

# COMPENSATED DENSITY/NEUTRON PE LOG

Company HERMAN L. LOEB, LLC.

Well EAGLE CANYON #1-17

Field WILDCAT

County KIOWA State KANSAS

Location: API #: 15-097-21862-0000

1325' FNL & 1459' FEL  
NE - NE - SW - NE

SEC 17 TWP 28S RGE 20W

Permanent Datum GROUND LEVEL Elevation 2318  
Log Measured From KELLY BUSHING 13' A.G.L.  
Drilling Measured From KELLY BUSHING

Other Services  
DILMEL  
SONIC  
Elevation  
K.B. 2331  
D.F. 2329  
G.L. 2318

Date 7/12/22

Run Number TWO

Depth Driller 5050

Depth Logger 5050

Bottom Logged Interval 5048

Top Log Interval 4000

Casing Driller 8 5/8" @ 595'

Casing Logger 595

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.2/58

pH / Fluid Loss 11.0/8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp .600 @ 84F

Rmf @ Meas. Temp .450 @ 84F

Rmc @ Meas. Temp .720 @ 84F

Source of Rmf / Rmc MEASURED

Rm @ BHT .403 @ 125F

Time Circulation Stopped 4.5 HOURS

Time Logger on Bottom 4.45 A.M.

Maximum Recorded Temperature 125F

Equipment Number 8916

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By JON CHRISTENSEN

GEORGE PAYNE

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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

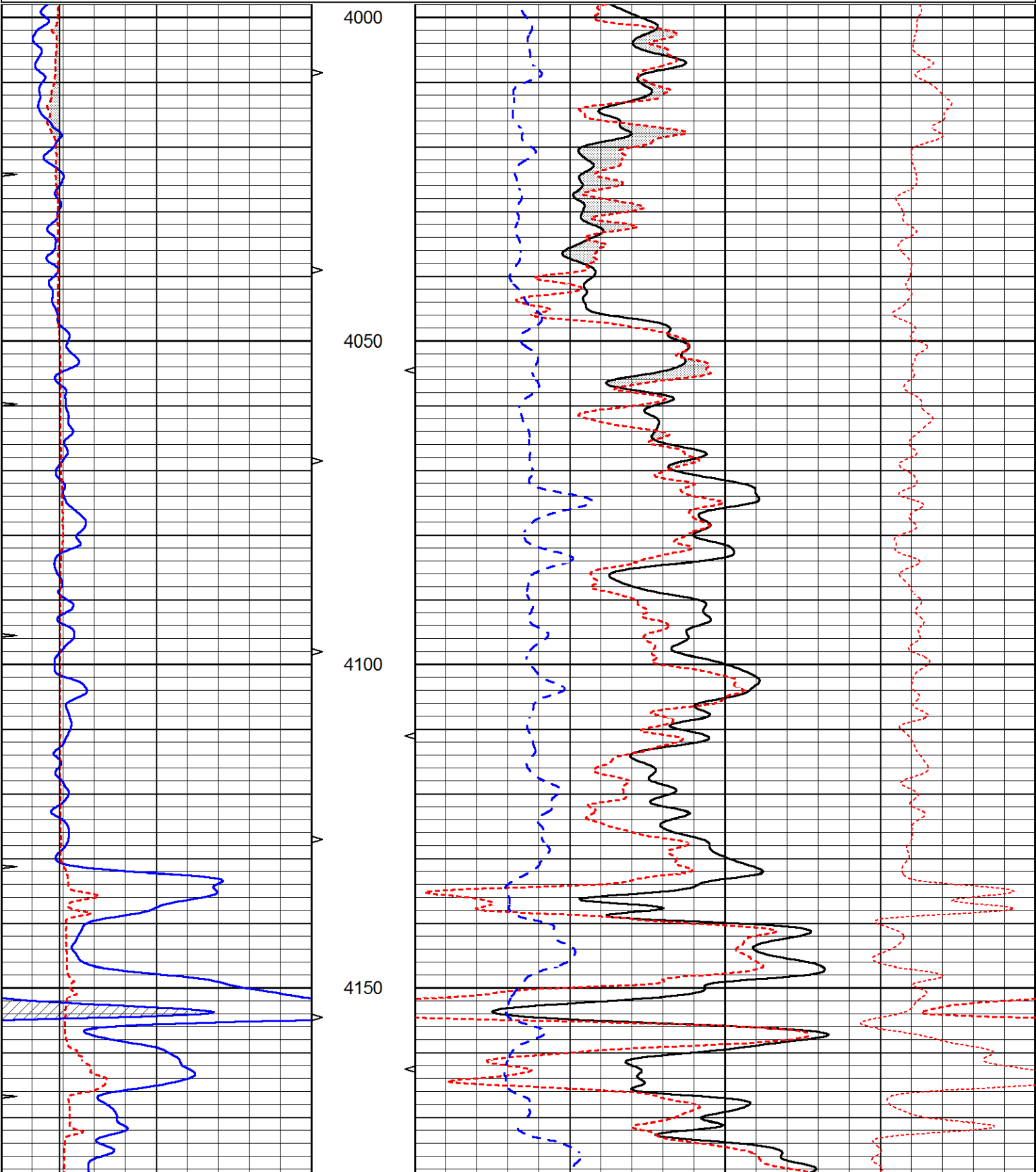
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395  
DIRECTIONS:  
MULLINVILLE, KS., (HWY 400 & MAIN ST.) 1 1/2N. TO "RD. I-5", 2 1/2 W. TO INTERSECTION. 1/4 NW  
IN PASTURE

