



Pioneer Energy Services

Dual Compensated Porosity Log

Company Larson Engineering, Inc.
Well Ehmke-Fisher # 1-19
Field North Fork
County Lane
State Kansas

Location 2572' FNL & 2017' FWL
Sec: 19 **Twp:** 17S **Rge:** 29W

Permanent Datum Ground Level Elevation 2829
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
 DIL/MEL
Elevation
 K.B. 2838
 D.F. G.I.L. 2829

15-101-22542-00-00

| | | | | | | | |
|------------------------|-------------|------|-----|-------|------|------|-----|
| Date | 12/2/2014 | | | | | | |
| Run Number | One | | | | | | |
| Type Log | CNL / CDL | | | | | | |
| Depth Driller | 4620 | | | | | | |
| Depth Logger | 4620 | | | | | | |
| Bottom Logged Interval | 4591 | | | | | | |
| Top Logged Interval | 3600 | | | | | | |
| Type Fluid In Hole | Chemical | | | | | | |
| Salinity, PPM CL | 1500 | | | | | | |
| Density | 9.1 | | | | | | |
| Level | Full | | | | | | |
| Max. Rec. Temp. F | 124 | | | | | | |
| Operating Rig Time | 3 Hours | | | | | | |
| Equipment -- Location | 91 Hays | | | | | | |
| Recorded By | M. Beougher | | | | | | |
| Witnessed By | Vern Schrag | | | | | | |
| Borehole Record | | | | | | | |
| Run No | Bit | From | To | Size | Wgt. | From | To |
| One | 12.25 | 00 | 253 | 8.625 | 23# | 00 | 253 |
| Two | 7.875 | 253 | TD | | | | |
| Casing Record | | | | | | | |

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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.

