



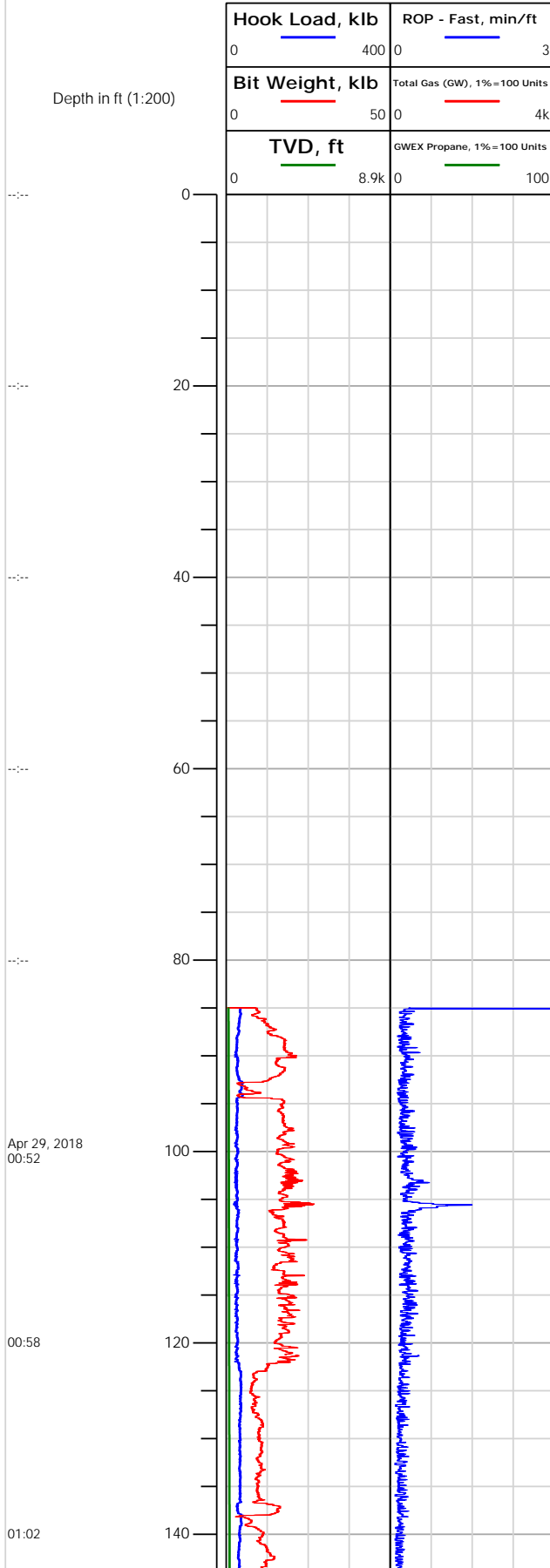
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Depth in ft (1:200)





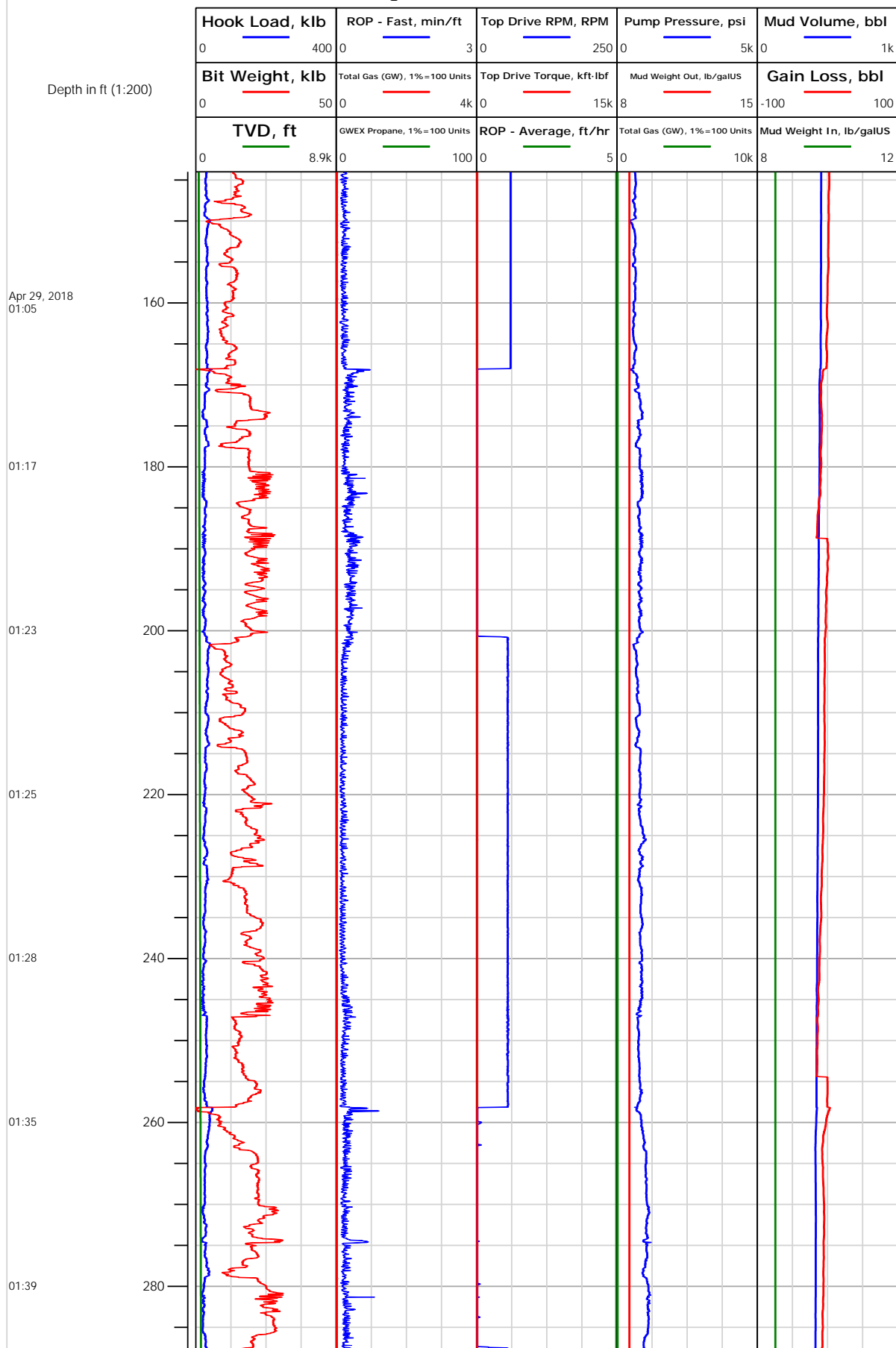
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





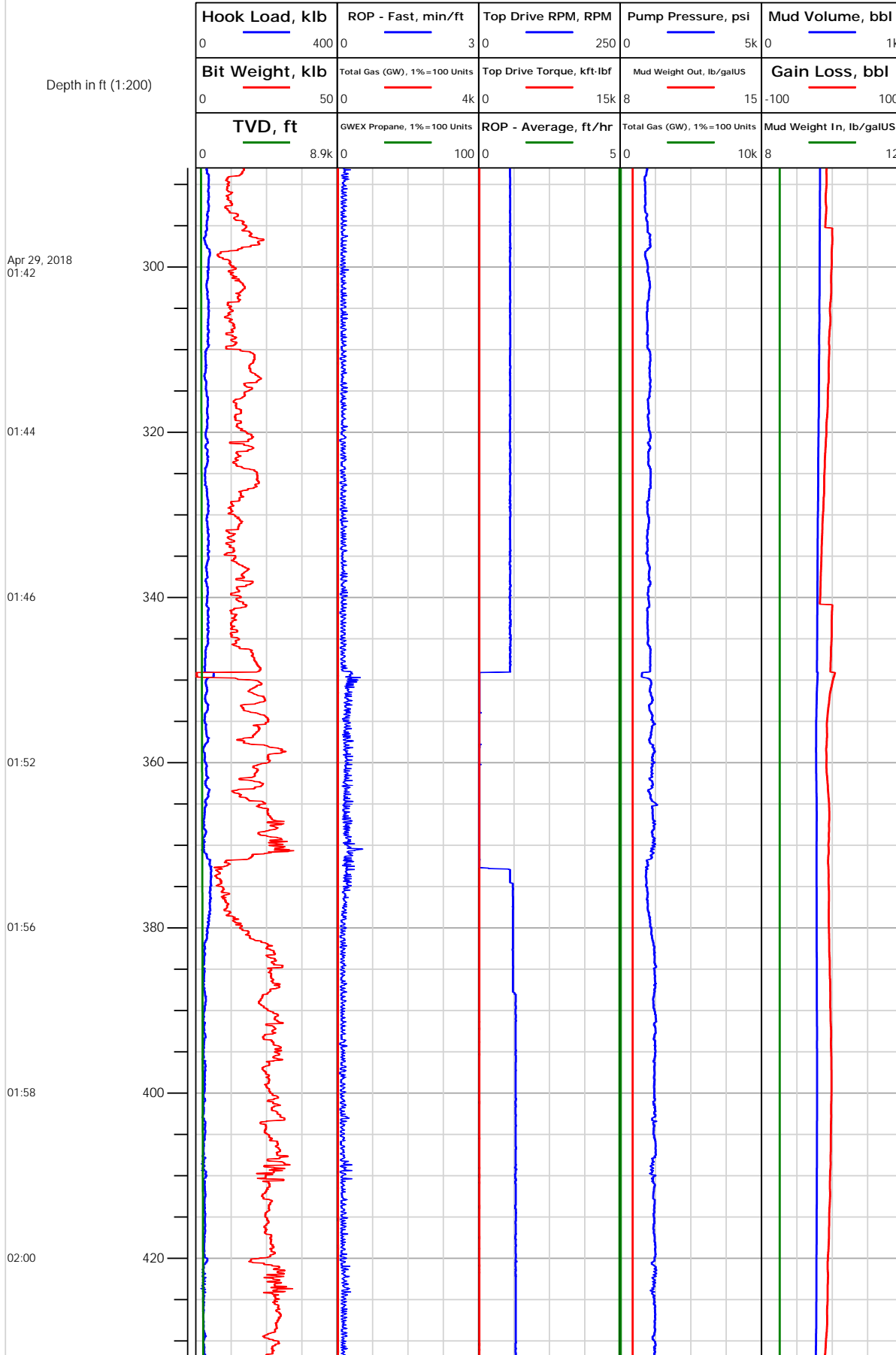
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





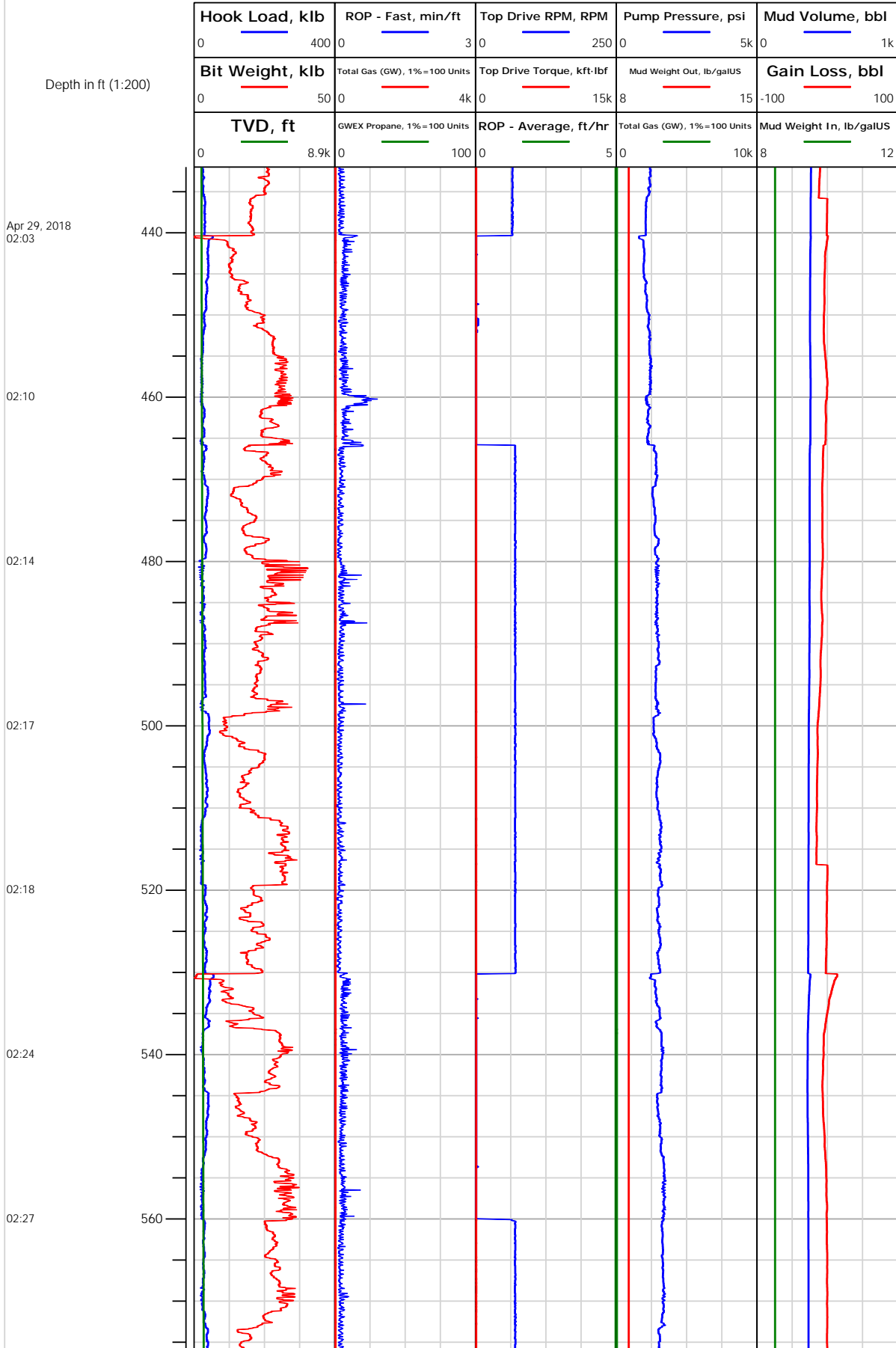
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





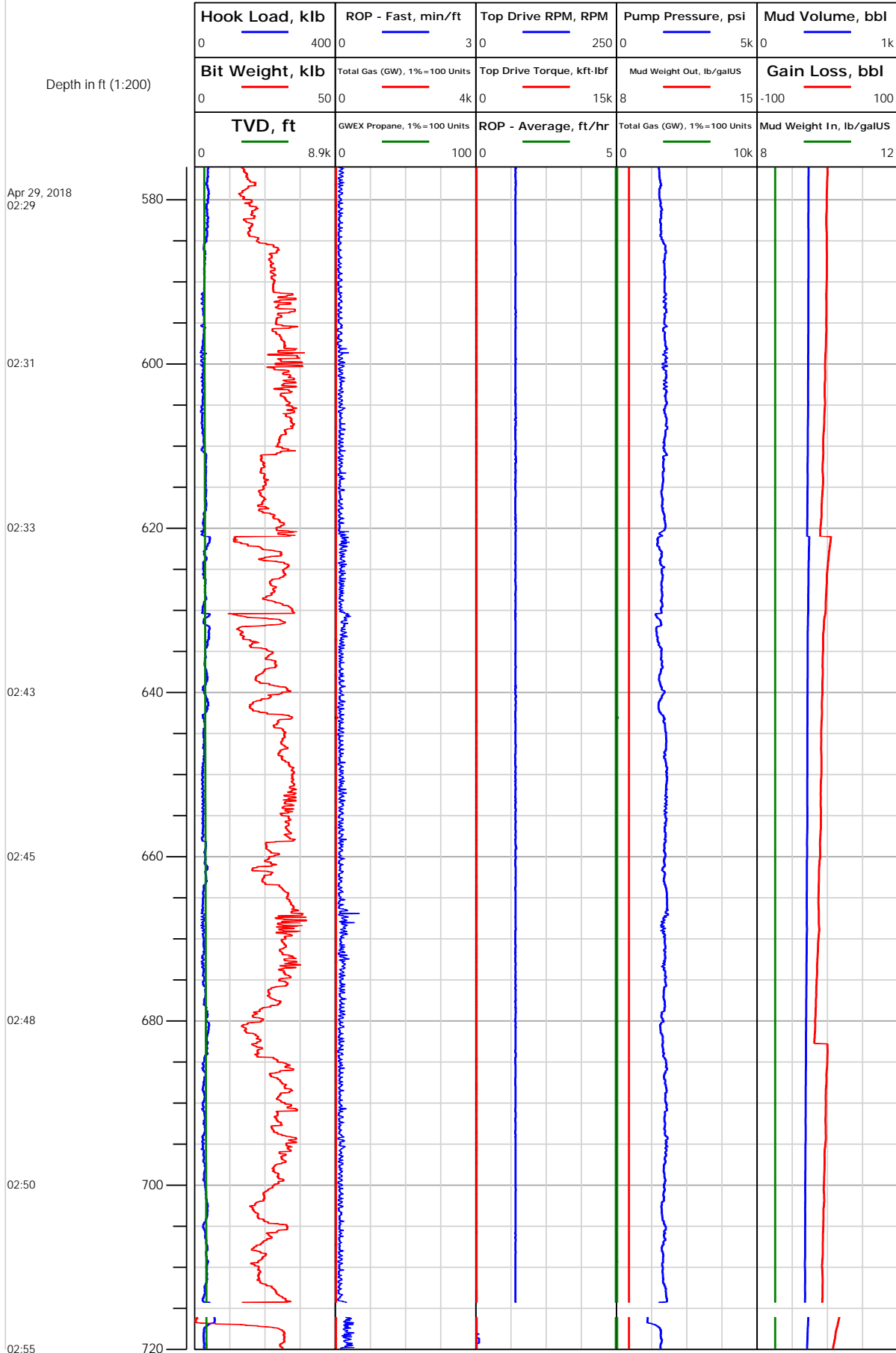
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





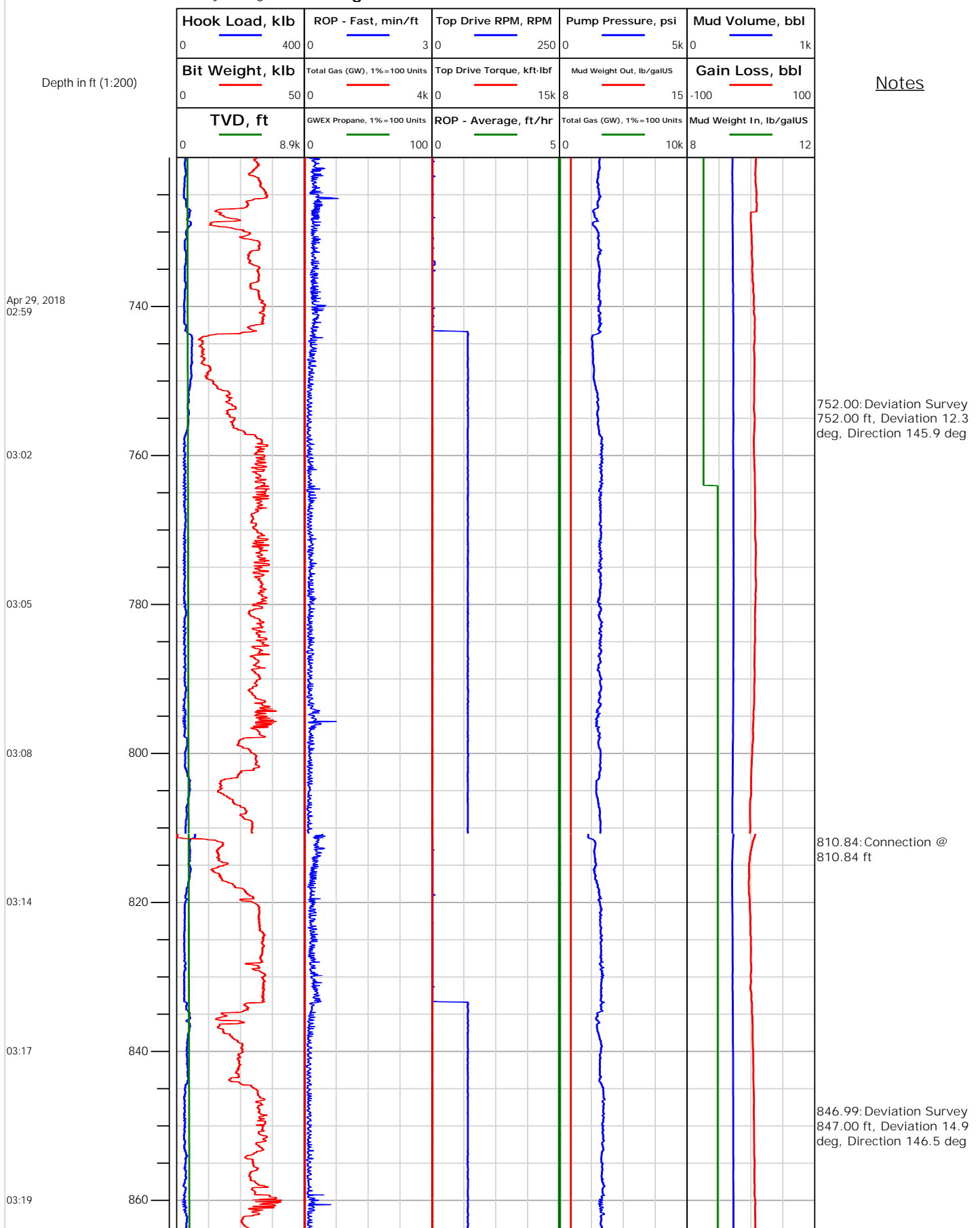
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





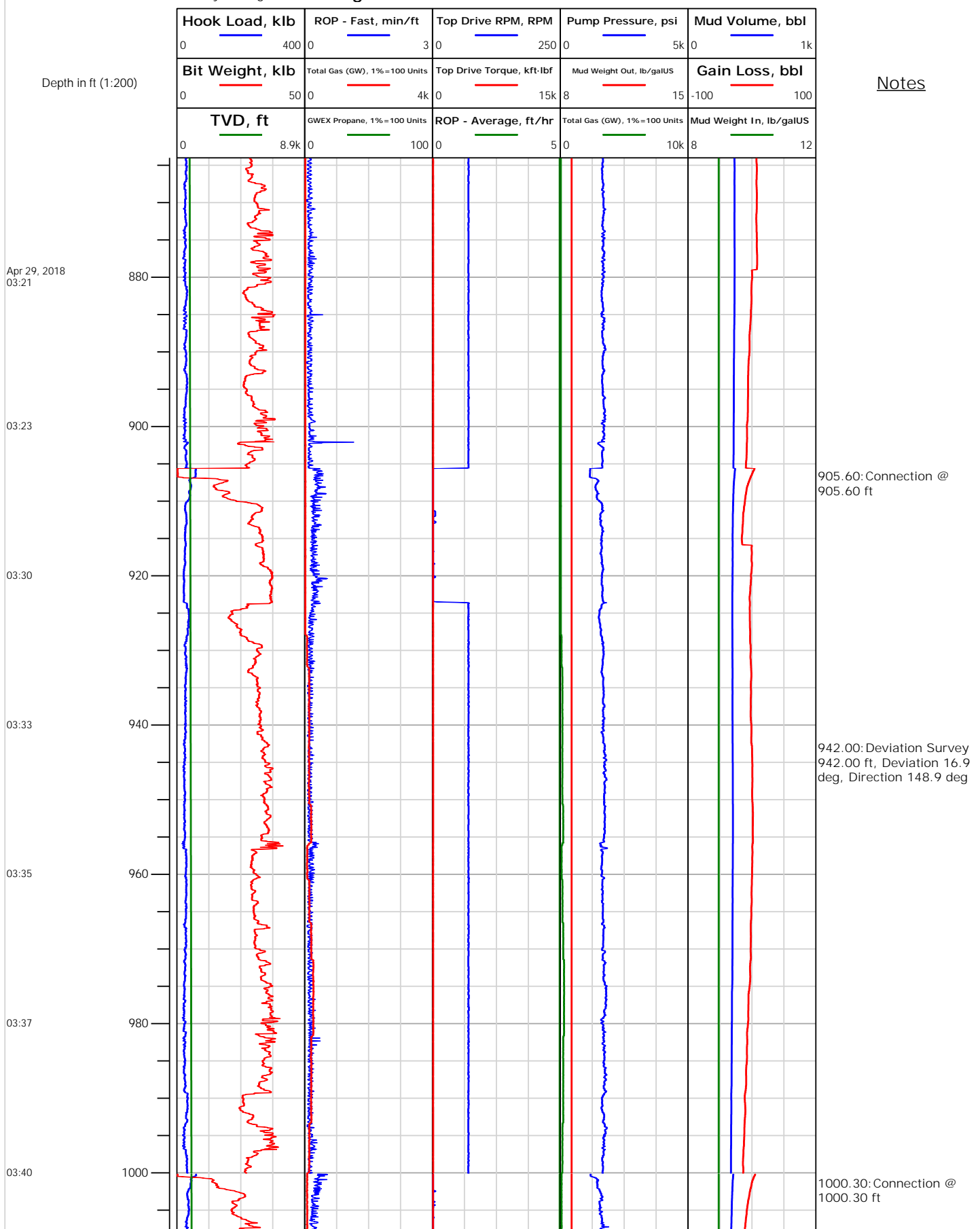
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)

