



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

Well Name: Horsetail Fed 07G-0642  
API: 051234210900  
Location: SENW SEC 30-T10N-R57W  
License Number:  
Spud Date: 1/28/2017  
Surface Coordinates: Lat.: 40.853503 Long.: -103.791672

Region: Redtail Field  
Drilling Completed: 1/31/2017

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 4894  
Logged Interval (ft): 5338 To: 13648  
Formation: Niobrara  
Type of Drilling Fluid: Water Based Mud

K.B. Elevation (ft): 4915  
Total Depth (ft): 13648

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

#### OPERATOR

Company: Whiting Oil & Gas Corp.  
Address: 1700 Broadway Suite 2300  
Denver, CO 80290

#### GEOLOGIST

Name: Todd Nakata and Eli DenBesten  
Company: Acme Geologic Consulting  
Address: 108 Berry Street  
Little Rock, AR 72205

## Drilling Company

Unit Drilling Company  
Rig 406

## Gas Detection

Mudlogging Systems, Inc., M Logger, Model TGC, Total Gas and Chromatograph

## Comments

Lithologies and tops at drilled depths, not corrected to elogs. Where the well bore gas is 100% methane, the C1 line is moved to 85% for graphical purposes only.

## ROCK TYPES

 Anhy  
 Bent  
 Brec  
 Cht  
 Clyst

 Coal  
 Congl  
 Dol  
 Gyp  
 Igne

 Lmst  
 Meta  
 Cyan mrlst  
 Mrlst  
 Salt

 Shale  
 Shcol  
 Shgy  
 Sltst  
 Ss







 Till  
 Cyan chk  
 Chalk

## 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**  
 Anhy  
 Arg  
 Bent  
 Coal  
 Dol  
 Gyp  
 Ls  
 Mrst

 Sltstrg  
 Ssstrg

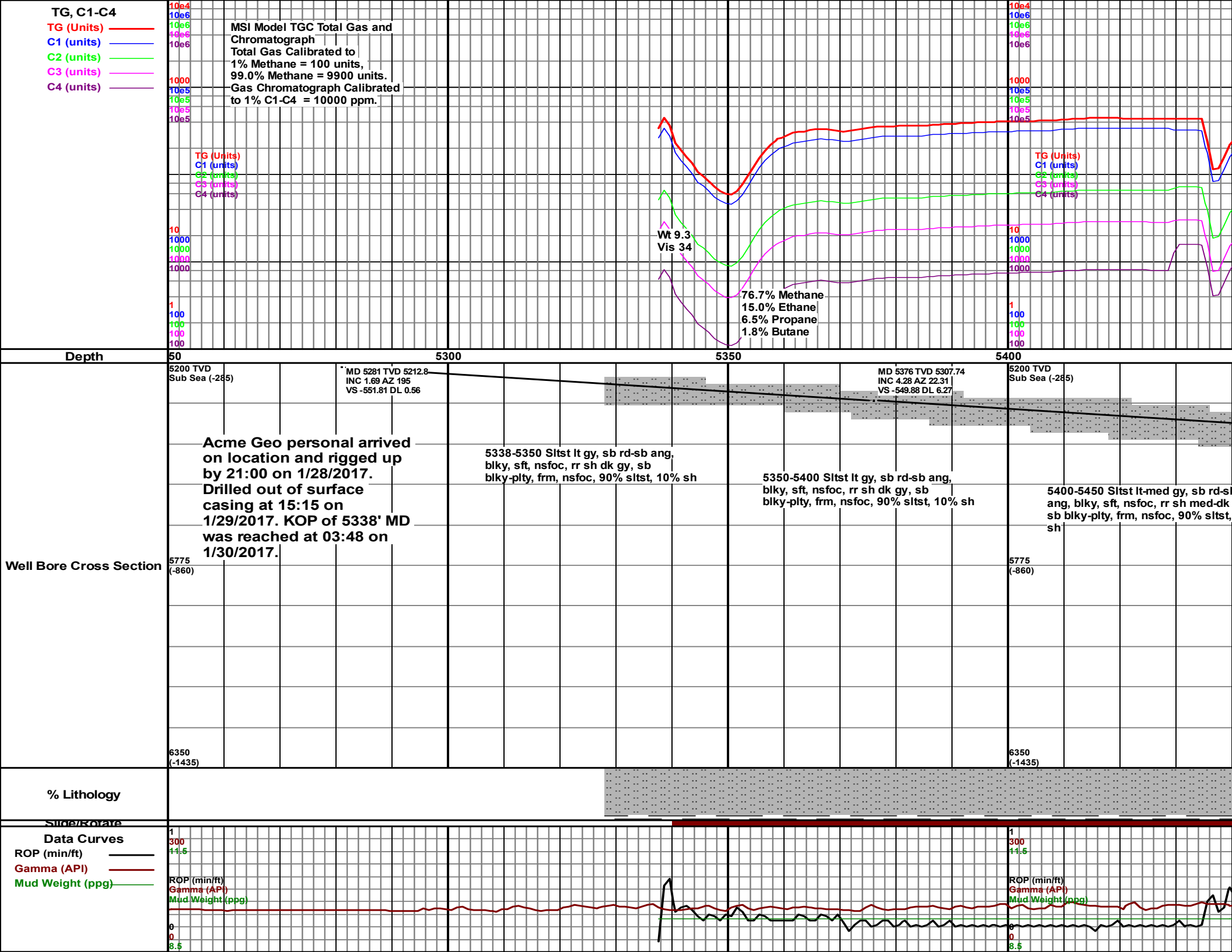
**TEXTURE**  
 Boundst  
 Chalky  
 Cryxln  
 Earthy  
 Finexln  
 Grainst  
 Lithogr  
 Microxln  
 Mudst  
 Packst  
 Wackest

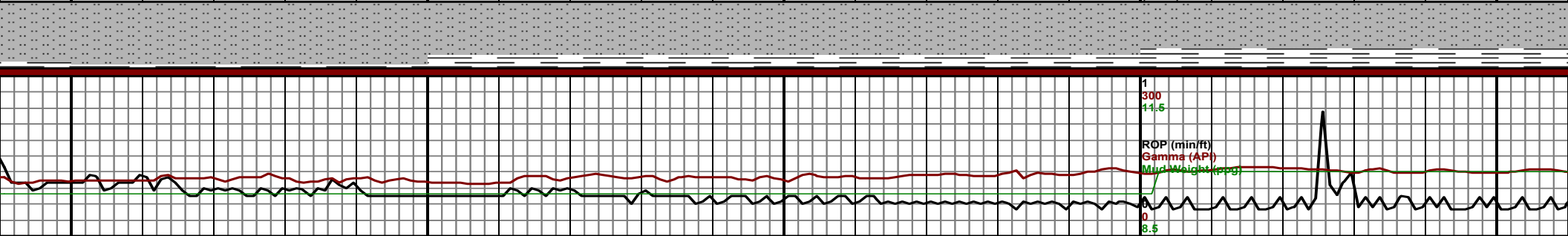
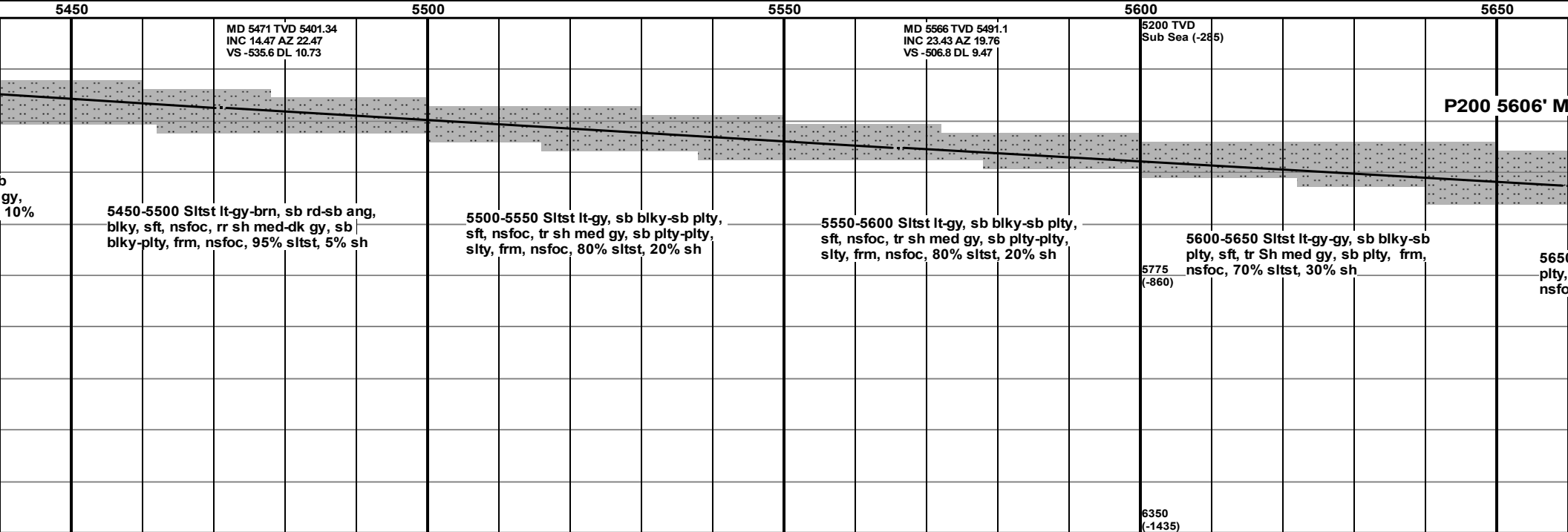
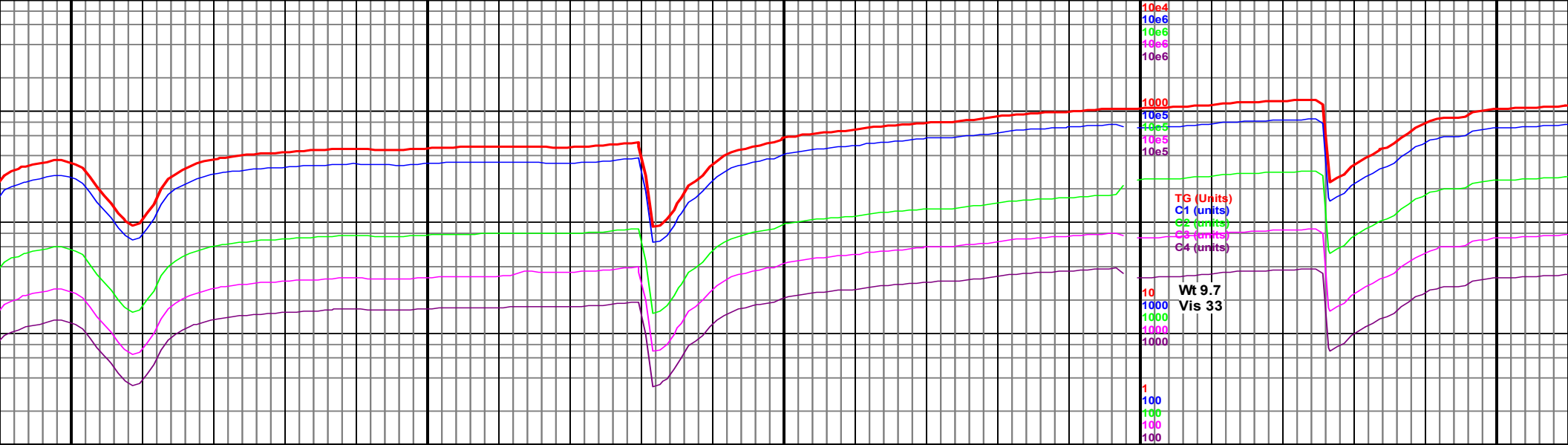
**POROSITY**  
 Earthy  
 Fenest  
 Fracture  
 Inter  
 Moldic  
 Organic  
 Pinpoint