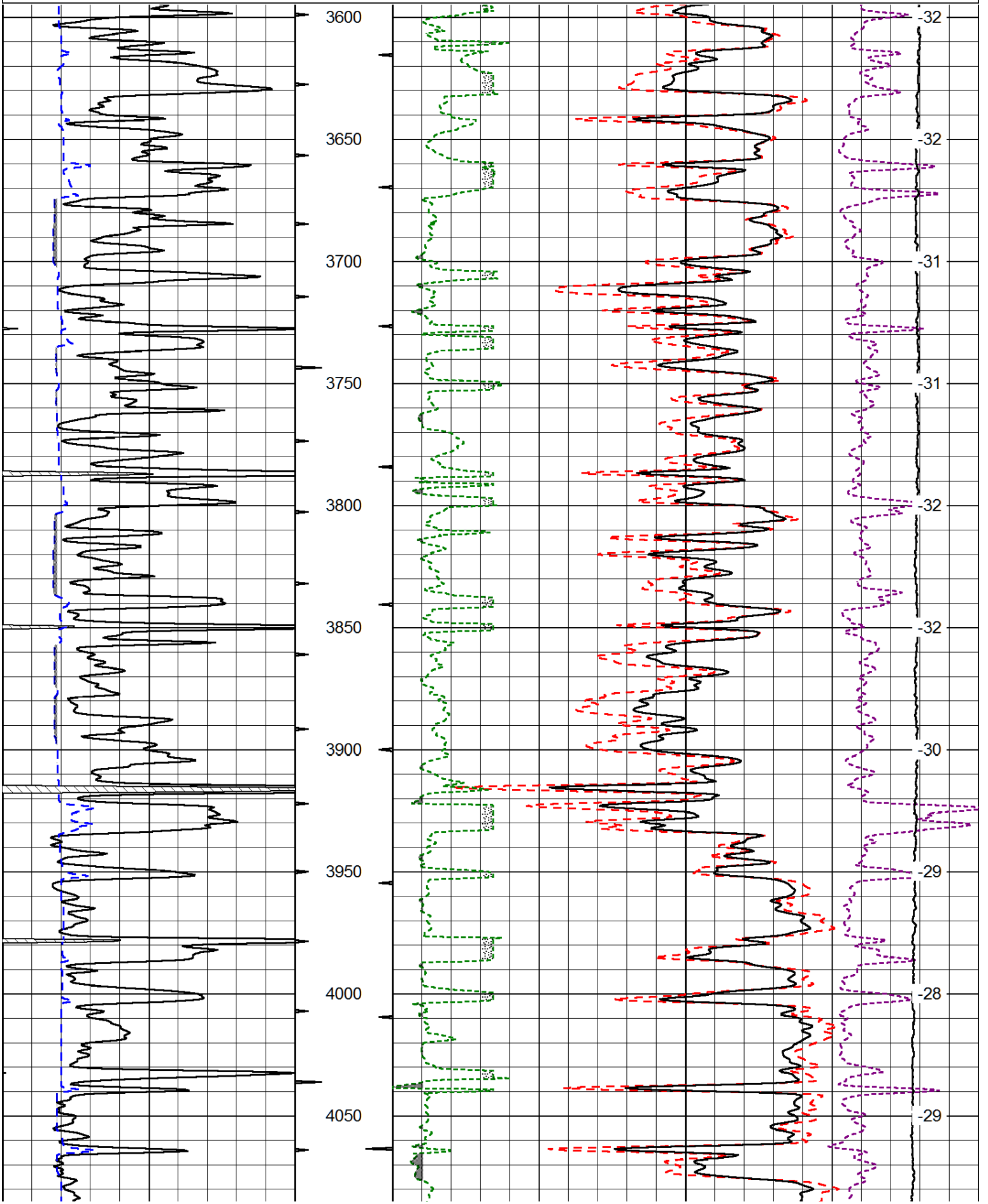
Comments

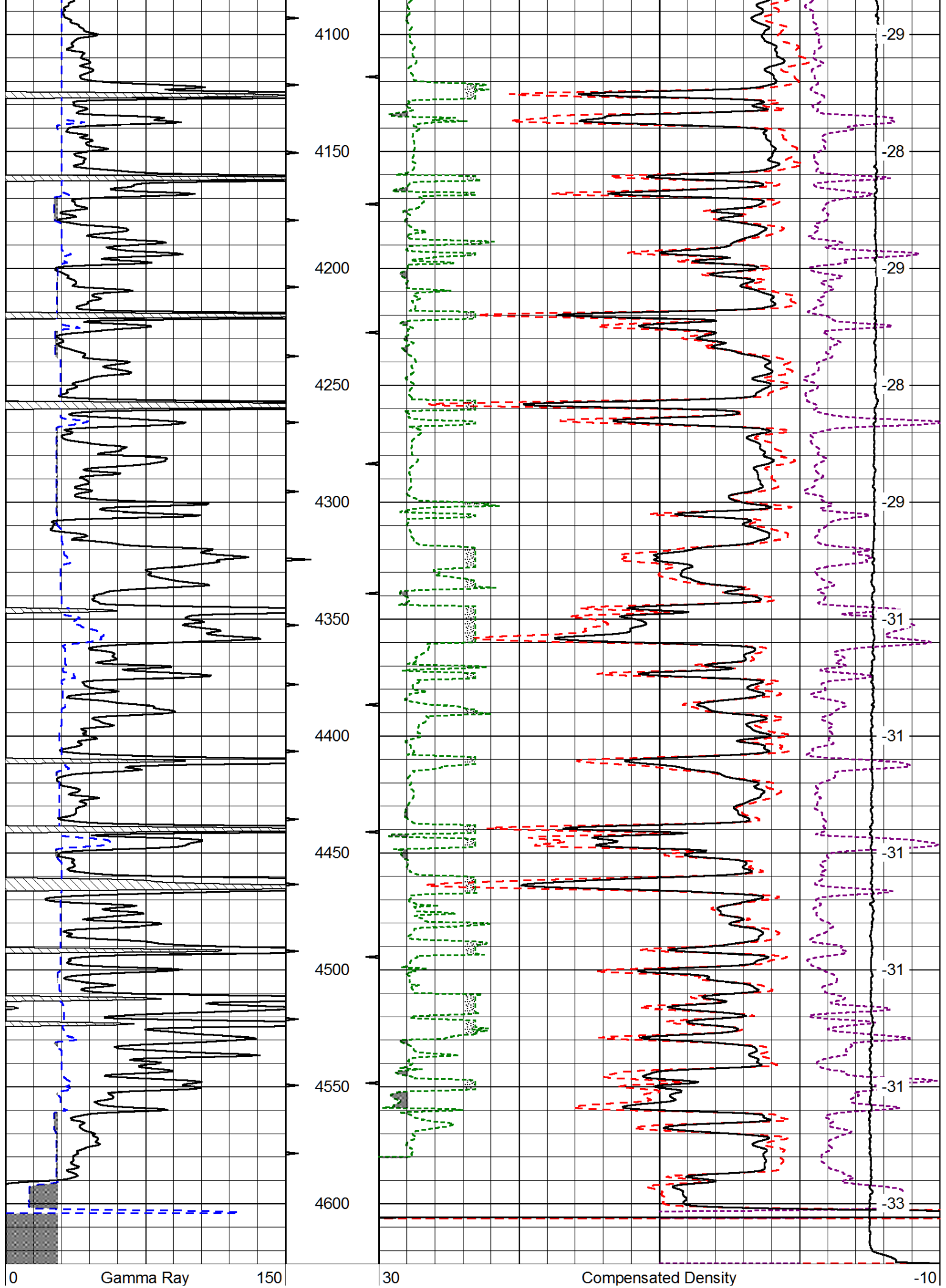
Thank you for using Log-Tech, Inc.
 (785) 625-3858
 Dighton,
 7 West to Eagle RD,
 5 North to 200 RD,
 1 East to Frontier RD,
 1/2 North,
 East Into

