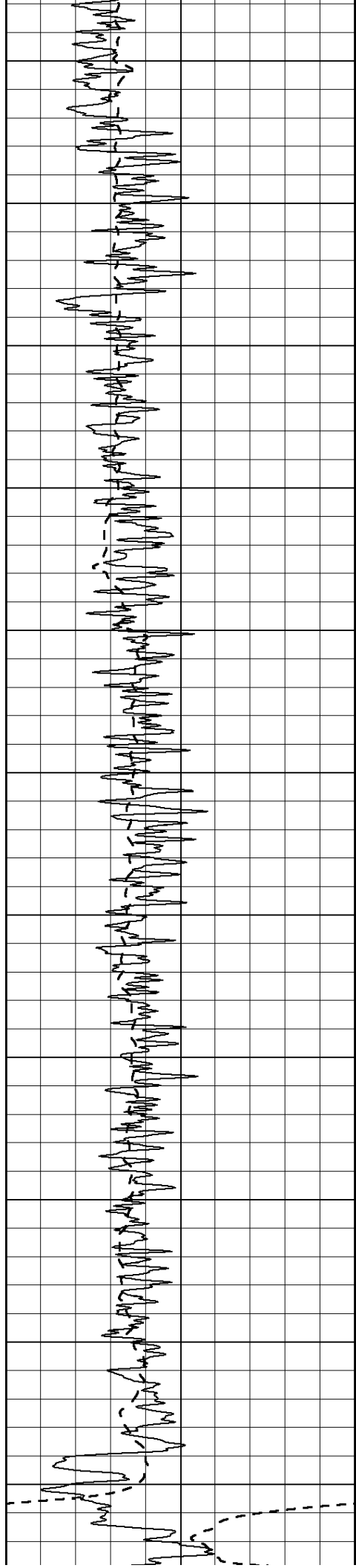
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

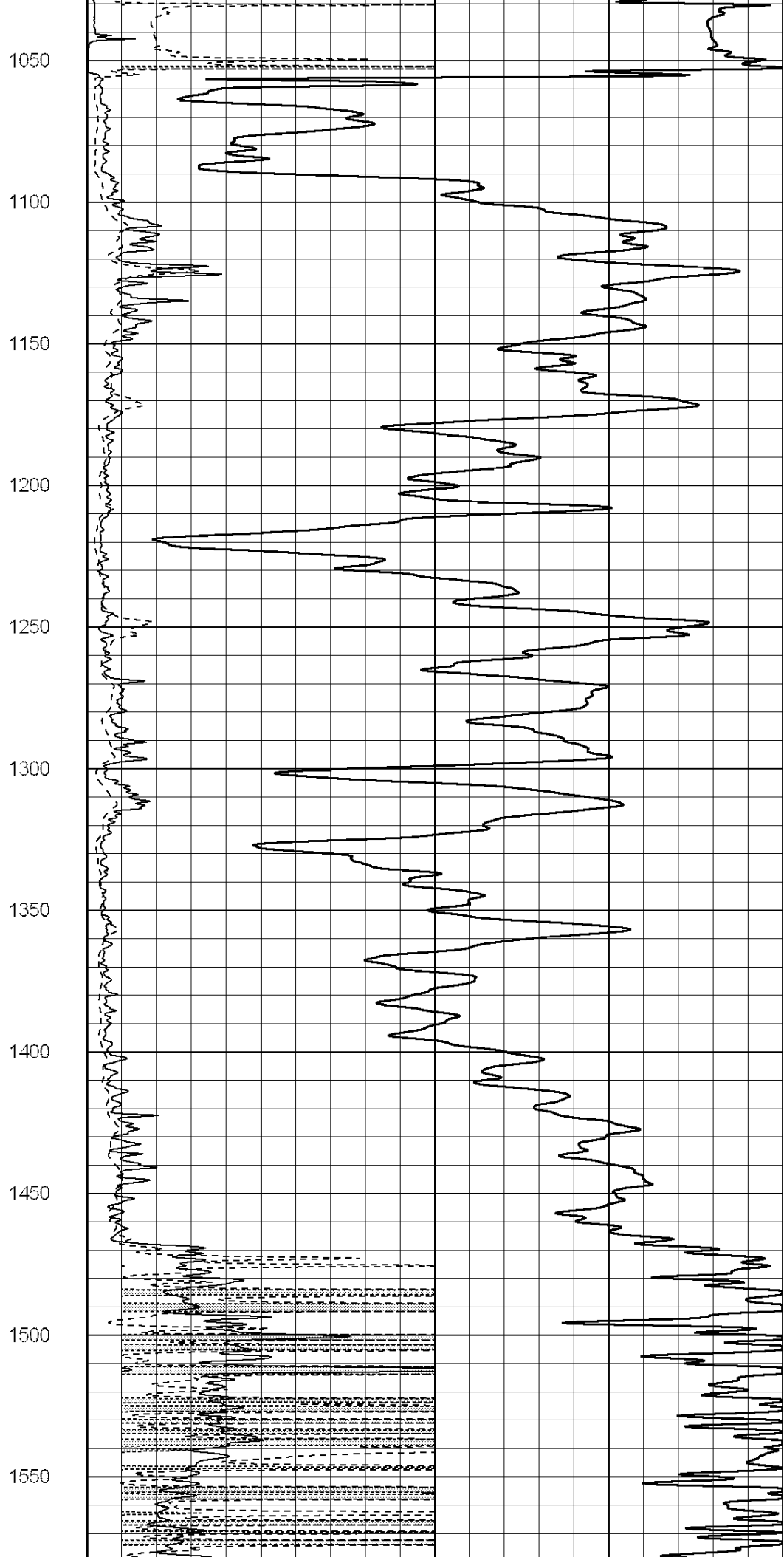
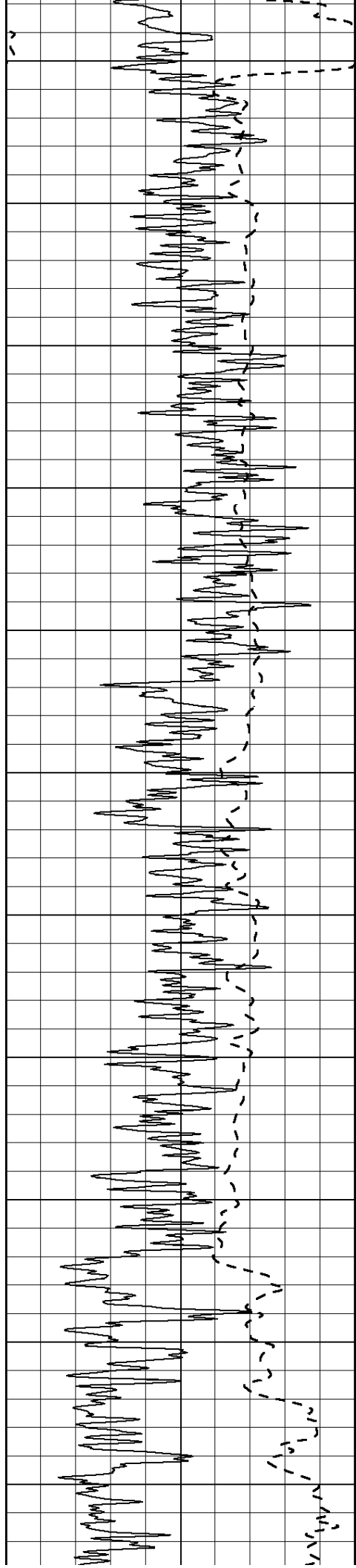
Comments

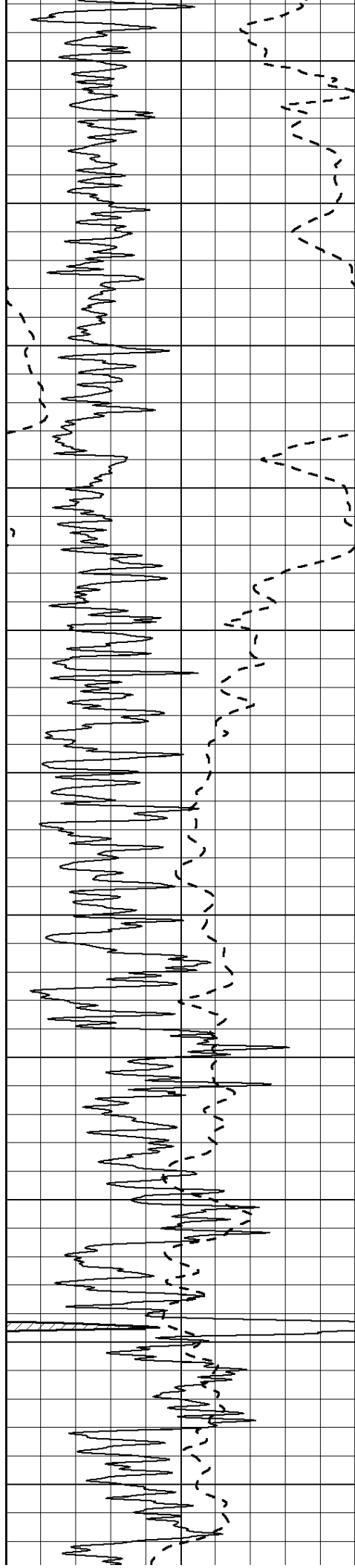
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395  
DIRECTIONS  
LARNED FOUR WAY STOP - NORTH TO RD 0  
1 1/2 MILES EAST TO RD 100 - 1 1/2 MILES NORTH - WEST INTO

|                                        |                  |     |       |                        |     |
|----------------------------------------|------------------|-----|-------|------------------------|-----|
| Charted by: Depth (m) not scaled (mss) |                  |     |       |                        |     |
| 0                                      | Gamma Ray (GAPI) | 150 | 0     | RLL3 (Ohm-m)           | 50  |
| -100                                   | SP (mV)          | 100 | 0     | Deep Induction (Ohm-m) | 50  |
| -----                                  |                  |     | ----- |                        |     |
|                                        |                  |     | 1000  | CILD (mmho/m)          | 0   |
|                                        |                  |     | 50    | RILD X10 (Ohm-m)       | 500 |
|                                        |                  |     | 50    | RLL3 X10 (Ohm-m)       | 500 |
|                                        |                  |     |       |                        |     |