Apr 29, 2018
03:46

03:48

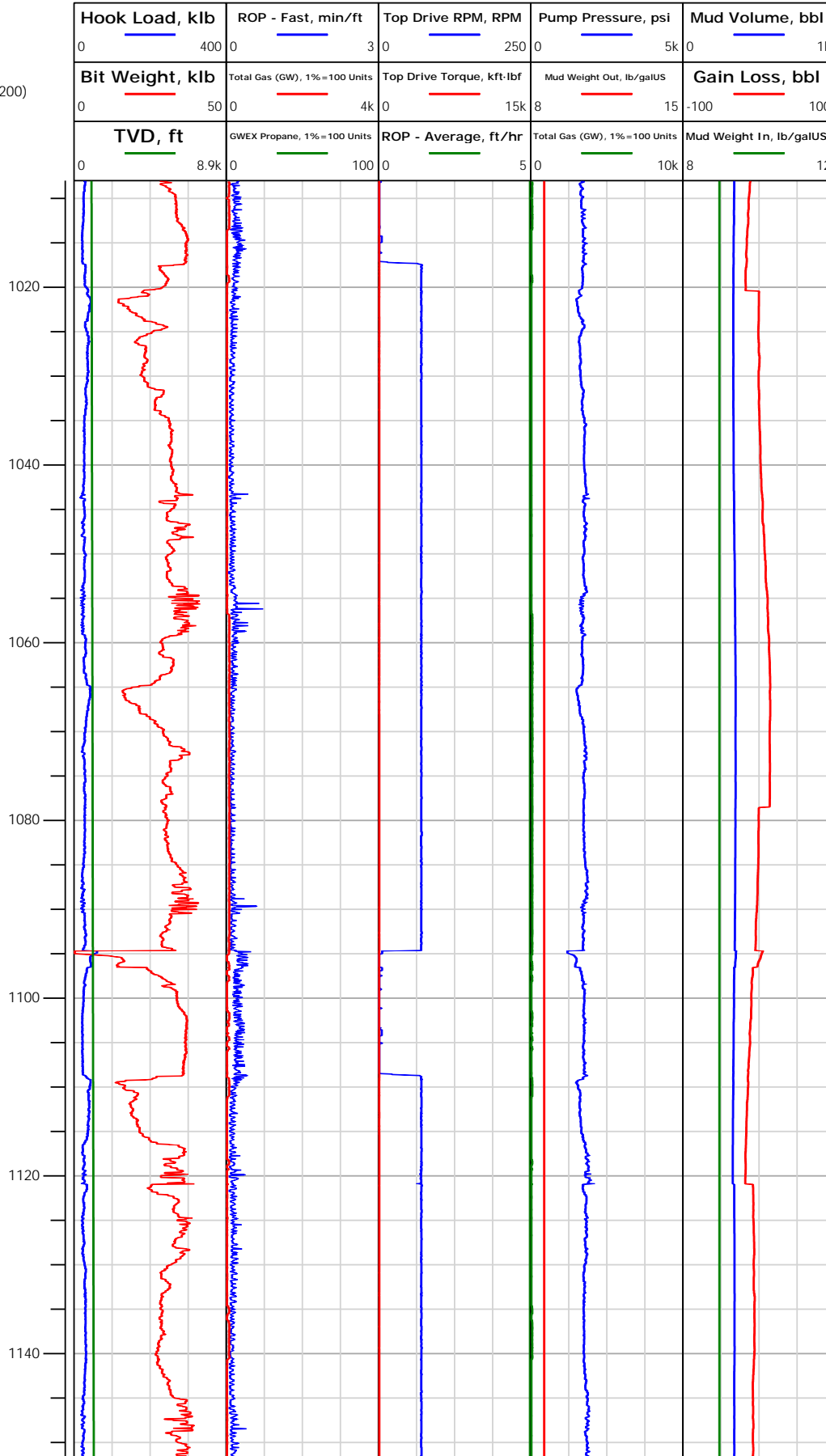
03:51

03:53

03:59

04:02

04:08



1036.00: Deviation Survey
1036.00 ft, Deviation 18.7 deg, Direction 149.8 deg

1094.75: Connection @
1094.75 ft
1096.58: Rig Floor set Bit
Position from 1096.44 ft to
1094.00 ft

1131.00: Deviation Survey
1131.00 ft, Deviation 20 deg, Direction 151.4 deg



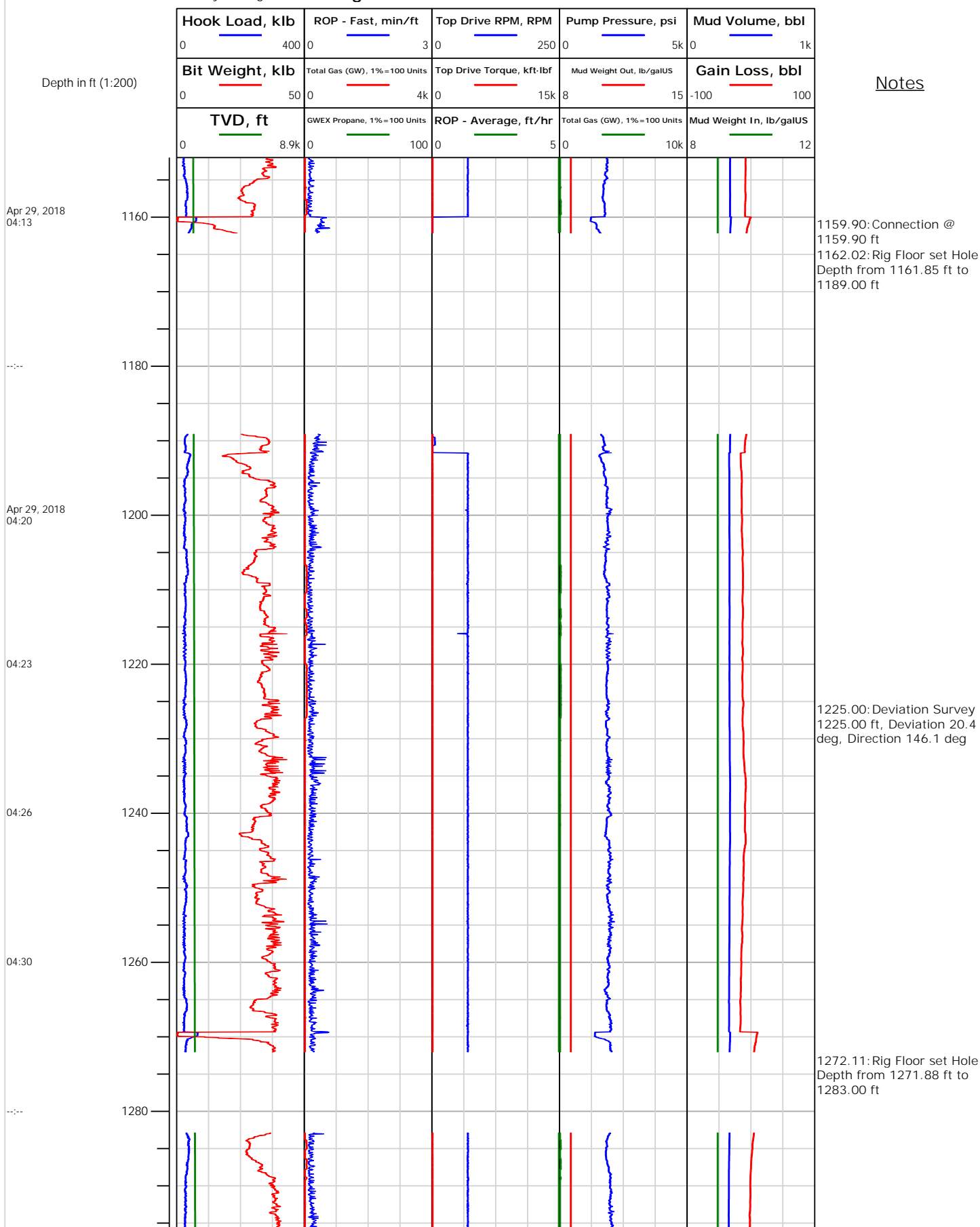
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





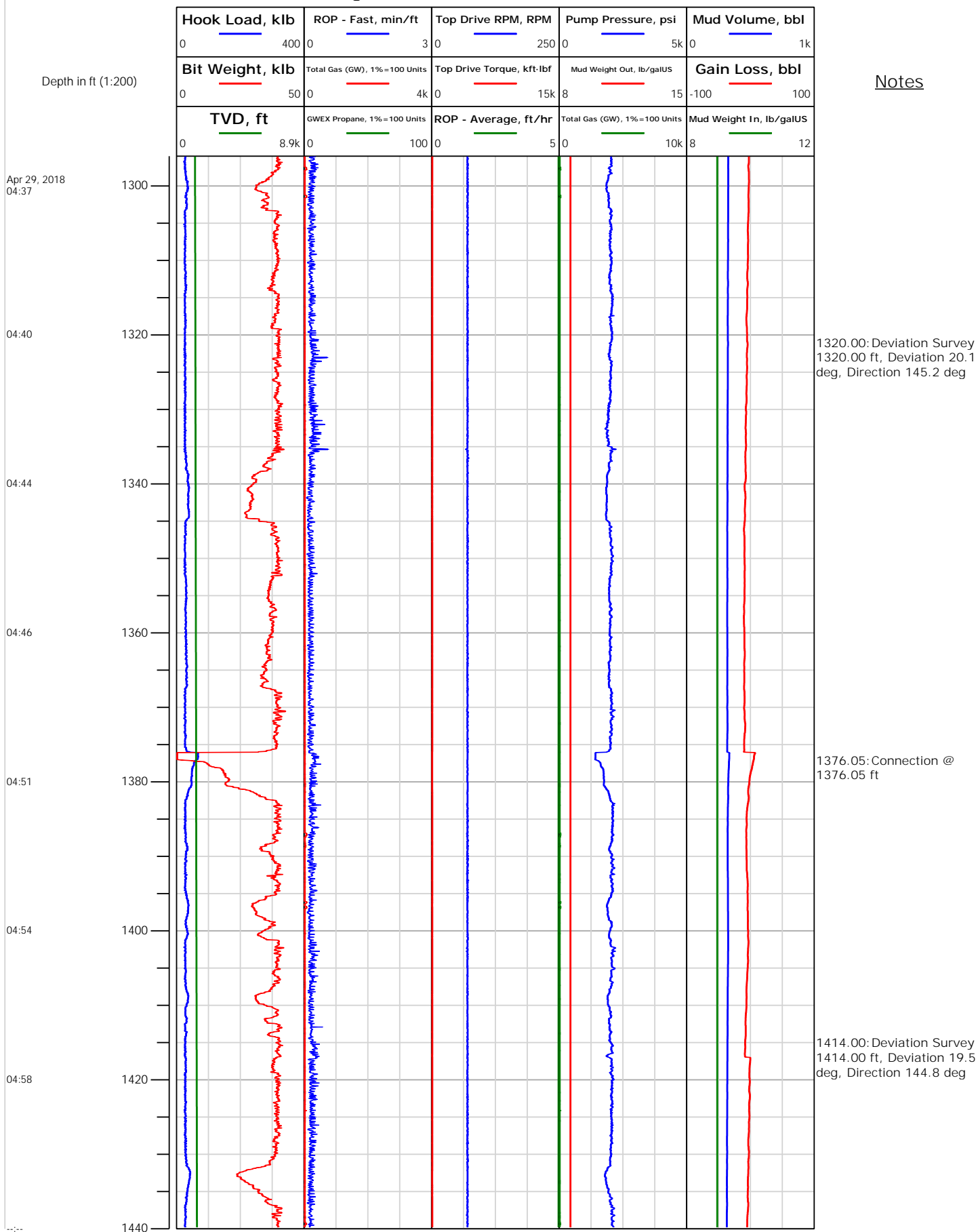
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





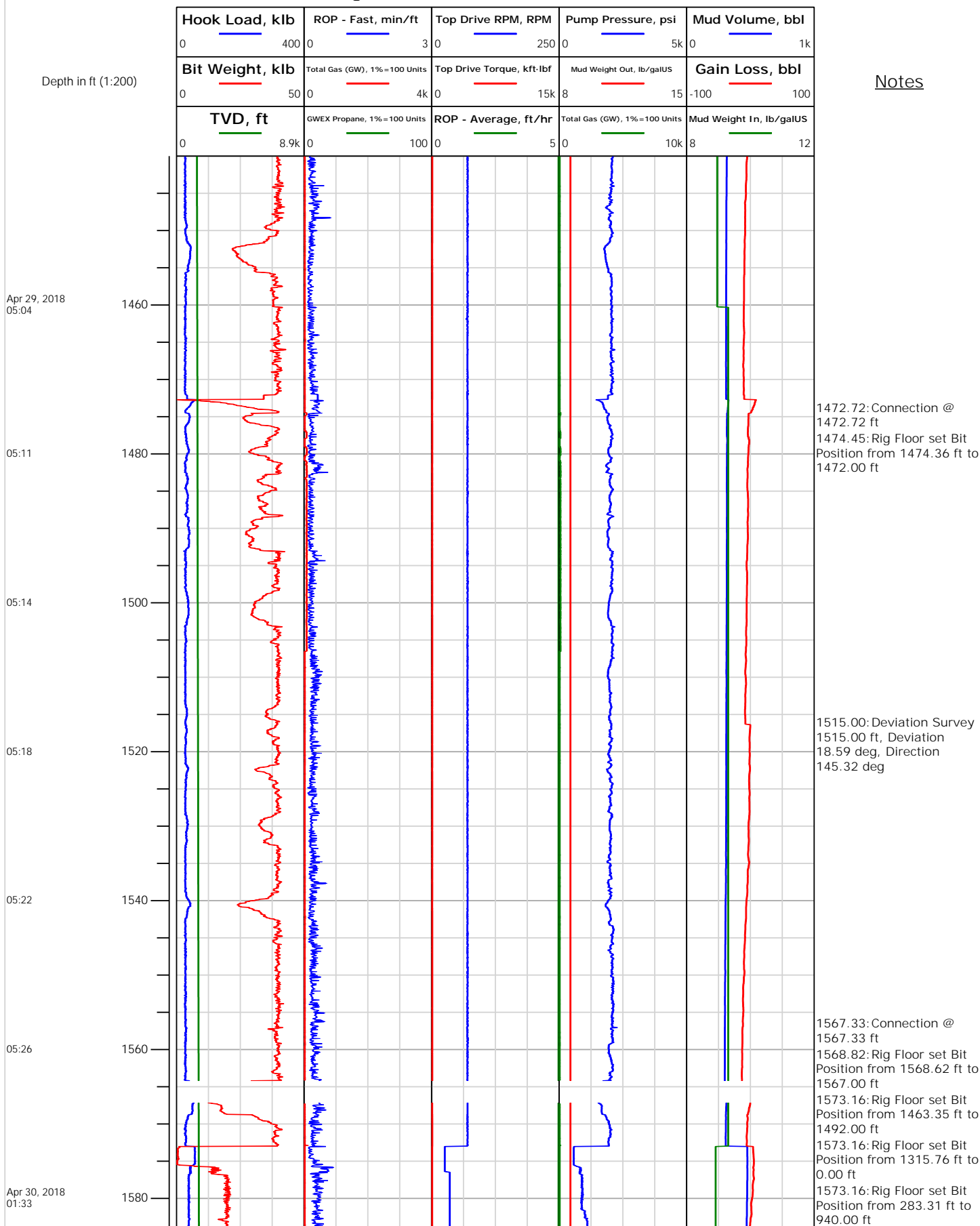
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)

Apr 30, 2018
01:41

01:45

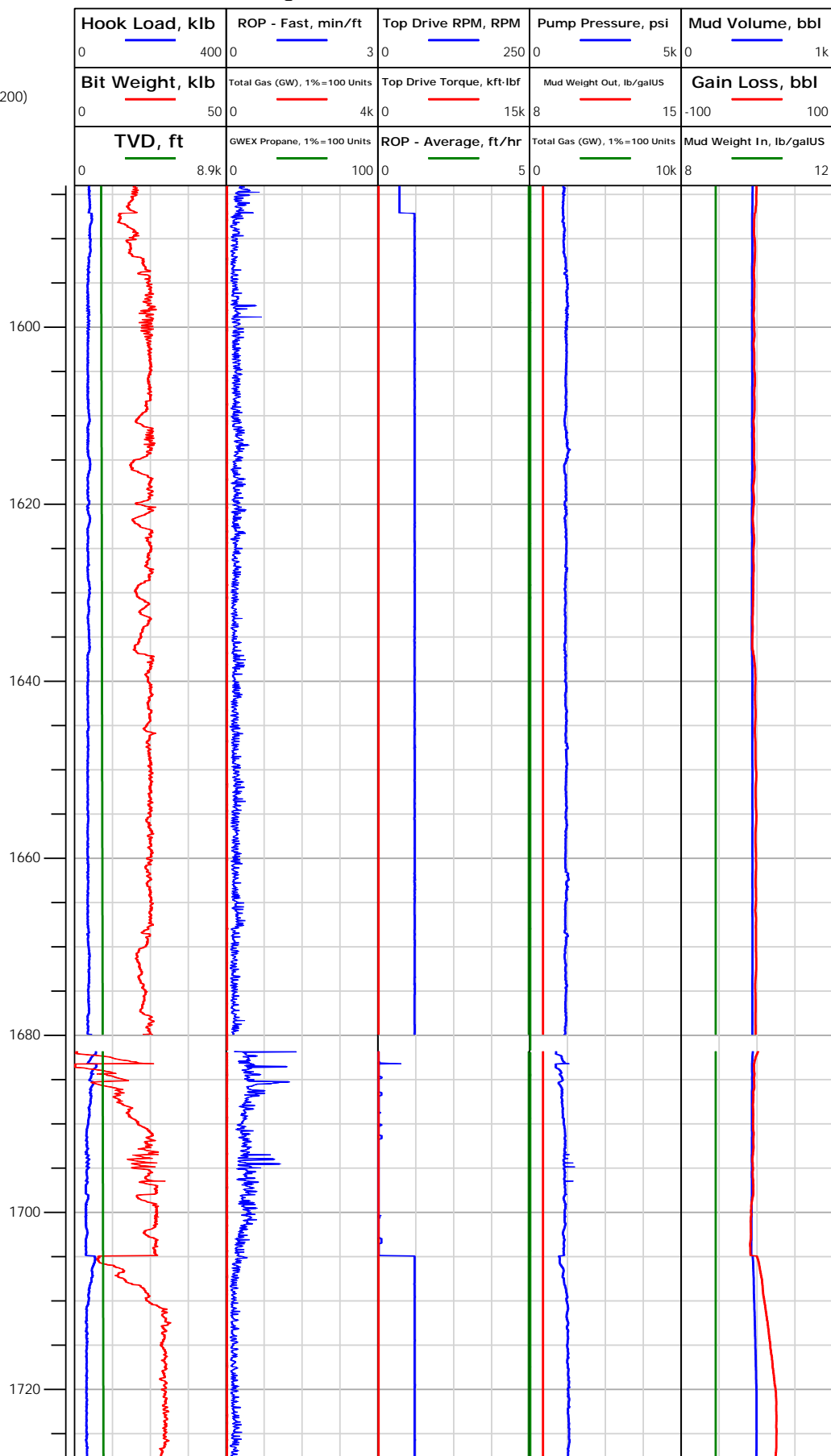
01:48

01:52

01:55

02:06

02:12



1587.23: Connection @
1587.23 ft
1589.51: Rig Floor set Hole
Depth from 1589.21 ft to
1587.00 ft

1618.00: Deviation Survey
1618.00 ft, Deviation 17.3
deg, Direction 143.6 deg

1681.85: Connection @
1681.85 ft

1717.00: Deviation Survey
1717.00 ft, Deviation 19.2
deg, Direction 142.9 deg



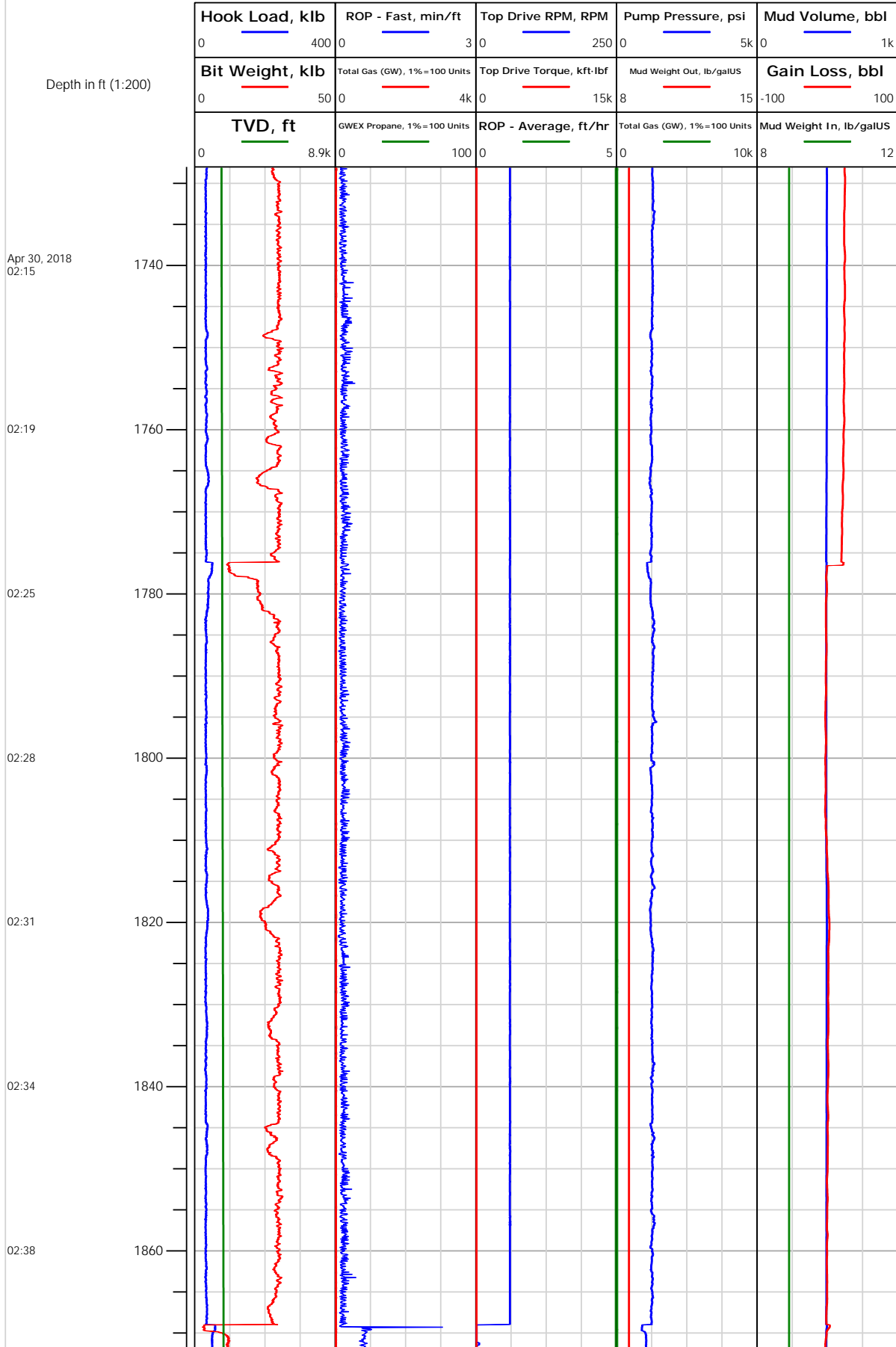
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





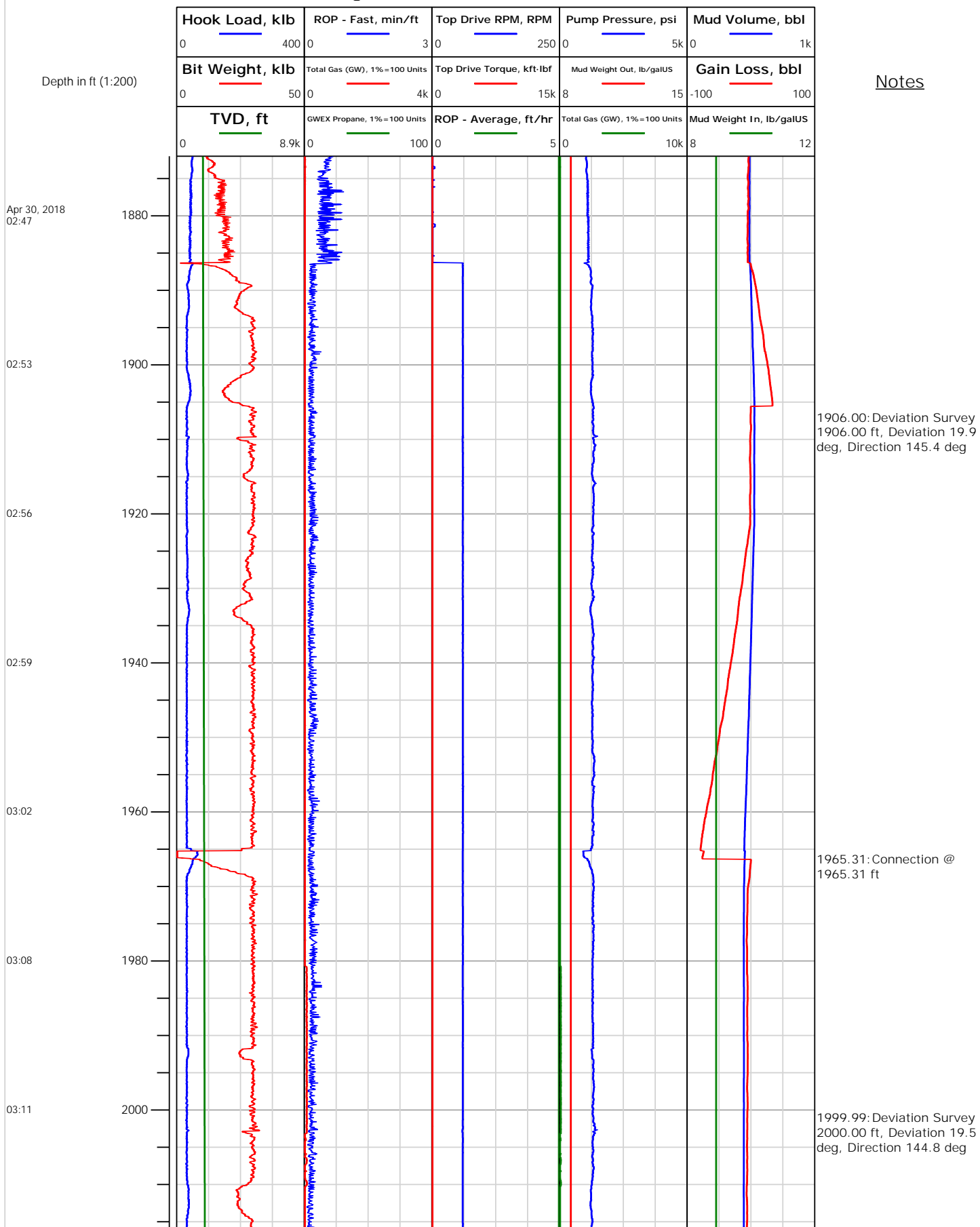
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





