



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

Well Name: RAZOR FEDERAL 26I-3513A
Location: NESE 26-T10N-R58W Weld County, Colorado
License Number: 05-123-38486
Spud Date: 7/9/2014
Surface Coordinates: Lat.: 40.808522 Long.: -103.825211

Region: Redtail Field
Drilling Completed: 7/17/2014

Bottom Hole Coordinates: Lat.: 40.789408 Long.: -103.826247

Ground Elevation (ft): 4712
Logged Interval (ft): 5000 To: 12585
Formation: Pierre, Sharon Springs, Niobrara
Type of Drilling Fluid: Water Based Mud

K.B. Elevation (ft): 4734
Total Depth (ft): 12585

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

OPERATOR

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

GEOLOGIST

Name: Craig Dreiling, Camille Warren
Company: Acme Geologic Consulting
Address: 108 Berry Street
Little Rock, AR 72205

Drilling Company

Frontier
Rig #26


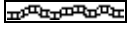
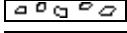
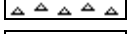
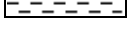
Gas Detection






Mudlogging Systems, Inc., M Logger, Model TGC, Total Gas and Chromatograph, #317




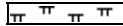

Comments






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




OTHER SYMBOLS

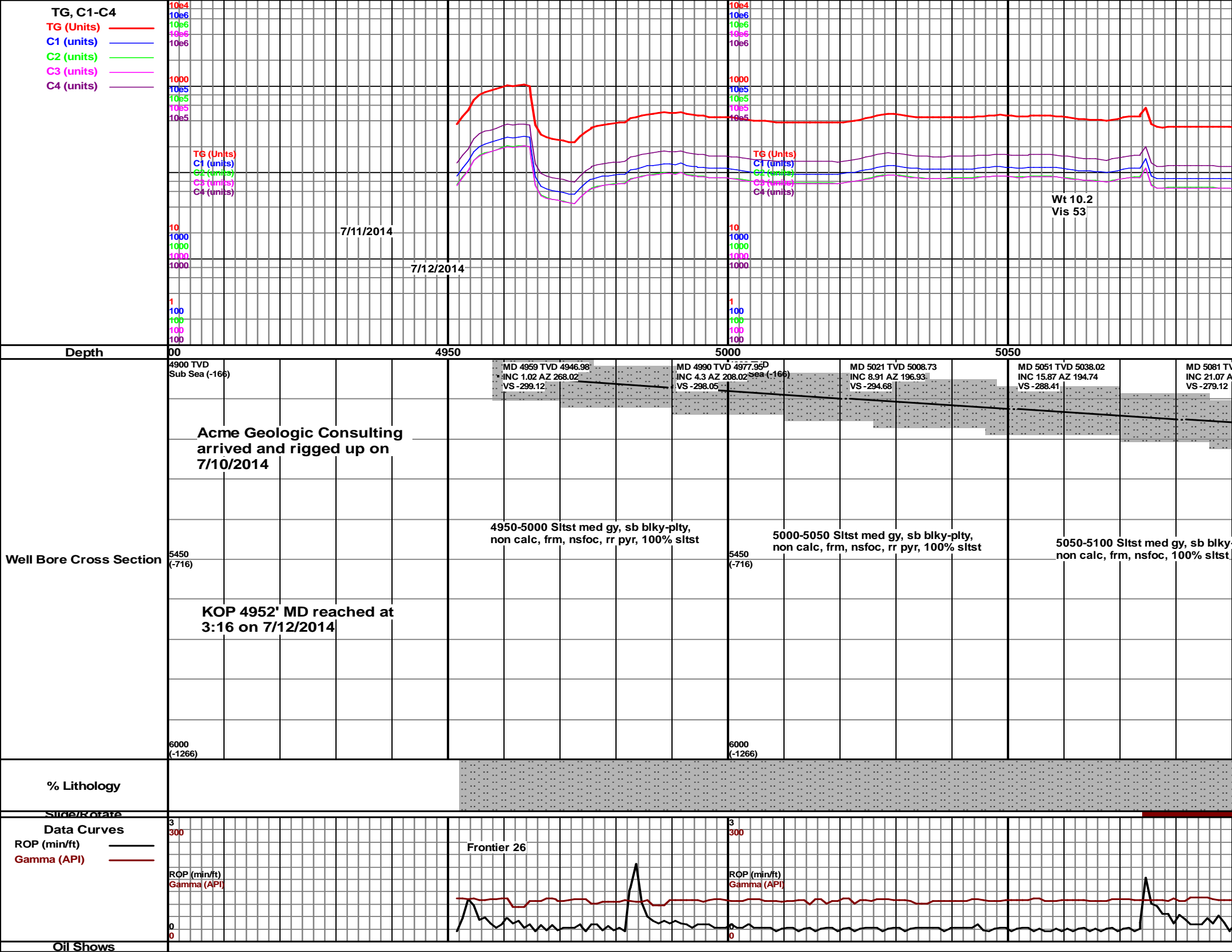
- POROSITY**
-  Earthy
 -  Fenest
 -  Fracture
 -  Inter
 -  Moldic
 -  Organic

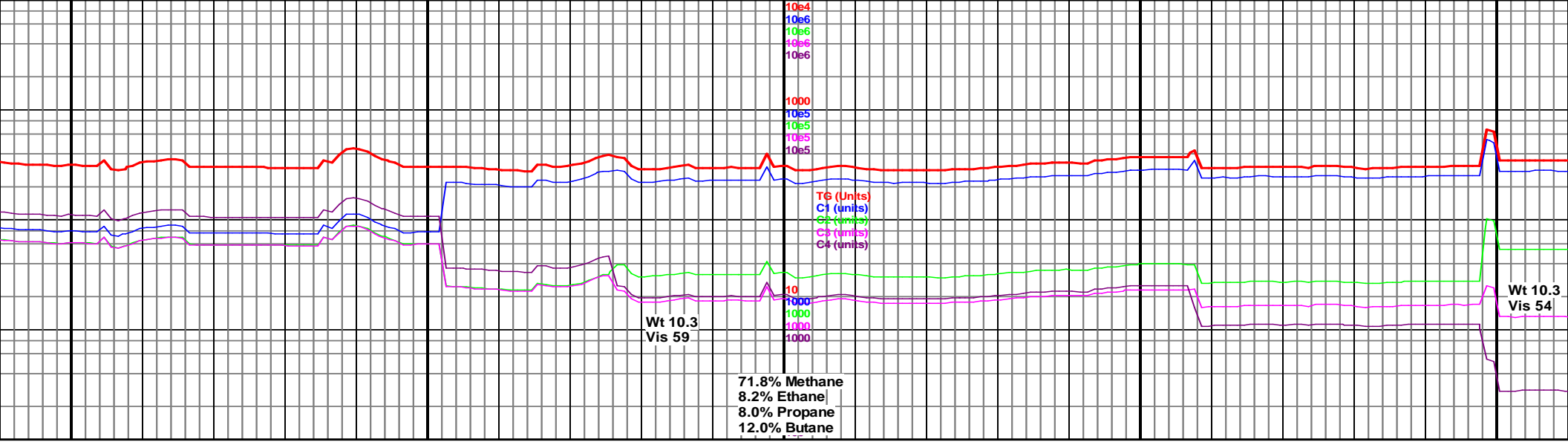
-  Pinpoint
 -  Vuggy
- SORTING**
-  Well
 -  Moderate
 -  Poor

- ROUNDING**
-  Rounded
 -  Subrnd
 -  Subang
 -  Angular

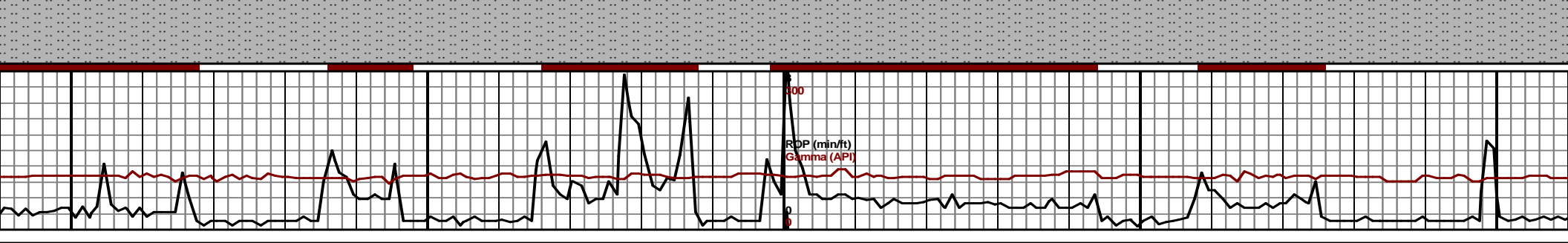
- OIL SHOW**
-  Good
 -  Fair
 -  Poor
- INTERVAL**
-  Core

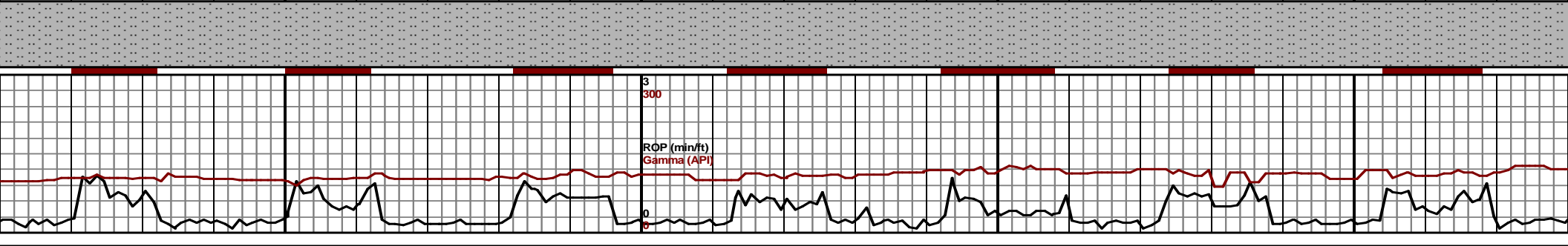
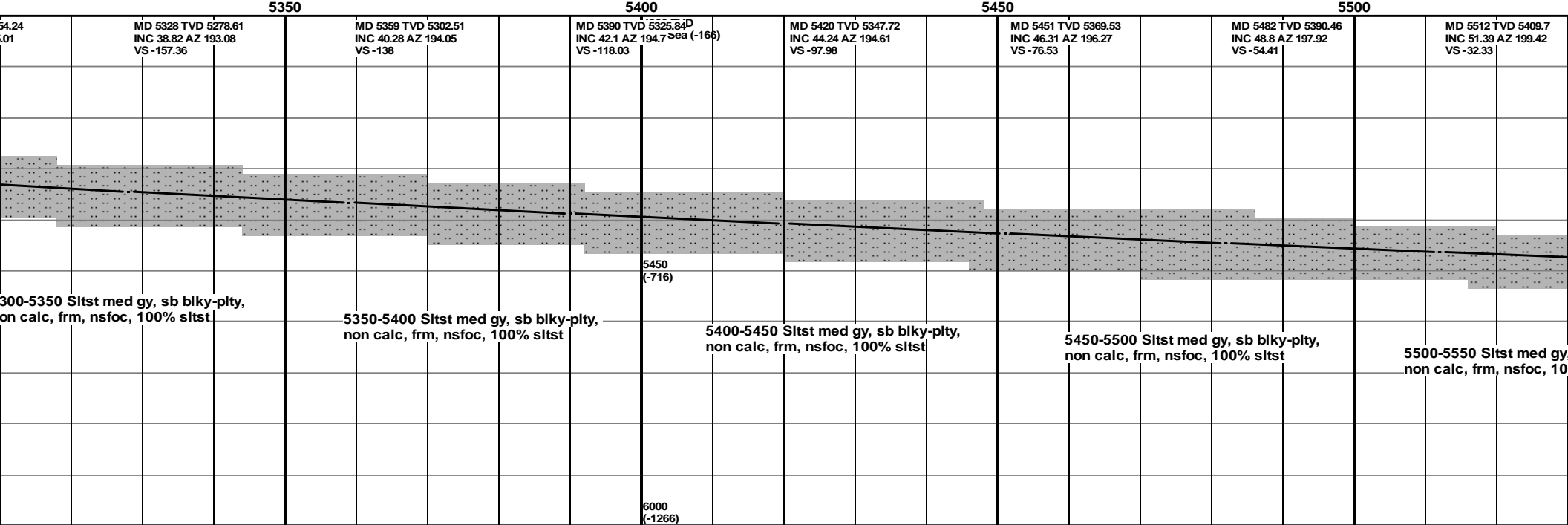
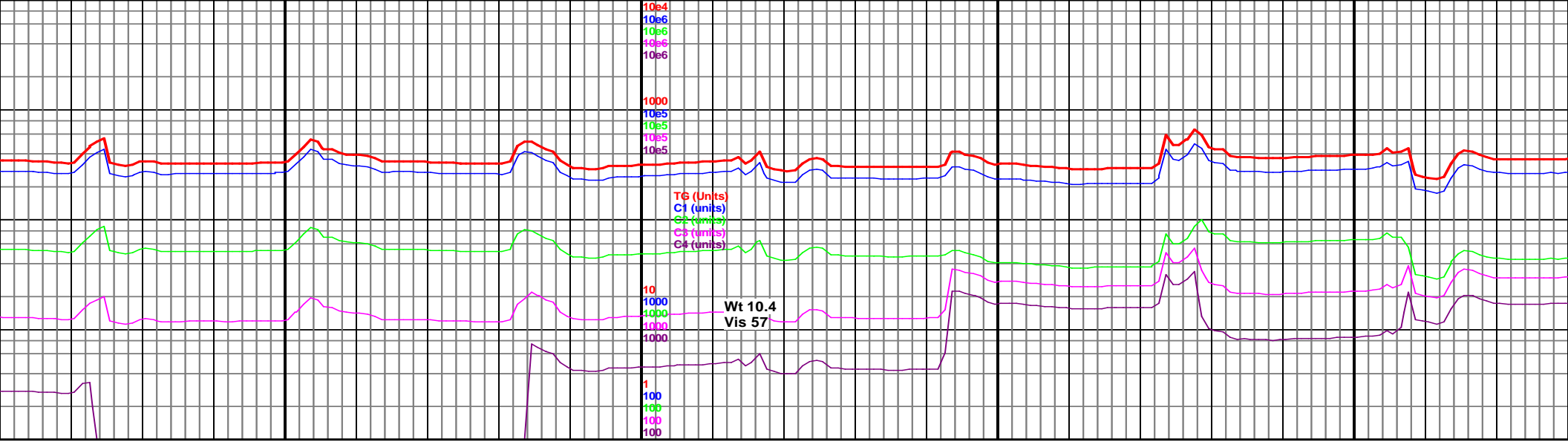
-  Dst
- EVENT**
-  Rft
 -  Sidewall