1600

1650

1700

1750

1800

1850

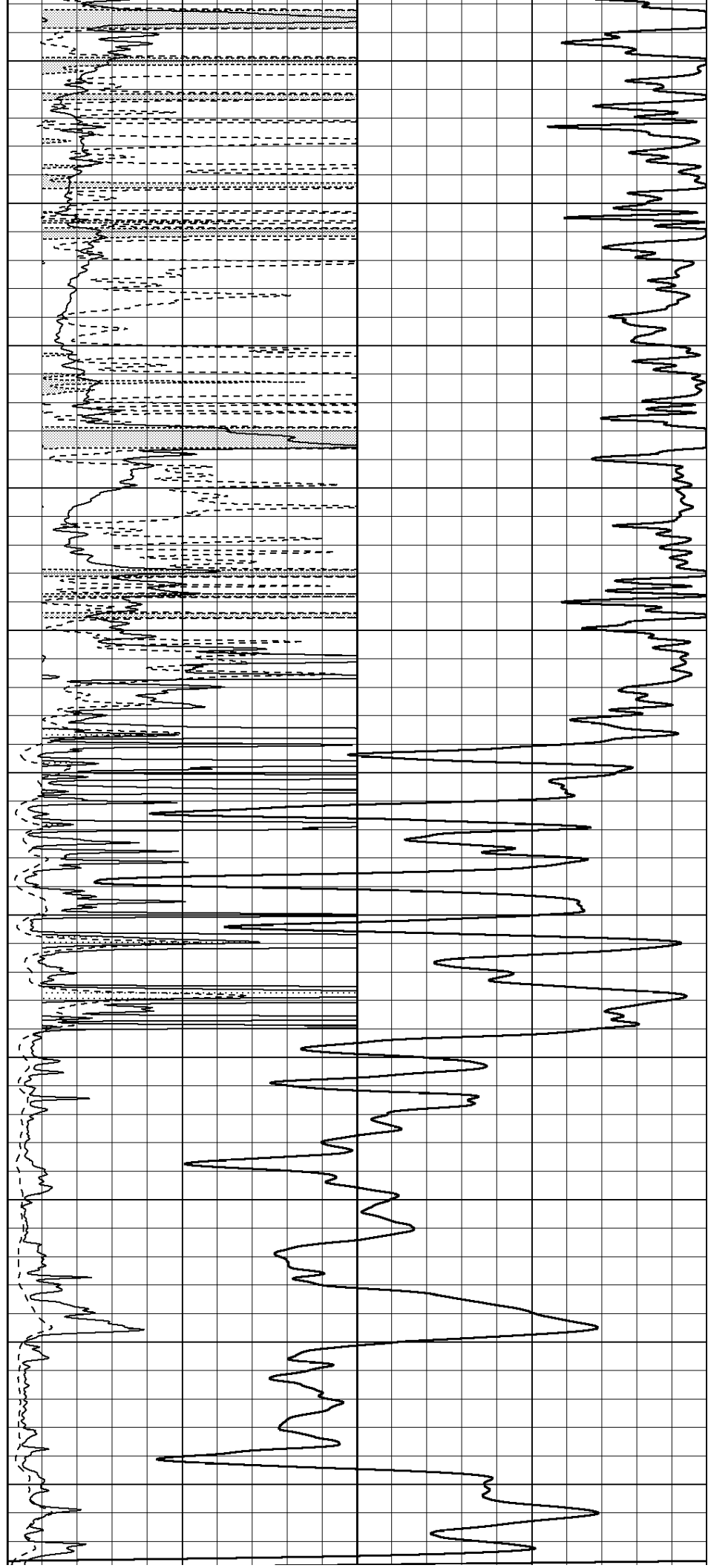
1900

1950

2000

2050

2100



2150

2200

2250

2300

2350

2400

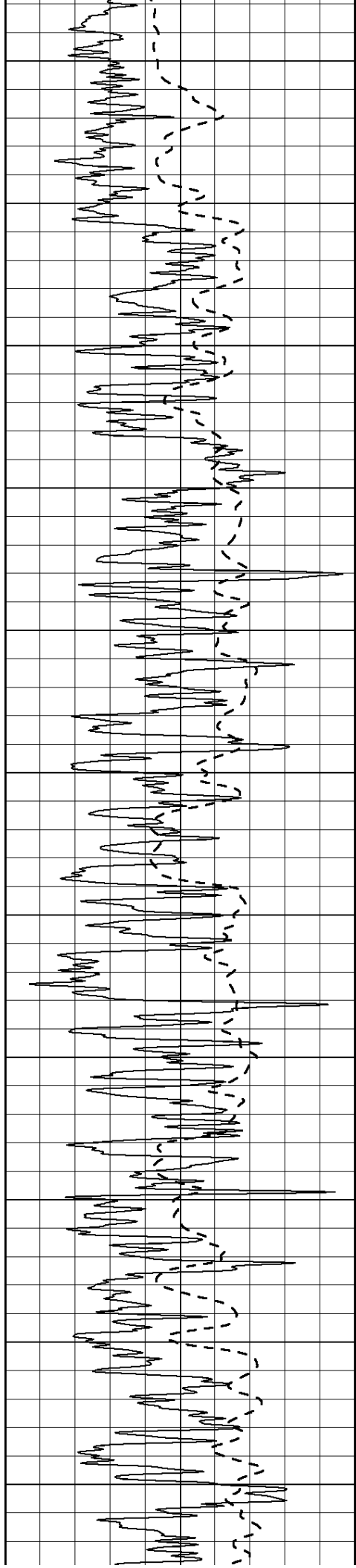
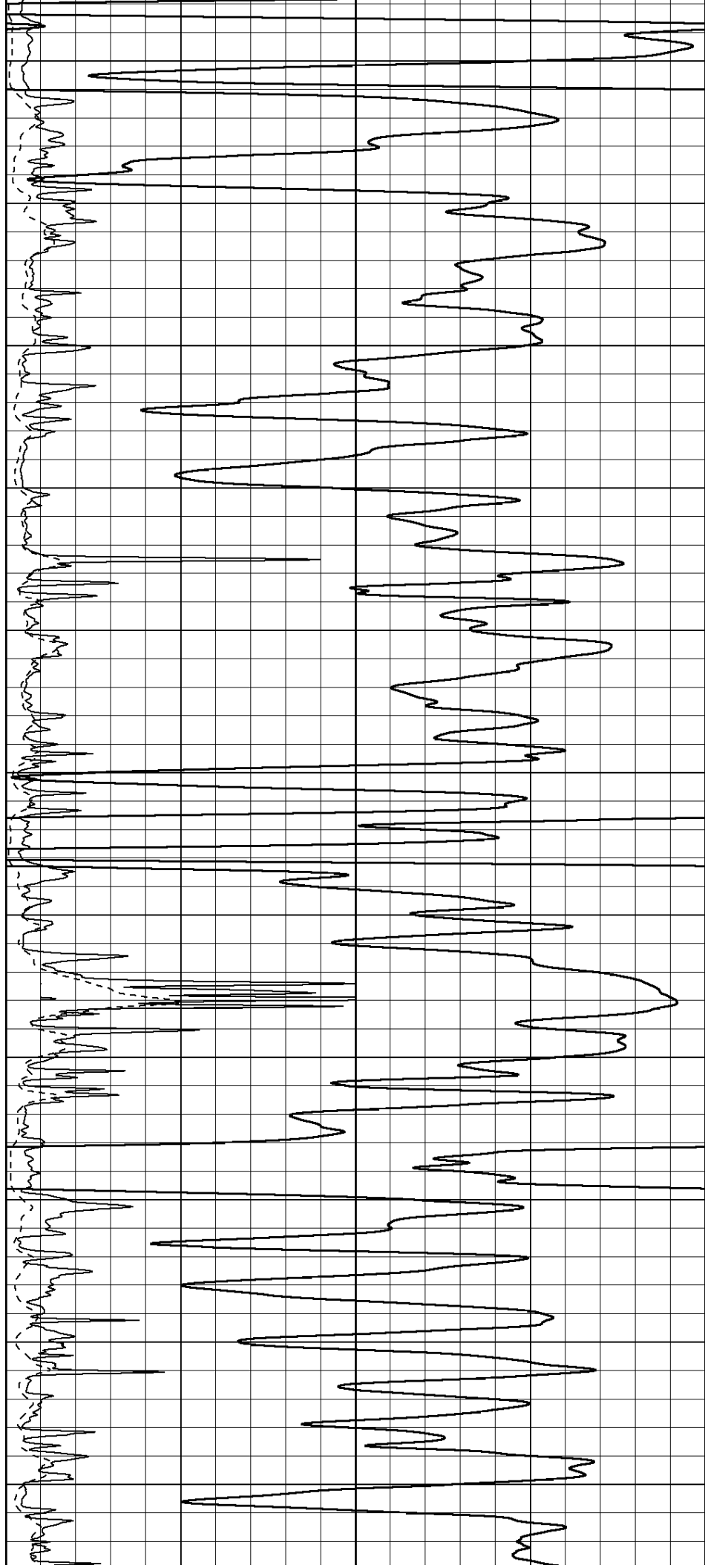
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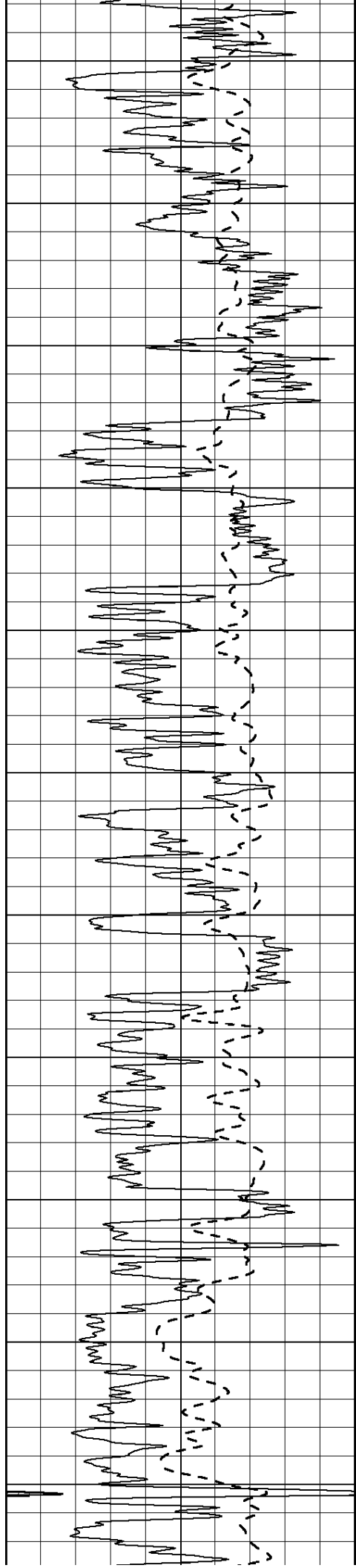
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2550

