



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

Well Name: Razor 25O-2443  
Well Id: 05-123-42634-00  
Location: Sec 25-T10N-R58W  
License Number: 05-123-42634-00  
Spud Date: 8/14/2016  
Surface Coordinates: 40.803322  
-103.810303

Region: Wildcat Field  
Drilling Completed: 8/20/2016

Bottom Hole Coordinates:

Ground Elevation (ft): 4718  
Logged Interval (ft): 5093  
Formation: Pierre, Sharon Springs, Niobrara A, Niobrara B, Niobrara C, Codell  
Type of Drilling Fluid: Water Based Mud

To: 16040  
K.B. Elevation (ft): 4739  
Total Depth (ft): 16040

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: Mitch Schneider, Kyle Newman  
Company: Acme Geologic Consulting  
Address: 108 Berry Street  
Little Rock, AR 72205

## Drilling Company

Unit Drilling Company  
Rig 406

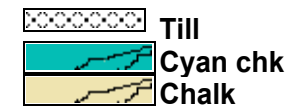
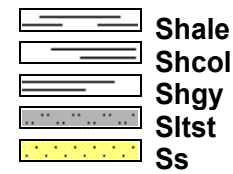
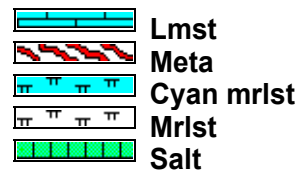
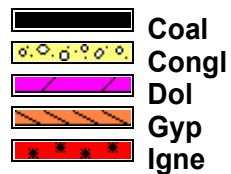
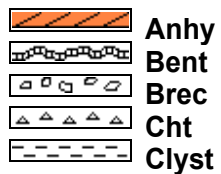
## Gas Detection

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

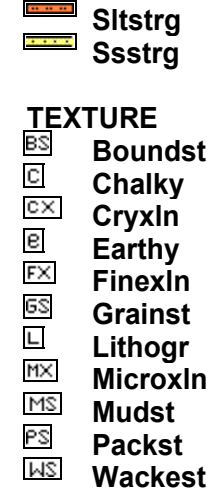
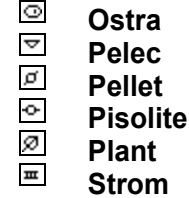
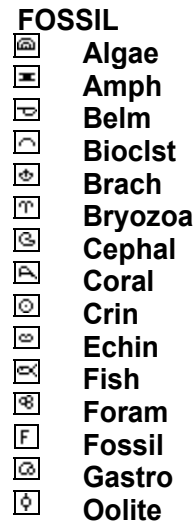
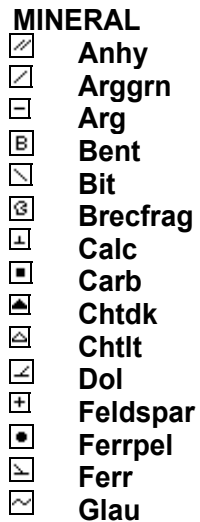
## Comments

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



## ACCESSORIES



**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**

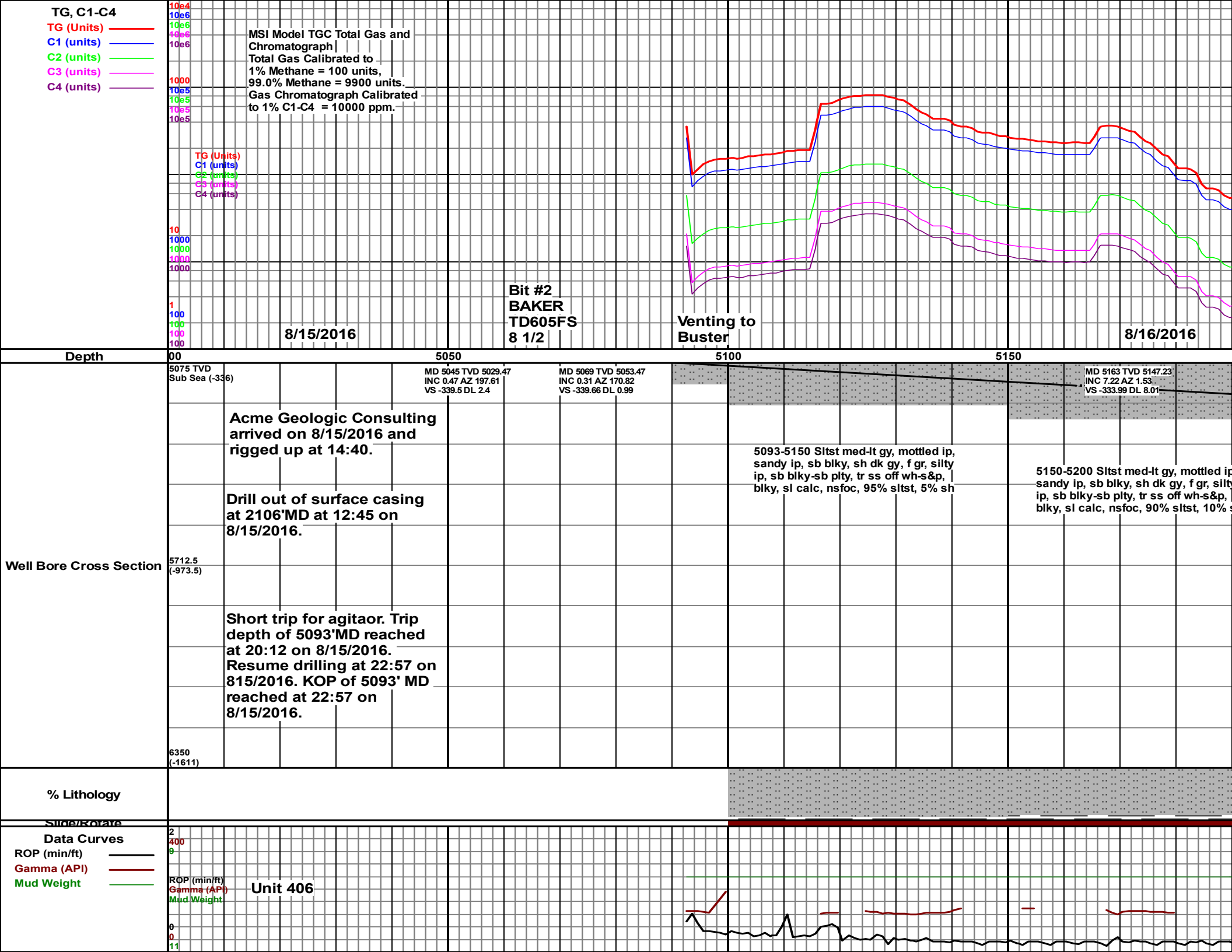
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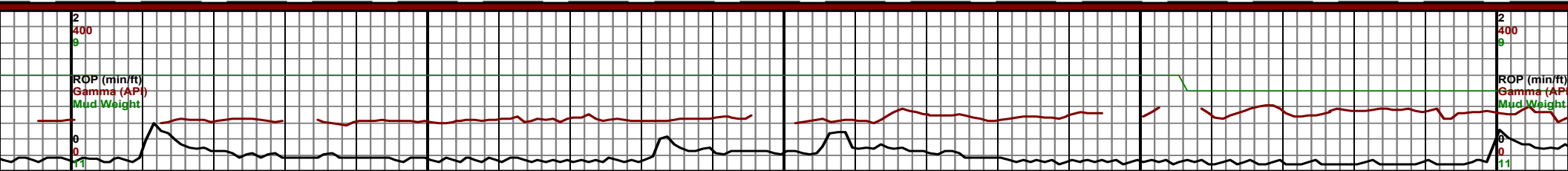
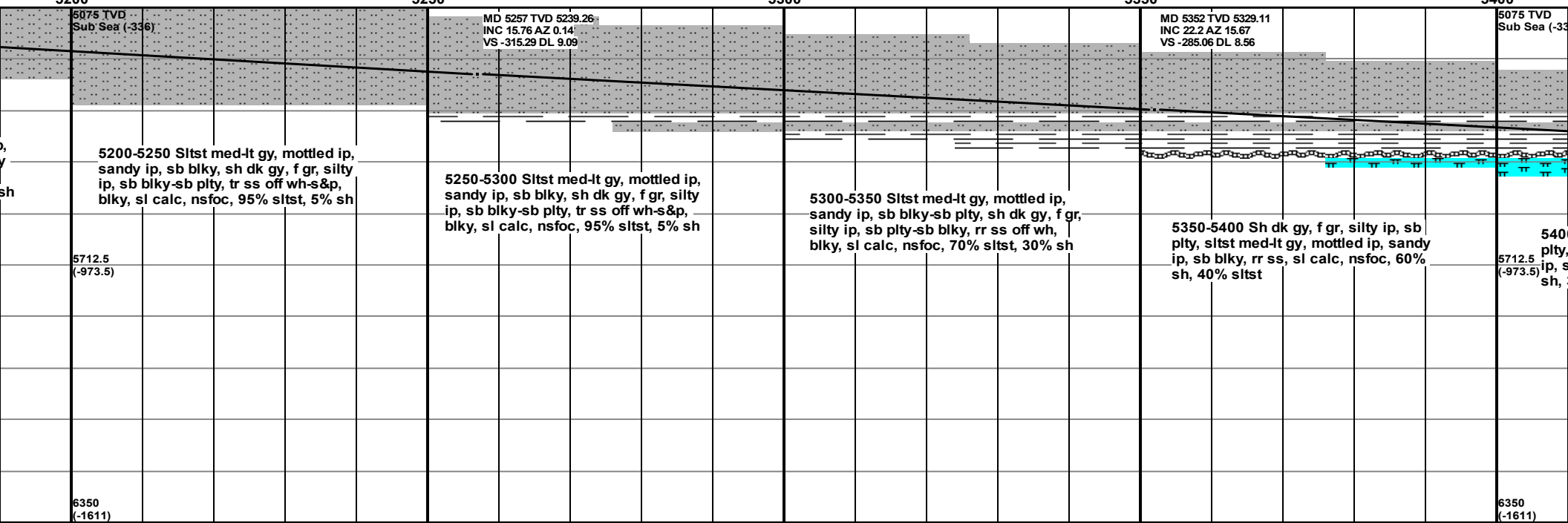
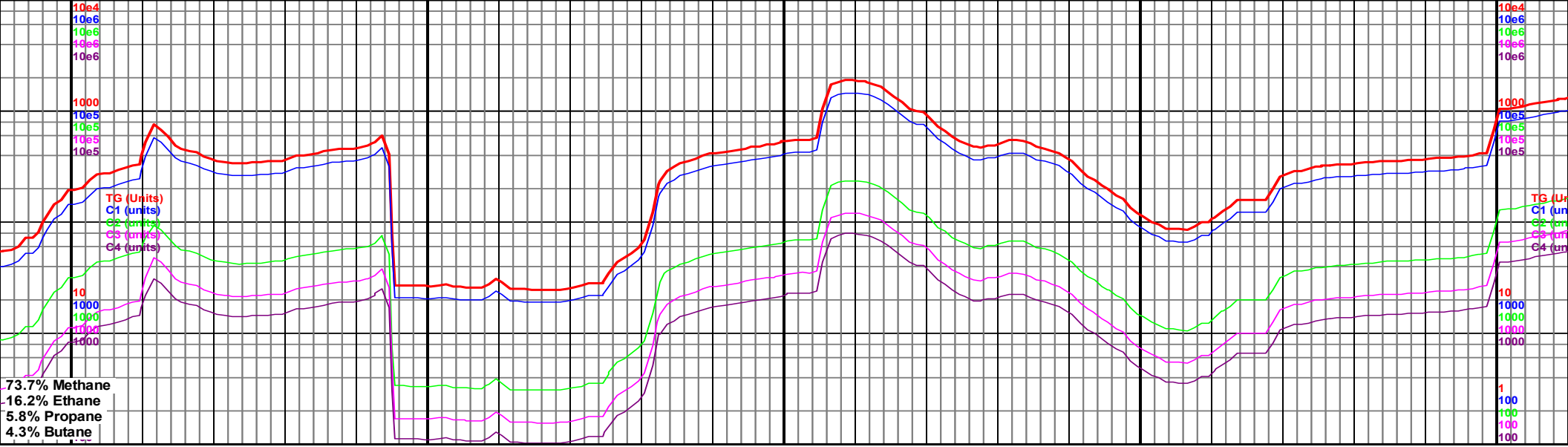


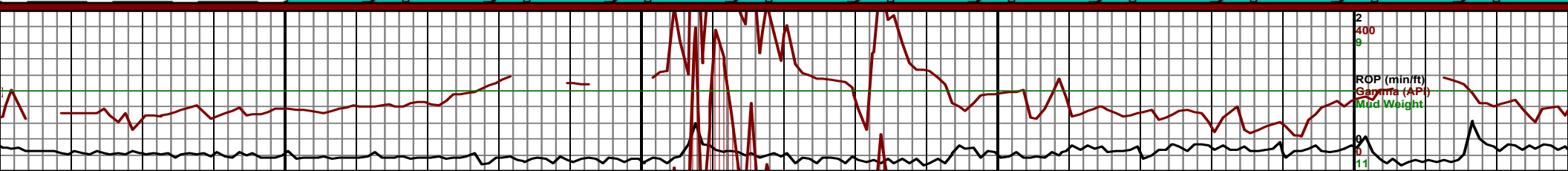
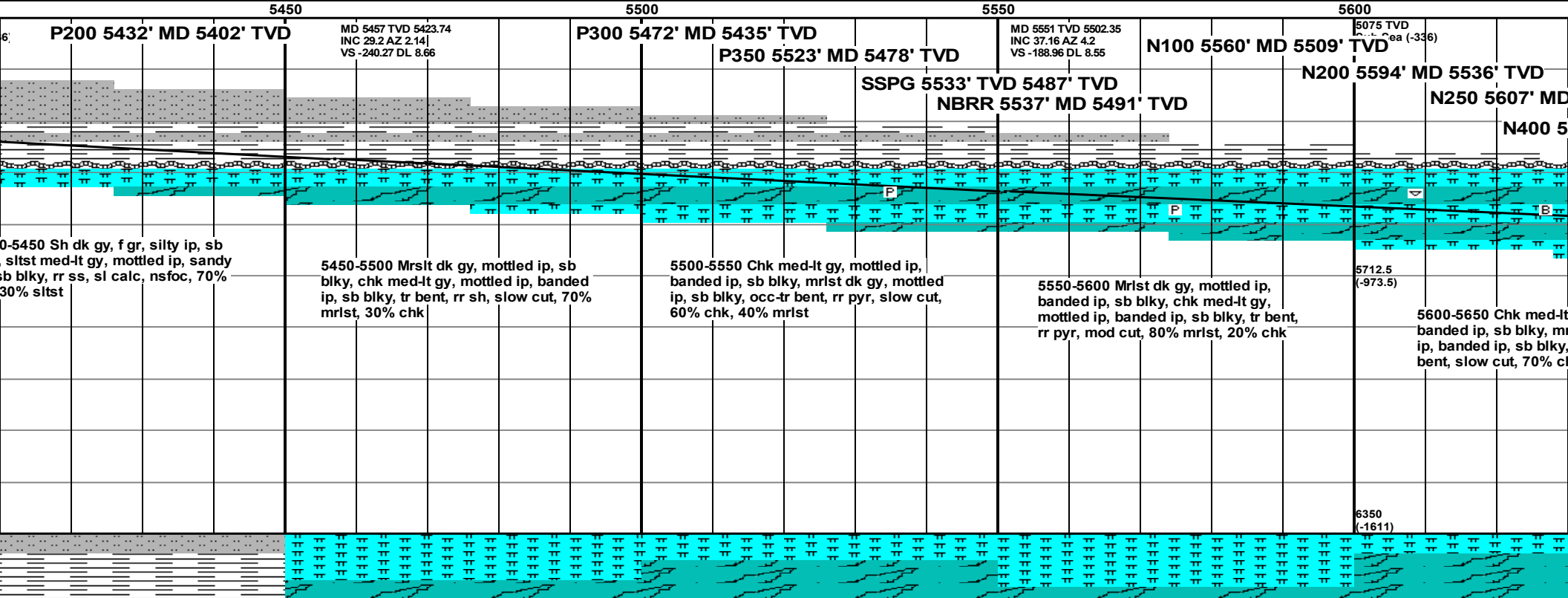
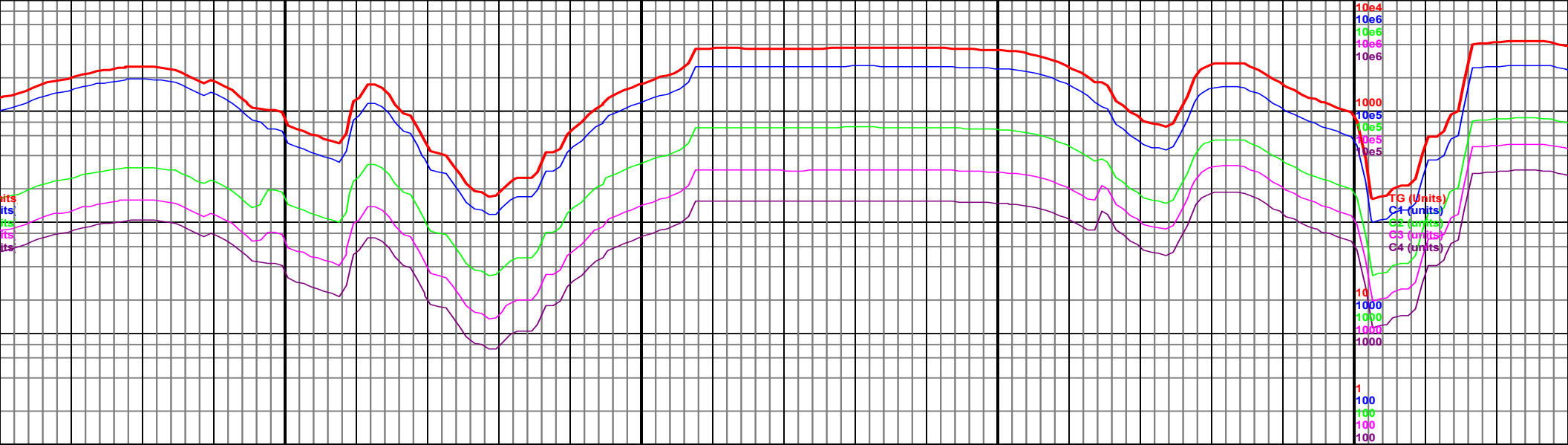
**Rft**

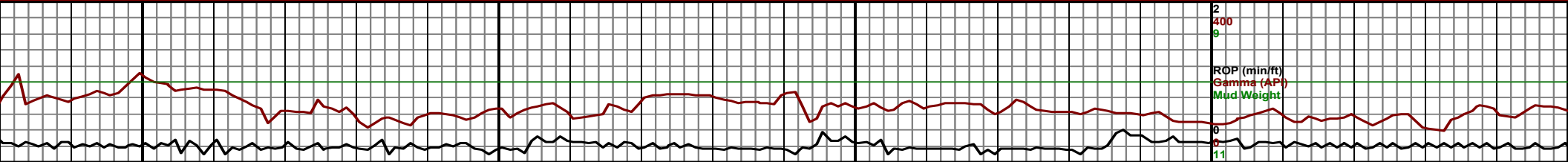
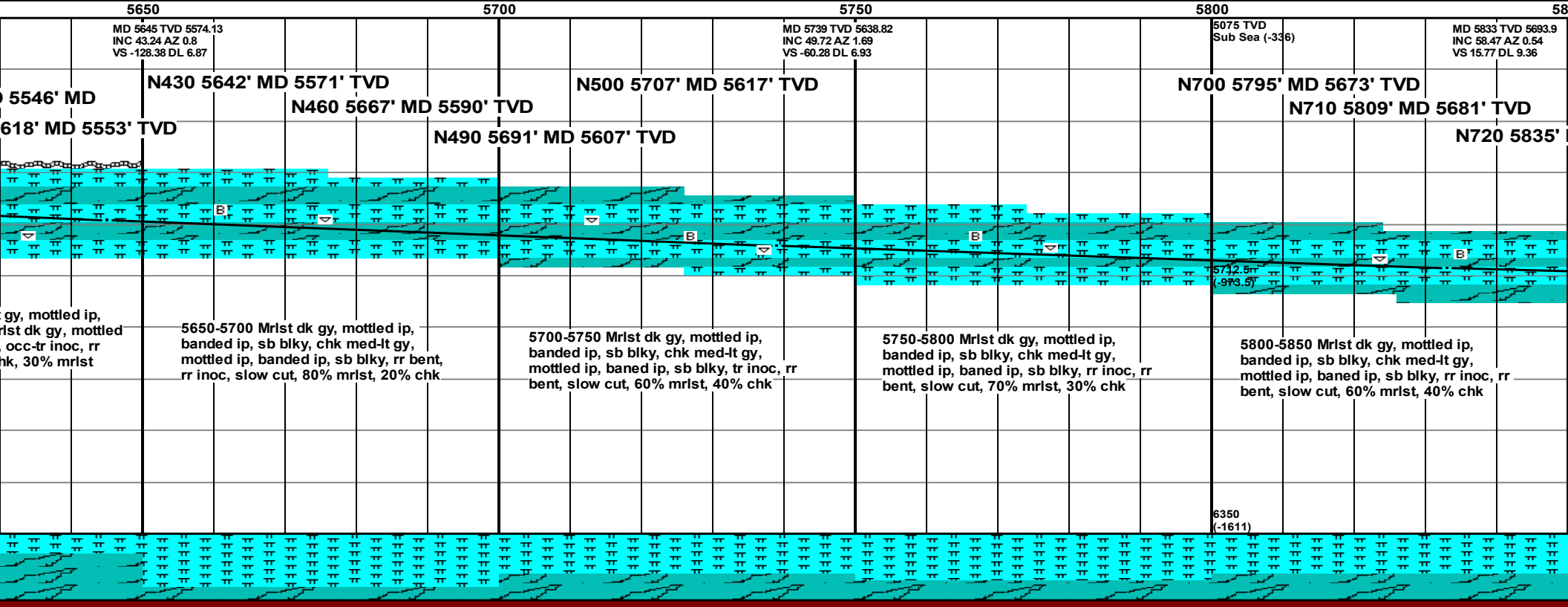
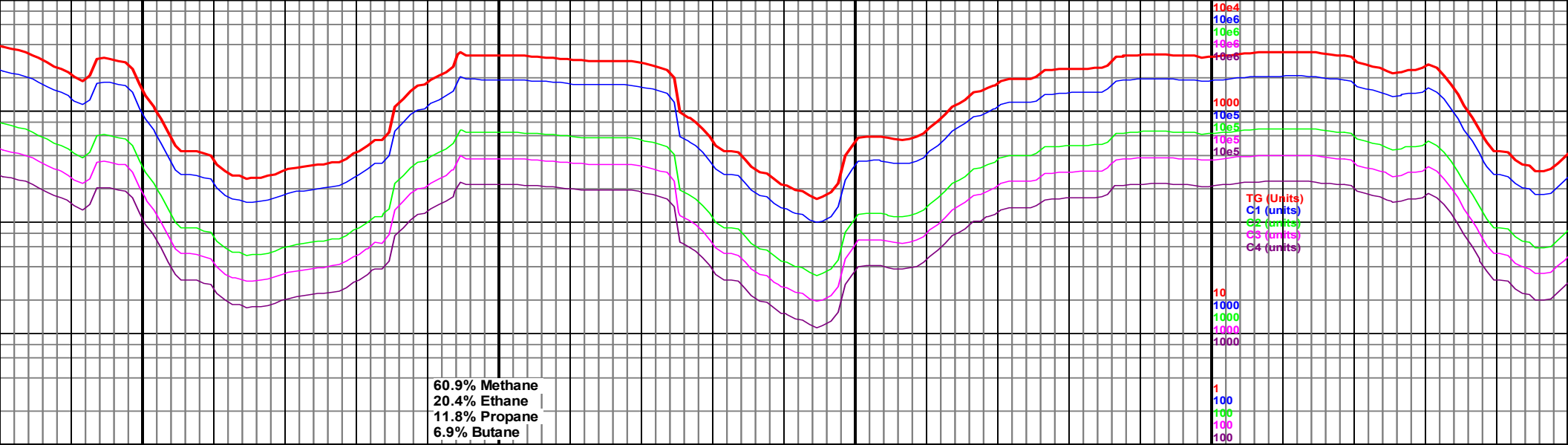


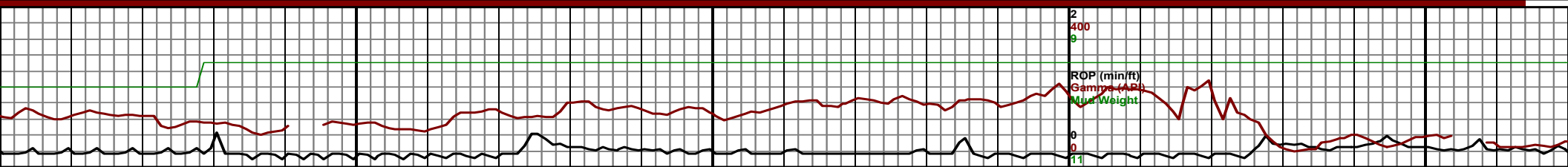
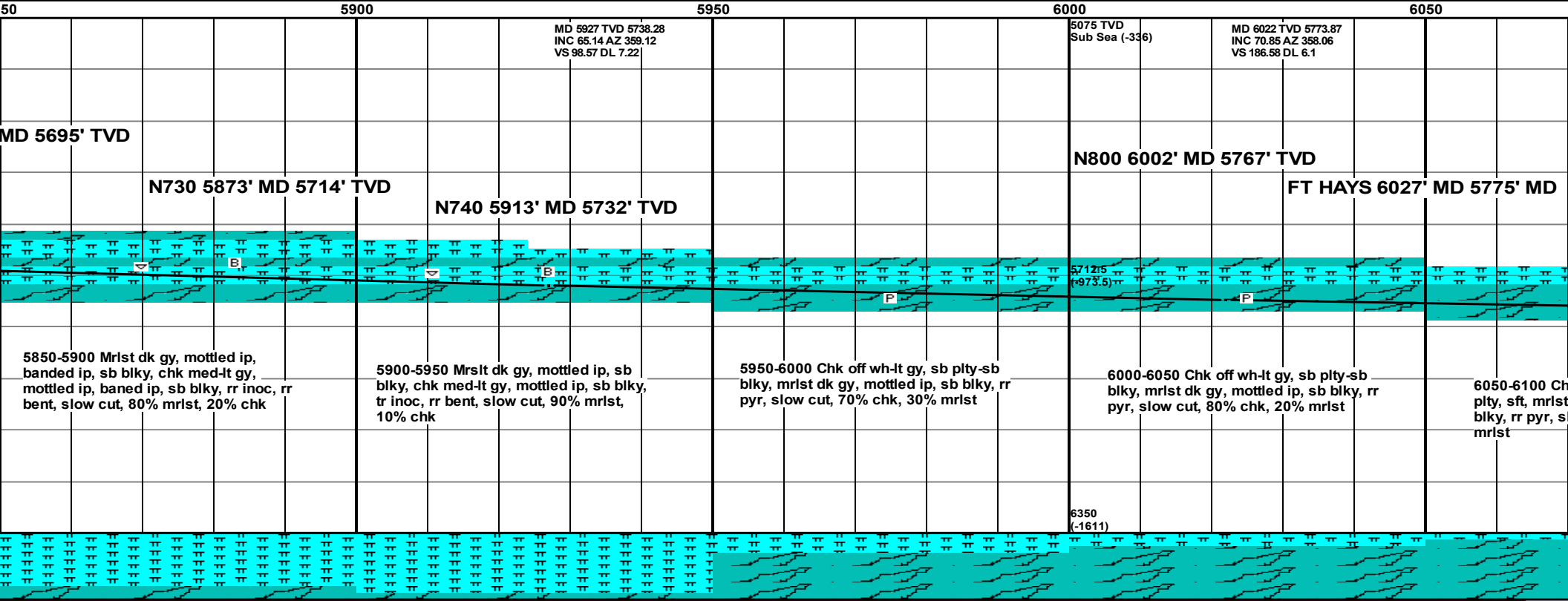
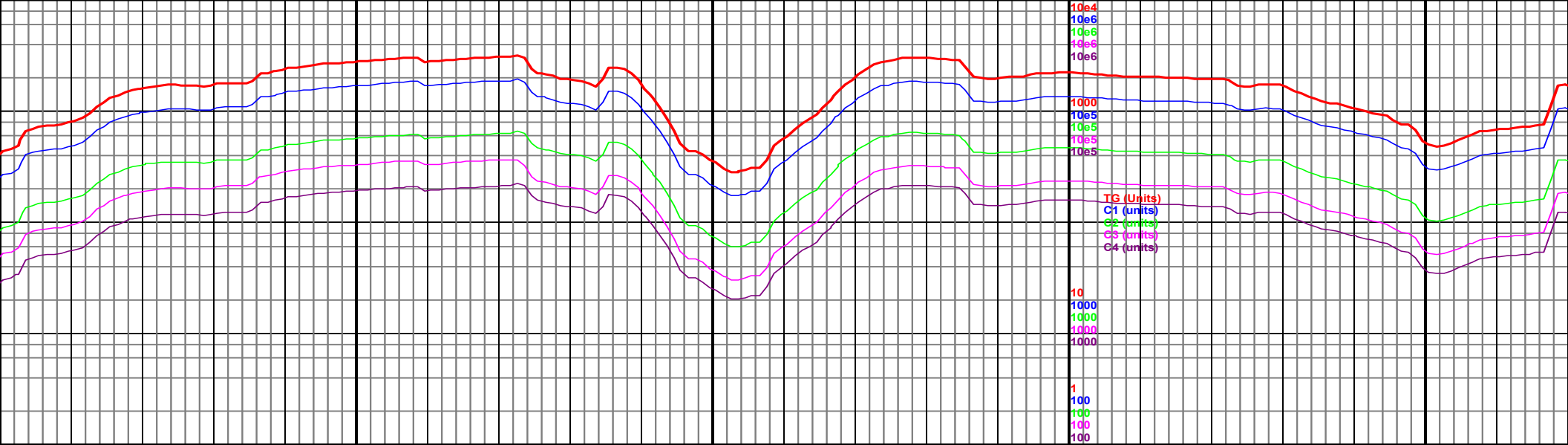
**Sidewall**



