

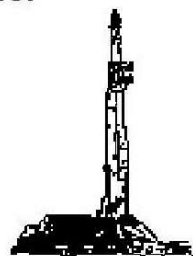
GOOLSBY BROTHERS
and associates, inc.

575 Union Blvd, Suite 208
Lakewood, CO 80228
303-945-2860 Office



Geological Wellsite
Supervision

www.goolsbybrothers.com



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Bost Farm 32C-11-L
API: 051234766300
Location: Section 7, T5N, R66W, Weld County, CO.
License Number:
Spud Date: June 19, 2019
Surface Coordinates: SWNW T5N, R66W Sec 7, 1515' FNL & 1119' FWL
LAT 40.417368 LONG -104.828368
Bottom Hole Coordinates: SWNE T5N, R67W Sec. 11, 2508' FNL & 460' FEL (EST)
Ground Elevation (ft): 4,878'
Logged Interval (ft): 6,950' To: 17,557'
Formation: Pierre Shales/Sands, Sharon Springs, Niobrara, Codell Sand (Target)
Type of Drilling Fluid: FW Surface, OBM Curve & Lateral

Region: Wattenberg
Drilling Completed: June 23, 2019

K.B. Elevation (ft): 4,898'
Total Depth (ft): 17,557' DMTD

Printed by HorizontalLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: SRC Energy Inc.
Address: 1675 Broadway, Suite 2600
Denver, Colorado 80202
(720) 616-4300

GEOLOGIST

Name: Larry Goolsby & Brian Spitzmiller
Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)
Address: 575 Union Blvd. Suite 208,
Lakewood CO. 80228
Tel 303-618-7736

Logs

PULSE MWD GR from 1,795' - 17,539' MD

Casing

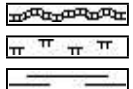
9 5/8" Surface Casing set @ 1,806' MD

5 1/2" Production Casing set @ xx,xxx' MD

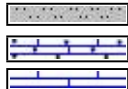
Comments

- 1) Drilling Contractor: Precision Drilling, Rig #462
Toolpusher: Cody Teeter, Joseph Credeur
- 2) Company Man: Caleb Ford, Buddy Davis
Lovell Young, Tony Pershall
- 3) Mud Company : Anchor USA
Engineer: Tim Pattison, James Eckhardt
- 4) Directional Drilling: Schlumberger
Rotary Steerable BHA
Drillers: Dennis Hunalp & Vladimir Camargo
- 5) Gas Equipment: Pason Gas Analyzer (Spectrometer)
- 6) SRC Geologist: Tony Williams

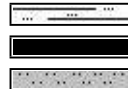
ROCK TYPES



Bent
Mrlst
Shale



Sltst
Carb chalk
Chalk



Sltly sh
Coal
Sltst



Arg_ss
Ss
Carb sh



Ls
Sltly sh

ACCESSORIES

MINERAL

Anhy
 Arggrn
 Arg
 Bent
 Bit
 Breclfrag
 Calc
 Carb
 Chtdk
 Chtlt
 Dol
 Feldspar
 Ferrpel
 Ferr
 Glau

Gyp
 Hvymin
 Kaol
 Marl
 Minxl
 Nodule
 Phos
 Pyr
 Salt
 Sandy
 Silt
 Sil
 Sulphur
 Tuff

FOSSIL

Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral
 Crin
 Echin
 Fish
 Foram
 Fossil
 Gastro
 Oolite

Ostra
 Pelec
 Pellet
 Pisolite
 Plant
 Strom

STRINGER

Chlkstg
 Anhy
 Arg
 Bent
 Coal
 Dol
 Gyp
 Ls

Mrst
 Sltstgr
 Ssstgr

TEXTURE

Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackst

OTHER SYMBOLS

POROSITY TYPE

Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic
 Pinpoint
 Vuggy

SORTING

Well
 Moderate
 Poor

ROUNDING

Rounded
 Subrnd
 Subang

Angular

OIL SHOWS

Even
 Spotted
 Ques
 Dead
 Vspotty
 near even

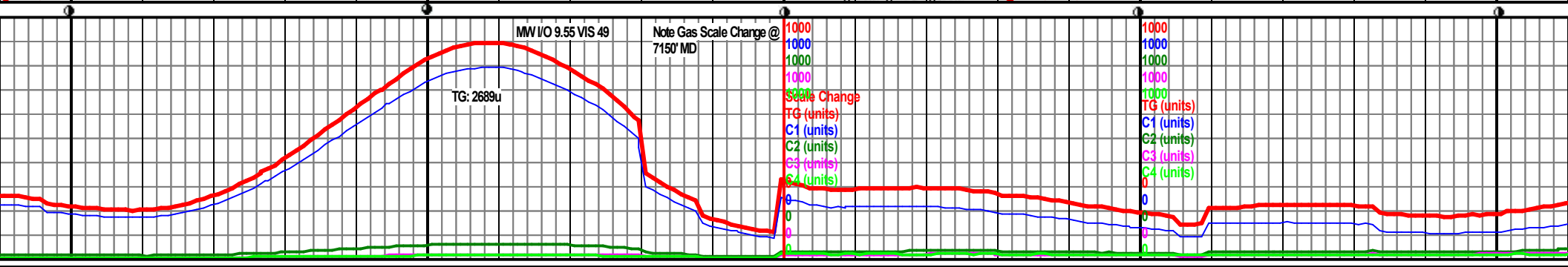
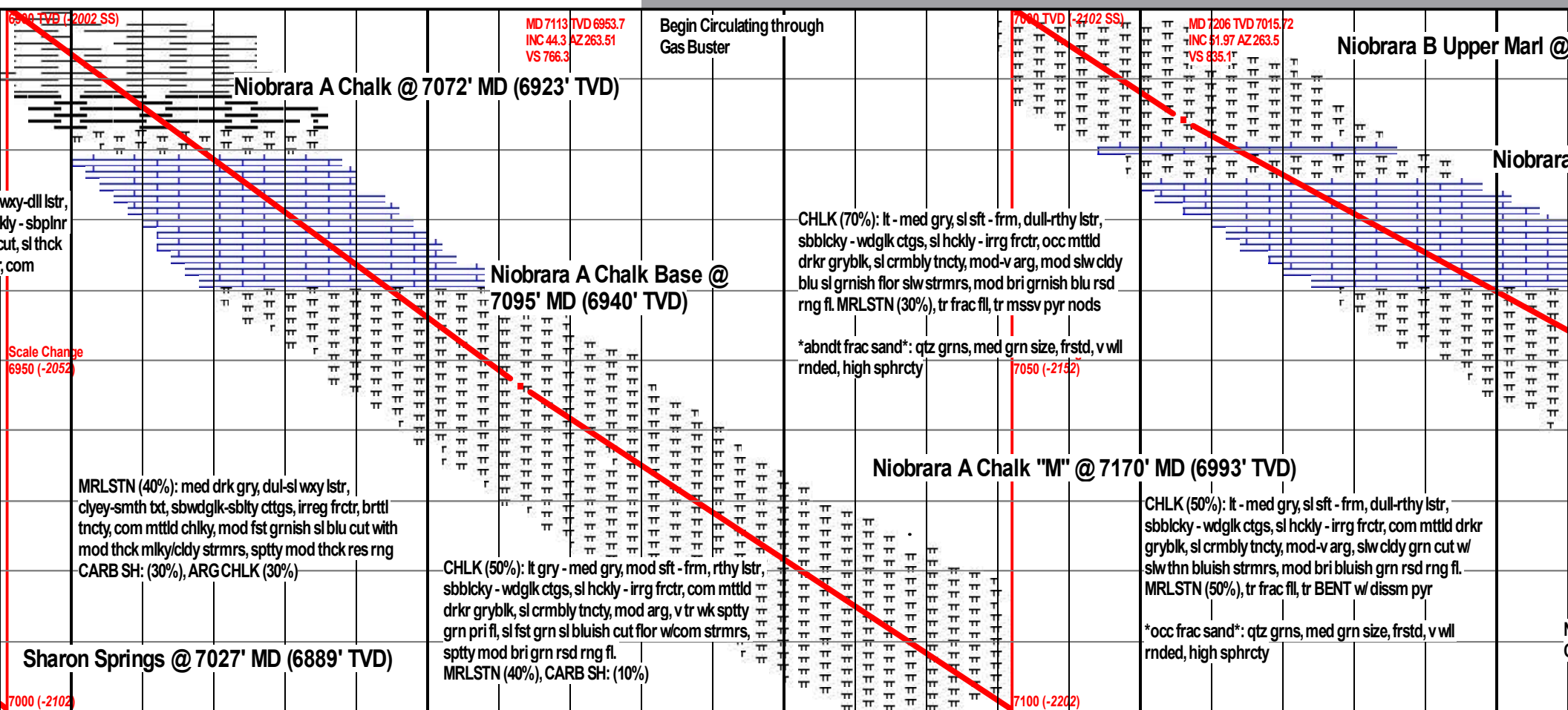
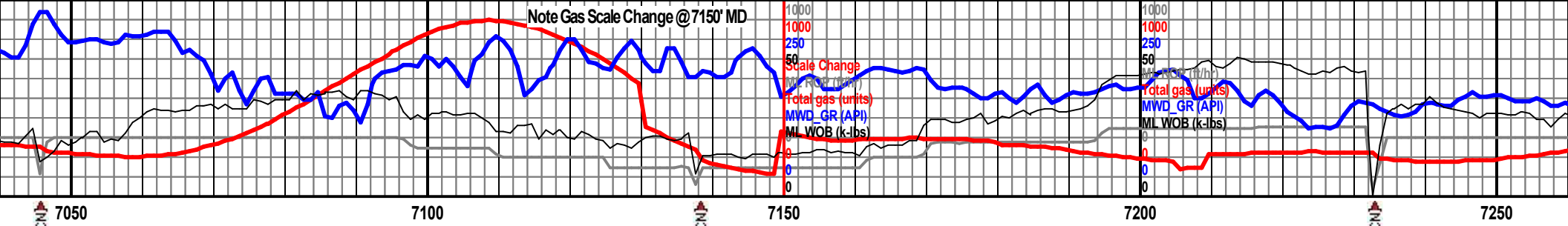
INTERVALS

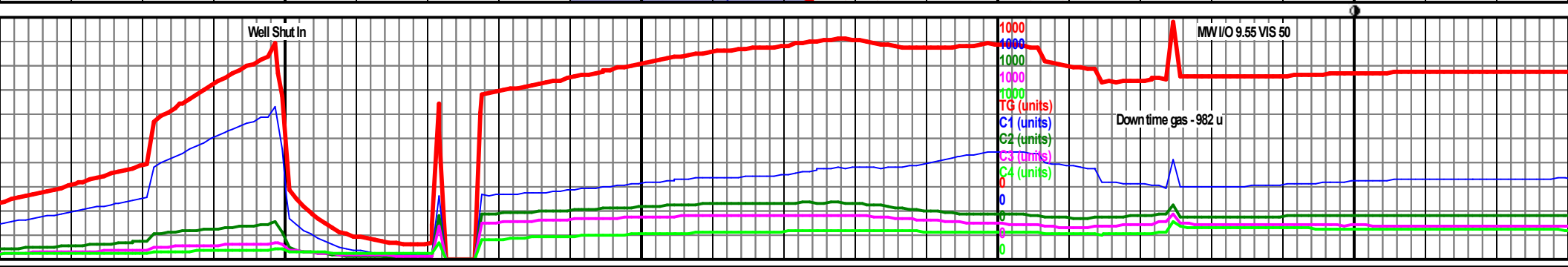
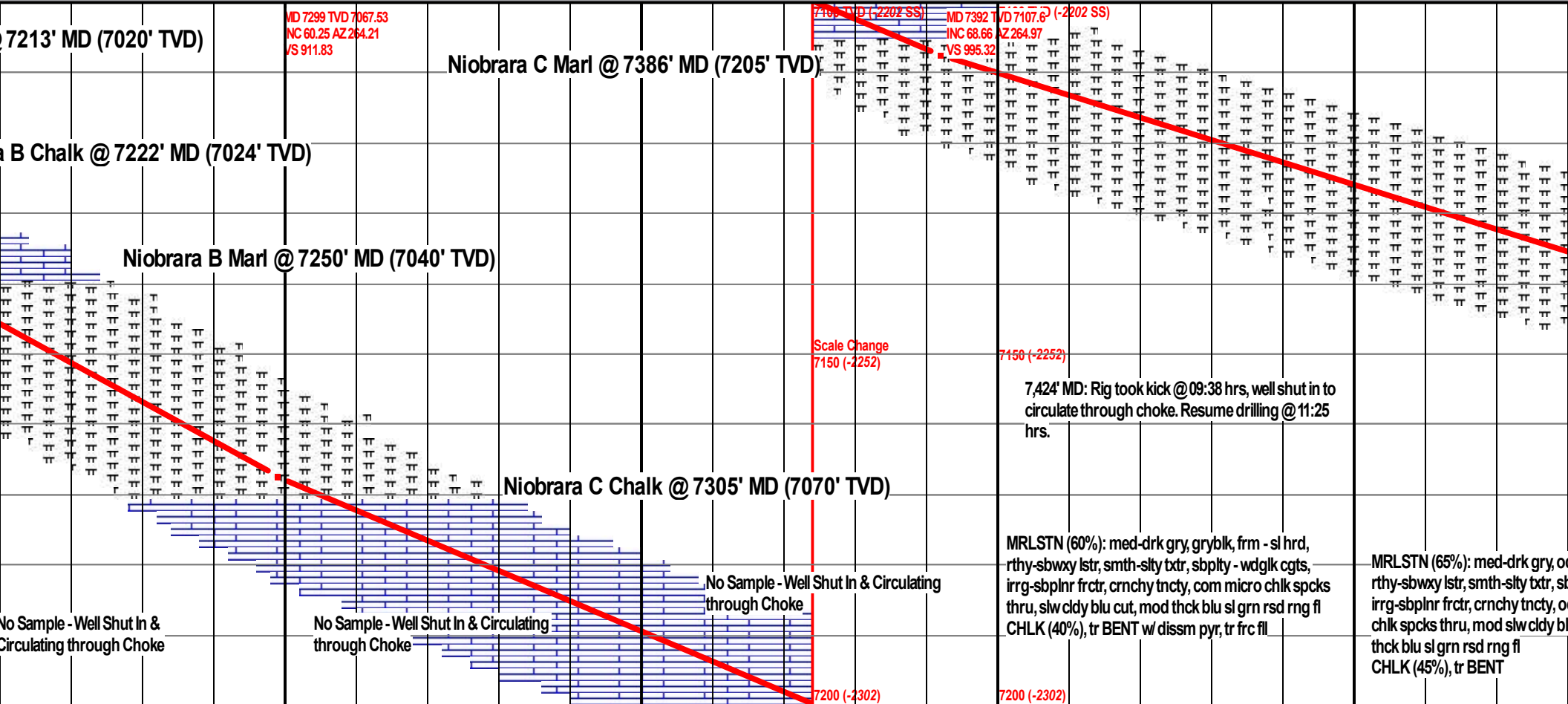
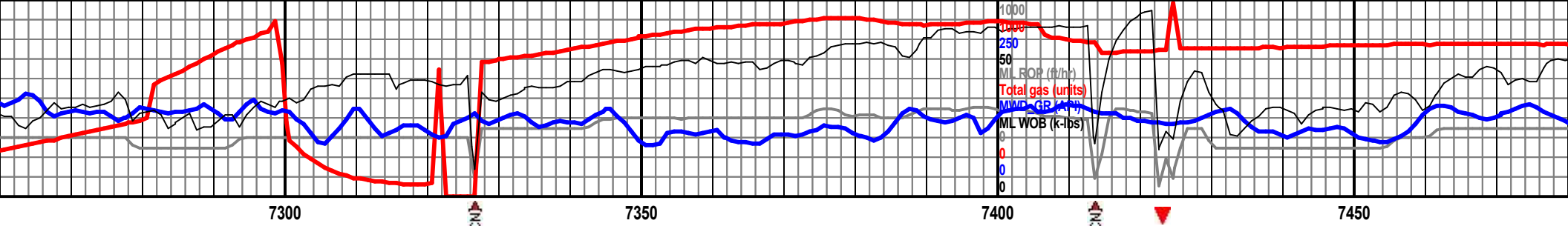
Core
 Dst

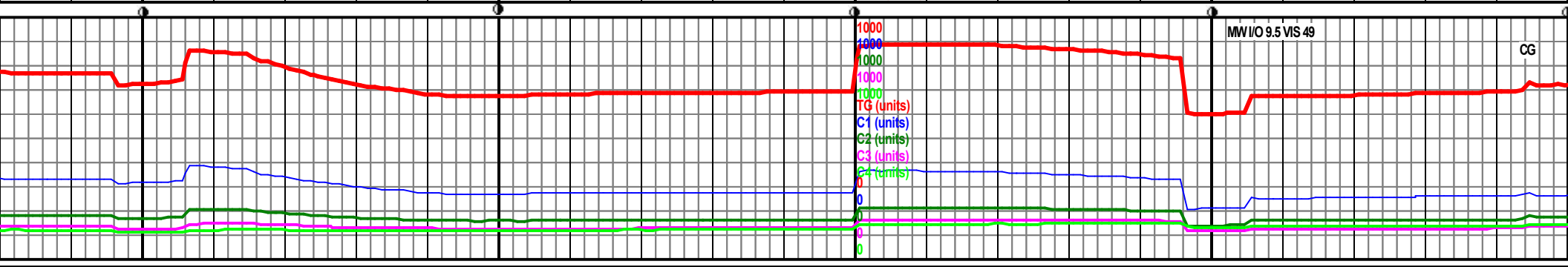
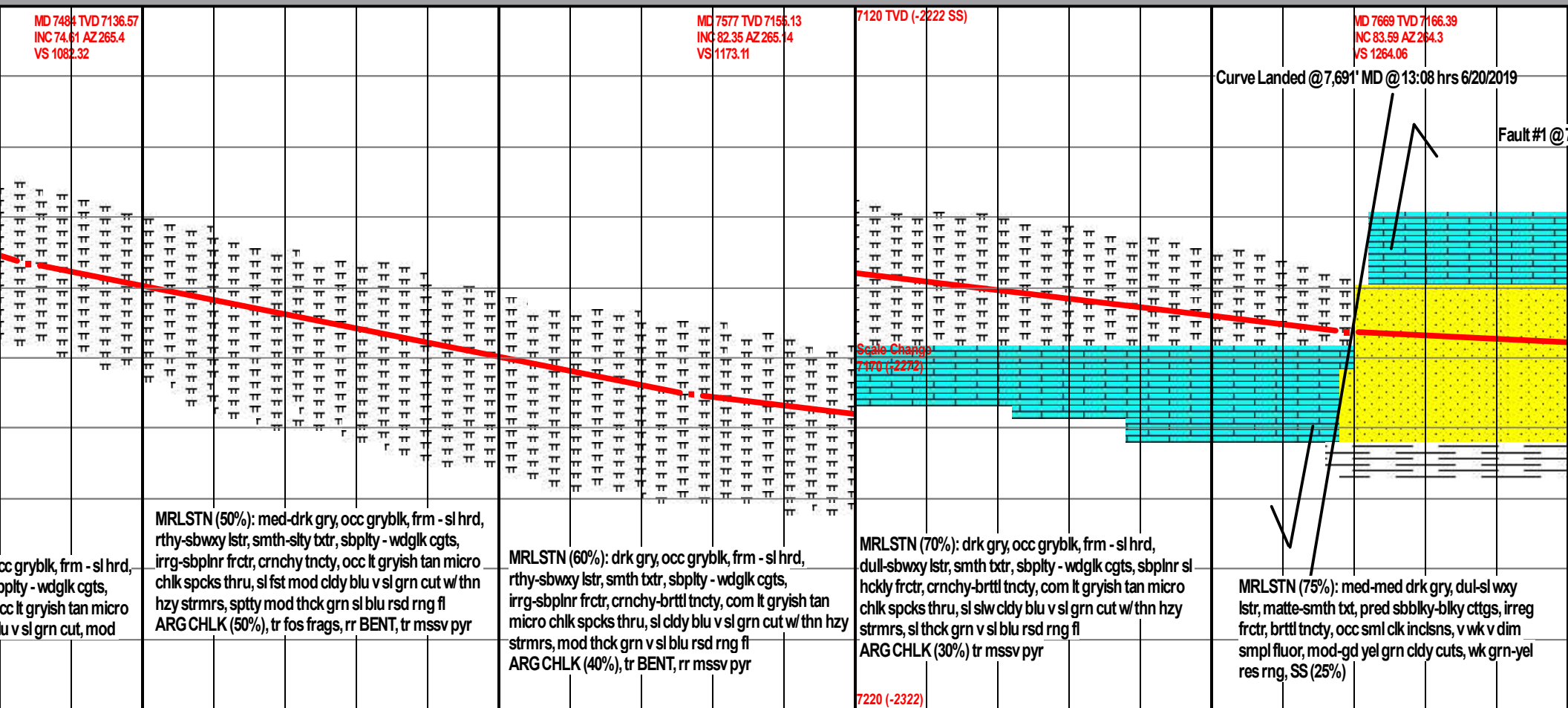
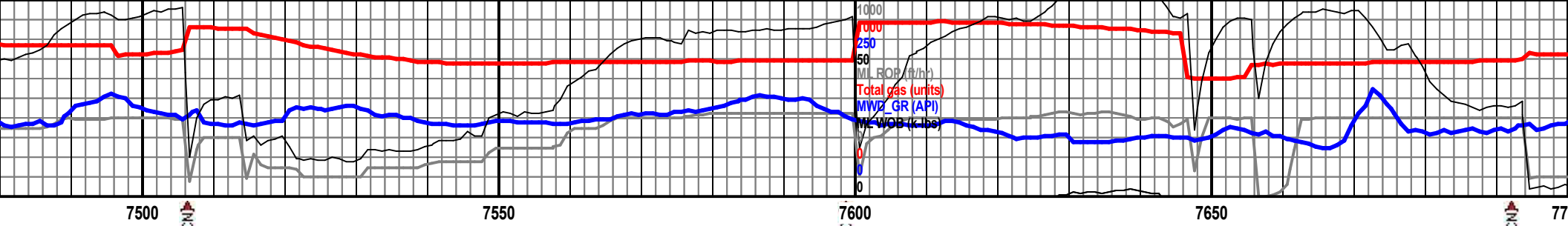
EVENTS

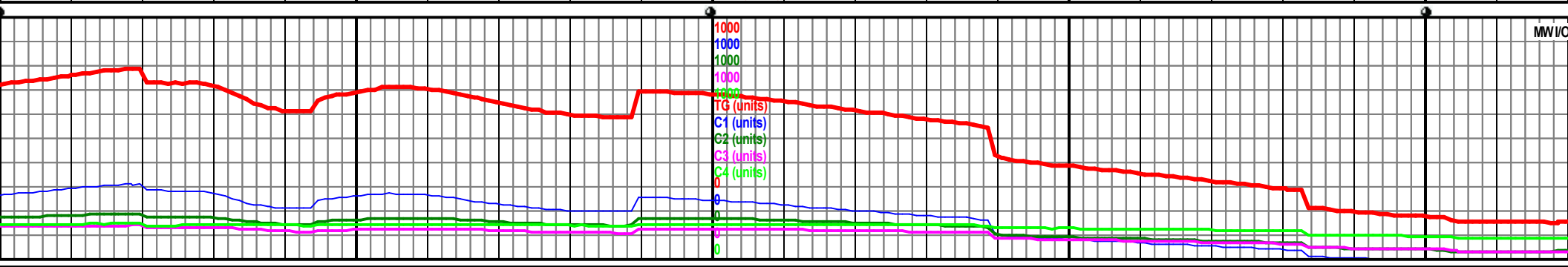
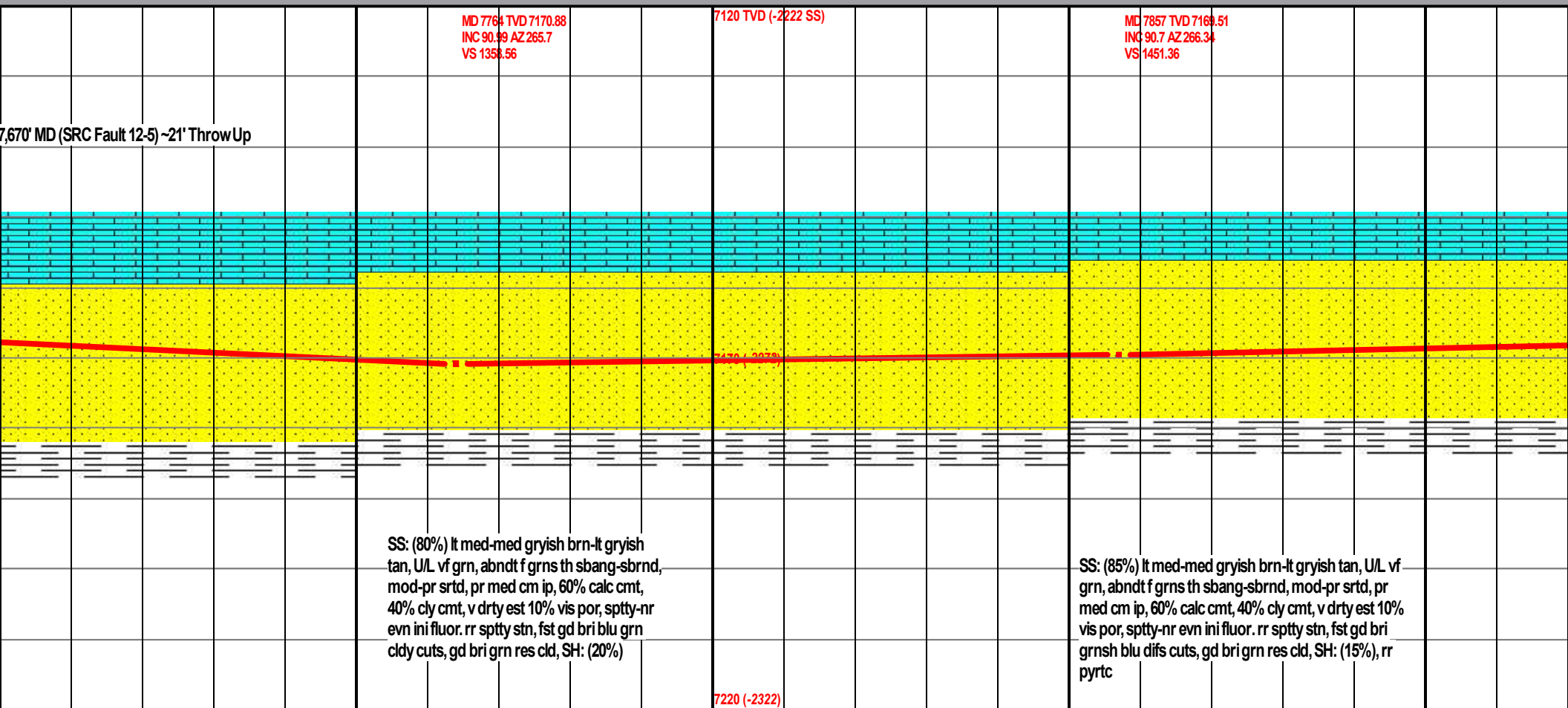
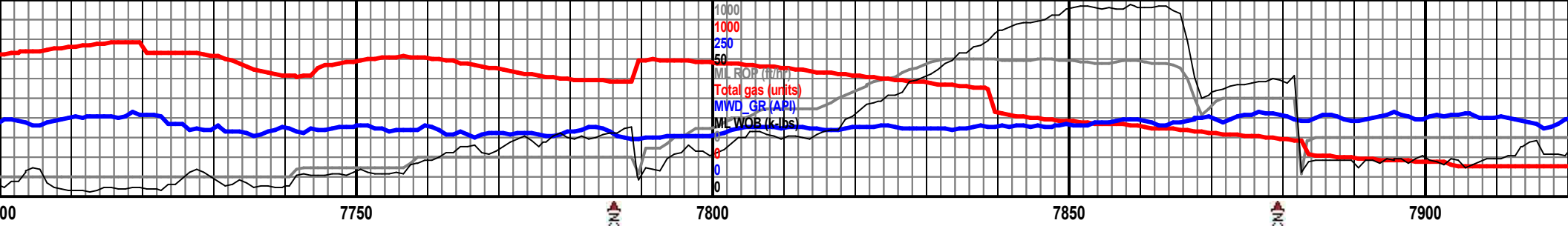
Casing shoe_hzl
 Trip_point_1
 Off bottom
 conn

