



Pioneer Energy Services

Dual Compensated Porosity Log

15-159-22,775-00-00

Company RAMA Operating Company, Inc.
Well Knop No. 7-30
Field Chase-Silica
County Rice
State Kansas

Location NE-NE-SW
 2310' FSL & 2310' FWL
 Sec: 30 Twp: 19S Rge: 10W

Other Services
 DILMEL

Permanent Datum Ground Level Elevation 1769
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Elevation
 K.B. 1778
 D.F. 1769
 G.L. 1769

| | | |
|------------------------|---------------|--|
| Date | 4/27/14 | |
| Run Number | One | |
| Type Log | CNL / CDL | |
| Depth Driller | 3700 | |
| Depth Logger | 3695 | |
| Bottom Logged Interval | 3674 | |
| Top Logged Interval | 2600 | |
| Type Fluid In Hole | Chemical | |
| Salinity, PPM CL | 3,000 | |
| Density | 9.2 | |
| Level | Full | |
| Max. Rec. Temp. F | 113 | |
| Operating Rig Time | 3 Hours | |
| Equipment -- Location | 15 Hays | |
| Recorded By | J. Henrickson | |
| Witnessed By | Josh Austin | |

| Borehole Record | | Casing Record | | | | |
|-----------------|----------|---------------|------|-------|------|-----|
| Run No. | Bit From | To | Size | Wgt. | From | To |
| One | 12.25 | 00 | 372 | 8.625 | 23# | 00 |
| Two | 7.875 | 372 | TD | | | 372 |

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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

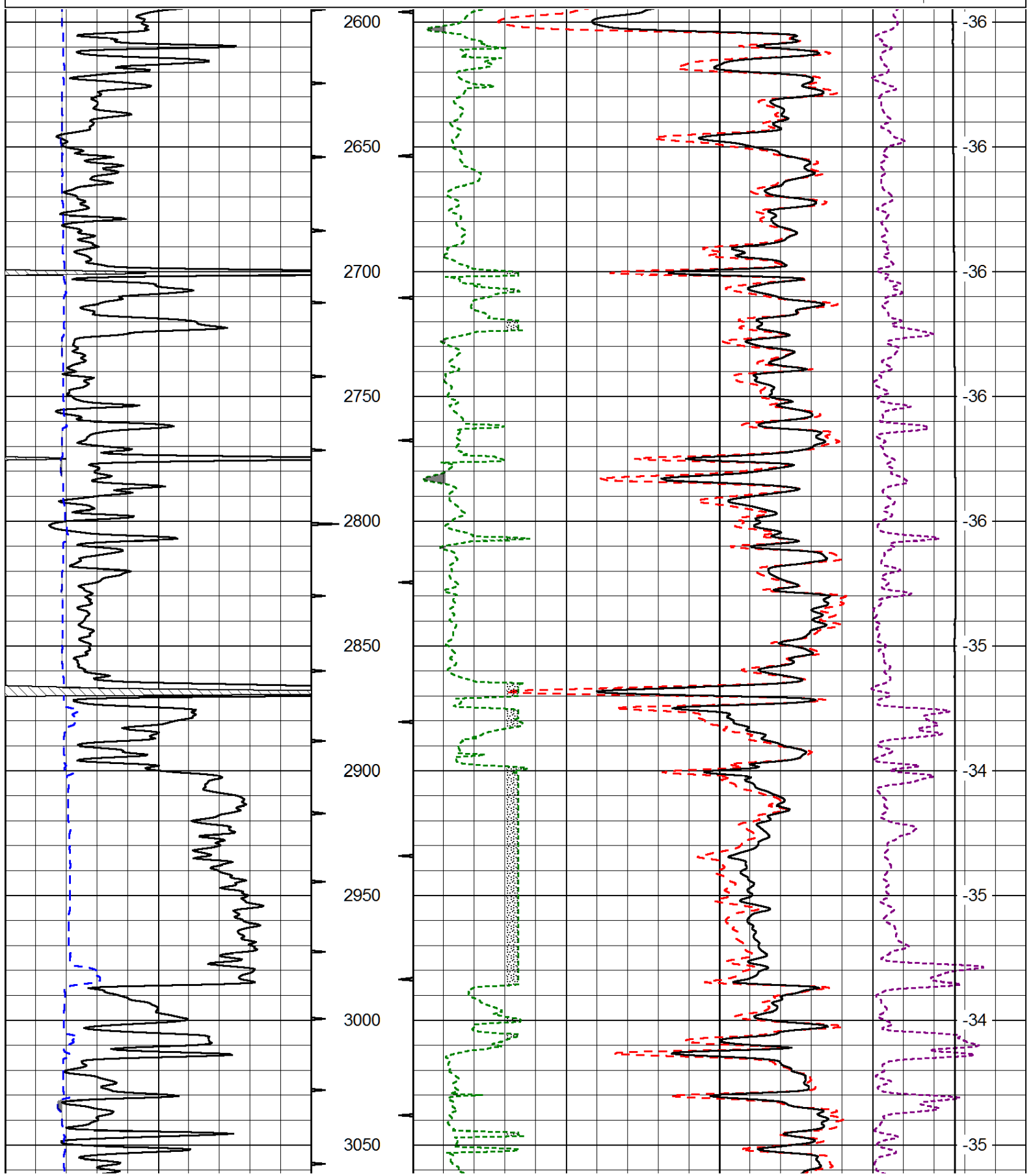
 Ellinwood Kansas
 East to County Line, 1 North, 1/2 East, North Into