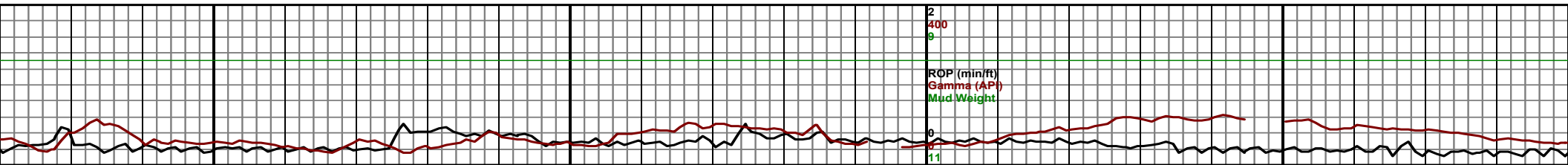
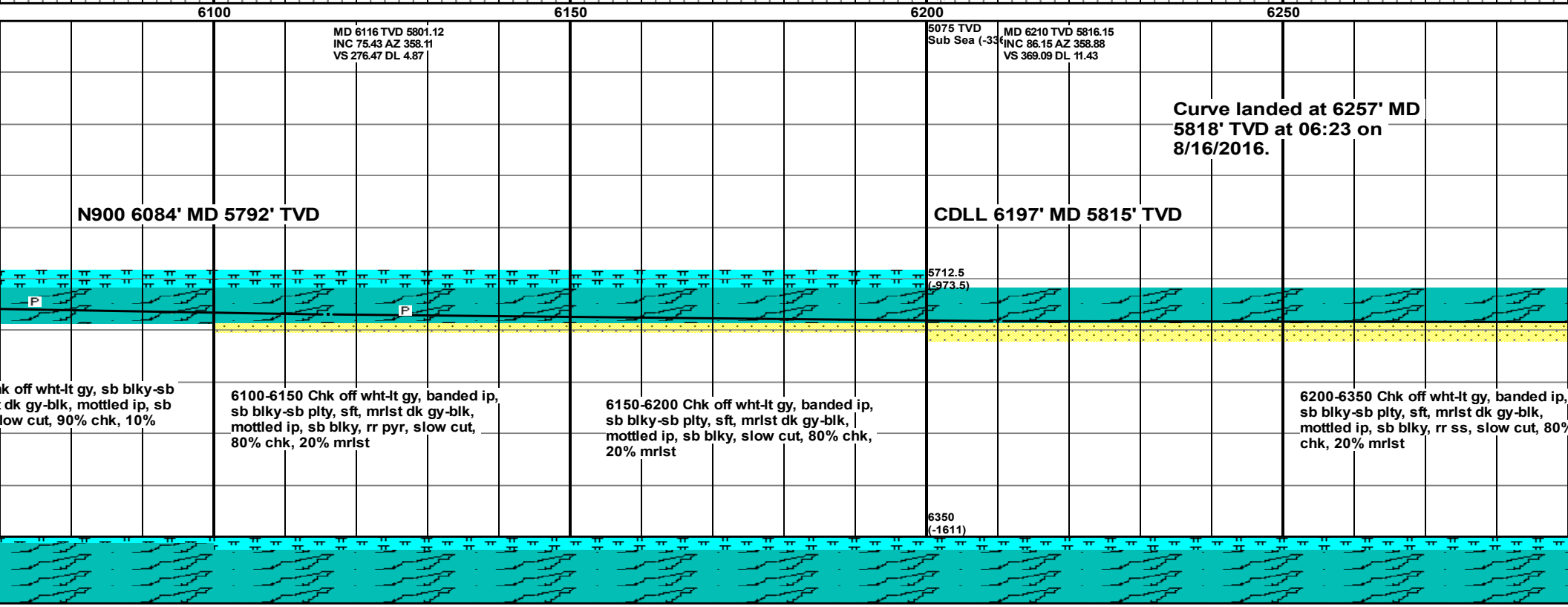
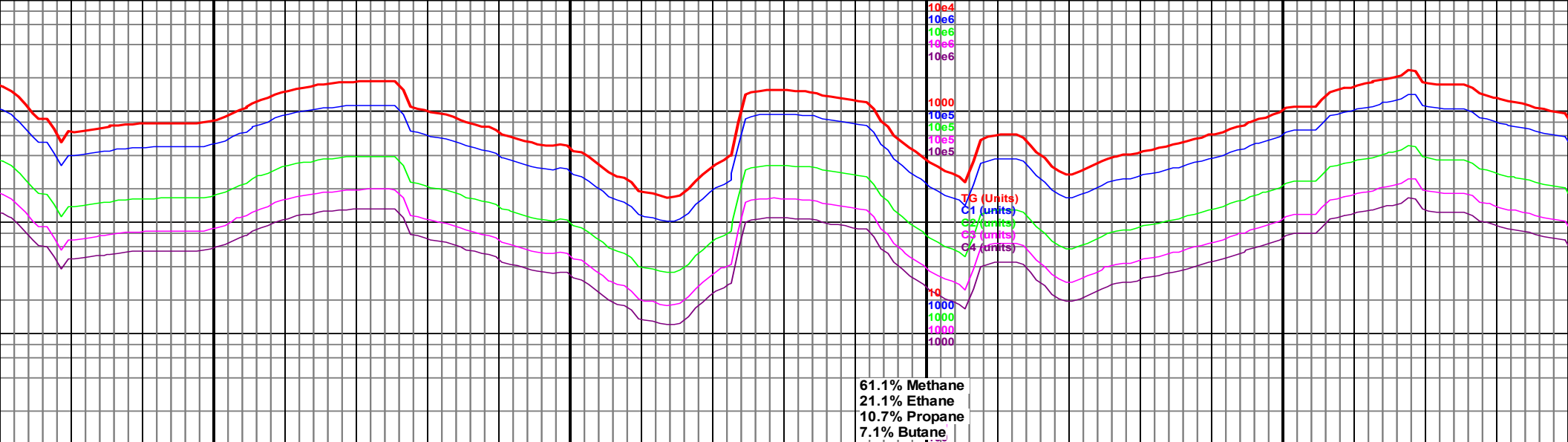


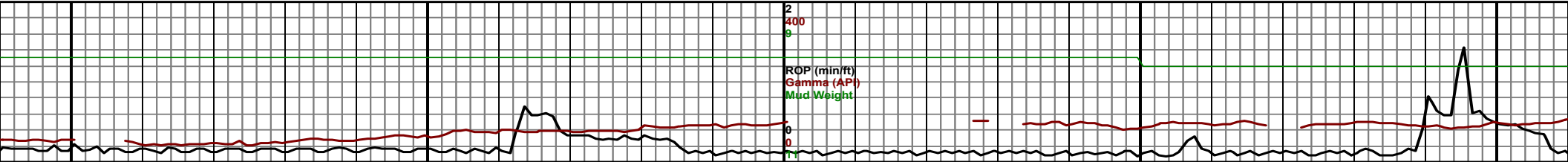
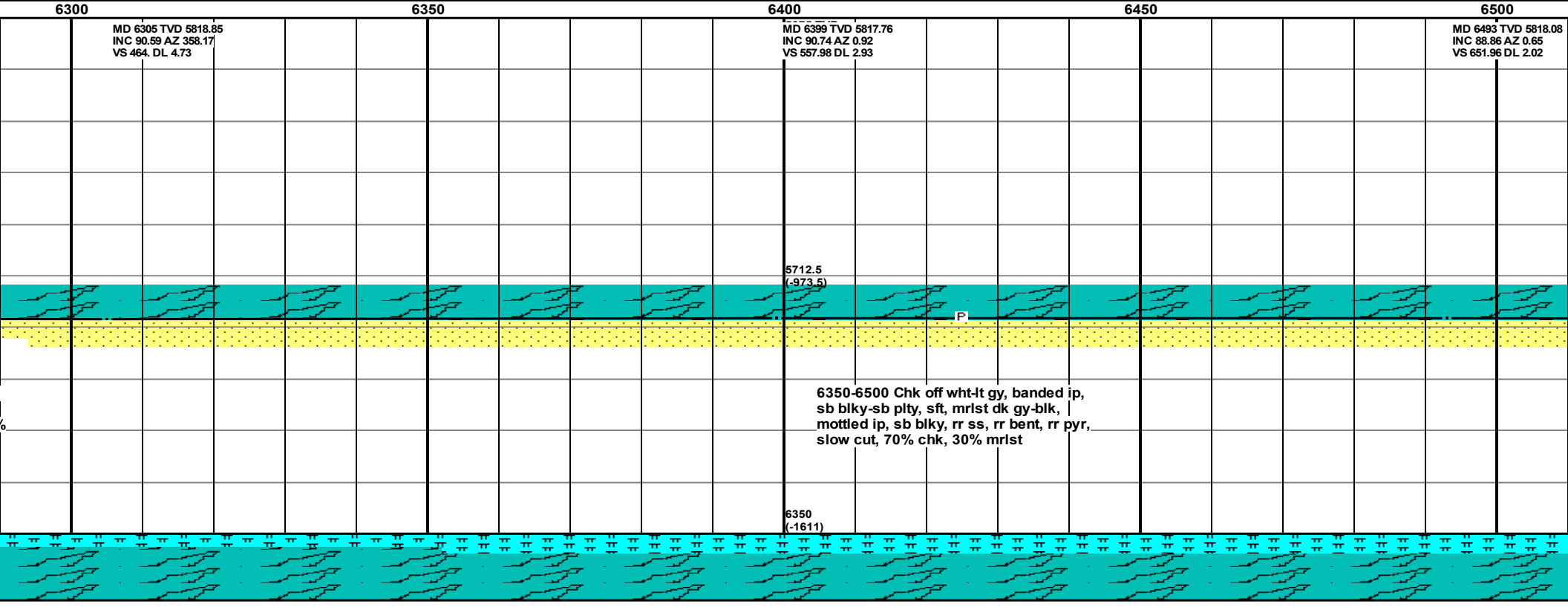
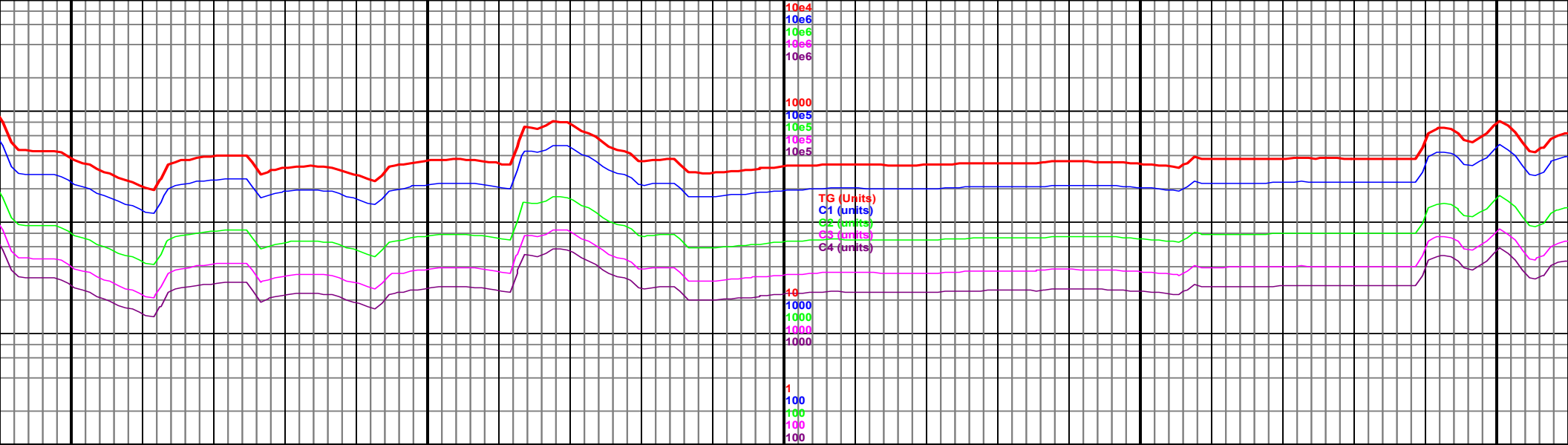


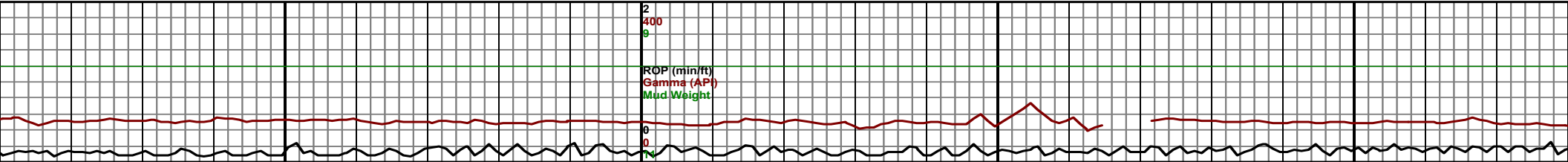
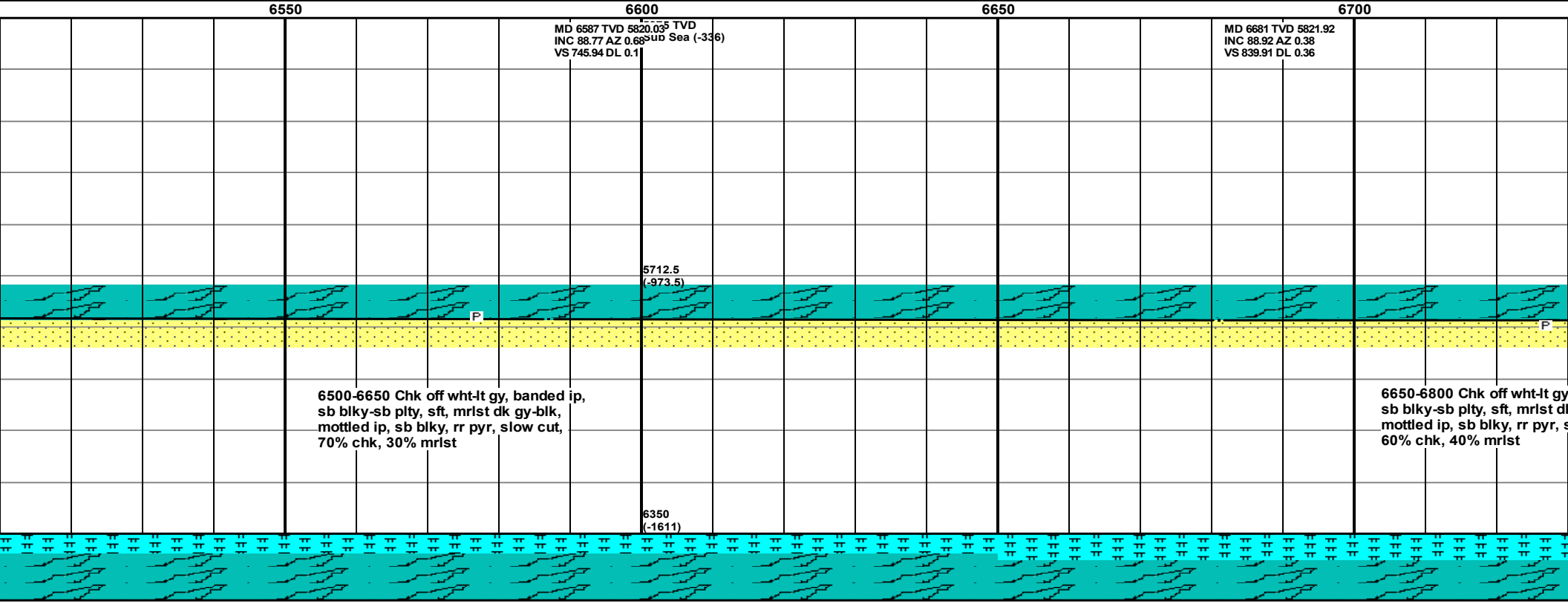
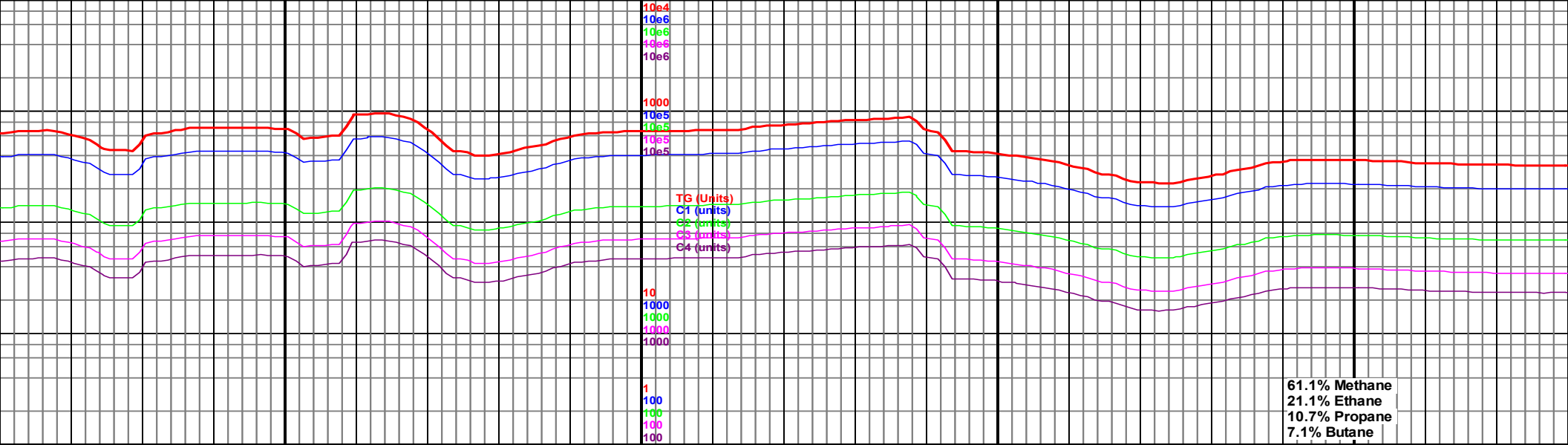


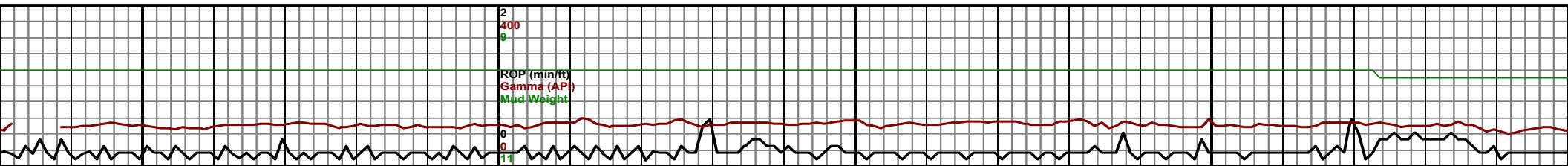
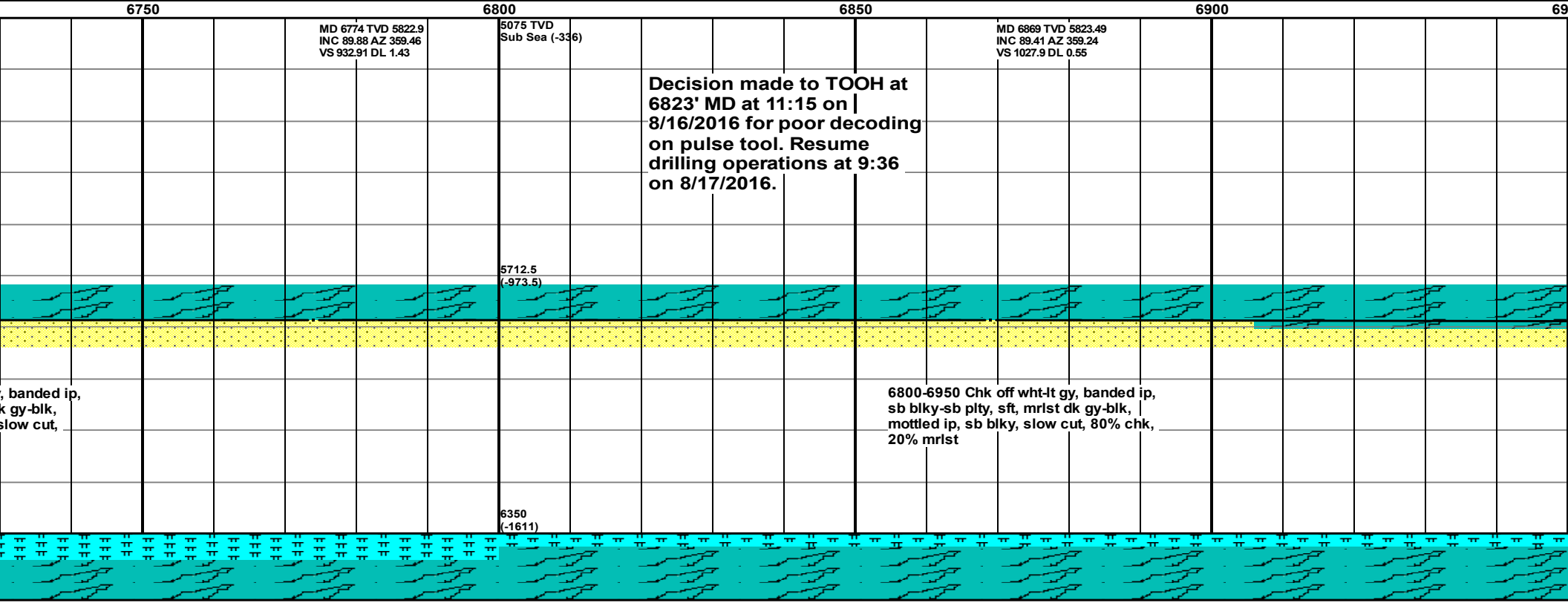
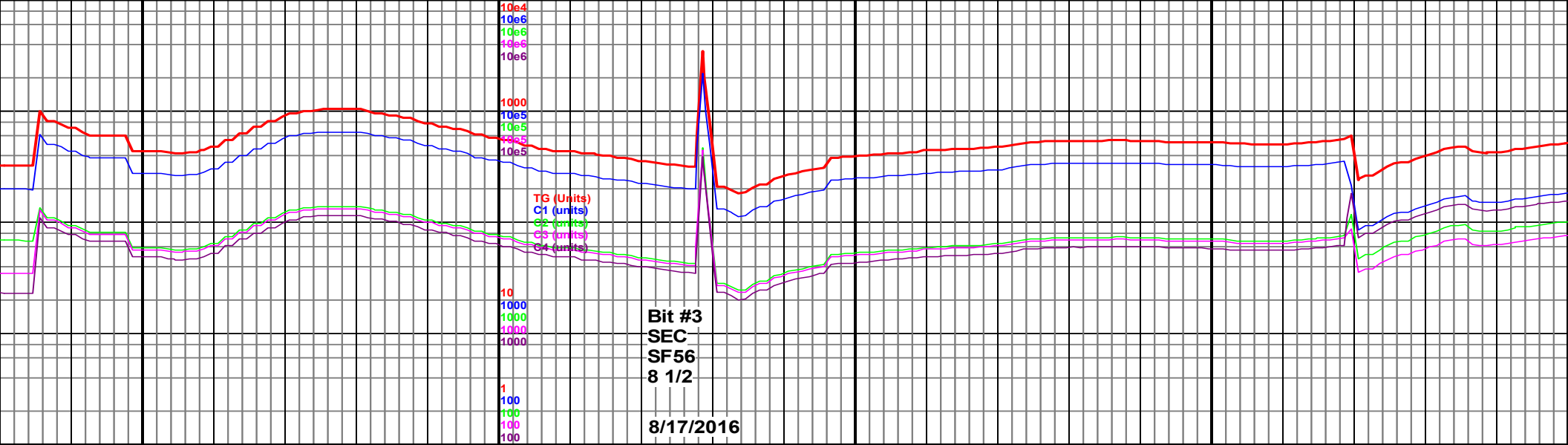


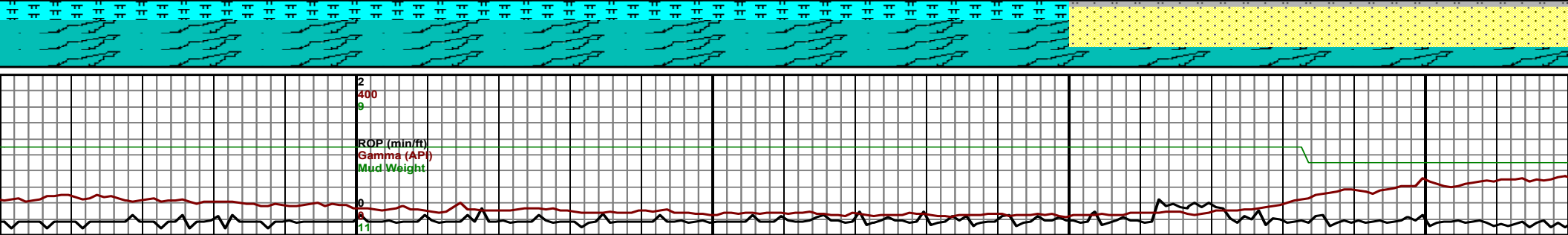
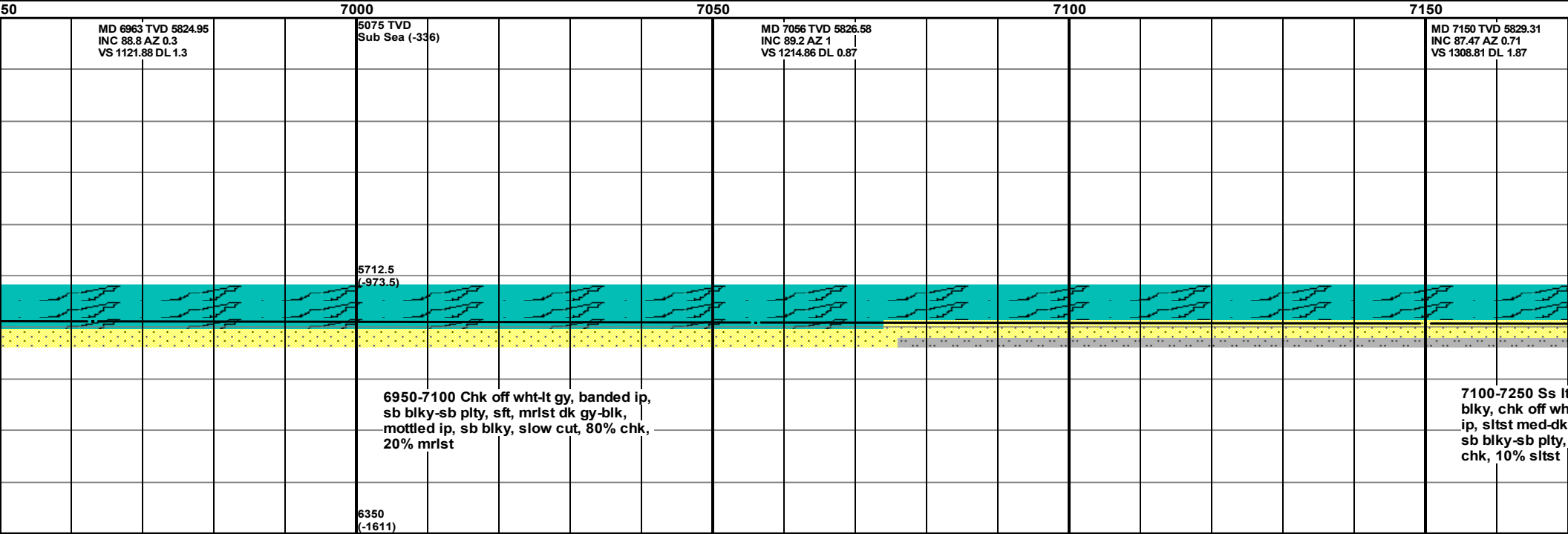
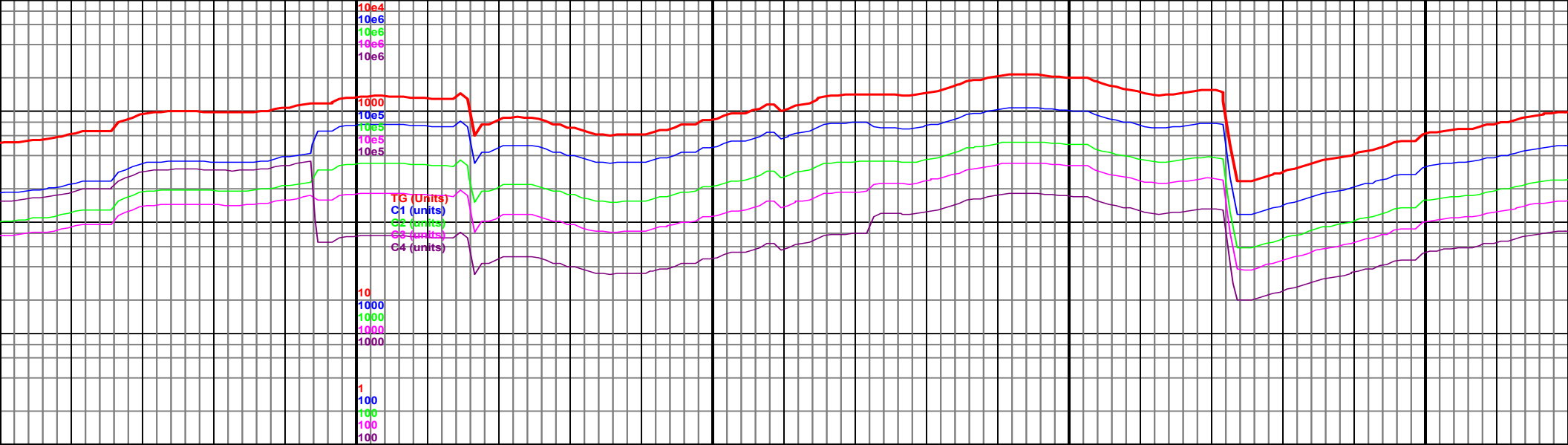




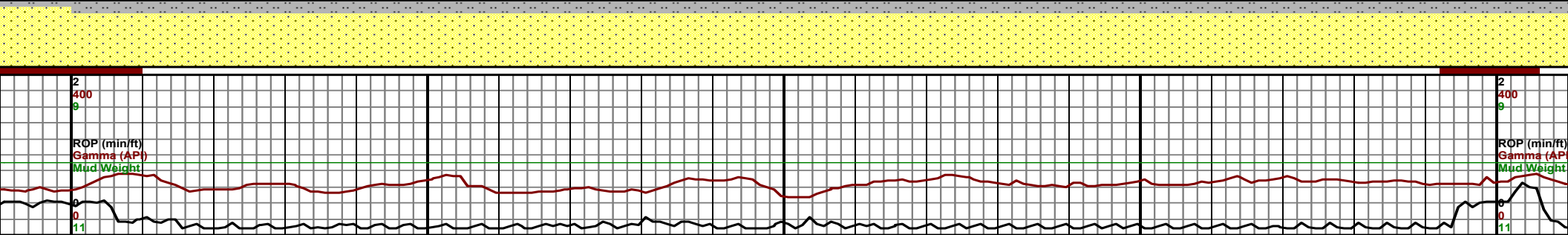
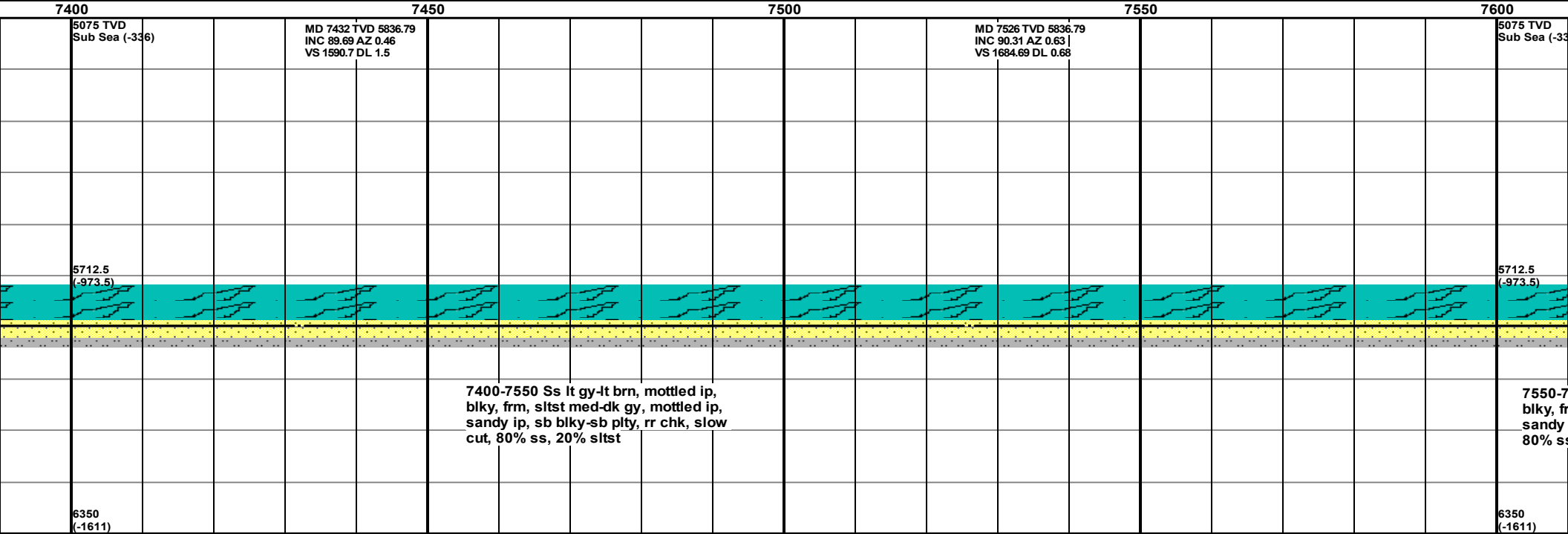
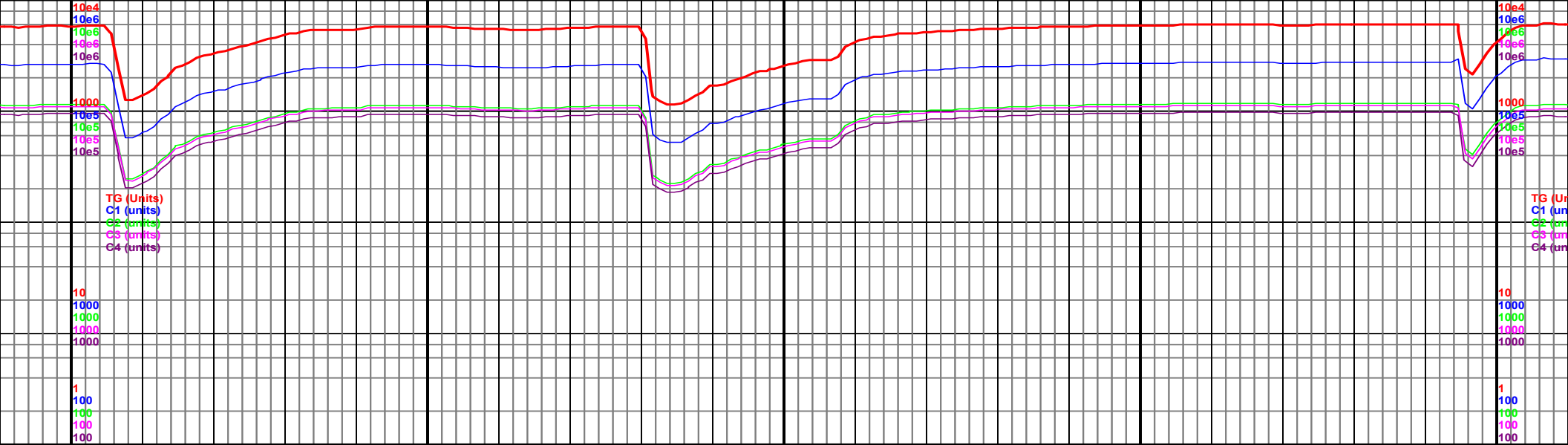