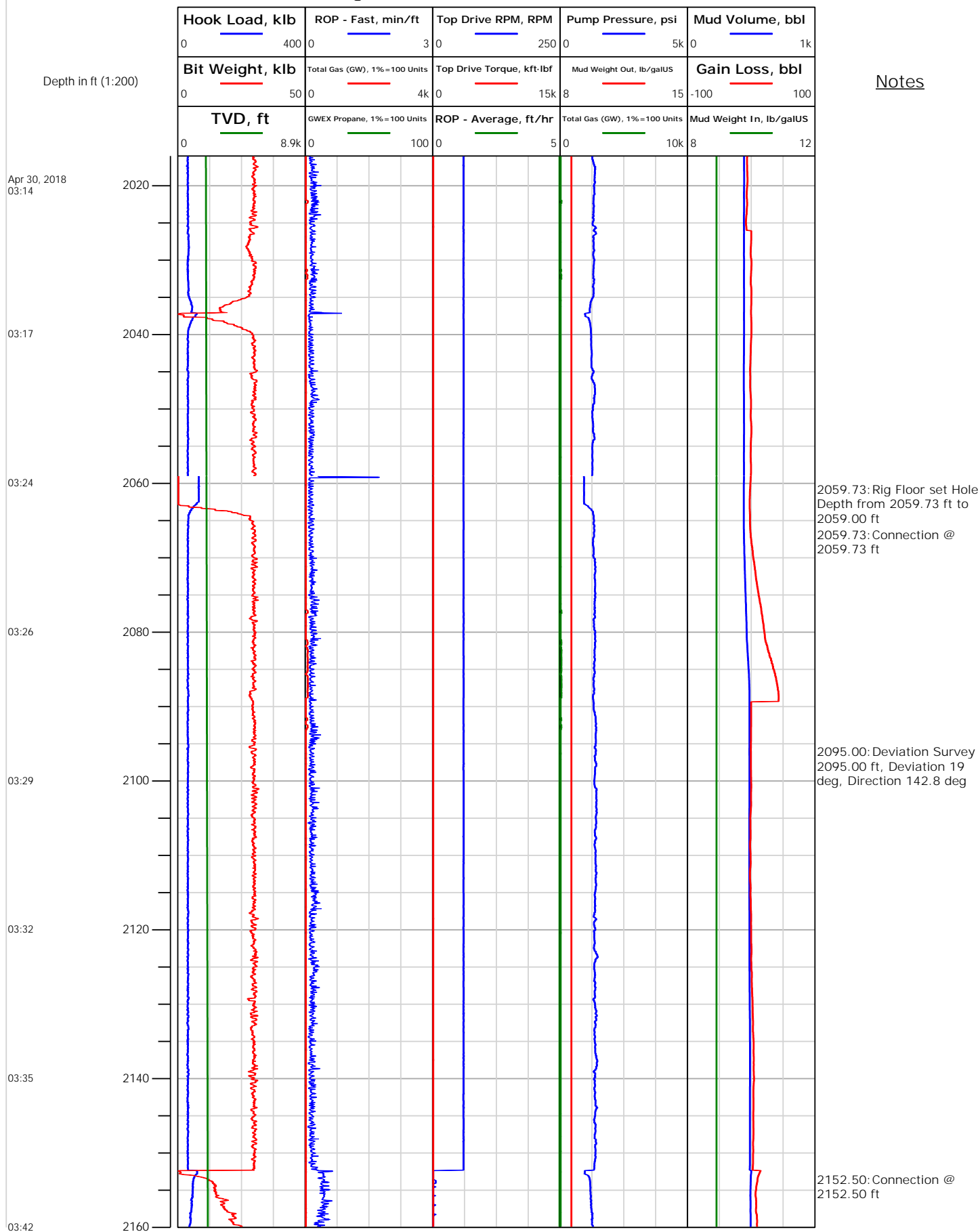
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





Electronic Drilling Recorder

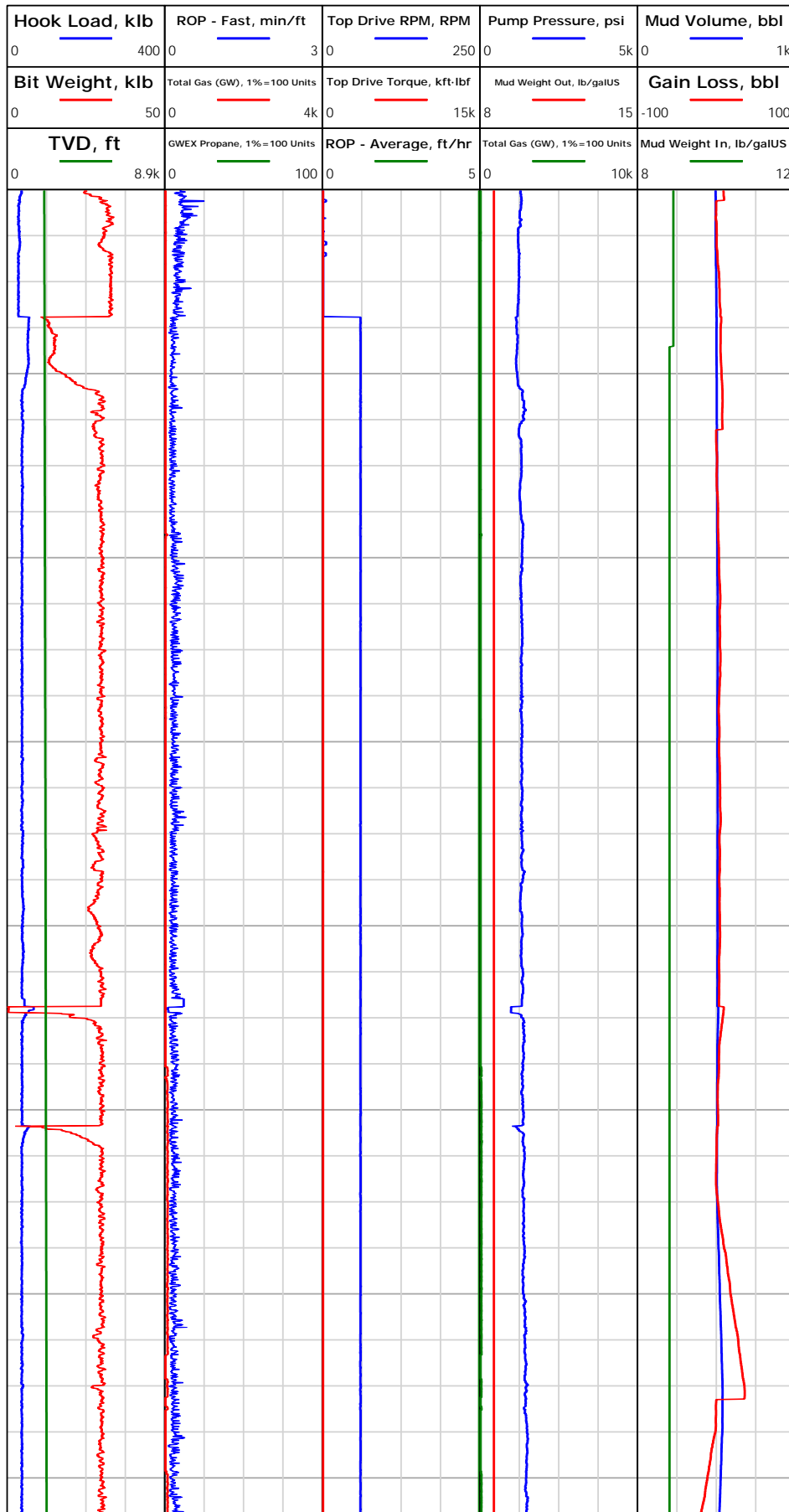
Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)



Apr 30, 2018
03:48

03:51

03:55

03:58

04:03

04:22

04:25

2189.00: Deviation Survey
2189.00 ft, Deviation 20.6
deg, Direction 148.2 deg

2248.85: Connection @
2248.85 ft

2284.00: Deviation Survey
2284.00 ft, Deviation 19.8
deg, Direction 148 deg



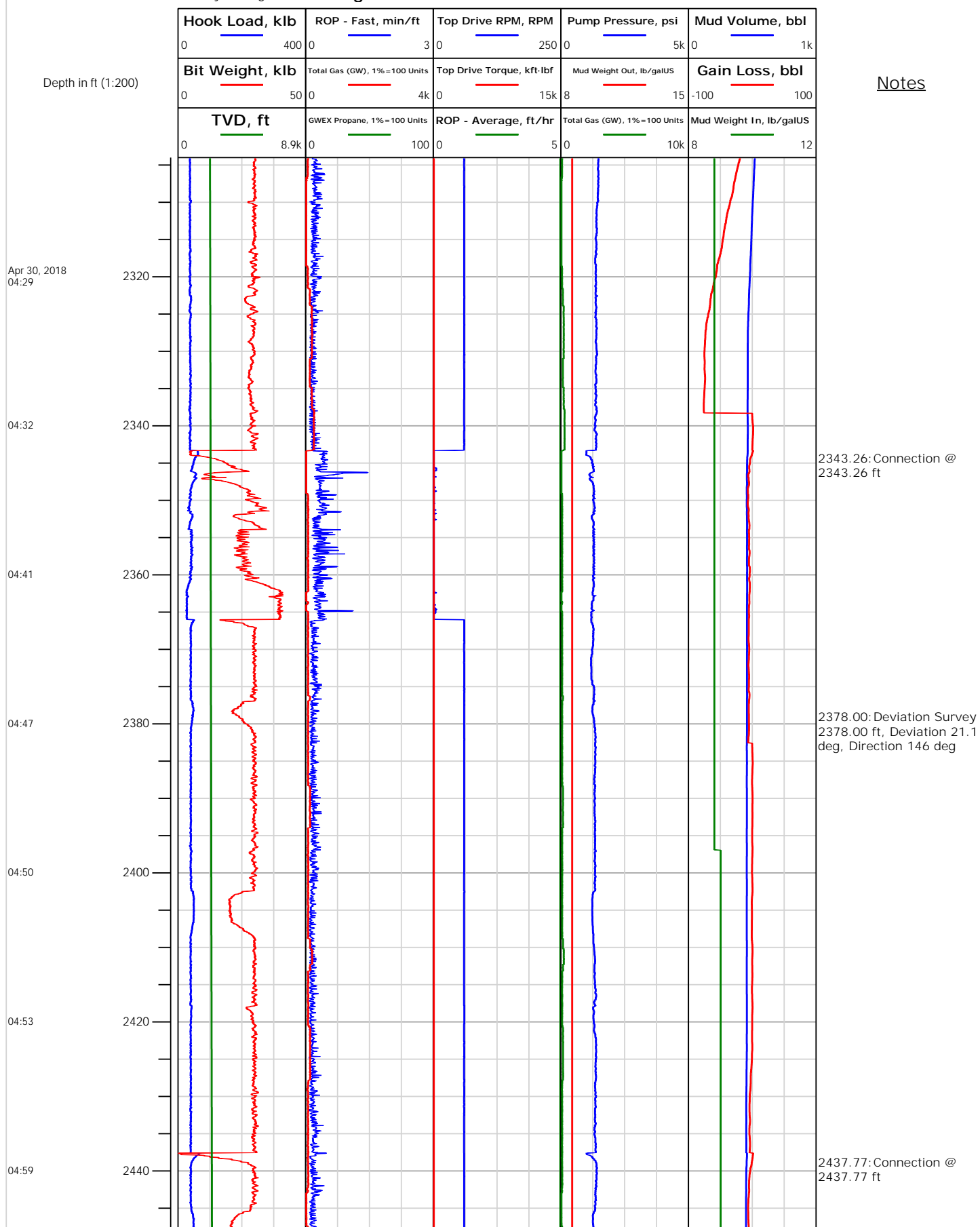
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)

Apr 30, 2018
05:02

05:05

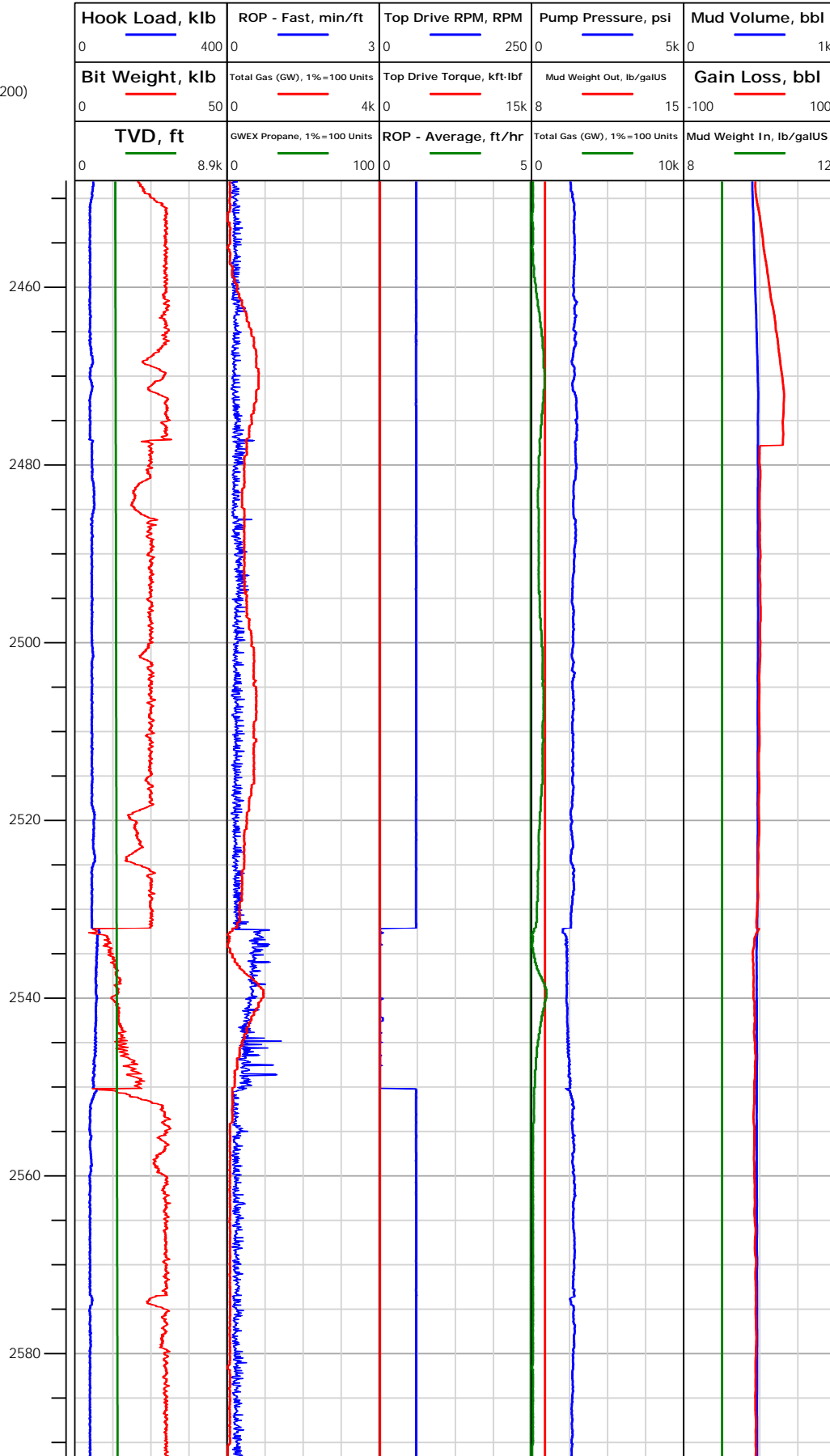
05:09

05:12

05:23

05:29

05:33





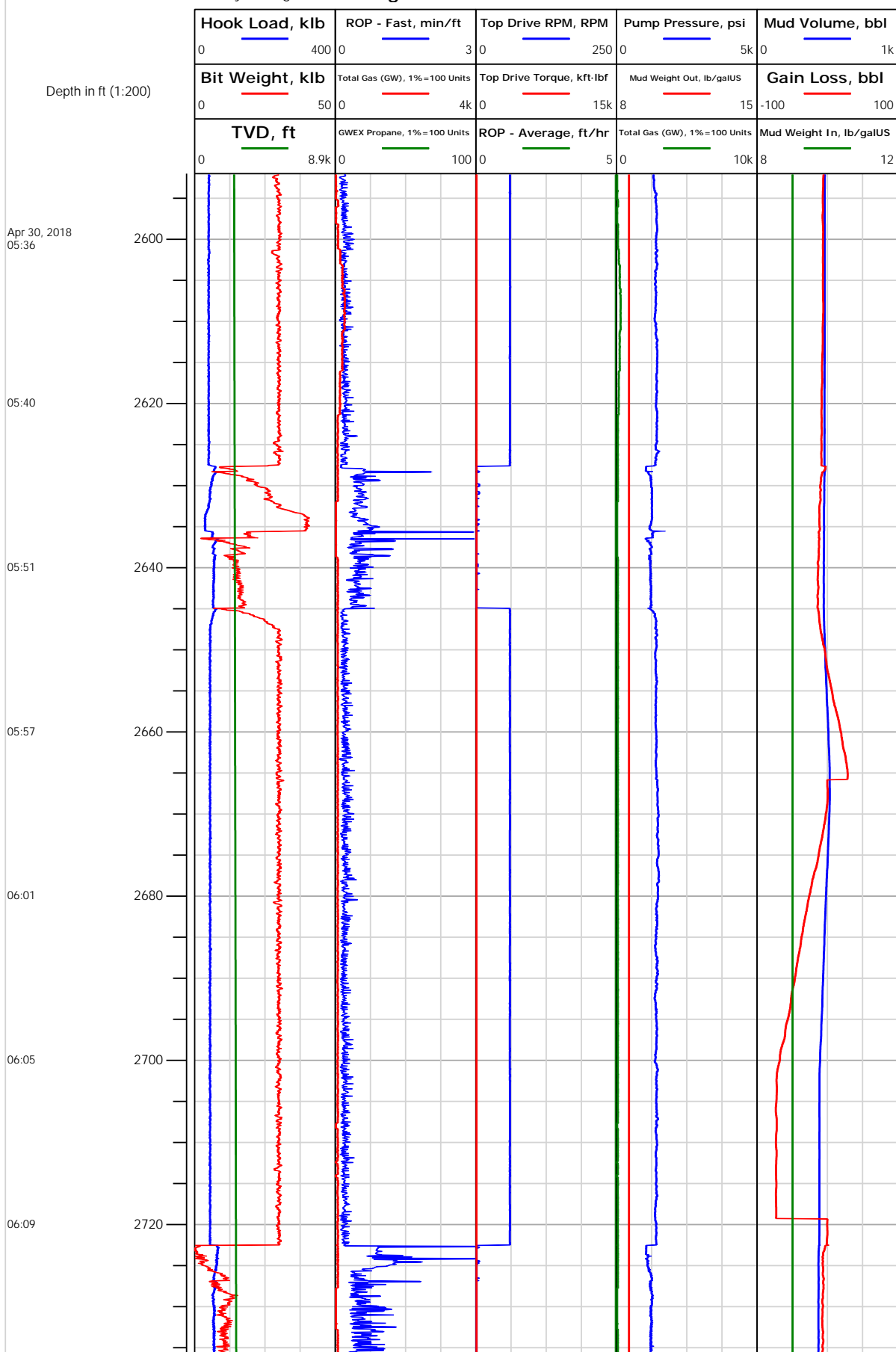
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





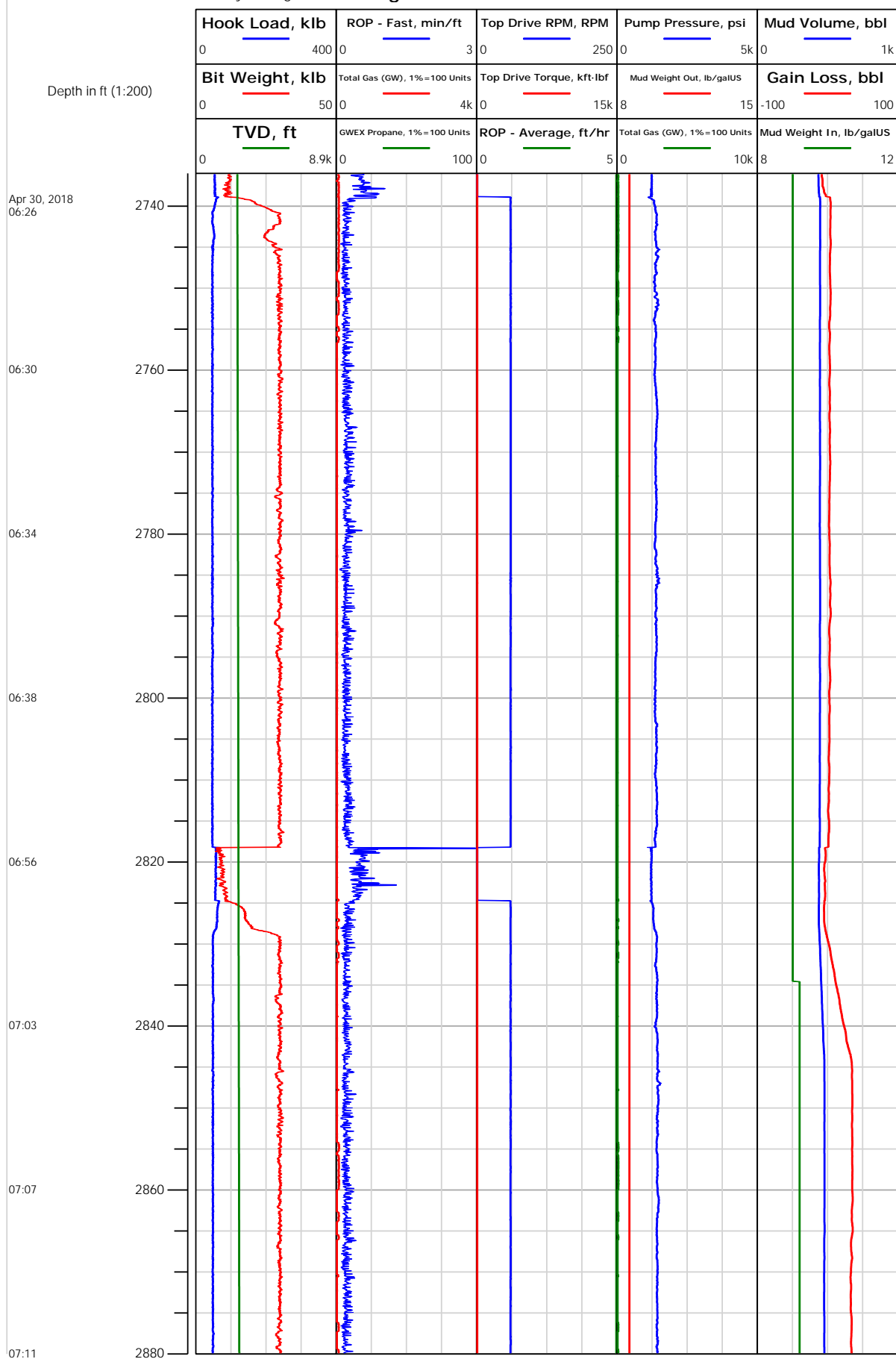
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





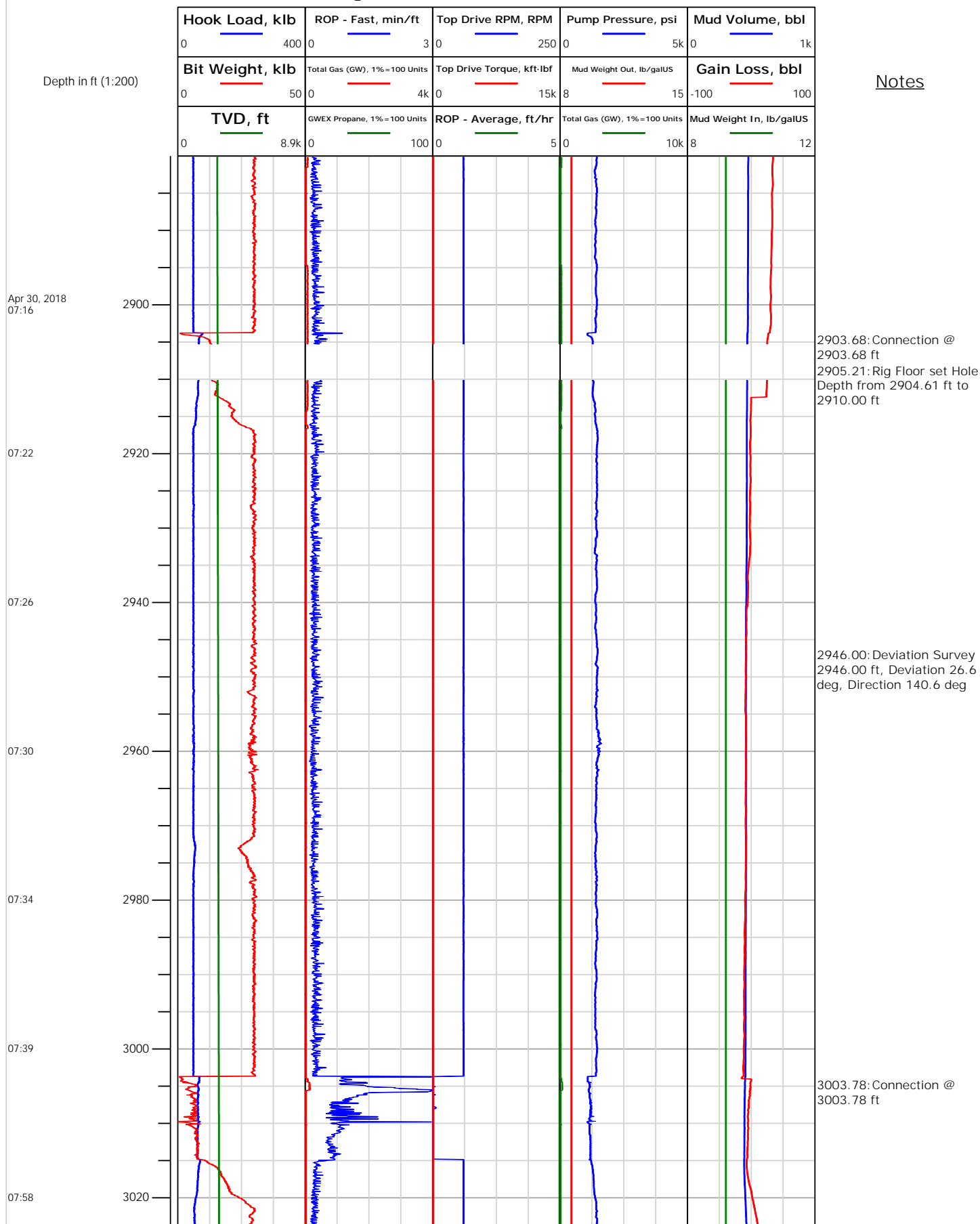
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





