

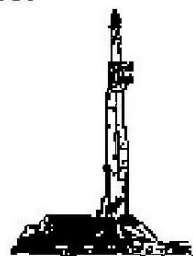
GOOLSBY BROTHERS
and associates, inc.

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: Benson Farms 14C-19HZ

API: 05123393370000

Location: Section 23, T3N, R68W

License Number:

Spud Date: August 5, 2014

Surface Coordinates: SESE Sec 23 T3N R68W; 677' FSL, 72' FEL

LAT: 40° 20'62.21 N; LONG: 104° 96'09.01 W

Bottom Hole Coordinates: SESW Sec 19 T3N R67W; 843' FSL; 2038' FWL

Ground Elevation (ft): 4961'

Logged Interval (ft): 6850'

To: 14517'

Formation: Pierre Shales/Sands, Sharon Springs, Niobrara, Fort Hays, Codell (Target)

Type of Drilling Fluid: Water & Poly to 5000', LSND 5000'-14,517'

K.B. Elevation (ft): 4977'

Total Depth (ft): 14517' DMTD

Region: Wattenberg, DJ Basin

Drilling Completed: August 11, 2014

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

OPERATOR

Company: Kerr-McGee Oil & Gas Onshore LP

Address: Granite Tower - 1099 18th St, Ste 1800

Denver, CO 80202

CO Geologist, Tom Birmingham

GEOLOGIST

Name: Blake Stacey and Shelton Davis

Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)

Address: 575 Union Blvd.

Suite 208,

Lakewood CO. 80228

E-logs

MWD GR 6,663' - 14,455'

Casing

9 5/8" Surface Casing set @ 1,109' MD


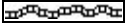
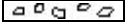

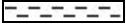
7" Intermediate Casing set @ 7,717' MD

4 1/2" Production Liner hung 8/13/2014, landed @ 14,507' MD






Comments






- 1) Drilling Contractor: Xtreme Drilling, Rig # 23
- 2) Directional Drilling: Baker Hughes
MWD GR: Baker Hughes
- 3) Gas Equipment: Pason Gas Analyzer and Agitator

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst







 Coal
 Oil sat.
 Congl
 Dol
 Gyp








 Lmst
 Mrlst
 Salt
 Shale
 Shcol
















 Shgy
 Ss
 Sltst
 Ss
 Chalk







 Carb sh
 Sltly sh

ACCESSORIES

MINERAL
 Anhy
 Arggrn
 Arg
 Bent
 Bit
 Brecfrag
 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
 Ssstrg

TEXTURE
 Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Vspotty

- near even

POROSITY TYPE

- Earthy
- Fenest
- Fracture

OTHER SYMBOLS

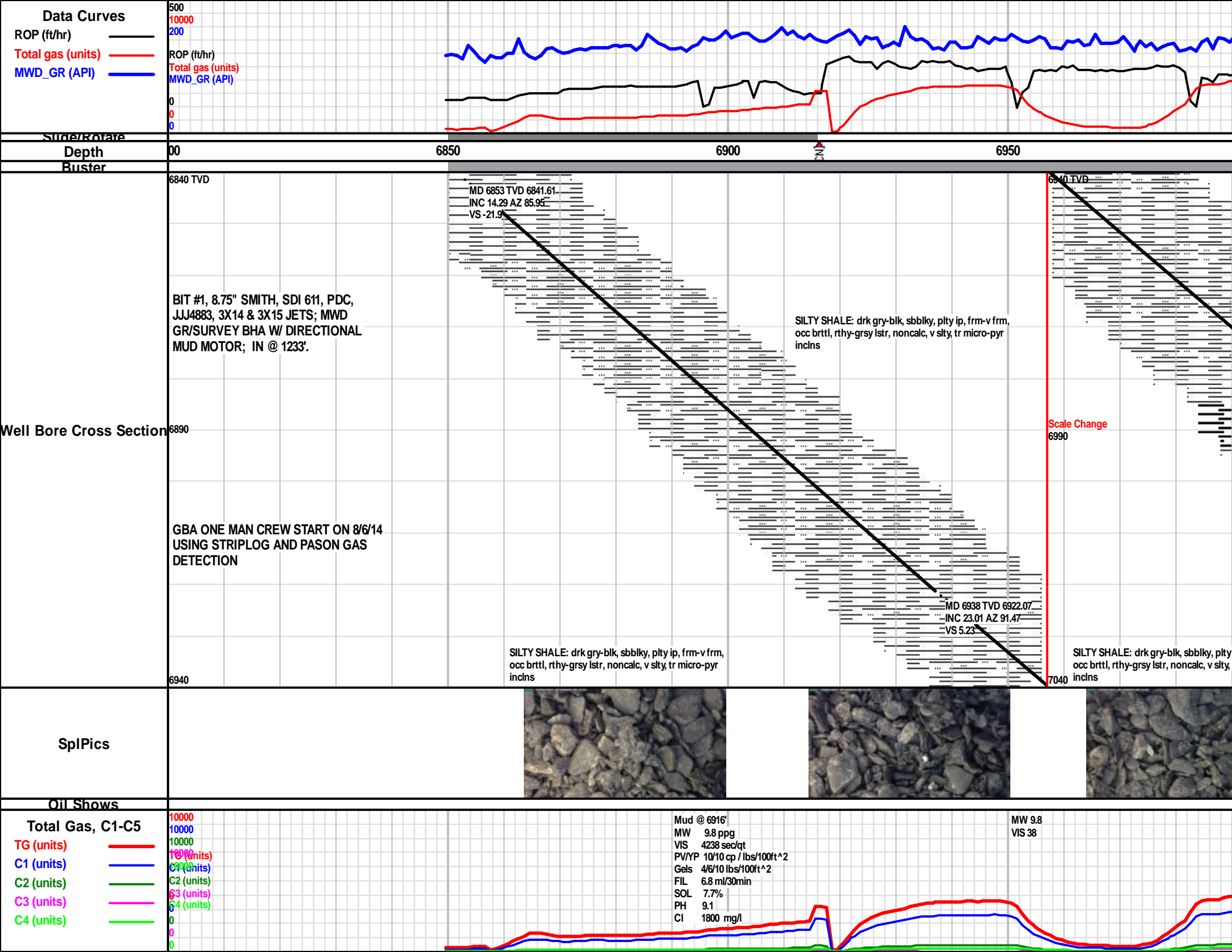
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

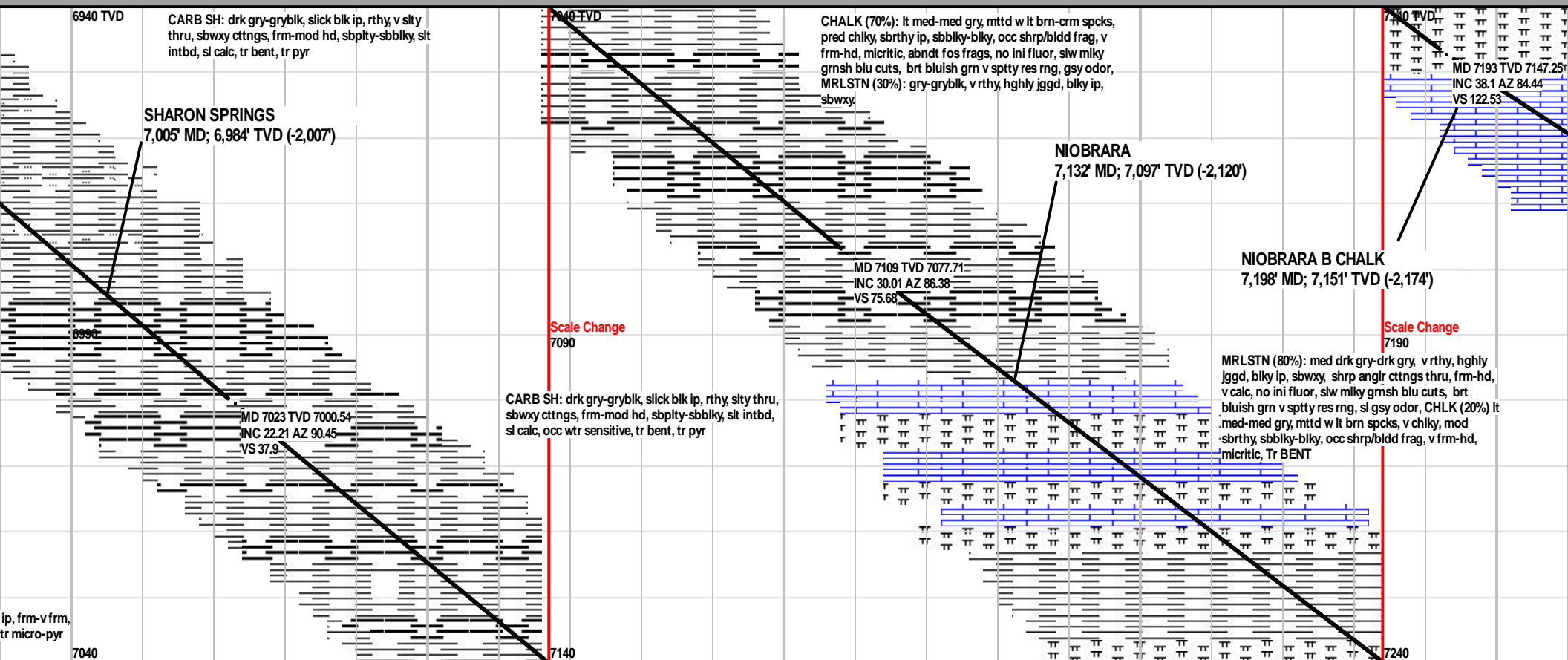
ROUNDING

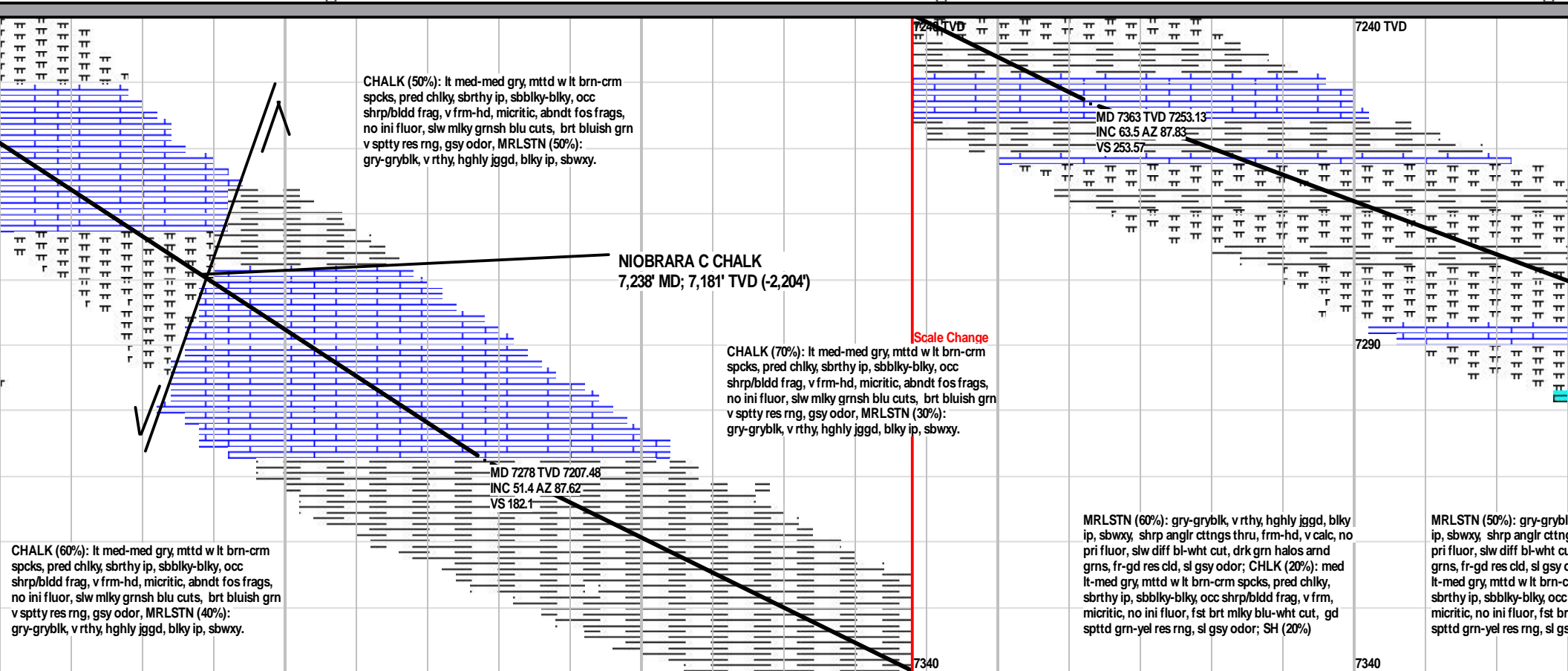
- Rounded
- Subrnd
- Subang
- Angular

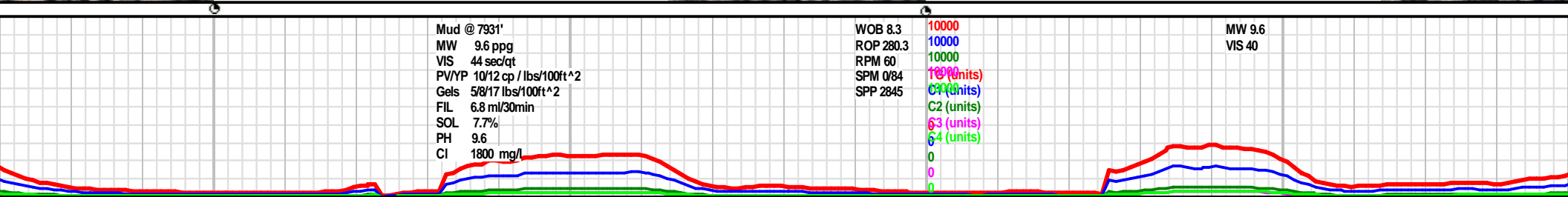
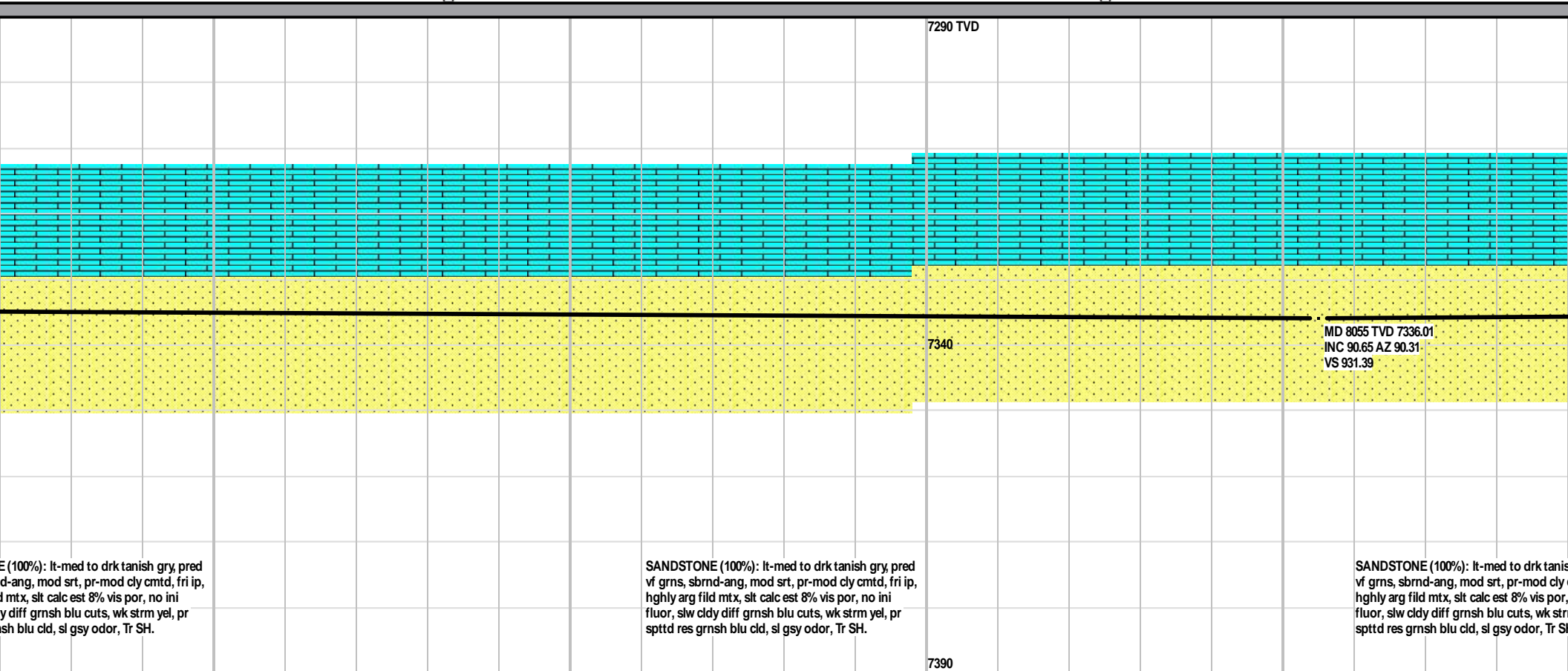
SORTING

