

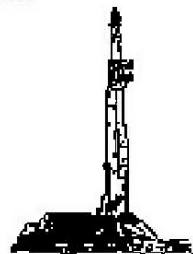
GOOLSBY BROTHERS
and associates, inc.

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: USA FED 27NEast-36HZ

Location: Section 36, T3N, R66W, Weld County, CO.

License Number: API: 05-123-36843, AFE: 2063665

Spud Date: July 16, 2013

Surface Coordinates: SE/SE Sec 36, T3N, R66W 599' FSL & 681' FEL

Lat: 40.176343 N Long: -104.718272 W

Bottom Hole Coordinates: Sec 36, T3N, R66W

499' FNL 1,069' FEL

Ground Elevation (ft): 4985

K.B. Elevation (ft): 5010

Logged Interval (ft): 6,600'

To: 11,705'

Total Depth (ft): 11,705'

Formation: Pierre shales / sands, Niobrara "B" Target

Type of Drilling Fluid: Polymer-Water

Region: Wattenberg

Drilling Completed: July 22, 2013

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

OPERATOR

Company: Anadarko Petroleum Corporation

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

Denver, CO 80202

CO Geologist, Tom Birmingham

GEOLOGIST

Name: Marek Ciesnik/Steven Schindler

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

Address: 575 Union Blvd.

Suite 208,

Lakewood CO. 80228

E-logs

MWD Gamma: 6,628' - 11,655'
Resistivity: 7,582'-11,650'


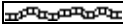
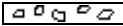

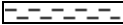
Casing






9 5/8" Surface Casing (IPSCO 36# J55) set @ 920'.
7" Intermediate Casing (IPSCO 26# P110) set @ 7,587'.
4 1/2" Production Liner set @ 11,695' Hung @ 6,614'





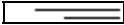
Comments

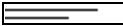




- 1) Drilling Contractor: H&P 311
Pumps 1 & 2: Gardner Denver PZ 11 6" x 11" (.0914 bbl/stk)
Rig Manager: Jack Truett, James Baggett.
Drillers: Michael Munroe, Christopher Moore, Kenneth Jones, Christopher Beckstead.
- 2) Company Man: Doug Blair, Rick Oman, David Wells
- 3) Mud Company: Halliburton, Randal Phipps, James Steen
- 4) Directional Drilling: Scientific Drilling
Directional Drillers: Ian Ensell, John Noakes.
MWD: Joshua Denning, Mohamed Sharker.
- 5) Gas Equipment: Mudlogging Systems Inc.
by Terra Services
Redbox # ML-419

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
 Breclrag
 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
 Wackest

OTHER SYMBOLS

OIL SHOWS

Even
 Spotted
 Ques
 Dead
 Vspotty

near even

POROSITY TYPE

Earthy
 Fenest
 Fracture

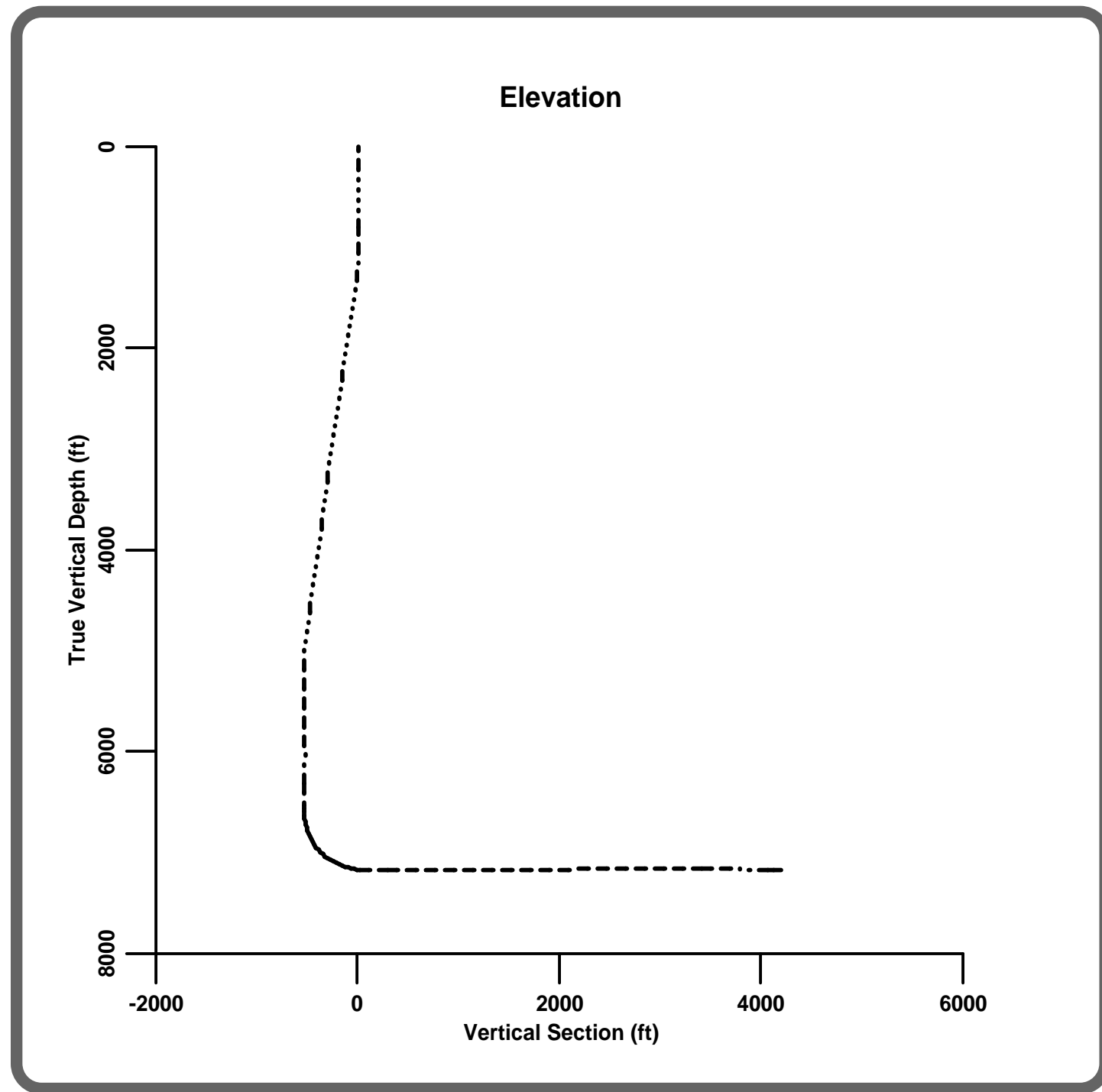
Inter
 Moldic
 Organic
 Pinpoint
 Vuggy

ROUNDING

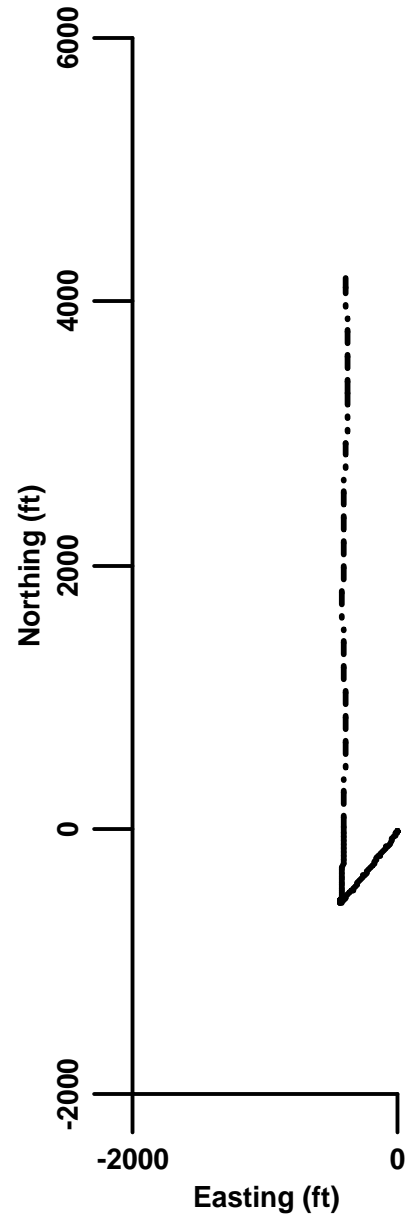
Rounded
 Subrnd
 Subang
 Angular

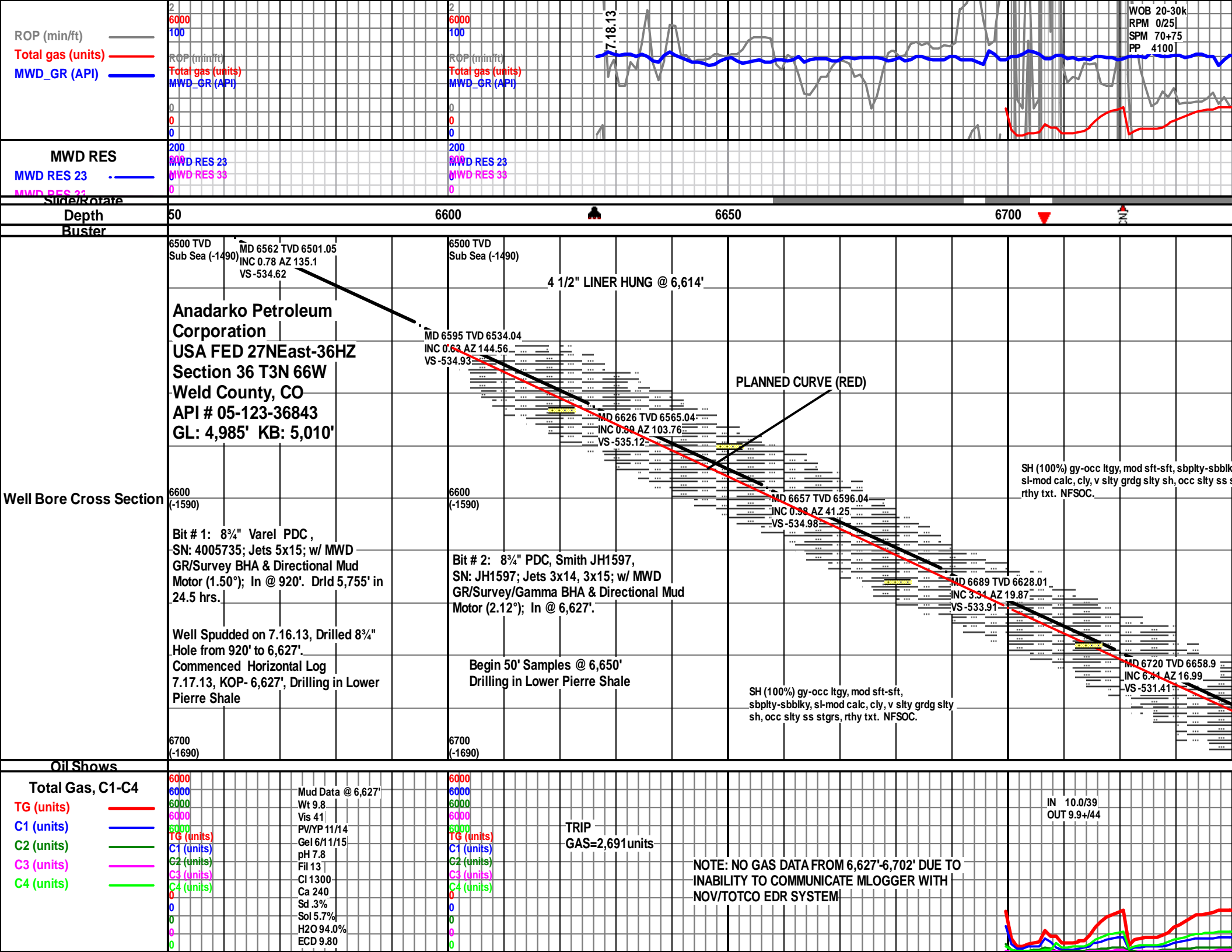
SORTING

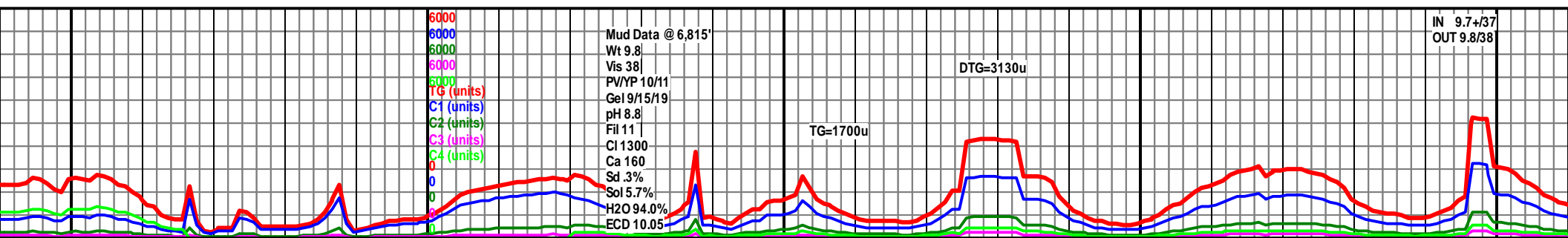
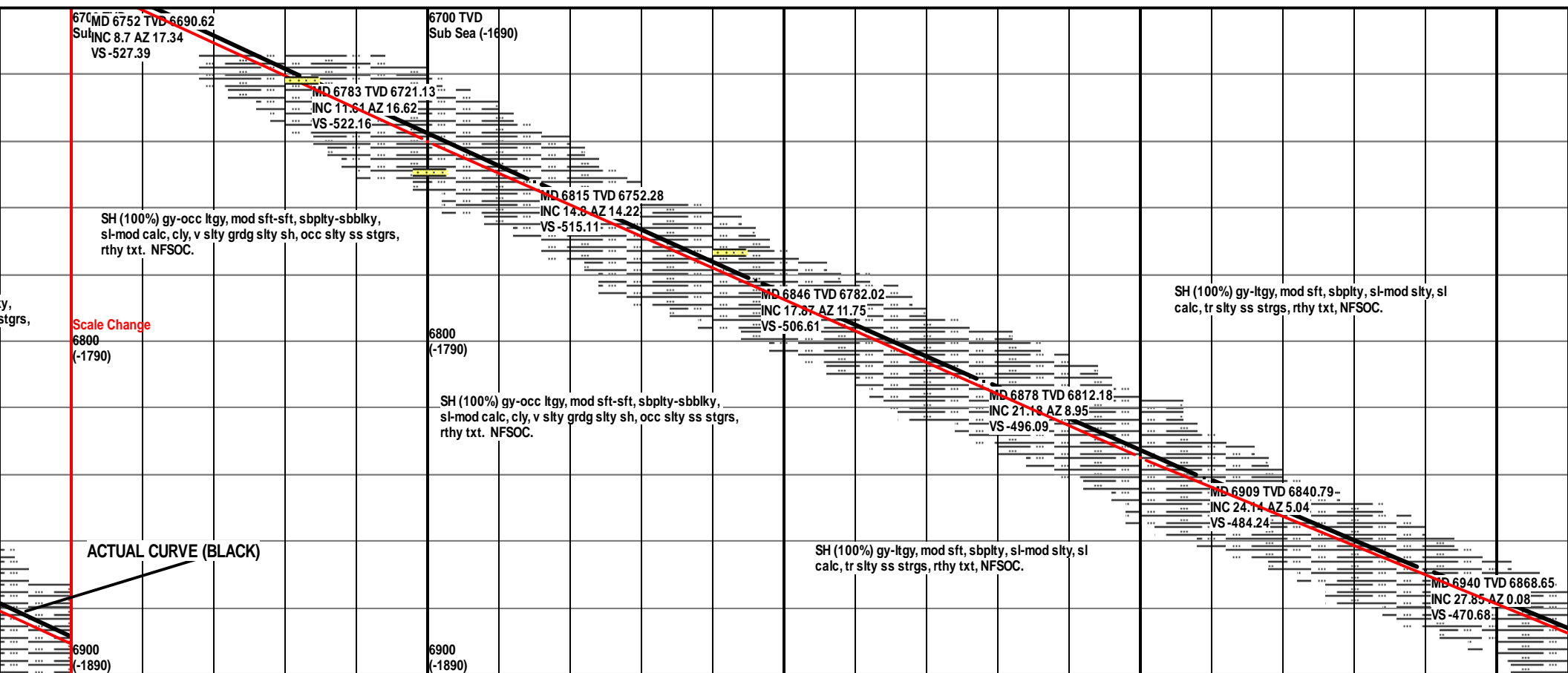
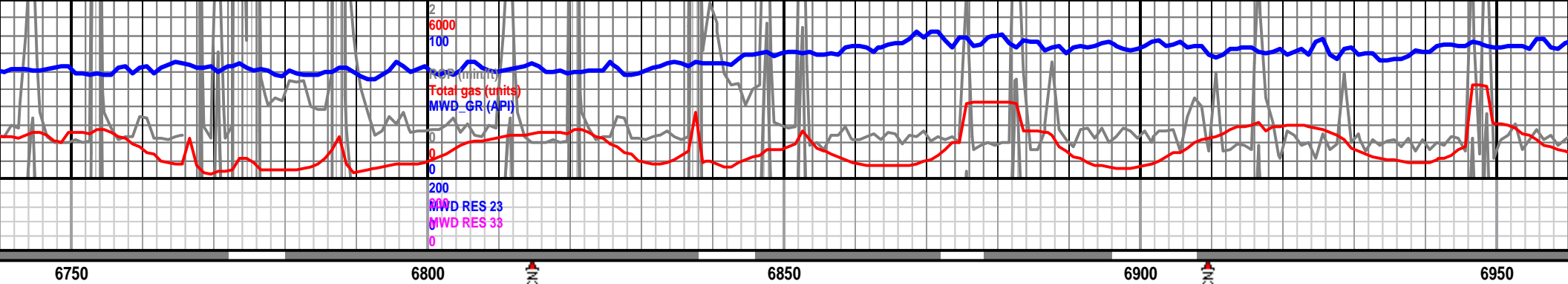
Well
 Moderate
 Poor

