THE WIRELINE GROUP

# RADIAL CEMENT
# BOND LOG
# GAMMA RAY/CCL

Company TEP ROCKY MOUNTAIN LLC
Well FEDERAL RWF 32-9
Field RULISON
County GARFIELD
State CO
CountryUSA

| | |
|---|---|
| Company | TEP ROCKY MOUNTAIN LLC |
| Well | FEDERAL RWF 32-9 |
| Field | RULISON |
| County | GARFIELD |
| State | CO |
| Country | USA |

Location: API # : 05-045-24400

2528' FSL & 536' FEL
LAT/LONG: 39.539379 / -107.885349
SEC 9 TWP 6S RGE 94W

Other Services
NONE

| | | | |
|---|---|---|---|
| Permanent Datum | GL | Elevation | 6369' |
| Log Measured From | KB | | |
| Drilling Measured From | KB | | |

Elevation
K.B. 6399'
D.F. N/A
G.L. 6369'

| | | | |
|---|---|---|---|
| Date | 6 MARCH 2022 | | |
| Run Number | ONE | | |
| Depth Driller | 9754' | | |
| Depth Logger | 9702' | | |
| Bottom Logged Interval | 9700' | | |
| Top Log Interval | SURFACE | | |
| Open Hole Size | 8.75" | | |
| Type Fluid | WATER | | |
| Density / Viscosity | 8.3# | | |
| Max. Recorded Temp. | 246 F | | |
| Estimated Cement Top | SEE LOG | | |
| Time Well Ready | ROA | | |
| Time Logger on Bottom | 03:00 | | |
| Equipment Number | 8048 | | |
| Location | WINDSOR, CO | | |
| Recorded By | D.GIRODO | | |
| Witnessed By | MR DUSTIN WELSH | | |

| Borehole Record | | | | Tubing Record | | | |
|---|---|---|---|---|---|---|---|
| Run Number | Bit | From | To | Size | Weight | From | To |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 9.625" | 36# | SURFACE | 1113' |
| Prot. String | | | | |
| Production String | 4.5" | 11.6# | SURFACE | 9754' |
| Liner | | | | |

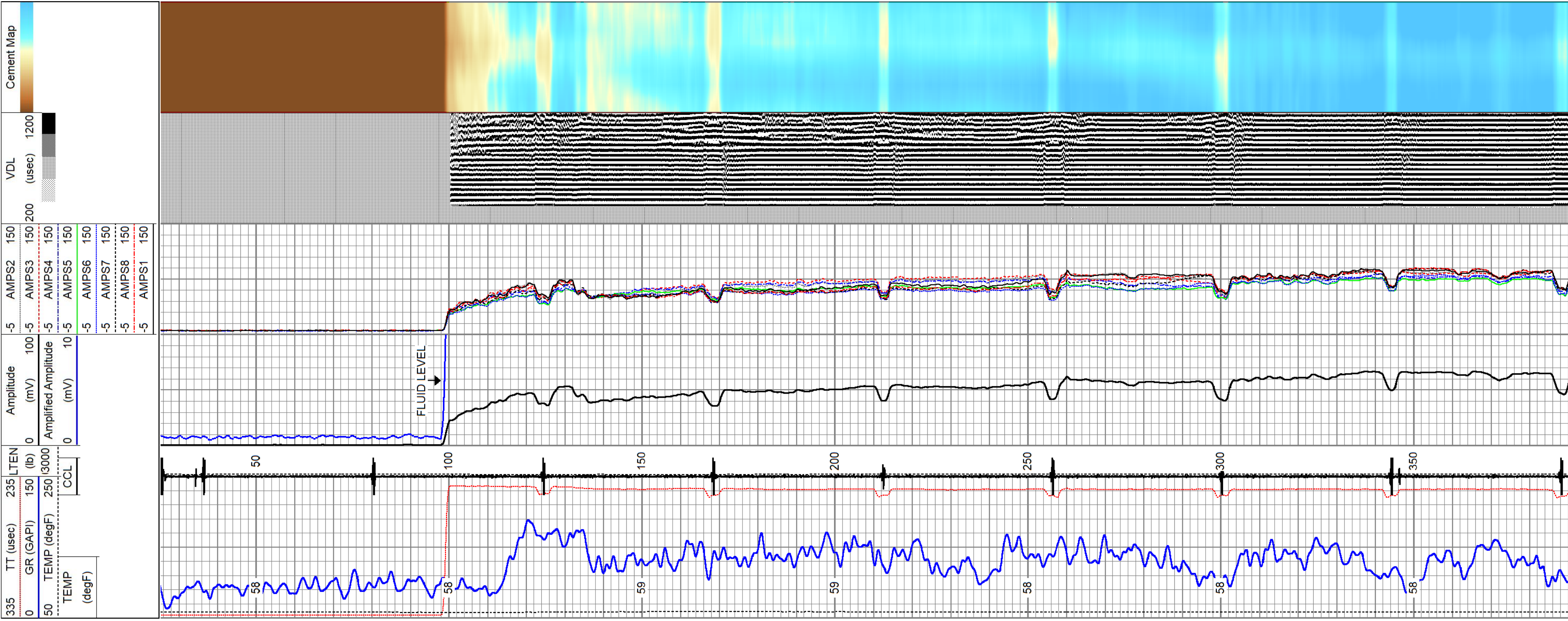
<<< Fold Here >>>

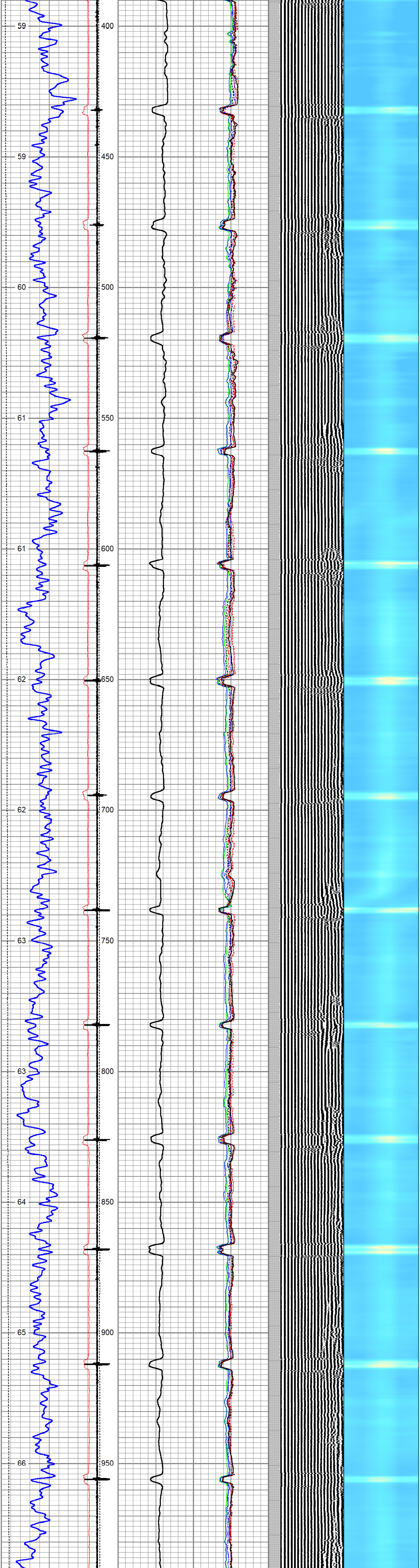
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