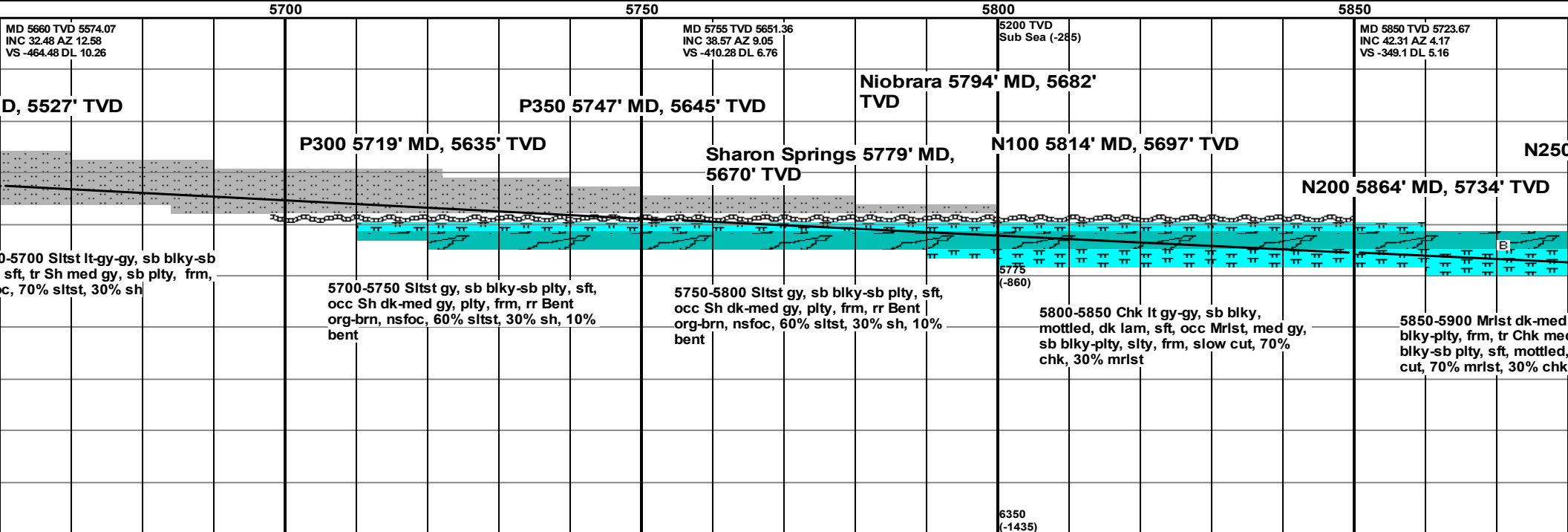
 Vuggy  
  
**SORTING**  
 Well  
 Moderate  
 Poor

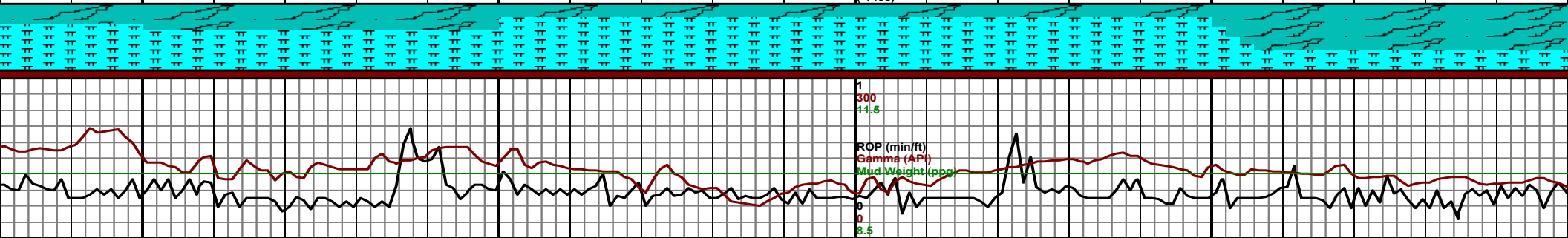
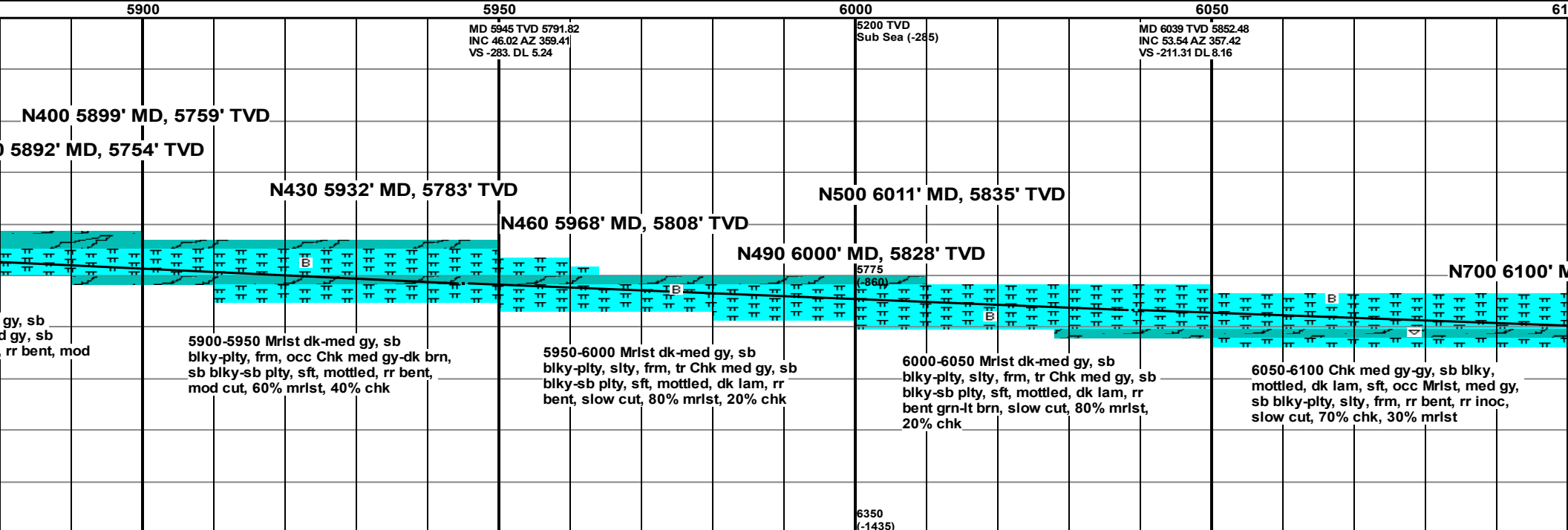
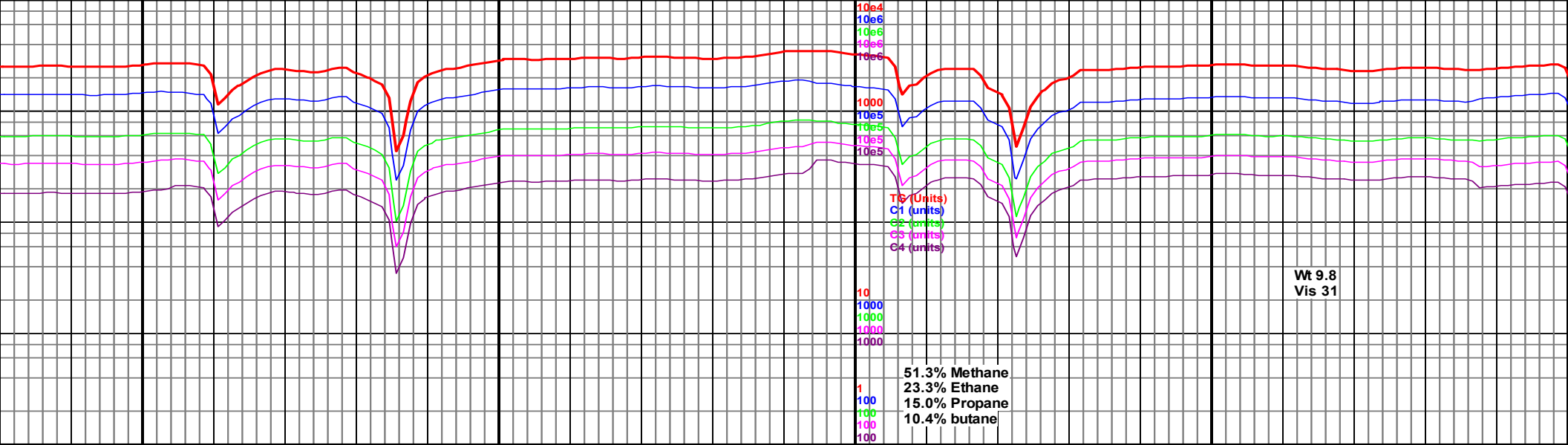
**OTHER SYMBOLS**  
  
**ROUNDING**  
 Rounded  
 Subrnd  
 Subang  
 Angular  
  
**OIL SHOW**  
 Even  
  
 Spotted  
 Ques  
 Dead  
  
**INTERVAL**  
 Core  
 Dst

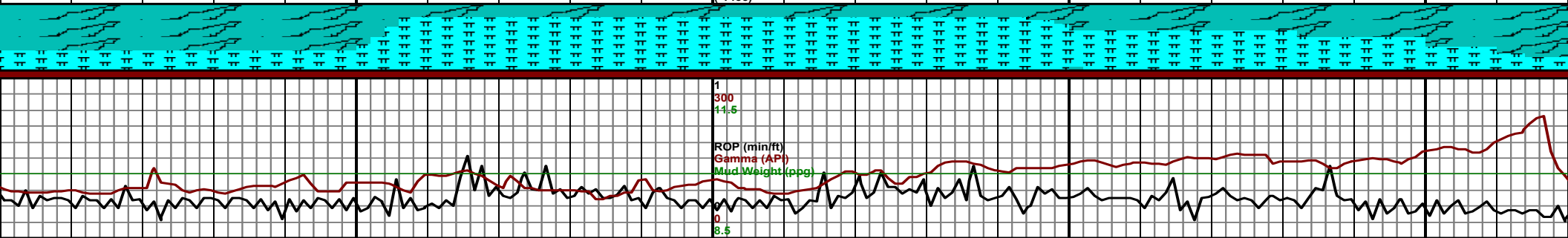
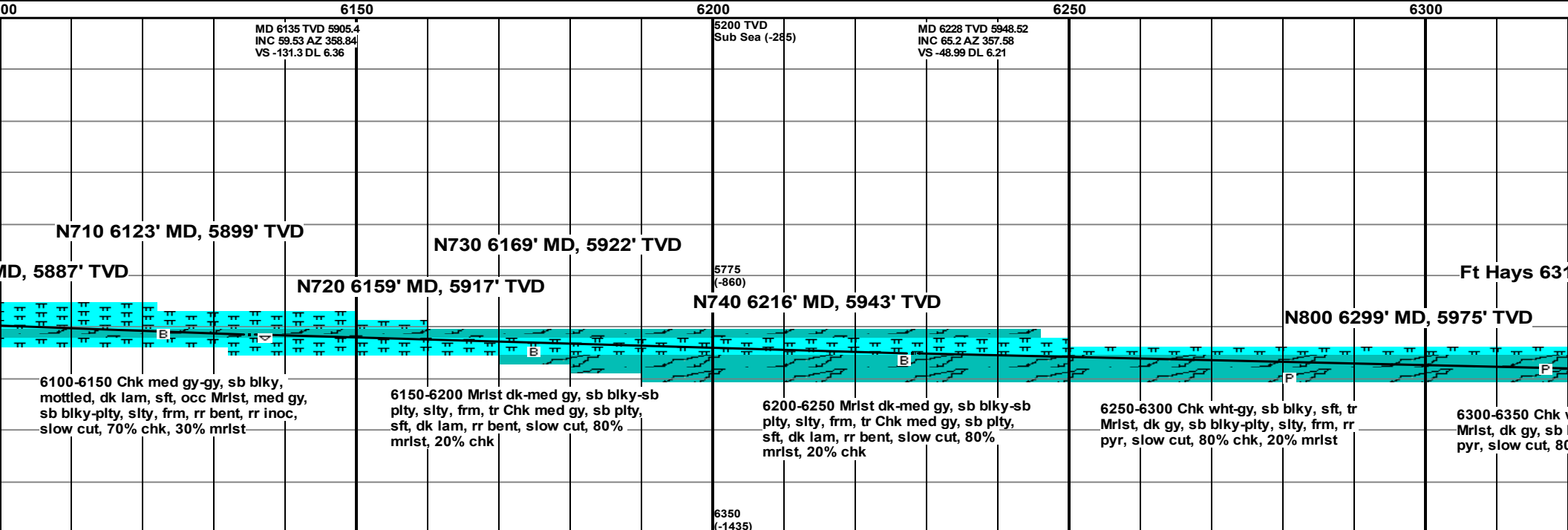
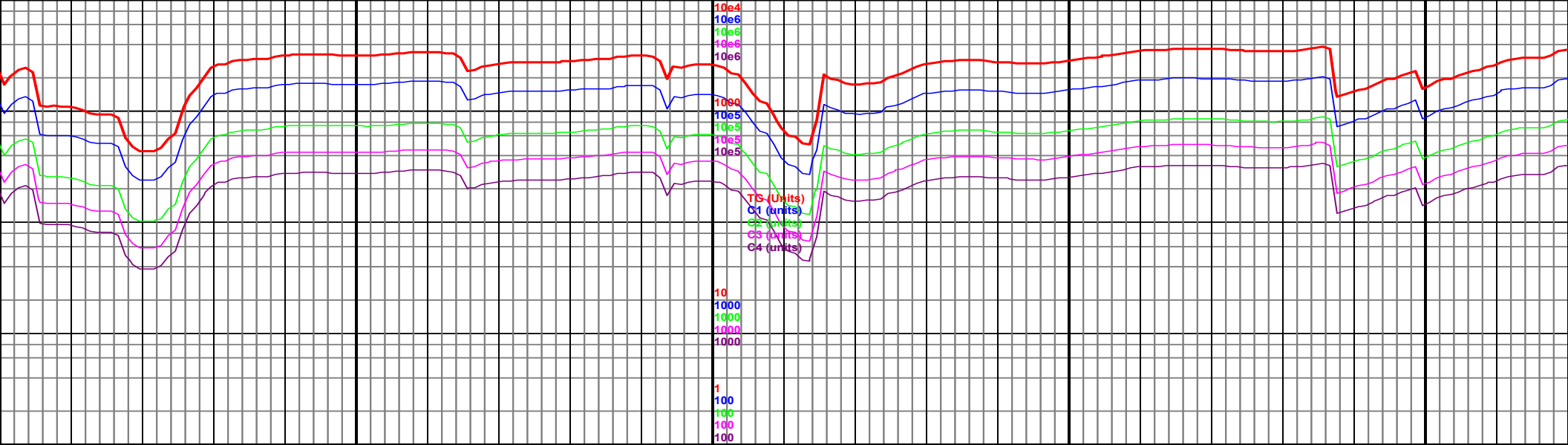
**EVENT**  
 Rft  
 Sidewall



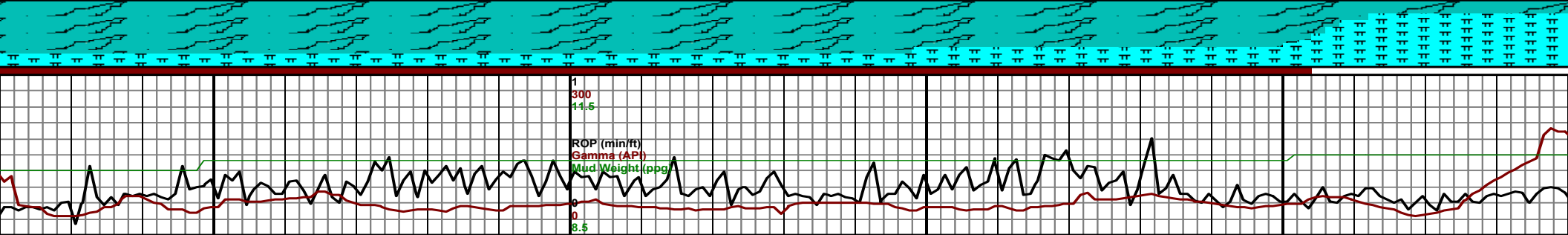
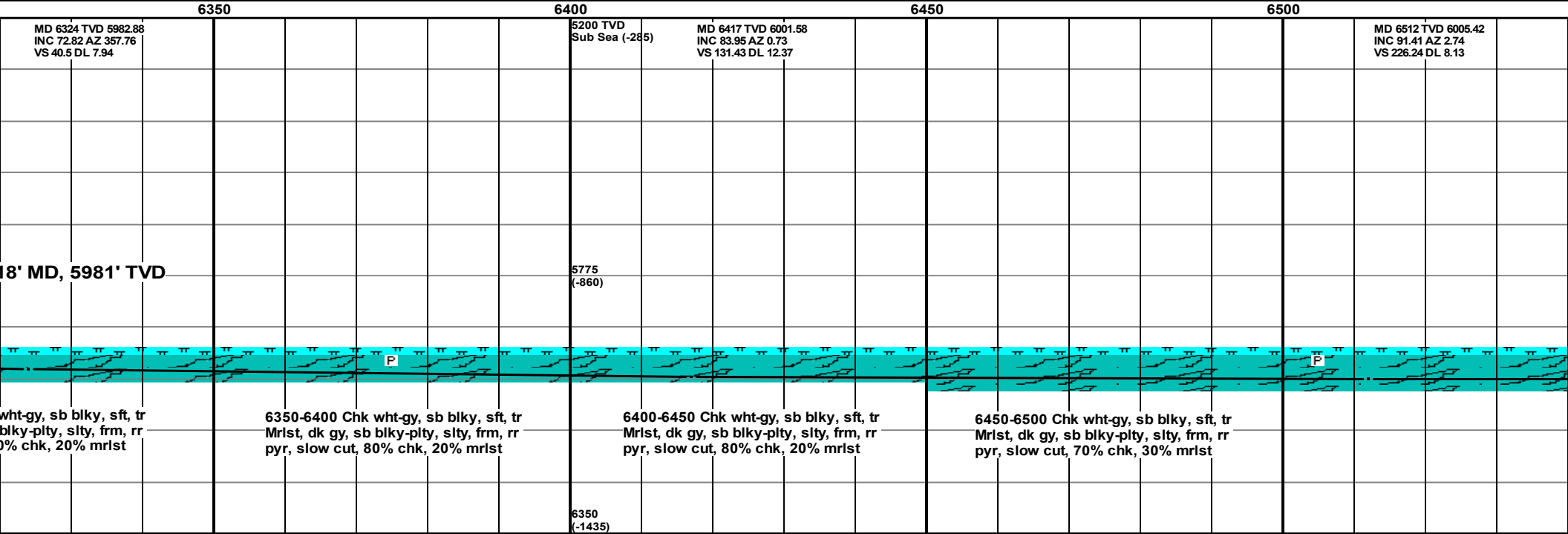
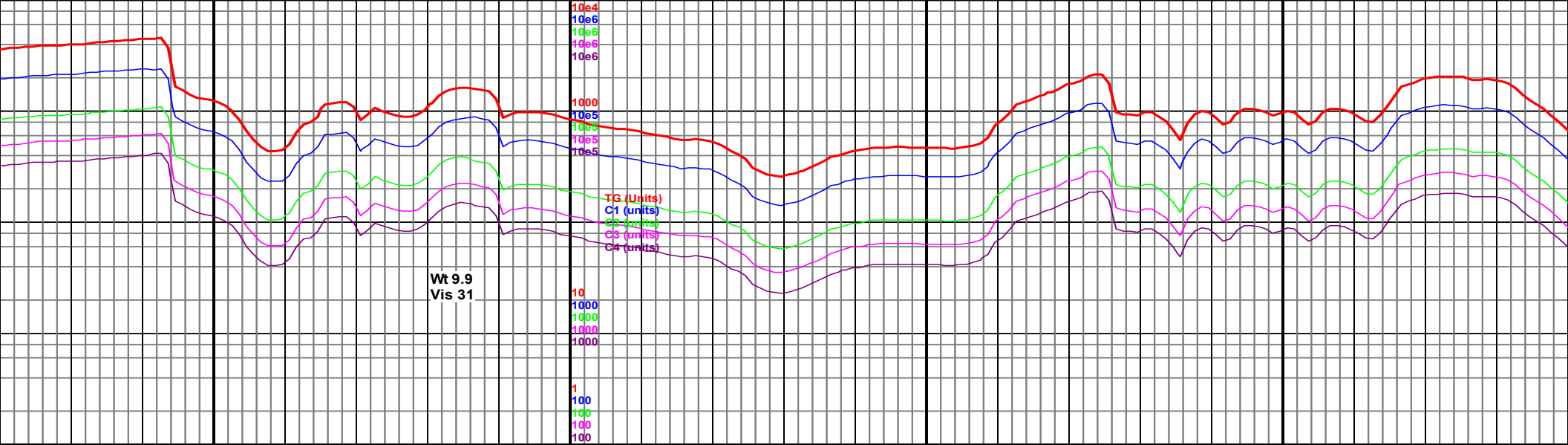