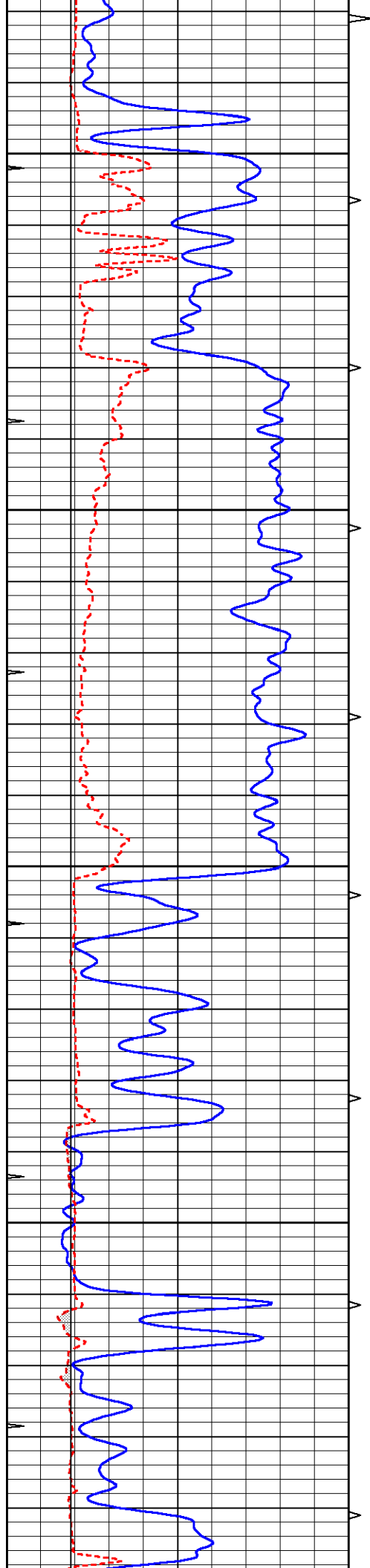


# MAIN SECTION

|                     |                            |
|---------------------|----------------------------|
| Database File       | 6710pe.db                  |
| Dataset Pathname    | pass5.1M                   |
| Presentation Format | _ldt_neu                   |
| Dataset Creation    | Tue Jul 12 05:44:20 2022   |
| Charted by          | Depth in Feet scaled 1:240 |

|   |                  |     |          |    |                          |                   |
|---|------------------|-----|----------|----|--------------------------|-------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV     | 30 | COMPENSATED DENSITY (pu) | -10               |
| 6 | CALIPER (in)     | 16  | 10 (ft3) | 0  | COMPENSATED NEUTRON (pu) | -10               |
| 0 | MINMK            | 20  | TBHV     | 0  | PE                       | 10                |
|   |                  |     | 0 (ft3)  | 10 | -0.25                    | CORRECTION (g/cc) |
|   |                  |     |          |    | 0.25                     |                   |



