



DUAL
INDUCTION
LOG

Company MCGINNESS ENERGY COMPANY, INC.

Well WOYDZIAK #1-26

Field

County ELLSWORTH

State KANSAS

Location: API #: 15-053-21377-0000

1460' FSL & 1725' FEL
SW SE NW SE

SEC 26 TWP 17S RGE 10W

Permanent Datum GROUND LEVEL Elevation 1791
Log Measured From KELLY BUSHING 8' A.G.L
Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL
MEL
Elevation
K.B. 1799
D.F. 1797
G.L. 1791

Date 11/14/21

Run Number ONE

Depth Driller 3280

Depth Logger 3279

Bottom Logged Interval 3277

Top Log Interval 00

Casing Driller 8 5/8" @ 284

Casing Logger 284

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD CHLORIDES 7000 PPM

Density / Viscosity 9.4/47

pH / Fluid Loss 9.0/9.6

Source of Sample FLOWLINE

Rm @ Meas. Temp .80 @ 60F

Rmf @ Meas. Temp .60 @ 60F

Rmc @ Meas. Temp .96 @ 60F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .43 @ 110F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom ////

Maximum Recorded Temperature 110F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

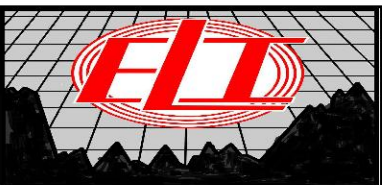
Witnessed By LEAH KASTEN

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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 SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
CLAFLIN, KS. - EAST TO BARTON, ELLSWORTH COUNTY LINE - 3 EAST - 1 NORTH - 1/2 WEST
NORTH INTO

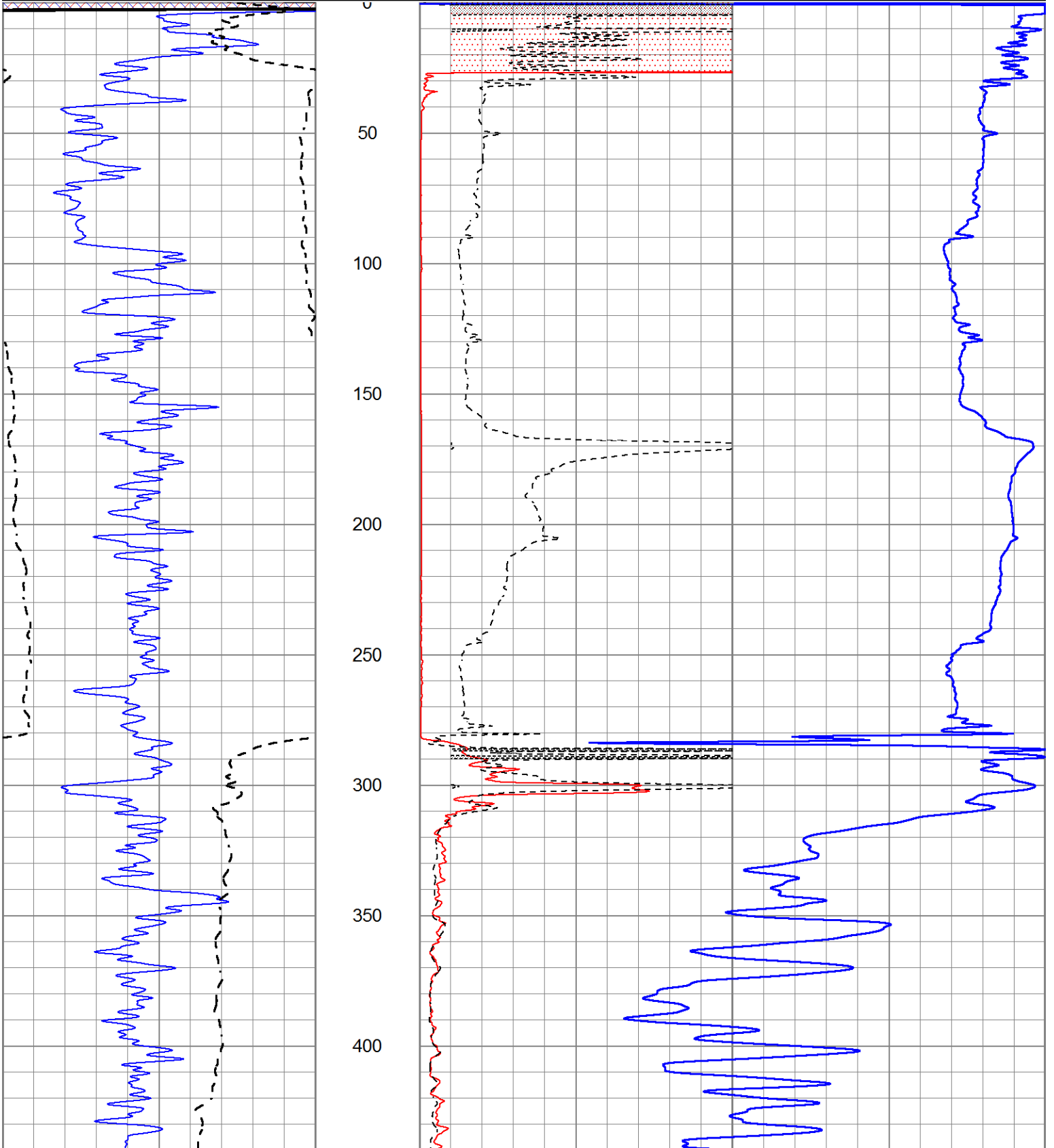


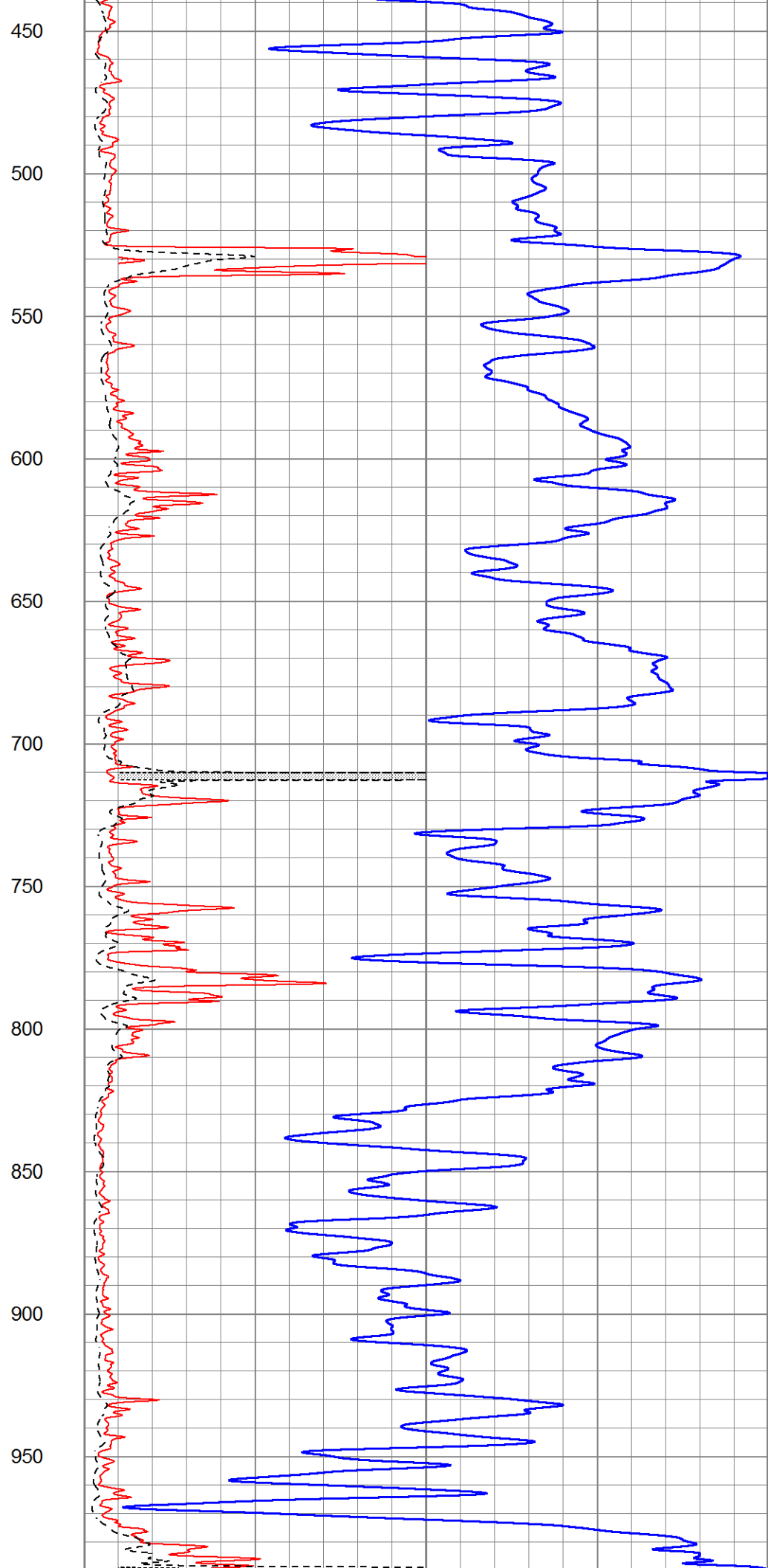
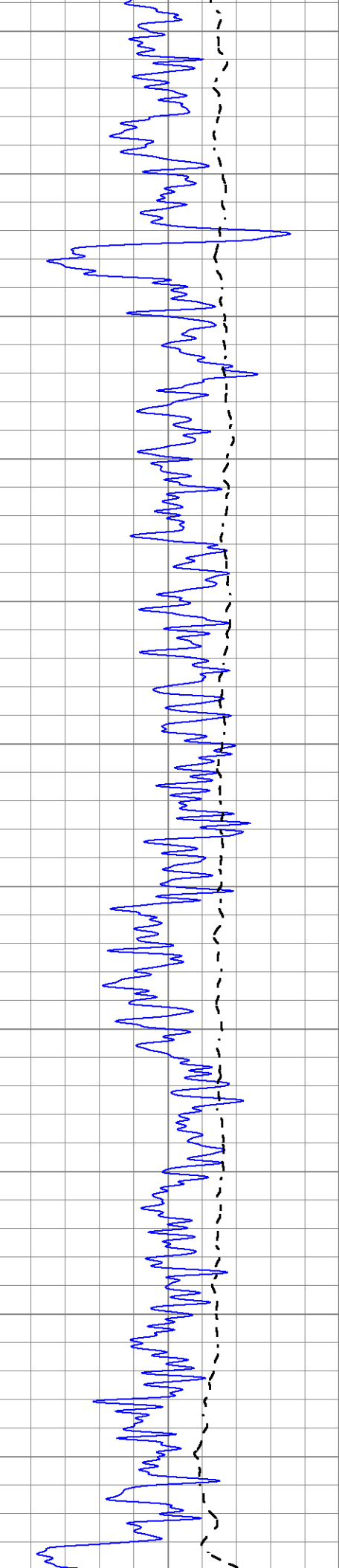
MAIN SECTION