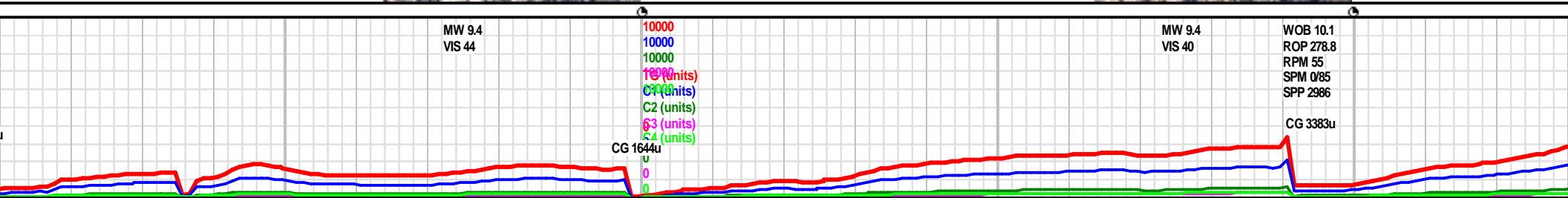
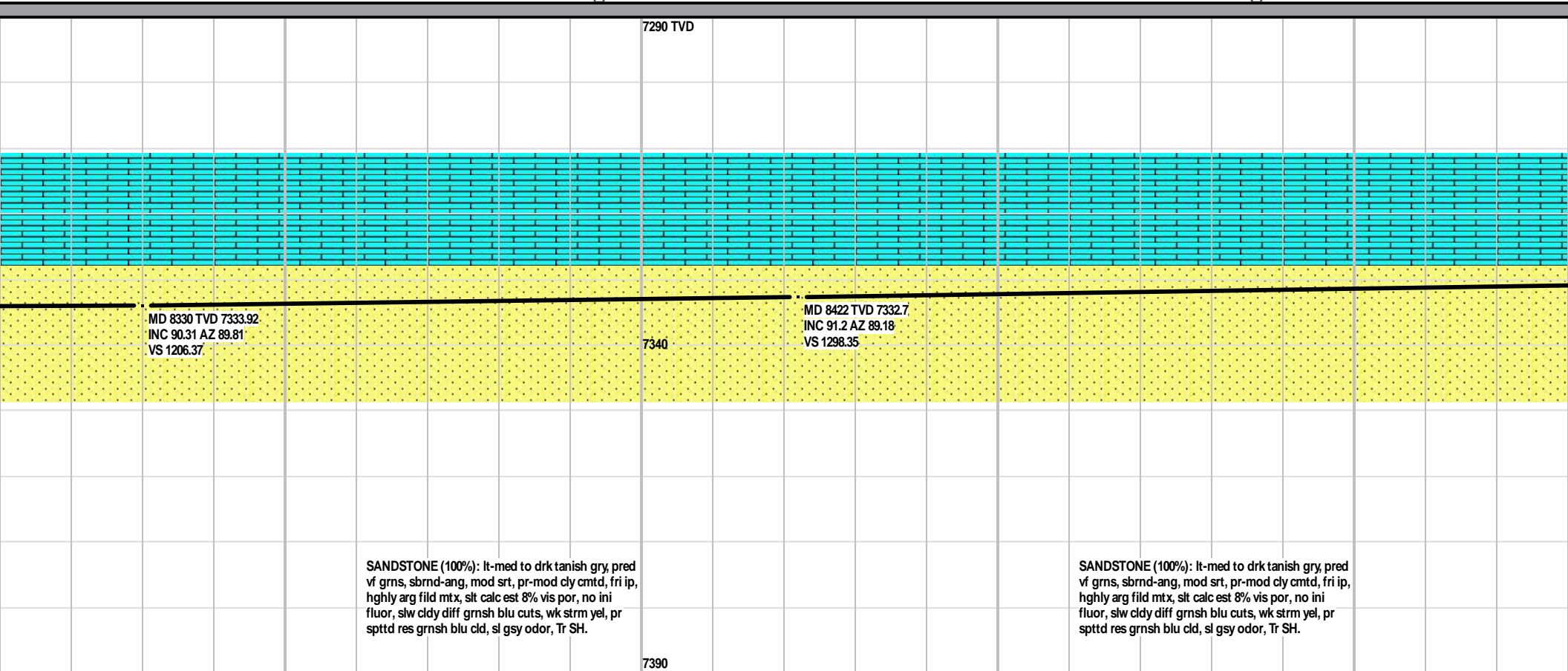
- Well
- Moderate
- Poor

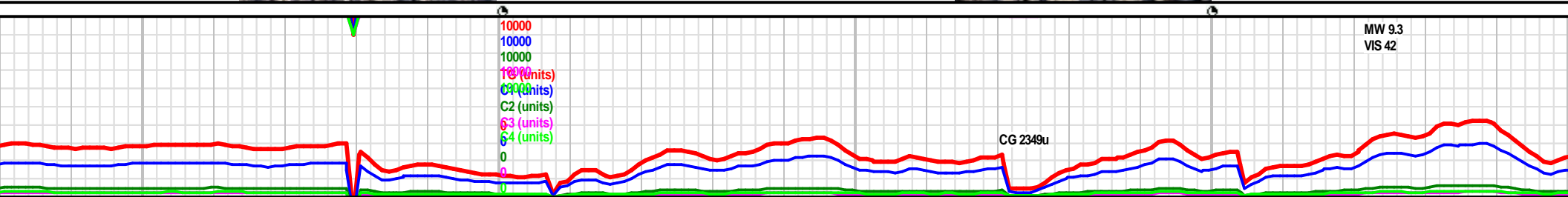
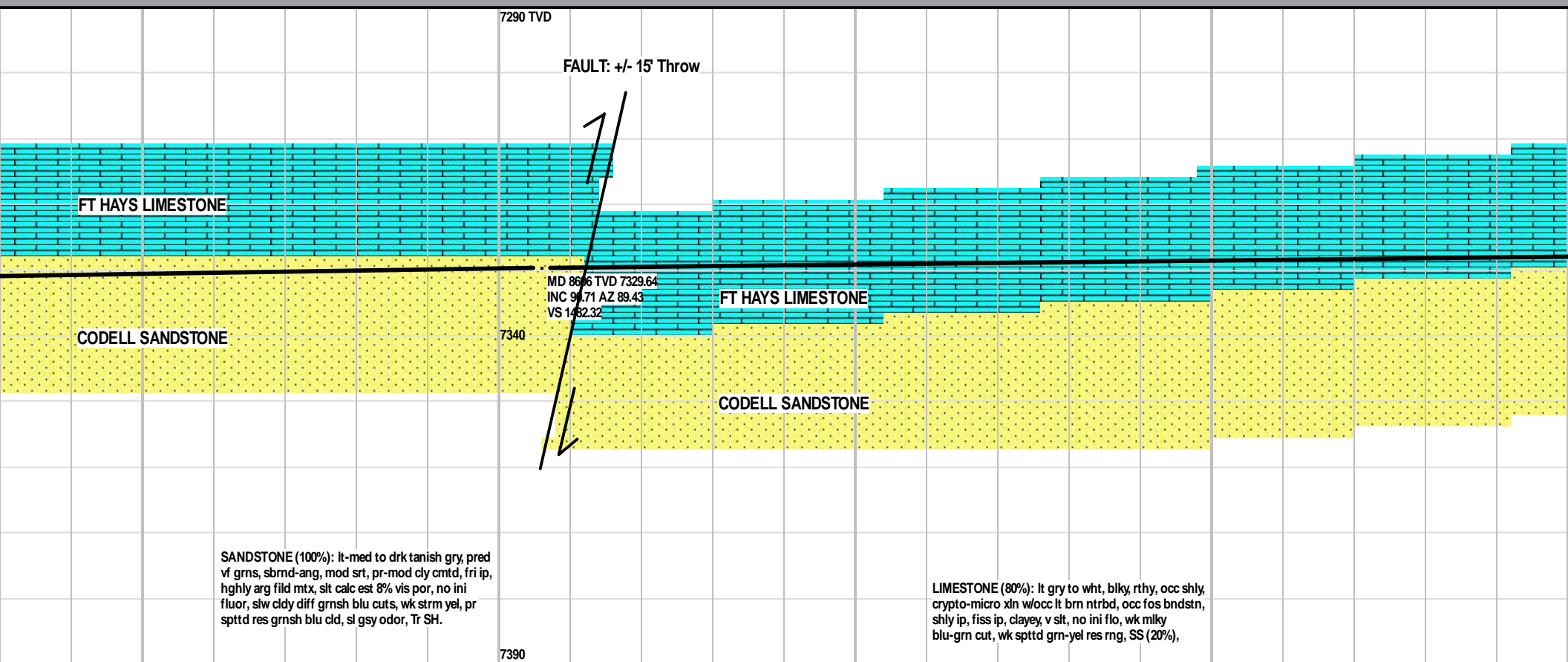
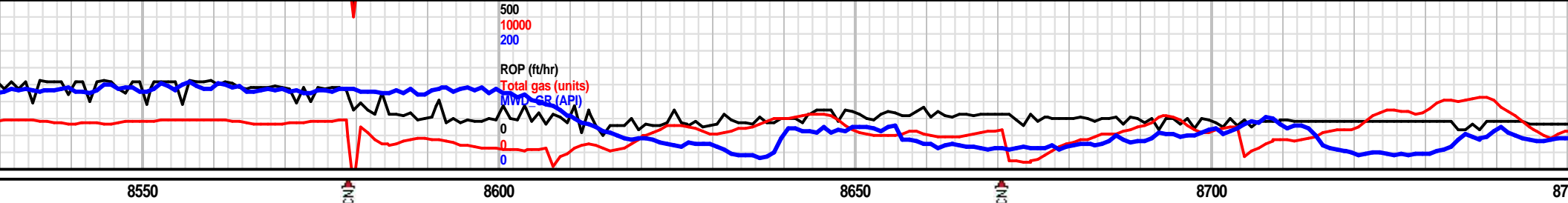


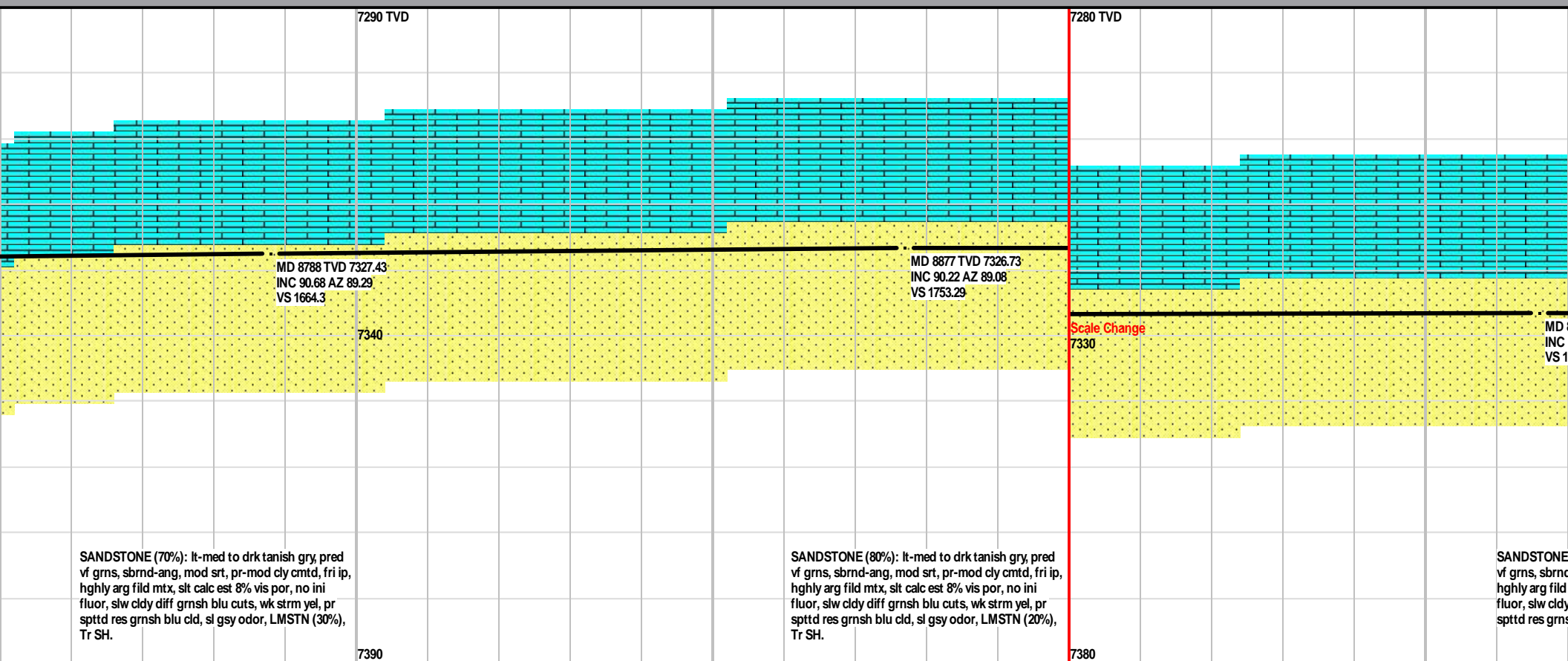
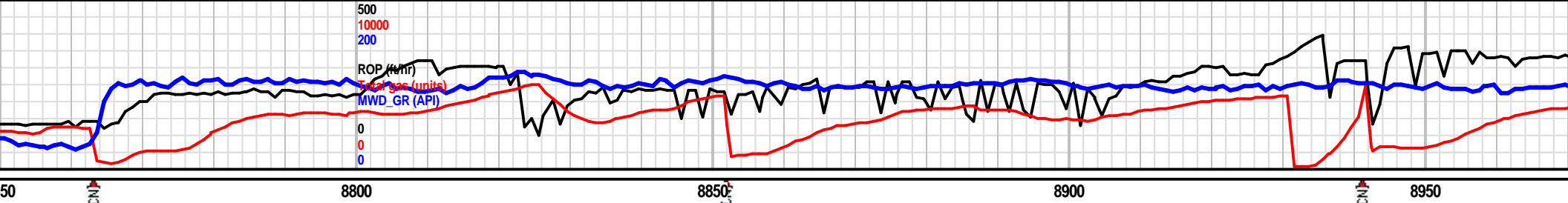








