

DUAL INDUCTION LOG

Company VAL ENERGY, INC.

Well JOHNSON #1-36

Field

County THOMAS

State KANSAS

Location: API #: 15-193-21075-0000

928' FSL & 982' FEL

Other Services
CDL/CNL
MEL

SEC 36 TWP 7S RGE 36W

Elevation

Permanent Datum GROUND LEVEL Elevation 3333

Log Measured From KELLY BUSHING 5' A.G.L

Drilling Measured From KELLY BUSHING

K.B. 3338
D.F. 3336
G.L. 3333

Date 4/9/20

Run Number ONE

Depth Driller 4809

Depth Logger 4803

Bottom Logged Interval 4801

Top Log Interval 00

Casing Driller 8 5/8" @ 304'

Casing Logger 302'

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/60

pH / Fluid Loss 9.0/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.50 @ 97F

Rmf @ Meas. Temp 0.37 @ 97F

Rmc @ Meas. Temp 0.60 @ 97F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT 0.39 @ 123F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom ////

Maximum Recorded Temperature 123F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By TIM PRIEST

<<< Fold Here >>>

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 SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
LEVANT, KS. - 2 WEST ON RD. R - 1 NORTH ON RD. 9 1 WEST - 1/4 NORTH - WEST INTO

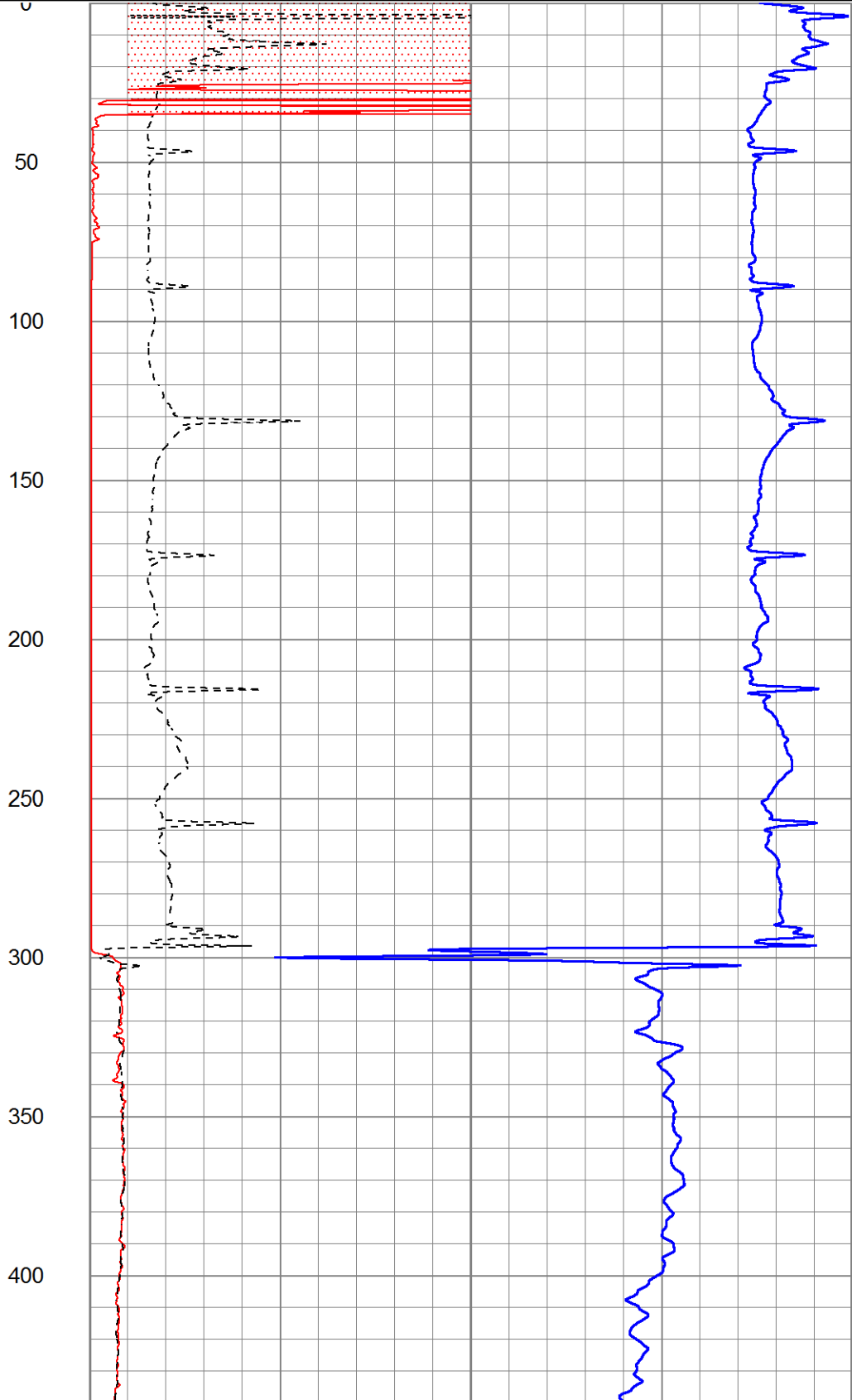
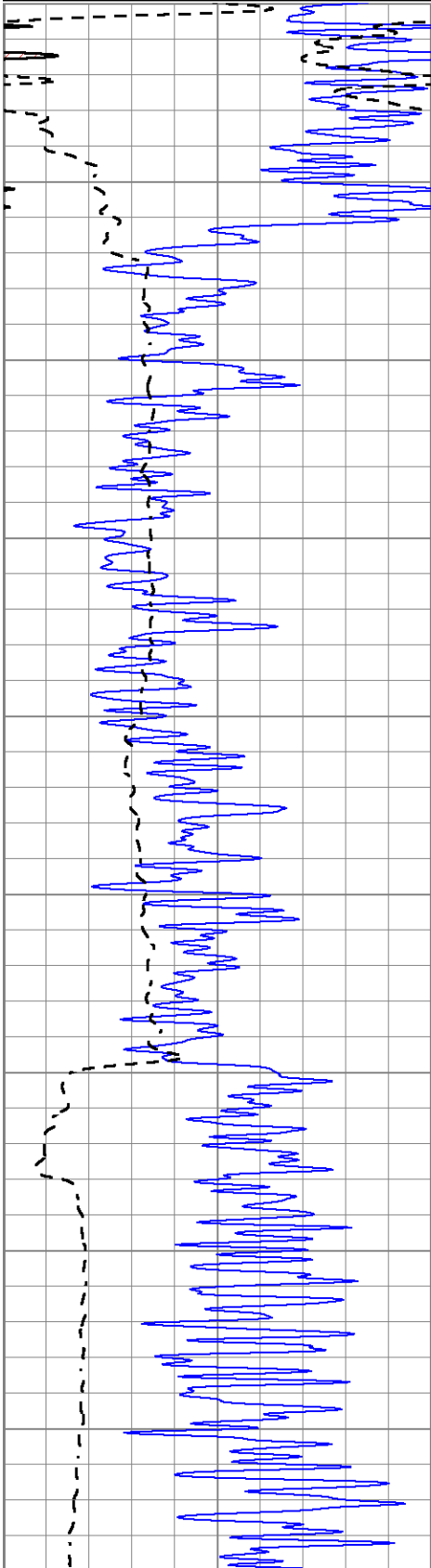


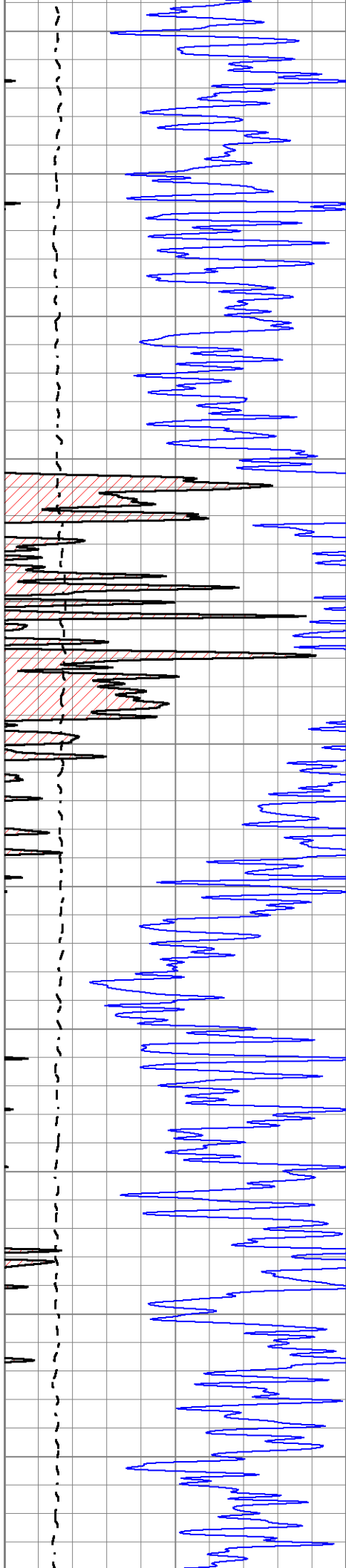
MAIN SECTION

Database File 4735ddn.db
 Dataset Pathname pass3.3
 Presentation Format _dil2
 Dataset Creation Thu Apr 09 19:50:05 2020
 Charted by Depth in Feet scaled 1:600