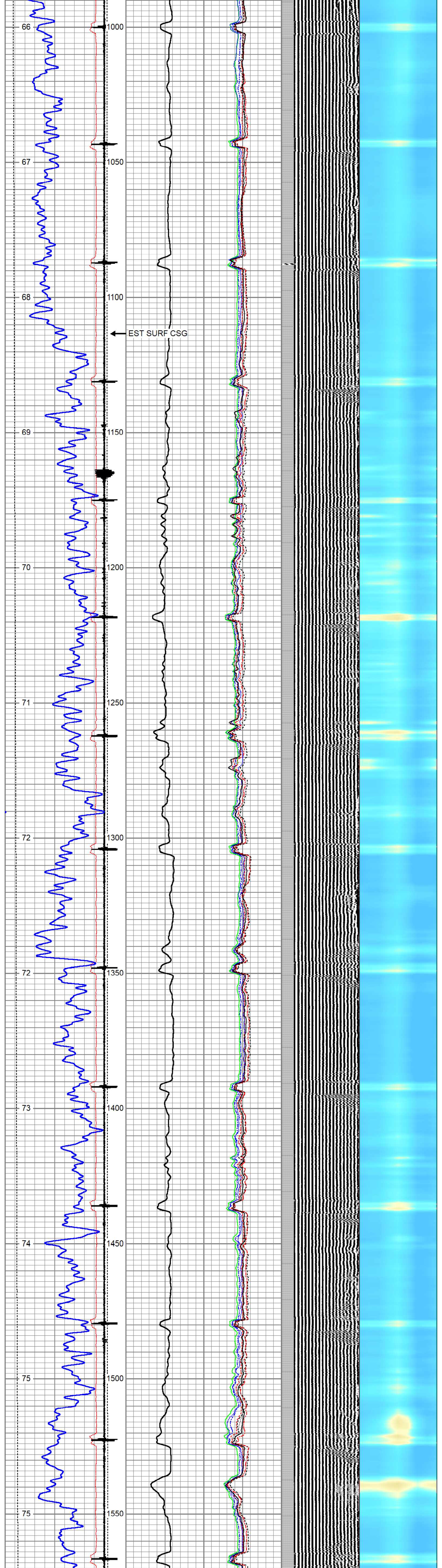
Comments

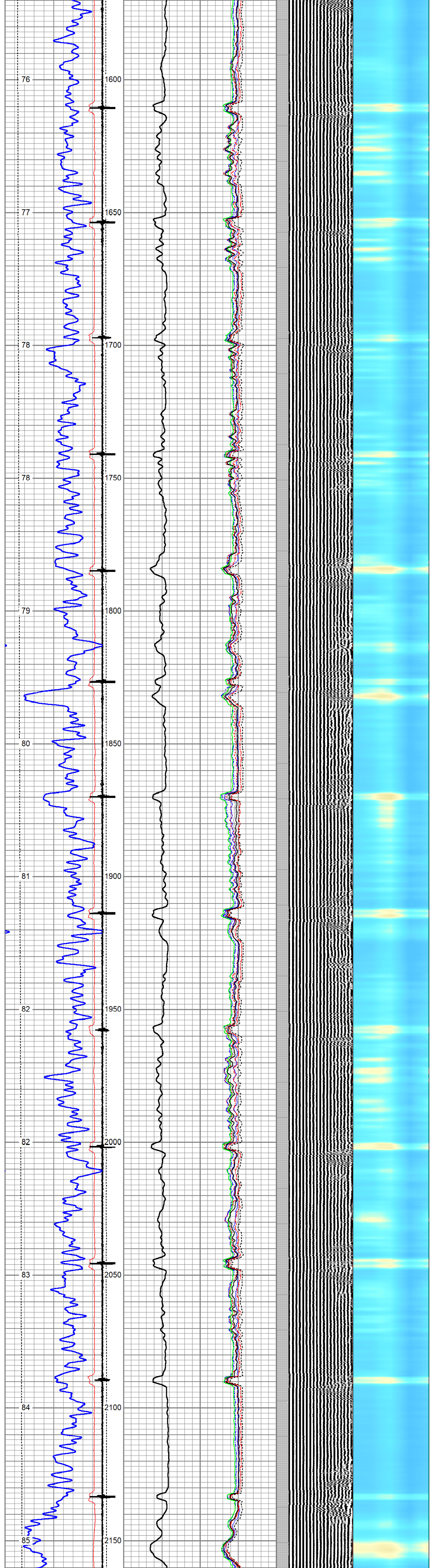
MAIN PASS WAS RAN WITH ZERO PSI @ SURFACE
CUSTOMER REPORTED MARKER JOINT @ 6154' - 6174'
WIRELINE FOUND IT @ 6064' - 6084'
LOG WAS RAN WITH 30' K.B.
THANK YOU FOR USING THE WIRELINE GROUP!

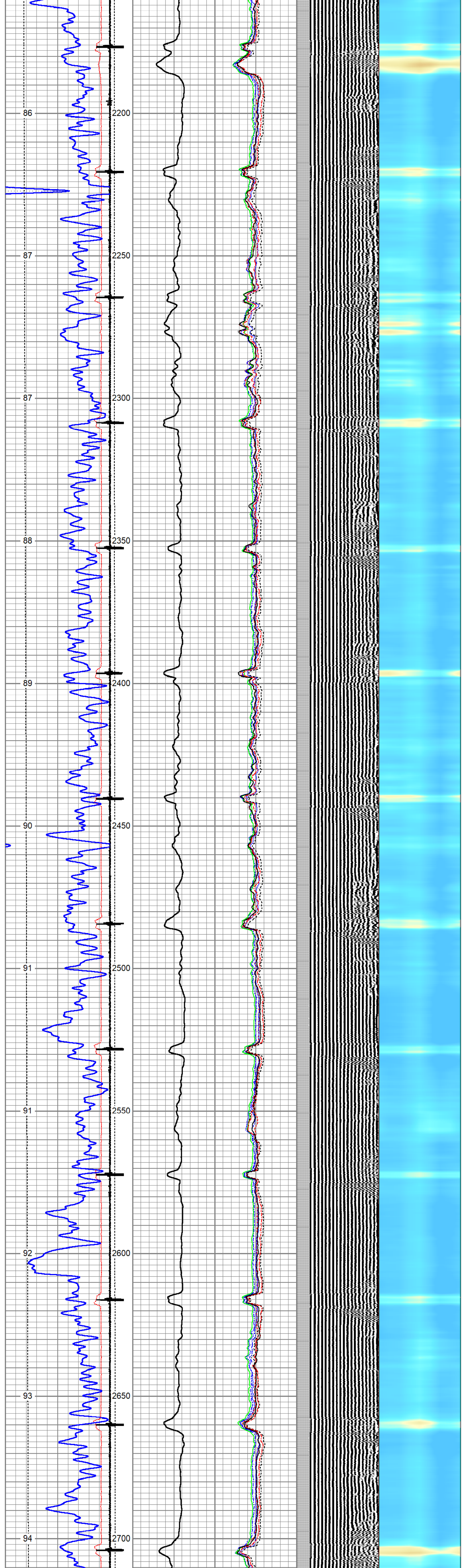
| | |
|---|---|
| Database File | federal rwf 32-9.db |
| Dataset Pathname | pass1.4 |
| Presentation Format | rbl7 |
| Dataset Creation | Sun Mar 06 03:07:36 2022 |
| Charted by | Depth in Feet scaled 1:240 |

