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WWW.HZMUD.COM/25

Customer Information

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

Geologist: Holly Duncan
Noble Energy Inc.

Mud Logging Details

Logger: Tom Wacholz &
Mark Dennis
Log Interval: 5510' MD to 9885' MD
Start Date: December 16, 2014
Release Date: December 19, 2014

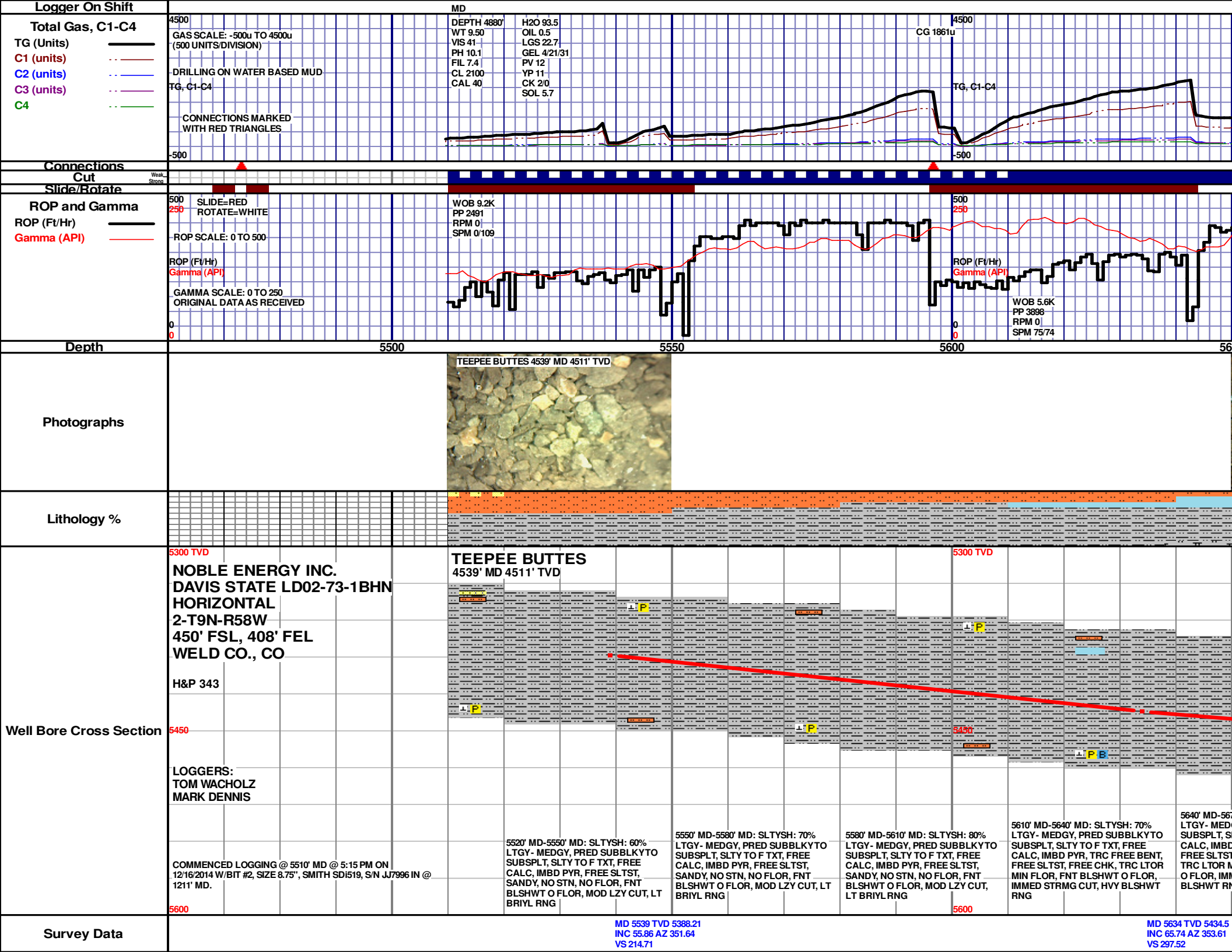
Well Information

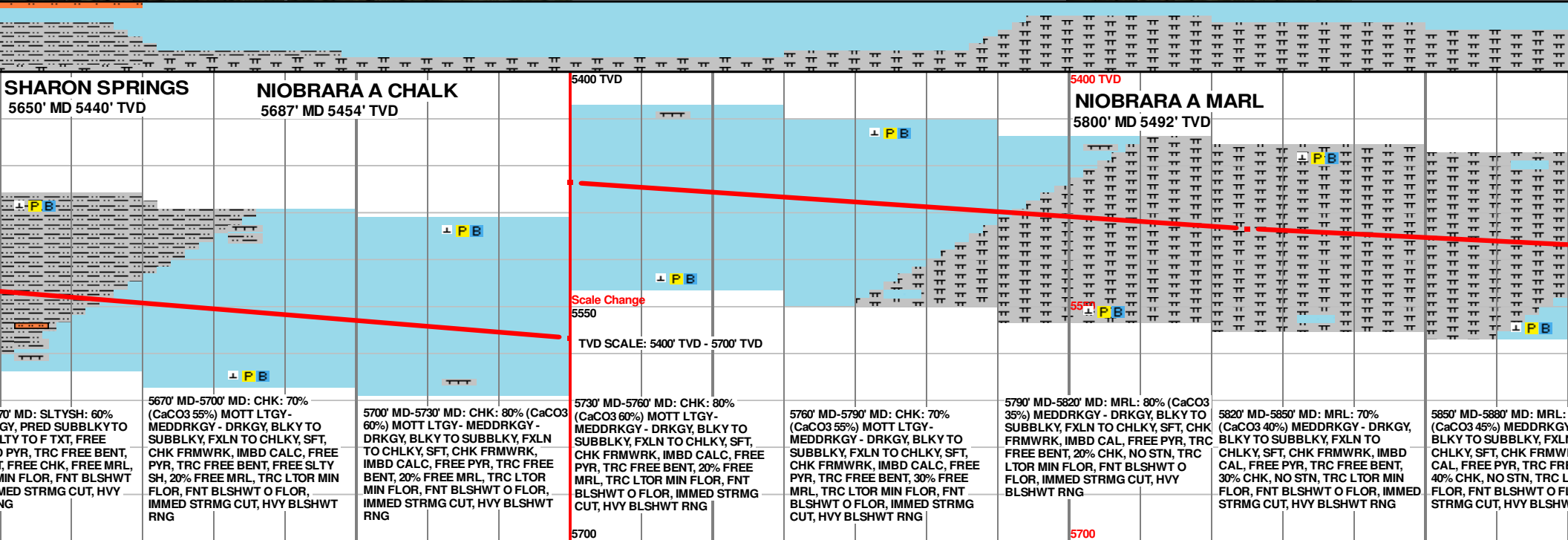
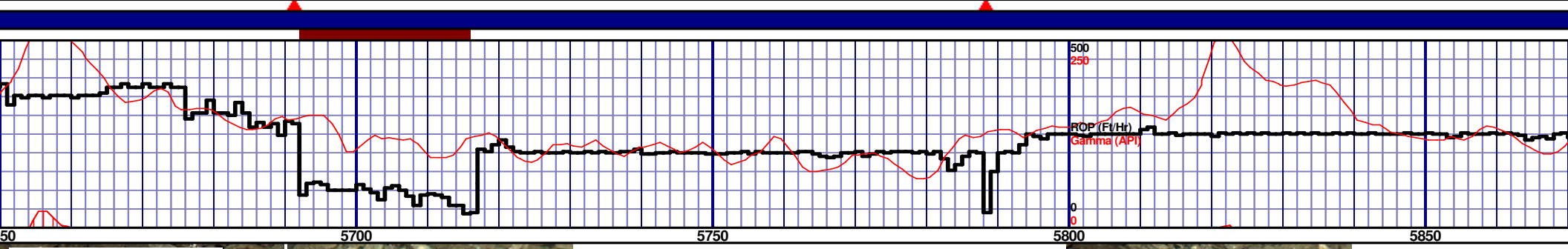
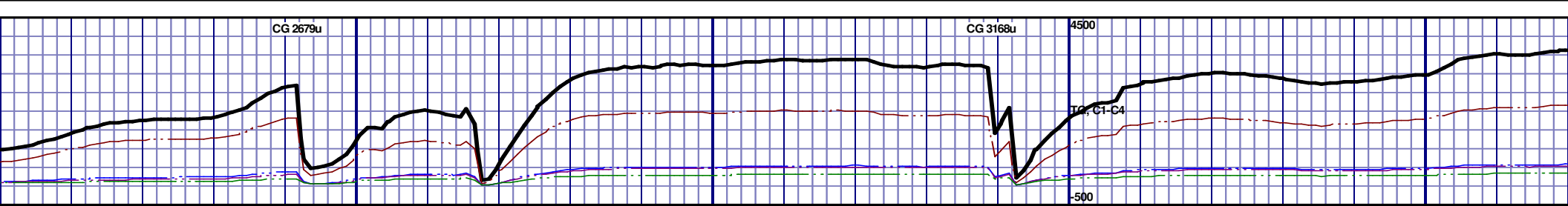
Well Name: Davis State LD02-73-1BHN
Horizontal

Location: 2-T9N-R58W
450' FSL, 408' FEL

County: Weld
State: Colorado

Drilling Rig: H&P 343
Total Depth: 9885' MD
TD Date: December 19, 2014
Formation: Niobrara B Chalk
KB Elevation: 4686'
GR Elevation: 4662'
API Number: 05-123-39807-0000