2600

2650





2700

2750

2800

2850

2900

2950

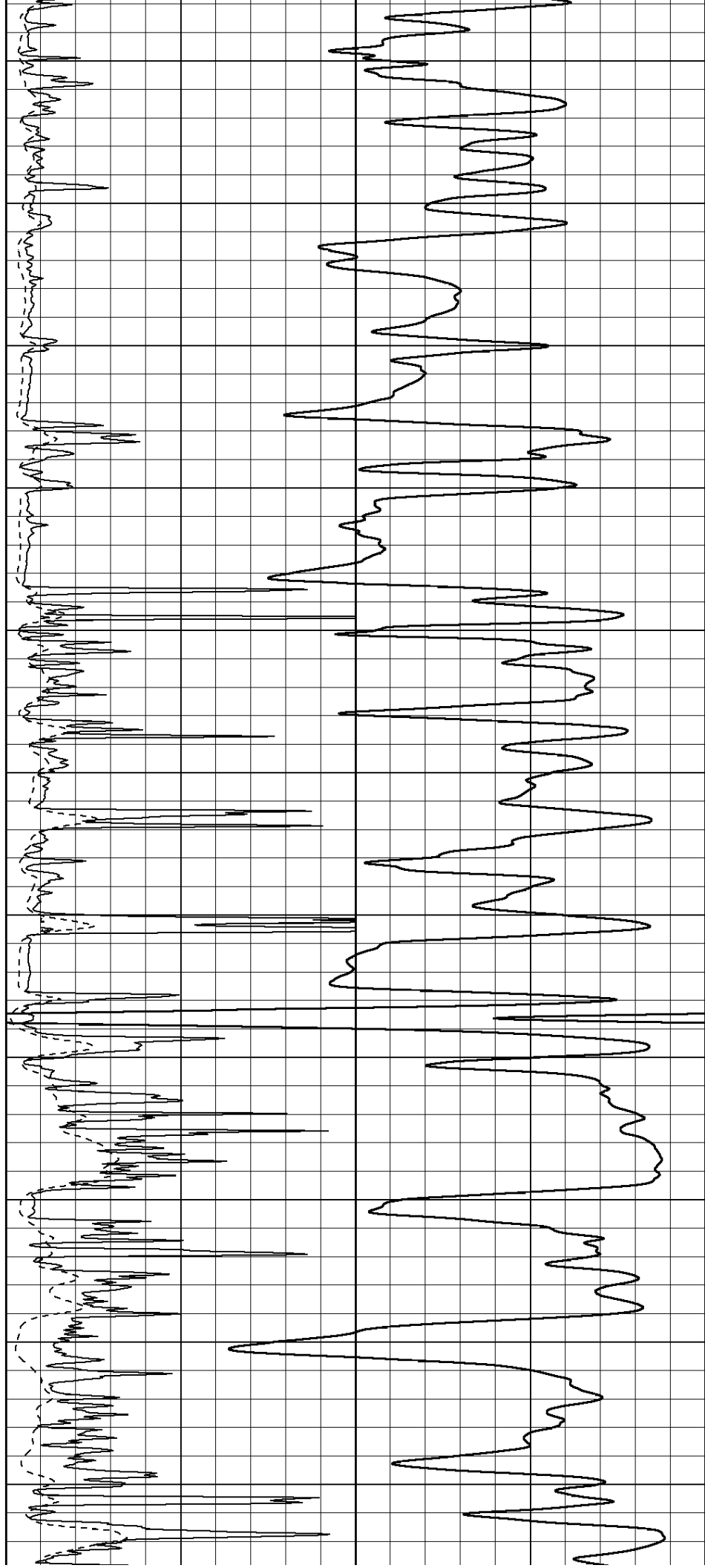
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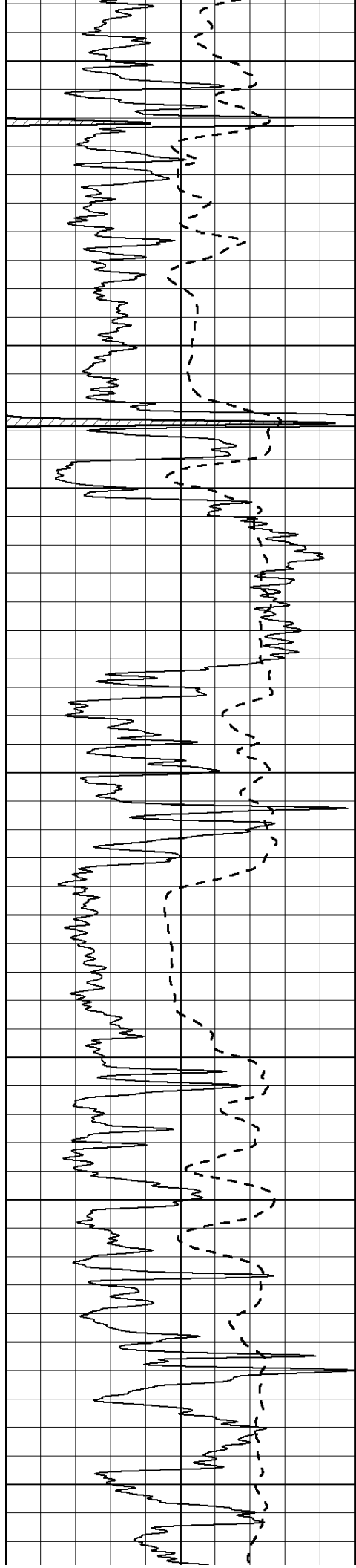
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3100

3150

3200





3250

3300

3350

3400

3450

3500

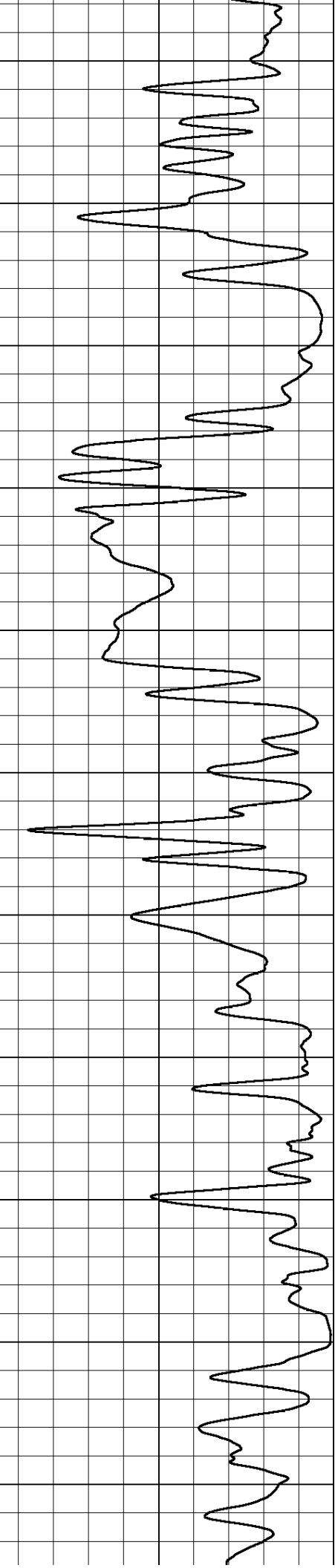
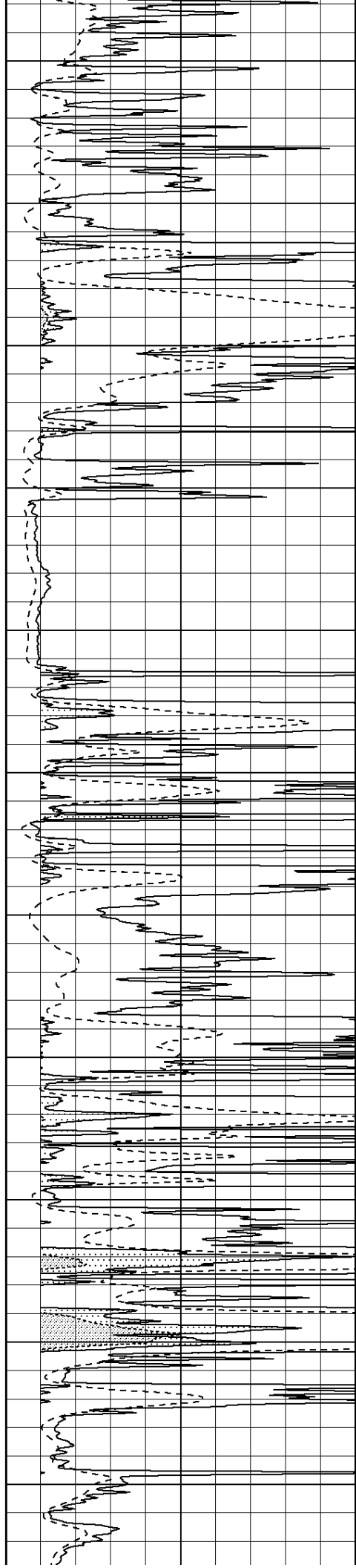
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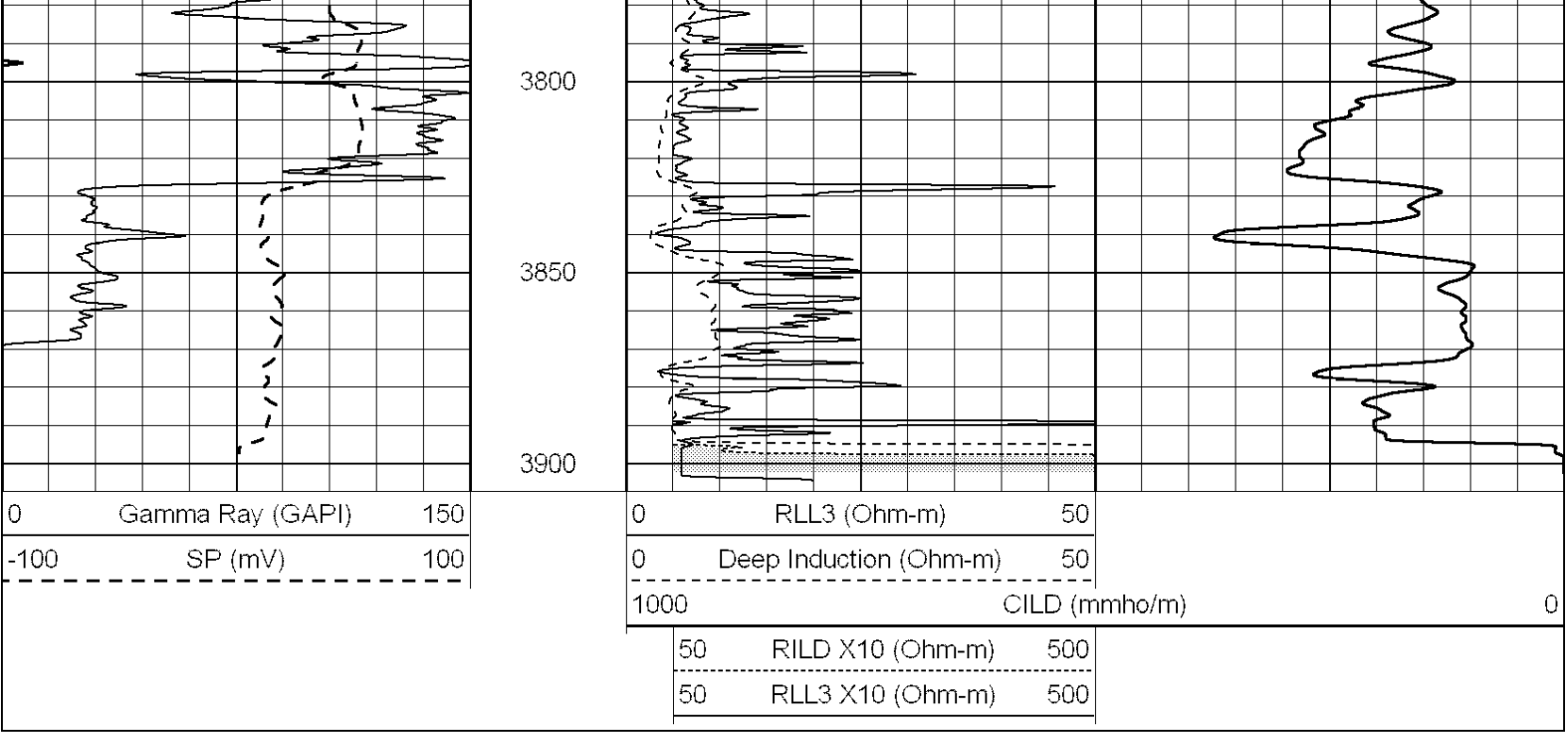
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3650