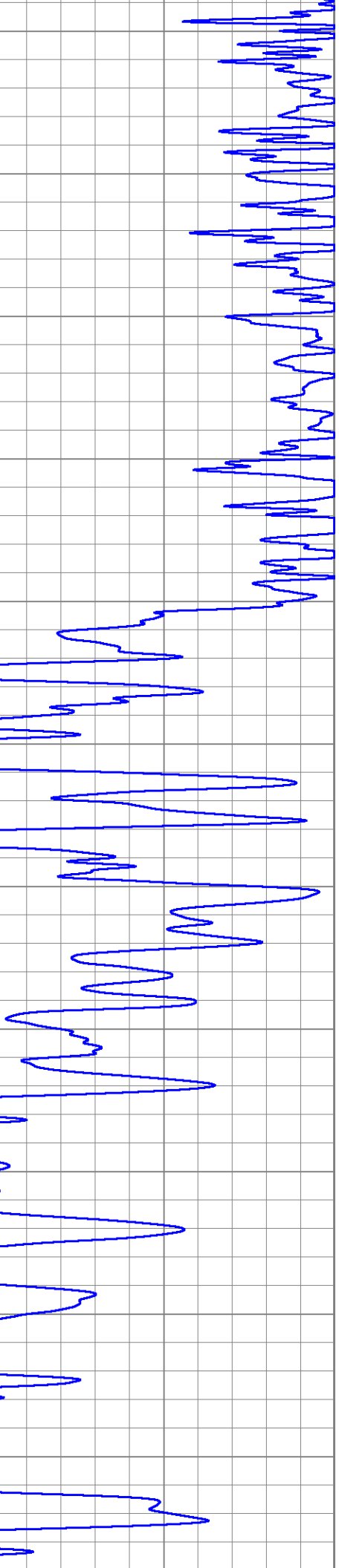
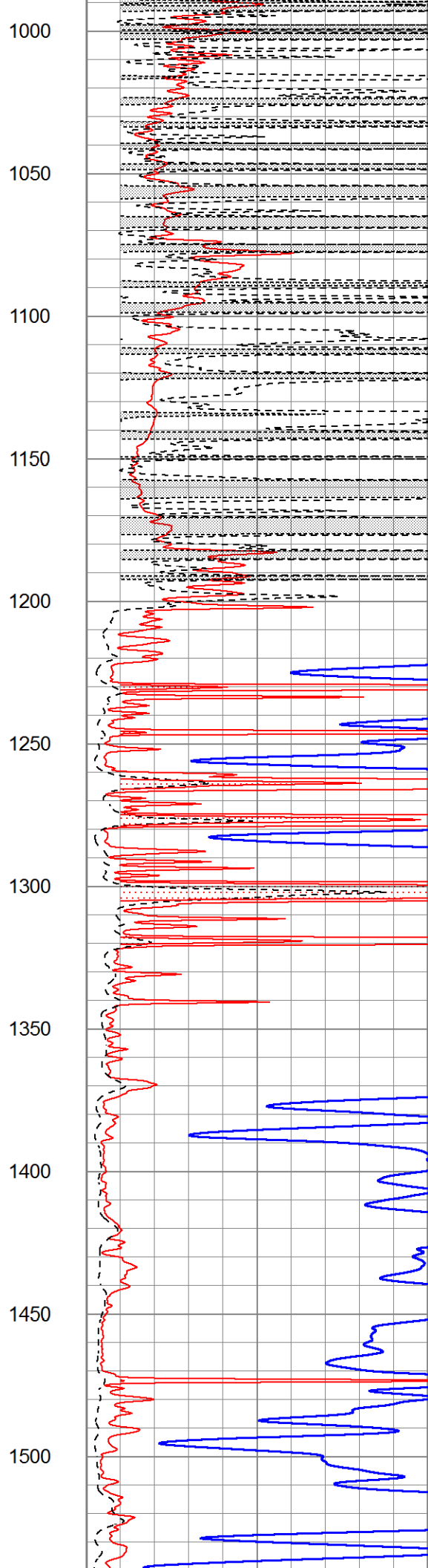
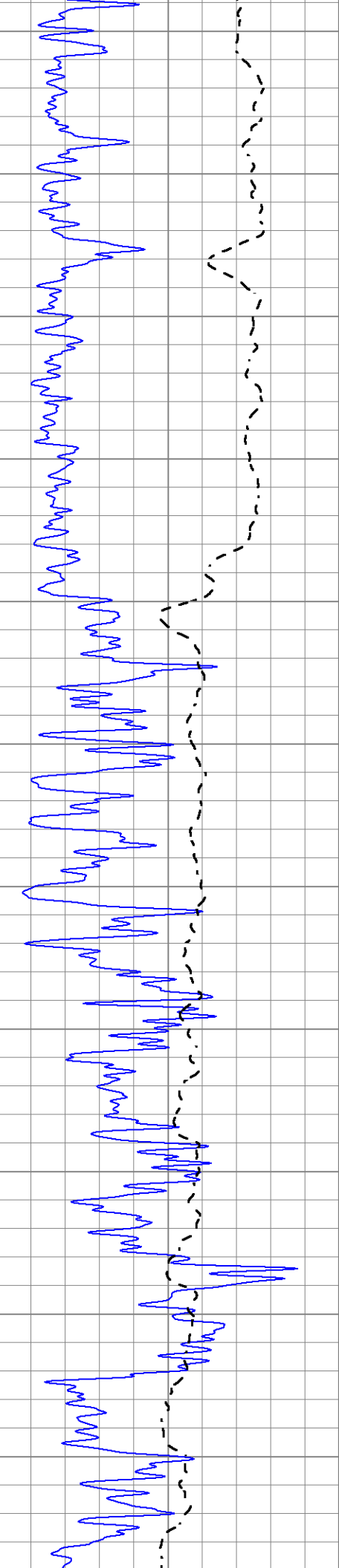
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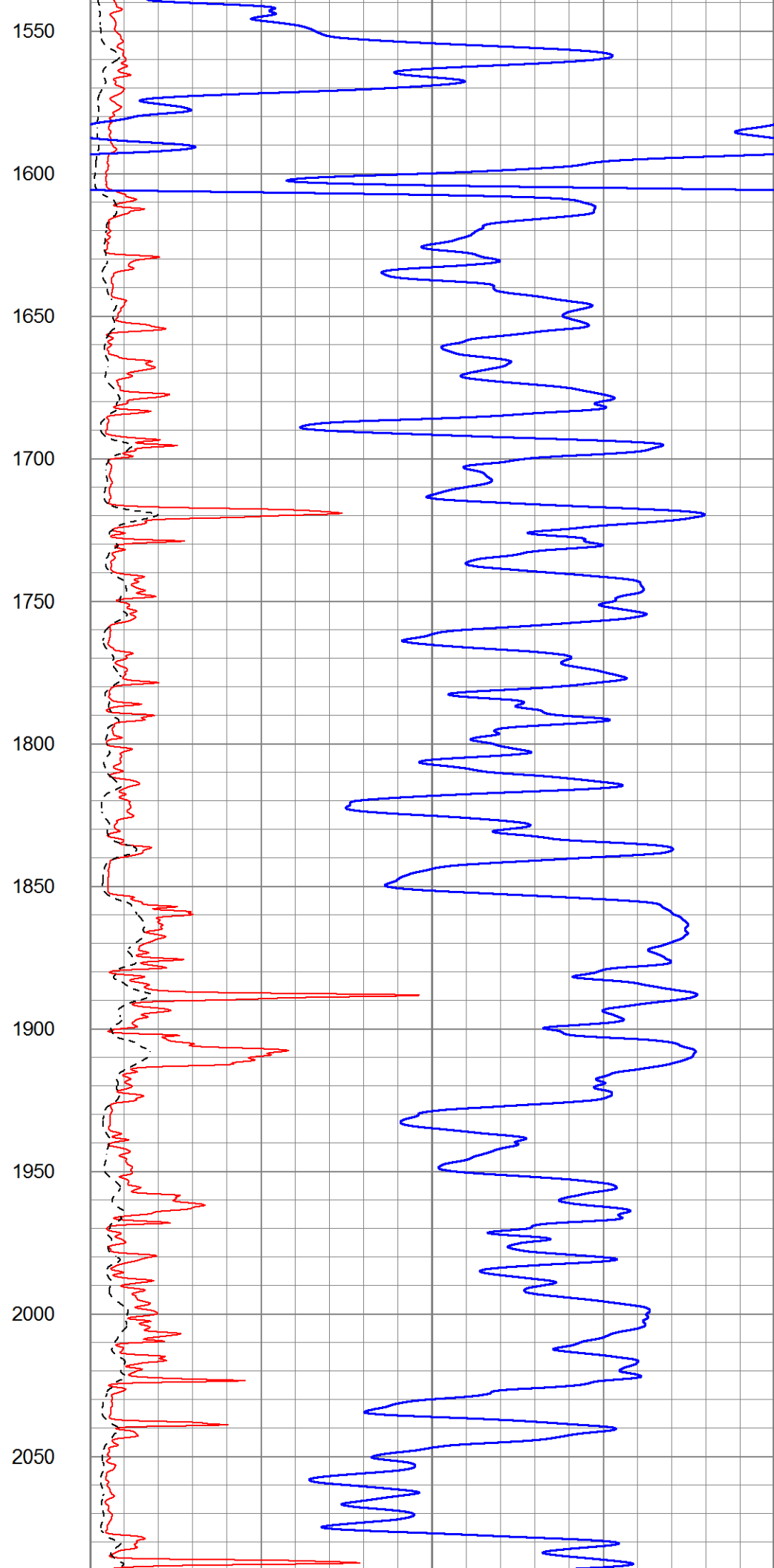
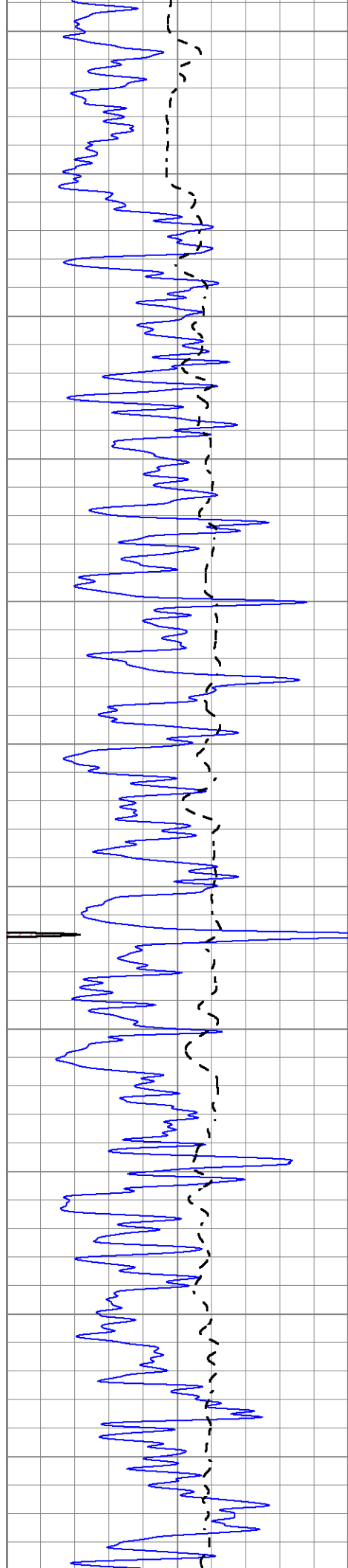
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|------|------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 |
| -100 | SP (mV) | 100 |