SHARON SPRINGS
5650' MD 5440' TVD

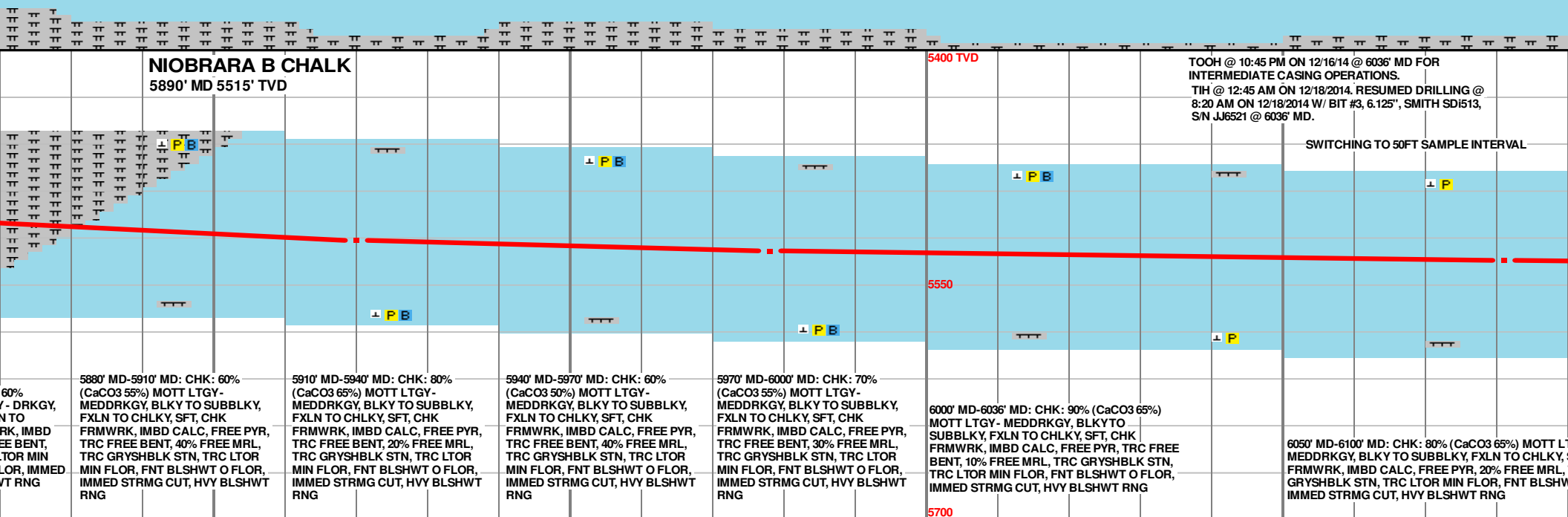
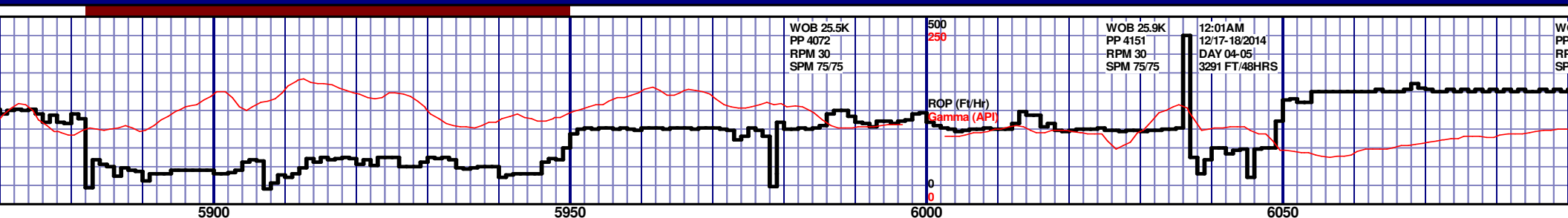
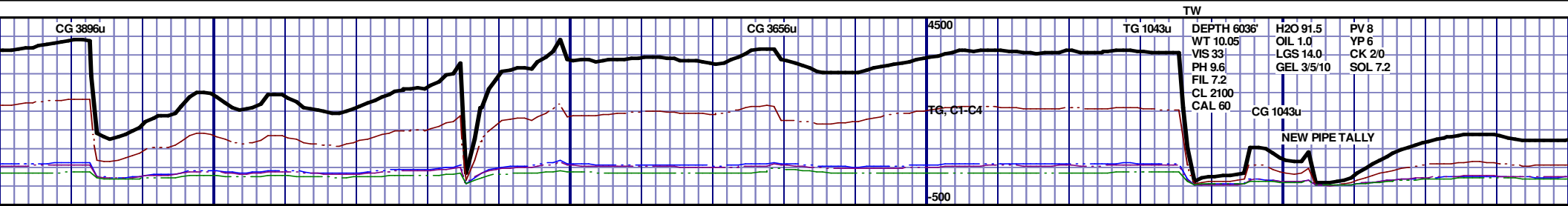
NIOBARARA A CHALK
5687' MD 5454' TVD

NIOBARARA A MARL
5800' MD 5492' TVD

5650' MD-5700' MD: SLTYSH: 60% (CaCO3 55%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY TO F TXT, FREE PYR, TRC FREE BENT, MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	5700' MD-5730' MD: CHK: 70% (CaCO3 55%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE PYR, TRC FREE BENT, 20% FREE MRL, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	5730' MD-5760' MD: CHK: 80% (CaCO3 60%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE PYR, TRC FREE BENT, 20% FREE MRL, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	5760' MD-5790' MD: CHK: 70% (CaCO3 55%) MOTT LTGY - MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE PYR, TRC FREE BENT, 30% FREE MRL, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	5790' MD-5820' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	5820' MD-5850' MD: MRL: 70% (CaCO3 40%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 30% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG	5850' MD-5880' MD: MRL: (CaCO3 45%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE PYR, TRC FREE BENT, 40% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG
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MD 5730 TVD 5470.3
INC 70.46 AZ 355.24
VS 386.46

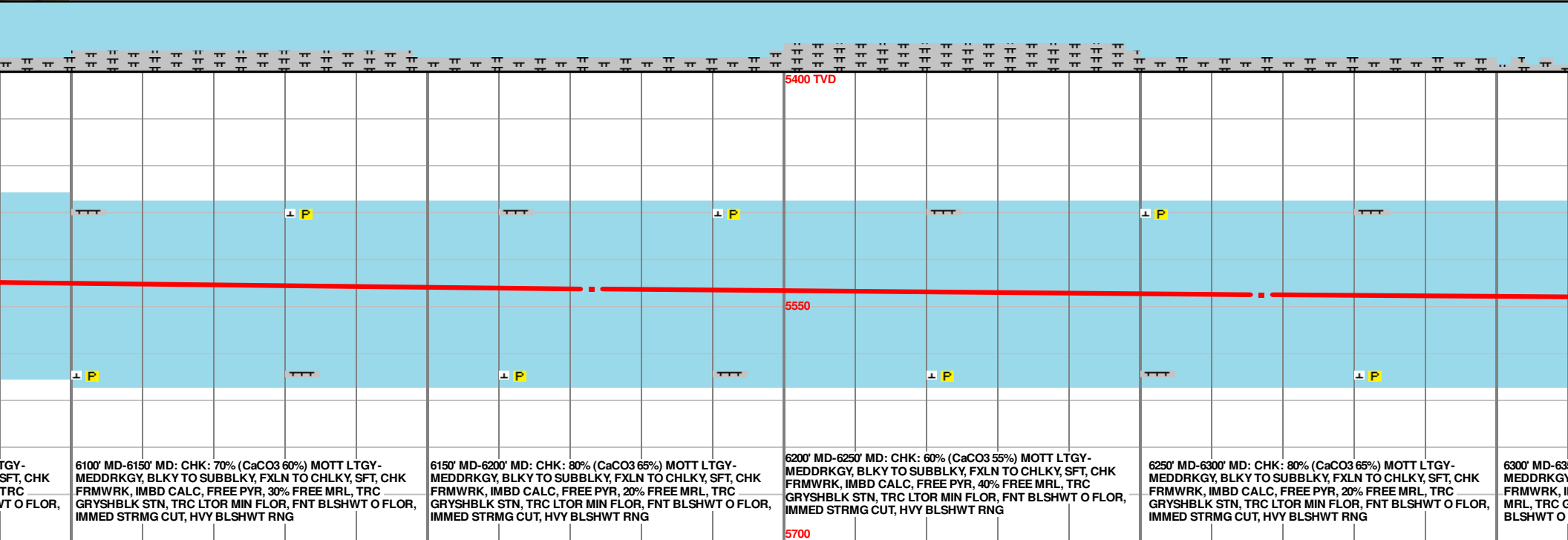
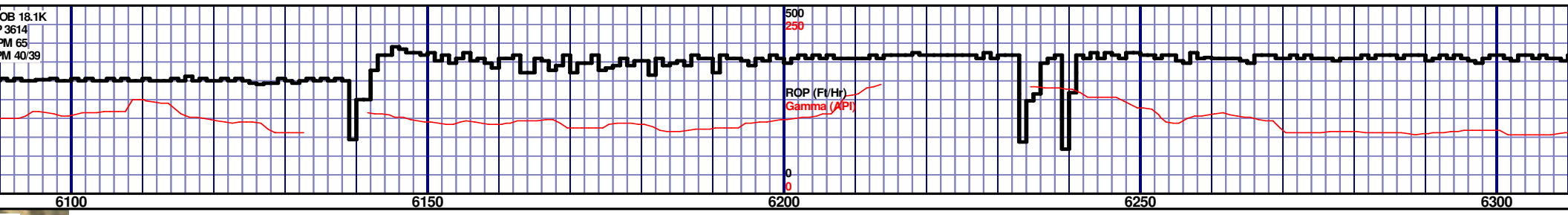
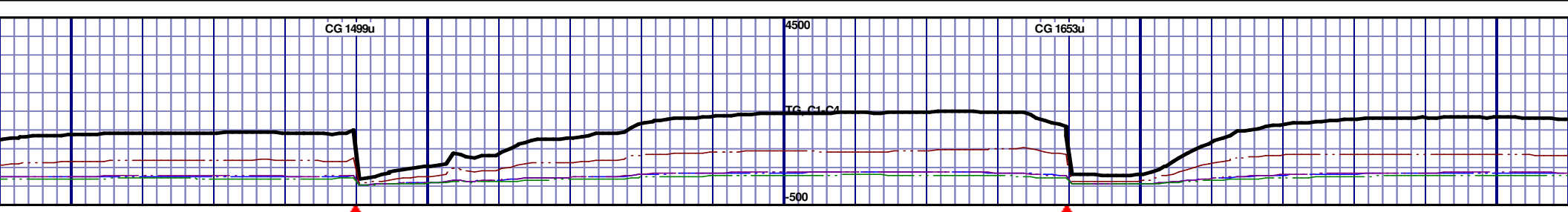
MD 5825 TVD 5500.55
INC 72.4 AZ 355.69
VS 476.31



