



7136 South Yale Avenue, Suite 414
Tulsa, Oklahoma 74136-6378

phone 918.925.9739

fax 866.534.4559

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 &
Rob Gulliksen
Log Interval: 6600' MD to 11250' MD
Start Date: February 17, 2014
Release Date: February 22, 2014

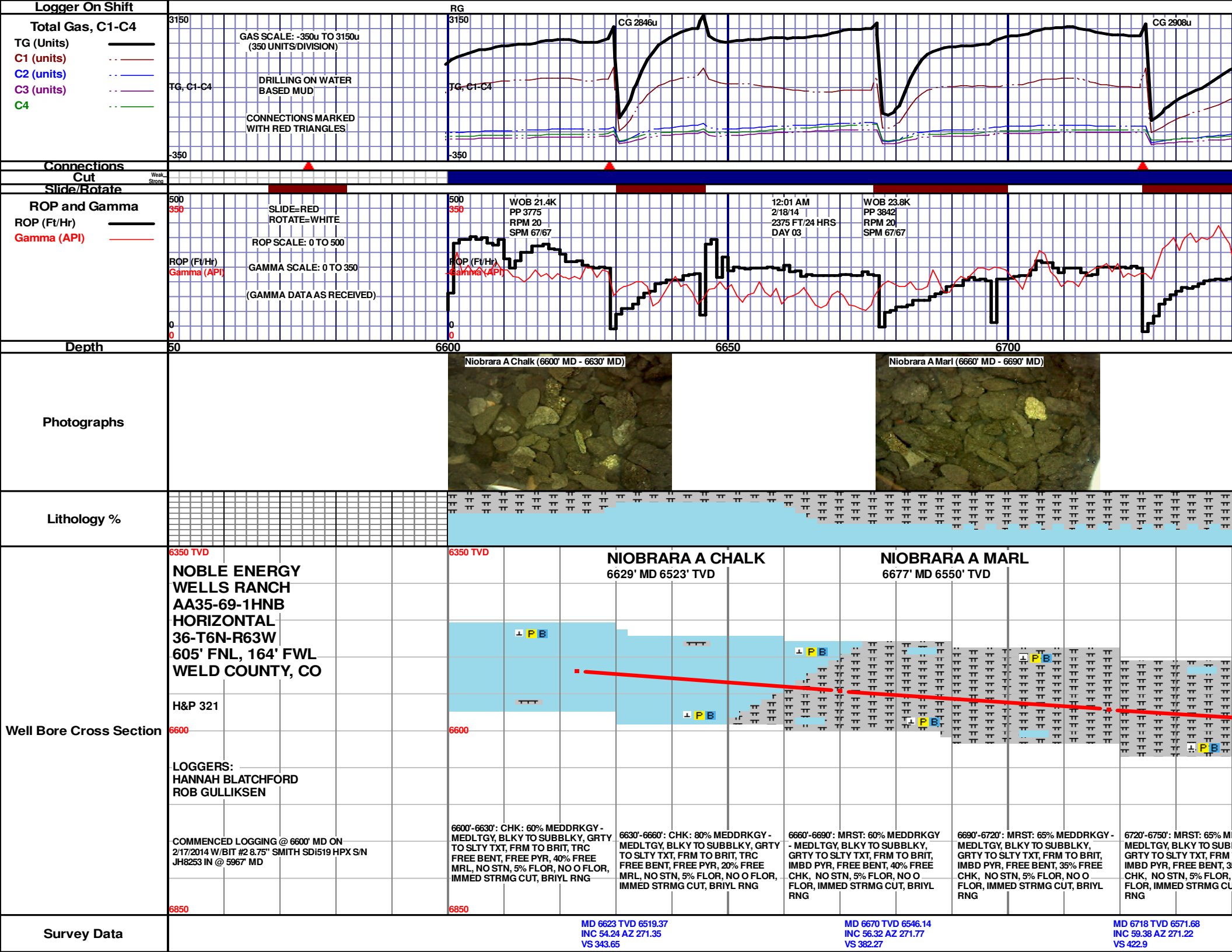
Well Information

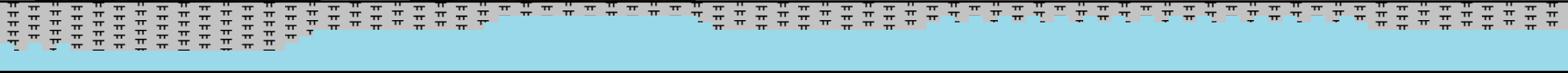
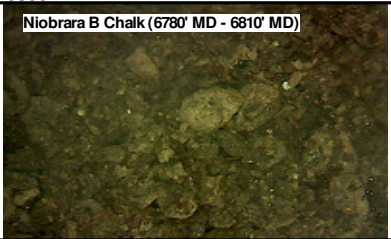
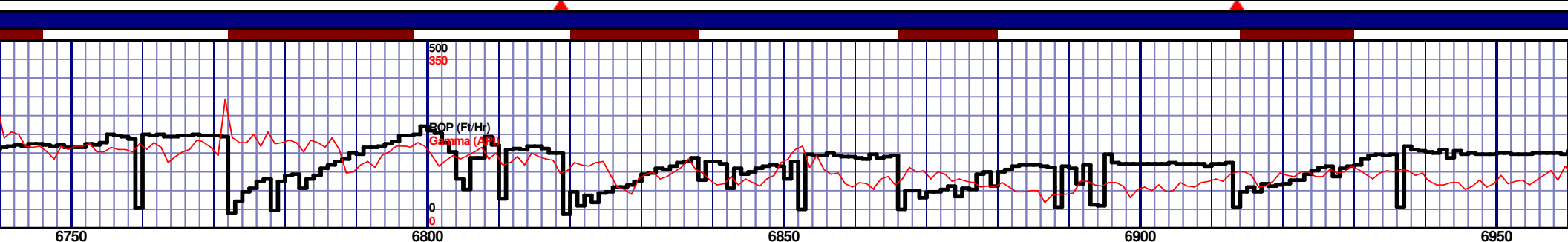
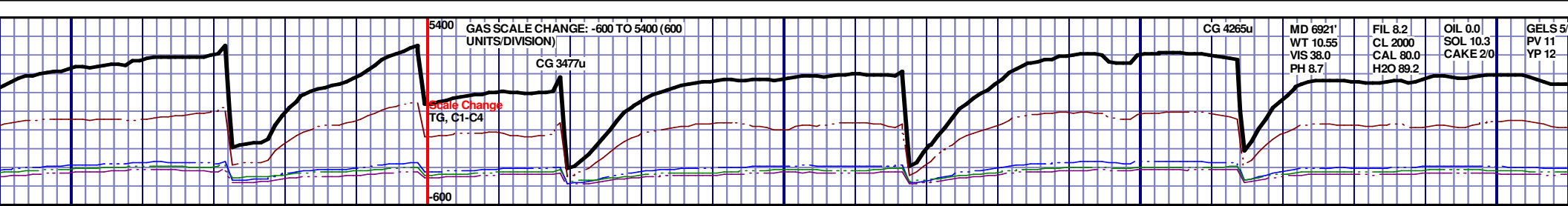
Well Name: Wells Ranch AA35-69-1HNB
Horizontal

Location: 36-T6N-R63W
605' FNL, 164' FWL

County: Weld
State: Colorado

Drilling Rig: H&P 321
Total Depth: 11250' MD
TD Date: February 21, 2014
Formation: Niobrara B Chalk
KB Elevation: 4839'
GR Elevation: 4809'
API Number: 05-123-38663-0000





NIOBRARA B CHALK 6791' MD 6603' TVD							
6750'-6780': MRST: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, FREE BENT, 30% FREE CHK, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6780'-6810': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6810'-6840': CHK: 80% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 20% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6840'-6870': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6870'-6900': CHK: 75% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 35% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6900'-6930': CHK: 75% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 25% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	6930'-6960': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG	

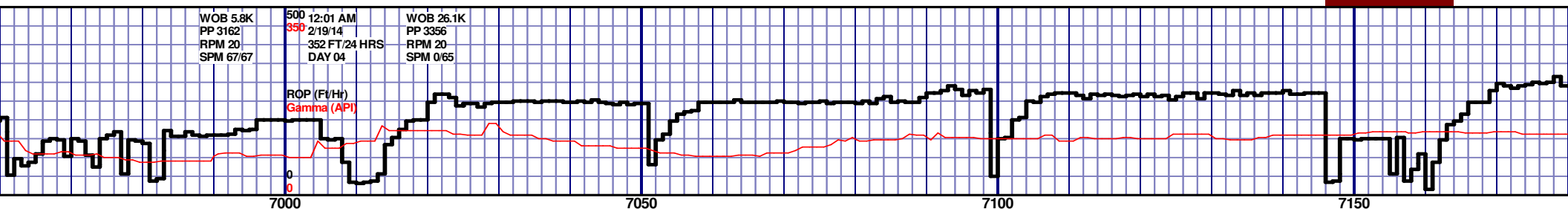
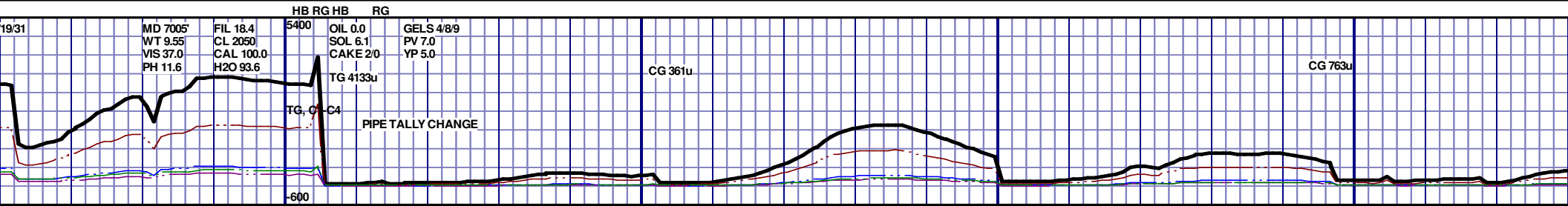
MD 6764 TVD 6593.21
INC 64.8 AZ 268.93
VS 463.48

