

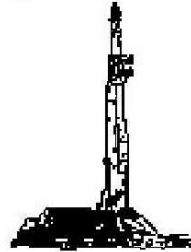
**GOOLSBY BROTHERS**  
and associates, inc.

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



Geological Wellsite  
Supervision

[www.goolsbybrothers.com](http://www.goolsbybrothers.com)



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

Well Name: Gobbler 13C-23HZ (Horizontal Hole Section)  
Location: Section 22, T2N, R66W, Weld County, CO..  
License Number: API: 05-123-36477  
Spud Date: July 2, 2013  
Surface Coordinates: NENE Sec 22 T2N R66W; 466' FNL 279' FEL  
Lat N 40.129627 Long W -104.754895  
Bottom Hole Coordinates: SWSW Sec 23 T2N R66W; 505' FSL; 804' FWL  
Ground Elevation (ft): 5085' K.B. Elevation (ft): 5102'  
Logged Interval (ft): 7080' To: 11940' Total Depth (ft): 11940' DMTD  
Formation: Pierre Shales/Sands, Niobrara, Codell Target  
Type of Drilling Fluid: Water & Poly to 7080', LSND 7080'-11940'

Region: Wattenberg, DJ Basin  
Drilling Completed: July 11, 2013

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://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: Larry Goolsby, Ian Harris, & Andrew Krueger  
Company: Goolsby Brothers & Assoc. (GBA), Inc. ([www.goolsbybrothers.com](http://www.goolsbybrothers.com))  
Address: 575 Union Blvd.  
Suite 208,  
Lakewood CO. 80228

## E-logs

MWD GR 7080' - 11940'

## Casing

9 5/8" Surface Casing set @ 1052' MD

7" Intermediate Casing set @ 8031' MD

4 1/2" Production Liner hung 07/13/2013, landed @ 11,930'

## Comments

1) Drilling Contractor: Xtreme Drilling, Rig #20

Toolpusher: Brad Henderson

2) Company Man: James Adkins, Charlie Daigle

3) Mud Company : AES

Engineer: Ray Brewer

4) Directional Drilling: Baker Hughes

Pulse Tool

Drillers: Travis Wilcox & Scott Sanford

MWD: Adam Schlenz & Octave Parfait

5) Gas Equipment: Mudlogging Systems Inc.


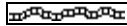
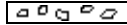

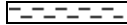

by Terra Services







Redbox # ML-333 & Ratcliff Agitator



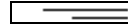



6) Wellsite Geology: Goolsby Brothers & Associates





Geologists: Larry Goolsby, Ian Harris, Andrew Krueger

## 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  
 Sltty sh

## ACCESSORIES

### MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtl
	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
	Wackest