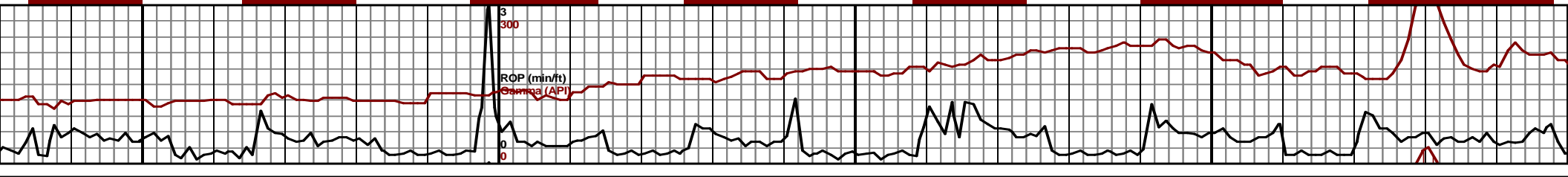
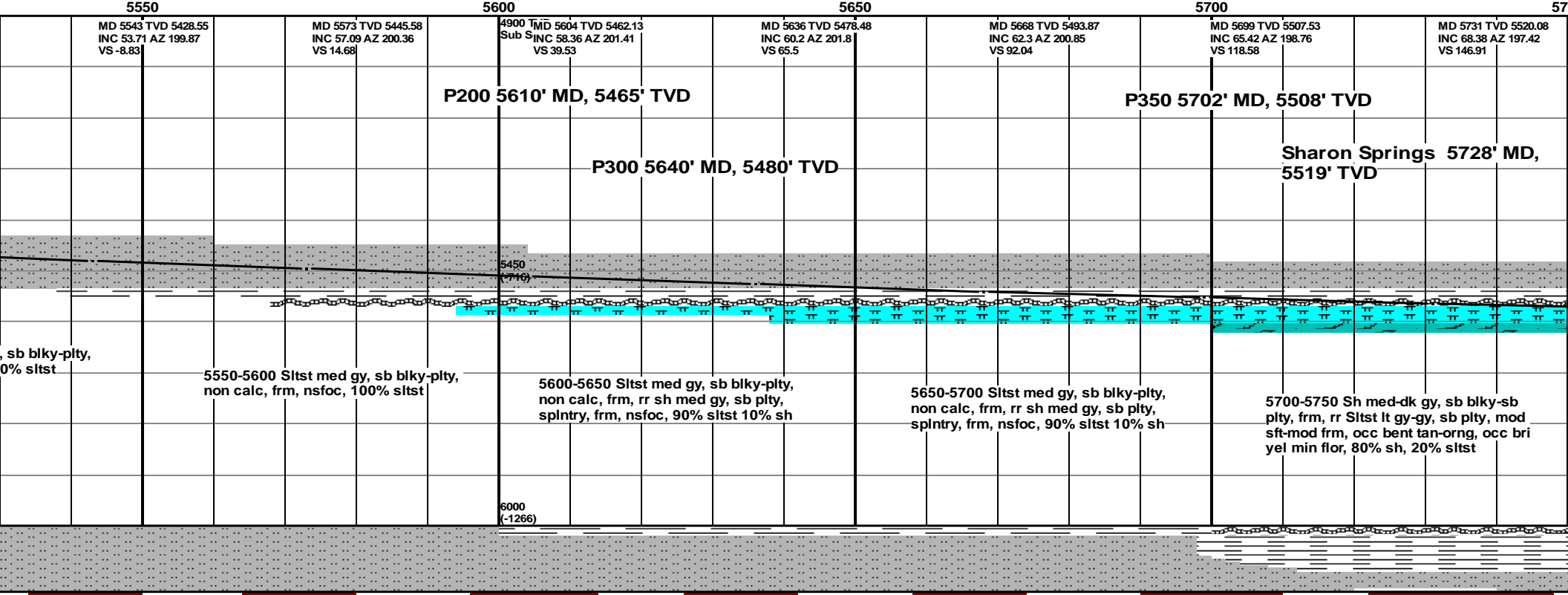
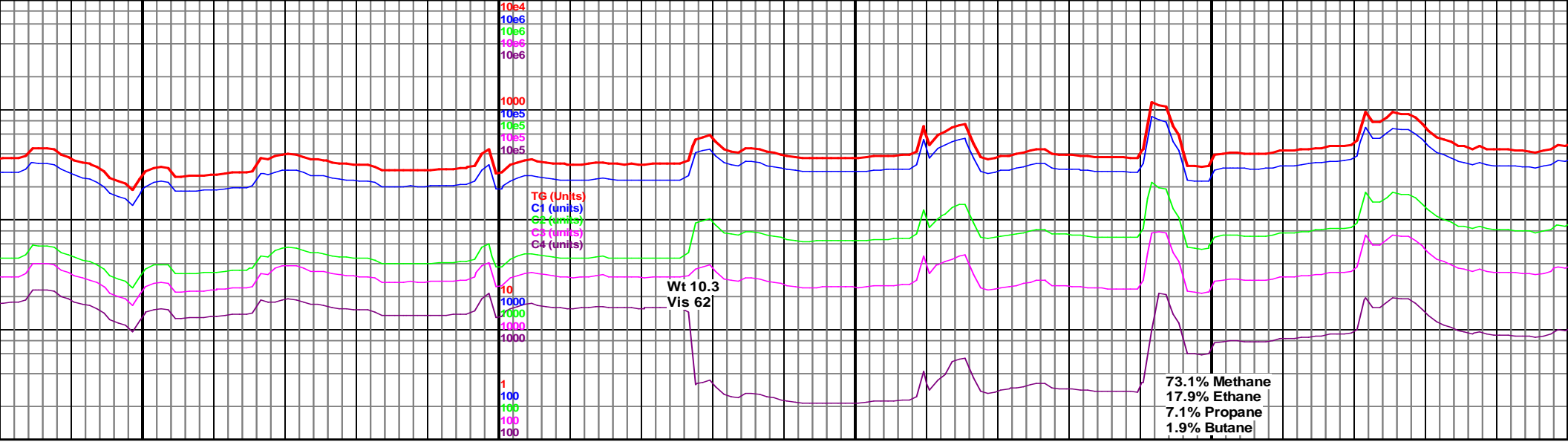


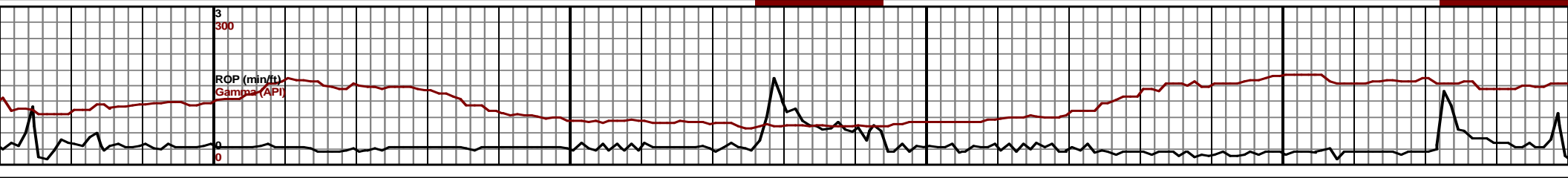
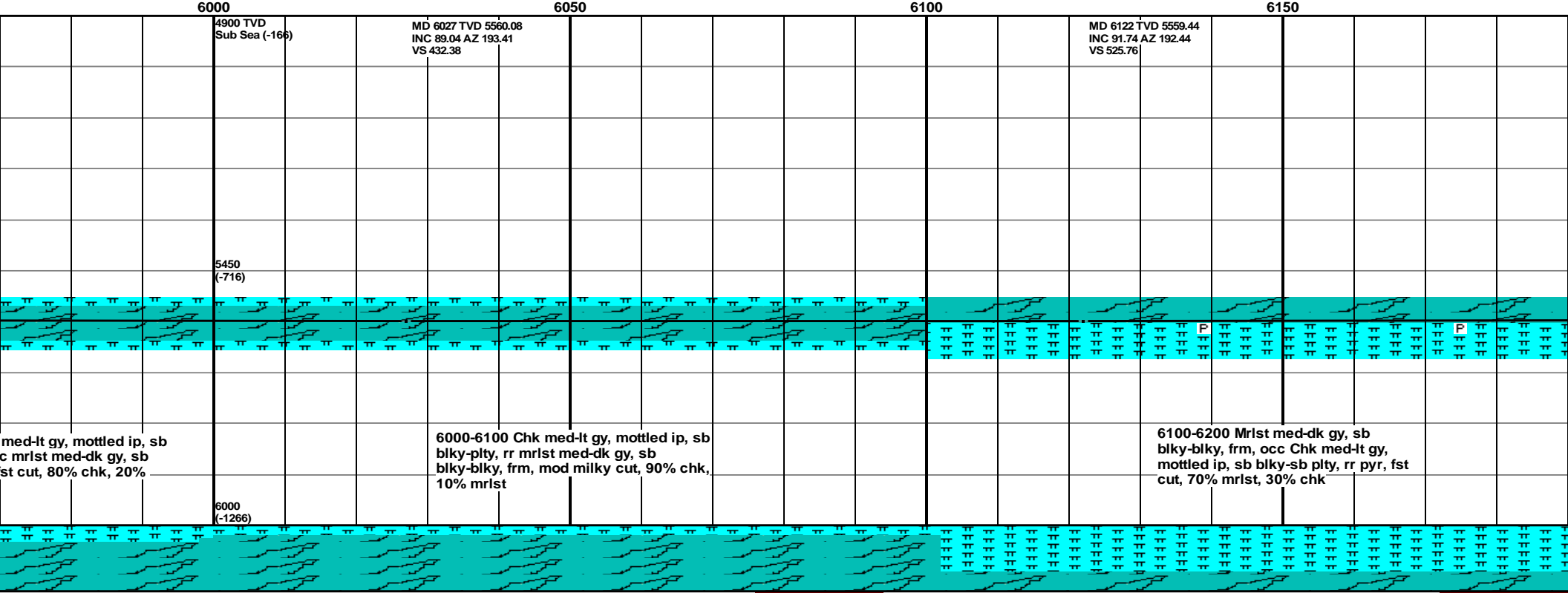
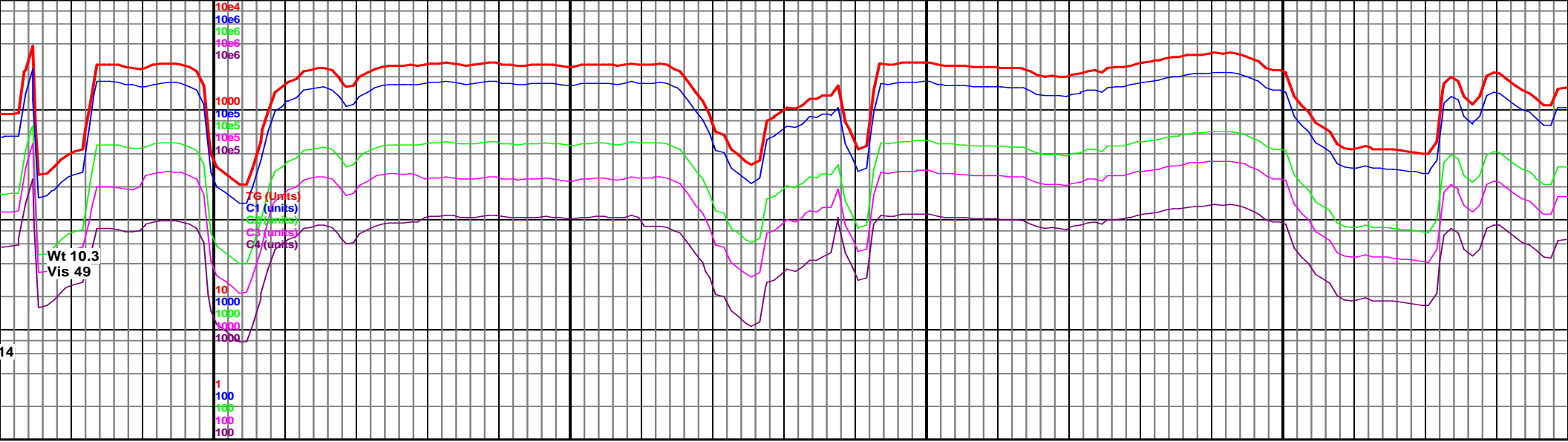


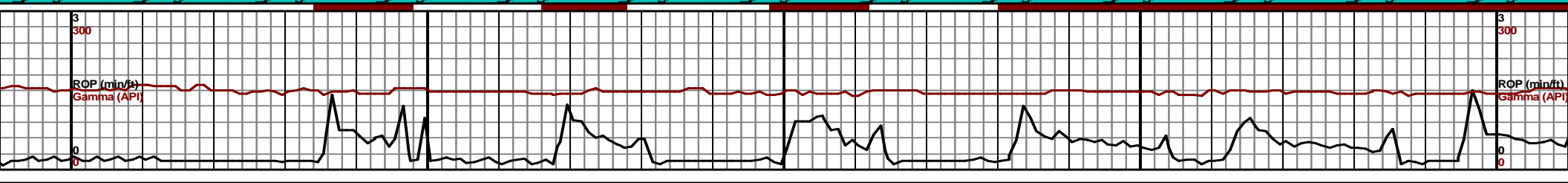
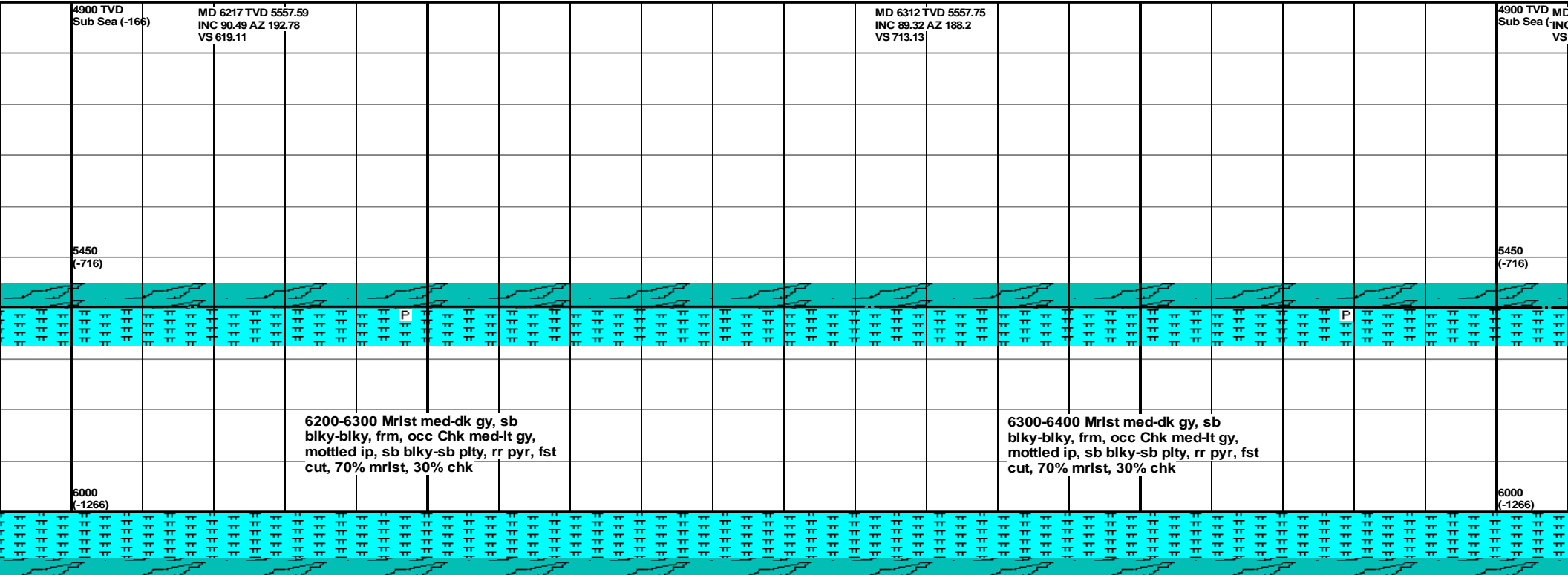
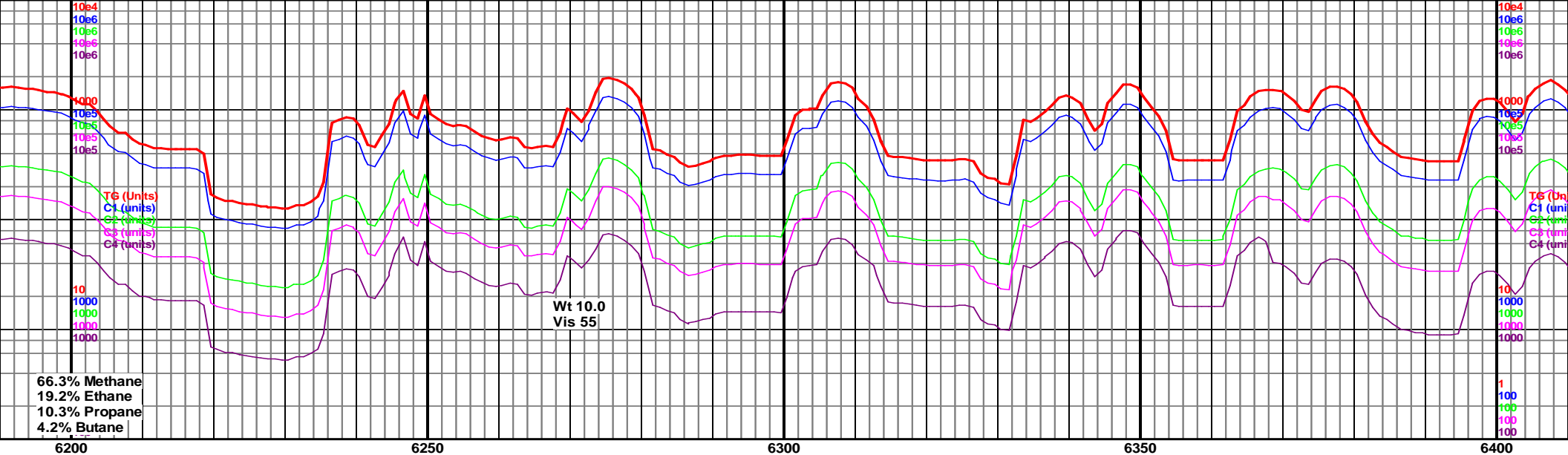
MD 5066 TVD 5066.46 INC 24.73 AZ 194.26 VS -267.32	MD 5112 TVD 5095.01 INC 24.73 AZ 194.15 VS -267.32	MD 5143 TVD 5123.02 INC 26 AZ 193.86 VS -254.31	MD 5174 TVD 5150.8 INC 26.74 AZ 192.62 VS -240.79	MD 5205 TVD 5178.32 INC 28.09 AZ 193.08 VS -226.76	MD 5236 TVD 5204.9 INC 33.74 AZ 194.05 VS -211.14	MD 5266 TVD 5229.46 INC 36.34 AZ 194.82 VS -194.3	MD 5297 TVD 5254.9 INC 37.53 AZ 195.12 VS -176.12
5100-5150 Slitst med gy, sb blkly-plty, non calc, frm, nsfoc, 100% slitst		5150-5200 Slitst med gy, sb blkly-plty, non calc, frm, nsfoc, 100% slitst		5200-5250 Slitst med gy, sb blkly-plty, non calc, frm, nsfoc, 100% slitst		5250-5300 Slitst med gy, sb blkly-plty, non calc, frm, nsfoc, 100% slitst	

