



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company CHARTER ENERGY, INC.
Well LOSEY TRUST #1
Field
County GOVE
State KANSAS

Company CHARTER ENERGY, INC.
Well LOSEY TRUST #1
Field
County GOVE State KANSAS

Location: API # : 15-063-22225-0000
1905' FSL & 1423' FWL
NW SW NE SW
SEC 13 TWP 13S RGE 30W
Permanent Datum GROUND LEVEL Elevation 2841
Log Measured From KELLY BUSHING 6' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL/SON
Elevation
K.B. 2847
D.F. 2845
G.L. 2841

| | | | |
|------------------------------|-------------------|--------------------|--|
| Date | 10/17/14 | | |
| Run Number | ONE | | |
| Depth Driller | 4600 | | |
| Depth Logger | 4600 | | |
| Bottom Logged Interval | 4598 | | |
| Top Log Interval | 00 | | |
| Casing Driller | 8 5/8" @ 260 | | |
| Casing Logger | 259 | | |
| Bit Size | 7 7/8" | | |
| Type Fluid in Hole | CHEMICAL MUD | CHLORIDES 4000 PPM | |
| Density / Viscosity | 9.6/59 | | |
| pH / Fluid Loss | 9.0/8.0 | | |
| Source of Sample | FLOWLINE | | |
| Rm @ Meas. Temp | 1.20 @ 70F | | |
| Rmt @ Meas. Temp | .90 @ 70F | | |
| Rmc @ Meas. Temp | 1.44 @ 70F | | |
| Source of Rmf / Rmc | MEASUREMENT | | |
| Rm @ BHT | .69 @ 121F | | |
| Time Circulation Stopped | 2 HOURS | | |
| Time Logger on Bottom | 7:15 P.M. | | |
| Maximum Recorded Temperature | 121F | | |
| Equipment Number | 4010 | | |
| Location | HAYS, KANSAS | | |
| Recorded By | JASON CAPPELLUCCI | | |
| Witnessed By | KURT TALBOTT | | |

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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 NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
GOVE, KS. - 6 WEST TO RD. 34 - 2 1/2 SOUTH - WEST INTO ON TOP OF THE HILL



MAIN SECTION

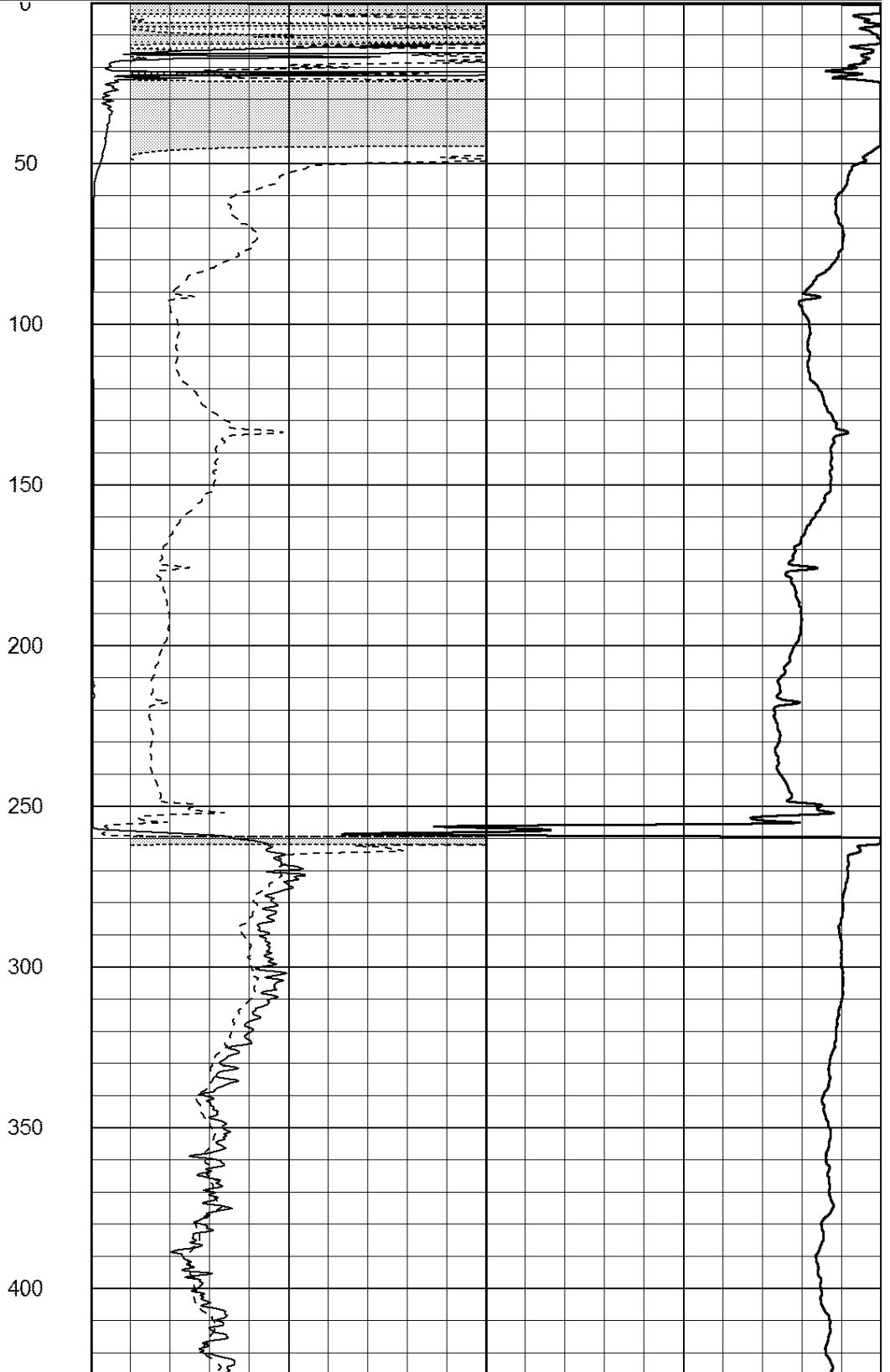
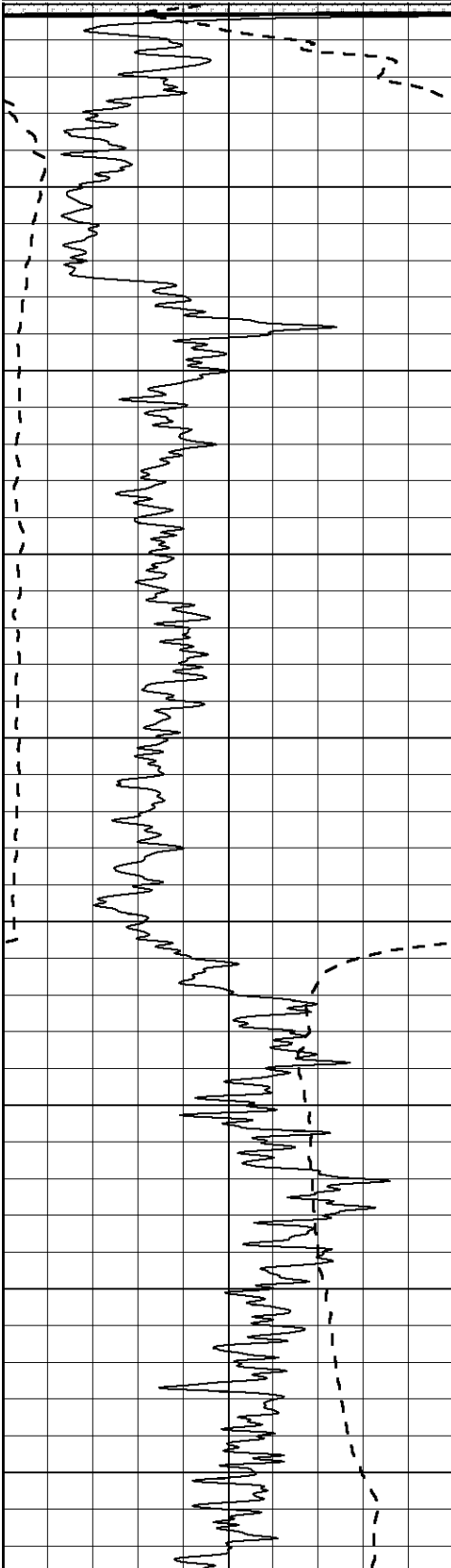
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 Dataset Pathname: pass3.3
 Presentation Format: _dil2
 Dataset Creation: Fri Oct 17 20:59:09 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:600

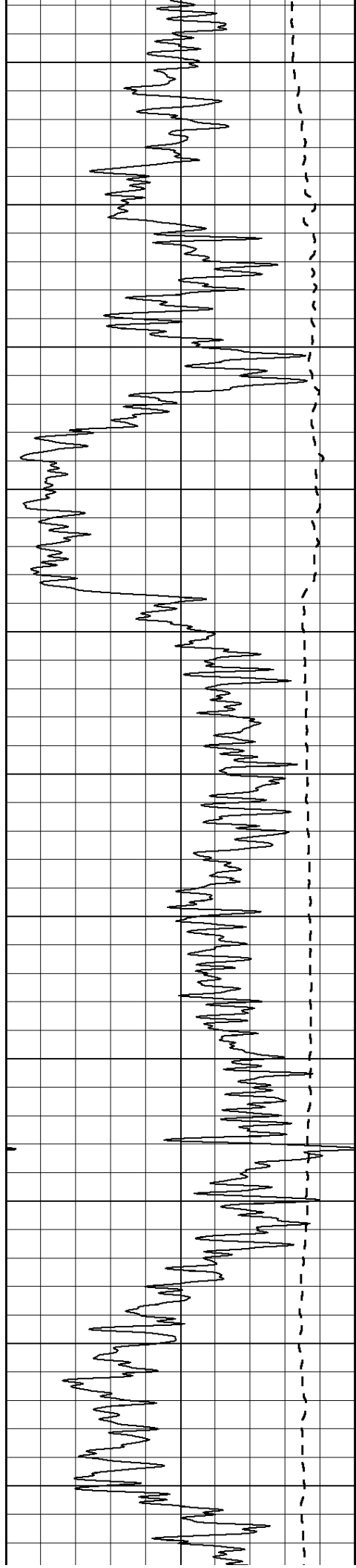
| | | |
|------|------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |

| | | |
|---|--------------|----|
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | RILD (Ohm-m) | 50 |

| | | |
|------|---------------|---|
| 1000 | CILD (mmho/m) | 0 |
|------|---------------|---|

| | | |
|----|------------------|-----|
| 50 | RILD X10 (Ohm-m) | 500 |
| 50 | RLL3 X10 (Ohm-m) | 500 |