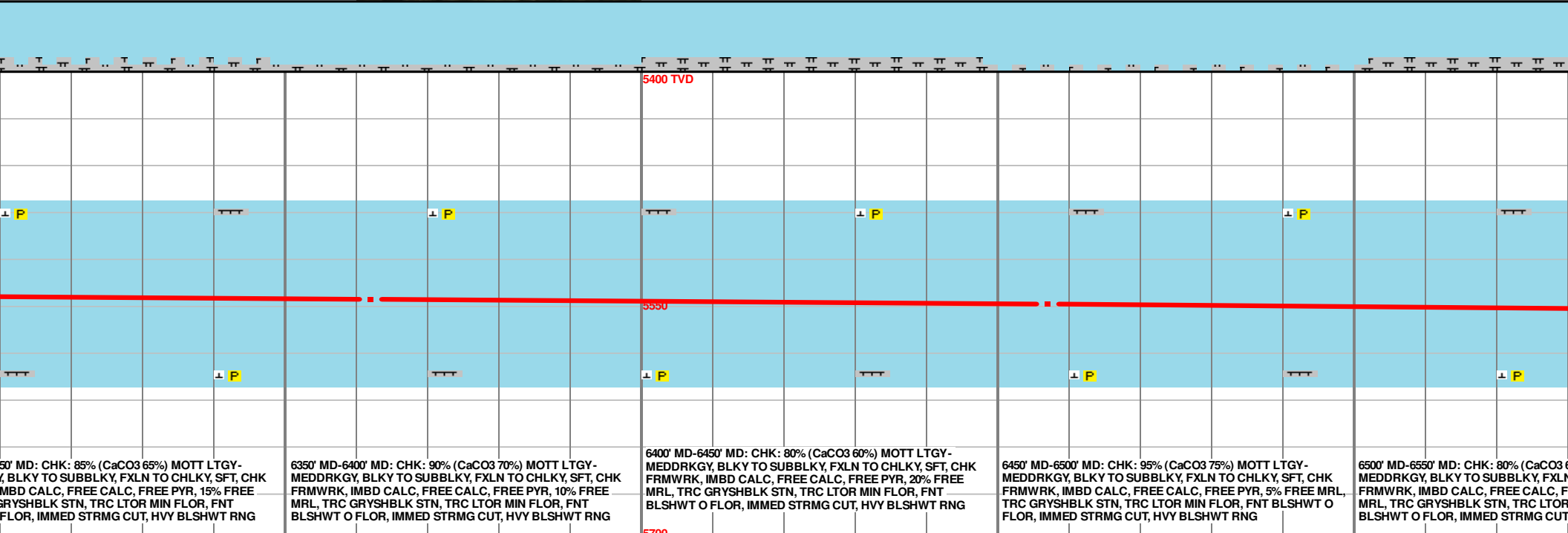
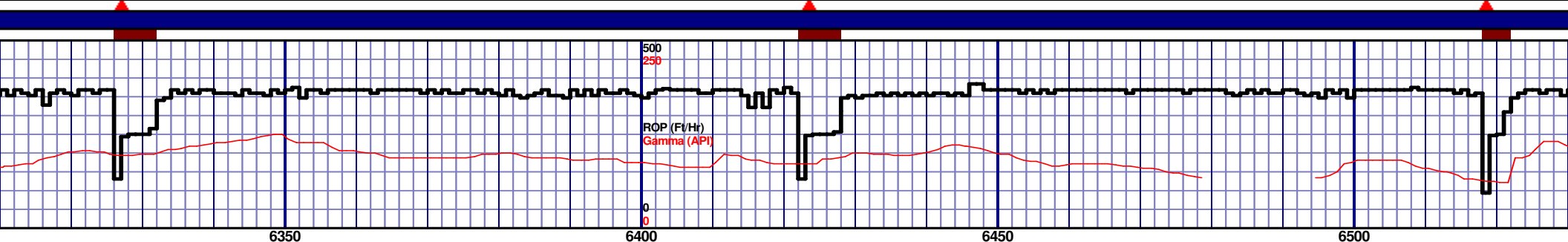
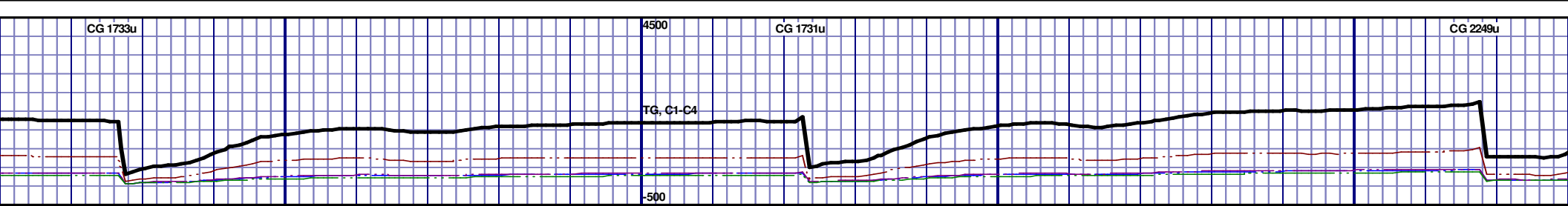
MD 5920 TVD 5521.76
INC 81.77 AZ 357.63
VS 568.44

MD 5978 TVD 5528.05
INC 85.77 AZ 358.71
VS 625.71

MD 6081 TVD
INC 86.98 AZ
VS 727.72

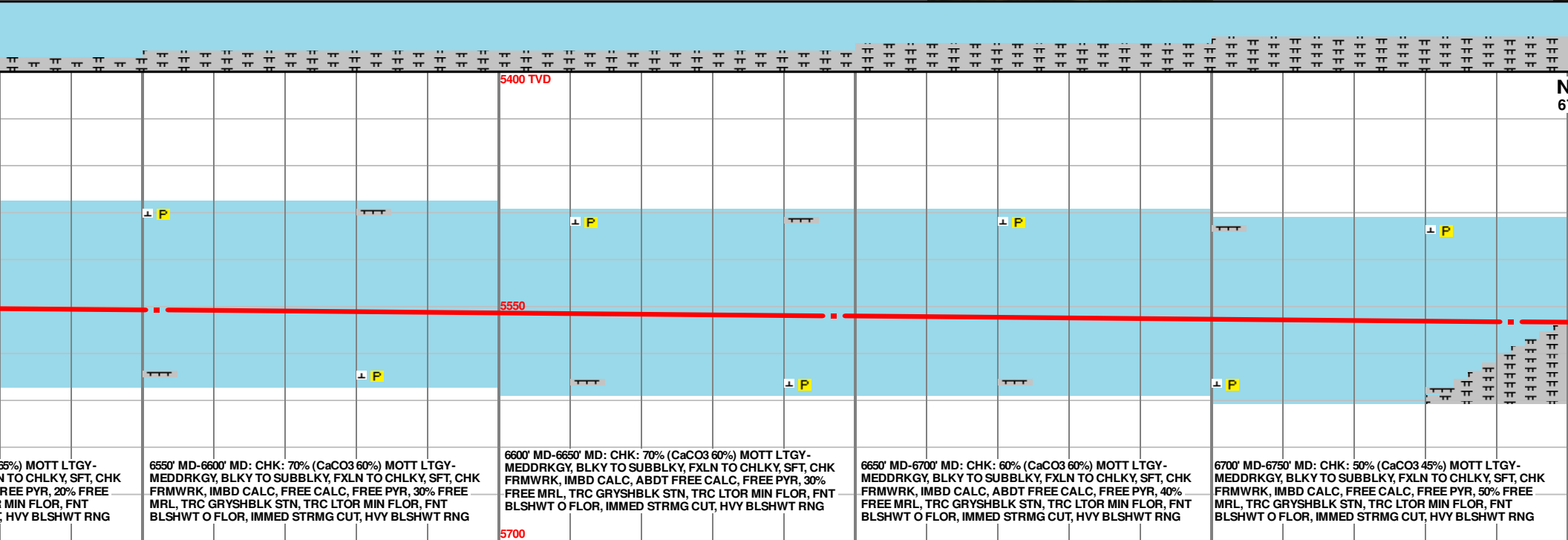
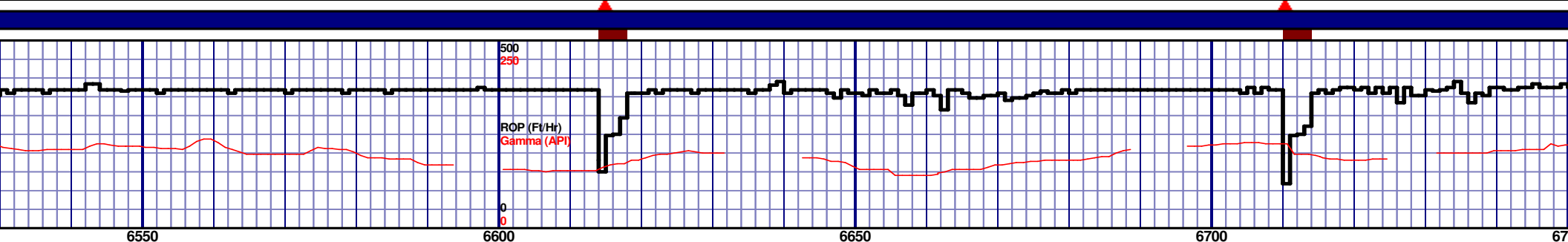
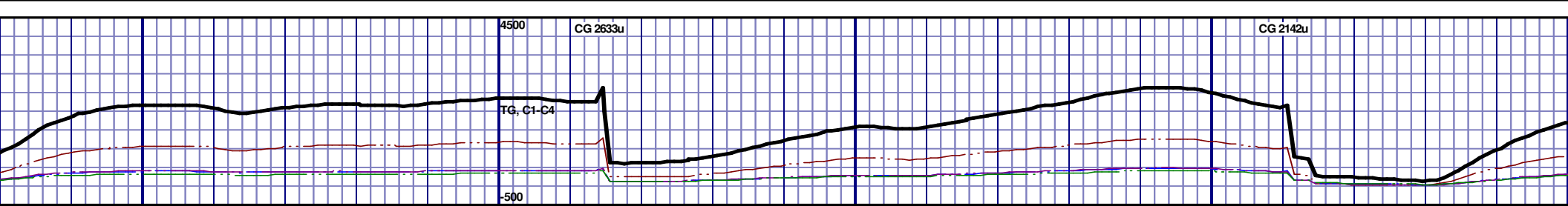