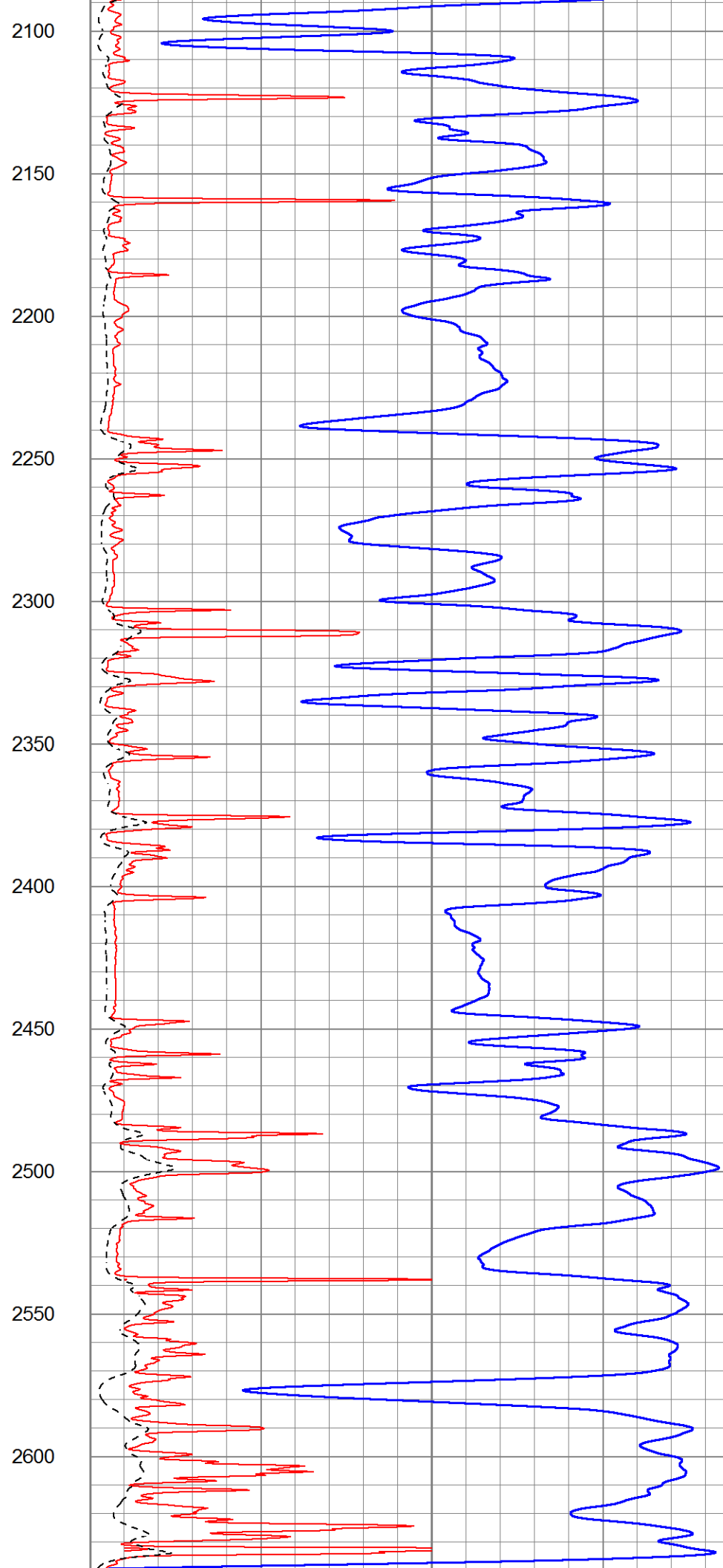
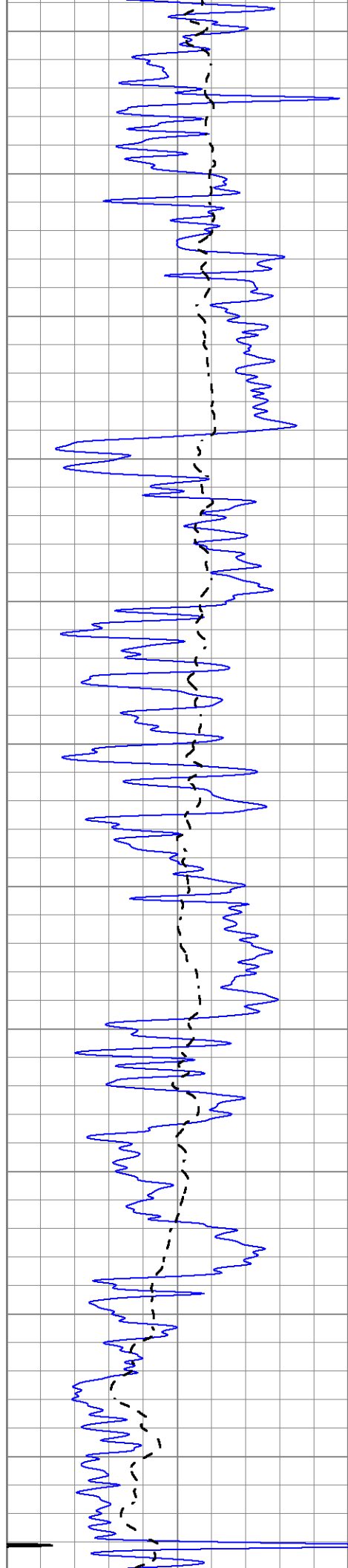
| | | |
|------|------------------------|-----|
| 1000 | CILD (mmho/m) | 0 |
| 0 | RLL3 (Ohm-m) | 50 |
| 0 | Deep Induction (Ohm-m) | 50 |
| 50 | RILD X10 (Ohm-m) | 500 |
| 50 | RLL3 X10 (Ohm-m) | 500 |

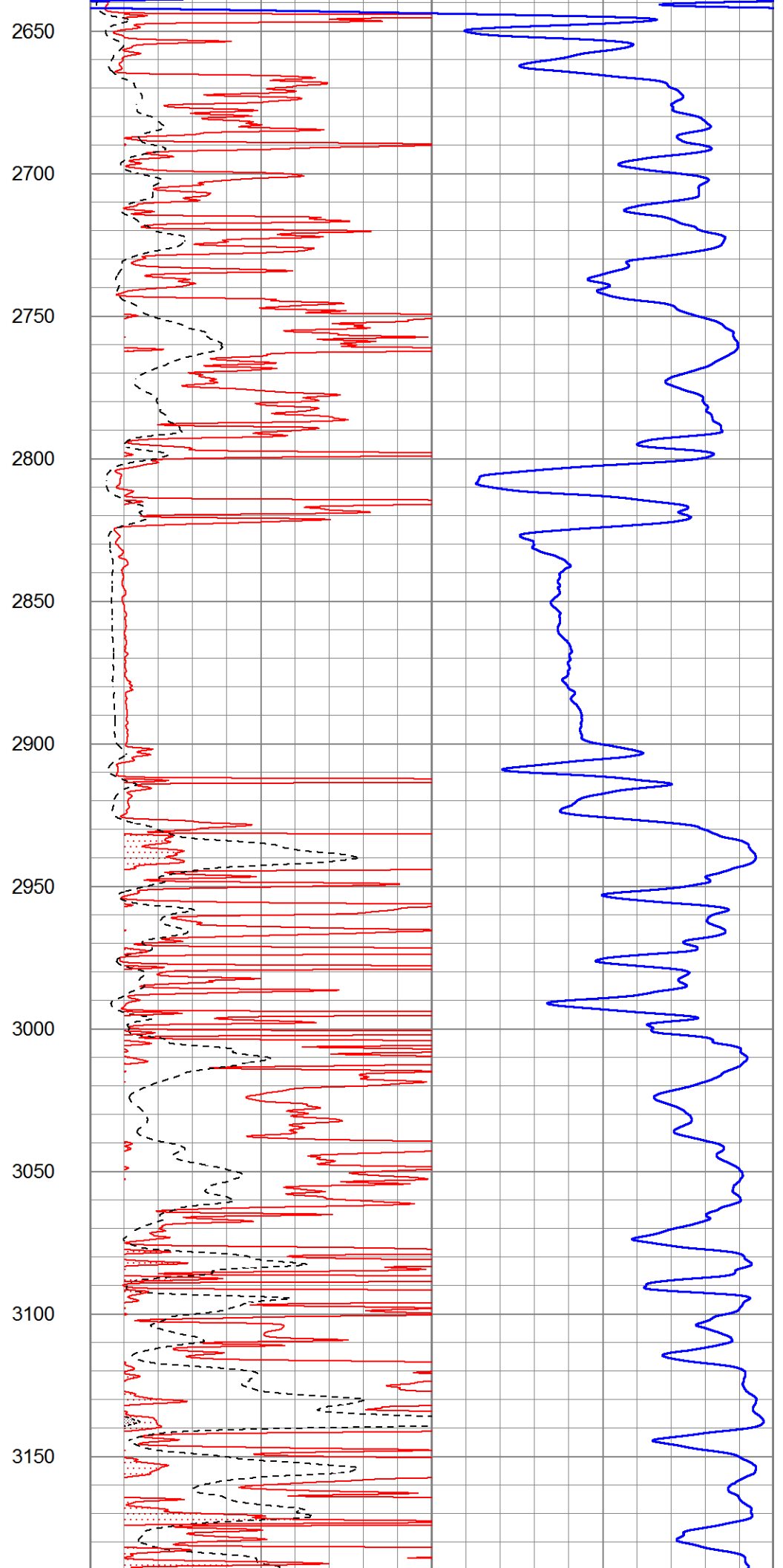
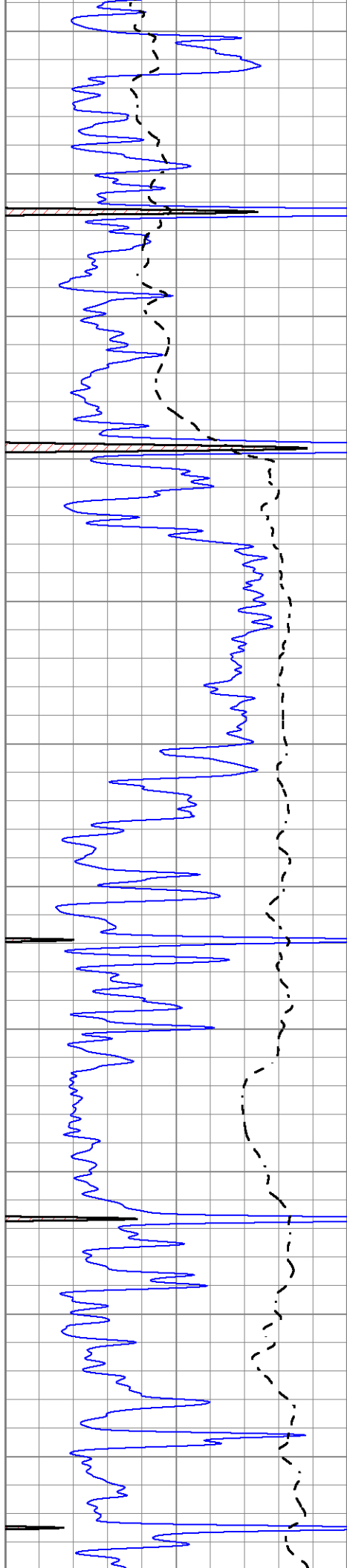


