



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

Well Name: Horsetail 30E-3136
API: 051234287300
Location: Sec 30-T10N-R57W
License Number:
Spud Date: 9/24/2016
Surface Coordinates: 40.810567,
-103.800908

Region: Wildcat Field
Drilling Completed: 9/28/2016

Bottom Hole
Coordinates:
Ground Elevation (ft): 4806
Logged Interval (ft): 5093 To: 13927
Formation: Niobrara
Type of Drilling Fluid: Water Based Mud

K.B. Elevation (ft): 4827
Total Depth (ft): 13927

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

Drilling Company

Unit Drilling Company
Rig 406

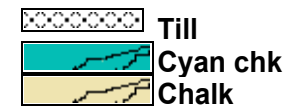
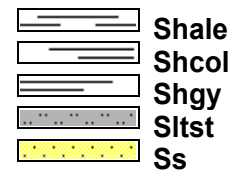
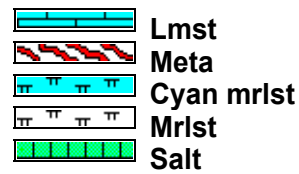
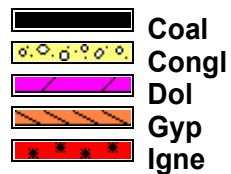
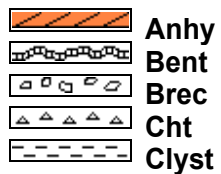
Gas Detection

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

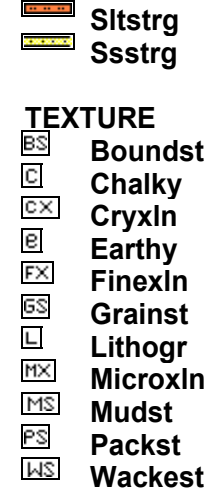
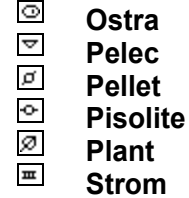
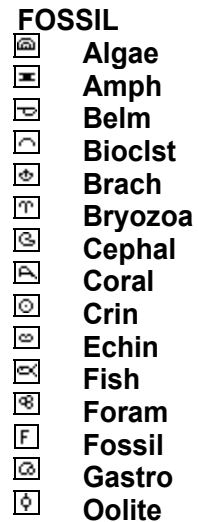
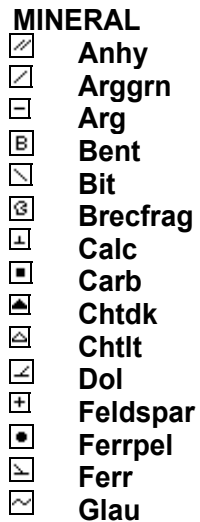
Comments

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

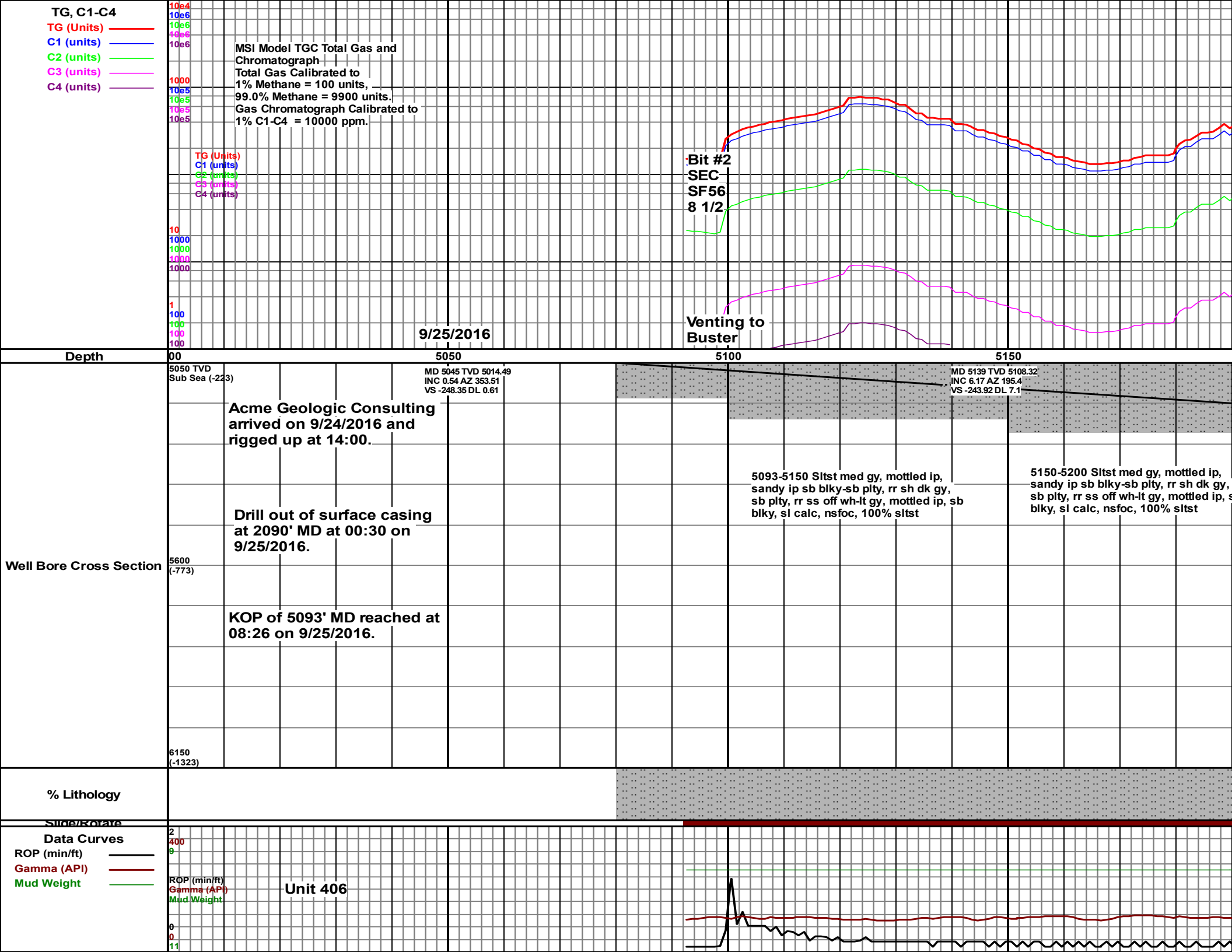
EVENT



Rft

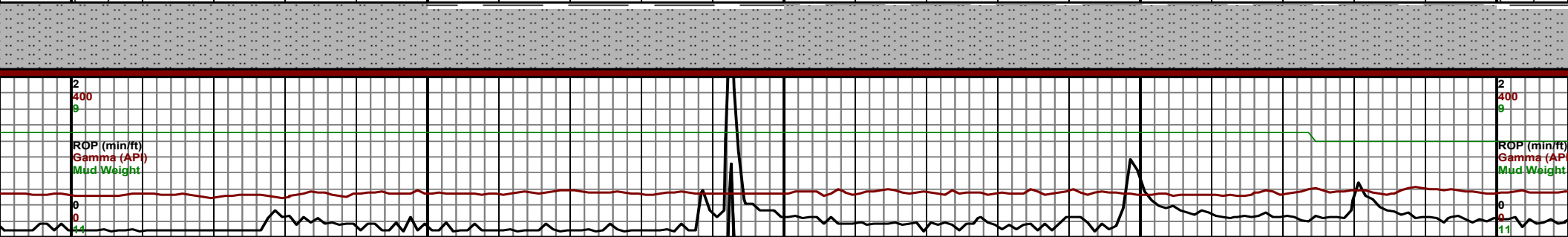
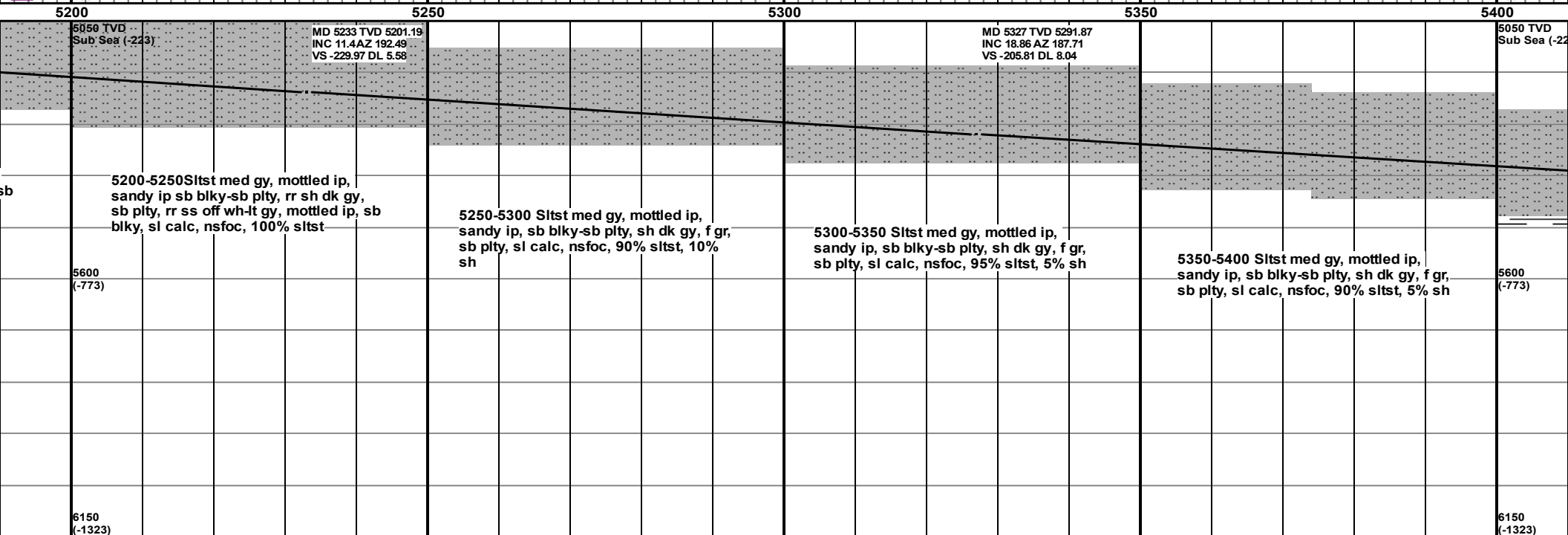
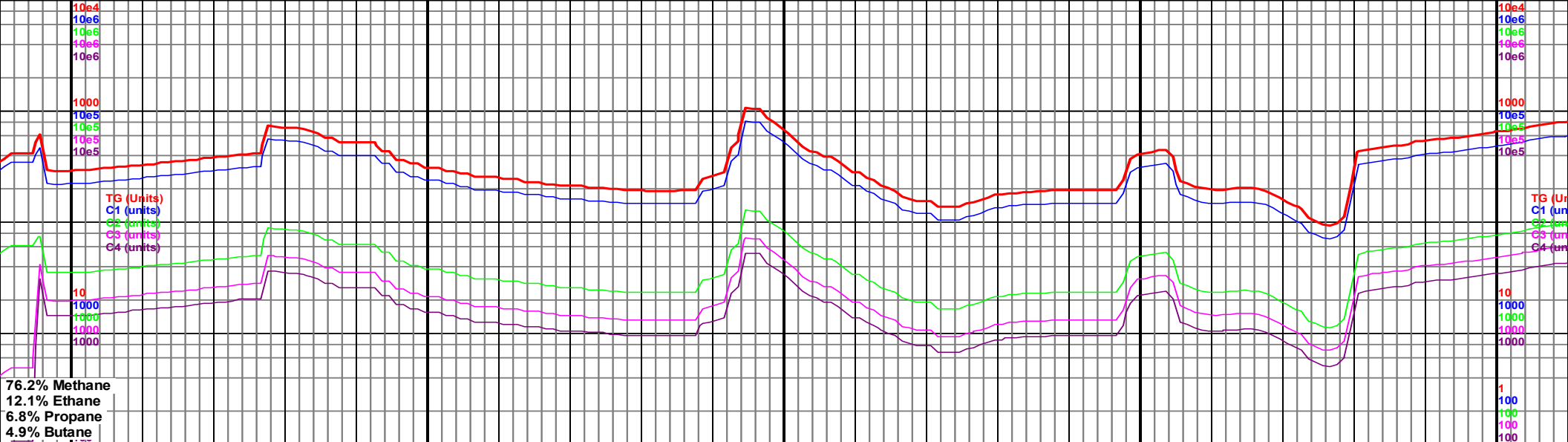


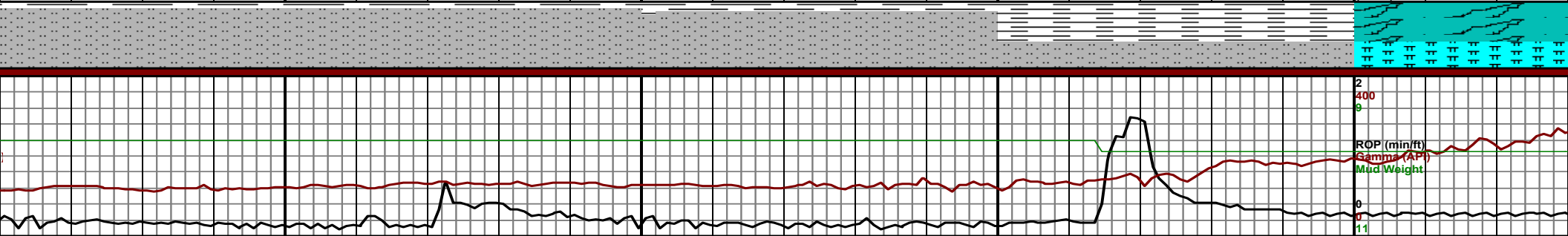
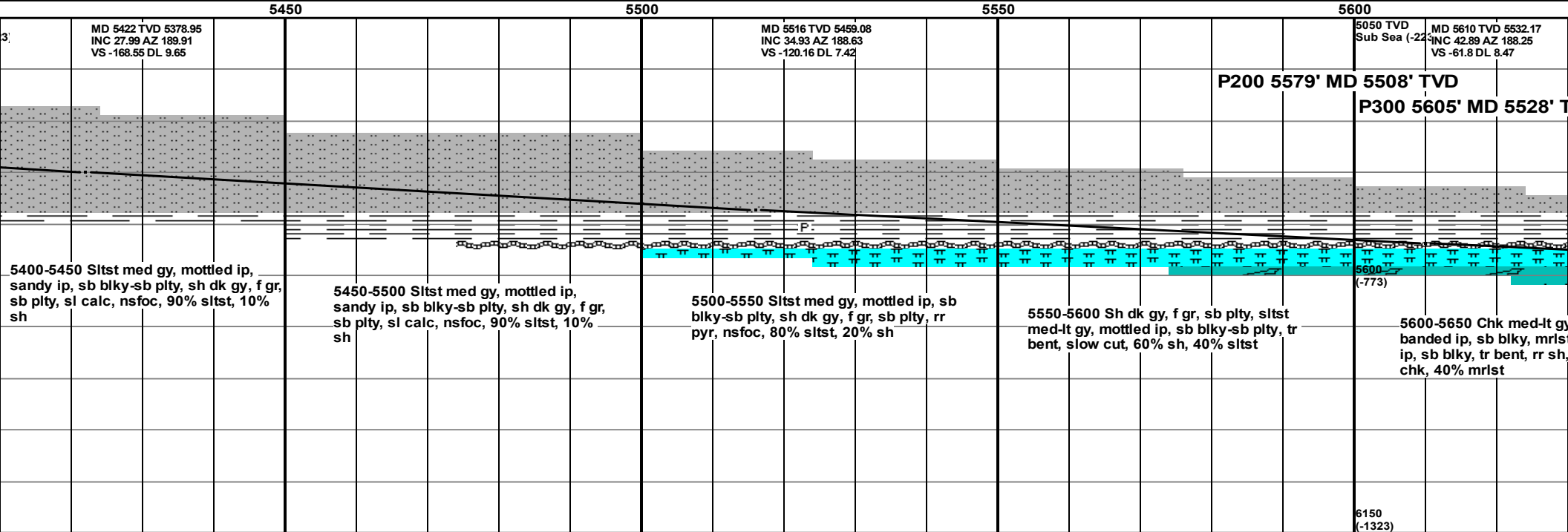
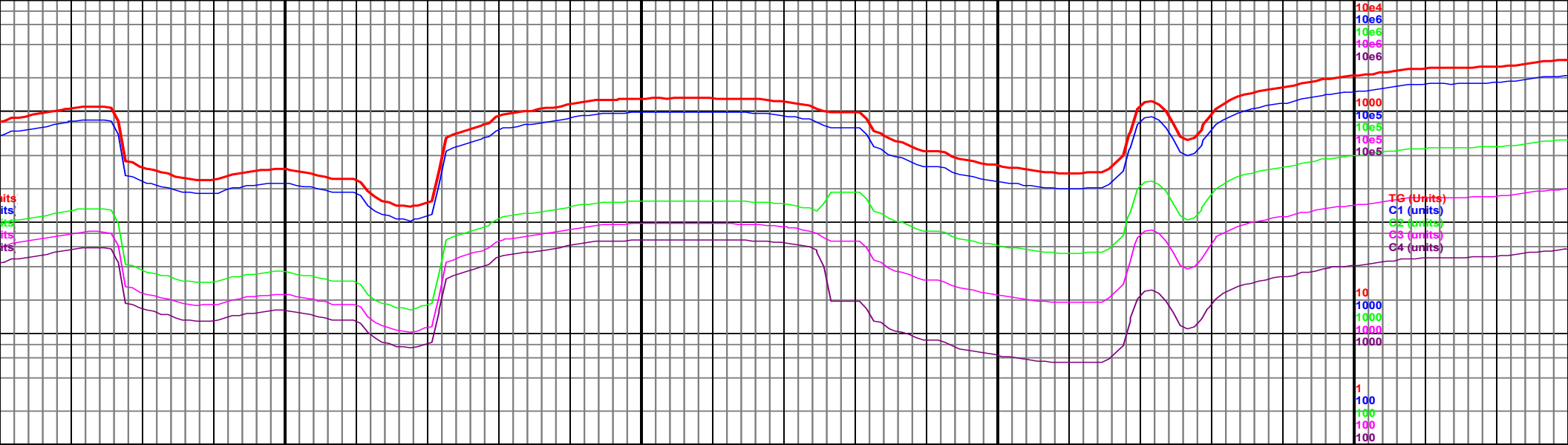
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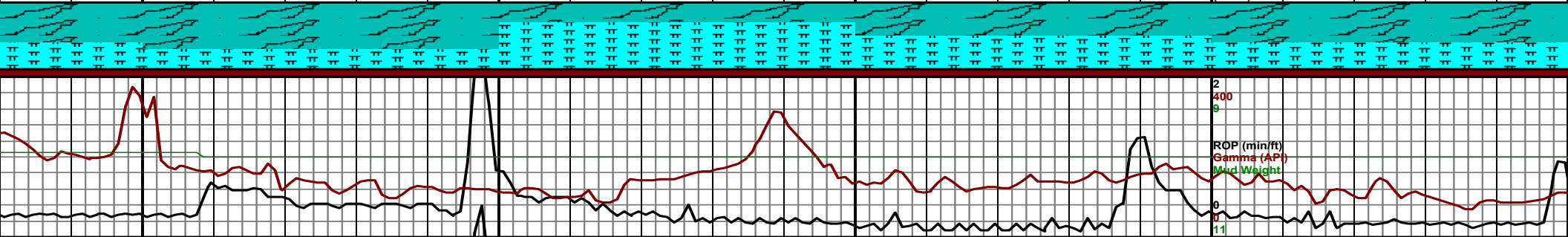
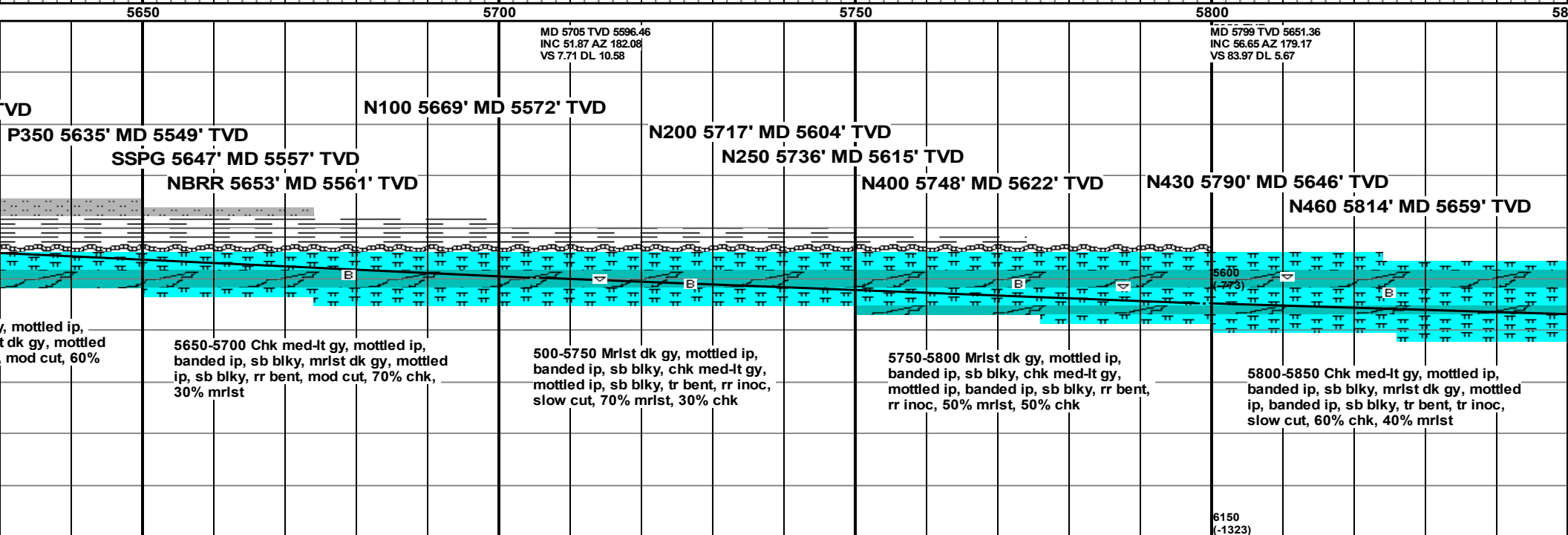
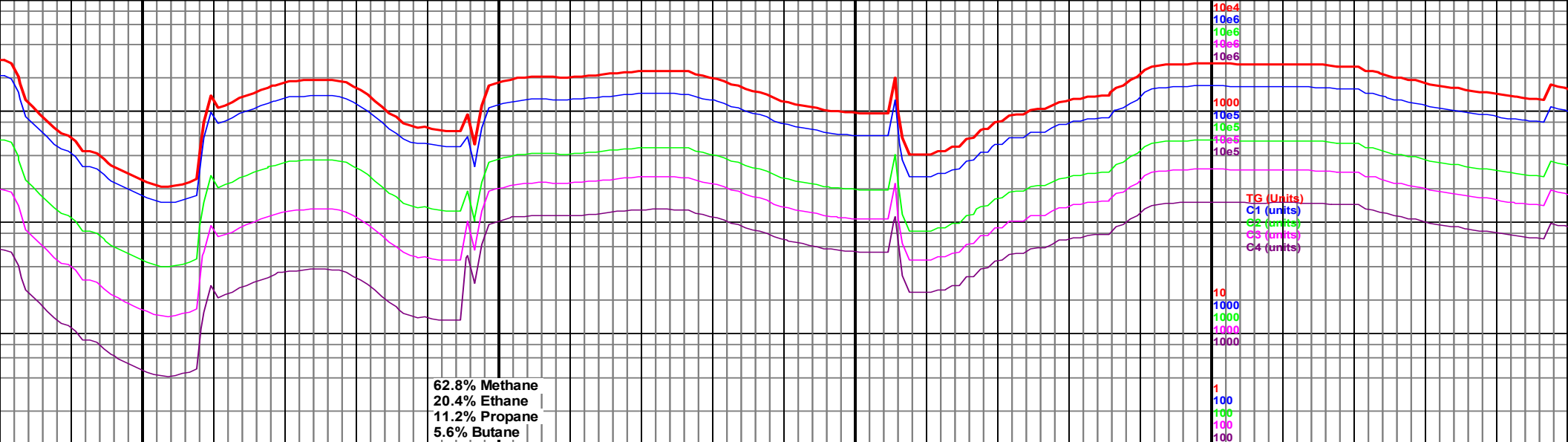