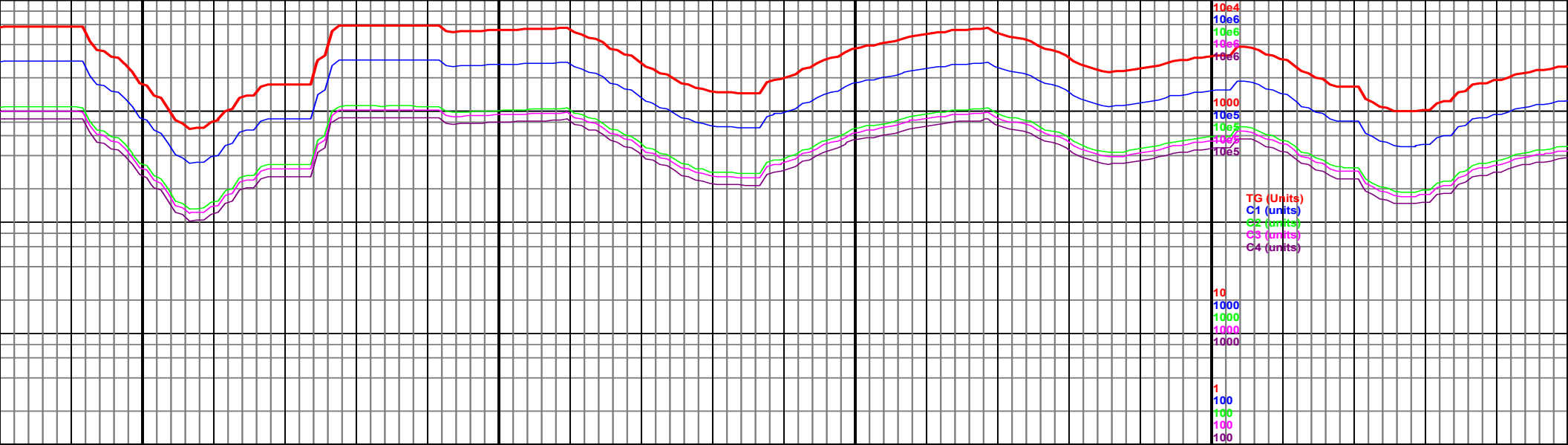












7850

7900

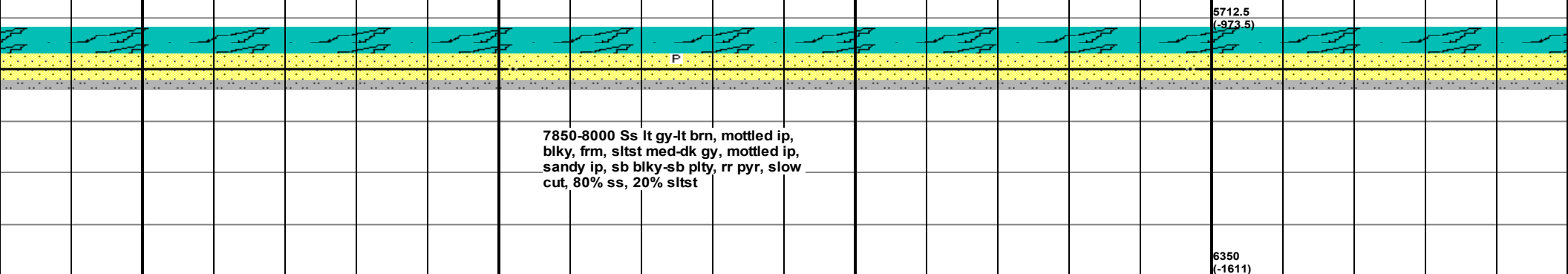
7950

8000

8050

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INC 89.6 AZ 0.21  
VS 2060.67 DL 1.18

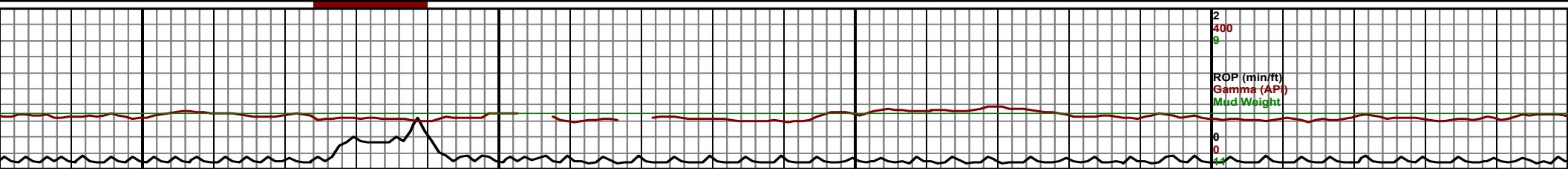
MD 7997 TVD 5838.5  
INC 90.18 AZ 359.83  
VS 2155.67 DL 0.73



5712.5  
(-973.5)

7850-8000 Ss lt gy-lt brn, mottled ip,  
blk, frm, sltst med-dk gy, mottled ip,  
sandy ip, sb blk-sb plty, rr pyr, slow  
cut, 80% ss, 20% sltst

6350  
(-1611)



2

400

9

ROP (min/ft)

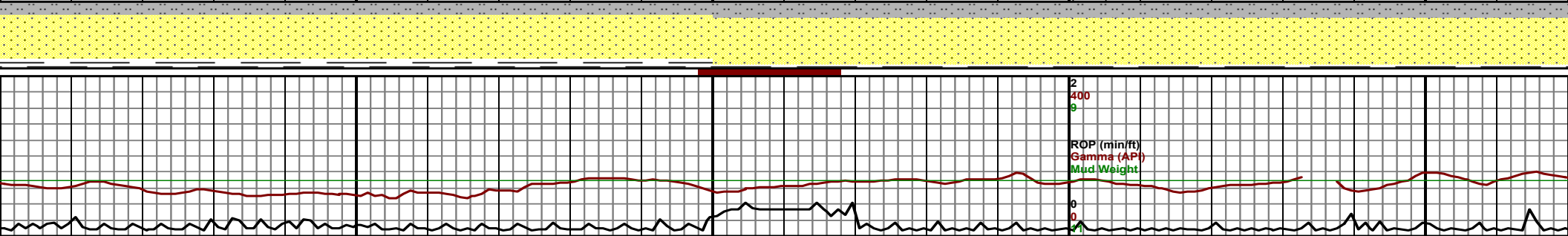
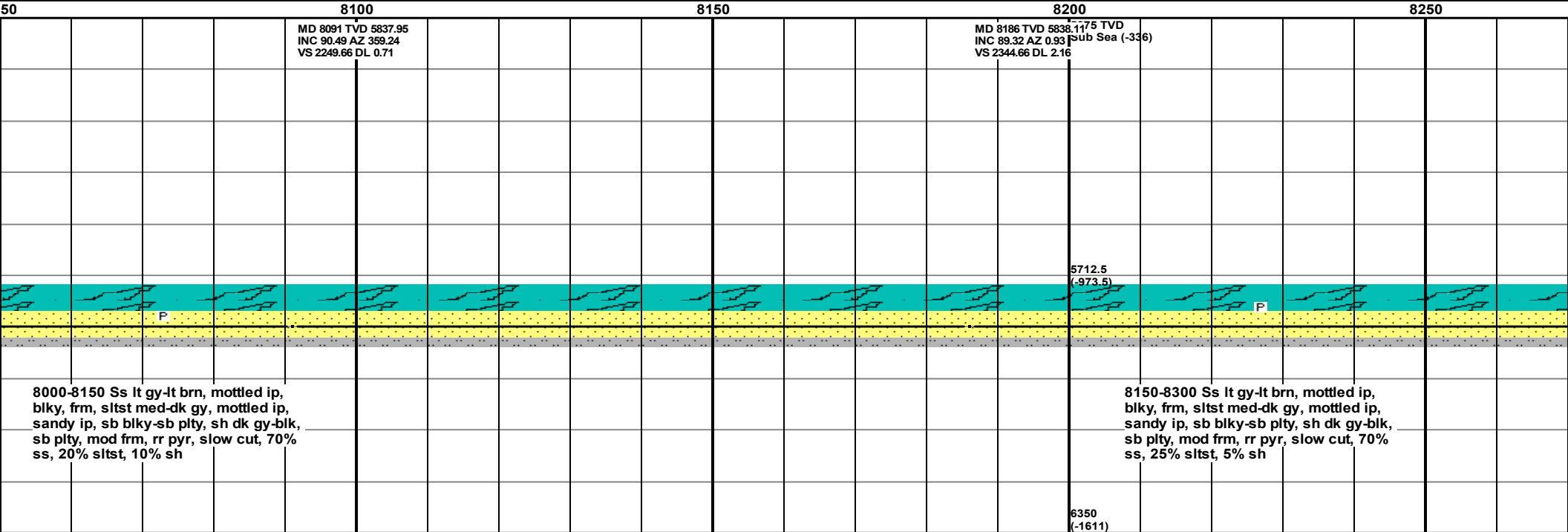
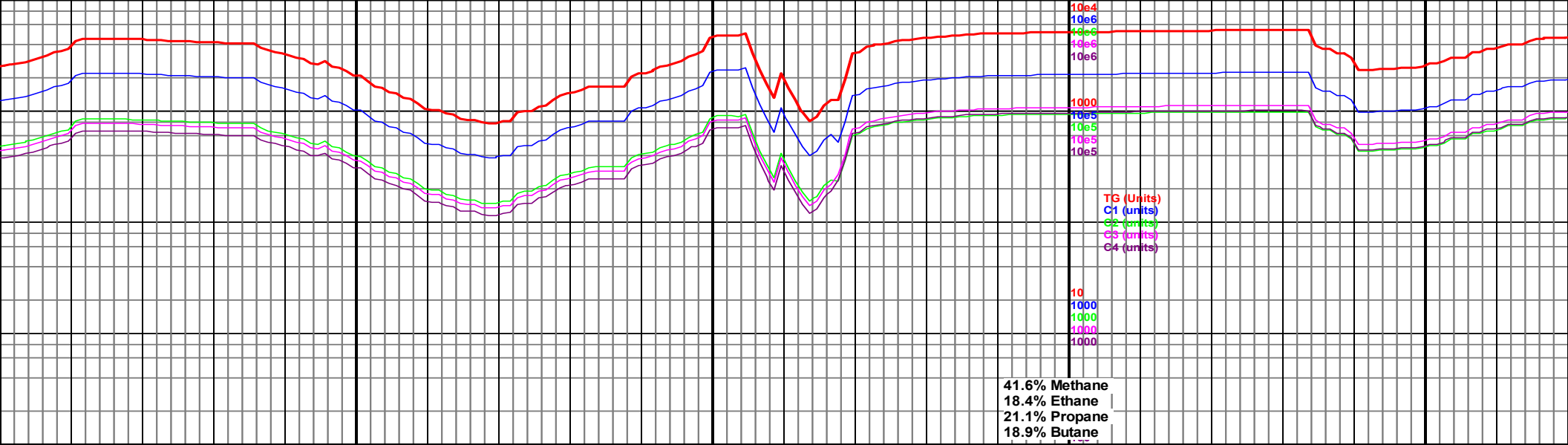
Gamma (API)

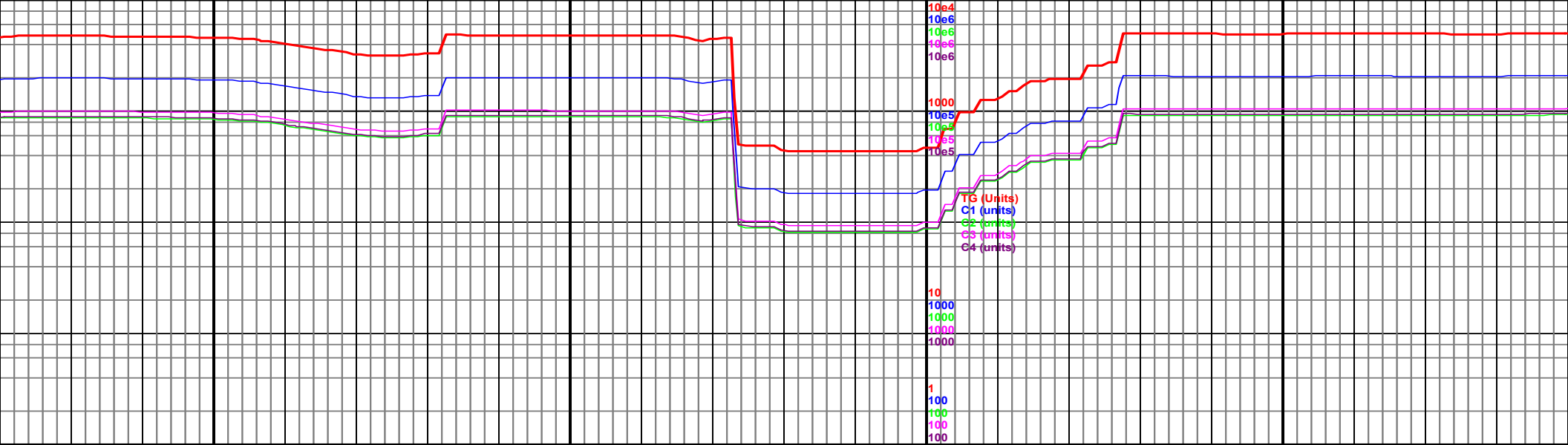
Mud Weight

0

0

14



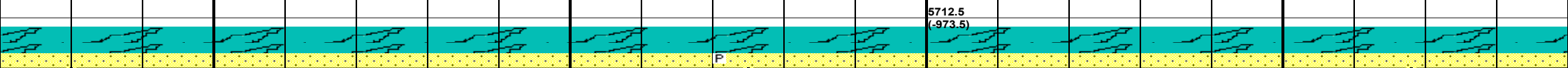


MD 8280 TVD 5838.79  
INC 89.85 AZ 1.31  
VS 2438.64 DL 0.69

MD 8375 TVD 5838.71  
INC 90.25 AZ 1.27  
VS 2533.61 DL 0.42

5075 TVD  
Sub Sea (-336)

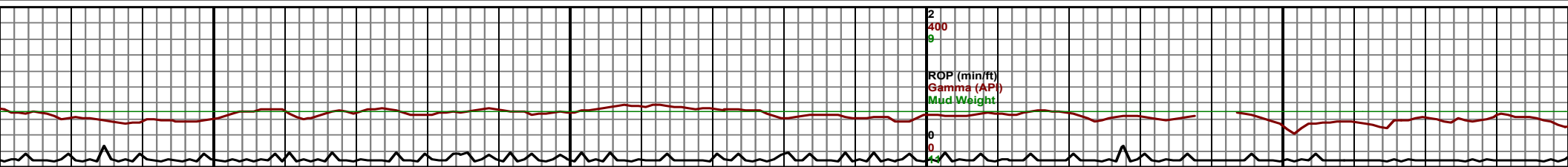
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VS 2626.6 DL 0.77

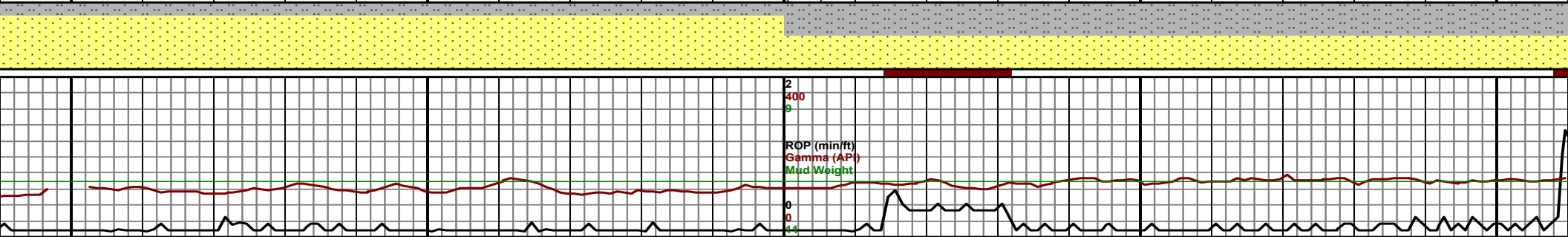
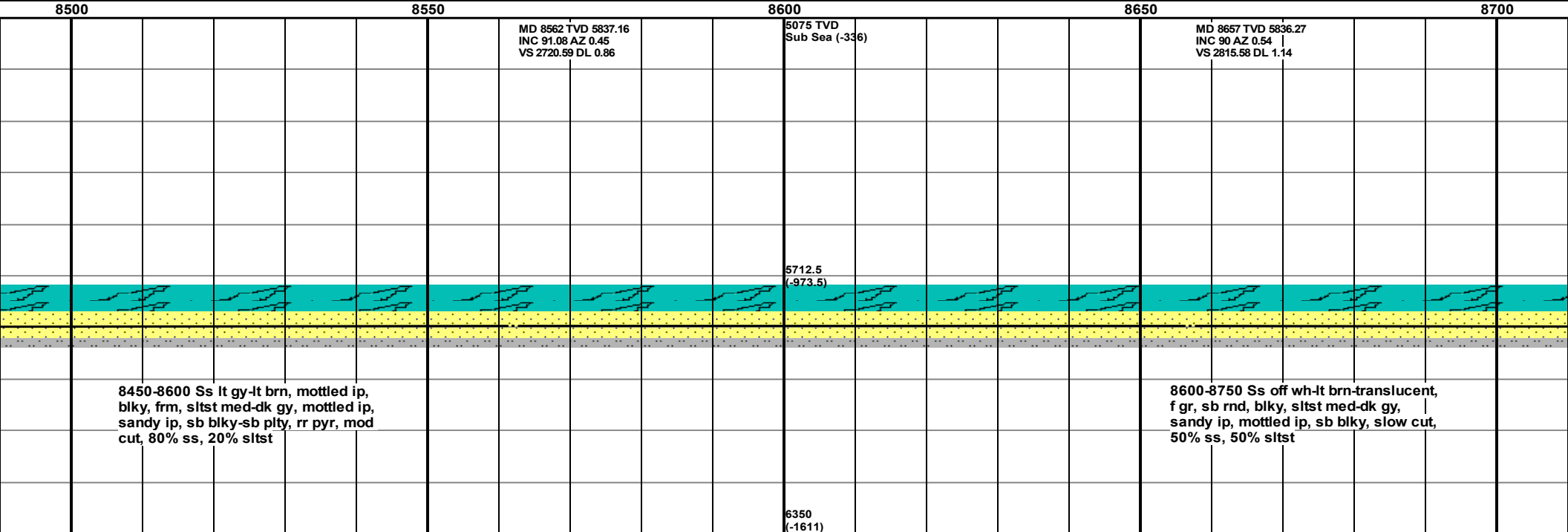
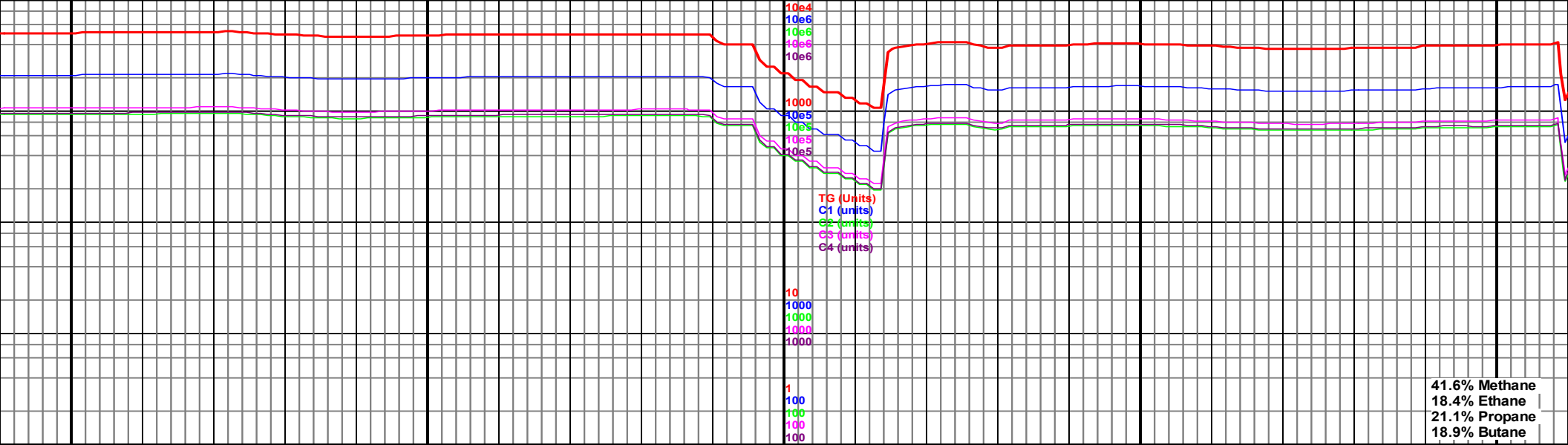


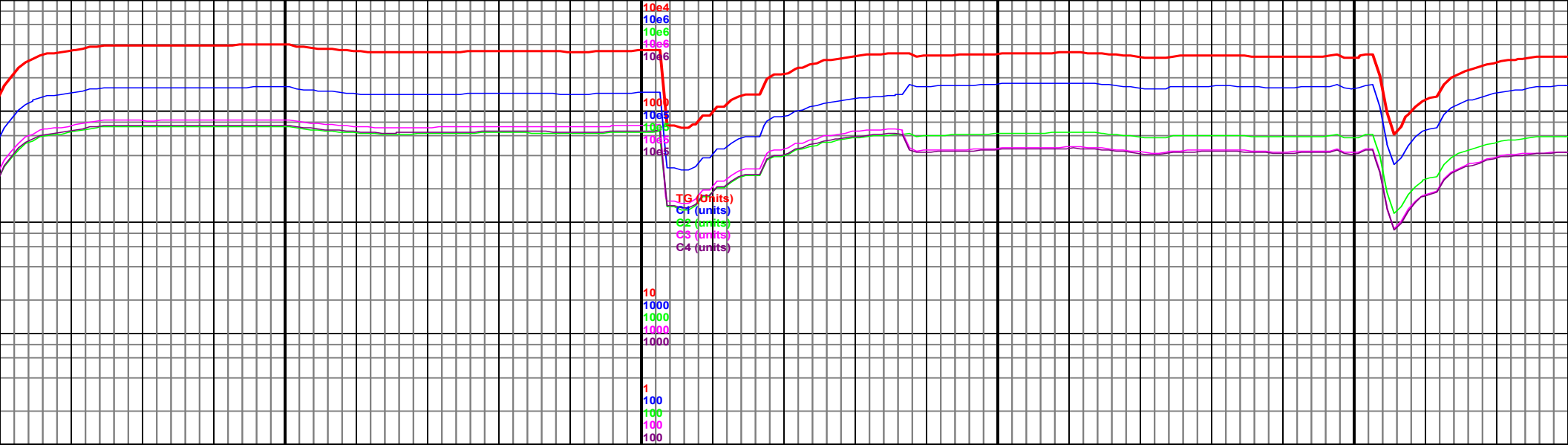
8300-8450 Ss lt gy-lt brn, mottled ip,  
blky, frm, sltst med-dk gy, mottled ip,  
sandy ip, sb blky-sb plty, rr pyr, mod  
cut, 90% ss, 10% sltst

5712.5  
(-973.5)

6350  
(-1611)







8750

MD 8751 TVD 5837.81  
INC 88.12 AZ 359.87  
VS 2909.56 DL 2.12

8800

5075 TVD  
Sub Sea (-336)

8850

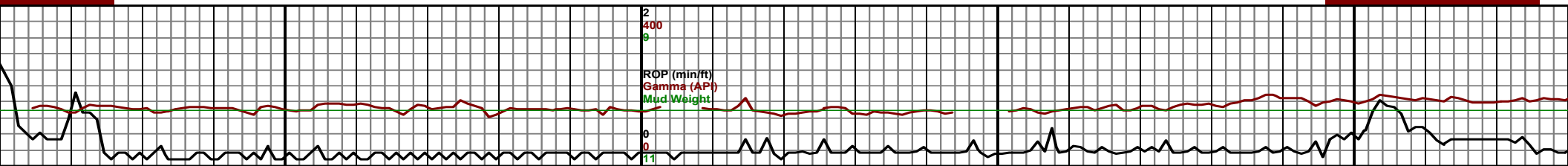
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INC 87.78 AZ 0.17  
VS 3003.5 DL 0.48

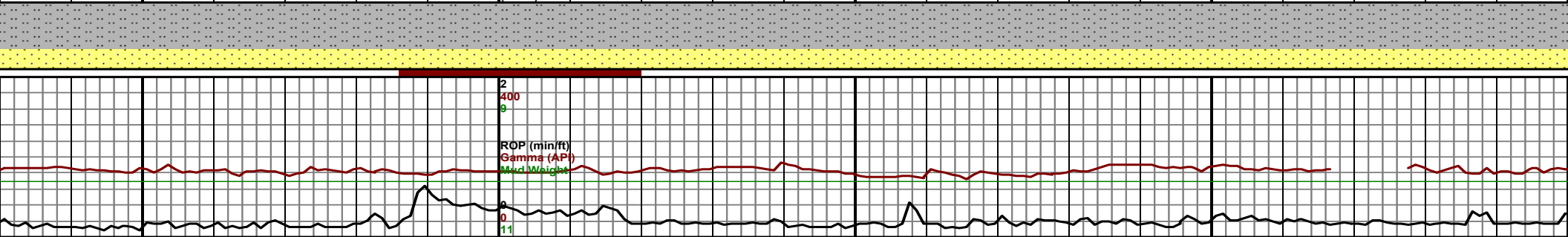
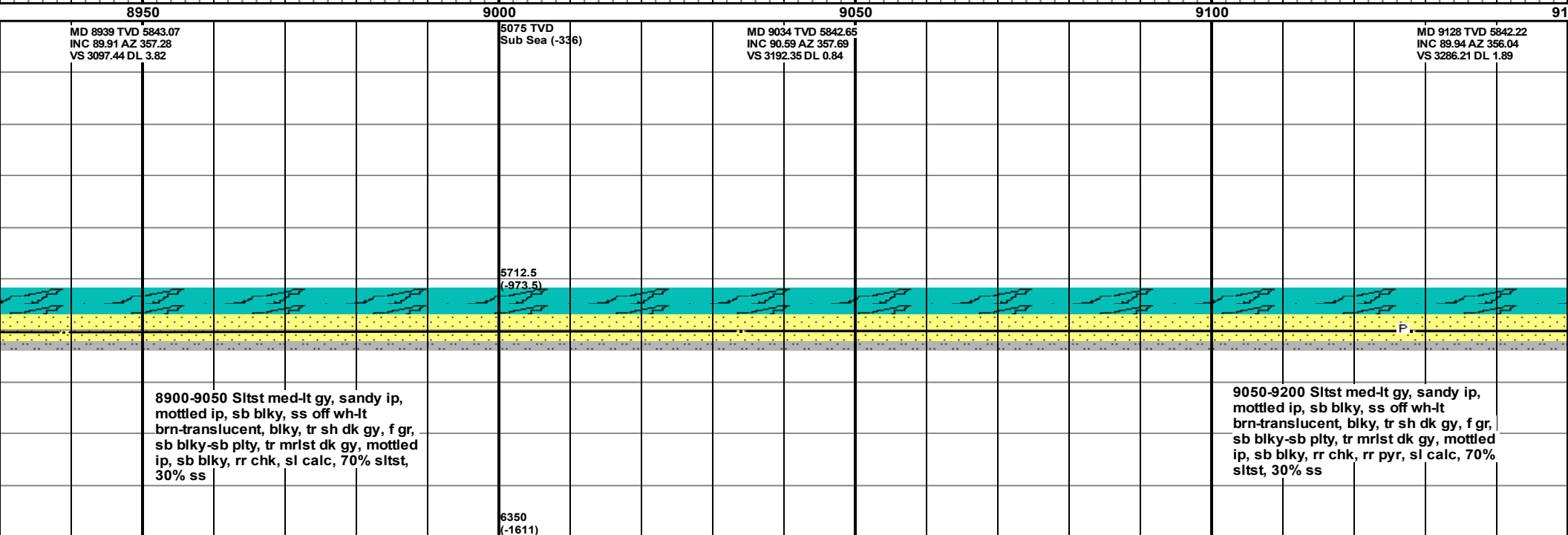
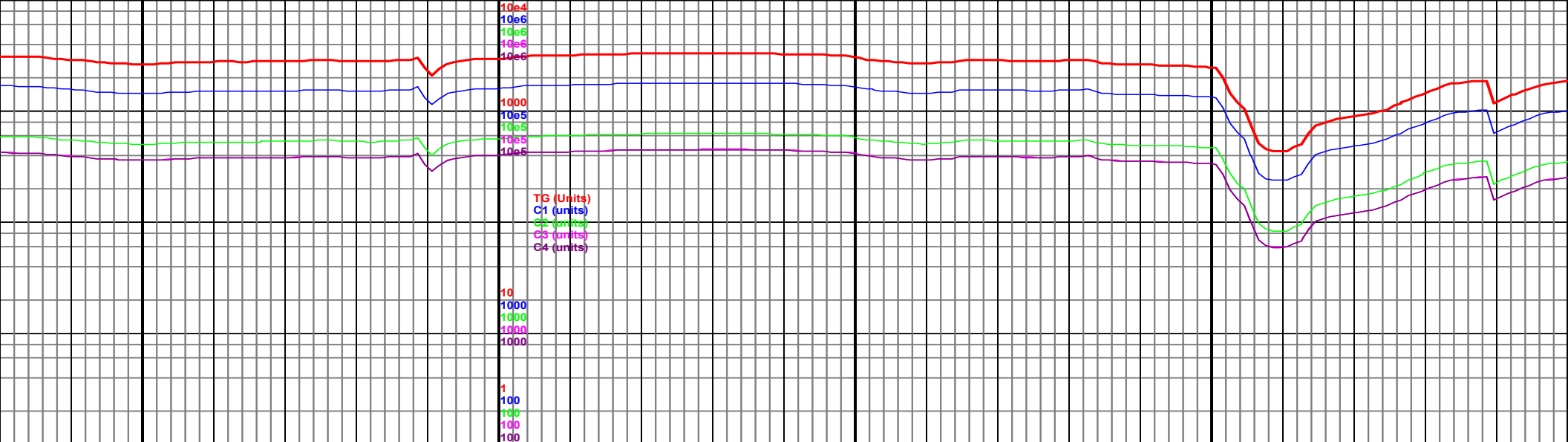
8900