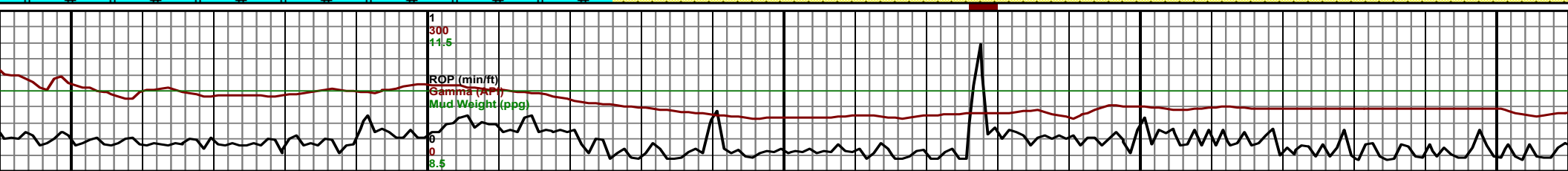
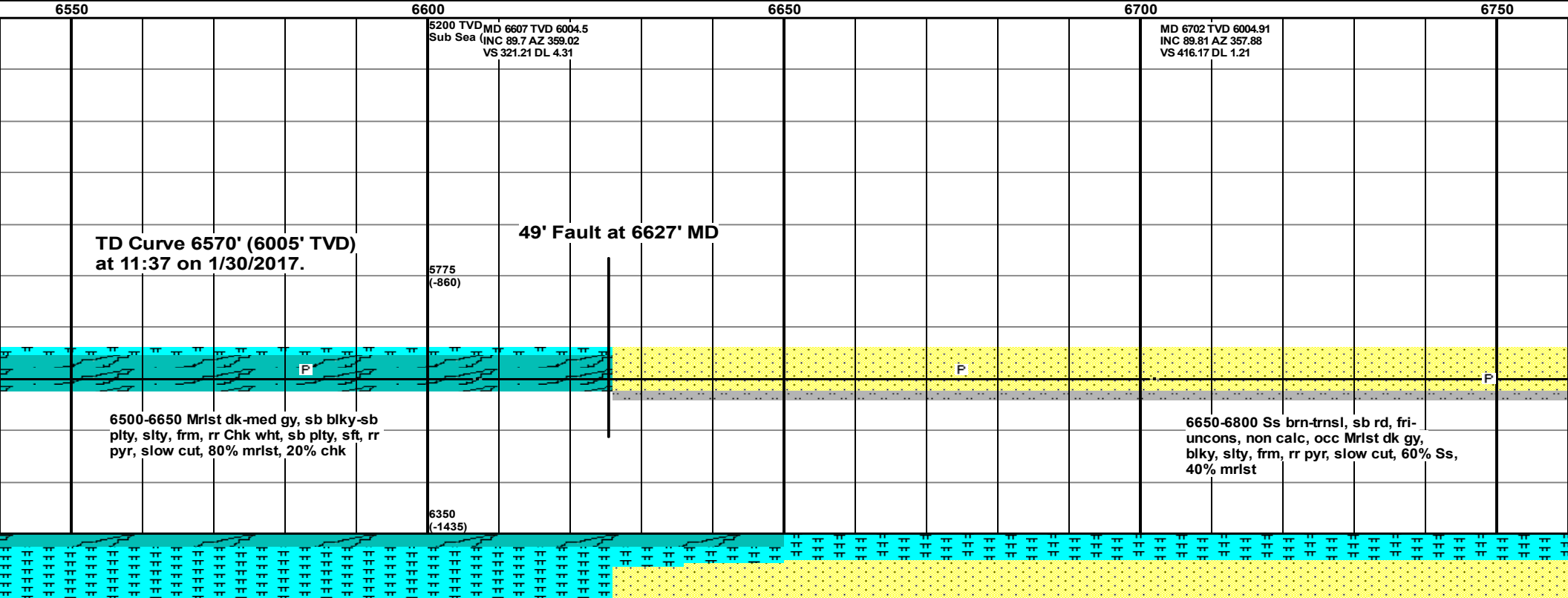
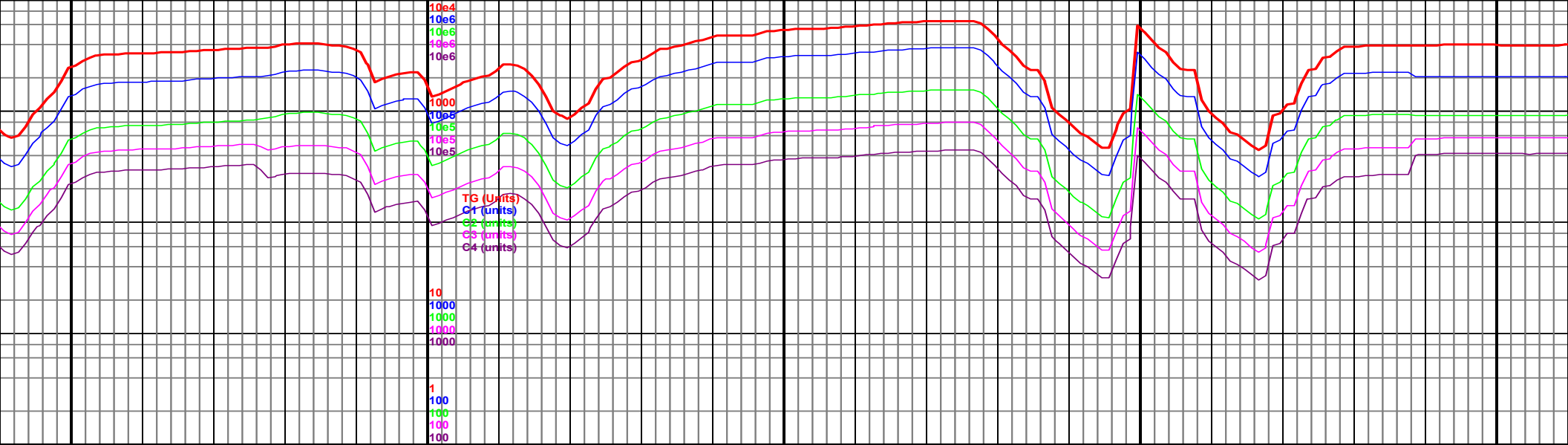




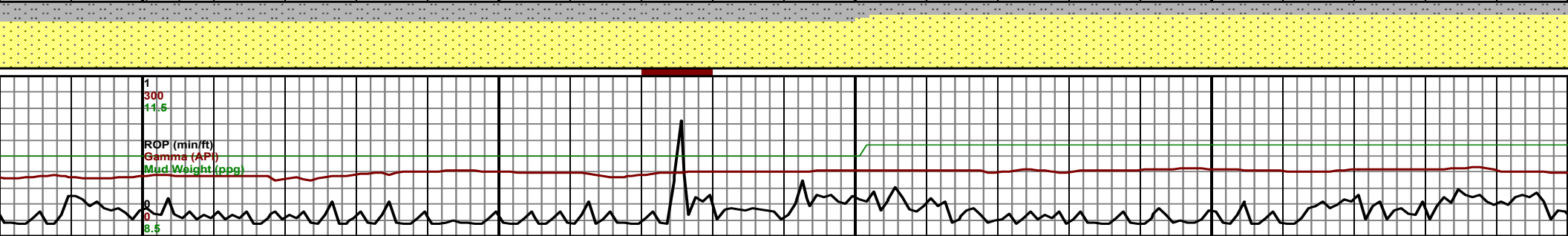
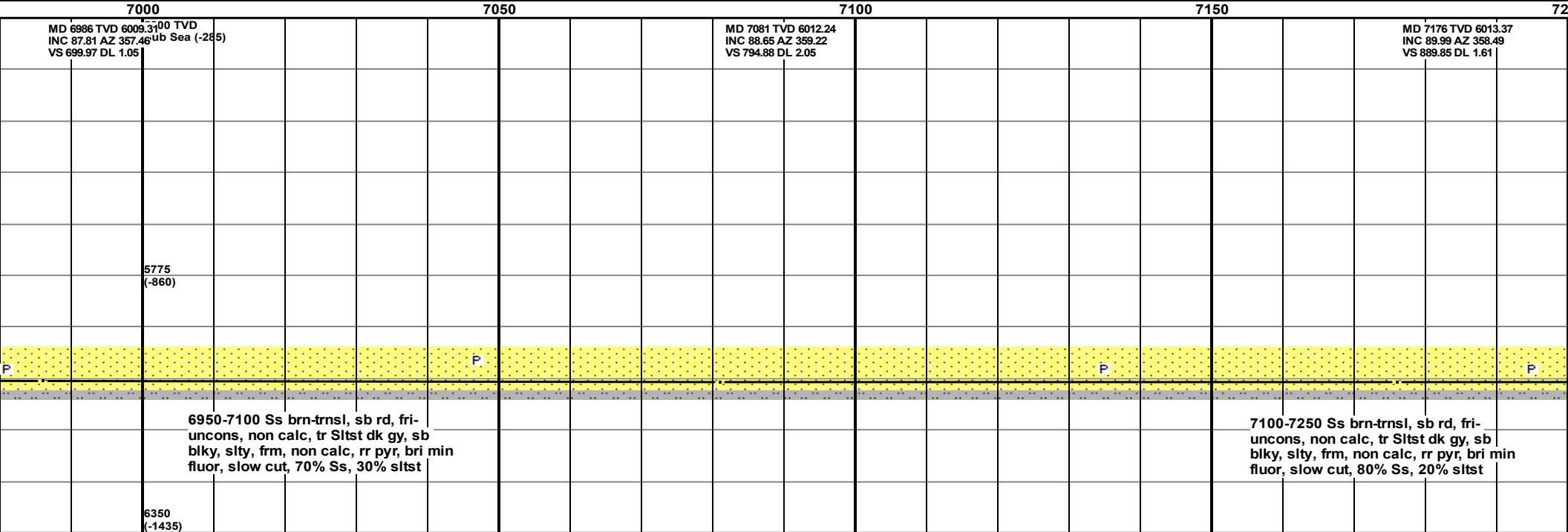
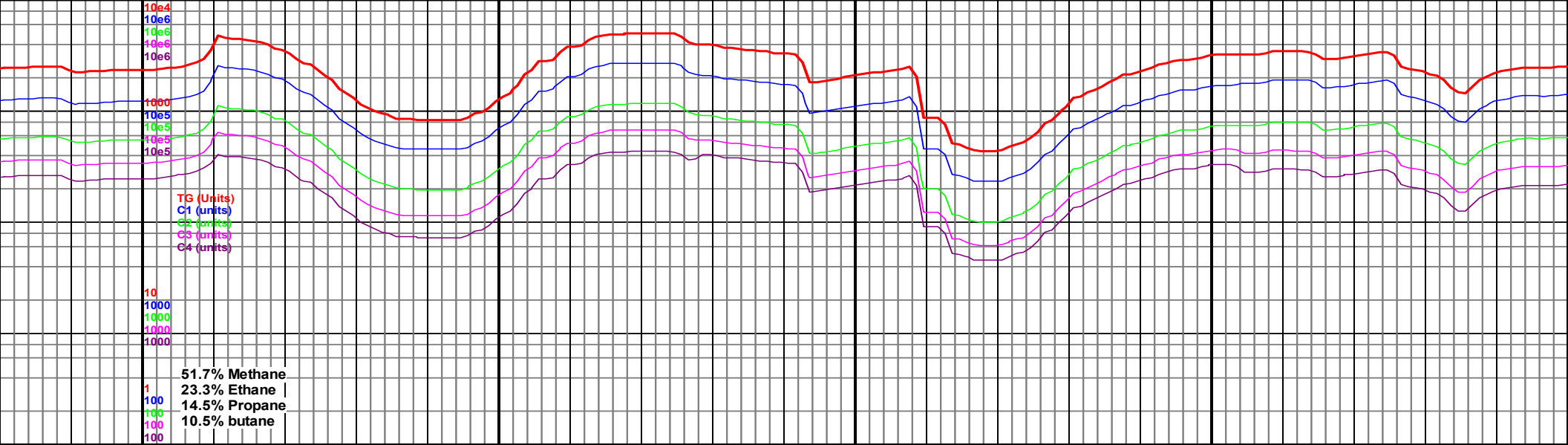


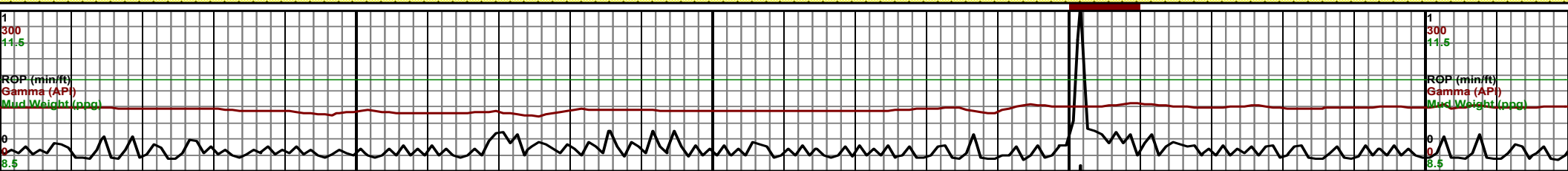
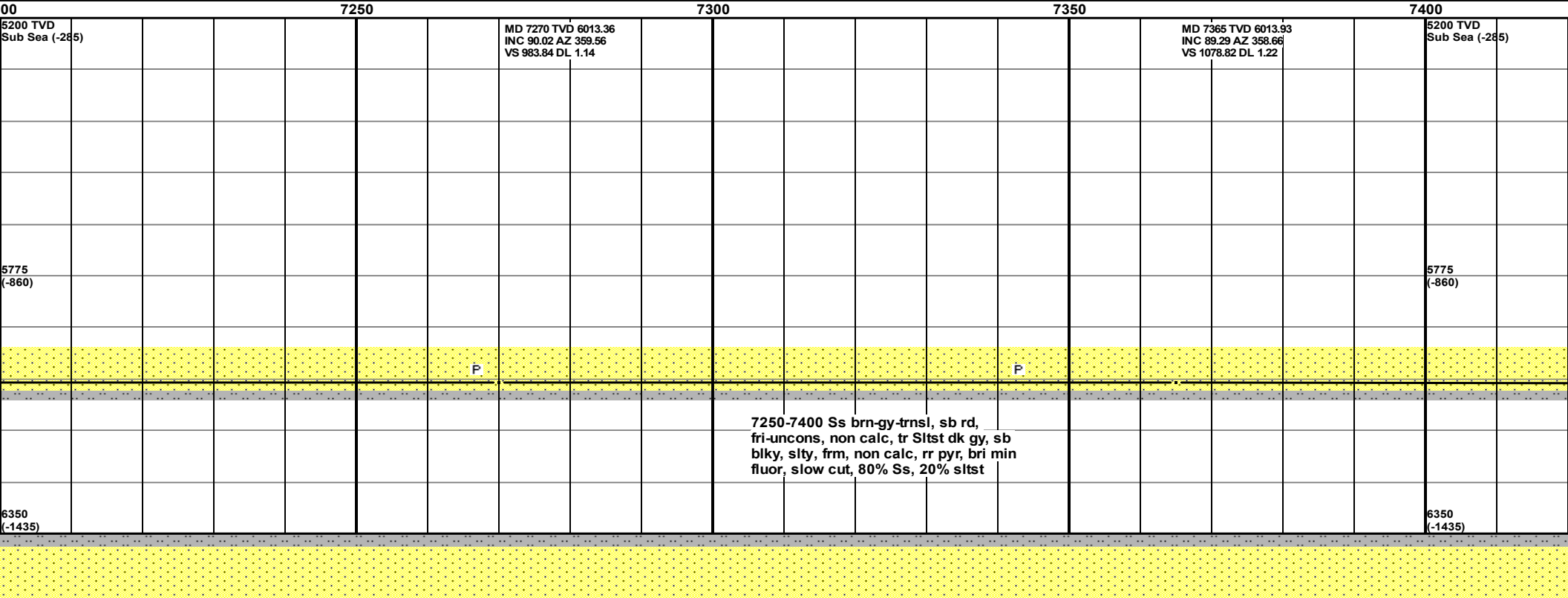
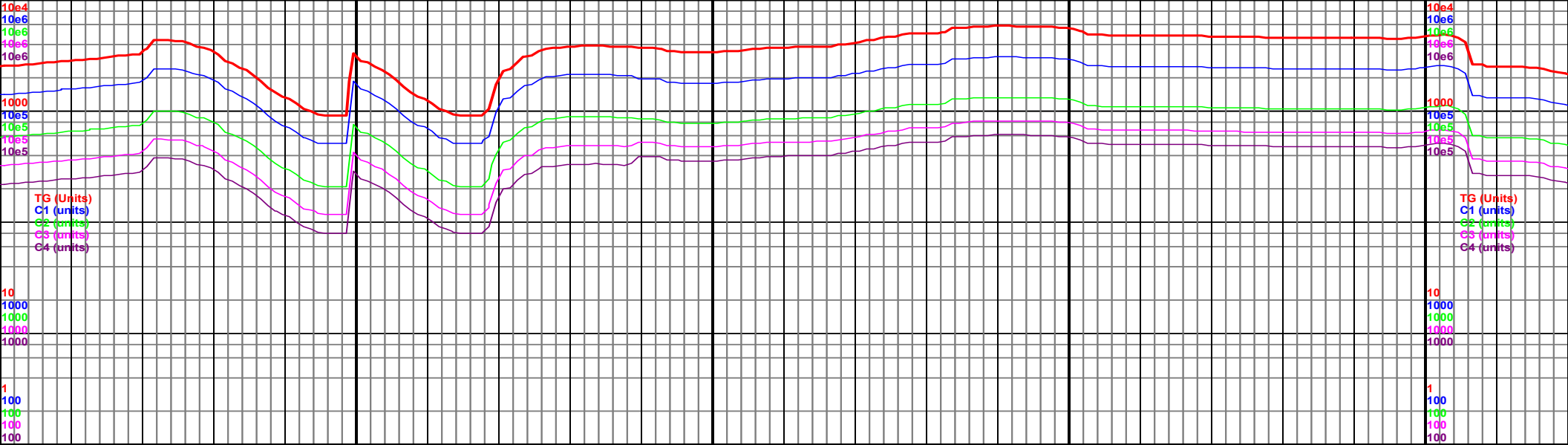