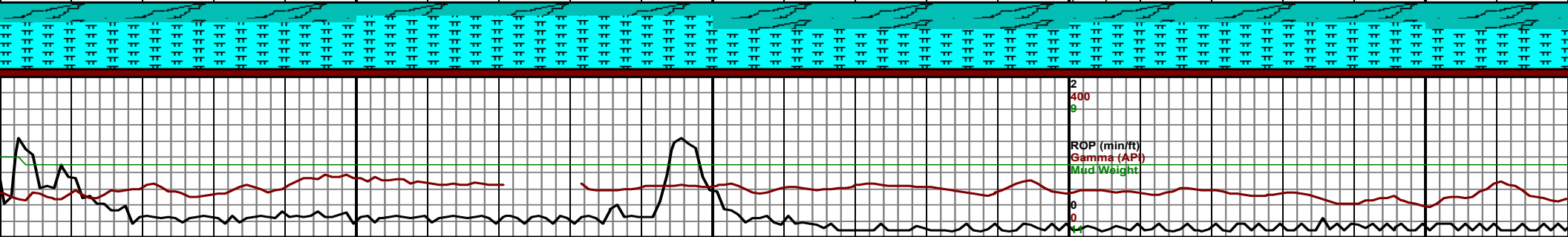
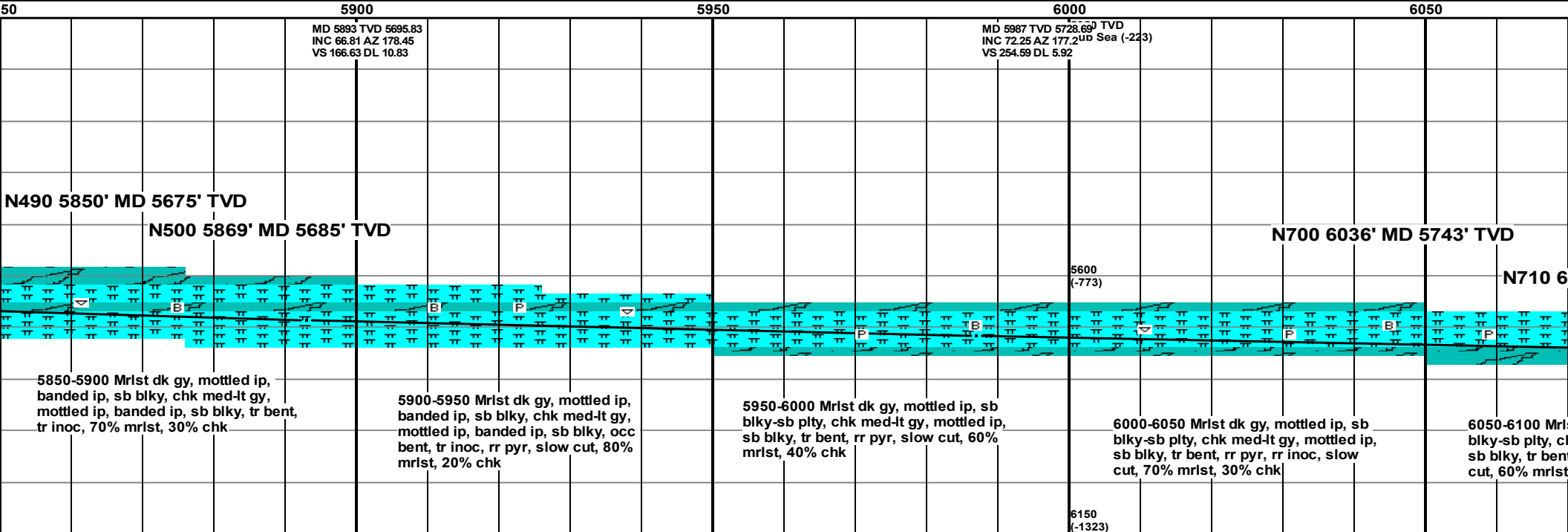
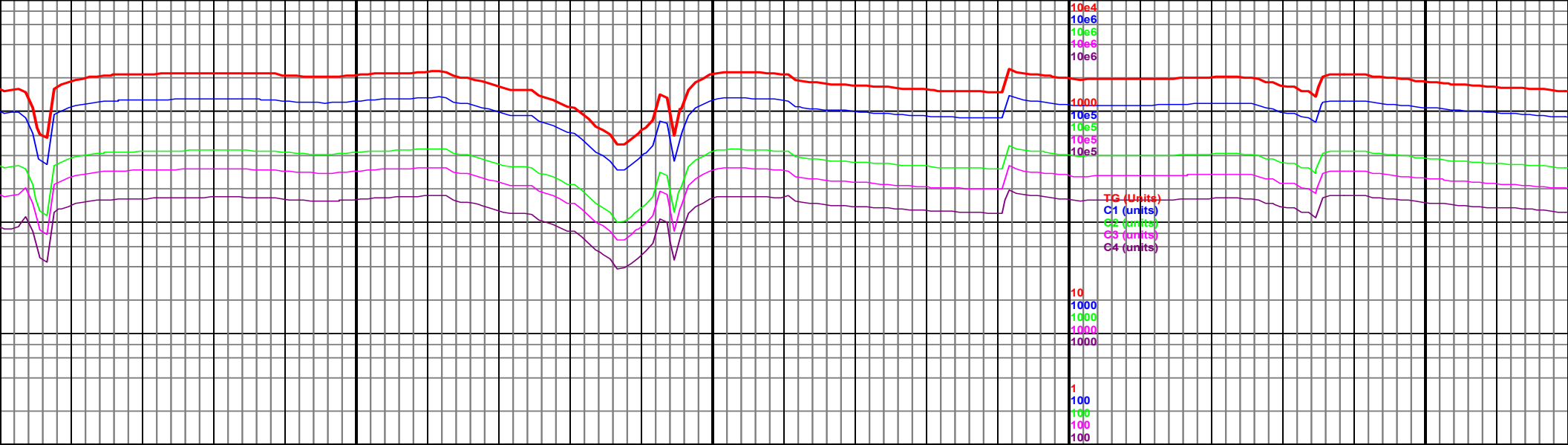
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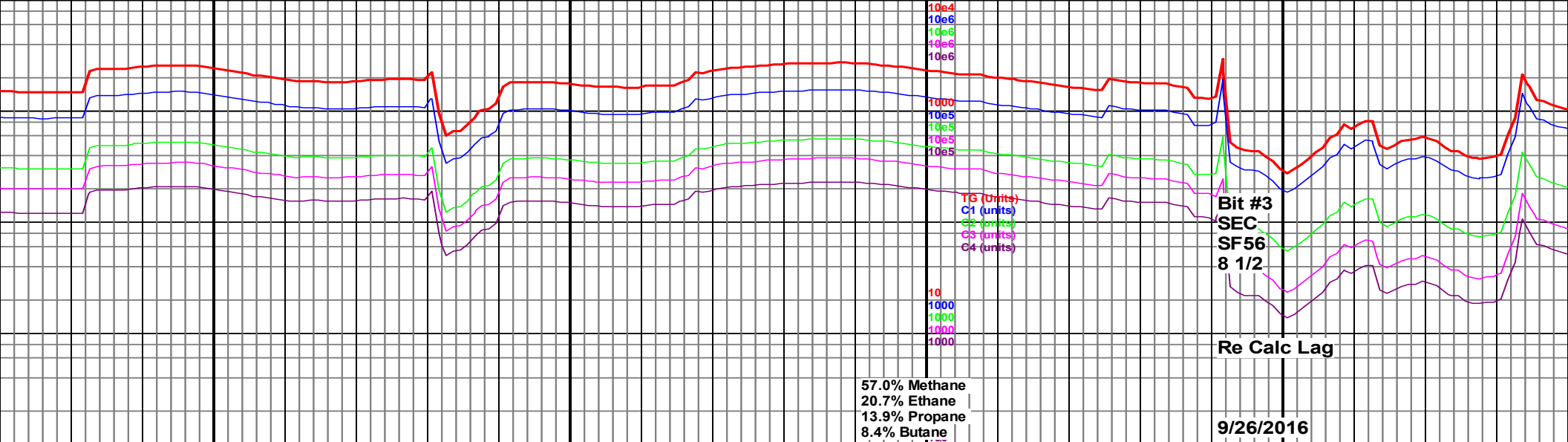
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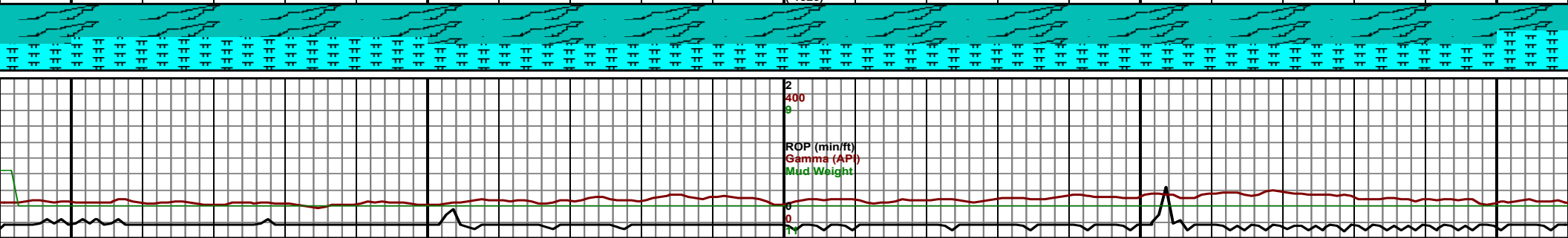
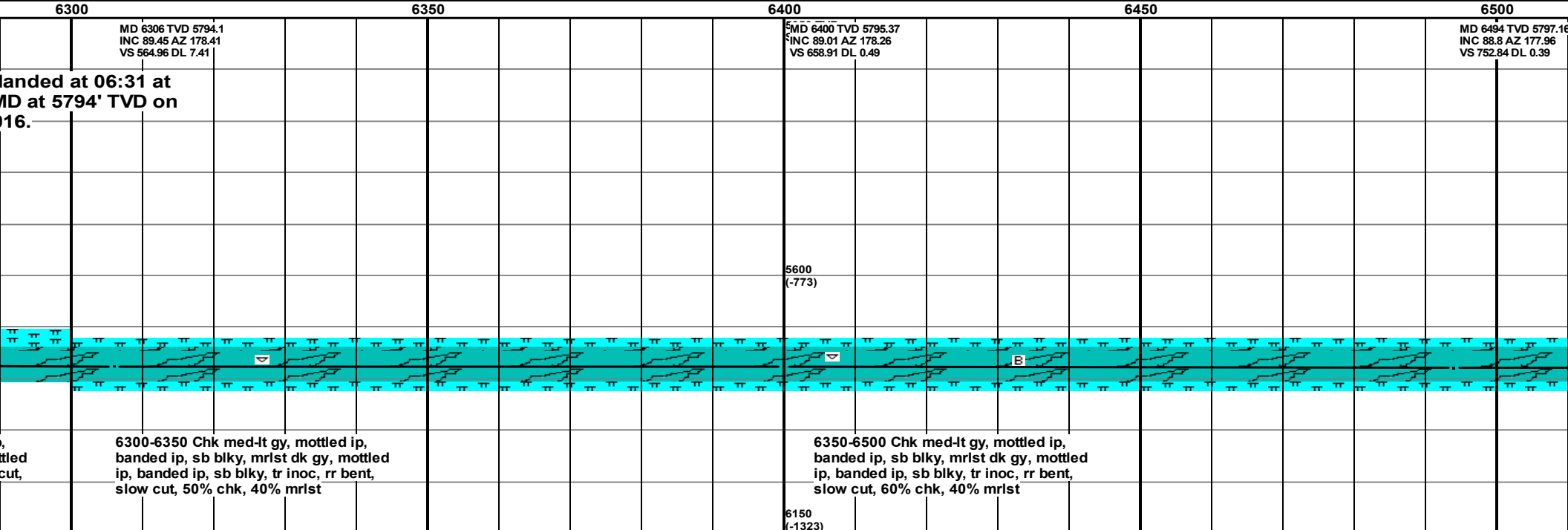
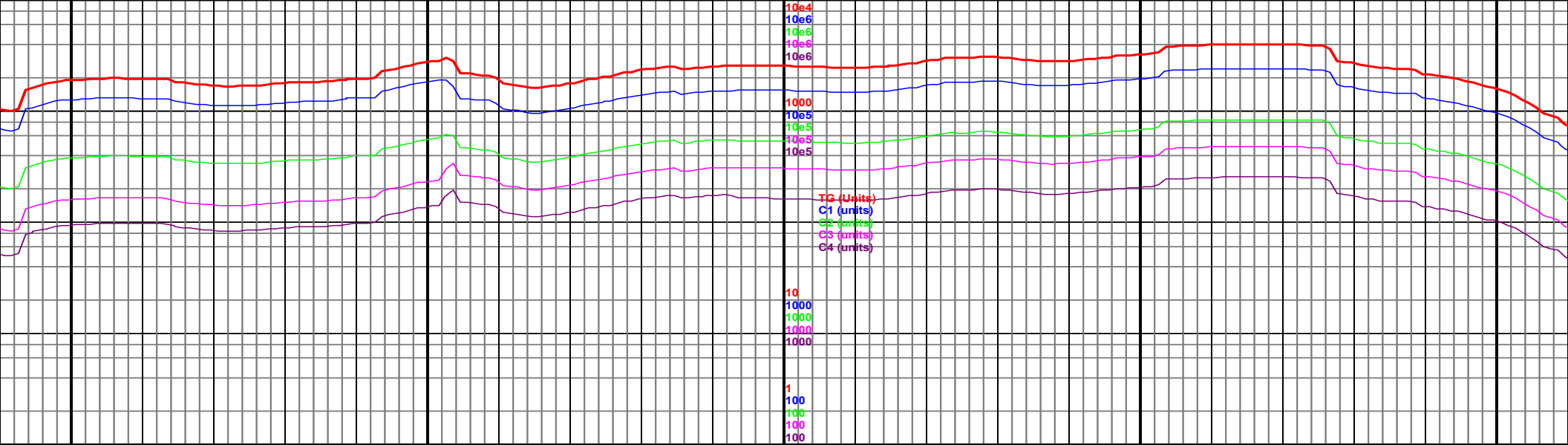


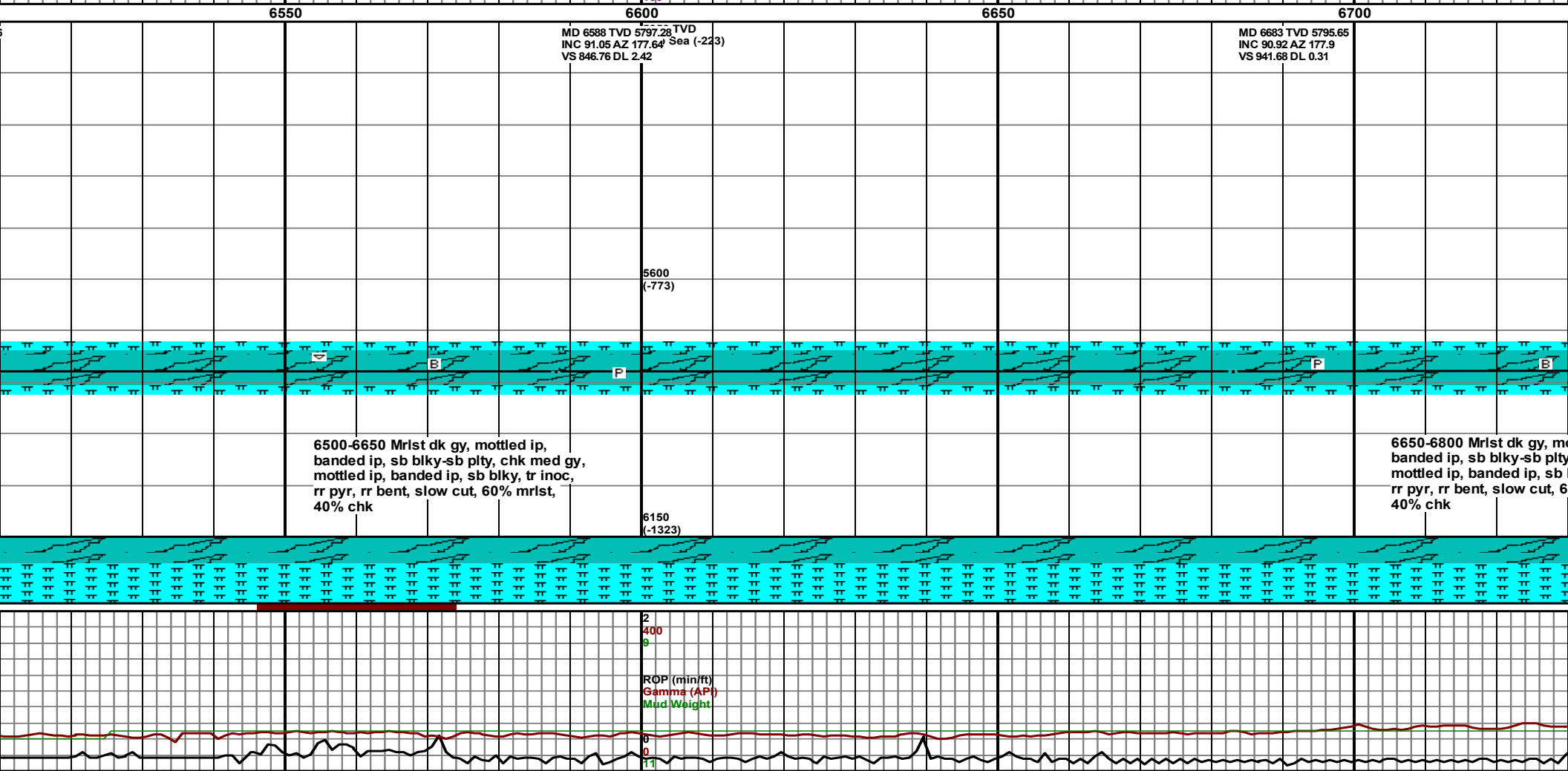


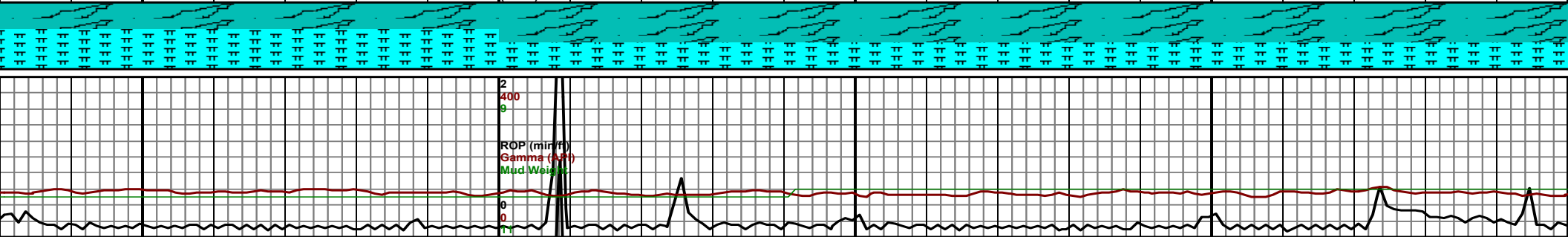
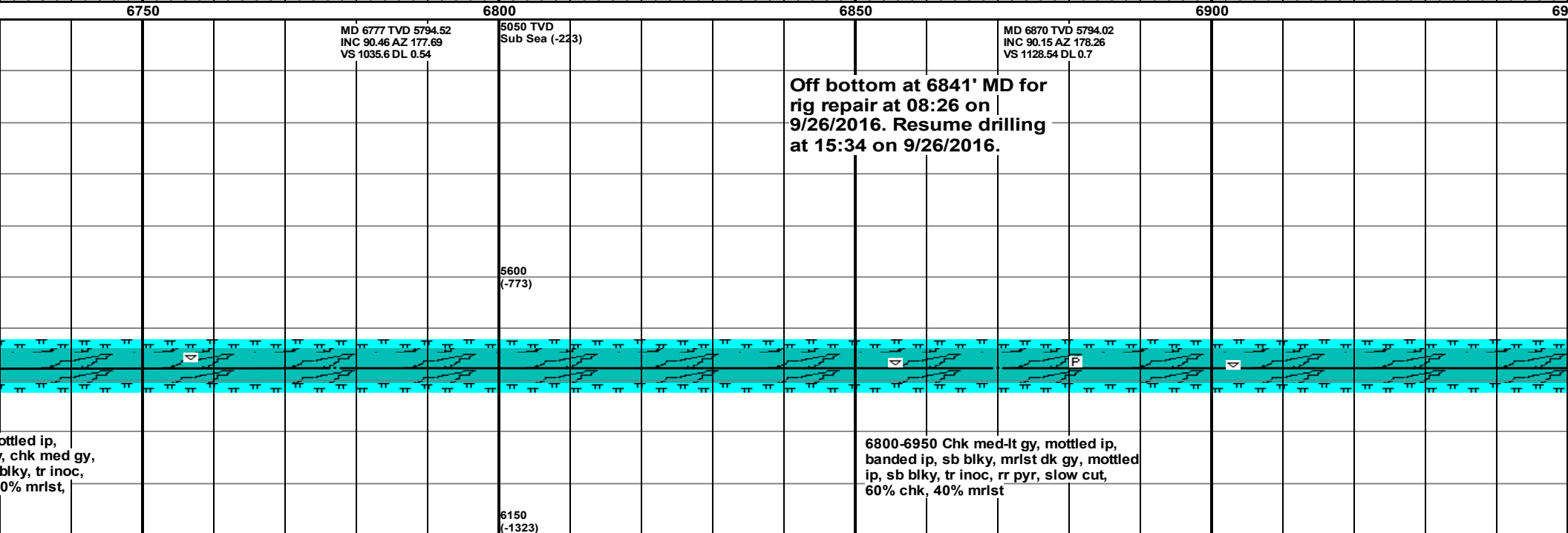
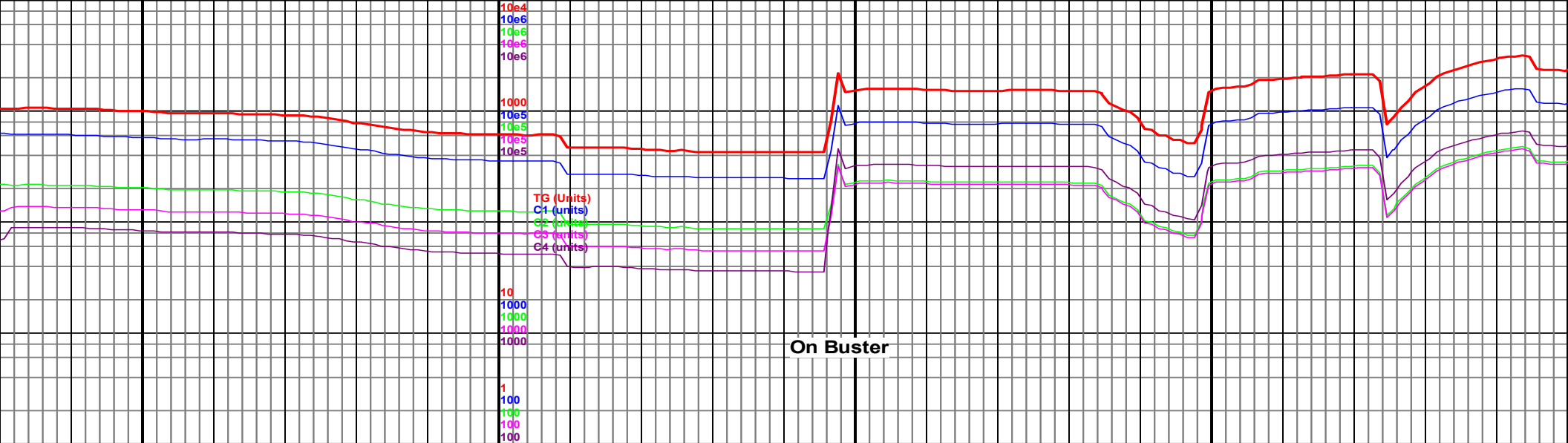