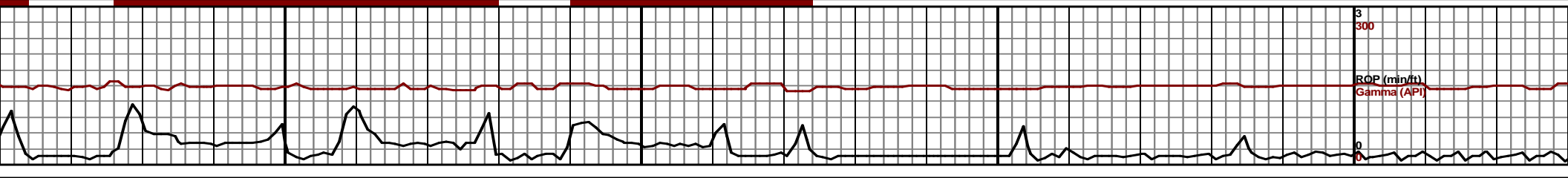
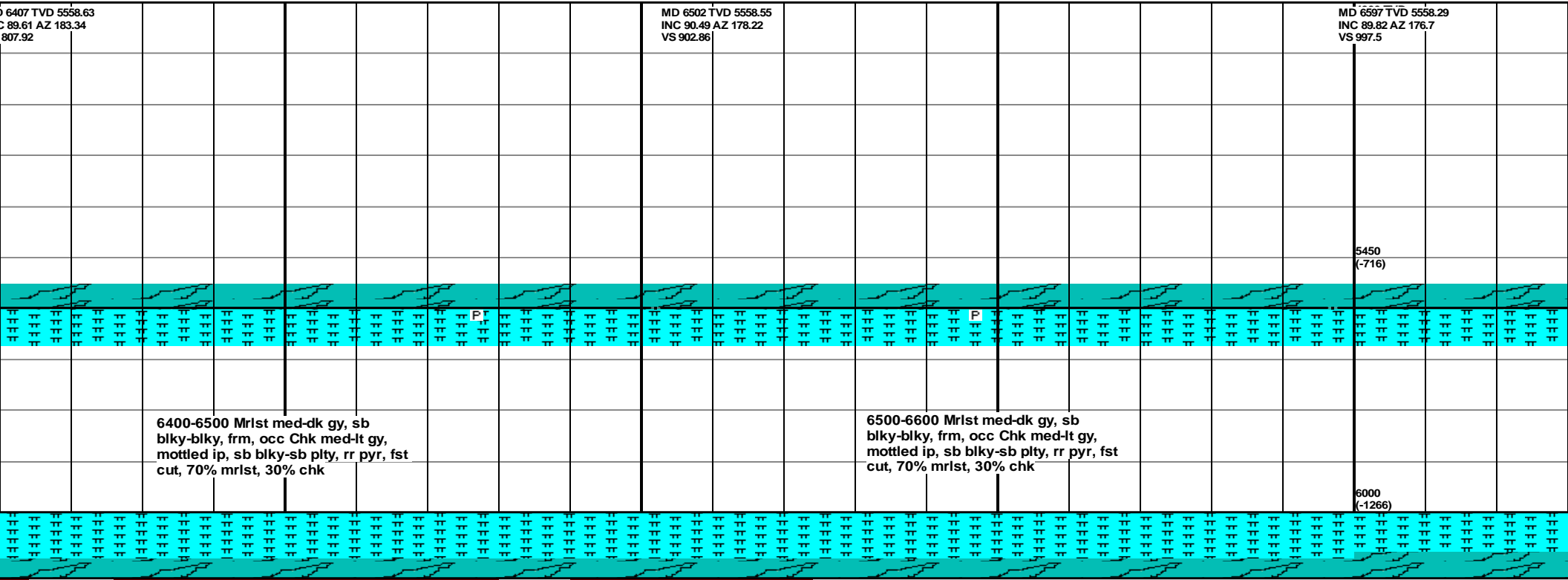
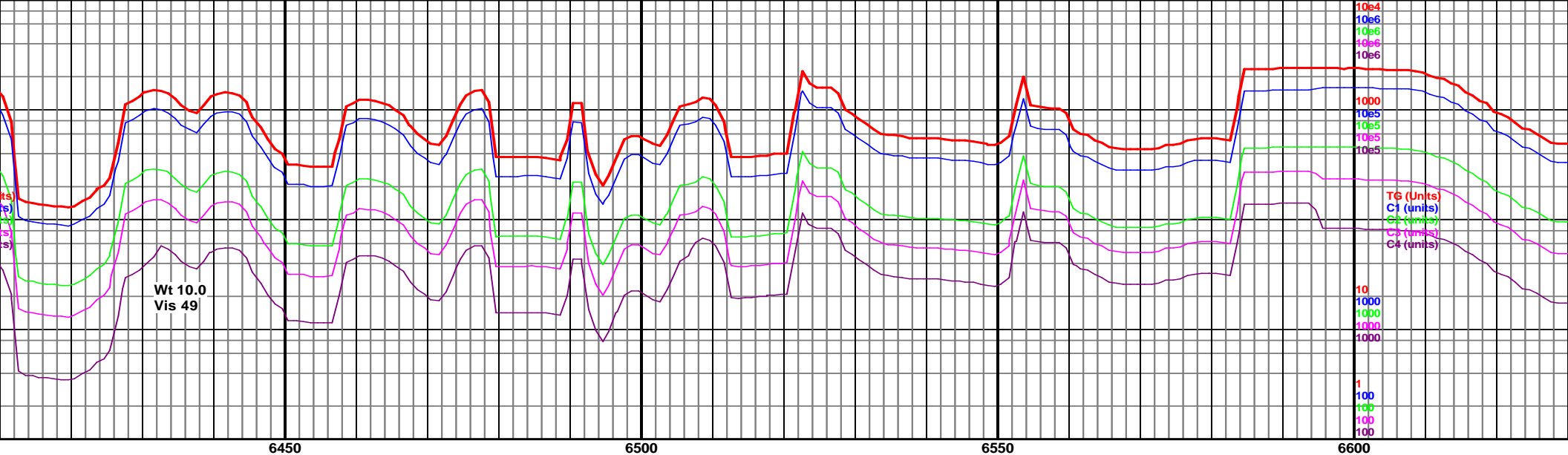


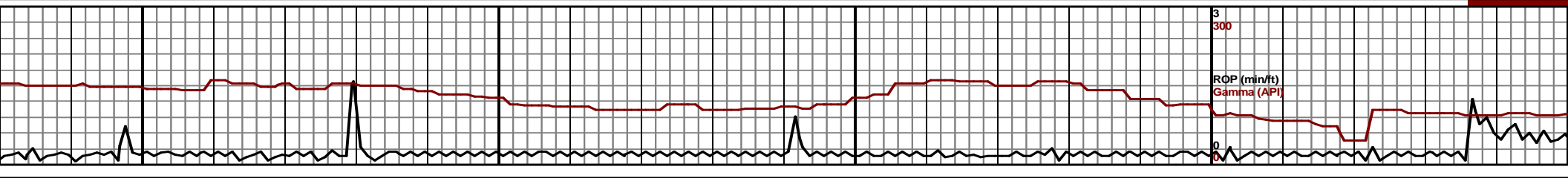
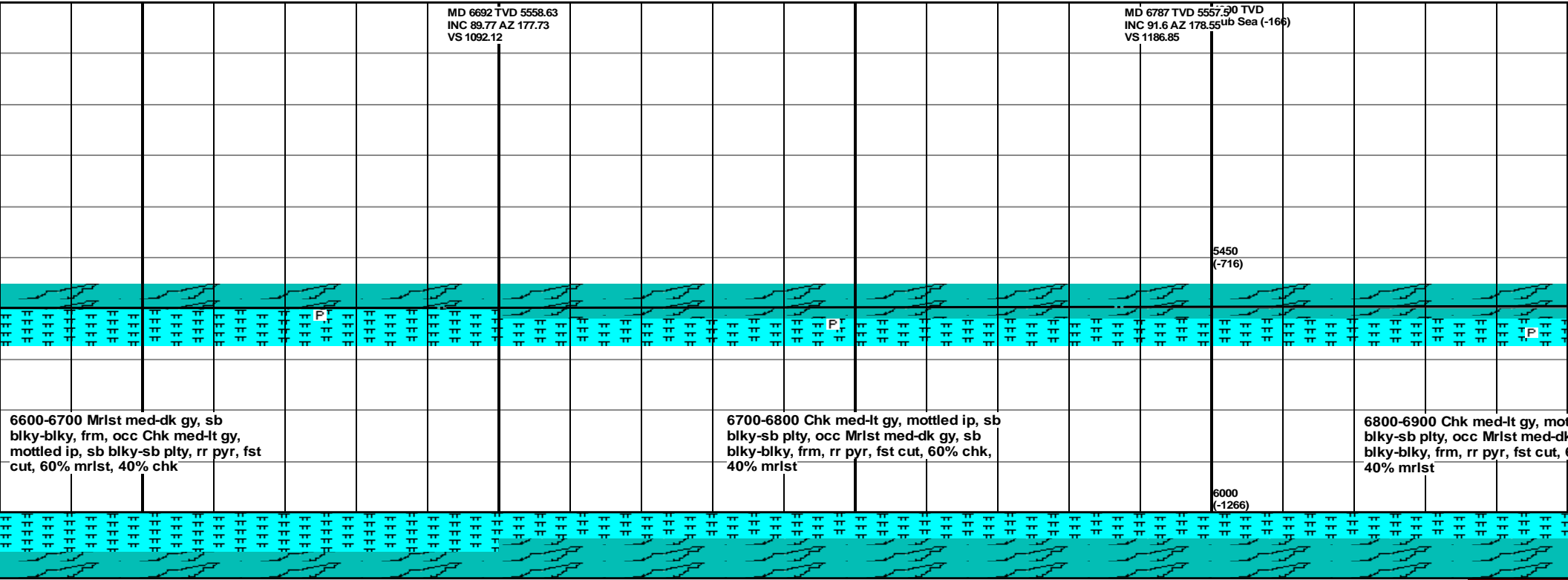
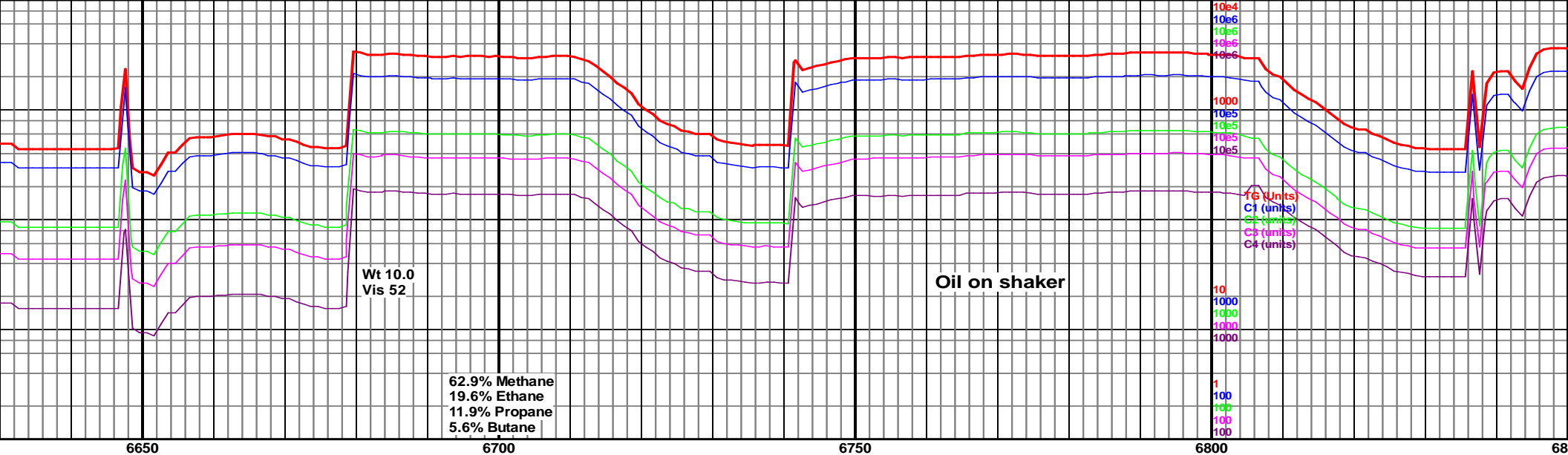