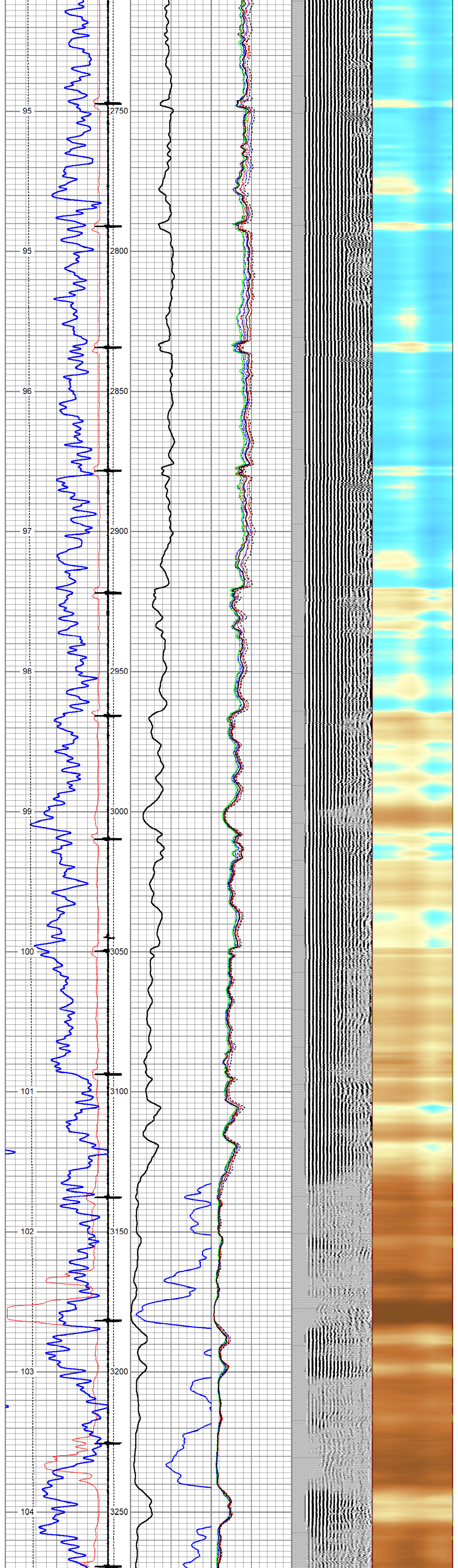


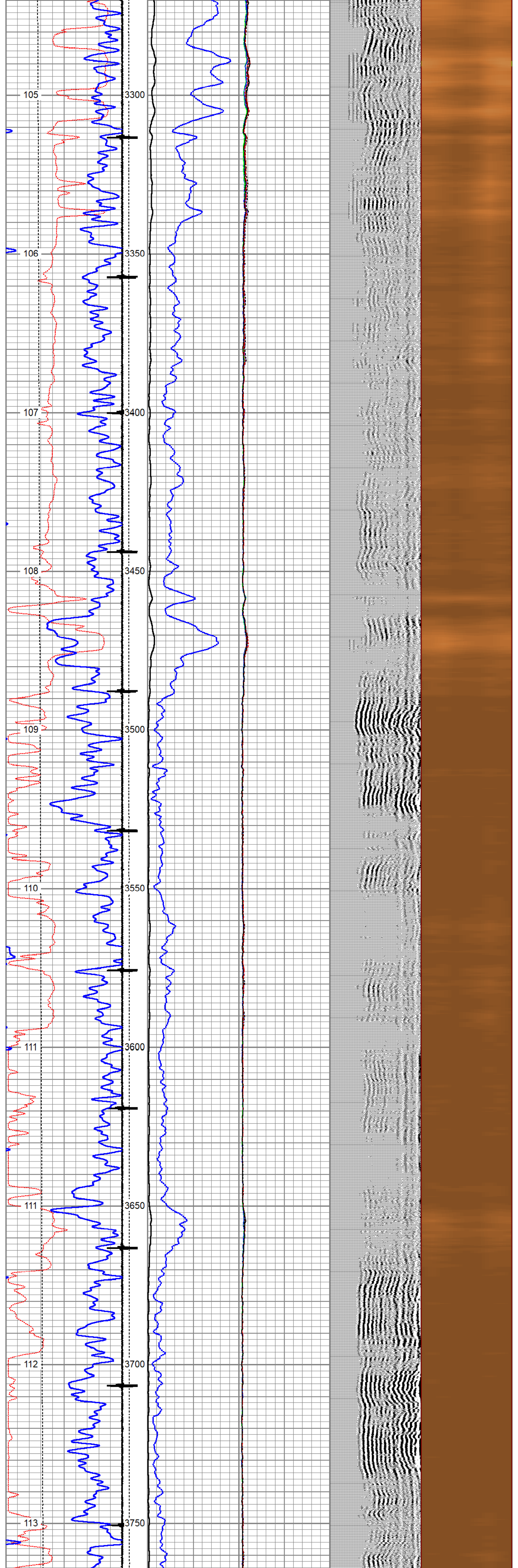


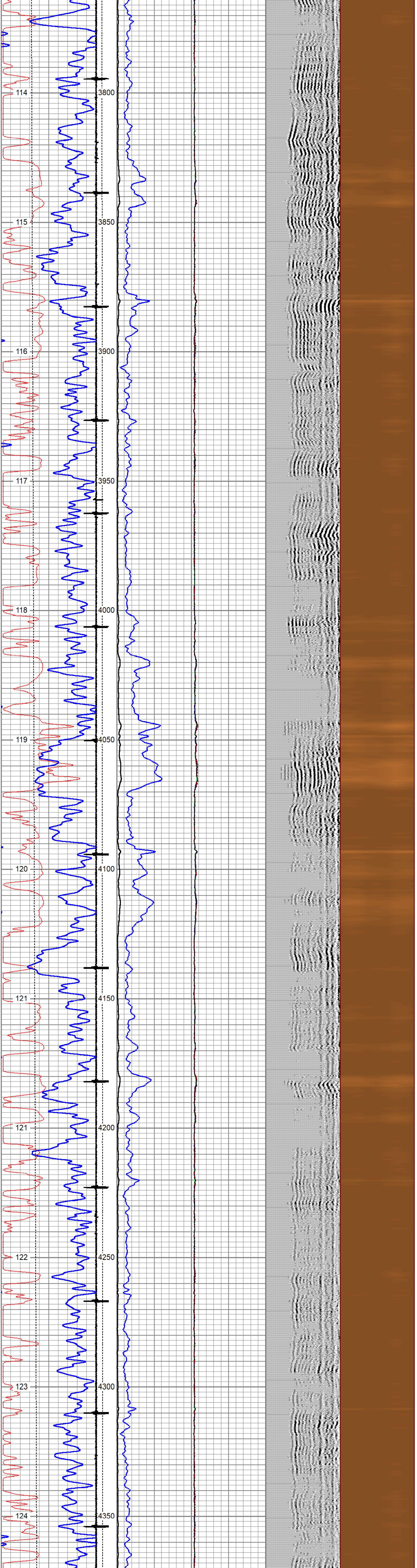








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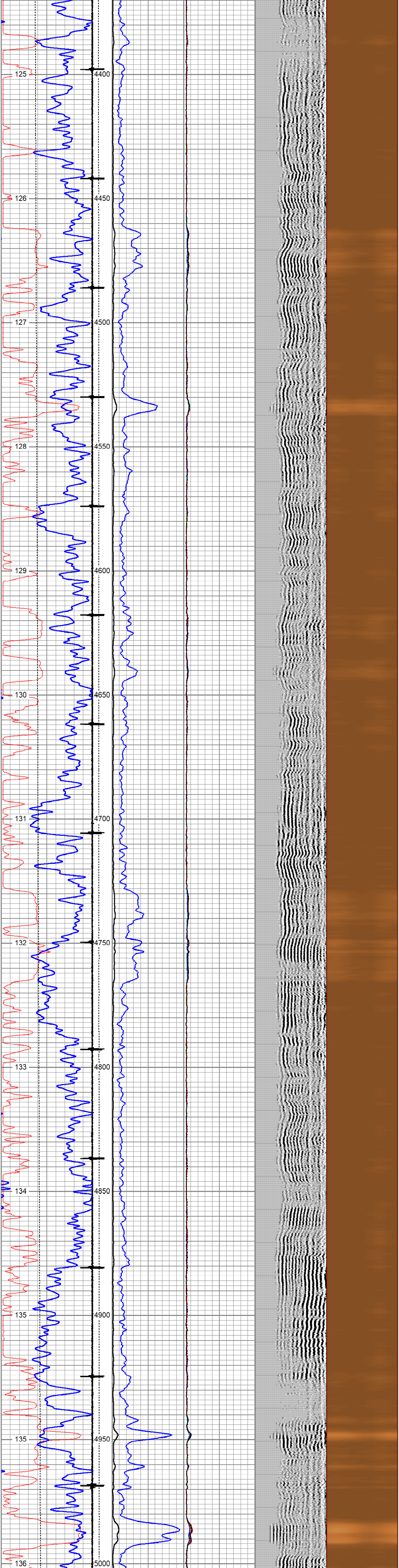
