DATALOG GEOLOGICAL SERVICES

(888) 938-7393 www.dataloggs.com

231 W 17th Street
Houston, TX 77008

COUNTY Weld Co. STATE Colorado
FIELD Cherry
LOCATION 40°01'48.6120"N, 104°39'18.8280"W
WELL CR Ensign_161_Canal 22-2-2L Vertical Mudlog
LOG TYPE 5in
COMPANY Confluence Resources LP
JOB NO 102057

COMPANY **Confluence Resources LP**
WELL **CR Ensign_161_Canal 22-2-2L Vertical Mudlog**
FIELD **Cherry**
COUNTY/PARISH Weld Co. STATE Colorado JOB NO: 102057
UNIT MANAGER Jake Thompson - Nights ENGINEER
Luis Lora - Days
GEOLOGIST Aryn Rowe, Chantel Lines, Robert Sterling CO. ENGINEER

LOCATION: 185' FSL & 1121' FWL

API SERIAL NO	SEC	TWP	RANGE
05123515910000	22	1N	65W

ELEVATIONS

KB	23'
DRILL FLOOR	5,118'
ELEVATION	5,095'
WATER DEPTH	--
AIR GAP	--

SPUD DATE 08/24/2021 TOTAL DEPTH 17,903'
LOGGING DATE FROM: 08/28/2021 TO: 08/30/2021
LOGGING DEPTH FROM: 6,000' TO: 17,903'

BORE HOLE RECORD			CASING RECORD				
SIZE	FROM	TO	SIZE	WGT.	FROM	TO	TEST

Geochem
Cindy Lazo
Patricia Ascanio

ML 589
Target Formation: Niobrara B

TOTAL Gas Analyzer
1% C1 = 100 UNITS
20% C1 = 2,000 UNITS

DRILLING FLUID COMPANY Basin Fluids
DRILLING FLUID TYPE OBM
DRILLING CONTRACTOR Ensign RIG NAME Ensign 161
LOG SCALE 1" = 20' LOGGING UNIT 106

Engineering

MIN DEPTH
CONNECTION (LEF...
CONNECTION GAS

Lithology

MARLSTONE
CHALK
SHALE GRAY
SANDSTONE
LIMESTONE

ROP/Gamma

ROP: 0 ft/hr 2000

GAMMA: 0 units 300

Confluence Resources
Canal 22-2-2L
9 5/8" Surface
Casing @ 2,707'
Spud Date:
08/24/2021
All Depths Correspond to Driller's Pipe Tally

Slide/Rotate

Depth Labels

7,710 7,720 7,730 7,740 7,750 7,760 7,770 7,780 7,790 7,800 7,810 7,820 7,830 7,840 7,850 7,860 7,870 7,880 7,8

Oil Show

Gas Show

Notes

Loggers:
JT - Jake Thompson
LL - Luis Lora
PA - Patricia Ascanio

WOB: 7.6k
RPM: 101
SPM: 201
PP: 3,543

MD: 7,800'
INC: 58°
AZM: 20.8°
TVD: 7,136.75'
VS: 754.25'

MW IN: 9.6+
VIS: 52
MW OUT: 9.6+
VIS: 51

MD: 7,88
INC: 67.8
AZM: 16.
TVD: 7,1
VS: 833.

% Lith

Total Gas

GAS
C1
C2
C3
IC4
NC4
CO2
H2S

Bit #: 2
Type: ADT505T
Size: 8.5
Depth In: 2,707'
Depth Out: 17,903'
Hours: 48.7 hrs
Avg Ft/Hr: 312 '/hr
Jets: 5x15
S/N: 5321775

BG 496u

Well Bore

TVD

System Calibrated
1% Methane = 100 units
100% Methane = 10,000 units

Lithology Descriptions

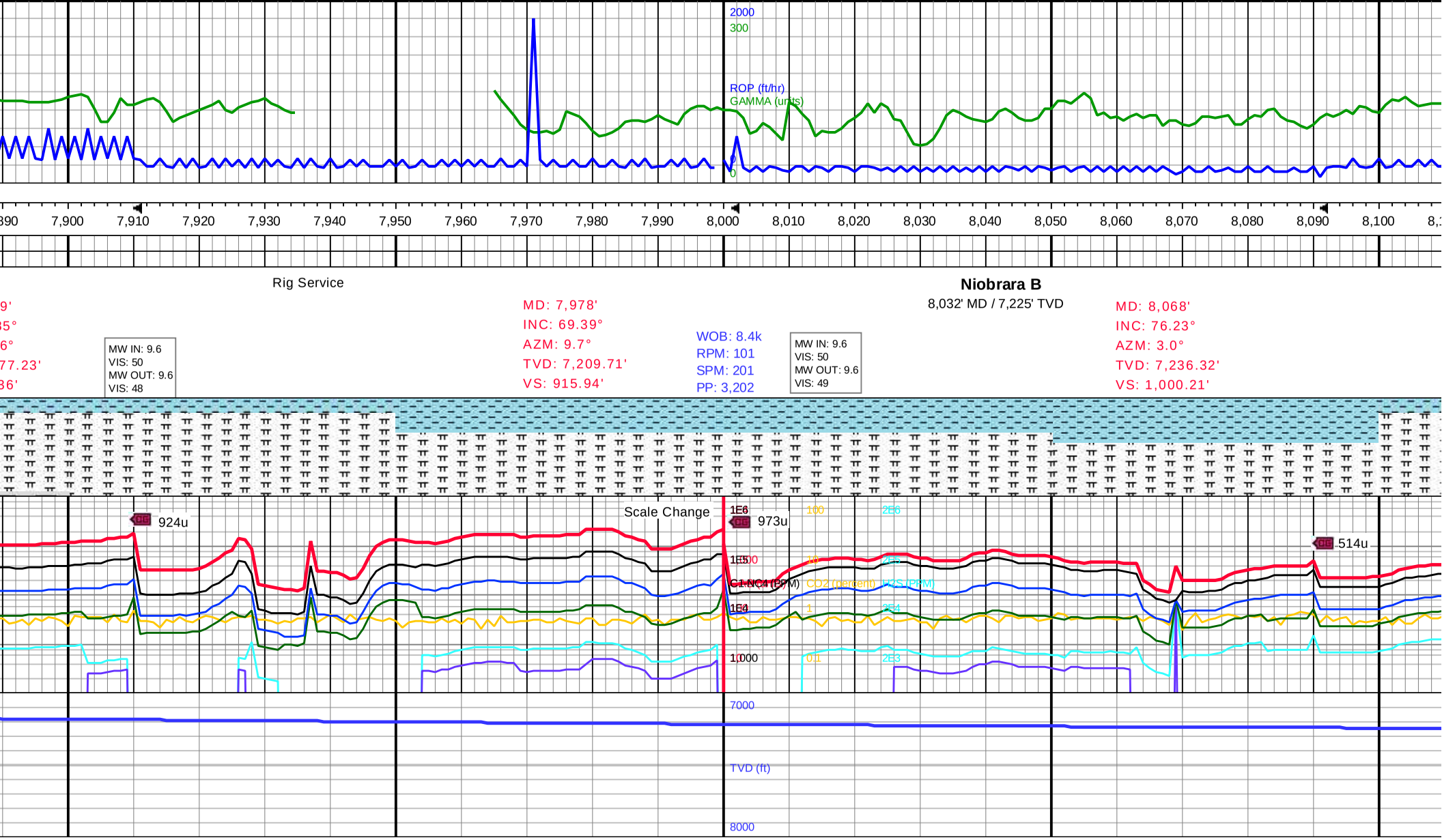
Continued from Vertical Log

80% MRLST: med gry-dk gry wi scat spec wht, mod frm- frm, blky - sb blky, sme sb plty, sl slty, tr pp pyr, mod calc, sl arg fl, tr vugy pyr; 15% SH: gry- med dk gry, mod frm- frm, sb blky - sb plty, sl slty, sme vf gr lam, aren; 10% CHK: lt gry- offwht, occ lt brn- tn, mot lt brn, sl fri- mod frm, sb blky- blky, wxy- rthy tex, mas- dns, micxln, tr pyr

80% MRLST: med gry- dk gry, mot lt brn- dk brn, mod frm- frm, blky - sb blky, rthy- slty tex, mod- v calc, sl arg fl, tr vugy pyr; 10% SH: gry- med dk gry, mod frm- frm, sb blky - sb plty, sl slty, sme vf gr lam, aren; 10% CHK: lt gry- offwht, occ lt brn- tn, mot lt brn, sl fri- mod frm, sb blky- blky, wxy- rthy tex, mas- dns, micxln, tr pyr

80% MRLST: med g
brn- dk brn, mod frm
blky, rthy- slty tex,
fl, tr vugy pyr; 15% C
occ lt brn- tn, mot lt
sb blky- blky, wxy- r
micxln, tr pyr; 5% Sl
mod frm- frm, sb blk
sme vf gr lam, aren

Images



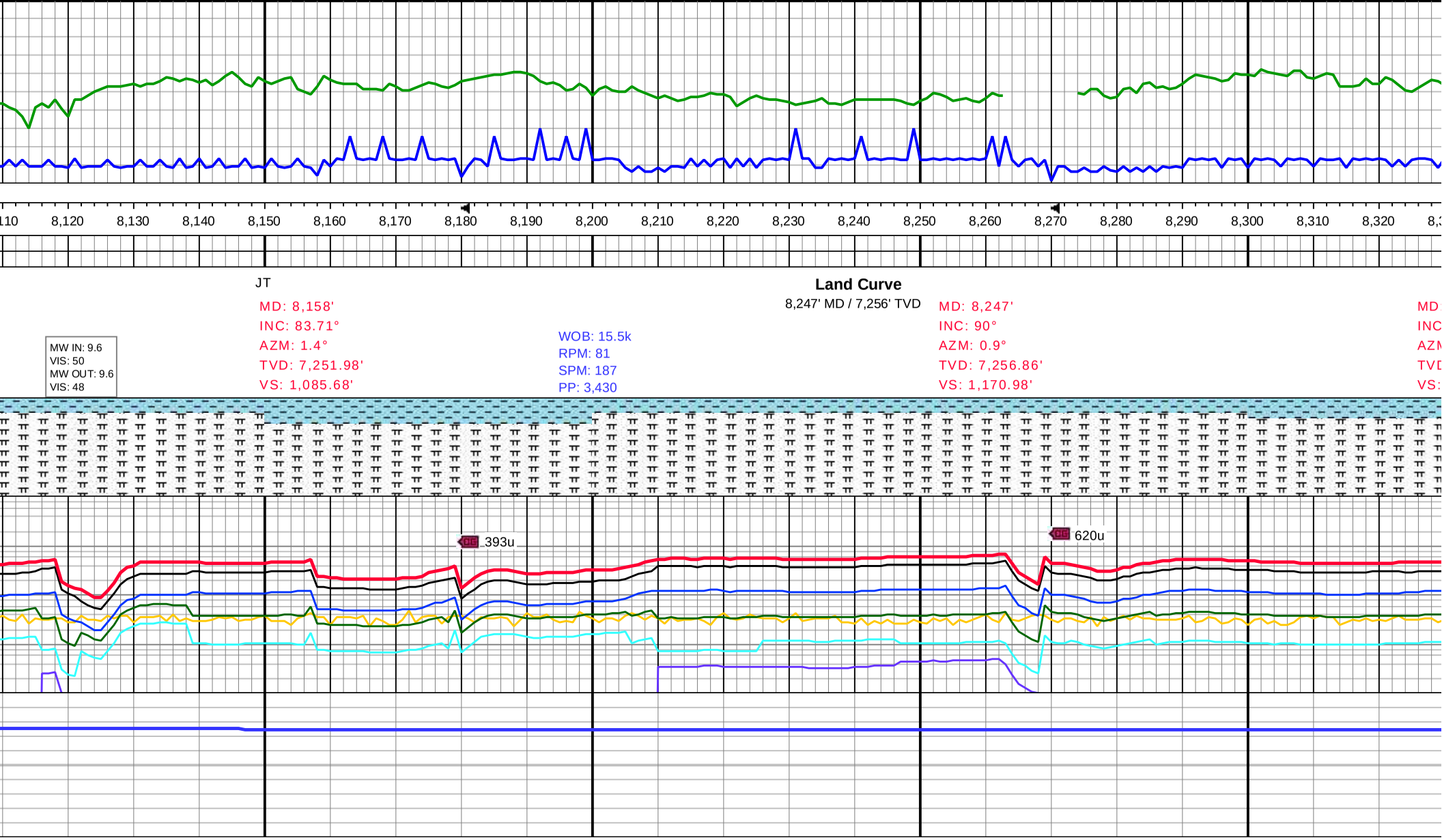
ry- dk gry, mot lt
n- frm, blky - sb
mod- v calc, sl arg
CHK: lt gry- offwht,
brn, sl fri- mod frm,
thy tex, mas- dns,
H: gry- med dk gry,
ky - sb plty, sl slty,

85% MRLST: med gry- dk gry, dk brn - dk gry brn, mod frm- mod hd, blky - sb blky, rthy - slty tex, mod- v calc, sl arg fl, fnt tr vf dissm pyr; 15% CHK: mot lt gry- offwht, mot lt brn- tn, sl fri- mod frm, sb blky- blky, rthy tex, mas - dns, micxln, v fnt tr pyr; tr SH

65% MRLST: med gry- dk gry, dk brn - dk gry brn, mod frm- mod hd, blky - sb blky, rthy - slty tex, mod- v calc, sl arg fl, fnt tr vf dissm pyr; 35% CHK: mot lt gry- offwht, mot lt brn- tn, sl fri- mod frm, sb blky- blky, rthy tex, mas - dns, micxln, fnt tr pyr; tr SH

65% MRLST: med gry- dk gry, dk brn - dk gry brn, mod frm- mod hd, blky - sb blky, rthy - slty tex, mod- v calc, sl arg fl, fnt tr vf dissm pyr; 35% CHK: mot lt gry- offwht, mot lt brn- tn, sl fri- mod frm, sb blky- blky, rthy tex, mas - dns, micxln, tr dissm pyr

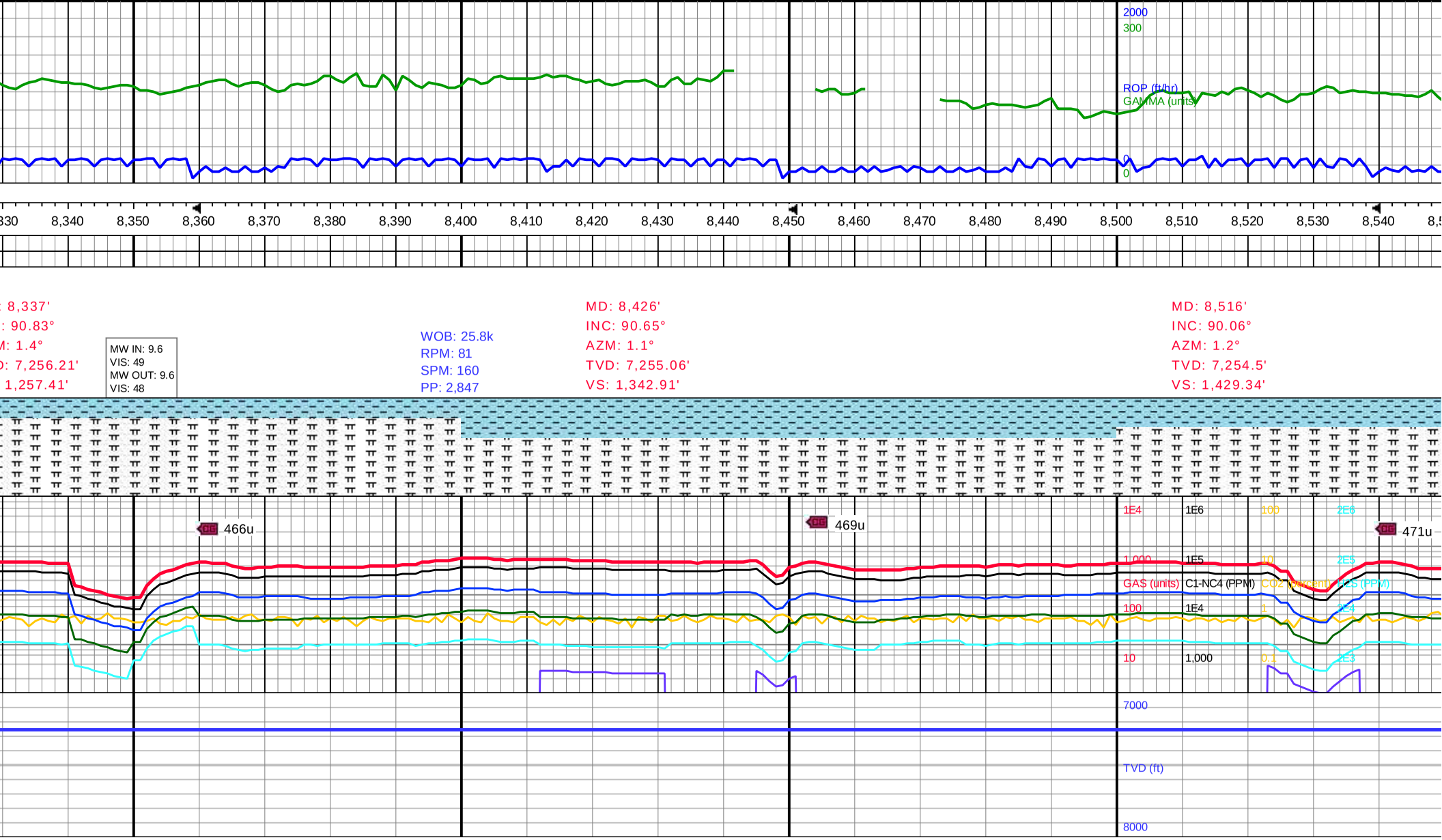
55% MRLST: pred dk gry - gry, dk gry brn - med gry brn, mod frm- mod hd, blky - sb blky, rthy - slty tex, sme sb wxy, mod- v calc, sl arg fl, occ cal mic lam, fnt tr vf dissm pyr; 45% CHK: mot lt gry- offwht, mot lt brn- tn, sl fri- mod frm, sb blky- blky, rthy tex, mas - dns, micxln, tr dissm & vugy pyr



85% MRLST: predy dk gry- gry, occ dk brn, mot brn- dk brn, mod frm- frm, blky- sb blky, rthy tex, mmica incl, slty, cly abnt, mod calc; 15% CHK: lt gry- gry, sme offwht- crm, mot lt brn- crm, mod frm- sl fri, sb blky- blky, rthy- slty tex, micxln, dns- mas

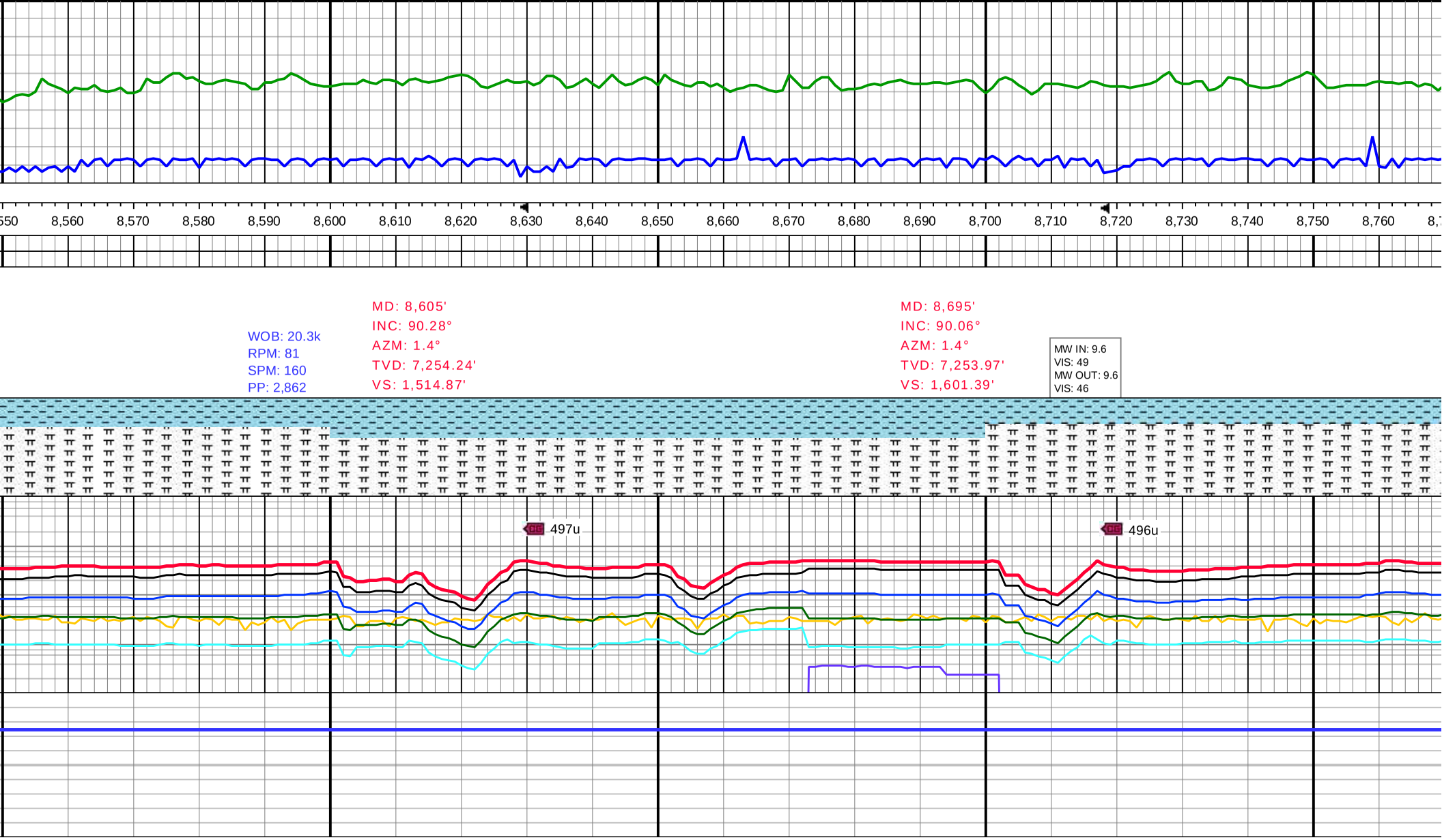
75% MRLST: med gry- dk gry, sme dk brn, mot brn- dk brn, mod frm- frm, blky- sb blky, rthy tex, mmica incl, slty, cly abnt, mod calc, tr pp pyr; 25% CHK: lt gry- med gry, occ offwht- crm, mot lt brn- tn, sl fri- mod frm, sb blky- blky, rthy tex, micxln, dns- mas

85% MRLST: dk gry- gry, occ dk brn, mot tn- dk brn, mod frm- frm, blky- sb blky, rthy tex, mmica incl, slty ip, cly abnt, mod calc, tr vugy pyr; 15% CHK: lt gry- lt brn, occ offwht- crm, mot lt brn- tn, sl fri- mod frm, sb blky- blky, rthy-wxy tex, micxln, dns- mas



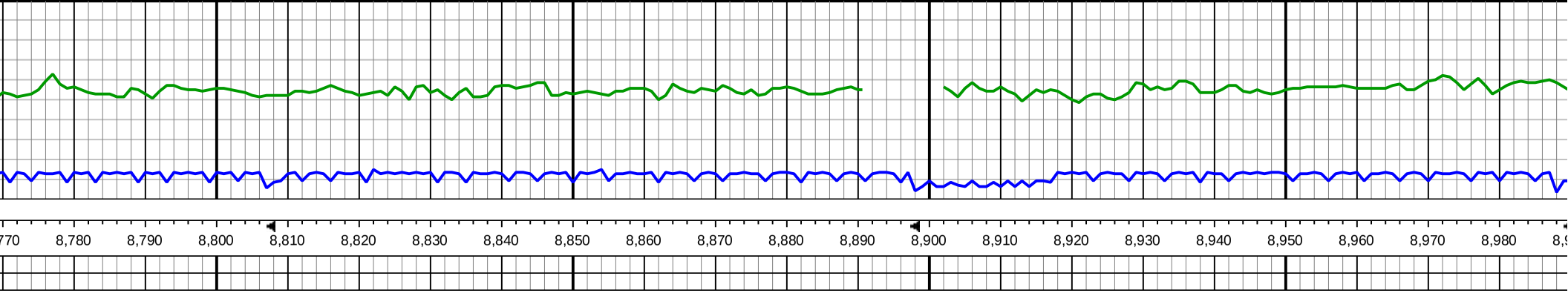
80% MRLST: predy med gry- gry, sme dk brn, mot lt brn- dk brn, frm- mod frm, sb blky- blky, rthy tex, tr mmica incl, slty ip, cly abnt, mod calc, tr pp pyr; 20% CHK: lt gry- lt brn, occ offwht- crm, mot lt brn- brn, sl fri- mod frm, sb blky- blky, rthy tex, micxln, dns- mas, sme pyr

60% MRLST: dk gry- gry, occ lt brn- dk brn, mot tn- crm, mod frm- frm, sb blky- blky, rthy tex, mmica incl, slty, cly lam, mod calc, tr dissm pyr; 40% CHK: med gry- gry, sme lt gry, occ offwht- tn, mot lt brn, mod frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas



70% MRLST: predy dk gry- gry, occ brn, mot lt brn- brn, frm- mod frm, sb blky- blky, rthy tex, sme mmica incl, slty ip, cly lam, mod calc; 30% CHK: lt gry- offwht, occ lt brn- crm, spty crm- brn, sl fri- mod frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr dissm pyr

60% MRLST: med gry- dk gry, sme dk brn, spty lt brn- dk brn, mod frm- frm, blky- sb blky, rthy tex, mmica incl, slty- cly abnt, mod calc; 40% CHK: med gry- lt gry, occ tn- crm, mot lt brn- offwht, mod frm- sl fri, sb blky- blky, rthy tex, micxln, dns- mas



