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WWW.HZMUD.COM/25

Customer Information

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

Geologist: Cassidy Miller
Noble Energy Inc.

Mud Logging Details

Logger: Hannah Blatchford &
Michael Yeager
Log Interval: 6800' MD to 16321' MD
Start Date: November 25, 2013
Release Date: December 4, 2013

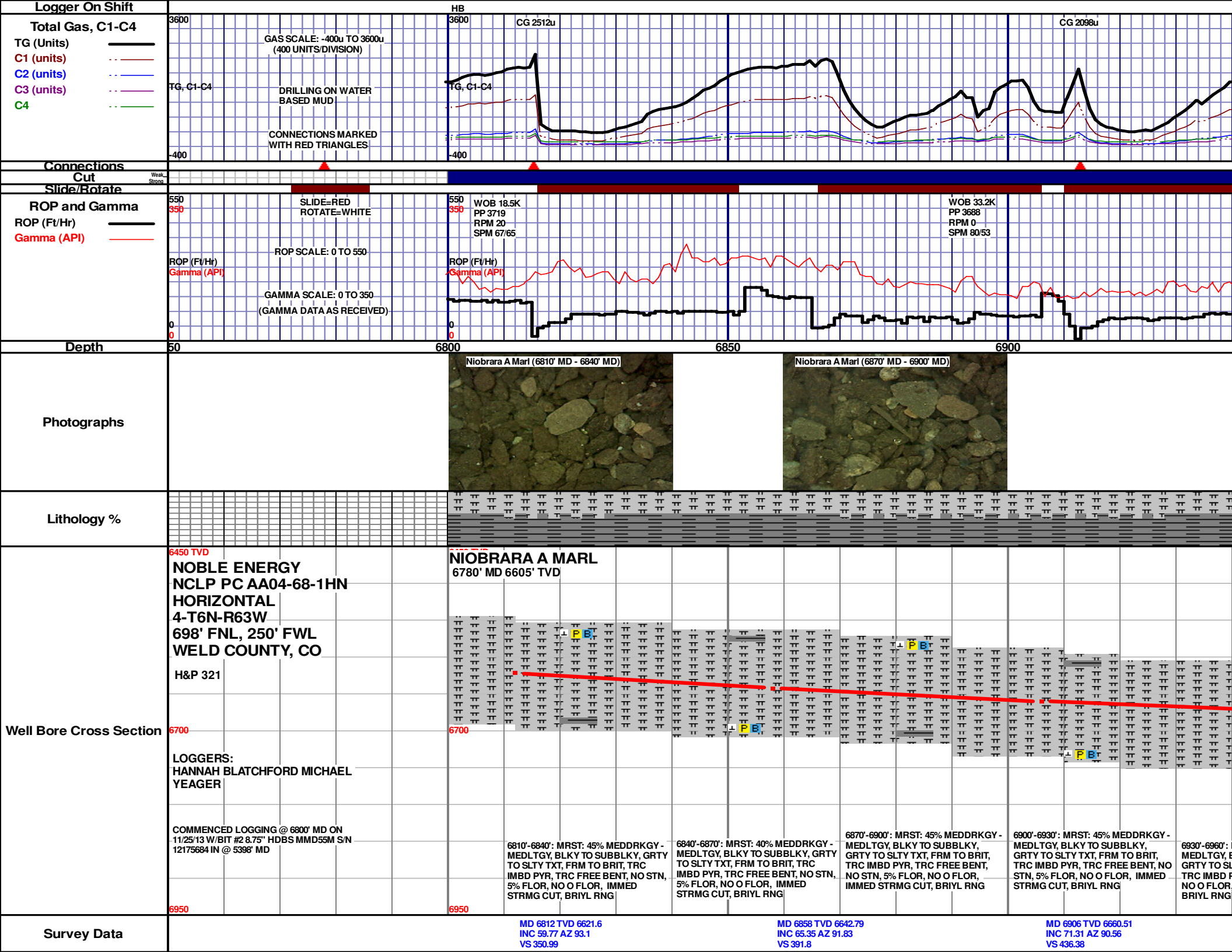
Well Information

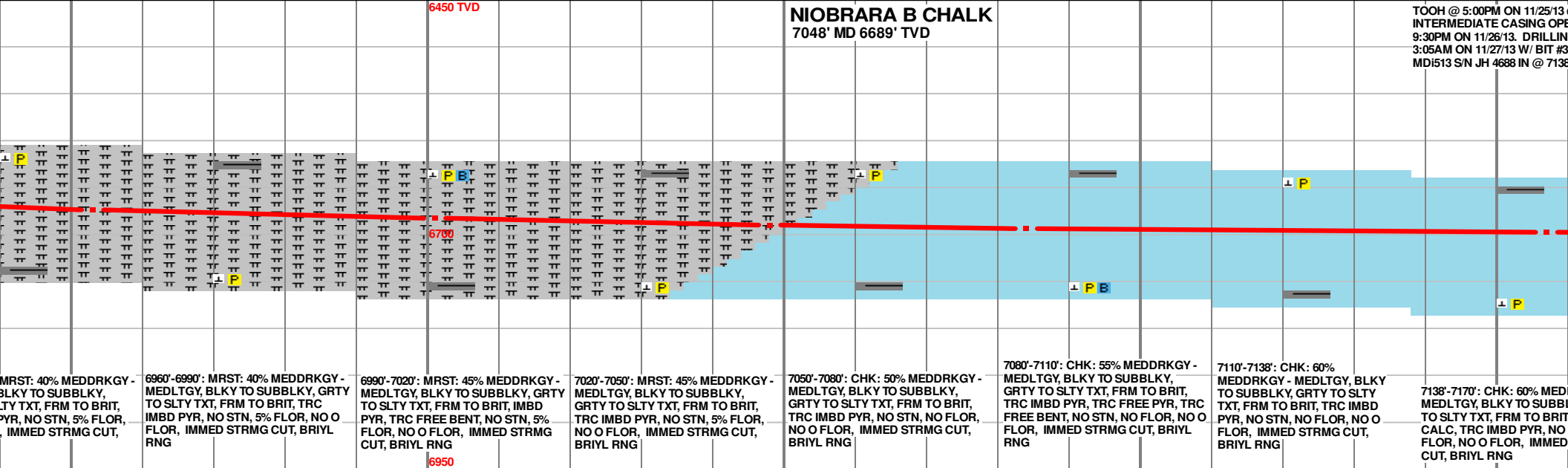
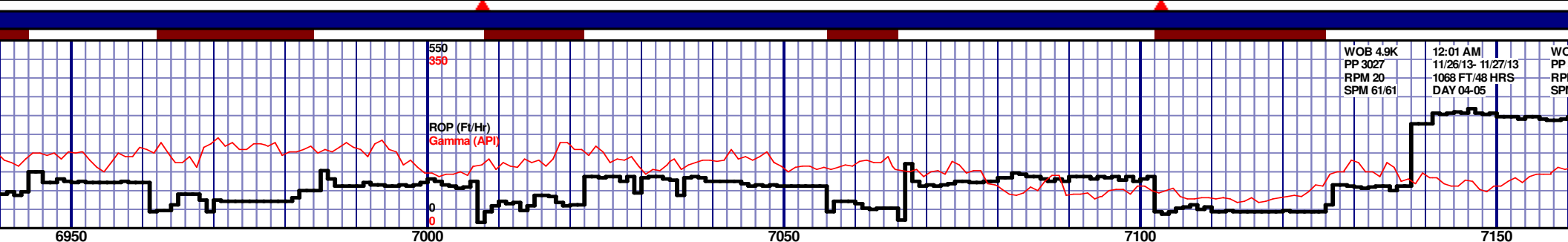
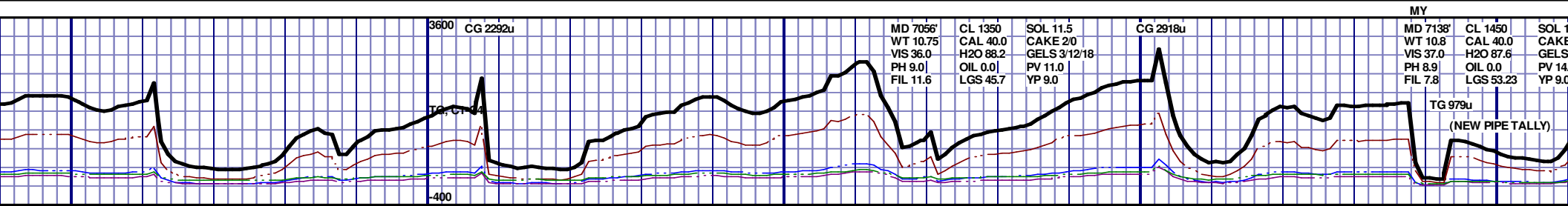
Well Name: NCLP PC AA04-68-1HN
Horizontal

Location: 4-T6N-R63W
698' FNL, 250' FWL

County: Weld Co.
State: Colorado

Drilling Rig: H&P 321
Total Depth: 16321' MD
TD Date: December 4, 2013
Formation: Niobrara B Chalk
KB Elevation: 4741'
GR Elevation: 4711'
API Number: 05-123-37178-0000





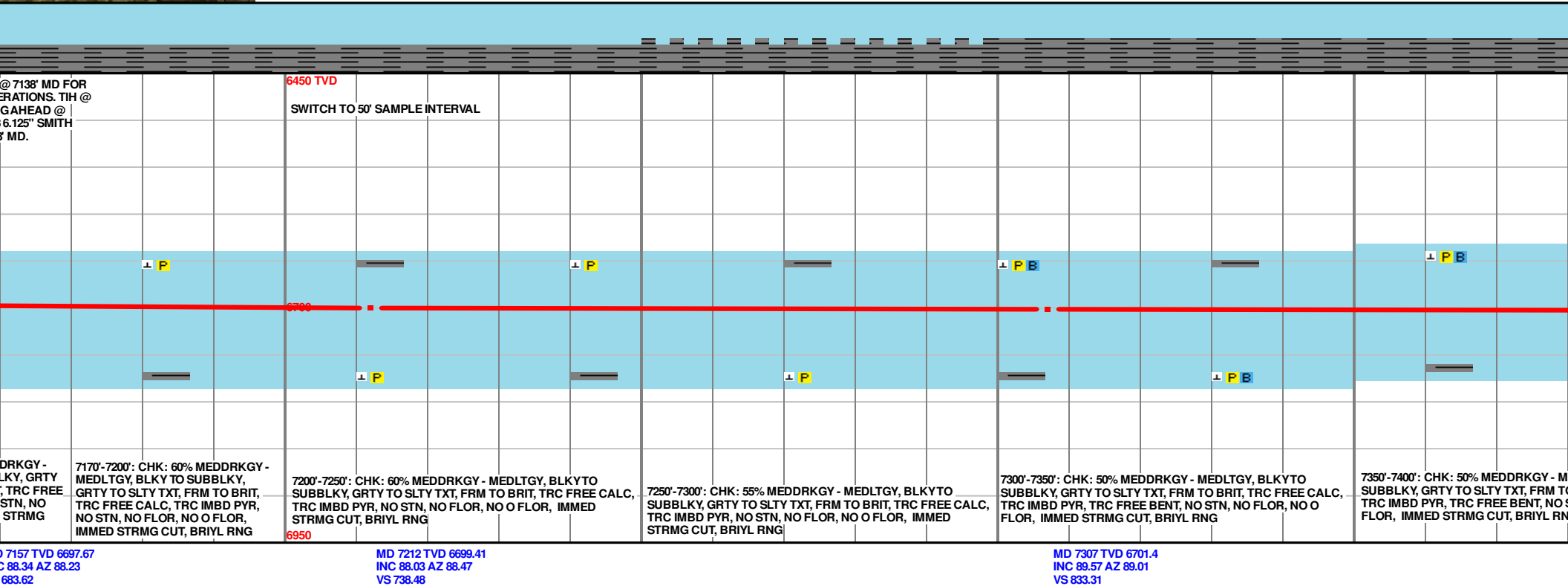
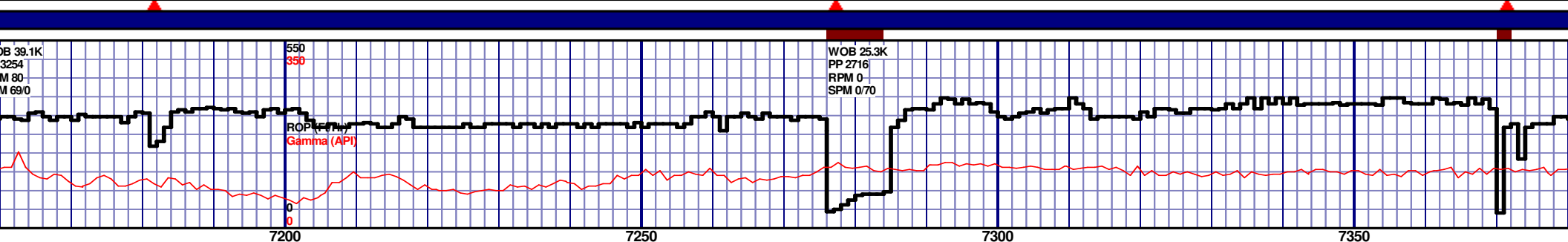
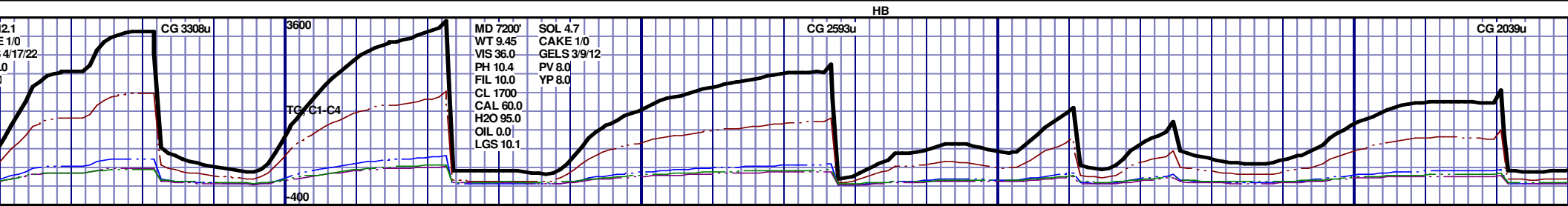
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INC 76.58 AZ 89.77
VS 481.51

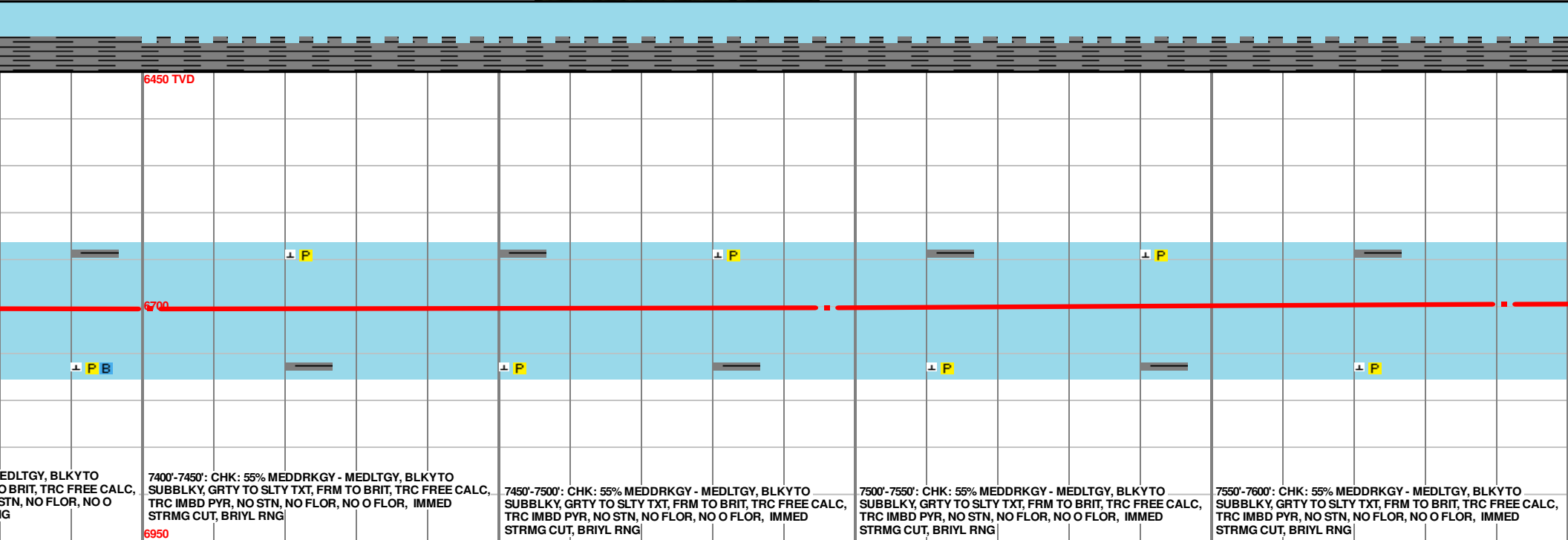
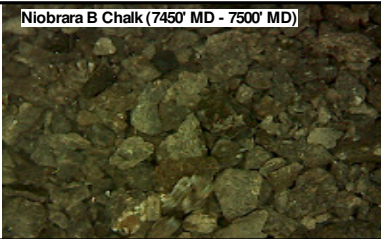
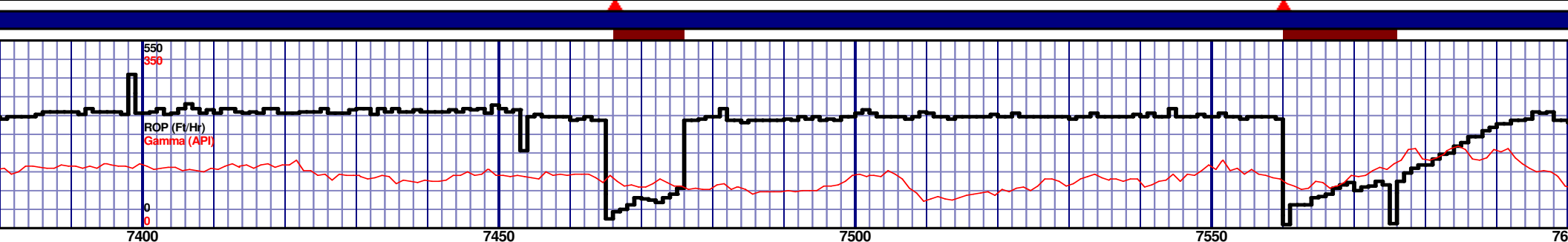
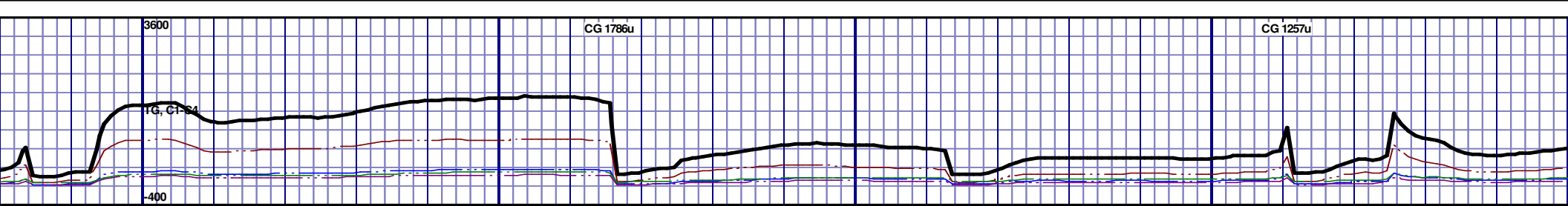
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INC 80.82 AZ 89.78
VS 528.54