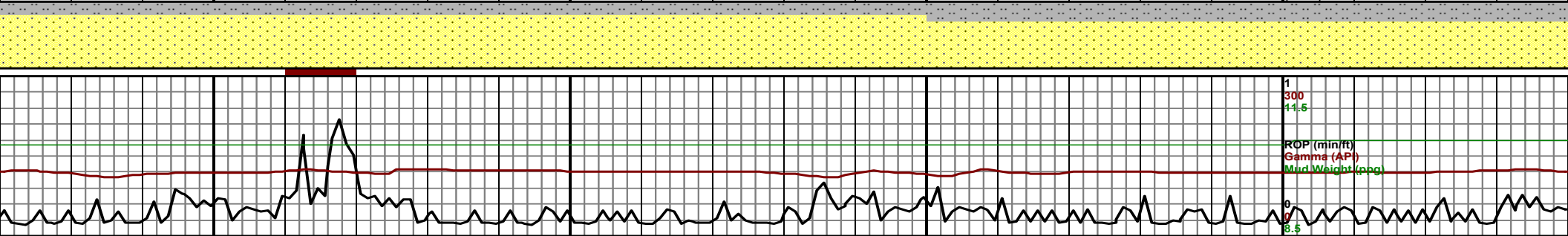
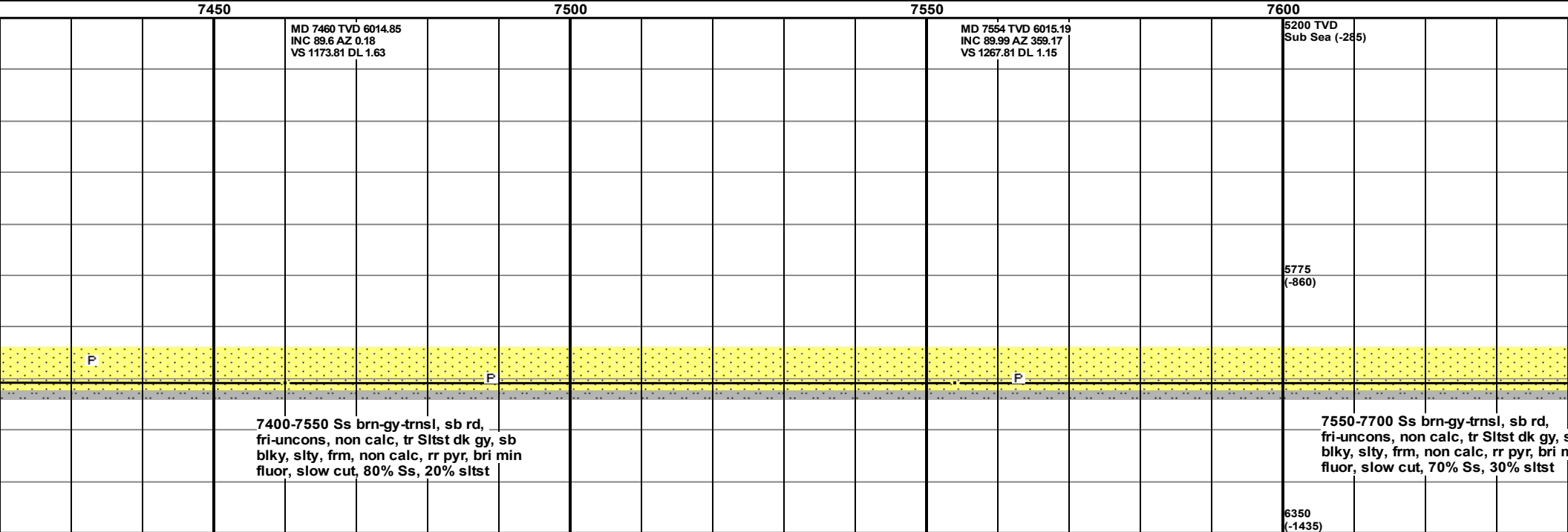
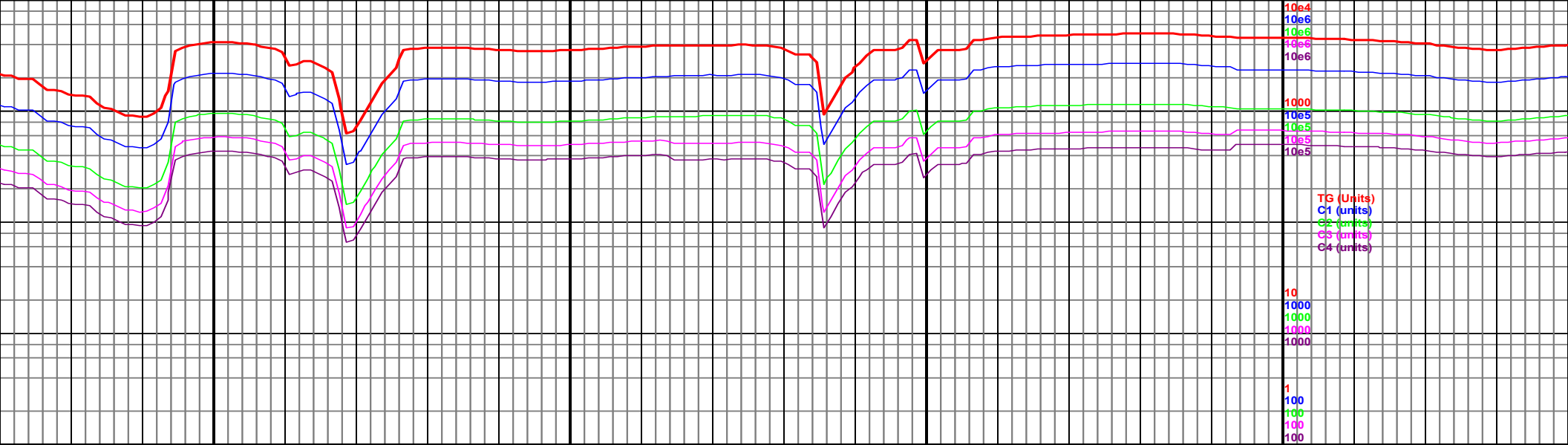


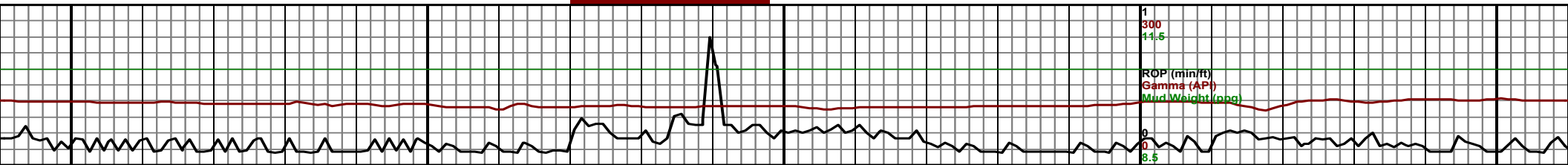
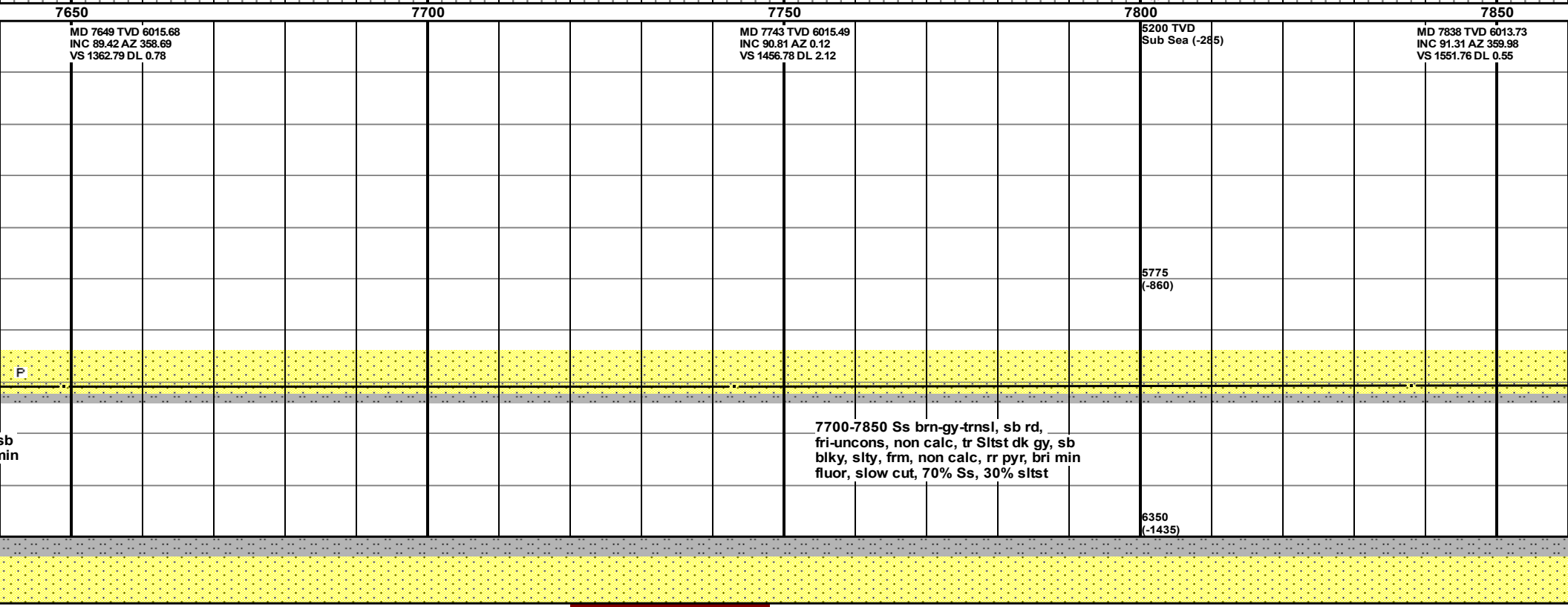
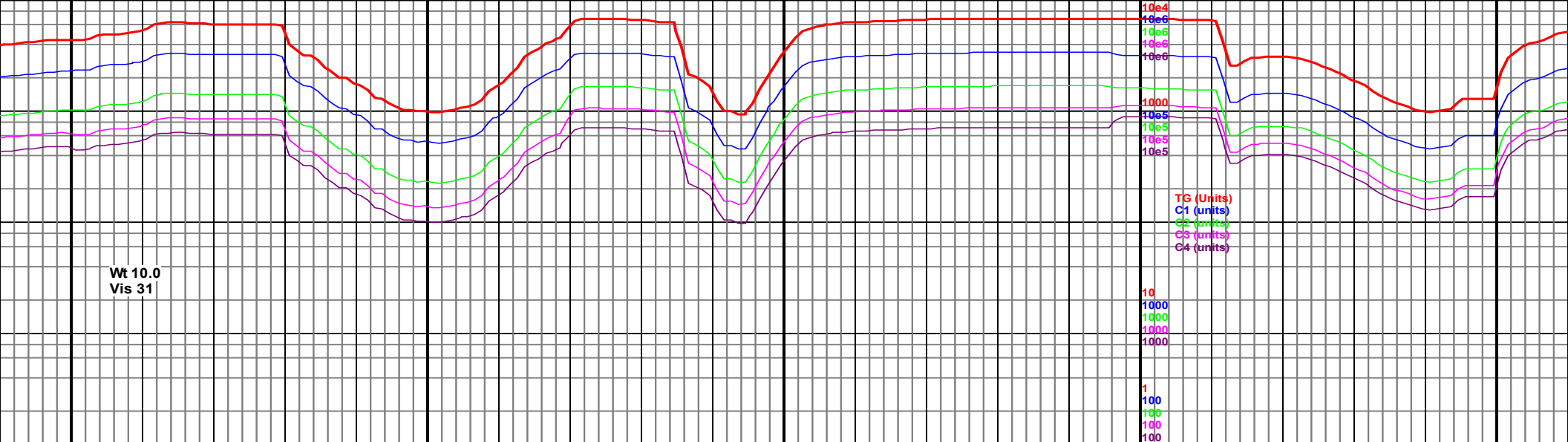