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

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





450

500

550

600

650

700

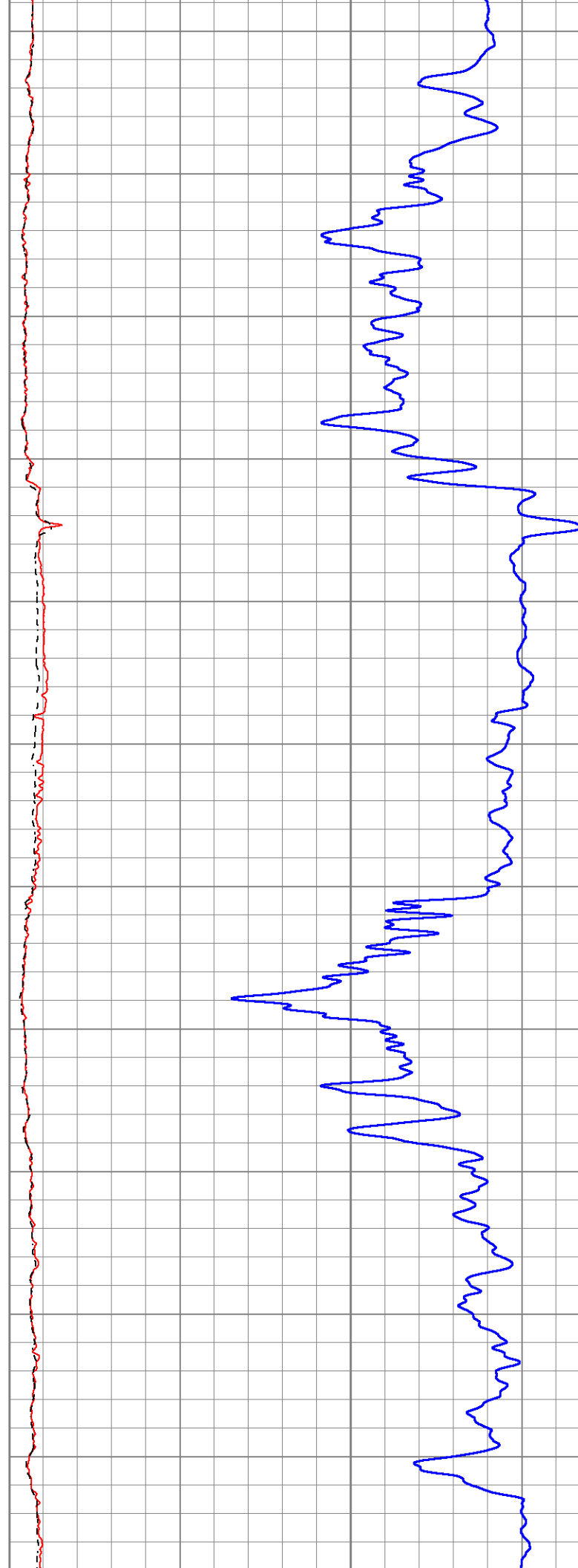
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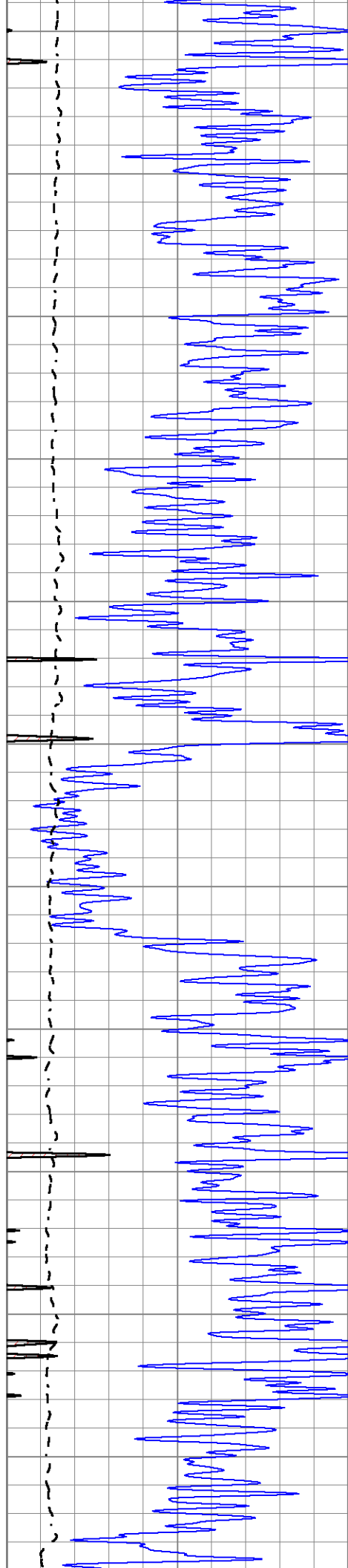
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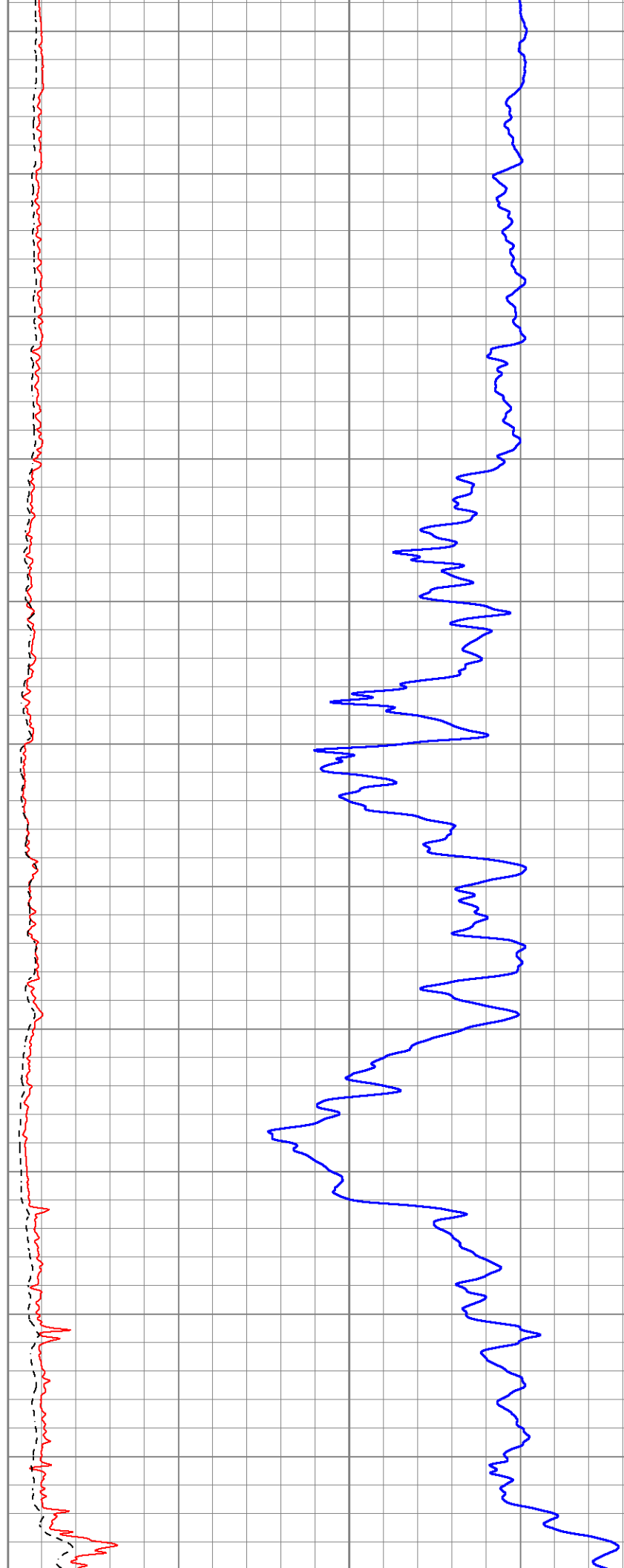
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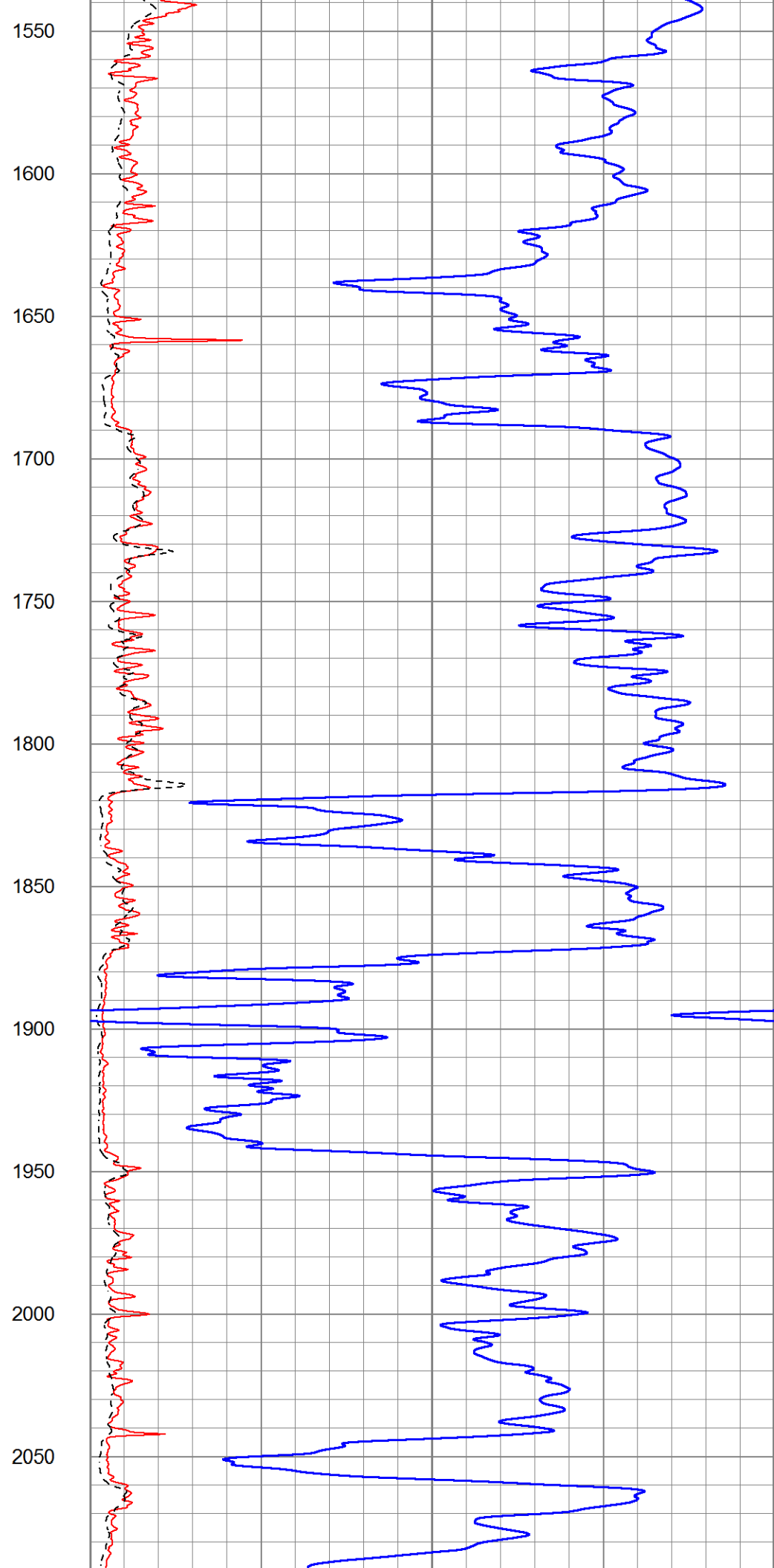
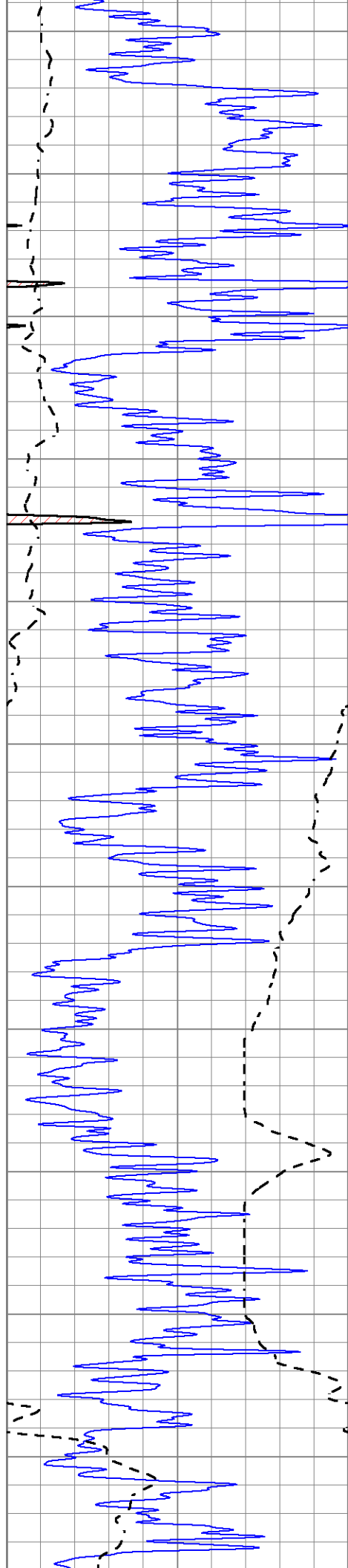
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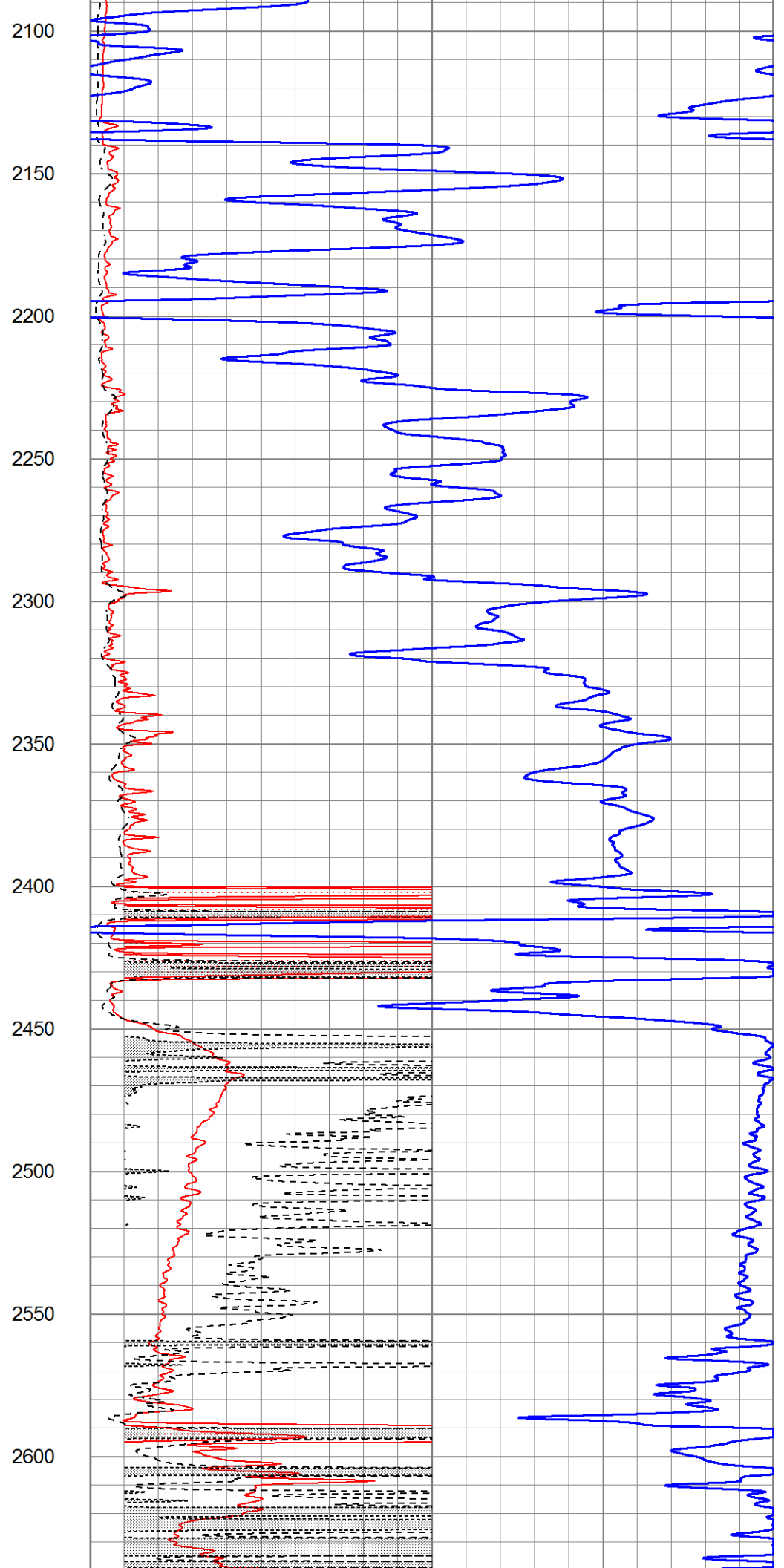
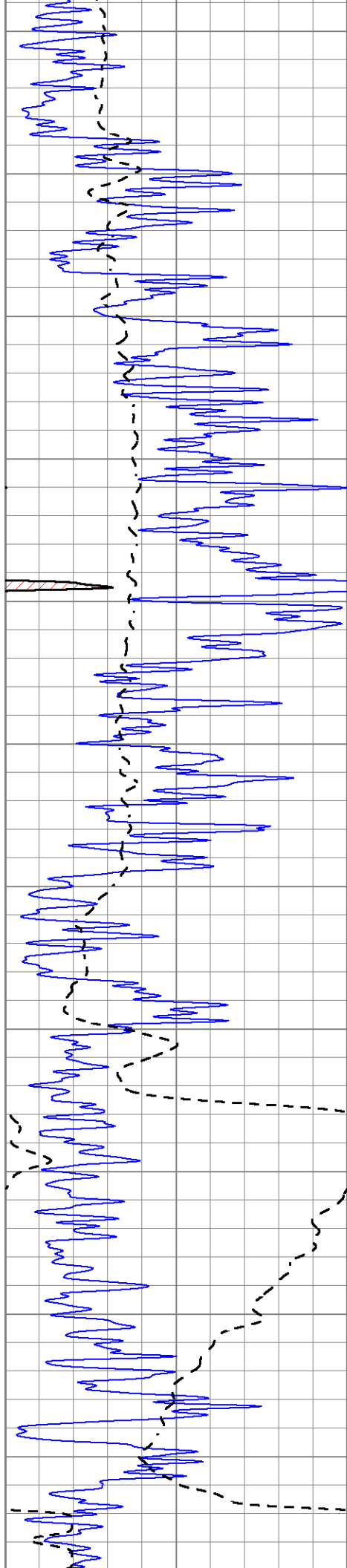