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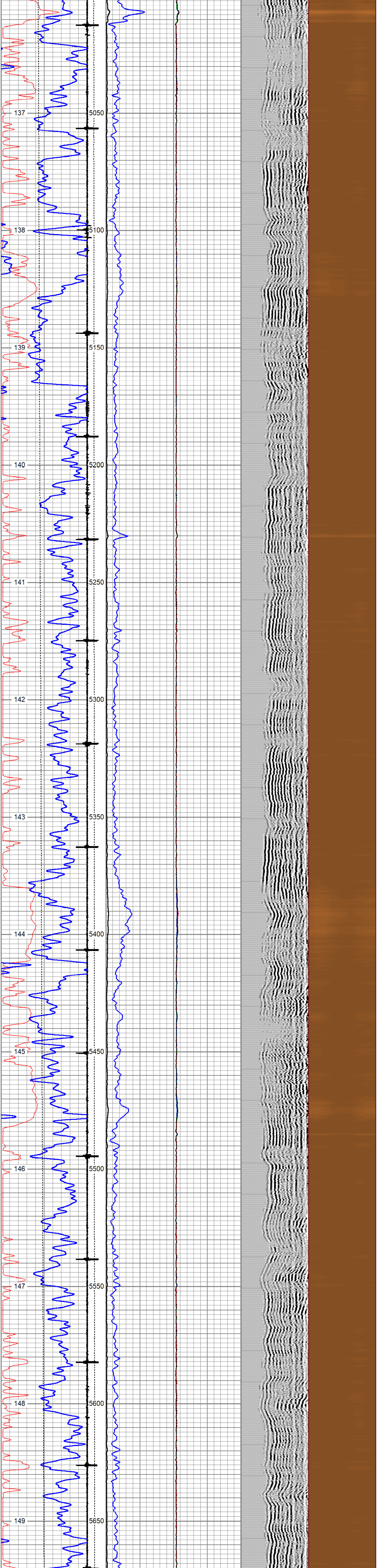
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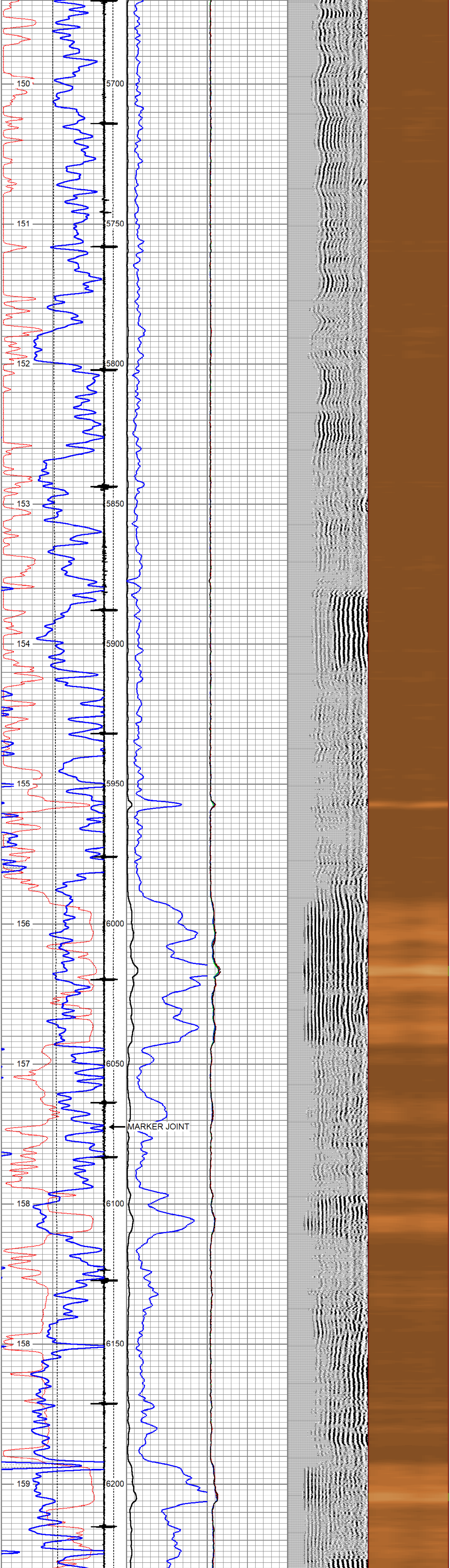
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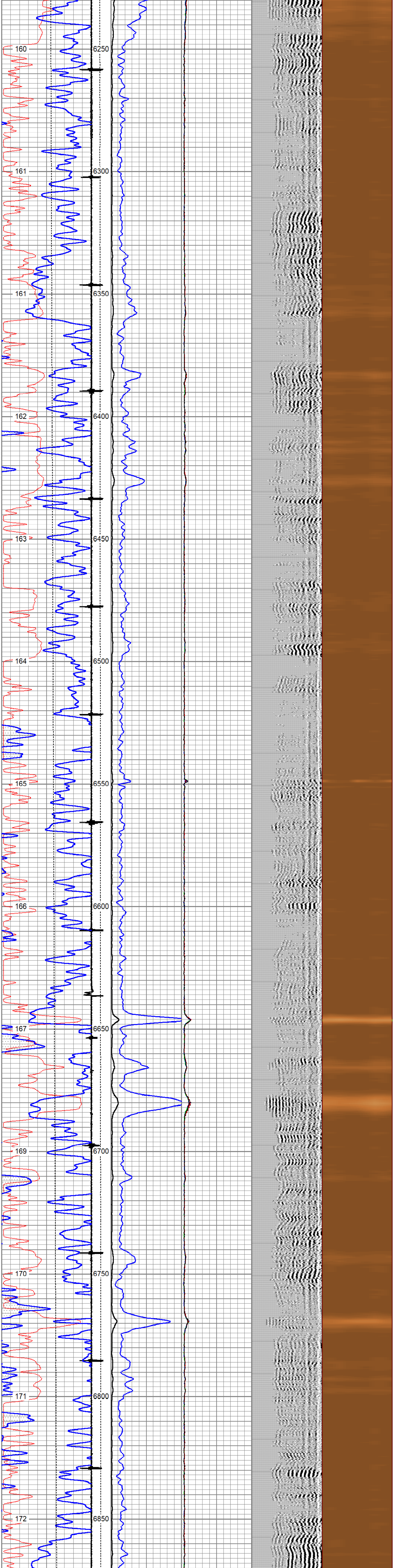
