

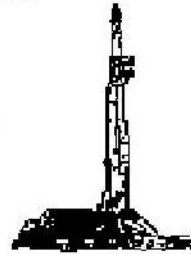
GOOLSBY BROTHERS
and associates, inc.

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: NRC 4N-8HZ

Well Id:

Location: Sec. 8 T1N R67W Weld County, CO.

License Number: API:051233841200 AFE: 2085770

Region: Wattenberg

Spud Date: February 20th, 2014

Drilling Completed: February 26, 2014

Surface Coordinates: 350' FSL, 660' FWL

Lat. 40.059341, Lon. -104.921589, Sec.8, T1NR67W

Bottom Hole 460' FNL, 685' FWL

Coordinates: Lat. 40.07132787, Lon. -104.922512, Sec.8, T1NR67W

Ground Elevation (ft): 5049'

K.B. Elevation (ft): 5066'

Logged Interval (ft): 6800

To: 12553

Total Depth (ft): 12553

Formation: Niobrara 'B'

Type of Drilling Fluid: LSND (Polymer-Water)

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

OPERATOR

Company: Anadarko Petroleum Corporation

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

Denver, CO 80202

CO Geologist, Tom Birmingham.

GEOLOGIST

Name: Hank McCroskey, George Bejan

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

Address: 575 Union Blvd.

Suite 208,

Lakewood CO. 80228

E-logs

MWD Gamma

Casing

9 5/8" Surface Casing (IPSCO 36# J55) set @ 1,243'.
7" Intermediate Casing (IPSCO 26# P110) set @ 7911'.
4 1/2" Production Liner set @ 12542'

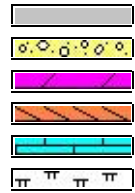
Comments

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: Richard Norton, Christopher Beckstead

ROCK TYPES



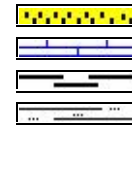
Anhy
Bent
Brec
Cht
Clyst
Coal



Oil sat.
Congl
Dol
Gyp
Lmst
Mrlst



Salt
Shale
Shcol
Shgy
Ss
Sltst



Ss
Chalk
Carb sh
Slt 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
	Sltstrg
	Ssstrg

TEXTURE

	Boundst
	Chalky
	CryxIn
	Earthy
	FinexIn
	Grainst
	Lithogr
	MicroxIn
	Mudst
	Packst
	Wackest