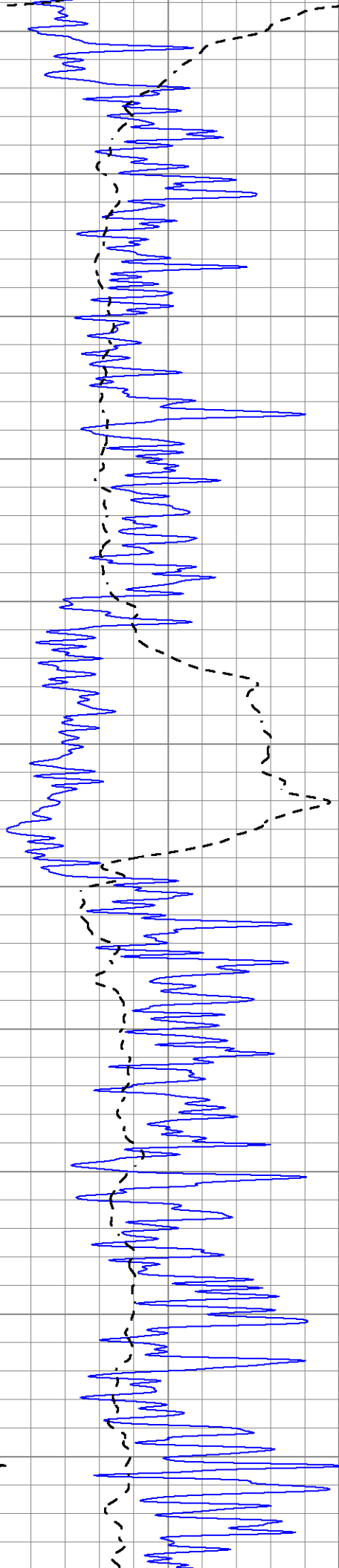


1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

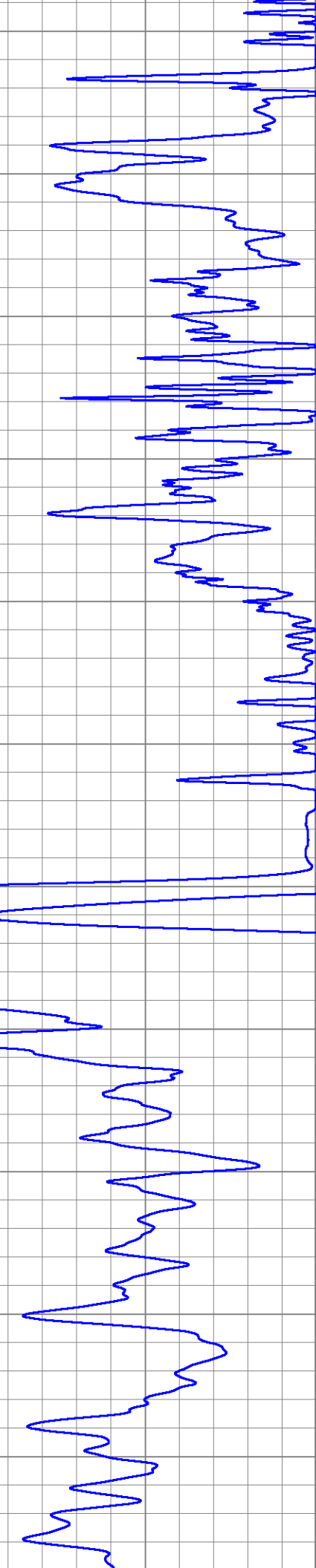
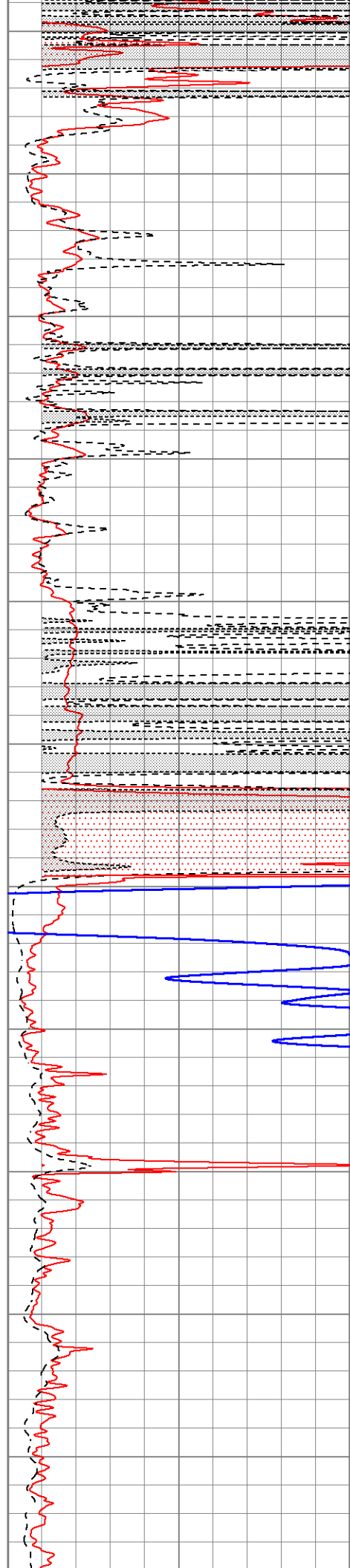