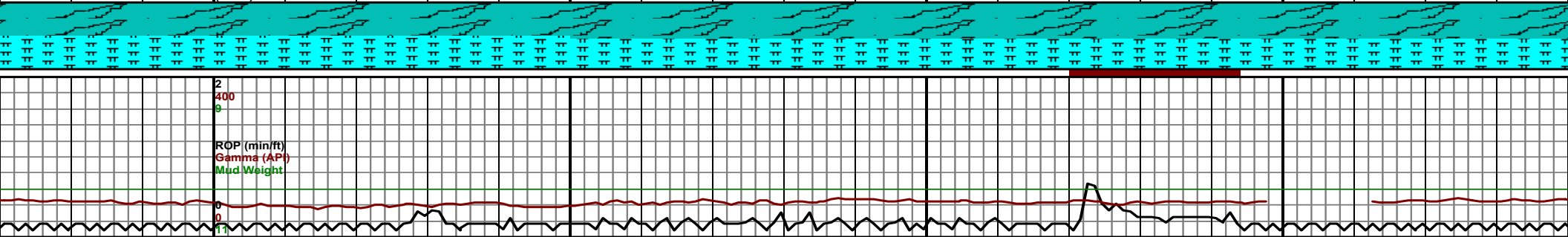
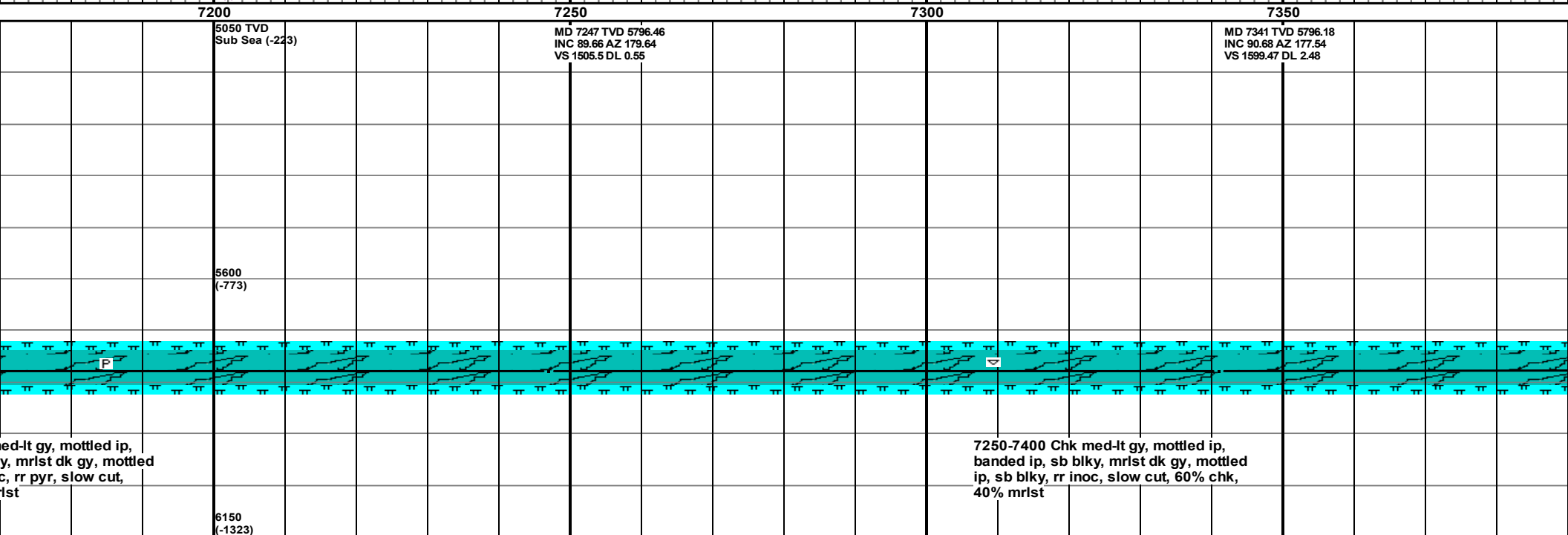
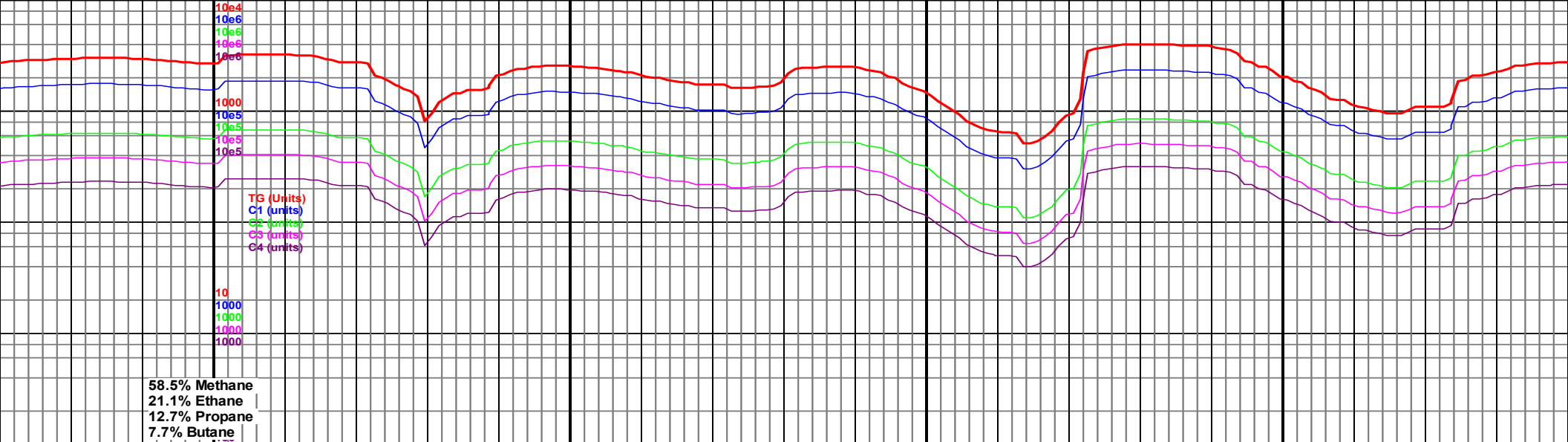


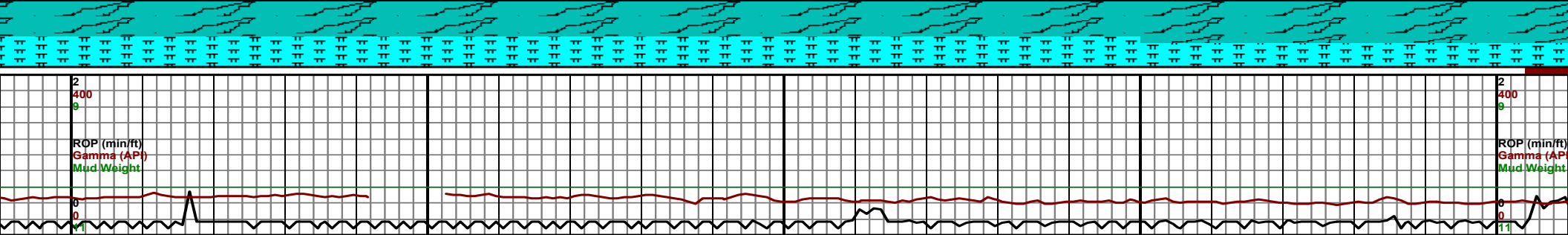
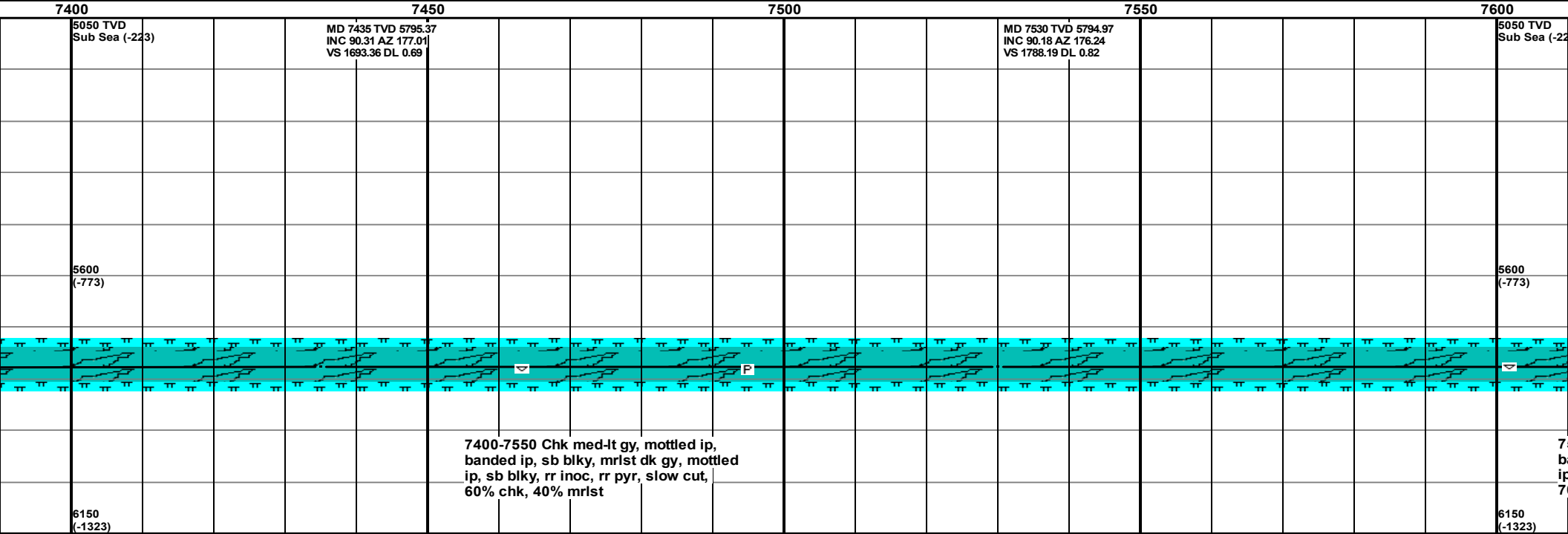
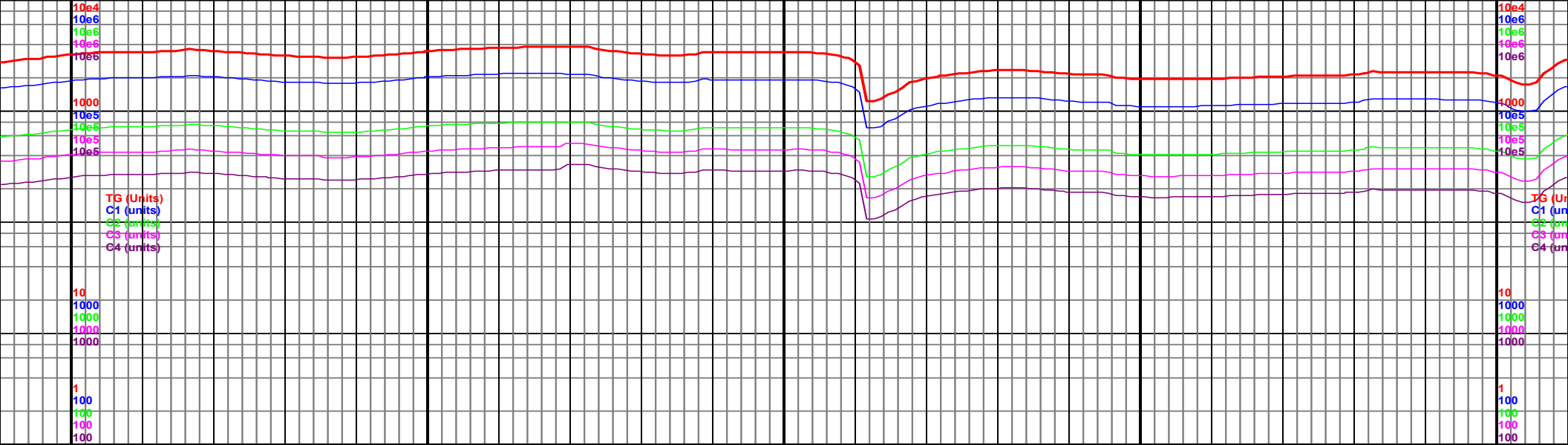
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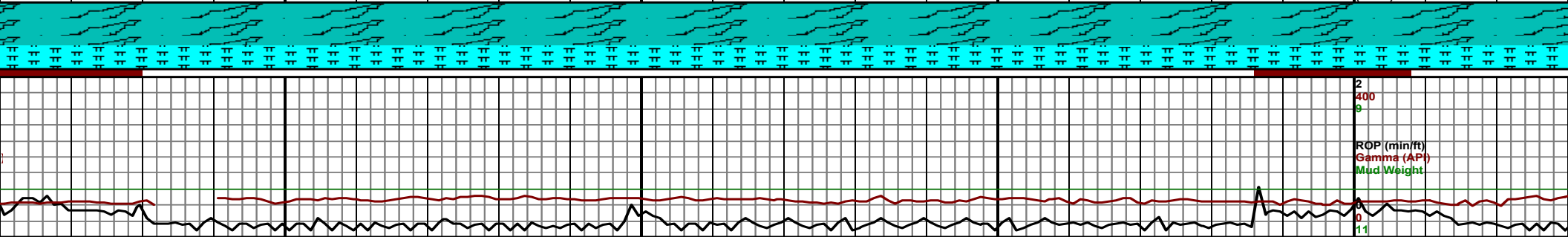
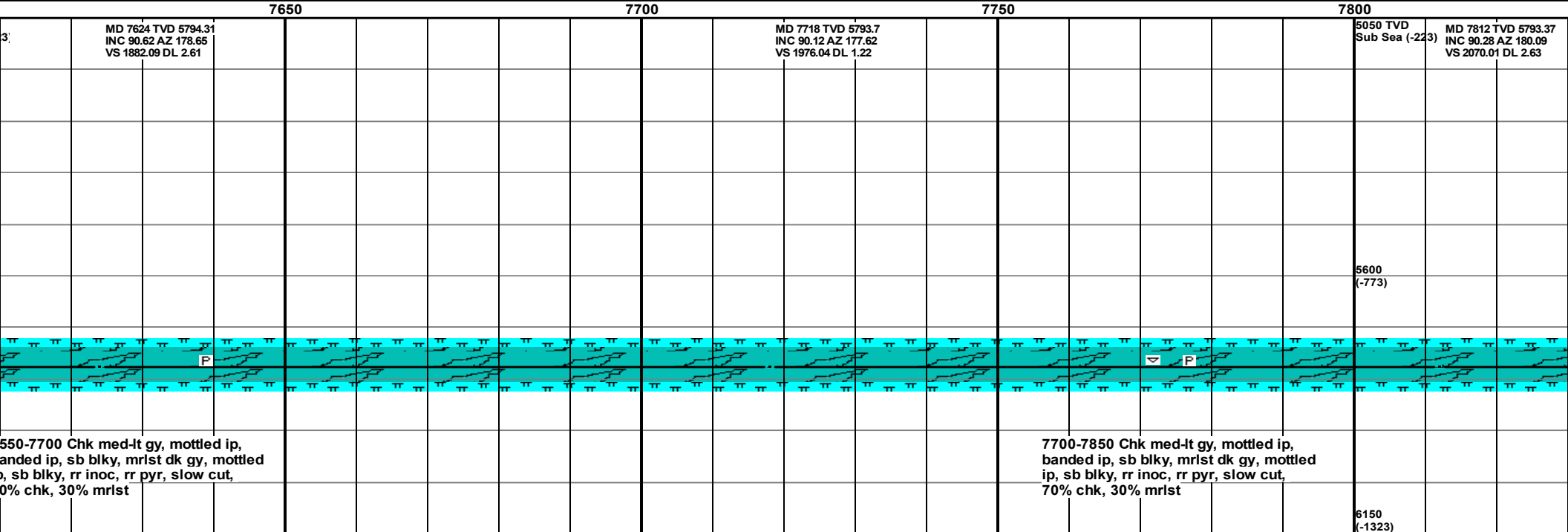
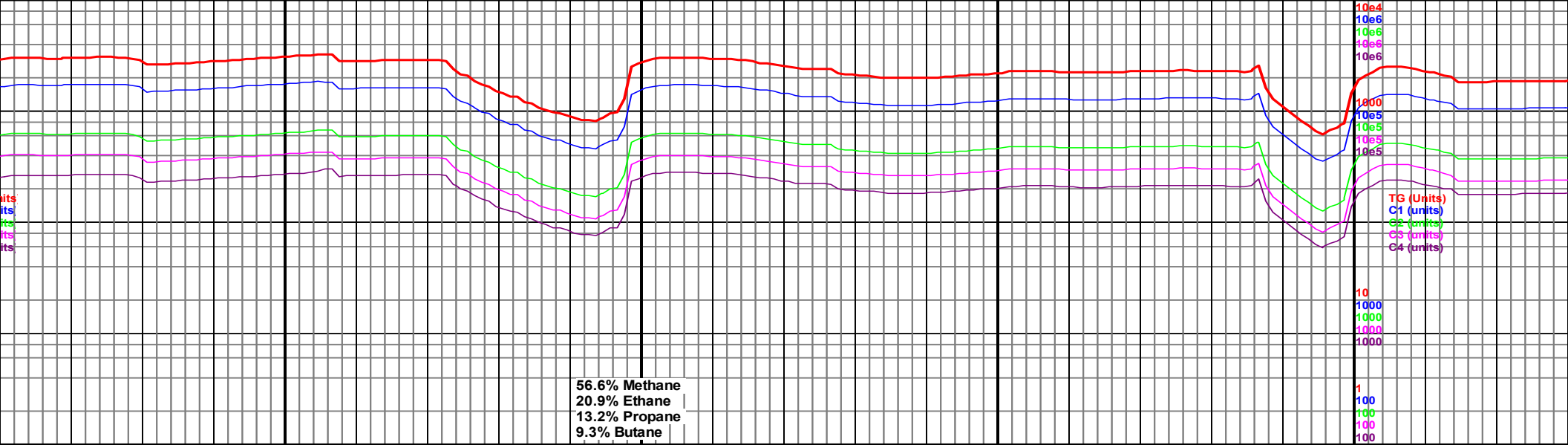


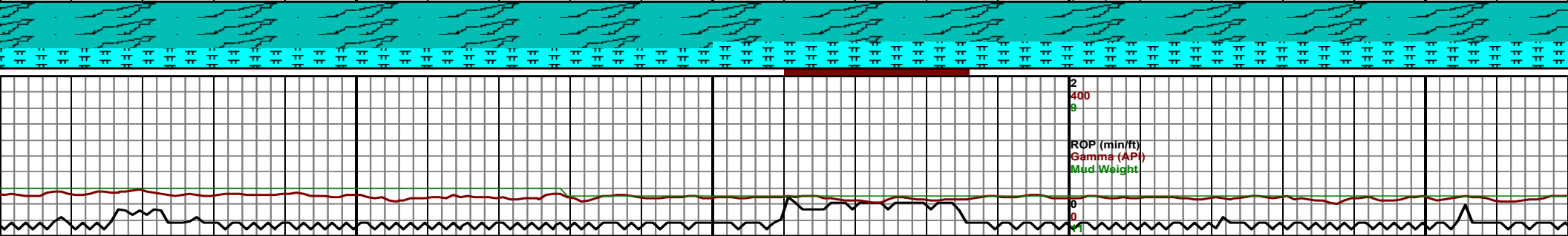
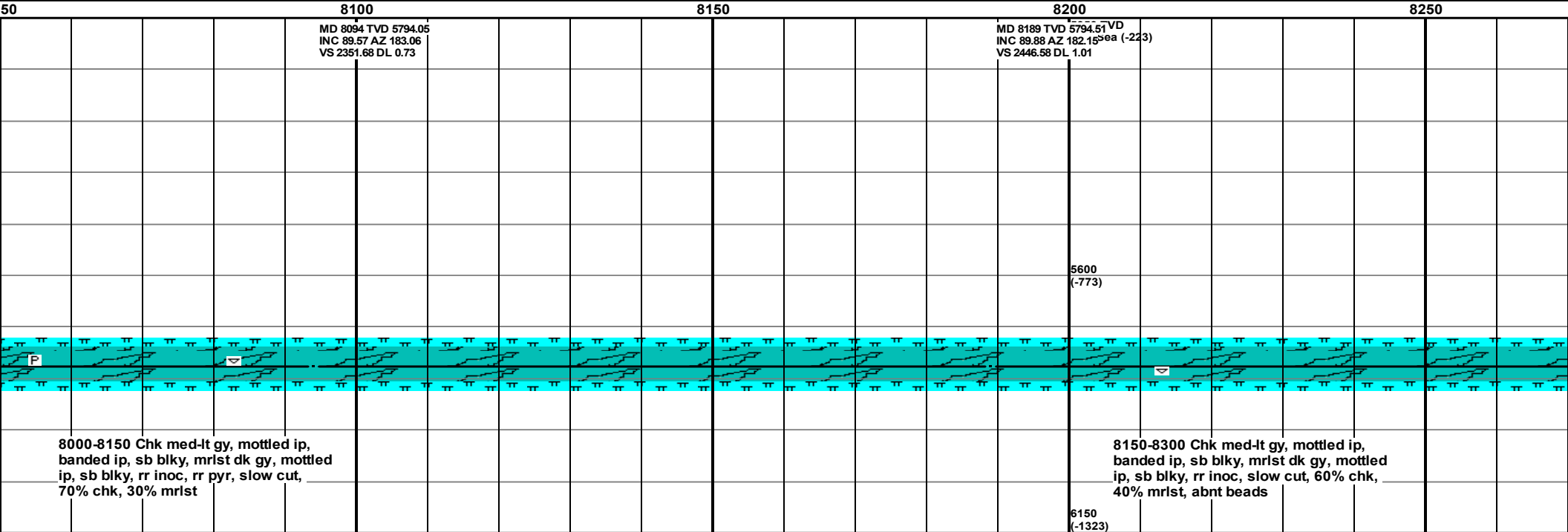
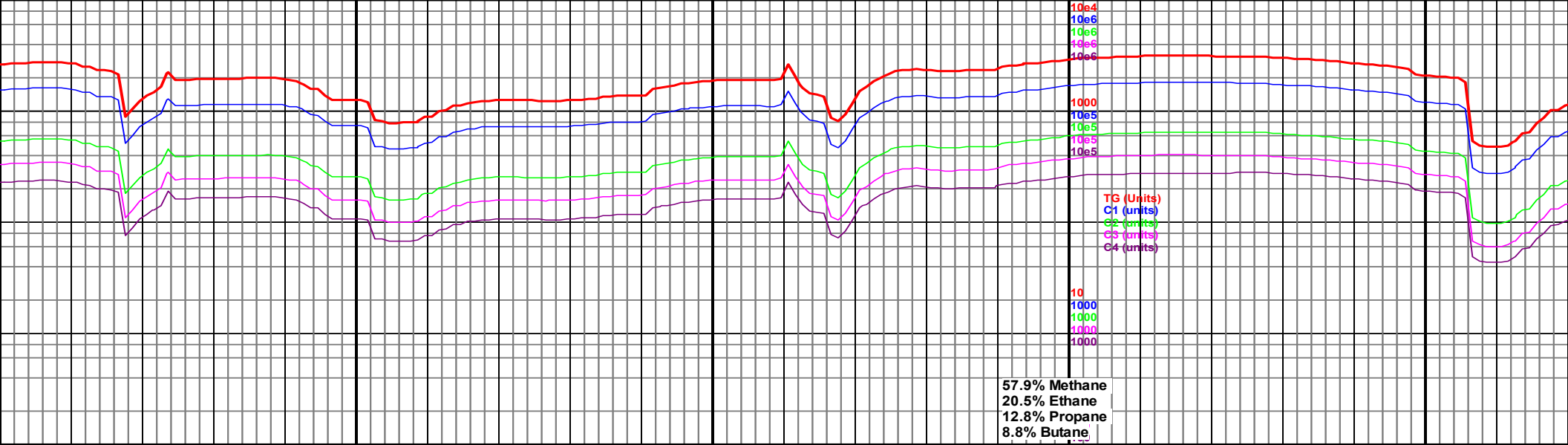