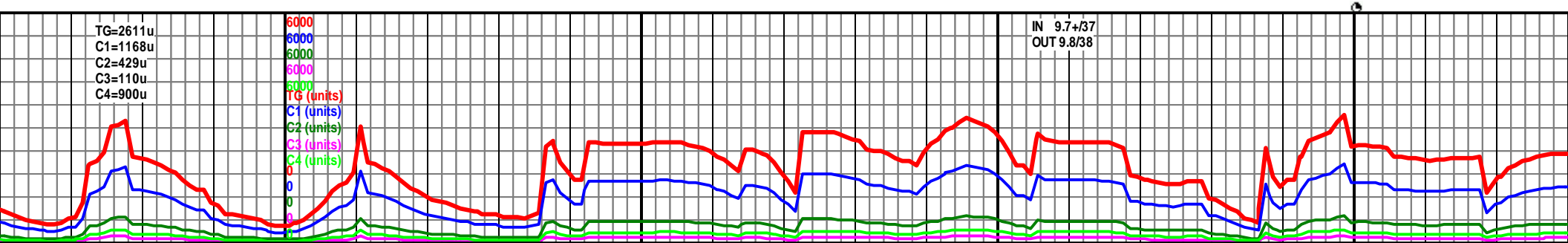
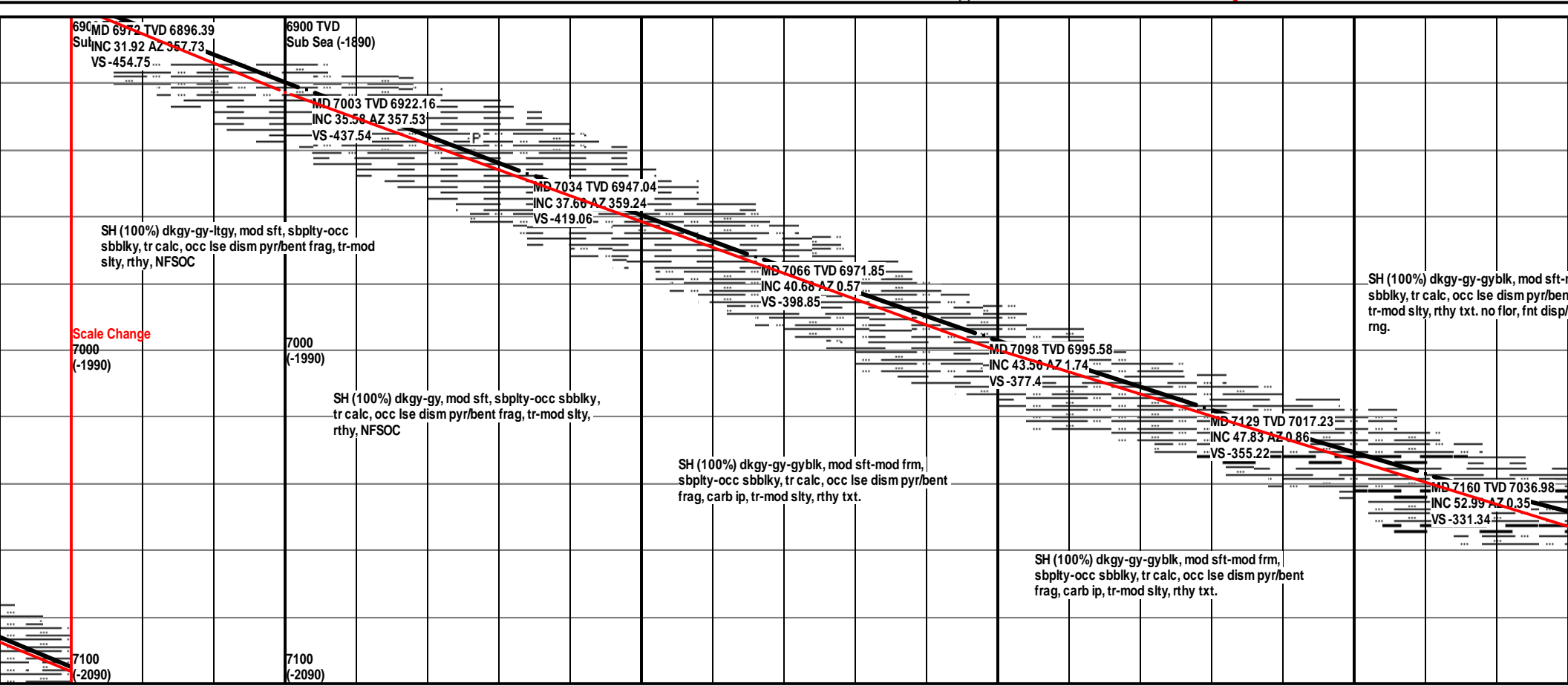
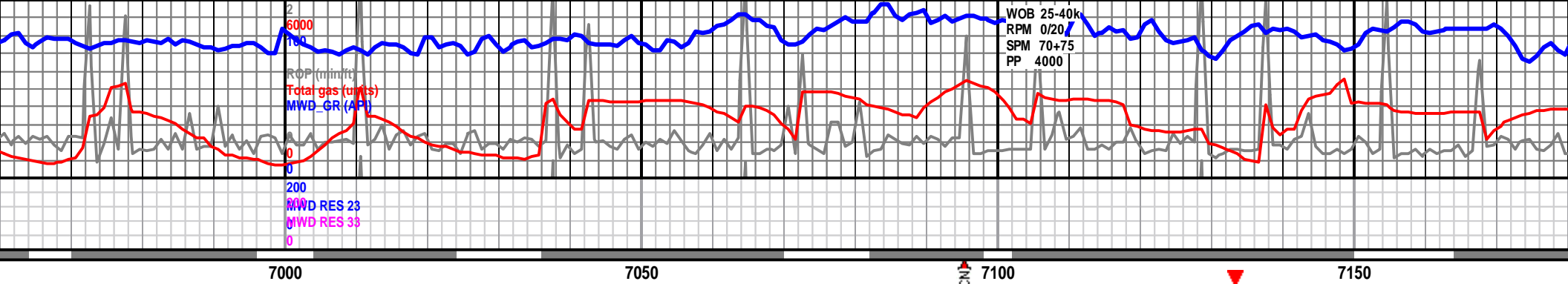


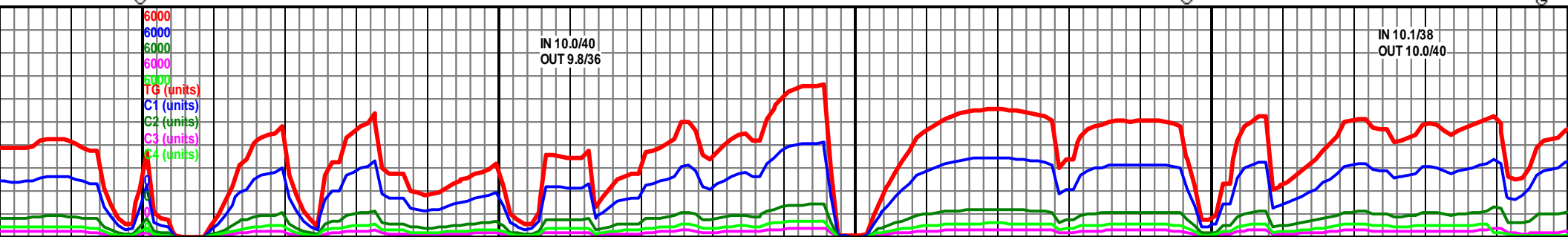
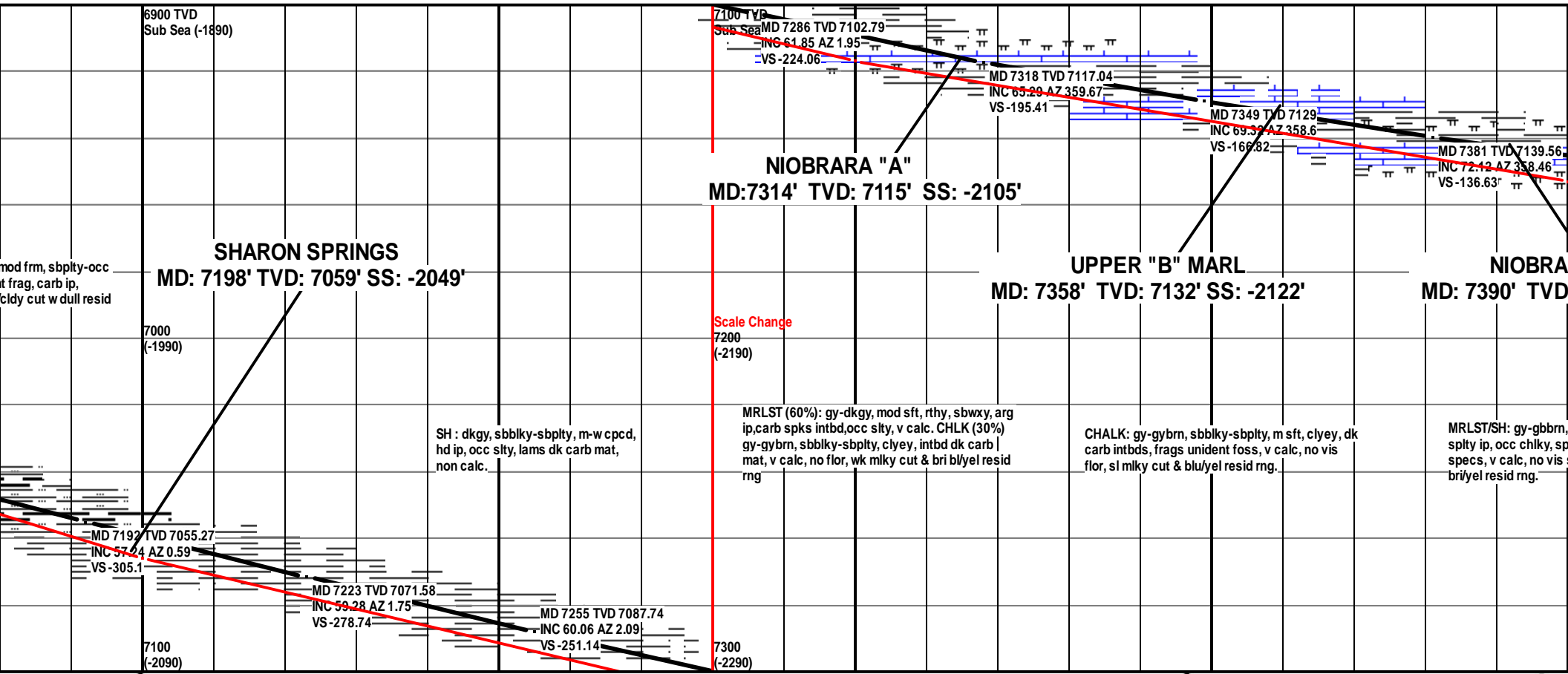
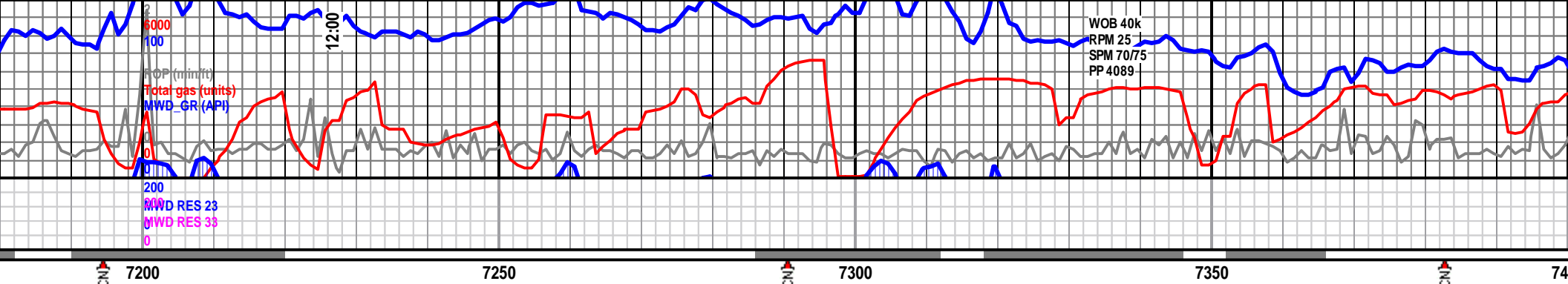
Plan