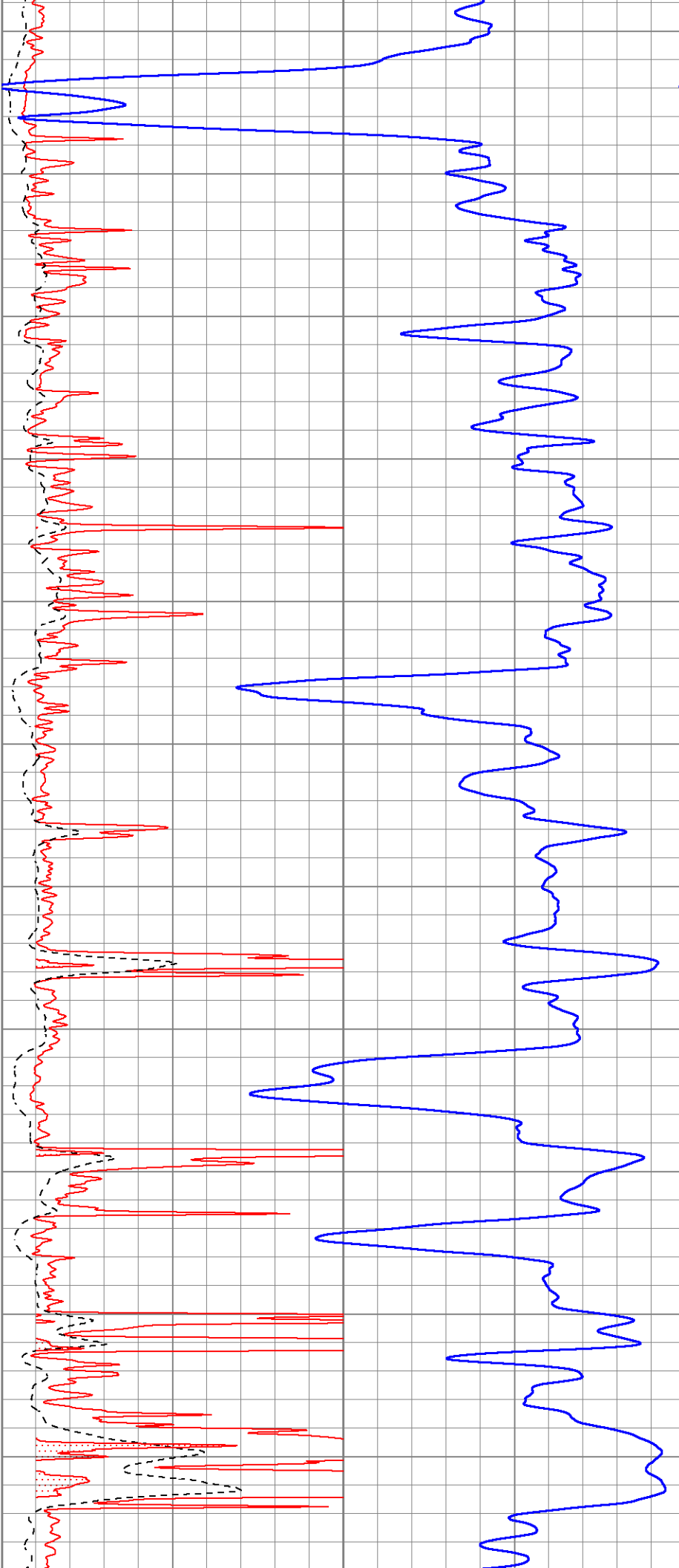
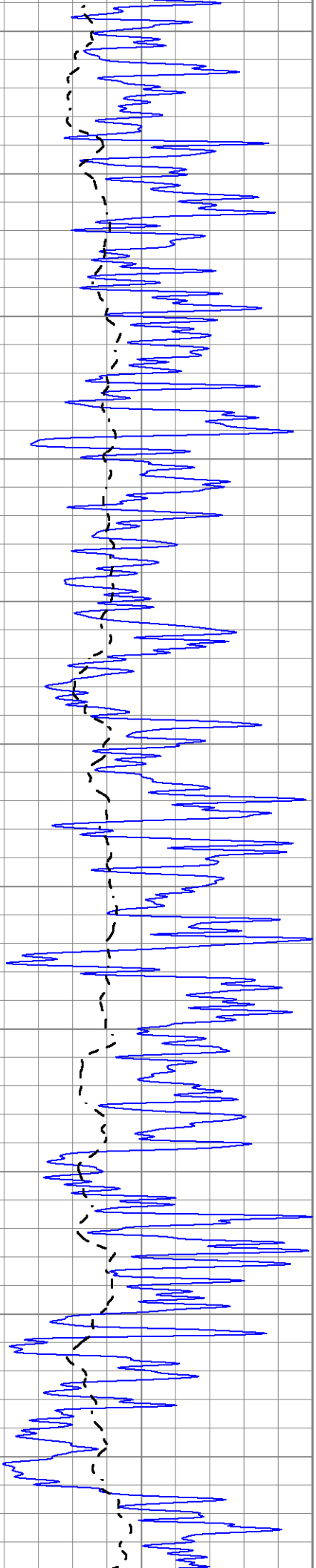


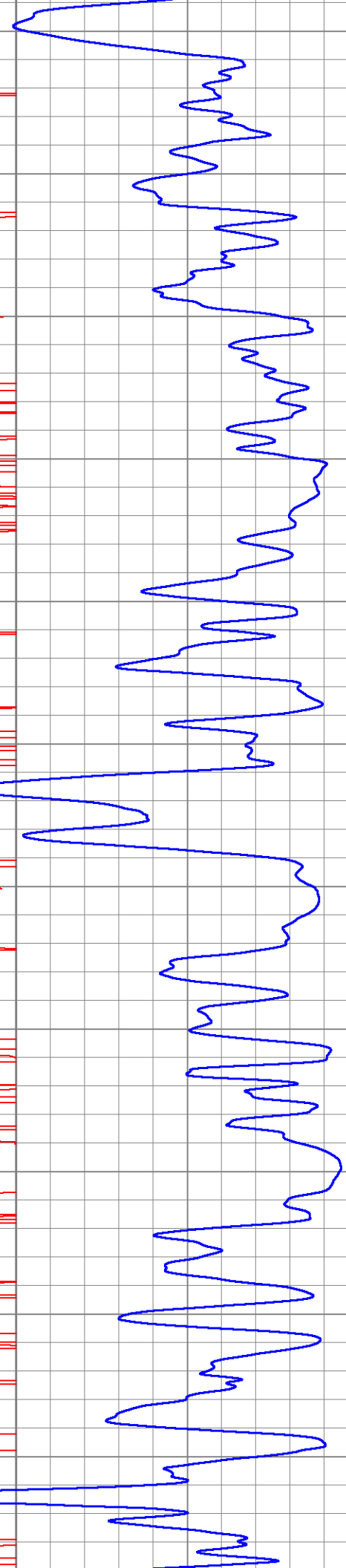
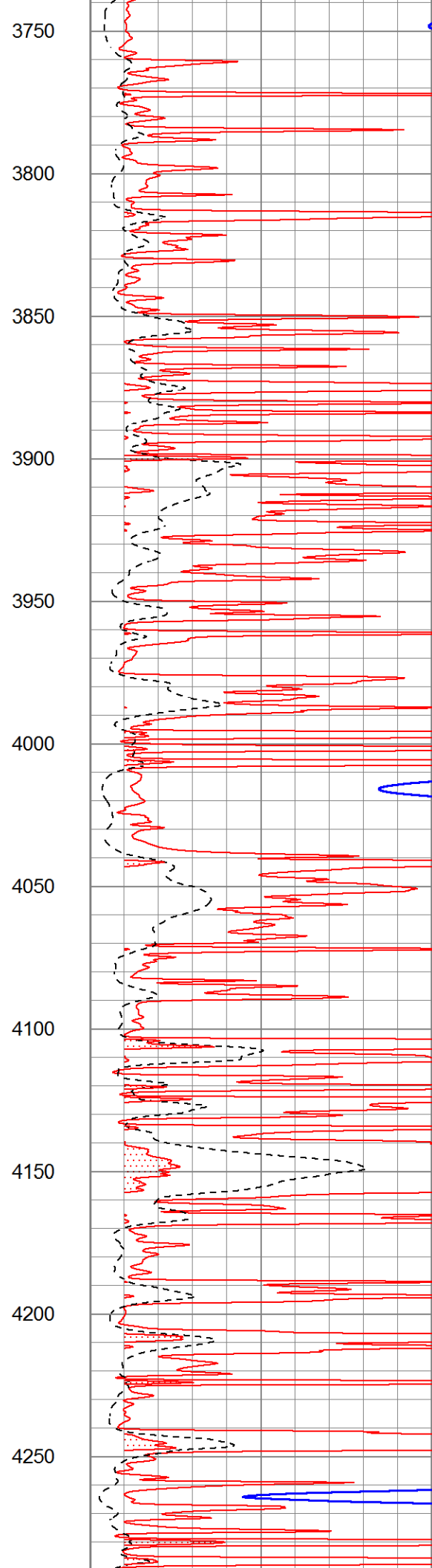
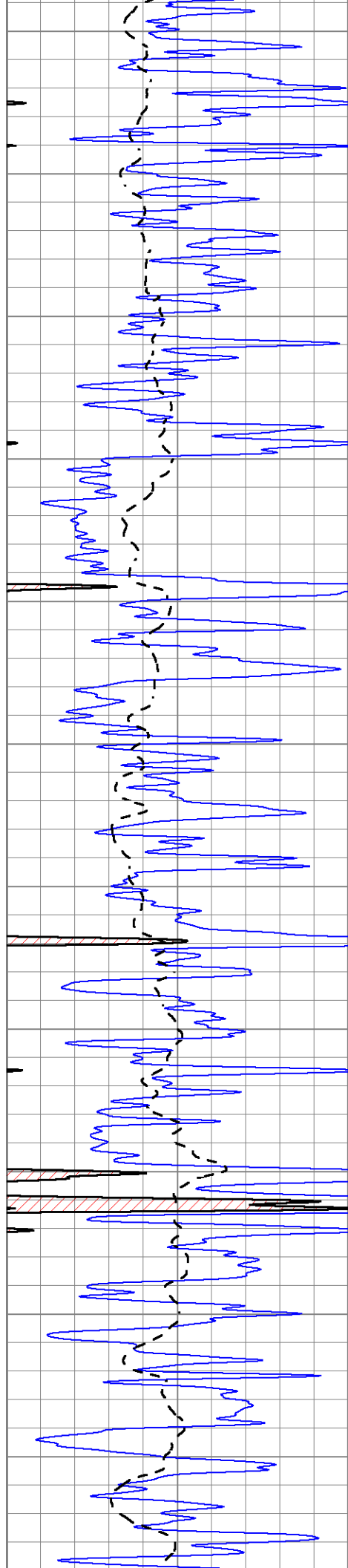