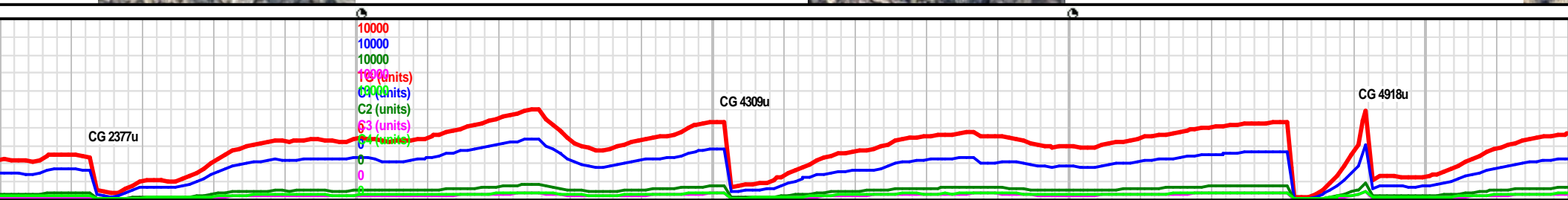


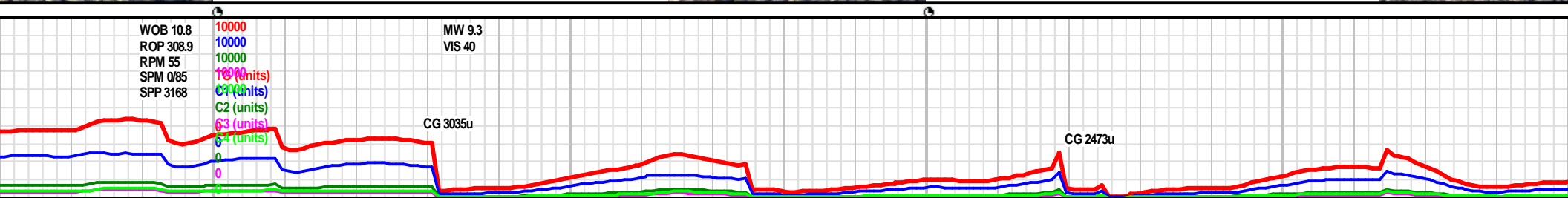
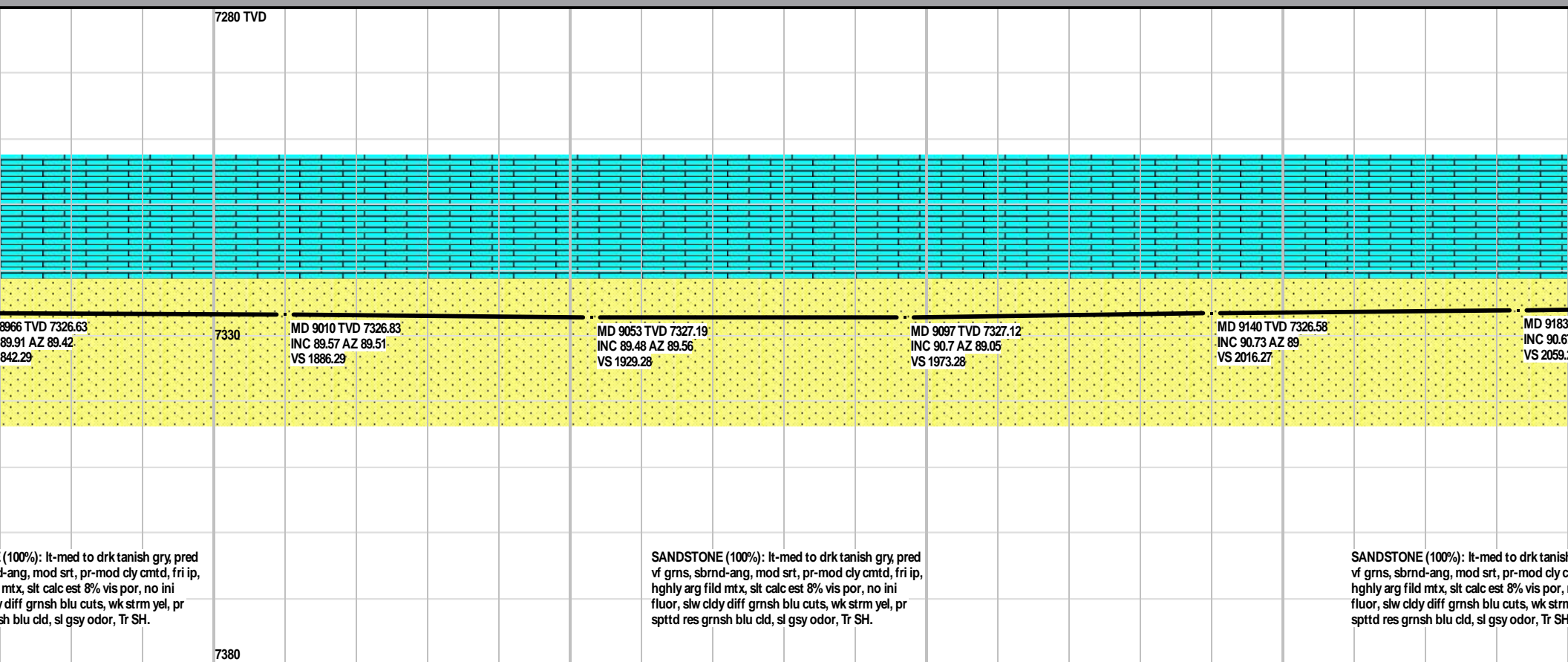
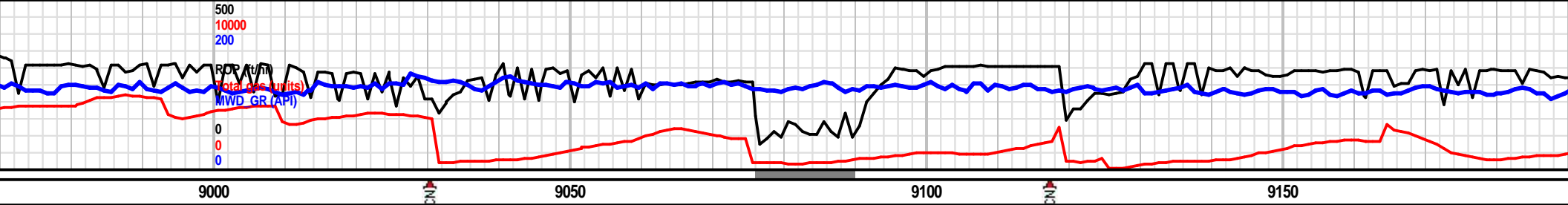


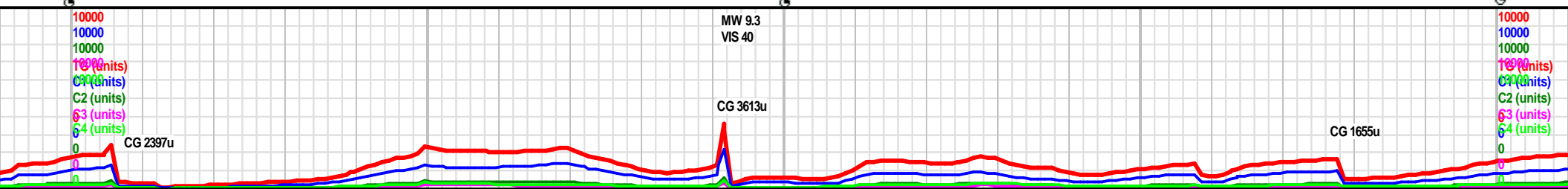
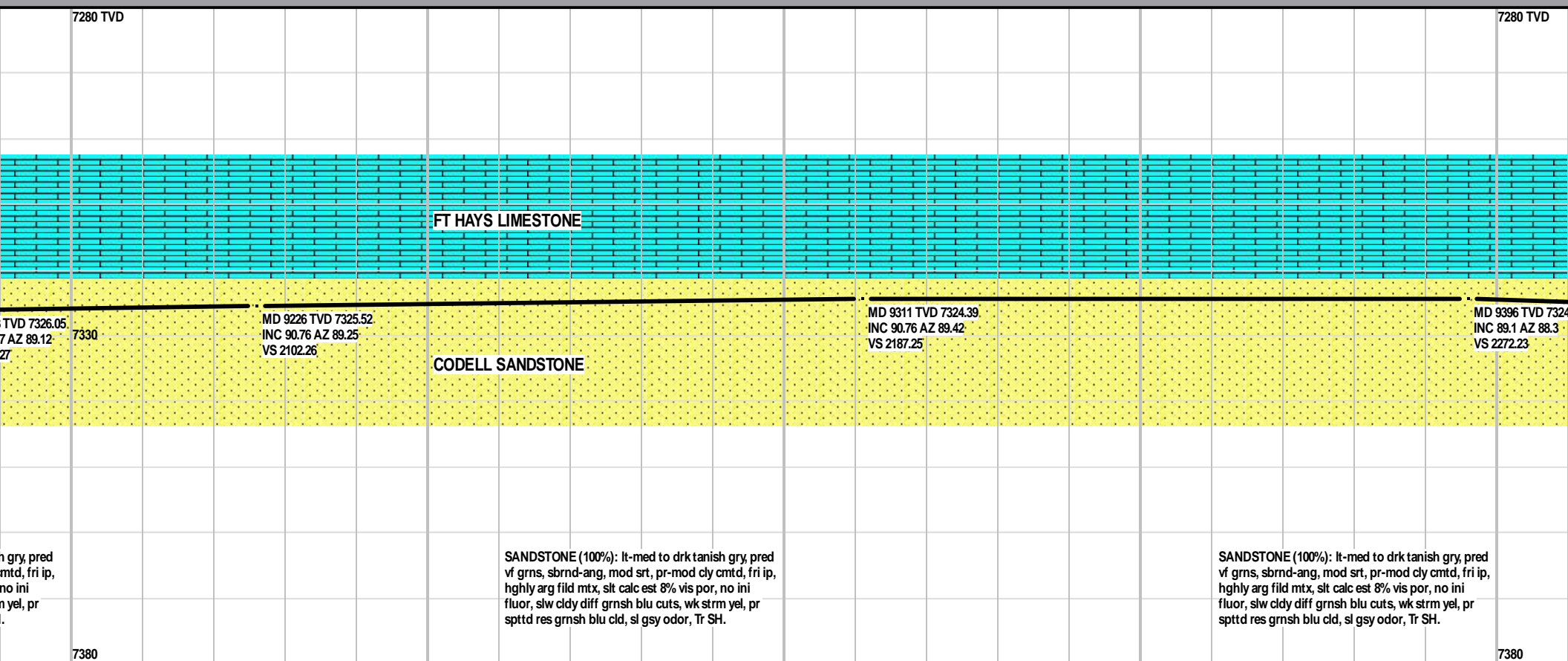
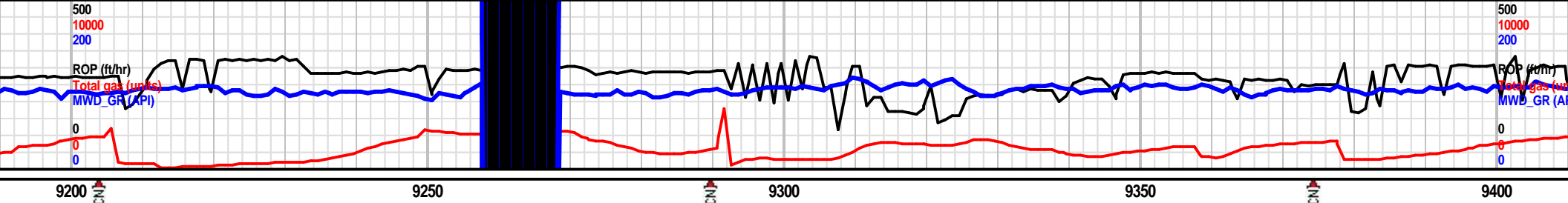
SANDSTONE (70%): lt-med to drk tanish gry, pred vf grns, sbnd-ang, mod srt, pr-mod cly cmtd, fri ip, hghly arg fld mtz, slt calc est 8% vis por, no ini fluor, slw cldy diff grnsh blu cuts, wk strn yel, pr spttd res grnsh blu cld, sl gsy odor, LMSTN (30%), Tr SH.