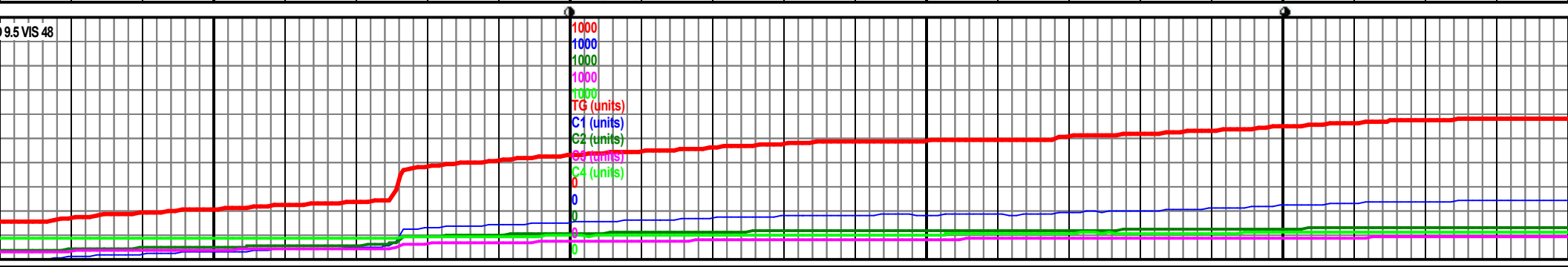
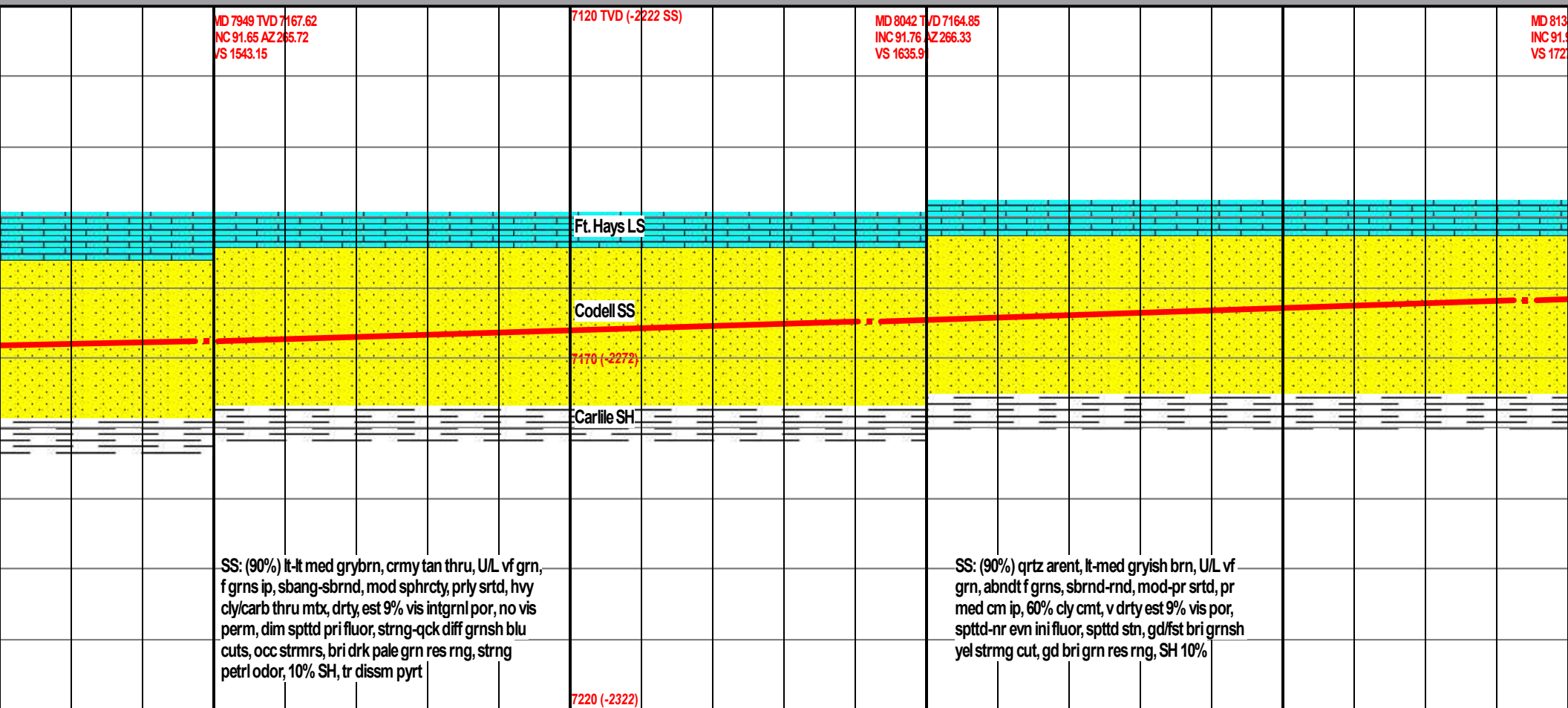
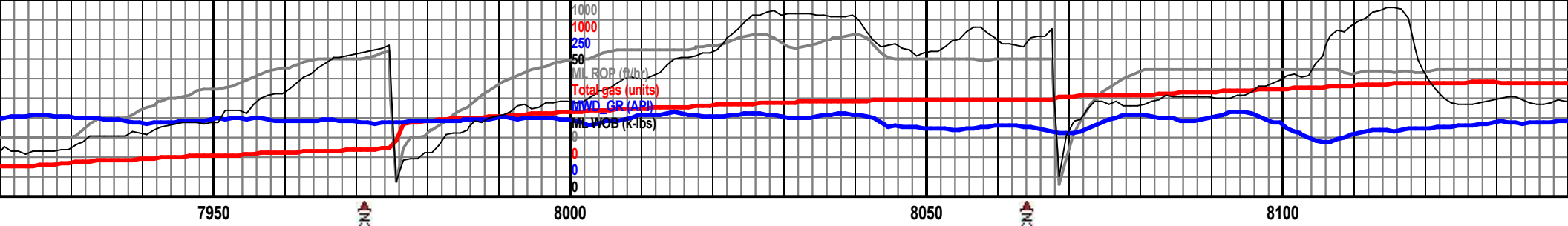
Survey(mwd)
 Survey(red)
 bit

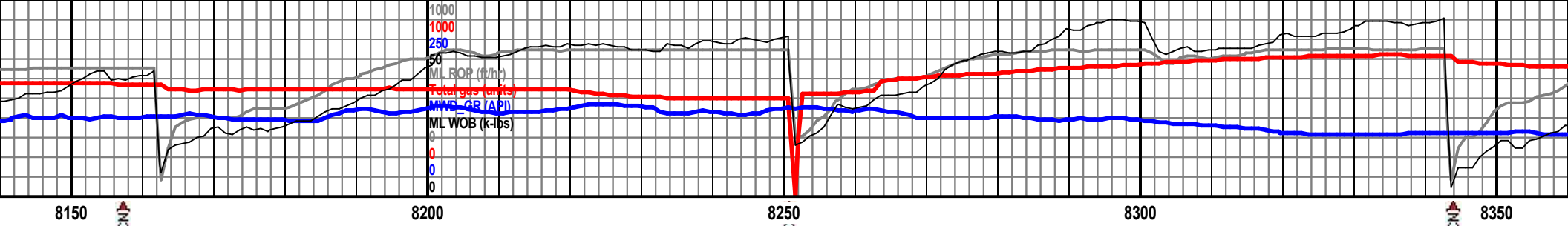










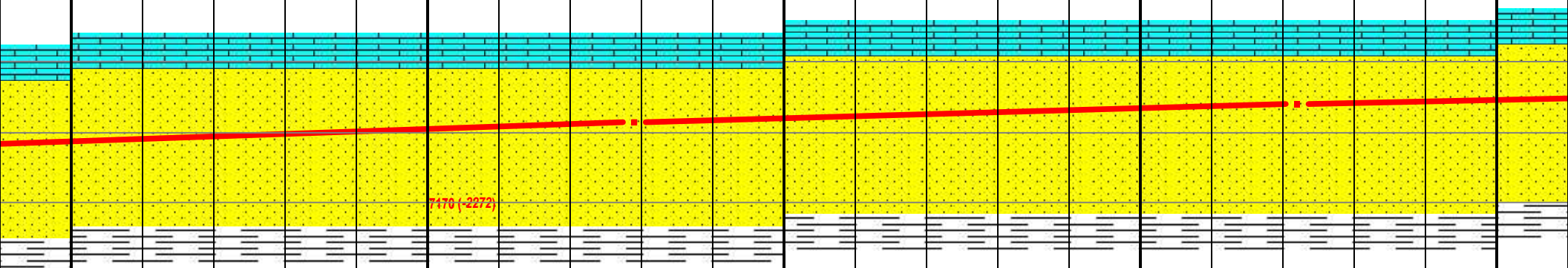


4 TVD 7161.87
6 AZ 266.59
7.71

7120 TVD (-2222 SS)

MD 8229 TVD 7158.66
NC 91.91 AZ 266.21
VS 1822.5

MD 8322 TVD 7156.02
INC 91.34 AZ 265.73
VS 1915.26

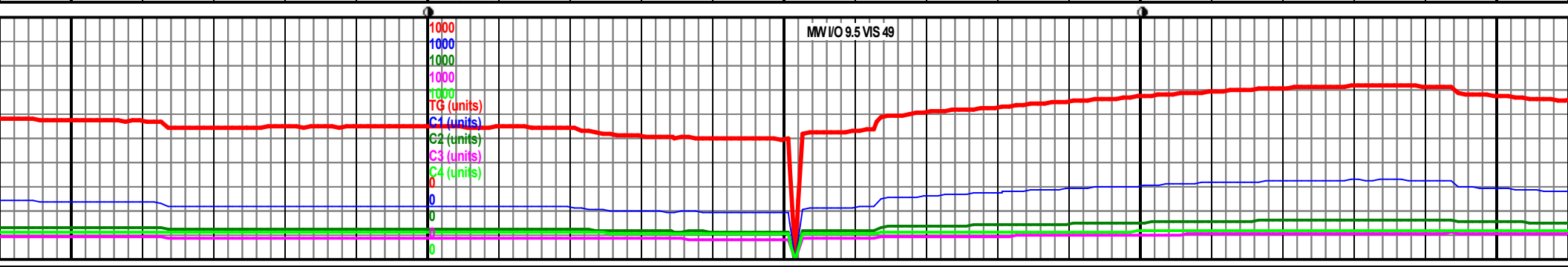


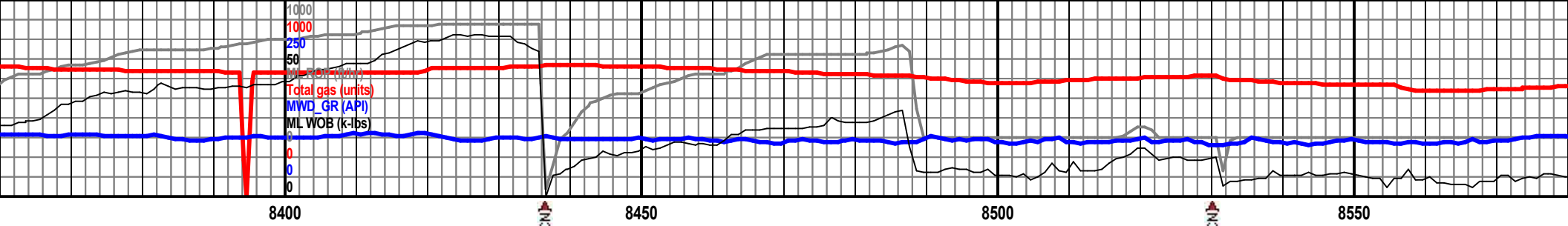
SS: (75%) lt-lt med grybrn, crmy tan thru, U/L vf grn, f
grns ip, sbang-sbrnd, mod sphrcty, prly srted, hvy
cly/carb thru mtx, drty, est 9% vis por, no vis perm, dim
spttd pri fluor, strng-qck cldy grnsh blu cuts, occ strms,
bri drk pale grn res rng, strng petr odor, incrsng SH
25%, occ pyrtc

7220 (-2322)

SS: (70%) lt-lt med grybrn, crmy tan thru, U/L vf grn, f
grns ip, sbang-sbrnd, mod sphrcty, prly srted, hvy
cly/carb thru mtx, drty, est 9% vis por, no vis perm, dim
spttd pri fluor, strng-qck cldy grnsh blu cuts, occ
strms, bri drk pale grn res rng, strng petr odor, SH
30%, occ pyrtc

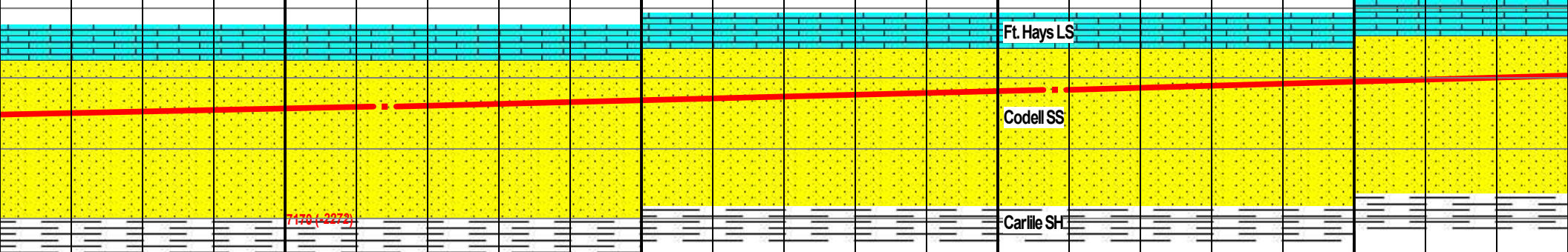
SS: (80%)
grn, f grn
hvy cly/ca
perm, dim
grnsh blu
SH 20%,





7120 TVD (-2222 SS)
MD 8414 TVD 7153.97
INC 91.22 AZ 264.89
VS 2006.96

MD 8508 TVD 7151.67
INC 91.58 AZ 268.17
VS 2100.68

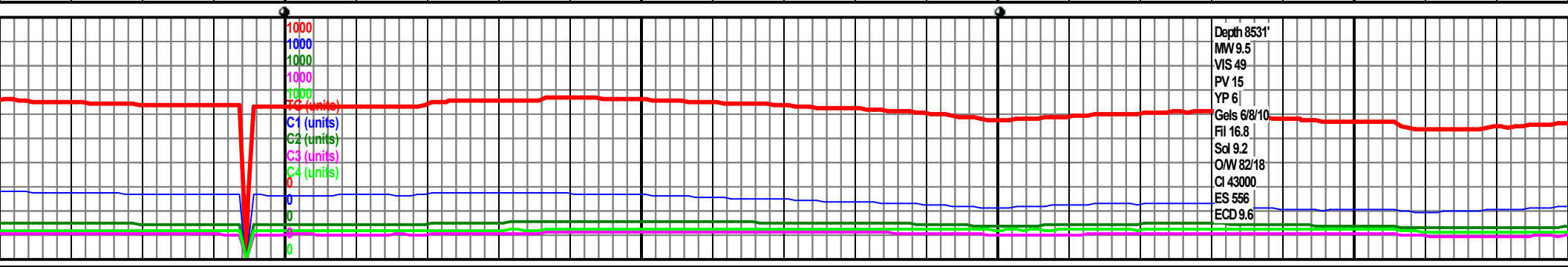


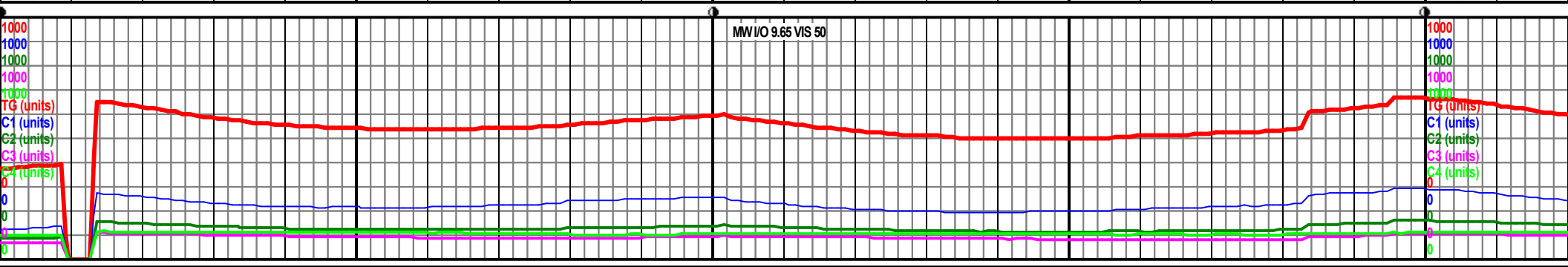
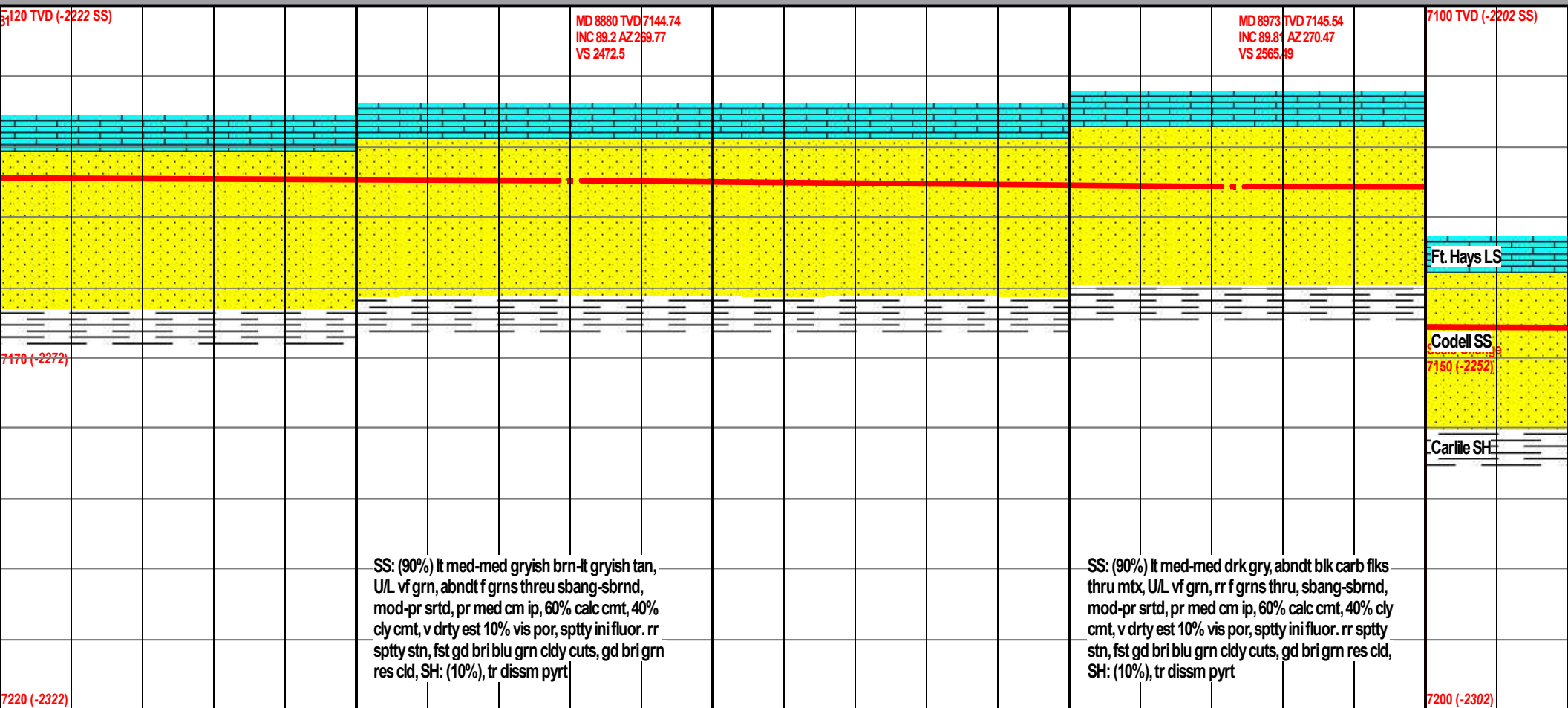
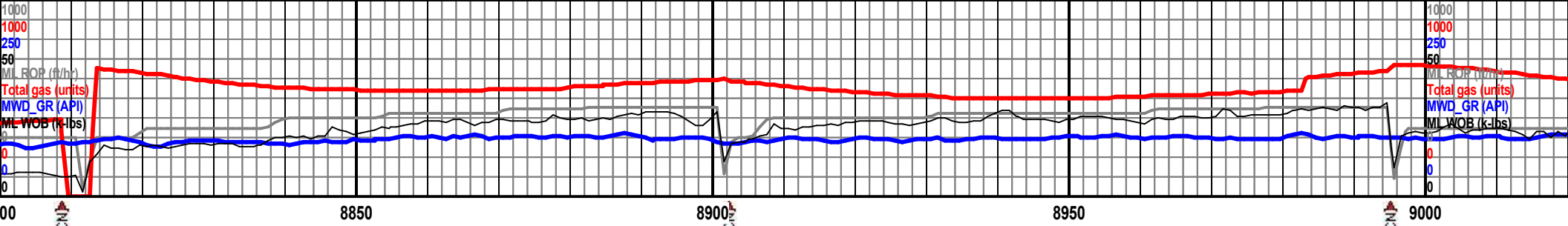
It-lt med grybrn, crmy tan thru, U/L vf
is ip, sbang-sbrnd, mod sphrcty, prly srted,
rb thru mtx, drty, est 9% vis por, no vis
n spttd-nr even pri fluor, strng-qck cldy
u cuts, occ strms, bri drk pale grn res rng,
occ pyrtc

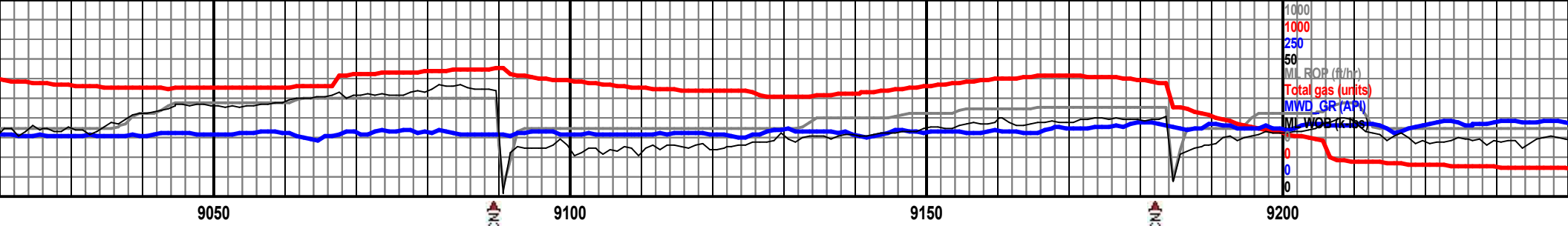
SS: (80%) It-lt med grybrn, crmy tan thru, U/L vf grn,
f grns ip, sbang-sbrnd, mod sphrcty, prly srted, hvy
cly/carb thru mtx, drty, est 9% vis por, no vis perm,
dim spttd-nr even pri fluor, strng-qck cldy grnsh blu
cuts, occ strms, bri drk pale grn res rng, SH 20%,
occ pyrtc

SS: (80%) It med-med gryish b
U/L vf grn, abndt f grns th sba
mod-pr srted, pr med cm ip, 60
cly cmt, v drty est 10% vis por,
fluor. rr sptty stn, fst gd bri blu
bri grn res cld, SH: (20%)

7220 (-2322)







MD 9067 TVD 7145.85
INC 89.82 AZ 270.71
VS 2659.48

MD 9160 TVD 7146.45
INC 89.44 AZ 271.07
VS 2752.46

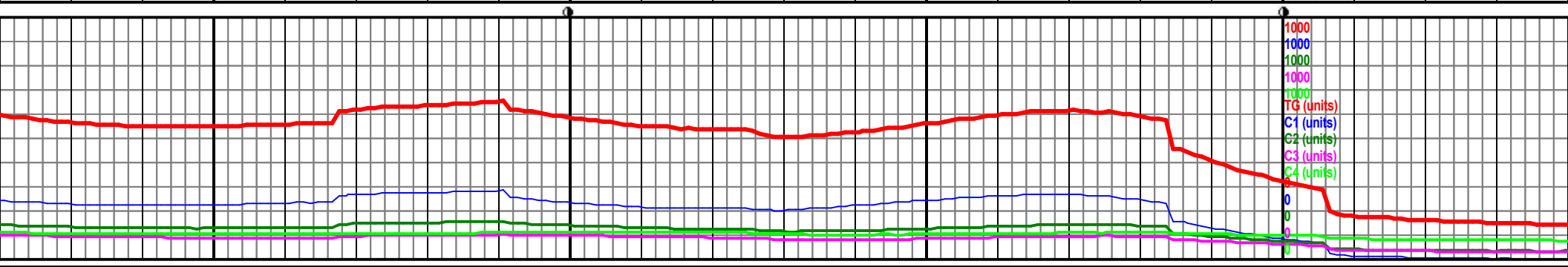
7100 TVD (-2202 SS)

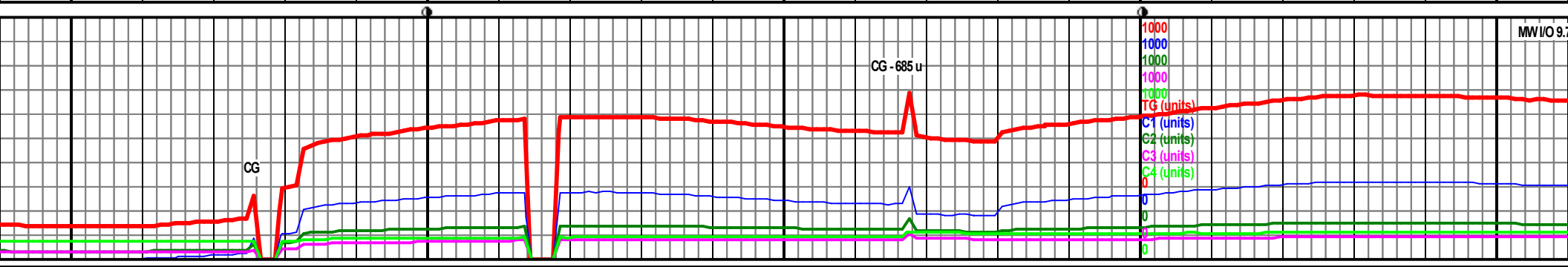
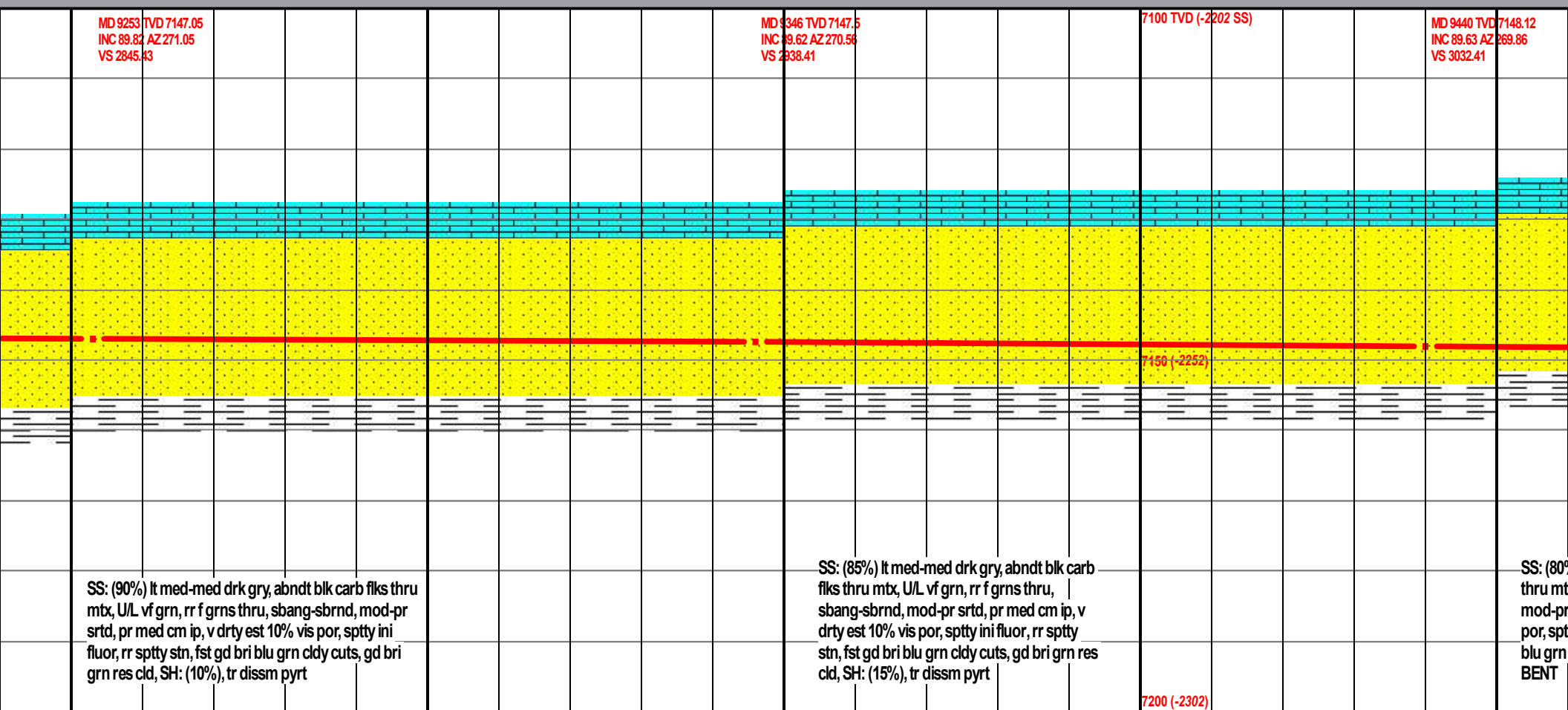
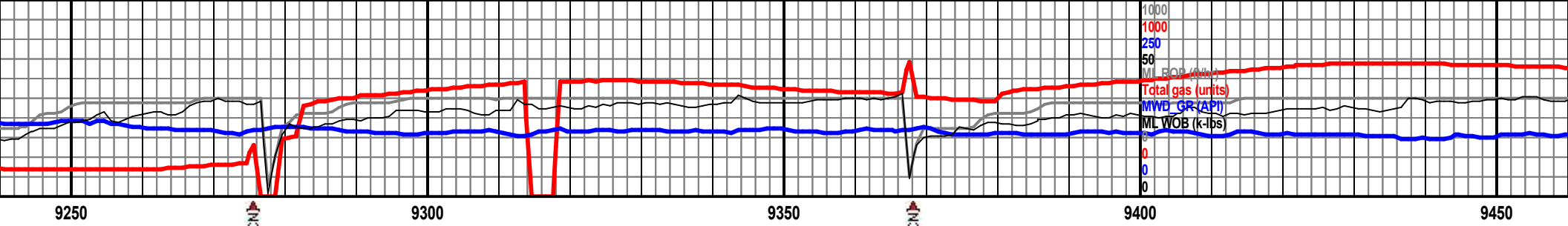
7150 (-2252)