OTHER SYMBOLS

OIL SHOWS

	Even
	Spotted
	Ques
	Dead
	Vspotty
	near even

POROSITY TYPE

	Earthy
	Fenest
	Fracture
	Inter
	Moldic
	Organic

	Pinpoint
	Vuggy

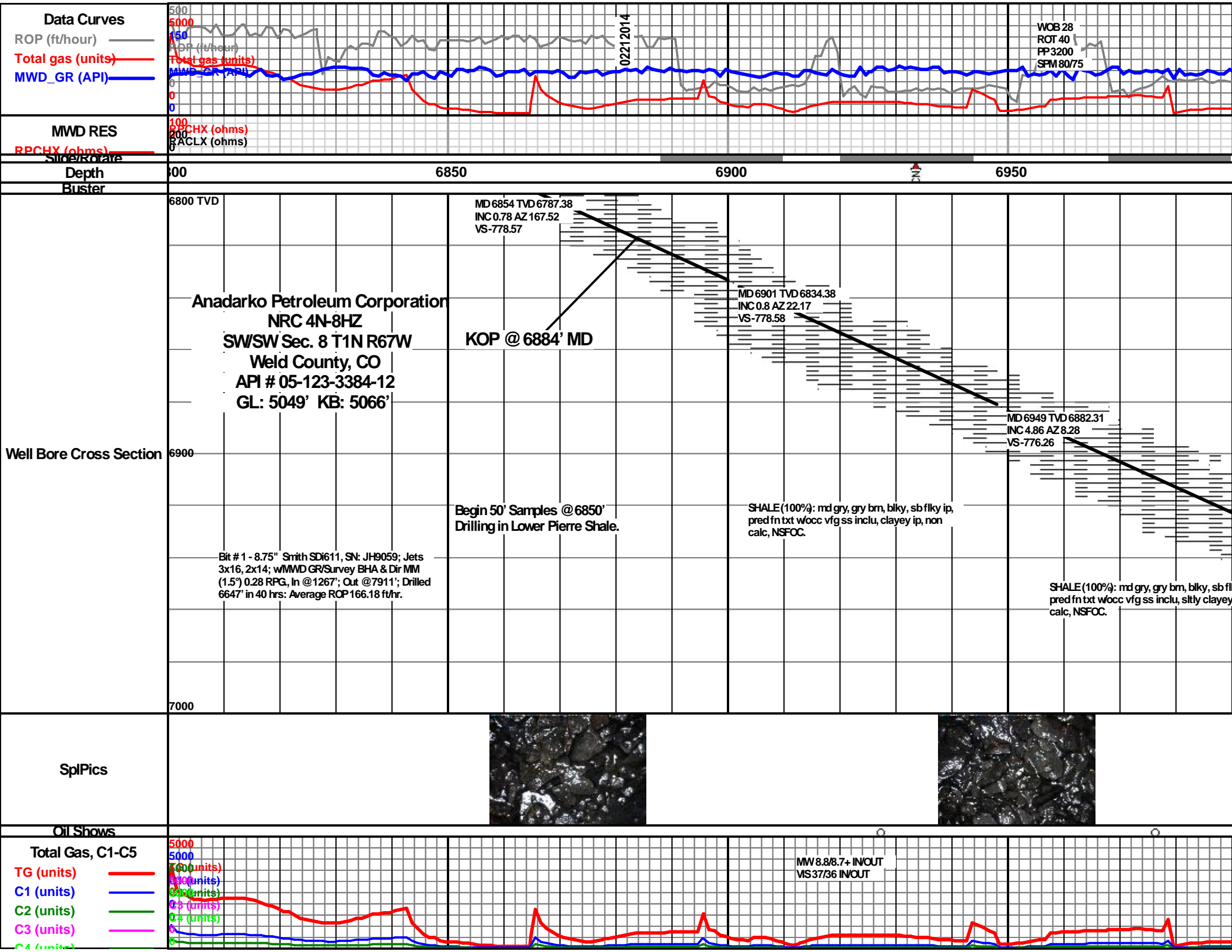
ROUNDING

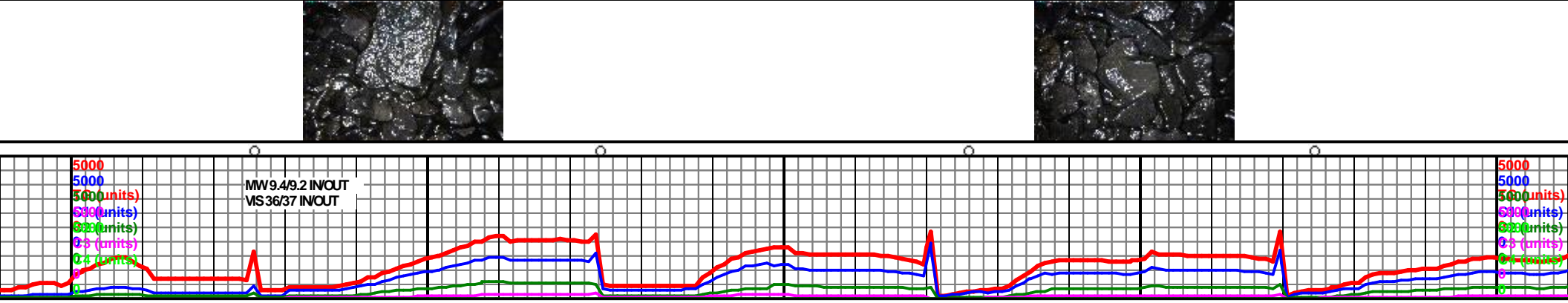
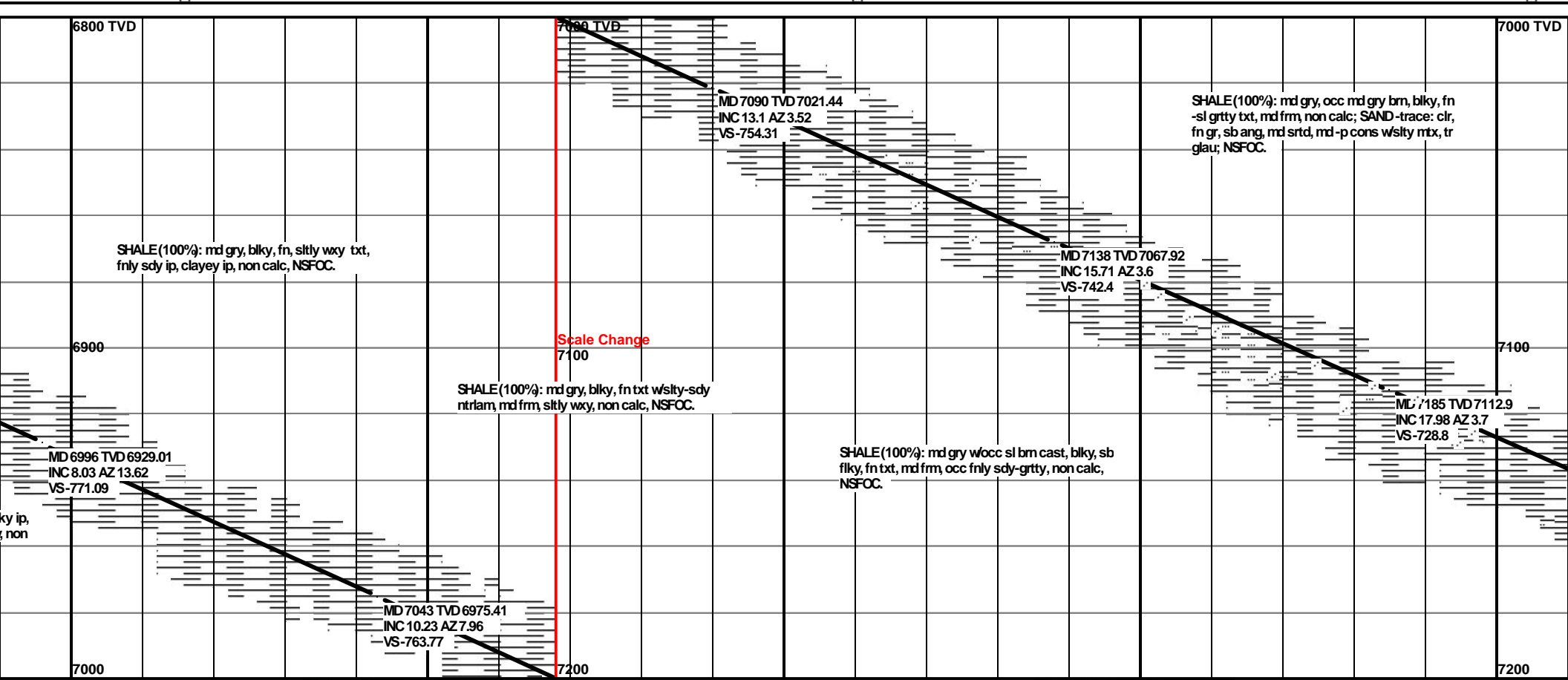
	Rounded
	Subrnd
	Subang