450

500

550

600

650

700

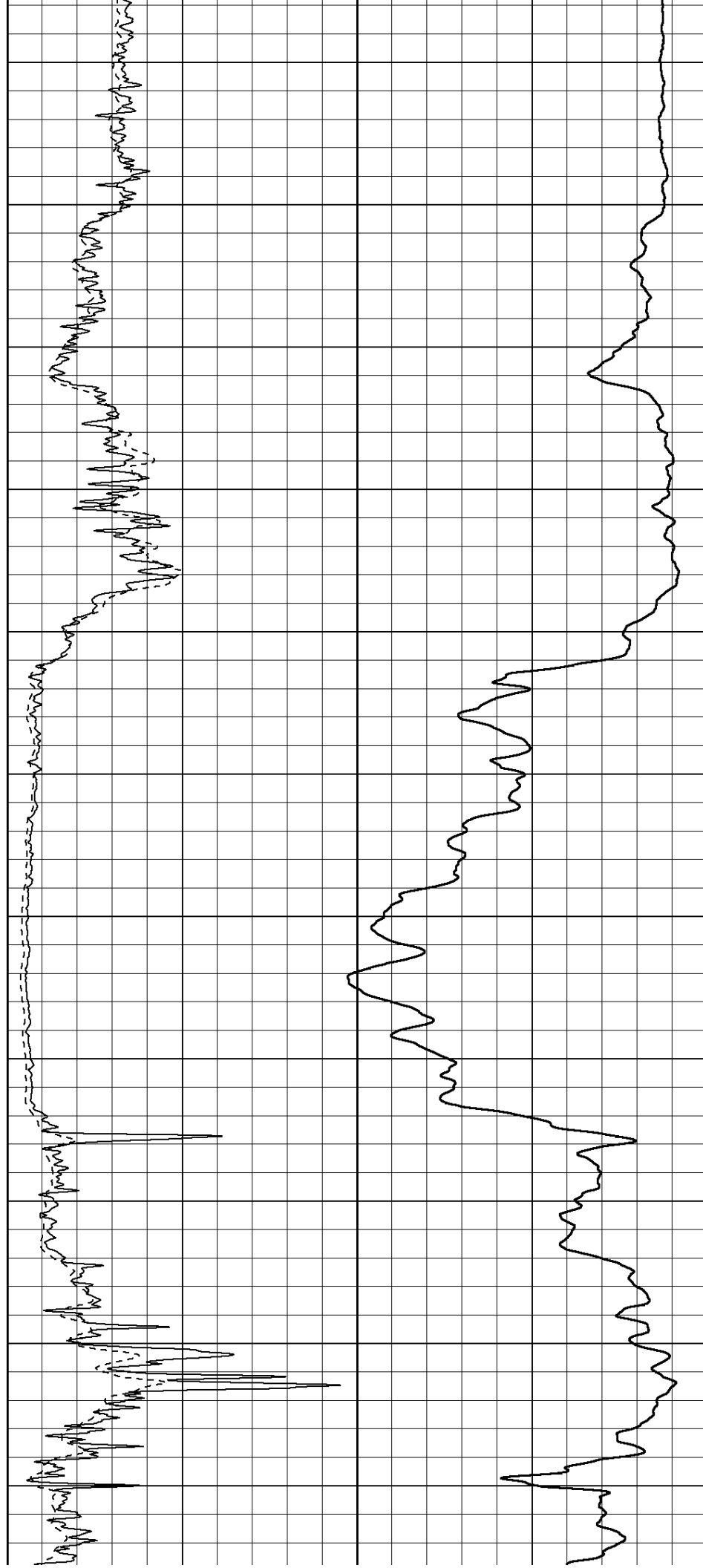
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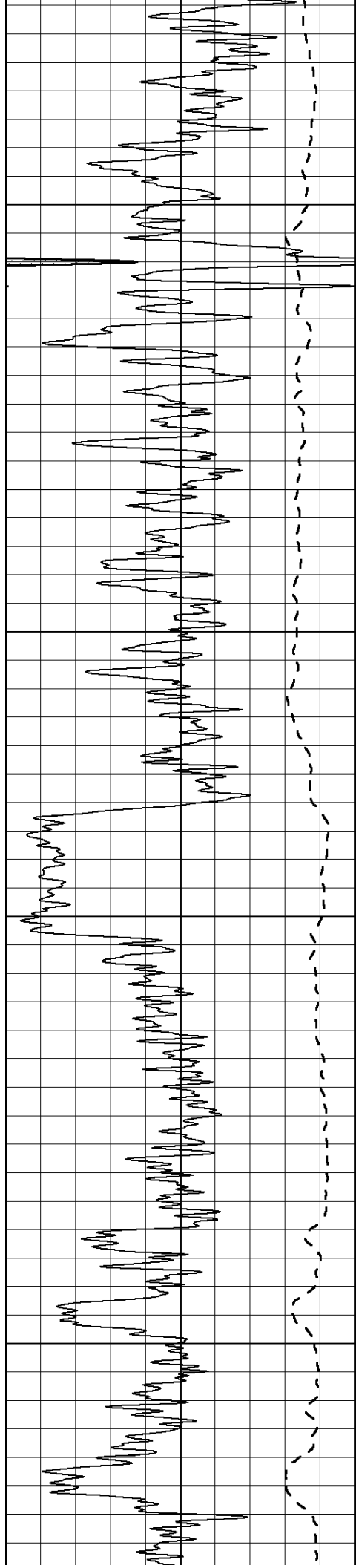
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850