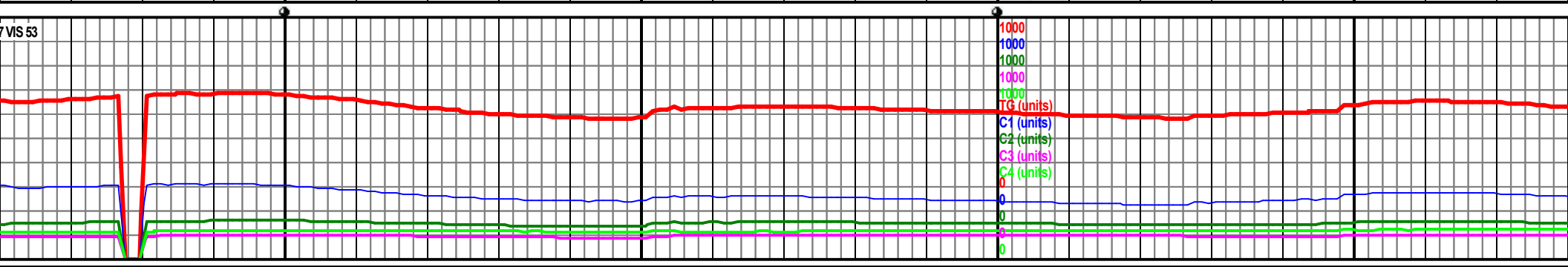
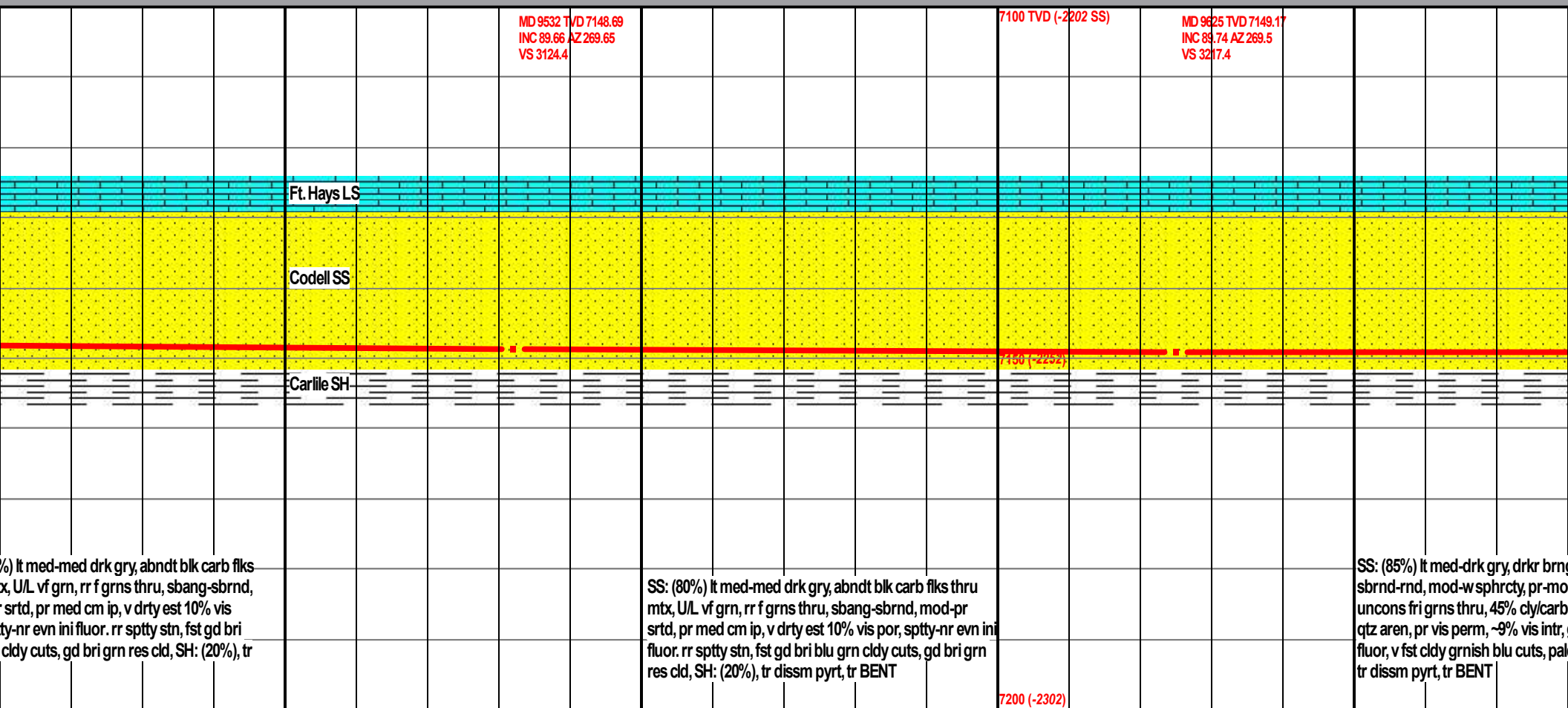
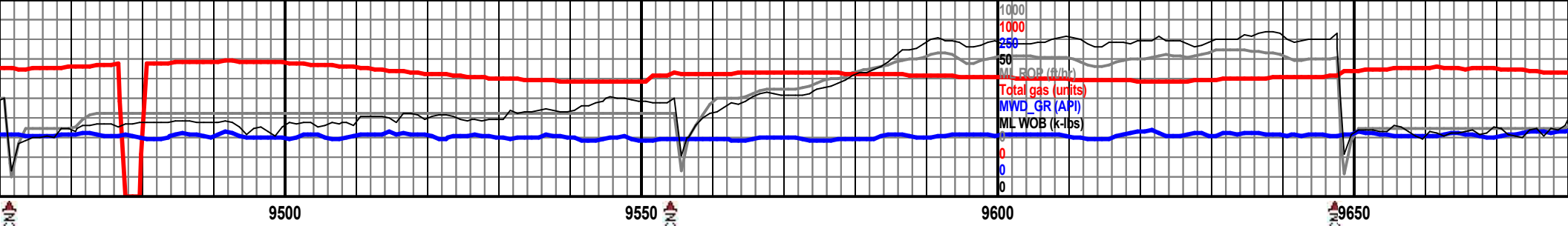
SS: (90%) lt med-med drk gry, abndt blk carb flks thru mtx, U/L vf grn, rr f grns thru, sbang-sbrnd, mod-pr srted, pr med cm ip, 60% calc cmt, 40% cly cmt, v drty est 10% vis por, sptty ini fluor, rr sptty stn, fst gd bri blu grn cldy cuts, gd bri grn res cld, SH: (10%), tr dissim pyrt

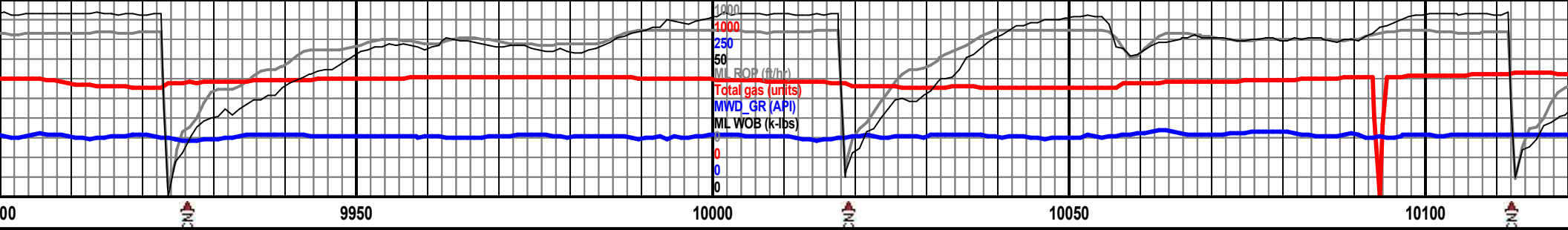
SS: (90%) lt med-med drk gry, abndt blk carb flks thru mtx, U/L vf grn, rr f grns thru, sbang-sbrnd, mod-pr srted, pr med cm ip, 60% calc cmt, 40% cly cmt, v drty est 10% vis por, sptty ini fluor, rr sptty stn, fst gd bri blu grn cldy cuts, gd bri grn res cld, SH: (10%), tr dissim pyrt

7200 (-2302)





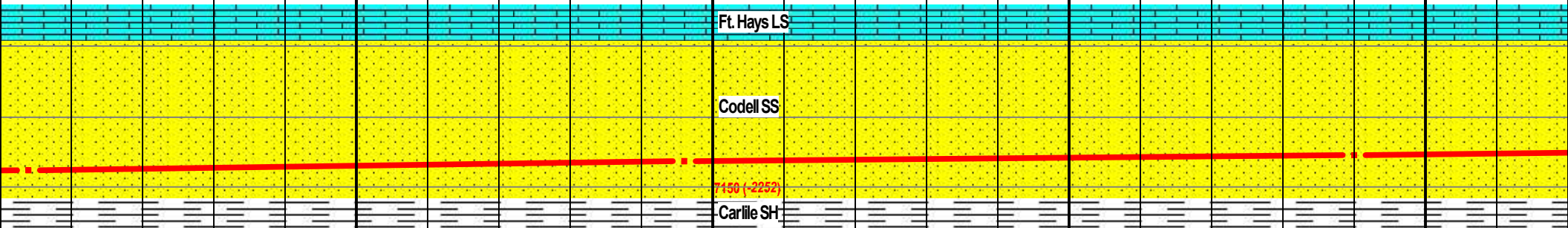




MD 9904 TVD 7147.54
INC 90.42 AZ 270.05
VS 3496.39

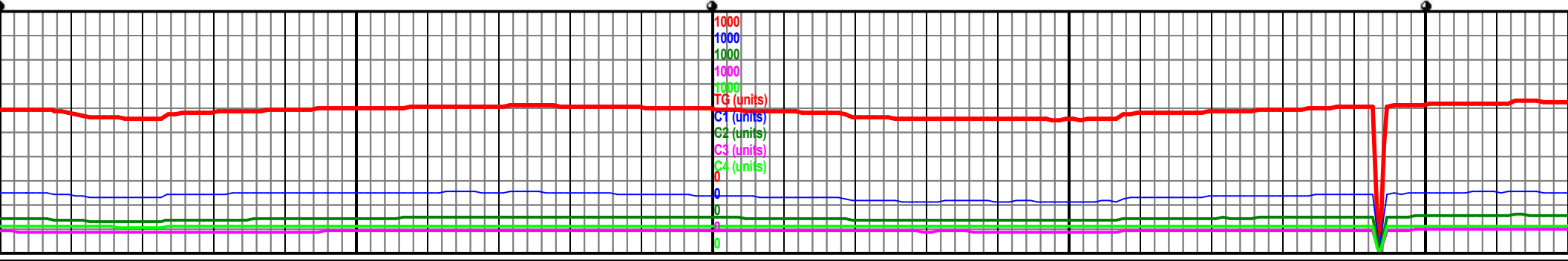
MD 9996 TVD 7146.85 (52 SS)
INC 90.56 AZ 268.89
VS 3588.38

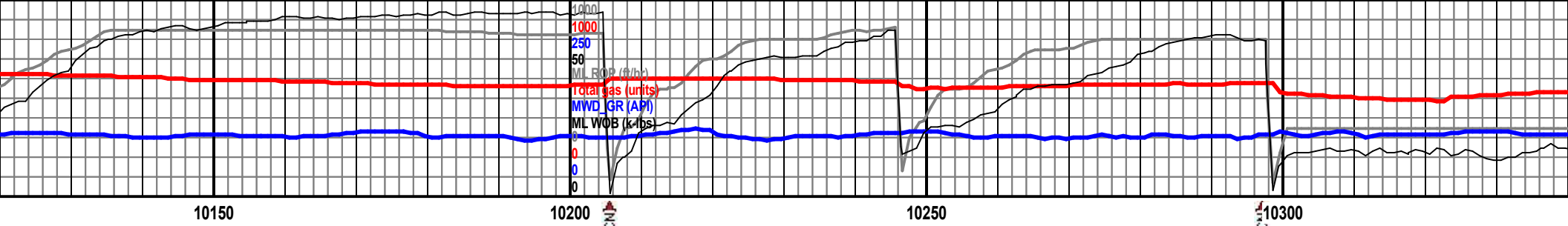
MD 10090 TVD 7145.38
INC 90.62 AZ 268.62
VS 3682.36



ARG SS: (85%) lt med-med gryish brn-lt gryish tan, L vf grn, abndt vf grns, sbrnd, mod-pr srtd, pr med cm ip, 40% calc cmt, 60% cly cmt, v drty est 8% vis por, lrg ptchy-nr evn ini fluor, spttd stn, gd/fst bri grnsh blu hzy cuts, occ slw stdy strmr, gd bri grn res rng, gsy odor, SH (15%)

ARG SS: (90%) lt med-med gryish brn-lt gryish tan, L vf grn, abndt vf grns, sbrnd, mod-pr srtd, pr med cm ip, 40% calc cmt, 60% cly cmt, v drty est 8% vis por, lrg ptchy-nr evn ini fluor, spttd stn, gd/fst bri grnsh blu hzy cuts, occ slw stdy strmr, gd bri grn res rng, gsy odor, SH (10%)





MD 10183 TVD 7144.36
INC 90.63 AZ 269.82
VS 3775.85

7100 TVD (-2202 SS)

MD 10275 TVD 7143.26
INC 90.74 AZ 269.15
VS 3867.34

7150 (-2252)

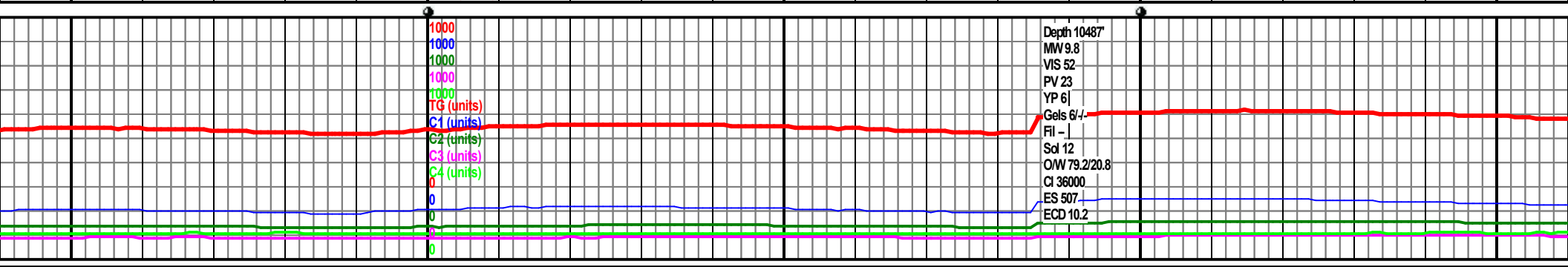
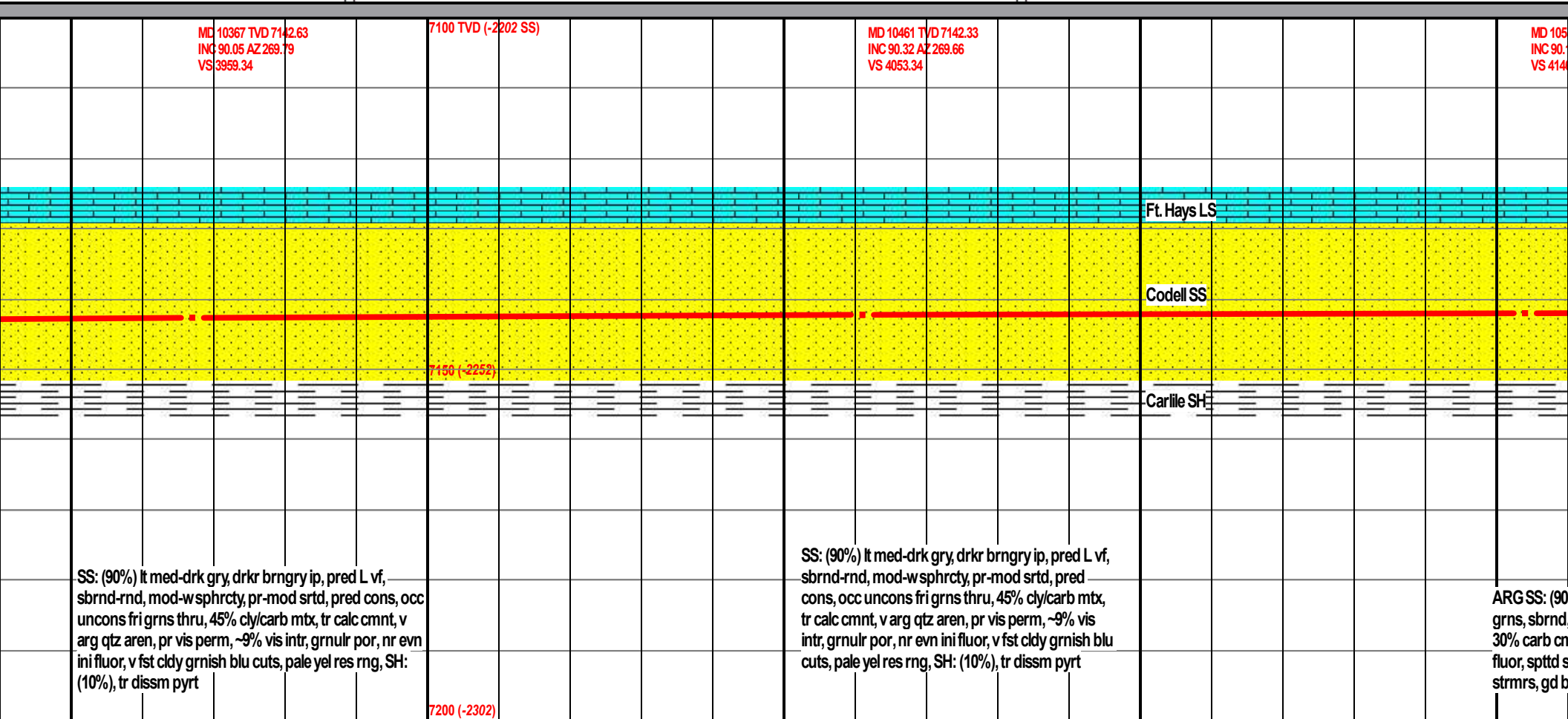
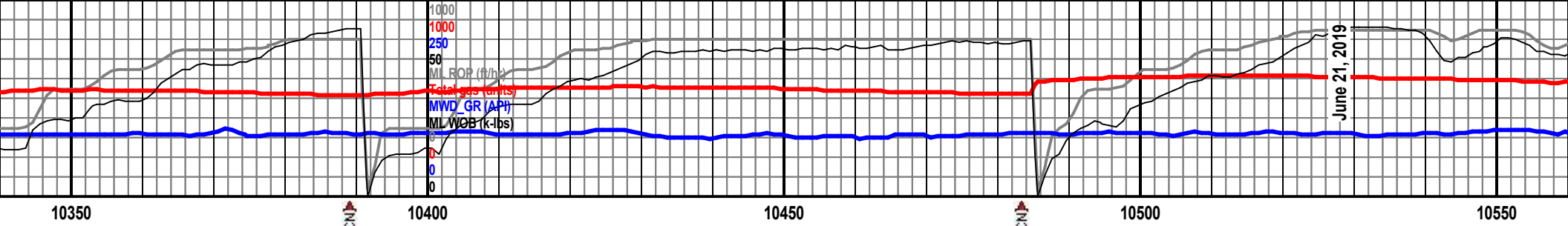
ARG SS: (90%) lt med-med gryish brn-lt gryish tan, L vf grn, abndt vf grns, sbrnd, mod-pr srted, pr med cm ip, 40% calc cmt, 60% cly cmt, v drty est 8% vis por, lrg ptchy-nr evn ini fluor, spttd stn, gd/fst bri grnsh blu hzy cuts, occ slw stdy strmers, gd bri grn res rng, gsy odor, SH (10%)

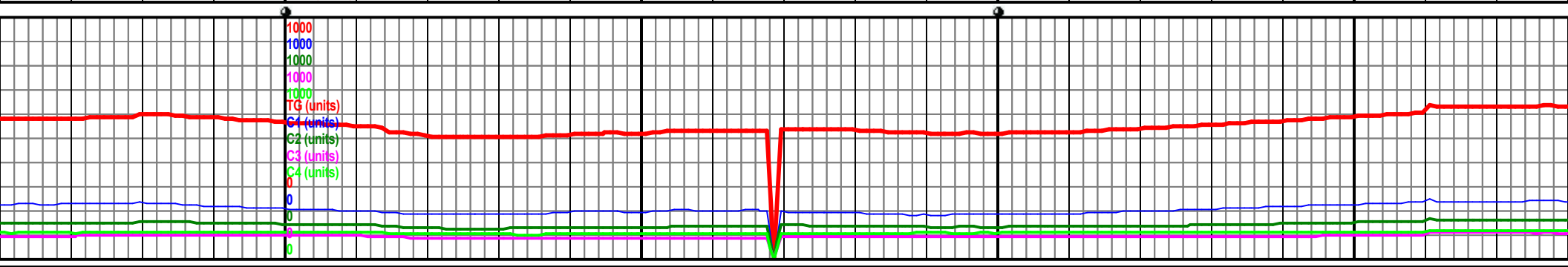
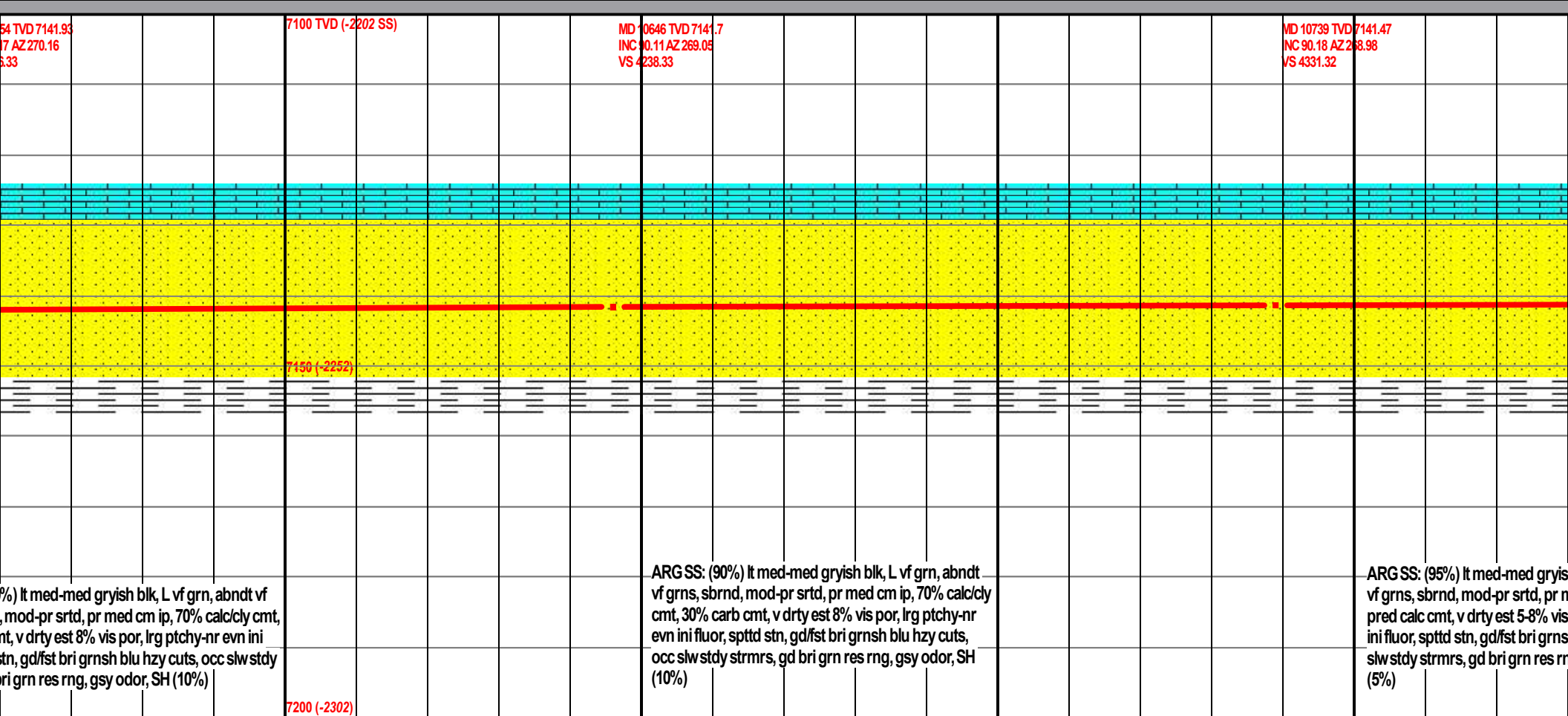
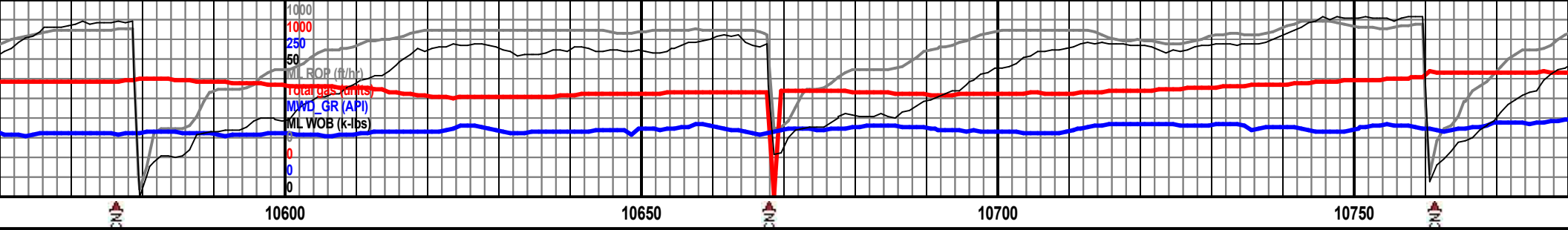
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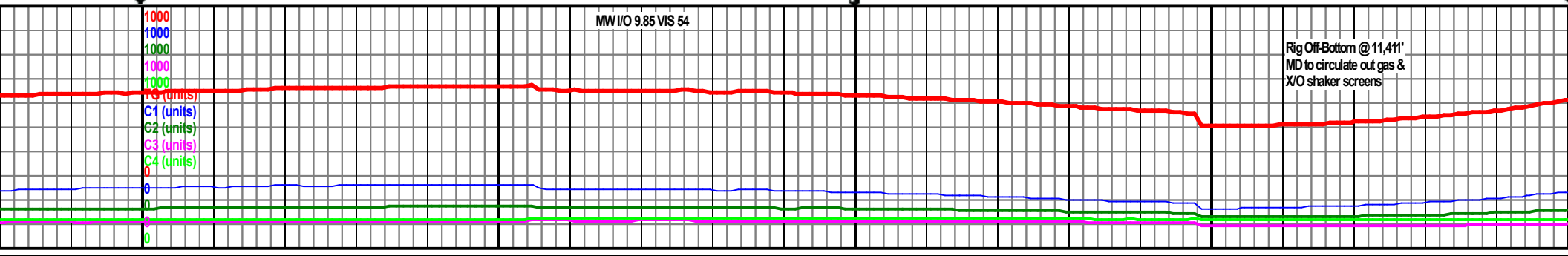
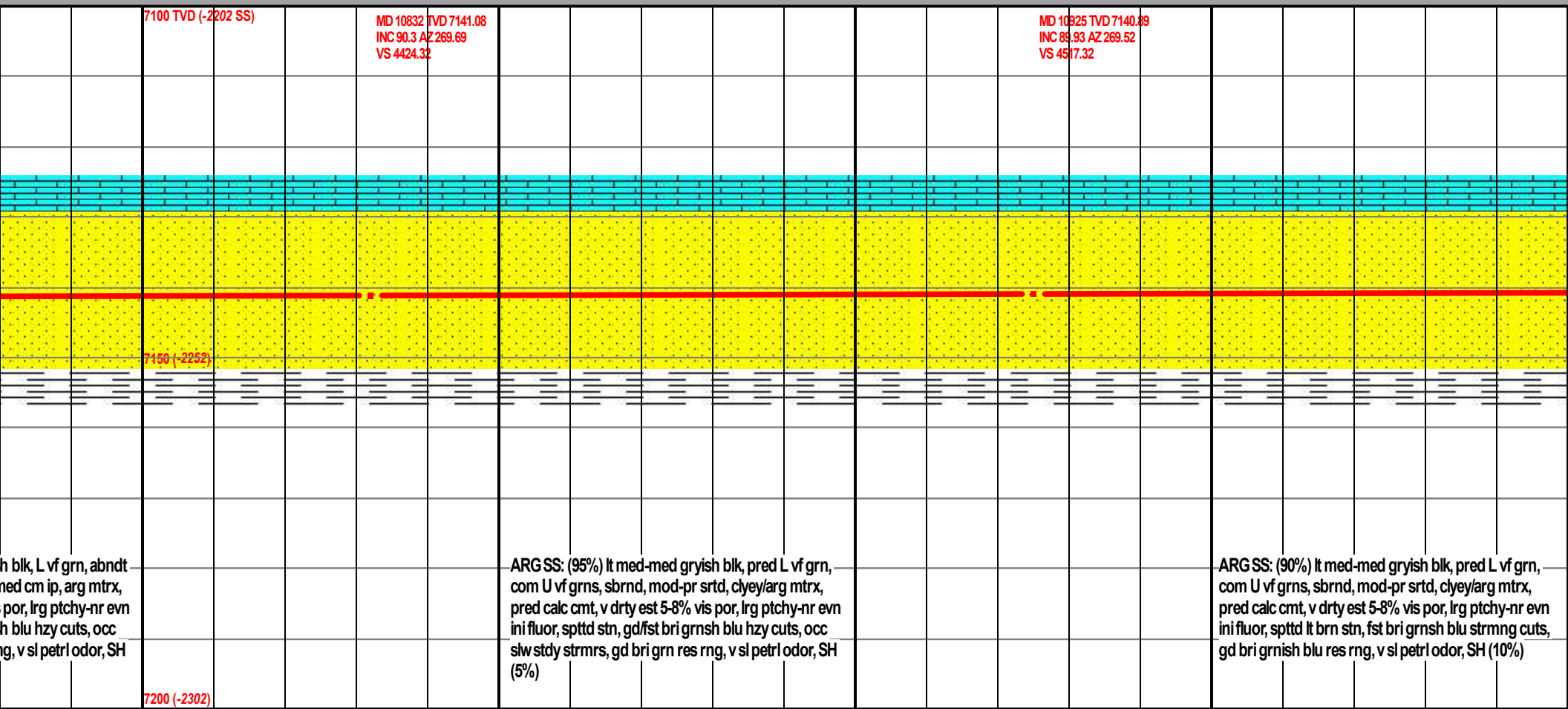
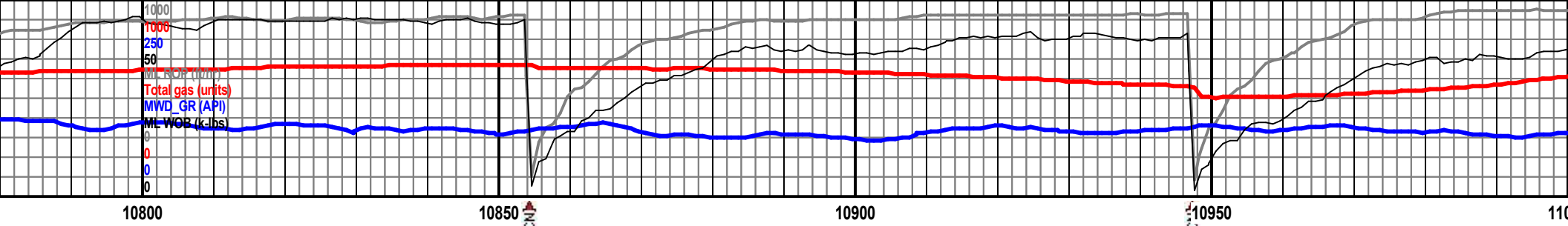
7200 (-2302)