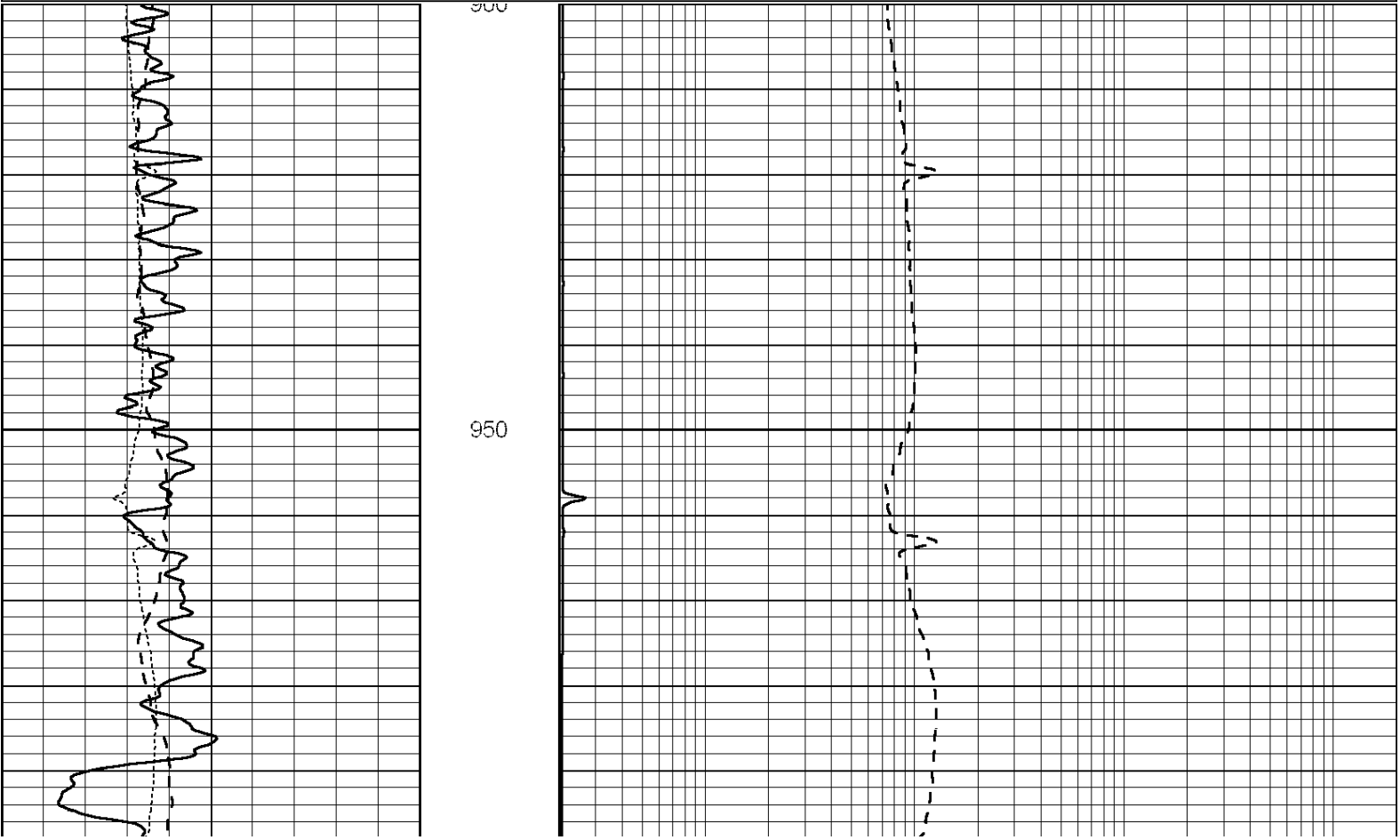
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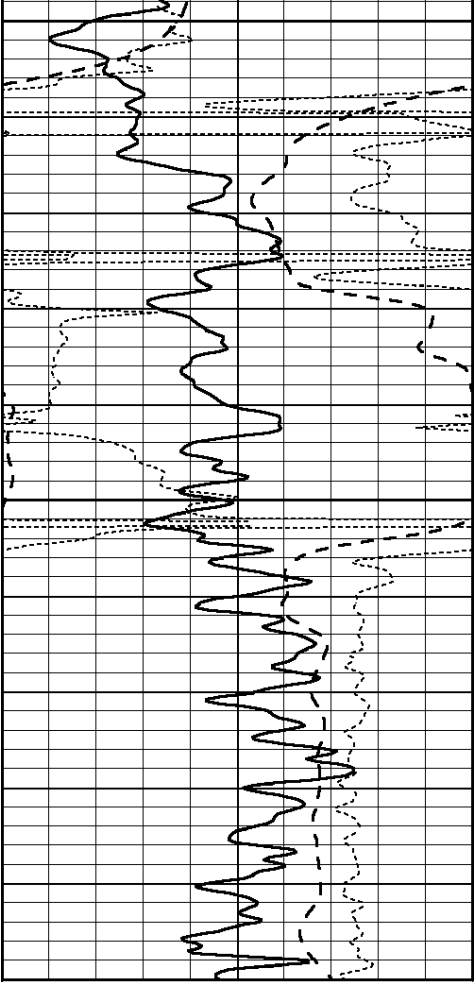
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|                                                                      |                  |  |     |     |                               |
|----------------------------------------------------------------------|------------------|--|-----|-----|-------------------------------|
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| Dataset Pathname: pass3.3                                            |                  |  |     |     |                               |
| Presentation Format: _dil                                            |                  |  |     |     |                               |
| Dataset Creation: Wed Dec 14 21:09:11 2011 by Calc Open-Cased 090629 |                  |  |     |     |                               |
| Charted by: Depth in Feet scaled 1:240                               |                  |  |     |     |                               |
| 0                                                                    | GAMMA RAY (GAPI) |  | 150 | 0.2 | SHALLOW GUARD (Ohm-m) 2000    |
| -100                                                                 | SP (mV)          |  | 100 | 0.2 | MEDIUM INDUCTION (Ohm-m) 2000 |
| -250                                                                 | Rxo/Rt           |  | 50  | 0.2 | DEEP INDUCTION (Ohm-m) 2000   |



