



7136 South Yale Avenue, Suite 414

Tulsa, Oklahoma 74136-6378

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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: **Andrew Christiano &
Marina Lee**
Log Interval: 7050' to 11321'
Start Date: March 13, 2013
Release Date: March 15, 2013

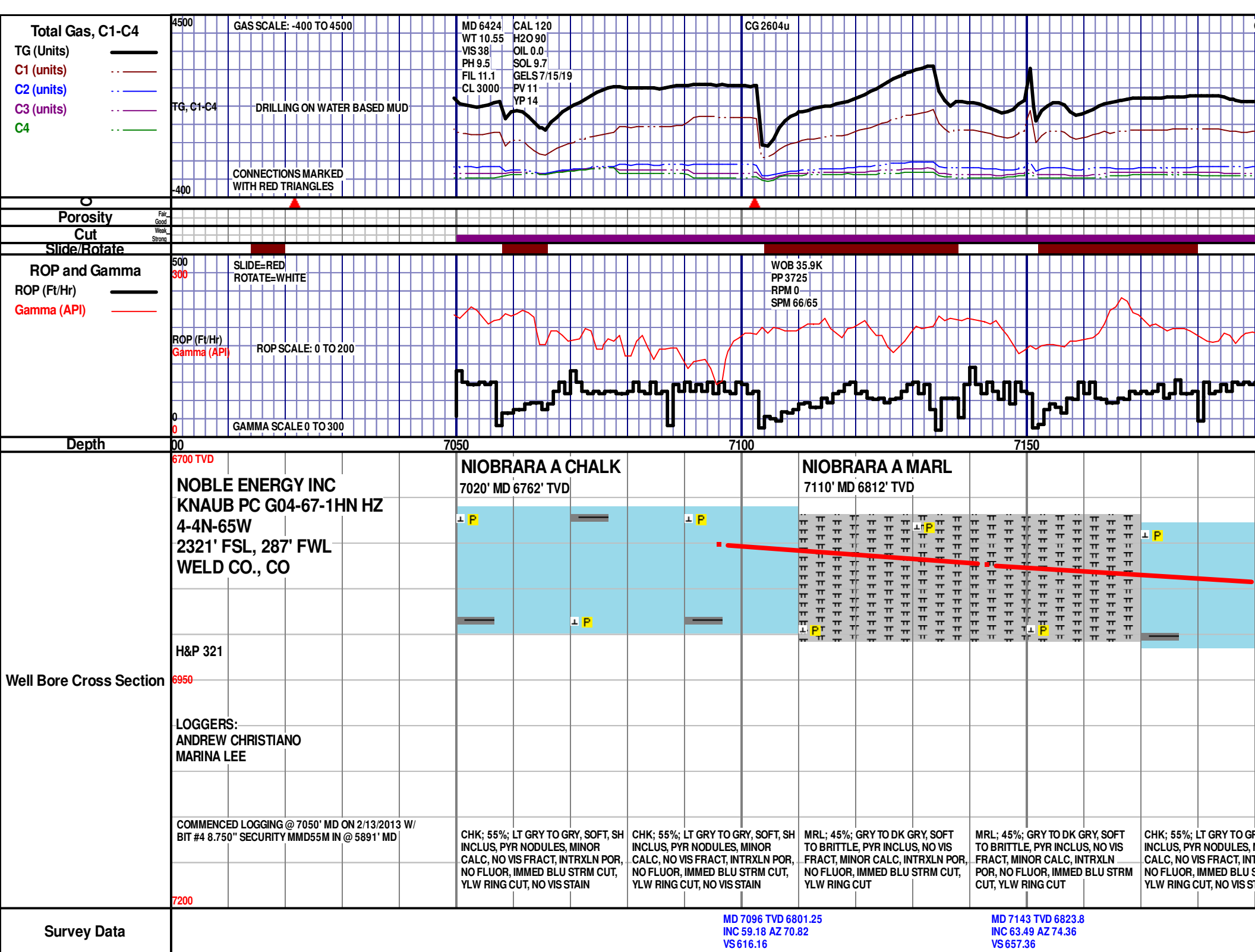
Well Information

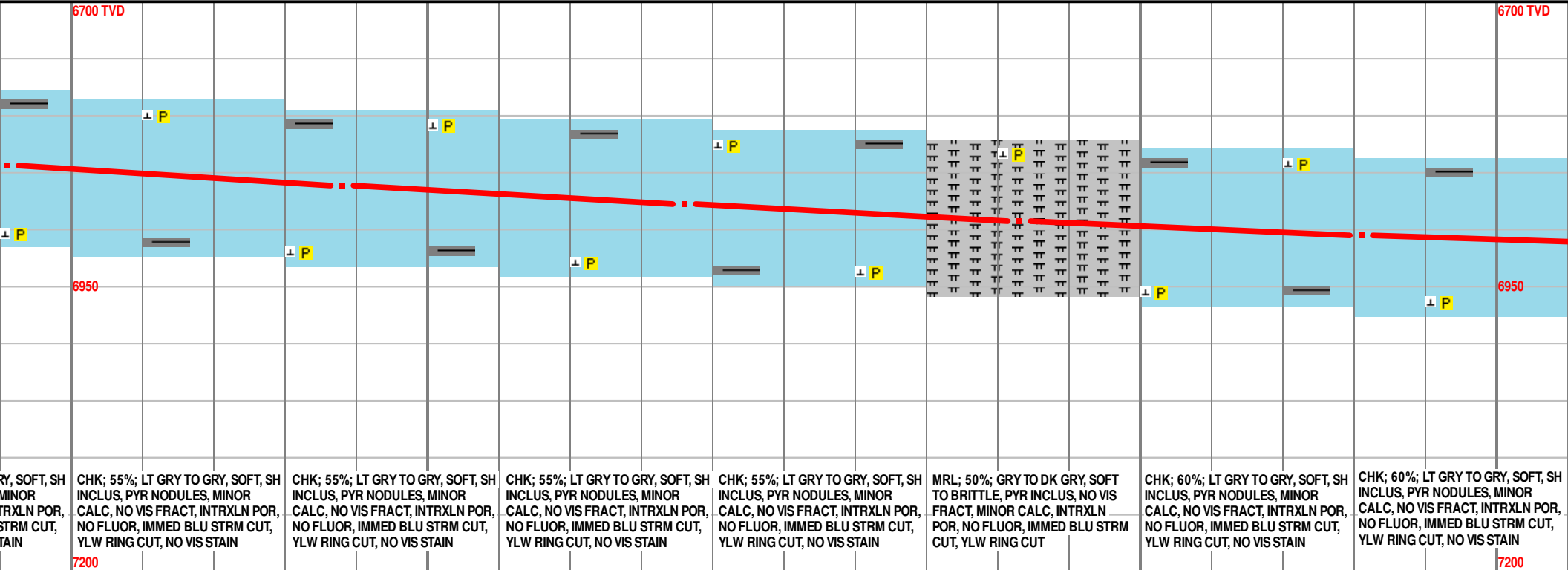
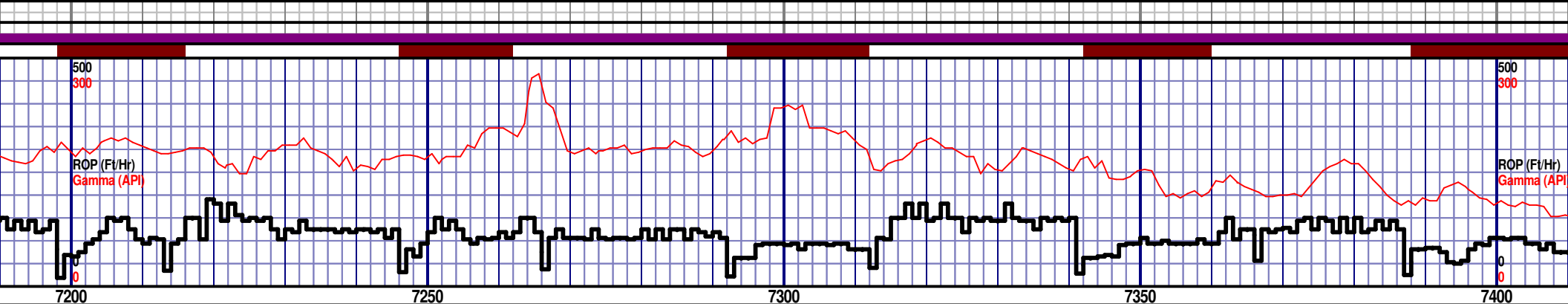
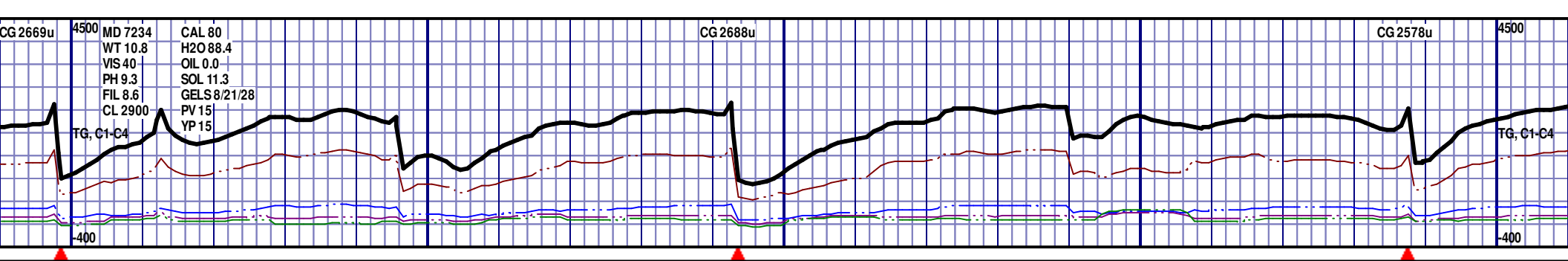
Well Name: **Knaub PC G04-67-1HN HZ**

Location: **4-4N-65W**
2321' FSL, 287' FWL

County: **Weld**
State: **Colorado**

Drilling Rig: **H&P 321**
Total Depth: **11321'**
TD Date: **March 15, 2013**
Formation: **Niobrara C**
KB Elevation: **4648'**
GR Elevation: **4618'**
API Number: **05-123-36284**





RY, SOFT, SH
MINOR
INTRXLN POR,
STRM CUT,
STAIN

CHK; 55%; LT GRY TO GRY, SOFT, SH
INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, INTRXLN POR,
NO FLUOR, IMMED BLU STRM CUT,
YLW RING CUT, NO VIS STAIN

CHK; 55%; LT GRY TO GRY, SOFT, SH
INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, INTRXLN POR,
NO FLUOR, IMMED BLU STRM CUT,
YLW RING CUT, NO VIS STAIN

CHK; 55%; LT GRY TO GRY, SOFT, SH
INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, INTRXLN POR,
NO FLUOR, IMMED BLU STRM CUT,
YLW RING CUT, NO VIS STAIN

CHK; 55%; LT GRY TO GRY, SOFT, SH
INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, INTRXLN POR,
NO FLUOR, IMMED BLU STRM CUT,
YLW RING CUT, NO VIS STAIN

MRL; 50%; GRY TO DK GRY, SOFT
TO BRITTLE, PYR INCLUS, NO VIS
FRACT, MINOR CALC, INTRXLN
POR, NO FLUOR, IMMED BLU STRM
CUT, YLW RING CUT

CHK; 60%; LT GRY TO GRY, SOFT, SH
INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, INTRXLN POR,
NO FLUOR, IMMED BLU STRM CUT,
YLW RING CUT, NO VIS STAIN

CHK; 60%; LT GRY TO GRY, SOFT, SH
INCLUS, PYR NODULES, MINOR
CALC, NO VIS FRACT, INTRXLN POR,
NO FLUOR, IMMED BLU STRM CUT,
YLW RING CUT, NO VIS STAIN

