PIONEER

Pioneer Energy Services

# Dual Compensated Porosity Log

| | |
|---|---|
| Company | H&B Petroleum Corporation |
| Well | Ashworth #1 |
| Field | Hurray |
| County | Pawnee State Kansas |
| API No. | 15-145-21,747-00-00 |

Location

1615' FSL & 330' FEL

Sec: 3 Twp: 22S Rge: 15W

| | |
|---|---|
| Permanent Datum | Ground Level |
| Log Measured From | Kelly Bushing |
| Drilling Measured From | Kelly Bushing |
| Elevation | 1973 |
| | 10 Ft. Above Perm. Datum |

Other Services
DIL
MEL/BHCS

| Elevation | |
|---|---|
| K.B. | 1983 |
| D.F. | |
| G.L. | 1973 |

| | |
|---|---|
| Date | 1/23/2014 |
| Run Number | One |
| Type Log | CNL / CDL |
| Depth Driller | 4035 |
| Depth Logger | 4034 |
| Bottom Logged Interval | 4013 |
| Top Logged Interval | 3000 |
| Type Fluid In Hole | Chemical |
| Salinity, PPM CL | 5000 |
| Density | 9.1 |
| Level | Full |
| Max. Rec. Temp. F | 116 |
| Operating Rig Time | 5 Hours |
| Equipment -- Location | 15 Hays |
| Recorded By | D.Kerr |
| Witnessed By | Jim Musgrove |

Borehole Record

| Run No. | Bit | From | To |
|---|---|---|---|
| 1 | 12.25 | 00 | 962 |
| 2 | 7.875 | 962 | 4035 |

Casing Record

| Size | Wgt. | From | To |
|---|---|---|---|
| 8.625 | 24# | 00 | 962 |

<<< Fold Here >>>

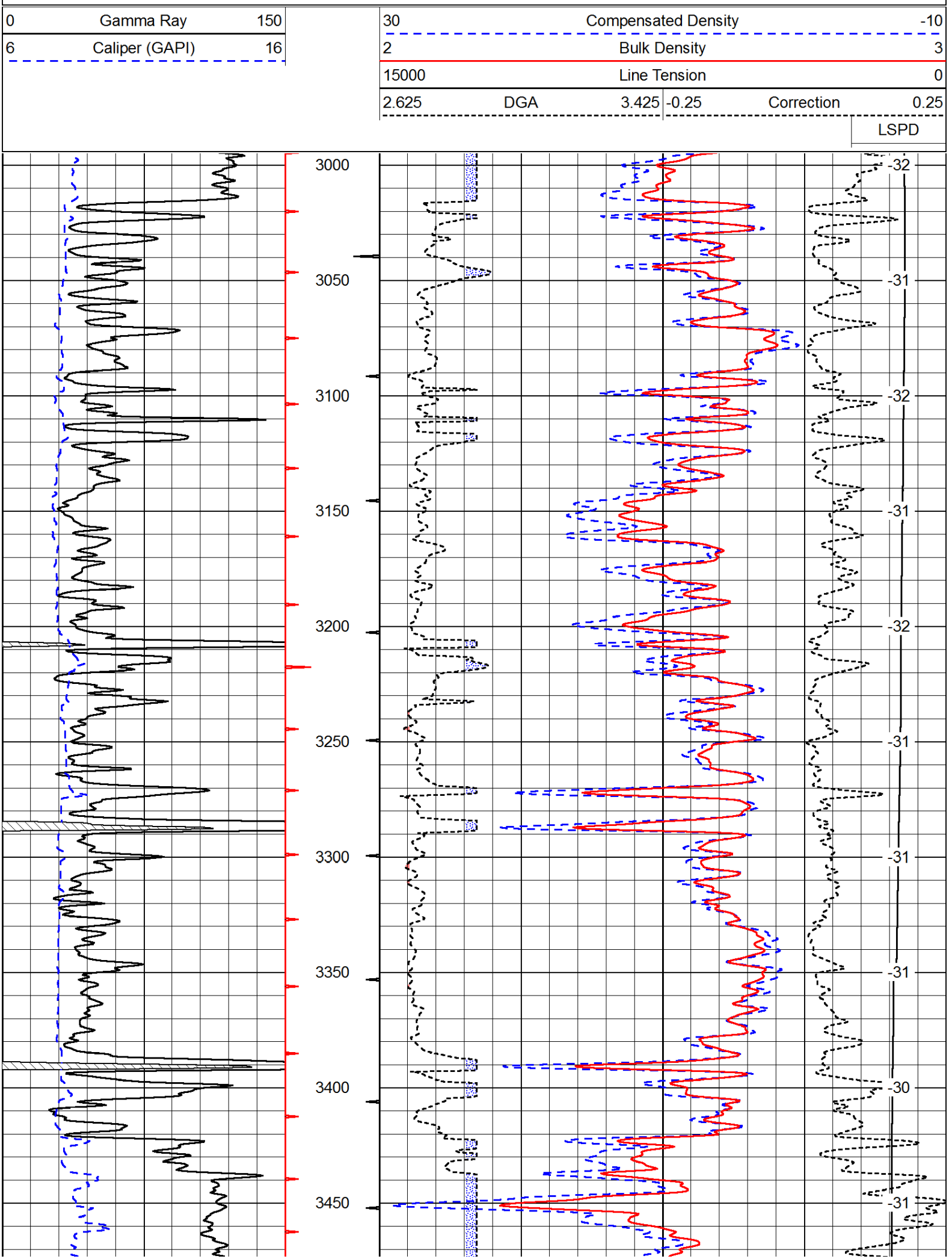
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

