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Tulsa, Oklahoma 74136-6378

phone 918.925.9739
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WWW.HZMUD.COM

Customer Information

Operator: Noble Energy Inc
1625 Broadway
Suite 2200
Denver, Colorado 80202

Geologist: Cassidy Miller
Noble Energy Inc.

Mud Logging Details

Logger: Ryan Bleess & Casey
Sensecqua
Log Interval: 6700' MD to 11166' MD
Start Date: June 13, 2013
Release Date: June 16, 2013

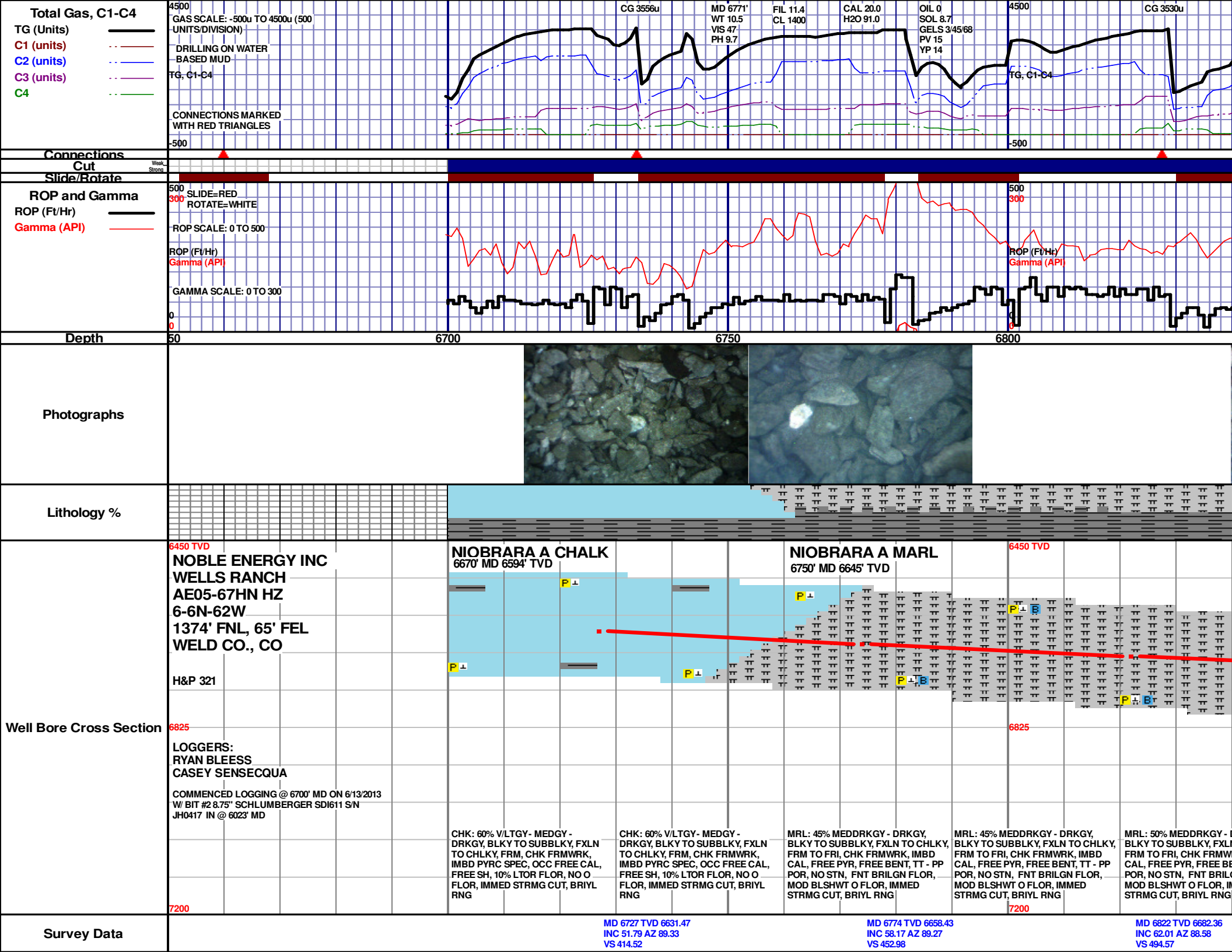
Well Information

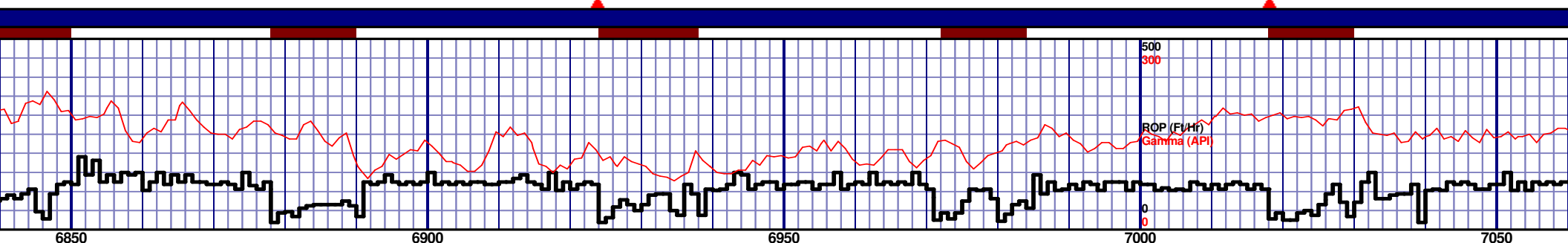
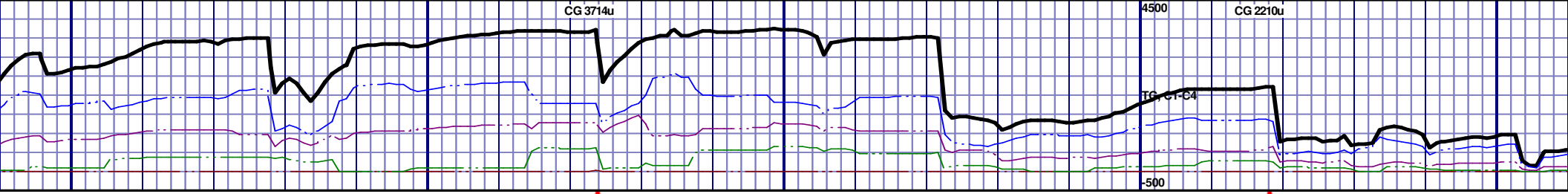
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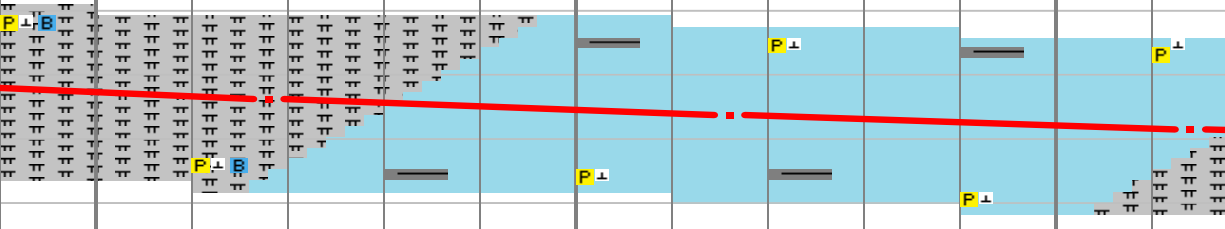
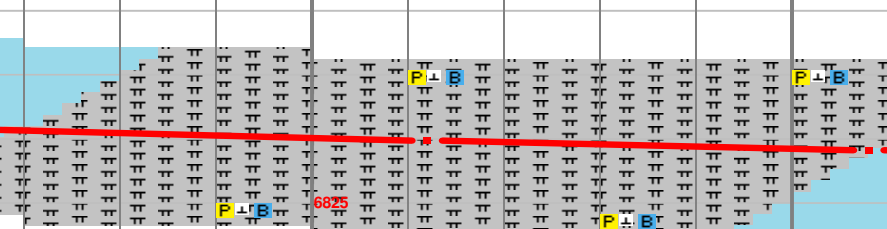
Location: 6-6N-62W
1374' FNL, 65' FEL

County: Weld
State: Colorado

Drilling Rig: H&P 321
Total Depth: 11166' MD
TD Date: June 16, 2013
Formation: Niobrara C Chalk
KB Elevation: 4963'
GR Elevation: 4933'
API Number: 05-123-36977





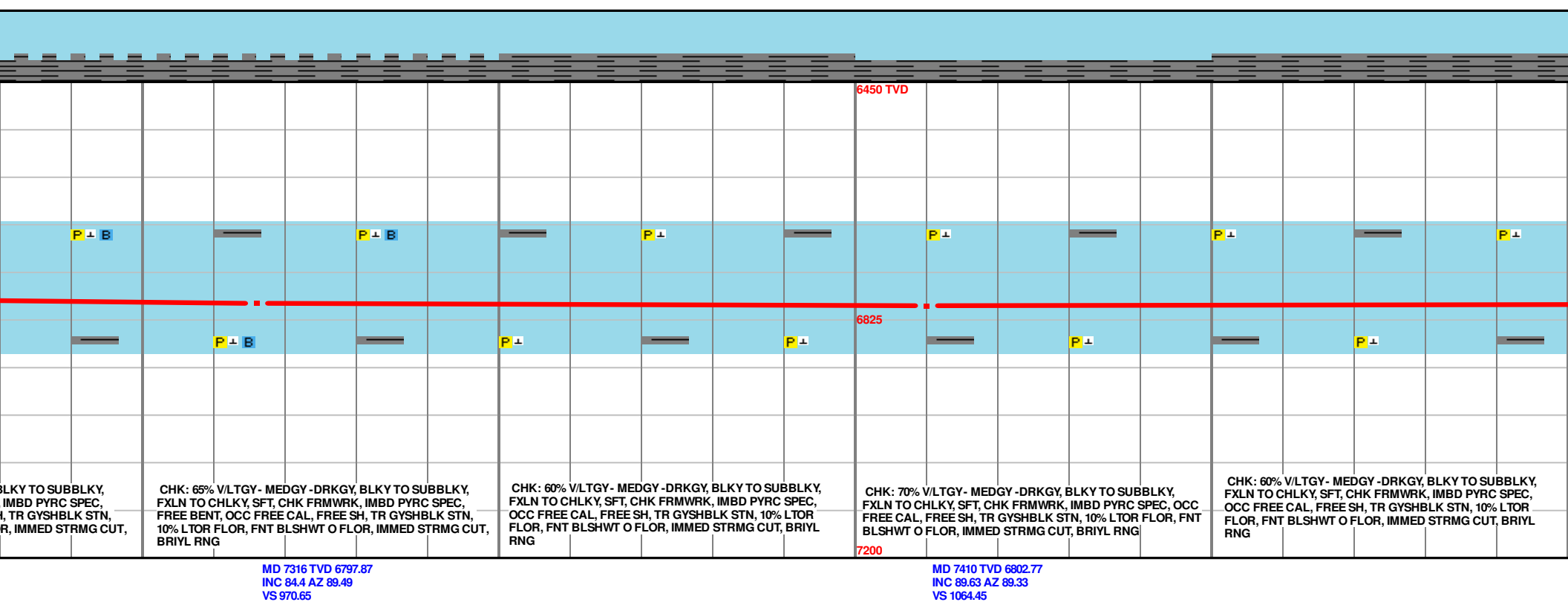
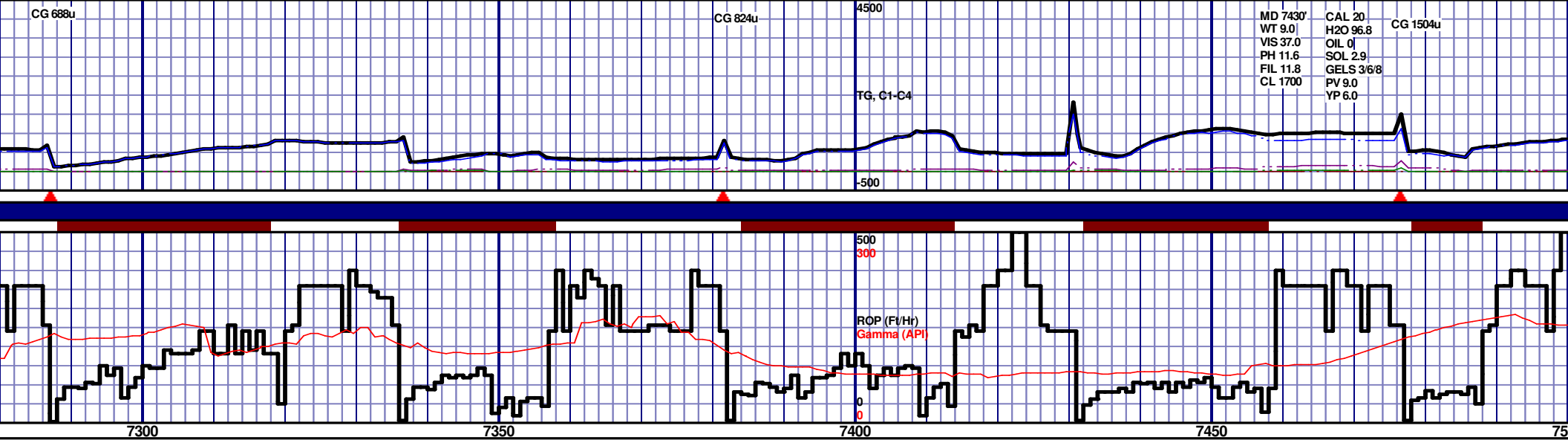
NIOBRARA B CHALK					NIOBRARA B MARL				
6880' MD 6707' TVD					6970' MD 6739' TVD				
									