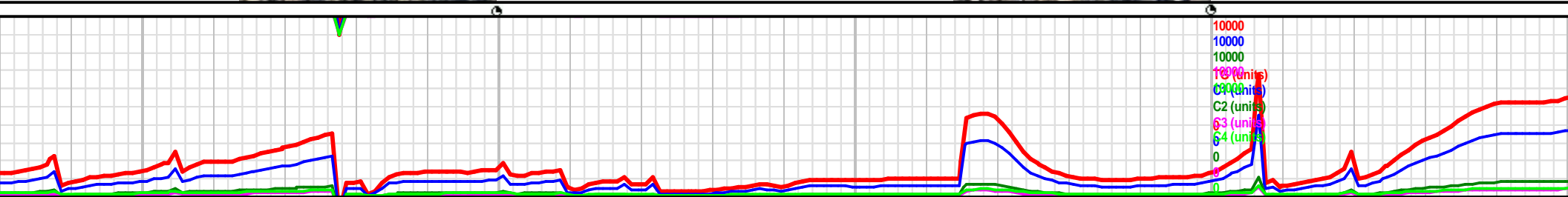
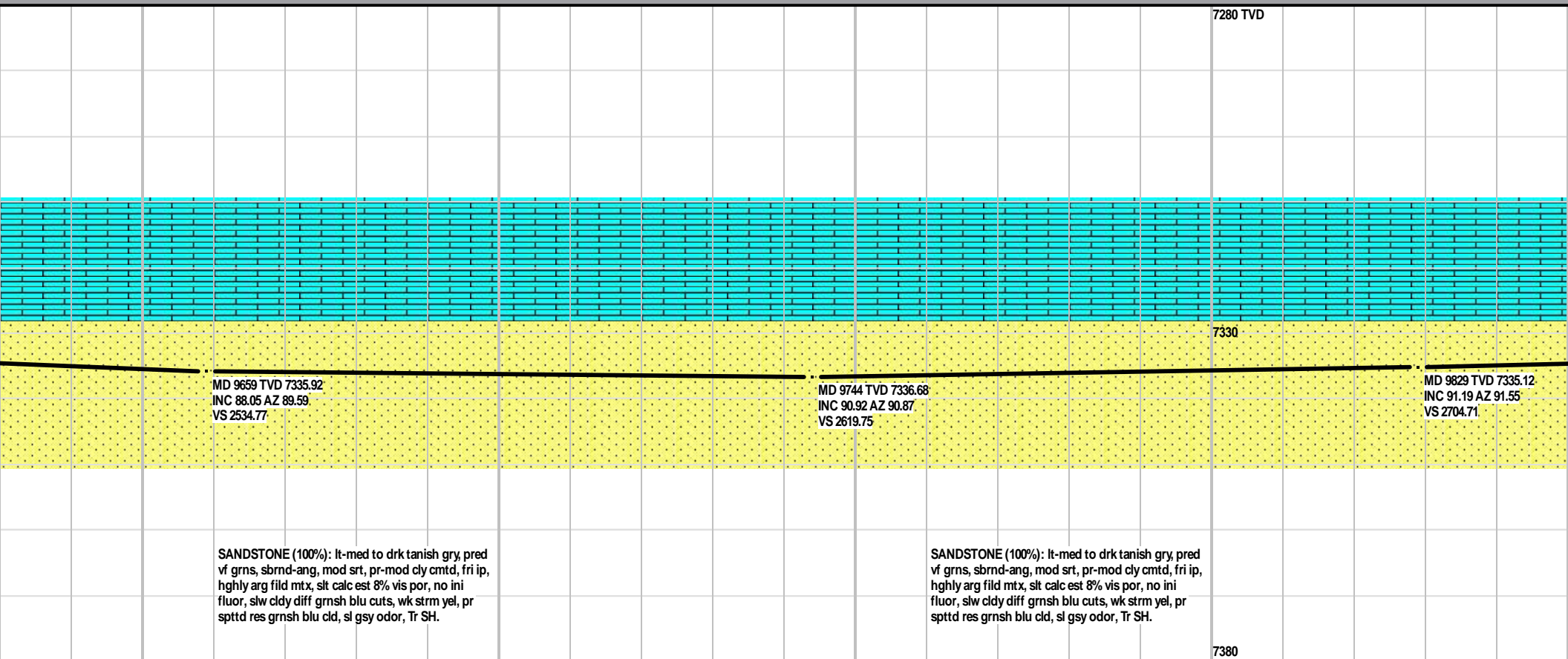
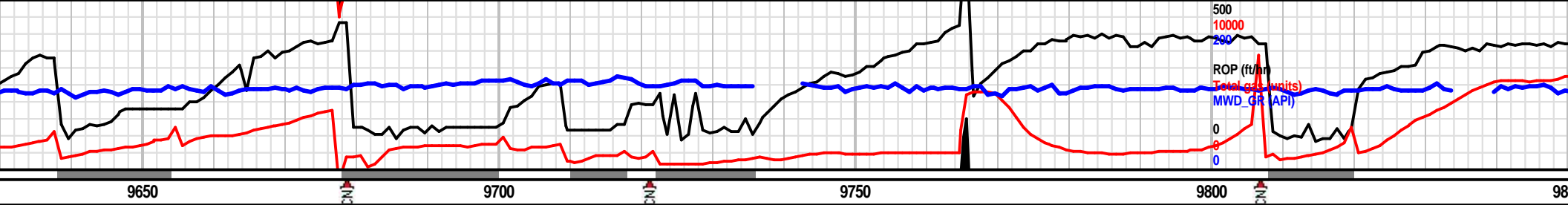
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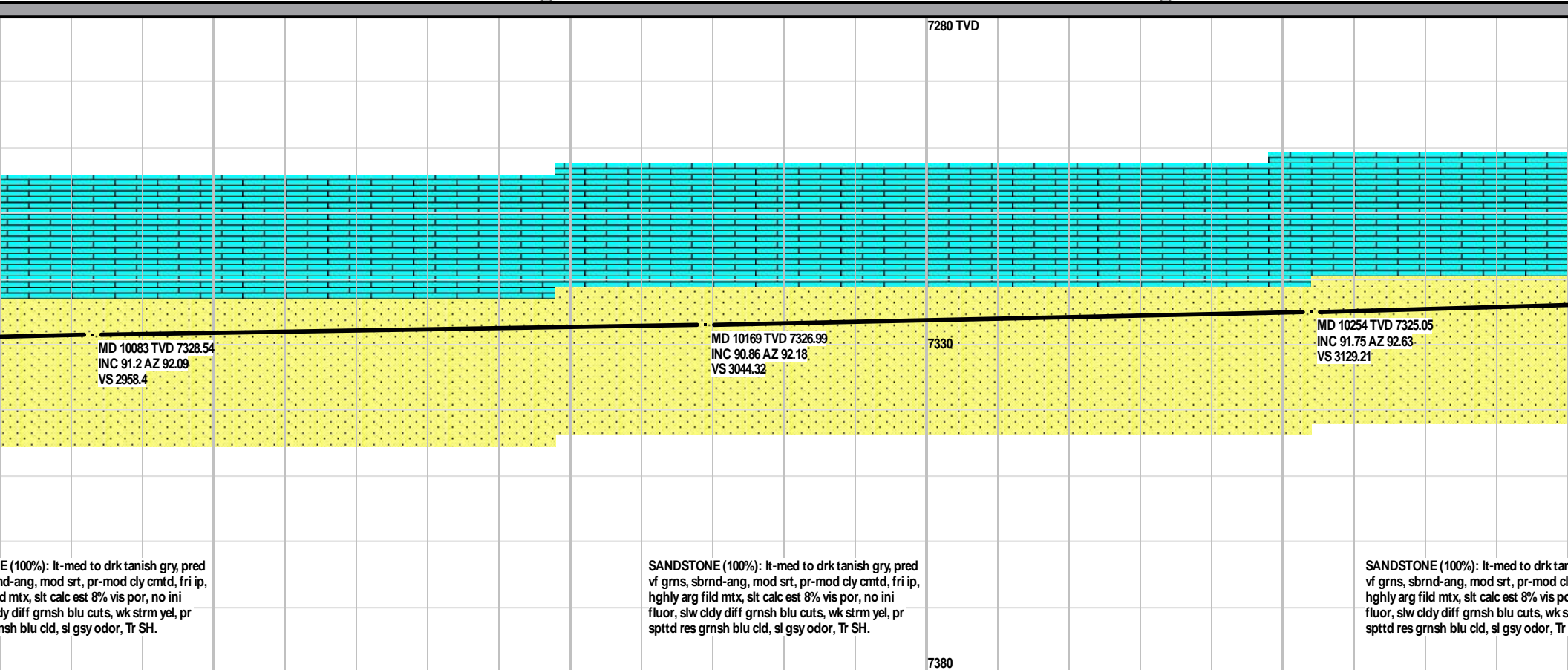
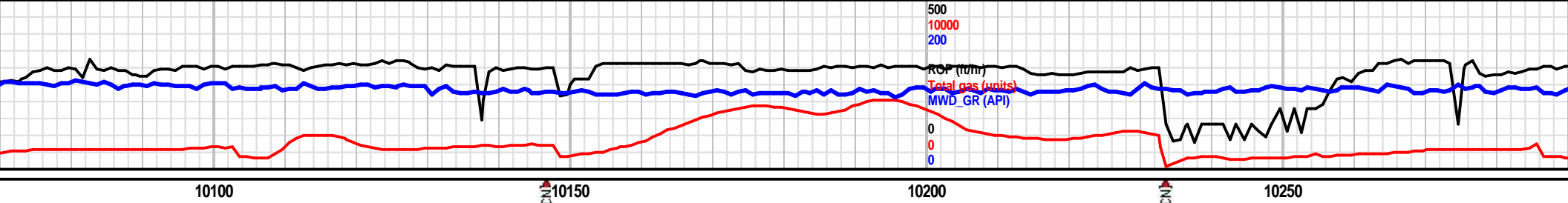
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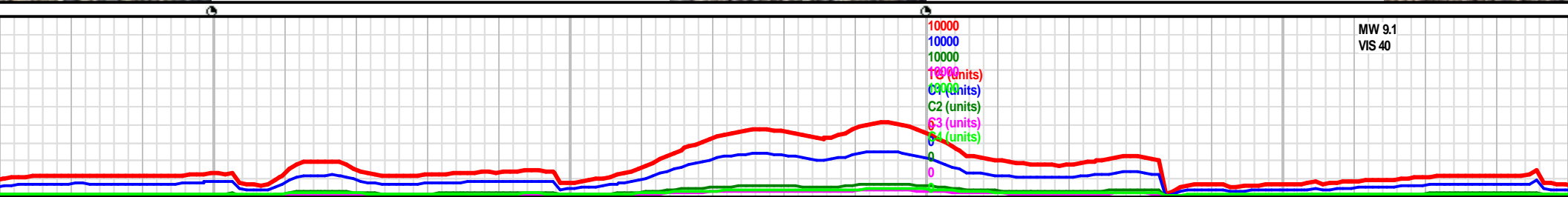


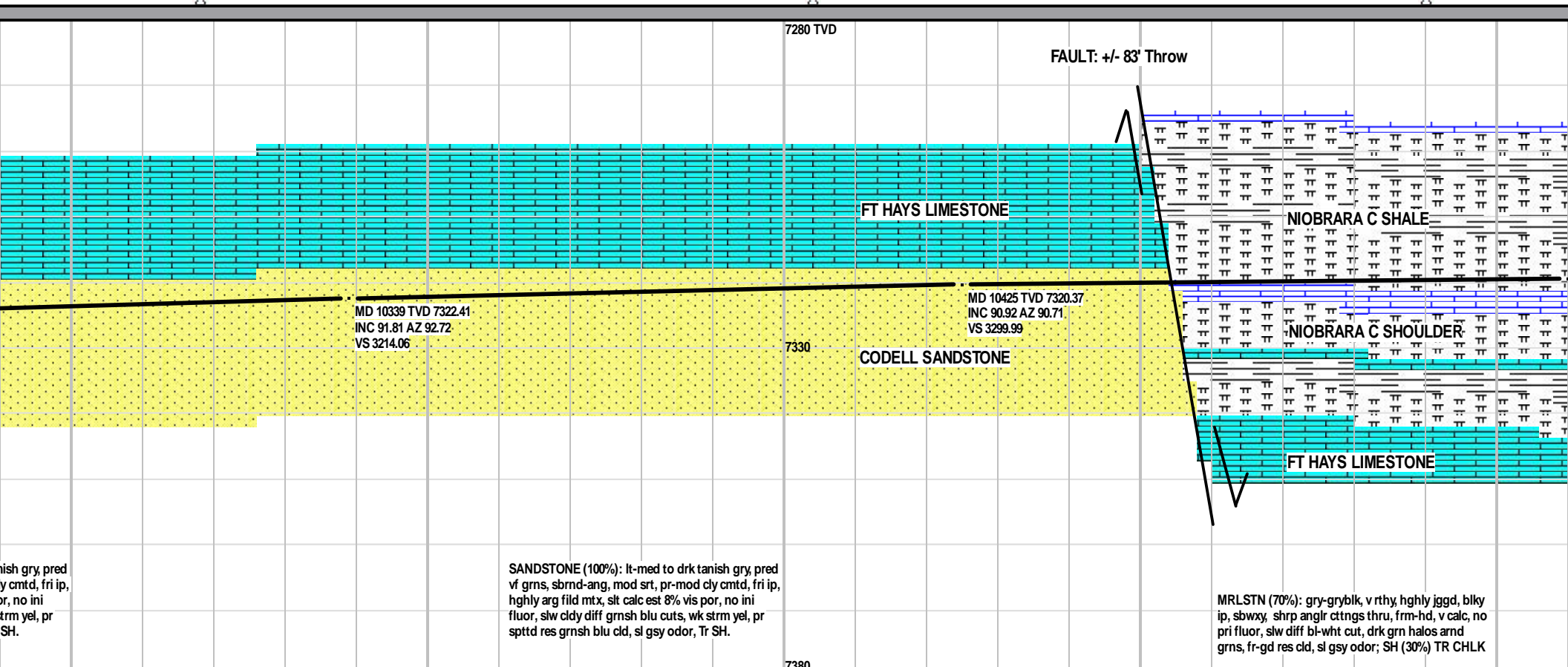
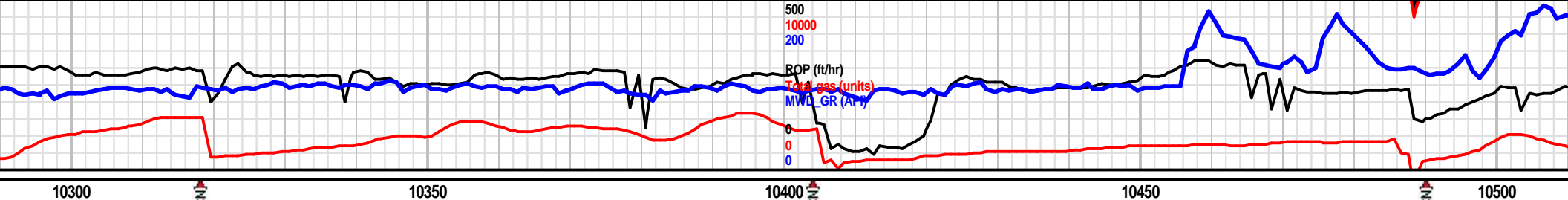


E (100%): lt-med to drk tanish gry, pred
nd-ang, mod srt, pr-mod cly cmtd, fri ip,
d mtz, slt calc est 8% vis por, no ini
y diff grnsh blu cuts, wk strm yel, pr
nsh blu cld, sl gsy odor, Tr SH.

SANDSTONE (100%): lt-med to drk tanish gry, pred
vf grns, sbrnd-ang, mod srt, pr-mod cly cmtd, fri ip,
hghly arg fild mtz, slt calc est 8% vis por, no ini
fluor, slw cldy diff grnsh blu cuts, wk strm yel, pr
spttd res grnsh blu cld, sl gsy odor, Tr SH.

SANDSTONE (100%): lt-med to drk tanish gry, pred
vf grns, sbrnd-ang, mod srt, pr-mod cly cmtd, fri ip,
hghly arg fild mtz, slt calc est 8% vis por, no ini
fluor, slw cldy diff grnsh blu cuts, wk strm yel, pr
spttd res grnsh blu cld, sl gsy odor, Tr SH.