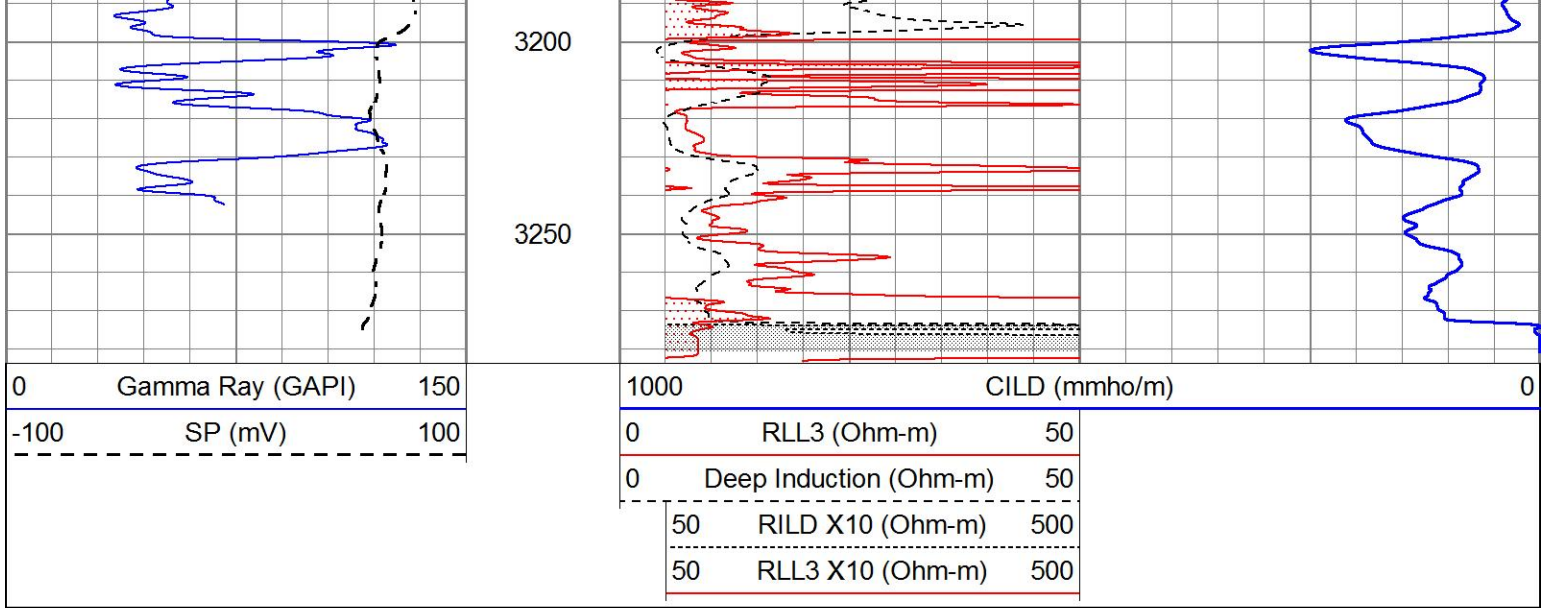








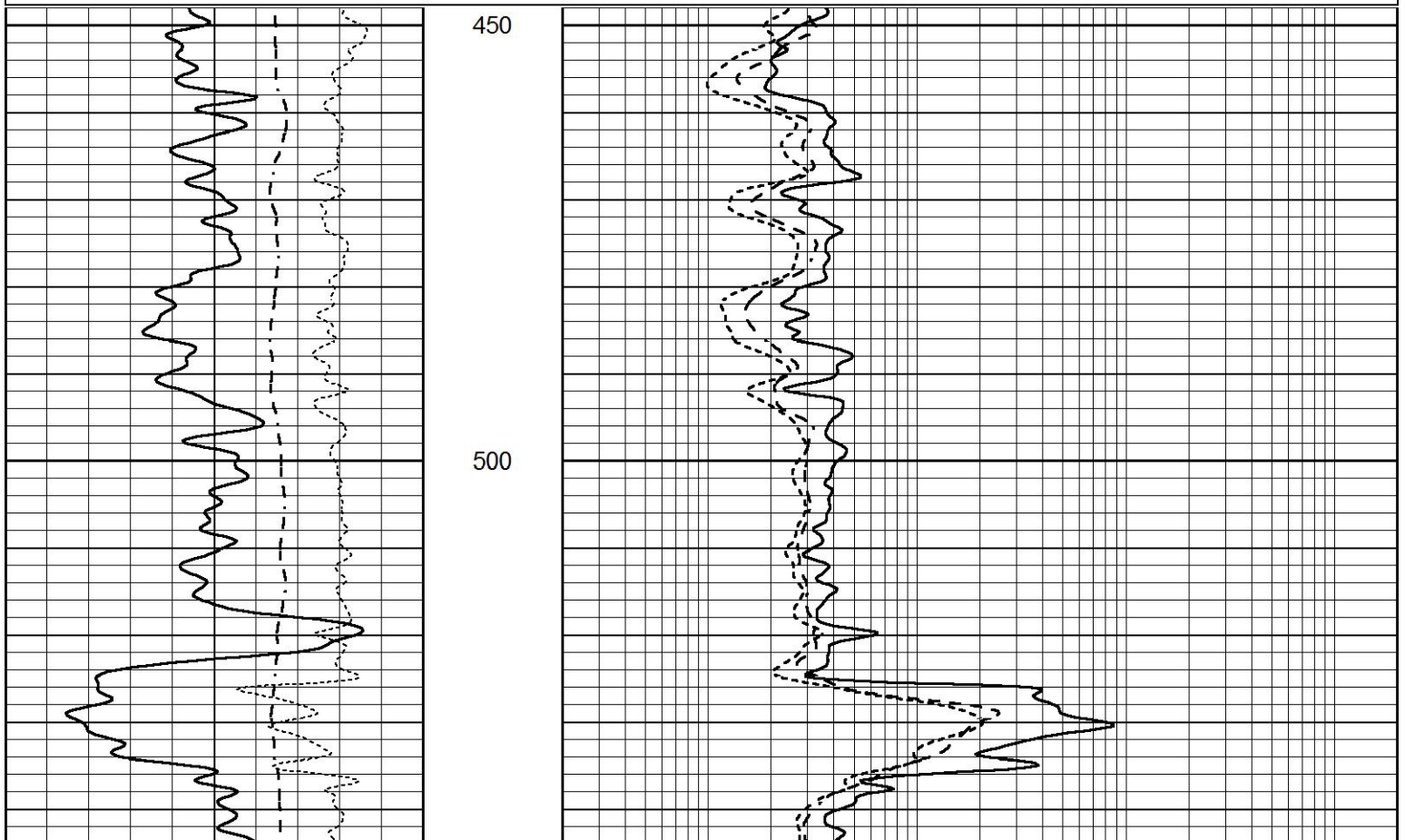


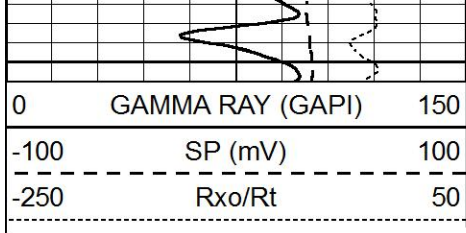


ANHYDRITE

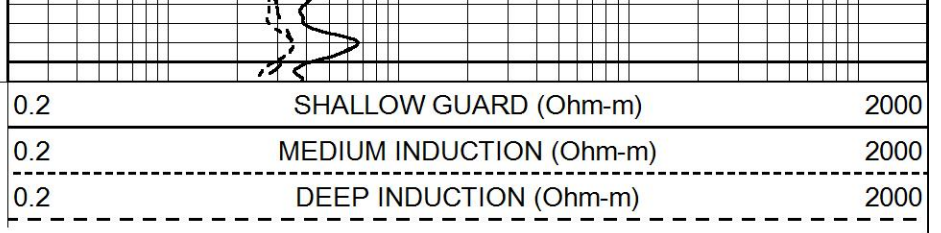
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 Presentation Format _dil
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 Charted by Depth in Feet scaled 1:240