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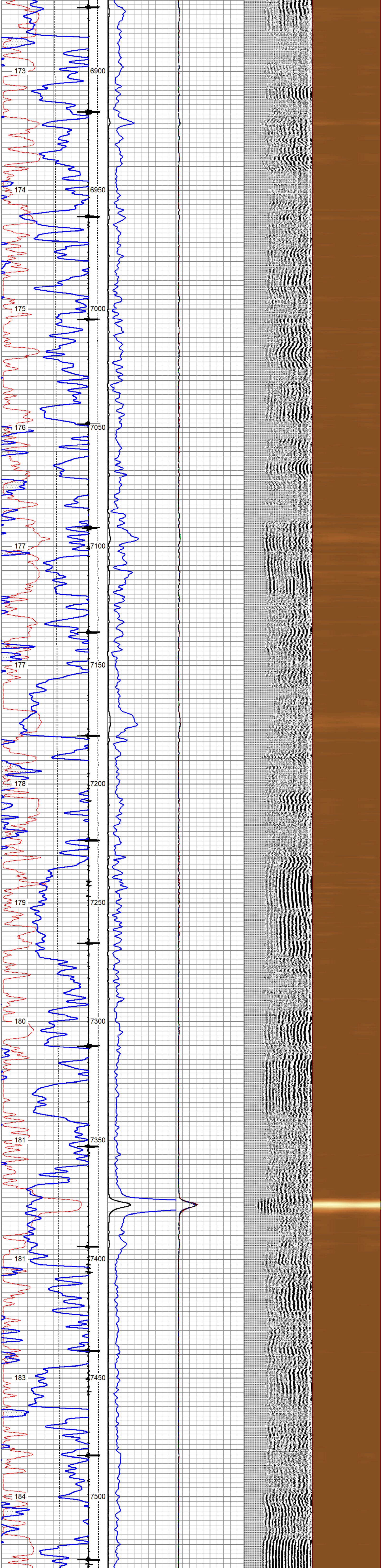
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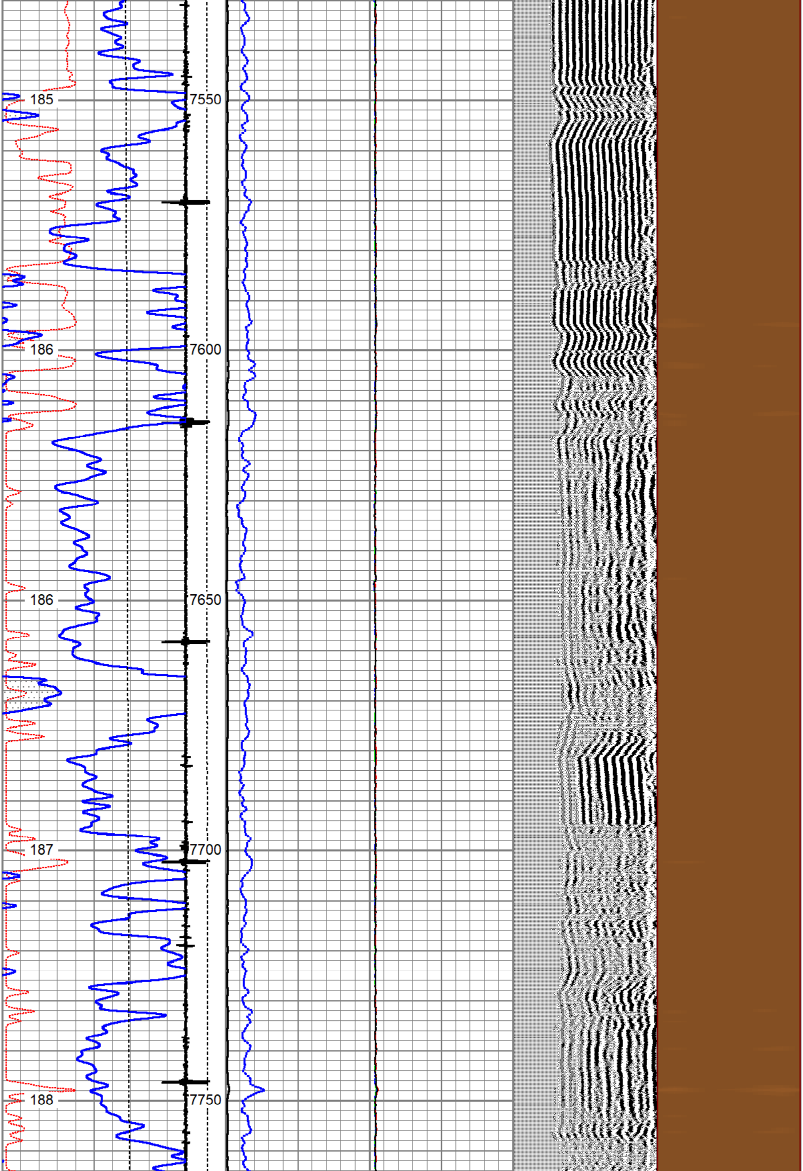
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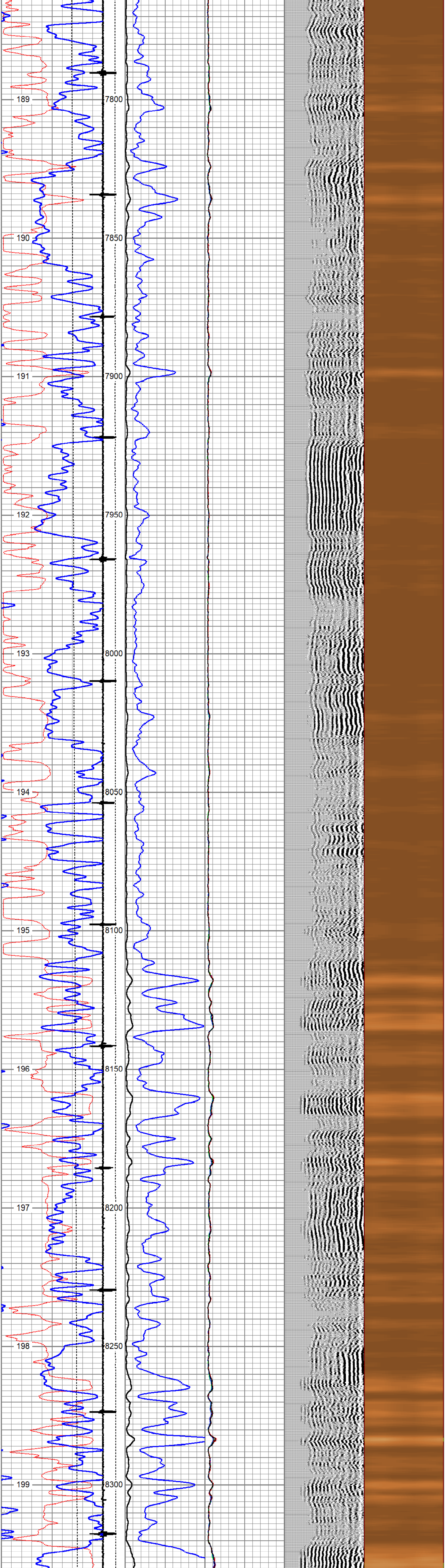