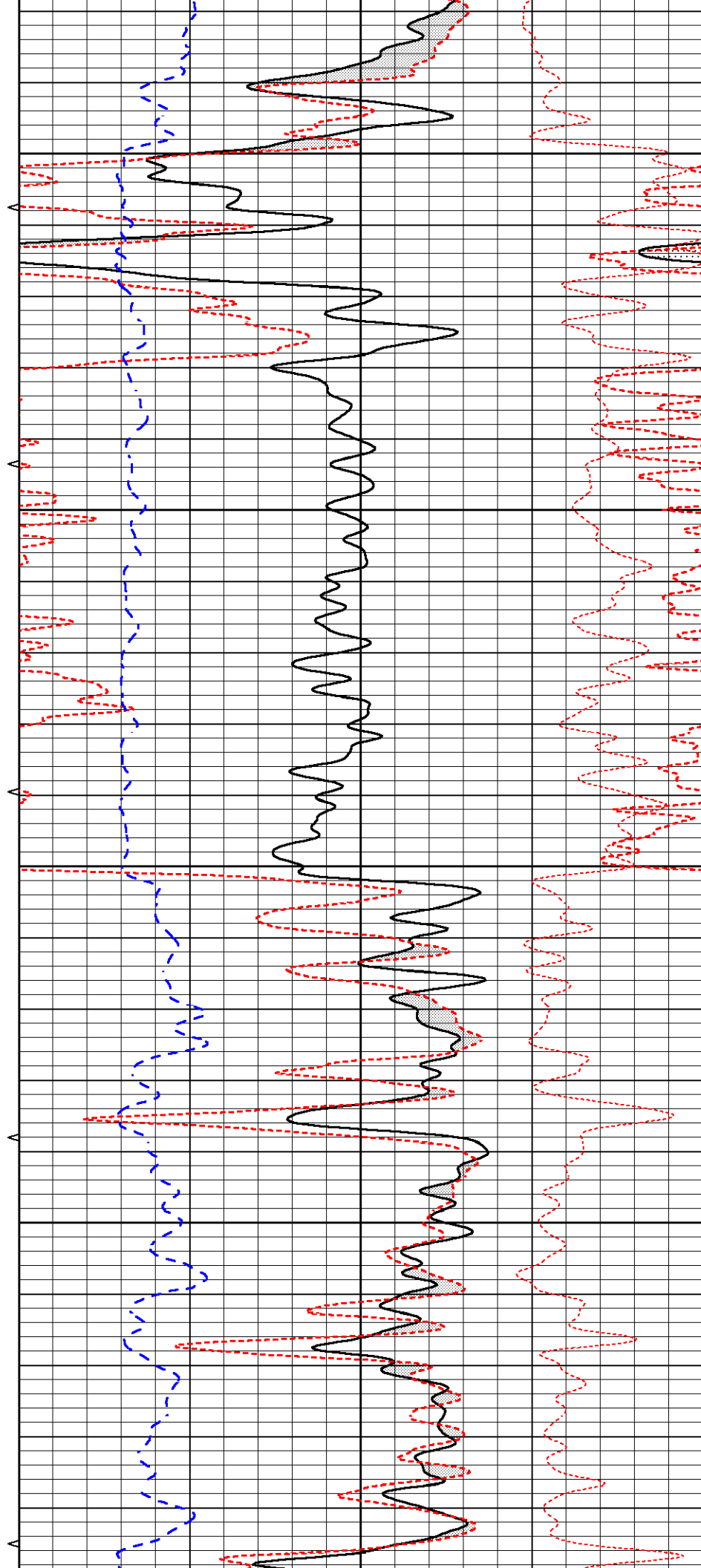


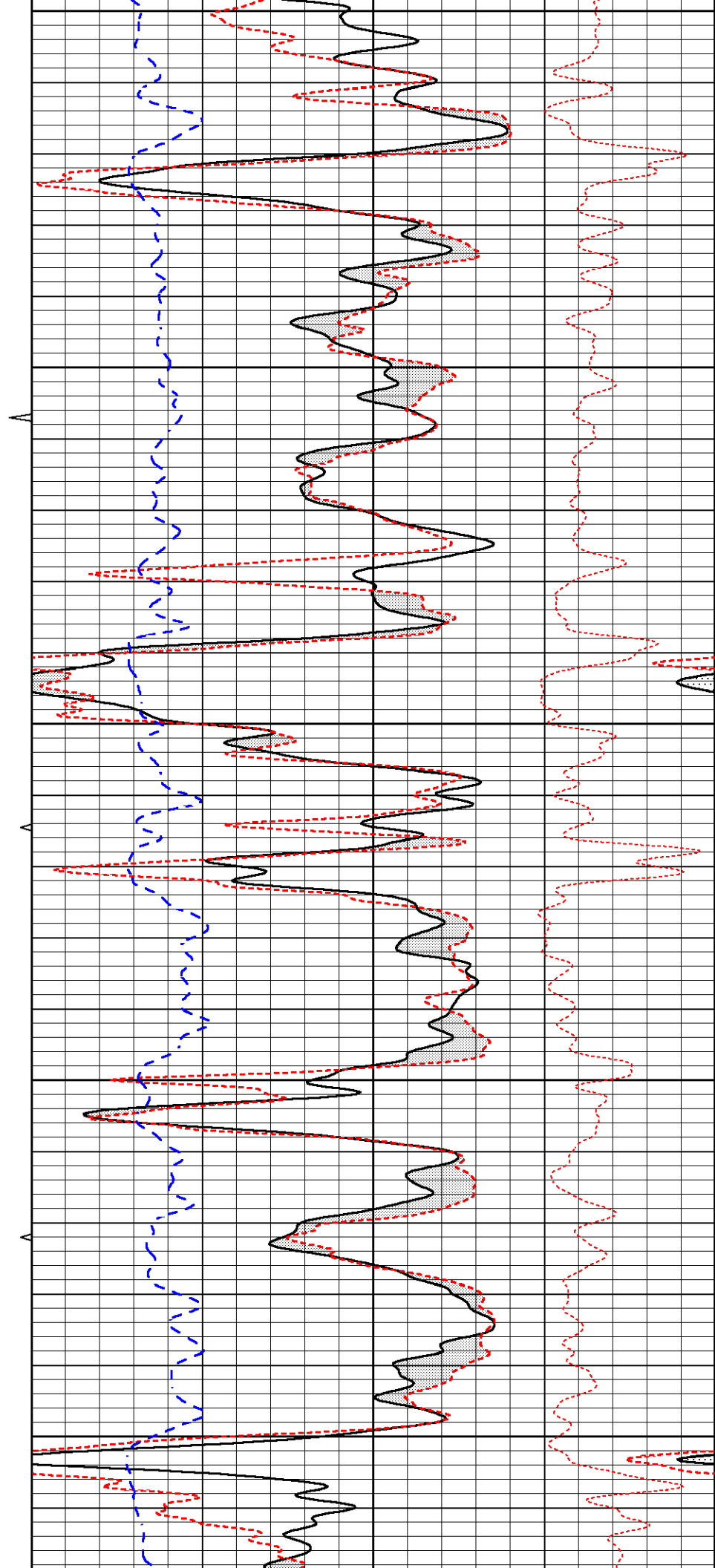
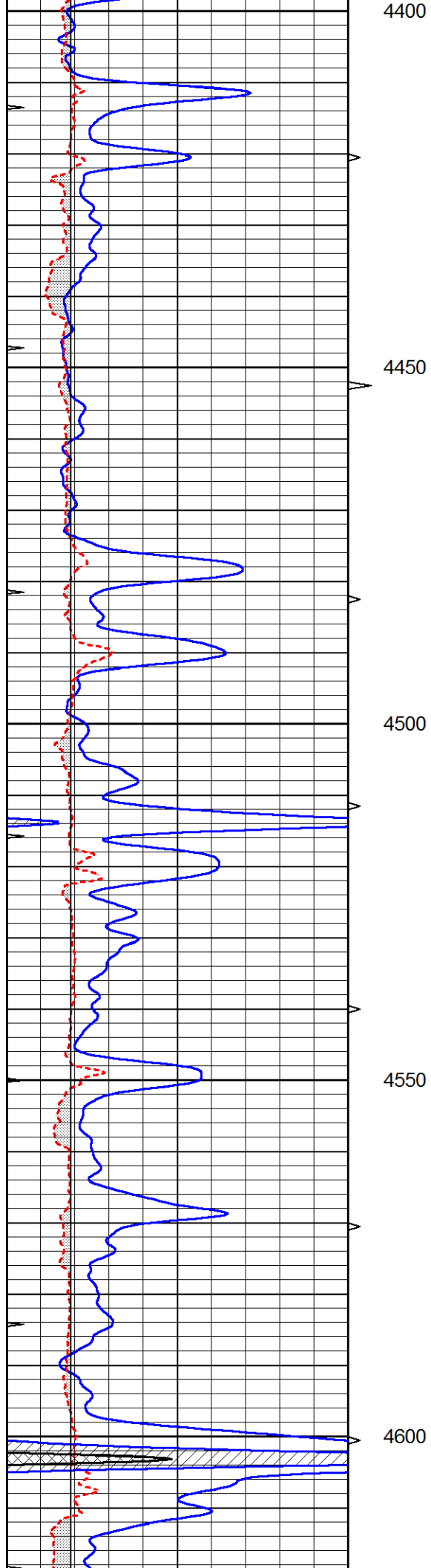
4200