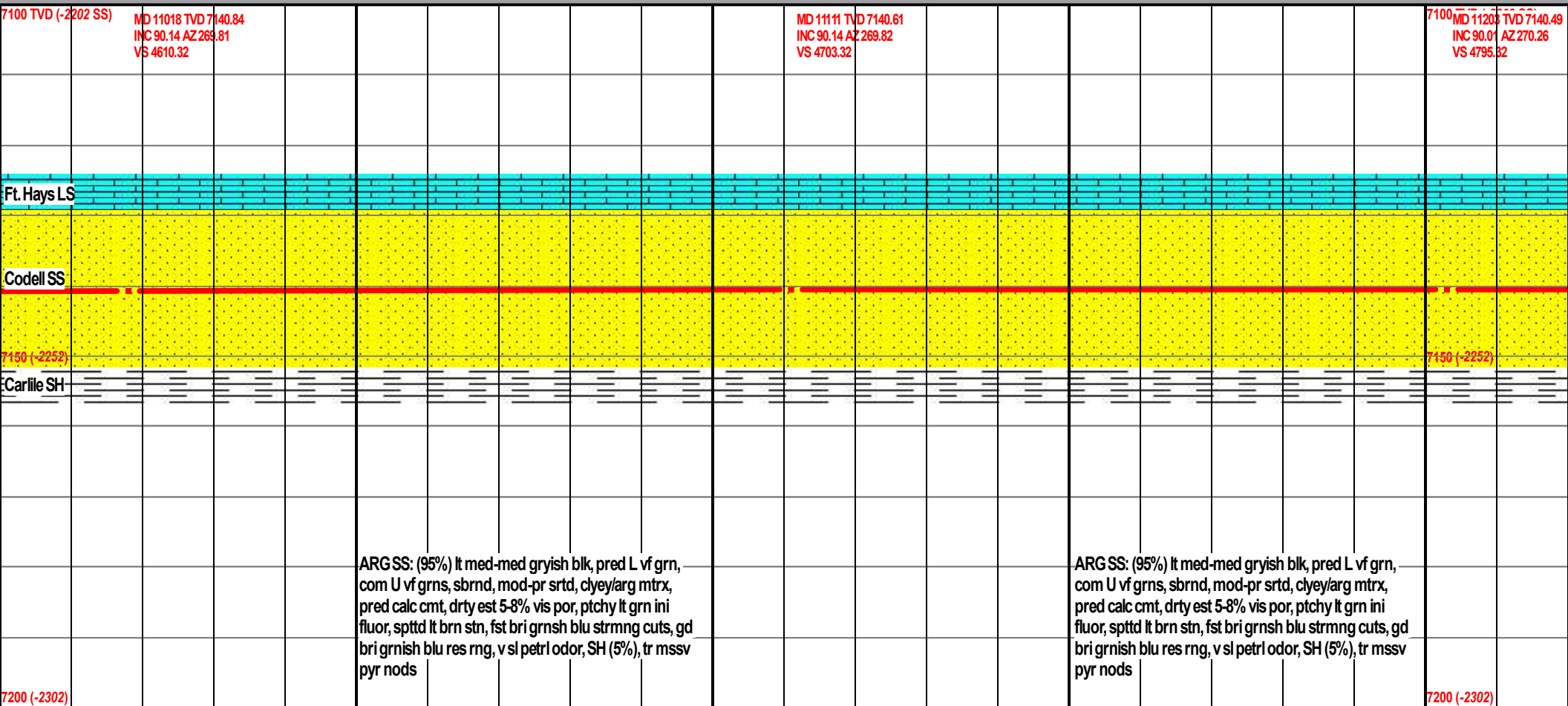
MW I/O 9.75 VIS 52

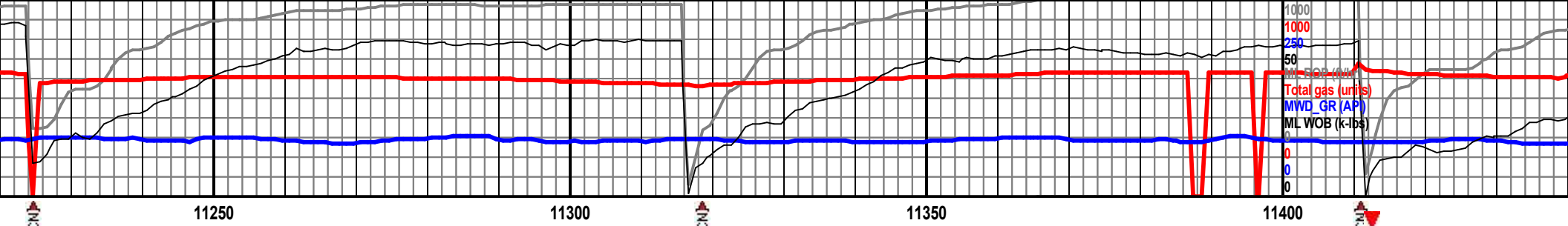
1000
1000
1000
1000
1000
1000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0
0







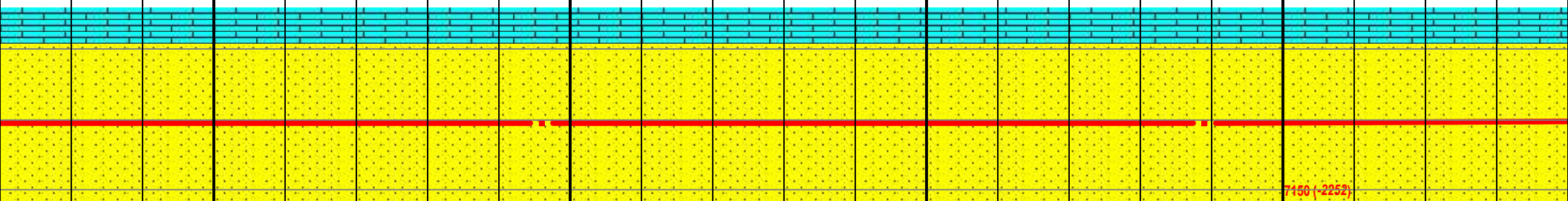




MD 11296 TVD 7140.62
INC 49.83 AZ 269.9
VS 4888.32

MD 11389 TVD 7140.54
INC 90.27 AZ 269.78
VS 4981.32

Rig Off-Bottom @ 11,411' MD to circulate on gas & XO shaker screens

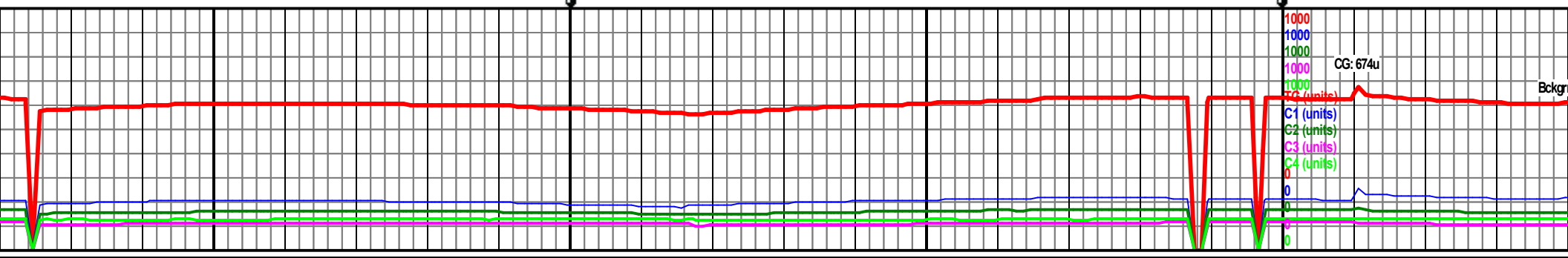


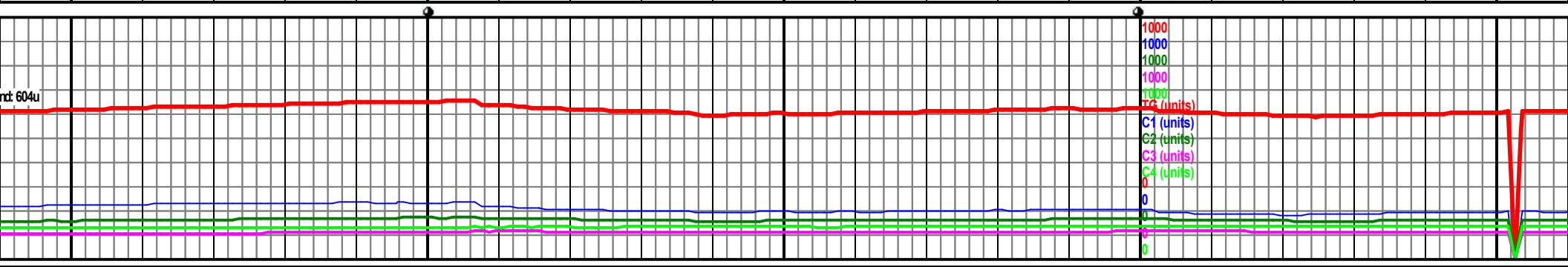
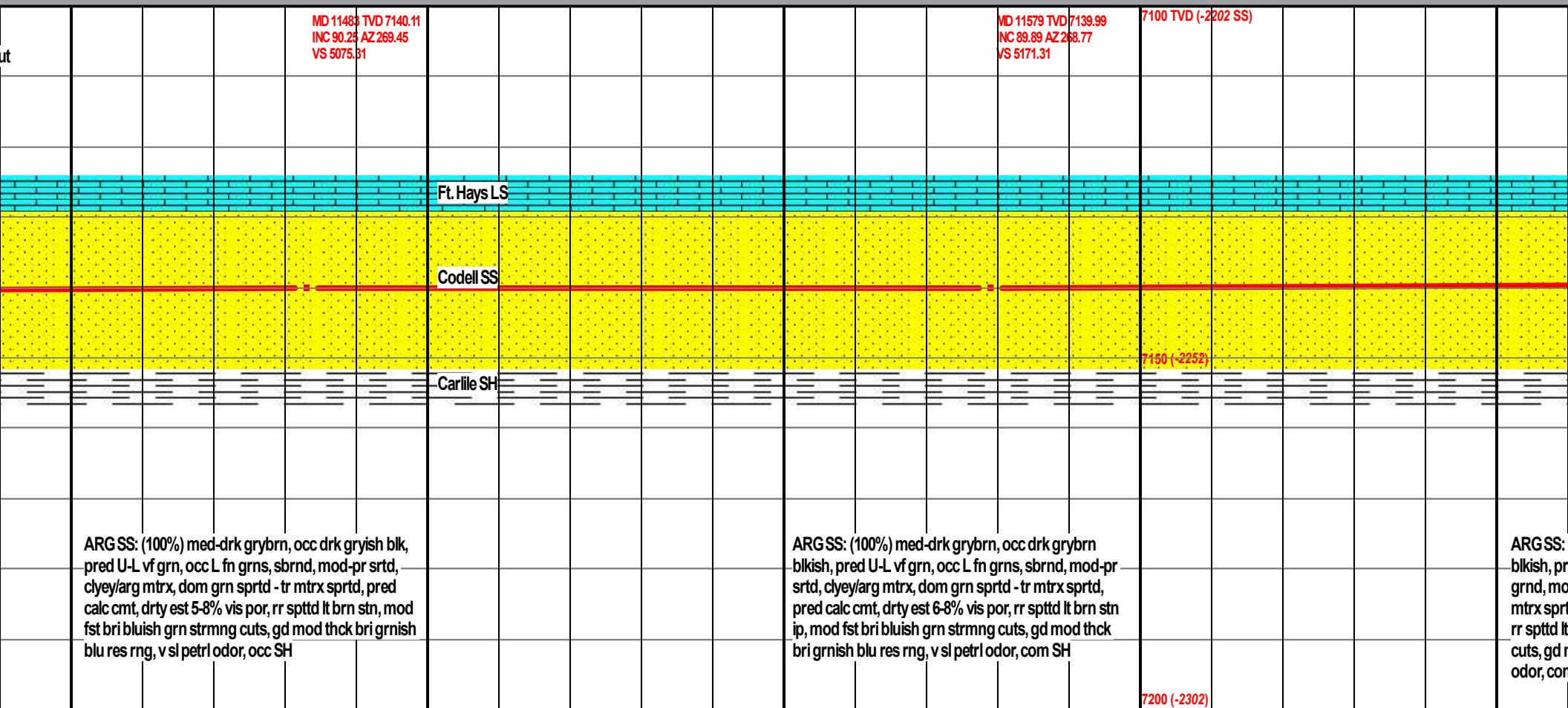
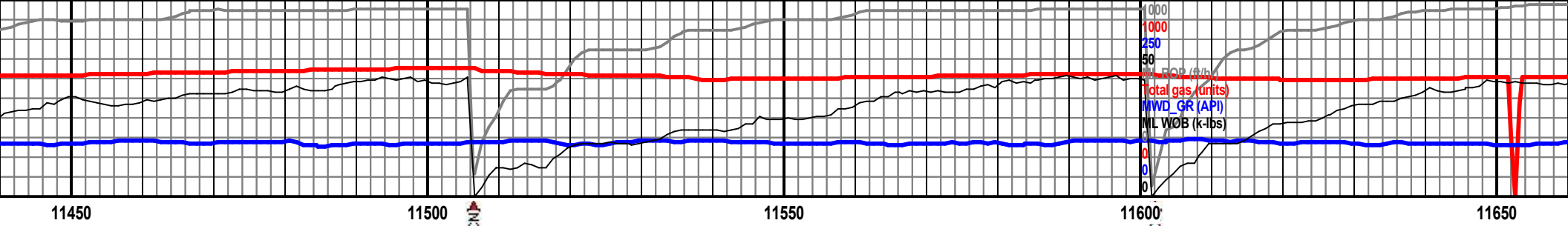
7150 (-2252)

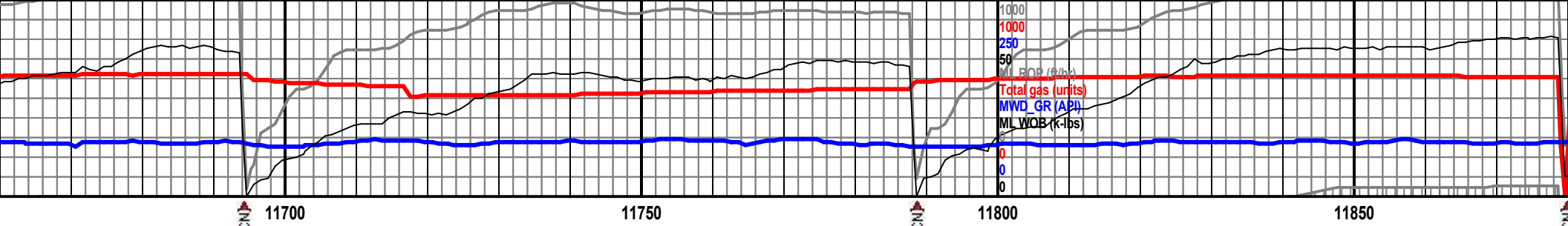
ARG SS: (100%) lt med-med gryish blk, pred L vf grn, com U vf grns, sbrnd, mod-pr srted, clayey/arg mtrx, pred calc cmt, drty est 5-8% vis por, rr spttd lt brn str, fst bri grnsh blu strmg cuts, gd bri grnsh blu res rng, v sl petr odor, com SH, tr mssv pyr nods

ARG SS: (100%) lt med-med gryish blk, pred L vf grn, com U vf grns, sbrnd, mod-pr srted, clayey/arg mtrx, pred calc cmt, drty est 5-8% vis por, rr spttd lt brn str, fst bri grnsh blu strmg cuts, gd bri grnsh blu res rng, v sl petr odor, occ SH

7200 (-2302)







MD 11671 TVD 7139.72
INC 90.45 AZ 270.36
VS 5263.3

MD 11754 TVD 7139.22
INC 90.17 AZ 269.96
VS 5356.3

7100 TVD (-2202 SS)

MD 11857 TVD 7139.03
INC 90.06 AZ 269.11
VS 5449.3

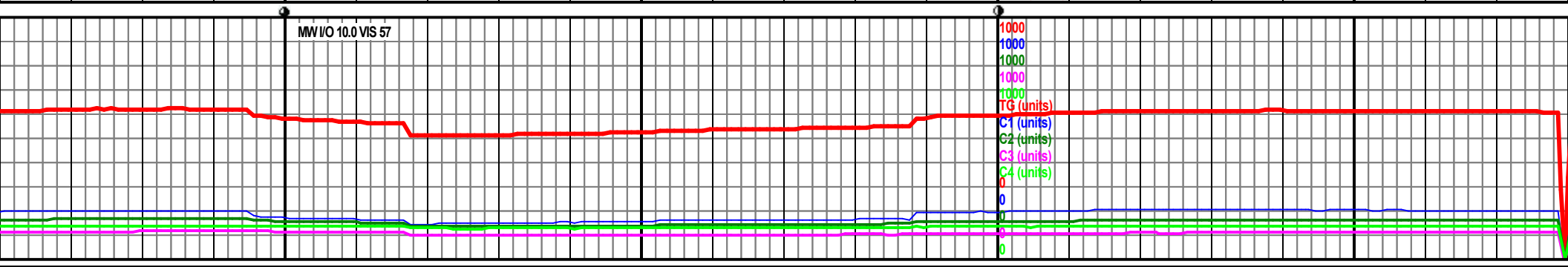


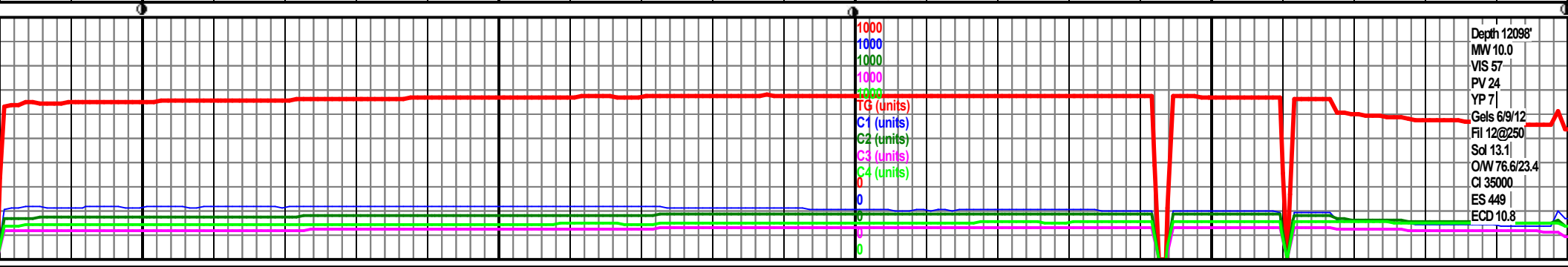
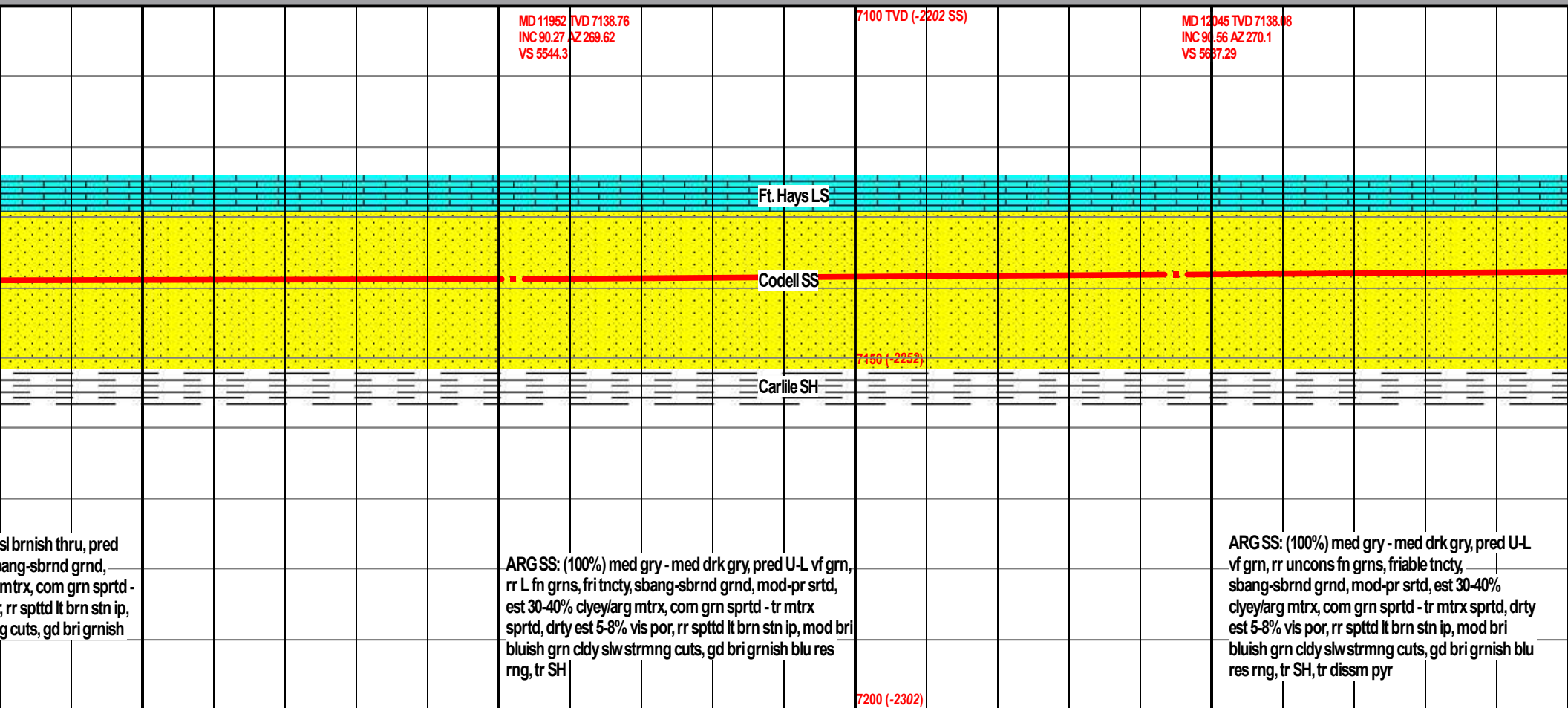
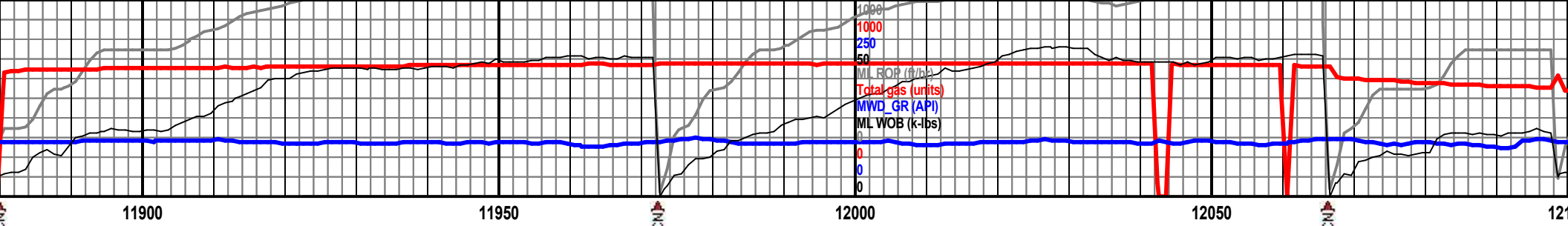
(100%) med-drk grybrn, occ drk grybrn
ed U-L vf grn, occ L fn grns, sbang-sbrnd
d-pr srted, clyey/arg mtrx, dom grn sprtd - tr
td, pred calc cmt sl silic, drty est 6-8% vis por,
brn stn ip, mod fst bri bluish grn strmnng
mod thck bri grnish blu res rng, v sl petr
n SH