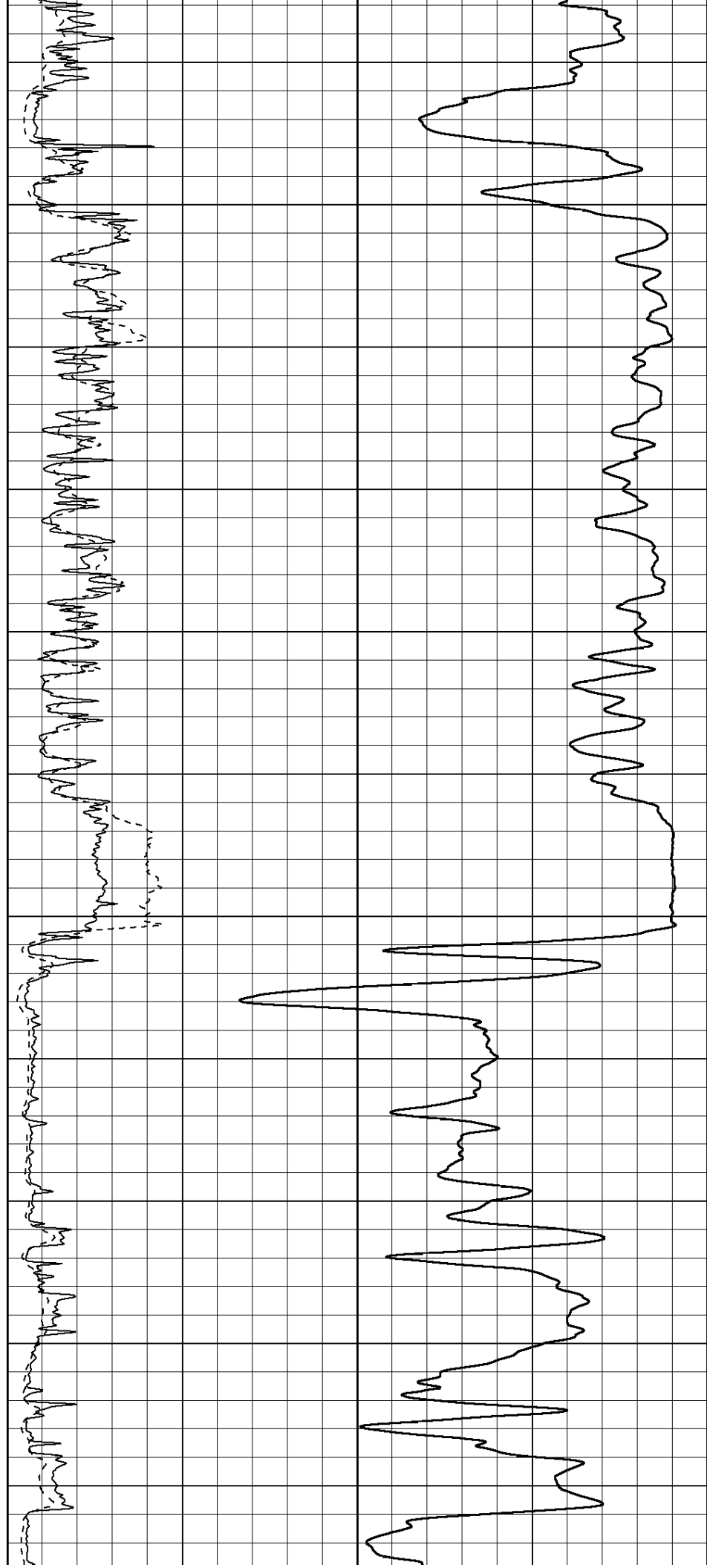
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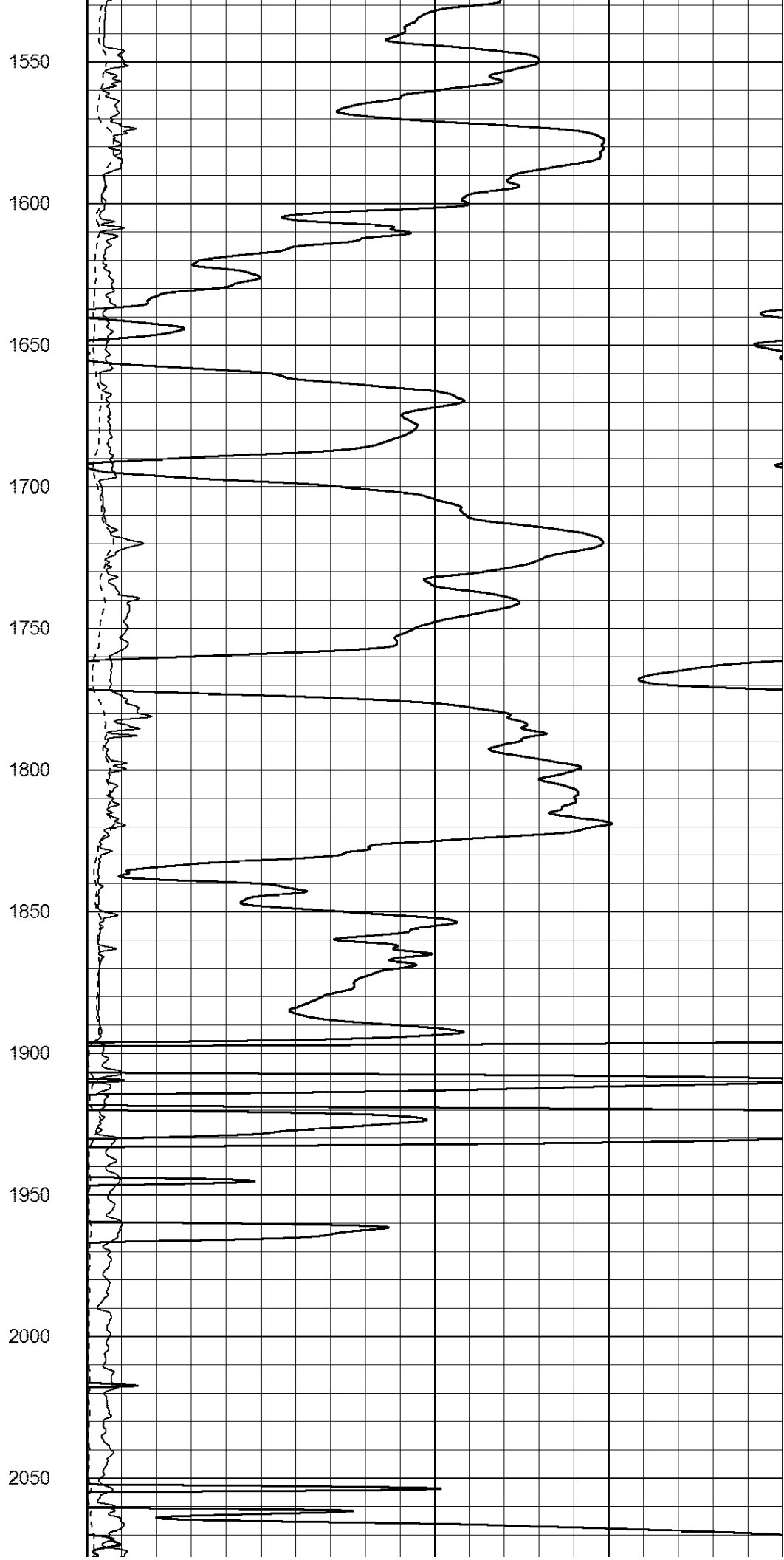
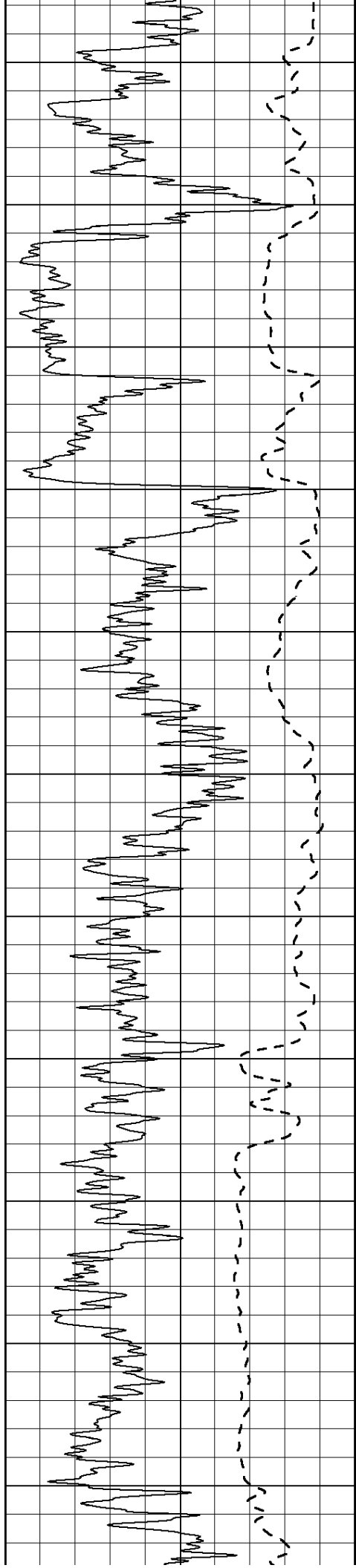
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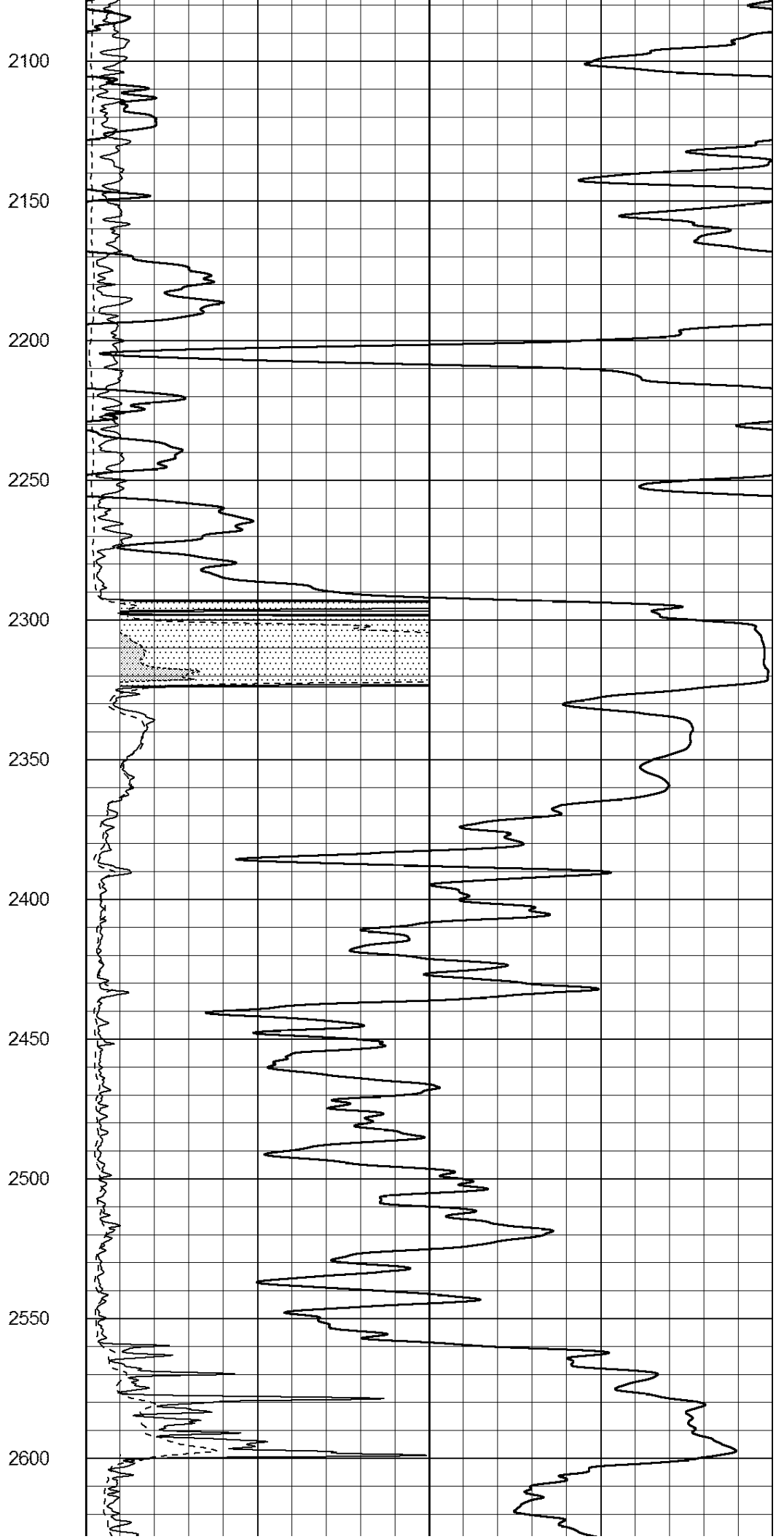
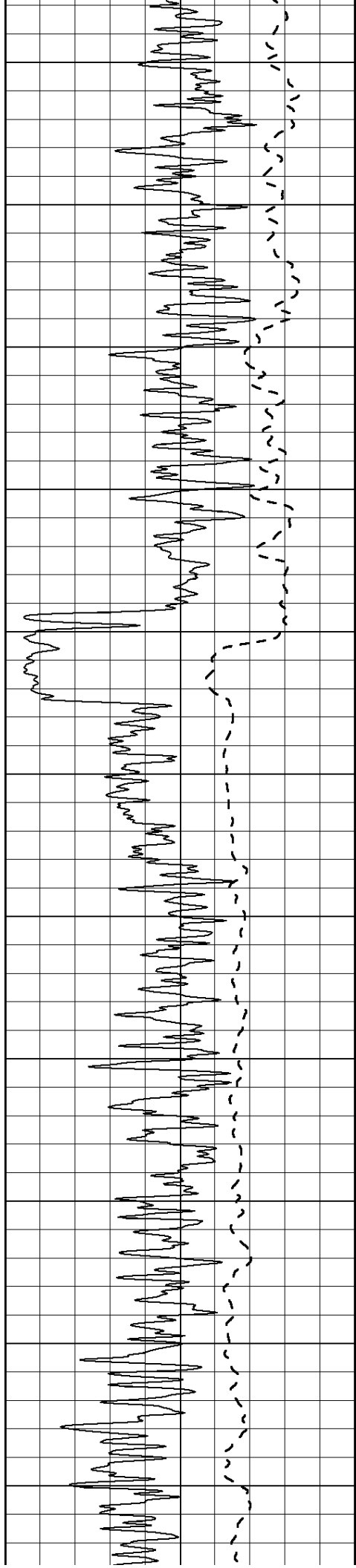