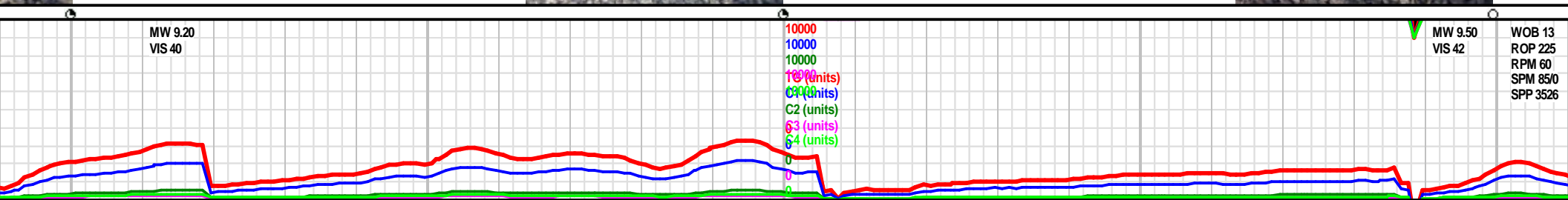


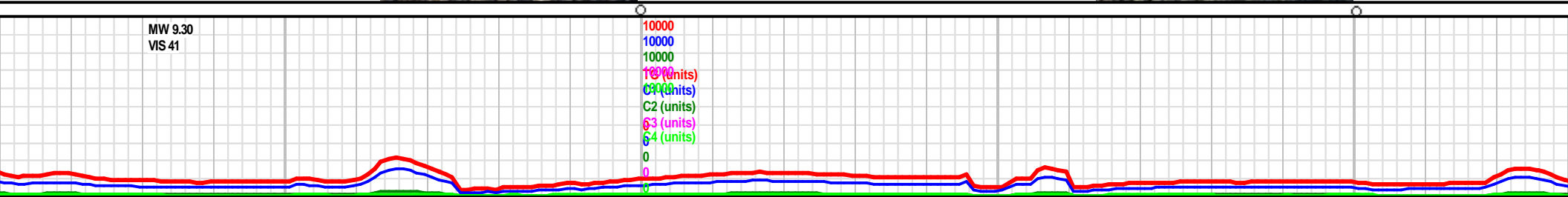
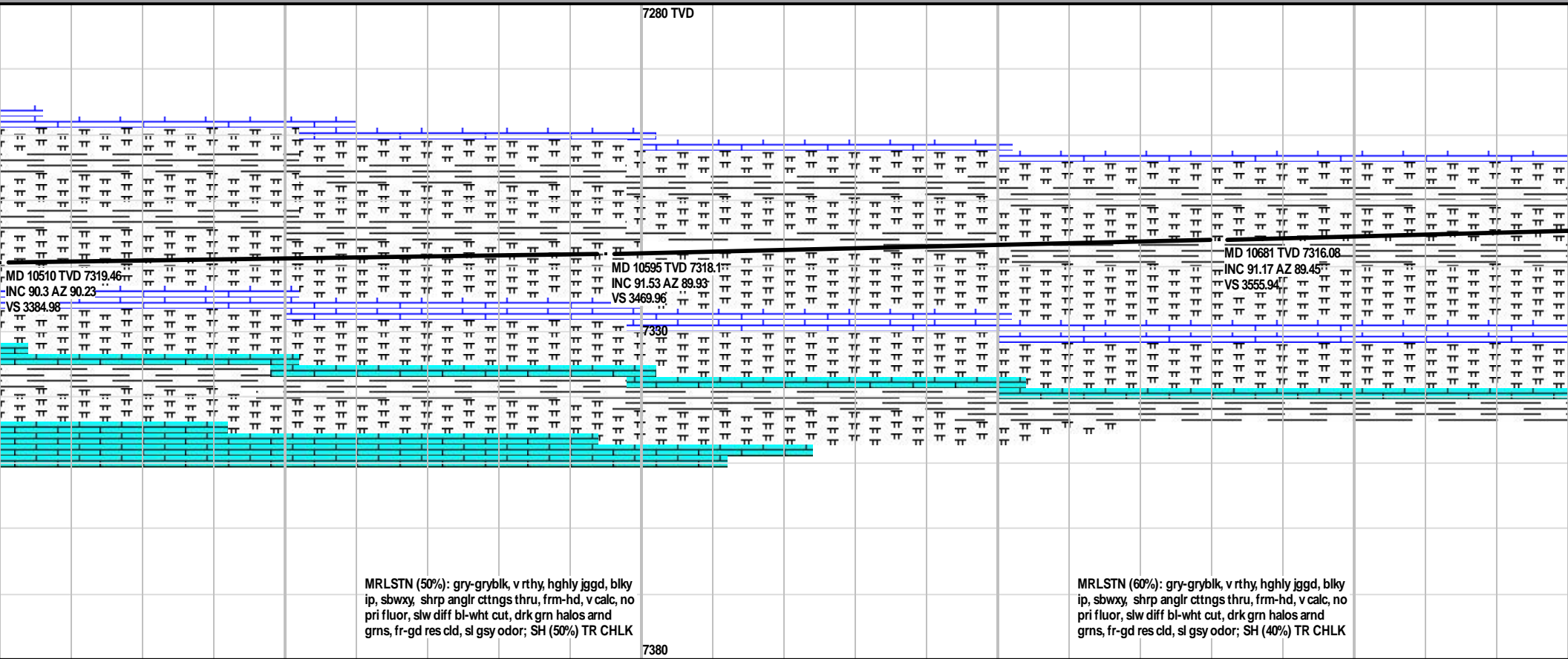
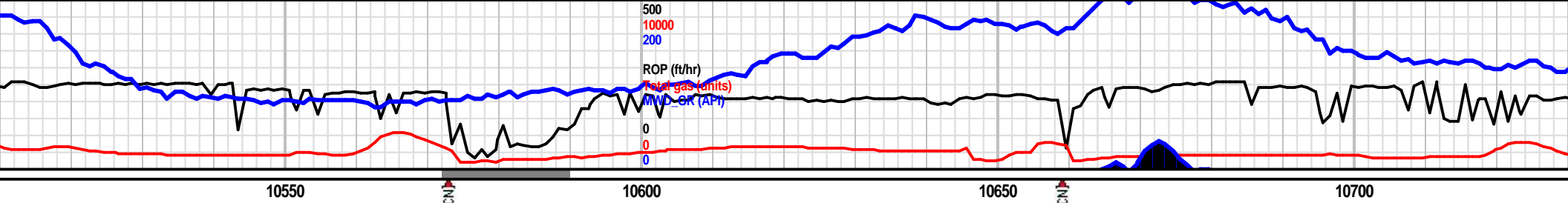


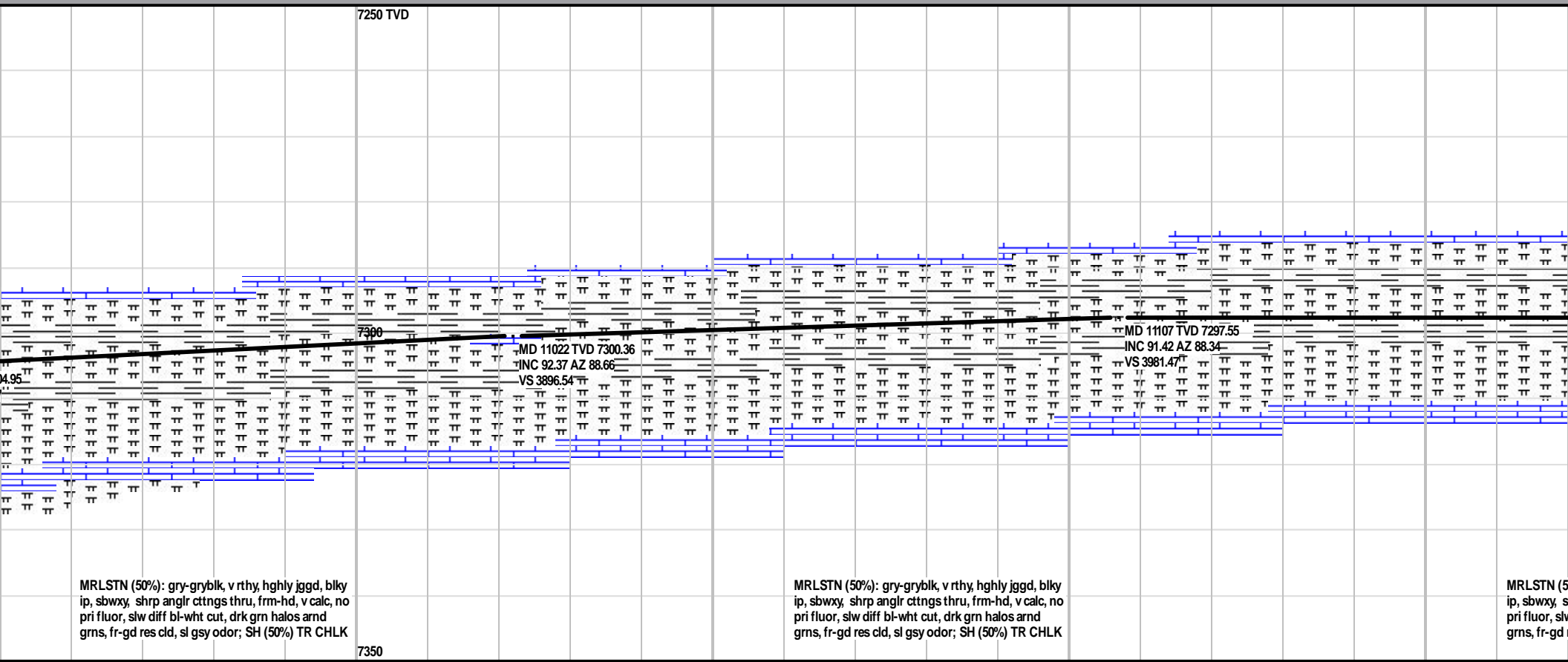
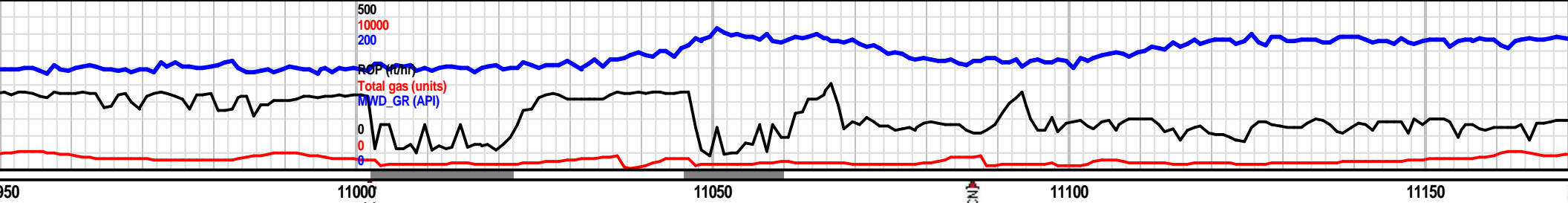
ish gry, pred
y cmtd, fri ip,
or, no ini
trm yel, pr
SH.

SANDSTONE (100%): lt-med to drk tanish gry, pred
v grns, sbrnd-ang, mod srt, pr-mod cly cmtd, fri ip,
hghly arg fild mtz, slt calc est 8% vis por, no ini
fluor, slw cldy diff grnsh blu cuts, wk strm yel, pr
spttd res grnsh blu cld, sl gsy odor, Tr SH.

MRLSTN (70%): gry-gryblk, v rthy, hghly jggd, blk
ip, sbwxy, shrp anglr ctngs thru, frm-hd, v calc, no
pri fluor, slw diff bl-wht cut, drk grn halos and
grns, fr-gd res cld, sl gsy odor; SH (30%) TR CHLK





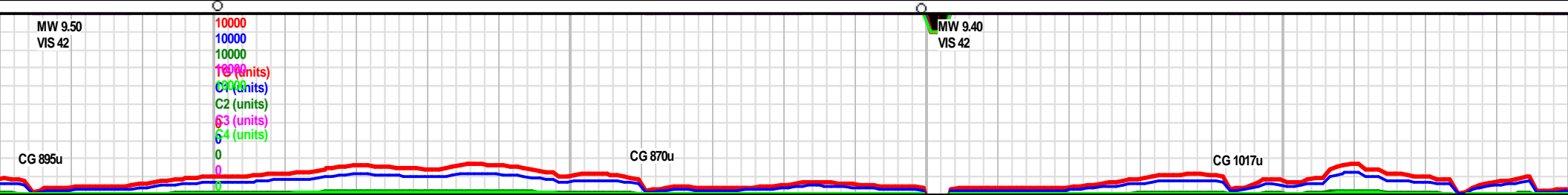
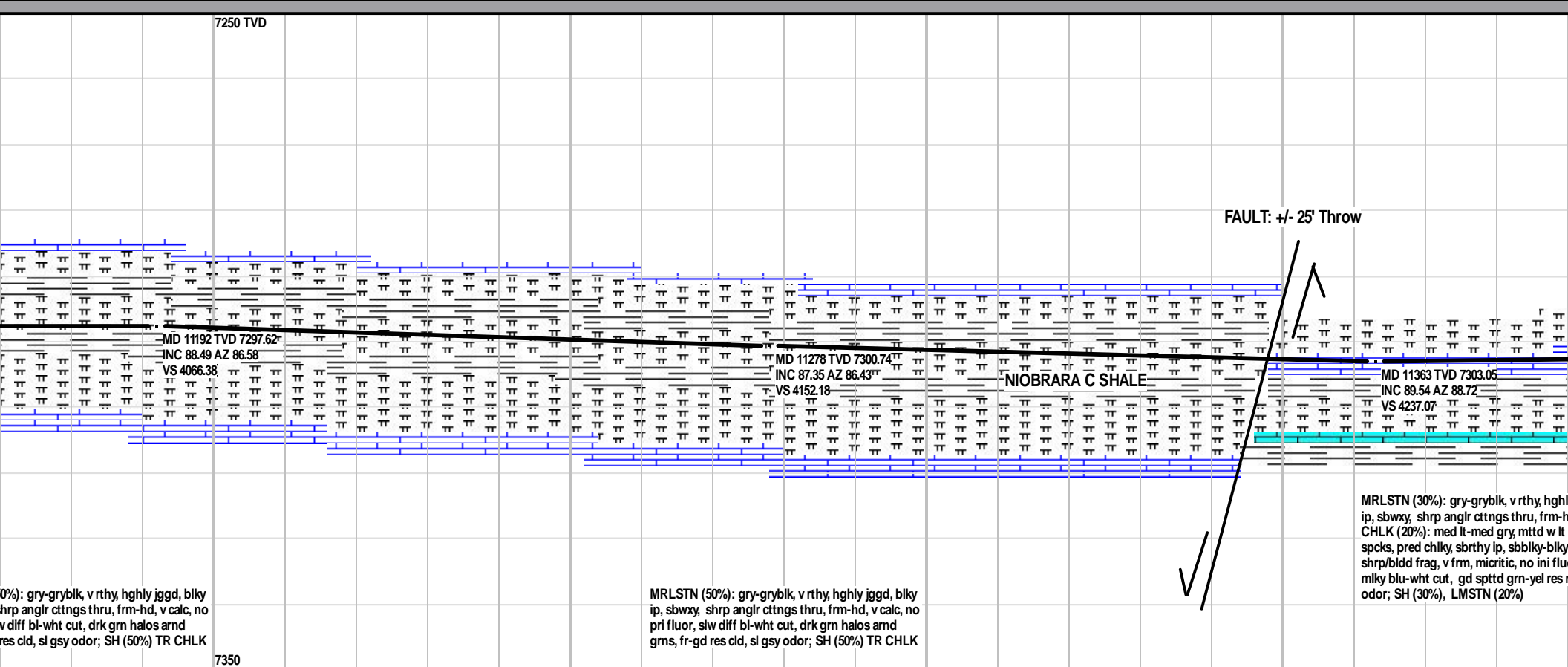
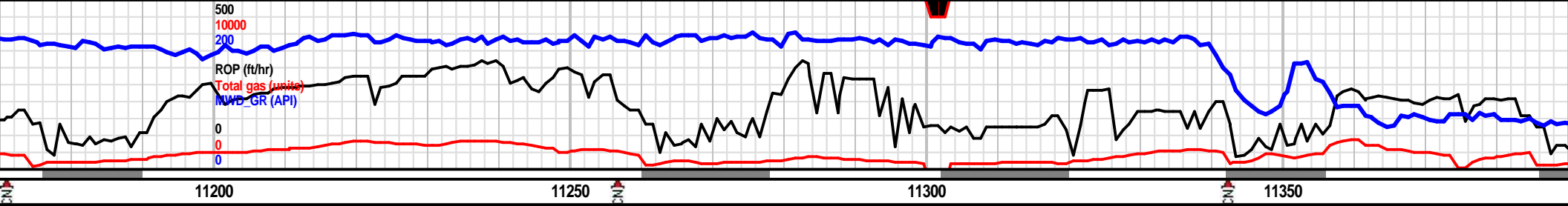