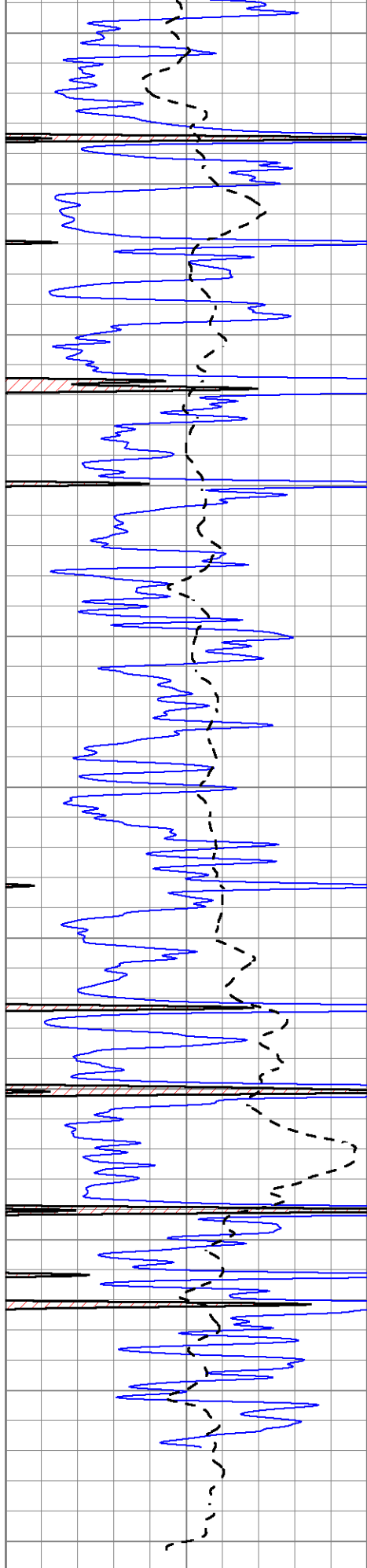
2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150



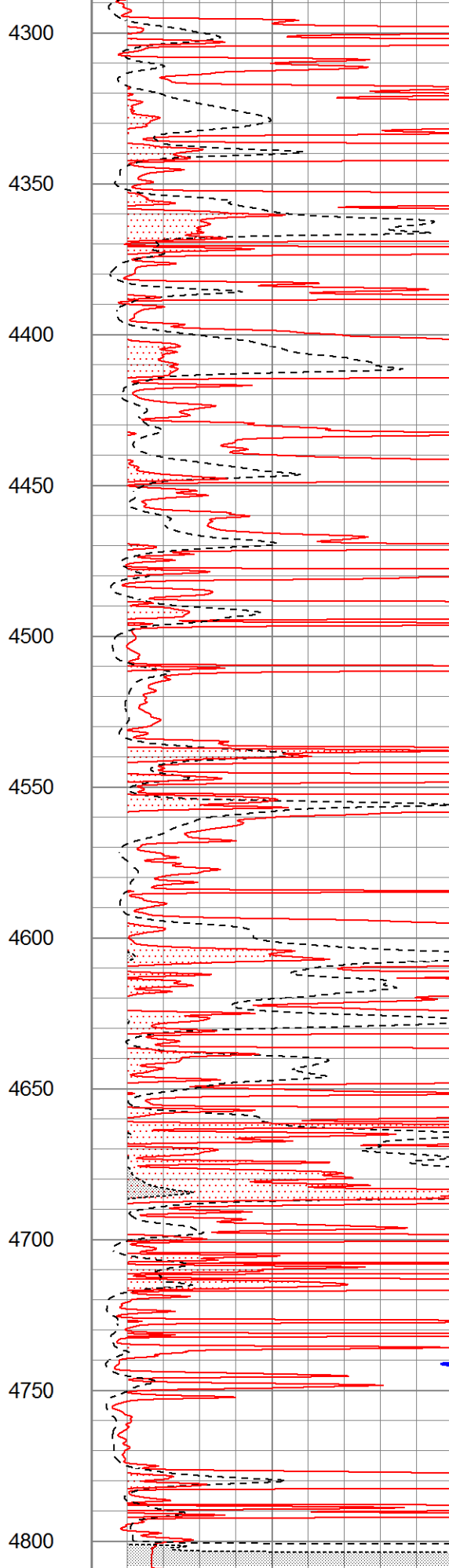
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3250
3300
3350
3400
3450
3500
3550
3600
3650
3700



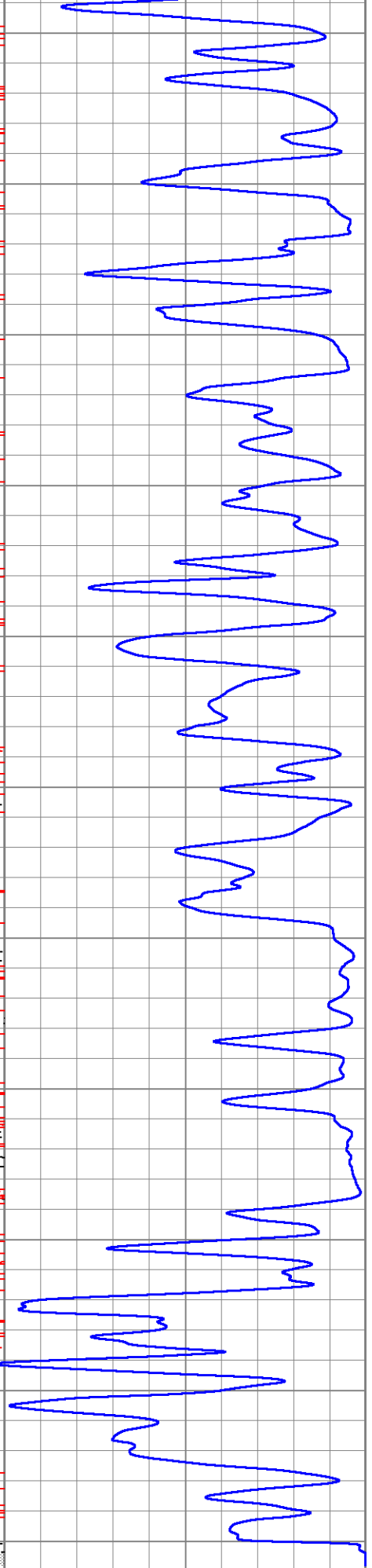




| | | |
|------|------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |



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



| | | |
|---|--|---|
| 0 | | 0 |
|---|--|---|

| | | |
|----|------------------------|-----|
| 0 | Deep Induction (Ohm-m) | 50 |
| 50 | RILD X10 (Ohm-m) | 500 |
| 50 | RLL3 X10 (Ohm-m) | 500 |

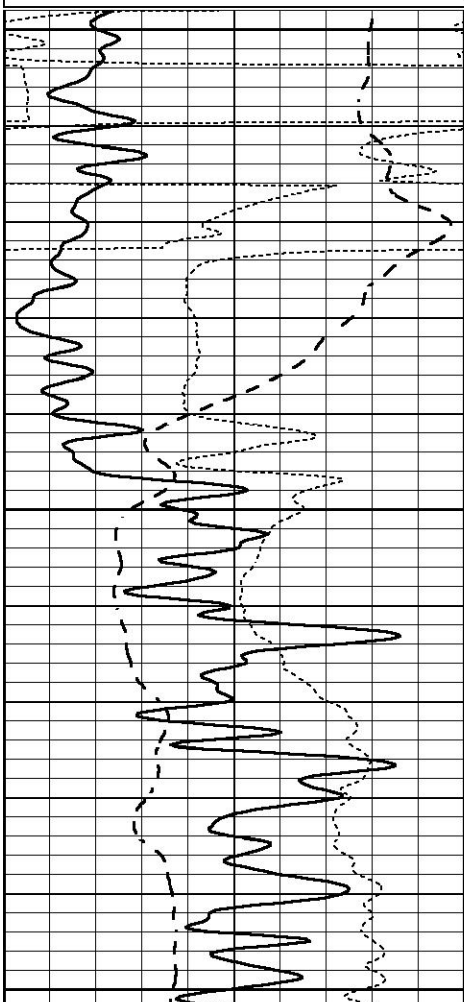


ANHYDRITE

Database File 4735ddn.db
 Dataset Pathname pass3.2
 Presentation Format _dil
 Dataset Creation Thu Apr 09 18:55:51 2020
 Charted by Depth in Feet scaled 1:240

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

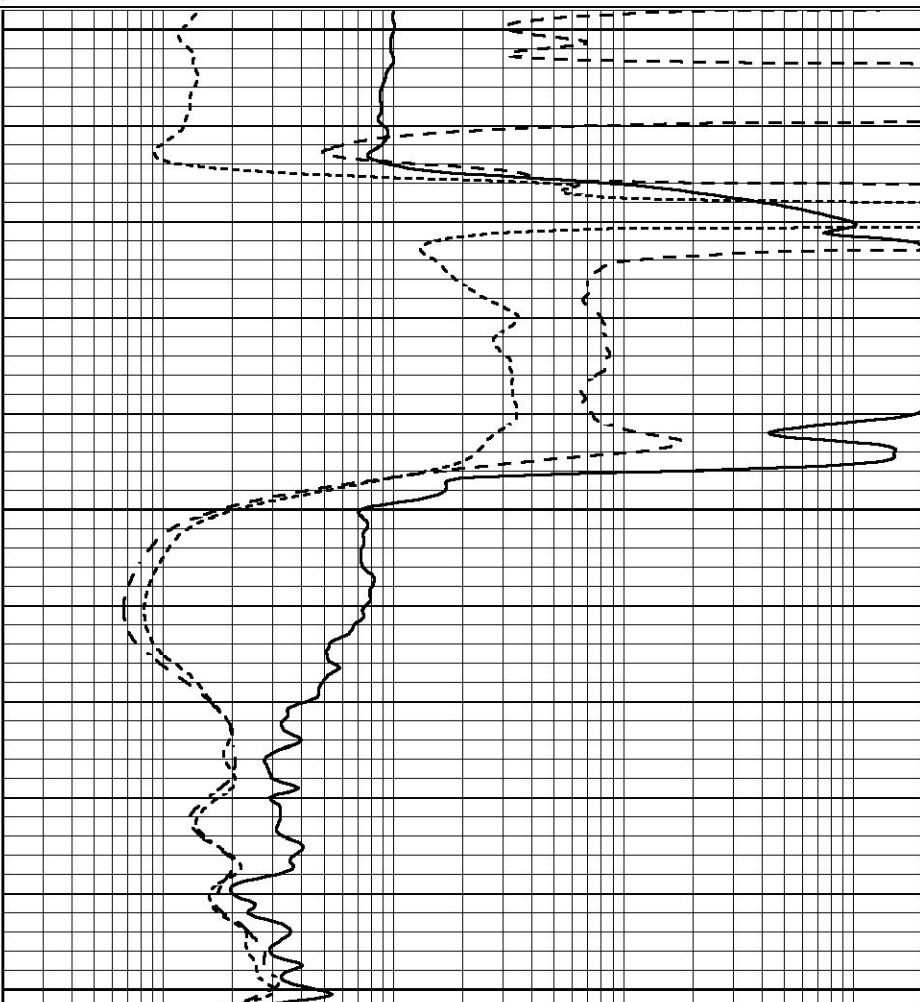
| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |



