

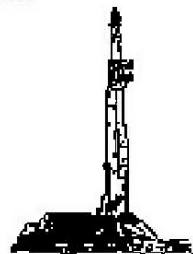
GOOLSBY BROTHERS
and associates, inc.

575 Union Blvd, Suite 208
Lakewood, CO 80228
303-945-2860 Office



Geological Wellsite
Supervision

www.goolsbybrothers.com



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Falken 9N-9C-L
API: 051234512200
Location: NE/SE Section 11 T6N R66W Weld County, CO.
License Number:
Spud Date: October 3, 2017
Surface Coordinates: 1874'FSL & 276'FEL NE/SE Sec. 11 T6N R66W
Lat/Long: 40°30'02.574"N / 104°44'09.406"W
Bottom Hole Planned: 2079'FSL & 300'FEL, SEC.9 T6N R66W
Coordinates: Projected: 2099'FSL & 306'FEL, SEC.9 T6N R66W
Ground Elevation (ft): 4,810'
Logged Interval (ft): 6,600' To: 18,908'
Formation: Niobrara C Chalk
Type of Drilling Fluid: OBM (LSND Surface).

Region: Wattenberg
Drilling Completed: October 7, 2017

K.B. Elevation (ft): 4,835'
Total Depth (ft): 18,908' DMTD

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: SRC Energy, Inc
Address: 1675 Broadway, Suite 2600
Denver, Colorado 80202
(720) 616-4300

GEOLOGIST

Name: Dallan Gardner & Blake Stacey
Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)
Address: 575 Union Blvd. Suite 208,
Lakewood CO. 80228
Tel 303-618-7736

E-logs

MWD GR from S.C. to 18,895' MD

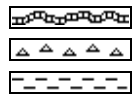
Casing

9 5/8" Surface Casing pre set @ 1,785' MD.
5 1/2" Production Liner run to 18,902' on 10/9/2017.

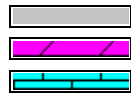
Comments

- 1) Drilling Contractor: Precision Drilling, Rig #562
Pumps 1&2: Rostell F-1600 5" x 12" (.0692 Bbls./stroke)
Toolpusher: Michael Ellingsworth, Tyson Westgard.
- 2) Company Man: Kent Priddy
Kevin Brakovec
Tim Jones
Kalib Ford
- 3) Mud Comapny : Reliable Drilling Fluids
Engineer: Wally Yates, Scott Allen
- 4) Directional Drilling: Baker Hughes
Drillers: Ryan Kielian, Aaron Herskind
MWD: Garrett Gedsen, Baker Remote Field Operations.
- 5) Gas Equipment: Pason Gas Analyzer (Spectrometer)
- 6) Wellsite Geologist: Blake Stacey & Dallan Gardner

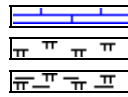
ROCK TYPES



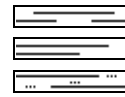
Bent
Cht
Clyst



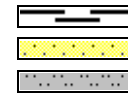
Oil sat.
Dol
Lmst



Chalk
Mrlst
Mrlst_sh (intbdd)



Shale
Shgy
Slty sh



Carb sh
Ss
Slstst

ACCESSORIES

MINERAL

Anhy
 Arggrn
 Arg
 Bent
 Bit
 Brecfrag
 Calc
 Carb
 Chtdk
 Chtlt
 Dol
 Feldspar
 Ferrpel
 Ferr
 Glau

Gyp
 Hvymin
 Kaol
 Marl
 Minxl
 Nodule
 Phos
 Pyr
 Salt
 Sandy
 Silt
 Sil
 Sulphur
 Tuff

FOSSIL

Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral
 Crin
 Echin
 Fish
 Foram
 Fossil
 Gastro
 Oolite

Ostra
 Pelec
 Pellet
 Pisolite
 Plant
 Strom

STRINGER

Chlkstg
 Arg
 Bent
 Dol
 Ls
 Mrst
 Sltstrg
 Ssstrg

TEXTURE

Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

OTHER SYMBOLS

OIL SHOWS

Even
 Spotted
 Ques
 Dead
 Vspotty

near even

POROSITY TYPE

Earthy
 Fenest
 Fracture

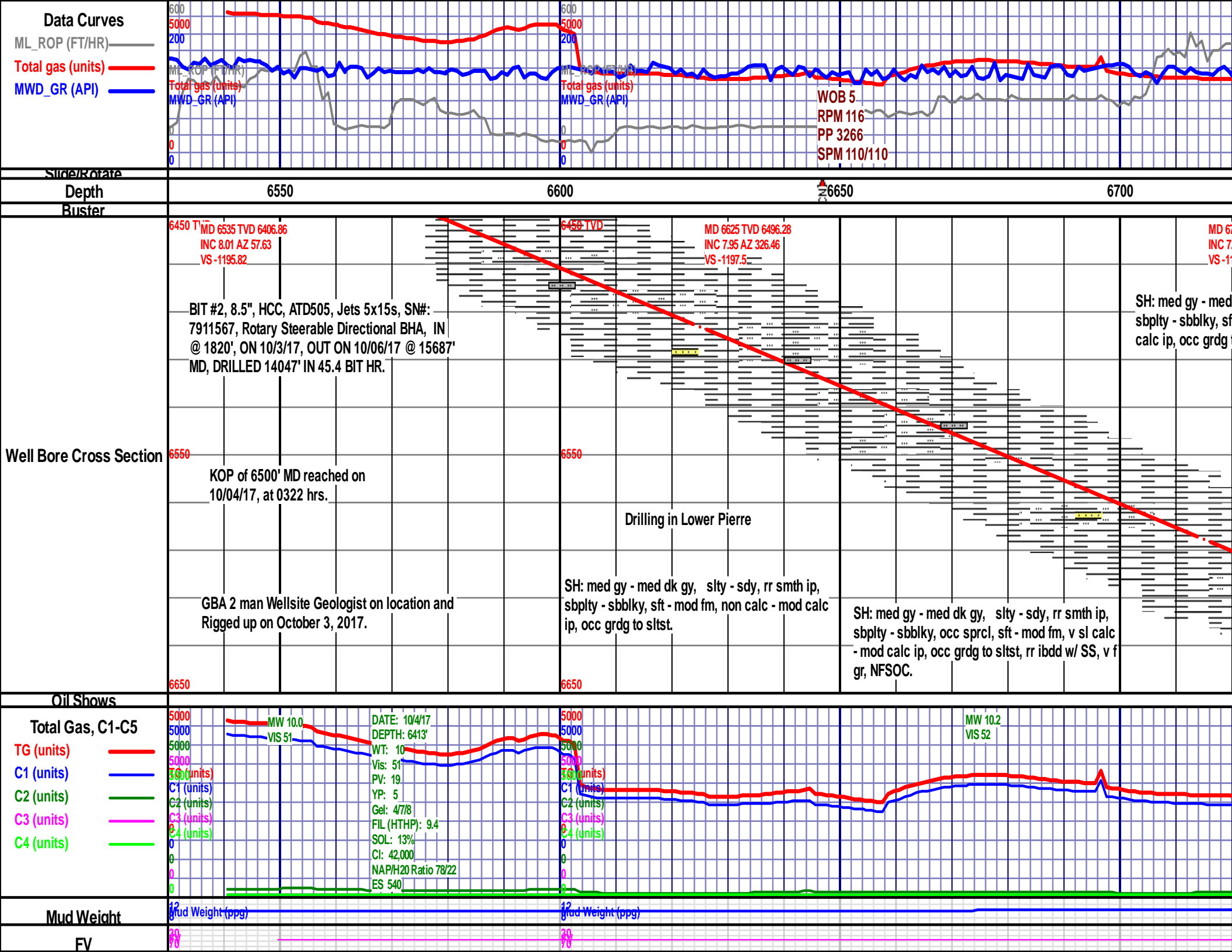
Inter
 Moldic
 Organic
 Pinpoint
 Vuggy

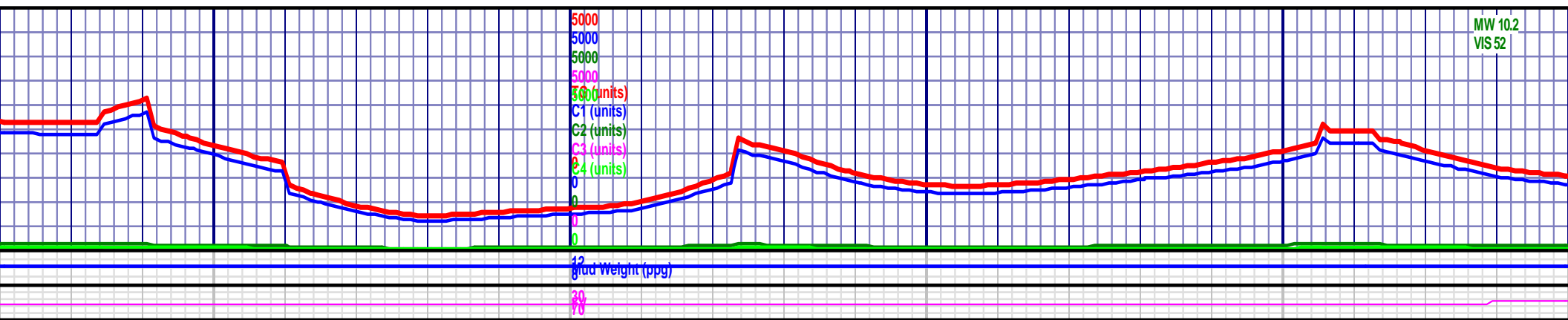
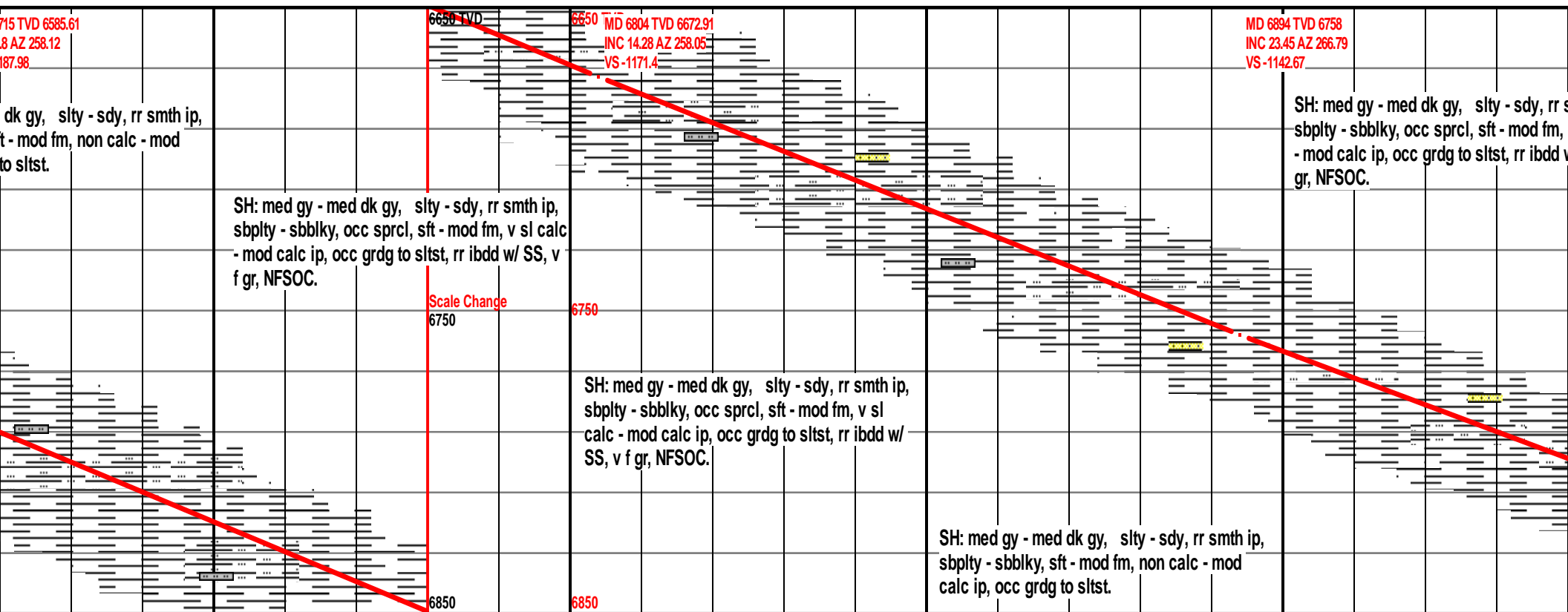
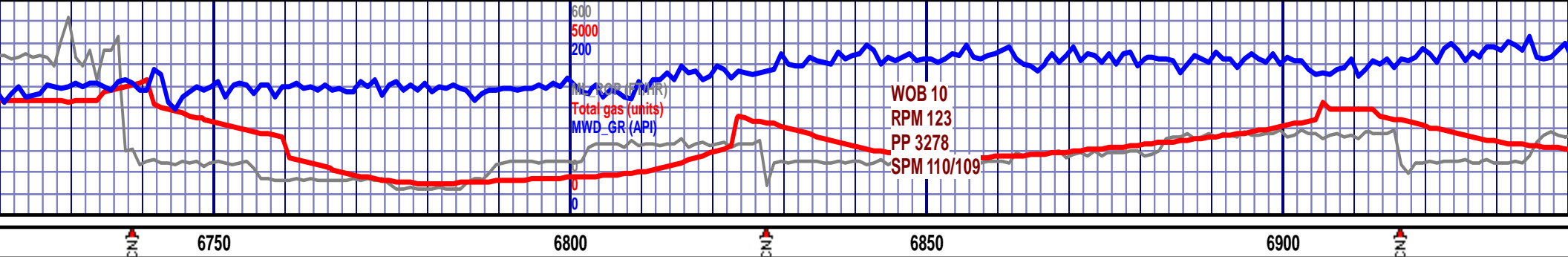
ROUNDING

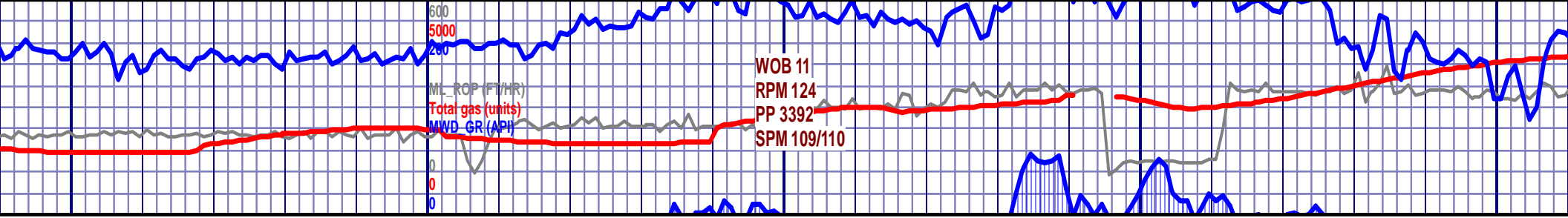
Rounded
 Subrnd
 Subang
 Angular

SORTING

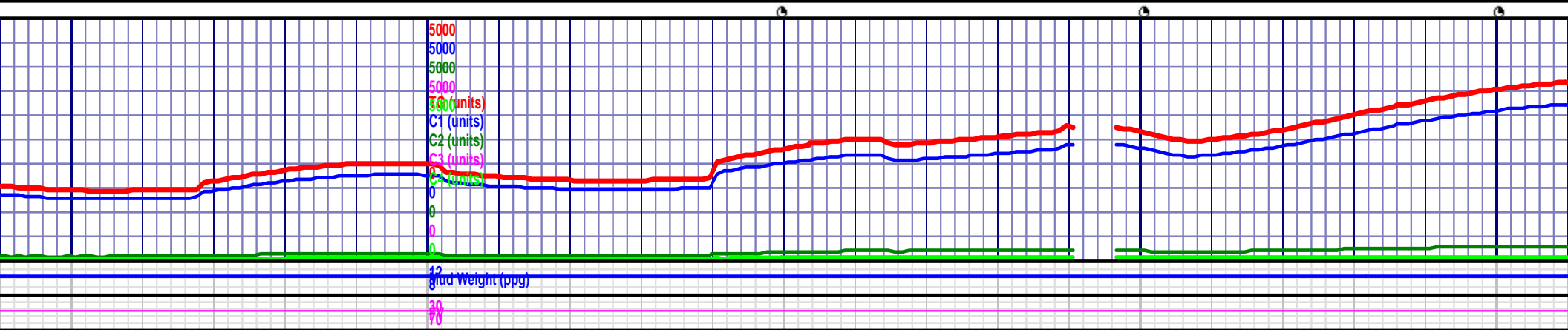
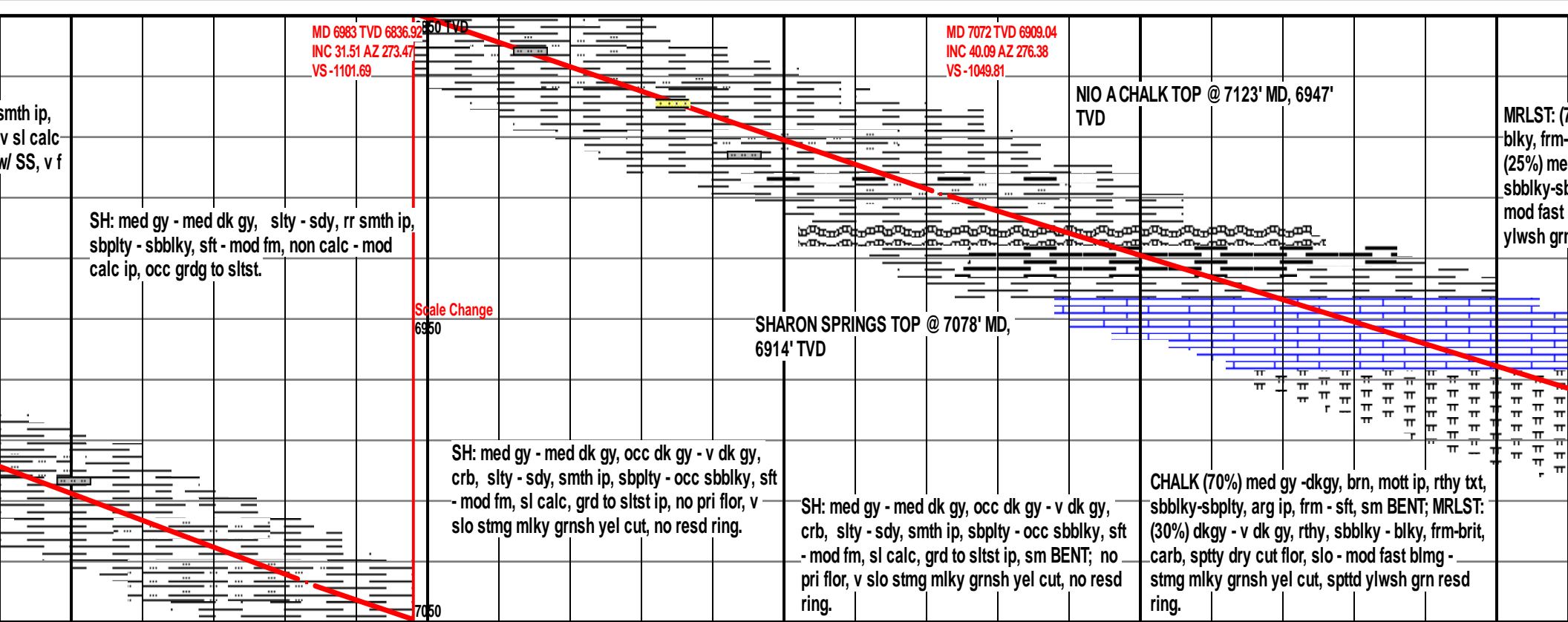
Well
 Moderate
 Poor

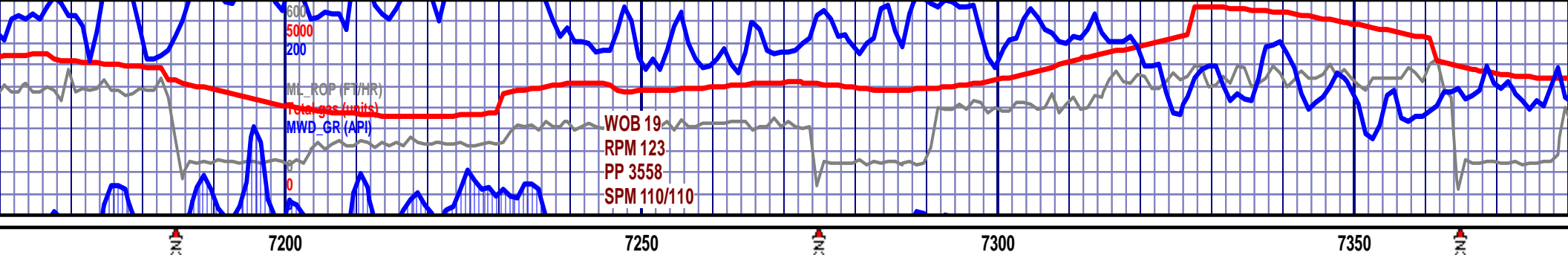






6950 7000 7050 7100 7150





MD 7162 TVD 6974.27
INC 46.94 AZ 277.5
VS -988.19

6850 TVD

MD 7251 TVD 7030.37
INC 54.86 AZ 273.2
VS -919.38

7050 TVD

MD 7341 TVD 7077.35
INC 62.16 AZ 271.86
VS -842.71

75%) dkgy - v dk gy, mstly rthy, sbblky -
brit - m hd, carb thru, sm BENT; CHALK
d gy -dkgy, gysh brn, mott ip, rthy txt,
sbply, frm - sft, sptty dry cut flor, slo -
blmg - stmg mlky grnsh yel cut, spttd
n resd.

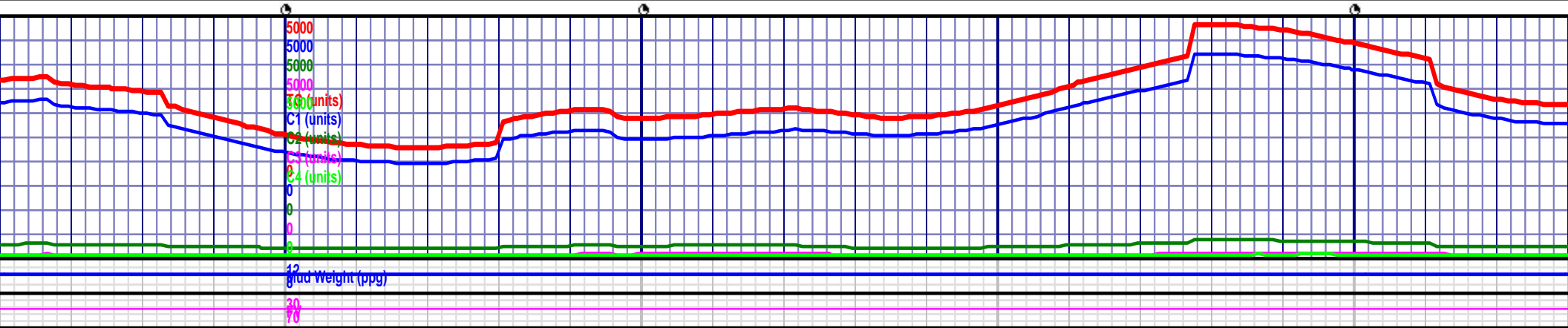
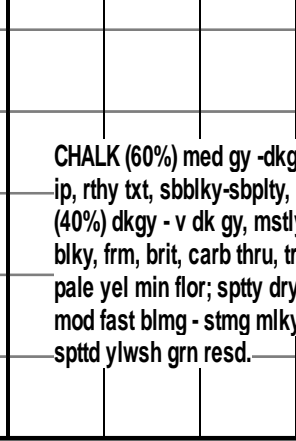
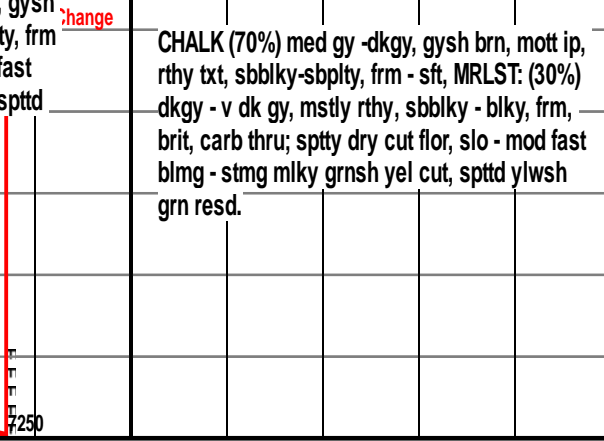
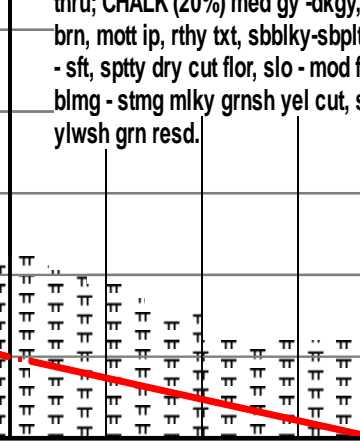
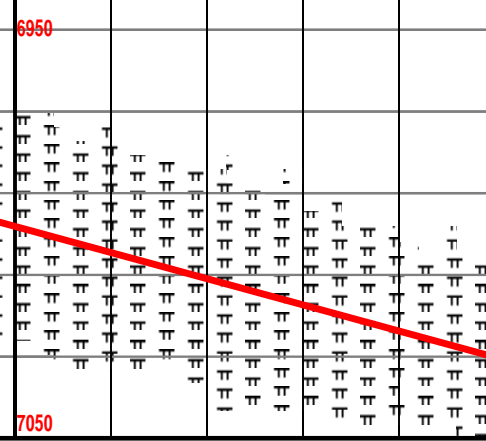
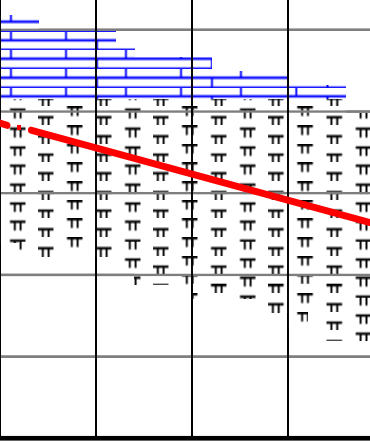
MRLST: (80%) dkgy - v dk gy, mstly rthy,
sbblky - blky, frm-brit - m hd, carb thru; CHALK
(20%) med gy -dkgy, gysh brn, mott ip, rthy txt,
sbblky-sbply, frm - sft, sptty dry cut flor, slo -
mod fast blmg - stmg mlky grnsh yel cut, spttd
ylwsh grn resd.