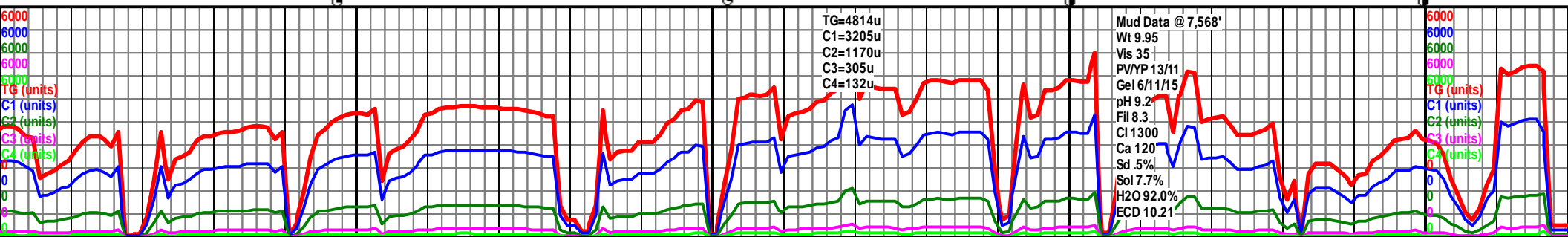
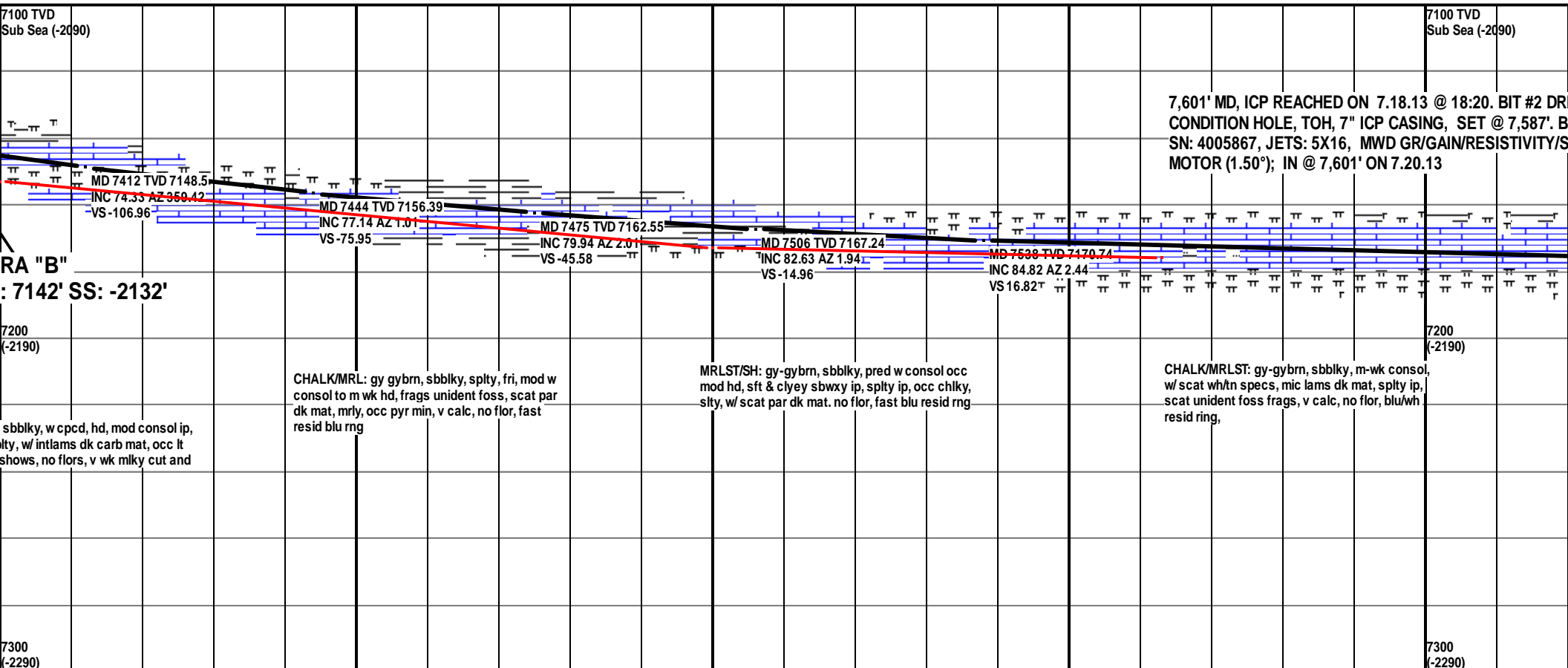
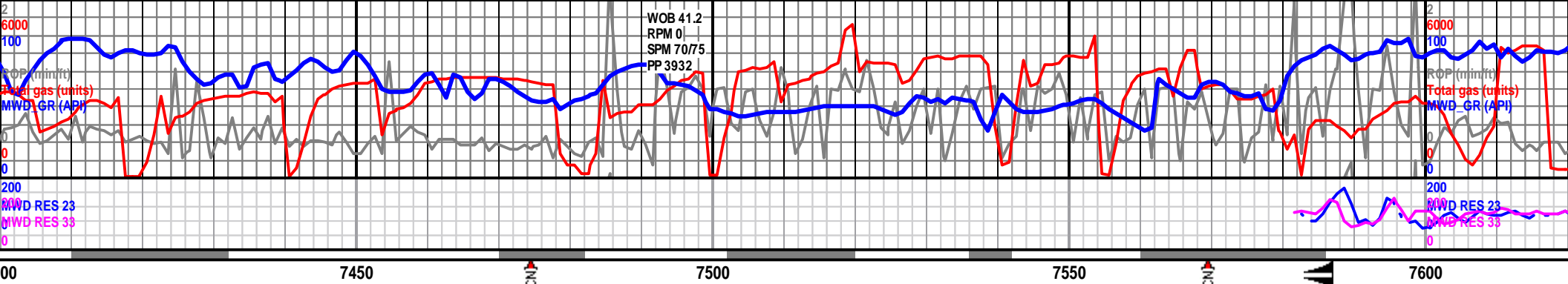


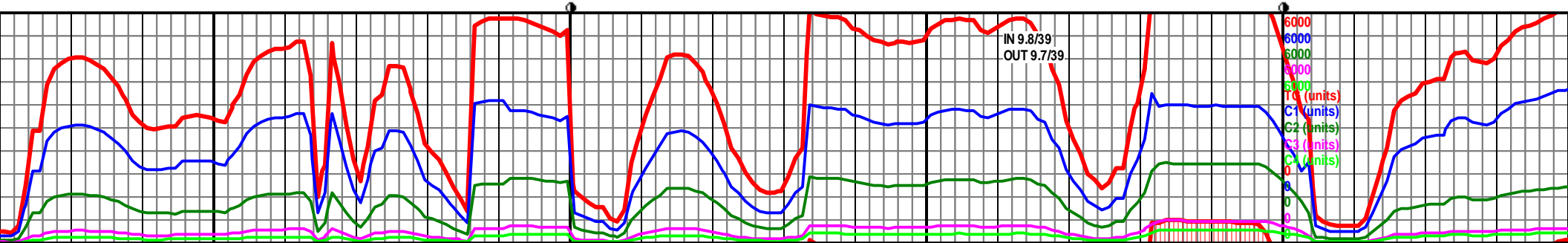
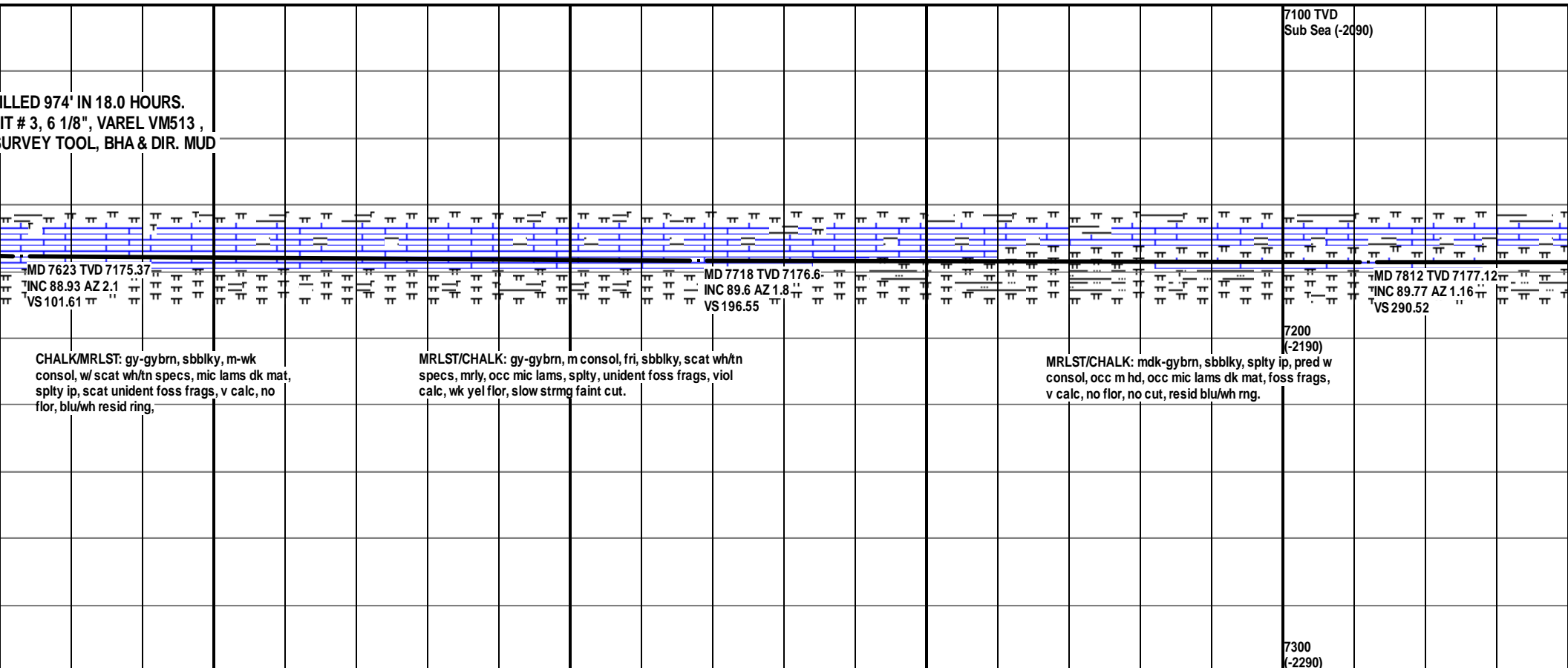
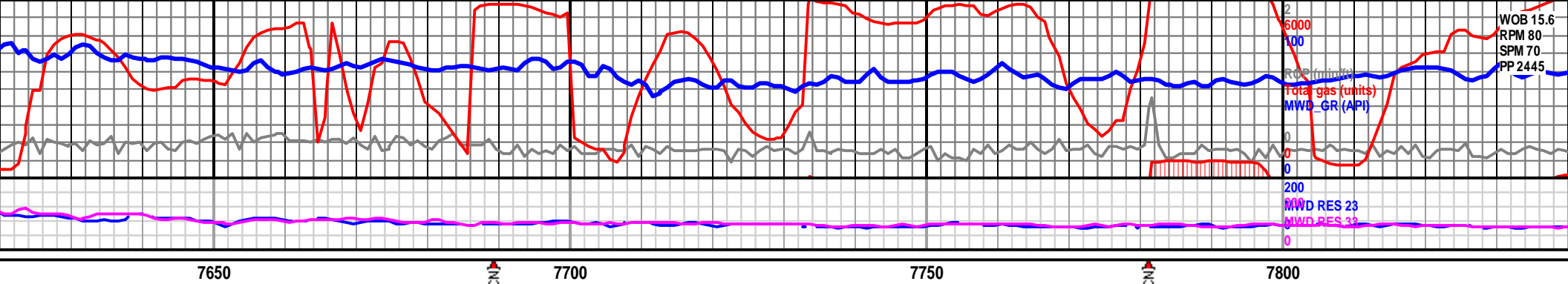


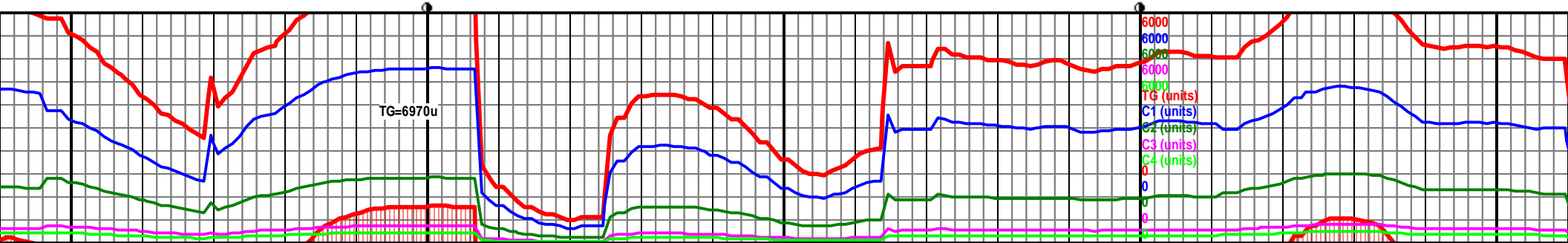
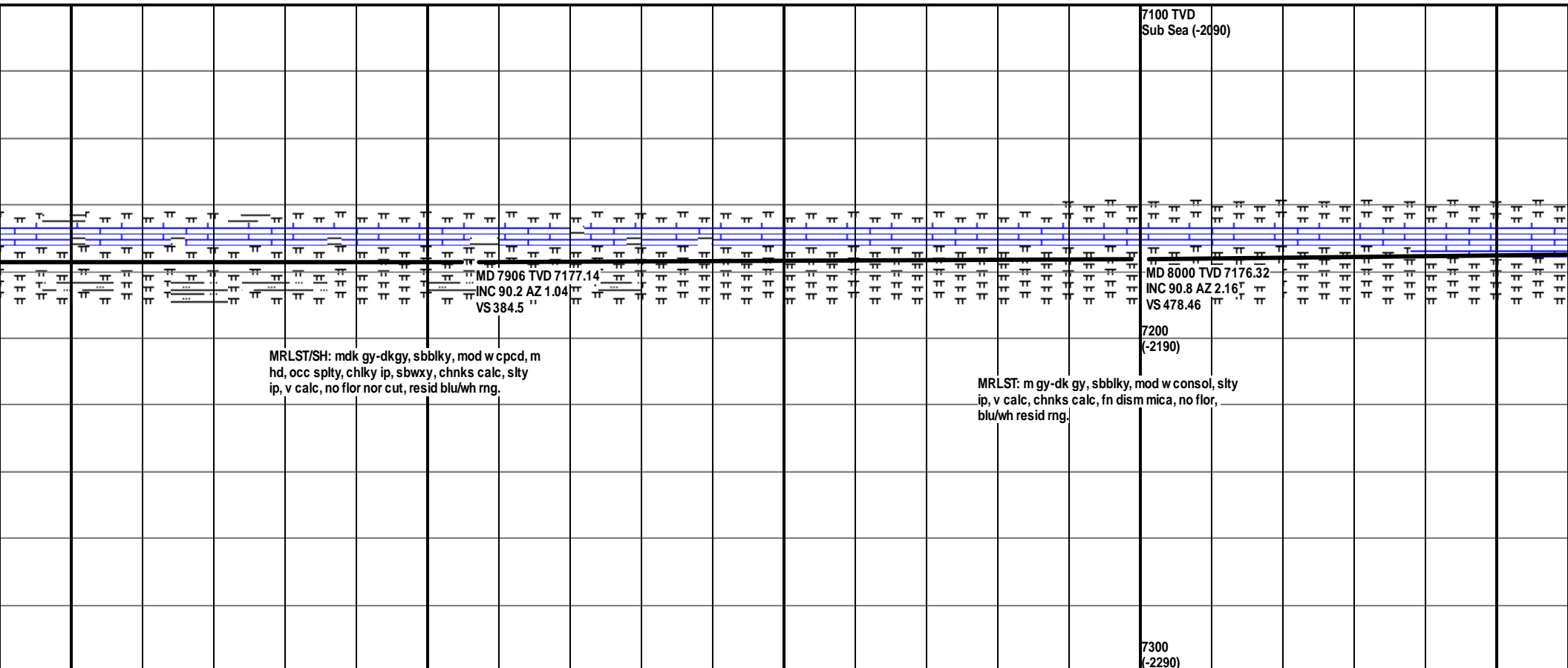
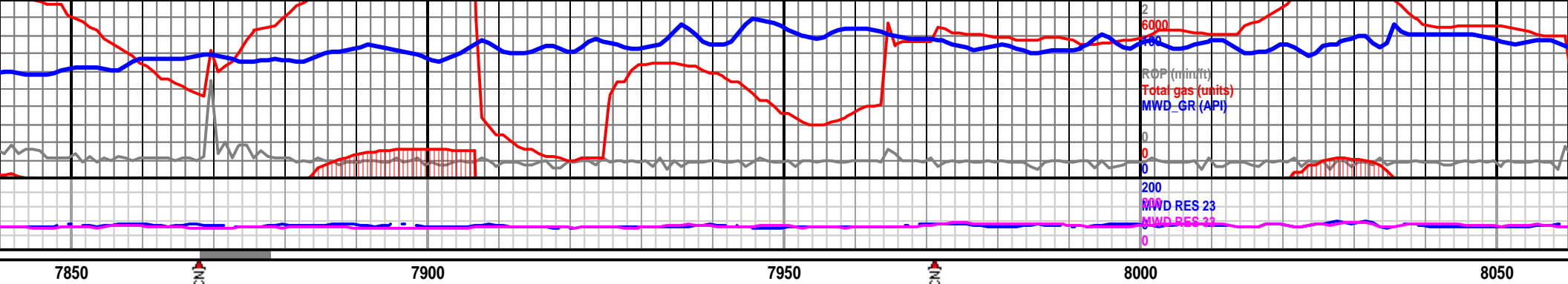