## OTHER SYMBOLS

### OIL SHOWS

	Even
	Spotted
	Ques
	Dead
	Vspotty
	near even

### POROSITY TYPE

	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic

	Pinpoint
	Vuggy

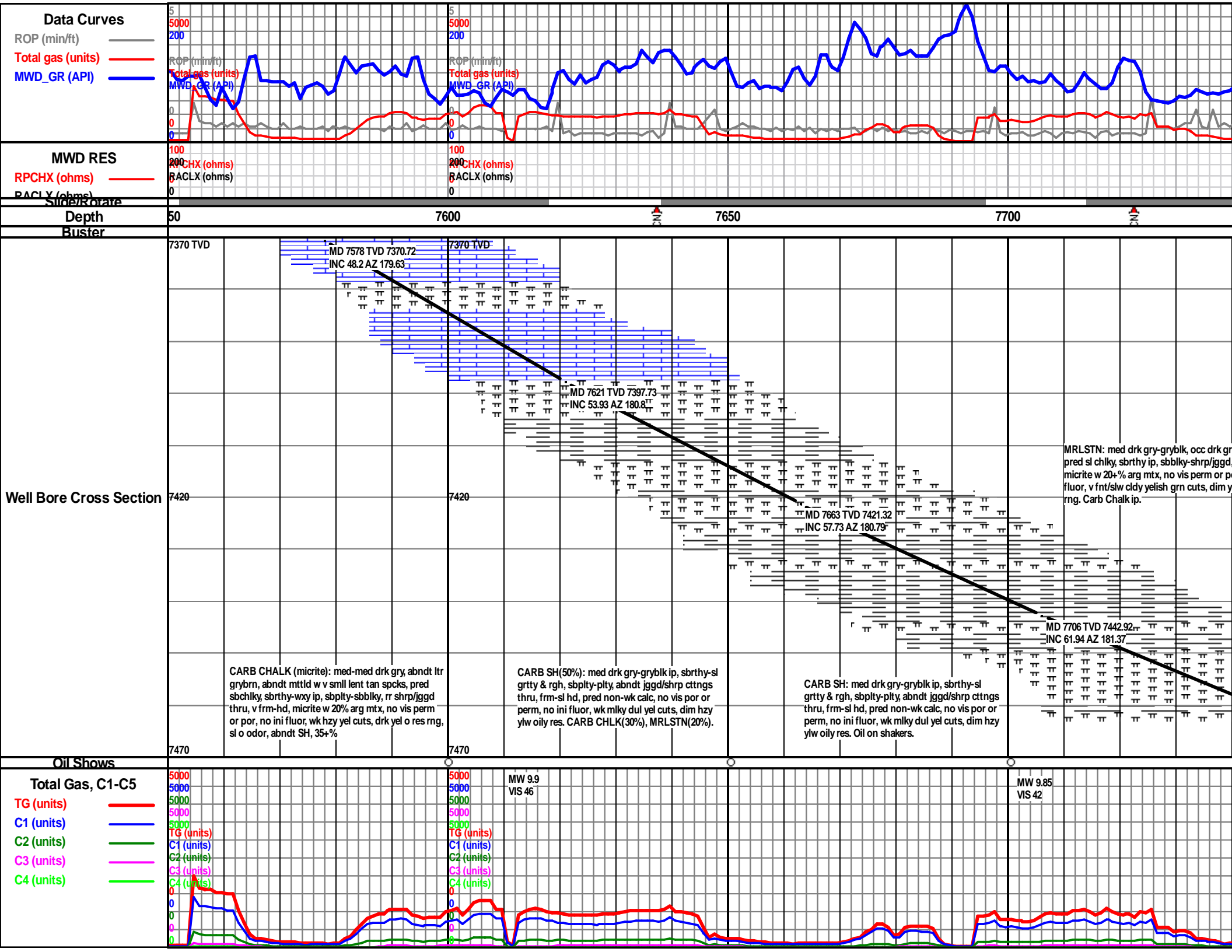
### ROUNDING

	Rounded
	Subrnd
	Subang

	Angular
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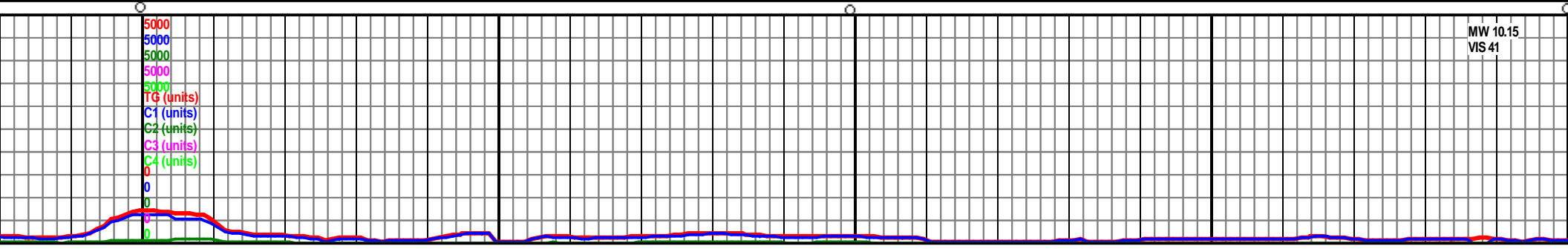
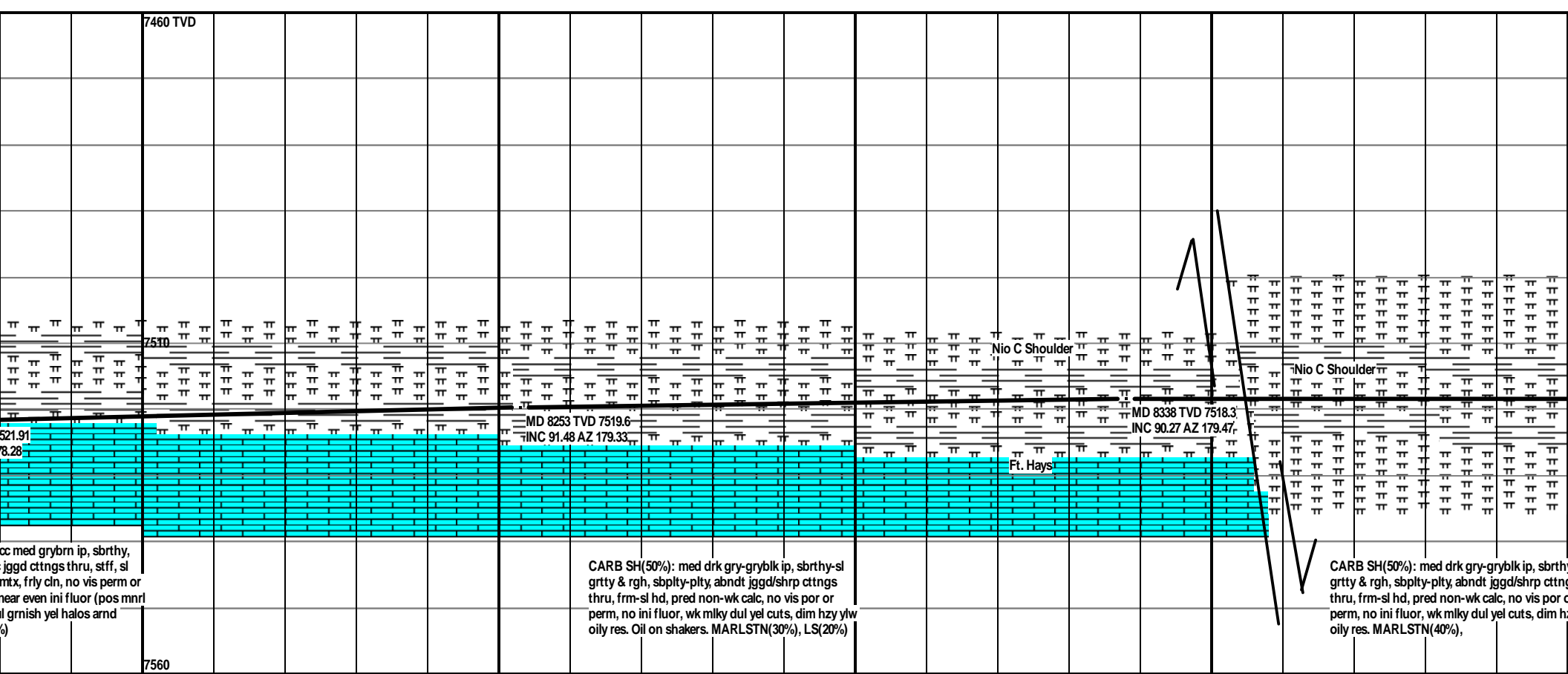
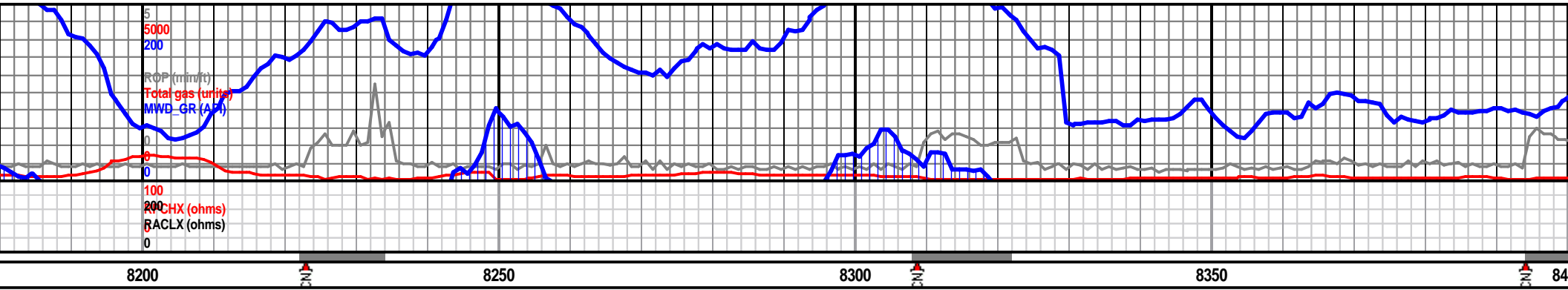
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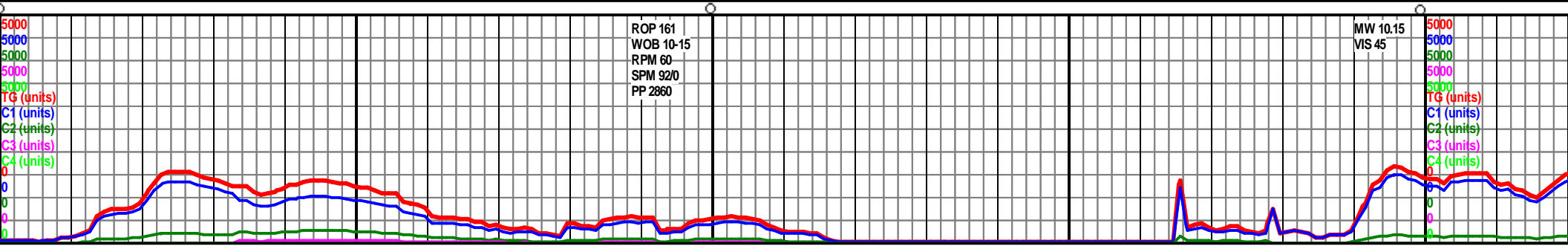
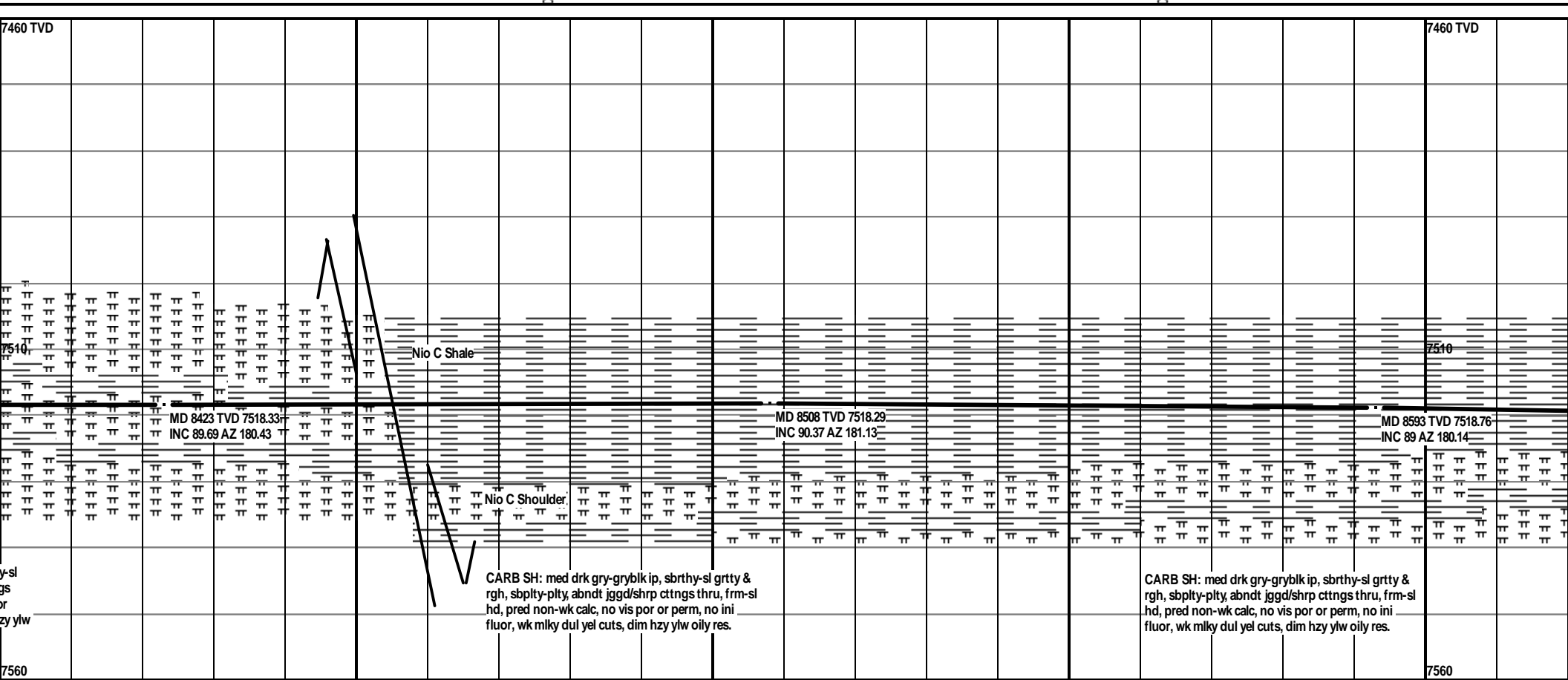
	Well
	Moderate
	Poor



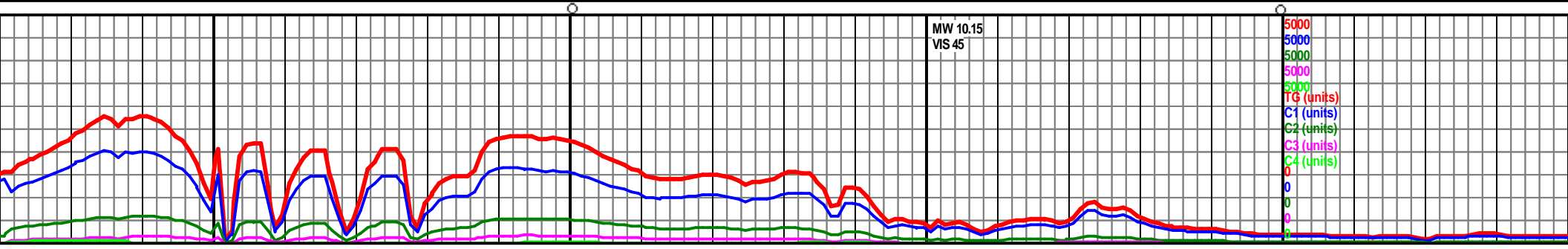
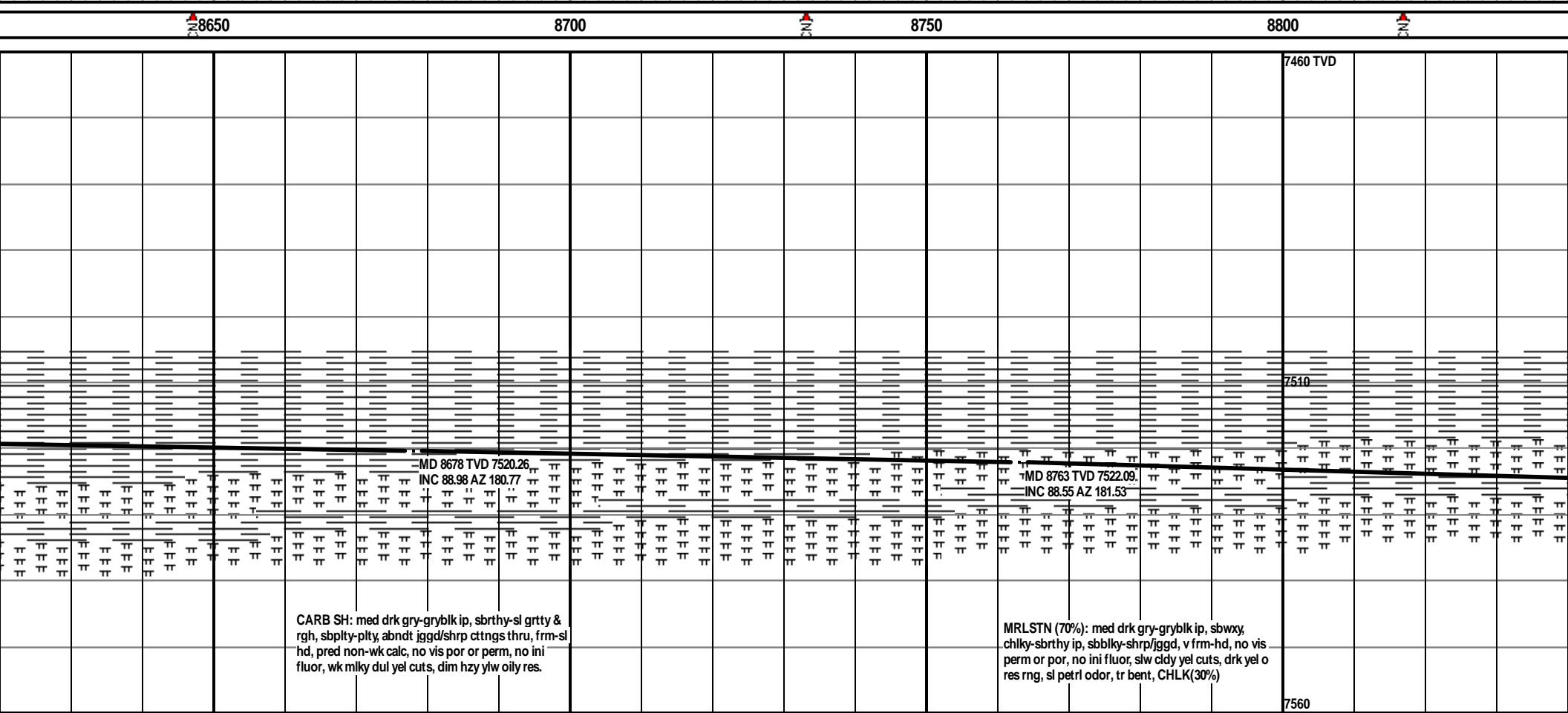
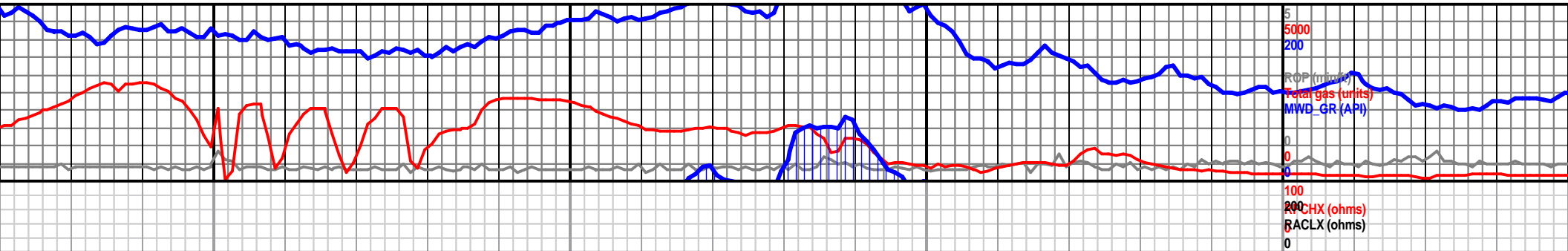