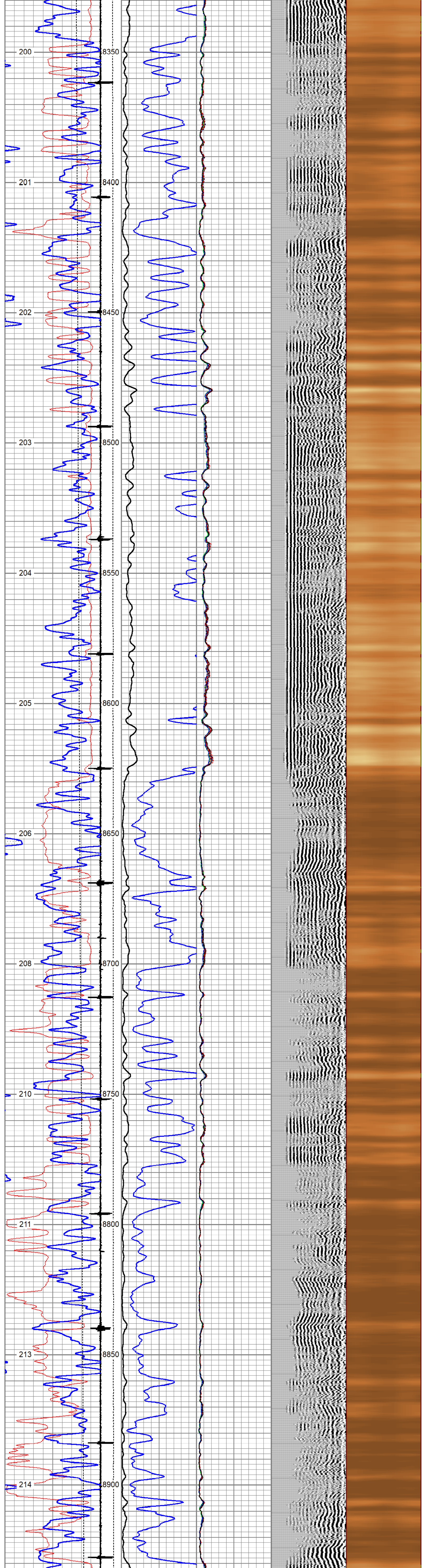

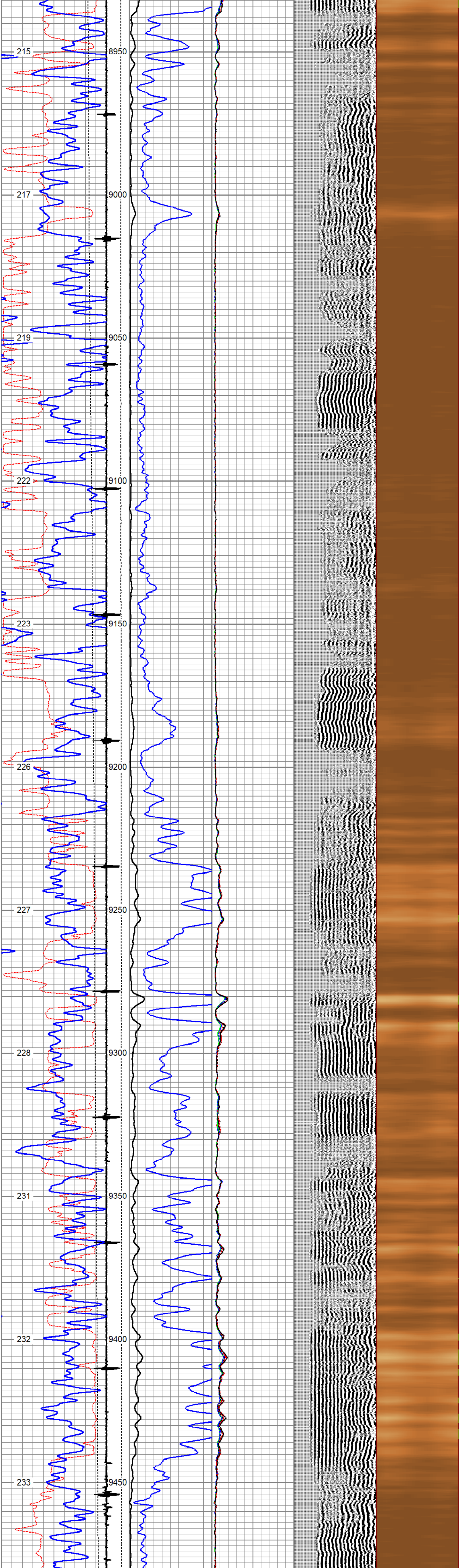

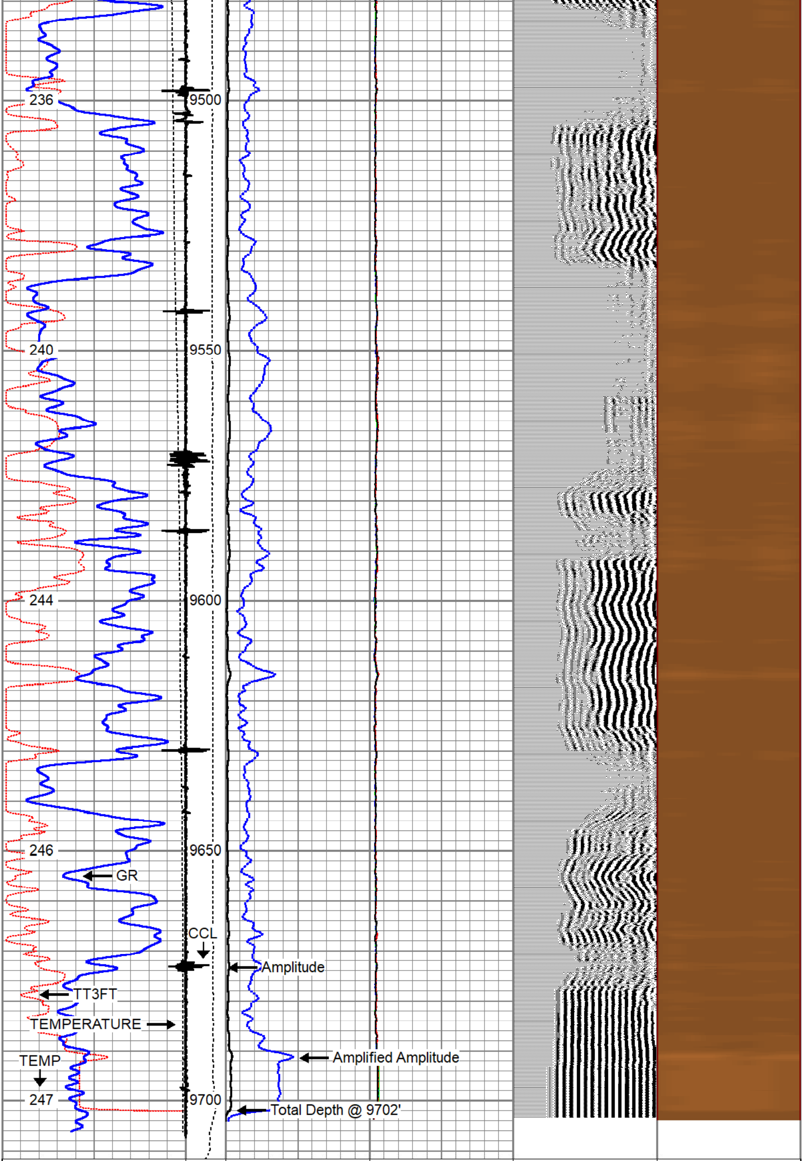

| | | | | | |
|---|---|---|---|---|---|
| 335 TT (usec) 235 | LTEN | Amplitude | -5 AMPS2 150 | VDL | Cement Map |
| 0 GR (GAPI) 150 | (lb) | 0 (mV) 100 | -5 AMPS3 150 | 200 (usec) 1200 | |
| 50 TEMP (degF) 250 | 3000 | Amplified Amplitude | -5 AMPS4 150 | ▨ | |
| TEMP<br>(degF) | CCL | 0 (mV) 10 | -5 AMPS5 150 | | |
| | | | -5 AMPS6 150 | | |
| | | | -5 AMPS7 150 | | |
| | | | -5 AMPS8 150 | | |
| | | | -5 AMPS1 150 | | |

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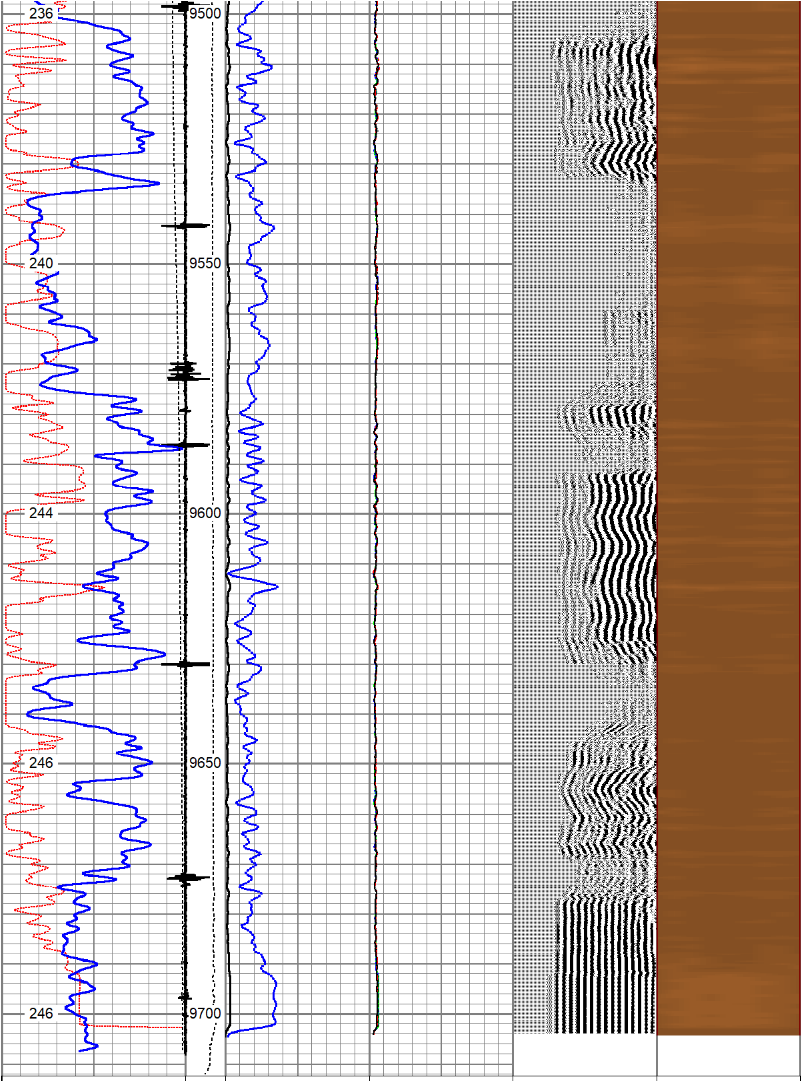
# REPEAT PASS 5"=100'

| | |
|---|---|
| Database File | federal rwf 32-9.db |
| Dataset Pathname | pass1.3 |
| Presentation Format | rbl7 |
| Dataset Creation | Sun Mar 06 03:01:59 2022 |
| Charted by | Depth in Feet scaled 1:240 |