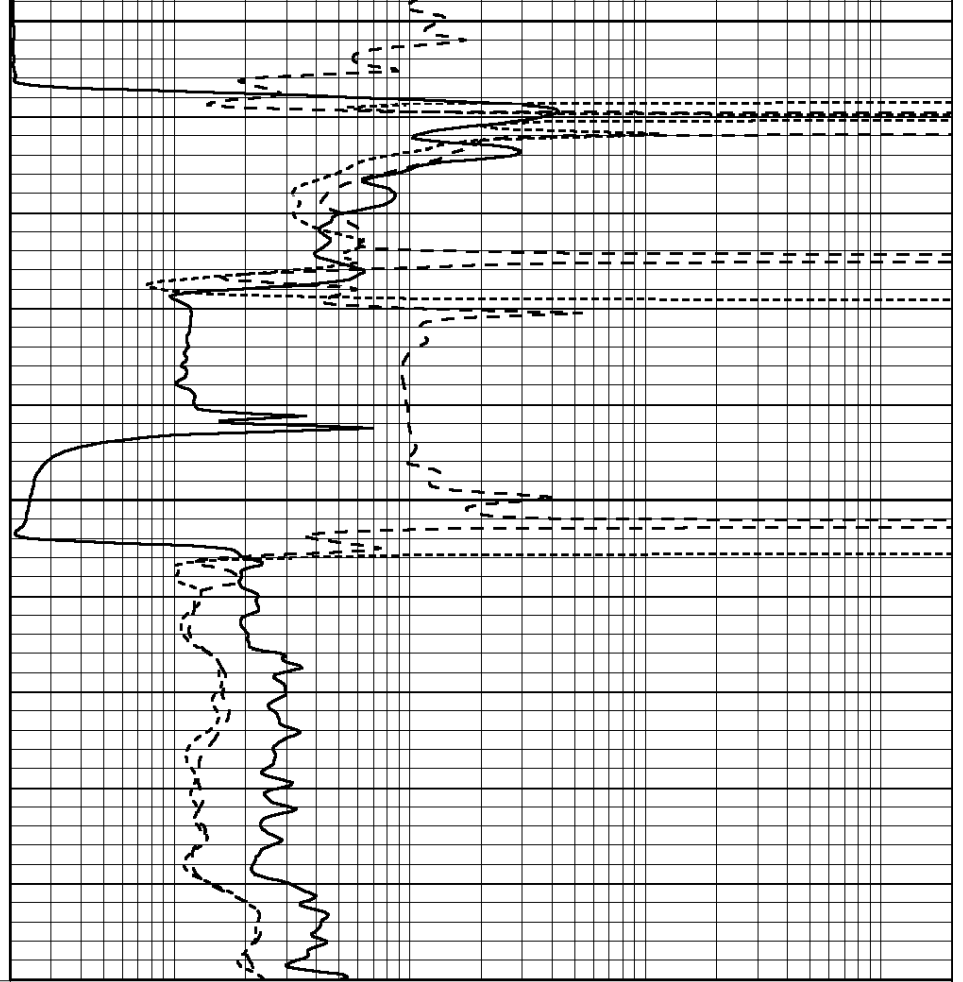


|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |

1000

1050

1100

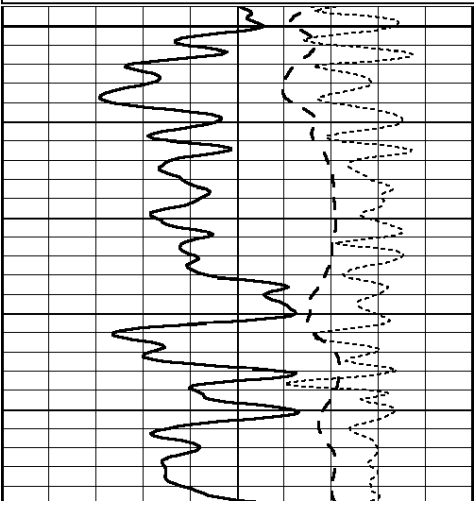


|     |                          |      |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |

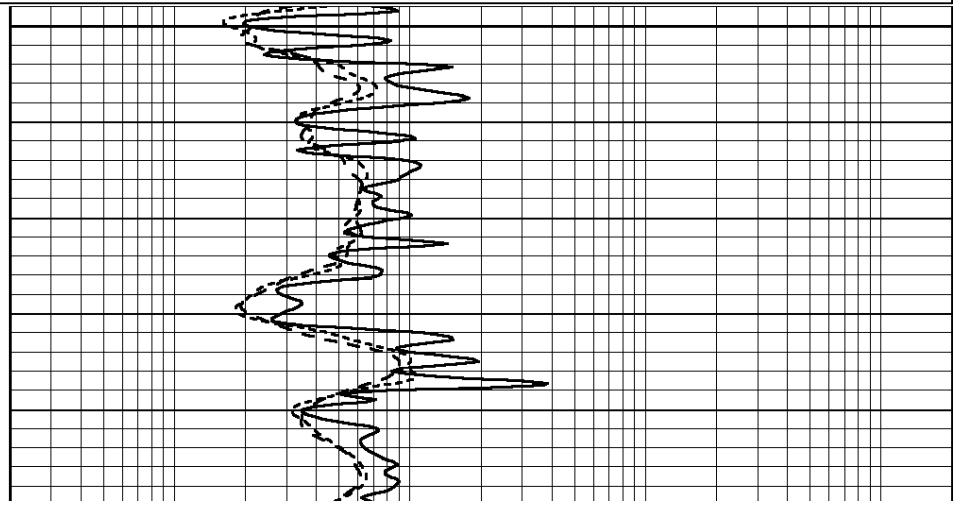
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Presentation Format: \_dil  
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Charted by: Depth in Feet scaled 1:240

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

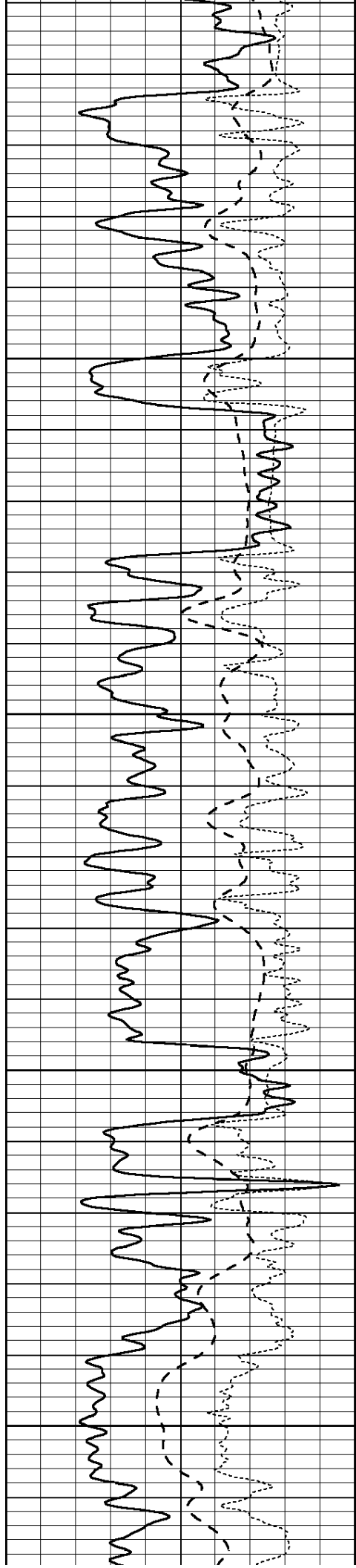
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|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m)    | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m)   | 2000 |



2900



3000



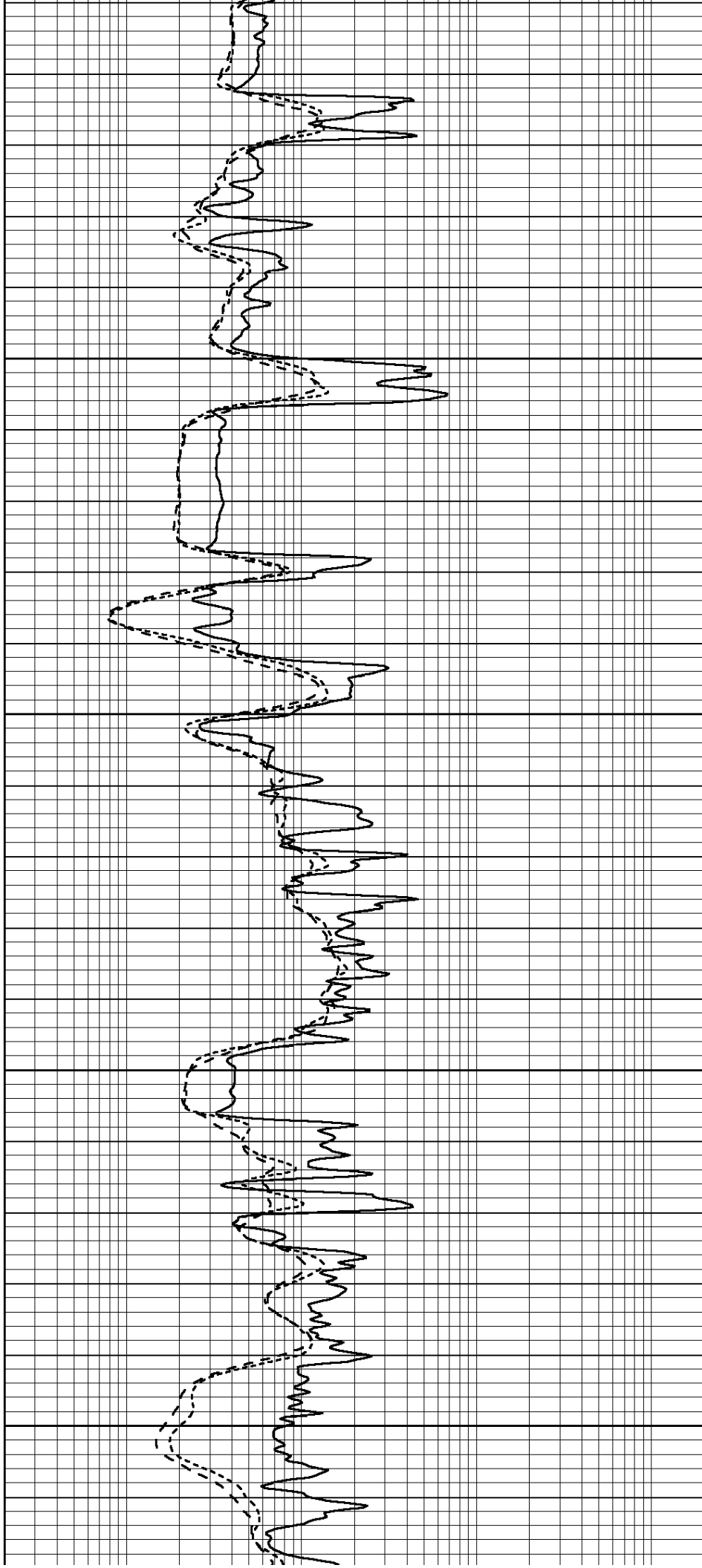
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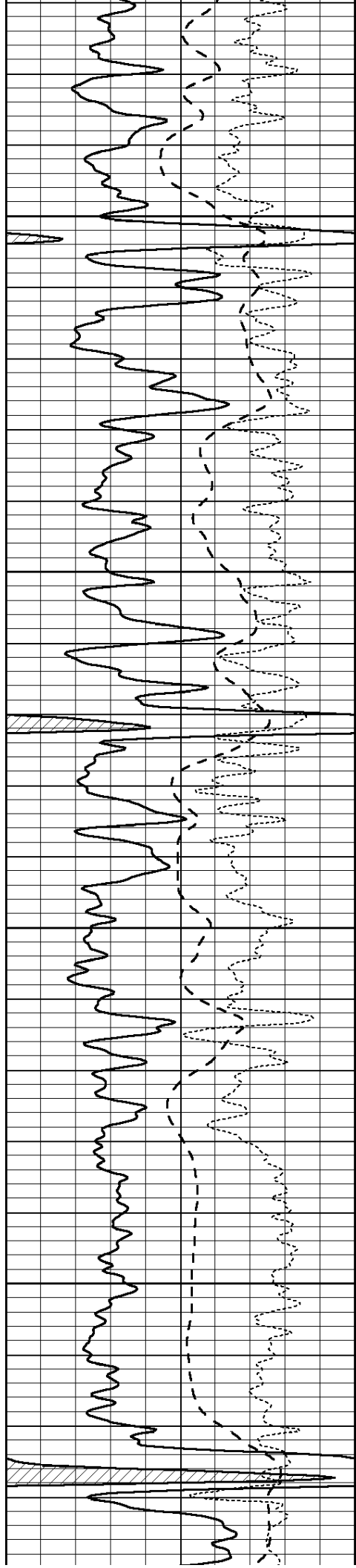
3000