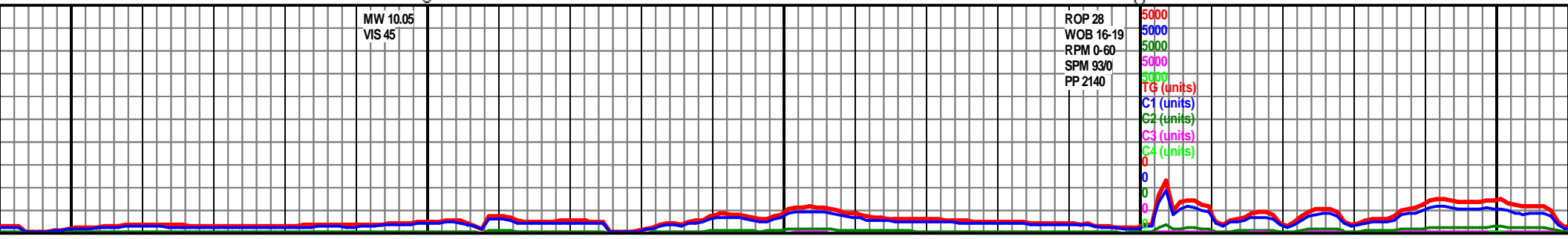
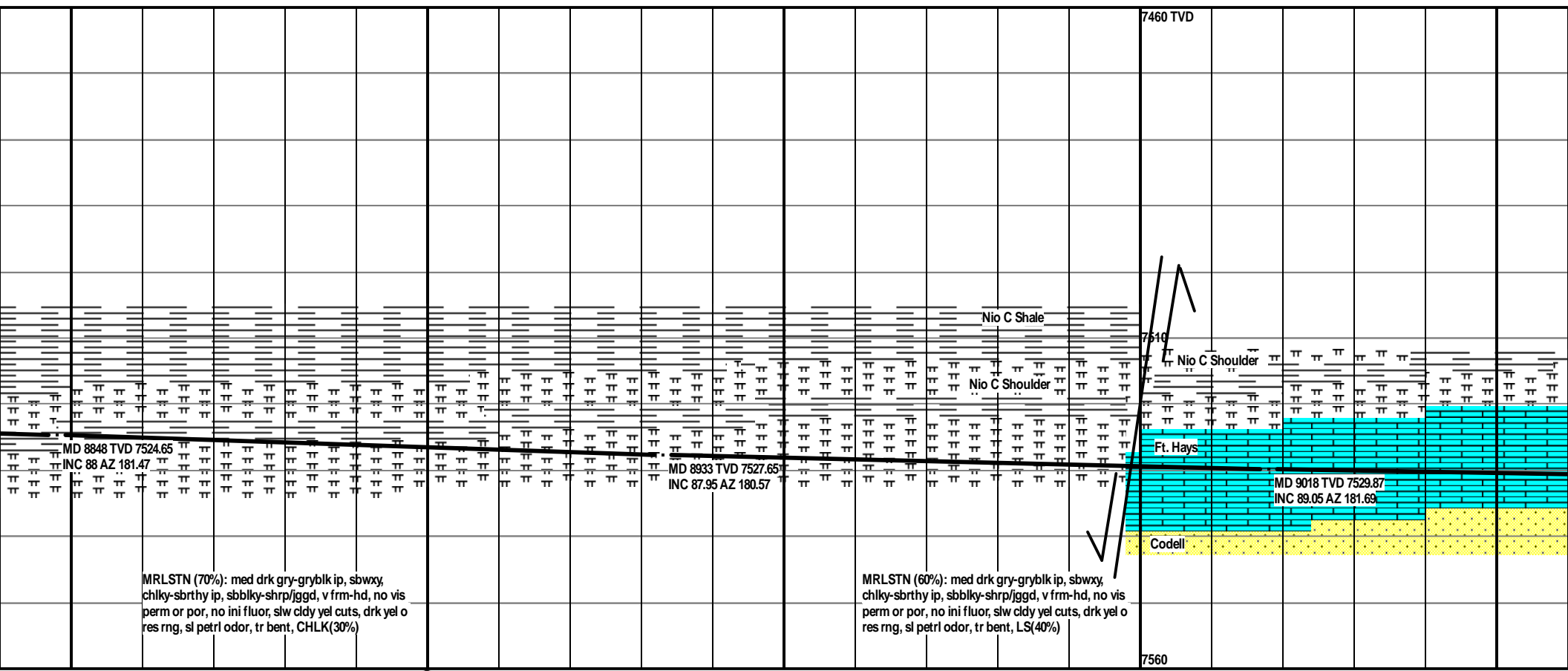
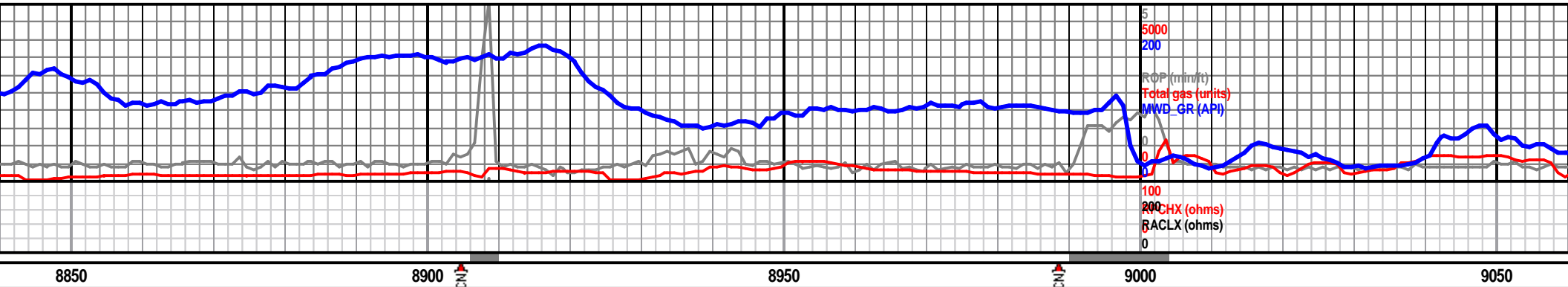


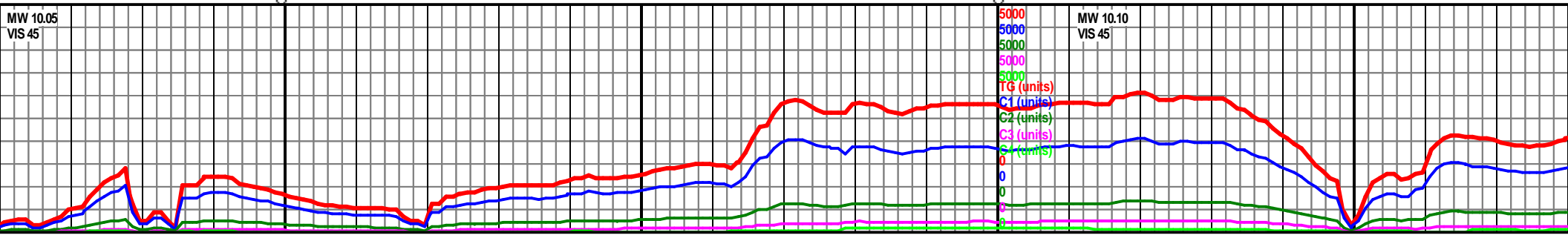
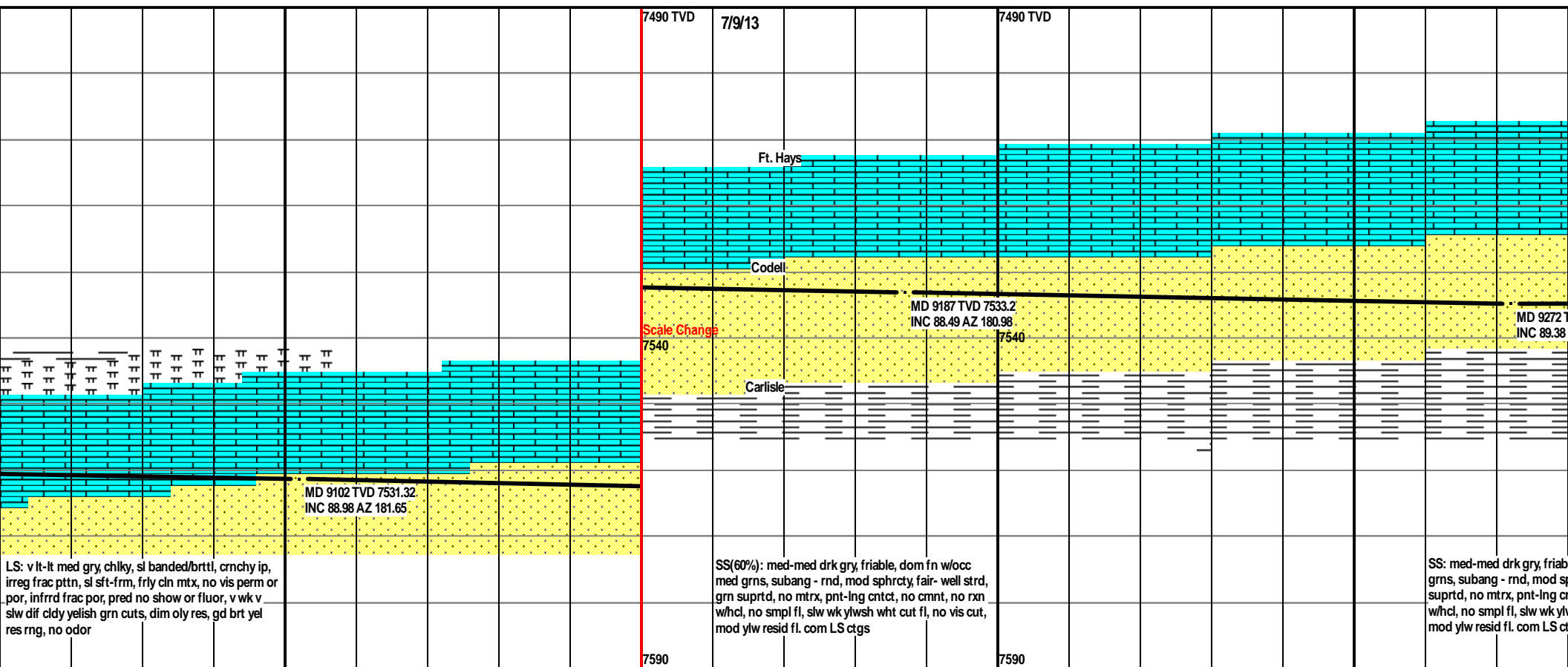
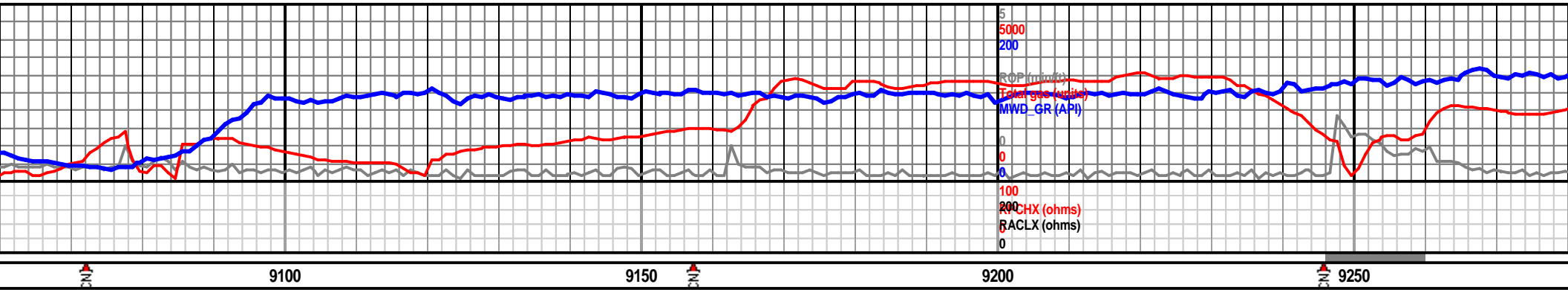