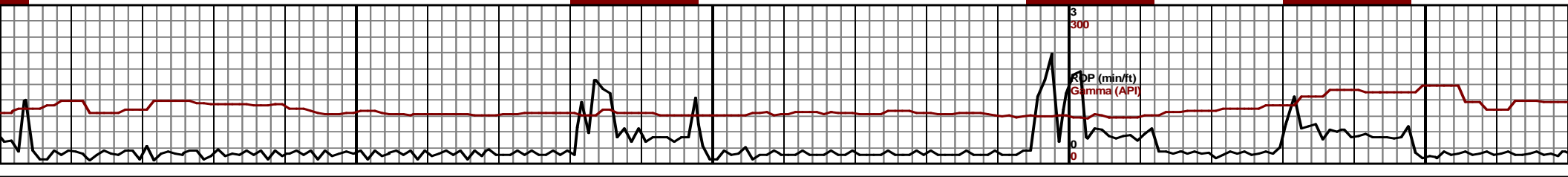
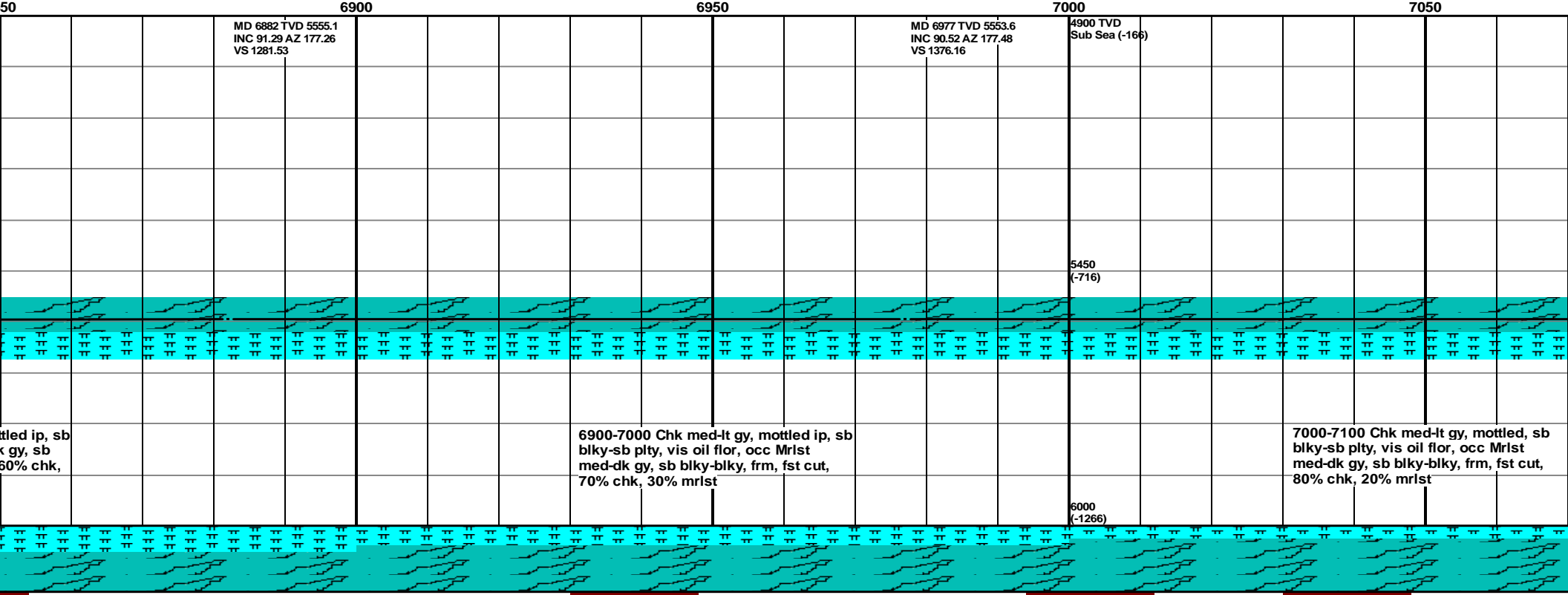
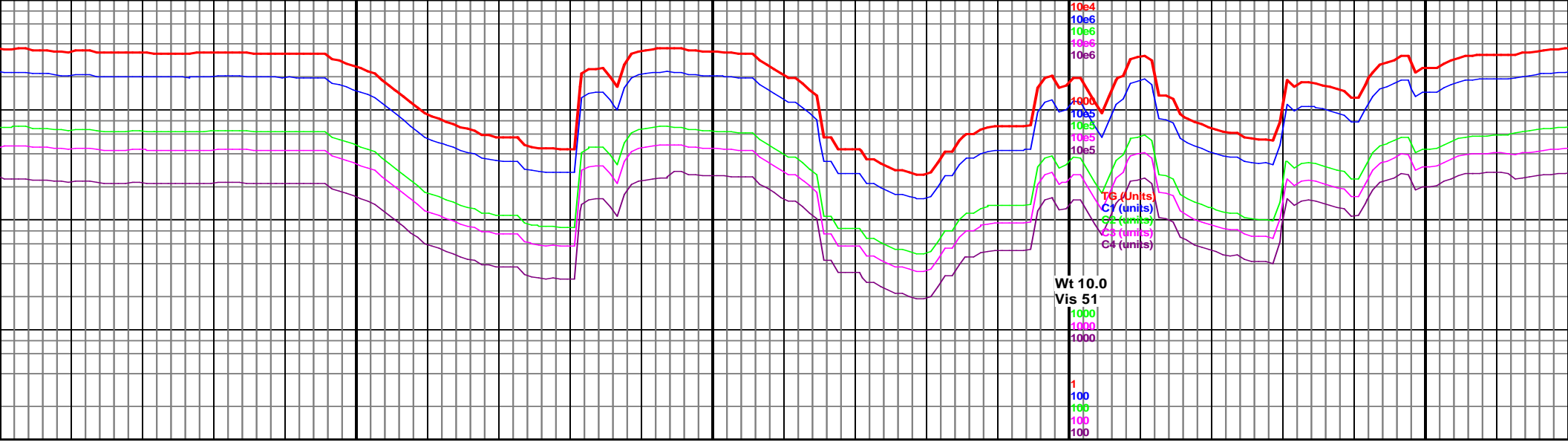


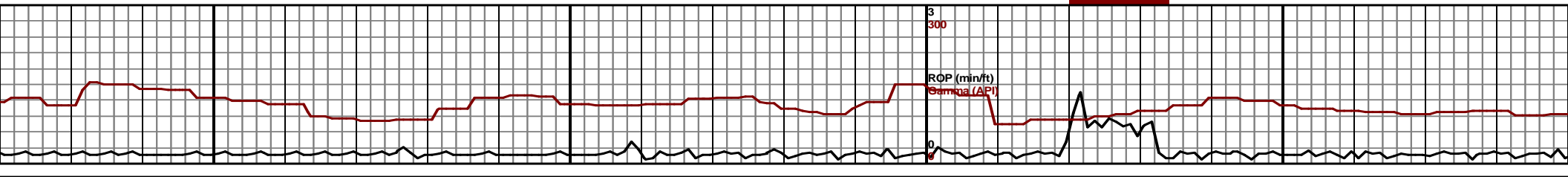
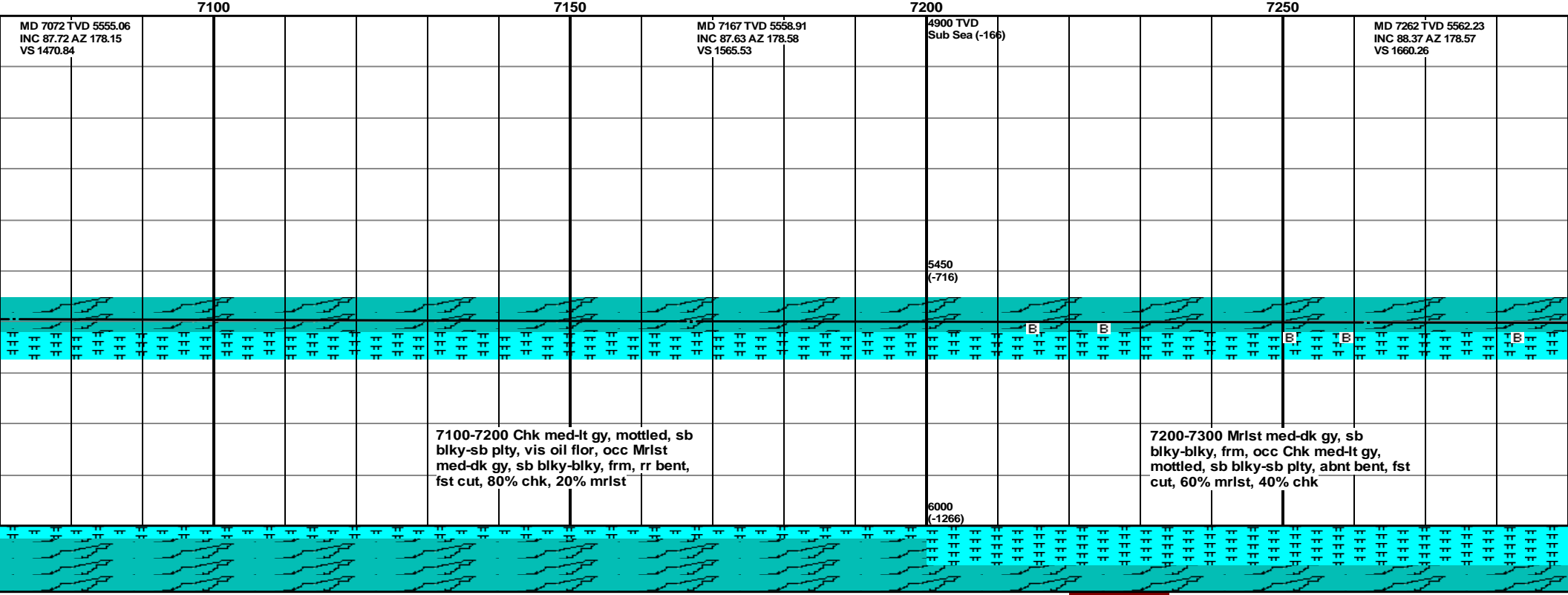
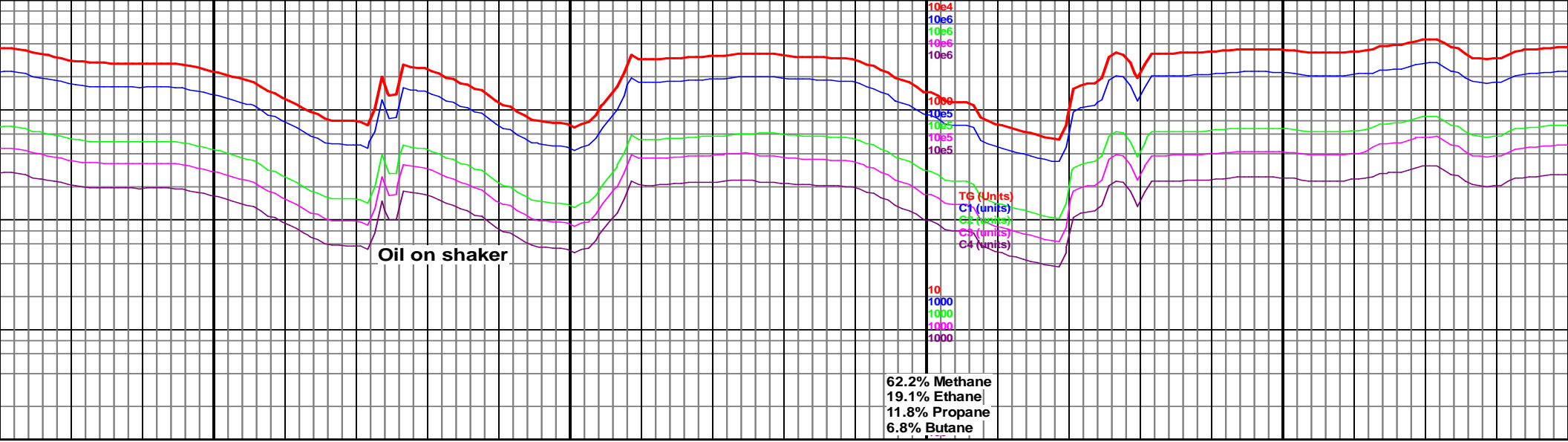


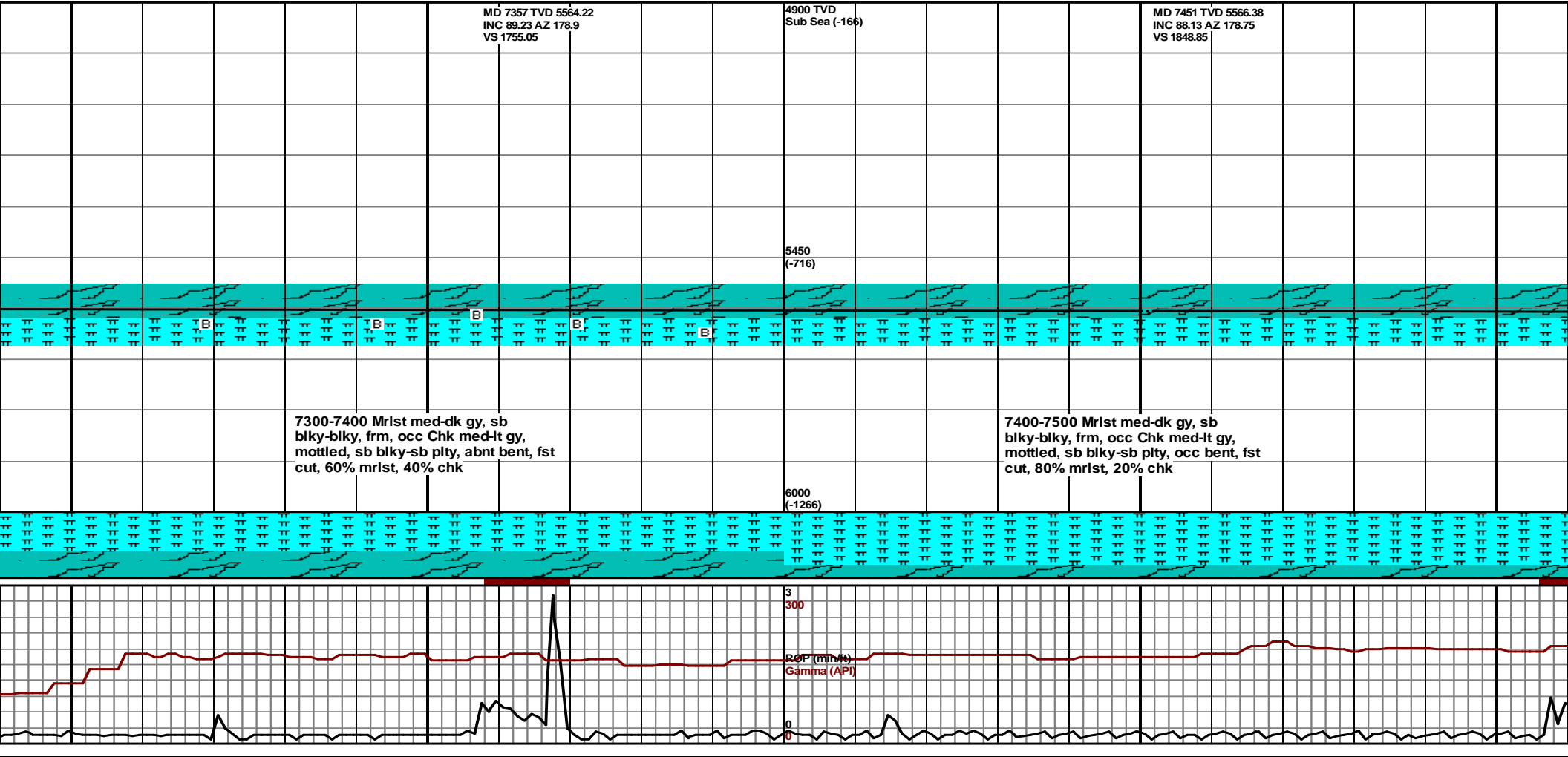
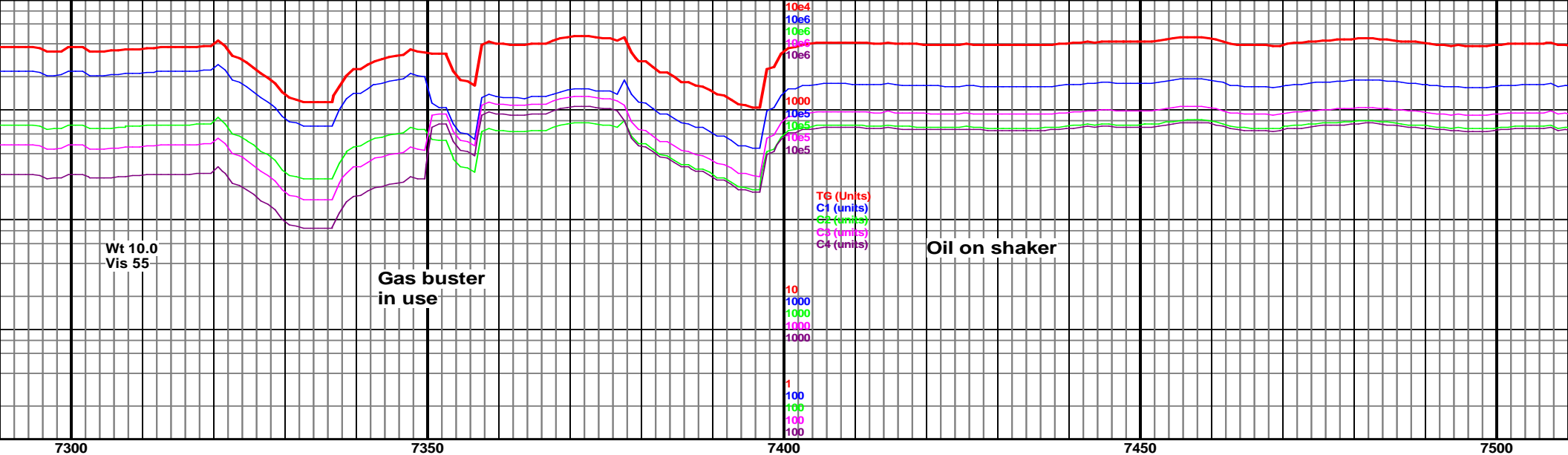