3050

3100

3150



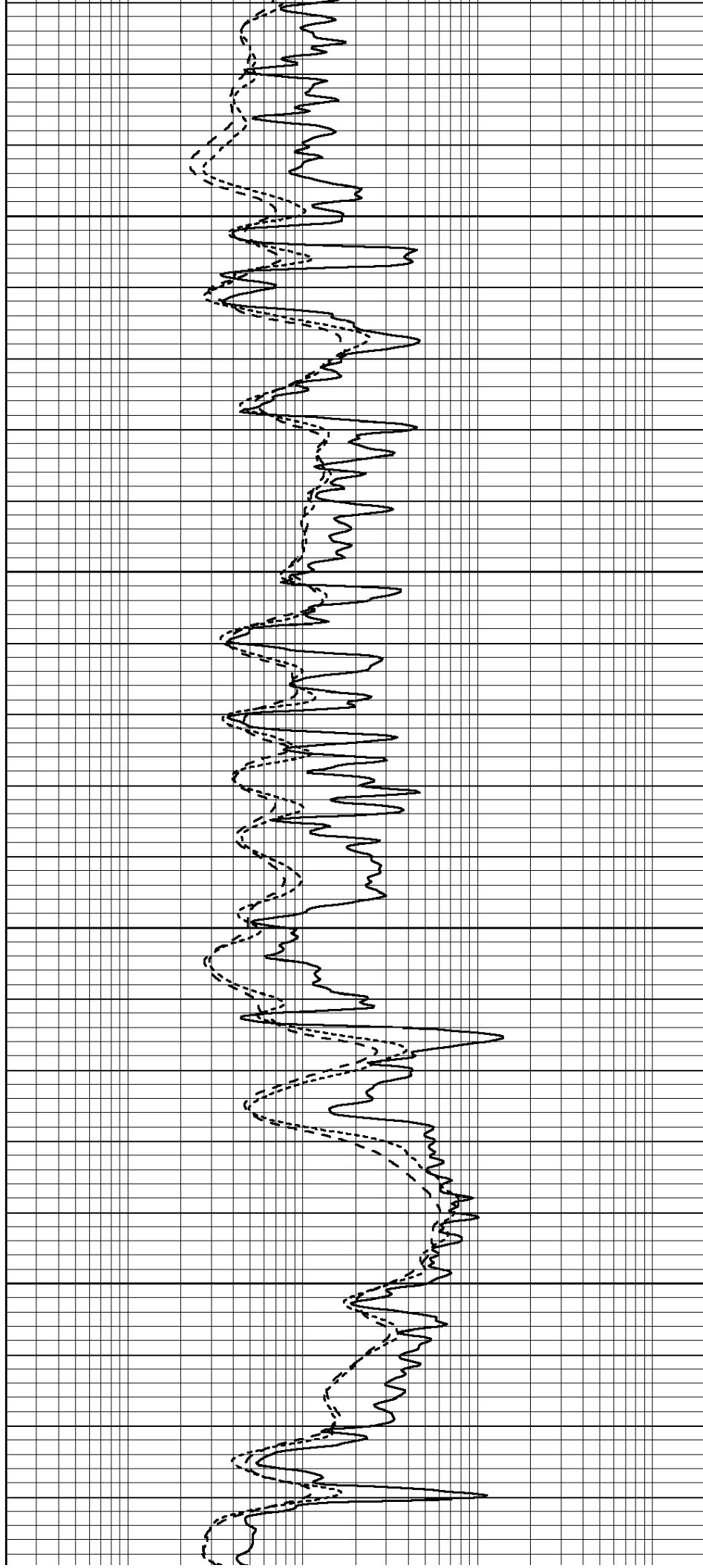


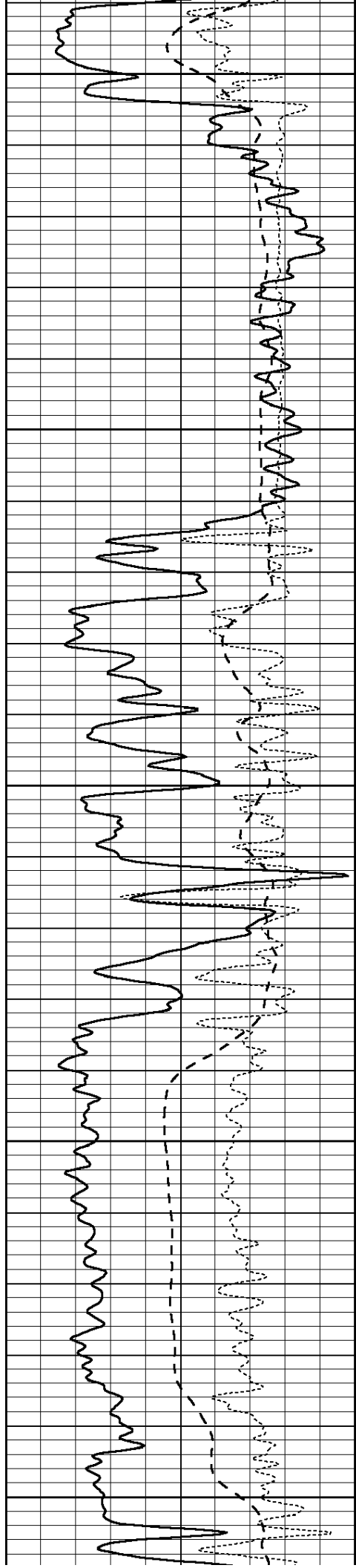
3200

3250

3300

3350





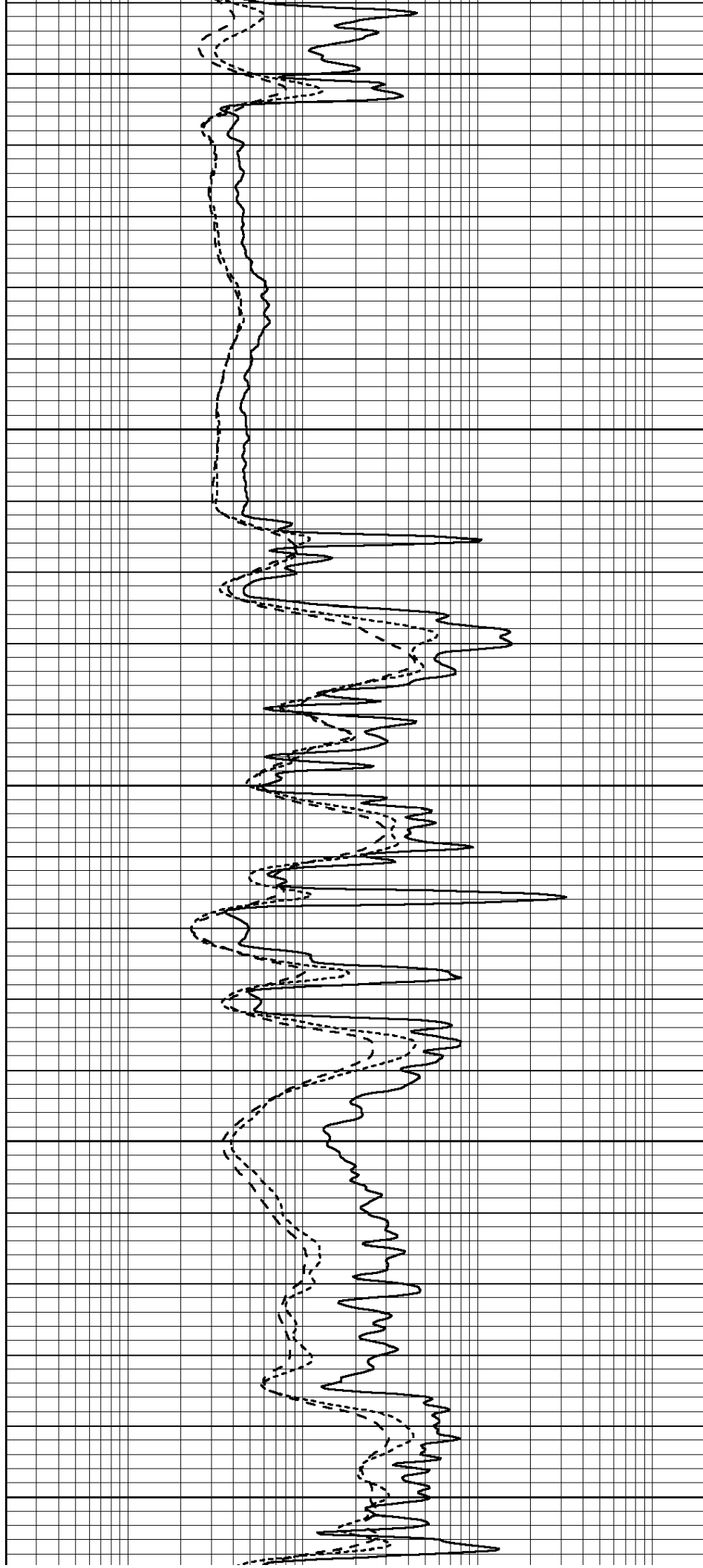
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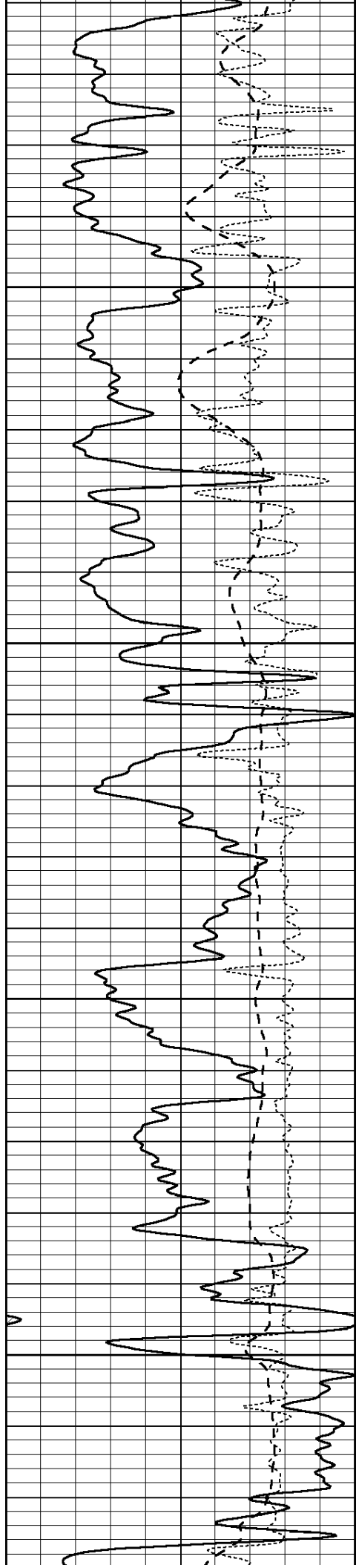
3450