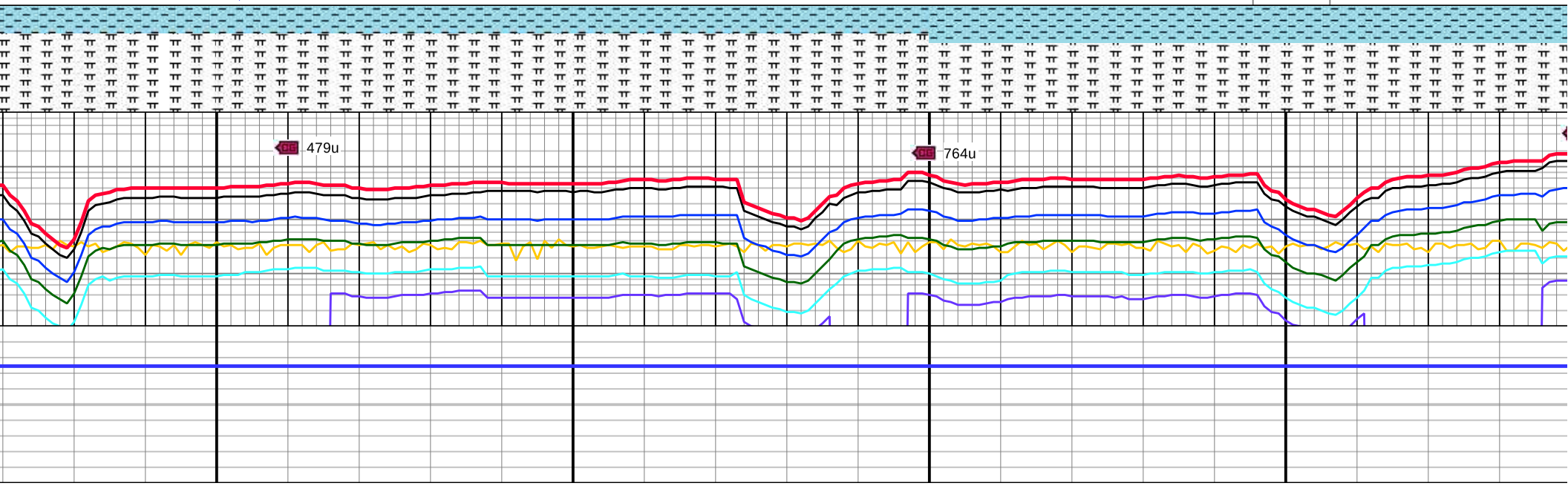
MD: 8,785'
INC: 89.94°
AZM: 1.5°
TVD: 7,253.97'
VS: 1,687.95'

WOB: 16.5k
RPM: 81
SPM: 160
PP: 2,849

MD: 8,875'
INC: 90.12°
AZM: 1.4°
TVD: 7,253.93'
VS: 1,774.51'

MW IN: 9.6
VIS: 50
MW OUT: 9.6
VIS: 48

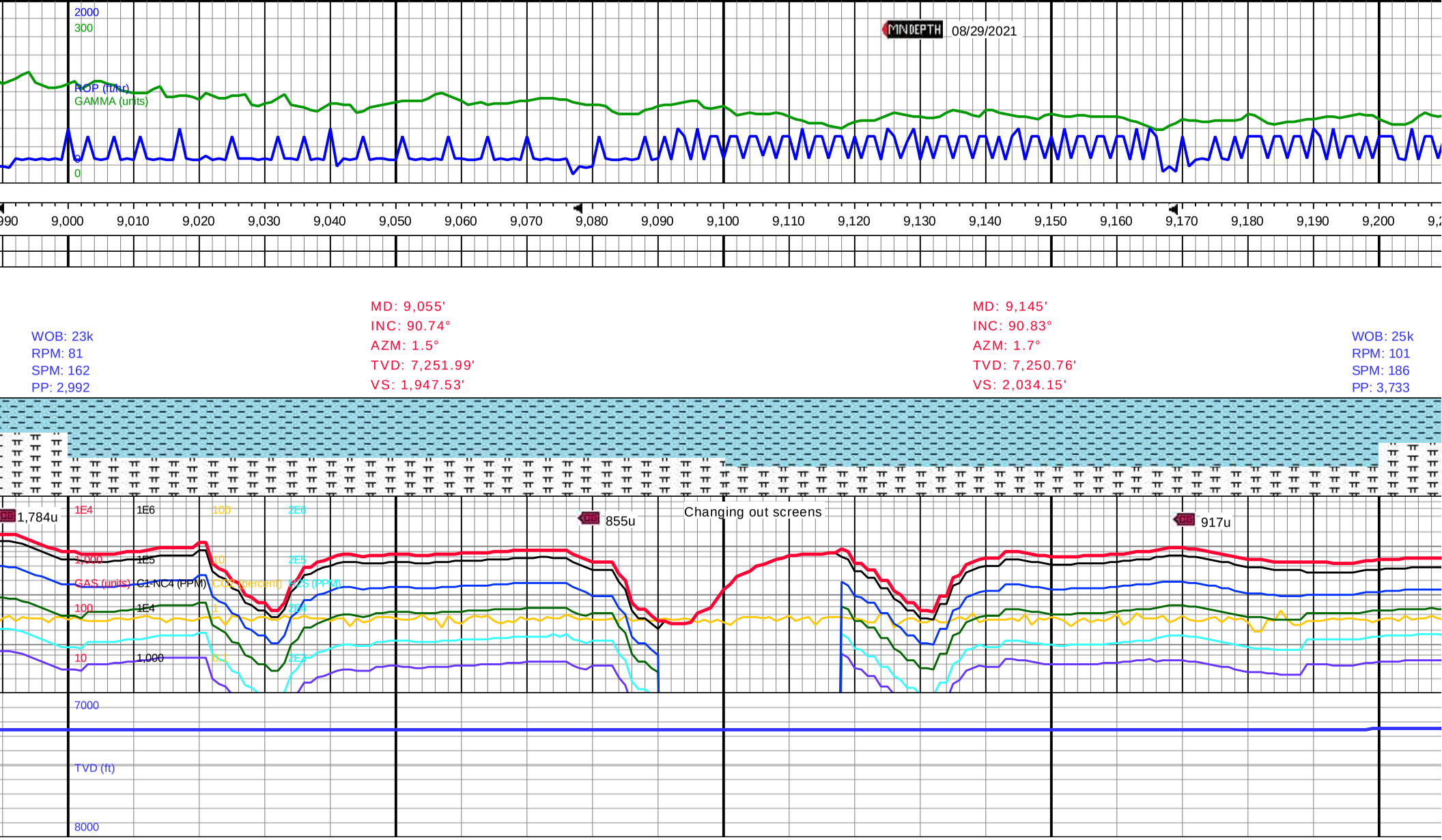
MD: 8,965'
INC: 90.8°
AZM: 1.3°
TVD: 7,253.2'
VS: 1,861.01'



75% MRLST: dk gry- gry, occ dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, sme slt, cly abnt, mod calc; 25% CHK: med gry- gry, occ tn- crm, mot lt brn, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr pyr

75% MRLST: dk gry- med gry, sme dk brn, mot lt brn, frm- mod frm, sb blky- blky, rthy tex, sme mmica incl, slty, sme cly lam, mod calc, tr pp pyr; 25% CHK: med gry- lt gry, occ lt brn- crm, mot tn- offwht, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas

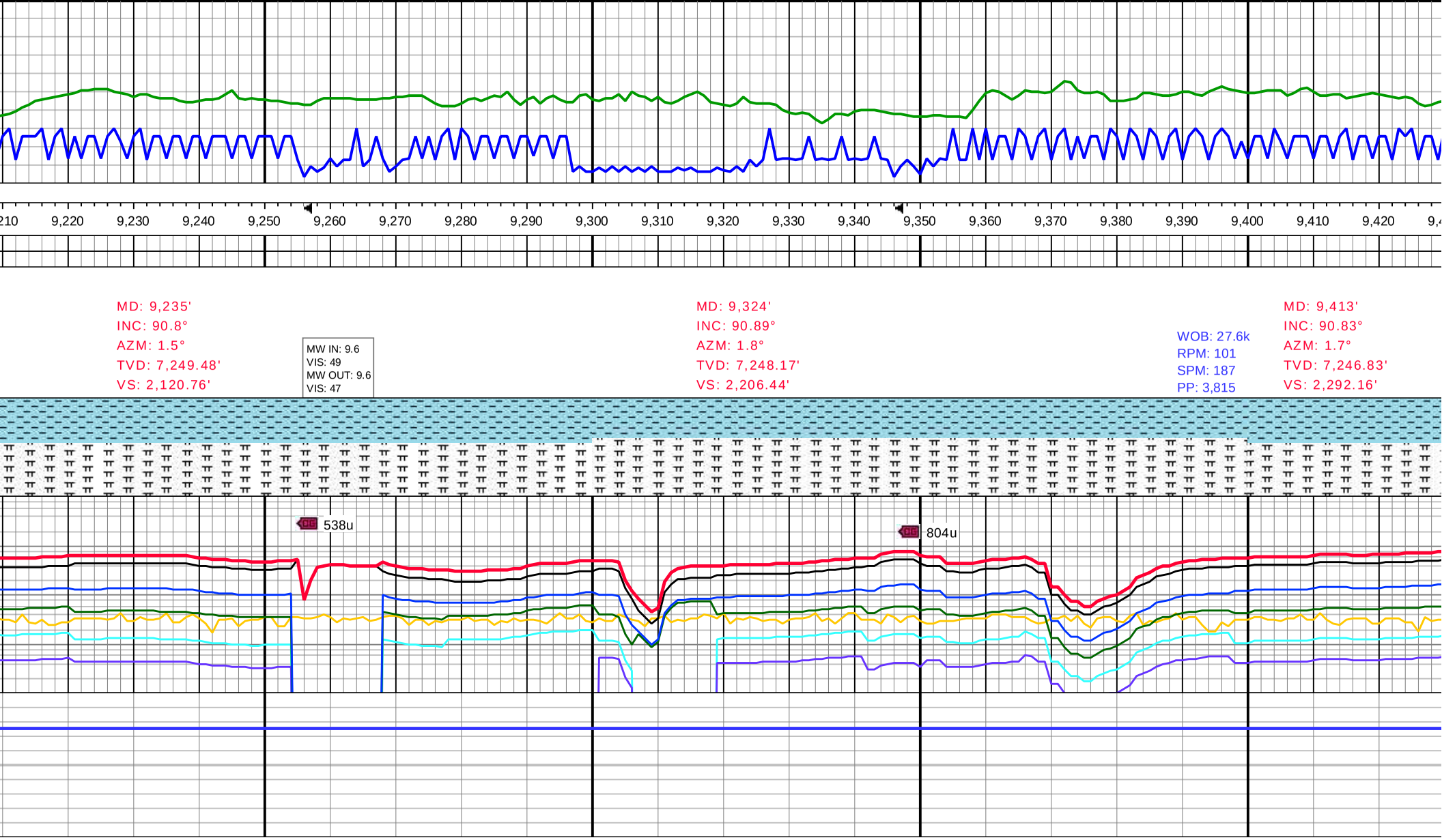
65% MRLST: predy gry, occ dk brn, mo brn, frm- mod frm, rthy tex, mmica inc cly abnt, mod calc; med gry- gry, occ lt spty offwht- tn, mod blky- blky, rthy tex, mas, tr pyr



dk gry- med
t lt brn- dk
sb blky- blky,
l, sme slt,
35% CHK:
brn- crm,
d frm- frm, sb
micxln, dns-

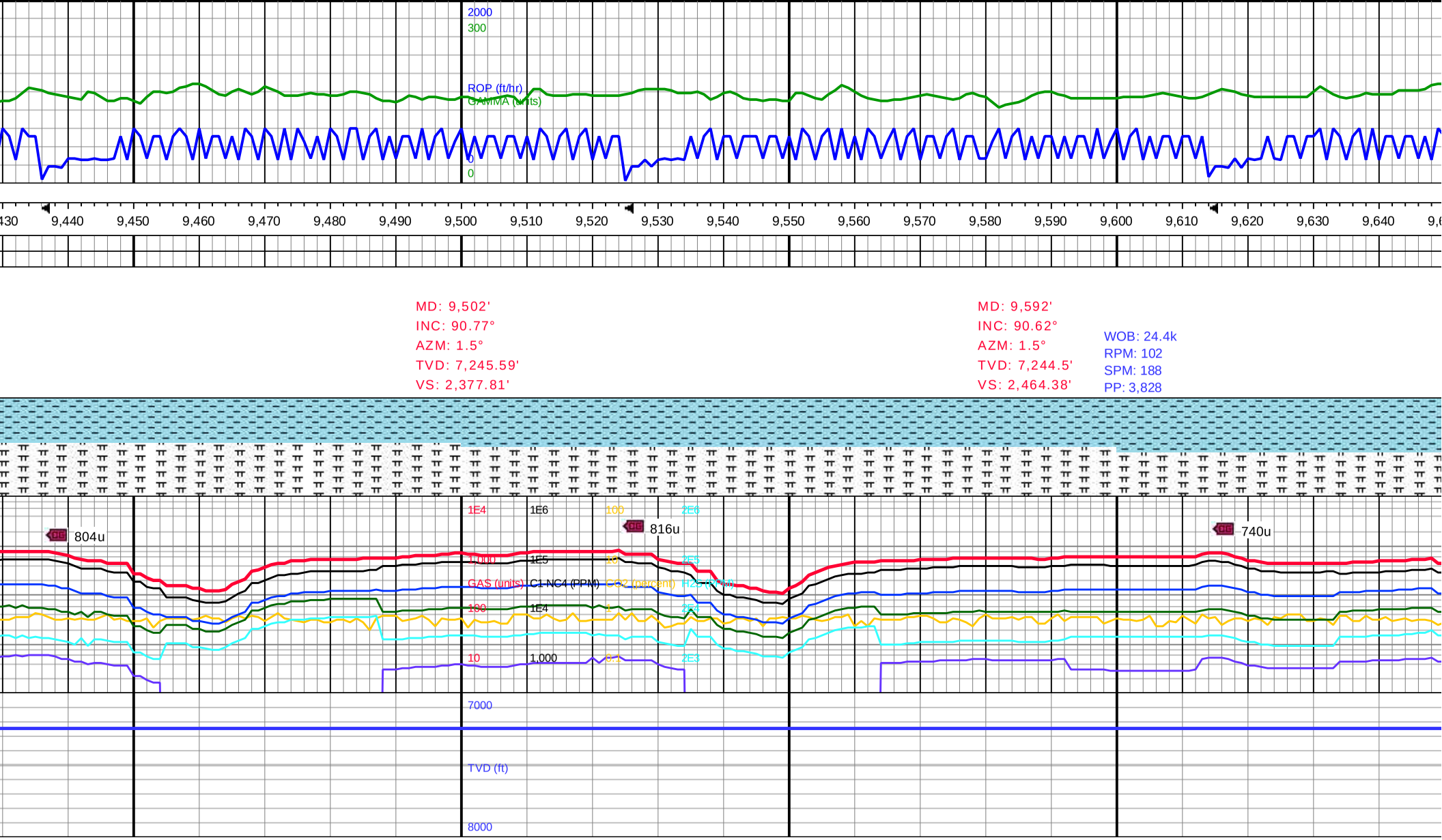
60% CHK: lt gry- gry, occ tn- crm, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr dissm pyr; 40% MRLST: med gry- dk gry, occ brn, spty brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, sme slt, cly abnt, mod- v calc

70% CHK: predy med gry- lt gry, occ lt brn- crm, mot lt brn, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, occ dissm pyr; 30% MRLST: dk gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, sme slt, tr cly lam, mod- v calc



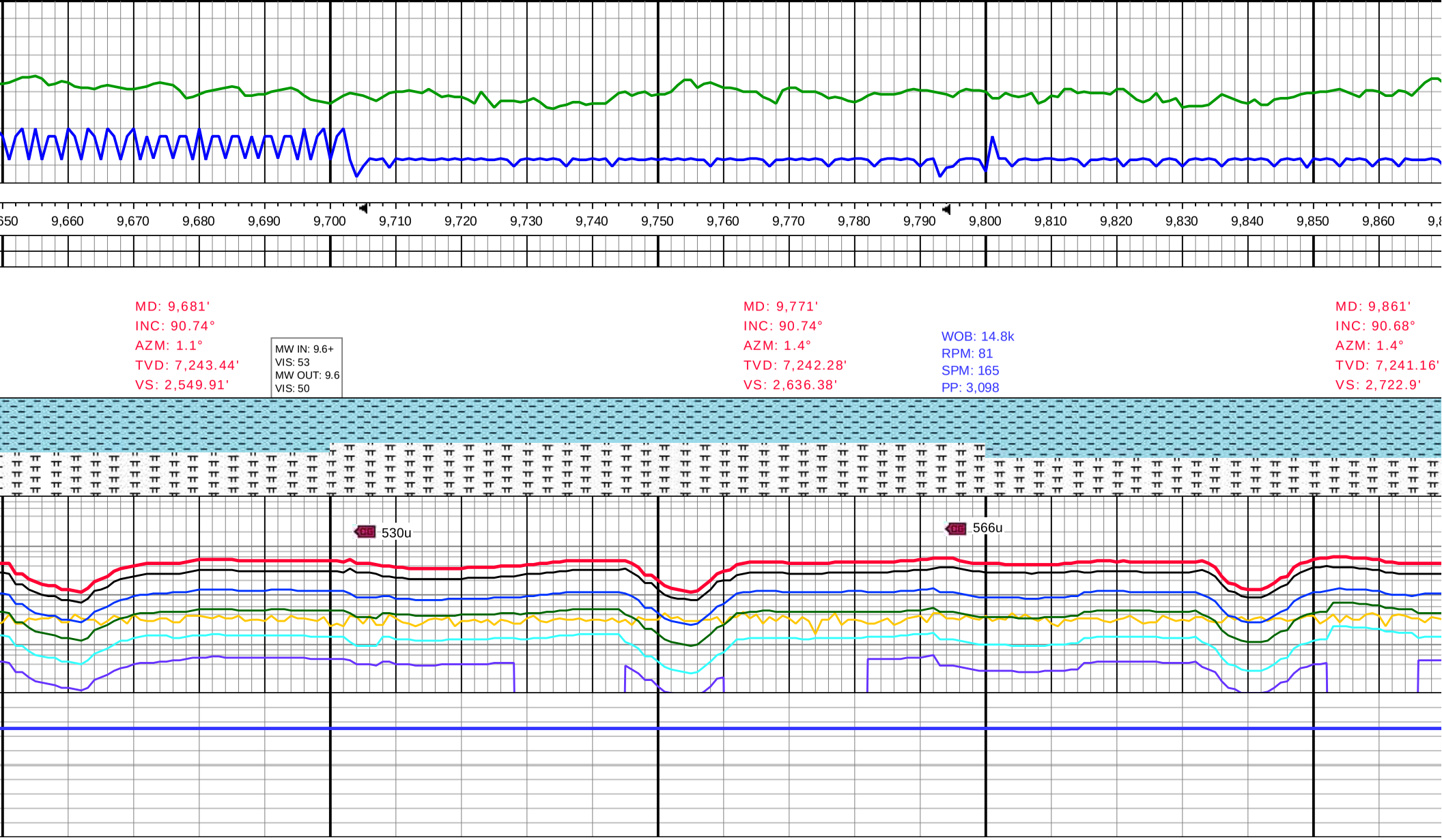
50% MRLST: med gry- gry, mot lt brn- dk brn, mod frm- frm, sb blky- blky, rthy tex, mmica incl, slty ip, cly abnt, mod calc; 50% CHK: lt gry- gry, sme crm- offwht, mot lt brn, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr vugy pyr

60% MRLST: med gry- dk gry, sme lt brn- brn, mot dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, sme slt, occ cly lam, mod calc, tr pyr incl; 40% CHK: lt gry- med gry, occ spty lt brn- crm, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr pp pyr



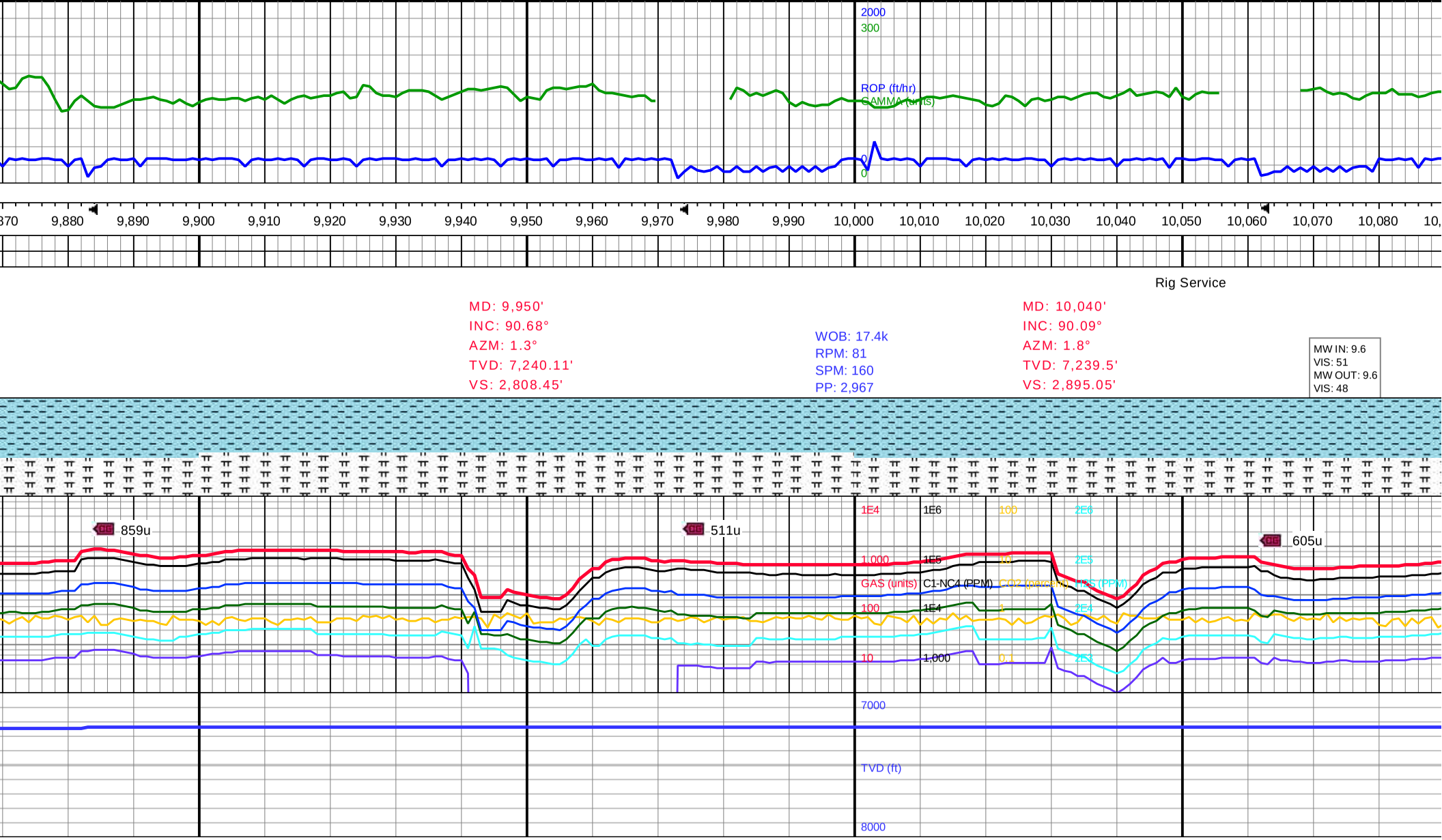
55% MRLST: dk gry- med gry, sme dk brn, mot lt brn- tn, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, sme cly lam, mod calc, tr pyr; 45% CHK: lt gry- med gry, occ spty lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr dissm pyr

50% CHK: predy lt gry- med gry, occ lt brn- crm, mot tn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, tr pp pyr; 50% MRLST: gry- dk gry, sme brn, spty dk brn & crm, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, tr cly lam, mod- v calc



55% CHK: med gry- lt gry, occ lt brn- crm, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, tr dissm pyr; 45% MRLST: gry- dk gry, occ dk brn, mot brn- offwht, frm- mod frm, blky- sb blky, rthy tex, mmica incl, sme slt, cly lam, mod calc

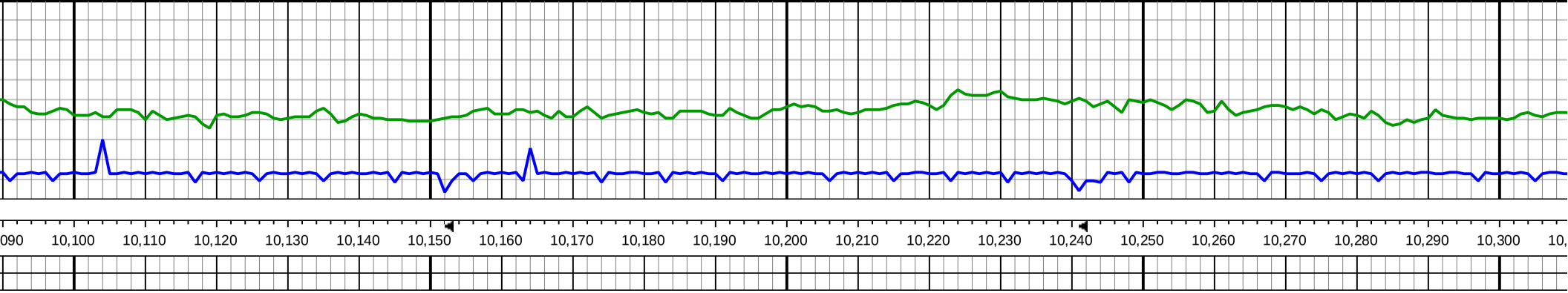
55% MRLST: med gry- gry, sme lt brn- dk brn, mot tn- crm, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, sme cly lam, mod calc, tr pyr incl; 45% CHK: lt gry- med gry, occ spty offwht- lt brn, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, sme dissm pyr



60% CHK: predy lt gry- med gry, occ lt brn, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, tr pp pyr; 40% MRLST: dk gry- gry, sme dk brn, mot lt brn- offwht, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, cly lam, mod calc

55% CHK: predy med gry- lt gry, sme lt brn- tn, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, tr pp pyr; 45% MRLST: dk gry- gry, occ dk brn, mot lt brn- offwht, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, cly lam, mod calc

60% CHK: lt gry- lt gry, mot lt brn- crm frm, sb blky- blky, wxy, micxln, dns- 40% MRLST: gry- brn, mot lt brn- off frm, blky- sb blky, mmica incl, slty, cl calc

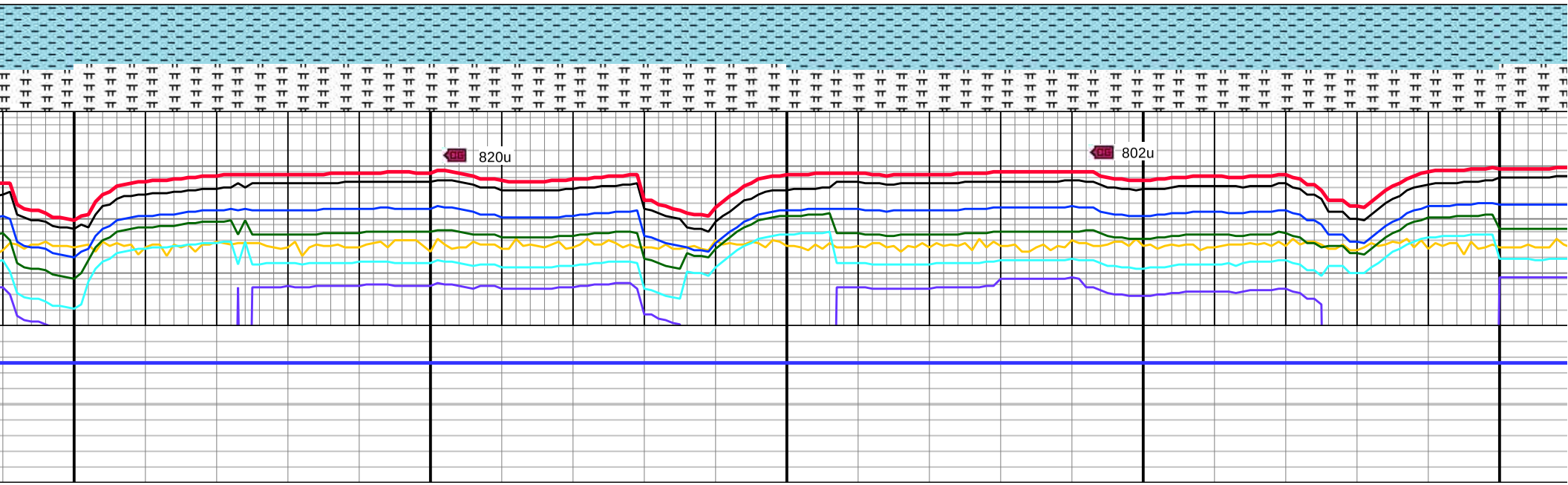


MD: 10,129'
INC: 90.25°
AZM: 2.6°
TVD: 7,239.24'
VS: 2,980.98'