MD 6812 TVD 6611.68
INC 69.92 AZ 265.73
VS 507.55

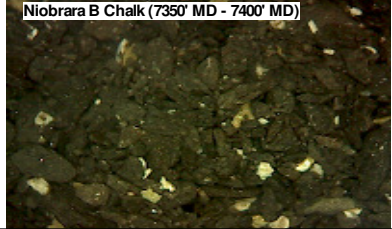
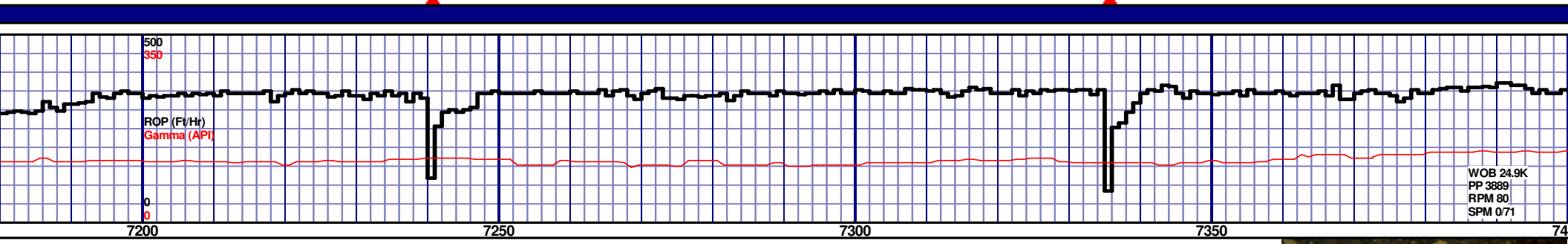
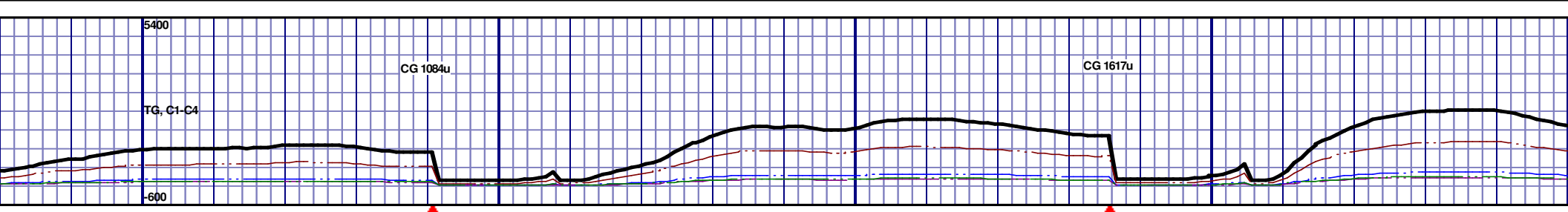
MD 6859 TVD 6625.64
INC 75.5 AZ 267.26
VS 552.13

MD 6907 TVD 6635.55
INC 80.68 AZ 268.83
VS 598.92

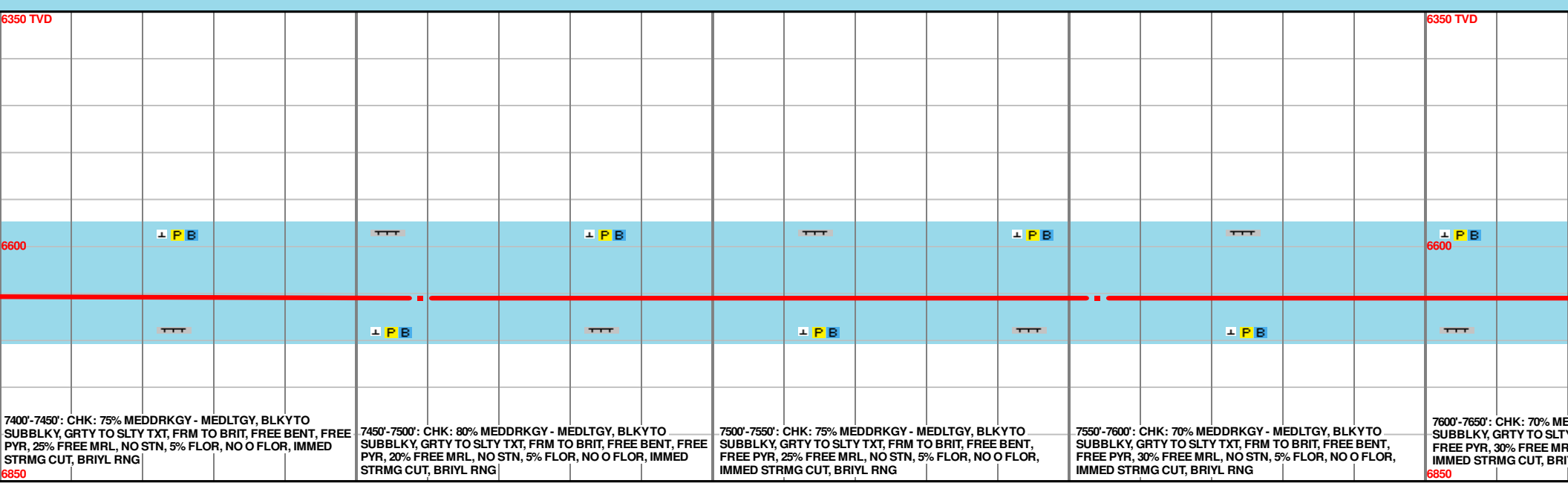
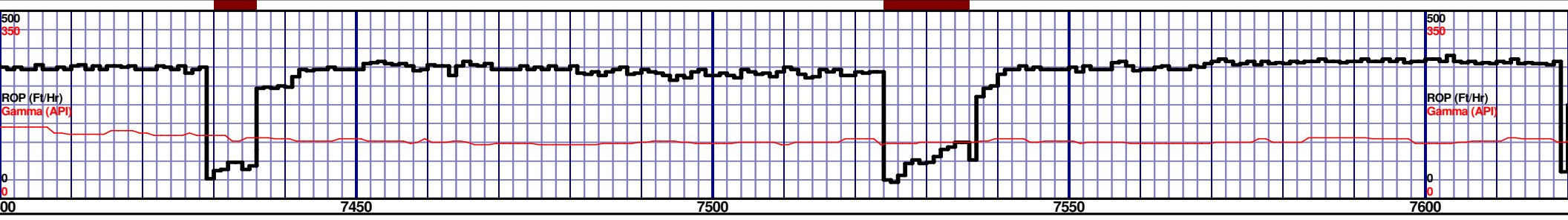
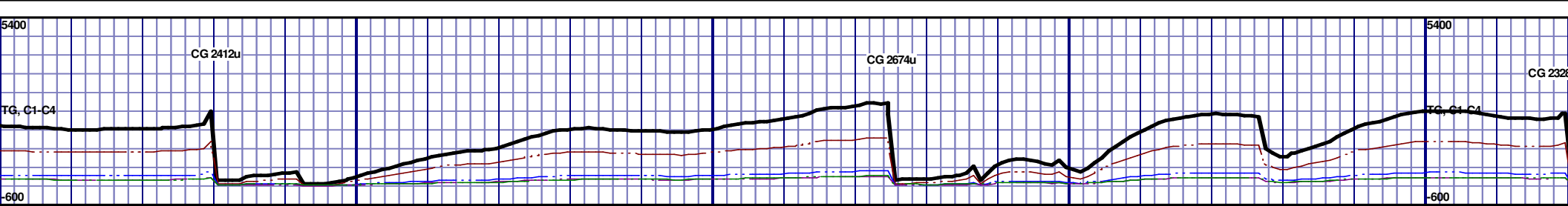
MD 6951 TVD
INC 84.76 AZ
VS 642.49



TOOH @ 5:15 AM ON 02/18/14 @ 7005' MD FOR INTERMEDIATE CASING OPERATIONS. TIH @ 8:30AM ON 02/19/14. DRILLING AHEAD @ 4:30PM ON 02/19/14 W/ BIT #3 6.125" SMITH SDI519 UBPX S/N JH6873 IN @ 7005' MD.											
6350 TVD											
6600											
6850											
6960'-6990': CHK: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, FREE CALC, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											
6990'-7020': CHK: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, FREE CALC, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											
7020'-7050': CHK: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, FREE CALC, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											
SAMPLE INTERVAL CHANGE TO 50'											
7050'-7100': CHK: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											
7100'-7150': CHK: 75% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 25% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											
7150'-7200': CHK: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 40% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											