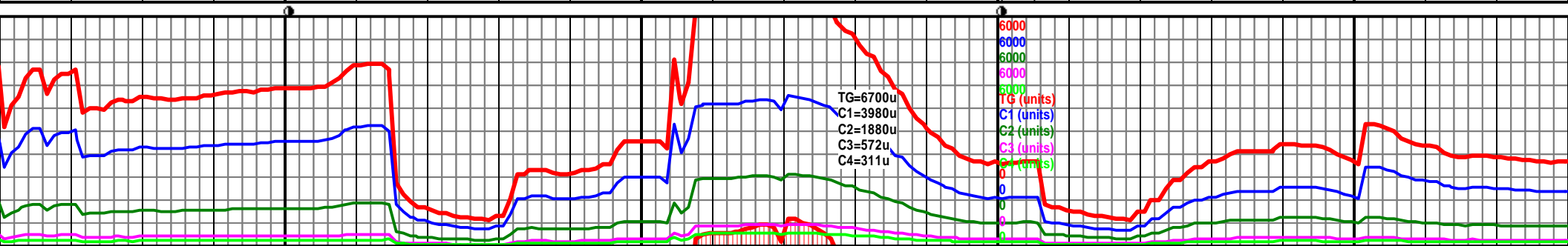
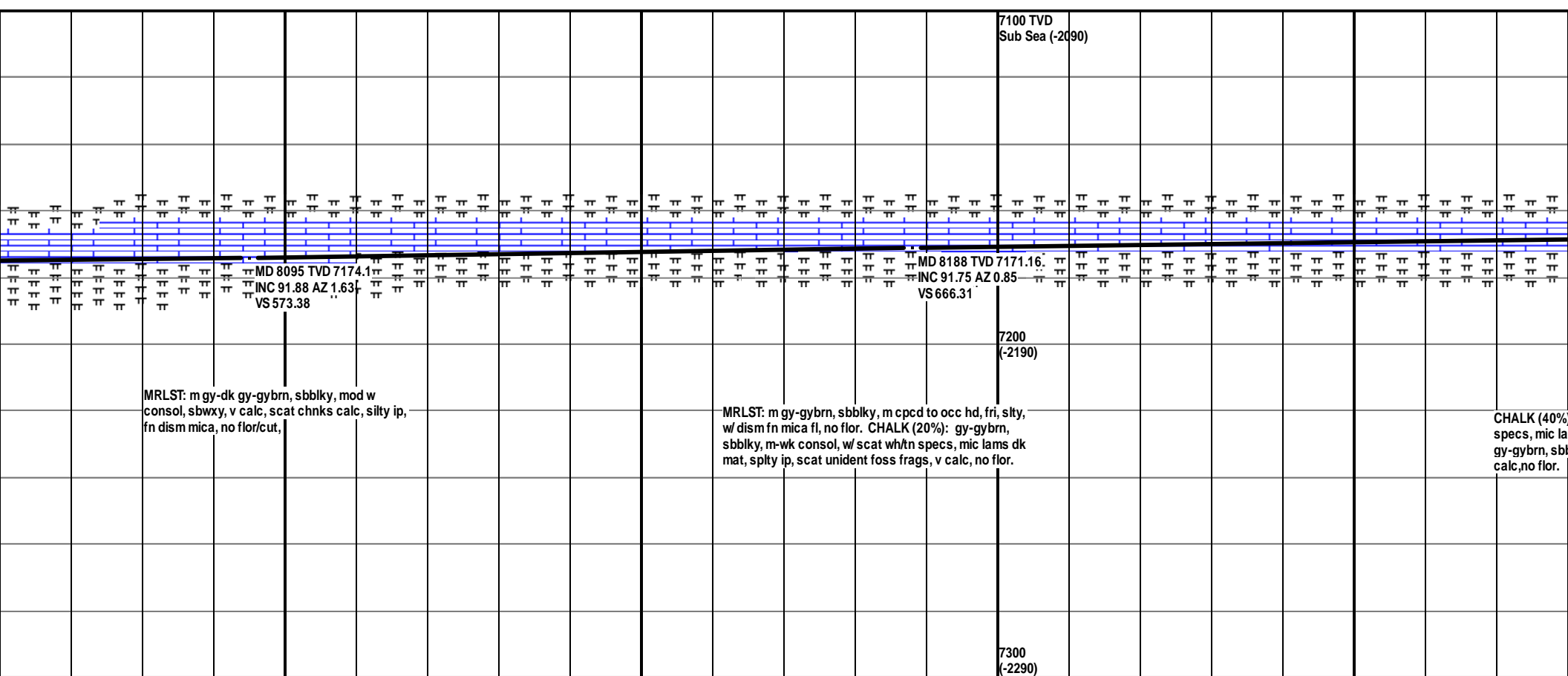
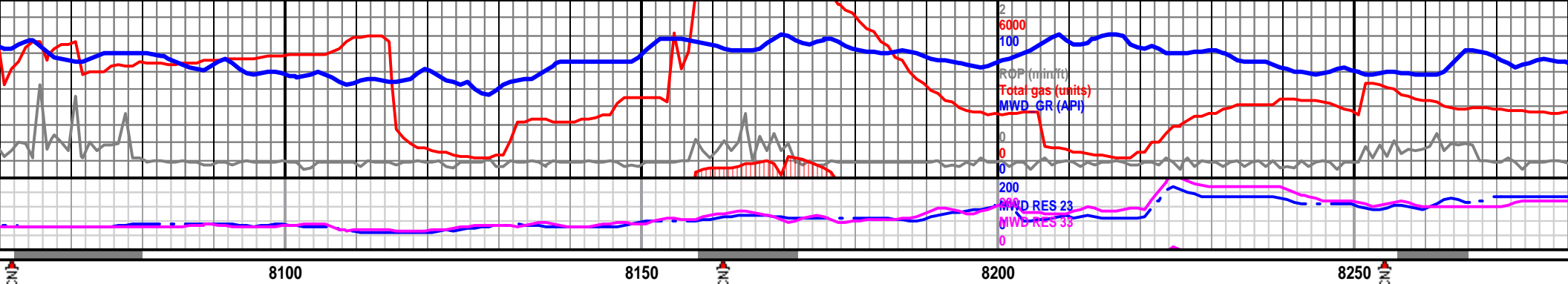


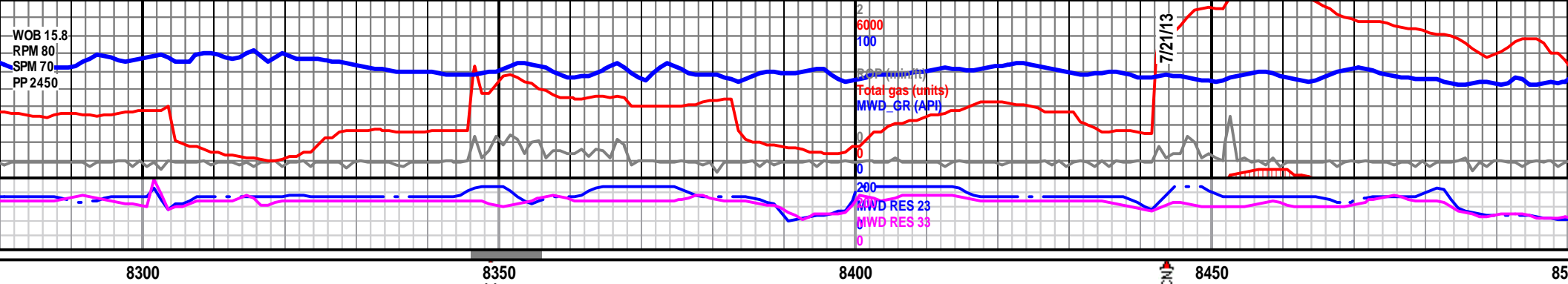




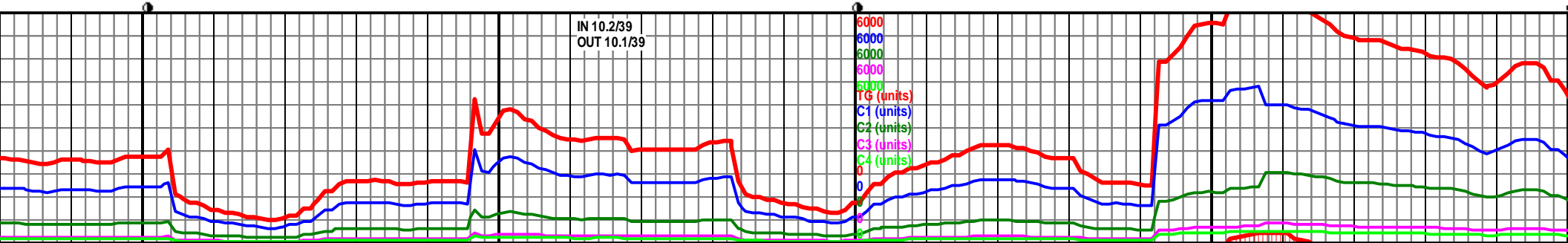


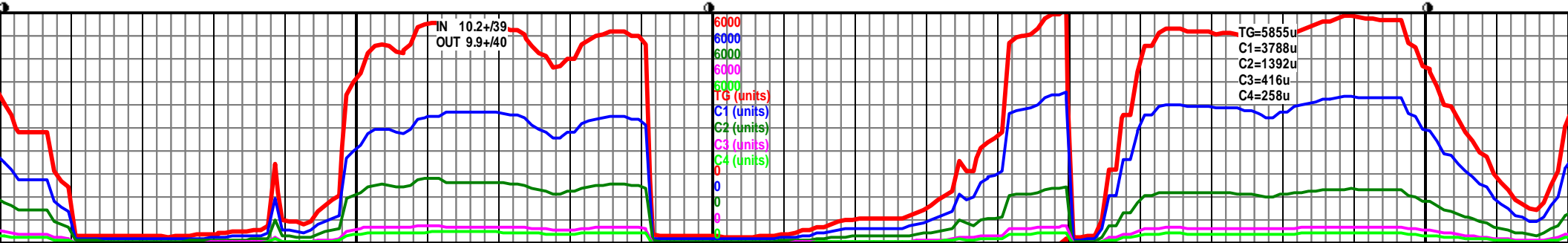
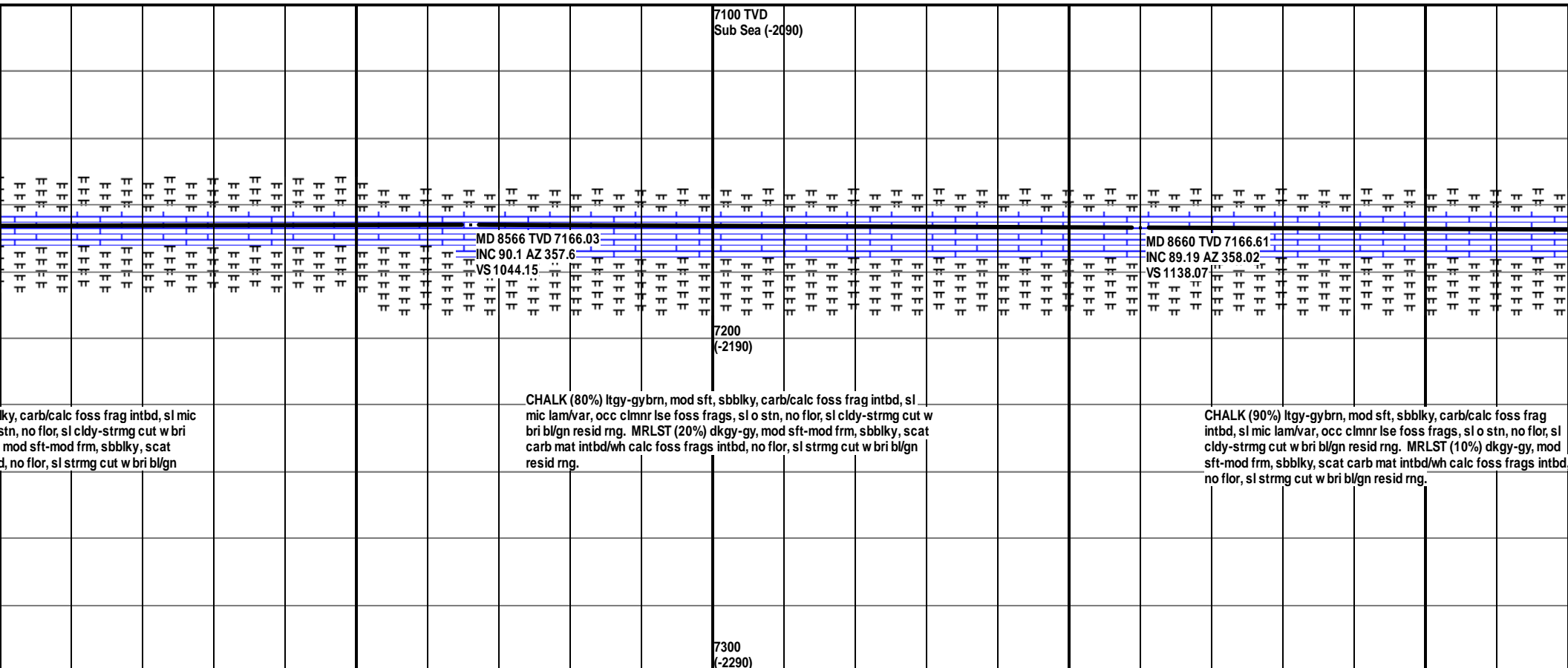
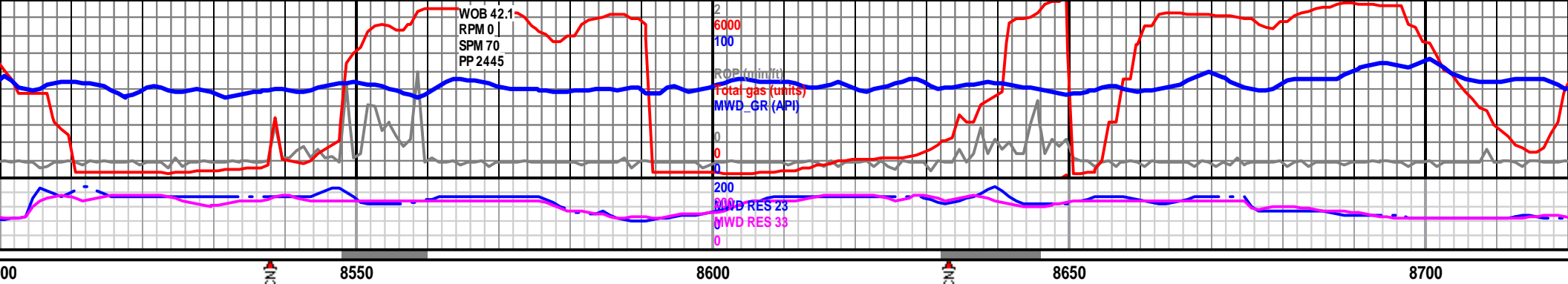