WOB: 21k
RPM: 81
SPM: 160
PP: 3,122

MD: 10,219'
INC: 90.46°
AZM: 2.6°
TVD: 7,238.68'
VS: 3,068.02'

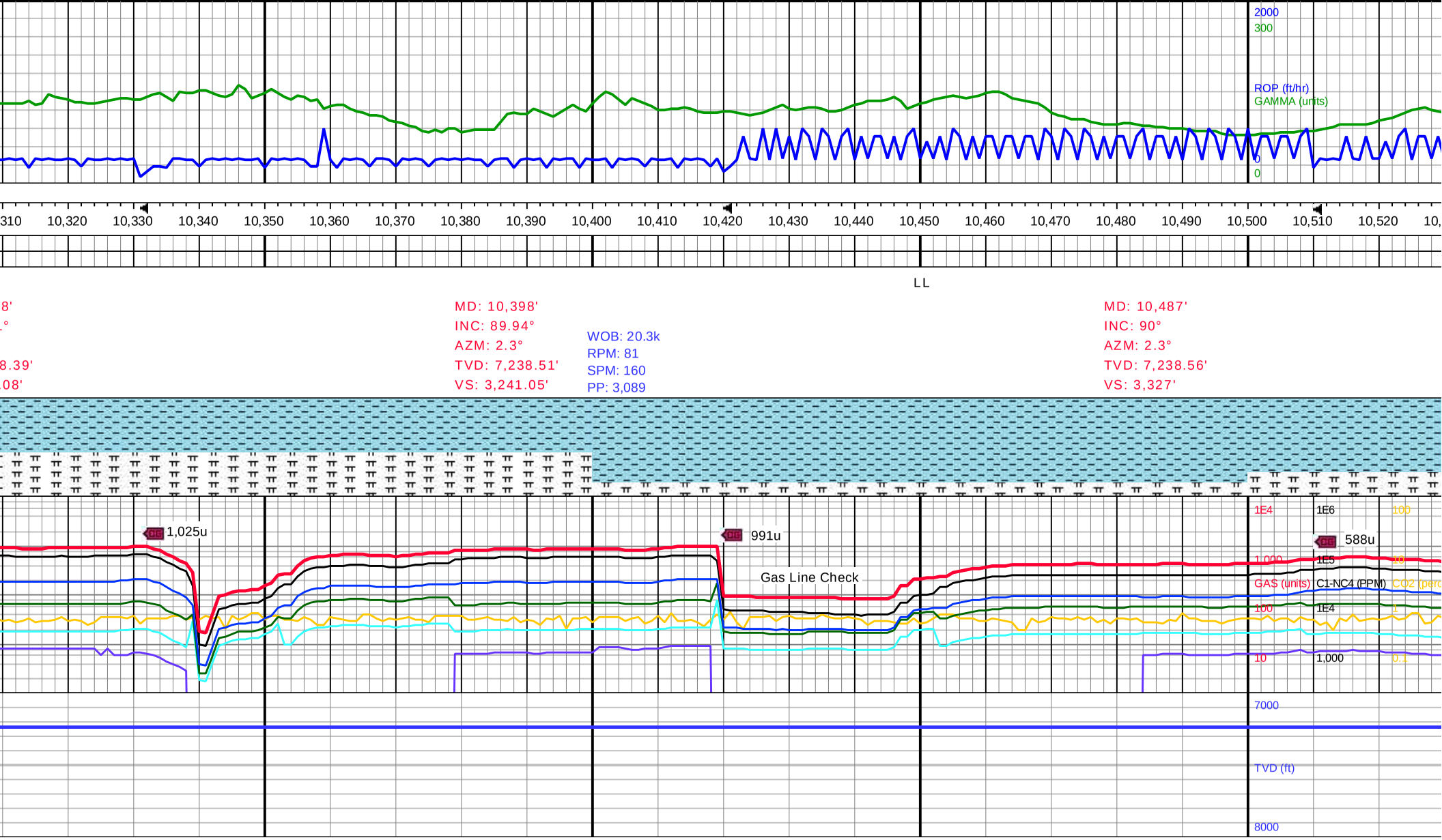
MD: 10,30
INC: 89.91
AZM: 2.6°
TVD: 7,23
VS: 3,154



brn, sme med
n, mod frm-
rthy tex, sme
mas, tr pyr;
dk gry, occ dk
wht, frm- mod
rthy tex,
y lam, mod

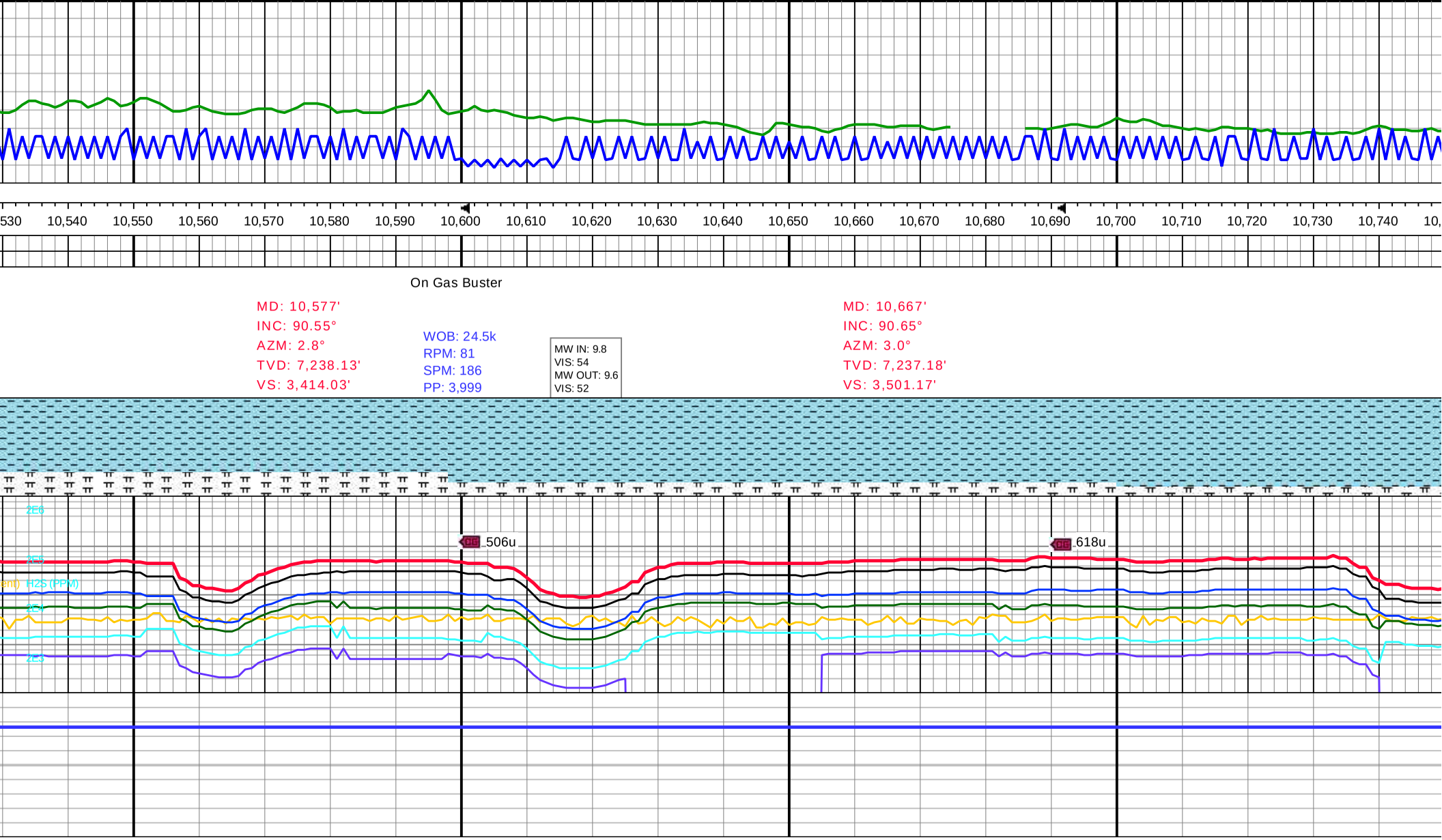
55% CHK: lt gry- lt brn, sme med gry, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, tr pyr; 45% MRLST: gry- dk gry, occ dk brn, mot lt brn- offwht, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, cly lam, mod calc

60% CHK: lt gry- med gry, occ lt brn- tn, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pyr; 40% MRLST: dk gry- gry, occ lt brn- dk brn, mot lt brn- offwht, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, cly lam, mod calc



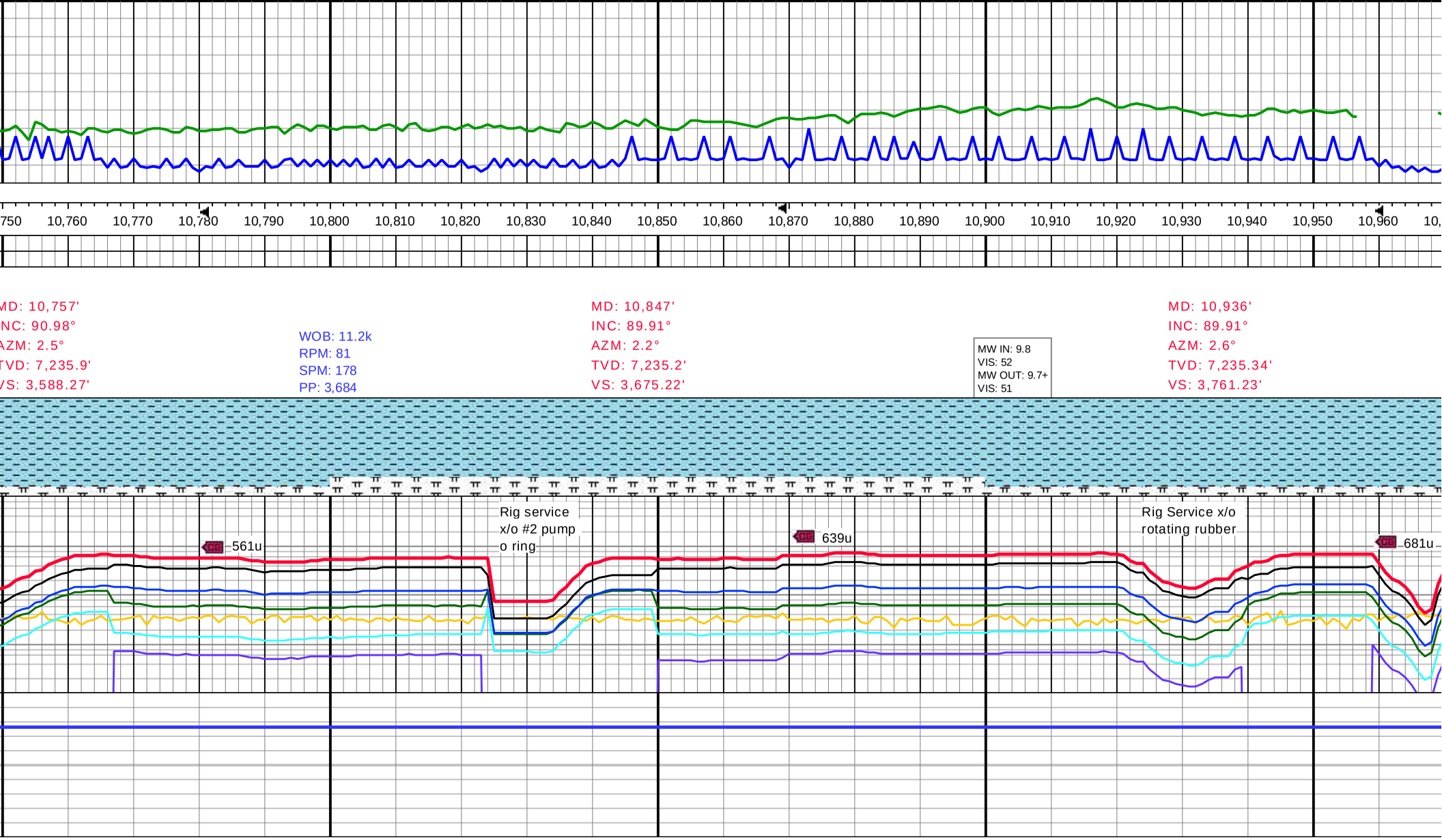
55% CHK: predy lt gry- med gry, occ lt brn- brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy- tex, micxln, dns- mas, tr pp pyr; 45% MRLST: dk gry- gry, occ lt brn- dk brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, mod calc

85% CHK: predy lt gry- med gry, occ lt brn- brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy- tex, micxln, dns- mas, tr pp pyr; 15% MRLST: dk gry- gry, occ lt brn- dk brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, mod calc



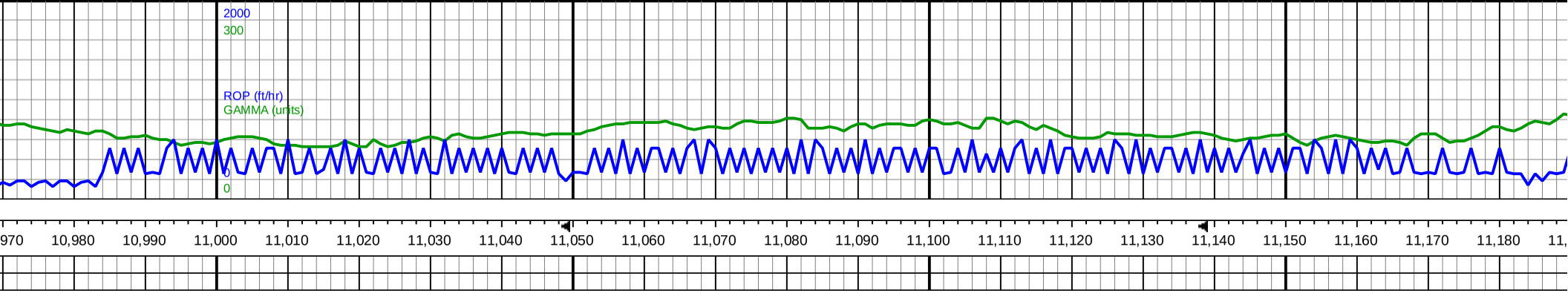
75% CHK: lt gry- med gry, occ lt brn- med brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr pp pyr; 25% MRLST: dk gry- gry, sme med gry brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, tr scat calc incl, mod calc

85% CHK: lt gry- med gry, occ lt brn- med brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr pp pyr; 15% MRLST: dk gry- gry, sme med gry brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, scat calc incl, sl calc mic lam, mod calc



90% CHK: lt gry- med gry, occ lt brn- med brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr pp pyr; 10% MRLST: dk gry- gry, sme med gry brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, scat calc incl, sl calc mic lam, tr cal frac fl, mod calc

80% CHK: gry- med dk gry, tr lt brn- med brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr pp pyr; 20% MRLST: dk gry- gry, sme med gry brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, scat calc incl, sl calc mic lam, fnt tr vf dissm pyr, mod calc



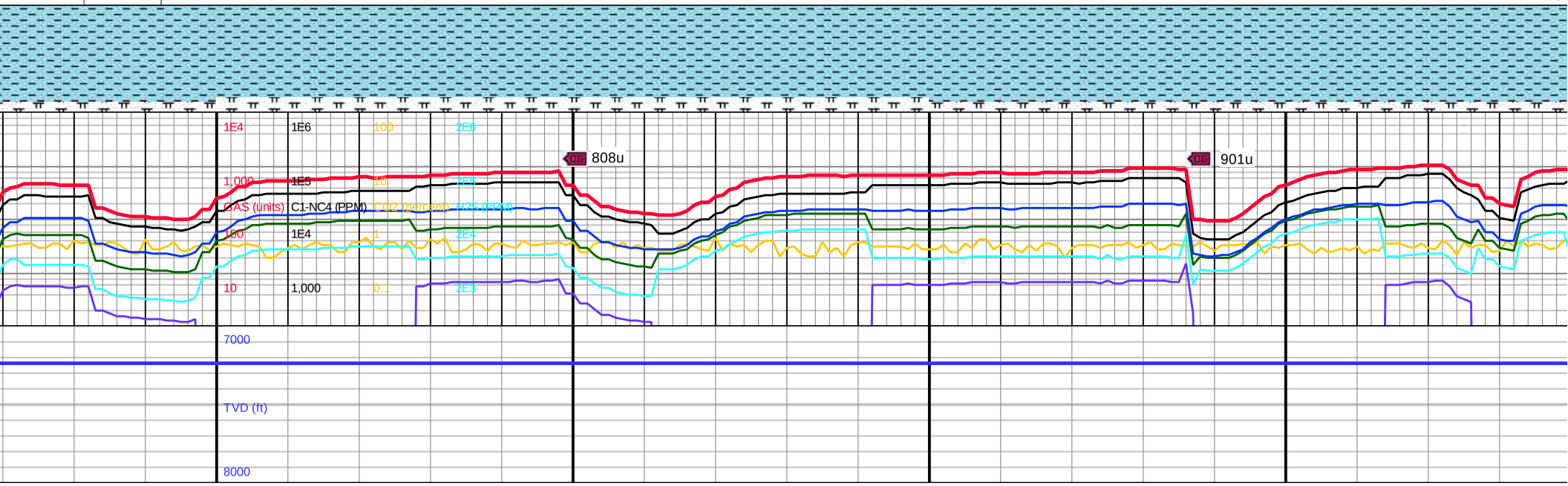
MW IN: 9.8
VIS: 52
MW OUT: 9.8
VIS: 52

WOB: 25.8k
RPM: 81
SPM: 178
PP: 3,906

MD: 11,026'
INC: 89.85°
AZM: 1.4°
TVD: 7,235.53'
VS: 3,848.02'

MD: 11,116'
INC: 91.05°
AZM: 1.1°
TVD: 7,234.83'
VS: 3,934.47'

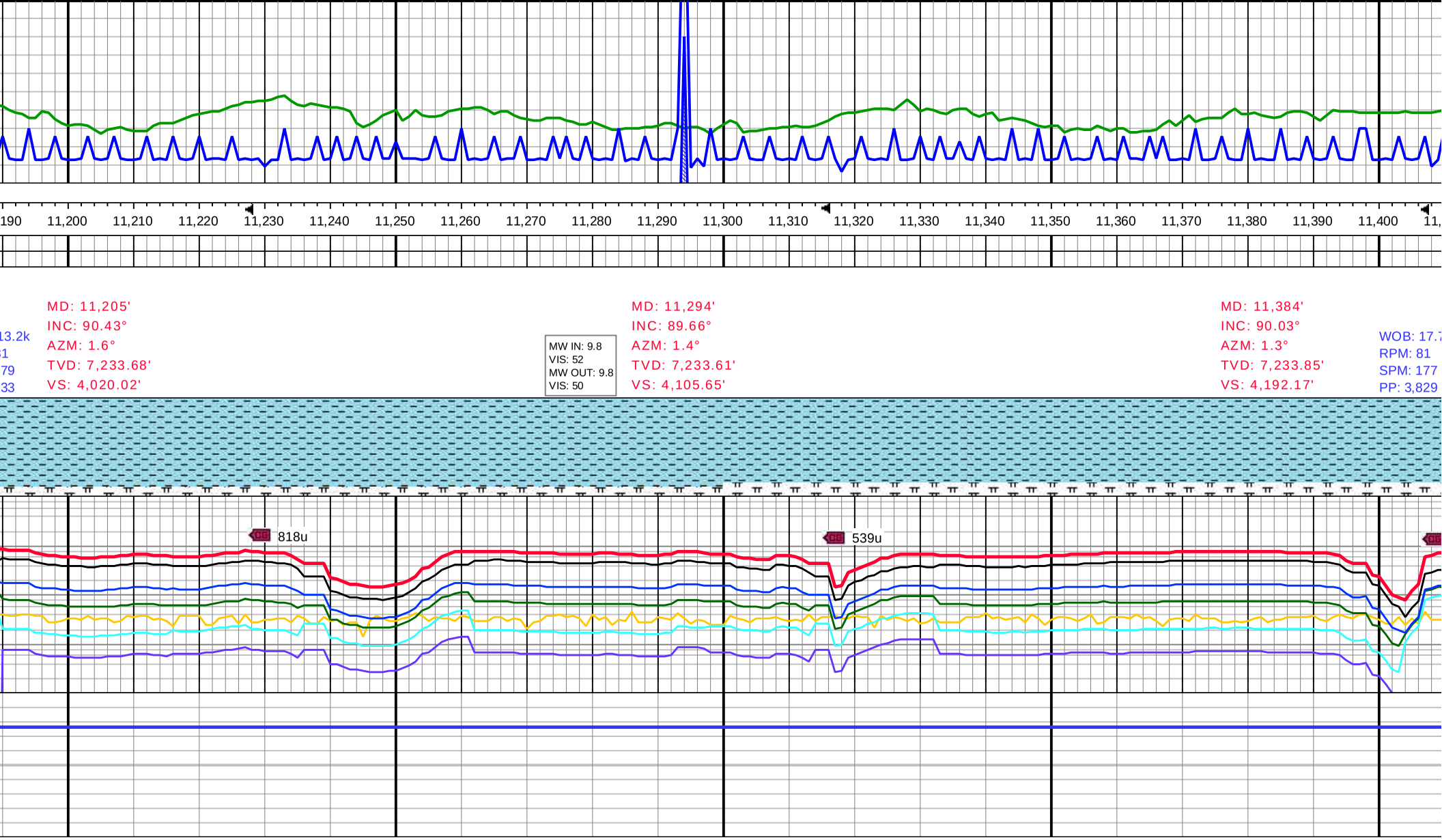
WOB:
RPM: 8
SPM: 1
PP: 3,8



90% CHK: gry- med dk gry, tr lt brn- med brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, tr xl cal; 10% MRLST: dk gry- gry, sme med gry brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, tr mmica incl, slty, tr cly lam, tr calc incl, tr cal frac fl, mod calc

85% CHK: gry- mot dk gry, sme lt gry, lt gry brn- med gry brn, scat tan- offwht, mod frm- frm, sme fri, sb blky- blky, rthy- slty, mod micxln, dns- mas, scat cal frac fl; 15% MRLST: dk gry- gry, gry brn, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty- rthy tex, tr cly lam, mod calc incl, sl calc mic lam, tr cal frac fl, mod calc

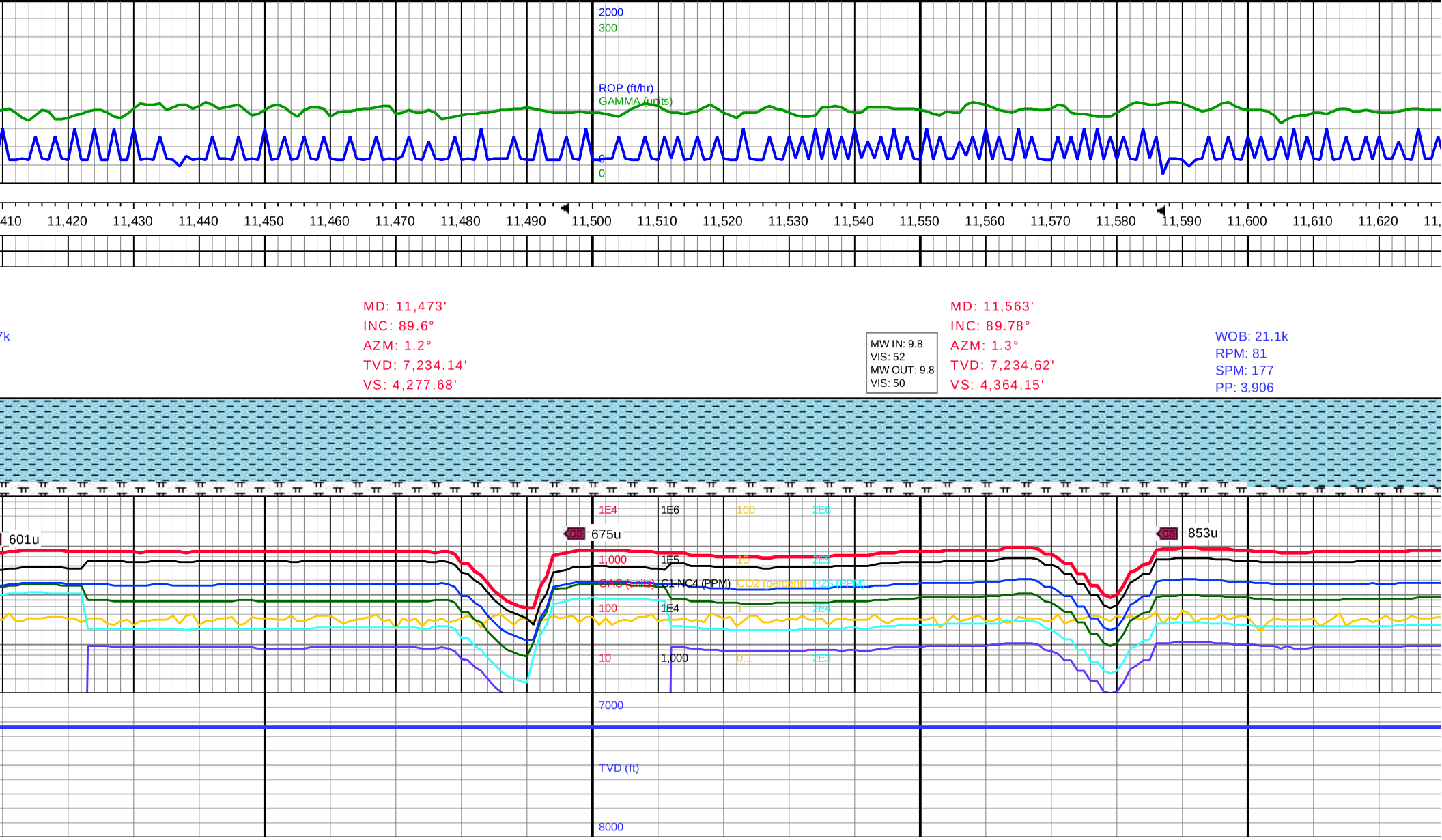
90% CHK: gry- mot dk
offwht, occ tn- med br
sme fri, sb blky- blky,
dns- mas, tr pp pyr, tr
fl; 10% MRLST: dk gry
mot offwht-tan, frm- m
blky, rthy tex, sme mr
occ cly lam, mod calc
lam, tr cal frac fl, mod



k gry, occ lt gry-
rn, mod frm- frm,
rthy, micxln,
xl cal, tr cal frac
y- gry, gry brn,
nod frm, sb blky-
nica incl, slty,
incl, sl calc mic
calc