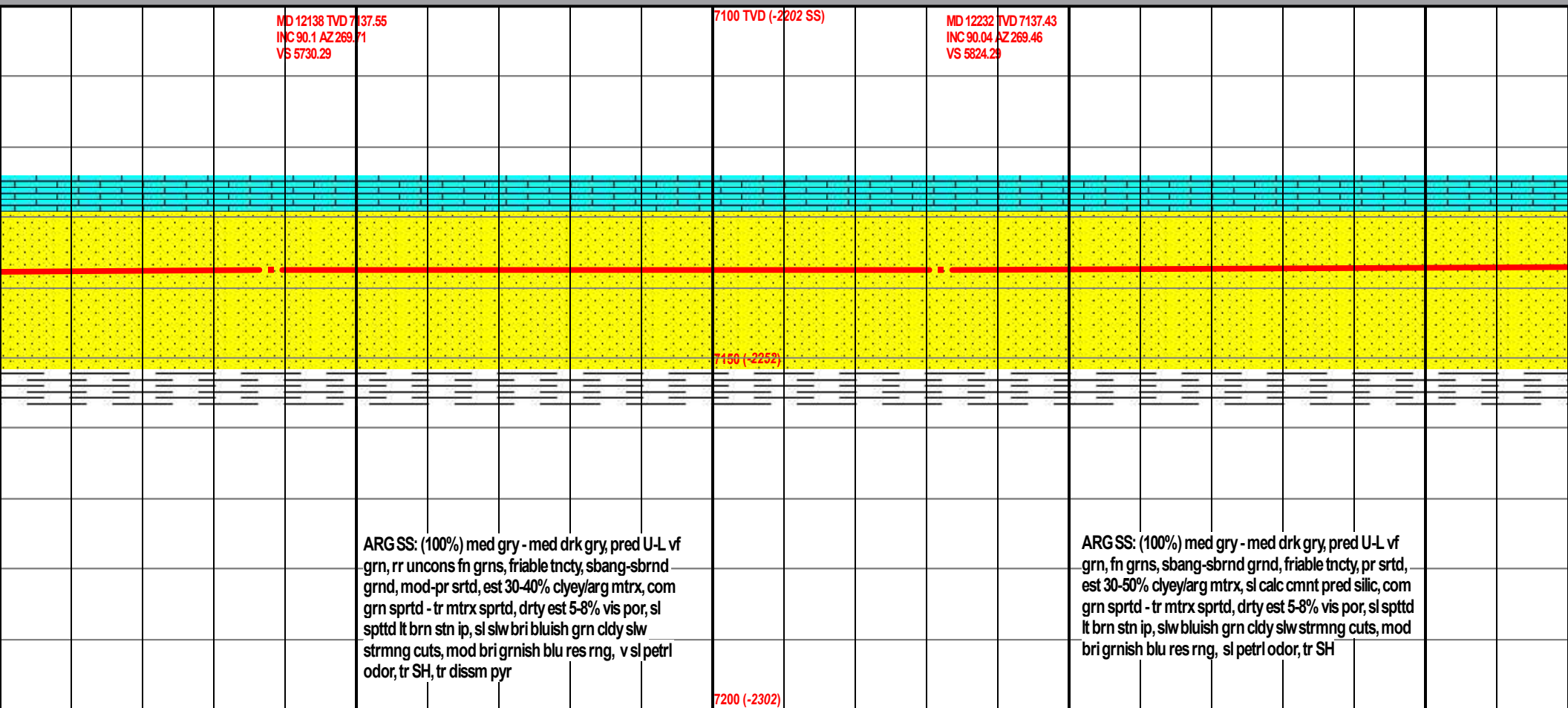
ARGSS: (100%) med-drk grybrn, sl brnsh thru, pred
U-L vf grn, occ L fn grns, sbang-sbrnd grnd, mod-pr
srted, clyey/arg mtrx, com grn sprtd - tr mtrx sprtd,
pred calc cmt sl silic, drty est 6-8% vis por, rr spstd lt
brn stn ip, gd/fst mod bri bluish grn cldy strmnng cuts,
gd thck bri grnish blu res rng, v sl petr odor, com SH

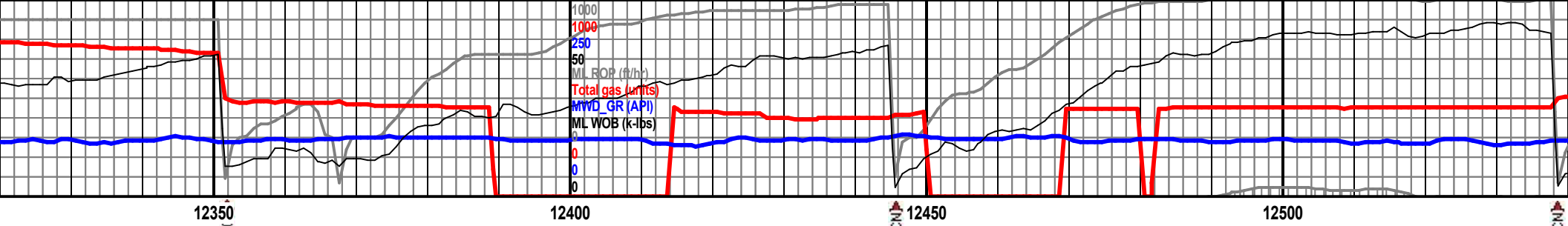
ARGSS: (100%) med-drk grybrn, rr L fn grns, fri tncy, sb
U-L vf grn, rr L fn grns, fri tncy, sb
mod-pr srted, est 30-40% clyey/arg
tr mtrx sprtd, drty est 5-8% vis por
mod bri bluish grn cldy slw strmnng
blu res rng, tr SH, tr dissim pyr

7200 (-2302)





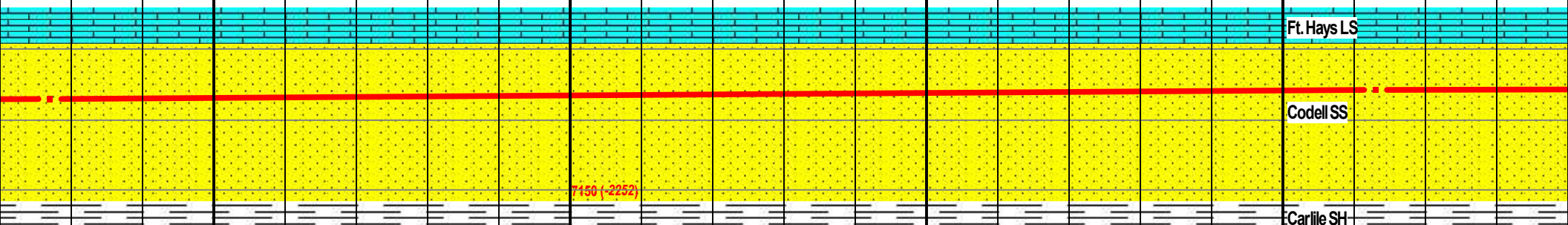




MD 12327 TVD 7137.01
INC 90.47 AZ 269.52
VS 5919.29

7100 TVD (-2202 SS)

MD 12513 TVD 7135.81
INC 90.27 AZ 269.62
VS 6105.28

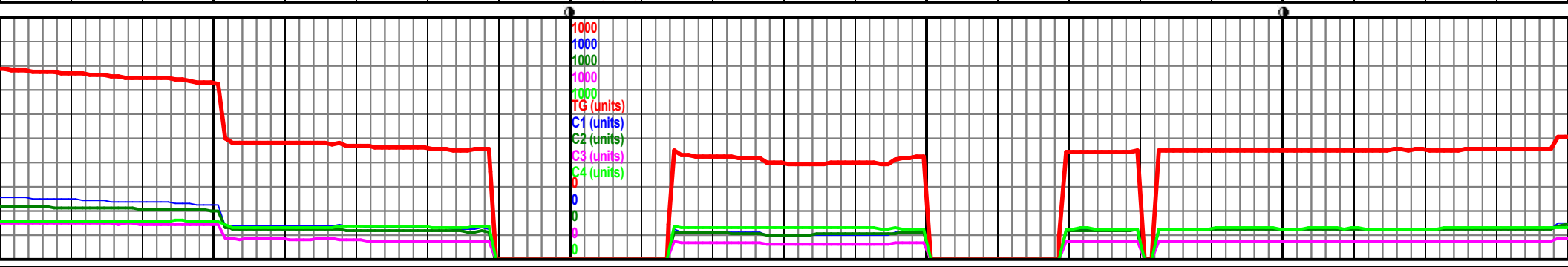


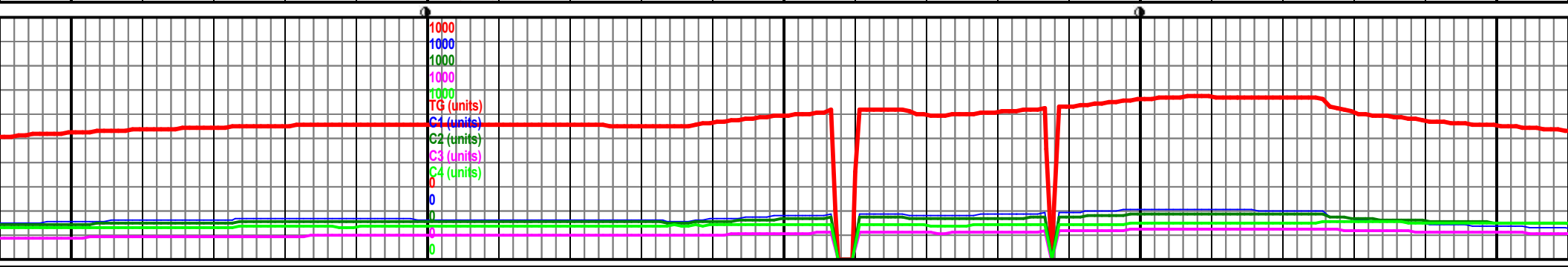
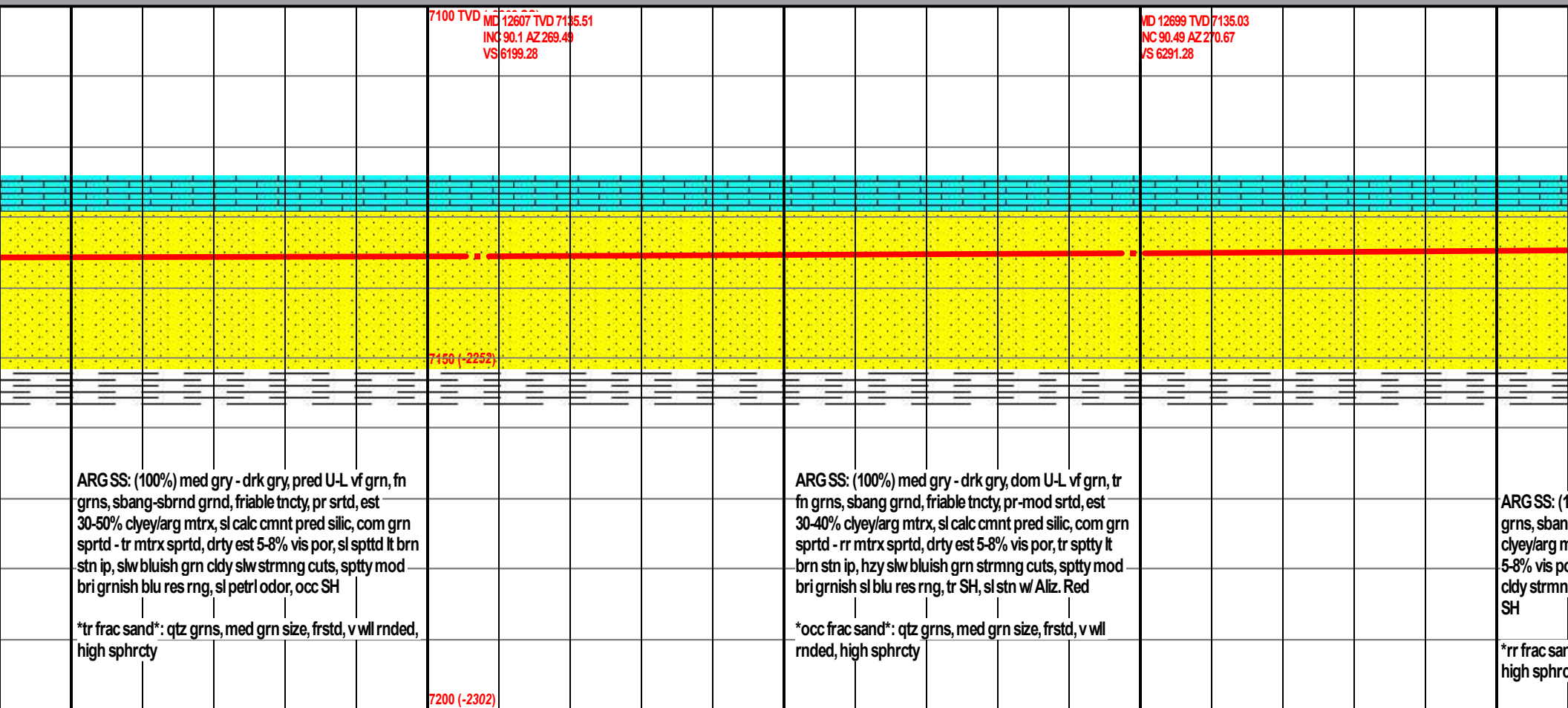
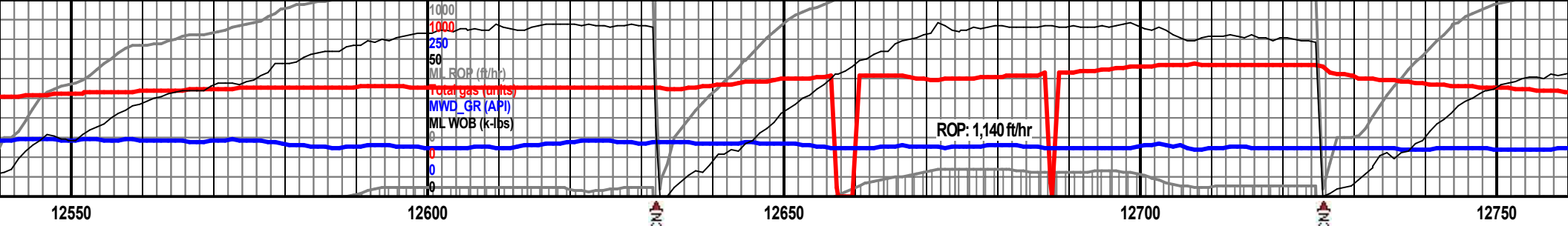
ARG SS: (100%) med gry - drk gry, pred U-L vf grn, fn grns, sbang-sbrnd grnd, friable tncty, pr srted, est 30-50% clay/arg mtrx, sl calc cmnt pred silic, com grn sprtd - tr mtrx sprtd, drty est 5-8% vis por, sl spttd lt brn stn ip, slw bluish grn cldy slw strmg cuts, sptty mod bri grnish blu res rng, sl petr odor, occ SH

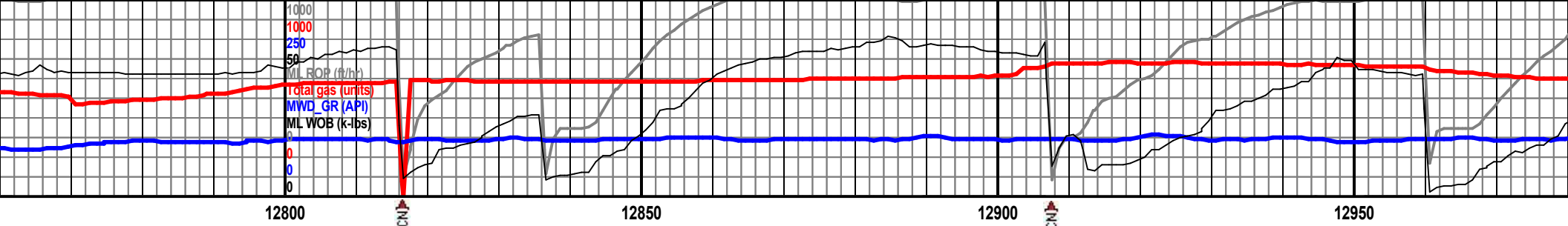
ARG SS: (100%) med gry - drk gry, pred U-L vf grn, fn grns, sbang-sbrnd grnd, friable tncty, pr srted, est 30-50% clay/arg mtrx, sl calc cmnt pred silic, com grn sprtd - tr mtrx sprtd, drty est 5-8% vis por, sl spttd lt brn stn ip, slw bluish grn cldy slw strmg cuts, sptty mod bri grnish blu res rng, sl petr odor, occ SH, tr dissim pyr

occ frac sand: qtz grns, med grn size, frstd, v wll rnded, high sphrcty

7200 (-2302)







MD 1279 TVD 7134.45
INC 90.22 AZ 269.45
VS 6385.27

MD 12886 TVD 7134.01
INC 90.32 AZ 270.47
VS 6478.27

7150 (-2252)

100%) med gry - drk gry, dom U-L vf grn, tr fn
g grnd, friable tncty, pr-mod srted, est 30-40%
mtrx, sl calc cmnt, com grn sprtd, drty est
or, tr sptty lt brn stn ip, mod slw bluish grn
g cuts, sptty mod bri grnish sl blu res rng, tr

nd*: qtz grns, med grn size, frstd, v wll rnded,
dy

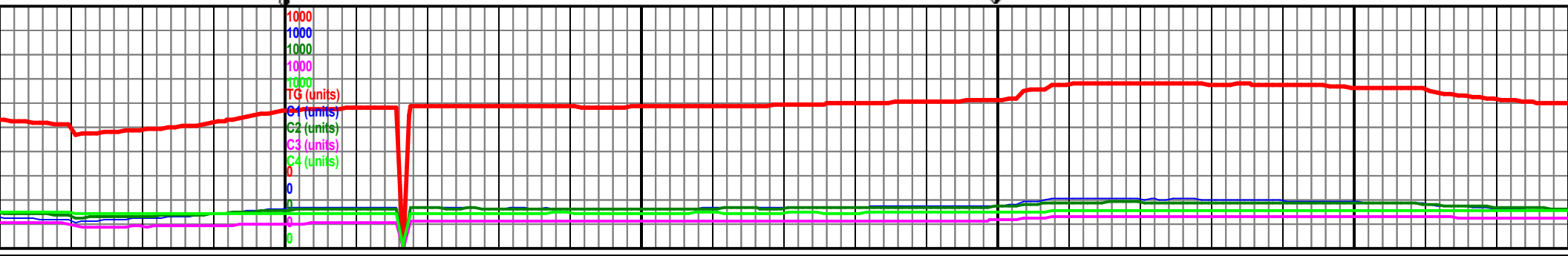
7200 (-2302)

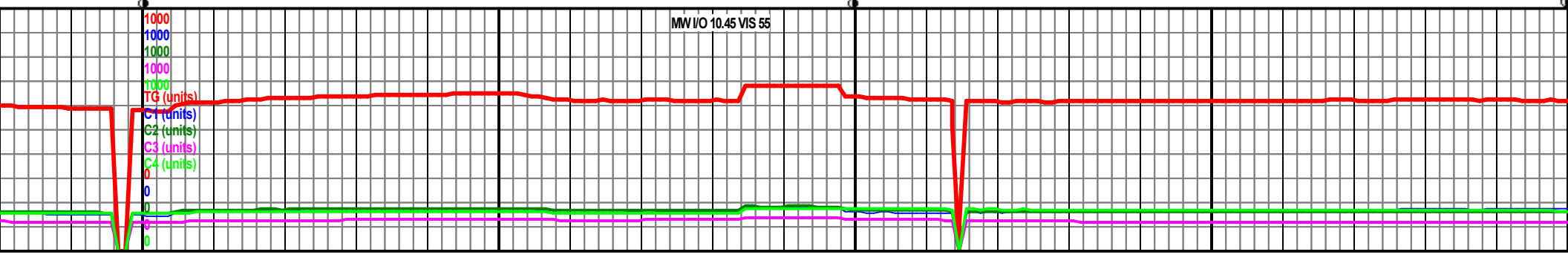
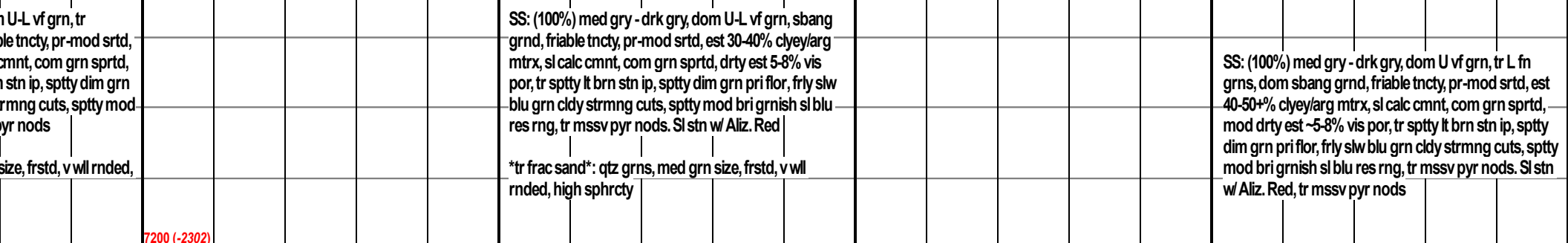
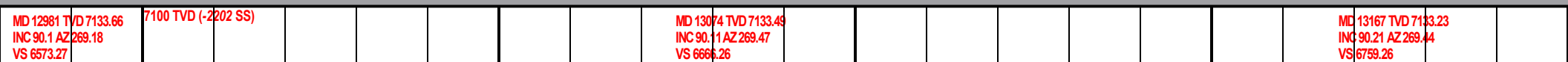
ARGSS: (100%) med gry - drk gry, dom U-L vf grn, tr
fn grns, sbang grnd, friable tncty, pr-mod srted, est
30-40% clayey/arg mtrx, sl calc cmnt, com grn sprtd,
drty est 5-8% vis por, tr sptty lt brn stn ip, sptty dim
grn pri flor, mod slw bluish grn cldy strmg cuts,
sptty mod bri grnish sl blu res rng, tr SH

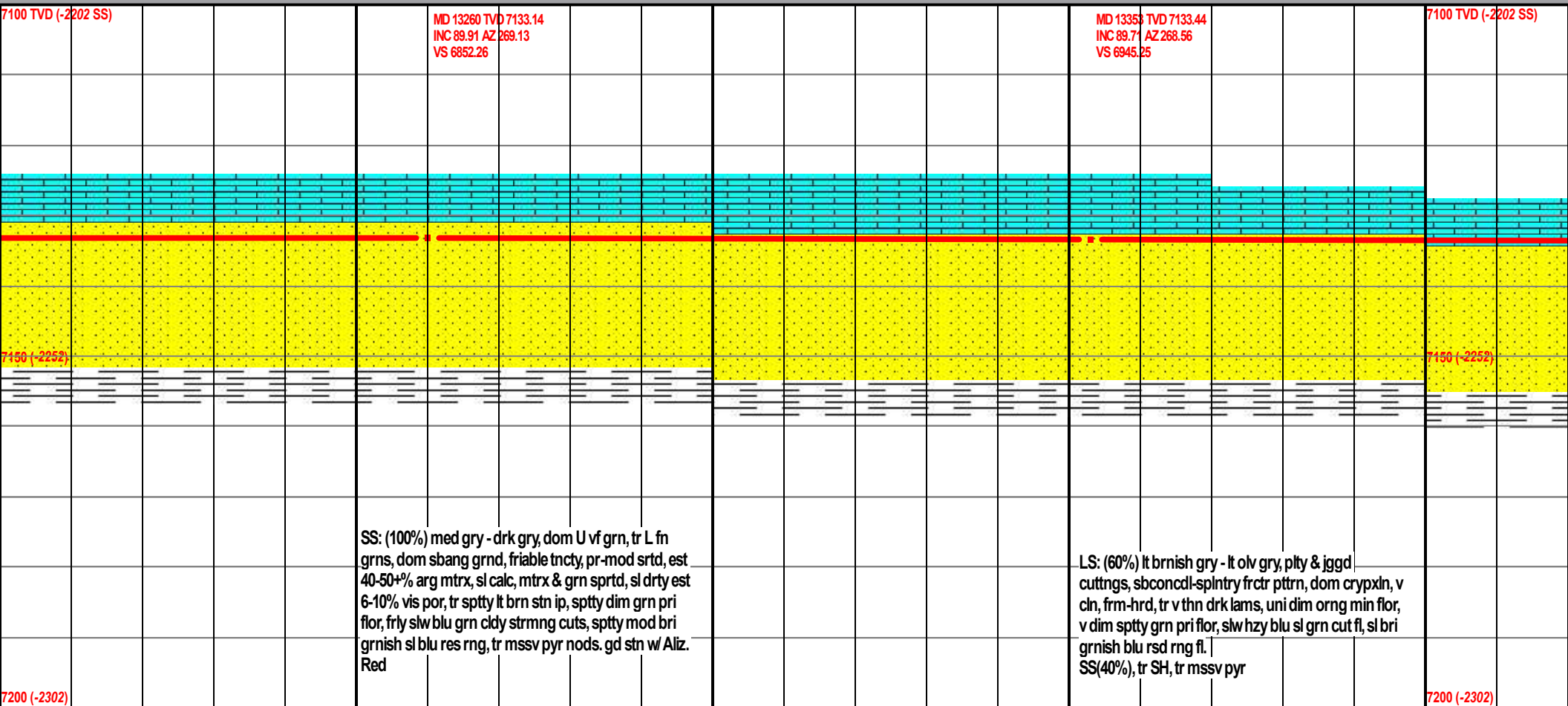
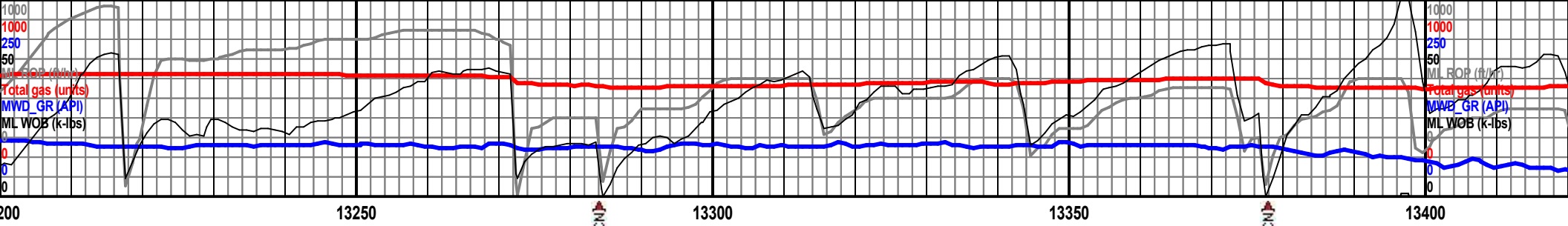
rr frac sand: qtz grns, med grn size, frstd, v wll
rnded, high sphrcty