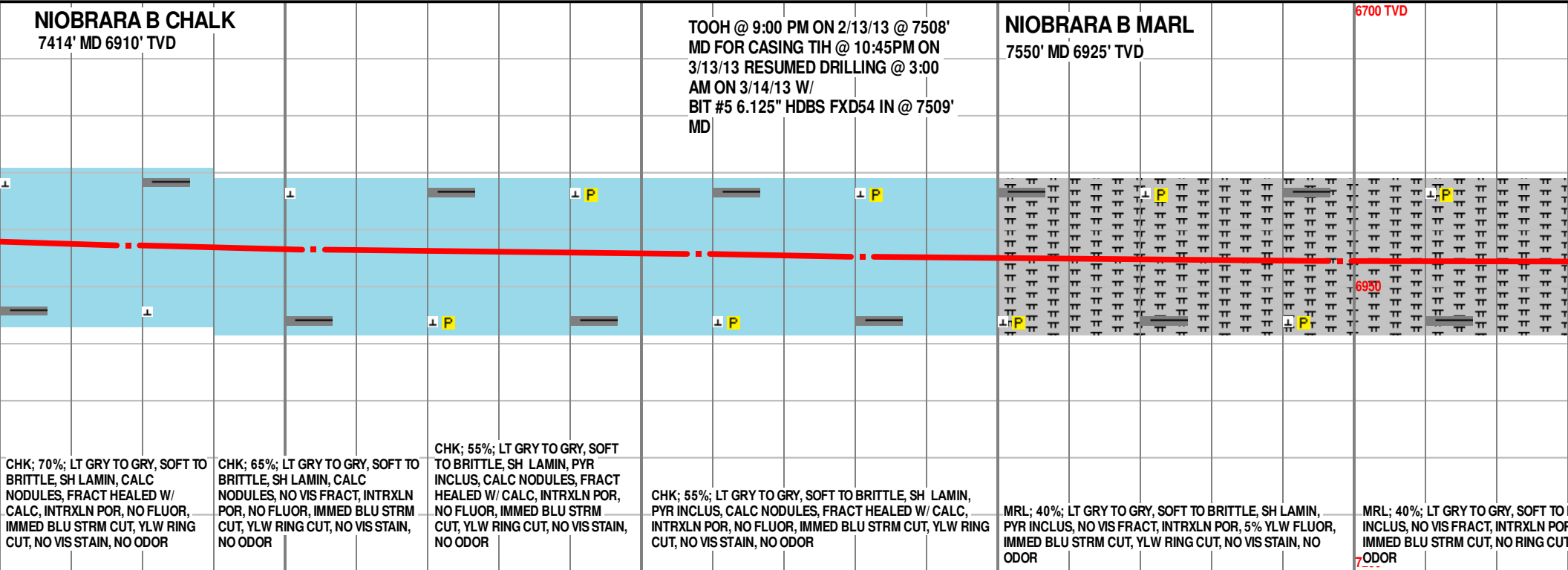
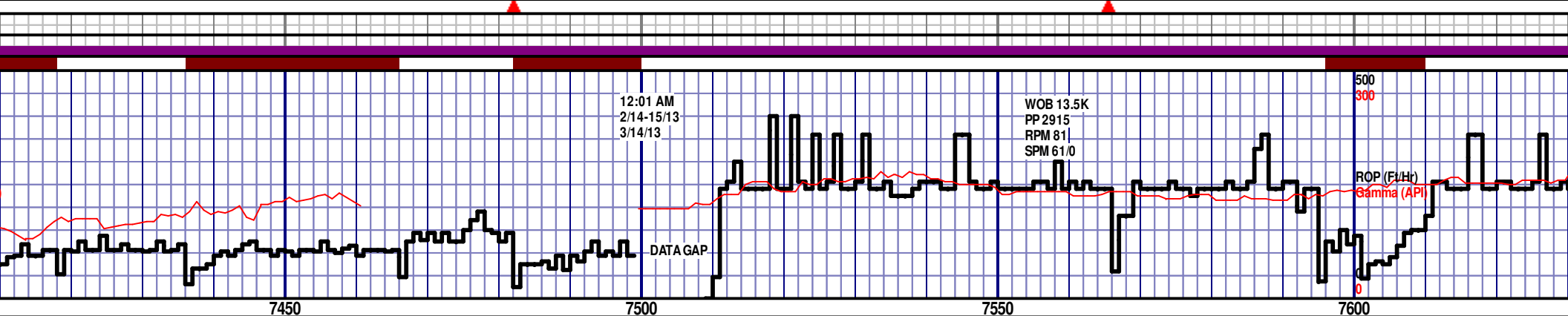
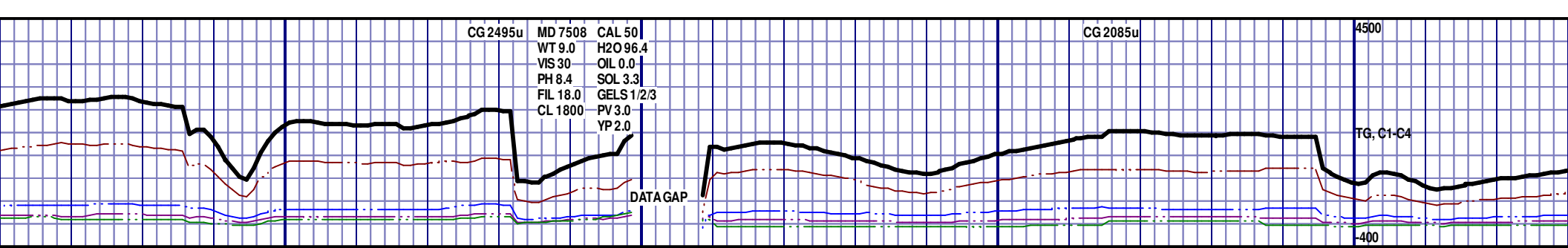
MD 7191 TVD 6843.96
INC 66.84 AZ 77.33
VS 700.89

MD 7238 TVD 6861.67
INC 68.89 AZ 80.09
VS 744.31

MD 7286 TVD 6878
INC 71.32 AZ 82.53
VS 789.13

MD 7333 TVD 6892
INC 73.63 AZ 84.54
VS 833.4

MD 7381 TVD 6904.4
INC 76.81 AZ 86.04
VS 879



MD 7428 TVD 6913.41
INC 81.07 AZ 88.35
VS 924.01

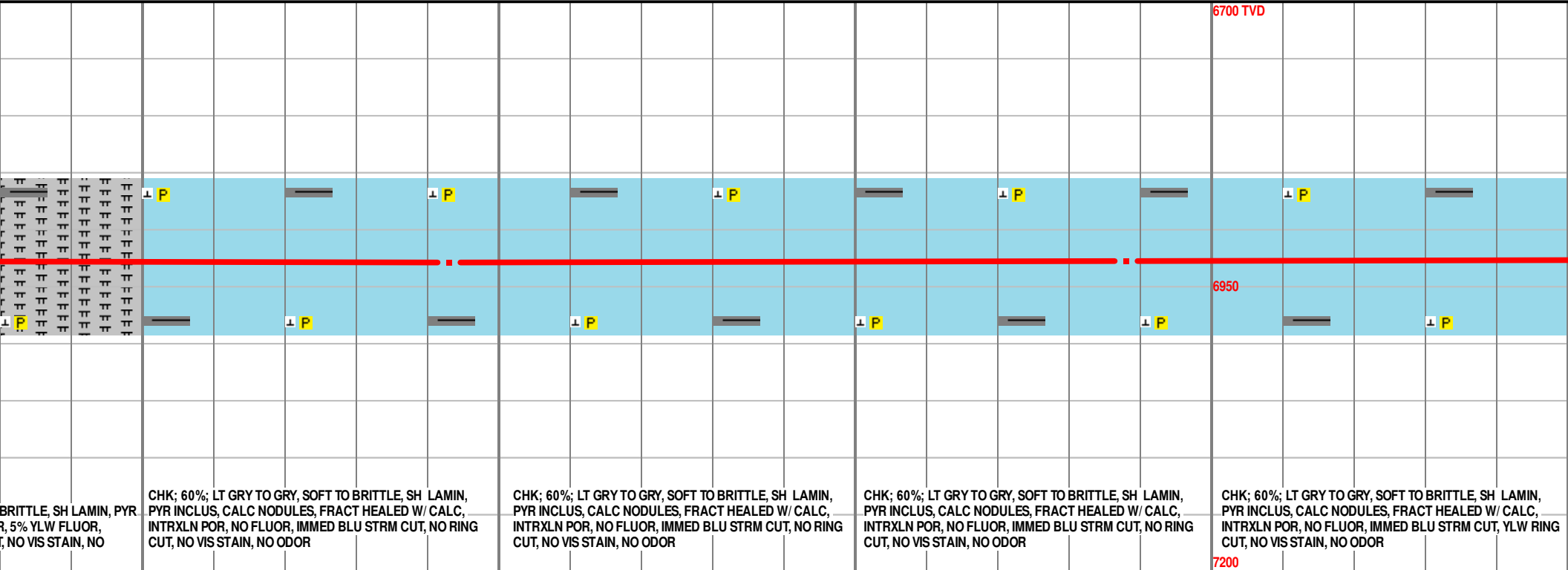
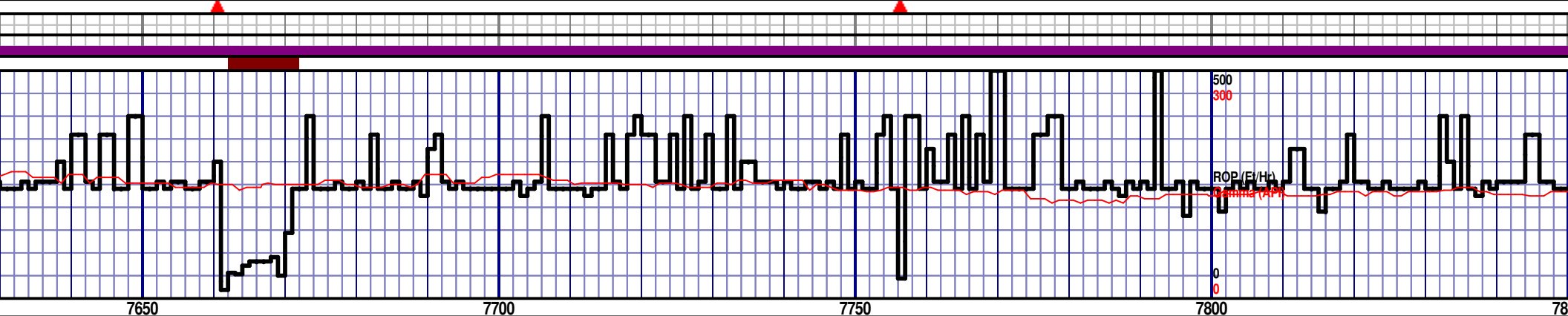
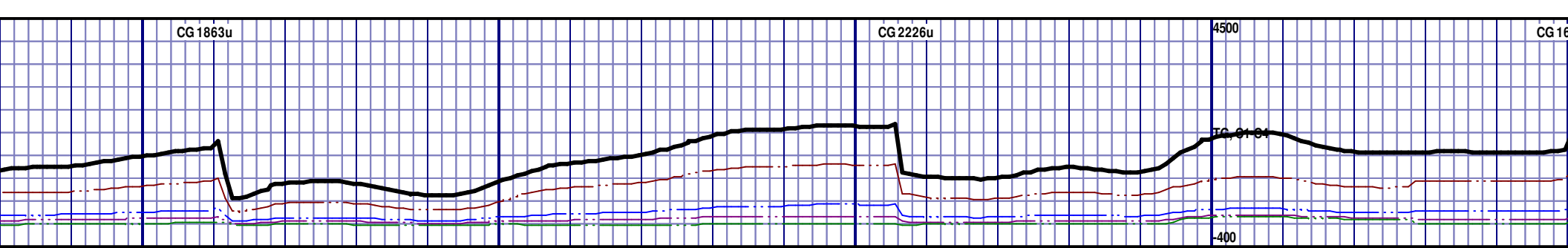
MD 7454 TVD 6916.9
INC 83.83 AZ 90.46
VS 948.81

PROJ TO BIT

MD 7508 TVD 6921.23
INC 86.95 AZ 92.68
VS 1000.29

MD 7531 TVD 6923.54
INC 86.27 AZ 92.96
VS 1021.9

MD 7598 TVD 6927.16
INC 87.53 AZ 93.22
VS 1085.36



BRITTLE, SH LAMIN, PYR
R, 5% YLW FLUOR,
T, NO VIS STAIN, NO

CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN,
PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC,
INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, NO RING
CUT, NO VIS STAIN, NO ODOR