3500

3550

3600



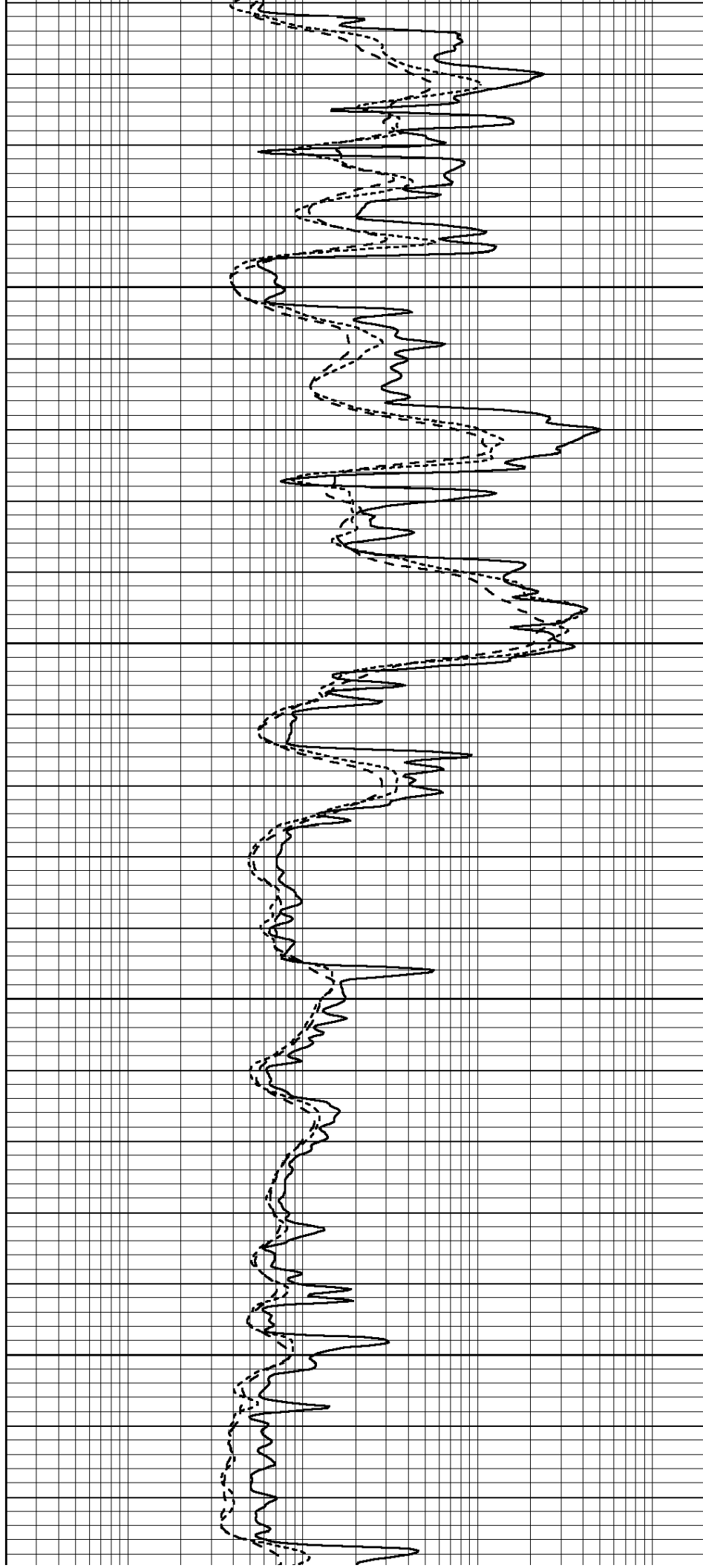


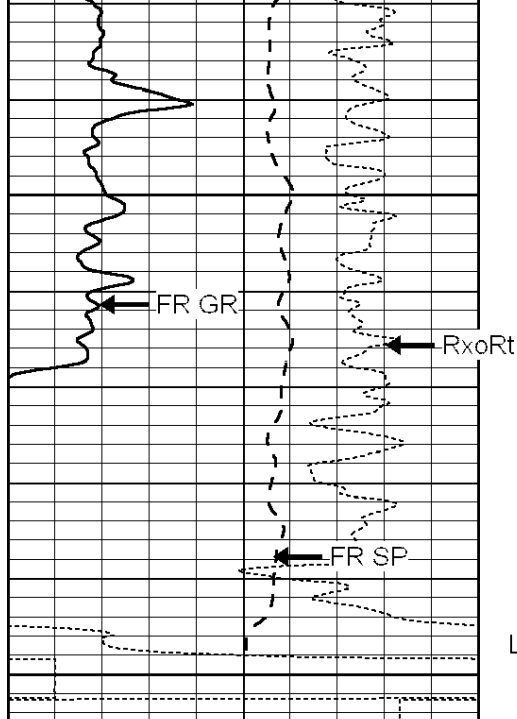
3650

3700

3750

3800

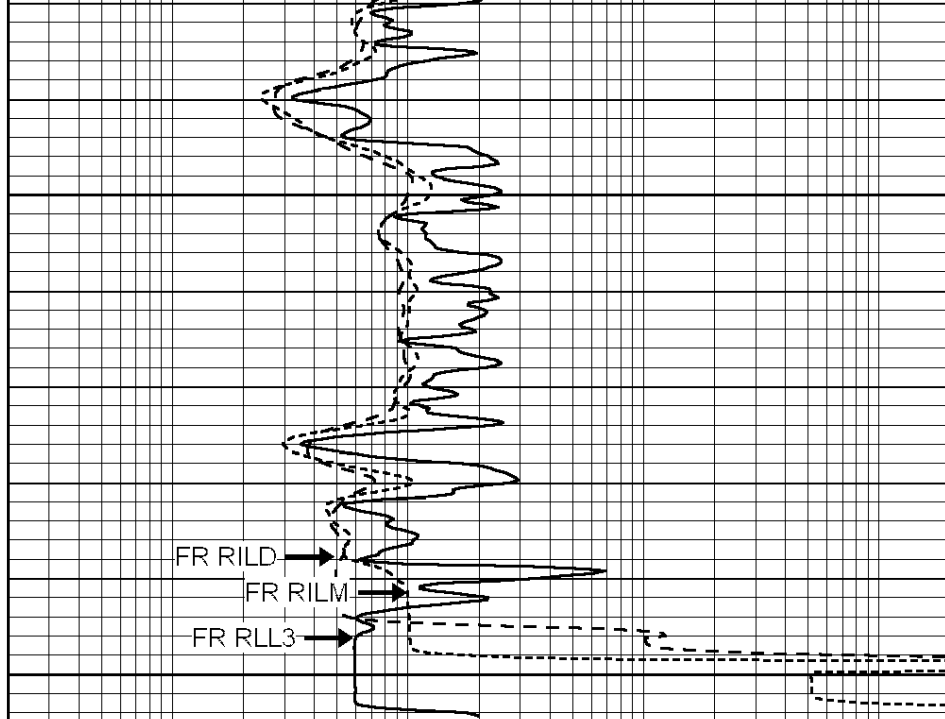




3850

LTD 3898  
3900

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



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



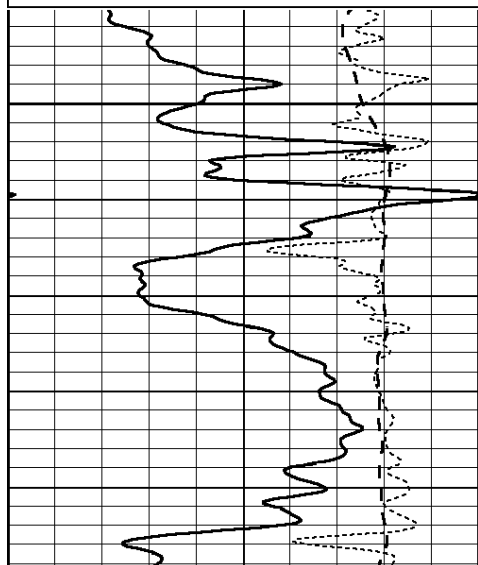
SUPERIOR  
Hays,  
Kansas

# REPEAT SECTION

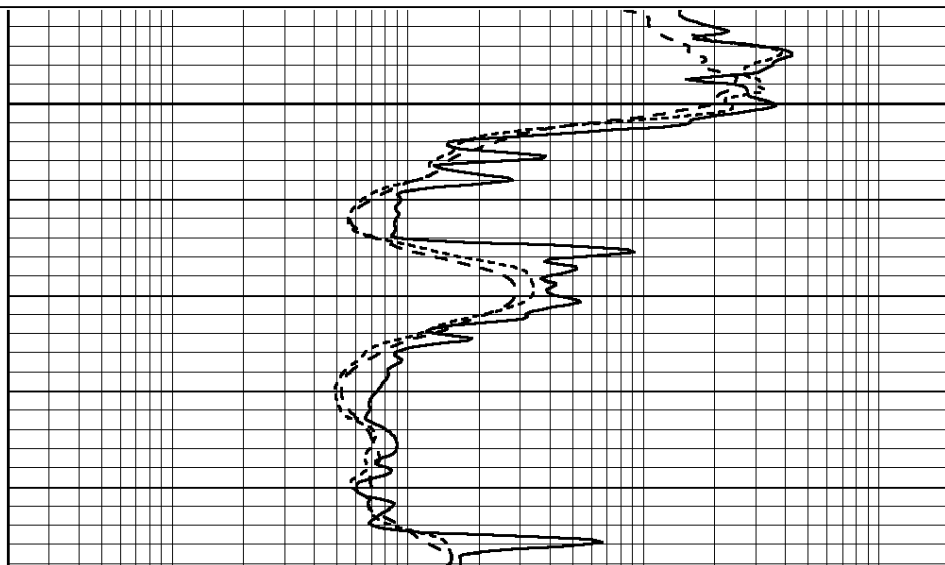
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 Presentation Format: \_dil  
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 Charted by: Depth in Feet scaled 1:240