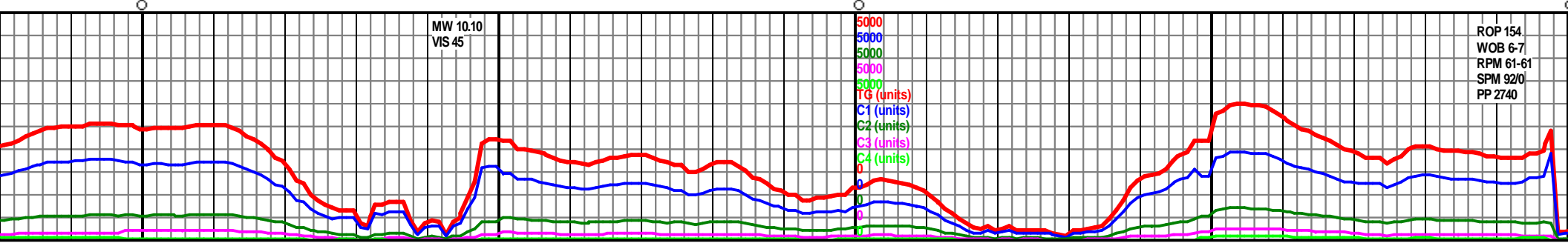
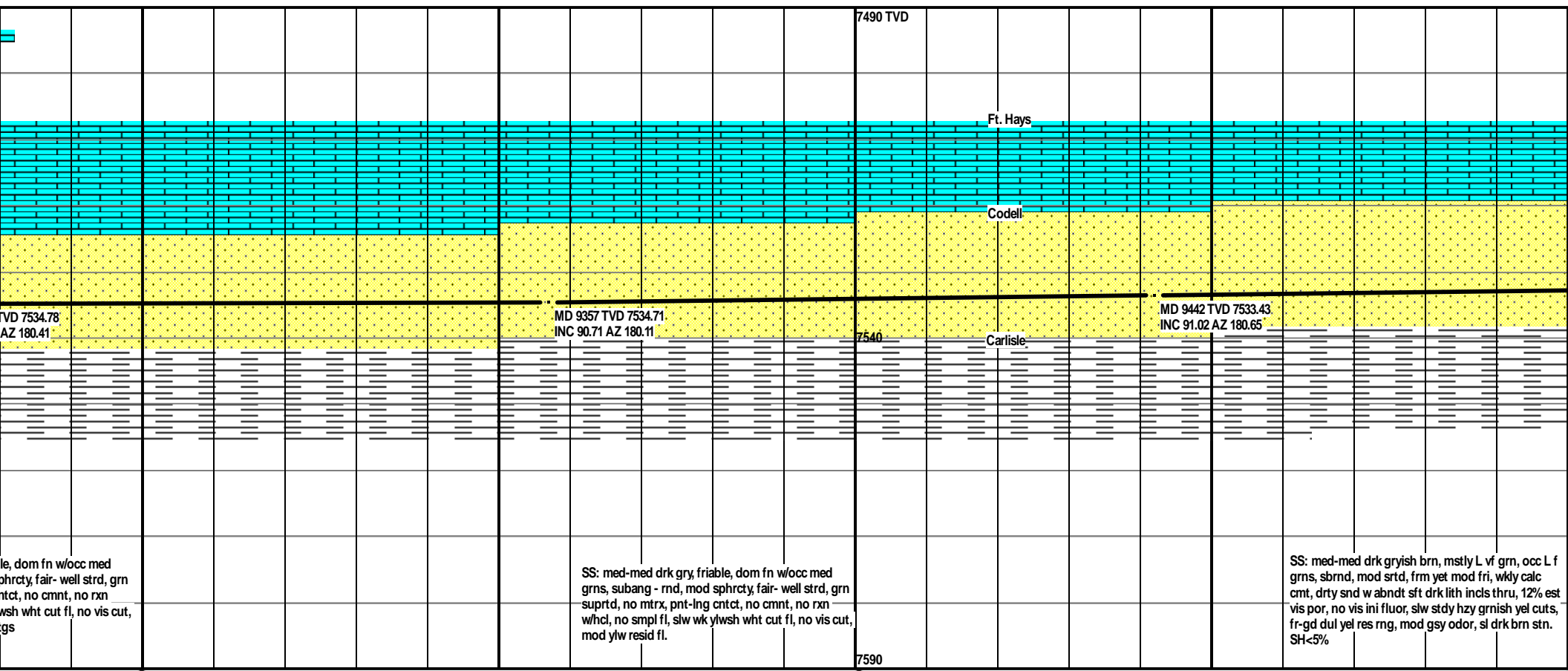
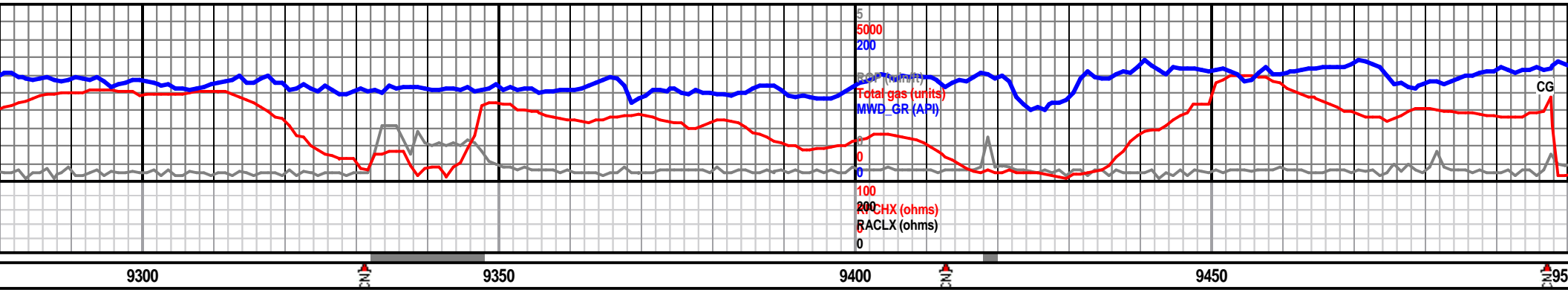


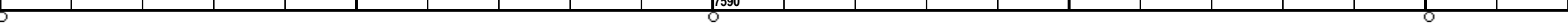


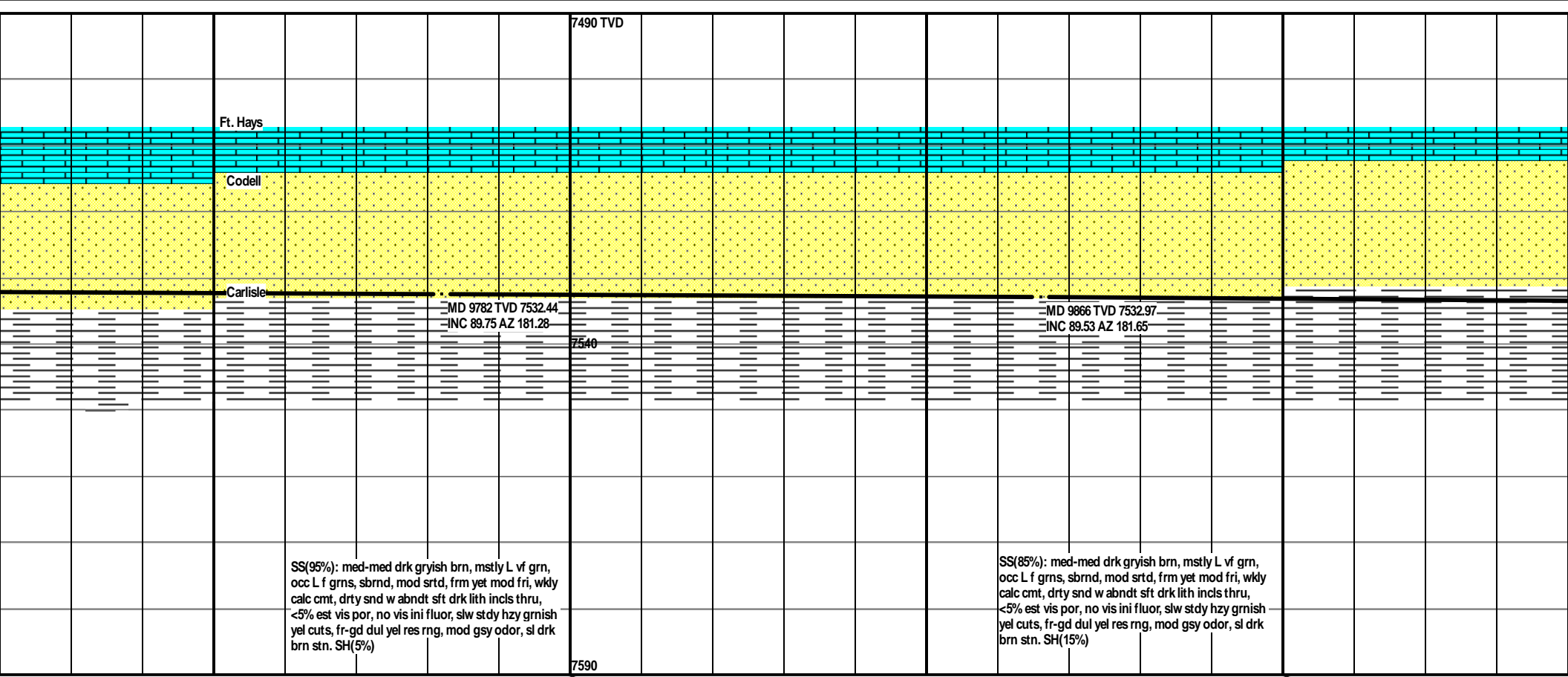
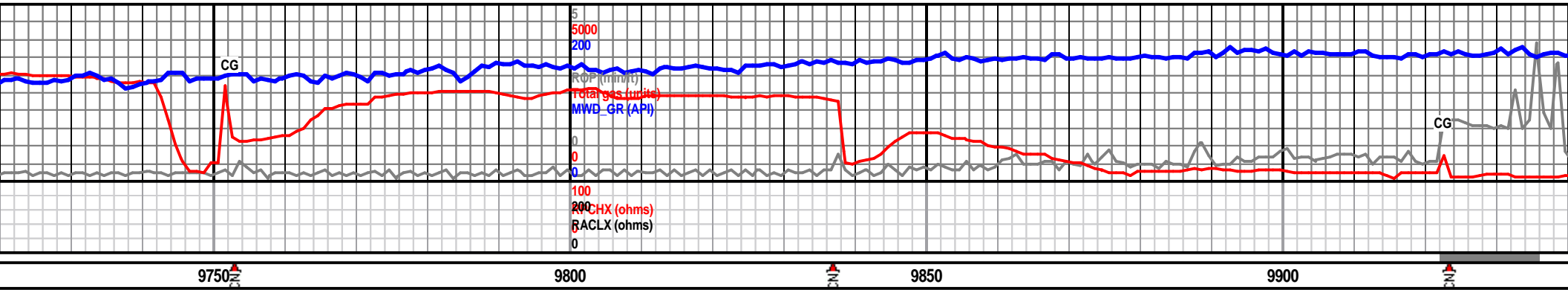