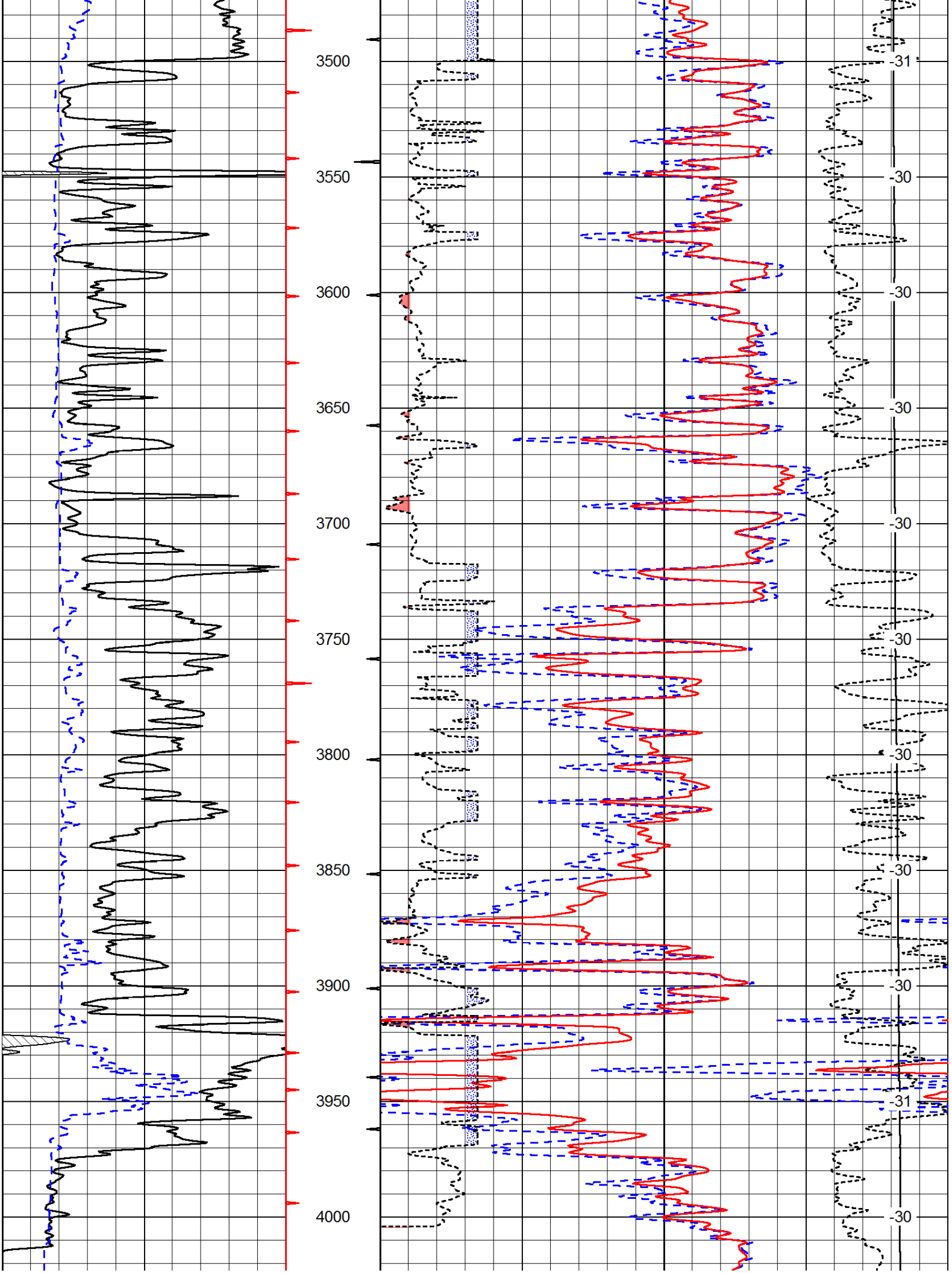
## Comments

Thank you for using Pioneer Energy Services
www.pioneeres.com
785 625 3858

Larned KS, East on K-19 to 30 RD,
1/2 North, West Into

| | |
|---|---|
| Database File: | c:\warrior\data\h&b_ashworth #1\h&b_ashworth_1hd.db |
| Dataset Pathname: | cpi/hbstk |
| Presentation Format: | cdl |