MRL: 50% MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, FRM TO FRI, CHK FRMWRK, IMBD CAL, FREE PYR, FREE BENT, TT - PP POR, NO STN, FNT BRILGN FLOR, MOD BLSHWT O FLOR, IMMED STRMG CUT, BRIYL RNG					MRL: 50% MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, FRM TO FRI, CHK FRMWRK, IMBD CAL, FREE PYR, FREE BENT, TT - PP POR, NO STN, FNT BRILGN FLOR, MOD BLSHWT O FLOR, IMMED STRMG CUT, BRIYL RNG				
CHK: 60% VLTGY - MEDGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, FRM, CHK FRMWRK, IMBD PYRC SPEC, OCC FREE CAL, FREE SH, 10% LTOR FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					CHK: 60% VLTGY - MEDGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, FRM, CHK FRMWRK, IMBD PYRC SPEC, OCC FREE CAL, FREE SH, 10% LTOR FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
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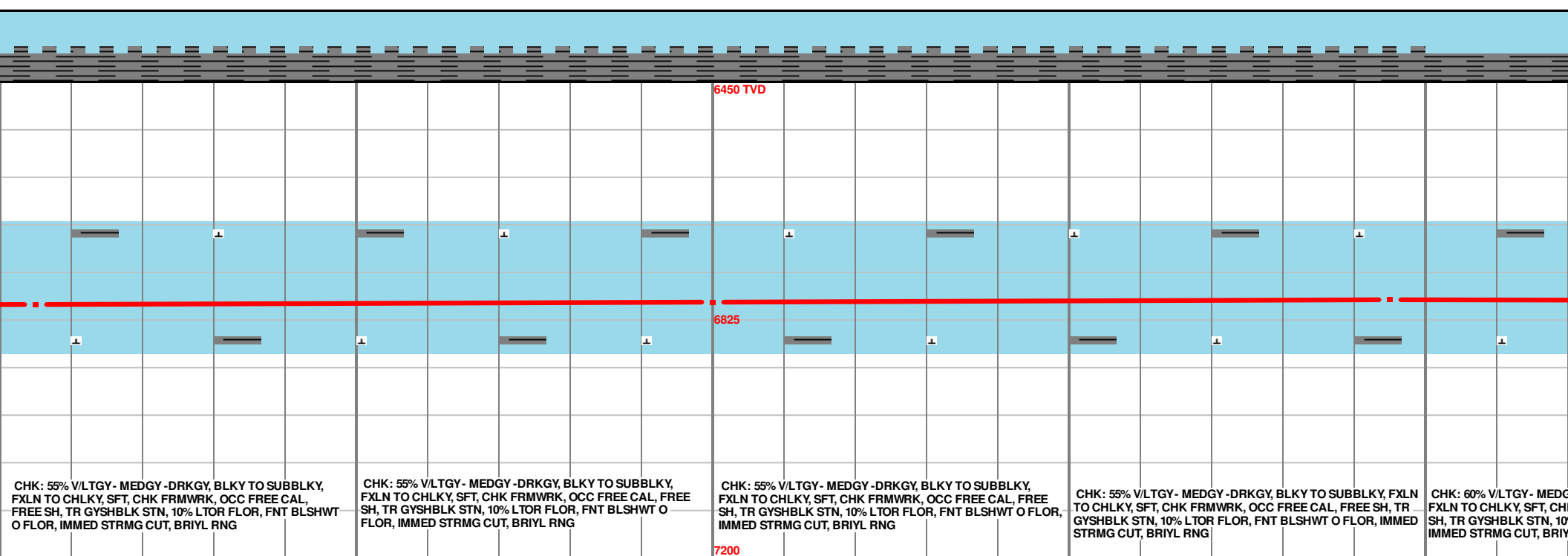
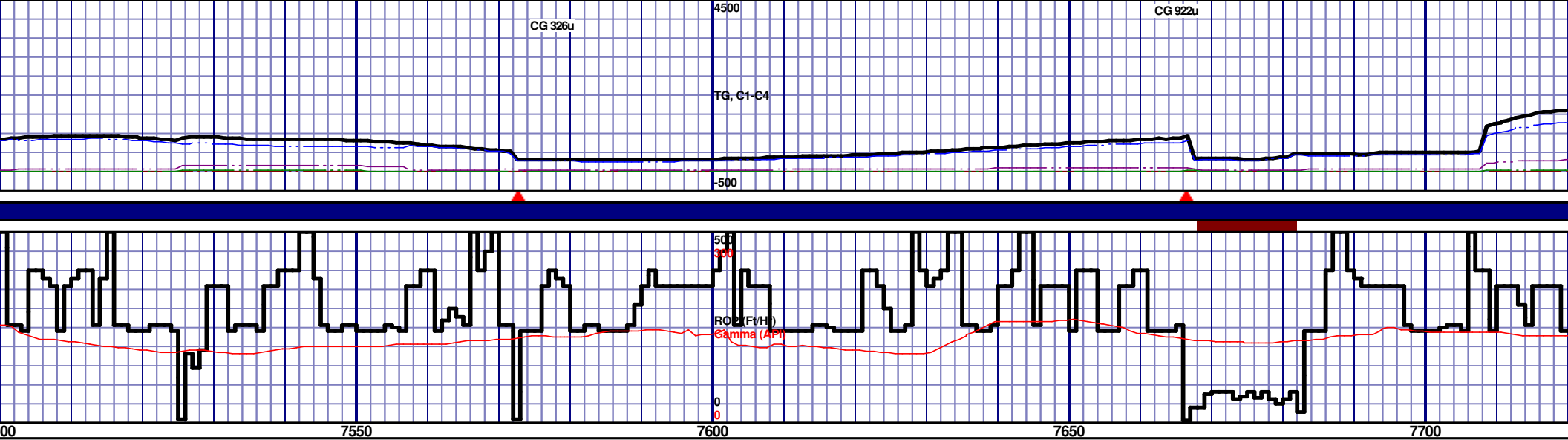
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INC 65.44 AZ 86.79
VS 535.83

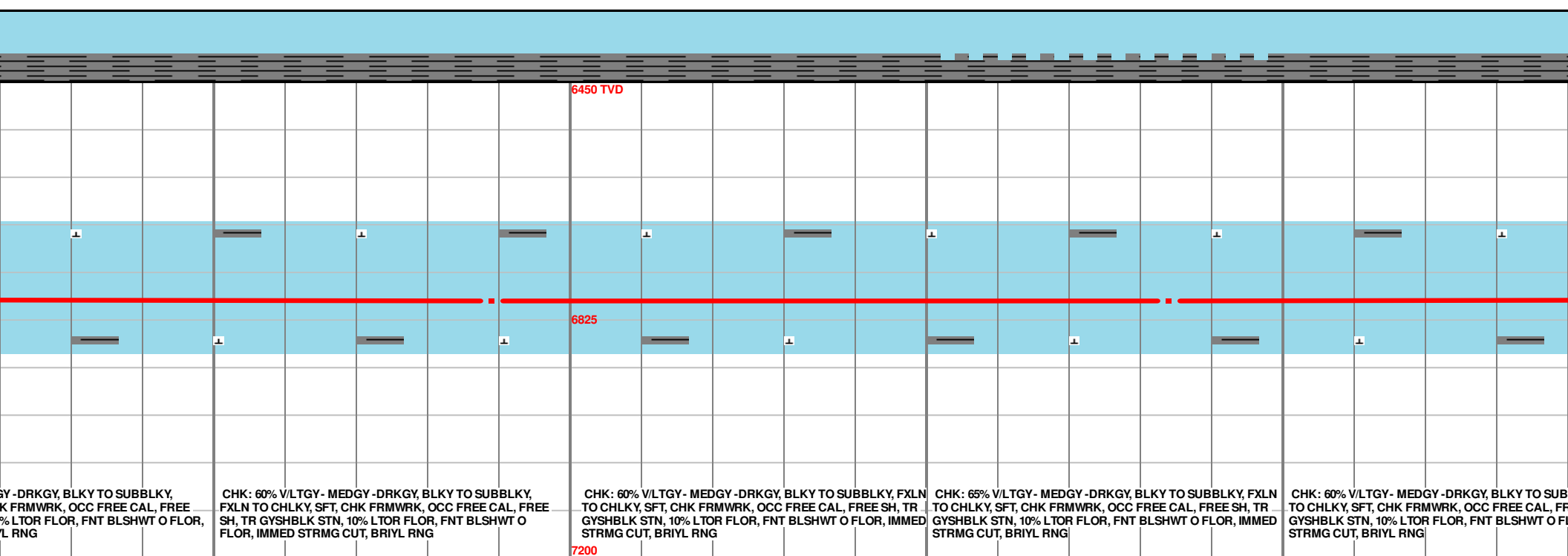
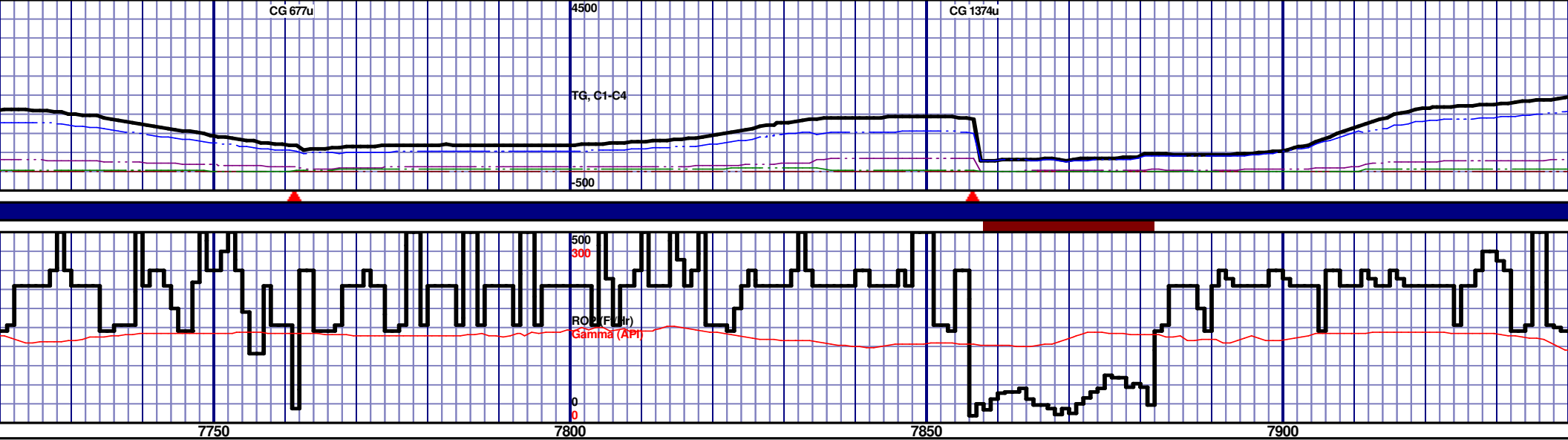
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INC 68.82 AZ 85.81
VS 580.01