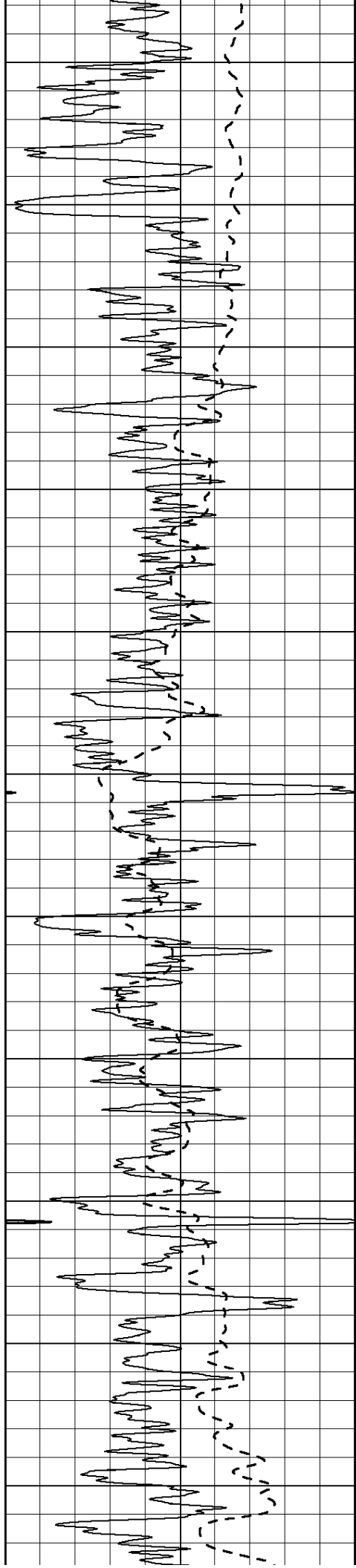


1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500









2650

2700

2750

2800

2850

2900

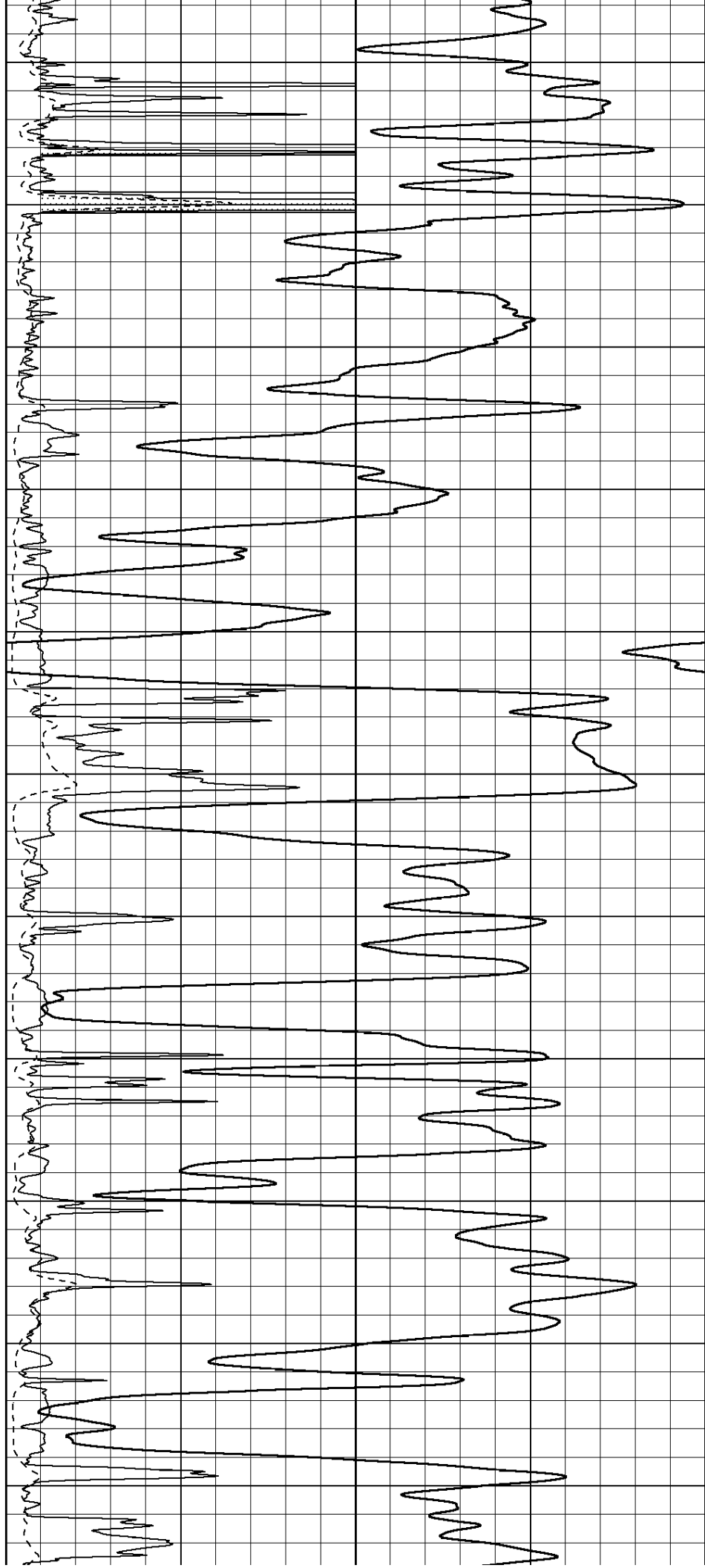
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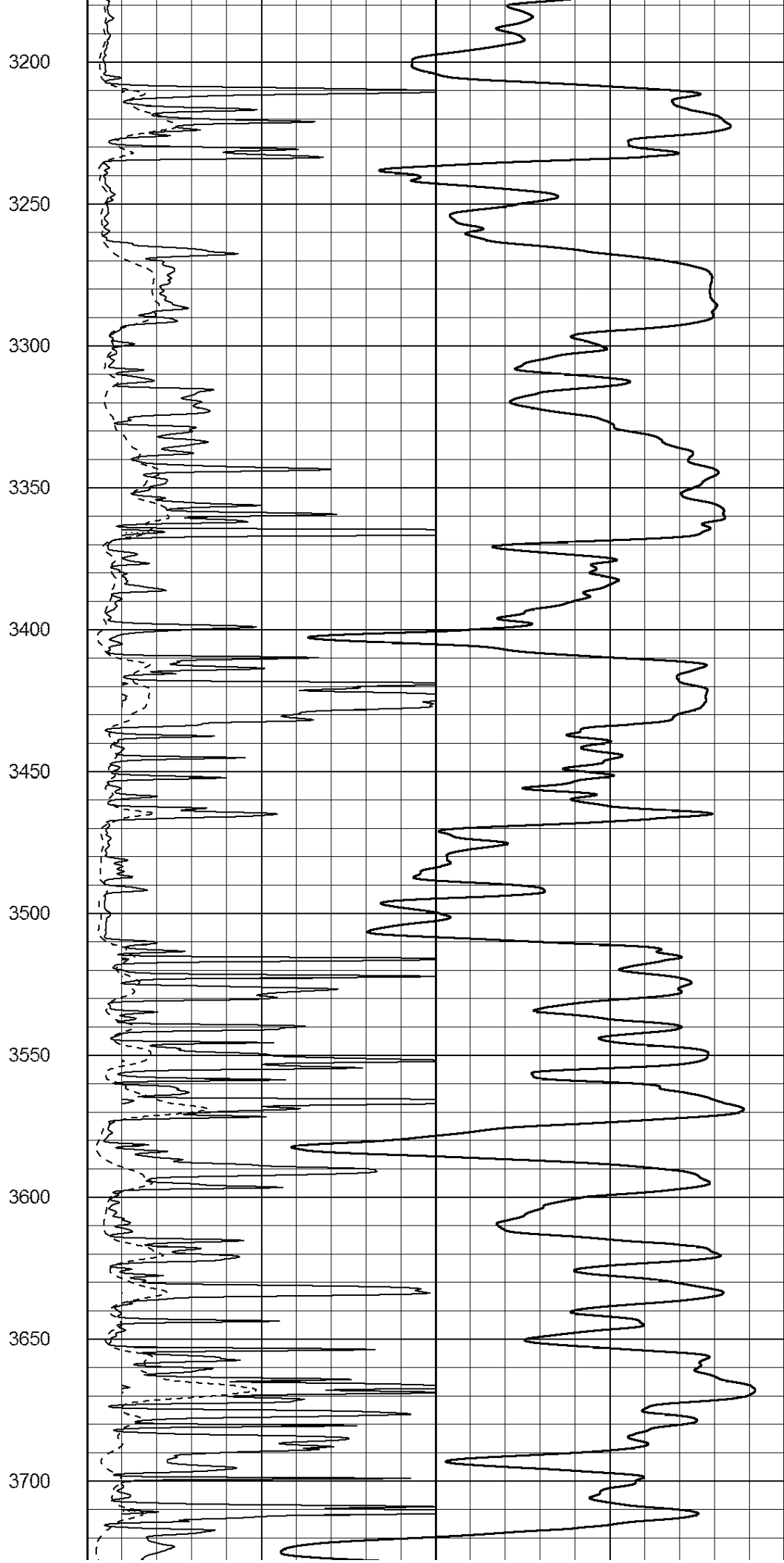
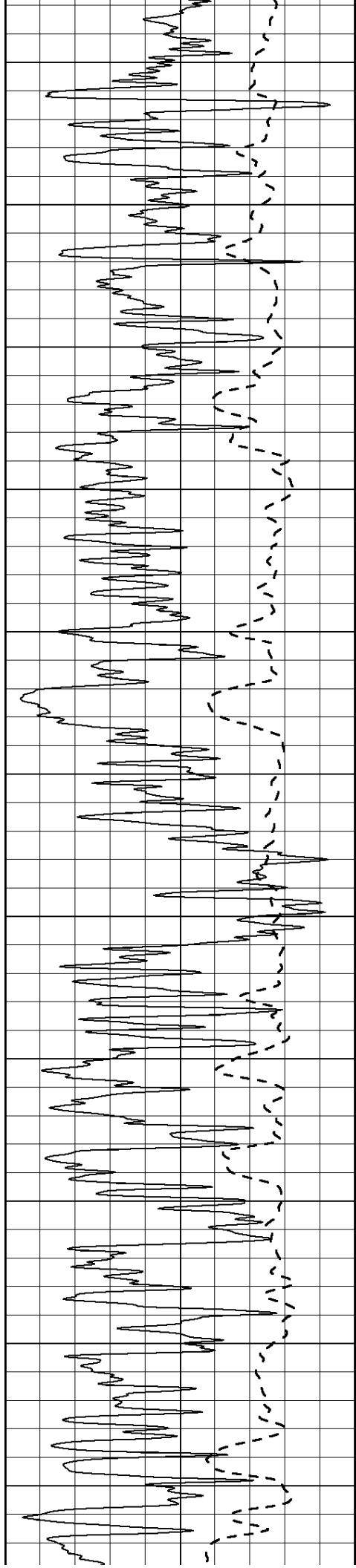
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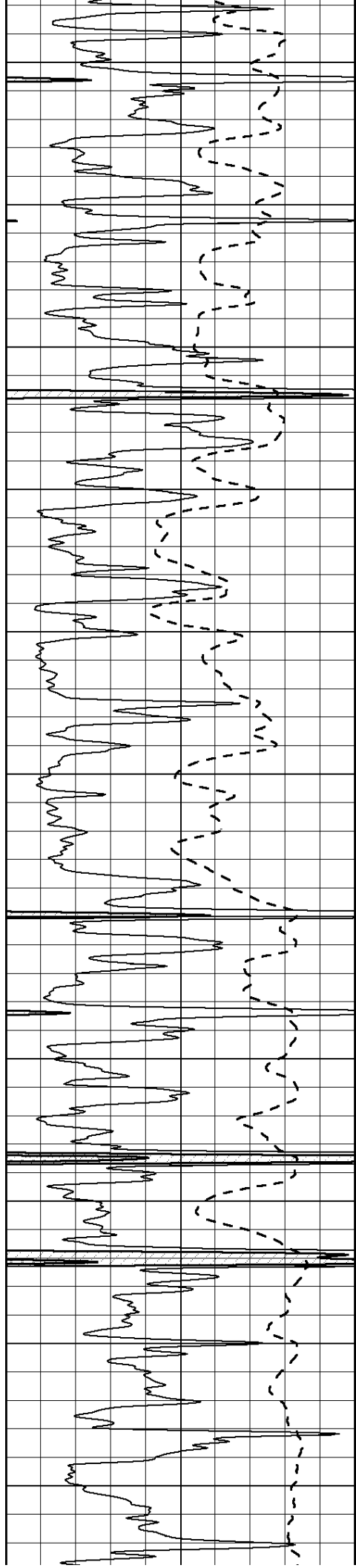
3050