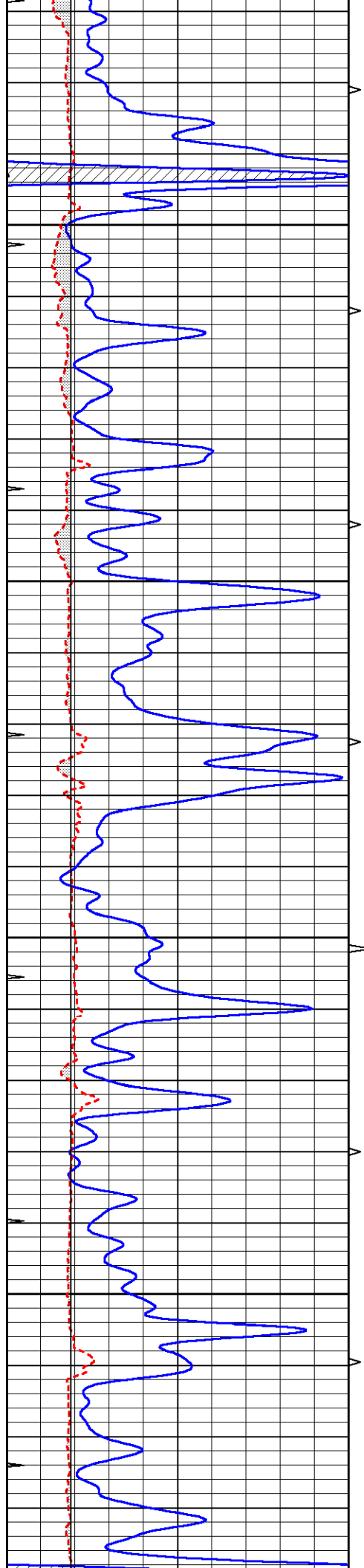
4250

4300

4350





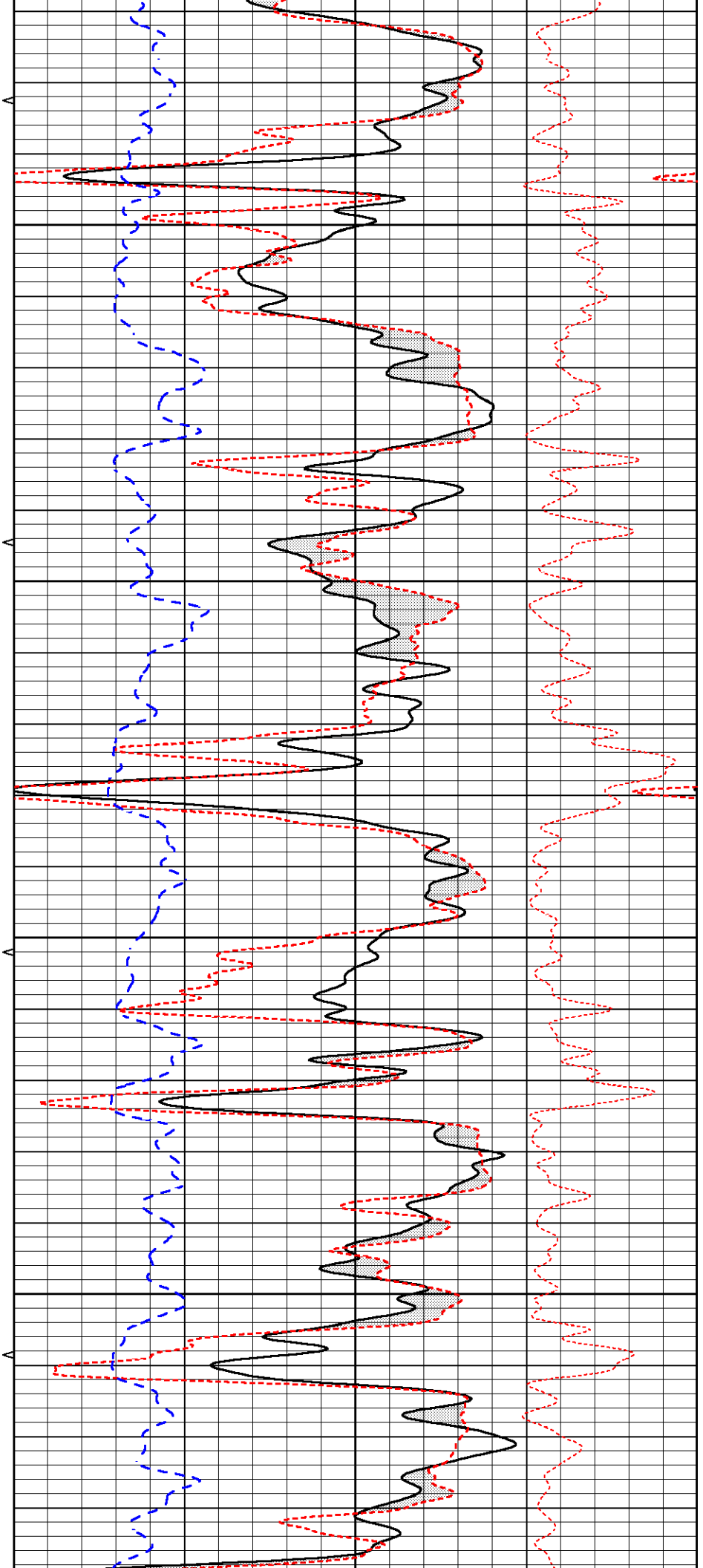