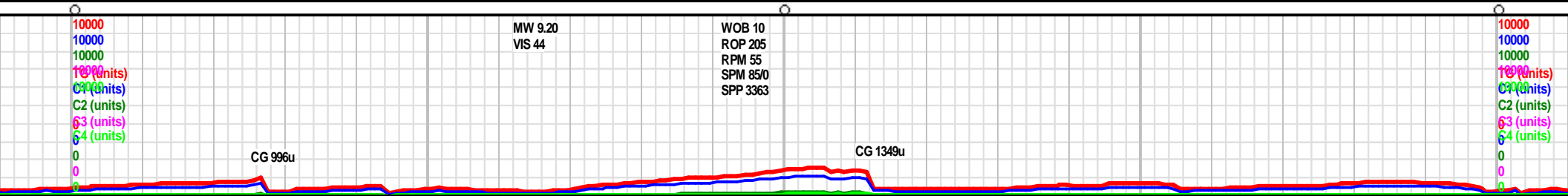
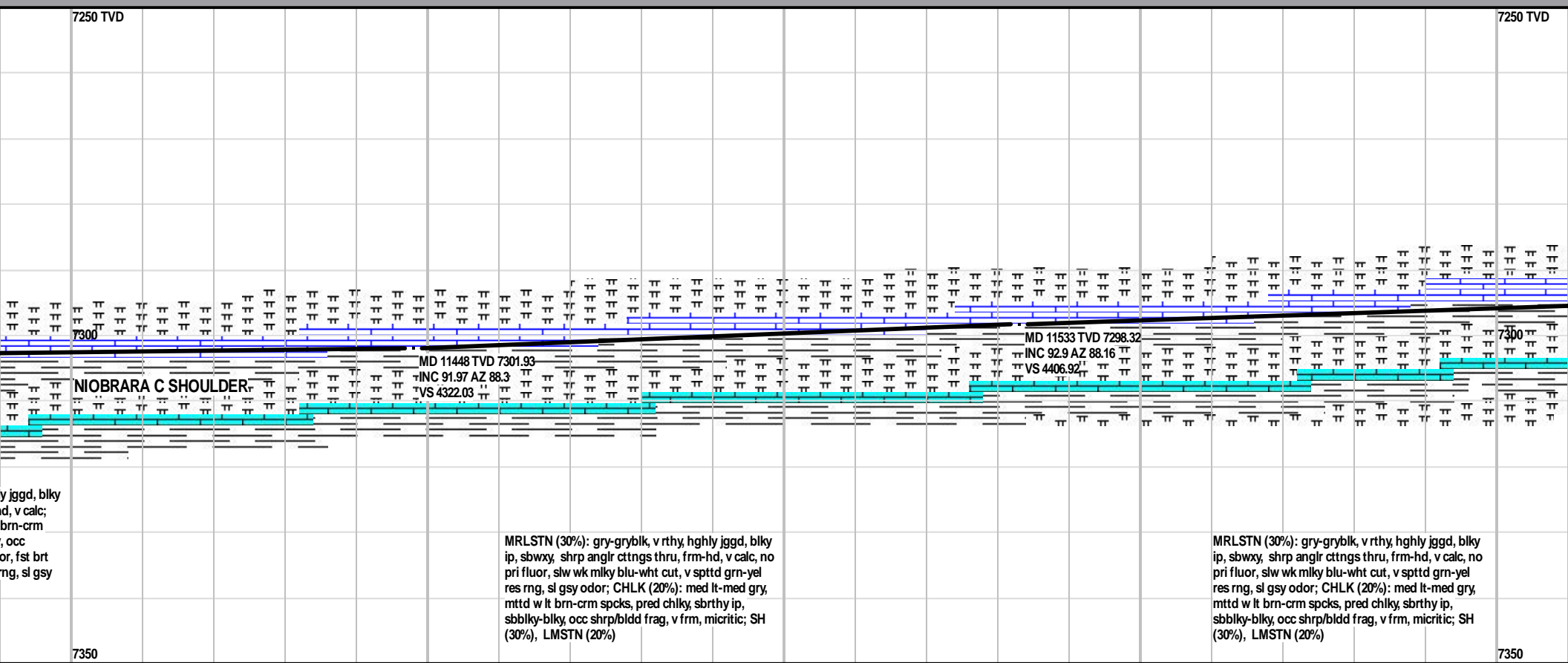
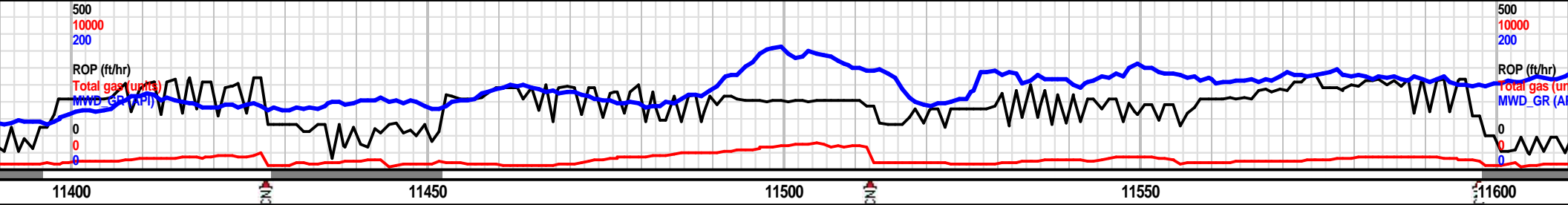
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VIS 42

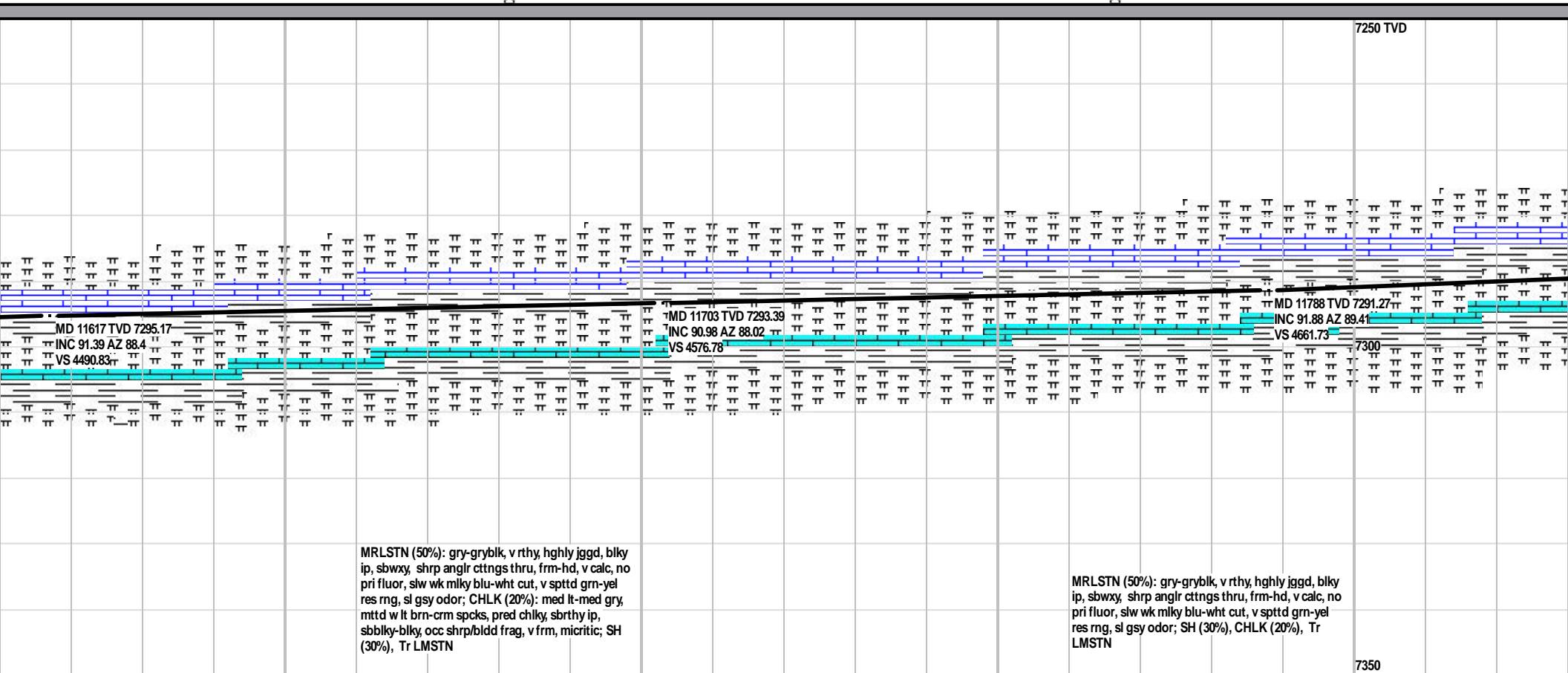
WOB 16
ROP 220
RPM 55
SPM 85/0
SPP 3737

10000
10000
10000
10000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

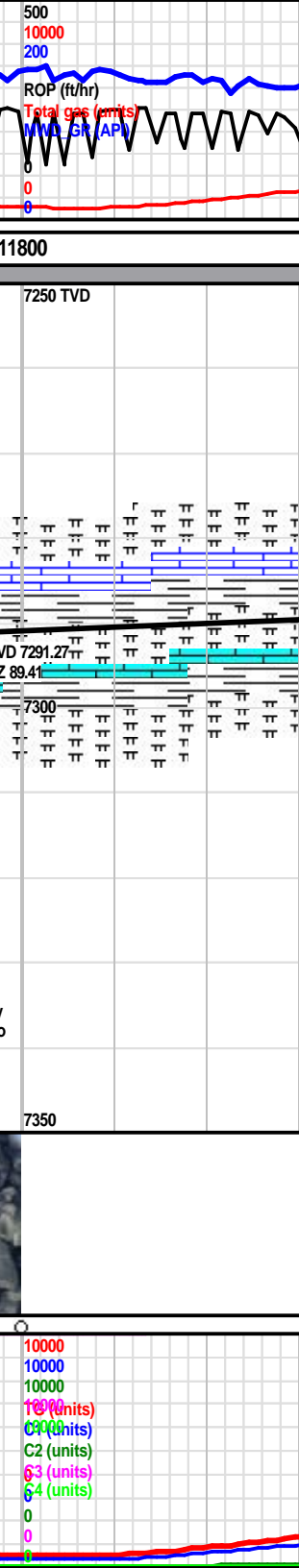
CG 799u

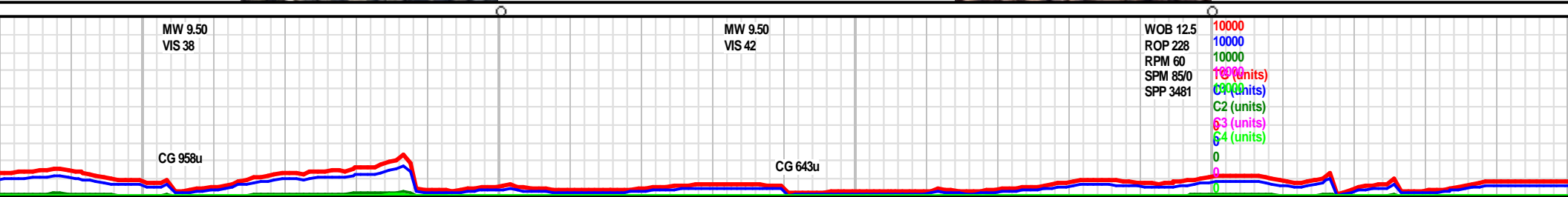
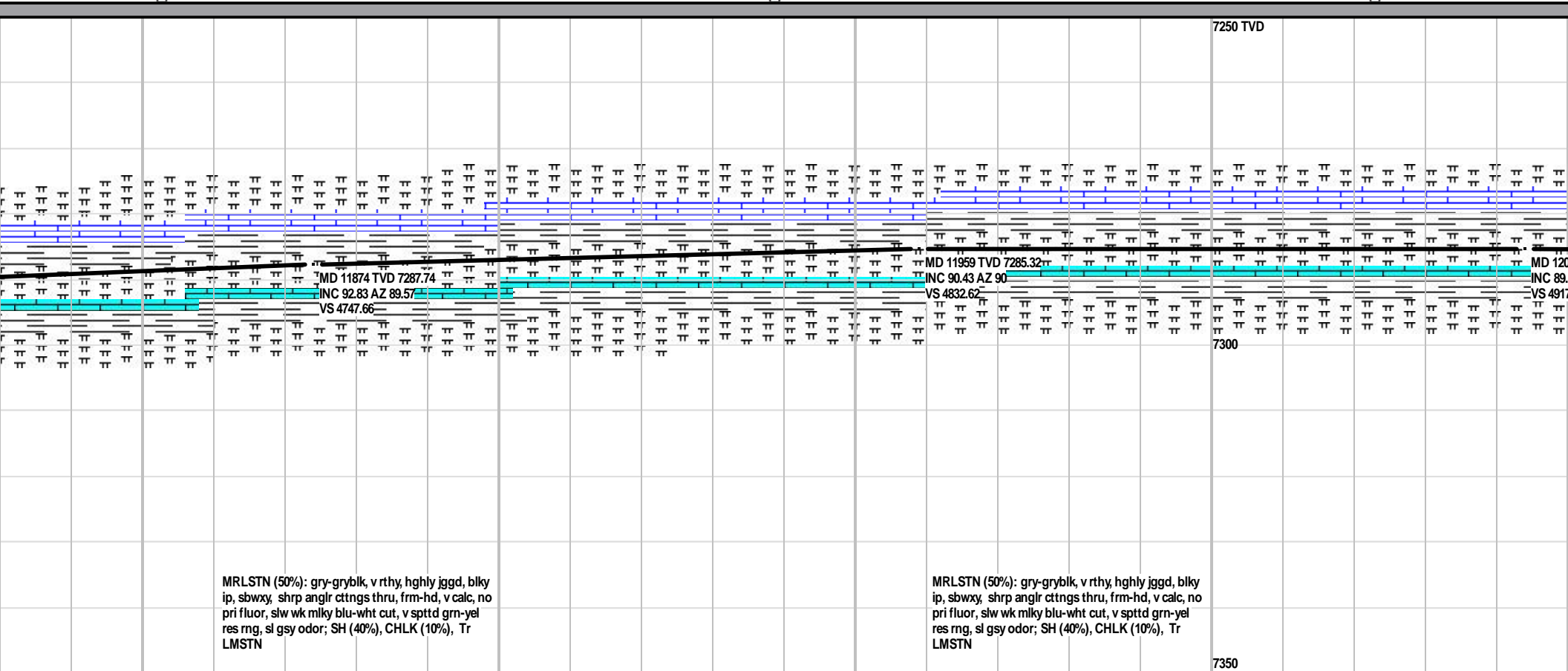