| Dataset Creation: | Thu Jan 23 09:01:03 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
3000
3050
3100
3150
3200
3250
3300
3350
3400
3450
-32
-31
-32
-31
-32
-31
-31
-31
-30
-31


3500
3550
3600
3650
3700
3750
3800
3850
3900
3950
4000
-31
-30
-30
-30
-30
-30
-30
-30
-31
-30

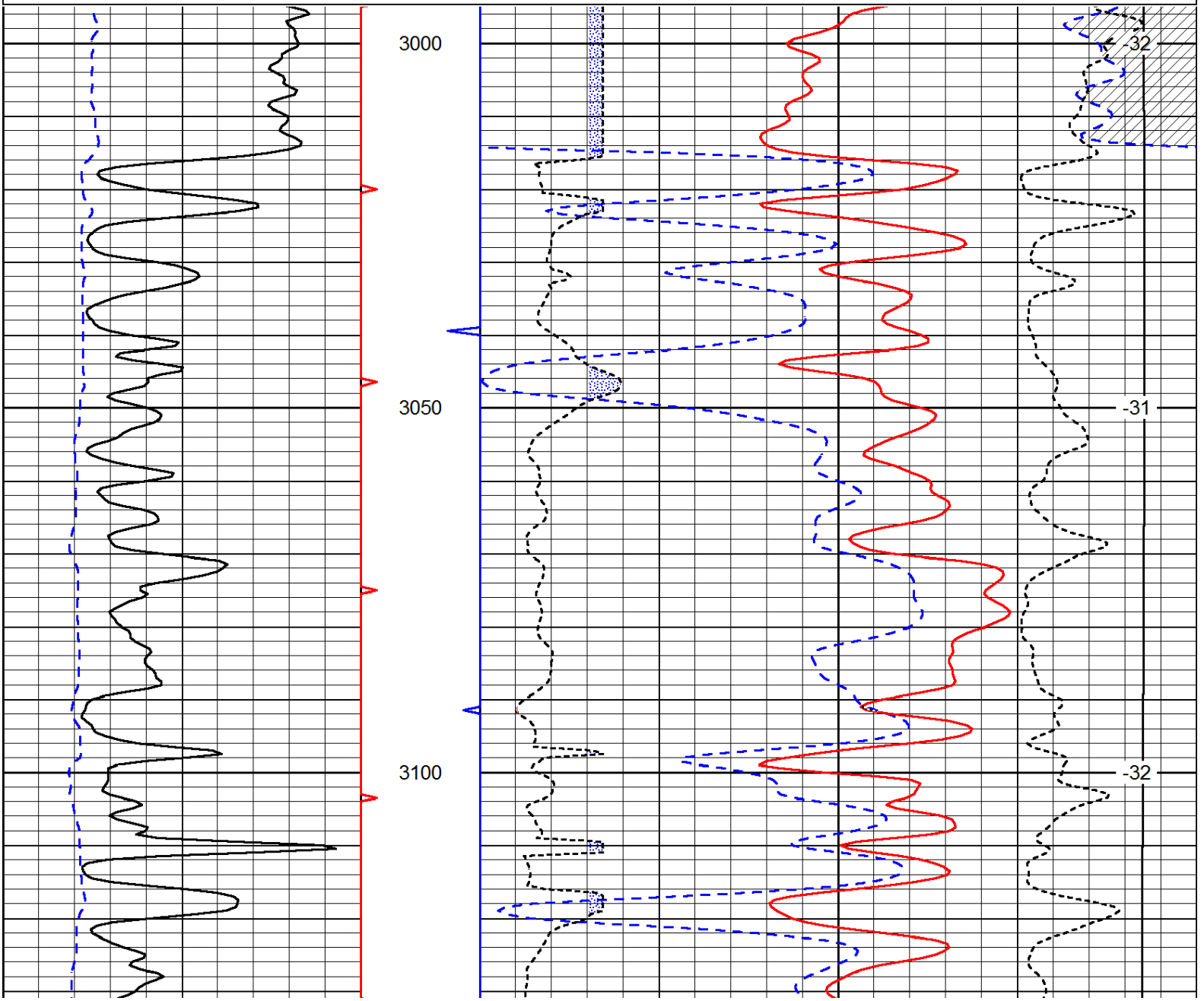
| | | |
|---|---|---|
| 0 | Gamma Ray | 150 |
| 6 | Caliper (GAPI) | 16 |

