

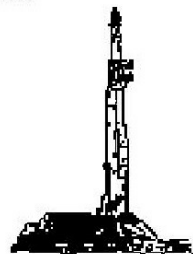
**GOOLSBY BROTHERS**  
and associates, inc.

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



Geological Wellsite  
Supervision

[www.goolsbybrothers.com](http://www.goolsbybrothers.com)



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

Well Name: SRC AG 31N-31B-L  
API: 051234487500  
Location: Section 32, T6N, R66W, Weld County, CO.  
License Number:  
Spud Date: September 13, 2017  
Surface Coordinates: NENE T6N R66W Sec 32; 979' FNL & 545' FEL  
LAT 40.449236 LONG -104.794362  
Bottom Hole Coordinates: Est. T6N R66W Sec. 31: 1633' FNL & 33' FWL  
Ground Elevation (ft): 4,706'  
Logged Interval (ft): 6,800' To: 18,454'  
Formation: Pierre Shales / Sands, Niobrara "B" Chalk Target  
Type of Drilling Fluid: OBM Surface, Curve & Lateral

Region: Wattenberg  
Drilling Completed: September 16, 2017

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

**OPERATOR**

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

**GEOLOGIST**

Name: Ryan Scribner & Brian Spitzmiller  
Company: Goolsby Brothers & Assoc. (GBA), Inc. ([www.goolsbybrothers.com](http://www.goolsbybrothers.com))  
Address: 575 Union Blvd. Suite 208,  
Lakewood CO. 80228  
Tel 303-618-7736

## Logs

PULSE MWD GR from 1,747'-18,327'

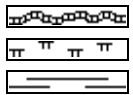
## Casing

9 5/8" Surface Casing set @ 1,818' MD

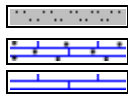
## Comments

- 1) Drilling Contractor: Precision Drilling, Rig #462  
Toolpusher: John Myers, David Gardner
- 2) Company Man: Steve Wilson, Buddy Davis  
Lovell Young, Tony Pershall
- 3) Mud Company : Reliable Drilling Fluid  
Engineer: Henry Yoes
- 4) Directional Drilling: Baker Hughes Directional  
Rotary Steerable BHA  
Driller: Andrew Schreiner, Josh Sund  
MWD: Garrett Gerdson
- 5) Gas Equipment: Pason Gas Analyzer (Spectrometer)

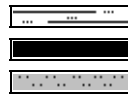
## ROCK TYPES



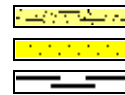
Bent  
Mrlst  
Shale



Sltst  
Carb chalk  
Chalk



Sltly sh  
Coal  
Sltst



Arg\_ss  
Ss  
Carb sh



Ls  
Sltly sh

## 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  
 Anhy  
 Arg  
 Bent  
 Coal  
 Dol  
 Gyp  
 Ls

Mrst  
 Sltstgr  
 Ssstgr

### TEXTURE

Boundst  
 Chalky  
 Cryxln  
 Earthy  
 Finexln  
 Grainst  
 Lithogr  
 Microxln  
 Mudst  
 Packst  
 Wackst

## OTHER SYMBOLS

### POROSITY TYPE

Earthy  
 Fenest  
 Fracture  
 Inter  
 Moldic  
 Organic  
 Pinpoint  
 Vuggy

### SORTING

Well  
 Moderate  
 Poor

### ROUNDING

Rounded  
 Subrnd  
 Subang

Angular

### OIL SHOWS

Even  
 Spotted  
 Ques  
 Dead  
 Vspotty  
 near even

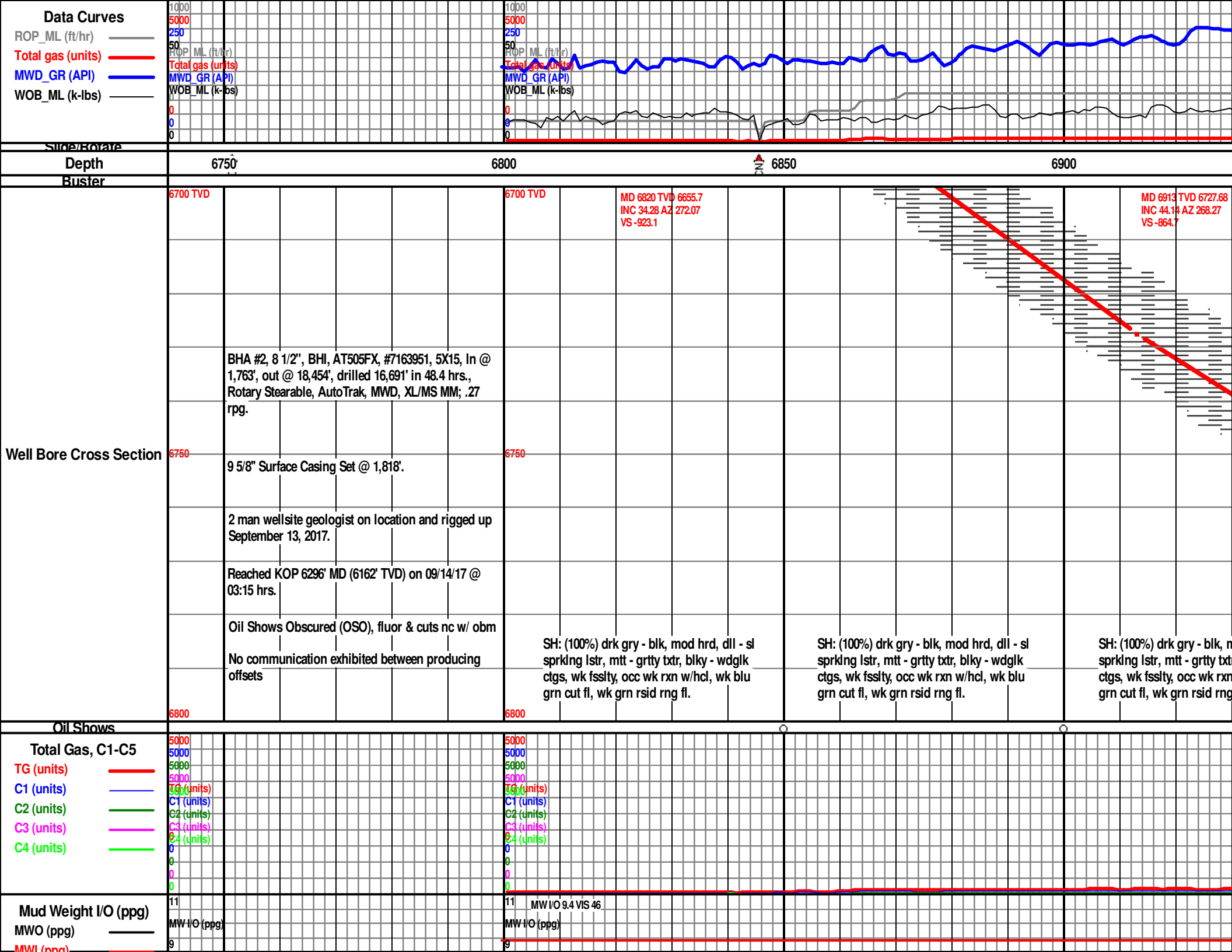
### INTERVALS

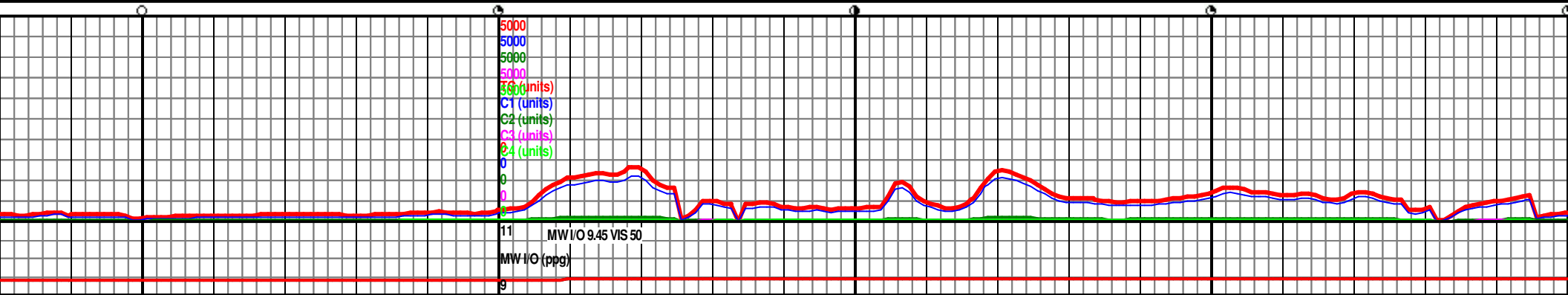
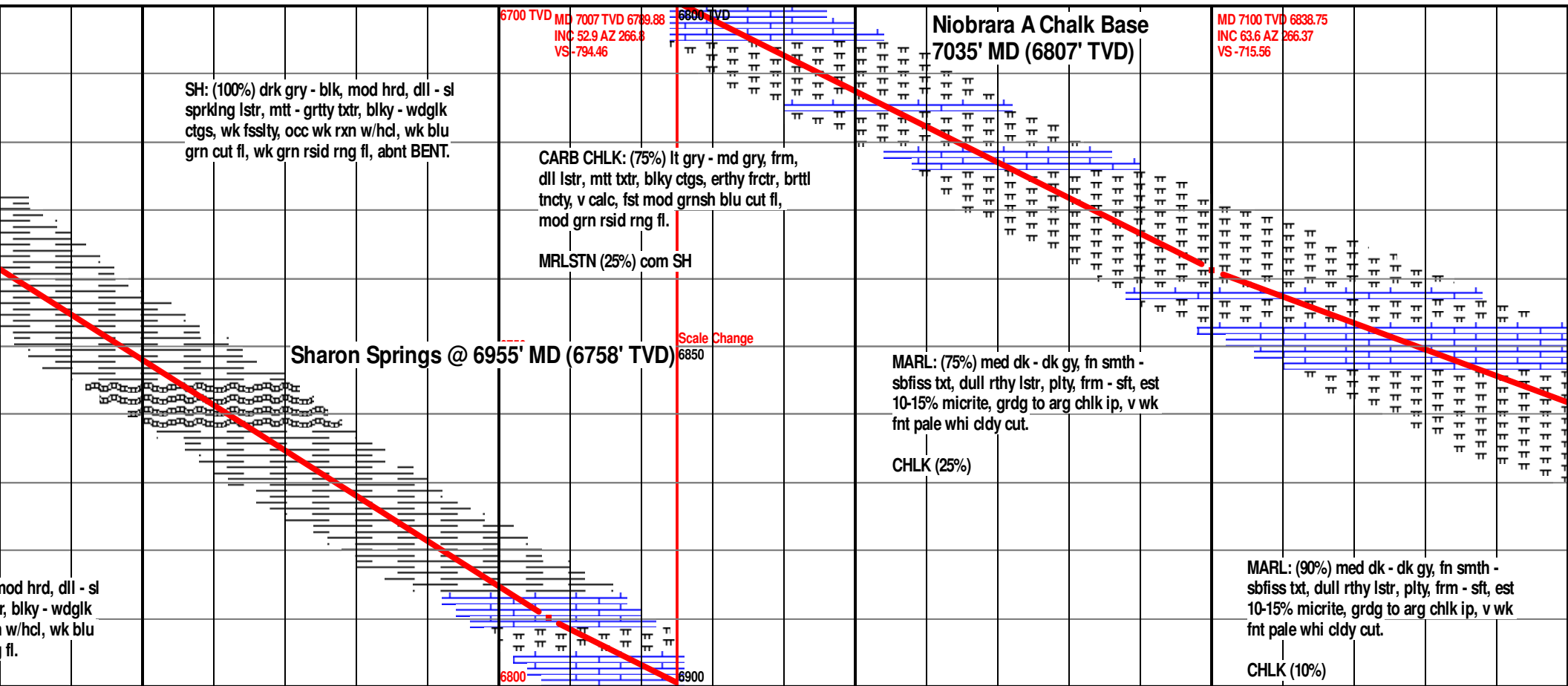
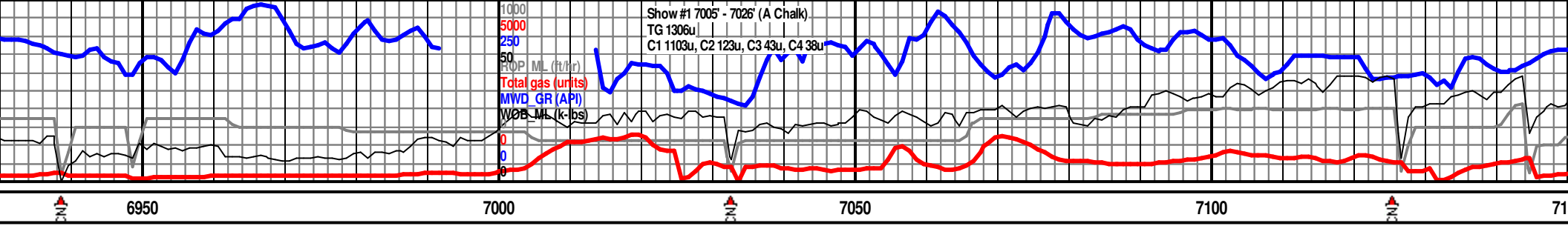
Core  
 Dst

### EVENTS

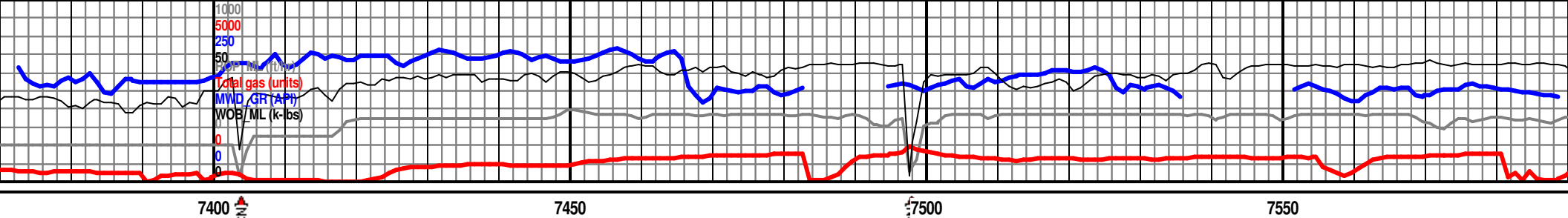
Casing shoe\_hzl  
 Trip\_point\_1  
 Off bottom  
 conn

Survey(mwd)  
 Survey(red)  
 bit









MD 7380 TVD 6913.88  
INC 85.66 AZ 265.13  
VS -447.79

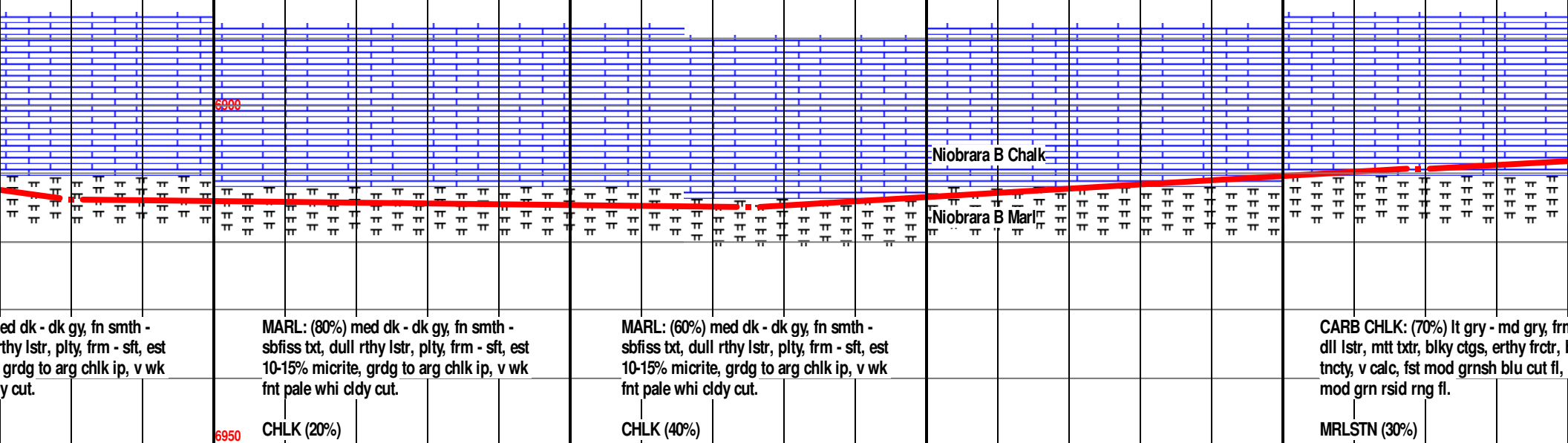
6850 TVD

MD 7475 TVD 6914.77  
INC 93.26 AZ 265.35  
VS -352.88

On buster!

MD 7569 TVD 6909.22  
INC 93.51 AZ 264.68  
VS -259.05

Landed Curve Section @ 7475' MD (6915'  
TVD) on 09/14/17 @ 10:45 hrs.



ed dk - dk gy, fn smth -  
thy lstr, plty, frm - sft, est  
grdg to arg chlk ip, v wk  
y cut.

MARL: (80%) med dk - dk gy, fn smth -  
sbfiss txt, dull rthy lstr, plty, frm - sft, est  
10-15% micrite, grdg to arg chlk ip, v wk  
fnt pale whi cldy cut.

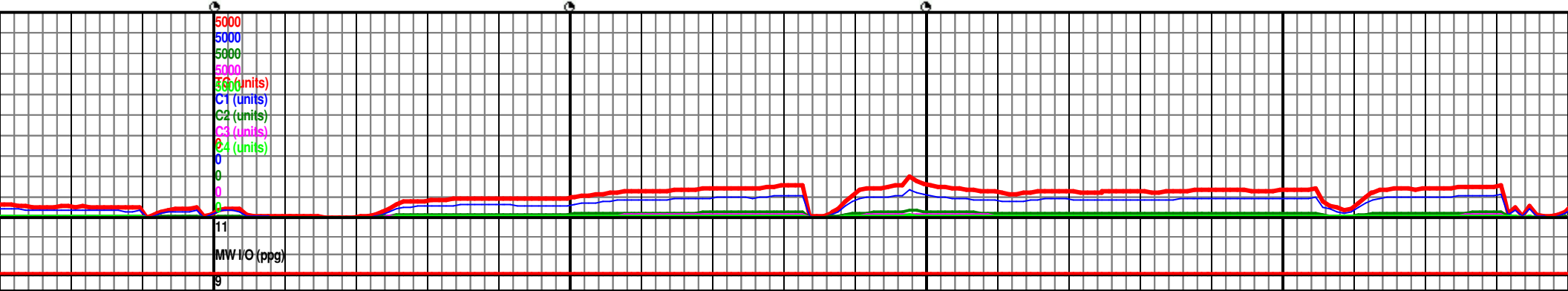
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10-15% micrite, grdg to arg chlk ip, v wk  
fnt pale whi cldy cut.

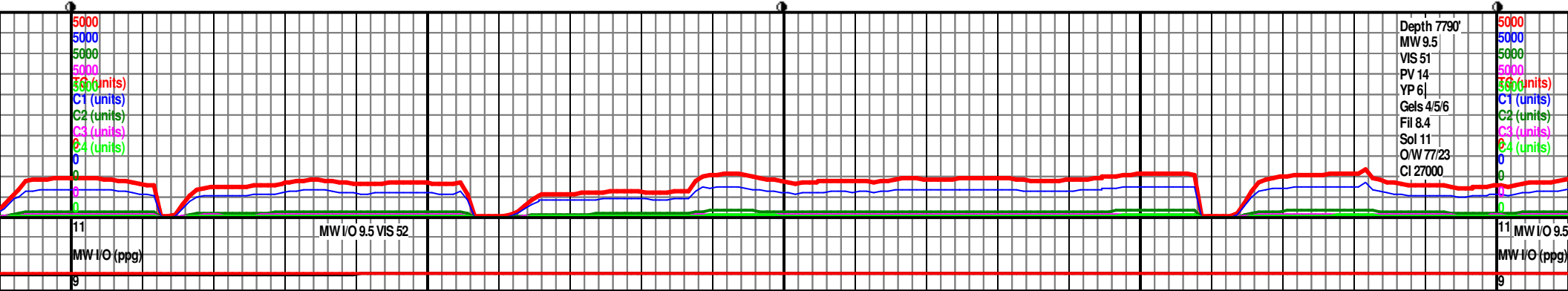
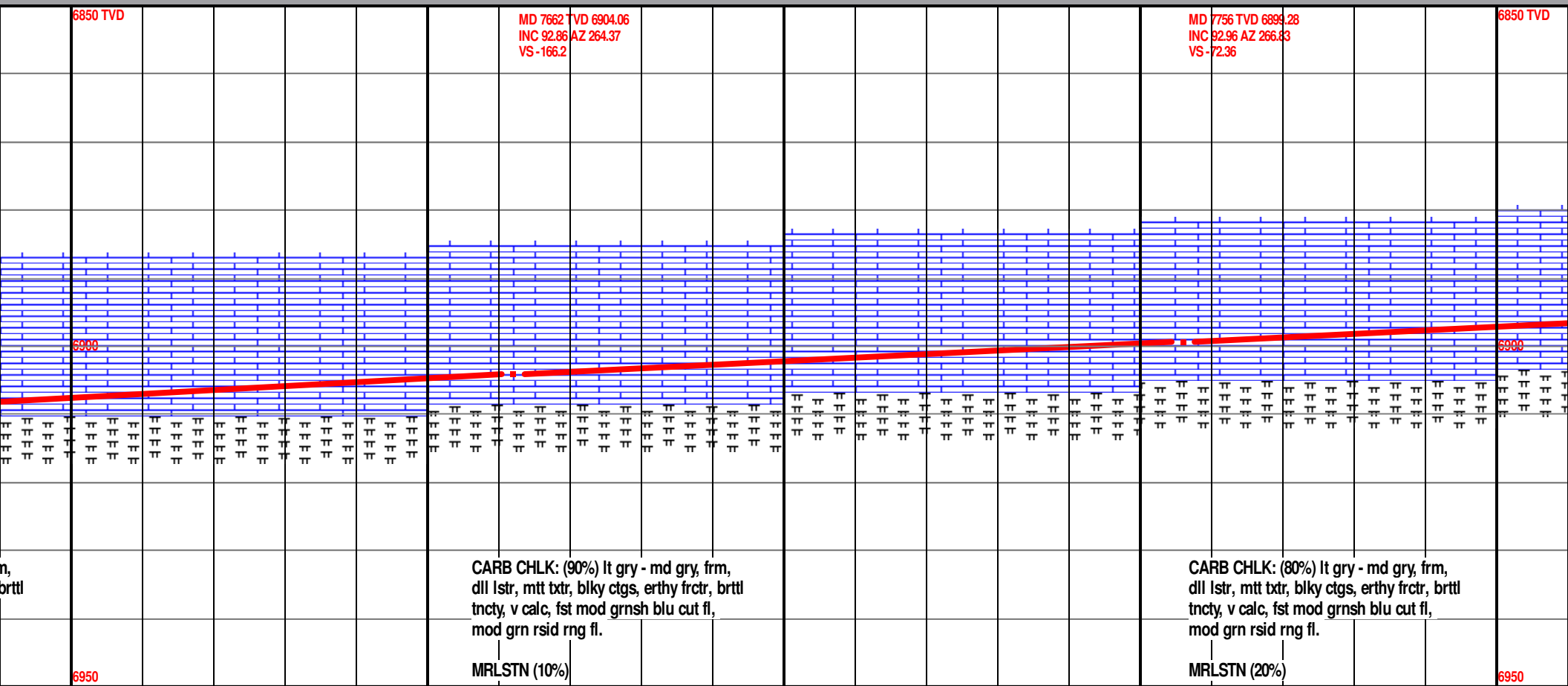
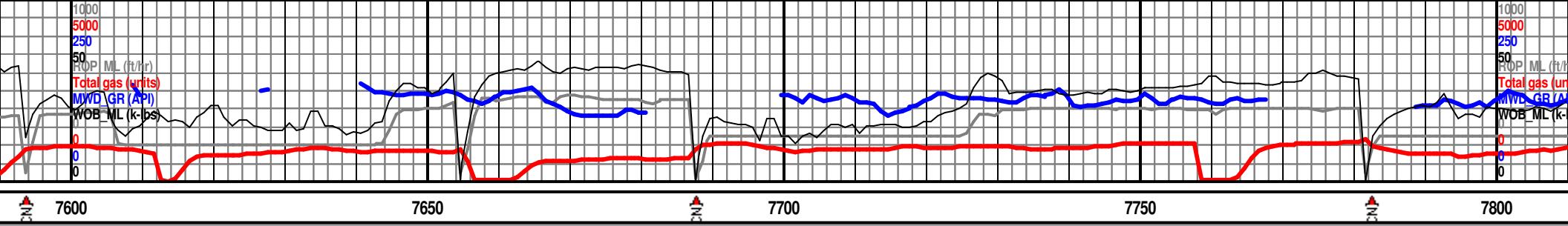
CARB CHLK: (70%) lt gry - md gry, frm  
dll lstr, mtt txtr, blkly ctgs, erthy frctr,  
tncty, v calc, fst mod grnsh blu cut fl,  
mod grn rsid rng fl.

CHLK (20%)

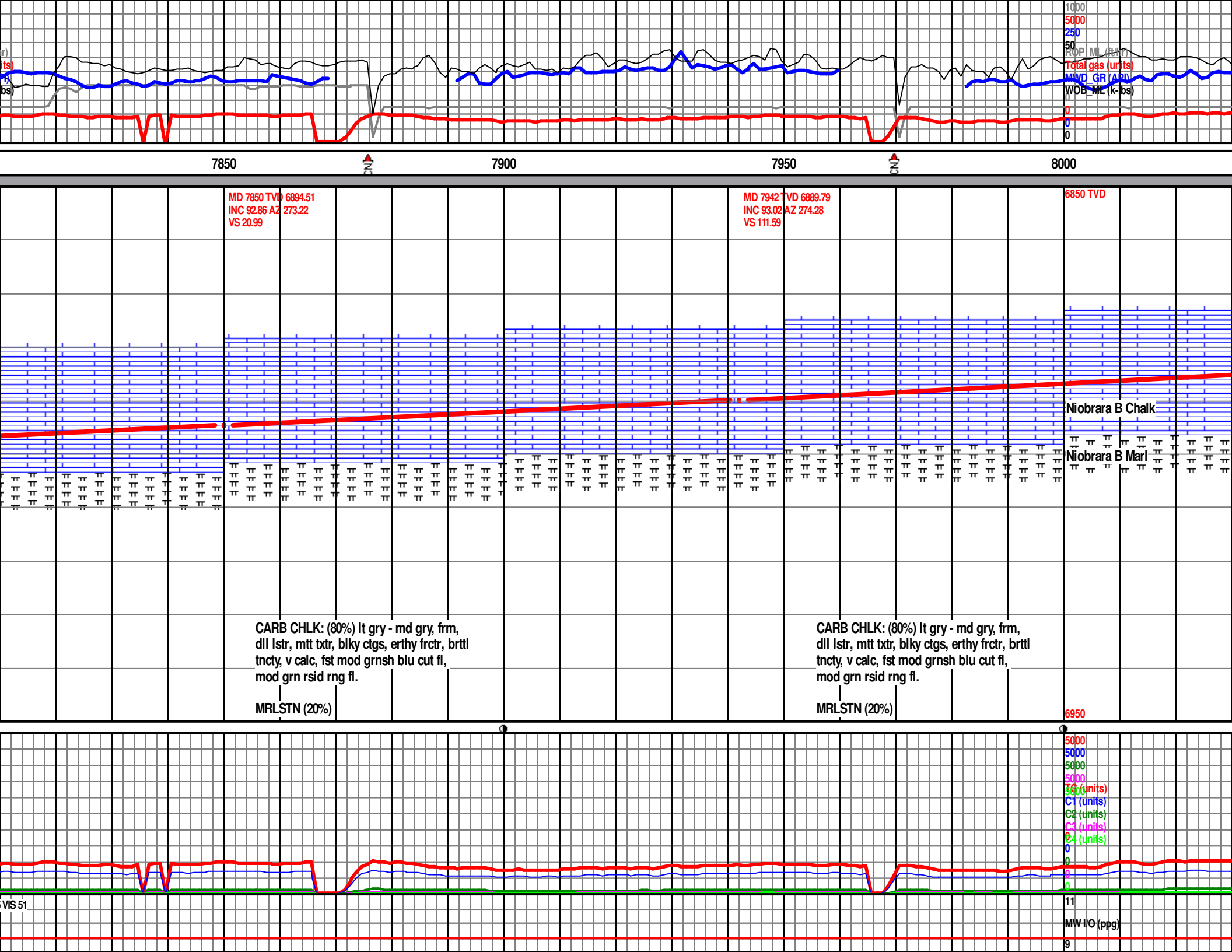
CHLK (40%)

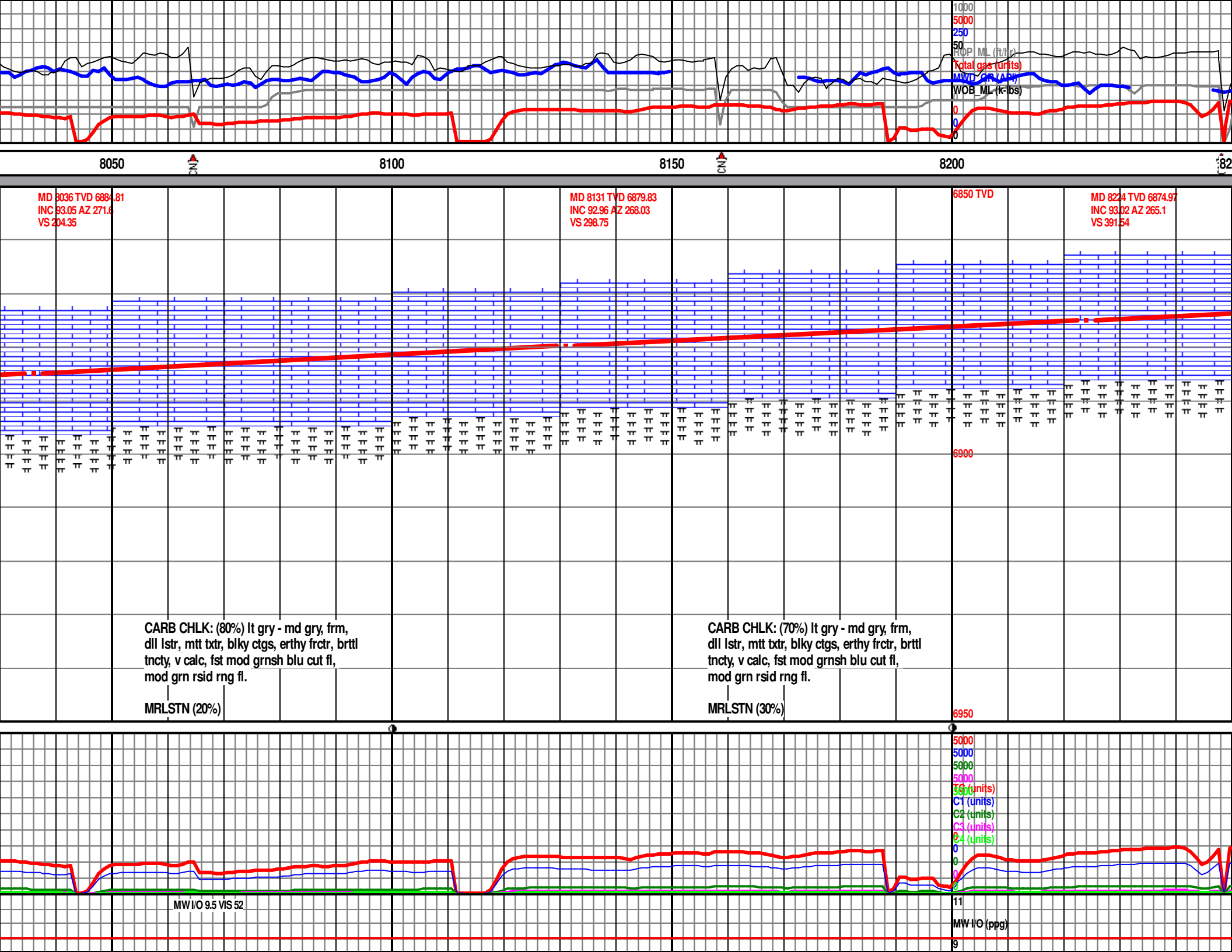
MRLSTN (30%)

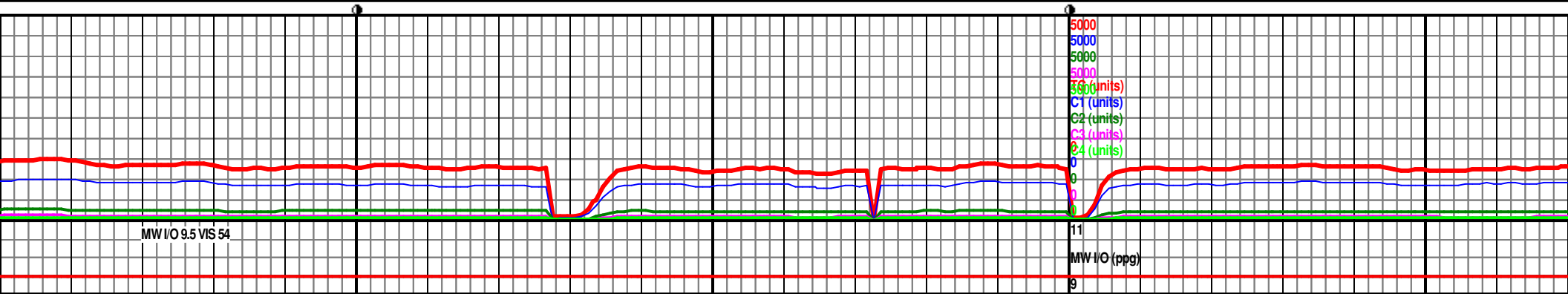
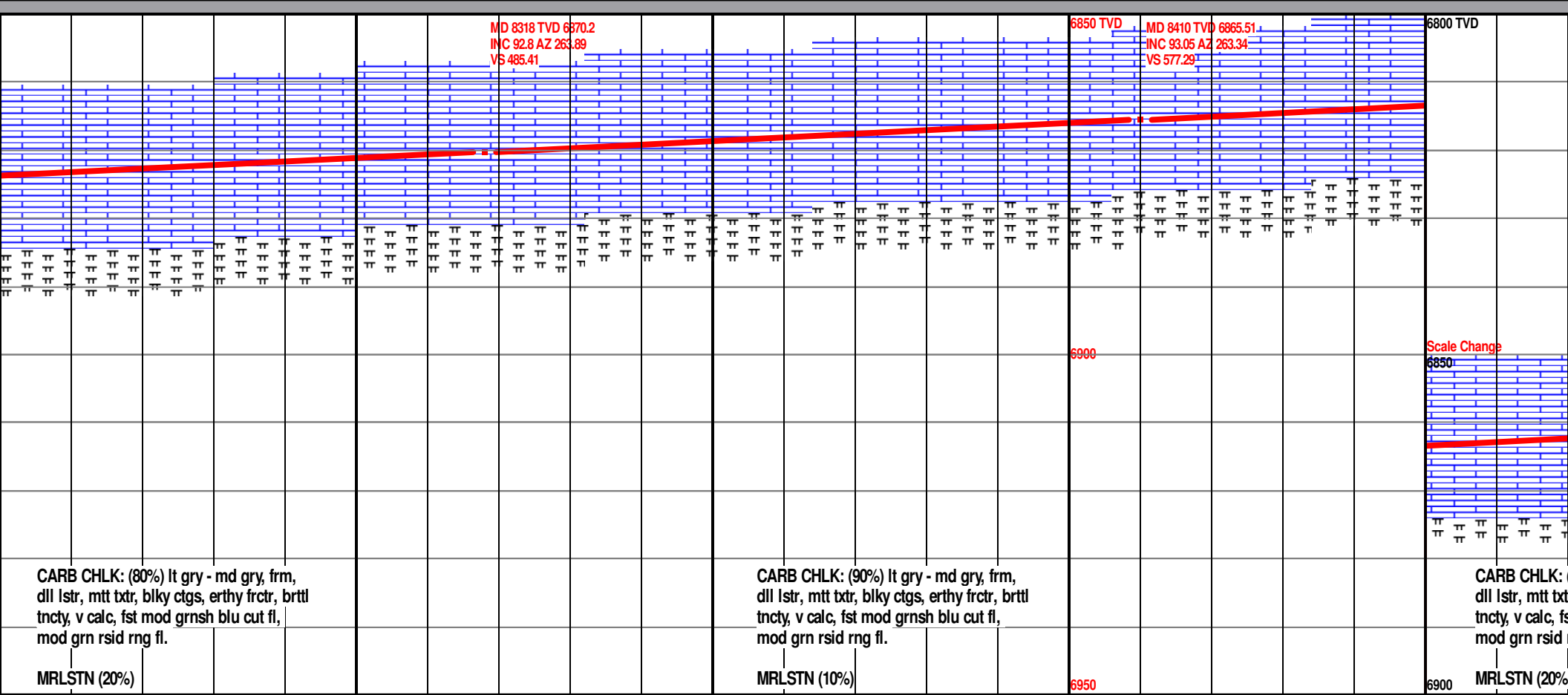
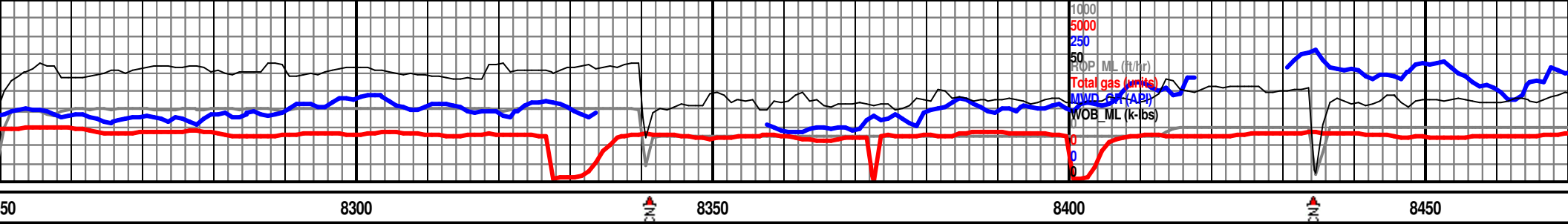


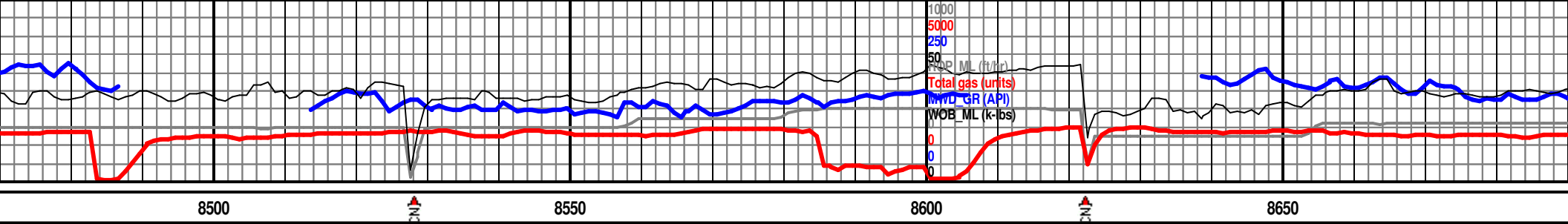






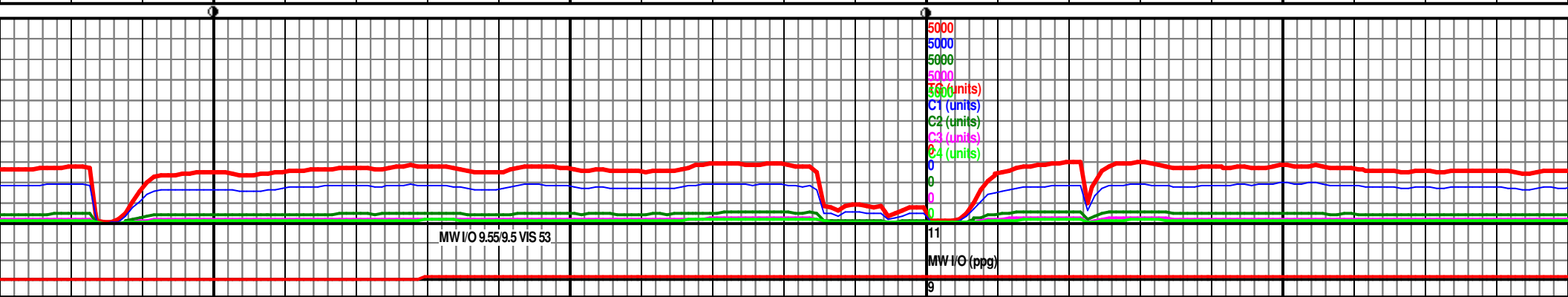
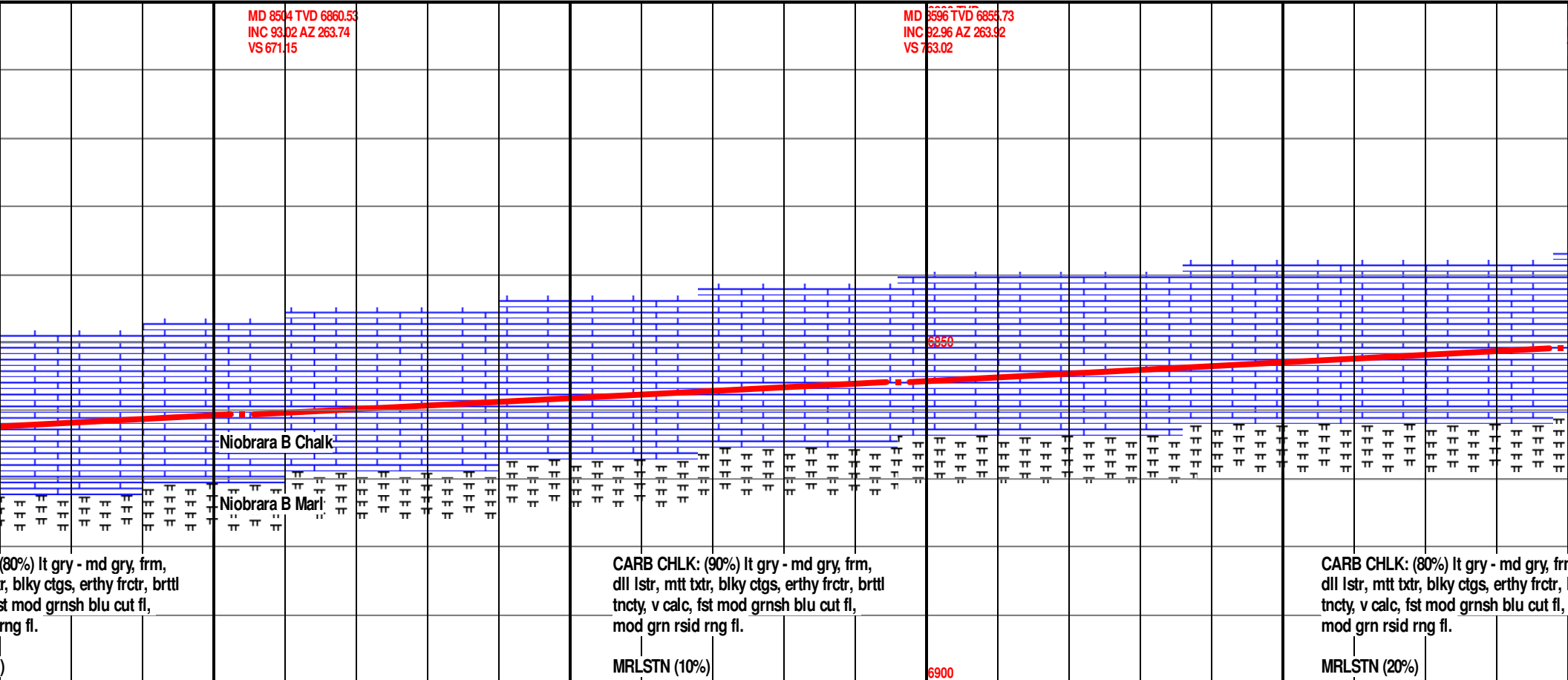


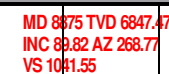




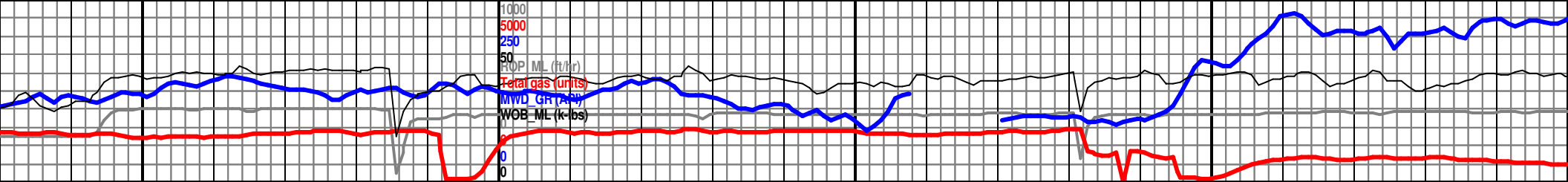
MD 8504 TVD 6860.53  
INC 93.02 AZ 263.74  
VS 671.15

MD 8596 TVD 6853.73  
INC 92.96 AZ 263.92  
VS 763.02









9150

9200

9250

9300

9350

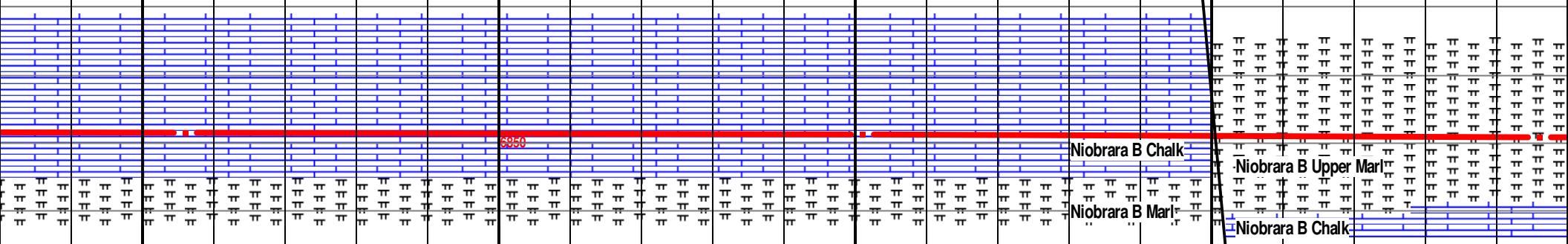
MD 9156 TVD 6848.45  
INC 89.78 AZ 271.48  
VS 1320.88

6800 TVD

MD 9251 TVD 6848.73  
INC 89.88 AZ 270.12  
VS 1415.25

MD 9356 TVD 6848.73  
INC 89.88 AZ 270.12  
VS 1415.25

Fault #1 @ 9299' MD (1426' VS), ~30 ft. throw.

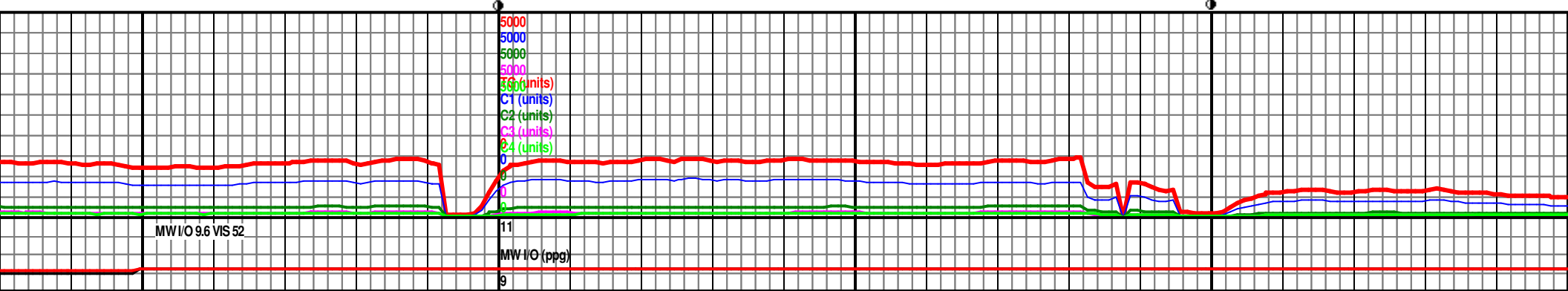


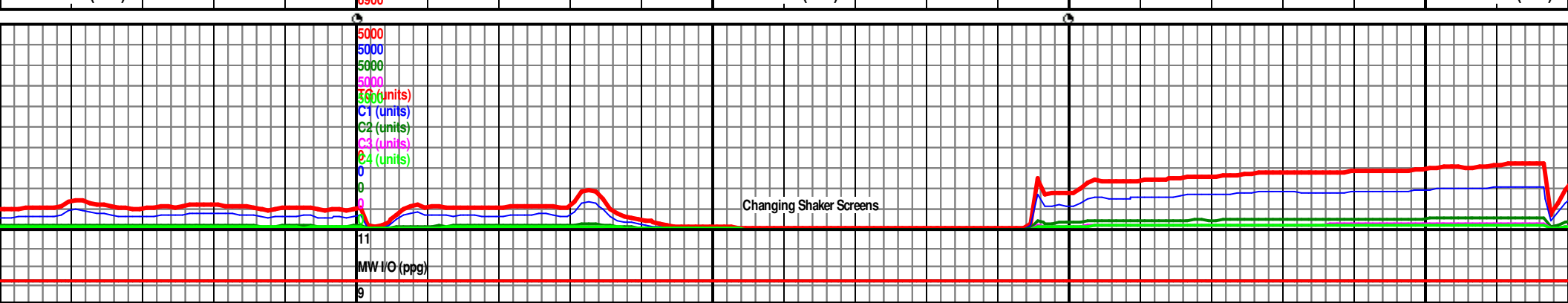
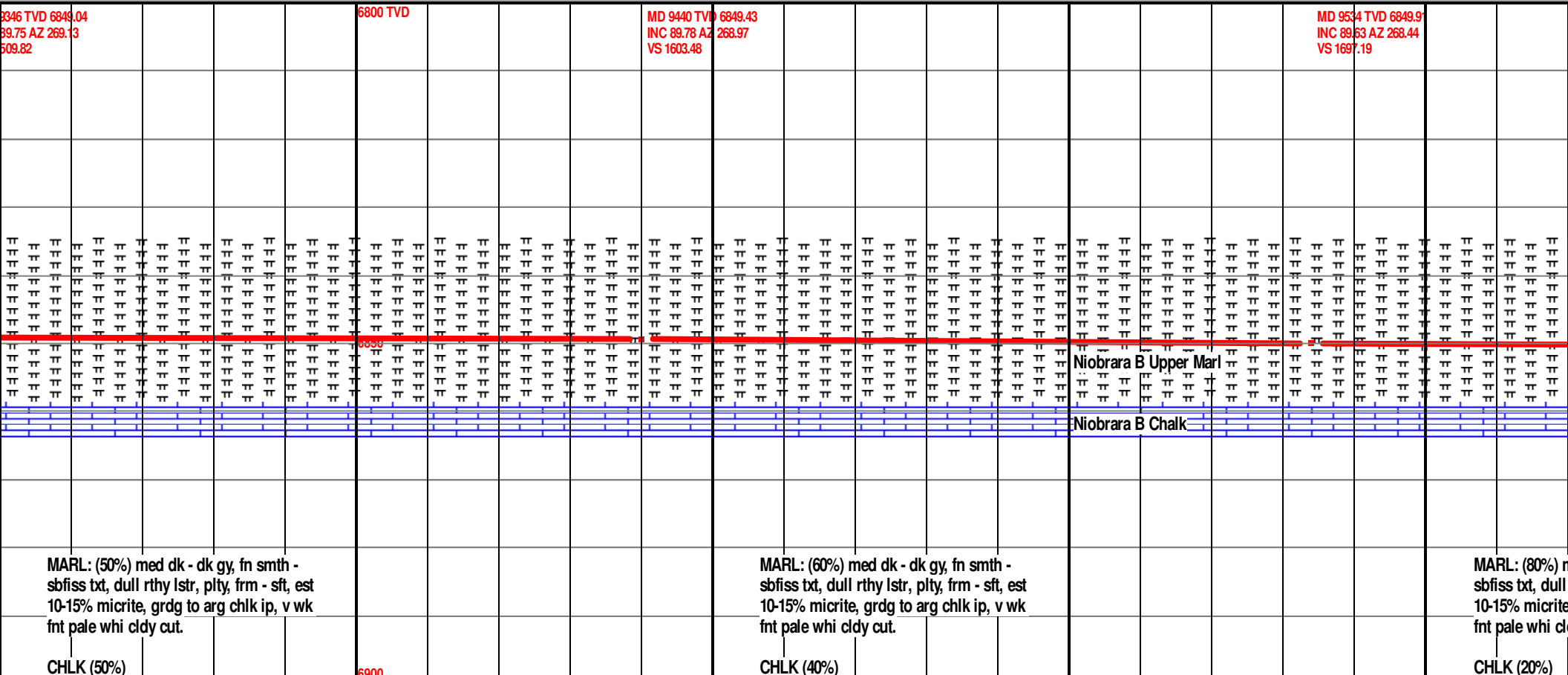
CARB CHLK: (80%) lt gry - md gry, frm,  
dll lstr, mtt ttr, blk cyctg, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu cut fl,  
mod grn rsid rng fl.

MRLSTN (20%)

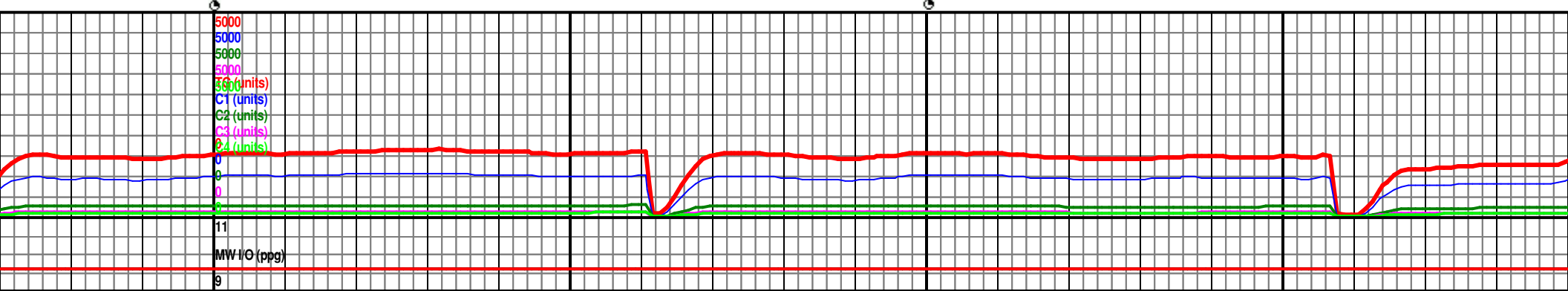
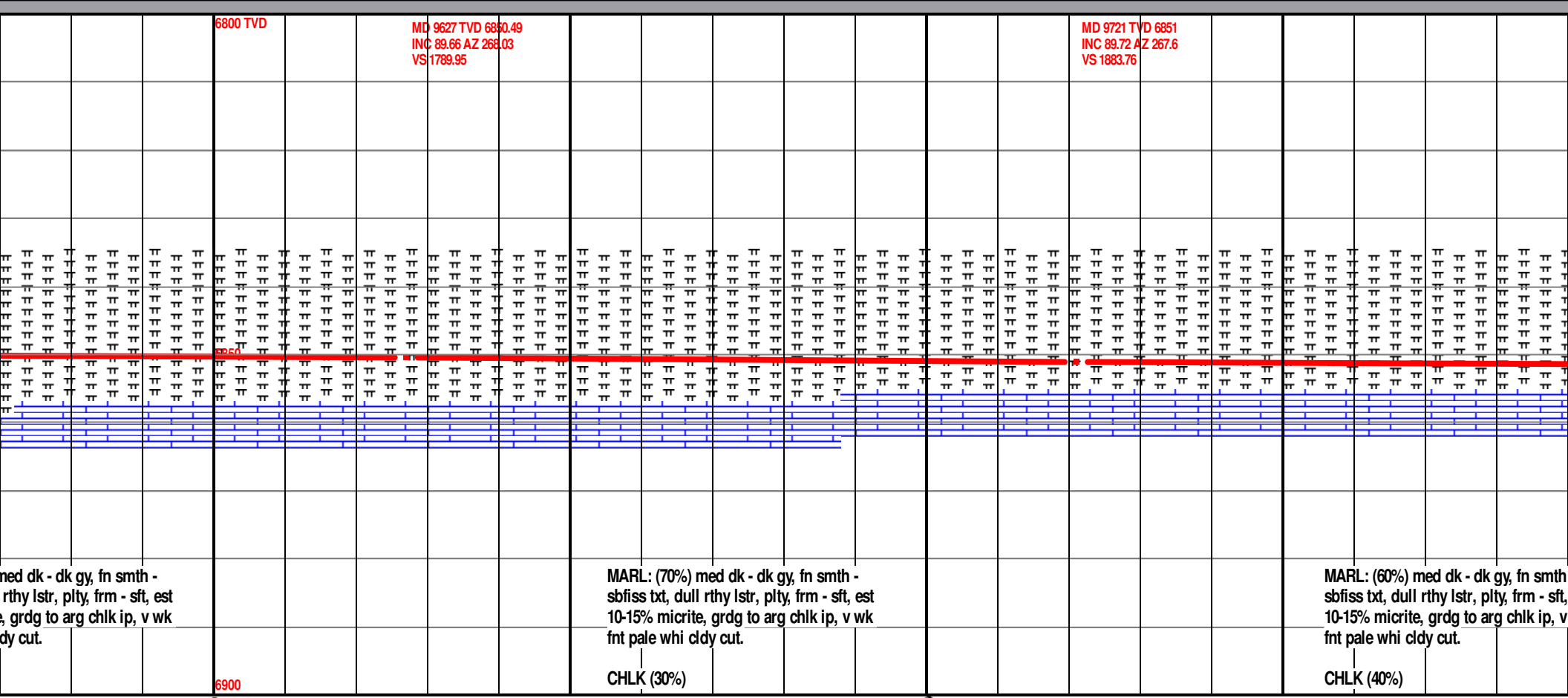
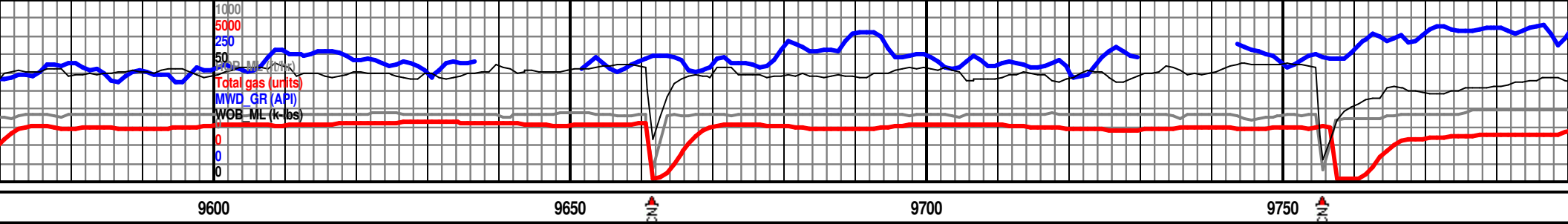
CARB CHLK: (80%) lt gry - md gry, frm,  
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tncty, v calc, fst mod grnsh blu cut fl,  
mod grn rsid rng fl.

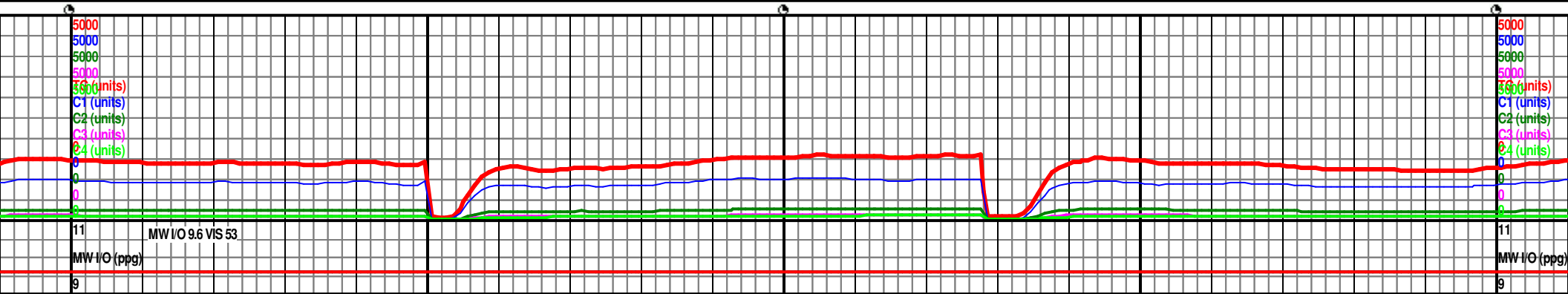
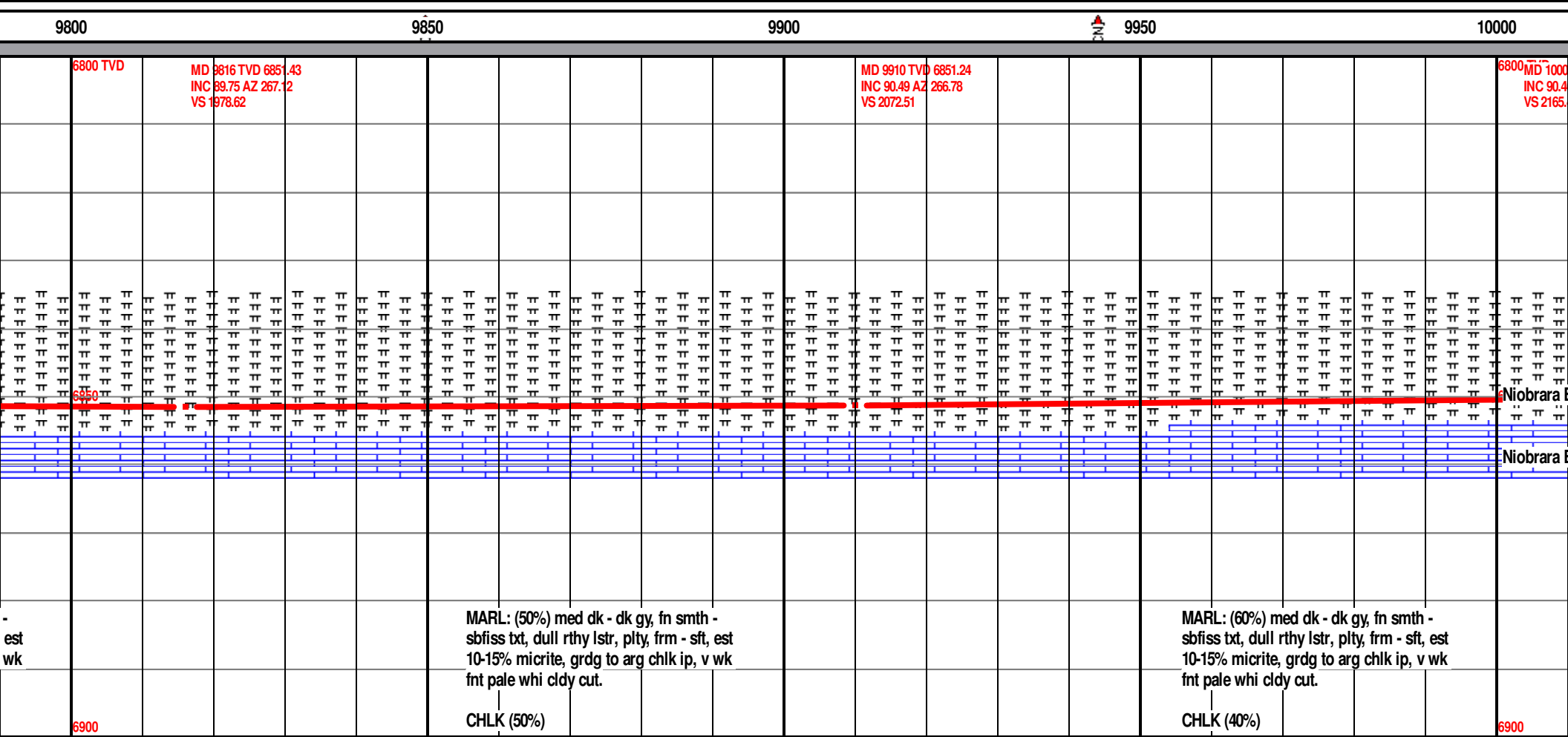
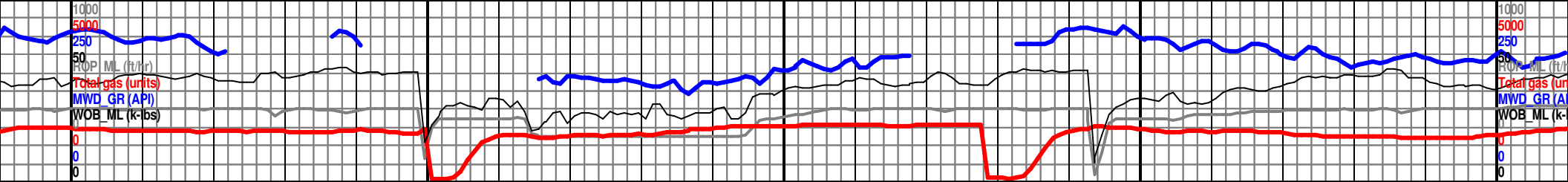
MRLSTN (20%)

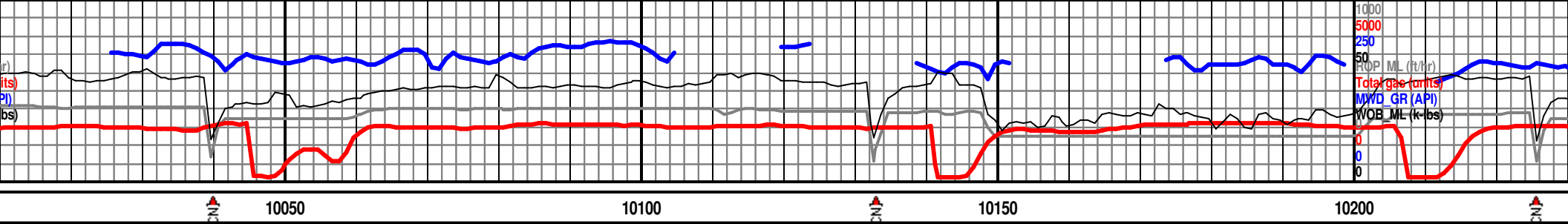








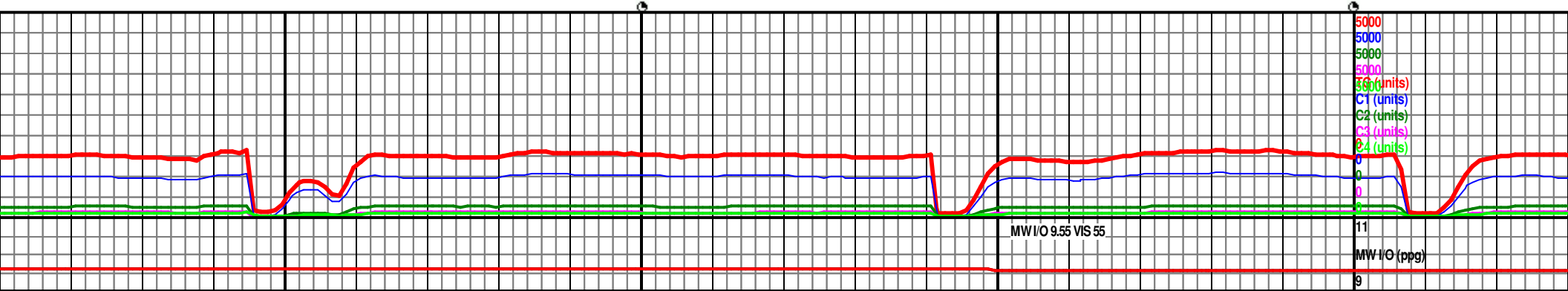
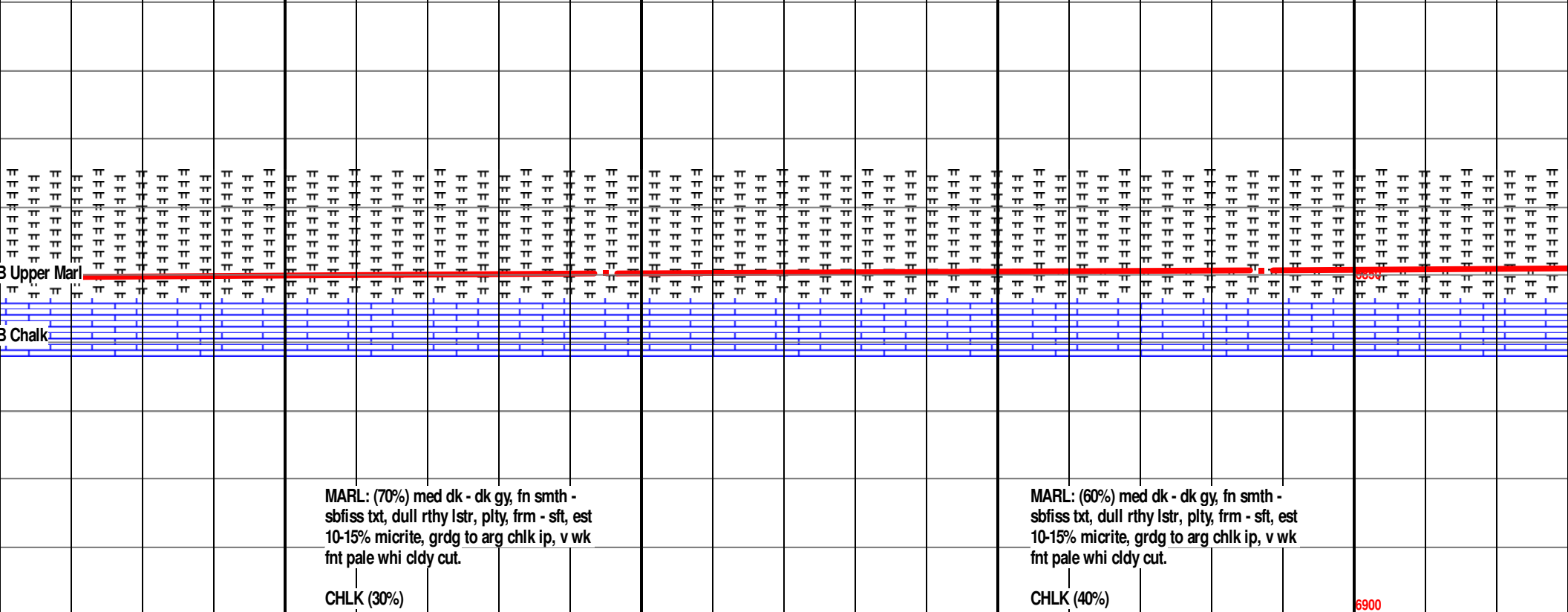


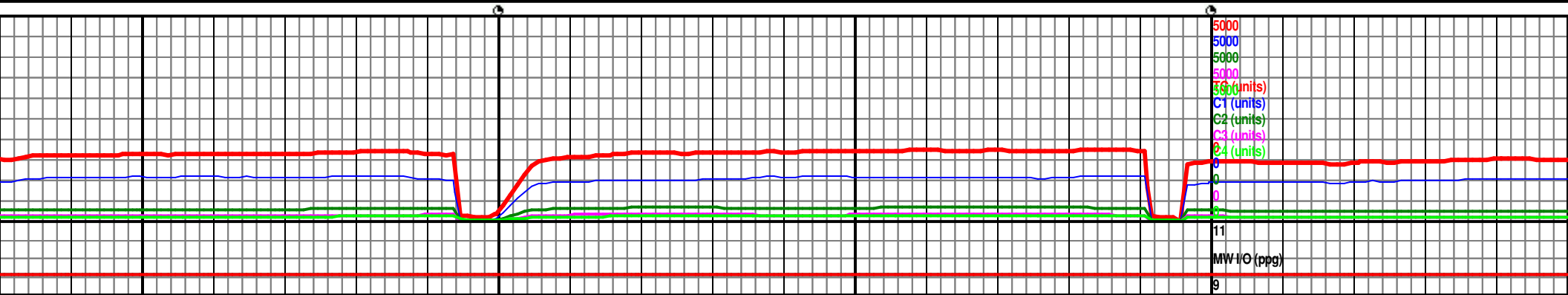
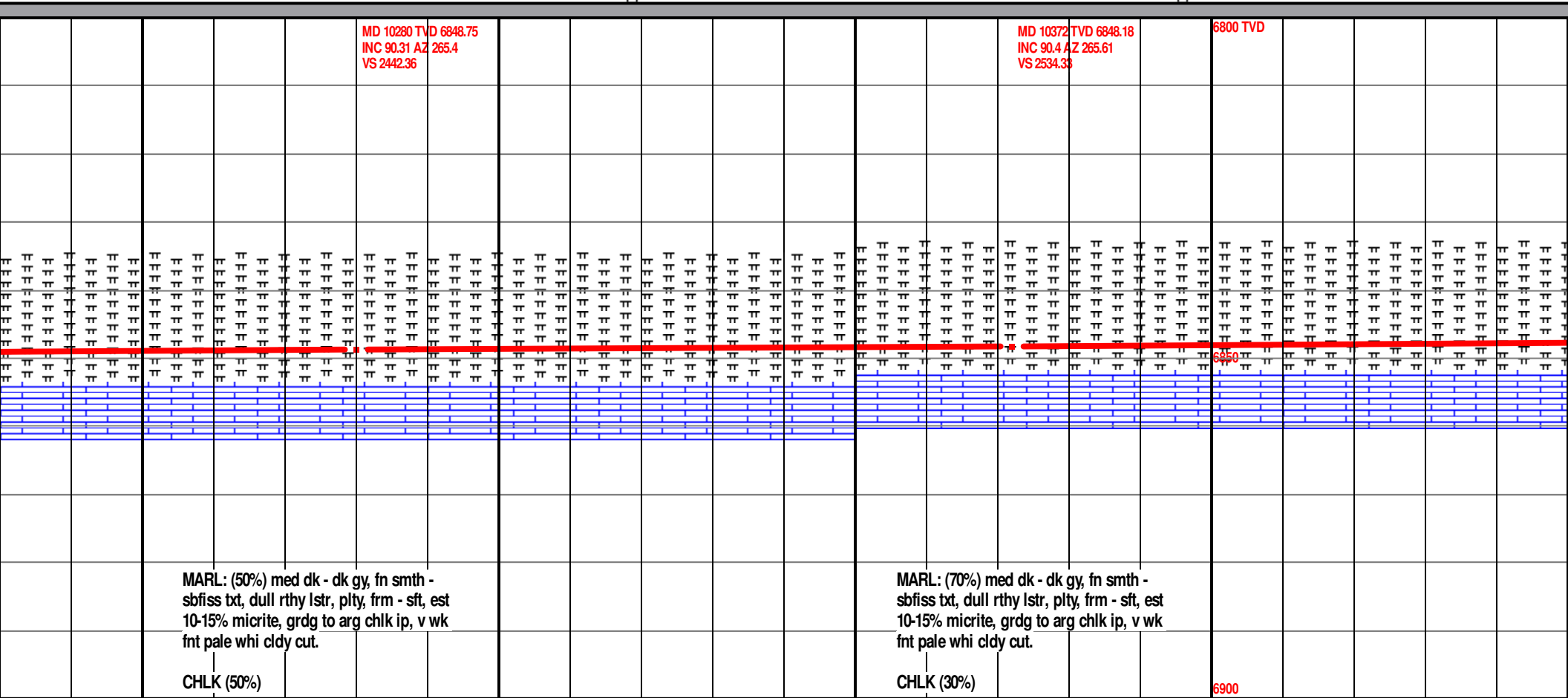


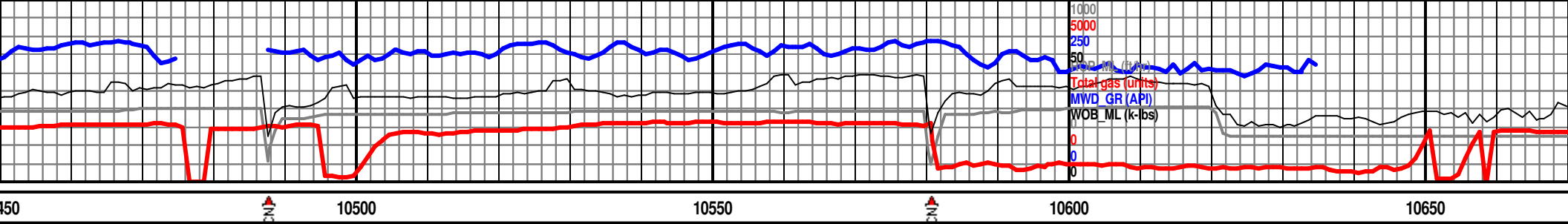
3 TVD 6850.47  
6 AZ 266.24  
43

MD 10095 TVD 6849.82  
INC 90.34 AZ 265.32  
VS 2257.39

MD 10187 TVD 6849.28  
INC 90.34 AZ 264.99  
VS 2349.37





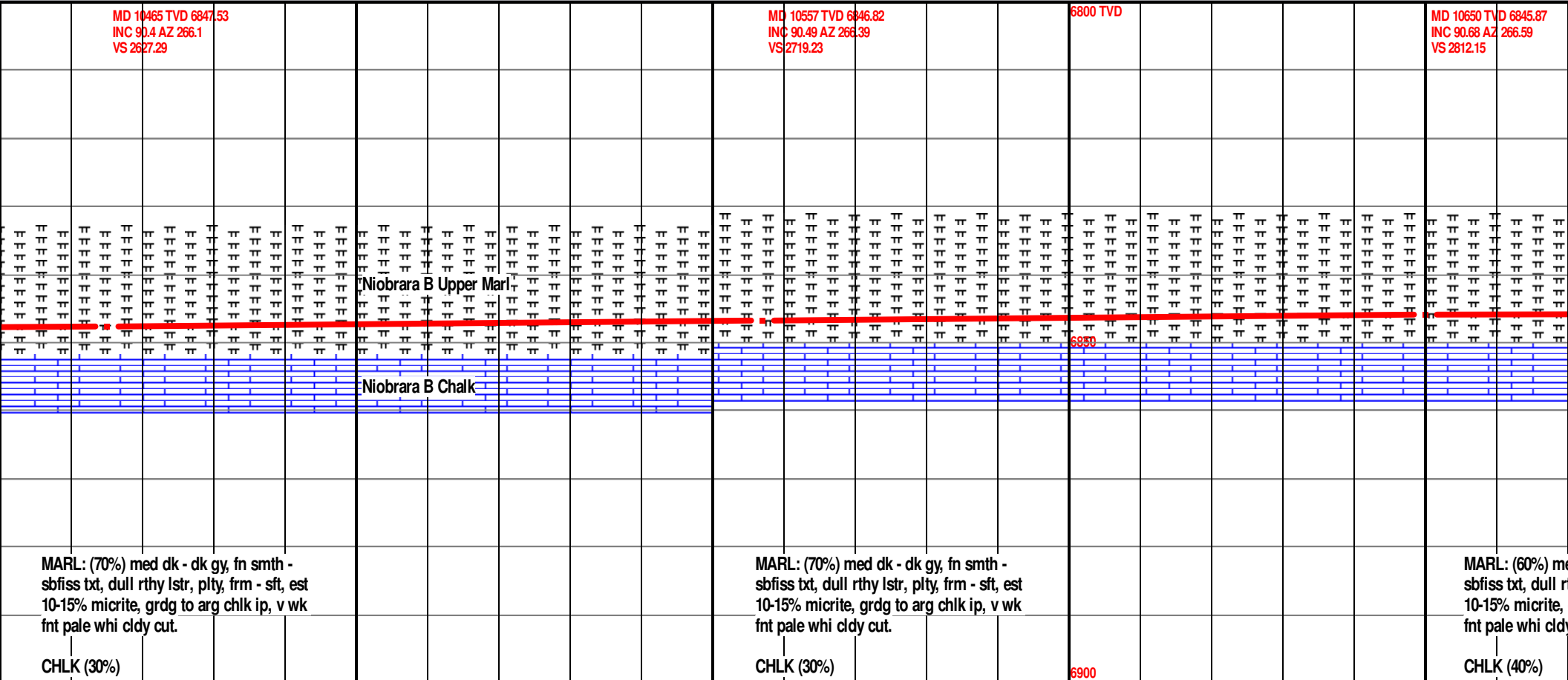


MD 10465 TVD 6847.53  
INC 90.4 AZ 266.1  
VS 2627.29

MD 10557 TVD 6846.82  
INC 90.49 AZ 266.39  
VS 2719.23

6800 TVD

MD 10650 TVD 6845.87  
INC 90.68 AZ 266.59  
VS 2812.15



MARL: (70%) med dk - dk gy, fn smth -  
sbfiss txt, dull rthy lstr, plty, frm - sft, est  
10-15% micrite, grdg to arg chlk ip, v wk  
fnt pale whi cldy cut.

CHLK (30%)

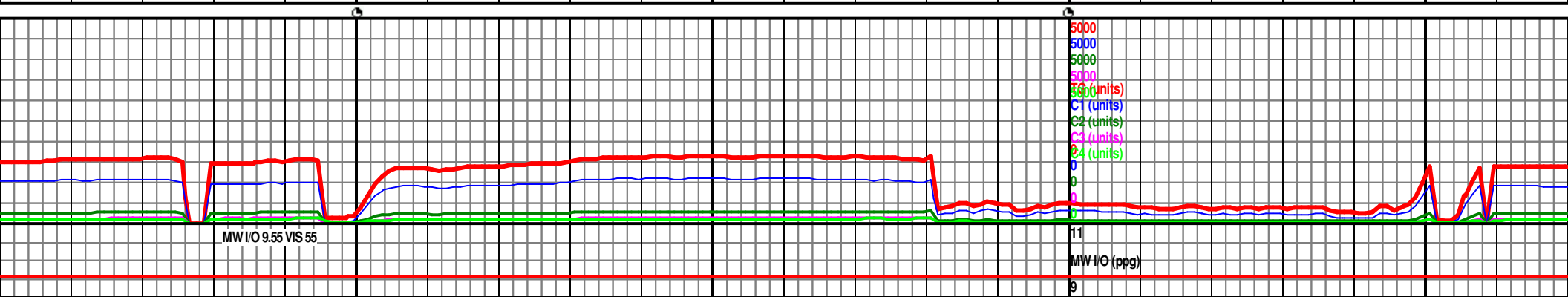
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10-15% micrite, grdg to arg chlk ip, v wk  
fnt pale whi cldy cut.

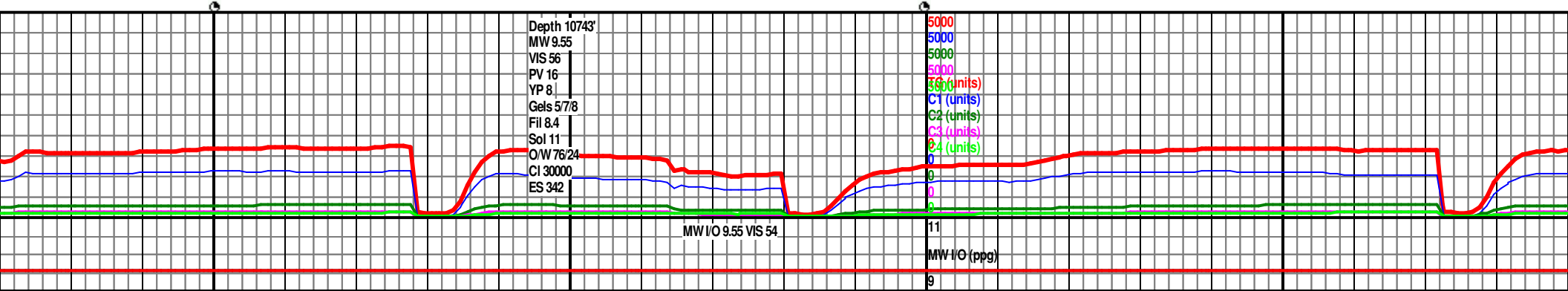
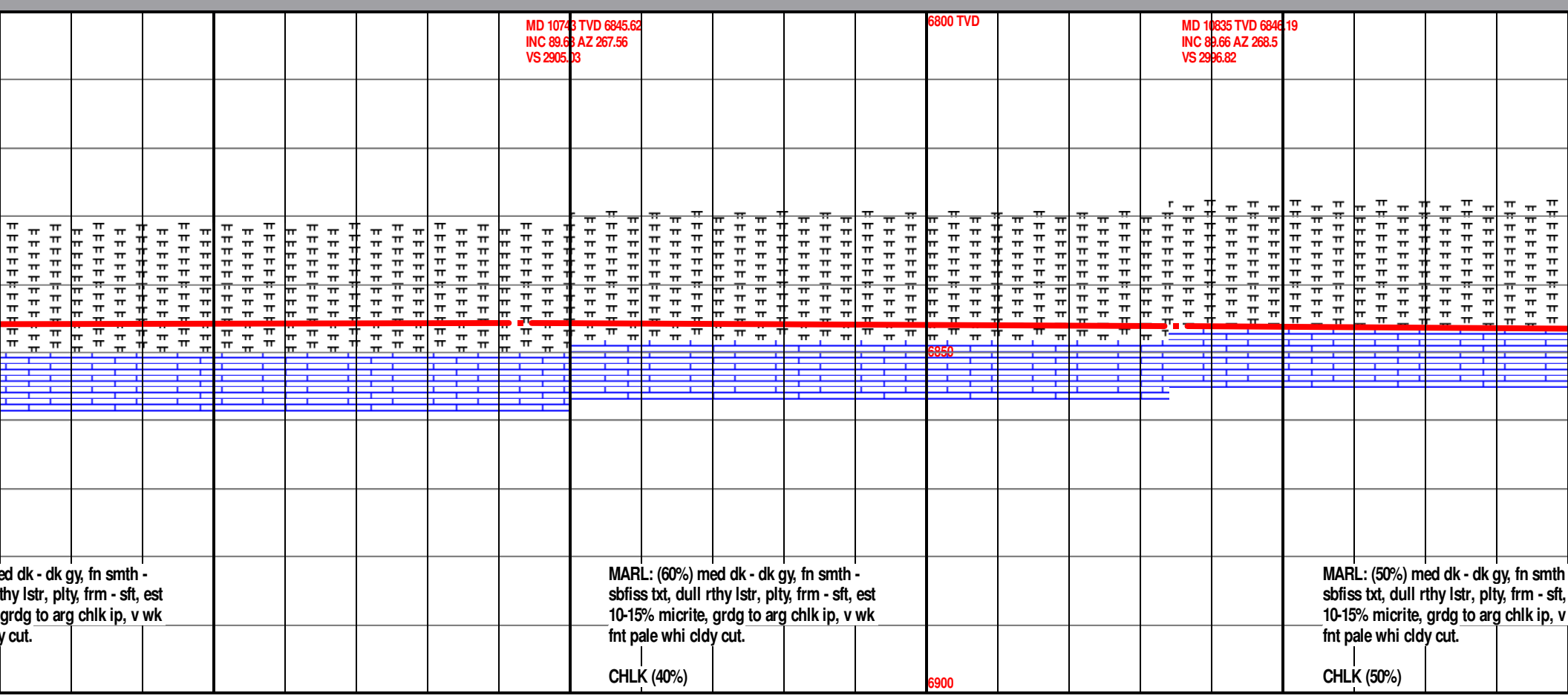
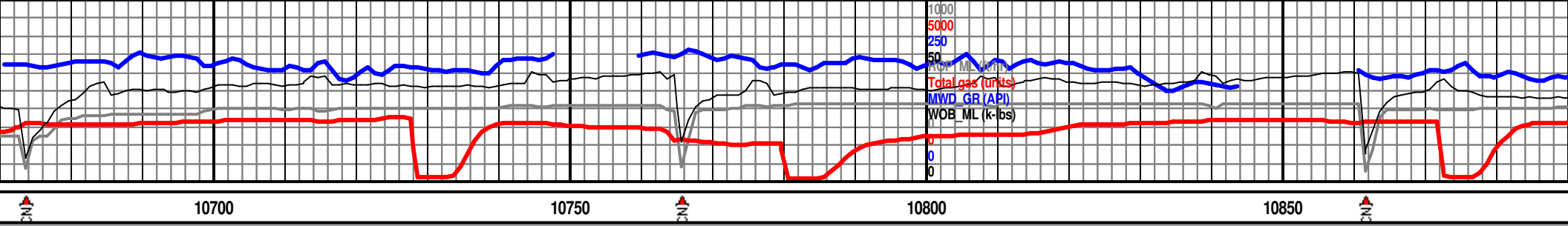
CHLK (30%)

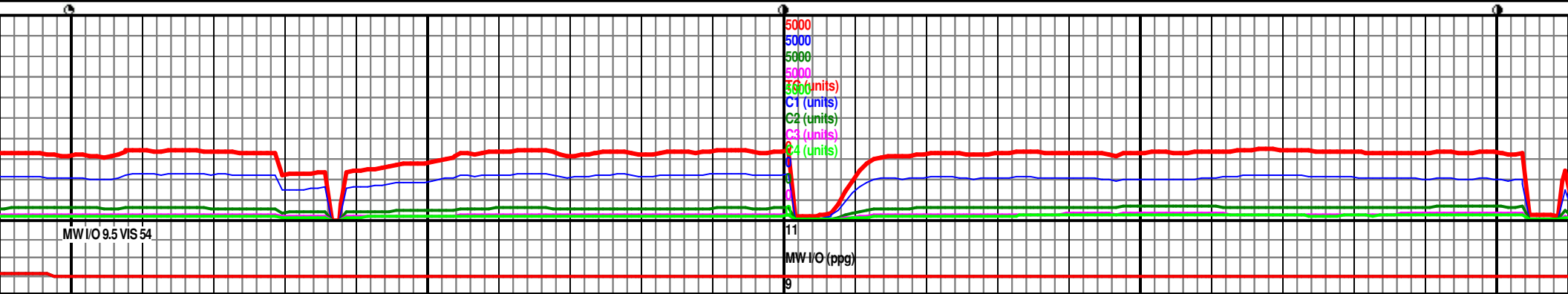
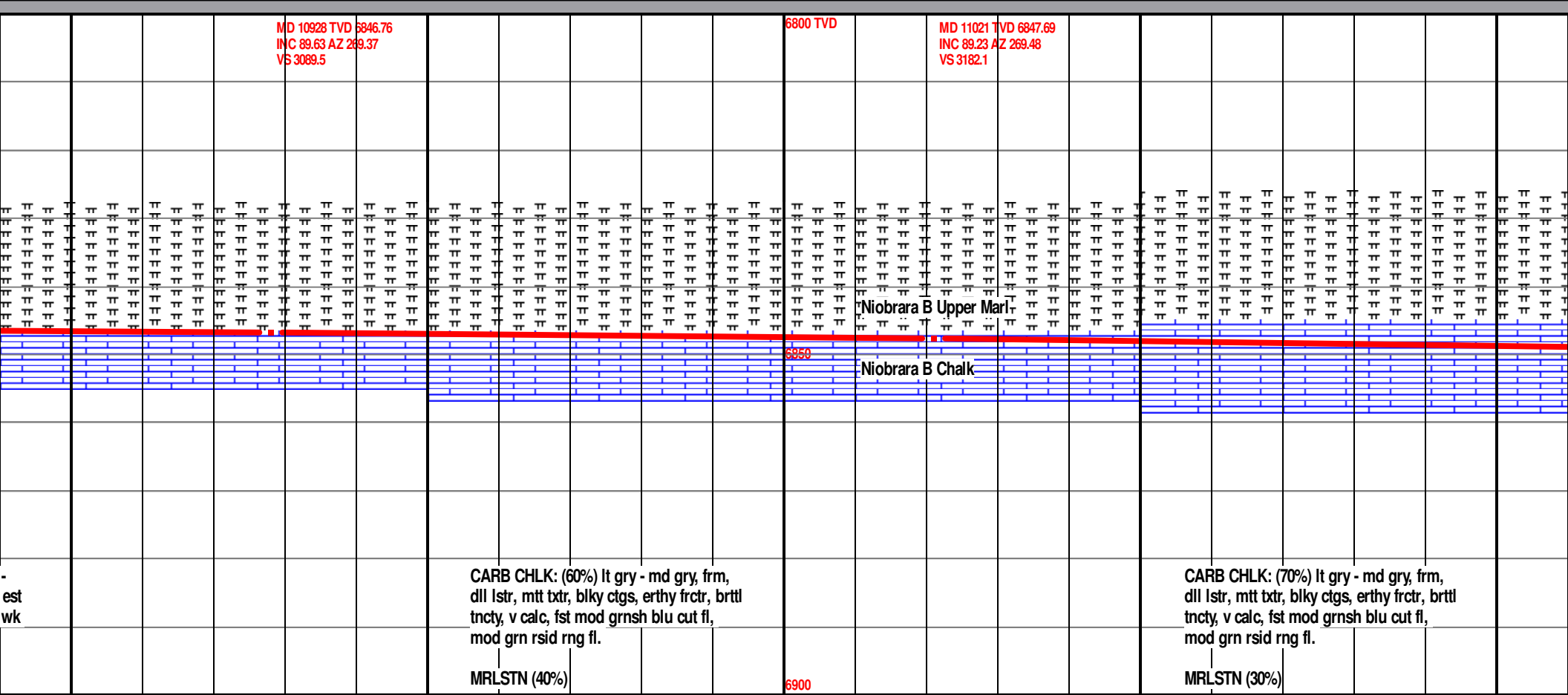
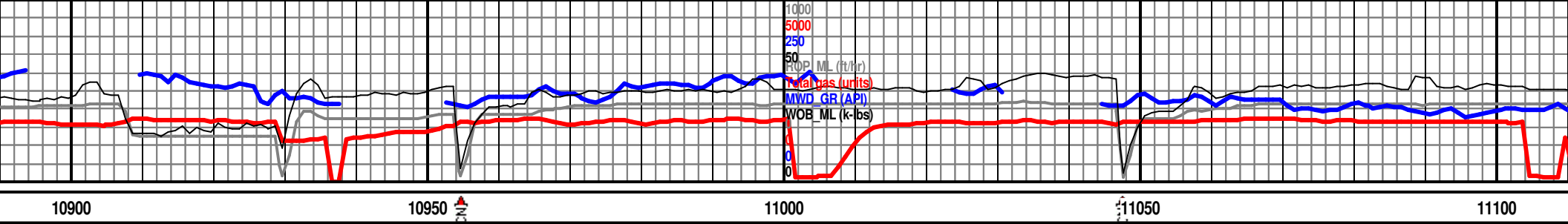
6900

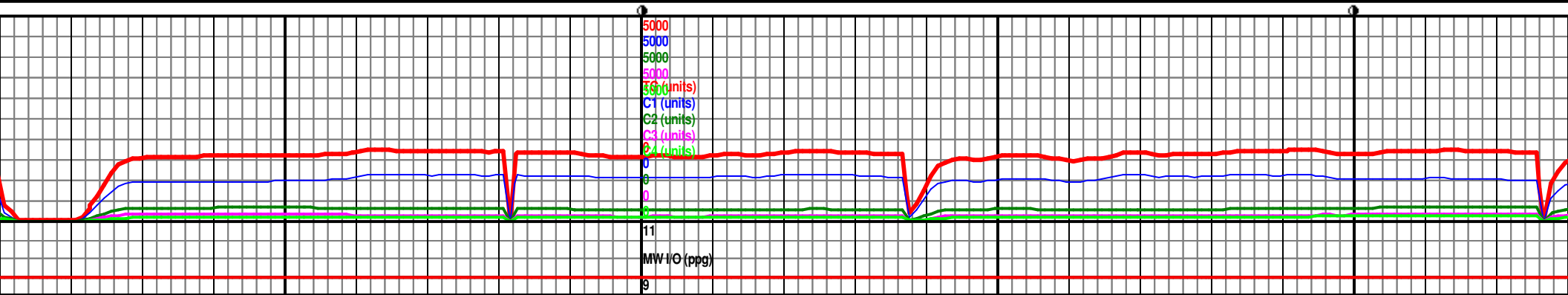
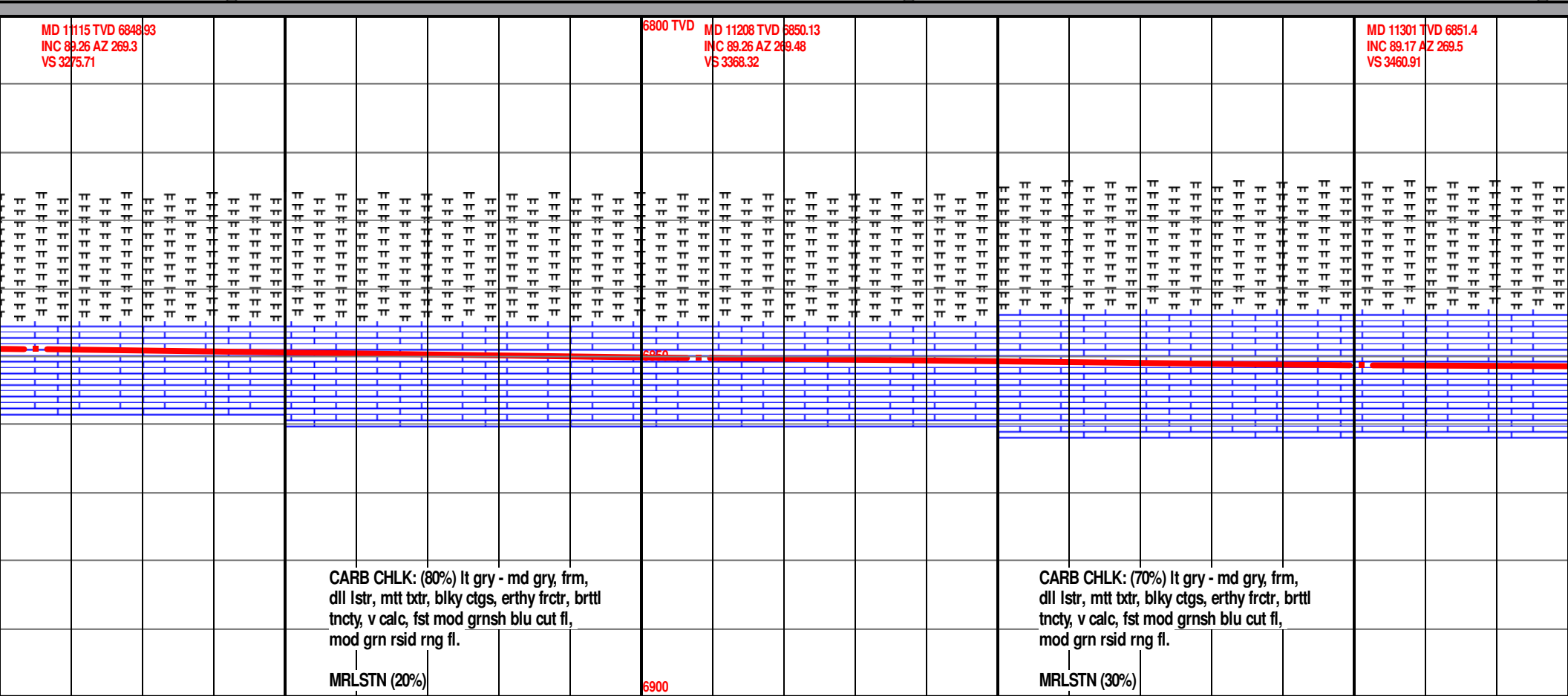
MARL: (60%) med dk - dk gy, fn smth -  
sbfiss txt, dull rthy lstr, plty, frm - sft, est  
10-15% micrite, grdg to arg chlk ip, v wk  
fnt pale whi cldy cut.

CHLK (40%)

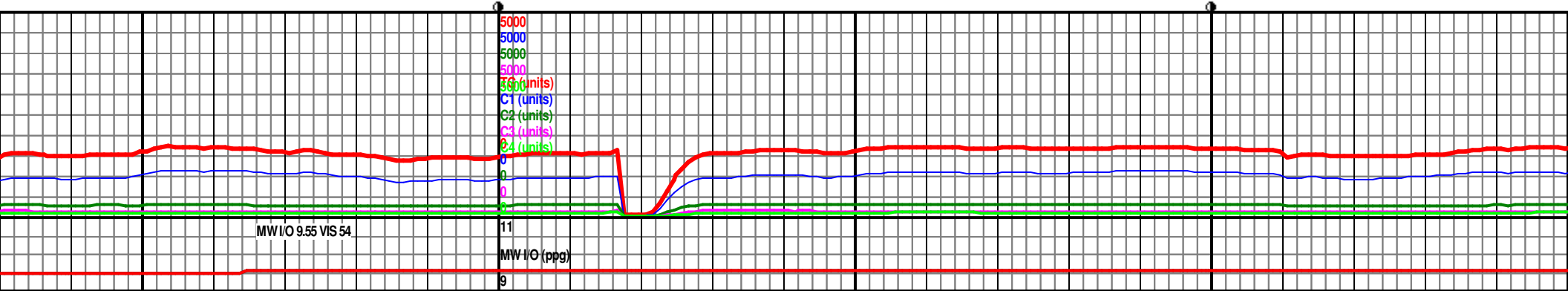
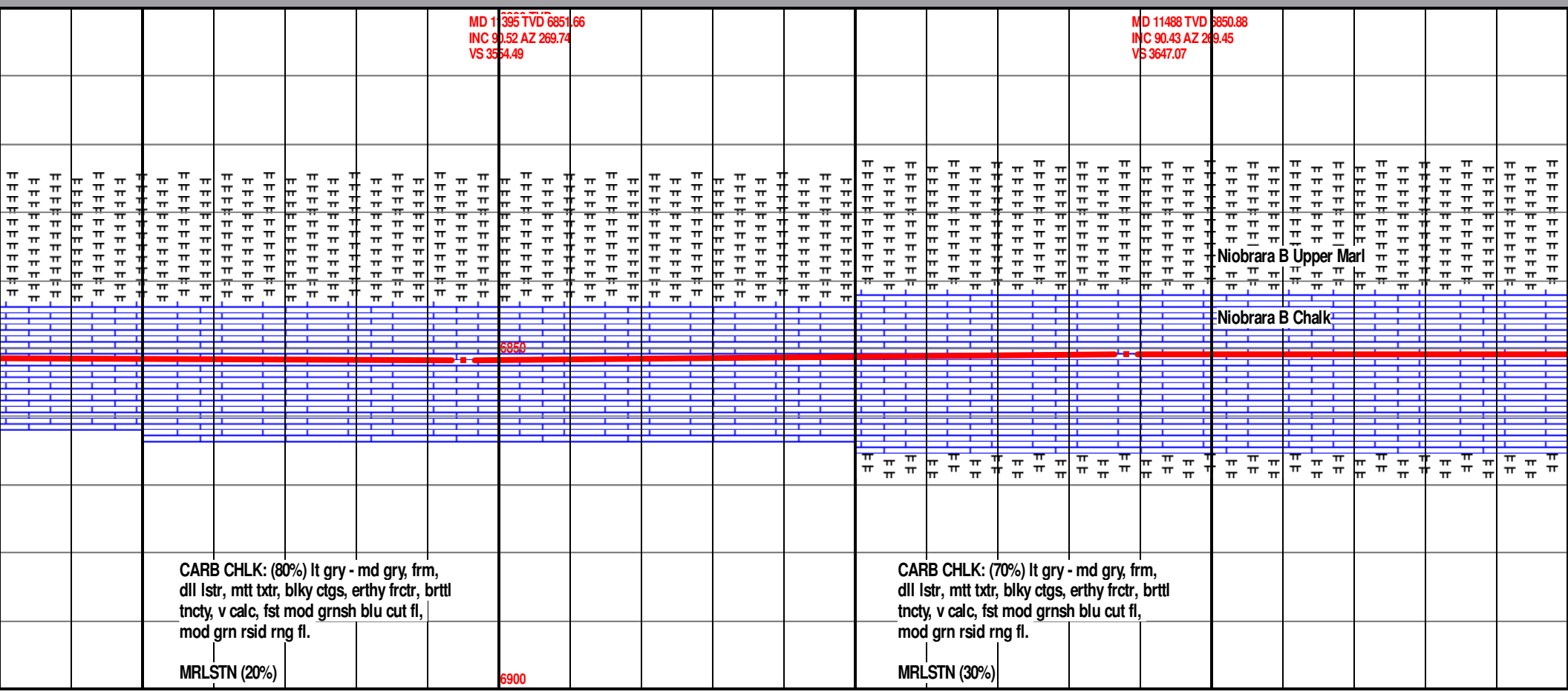
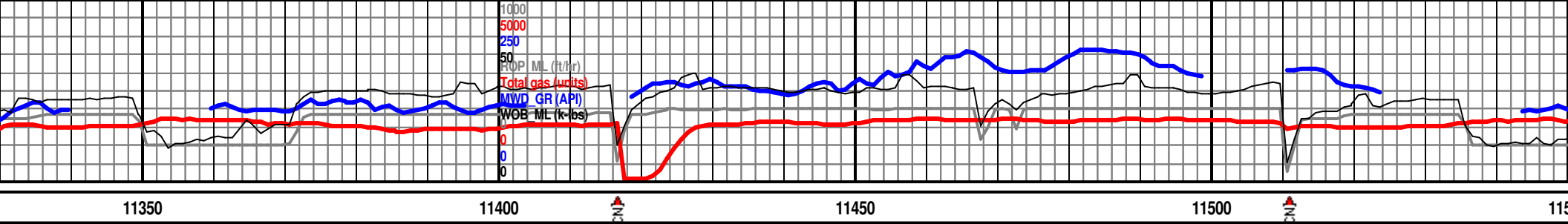


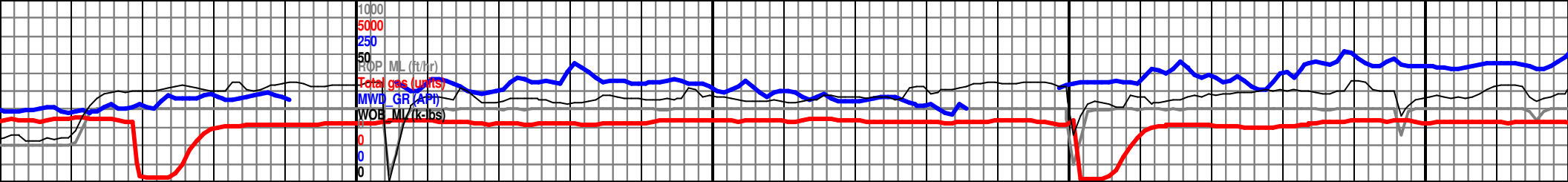








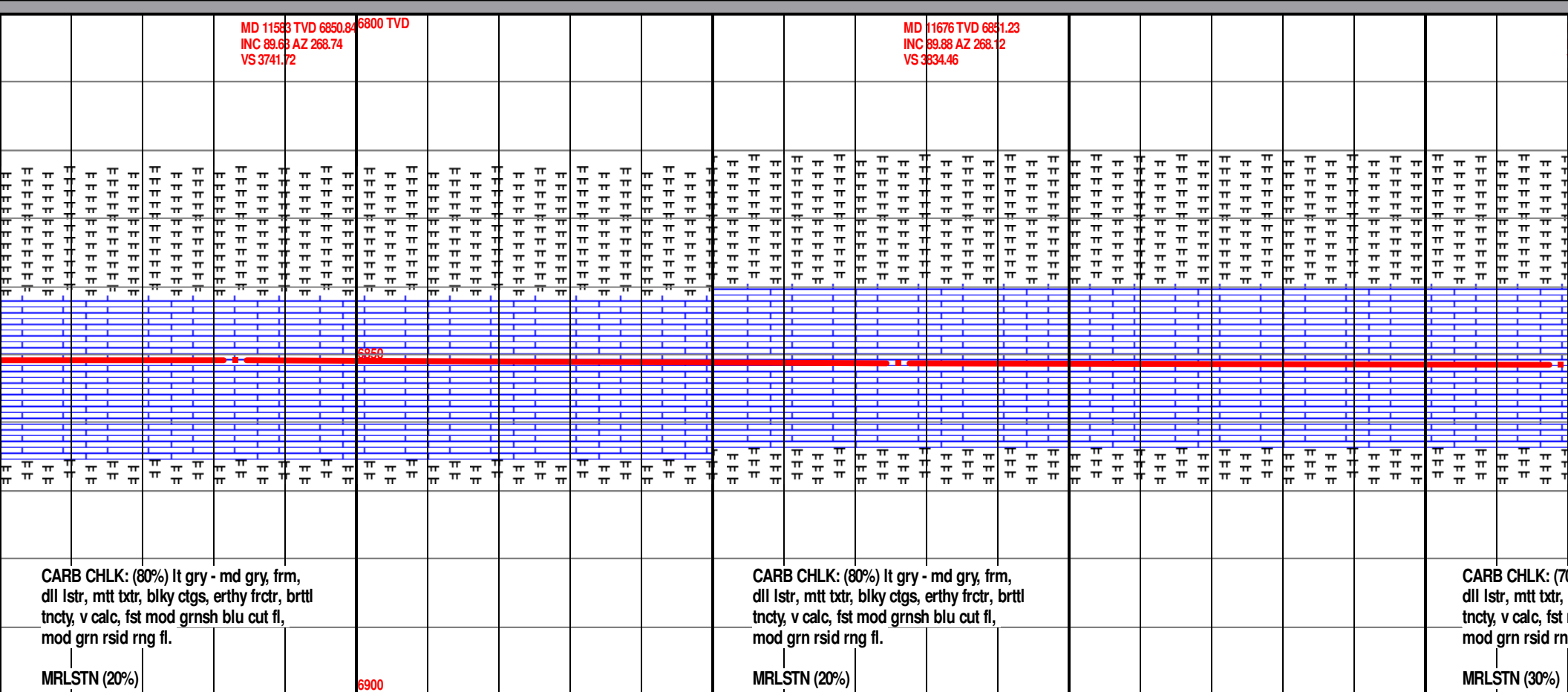




550 11600 11650 11700 11750

MD 11583 TVD 6850.84  
INC 89.63 AZ 268.74  
VS 3741.72

MD 11676 TVD 6851.23  
INC 89.88 AZ 268.12  
VS 3834.46



CARB CHLK: (80%) lt gry - md gry, frm,  
dll lstr, mtt txtr, blk cytgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu cut fl,  
mod grn rsid rng fl.

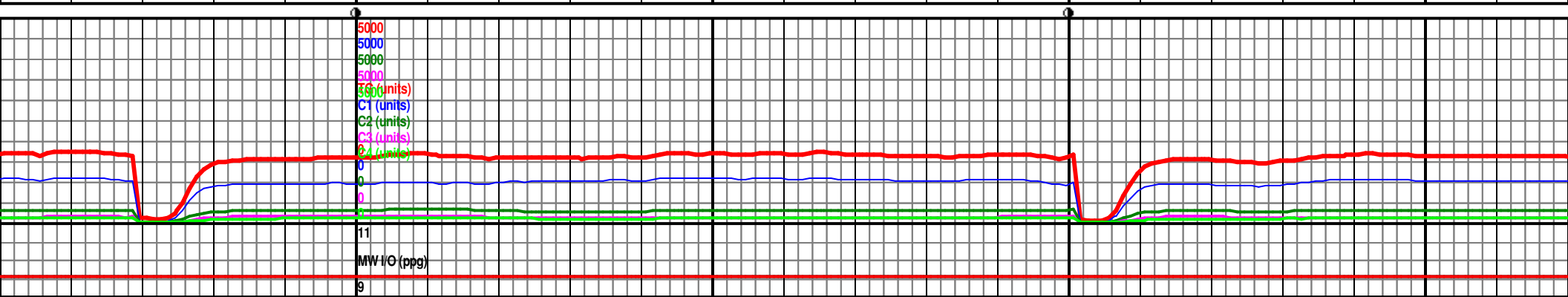
CARB CHLK: (80%) lt gry - md gry, frm,  
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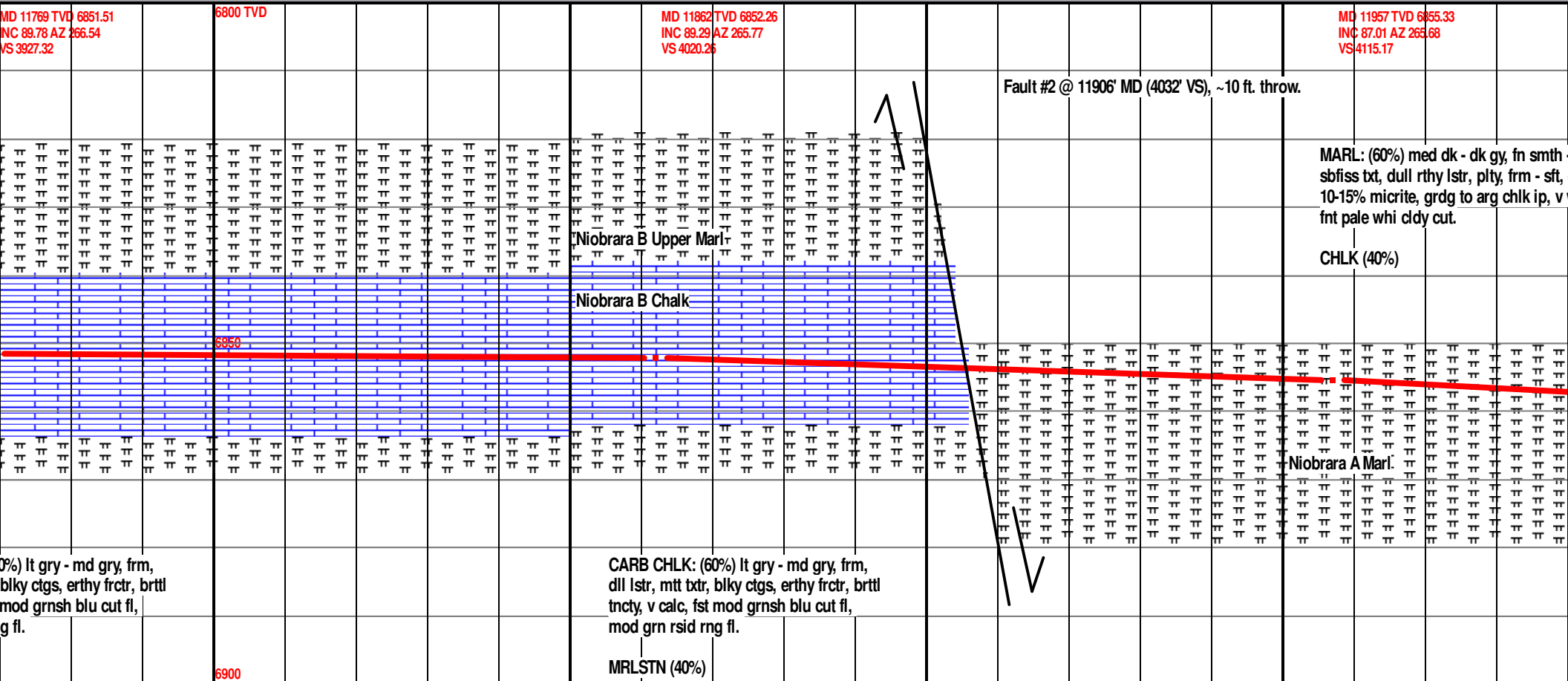
CARB CHLK: (70%) lt gry - md gry, frm,  
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mod grn rsid rng fl.

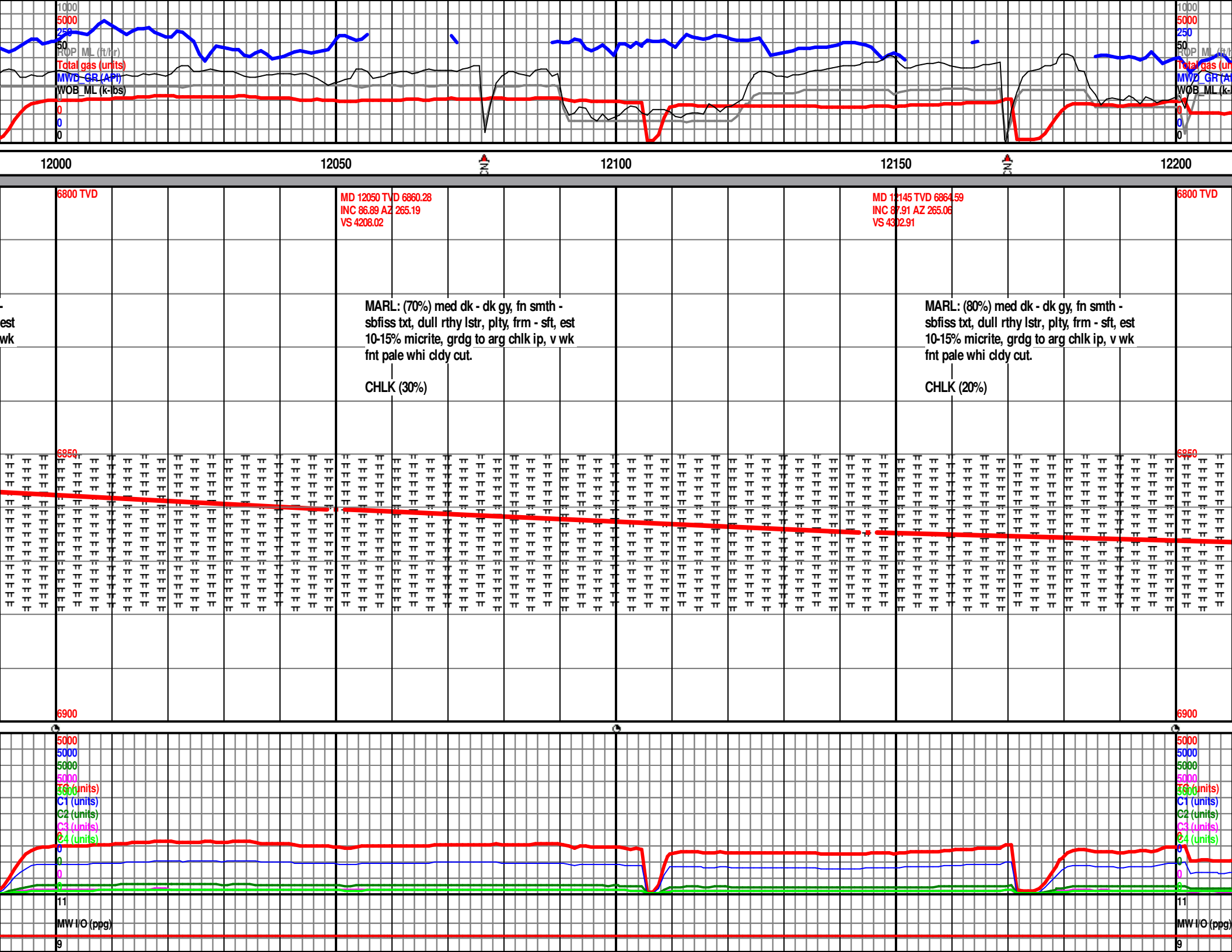
MRLSTN (20%)

MRLSTN (20%)

MRLSTN (30%)

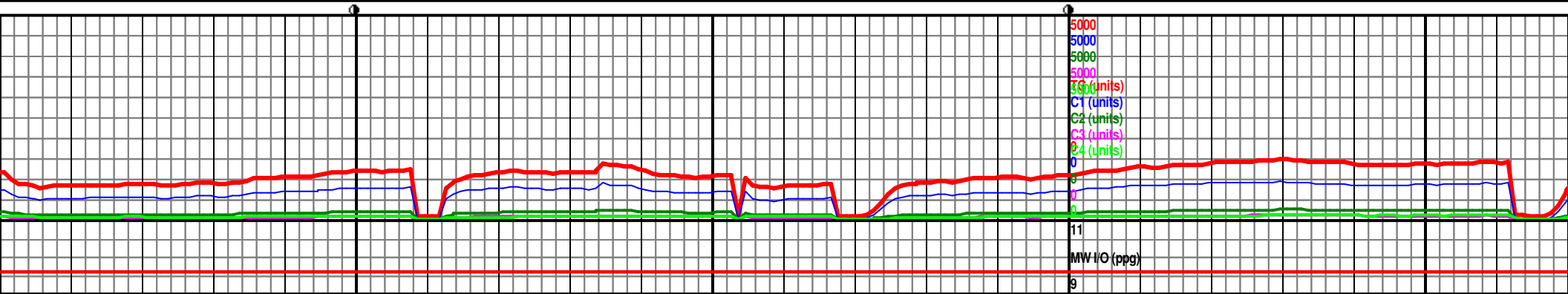
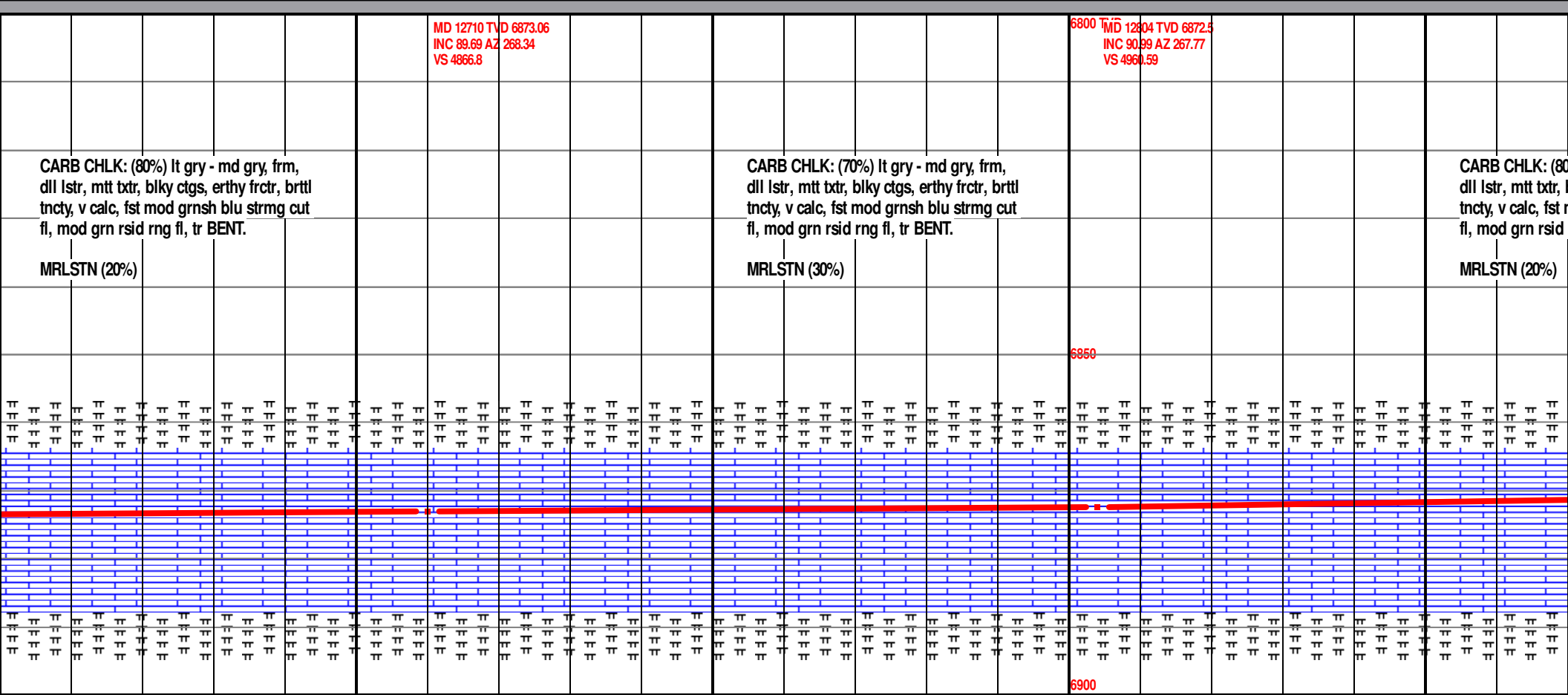
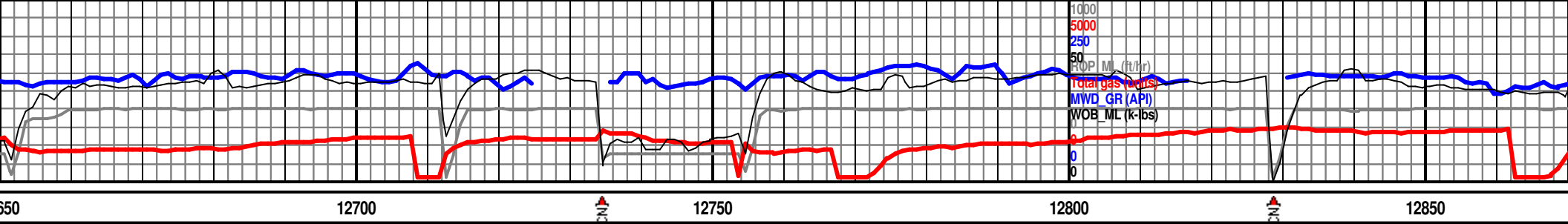


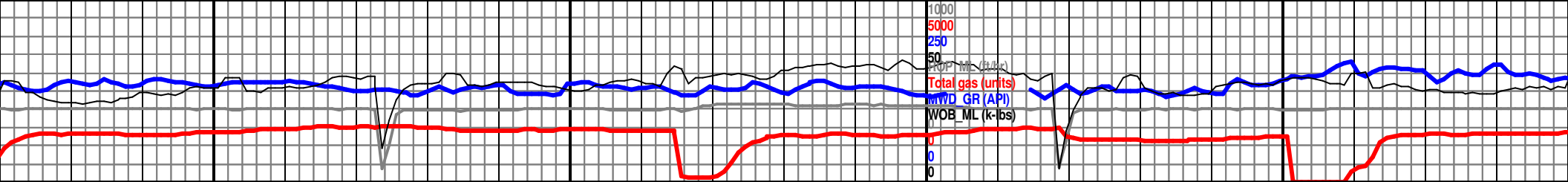












12900 12950 13000 13050

MD 12898 TVD 5871.01  
INC 90.83 AZ 268.46  
VS 5054.35

MD 12991 TVD 6869.51  
INC 91.02 AZ 268.1  
VS 5147.1

MD 13098 TVD 6869.51  
INC 91.02 AZ 268.1  
VS 5147.1

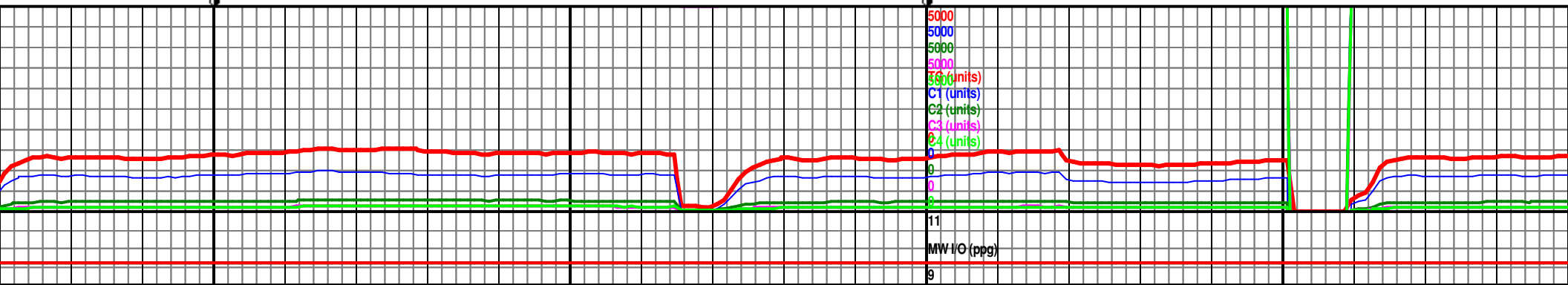
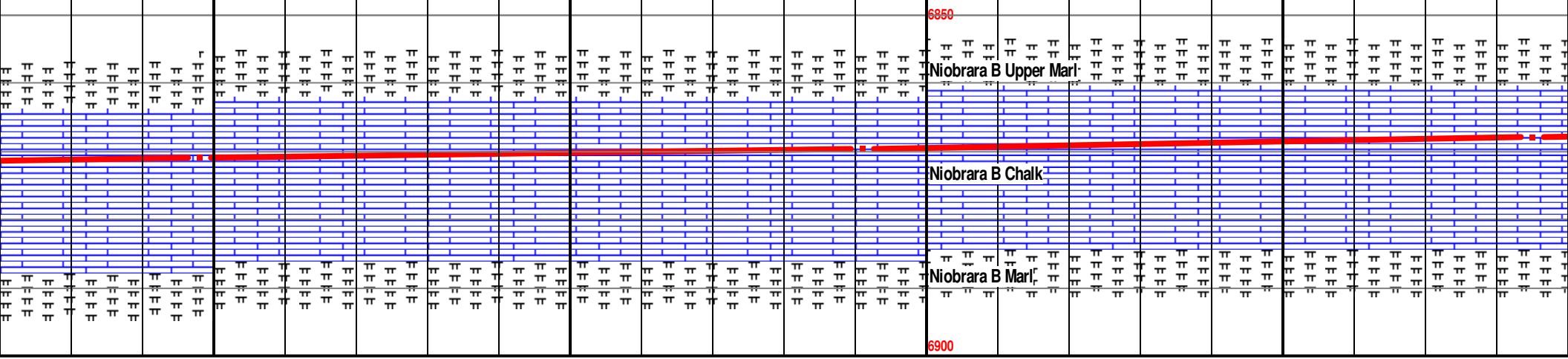
(%) Lt gry - md gry, frm,  
blky ctgs, erthy frctr, brttl  
mod grnsh blu strmg cut  
rng fl.

CARB CHLK: (70%) Lt gry - md gry, frm,  
dll lstr, mitt txtr, blky ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT.

CARB CHLK: (70%) Lt gry - md gry, frm,  
dll lstr, mitt txtr, blky ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT.

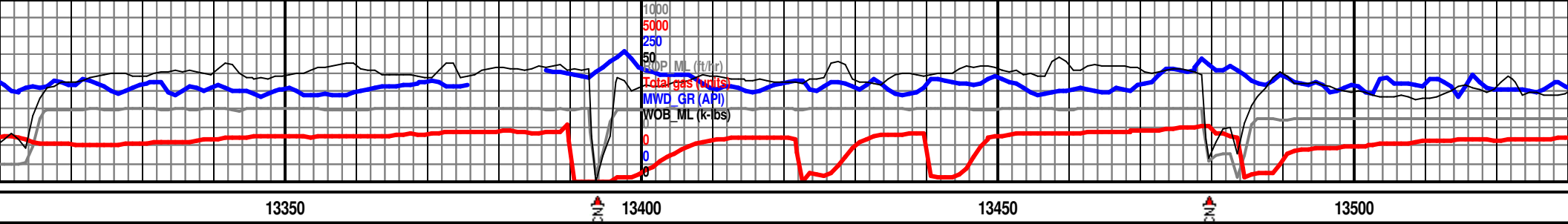
MRLSTN (30%)

MRLSTN (30%)









MD 13364 TVD 6863.27  
INC 91.11 AZ 268.4  
VS 5519.14

6800 TVD

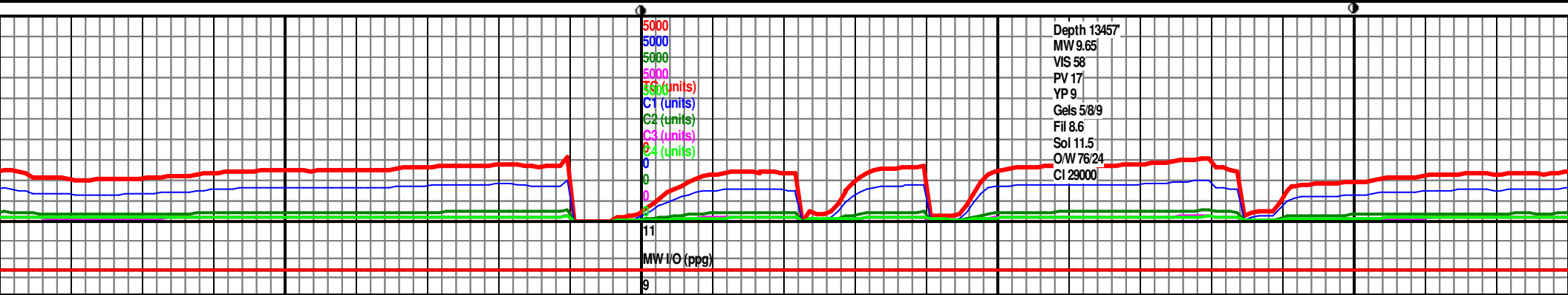
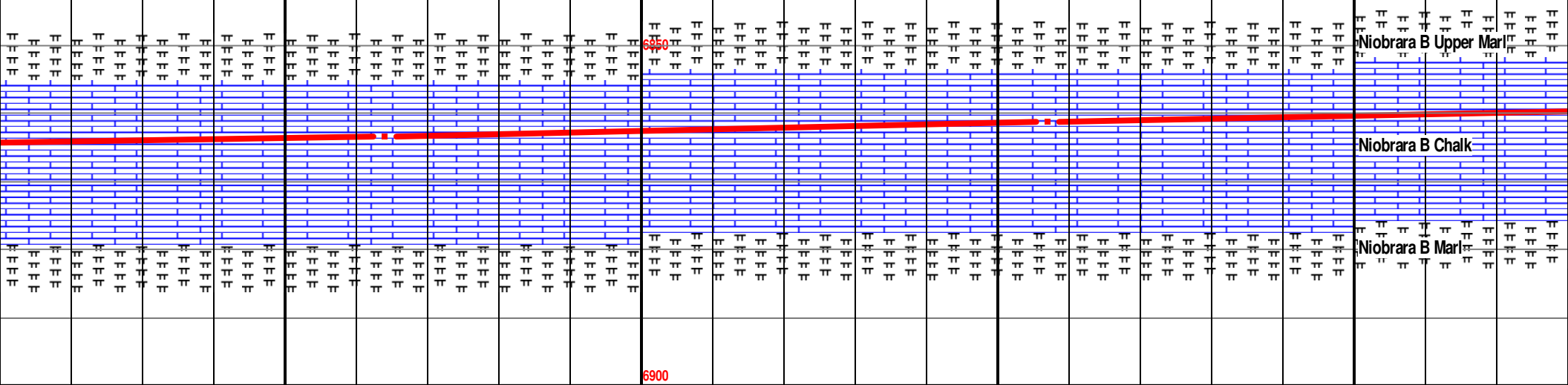
MD 13457 TVD 6861.29  
INC 91.32 AZ 270.18  
VS 5611.75

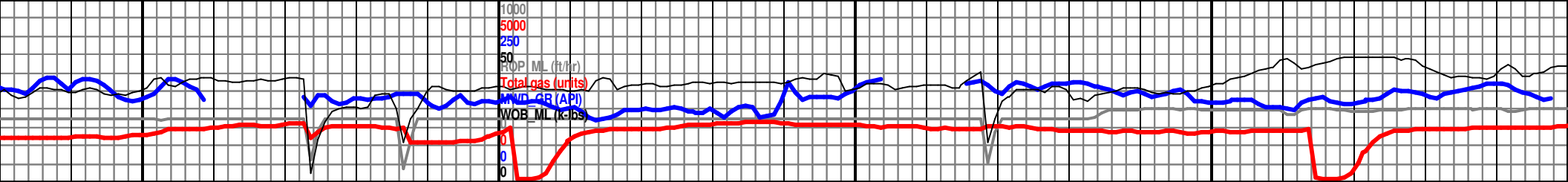
CARB CHLK: (80%) lt gry - md gry, frm,  
dll lstr, mtt tstr, blk cyts, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT.

MRLSTN (20%)

CARB CHLK: (90%) lt gry - md gry, frm,  
dll lstr, mtt tstr, blk cyts, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT.

MRLSTN (10%)





MD 13551 TVD 6859.17  
INC 91.27 AZ 270.2  
VS 5705.21

CARB CHLK: (90%) lt gry - md gry, frm,  
dll lstr, mtt tstr, blk y ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT.

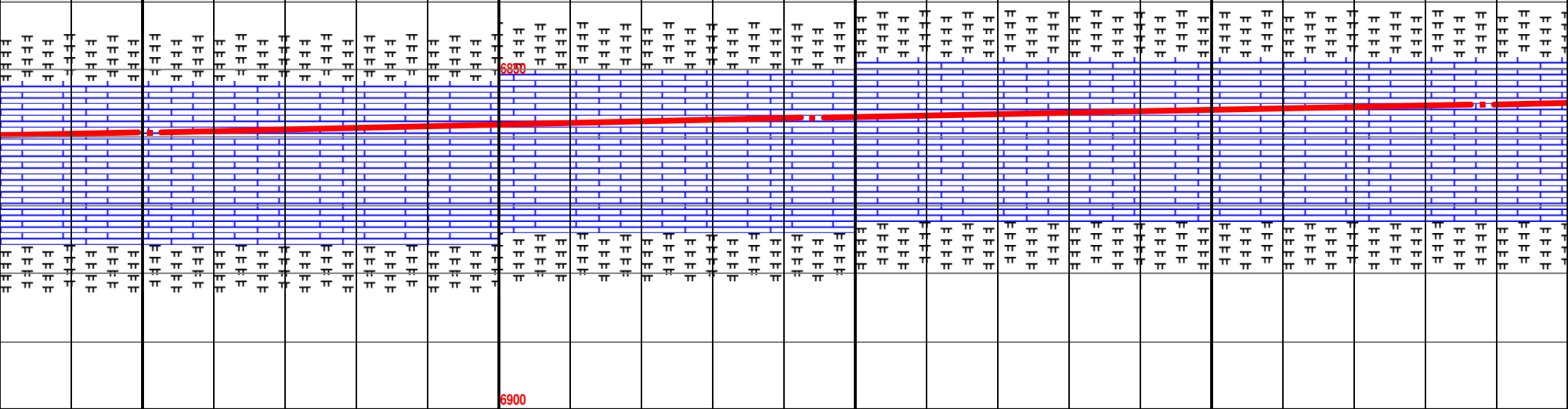
MRLSTN (10%)

6800 TVD

MD 13644 TVD 6857.17  
INC 91.2 AZ 269.1  
VS 5797.76

CARB CHLK: (100%) lt gry - md gry, frm,  
dll lstr, mtt tstr, blk y ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT.

MD 13738 TVD  
INC 91.35 AZ 269.1  
VS 5891.42



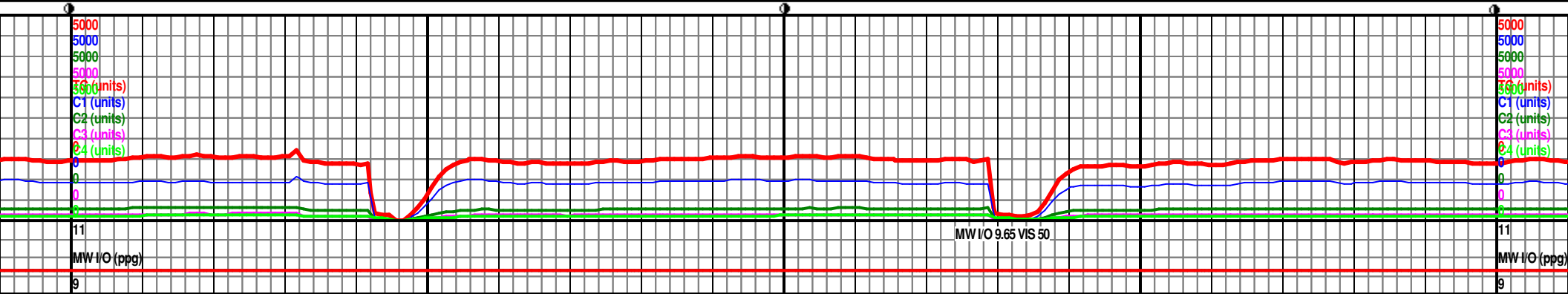
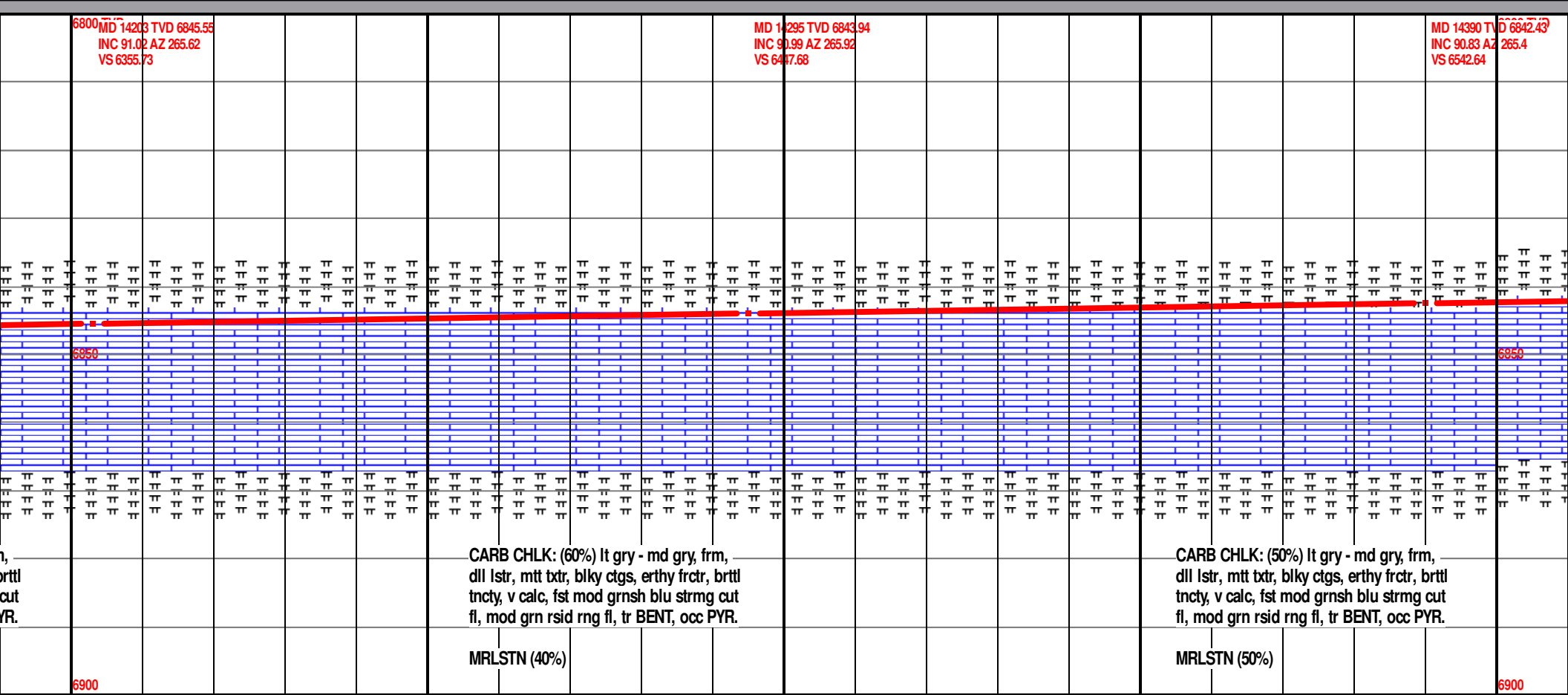
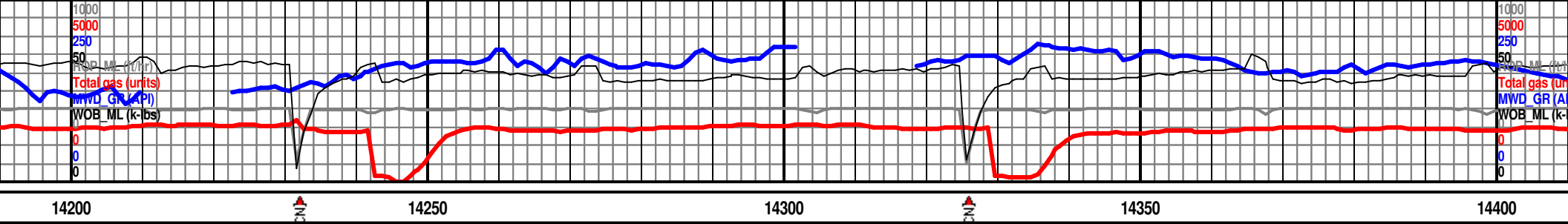
MW I/O 9.7 VS 56

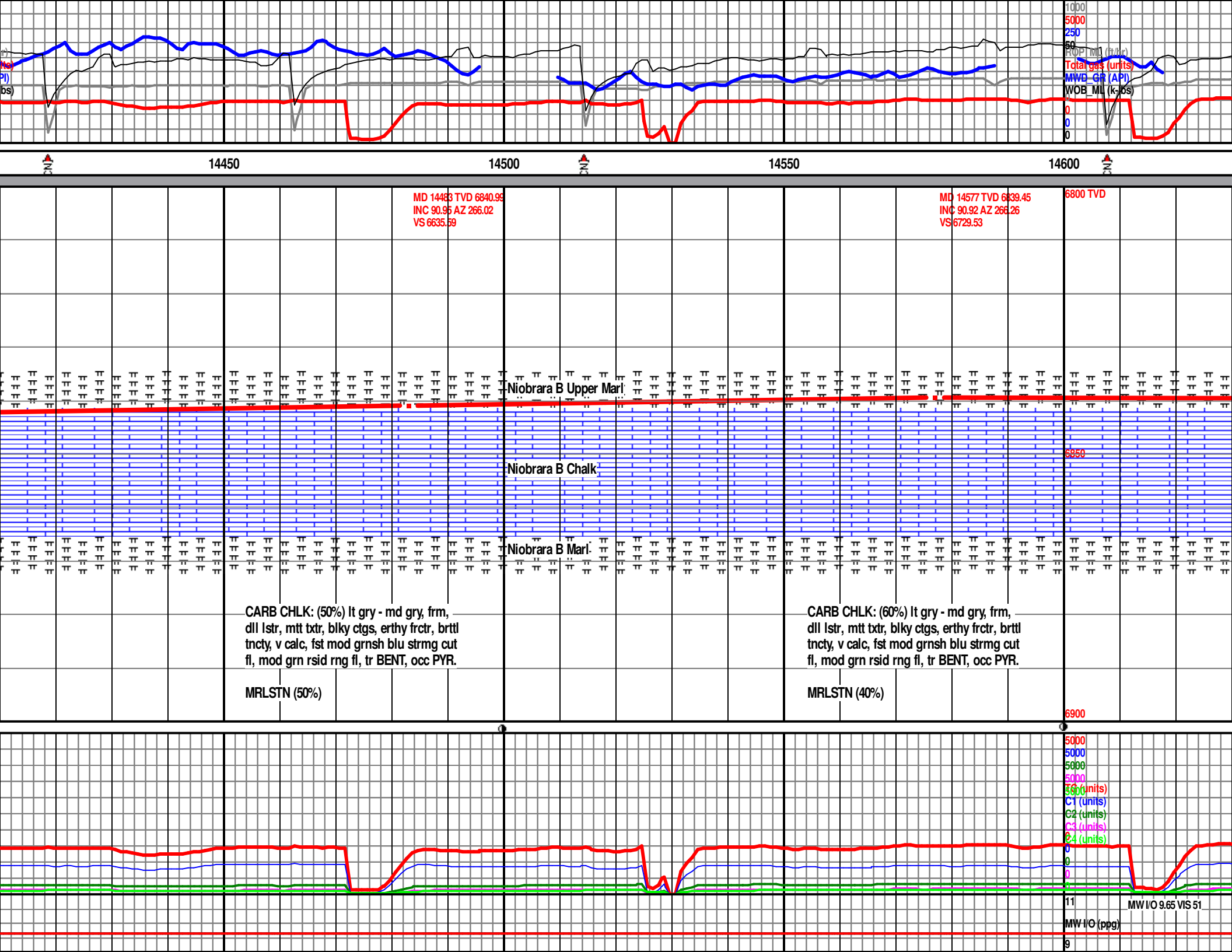
MW I/O (ppg)

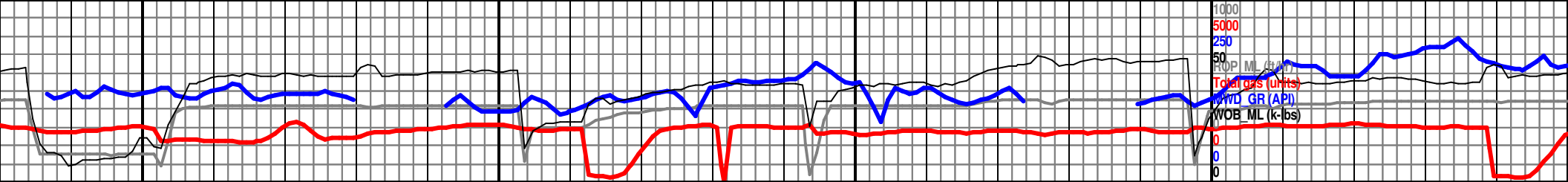
9











14650

14700

14750

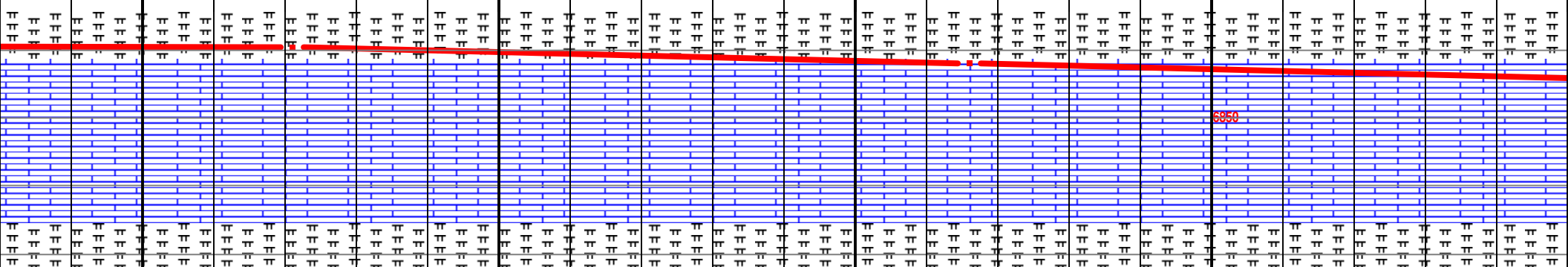
14800

14850

MD 14671 TVD 6839.71  
INC 88.77 AZ 266.52  
VS 6823.45

MD 14766 TVD 6841.98  
INC 88.49 AZ 266.53  
VS 6818.34

6800 TVD



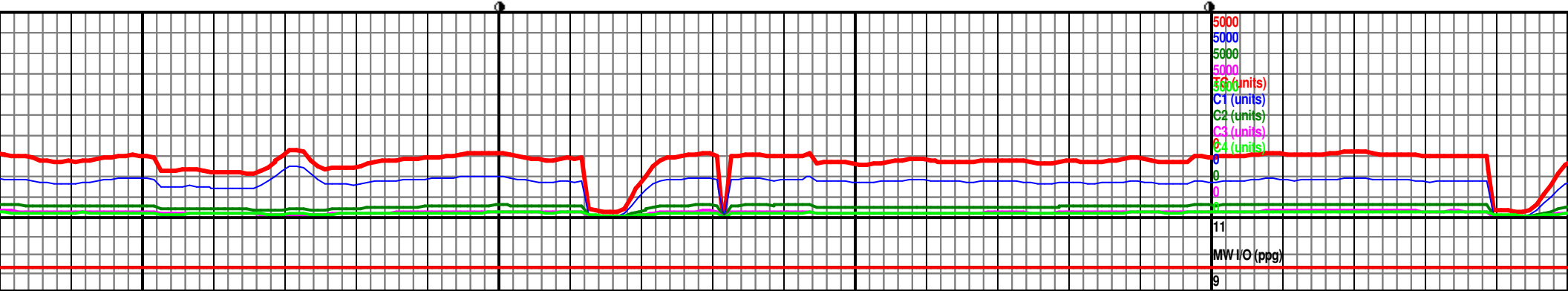
CARB CHLK: (60%) lt gry - md gry, frm,  
dll lstr, mtt btr, blkly ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT, occ PYR.

MRLSTN (40%)

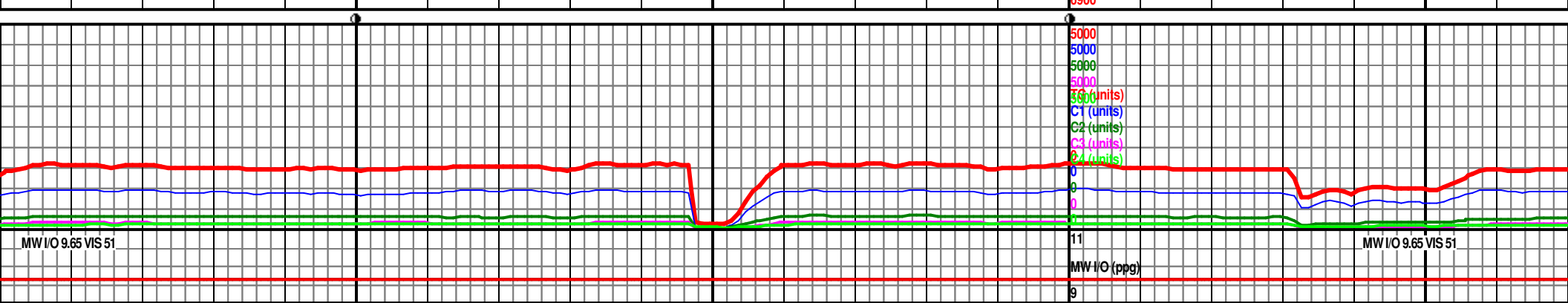
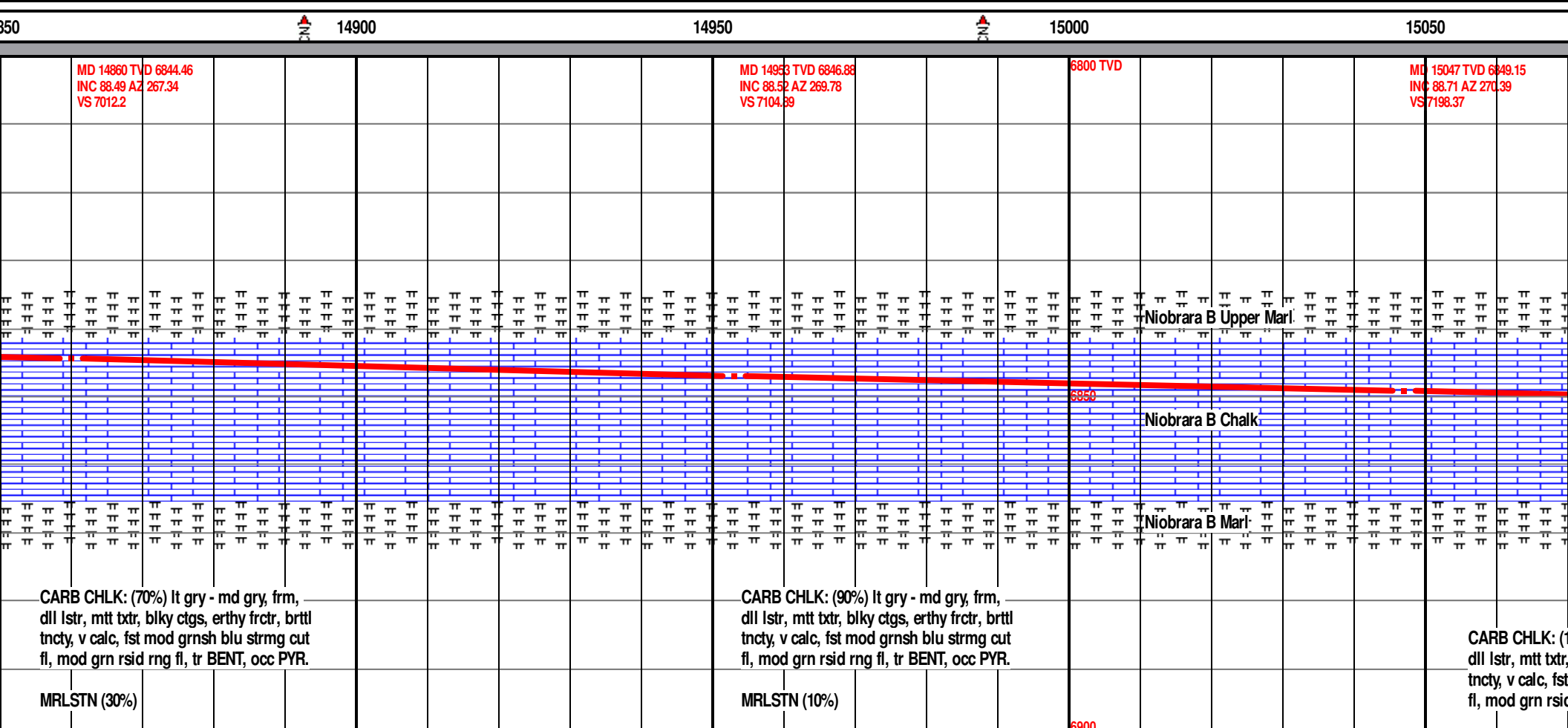
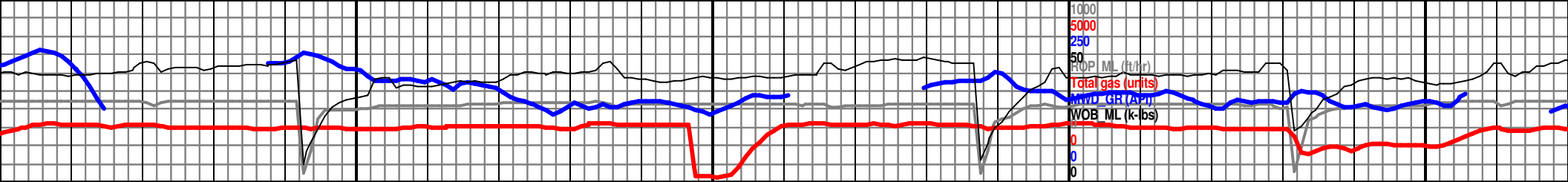
CARB CHLK: (70%) lt gry - md gry, frm,  
dll lstr, mtt btr, blkly ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT, occ PYR.

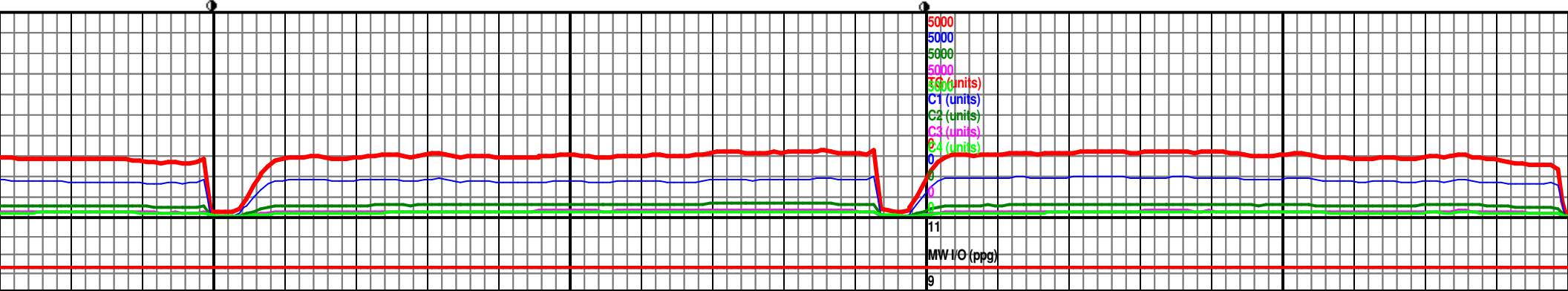
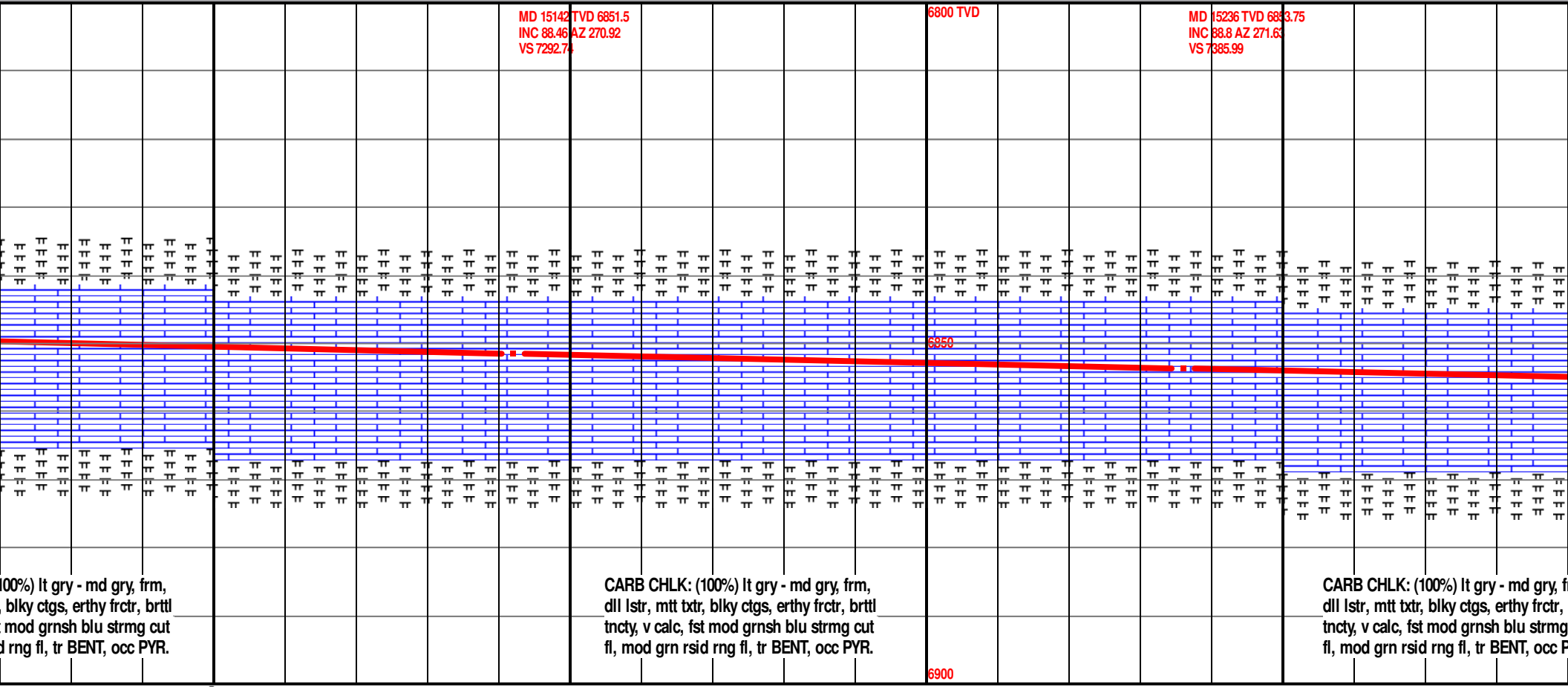
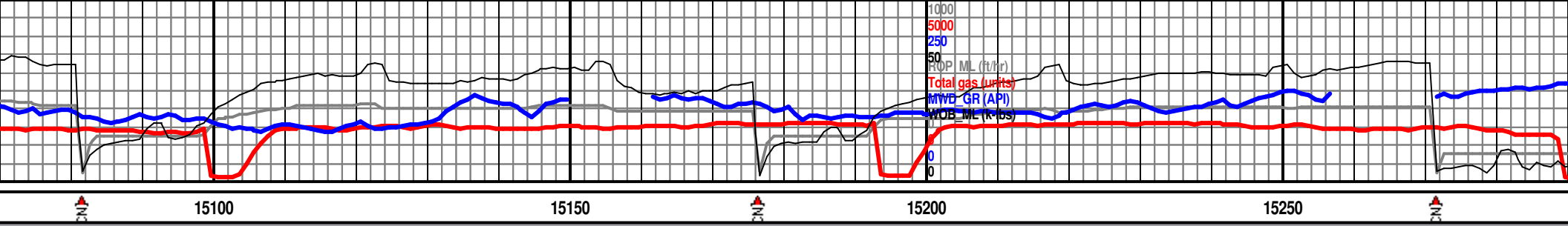
MRLSTN (30%)

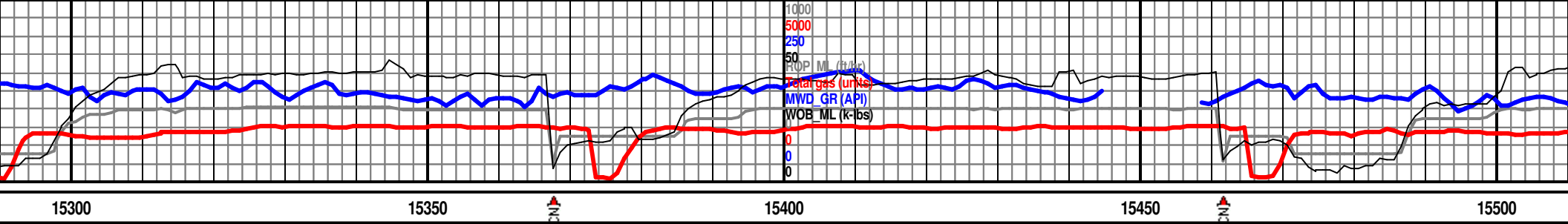
6900









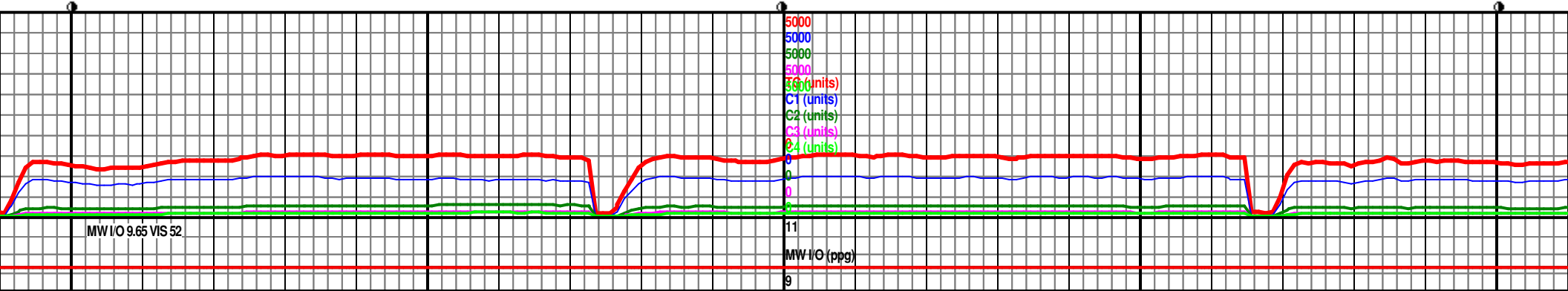
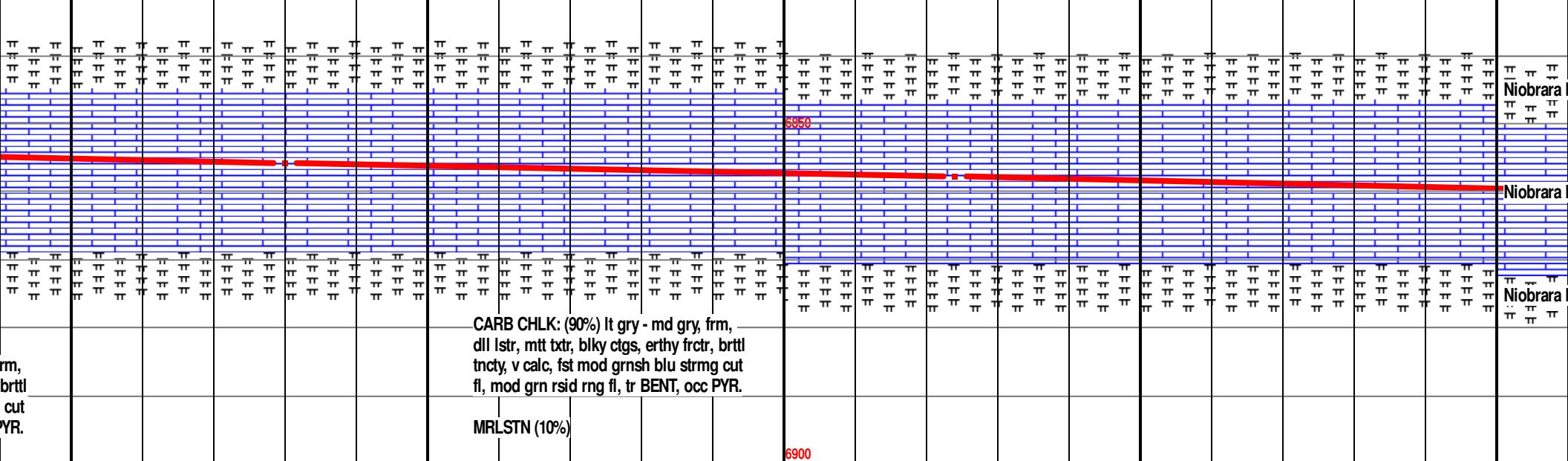


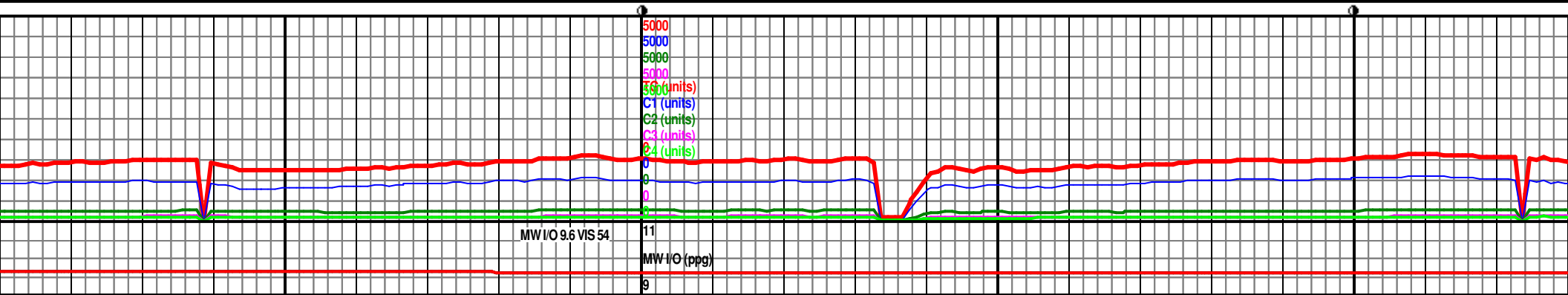
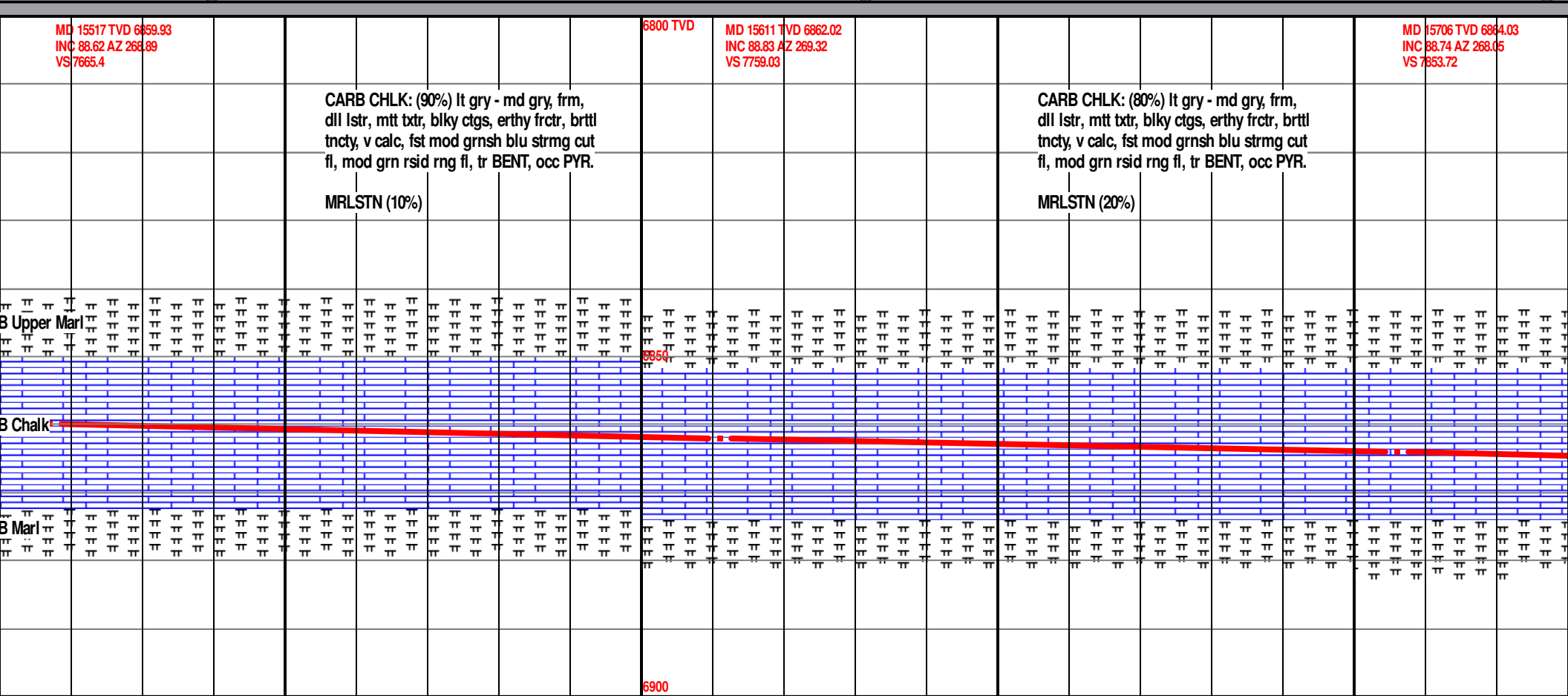
MD 15330 TVD 6855.74  
INC 88.77 AZ 270.85  
VS 7479.26

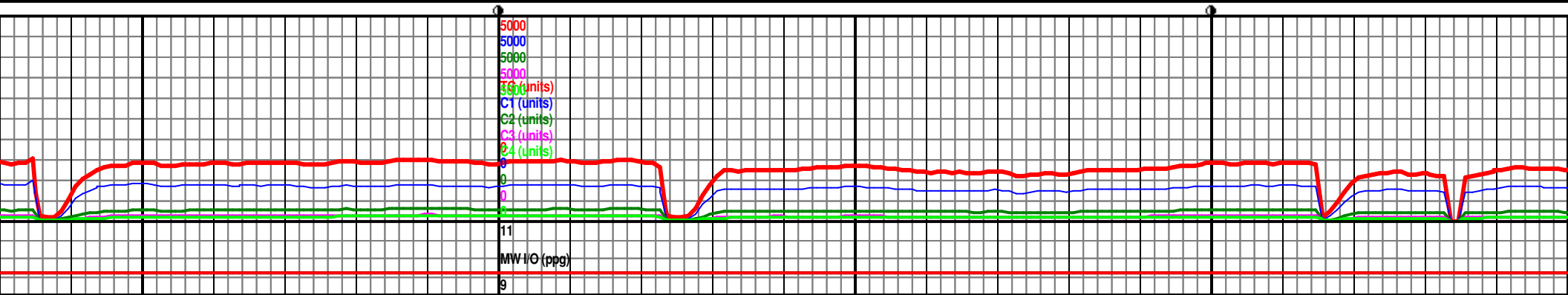
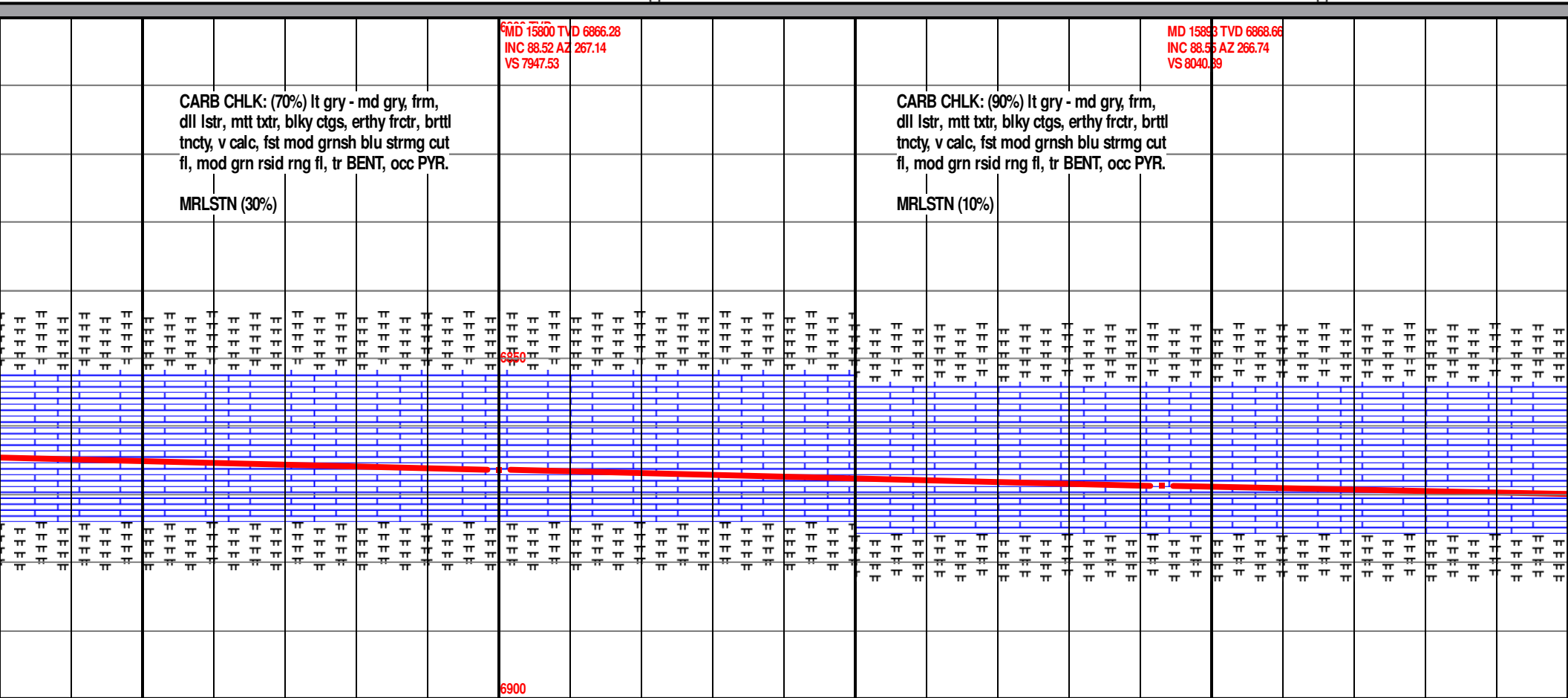
6800 TVD

MD 15424 TVD 6857.78  
INC 88.74 AZ 269.09  
VS 7572.75

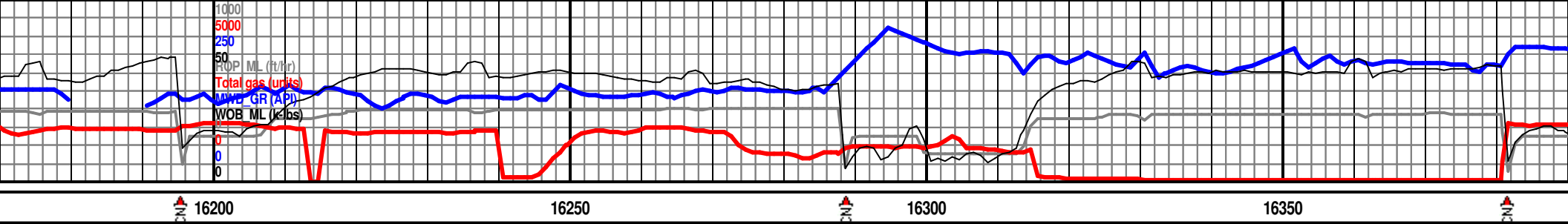
CARB CHLK: (90%) lt gry - md gry, frm,  
dll lstr, mtt txtr, blkly ctgs, erthy frctr, brttl  
tncty, v calc, fst mod grnsh blu strmg cut  
fl, mod grn rsid rng fl, tr BENT, occ PYR.  
MRLSTN (10%)











MD 16170 TVD 6873.63  
INC 90.52 AZ 267.12  
VS 8317.11

6800 TVD

MD 16263 TVD 6872.61  
INC 90.74 AZ 267.7  
VS 8409.96

MD 16357 TVD 6871.58  
INC 90.52 AZ 270.55  
VS 8503.59

(%) lt gry - md gry, frm,  
lky ctgs, erthy frctr, brttl  
mod grnsh blu strmg cut  
ng fl.

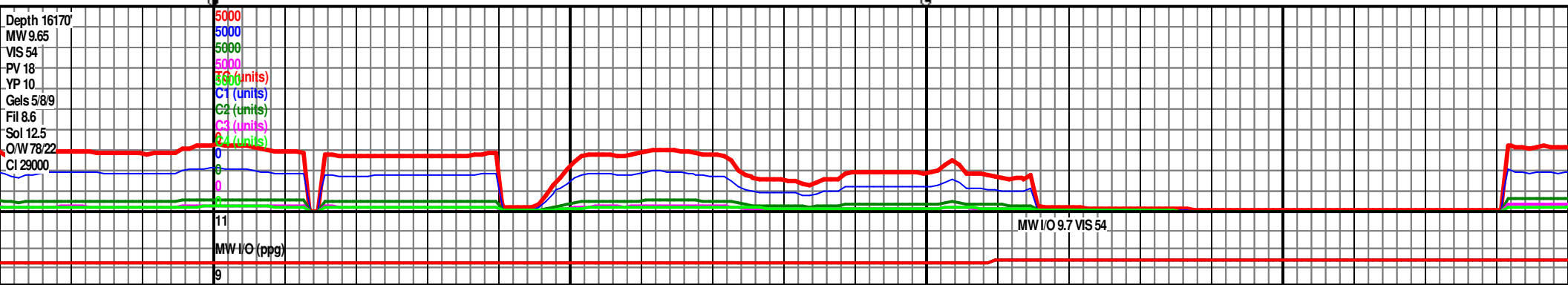
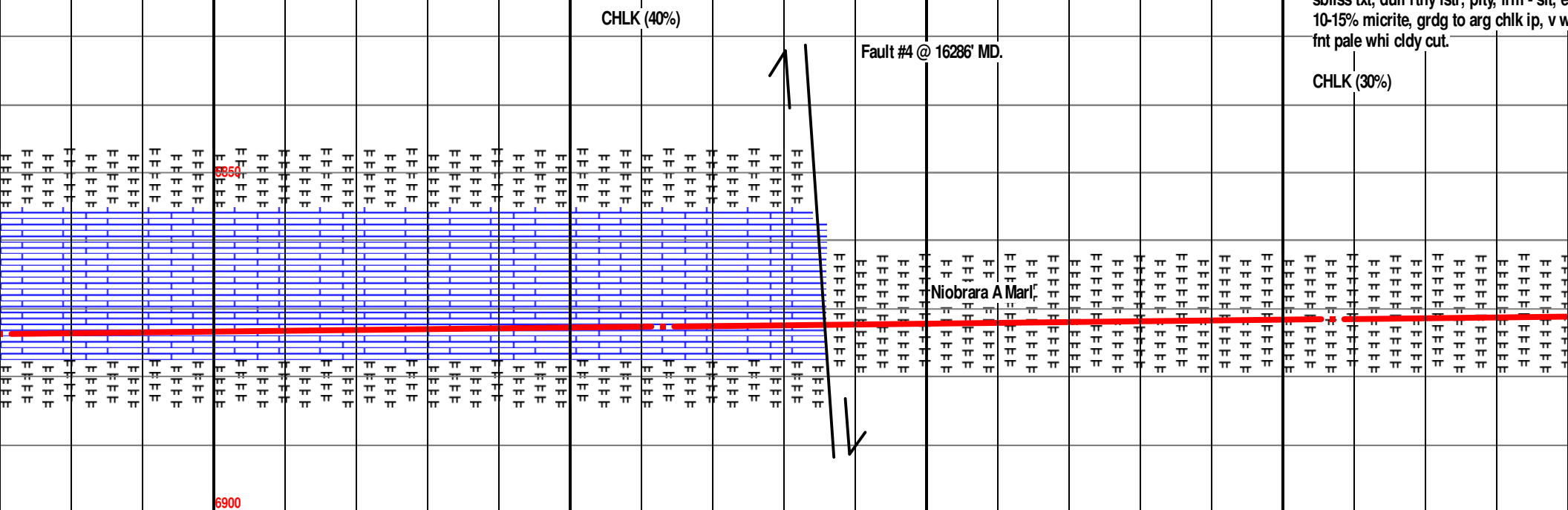
MARL: (60%) med dk - dk gy, fn smth -  
sbfiss txt, dull rthy lstr, plty, frm - sft, est  
10-15% micrite, grdg to arg chlk ip, v wk  
fnt pale whi cldy cut.

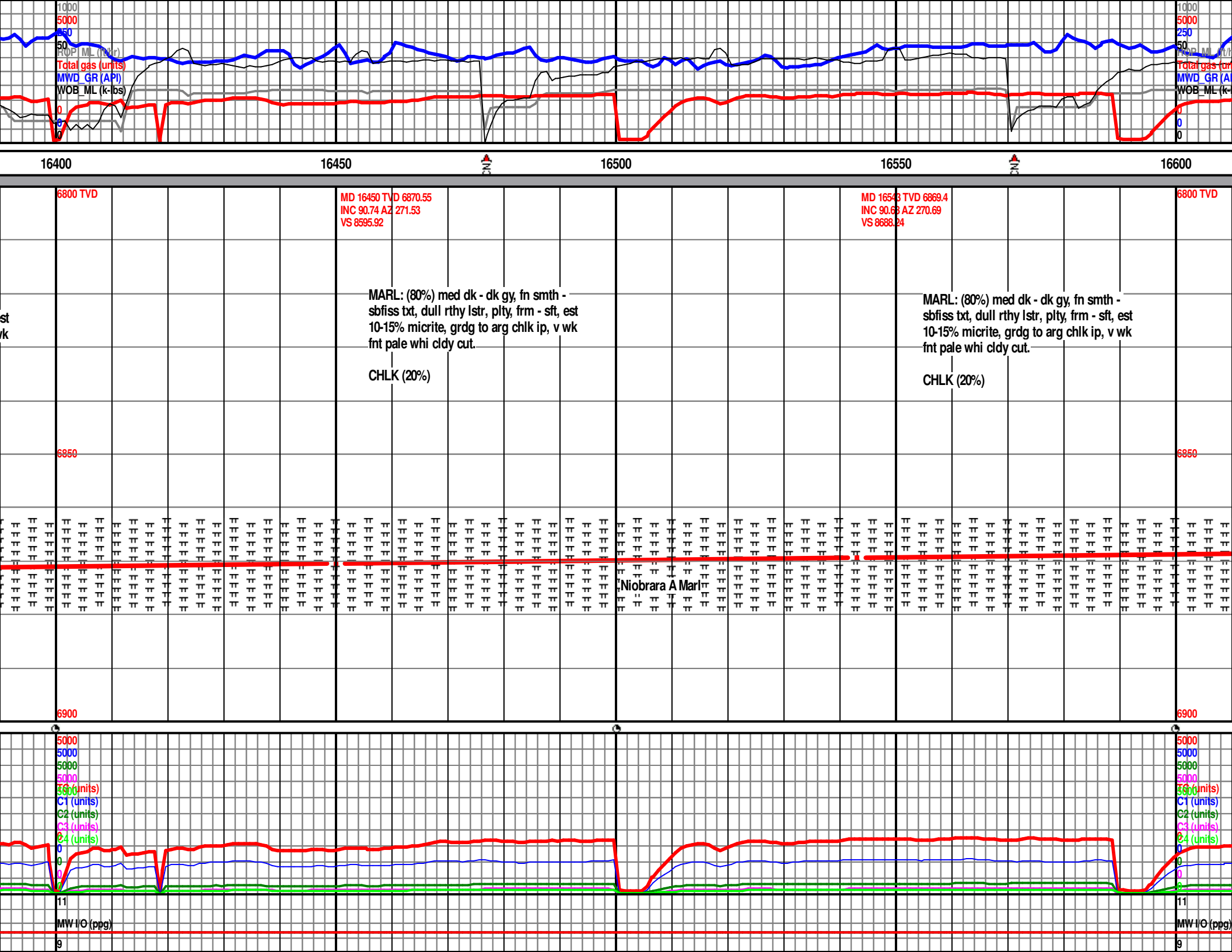
CHLK (40%)

Fault #4 @ 16286' MD.

MARL: (70%) med dk - dk gy, fn smth -  
sbfiss txt, dull rthy lstr, plty, frm - sft, e  
10-15% micrite, grdg to arg chlk ip, v w  
fnt pale whi cldy cut.

CHLK (30%)

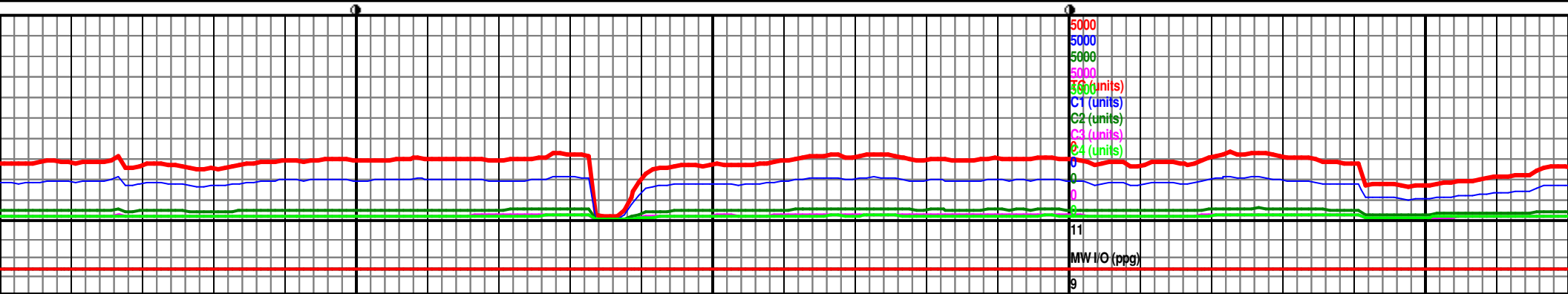
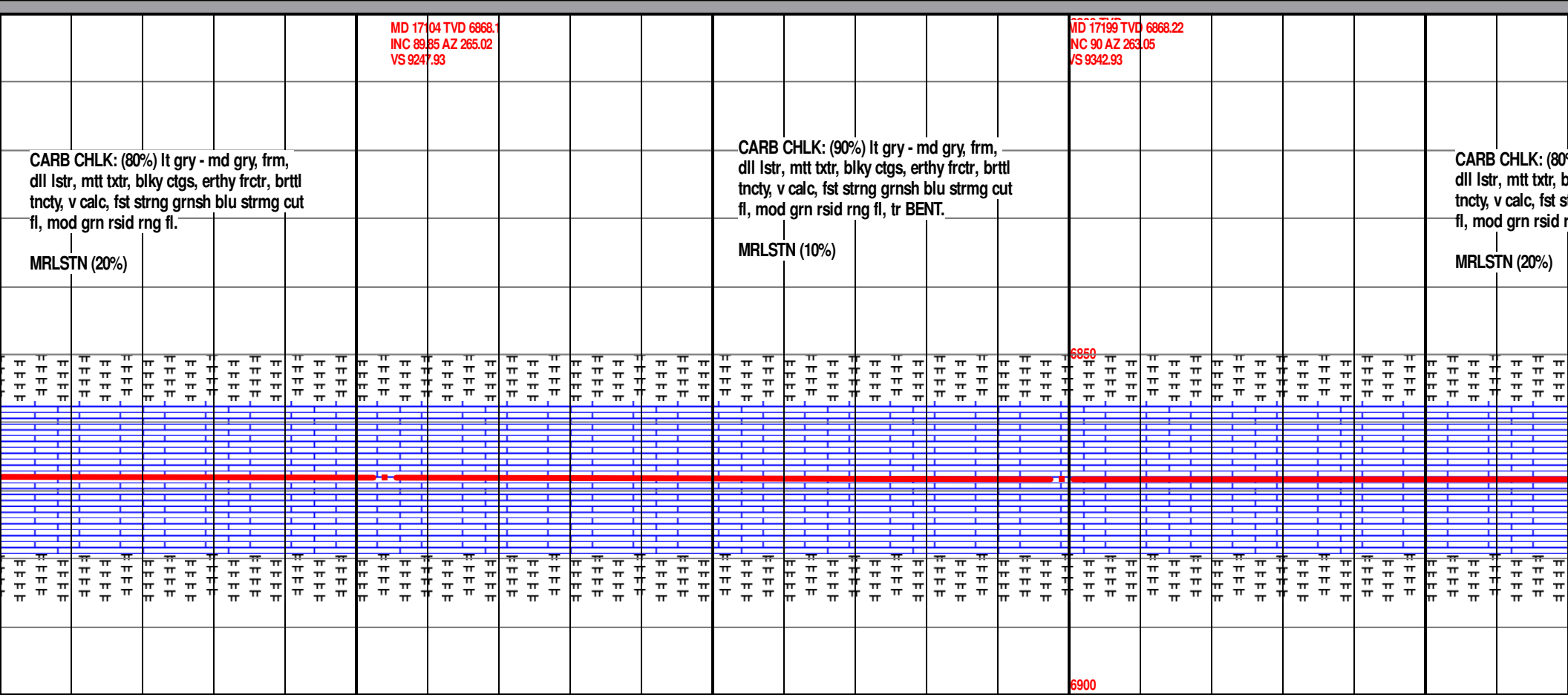
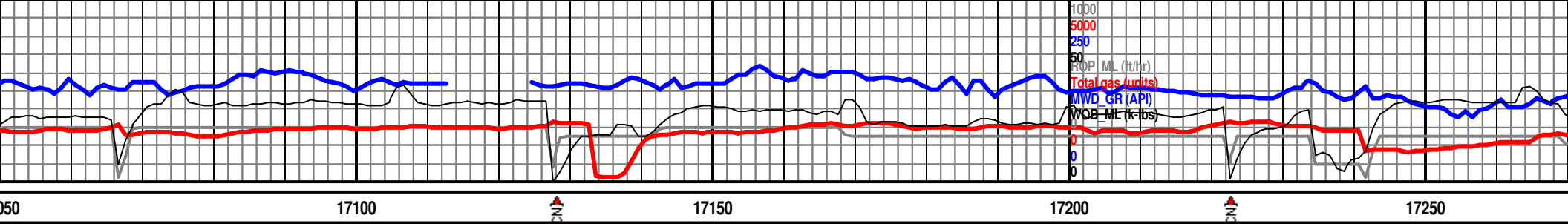




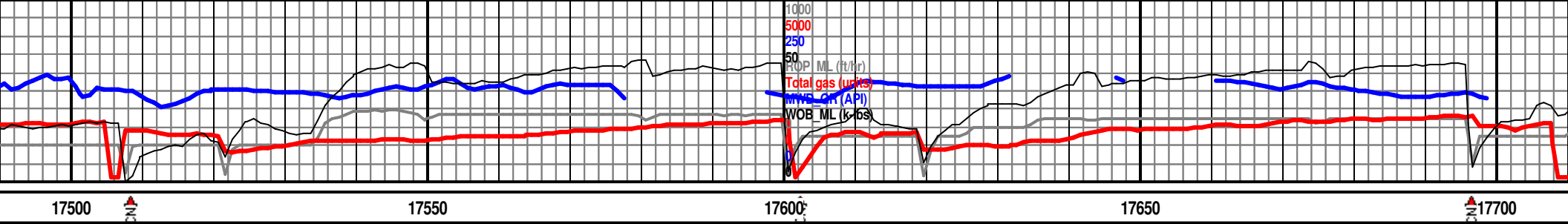










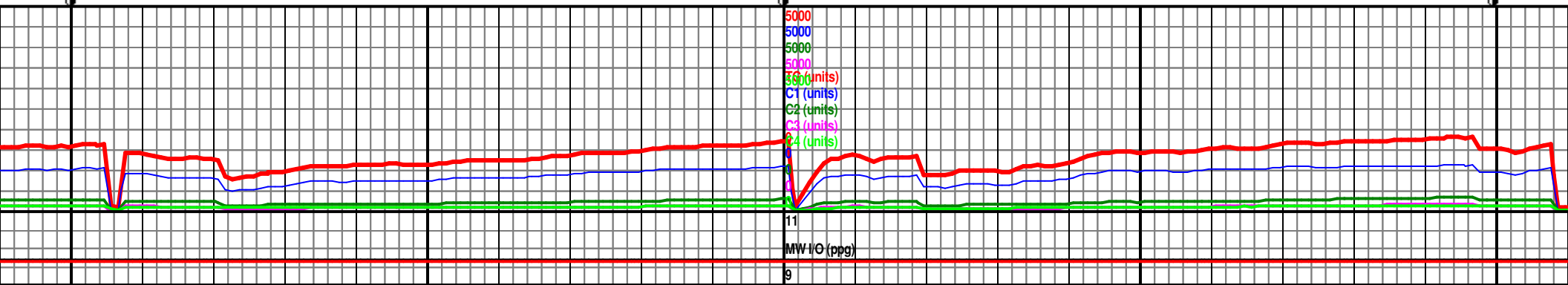
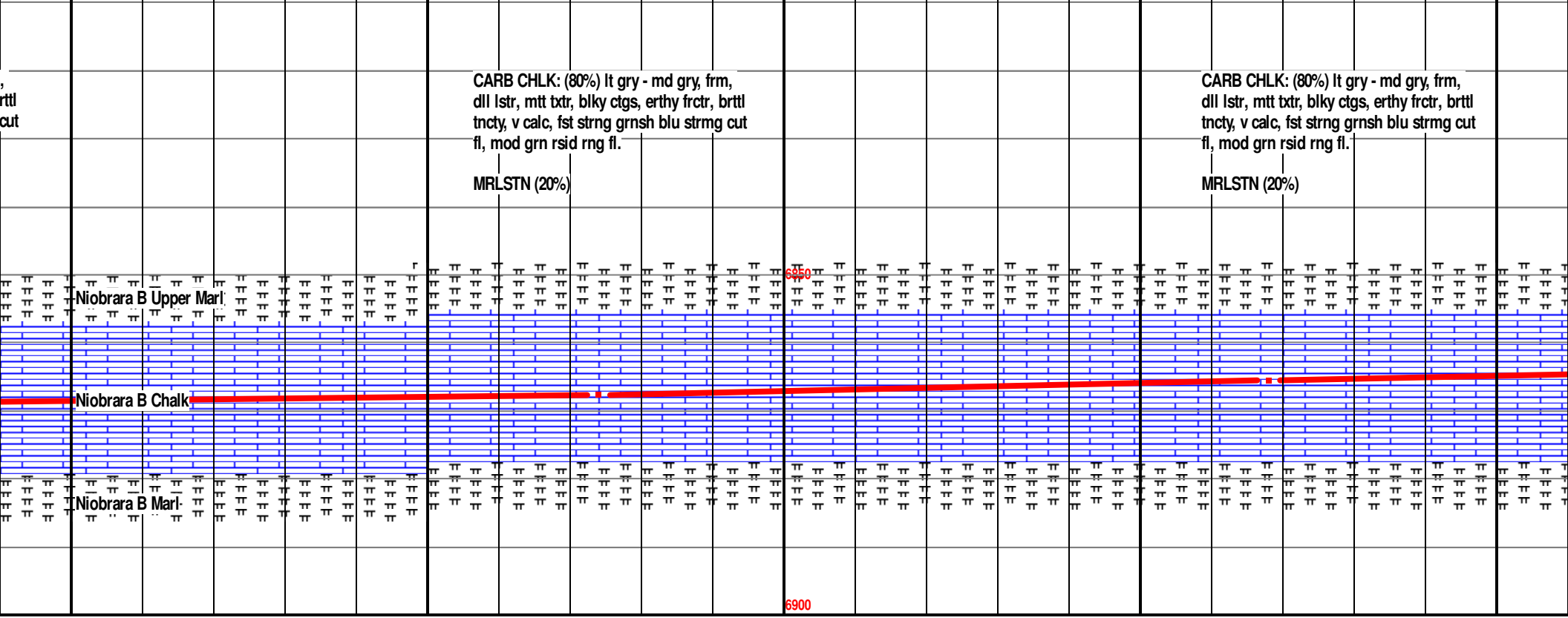


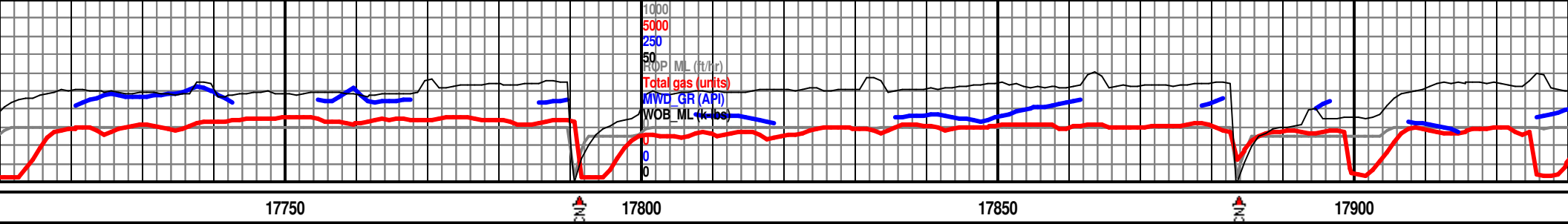
D 6868.74  
266.12

MD 17574 TVD 6867.7  
INC 91.35 AZ 270.35  
VS 9717.64

6800 TVD

MD 17668 TVD 6865.61  
INC 91.2 AZ 271.26  
VS 9810.99





MD 17760 TVD 6863.59  
INC 91.32 AZ 270.05  
VS 9902.39

6800 TVD

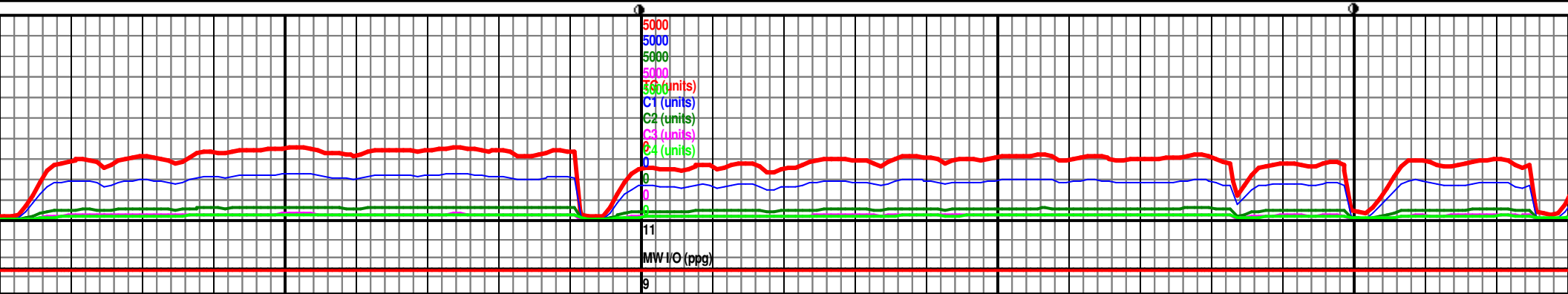
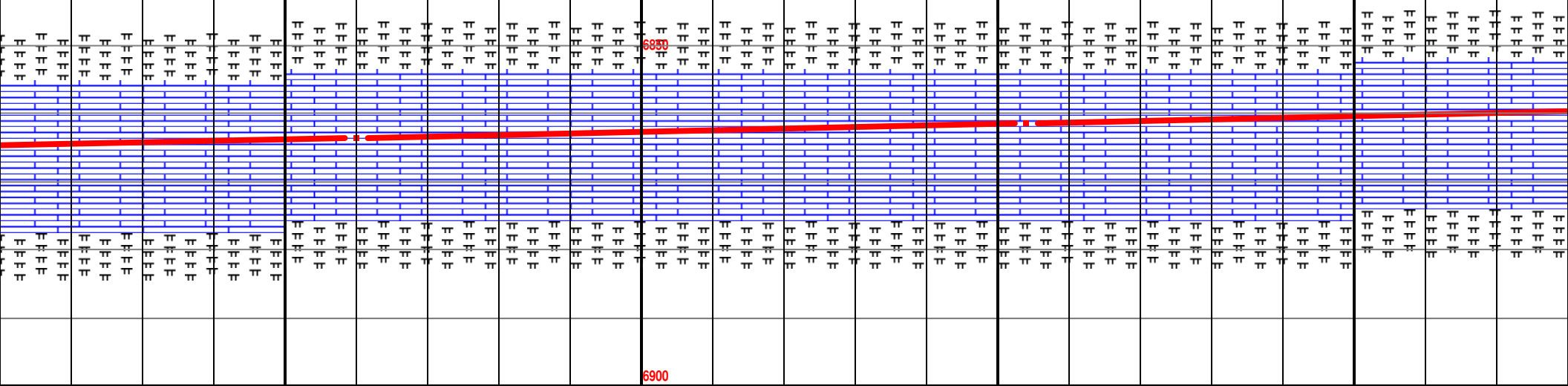
MD 17854 TVD 6861.47  
INC 91.26 AZ 268.86  
VS 9995.96

CARB CHLK: (90%) lt gry - md gry, frm,  
dll lstr, mtt txtr, blk y ctgs, erthy frctr, brttl  
tncty, v calc, fst strng grnsh blu strmg cut  
fl, mod grn rsid rng fl.

MRLSTN (10%)

CARB CHLK: (80%) lt gry - md gry, frm,  
dll lstr, mtt txtr, blk y ctgs, erthy frctr, brttl  
tncty, v calc, fst strng grnsh blu strmg cut  
fl, mod grn rsid rng fl.

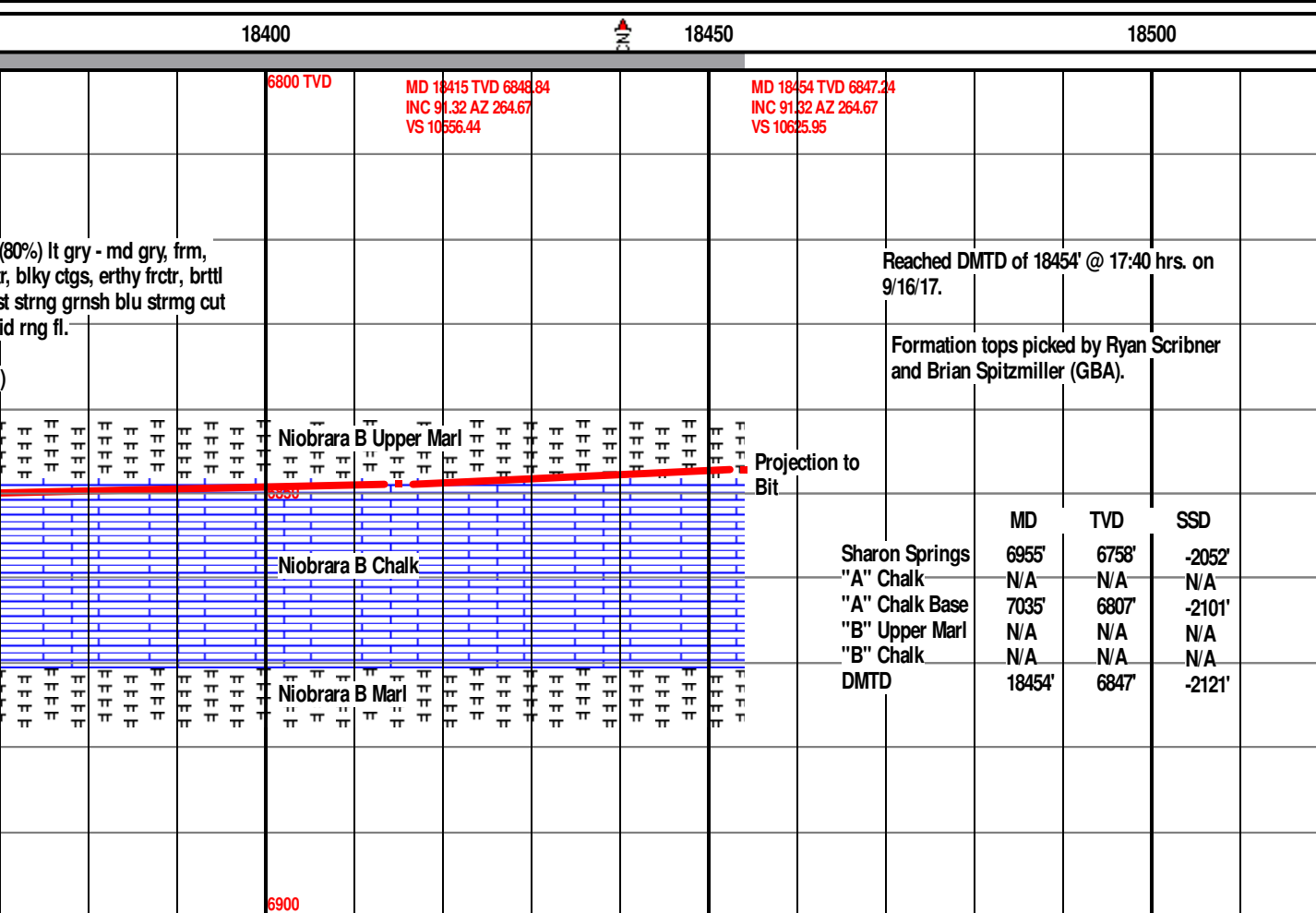
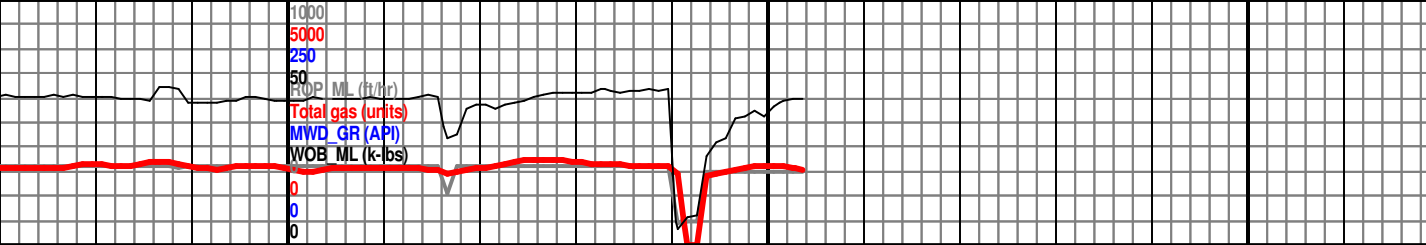
MRLSTN (20%)











	MD	TVD	SSD
Sharon Springs	6955'	6758'	-2052'
"A" Chalk	N/A	N/A	N/A
"A" Chalk Base	7035'	6807'	-2101'
"B" Upper Marl	N/A	N/A	N/A
"B" Chalk	N/A	N/A	N/A
DMTD	18454'	6847'	-2121'