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



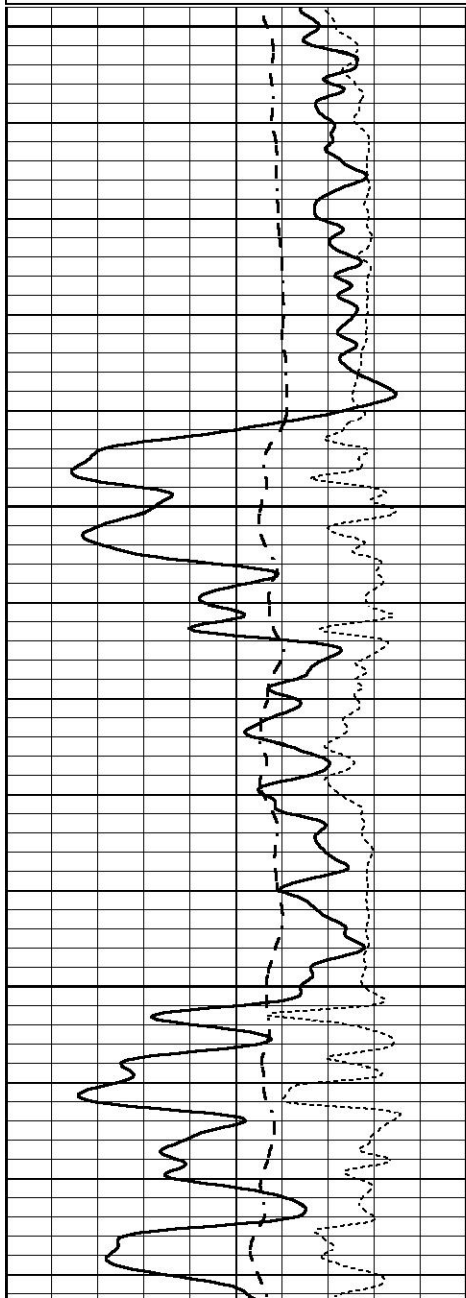
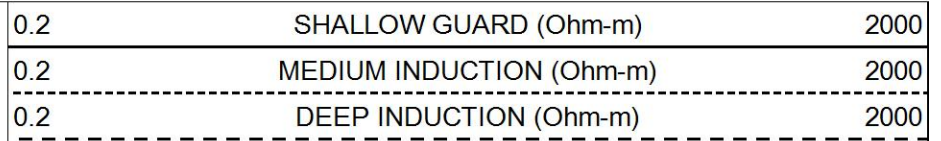
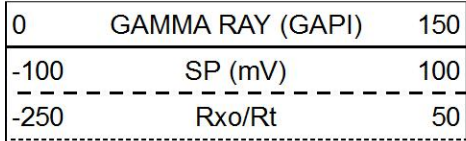


550



MAIN SECTION

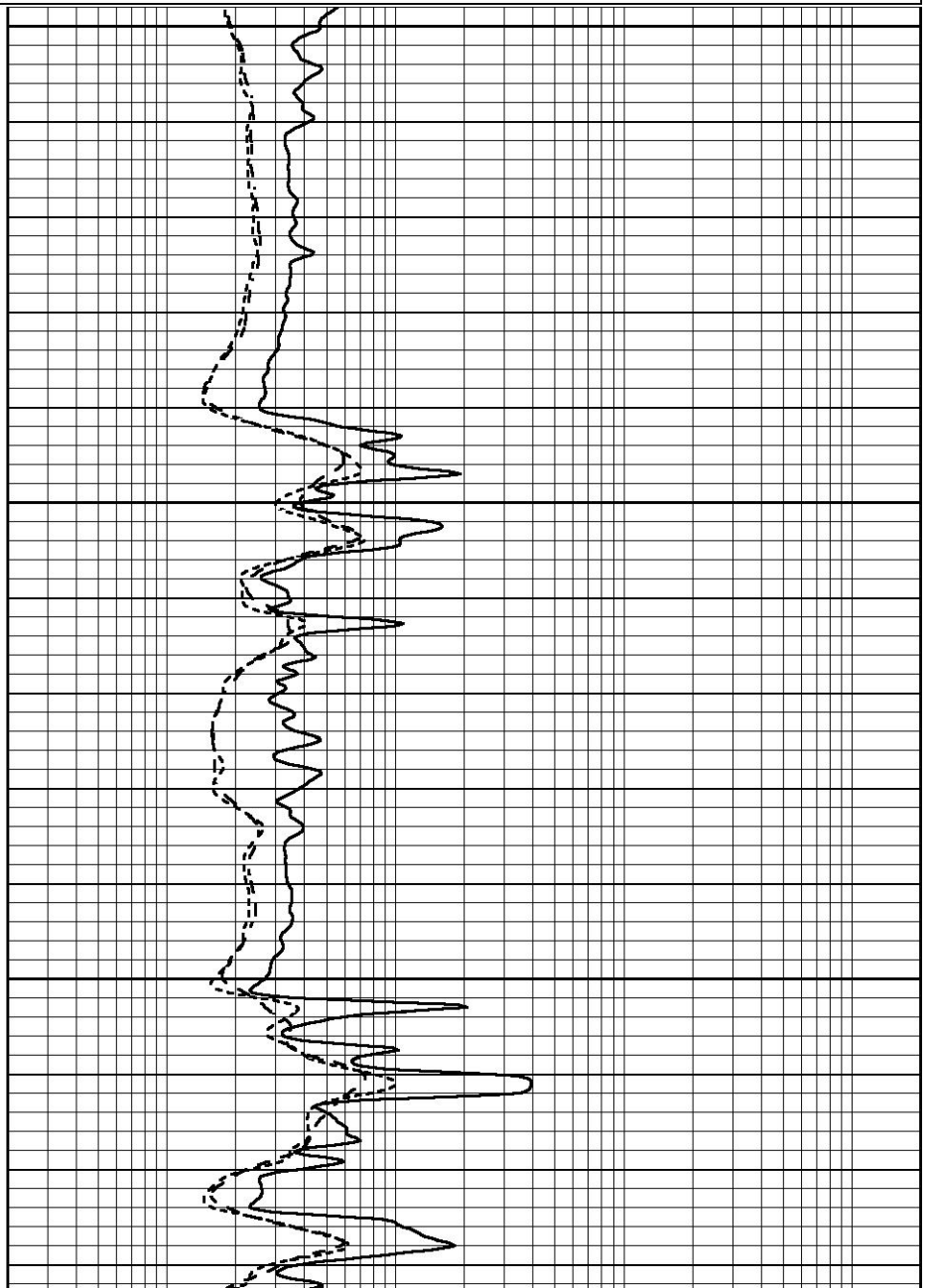
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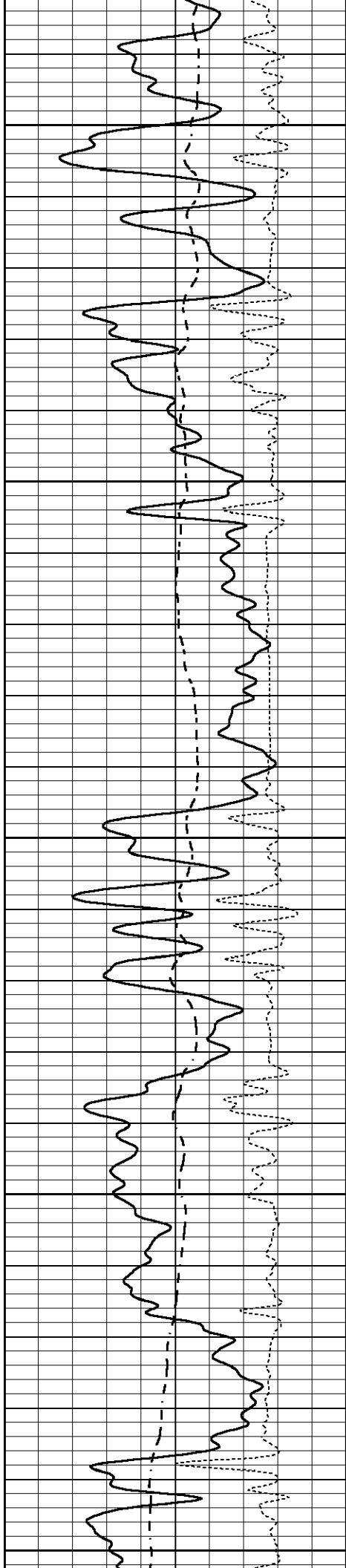