MD 7048 TVD 6689.41
INC 83.27 AZ 90.51
VS 575.06

MD 7084 TVD 6693.2
INC 84.64 AZ 90.33
VS 610.85

MD 7138 TVD 6693.2
INC 84.64 AZ 90.33
VS 610.85

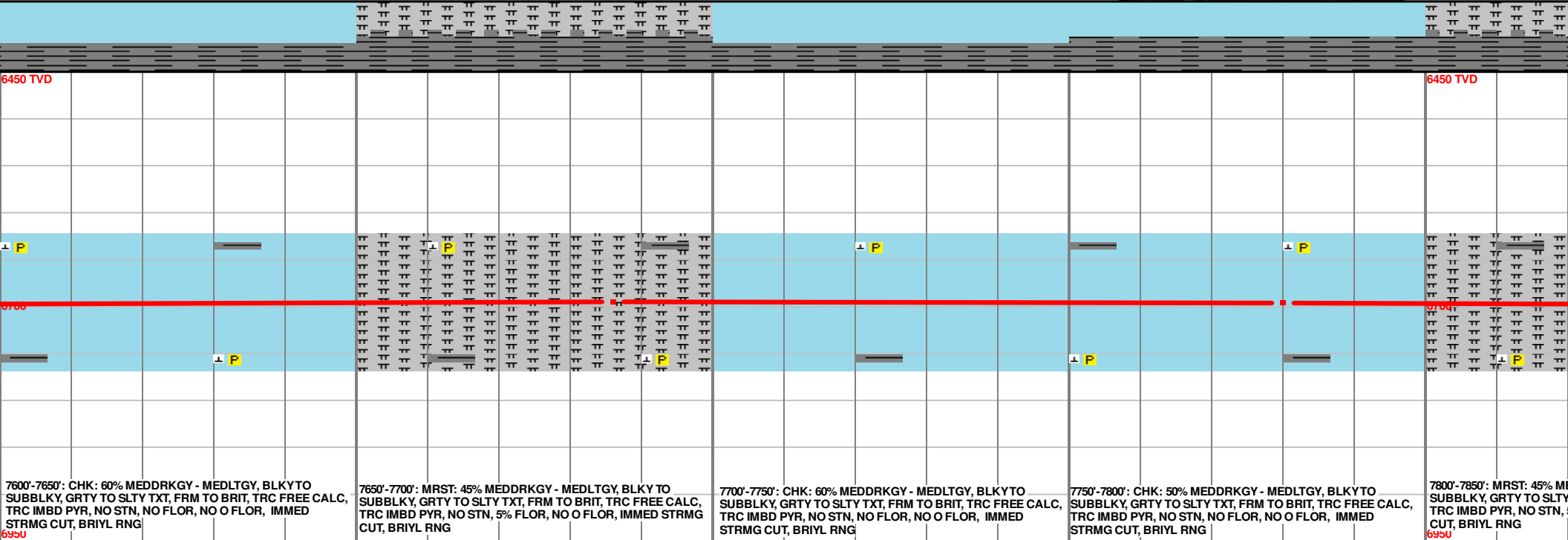
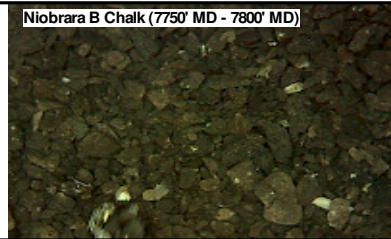
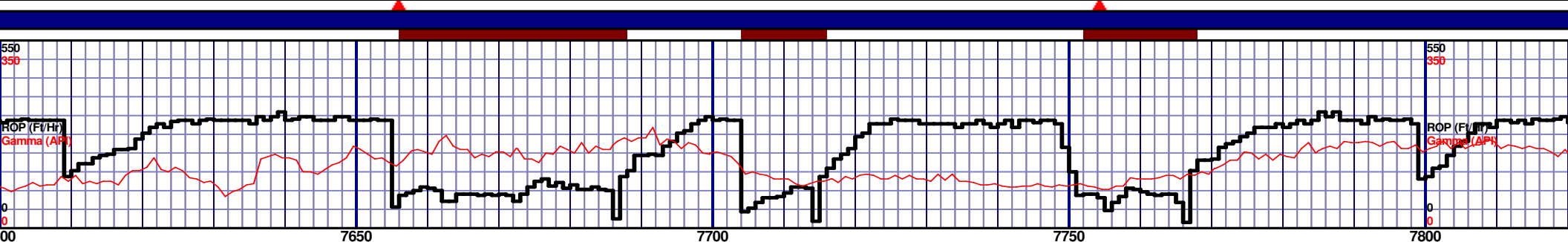
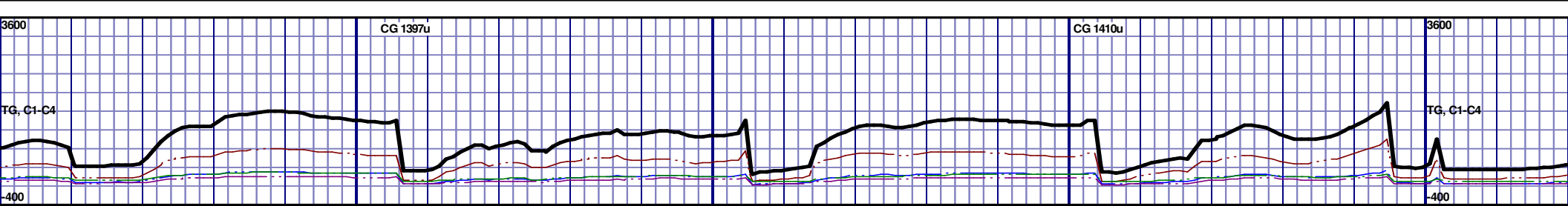


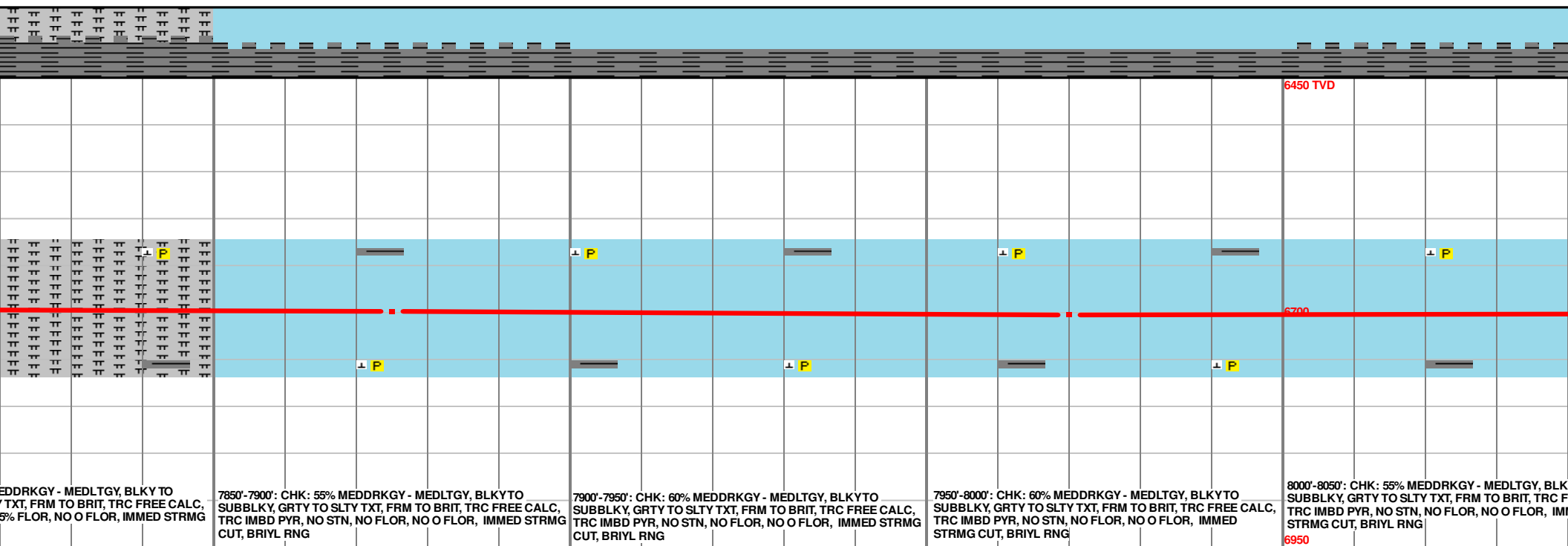
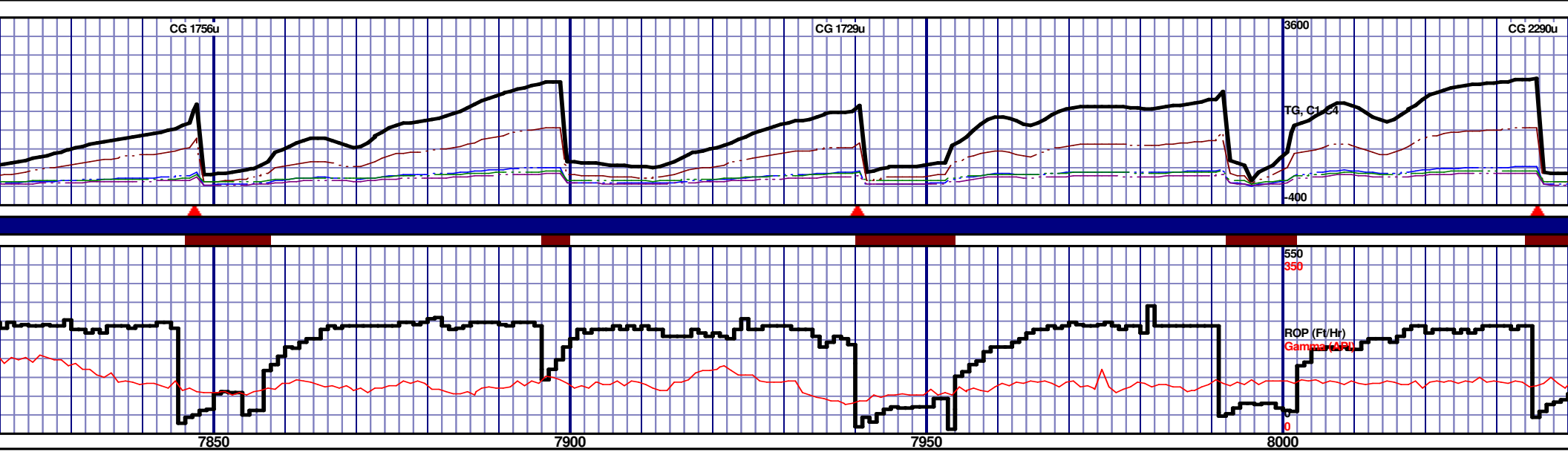


MD 7401 TVD 6701.99
INC 89.72 AZ 88.21
VS 927.16

MD 7496 TVD 6700.71
INC 91.82 AZ 88.85
VS 1021.98

MD 7591 TVD 6700.71
INC 91.97 AZ 88.85
VS 1116.85





MEDDRKGY - MEDLTGY, BLKY TO
TXT, FRM TO BRIT, TRC FREE CALC,
5% FLOR, NO O FLOR, IMMED STRMG
CUT, BRIYL RNG

7850'-7900': CHK: 55% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, NO STN, NO FLOR, NO O FLOR, IMMED STRMG
CUT, BRIYL RNG

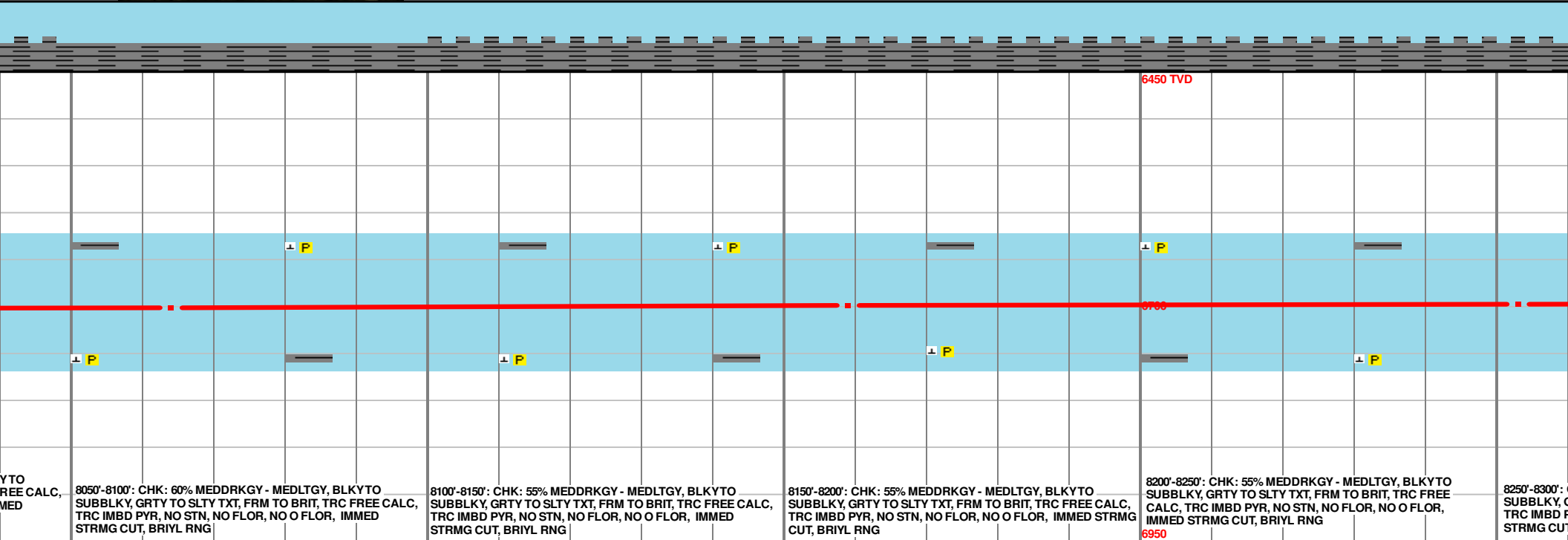
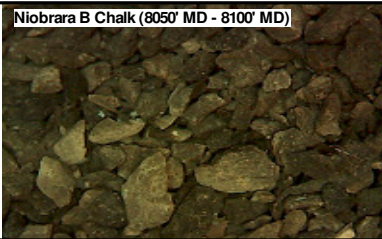
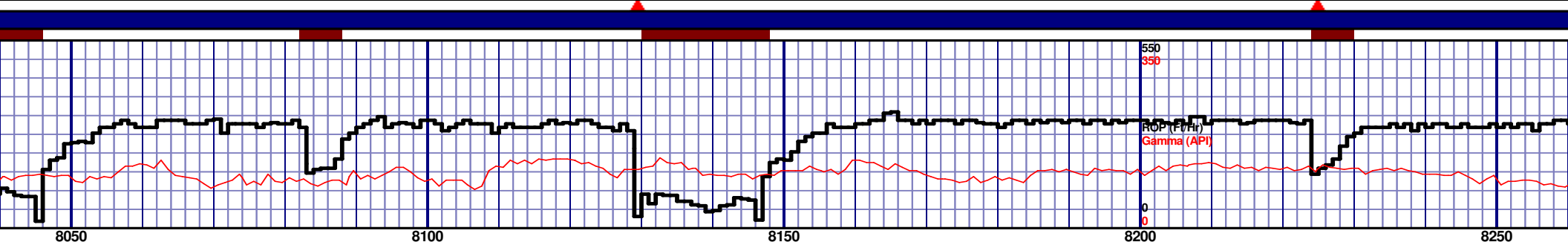
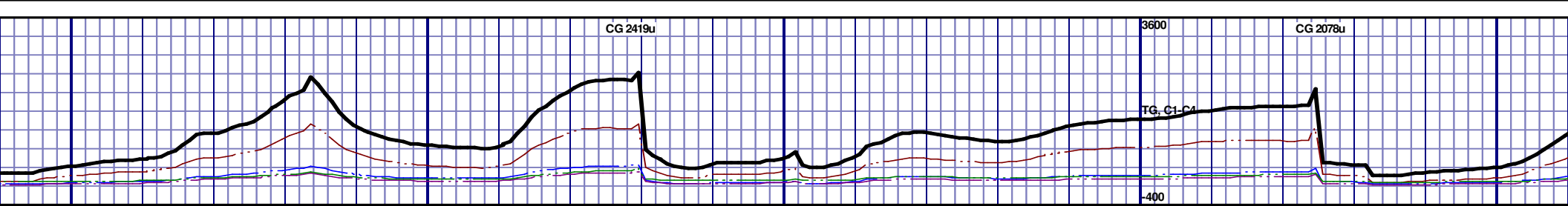
7900'-7950': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, NO STN, NO FLOR, NO O FLOR, IMMED STRMG
CUT, BRIYL RNG

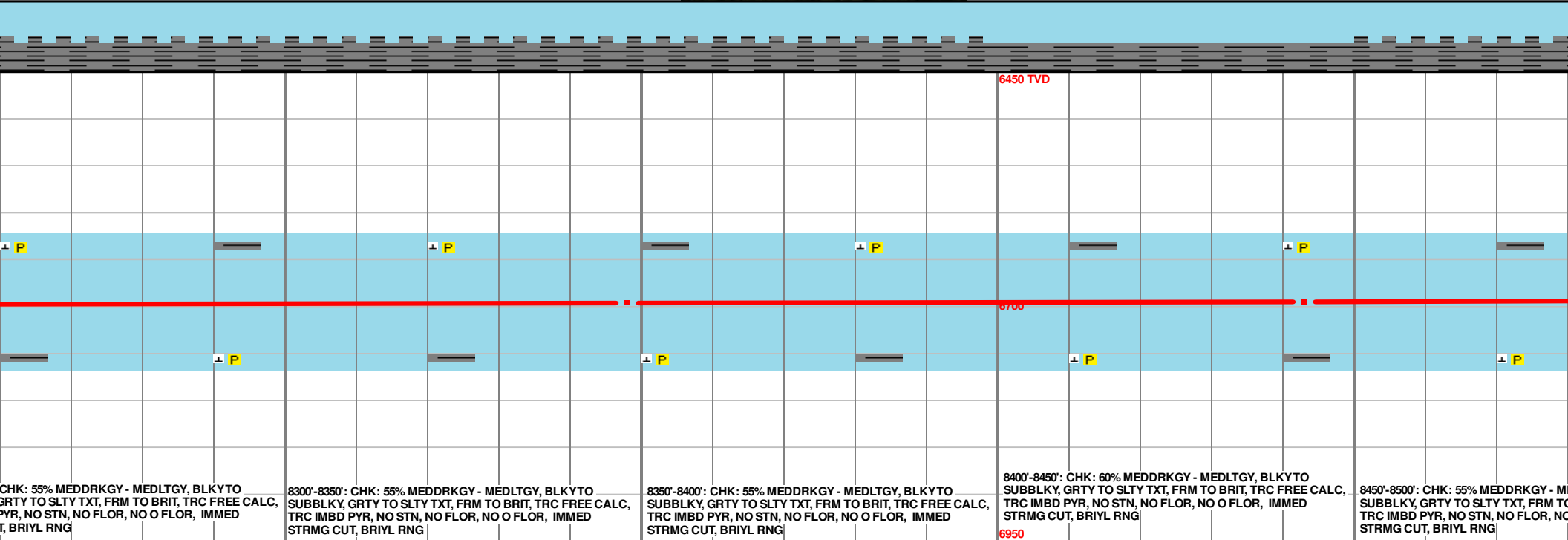
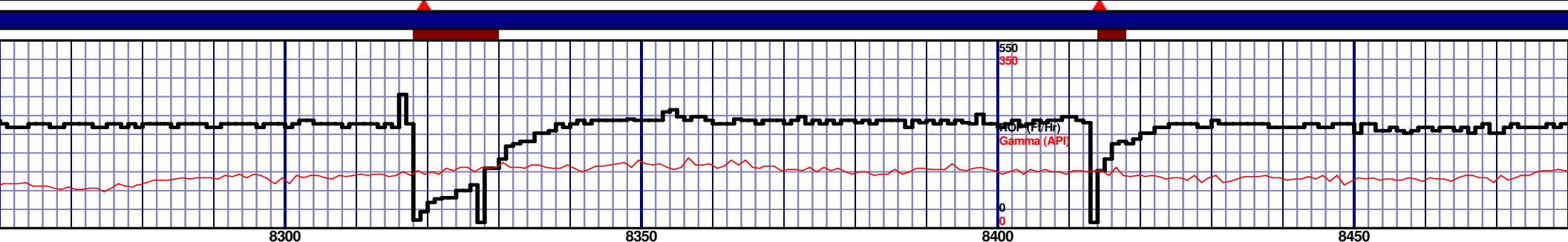
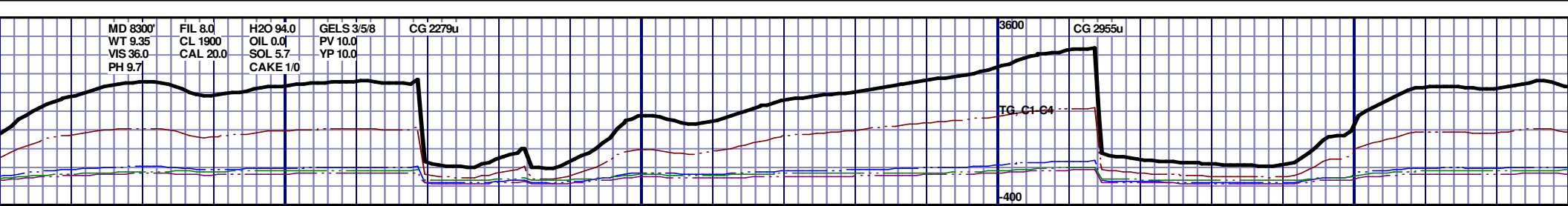
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SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, NO STN, NO FLOR, NO O FLOR, IMMED
STRMG CUT, BRIYL RNG