2900

2950

3000



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

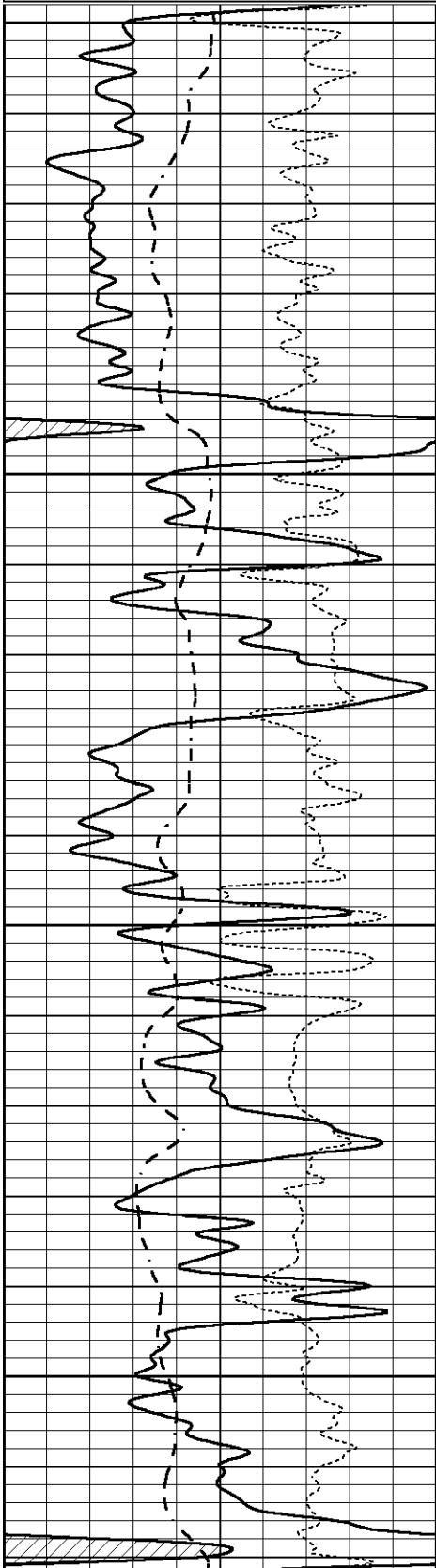


MAIN SECTION

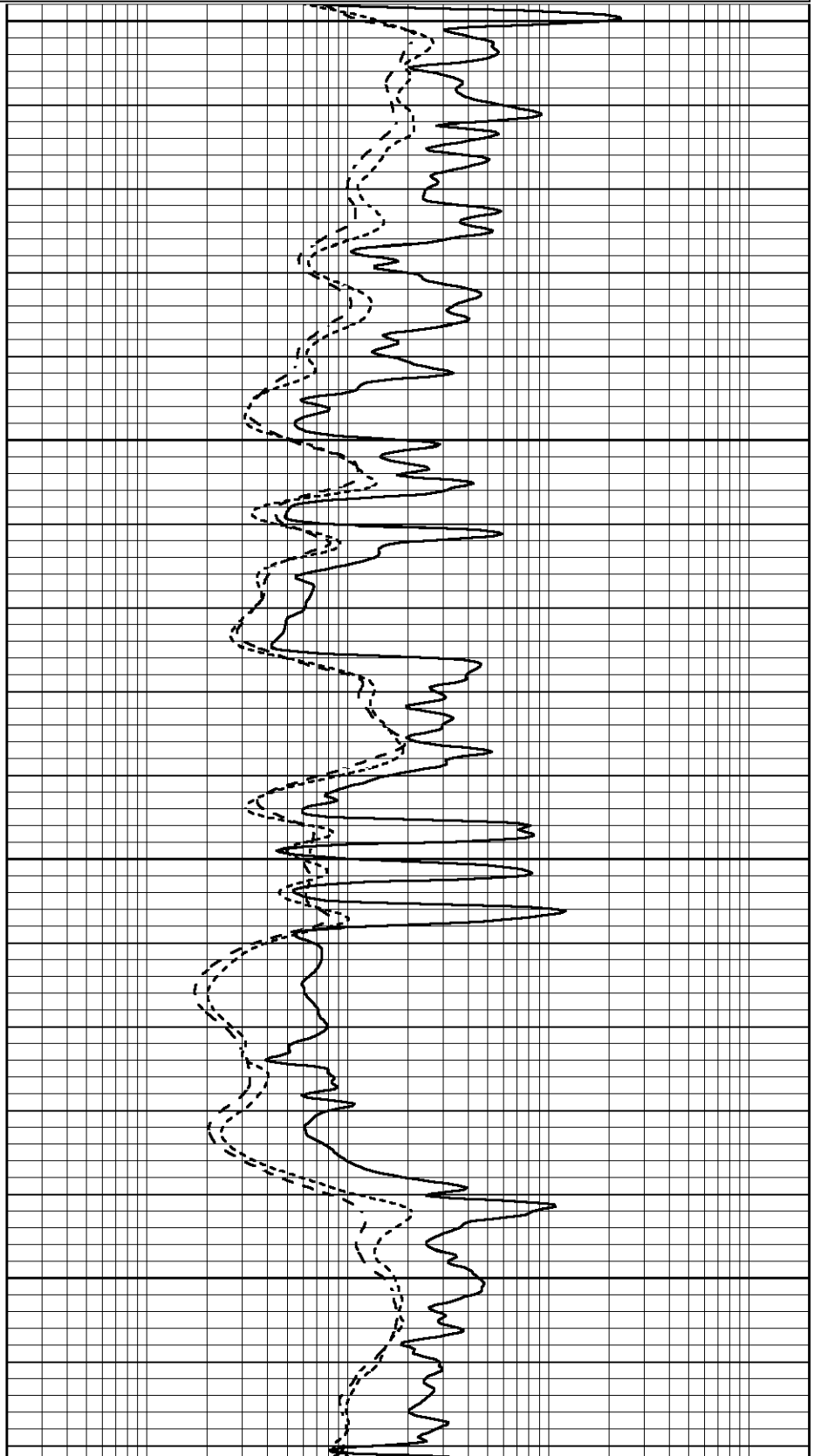
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 Presentation Format _dil
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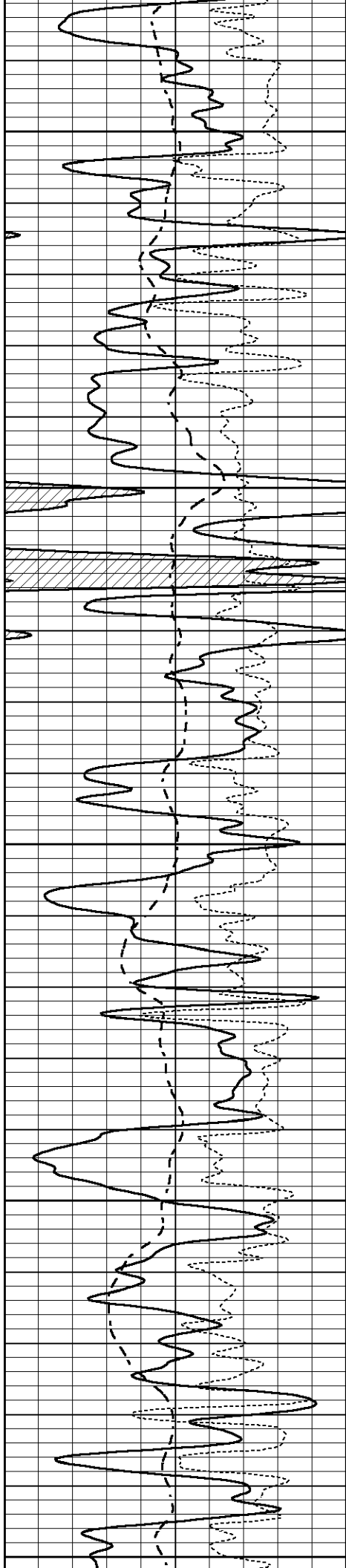
| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

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



3900
 3950
 4000
 4050





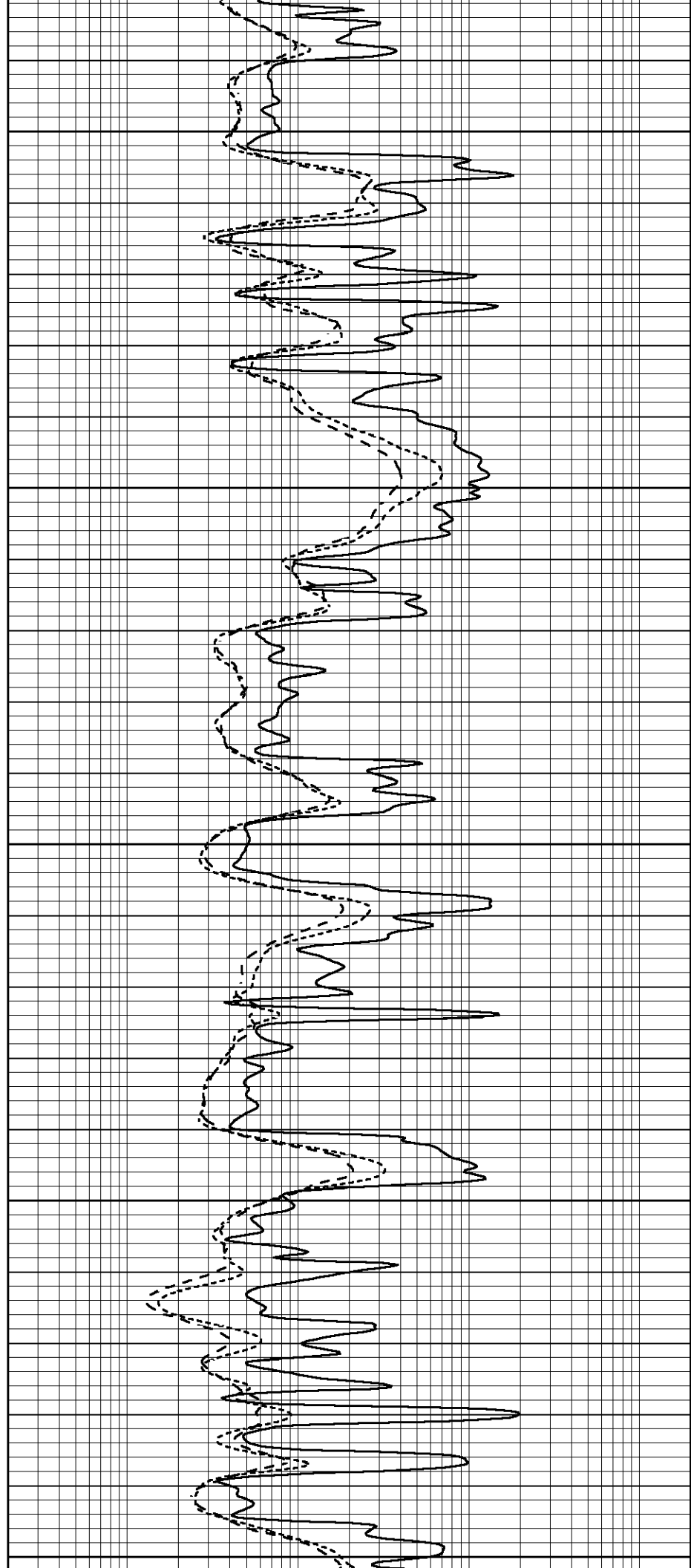
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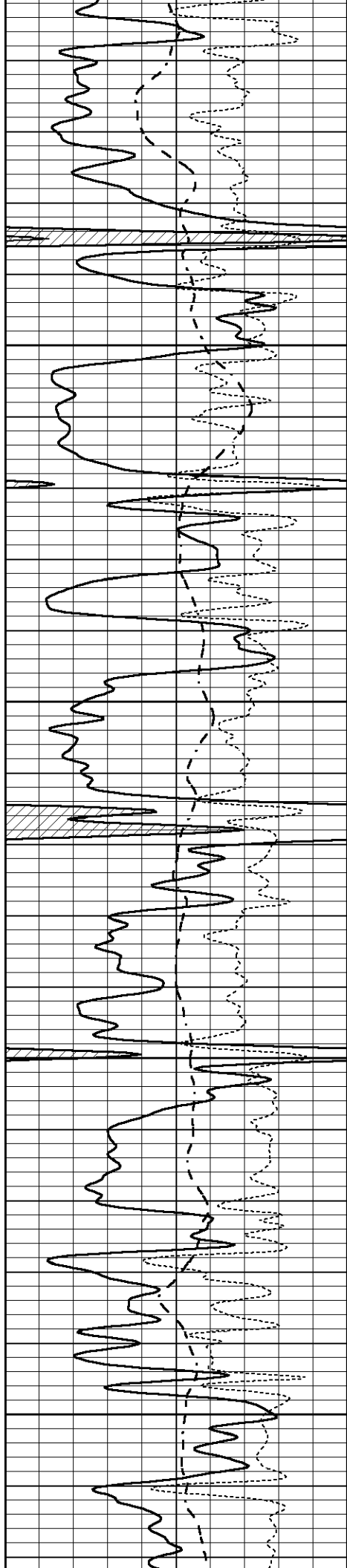
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4200