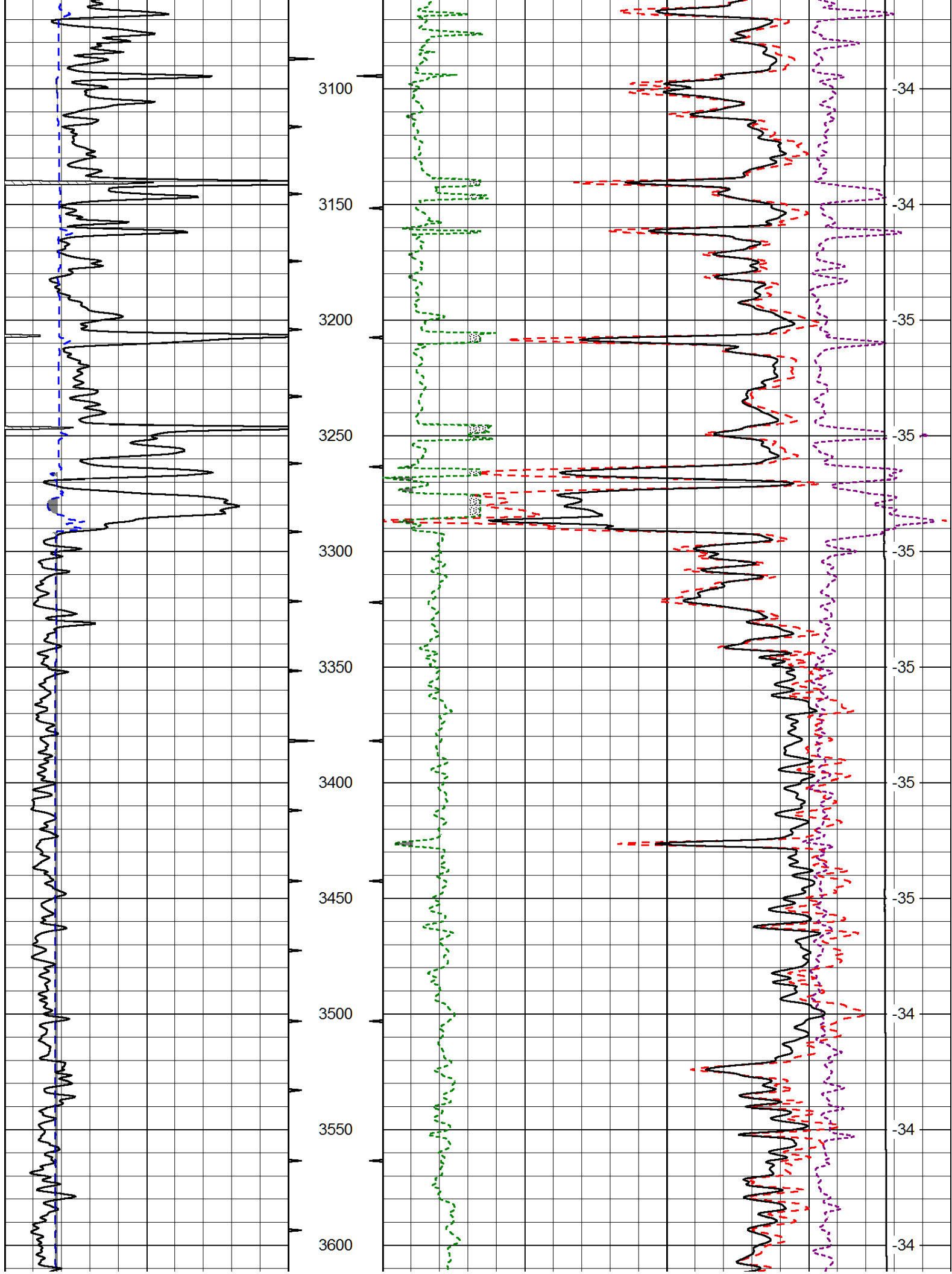
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 Dataset Pathname: DIL/ramastk
 Presentation Format: cdl
 Dataset Creation: Sun Apr 27 08:47:57 2014
 Charted by: Depth in Feet scaled 1:600

