



Pioneer Energy Services

Dual Induction Log

15-023-21,380-00-00

API No.

Company **Murfin Drilling Company, Inc.**

Well **Ivalee No. 1-4**

Field **Jones Canyon**

County **Cheyenne** State **Kansas**

Location **990' FSL & 1,980' FWL**

Other Services
MEL

Sec: **4** Twp: **1S** Rge: **37W**

Permanent Datum **Ground Level** Elevation **3157**
 Log Measured From **Kelly Bushing** **13 Ft. Above Perm. Datum**
 Drilling Measured From **Kelly Bushing**

Elevation
K.B. 3170
D.F. 3170
G.L. 3157

Date **2/22/2014**

Run Number **Two**

Depth Driller **4719**

Depth Logger **4714**

Bottom Logged Interval **4713**

Top Log Interval **4020**

Casing Driller **8.625 @ 211**

Casing Logger **214**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity,ppm CL **600**

Density / Viscosity **9.1 60**

pH / Fluid Loss **10.5 6.0**

Source of Sample **Flowline**

Rm @ Meas. Temp **.90 @ 62**

Rmf @ Meas. Temp **.68 @ 62**

Rmc @ Meas. Temp **1.22 @ 62**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.45 @ 123**

Operating Rig Time **3 Hours**

Max Rec. Temp. F **123**

Equipment Number **108**

Location **Hays**

Recorded By **J. Long**

Witnessed By **Keith Reavis**

<<< 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.pioneerenergy.com
 785 625 3858

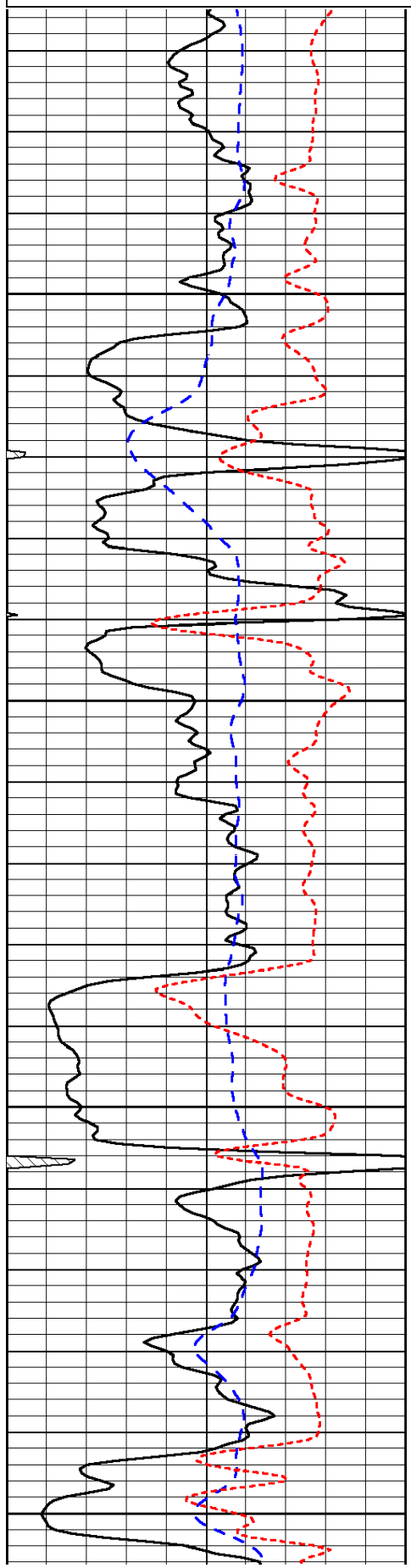
Bird City, North to State Line, 2 3/4 East, 3/4 South, East Into

Database File: c:\warrior\data\murfin_ivalee no. 1-4\murfin_ivalee_1-4hd.db
 Dataset Pathname: dil\murfmldl
 Presentation Format: dil
 Dataset Creation: Sun Feb 23 00:24:53 2014
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD

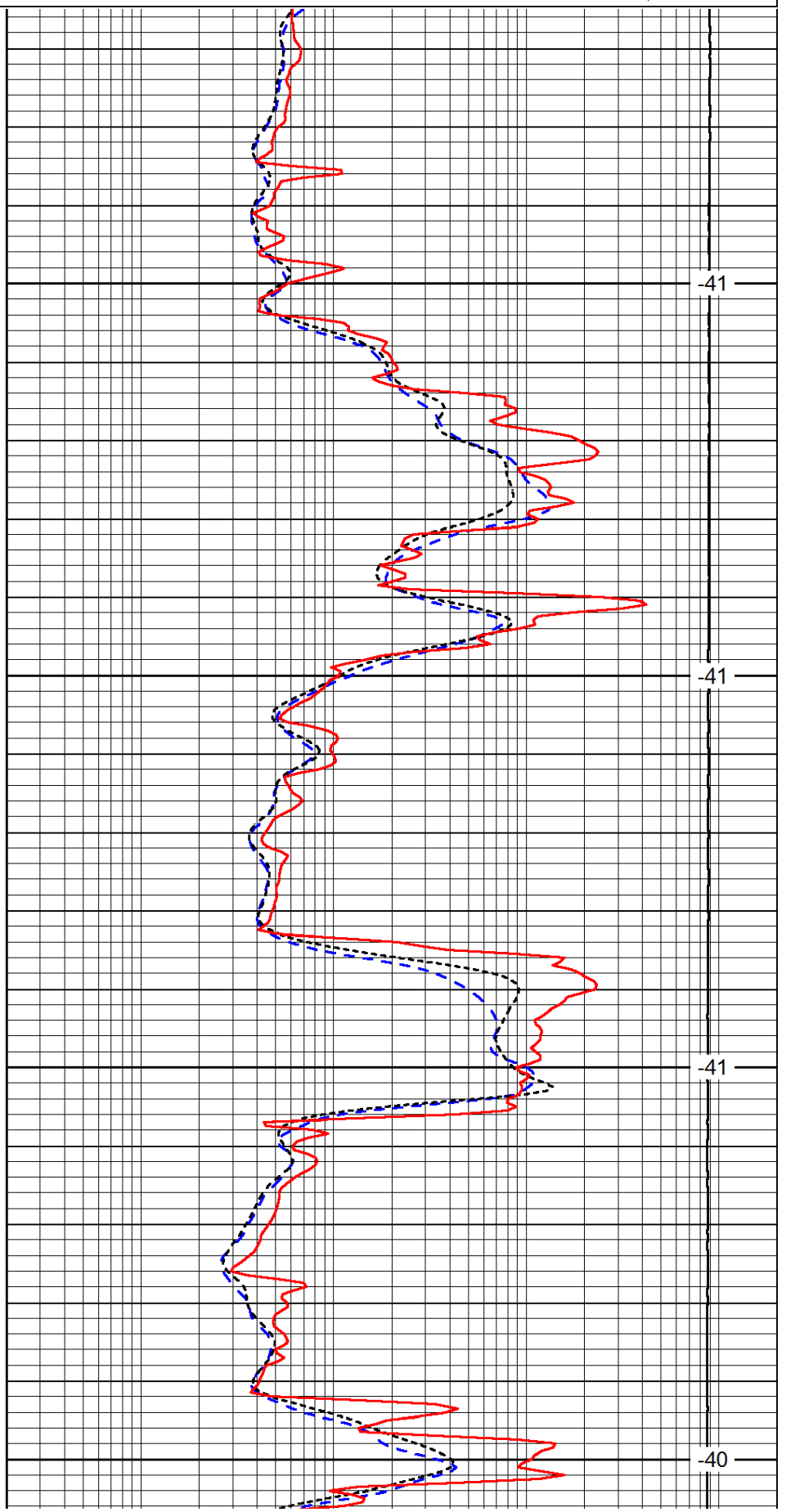


4050

4100

4150

4200

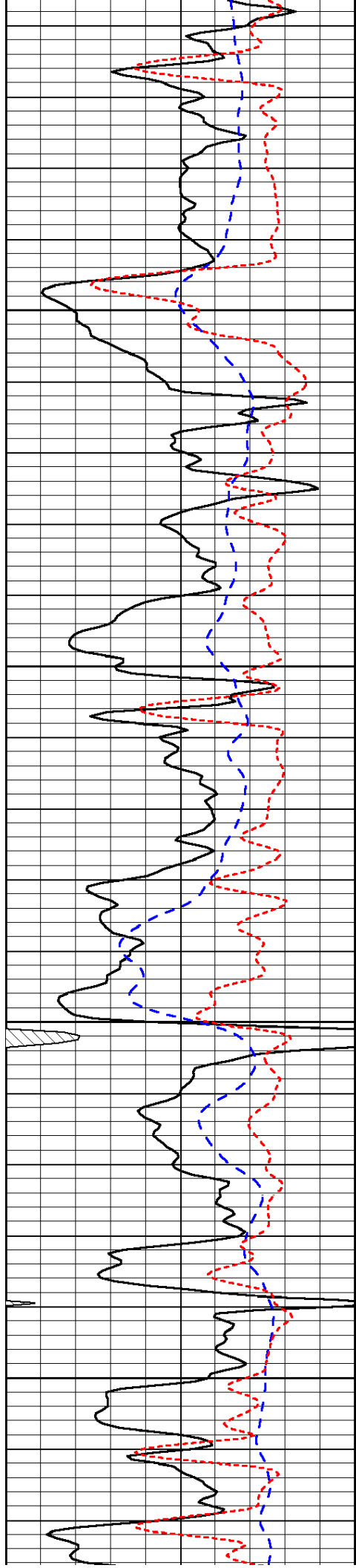


41

41