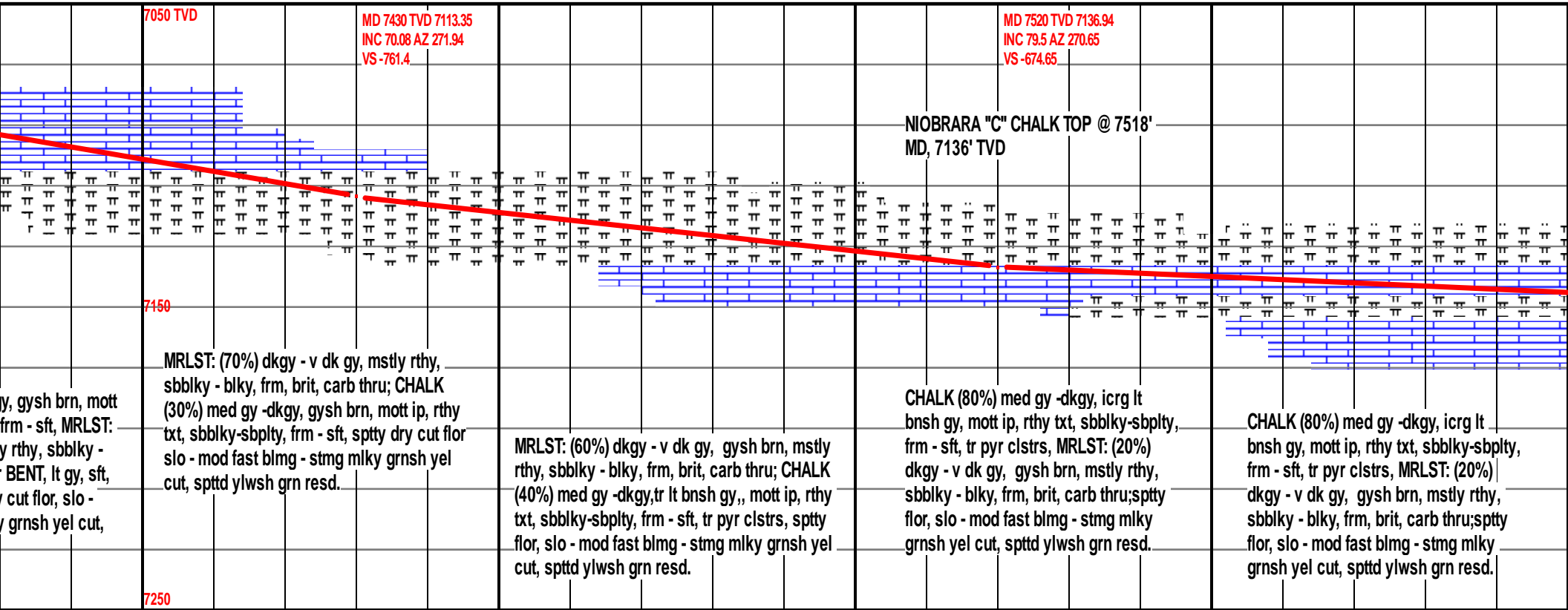
MRLST: (80%) dkgy - v dk gy, mstly
rthy, sbblky - blky, frm-brit - m hd, carb
thru; CHALK (20%) med gy -dkgy, gysh
brn, mott ip, rthy txt, sbblky-sbply, frm
- sft, sptty dry cut flor, slo - mod fast
blmg - stmg mlky grnsh yel cut, spttd
ylwsh grn resd.

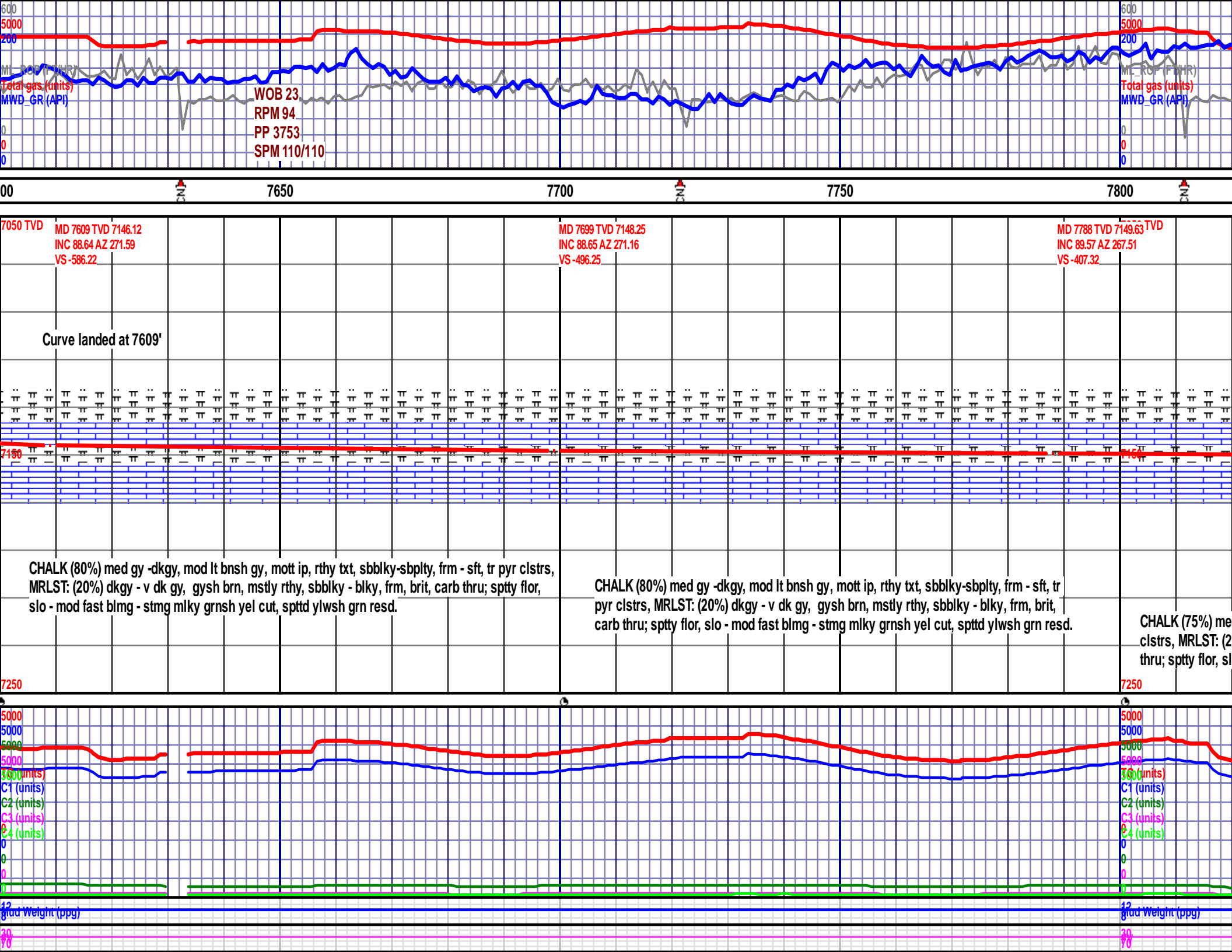
NIOBRARA "B" CHALK TOP @ 7318'
MD, 7065' TVD

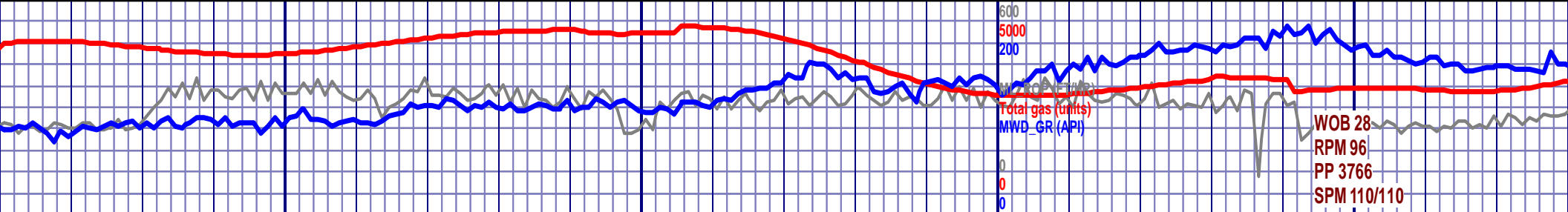
CHALK (70%) med gy -dkgy, gysh brn, mott ip,
rthy txt, sbblky-sbply, frm - sft, MRLST: (30%)
dkgy - v dk gy, mstly rthy, sbblky - blky, frm,
brit, carb thru; sptty dry cut flor, slo - mod fast
blmg - stmg mlky grnsh yel cut, spttd ylwsh
grn resd.

CHALK (60%) med gy -dkgy
ip, rthy txt, sbblky-sbply,
(40%) dkgy - v dk gy, mstly
blky, frm, brit, carb thru, tr
pale yel min flor; sptty dry
mod fast blmg - stmg mlky
spttd ylwsh grn resd.









8300

8350

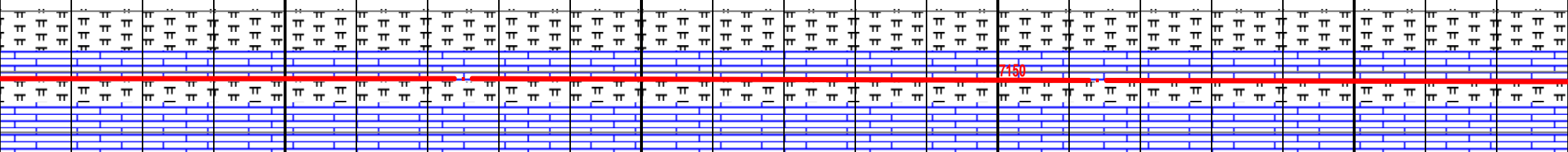
8400

8450

MD 8325 TVD 7152.38
INC 89.82 AZ 271.48
VS 129.05

7050 TVD

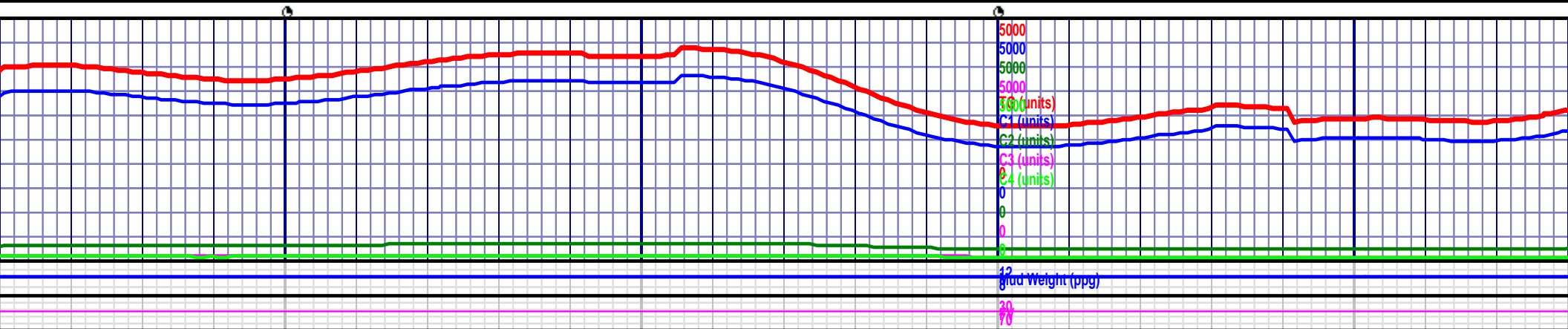
MD 8414 TVD 7152.78
INC 89.66 AZ 270.41
VS 218.05



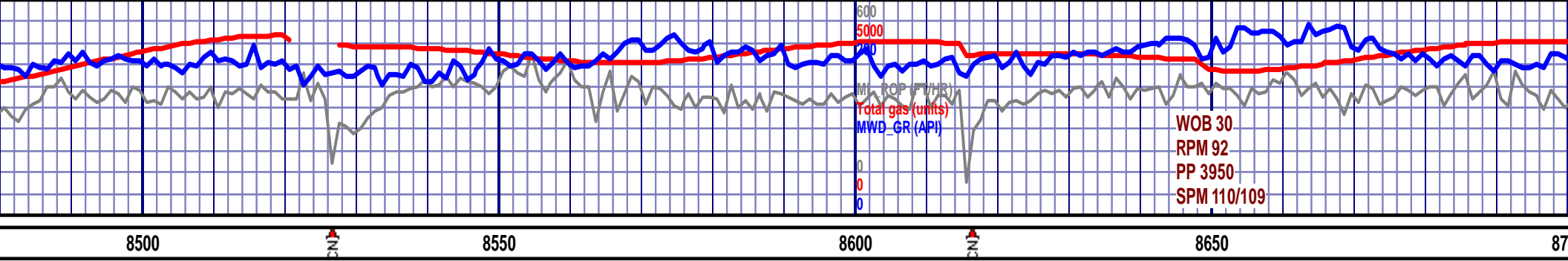
y txt, sbblky-sbplty, frm - sft,
stly rthy, sbblky - blky, frm,
rnsh yel cut, spttd ylwsh grn

CHALK (80%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, occ
cal frac fill, MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit,
carb thru; sptty flor, slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.

CHALK (80%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm
MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, ca
slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.



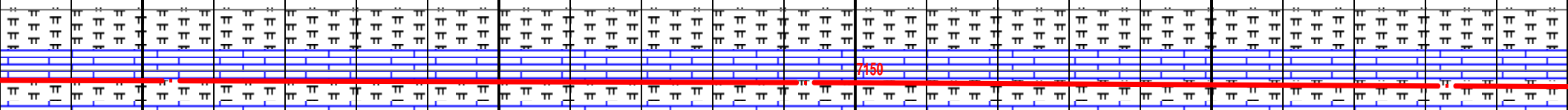
Fluid Weight (ppg)



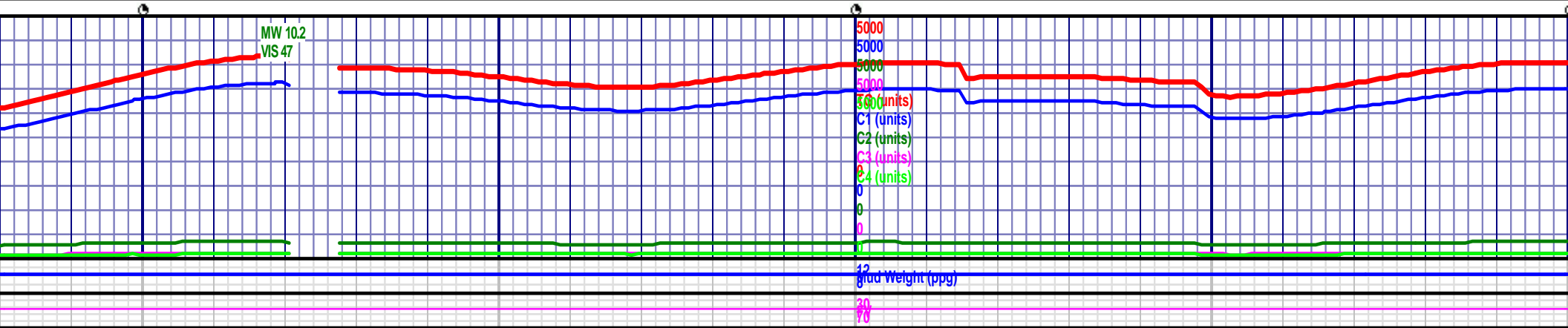
MD 8504 TVD 7153.36
INC 89.6 AZ 270.47
VS 308.04

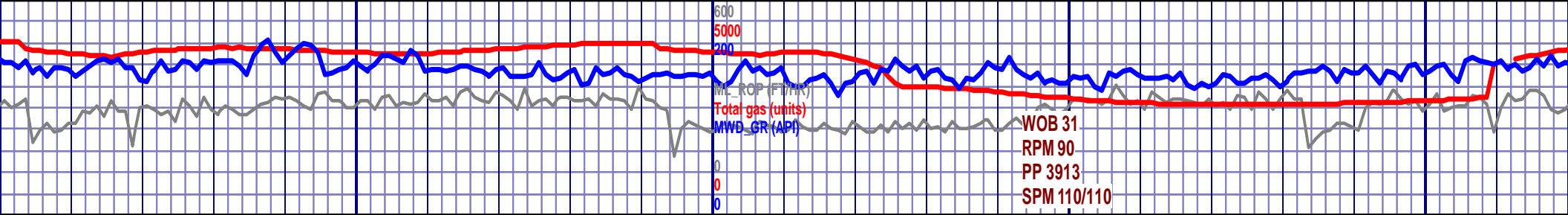
MD 8593 TVD 7154.13
INC 89.41 AZ 269.2
VS 397.01

MD 8683 TVD 7155.08
INC 89.38 AZ 269.12
VS 486.94

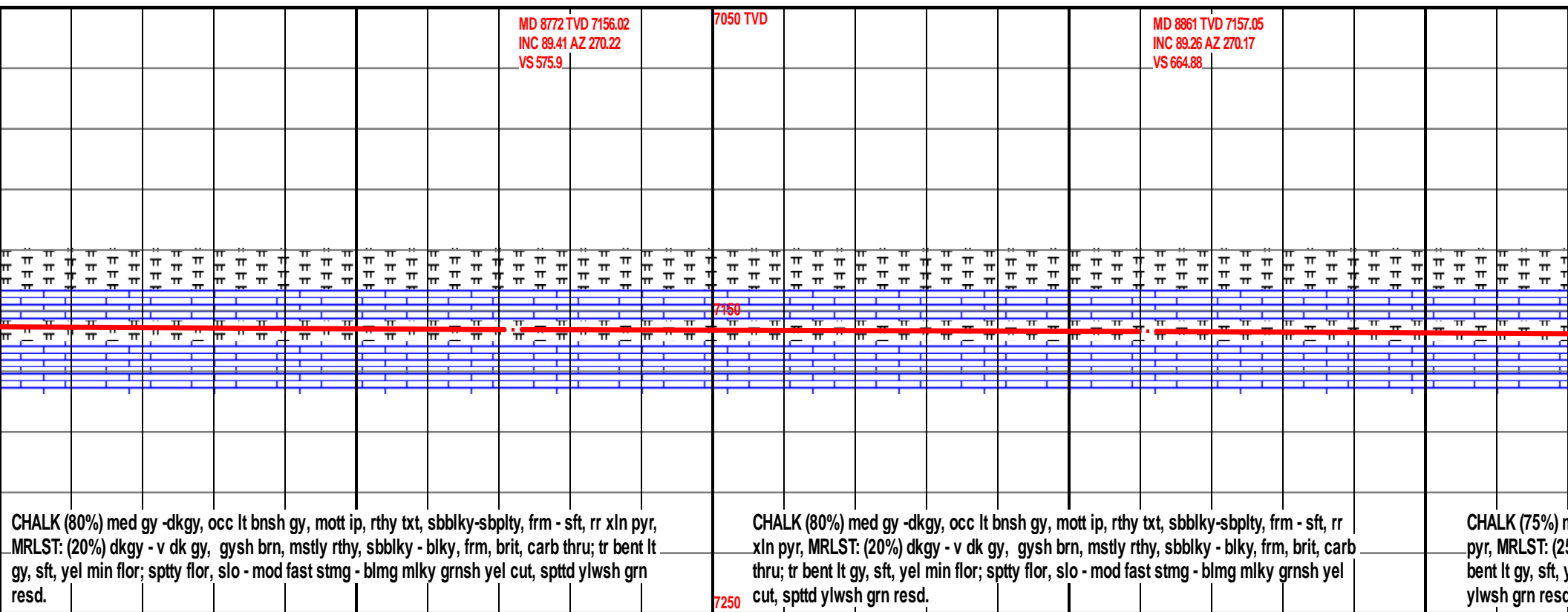


CHALK (80%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.





8750 8800 8850 8900

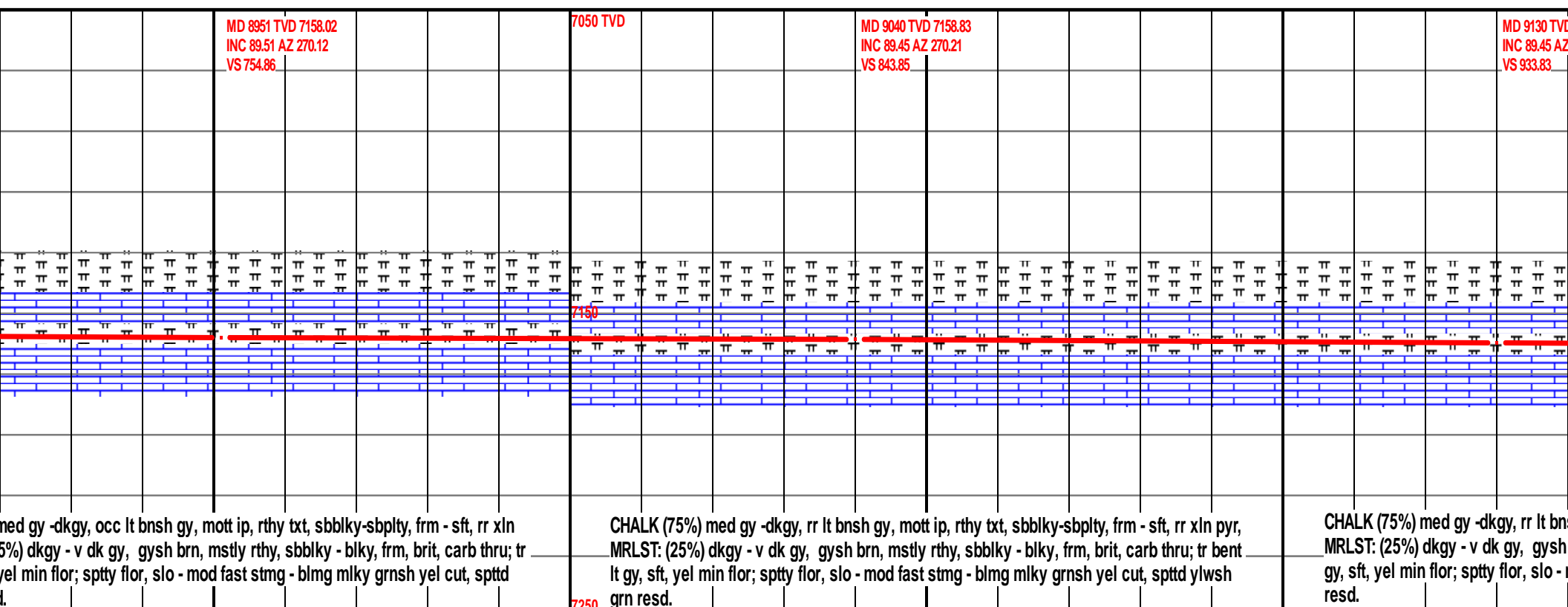


CHALK (80%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

CHALK (80%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.