MD 5534.56 Z 358.66	MD 6173 TVD 5538.77 INC 87.78 AZ 359.42 VS 818.86	MD 6267 TVD 5542.31 INC 87.9 AZ 359.16 VS 911.96
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MD 6362 TVD 5545.53
INC 88.21 AZ 359.22
VS 1006.08

MD 6457 TVD 5548.7
INC 87.97 AZ 358.92
VS 1100.23

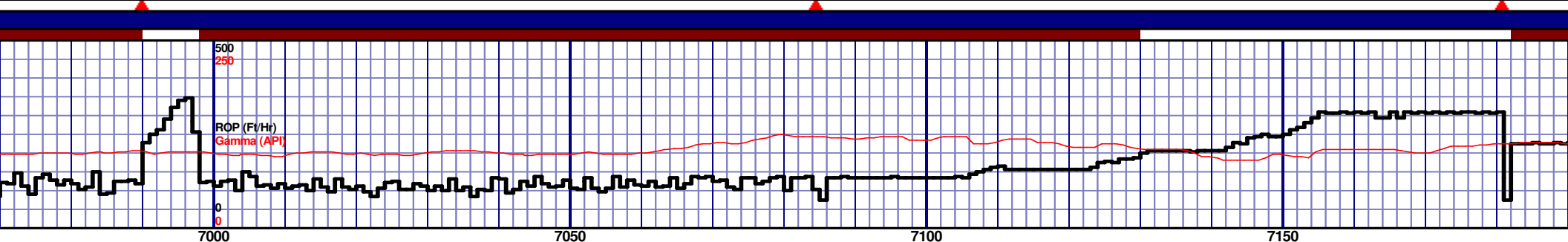


6550' MD-6600' MD: CHK: 70% (CaCO3 60%) MOTT LTGY-MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 30% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

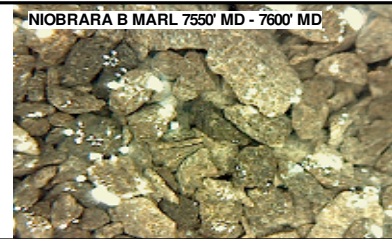
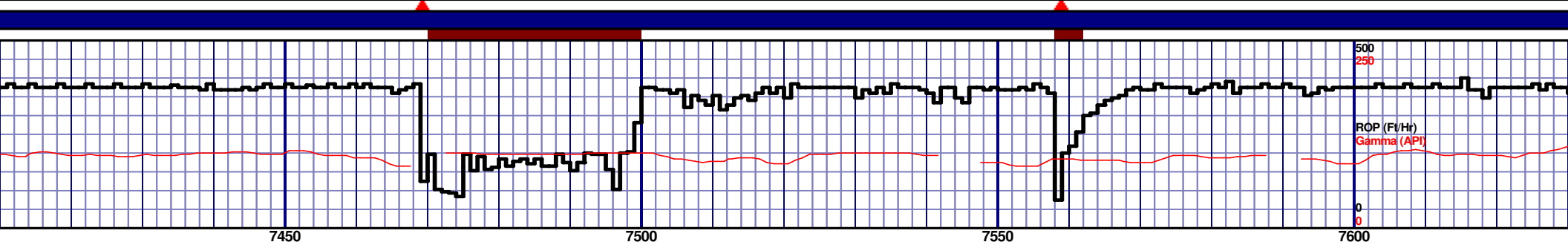
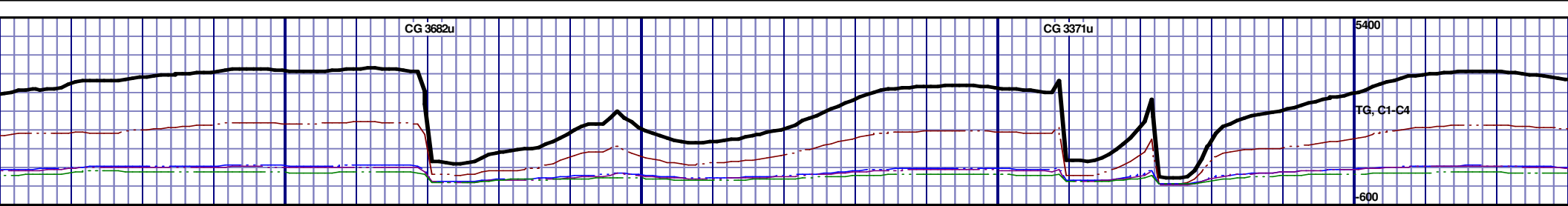
6600' MD-6650' MD: CHK: 70% (CaCO3 60%) MOTT LTGY-MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, ABTD FREE CALC, FREE PYR, 30% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

6650' MD-6700' MD: CHK: 60% (CaCO3 60%) MOTT LTGY-MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, ABTD FREE CALC, FREE PYR, 40% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

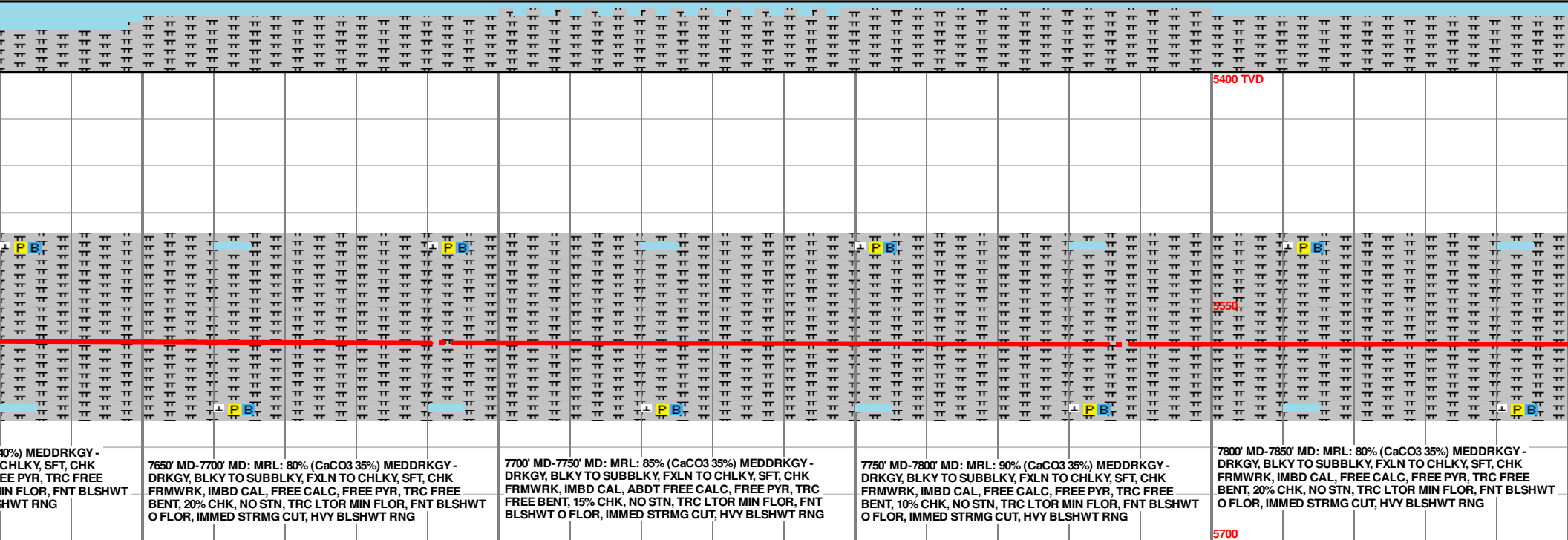
6700' MD-6750' MD: CHK: 50% (CaCO3 45%) MOTT LTGY-MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 50% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

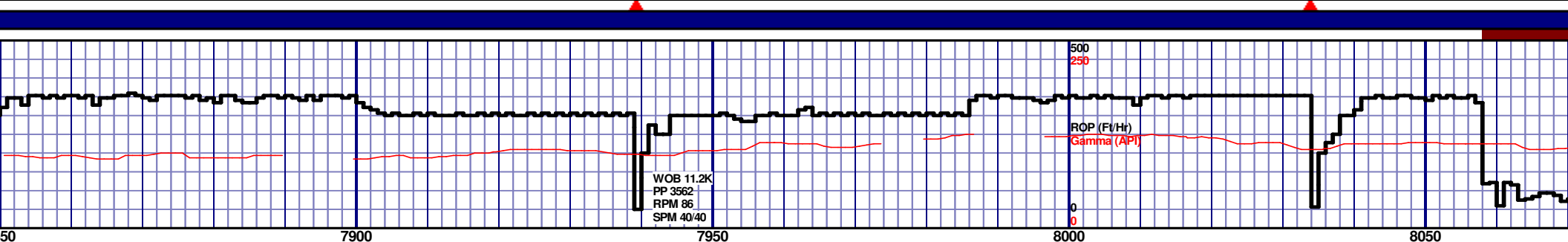
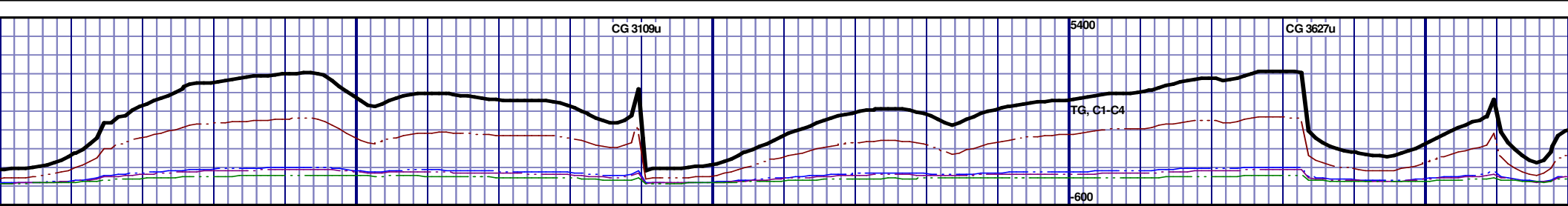


	MD 7027 TVD 5562.68 INC 89.66 AZ 357.94 VS 1666.27		MD 7122 TVD 5563.24 INC 89.66 AZ 356.85 VS 1760.79
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7407 MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, FREE BENT, 20% BENT, 20% FREE MRL, TRC GRYSHBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
7450' MD-7500' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, FREE BENT, 10% CHK, NO STN, 5% LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
7500' MD-7550' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
7550' MD-7600' MD: CHK: 80% (CaCO3 65%) MOTT LTGY- MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, TRC FREE BENT, 20% FREE MRL, TRC GRYSHBLK STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									
7600' MD-7650' MD: MRL: 60% (CaCO3 35%) MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, FREE BENT, 40% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG									