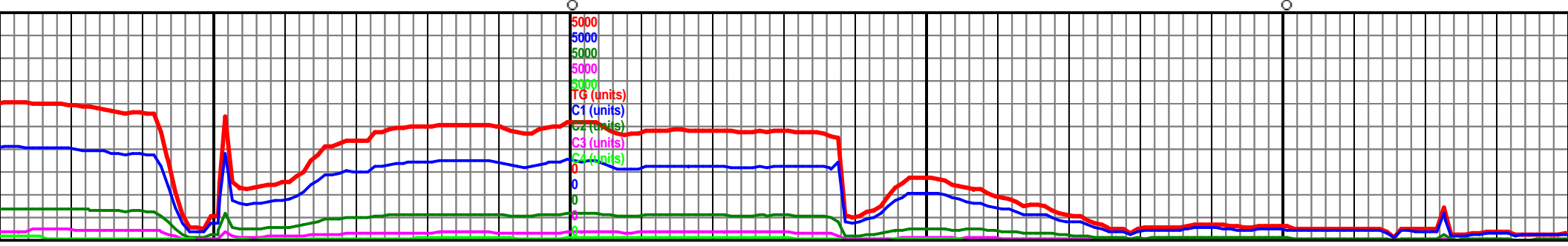


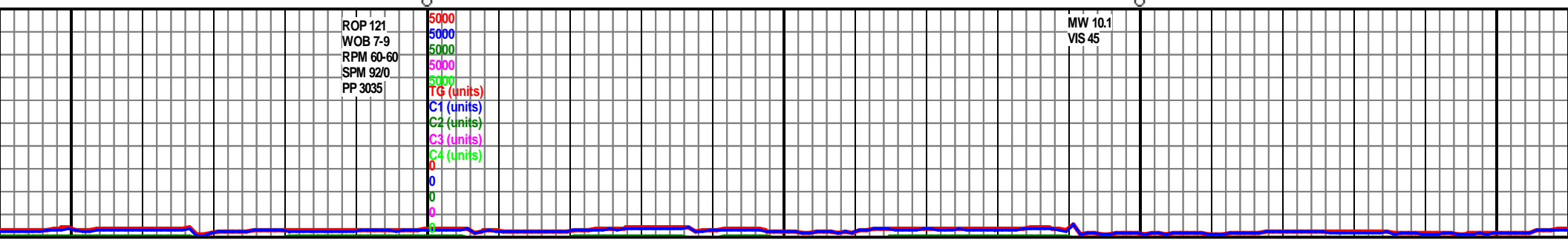
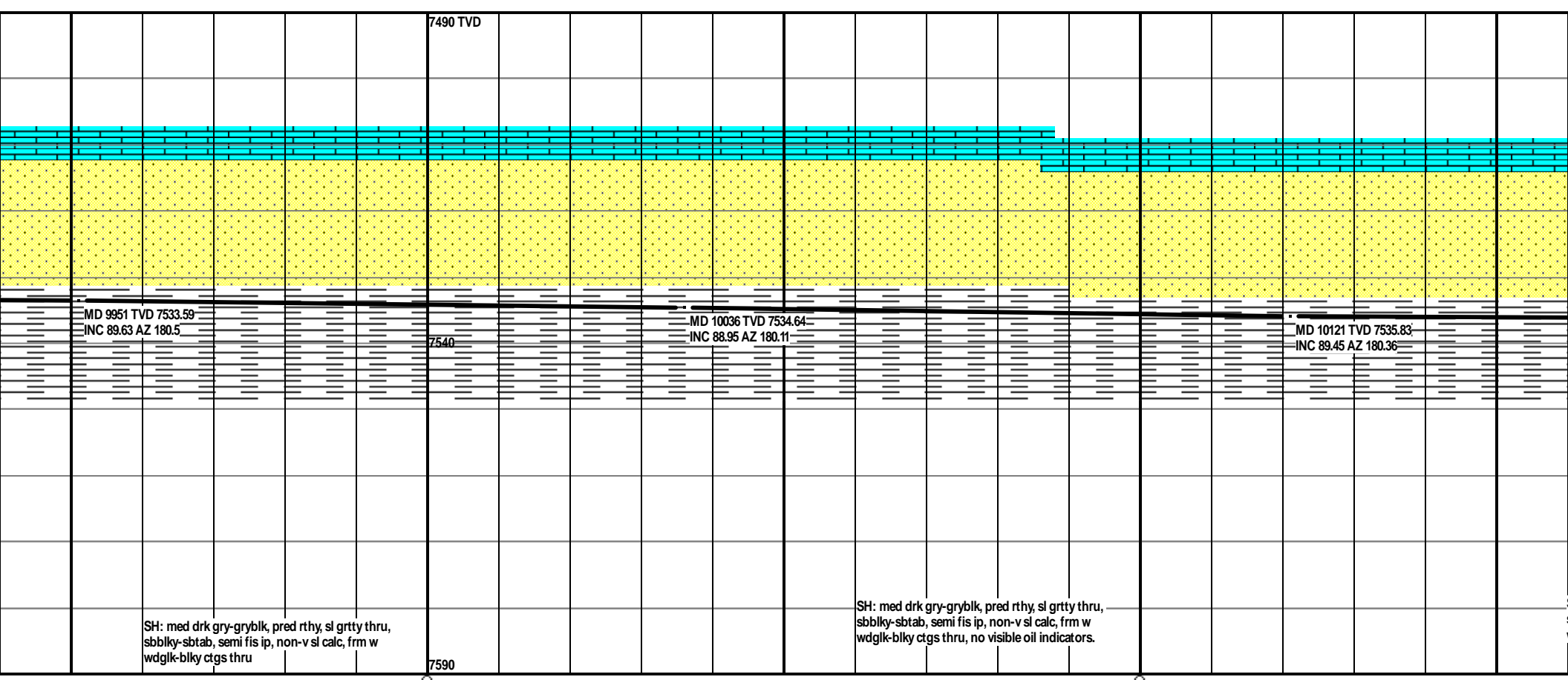
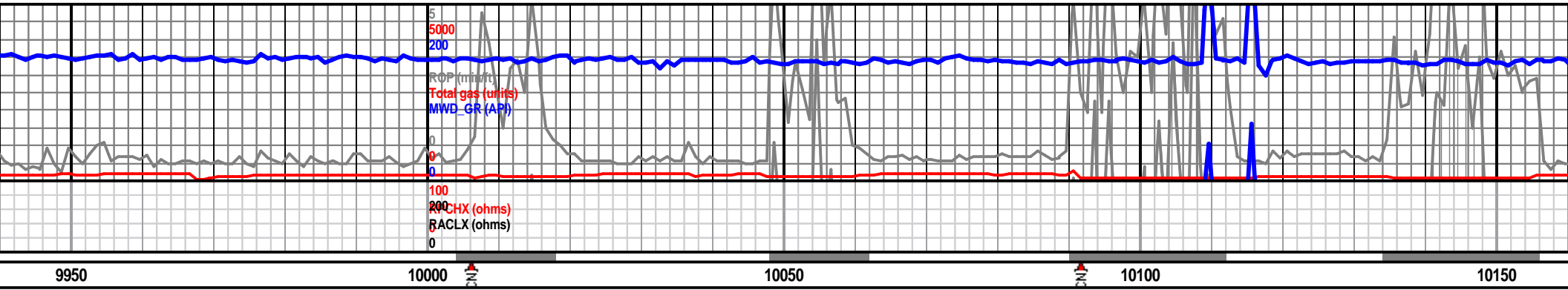


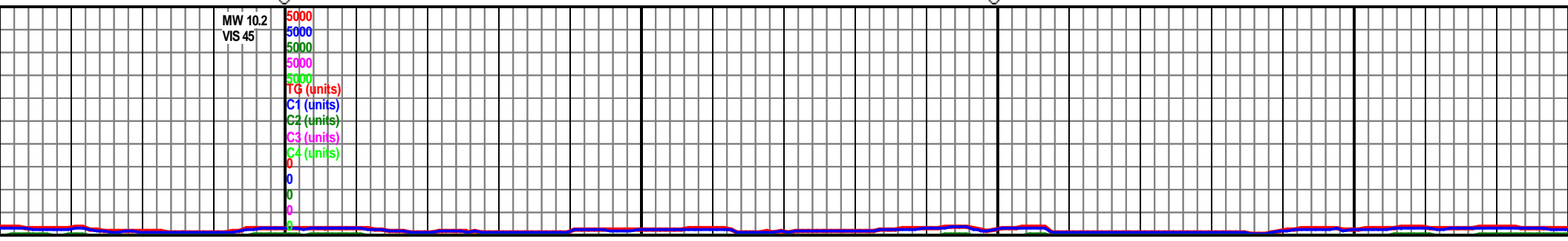
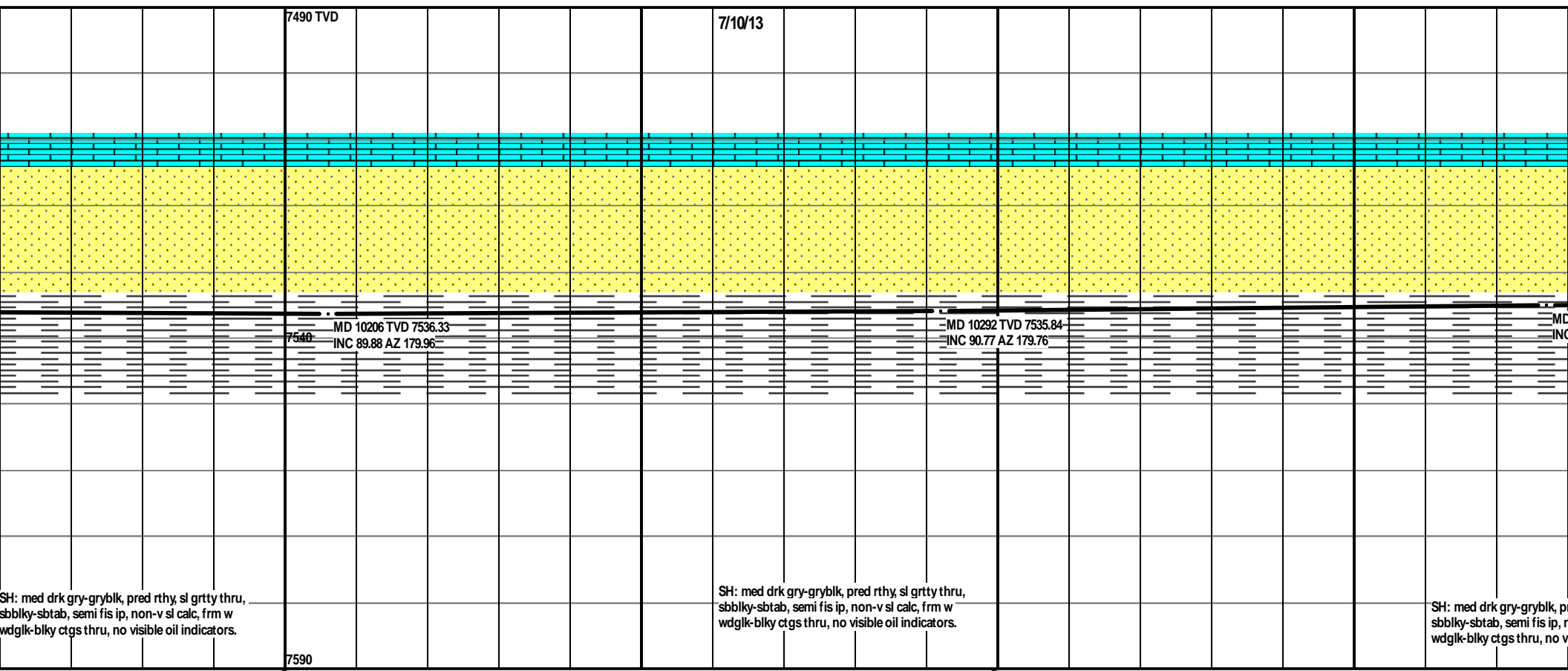
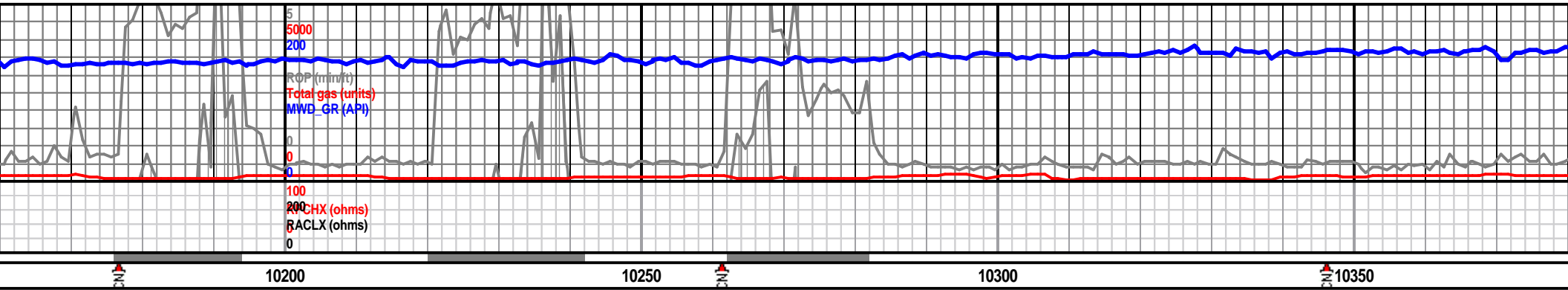