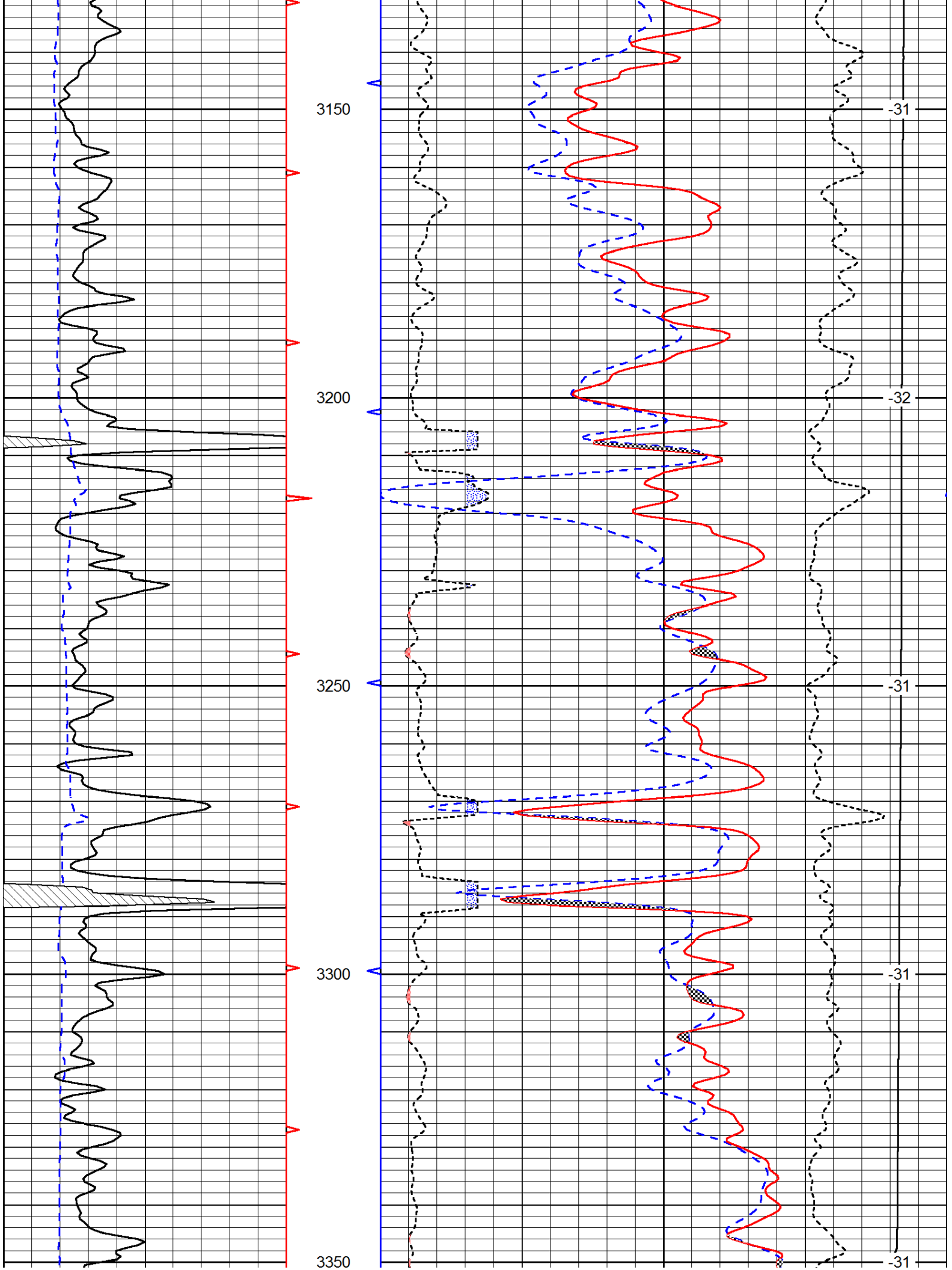
| | | | | | |
|---|---|---|---|---|---|
| 30 | Compensated Density | | | | -10 |
| 2 | Bulk Density | | | | 3 |
| 15000 | Line Tension | | | | 0 |
| 2.625 | DGA | 3.425 | -0.25 | Correction | 0.25 |
| | | | | | LSPD |