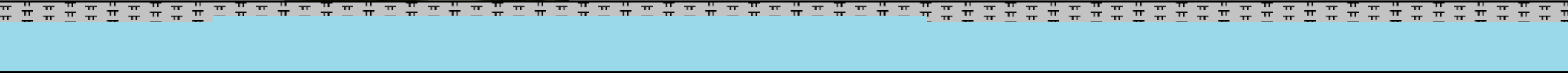
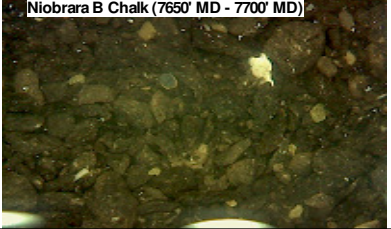
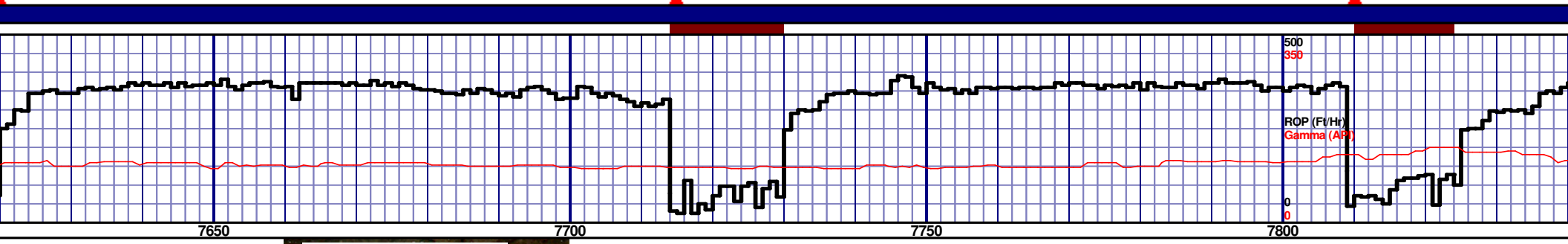
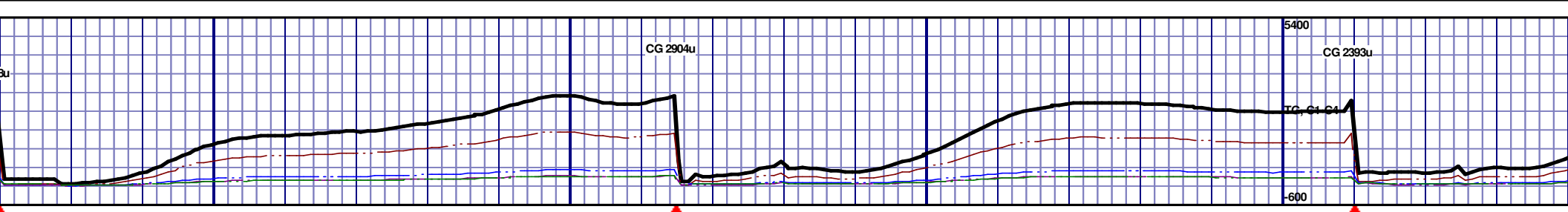


6350 TVD									

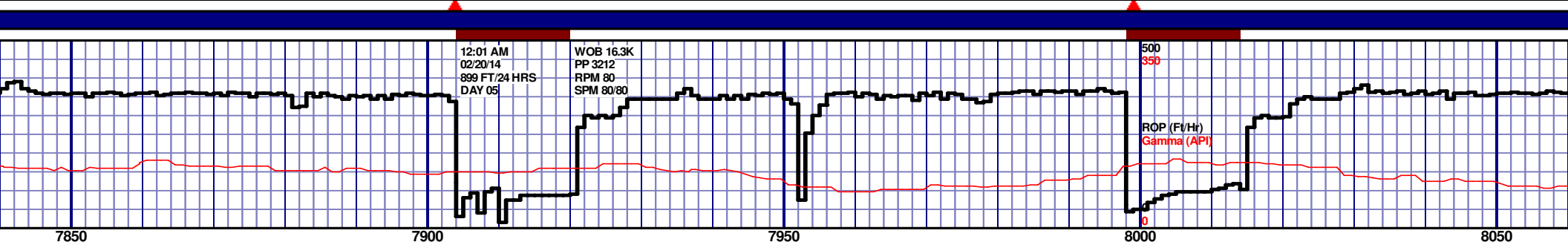
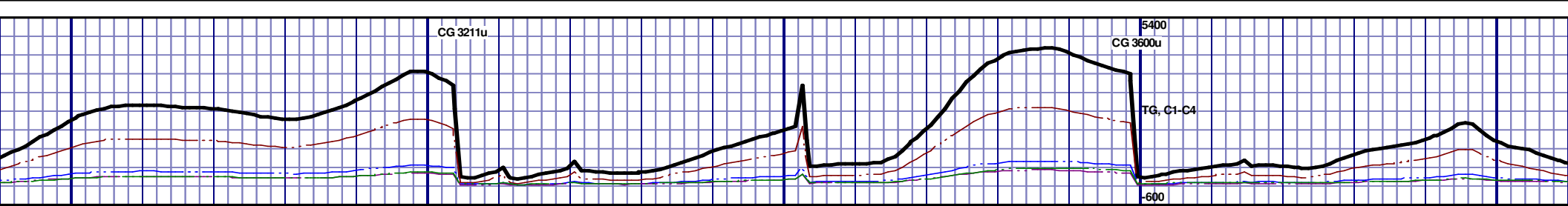


MD 7459 TVD 6654.59
INC 88.74 AZ 269.31
VS 1149.69

MD 7554 TVD 6655.12
INC 90.62 AZ 268.7
VS 1244.47



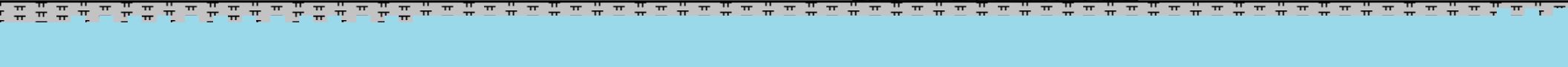
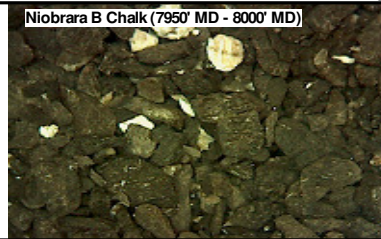
7650'-7700': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 20% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				7700'-7750': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 20% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				7750'-7800': CHK: 70% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE BENT, FREE PYR, 30% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				7800'-7850': CHK: 70% MEDDRKGY - MEDLTGY, BLK SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE FREE PYR, 30% FREE MRL, NO STN, 5% FLOR, NO O IMMED STRMG CUT, BRIYL RNG			
MD 7649 TVD 6655.17 INC 89.32 AZ 266.27 VS 1339.04				MD 7744 TVD 6655.23 INC 90.61 AZ 266.67 VS 1433.45											