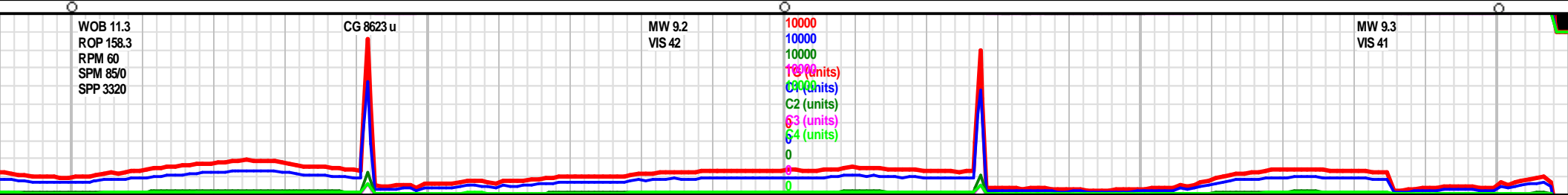
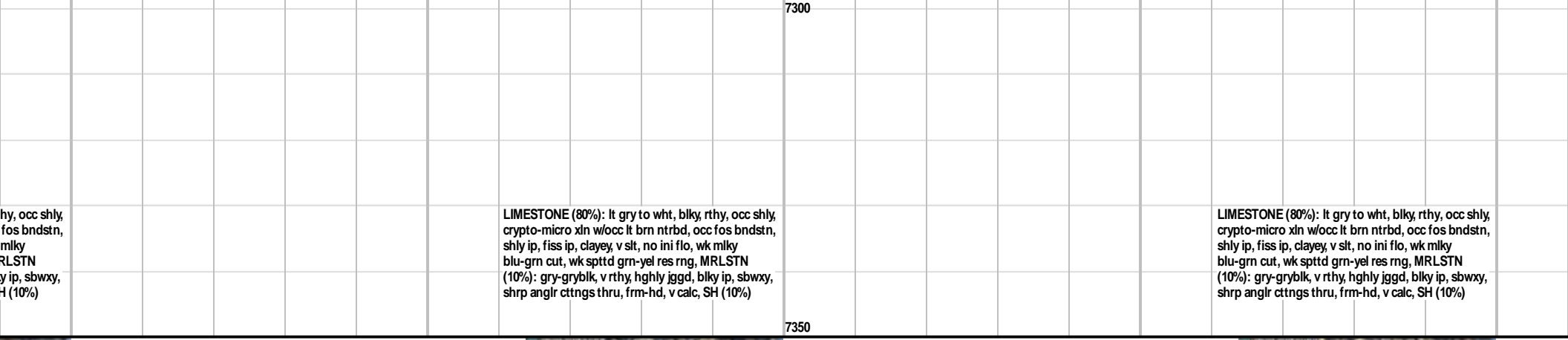
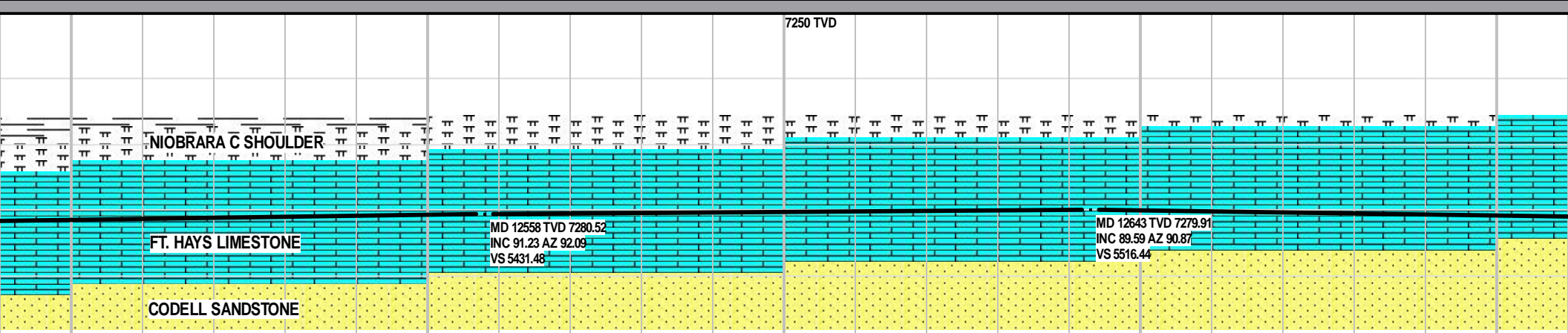
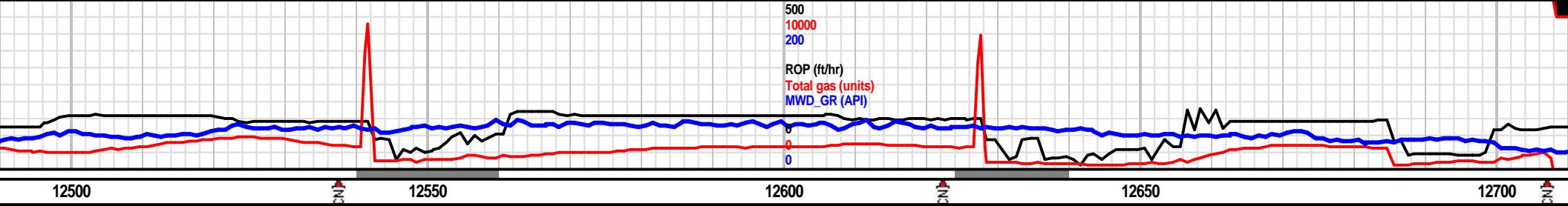


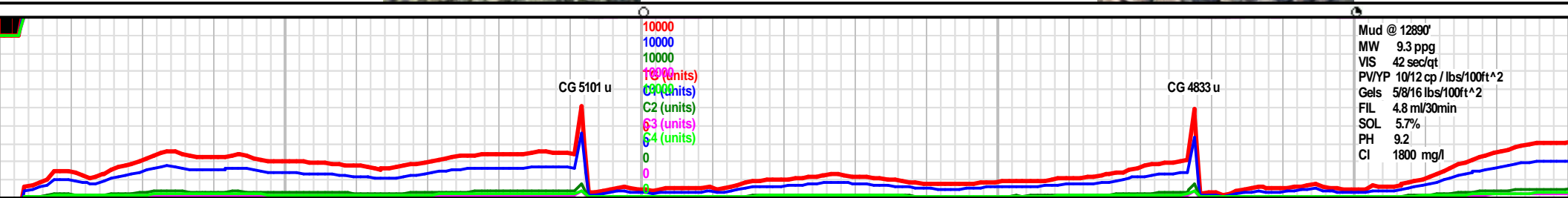
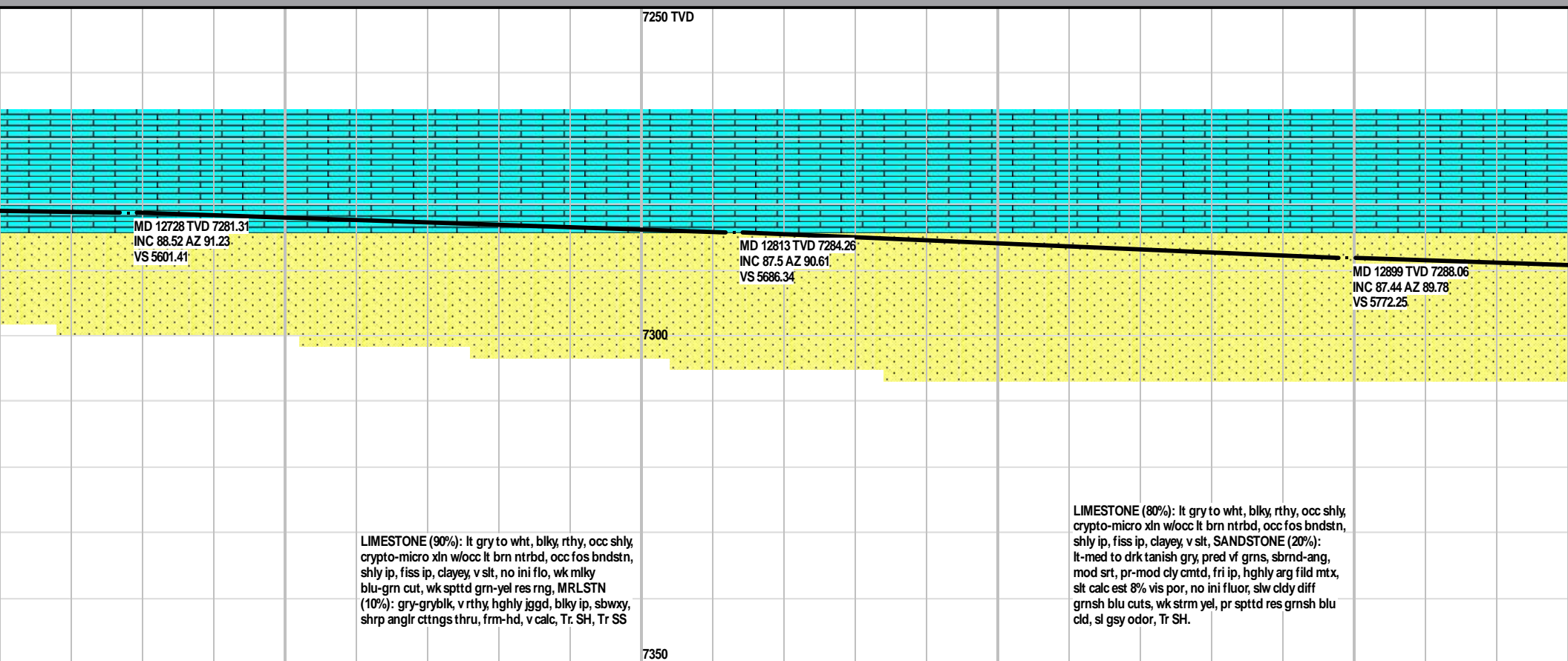
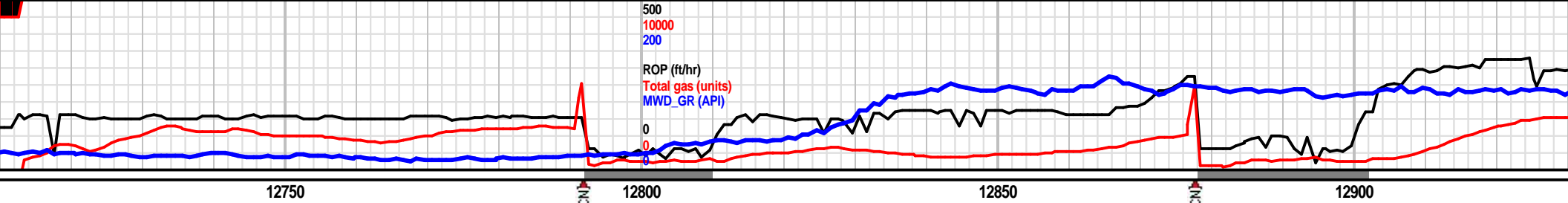