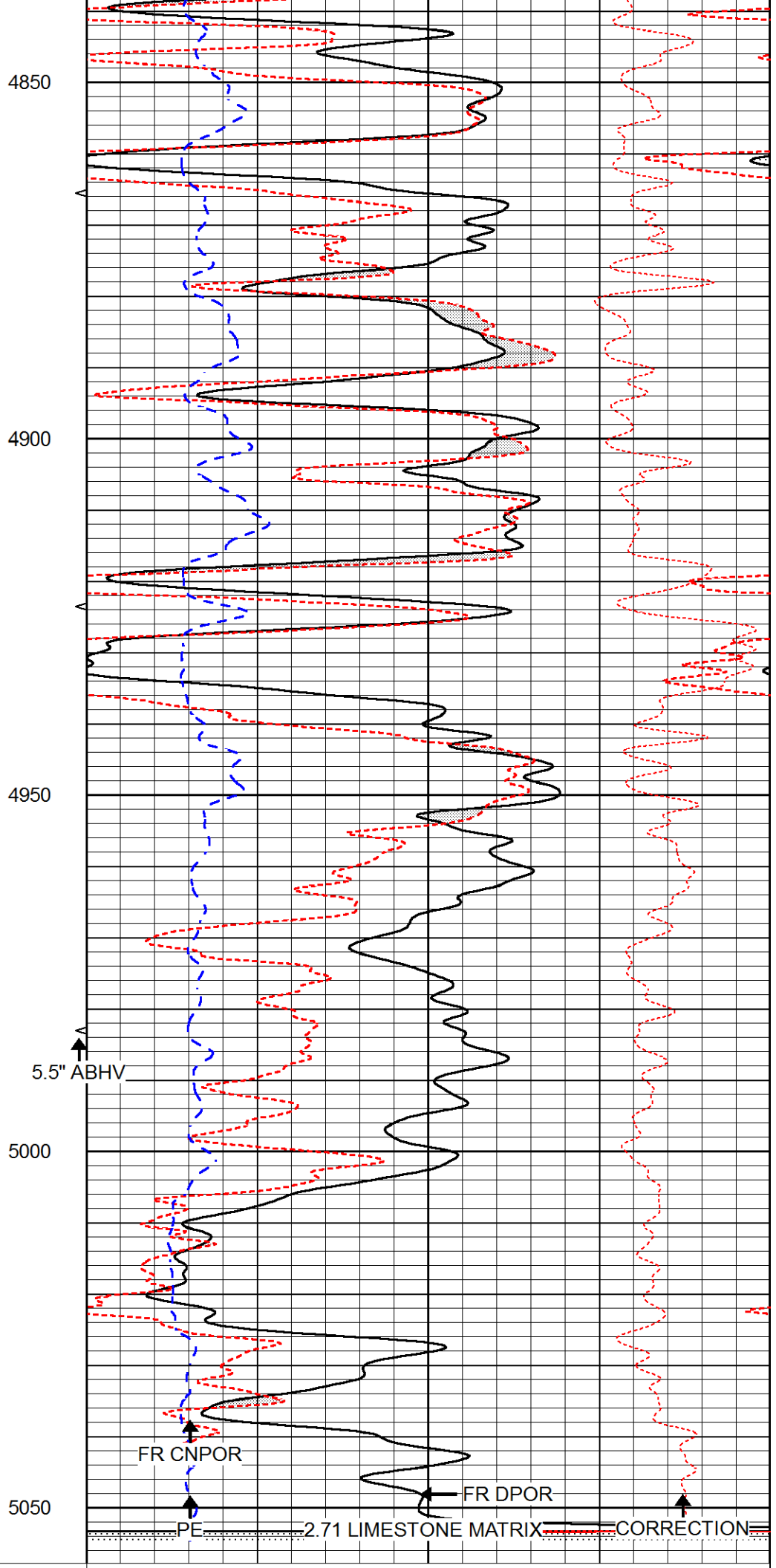
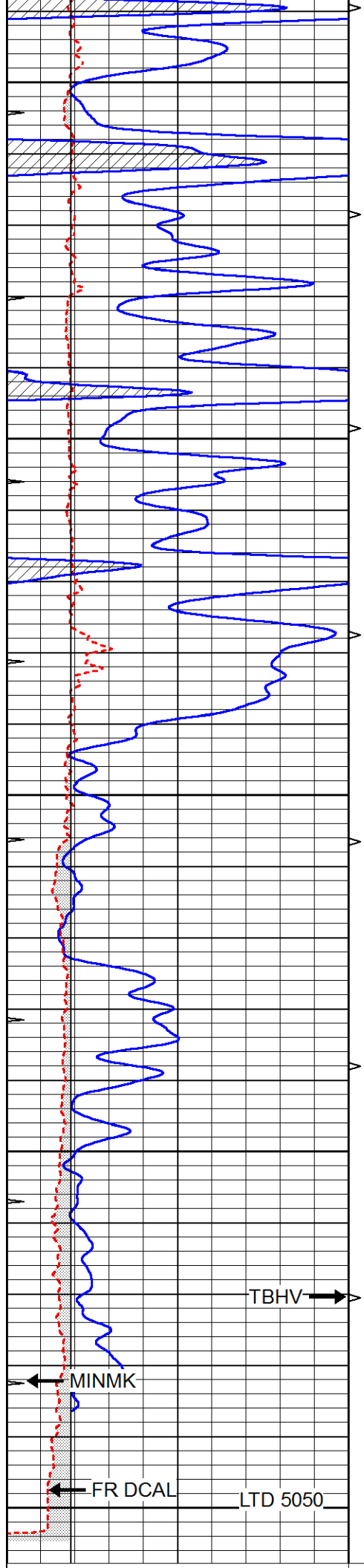
4650