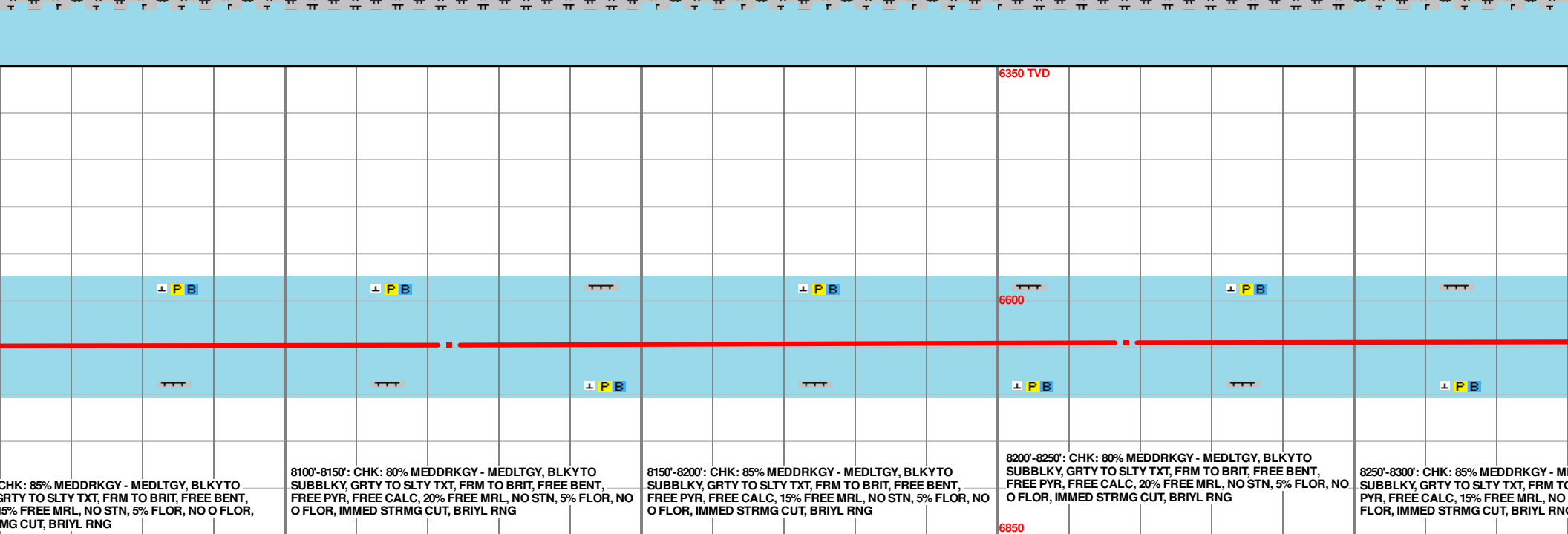
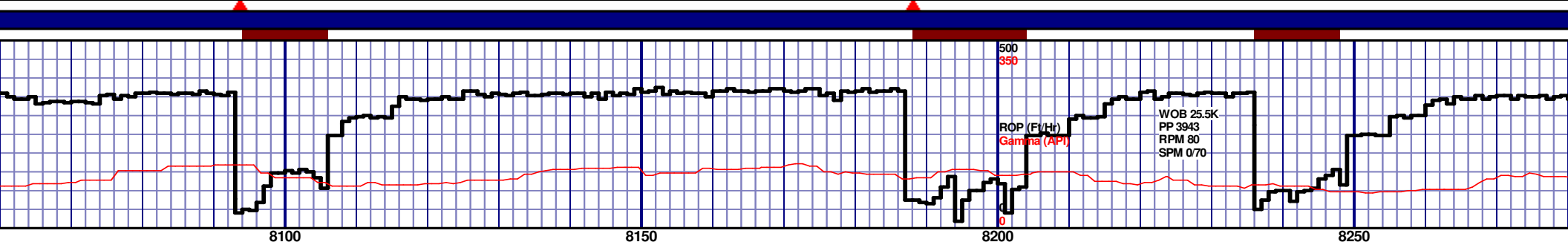
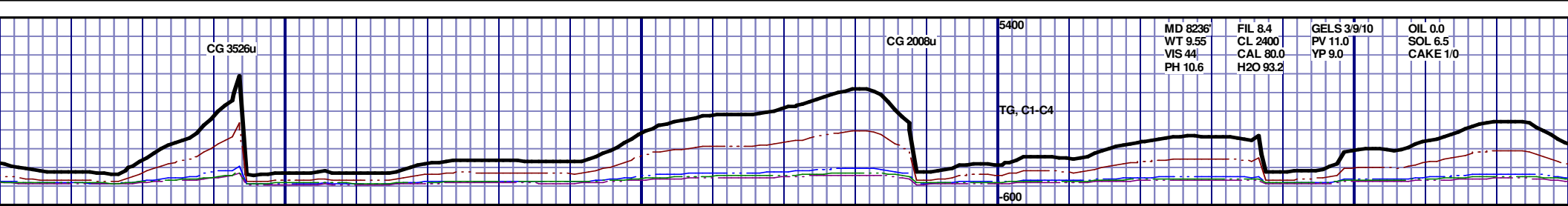
12:01 AM
02/20/14
899 FT/24 HRS
DAY 05

WOB 16.3K
PP 3212
RPM 80
SPM 80/80

500
350
0

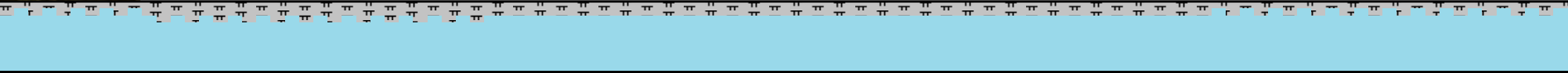
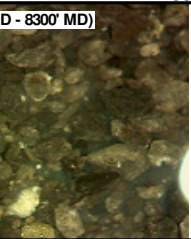
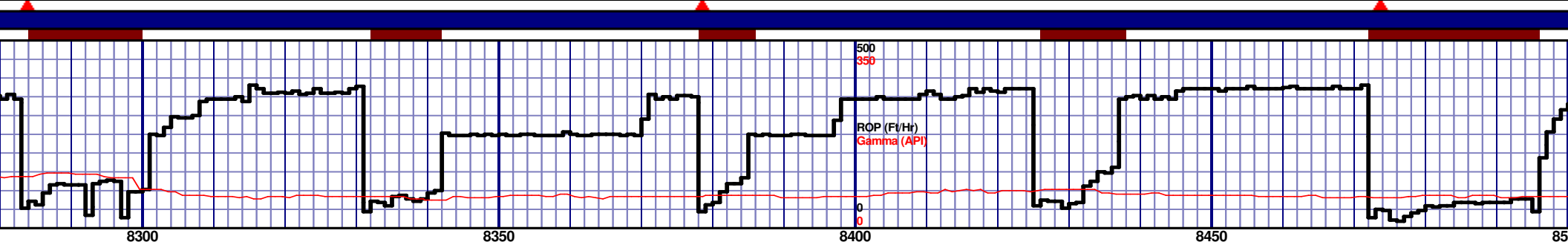
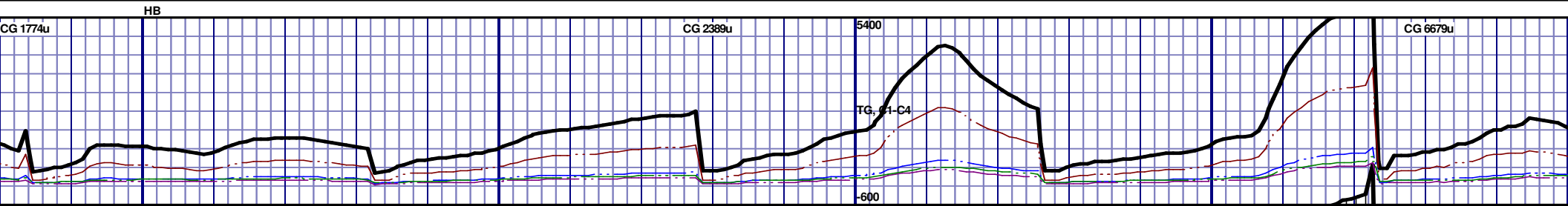


--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

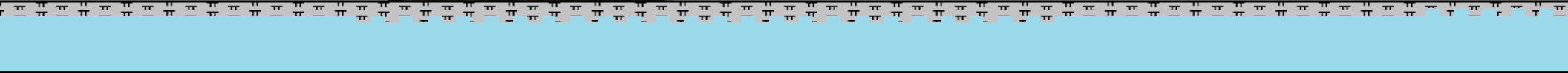
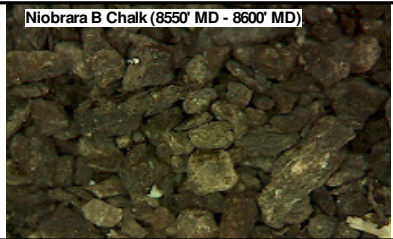
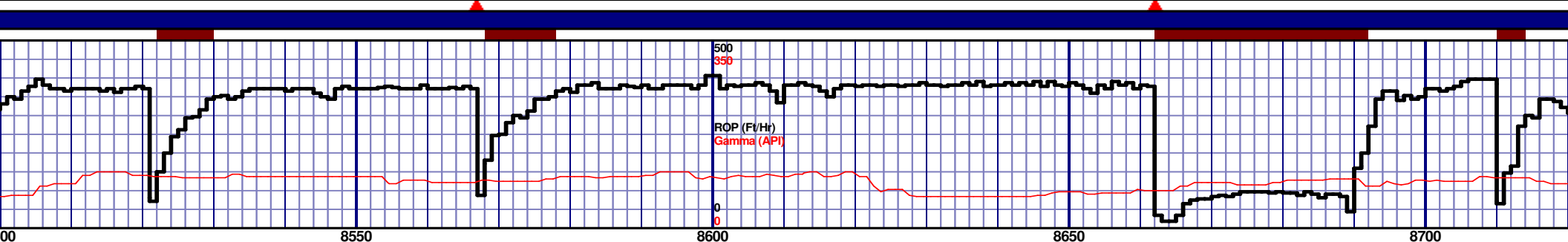
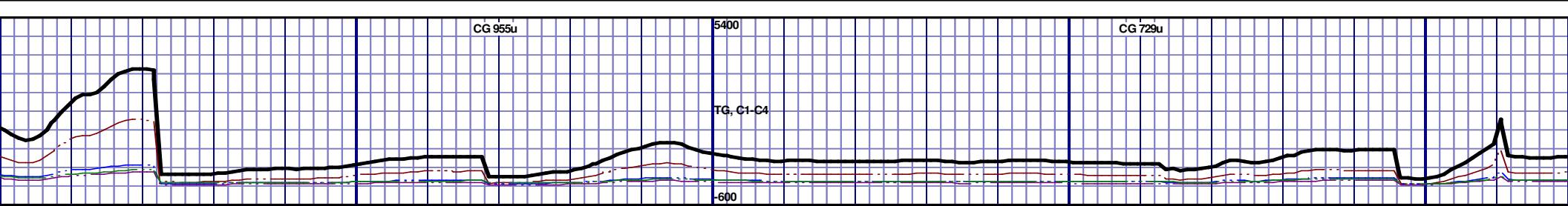