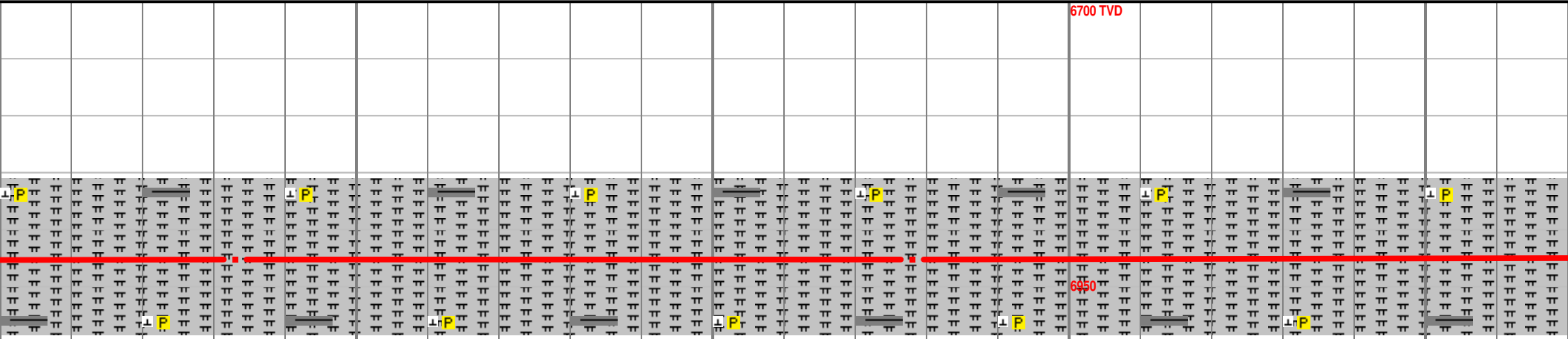
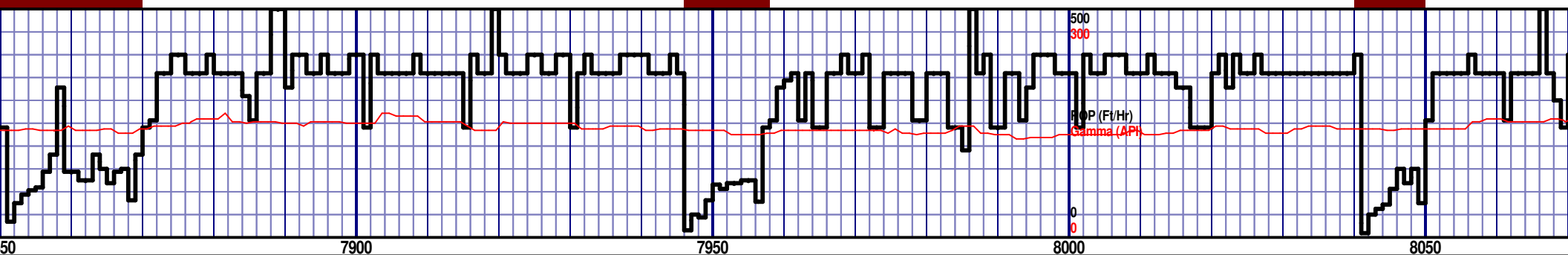
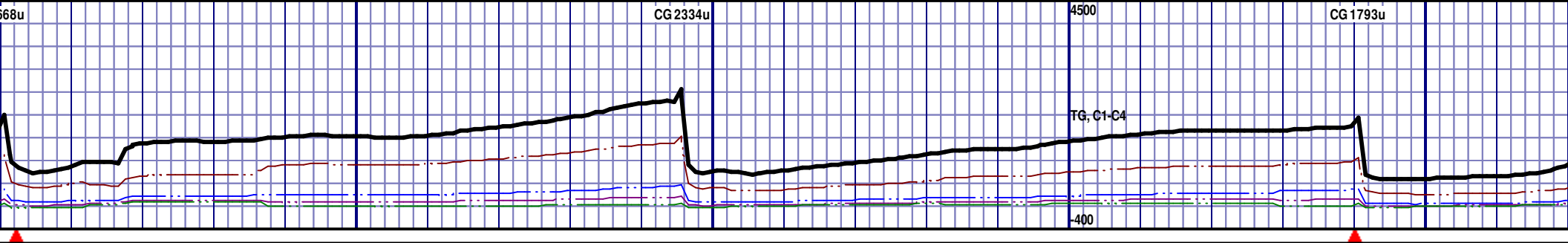
CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN,
PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC,
INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, NO RING
CUT, NO VIS STAIN, NO ODOR

CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN,
PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC,
INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, NO RING
CUT, NO VIS STAIN, NO ODOR

CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN,
PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC,
INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING
CUT, NO VIS STAIN, NO ODOR

MD 7693 TVD 6928.95
INC 90.31 AZ 92.93
VS 1175.45

MD 7788 TVD 6927.68
INC 91.23 AZ 91.66
VS 1265.95



MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

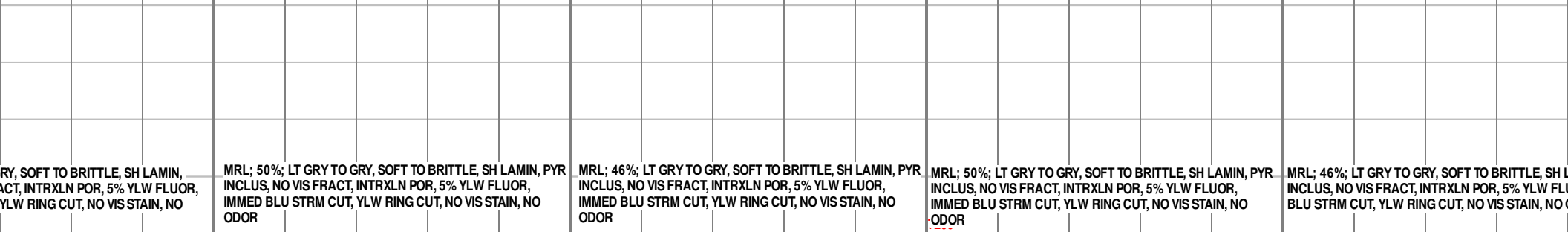
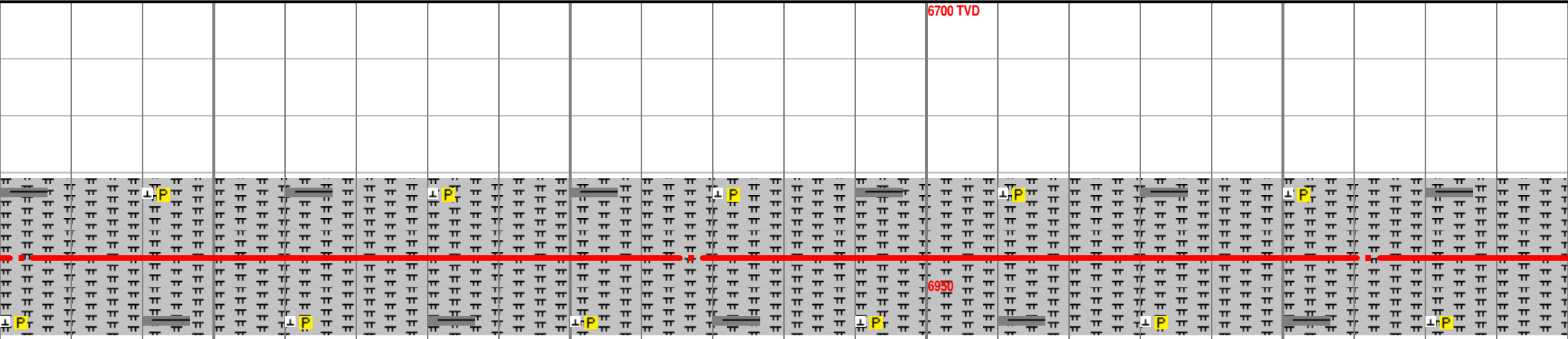
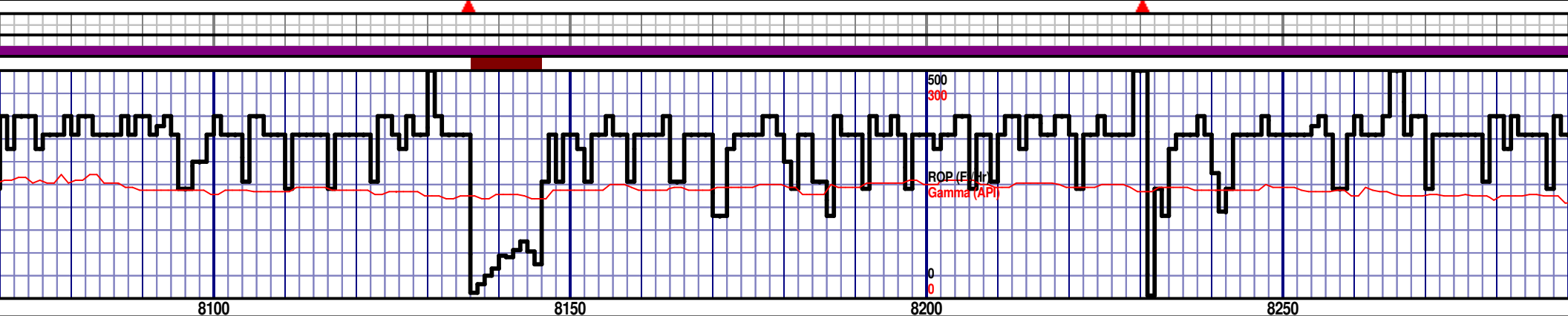
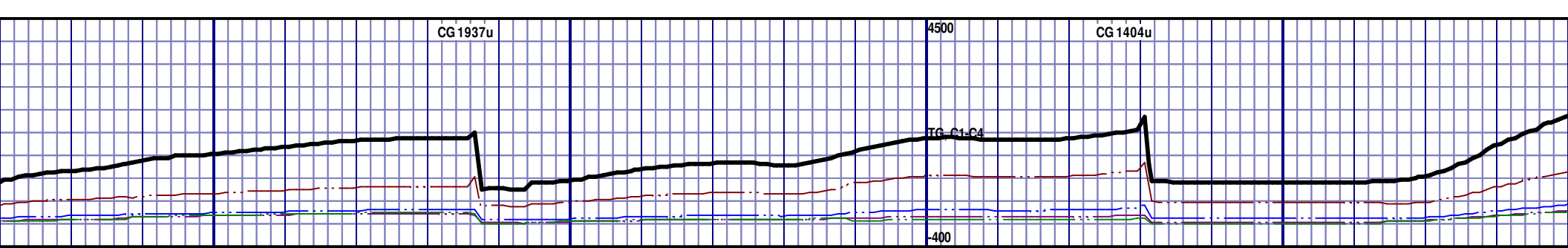
MRL; 50%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 50%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 50%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MD 7883 TVD 6925.91
INC 90.89 AZ 92.18
VS 1356.63