41

40

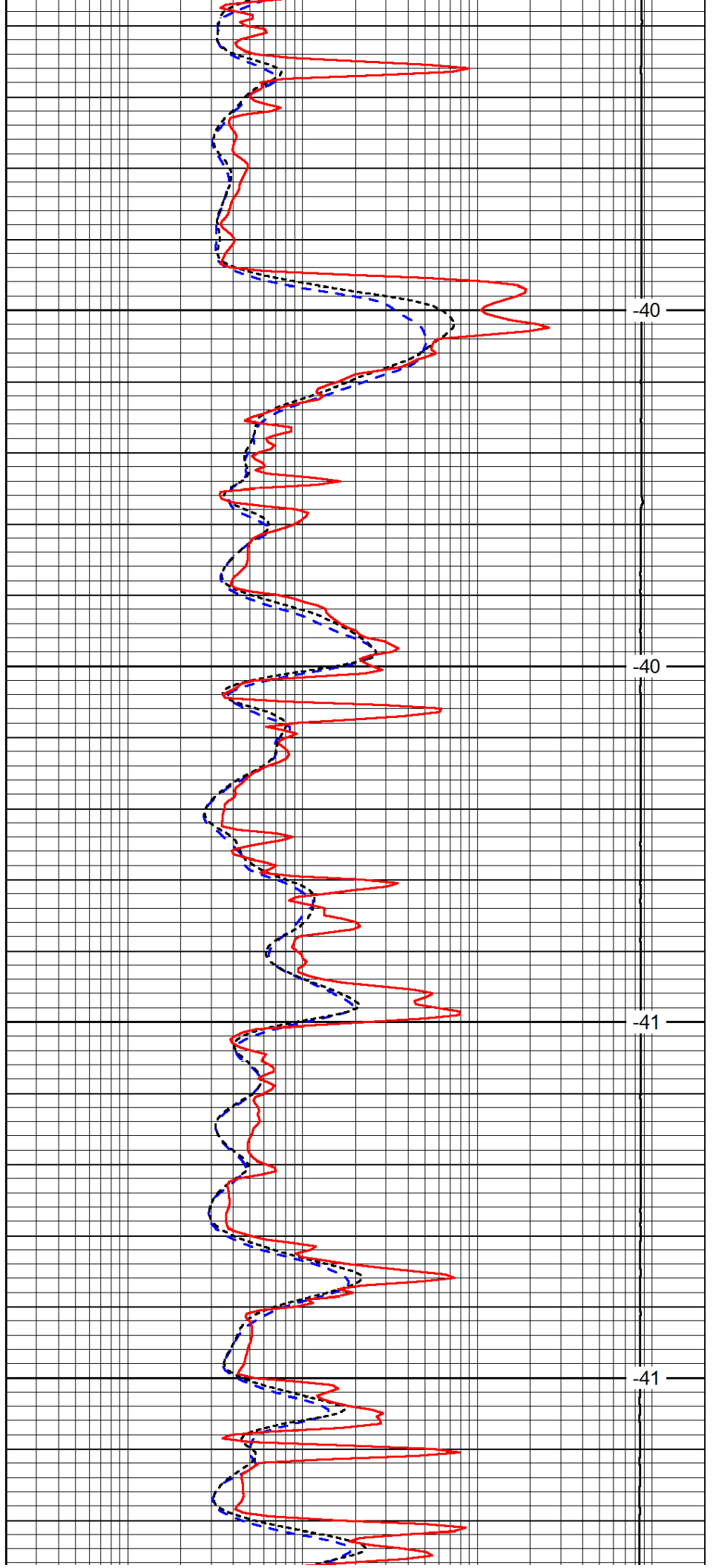


4250

4300

4350

4400

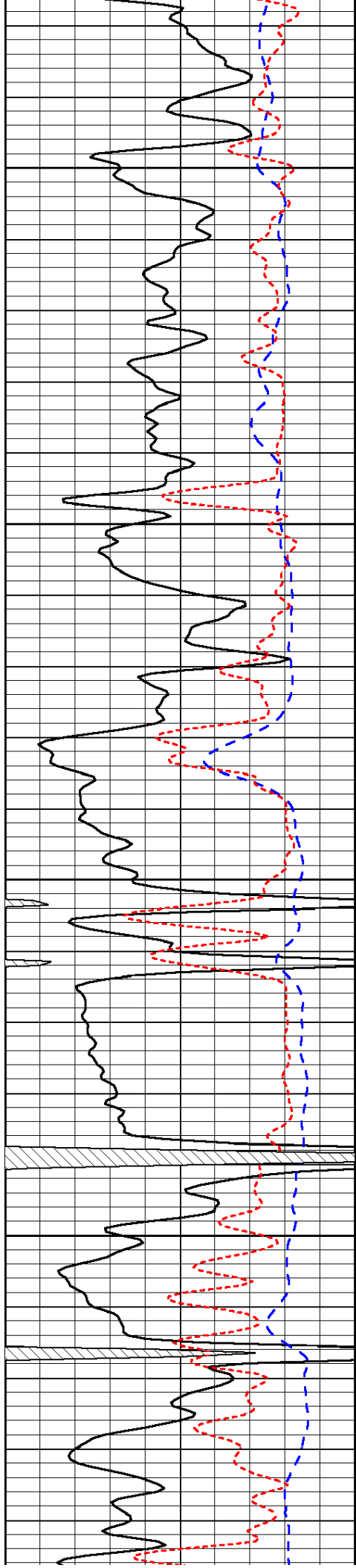


-40