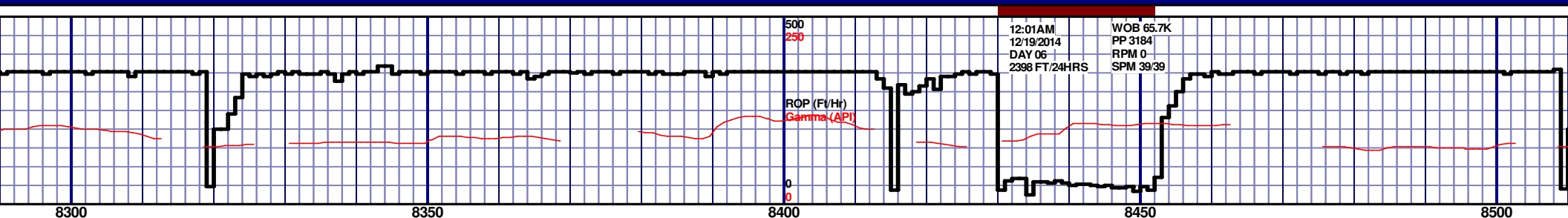
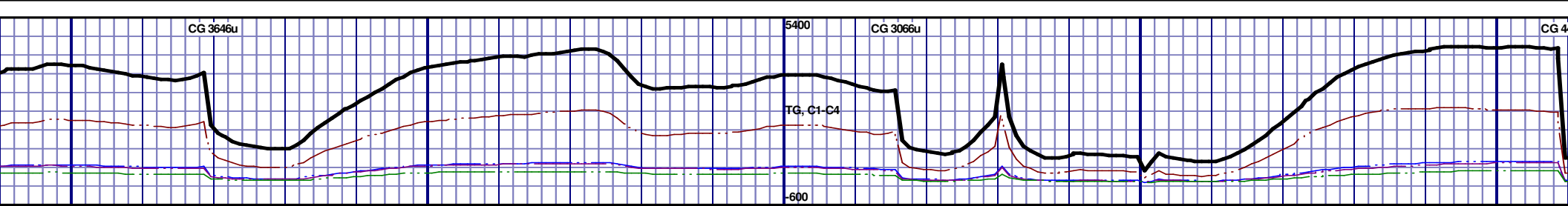




7850' MD-7900' MD: MRL: 70% (CaCO3 40%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, TRC FREE BENT, 30% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG																			
7900' MD-7950' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, ABDT FREE CALC, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG																			
7950' MD-8000' MD: MRL: 90% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, TRC FREE BENT, 10% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG																			
8000' MD-8050' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, TRC FREE BENT, 20% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG																			
8050' MD-8100' MD: MRL: 80% (CaCO3 35%) MEDDRKGY - DRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CAL, FREE CALC, FREE PYR, TRC FREE BENT, 30% CHK, NO STN, TRC LTOR MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG																			

MD 7882 TVD 5574.36
INC 90.62 AZ 359.91
VS 2516.83

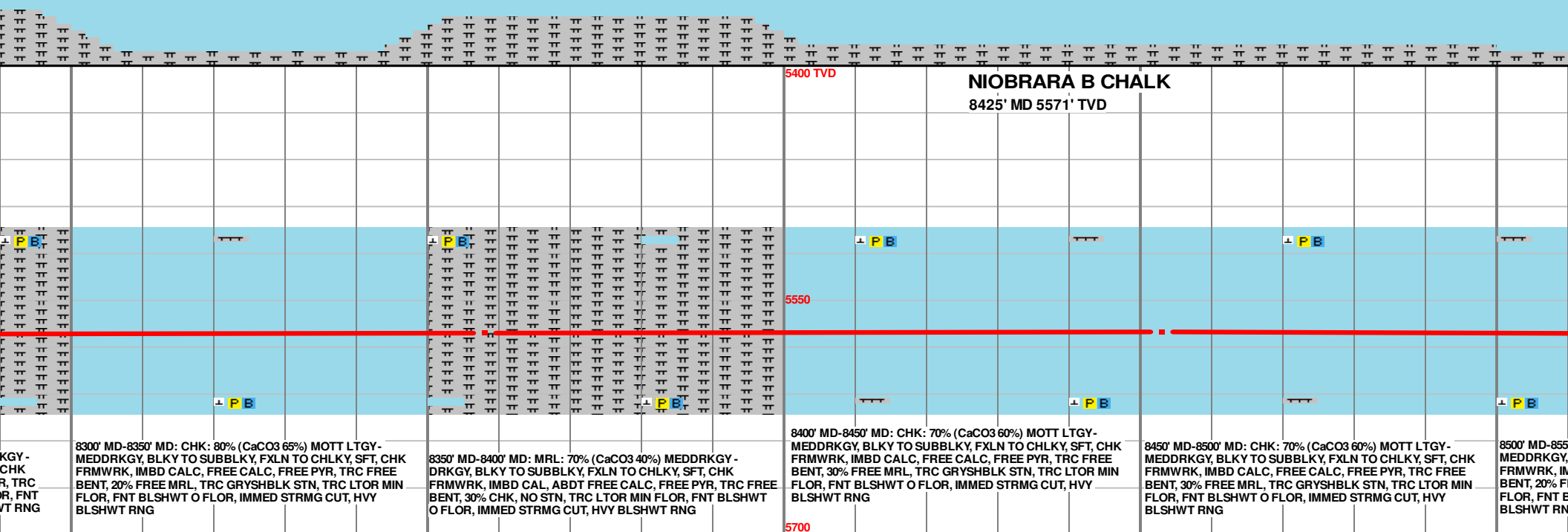
MD 7977 TVD 5572.93
INC 91.11 AZ 359.78
VS 2610.85



NIOBRARA B CHALK - 8425' MD 5571' TVD

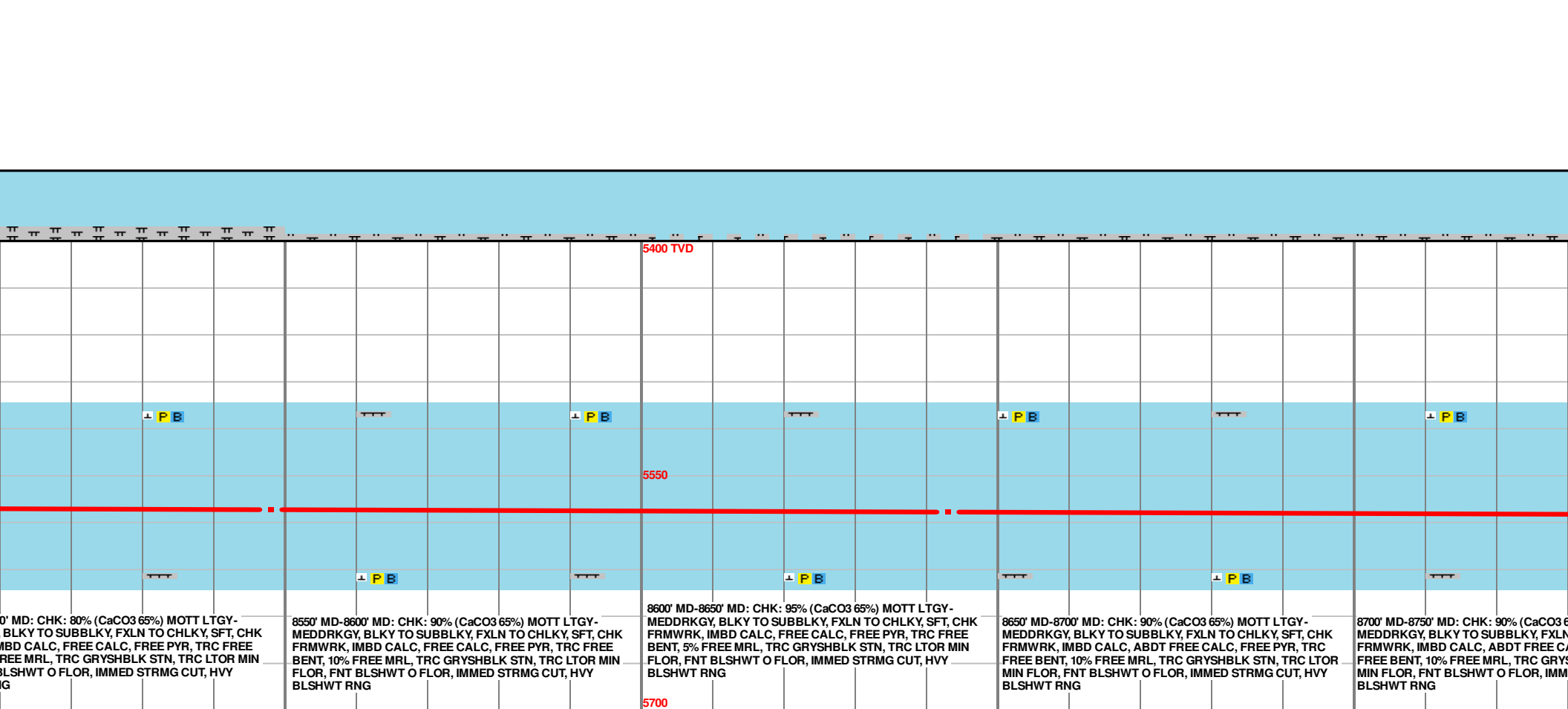
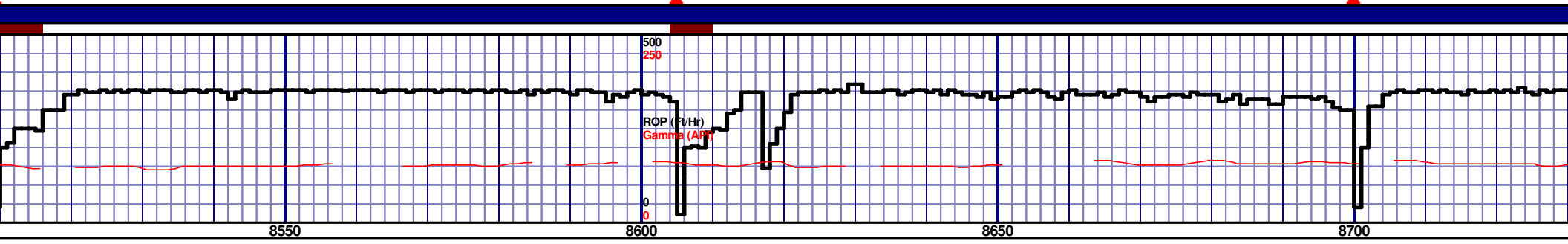
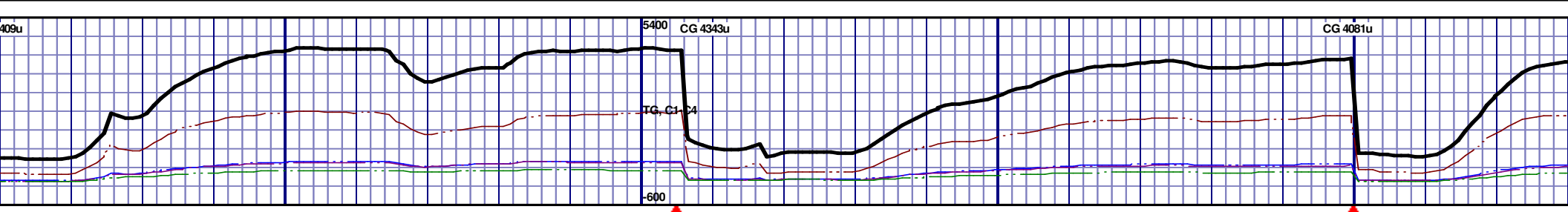