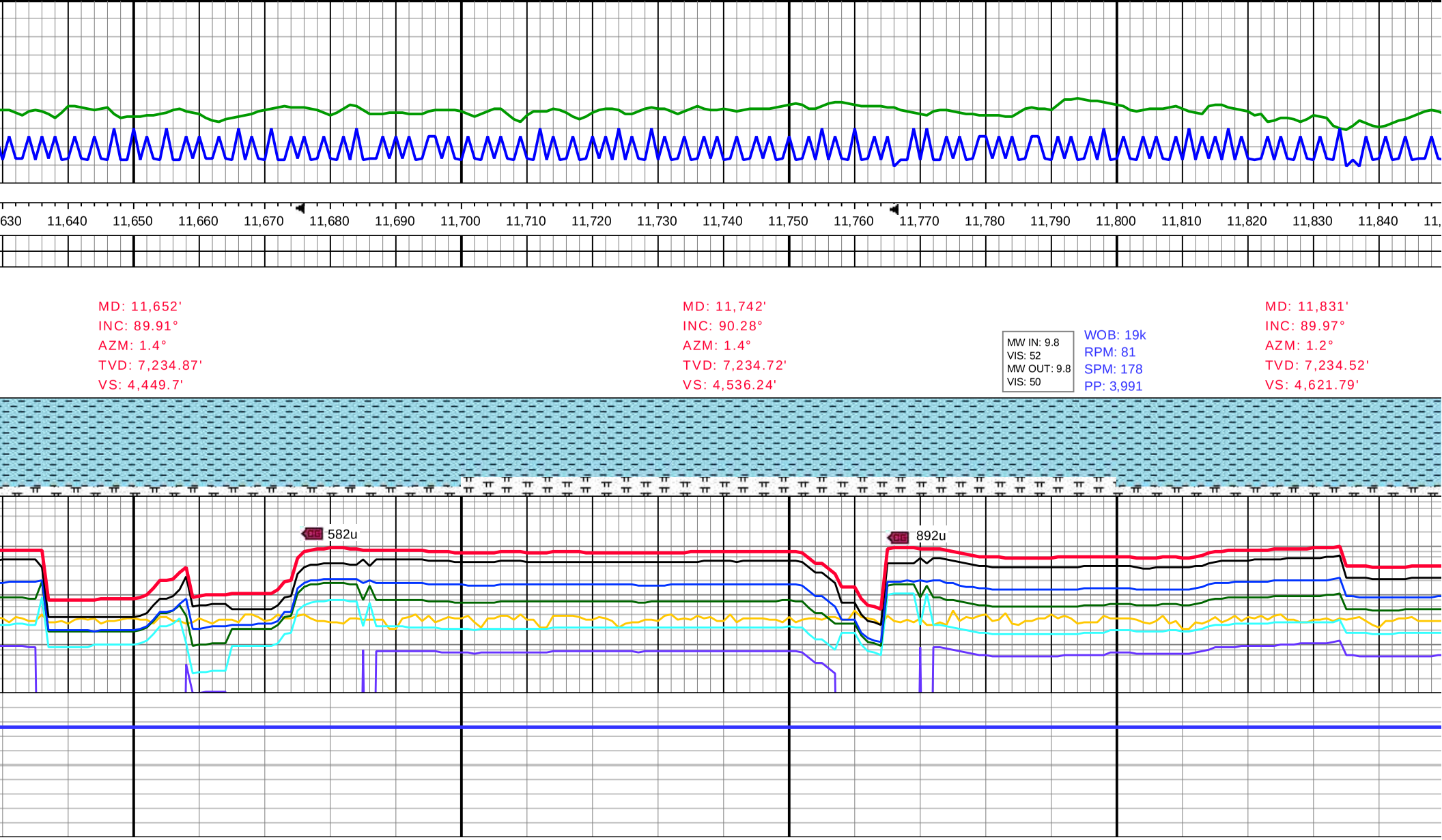
90% CHK: mot gry- lt gry, occ lt brn-
med brn, mot tn- offwht, mod frm- frm,
sme fri, sb blky- blky, rthy, micxln,
dns- mas; 10% MRLST: dk gry- gry,
mot gry brn, frm- mod frm, sb blky-
blky, rthy-slty tex, mmica incl, tr cly
lam, occ calc incl, sl calc mic lam, fnt
tr cal frac fl, mod calc

85% CHK: gry- mot med dk gry, occ lt
brn- med brn, mot tn- offwht, mod frm-
frm, sme fri, sb blky- blky, rthy, micxln,
dns- mas, tr xl cal; 15% MRLST: dk
gry- gry, mot gry brn, frm- mod frm, sb
blky- blky, rthy-slty tex, mmica incl, tr
cly lam, occ calc incl, sl calc mic lam,
fnt tr cal frac fl, mod calc



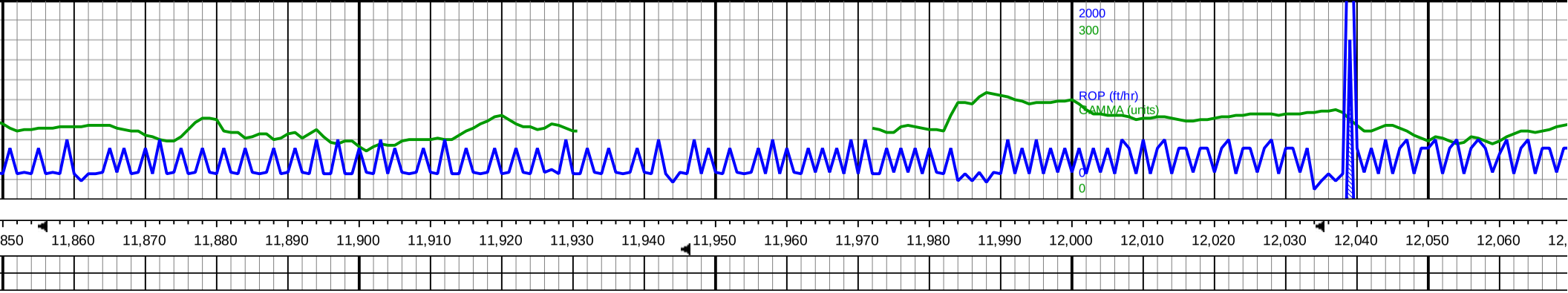
85% CHK: gry- mot med dk gry- lt gry, occ lt brn- med brn, mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy, micxln, dns- mas, rr pp pyr, tr xl cal, tr cal frac fl; 15% MRLST: dk gry- gry, mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc

85% CHK: gry- dk gry, sme med brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy, micxln, dns- mas, occ pp pyr, tr cal frac fl; 15% MRLST: dk gry- gry, mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc



90% CHK: gry- dk gry, sme med brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy, micxln, dns- mas, occ pp pyr, tr cal frac fl; 10% MRLST: dk gry- gry, mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc

80% CHK: gry- dk gry, sme med brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy, micxln, dns- mas, occ pp pyr, tr cal frac fl; 20% MRLST: dk gry- gry, mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc

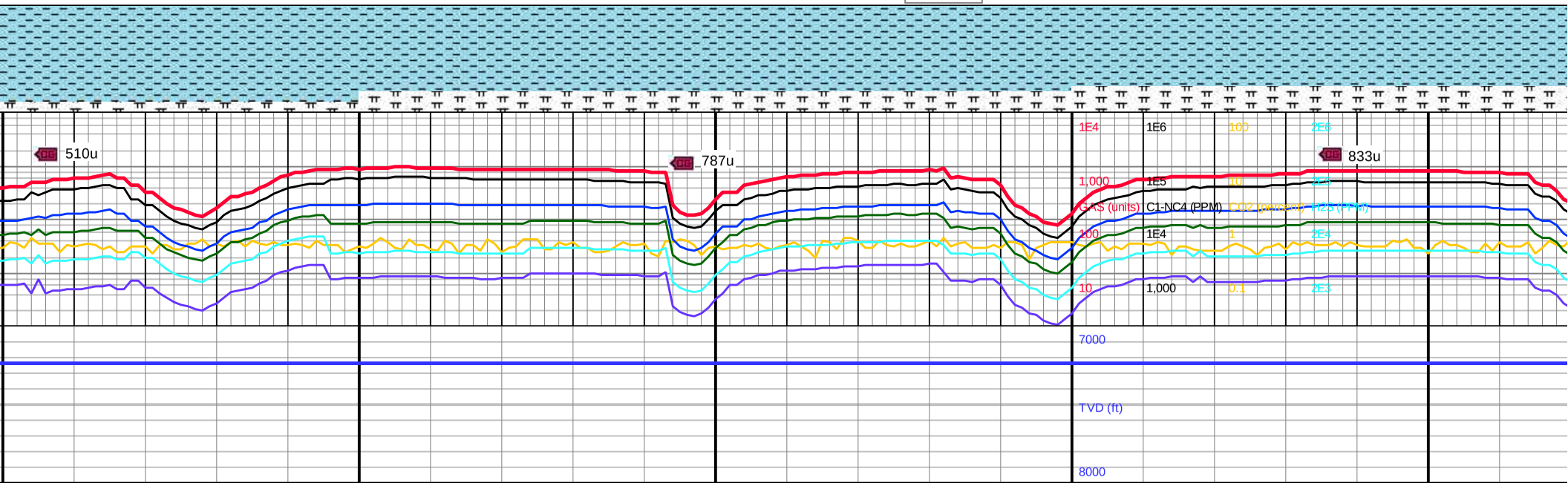


MD: 11,921'
INC: 90.18°
AZM: 1.4°
TVD: 7,234.4'
VS: 4,708.29'

MW IN: 9.8
VIS: 51
MW OUT: 9.8
VIS: 49

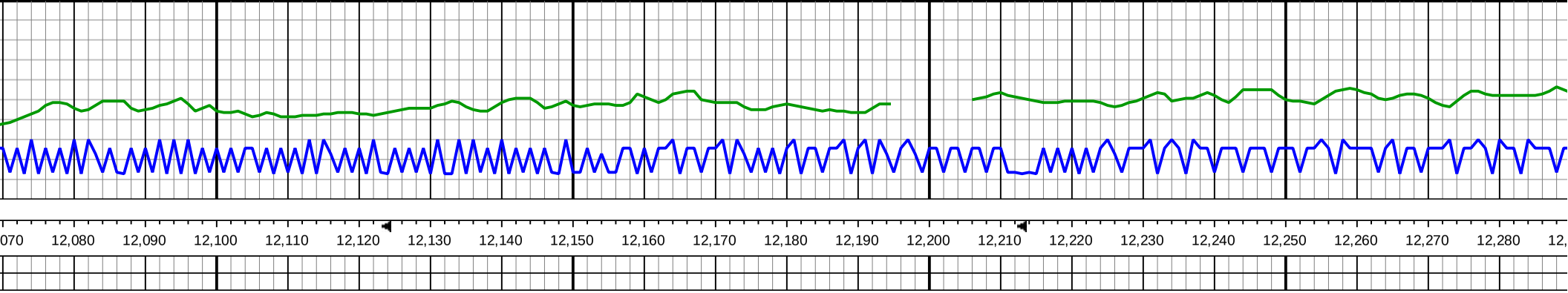
WOB: 24.6k
RPM: 81
SPM: 177
PP: 3,954

MD: 12,010'
INC: 90.09°
AZM: 1.2°
TVD: 7,234.19'
VS: 4,793.82'



90% CHK: gry- dk gry, sme med brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy, micxln, dns- mas, occ pp pyr, tr cal frac fl; 10% MRLST: dk gry- gry, mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc

80% CHK: med gry- dk gry, sme med brn- gry brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy, micxln, dns- mas, occ pp pyr, tr cal frac fl; 20% MRLST: dk gry- gry, mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc

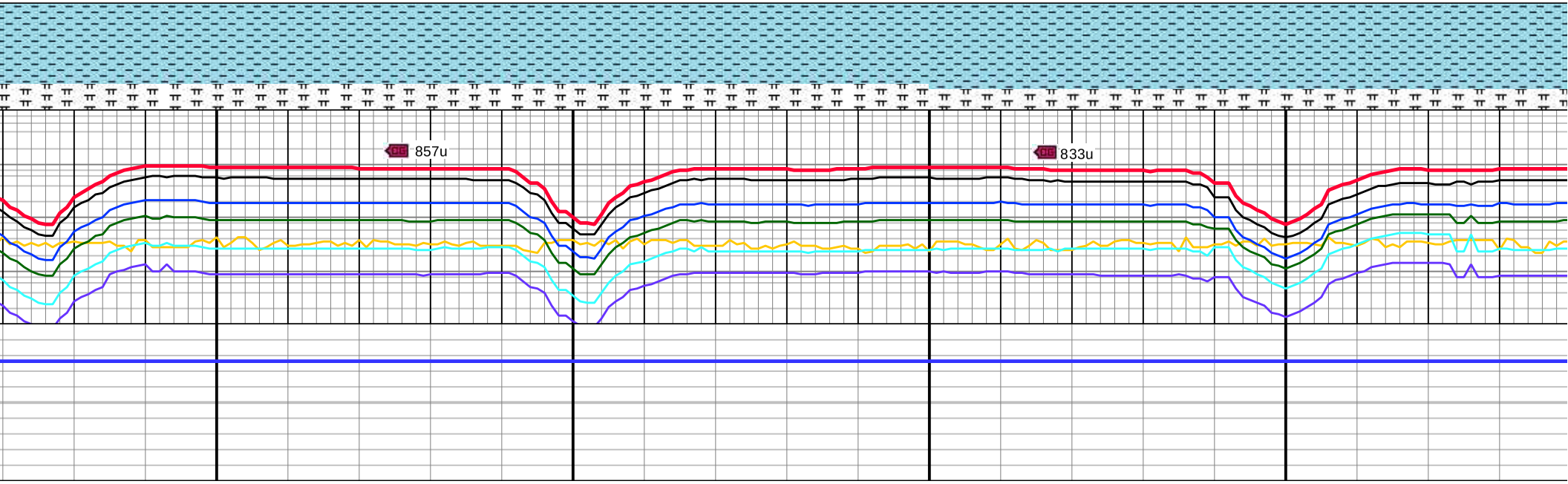


MD: 12,100'
INC: 90.06°
AZM: 1.2°
TVD: 7,234.08'
VS: 4,880.28'

MD: 12,189'
INC: 89.91°
AZM: 0.6°
TVD: 7,234.1'
VS: 4,965.66'

WOB: 37.5k
RPM: 66
SPM: 178
PP: 4,163

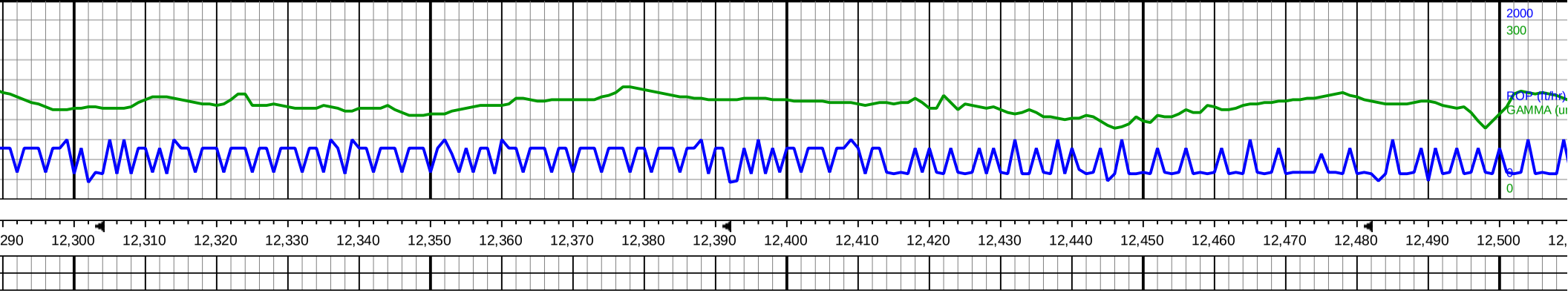
MD: 12,279'
INC: 89.94°
AZM: 0.9°
TVD: 7,234.22'
VS: 5,051.93'



75% CHK: med gry- dk gry, sme med
brn- gry brn, scat mot tn- offwht, mod
frm- frm, sme fri, sb blky- blky, rthy,
micxln, dns- mas, occ pp pyr, tr cal
frac fl; 25% MRLST: dk gry- gry, mot
gry brn, frm- mod frm, sb blky- blky,
rthy-slty tex, mmica incl, tr cly lam,
occ calc nod incl, sl calc mic lam,
scat cal frac fl, tr xl cal, mod calc

75% CHK: med gry- dk gry, sme med
brn- gry brn, scat mot tn- offwht, mod
frm- frm, sme fri, sb blky- blky, rthy,
micxln, dns- mas, occ pp pyr, tr cal
frac fl; 25% MRLST: dk gry- gry, mot
gry brn, frm- mod frm, sb blky- blky,
rthy-slty tex, mmica incl, tr cly lam,
occ calc nod incl, sl calc mic lam,
scat cal frac fl, tr xl cal, mod calc

80% CHK: med gry- dk
brn- gry brn, scat mot
frm- frm, sme fri, sb bl
tex, sl mmica, micxln,
tr pyr nod; 20% MRLST
brn, frm- mod frm, sb
rthy-slty tex, mmica inc
occ calc nod incl, sl ca
scat cal frac fl, tr xl cal

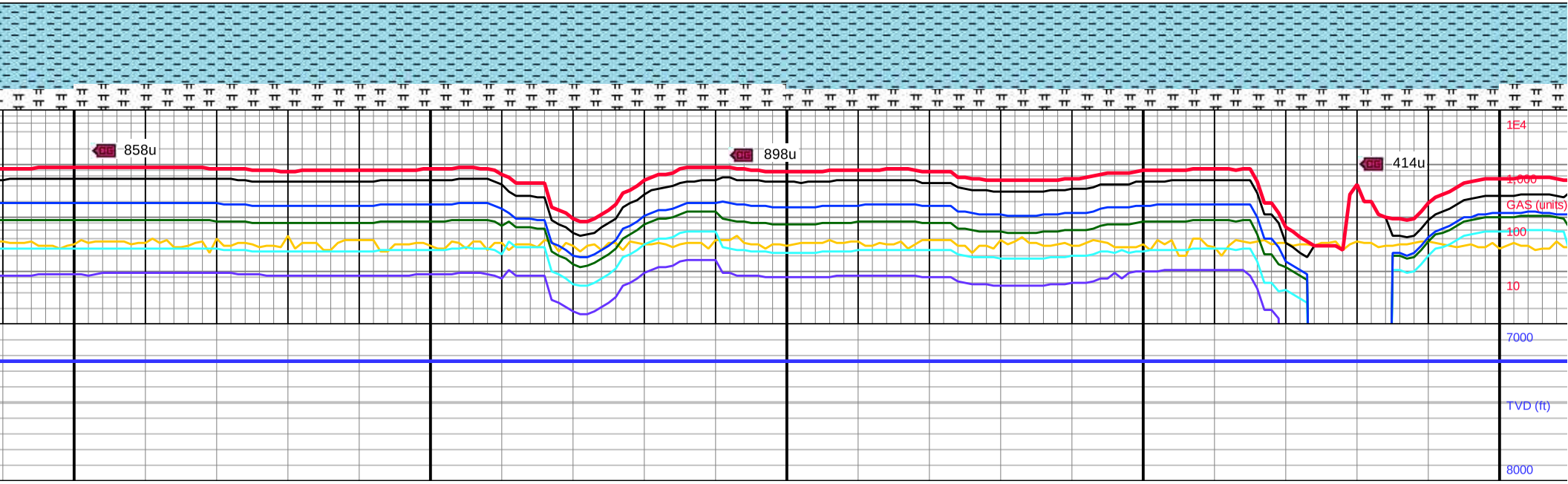


MW IN: 9.8
VIS: 51
MW OUT: 9.7+
VIS: 49

MD: 12,369'
INC: 90.06°
AZM: 1.1°
TVD: 7,234.22'
VS: 5,138.31'

WOB: 27.5k
RPM: 66
SPM: 178
PP: 4,155

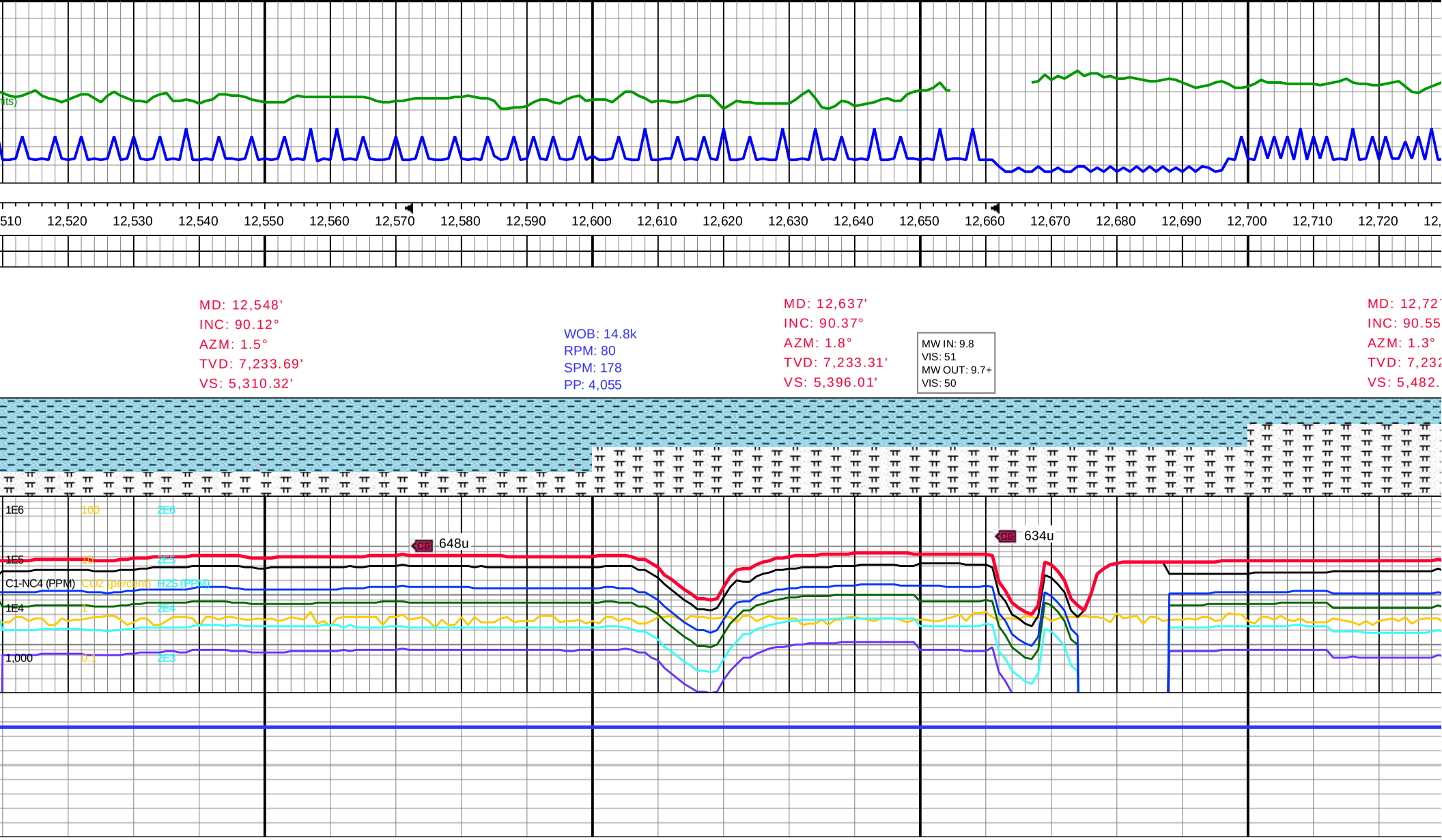
MD: 12,458'
INC: 90.25°
AZM: 1.3°
TVD: 7,233.98'
VS: 5,223.79'



gry, sme med
tn- offwht, mod
ky- blky, rthy
dns- mas, v fnt
T: dk gry- mot gry
blky- blky,
cl, tr cly lam,
lc mic lam,
, mod calc

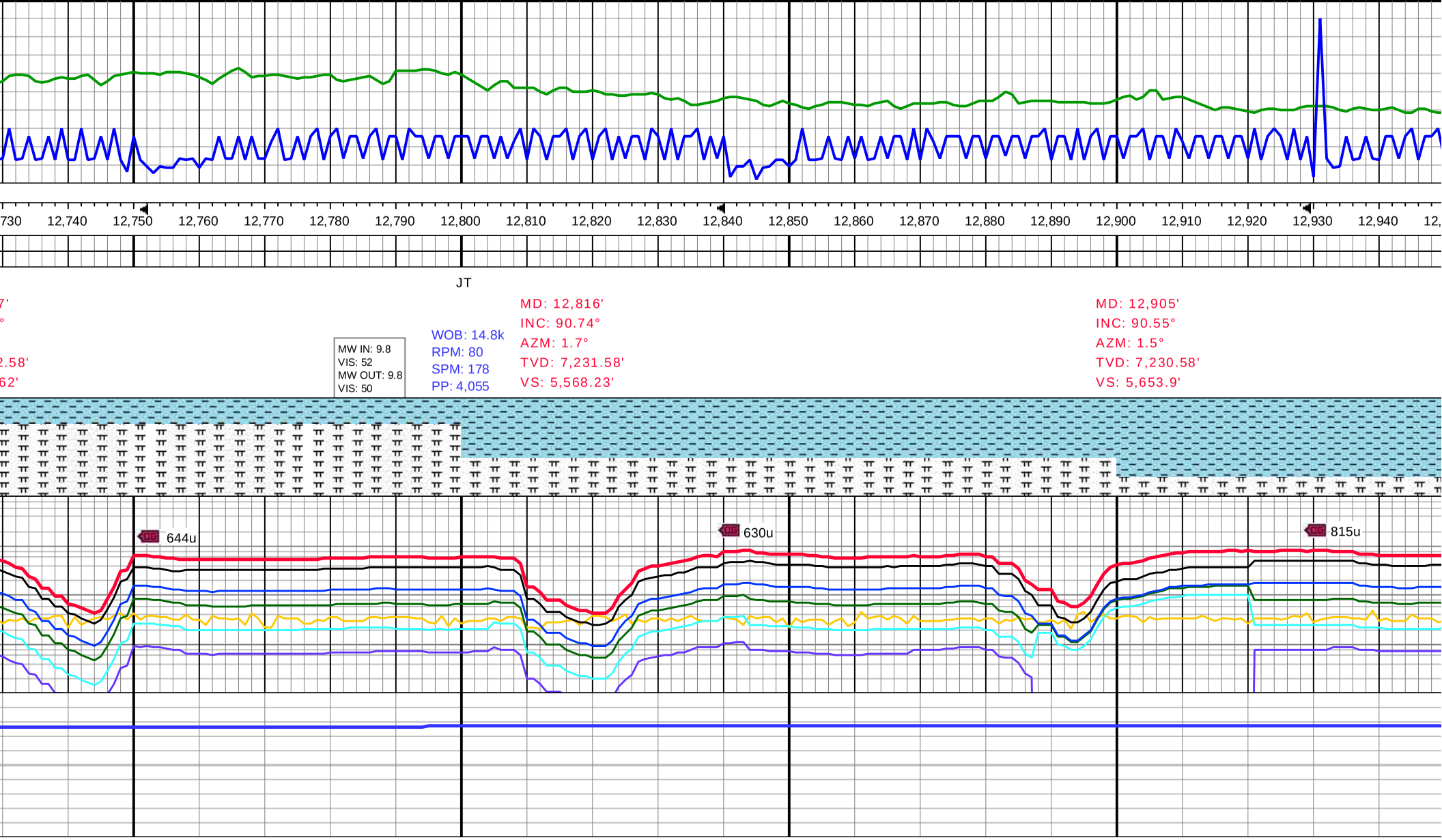
75% CHK: med gry- dk gry, sme med brn- gry brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy tex, sl mmica, micxln, dns- mas, v fnt tr pyr nod; 25% MRLST: dk gry- mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc

80% CHK: med gry- dk gry, occ med brn- gry brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy tex, sl mmica, micxln, dns- mas, v fnt tr pyr nod; 20% MRLST: dk gry- mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, scat cal frac fl, tr xl cal, mod calc



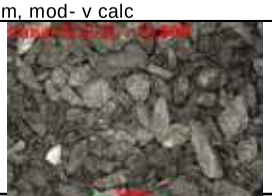
70% CHK: med gry- dk gry, occ med brn- gry brn, scat mot tn- offwht, mod frm- frm, sme fri, sb blky- blky, rthy tex, fnt tr mmica, micxln, dns- mas; 30% MRLST: dk gry- mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, fn tr mmica incl, tr cly lam, occ calc nod incl, sl calc mic lam, mod calc

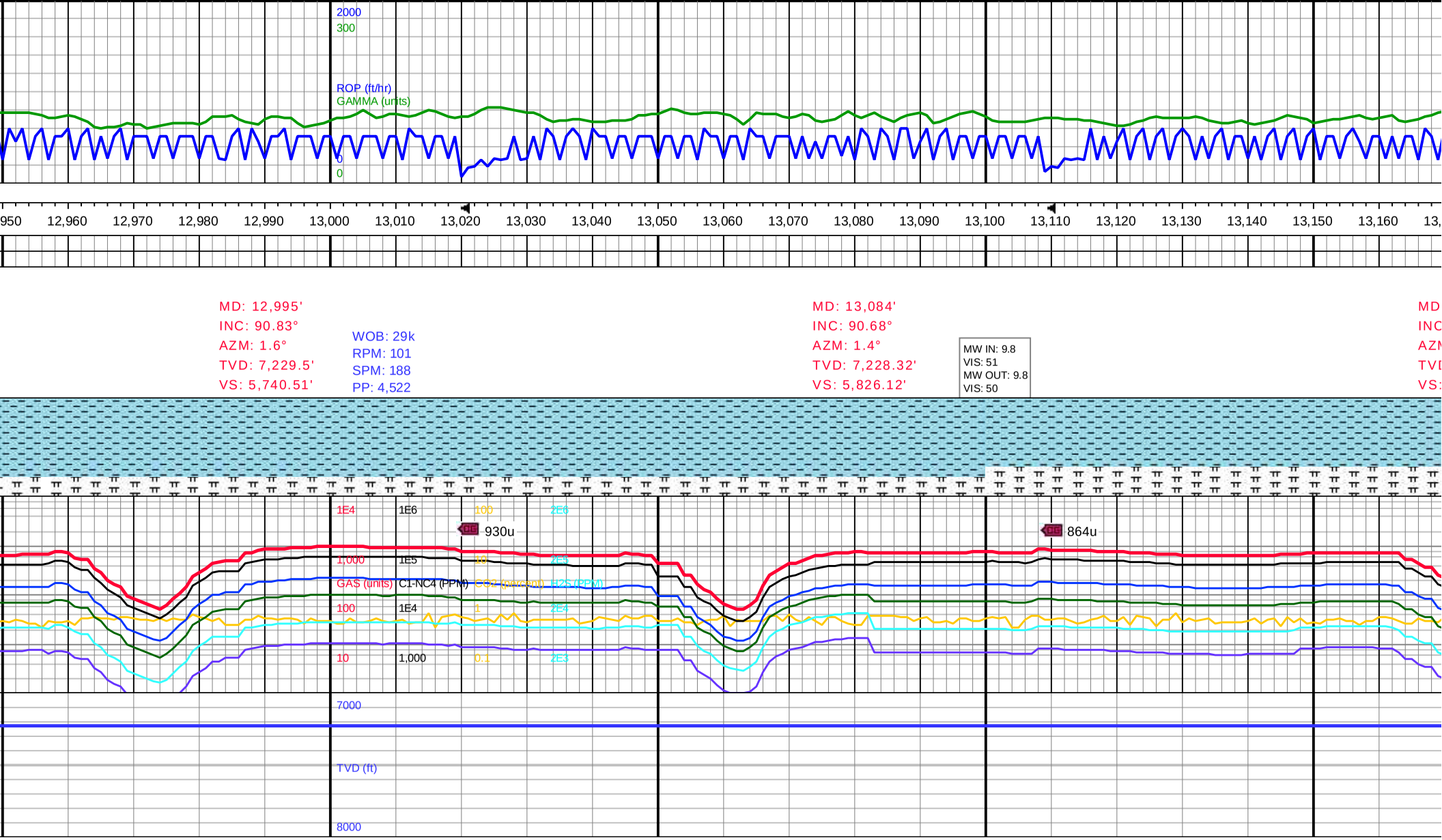
50% CHK: med gry- dk gry, tr med brn- gry brn, mod frm- frm, sb blky- blky, rthy tex, fnt tr mmica, micxln, dns- mas, v fnt tr pp pyr; 50% MRLST: dk gry- mot gry brn, frm- mod frm, sb blky- blky, rthy-slty tex, fnt tr mmica incl, tr cly lam, occ calc nod incl, tr calc mic lam, mod calc



75% MRLST: med gry- gry, sme lt brn- dk brn, mot tn- crm, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, sme cly lam, mod calc, tr pyr incl; 25% CHK: lt gry- med gry, occ spty offwht- lt brn, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, sme dissm pyr

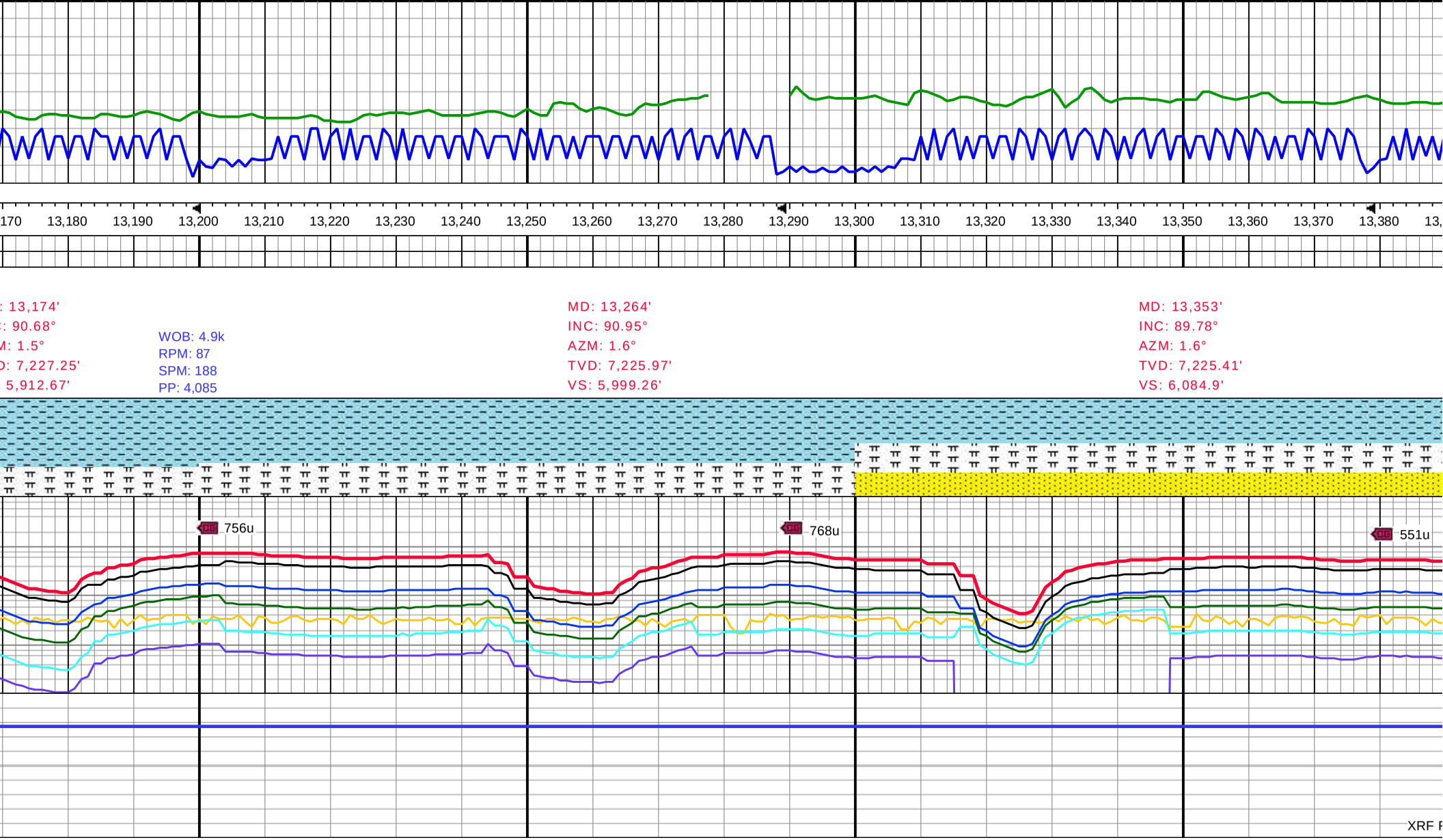
60% CHK: predy med gry- lt gry, occ lt brn- crm, mot lt brn, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, occ dissm pyr; 40% MRLST: dk gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, sme slt, tr cly lam, mod- v calc





80% CHK: med gry- lt gry, sme lt brn- tn, mot crm- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas, occ dissm pyr; 20% MRLST: dk gry- gry, sme dk brn, mot dk brn- crm, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, sme slt, tr cly lam, mod- v calc

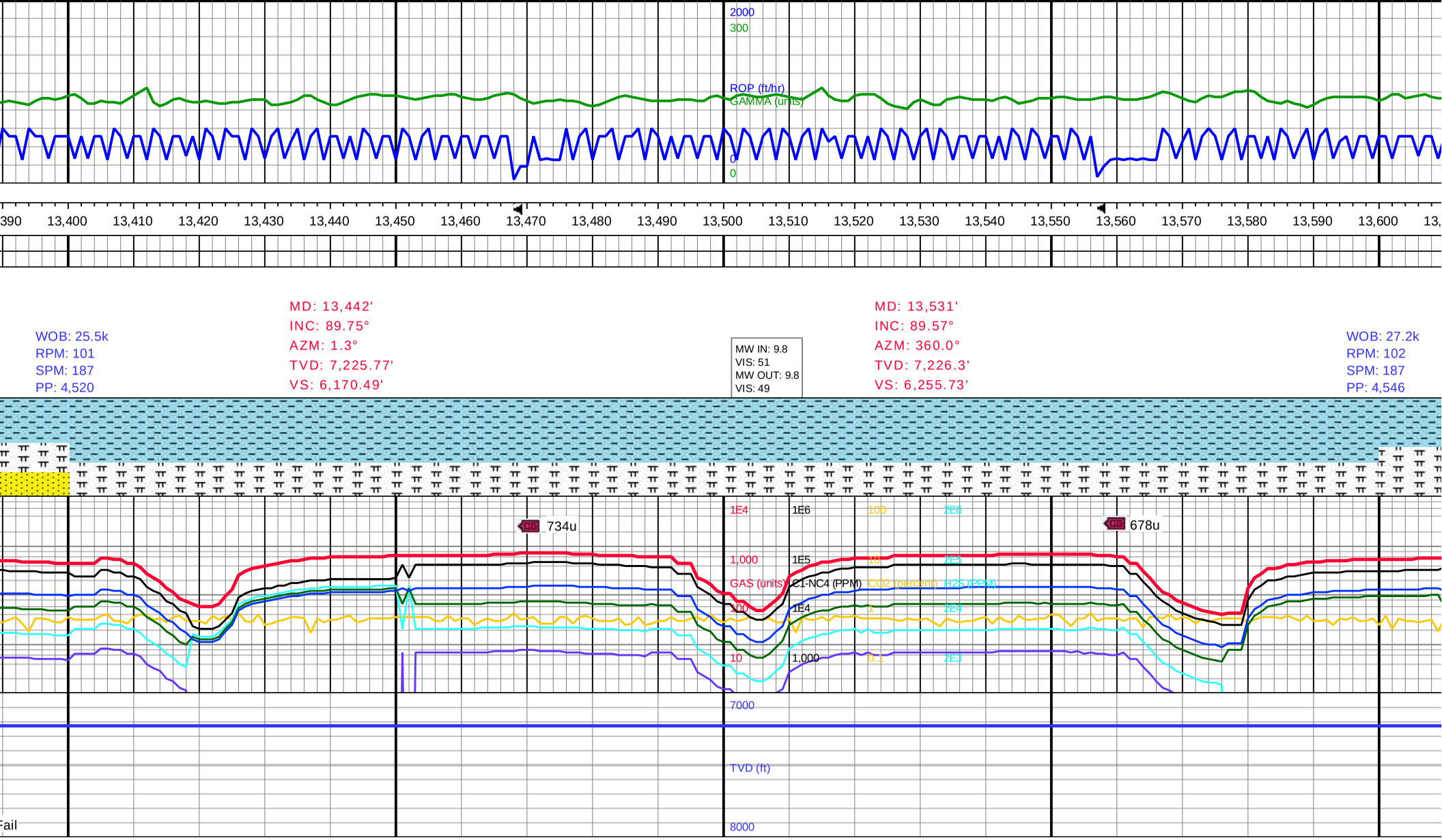
80% CHK: predy lt gry- gry, occ lt brn- offwht, mot lt brn- tn, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, tr pp pyr; 20% MRLST: med gry- gry, sme lt brn- dk brn, mot dk brn- crm, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty ip, tr cly lam, mod- v calc



70% CHK: lt gry- med gry, sme lt brn- tn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas; 30% MRLST: med gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod- v calc

65% CHK: lt gry- med gry, sme lt brn- tn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas; 35% MRLST: med gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod- v calc

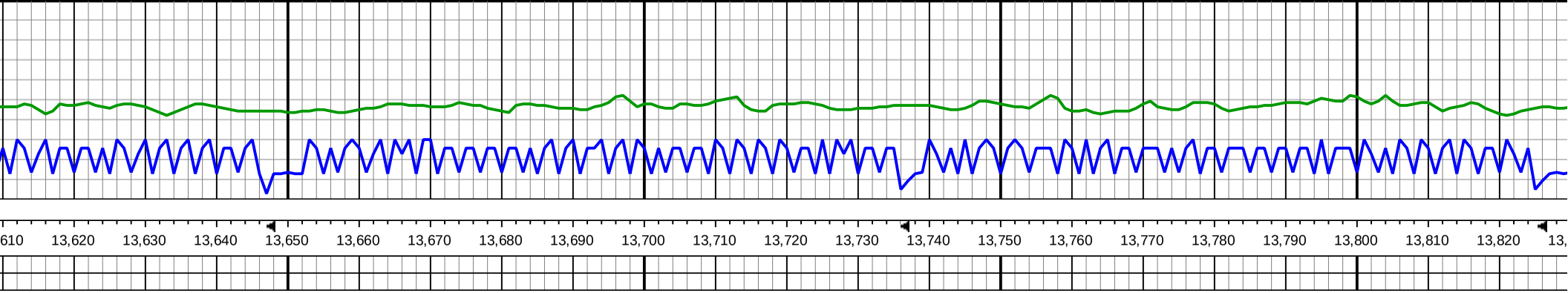
45% CHK: lt gry- med
mot lt brn- offwht, mo
blky, rthy tex, tr wxy,
30% MRLST: med gry
mot brn- dk brn, frm-
blky, rthy tex, tr mmic
lam, mod calc; 25% S
sil cmt mtx wi sme sp
gr, cons, sb rnd- sb a



gry, sme lt brn- tn,
d frm- frm, sb blky-
micxln, dns- mas;
- gry, sme dk brn,
mod frm, blky- sb
a incl, slty, sme cly
S: lt gry- med gry,
ty lt brn grns, f- vf
ng, sl calc, arg ip

65% CHK: med gry- gry, sme lt gry, mot lt brn- crm, mod frm- frm, blky- sb blky, rthy tex, micxln, dns- mas; 35% MRLST: dk gry- med gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod- v calc

65% CHK: med gry- gry, sme lt gry- lt brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, micxln, dns- mas; 35% MRLST: med gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod calc

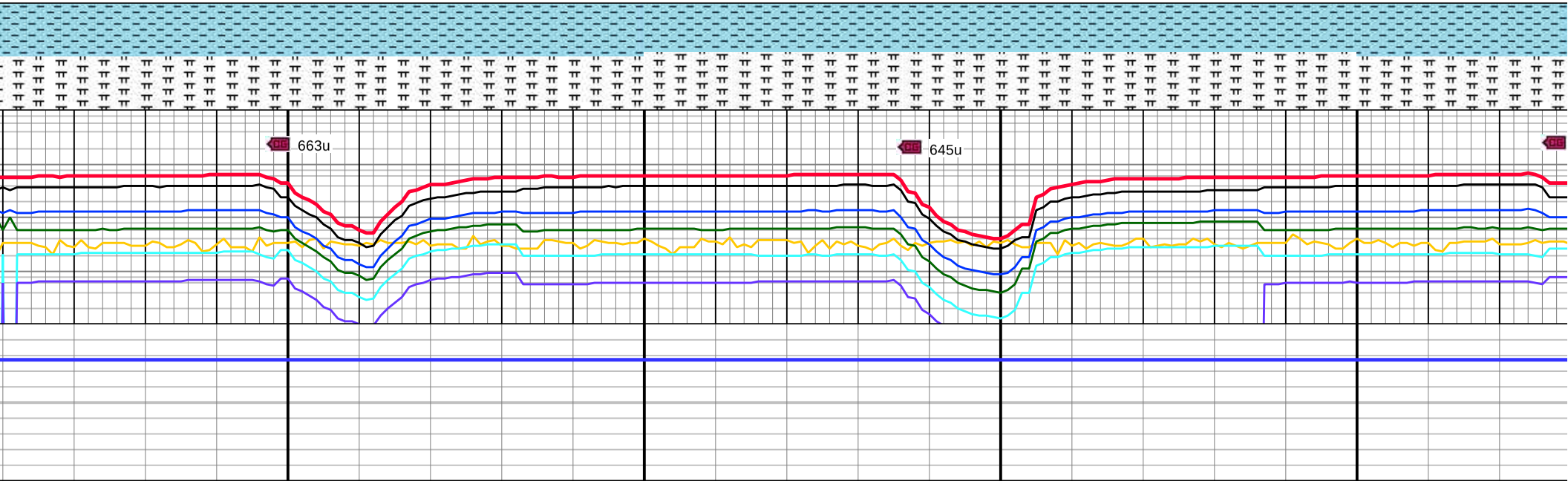


MD: 13,621'
INC: 89.97°
AZM: 1.2°
TVD: 7,226.66'
VS: 6,341.92'

MD: 13,710'
INC: 90.03°
AZM: 1.6°
TVD: 7,226.66'
VS: 6,427.5'

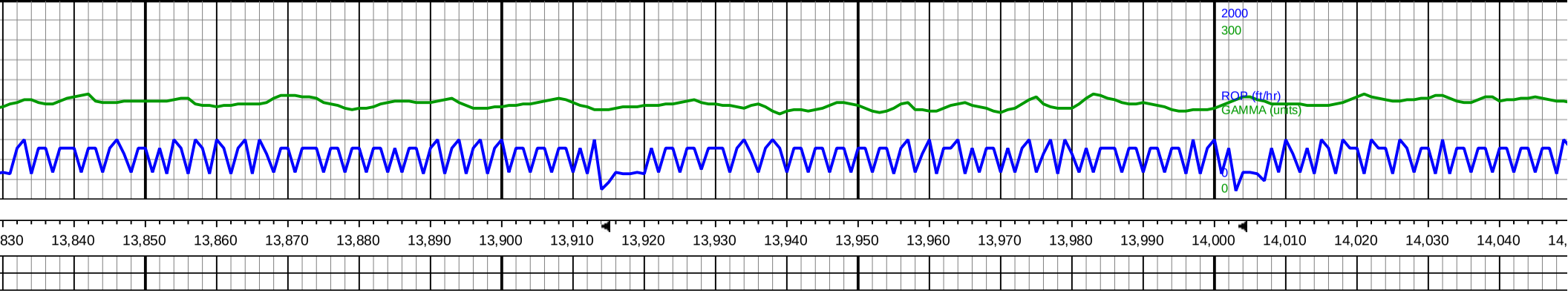
MD: 13,799'
INC: 90.22°
AZM: 1.3°
TVD: 7,226.47'
VS: 6,513.09'

WOB: 27.4k
RPM: 101
SPM: 188
PP: 4,621



50% CHK: lt gry- med gry, sme lt brn- tn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, tr wxy tex, micxln, dns- mas; 50% MRLST: dk gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, sb blky- blky, rthy tex, tr mmica incl, slty ip, cly abnt, mod calc

55% MRLST: dk gry- gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty ip, cly abnt, mod calc; 45% CHK: med gry- lt gry, sme lt brn- brn, mot lt brn- offwht, frm- mod frm, sb blky- blky, rthy tex, micxln, dns- mas

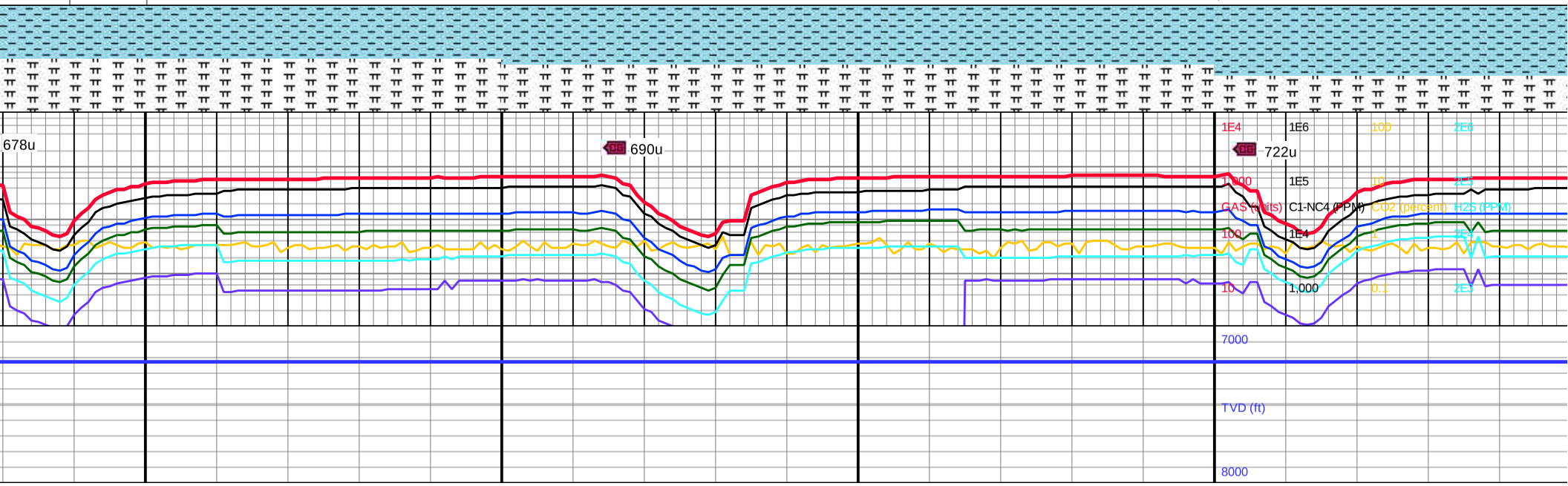


MD: 13,889'
INC: 90.15°
AZM: 1.0°
TVD: 7,226.18'
VS: 6,599.52'

MD: 13,978'
INC: 90.31°
AZM: 1.8°
TVD: 7,225.82'
VS: 6,685.09'