2200

2250

2300





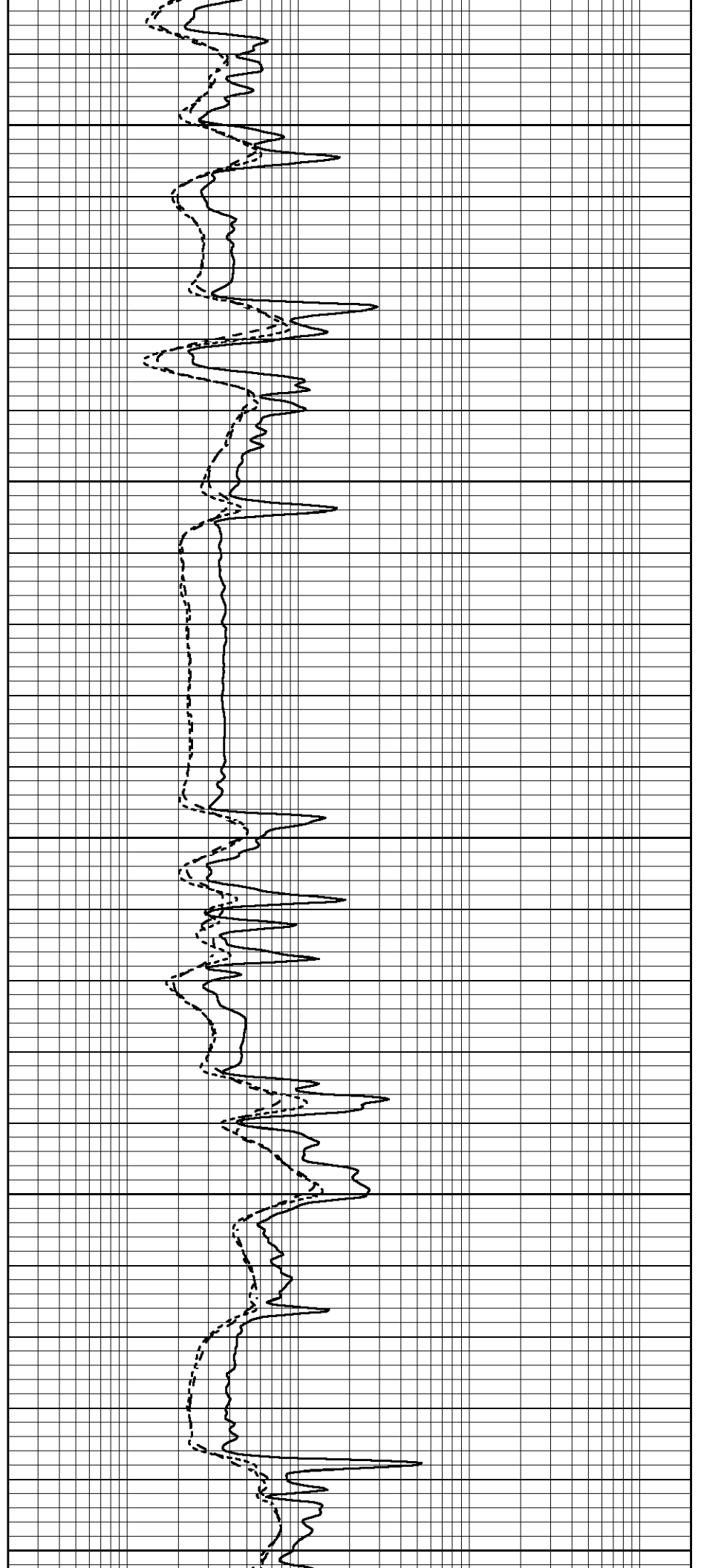
2350

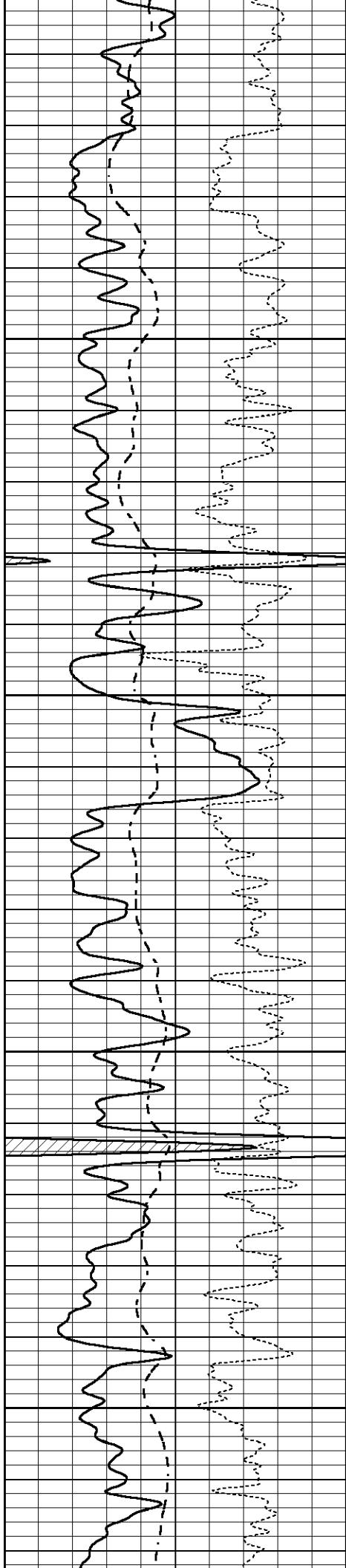
2400

2450

2500

2550



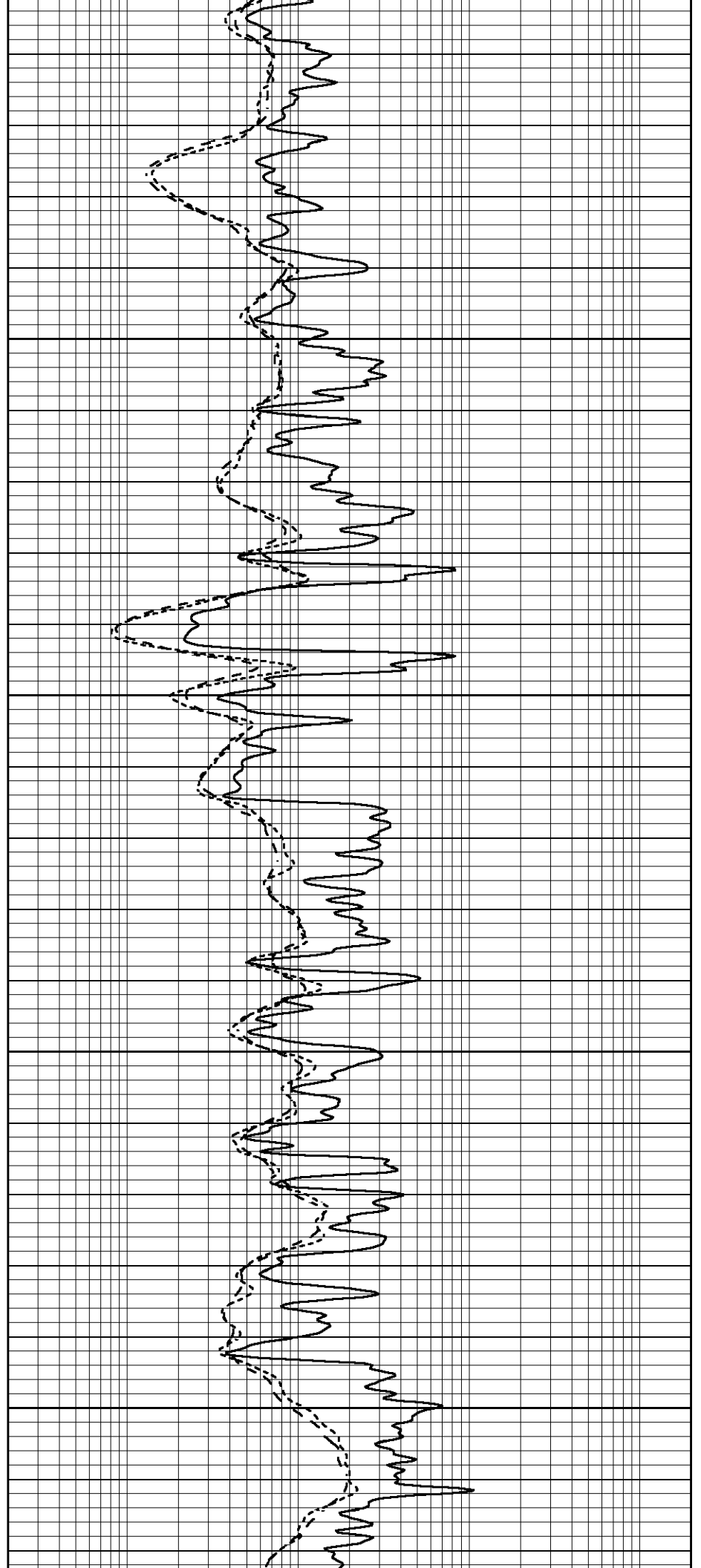


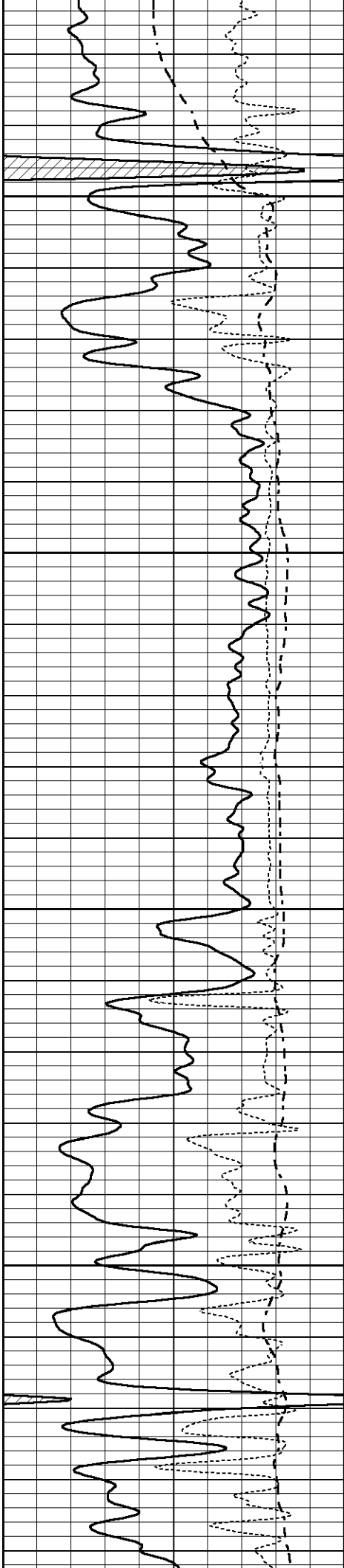
2600

2650

2700

2750



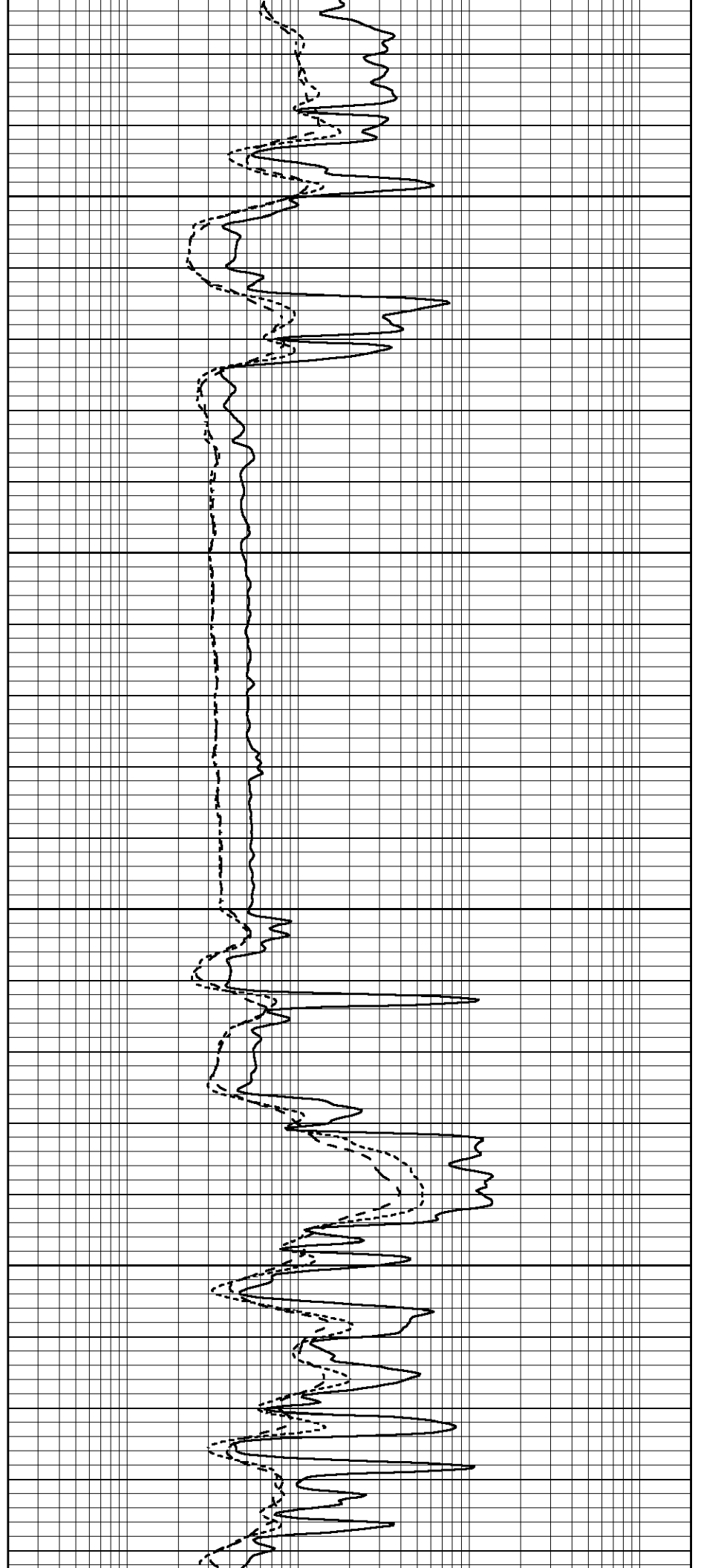