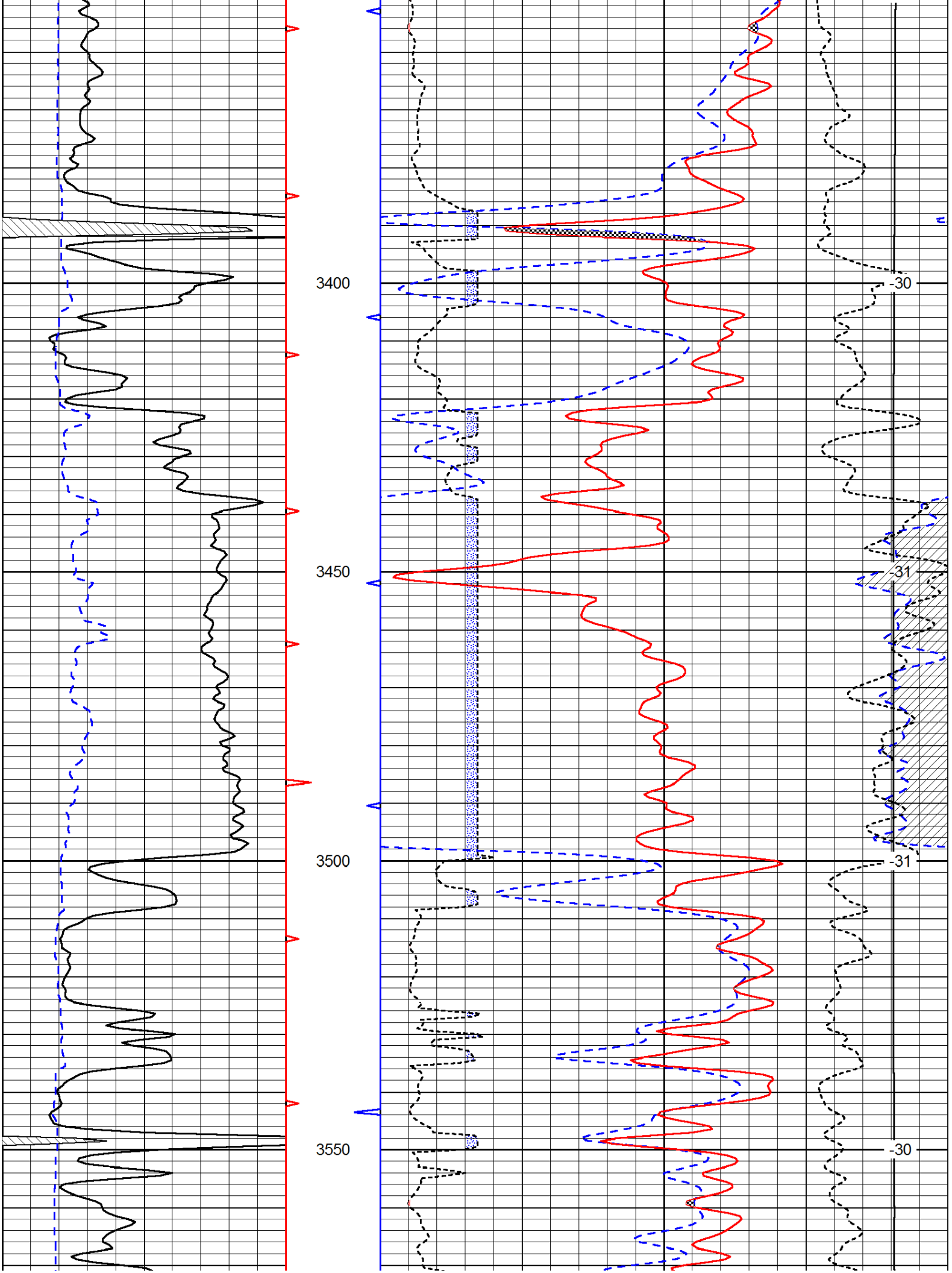
Database File: c:\warrior\data\h&b_ashworth #1\h&b_ashworth_1hd.db
Dataset Pathname: cpi/hbstk
Presentation Format: cndlspec
Dataset Creation: Thu Jan 23 09:01:03 2014
Charted by: Depth in Feet scaled 1:240