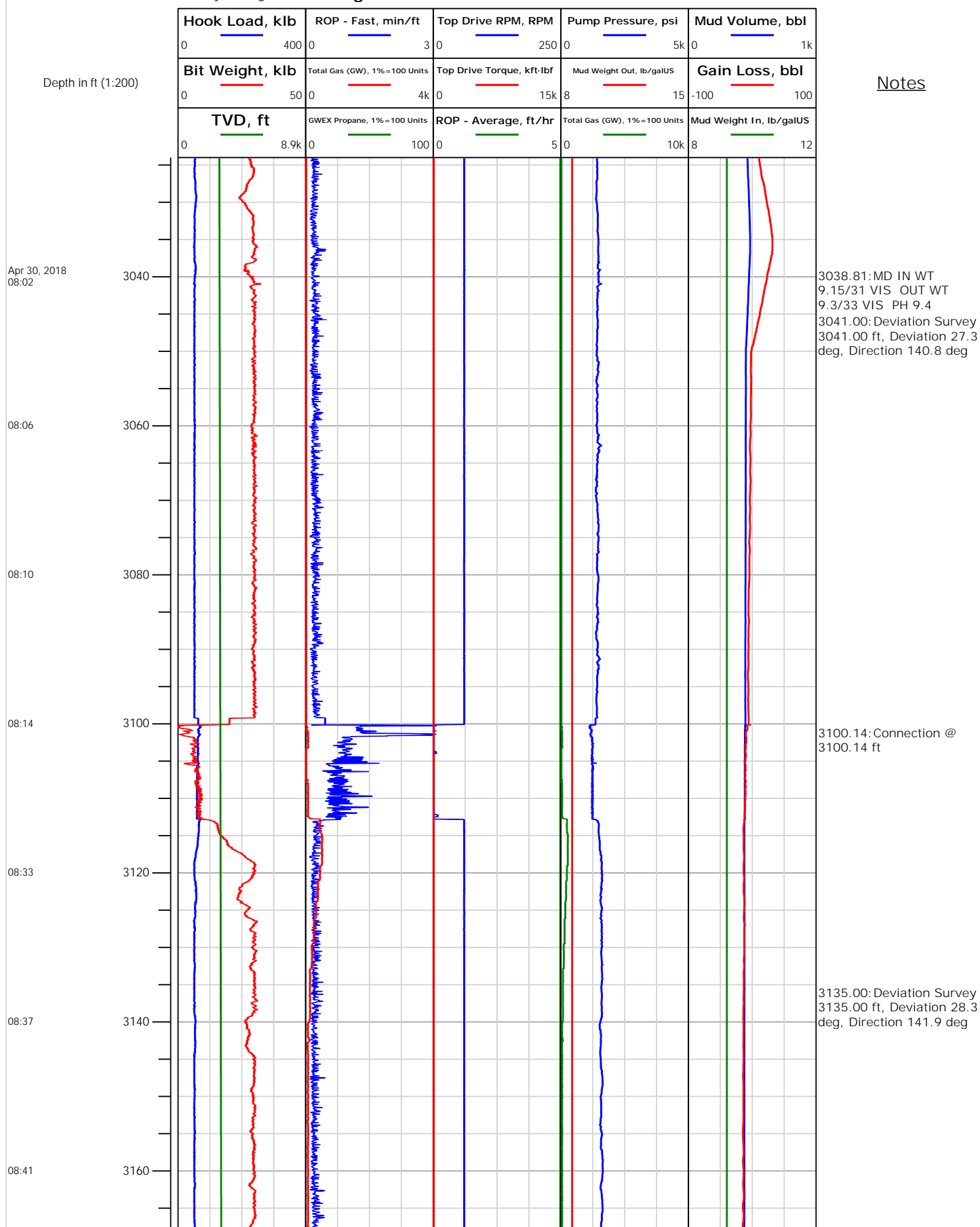
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)

Apr 30, 2018
08:45

08:56

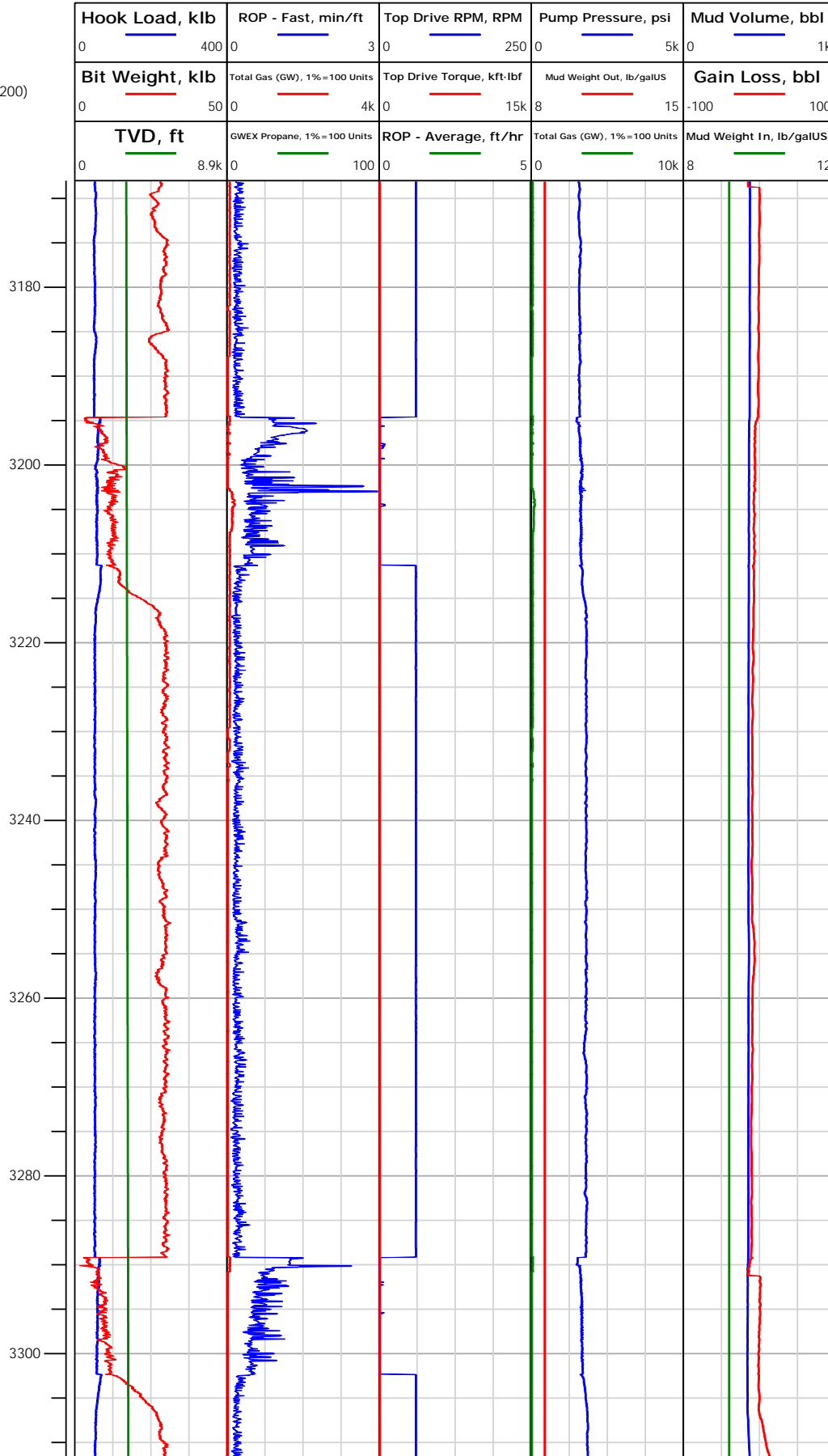
09:06

09:10

09:14

09:18

09:31



3194.53: Connection @
3194.53 ft

3226.93: MD IN WT 9.2/35
VIS OUT WT 9.3/32 VIS
3230.00: Deviation Survey
3230.00 ft, Deviation 30.1
deg, Direction 142 deg

3289.26: Connection @
3289.26 ft



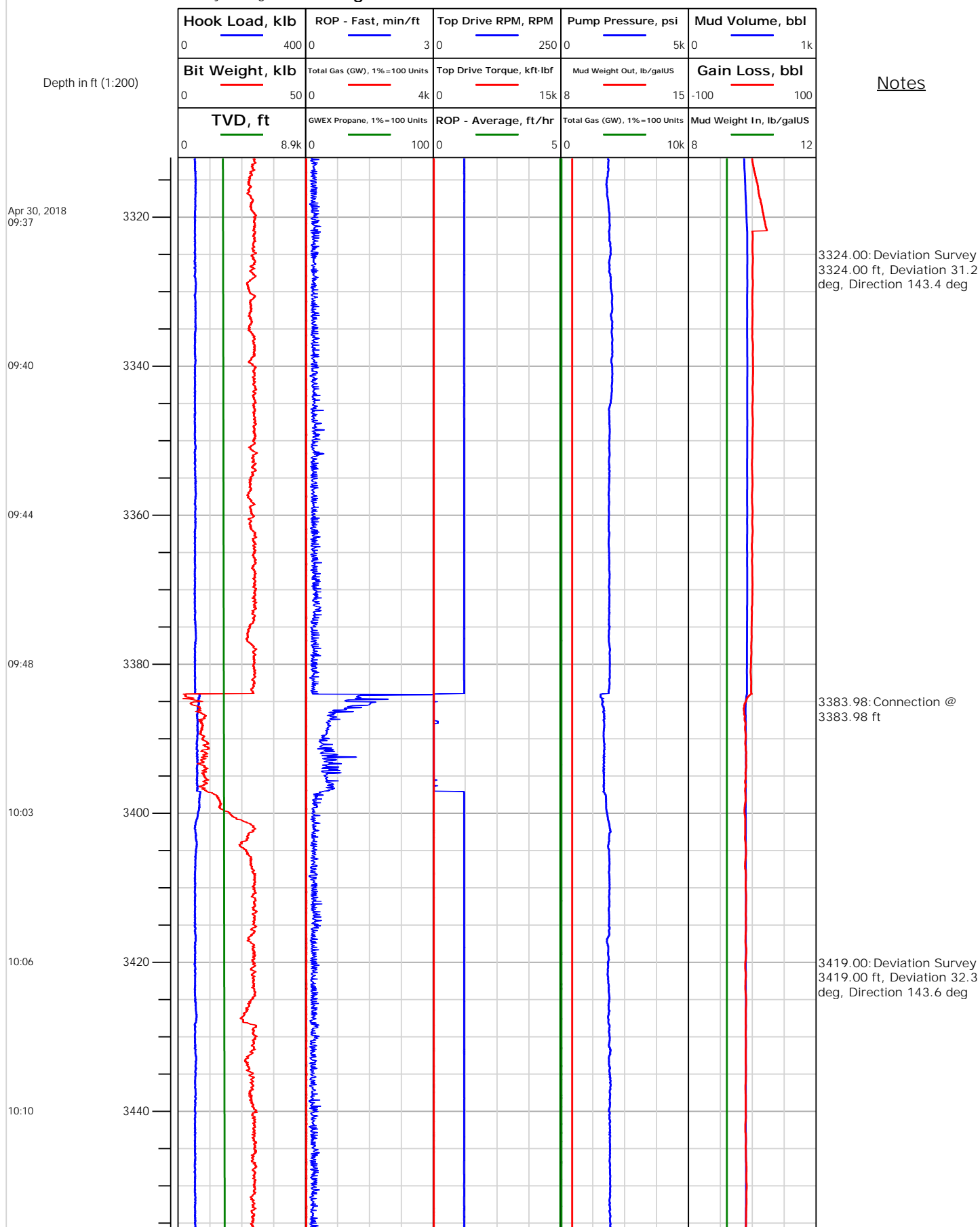
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes



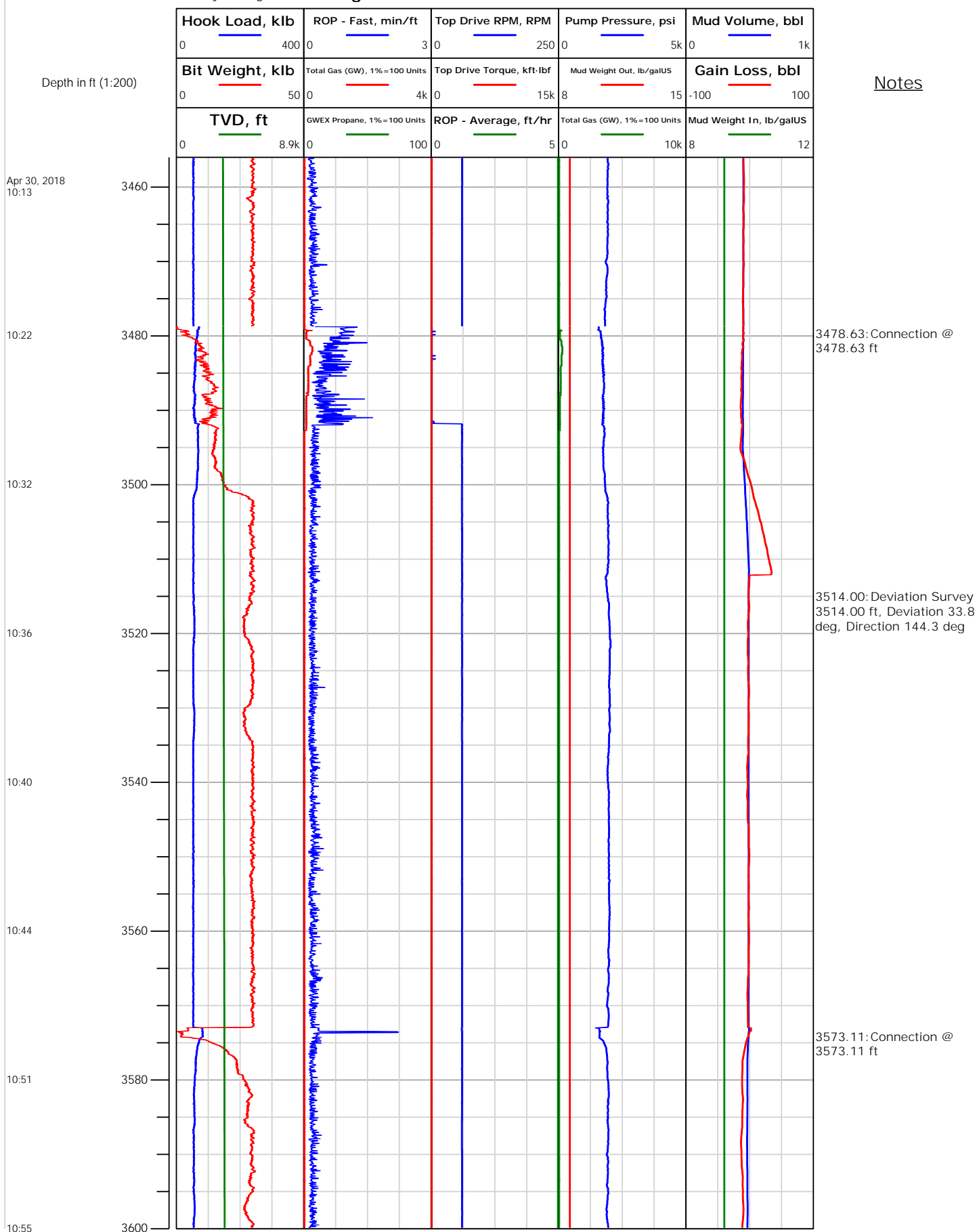


Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4





Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)

Apr 30, 2018
10:59

11:03

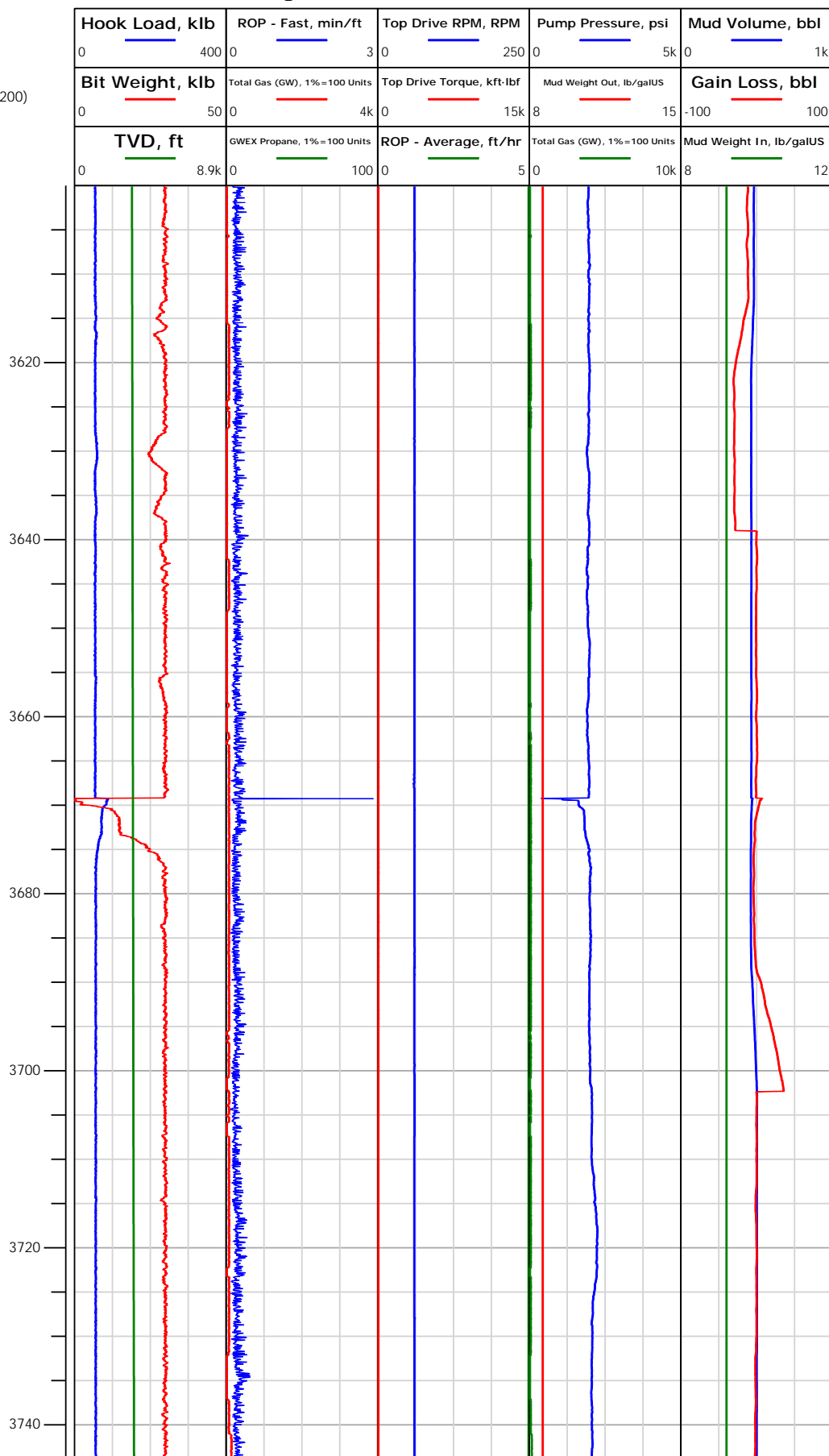
11:07

11:14

11:18

11:22

11:26



3608.00: Deviation Survey
3608.00 ft, Deviation 33.9
deg, Direction 144.4 deg

3638.22: MD IN WT 9.3/46
VIS OUT WT 9.4/42 VIS
PH 8.2

3669.26: Connection @
3669.26 ft

3703.00: Deviation Survey
3703.00 ft, Deviation 33.8
deg, Direction 144.1 deg



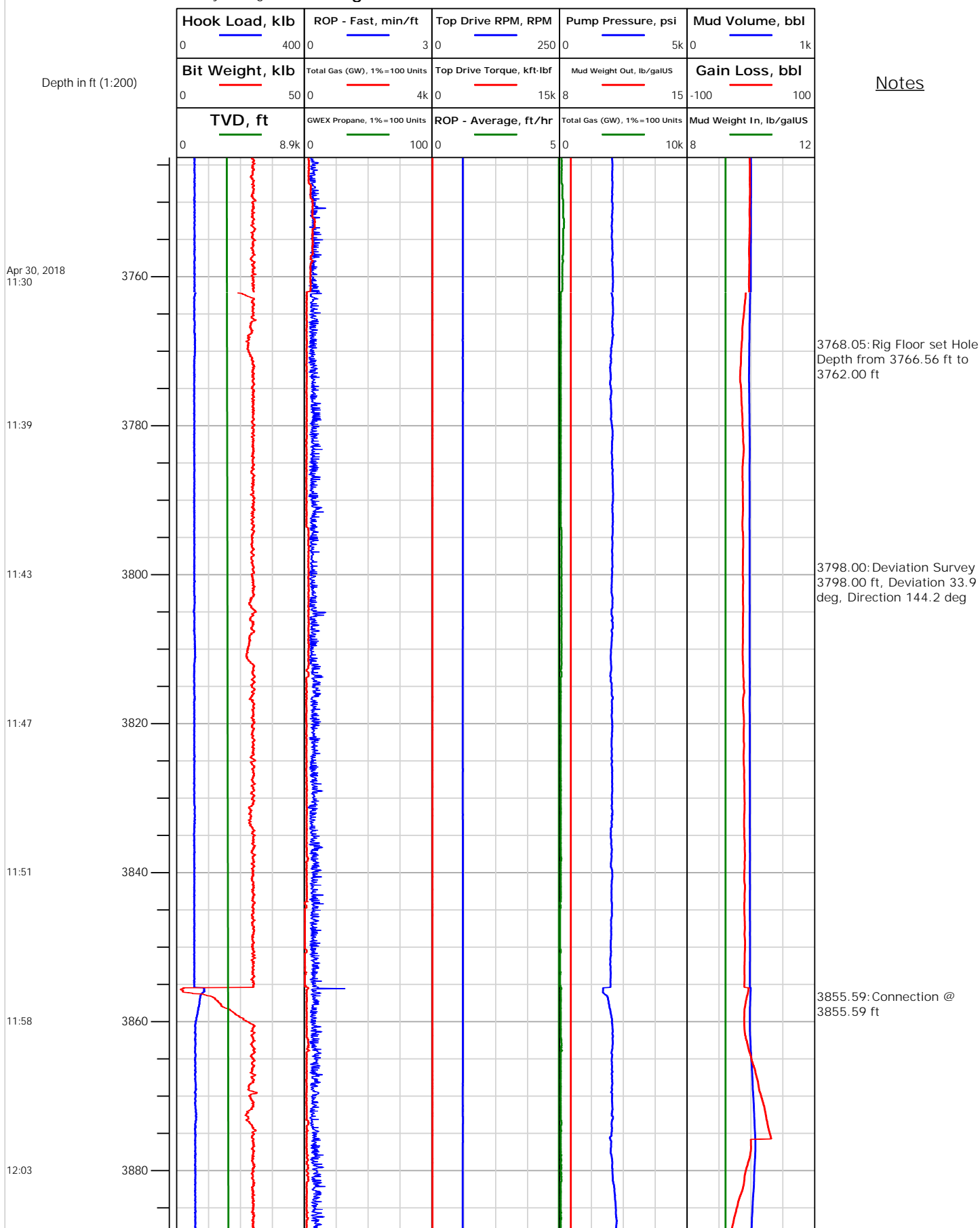
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