MD 6964 TVD 6737.83
INC 71.06 AZ 85.74
VS 625.09

MD 7012 TVD 6752.18
INC 74.16 AZ 86.81
VS 670.87

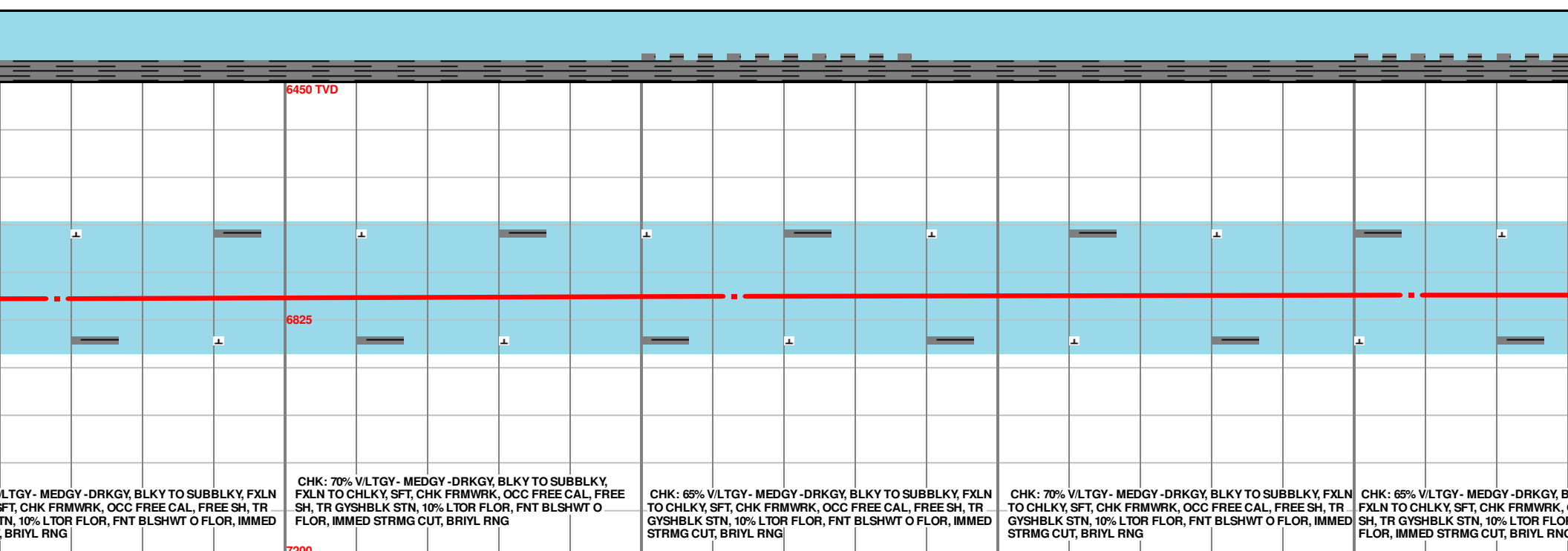
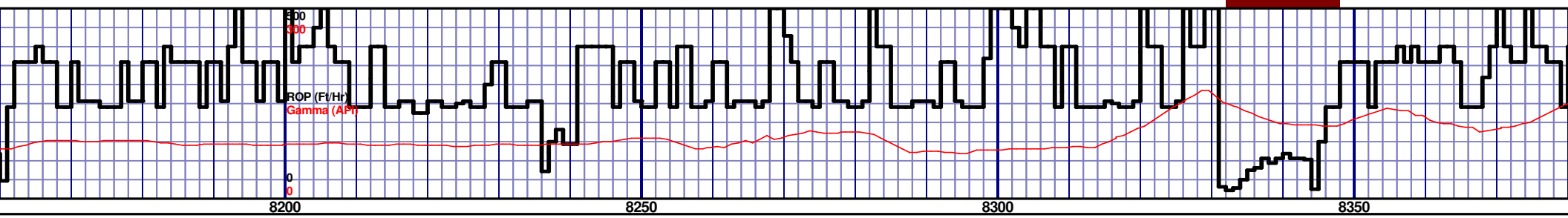
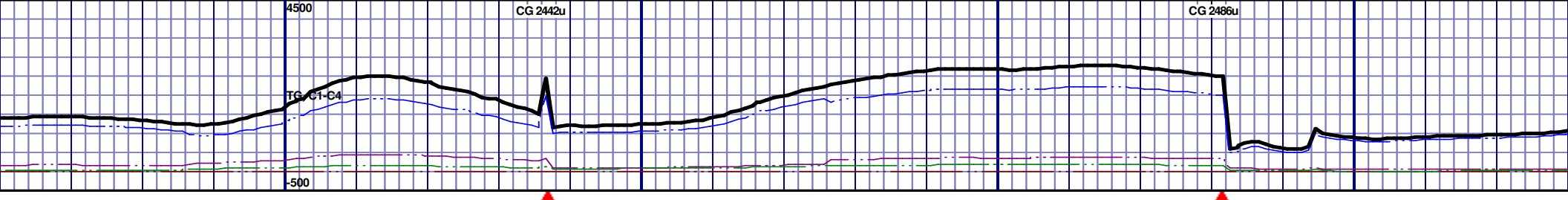


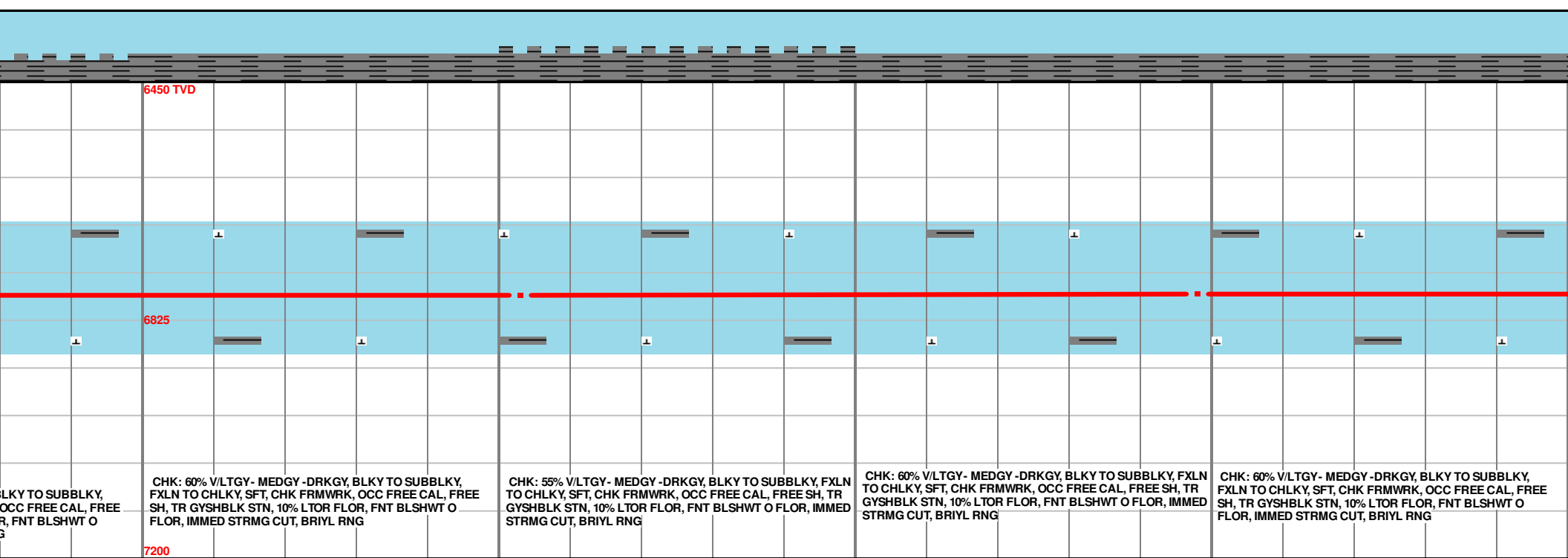
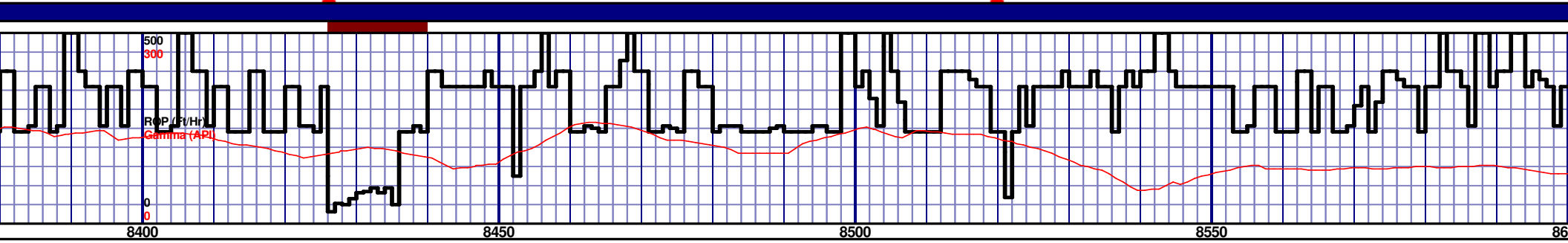
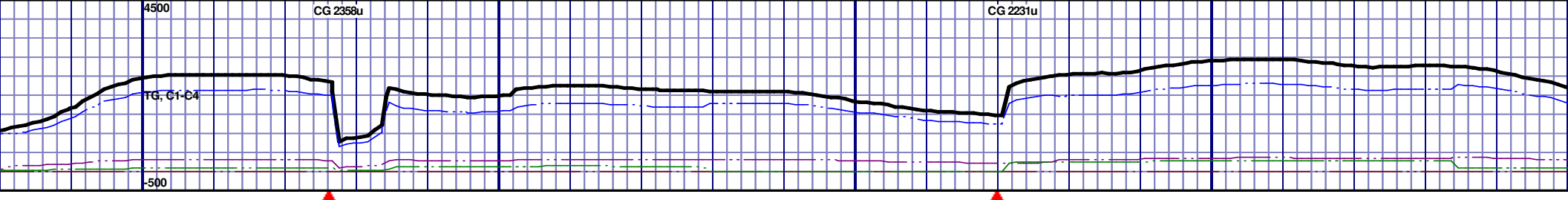