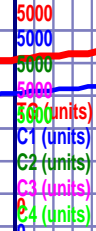
WOB 20
RPM 102
PP 3964
SPM 110/110

MD 9488 TVD 7163.3
INC 89.57 AZ 267.78
VS 1291.44



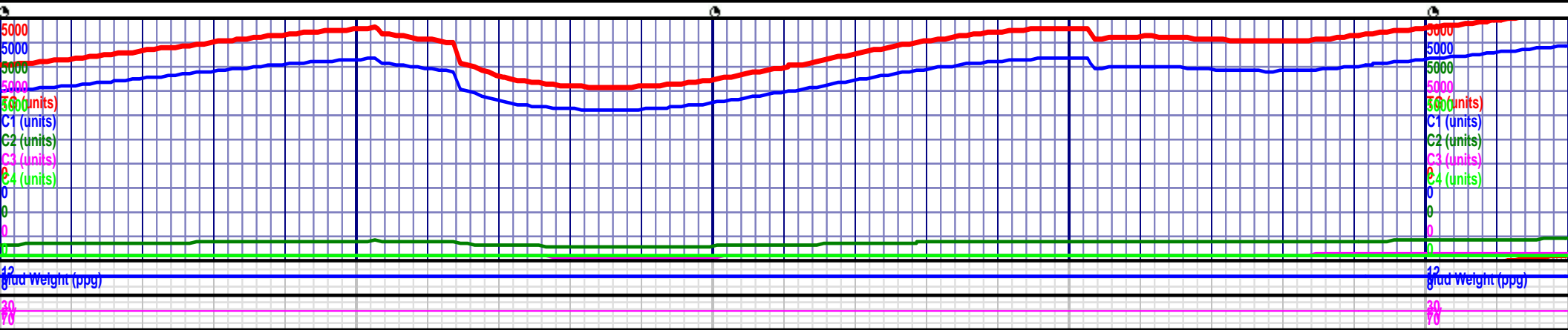
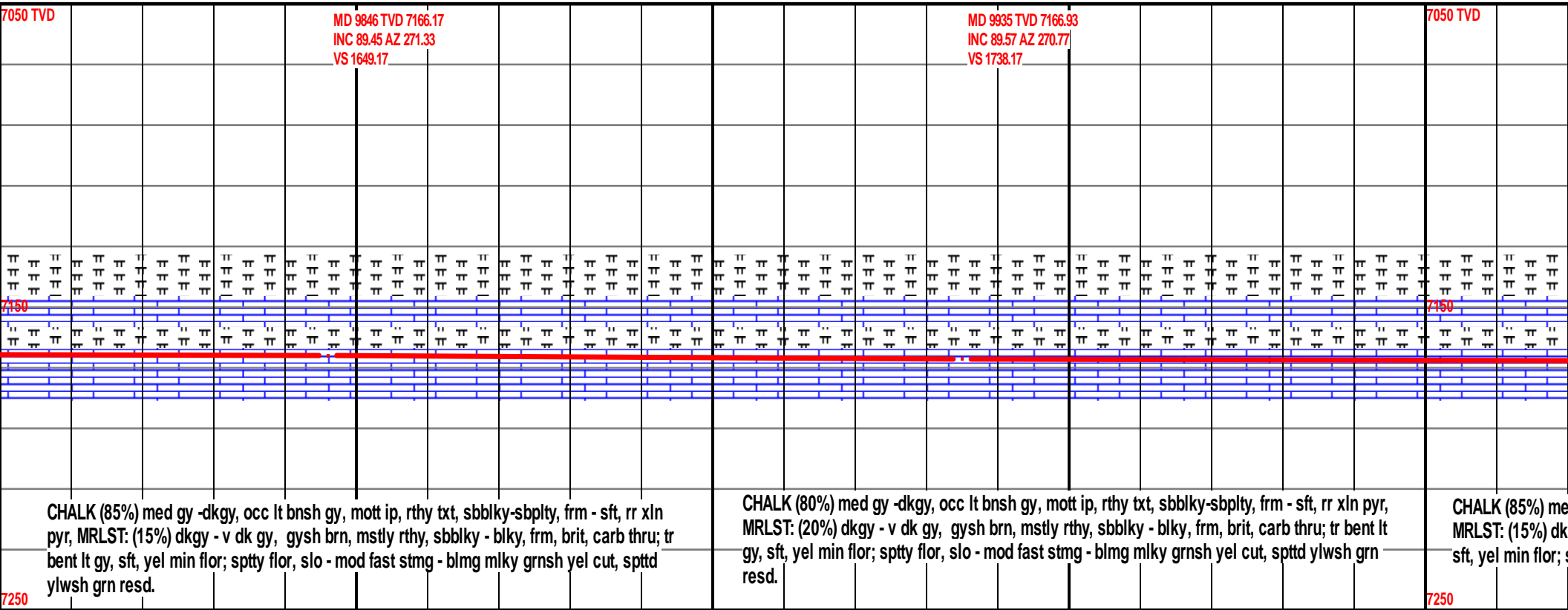
CHALK (80%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbply, frm - sft, rr xln
pyr, MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, carb thru;
tr bent lt gy, sft, yel min flor; sppty flor, slo - mod fast stmg - blmg mlky grnsh yel cut,
spttd ylwsh grn resd.

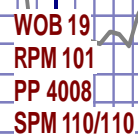
CHALK (80%) med gy -dkgy, sl icrg lt bnsh gy, mott ip, rthy txt, sbblky-s
frm - sft, rr xln pyr, MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy, s
blky, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sppty flor, slo - mo
stmg - blmg milky grnsh yel cut, spptd ylwsh grn resd.



~~12~~
fluid Weight (ppg)

30%





Total gas (units)
MWD_GR (API)

MD 10025 TVD 7167.61
INC 89.57 AZ 270.52
VS 1828.16

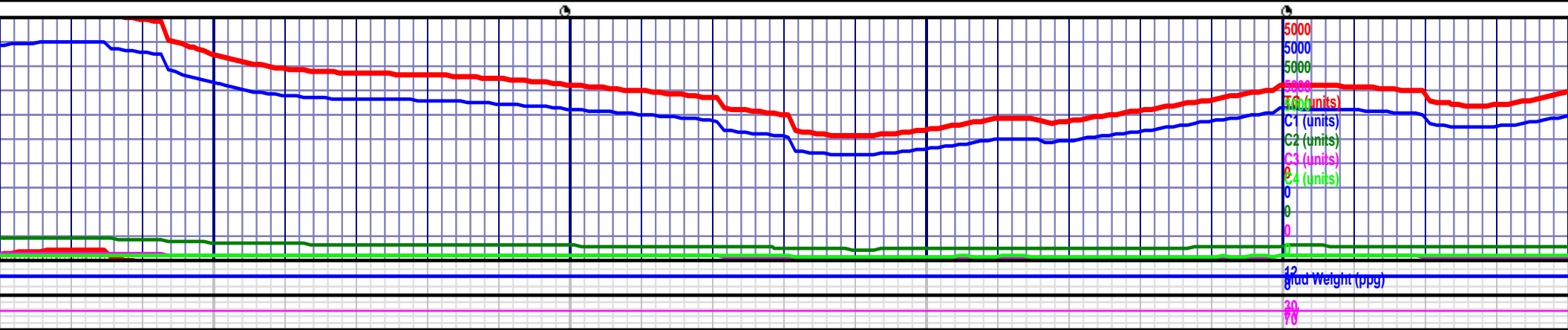
MD 10115 TVD 7168.43
INC 89.38 AZ 270.41
VS 1918.15

7050 TMD 10204 TVD 7169.27
INC 89.54 AZ 271.96
VS 2007.15

CHALK (75%) med gy -dkgy, occ lt bns
xln cal frac fil; MRLST: (25%) dkgy - v
thru; tr bent lt gy, sft, yel min flor; spth
ylwsh grn resd.

gy - dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbply, frm - sft, rr xln pyr,
gy - v dk gy, gysh brn, mstly rthy, sbblky - bky, frm, brit, carb thru; tr bent lt gy,
sppty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spptd ylwsh grn resd.

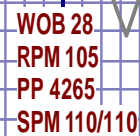
CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr xln cal frac fil; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sppty flor, slo - mod fast strng - blmg mlky grnsh yel cut, spttd ylwsh grn resd.



The graph displays the following approximate data points:

Time	C1 (units)	C2 (units)	C3 (units)	C4 (units)
Start	5000	0	0	5000
End	0	5000	~2500	~2500

12
fluid weight (ppg)~~30~~
70



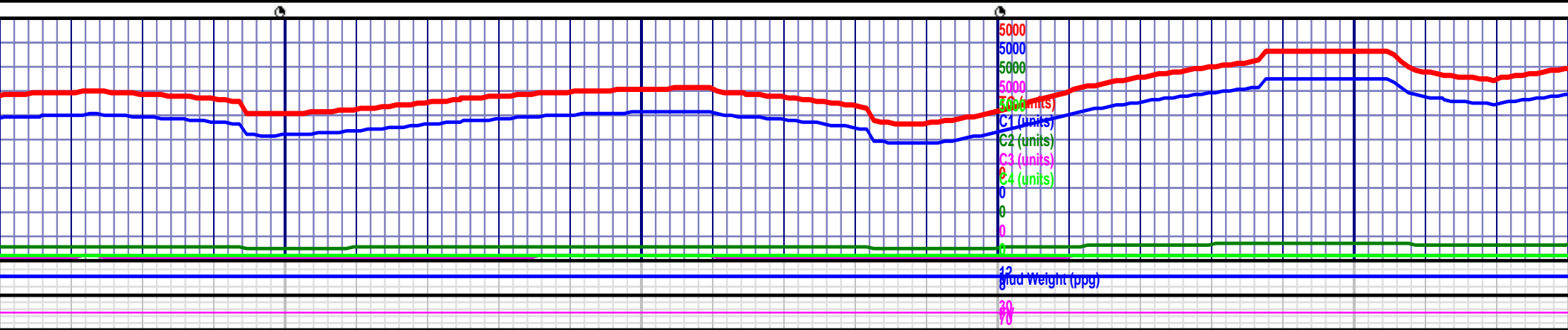
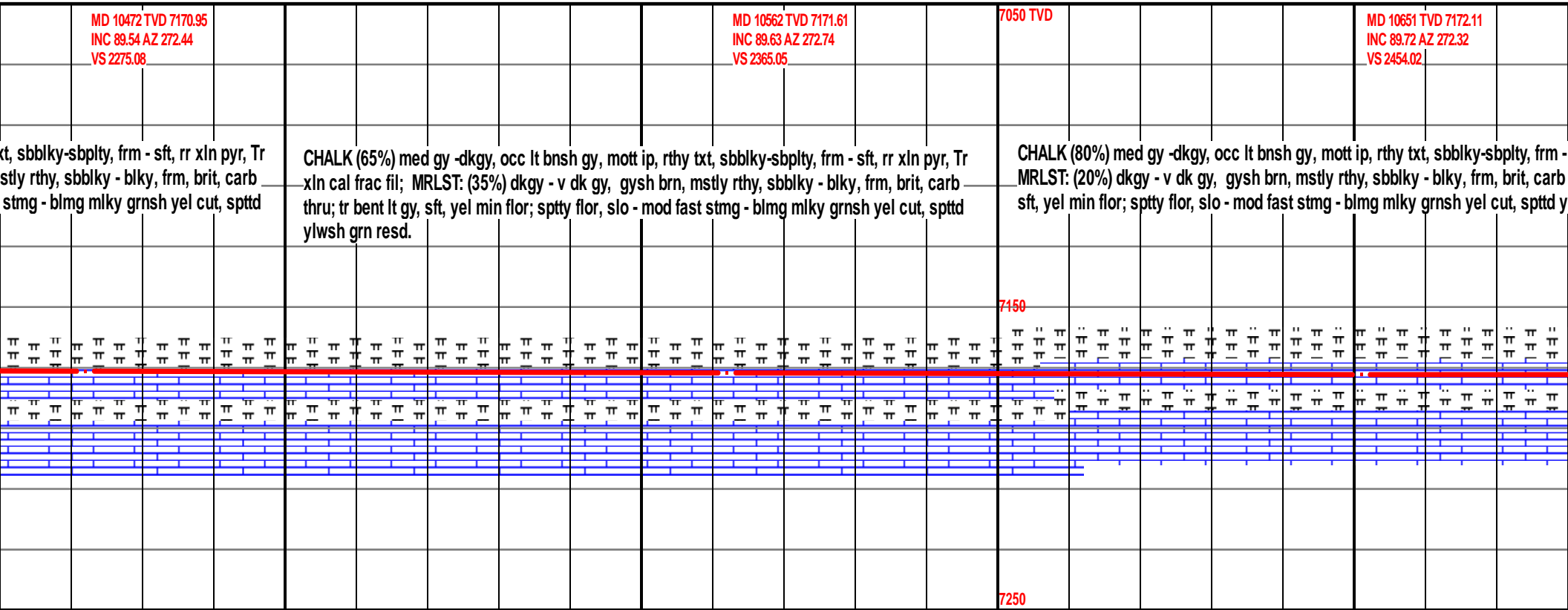
MD 10383 TVD 7170.367050 TVD
INC 89.69 AZ 272.25
VS 2186.1

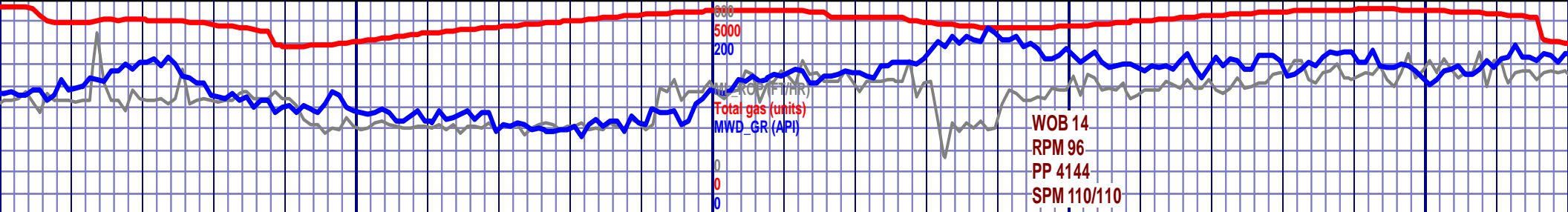
CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy b
xln cal frac fil; MRLST: (25%) dkgy - v dk gy, gysh brn, m
thru; tr bent lt gy, sft, yel min flor; sppty flor, slo - mod fast
ylwsh grn resd.



5000
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)

~~12~~
~~fluid weight (ppg)~~





10900 10950 11000 11050 11100

MD 10920 TVD 7173.57
INC 89.72 AZ 269.36
VS 2722.97

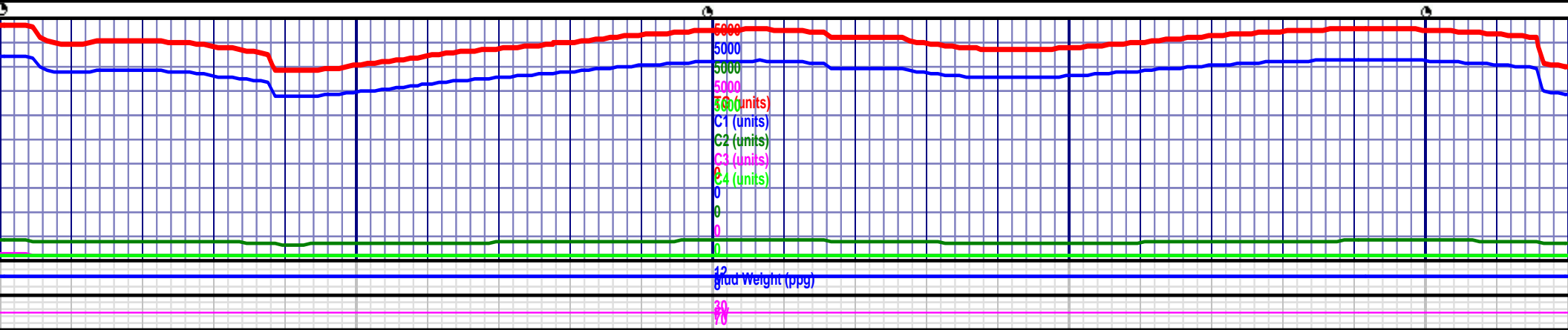
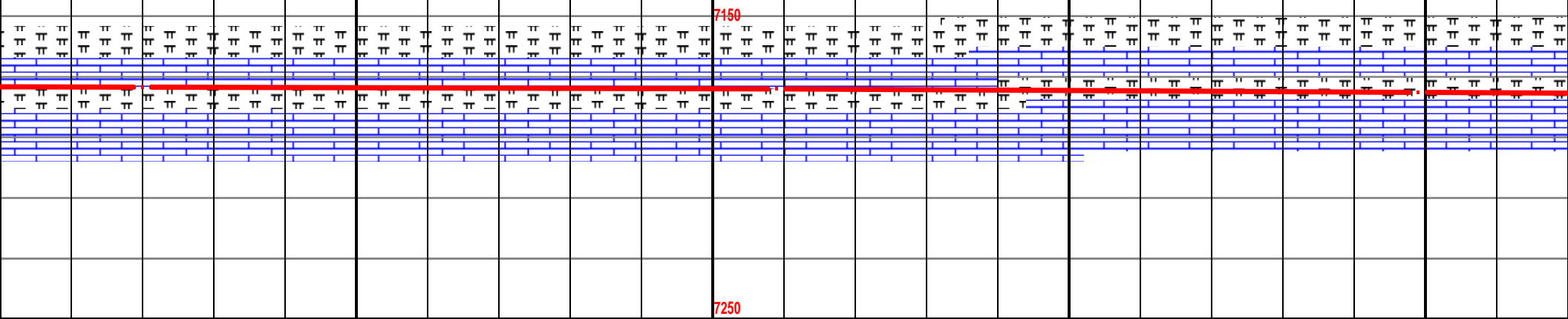
CHALK (85%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr;
MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt
gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn
resd.

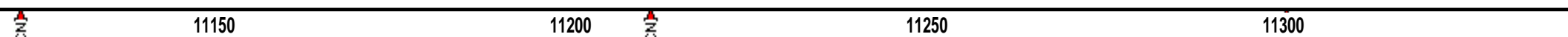
7050 TVD MD 11009 TVD 7174.23
INC 89.42 AZ 269.6
VS 2811.93

CHALK (85%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr;
MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt
gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn
resd.

MD 11099 TVD 7175.22
INC 89.32 AZ 268.84
VS 2901.87

CHALK (75%) med
MRLST: (25%) dkgy
sft, yel min flor; s

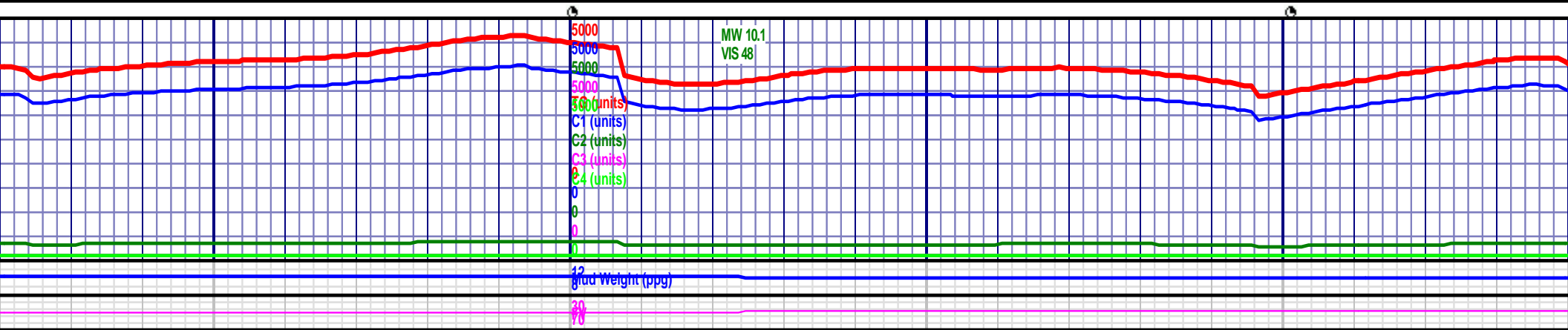
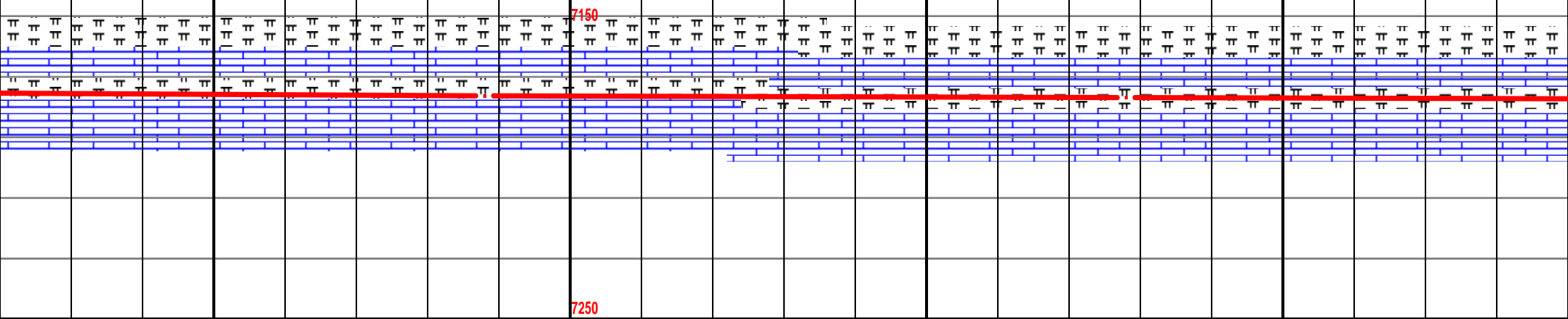


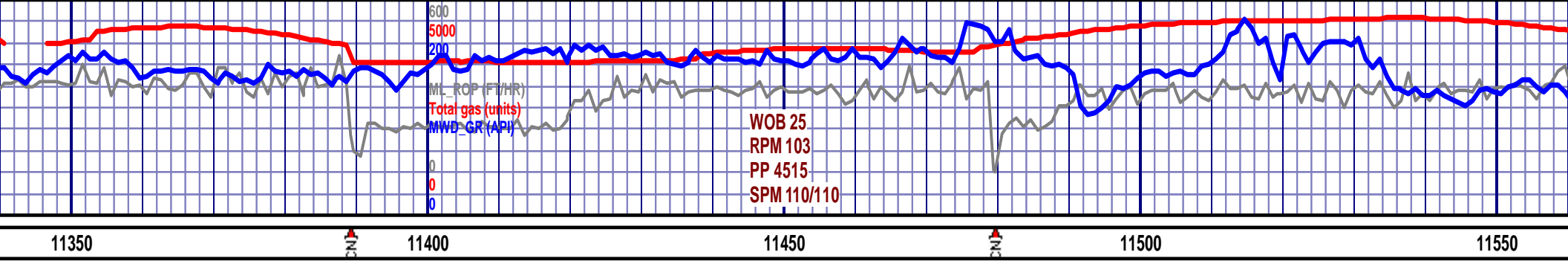


MD 11278 TVD 7176.74
INC 89.6 AZ 267.26
VS 3080.53

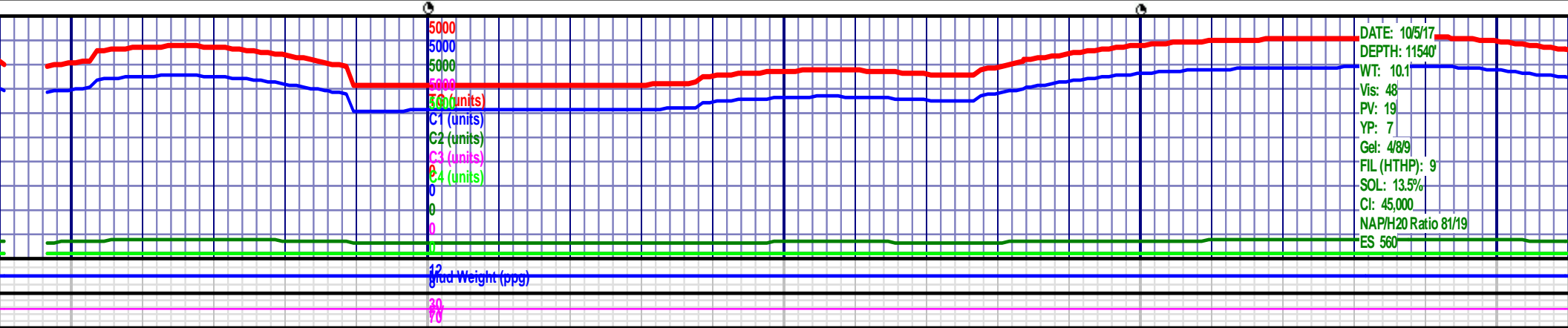
CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln
pyr; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, carb thru; tr
bent lt gy, sft, yel min flor; spty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd
ylwsh grn resd.

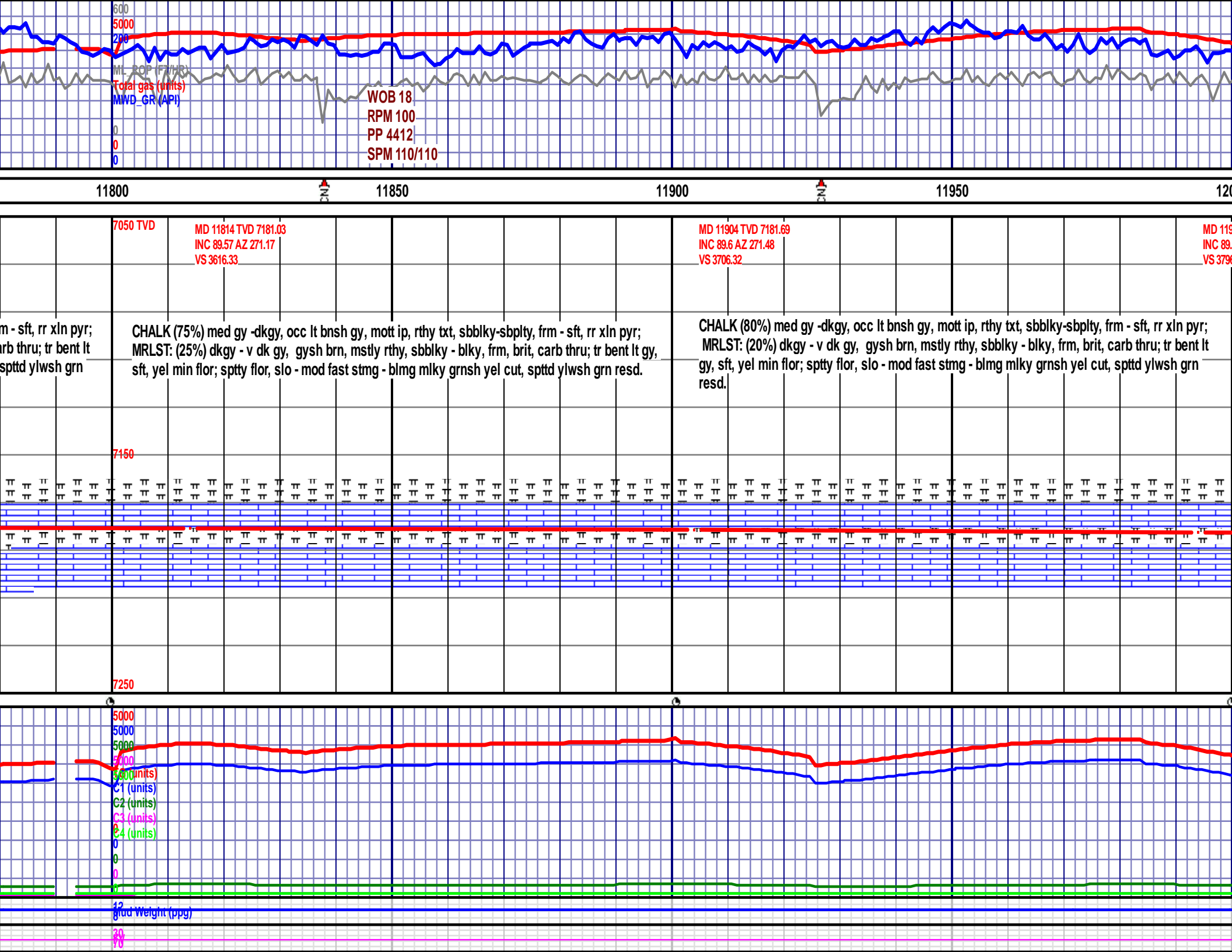
CHALK (80%) med gy -dkgy, occ lt bn
MRLST: (20%) dkgy - v dk gy, gysh bn
gy, sft, yel min flor; spty flor, slo - mo
resd.

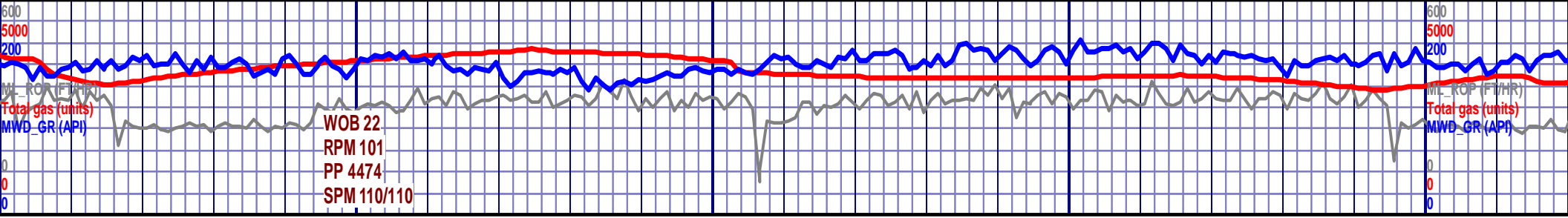




<p>MD 11367 TVD 7177.36 INC 89.6 AZ 269.4 VS 3169.41</p> <p>sh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; rn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt od fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn</p>	<p>7050 TVD</p> <p>CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr BENT; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.</p> <p>7150</p>	<p>MD 11457 TVD 7177.99 INC 89.6 AZ 270.36 VS 3259.38</p> <p>CHALK (85%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr BENT; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.</p> <p>7250</p>	<p>MD 11546 TVD 7177.99 INC 89.57 AZ 270.0 VS 3348.37</p>
--	--	--	---

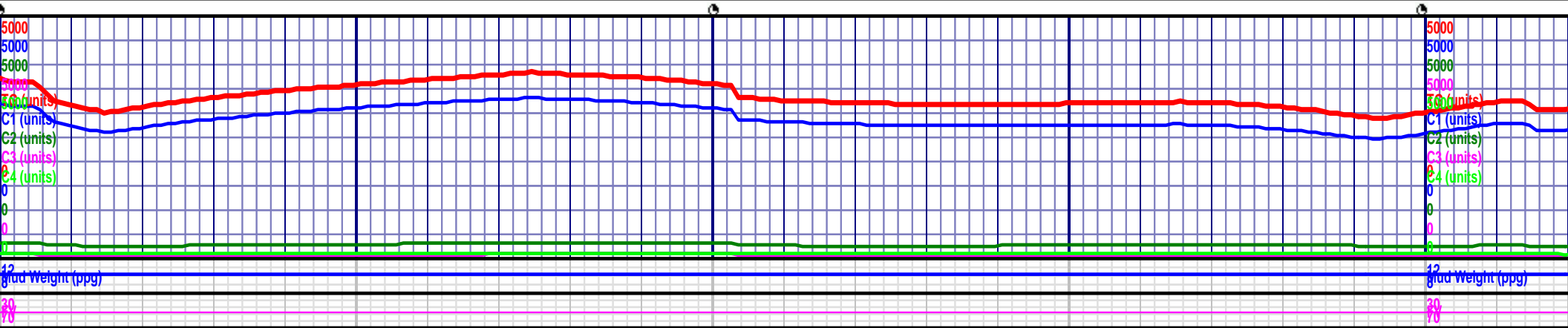


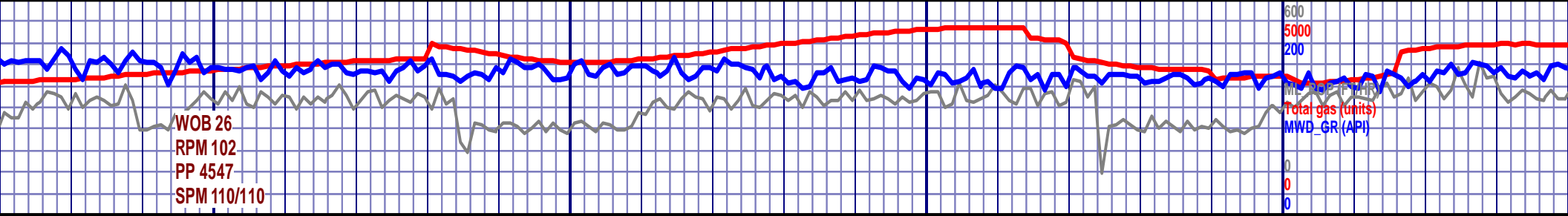




0000 12050 12100 12150 12200

MD 12083 TVD 7183.24 INC 89.45 AZ 274.22 VS 3885.22										MD 12173 TVD 7184.01 INC 89.57 AZ 273.83 VS 3975.11										7050 TVD																																																	
CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blkgy, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.																														CHALK (75%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blkgy, frm, brit, carb thru; tr bent lt gy, sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.																														CHALK (85%) m pyr; MRLST: (1 bent lt gy, sft, y ylwsh grn resd.									
7150																														7150																														7150									
7250																														7250																														7250									





12250

12300

12350

12400

MD 12262 TVD 7184.72
INC 89.51 AZ 273.97
VS 4064.01

MD 12352 TVD 7185.57
INC 89.41 AZ 271.79
VS 4153.96

7050 TVD

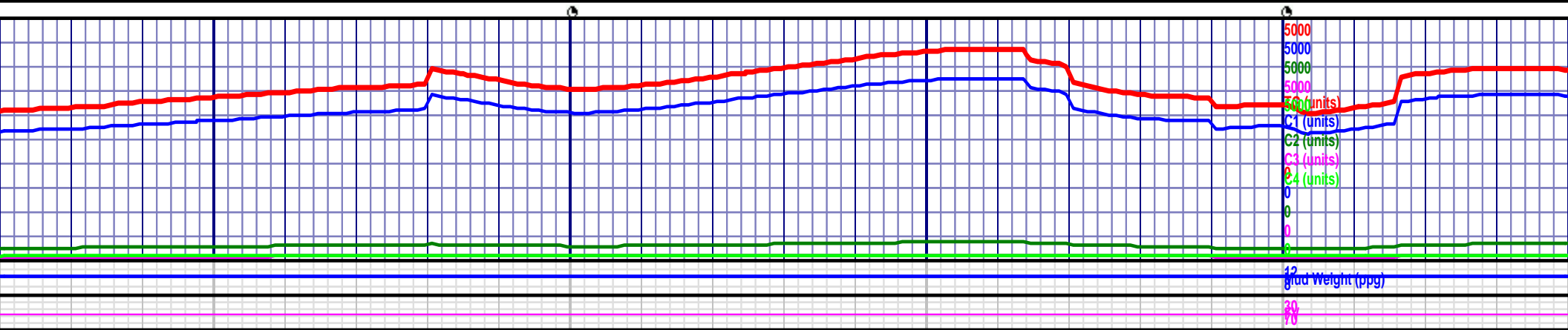
med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr;
(15%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, carb thru; tr
el min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd

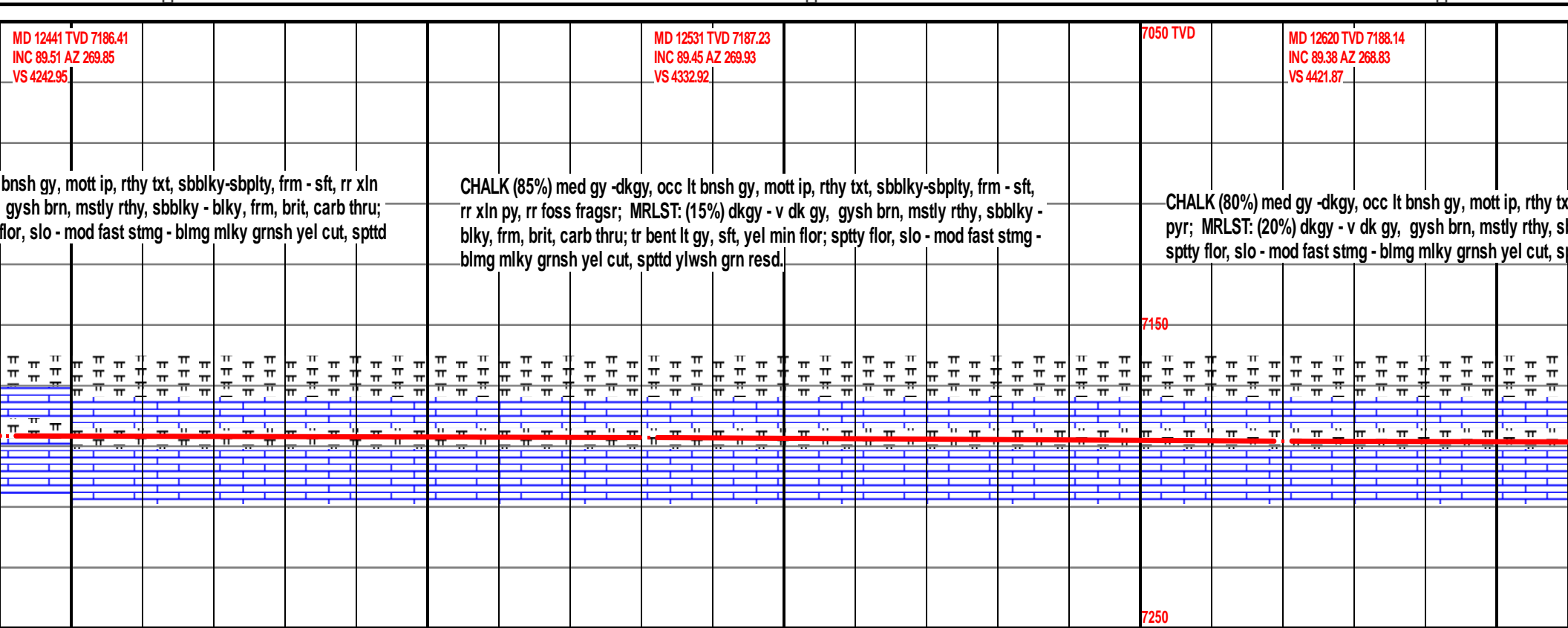
CHALK (85%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr;
MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blky, frm, brit, carb thru; tr bent lt gy,
sft, yel min flor; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

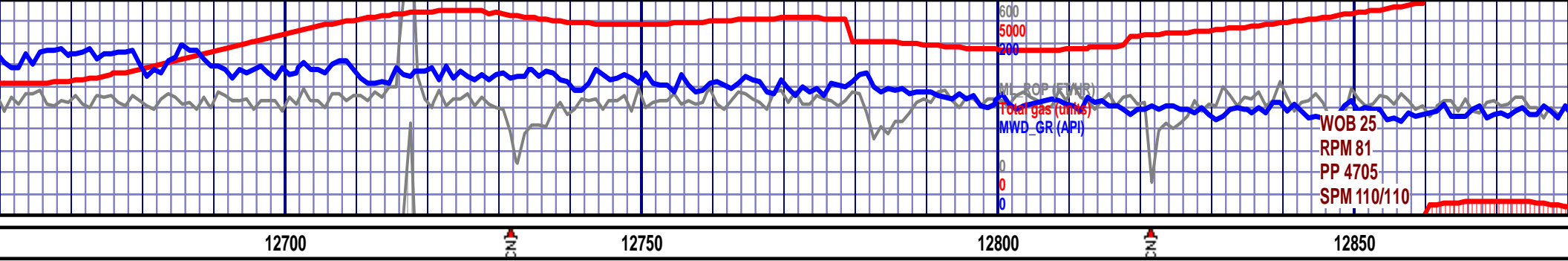
CHALK (85%) med gy -dkgy, occ lt
pyr; MRLST: (15%) dkgy - v dk gy,
tr bent lt gy, sft, yel min flor; sptty
ylwsh grn resd.

7150

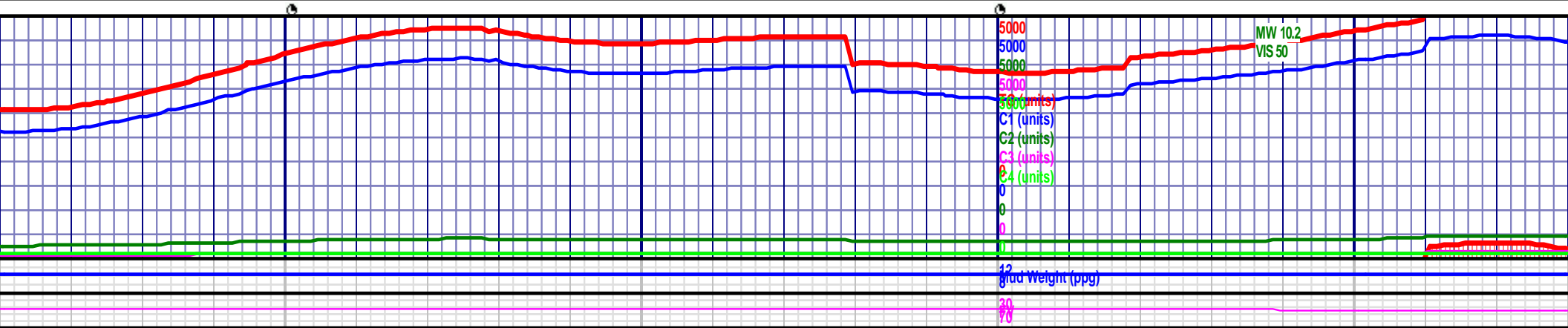
7250

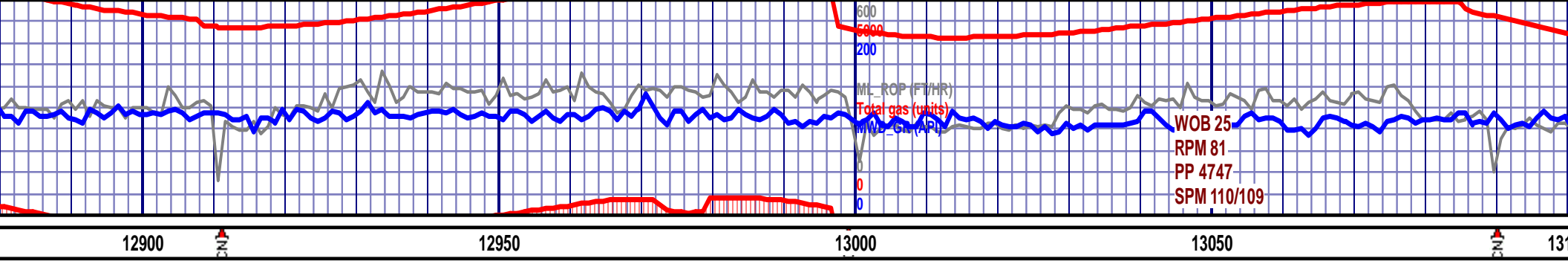






<p>t, sbblky-sbplty, frm - sft, rr xln sbblky - blk, frm, brit, carb thru; spttd ylwsh grn resd.</p>	<p>MD 12710 TVD 7188.94 INC 89.6 AZ 268.87 VS 4511.79</p> <p>CHALK (90%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, rr cal frac fill; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy, sbblky - blk, frm, brit, carb thru; sptty flr, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>	<p>MD 12799 TVD 7189.63 INC 89.51 AZ 269.11 VS 4600.72</p> <p>CHALK (90%) med gy -dkgy, mod lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, xln pyr, rr cal frac fill; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy, frm, brit, carb thru; sptty flr, slo - mod fast stmg - blmg mlky grnsh yel cut, grn resd.</p>
--	---	---





MD 12889 TVD 7190.33
INC 89.6 AZ 269.44
VS 4690.67

MD 12978 TVD 7191.26
INC 89.2 AZ 271.4
VS 4779.65

7050 TVD

MD 13068 TVD 7192.16
INC 89.66 AZ 268.79
VS 4869.62

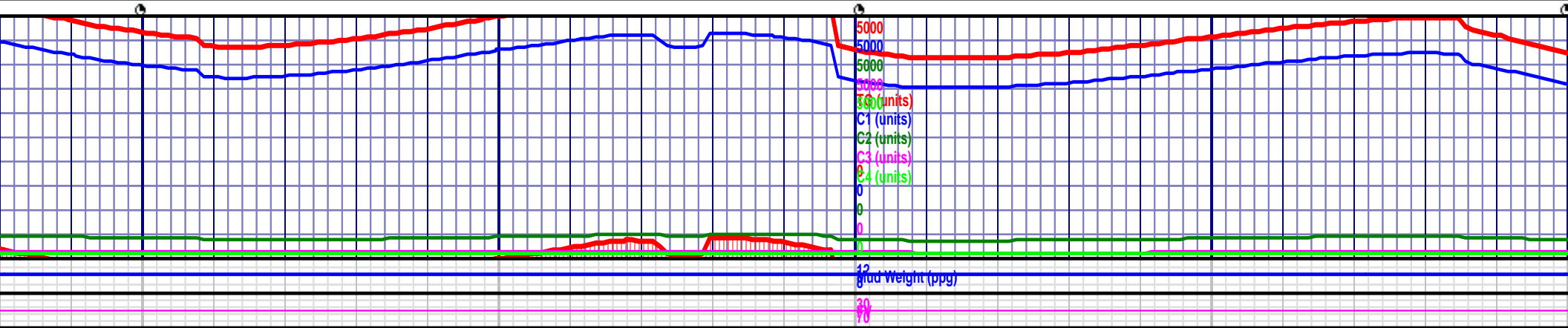
y, frm - sft, rr
sbbiky - blkly,
ut, spttd ylwsh

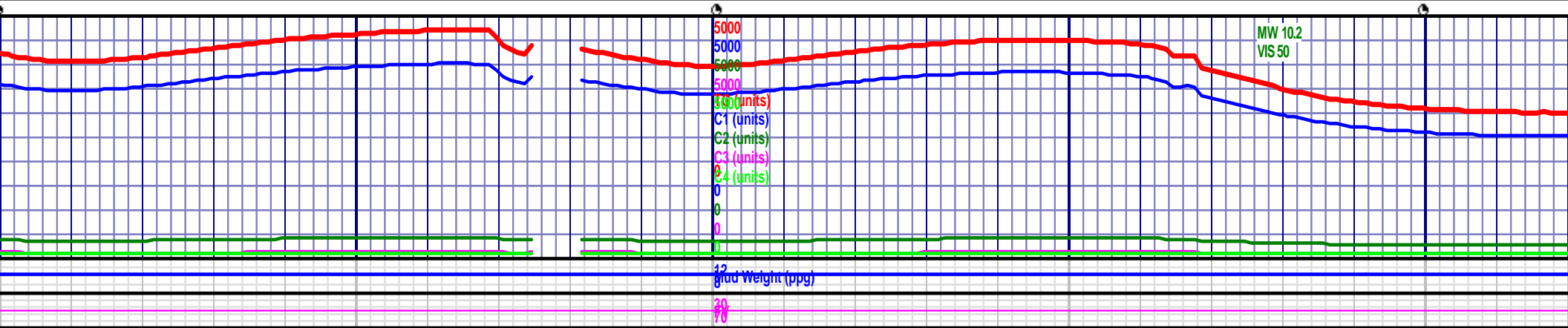
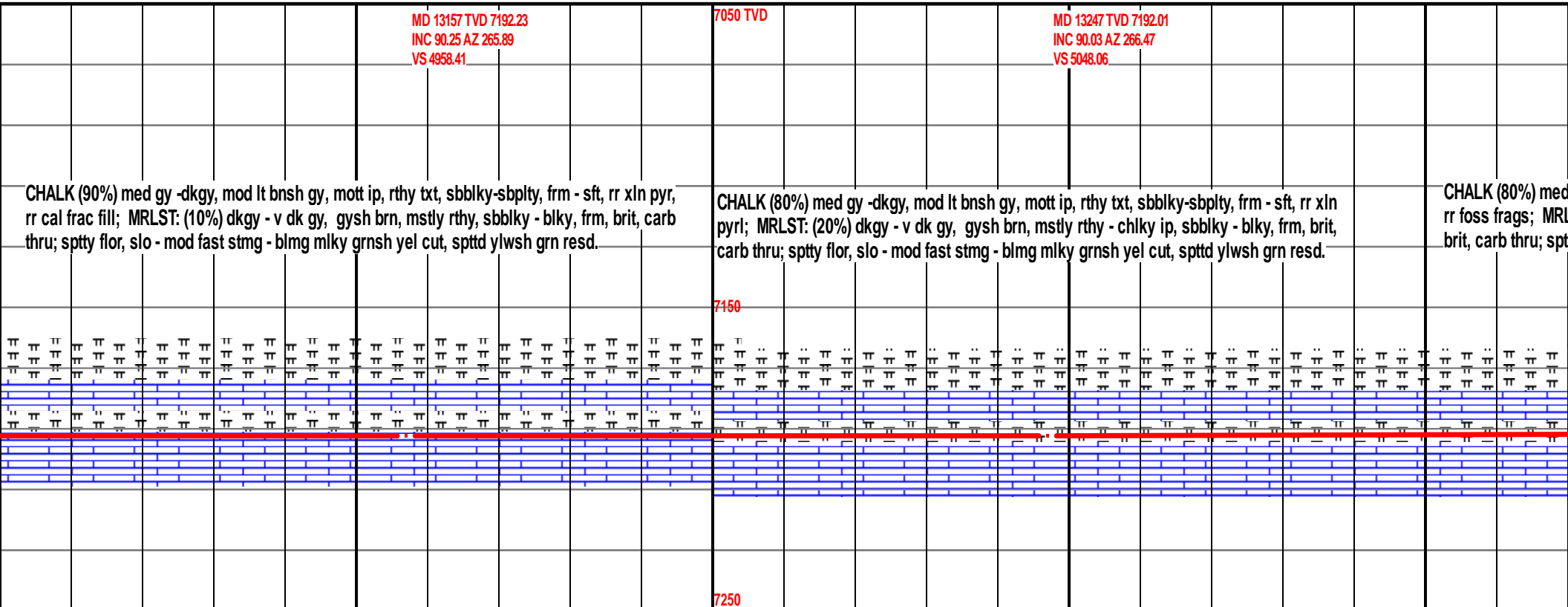
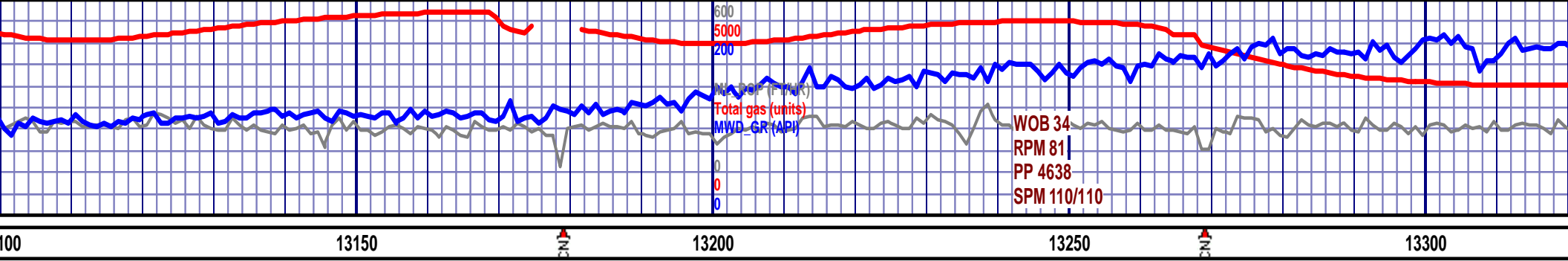
CHALK (90%) med gy -dkgy, mod lt bnsh gy, mott ip, rthy txt, sbbiky-sbply, frm - sft, rr
xln pyr, rr cal frac fill; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy, sbbiky -
blkly, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd
ylwsh grn resd.

CHALK (90%) med gy -dkgy, mod lt bnsh gy, mott ip, rthy txt, sbbiky-sbply, frm - sft,
rr xln pyr, rr cal frac fill; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy, sbbiky -
blkly, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut,
spttd ylwsh grn resd.

7150

7250





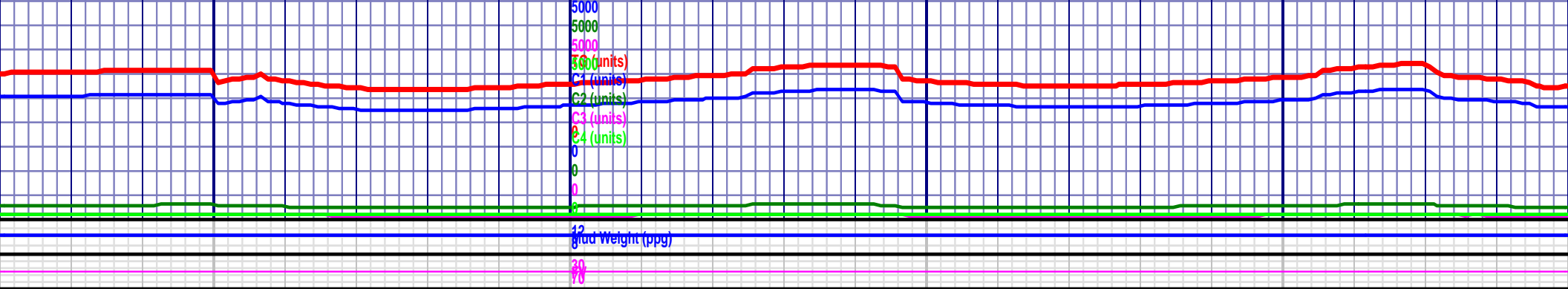


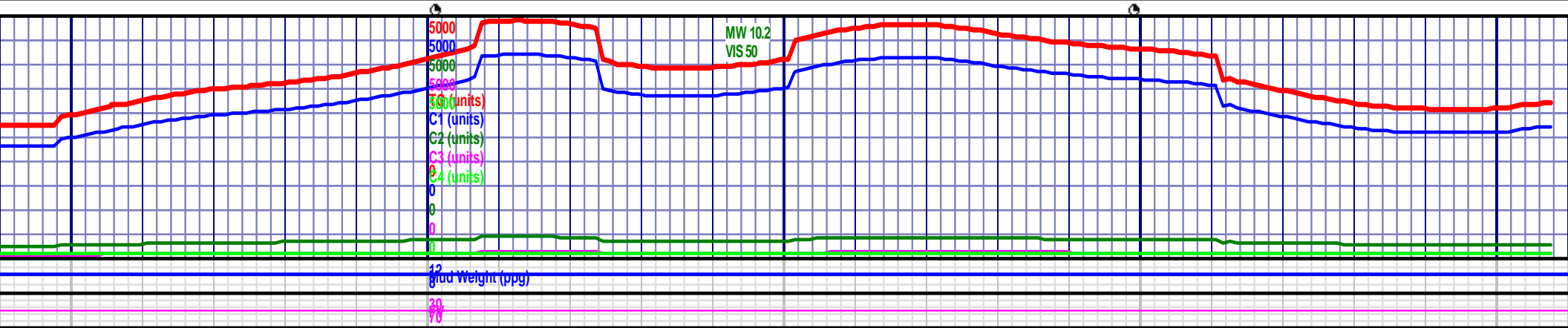
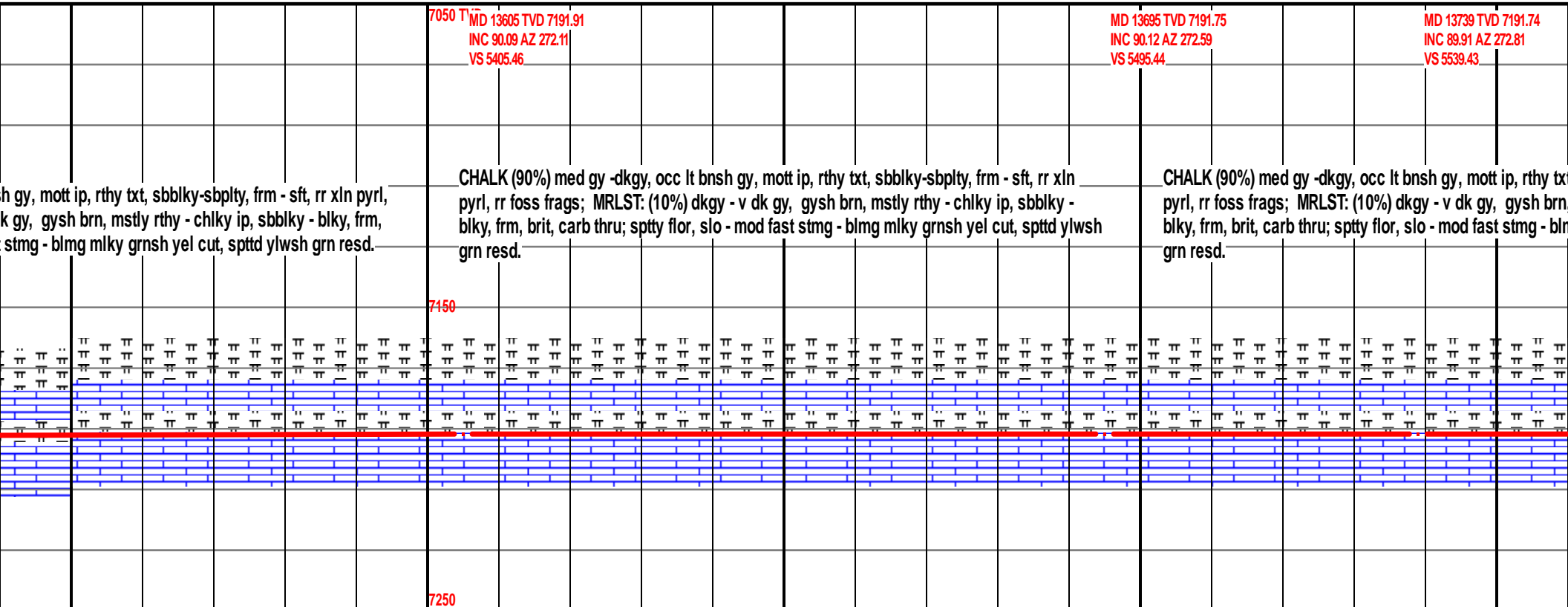
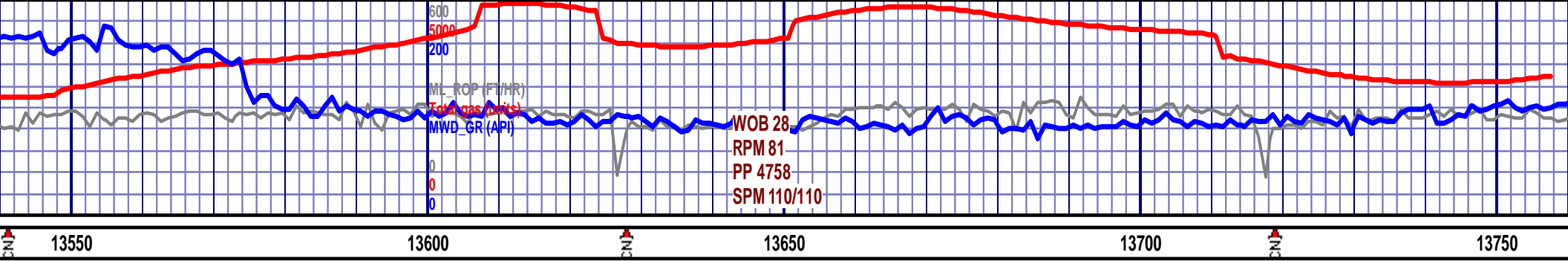
13500

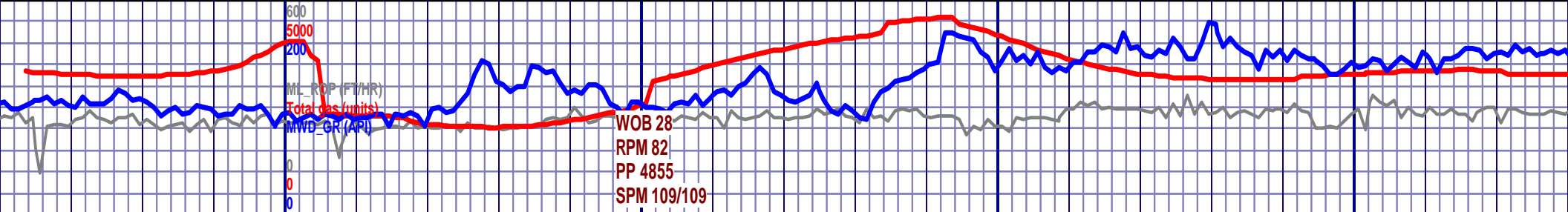
MD 13516 TVD 7192.03
INC 90.06 AZ 269.91
VS 5316.47

CHALK (85%) med gy -dkgy, tr lt bnsh gy, mott ip, rthy txt, sbblky-sbplyt, frm - sft, rr xln pyrl, rr foss frags; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sppty flor, slo - mod fast stmng - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

CHALK (90%) med gy -dkgy, icrg lt bns
rr foss frags; MRLST: (10%) dkgy - v d
brit, carb thru; sptty flor, slo - mod fast







13800 13850 13900 13950

MD 13784 TVD 7191.74
INC 90.09 AZ 272.61
VS 5584.41

MD 13829 TVD 7191.71
INC 89.97 AZ 272.79
VS 5629.4

MD 13873 TVD 7191.75
INC 89.94 AZ 271.85
VS 5673.39

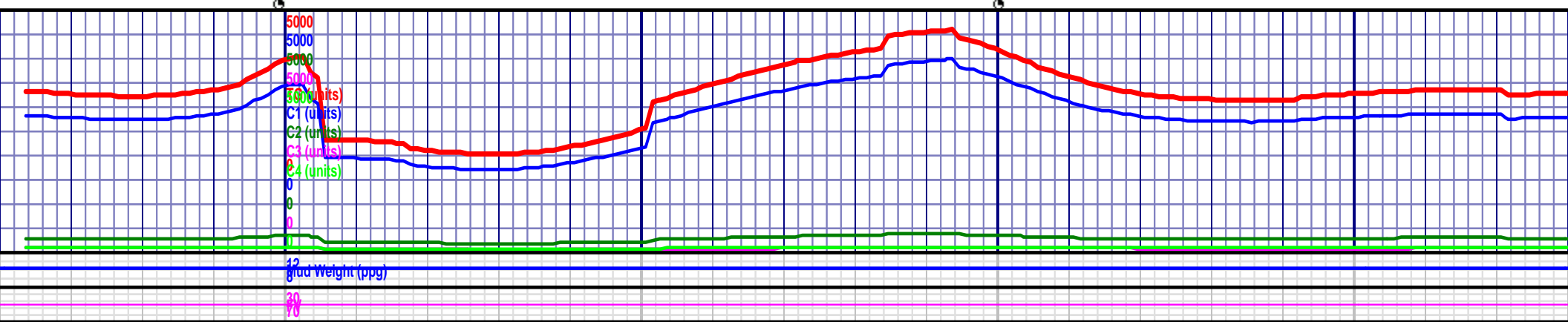
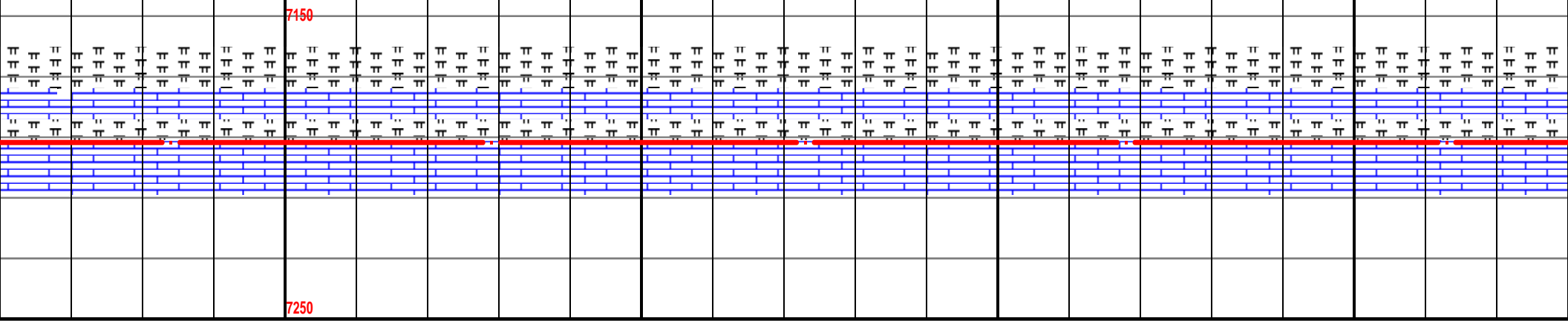
MD 13918 TVD 7191.83
INC 89.85 AZ 271.31
VS 5718.39

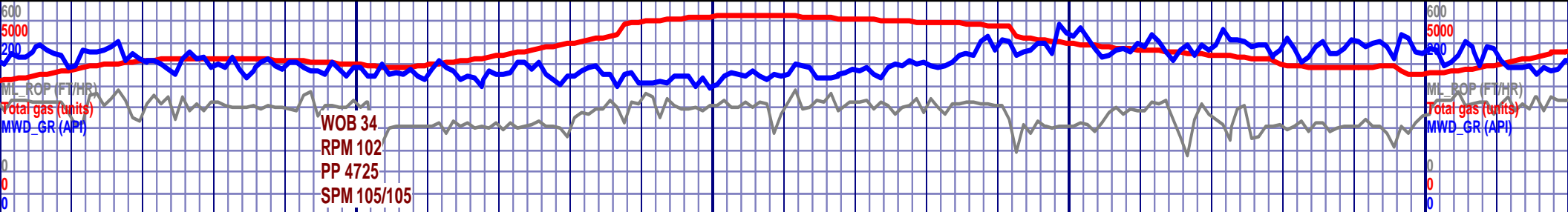
MD 13963 TVD 7191.85
INC 90.09 AZ 271.27
VS 5763.39

t, sbblky-sbplty, frm - sft, rr xln
mstly rthy - chlky ip, sbblky -
mg mlky grnsh yel cut, spttd ylwsh

CHALK (85%) med gy -dkgy, dcrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln
pyrl, rr foss frags; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky -
blky, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd
ylwsh grn resd.

CHALK (75%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm -
pyrl, rr foss frags; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy - chlky
blky, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel c
ylwsh grn resd.





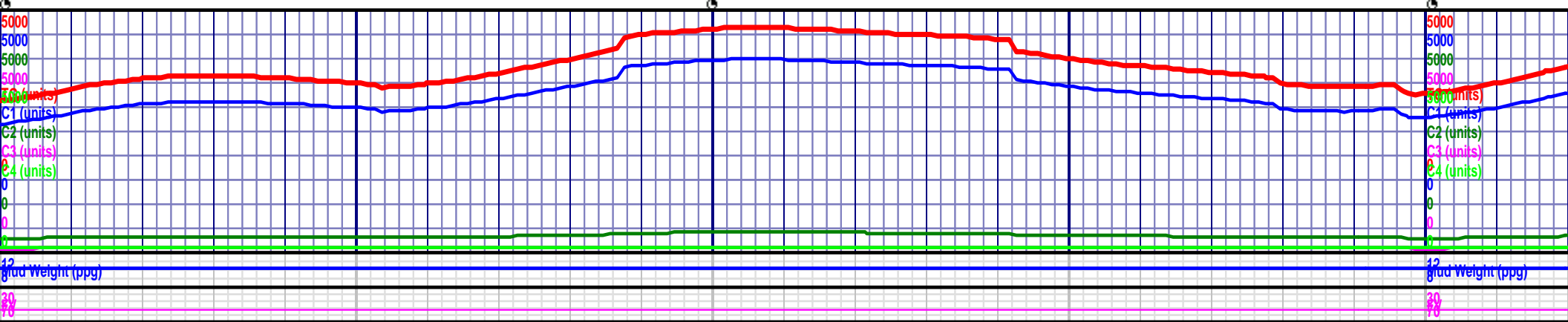
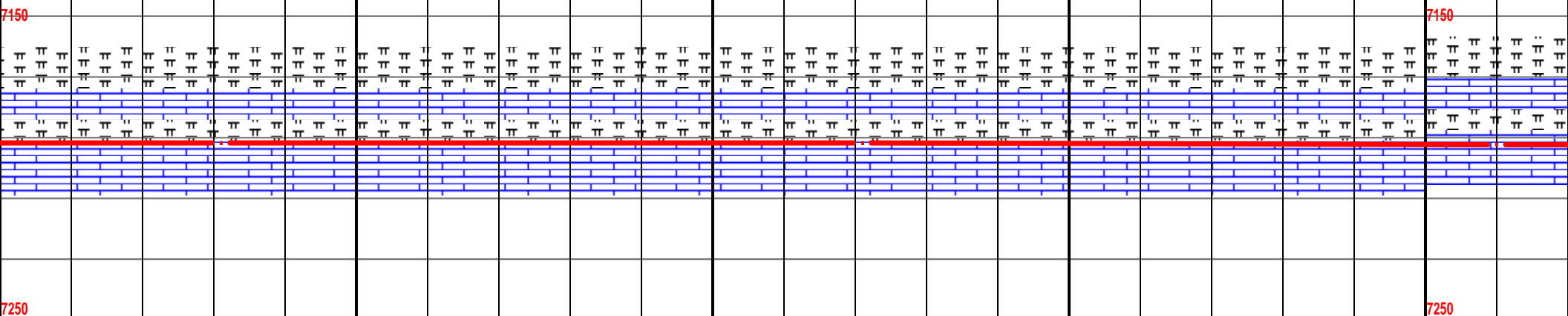
14200 14250 14300 14350 14400

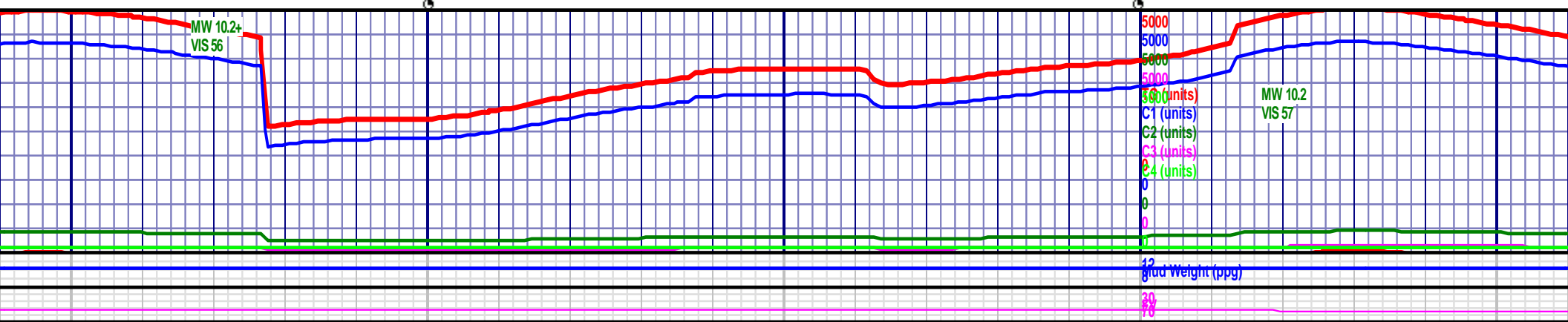
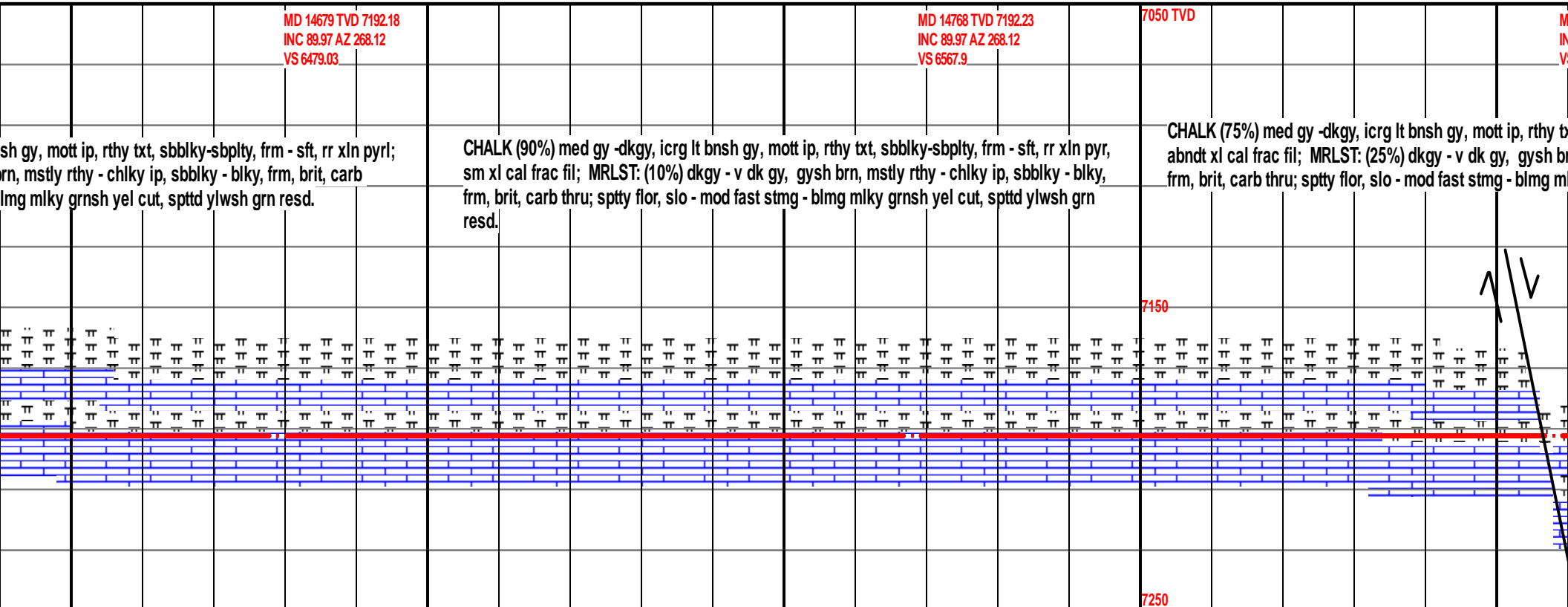
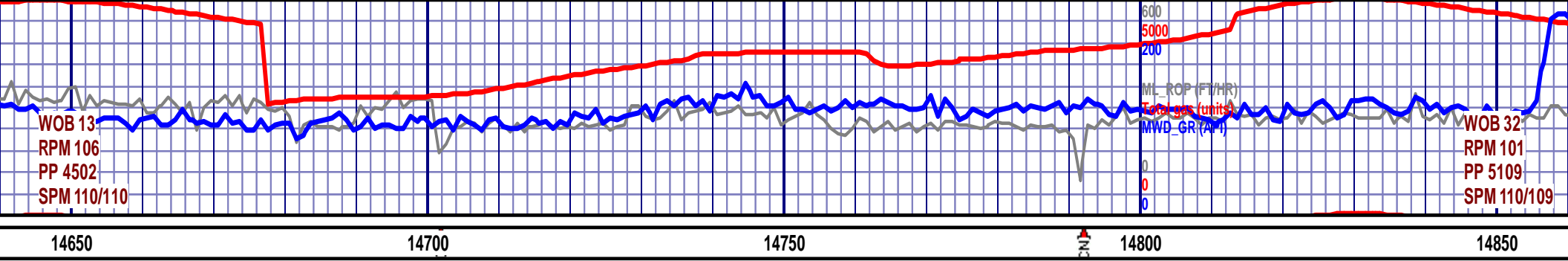
7050 TVD MD 14231 TVD 7191.85 MD 14321 TVD 7191.95 7050 TVD MD 14410 TVD
INC 90.03 AZ 269.45 INC 89.85 AZ 268.71 INC 90 AZ 269.45
VS 6031.36 VS 6121.29 VS 6210.21

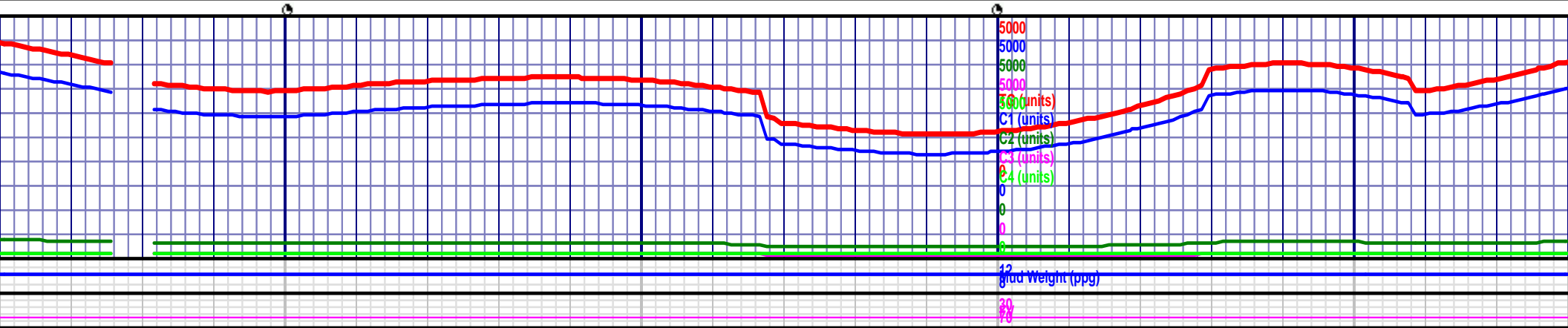
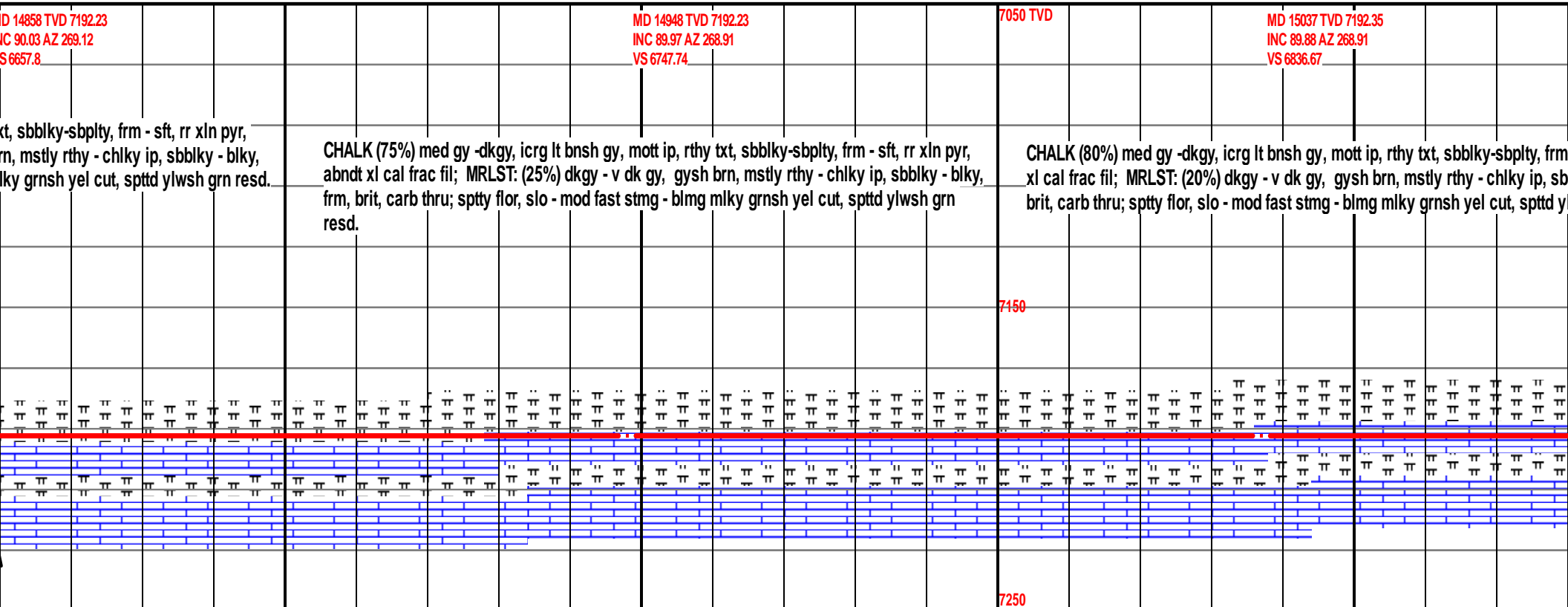
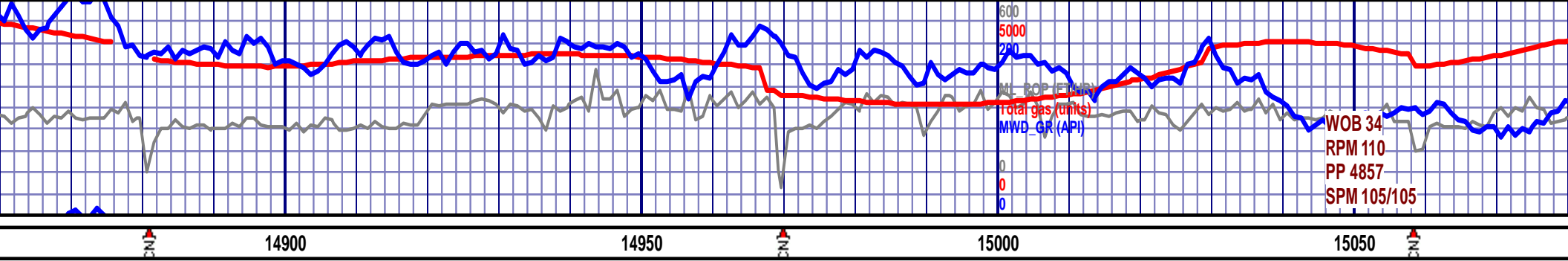
CHALK (75%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln
pyrl, rr foss frags; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky -
blky, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd
ylwsh grn resd.

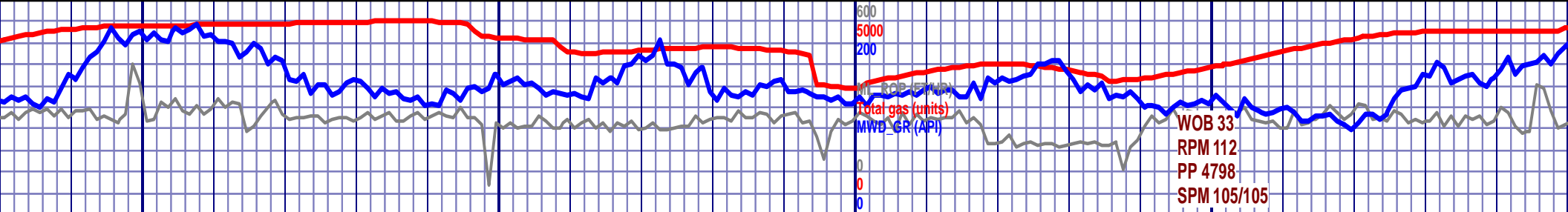
CHALK (75%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln
pyrl; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit,
carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

CHALK (90%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln
pyrl; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit,
carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.









15100

15150

15200

15250

15300

MD 15127 TVD 7192.46
INC 89.97 AZ 267.87
VS 6926.56

MD 15171 TVD 7192.44
INC 90.09 AZ 267.85
VS 6970.48

7050 TVD

MD 15216 TVD 7192.38
INC 90.06 AZ 268.25
VS 7015.41

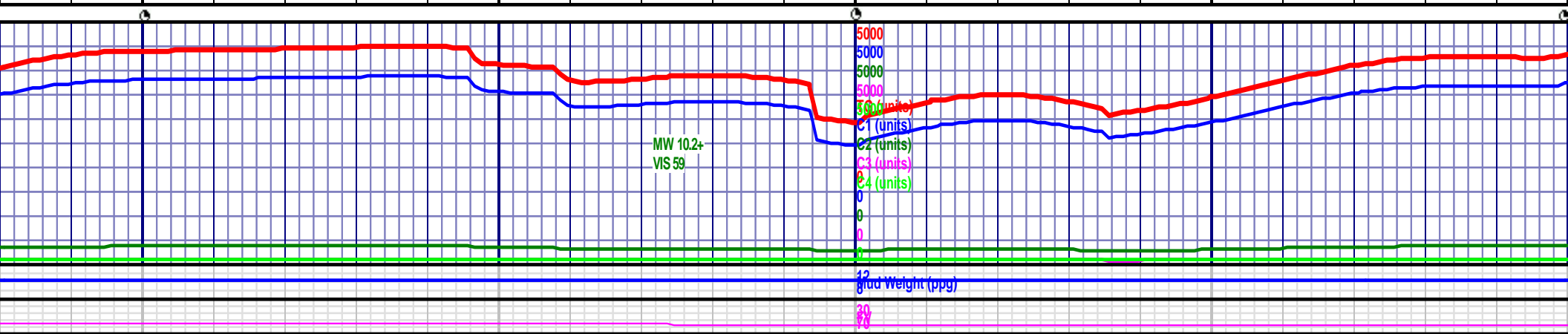
- sft, rr xln pyr, Tr
blky - blky, frm,
lwsh grn resd.

CHALK (90%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr xl cal frac fil; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

CHALK (85%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr xl cal frac fil; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

7150

7250

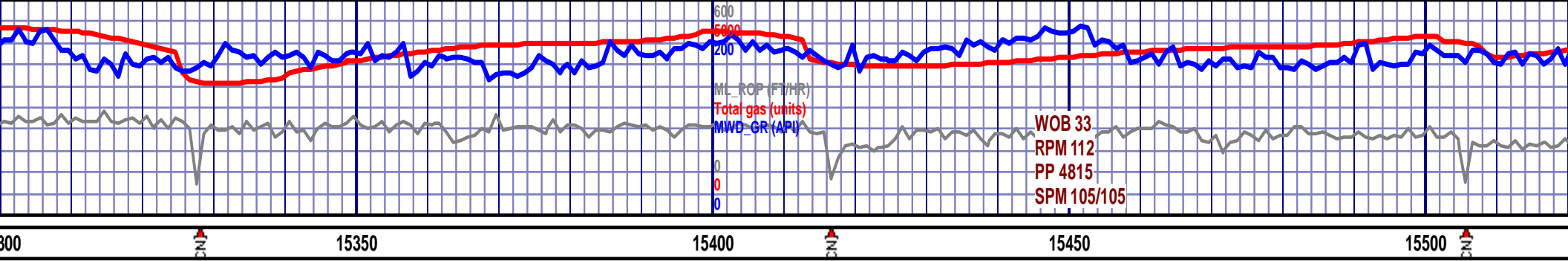


MW 10.2+
VIS 59

C1 (units)
C2 (units)
C3 (units)
C4 (units)

Fluid Weight (ppg)

38



MD 15305 TVD 7192.38
INC 89.94 AZ 267.64
VS 7104.27

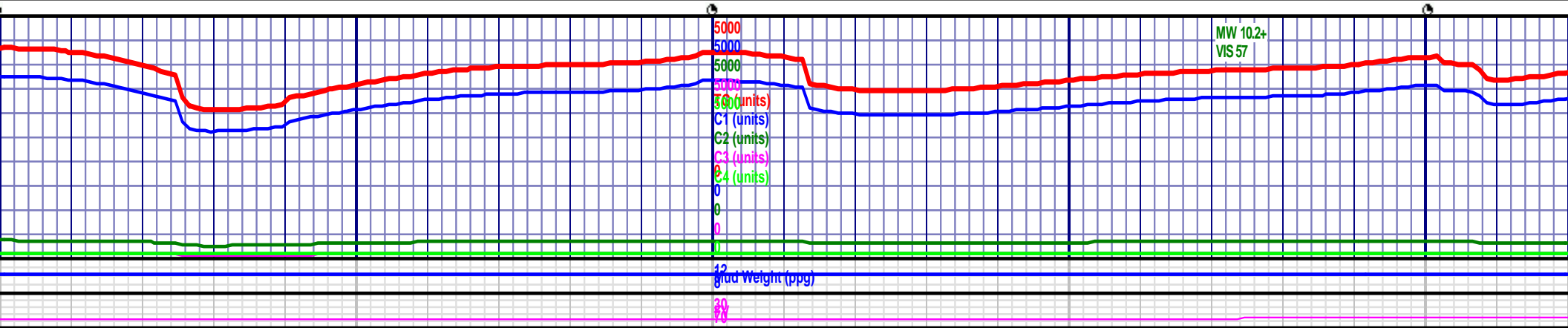
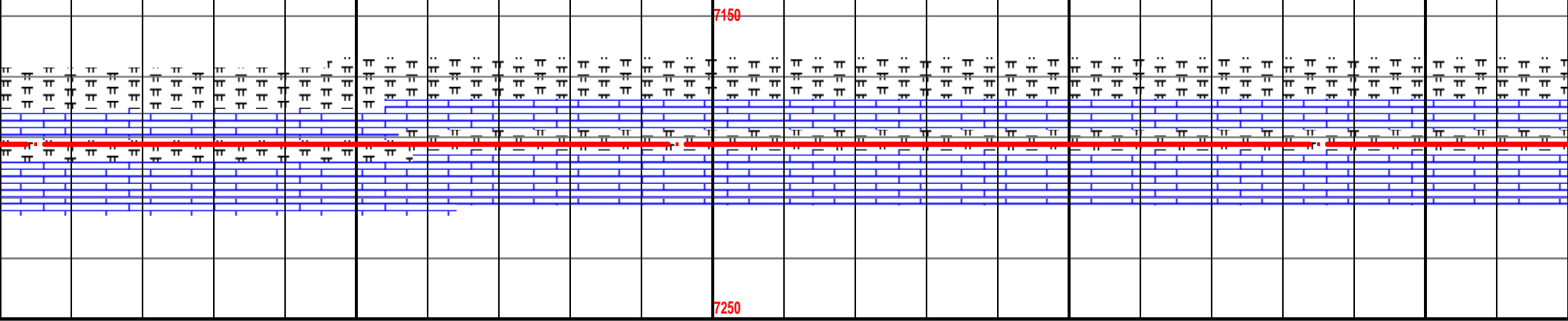
MD 15395 TVD 7192.45
INC 89.97 AZ 269.17
VS 7194.16

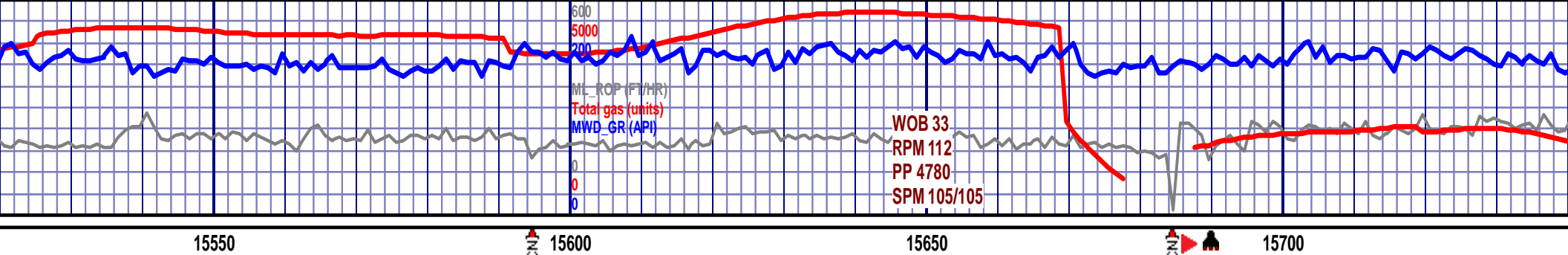
MD 15485 TVD 7192.38
INC 90.12 AZ 271.19
VS 7284.14

CHALK (85%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr xl cal frac fil; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

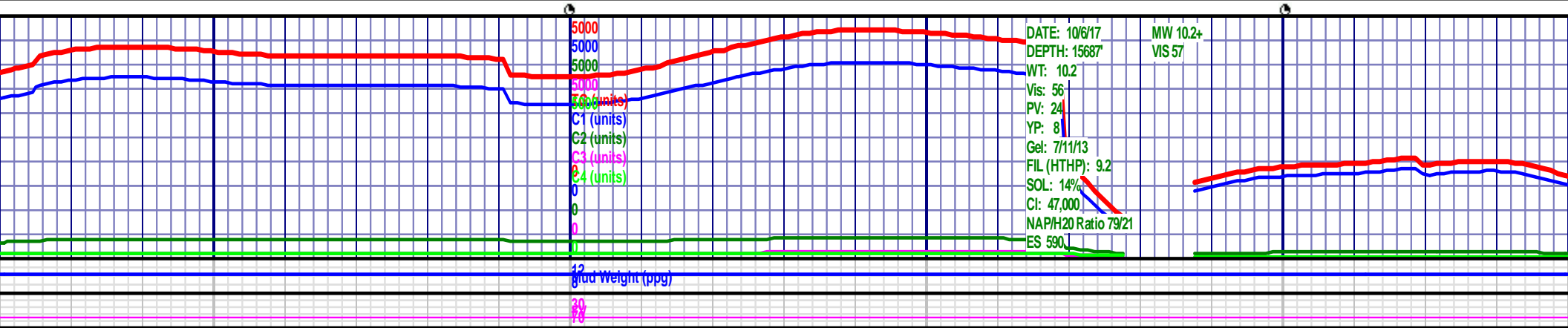
CHALK (80%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, Tr xl cal frac fil; MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.

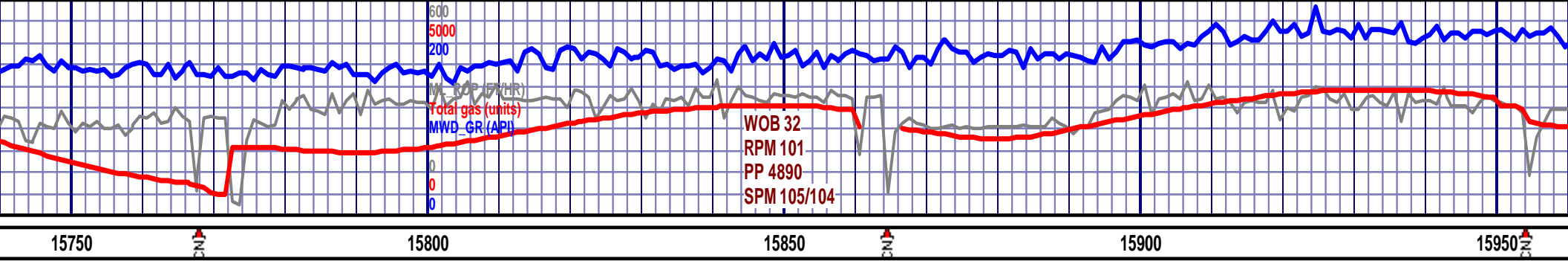
CHALK (85%) me pyr; MRLST: (15% carb thru; sptty f



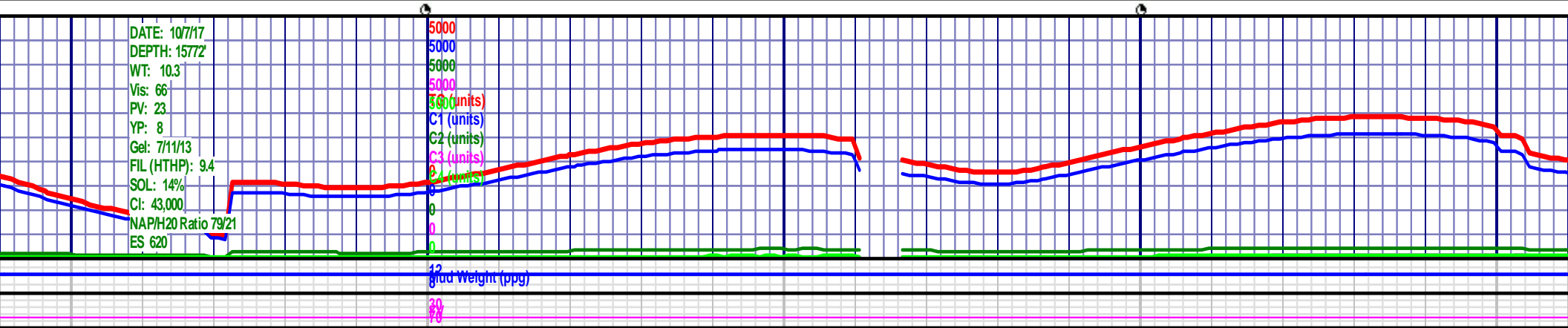


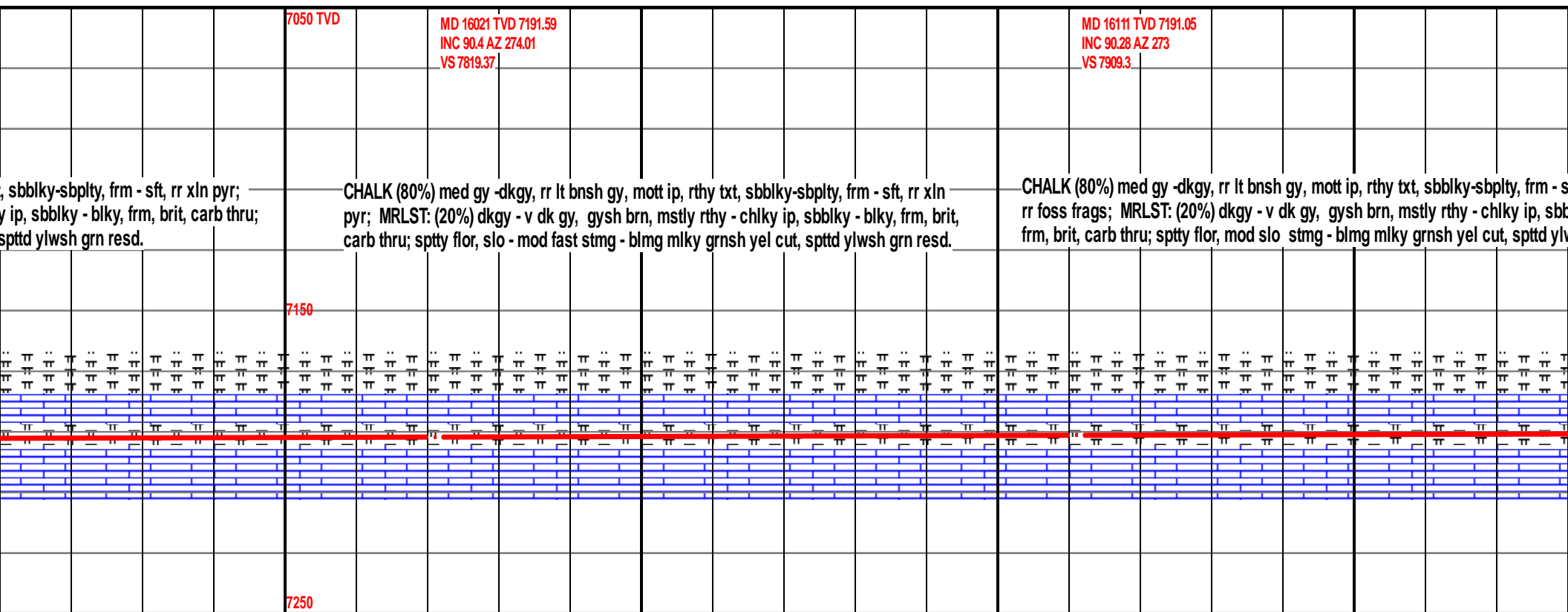
<p>MD 15574 TVD 7192.24 INC 90.06 AZ 273.6 VS 7373.11</p>	<p>7050 TVD</p>	<p>MD 15663 TVD 7192.24 INC 89.94 AZ 274.74 VS 7461.99</p> <p>BIT #2, 8.5", HCC, ATD505, Jets 5x15s, SN#: 7911567, Directional BHA, IN @ 1820', ON 10/3/17, OUT ON 10/6/17, MD, DRILLED 14047' IN 45.4 BIT HR.</p>
<p>med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln (20%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>	<p>CHALK (85%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru; sptty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>	<p>TOOH at 15687' MD due to Slow ROP P/U new motor and bit</p> <p>CHALK (80%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru; sptty flor, slo - mod fast</p>
<p>7150</p>	<p>7150</p>	<p>7150</p>
<p>7250</p>	<p>7250</p>	<p>BIT #3 8.5", HCC, AT505FX, Jets 5x15s, SN#: 7911567, Directional BHA, IN @ 15687', ON 10/6/17, OUT ON 10/10/17, MD, DRILLED 3221' IN 11.8 BIT HR.</p>

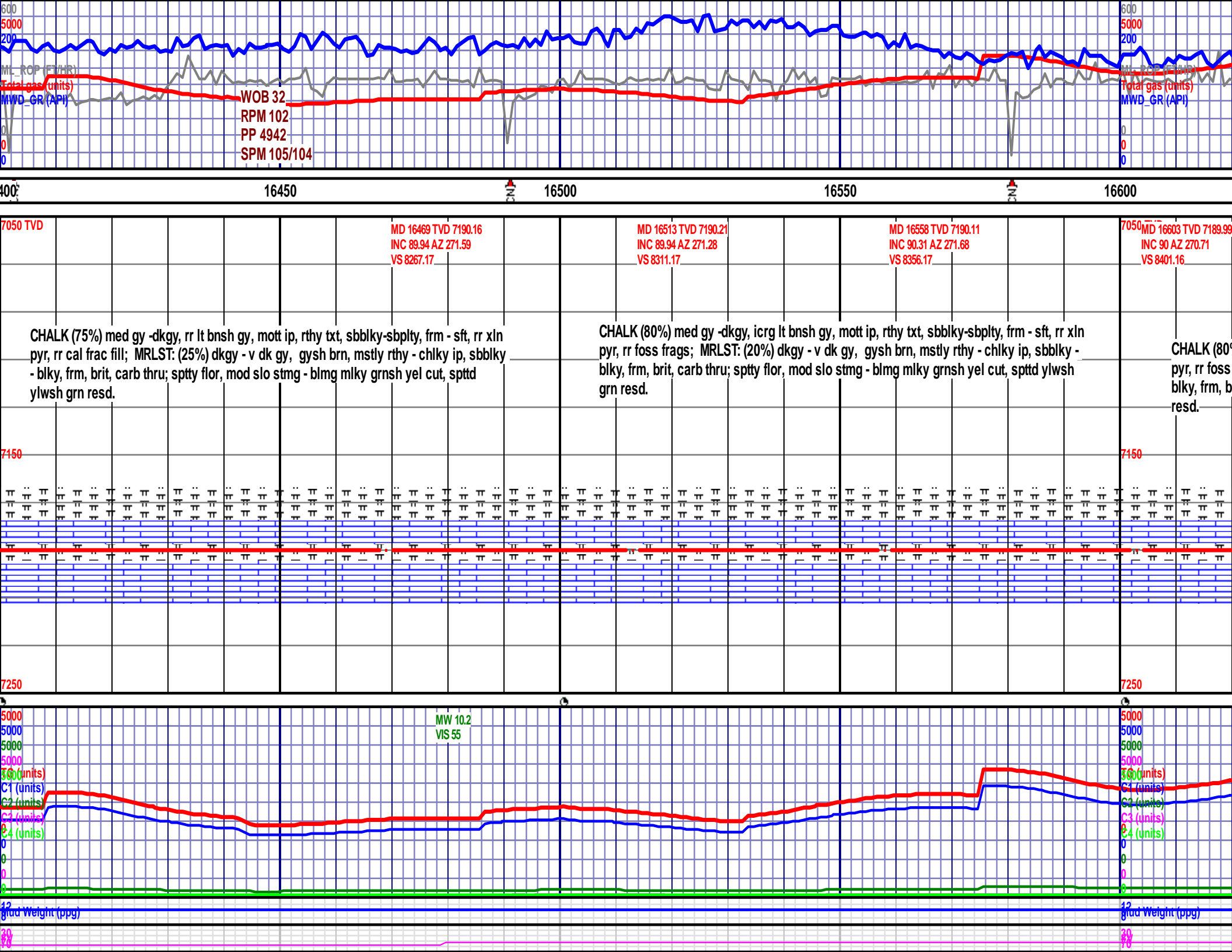


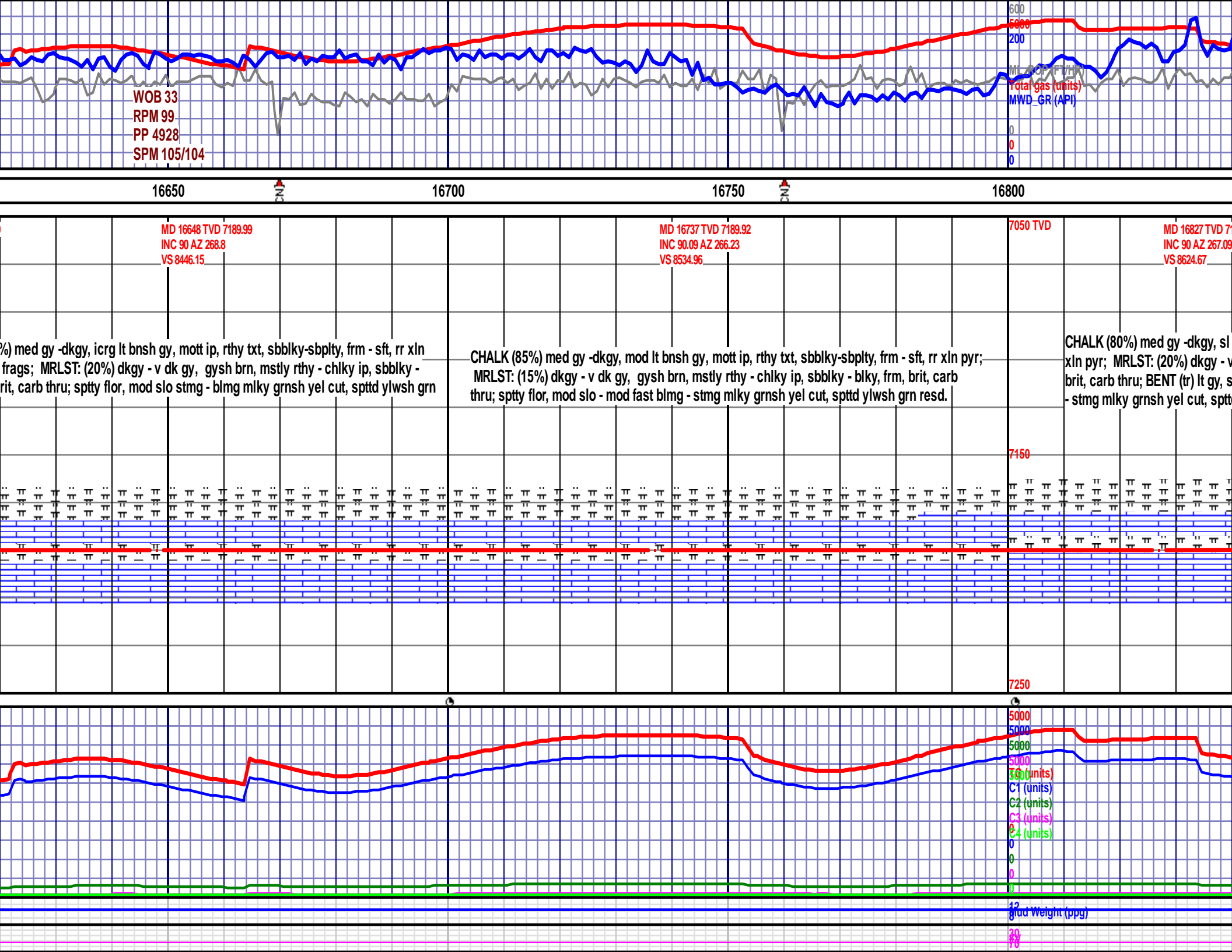


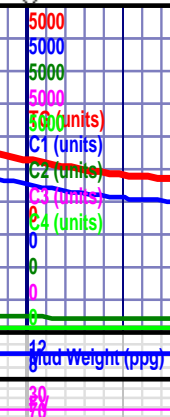
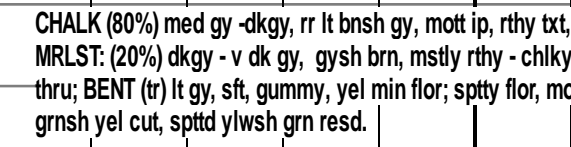
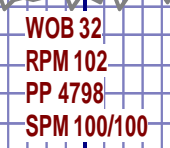
<p>Rotary Steerable 10/6/17 @ 15687' S 7551.82</p> <p>15753 TVD 7192.29 INC 90 AZ 274.65</p> <p>bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru; stmg - blmg mlky grnsh yel cut, spthd ylwsh grn resd.</p>	<p>7050 TVD</p> <p>MD 15842 TVD 7192.29 INC 90 AZ 275.11 VS 7640.64</p> <p>CHALK (85%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (15%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru; sppty flor, slo - mod fast stmg - blmg mlky grnsh yel cut, spthd ylwsh grn resd.</p>	<p>MD 15932 TVD 7192.09 INC 90.25 AZ 274.03 VS 7730.48</p> <p>CHALK (80%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy - chlky sppty flor, slo - mod fast stmg - blmg mlky grnsh yel cut,</p>
--	---	---

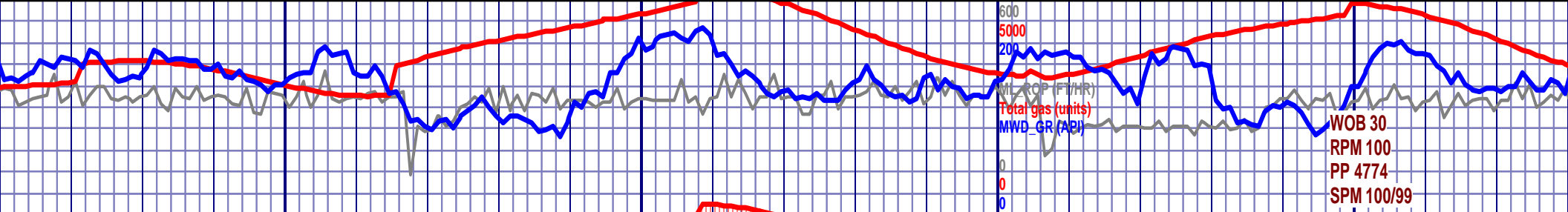












17100 17150 17200 17250

MD 17095 TVD 7188.15
INC 89.85 AZ 270.66
VS 8892.39

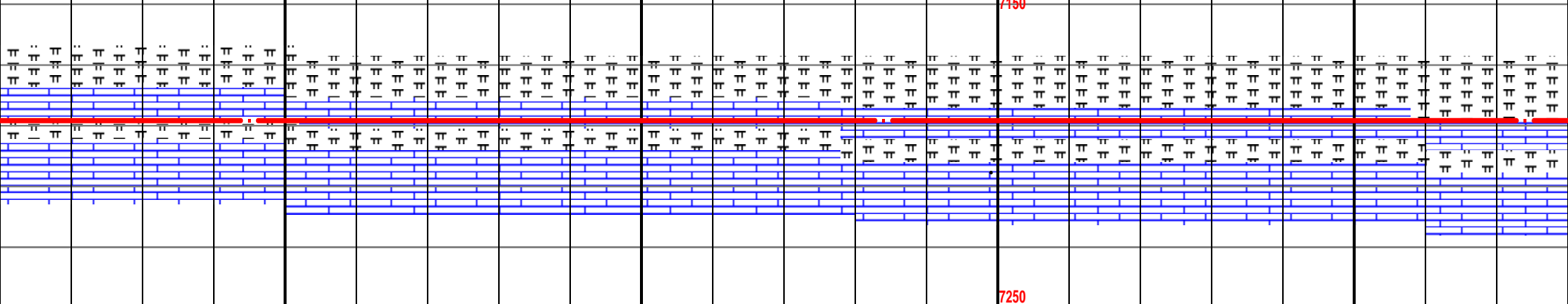
MD 17184 TVD 7188.29
INC 89.97 AZ 271.59
VS 8981.39

MD 17273 TVD 7188.39
INC 89.97 AZ 271.59
VS 9071.39

sbblky-sbplty, frm - sft, rr xln pyr;
ip, sbblky - blk, frm, brit, carb
d slo - mod fast blmg - stmg mlky

CHALK (80%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr;
MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, carb thru;
BENT (tr dcrg) lt gy, sft, gummy, yel min flor; spty flor, mod slo - mod fast blmg - stmg mlky
grnsh yel cut, spttd ylwsh grn resd.

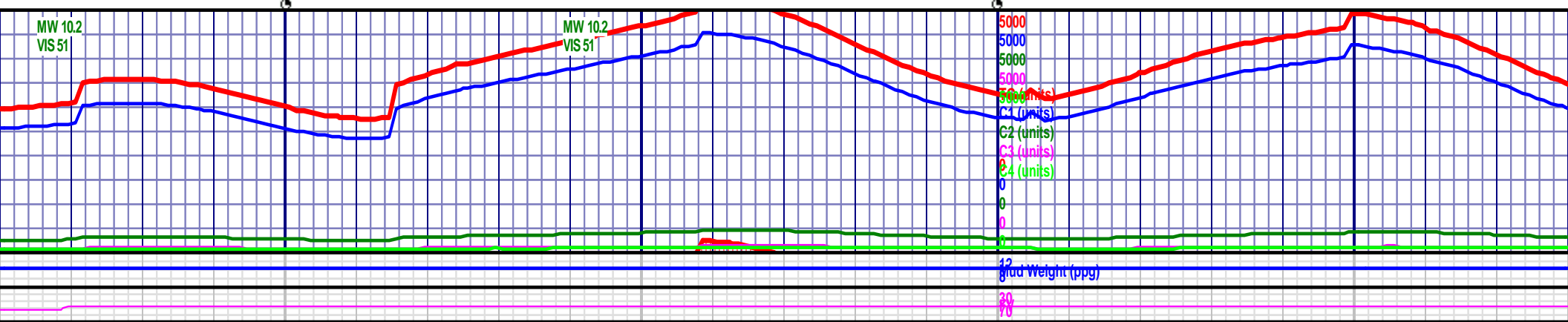
CHALK (80%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft
MRLST: (20%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm,
BENT (tr dcrg) lt gy, sft, gummy, yel min flor; spty flor, mod slo - mod fast blmg -
yel cut, spttd ylwsh grn resd.

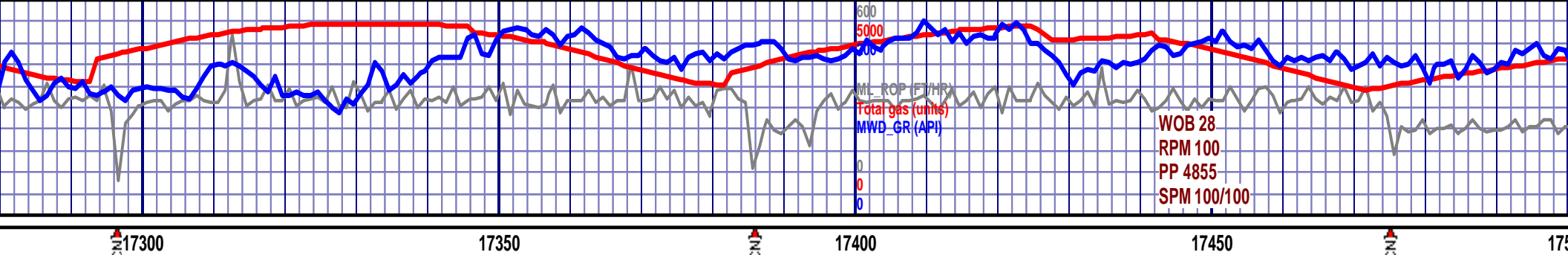


MW 10.2
VIS 51

MW 10.2
VIS 51

5000
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)





74 TVD 7188.36
94 AZ 271.45
1.39

MD 17363 TVD 7188.43
INC 89.97 AZ 271.61
VS 9160.39

7050 TVD

MD 17453 TVD 7188.43
INC 90.03 AZ 271.53
VS 9250.39

CHALK (75%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; BENT (rr) lt gy, sft, gummy, yel min flor; sptty flor, mod slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.

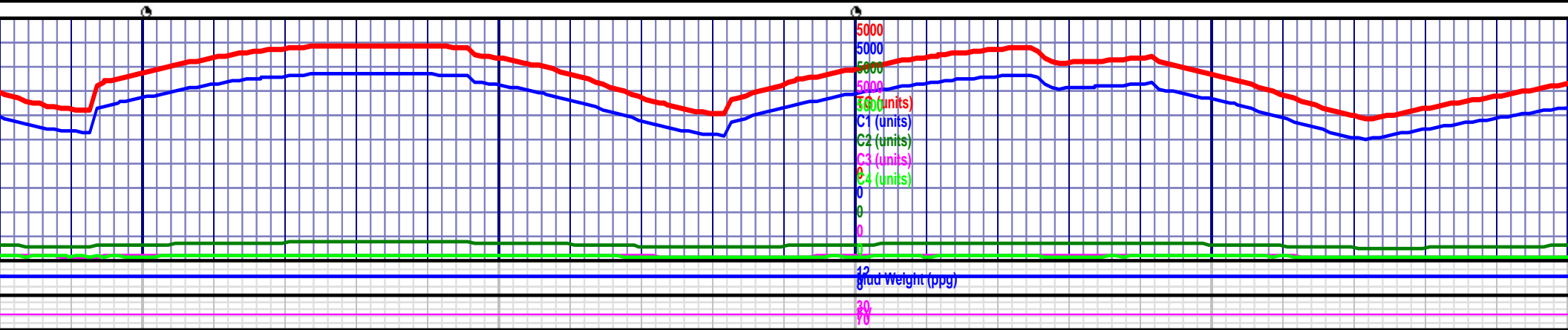
CHALK (75%) med gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; MRLST: (25%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sptty flor, mod slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.

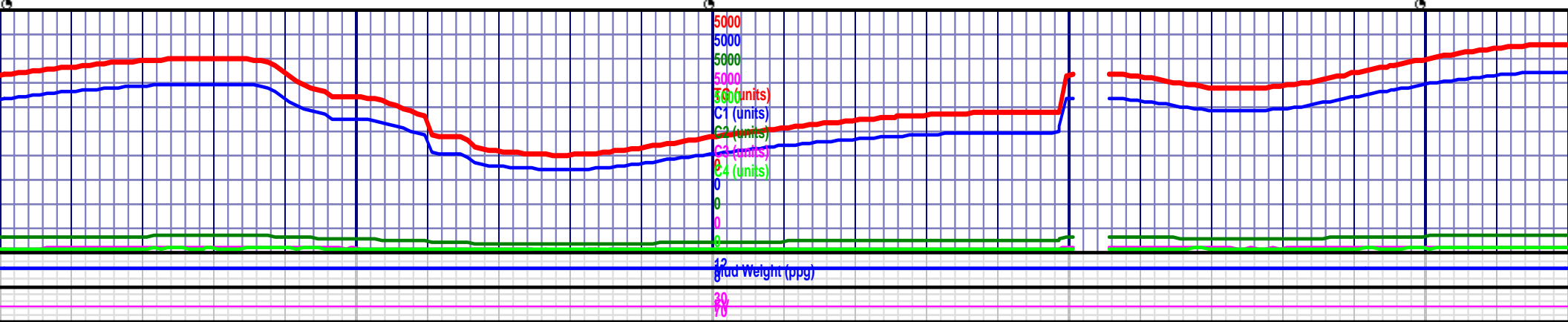
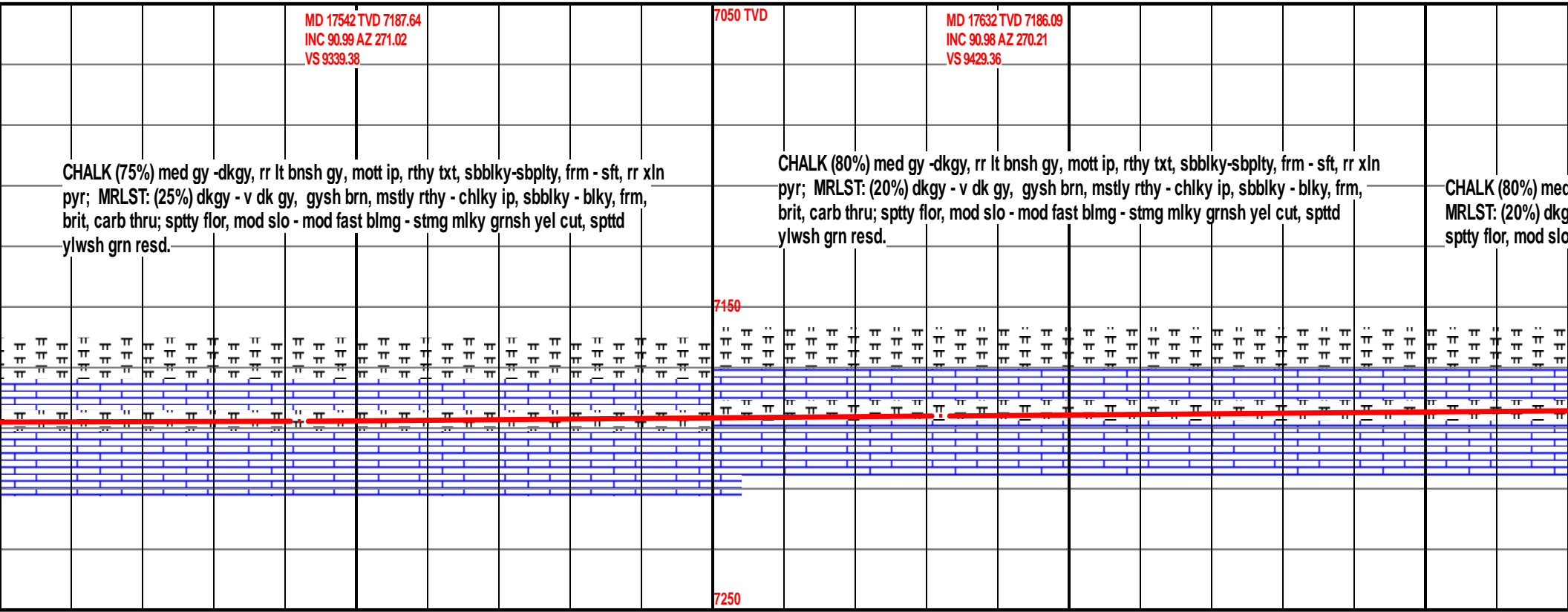
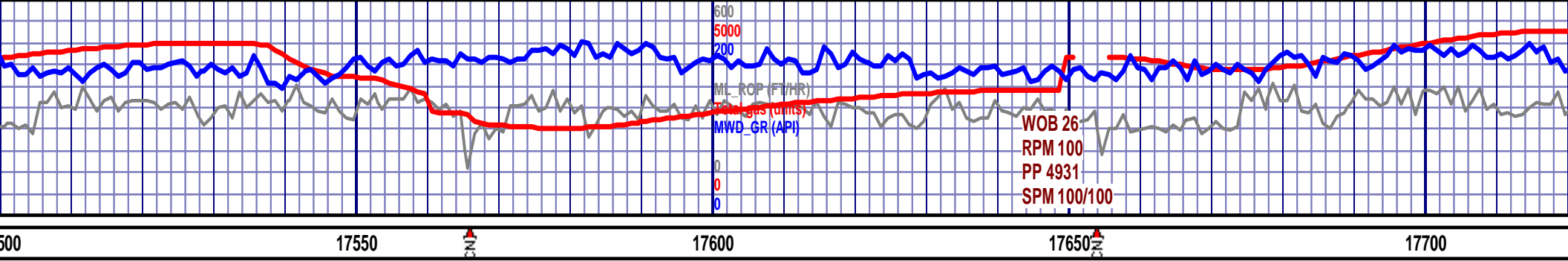
t, rr xln pyr;
brit, carb thru;
stmg mlky grnsh

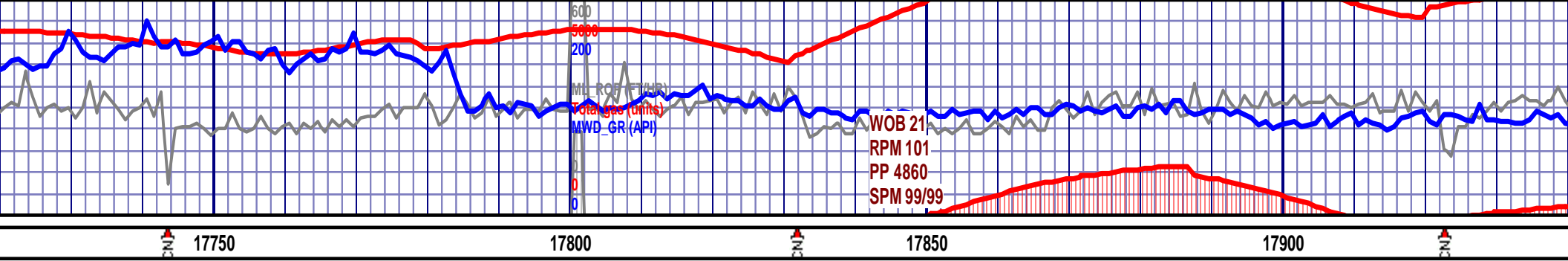


7150

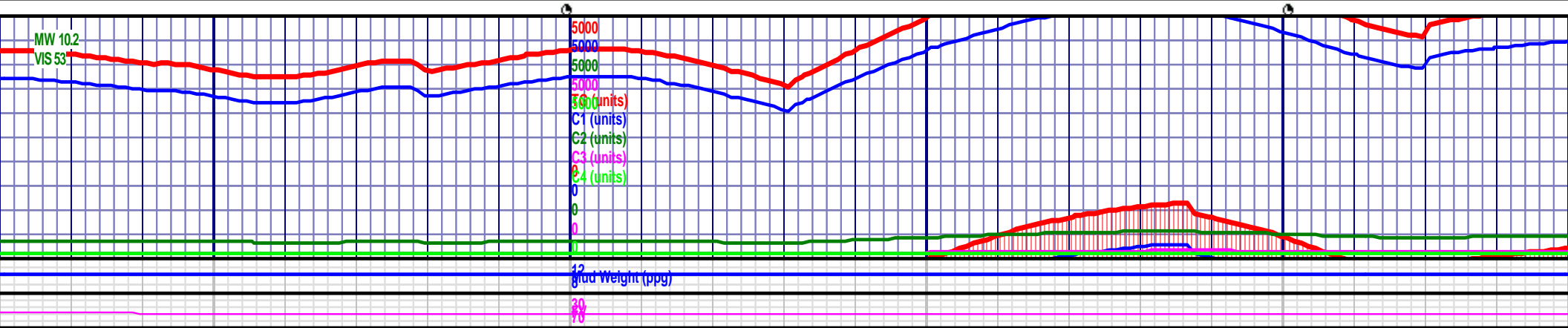
7250

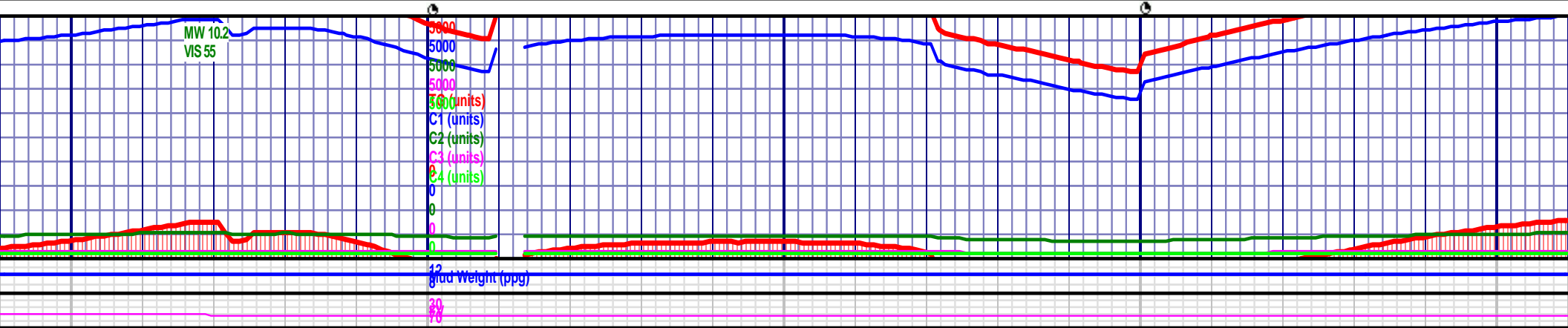
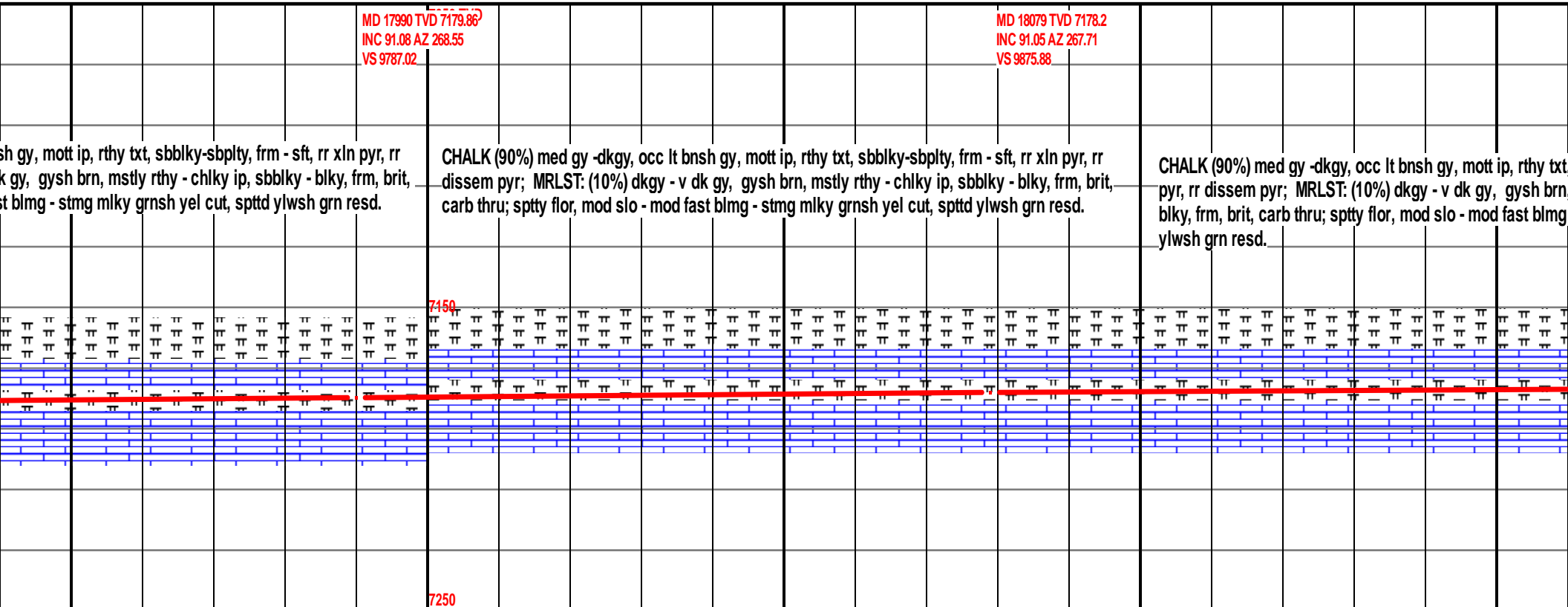
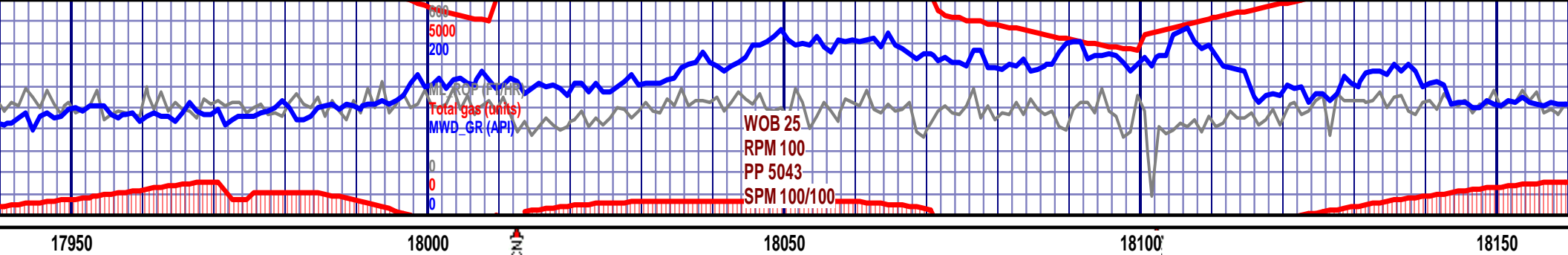