-40

-41

-41

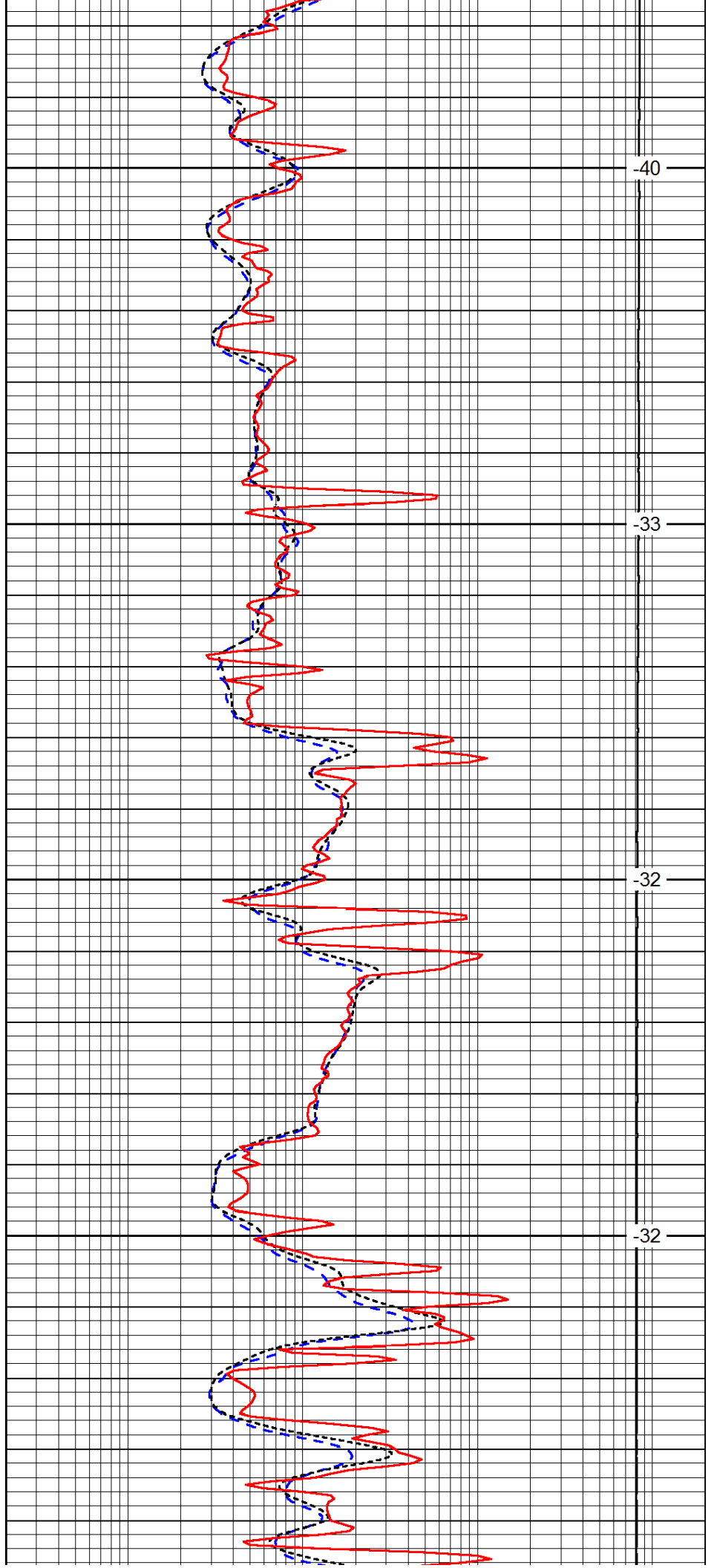


4450

4500

4550

4600

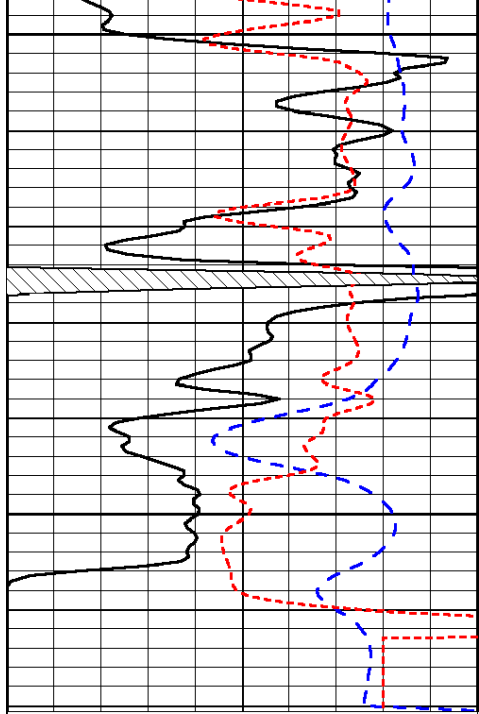