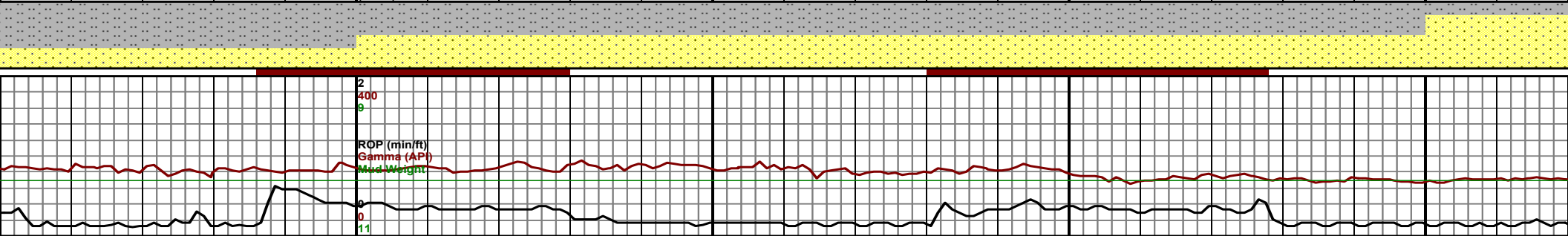
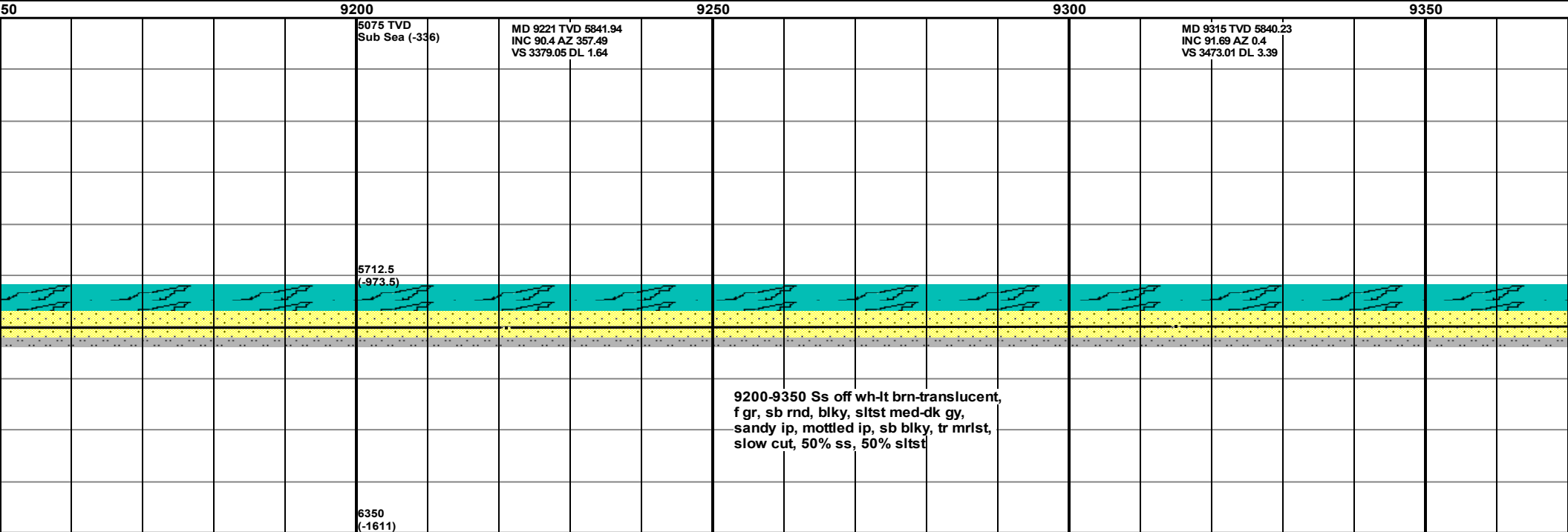
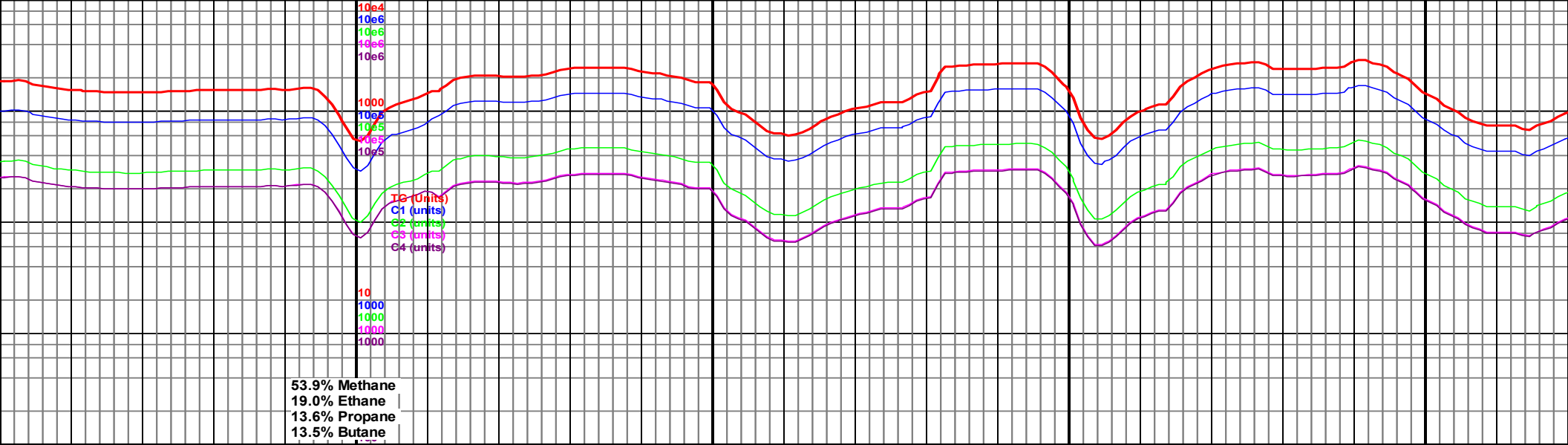
5712.5  
(-973.5)

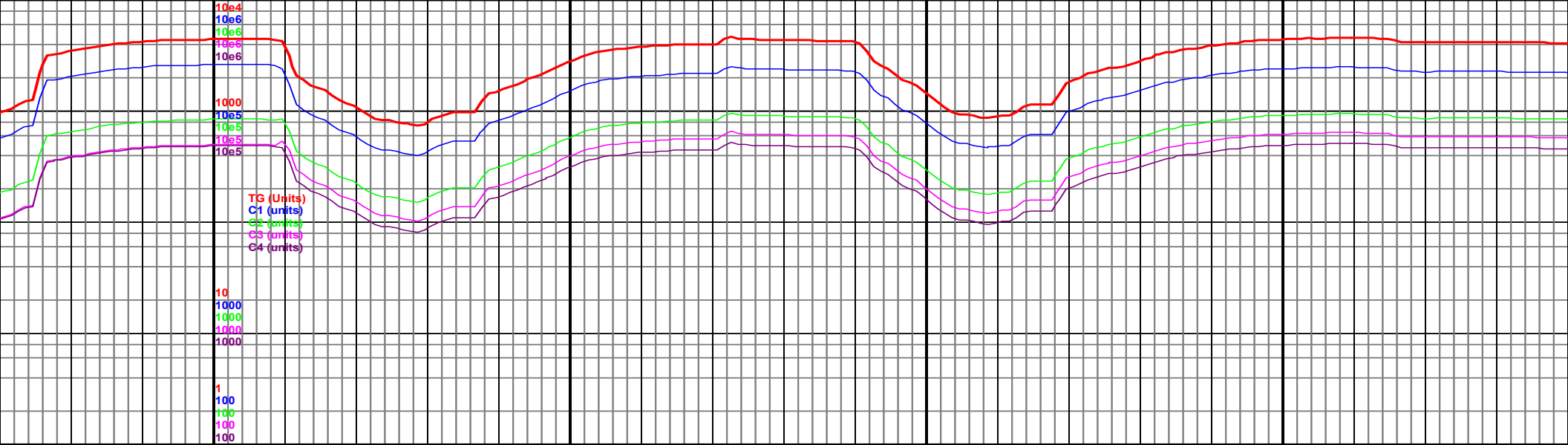
8750-8900 Siltst med-lt gy, sandy ip,  
mottled ip, sb blk, ss off wh-lt  
brn-translucent, blk, tr mlst dk gy,  
mottled ip, sb blk, rr chk, sl calc, 60%  
siltst, 40% ss

6350  
(-1611)









9400

9450

9500

9550

5075 TVD MD 9409 TVD 5837.55  
Sub Sea (-35) INC 91.57 AZ 359.92  
VS 3566.97 DL 0.53

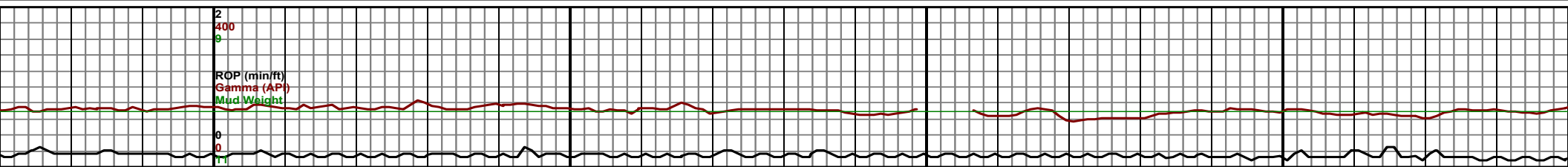
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INC 91.32 AZ 359.25  
VS 3660.94 DL 0.76

5712.5  
(-973.5)

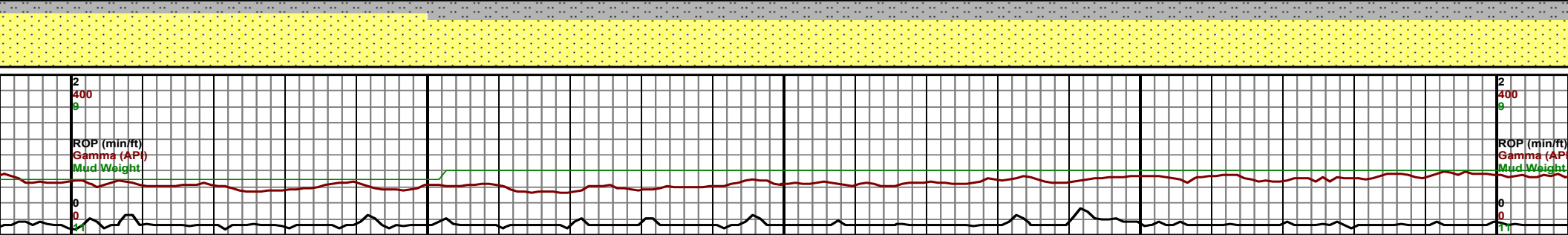
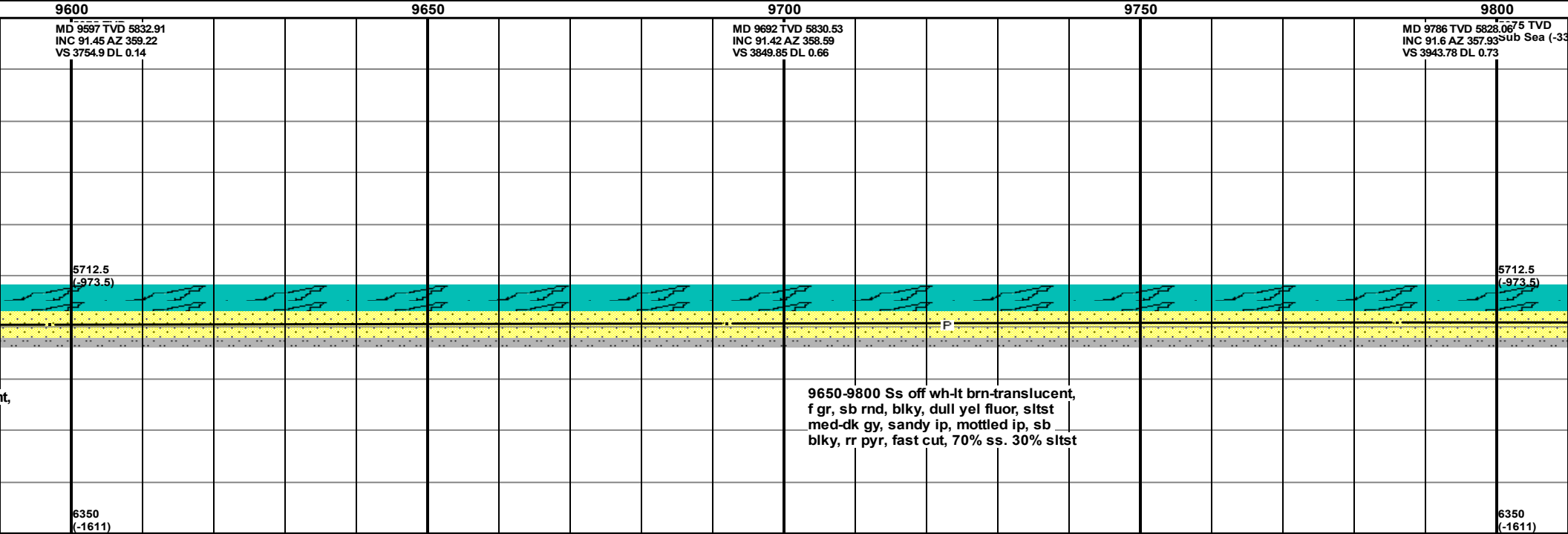
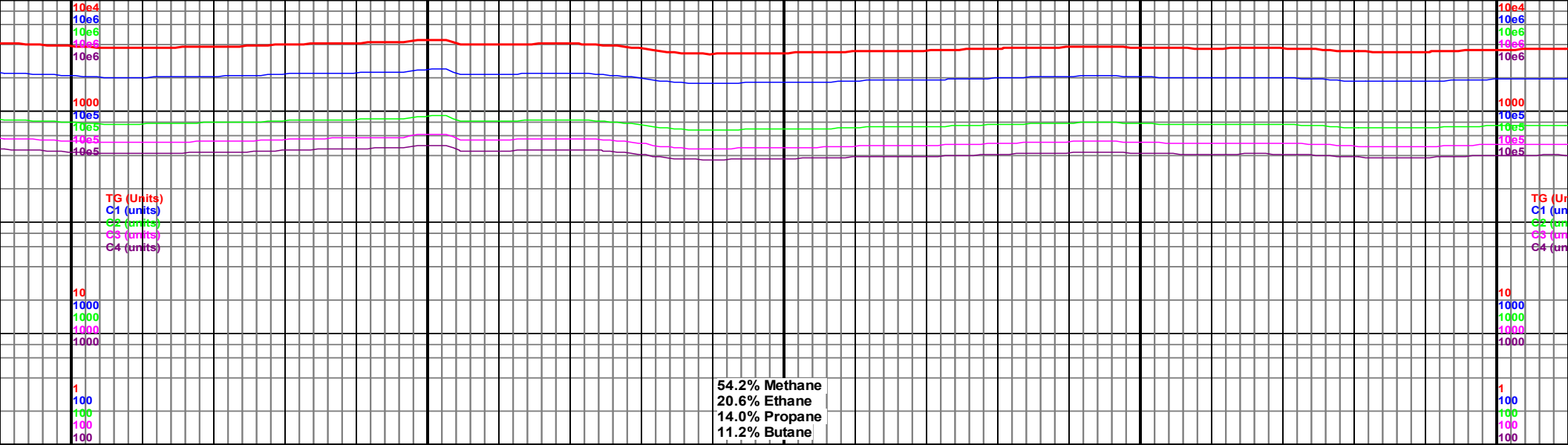
9350-9500 Ss off wh-lt brn-translucent,  
f gr, sb rnd, blk, dull yel fluor, sltst  
med-dk gy, sandy ip, mottled ip, sb  
blk, slow cut, 80% ss. 20% sltst

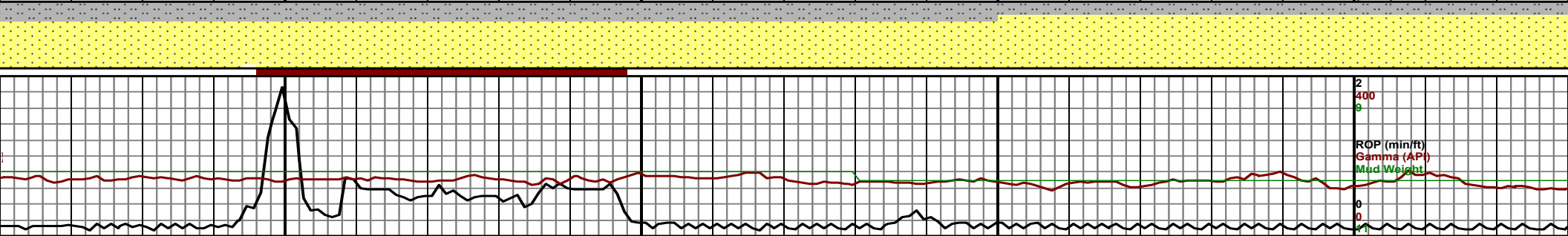
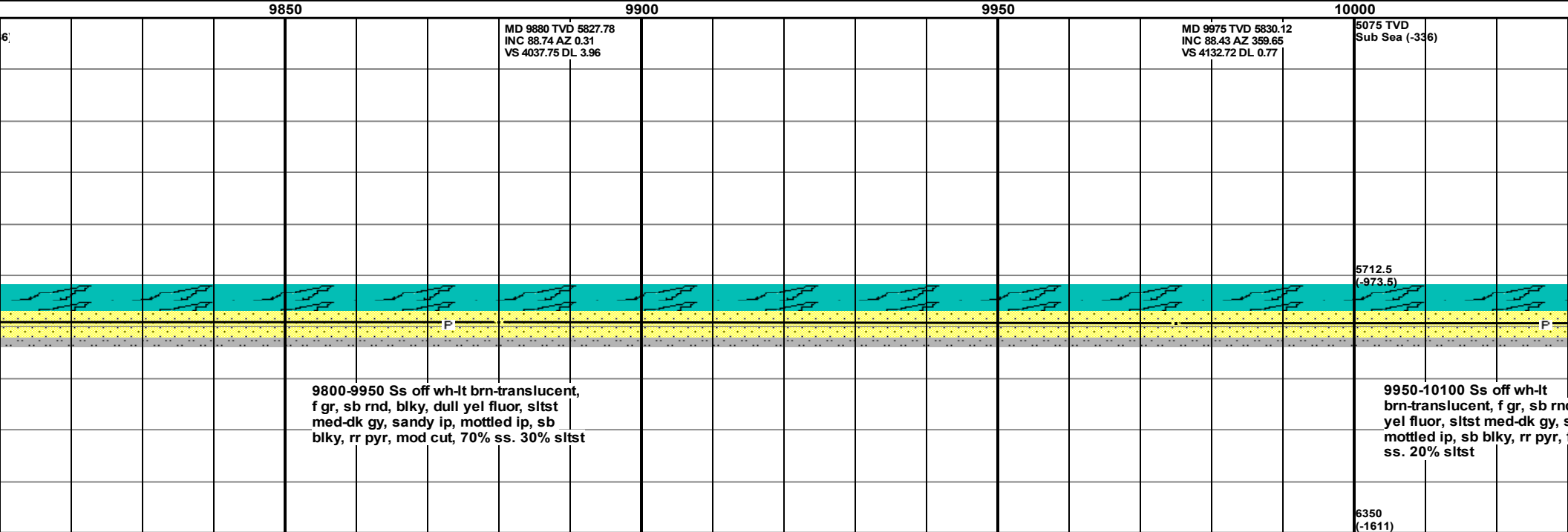
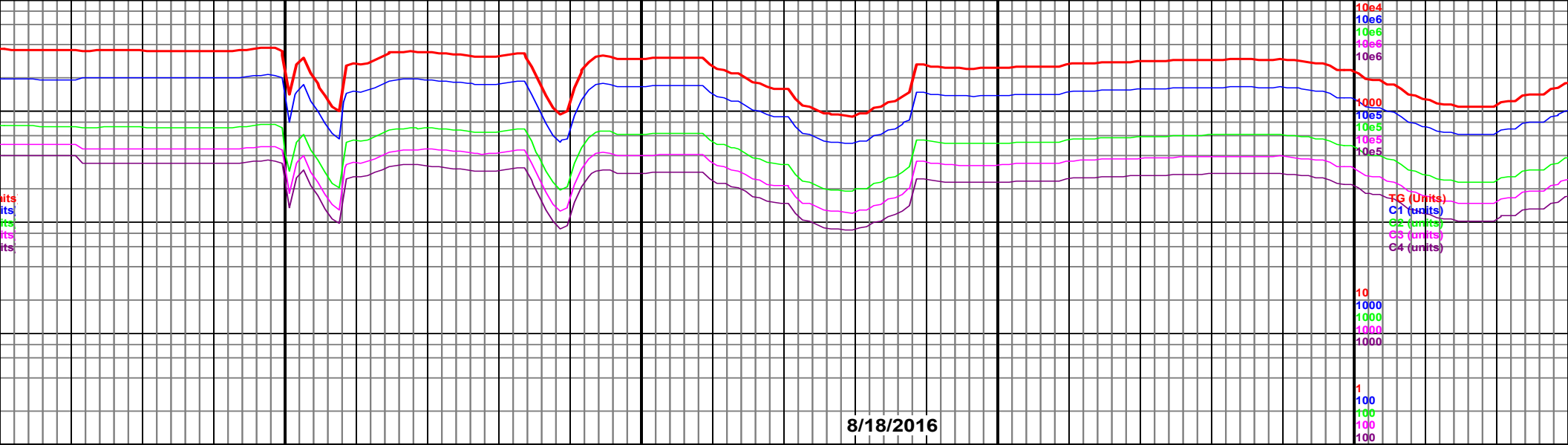
9500-9650 Ss off wh-lt brn-translucent  
f gr, sb rnd, blk, dull yel fluor, sltst  
med-dk gy, sandy ip, mottled ip, sb  
blk, fast cut, 80% ss. 20% sltst

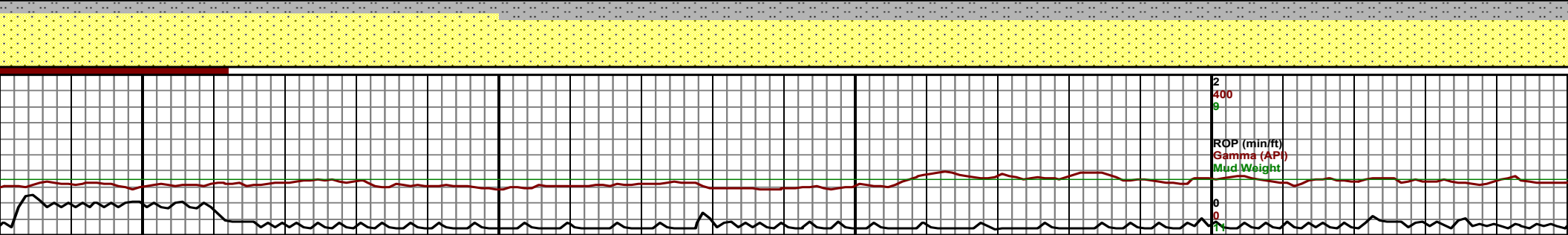
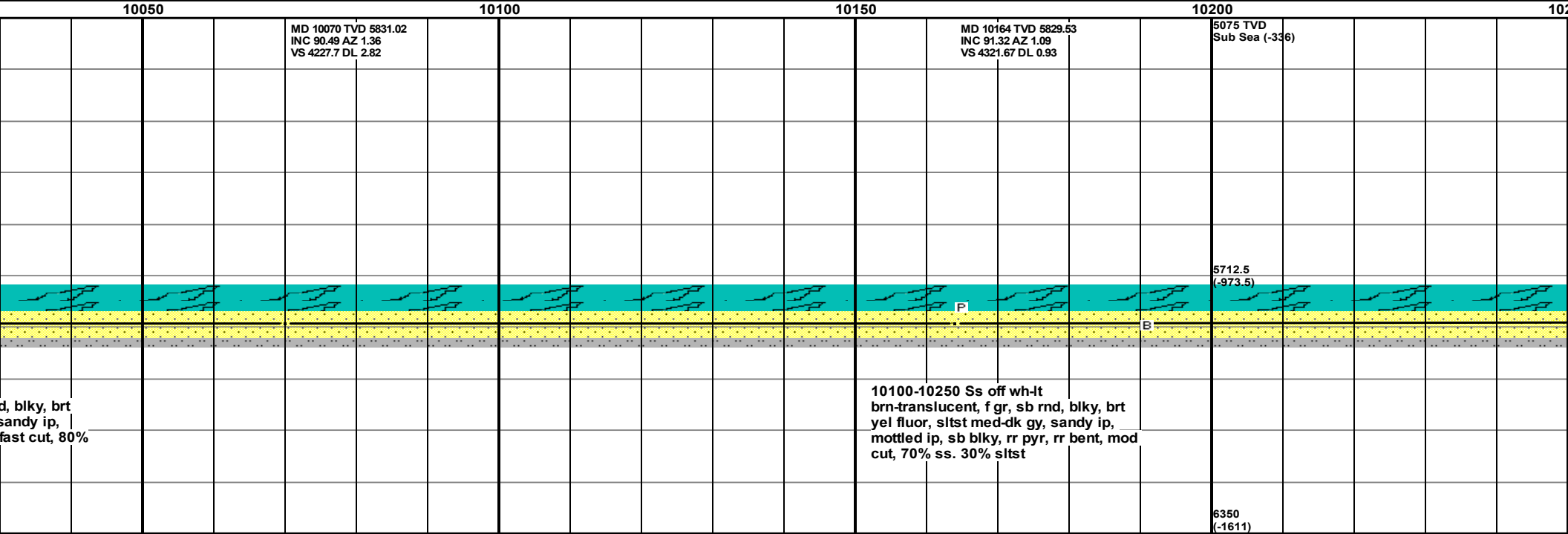
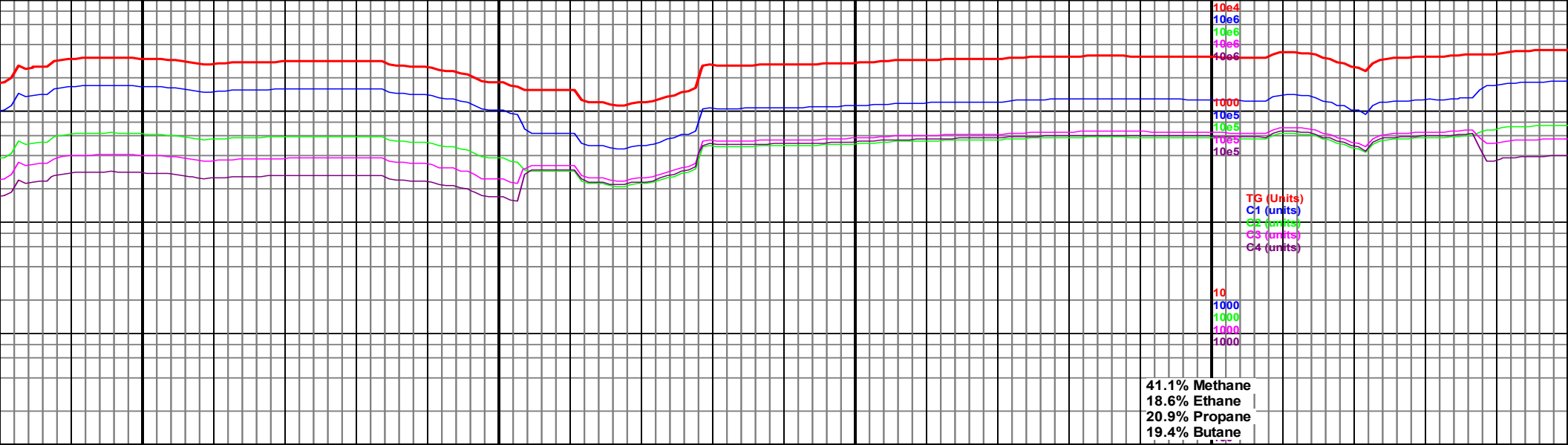
6350  
(-1611)

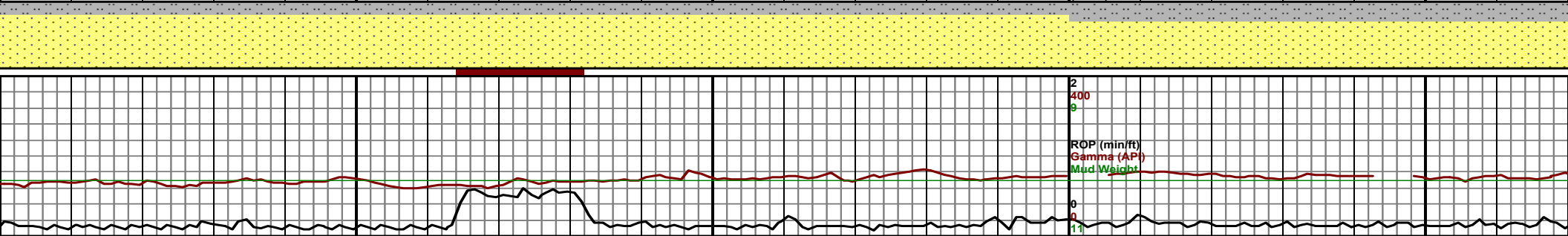
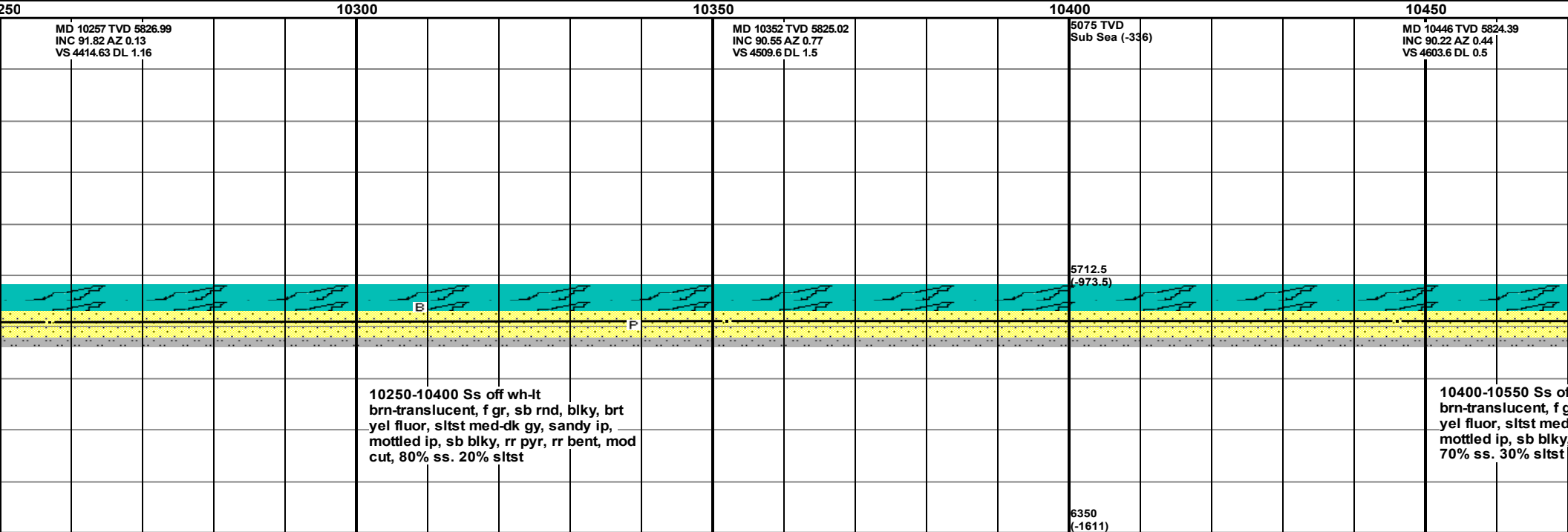
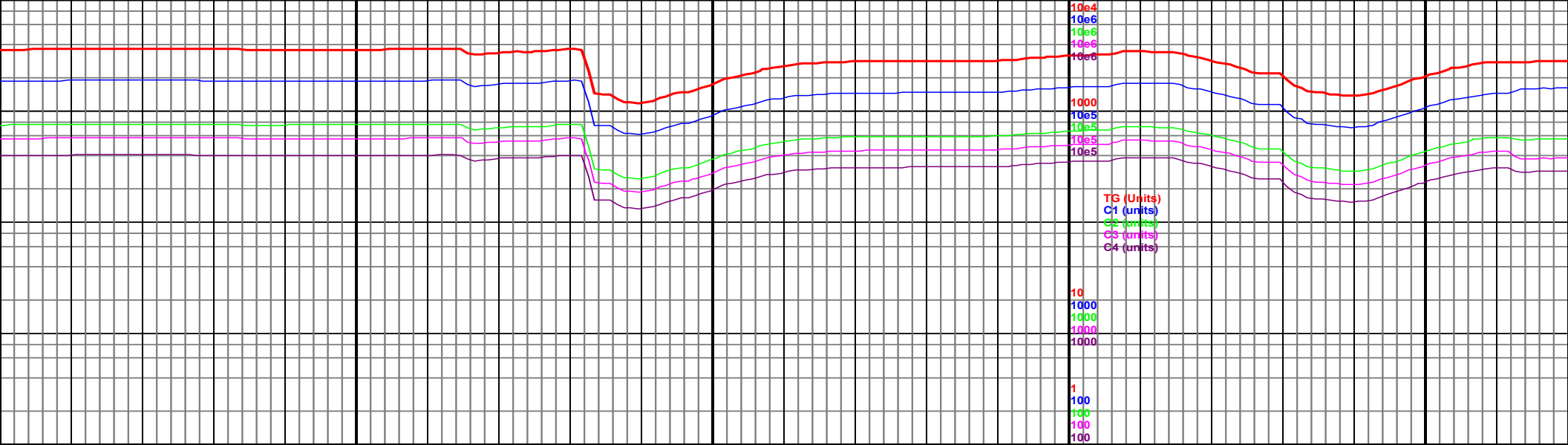