NIOBRARA B CHALK 8450' MD - 8500' MD



MD 8358 TVD 5571.06
INC 90.83 AZ 356.86
VS 2989.21

MD 8453 TVD 5570.55
INC 89.78 AZ 358.42
VS 3063.68



0' MD: CHK: 80% (CaCO3 65%) MOTT LTGY-
BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
IMBD CALC, FREE CALC, FREE PYR, TRC FREE
BENT, 10% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN
FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY
BLSHWT RNG

8550' MD-8600' MD: CHK: 90% (CaCO3 65%) MOTT LTGY-
MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CALC, FREE CALC, FREE PYR, TRC FREE
BENT, 10% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN
FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY
BLSHWT RNG

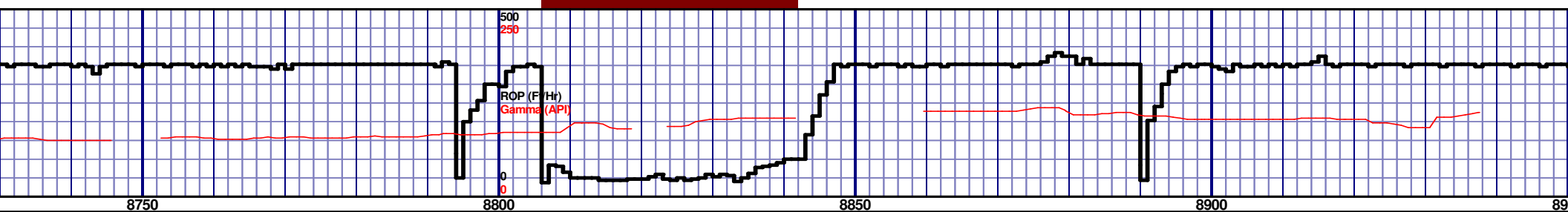
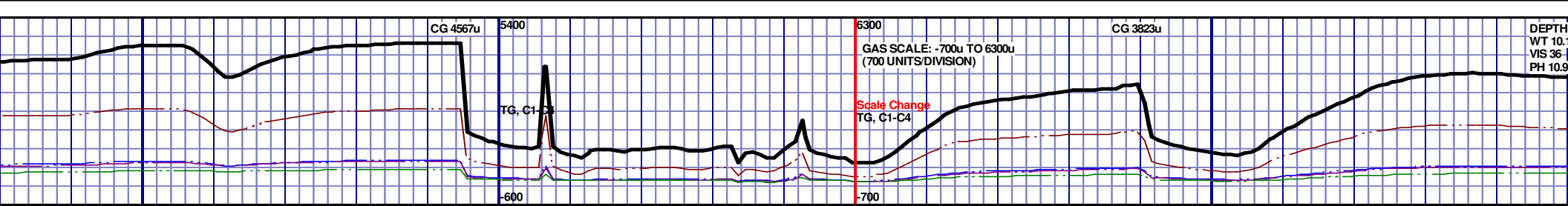
8600' MD-8650' MD: CHK: 95% (CaCO3 65%) MOTT LTGY-
MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CALC, FREE CALC, FREE PYR, TRC FREE
BENT, 5% FREE MRL, TRC GRYSBLK STN, TRC LTOR MIN
FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY
BLSHWT RNG

8650' MD-8700' MD: CHK: 90% (CaCO3 65%) MOTT LTGY-
MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CALC, ABTD FREE CALC, FREE PYR, TRC
FREE BENT, 10% FREE MRL, TRC GRYSBLK STN, TRC LTOR
MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY
BLSHWT RNG

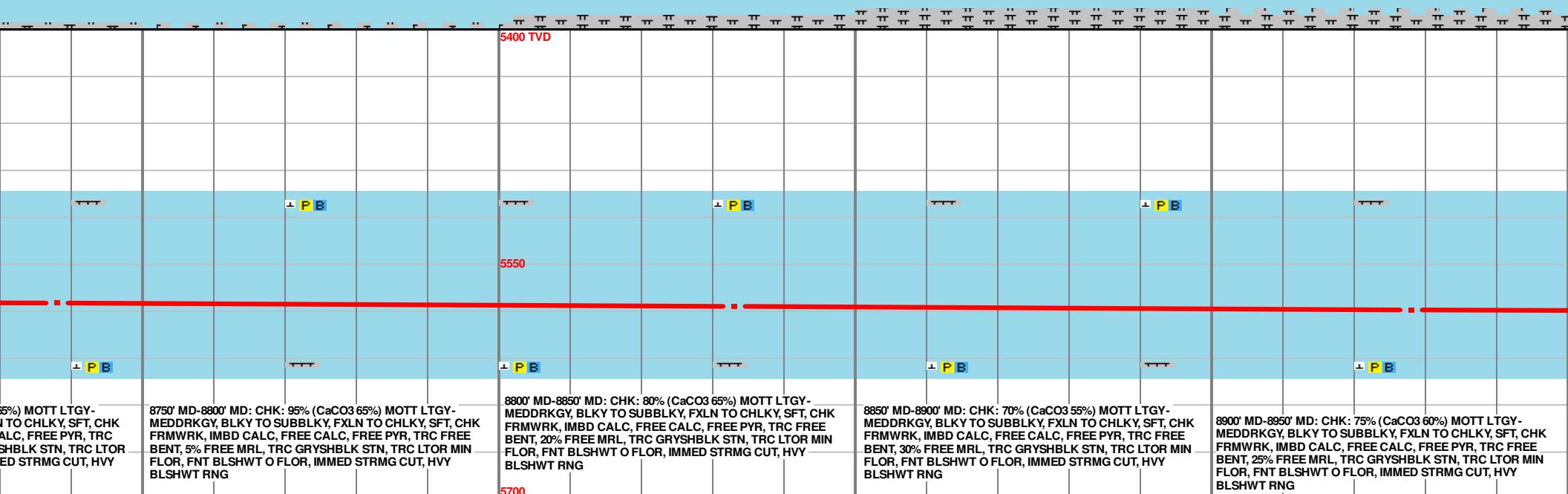
8700' MD-8750' MD: CHK: 90% (CaCO3 65%) MOTT LTGY-
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FRMWRK, IMBD CALC, ABTD FREE CALC, FREE PYR, TRC
FREE BENT, 10% FREE MRL, TRC GRYSBLK STN, TRC LTOR
MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY
BLSHWT RNG

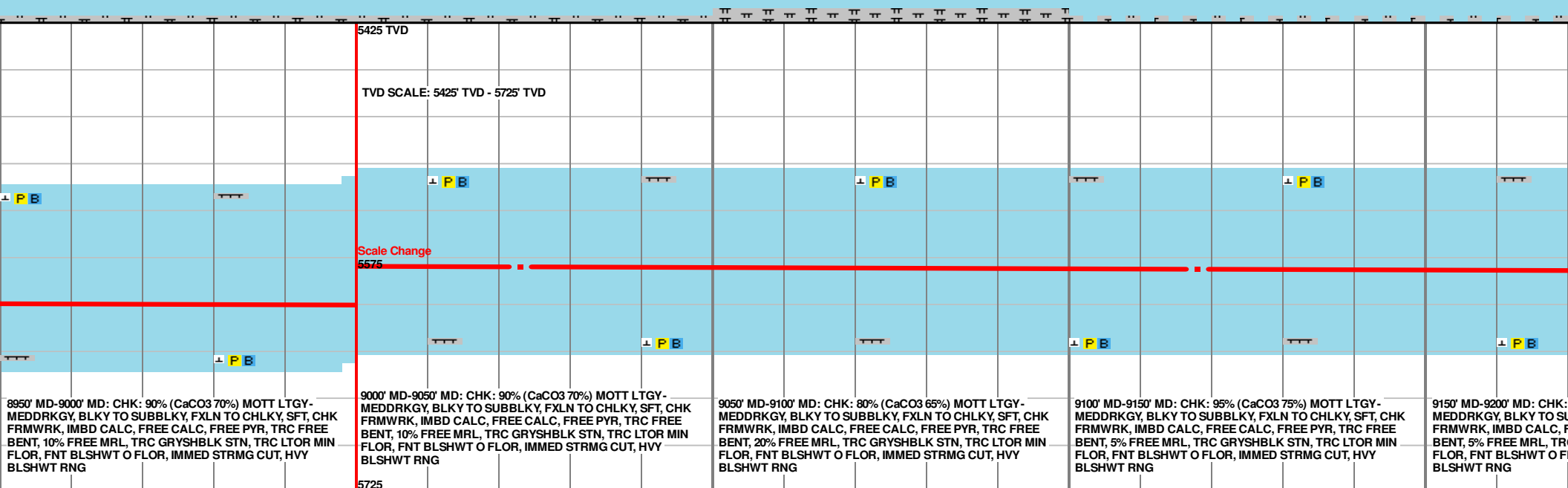
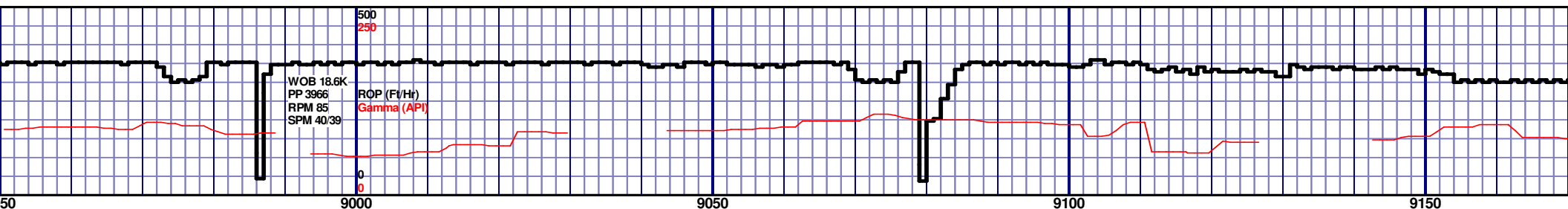
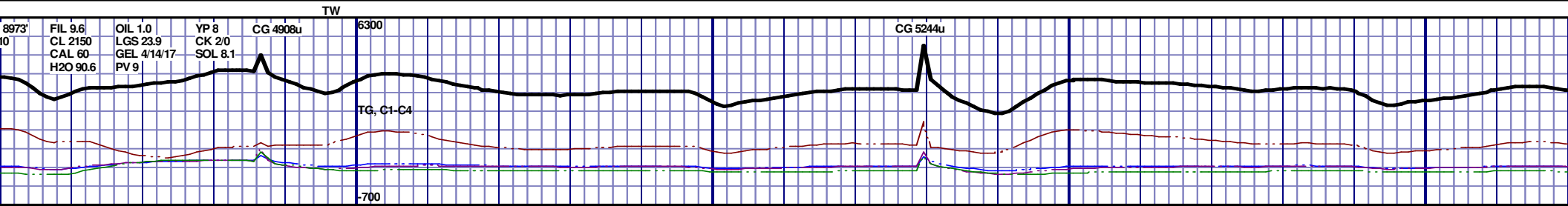
MD 8548 TVD 5571.44
INC 89.14 AZ 357.66
VS 3178.09