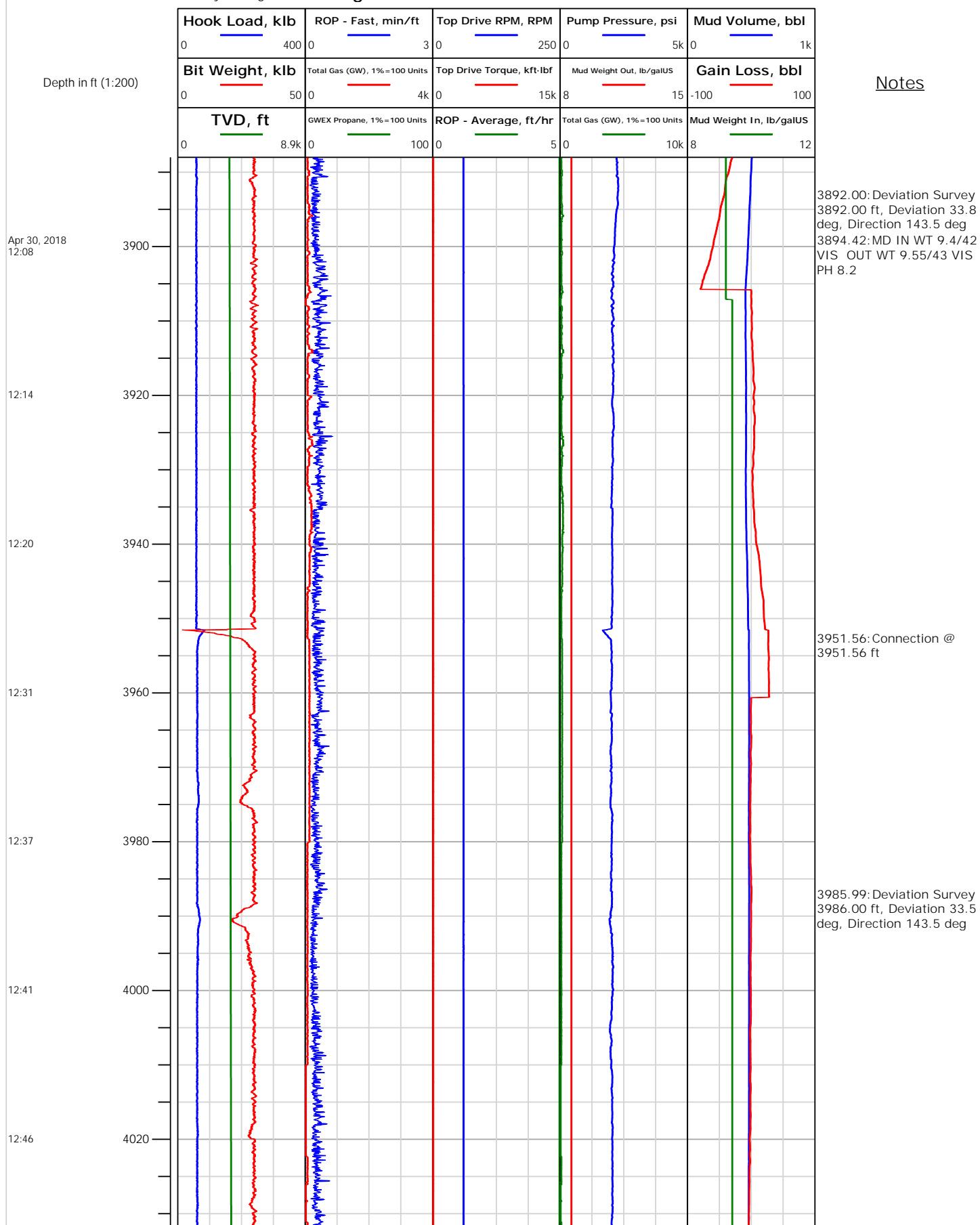
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

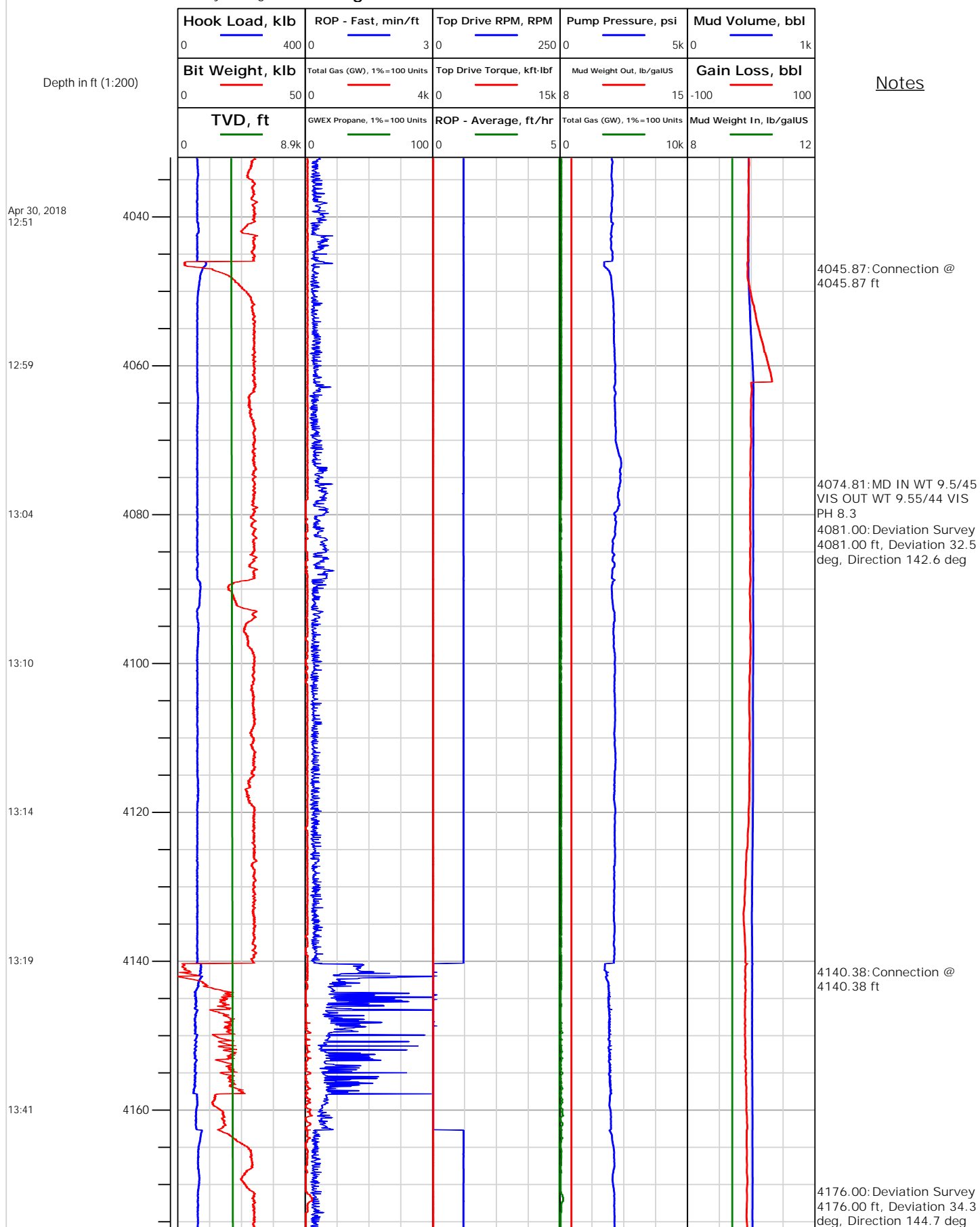
Location: SE/4 of NW/4

Notes



Location: SE/4 of NW/4

Electronic Drilling Recorder





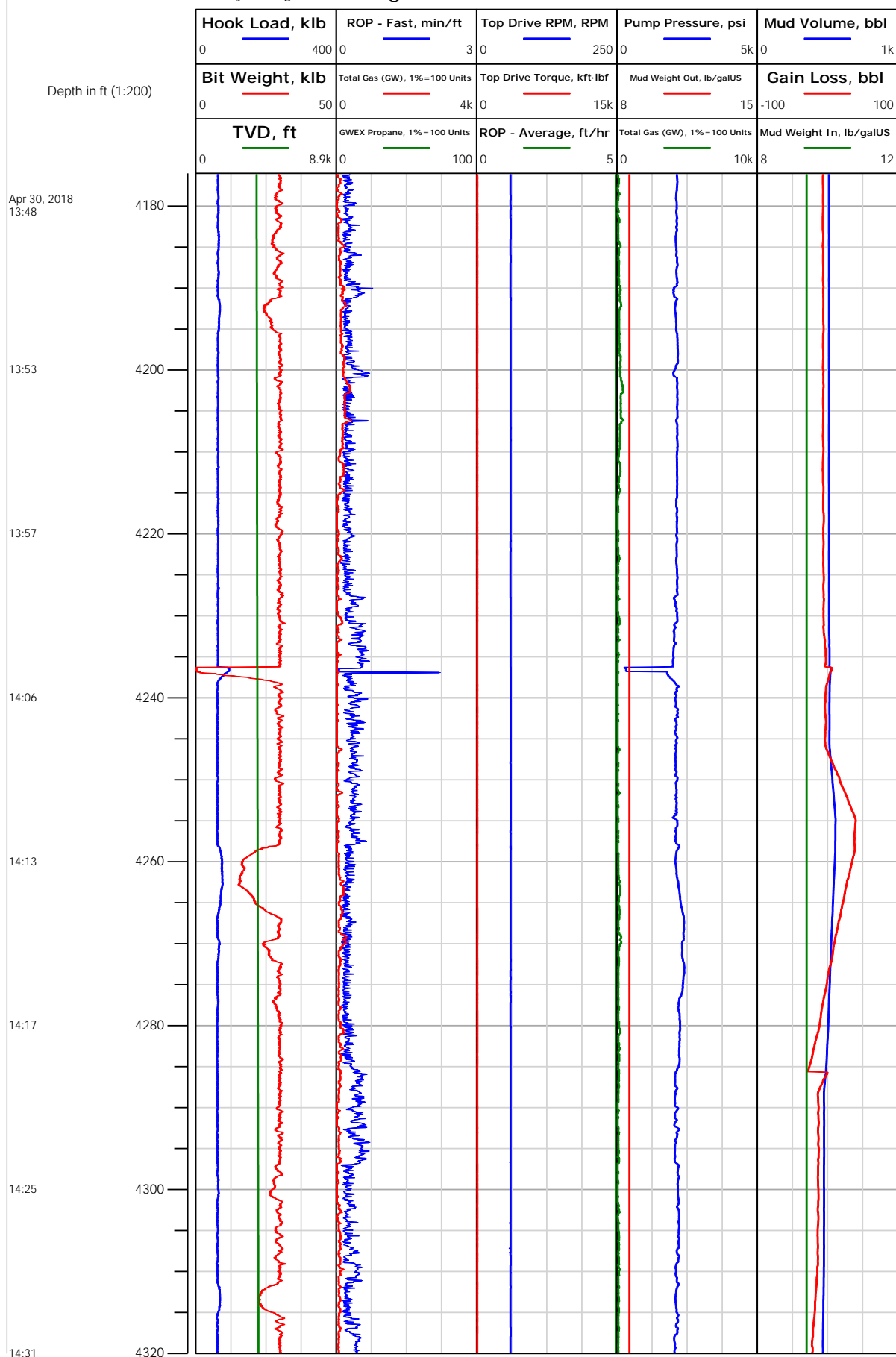
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





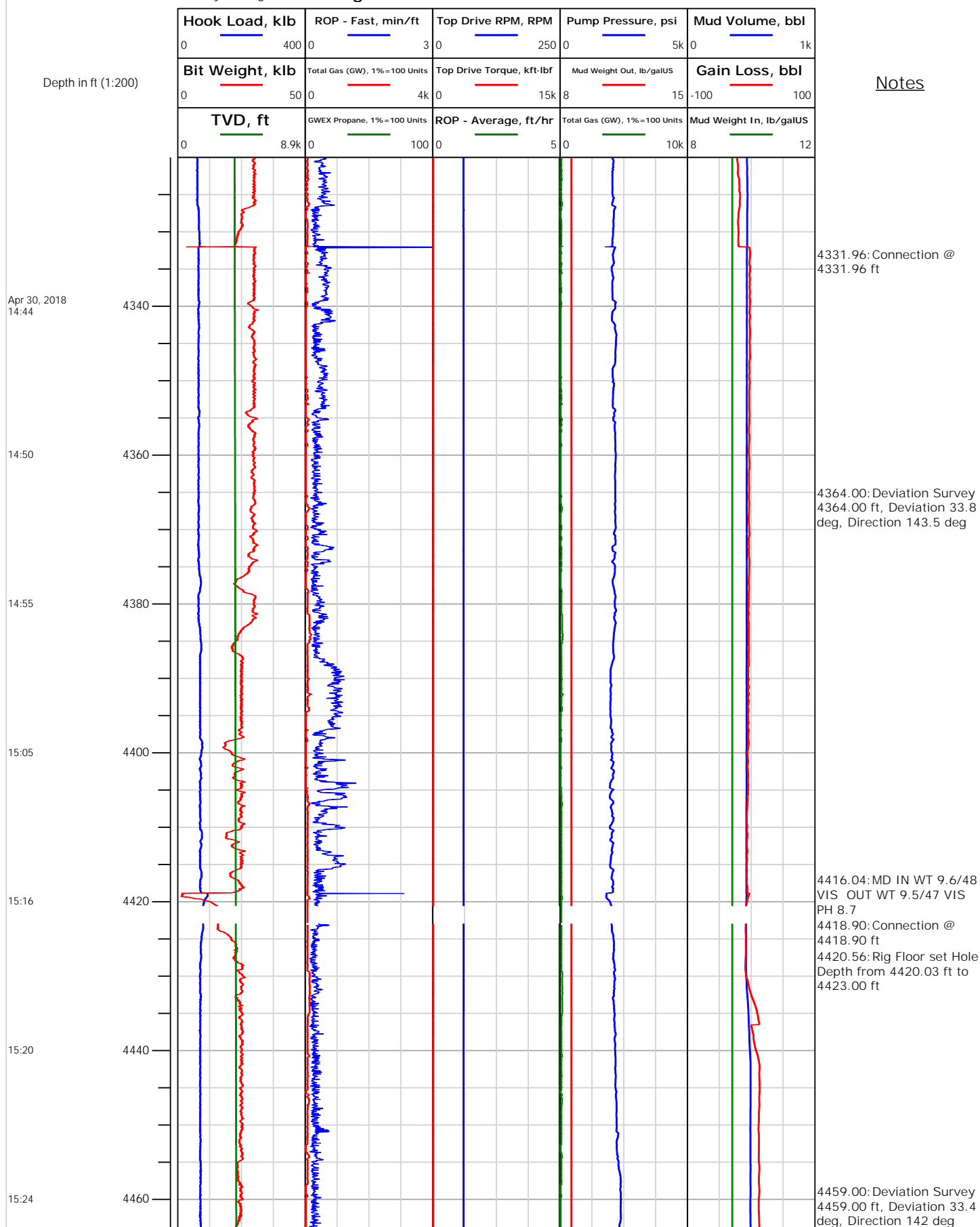
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





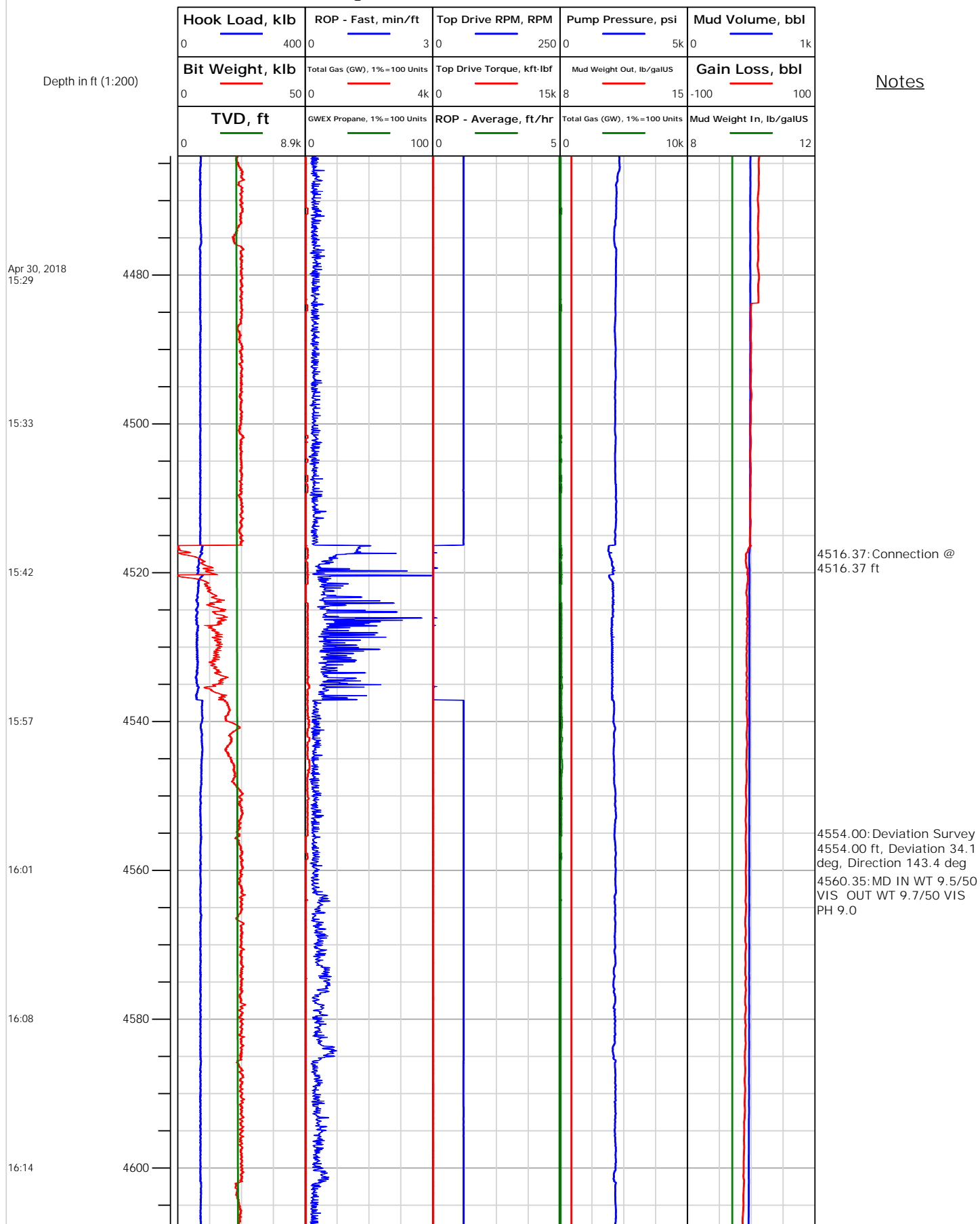
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





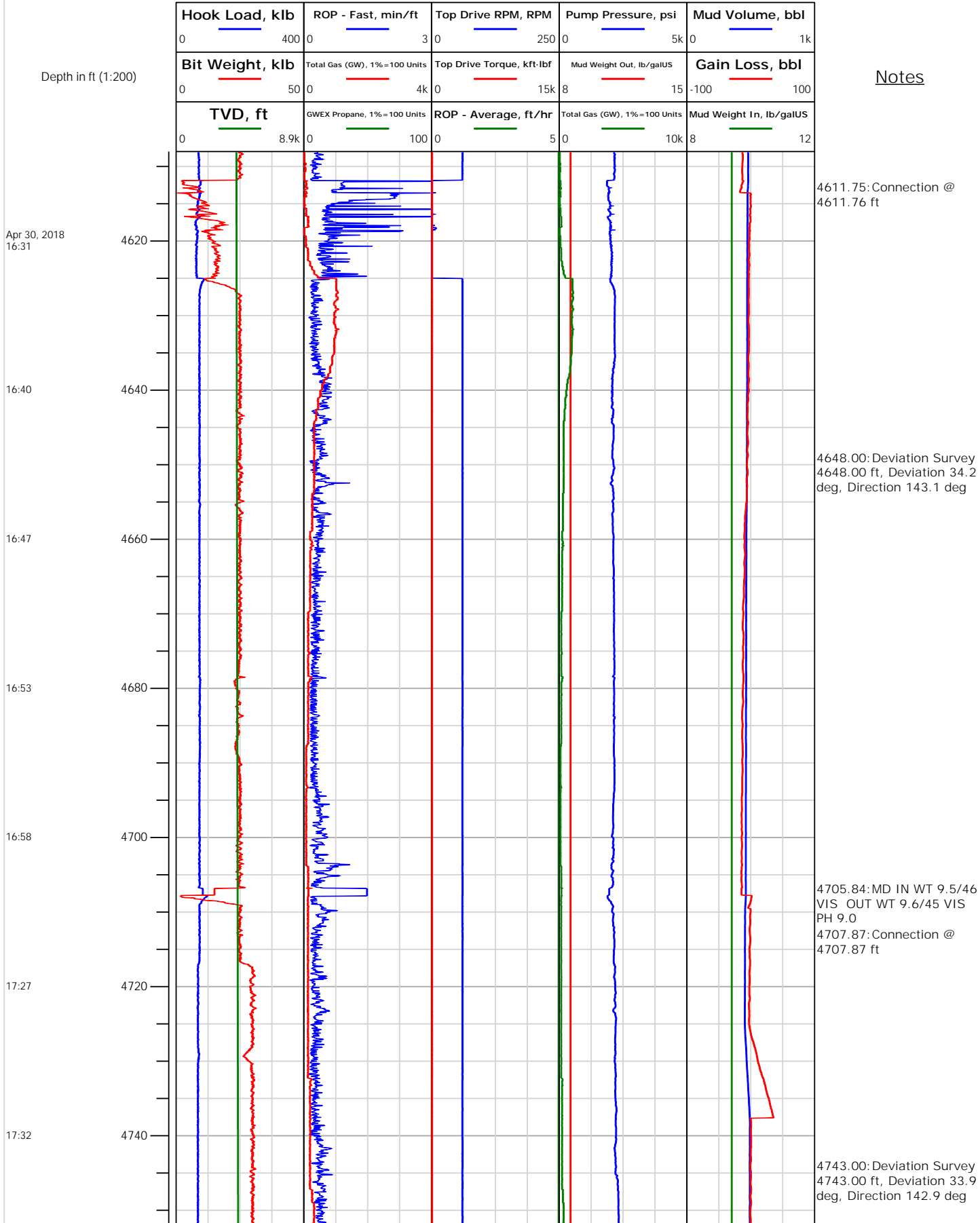
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





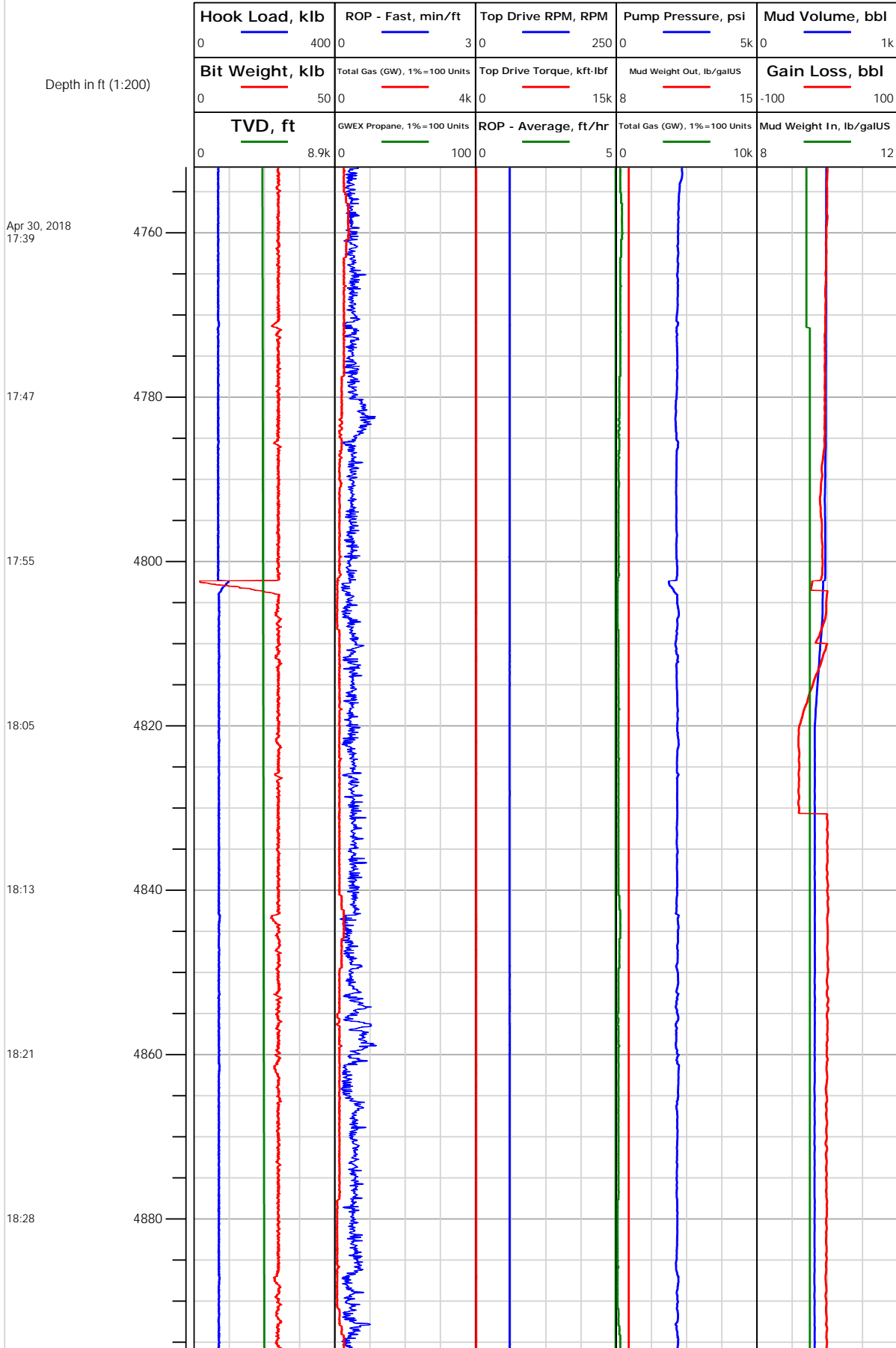
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