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INC 88.72 AZ 86.72
VS 1443.26

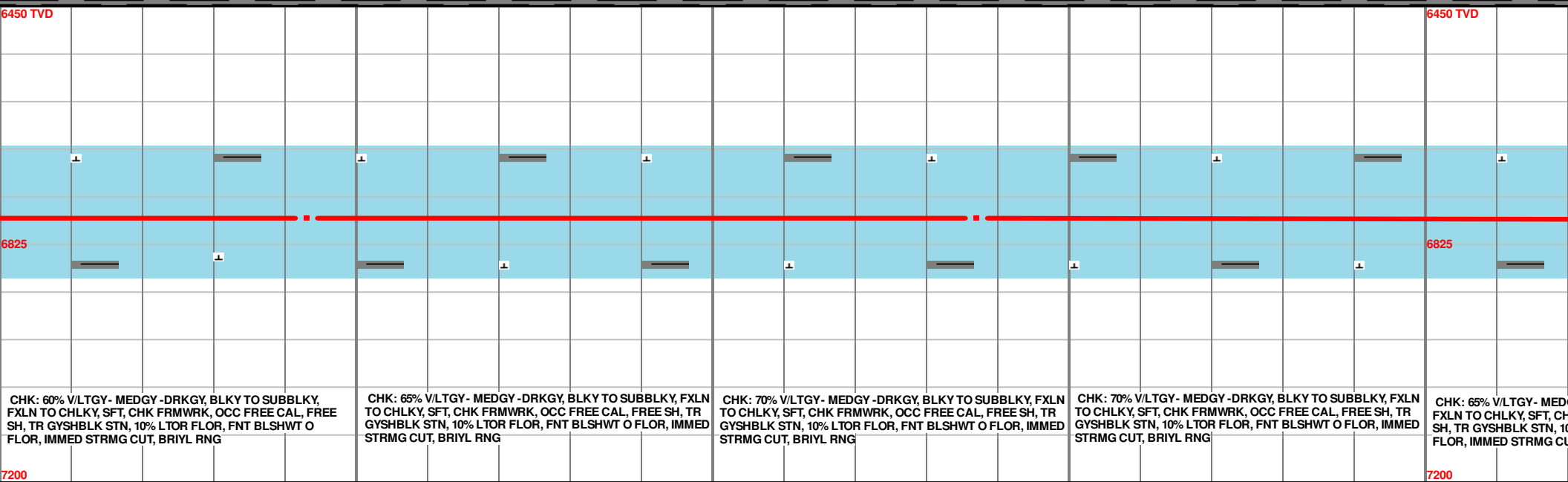
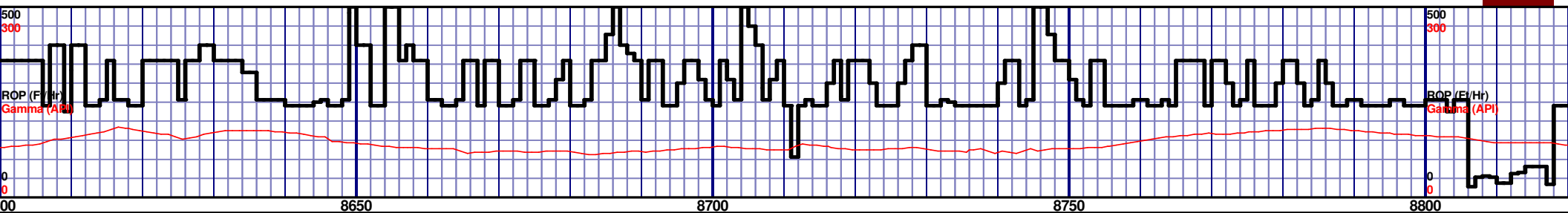
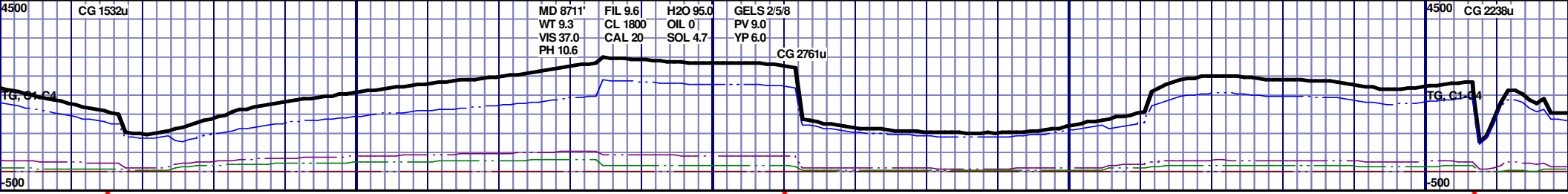
MD 7884 TVD 6794.63
INC 90.8 AZ 87.7
VS 1538.24





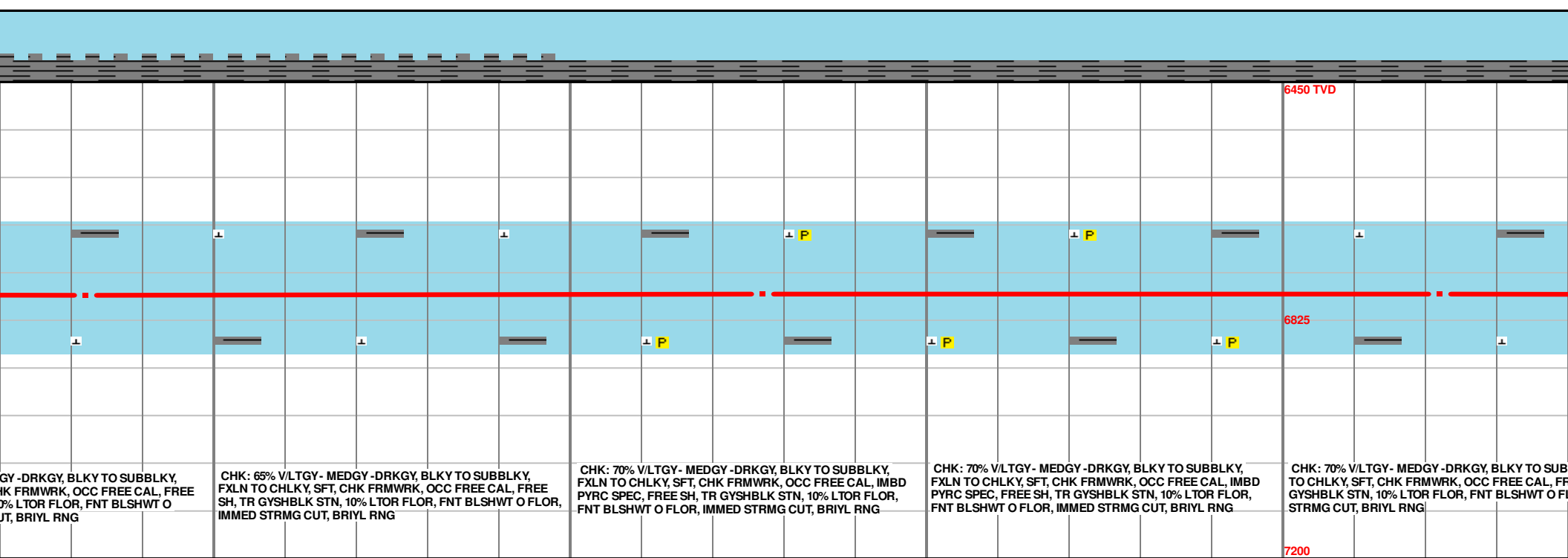
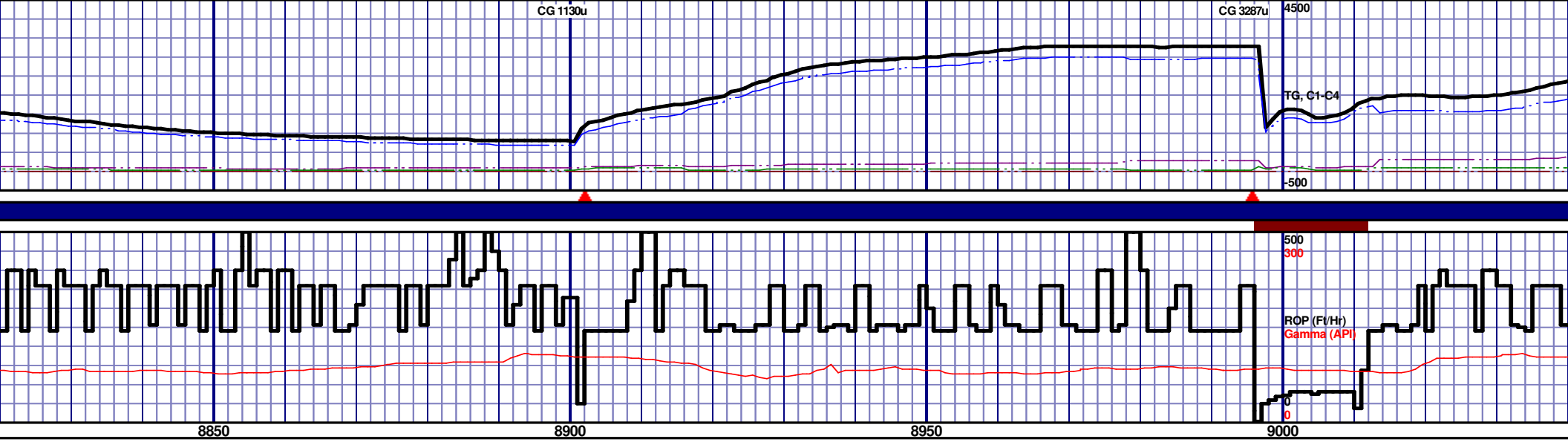
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INC 90 AZ 90.8
VS 2106.92