SS: (100%) med gry - drk gry, dom U-L vf grn, tr
fn grns, sbang grnd, friable tncty, pr-mod srted, est
30-40% clayey/arg mtrx, sl calc cmnt, com grn sprtd,
drty est 5-8% vis por, tr sptty lt brn stn ip, sptty dim
grn pri flor, mod slw bluish grn cldy strmg cuts,
sptty mod bri grnish sl blu res rng, tr mssv p

tr frac sand: qtz grns, med grn size, frstd, v wll
rnded, high sphrcty

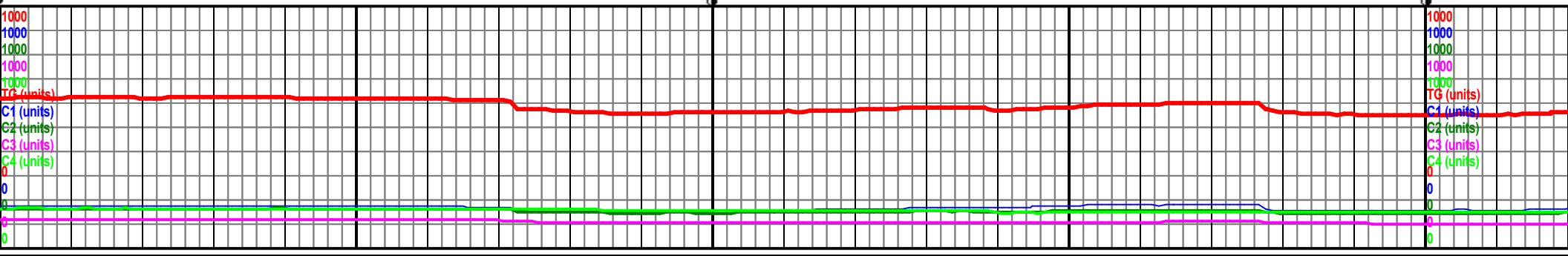


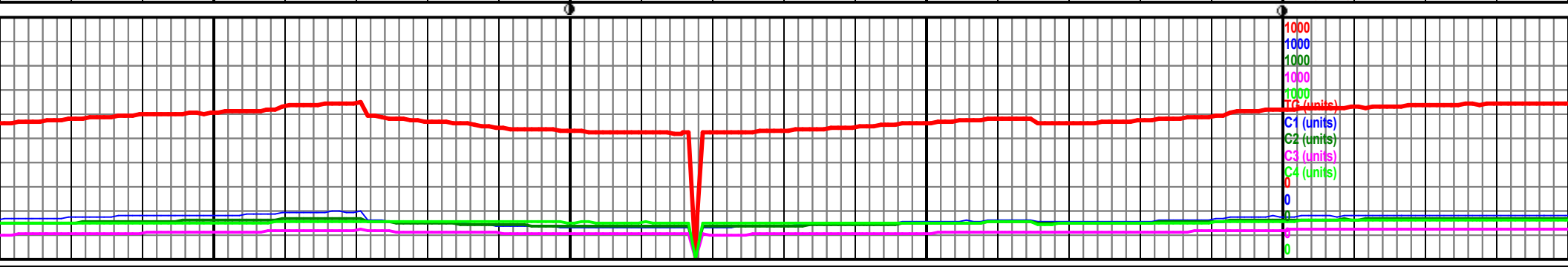
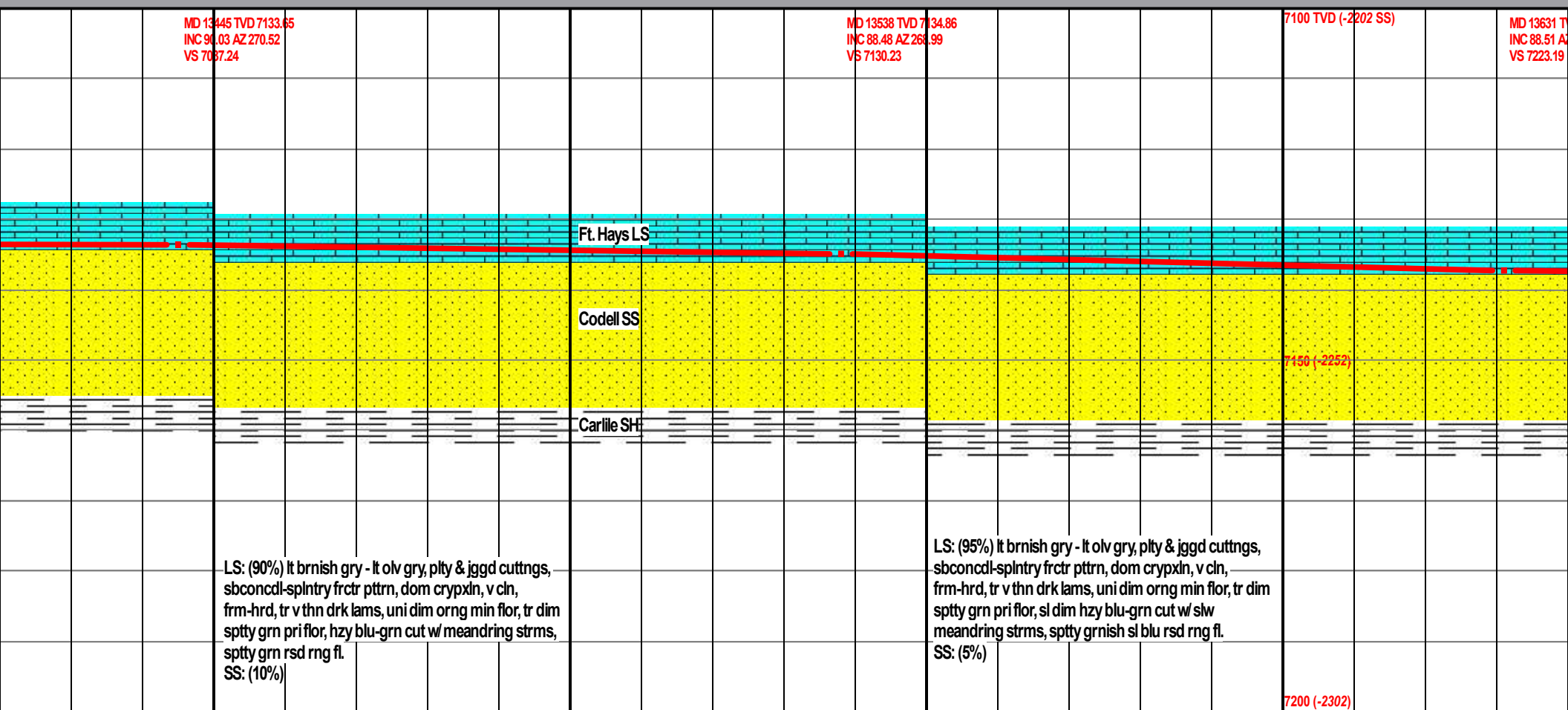
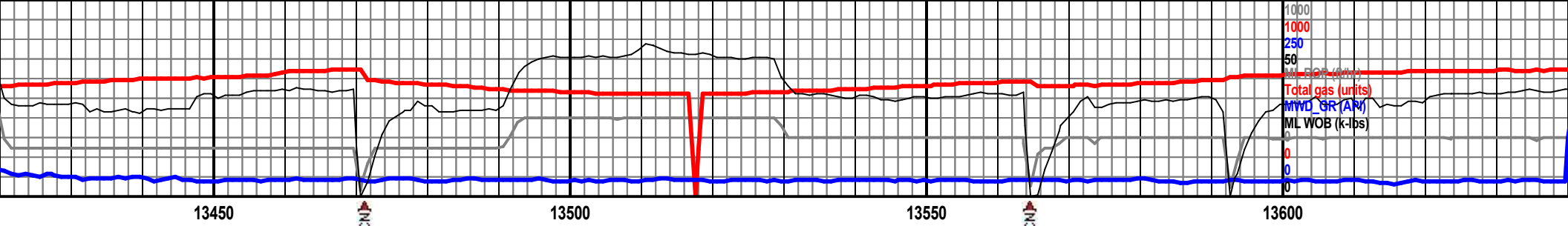


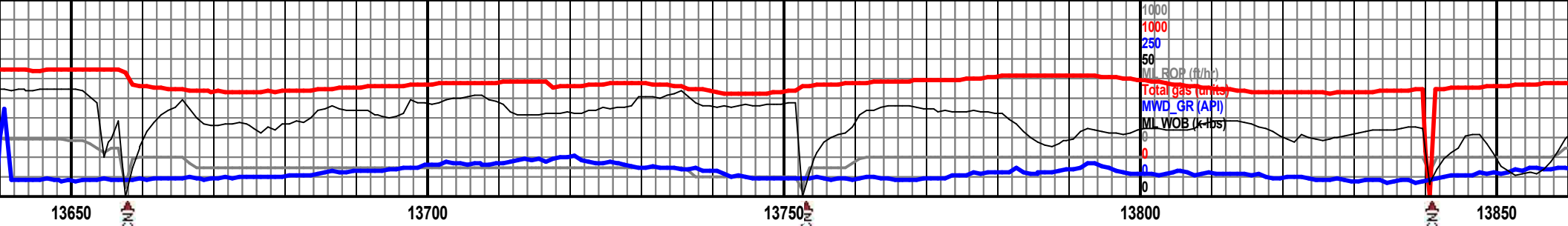


SS: (100%) med gry - drk gry, dom U vf grn, tr L fn grns, dom sbang grnd, friable tncty, pr-mod srted, est 40-50+% arg mtrx, sl calc, mtrx & grn sprtd, sl dry est 6-10% vis por, tr sptty lt brn stn ip, sptty dim grn pri flr, fryl slw blu grn cldy strmgng cuts, sptty mod bri grnsh sl blu res rng, tr mssv pyr nods. gd stn w/ Aliz. Red

LS: (60%) lt brnsh gry - lt olv gry, plty & jggd cuttns, sbconcdl-splntry frctr ptnr, dom crypxln, v chn, frm-hrd, tr v thn drk lams, uni dim orng min flr, v dim sptty grn pri flr, slw hzy blu sl grn cut fl, sl bri grnsh blu rsd rng fl. SS(40%), tr SH, tr mssv pyr





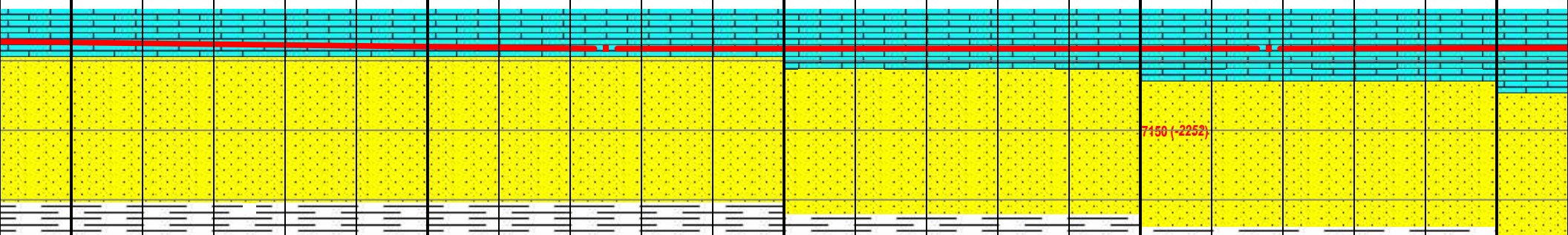


MD 7137.3
Z268.95

MD 13725 TVD 7138.42
INC 90.13 AZ 270.96
VS 7317.17

7100 TVD (-2202 SS)

MD 13818 TVD 7138.31
INC 90 AZ 271.11
VS 7410.15



7150 (-2252)

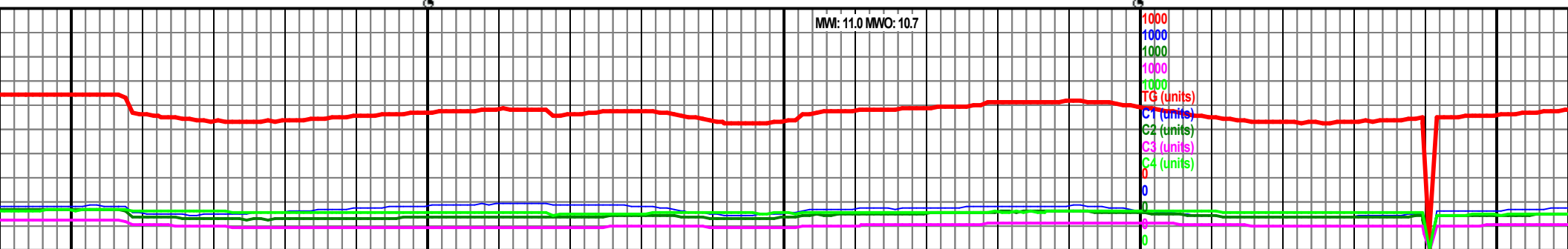
LS: (100%) med lt gry - lt olv gry, pred pty cutngs, sbconcdl-splntry frctr pttm, dom crypxln, v cln, frm-hrd, tr v thn drk lams, uni dim orng min flor, tr dim spty grn pri flor, slw dim grnish sl yel cut w/ sl bluish strmr, spty grnish sl blu rsd rng fl, tr SS, tr SH, tr mssv pyr nods
*tr frac sand

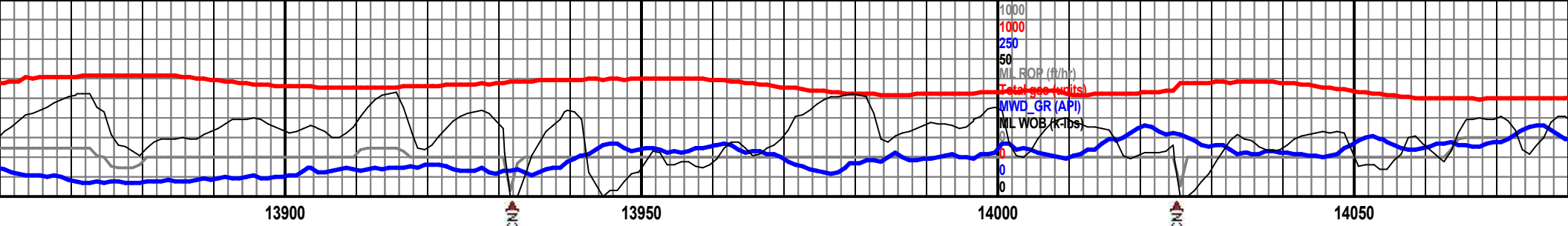
LS: (100%) med lt gry - lt olv gry, pred pty cutngs, rr sbwdgk & sbbcky, sbconcdl-splntry frctr pttm, dom crypxln, pred v cln, frm-hrd, tr v thn drk lams, uni dim orng min flor, tr dim spty grn pri flor, slw dim grnish sl yel cut w/ sl bluish strmr, tr fos frags, v tr frac sand, tr mssv pyr nods

LS: (100%) sbwdgk & crypxln, pr orng min fl yel cut w/ sl mssv pyr n

7200 (-2302)

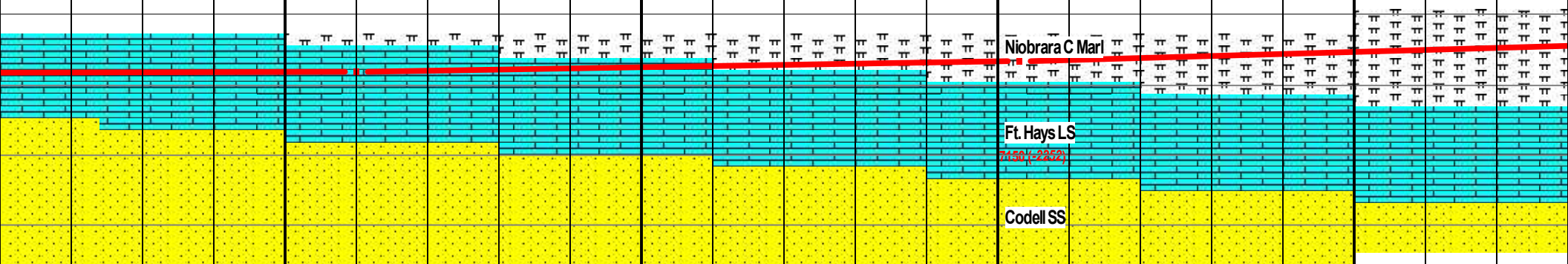
MM: 11.0 MWO: 10.7





MD 13910 TVD 7138.13
INC 90.23 AZ 270.88
VS 7502.13

MD 14003 TVD 7136.69
INC 91.53 AZ 270.95
VS 7595.09



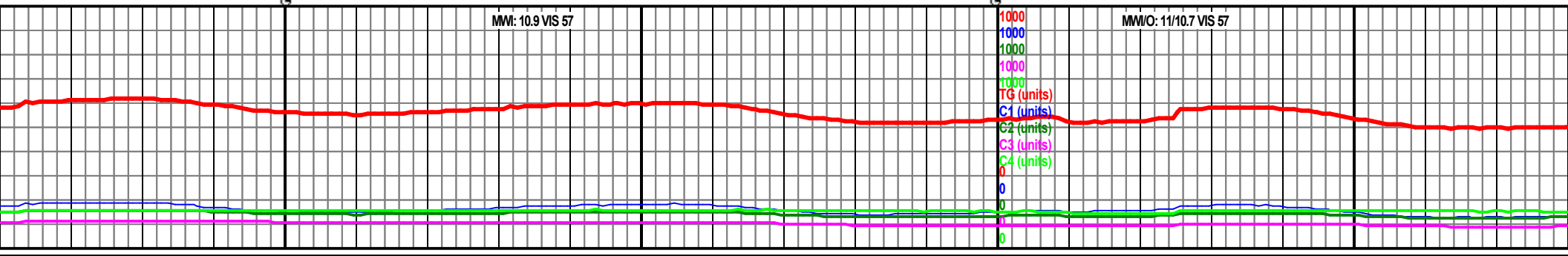
med lt gry - lt olv gry, pred plty cuttns, rr
sbbblky, sbconcdl-splntry frctr ptnr, dom
ed v cln, frm-hrd, tr v thn drk lams, uni dim
lor, tr dim sppty grn pri flur, slw dim grnsh sl
bluish strms, tr fos frags, v tr frac sand, tr
ods

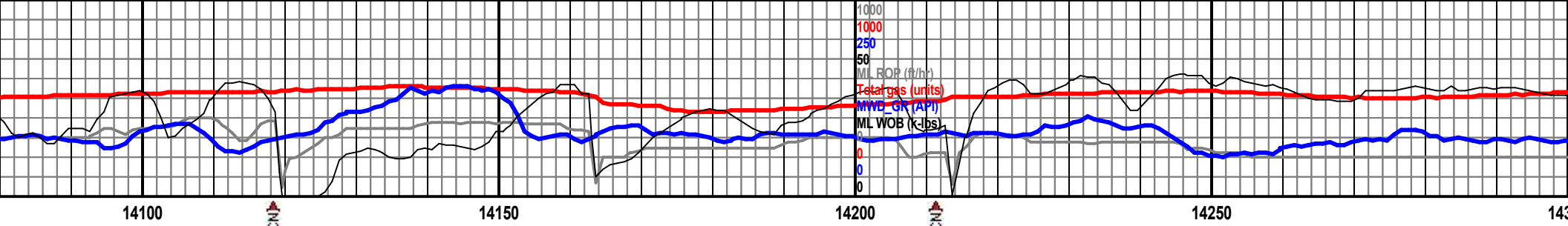
MRLST (60%): drk brwn/gry, frm-sl hd,
sbplty-sbbly, rthy-sbwxy, occ grtty, LS: (40%)
pred v lt gry-prly wht abndt crmy-lt tan thru, v
jggd-v bly cuttns, sbconcdl frac ptnr,
crypxn-micrxn, v cln, frm-sl sft, rr slty strngs, uni
dim min flur, wk v slw strmgng cuts

MRLSTN: (75%) drk gry-grybl
sbbly-sbplty, pred sbwxy, sl g
bent thru, frm-sl hd, CARB SH
gry-grybl, slck blk smth, sbw
cuttns, mod frm-sl hd, mod
gd mod thck bri grnsh blu res

MMI: 10.9 VIS 57

MMIO: 11/10.7 VIS 57

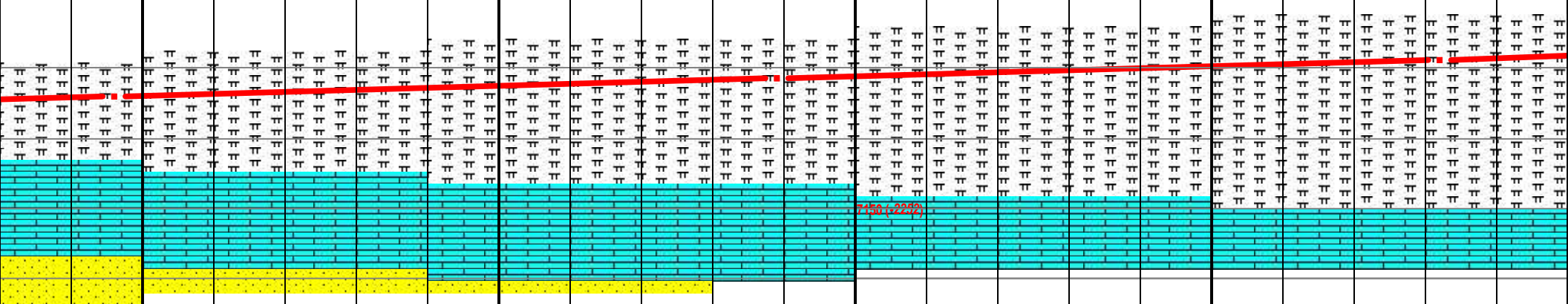




MD 14096 TVD 7134.13
INC 91.6 AZ 272.35
VS 7688.

MD 14189 TVD 7131.53
INC 91.6 AZ 272.24
VS 7780.91

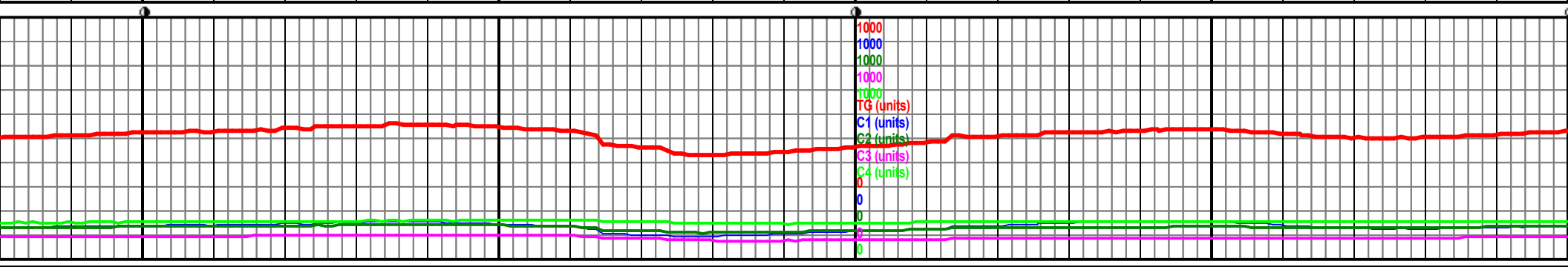
MD 14282 TVD 7128.87
INC 91.68 AZ 271.99
VS 7873.82

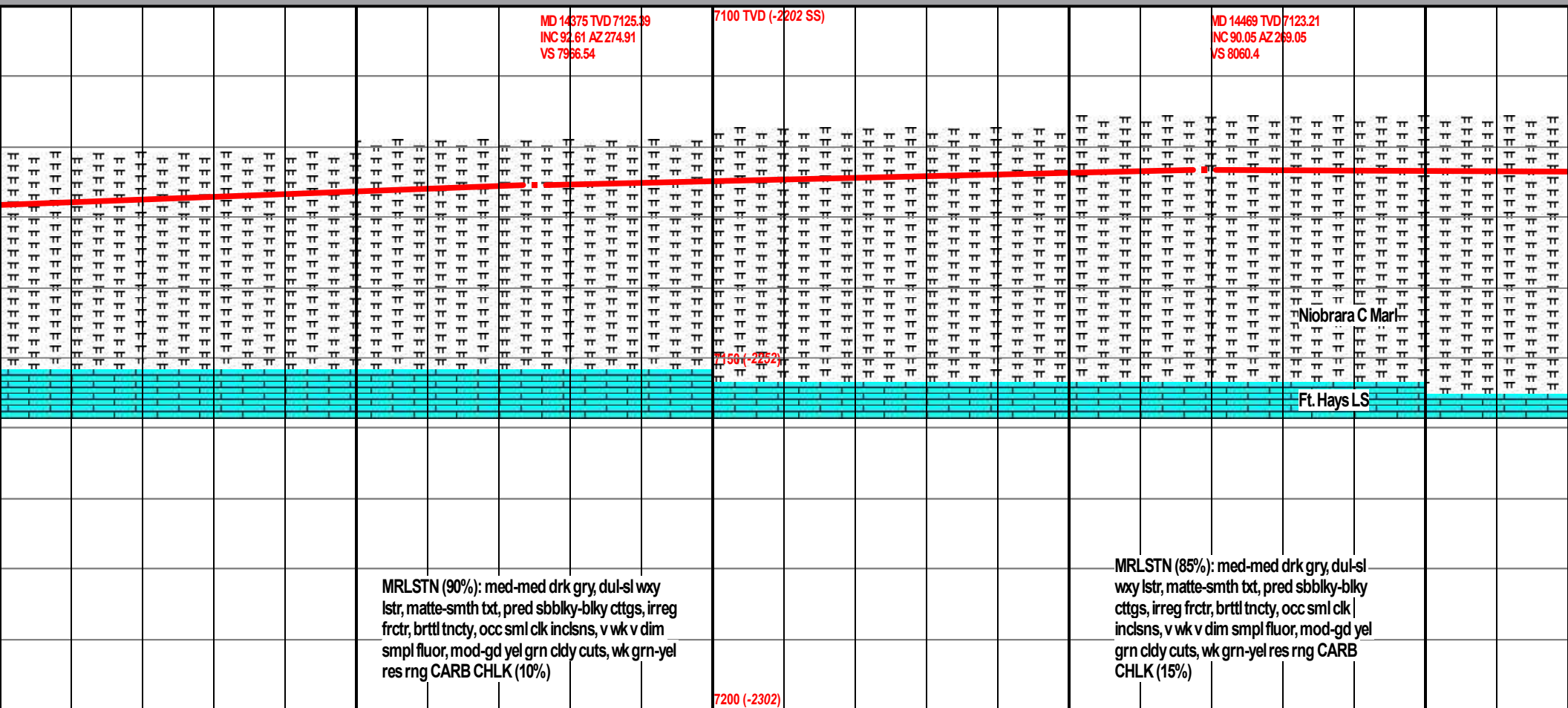


MRLSTN: (85%) drk gry-gryblk,
sbbiky-sbpity, pred sbwxy, sl grtty/rthy ip, occ bent
thru, frm-sl hd, CARB SH (15%): drk gry-gryblk, slck
blk smth, sbwxy, shrp-blky cuttns, mod frm-sl hd,
mod grn strmg cuts, gd mod thck bri grnish blu
res rng, v sl petr odor

MRLSTN: (90%) drk gry-gryblk,
sbbiky-sbpity, pred sbwxy, sl grtty/rthy ip, occ bent
thru, frm-sl hd, CARB SH (10%): drk gry-gryblk,
slck blk smth, sbwxy, shrp-blky cuttns, mod
frm-sl hd, mod grn strmg cuts, gd mod thck bri
grnish blu res rng, v sl petr odor

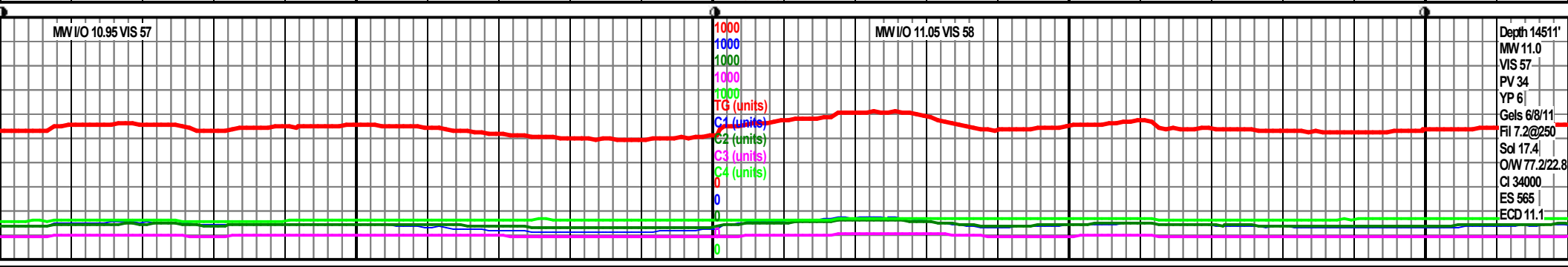
7200 (-2302)