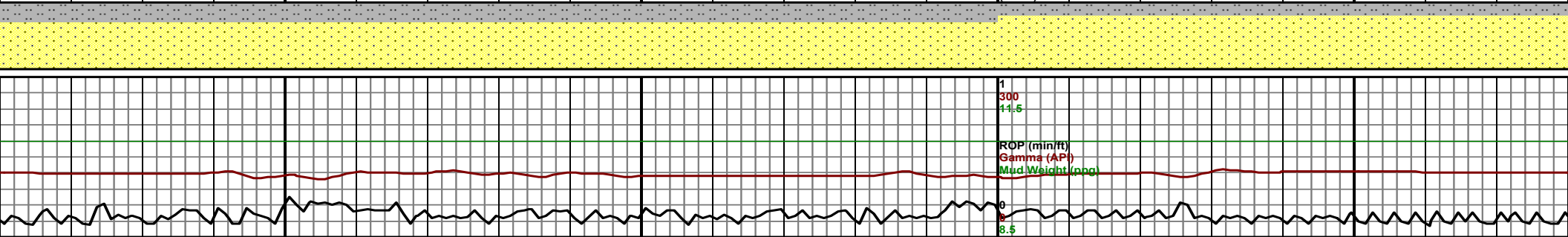
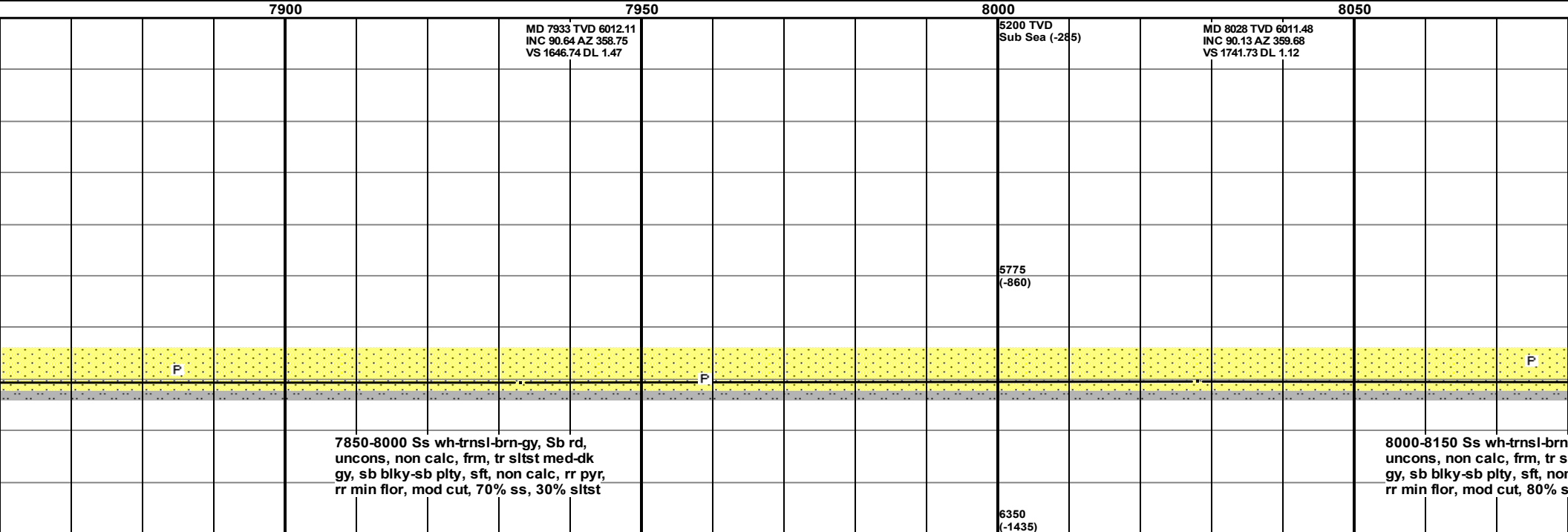
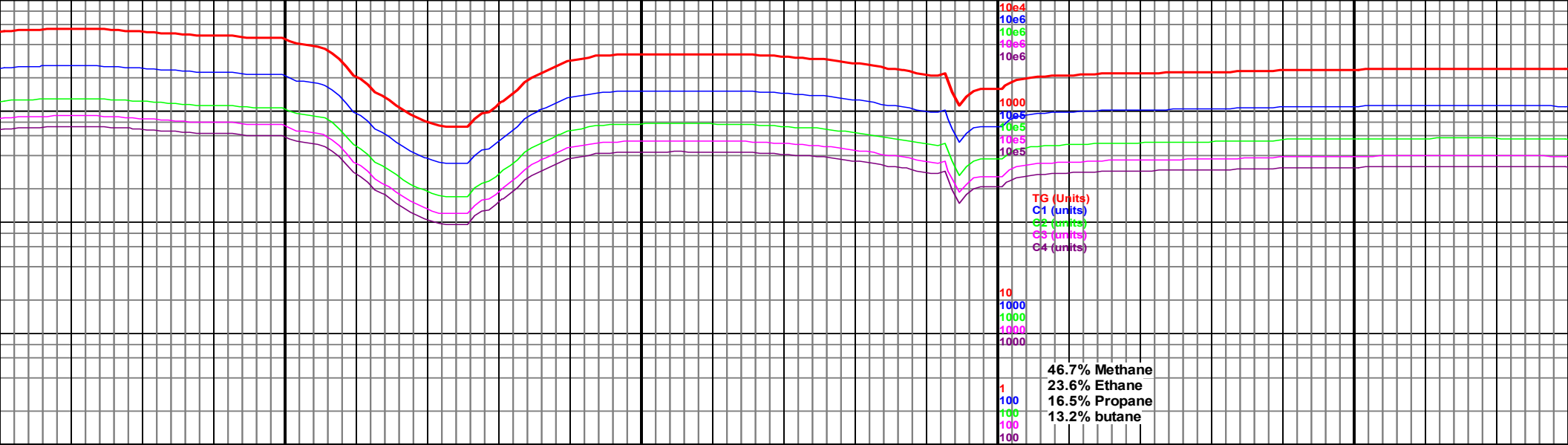




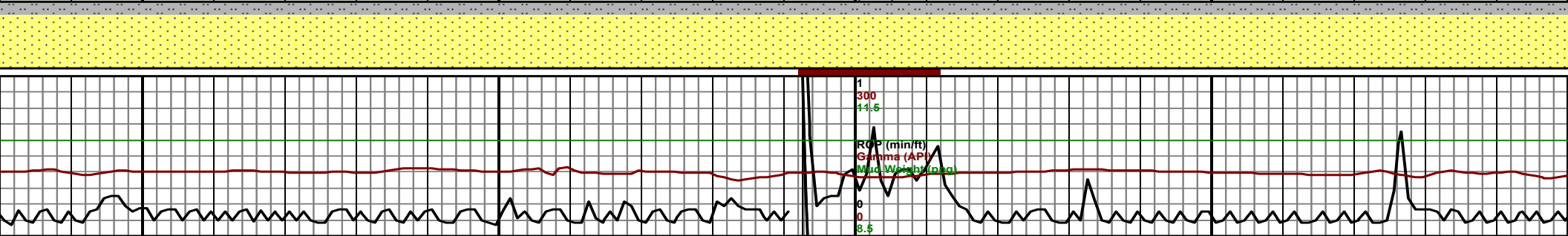
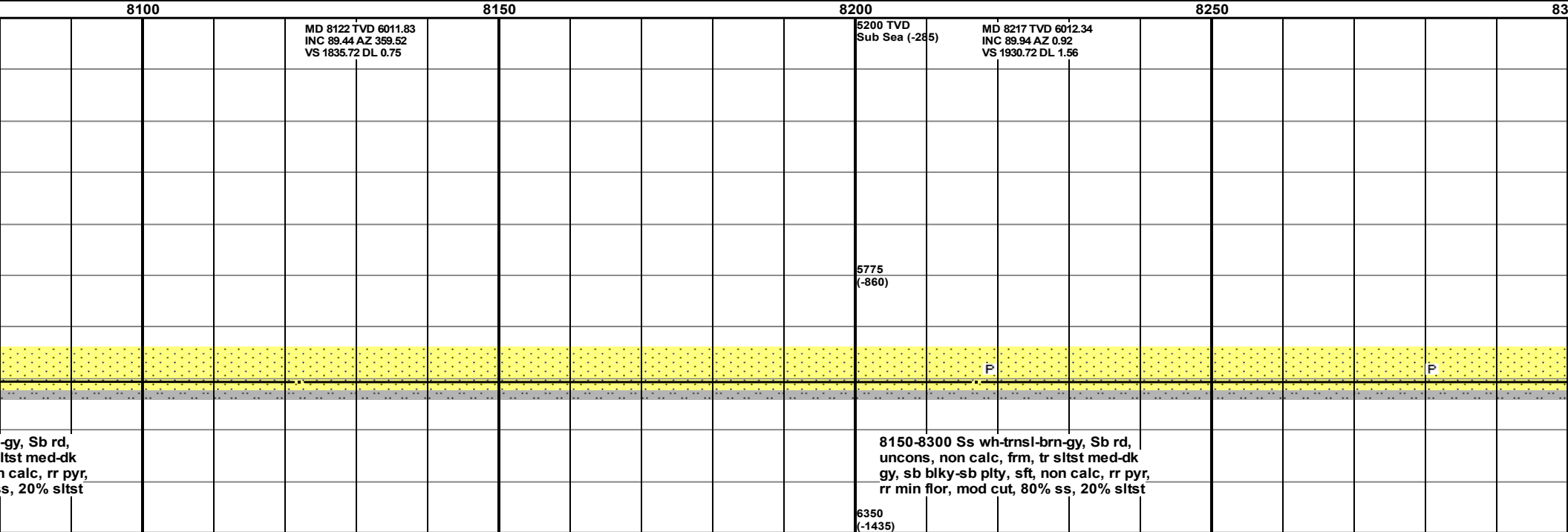
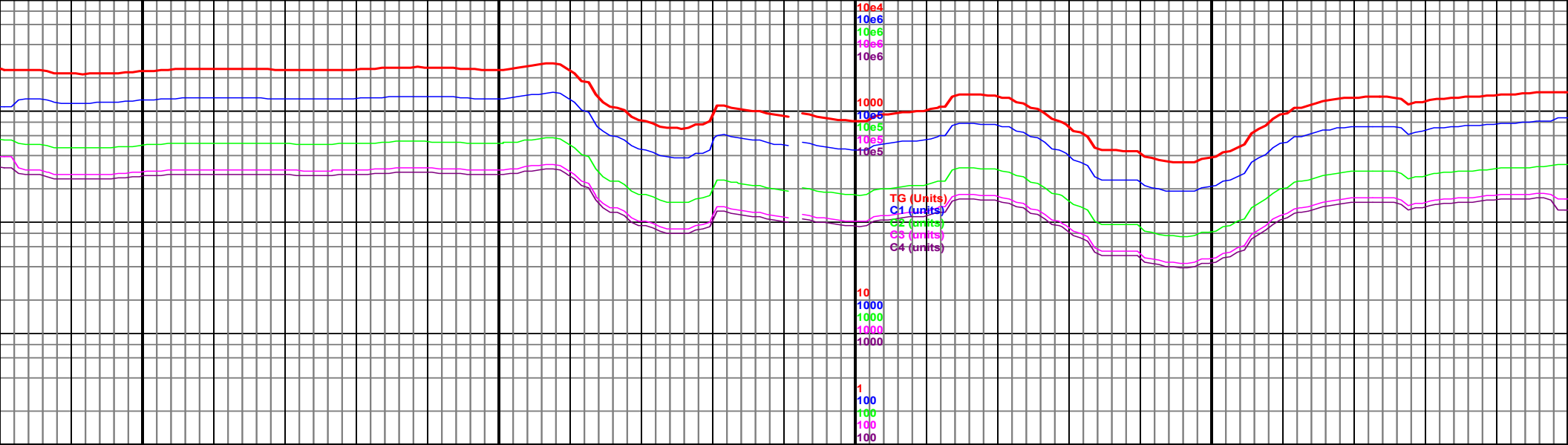


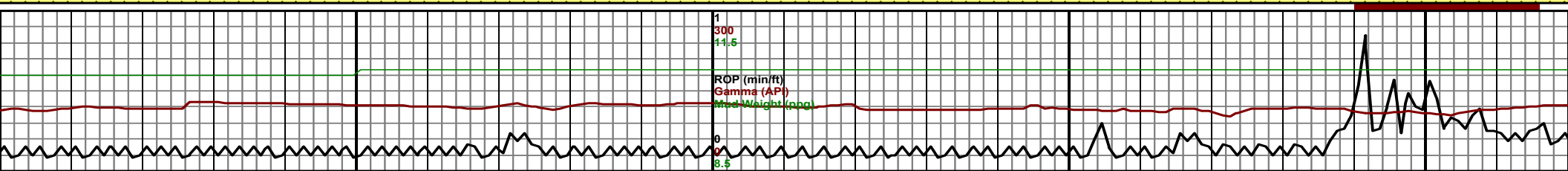
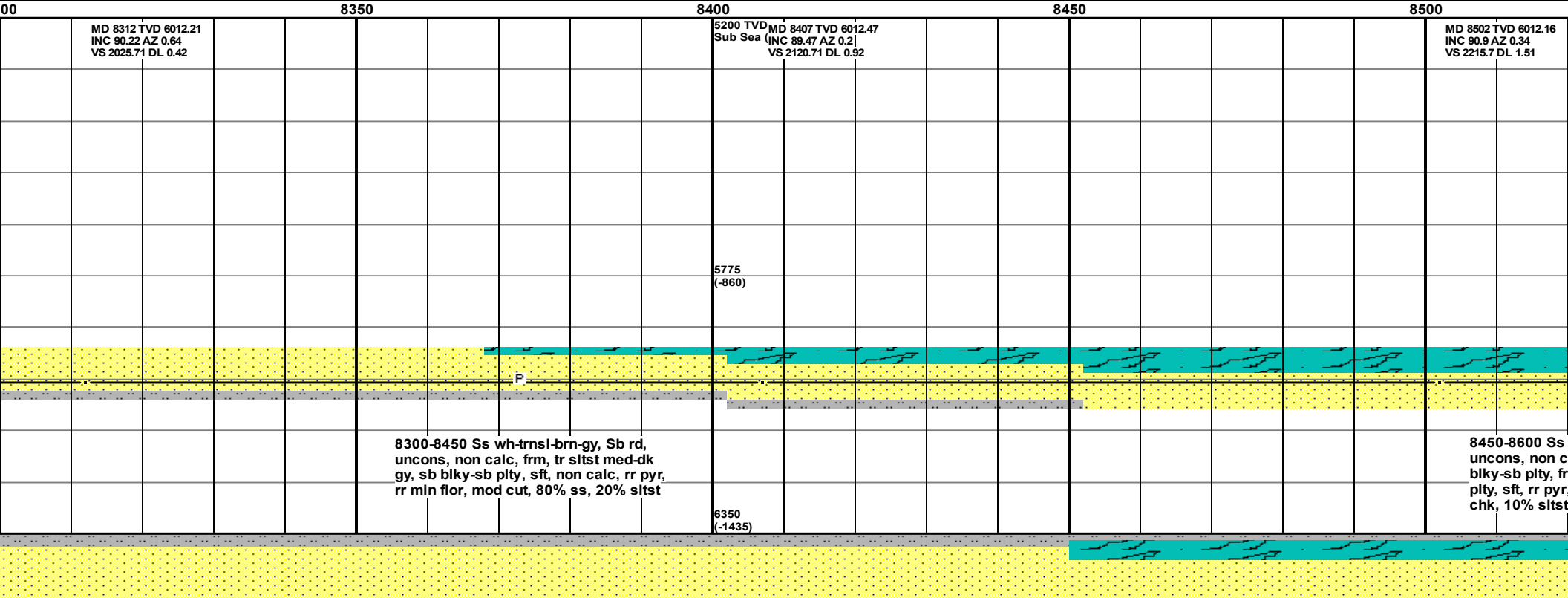
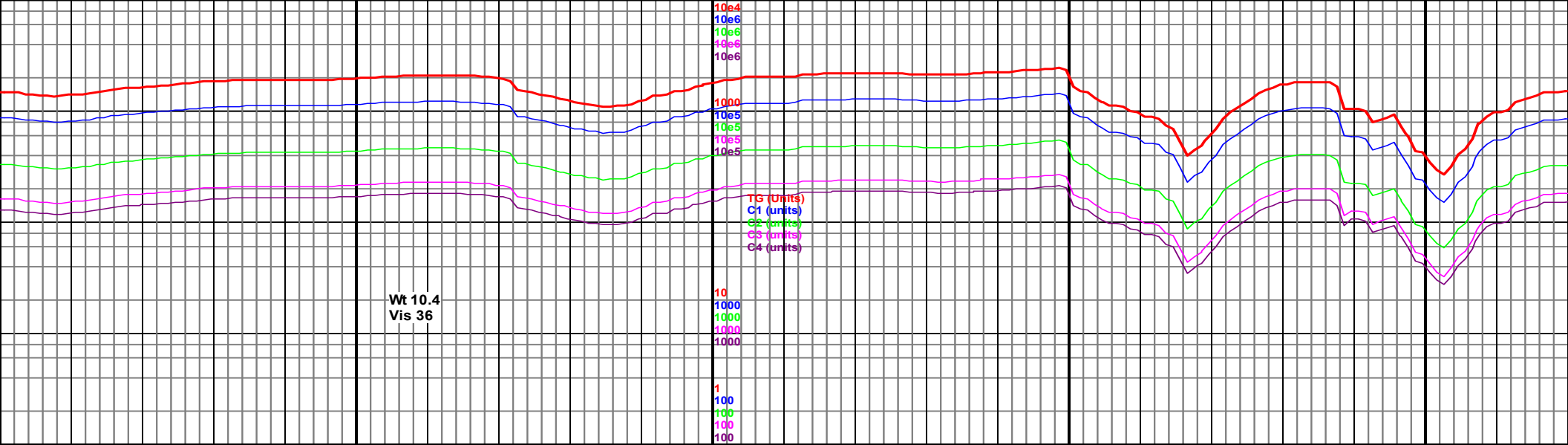