MD 8643 TVD 5573.13
INC 88.83 AZ 356.84
VS 3272.61



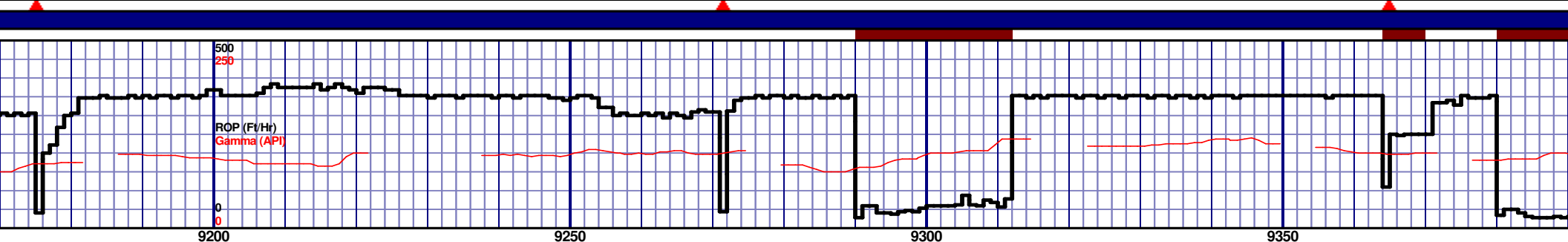
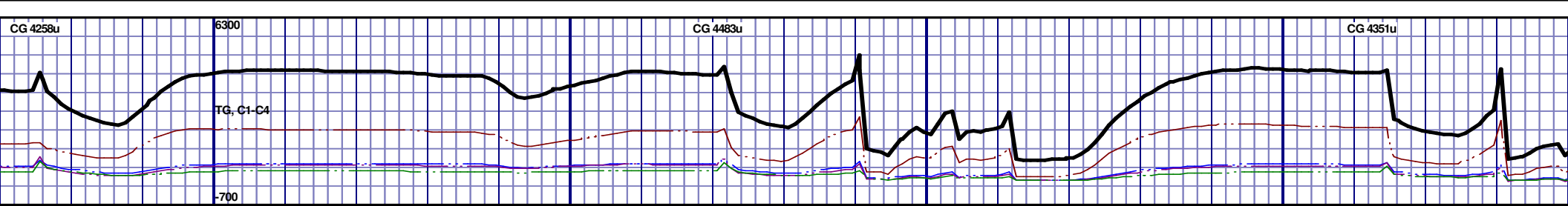
NIOBRARA B CHALK 8750' MD - 8800' MD



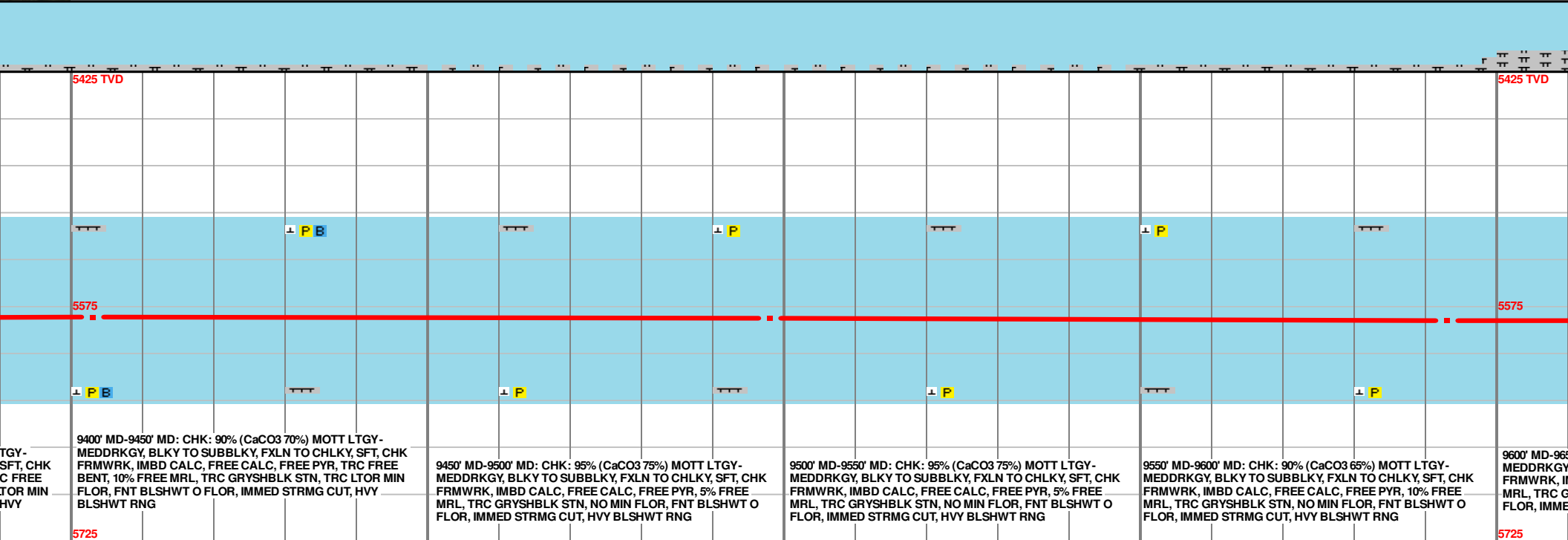
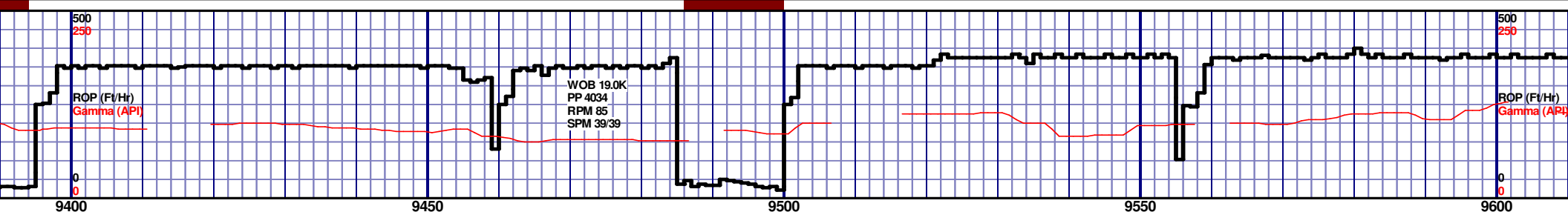
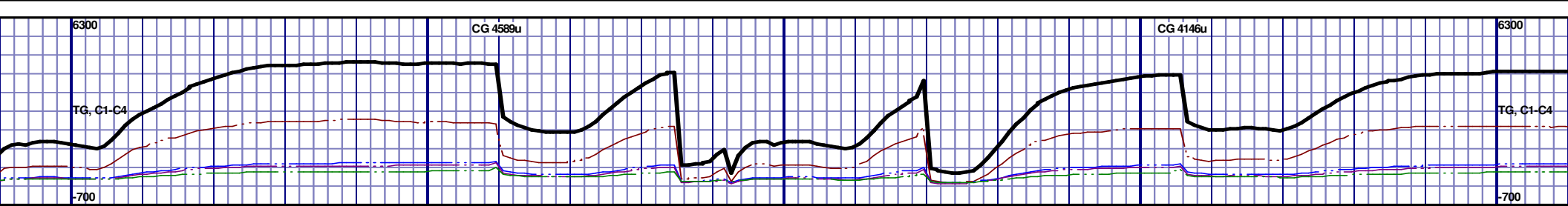