SS(95%): med-med drk gryish brn, mstly L vf grn, occ L f grns, sbrnd, mod srted, frm yet mod fri, wkly calc cmt, drty snd w abndt sft drk lith incls thru, <5% est vis por, no vis ini fluor, slw stdy hzy grnish yel cuts, fr-gd dul yel res rng, mod gsy odor, sl drk brn stn. SH(5%)

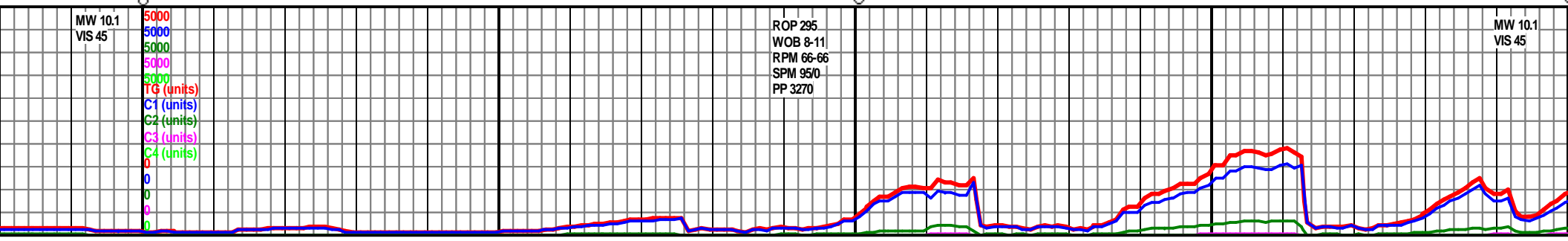
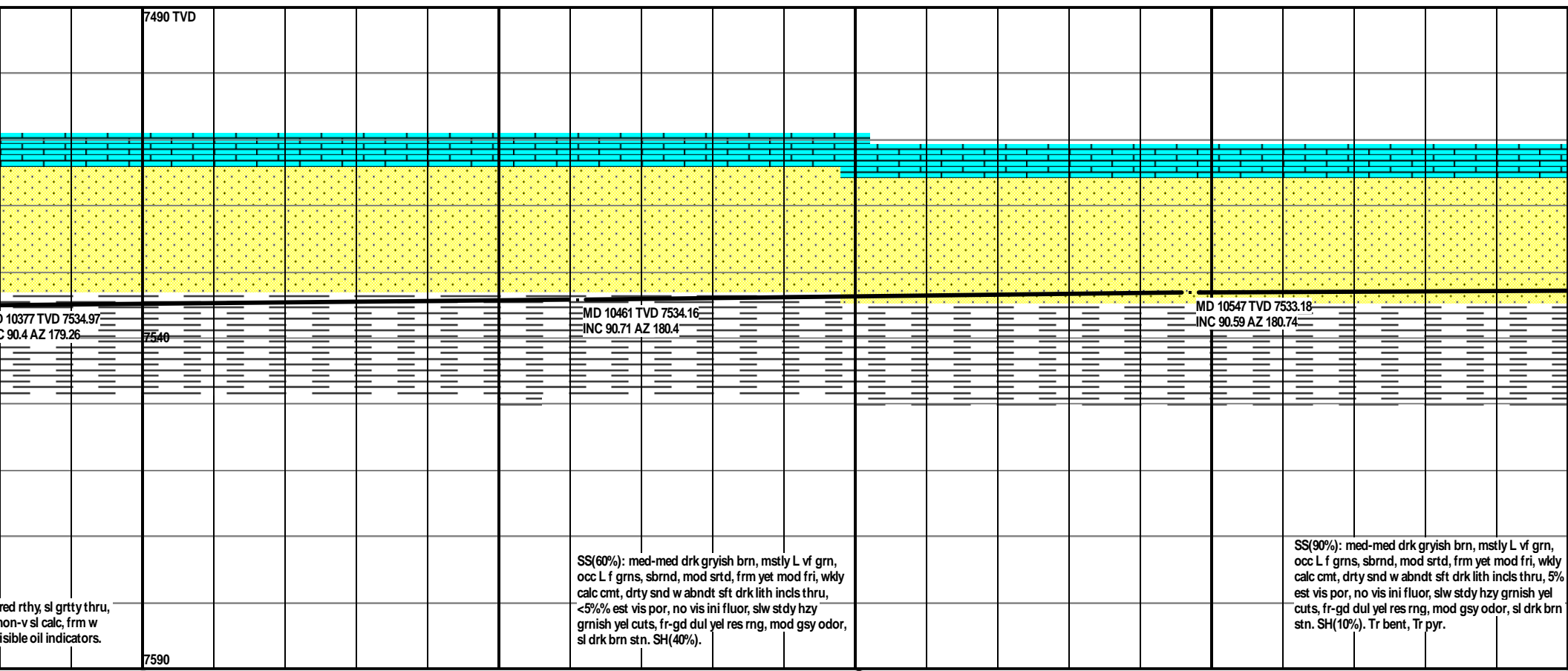
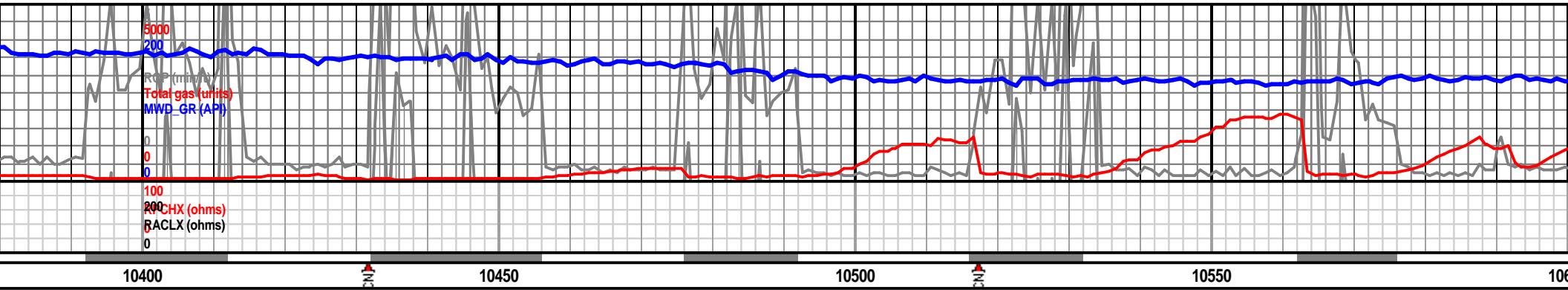
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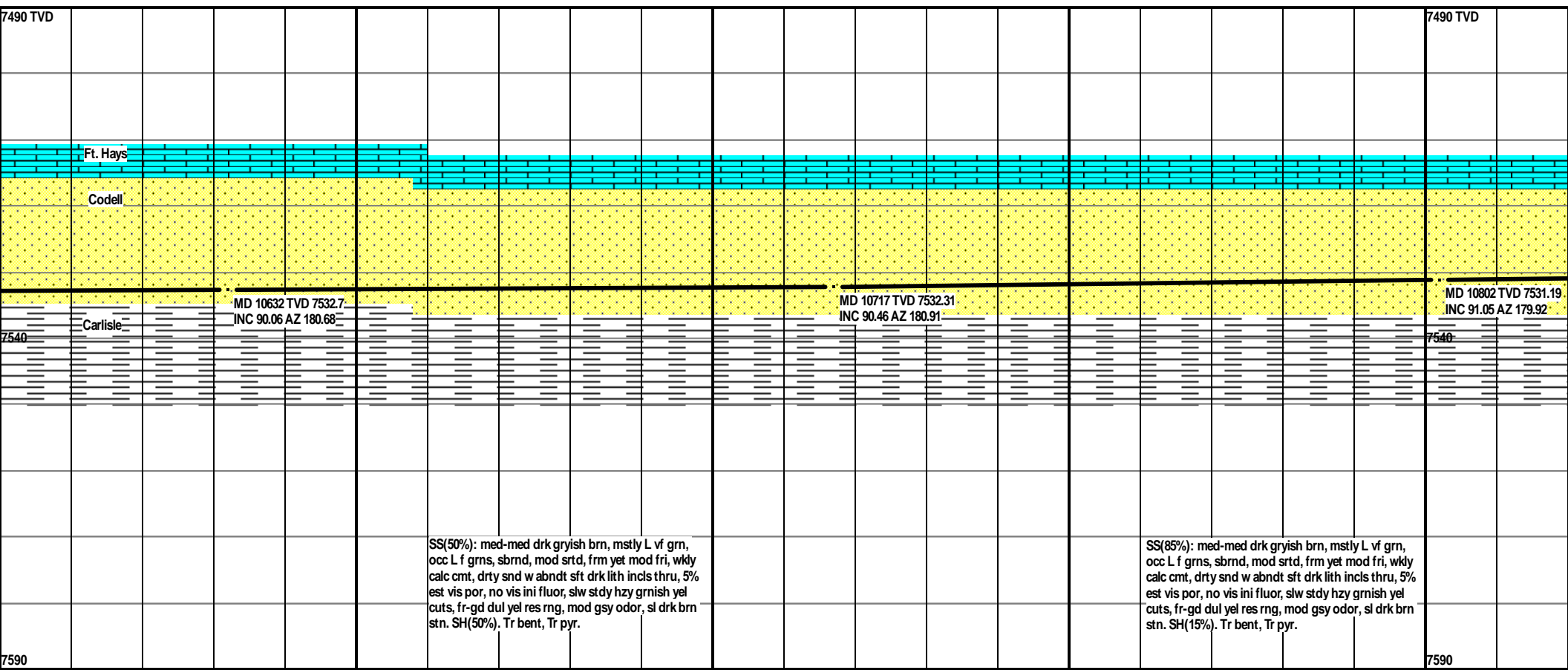
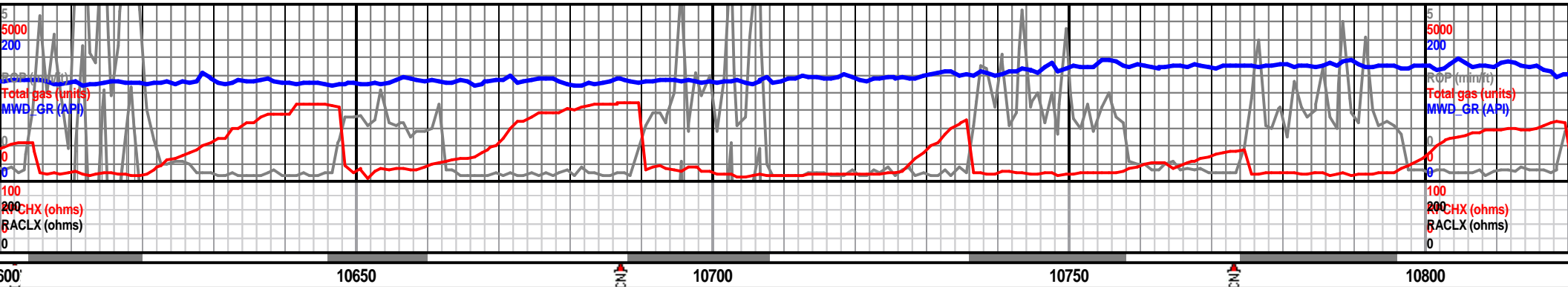