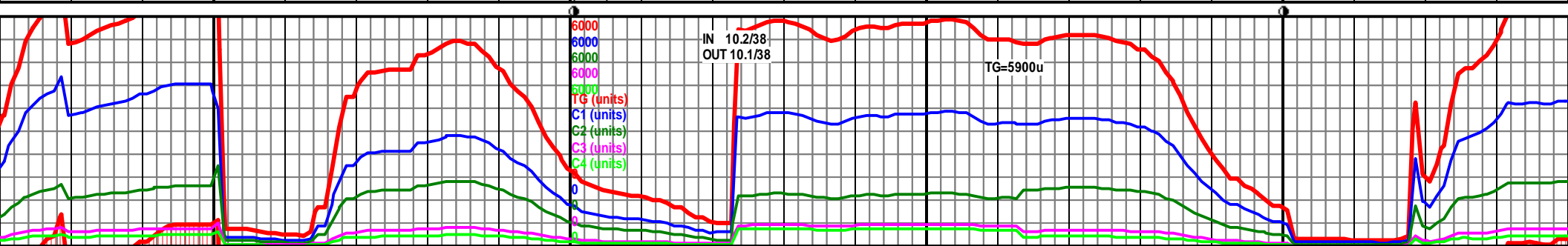
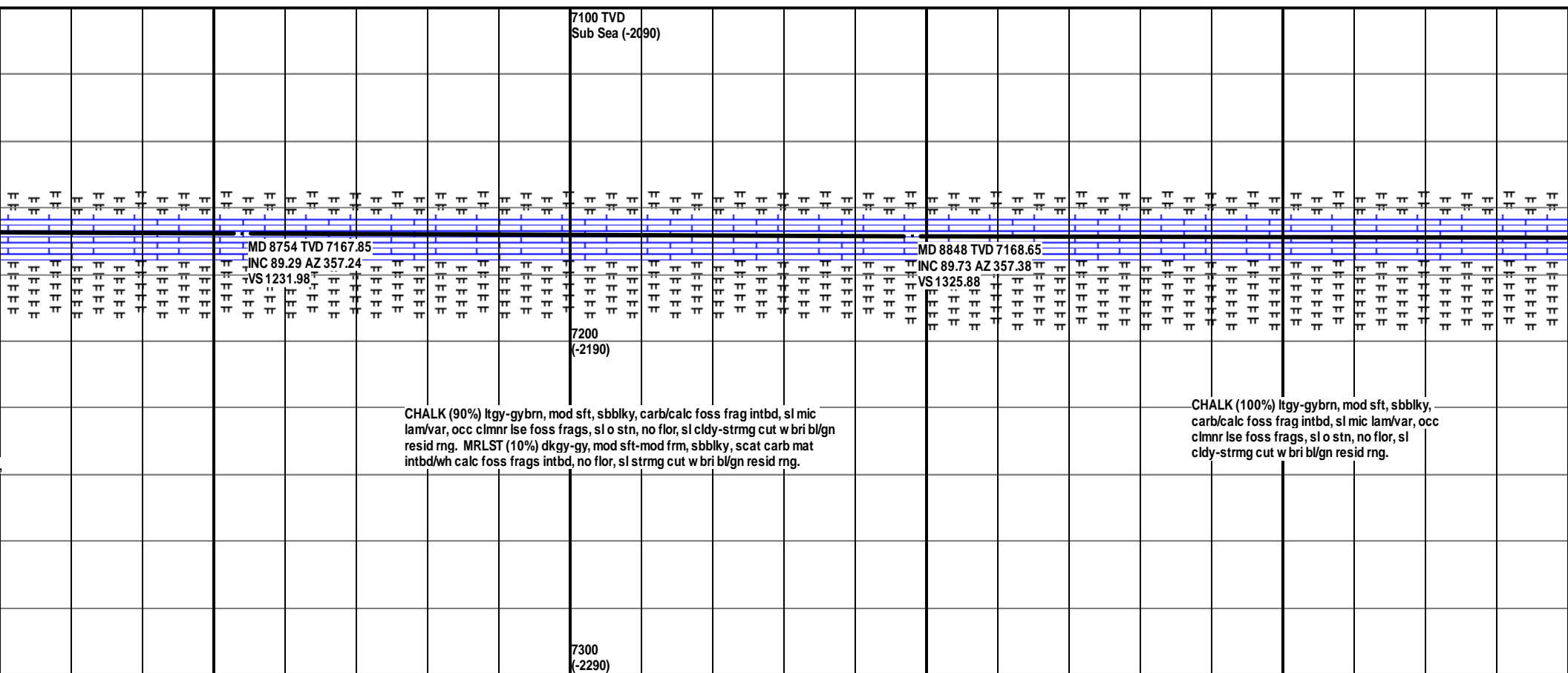
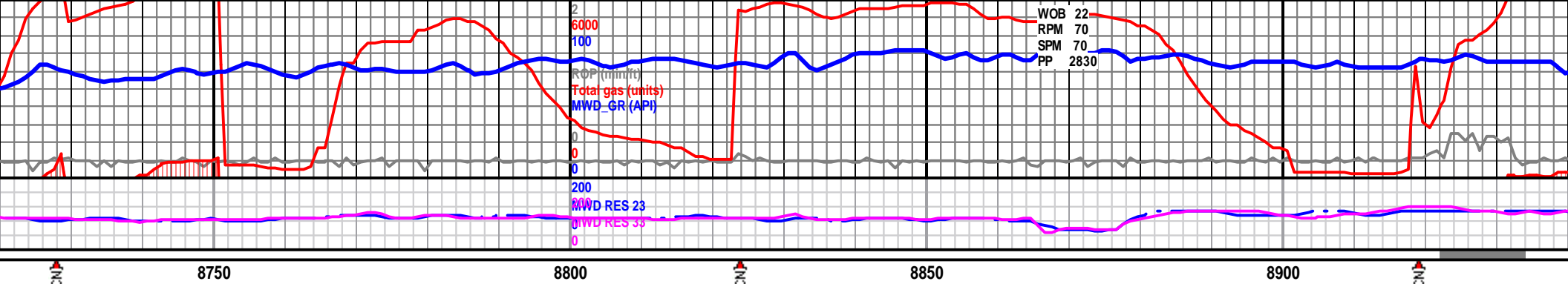


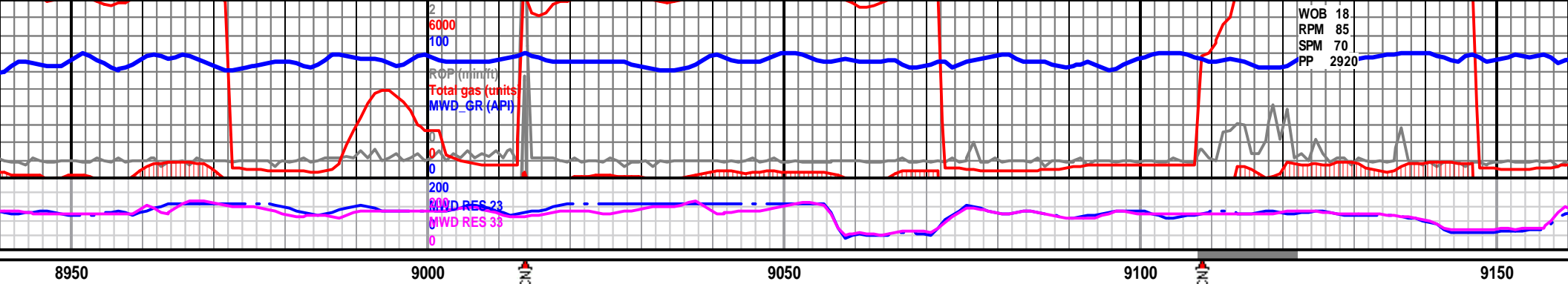


<p>MD 8283 TVD 7168.62 INC 91.31 AZ 0.23 VS 761.27</p>		<p>MD 8377 TVD 7167.19 INC 90.44 AZ 358.81 VS 855.25</p>	<p>7100 TVD Sub Sea (-2090)</p>	<p>MD 8471 TVD 7166.47 INC 90.44 AZ 358.09 VS 949.21</p>
<p>gy-gybrn, sbbkly, m-wk consol, w/ scat wh-lt brn ms dk mat, splty ip, v calc, no flor, MRLST (60%): m olky, m cpd to occ hd, fri, sity, w/ dism fn mica fl, v</p>		<p>CHALK (70%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flor, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (30%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, no flor, sl strmg cut w bri bl/gn resid rng.</p>	<p>7200 (-2190)</p>	<p>CHALK (75%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flor, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (25%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, no flor, sl strmg cut w bri bl/gn resid rng.</p>
			<p>7300 (-2290)</p>	

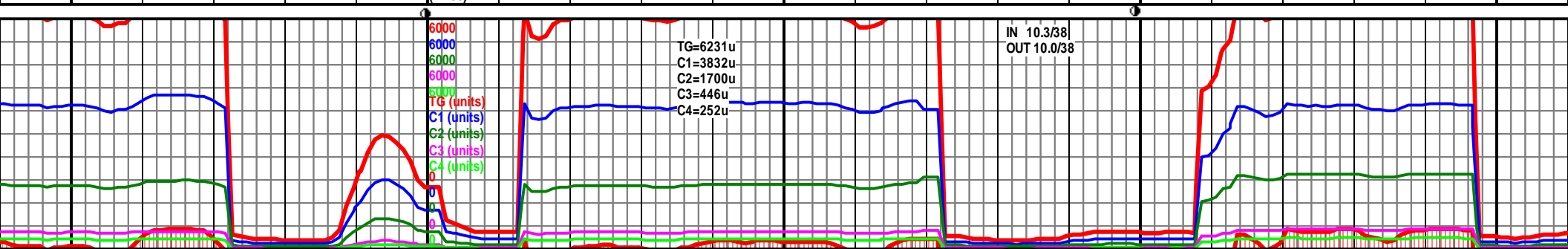


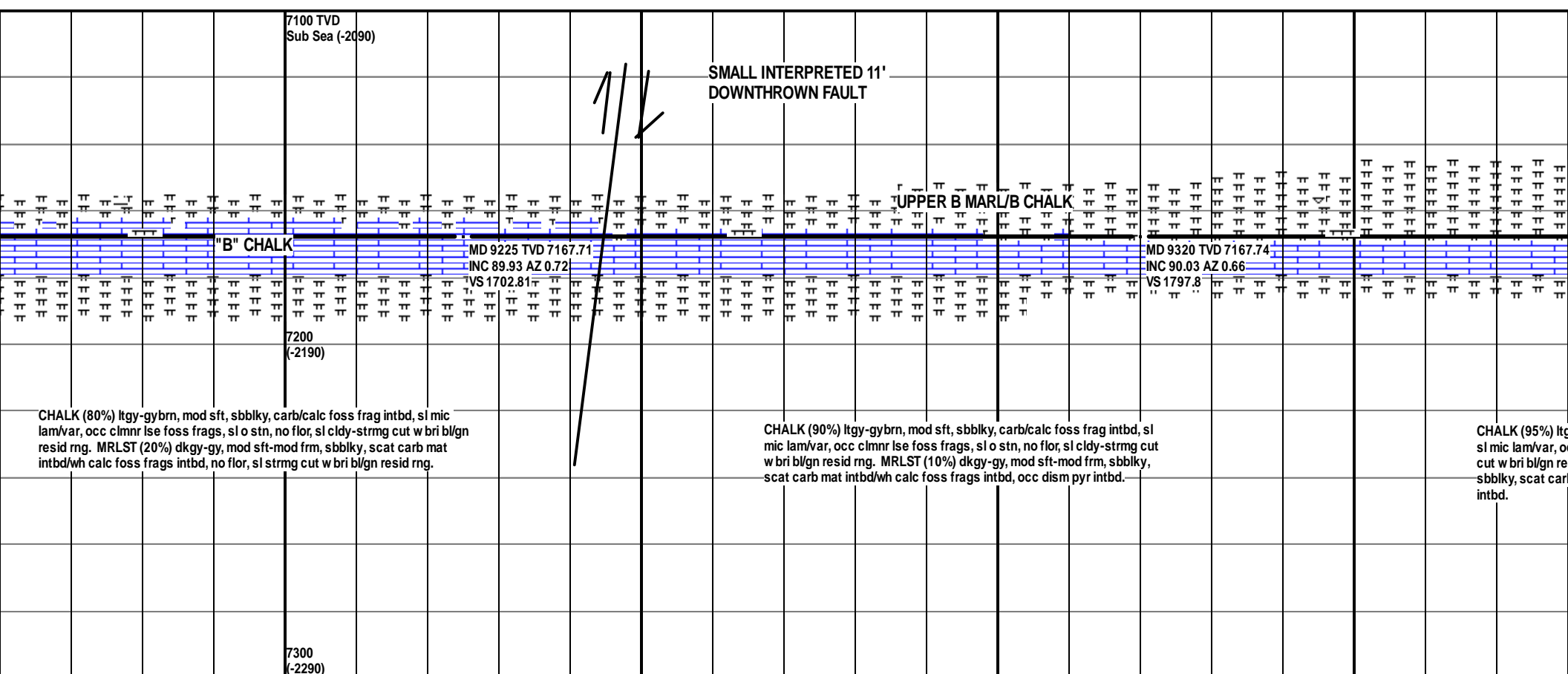
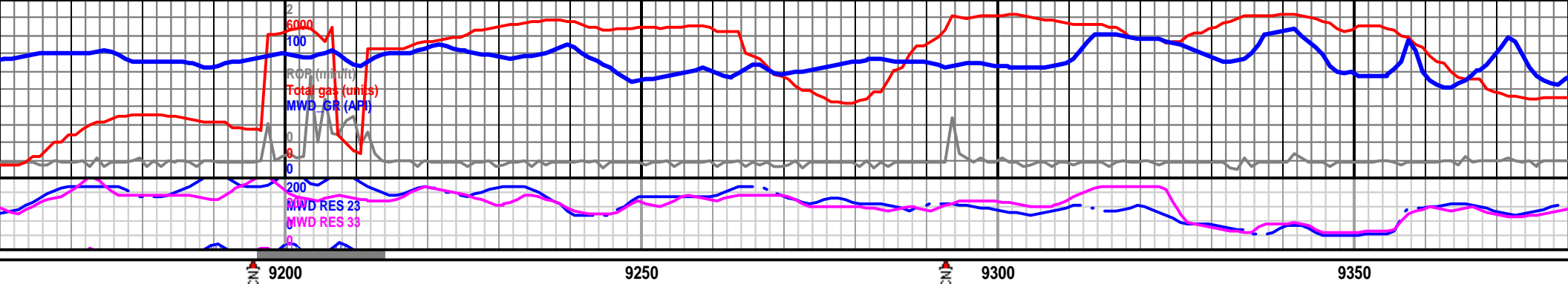






7100 TVD Sub Sea (-2090)									
MD 8943 TVD 7168.92 INC 89.93 AZ 359.47 VS 1420.84									
MD 9037 TVD 7168.35 INC 90.77 AZ 359.23 VS 1514.83									
MD 9131 TVD 7167.69 INC 90.03 AZ 358.82 VS 1608.81									
7200 (-2190)									
CHALK (100%) ltgy-gybrn, mod sft, sbbiky, carb/calc foss frag intbd, sl mic lam/var, occ clmr lse foss frags, sl o stn, no flr, sl cldy-strmg cut w bri bl/gn resid mg.									
7300 (-2290)									