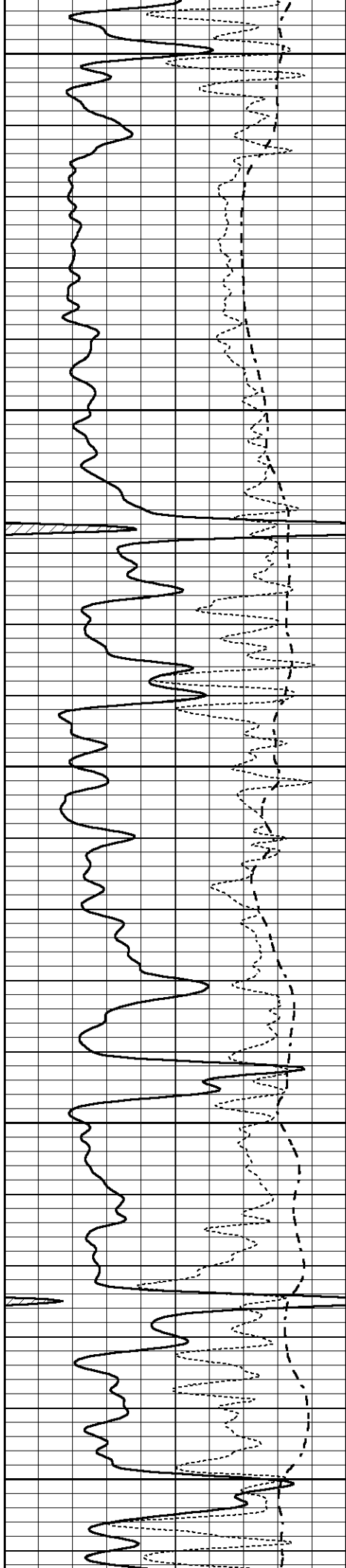
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2850

2900

2950





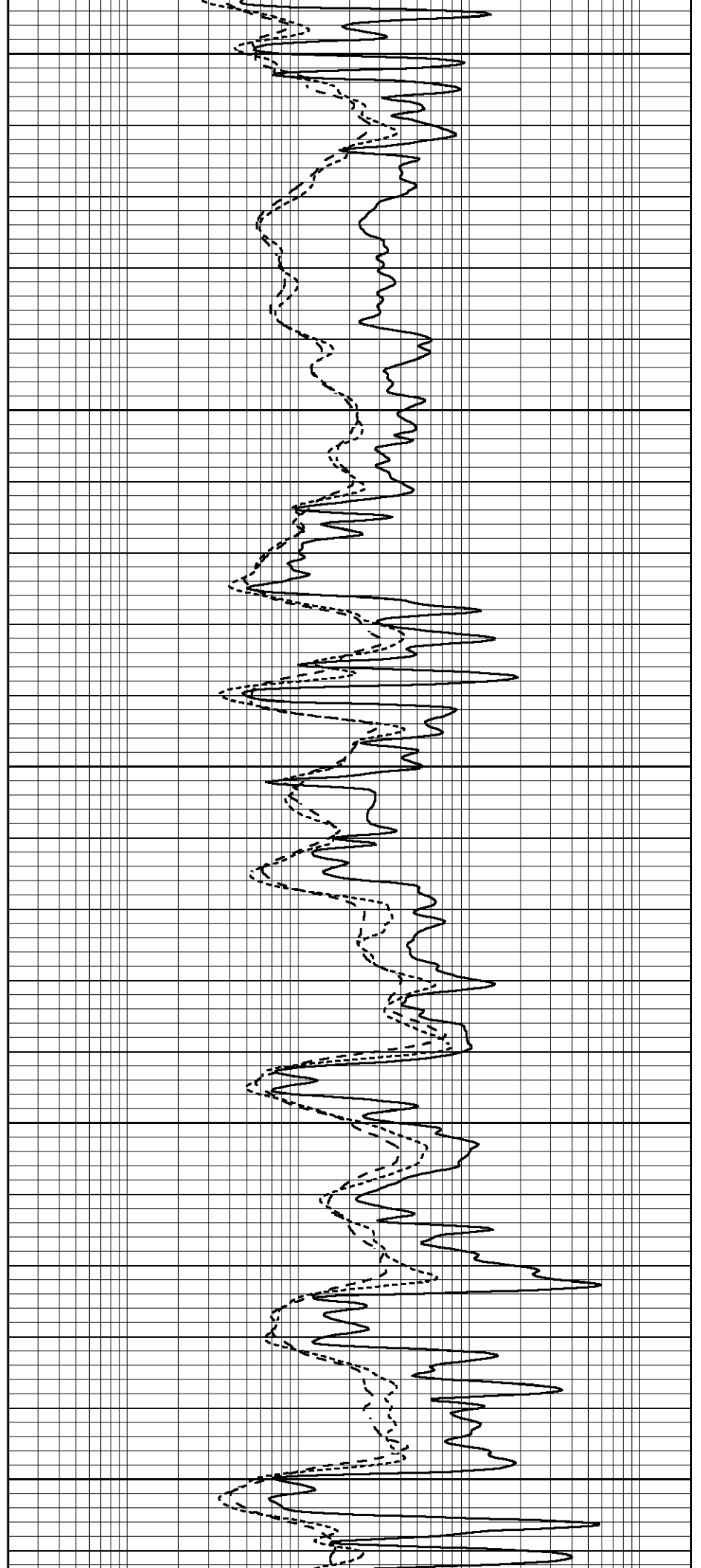
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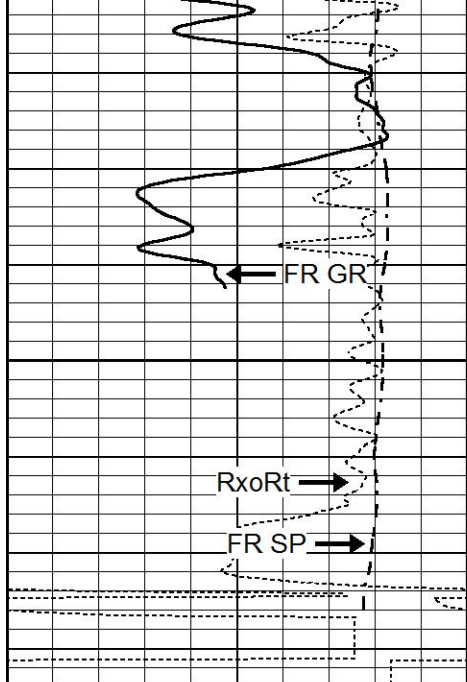
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3100