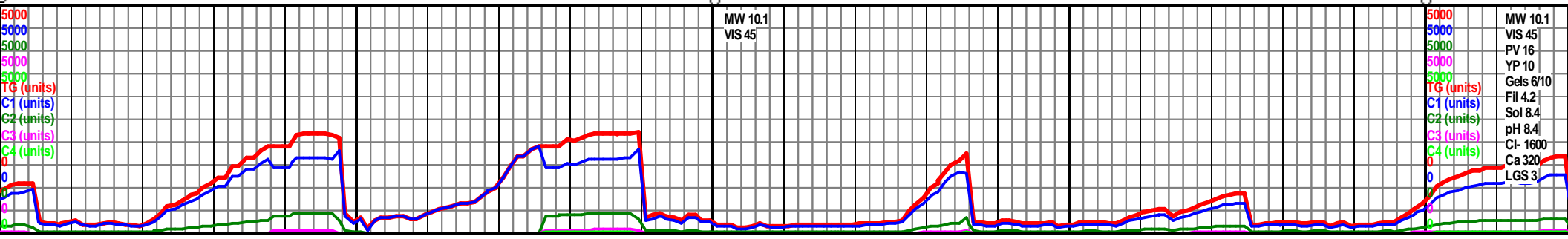


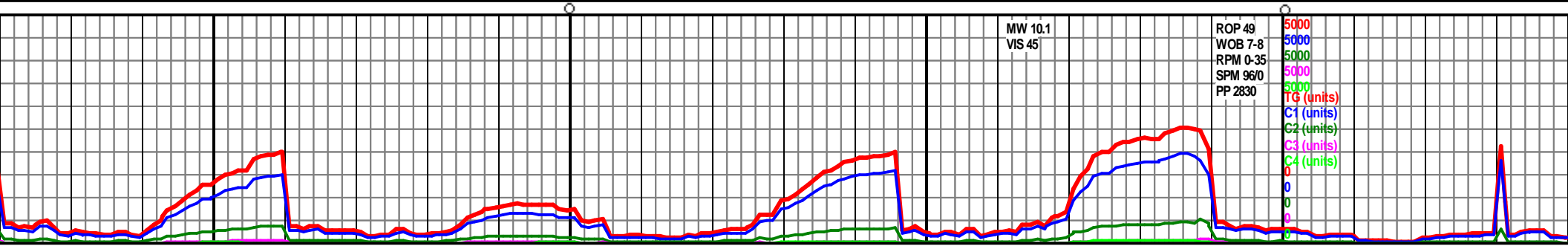
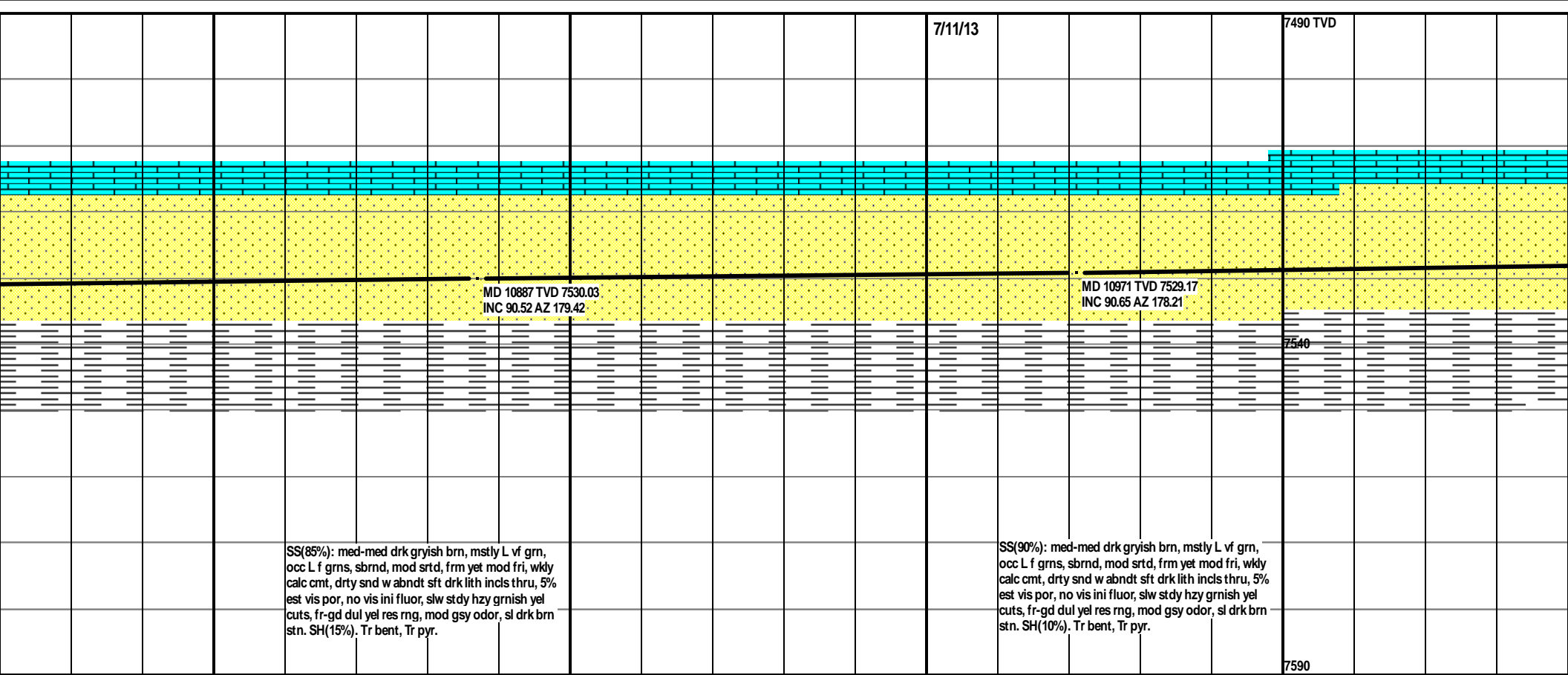
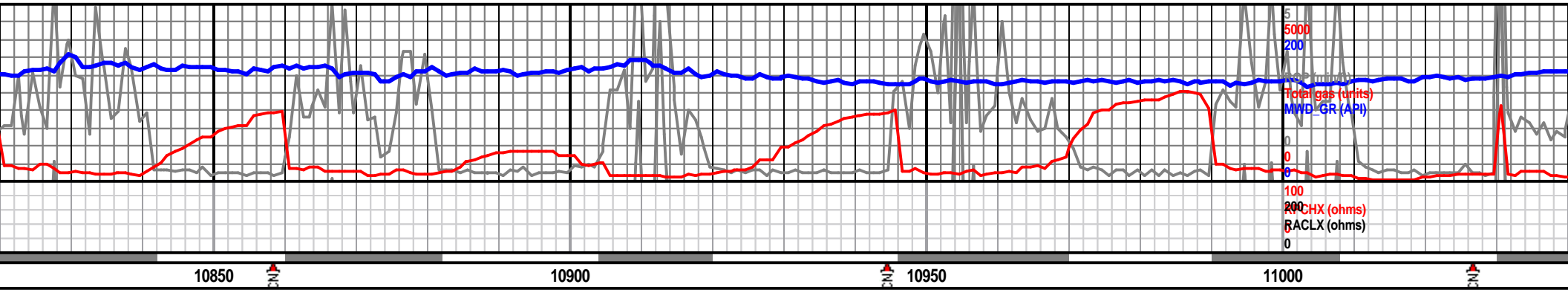