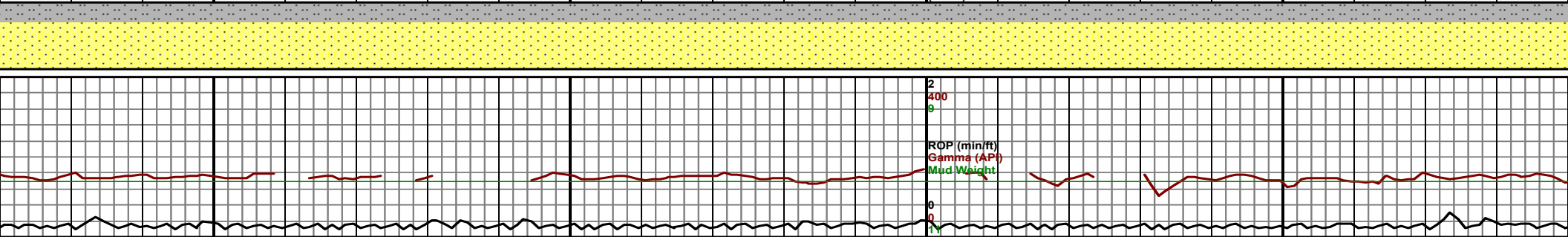
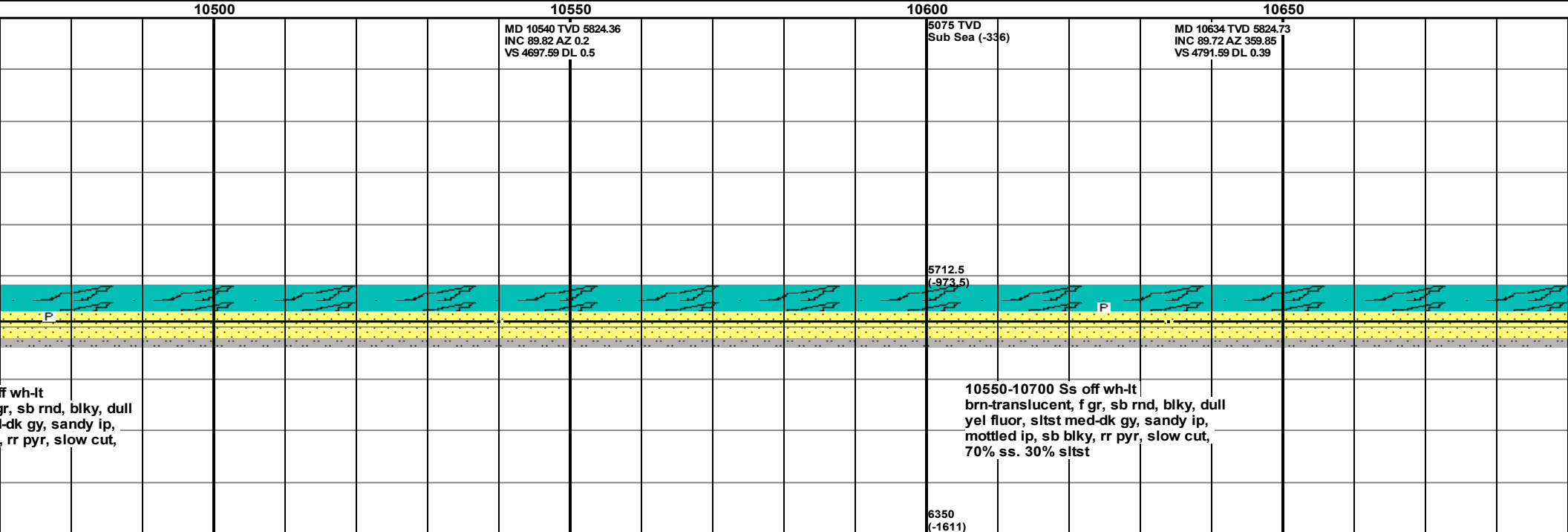
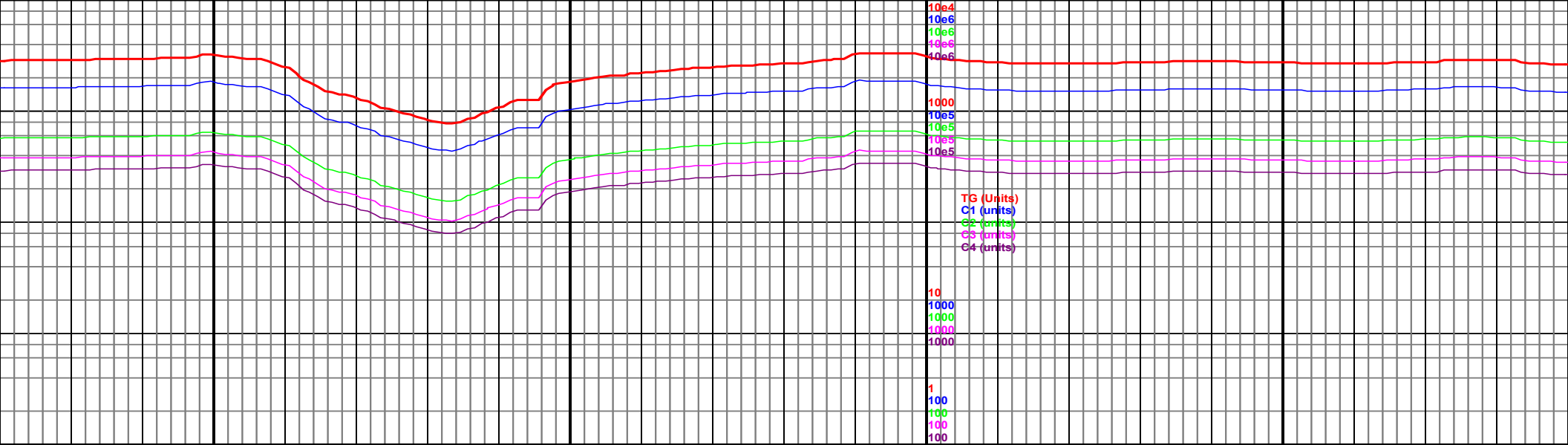


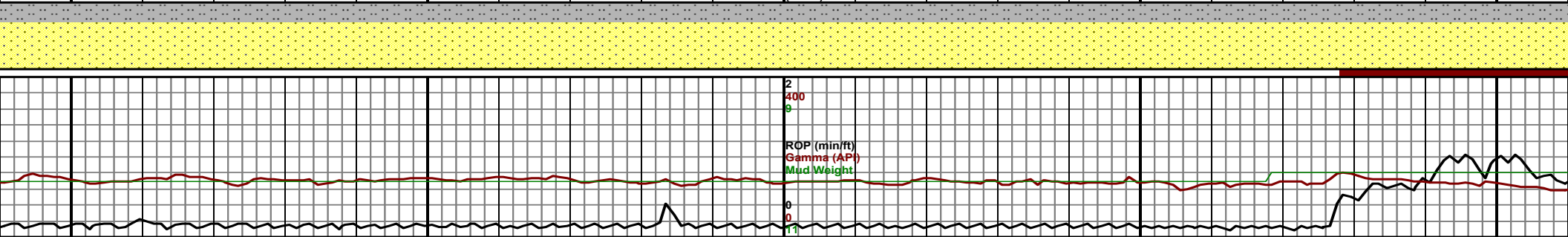
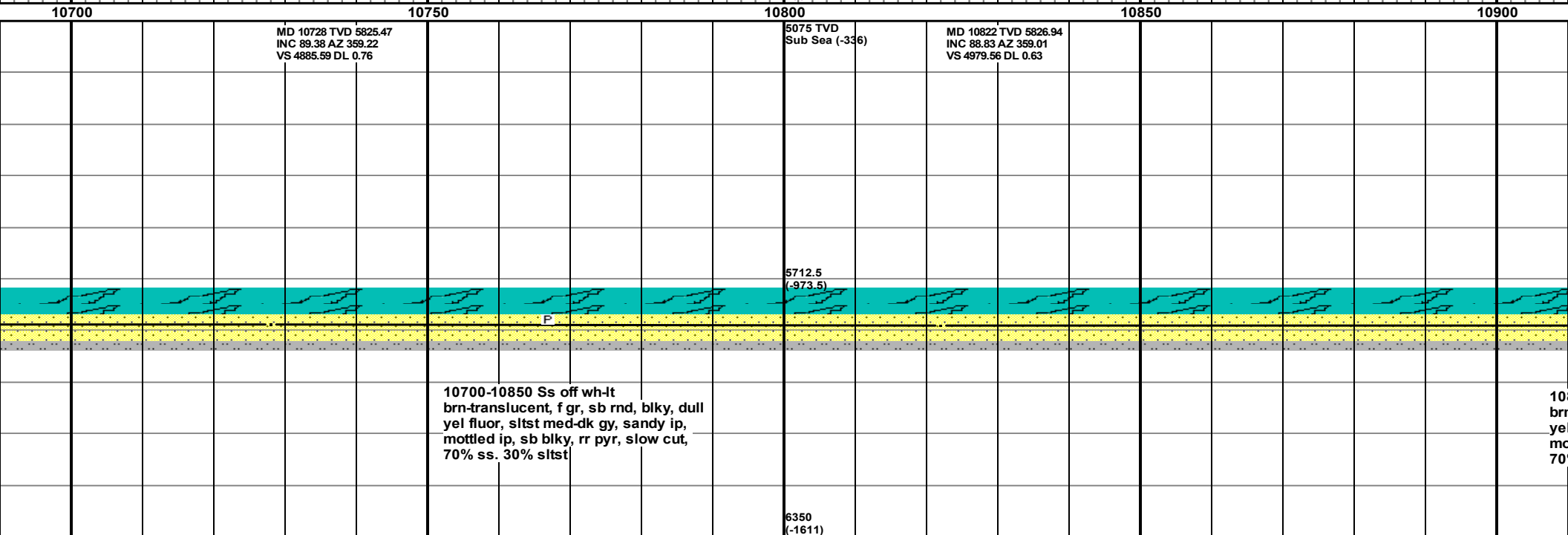
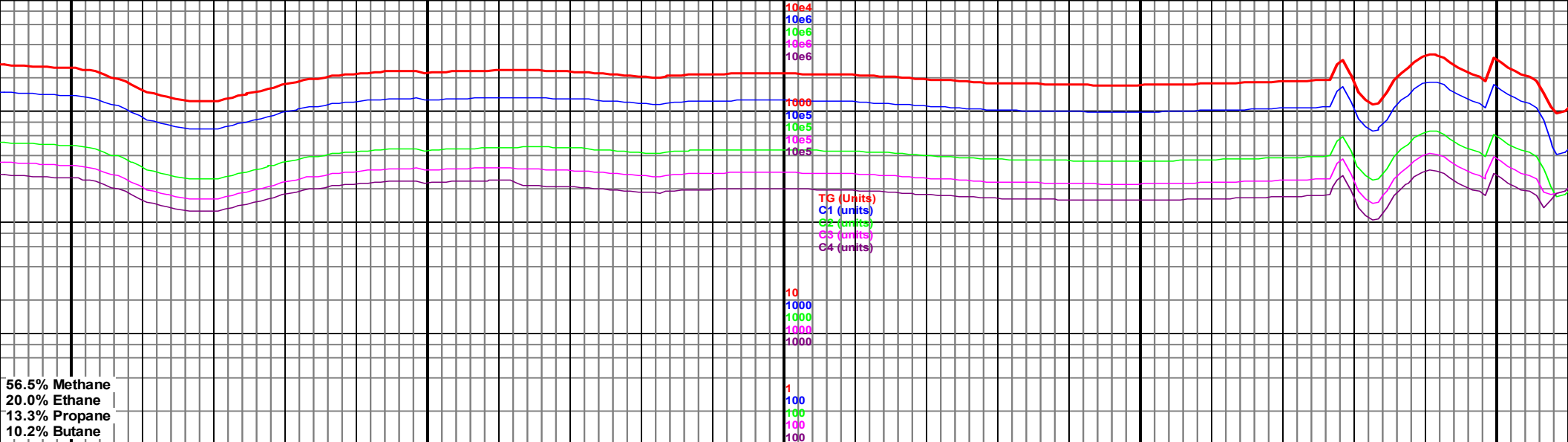


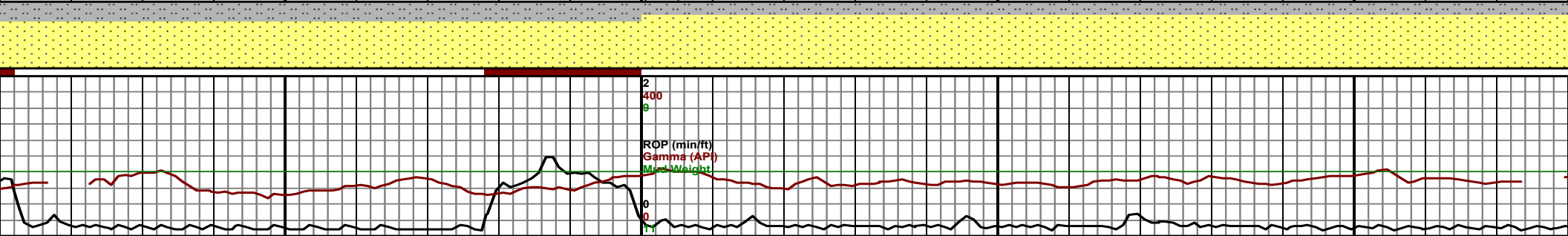
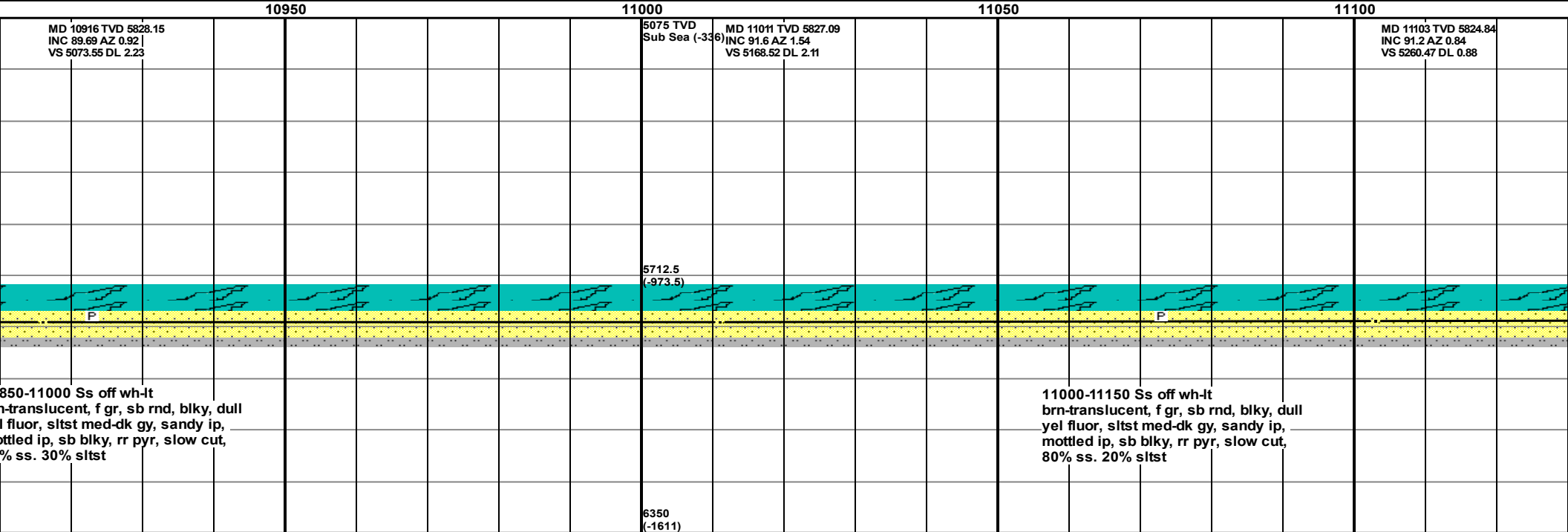
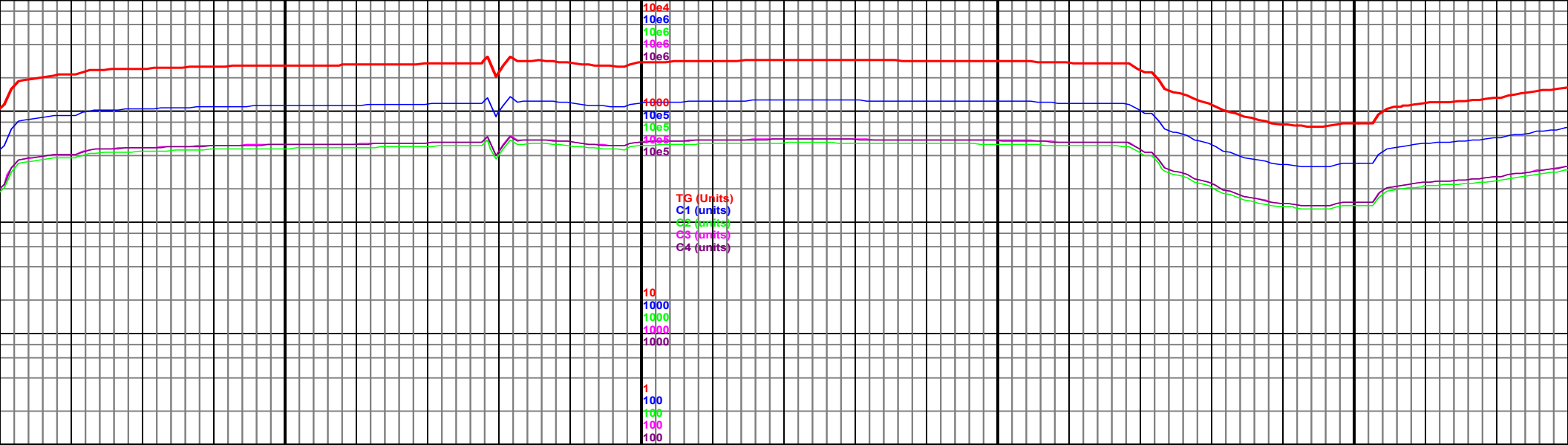


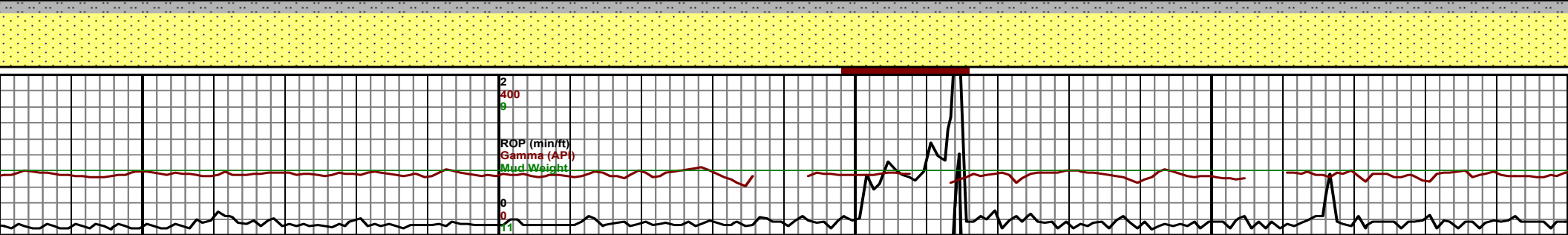
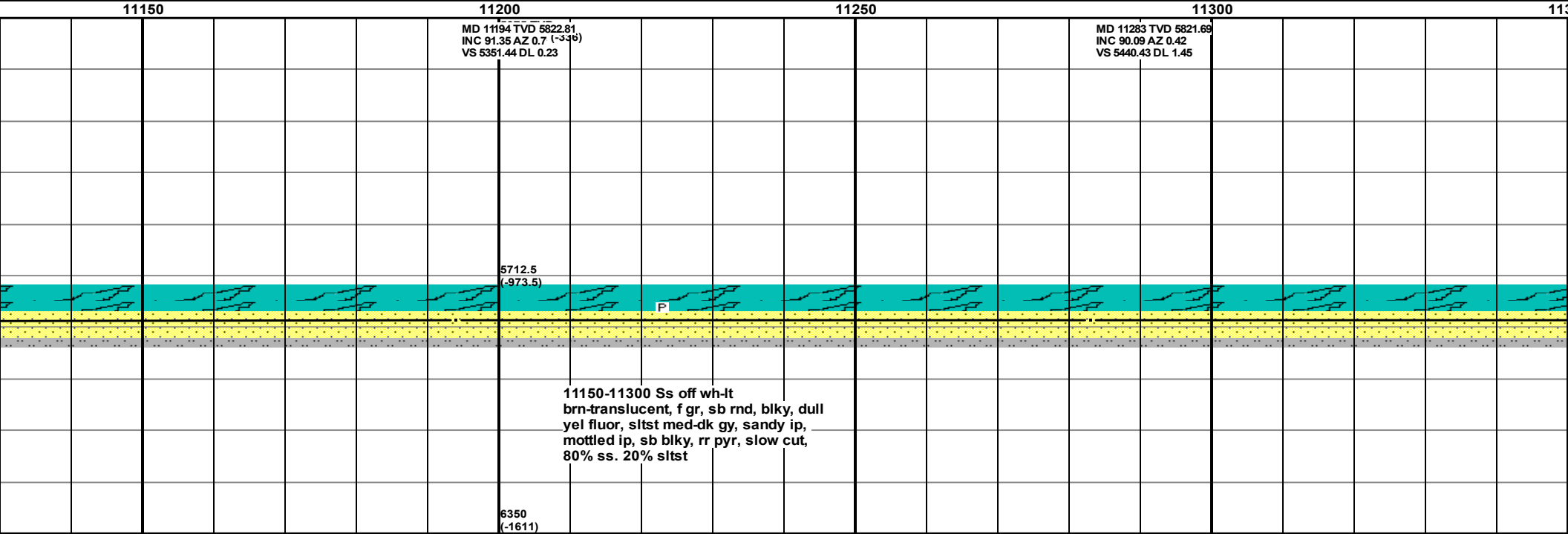
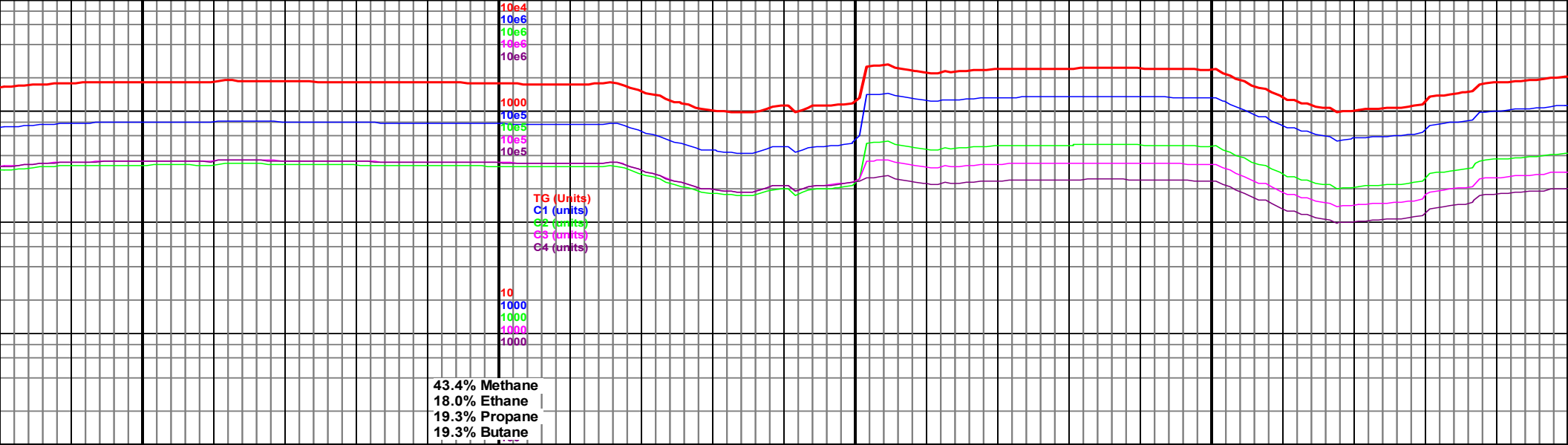






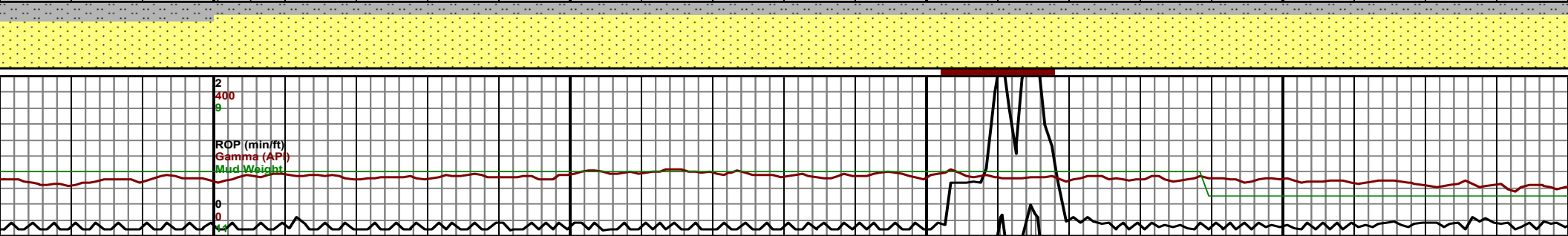
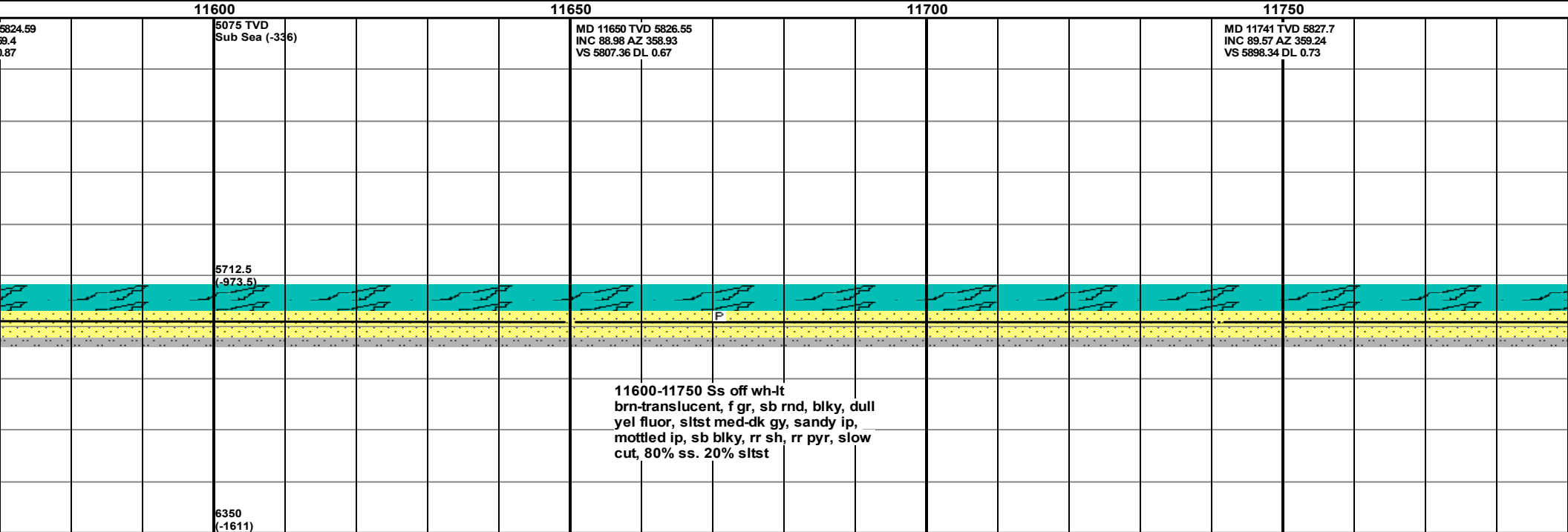
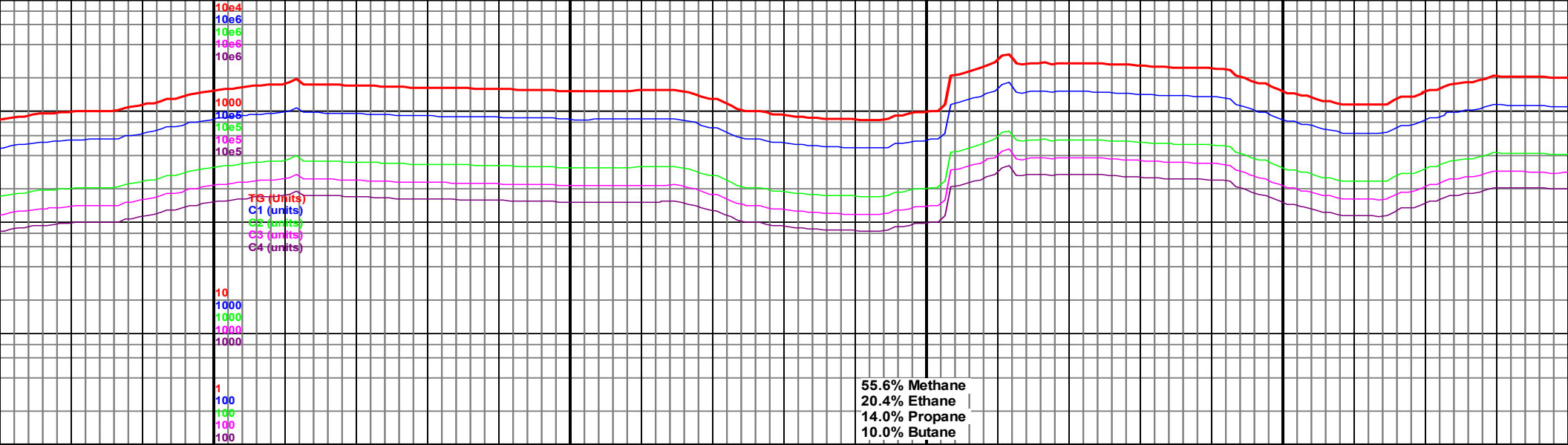