MD 7978 TVD 6925.66
INC 89.41 AZ 93.52
VS 1446.86



MD 8073 TVD 6925.4
INC 90.89 AZ 91.53
VS 1537.25

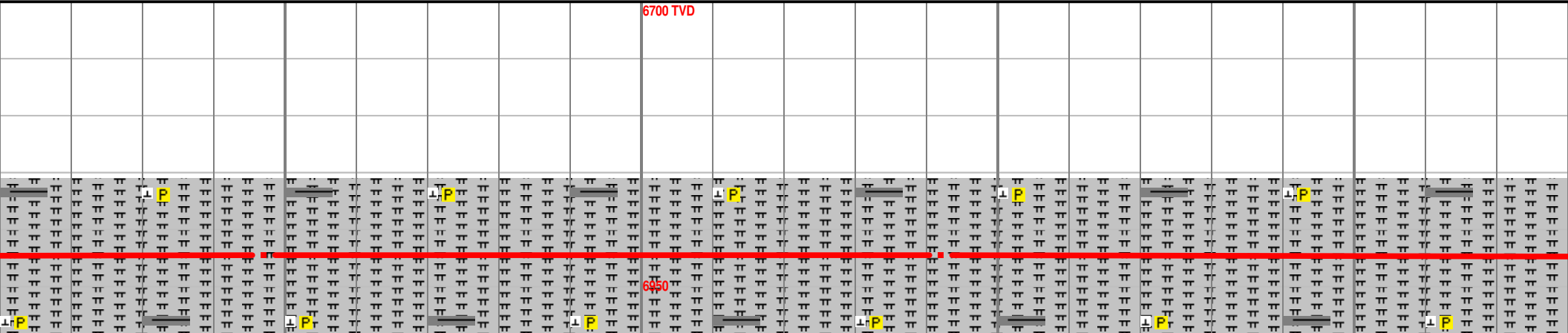
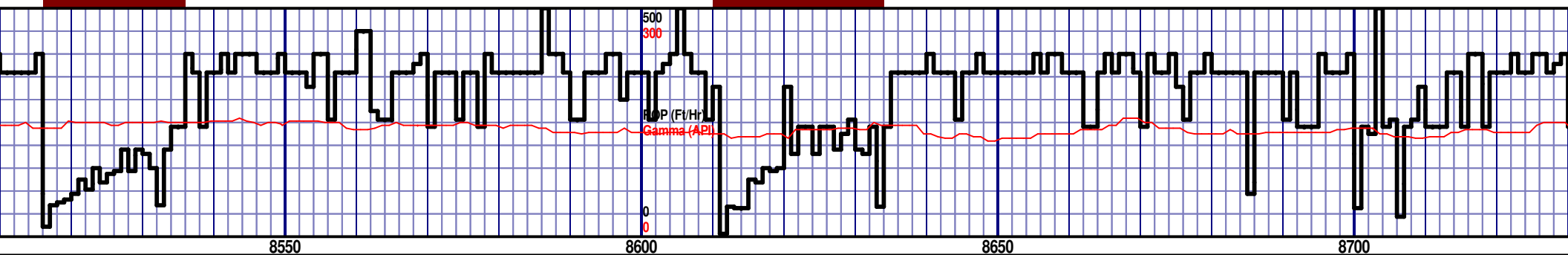
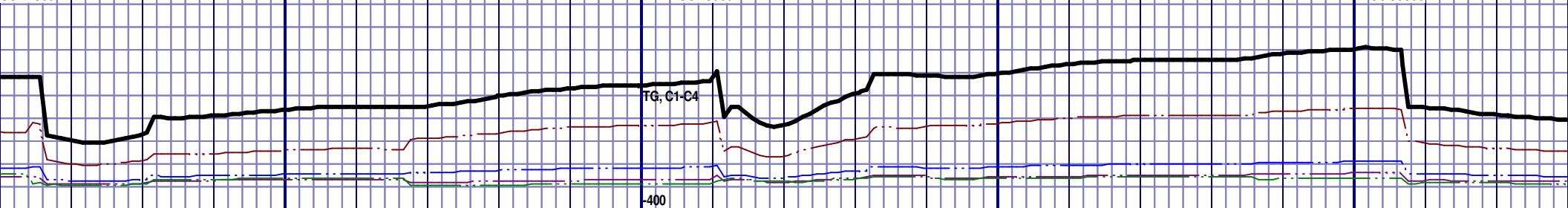
MD 8167 TVD 6925.38
INC 89.13 AZ 91.7
VS 1627.14

MD 8262 TVD 6925.23
INC 91.04 AZ 92.16
VS 1717.84

CG 2438u

4500 CG 2368u

CG 3039u



LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED
CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 47%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED
IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO
ODOR

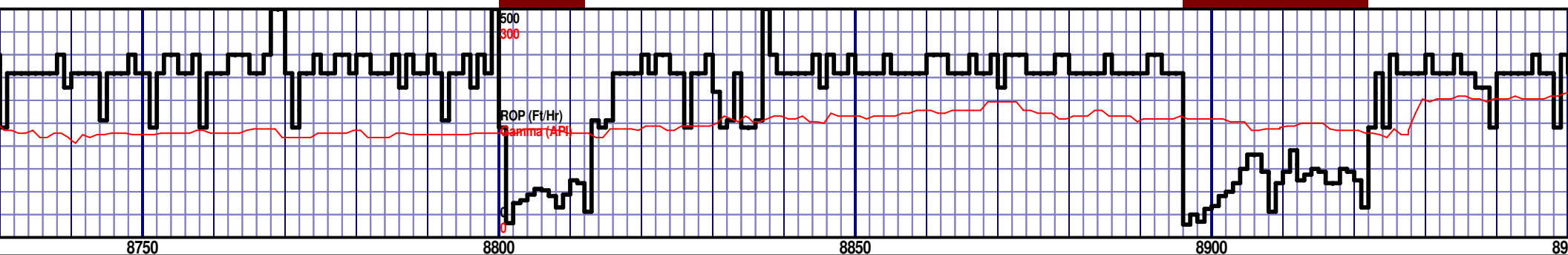
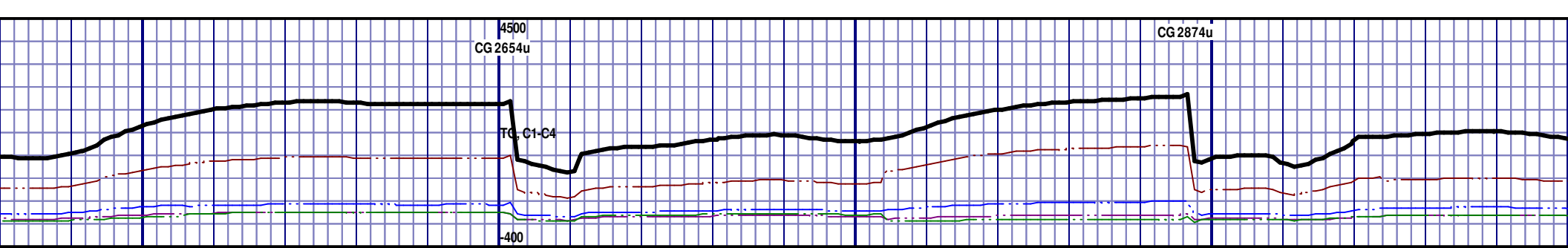
MRL; 50%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED
BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 50%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED
IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO
ODOR

MRL; 50%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED
BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MD 8547 TVD 6922.6
INC 91.45 AZ 93.52
VS 1991.06

MD 8642 TVD 6922.01
INC 89.26 AZ 91.67
VS 2081.41

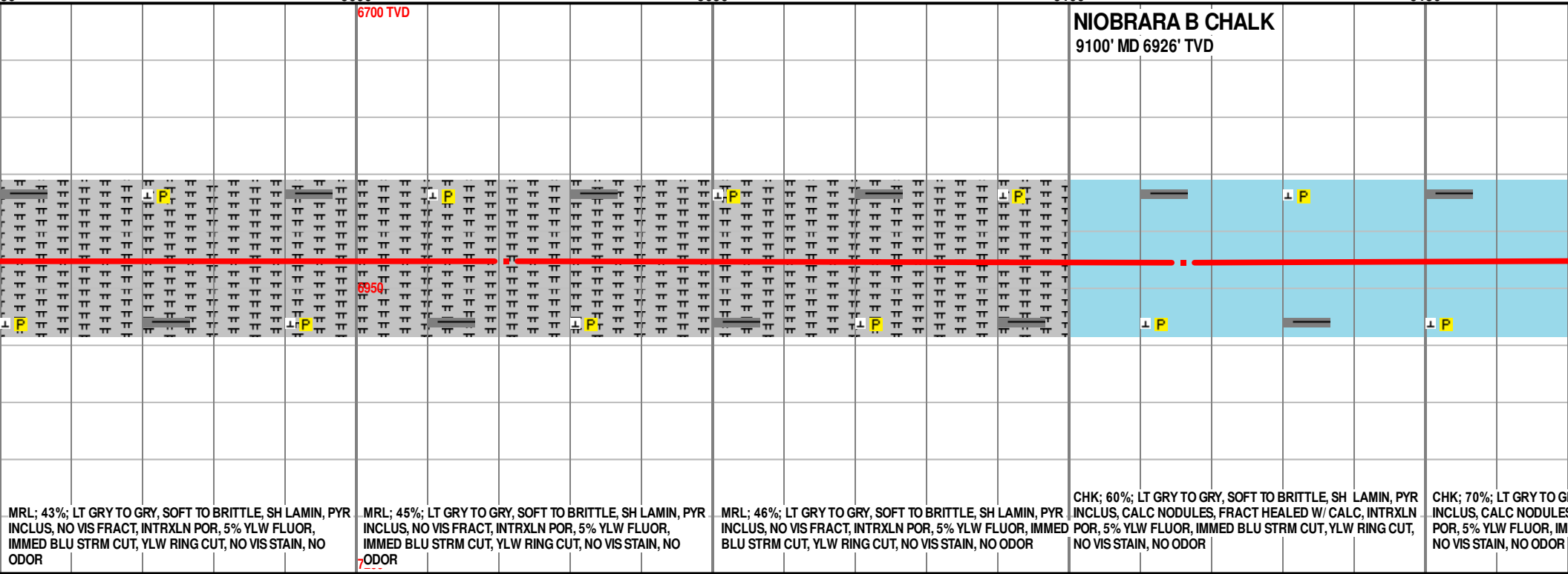
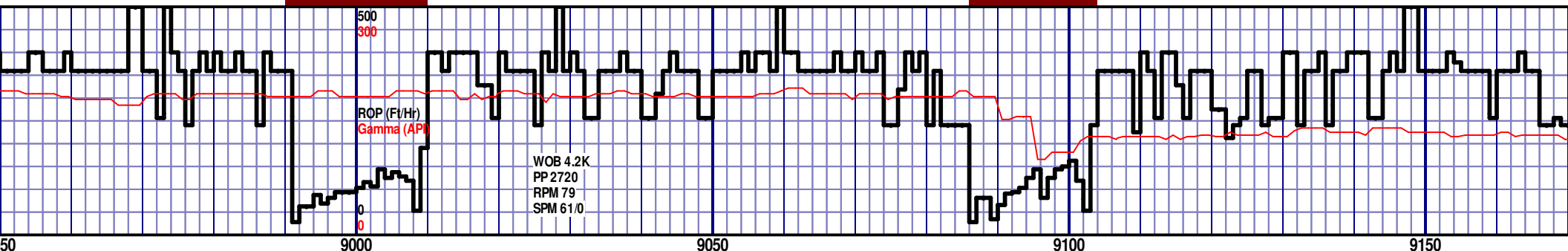
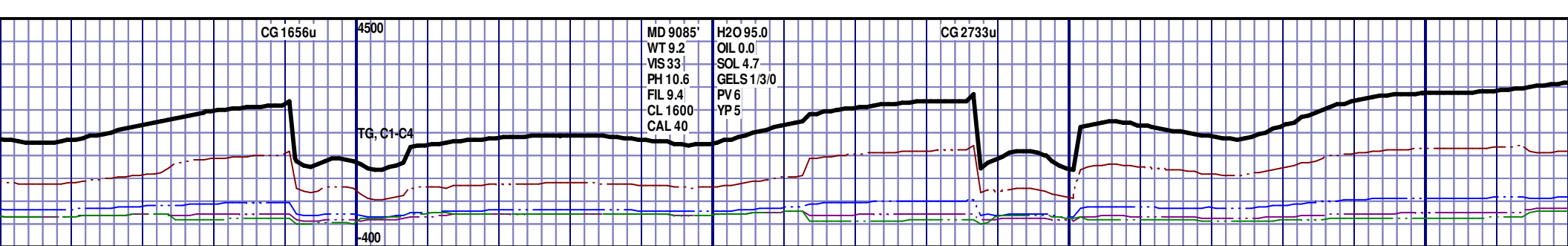


6700 TVD					6930				
BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMEDIATE BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR					MRL; 50%; LT GRAY TO GRAY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMEDIATE BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR				
MRL; 50%; LT GRAY TO GRAY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMEDIATE BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR					MRL; 50%; LT GRAY TO GRAY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMEDIATE BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR				
MRL; 43%; LT GRAY TO GRAY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMEDIATE BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR					MRL; 50%; LT GRAY TO GRAY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMEDIATE BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR				