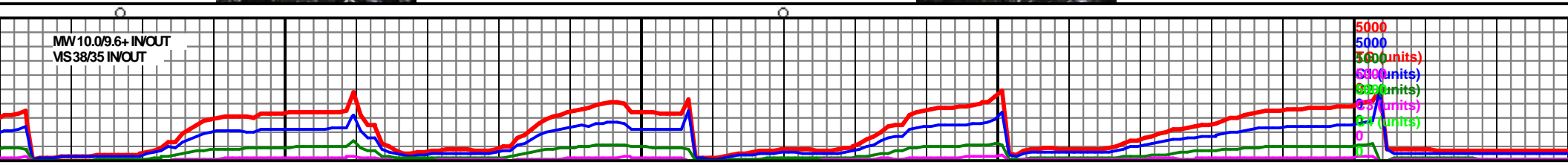
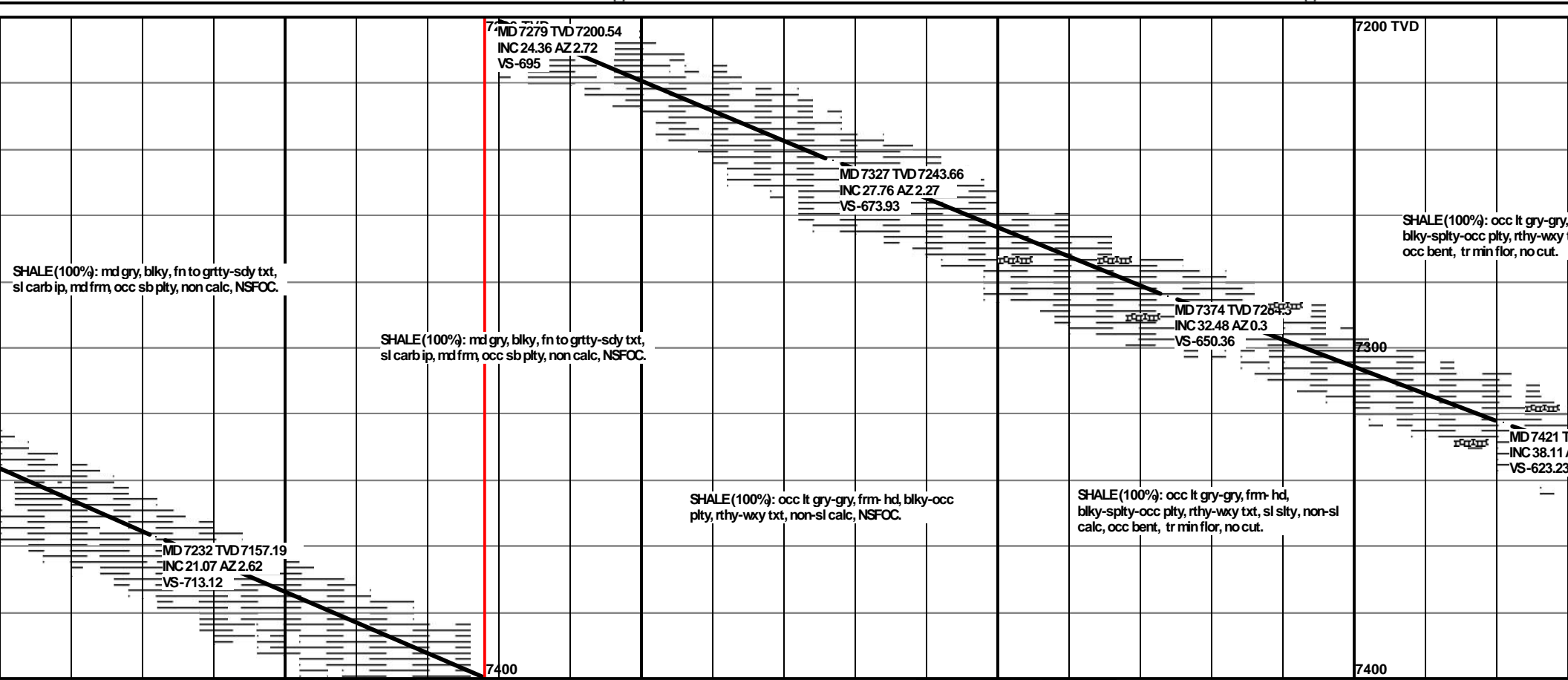
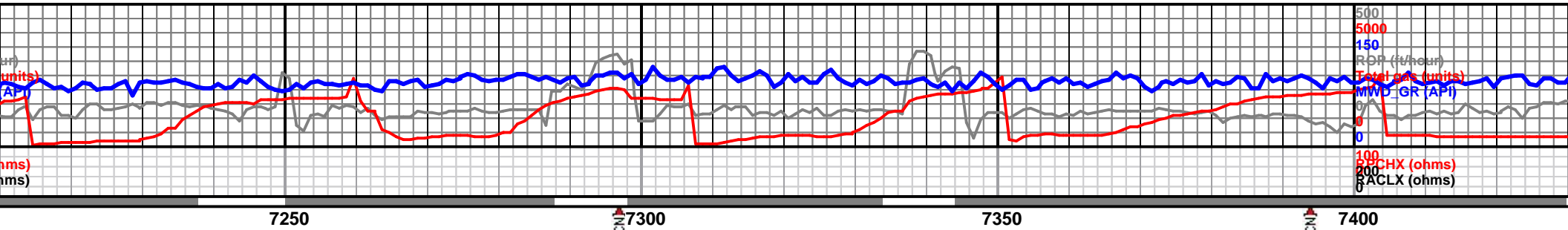
	Angular
--	---------