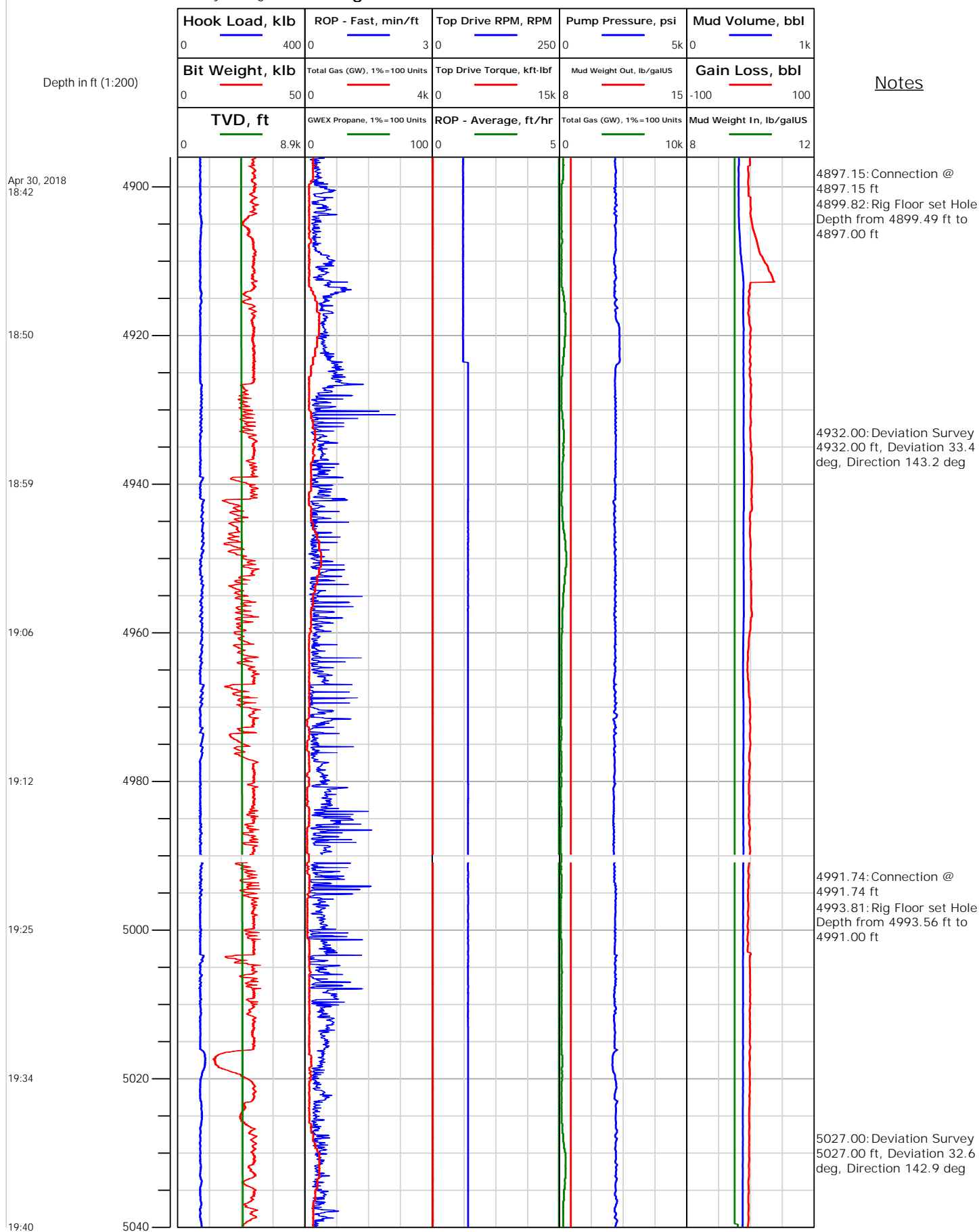
Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Electronic Drilling Recorder

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





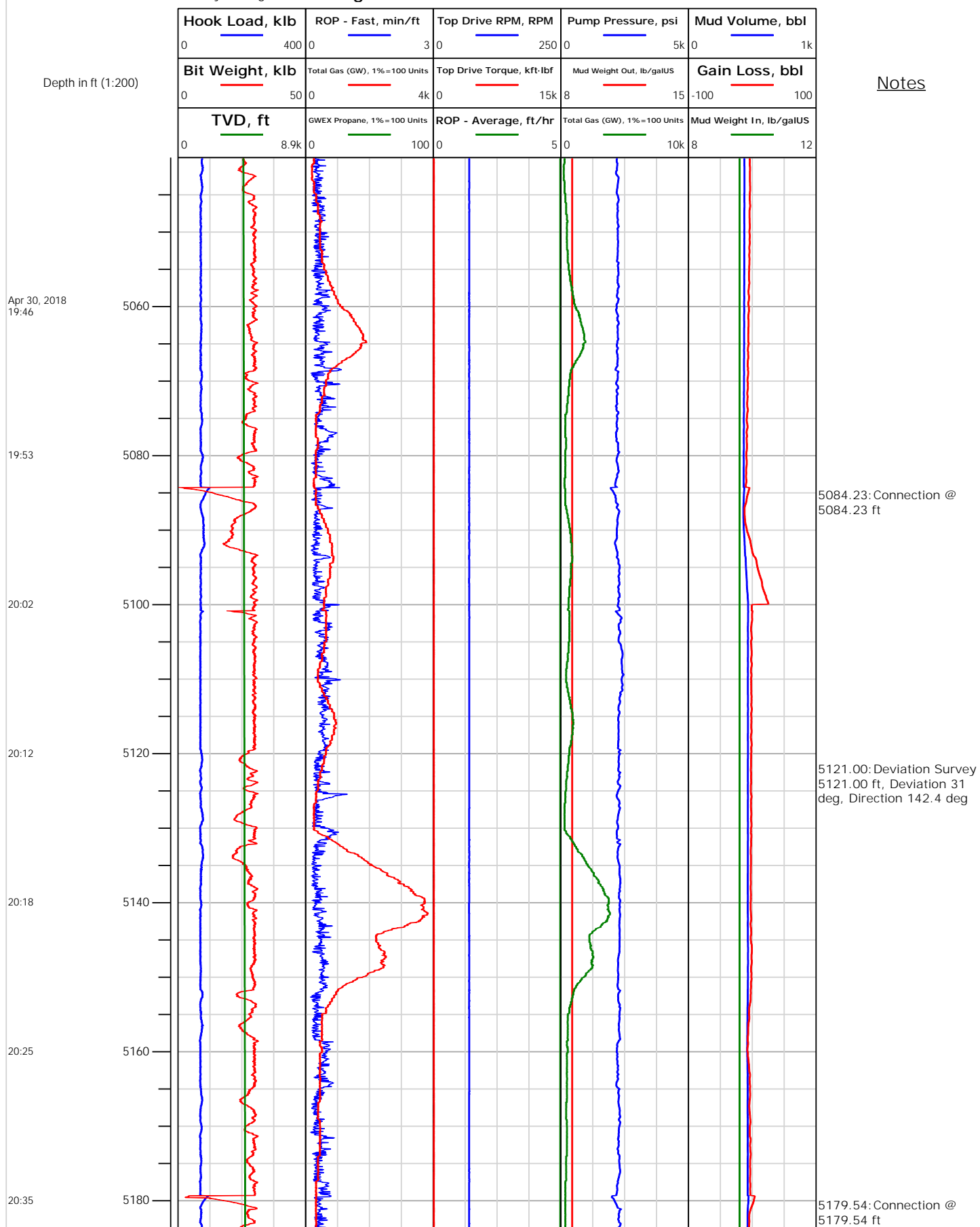
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





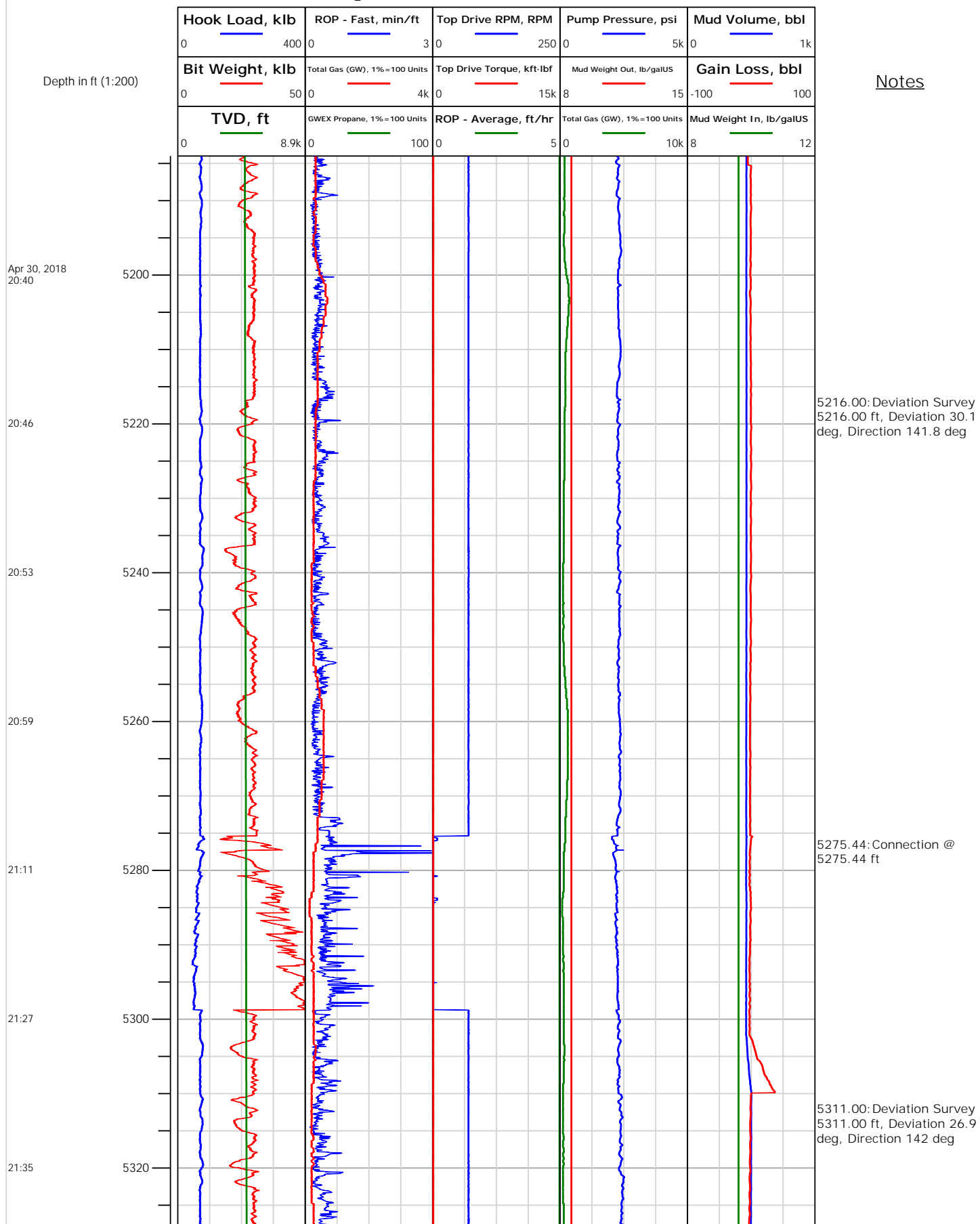
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





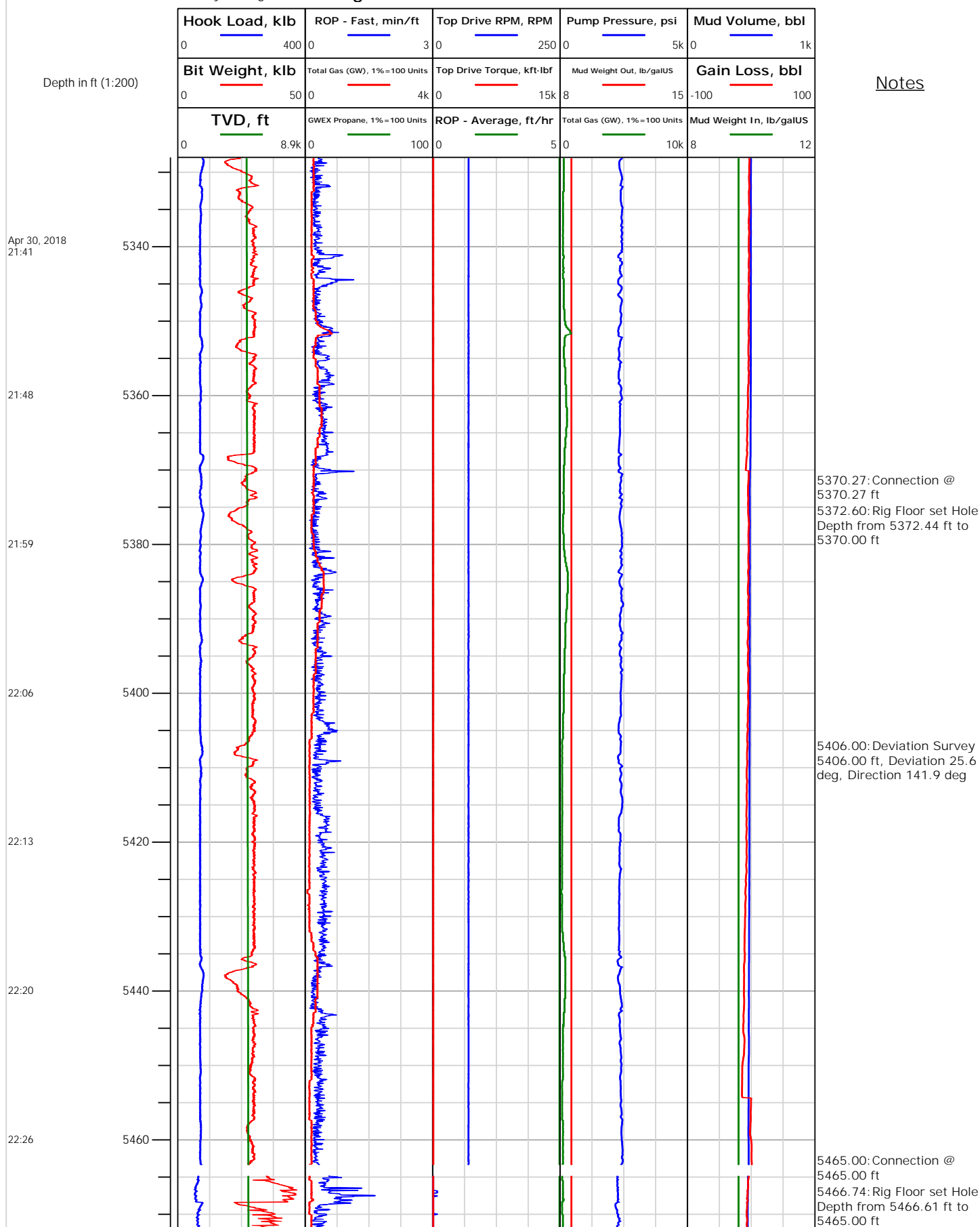
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





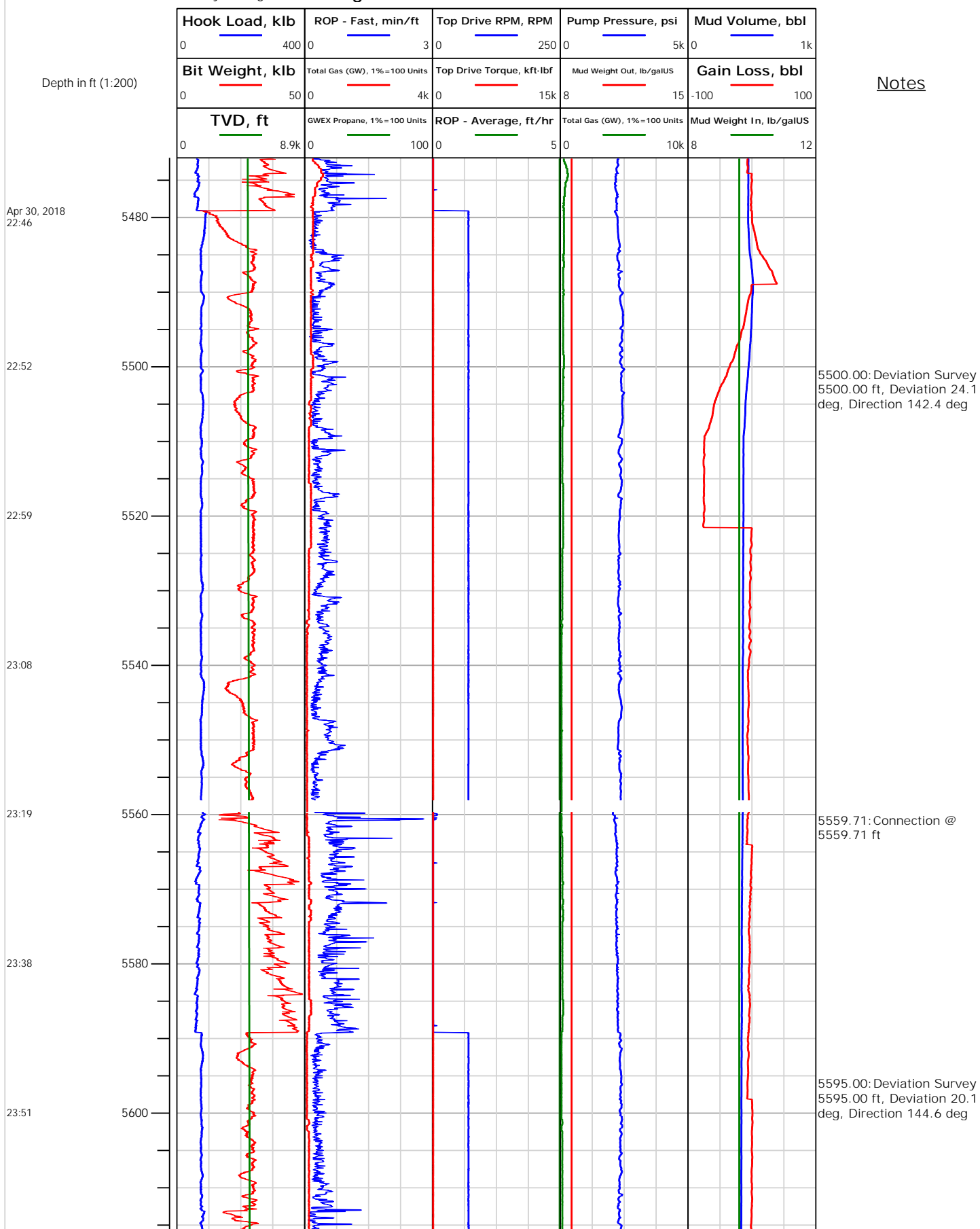
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





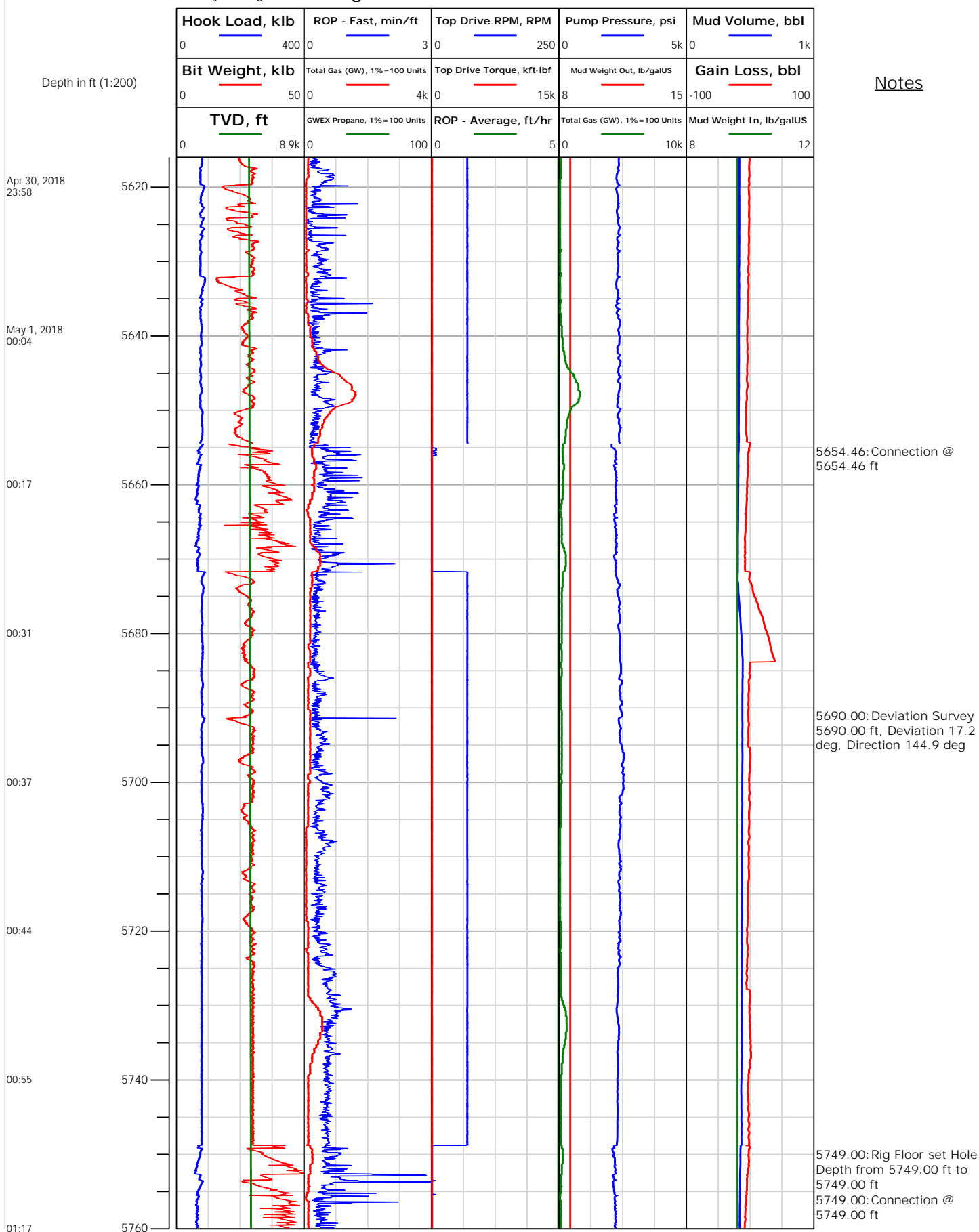
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





Electronic Drilling Recorder

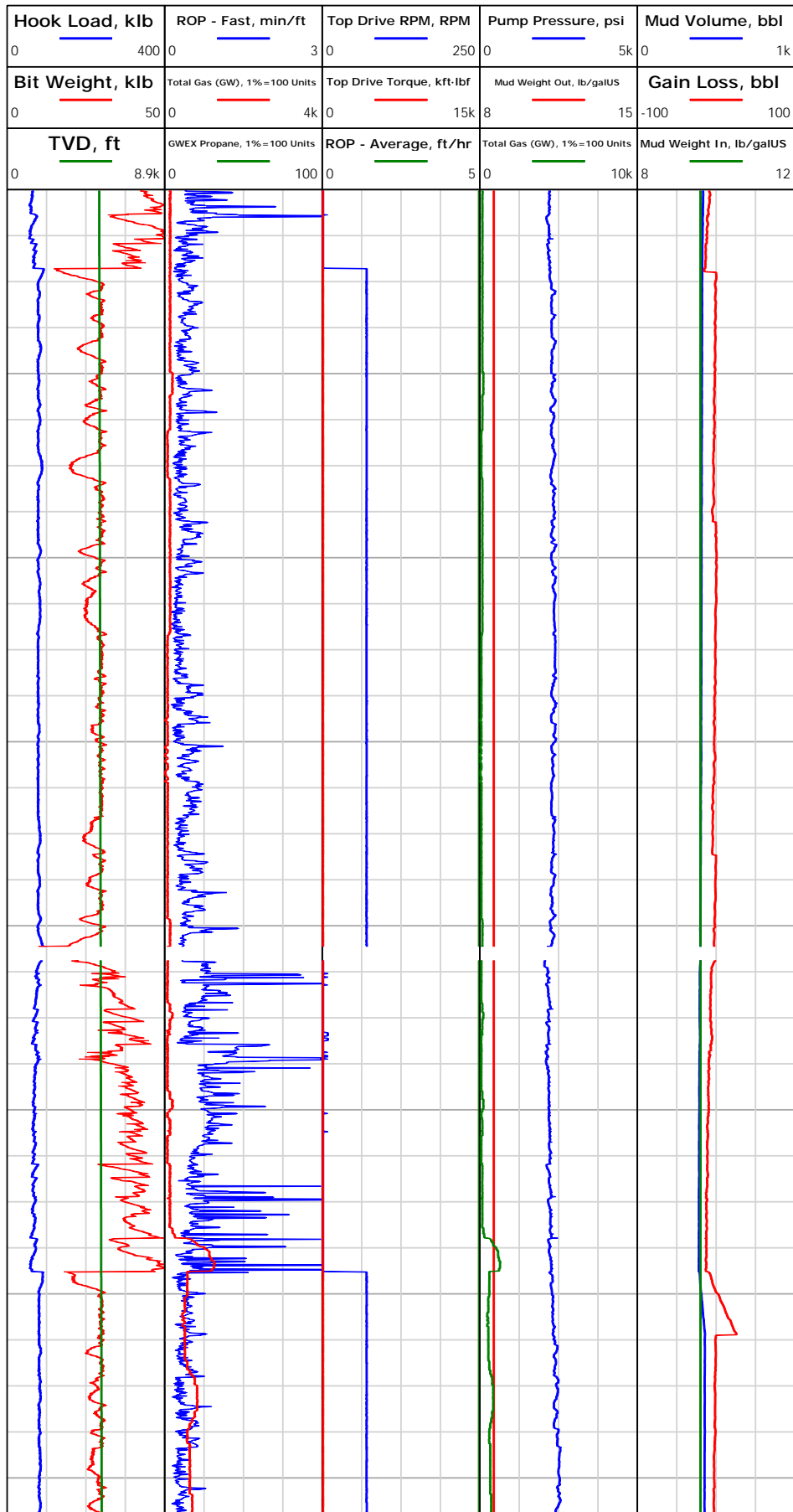
Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes

Depth in ft (1:200)