MD 8123 TVD 6647.51
INC 91.45 AZ 270.22
VS 1811.29

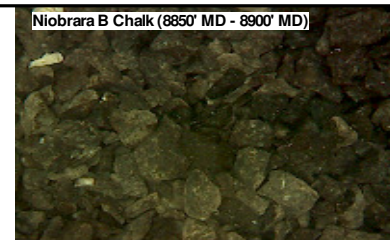
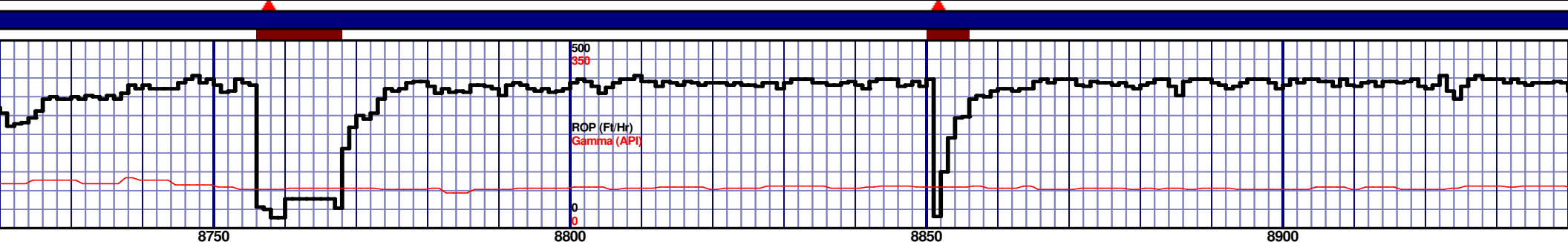
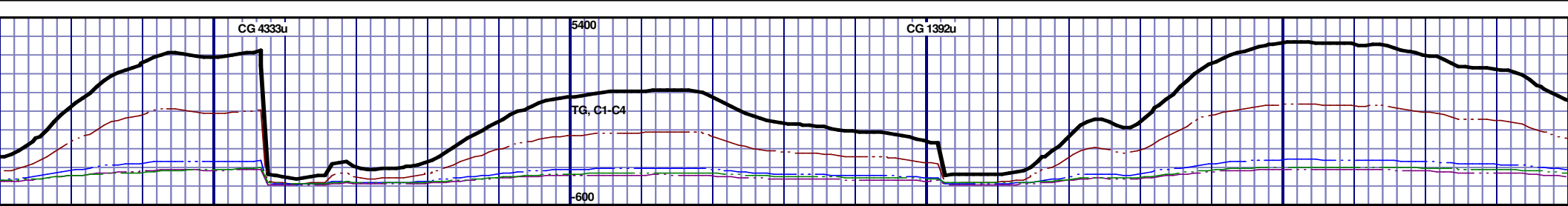
MD 8218 TVD 6644.79
INC 91.82 AZ 270.6
VS 1906.17



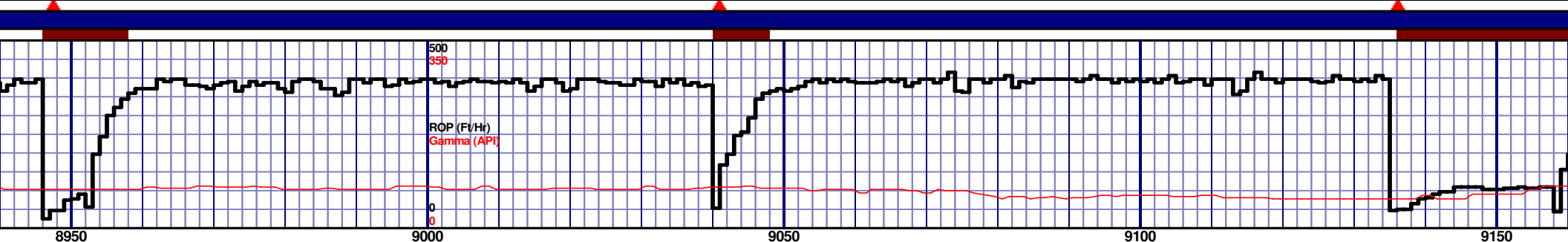
6350 TVD				6600				6850			
8300'-8350': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE BENT, TRC FREE PYR, FREE CALC, 25% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				8350'-8400': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE PYR, FREE CALC, 20% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				8400'-8450': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE PYR, FREE CALC, 20% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG			
8450'-8500': CHK: 85% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE PYR, TRC FREE BENT, FREE CALC, 15% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG											

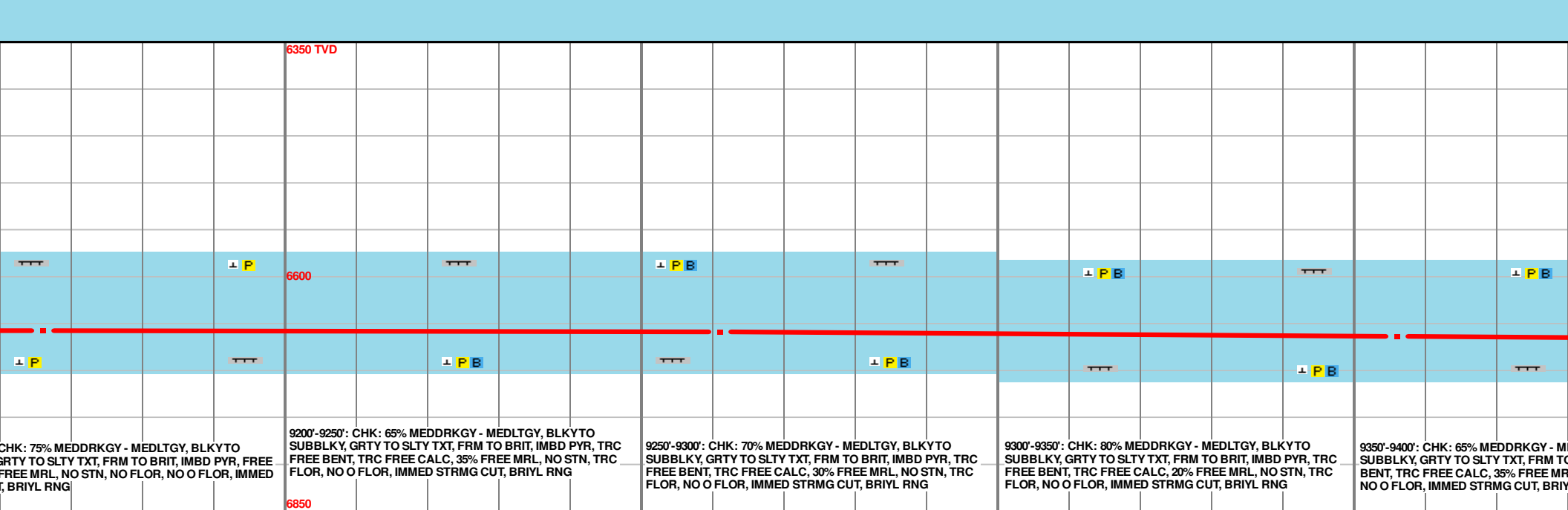
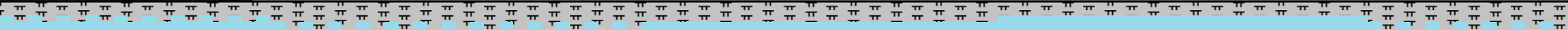
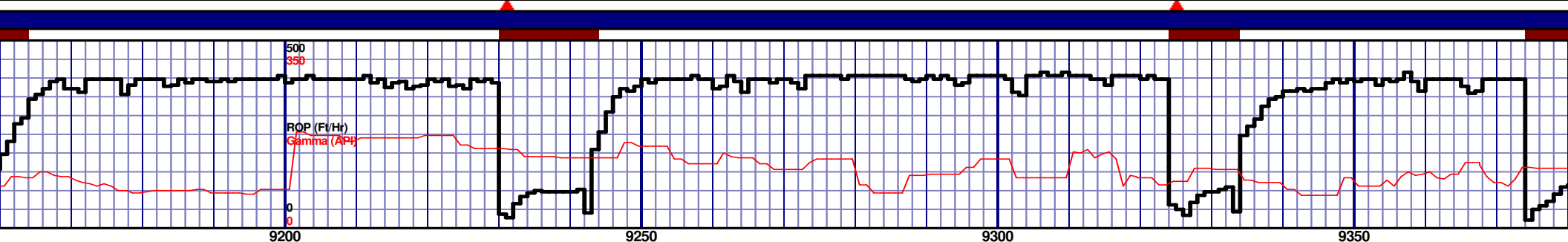
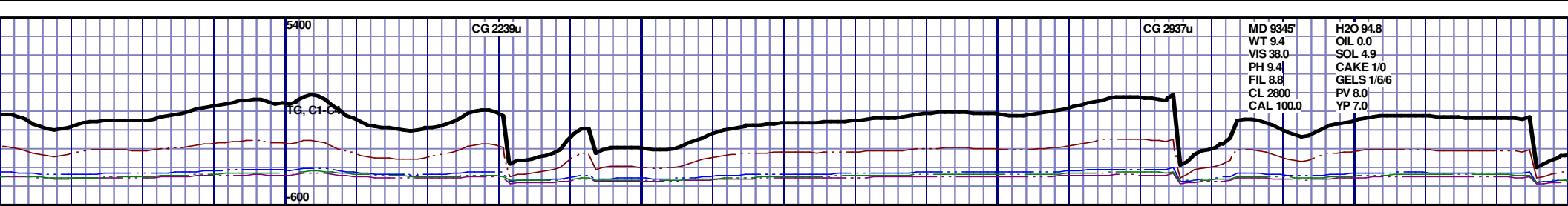