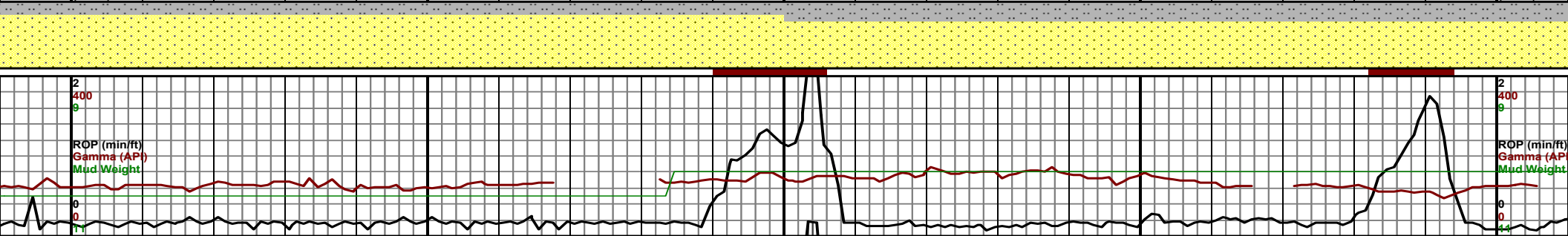
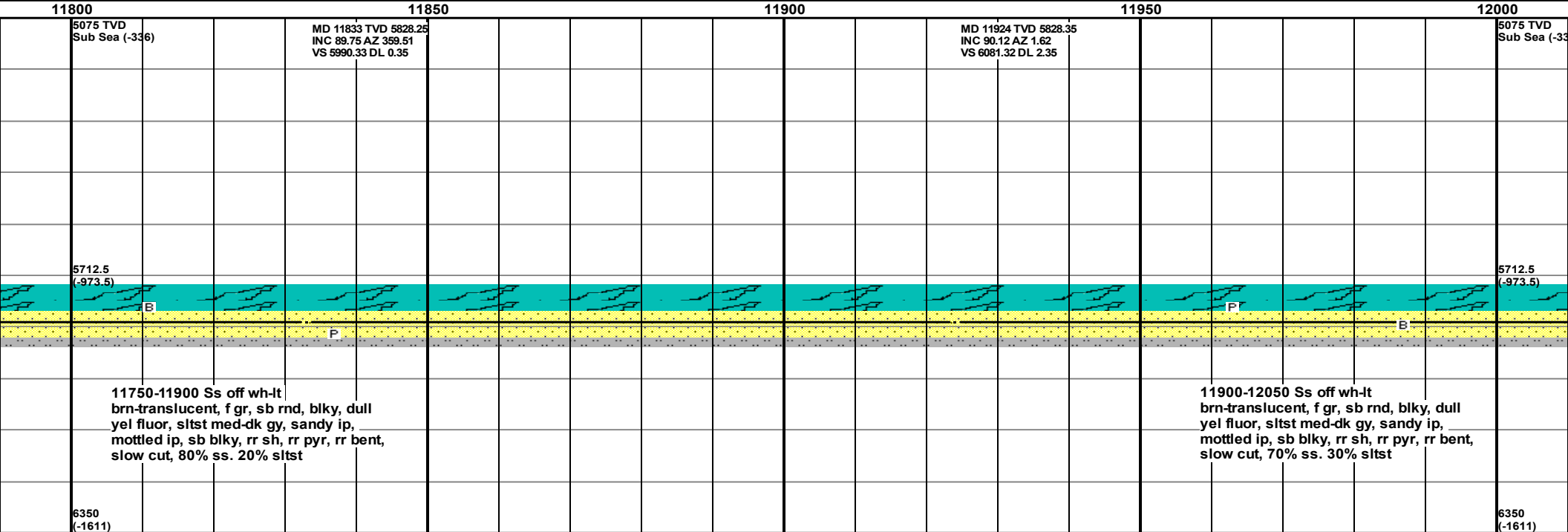
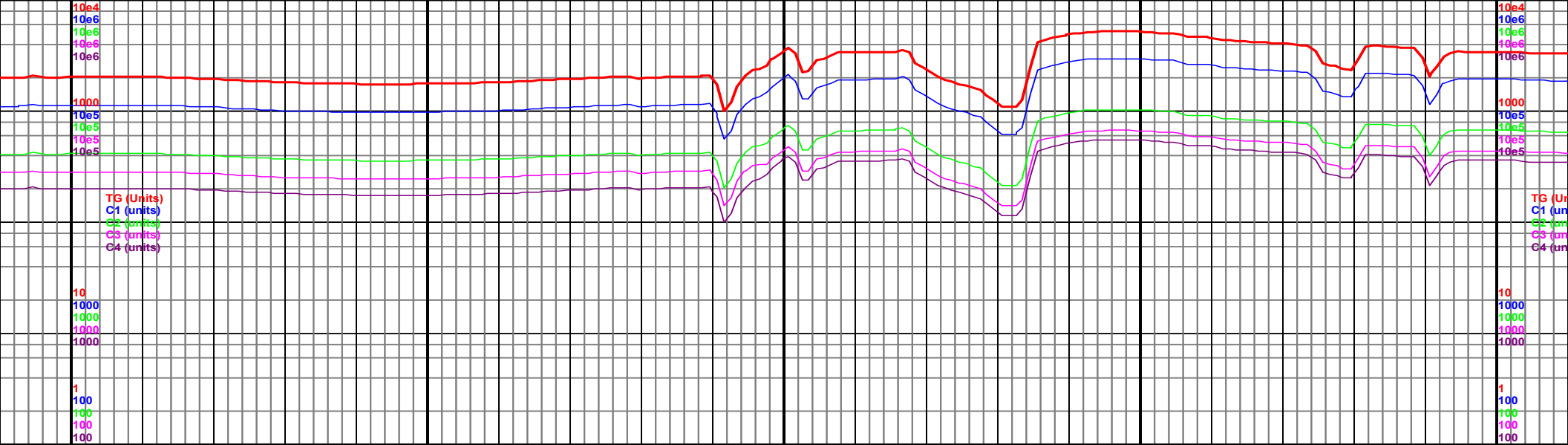


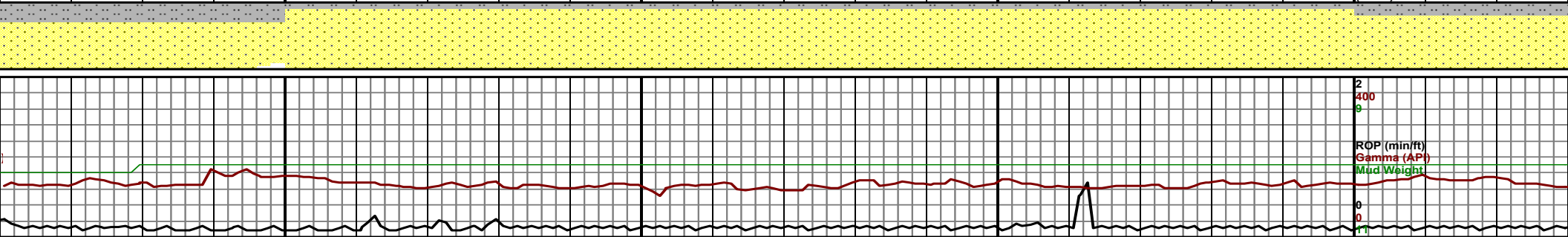
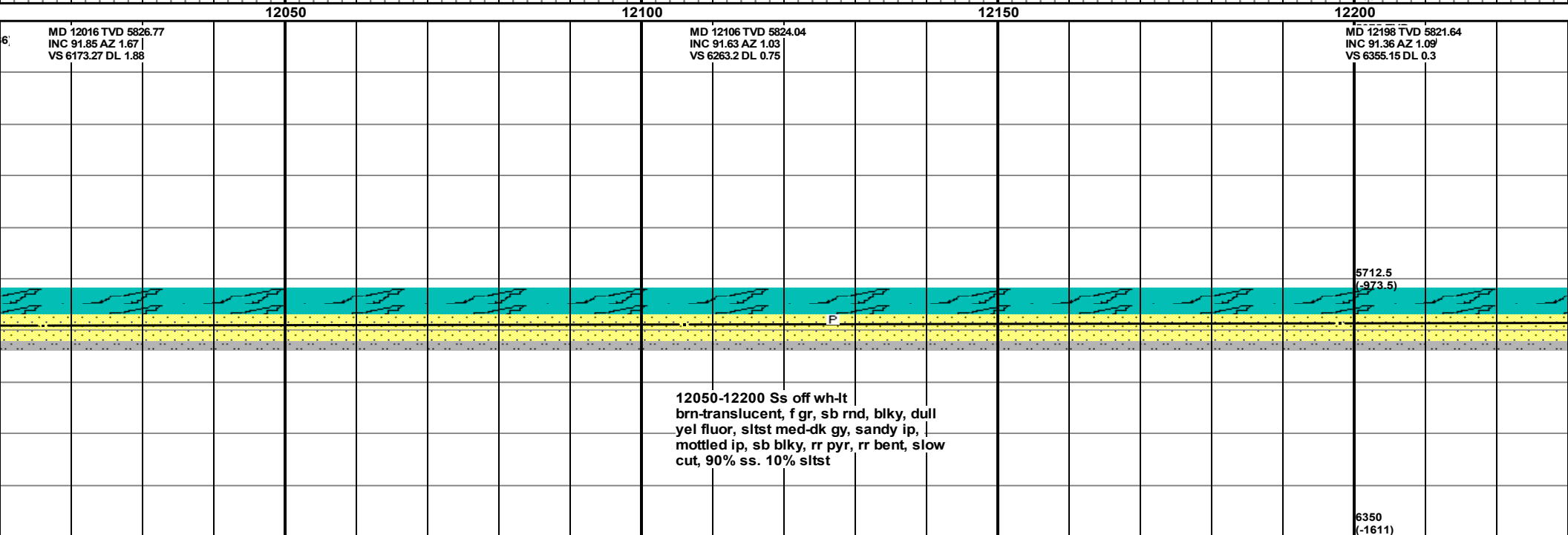
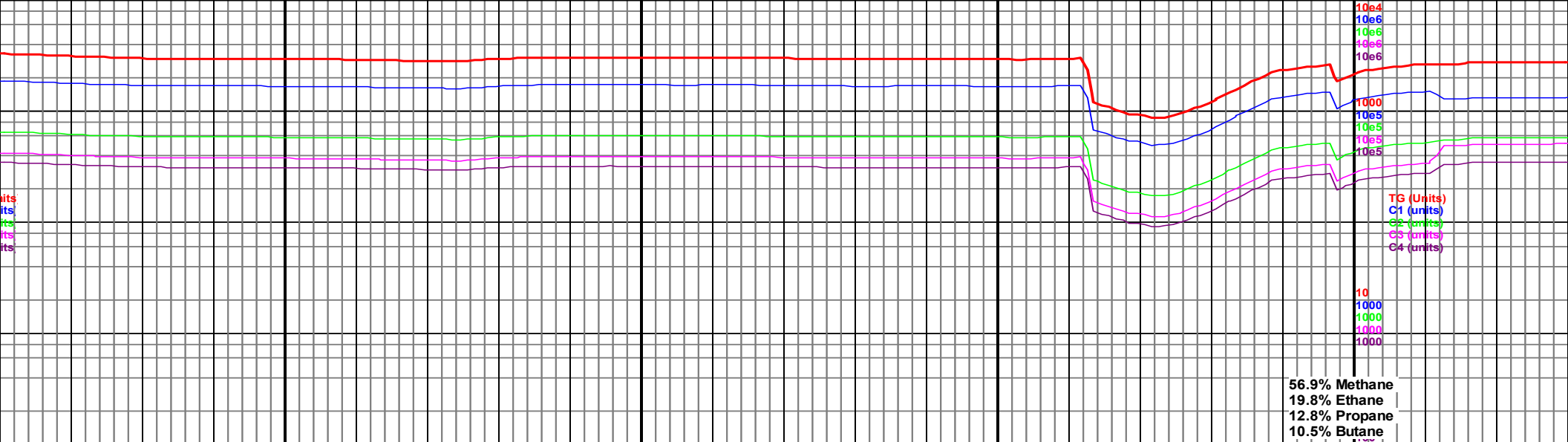


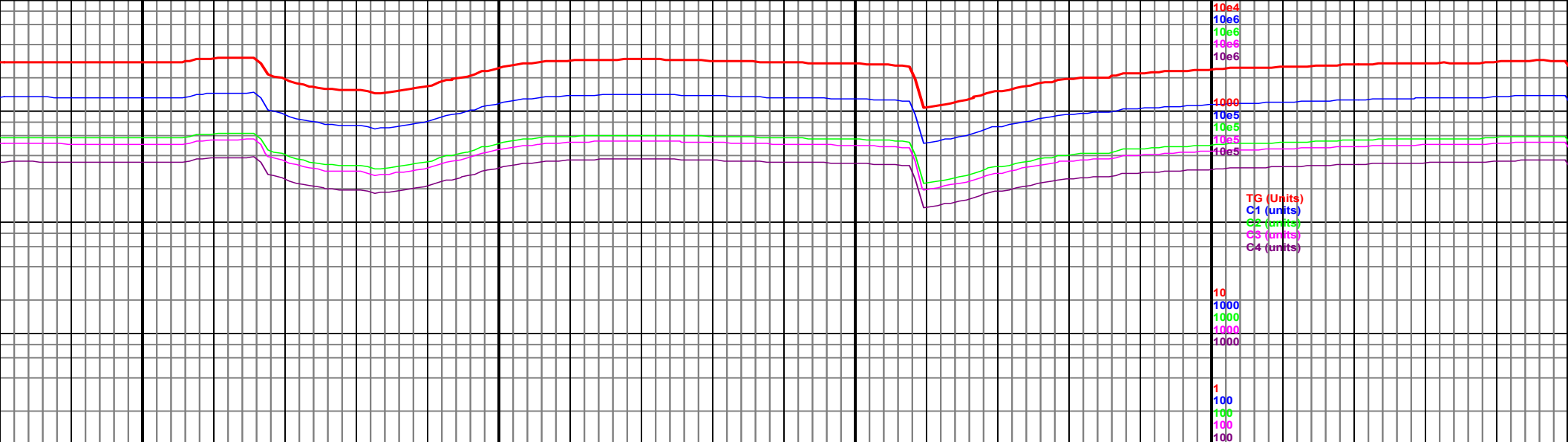












12250

12300

12350

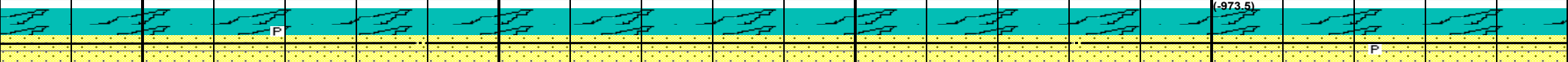
12400

12450

MD 12289 TVD 5819.95  
INC 90.77 AZ 0.45  
VS 6446.13 DL 0.96

MD 12381 TVD 5819.18  
INC 90.18 AZ 359.91  
VS 6538.13 DL 0.87

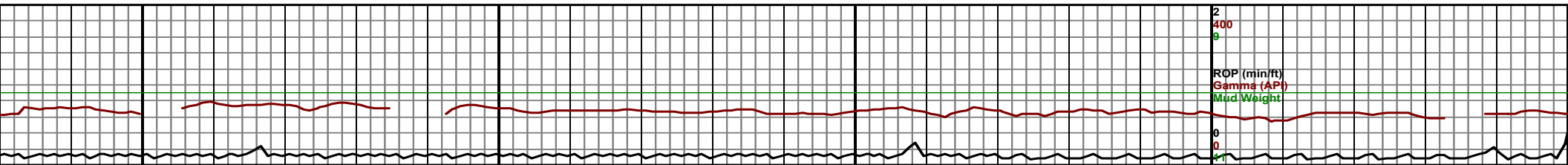
5075 TVD  
Sub Sea (-336)

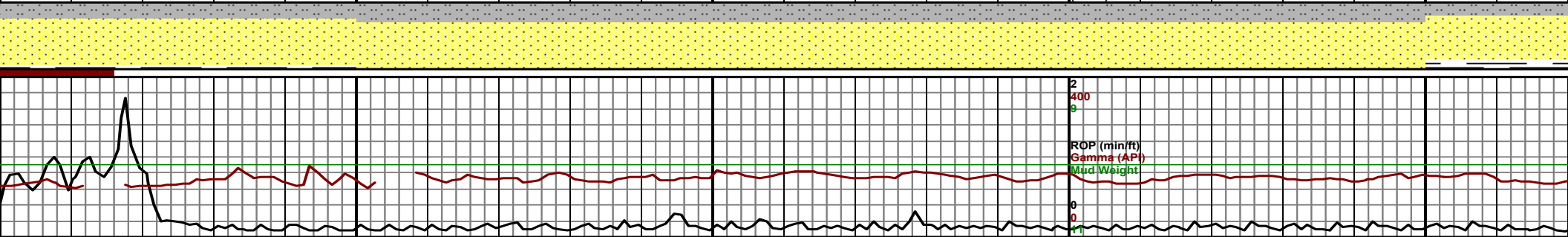
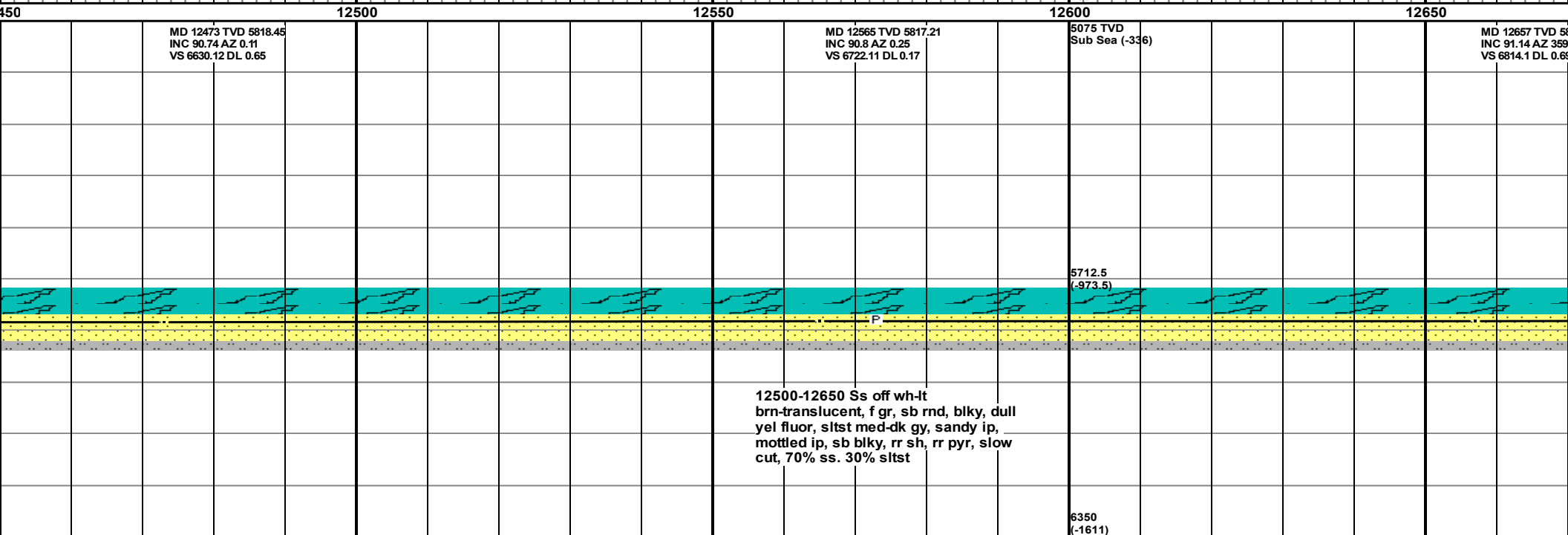
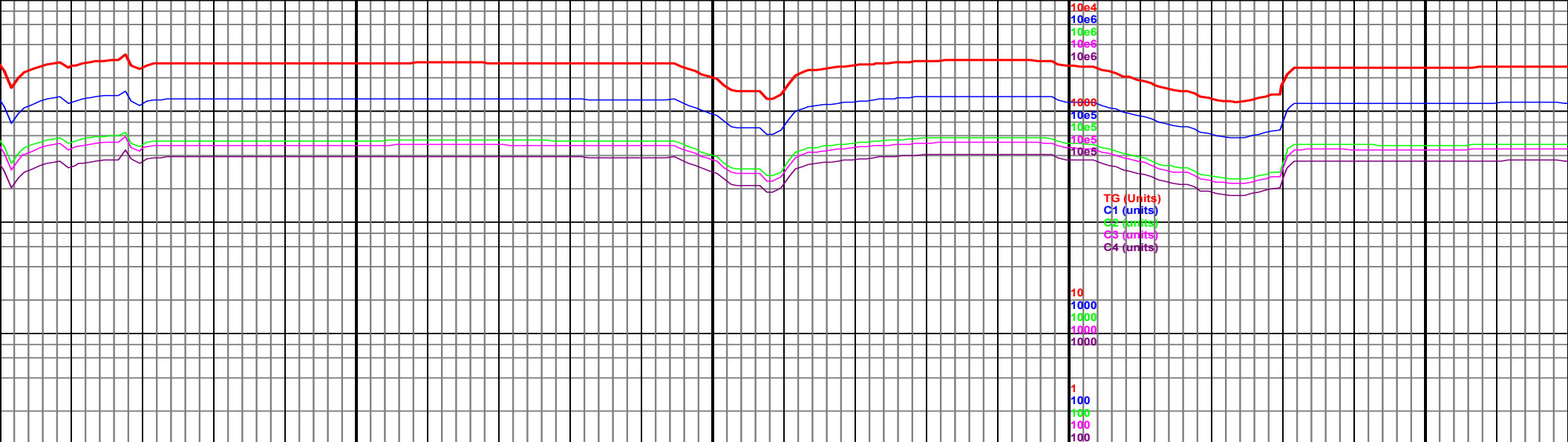


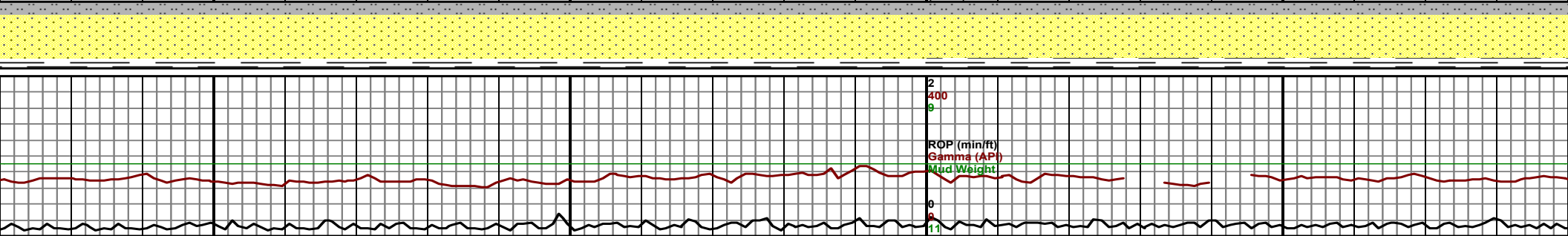
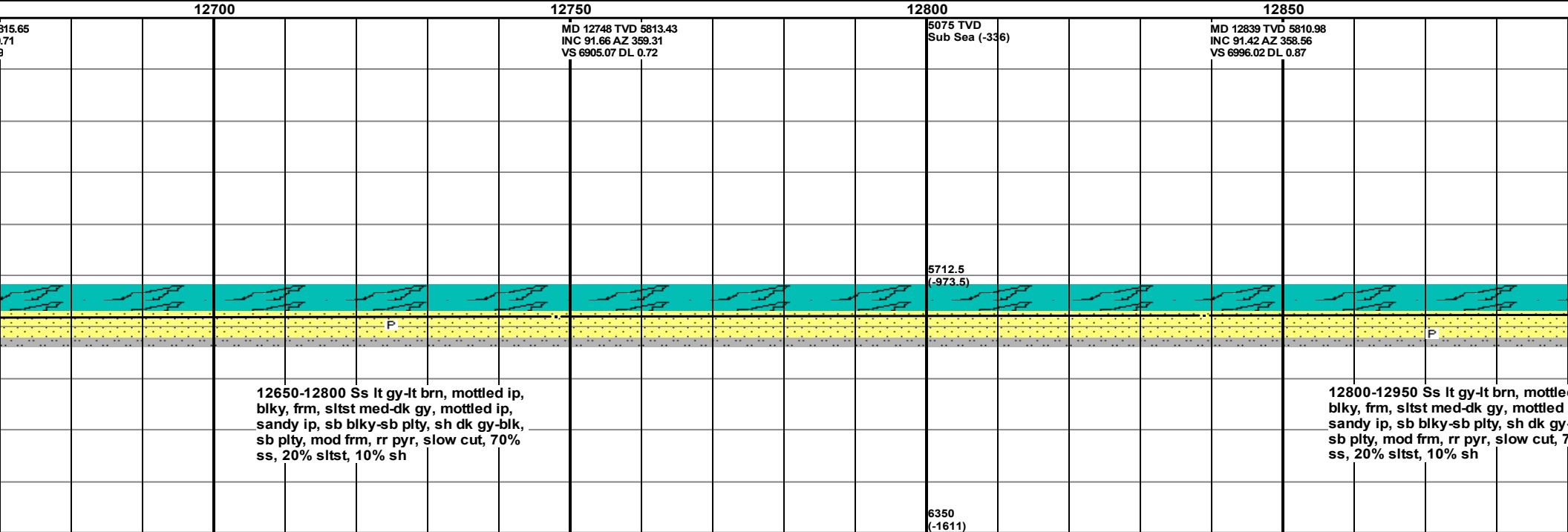
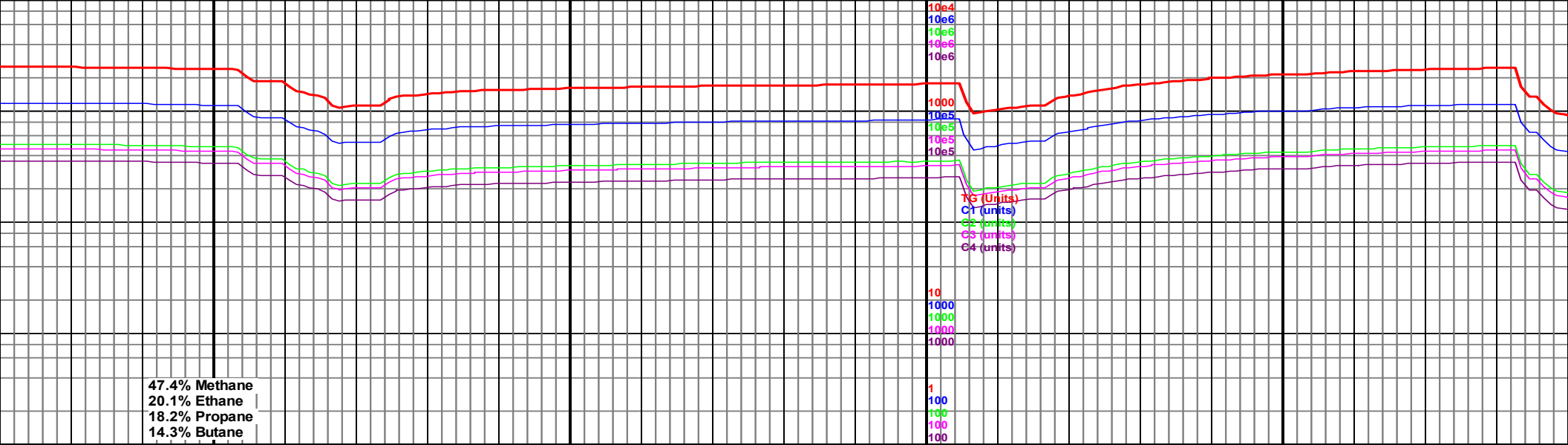
12200-12350 Ss off wh-lt  
brn-translucent, f gr, sb rnd, blk, dull  
yel fluor, sltst med-dk gy, sandy ip,  
mottled ip, sb blk, rr pyr, slow cut,  
80% ss, 20% sltst

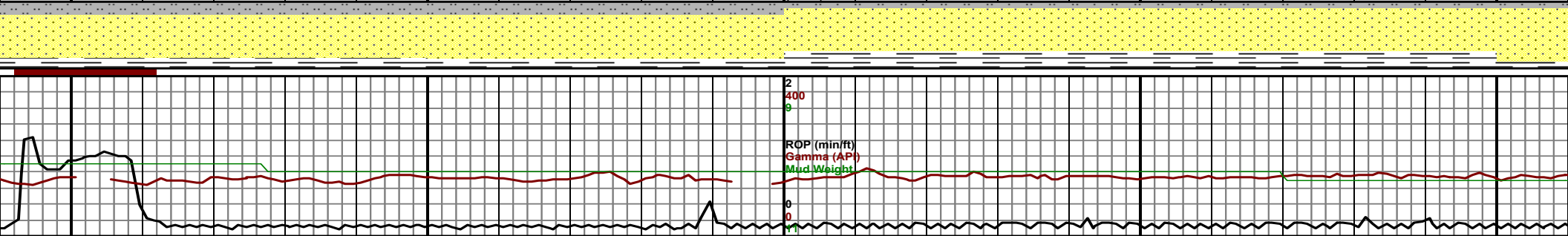
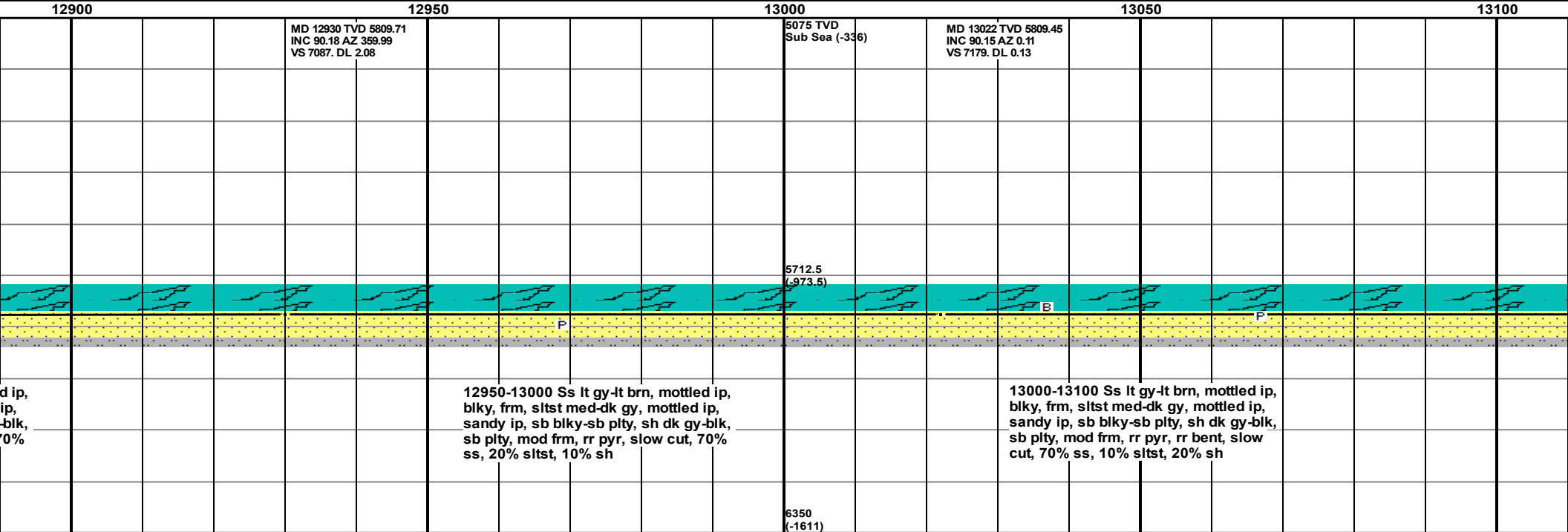
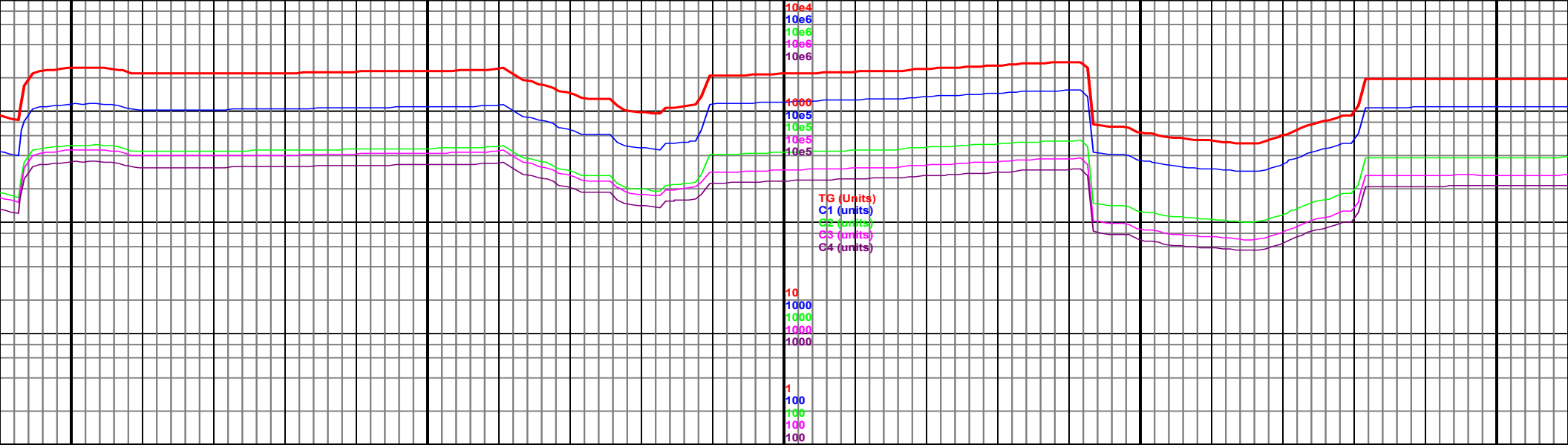
12350-12500 Ss lt gy-lt brn, mottled ip,  
blk, frm, sltst med-dk gy, mottled ip,  
sandy ip, sb blk-sb plty, sh dk gy-blk,  
sb plty, mod frm, rr pyr, slow cut, 70%  
ss, 25% sltst, 5% sh