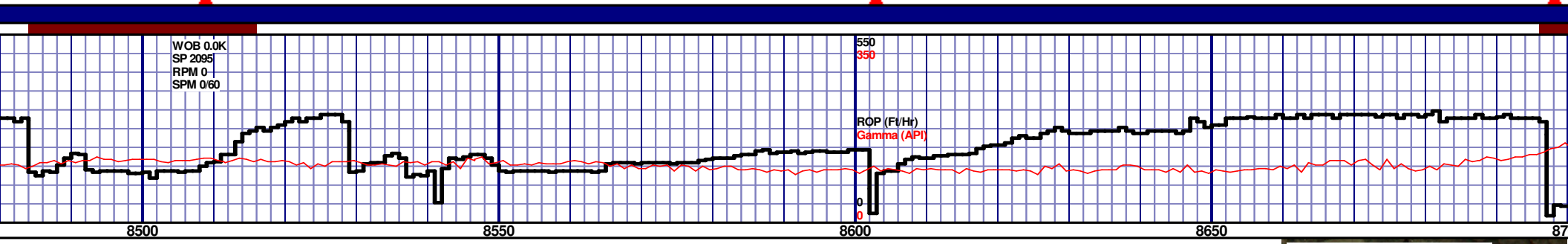
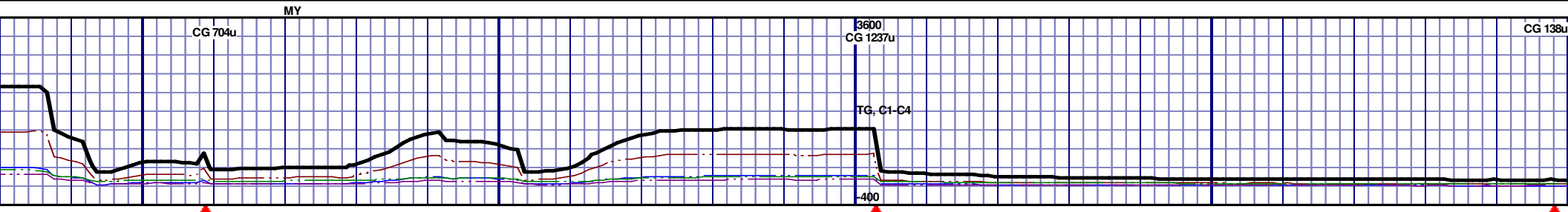
8000'-8050': CHK: 55% MEDDRKGY - MEDLTGY, BLK
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC F
TRC IMBD PYR, NO STN, NO FLOR, NO O FLOR, IMM
STRMG CUT, BRIYL RNG

MD 7875 TVD 6699.35
INC 88.15 AZ 89.63
VS 1400.73

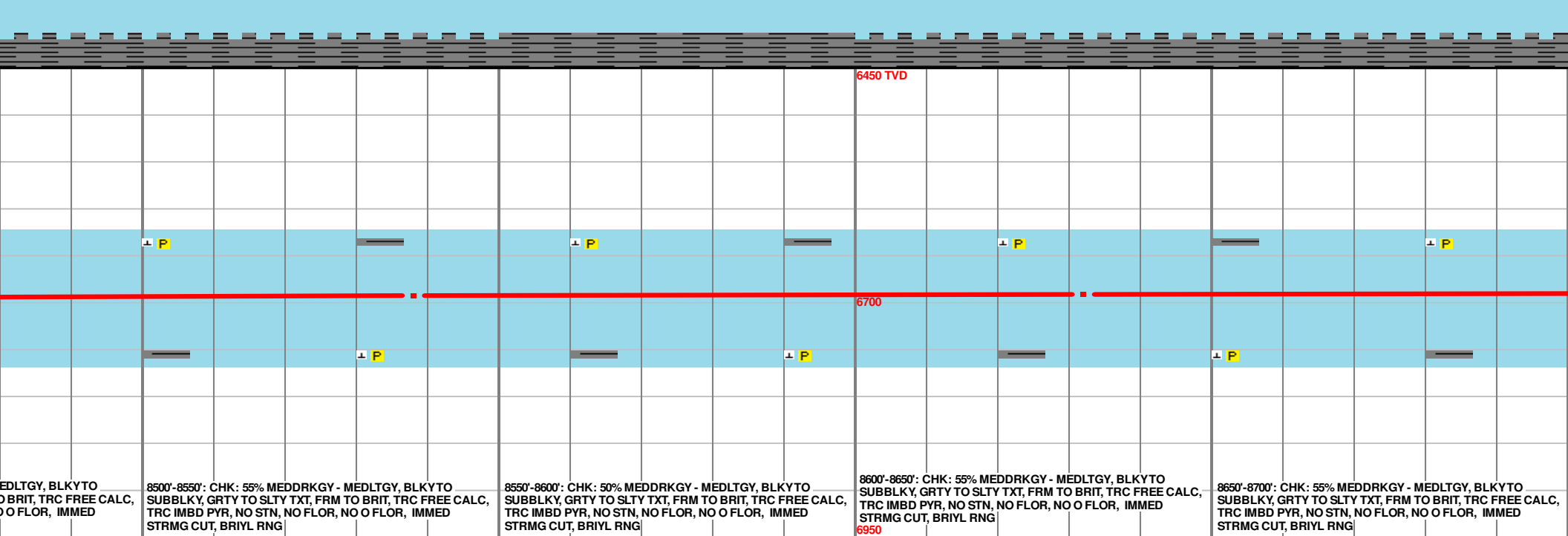
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VS 1495.55

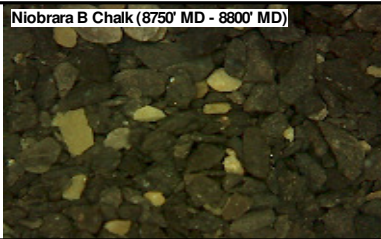
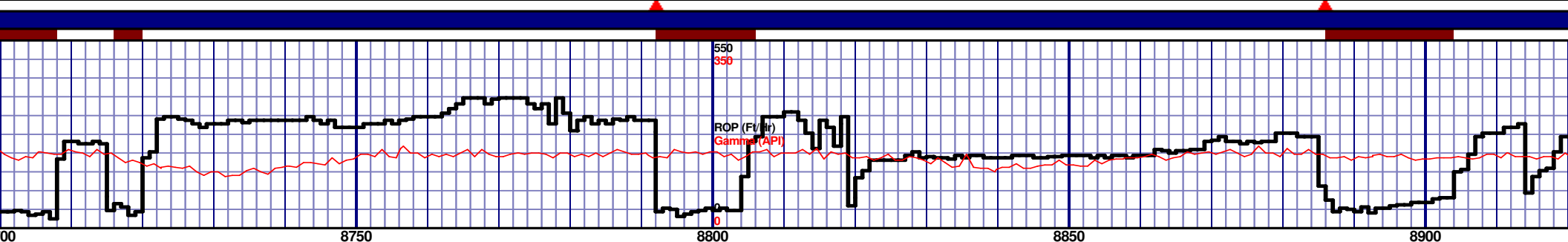
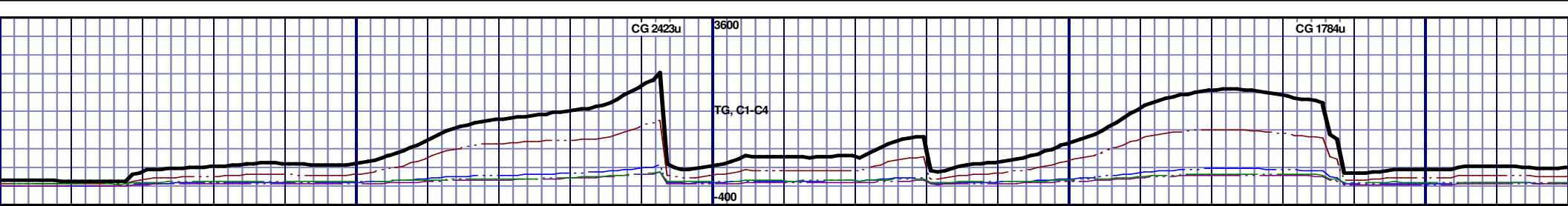




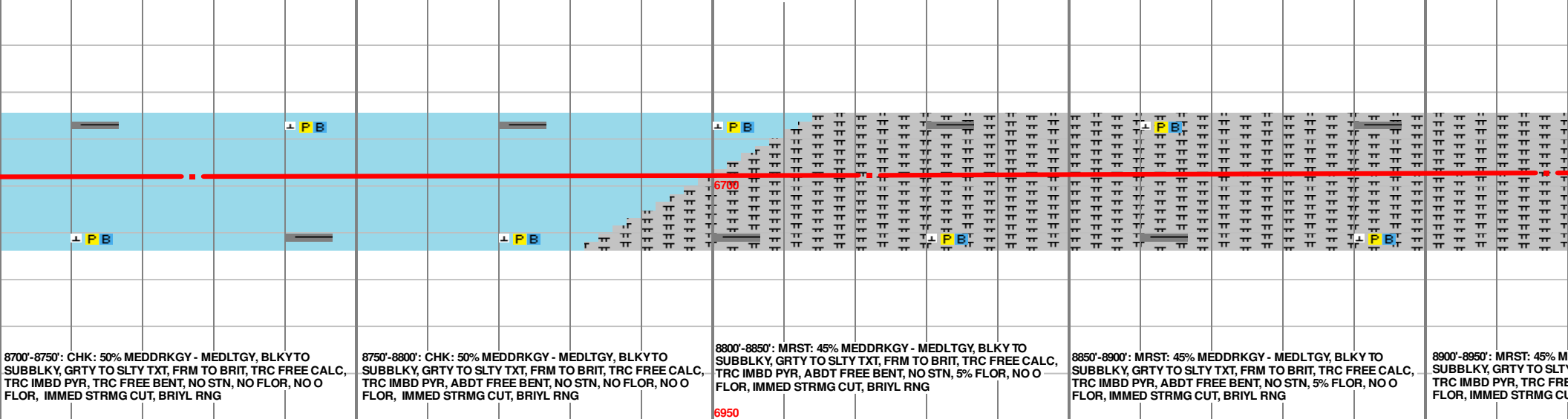


Niobrara B Chalk (8650' MD - 8700' MD)





6450 TVD
NIOBRARA B MARL
8800' MD 6689' TVD



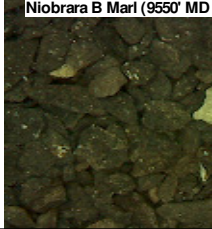
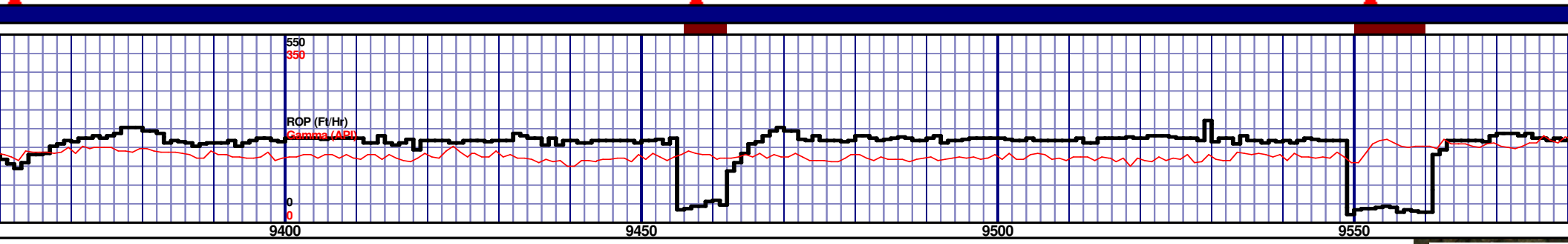
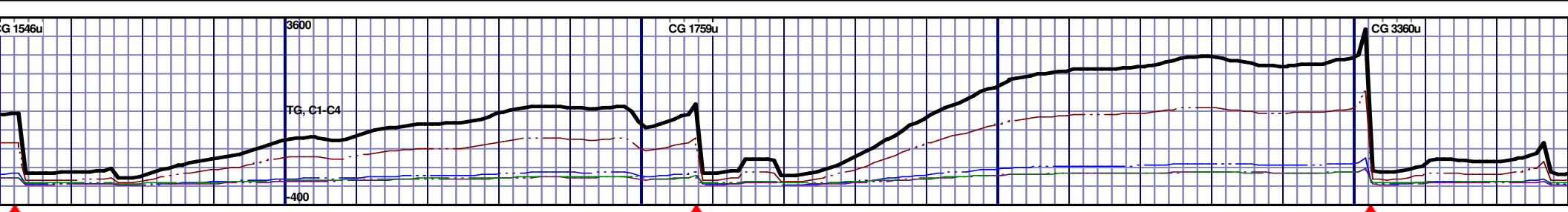
8700'-8750': CHK: 50% MEDDRKGY - MEDLTGY, BLKY TO
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TRC IMBD PYR, TRC FREE BENT, NO STN, NO FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

8750'-8800': CHK: 50% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, ABDT FREE BENT, NO STN, NO FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

8800'-8850': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

8850'-8900': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

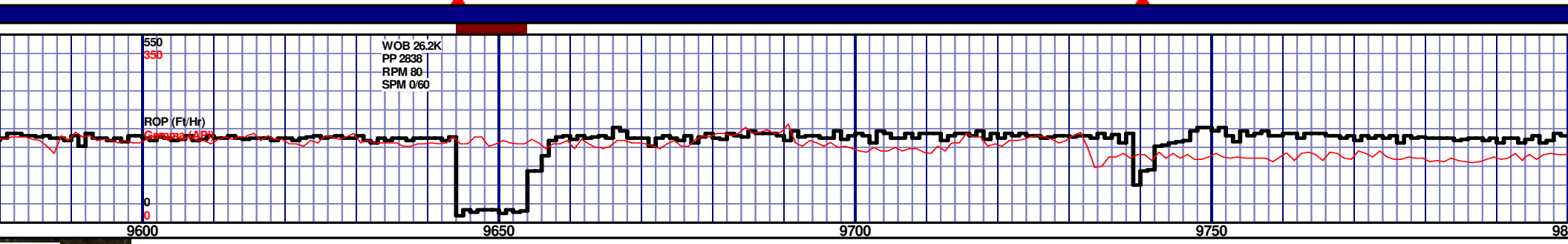
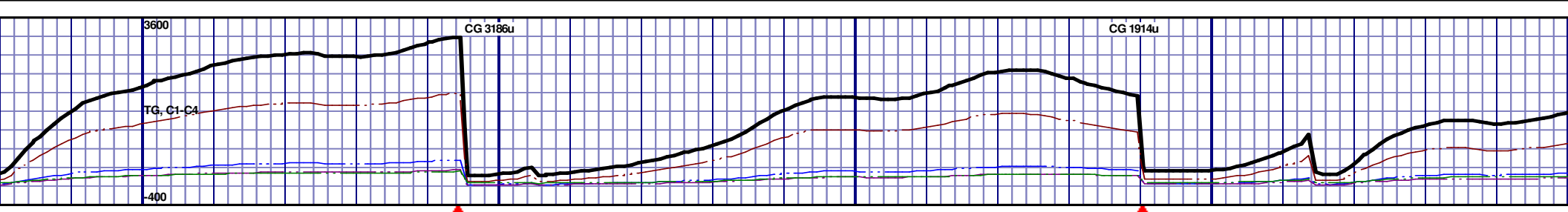
8900'-8950': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC,
TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG



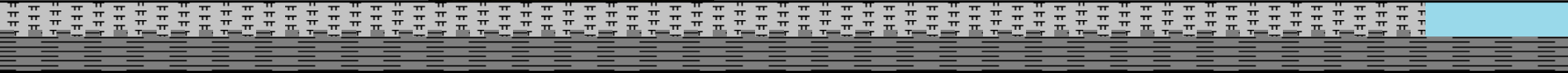
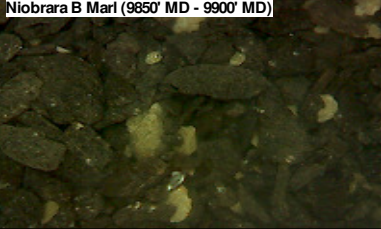
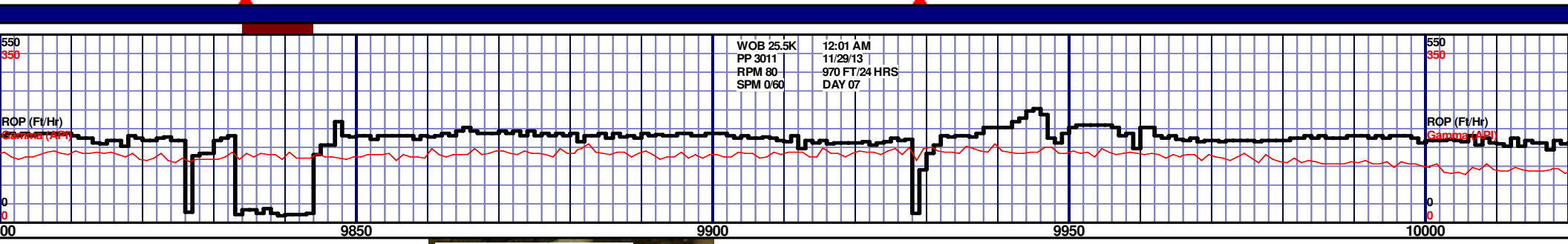
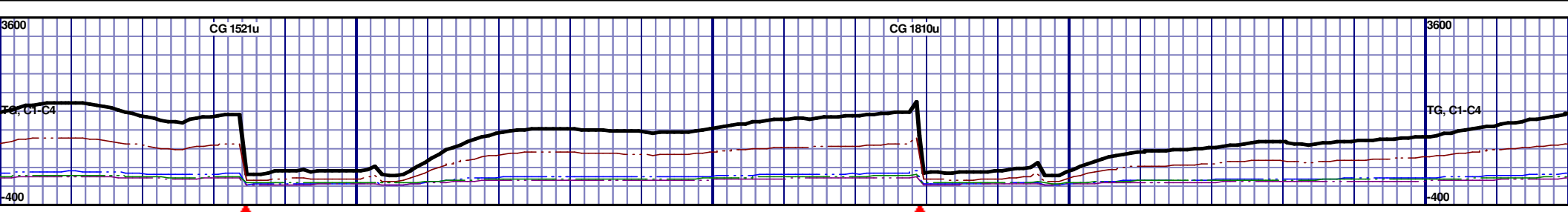
9400'-9450': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
9450'-9500': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
9500'-9550': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
9550'-9600': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									

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INC 92.04 AZ 90.53
VS 2913.99