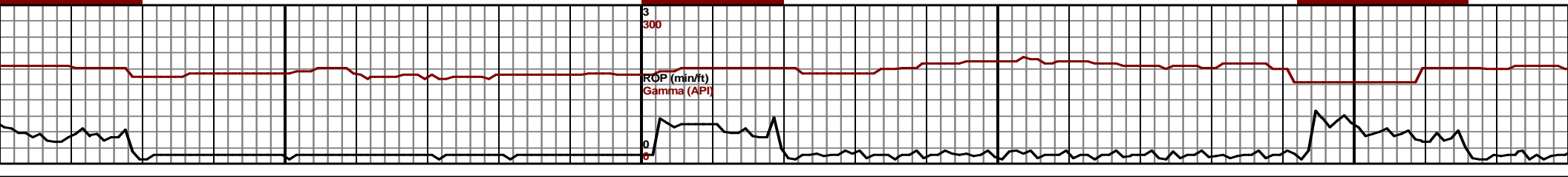
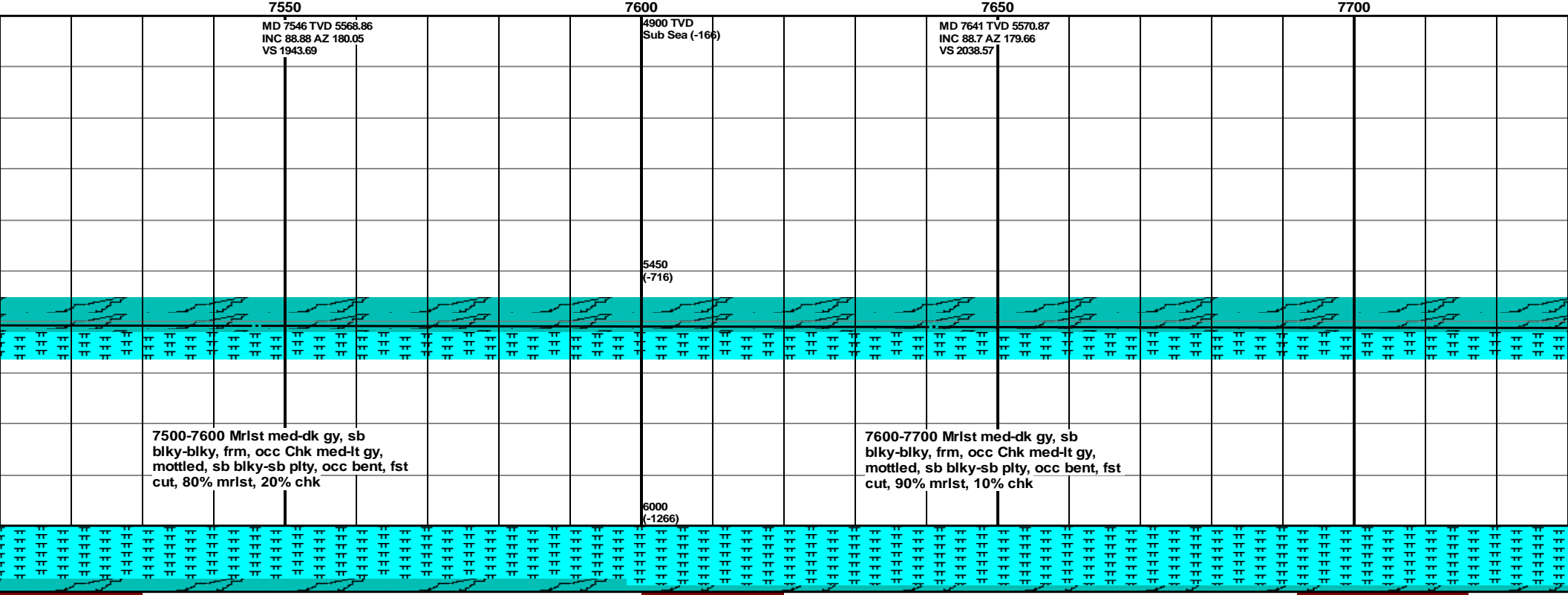
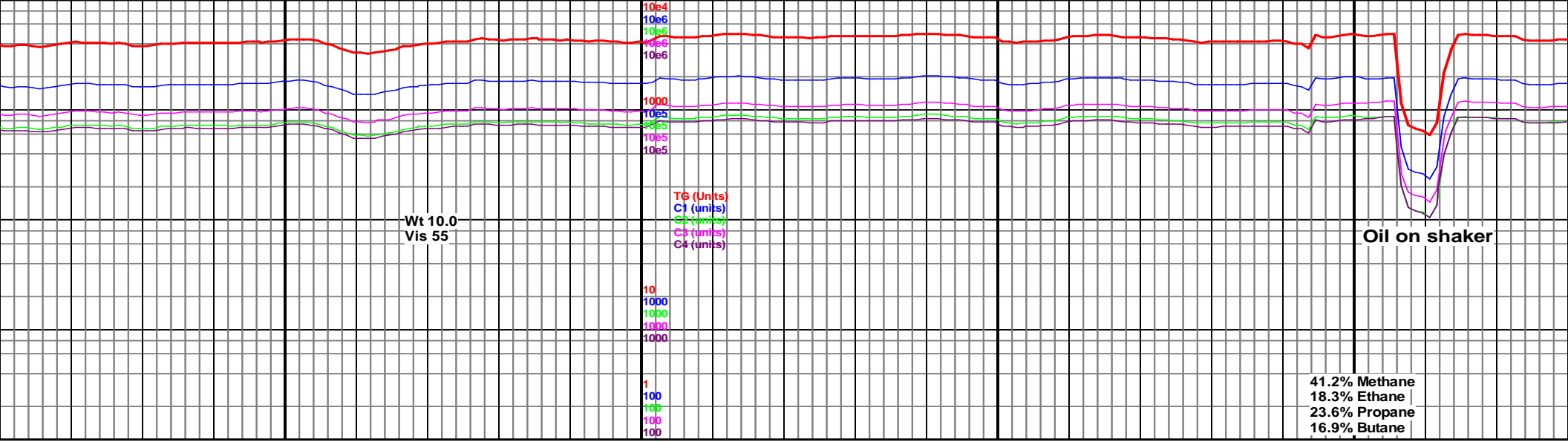


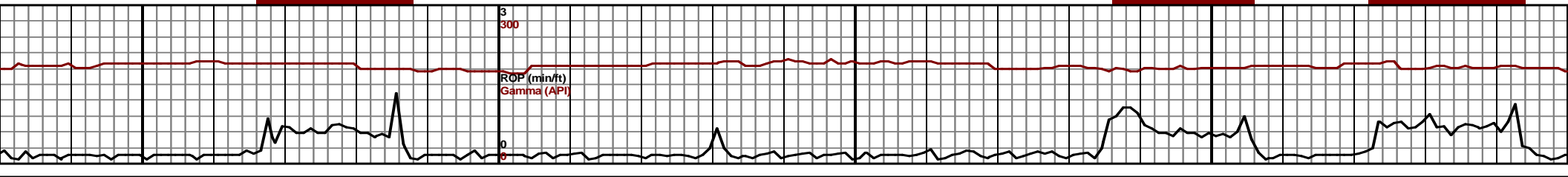
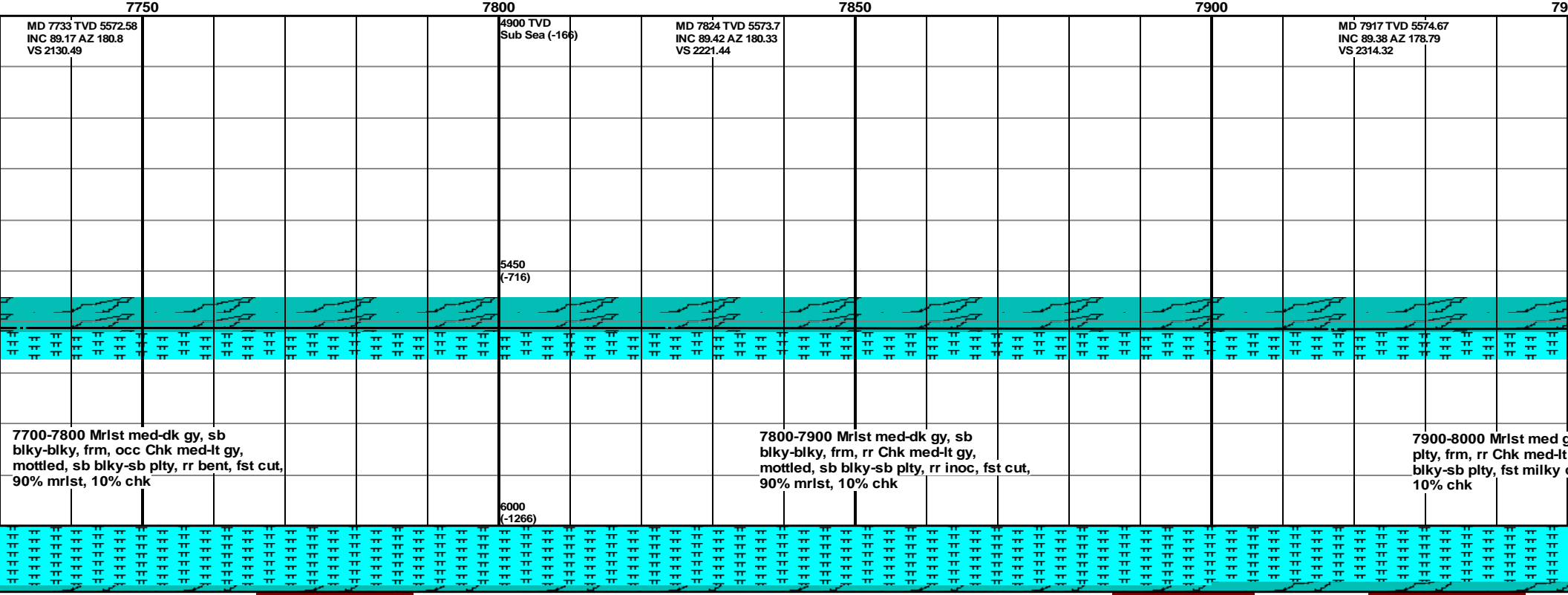
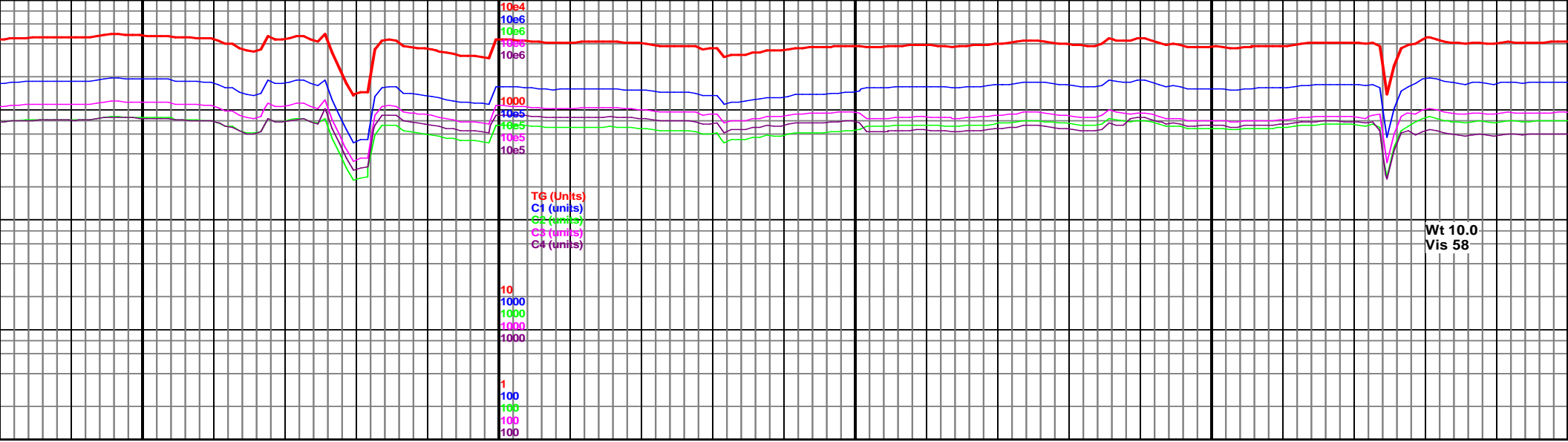