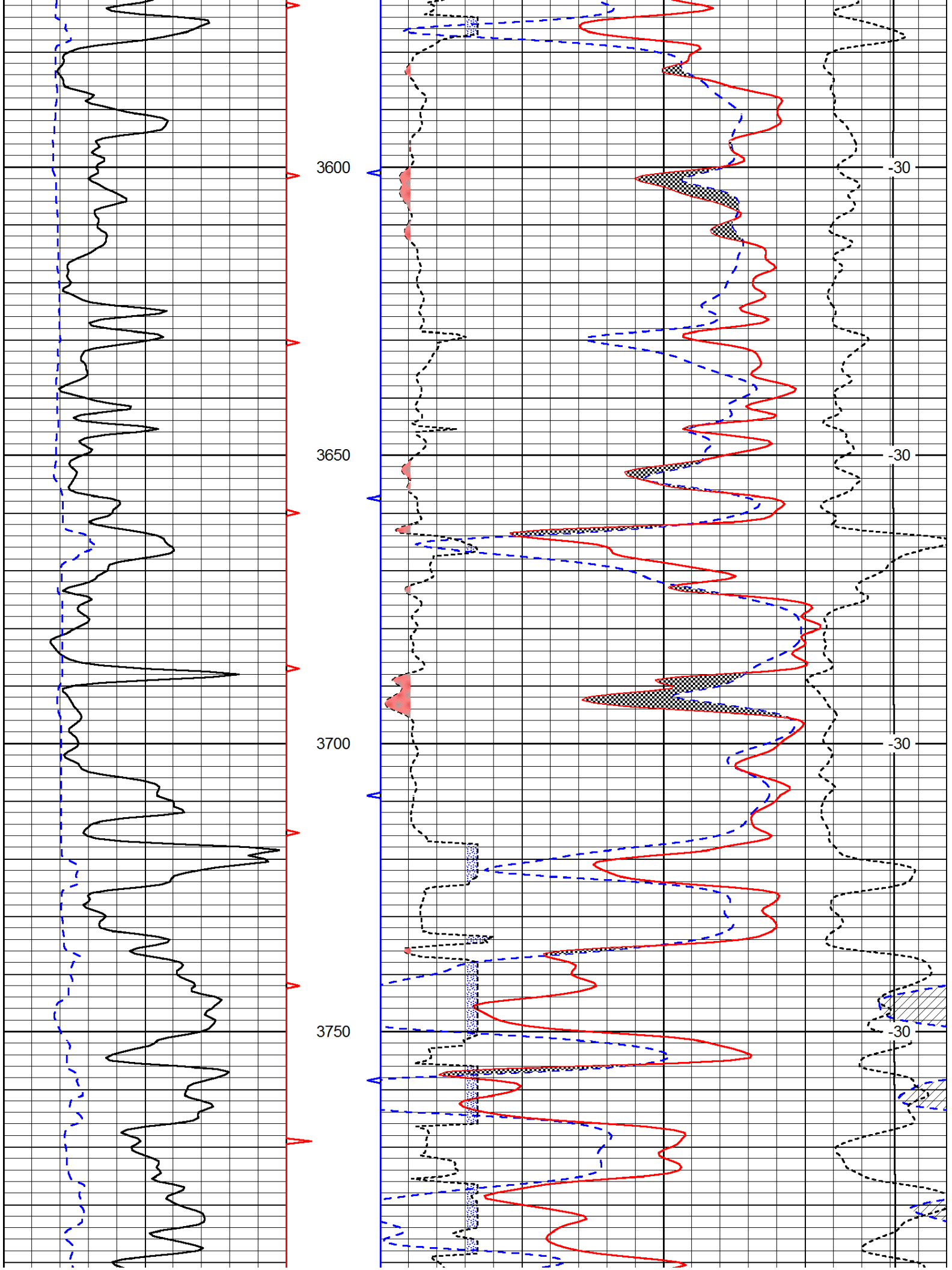
| | | |
|---|---|---|
| 0 | Gamma Ray | 150 |
| 6 | Caliper (GAPI) | 16 |