3150

3200

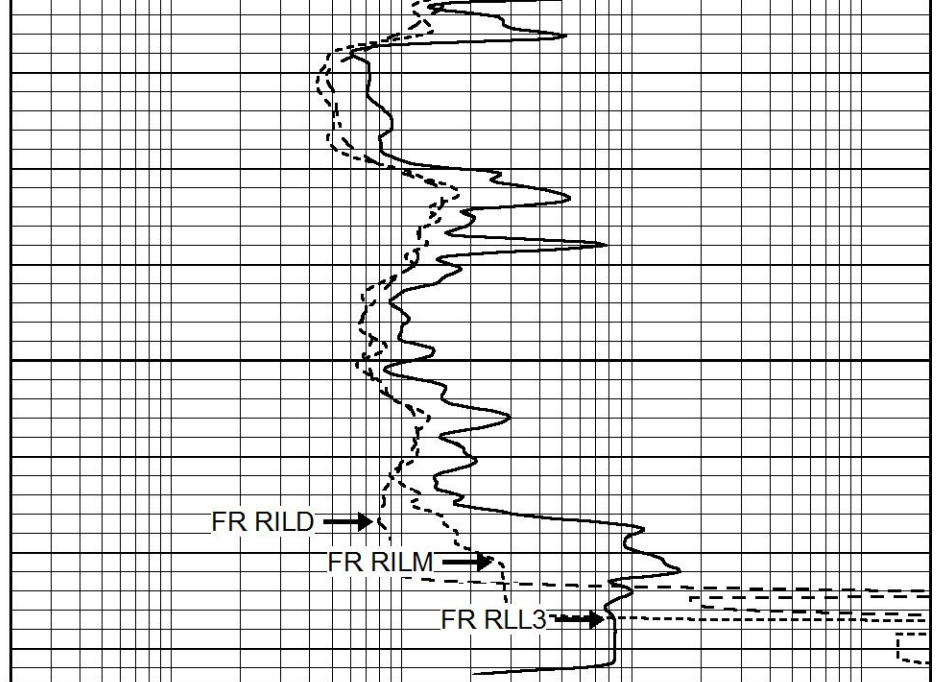




3250

LTD 3279

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



FR RILD

FR RILM

FR RLL3

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

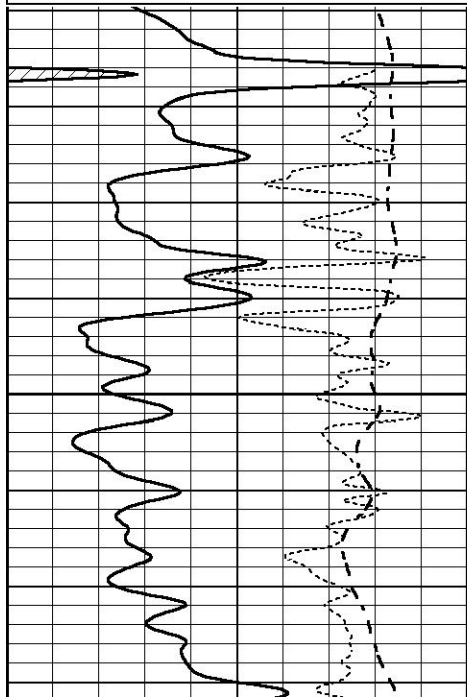


REPEAT SECTION

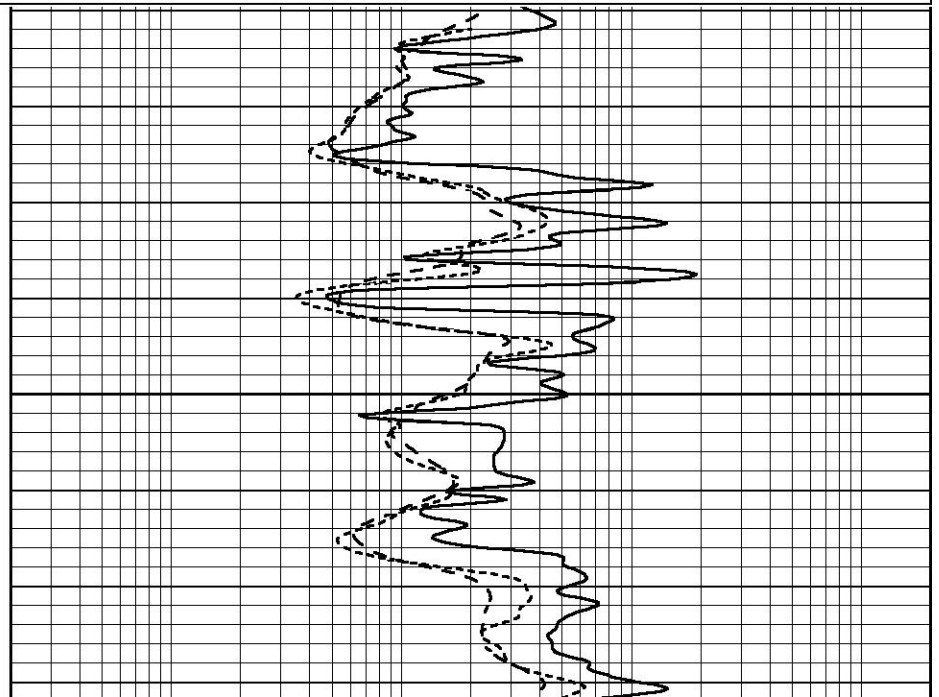
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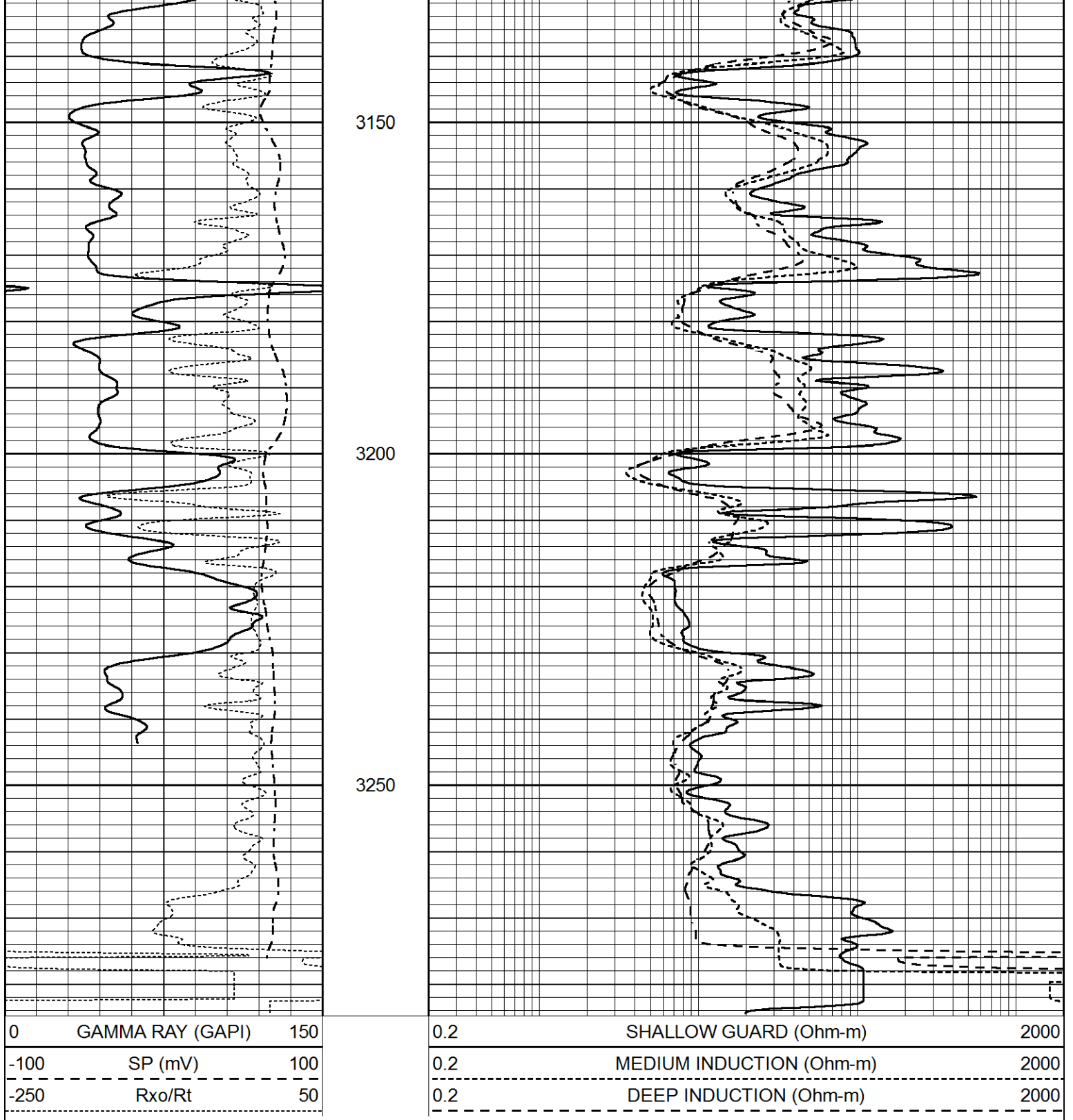
| | | |
|------|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| -100 | SP (mV) | 100 |
| -250 | Rxo/Rt | 50 |

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



3100





Calibration Report

Database File 6052ddn.db
 Dataset Pathname pass2.1
 Dataset Creation Sun Nov 14 22:46:16 2021

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

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

Litho Density Calibration Report
Serial: 140704
Model: V4_10P
Source Number: 74GBq-19

| Master Calibration | | | | Performed: Mon Dec 07 12:12:14 2020 | |
|--------------------|---------------|-----------|--------------|-------------------------------------|----------|
| | Background | Aluminum | Magnesium | | |
| Window 1 | 557.73 | 5525.14 | 24361.20 | cps | |
| Window 2 | 47.08 | 1245.09 | 5901.17 | cps | |
| Window 4 | 239.06 | 1250.70 | 5456.76 | cps | |
| Window 5 | 564.08 | 8300.56 | 16134.07 | cps | |
| Window 6 | 44.21 | 1356.78 | 2705.40 | cps | |
| Window 8 | 267.87 | 2686.97 | 5150.30 | cps | |
| Bulk Density | - | 2.6020 | 1.6830 | g/cc | |
| Pe | - | 3.0000 | 2.5070 | b/e | |
| LS Alpha: | : -1.8719 | SS Alpha: | : -0.8000 | LS CPE: | : 1.1424 |
| LS Beta: | : 135562.6841 | SS Beta: | : 20128.7209 | SS CPE: | : 1.5489 |

| Before Survey Background Counts Verification | | | Performed: Wed Dec 31 18:00:00 1969 | |
|--|------|-----|-------------------------------------|--|
| Window 1 | 0.00 | cps | | |
| Window 2 | 0.00 | cps | | |
| Window 4 | 0.00 | cps | | |
| Window 5 | 0.00 | cps | | |
| Window 6 | 0.00 | cps | | |
| Window 8 | 0.00 | cps | | |

| | | |
|----------|------|-----|
| Window 1 | 0.00 | cps |
| Window 2 | 0.00 | cps |
| Window 4 | 0.00 | cps |
| Window 5 | 0.00 | cps |
| Window 6 | 0.00 | cps |
| Window 8 | 0.00 | cps |

Lithodensity Caliper Calibration

Performed: Mon Dec 07 12:12:14 2020

| Results | | Readings | | References (in) | | Gain | Offset |
|---------|--------|----------|------|-----------------|--|------|--------|
| Low | High | Low | High | | | | |
| 5852.8 | 8972.7 | 8.0 | 14.0 | | | 0.0 | -3.5 |

Before Survey Caliper Verification

Performed:

| | Reference | Reading |
|--------------|-----------|---------|
| Caliper (in) | _____ | _____ |

After Survey Caliper Verification

Performed:

| | Reference | Reading |
|--------------|-----------|---------|
| Caliper (in) | _____ | _____ |

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 Jan 19 17:50:08 2021

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.5300 GAPI/cps