May 1, 2018
01:31

01:38

01:44

01:53

02:21

02:42

02:50

5784.00: Deviation Survey
5784.00 ft, Deviation 15
deg, Direction 144 deg

5843.78: Connection @
5843.78 ft

5879.00: Deviation Survey
5879.00 ft, Deviation 11.6
deg, Direction 142.9 deg



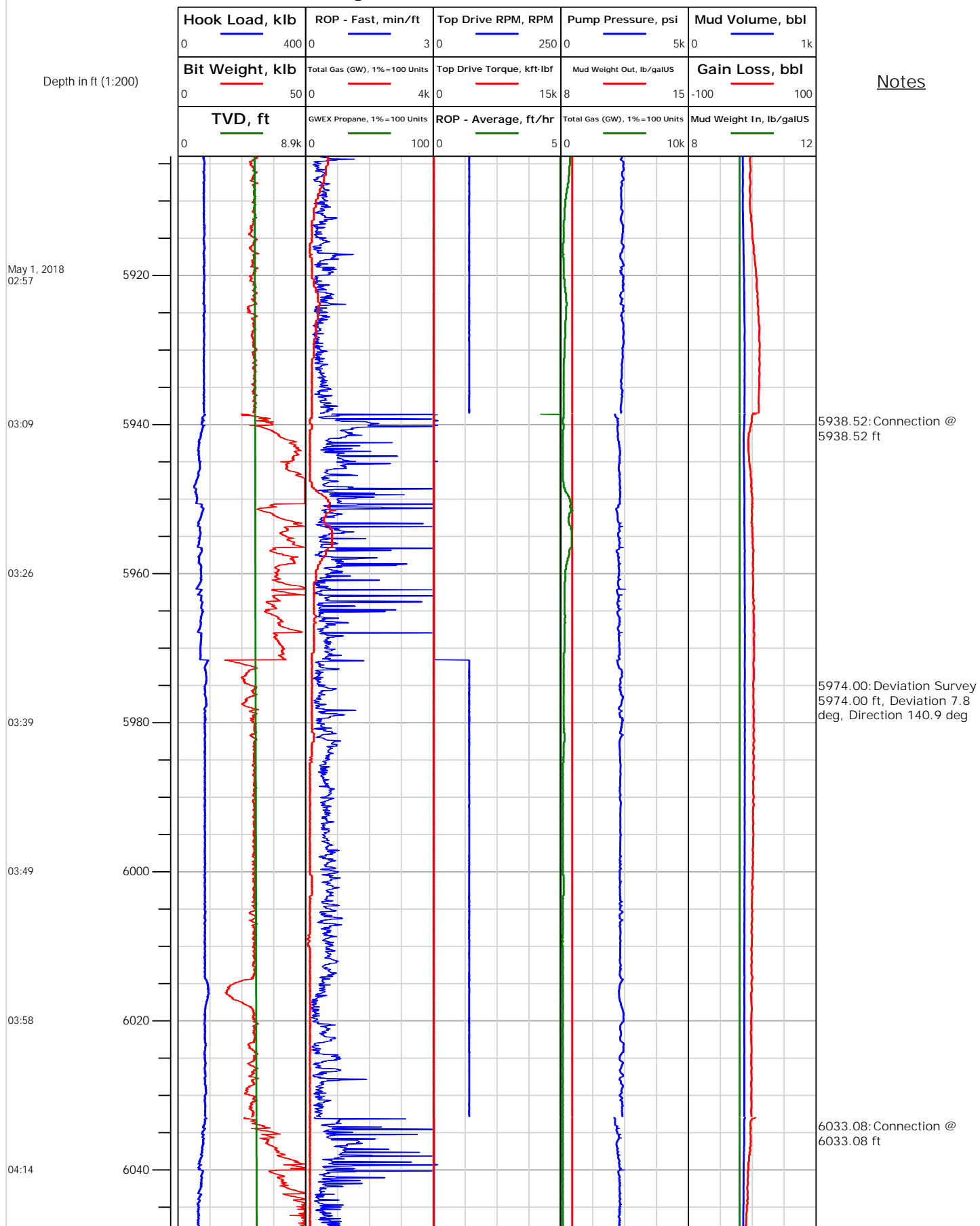
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





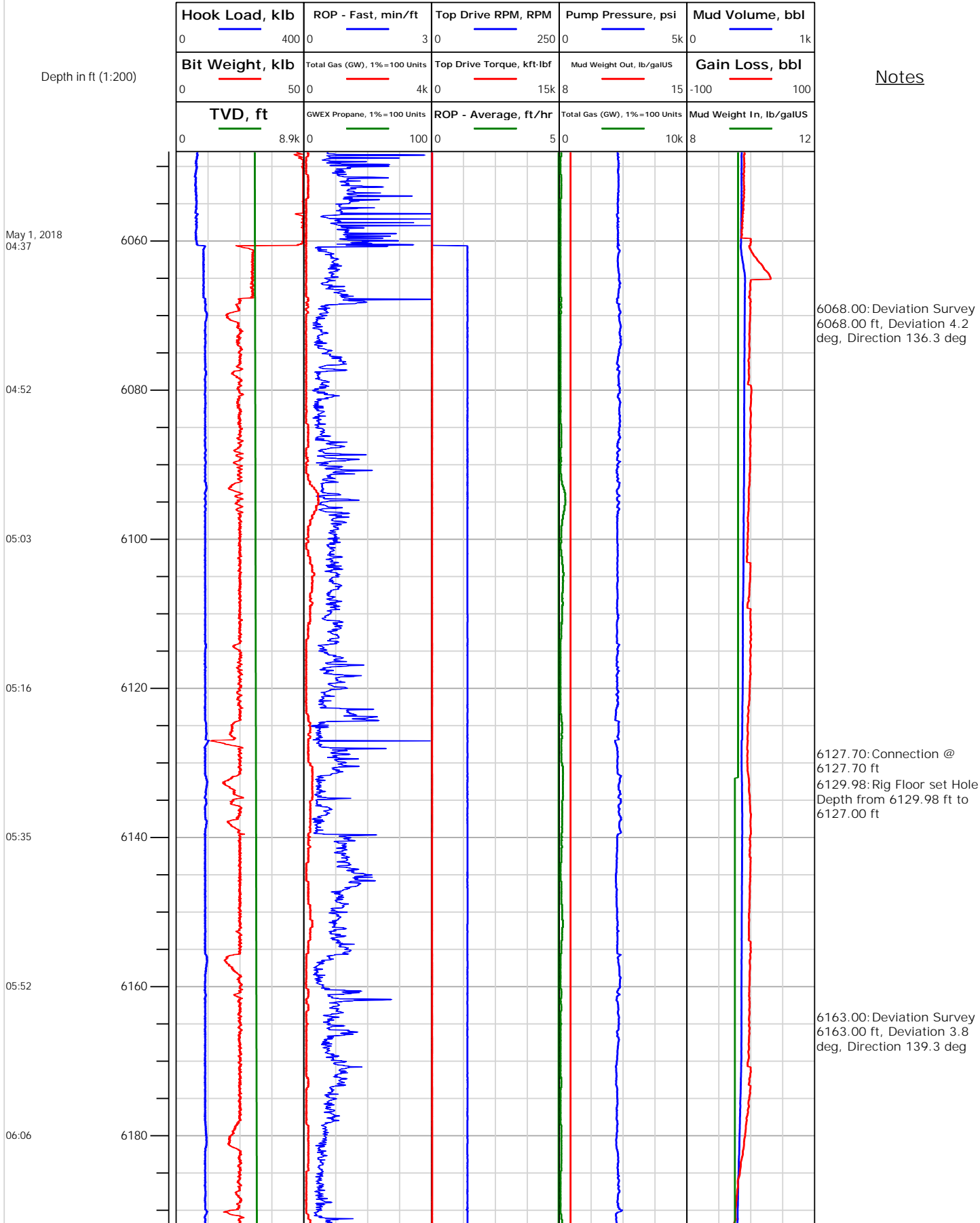
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





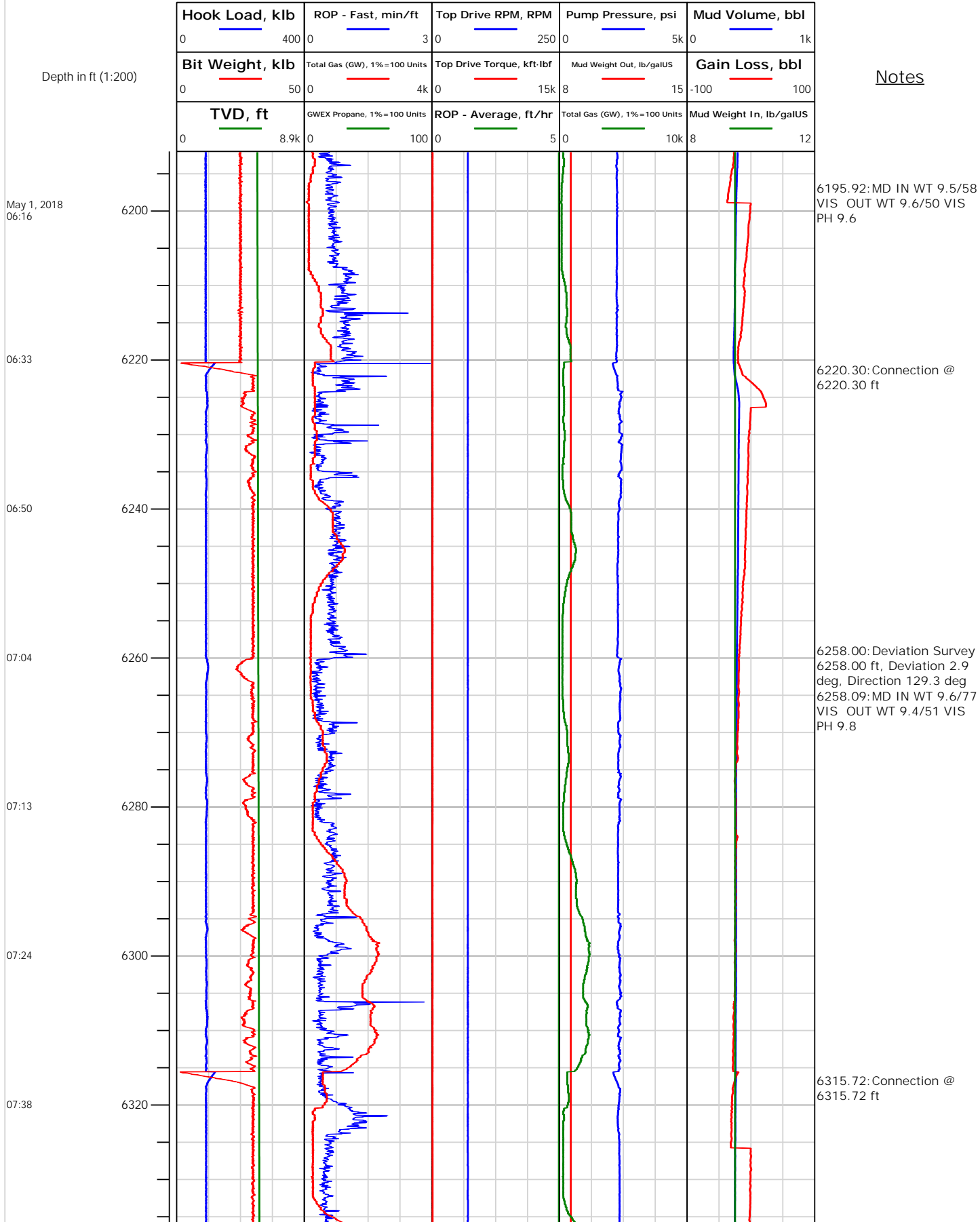
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





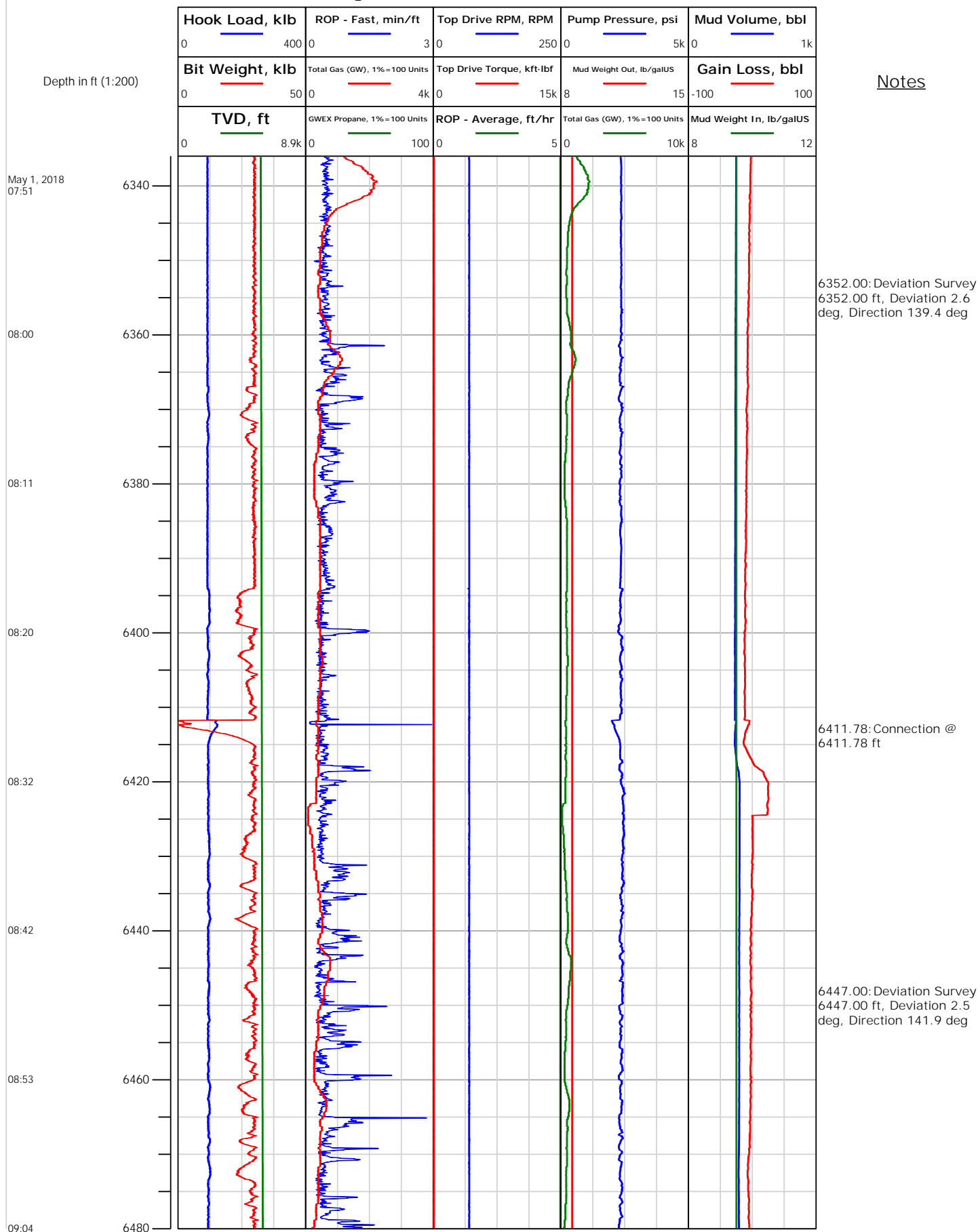
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





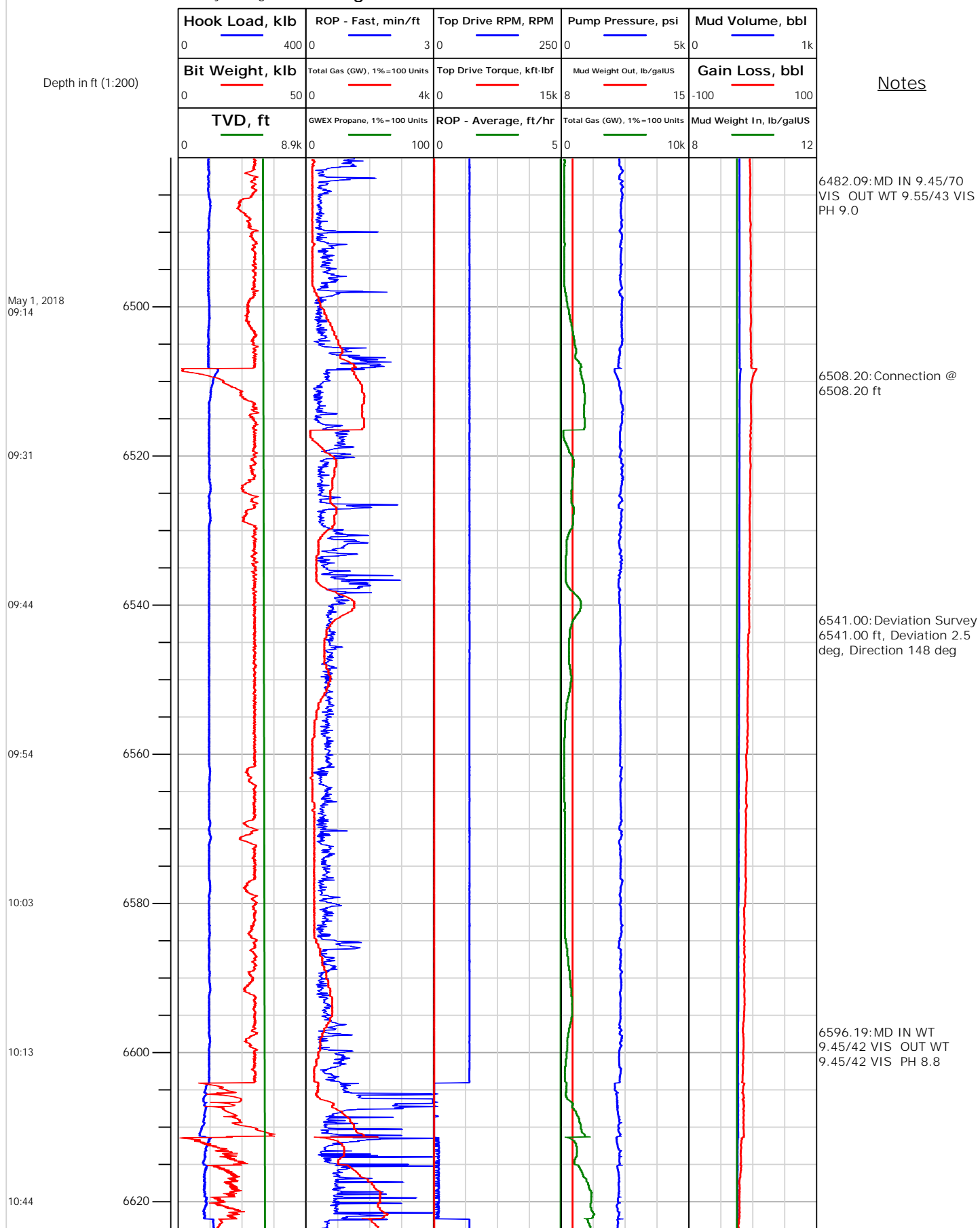
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





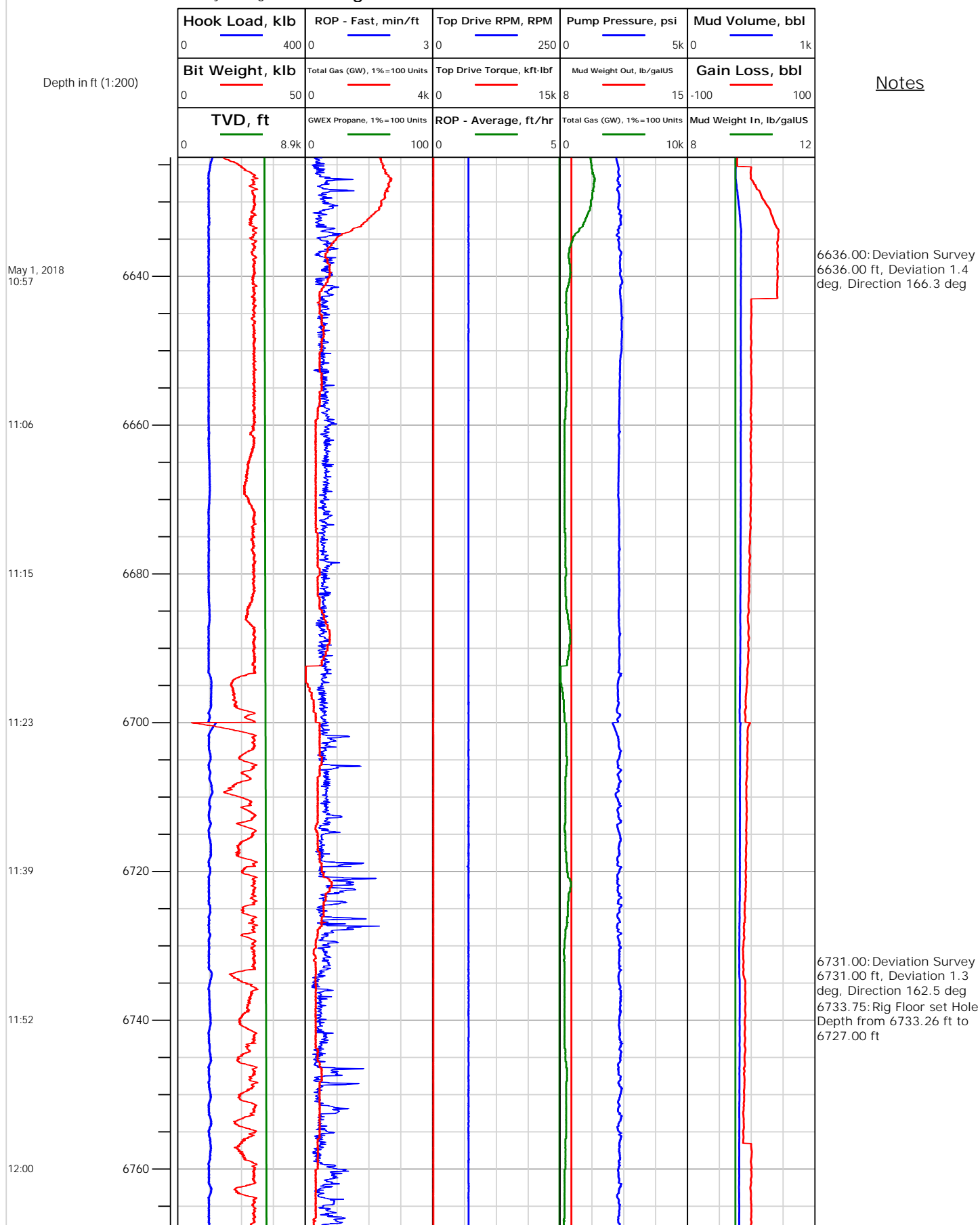
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





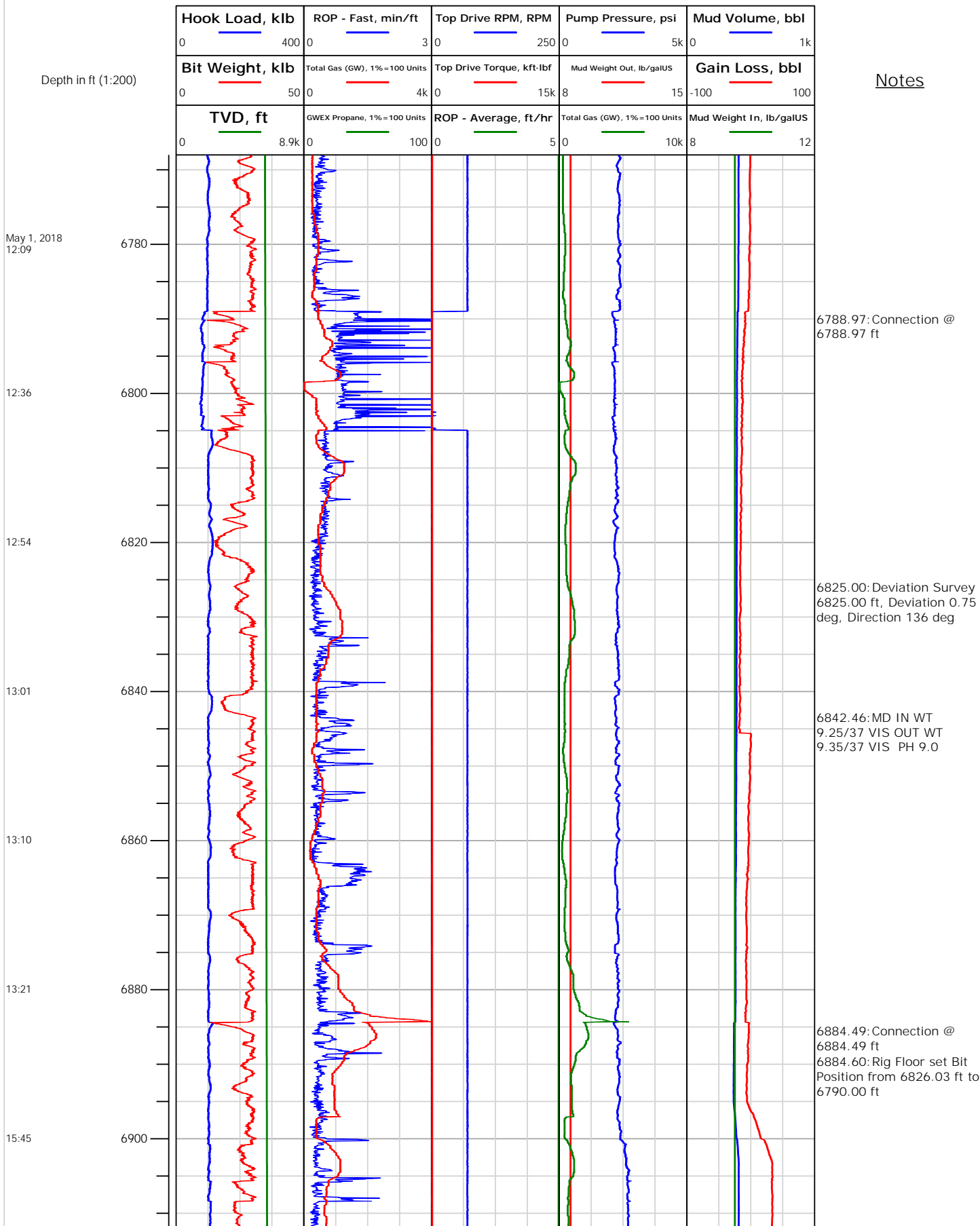
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