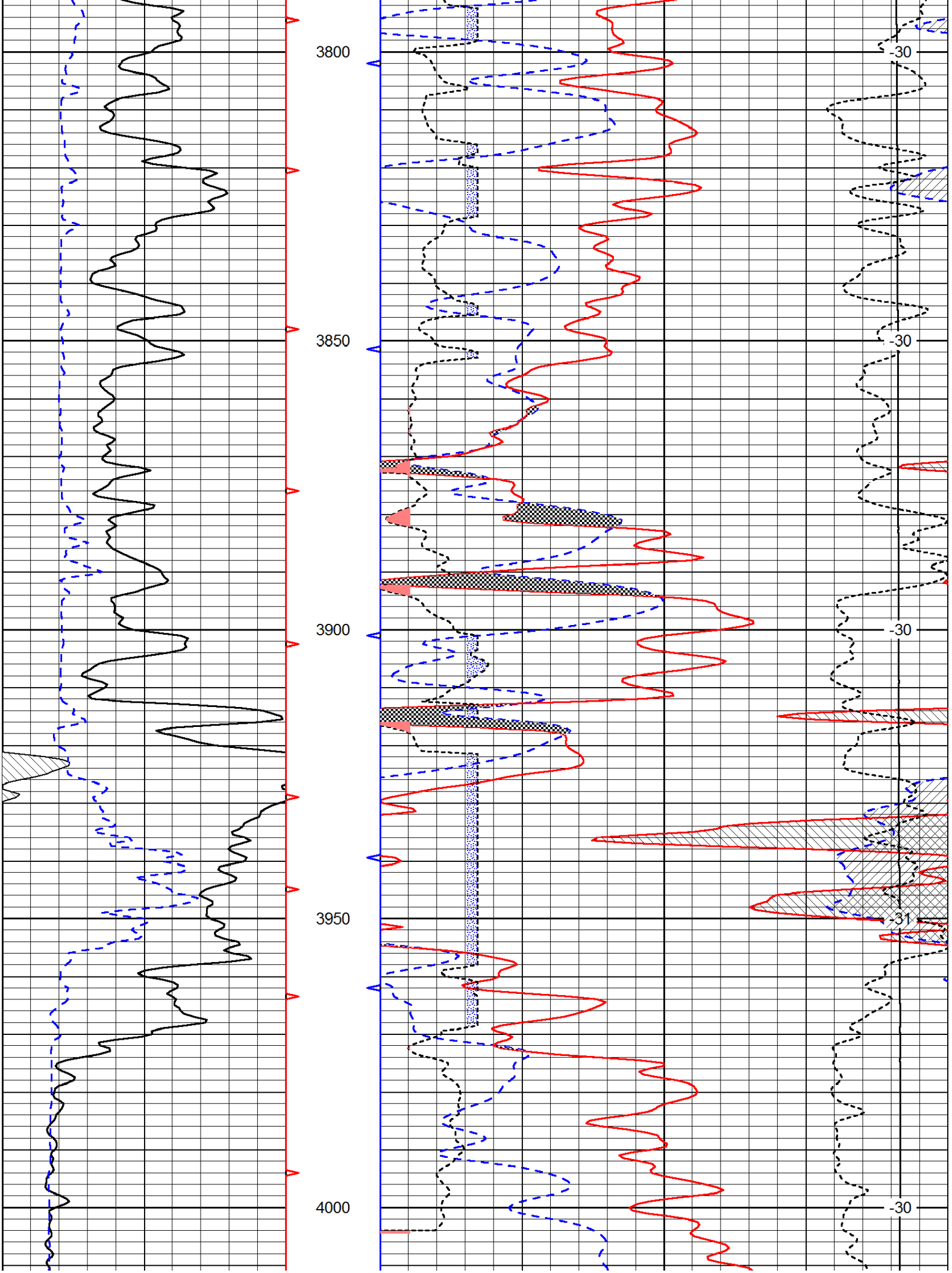
| | | | | | |
|---|---|---|---|---|---|
| 30 | Compensated Neutron (Limestone) | | | | -10 |
| 30 | Compensated Density (Limestone) | | | | -10 |
| 2.625 | DGA | 3.425 | -0.25 | Correction | 0.25 |
| 15000 | Line Tension | | | | 0 |
| | | | | | LSPD |