4700

4750

4800





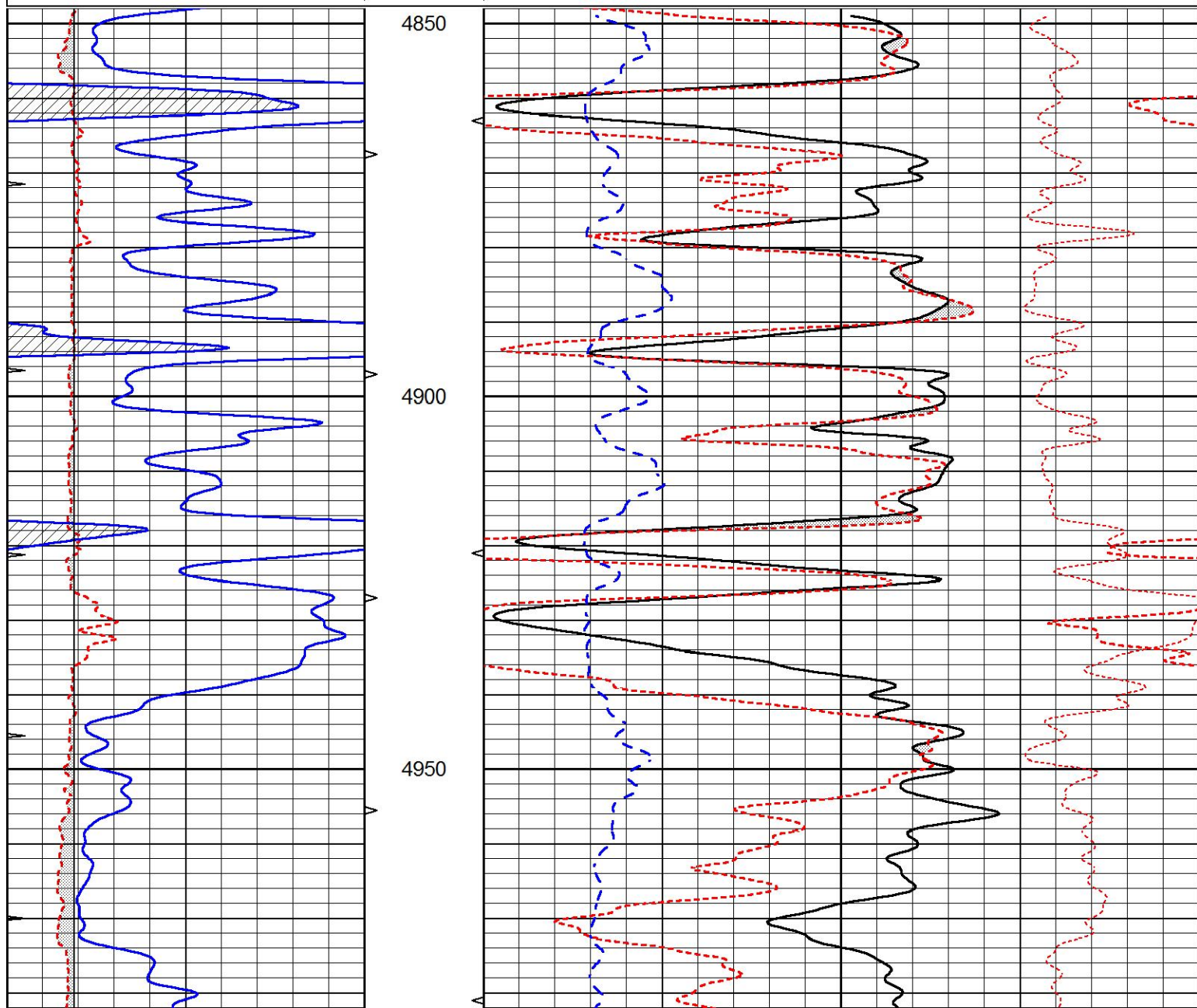
|   |                  |     |            |    |                          |                                 |
|---|------------------|-----|------------|----|--------------------------|---------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV       | 30 | COMPENSATED DENSITY (pu) | -10                             |
| 6 | CALIPER (in)     | 16  | 10 (ft3) 0 | 30 | COMPENSATED NEUTRON (pu) | -10                             |
| 0 | MINMK            | 20  | TBHV       | 0  | PE                       | 10 -0.25 CORRECTION (g/cc) 0.25 |
|   |                  |     | 0 (ft3) 10 |    |                          |                                 |