3100

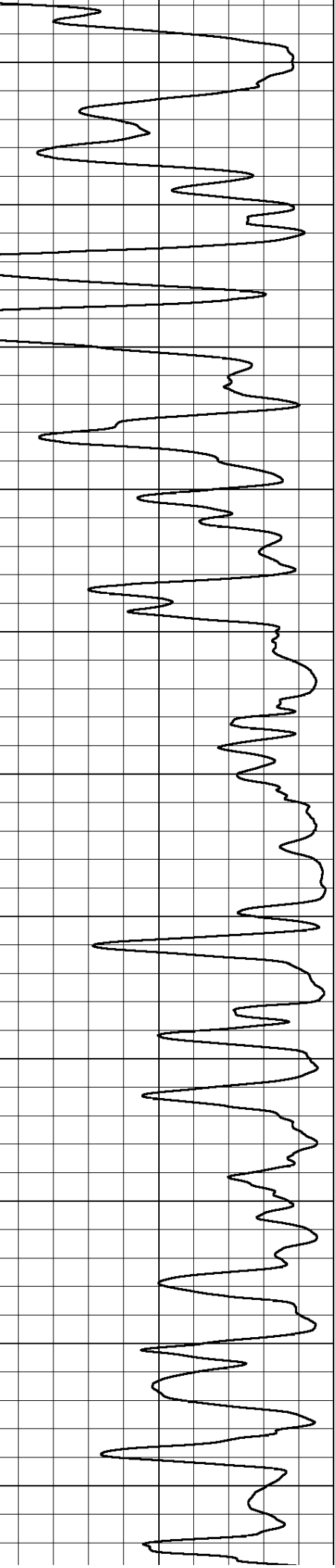
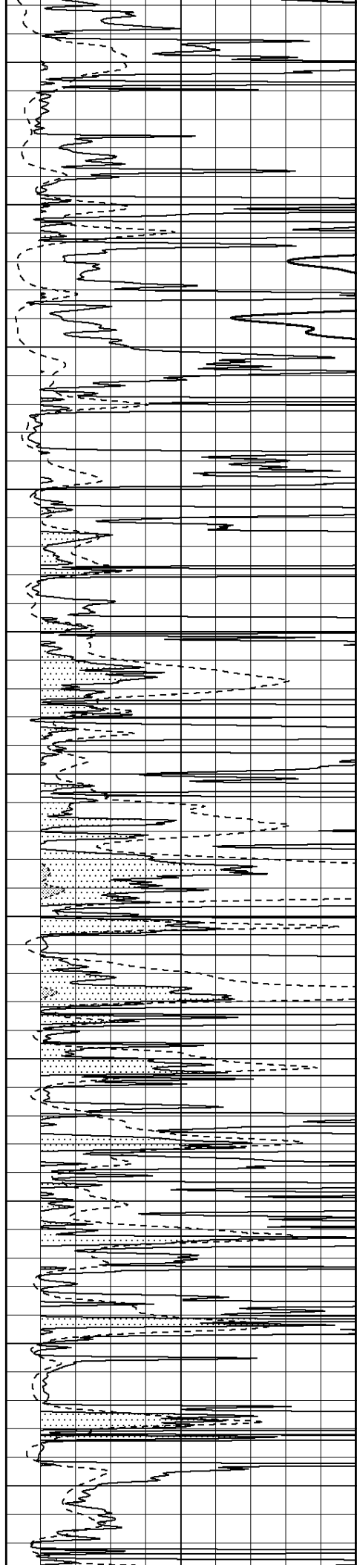
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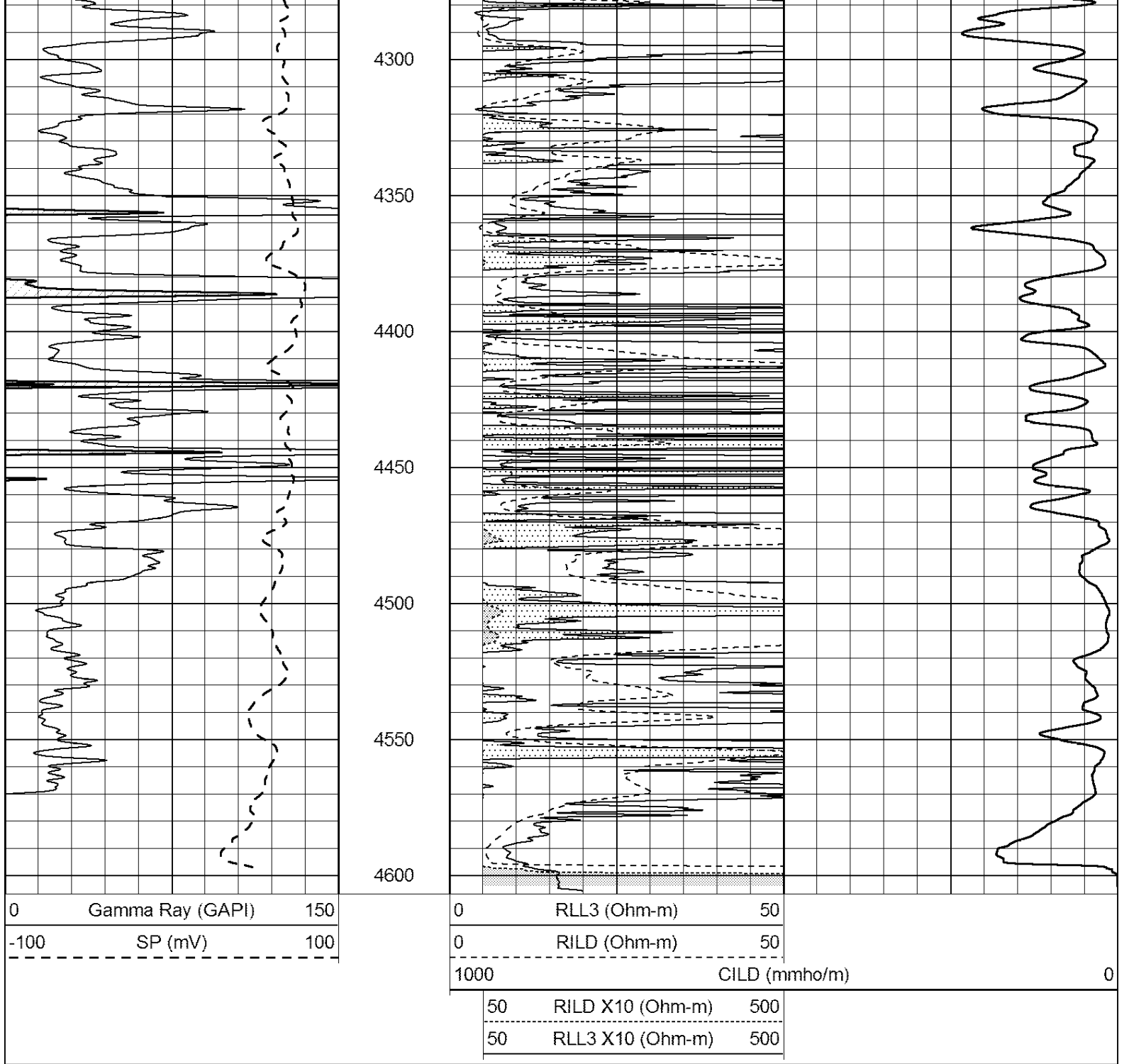






3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250



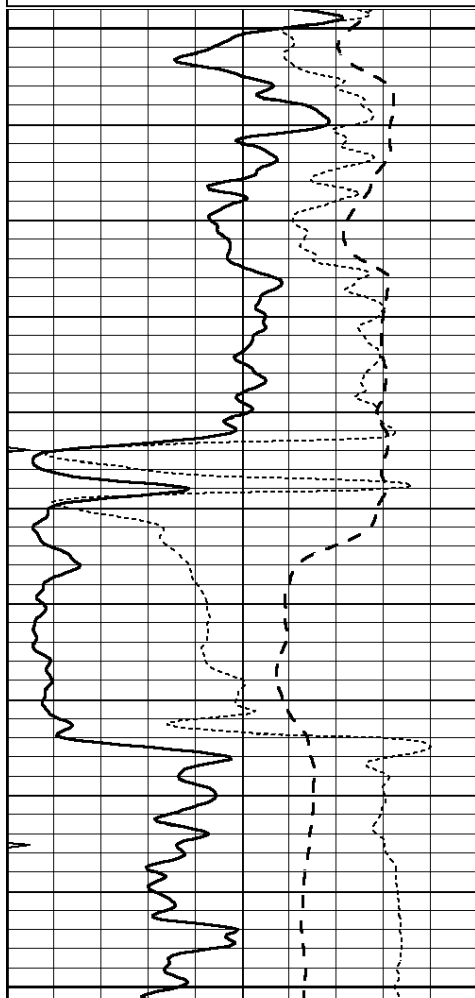


ANHYDRITE

Database File: 26210ddn.db
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 Presentation Format: _dil
 Dataset Creation: Fri Oct 17 20:19:43 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