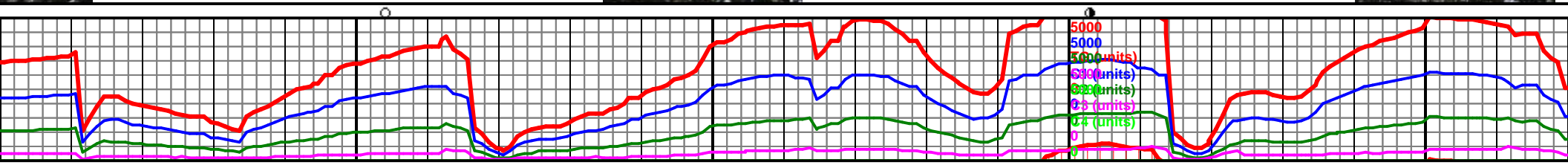
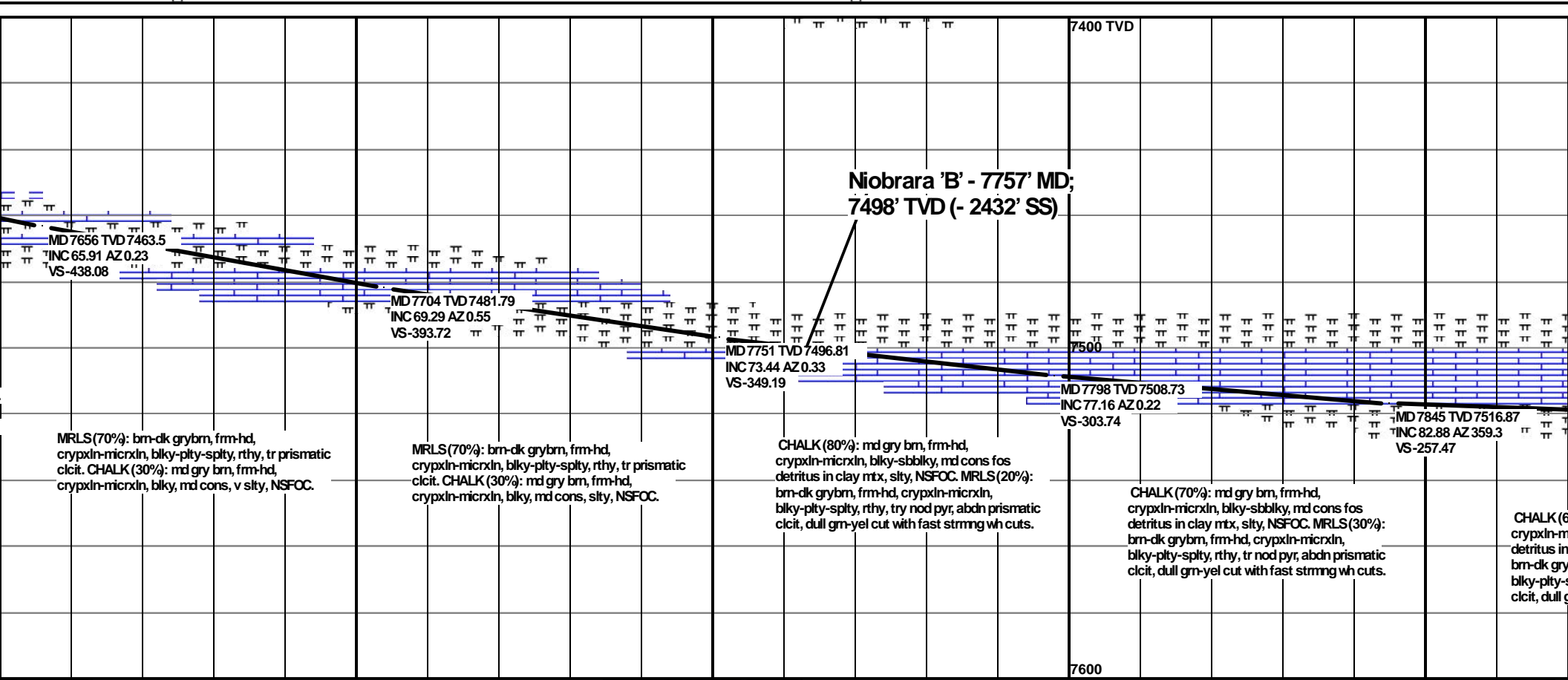
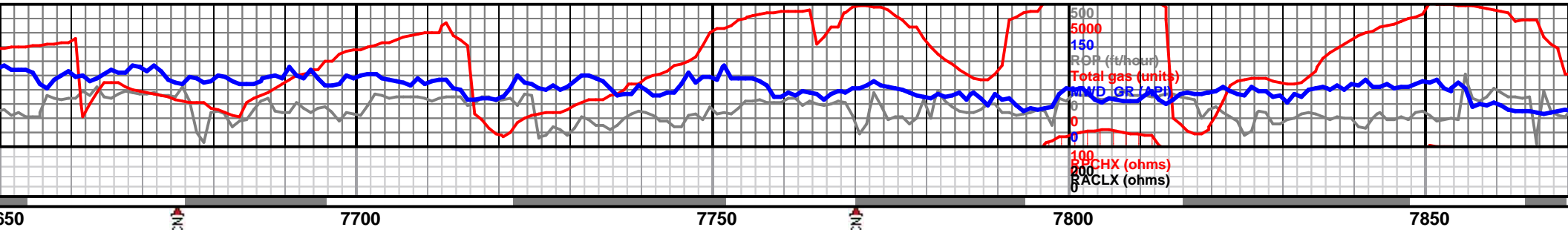
SORTING