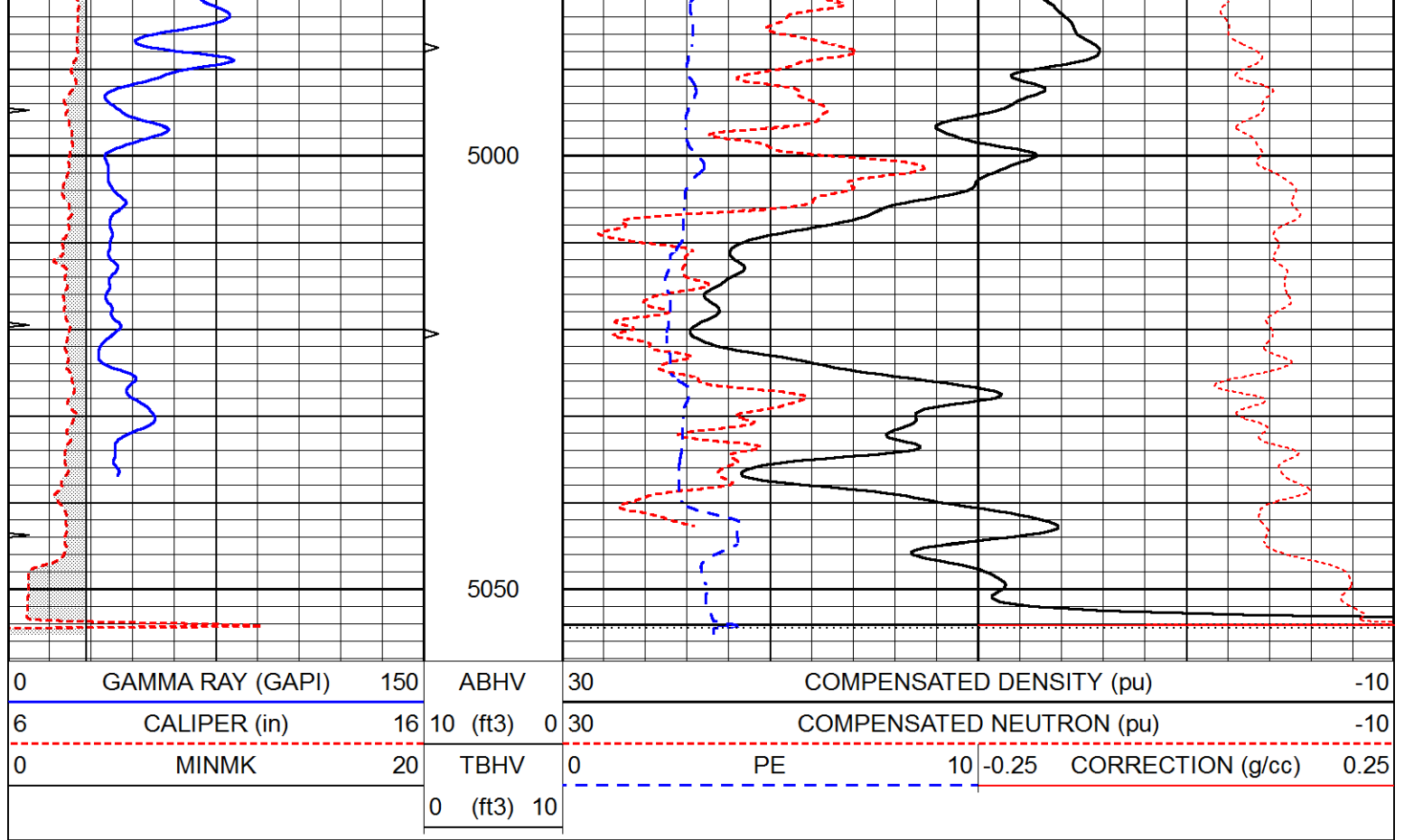


# REPEAT SECTION

Database File 6710pe.db  
 Dataset Pathname pass4.1R  
 Presentation Format \_ldt\_neu  
 Dataset Creation Tue Jul 12 05:43:38 2022  
 Charted by Depth in Feet scaled 1:240