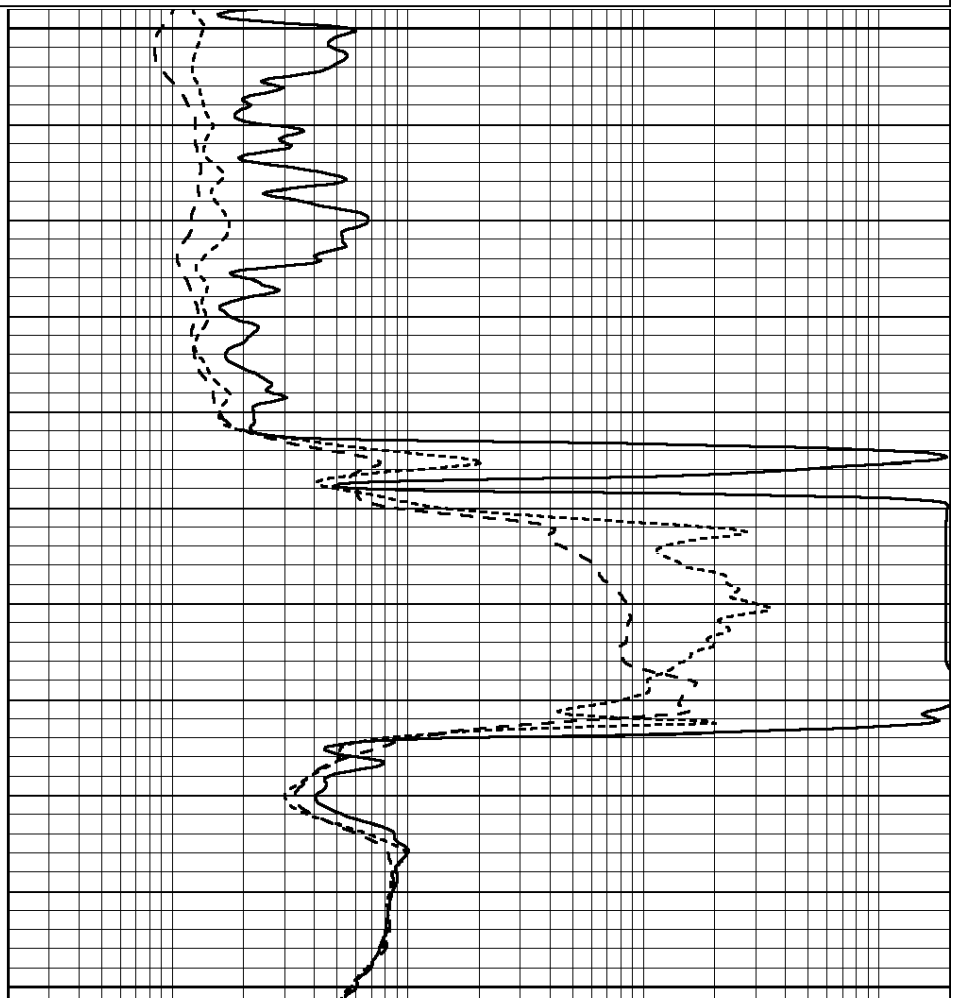
| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

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



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

2250
2300
2350



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

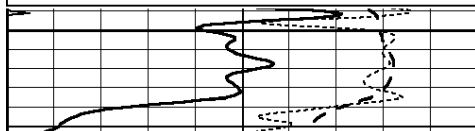


MAIN SECTION

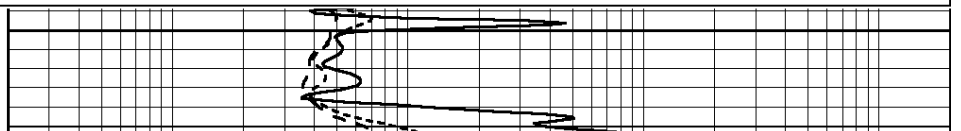
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 Presentation Format: _dil
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 Charted by: Depth in Feet scaled 1:240

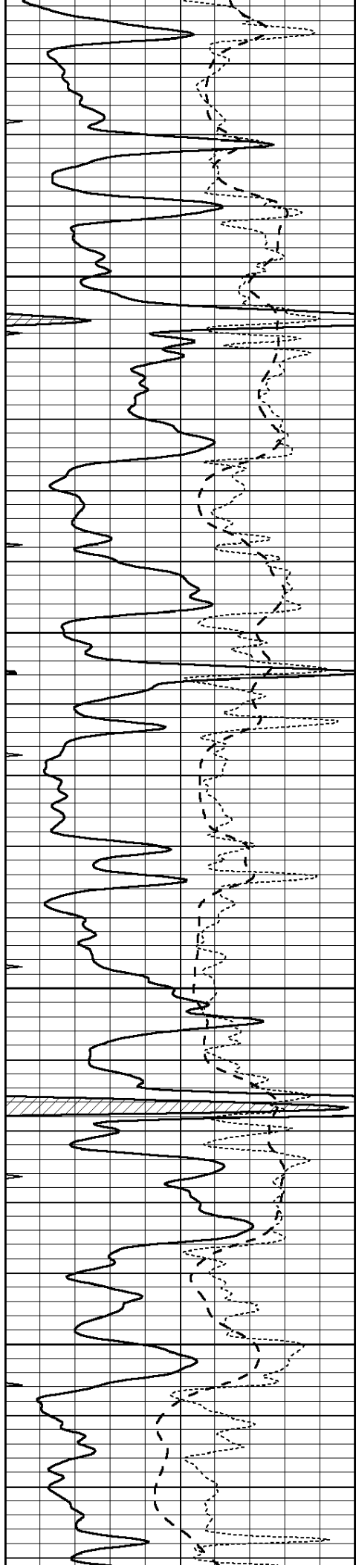
| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |
| 0 | MINMK | 20 |