MD 8737 TVD 6923.64
INC 88.77 AZ 89.54
VS 2172.72

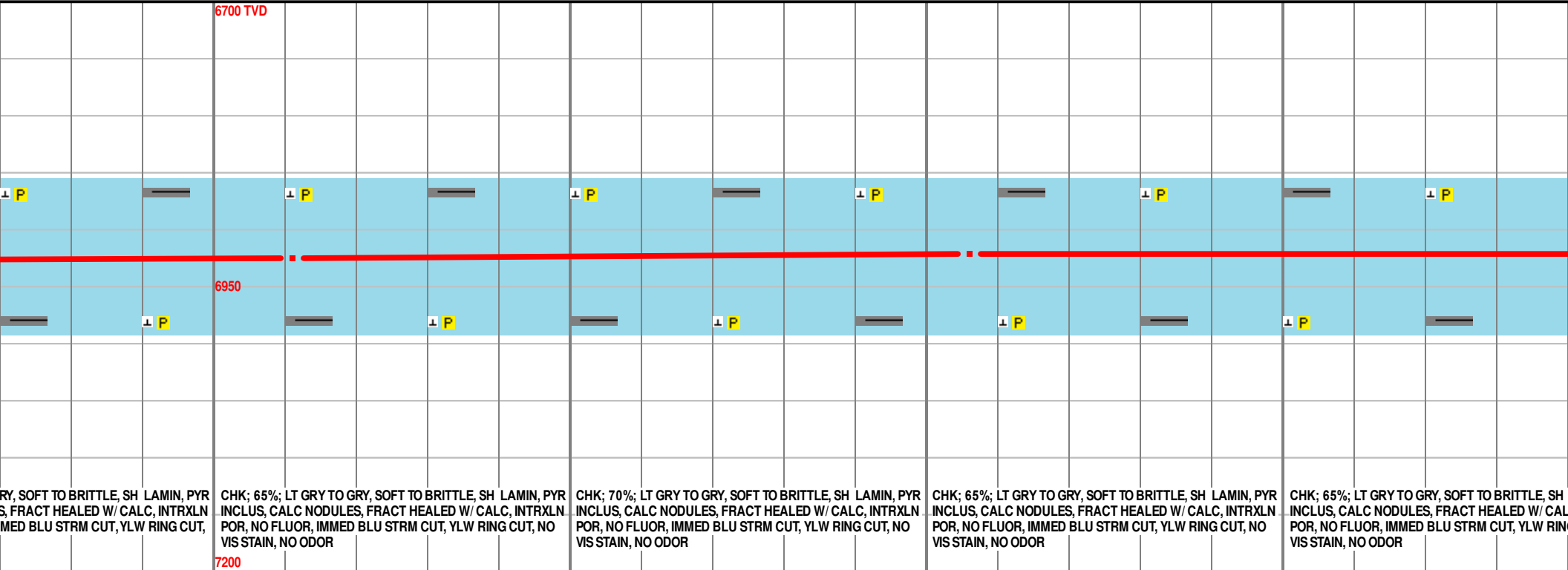
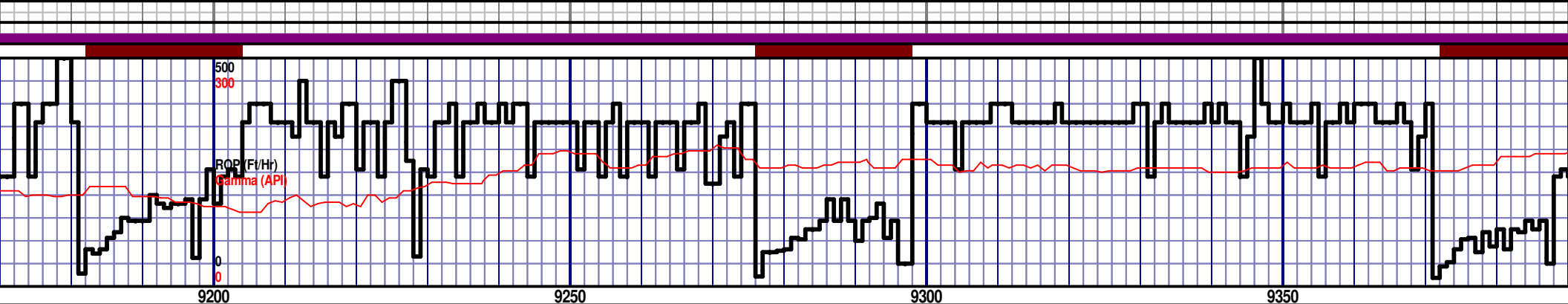
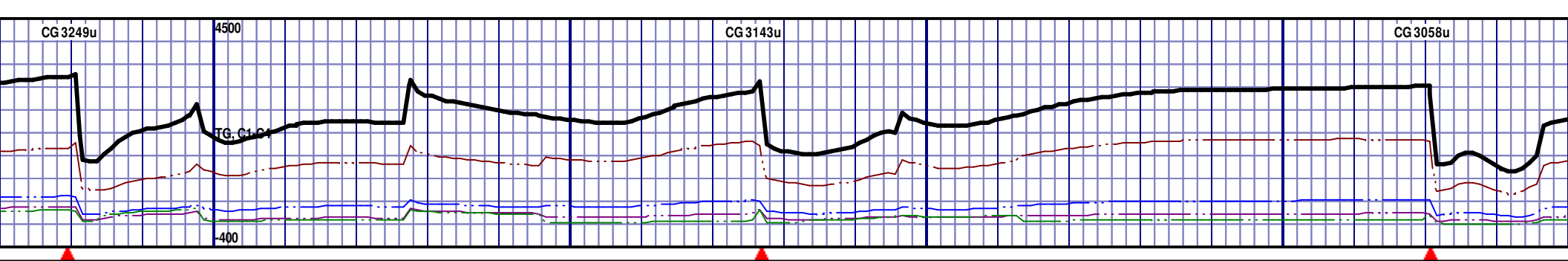
MD 8832 TVD 6925.48
INC 89.01 AZ 89.15
VS 2264.58

MD 8926 TVD 6926.8
INC 89.38 AZ 91.03
VS 2355.16



MD 9021 TVD 6926.8
INC 90.62 AZ 91.19
VS 2446.25

MD 9116 TVD 6926.92
INC 89.23 AZ 92.13
VS 2537.08



RY, SOFT TO BRITTLE, SH LAMIN, PYR
S, FRACT HEALED W/ CALC, INTRXLN
MED BLU STRM CUT, YLW RING CUT, NO
VIS STAIN, NO ODOR

CHK; 65%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN
POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO
VIS STAIN, NO ODOR

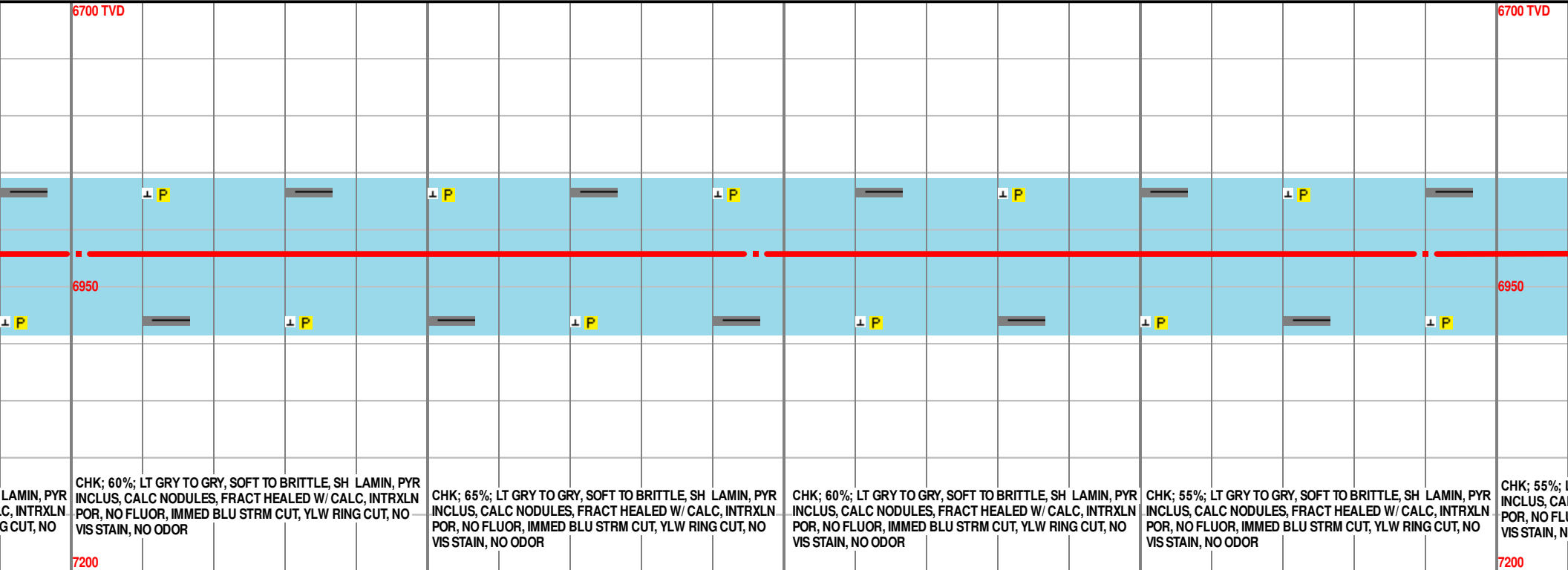
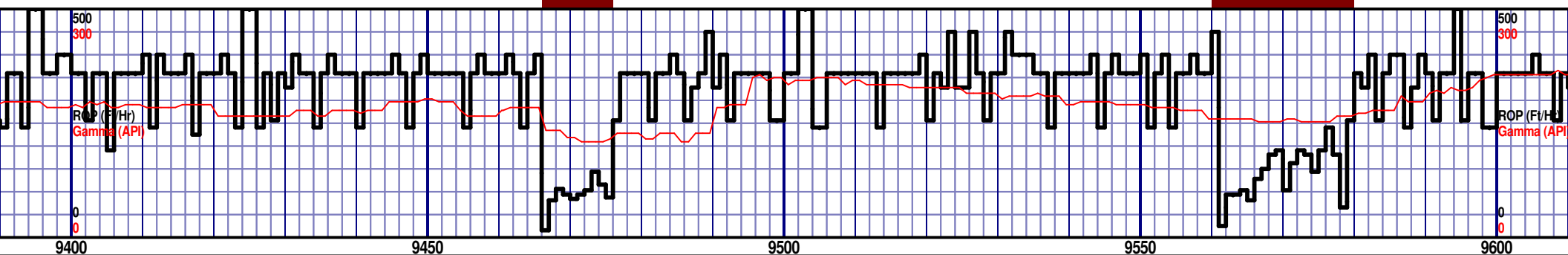
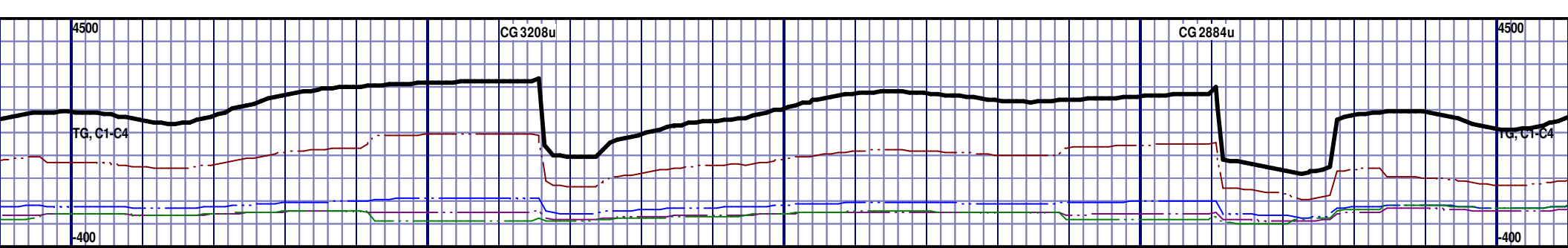
CHK; 70%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN
POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO
VIS STAIN, NO ODOR

CHK; 65%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN
POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO
VIS STAIN, NO ODOR