				6350 TVD							



<p>8750'-8800': CHK: 80% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, IMBD PYR, TRC FREE BENT, FREE CALC, 20% FREE MRL, NO STN, 5% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>8800'-8850': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, IMBD PYR, TRC FREE BENT, ABDT FREE CALC, 25% FREE MRL, NO STN, TRC FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>8850'-8900': CHK: 75% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE CALC, 25% FREE MRL, NO STN, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>8900'-8950': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, ABDT FREE CALC, 35% FREE MRL, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>8950'-8950': CHK: 65% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GR TY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, ABDT FREE CALC, 35% FREE MRL, NO FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>
---	---	---	---	---

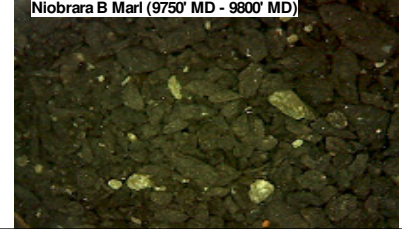
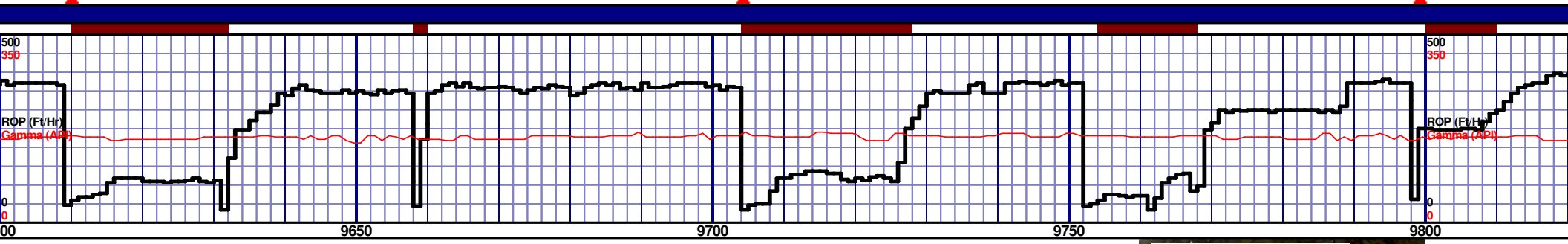
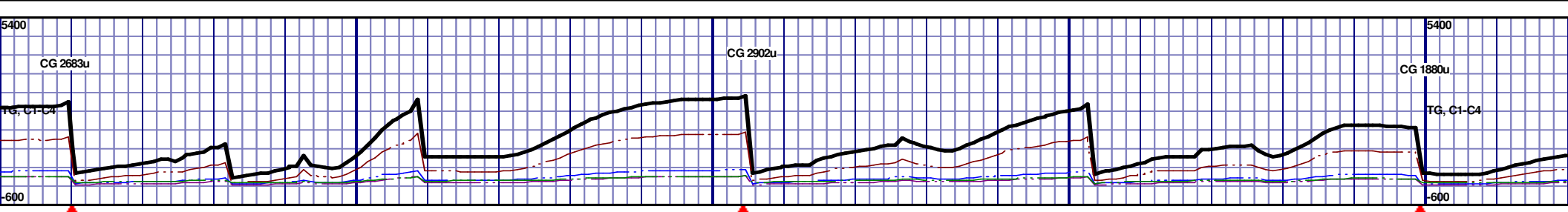




MD 9166 TVD 6656.98
INC 90.12 AZ 269.77
VS 2853.05

MD 9261 TVD 6659.11
INC 87.31 AZ 268.66
VS 2947.82

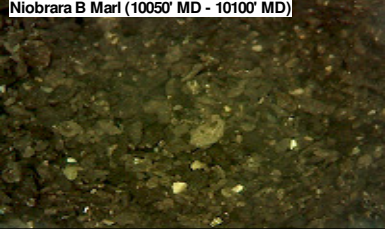
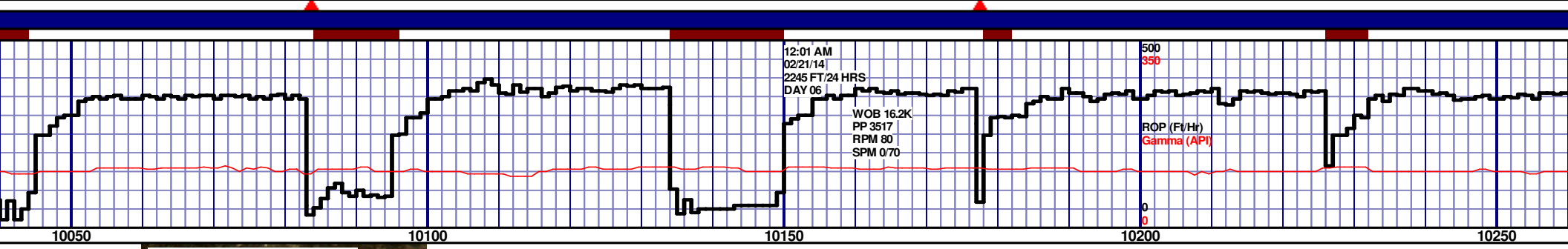
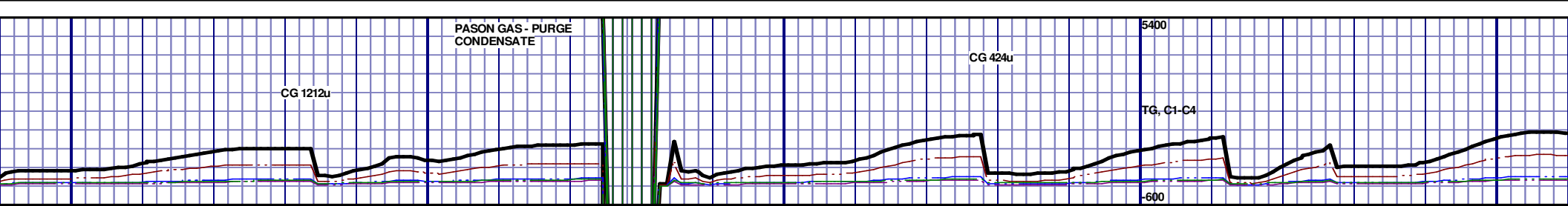
MD 9356 TVD 6664.22
INC 86.52 AZ 268.78
VS 3042.43



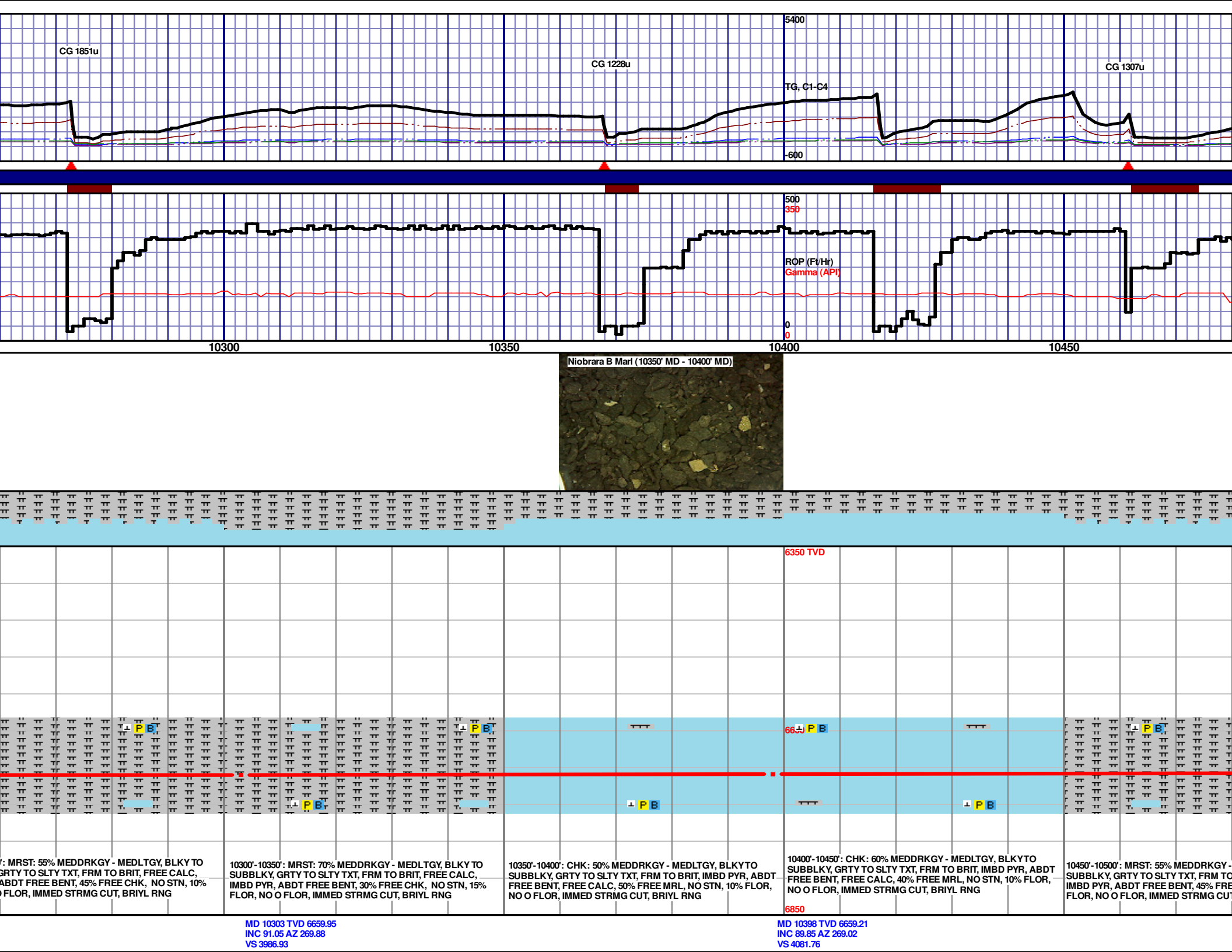
<p>6350 TVD</p> <p>9600'-9650': MRST: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 30% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p> <p>6850</p>	<p>9650'-9700': MRST: 80% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 20% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>9700'-9750': MRST: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 30% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>9750'-9800': MRST: 70% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 30% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p>	<p>9800'-9850': MRST: 75% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 30% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG</p> <p>6850</p>
--	--	--	--	--