MD 8548 TVD 6784.55
INC 90.22 AZ 90.38
VS 2201.82



MD 8643 TVD 6784.12
INC 90.31 AZ 89.84
VS 2296.75

MD 8737 TVD 6784.55
INC 89.17 AZ 89.11
VS 2390.71

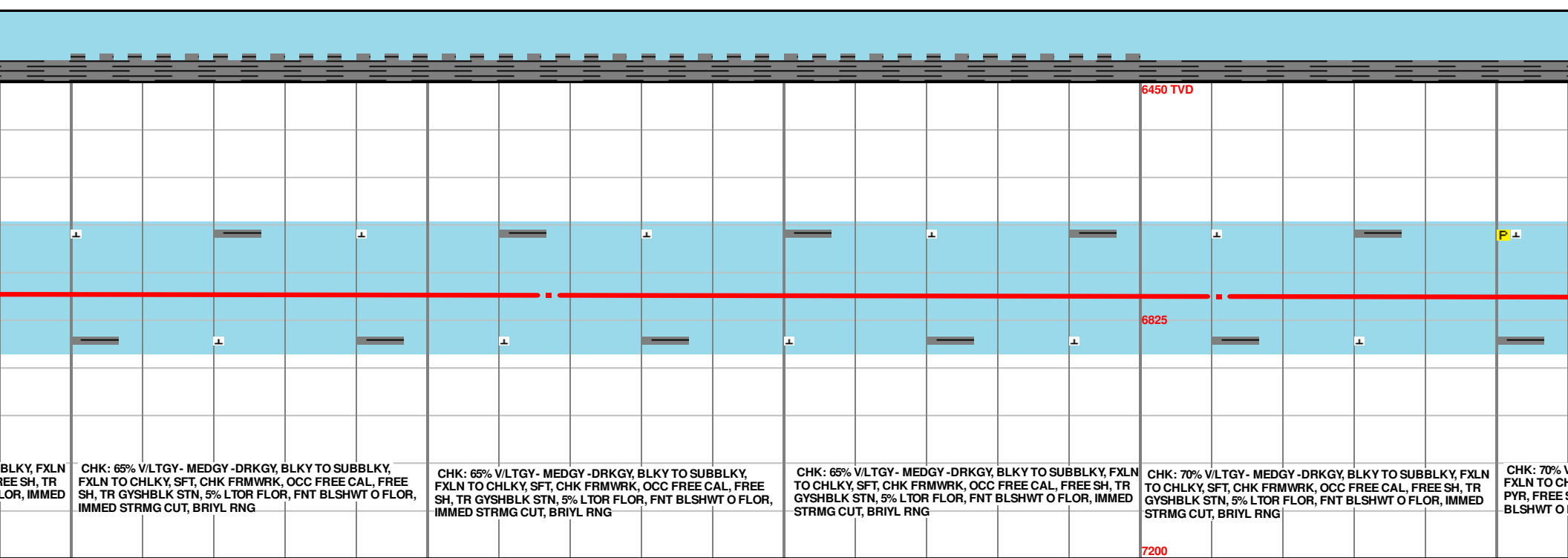
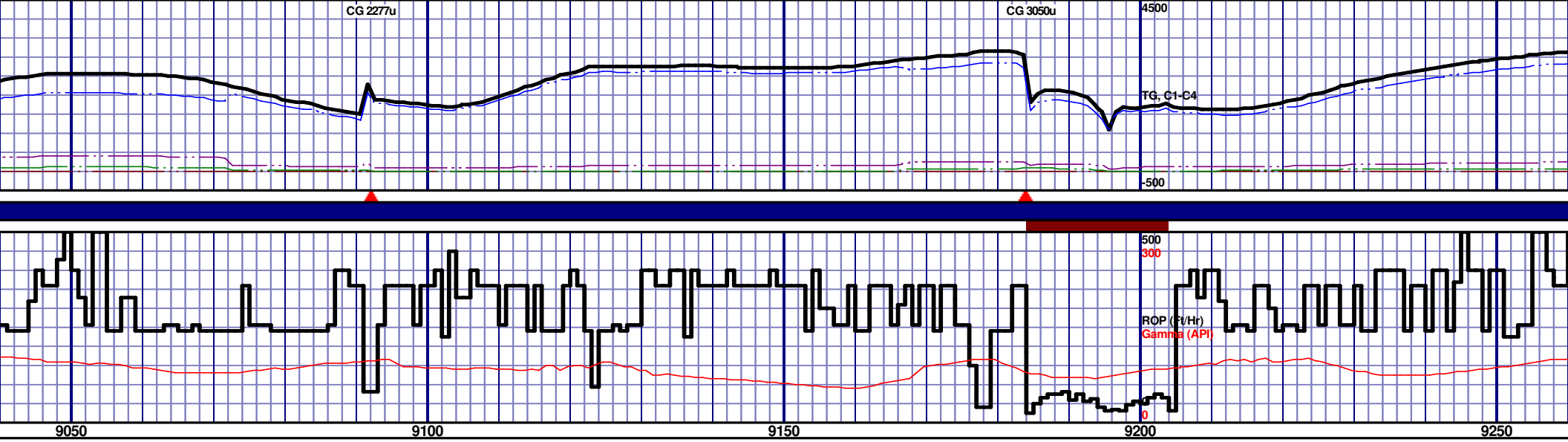


CHK: 65% V/LTGY - MEDGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, OCC FREE CAL, FREE SH, TR GYSHBLK STN, 10% LTOR FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, BRIYL RNG

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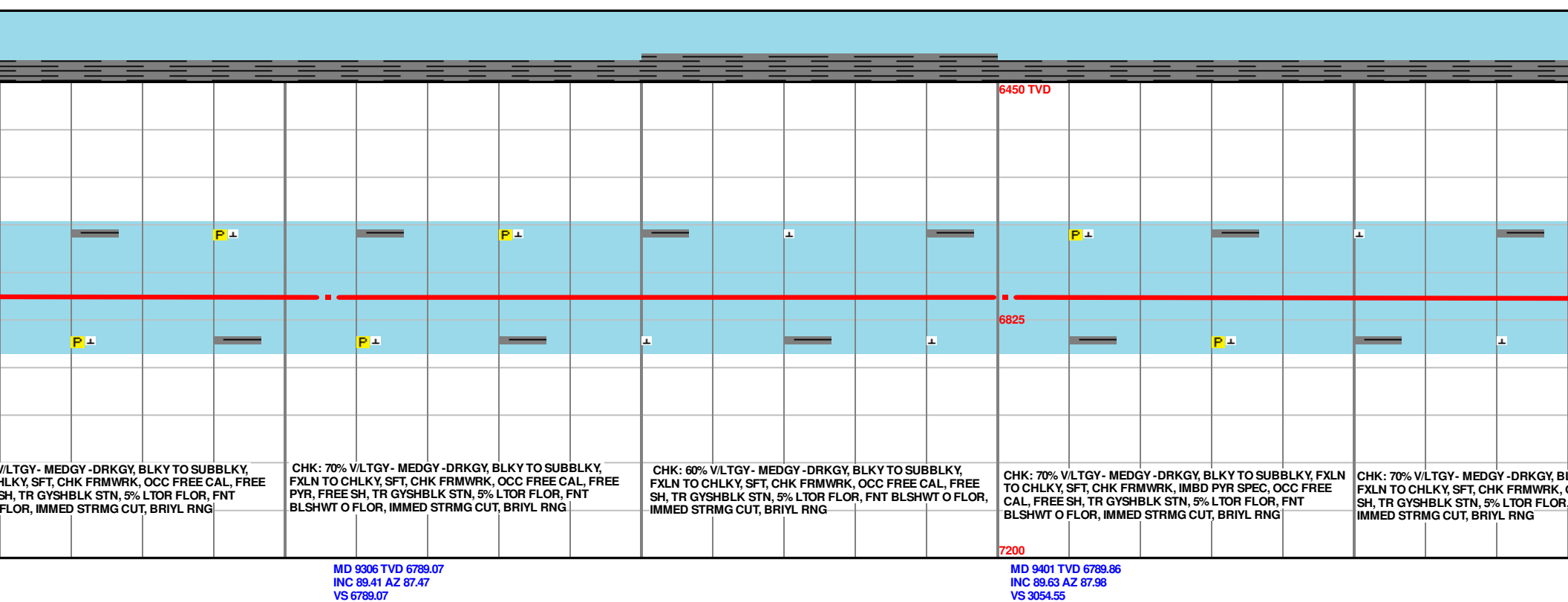
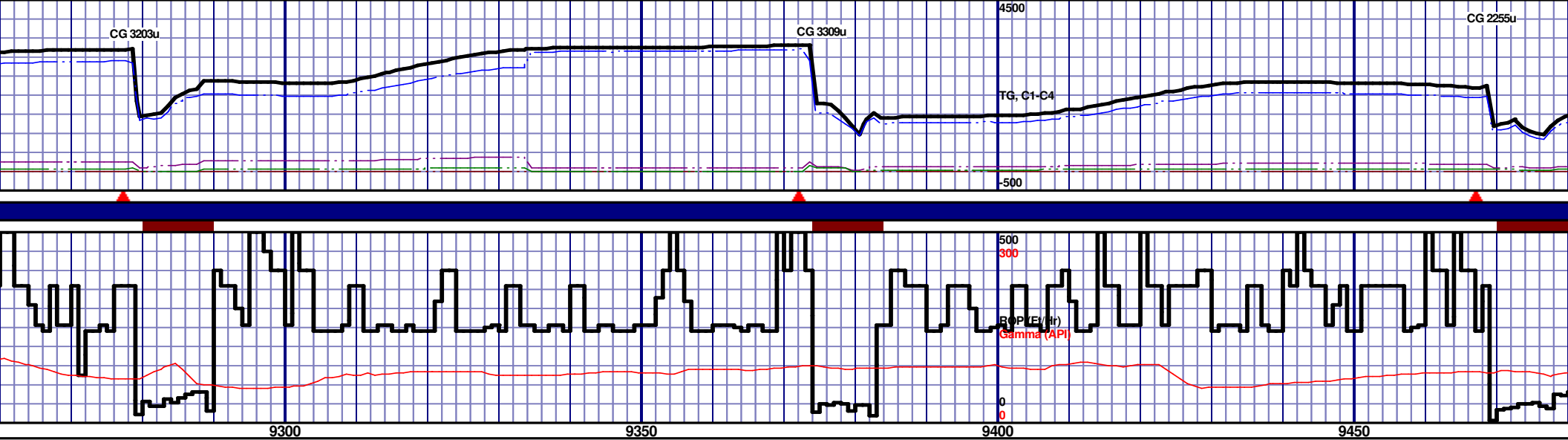
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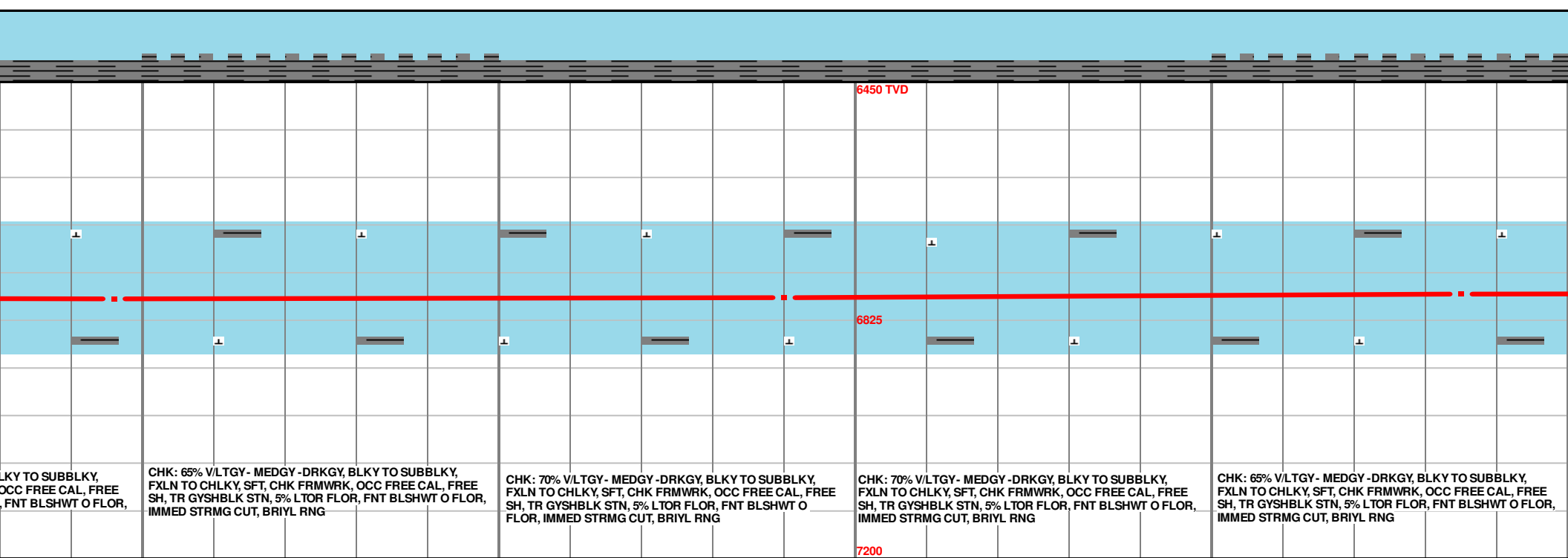
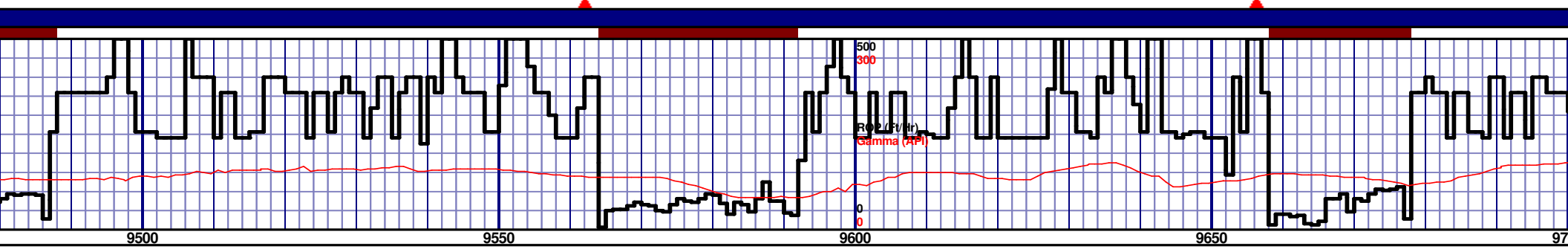
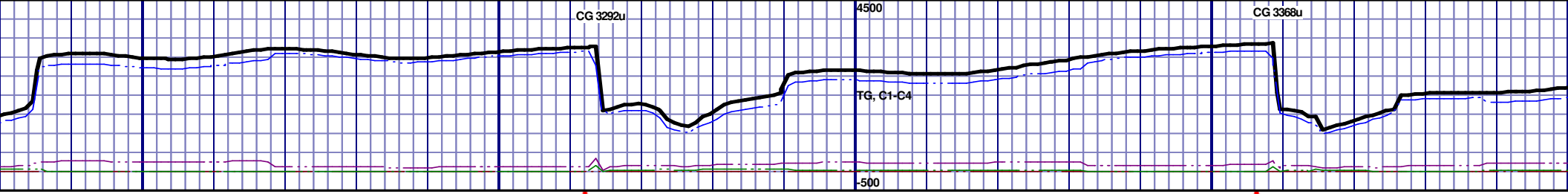
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MD 9117 TVD 6785.39
INC 88.21 AZ 86.64
VS 2770.6