MD 9485 TVD 6674.95
INC 91.63 AZ 90.12
VS 3007.91



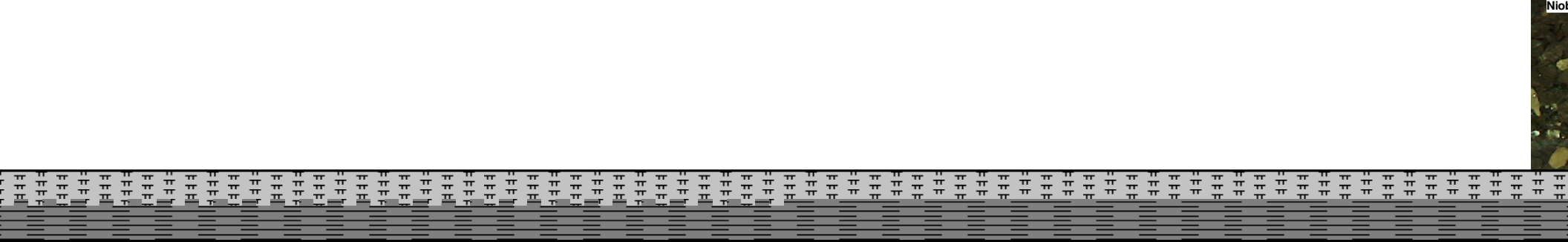
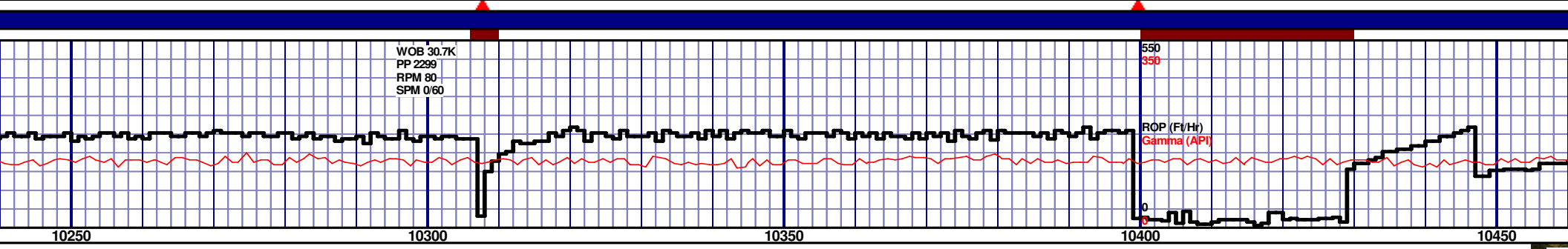
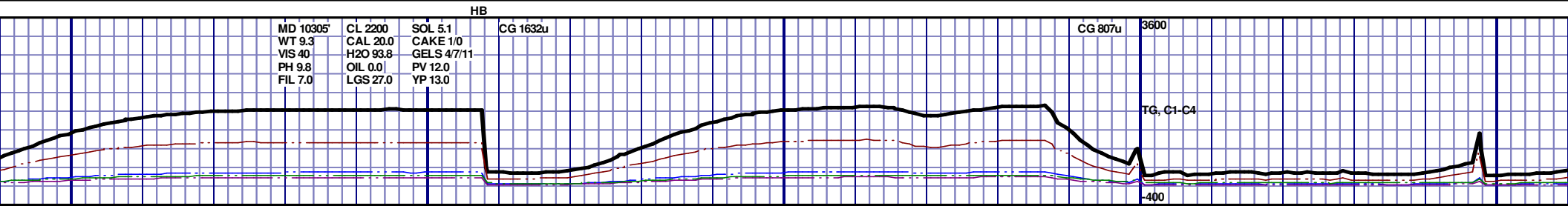
6450 TVD									
<div>9600'-9650': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</div>									
<div>9650'-9700': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</div>									
<div>9700'-9750': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</div>									
<div>9750'-9800': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</div>									



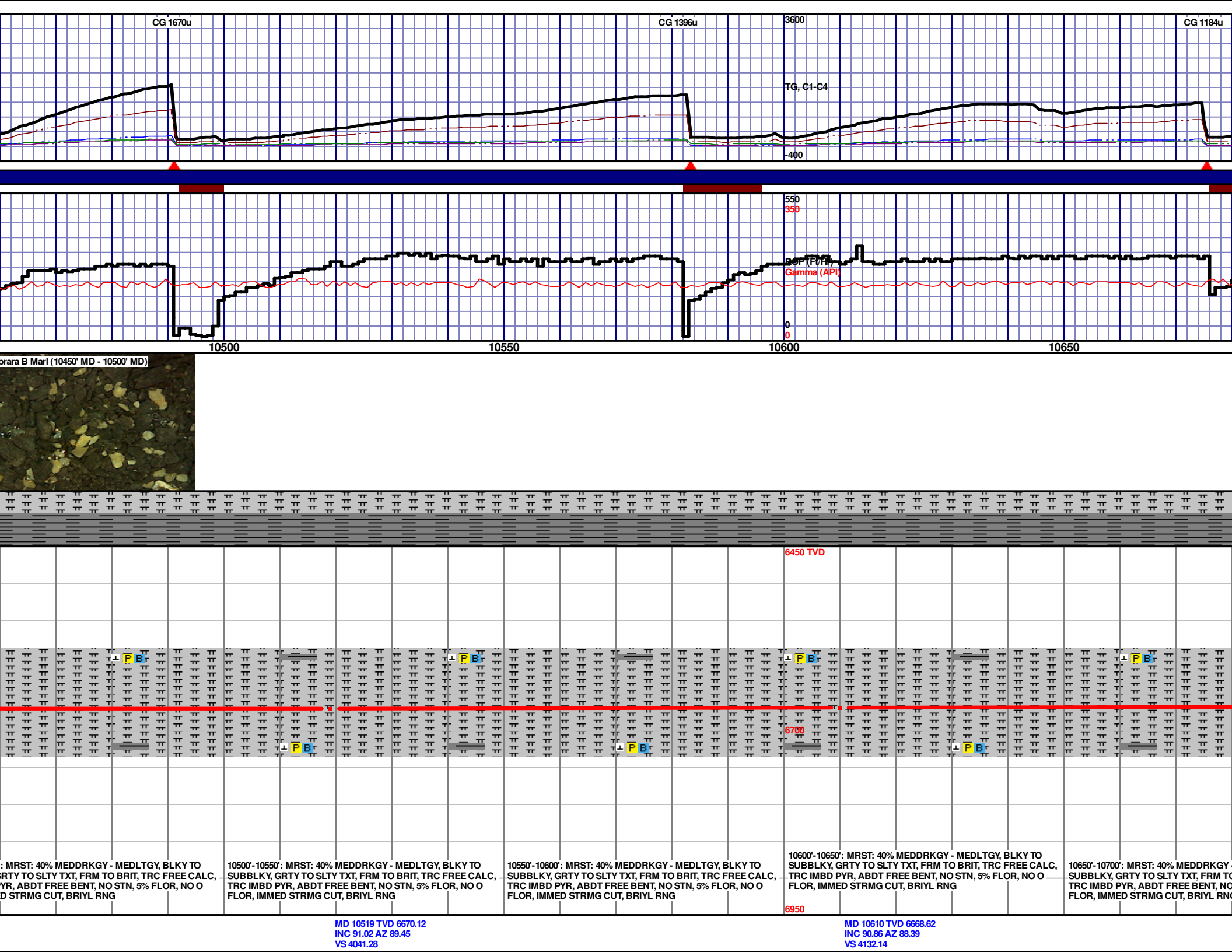
<p>9800'-9850': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>9850'-9900': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>9900'-9950': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>9950'-10000': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>10000'-10050': CHK: 50% M SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>
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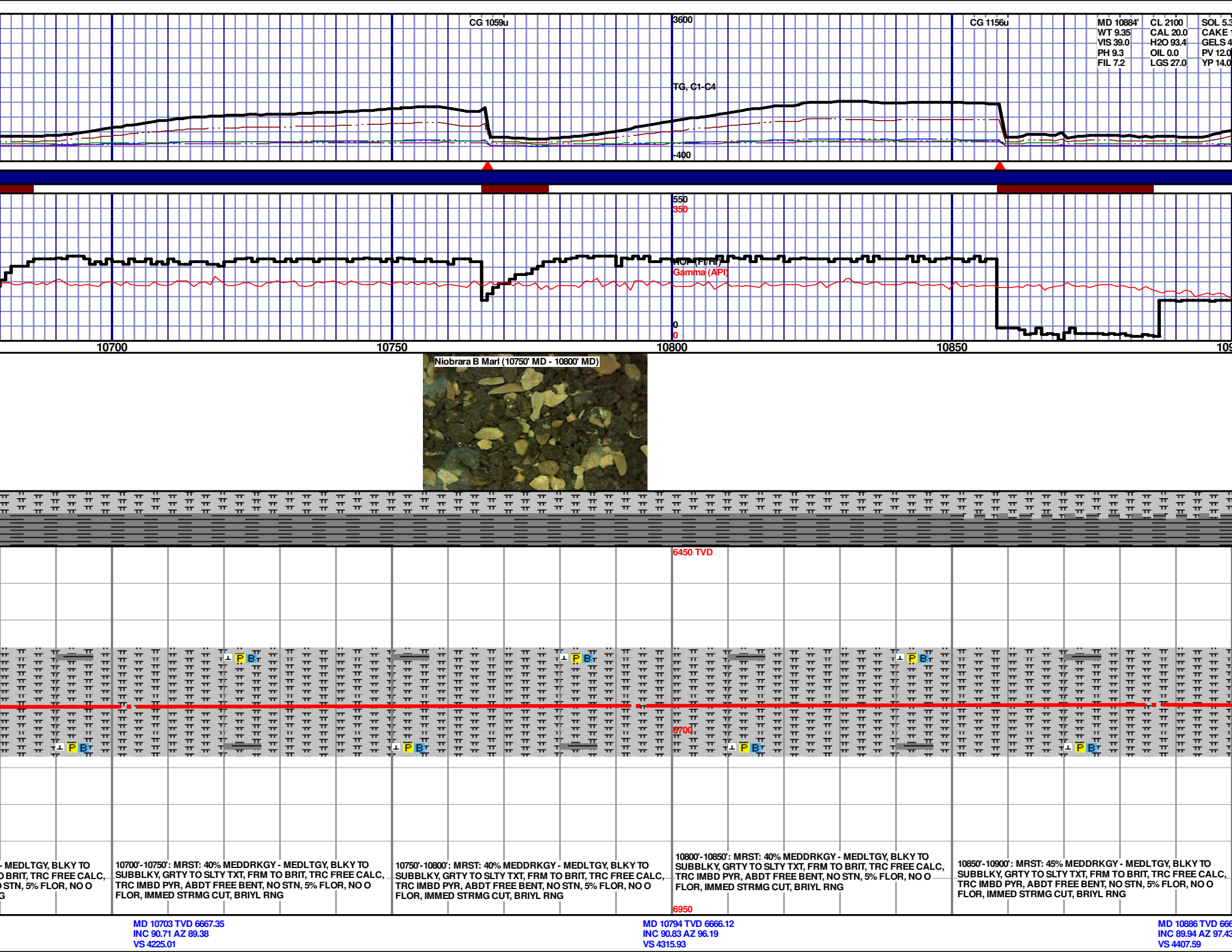
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VS 3387.52

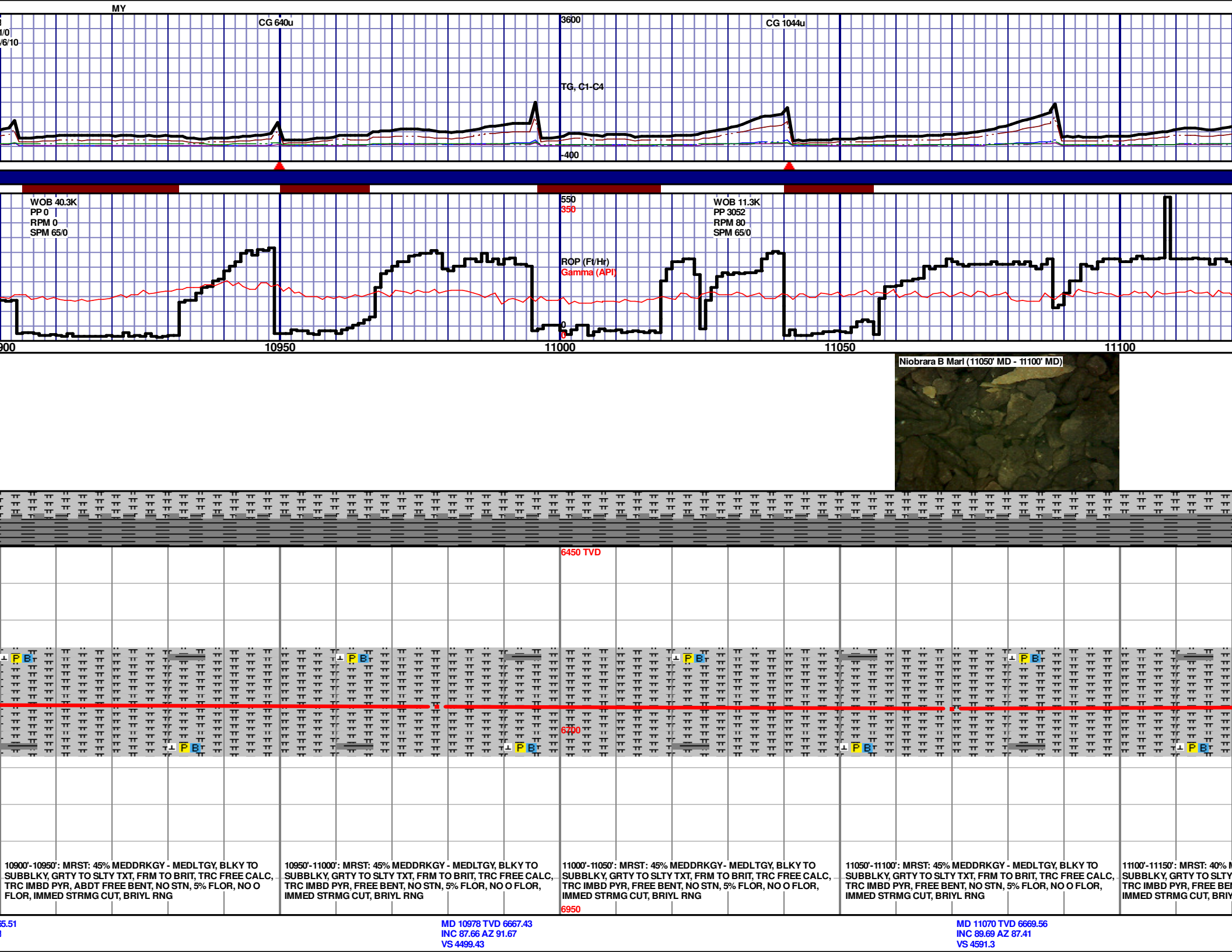
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VS 3462.47

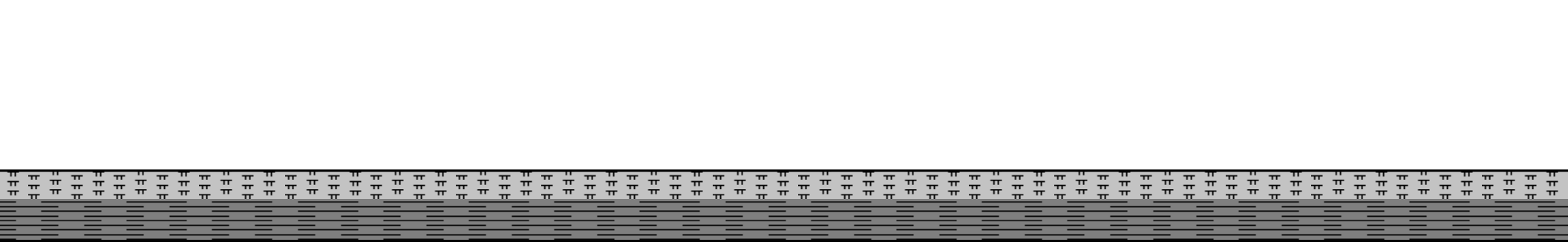
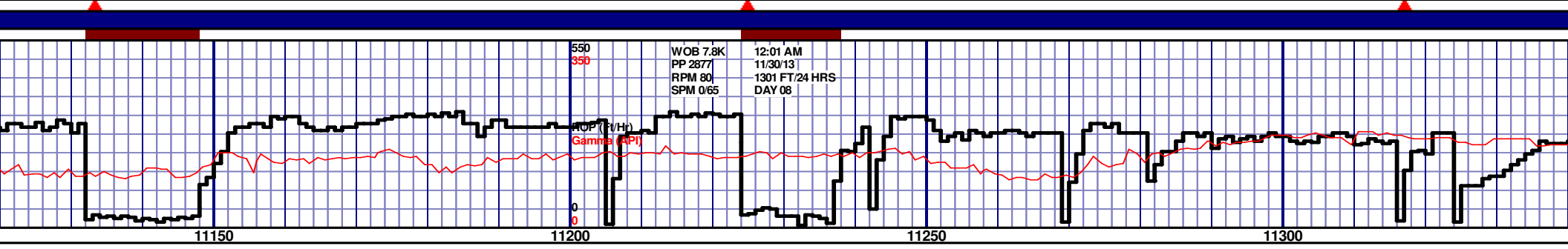
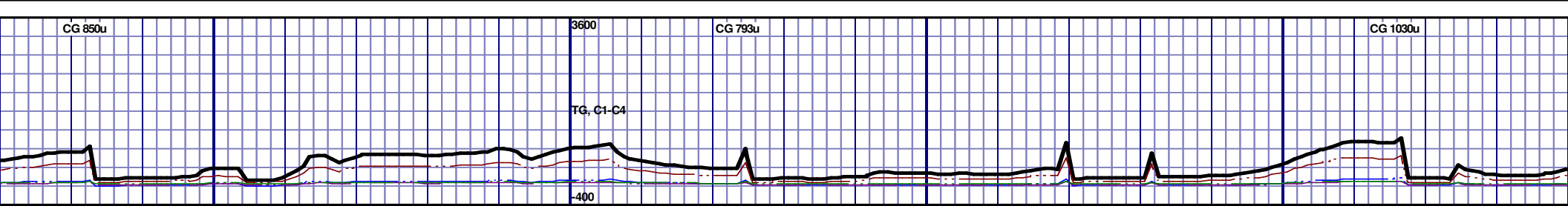


6450 TVD									
6200									
6950									
6450 TVD									
6200									
6950									





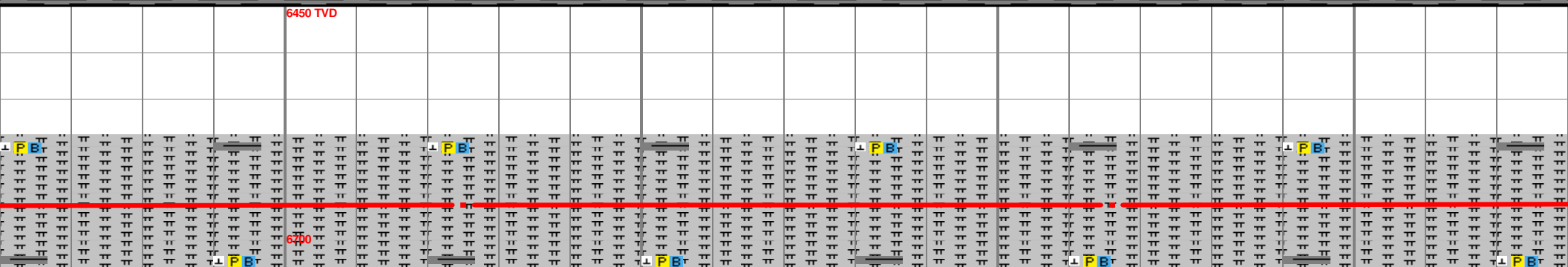
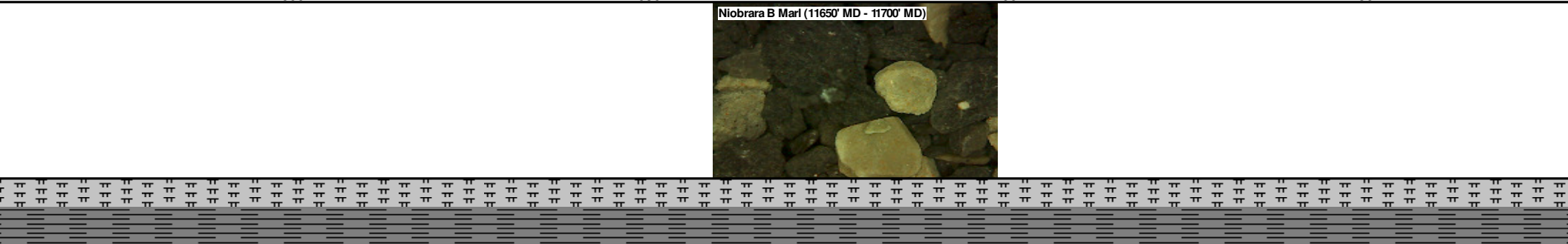
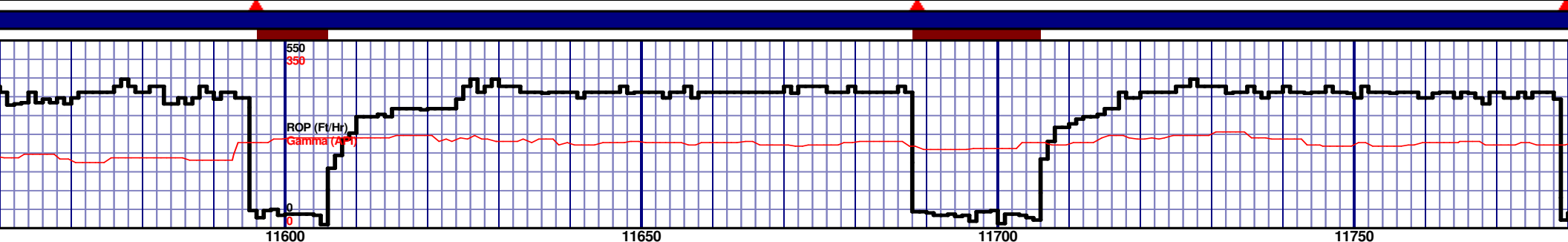