Database File: laron_ehmke_fisher_1_19hd.db
 Dataset Pathname: dil/lastkml
 Presentation Format: cdl
 Dataset Creation: Tue Dec 02 21:09:55 2014
 Charted by: Depth in Feet scaled 1:600

| | | |
|---|----------------|-----|
| 0 | Gamma Ray | 150 |
| 6 | Caliper (GAPI) | 16 |

| | | | |
|-------|---------------------|-------|------------|
| 30 | Compensated Density | | -10 |
| 2 | Bulk Density | | 3 |
| 15000 | Line Tension | | 0 |
| 2.625 | DGA | 3.425 | -0.25 |
| | | | Correction |
| | | | 0.25 |
| LSPD | | | |





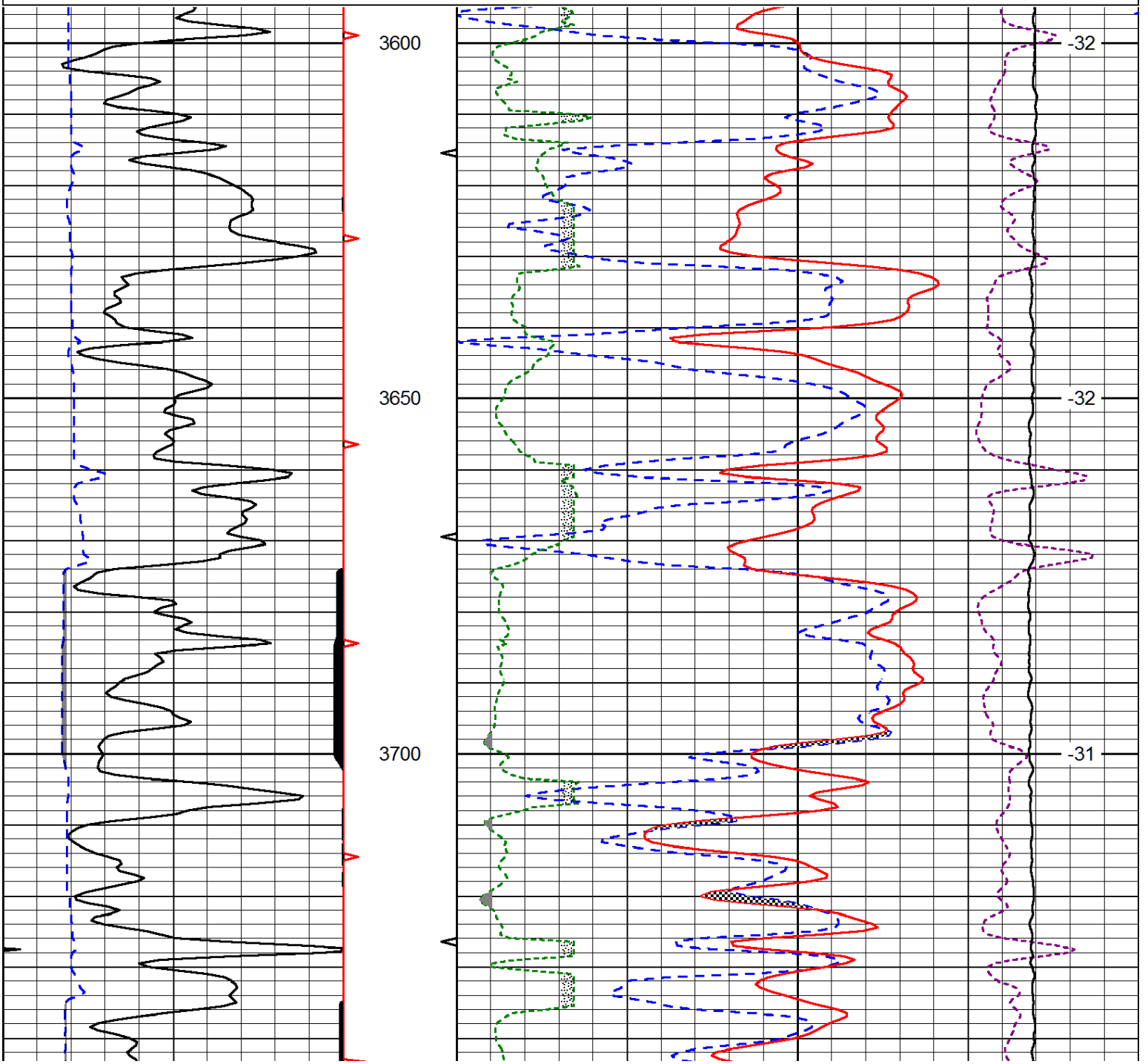
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|---|----------------|----|
| 6 | Caliper (GAPI) | 16 |
|---|----------------|----|