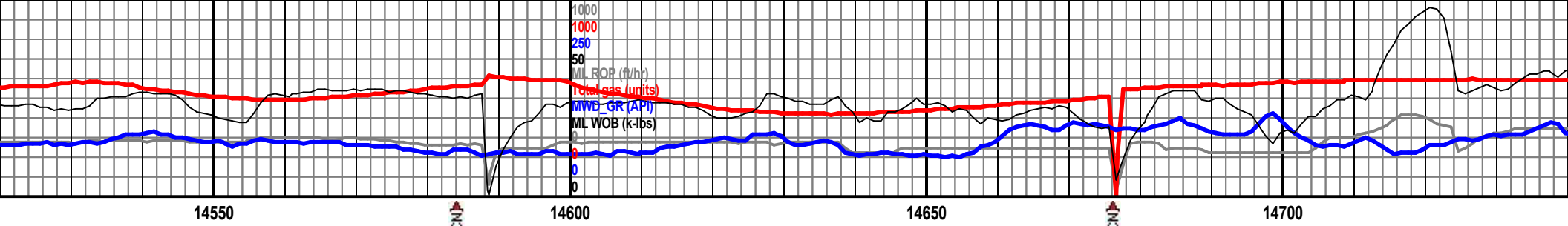




MRLSTN (90%): med-med drk gry, dul-sl wxy
lstr, matte-smth txt, pred sbblky-blky cttgs, irreg
frctr, brttl tncty, occ sml clk inclnsns, v wk v dim
smpl fluor, mod-gd yel grn cldy cuts, wk grn-yel
res rng CARB CHLK (10%)

MRLSTN (85%): med-med drk gry, dul-sl
wxy lstr, matte-smth txt, pred sbblky-blky
cttgs, irreg frctr, brttl tncy, occ sml clk
inclsns, v wk v dim smpl fluor, mod-gd yel
grn cldy cuts, wk grn-yel res rng CARB
CHLK (15%)

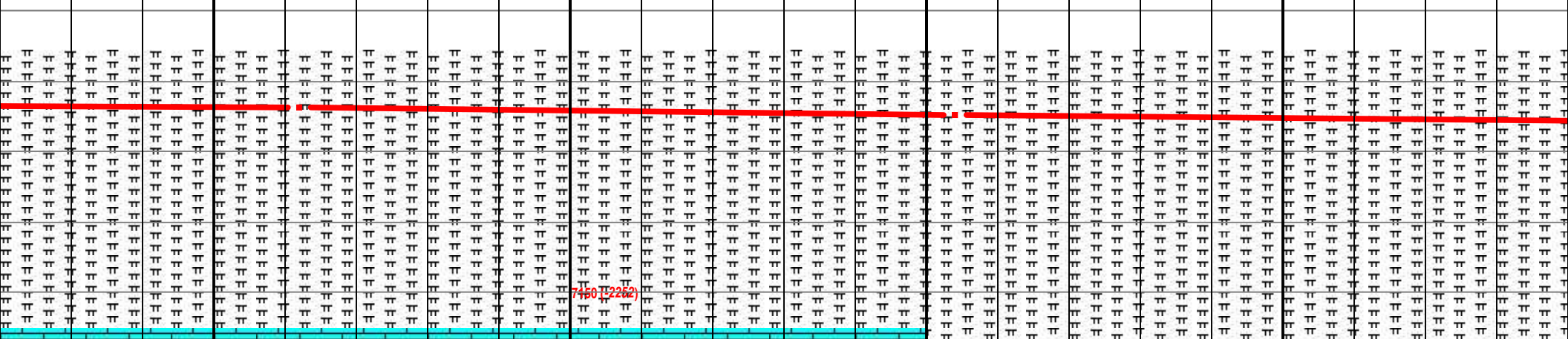




MD 14562 TVD 7123.69
INC 89.35 AZ 268.35
VS 8153.38

7100 TVD (-2202 SS)

MD 14654 TVD 7124.78
INC 89.35 AZ 268.43
VS 8245.35

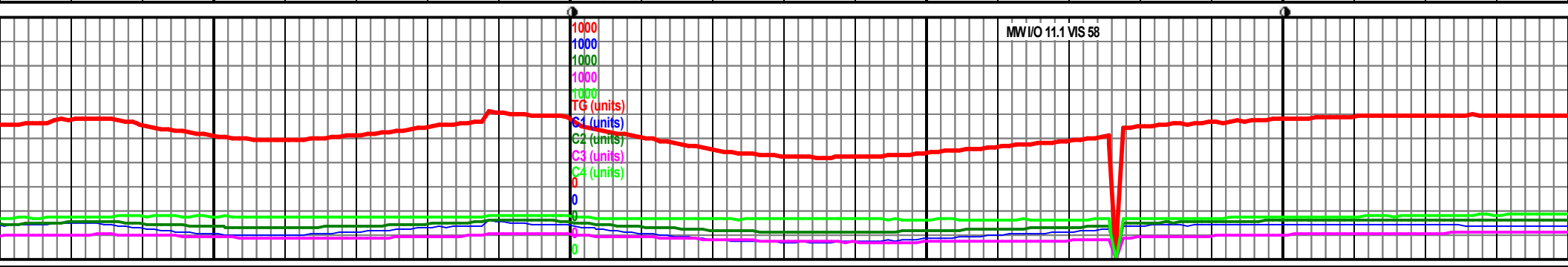


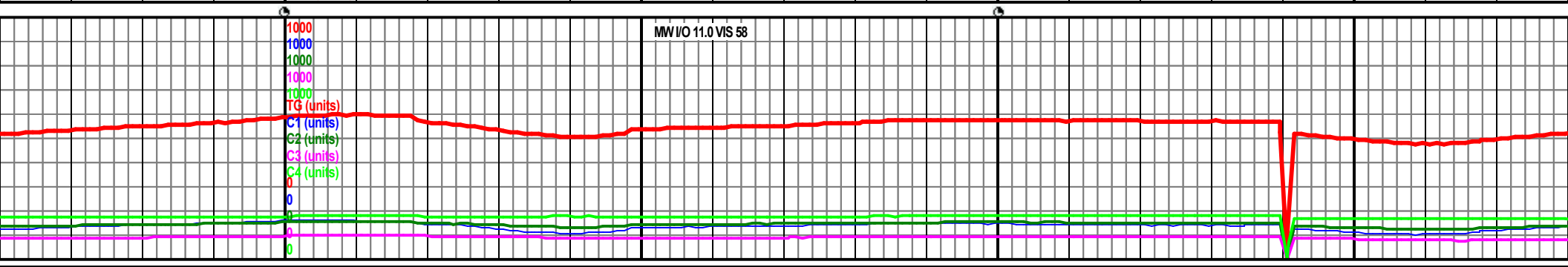
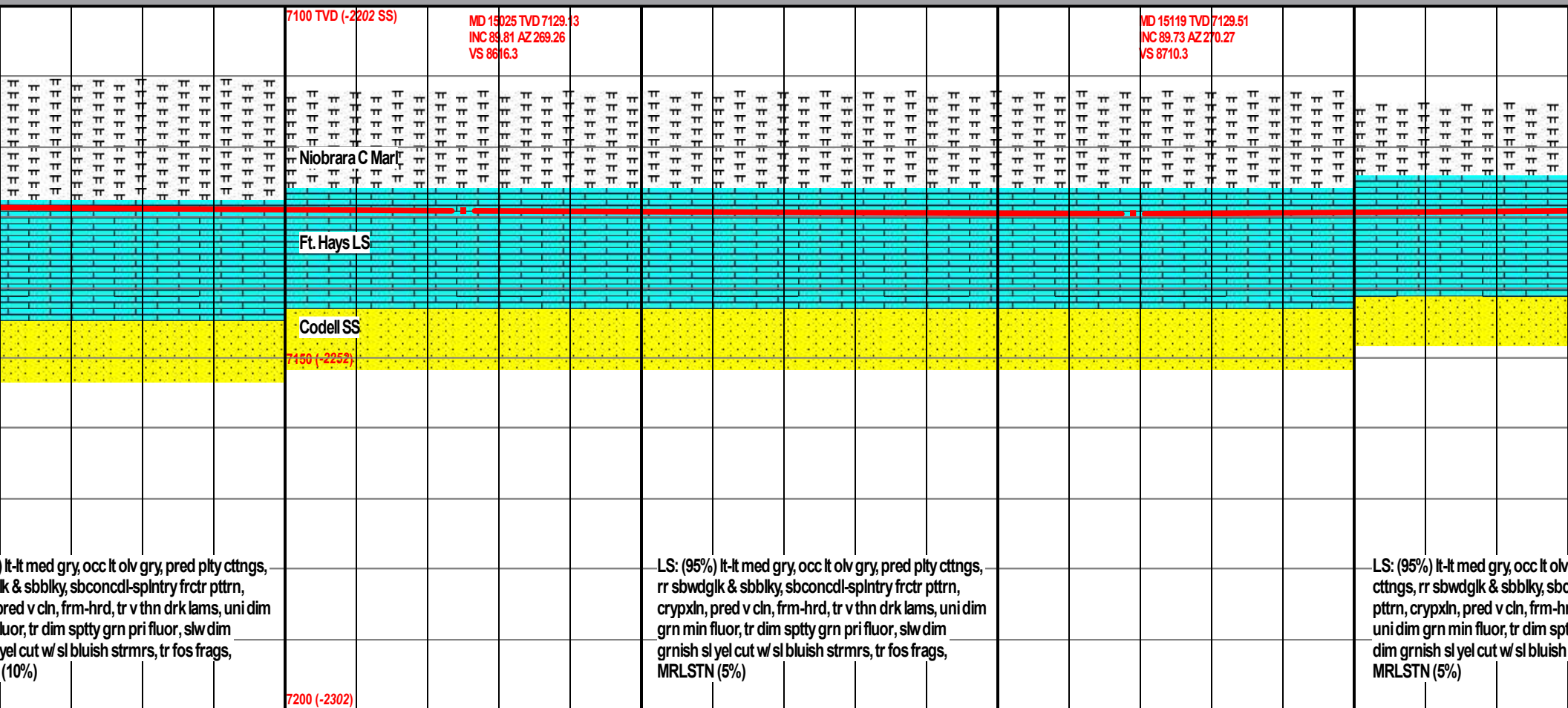
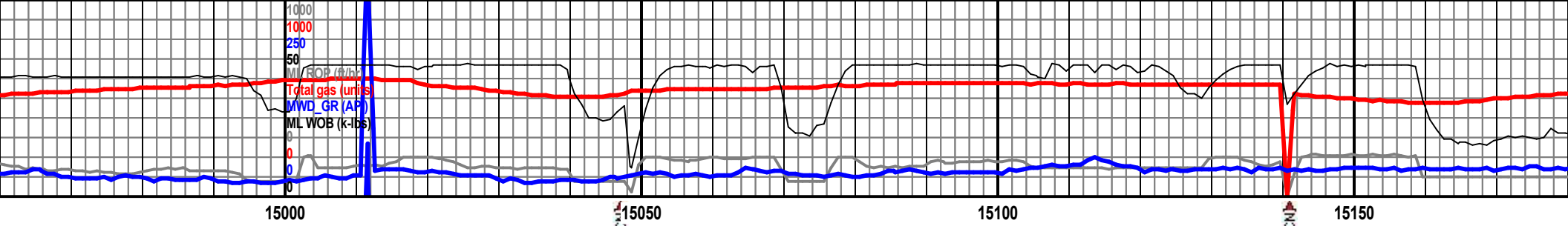
MRLSTN (85%): med-med drk gry, frm-hrd, sbwxy-dul
rthy lstr, matte btr, mssv-wdglk ctgs, irr-g-sl hkly frctr,
brttl tncty, thn chiky lams, sppty ini fluor, mod fst mod
grnsh blu cuts w/ strmr, mod-brgt grnsh ylw-grn res
rng, CARB CHLK (15%), rr pryt

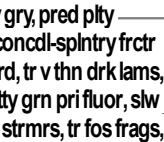
MRLSTN (85%): med-med drk gry, frm-hrd, sbwxy-dul
rthy lstr, matte btr, mssv-wdglk ctgs, irr-g-sl hkly frctr,
brttl tncty, thn chiky lams, sppty ini fluor, mod fst mod
grnsh blu cuts w/ strmr, mod-brgt grnsh ylw-grn res
rng, CARB CHLK (15%), rr pryt

7200 (-2302)

MW I/O 11.1 VIS 58

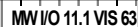




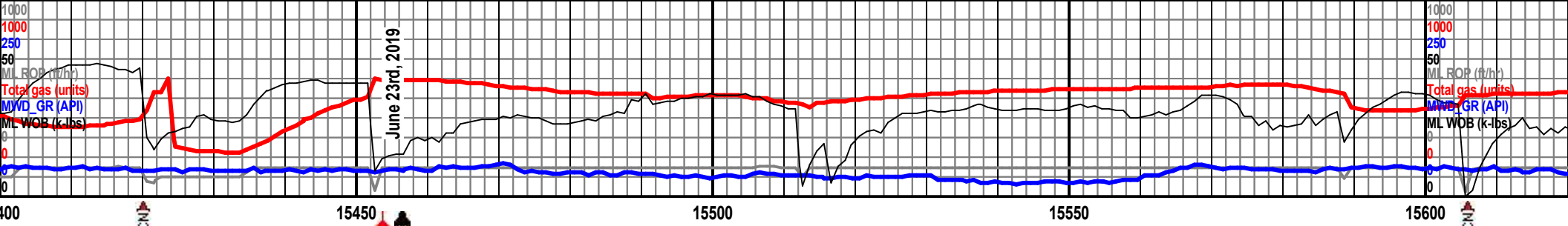


LS: (95%) lt-It med gry, occ lt olv gry, pred ply cttngs,
rr sbwdgk & sbblky, sbconcdl-splntry frctr ptttn,
crypxln, pred v cin, frm-hrd, tr v thn drk lams, uni
dim grn min fluor, tr dim sppty grn pri fluor, slw dim
grnsh sl yel cut w/ sl bluish strms, tr fos frags,
MRLSTN (5%)

LS: (95%) lt-lt med gry, occ lt olv gry, pred plty cttngs, rr sbwdgk & sbbkly, sbconcdl-splntry frctr pttcr, crypxln, pred v cln, frm-hrd, tr v thn drk lams, uni dim grn min fluor, tr dim sppty grn pri fluor, slw dim grnsh sl yel cut w/ sl bluish strmr, tr fos frags, MRLSTN (5%)



MW I/O 11.05 VIS 62



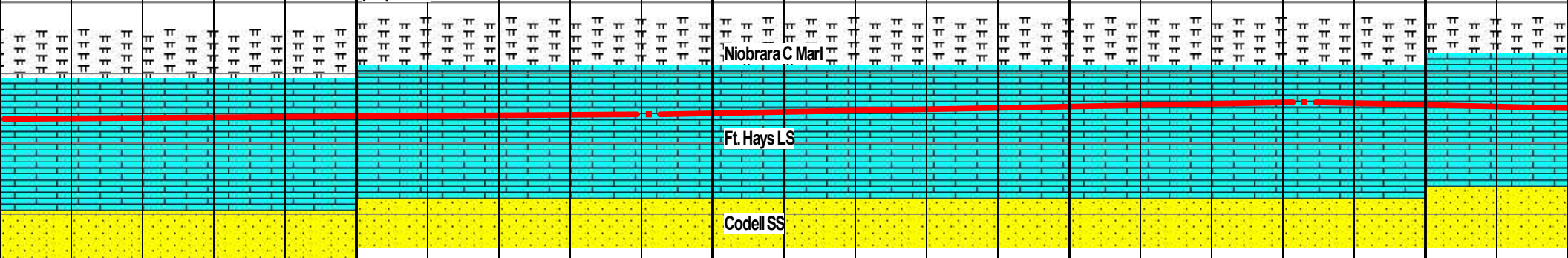
MD 15399 TVD 7126.46
NC 89.65 AZ 261.83
VS 8989.94

TOOH @ 15452' MD for tools. Well observed to be flowing during trip and H2O gains impacting mud properties.

15491 TVD 7125.85
91.12 AZ 264.42
9081.32

MD 15583 TVD 7124.24
INC 90.88 AZ 269.11
VS 9173.16

7100 TVD (-2202 SS)



7150 (-2252)

BHA #2, 8 1/2", Smith, YZ519, #JP3743, 3x10 4x11, In @ 1,829', out @ 15,452', drilled 13,623' in 35.63 hrs.; PD 675 CoPibana 8 3/8"(RS), XEM w/gamma, MM (.23 rpg).

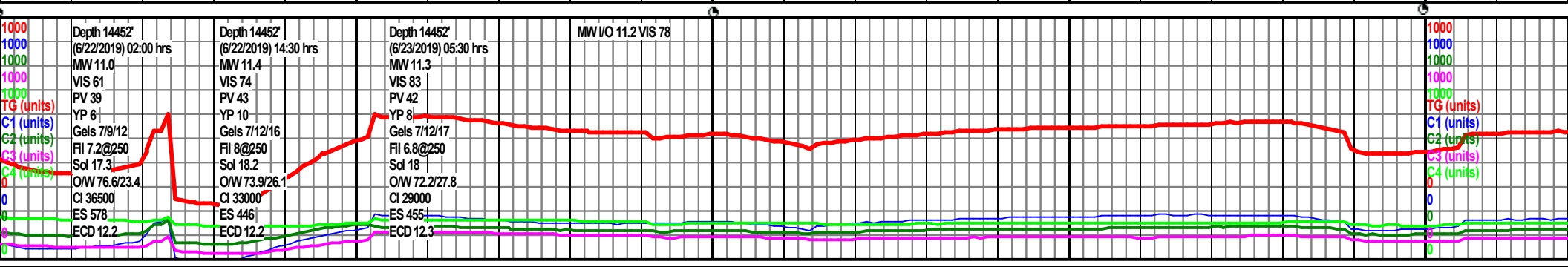
BHA #3, 8 1/2", Smith, YZ519, #JT3758, 5x10 2x11, In @ 14,452', out @ 17,557', drilled 2,105' in 10.5 hrs.; PD 675 CoPibana 8 3/8"(RS), XEM w/gamma, MM (.23 rpg).

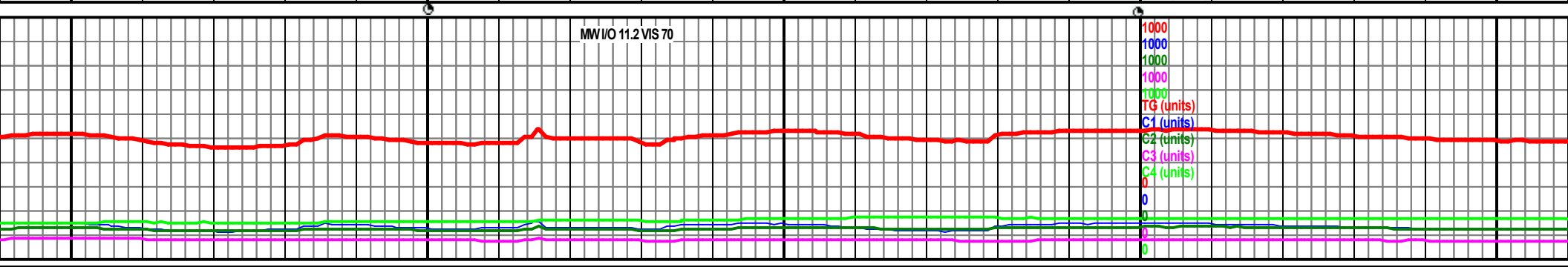
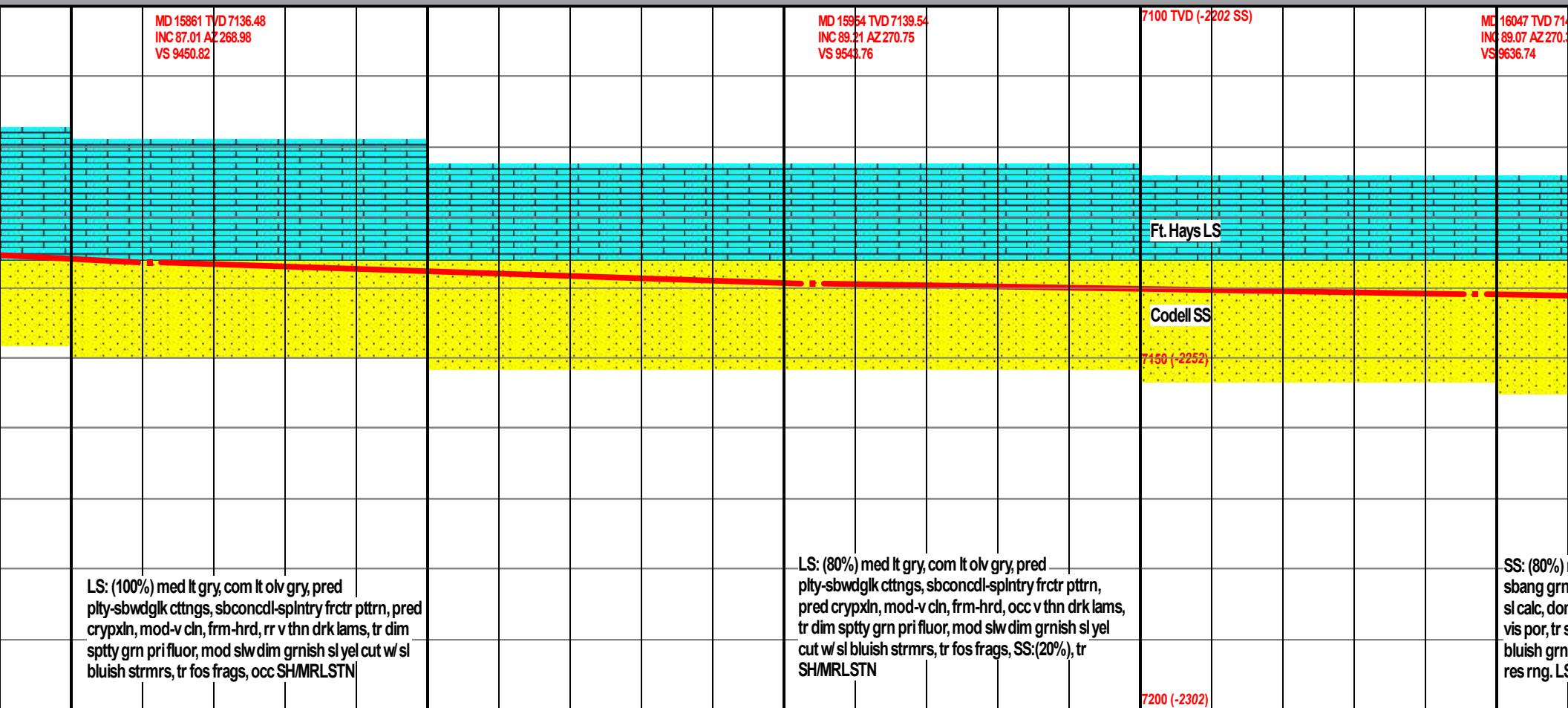
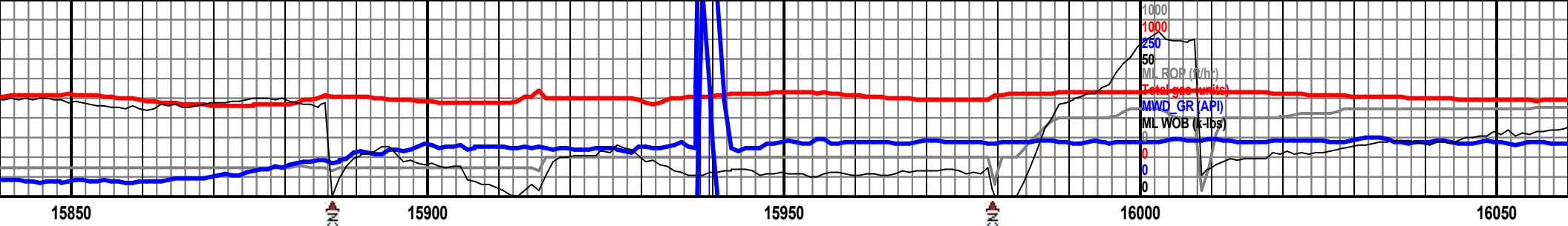
7150 (-2252)

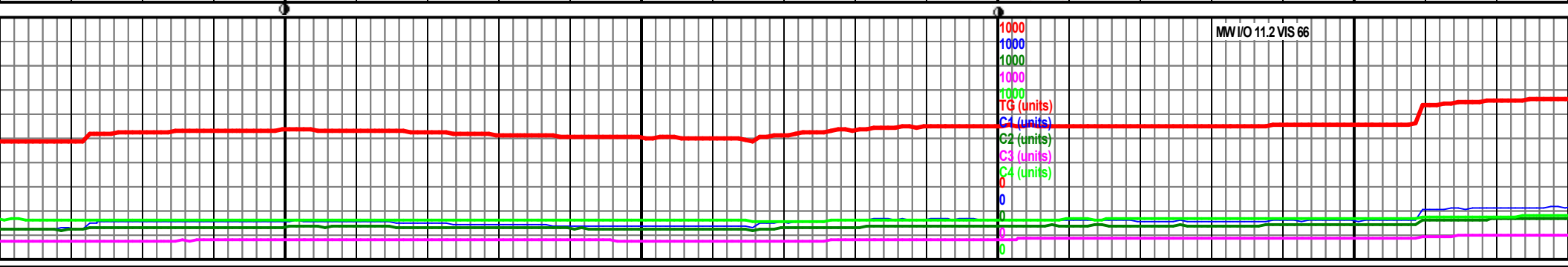
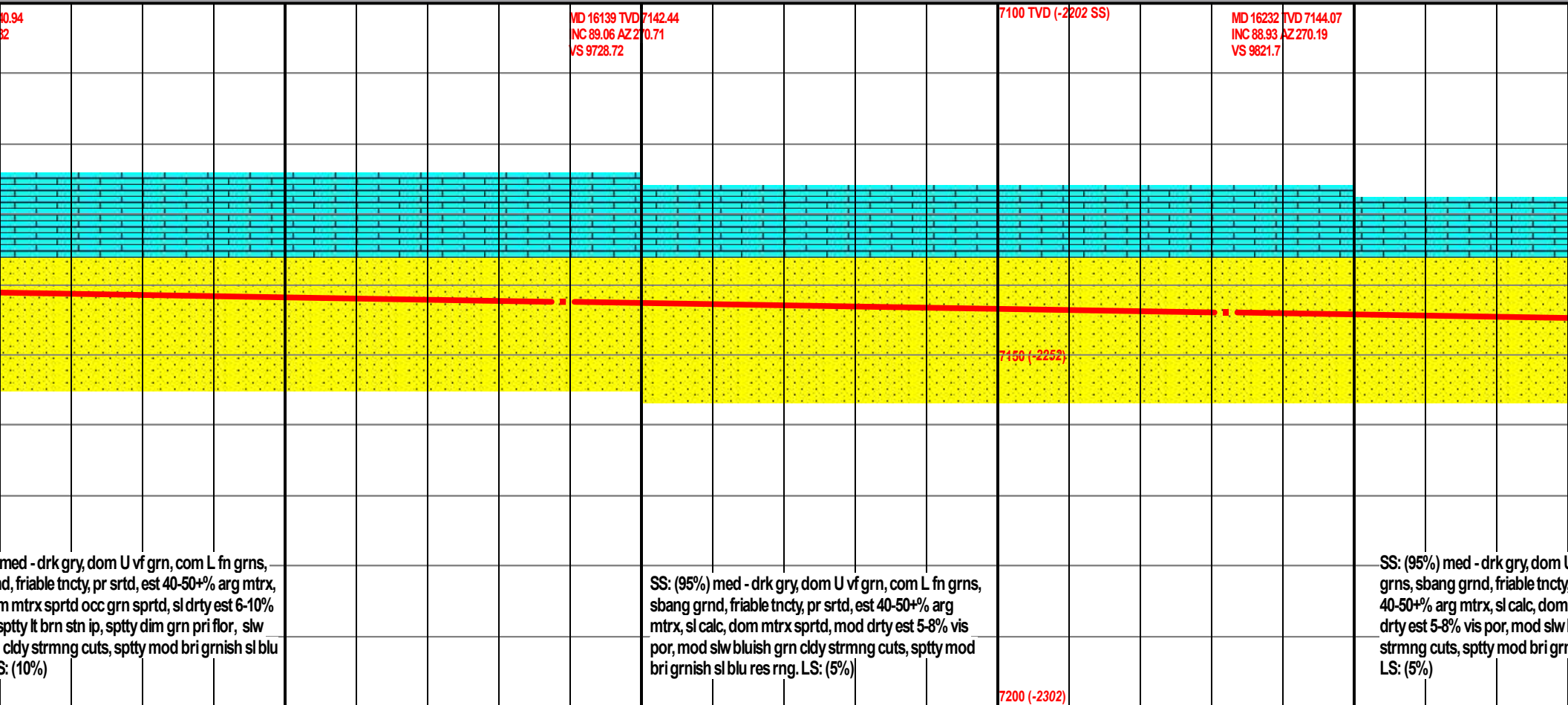
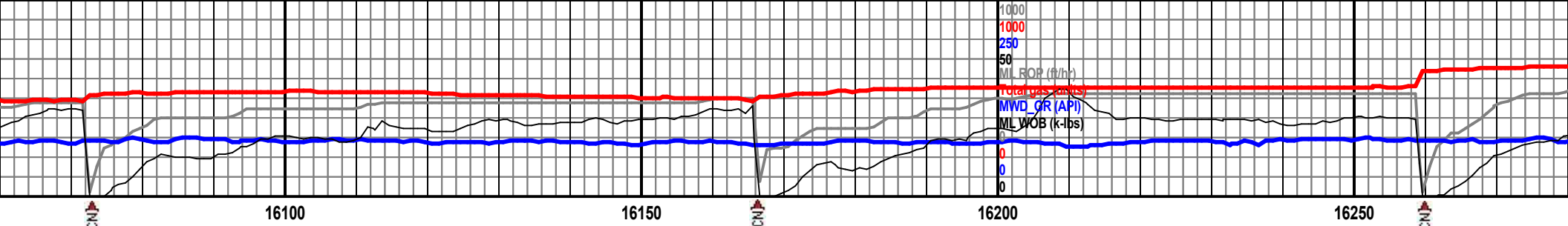
LS: (95%) lt-lt med gry, occ lt olv gry, pred pty ctngs, rr sbwdgk & sbbkly, sbconcdl-splntry frctr pptrn, crypxln, pred v cln, frm-hrd, tr v thn drk lams, uni dim grn min fluor, tr dim sptty grn pri fluor, slw dim grnsh sl yel cut w/ sl bluish strmr, tr fos frags, MRLSTN (5%)