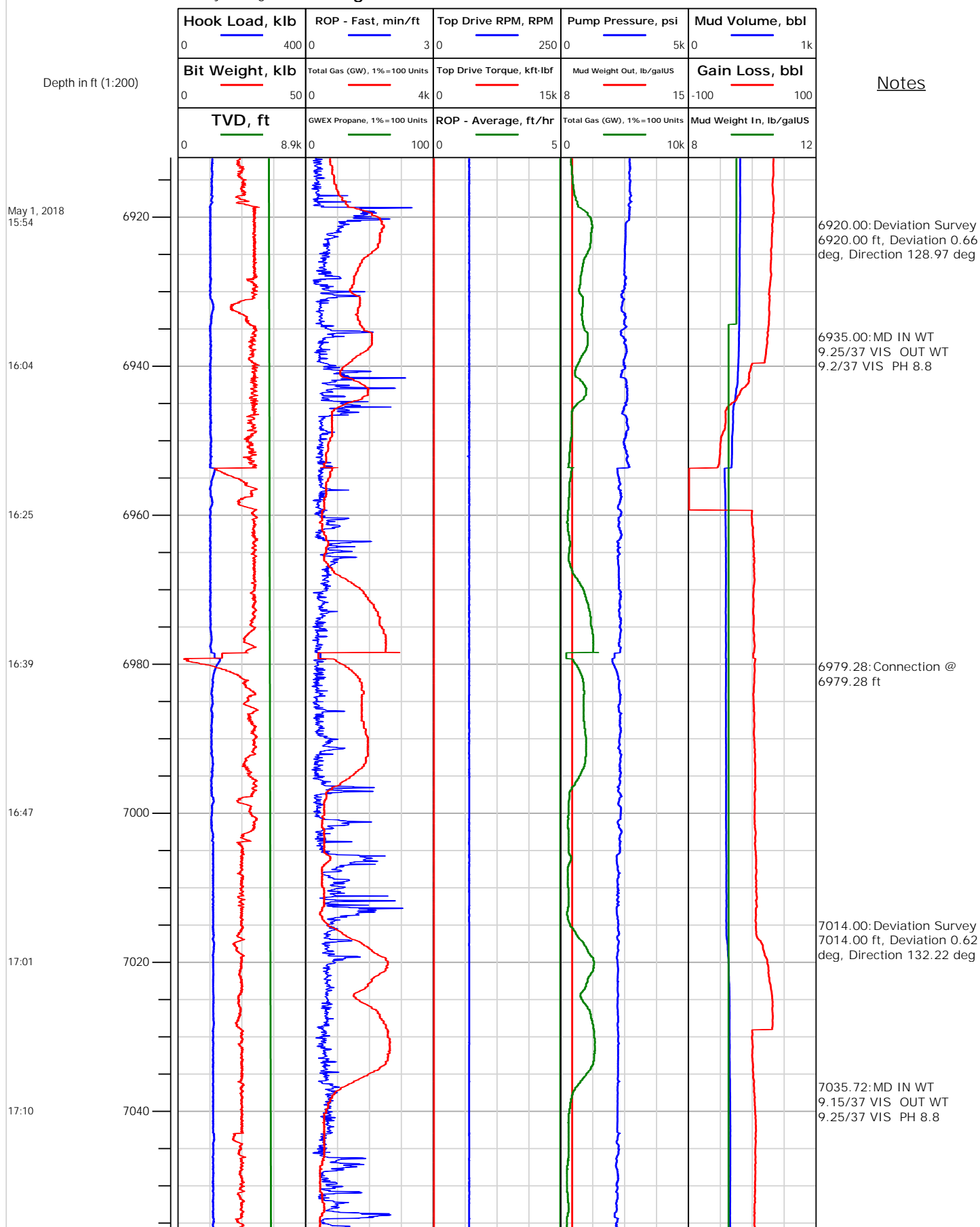
Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Electronic Drilling Recorder

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





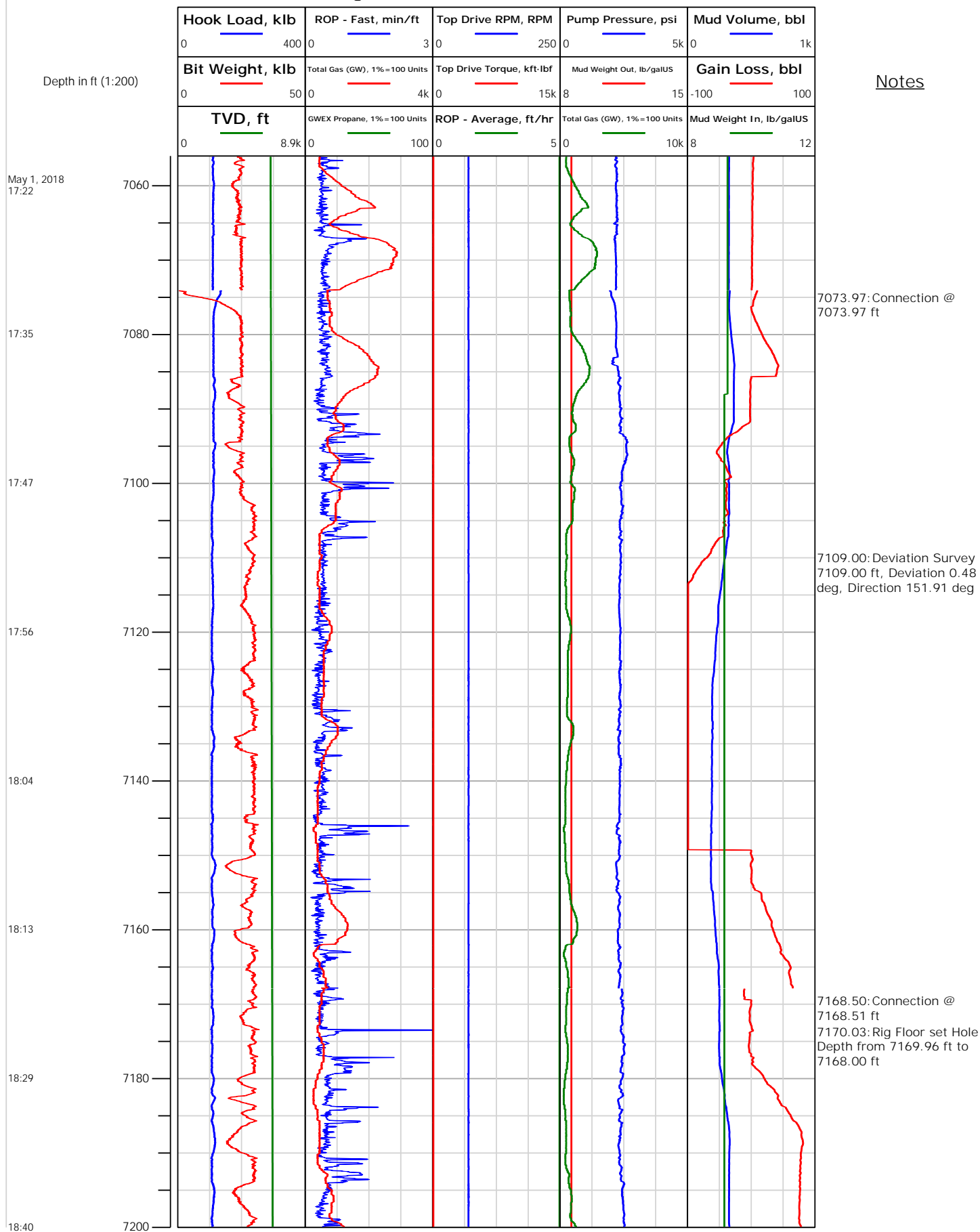
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





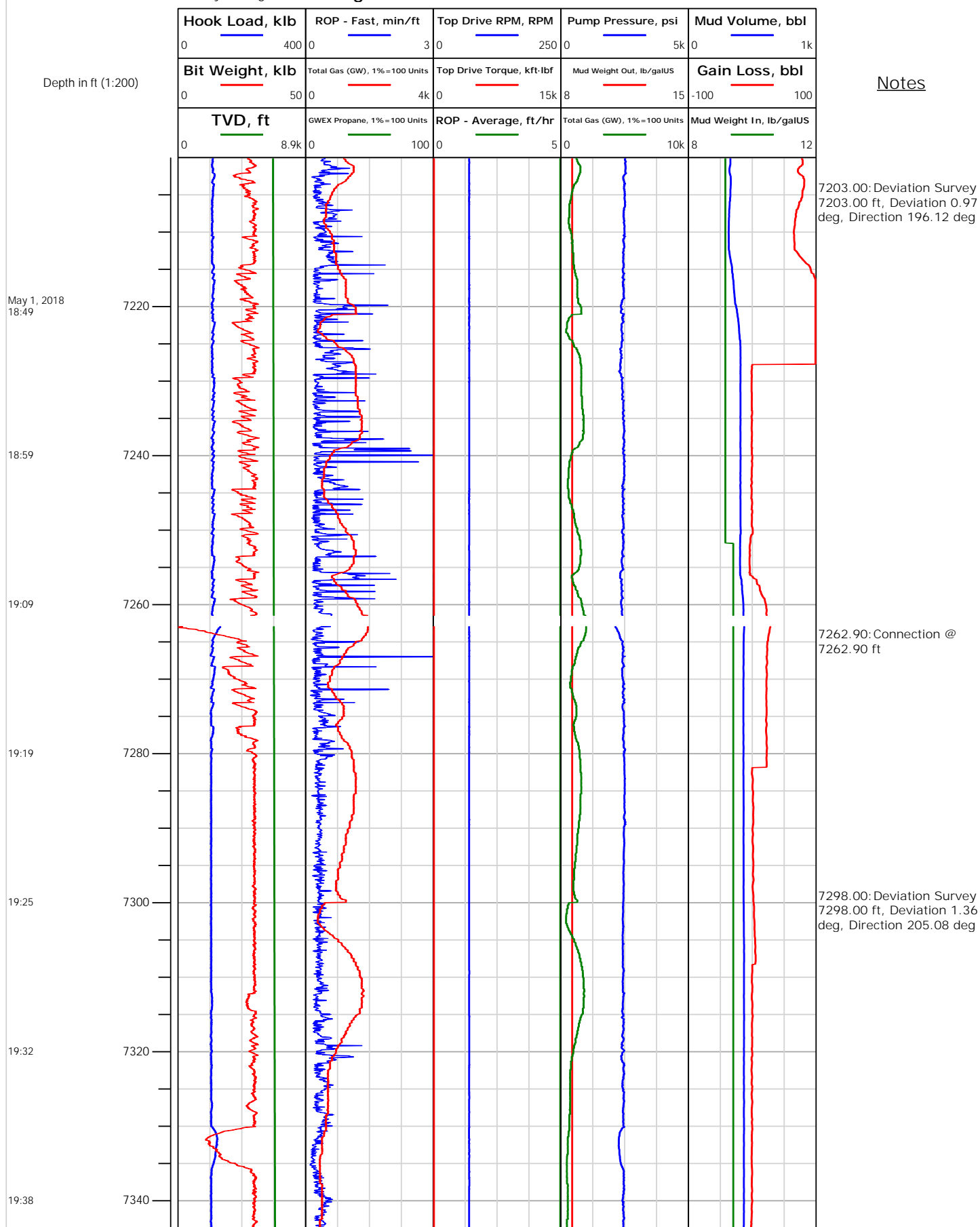
Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Electronic Drilling Recorder

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





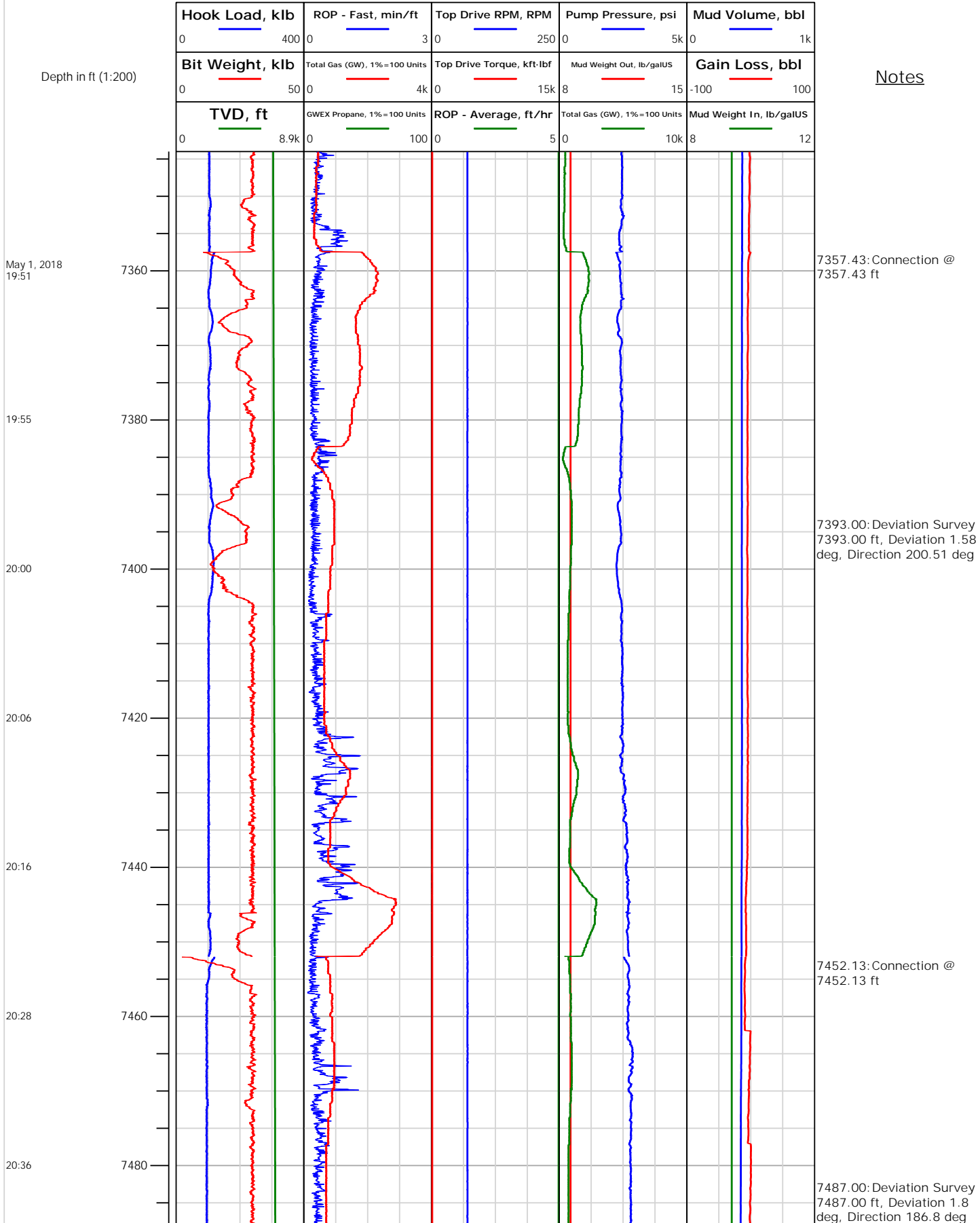
Electronic Drilling Recorder

Operator: Laramie Energy
Contractor: Helmerich & Payne Drlg Co

Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





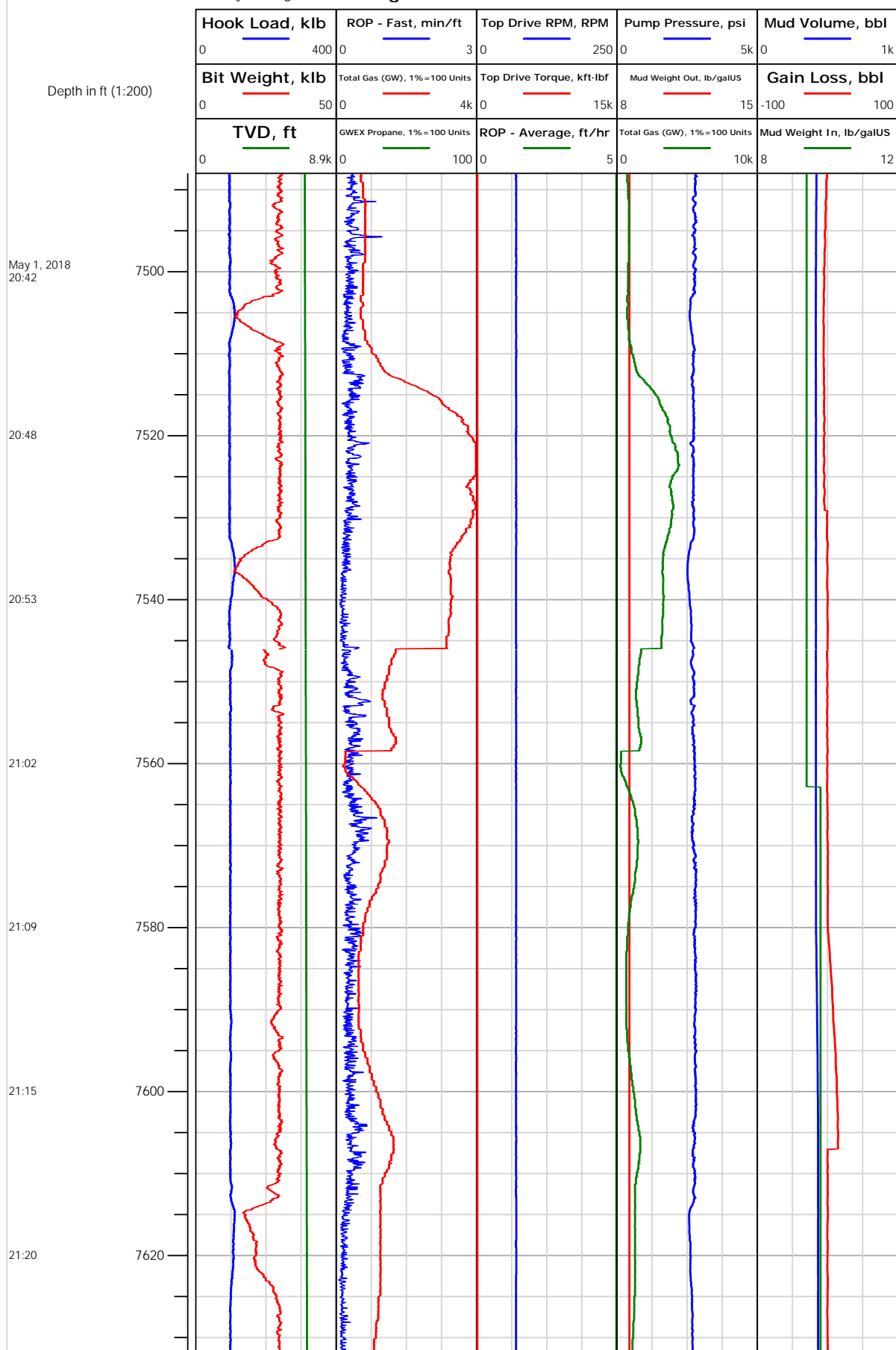
Electronic Drilling Recorder

Operator: Laramie Energy
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Well Name: Nichols Federal 24-18E
Rig: 290

Location: SE/4 of NW/4

Notes





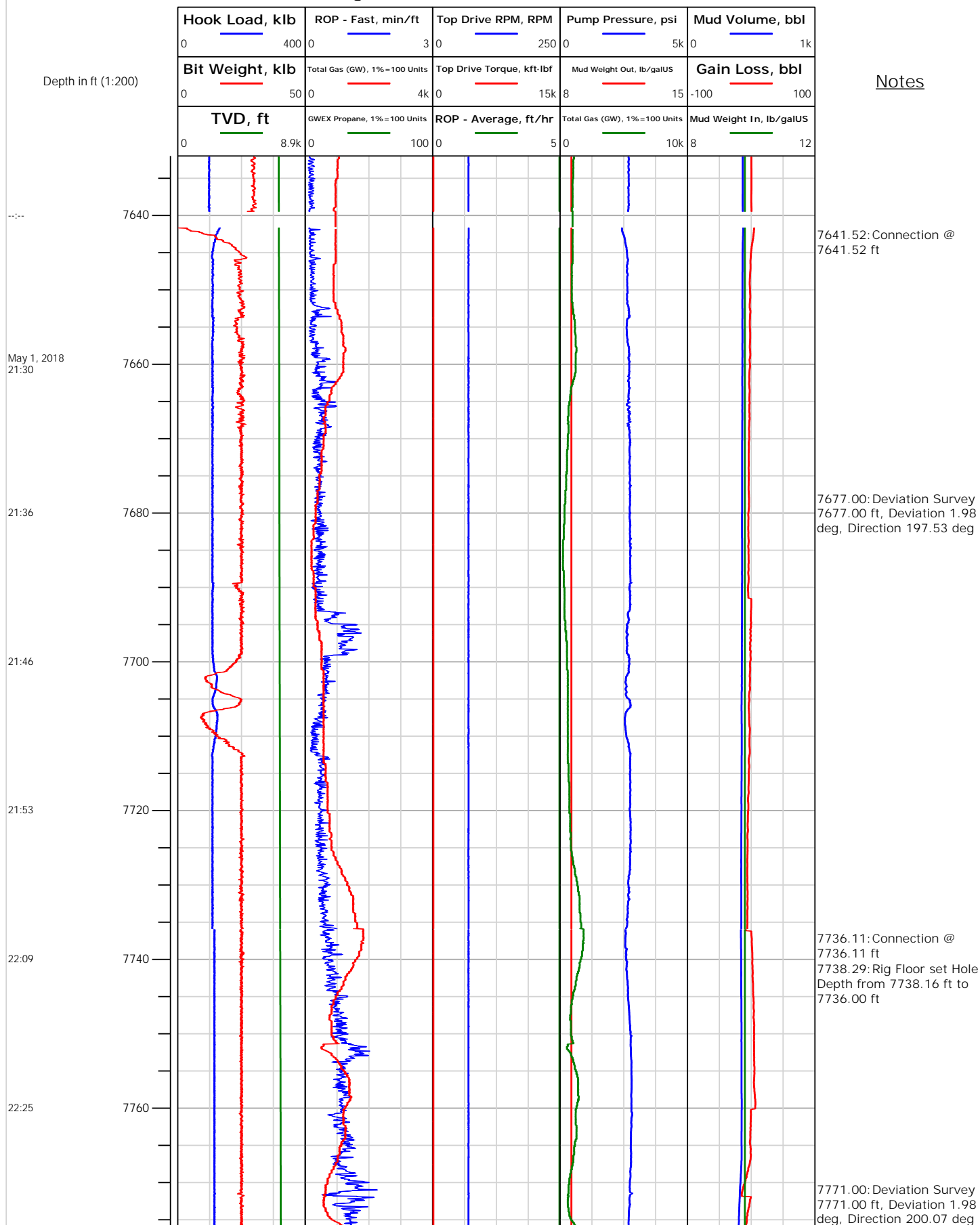
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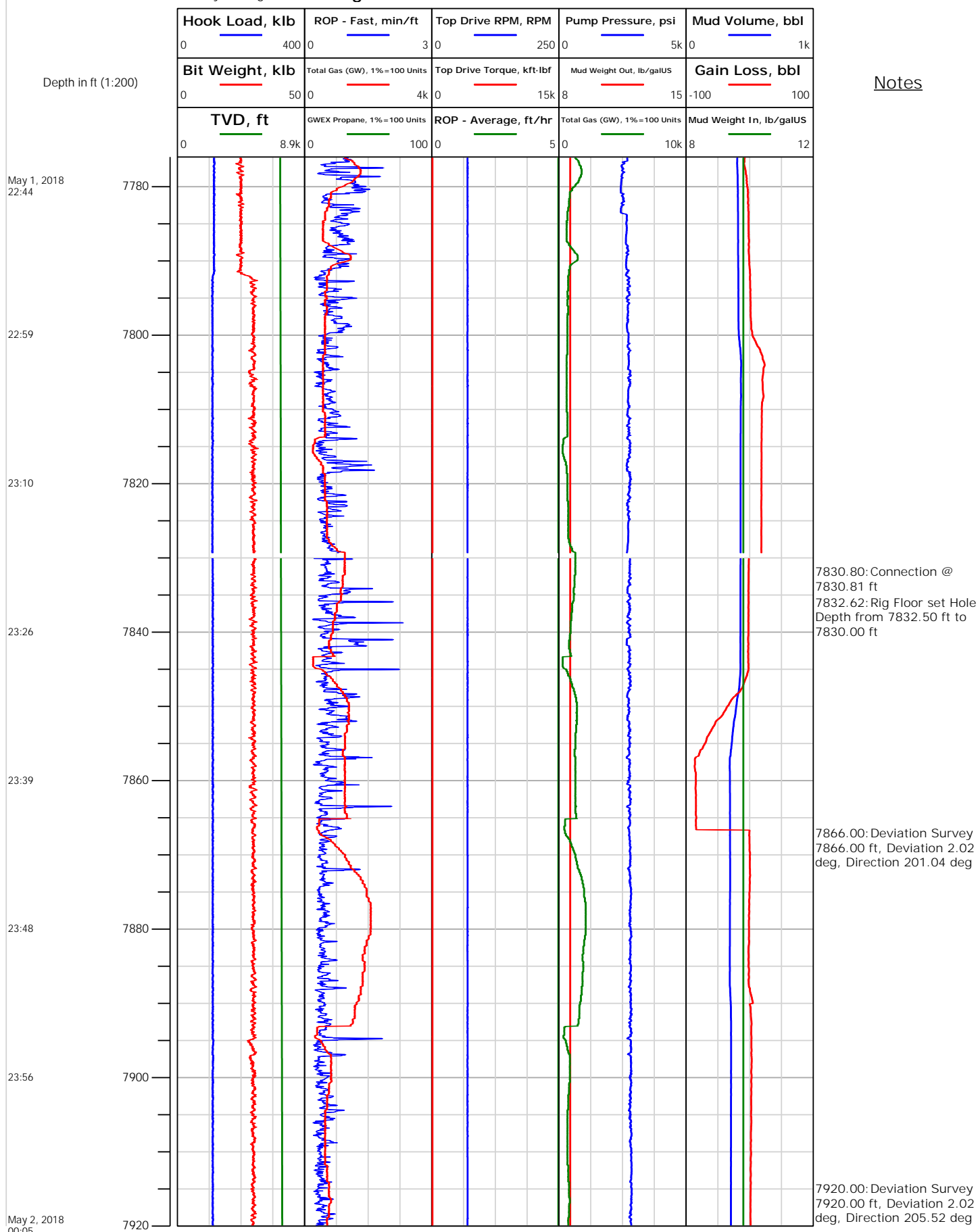
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