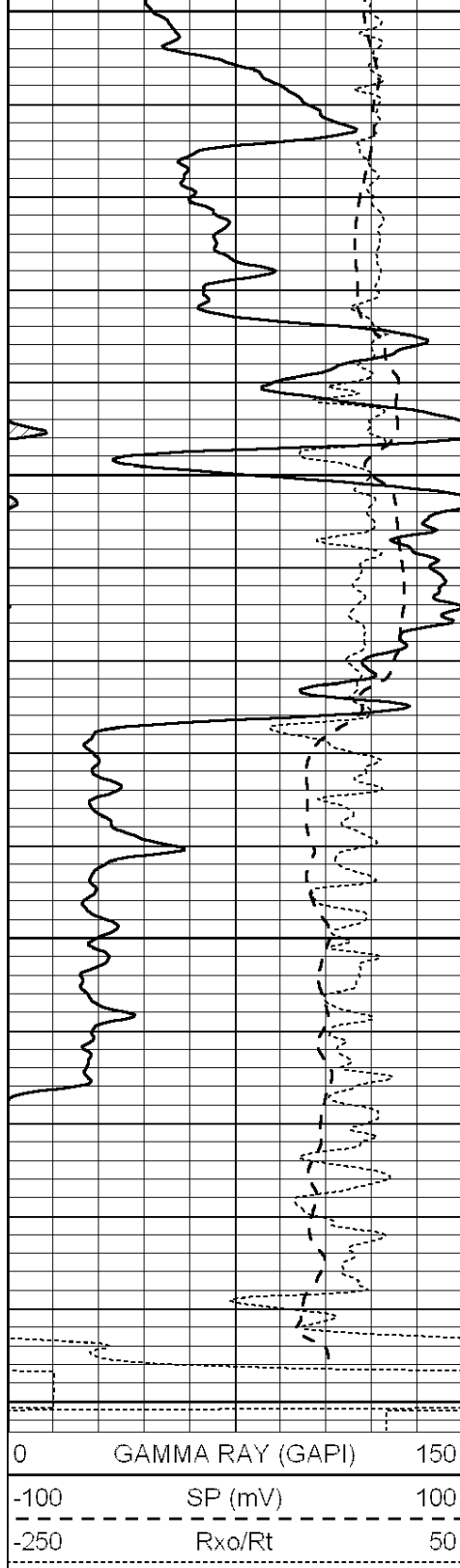
|      |                  |     |
|------|------------------|-----|
| 0    | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV)          | 100 |
| -250 | Rxo/Rt           | 50  |

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

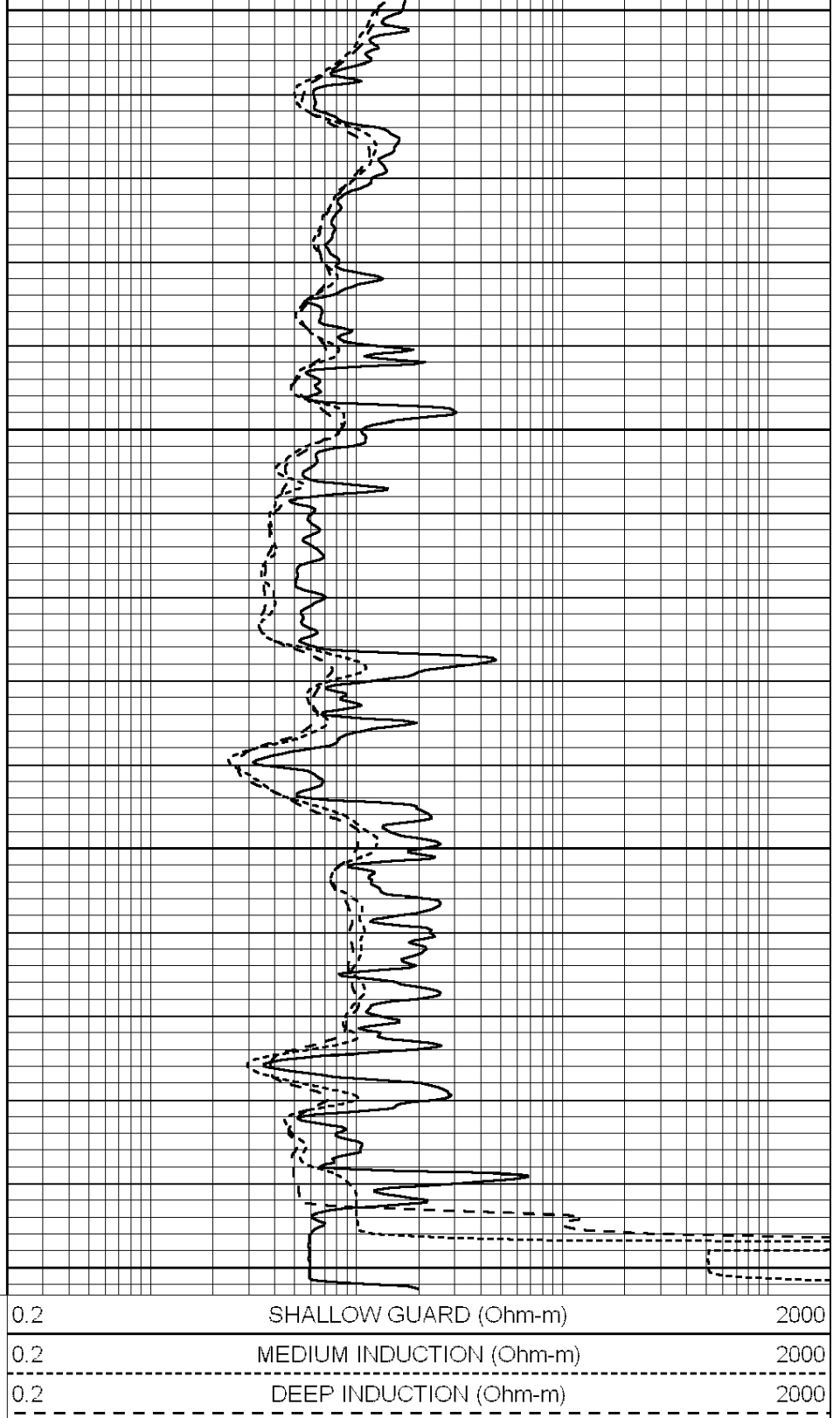


3700





3750  
3800  
3850  
3900



### Calibration Report

Database File: 008653ddn.db  
 Dataset Pathname: pass3.3  
 Dataset Creation: Wed Dec 14 21:09:11 2011 by Calc Open-Cased 090629

### Dual Induction Calibration Report

|                                      |                          |
|--------------------------------------|--------------------------|
| Serial-Model:                        | PROBE8-DILG              |
| Surface Cal Performed:               | Fri Aug 01 06:33:19 2008 |
| Downhole Cal Performed:              | Mon Jul 28 11:08:27 2008 |
| After Survey Verification Performed: | Mon Jul 28 11:08:27 2008 |

| Surface Calibration |       |       | Readings |  | References |         | Results |         |
|---------------------|-------|-------|----------|--|------------|---------|---------|---------|
| Loop:               | Air   | Loop  |          |  | Air        | Loop    | m       | b       |
| Deep                | 0.015 | 0.648 | V        |  | 0.000      | 400.000 | mmho/m  | 632.616 |
| Medium              | 0.029 | 0.796 | V        |  | 0.000      | 464.000 | mmho/m  | -9.730  |
|                     |       |       |          |  |            |         |         | -17.680 |
| Internal:           | Zero  | Cal   |          |  | Zero       | Cal     | m       | b       |
| Deep                | 0.017 | 0.657 | V        |  | 0.000      | 400.000 | mmho/m  | 625.153 |
| Medium              | 0.016 | 0.757 | V        |  | 0.000      | 464.000 | mmho/m  | -10.619 |
|                     |       |       |          |  |            |         |         | -9.739  |

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

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

Compensated Density Calibration Report

|                               |                          |
|-------------------------------|--------------------------|
| Serial-Model:                 | GEAR4-GEARHART           |
| Source / Verifier:            | 143 / 143                |
| Master Calibration Performed: | Sat Jul 16 17:35:04 2011 |

| Master Calibration  |       |      | Density                     |  | Far Detector |  | Near Detector |     |
|---------------------|-------|------|-----------------------------|--|--------------|--|---------------|-----|
| Magnesium           | 1.710 | g/cc |                             |  | 1015.91      |  | 497.51        | cps |
| Aluminum            | 2.600 | g/cc |                             |  | 227.67       |  | 350.20        | cps |
| Spine Angle = 76.79 |       |      | Density/Spine Ratio = 0.579 |  |              |  |               |     |
|                     | Size  |      |                             |  | Reading      |  |               |     |
| Small Ring          | 8.00  | in   |                             |  | 2.24         |  | V             |     |
| Large Ring          | 14.00 | in   |                             |  | 4.38         |  | V             |     |

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        |

Gamma Ray Calibration Report

|                |    |
|----------------|----|
| Serial Number: | 40 |
|----------------|----|

|                |                          |
|----------------|--------------------------|
| Serial Number: | #0                       |
| Tool Model:    | OPEN                     |
| Performed:     | Mon Jun 13 16:56:43 2011 |

|                   |       |      |
|-------------------|-------|------|
| Calibrator Value: | 150.0 | GAPI |
|-------------------|-------|------|

|                     |       |     |
|---------------------|-------|-----|
| Background Reading: | 0.0   | cps |
| Calibrator Reading: | 175.0 | cps |

|              |        |          |
|--------------|--------|----------|
| Sensitivity: | 0.8371 | GAPI/cps |
|--------------|--------|----------|