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



3700



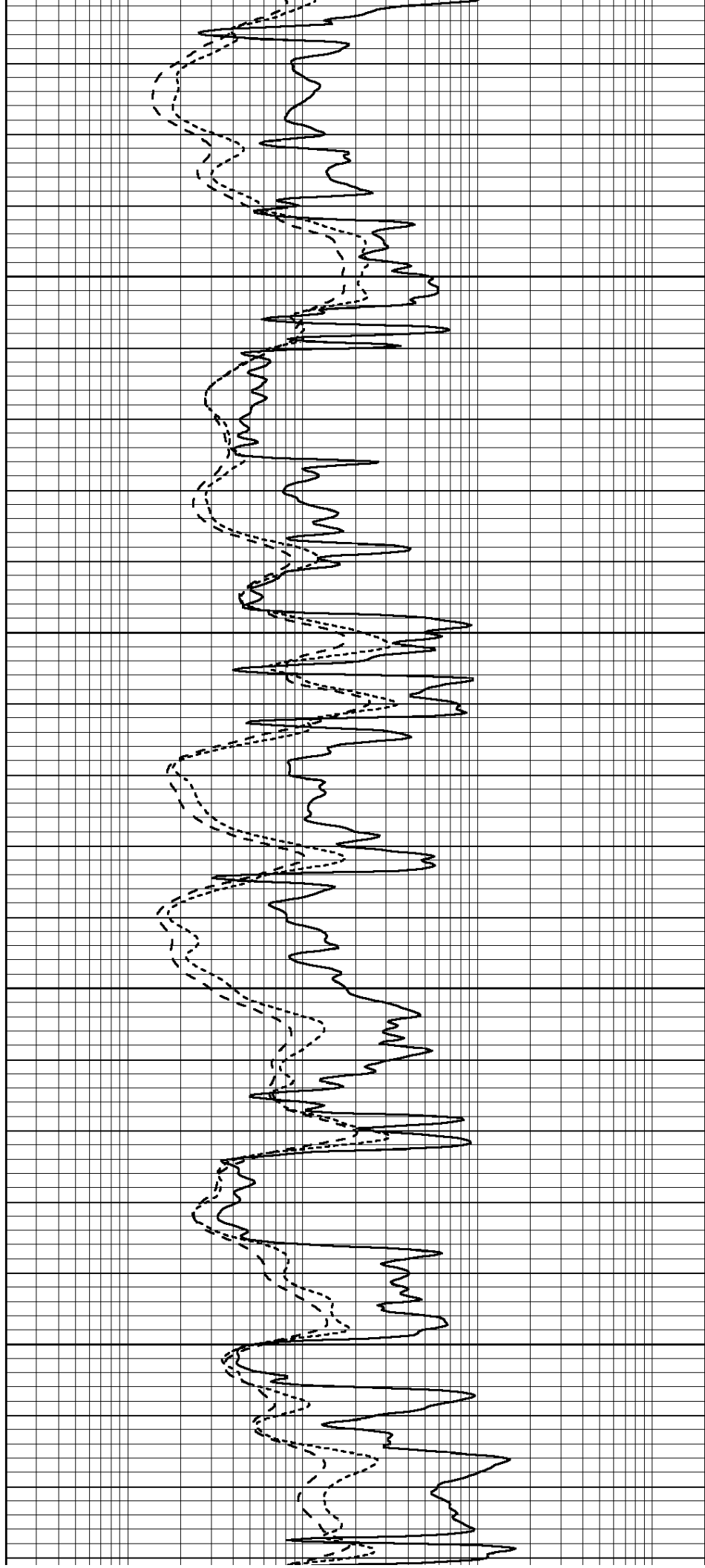


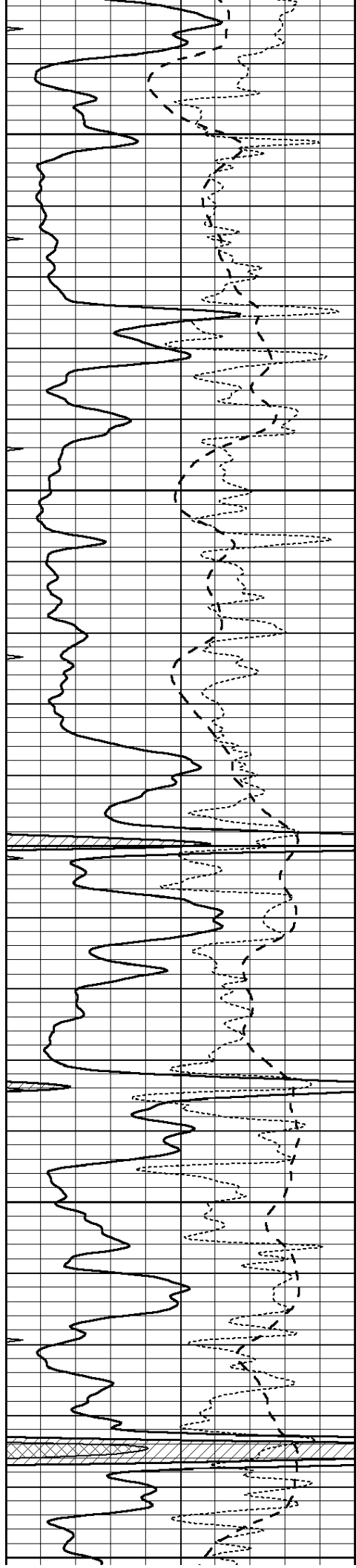
3750

3800

3850

3900





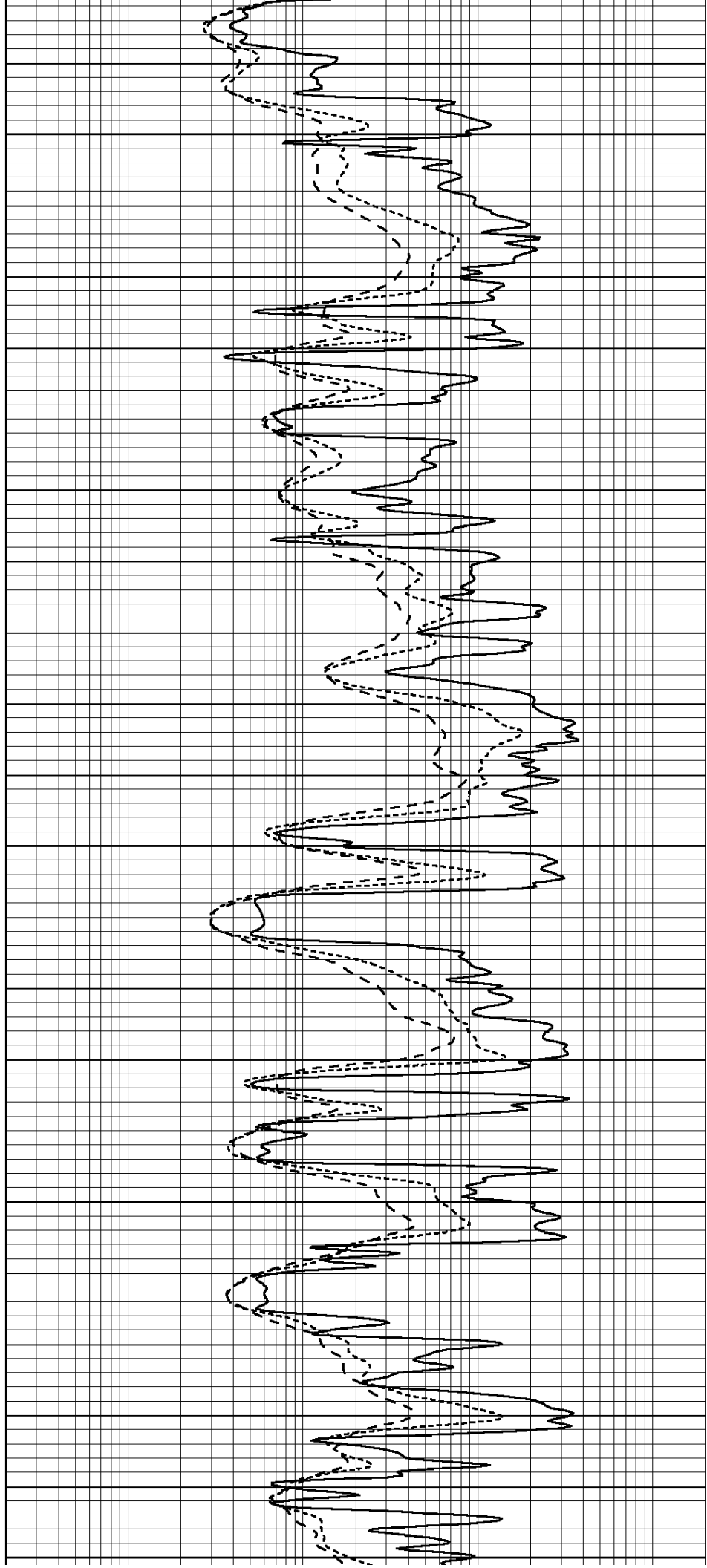
3950

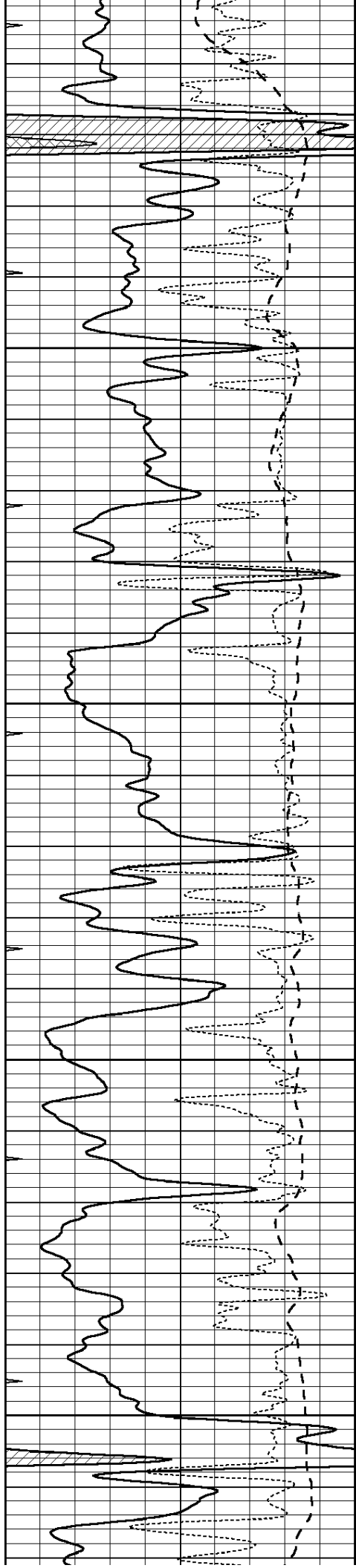
4000

4050

4100

4150



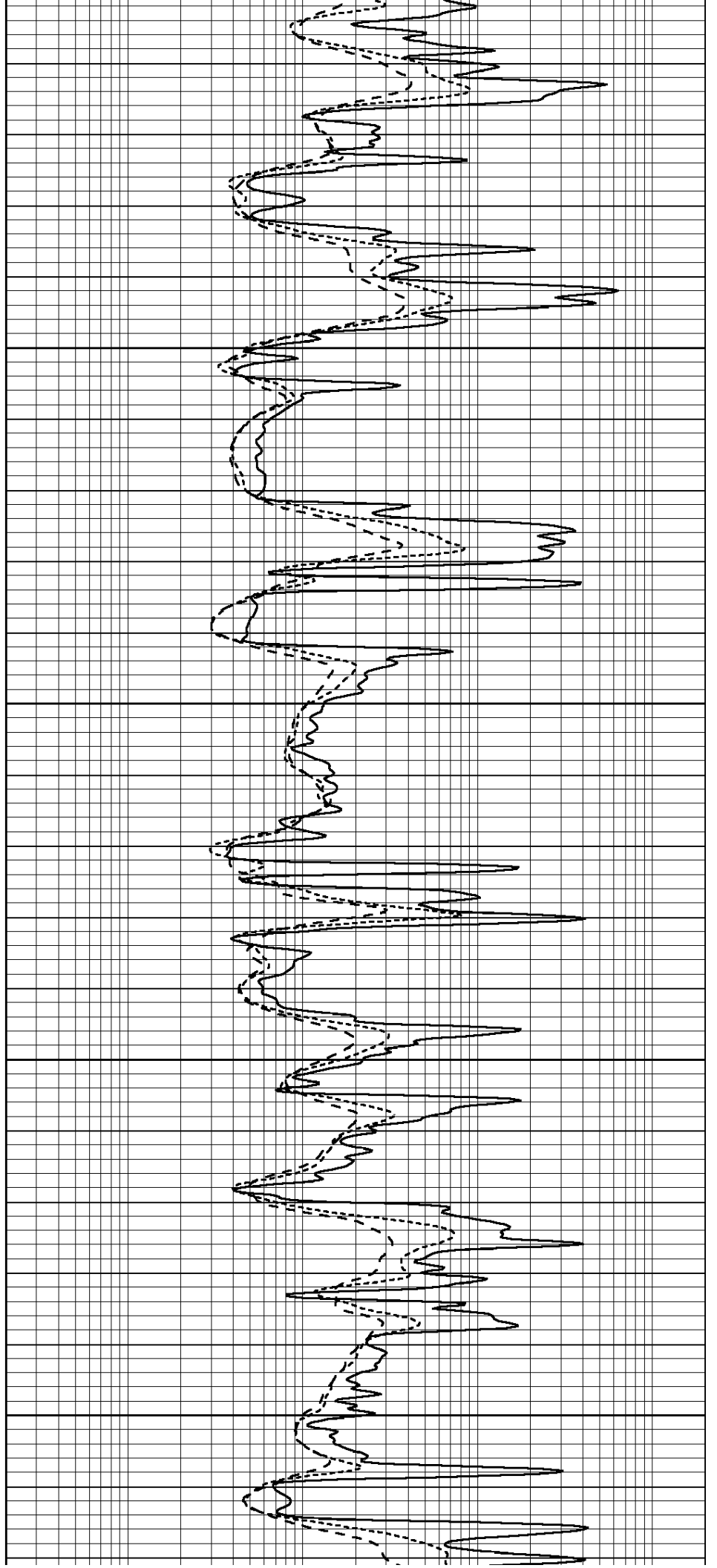


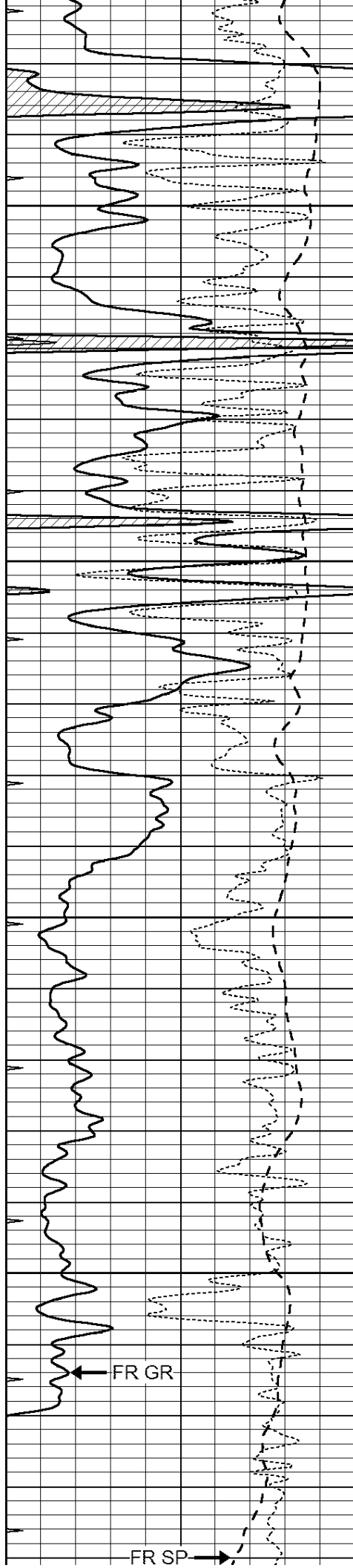
4200

4250

300

4350





4400

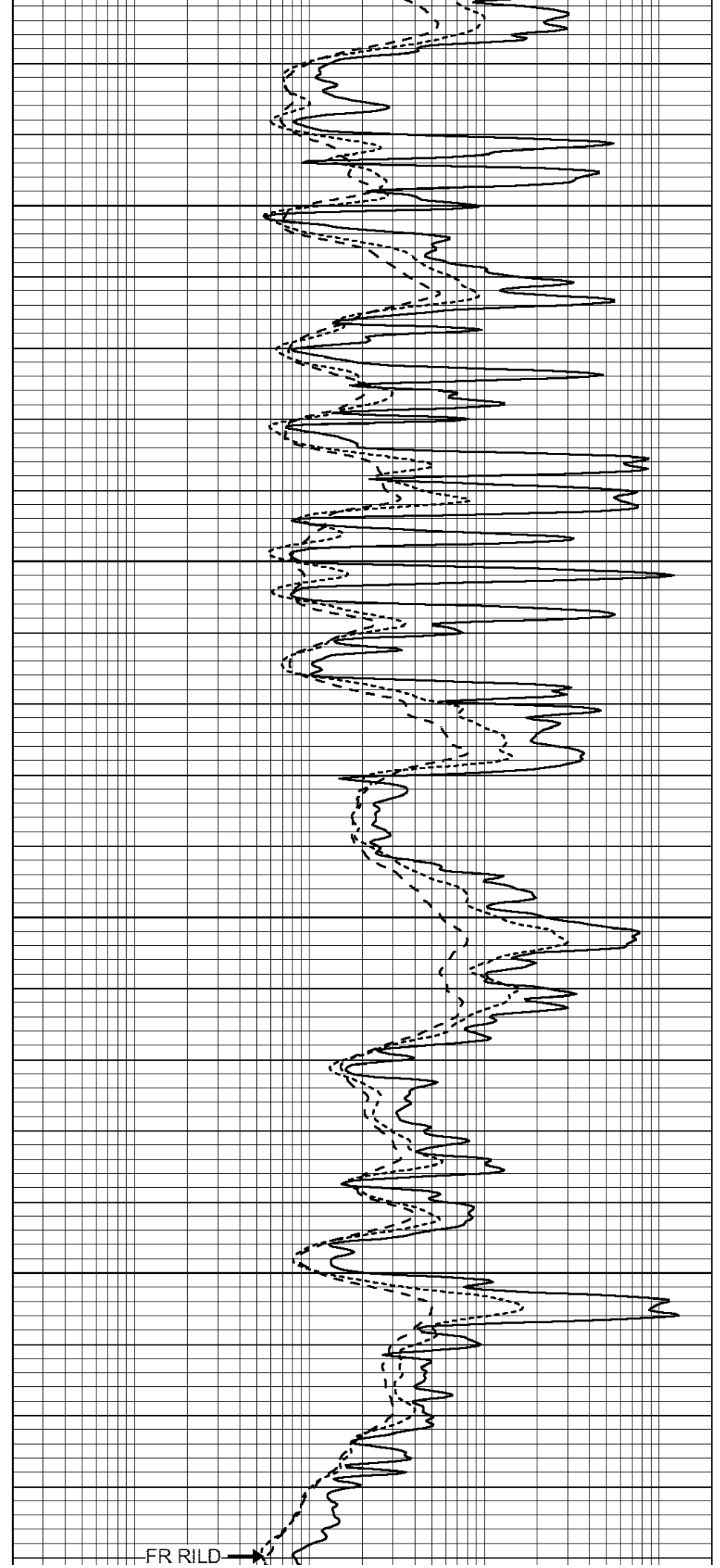
4450

4500

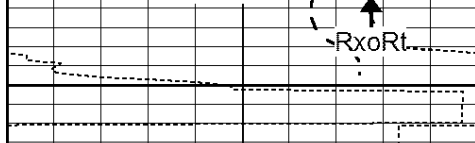
4550

FR GR

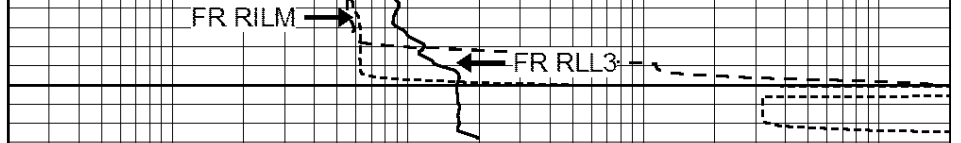
FR SP



FR RILD



LTD 4600



| | | |
|------|------------------|-----|
| 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 |

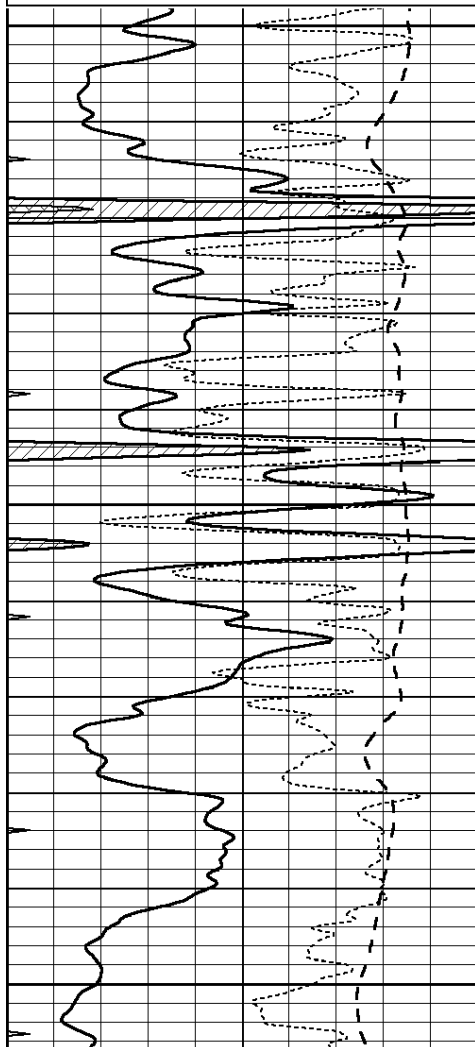


REPEAT SECTION

Database File: 26210ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _dil
 Dataset Creation: Fri Oct 17 20:04:15 2014 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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

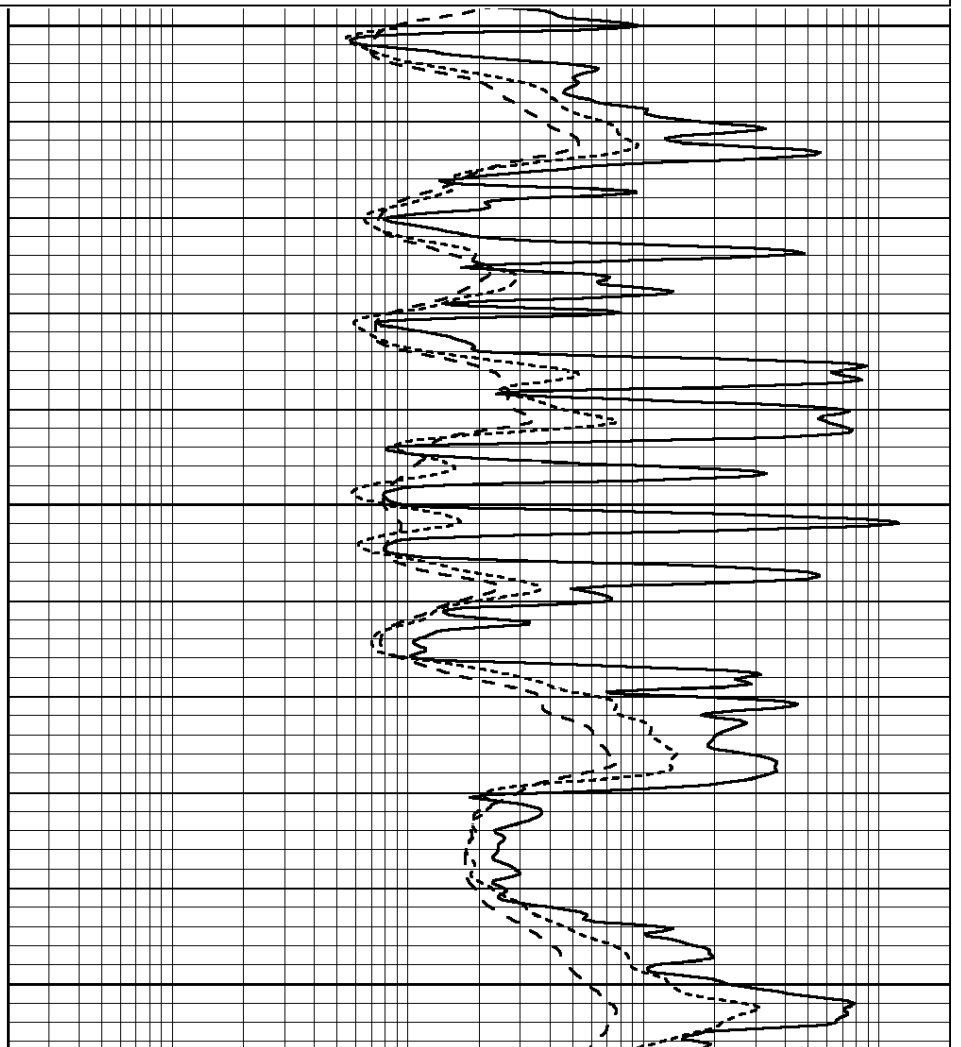
| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |



4400

4450

4500



| | 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 | | | | | | | | |
|---------------------------|----------|-------|--------|---------|-------|--------|---------|-------|
| | 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 | | |

Compensated Density Calibration Report

| | |
|---------------------------------------|--------------------------|
| Serial-Model: | GEAR3-GEARHART |
| Source / Verifier: | 143 / 143 |
| Master Calibration Performed: | Sun Aug 17 08:09:42 2014 |
| Before Survey Verification Performed: | |