40

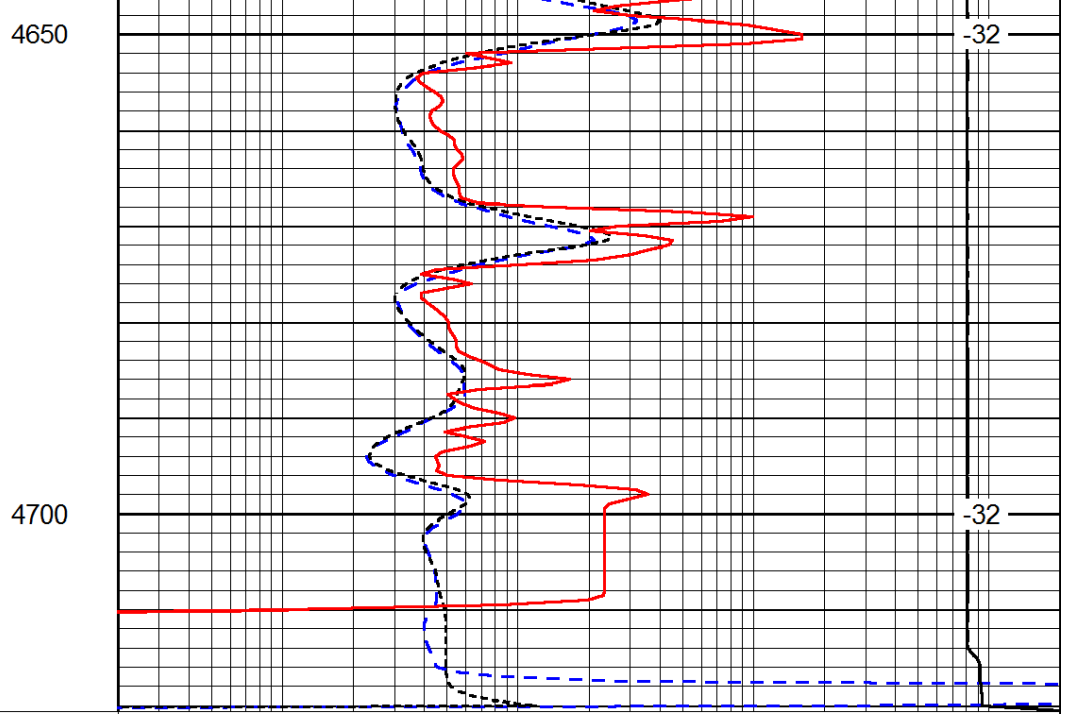
33

32

32



0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD