

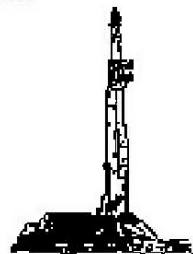
**GOOLSBY BROTHERS**  
and associates, inc.

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: LEFFLER 1C-23-L  
API: 051234483300  
Location: SE/NE Section 21 T6N R66W Weld County, CO.  
License Number:  
Spud Date: July 26, 2017  
Surface Coordinates: 1881 FNL, 275 FEL SENE Sec. 21 T6N R66W  
Lat/Long: 40°28'33.553"N/ 104°46'27.660"W  
Bottom Hole Planned: 1023 FNL, 510 FEL SENE Sec. 23 T6N R66W  
Coordinates: Projected: 1020 FNL, 398 FEL SENE Sec. 23 T6N R66W  
Ground Elevation (ft): 4,748' K.B. Elevation (ft): 4773'  
Logged Interval (ft): 6550' To: 17,875' Total Depth (ft): 17,875' DMTD  
Formation: Codell  
Type of Drilling Fluid: OBM (LSND Surface).

Region: Wattenberg  
Drilling Completed: July 30, 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: Blake Stacey & Dallan Gardner  
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

## E-logs

MWD GR from S.C. to 17,861' MD

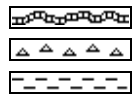
## Casing

9 5/8" Surface Casing pre set @ 1785' MD.  
5 1/2" Production Liner run to 17,855'on 8/1/2017.

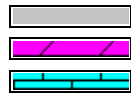
## Comments

- 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: Joshua Sund, Ryan Kielian, Jeremiah Samson  
MWD: Carlos Lopez, Baker Remote Field Operations.
- 5) Gas Equipment: Pason Gas Analyzer (Spectrometer)
- 6) Wellsite Geologist: Dallan Gardner, & Blake Stacey

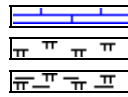
## ROCK TYPES



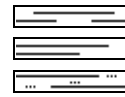
Bent  
Cht  
Clyst



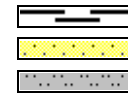
Oil sat.  
Dol  
Lmst



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

### TEXTURE

Boundst  
 Chalky  
 Cryxln  
 Earthy  
 Finexln  
 Grainst  
 Lithogr  
 Microxln  
 Mudst  
 Packst  
 Wackest

### STRINGER

Chlkstg  
 Arg  
 Bent  
 Dol  
 Ls  
 Mrst  
 Sltstrg  
 Ssstrg

## OTHER SYMBOLS

### OIL SHOWS

Even  
 Spotted  
 Ques  
 Dead  
 Vspotty



near even

### POROSITY TYPE

Earthy  
 Fenest  
 Fracture



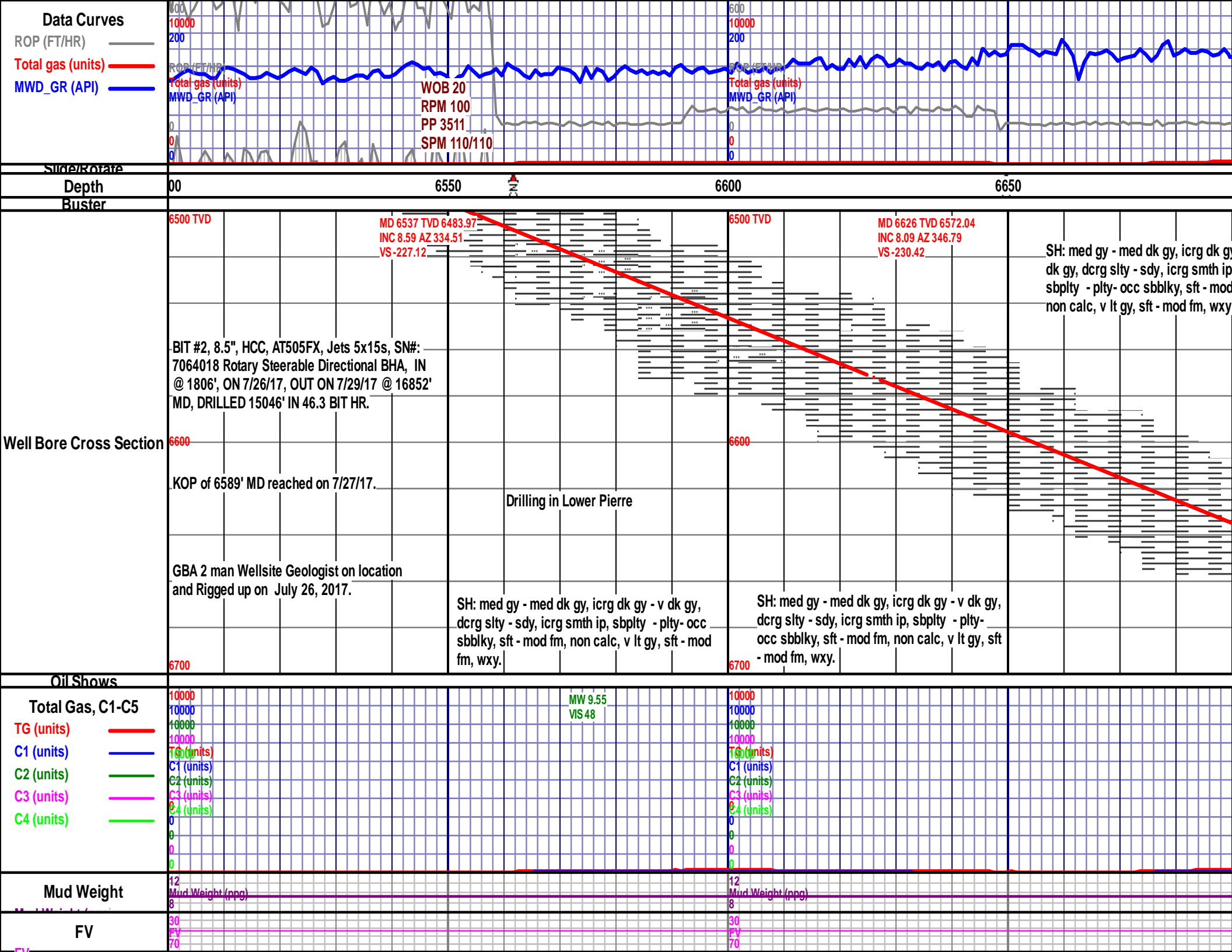
Inter  
 Moldic  
 Organic  
 Pinpoint  
 Vuggy

### ROUNDING

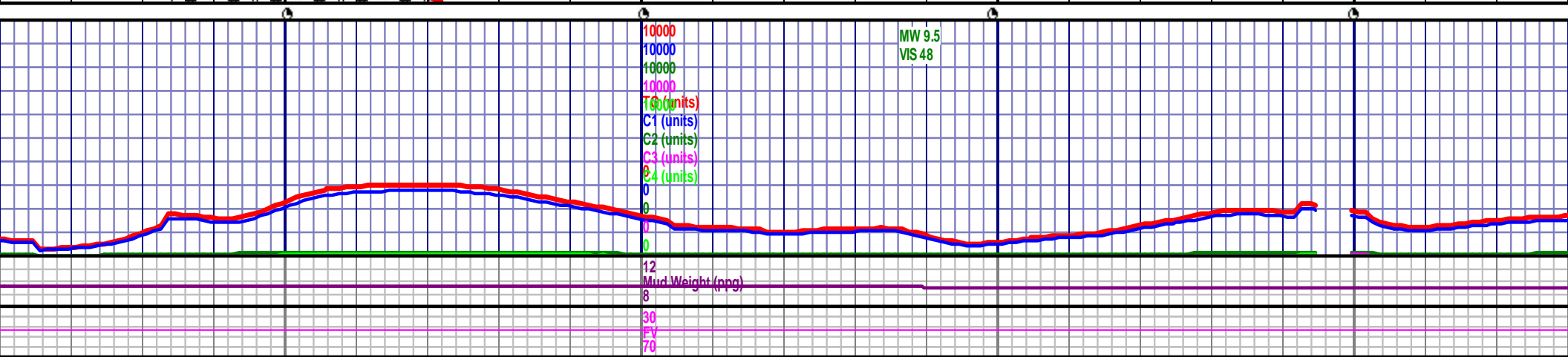
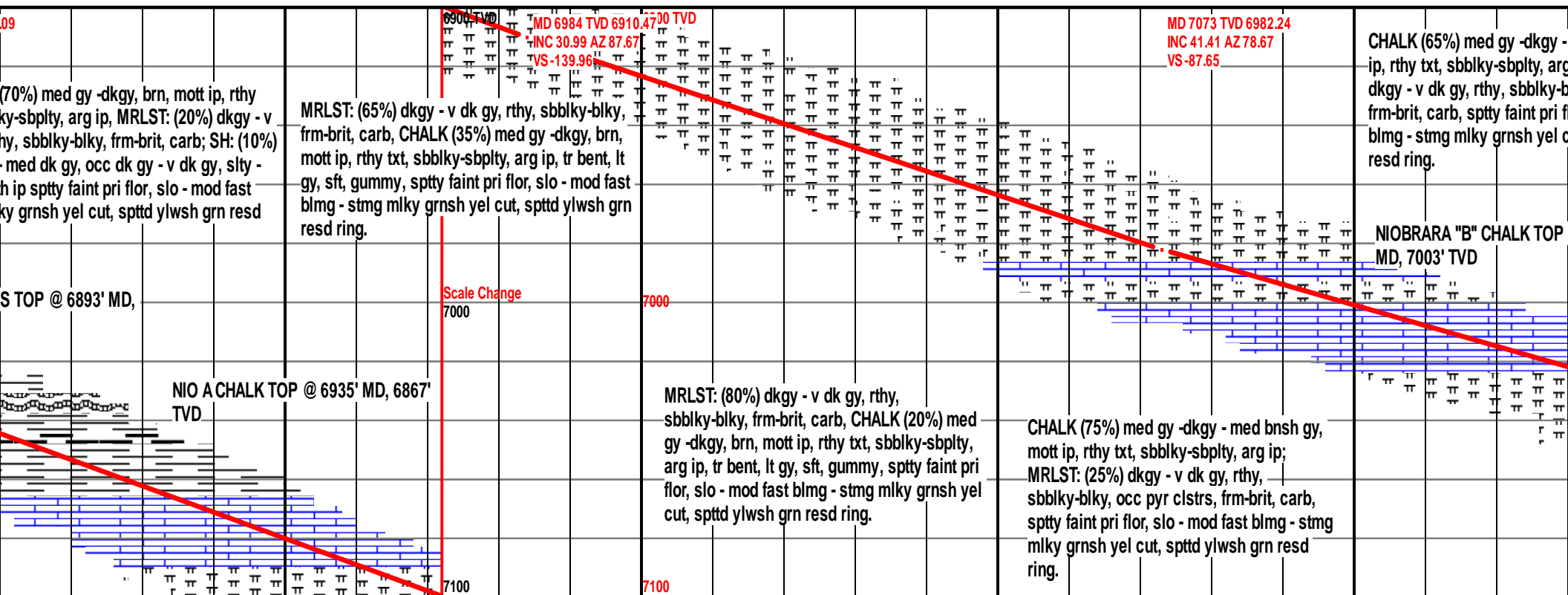
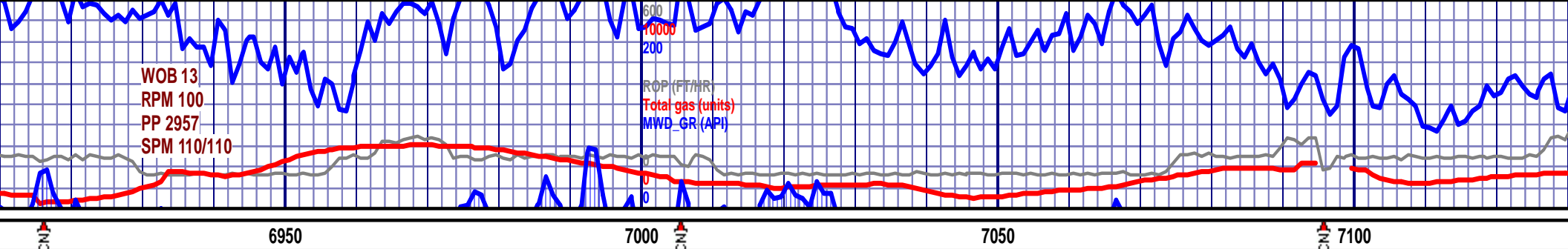
Rounded  
 Subrnd  
 Subang  
 Angular

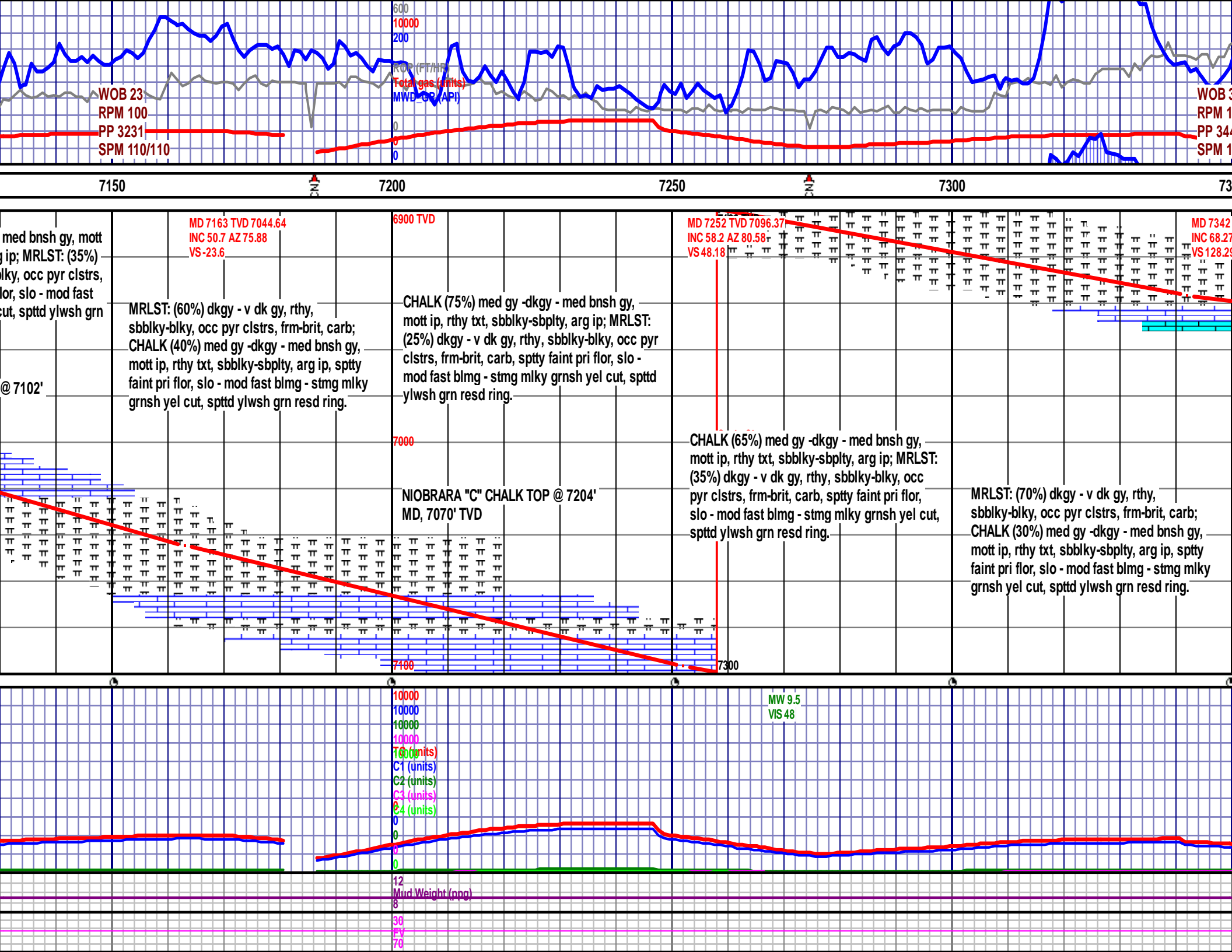
### SORTING

Well  
 Moderate  
 Poor



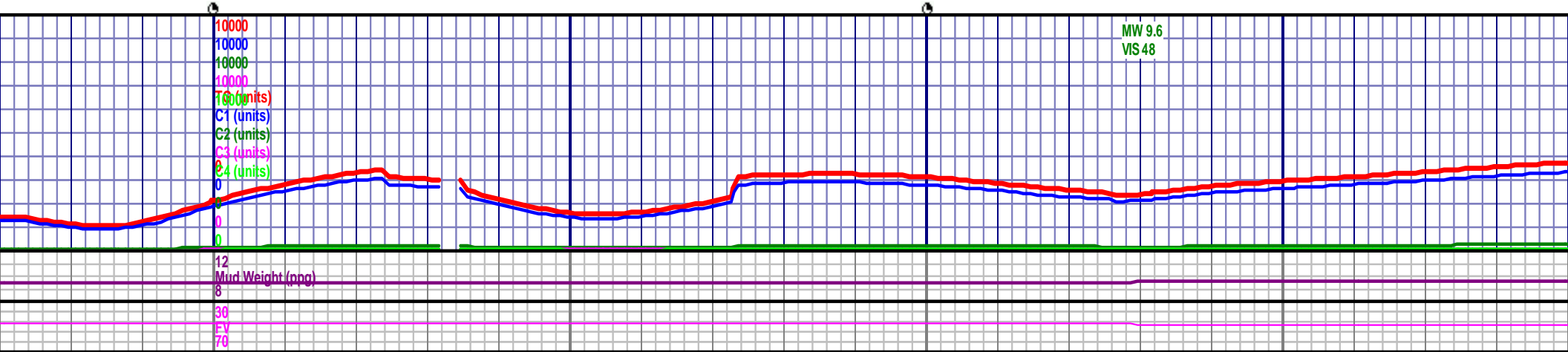
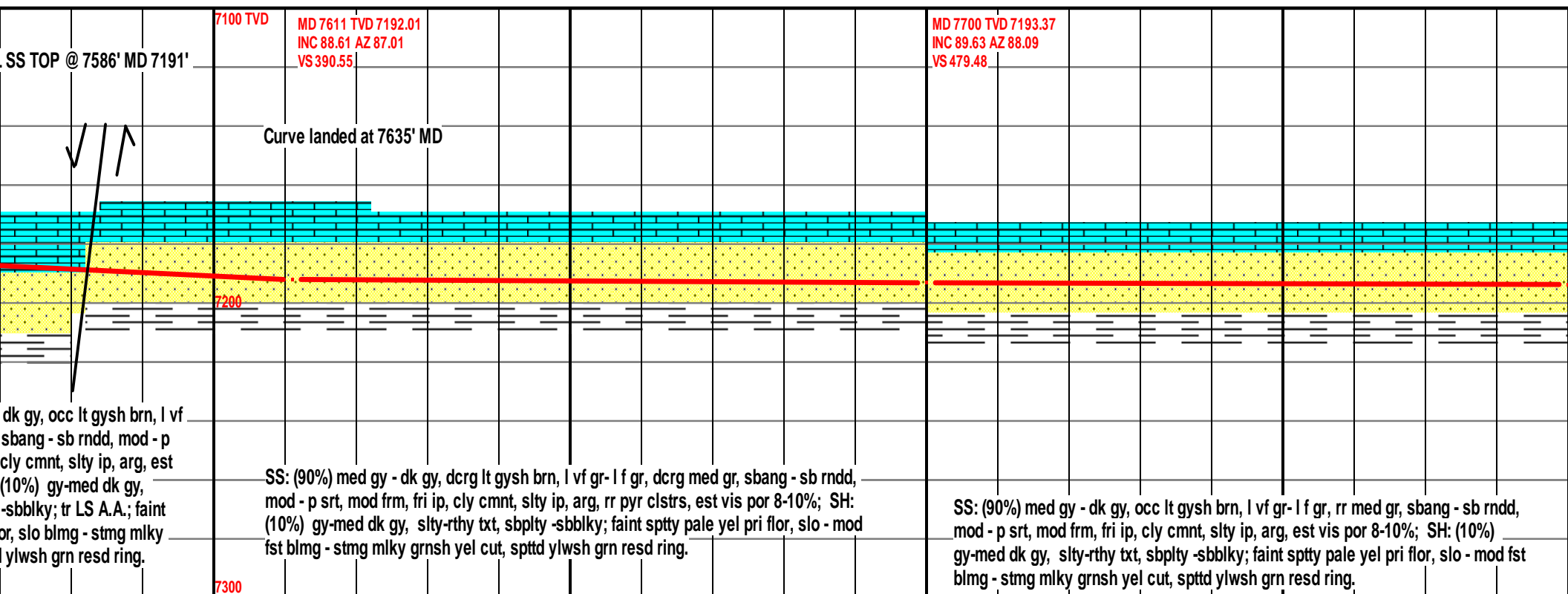
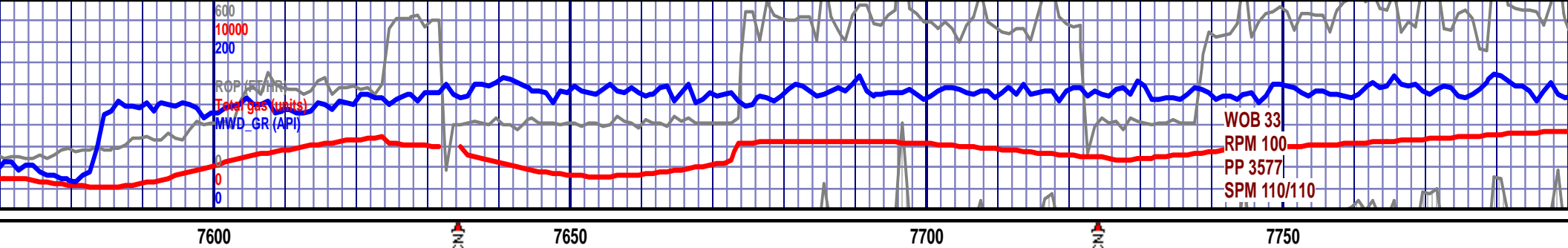


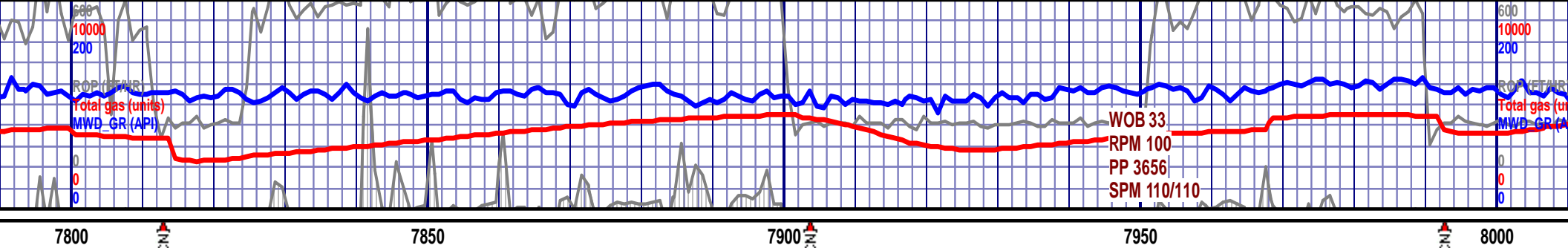




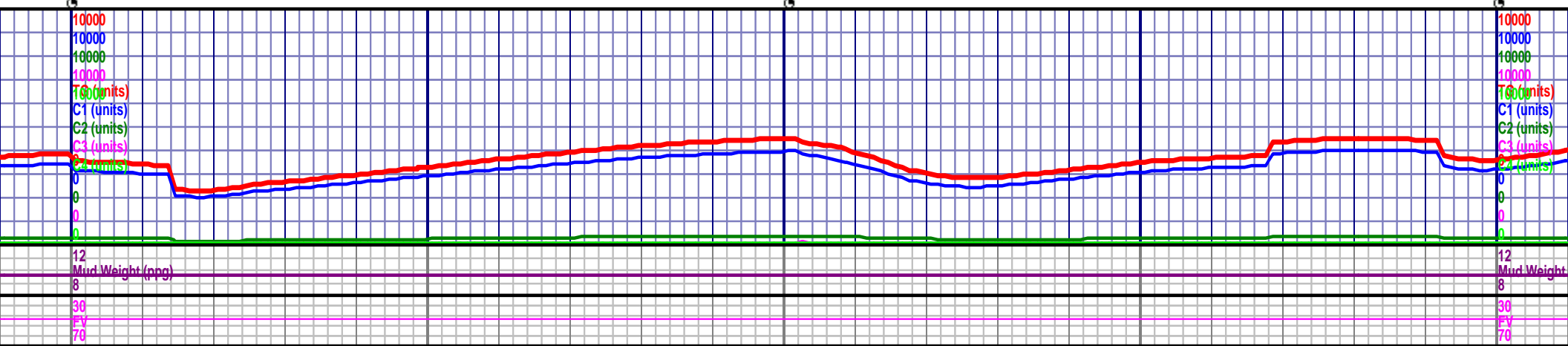


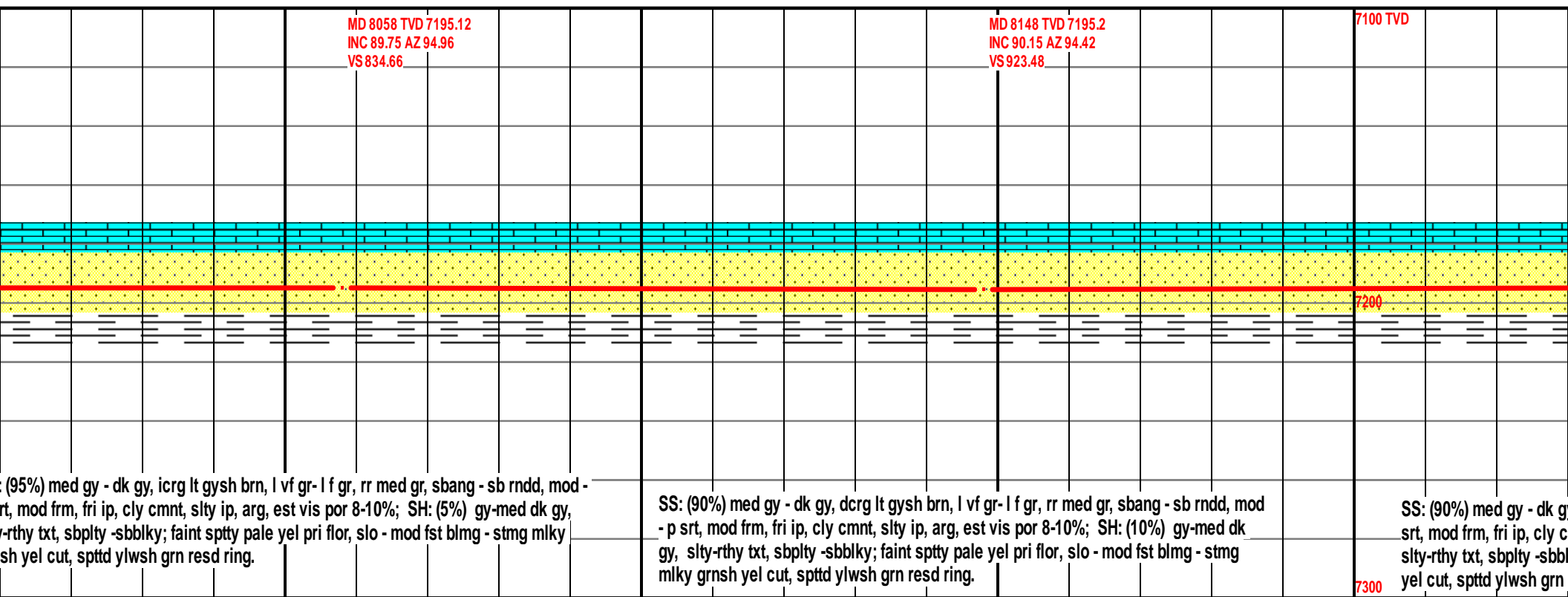


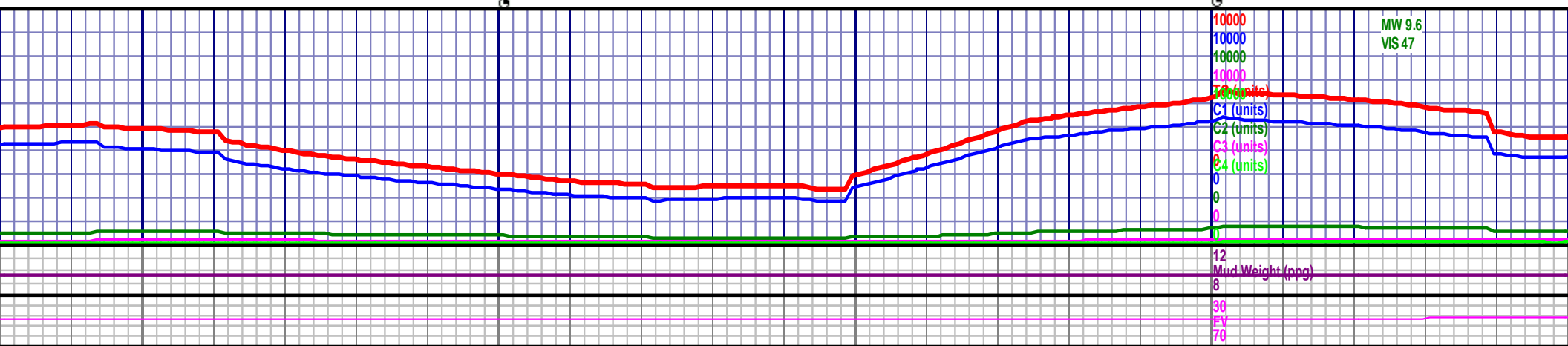
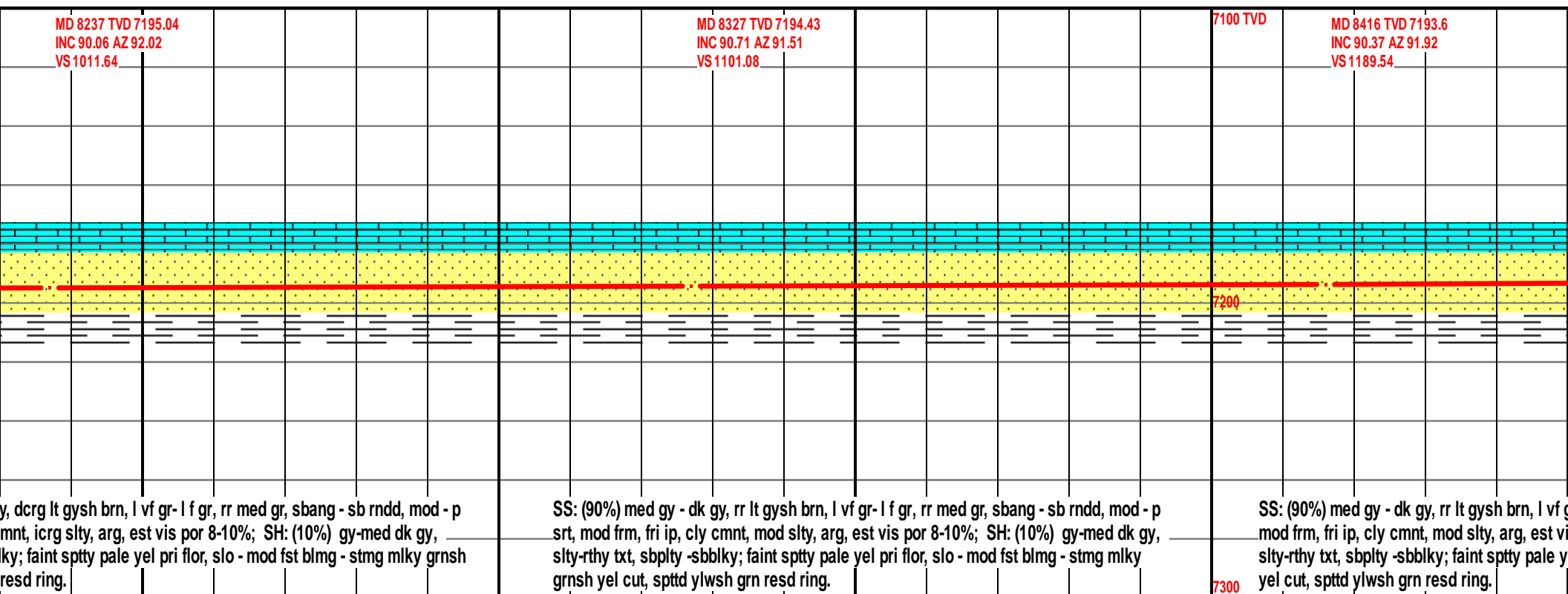
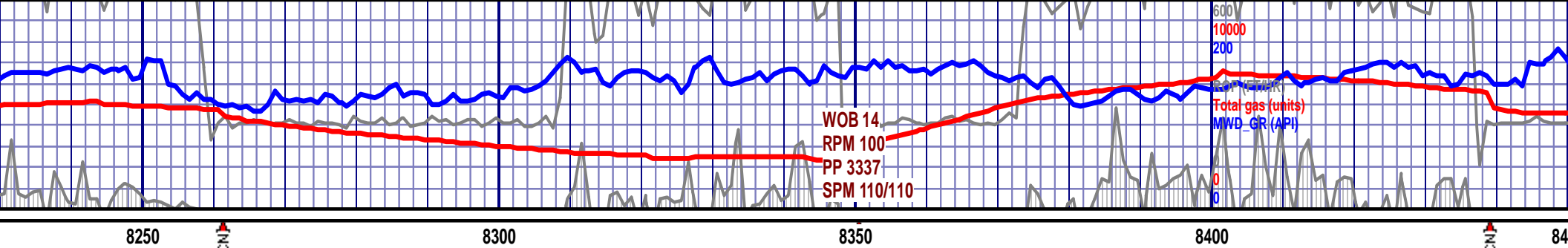


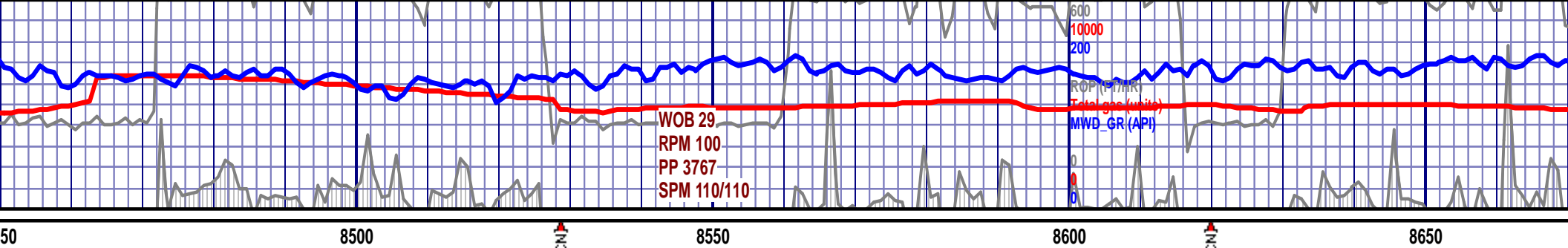


<p>MD 7790 TVD 7193.84 INC 89.78 AZ 89.55 VS 569.31</p> <p>SS: (90%) med gy - dk gy, occ lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty ip, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.</p>	<p>MD 7879 TVD 7194.2 INC 89.75 AZ 93.14 VS 657.82</p> <p>SS: (90%) med gy - dk gy, icrg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty ip, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.</p>	<p>MD 7969 TVD 7194.67 INC 89.66 AZ 94.55 VS 746.84</p> <p>SS: (90%) med gy - dk gy, icrg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty ip, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.</p>	<p>7100 TVD</p> <p>SS: (90%) med gy - dk gy, icrg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty ip, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.</p>
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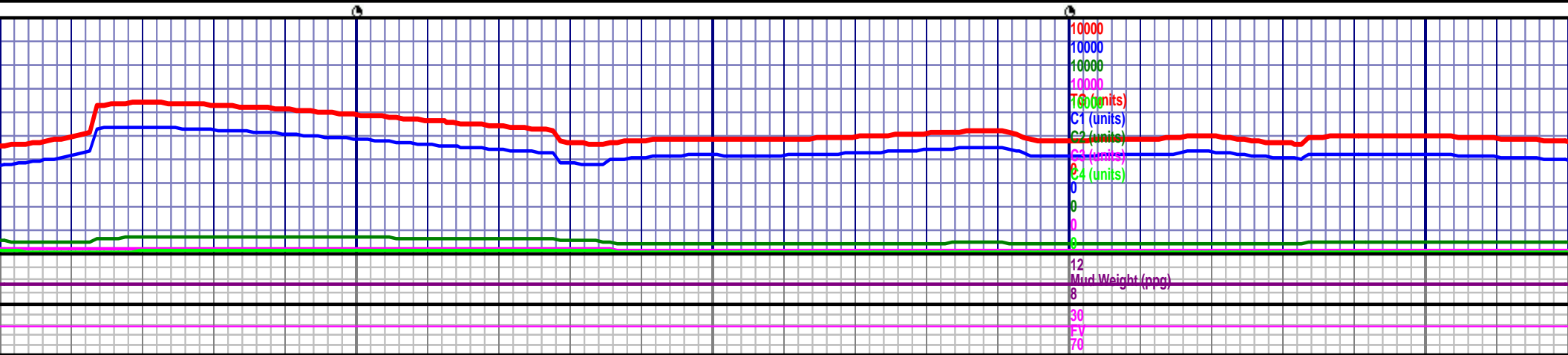
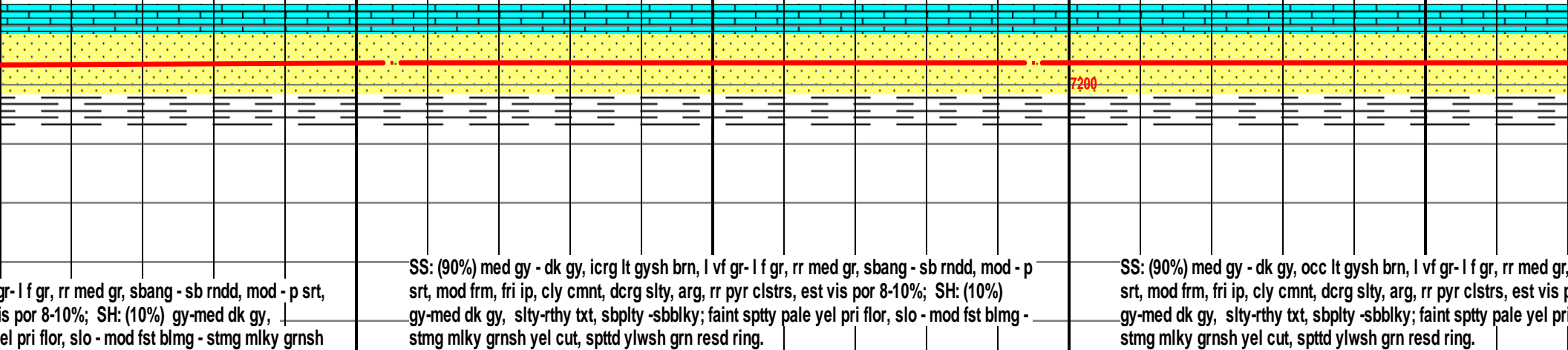


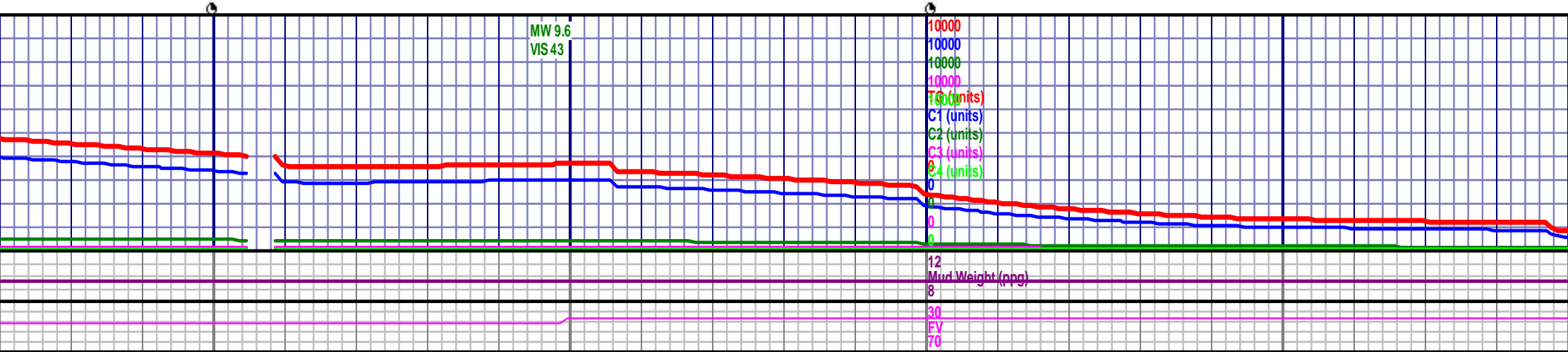
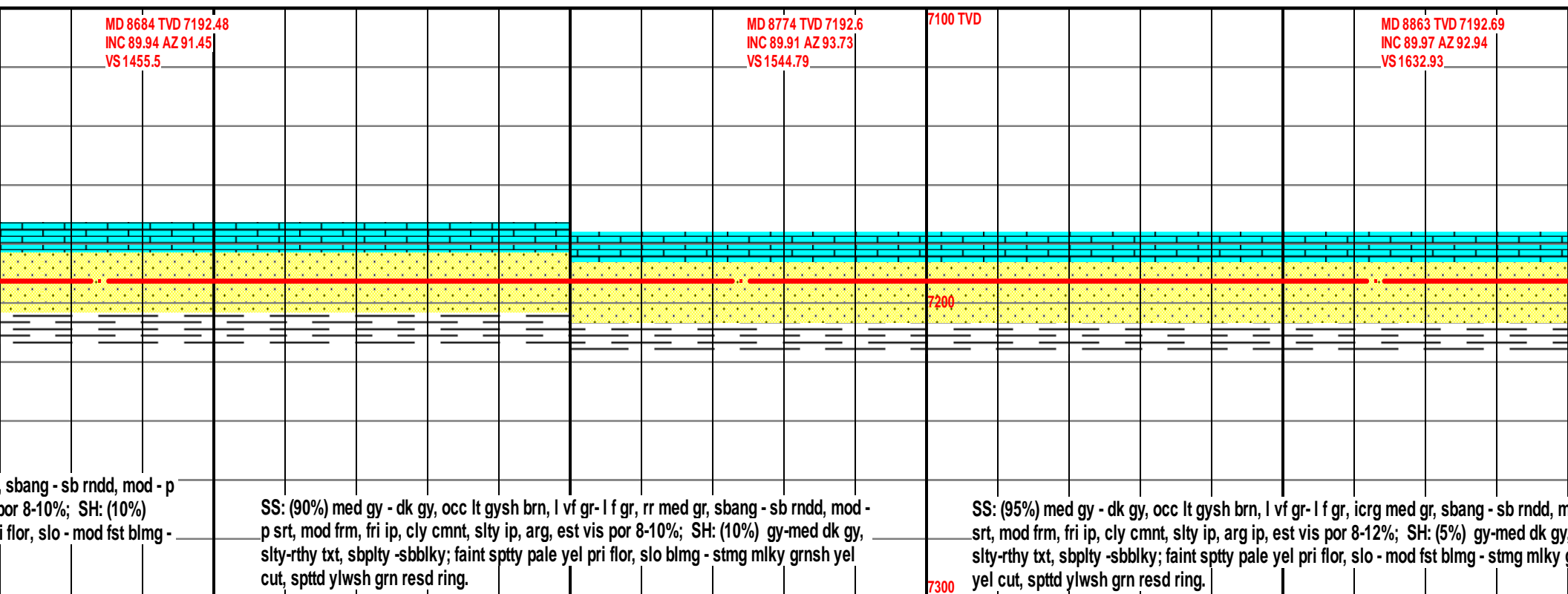
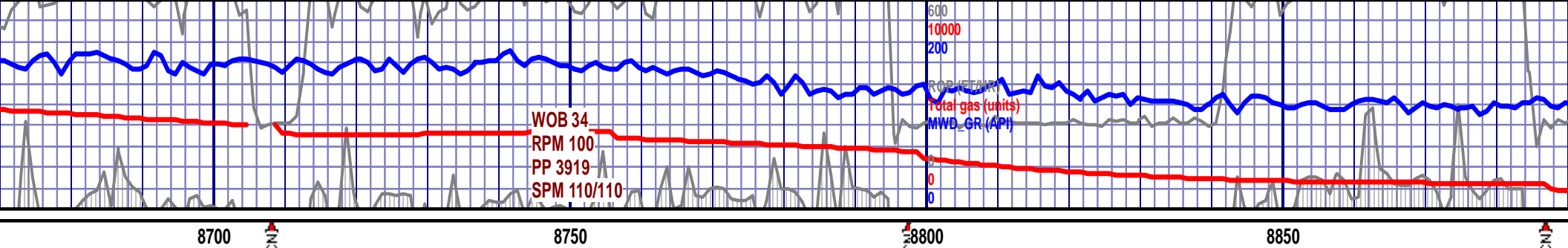


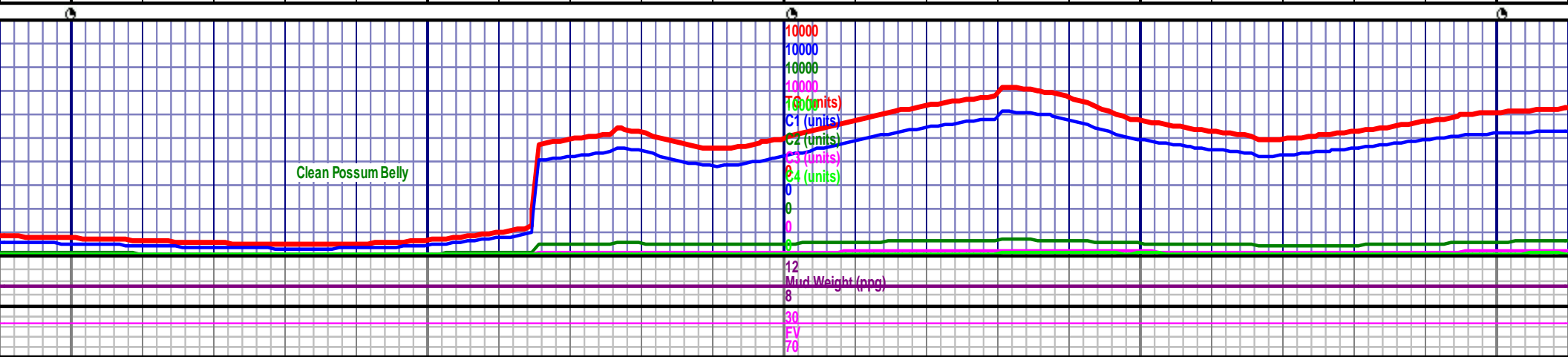
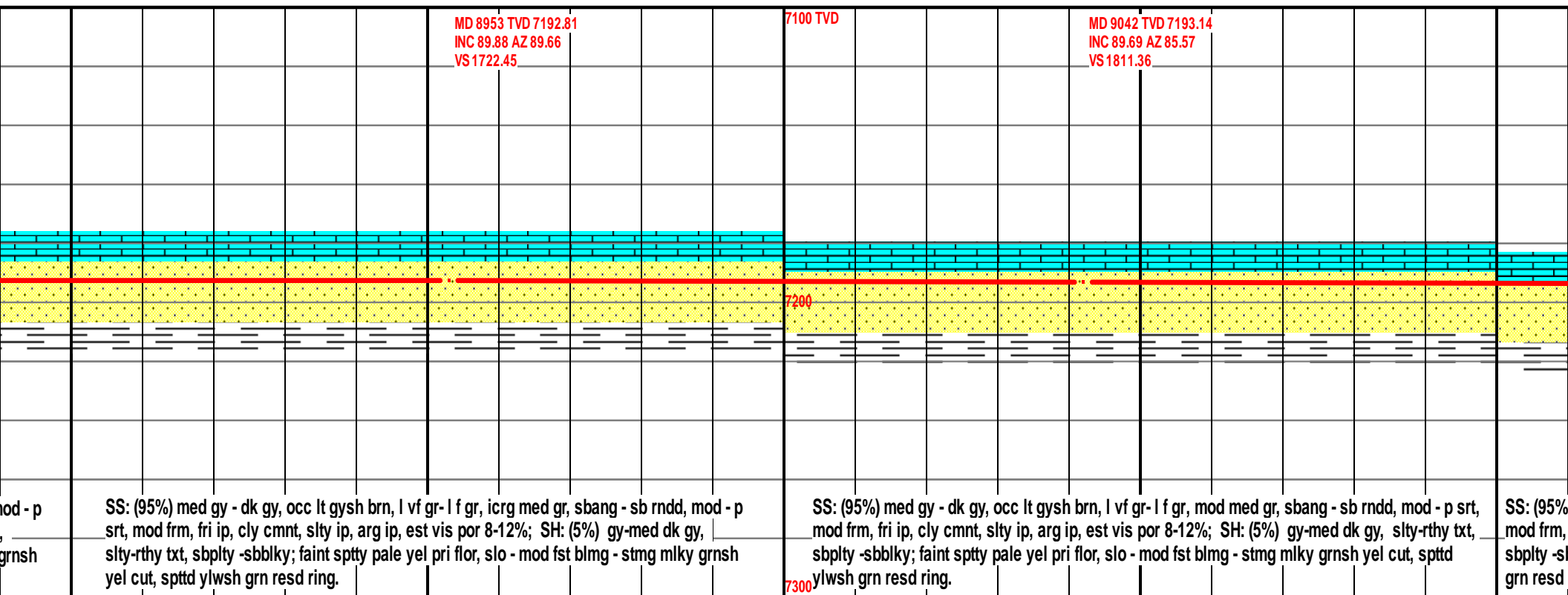
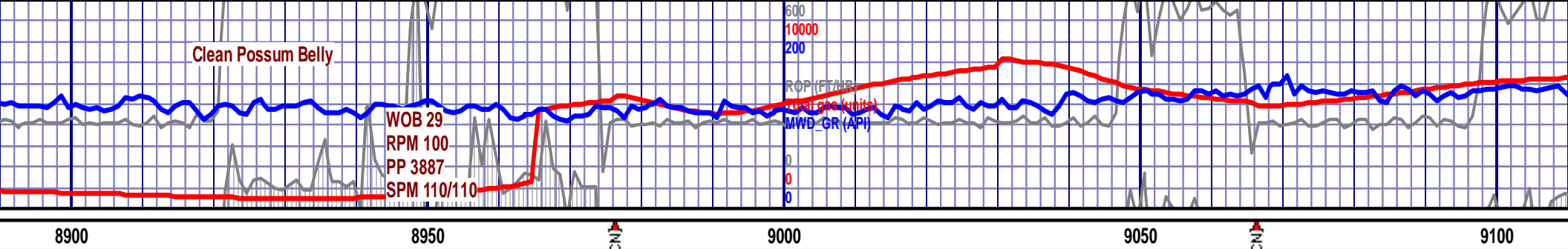


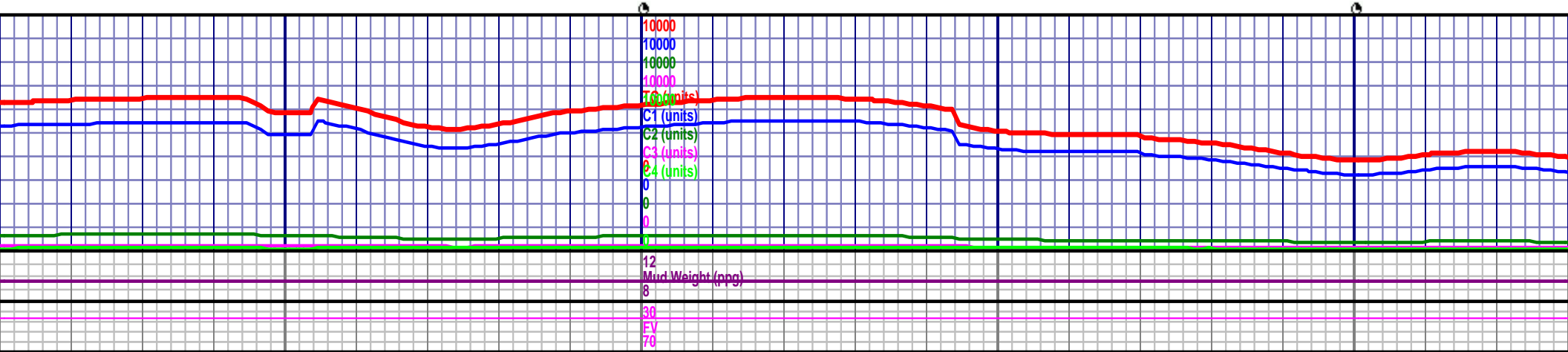
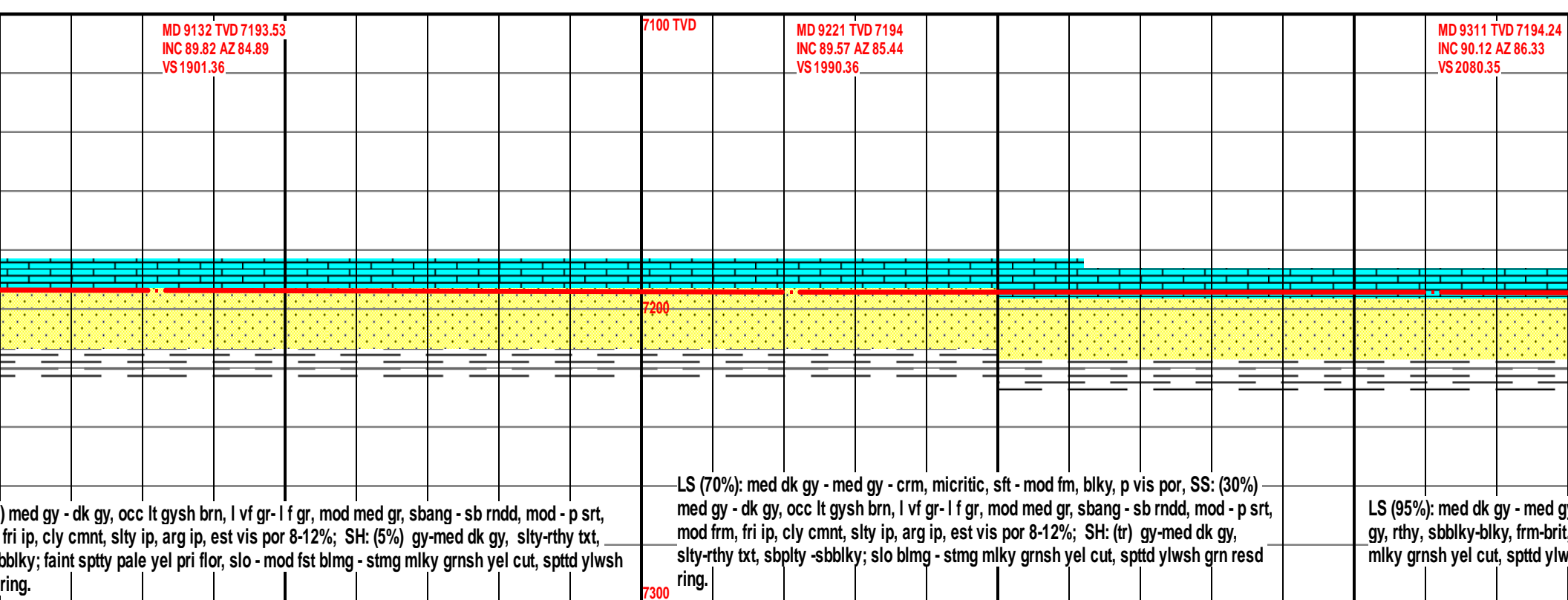
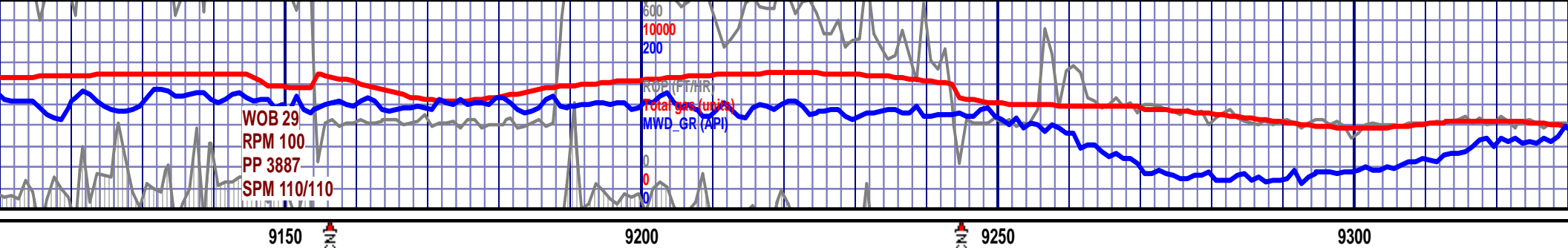
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INC 90.74 AZ 92.97  
VS 1277.86

MD 8595 TVD 7192.29  
INC 89.82 AZ 92.68  
VS 1367.1

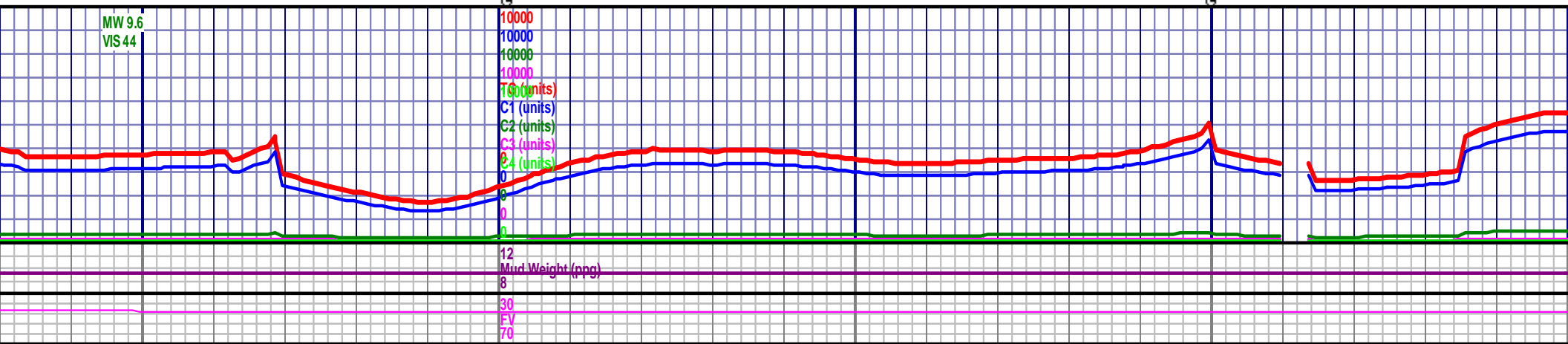
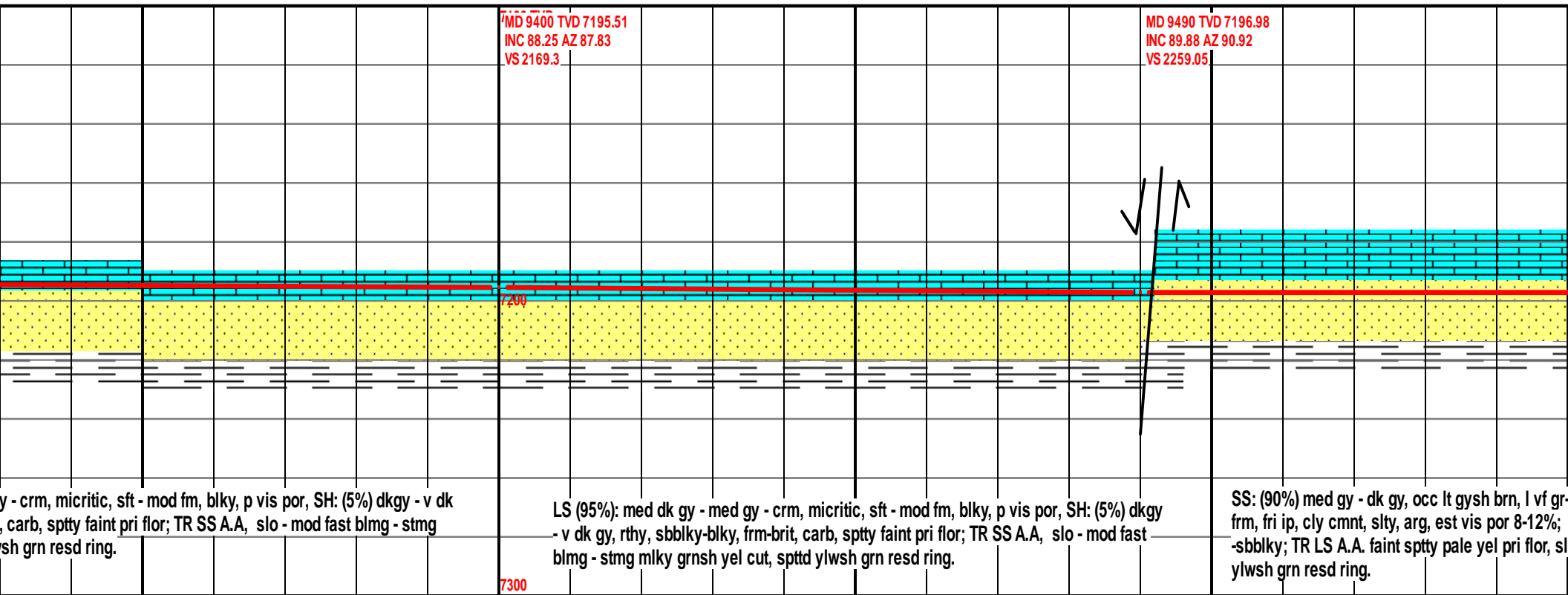
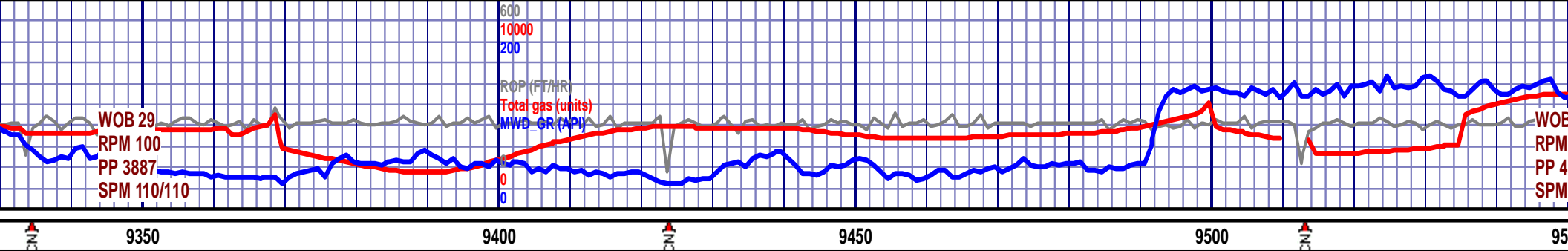




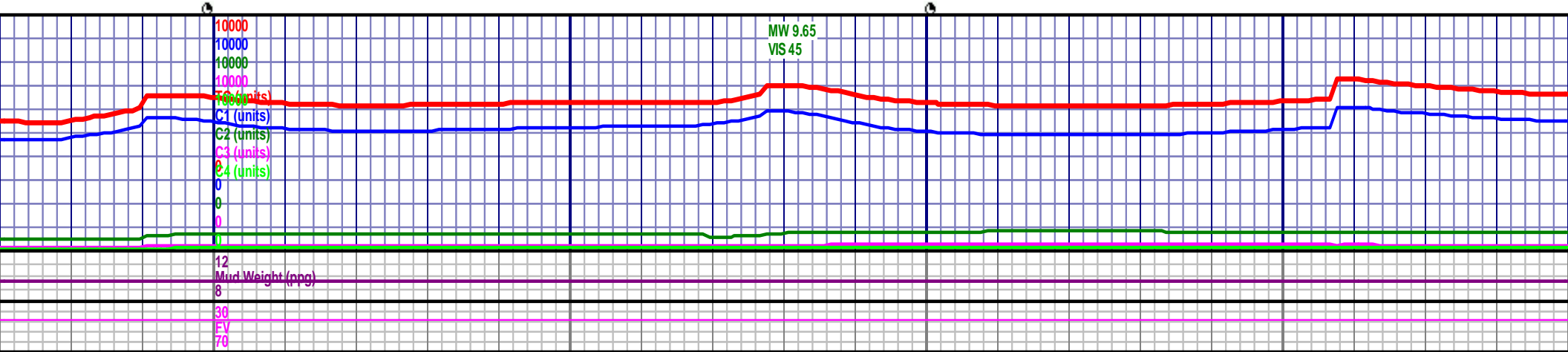
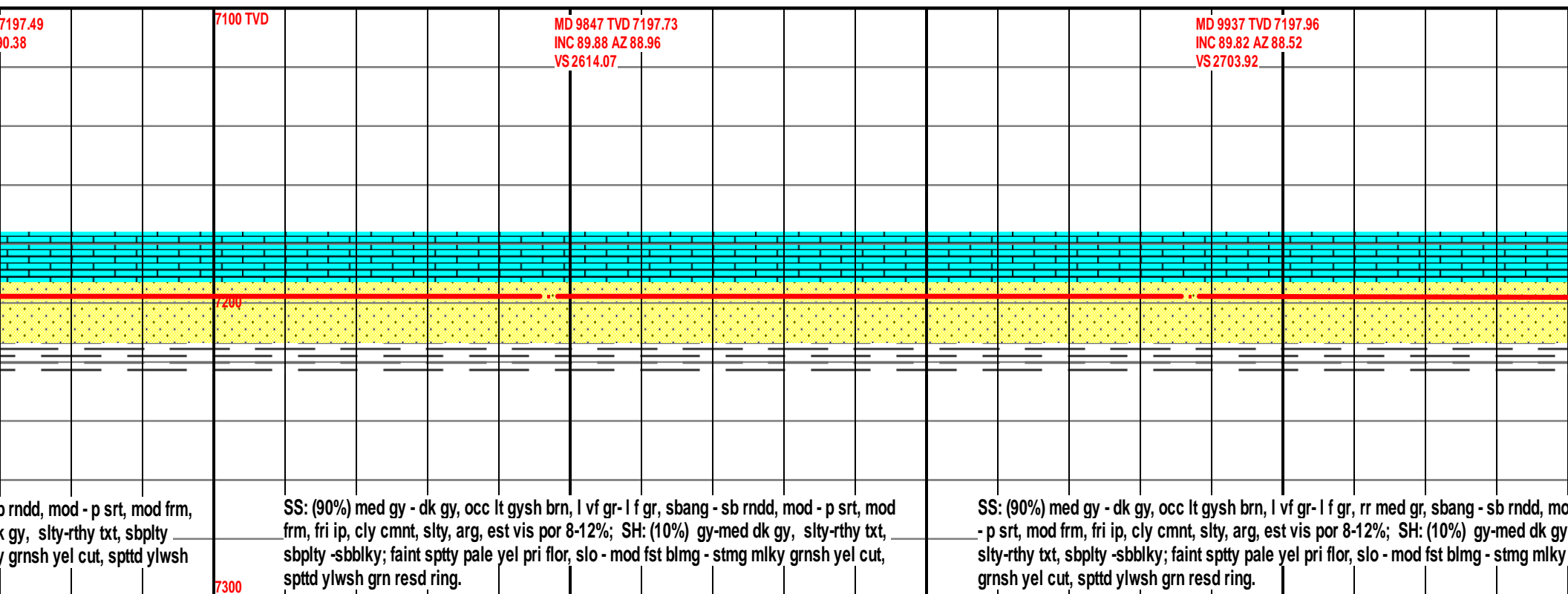
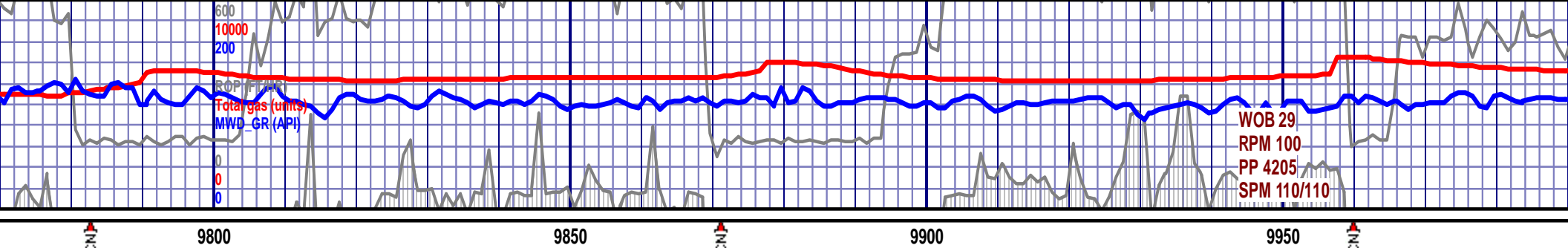


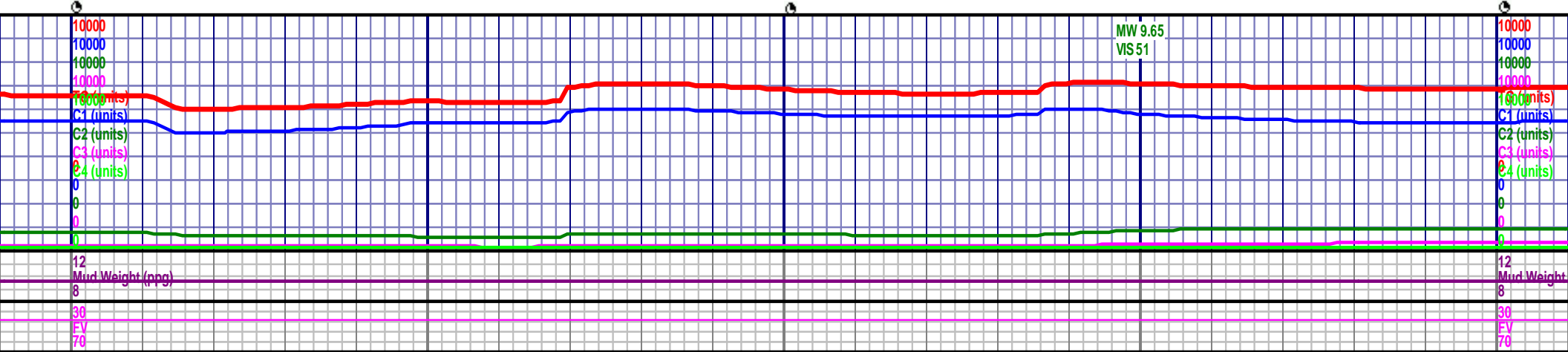
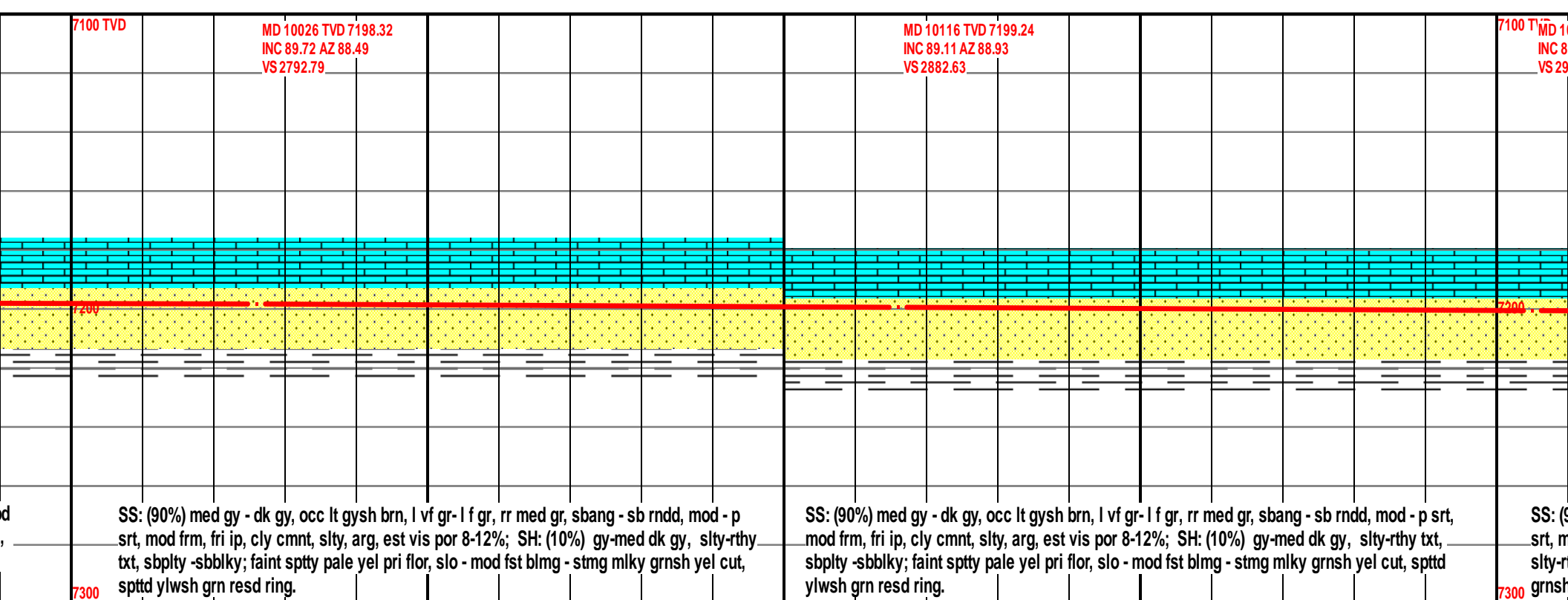
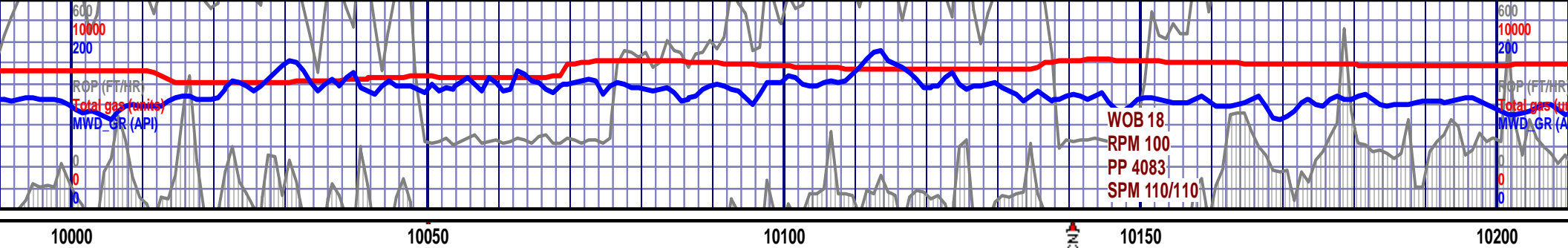


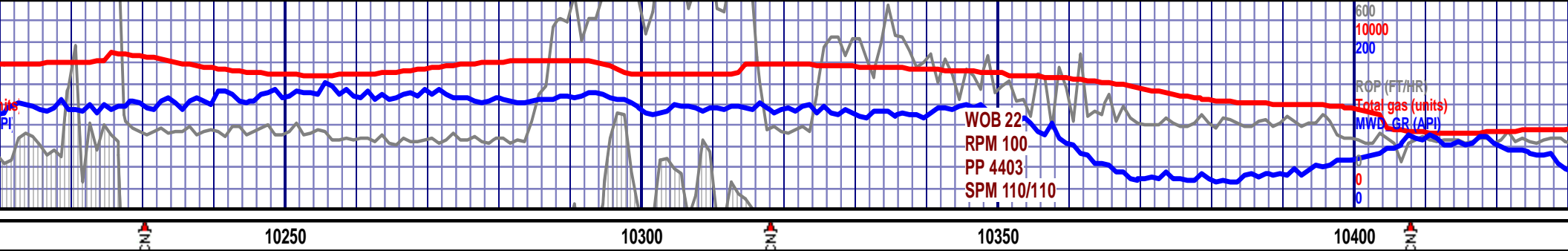








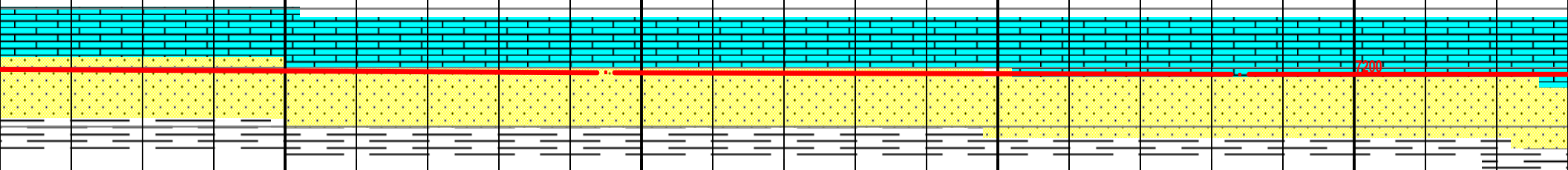




MD 10205 TVD 7200.75  
INC 8.95 AZ 90.15  
VS 171.39

MD 10295 TVD 7201.86  
INC 89.63 AZ 89.74  
VS 3061.1

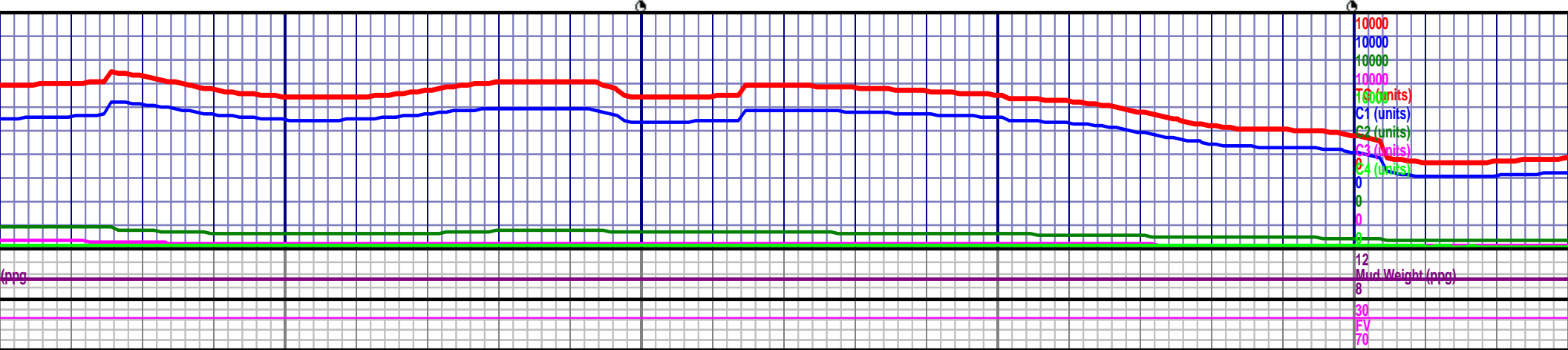
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VS 3149.94



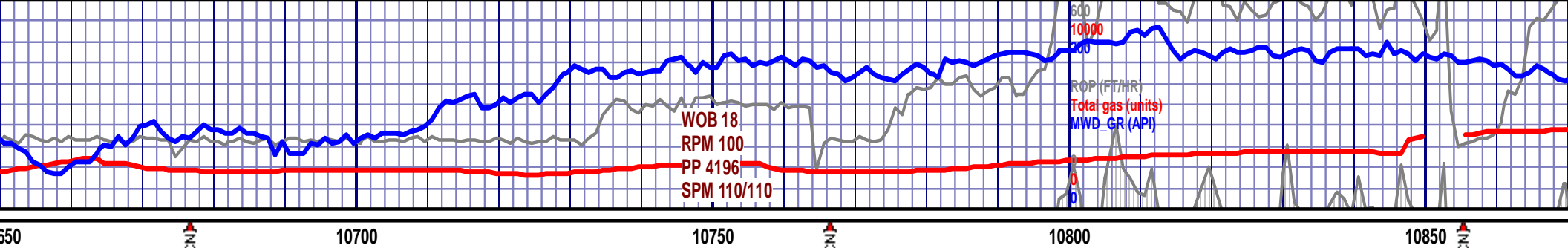
LS (95%): med gy - dk gy, occ lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p  
mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-12%; SH: (5%) gy-med dk gy,  
thy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky  
yel cut, spttd ylwsh grn resd ring.

LS (70%): med dk gy - med gy - crm, micritic, sft - mod fm, blk, p vis por, SS: (30%) med gy -  
dk gy, occ lt gysh brn, l vf gr- l f gr, mod med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly  
cmnt, slty ip, arg ip, est vis por 8-12%; SH: (tr) gy-med dk gy, slty-rthy txt, sbply -sbbly; slo  
blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.

LS (85%): med dk gy - r  
- dk gy, occ lt gysh brn  
ip, cly cmnt, slty ip, arg  
-sbbly; slo blmg - stmg







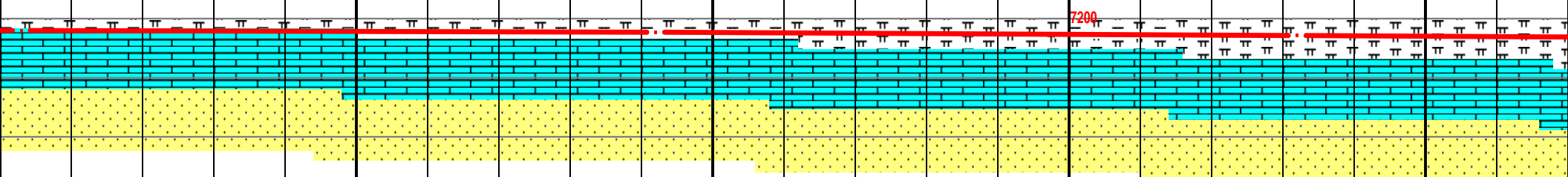
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INC 89.6 AZ 89.84  
VS 3418.24

MD 10742 TVD 7204.67  
INC 89.29 AZ 89.92  
VS 3506.96

7100 TVD

MD 10832 TVD 7205.74  
INC 89.35 AZ 90.96  
VS 3596.61

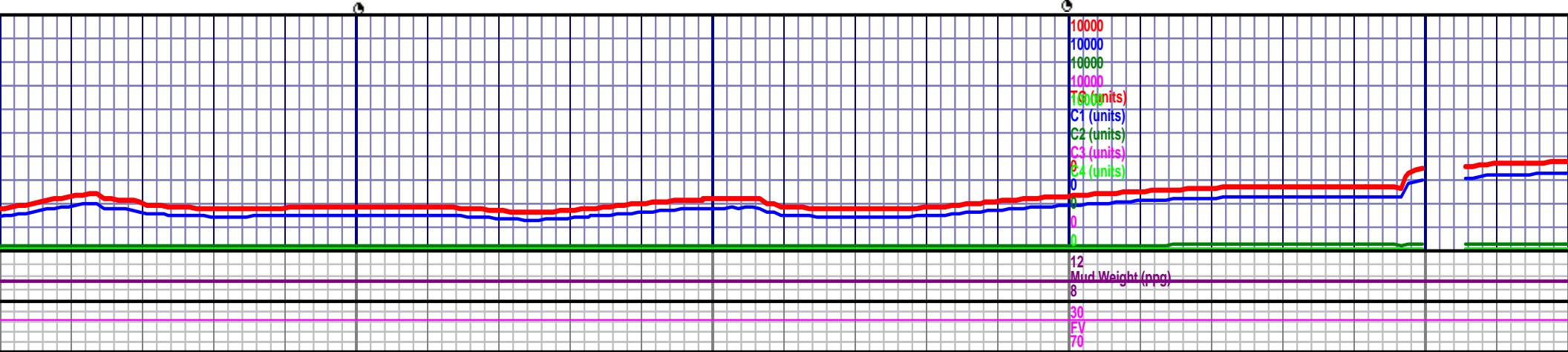
SS: (75%) med gy - dk gy, occ lt gysh brn, l vf gr - l f gr, rr med gr, sba  
mod - p srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-12%; SH:  
dk gy, slty-rthy txt, sbplty -sbbiky; LS (10%): med dk gy - med gy - cr  
mod fm, blk, p vis por, faint sppty pale yel pri flor, slo - mod fst blmg  
grnsh yel cut, spptd ylwsh grn resd ring.

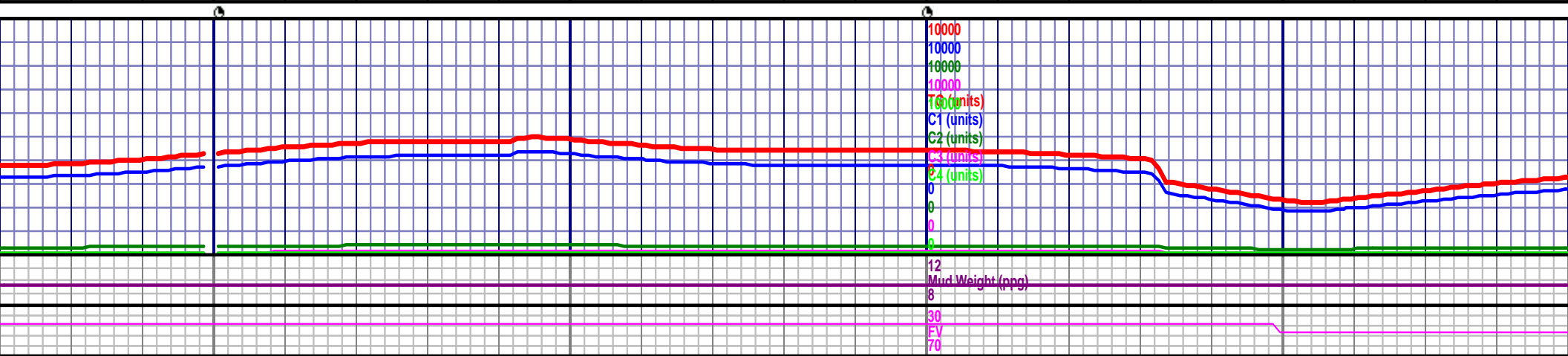
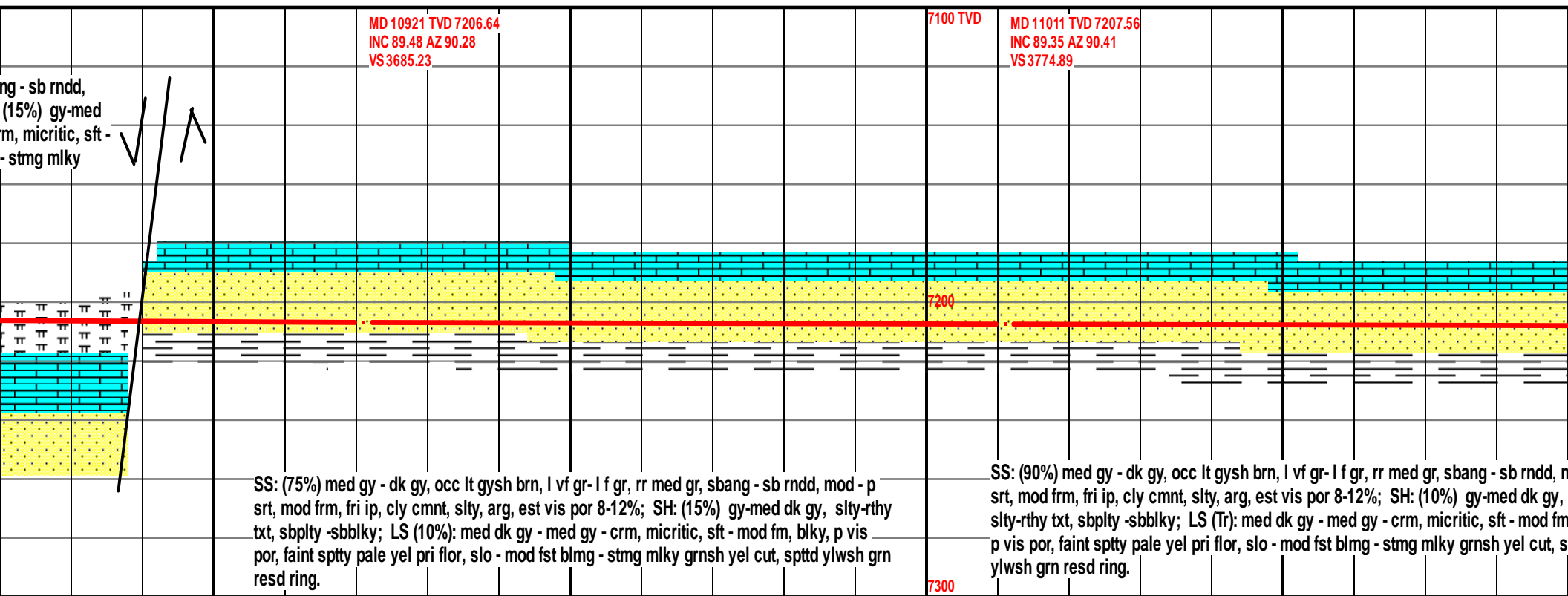
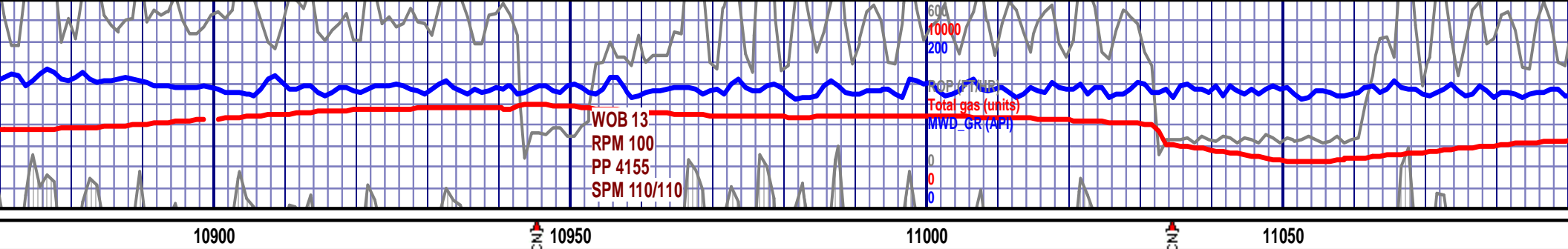


sft - mod fm, blk, p vis por, SS: (10%) med gy - dk  
sbang - sb rndd, mod - p srt, mod frm, fri ip, cly  
0%) gy-med dk gy, slty-rthy txt, sbplty -sbbiky;  
h grn resd ring.

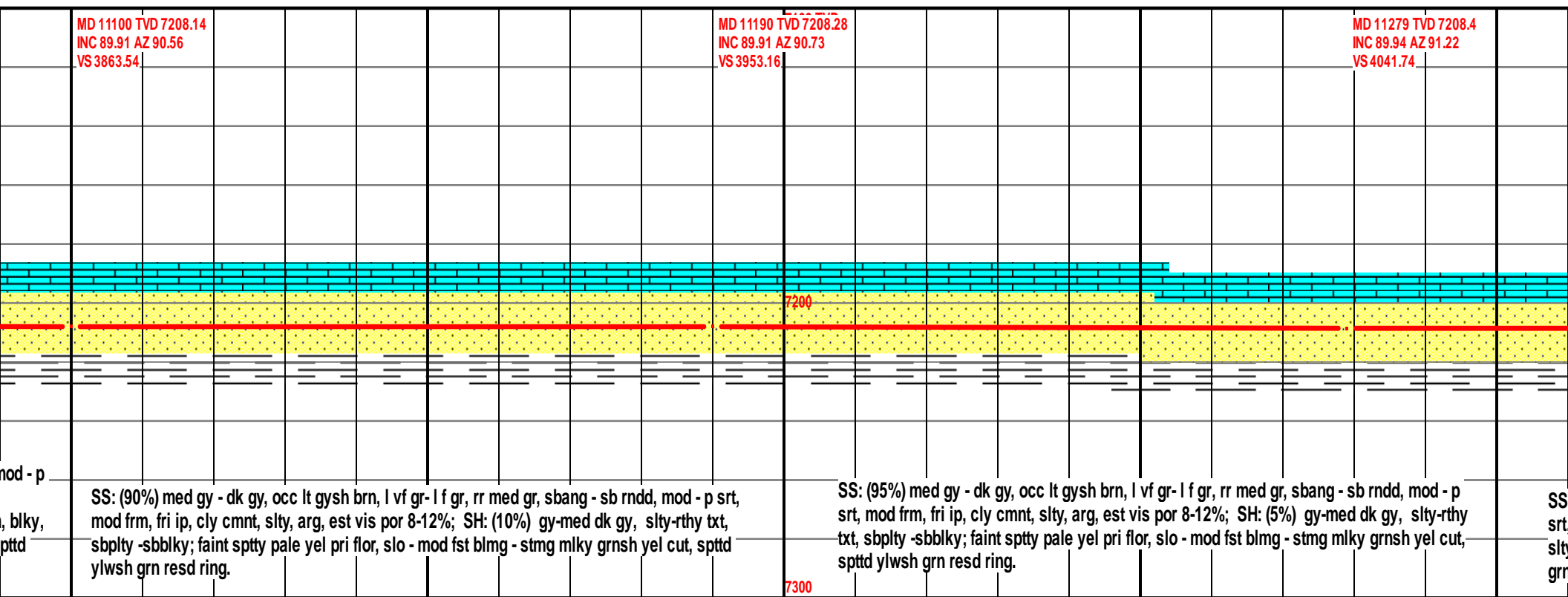
SS: (60%) med gy - dk gy, occ lt gysh brn, l vf gr - l f gr, rr med gr, sbang - sb rndd, mod - p srt,  
mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-12%; LS (20%): med dk gy - med gy - crm,  
micritic, sft - mod fm, blk, p vis por; SH: (20%) gy-med dk gy, slty-rthy txt, sbplty -sbbiky;  
faint sppty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spptd ylwsh grn resd  
ring.

7300

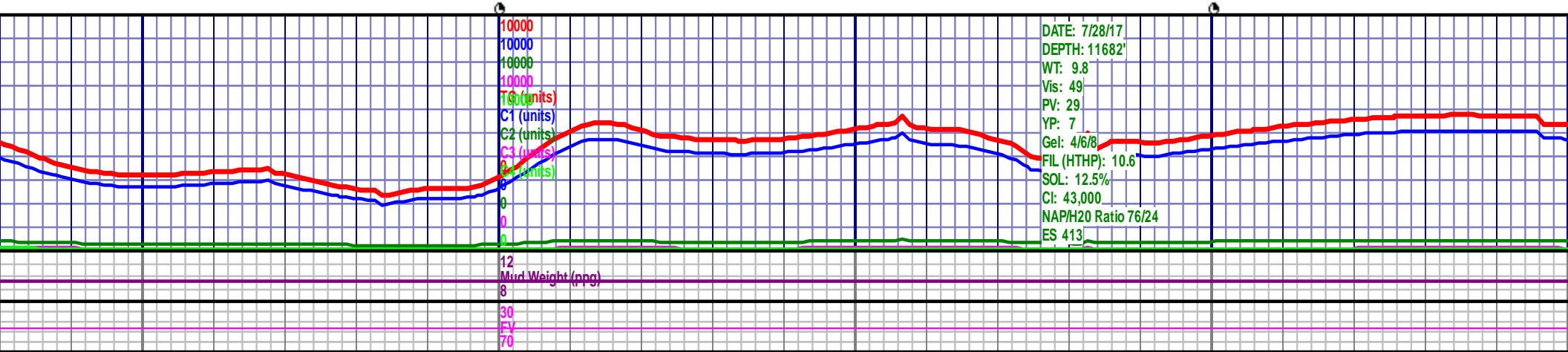
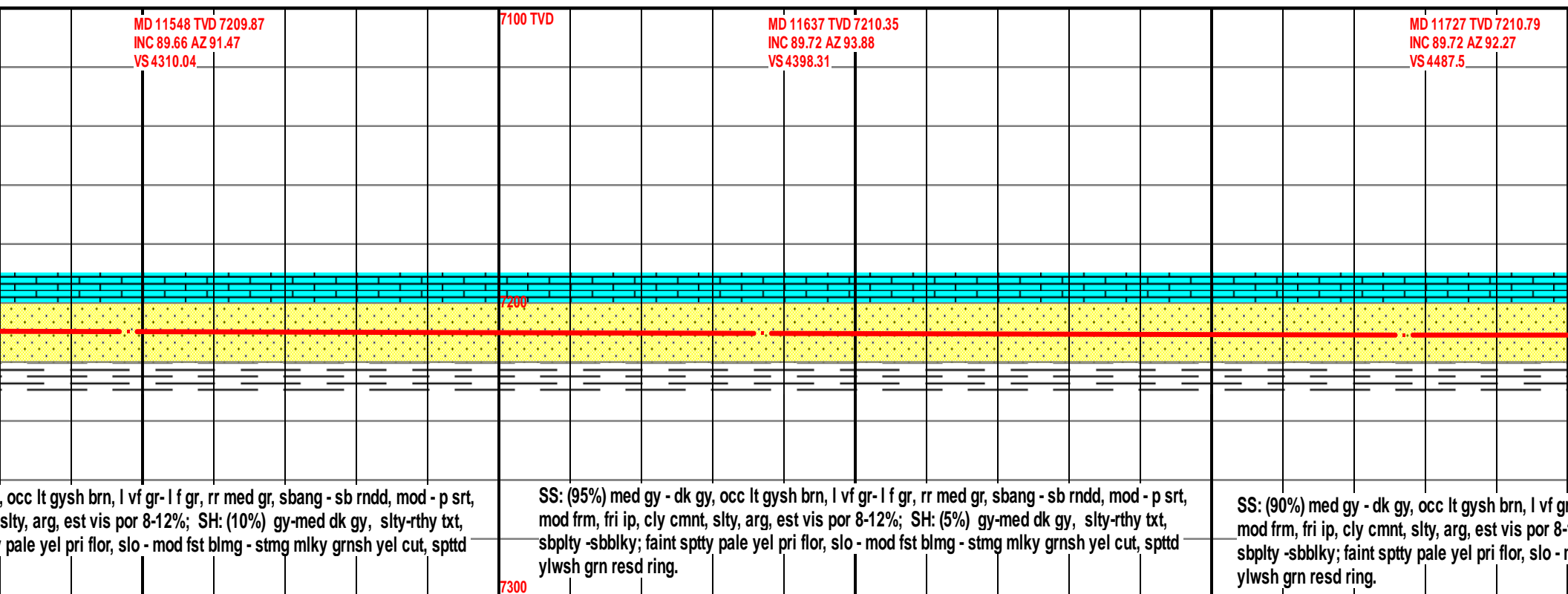
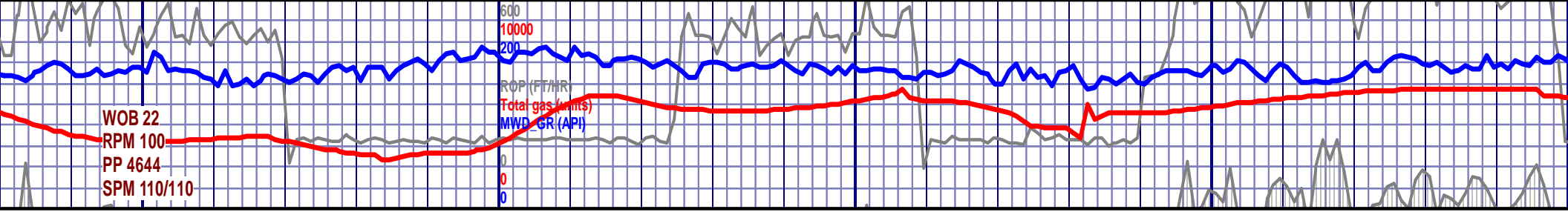


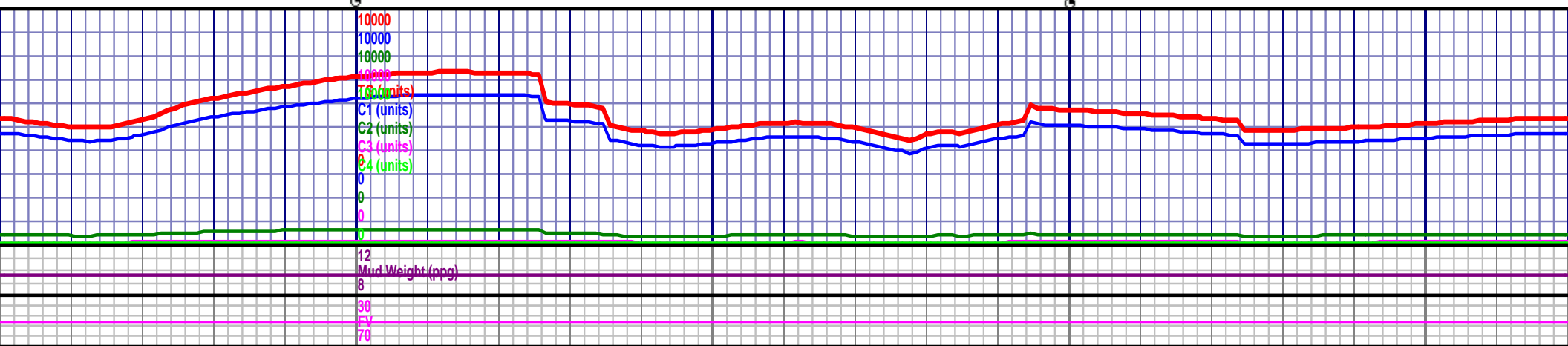
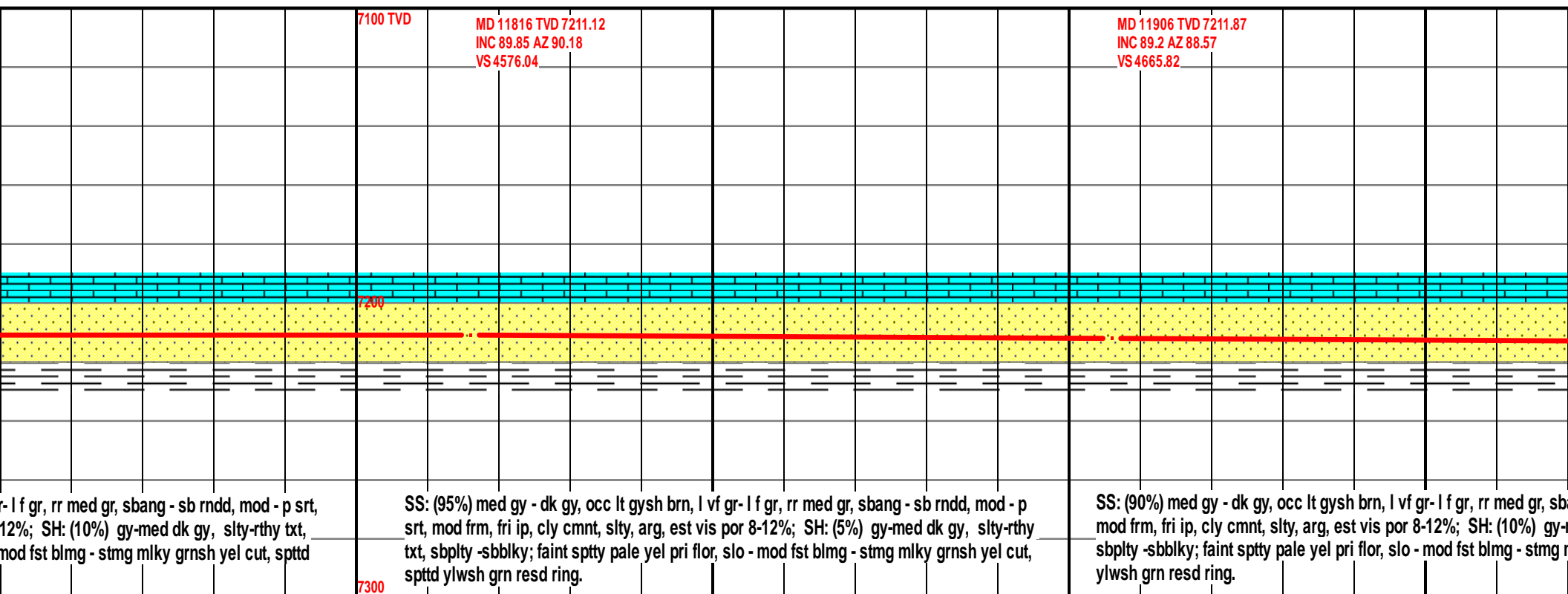
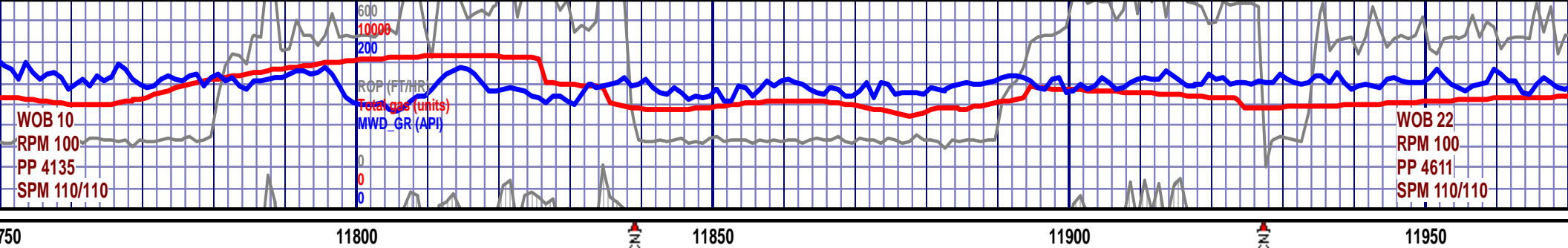


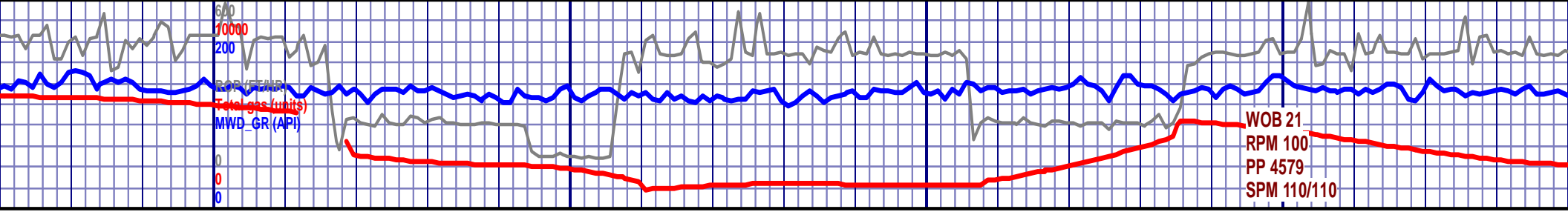










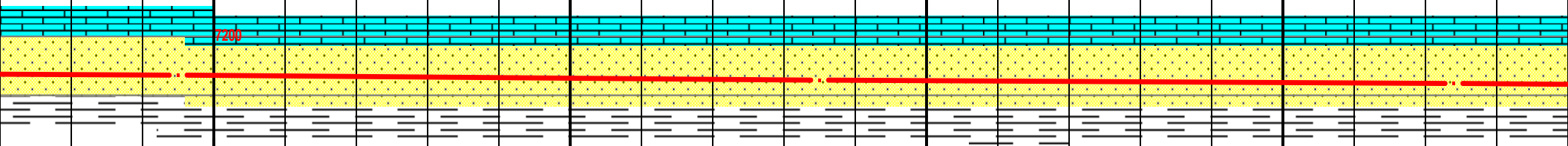


12000 12050 12100 12150

MD 11995 TVD 7213.28  
INC 88.98 AZ 89.89  
VS 4754.6

MD 12085 TVD 7214.67  
INC 89.26 AZ 88.57  
VS 4844.39

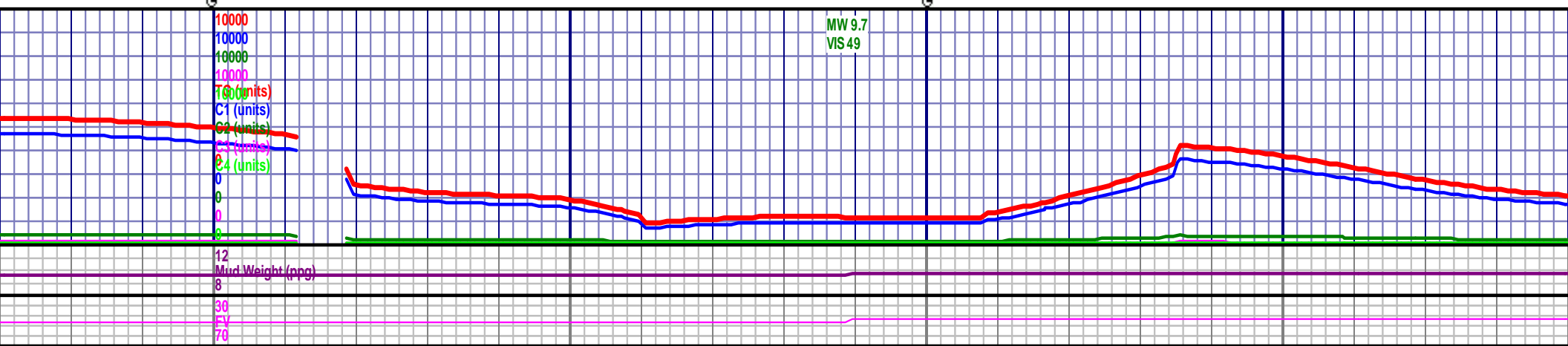
MD 12174 TVD 7214.67  
INC 88.98 AZ 87.25  
VS 4933.29

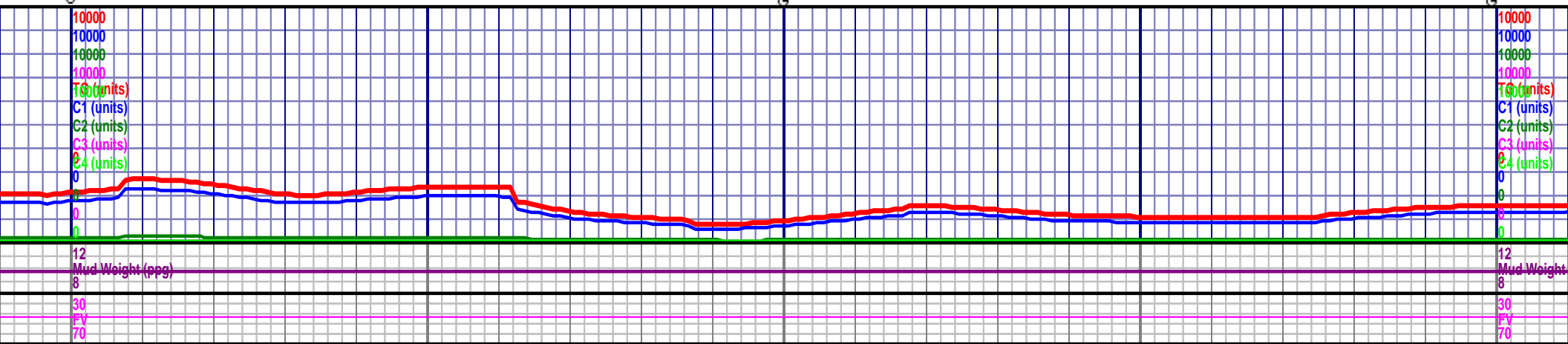
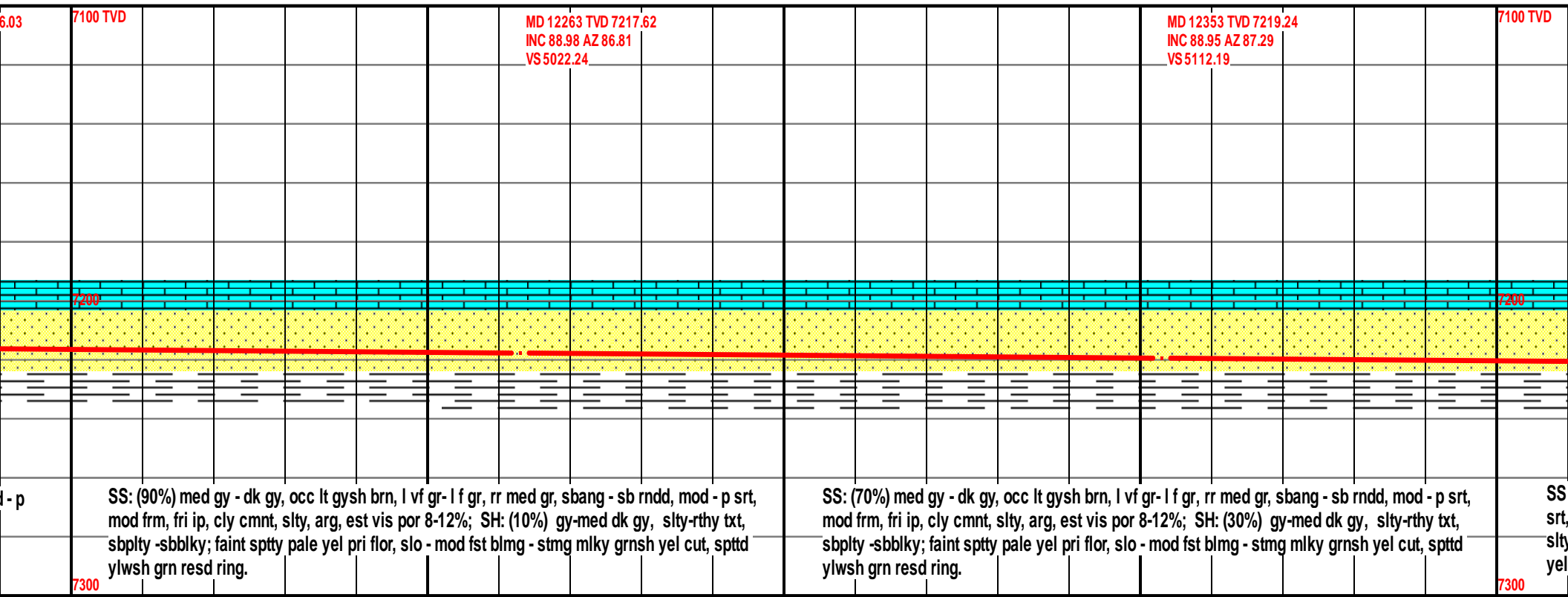
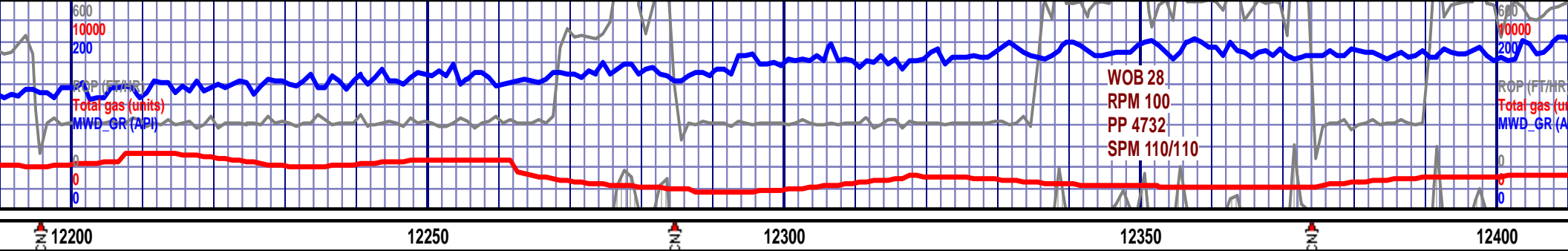


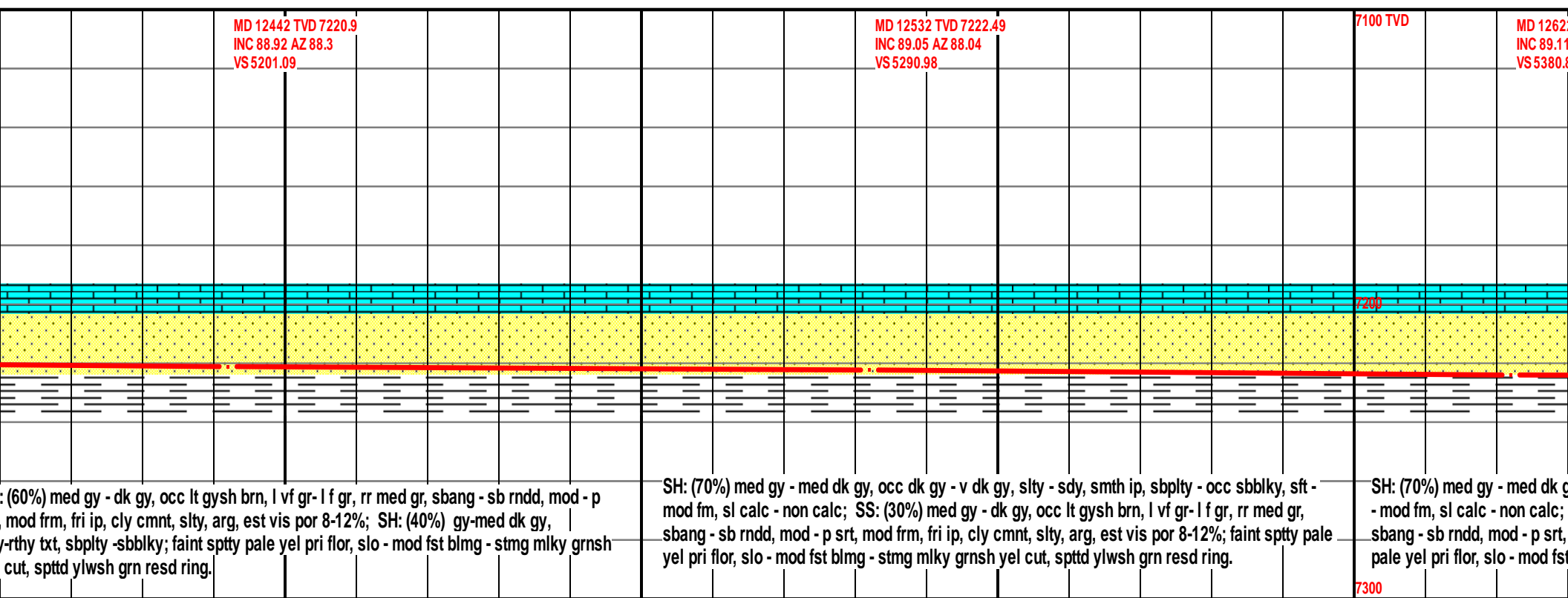
ang - sb rndd, mod - p srt,  
med dk gy, slty-rthy txt,  
mlky grnsh yel cut, spttd

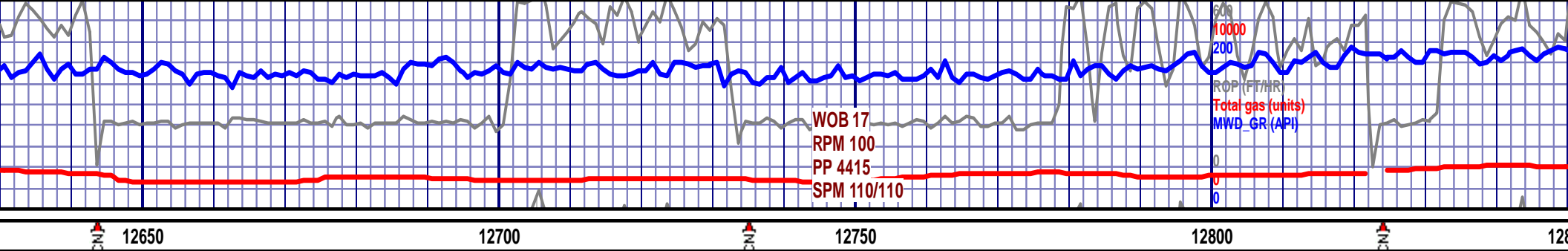
SS: (95%) med gy - dk gy, occ lt gysh brn, l vf gr - l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-12%; SH: (5%) gy-med dk gy, slty-rthy txt, sbplty -sbbkly; faint sptty pale yel pri flor, slo - mod fst blmg - stng mlky grnsh yel cut, spttd ylwsh grn resd ring.

SS: (95%) med gy - dk gy, occ lt gysh brn, l vf gr - l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-12%; SH: (5%) gy-med dk gy, slty-rthy txt, sbplty -sbbkly; faint sptty pale yel pri flor, slo - mod fst blmg - stng mlky grnsh yel cut, spttd ylwsh grn resd ring.





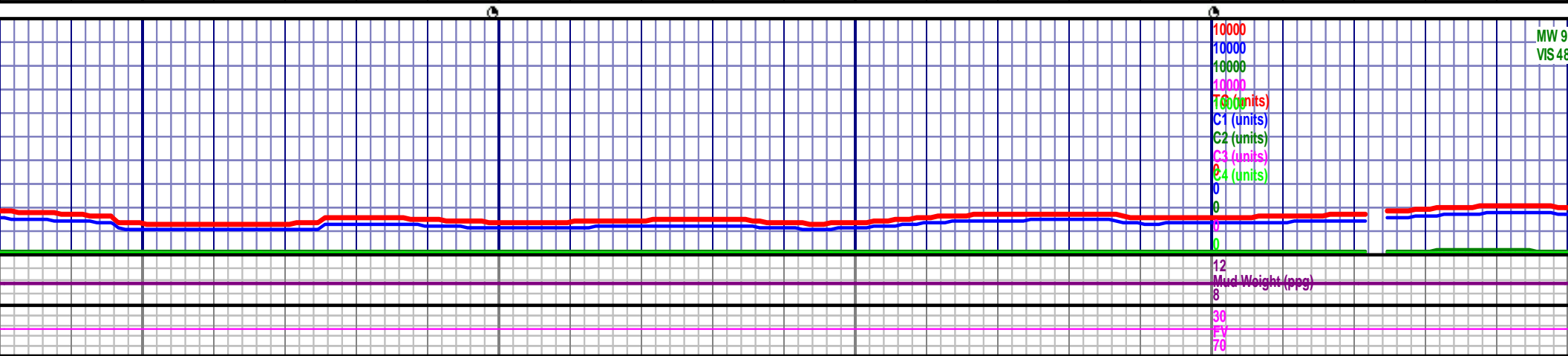
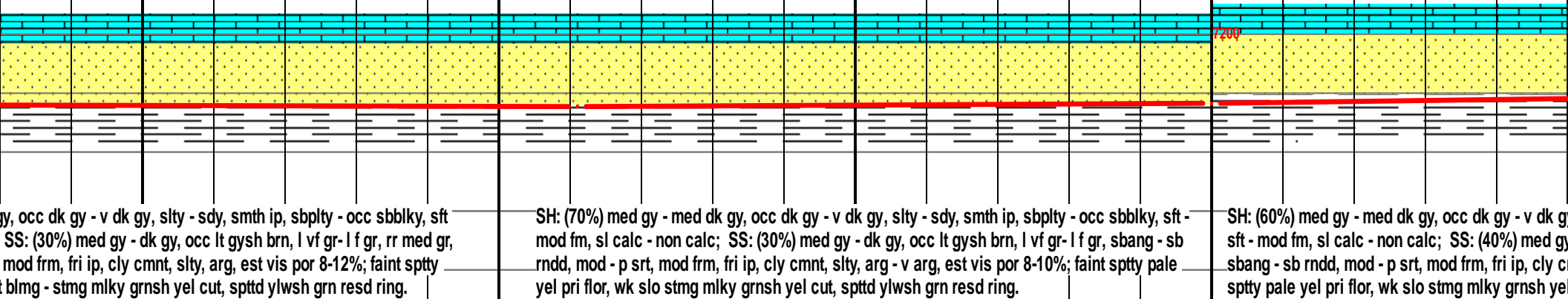




MD 12711 TVD 7223.94  
INC 89.43  
VS 5469.5

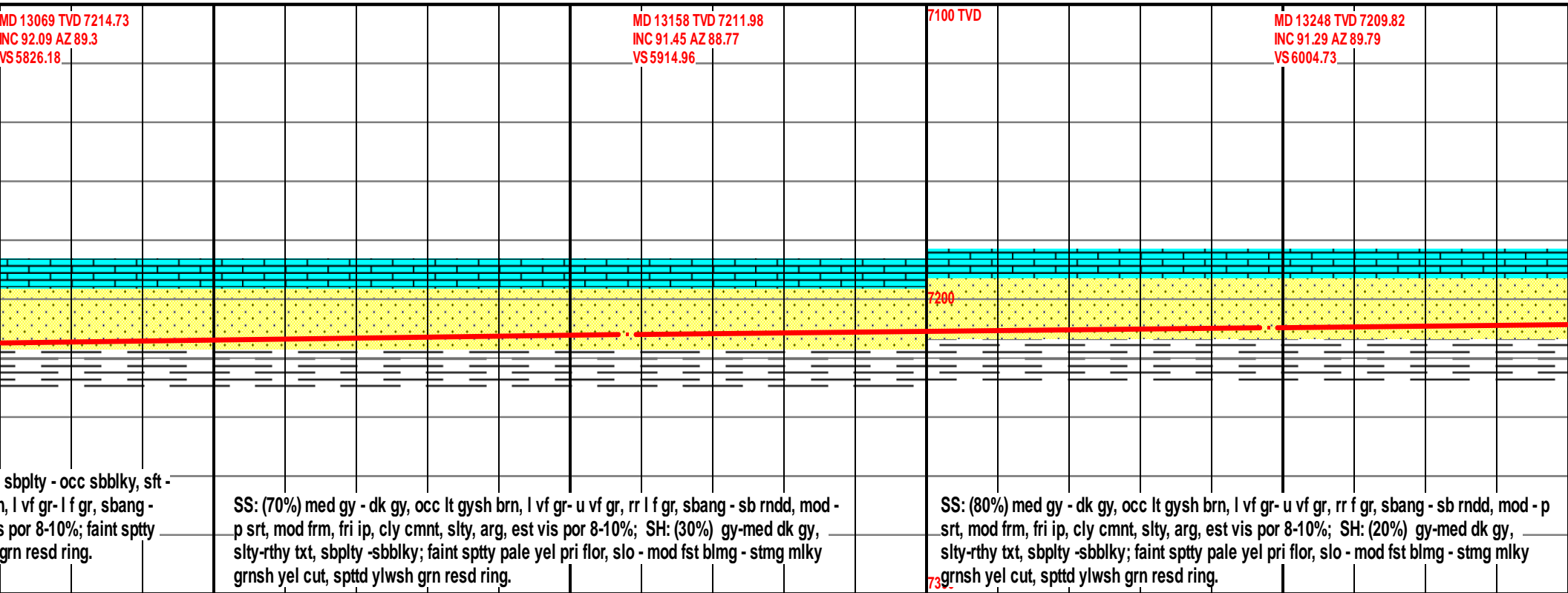
MD 12711 TVD 7224.61  
INC 90.03 AZ 90.83  
VS 5469.5

MD 12800 TVD 7223.17  
INC 91.82 AZ 90.04  
VS 5558.14

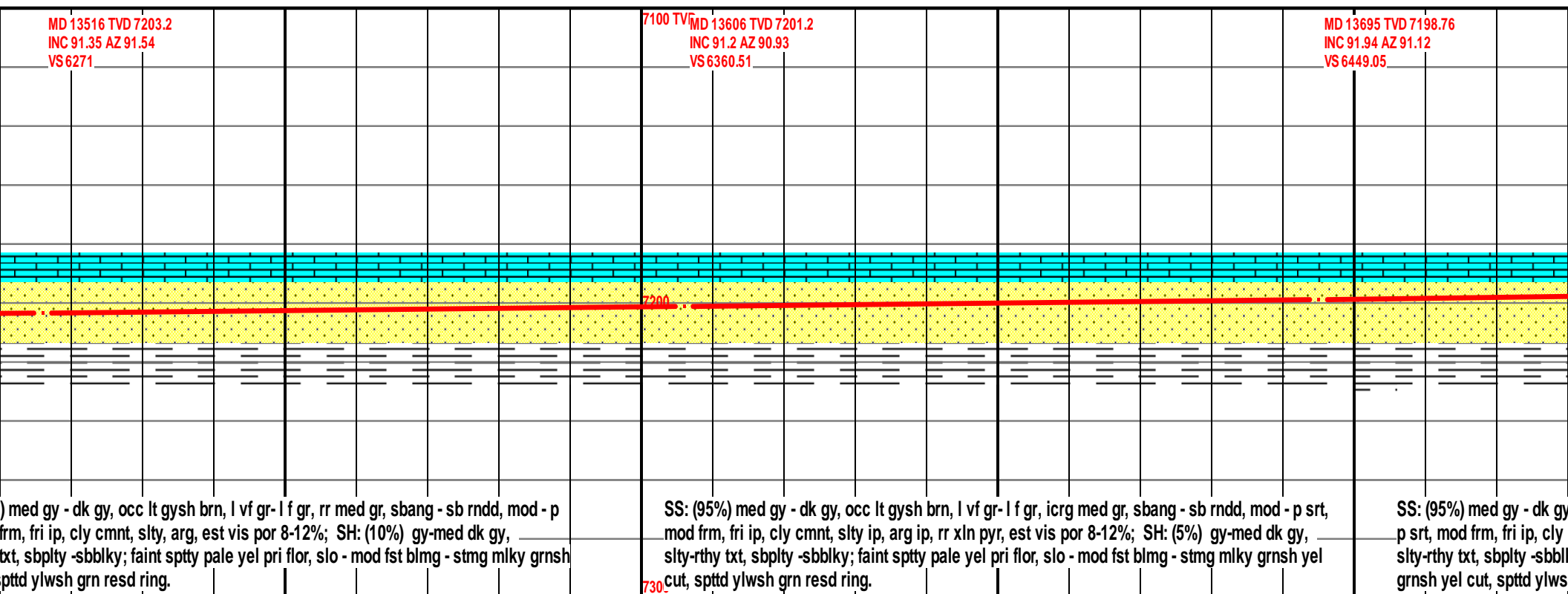




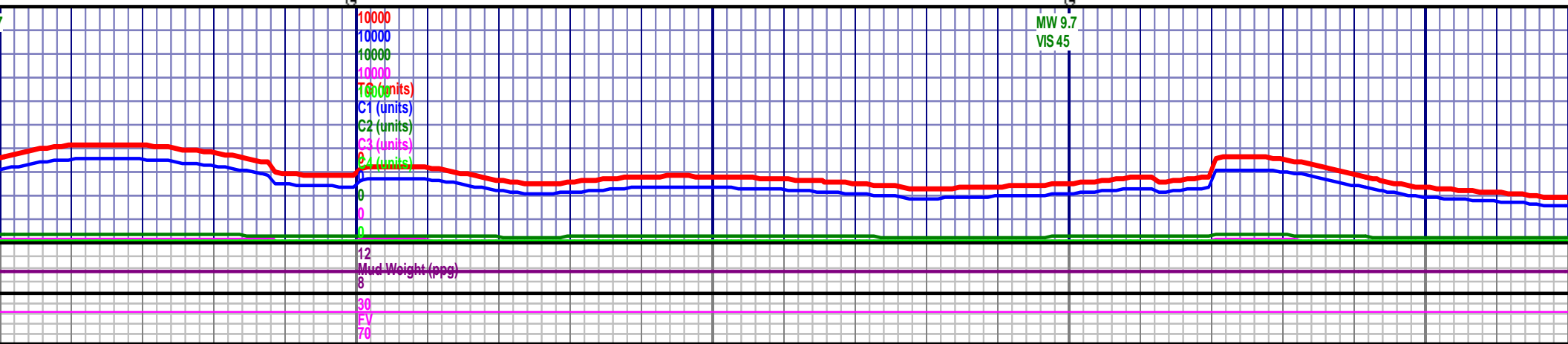
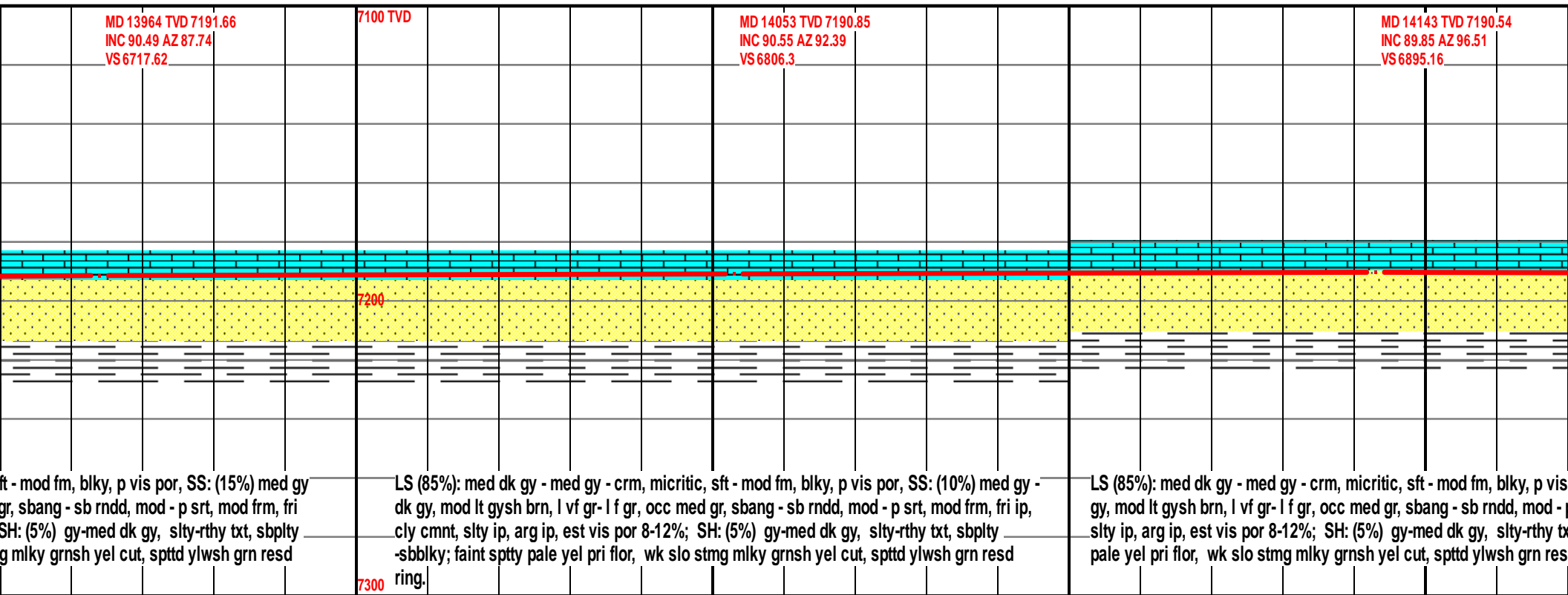
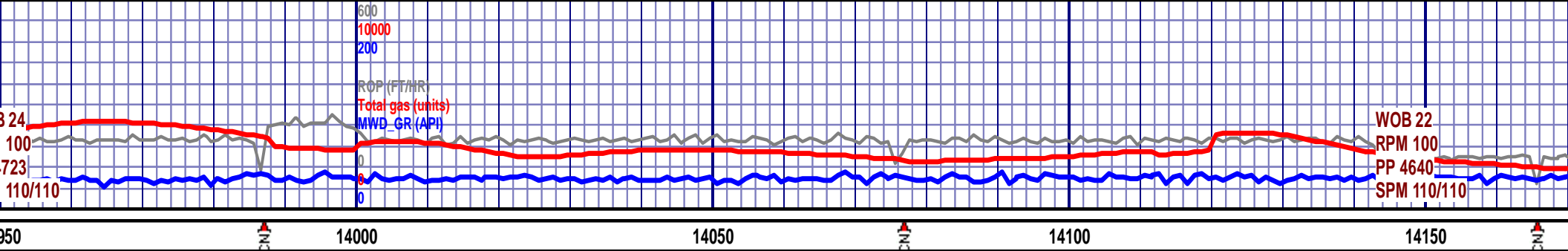


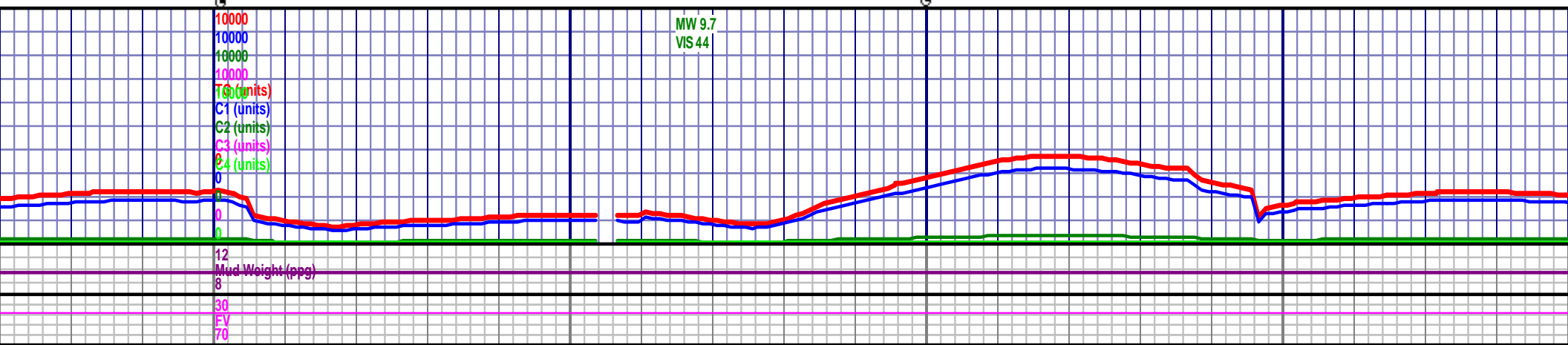
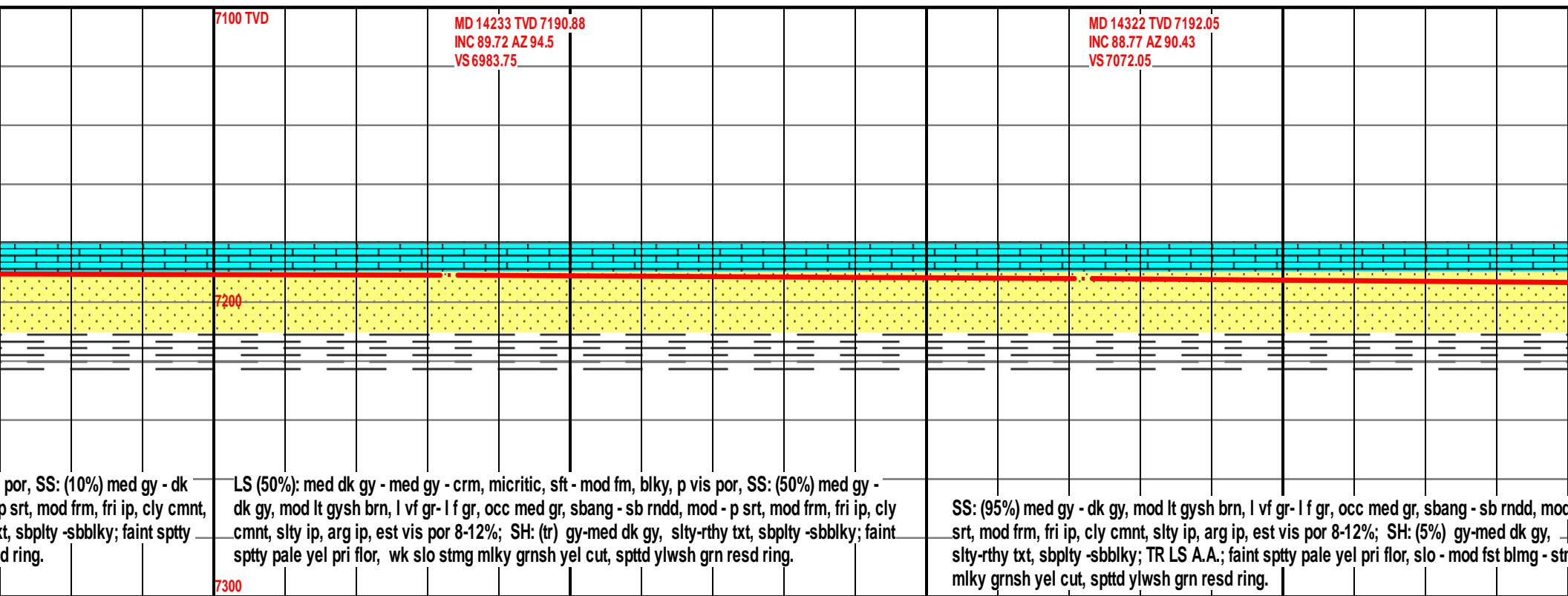
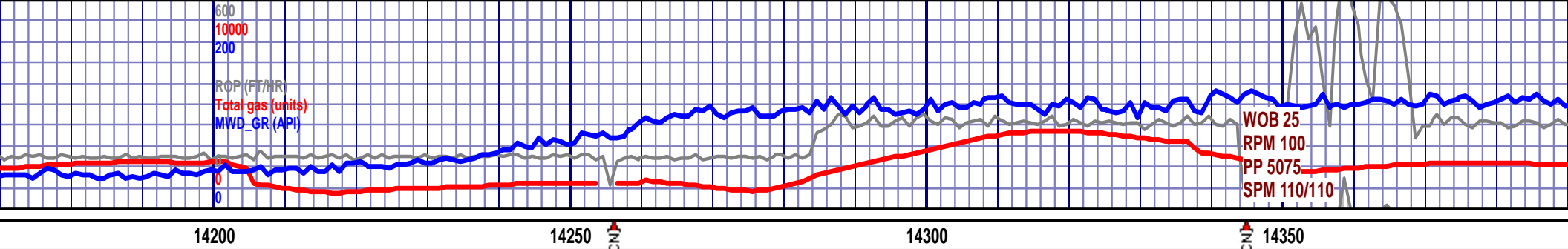


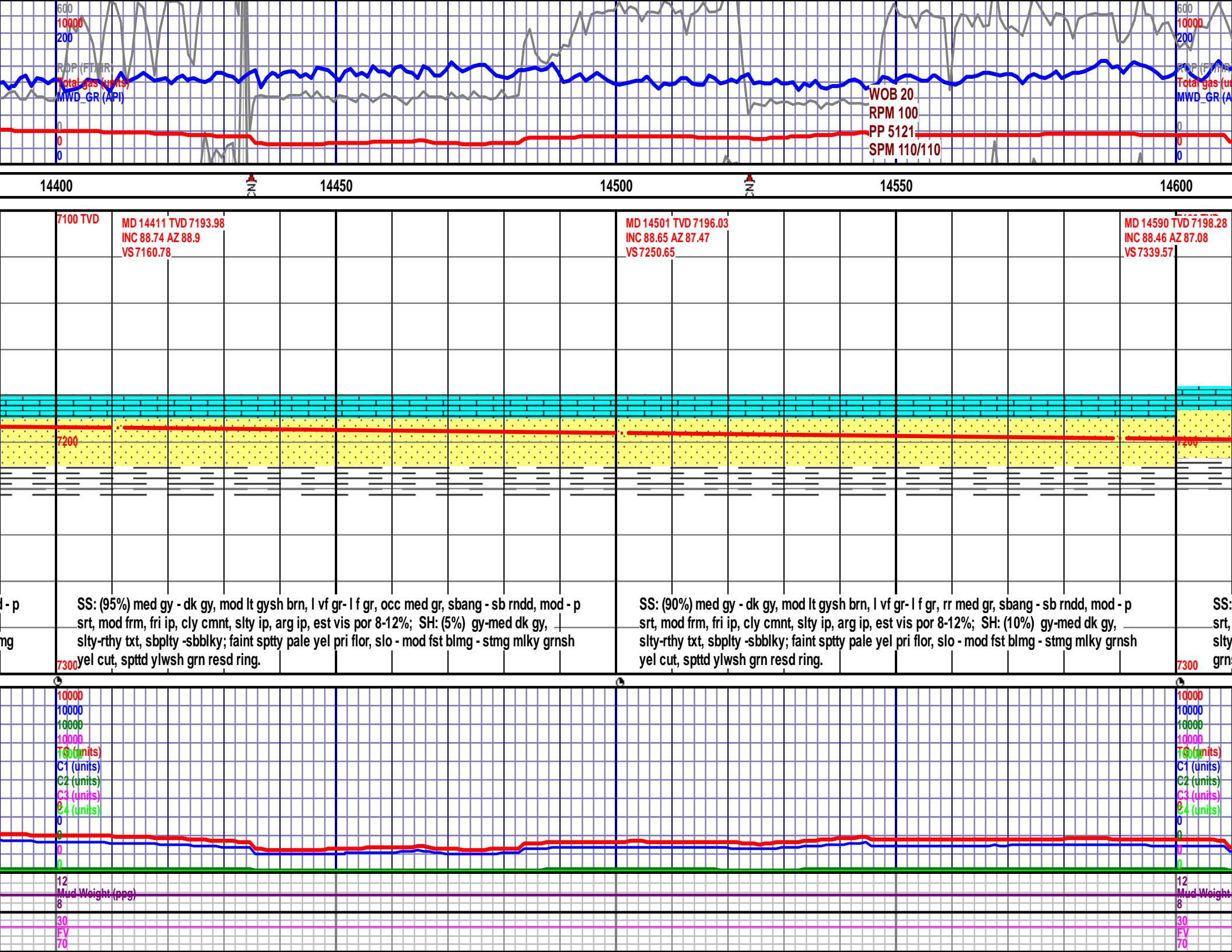




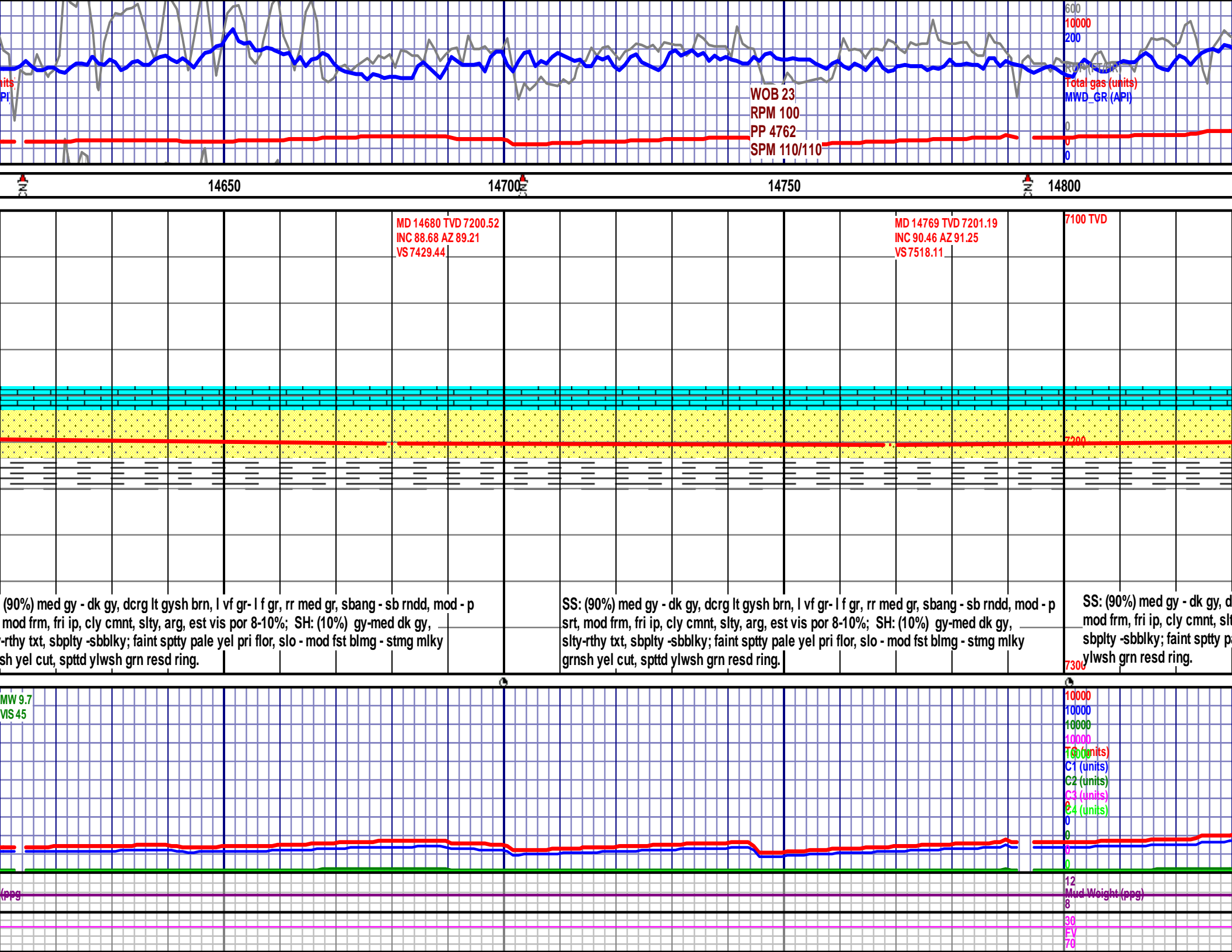


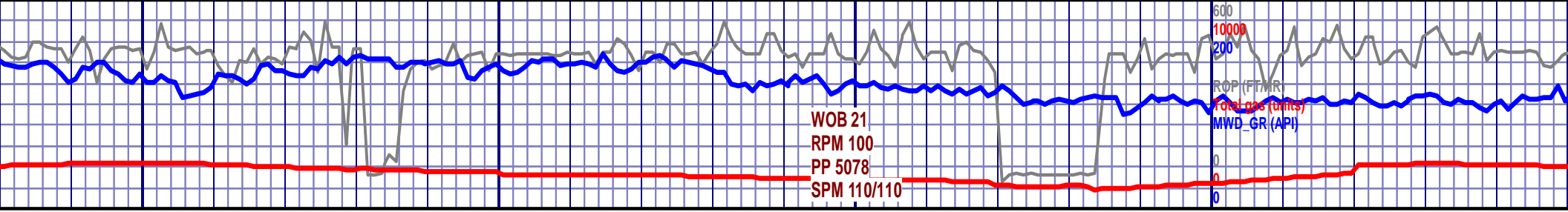












14850

14900

14950

15000

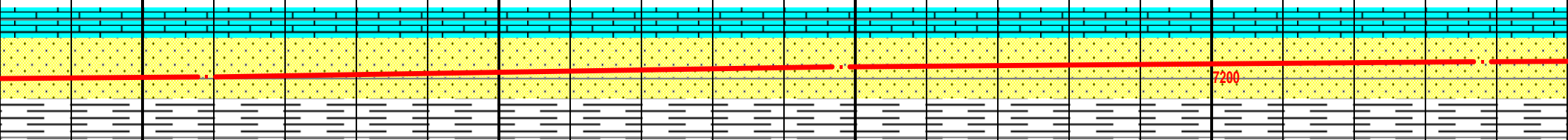
15050

MD 14859 TVD 7199.28  
INC 91.97 AZ 92  
VS 7607.56

MD 14948 TVD 7196.27  
INC 91.91 AZ 92.45  
VS 7695.87

7100 TVD

MD 15038 TVD  
INC 90.89 AZ 92  
VS 7785.31



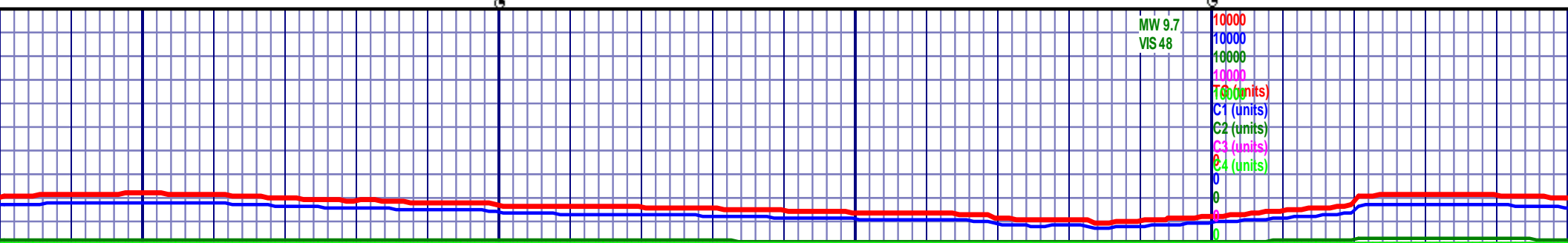
7200

crg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p srt,  
ty, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt,  
pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spttd

SS: (90%) med gy - dk gy, dcrg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p srt,  
mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt,  
sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, spttd  
ylwsh grn resd ring.

SS: (95%) med gy - dk gy, dcrg lt gysh brn,  
p srt, mod frm, fri ip, cly cmnt, slty, arg, est  
slty-rthy txt, sbply -sbbly; faint spty pale  
grnsh yel cut, spttd ylwsh grn resd ring.

7300



MW 9.7  
VIS 48

10000

10000

10000

10000

10000

10000

10000

10000

10000

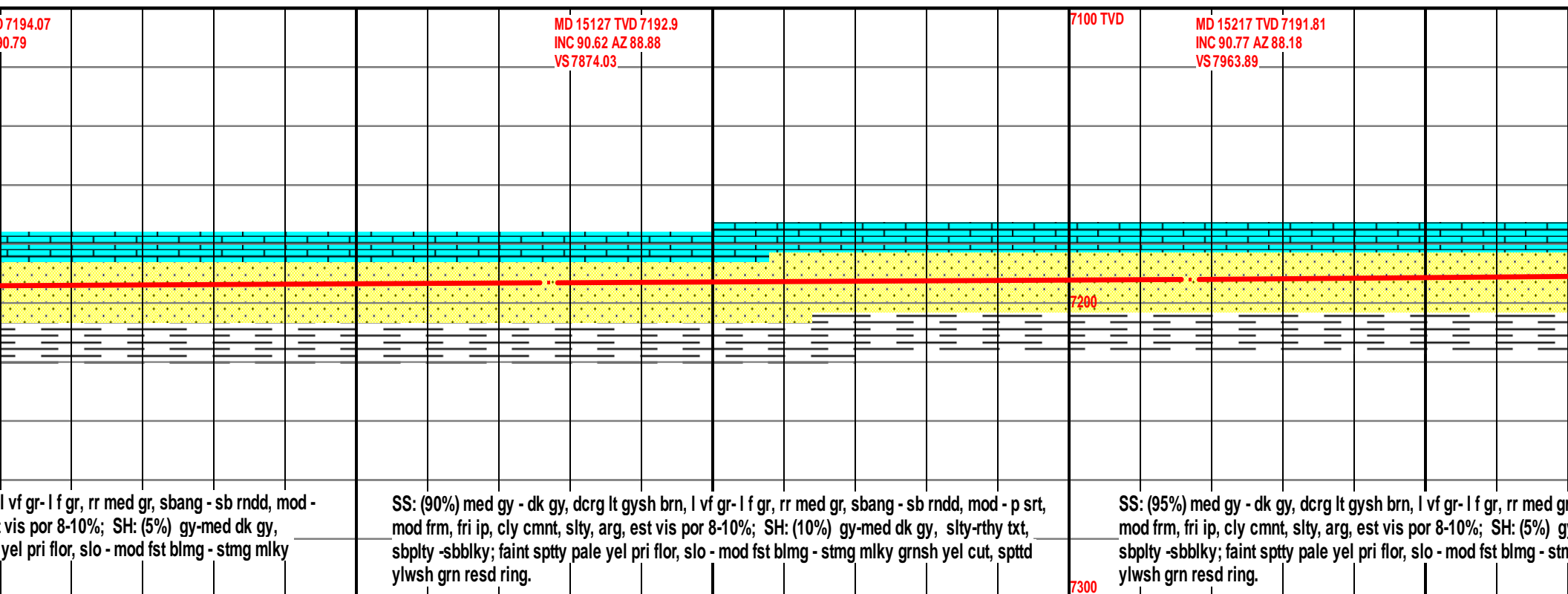
10000

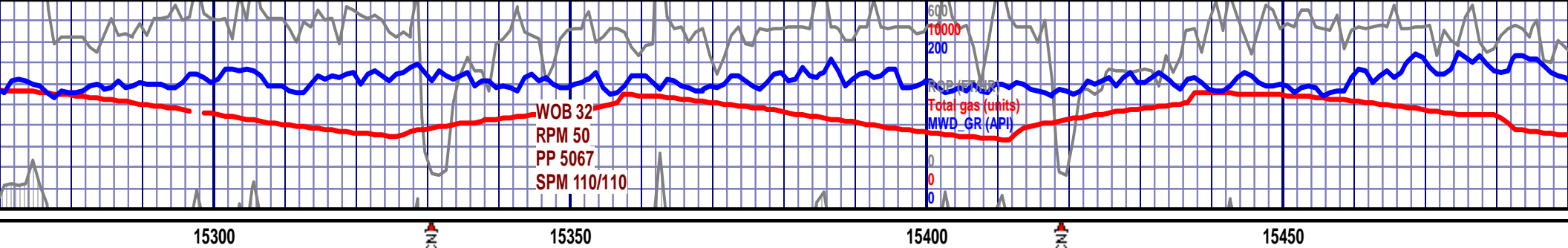
10000

10000

10000

10000





15300

15350

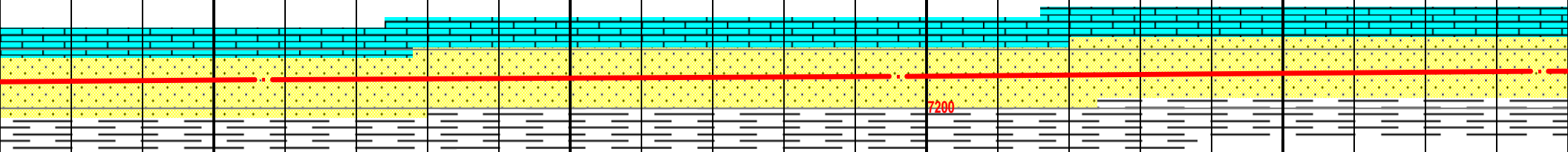
15400

15450

MD 15307 TVD 7190.4  
INC 91.02 AZ 89.29  
VS 8053.73

MD 15396 TVD 7188.99  
INC 90.8 AZ 89.18  
VS 8142.52

MD  
INC  
VS 8



gr, sbang - sb rndd, mod - p srt,  
gy-med dk gy, slty-rthy txt,  
ng mlky grnsh yel cut, spttd

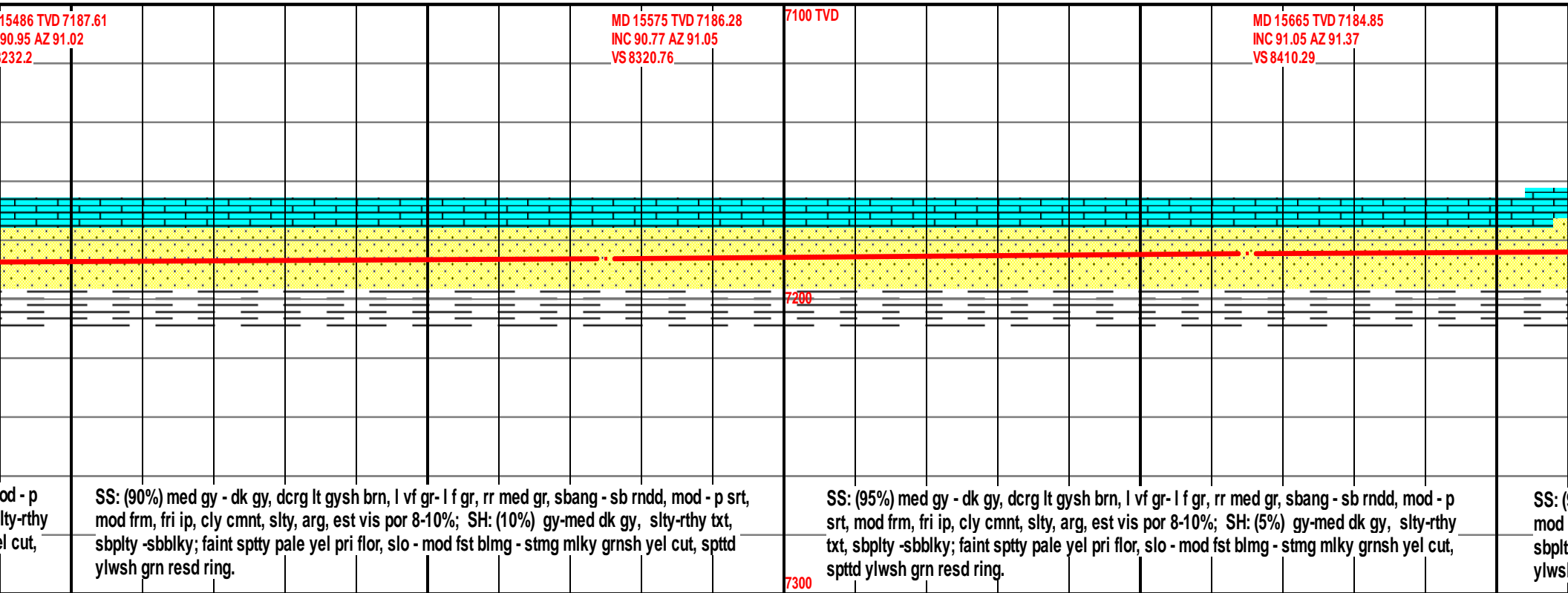
SS: (95%) med gy - dk gy, dcrg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, mod - p  
srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-10%; SH: (5%) gy-med dk gy, slty-rthy  
txt, sbply -sbbly; faint sptty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut,  
spttd ylwsh grn resd ring.

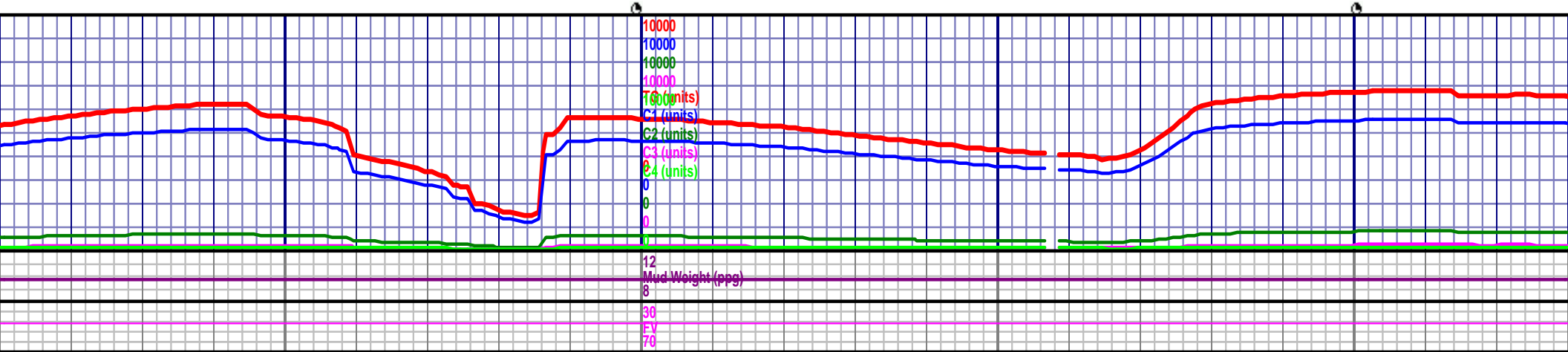
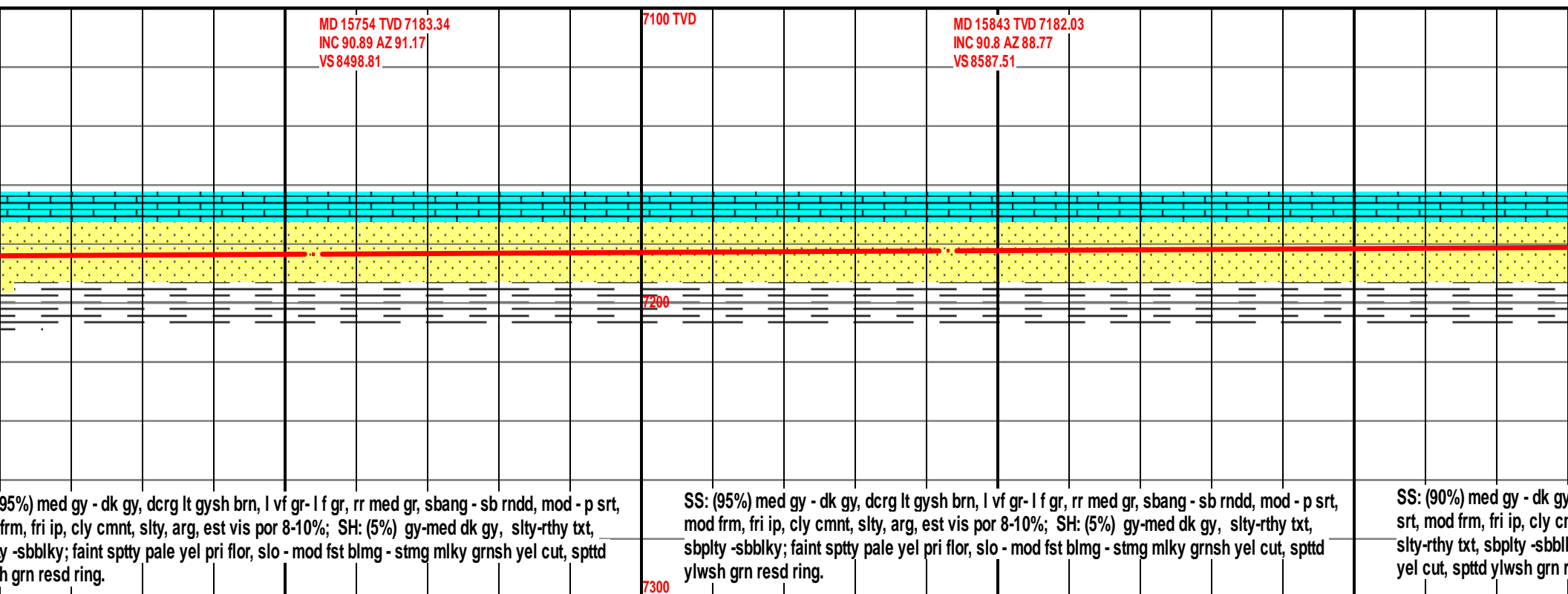
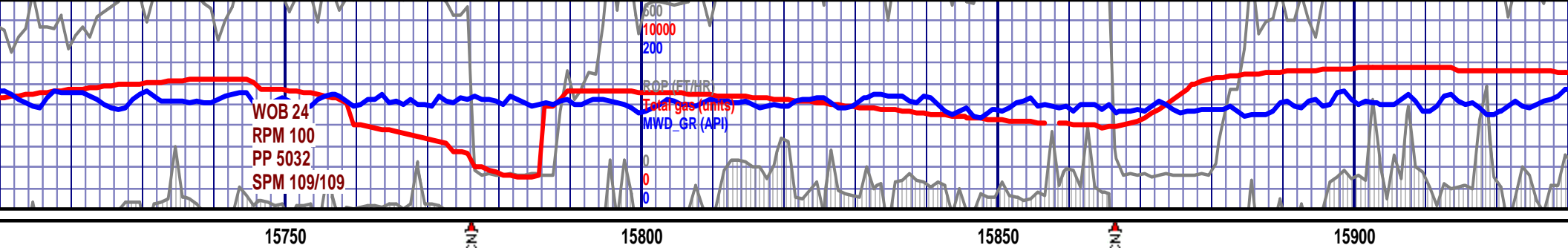
SS: (90%) med gy - dk gy, dcrg lt gysh brn, l vf gr- l f gr, rr med gr, sbang - sb rndd, m  
srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, s  
txt, sbply -sbbly; faint sptty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel  
spttd ylwsh grn resd ring.

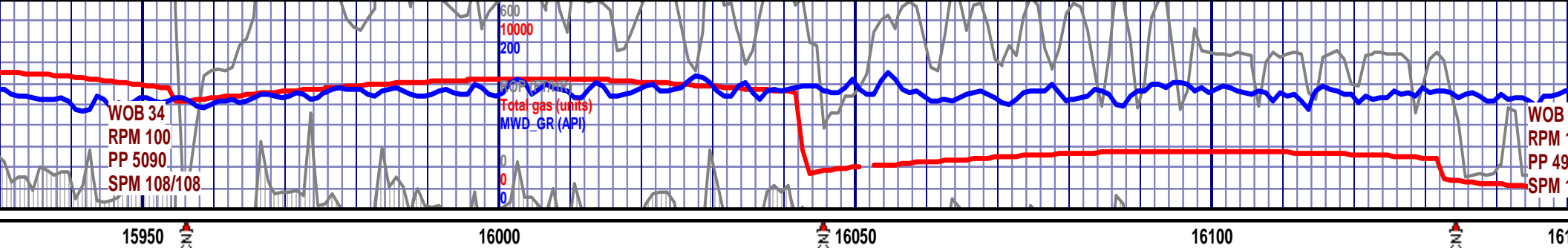
MW 9.7  
VIS 47

10000  
10000  
10000  
10000  
10000  
10000  
C1 (units)  
C2 (units)  
C3 (units)  
C4 (units)

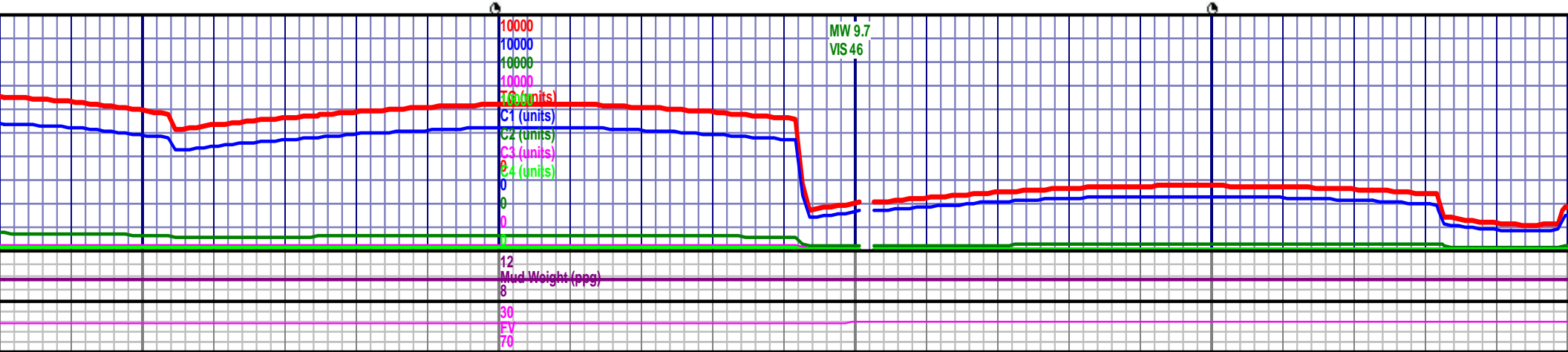
12  
Mud Weight (ppg)  
8  
30  
EV  
70

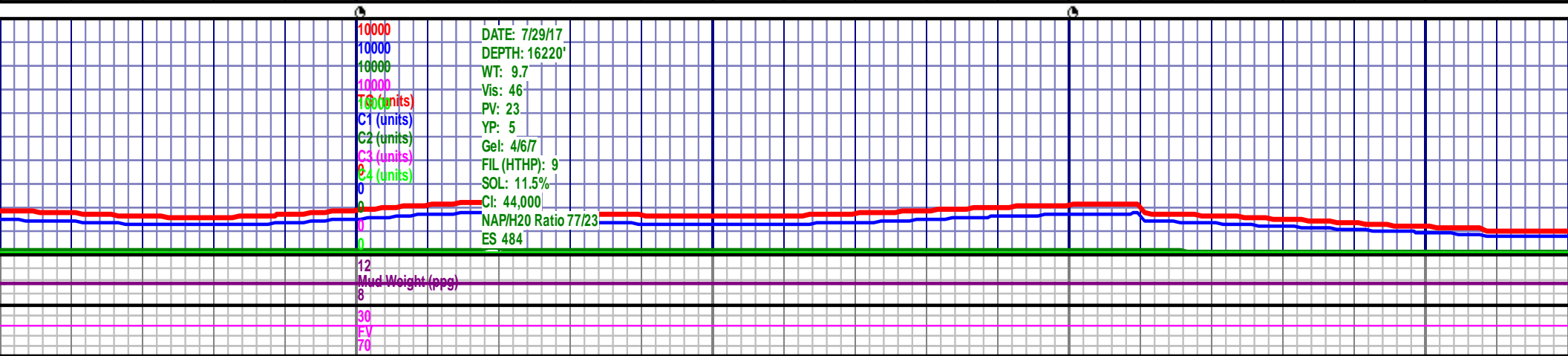
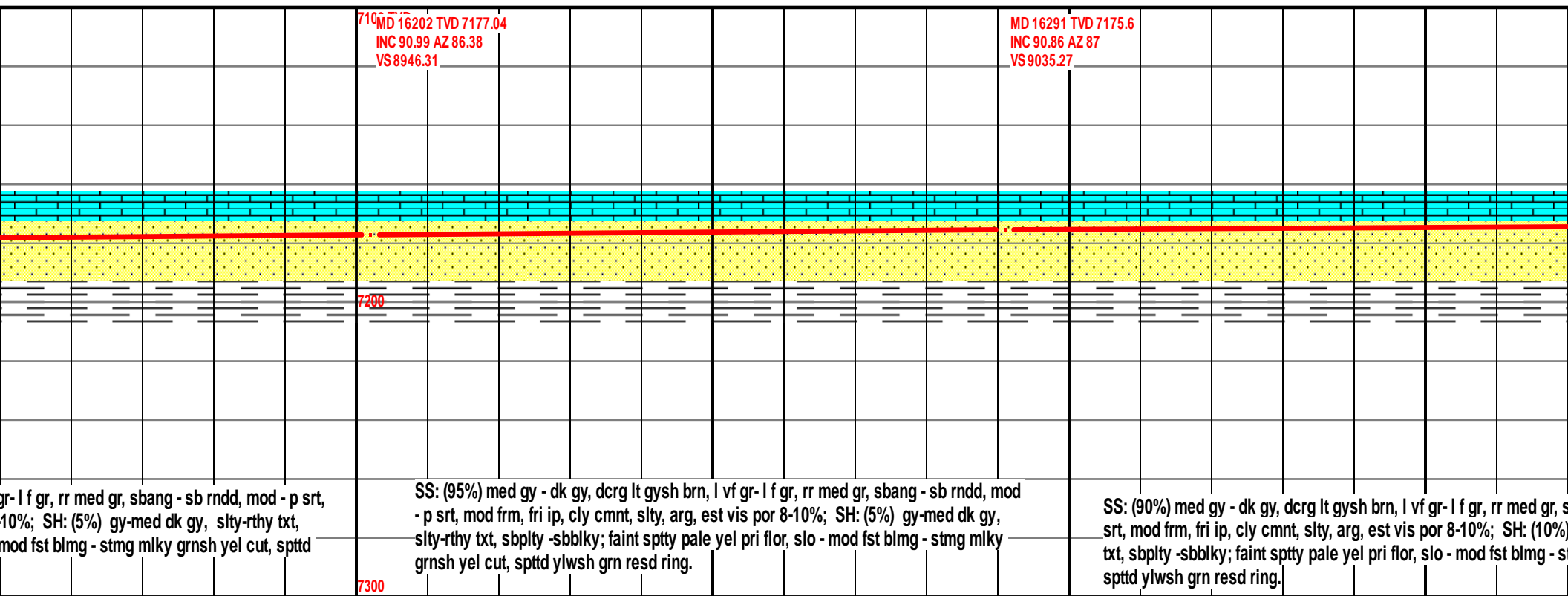
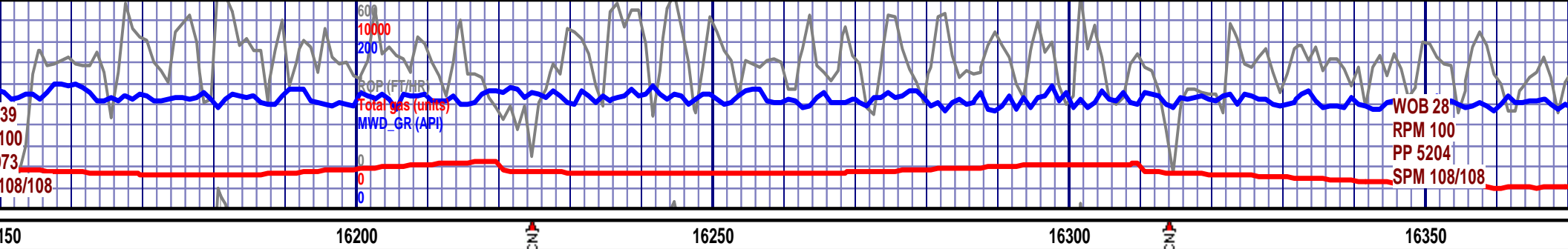




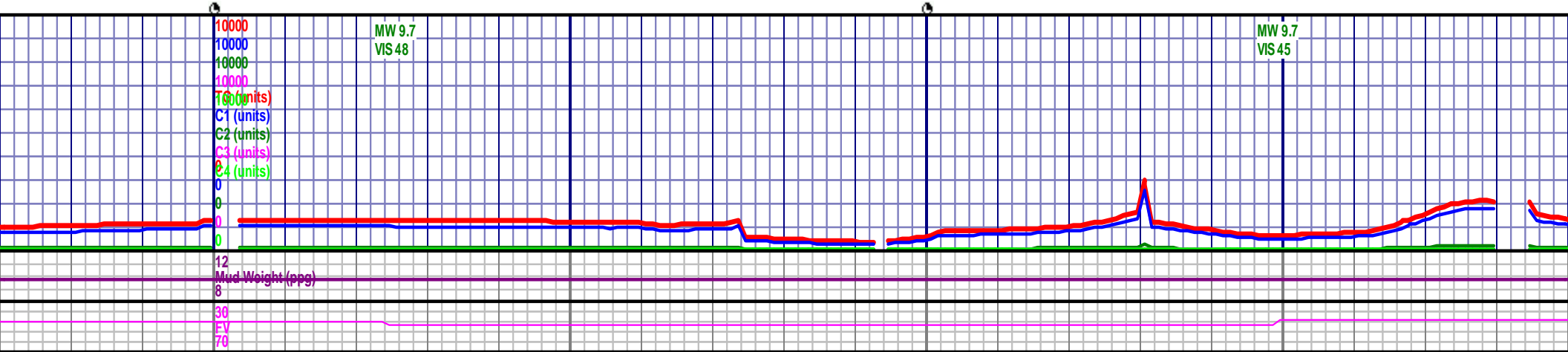
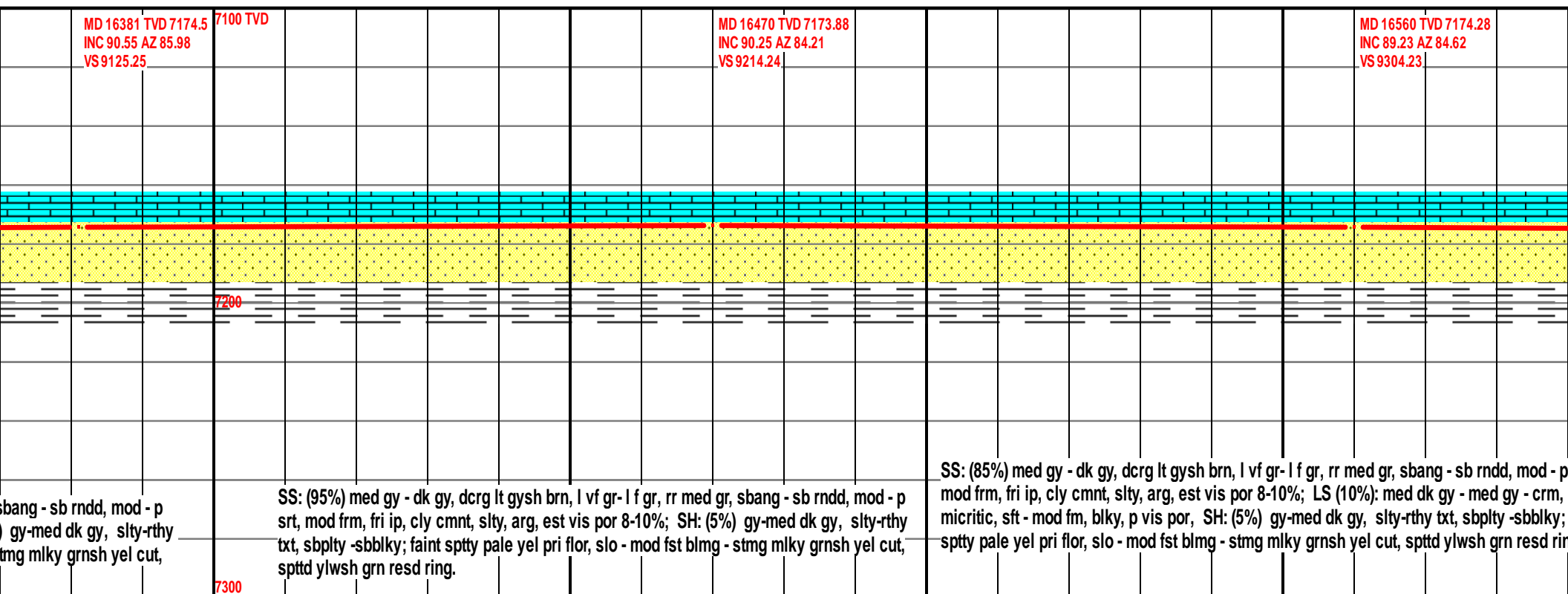
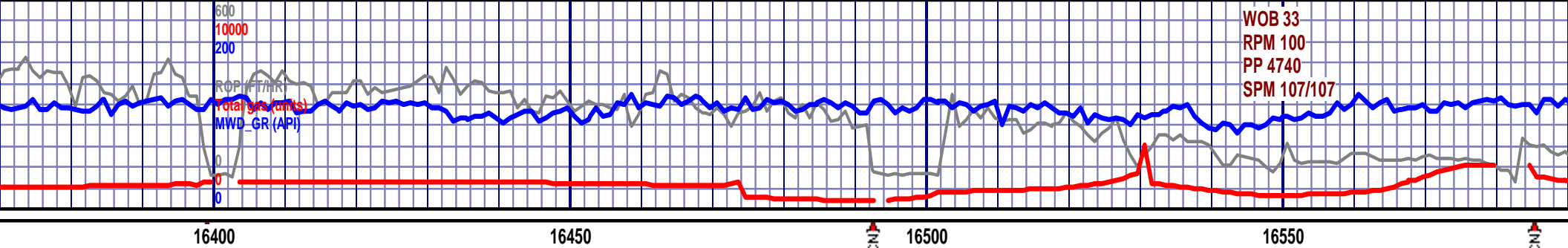


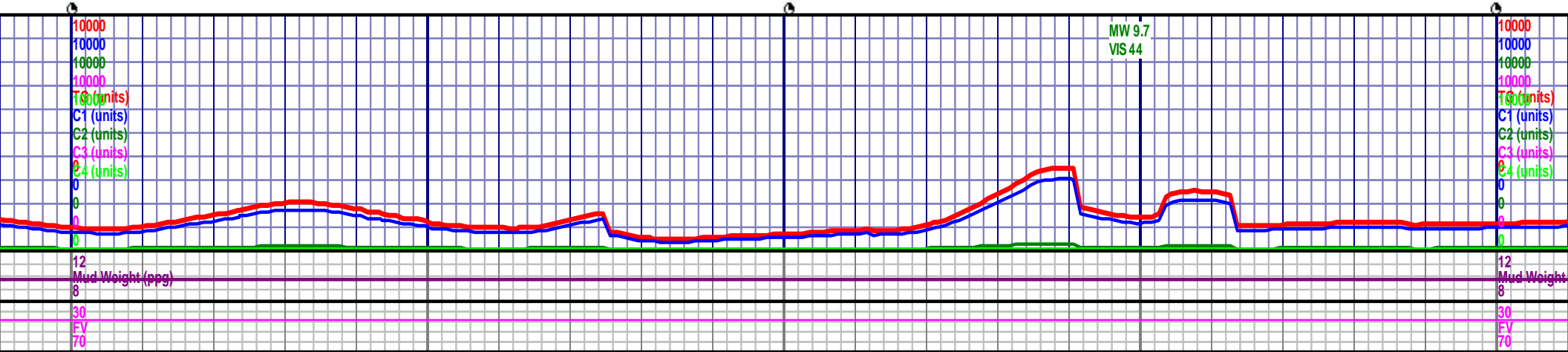
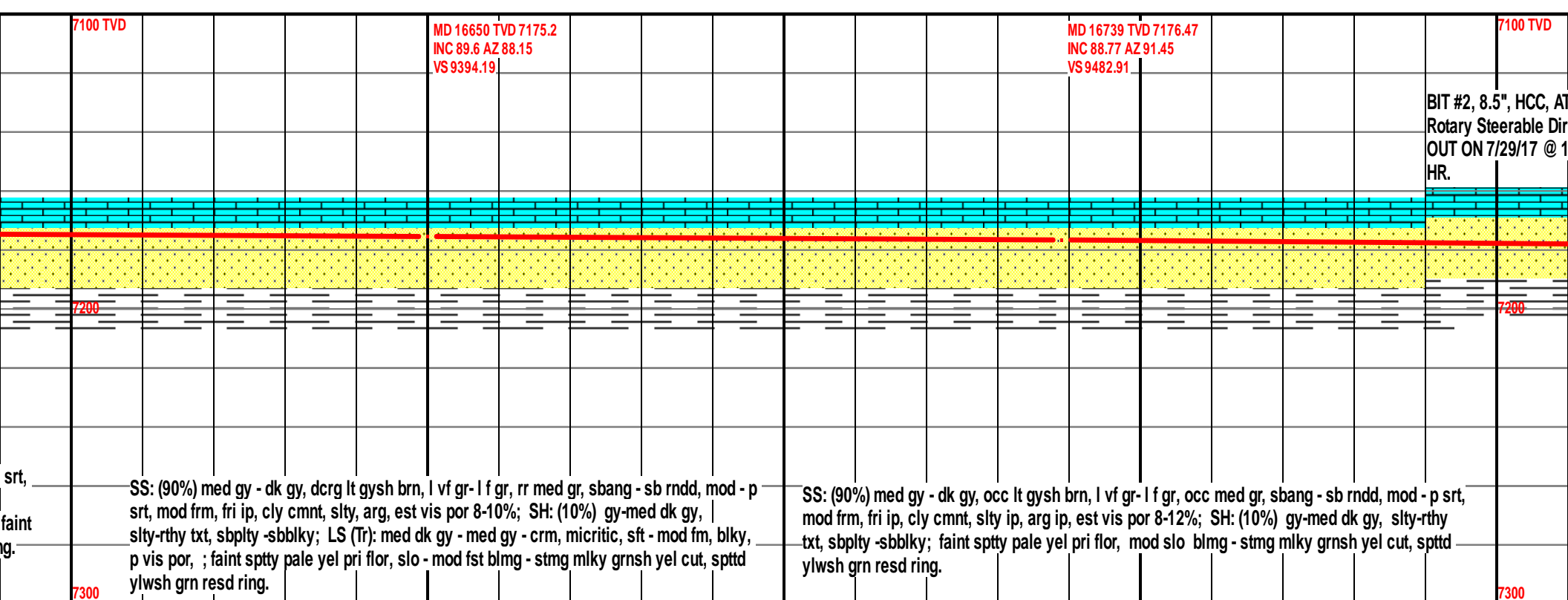
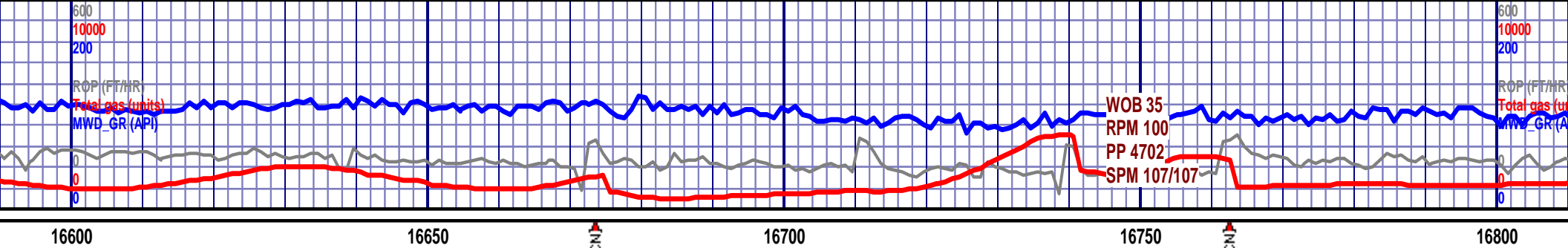
<p>MD 15933 TVD 7180.89 INC 90.65 AZ 87.75 VS 8677.39</p> <p>7100 TVD</p> <p>7200</p> <p>7300</p> <p>SS: (95%) med gy - dk gy, dcrg lt gysh brn, l vf gr - l f gr, rr med gr, sbang - sb rndd, mod - p mnt, slty, arg, est vis por 8-10%; SH: (10%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh resd ring.</p>	<p>MD 16023 TVD 7179.87 INC 90.65 AZ 84.28 VS 8767.36</p> <p>SS: (95%) med gy - dk gy, dcrg lt gysh brn, l vf gr - l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-10%; SH: (5%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, sptd ylwsh grn resd ring.</p>		<p>MD 16112 TVD 7178.6 INC 90.99 AZ 83.89 VS 8856.33</p> <p>SS: (95%) med gy - dk gy, dcrg lt gysh brn, l vf gr - l f gr, rr med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty, arg, est vis por 8-10%; SH: (5%) gy-med dk gy, slty-rthy txt, sbply -sbbly; faint spty pale yel pri flor, slo - mod fst blmg - stmg mlky grnsh yel cut, sptd ylwsh grn resd ring.</p>
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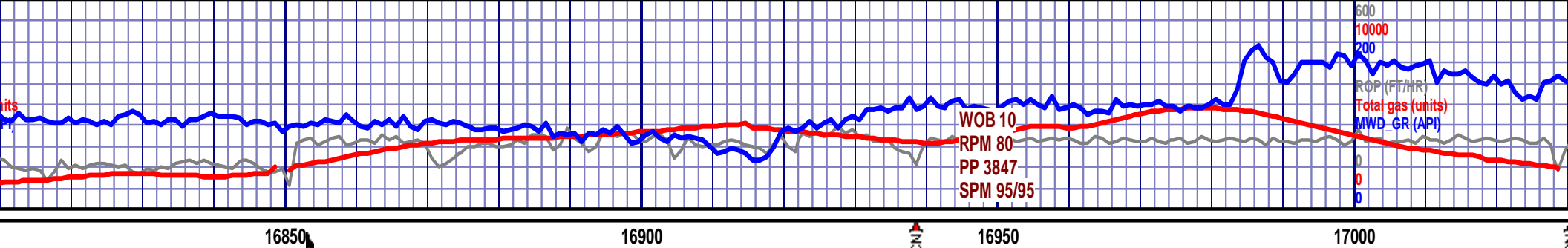




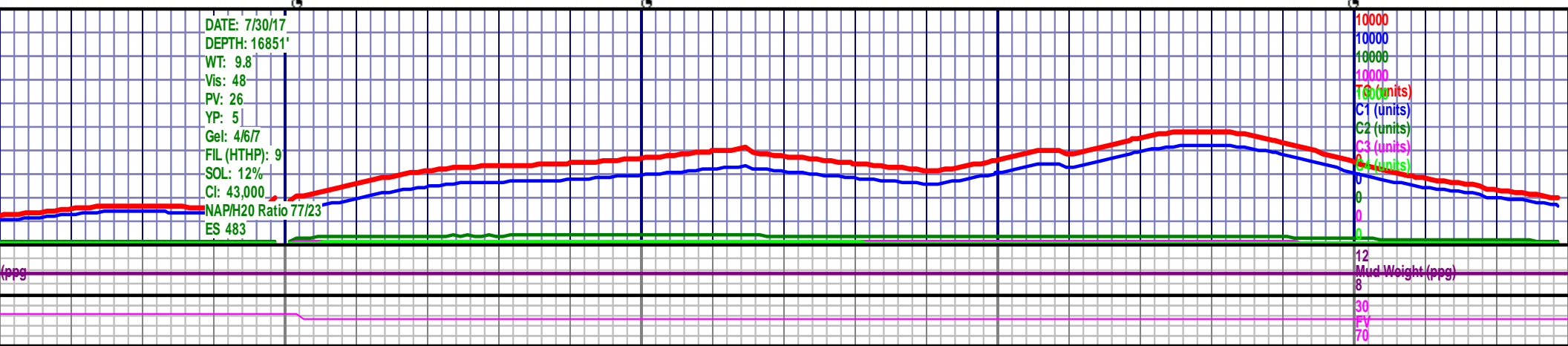


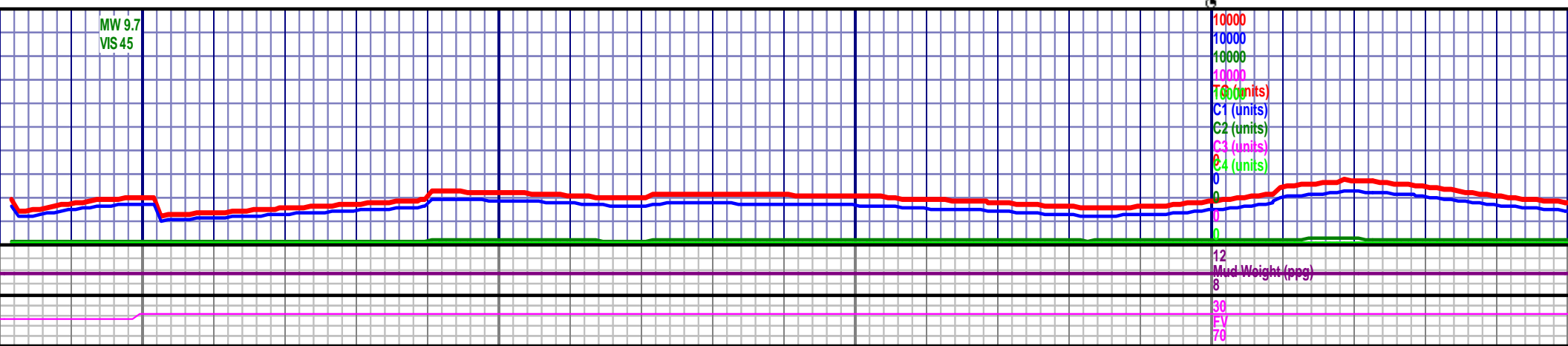
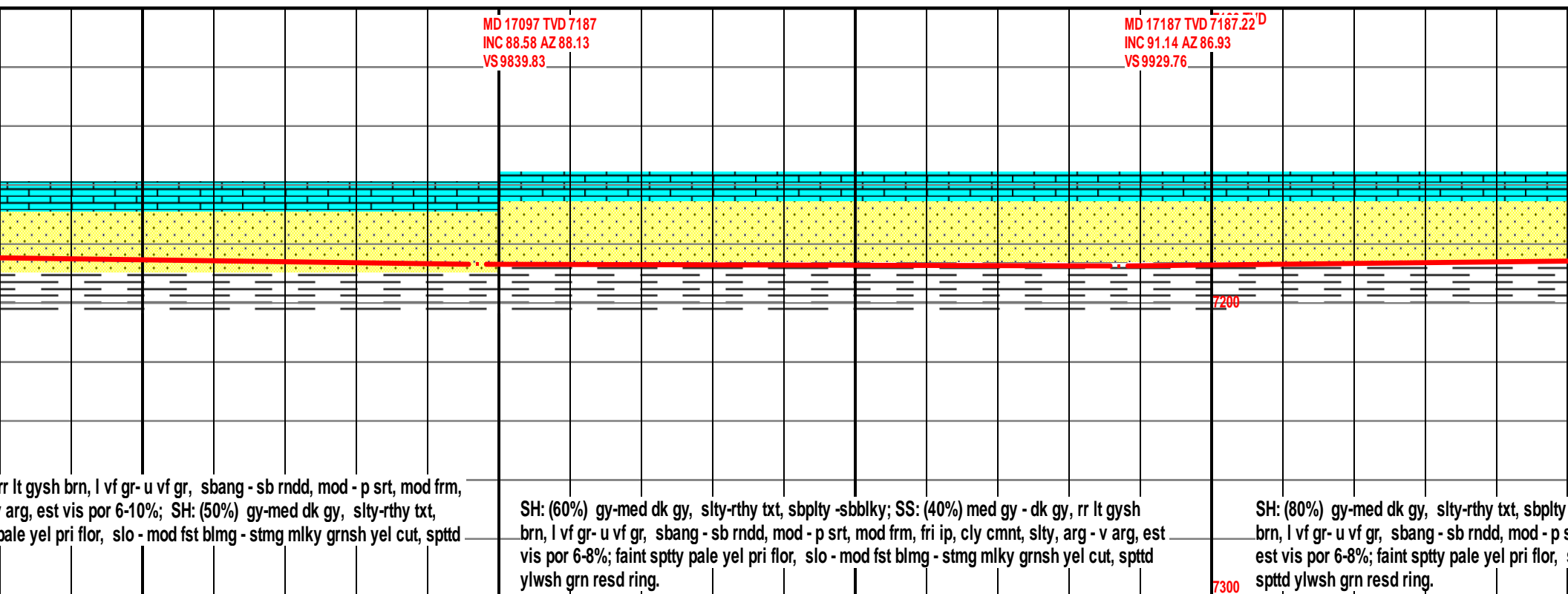
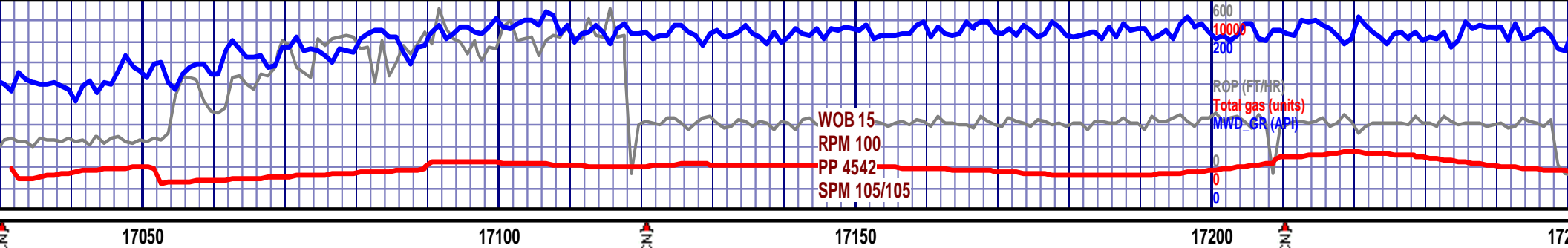




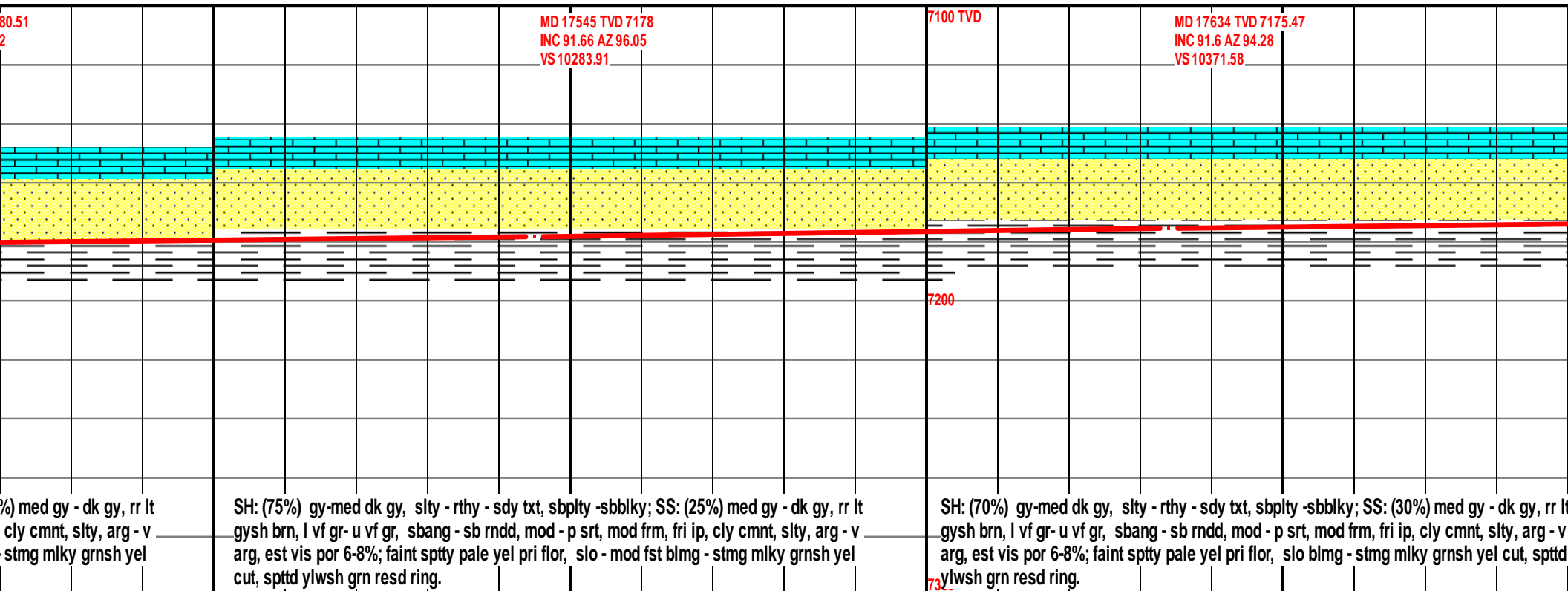


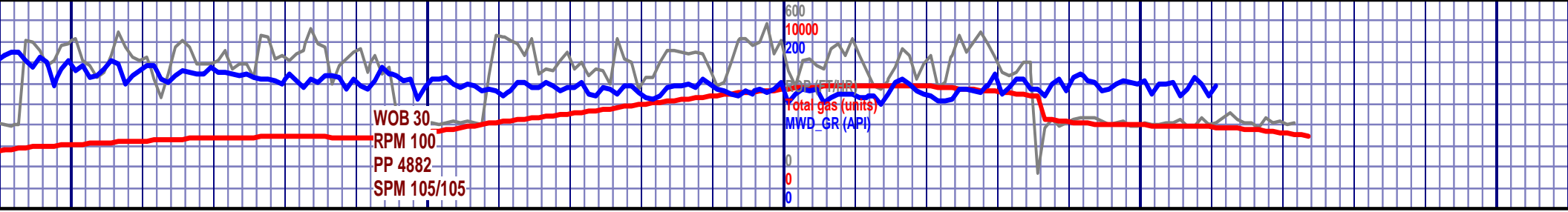
<p>MD 16829 TVD 7178.31 INC 88.89 AZ 90.1 VS 9572.49</p> <p>505FX, Jets 5x15s, SN#: 7064018 ectional BHA, IN @ 1806', ON 7/26/17, 6852' MD, DRILLED 15046' IN 46.3 BIT</p>	<p>POOH at 16,852' for bit</p> <p>BIT #3, 8.5", BHI, AT505F, Jets 5x15s, SN#: 7162478, RR Rotary Steerable Directional BHA, IN @ 16582', ON 7/29/17, OUT ON 7/29/17 @ 17875' MD, DRILLED 1023' IN 4.1 BIT HR.</p>	<p>MD 16918 TVD 7180.48 INC 88.31 AZ 88.67 VS 9661.25</p>	<p>7100 TVD MD 17008 TVD 7183.87 INC 87.38 AZ 88.99 VS 9751.02</p>
<p>SS: (70%) med gy - dk gy, occ lt gysh brn, l vf gr- l f gr, occ med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty ip, arg ip, est vis por 8-12%; SH: (20%) gy-med dk gy, slty-rthy txt, sbppty -sbbiky; LS (10%): med dk gy - med gy - crm, micritic, sft - mod fm, blk, p vis por; faint sptty pale yel pri flor, mod slo blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.</p>	<p>Poor Sample After Trip</p>	<p>SS: (85%) med gy - dk gy, occ lt gysh brn, l vf gr- l f gr, occ med gr, sbang - sb rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty ip, arg ip, est vis por 8-12%; SH: (10%) gy-med dk gy, slty-rthy txt, sbppty -sbbiky; LS (5%): med dk gy - med gy - crm, micritic, sft - mod fm, blk, p vis por; faint sptty pale yel pri flor, mod slo blmg - stmg mlky grnsh yel cut, spttd ylwsh grn resd ring.</p>	<p>SS: (50%) med gy - dk gy, fri ip, cly cmnt, slty, arg - v sbppty -sbbiky; faint sptty ylwsh grn resd ring.</p>











17700

17750

17800

17850

17900

MD 17723 TVD 7172.98  
INC 91.6 AZ 93.17  
VS 10459.6

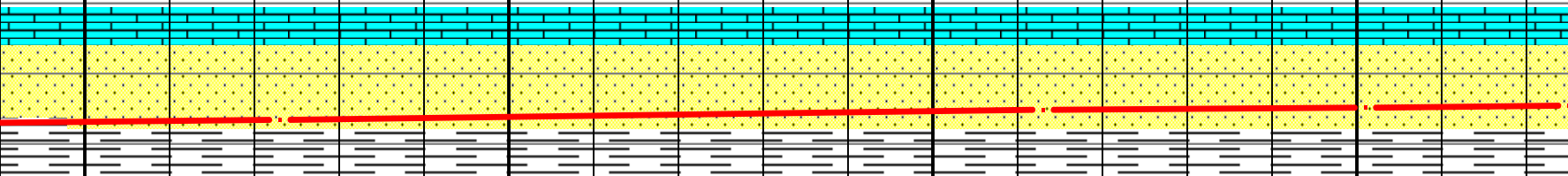
7100 TVD

MD 17813 TVD 7170.54  
INC 91.51 AZ 92.66  
VS 10548.8

MD 17851 TVD 7169.56  
INC 91.45 AZ 92.42  
VS 10586.49

MD 17875 TVD 7168.95  
INC 91.45 AZ 92.42  
VS 10610.3

Final survey  
to the bit



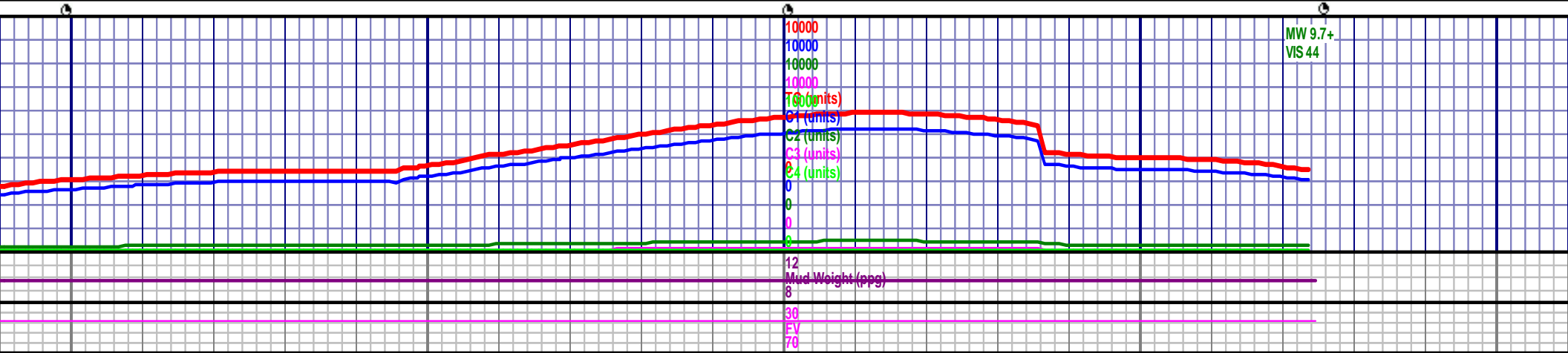
Sharon Springs  
Niobrara A Chalk  
Niobrara B Chalk  
Niobrara C Chalk  
Fort Hays  
Codell

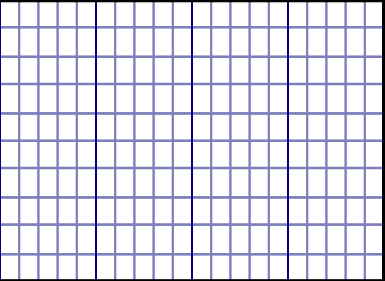
Target Heel  
Target Toe

TD of 17,875' reached at 14:15 on  
7/30/2017. Production liner cemented  
at 17,855' on 8/1/2017

SS: (60%) med gy - dk gy, rr lt gysh brn, l vf gr- u vf gr, sbang - sb rndd, mod - p srt, mod frm, fri  
ip, cly cmnt, slty, arg - v arg, est vis por 6-8%; SH: (40%) gy-med dk gy, slty - rthy - sdy txt,  
sbplty -sbbly; faint sptty pale yel pri flor, slo blmg - stmg milky grnsh yel cut, spttd ylwsh grn  
resd ring.

SS: (80%) med gy - dk gy, rr lt gysh brn, l vf gr- u vf gr, sbang - sb  
rndd, mod - p srt, mod frm, fri ip, cly cmnt, slty, arg - v arg, est vis  
por 6-10%; SH: (20%) gy-med dk gy, slty - rthy - sdy txt, sbplty  
-sbbly; faint sptty pale yel pri flor, slo - mod fst blmg - stmg milky  
grnsh yel cut, spttd ylwsh grn resd ring.





y is a projection			
Formation Tops			
MD	TVD	SSD	
6983'	6828'	-2055'	
6935'	6867'	-2094'	
7102'	7003'	-2230'	
7204'	7070'	-2297'	
7434'	7163'	-2390'	
7584'	7191'	-2418'	
7635'	7192'	-2419'	
17875'	7169'	-2396'	