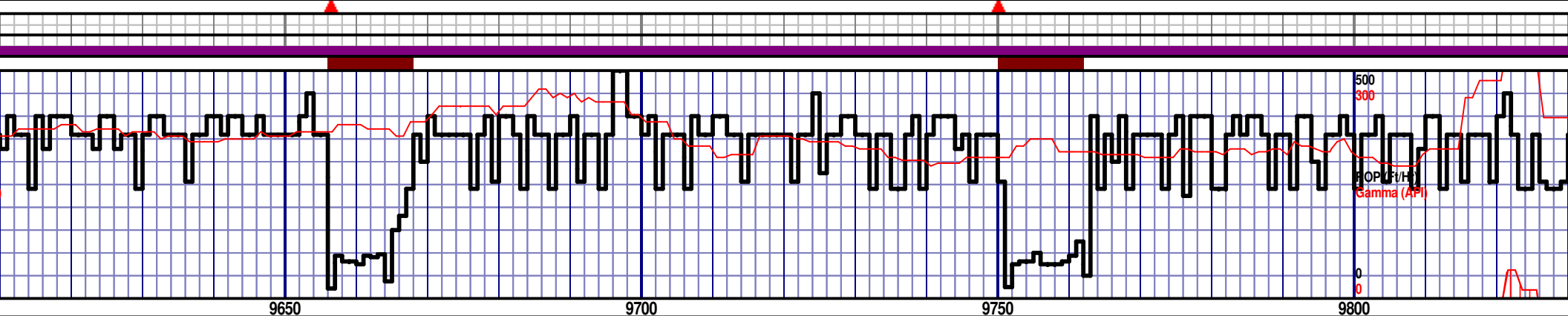
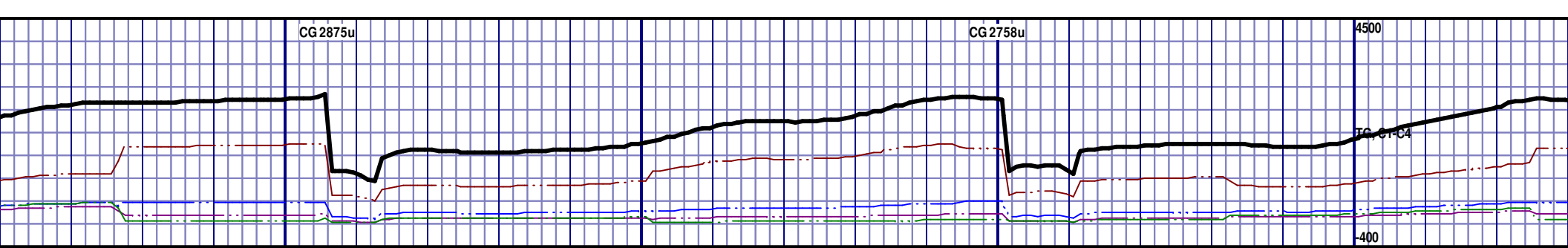
CHK; 65%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN
POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO
VIS STAIN, NO ODOR

MD 9211 TVD 6925.23
INC 92.81 AZ 92.09
VS 2627.66

MD 9306 TVD 6921.77
INC 91.36 AZ 94.11
VS 2717.69

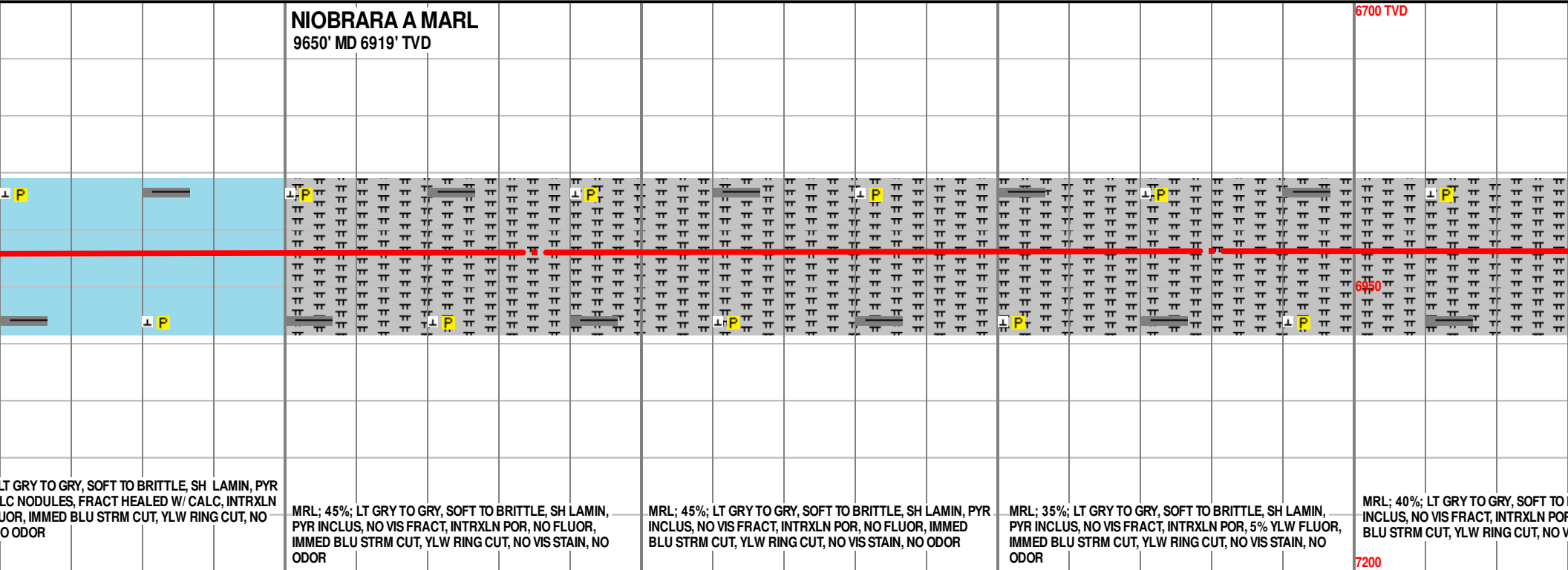


MD 9401 TVD 6920.7 INC 89.94 AZ 94.4 VS 2807.16	CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR	MD 9496 TVD 6921.21 INC 89.44 AZ 94.07 VS 2896.65	CHK; 65%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR	MD 9590 TVD 6920.96 INC 90.86 AZ 91.52 VS 2985.95	CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR	CHK; 55%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR	CHK; 55%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR
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9650 9700 9750 9800 6700 TVD

NIORARA A MARL
9650' MD 6919' TVD



LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
LC NODULES, FRACT HEALED W/ CALC, INTRXLN
POR, IMMED BLU STRM CUT, YLW RING CUT, NO
ODOR

MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN,
PYR INCLUS, NO VIS FRACT, INTRXLN POR, NO FLUOR,
IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO
ODOR

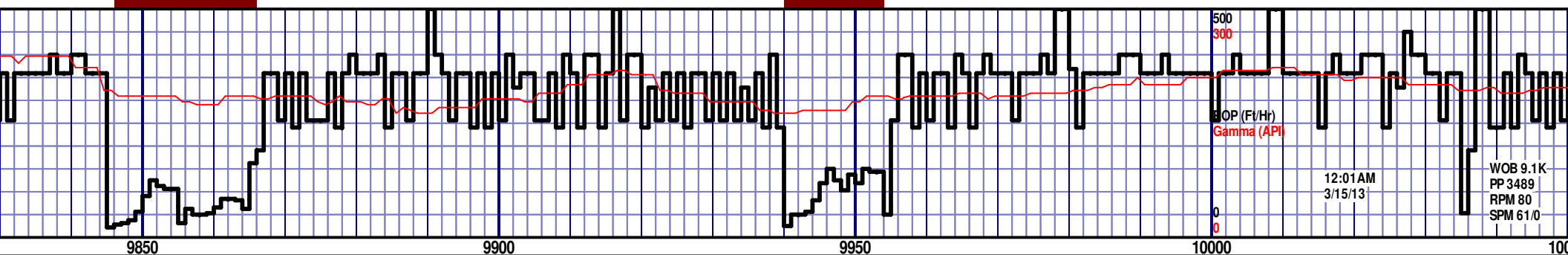
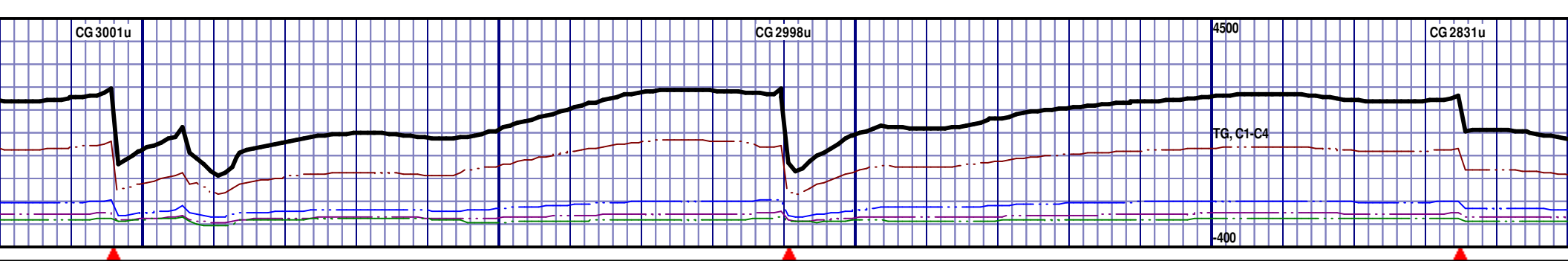
MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR
INCLUS, NO VIS FRACT, INTRXLN POR, NO FLUOR, IMMED
BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 35%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN,
PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR,
IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO
ODOR

MRL; 40%; LT GRY TO GRY, SOFT TO
INCLUS, NO VIS FRACT, INTRXLN POR
BLU STRM CUT, YLW RING CUT, NO V

MD 9685 TVD 6919.4
INC 91.02 AZ 92
VS 3076.71

MD 9780 TVD 6918.48
INC 90.09 AZ 91.02
VS 3167.61

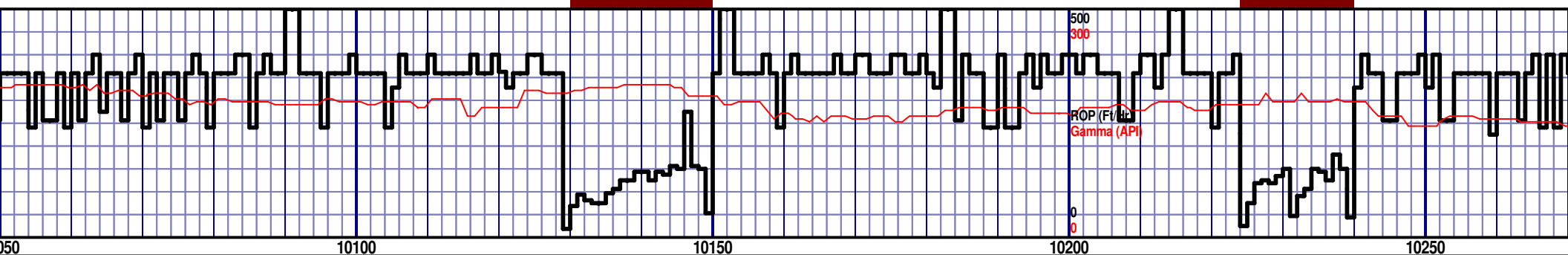
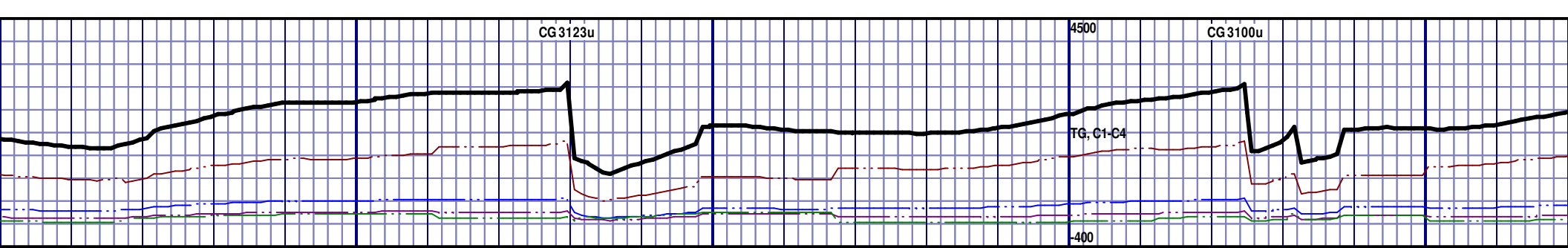