MD 9023 TVD 5581.03
INC 88.92 AZ 357.32
VS 3650.49

MD 9118 TVD 5582.56
INC 89.23 AZ 356.8
VS 3745.05



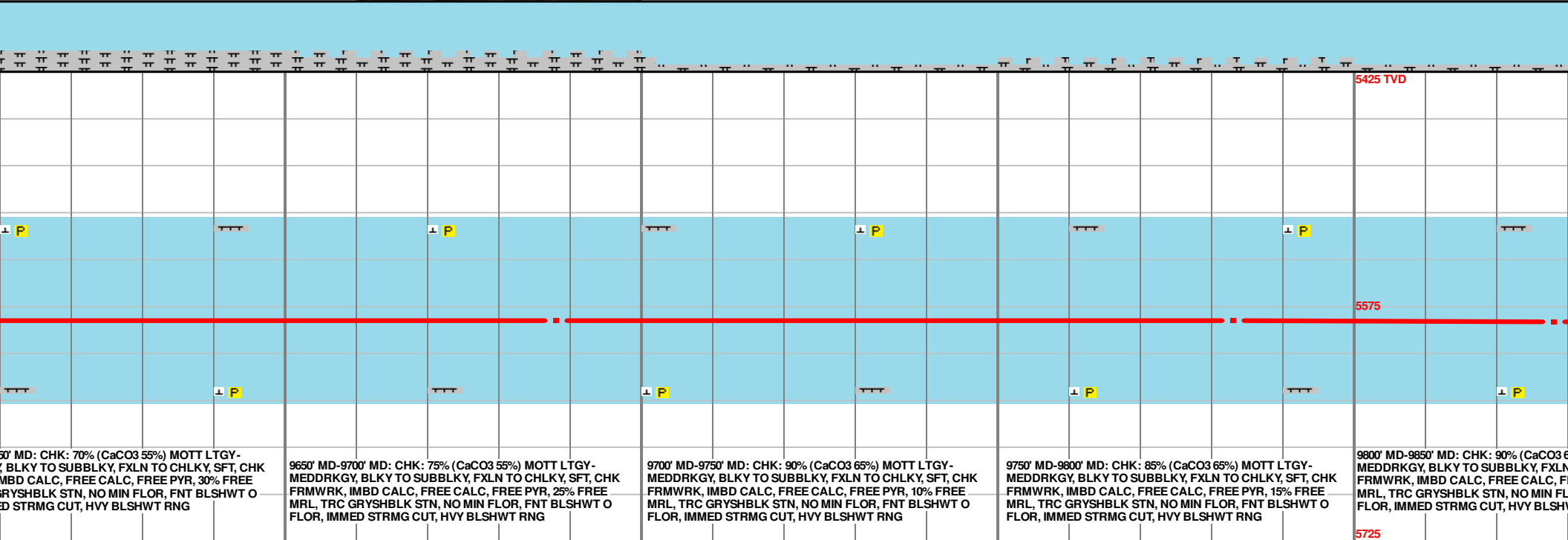
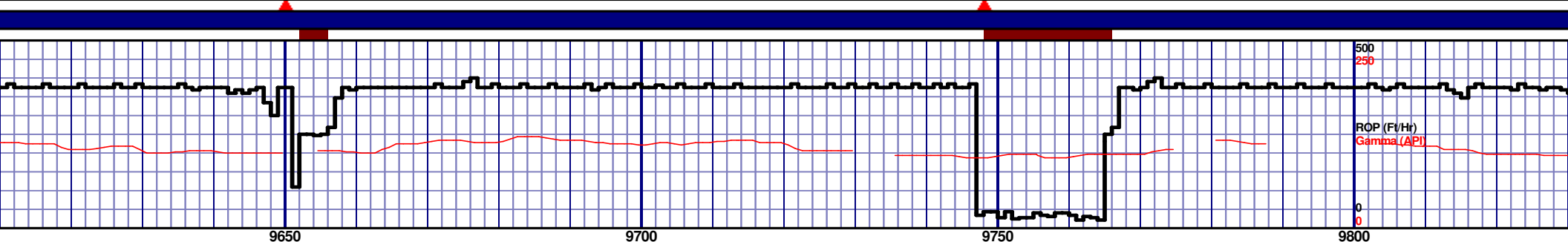
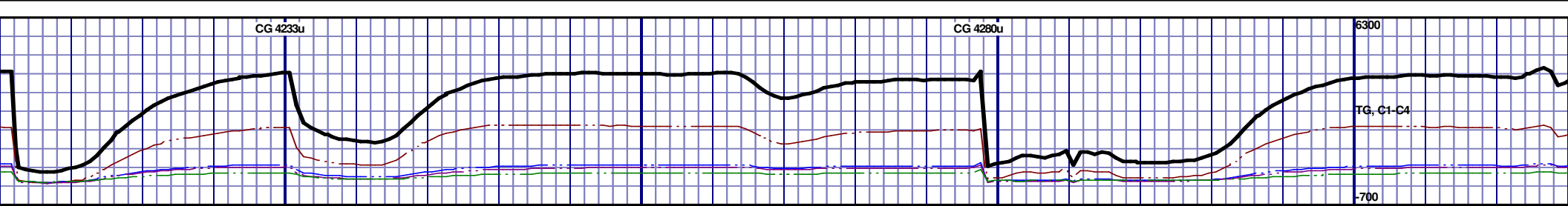
5425 TVD									



MD 9403 TVD 5581.8
INC 90.09 AZ 359.07
VS 4028.49

MD 9498 TVD 5582.69
INC 88.83 AZ 358.75
VS 4122.72

MD 9593 TVD 5584.1
INC 89.48 AZ 358.38
VS 4217.02



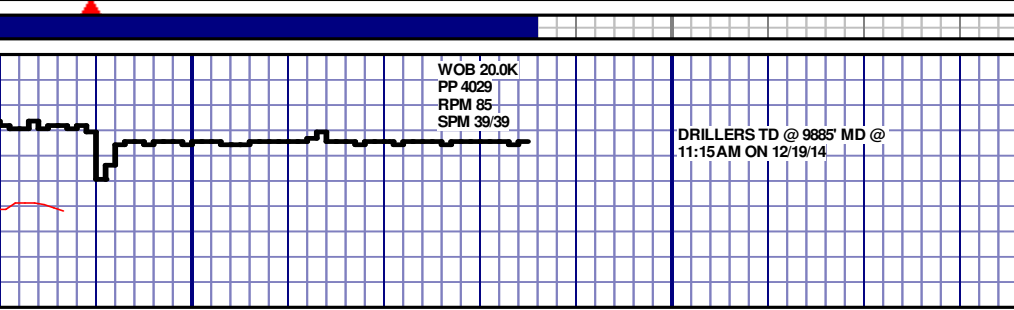
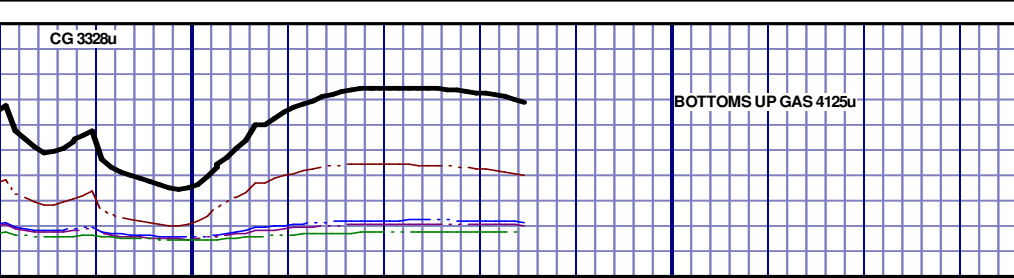
9650' MD: CHK: 70% (CaCO3 55%) MOTT LTGY- MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 30% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

9650' MD-9700' MD: CHK: 75% (CaCO3 55%) MOTT LTGY- MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 25% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

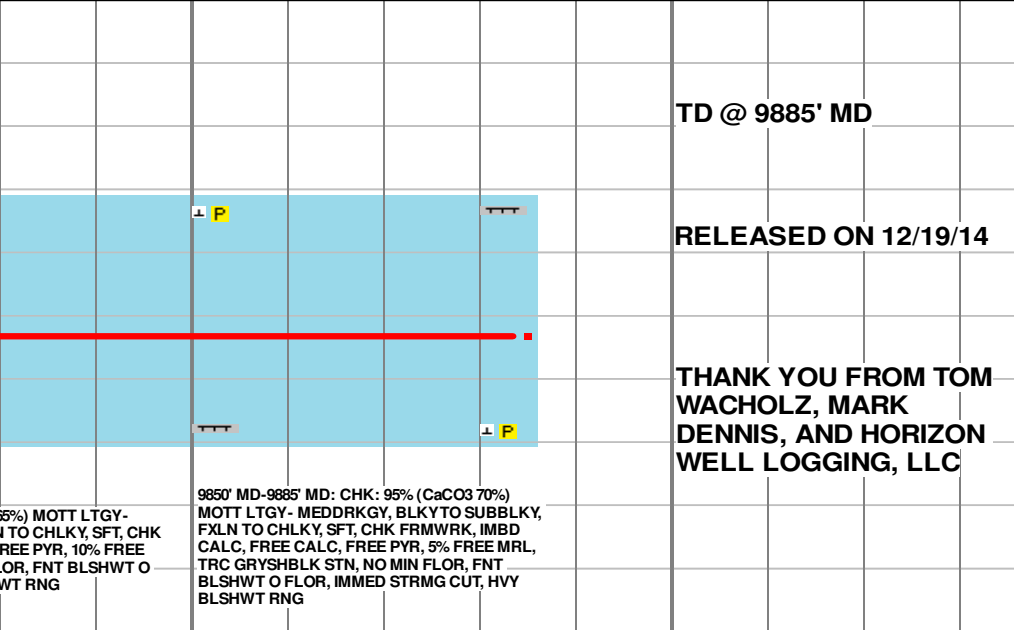
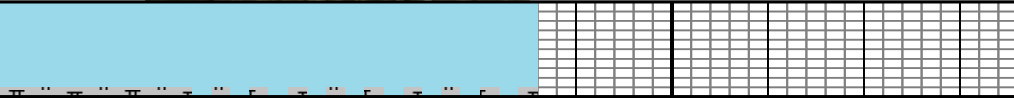
9700' MD-9750' MD: CHK: 90% (CaCO3 65%) MOTT LTGY- MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 10% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

9750' MD-9800' MD: CHK: 85% (CaCO3 65%) MOTT LTGY- MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 15% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG

9800' MD-9850' MD: CHK: 90% (CaCO3 65%) MOTT LTGY- MEDDRKGY, BLKY TO SUBBLKY, FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD CALC, FREE CALC, FREE PYR, 10% FREE MRL, TRC GRYSHBLK STN, NO MIN FLOR, FNT BLSHWT O FLOR, IMMED STRMG CUT, HVY BLSHWT RNG



9850 9900



TD @ 9885' MD

RELEASED ON 12/19/14

THANK YOU FROM TOM
WACHOLZ, MARK
DENNIS, AND HORIZON
WELL LOGGING, LLC