MD 9211 TVD 6787.71
INC 88.95 AZ 87.7
VS 2864.56



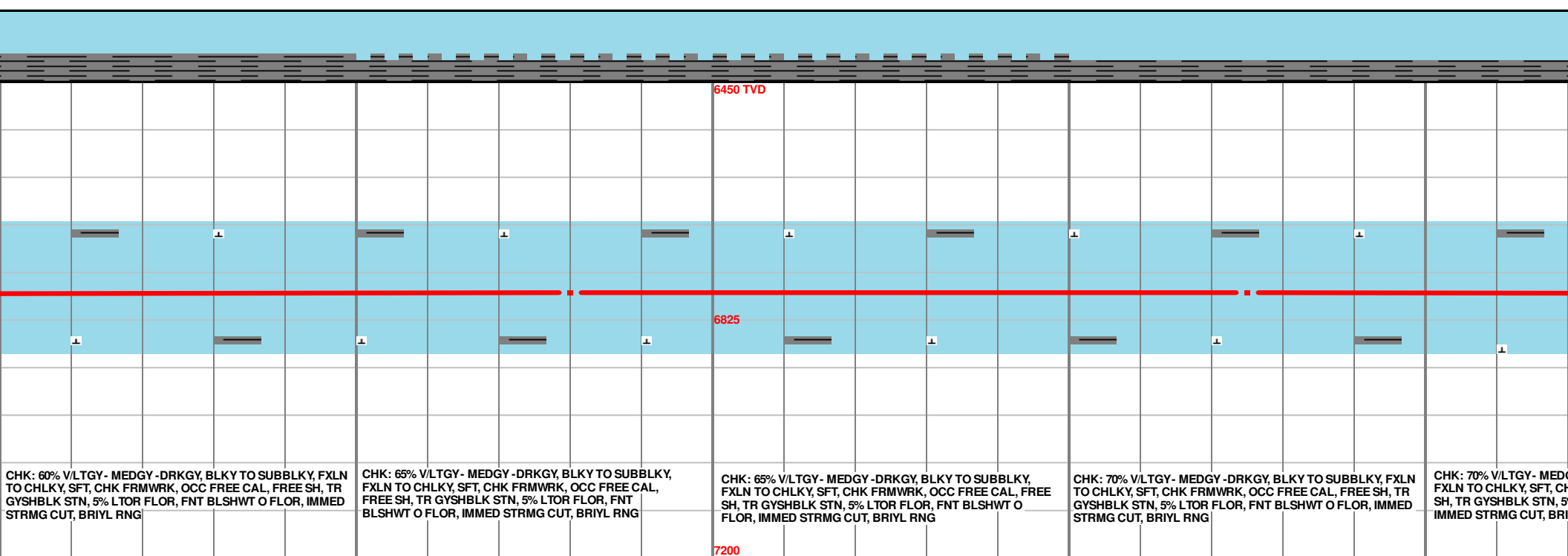
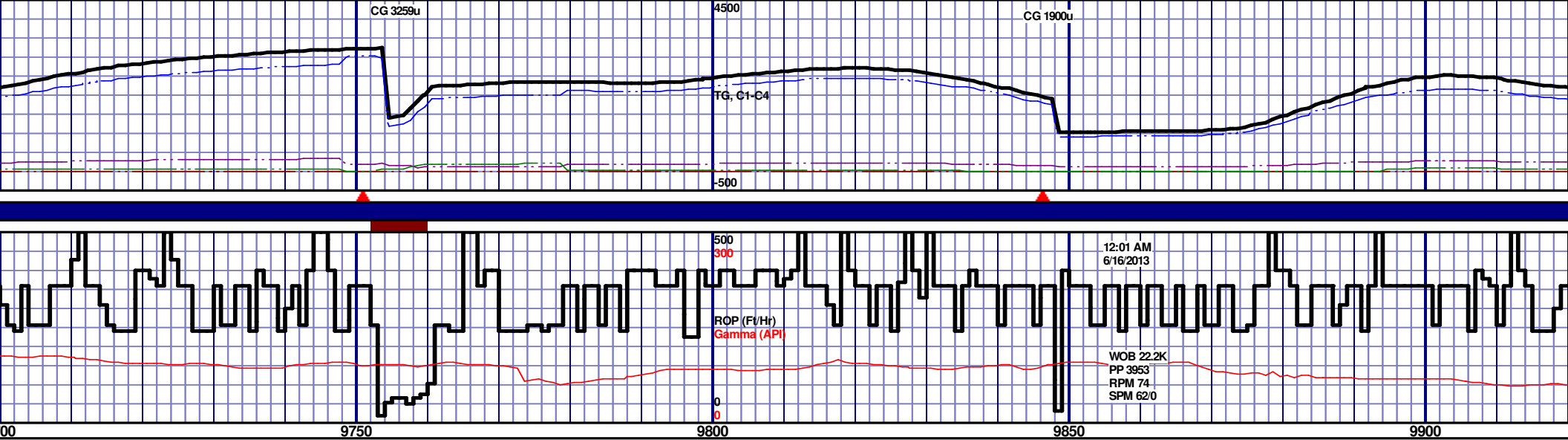