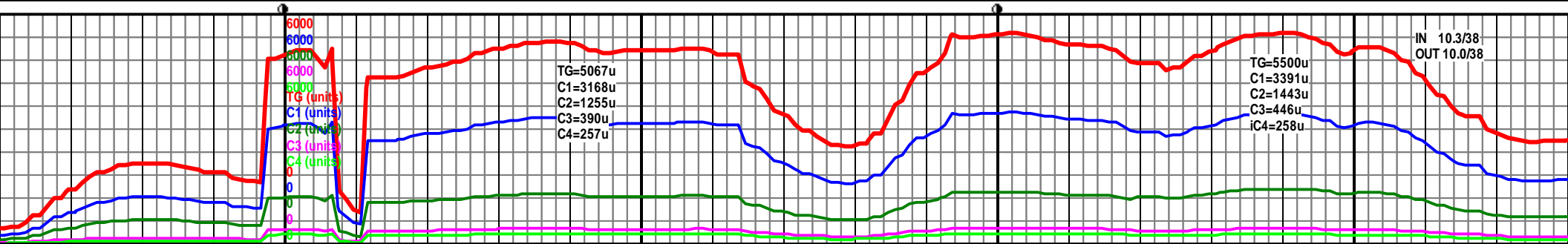


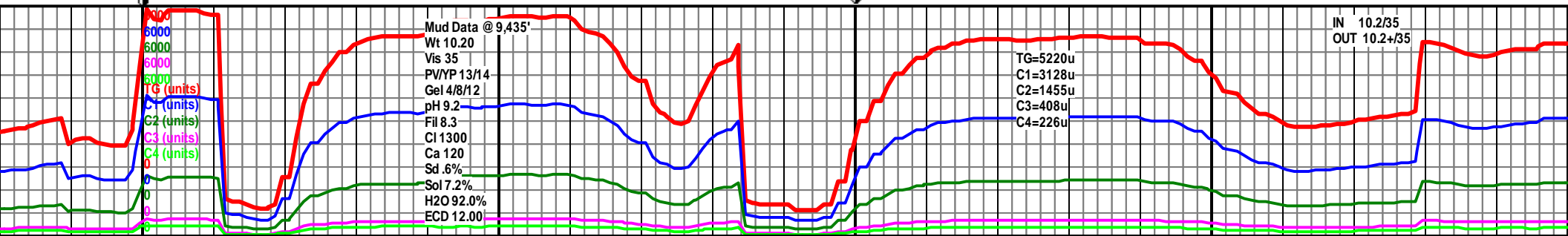
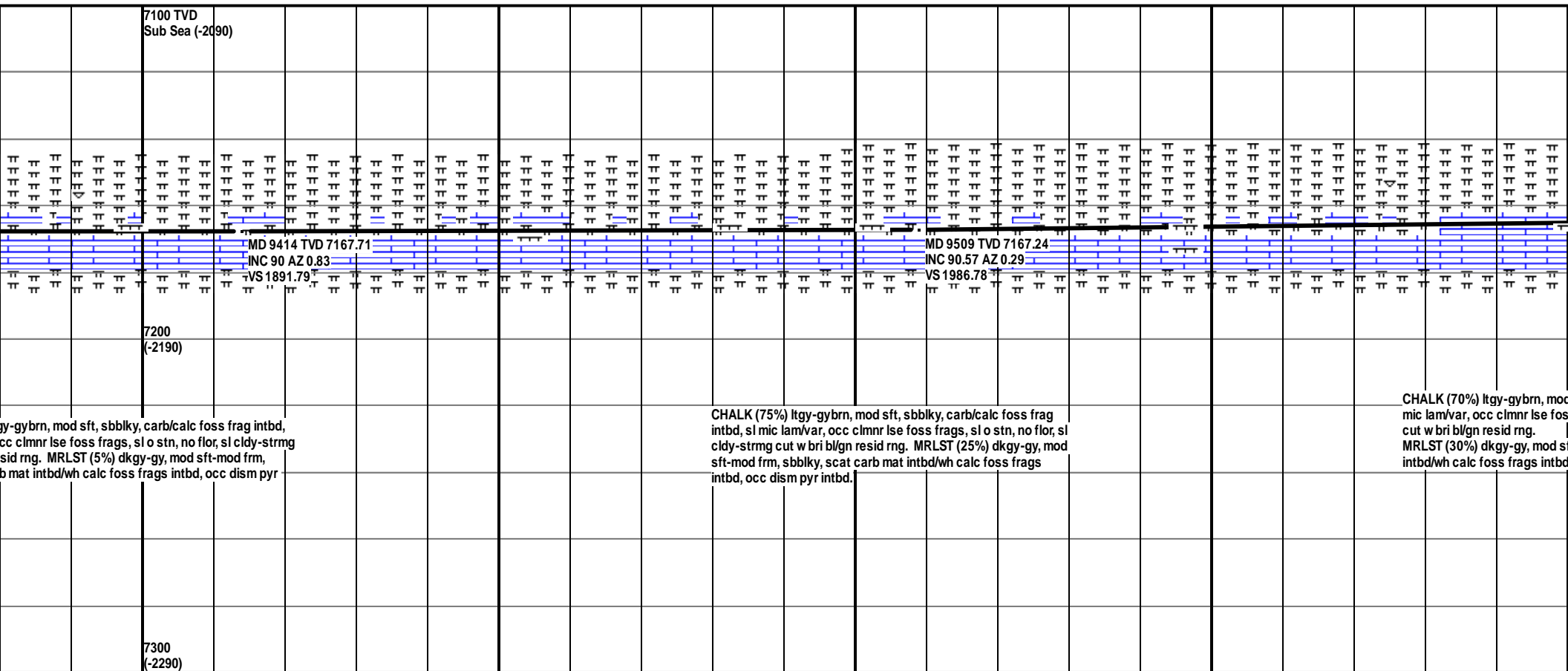
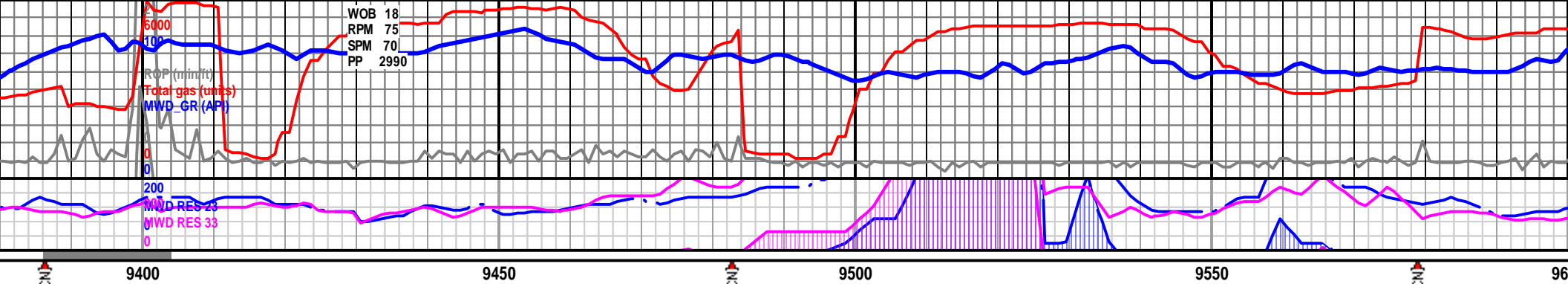


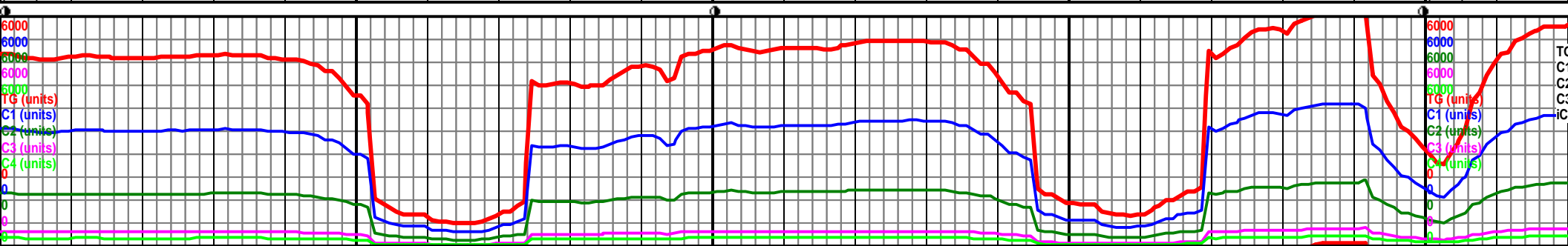
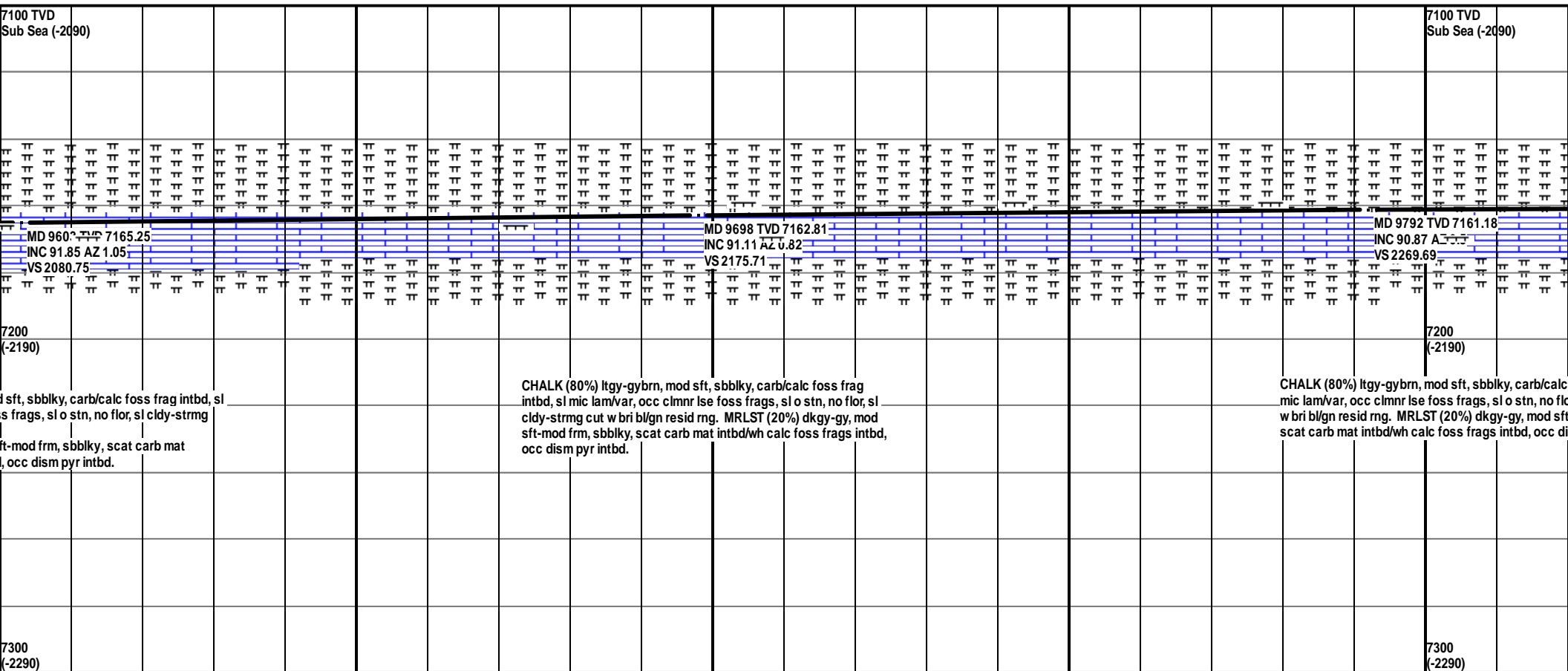
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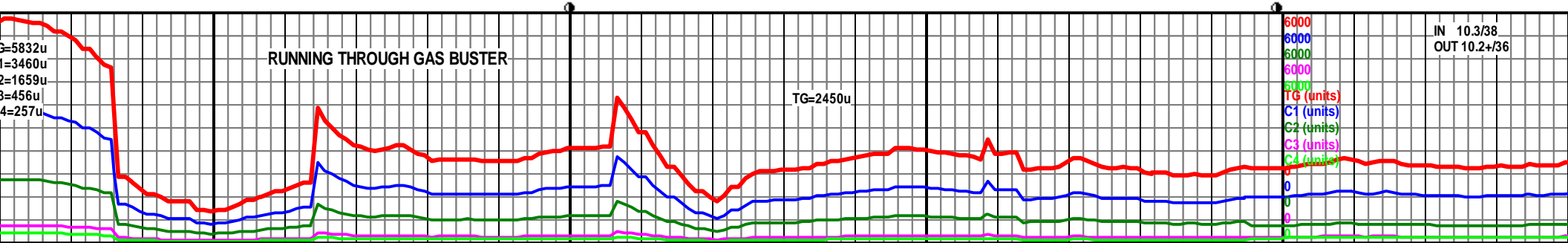
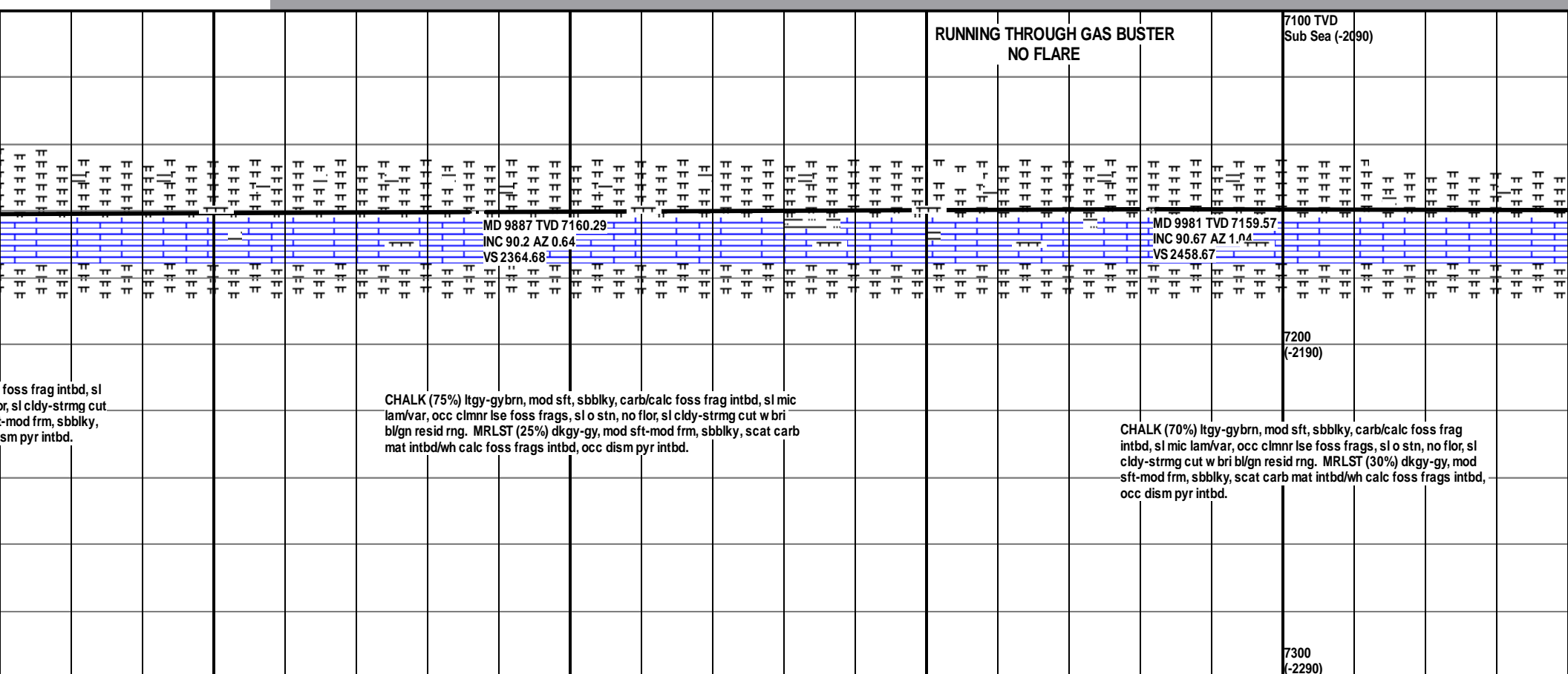
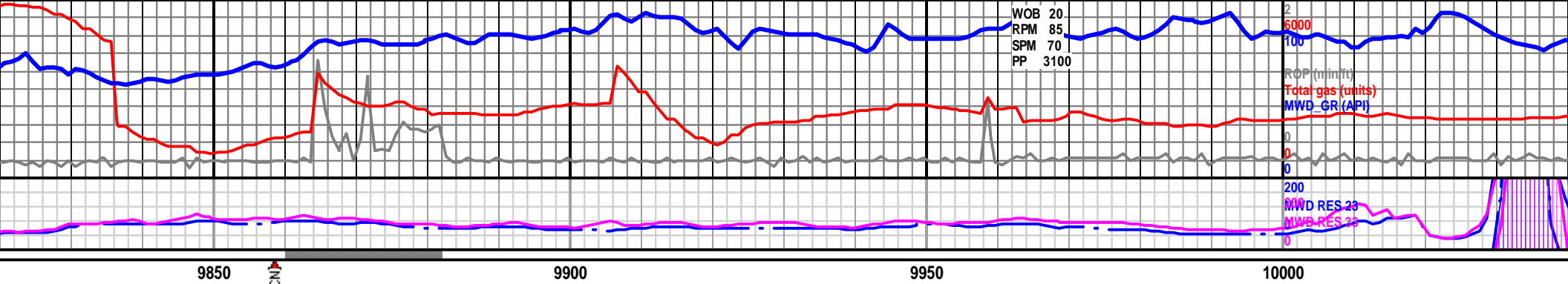
CHALK (90%) ltgy-gybrn, mod sft, sbbiky, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flr, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (10%) dkgy-gy, mod sft-mod frm, sbbiky, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd.