4250

4300



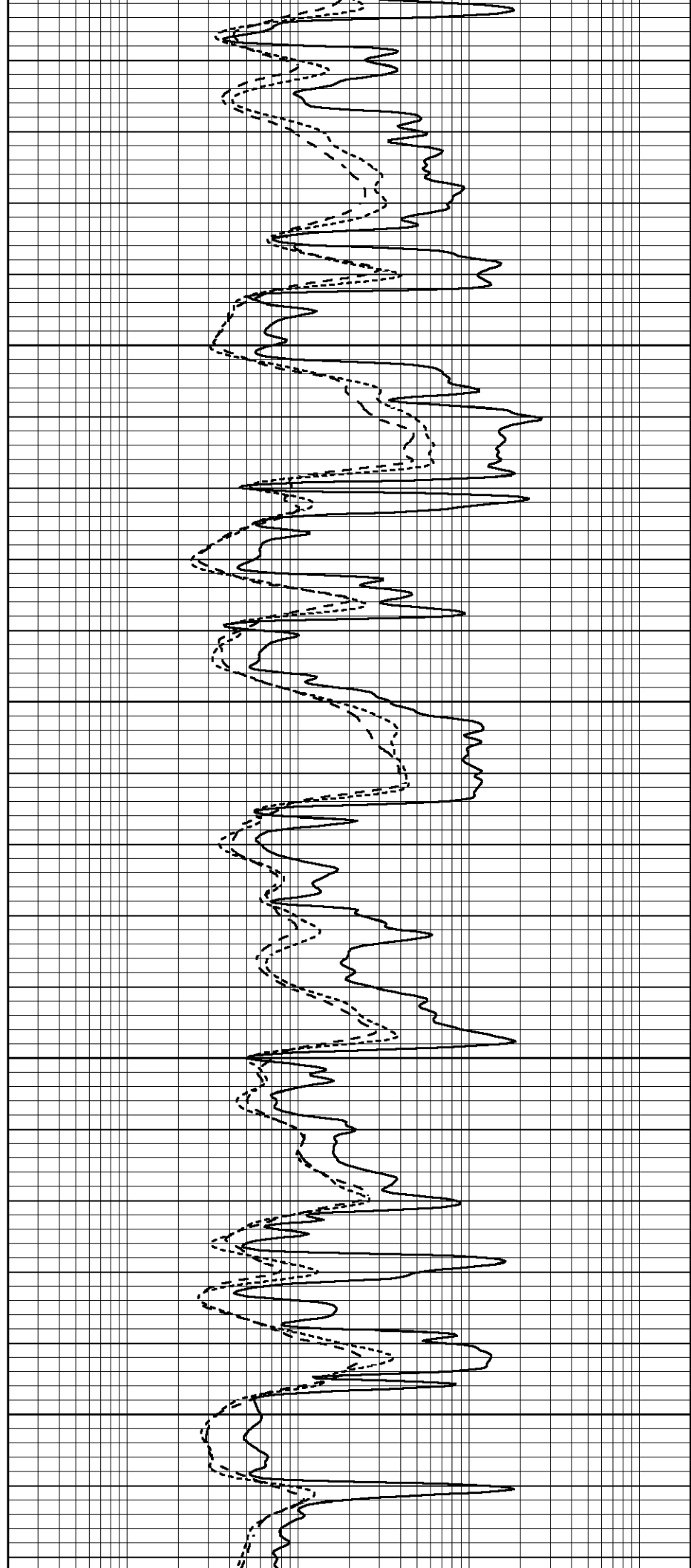


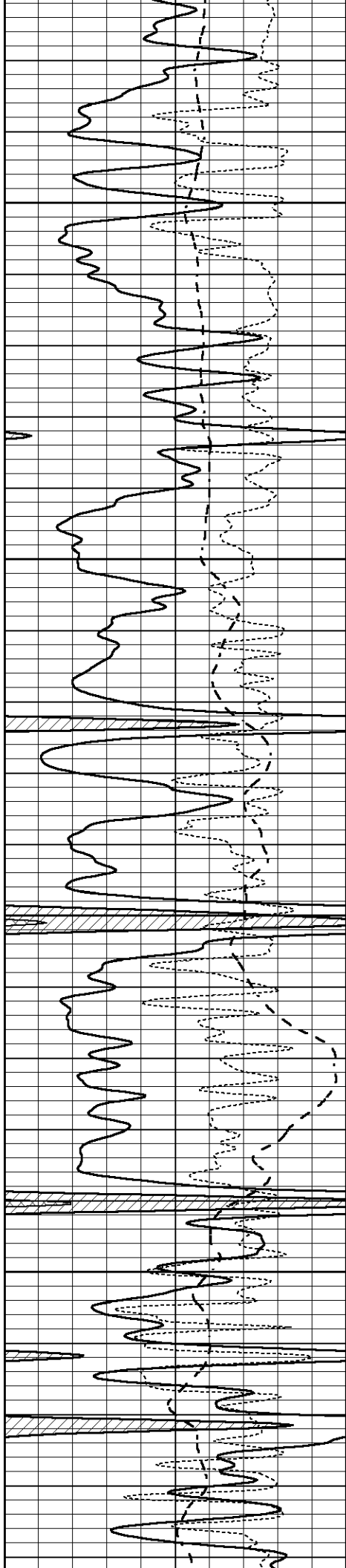
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4400

4450

4500



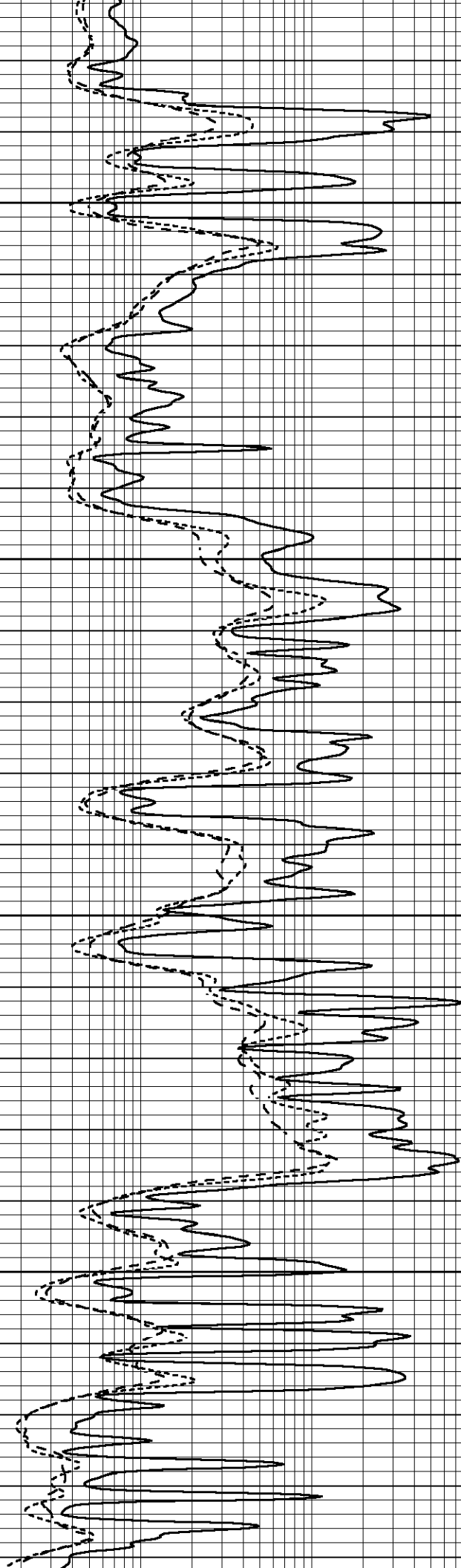


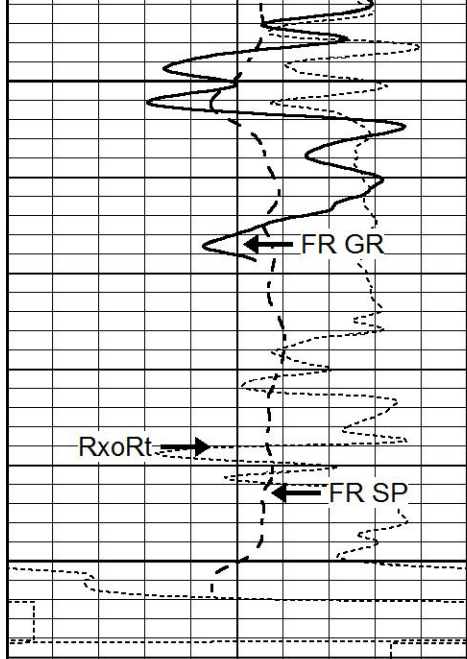
4550

4600

4650

4700

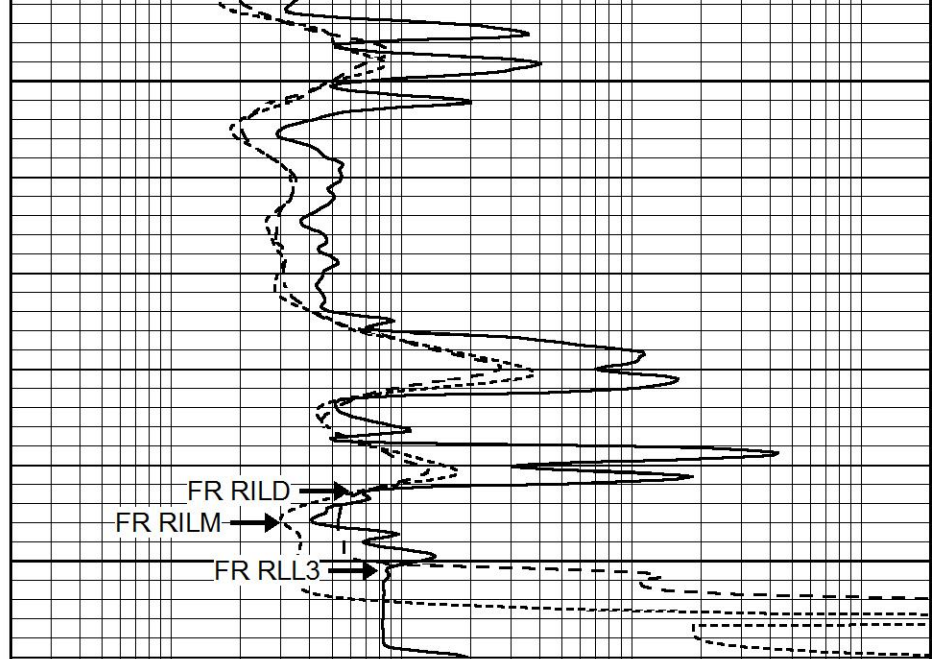




4750

4800
LTD 4803

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

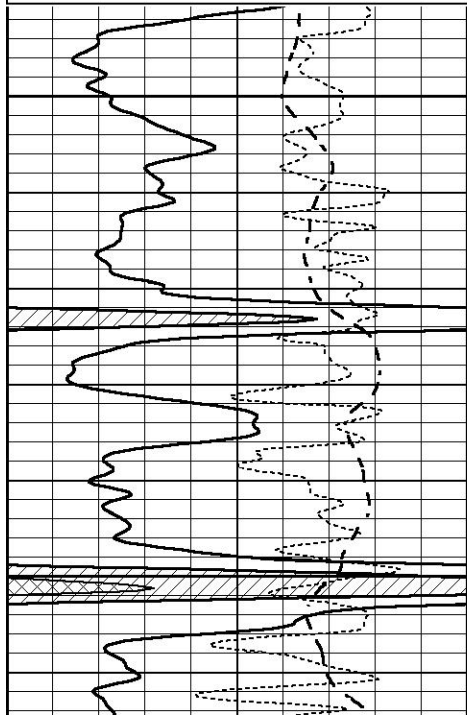


REPEAT SECTION

Database File 4735ddn.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Thu Apr 09 18:42:17 2020
 Charted by Depth in Feet scaled 1:240