| | | | | | |
|---|---|---|---|---|---|
| 335 TT (usec) 235 | LTEN | Amplitude | -5 AMPS2 150 | VDL | Cement Map |
| 0 GR (GAPI) 150 | (lb) | 0 (mV) 100 | -5 AMPS3 150 | 200 (usec) 1200 | |
| 50 TEMP (degF) 250 | 3000 | Amplified Amplitude | -5 AMPS4 150 | ▨ | |
| TEMP<br>(degF) | CCL | 0 (mV) 10 | -5 AMPS5 150 | | |
| | | | -5 AMPS6 150 | | |
| | | | -5 AMPS7 150 | | |
| | | | -5 AMPS8 150 | | |
| | | | -5 AMPS1 150 | | |



| | | | | | |
|---|---|---|---|---|---|
| 335 TT (usec) 235 | LTEN | Amplitude | -5 AMPS2 150 | VDL | Cement Map |
| 0 GR (GAPI) 150 | (lb) | 0 (mV) 100 | -5 AMPS3 150 | 200 (usec) 1200 | |
| 50 TEMP (degF) 250 | 3000 | Amplified Amplitude | -5 AMPS4 150 | ▨ | |
| TEMP<br>(degF) | CCL | 0 (mV) 10 | -5 AMPS5 150 | | |
| | | | -5 AMPS6 150 | | |
| | | | -5 AMPS7 150 | | |
| | | | -5 AMPS8 150 | | |
| | | | -5 AMPS1 150 | | |