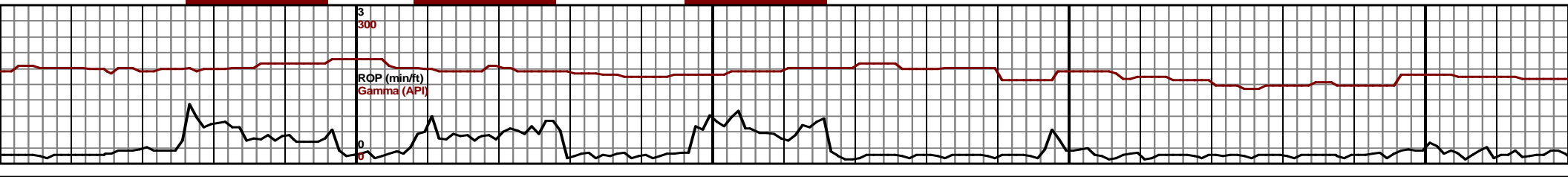
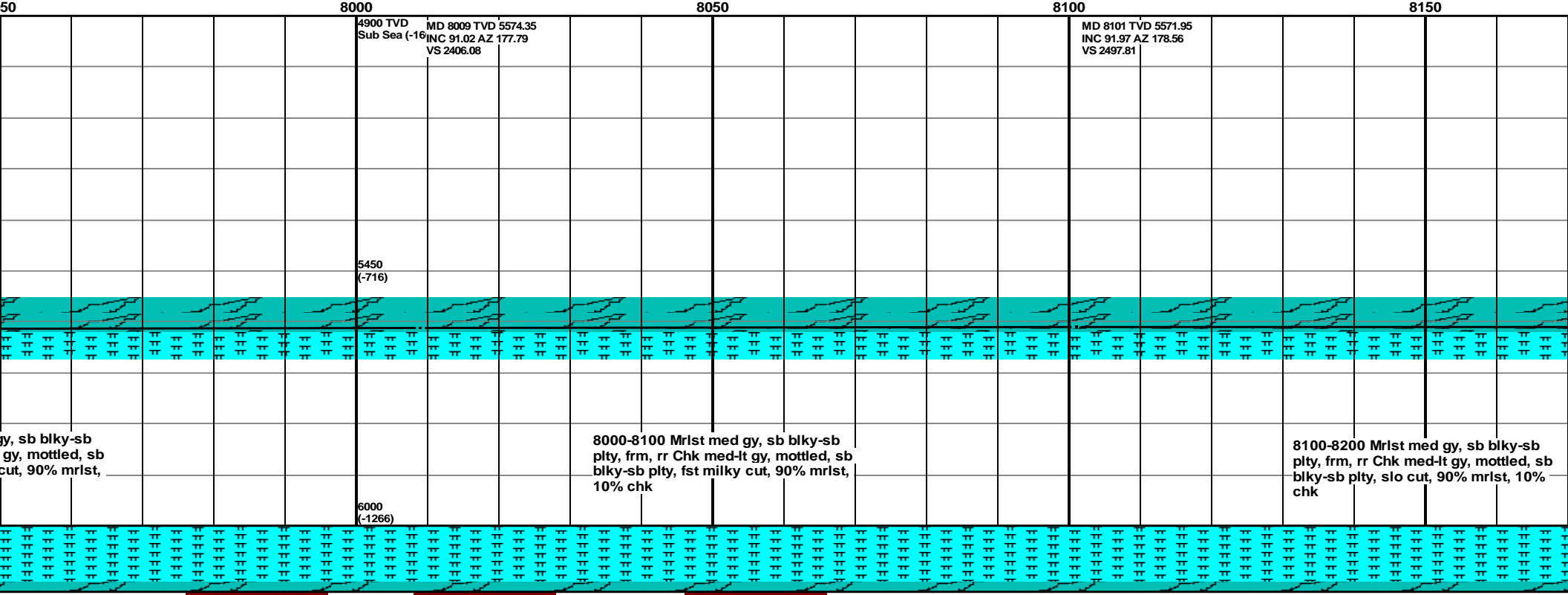
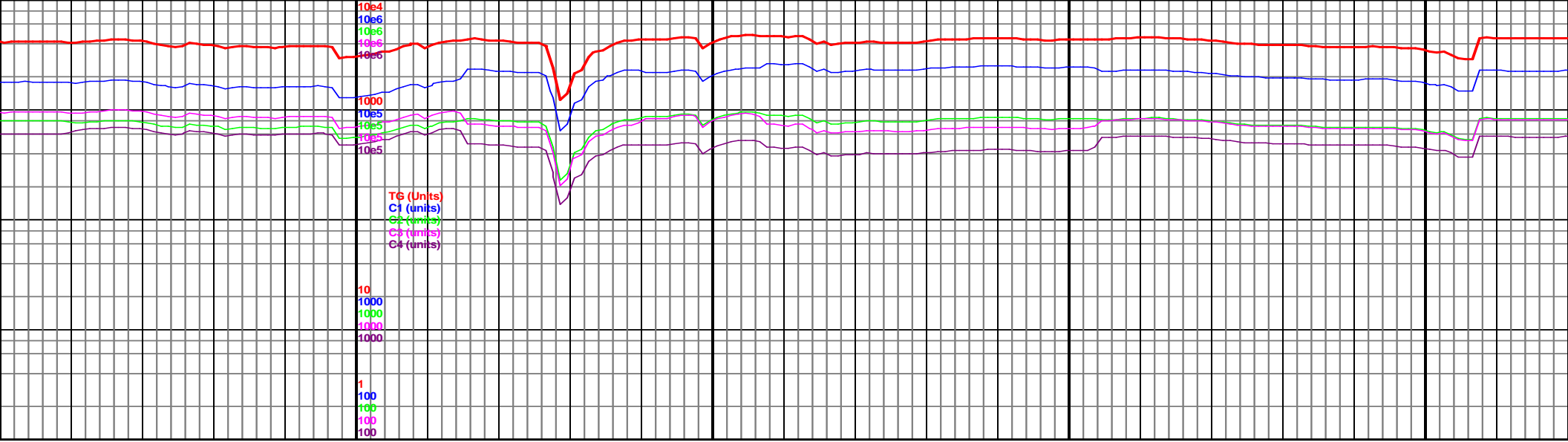


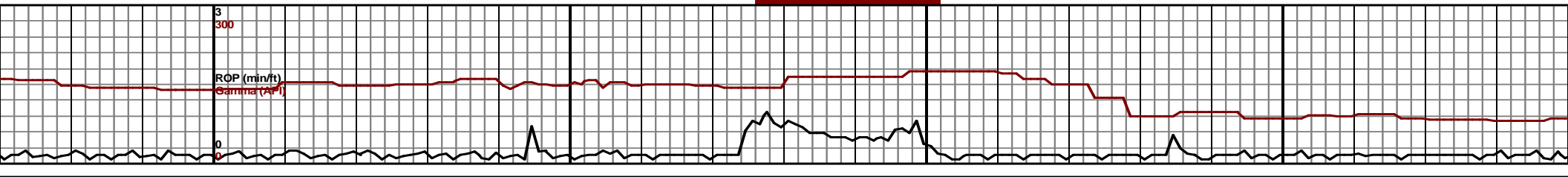
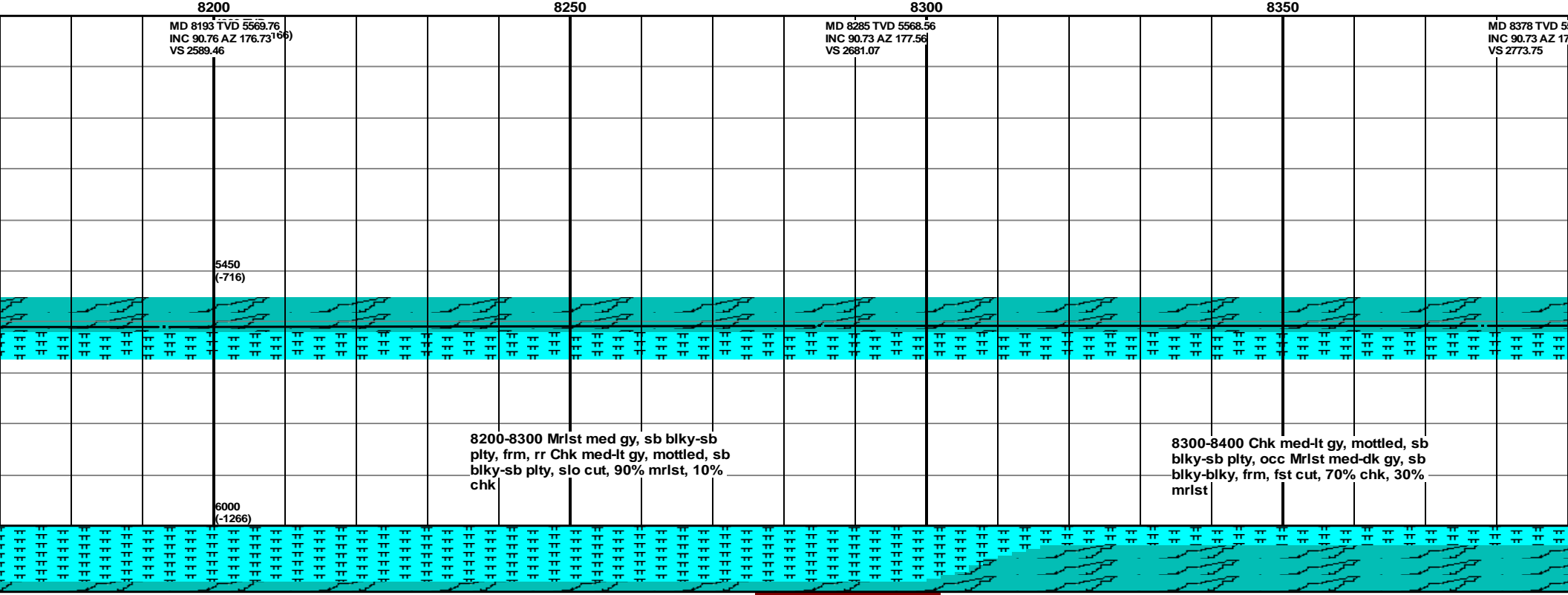
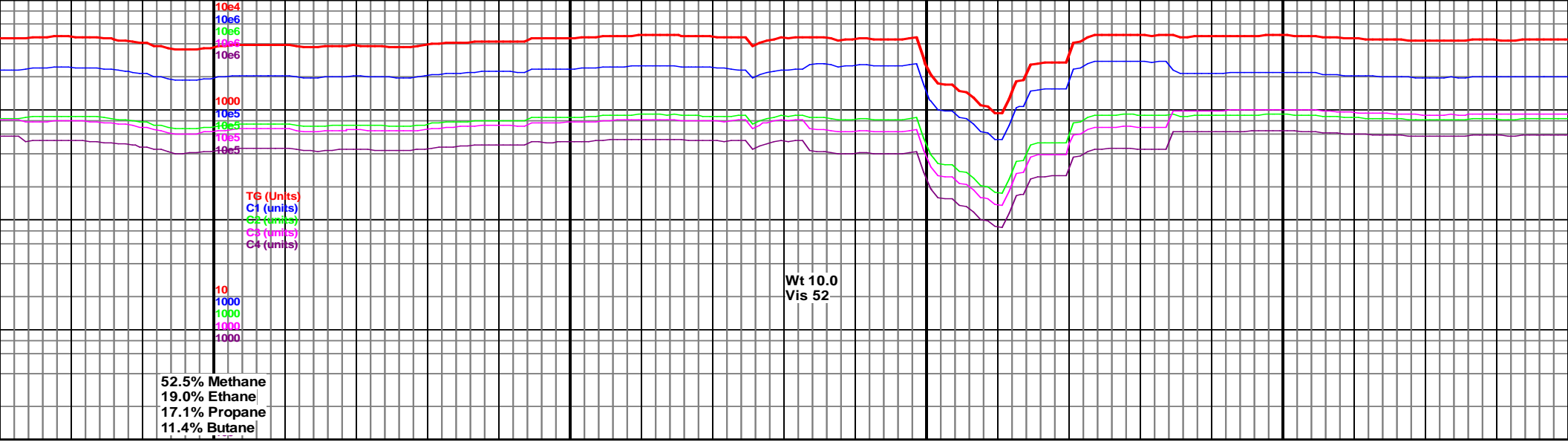


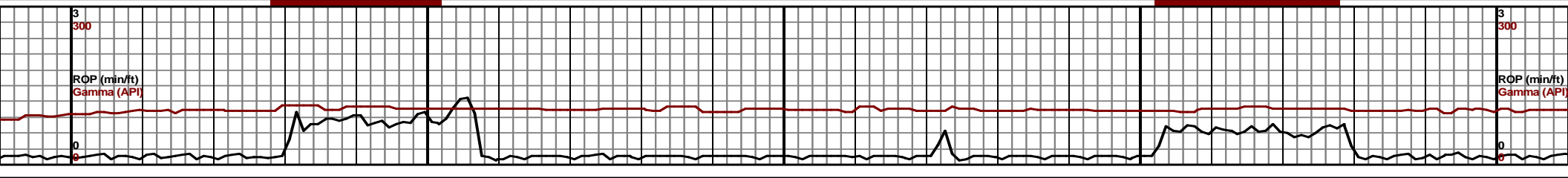
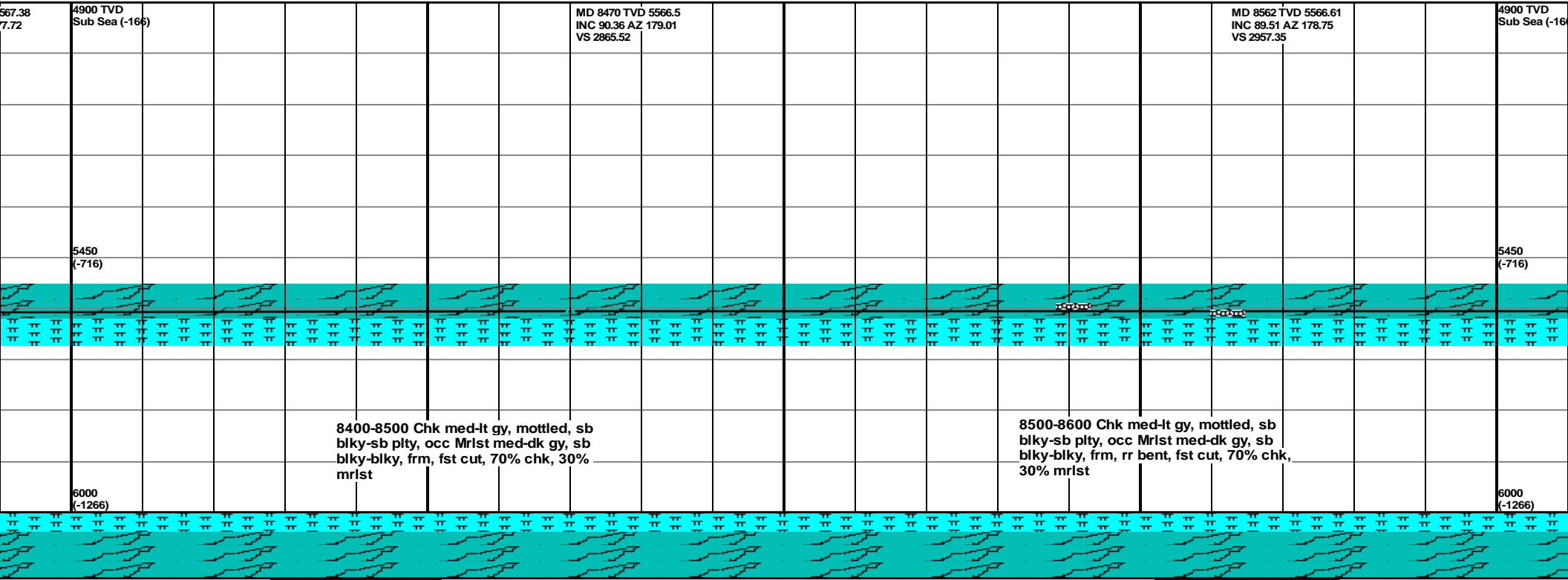
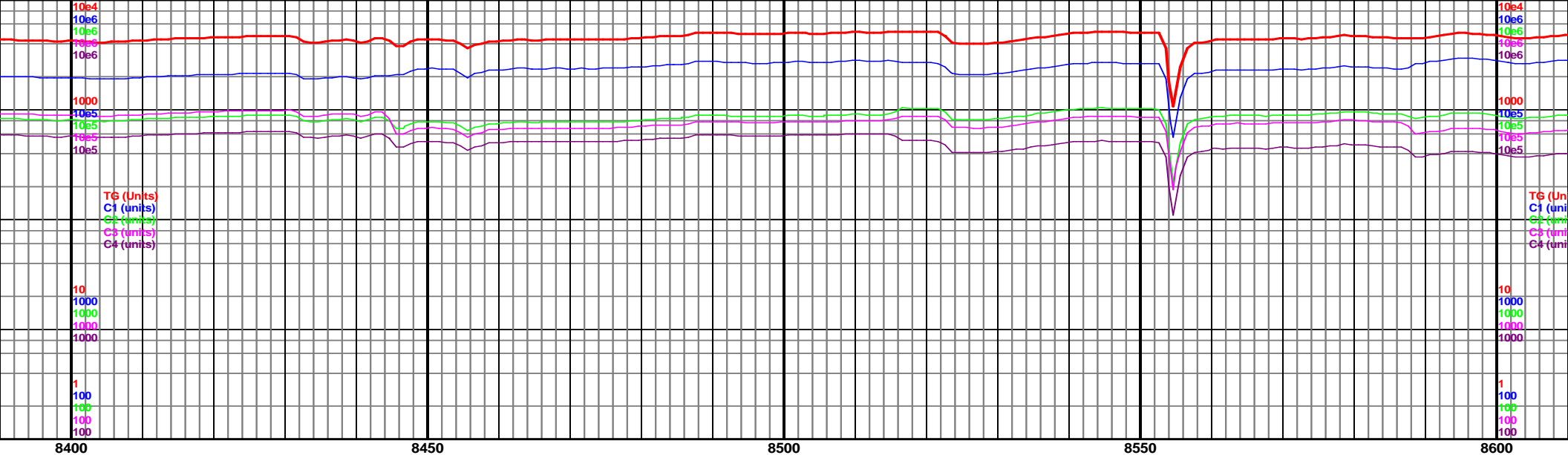