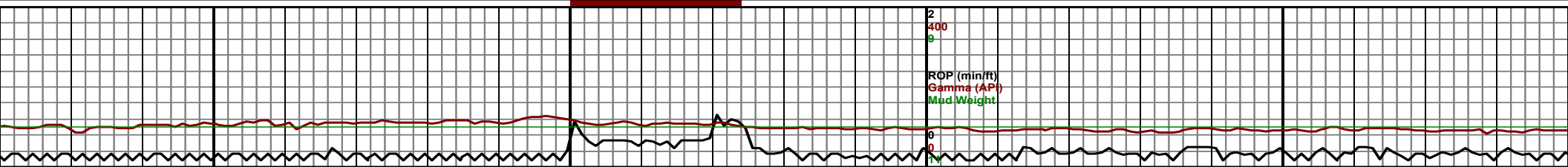
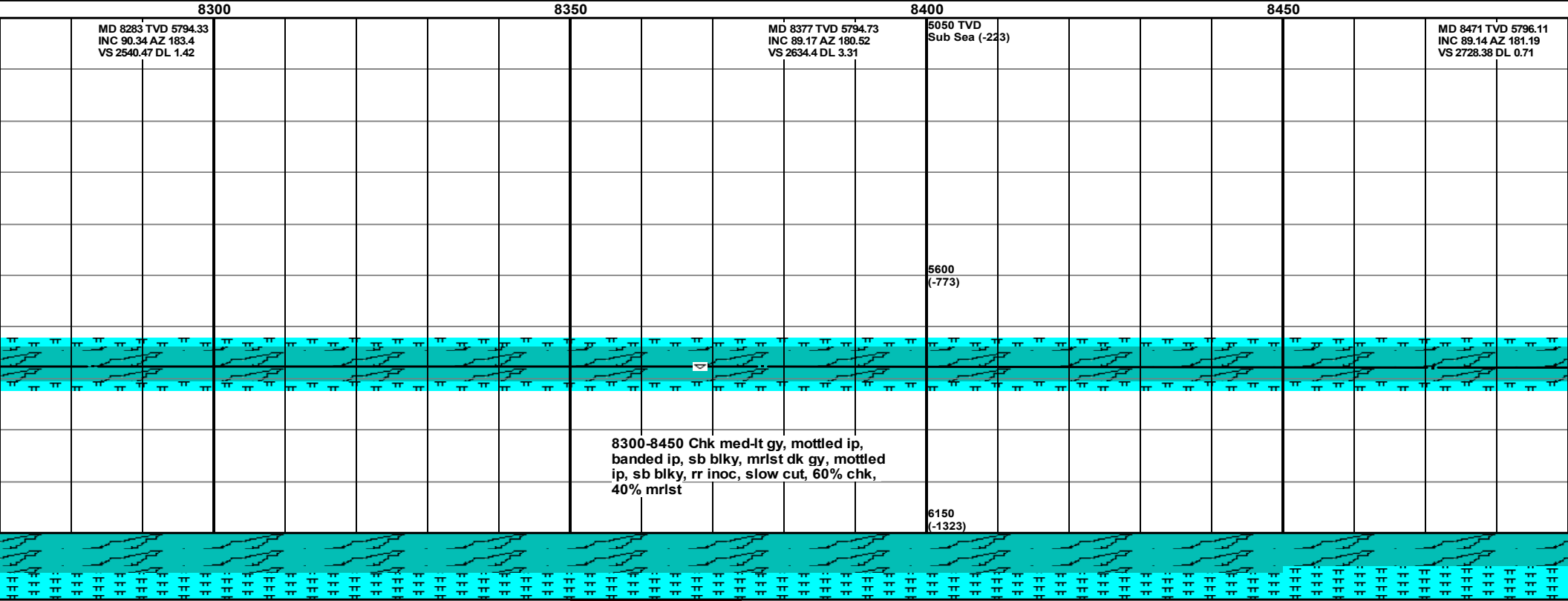
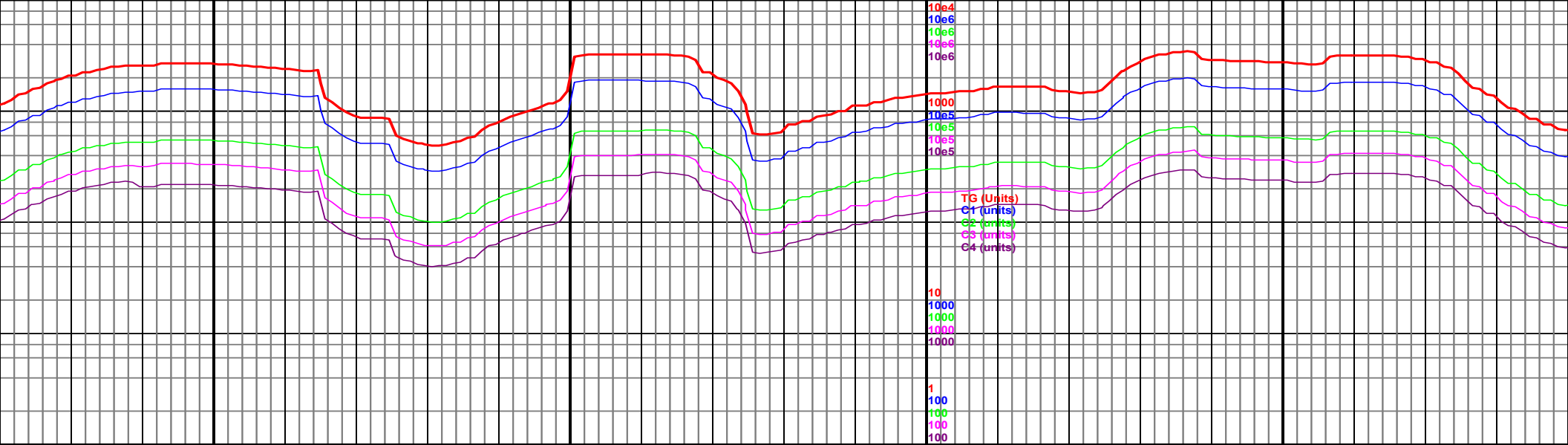


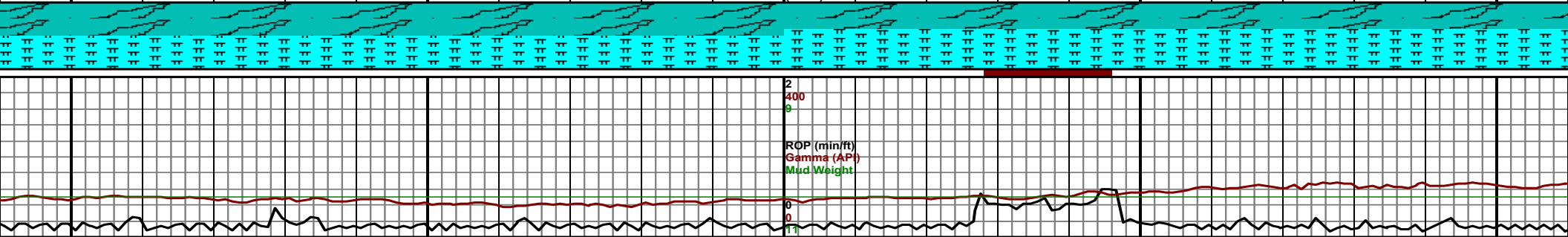
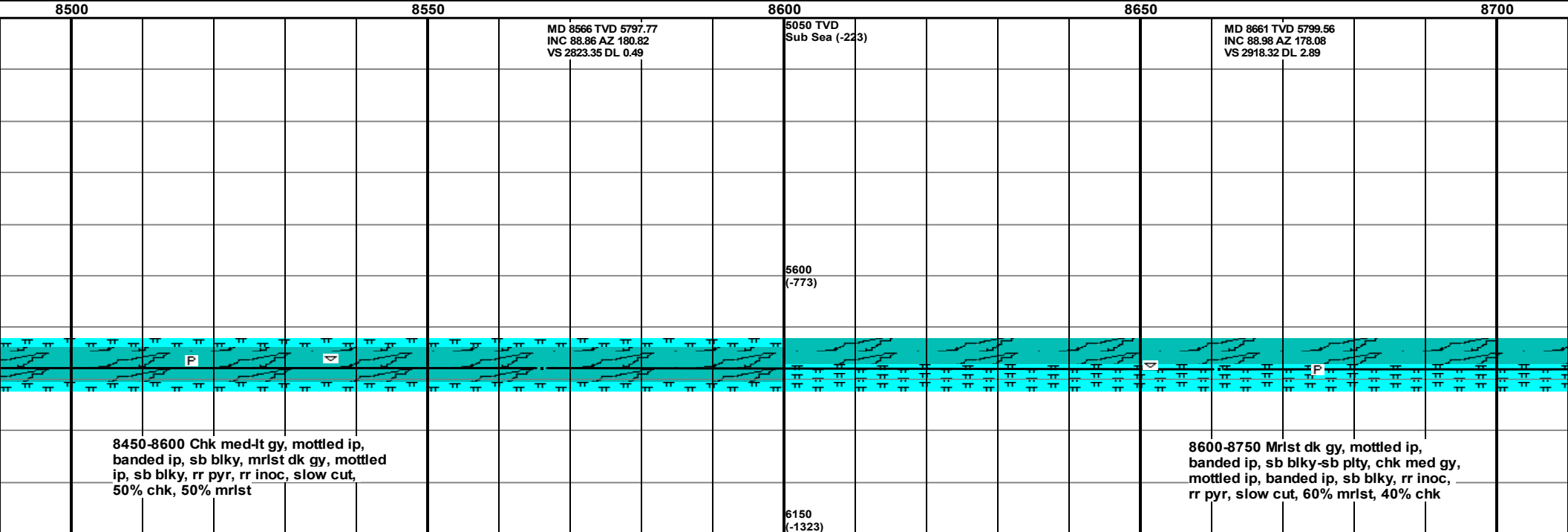
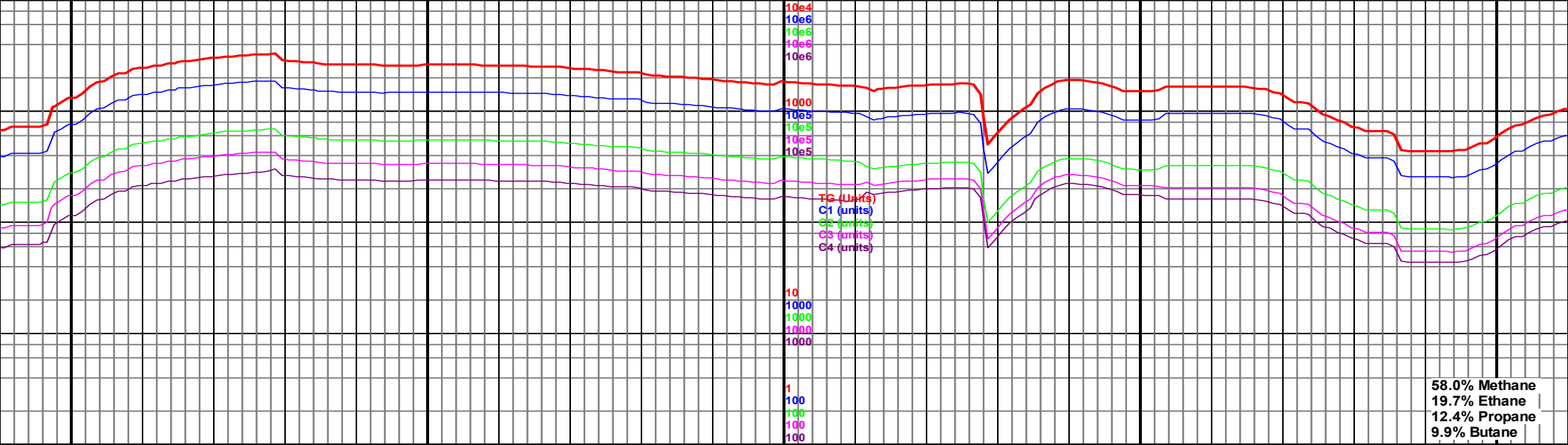


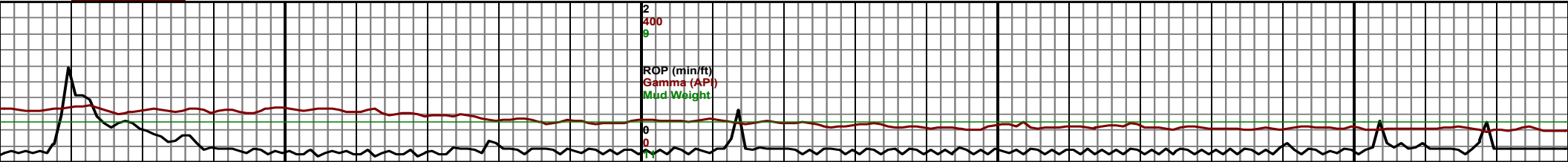
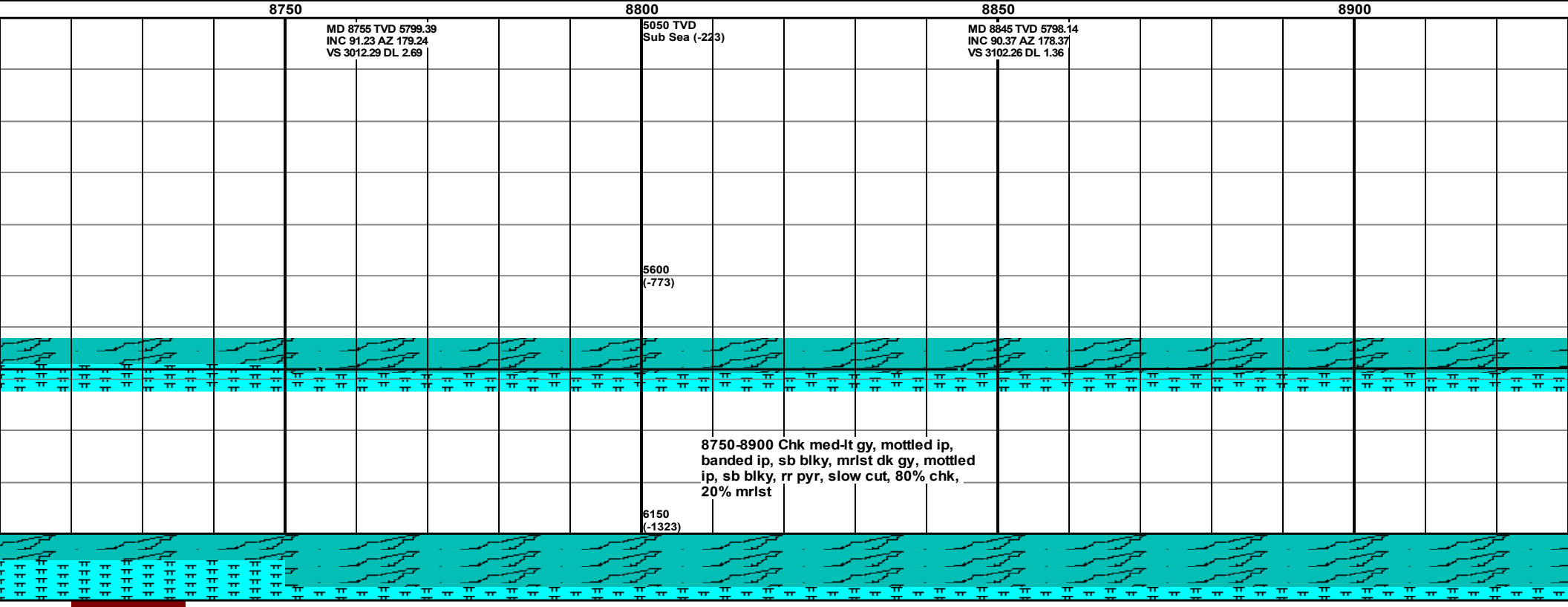
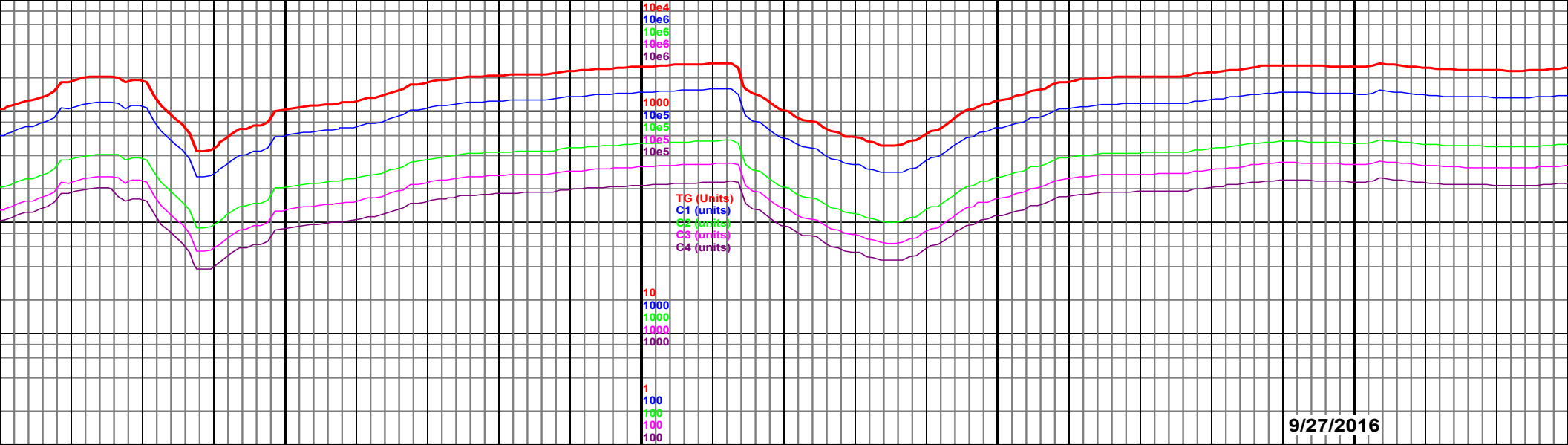


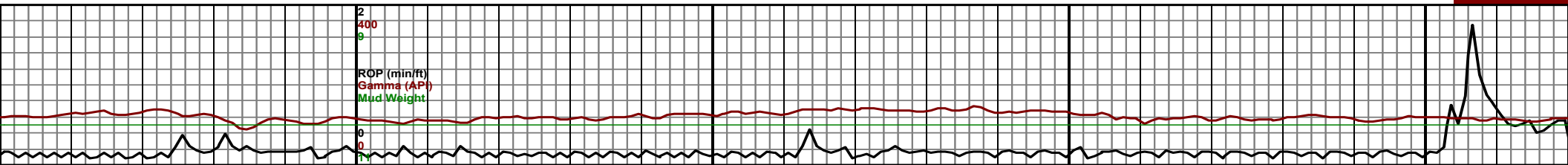
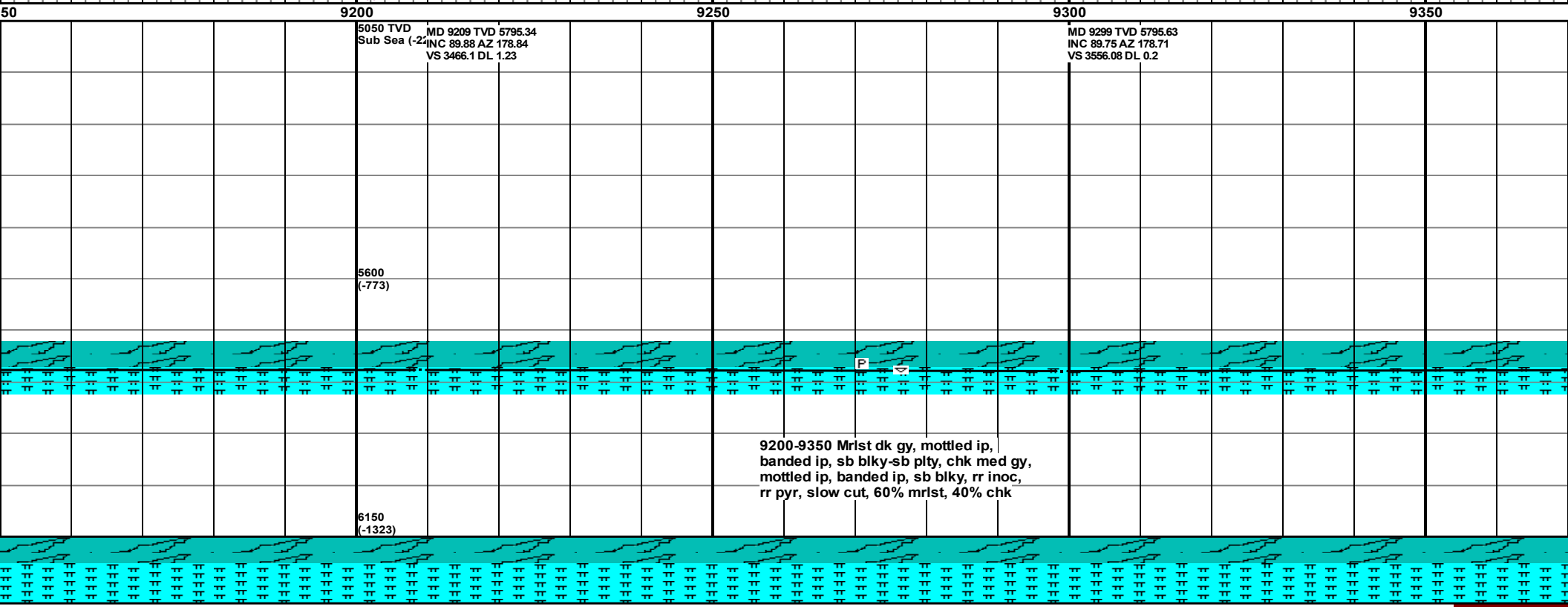
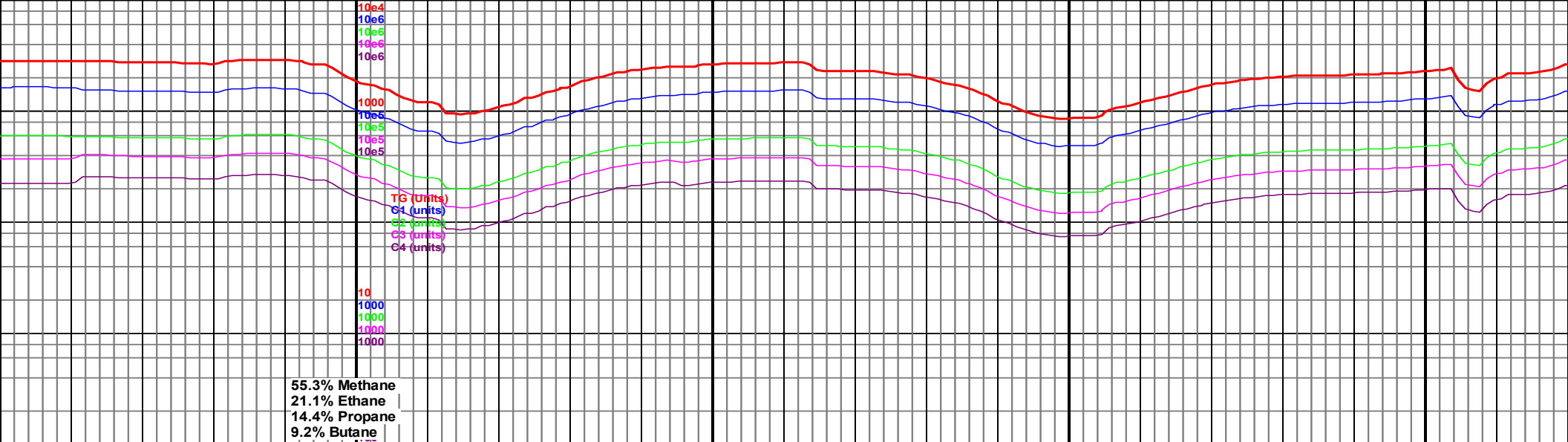


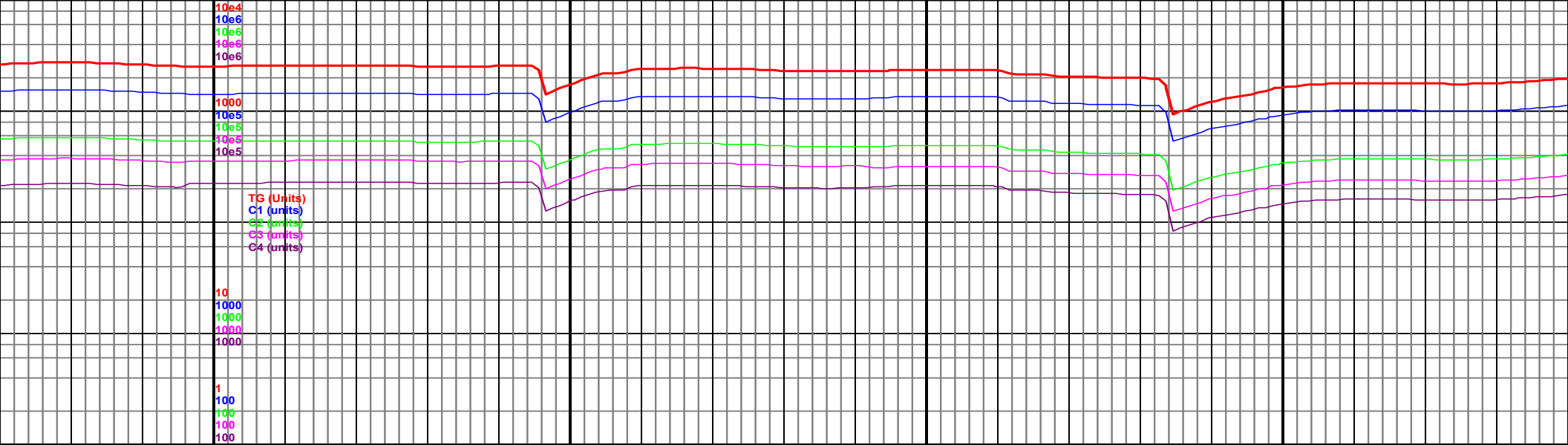












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INC 91.26 AZ 179.51³ (-223)
VS 3648.06 DL 1.86

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INC 91.17 AZ 178.86
VS 3740.03 DL 0.71