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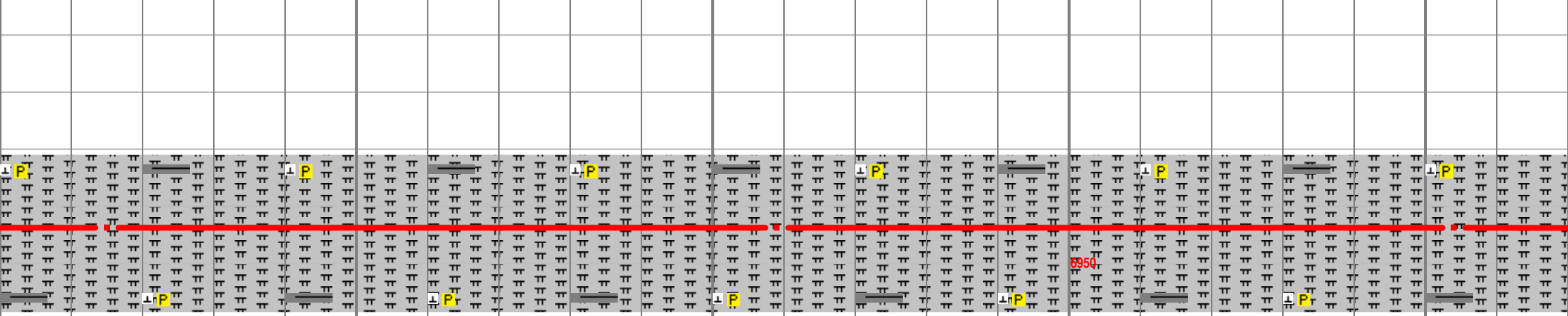
6700 TVD									
6930									
7200									
BRITTLE, SH LAMIN, PYR R, NO FLUOR, IMMED VIS STAIN, NO ODOR									
MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR									
MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR									
MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR									
MRL; 35%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR									

MD 9875 TVD 6918.2
INC 90.25 AZ 91.8
VS 3258.56

MD 9970 TVD 6918.35
INC 89.57 AZ 92.16
VS 3349.23



50 10100 10150 10200 10250



MRL; 35%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 35%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, NO FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

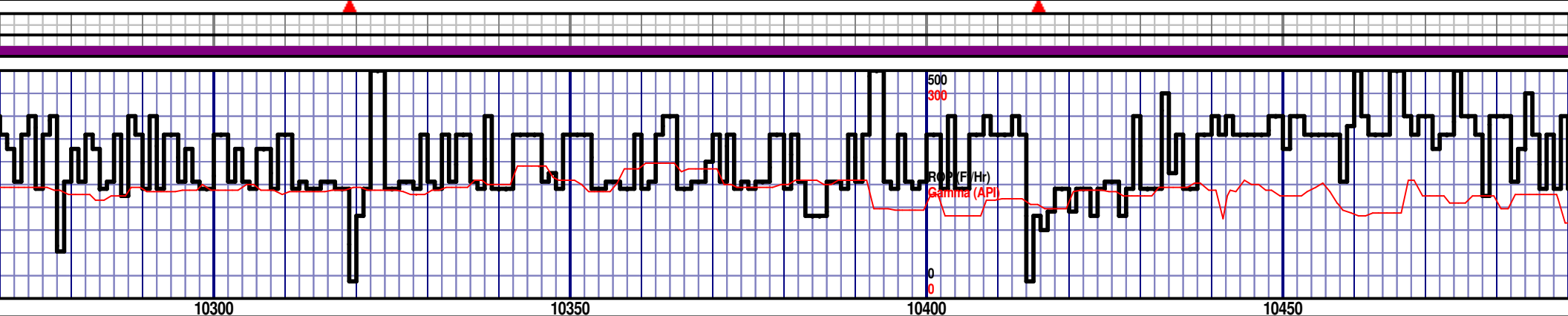
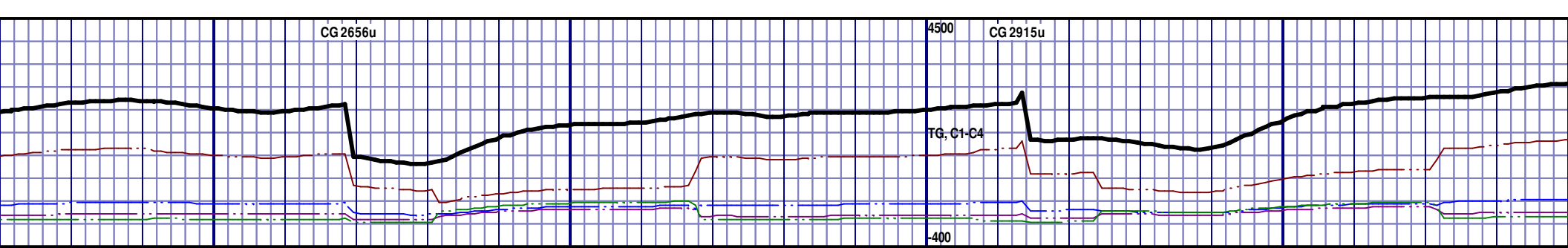
MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

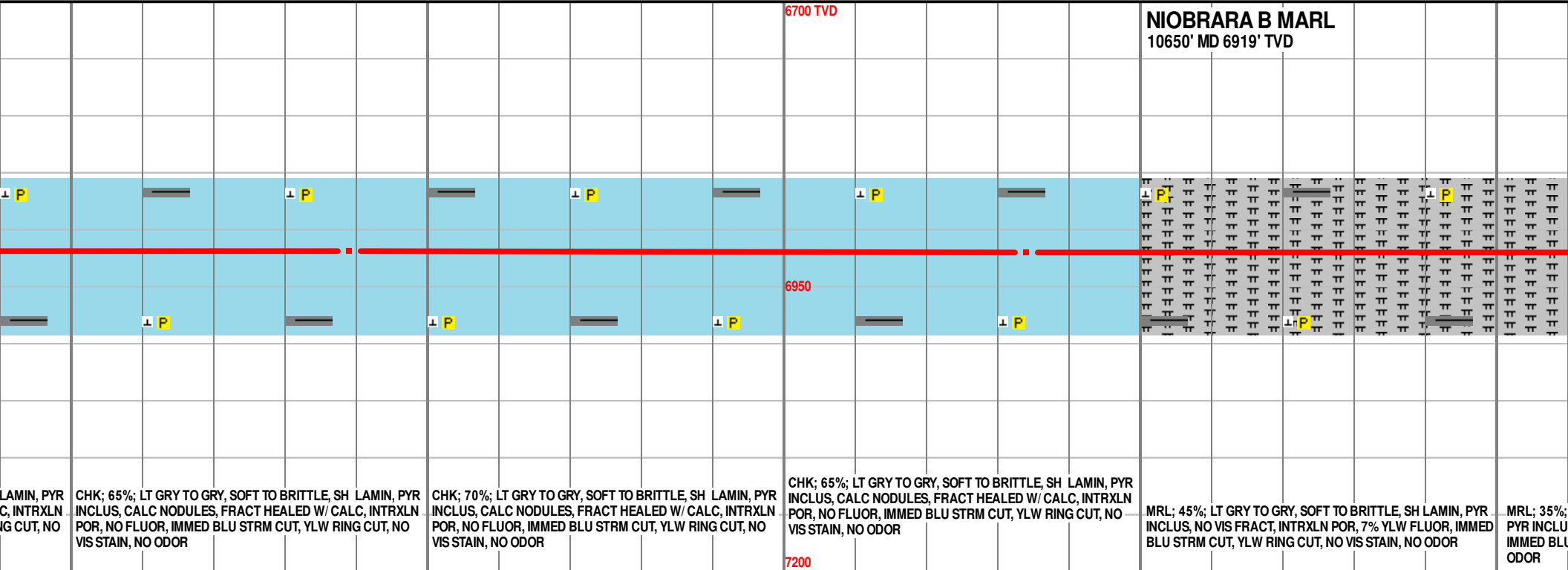
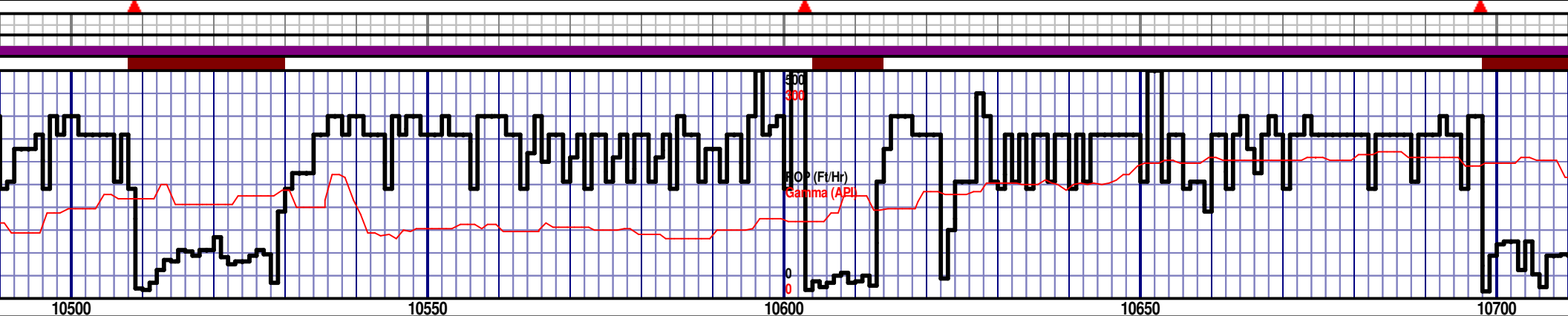
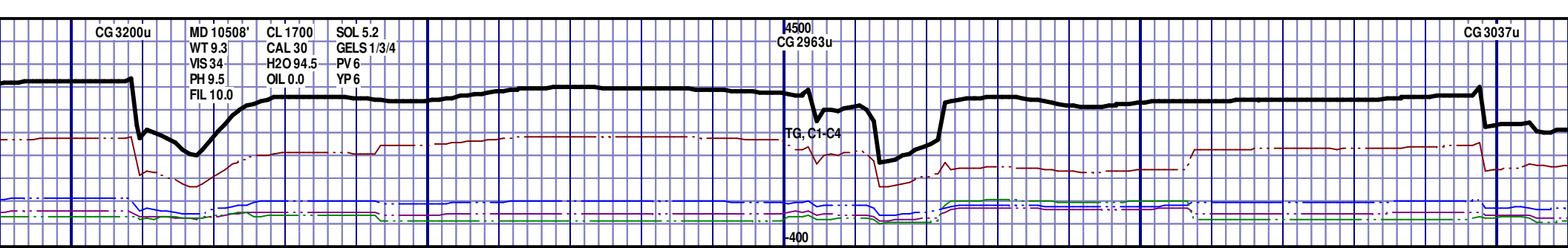
MD 10065 TVD 6918.89
INC 89.78 AZ 90.69
VS 3440.17