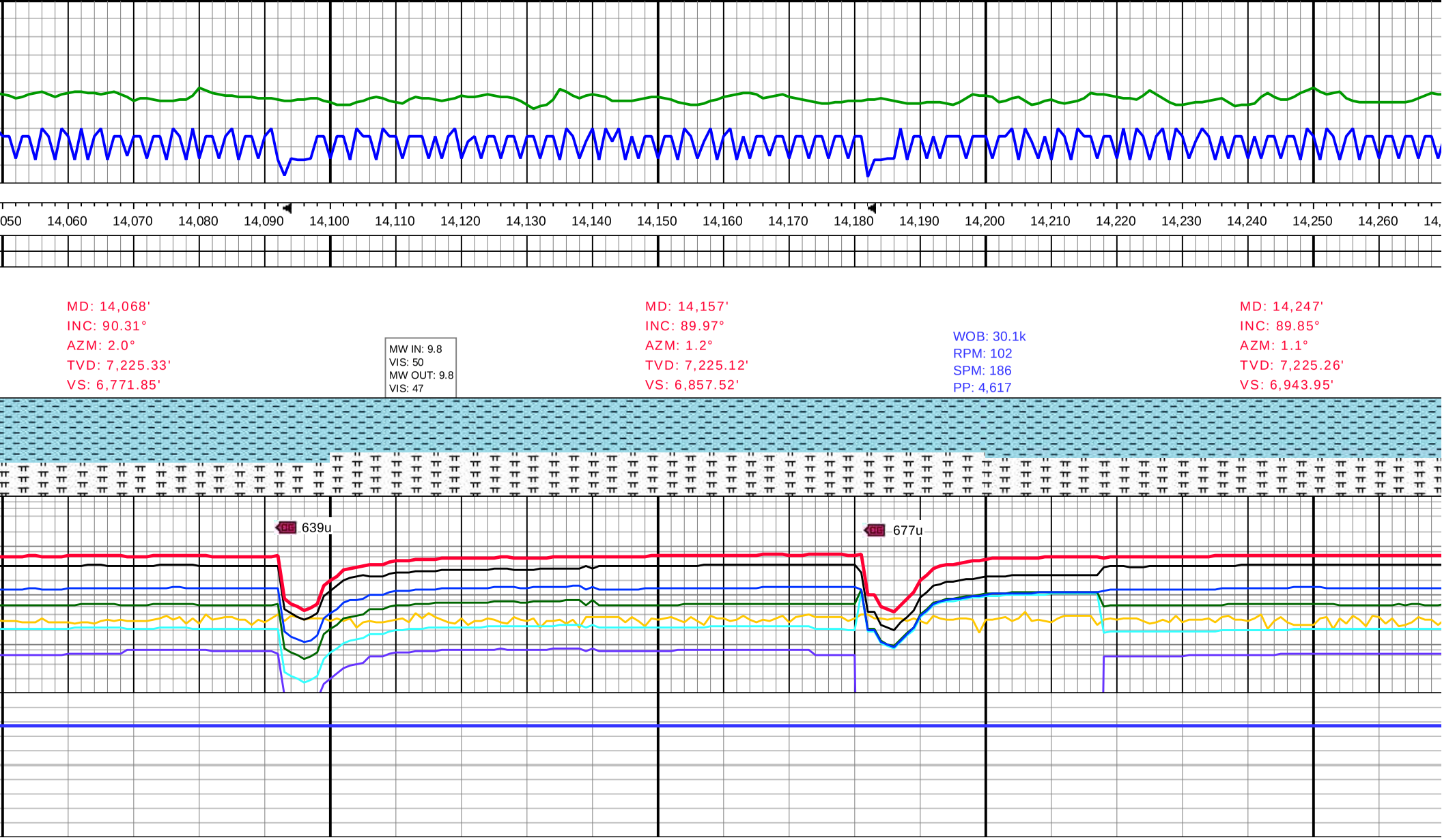
MW IN: 9.8
VIS: 52
MW OUT: 9.8
VIS: 48

WOB: 28.9k
RPM: 101
SPM: 187
PP: 4,659



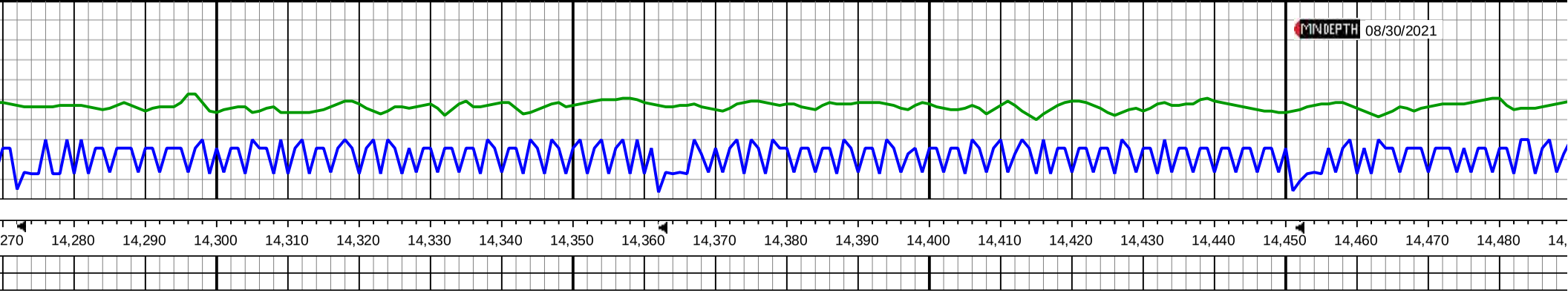
50% MRLST: dk gry- med gry, tr dk brn, mot lt brn- crm, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty ip, cly abnt, mod calc; 50% CHK: med gry- gry, sme lt brn- tn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pyr

55% CHK: med gry- gry, sme lt gry- lt brn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, tr pp pyr; 45% MRLST: dk gry- gry, occ dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, sme mmica incl, slty, sme cly lam, mod calc



65% CHK: predy med gry- lt gry, sme lt brn- crm, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, tr dissm pyr; 35% MRLST: gry- dk gry, occ dk brn, spty lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod- v calc

55% CHK: lt gry- med gry, occ offwht- crm, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas; 45% MRLST: med gry- dk gry, tr dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod calc

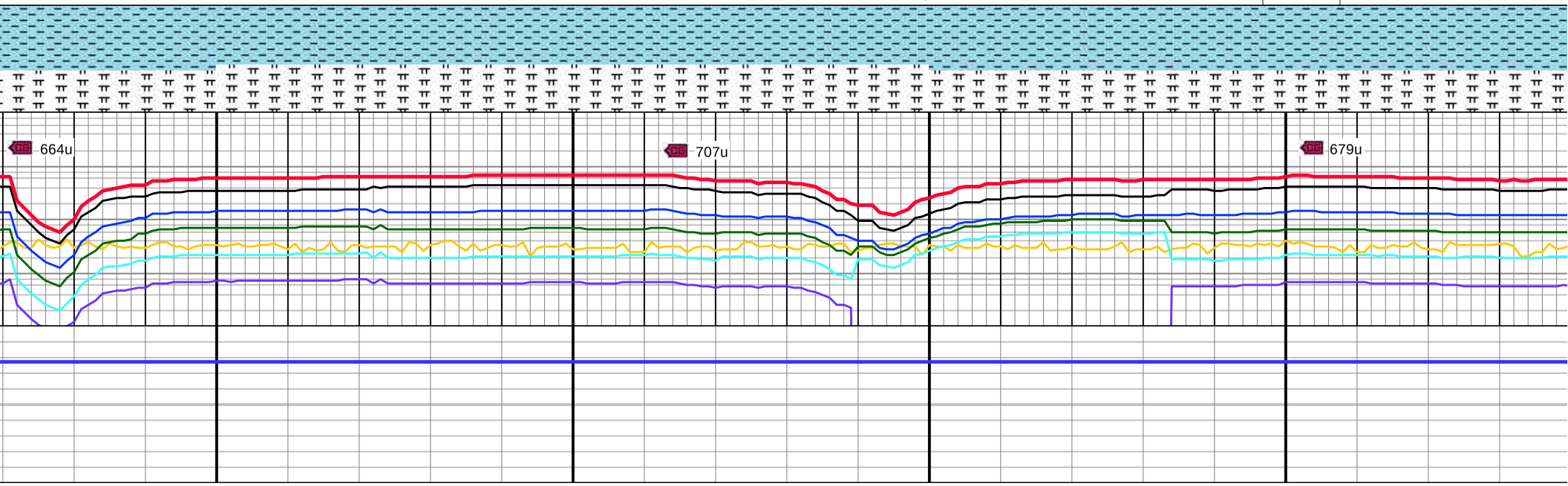


MD: 14,337'
INC: 90.03°
AZM: 1.2°
TVD: 7,225.35'
VS: 7,030.38'

WOB: 29.3k
RPM: 101
SPM: 187
PP: 4,682

MD: 14,426'
INC: 90.09°
AZM: 1.5°
TVD: 7,225.26'
VS: 7,115.91'

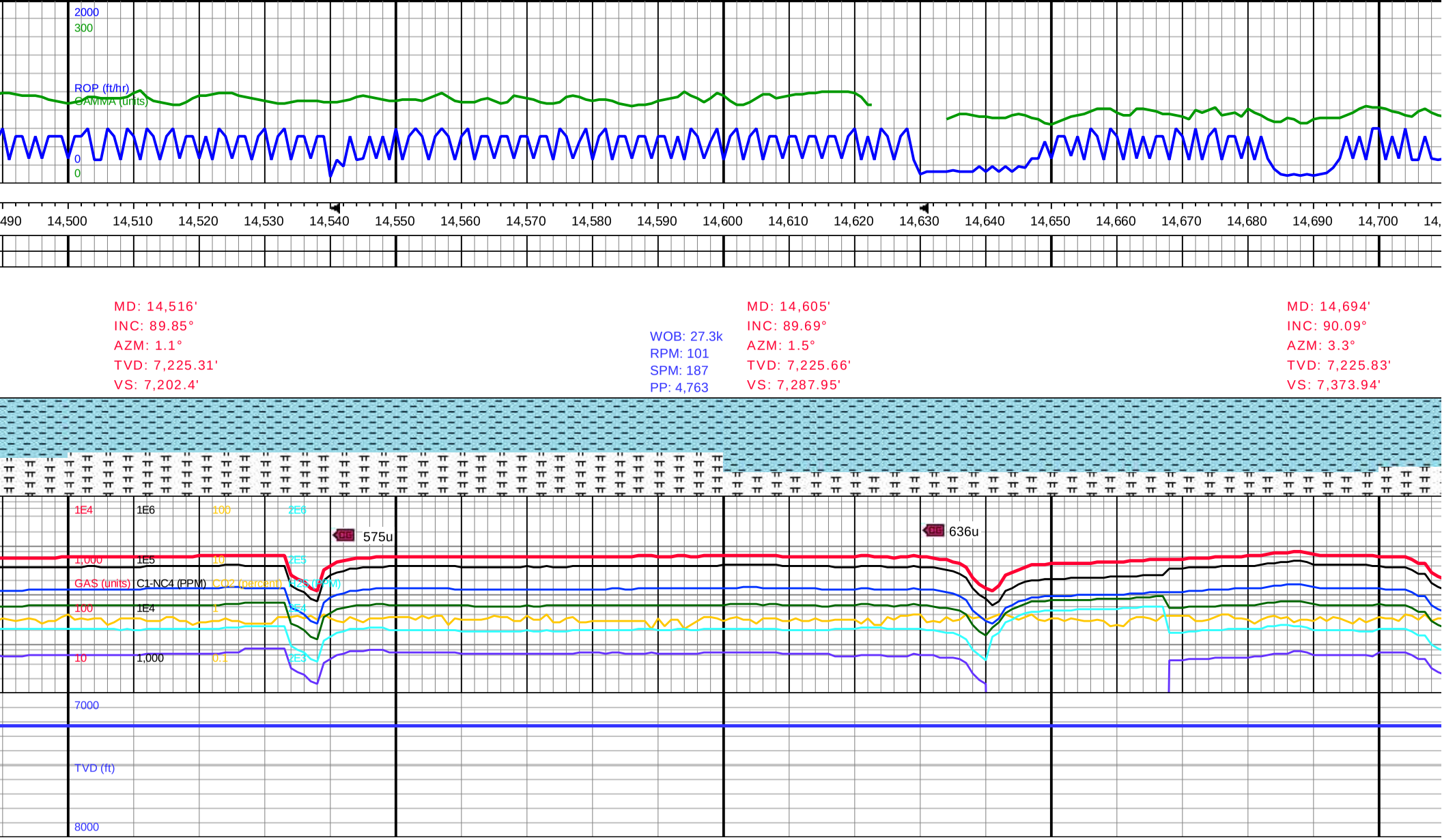
MW IN: 9.8
VIS: 51
MW OUT: 9.8
VIS: 48



60% CHK: predy lt gry- med gry, sme lt brn, mot lt brn- brn, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, tr pp pyr; 40% MRLST: med gry- dk gry, sme dk brn, mot brn- crm, frm- mod frm, blky- sb blky, rthy tex, tr mmica incl, slty, sme cly lam, mod- v calc

55% CHK: lt gry- gry, occ lt brn- tn, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, tr pp pyr; 45% MRLST: med gry- gry, sme dk brn, spty dk brn- offwht, frm- mod frm, blky- sb blky, rthy tex, sme mmica incl, slty, sme cly lam, mod calc

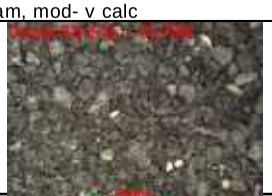
60% CHK: lt gry- me
offwht, mot lt brn- cr
frm, blky- sb blky, rt
micxln, dns- mas, tr
40% MRLST: med gr
dk brn- brn, spty dk
frm- mod frm, blky- s
tex, sme mmica incl,
lam, mod calc

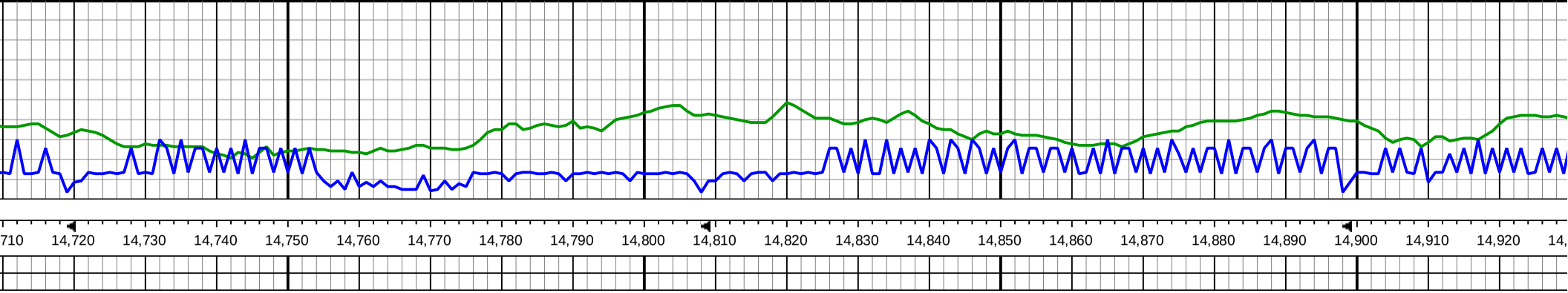


d gry, sme tn-
m, mod frm-
hy tex, tr wxy,
dissm pyr;
y- dk gry, occ
brn- offwht,
sb blky, rthy
slty, sme cly

55% CHK: med gry- gry, sme offwht- crm, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, sme dissm pyr; 45% MRLST: dk gry- med gry, occ dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, cly abnt, mod calc

75% CHK: med gry- gry, sme offwht- crm, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr dissm pyr; 25% MRLST: dk gry- med gry, sme dk brn, mot lt brn- crm, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty ip, sme cly lam, mod- v calc

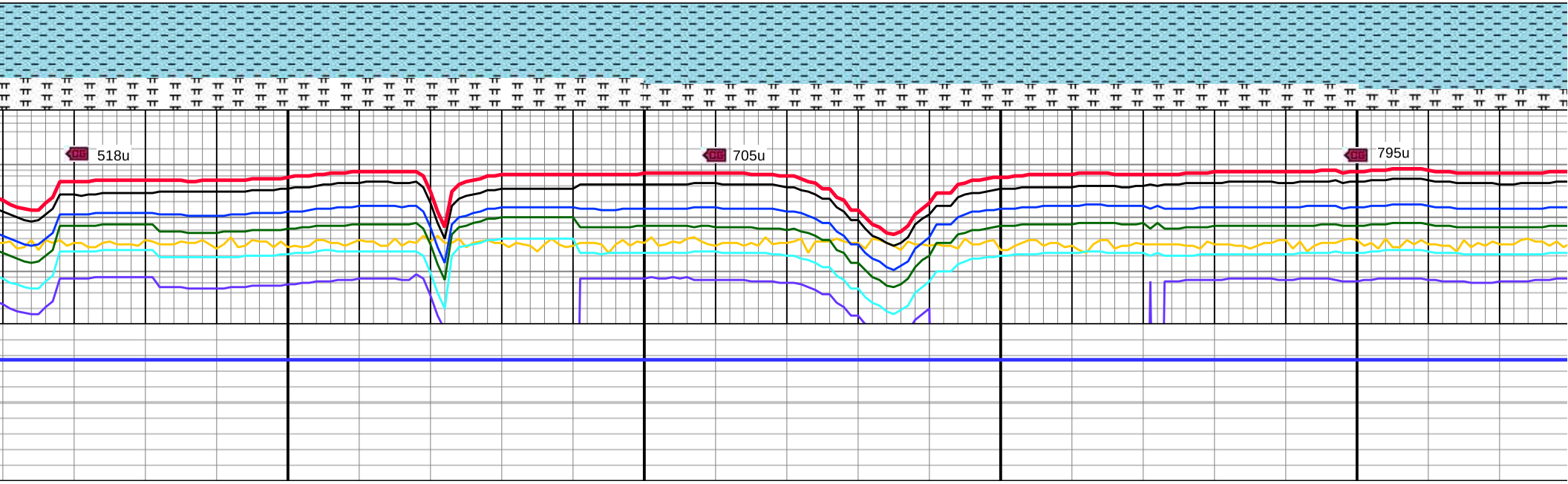




MD: 14,784'
INC: 90.83°
AZM: 2.4°
TVD: 7,225.11'
VS: 7,461.08'

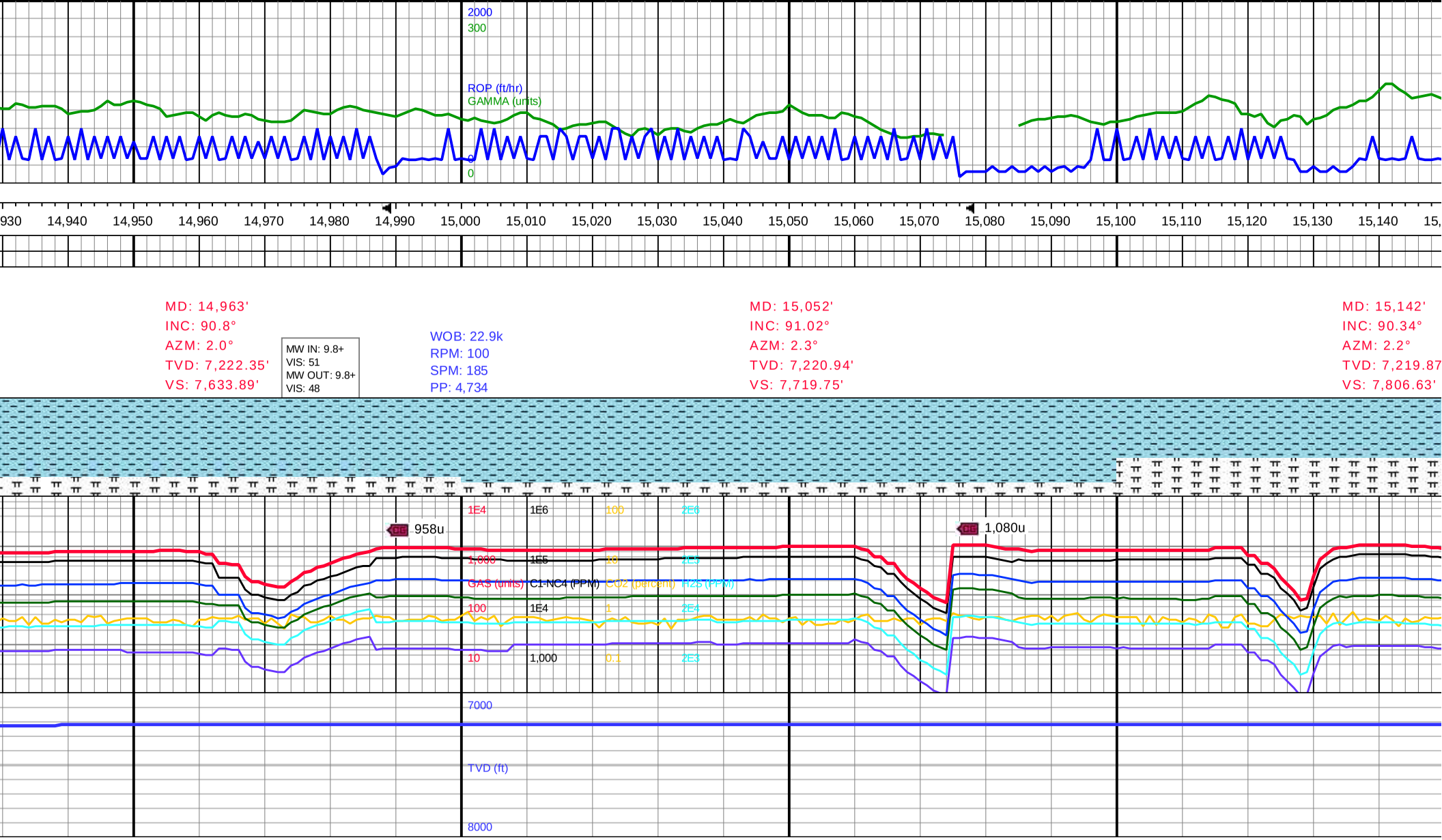
WOB: 16k
RPM: 101
SPM: 186
PP: 4,626

MD: 14,873'
INC: 90.95°
AZM: 2.3°
TVD: 7,223.73'
VS: 7,547.05'



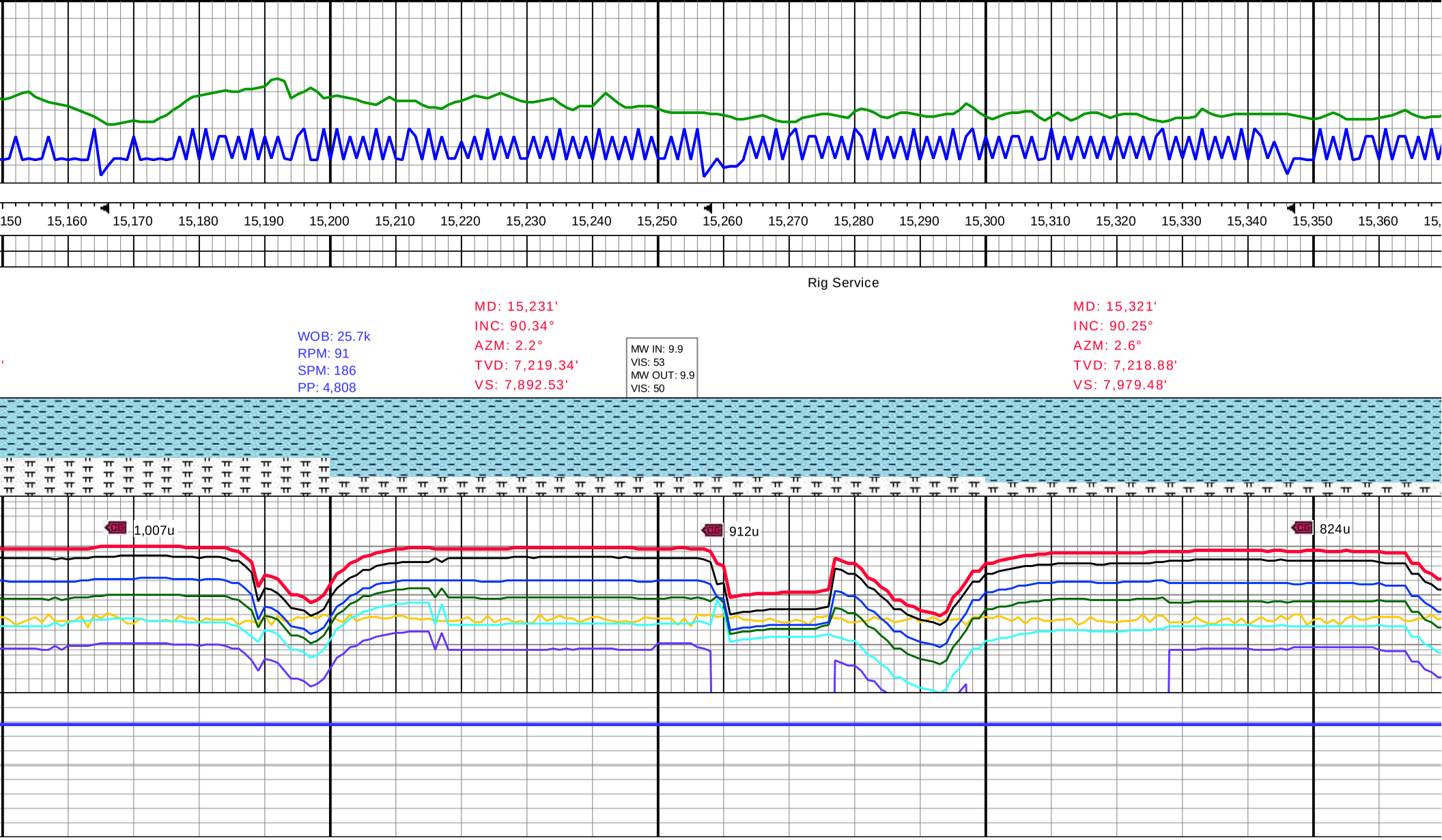
70% CHK: predy lt gry- med gry, occ offwht- crm, spty lt brn- tn, mod frm- frm, sb blky- blky, rthy tex, tr wxy, micxln, dns- mas, sme pp pyr; 30% MRLST: gry- dk gry, sme dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod- v calc

75% CHK: lt gry- gry, occ tn- offwht, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, sme dissm pyr; 25% MRLST: med gry- dk gry, tr dk brn, spty brn- dk brn, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty, tr cly lam, mod calc