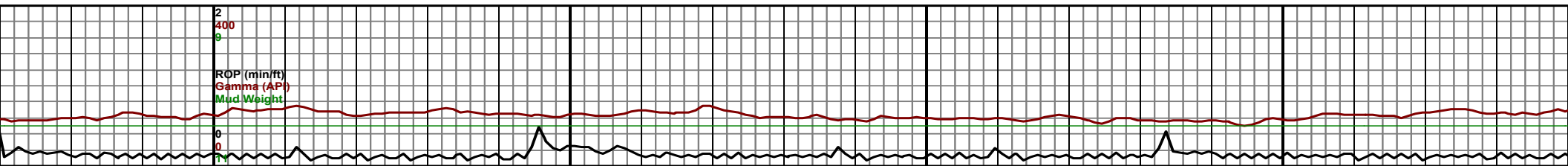
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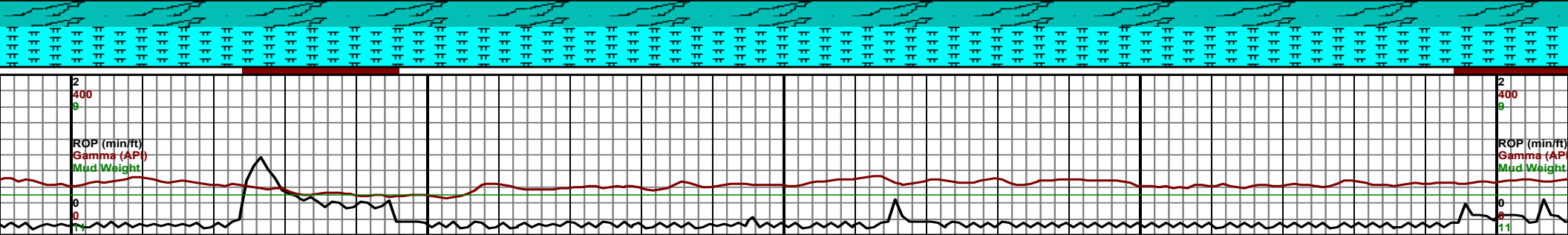
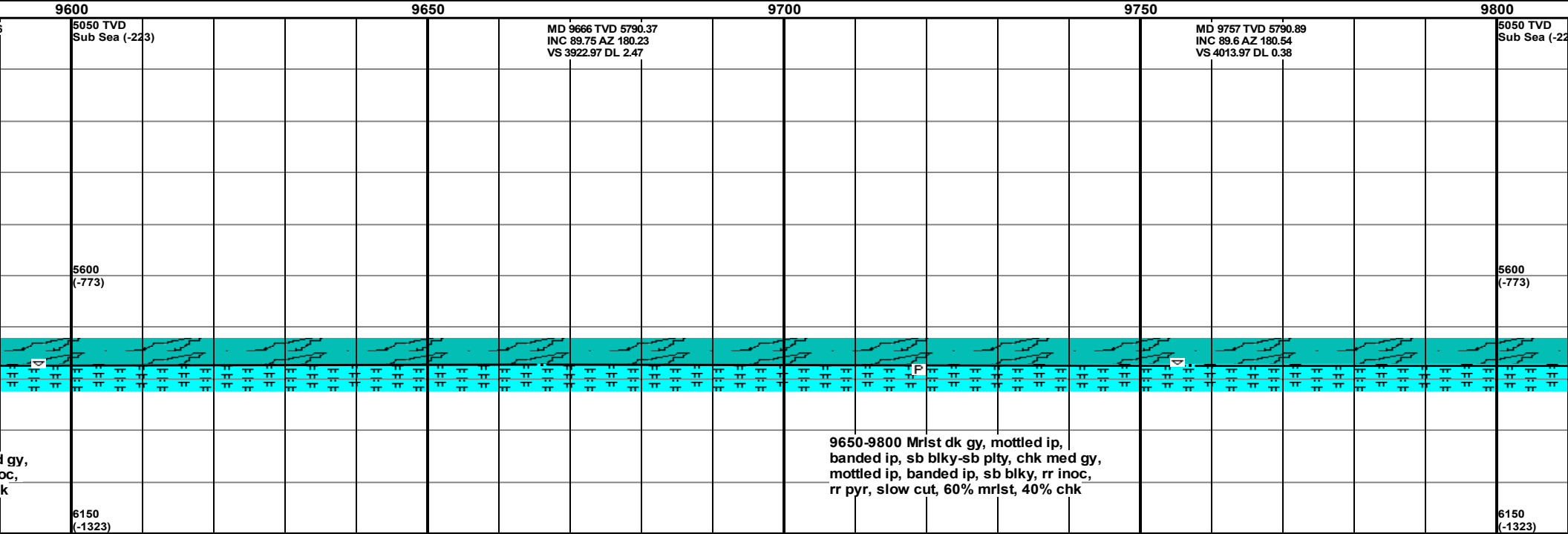
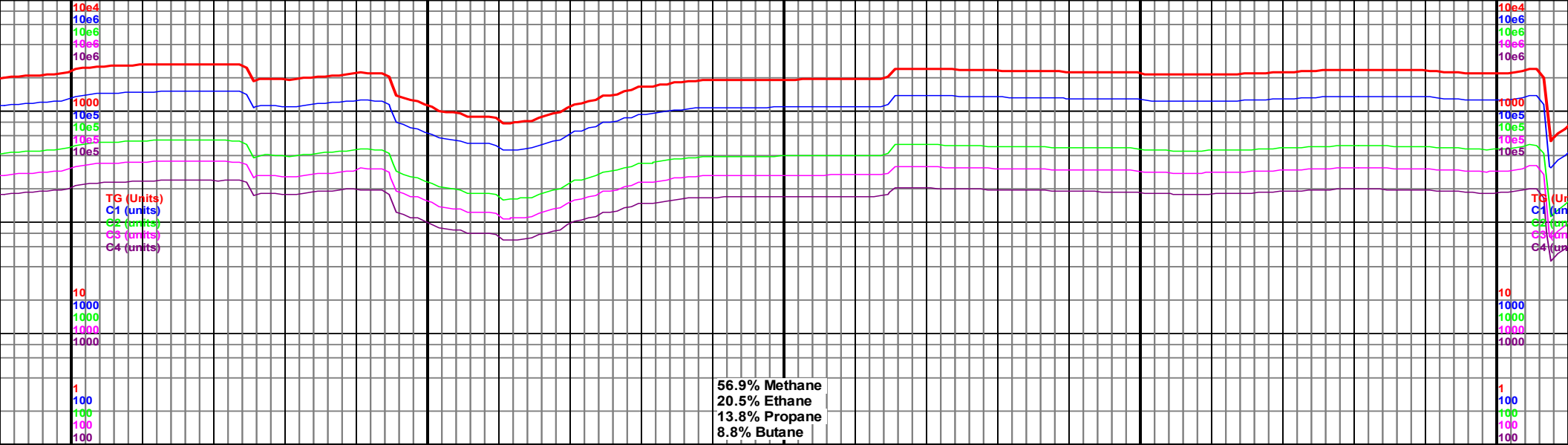
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(-773)

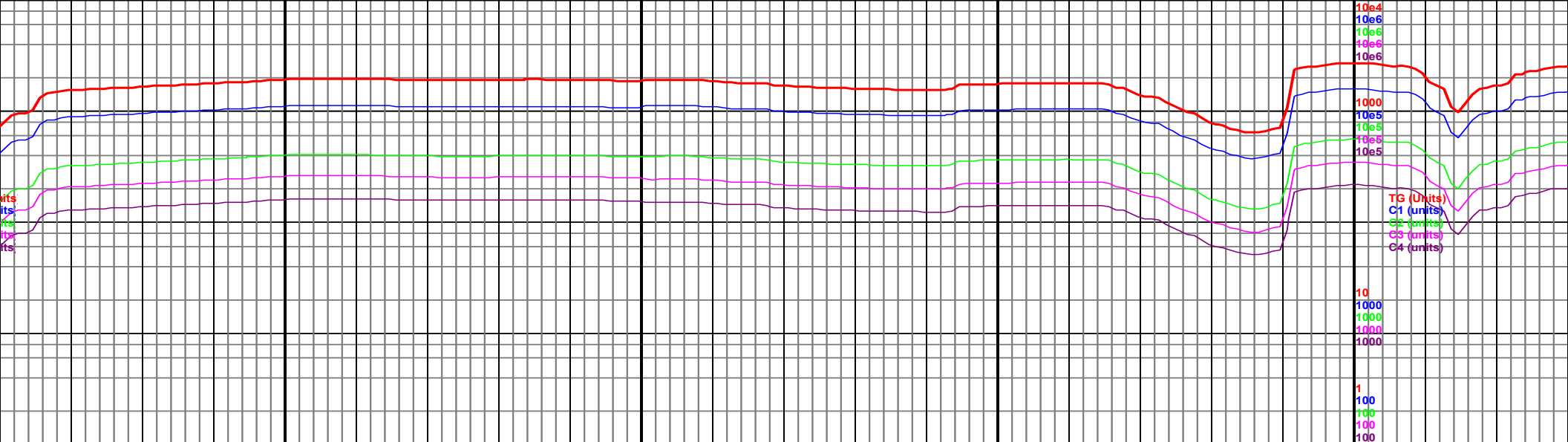
9350-9500 Mrlst dk gy, mottled ip,
banded ip, sb blkly-sb plty, chk med gy,
mottled ip, banded ip, sb blkly, rr inoc,
rr pyr, slow cut, 60% mrlst, 40% chk

9500-9650 Mrlst dk gy, mottled ip,
banded ip, sb blkly-sb plty, chk med
mottled ip, banded ip, sb blkly, rr inoc,
rr pyr, slow cut, 60% mrlst, 40% chk

6150
(-1323)







9850

9900

9950

10000

MD 9848 TVD 5791.59
INC 89.51 AZ 180.61
VS 4104.96 DL 0.13

MD 9939 TVD 5792.55
INC 89.29 AZ 181.31
VS 4195.94 DL 0.81

5050 TVD
Sub Sea (-223)



P

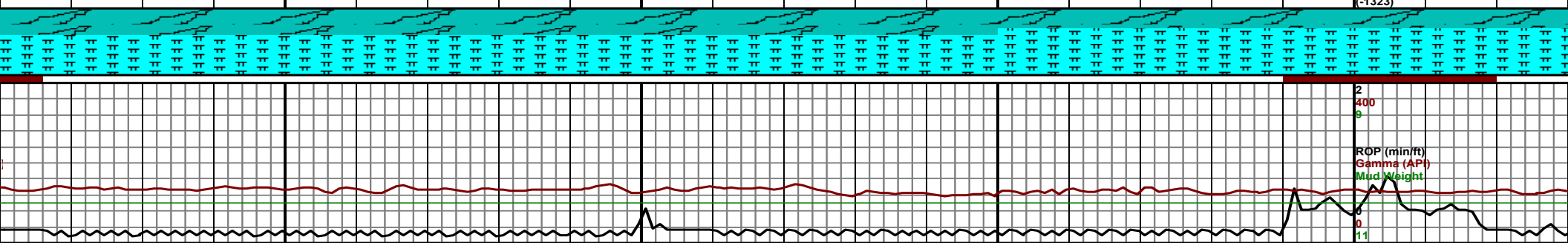
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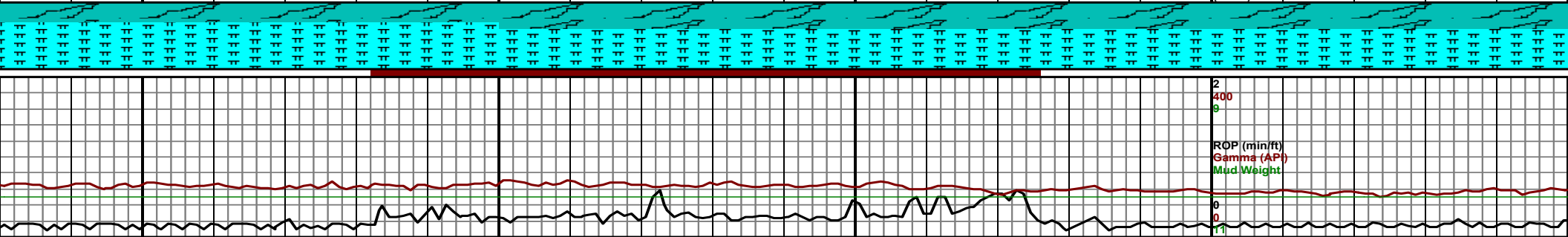
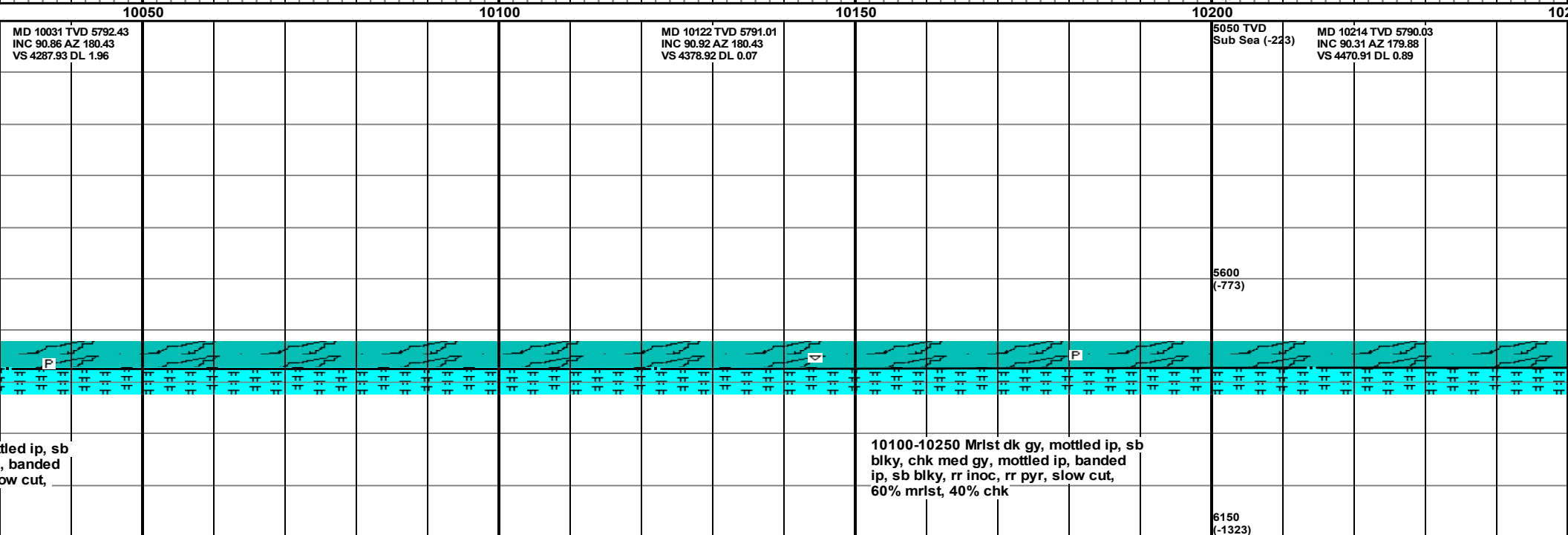
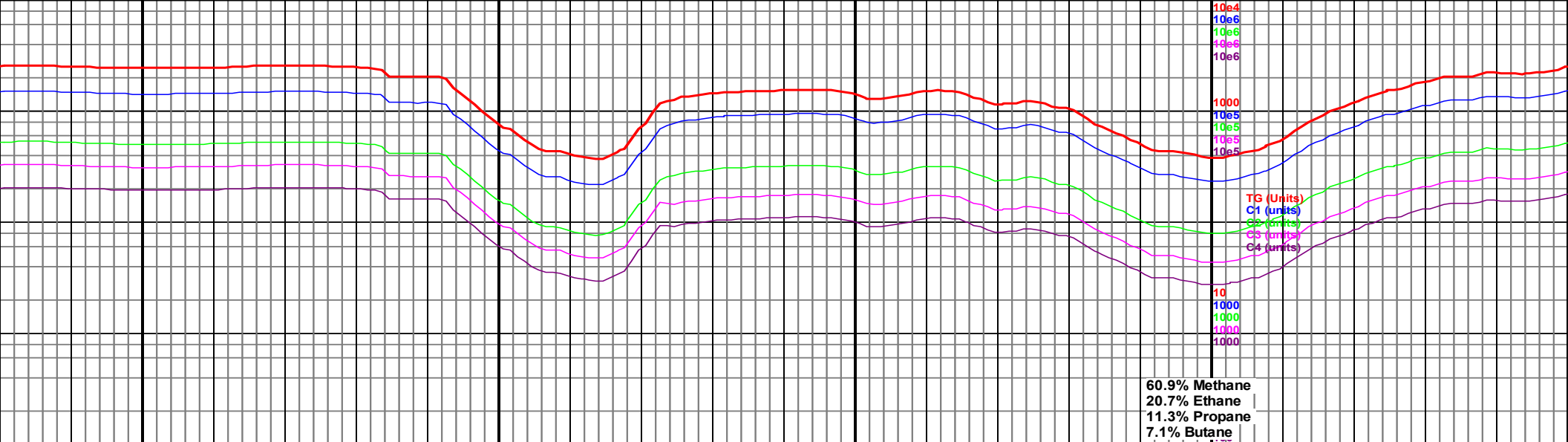
9800-9950 Mrlst dk gy, mottled ip,
banded ip, sb blkgy-sb plty, chk med gy,
mottled ip, banded ip, sb blkgy, rr inoc,
rr pyr, slow cut, 60% mrlist, 40% chk

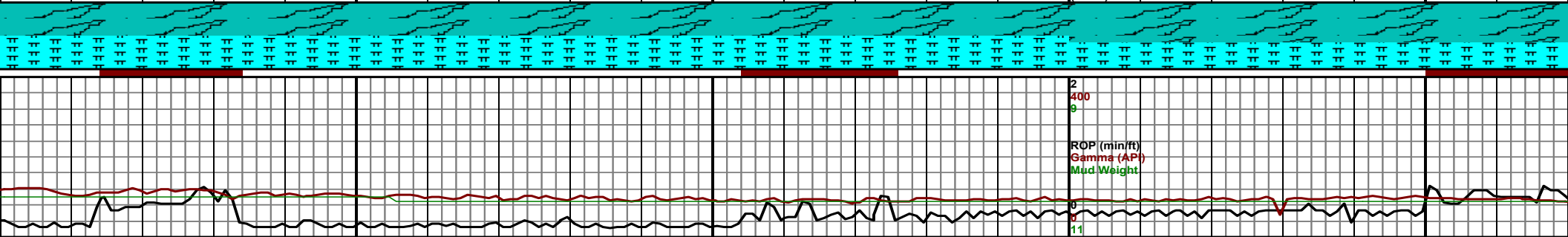
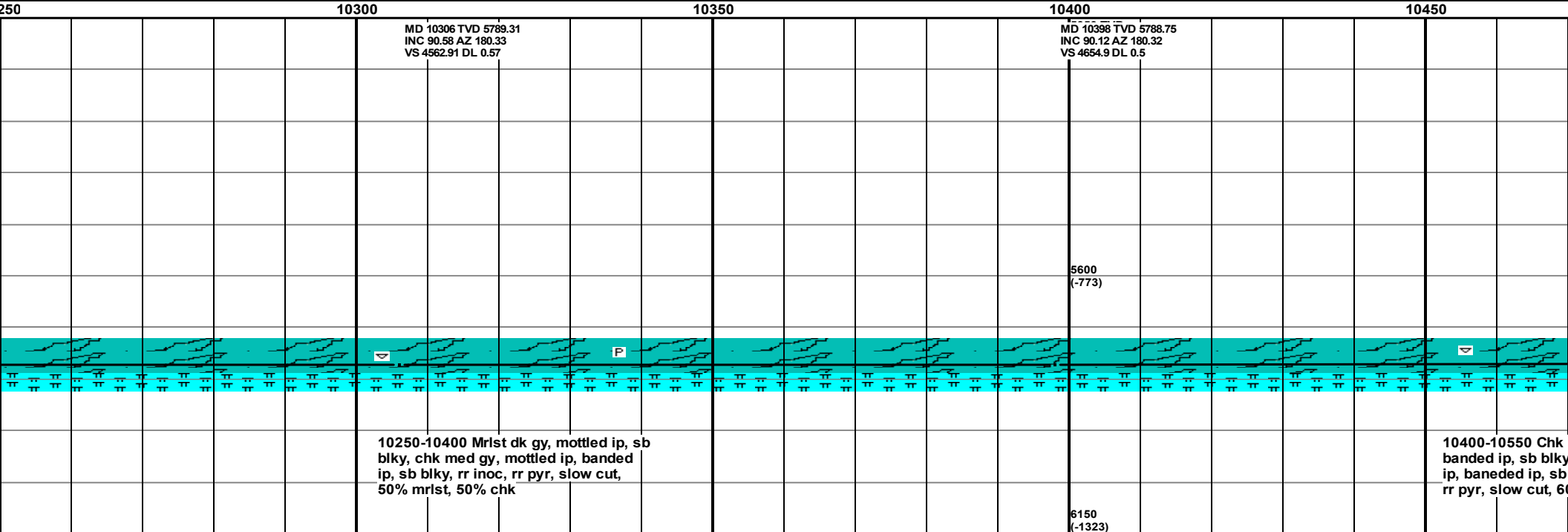
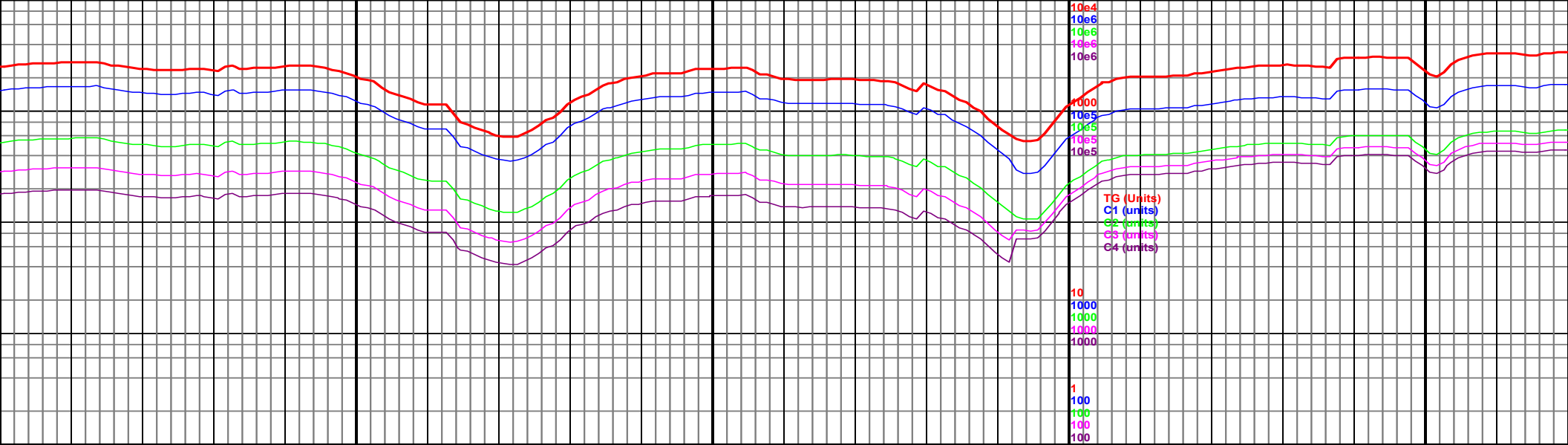
9950-10100 Mrlst dk gy, mottled ip,
blkgy, chk med gy, mottled ip,
ip, sb blkgy, tr inoc, rr pyr, slow cut,
70% mrlist, 30% chk