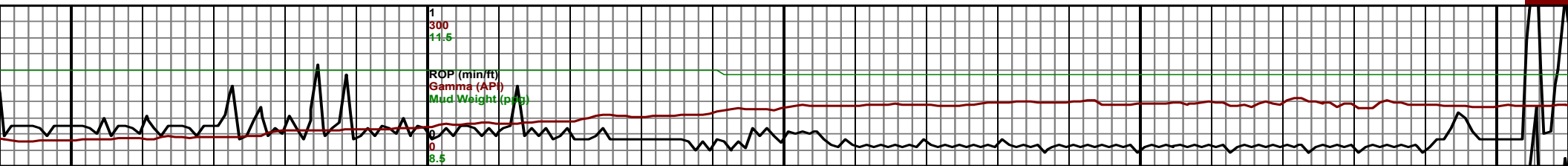
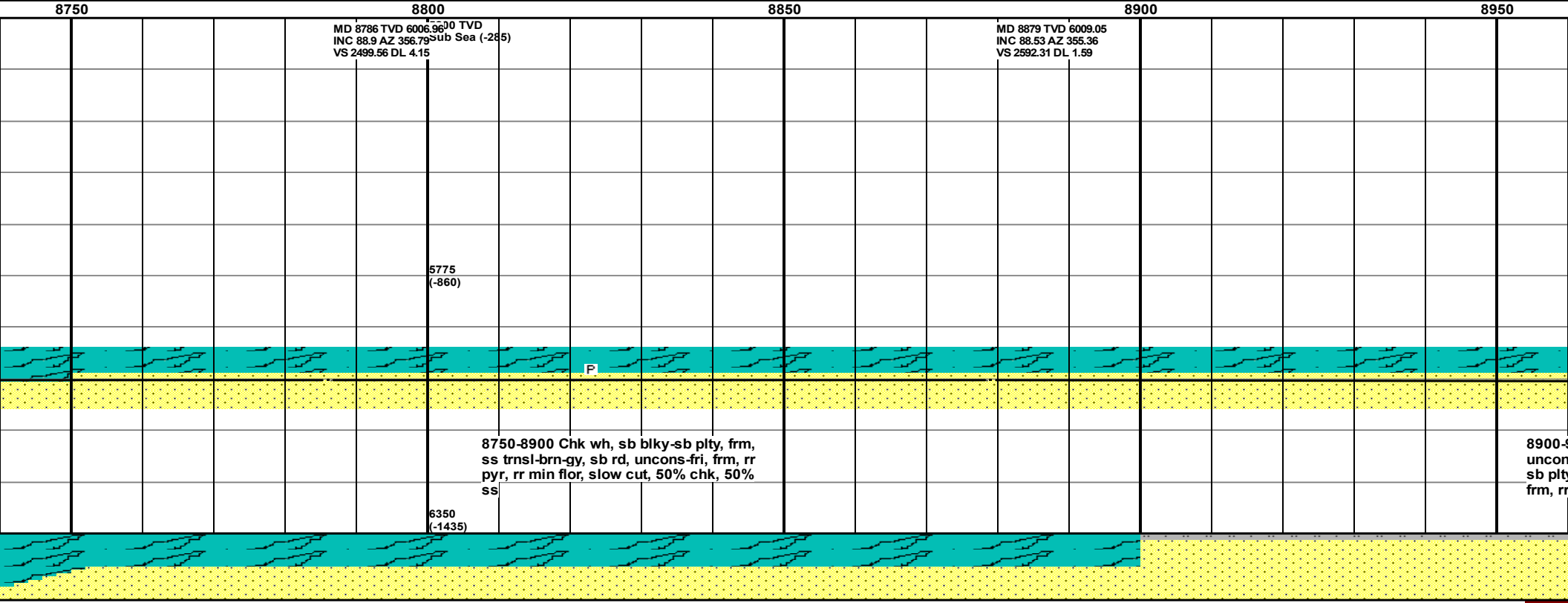
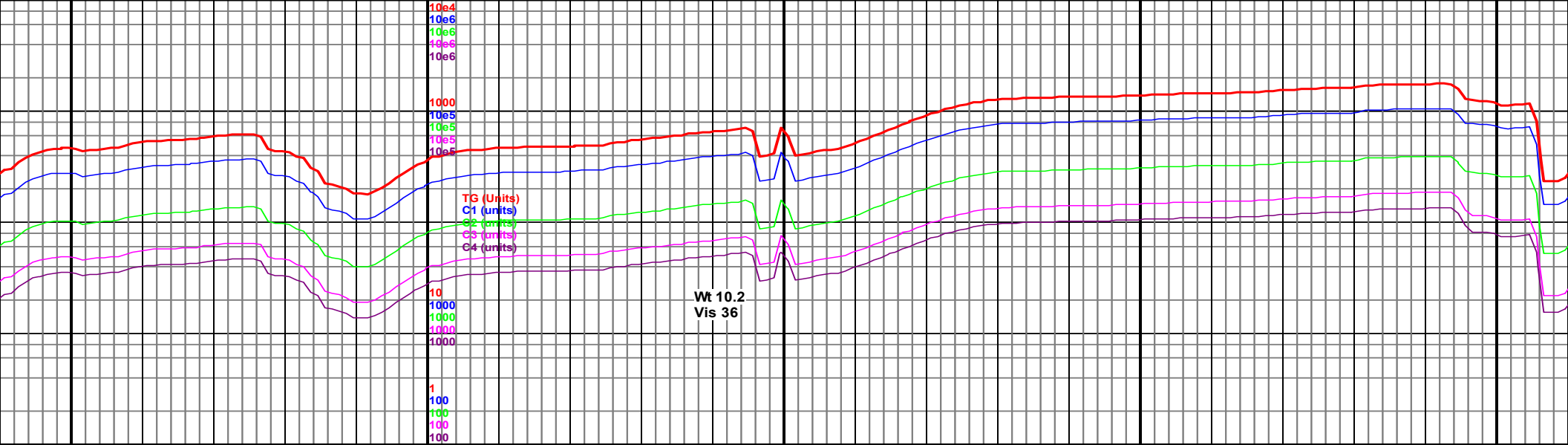


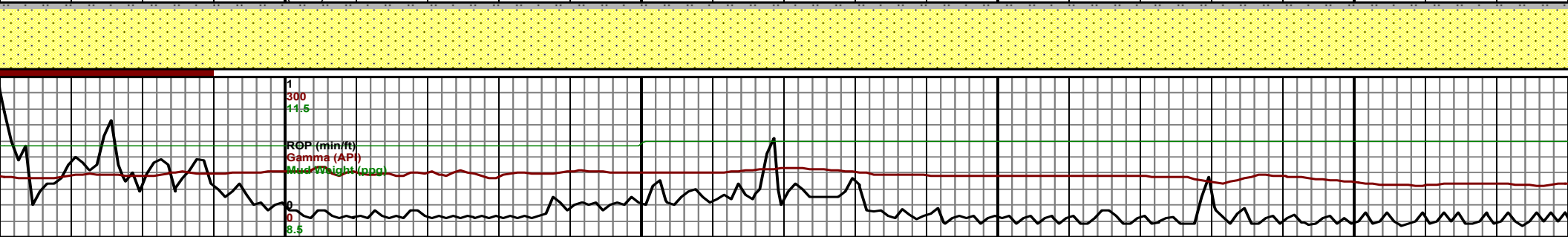
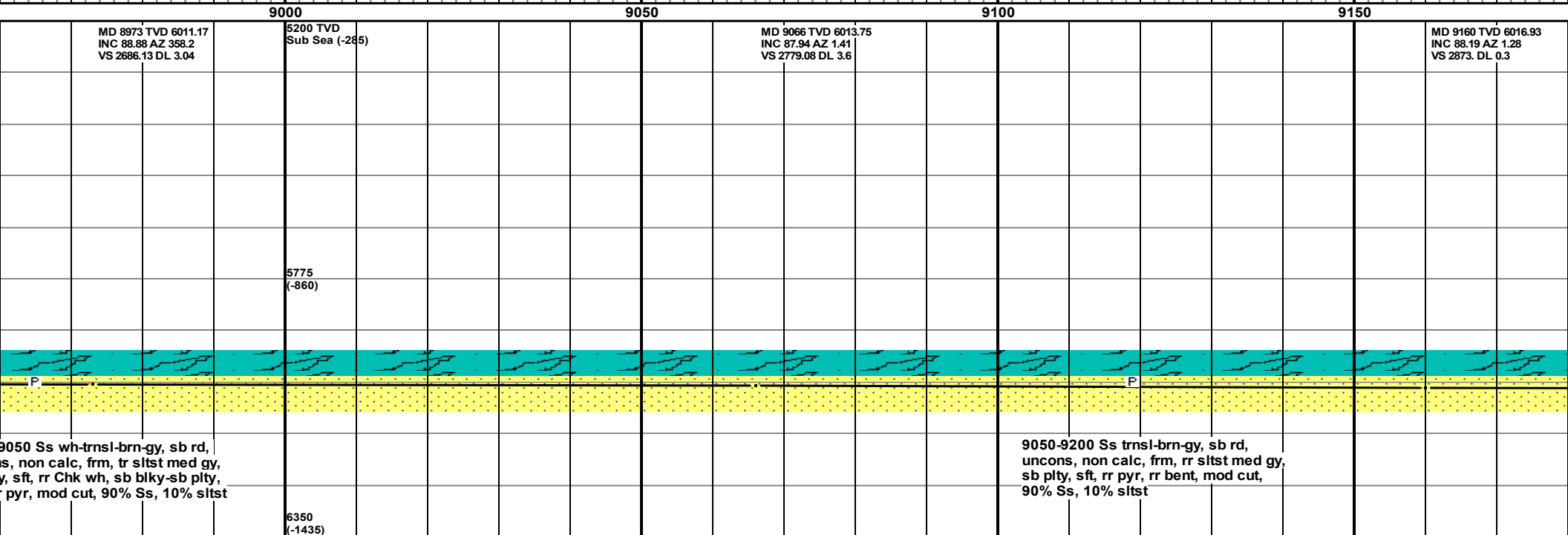
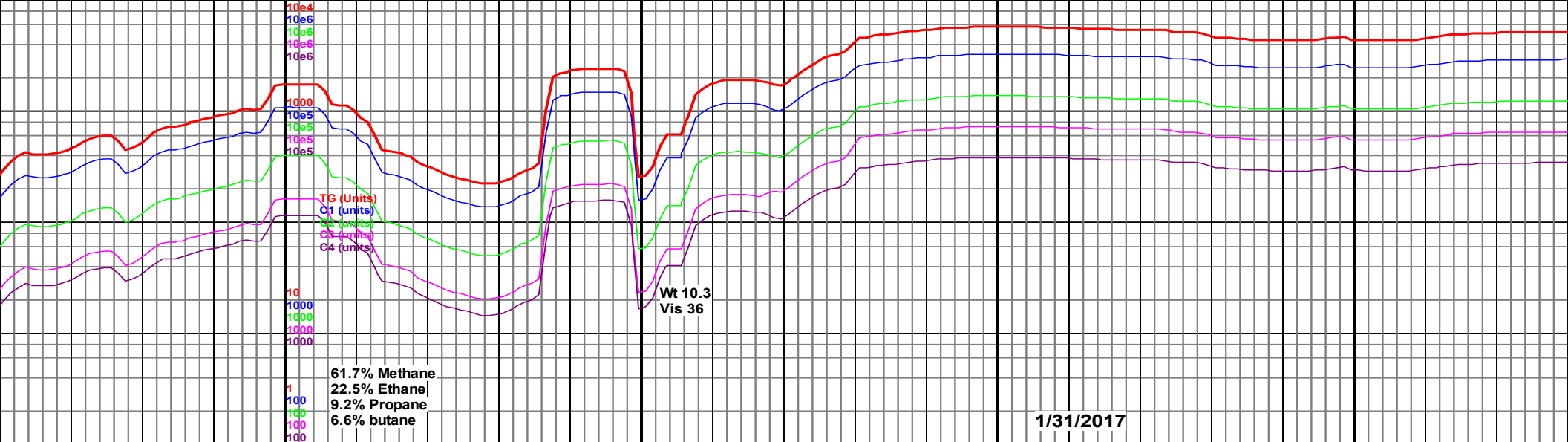


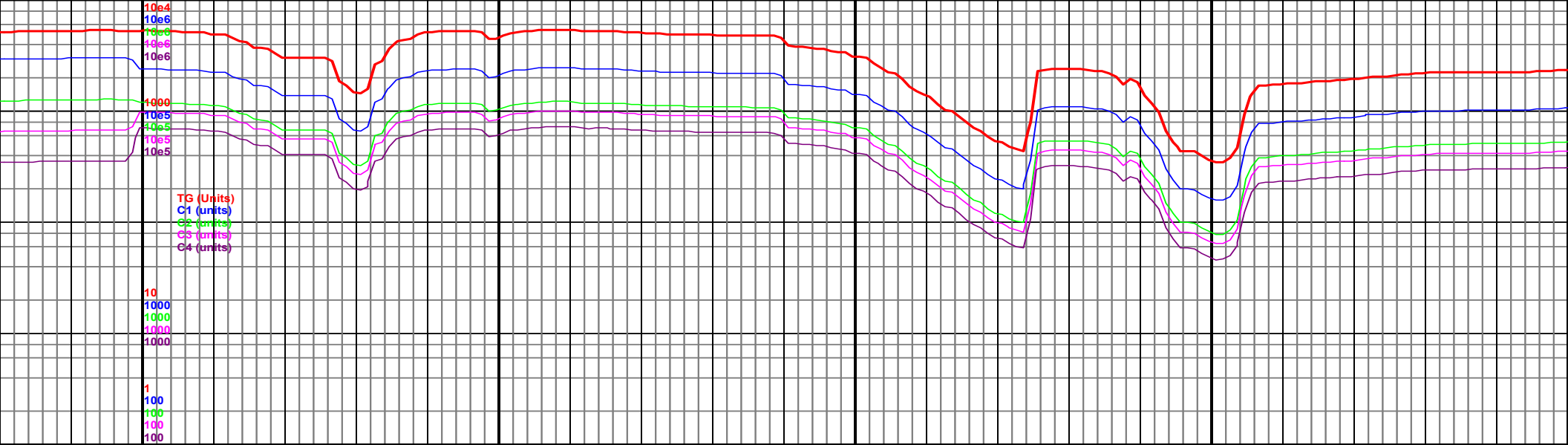












9200 9250 9300 9350 9400

5200 TVD  
Sub Sea (-285)

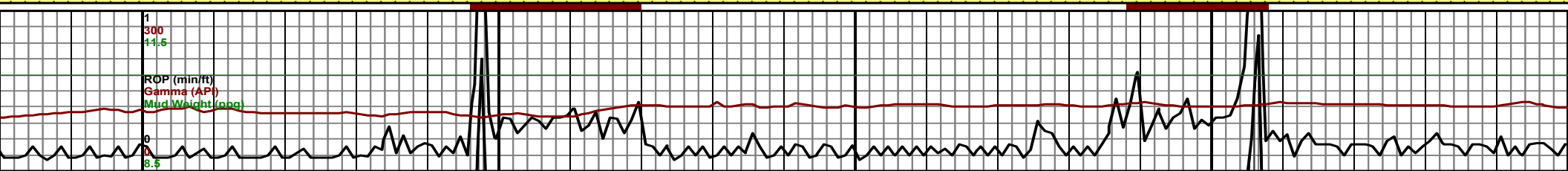
MD 9253 TVD 6019.89  
INC 88.16 AZ 2.97  
VS 2965.89 DL 1.82