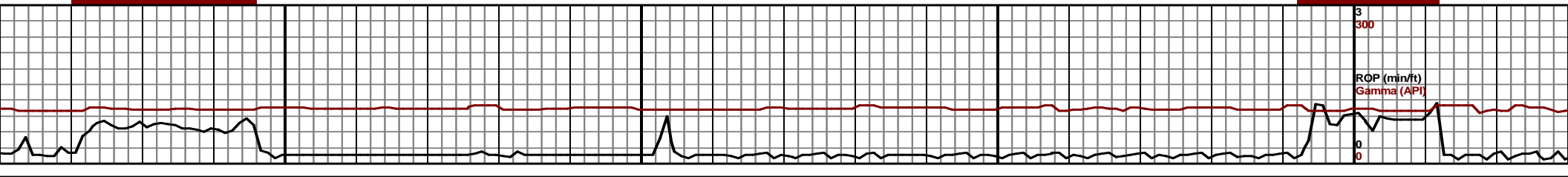
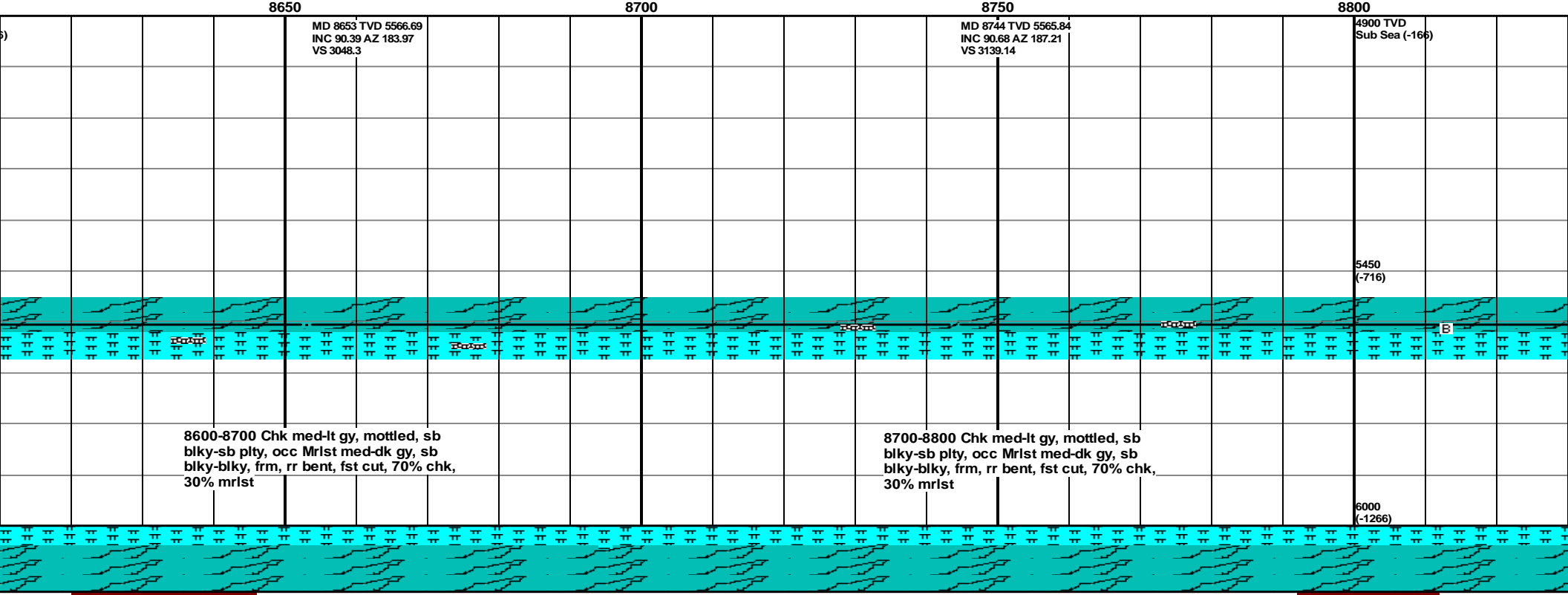
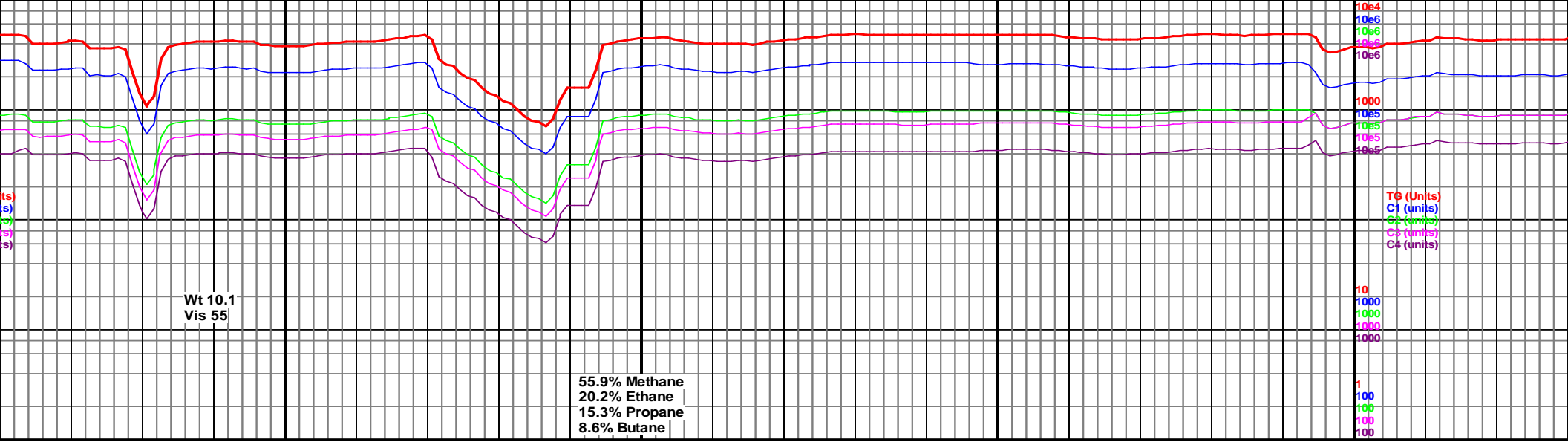


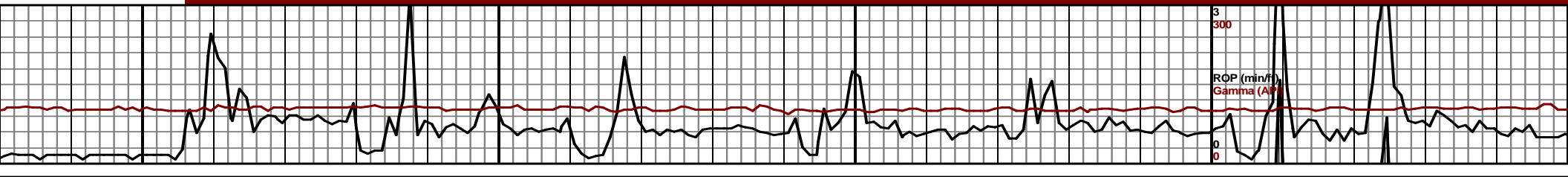
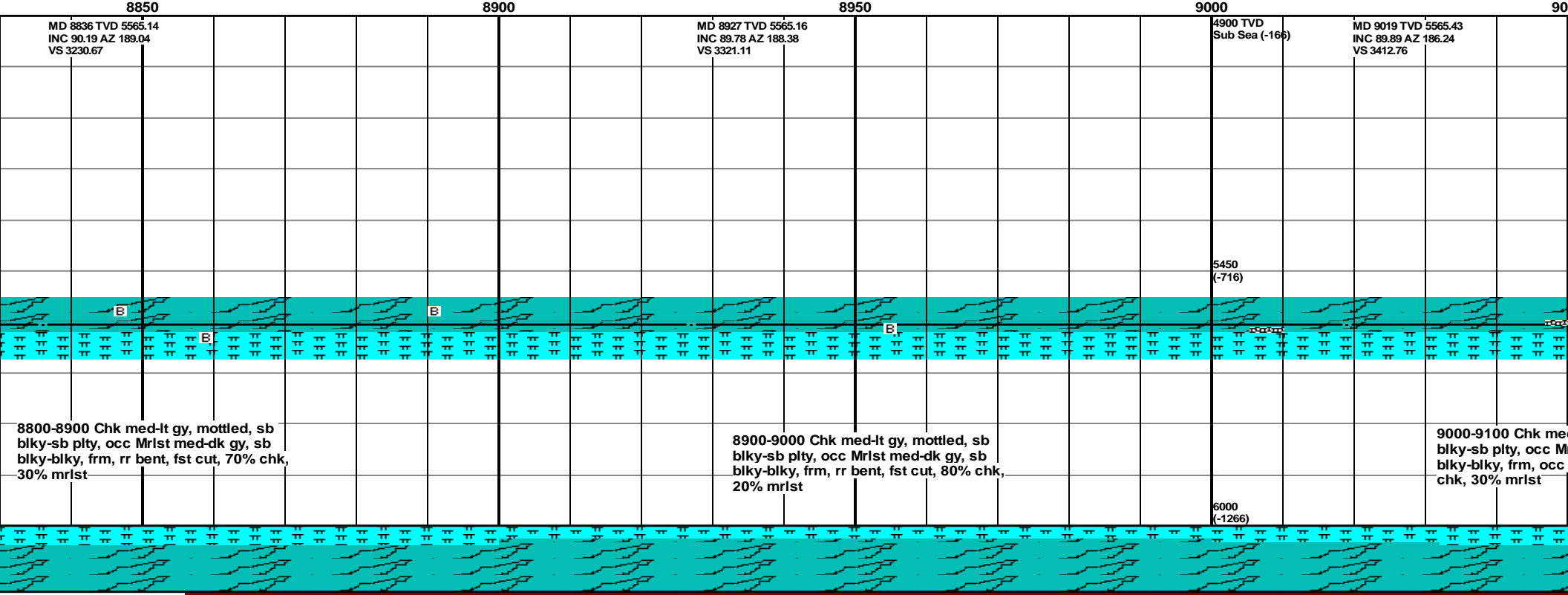
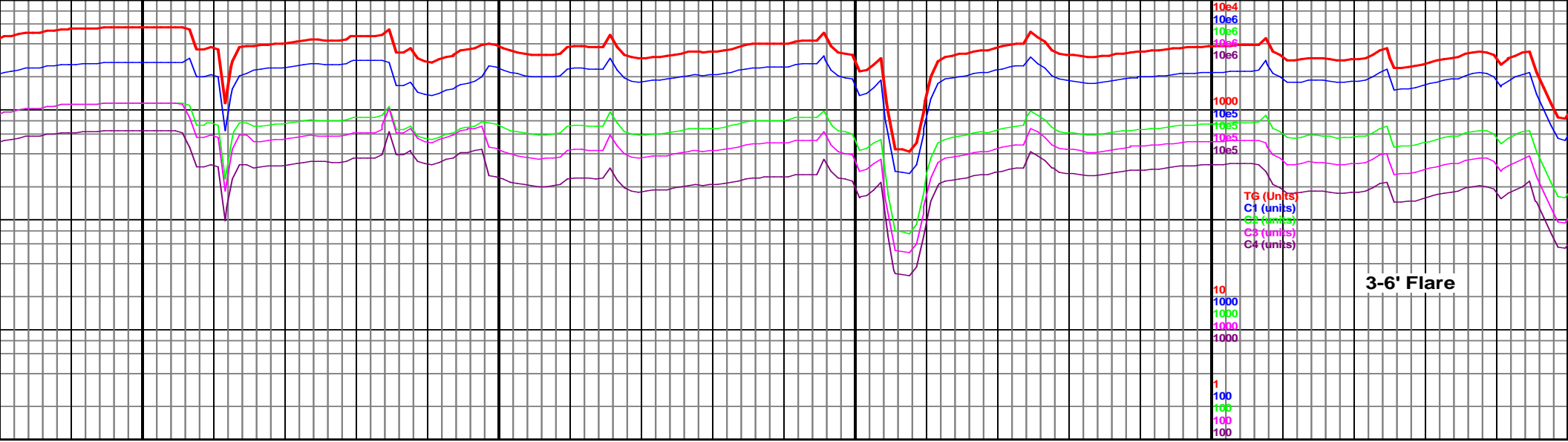


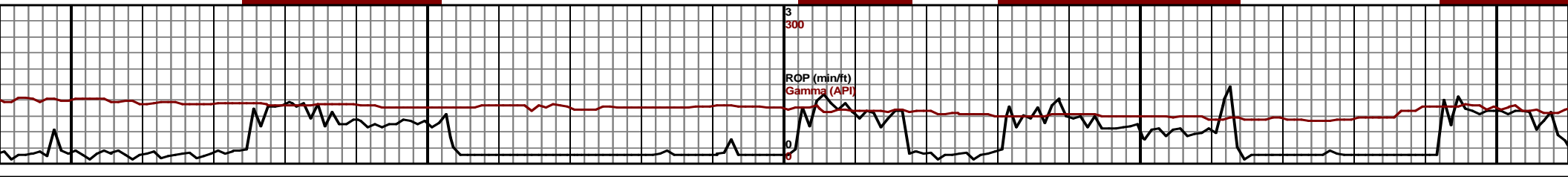
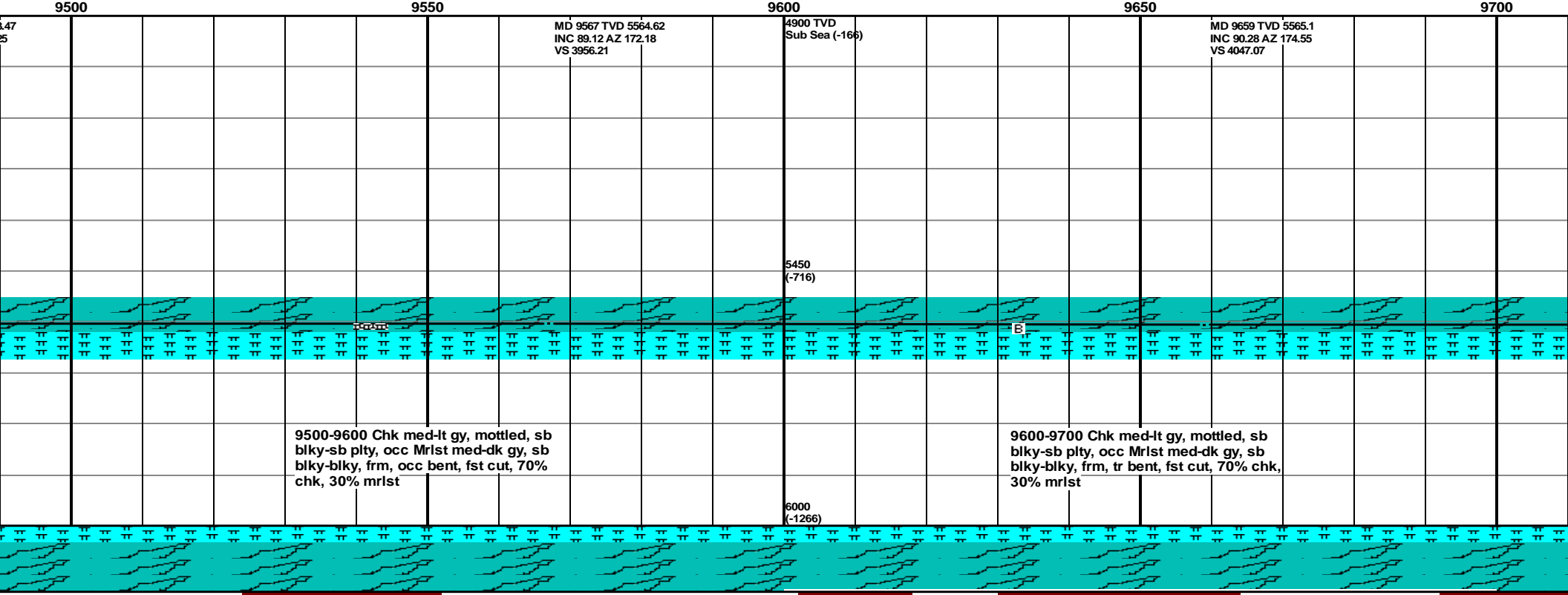
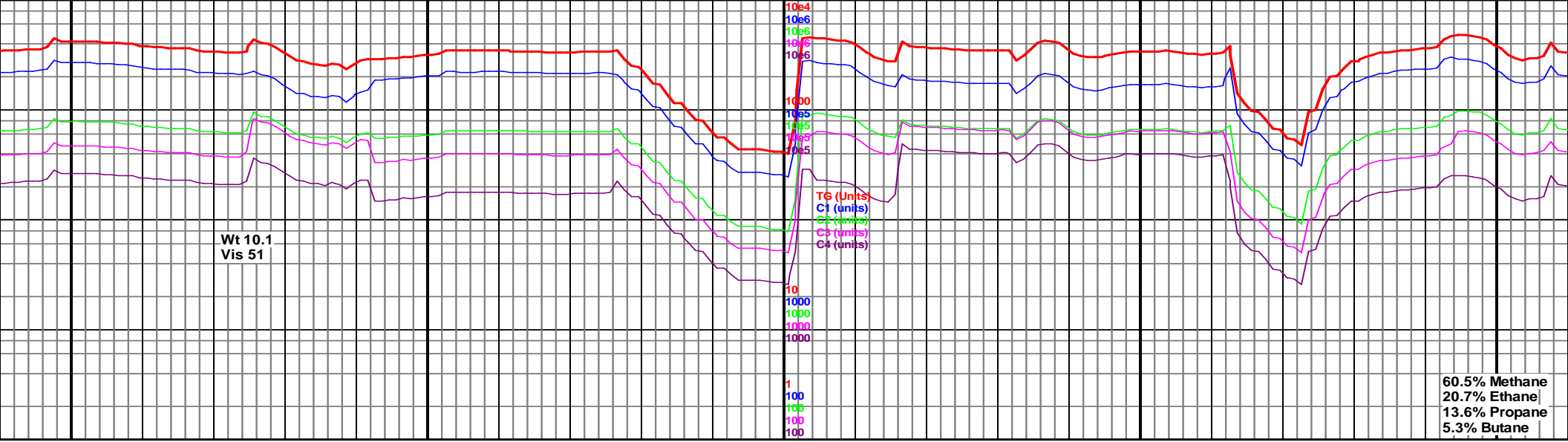