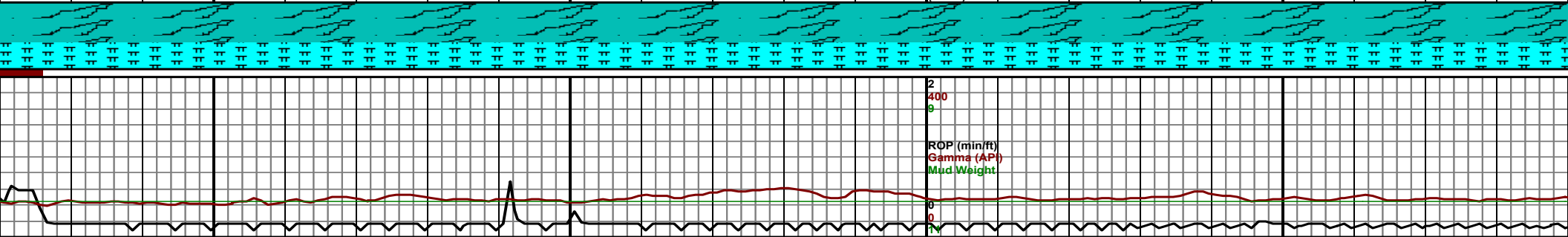
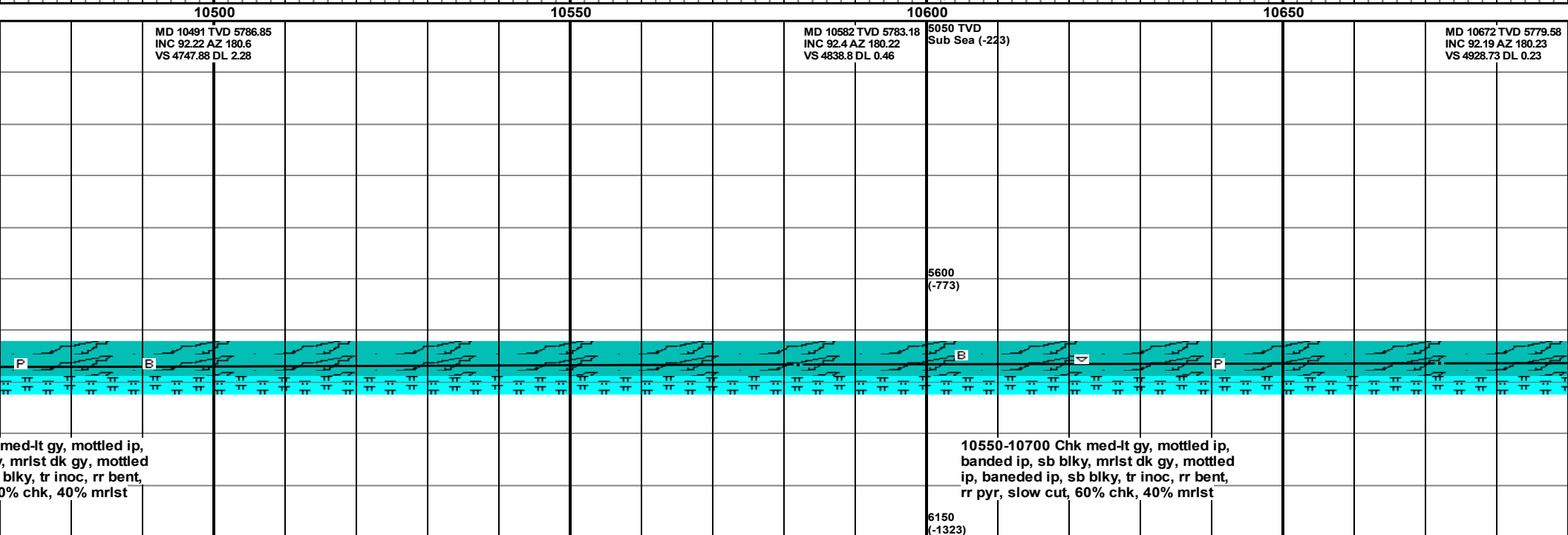
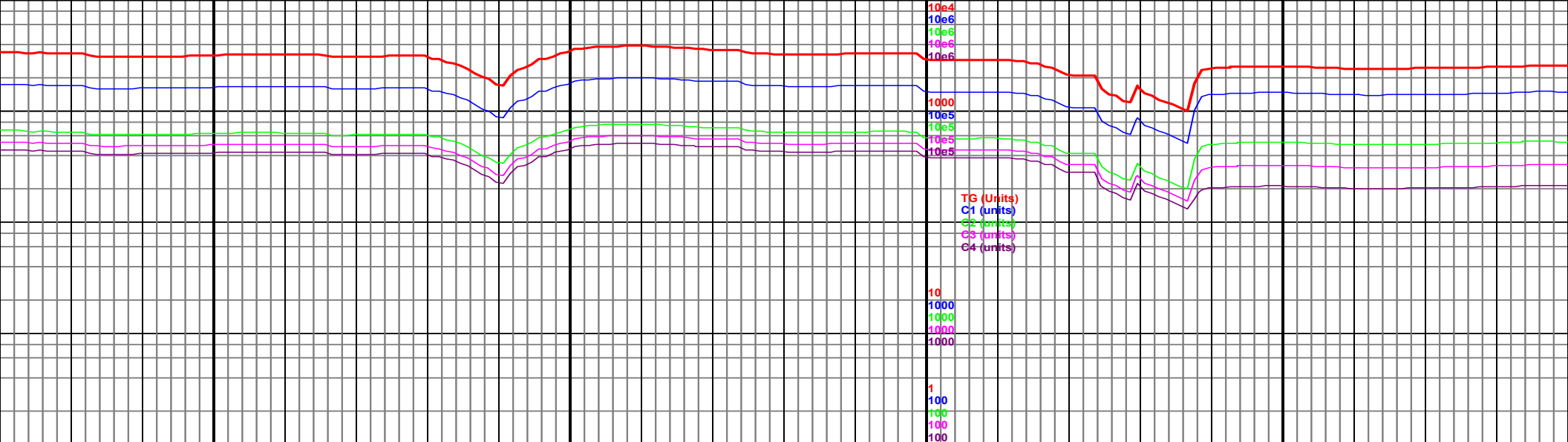
6150
(-1323)

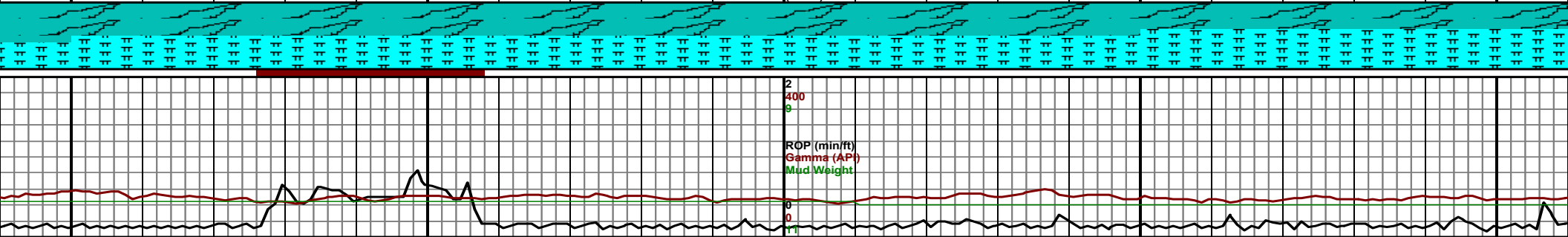
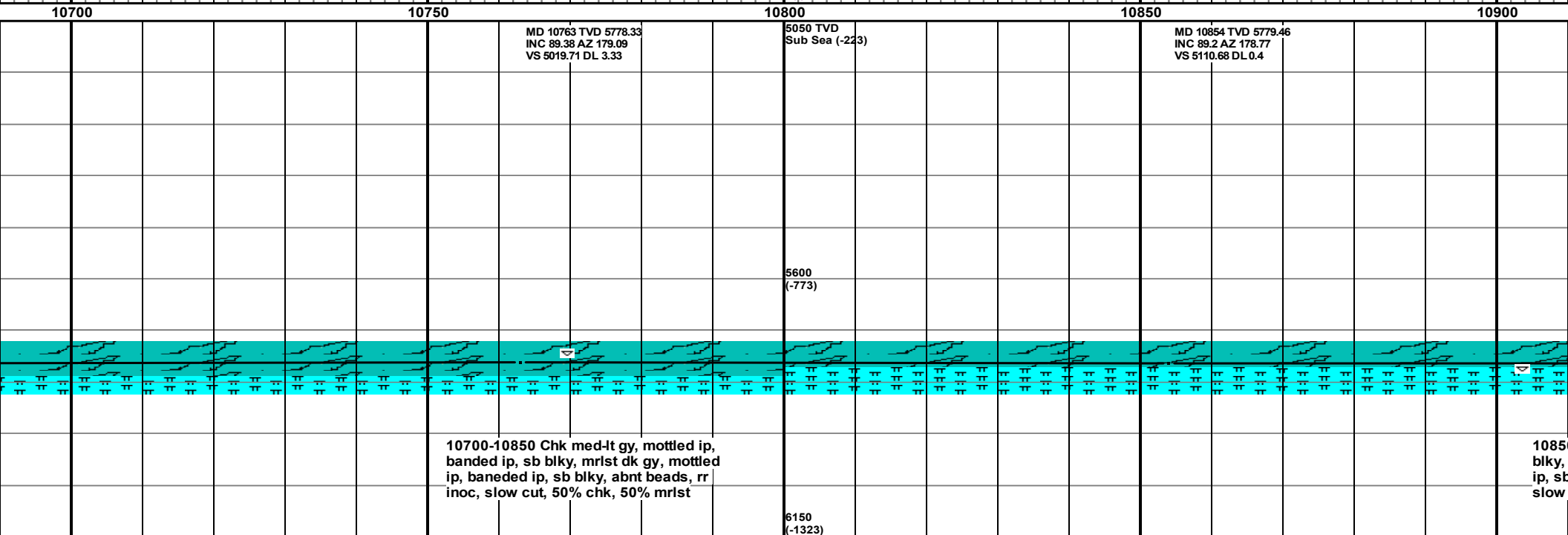
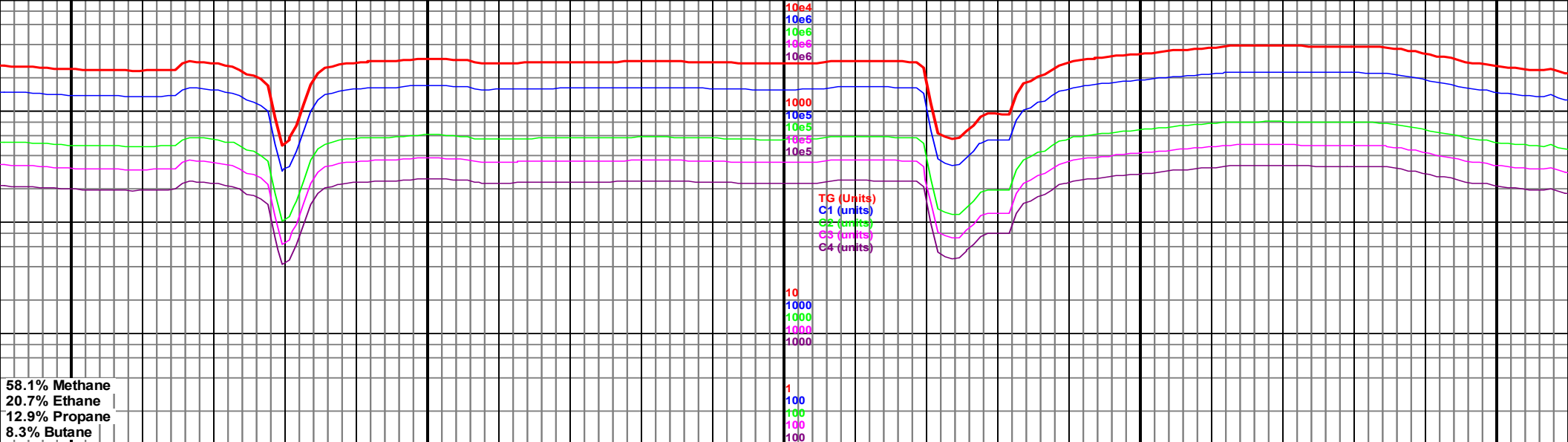


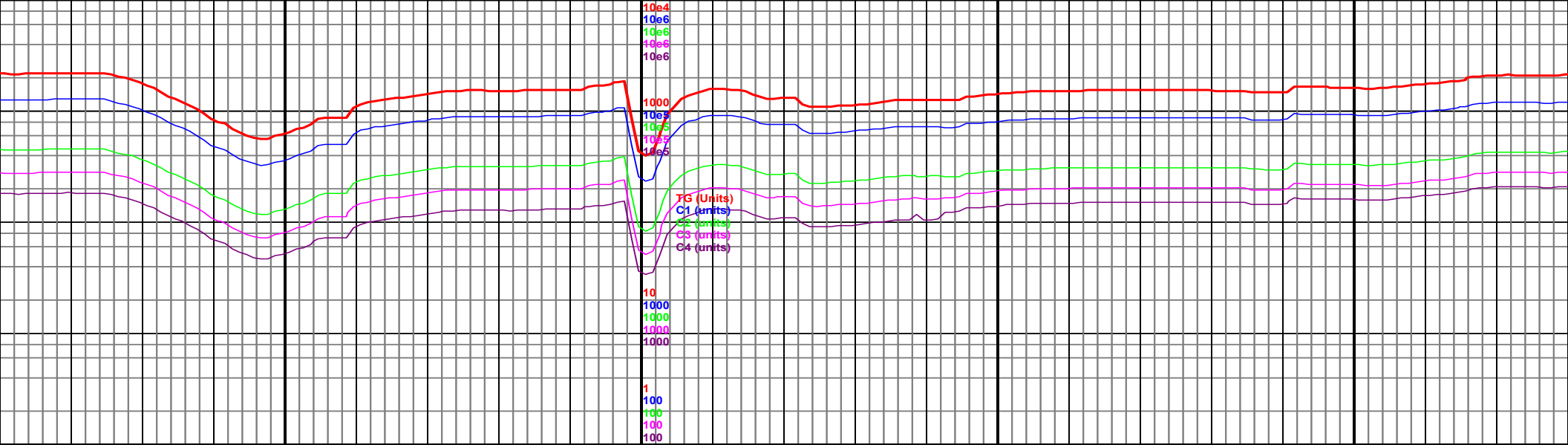
ROP (min/ft)
Gamma (API)
Mud Weight











10950

MD 10946 TVD 5781.31
INC 88.49 AZ 177.45
VS 5202.61 DL 1.63

11000

5050 TVD
Sub Sea (-223)

11050

MD 11037 TVD 5782.08
INC 90.55 AZ 178.81
VS 5293.55 DL 2.71

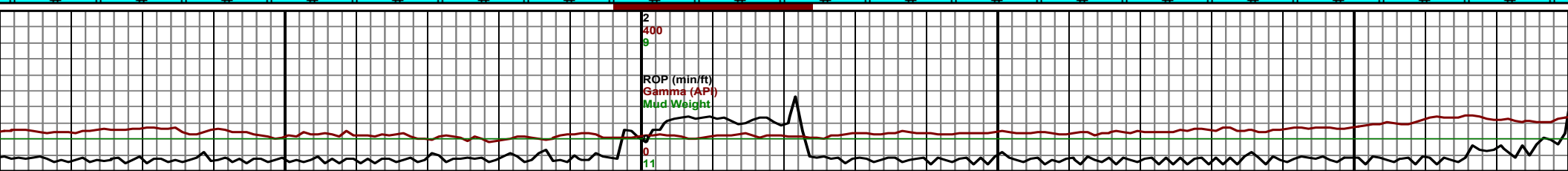
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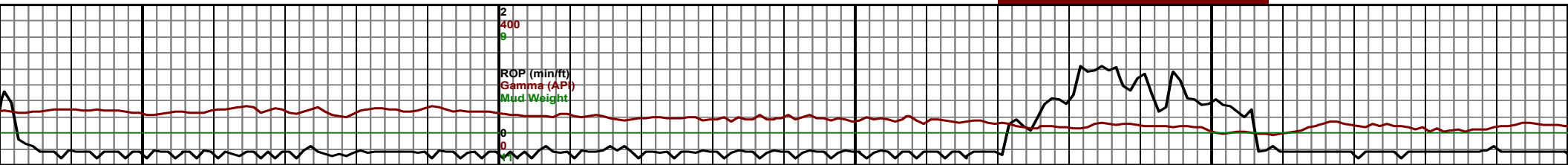
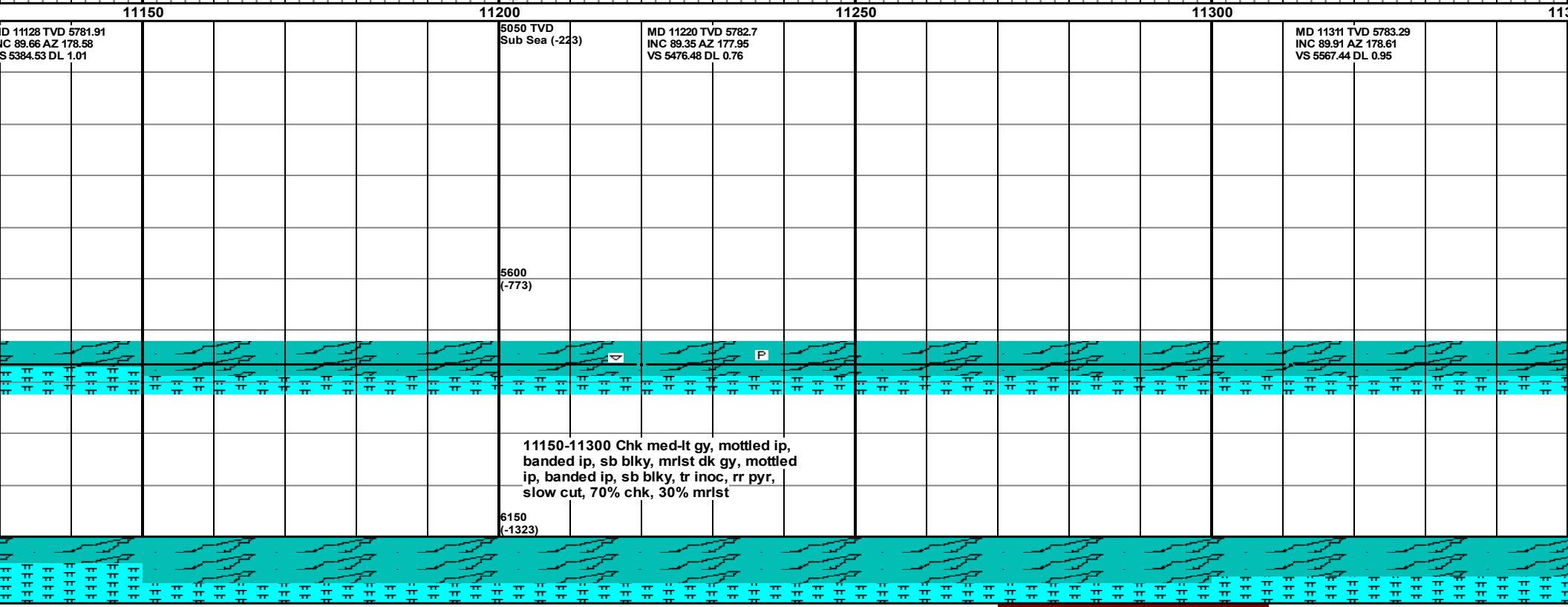
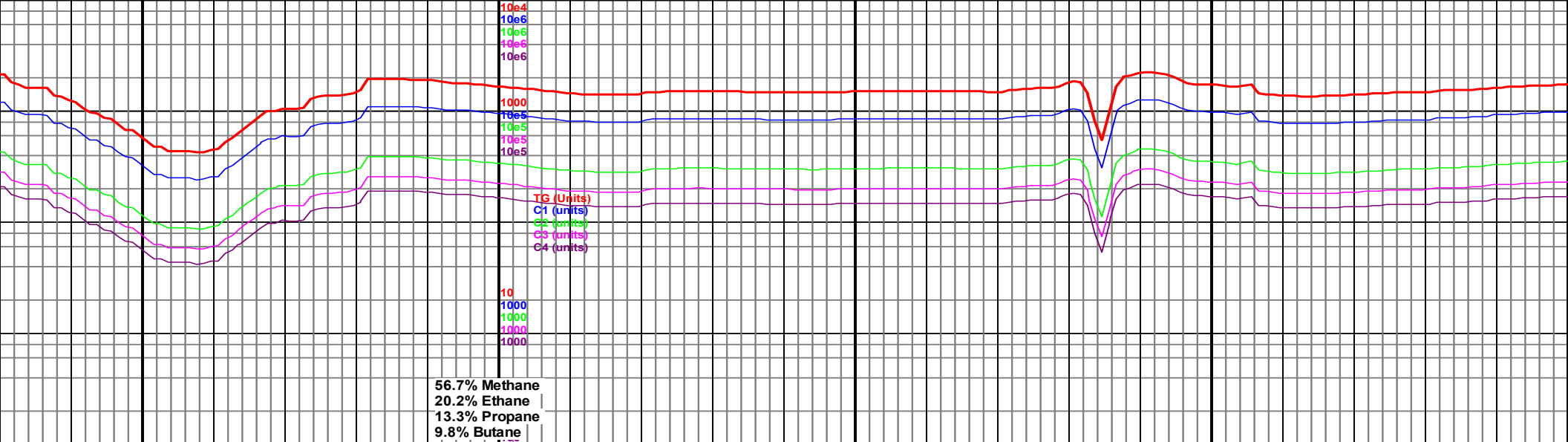


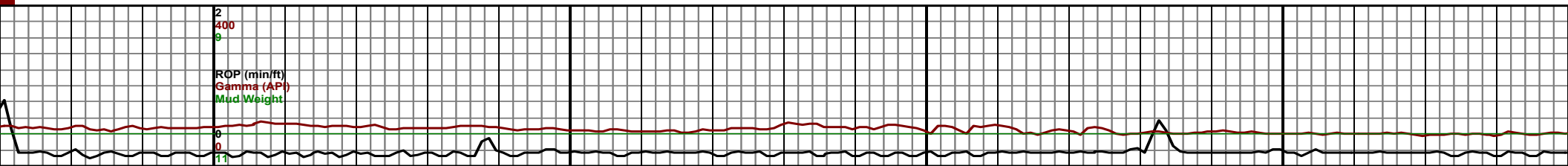
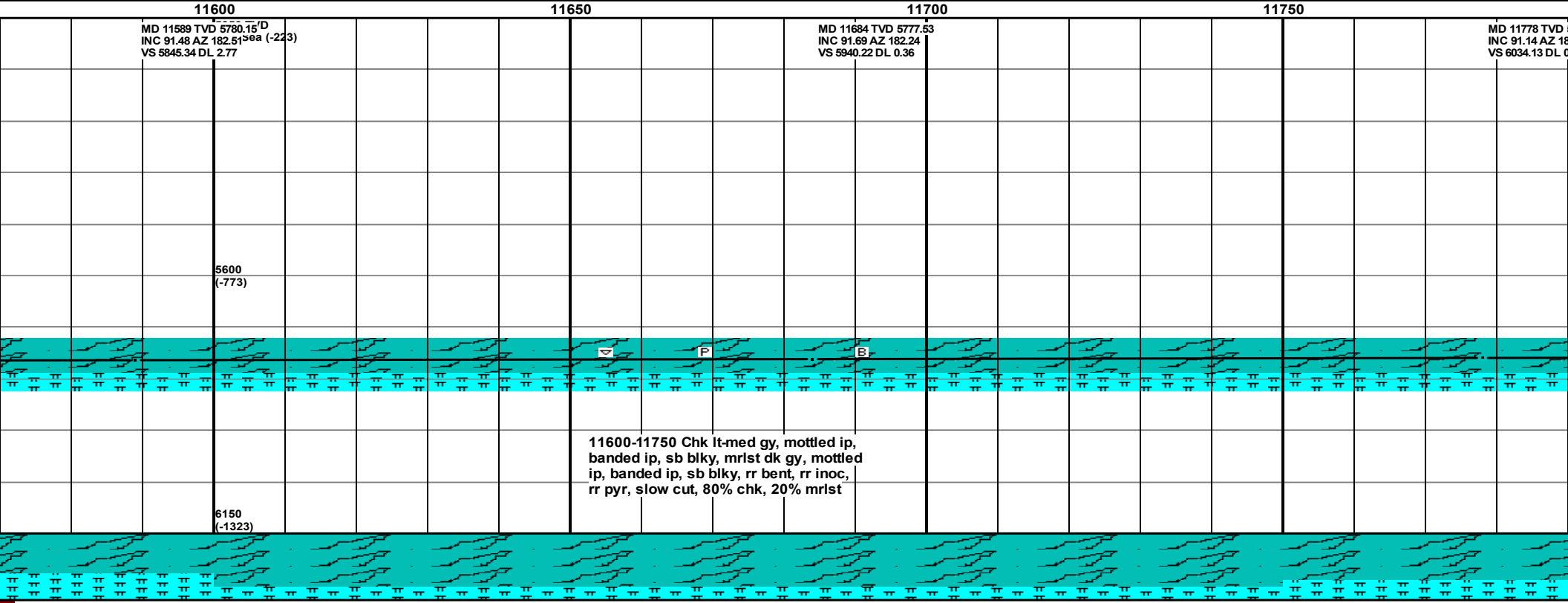
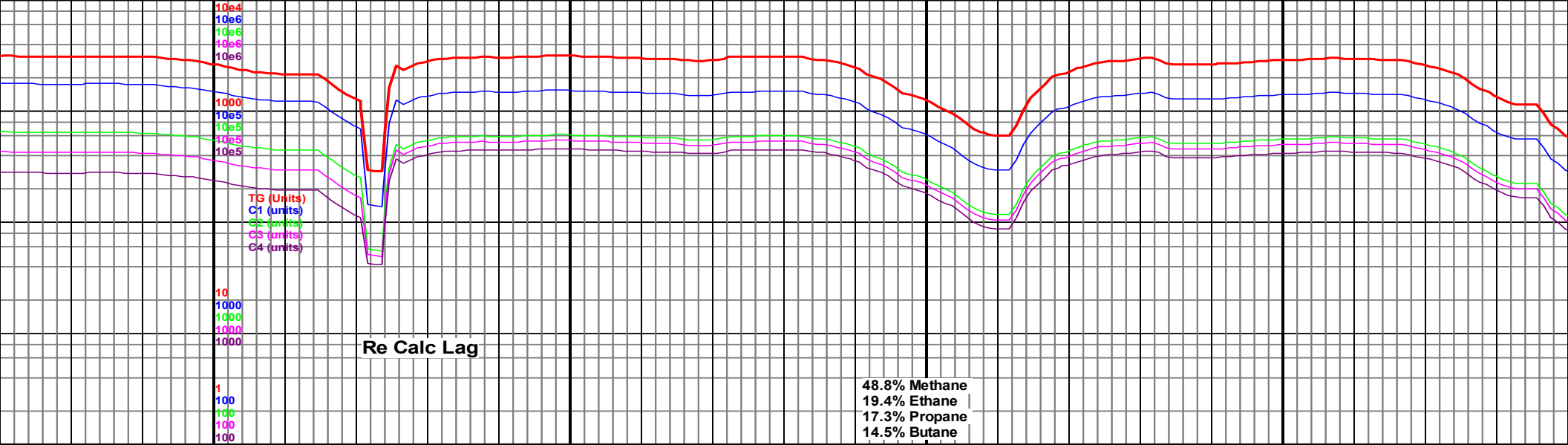
0-11000 Mrlst dk gy, mottled ip, sb
chk med gy, mottled ip, banded
blky, abnt beads, rr inoc, rr pyr,
cut, 60% mrlst, 40% chk