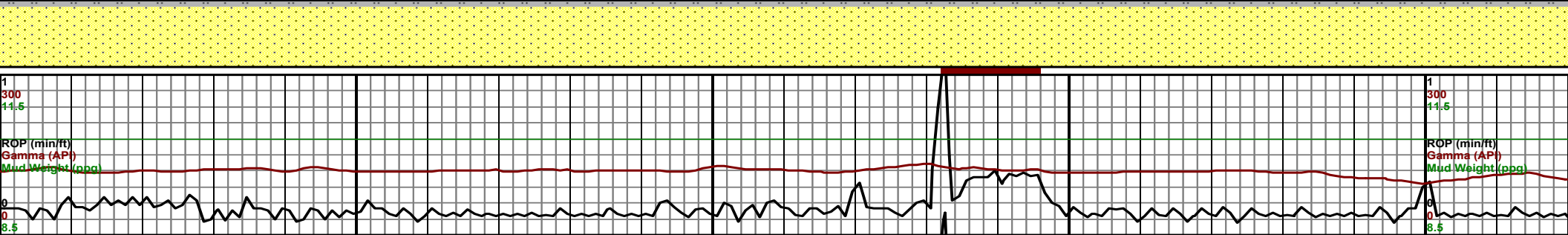
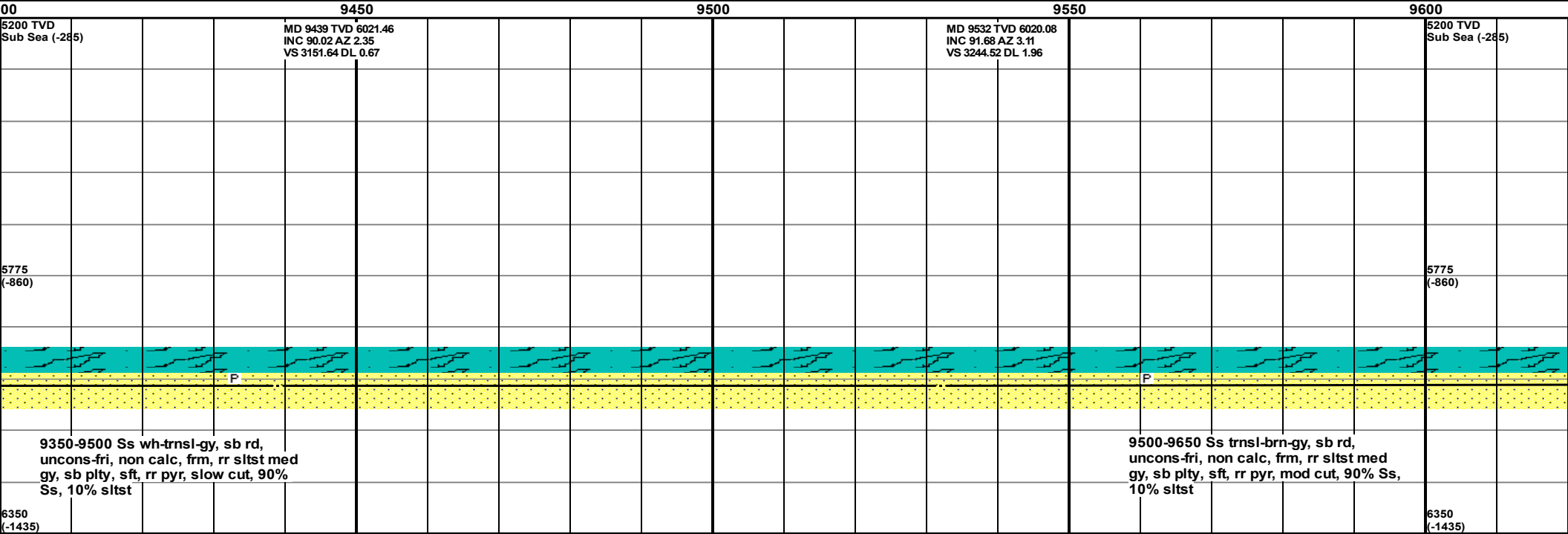
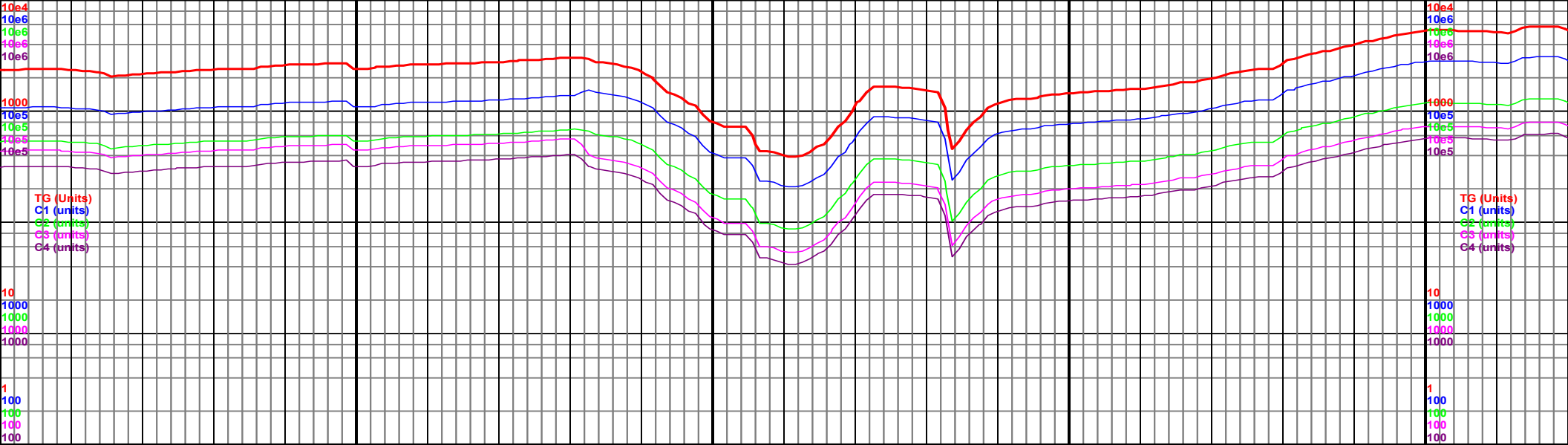
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VS 3058.74 DL 1.91

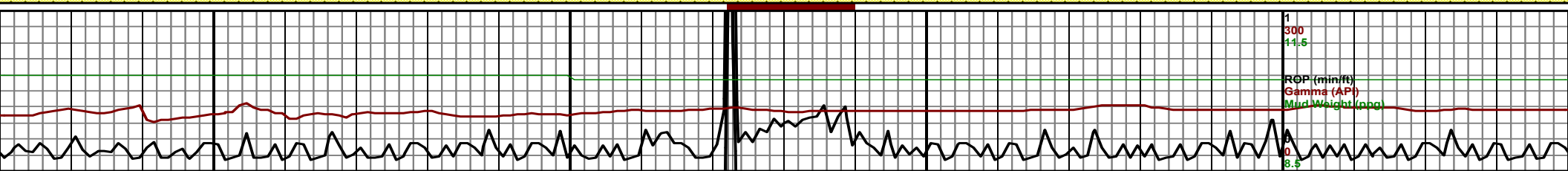
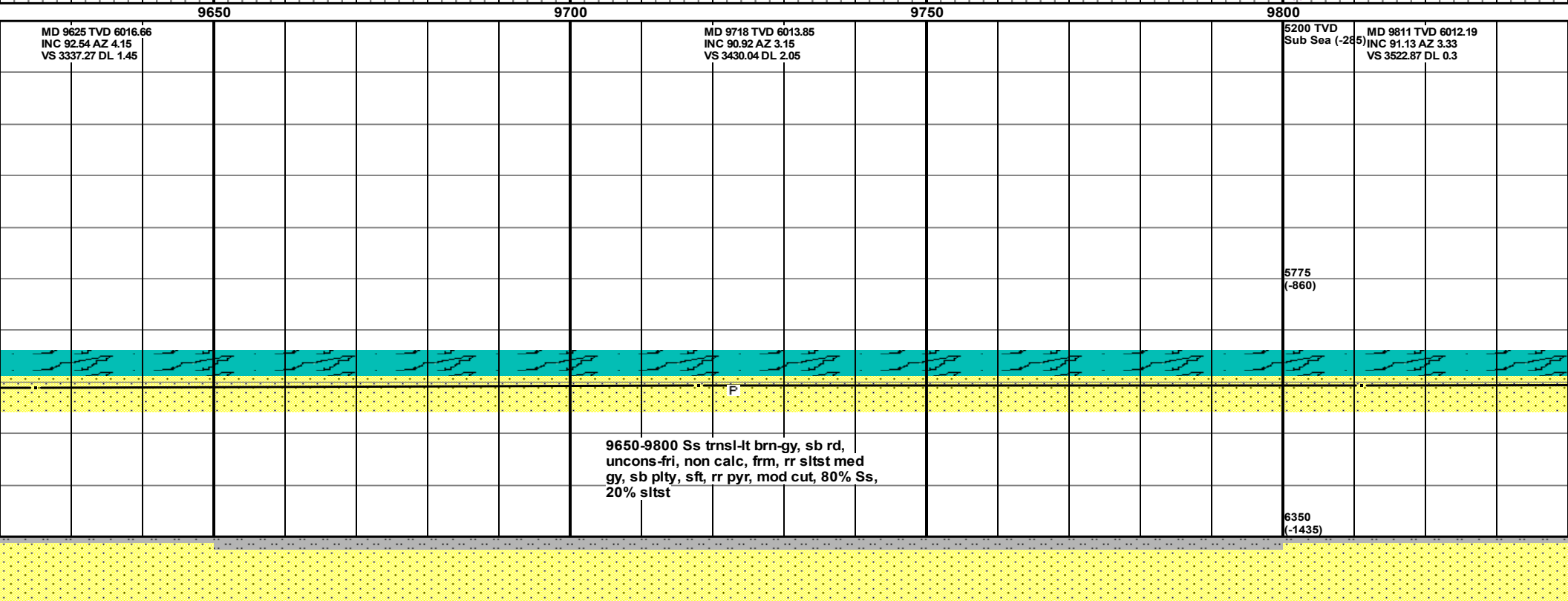
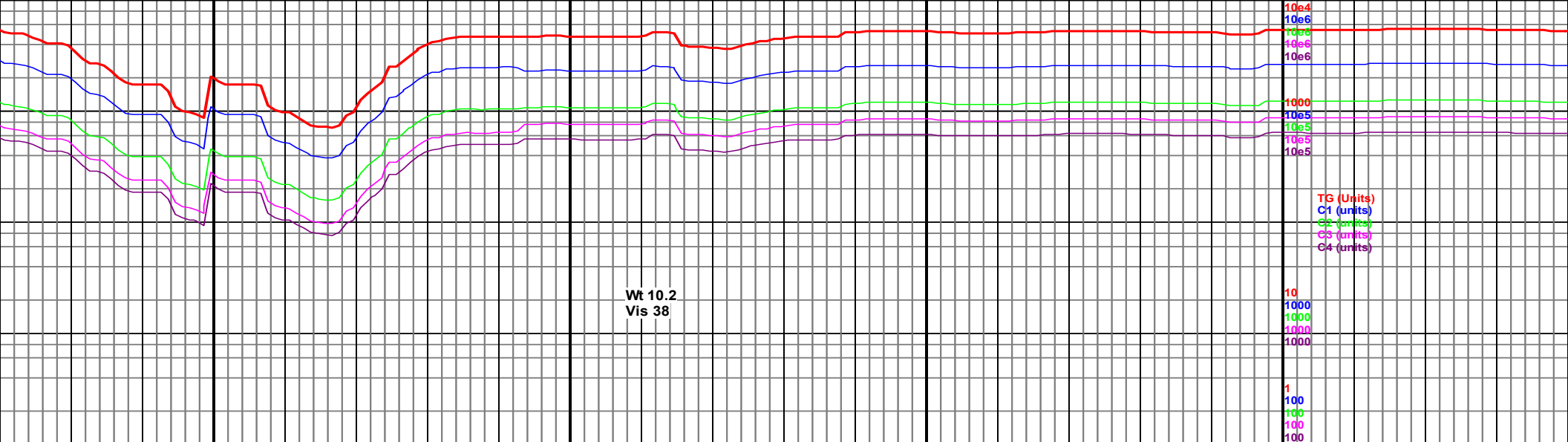
5775  
(-860)

6350  
(-1435)

9200-9350 Ss wh-trnsl-brn-gy, sb rd,  
uncons-fri, non calc, frm, rr sltst med  
gy, sb plty, sft, rr pyr, mod cut, 90% Ss,  
10% sltst