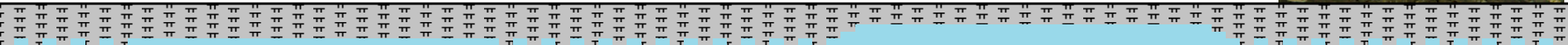
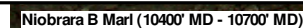
MD 9640 TVD 6670.92
INC 90.49 AZ 267.76
VS 3324.95

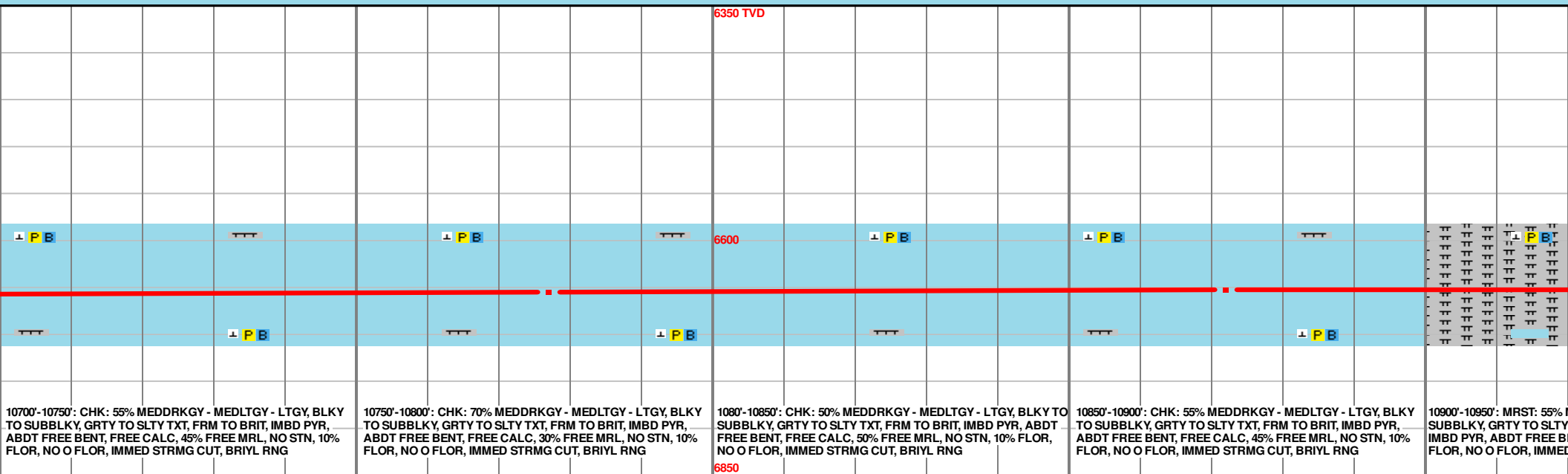
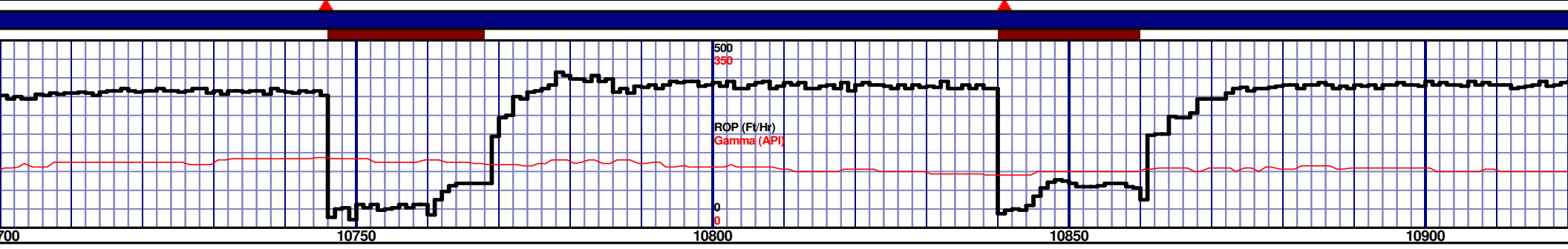
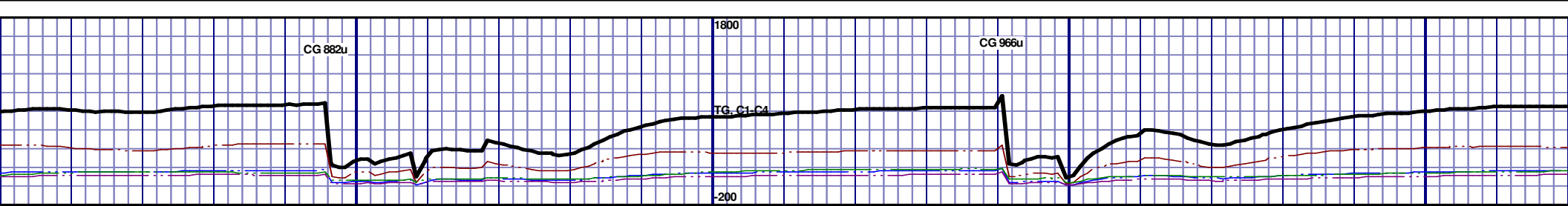
MD 9735 TVD 6669.65
INC 91.05 AZ 269.69
VS 3419.69



6350 TVD									
10050'-10100': CHK: 60% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 40% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					10100'-10150': CHK: 50% MEDDRKGY - MEDLTGY, BLKYTO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 50% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
10150'-10200': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, IMBD PYR, ABDT FREE BENT, 40% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					10200'-10250': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, IMBD PYR, TRC FREE BENT, 45% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				
10250'-10300': SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, IMBD PYR, ABDT FREE BENT, 40% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG					10300'-10350': SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, TRC FREE CALC, IMBD PYR, ABDT FREE BENT, 40% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				







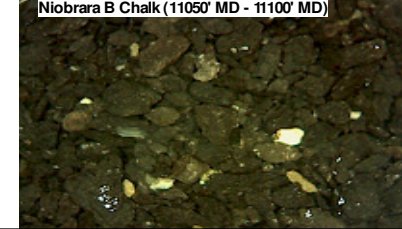
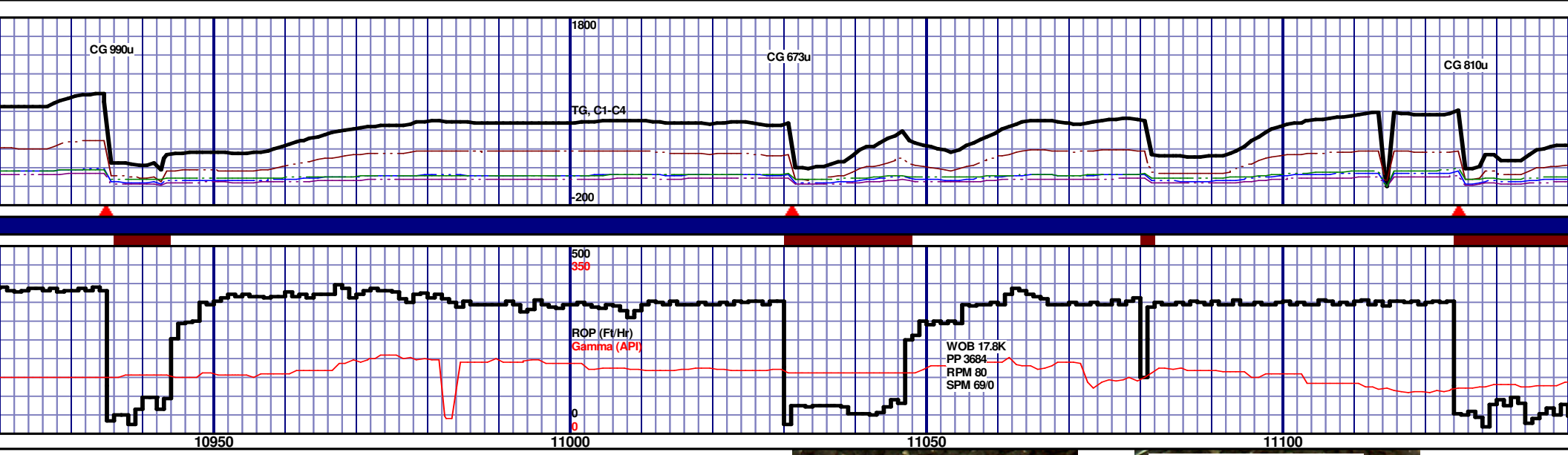
10700'-10750': CHK: 55% MEDDRKGY - MEDLTGY - LTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 45% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