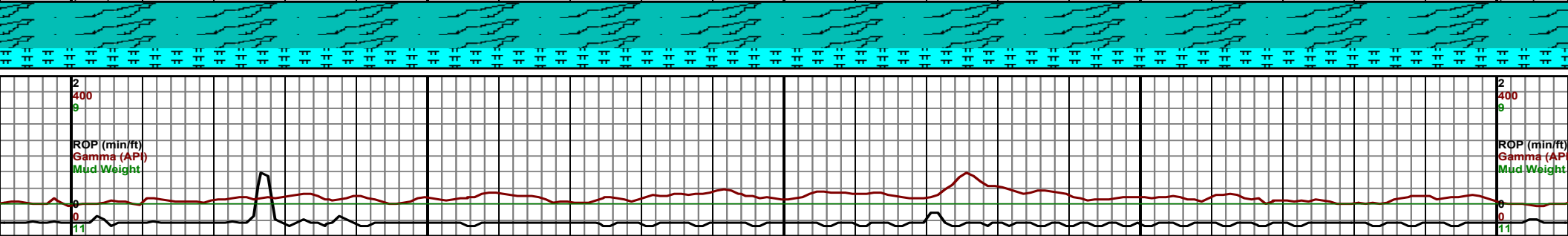
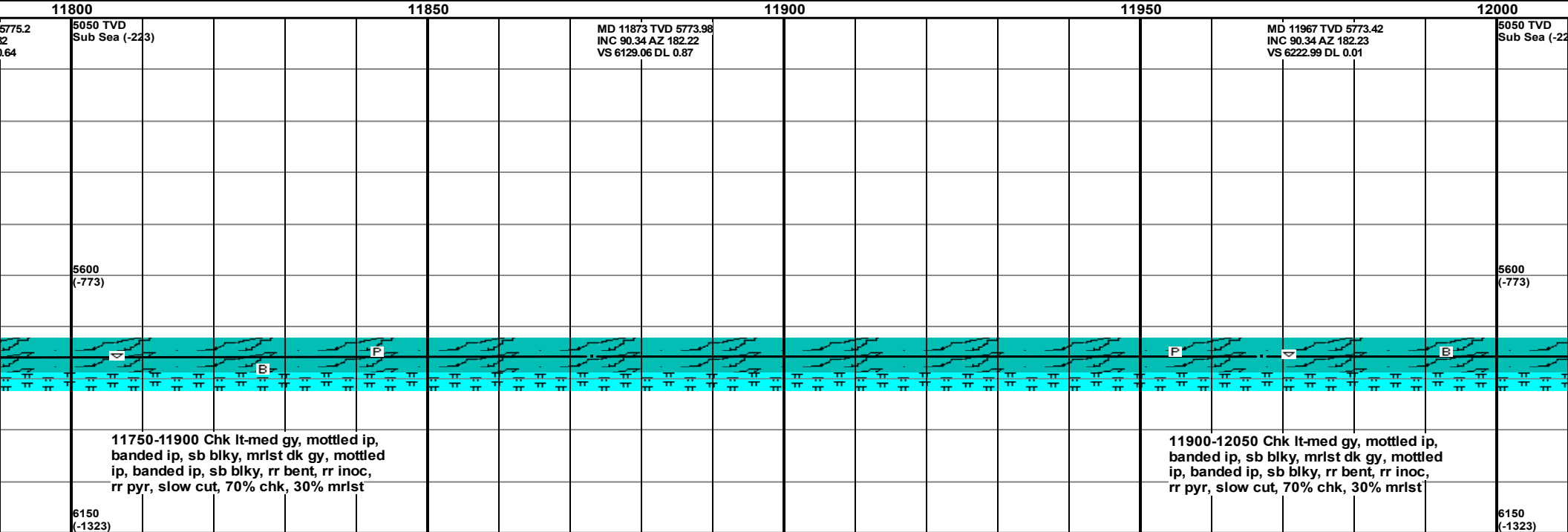
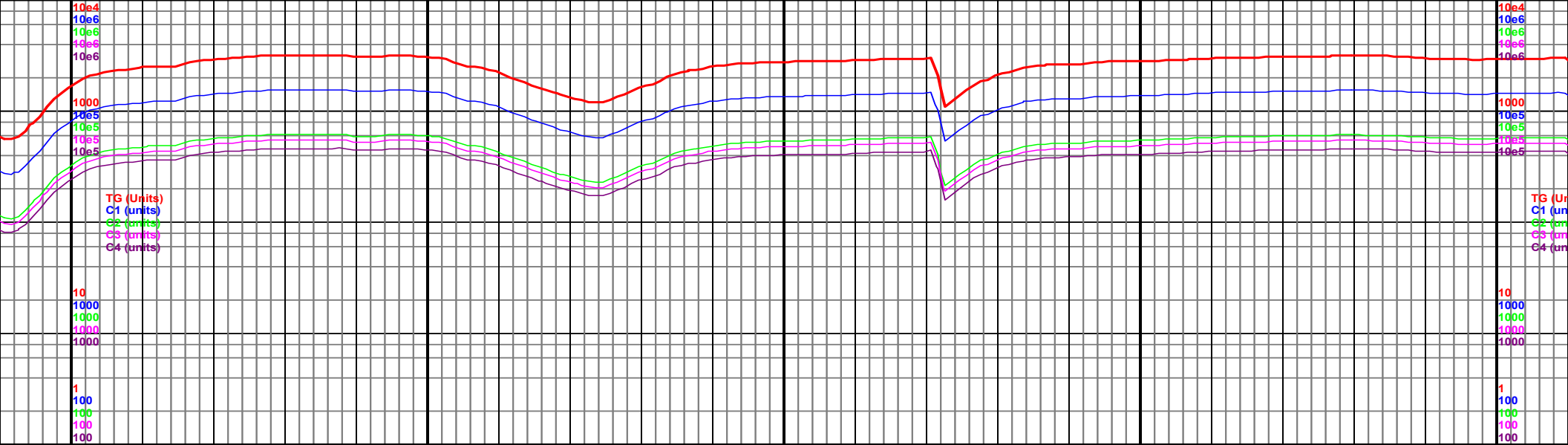
11000-11150 Mrlst dk gy, mottled ip, sb
blky, chk med gy, mottled ip, banded
ip, sb blky, rr inoc, rr pyr, slow cut,
60% mrlst, 40% chk

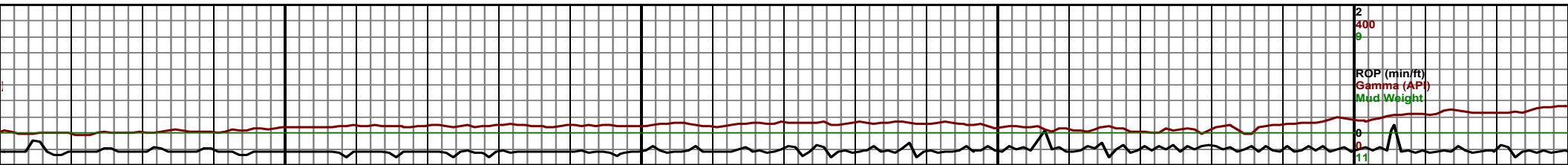
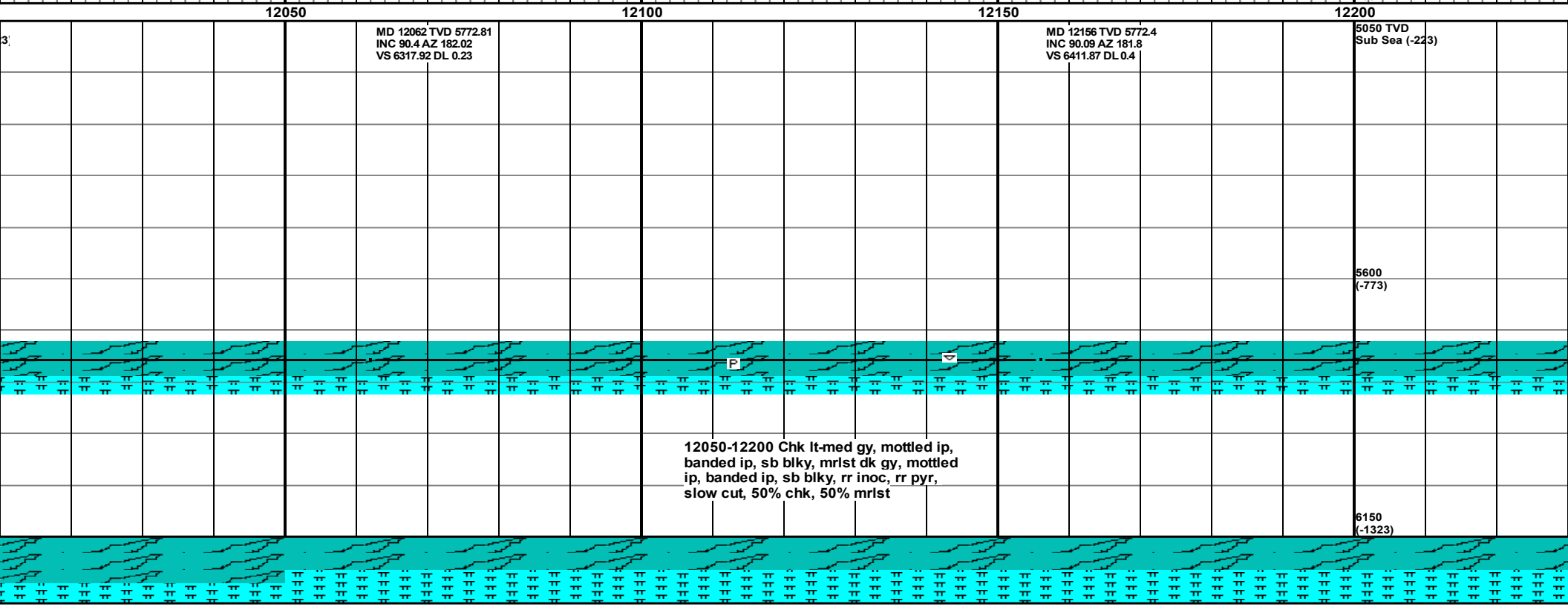
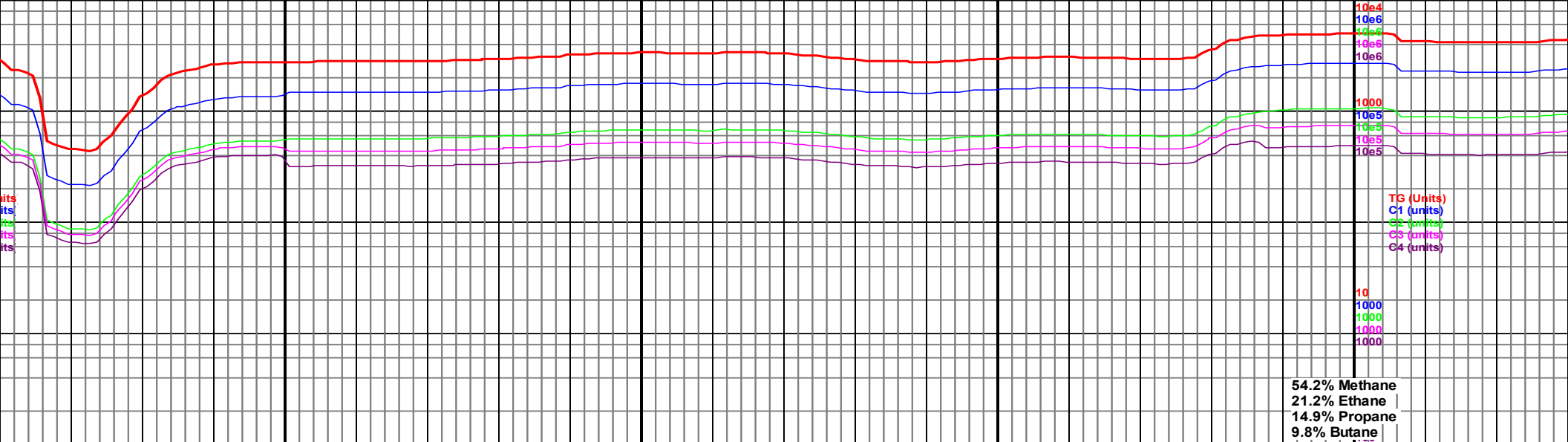
6150
(-1323)

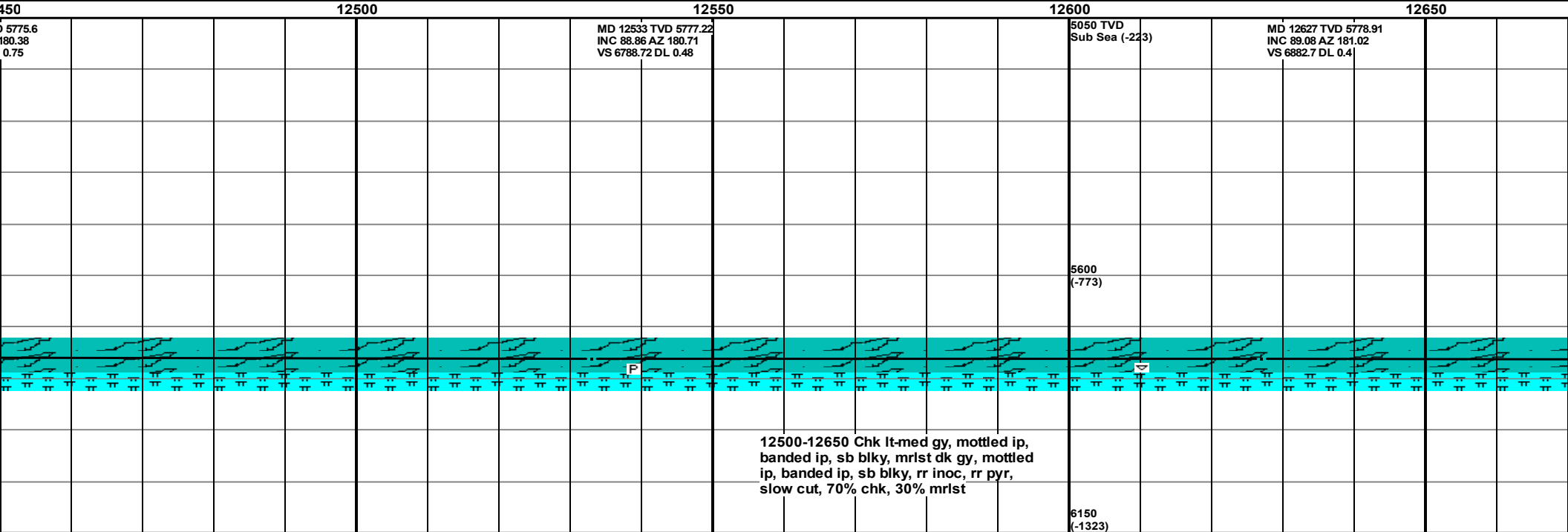
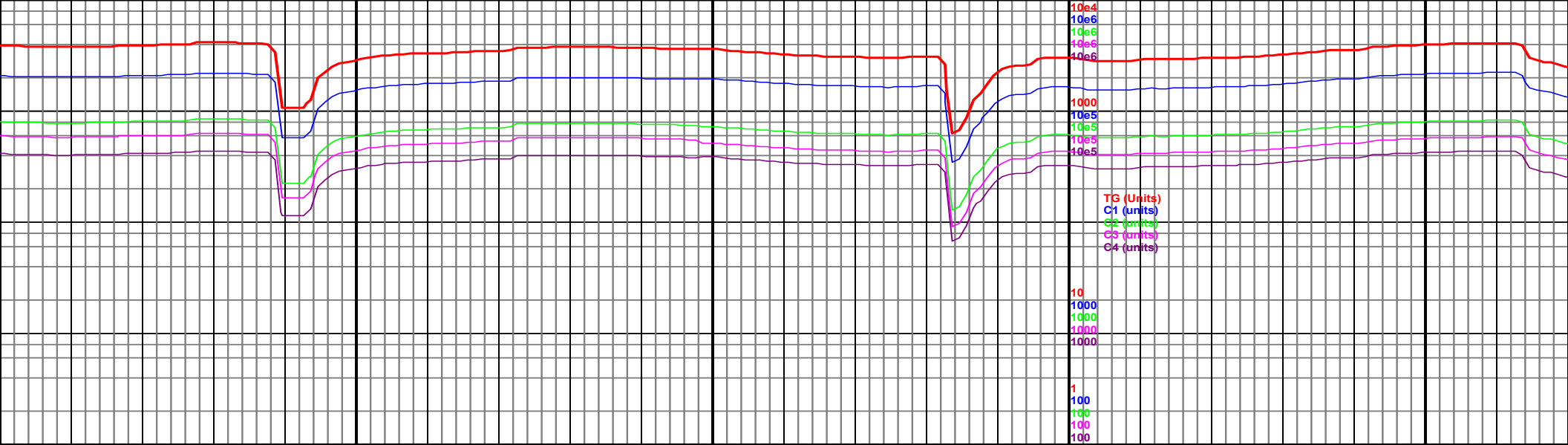




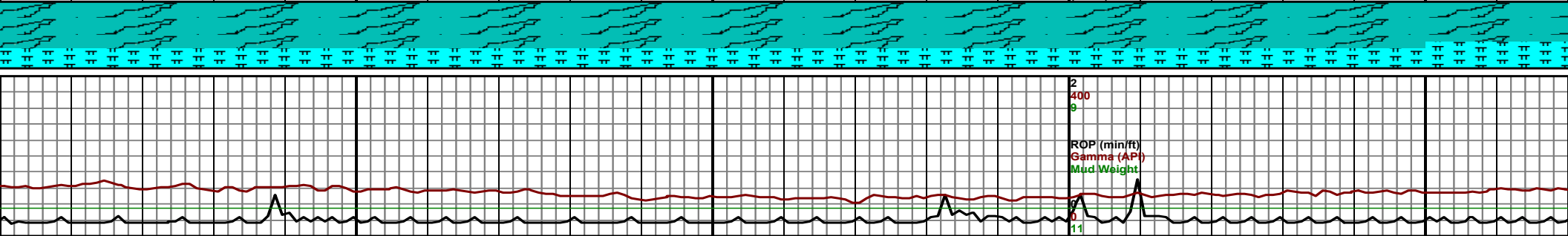


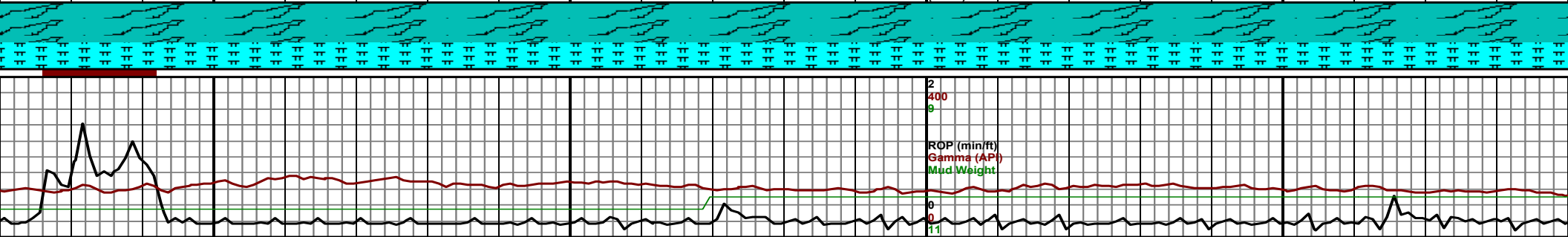
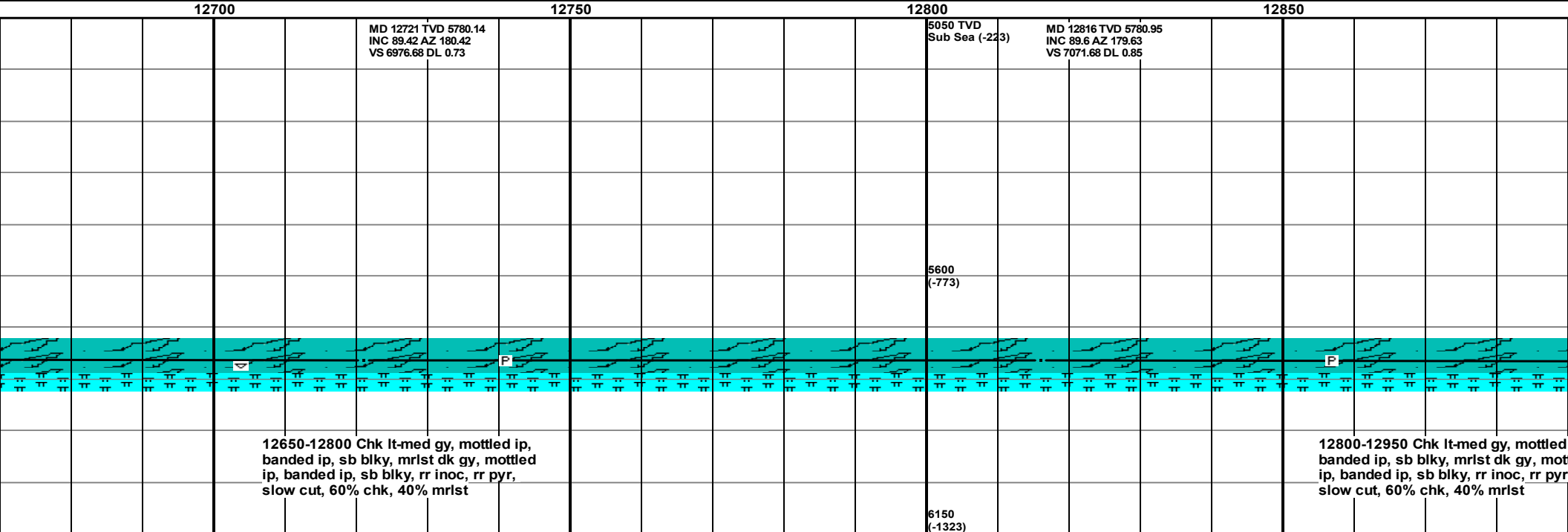
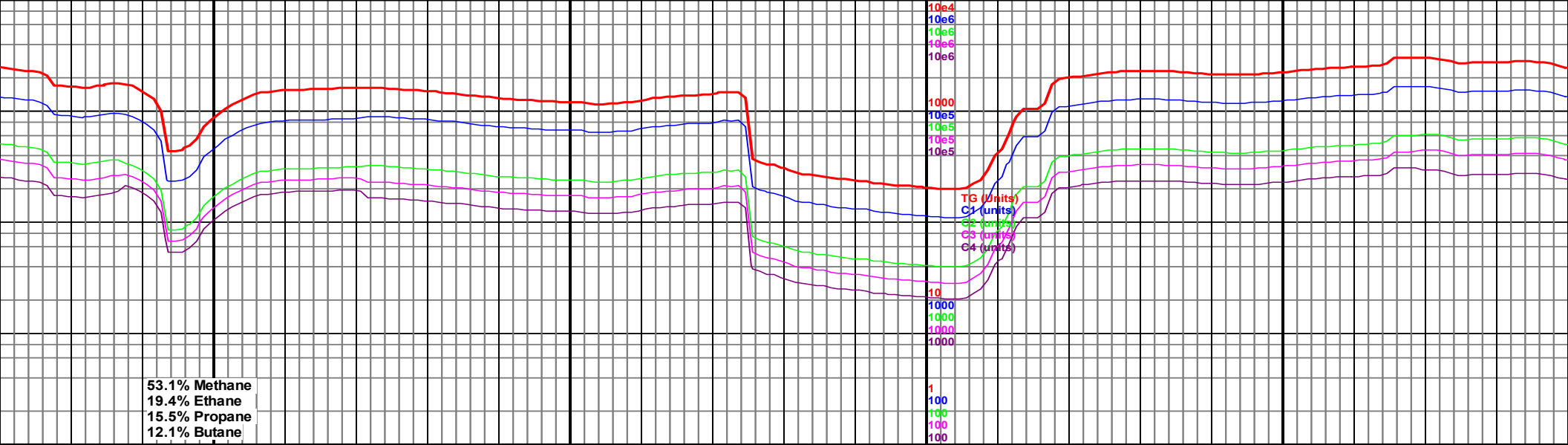