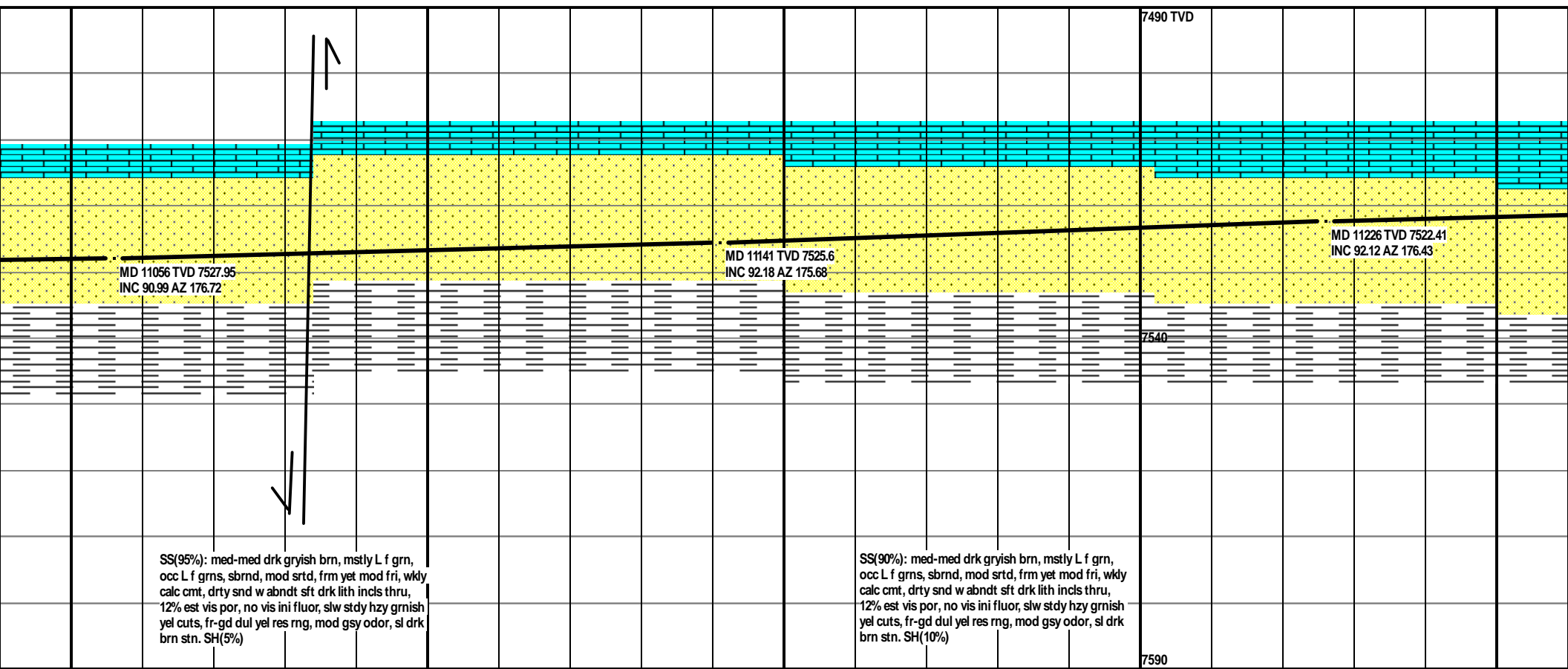


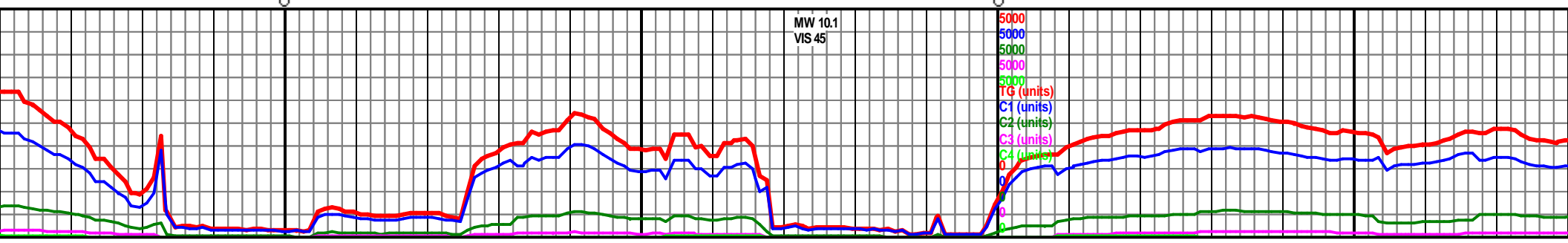
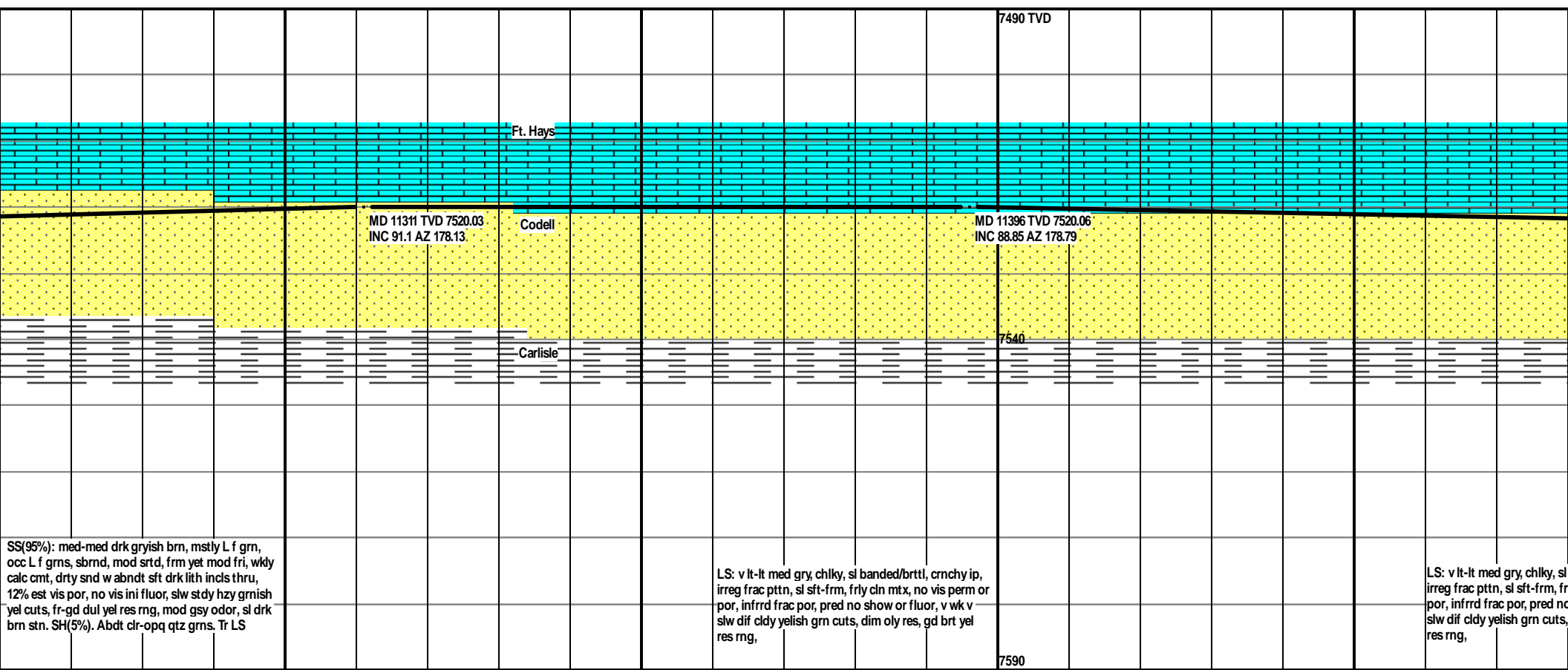
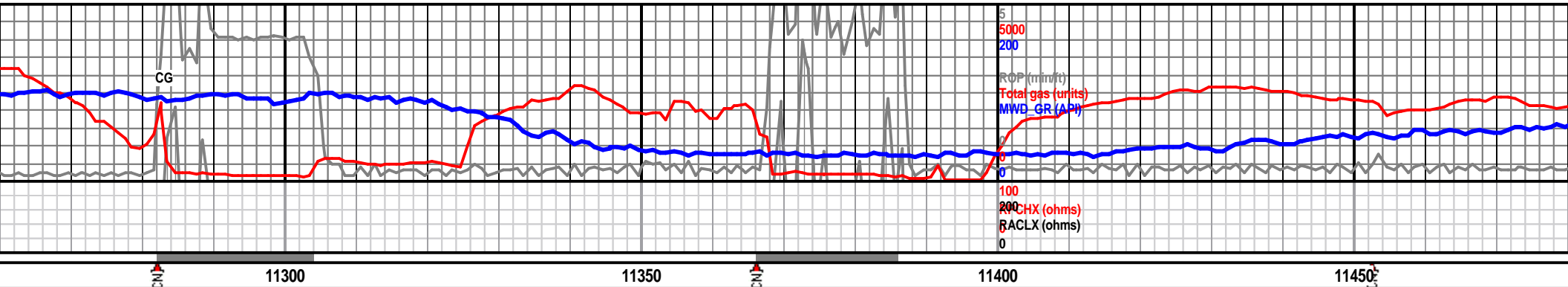
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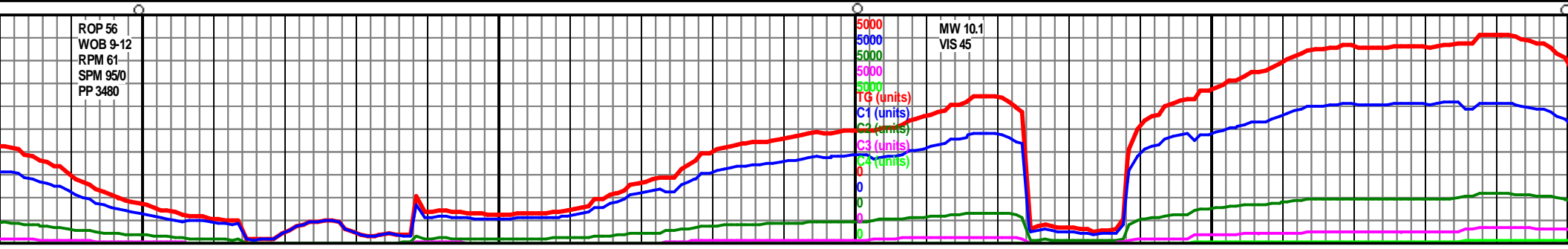
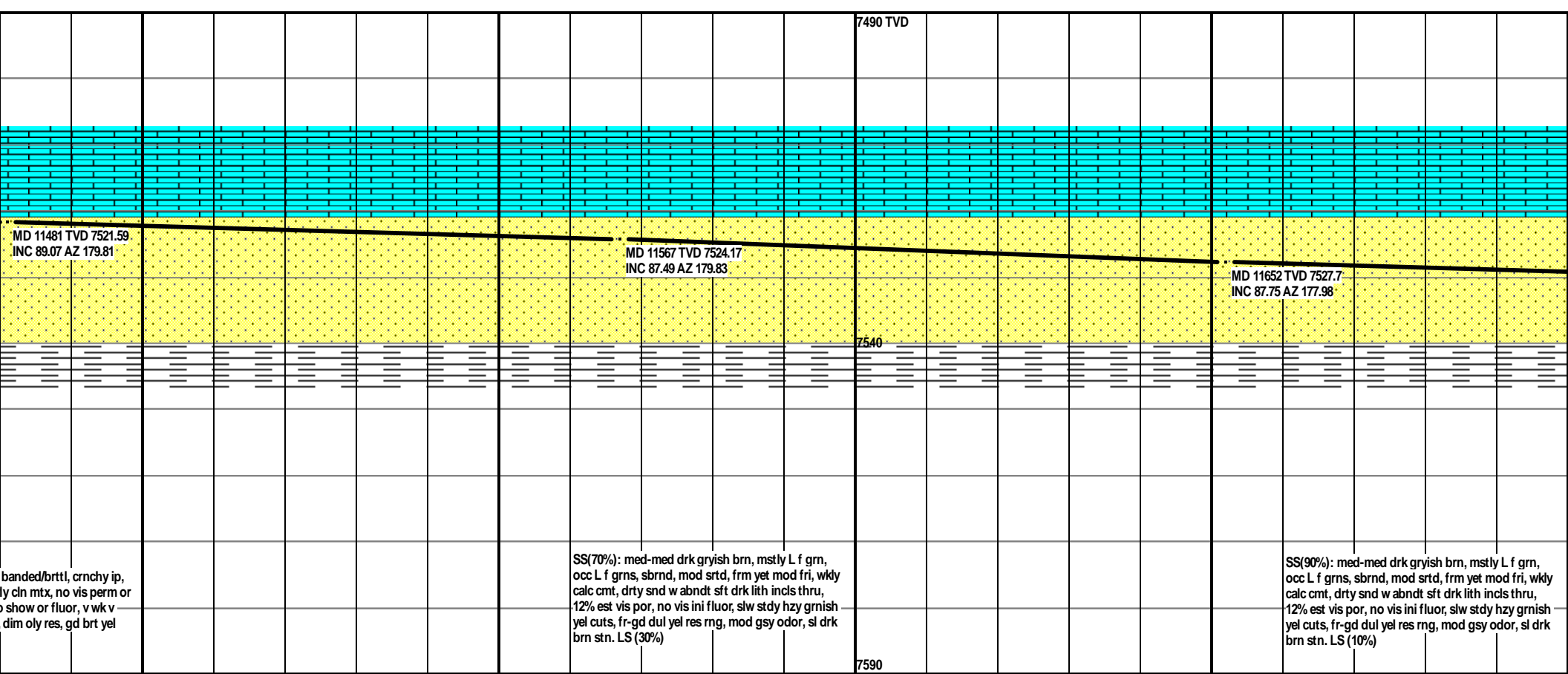
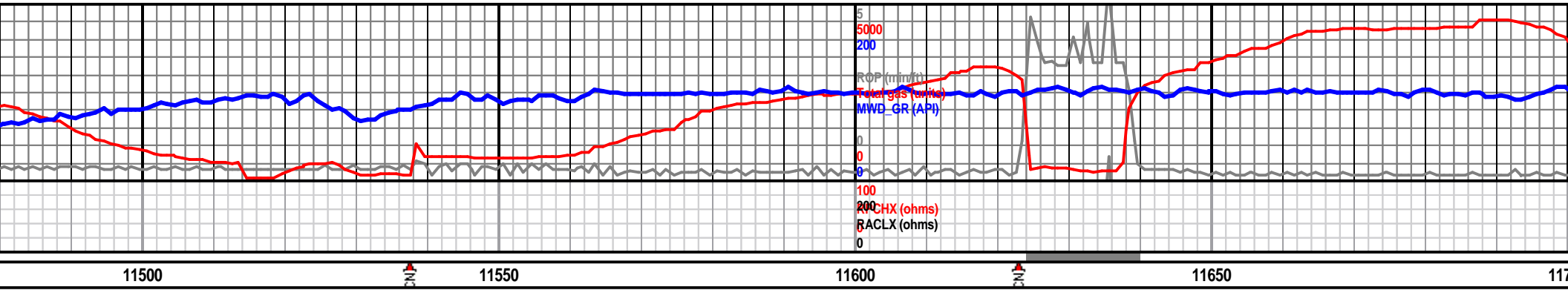
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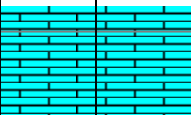





11950

12

DMTD reached @ 19:45hrs on July 11, 2013



Short Trip @ 11,940' DMTD, condition hole, make  
reamer run, hang 4 1/2" production liner. Landed @  
11,930'



Projected Survey  
MD 11940 TVD 7534.7  
INC 88.41 AZ 177.93

Geologic Tops picked by John Morgan

Sharon Springs	7,154' (-2,052')	
Niobrara	7,221' (-2,119')	B
Chalk	7,287' (-2,187')	C
Chalk	7,356' (-2,254')	Ft.
Hays	7,511' (-2,409')	Codell
	9,095' (-2,411')	DMTD
	11,940'	Production csg
	11,930'	

Well Site Geologists Ian Harris, Larry  
Goolsby & Andrew Krueger