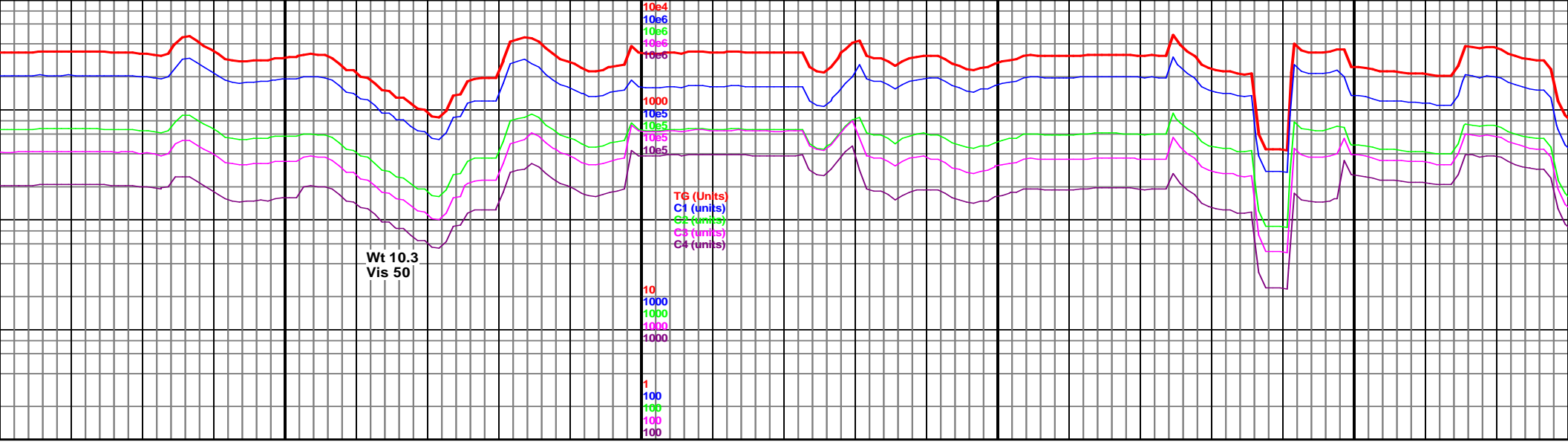












9750 9800 9850 9900

MD 9750 TVD 5565.28
INC 89.5 AZ 175.5
VS 4137.32

4900 TVD
Sub Sea (-166)

MD 9842 TVD 5565.8
INC 89.85 AZ 176.79
VS 4228.78

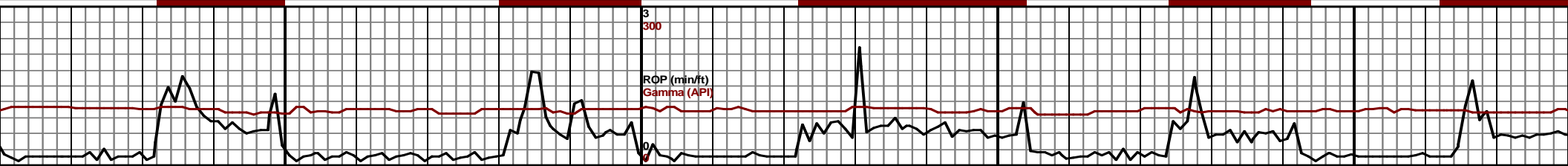


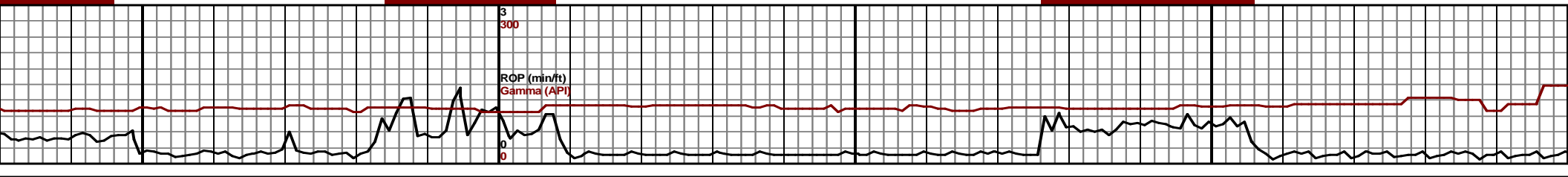
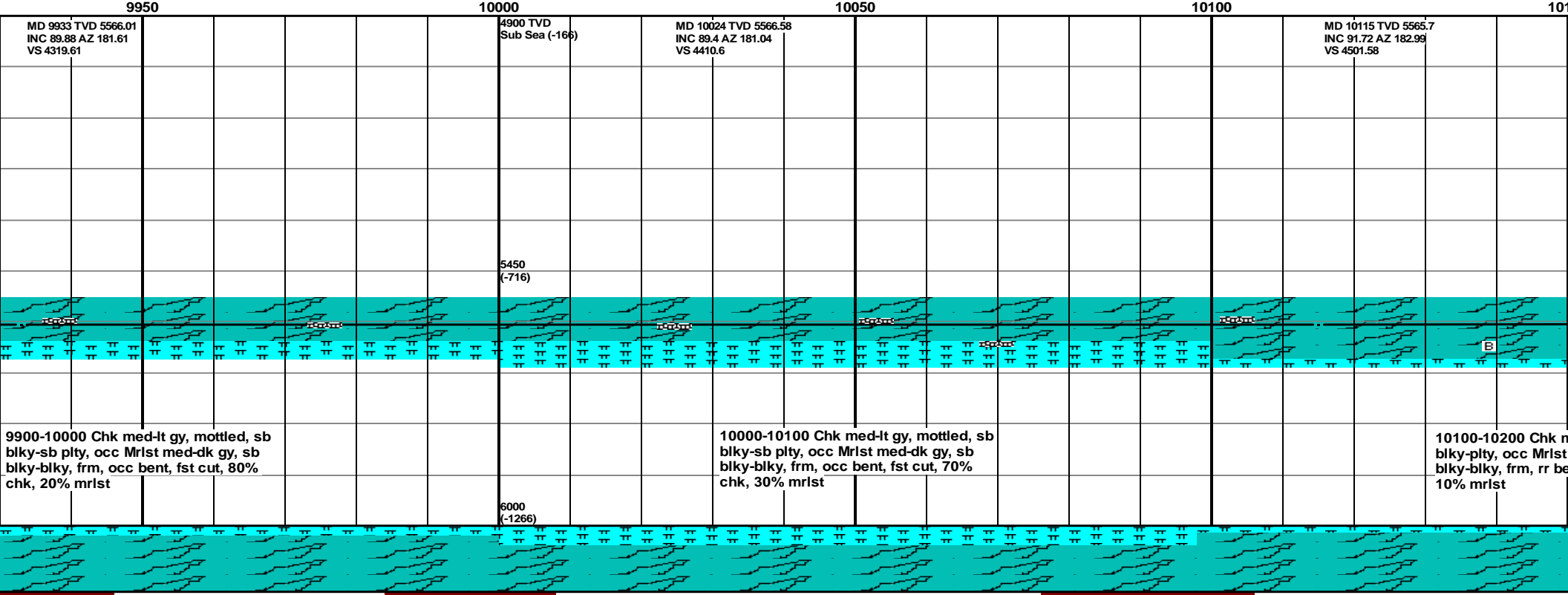
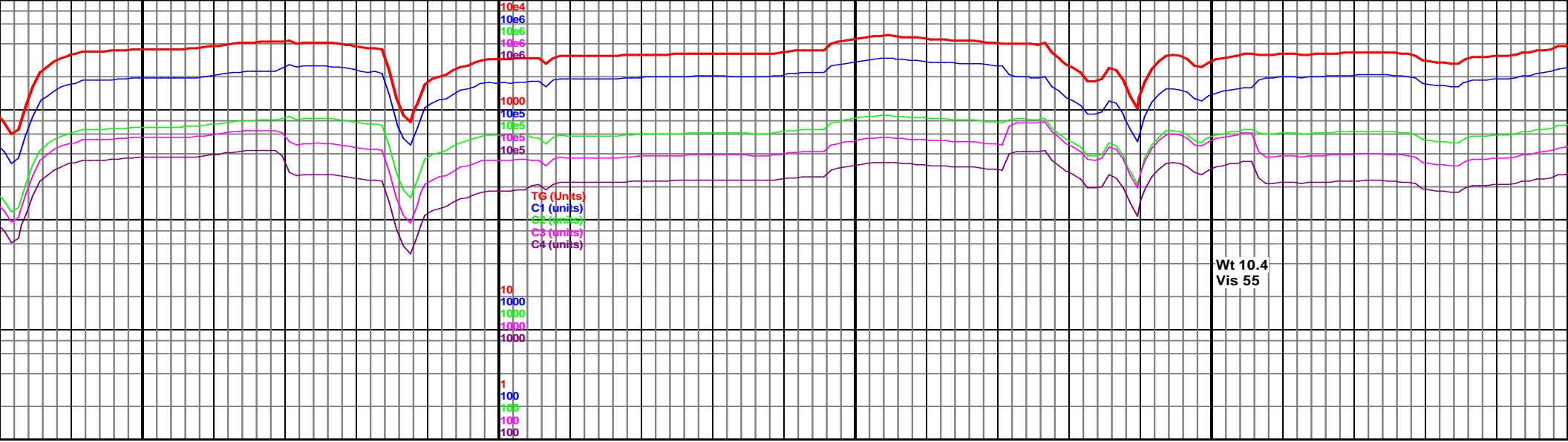
5450
(-716)

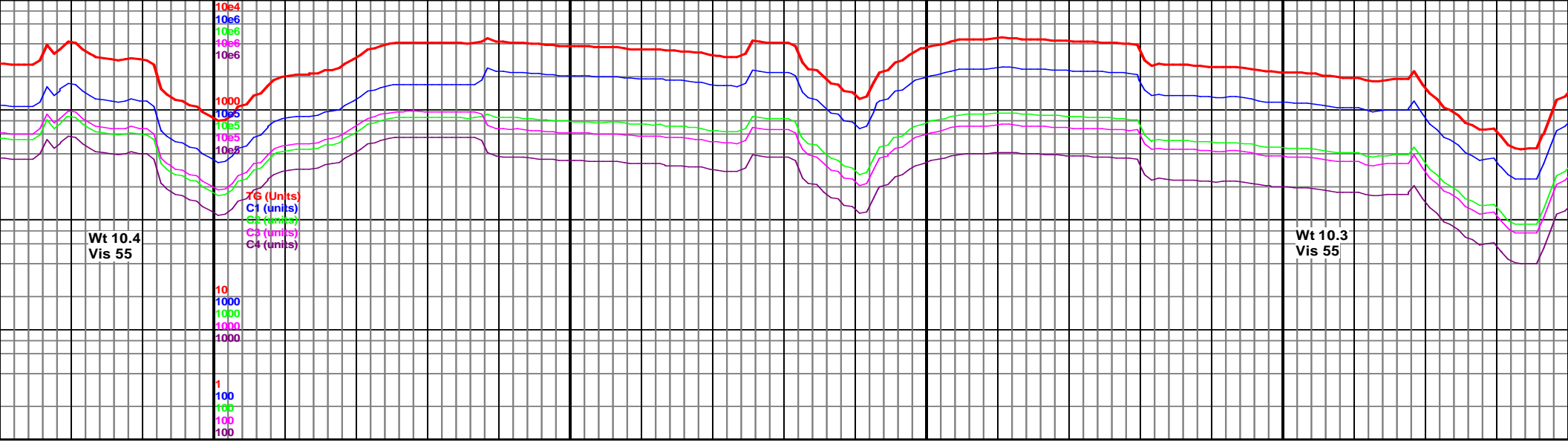
9700-9800 Chk med-lt gy, mottled, sb
blky-sb plty, occ Mrlst med-dk gy, sb
blky-blky, frm, tr bent, fst cut, 70% chk,
30% mrlst

9800-9900 Chk med-lt gy, mottled, sb
blky-sb plty, occ Mrlst med-dk gy, sb
blky-blky, frm, occ bent, fst cut, 80%
chk, 20% mrlst

6000
(-1266)







Wt 10.4
Vis 55

Wt 10.3
Vis 55

MD 10389 TVD 5558.63D
INC 90.44 AZ 181.21
VS 4775.46

MD 10480 TVD 5558.14
INC 90.17 AZ 181.39
VS 4866.45

MD 10571 TVD 5558.74
INC 89.08 AZ 179.68
VS 4957.39

5450
(-716)

6000
(-1266)

10400-10500 Chk med-lt gy, mottled, sb
blky-sb plty, occ Mrlst med-dk gy, sb
blky-blky, frm, rr bent, fst cut, 80% chk,
20% mrlst

10500-10600 Chk med-lt gy, mottled, sb
blky-sb plty, occ Mrlst med-dk gy, sb
blky-blky, frm, rr bent, slo cut, 75%
chk, 25% mrlst