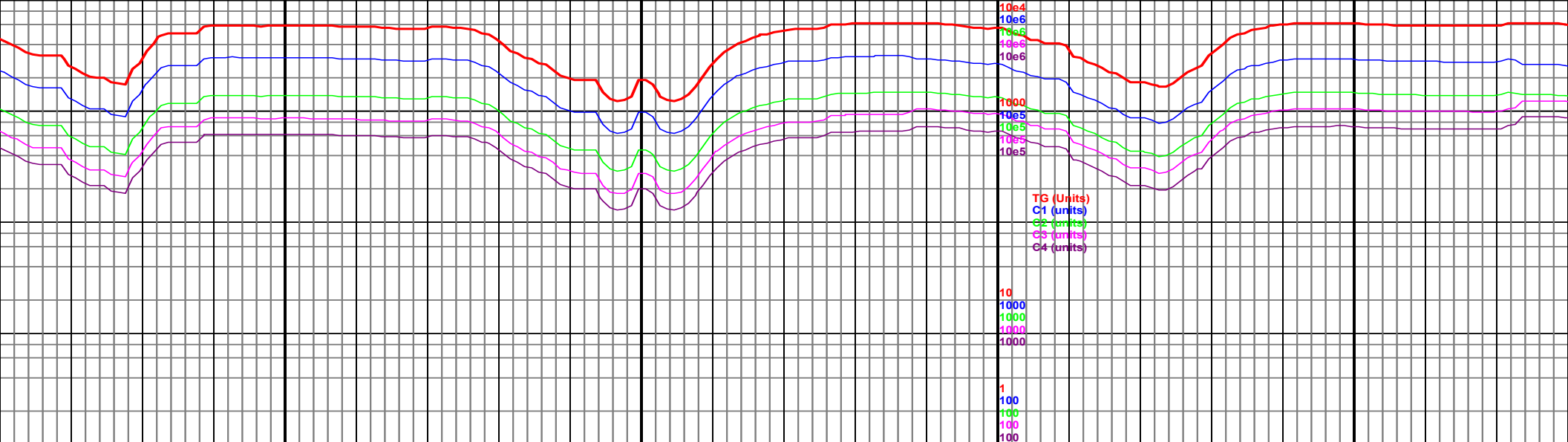










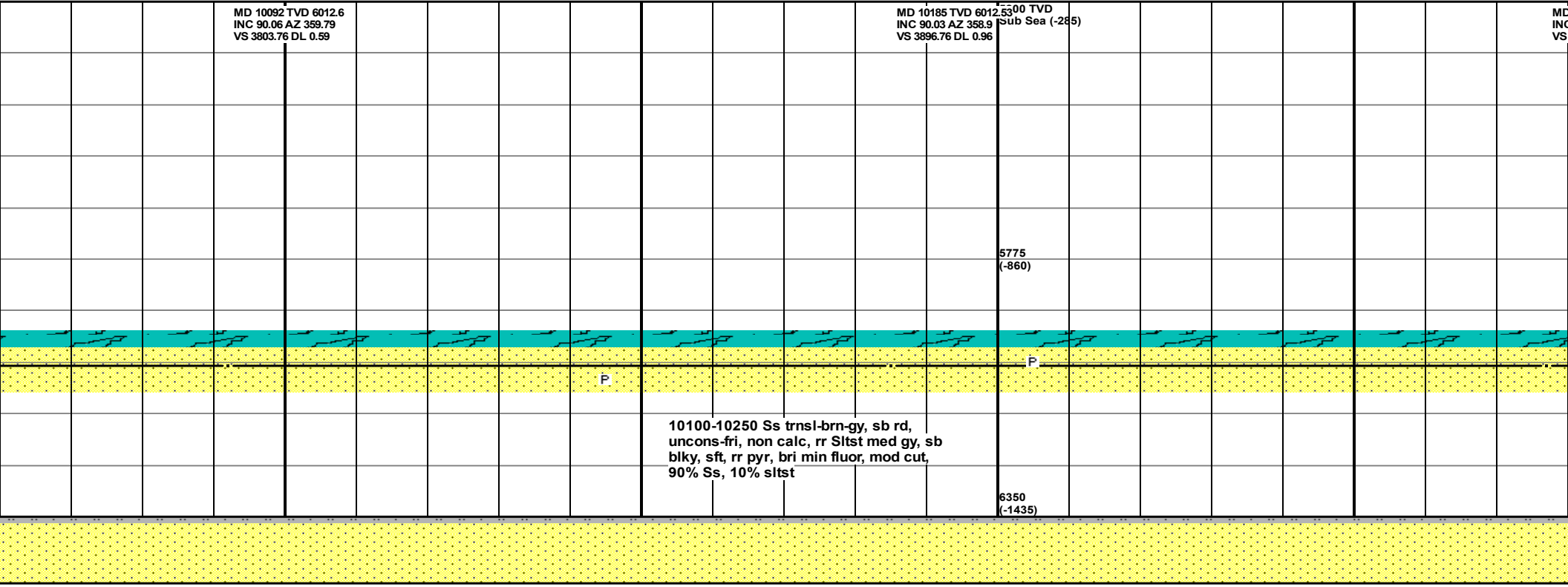


10100  
MD 10092 TVD 6012.6  
INC 90.06 AZ 359.79  
VS 3803.76 DL 0.59

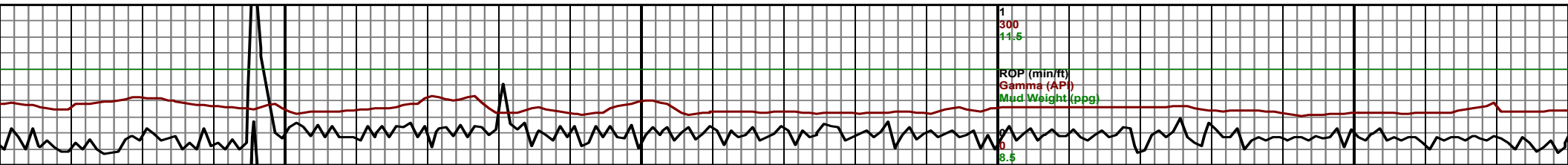
10150

10200  
MD 10185 TVD 6012.53  
INC 90.03 AZ 358.9  
VS 3896.76 DL 0.96

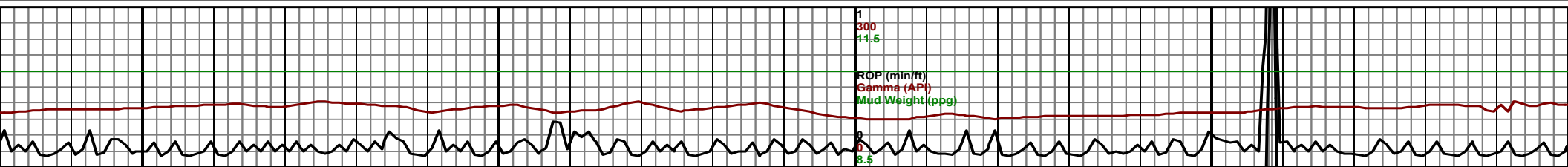
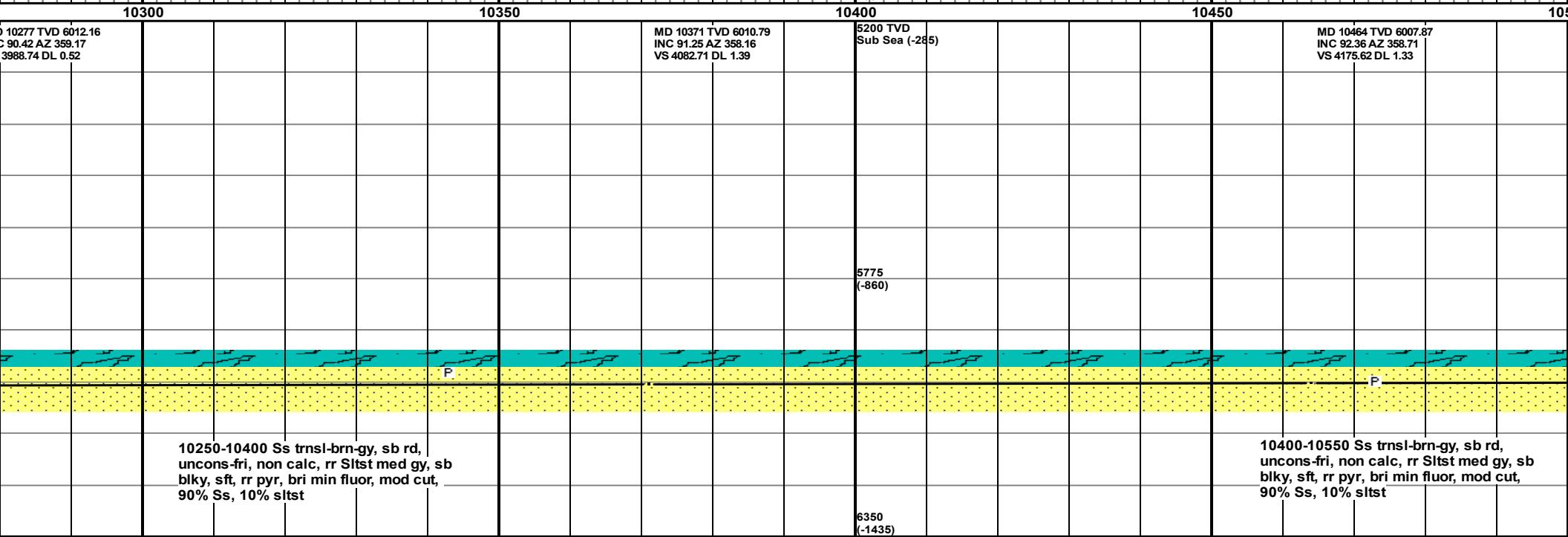
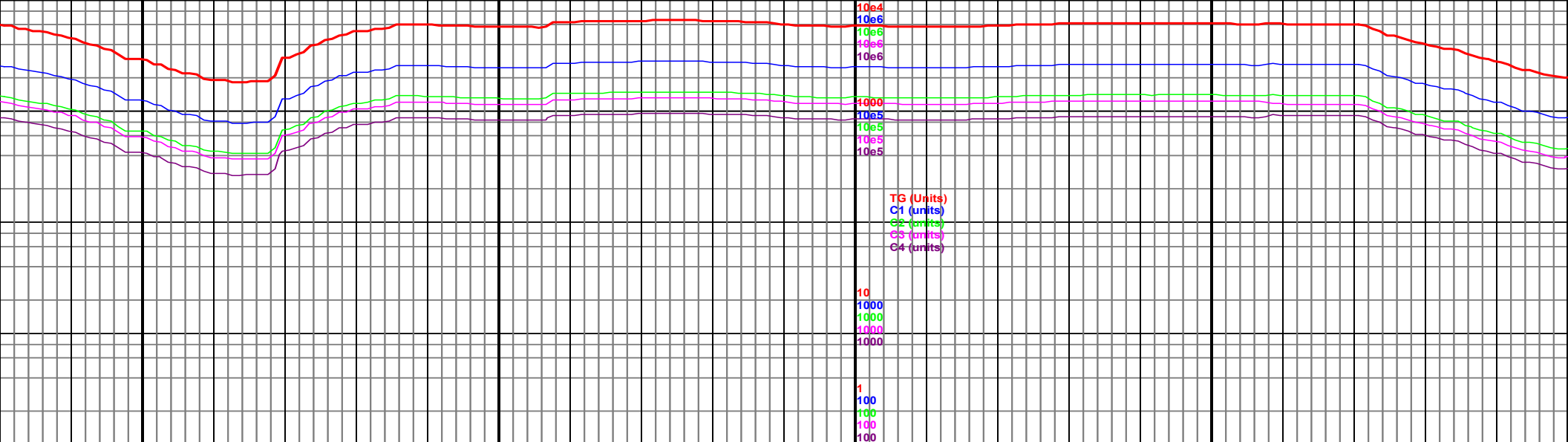
10250

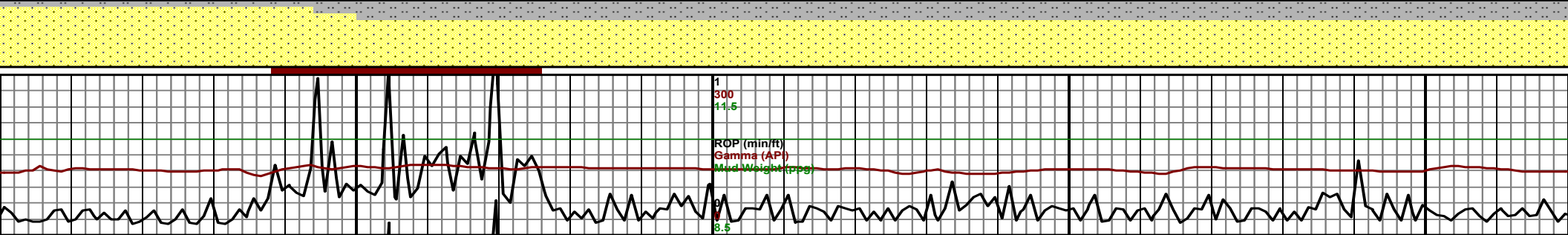
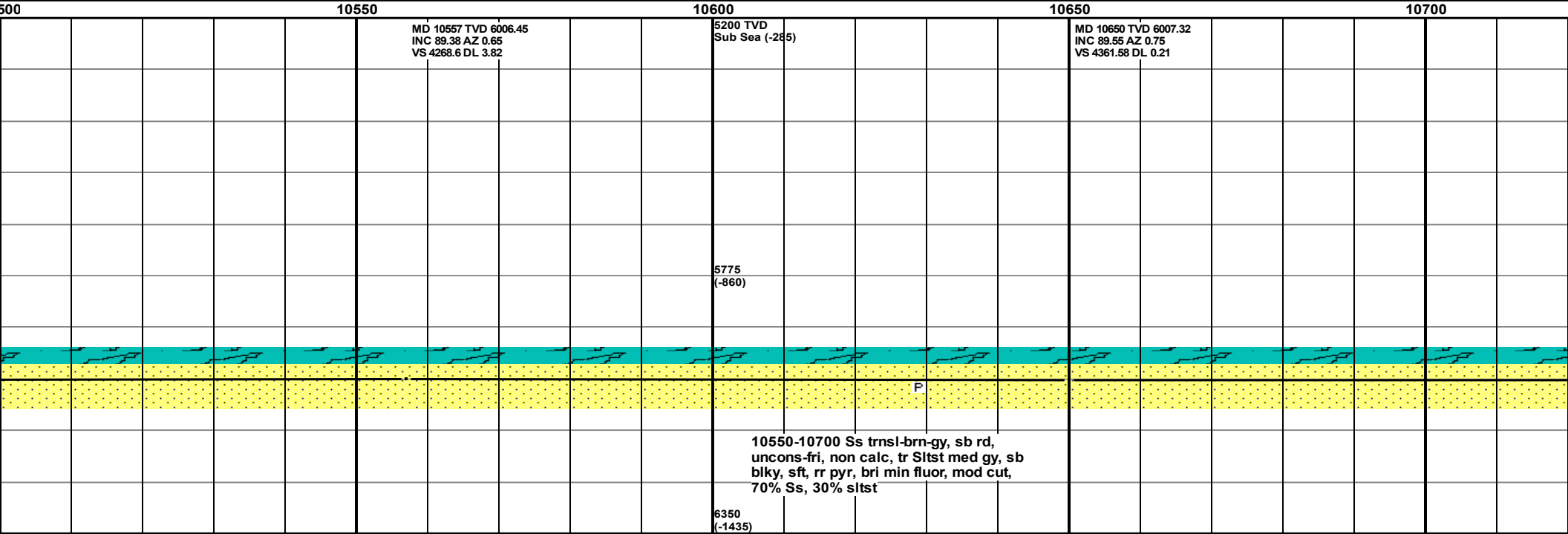
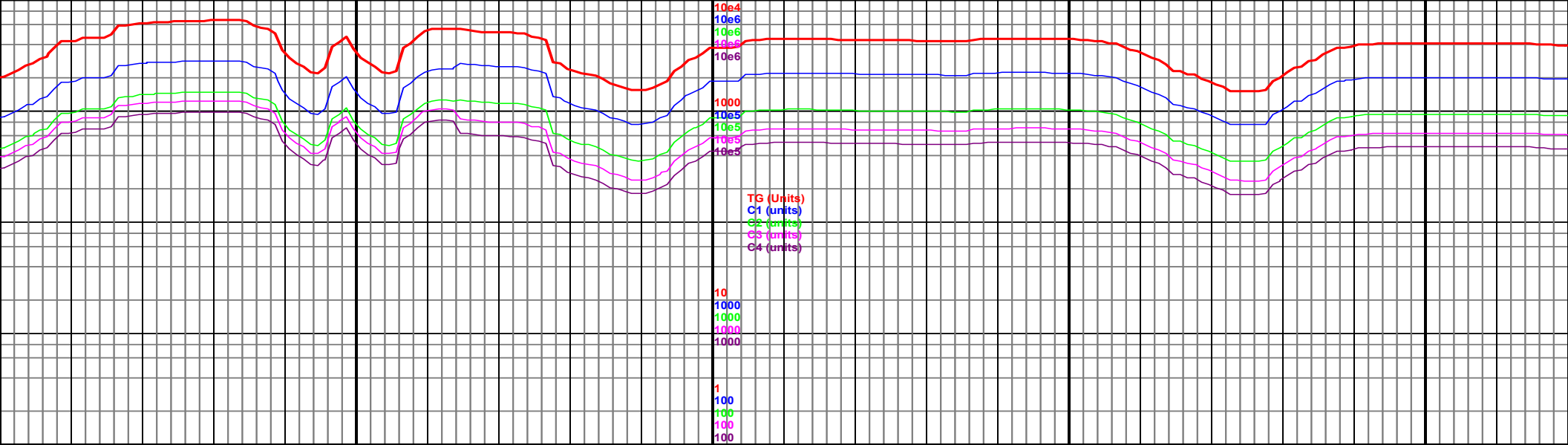


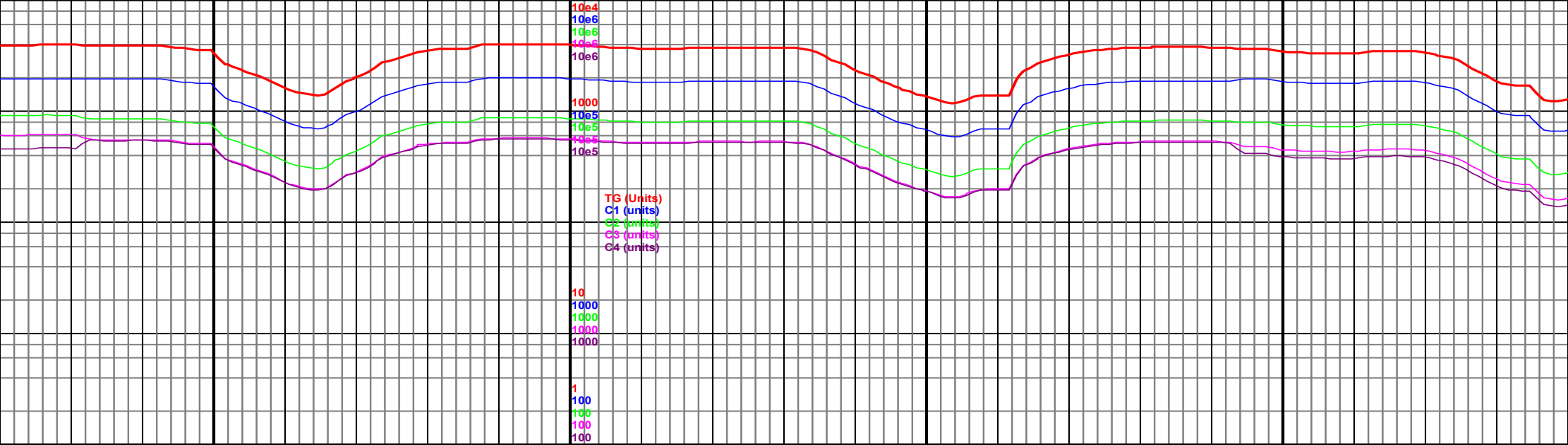
10100-10250 Ss trnsl-brn-gy, sb rd,  
uncons-fri, non calc, rr sltst med gy, sb  
blk, sft, rr pyr, bri min fluor, mod cut,  
90% Ss, 10% sltst



ROP (min/ft)  
Gamma (API)  
Mud Weight (ppg)





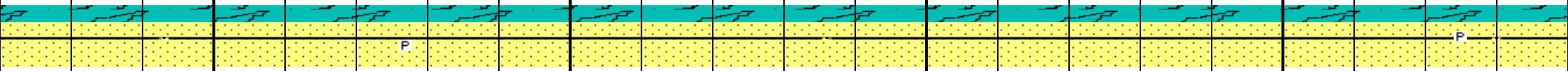


10750  
MD 10743 TVD 6008.06  
INC 89.54 AZ 0.4  
VS 4454.58 DL 0.38

10800  
5200 TVD  
Sub Sea (-285)

10850  
MD 10836 TVD 6008.38  
INC 90.07 AZ 359.82  
VS 4547.58 DL 0.84

10900  
MD 10930 TVD 6008.38  
INC 90.01 AZ 359.82  
VS 4641.57 DL 0.84



10700-10850 Ss trnsl-brn-gy, sb rd,  
uncons-fri, non calc, tr Sltst med gy, sb  
blky, sft, rr pyr, bri min fluor, mod cut,  
70% Ss, 30% sltst

10850-11000 Ss trnsl-brn-gy, sb rd,  
uncons-fri, non calc, tr Sltst dk-me  
pty-sb blky, sft, rr pyr, rr bri min fl  
mod cut, 70% Ss, 30% sltst

6350  
(-1435)