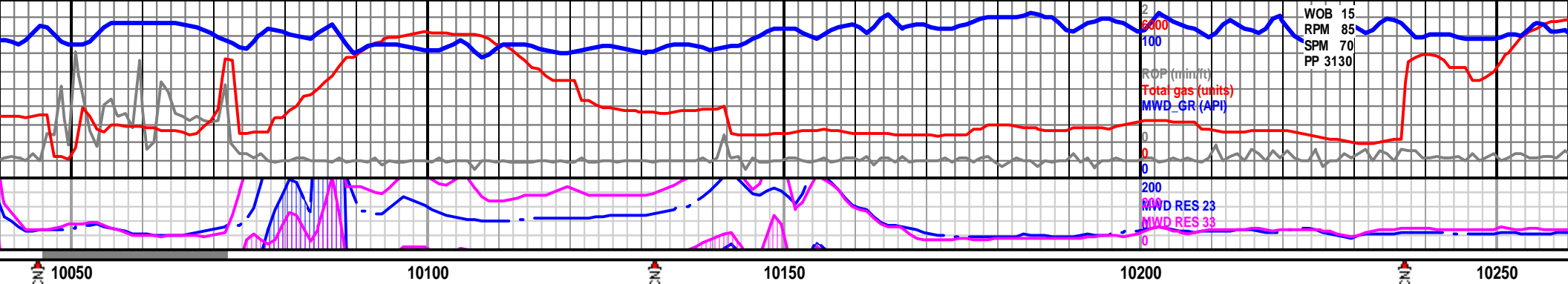
CHALK (95%) ltgy-gybrn, mod sft, sbbiky, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flr, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (5%) dkgy-gy, mod sft-mod frm, sbbiky, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd.



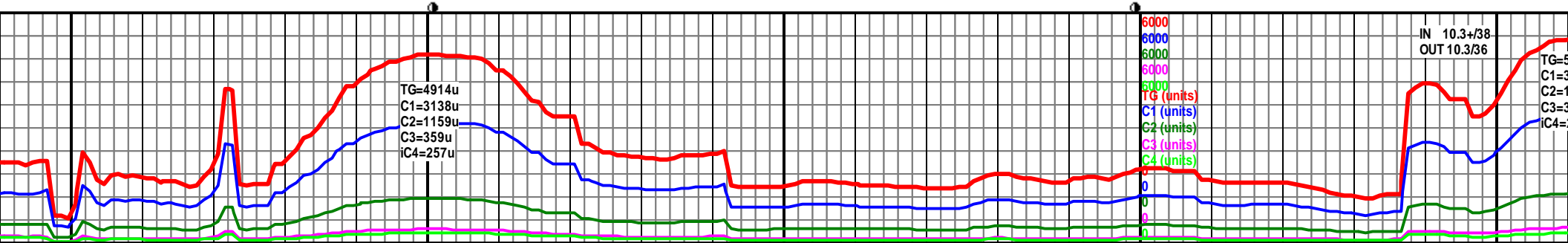


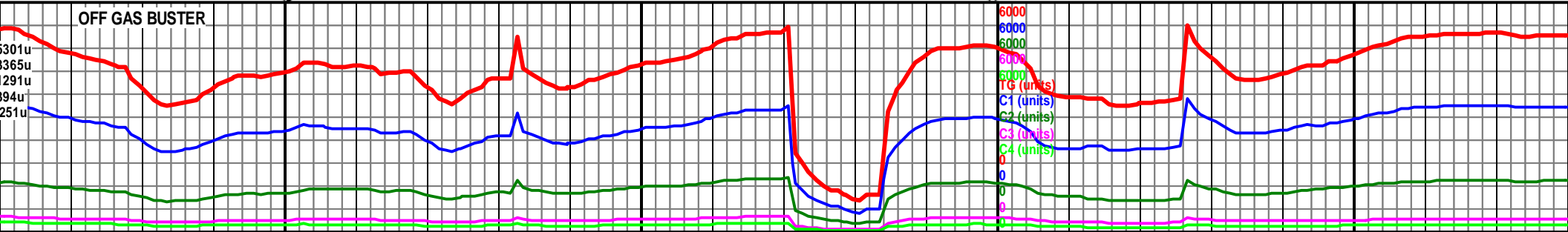
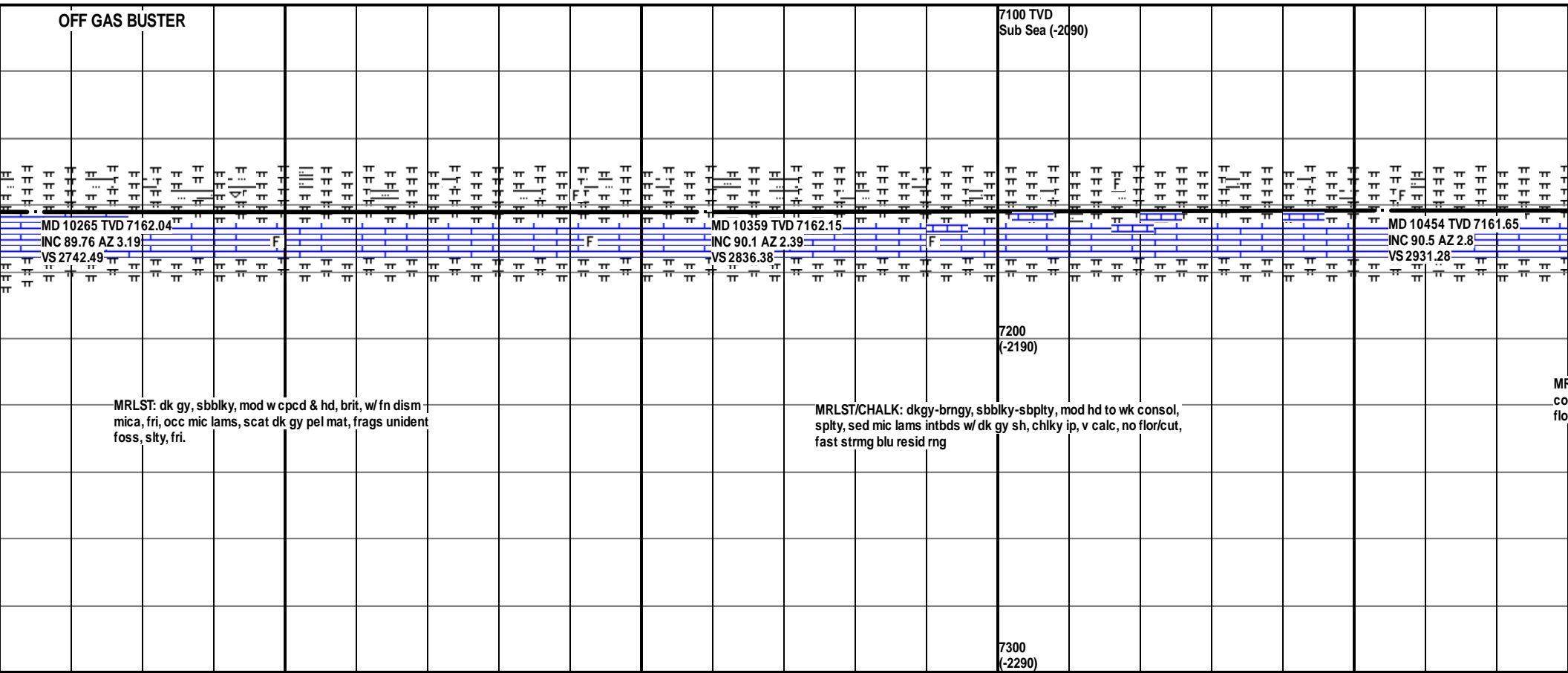
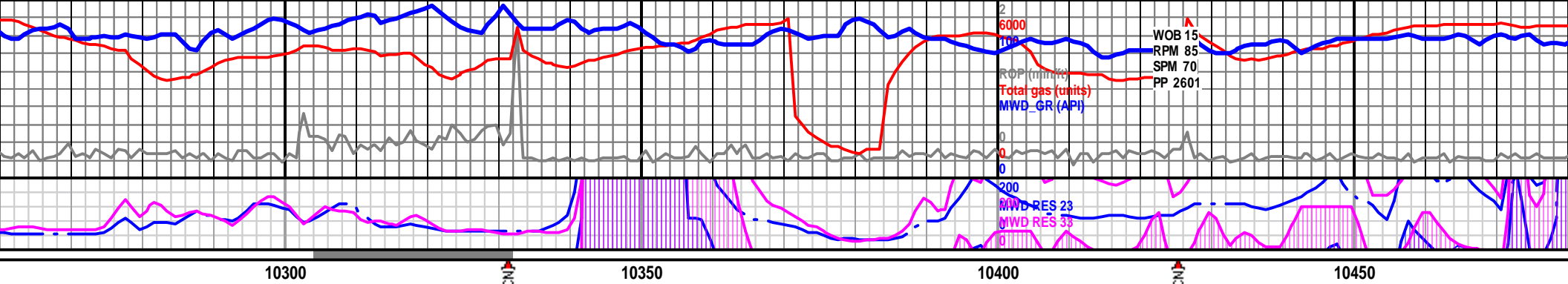


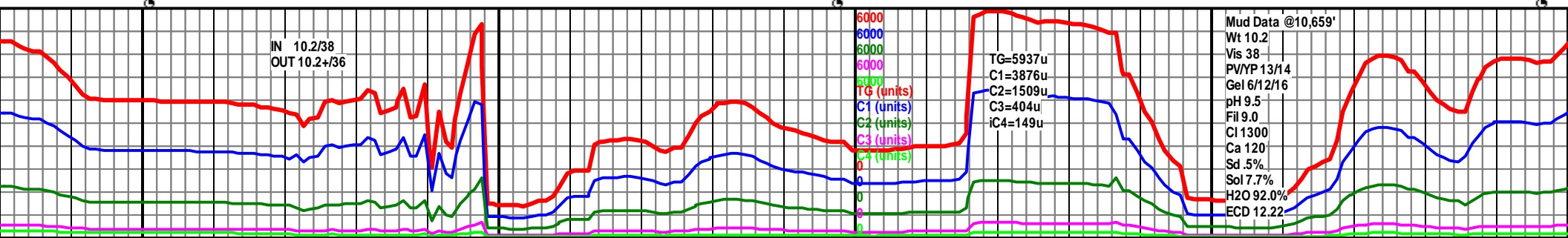
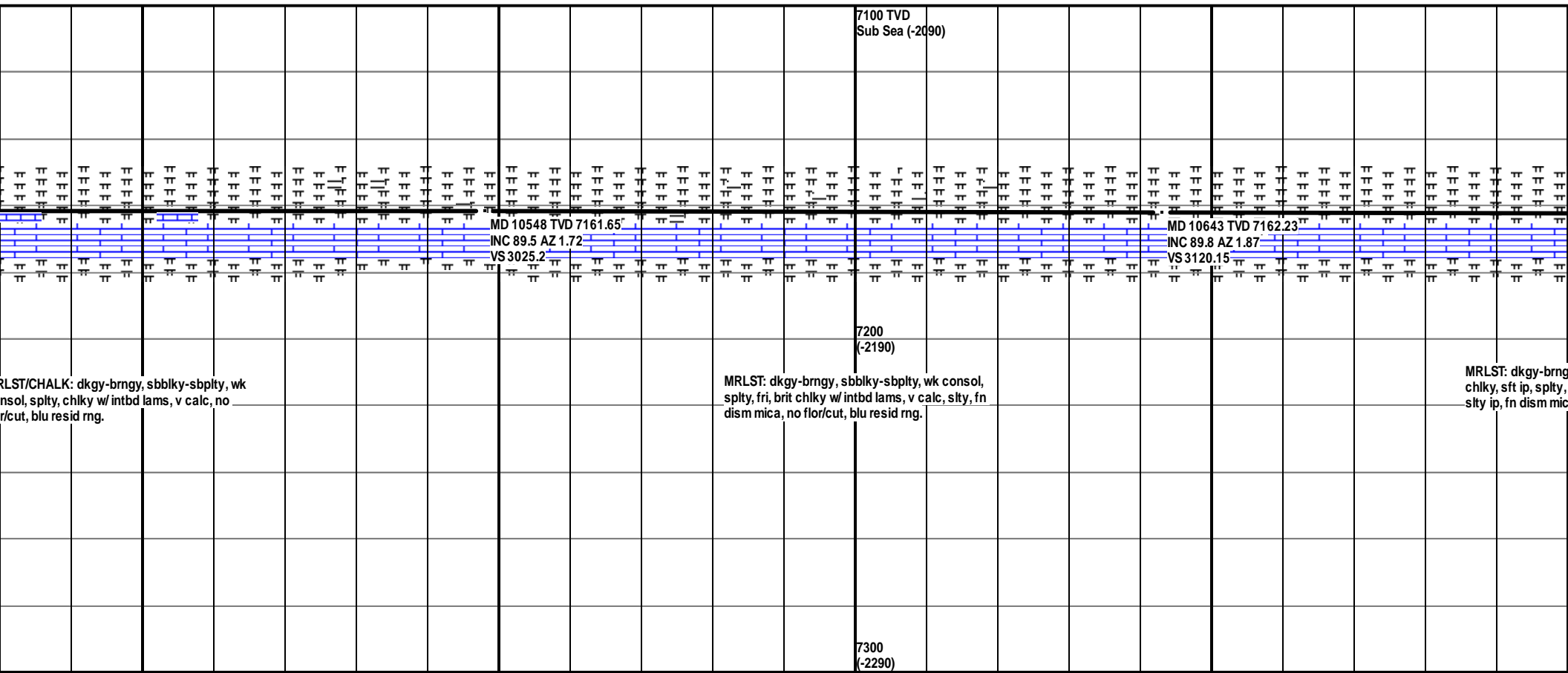
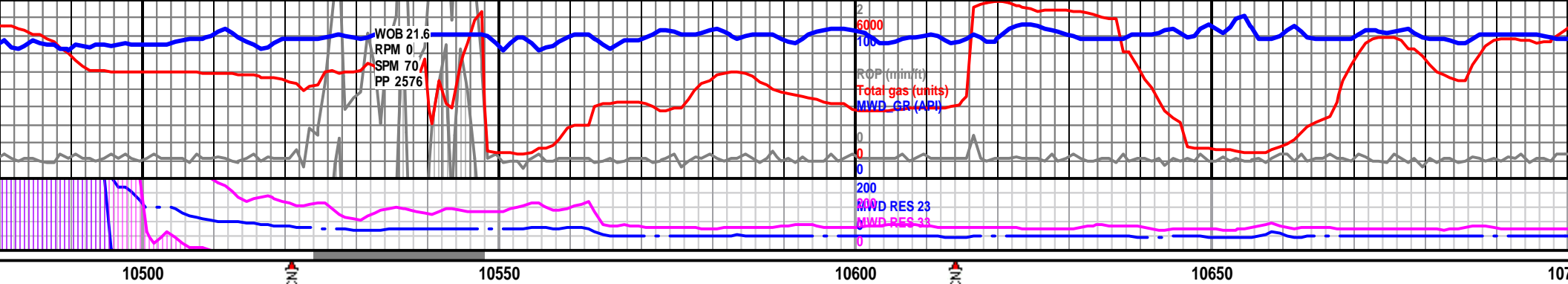