|   |                  |     |            |    |                          |                                 |
|---|------------------|-----|------------|----|--------------------------|---------------------------------|
| 0 | GAMMA RAY (GAPI) | 150 | ABHV       | 30 | COMPENSATED DENSITY (pu) | -10                             |
| 6 | CALIPER (in)     | 16  | 10 (ft3) 0 | 30 | COMPENSATED NEUTRON (pu) | -10                             |
| 0 | MINMK            | 20  | TBHV       | 0  | PE                       | 10 -0.25 CORRECTION (g/cc) 0.25 |
|   |                  |     | 0 (ft3) 10 |    |                          |                                 |





| Calibration Report               |                          |             |                                    |                     |         |
|----------------------------------|--------------------------|-------------|------------------------------------|---------------------|---------|
| Database File                    | 6710pe.db                |             |                                    |                     |         |
| Dataset Pathname                 | pass5.1M                 |             |                                    |                     |         |
| Dataset Creation                 | Tue Jul 12 05:44:20 2022 |             |                                    |                     |         |
| Litho Density Calibration Report |                          |             |                                    |                     |         |
| Serial: 001N                     |                          | Model: PRB  |                                    |                     |         |
| Master Calibration               |                          |             | Performed Thu Mar 19 11:30:16 2020 |                     |         |
|                                  | Background               | Magnesium   | Aluminum                           | Aluminum+Fe         |         |
| Window 1                         | 1572.2                   | 7510.8      | 2837.3                             | 2643.1              | cps     |
| Window 2                         | 1446.2                   | 6523.9      | 2552.8                             | 2409.9              | cps     |
| Window 3                         | 1060.9                   | 3611.4      | 1731.5                             | 1684.8              | cps     |
| Window 4                         | 145.5                    | 363.4       | 363.2                              | 368.1               | cps     |
| Long Space                       | 0.0                      | 5077.7      | 1106.6                             | 963.7               | cps     |
| Short Space                      | 3.1                      | 1709.3      | 1103.4                             | 916.9               | cps     |
| Rho                              |                          | 1.7100      | 2.5900                             | 0.0000              | g/cc    |
| Pe                               |                          | 2.0000      | 2.7500                             | 5.7900              |         |
| Rib Angle                        | : 44.0                   | Rib Slope   | : 0.965                            | Density/Spine Ratio | : 0.555 |
| Spine Angle                      | : 74.0                   | Spine Slope | : 3.481                            | Spine Intercept     | : -17.4 |

| Before Survey Verification         |     |        |        |        |      |
|------------------------------------|-----|--------|--------|--------|------|
| Performed Wed Dec 31 18:00:00 1969 |     |        |        |        |      |
| Window 1                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Window 2                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Window 3                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Window 4                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Long Space                         | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Short Space                        | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Measured Rho                       |     | 0.0000 | 0.0000 | 0.0000 | g/cc |

|                                    |     |        |        |        |      |
|------------------------------------|-----|--------|--------|--------|------|
| Measured Correction                |     | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe                        |     |        | 0.0000 | 0.0000 |      |
| After Survey Verification          |     |        |        |        |      |
| Performed Wed Dec 31 18:00:00 1969 |     |        |        |        |      |
| Window 1                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Window 2                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Window 3                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Window 4                           | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Long Space                         | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Short Space                        | 0.0 | 0.0    | 0.0    | 0.0    | cps  |
| Measured Rho                       |     | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Correction                |     | 0.0000 | 0.0000 | 0.0000 | g/cc |
| Measured Pe                        |     |        | 0.0000 | 0.0000 |      |

| 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        |
| PRE-SURVEY VERIFICATION                |             |                |     |          |     |               |
|                                        | Detector    | Readings       |     | Measured |     | Target        |
| 1)                                     | Short Space |                | cps |          |     |               |
|                                        | Long Space  |                | cps | pu       |     | pu            |
| 2)                                     | Short Space |                | cps |          |     |               |
|                                        | Long Space  |                | cps | pu       |     |               |
| 3)                                     | Short Space |                | cps |          |     |               |
|                                        | Long Space  |                | cps | pu       |     |               |
| POST-SURVEY VERIFICATION               |             |                |     |          |     |               |
|                                        | Detector    | Readings       |     | Measured |     | Target        |
| 1)                                     | Short Space |                | cps |          |     |               |
|                                        | Long Space  |                | cps | pu       |     | pu            |
| 2)                                     | Short Space |                | cps |          |     |               |
|                                        | Long Space  |                | cps | pu       |     | pu            |
| 3)                                     | Short Space |                | cps |          |     |               |
|                                        | Long Space  |                | cps | pu       |     | pu            |

|                              |  |                          |      |  |  |
|------------------------------|--|--------------------------|------|--|--|
| Gamma Ray Calibration Report |  |                          |      |  |  |
| Serial Number:               |  | GR6                      |      |  |  |
| Tool Model:                  |  | OPEN                     |      |  |  |
| Performed:                   |  | Mon Jun 20 01:31:16 2022 |      |  |  |
| Calibrator Value:            |  | 150.0                    | GAPI |  |  |
| Background Reading:          |  | 0.0                      | cps  |  |  |
| Calibrator Reading:          |  | 276.0                    | cps  |  |  |

Sensitivity:

0.8500

GAPI/cps