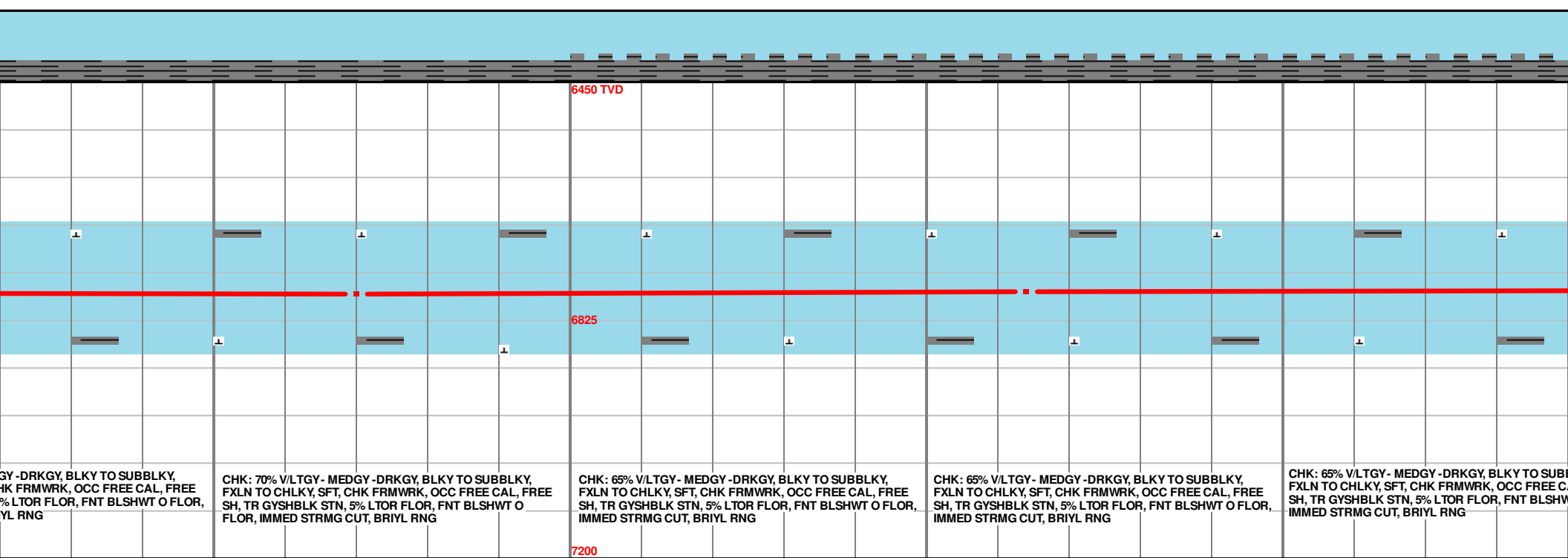
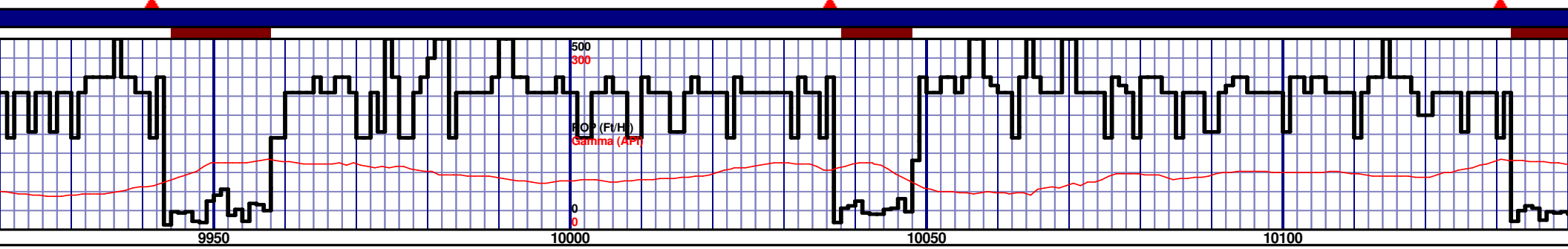
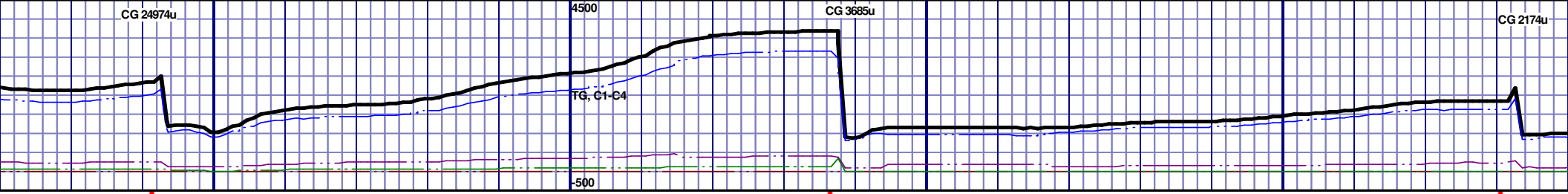
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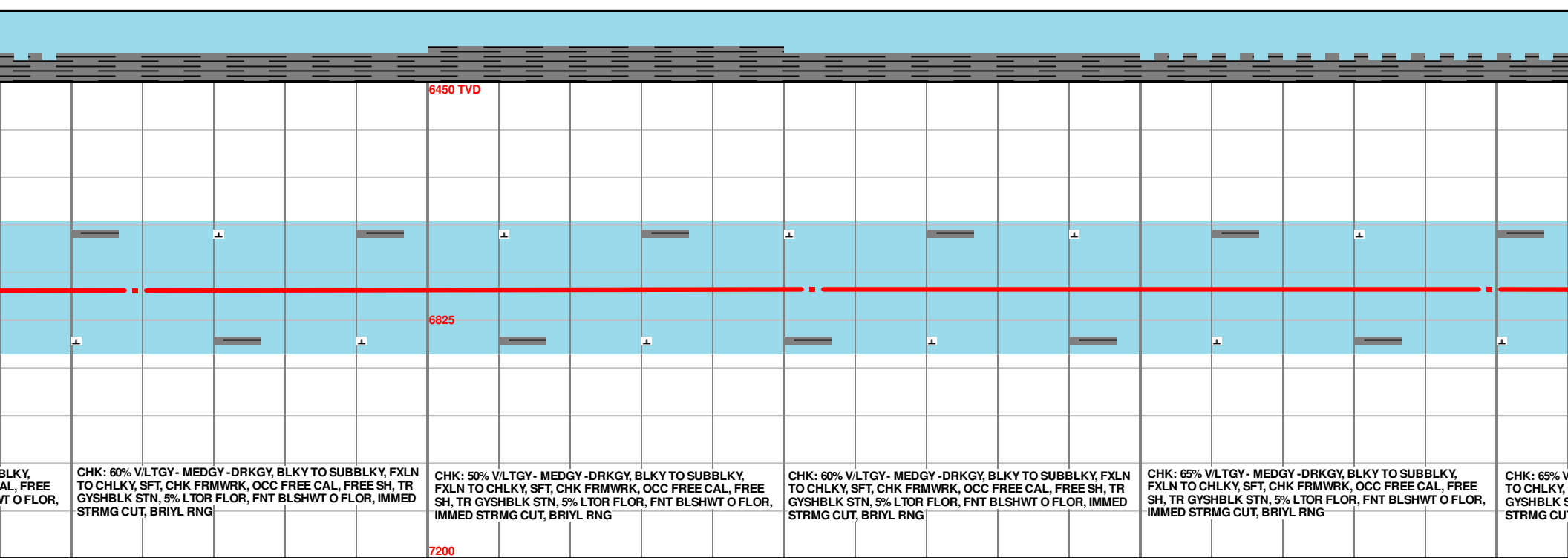
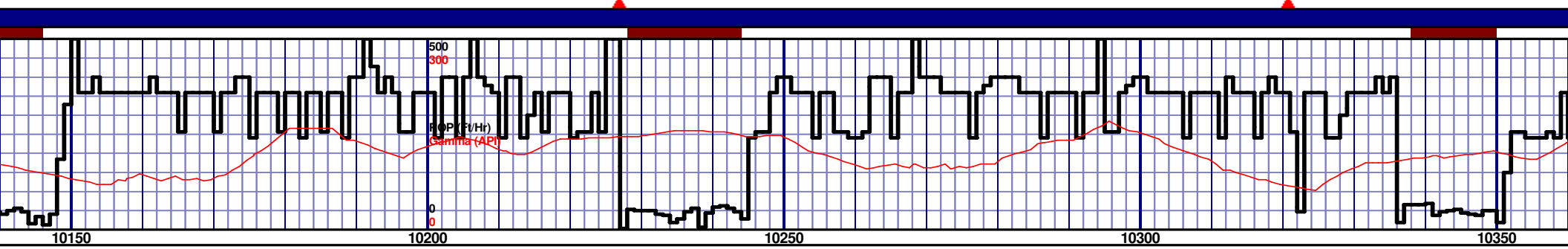
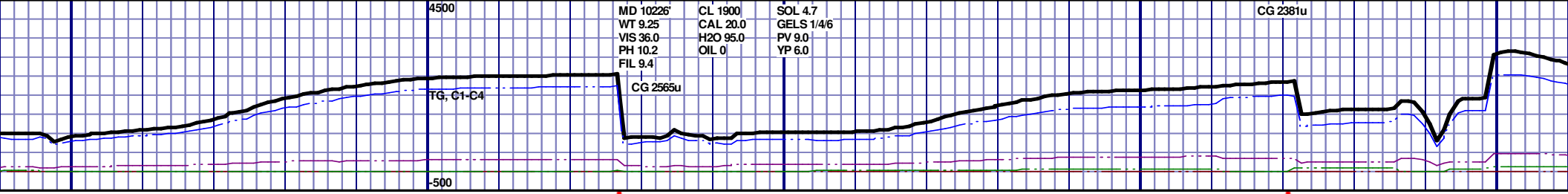
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MD 9970 TVD 6783.15
INC 89.63 AZ 89.58
VS 3623.21

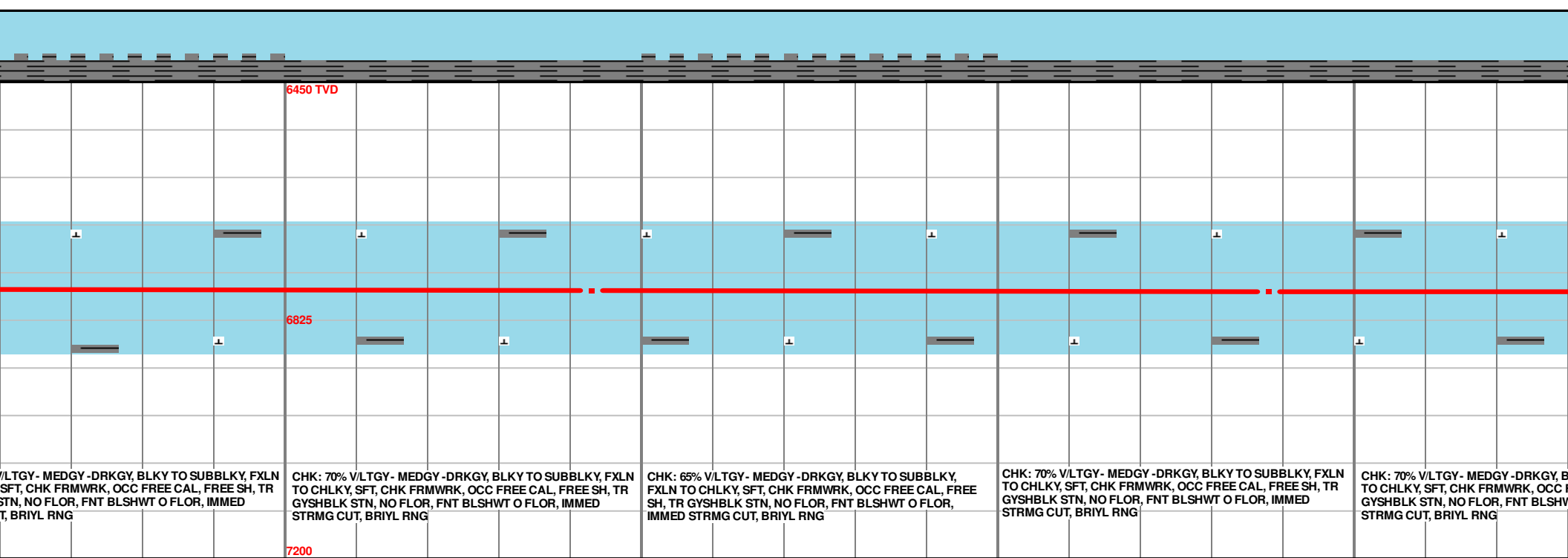
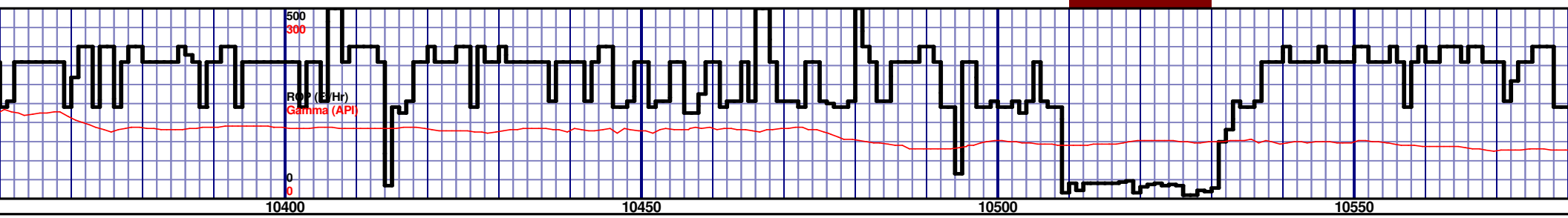
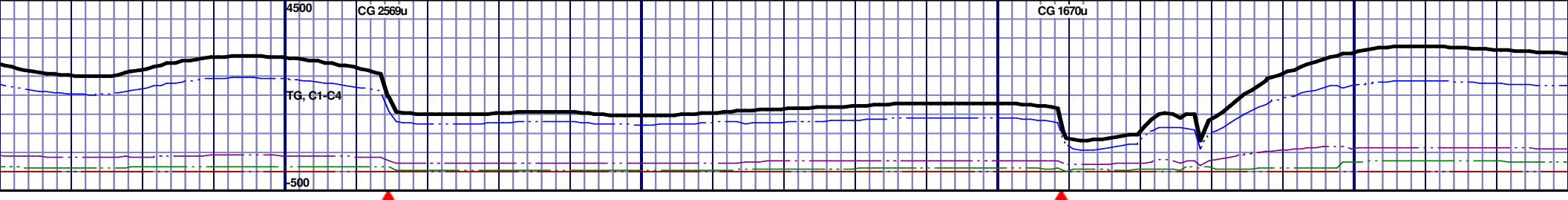
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INC 92.23 AZ 91
VS 3717.08