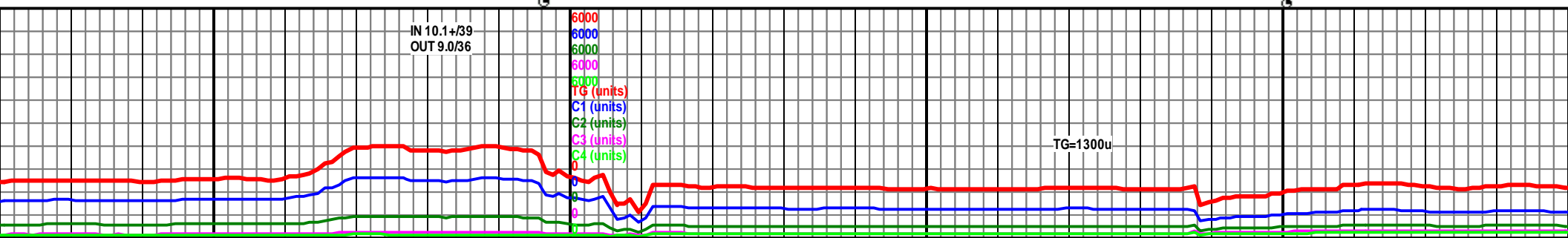
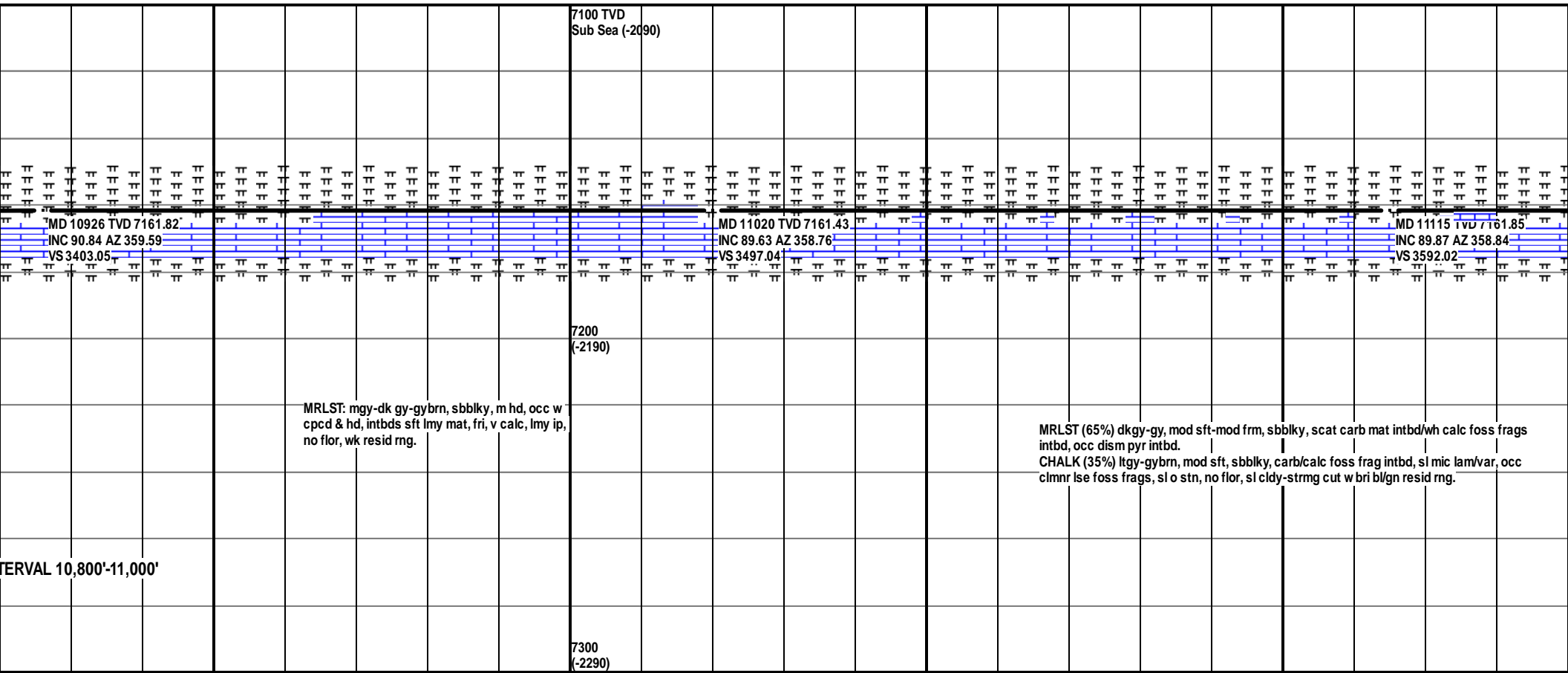
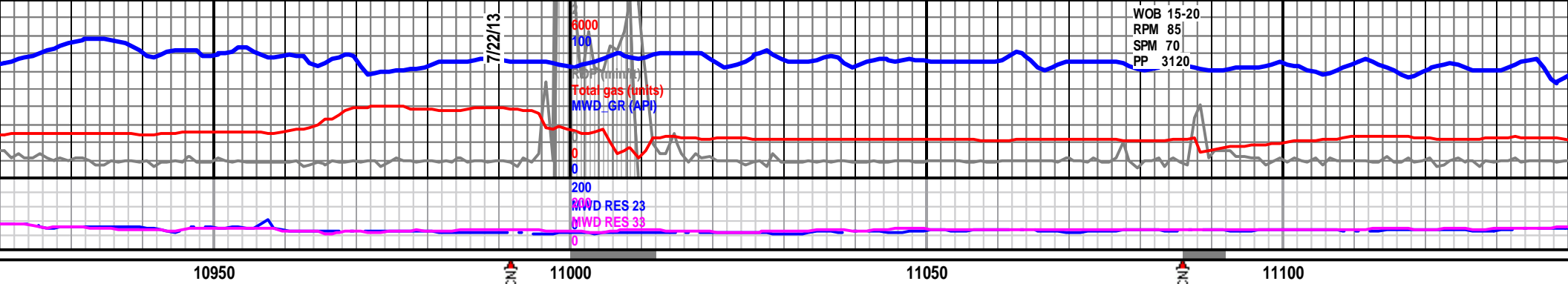


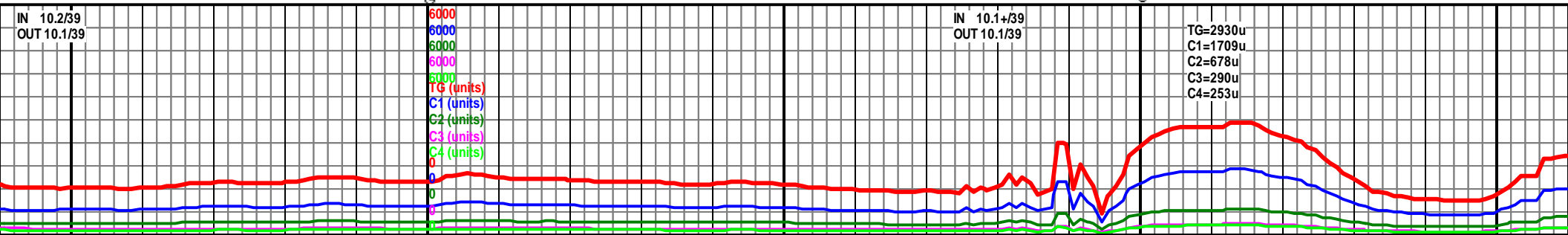
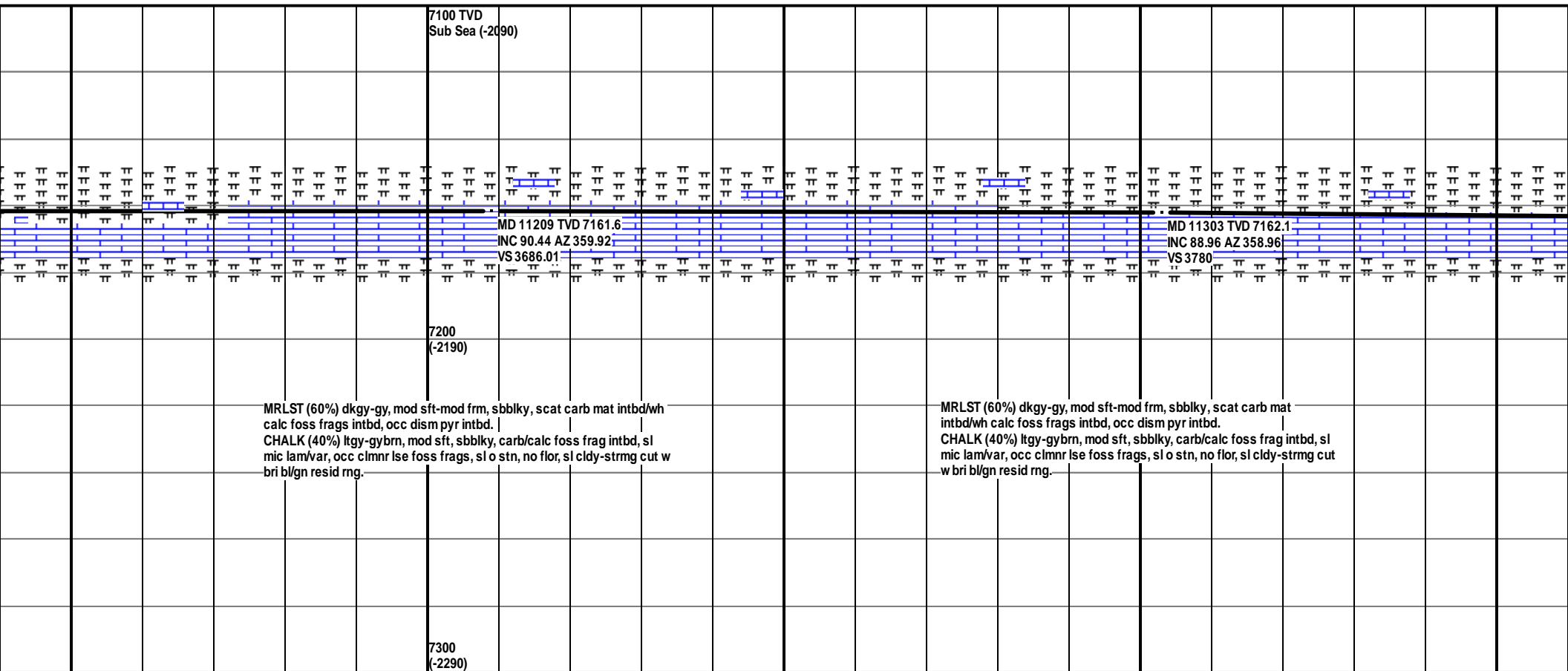
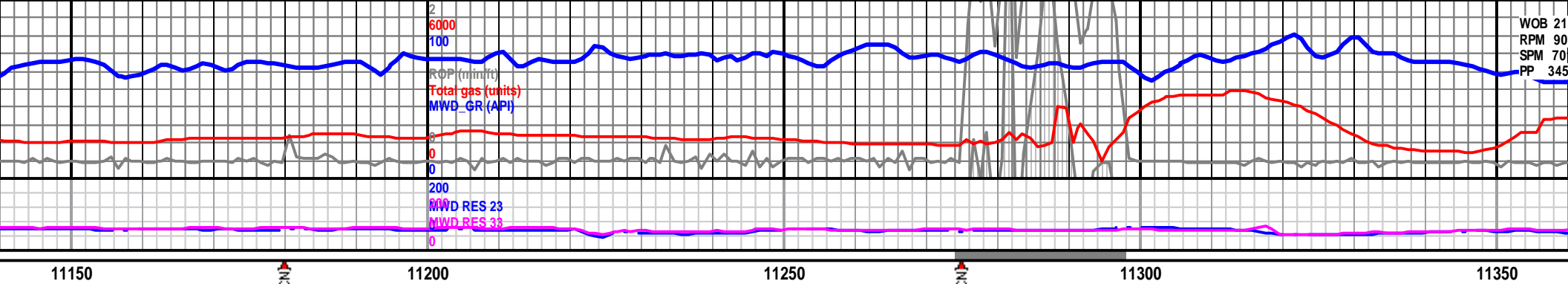
NO FLARE										7100 TVD Sub Sea (-2090)									
MD 10076 TVD 7159.77 INC 89.09 AZ 1.66 VS 2553.64										MD 10170 TVD 7161.17 INC 89.19 AZ 1.76 VS 2647.58									
CHALK (50%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flr, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (50%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd.										MRLST (60%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd. CHALK (40%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flr, sl cldy-strmg cut w bri bl/gn resid rng.									
										7200 (-2190)									
										7300 (-2290)									

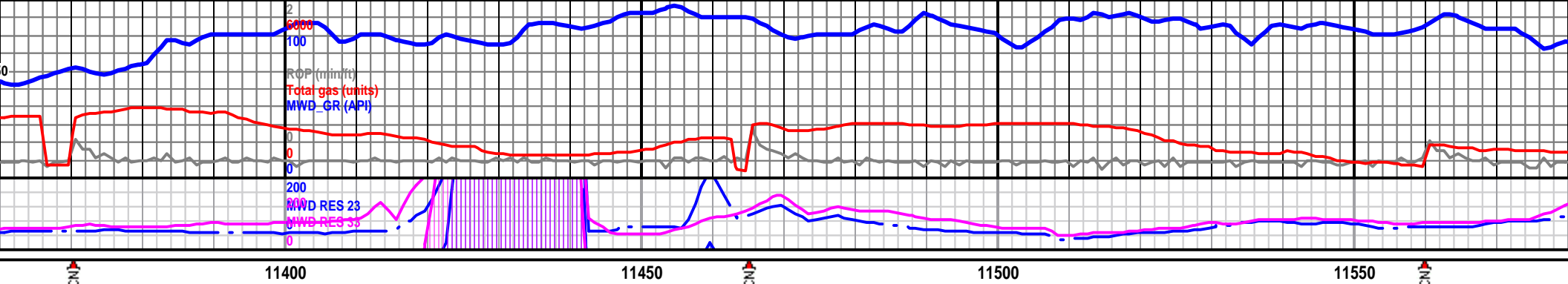












7100 TVD Sub Sea (-2090)									
MD 11398 TVD 7163.66 INC 89.16 AZ 358.37 VS 3874.96									
7200 (-2190)									
CHALK (65%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flor, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (35%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd.									
MD 11492 TVD 7164.68 INC 89.6 AZ 359.15 VS 3968.93									
7300 (-2290)									
CHALK (50%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flor, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (50%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd.									
CHALK (65%) ltgy-gybrn, mod sft, sbbkly, carb/calc foss frag intbd, sl mic lam/var, occ clmnr lse foss frags, sl o stn, no flor, sl cldy-strmg cut w bri bl/gn resid rng. MRLST (65%) dkgy-gy, mod sft-mod frm, sbbkly, scat carb mat intbd/wh calc foss frags intbd, occ dism pyr intbd.									