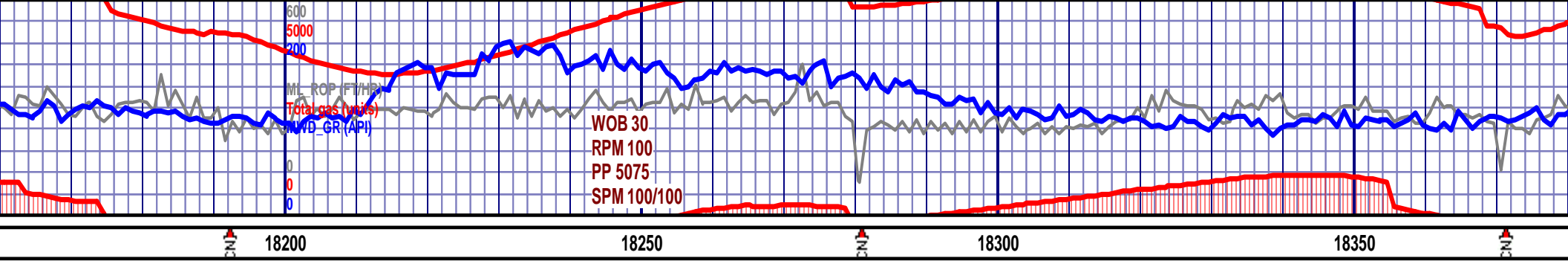




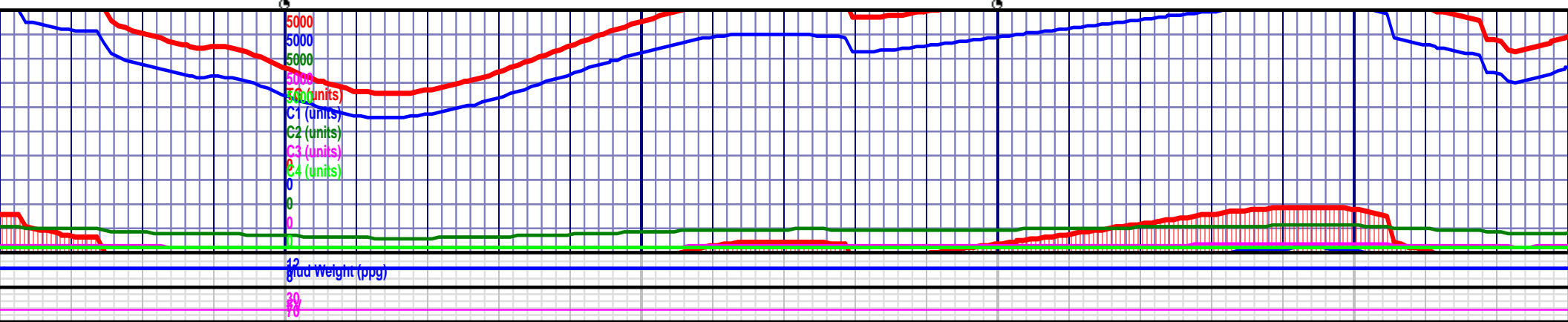
<p>MD 17721 TVD 7184.56 INC 90.99 AZ 268.57 VS 9518.3</p> <p>gy -dkgy, rr lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr; y - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>	<p>7050 TVD MD 17811 TVD 7182.96 INC 91.05 AZ 269.19 VS 9608.21</p> <p>CHALK (90%) med gy -dkgy, icrg lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, rr dissem pyr; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sptty flor, mod slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>	<p>MD 17900 TVD 7181.43 INC 90.92 AZ 268.68 VS 9697.13</p> <p>CHALK (90%) med gy -dkgy, occ lt bnsh dissem pyr; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sptty flor, mod slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>
--	---	---

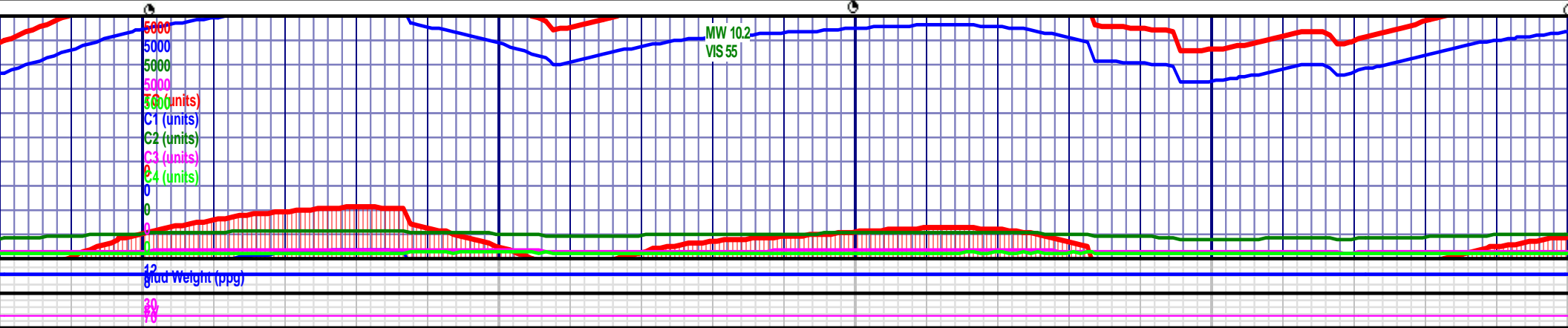
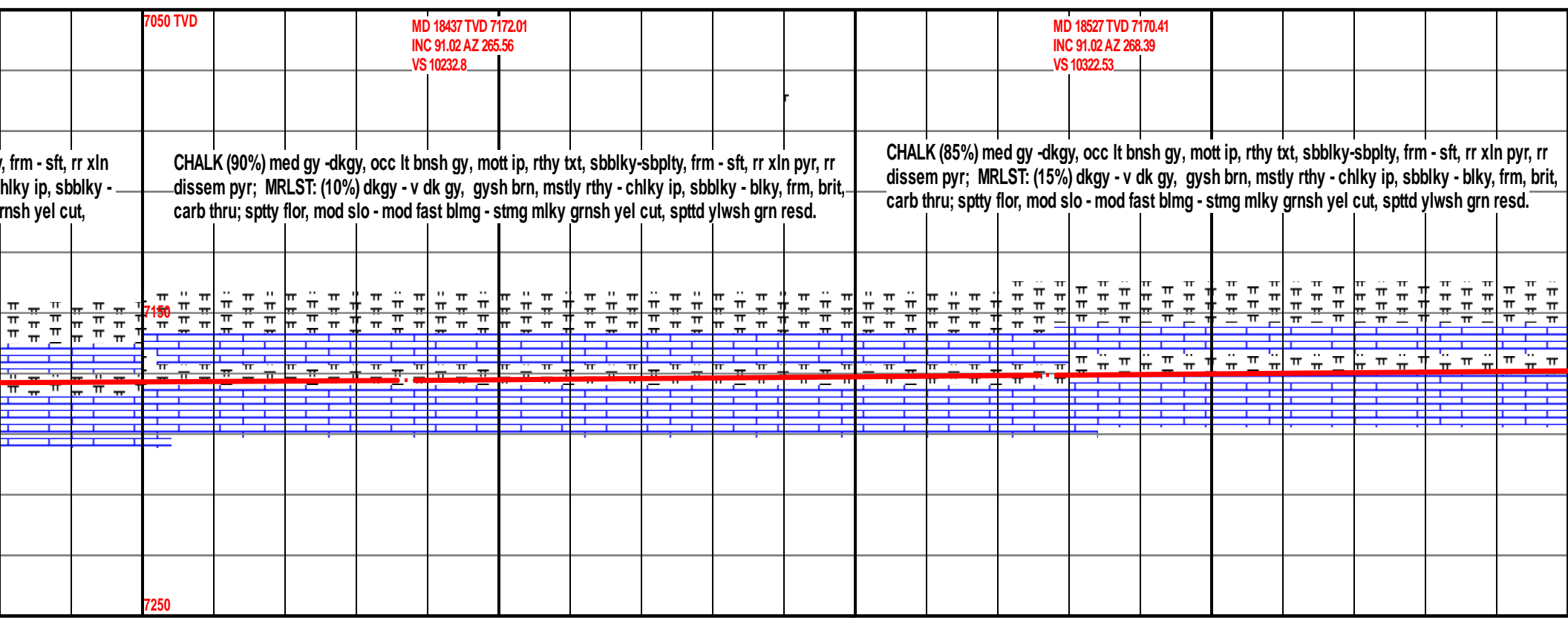
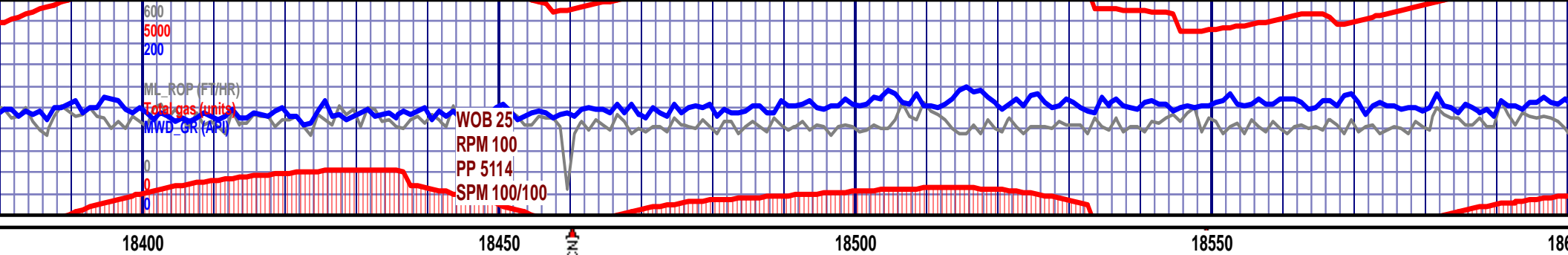


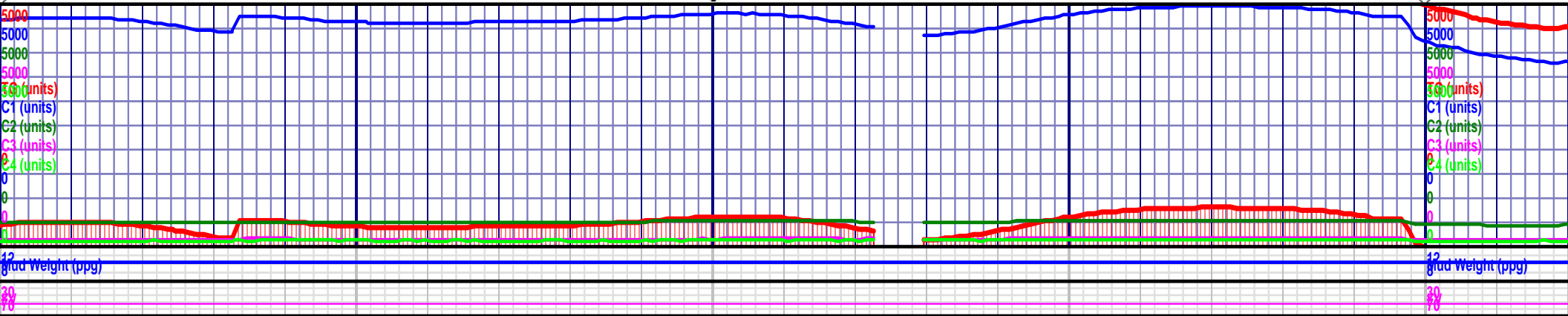
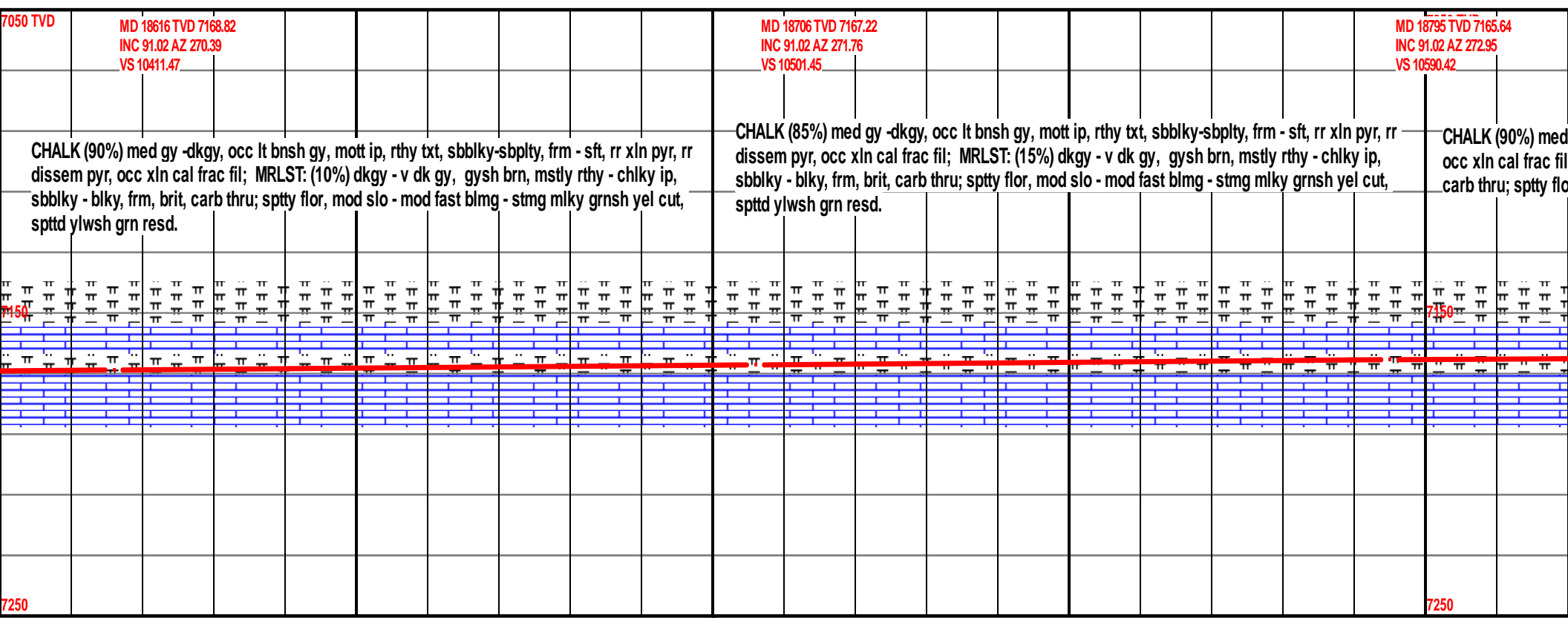
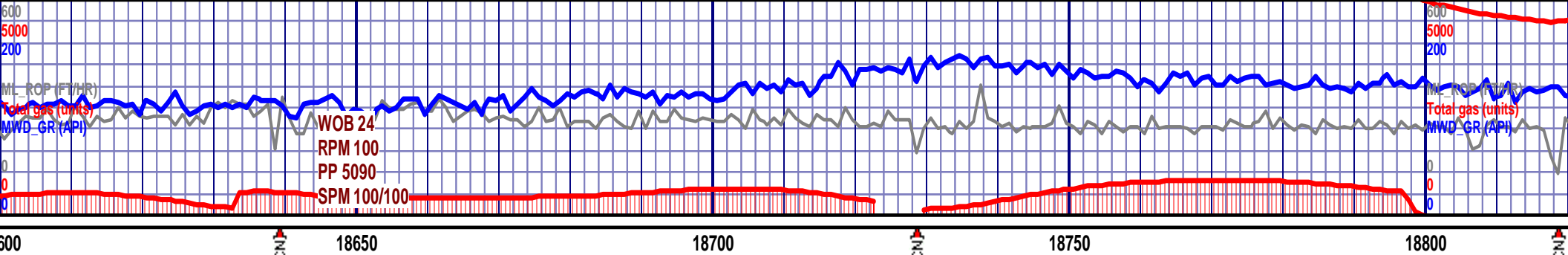


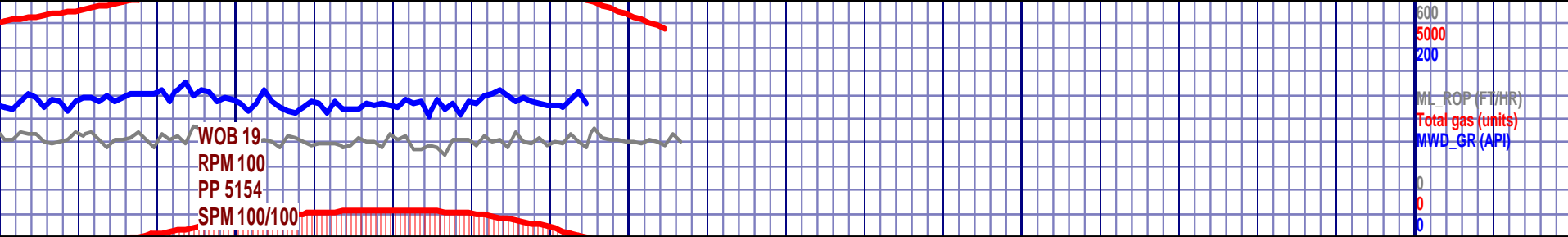


<p>MD 18169 TVD 7176.58 INC 91.02 AZ 267.93 VS 9965.71</p> <p>7050 TVD</p> <p>sbblky-sbplty, frm - sft, rr xln mstly rthy - chlky ip, sbblky - - stmg mlky grnsh yel cut, spttd</p>	<p>MD 18258 TVD 7175.02 INC 90.99 AZ 267.28 VS 10054.52</p> <p>CHALK (90%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, rr dissem pyr; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blky, frm, brit, carb thru; sptty flor, mod slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.</p>	<p>MD 18348 TVD 7173.52 INC 90.92 AZ 266 VS 10144.22</p> <p>CHALK (90%) med gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty pyr, rr dissem pyr; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - c blky, frm, brit, carb thru; sptty flor, mod slo - mod fast blmg - stmg mlky g spttd ylwsh grn resd.</p>		
---	--	--	--	--









18850

18900

18950

19000

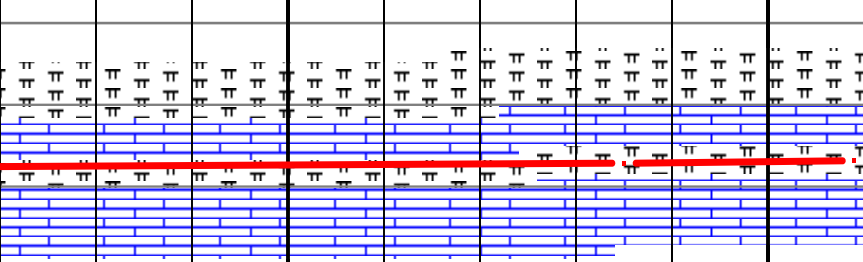
MD 18885 TVD 7164.06
INC 90.99 AZ 271.12
VS 10680.39

MD 18909 TVD 7163.64
INC 90.99 AZ 271.12
VS 10704.39

BIT #3 8.5", HCC, AT505FX, Jets 5x15s, SN#: 7911565, Rotary Steerable Directional BHA, IN @ 15687', ON 10/6/17, OUT ON 10/8/17 @ 18908' MD, DRILLED 3221' IN 11.8 BIT HR.

7050 TVD

gy -dkgy, occ lt bnsh gy, mott ip, rthy txt, sbblky-sbplty, frm - sft, rr xln pyr, rr dissem pyr, ; MRLST: (10%) dkgy - v dk gy, gysh brn, mstly rthy - chlky ip, sbblky - blk, frm, brit, r, mod slo - mod fast blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd.



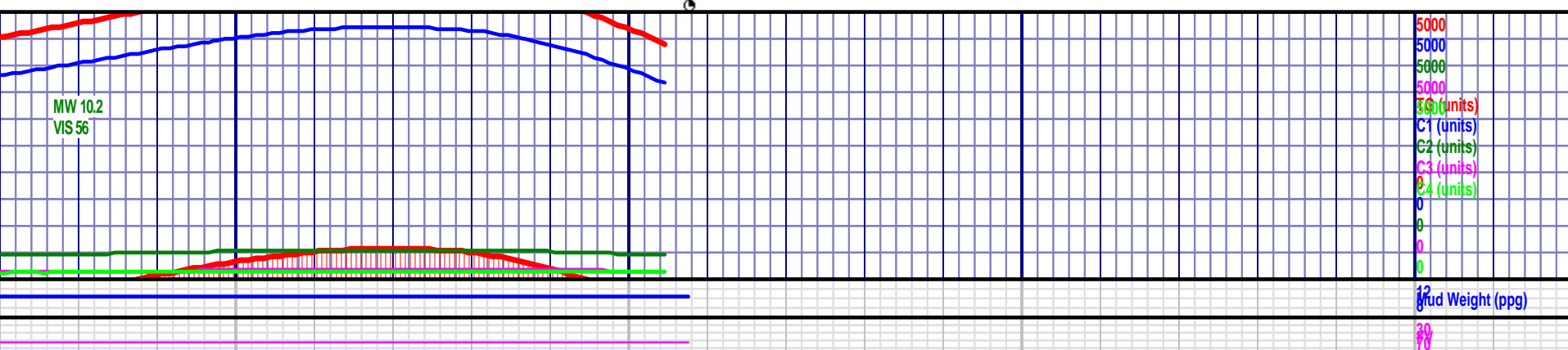
Final survey is a projection to bit

TD of 18,908' reached at 23:00 on 10/7/2017

	Formation Tops		
	MD	TVD	SSD
Sharon Springs	7078'	6914'	-2079'
Niobrara A Chalk	7123'	6947'	-2112'
Niobrara B Chalk	7318'	7065'	-2230'
Niobrara C Chalk	7518'	7136'	-2301'
Target Heel	7609'	7146'	-2311'
Target Toe	18908'	7164'	-2329'

7150

7250



Mud Weight (ppg)