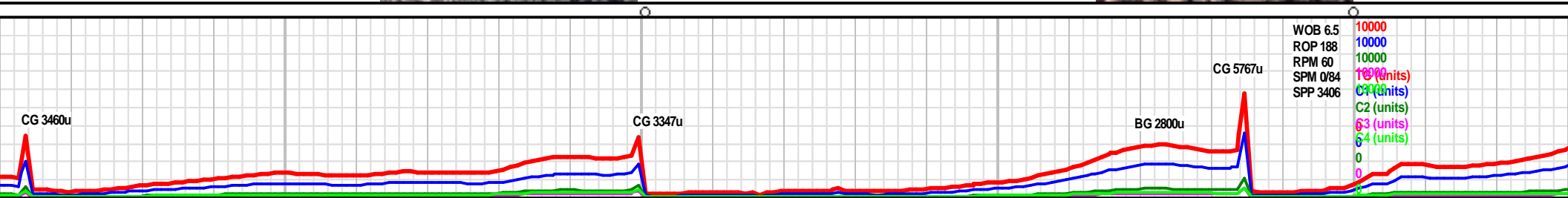
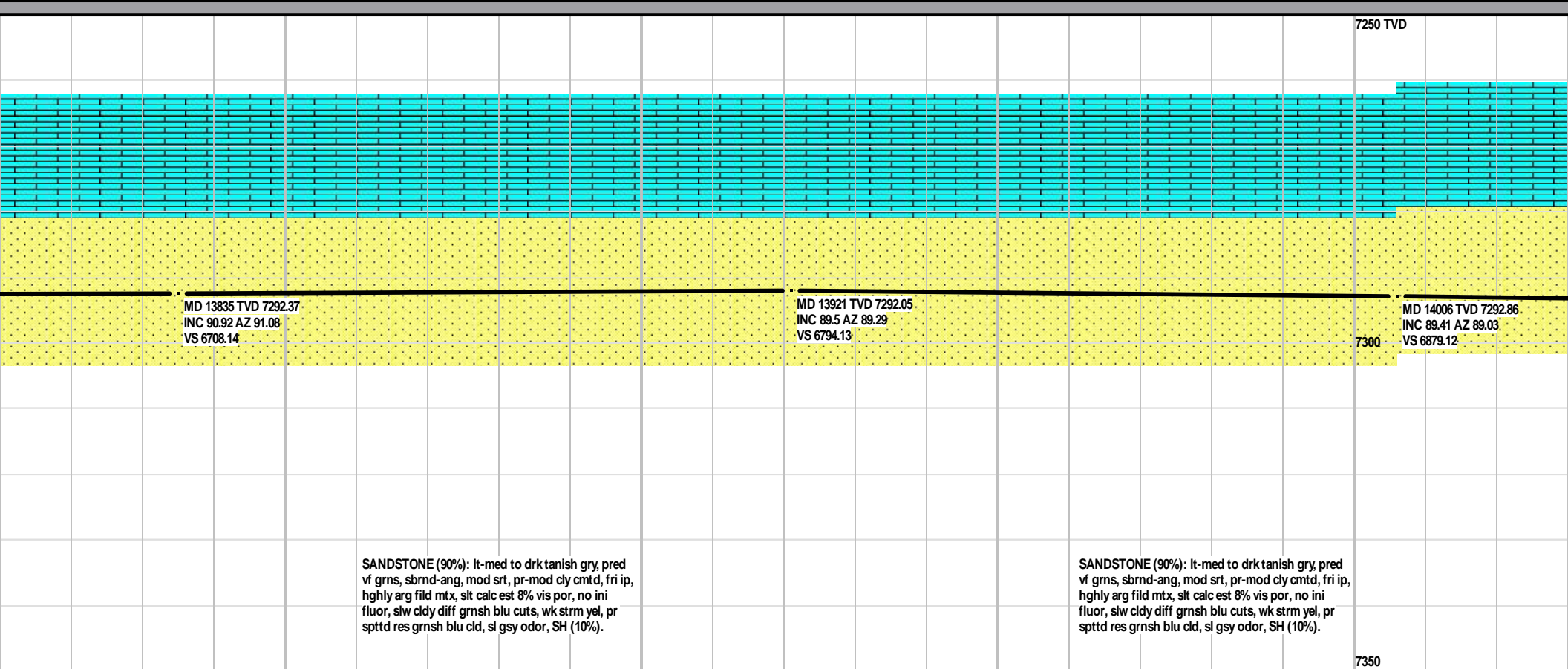
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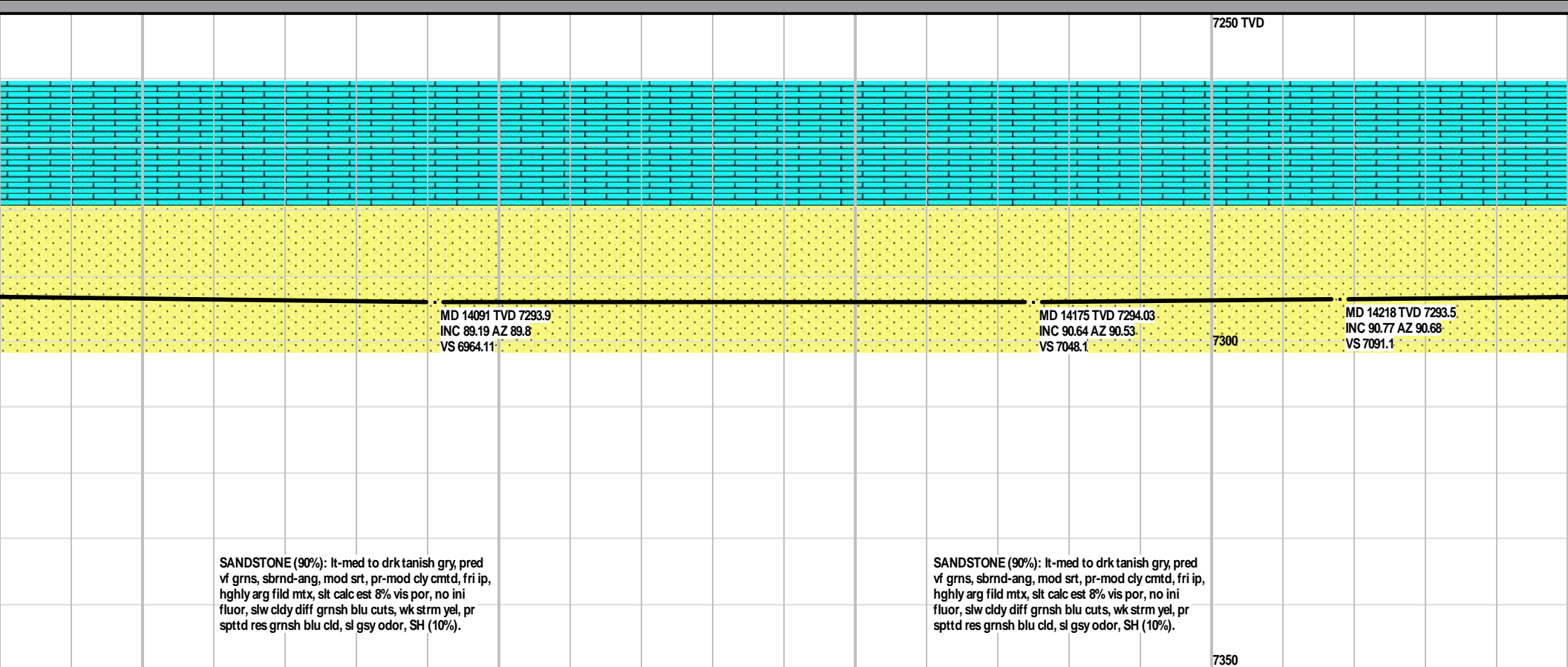
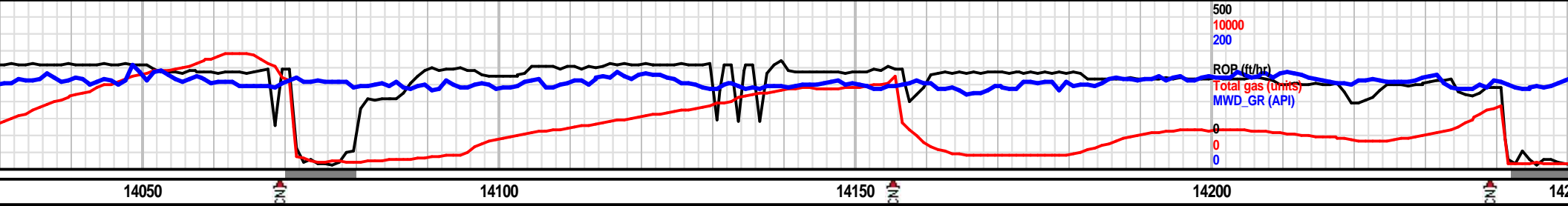






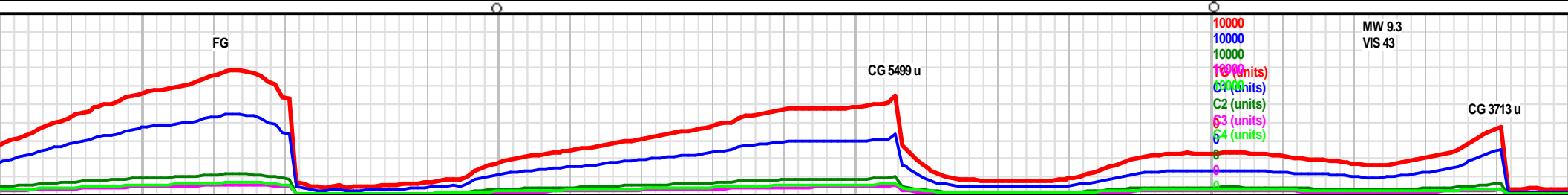


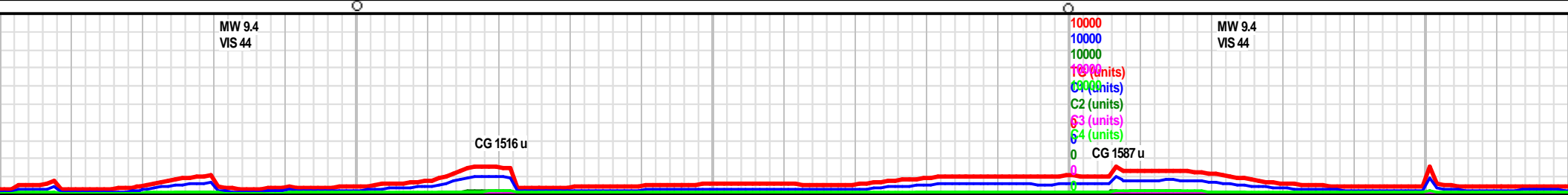
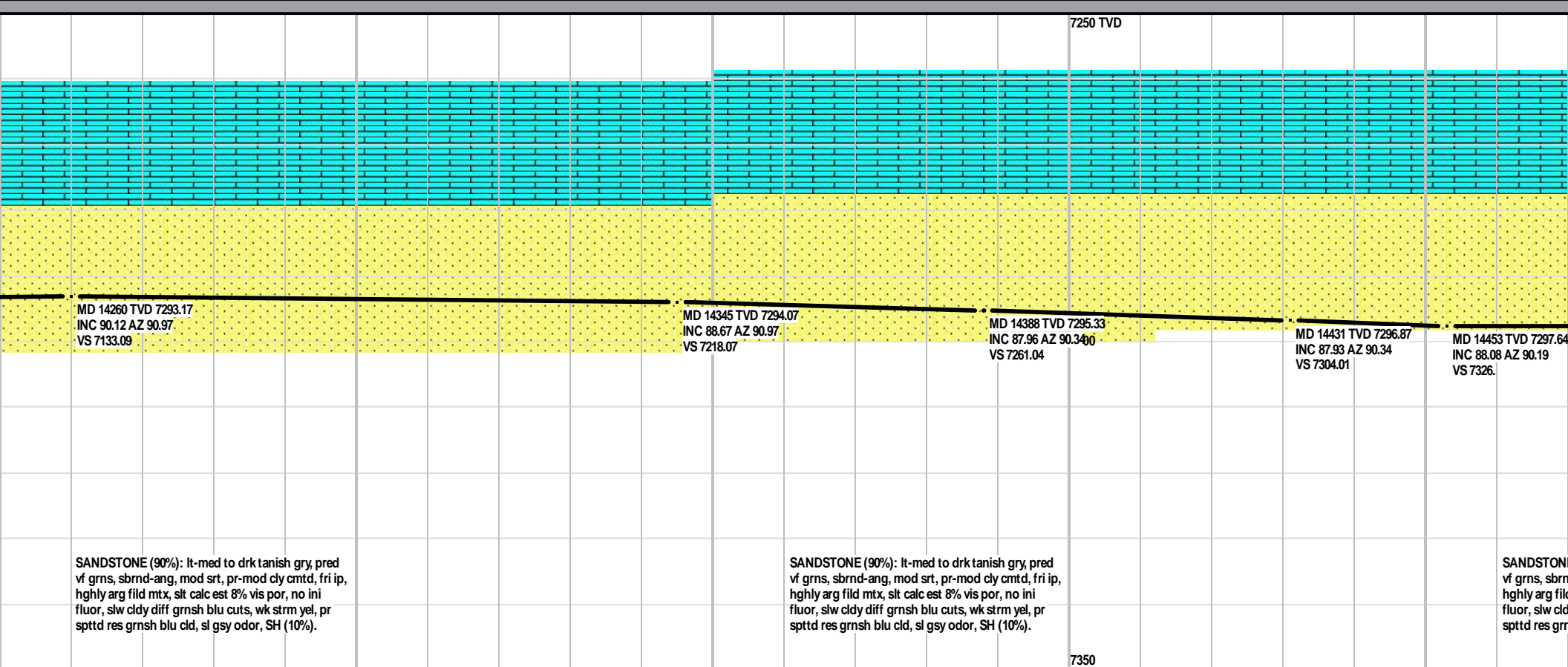
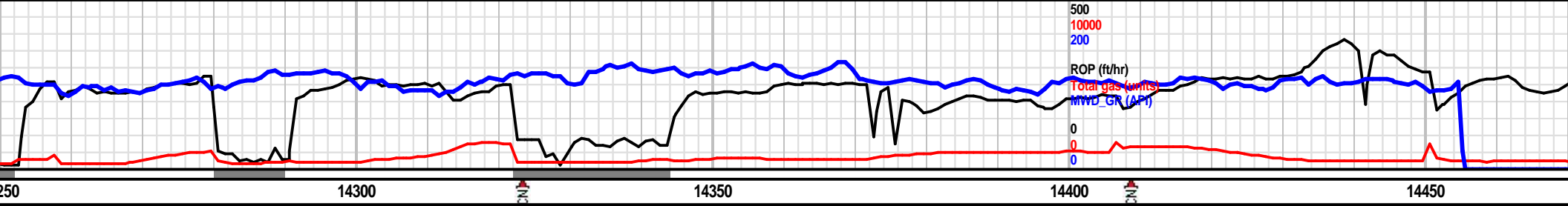


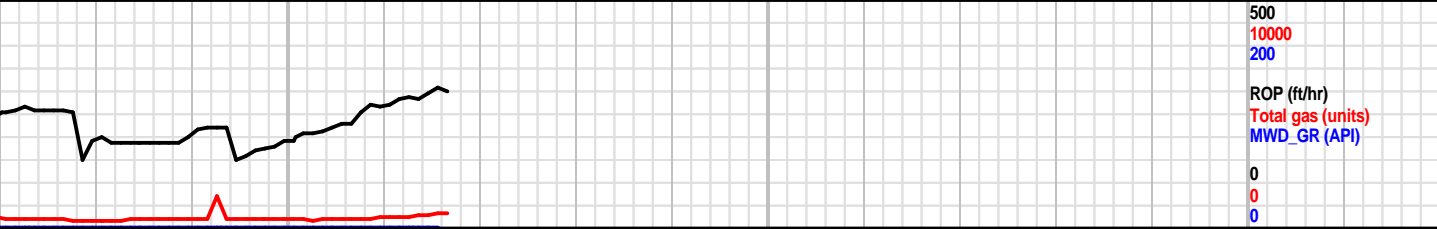


SANDSTONE (90%): lt-med to drk tanish gry, pred vf grns, sbrnd-ang, mod srt, pr-mod cly cmtd, fri ip, hghly arg fld mttx, slt calc est 8% vis por, no ini fluor, slw cldy diff grnsh blu cuts, wk strm yel, pr spttd res grnsh blu cld, sl gsy odor, SH (10%).

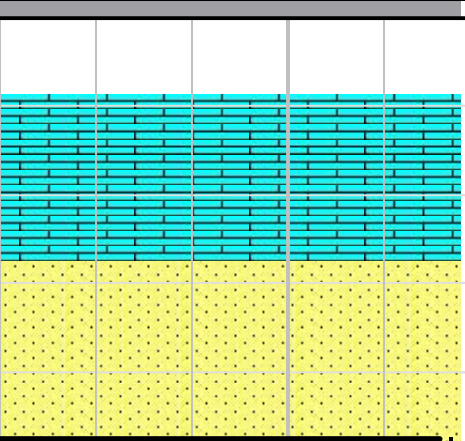
SANDSTONE (90%): lt-med to drk tanish gry, pred vf grns, sbrnd-ang, mod srt, pr-mod cly cmtd, fri ip, hghly arg fld mttx, slt calc est 8% vis por, no ini fluor, slw cldy diff grnsh blu cuts, wk strm yel, pr spttd res grnsh blu cld, sl gsy odor, SH (10%).







14500 14550 14600



TD @ 14,517' MD, REACHED ON AUGUST 11, 2014 @ 14:46 HRS,
CIRCULATE BOTTOMS UP, BIT #2 DRILLED 6,792' IN 40.5 HRS, AVG ROP
167.7 ft/hr. WIPER TRIP TO SHOE, TRIP OUT OF HOLE FOR 4 1/2" LINER,
SET @ 14,507' MD ON AUGUST 13, 2014.

7250 TVD

FORMATION TOPS

Sharon Springs	7,005' MD (6,984' TVD)	
Niobrara A	7,132' MD (7,097' TVD)	Niobrara
B Chalk	7,198' MD (7,151' TVD)	
Niobrara C Chalk	7,238' MD (7,181' TVD)	
Fort Hays LS	7,526' MD (7,313' TVD)	
Codell SS	7,611' MD (7,330' TVD)	
DMTD	14,517' MD	
Production Liner	14,507' MD	7300

Projected to Bit

MD 14517 TVD 7297.64
INC 88.08 AZ 90.19
VS 7326.

Thank You
Goolsby Brothers & Assoc.
Blake Stacey & Shelton Davis

E (90%): lt-med to drk tanish gry, pred
d-ang, mod srt, pr-mod cly cmtd, fri ip,
d mtx, silt calc est 8% vis por, no ini
ty diff grnsh blu cuts, wk strn yel, pr
nsh blu cld, sl gsy odor, SH (10%).

7350