| After Survey Verification Performed: | |

| Master Calibration | | | | | | |
|--------------------|---------------------|------|-----------------------------|---------------|-----|--|
| | Density | | Far Detector | Near Detector | | |
| Magnesium | 1.710 | g/cc | 935.36 | 501.55 | cps | |
| Aluminum | 2.580 | g/cc | 209.32 | 357.01 | cps | |
| | Spine Angle = 77.21 | | Density/Spine Ratio = 0.567 | | | |
| | Size | | Reading | | | |
| Small Ring | 8.00 | in | 4.29 | V | | |
| Large Ring | 14.00 | in | 6.24 | V | | |

| Before Survey Verification | | | | | | |
|----------------------------|--------|------|----------|--|------|--|
| | Target | | Measured | | | |
| | | g/cc | | | g/cc | |
| | | g/cc | | | g/cc | |
| | | g/cc | | | g/cc | |

| After Survey Verification | | | | | | |
|---------------------------|--------|------|----------|--|------|--|
| | Target | | Measured | | | |
| | | g/cc | | | g/cc | |
| | | g/cc | | | g/cc | |
| | | g/cc | | | g/cc | |

Compensated Neutron Calibration Report

| | |
|----------------|----|
| Serial Number: | 61 |
| 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 | |

BEFORE SURVEY VERIFICATION

PRE-SURVEY VERIFICATION

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

POST-SURVEY VERIFICATION

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

Gamma Ray Calibration Report

| | | |
|---------------------|--------------------------|----------|
| Serial Number: | GR6 | |
| Tool Model: | OPEN | |
| Performed: | Sun Aug 17 15:23:09 2014 | |
| Calibrator Value: | 150.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 276.0 | cps |
| Sensitivity: | 0.7000 | GAPI/cps |