MD 10159 TVD 6919.04
INC 90.03 AZ 91.96
VS 3530.2

MD 10254 TVD 6919.11
INC 89.66 AZ 92.98
VS 3620.62

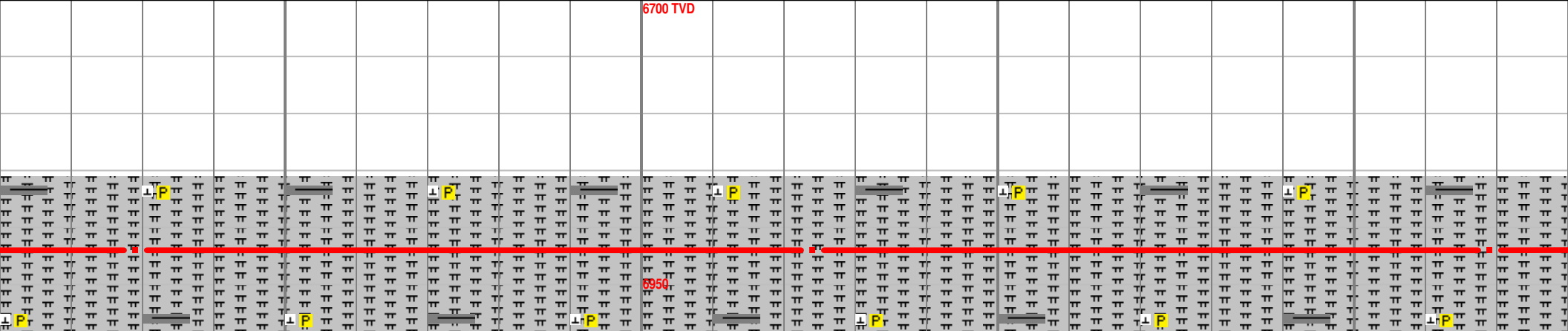
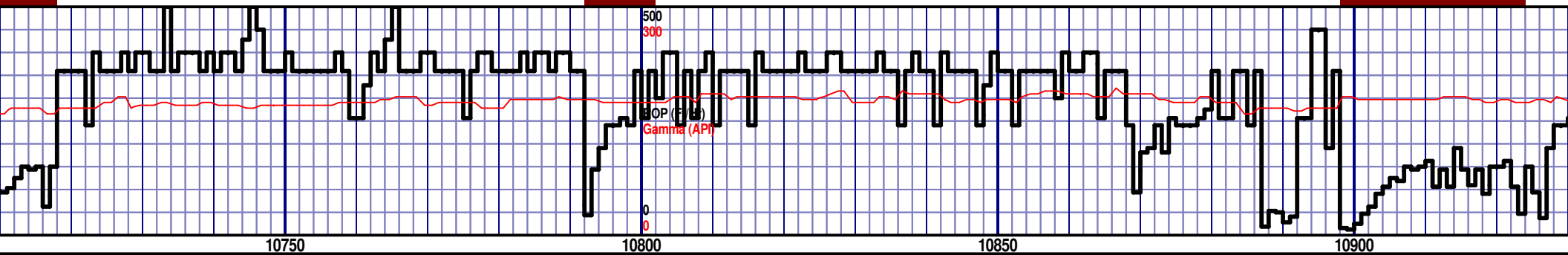
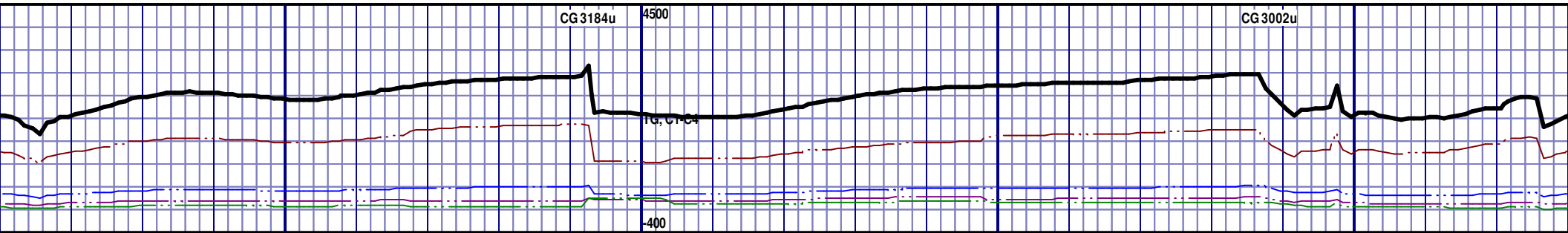


NIOBARRA B CHALK 10400' MD 6919' TVD			
CHK; 60%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, 10% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR			
CHK; 65%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, 10% FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR			
CHK; 65%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, CALC NODULES, FRACT HEALED W/ CALC, INTRXLN POR, 10% FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR			



MD 10539 TVD 6919.04
INC 89.1 AZ 92.19
VS 3892.73

MD 10634 TVD 6919.93
INC 89.81 AZ 91.95
VS 3983.35



LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, S, NO VIS FRACT, INTRXLN POR, 5% YLW FLUOR, U STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 35%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 7% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 10% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

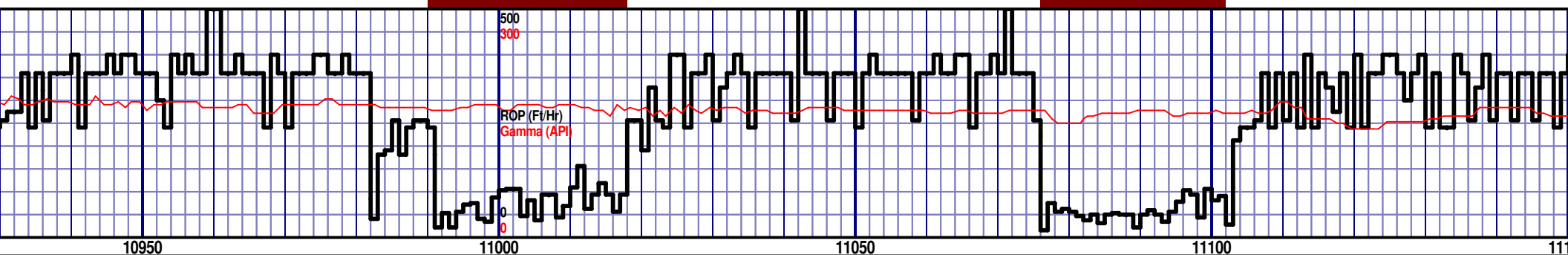
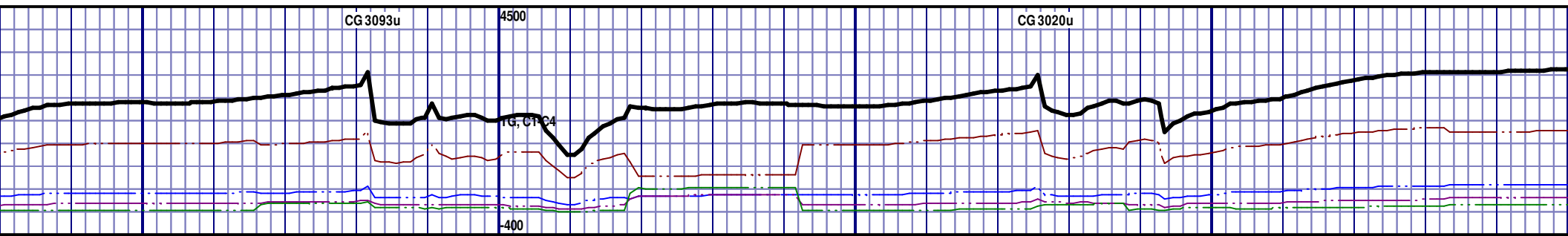
MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 10% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 10% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

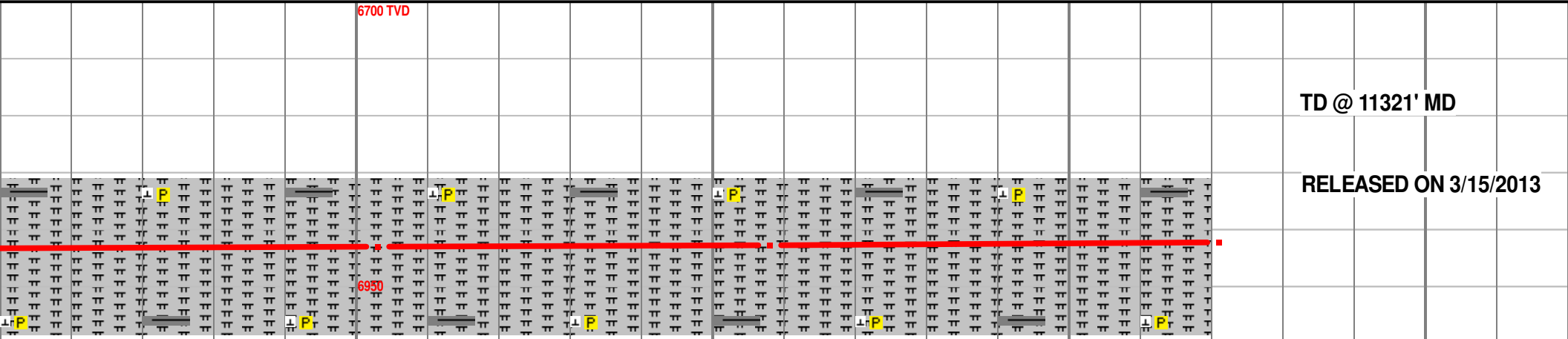
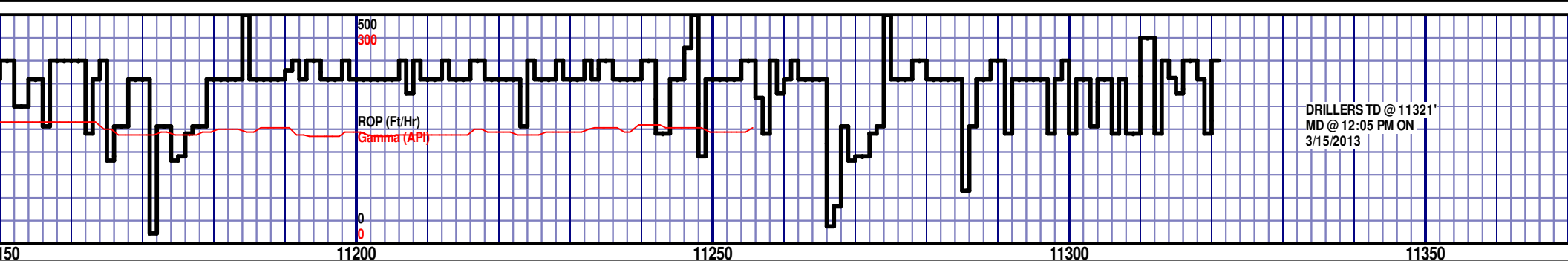
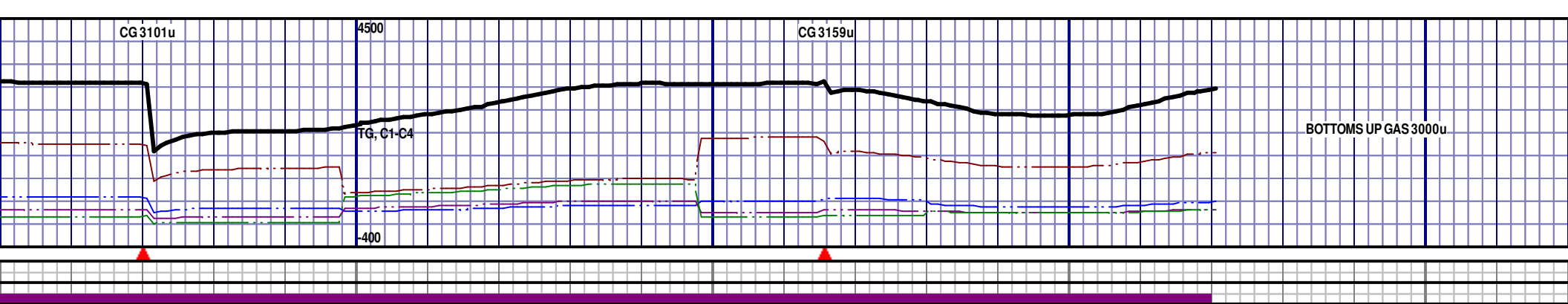
MD 10729 TVD 6919.96
INC 90.15 AZ 92.23
VS 3880.43

MD 10824 TVD 6919.65
INC 90.22 AZ 90.27
VS 3975.4

MD 10919 TVD 6919.65
INC 89.51 AZ 90.23
VS 4256.23



10950	11000	11050	11100	11150
6700 TVD				
<div>BRITTLE, SH LAMIN, PYR R, 10% YLW FLUOR, UT, NO VIS STAIN, NO ODOR</div> <div>MRL; 35%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 12% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR</div> <div>MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 7% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR</div> <div>MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 10% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR</div> <div>MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 7% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR</div>				
6950				
7200				



MRL; 46%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 8% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 45%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 13% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MRL; 40%; LT GRY TO GRY, SOFT TO BRITTLE, SH LAMIN, PYR INCLUS, NO VIS FRACT, INTRXLN POR, 10% YLW FLUOR, IMMED BLU STRM CUT, YLW RING CUT, NO VIS STAIN, NO ODOR

MD 11203 TVD 6915.18
INC 91.54 AZ 94.46
VS 4525.16

MD 11258 TVD 6913.41
INC 92.16 AZ 95.81
VS 4576.65

PTB MD 11321 TVD 6911.04
INC 92.16 AZ 95.81
VS 4635.34

THANK YOU FROM MARINA
LEE, ANDREW CHRISTIANO
AND HORIZON WELL
LOGGING, LLC