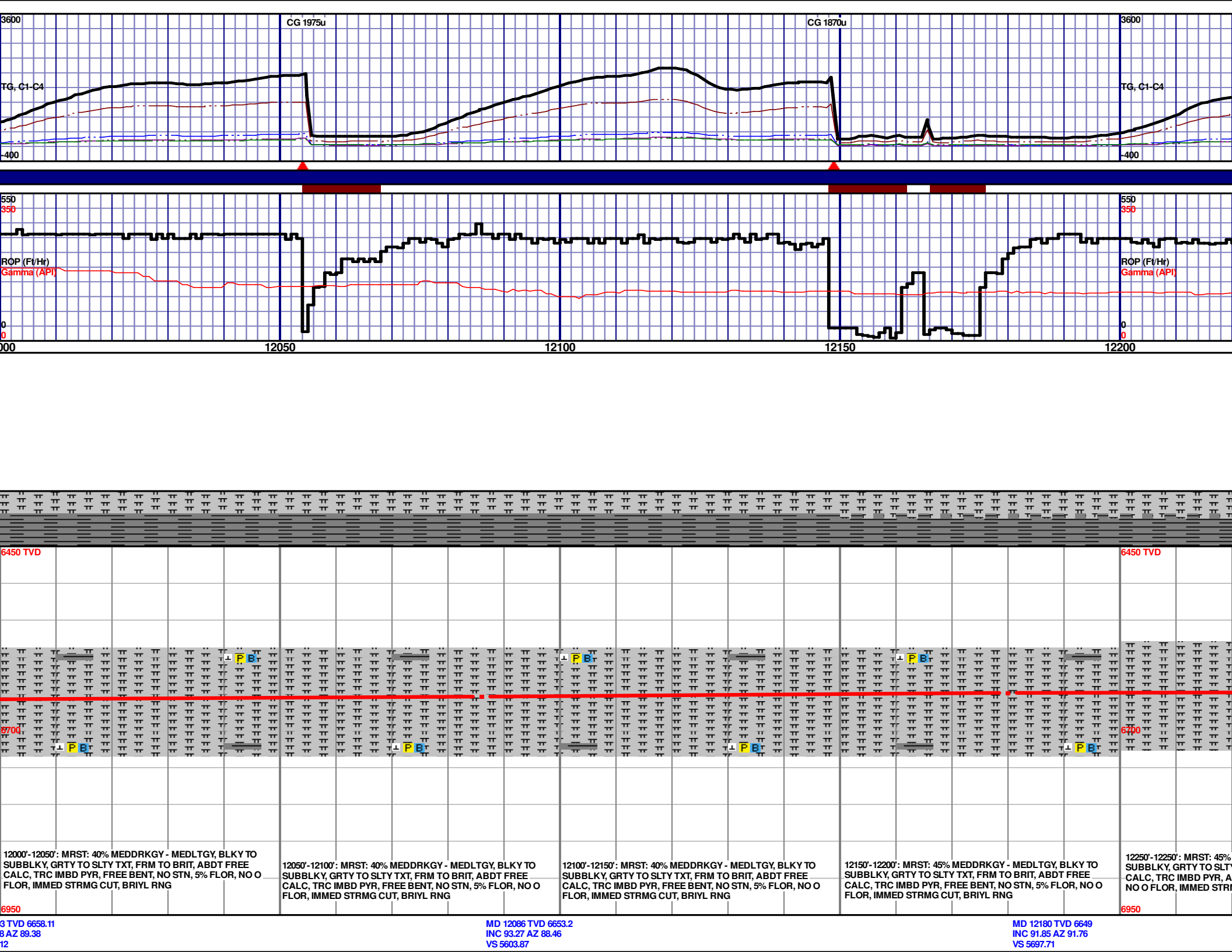
6450 TVD									
6790									
6950									
MDDDRKGY - MEDLTGY, BLKY TO TXT, FRM TO BRIT, TRC FREE CALC, NT, NO STN, 5% FLOR, NO O FLOR, L RNG									
11150'-11200': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
11200'-11250': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
11250'-11300': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
11300'-11350': MRST: 40% MEDDRKGY - MEDLTGY, B SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC F TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO IMMED STRMG CUT, BRIYL RNG									

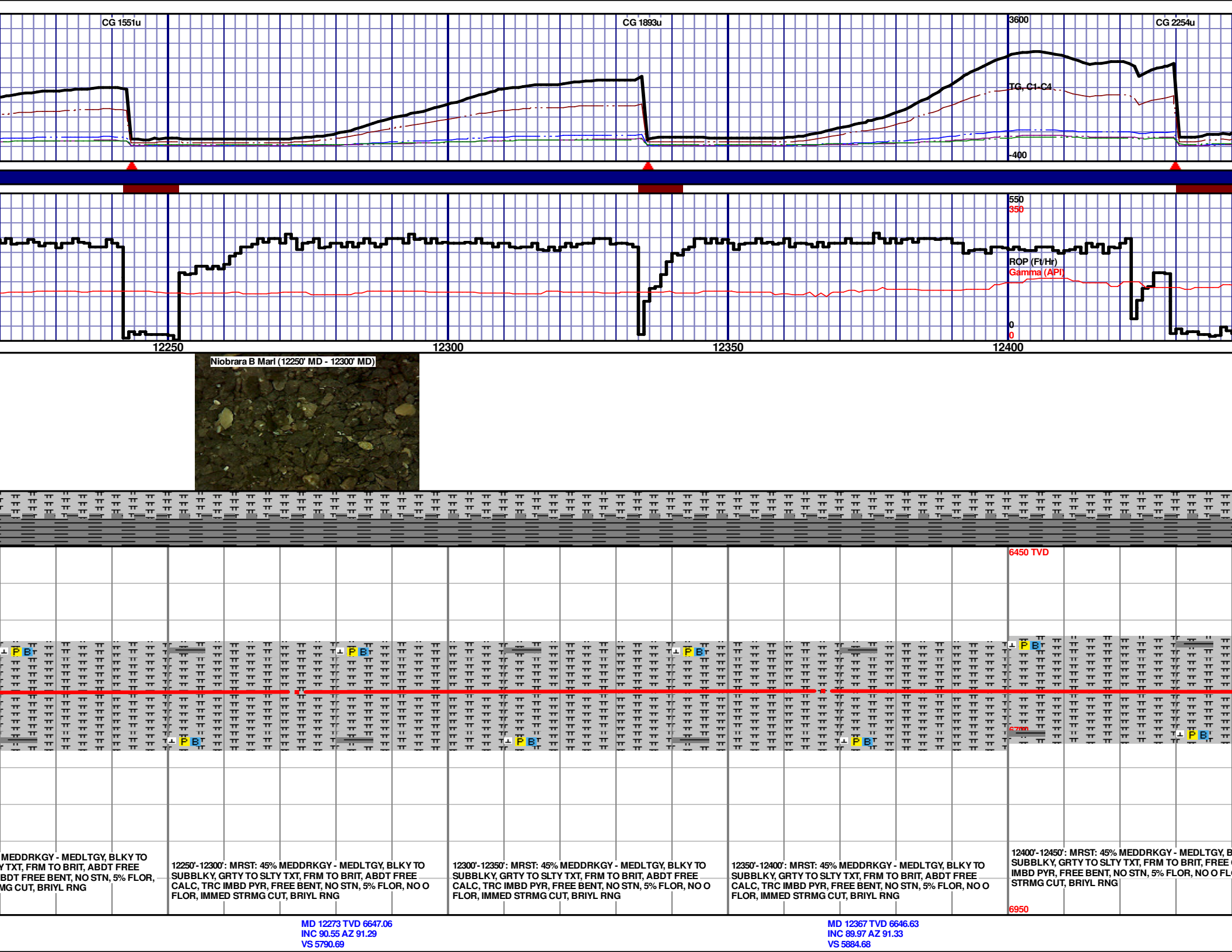
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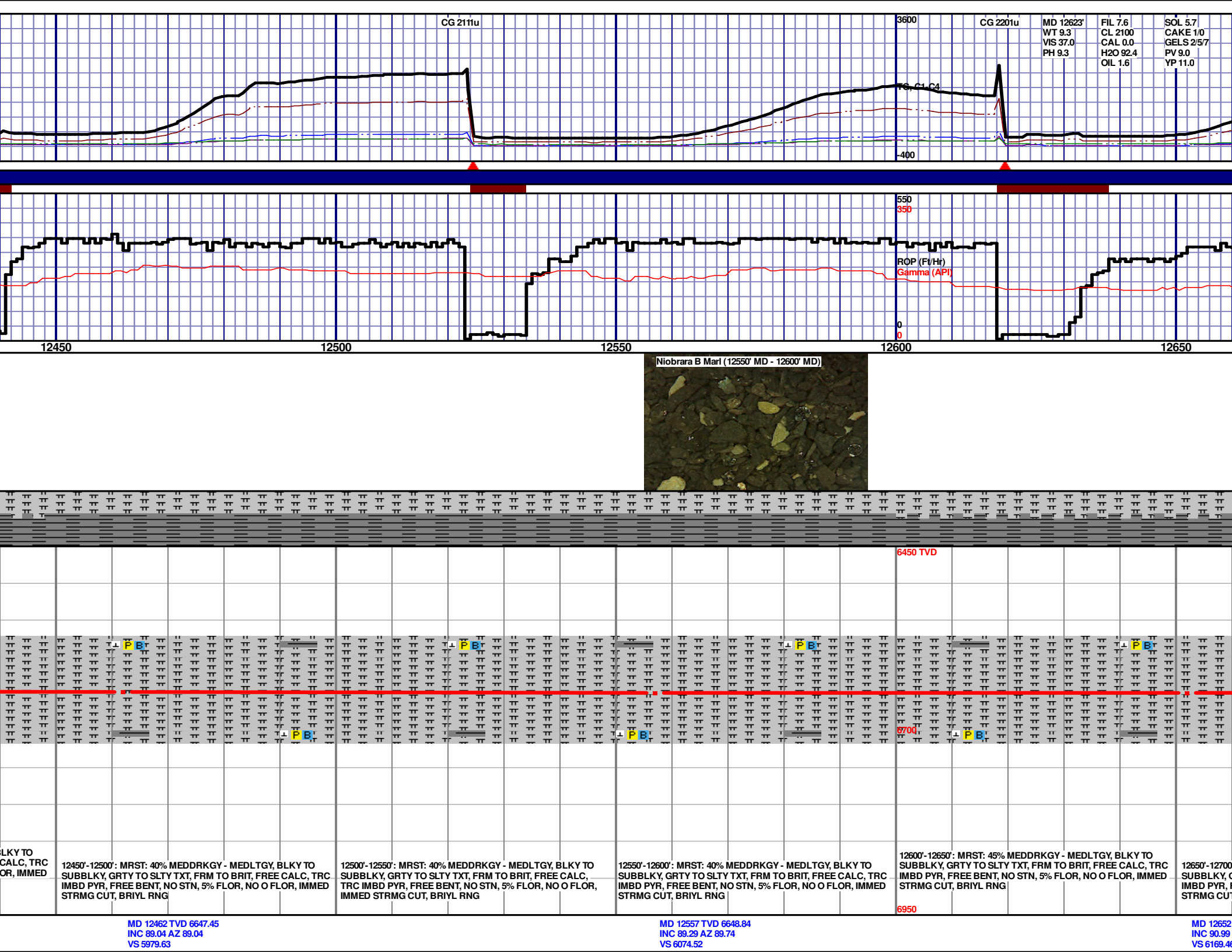
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INC 91.3 AZ 87.75
VS 4774.54

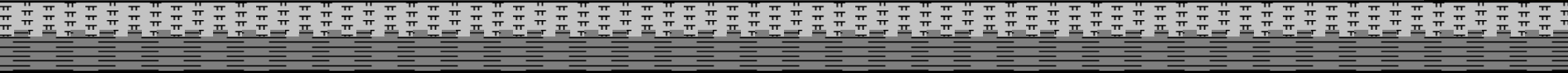
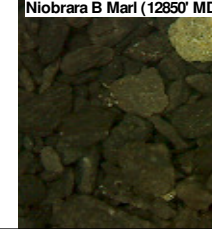
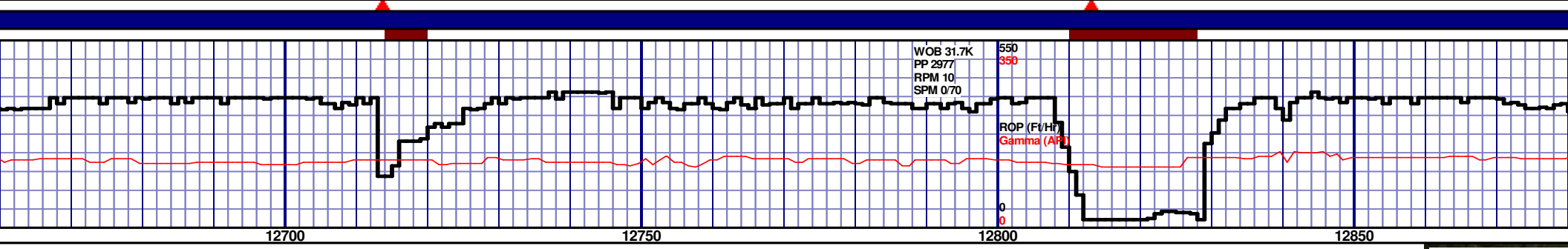
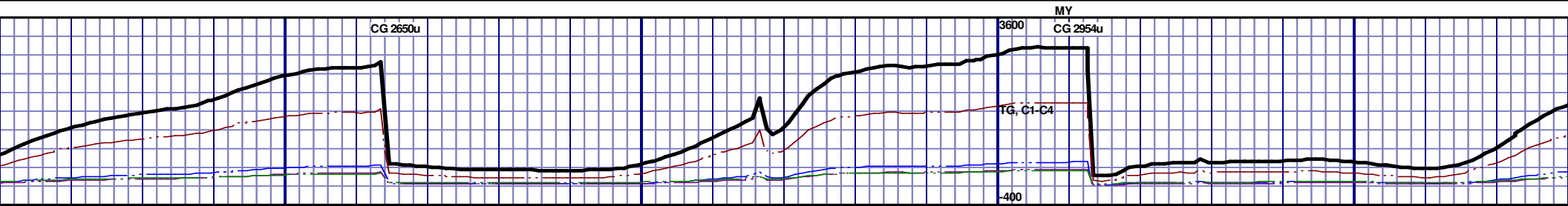


11600'-11650': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRYL RNG	11650'-11700': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABTD FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRYL RNG	11700'-11750': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRYL RNG	11750'-11800': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRYL RNG
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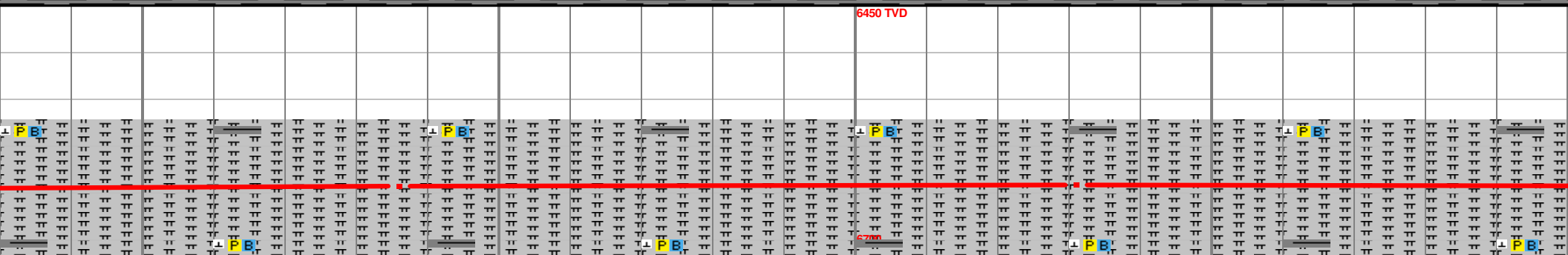
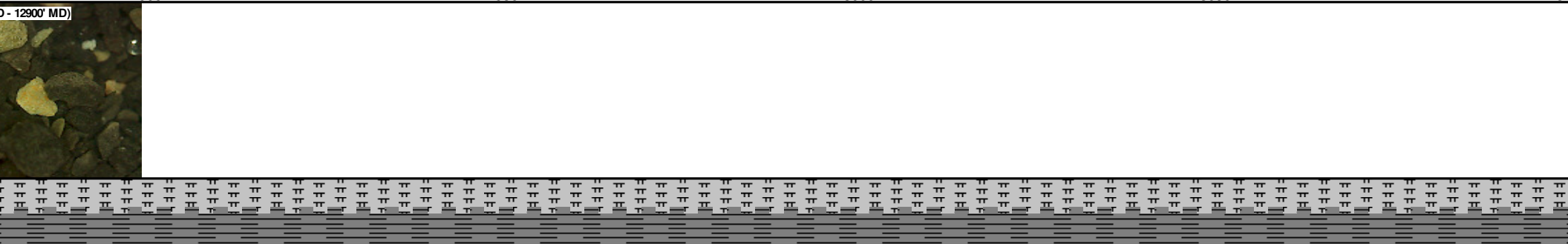
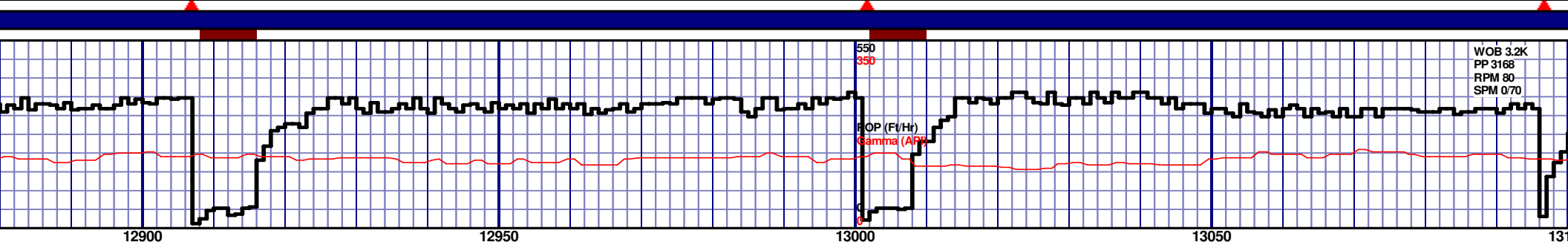








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- MEDLTGY, BLKY TO
O BRIT, ABDT FREE
O STN, 5% FLOR, NO O
G

12900'-12950': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE
CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