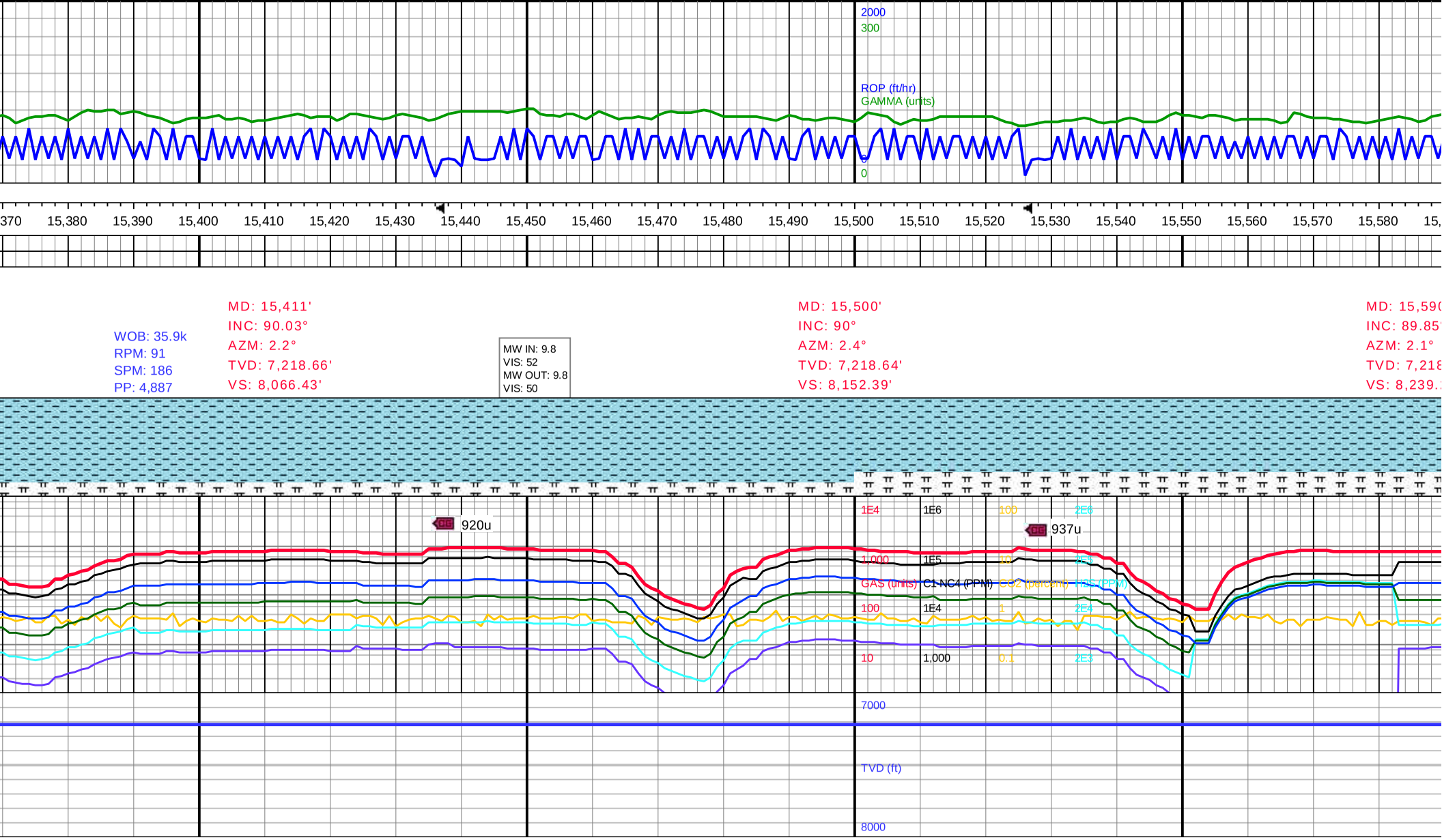
80% CHK: predy lt gry- med gry, occ offwht- lt brn, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy tex, sme wxy, micxln, dns- mas, tr dissm pyr; 20% MRLST: dk gry- med gry, sme dk brn, mot lt brn- dk brn, frm- mod frm, sb blky- blky, rthy tex, mmica incl, slty ip, cly abnt, mod calc

85% CHK: lt gry- gry, occ lt brn- offwht, spty lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, sme pp pyr; 15% MRLST: predy dk gry- med gry, sme dk brn, mot tn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod- v calc



60% CHK: lt gry- med gry, occ lt brn- offwht, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, sme dissm pyr; 40% MRLST: dk gry- med gry, sme dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod calc

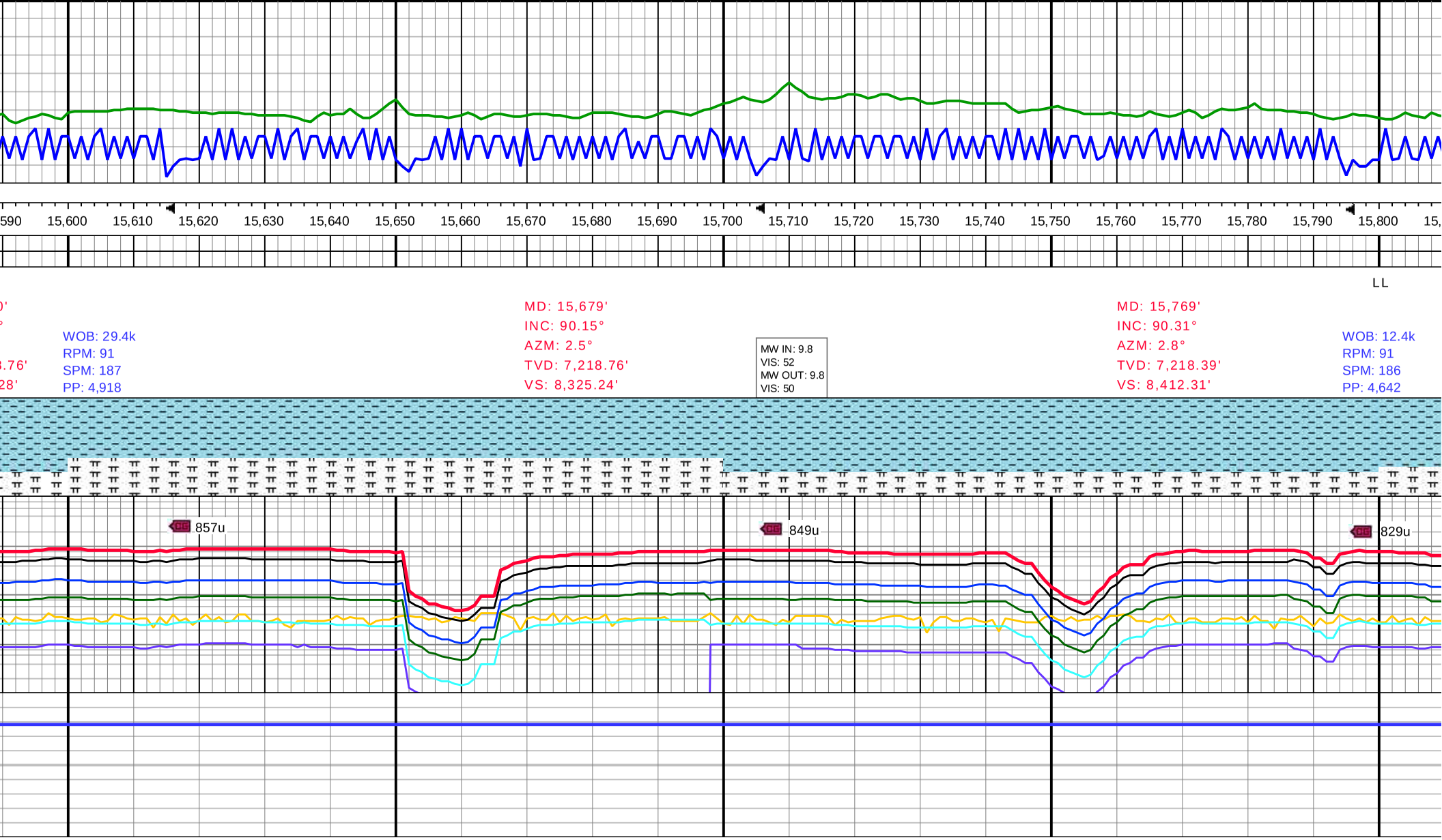
80% CHK: lt gry- gry, sme lt brn- offwht, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, sme pp pyr; 20% MRLST: dk gry- med gry, occ dk brn, mot brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod calc



85% CHK: lt gry- med gry, sme offwht- crm, mot lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pyr; 15% MRLST: med gry- dk gry, occ dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod- v calc

85% CHK: predy lt gry- med gry, sme lt brn- tn, mot lt brn- crm, mod frm- frm, blky- sb blky, rthy tex, tr wxy, micxln, dns- mas, tr pp pyr; 15% MRLST: dk gry- med gry, sme dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, tr cly lam, v calc

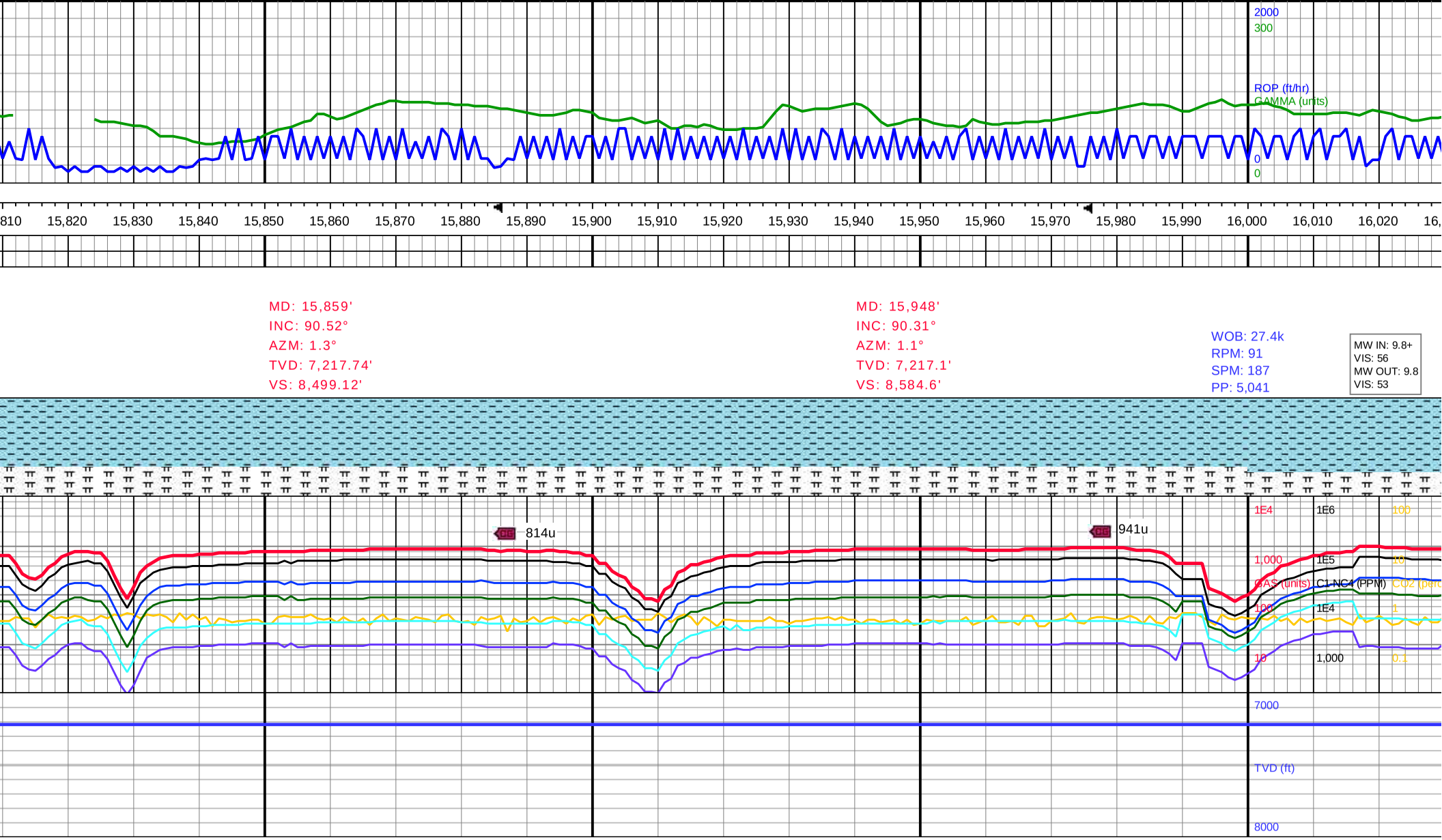
75% CHK: med gry- g
brn- tn, mot lt brn- cr
frm, sb blky- blky, rth
wxy, micxln, dns- ma
pyr; 35% MRLST: gry
occ lt brn- tn, mot lt b
frm- mod frm, blky- s
tex, mmica incl, slty,
lam, mod- v calc



gry, occ lt
m, mod frm-
y tex, tr
s, tr vugy
- dk gry,
rn- dk brn,
b blky, rthy
sme cly

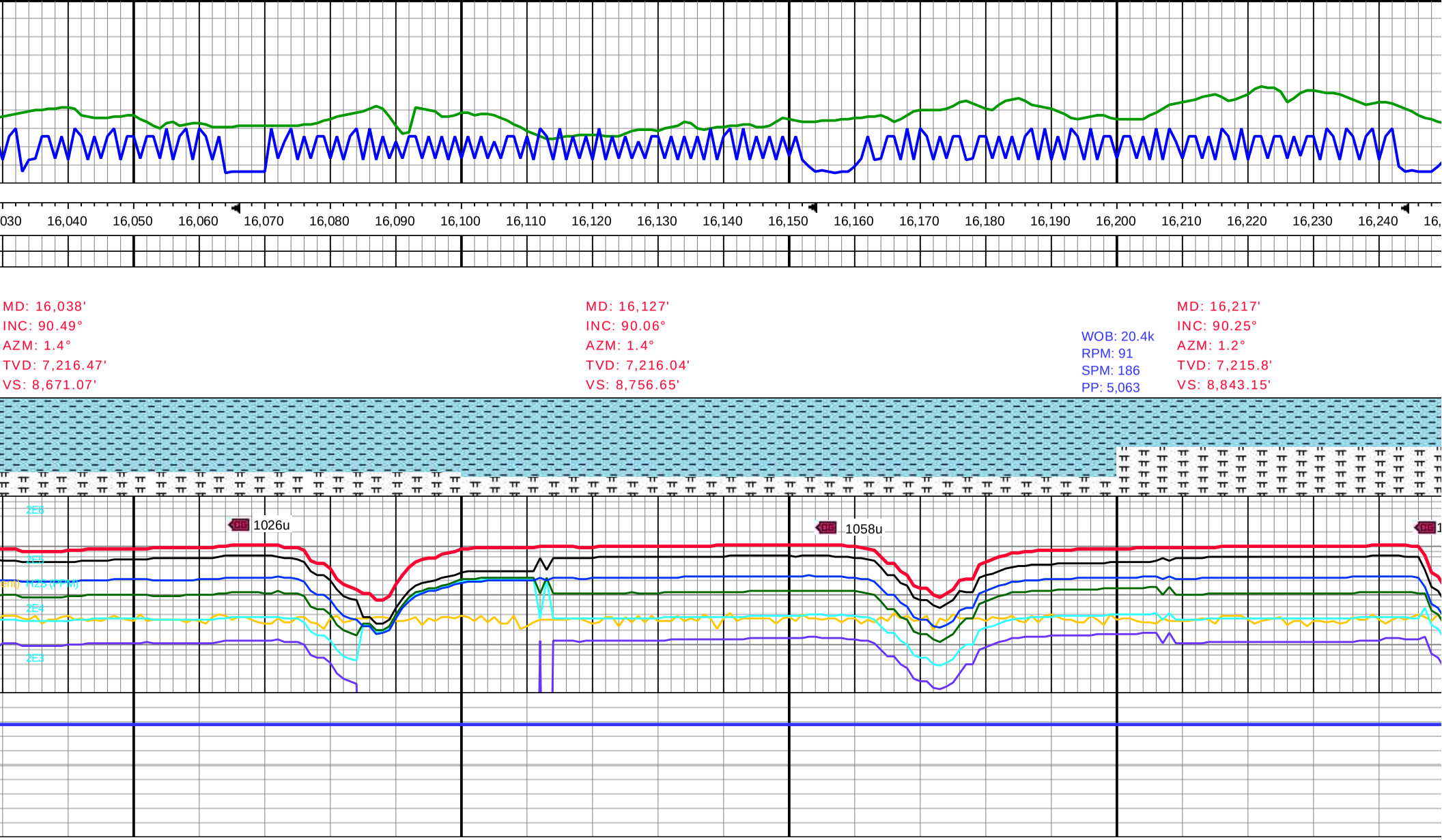
60% CHK: lt gry- med gry, occ lt brn- offwht, mot lt brn- crm, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, sme dissm pyr; 40% MRLST: dk gry- med gry, sme dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod calc

75% CHK: lt gry- med gry, tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr dissm pyr, tr cly mic lam; 25% MRLST: dk gry- med gry, tr dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod calc



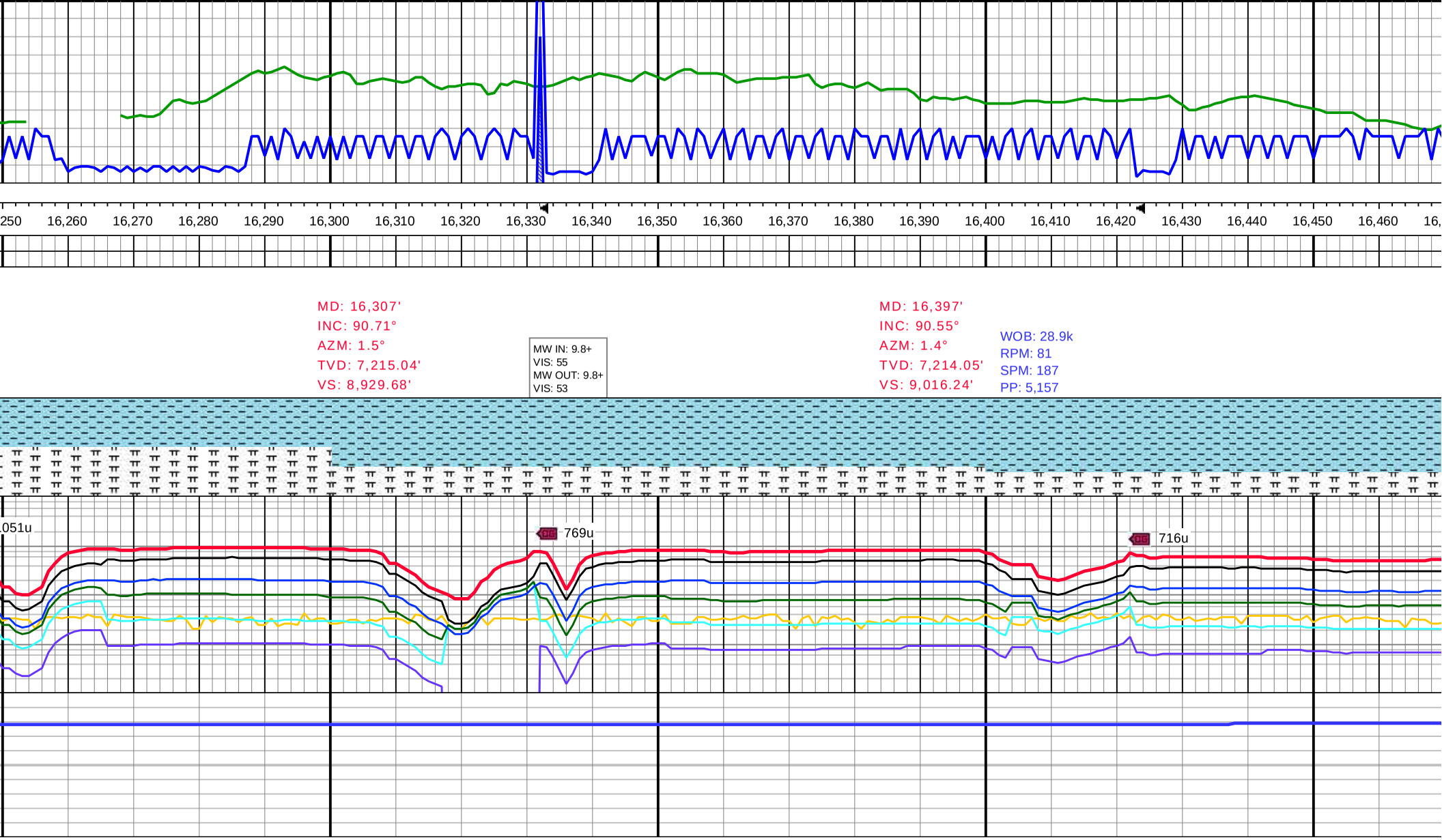
70% CHK: lt gry- med gry, tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr dissm pyr, tr cly mic lam; 30% MRLST: dk gry- med gry, tr dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, mod calc

70% CHK: pred lt gry- med gry, tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pp pyr, tr cly mic lam; 30% MRLST: dk gry- med gry, tr dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, mmica incl, slty, sme cly lam, tr cal frac fl, mod calc



75% CHK: pred lt gry- med gry, sme lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, occ pp pyr, tr cly mic lam; 25% MRLST: dk gry- med gry, fnt tr dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc

80% CHK: pred lt gry- med gry, tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pp pyr, tr cly mic lam; 20% MRLST: dk gry- med gry, tr dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, tr cal frac fl, mod calc



50% CHK: pred lt gry- med gry, rr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, occ pp pyr, tr cly mic lam; 50% MRLST: dk gry- med gry, tr dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, sme cal frac fl, mod calc

60% CHK: pred lt gry- med gry, fnt tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pp pyr, tr cly mic lam; 40% MRLST: dk gry- med gry, tr dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, fnt tr cal frac fl, mod calc

7
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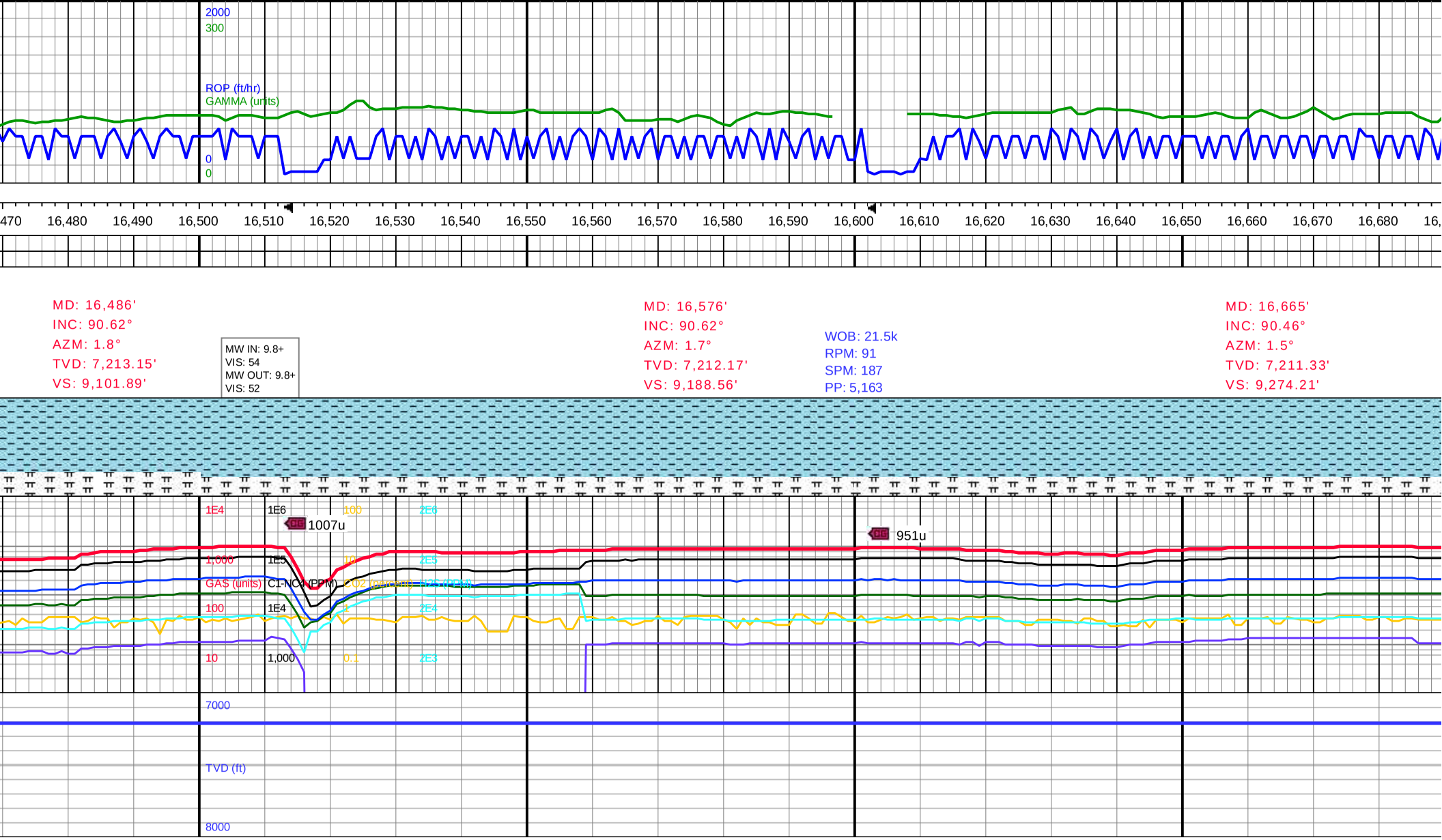
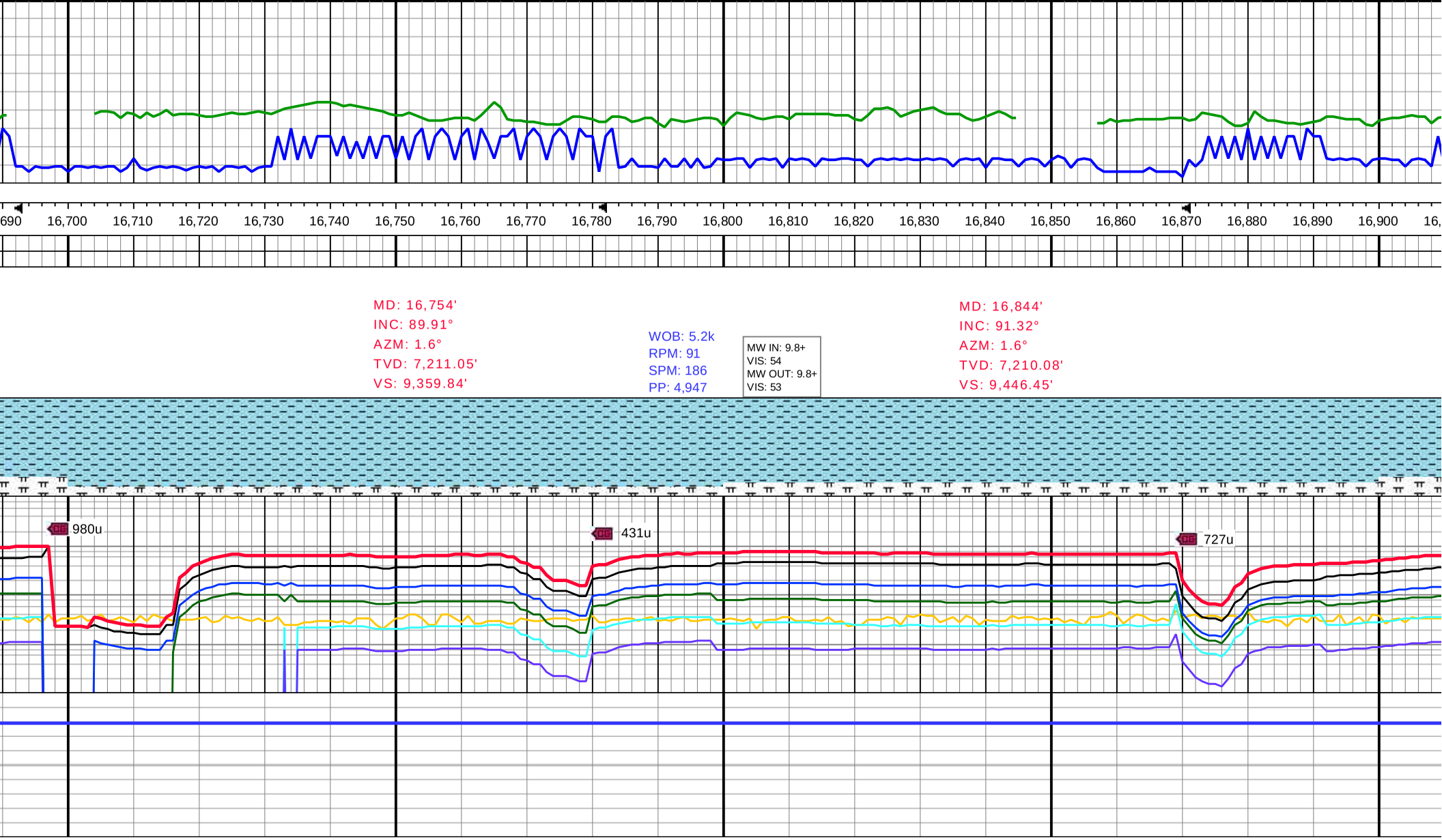