6350  
(-1611)

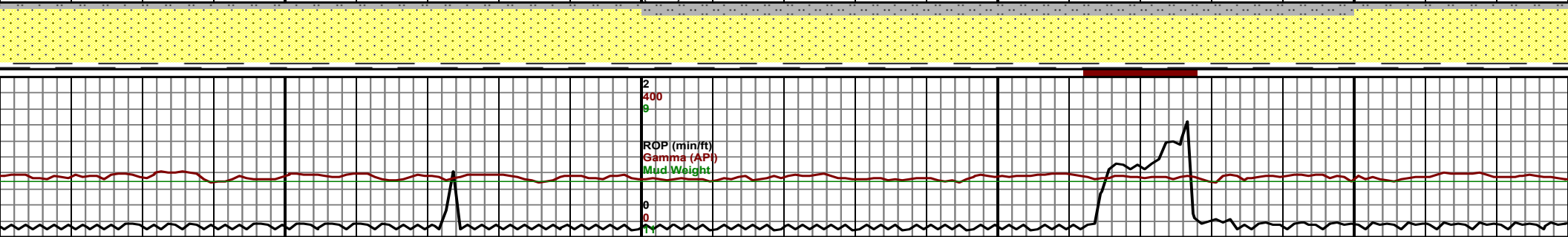
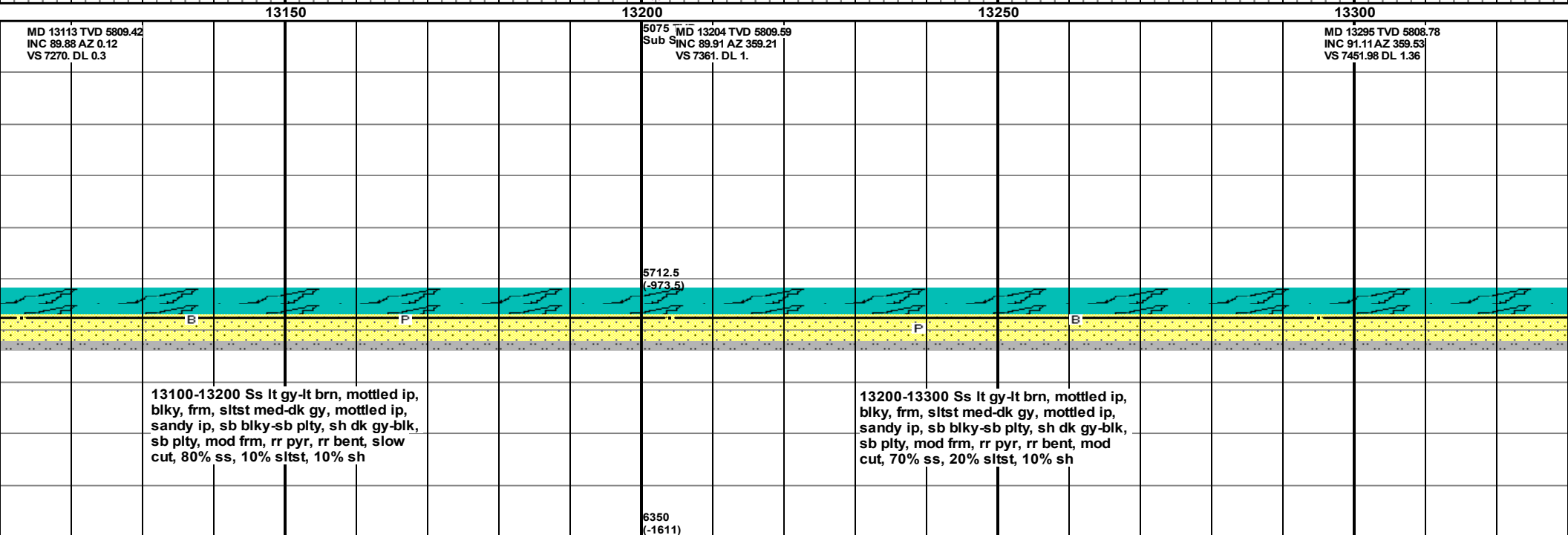
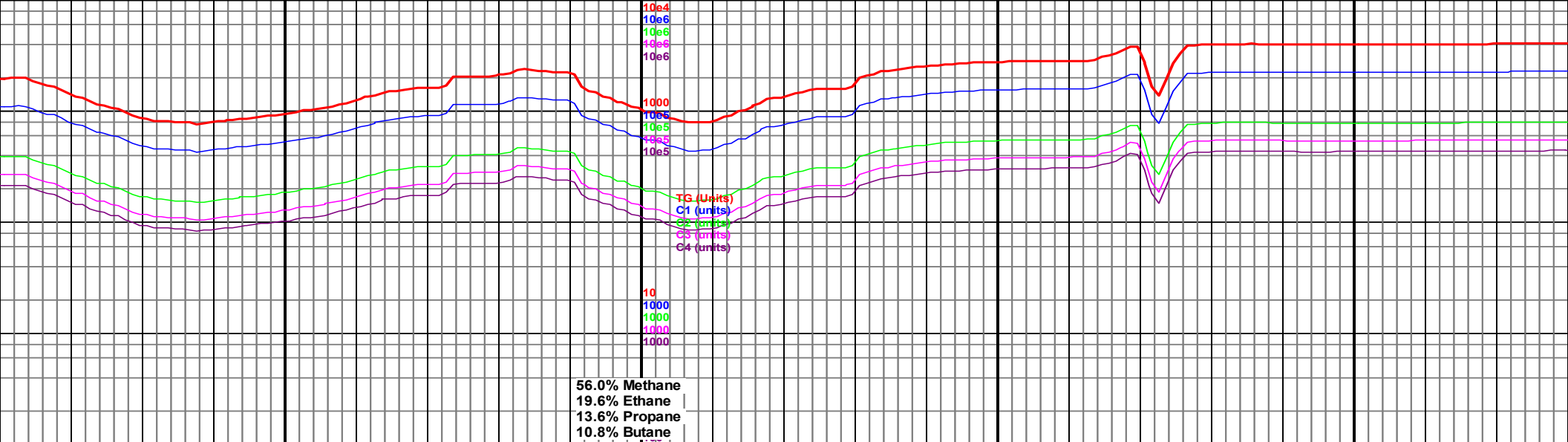


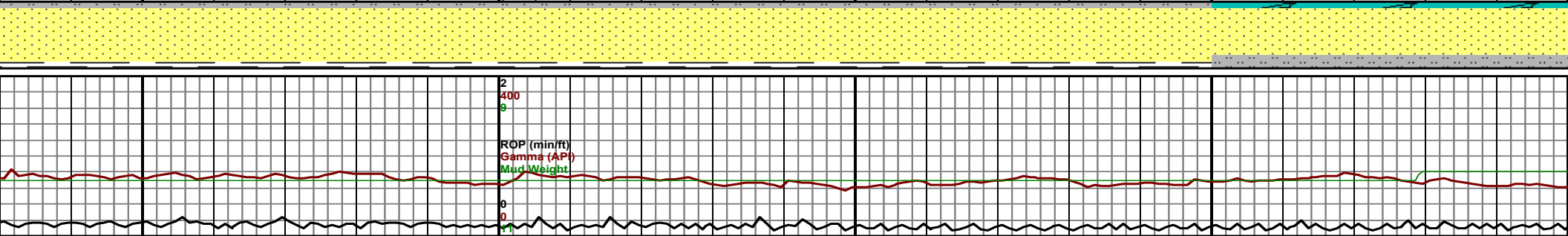
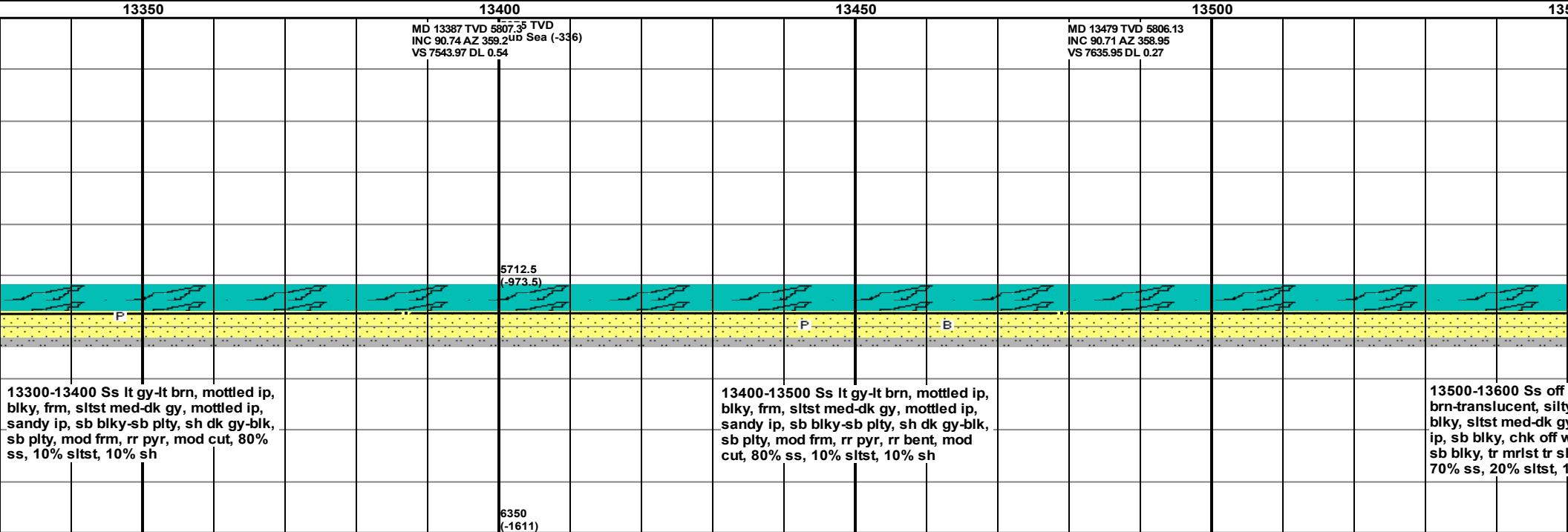
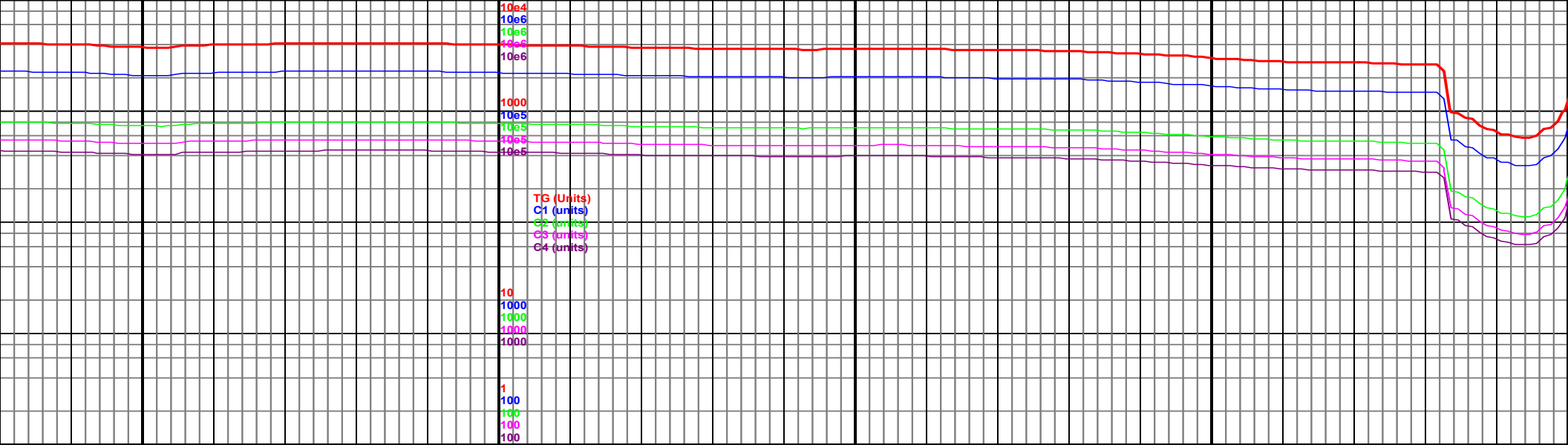


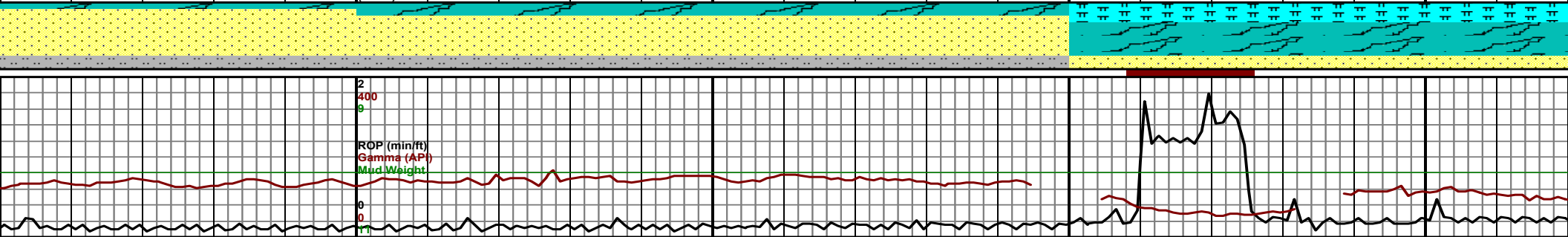
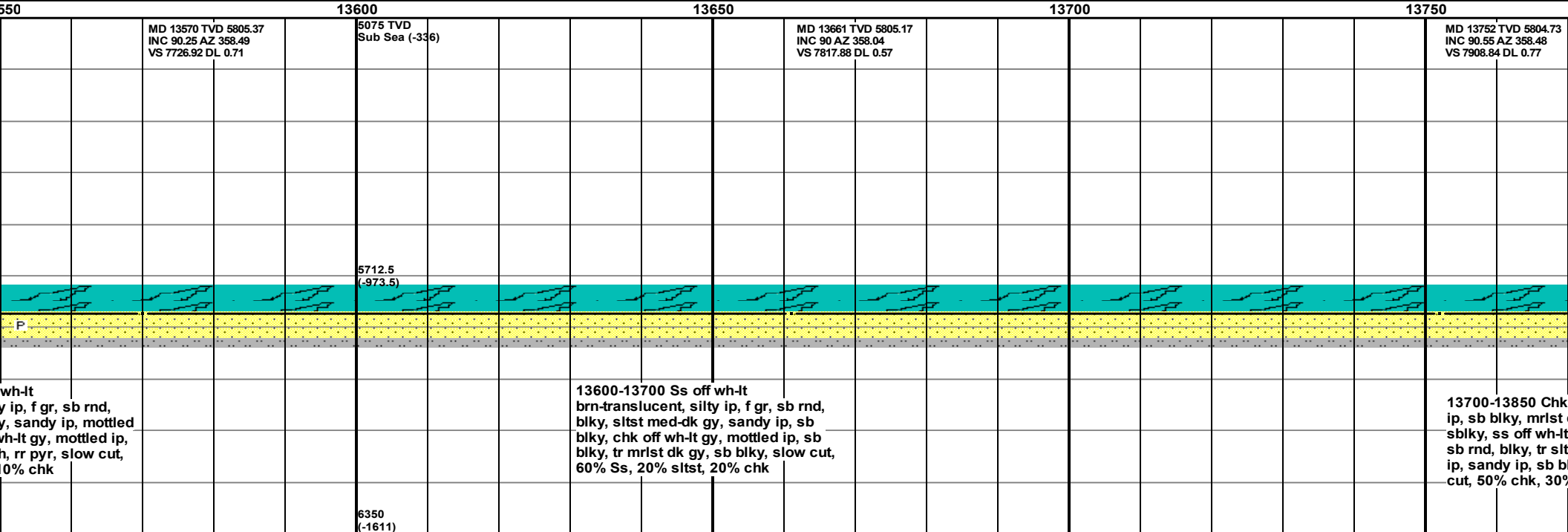
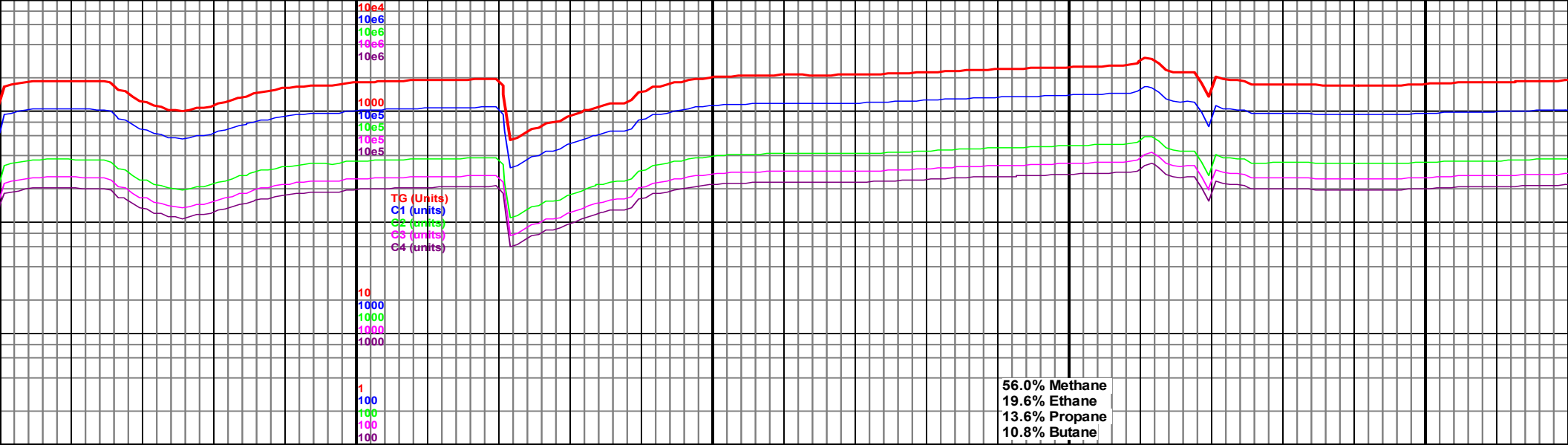


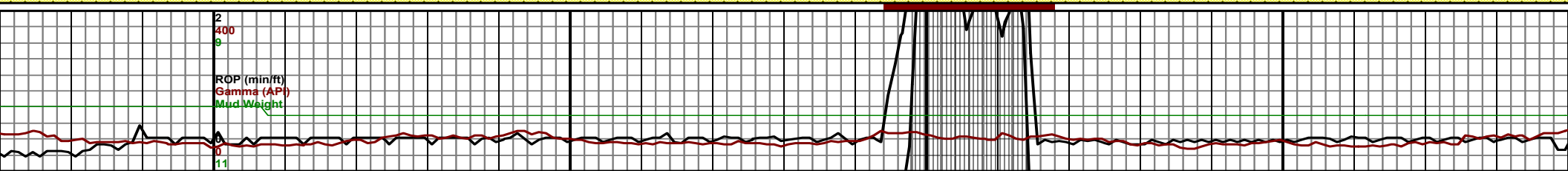
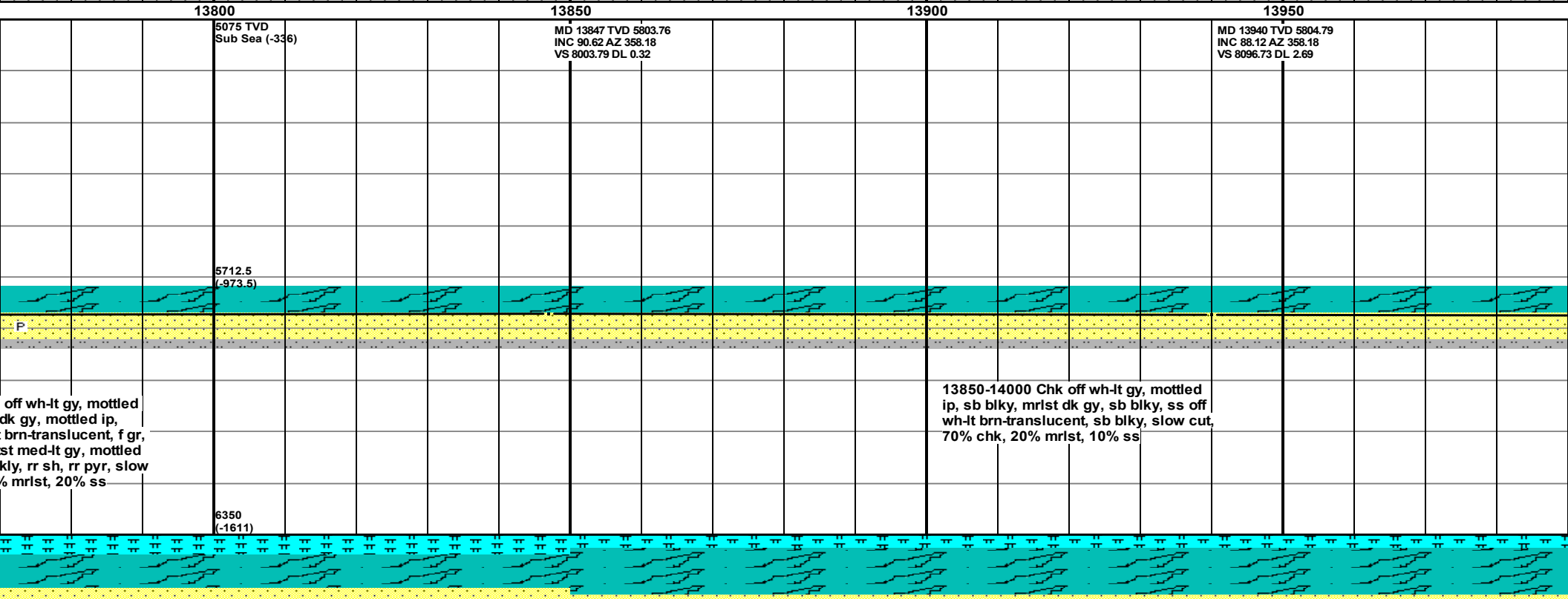
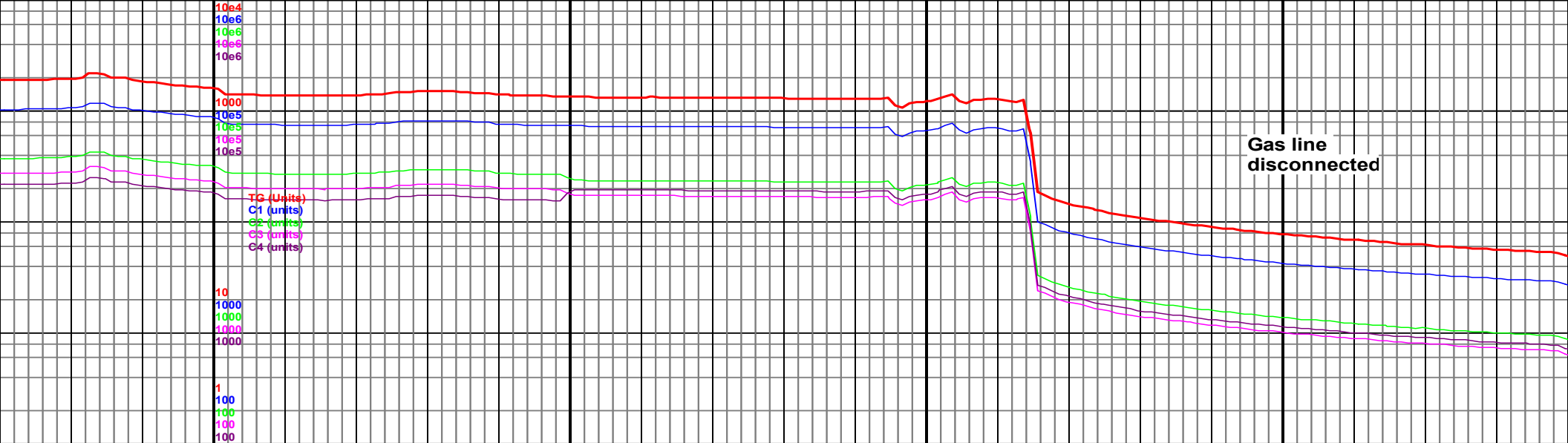


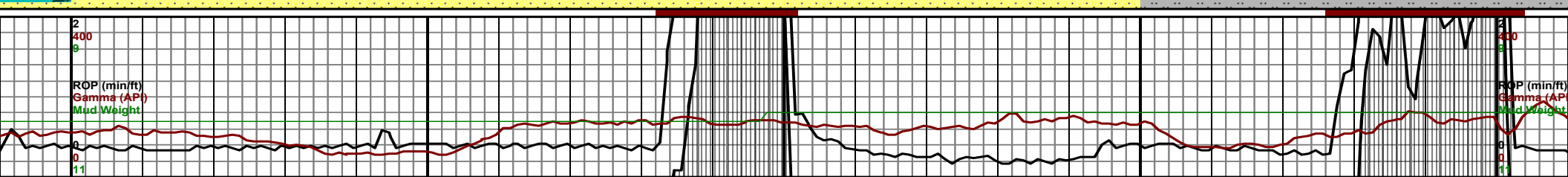
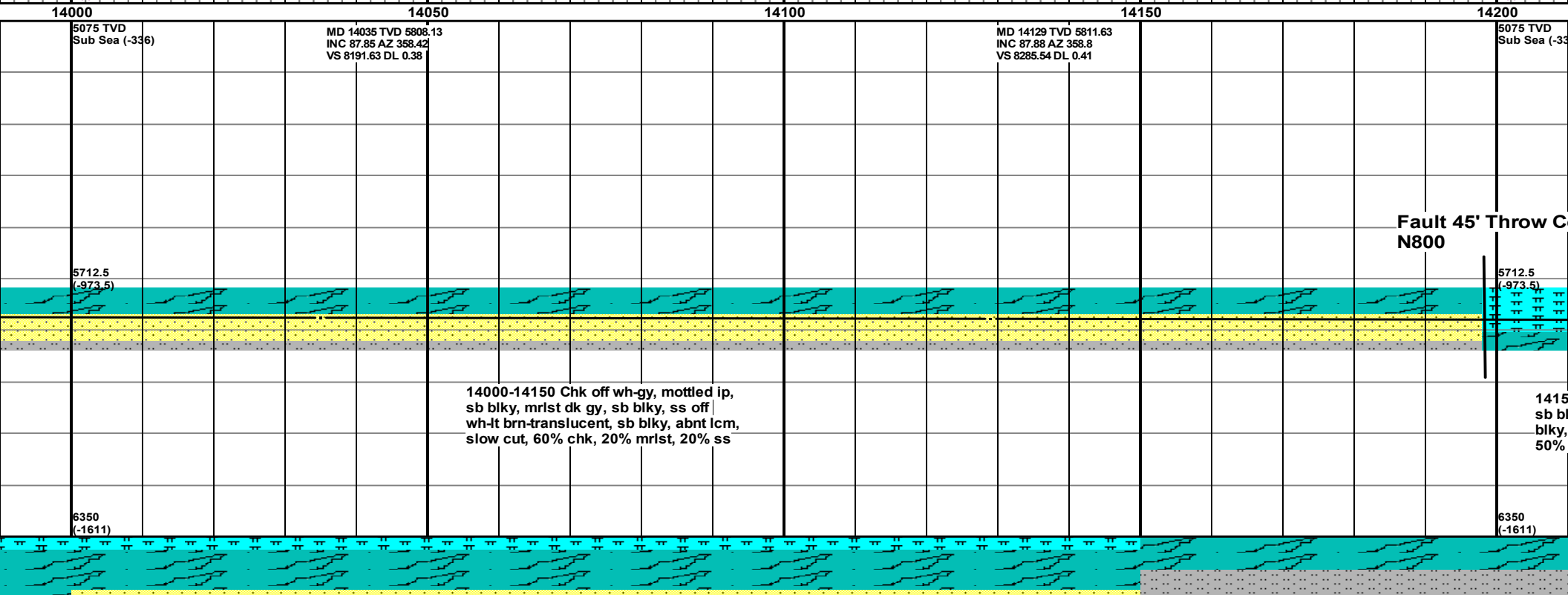
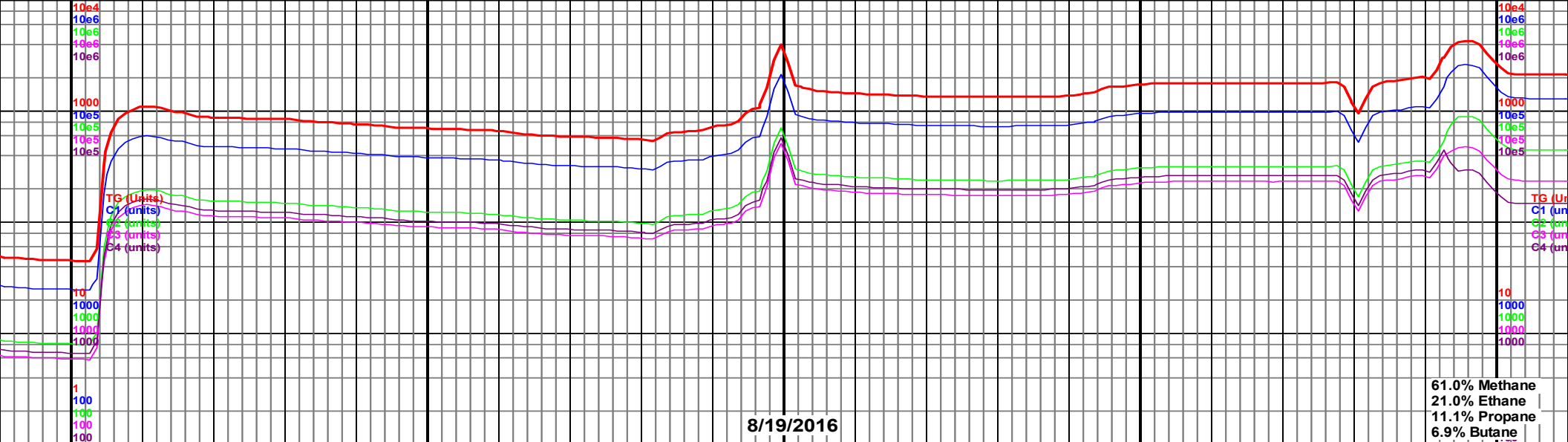