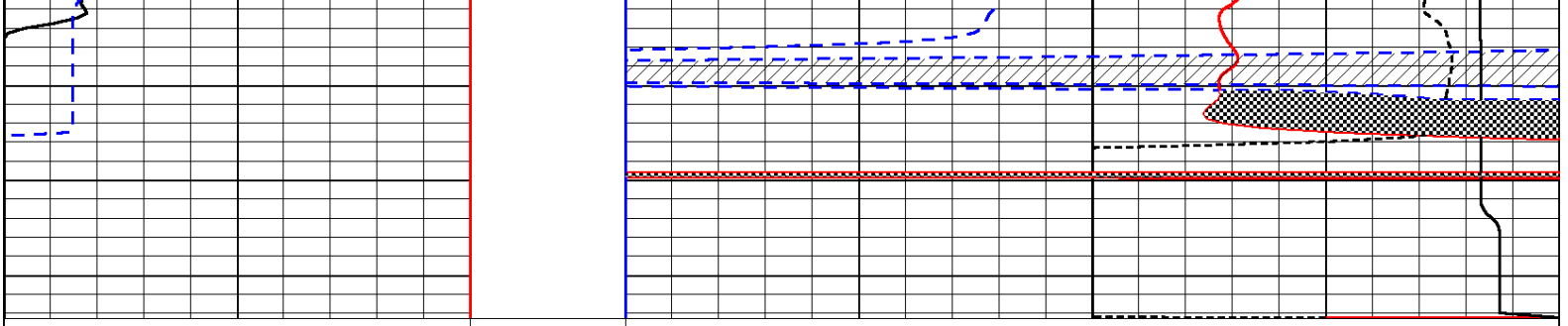



3150
3200
3250
3300
3350
-31
-32
-31
-31
-31


3400
3450
3500
3550
-30
-31
-31
-30


3600
3650
3700
3750
-30
-30
-30


3800
3850
3900
3950
4000
-30
-30
-30
-31
-30



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

| | | | | | |
|---|---|---|---|---|---|
| 30 | Compensated Neutron (Limestone) | | | | -10 |
| 30 | Compensated Density (Limestone) | | | | -10 |
| 2.625 | DGA | 3.425 | -0.25 | Correction | 0.25 |
| 15000 | Line Tension | | | | 0 |

LSPD