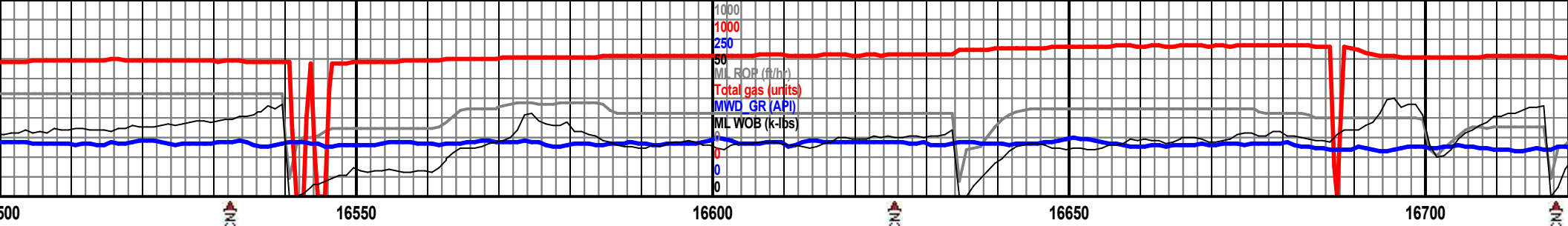
LS: (100%) med lt gry, occ lt olv gry, pred pty ctngs, rr sbwdgk & sbbkly, sbconcdl-splntry frctr pptrn, crypxln, pred v cln, frm-hrd, tr v thn drk lams, uni dim grn min fluor, tr dim sptty grn pri fluor, slw dim grnsh sl yel cut w/ sl bluish strmr, tr fos frags, abndt MRLSTN

7200 (-2302)









7120 TVD (-2272)
MD 16510 TVD 7146.18
INC 89.85 AZ 270.44
VS 10099.66

Ft. Hays LS

Codell SS

Carlile SH

Scale Change
7170 (-2272)

7120 MD 16603 TVD 7146.24
INC 90.07 AZ 271.3
VS 10192.64

7170 (-2272)

MD 16686 TVD 7146.26
INC 89.91 AZ 270.95
VS 10285.61

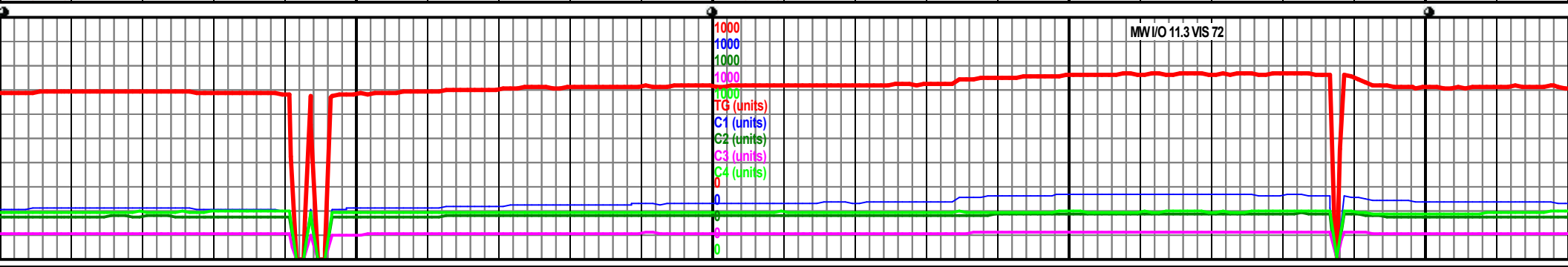
SS: (100%) lt-lt med gry, v sl gryish tan ip, L vf grn, abndt vf grns, sbrnd-sbang, mod sphrcty, mod-prly srted, v uncon, wk 10% calc cmt, est 9% vis por, lrg ptchy-nr evn ini fluor, spttd stn, gd/fst bri grnsh blu hzy cuts, occ slw stdy strmr, gd bri grn res rng, tr blk lth frags

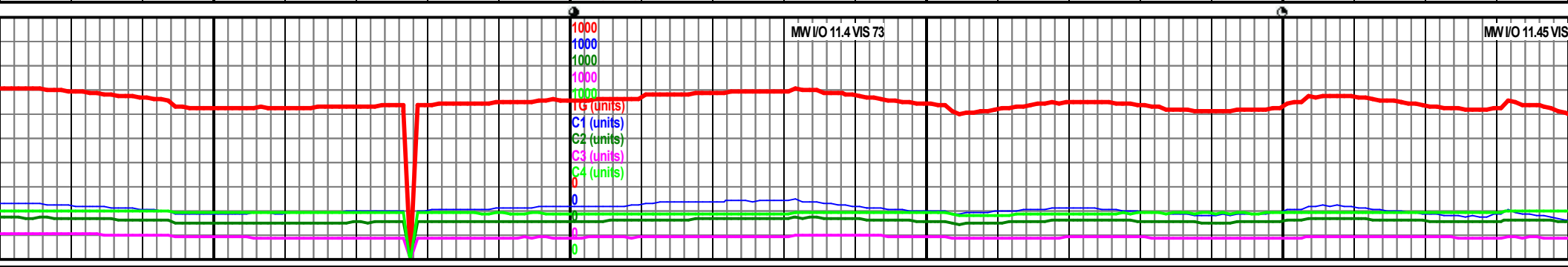
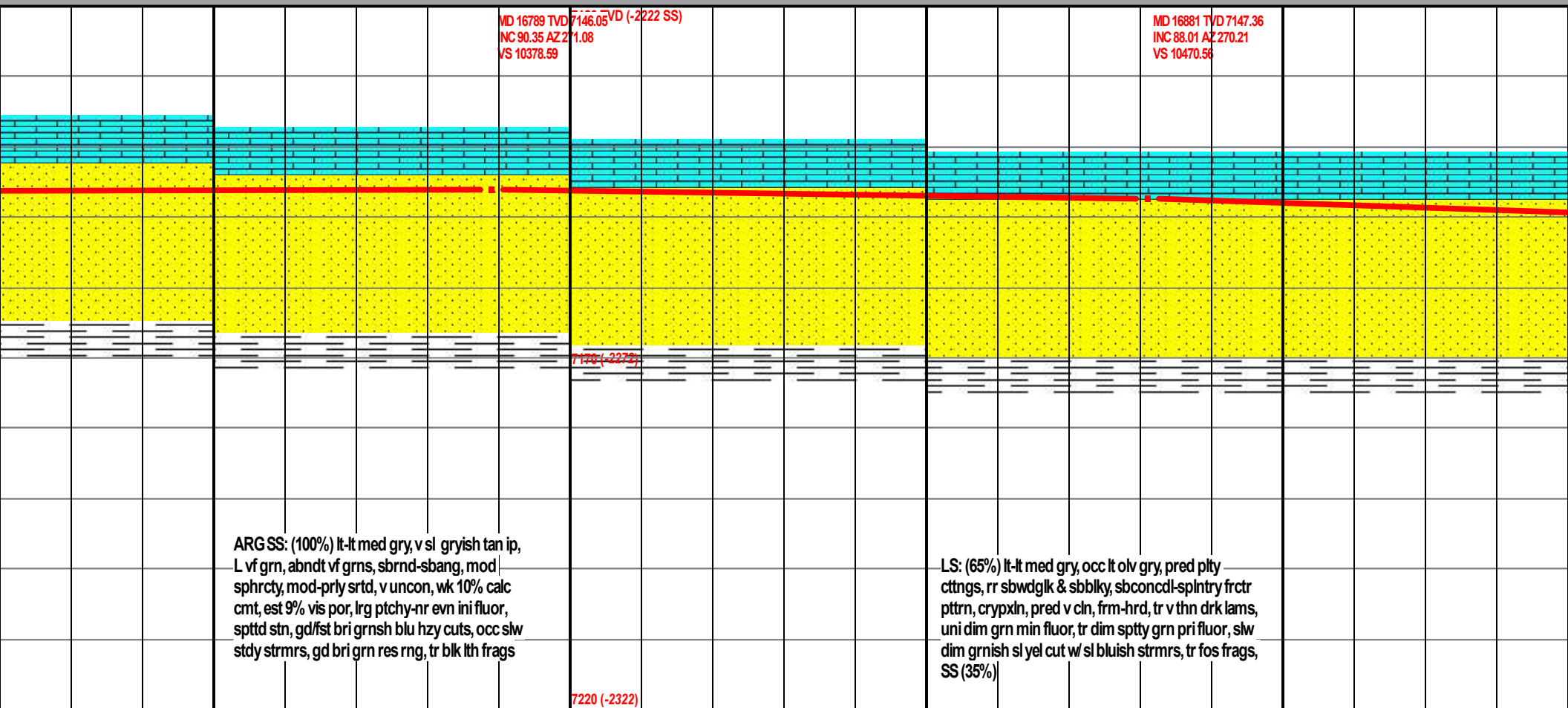
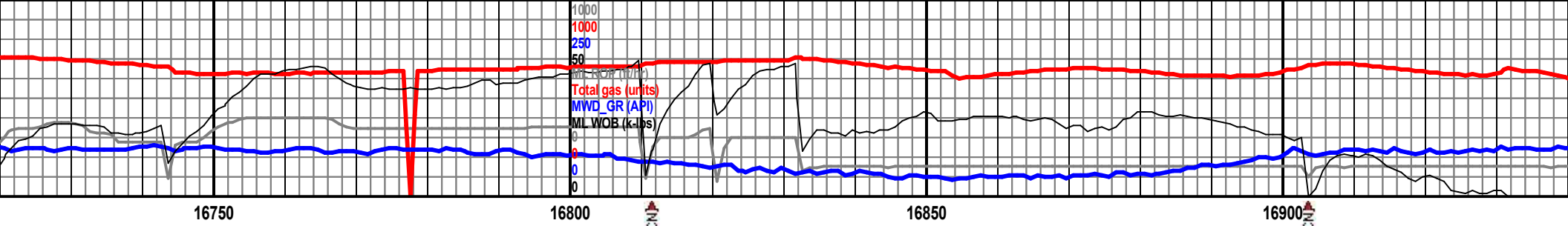
SS: (98%) lt-lt med gry, v sl gryish tan ip, L vf grn, abndt vf grns, sbrnd-sbang, mod sphrcty, mod-prly srted, v uncon, wk 10% calc cmt, est 9% vis por, lrg ptchy-nr evn ini fluor, spttd stn, gd/fst bri grnsh blu hzy cuts, occ slw stdy strmr, gd bri grn res rng, gsy odor, tr SH, rr dissim pyrt

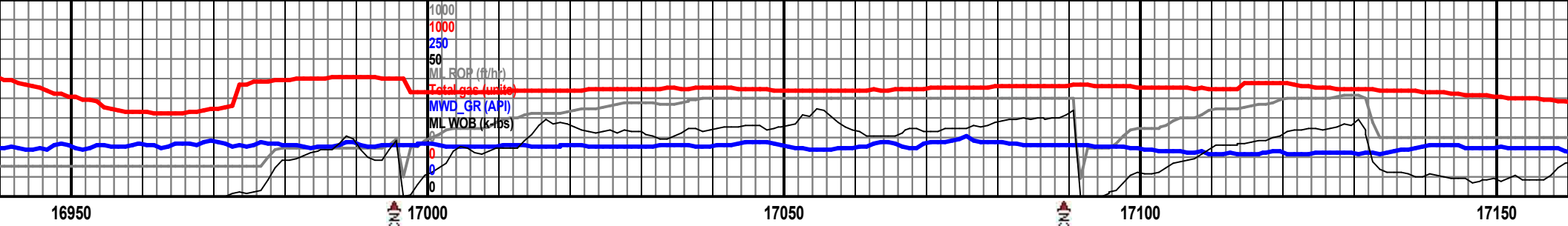
7220 (-2322)

7220 (-2322)

MW I/O 11.3 VIS 72







MD 16973 TVD 7150.28
INC 88.33 AZ 269.37
VS 10562.51

7120 TVD (-2222 SS)

MD 17066 TVD 7152.78
INC 88.57 AZ 270.33
VS 10655.48

Ft. Hays LS

Codell SS

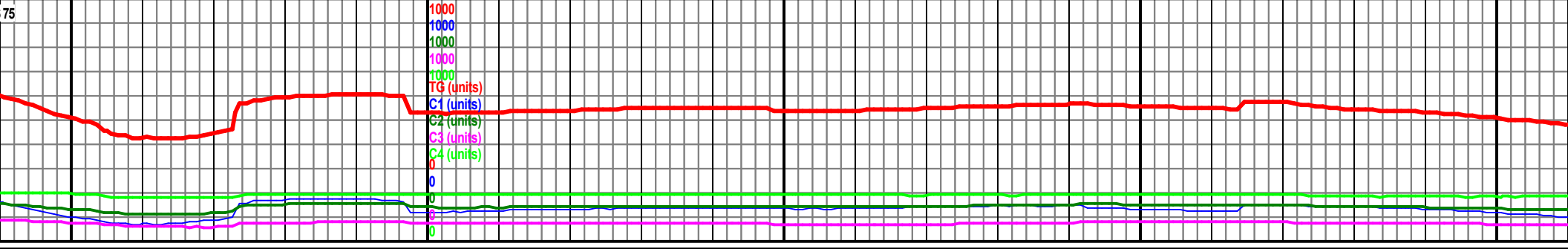
Carlile SH

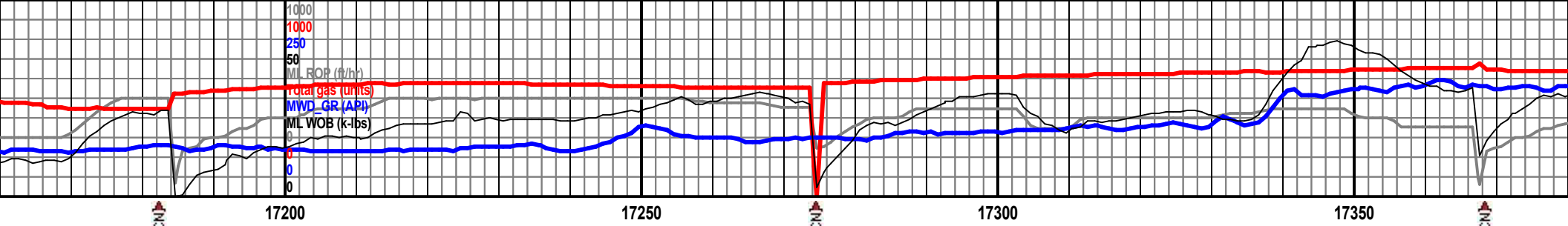
ARGSS: (80%) med gry - med drk gry, pred U-L vf grn, rr unconfs fn grns, friable tncty, sbang-sbrnd grnd, mod-pr srted, est 30-40% clayey/arg mtb, mtrx sprtd, drty est 8% vis por, rr spttd lt brn stn ip, mod bri bluish grn cldy slw strmnng cuts, gd bri grnsh yel res rng, LS: (20%), tr dissim pyrt

ARGSS: (98%) med gry - med drk gry, pred U-L vf grn, rr unconfs fn grns, friable tncty, sbang-sbrnd grnd, mod-pr srted, est 30-40% clayey/arg mtb, mtrx sprtd, drty est 8% vis por, rr spttd lt brn stn ip, mod bri bluish grn cldy slw strmnng cuts, gd bri grnsh yel res rng, LS: (2%), tr dissim pyrt

ARGSS: (grn, abnd mod-prly por, lrg pt grnsh blu res rng, g

7220 (-2322)



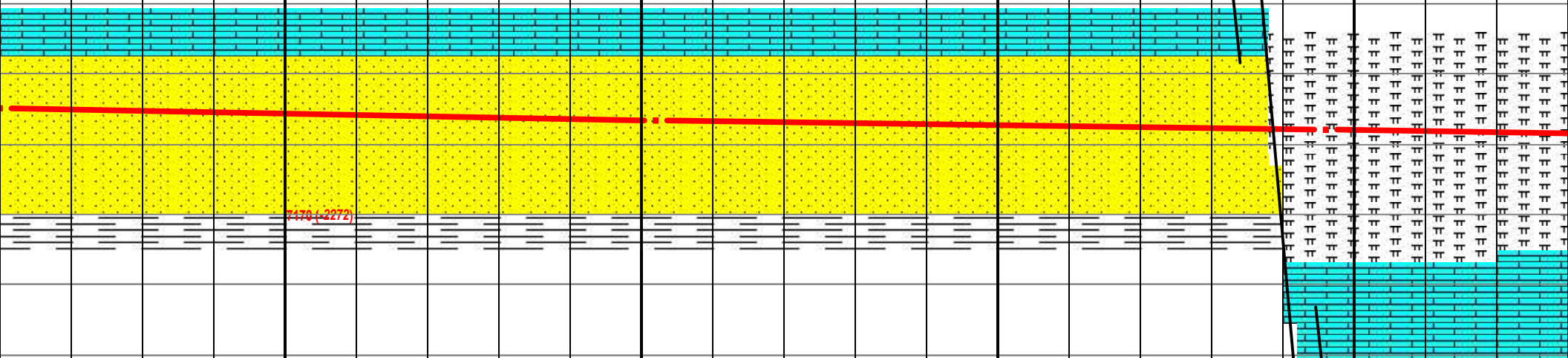


MD 17160 TVD 7154.97
INC 88.77 AZ 269.5
VS 10749.45

7120 TVD (-2222 SS)

MD 17252 TVD 7156.65
INC 89.13 AZ 270.31
VS 10841.44

MD 17346 TVD 7157.93
INC 89.31 AZ 269.63
VS 10935.43



95%) lt-lt med gry, v sl gryish tan ip, L vf
t vf grns, sbrnd-sbang, mod sphrcty,
srtd, v uncon, wk 10% calc cmt, est 8% vis
chy-nr evn ini fluor, spstd stn, gd/fst bri
hzy cuts, occ slw stdy strmr, gd bri grn
sy odor, SH (5%)

ARG SS: (90%) lt-lt med gry, v sl gryish tan ip, L vf grn,
abndt vf grns, sbrnd-sbang, mod sphrcty, mod-prly
srtd, v uncon, wk 10% calc cmt, est 9% vis por, lrg
ptchy-nr evn ini fluor, spstd stn, gd/fst bri grnsh blu
hzy cuts, occ slw stdy strmr, gd bri grn res rng, gsy
odor, SH (10%)

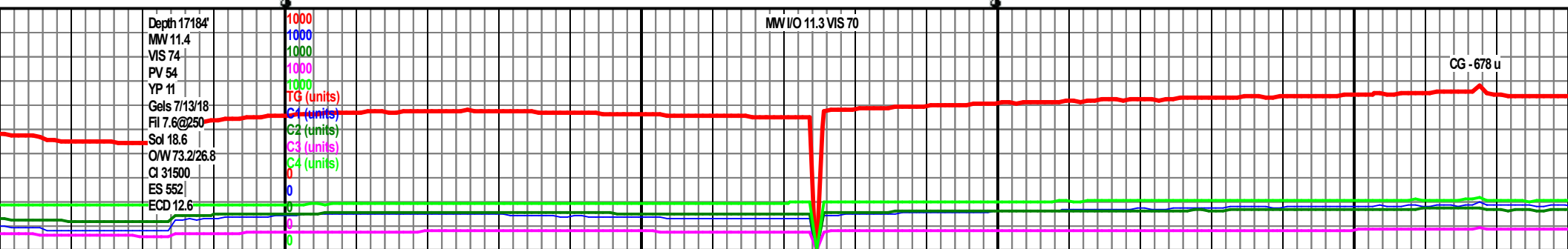
MRLSTN: (60%) drk gry-gryblk,
sbbilky-sbply, pred sbwxy, sl grty
frm-sl hd, CARB SH (40%): drk gr
sbwxy, shrp-blky cuttns, mod frm
strmnng cuts, gd mod thck bri grn
petrl odor, abndt fos frags

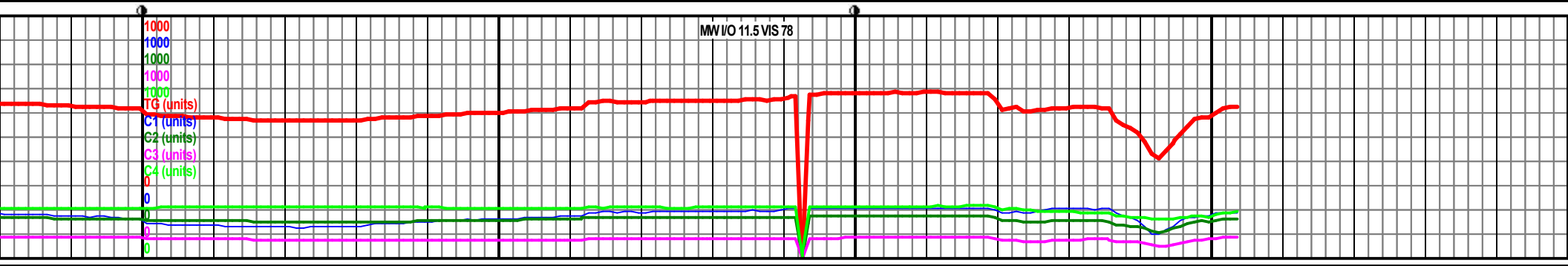
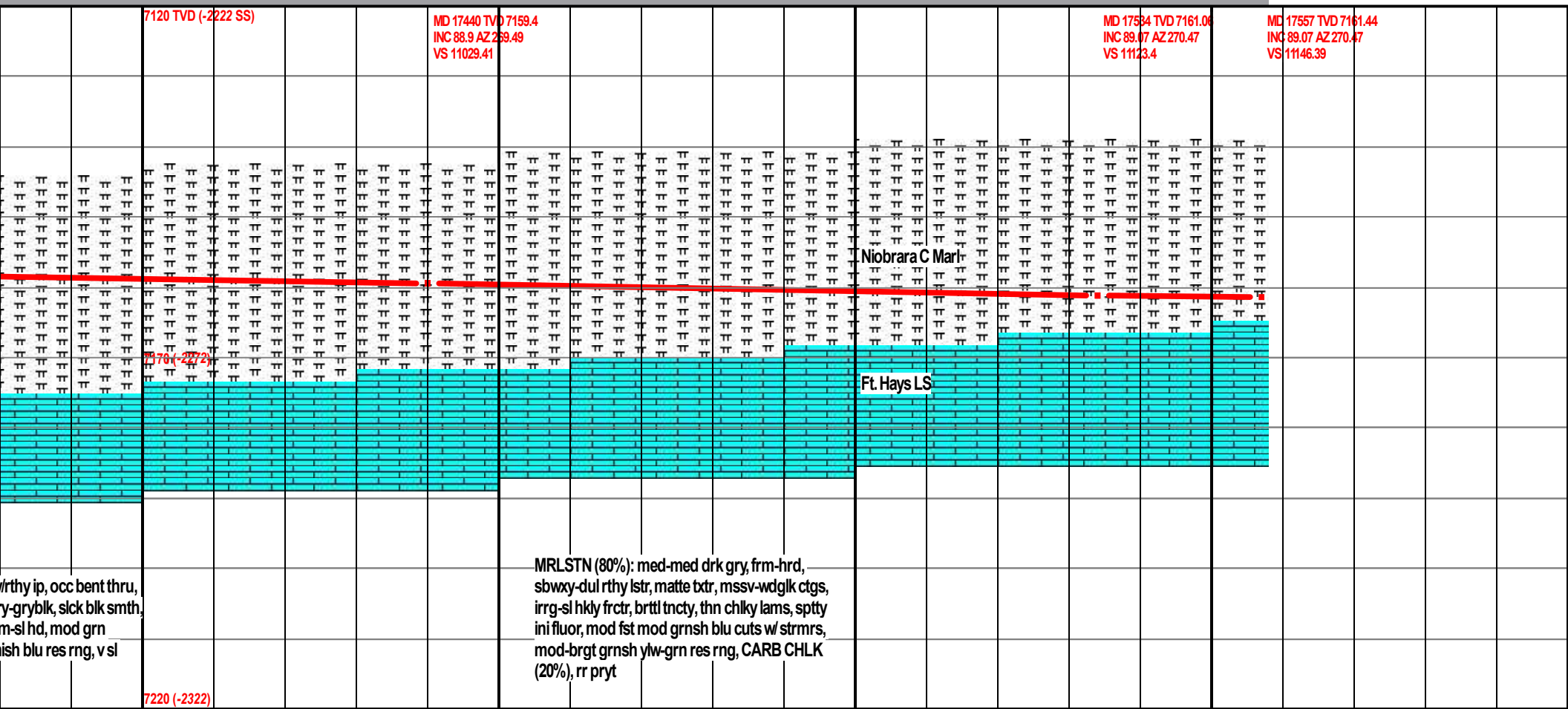
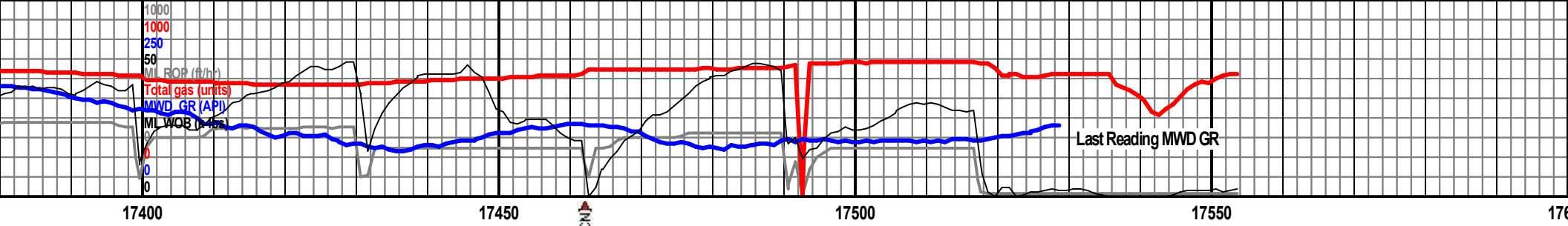
7220 (-2322)

Depth 17184'
MW 11.4
VIS 74
PV 54
YP 11
Gels 7/13/18
Fl 7.6@250
Sol 18.6
OW 73.2/26.8
CI 31500
ES 552
ECD 12.6

MW I/O 11.3 VIS 70

CG - 678 u





MRLSTN (80%): med-med drk gry, frm-hrd, sbwxy-dul rthy lstr, matte btr, mssv-wdglk ctgs, irrgr-sl hkly frctr, brttl tncy, thn chiky lams, sptty ini fluor, mod fst mod grnsh blu cuts w/ strmr, mod-brgt grnsh ylw-grn res rng, CARB CHLK (20%), rr pryt

[illegible]