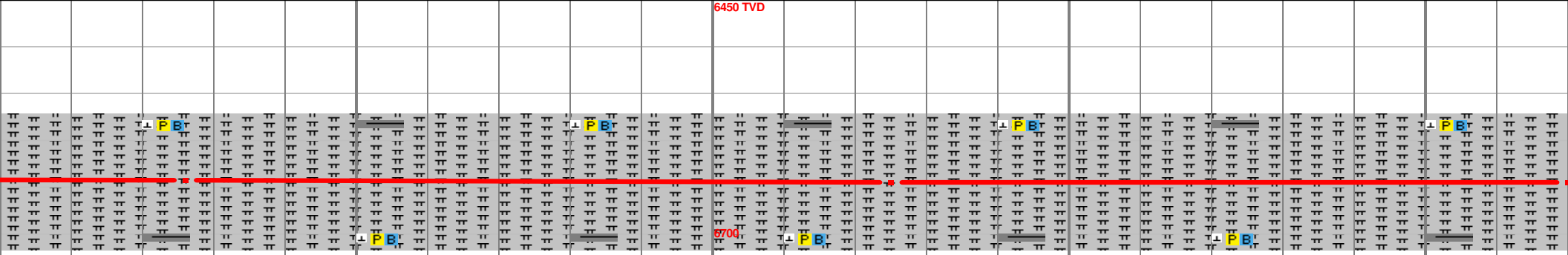
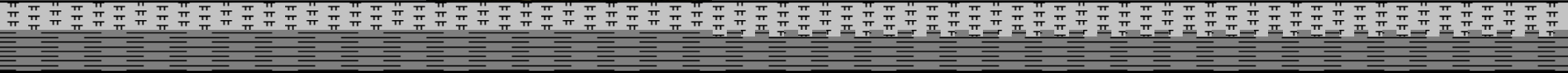
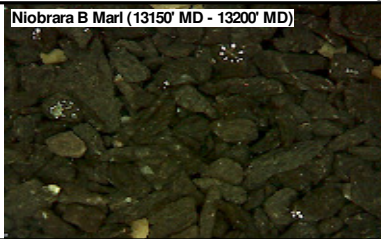
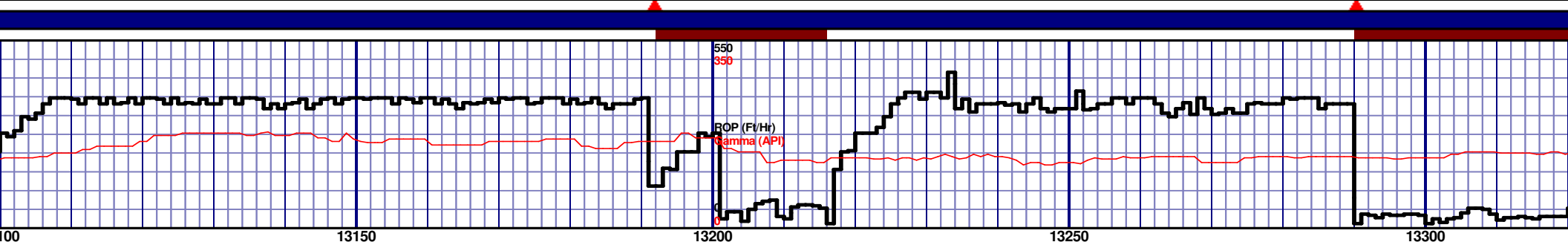
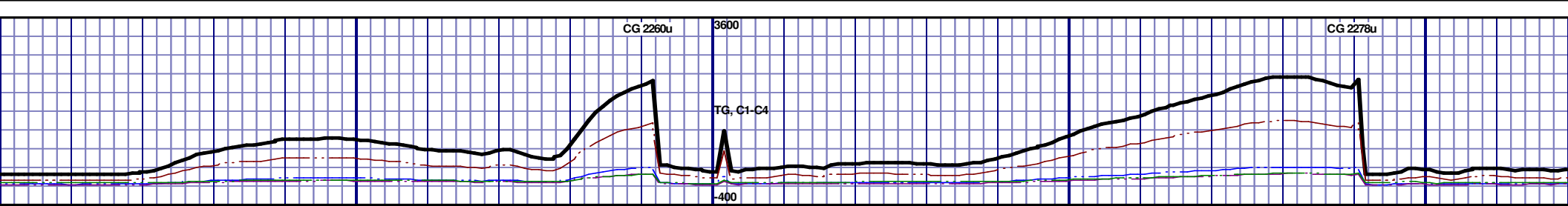
12950'-13000': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE
CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

13000'-13050': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE
CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

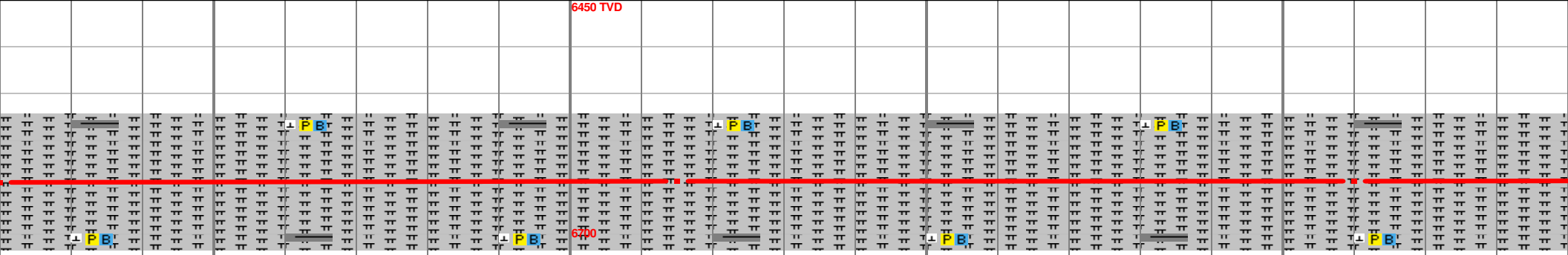
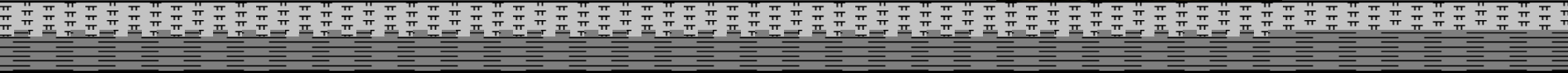
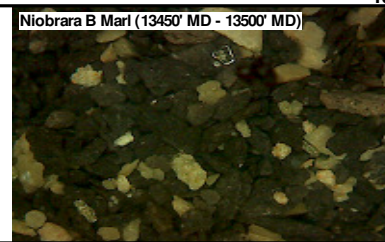
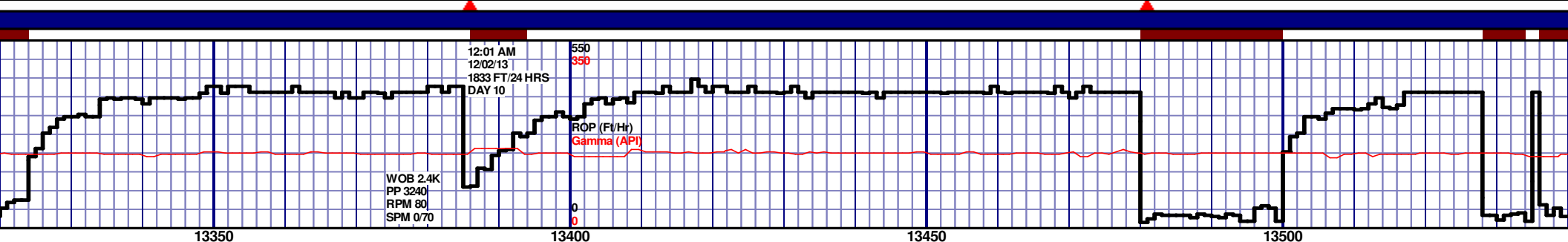
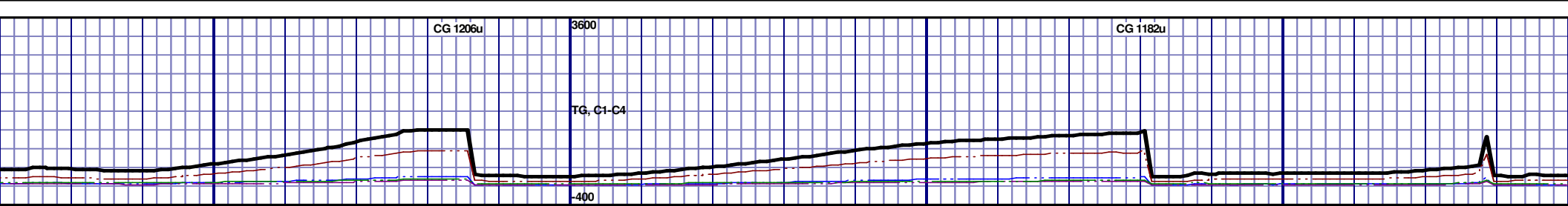
13050'-13100': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE
CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O
FLOR, IMMED STRMG CUT, BRIYL RNG

MD 12936 TVD 6642.17
INC 92.1 AZ 88.35
VS 6453.13

MD 13031 TVD 6640.76
INC 89.6 AZ 88.51
VS 6547.94



<p>13100'-13150': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>13150'-13200': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>13200'-13250': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>13250'-13300': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>13300'-13350': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>
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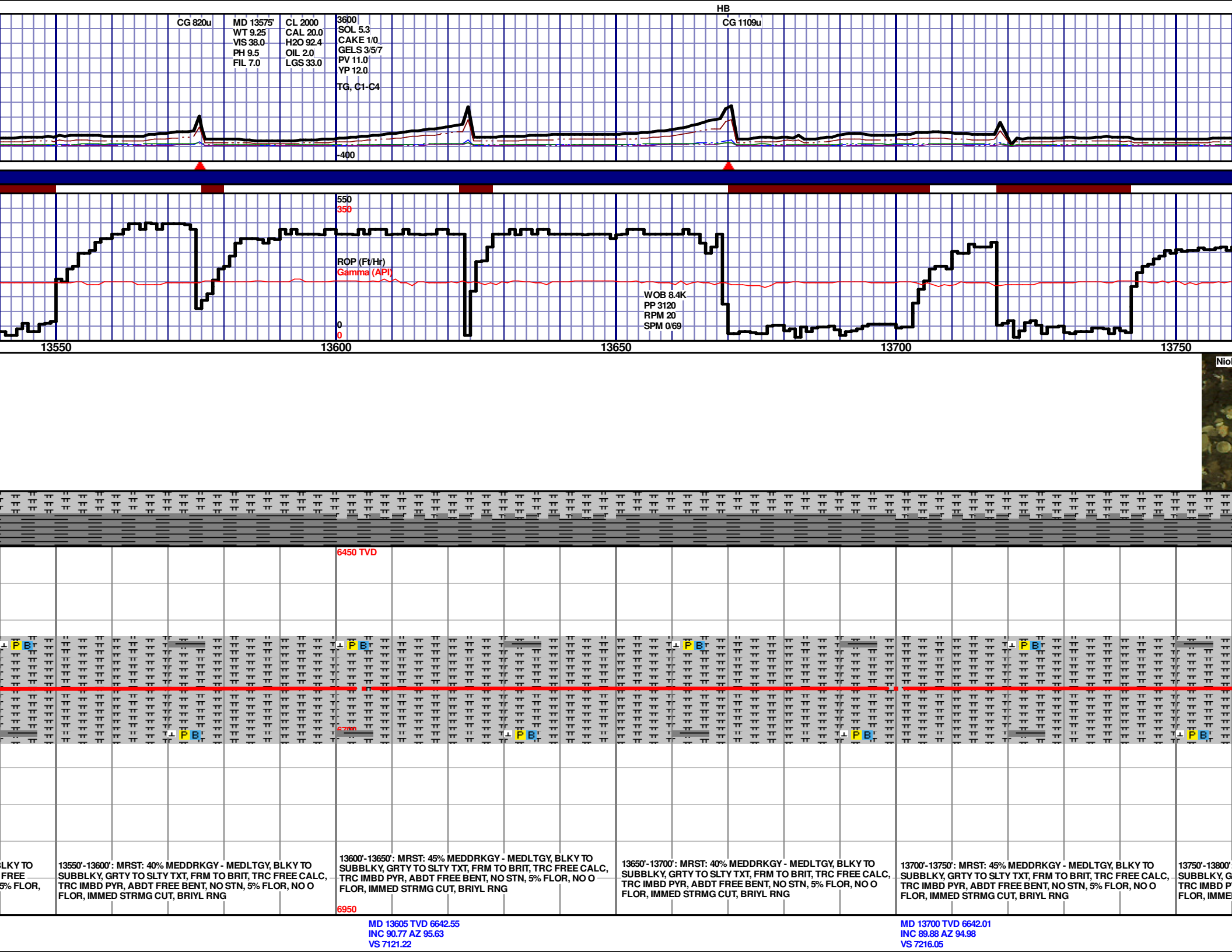
MEDDRKGY - MEDLTGY, BLKY TO
TXT, FRM TO BRIT, ABTD FREE
BDT FREE BENT, NO STN, 5% FLOR,
MG CUT, BRIYL RNG

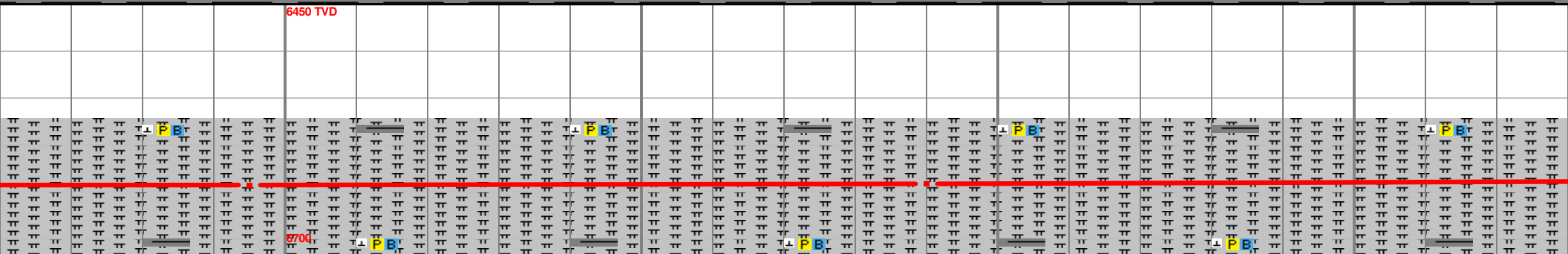
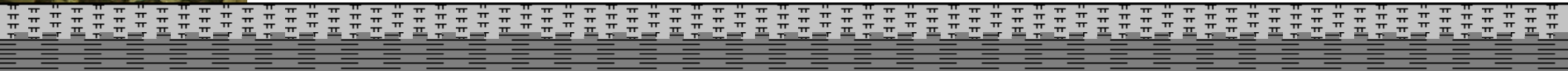
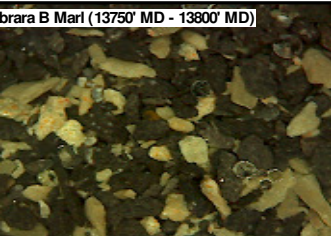
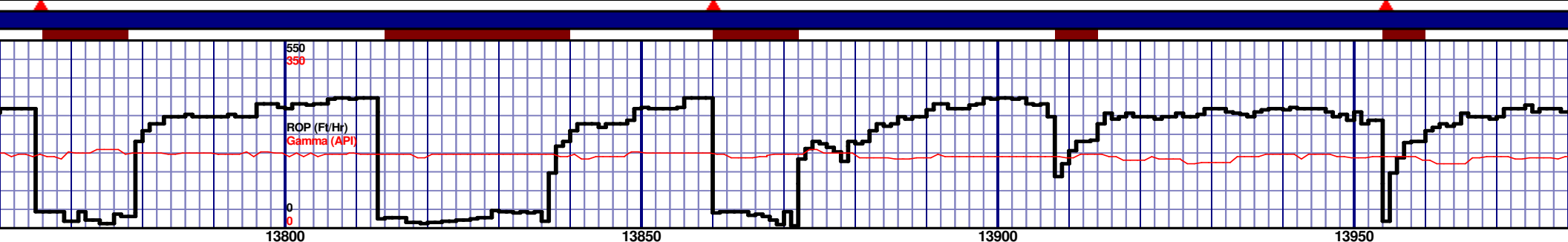
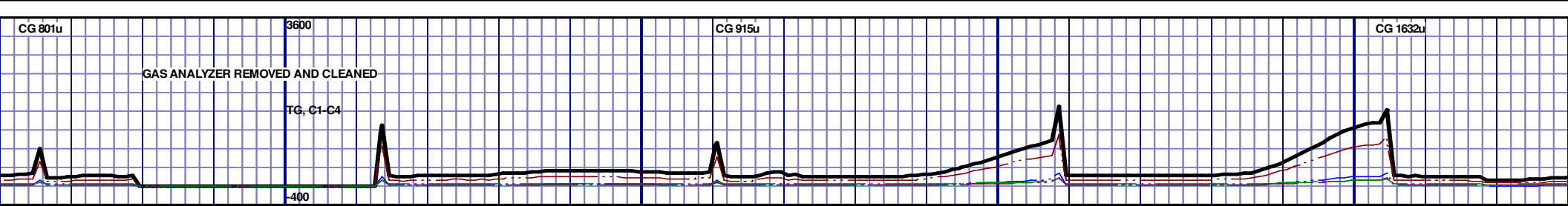
13350'-13400': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABTD FREE
CALC, TRC IMBD PYR, ABTD FREE BENT, NO STN, 5% FLOR,
NO O FLOR, IMMED STRMG CUT, BRIYL RNG

13400'-13450': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABTD FREE
CALC, TRC IMBD PYR, ABTD FREE BENT, NO STN, 5% FLOR,
NO O FLOR, IMMED STRMG CUT, BRIYL RNG

13450'-13500': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABTD FREE
CALC, TRC IMBD PYR, ABTD FREE BENT, NO STN, 5% FLOR,
NO O FLOR, IMMED STRMG CUT, BRIYL RNG

13500'-13550': MRST: 40% MEDDRKGY - MEDLTGY, B
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABTD
CALC, TRC IMBD PYR, ABTD FREE BENT, NO STN, 5% FLOR,
NO O FLOR, IMMED STRMG CUT, BRIYL RNG

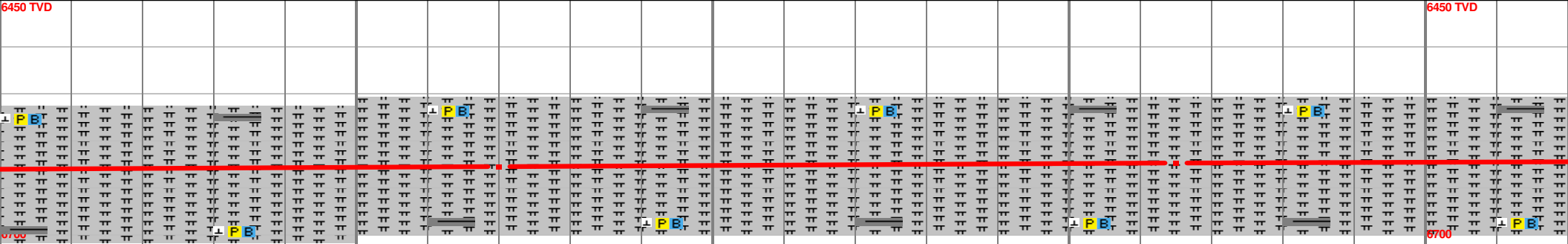
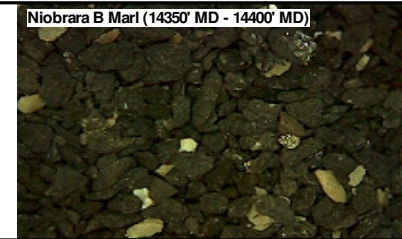
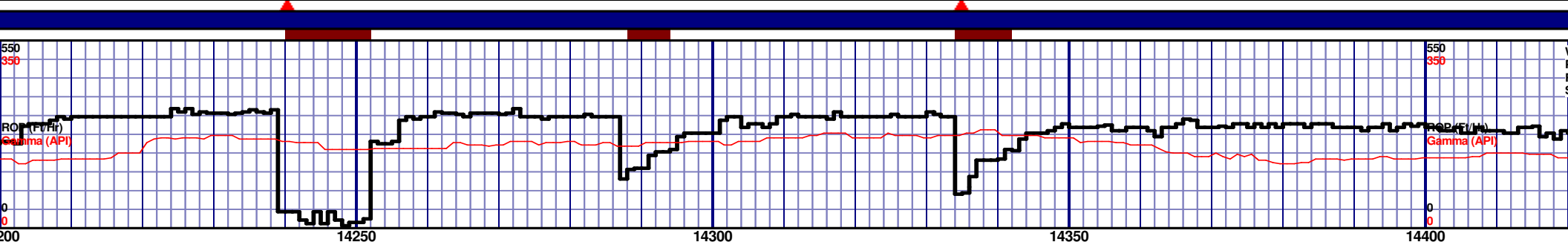
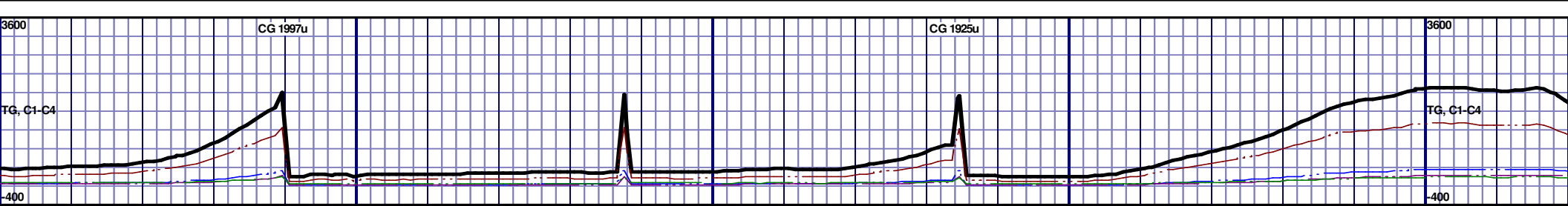




: MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO RTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, YR, ABDT FREE BENT, NO STN, 5% FLOR, NO O D STRMG CUT, BRIYL RNG									
13800'-13850': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
13850'-13900': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
13900'-13950': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
13950'-14000': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									

MD 13795 TVD 6642.24
INC 89.85 AZ 89.33
VS 7311.01

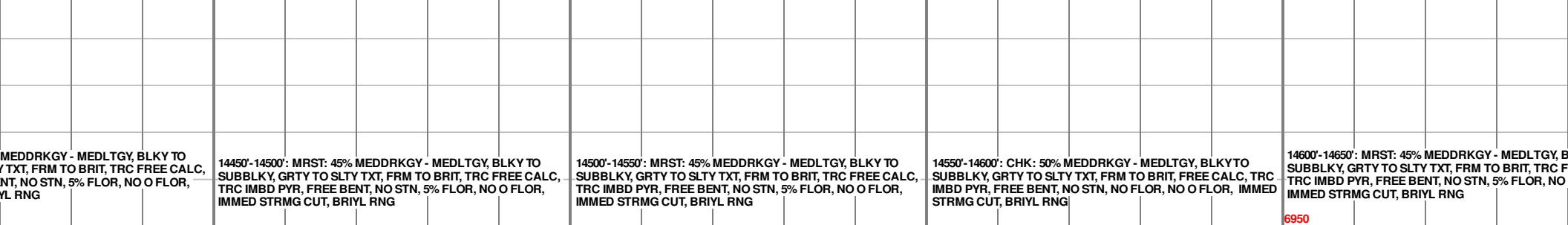
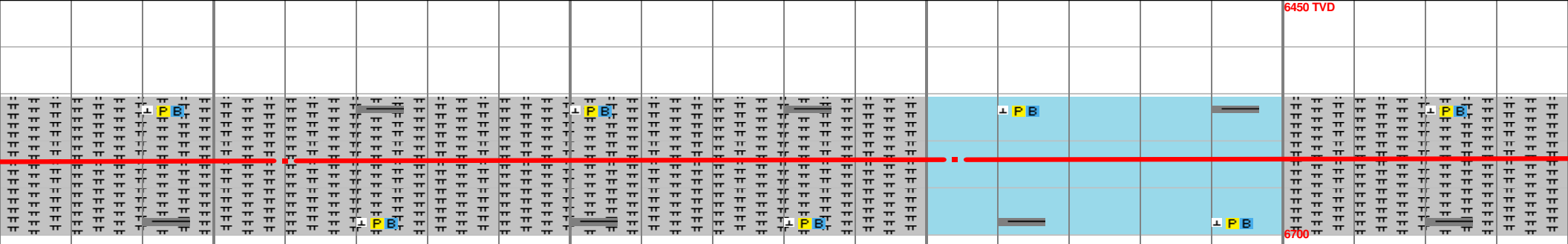
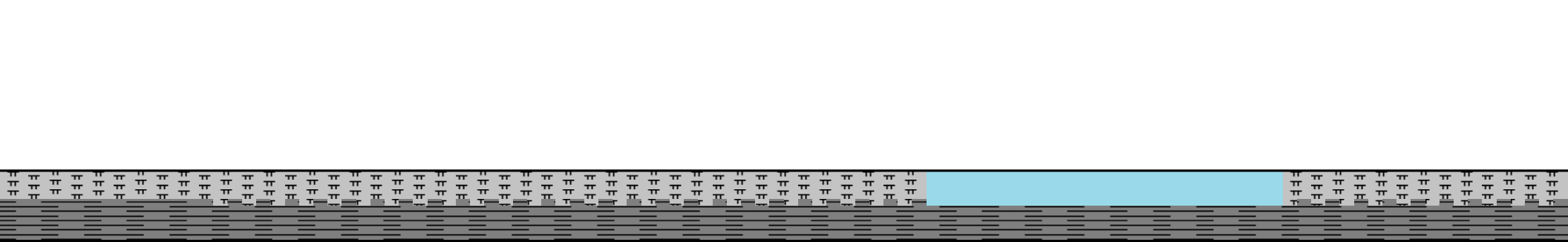
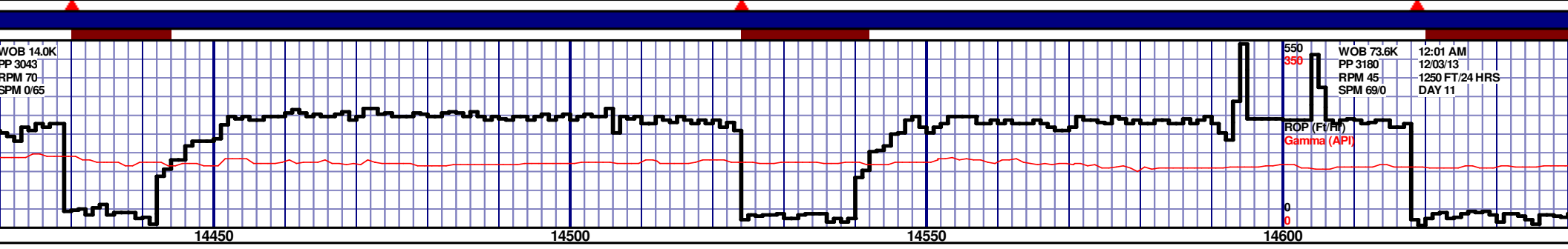
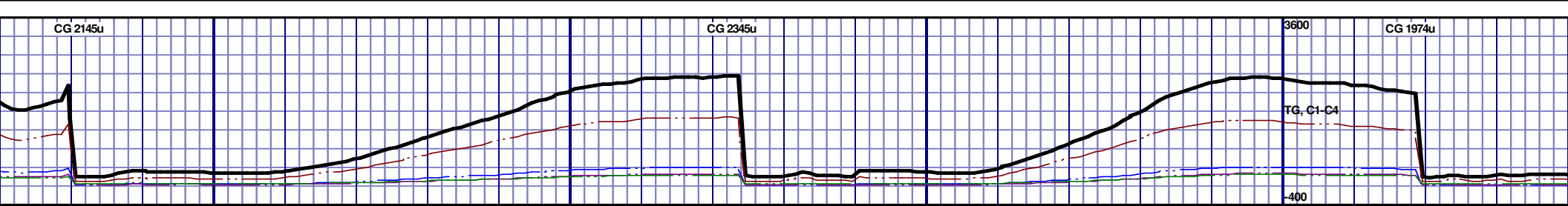
MD 13890 TVD 6641.09
INC 91.54 AZ 87.68
VS 7405.83

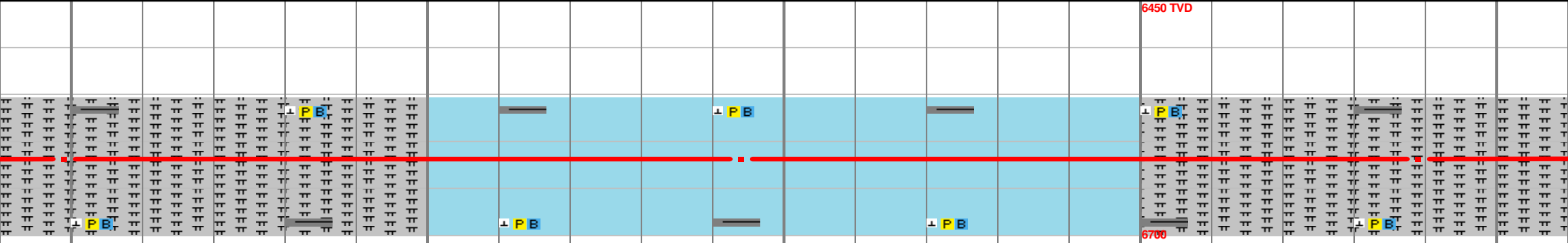
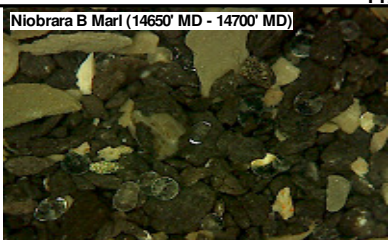
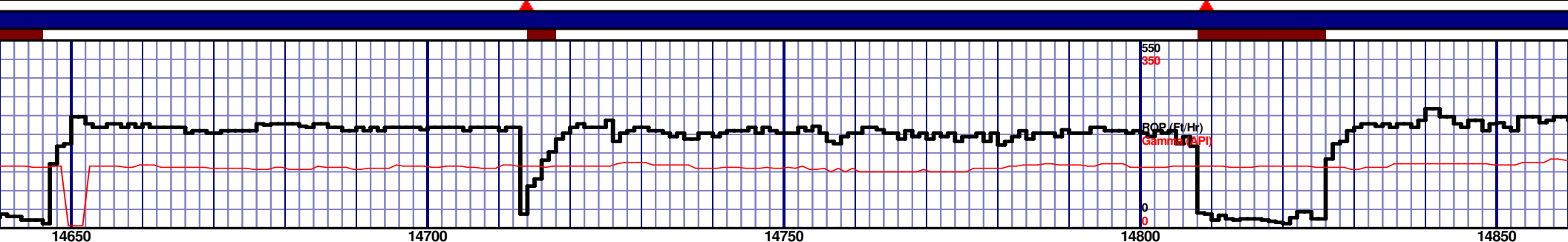
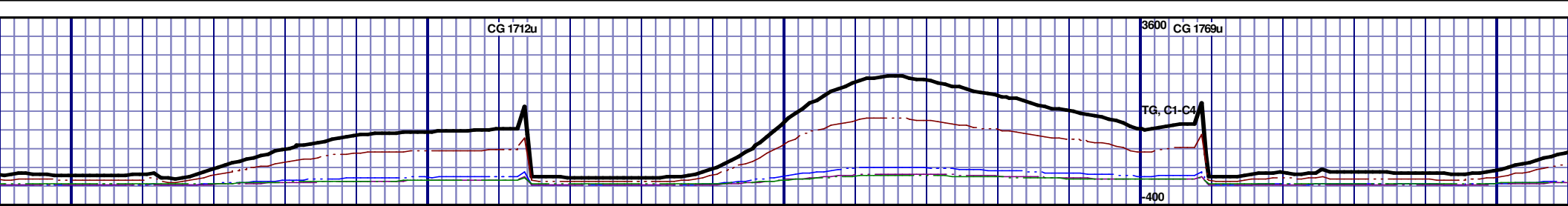


14200'-14250': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	14250'-14300': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	14300'-14350': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	14350'-14400': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	14400'-14450': MRST: 40% SUBBLKY, GRTY TO SLTY TRC IMBD PYR, FREE BE IMMED STRMG CUT, BRI
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MD 14270 TVD 6627.46
INC 91.94 AZ 87.64
VS 7763.95

MD 14365 TVD 6623.91
INC 92.34 AZ 86.46
VS 7878.54



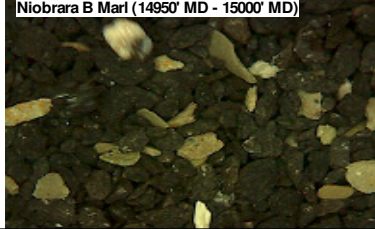
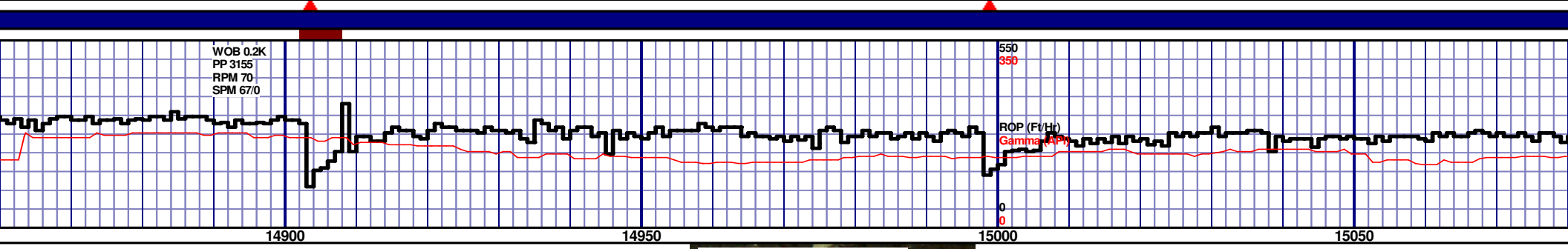
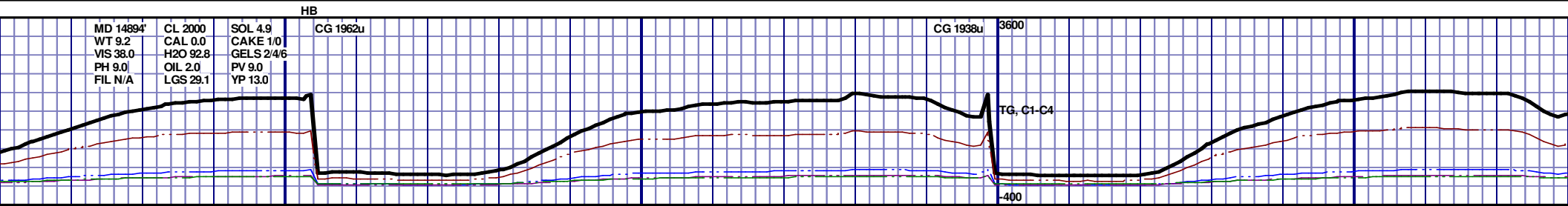


<p>14650'-14700': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>14700'-14750': CHK: 50% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>14750'-14800': CHK: 50% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>14800'-14850': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>14850'-14900': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>
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MD 14649 TVD 6618.88
INC 90.46 AZ 88.87
VS 8161.39

MD 14744 TVD 6618.45
INC 90.06 AZ 88.05
VS 8256.22

MD 14839 TVD 6618.15
INC 90.31 AZ 90.06
VS 8351.1



6450 TVD									
6700									
6950									
15000'-15050': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									
15050'-15100': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG									

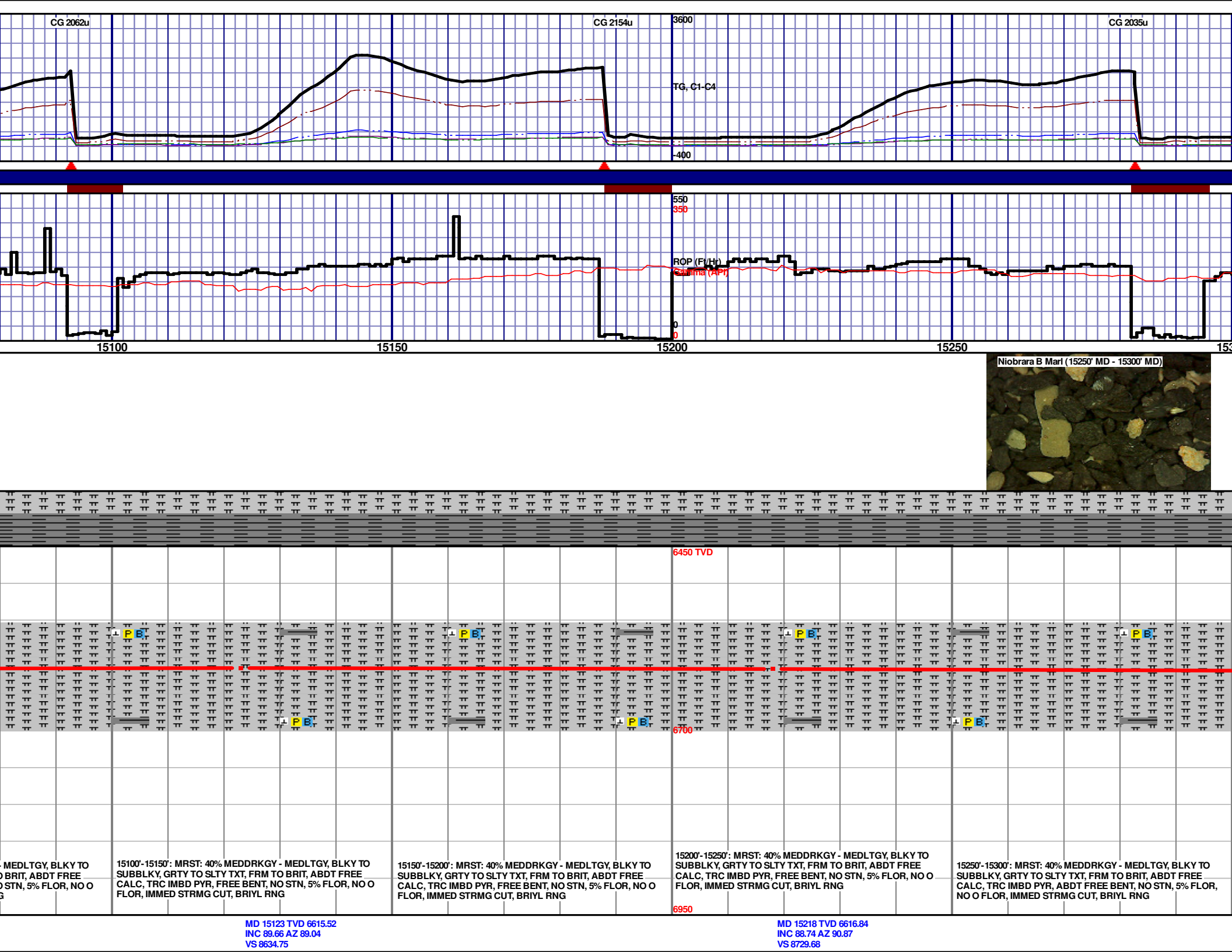
MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