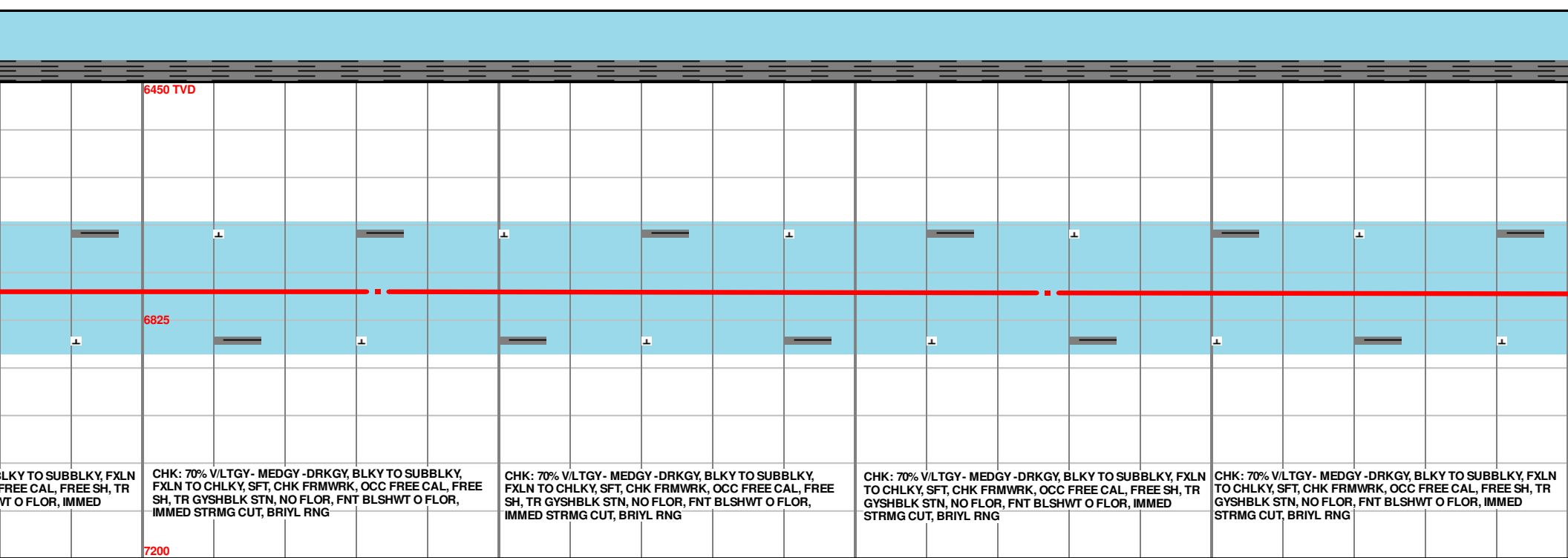
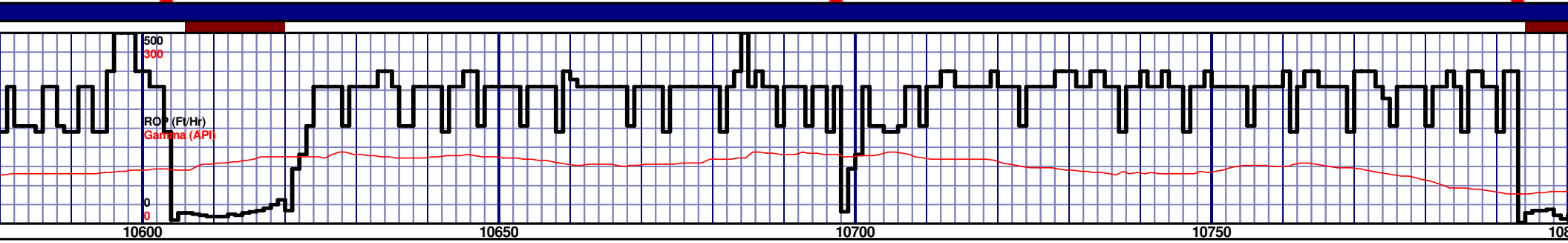
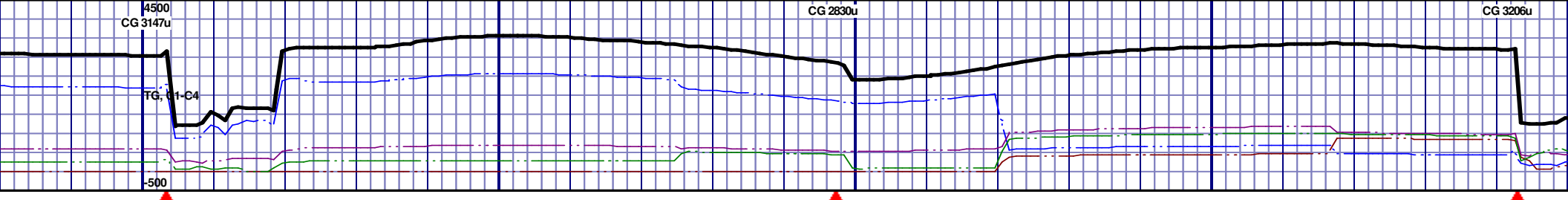


MD 10159 TVD 6777.39
INC 90.9 AZ 91.08
VS 3811.87

MD 10254 TVD 6776.49
INC 90.18 AZ 88.46
VS 3906.81

MD 10349 TVD
INC 89.6 AZ 87.4
VS 4001.8

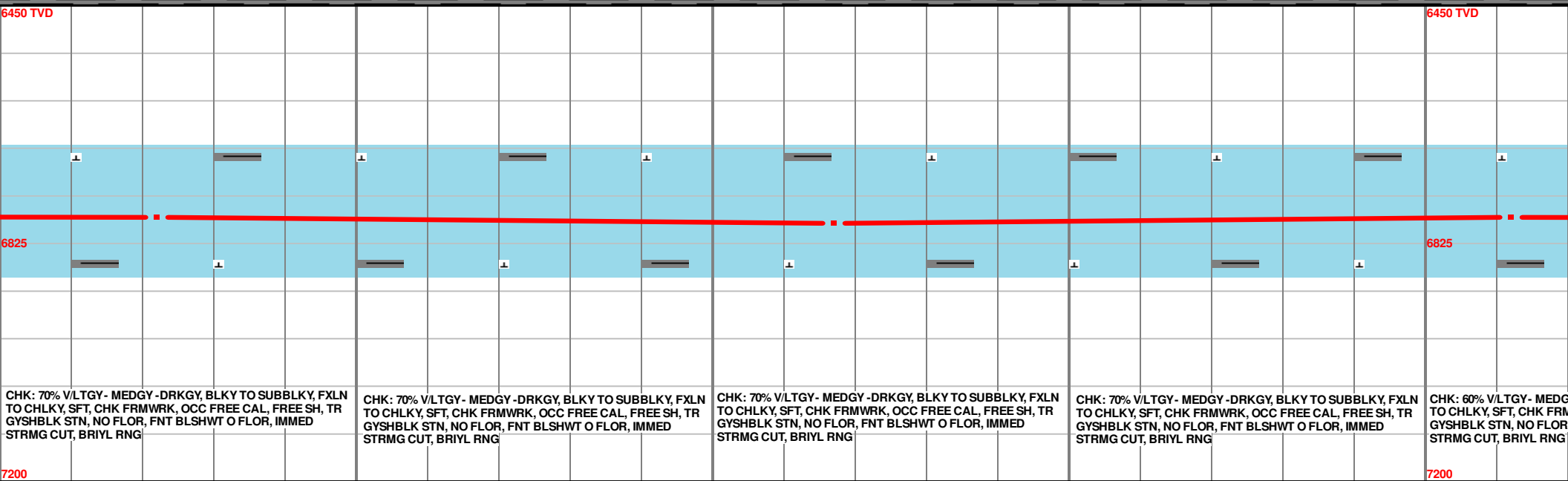
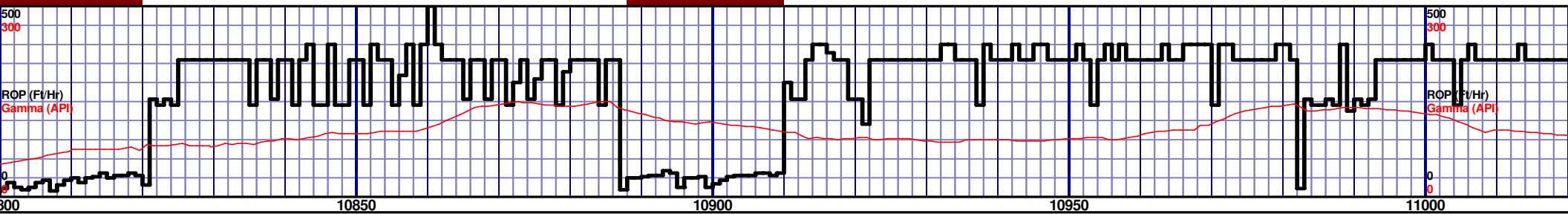
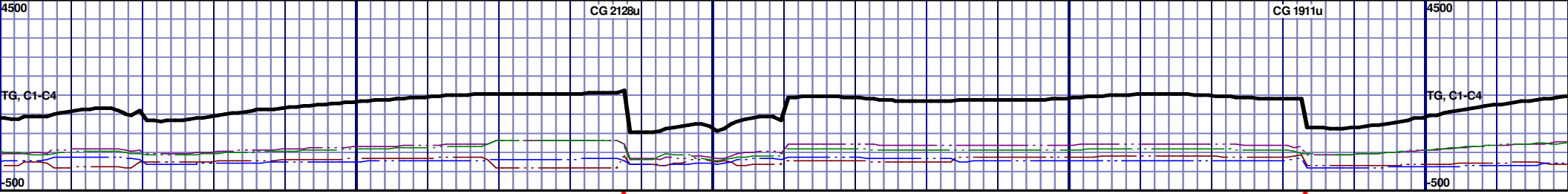




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MD 10633 TVD 6780.19
INC 90.22 AZ 88.93
VS 4285.74

MD 10727 TVD 6781.31
INC 88.43 AZ 87.77
VS 4379.72



MD 10822 TVD 6783.07
INC 89.45 AZ 88.16
VS 4474.7

MD 10917 TVD 6793.25
INC 90.34 AZ 89.89
VS 4569.68

MD 11012
INC 89.45
VS 4664.6