5% CHK: pred lt gry- med gry, sme dk ry, tr lt brn- offwht, mod frm- frm, sb lky- blky, rthy- wxy tex, micxln, dns- nas, tr pp pyr, tr cly mic lam; 25% MRLST: dk gry- med gry, tr dk brn, mot brn- dk brn, frm- mod frm, blky- sb lky, rthy tex, tr mmica, slty tex, sme ly lam, sl arg, fnt tr cal frac fl, mod alc

80% CHK: pred lt gry- med gry, sme dk gry, tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pp pyr, tr cly mic lam; 20% MRLST: dk gry- med gry, sme med brn- dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, fnt tr cal frac fl, mod calc

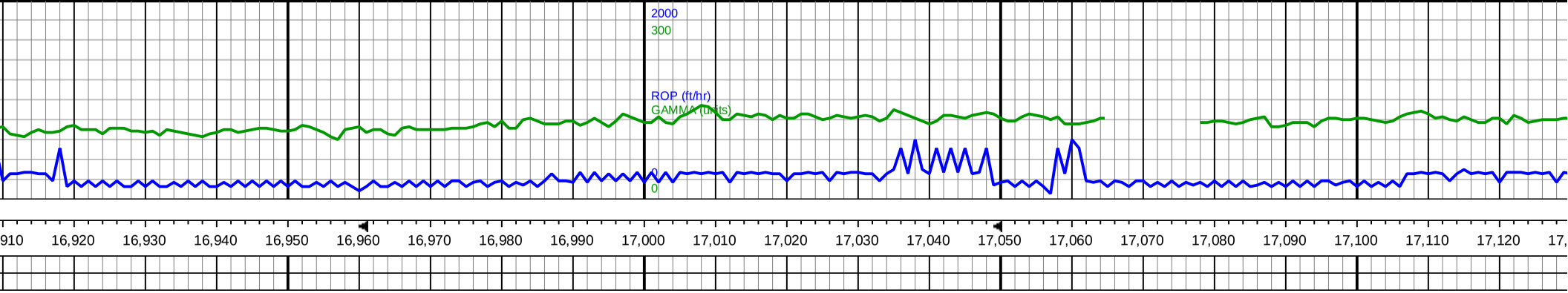
80% CHK: med gry- dk offwht, mod frm- frm, s rthy- wxy tex, micxln, d pyr, tr cly mic lam, sl m MRLST: dk gry- med g brn, mot lt brn- dk brn, blky- sb blky, rthy tex, tex, sme cly lam, sl arg fl, mod calc



k gry, occ lt brn-
sb blky- blky,
dns- mas, tr pp
mmica; 20%
ry, gry brn- dk
frm- mod frm,
tr mmica, slty
g, fnt tr cal frac

90% CHK: pred lt gry- med gry, occ med gry- dk gry, tr lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, rr pp pyr, tr cly mic lam, sl mmica; 10% MRLST: dk gry- med gry, sme gry brn- dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc

85% CHK: pred lt gry- med gry, occ med gry- dk gry, occ lt brn- offwht, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, rr pp pyr, tr cly mic lam, sl mmica; 15% MRLST: dk gry- med gry, sme gry brn- dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc



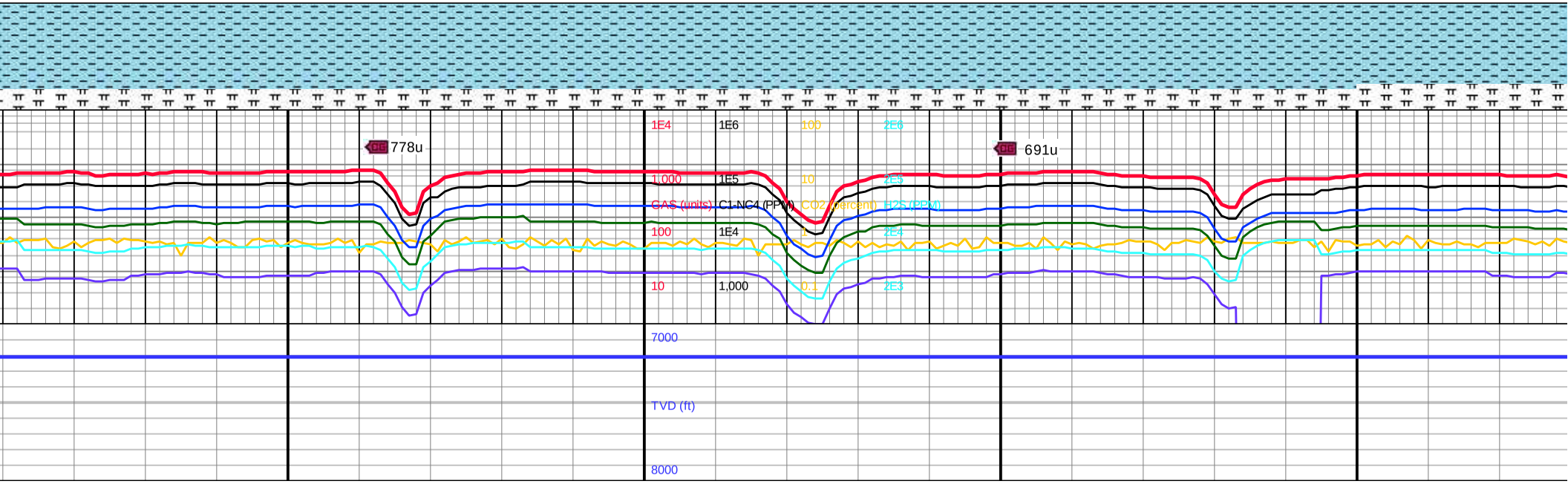
MD: 16,933'
INC: 90.65°
AZM: 1.1°
TVD: 7,208.55'
VS: 9,531.99'

WOB: 5.5k
RPM: 91
SPM: 186
PP: 4,851

MD: 17,023'
INC: 90.65°
AZM: 1.9°
TVD: 7,207.53'
VS: 9,618.57'

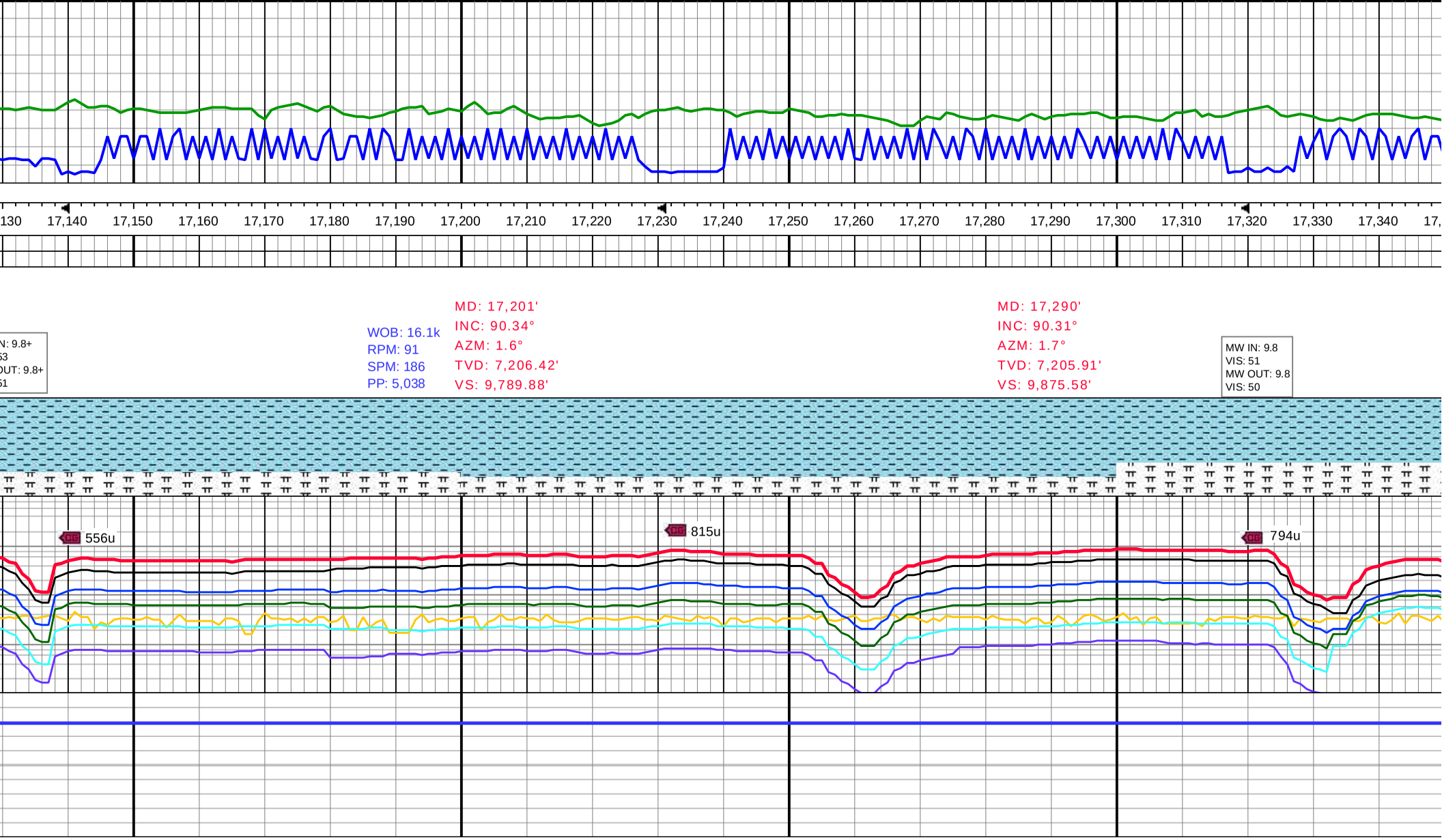
MD: 17,112'
INC: 90.22°
AZM: 1.4°
TVD: 7,206.85'
VS: 9,704.26'

MW I
VIS: 5
MW C
VIS: 5



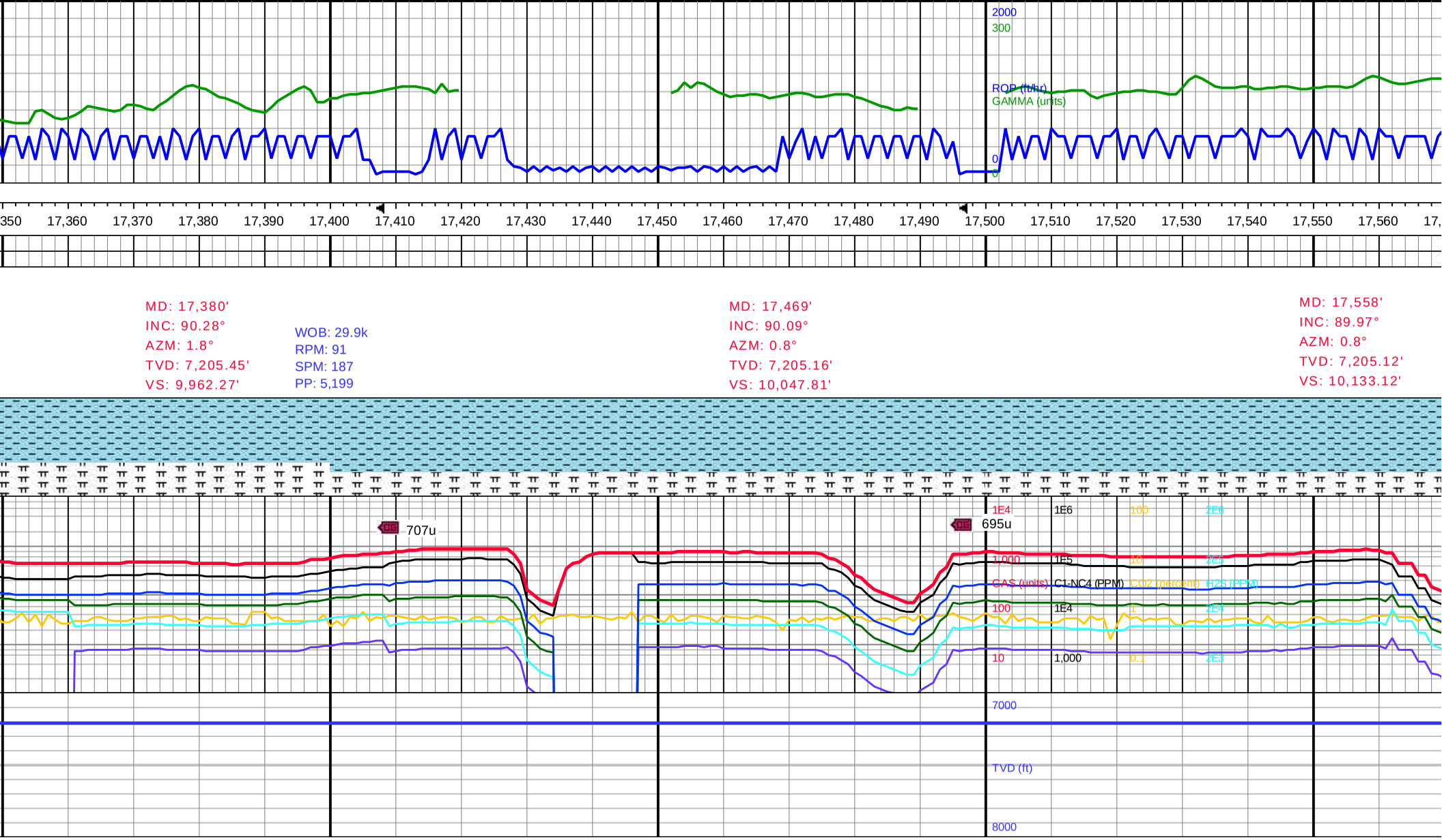
80% CHK: pred lt gry- med gry, occ med gry- dk gry, lt brn- offwht, mot tn- brn, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, rr pp pyr, tr cly mic lam, sl mmica; 20% MRLST: dk gry- med gry, sme gry brn- dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc

80% CHK: pred lt gry- med gry, occ med gry- dk gry, occ lt brn- offwht, tr mot tn- brn, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, rr pp pyr, tr cly mic lam, sl mmica; 20% MRLST: dk gry- med gry, sme gry brn- dk brn, mot lt brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc



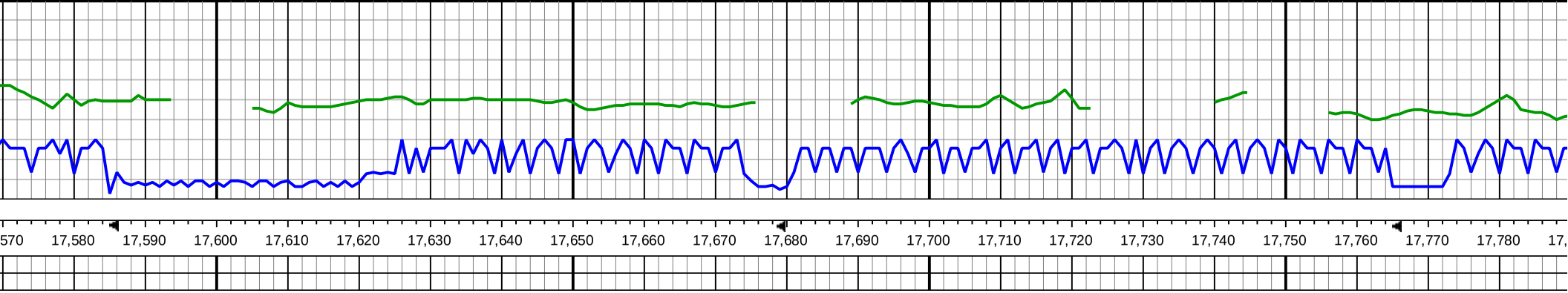
75% CHK: pred lt gry- med gry, occ med gry- dk gry, sme lt brn- offwht, sme mot tn- brn, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, rr pp pyr, tr cly mic lam, sl mmica; 25% MRLST: dk gry- med gry, sme gry brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, tr cal frac fl, mod calc

80% CHK: lt gry- dk gry, tr lt brn- offwht, tr mot tn- brn, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pp pyr, rr nod pyr, tr cly lam, sl mmica, tr cal nod; 20% MRLST: dk gry- med gry, sme gry brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc



65% CHK: lt gry- dk gry, scat lt brn- offwht, tr mot tn- brn, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, fnt tr pp pyr, tr cly lam, sl mmica, tr cal nod; 35% MRLST: dk gry- med gry, sme gry brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc

75% CHK: lt gry- dk gry, occ lt brn- offwht, scat mot tn- brn, mod frm- frm, sb blky- blky, rthy- wxy tex, micxln, dns- mas, tr pp pyr, tr cly lam, sl mmica, tr cal nod, tr lse pyr nod; 25% MRLST: dk gry- med gry, gry brn- dk brn, frm- mod frm, blky- sb blky, rthy tex, tr mmica, slty tex, sme cly lam, sl arg, mod calc

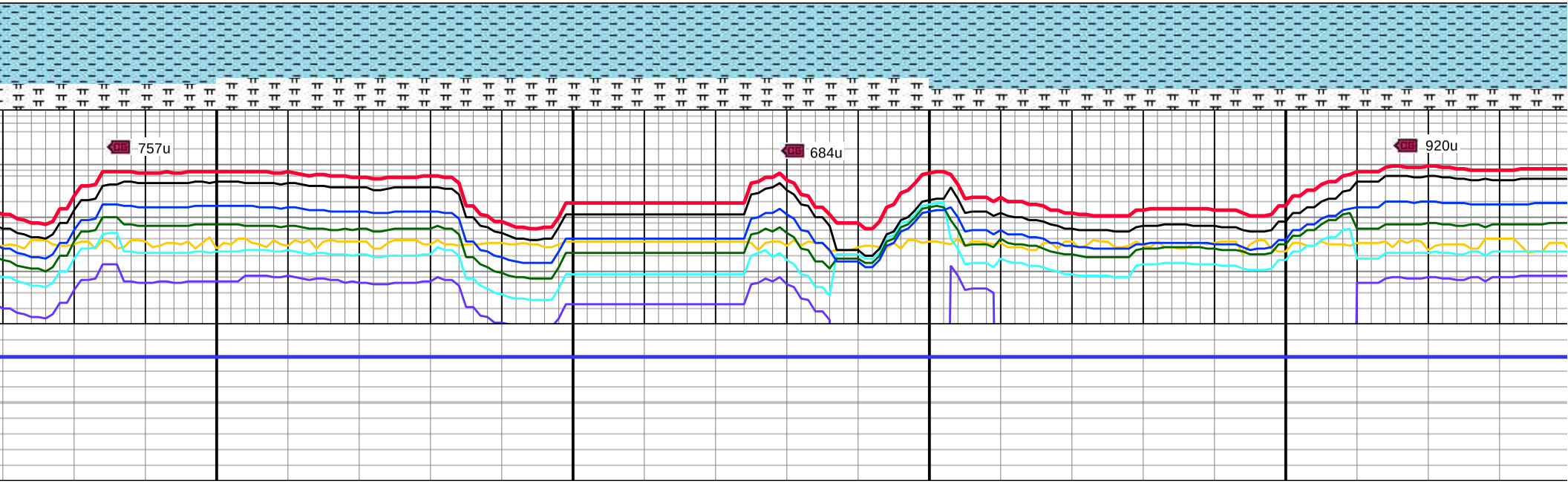


MW IN: 9.9
VIS: 52
MW OUT: 9.8
VIS: 51

WOB: 11.2k
RPM: 91
SPM: 157
PP: 3,355

MD: 17,648'
INC: 89.29°
AZM: 0.8°
TVD: 7,205.7'
VS: 10,219.37'

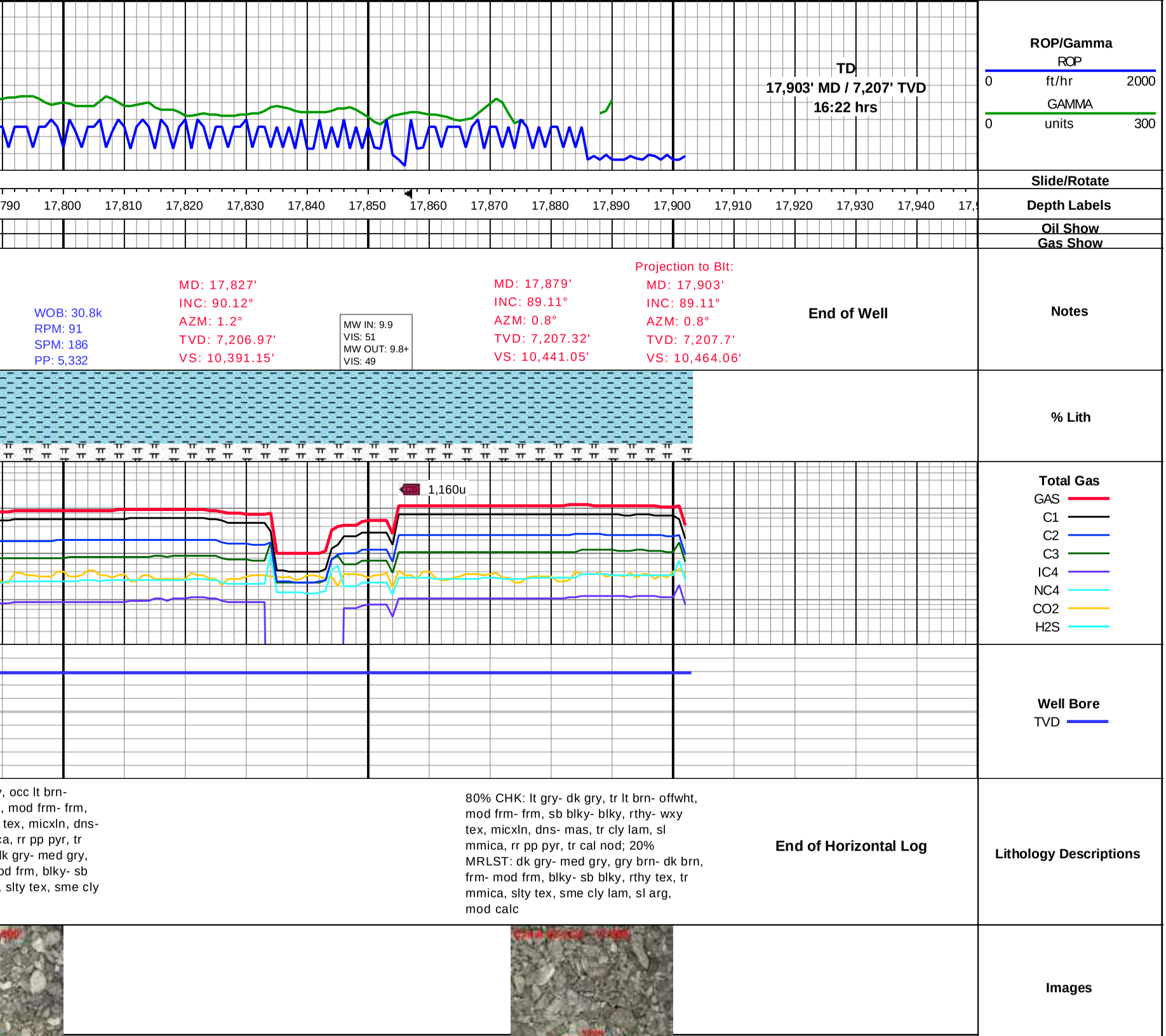
MD: 17,738'
INC: 89.48°
AZM: 1.0°
TVD: 7,206.66'
VS: 10,305.69'



5% CHK: lt gry- dk gry, occ lt brn-
ffwht, scat mot tn- brn, mod frm- frm,
b blky- blky, rthy- wxy tex, micxln, dns-
as, tr cly lam, sl mmica, tr cal nod, tr
b pyr, rr lse nod pyr; 25% MRLST: dk
ry- med gry, gry brn- dk brn, frm- mod
m, blky- sb blky, rthy tex, tr mmica,
ty tex, sme cly lam, sl arg, mod calc

75% CHK: lt gry- dk gry, occ lt brn-
offwht, scat mot tn- brn, mod frm- frm,
sb blky- blky, rthy- wxy tex, micxln, dns-
mas, tr cly lam, sl mmica, rr pp pyr, tr
cal nod, rr lse cal; 25% MRLST: dk gry-
med gry, gry brn- dk brn, frm- mod frm,
blky- sb blky, rthy tex, tr mmica, slty tex,
sme cly lam, sl arg, mod calc

80% CHK: lt gry- dk gry
offwht, scat mot tn- brn
sb blky- blky, rthy- wxy
mas, tr cly lam, sl mmic
cal nod; 20% MRLST: d
gry brn- dk brn, frm- m
blky, rthy tex, tr mmica
lam, sl arg, mod calc


TD
17,903' MD / 7,207' TVD
16:22 hrs
ROP/Gamma
ROP
0 ft/hr 2000
GAMMA
0 units 300
Slide/Rotate
790 17,800 17,810 17,820 17,830 17,840 17,850 17,860 17,870 17,880 17,890 17,900 17,910 17,920 17,930 17,940
Depth Labels
Oil Show
Gas Show
WOB: 30.8k
RPM: 91
SPM: 186
PP: 5,332
MD: 17,827'
INC: 90.12°
AZM: 1.2°
TVD: 7,206.97'
VS: 10,391.15'
MW IN: 9.9
VIS: 51
MW OUT: 9.8+
VIS: 49
MD: 17,879'
INC: 89.11°
AZM: 0.8°
TVD: 7,207.32'
VS: 10,441.05'
Projection to Blt:
MD: 17,903'
INC: 89.11°
AZM: 0.8°
TVD: 7,207.7'
VS: 10,464.06'
End of Well
Notes
% Lith
1,160u
Total Gas
GAS
C1
C2
C3
IC4
NC4
CO2
H2S
Well Bore
TVD
, occ lt brn-
, mod frm- frm,
tex, micxln, dns-
ca, rr pp pyr, tr
lk gry- med gry,
od frm, blky- sb
, slty tex, sme cly
80% CHK: lt gry- dk gry, tr lt brn- offwht,
mod frm- frm, sb blky- blky, rthy- wxy
tex, micxln, dns- mas, tr cly lam, sl
mmica, rr pp pyr, tr cal nod; 20%
MRLST: dk gry- med gry, gry brn- dk brn,
frm- mod frm, blky- sb blky, rthy tex, tr
mmica, slty tex, sme cly lam, sl arg,
mod calc
End of Horizontal Log
Lithology Descriptions
Images