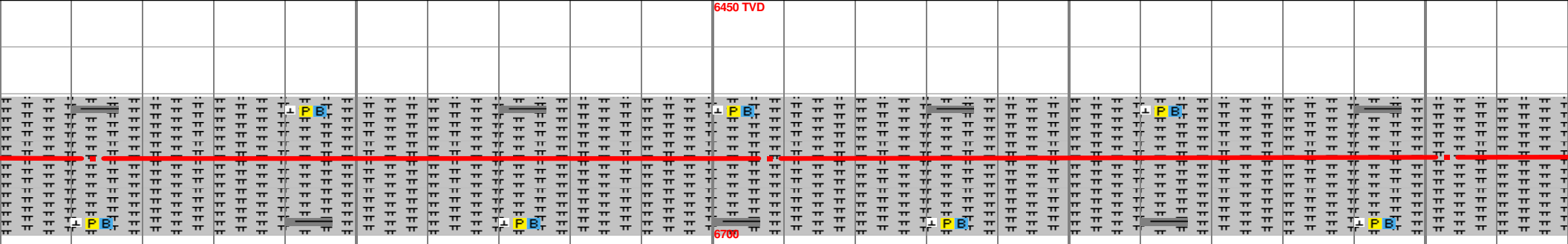
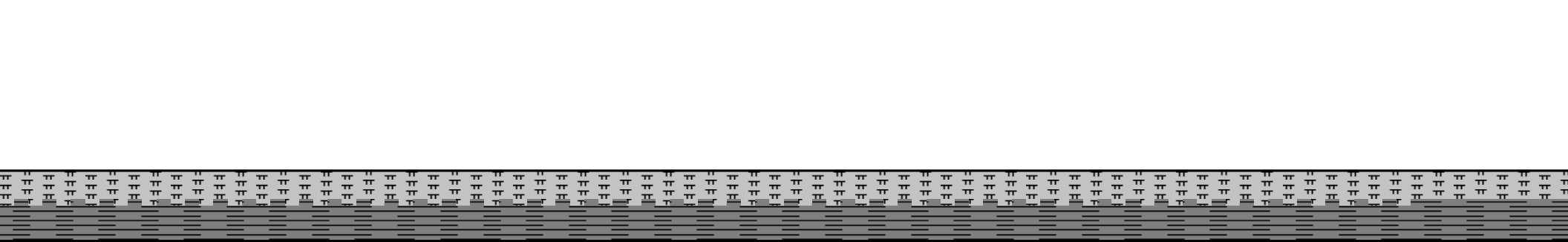
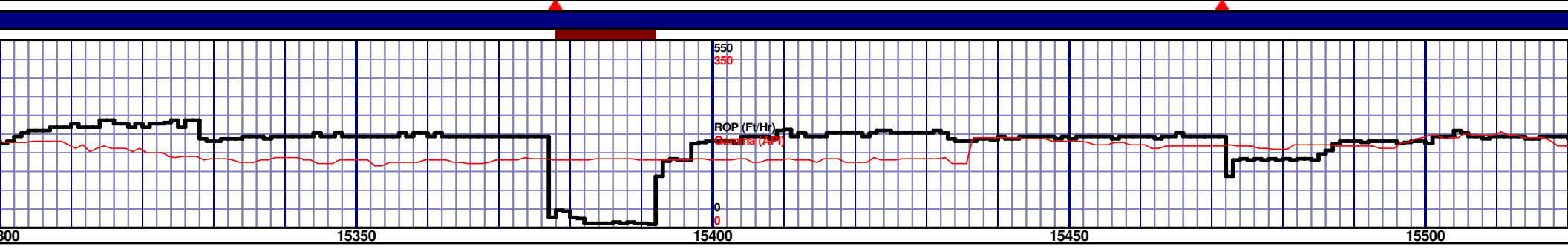
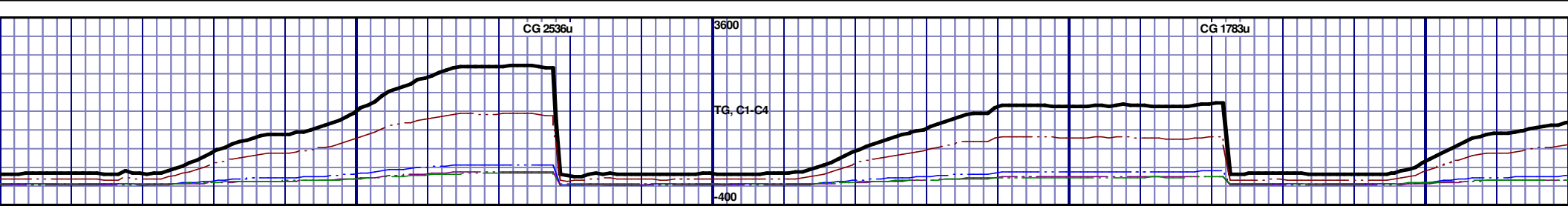
14900'-14950': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

14950'-15000': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

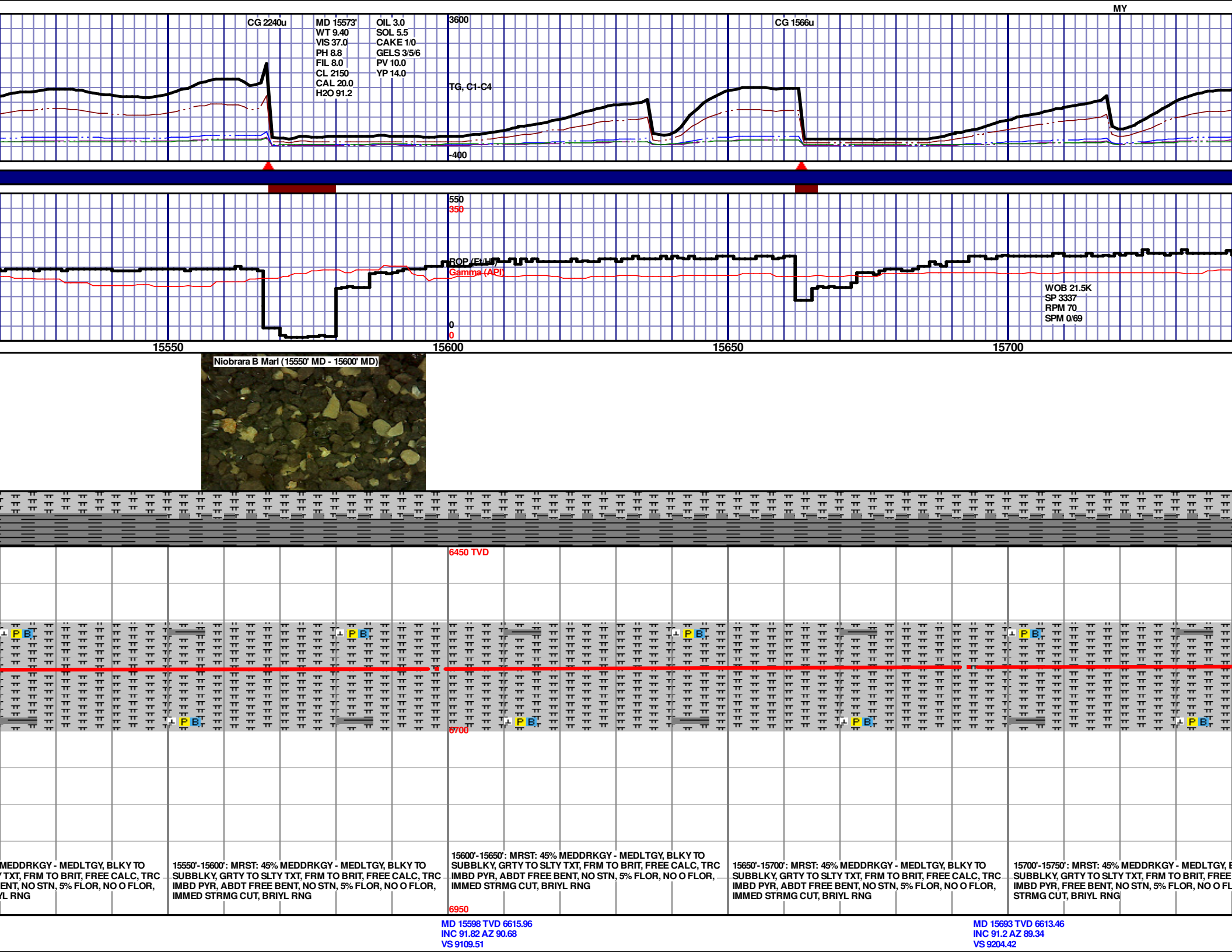
15000'-15050': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

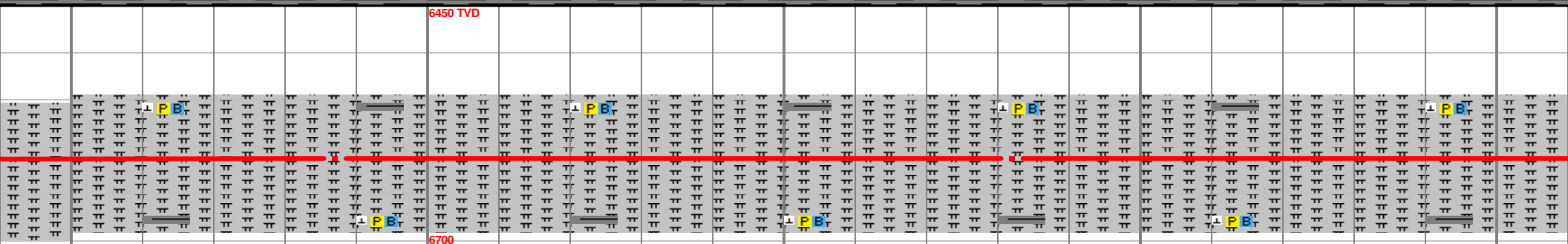
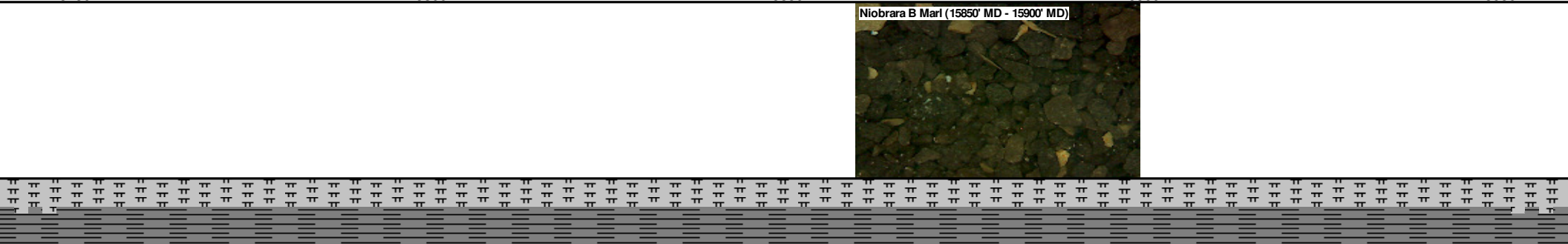
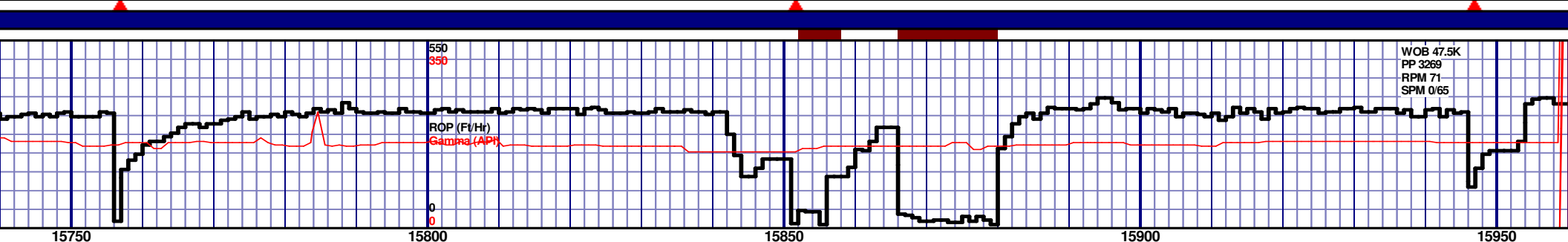
15050'-15100': MRST: 40% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG





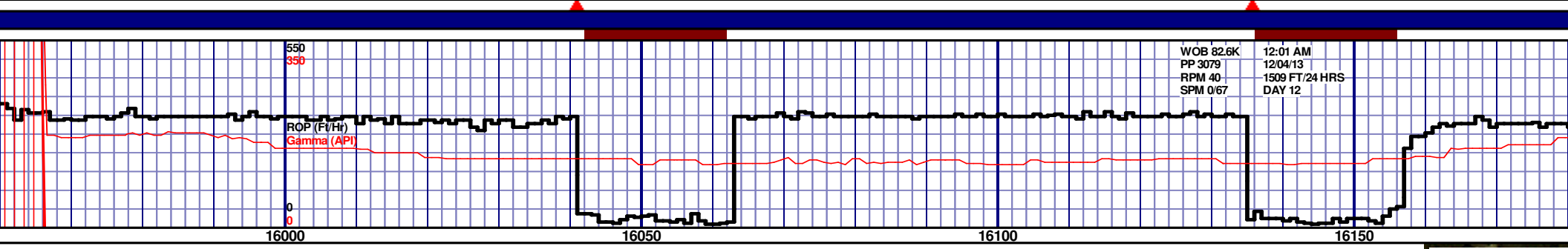
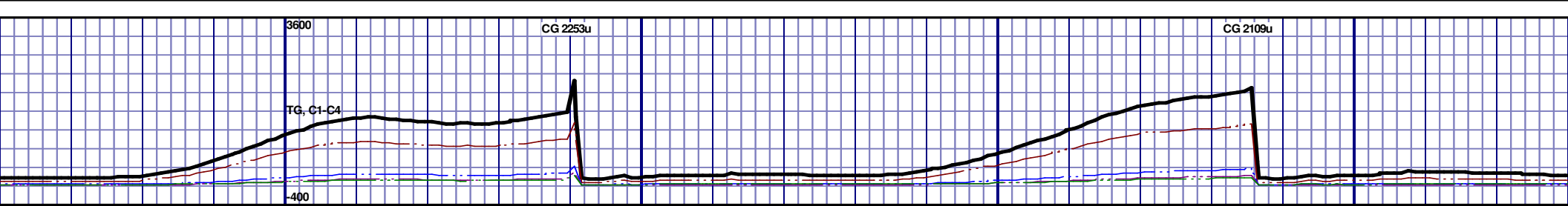
15300'-15350': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	15350'-15400': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, ABDT FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	15400'-15450': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	15450'-15500': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, ABDT FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	15500'-15550': MRST: 40% SUBBLKY, GRTY TO SLTY IMBD PYR, ABDT FREE B IMMED STRMG CUT, BRY
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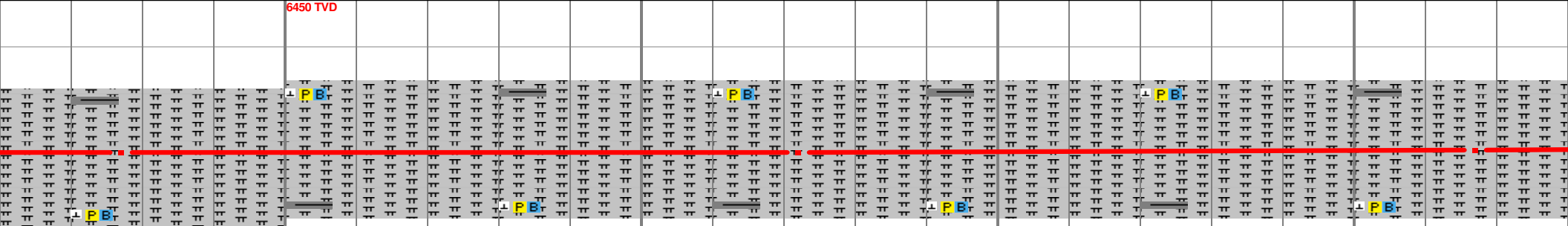
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MD 15787 TVD 6612.53
INC 89.94 AZ 88.54
VS 9298.29

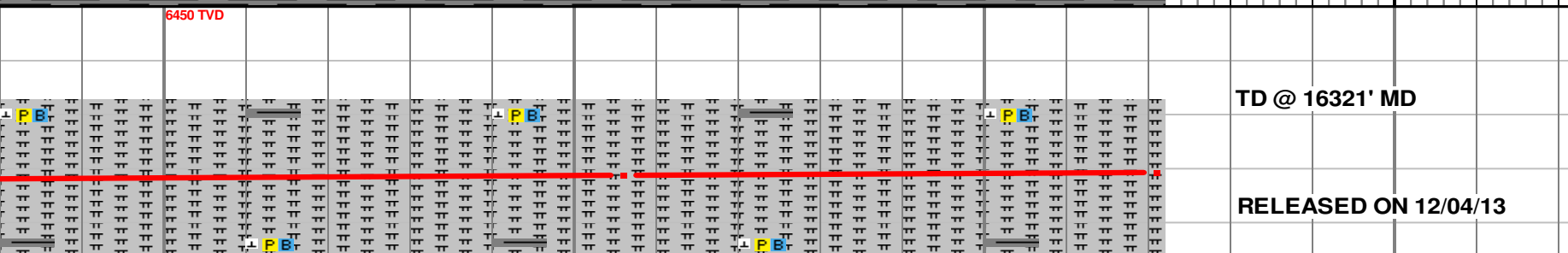
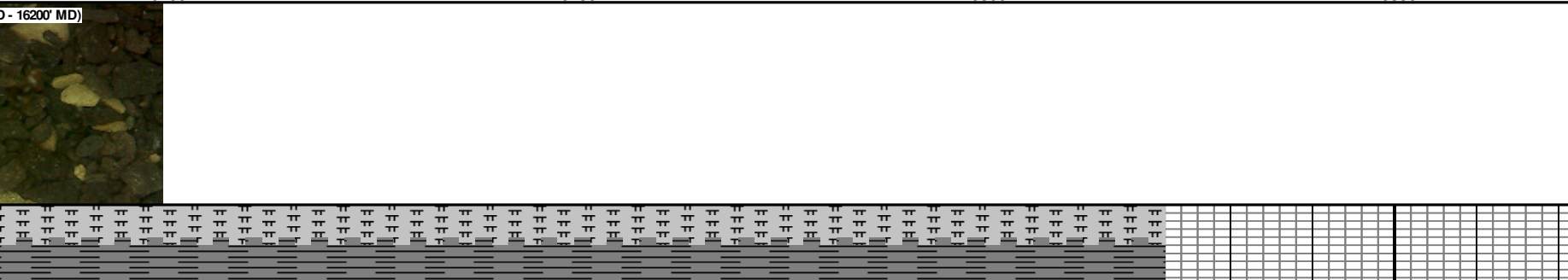
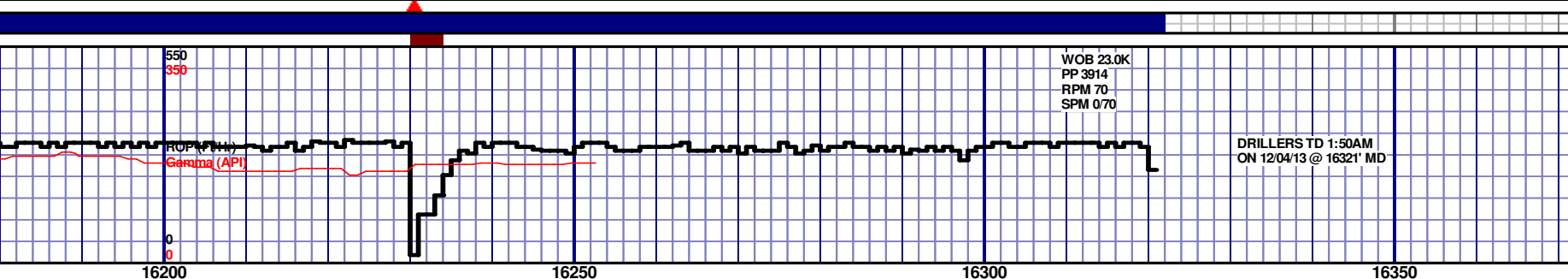
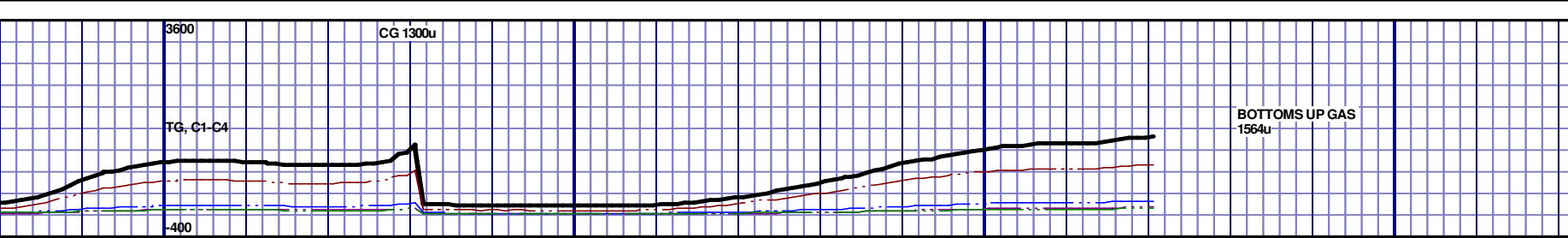
MD 15882 TVD 6612.19
INC 90.46 AZ 89.24
VS 9393.16



Niobrara B Marl (16150' MD)



<p>16000' - 16050': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>16050' - 16100': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>16100' - 16150': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>16150' - 16200': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>
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TD @ 16321' MD

RELEASED ON 12/04/13

THANK YOU FROM
HANNAH BLATCHFORD,
MICHAEL YEAGER, AND
HORIZON WELL
LOGGING, LLC

MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC
IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED
STRMG CUT, BRIYL RNG

16200'-16250': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, TRC
IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR, IMMED
STRMG CUT, BRIYL RNG

16250'-16321': MRST: 45% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT,
FRM TO BRIT, FREE CALC, TRC IMBD PYR, FREE BENT, NO STN, 5% FLOR, NO O FLOR,
IMMED STRMG CUT, BRIYL RNG