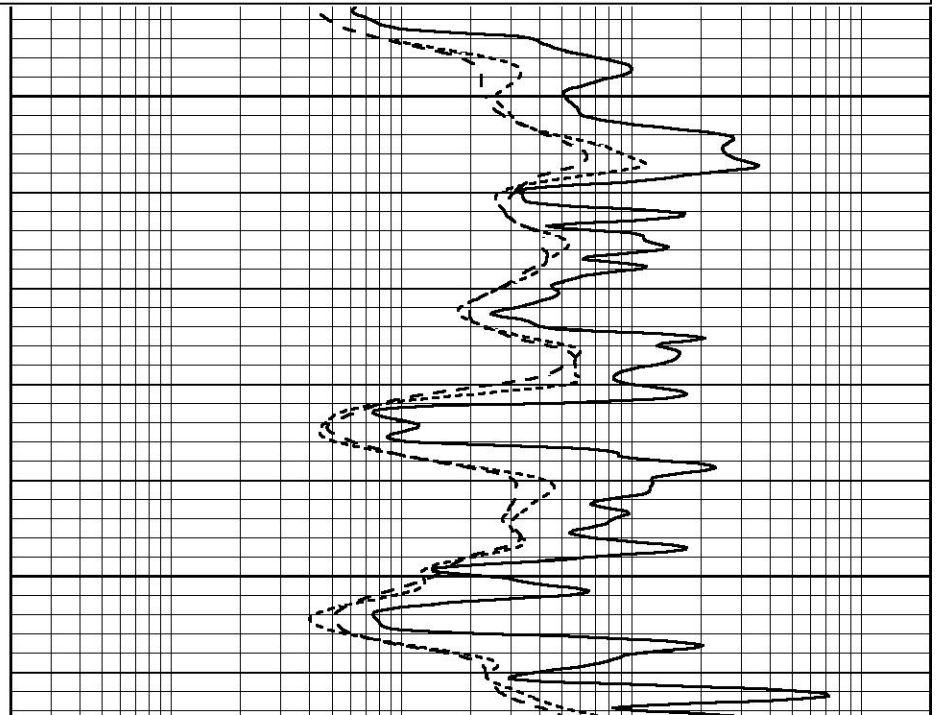
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|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

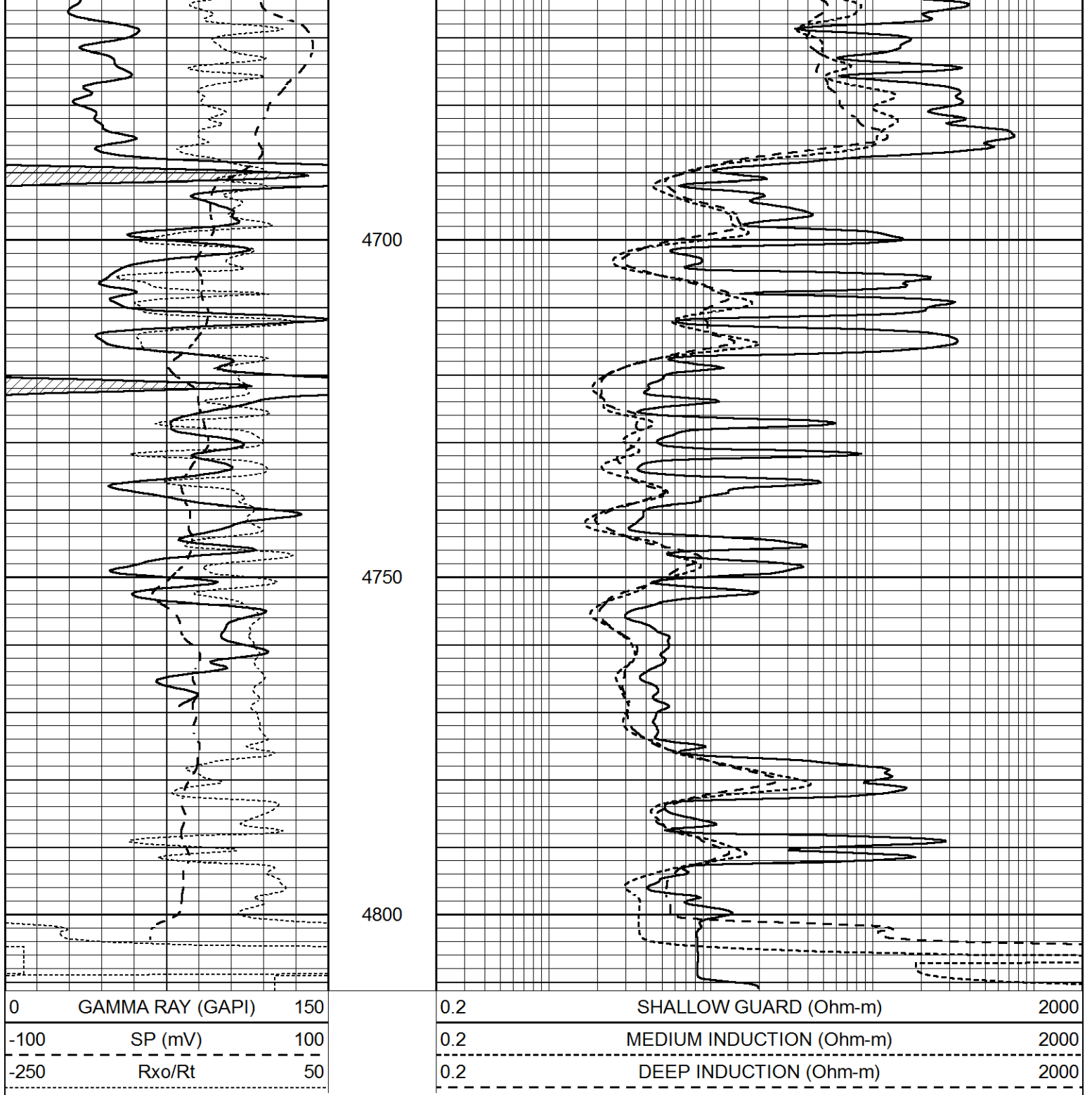
| | | |
|-----|--------------------------|------|
| 0.2 | SHALLOW GUARD (Ohm-m) | 2000 |
| 0.2 | MEDIUM INDUCTION (Ohm-m) | 2000 |
| 0.2 | DEEP INDUCTION (Ohm-m) | 2000 |



4600

4650





Calibration Report

Database File 4735ddn.db
 Dataset Pathname pass2.1
 Dataset Creation Thu Apr 09 18:42:17 2020

Dual Induction Calibration Report

| | |
|--------------------------------------|--------------------------|
| Serial-Model: | FW1410-55-Probe |
| Surface Cal Performed: | Tue Feb 19 11:44:18 2019 |
| Downhole Cal Performed: | Tue Feb 19 11:44:24 2019 |
| After Survey Verification Performed: | Tue Feb 19 11:44:27 2019 |

Surface Calibration

| | Readings | | References | | Results |
|-------|----------|------|------------|------|----------|
| Loop: | Air | Loop | Air | Loop | m h |

| | | | | | | | | |
|-----------|--------|-------|---|-------|---------|--------|---------|--------|
| Loop: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.011 | 0.656 | V | 1.000 | 400.000 | mmho/m | 618.595 | -5.524 |
| Medium | -0.000 | 0.731 | V | 1.000 | 464.000 | mmho/m | 632.856 | 1.197 |
| Internal: | Zero | Cal | | Zero | Cal | | m | b |
| Deep | 0.007 | 0.649 | V | 0.000 | 400.000 | mmho/m | 623.784 | -4.595 |
| Medium | 0.004 | 0.743 | V | 0.000 | 464.000 | mmho/m | 627.284 | -2.251 |

| Downhole Calibration | | | | | | | | |
|----------------------|----------|---------|--------|------------|----------|--------|---------|--------|
| | Readings | | | References | | | Results | |
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | -0.824 | 395.917 | mmho/m | -0.976 | 397.550 | mmho/m | 1.004 | -0.149 |
| Medium | 3.565 | 471.327 | mmho/m | 3.468 | 471.590 | mmho/m | 1.001 | -0.099 |
| LL3 | | 7.503 | V | | 1500.000 | Ohm-m | | |
| | | 0.001 | V | | 20.000 | Ohm-m | | |
| | | -7.481 | V | | 3745.000 | mmho-m | | |

| After Survey Verification | | | | | | | | |
|---------------------------|----------|-------|--------|---------|----------|--------|---------|-------|
| | Readings | | | Targets | | | Results | |
| | Zero | Cal | | Zero | Cal | | m' | b' |
| Deep | 0.000 | 0.000 | mmho/m | -0.824 | 395.917 | mmho/m | 1.000 | 0.000 |
| Medium | 0.000 | 0.000 | mmho/m | 3.565 | 471.327 | mmho/m | 1.000 | 0.000 |
| LL3 | | 0.000 | Ohm-m | | 1500.000 | Ohm-m | | |
| | | 0.000 | Ohm-m | | 20.000 | Ohm-m | | |
| | | 0.000 | mmho-m | | 3745.000 | mmho-m | | |

Compensated Neutron Calibration Report

| | |
|----------------|-----------|
| Serial Number: | 080621PMC |
| Tool Model: | NABORS |

| PRE-SURVEY VERIFICATION | | | | |
|-------------------------|----------|----------|--------|----|
| Detector | Readings | Measured | Target | |
| Short Space | cps | | | |
| Long Space | cps | pu | | pu |

| POST-SURVEY VERIFICATION | | | | |
|--------------------------|----------|----------|--------|----|
| Detector | Readings | Measured | Target | |
| Short Space | cps | | | |
| Long Space | cps | pu | | pu |

Gamma Ray Calibration Report

| | |
|---------------------|--------------------------|
| Serial Number: | 7 |
| Tool Model: | Probe1 |
| Performed: | Tue Dec 10 10:02:55 2019 |
| Calibrator Value: | 1.0 GAPI |
| Background Reading: | 0.0 cps |
| Calibrator Reading: | 1.0 cps |
| Sensitivity: | 0.4800 GAPI/cps |