# Calibration Report

| | |
|---|---|
| Database File | federal rwf 32-9.db |
| Dataset Pathname | pass1.4 |
| Dataset Creation | Sun Mar 06 03:07:36 2022 |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | 1401-17 | |
| Tool Model: | GCT275-0000 | |
| Performed: | Fri Jan 28 14:50:15 2022 | |
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 1.0 | cps |
| Sensitivity: | 1.0000 | GAPI/cps |

## Segmented Cement Bond Log Calibration Report

| | | |
|---|---|---|
| Serial Number: | 120663-4.5 | |
| Tool Model: | RADII-275C | |
| Calibration Casing Diameter: | 4.500 | in |
| Calibration Depth: | 2640.701 | ft |

Master Calibration, performed Sat Mar  5 19:17:10 2022:

| | Raw (v) | | Calibrated (mv) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.005 | 0.856 | 0.700 | 81.196 | 94.670 | 0.194 |
| CAL | 0.003 | 1.016 | | | | |
| 5' | 0.006 | 0.514 | 0.700 | 81.196 | 158.439 | -0.190 |
| SUM | | | | | | |
| S1 | 0.006 | 0.815 | 0.000 | 100.000 | 123.694 | -0.790 |
| S2 | 0.002 | 0.767 | 0.000 | 100.000 | 130.698 | -0.292 |
| S3 | 0.004 | 0.751 | 0.000 | 100.000 | 133.850 | -0.472 |
| S4 | 0.005 | 0.831 | 0.000 | 100.000 | 121.054 | -0.650 |
| S5 | 0.005 | 0.964 | 0.000 | 100.000 | 104.236 | -0.494 |
| S6 | 0.004 | 1.045 | 0.000 | 100.000 | 96.069 | -0.365 |
| S7 | 0.001 | 0.982 | 0.000 | 100.000 | 101.949 | -0.113 |
| S8 | 0.002 | 0.904 | 0.000 | 100.000 | 110.815 | -0.212 |

Internal Reference Calibration, performed (Not Performed):

| | Raw (v) | | Calibrated (v) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | 0.000 | 0.000 | 0.003 | 1.016 | 1.000 | 0.000 |

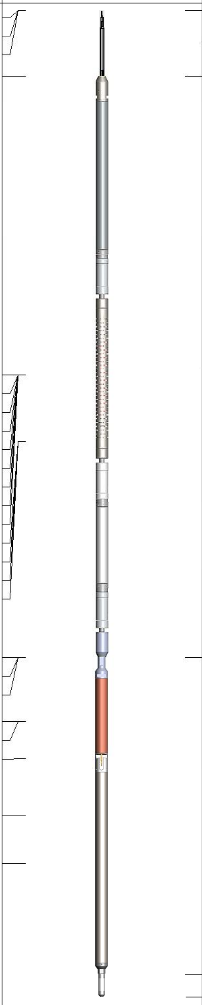
Air Zero Calibration, performed (Not Performed):

| | Raw (v) | Calibrated (v) | Results |
|---|---|---|---|
| | Zero | Zero | Offset |
| 3' | 0.000 | 0.000 | 0.000 |
| 5' | 0.000 | 0.000 | 0.000 |
| SUM | | | |
| S1 | 0.000 | 0.000 | 0.000 |
| S2 | 0.000 | 0.000 | 0.000 |
| S3 | 0.000 | 0.000 | 0.000 |
| S4 | 0.000 | 0.000 | 0.000 |
| S5 | 0.000 | 0.000 | 0.000 |
| S6 | 0.000 | 0.000 | 0.000 |
| S7 | 0.000 | 0.000 | 0.000 |
| S8 | 0.000 | 0.000 | 0.000 |

## Inclinometer Calibration Report

Performed: (Not Performed)

| | Low Read. | High Read. | Low Ref. | High Ref. | |
|---|---|---|---|---|---|
| X Accelerometer | 0.00 | 1.00 | 0.00 | 1.00 | gee |
| Y Accelerometer | 0.00 | 1.00 | 0.00 | 1.00 | gee |
| Z Accelerometer | 0.00 | 1.00 | 0.00 | 1.00 | gee |

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|---|---|---|---|---|---|---|
| mSec_Count | 14.85 |  | | | | |
| RBT_Status | 14.85 | | Cable-Head-Titan<br>1 7/16" Cable Head | 1.00 | 1.44 | 1.00 |
| Error_Ct | 14.85 | | | | | |
| RBT_HV | 13.85 | | | | | |
| WVFS8 | 9.35 | | RBT8-RADII-275C (120663-4.5)<br>Probe 2.75" RADII 8 Sector Bond Tool | 8.75 | 2.75 | |
| WVFS7 | 9.35 | | | | | |
| WVFS6 | 9.35 | | | | | |
| WVFS5 | 9.35 | | | | | |
| WVFS4 | 9.35 | | | | | |
| WVFS3 | 9.35 | | | | | |
| WVFS2 | 9.35 | | | | | |
| WVFS1 | 9.35 | | | | | |
| WVF3FT | 9.35 | | | | | |
| RBT_ACCZ | 8.35 | | | | | |
| RBT_ACCY | 8.35 | | | | | |
| RBT_ACCX | 8.35 | | | | | |
| WVF5FT | 8.35 | | | | | |
| GCT_HV | 5.10 | | | | | |
| WVFSYNC | 5.10 | | | | | |
| WVFCAL | 5.10 | | | | | |
| CCL$2 | 4.14 | | | | | |
| CCL$1 | 4.14 | | | | | |
| GCT_Temp | 3.59 | | | | | |
| GR | 2.72 | | GC-GCT275-0000 (1401-17)<br>Probe 2.75" Gamma Ray - CCL w/ Temp | 4.77 | 2.75 | 55.00 |
| GCT_IntTemp | 2.00 | | | | | |
| | | | Plug-FA108-0000<br>1.38" Bull Plug | 0.33 | 1.38 | 1.00 |

| | |
|---|---|
| Dataset: | federal rwf 32-9.db: field/well/run1/pass1.4 |
| Total length: | 14.85 ft |
| Total weight: | 57.00 lb |
| O.D.: | 2.75 in |

| | | | |
|---|---|---|---|
| **Company** | **TEP ROCKY MOUNTAIN LLC** | | |
| **Well** | **FEDERAL RWF 32-9** | | |
| **Field** | **RULISON** | | |
| **County** | **GARFIELD** | **State** | **CO** |

THE WIRELINE GROUP

**RADIAL CEMENT**
**BOND LOG**
**GAMMA RAY/CCL**