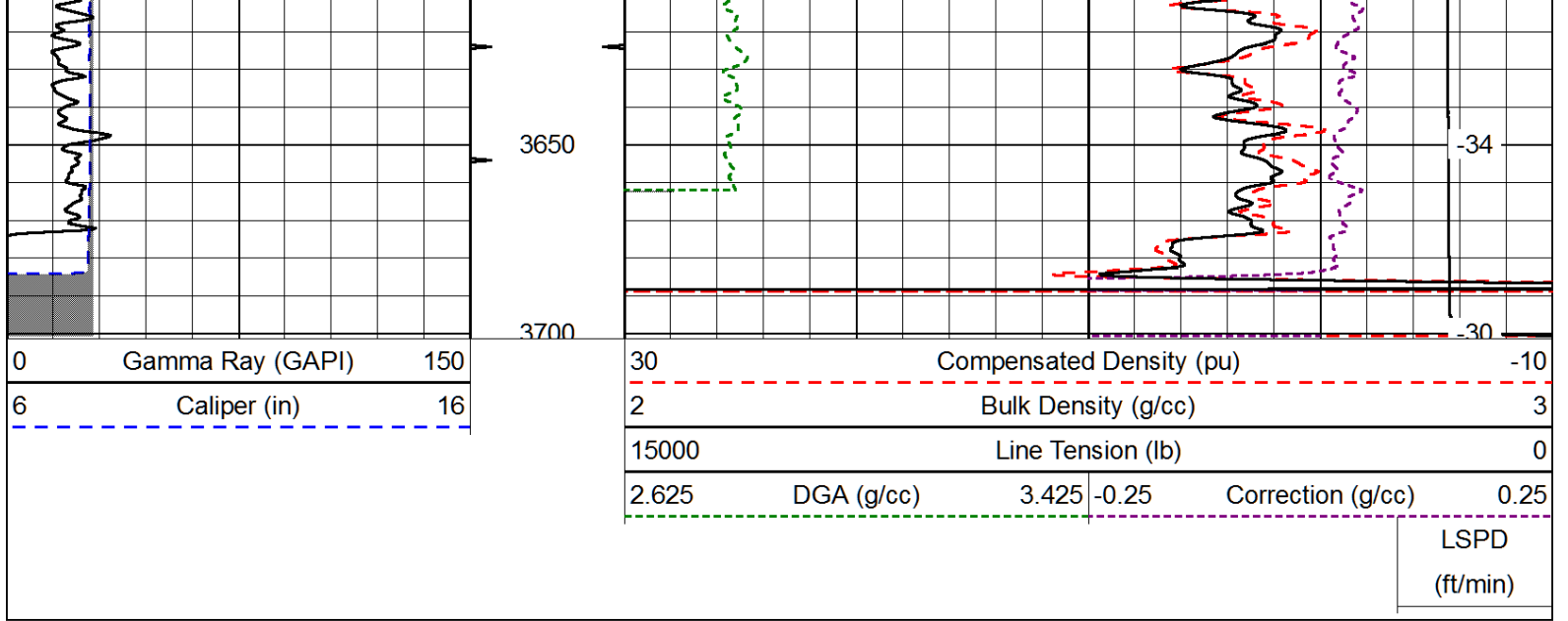
| | | |
|---|------------------|-----|
| 0 | Gamma Ray (GAPI) | 150 |
| 6 | Caliper (in) | 16 |

| | | | |
|-------|--------------------------|-------|-------|
| 30 | Compensated Density (pu) | | -10 |
| 2 | Bulk Density (g/cc) | | 3 |
| 15000 | Line Tension (lb) | | 0 |
| 2.625 | DGA (g/cc) | 3.425 | -0.25 |
| | Correction (g/cc) | | 0.25 |

LSPD
(ft/min)







Database File: rama_knop_7_30hd.db
 Dataset Pathname: DIL/ramastk
 Presentation Format: cndlspec
 Dataset Creation: Sun Apr 27 08:47:57 2014
 Charted by: Depth in Feet scaled 1:240