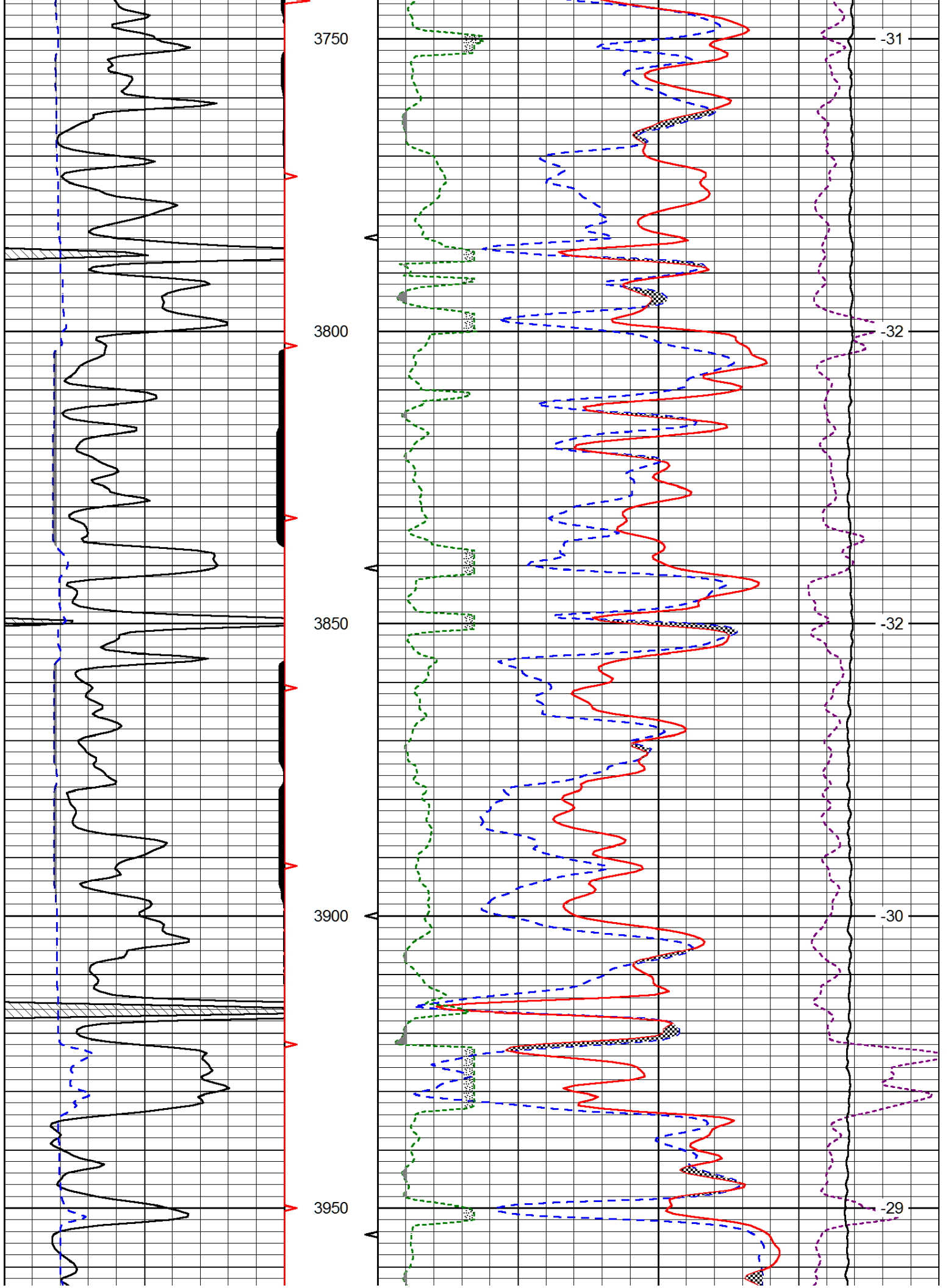
| | | | |
|-------|-----|--------------|-------|
| 2 | | Bulk Density | 3 |
| 15000 | | Line Tension | 0 |
| 2.625 | DGA | 3.425 | -0.25 |
| | | Correction | 0.25 |
| LSPD | | | |