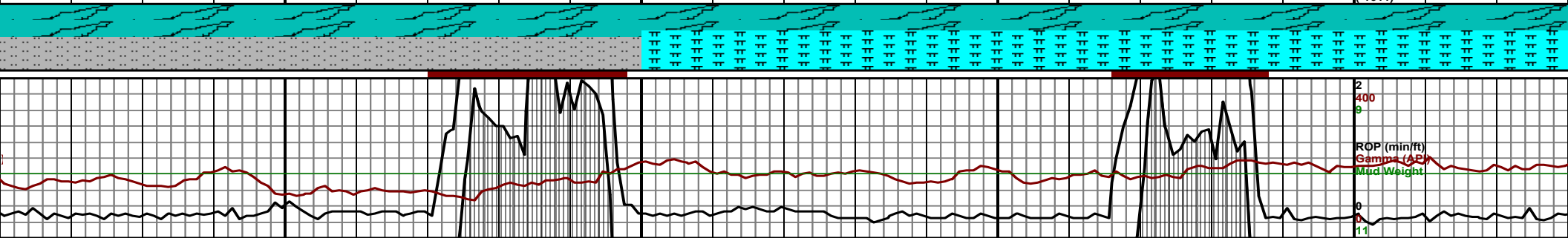
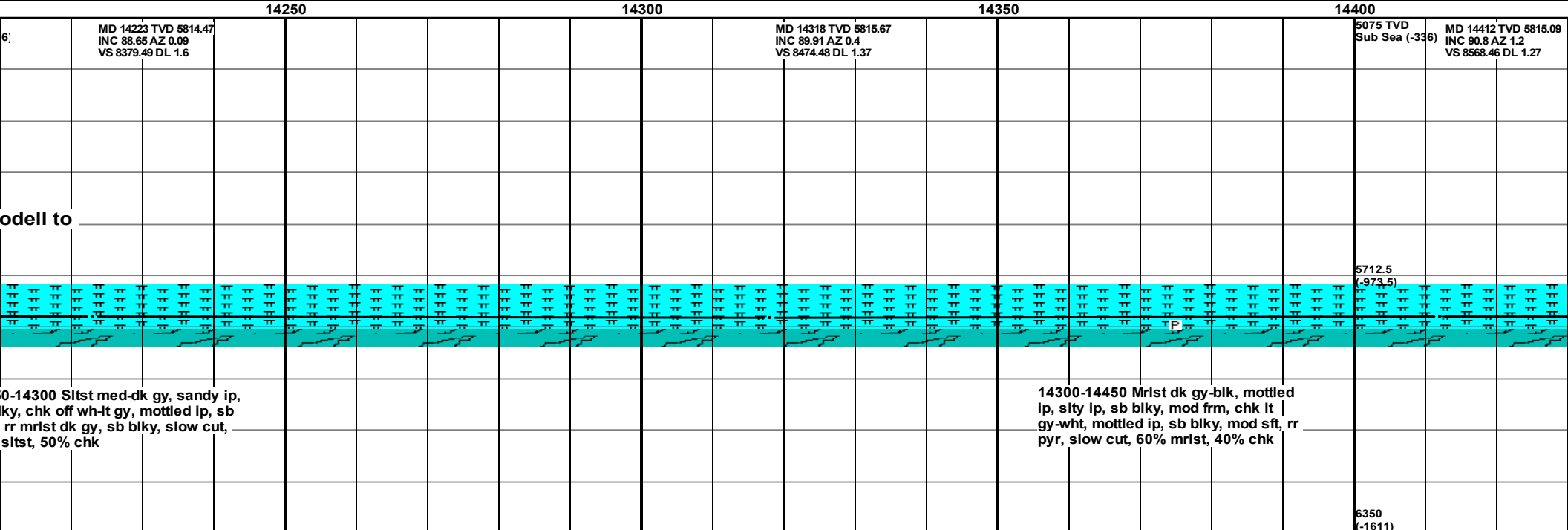
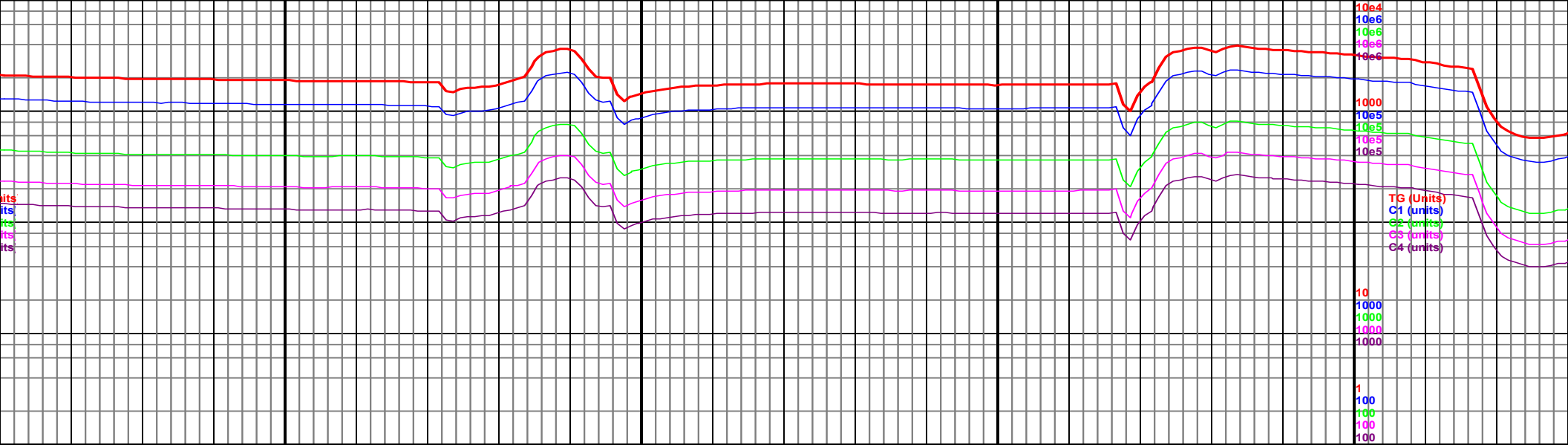


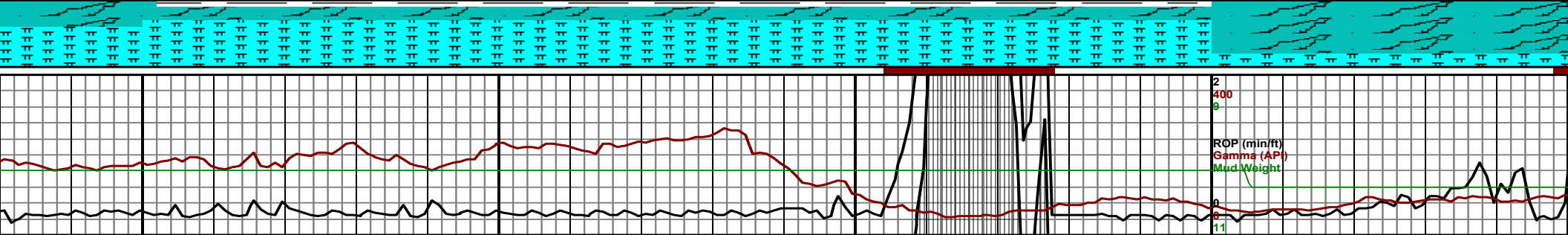
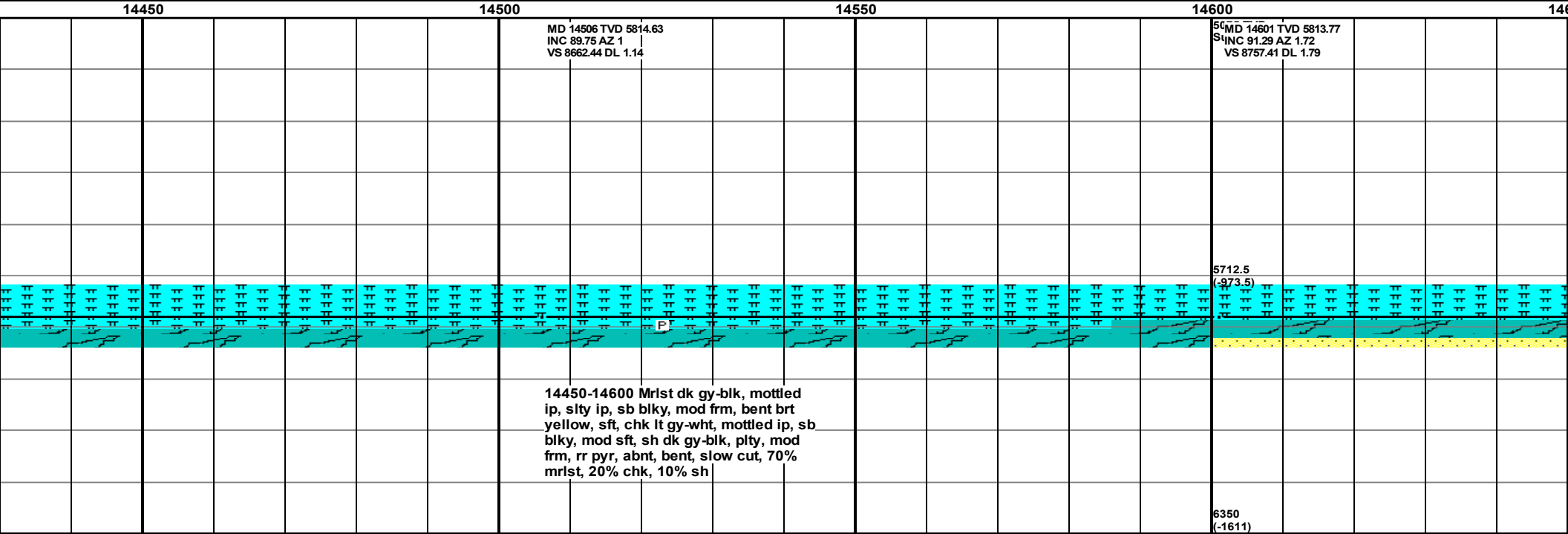
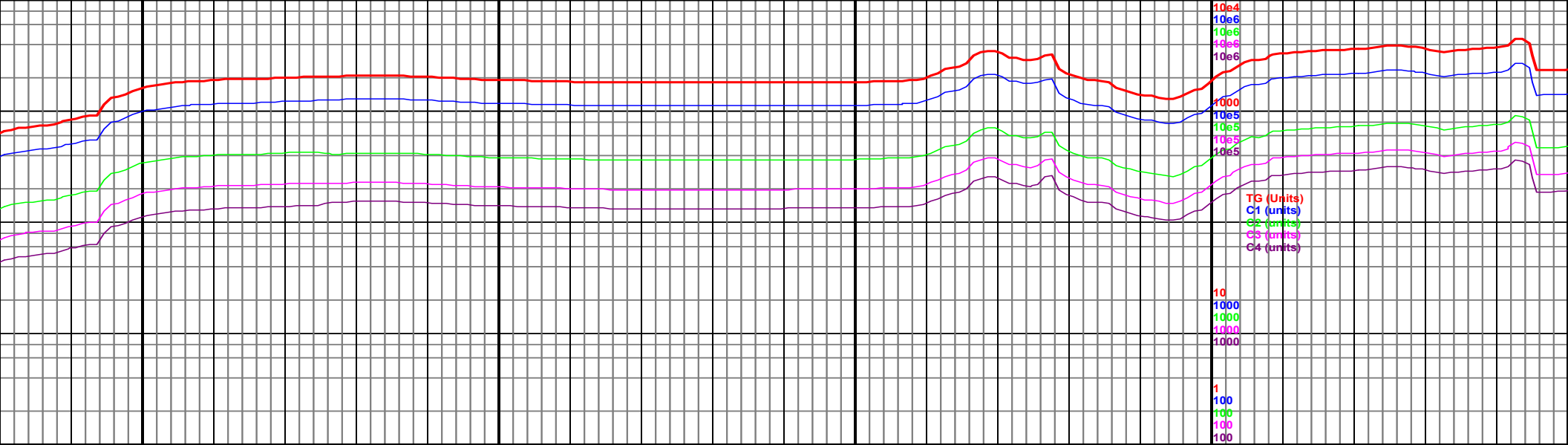


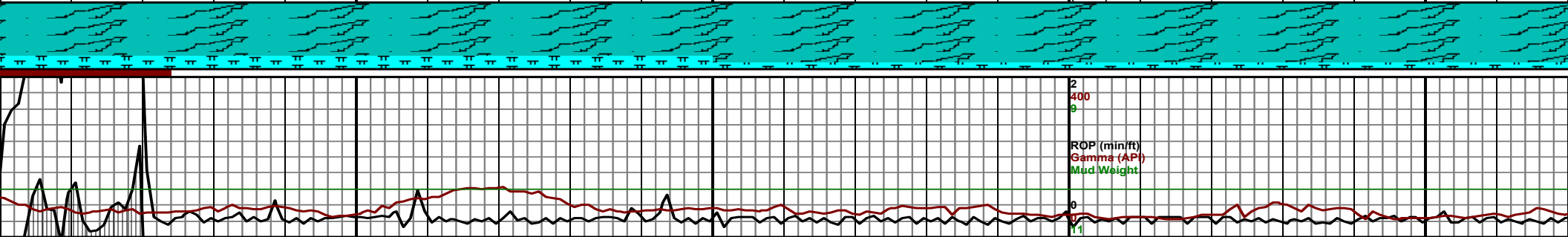
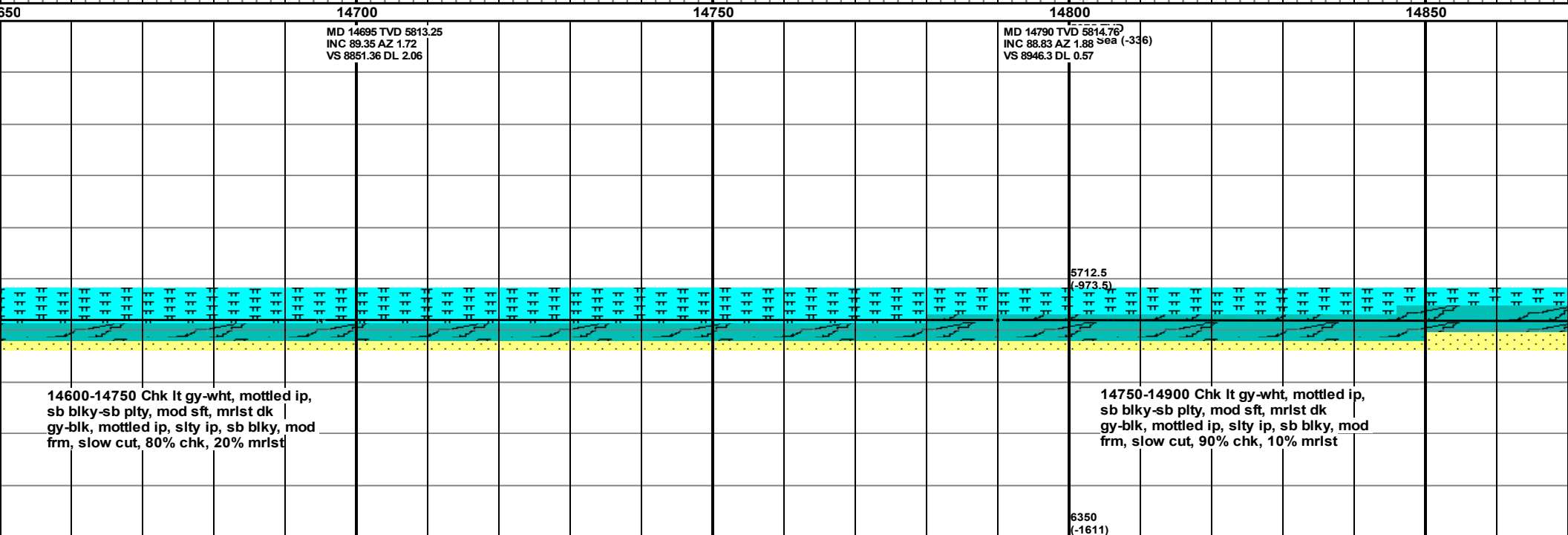
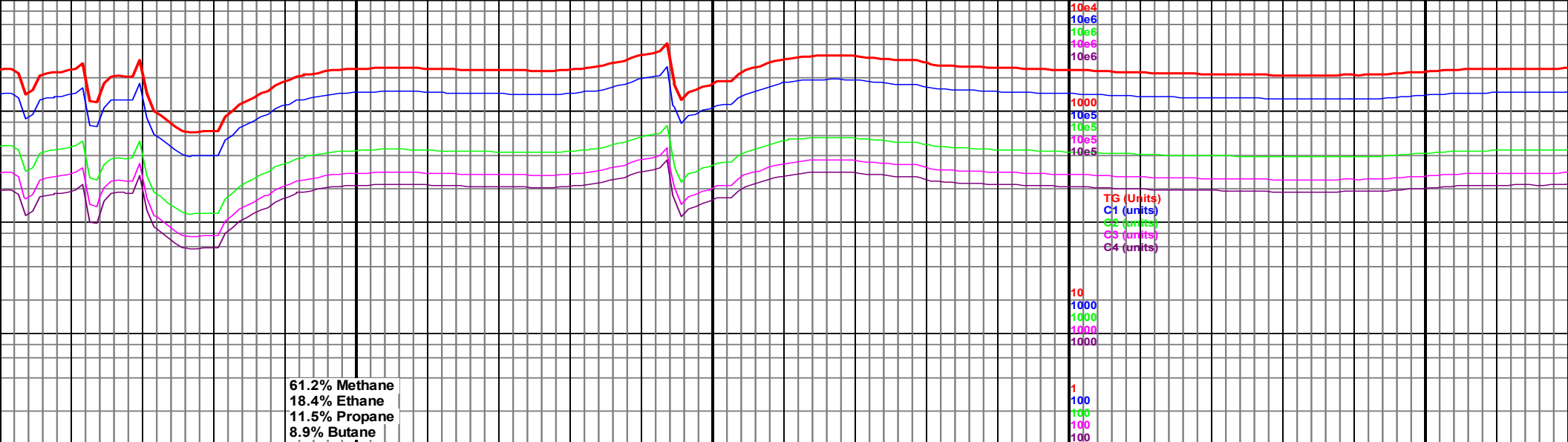




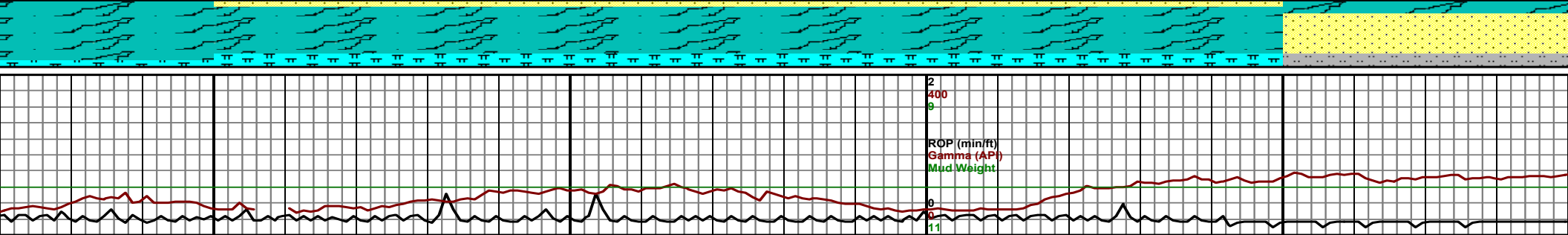
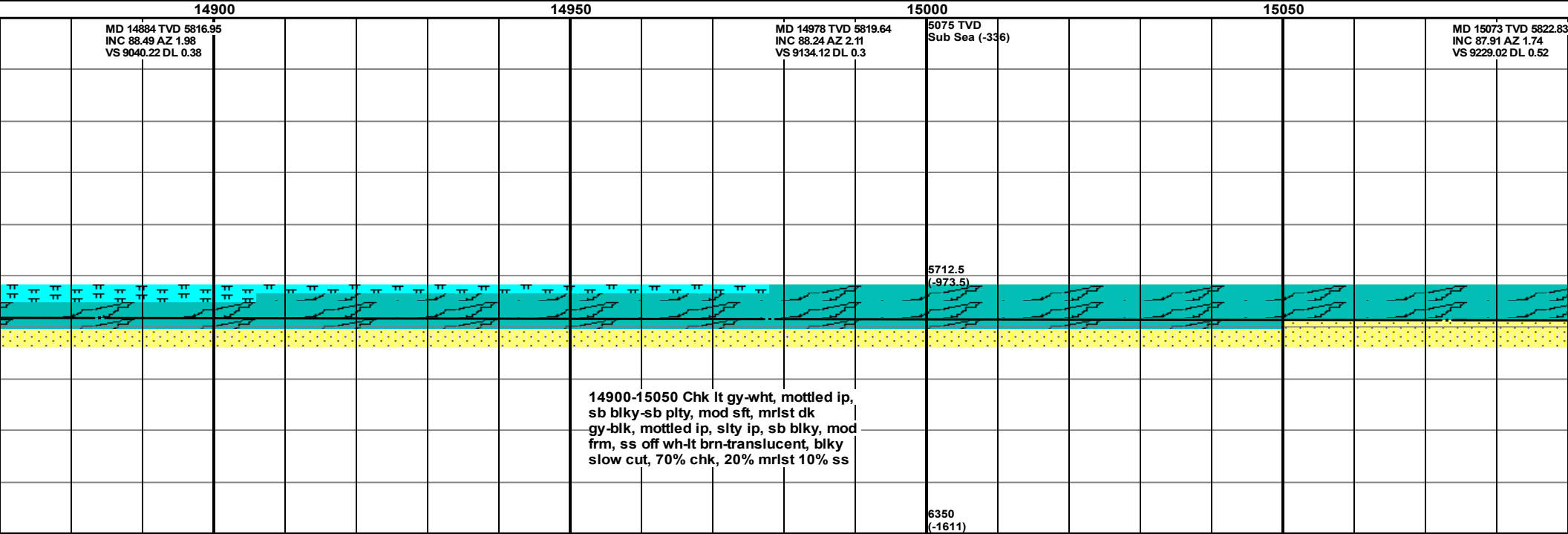
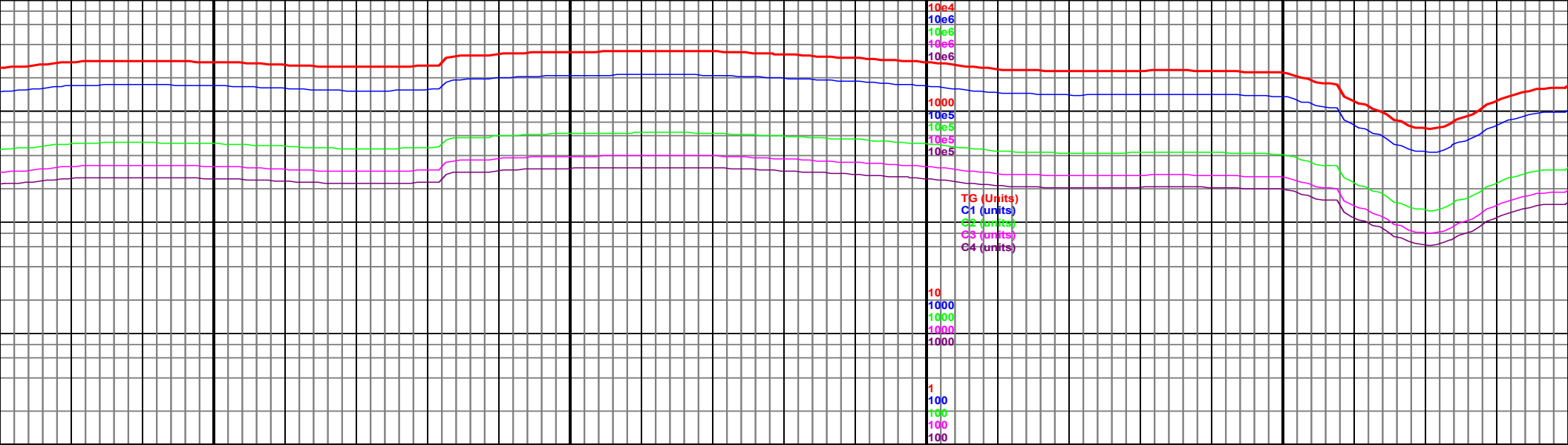


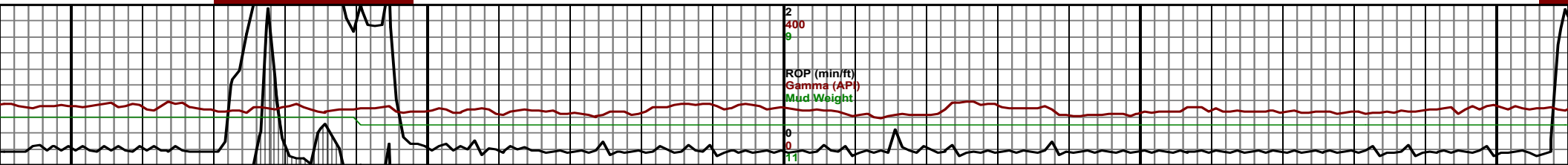
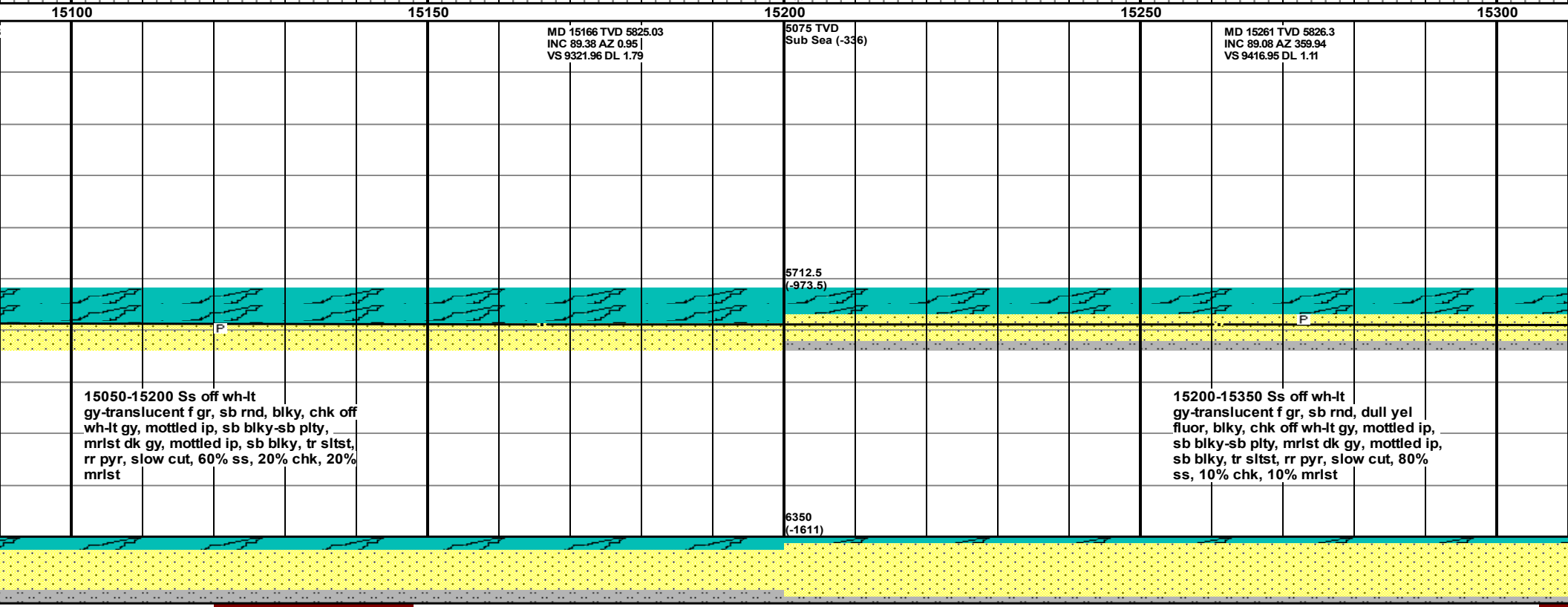
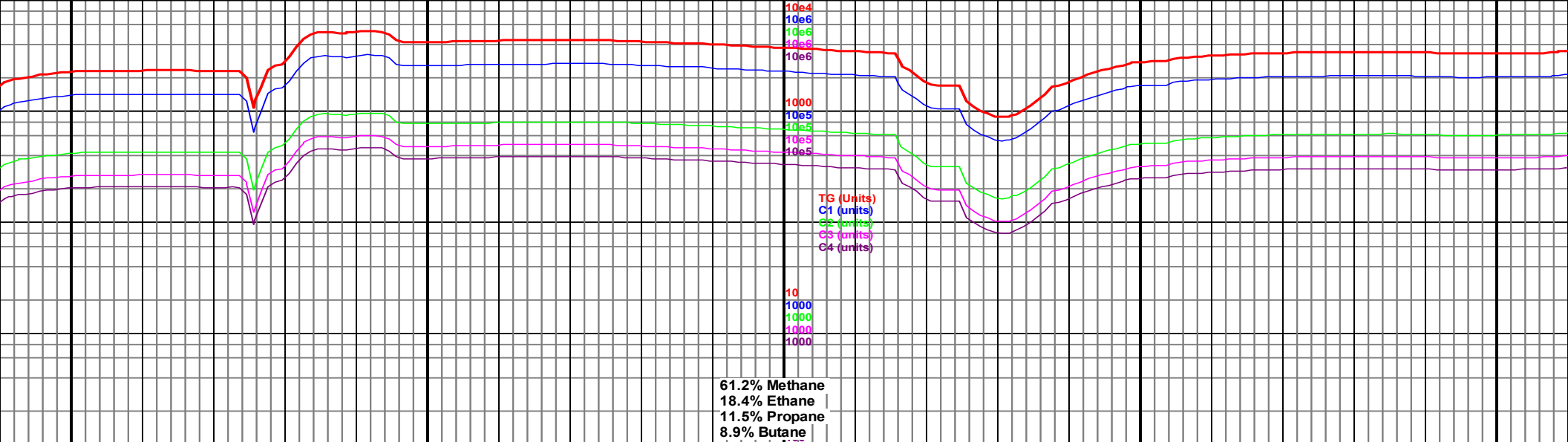


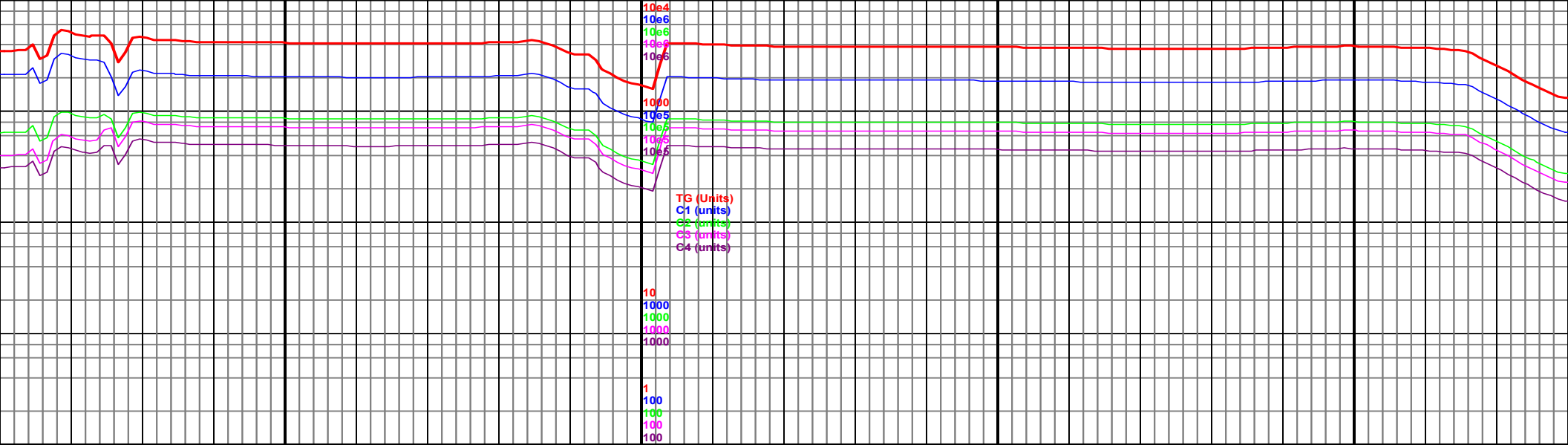












15350

MD 15355 TVD 5826.66  
INC 90.49 AZ 0.44  
VS 9510.94 DL 1.59

15400

5075 TVD  
Sub Sea (-336)

15450

MD 15449 TVD 5825.65  
INC 90.74 AZ 359.19  
VS 9604.94 DL 1.36

15500

5712.5  
(-973.5)

15350-15500 Ss off wh-lt  
brn-translucent, f gr, sb rnd, brt yel  
fluor, sb blk-y-bkly, sh dk gy-blk, f gr,  
mottled lp, sb blkly, chk off wh-lt gy, sb  
blkly-sb plty, tr mlst, tr sltst, rr pyr,  
mod cut, 70% ss, 20% sh, 10% chk

6350  
(-1611)