10750'-10800': CHK: 70% MEDDRKGY - MEDLTGY - LTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 30% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

10800'-10850': CHK: 50% MEDDRKGY - MEDLTGY - LTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 50% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

10850'-10900': CHK: 55% MEDDRKGY - MEDLTGY - LTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 45% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG

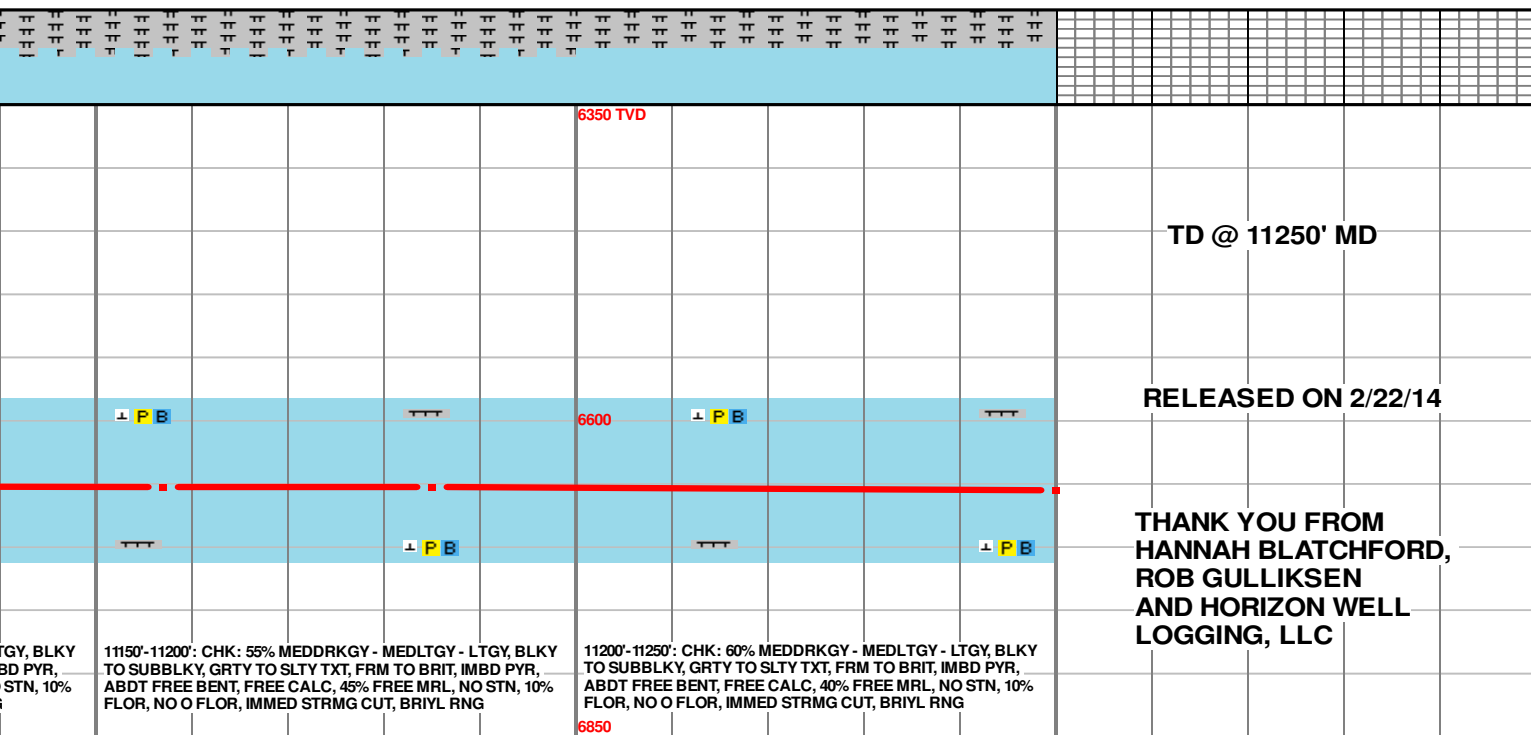
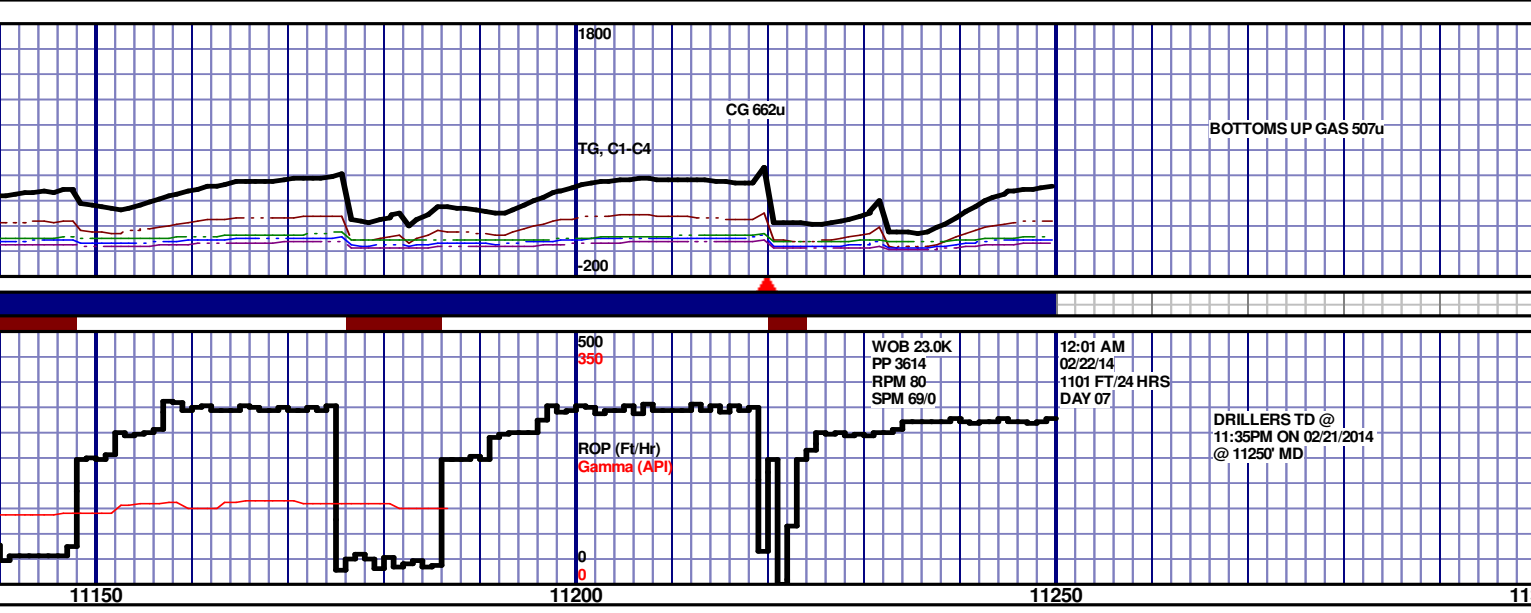
10900'-10950': MRST: 55% SUBBLKY, GRTY TO SLTY IMBD PYR, ABDT FREE B FLOR, NO O FLOR, IMMED



6350 TVD				NIOBRARA B CHALK 11073' MD 6651' TVD			
10950'-11000': MRST: 55% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 45% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				11000'-11050': MRST: 60% MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, FREE CALC, IMBD PYR, ABDT FREE BENT, 40% FREE CHK, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG			
11050'-11100': CHK: 50% MEDDRKGY - MEDLTGY - LTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 50% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG				11100'-11150': CHK: 55% MEDDRKGY - MEDLTGY - LTGY, BLKY TO SUBBLKY, GRTY TO SLTY TXT, FRM TO BRIT, IMBD PYR, ABDT FREE BENT, FREE CALC, 45% FREE MRL, NO STN, 10% FLOR, NO O FLOR, IMMED STRMG CUT, BRIYL RNG			

MD 10967 TVD 6651.94
INC 90.49 AZ 270.79
VS 4649.69

MD 11062 TVD 6651.25
INC 90.34 AZ 270.3
VS 4744.61



MD 11157 TVD 6652.01
INC 88.74 AZ 270.29
VS 4839.51

MD 11185 TVD 6652.9
INC 87.63 AZ 270.27
VS 4867.47

PTB: MD 11250 TVD 6655.59
INC 87.63 AZ 270.27
VS 4932.35