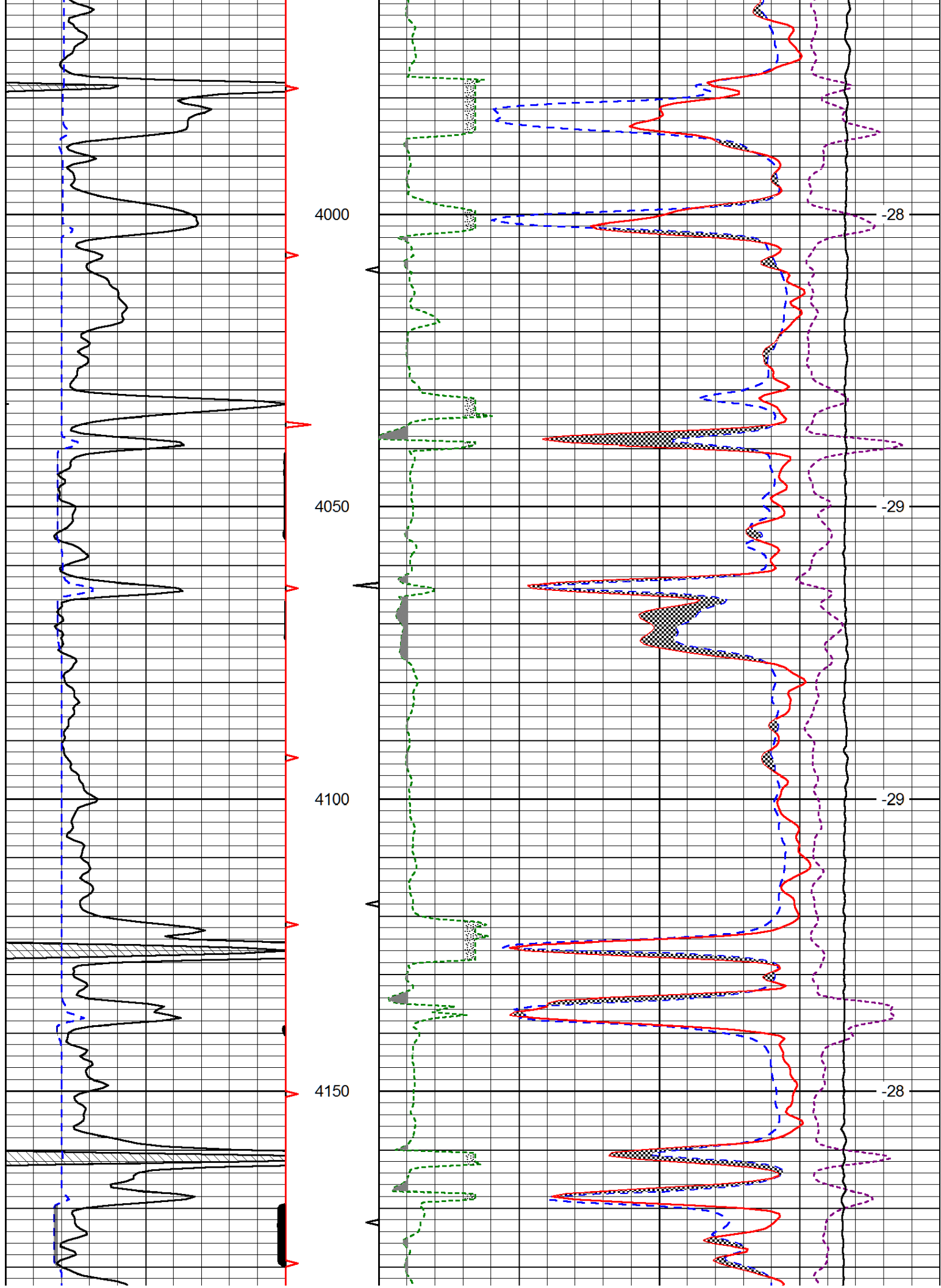
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 Presentation Format: cndlspec
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 Charted by: Depth in Feet scaled 1:240