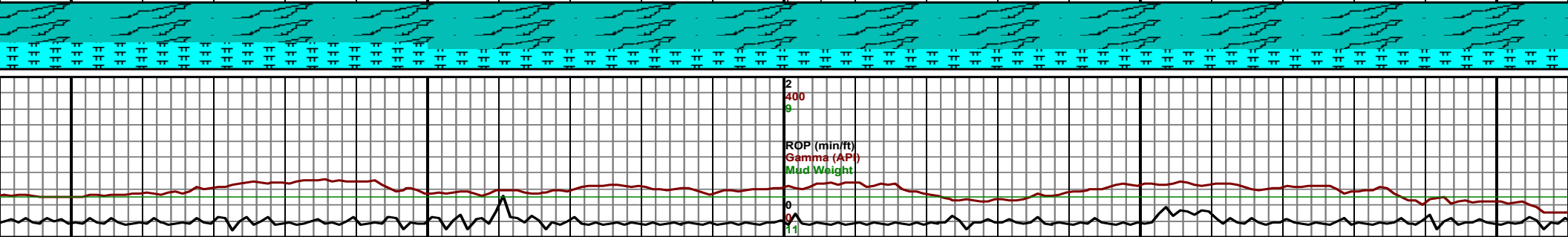
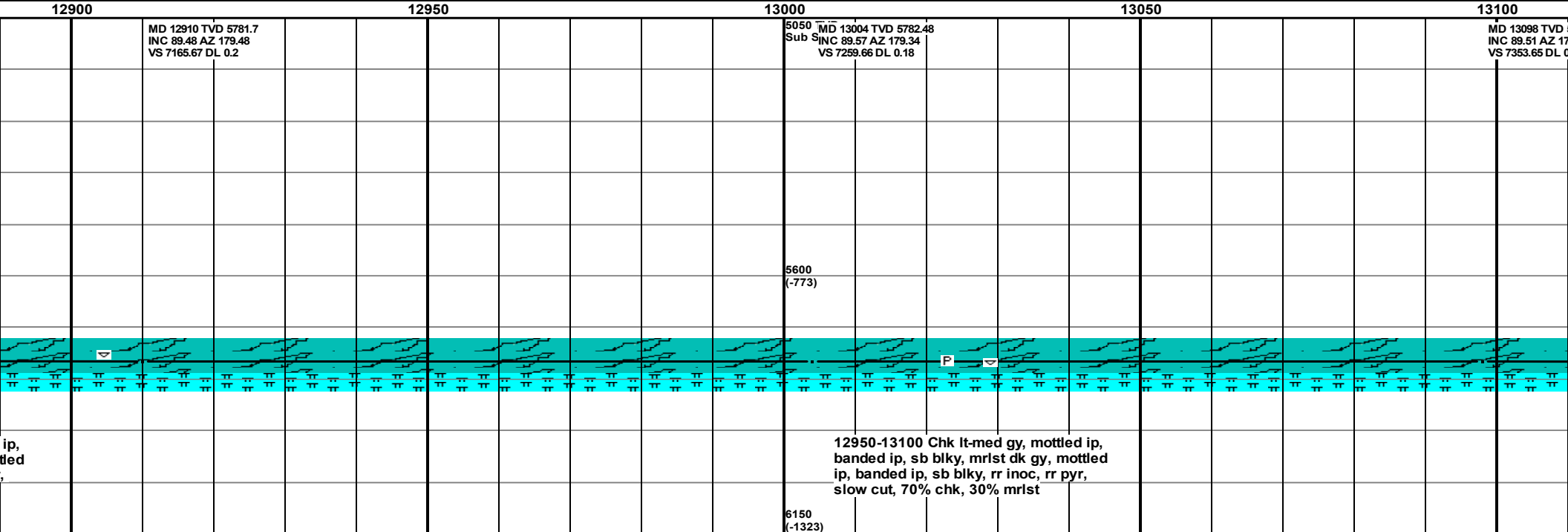
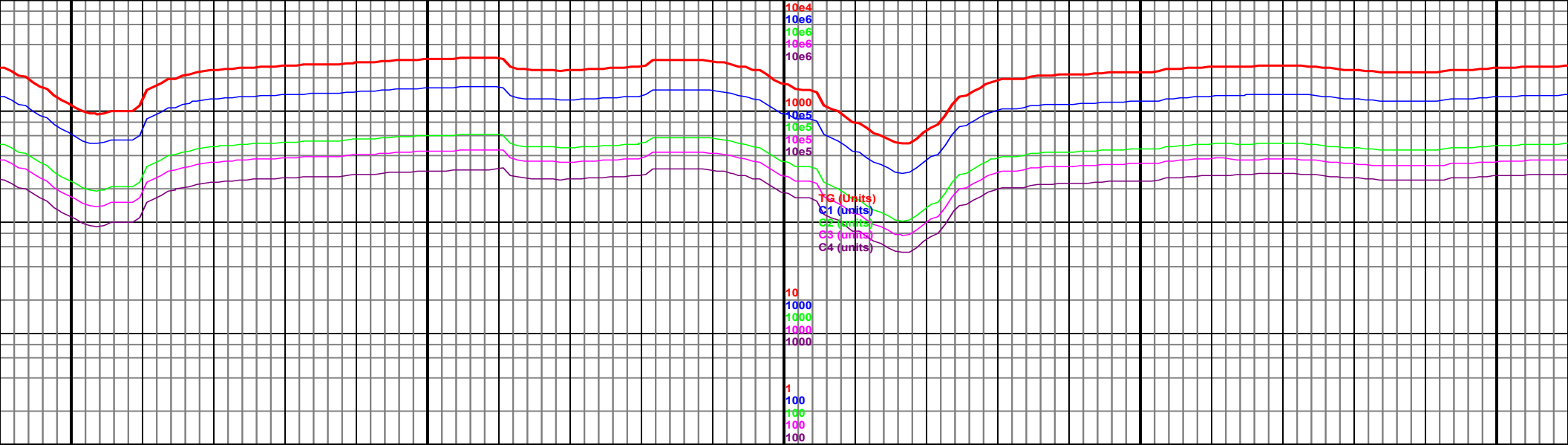


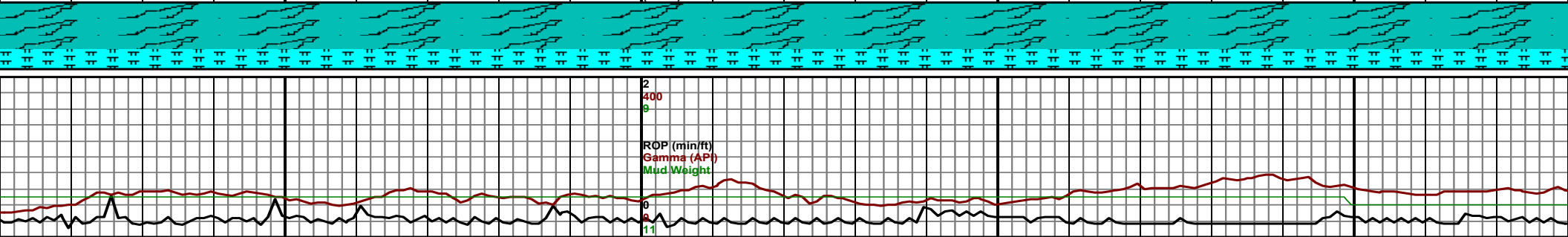
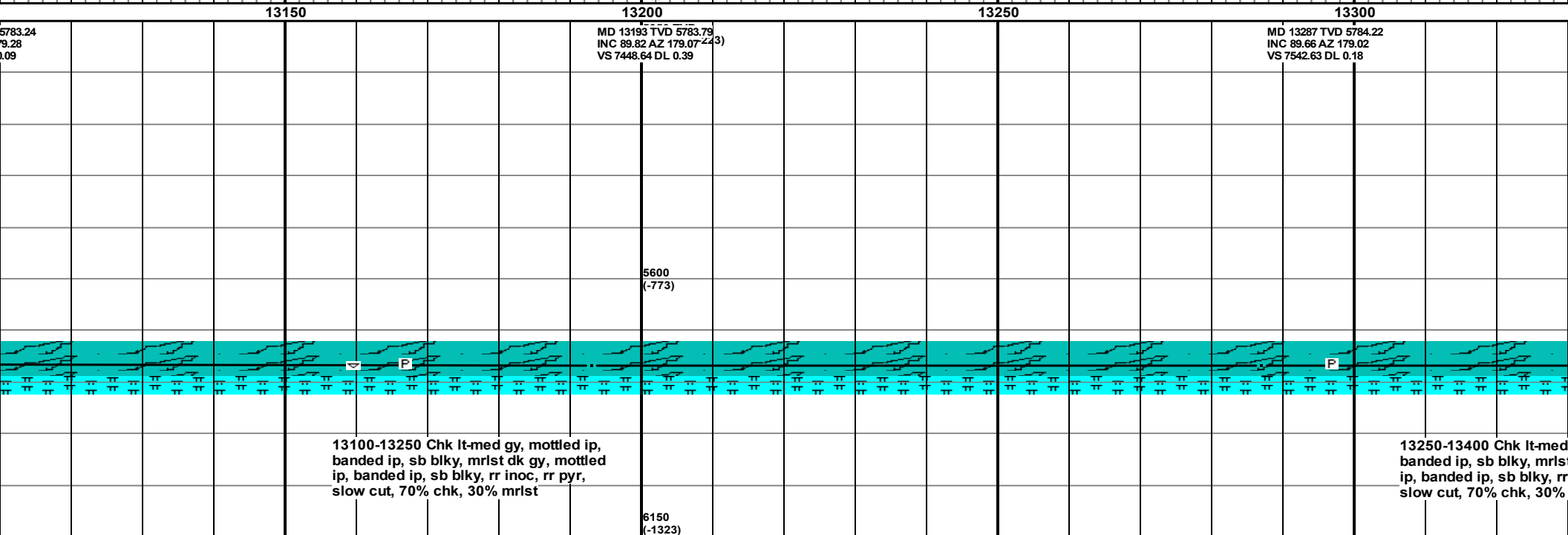
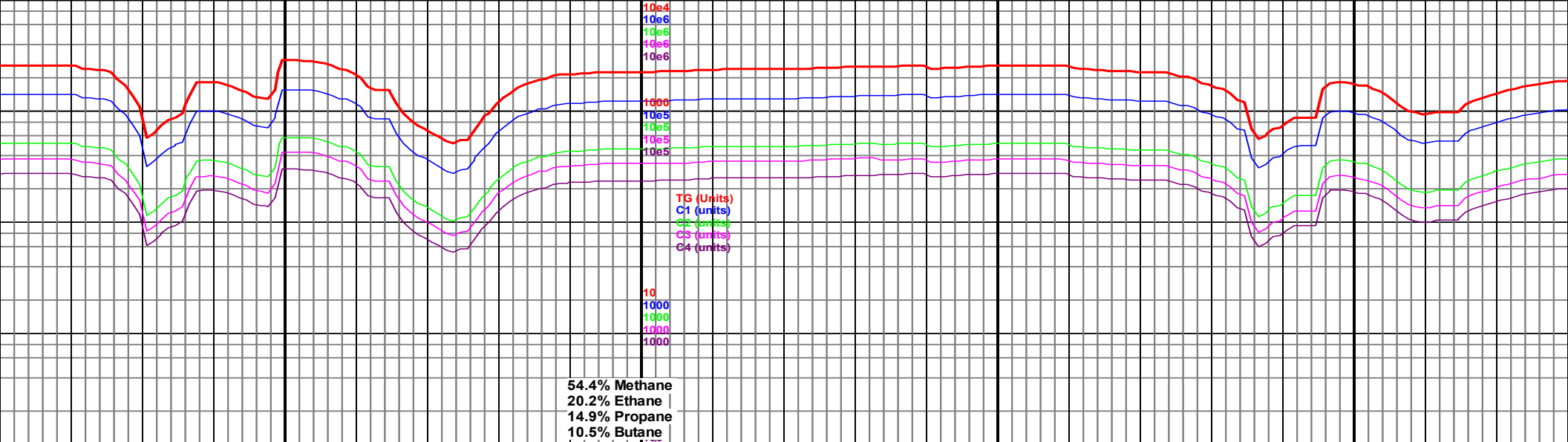


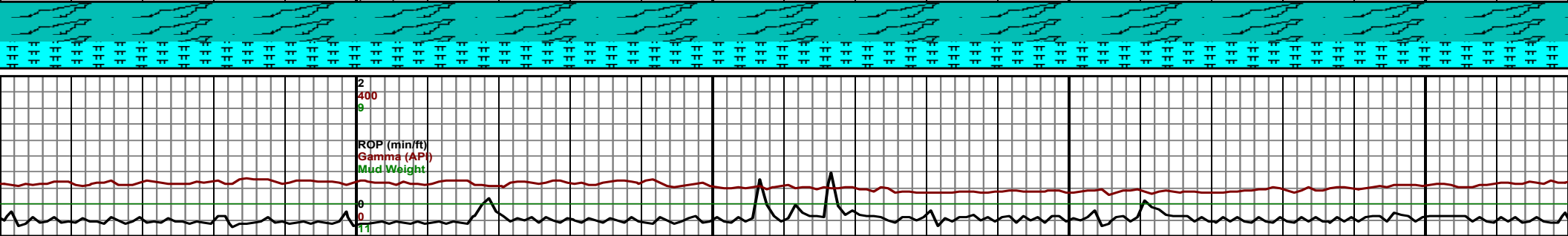
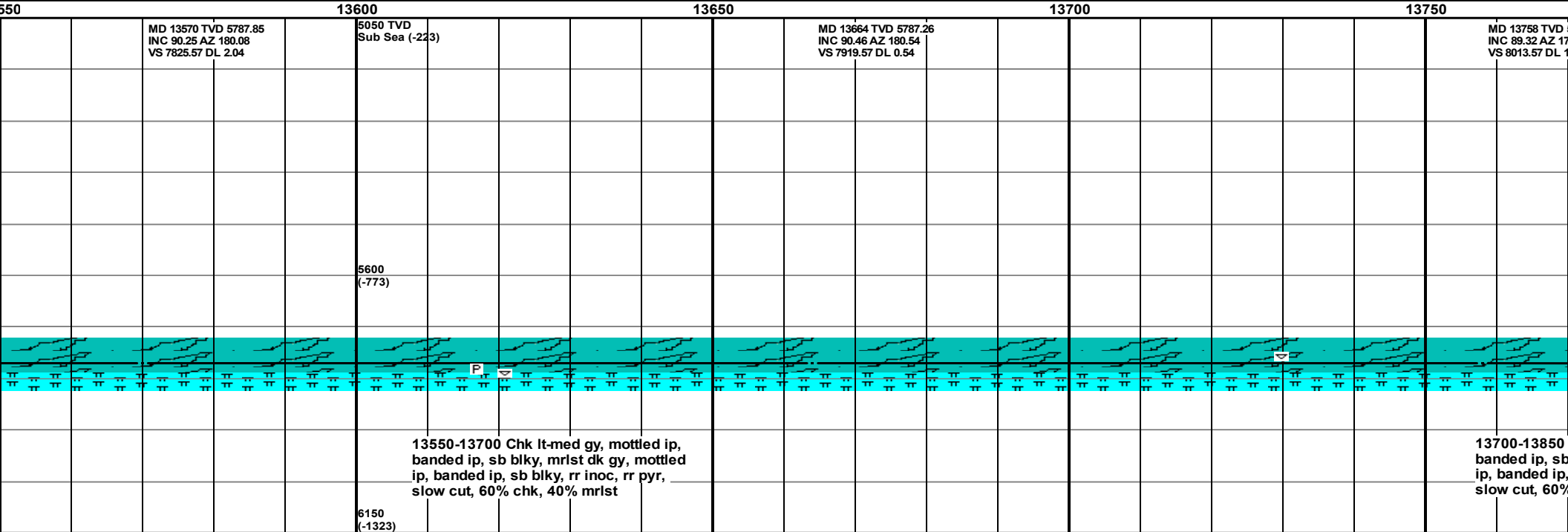
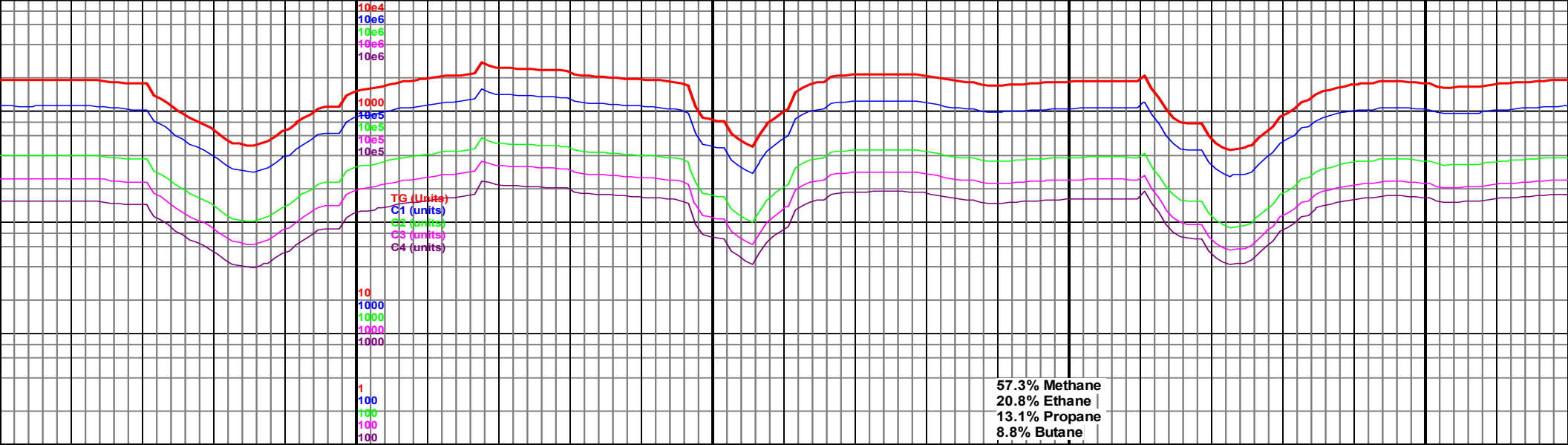
12500-12650 Chk lt-med gy, mottled ip, banded ip, sb blk, mrlst dk gy, mottled ip, banded ip, sb blk, rr inoc, rr pyr, slow cut, 70% chk, 30% mrlst

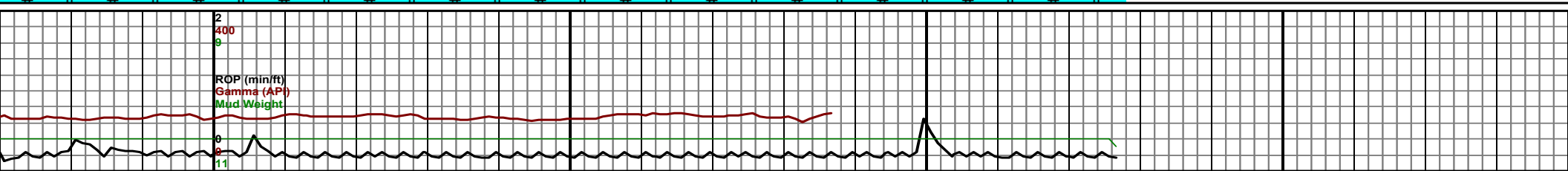
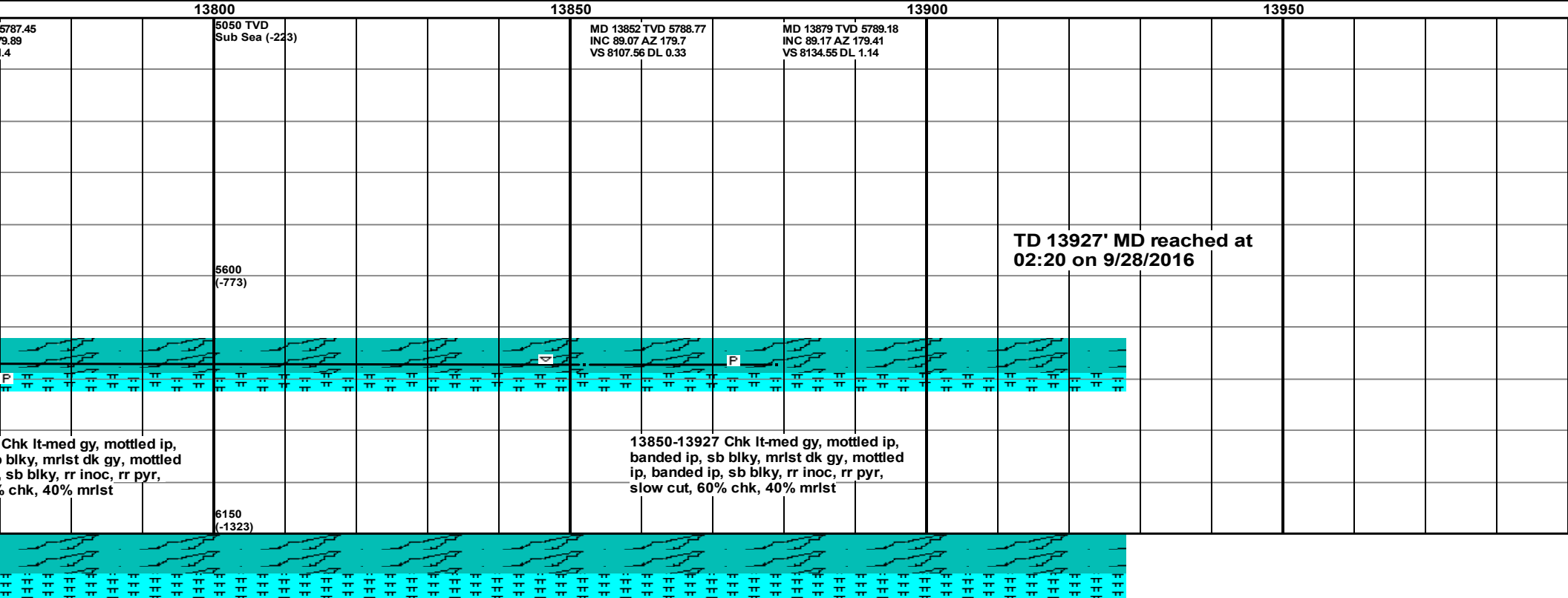
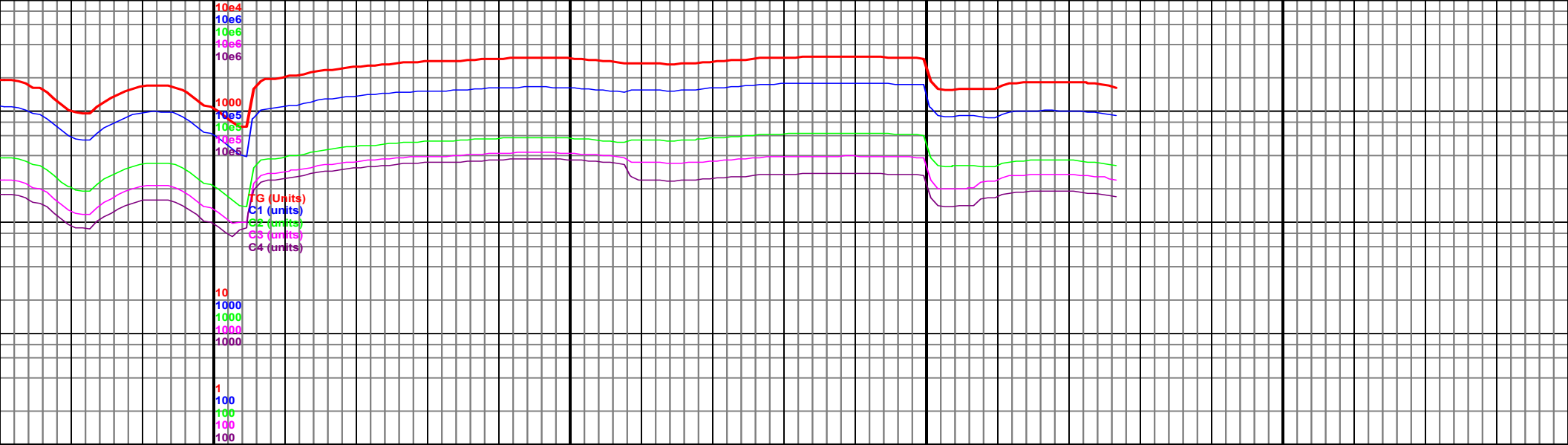


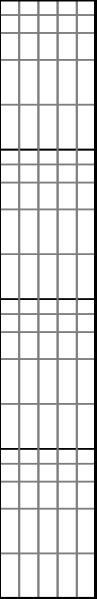












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