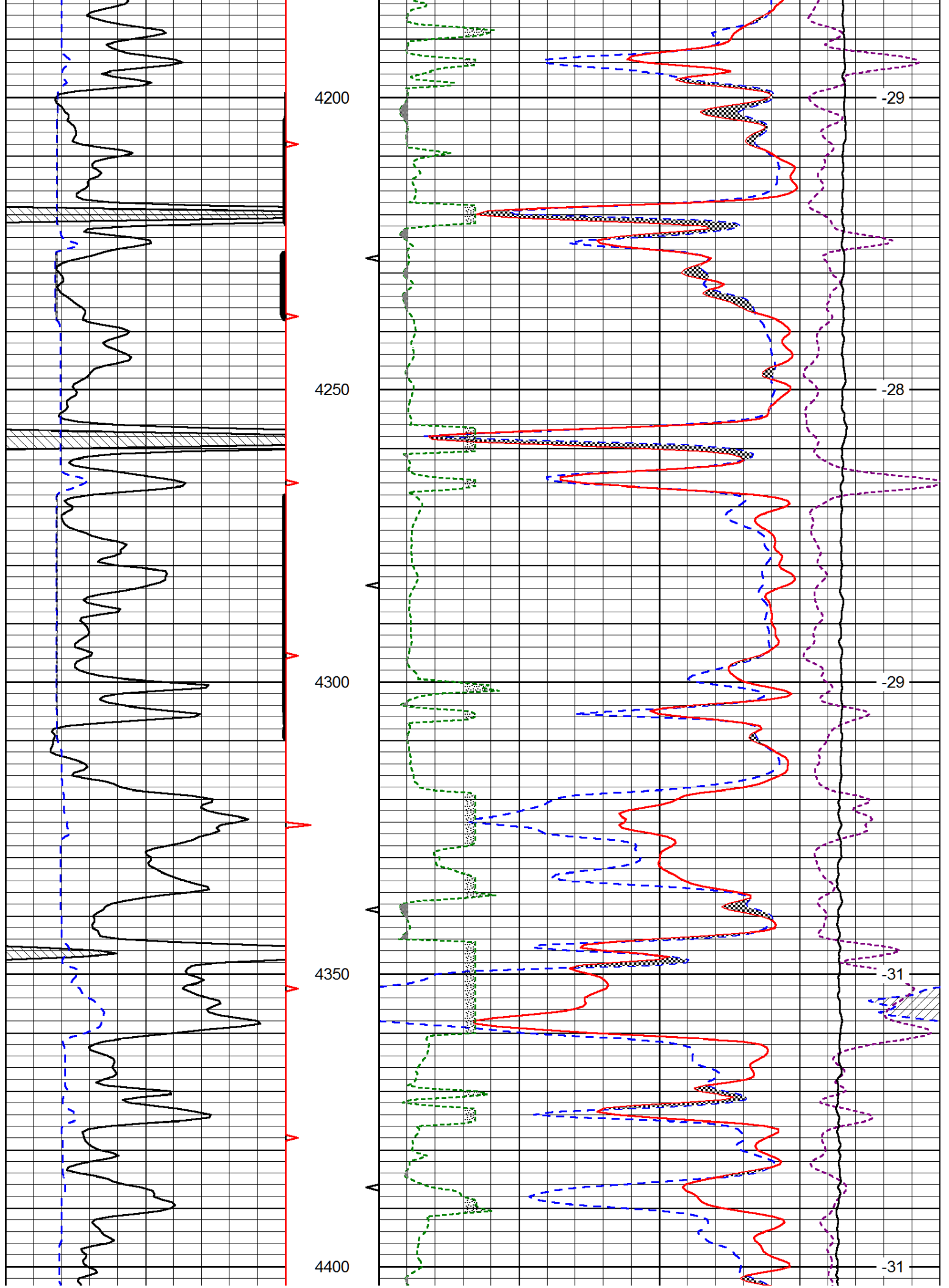
| | | |
|---|----------------|-----|
| 0 | Gamma Ray | 150 |
| 6 | Caliper (GAPI) | 16 |

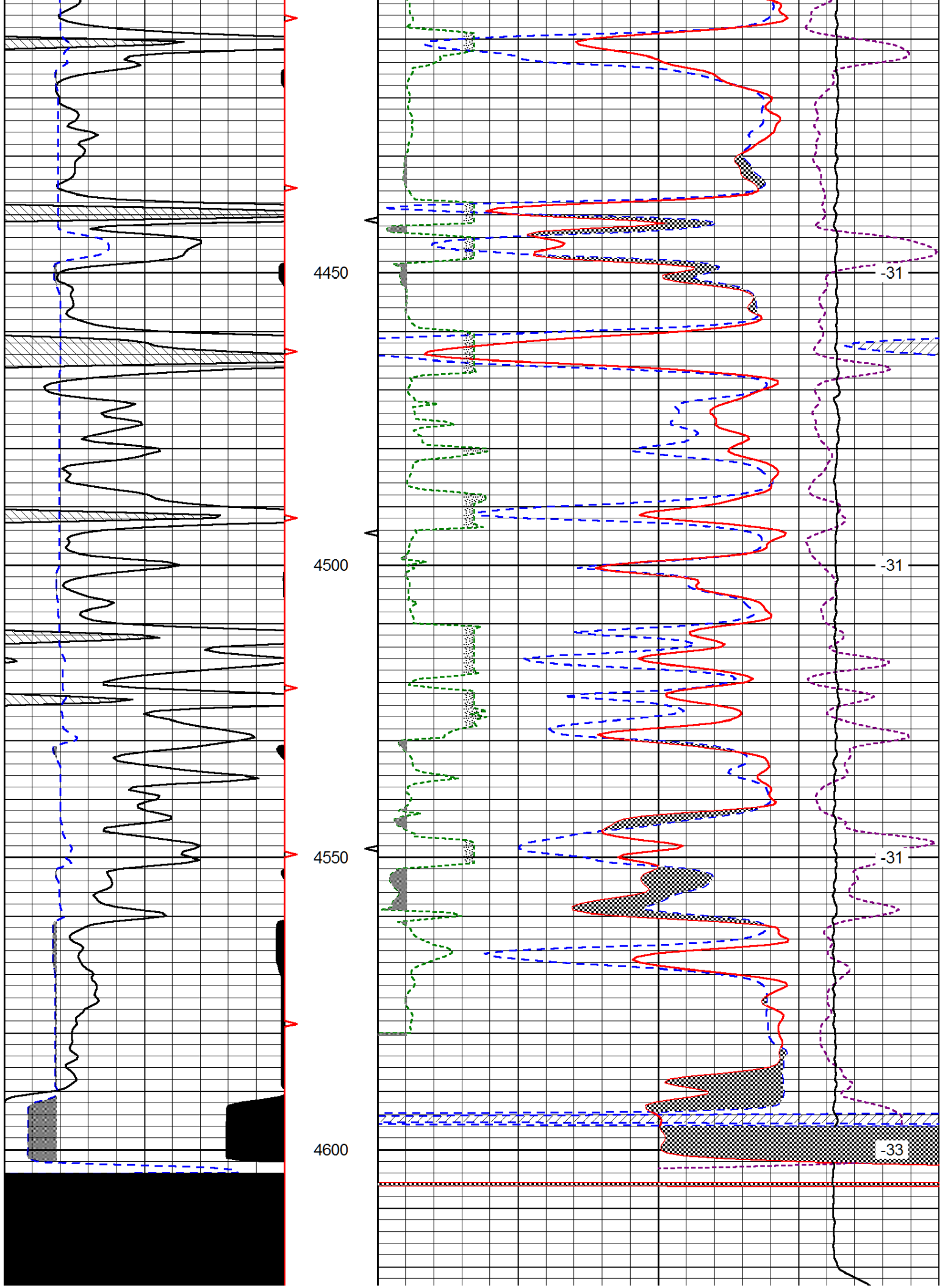
| | | | |
|-------|-----|-------------------------------|-------|
| 30 | | CNLS | -10 |
| 30 | | Compensated Density (2.71 ma) | -10 |
| 2.625 | DGA | 3.425 | -0.25 |
| | | Correction | 0.25 |
| 10000 | | Line Tension | 0 |
| LSPD | | | |











| | | | | | | | | |
|---|----------------|-----|-------|-------------------------------|-------|-------|------------|------|
| 0 | Gamma Ray | 150 | 30 | CNLS | | | -10 | |
| 6 | Caliper (GAPI) | 16 | 30 | Compensated Density (2.71 ma) | | | -10 | |
| | | | 2.625 | DGA | 3.425 | -0.25 | Correction | 0.25 |
| | | | 10000 | Line Tension | | | 0 | |
| | | | | | | | LSPD | |