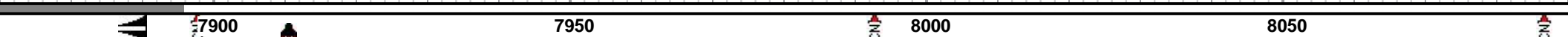
	Well
	Moderate
	Poor



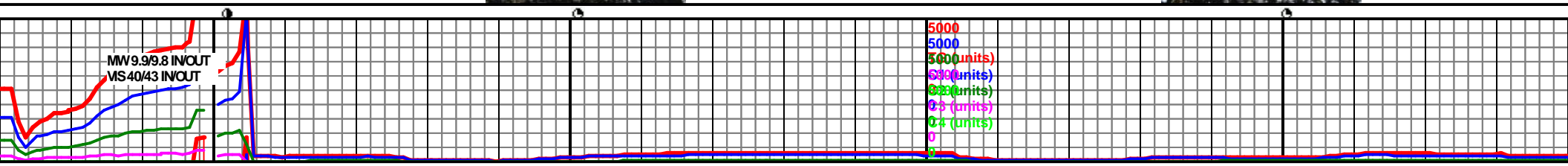


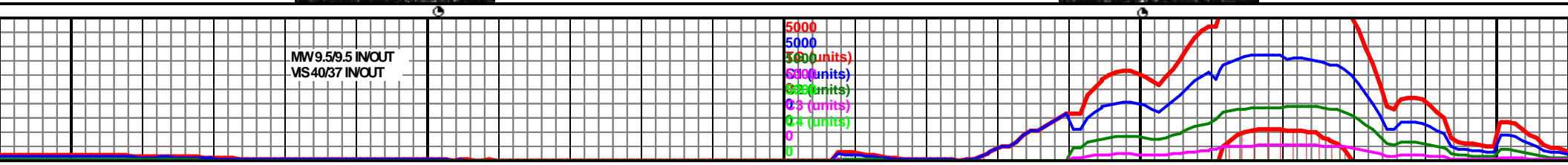
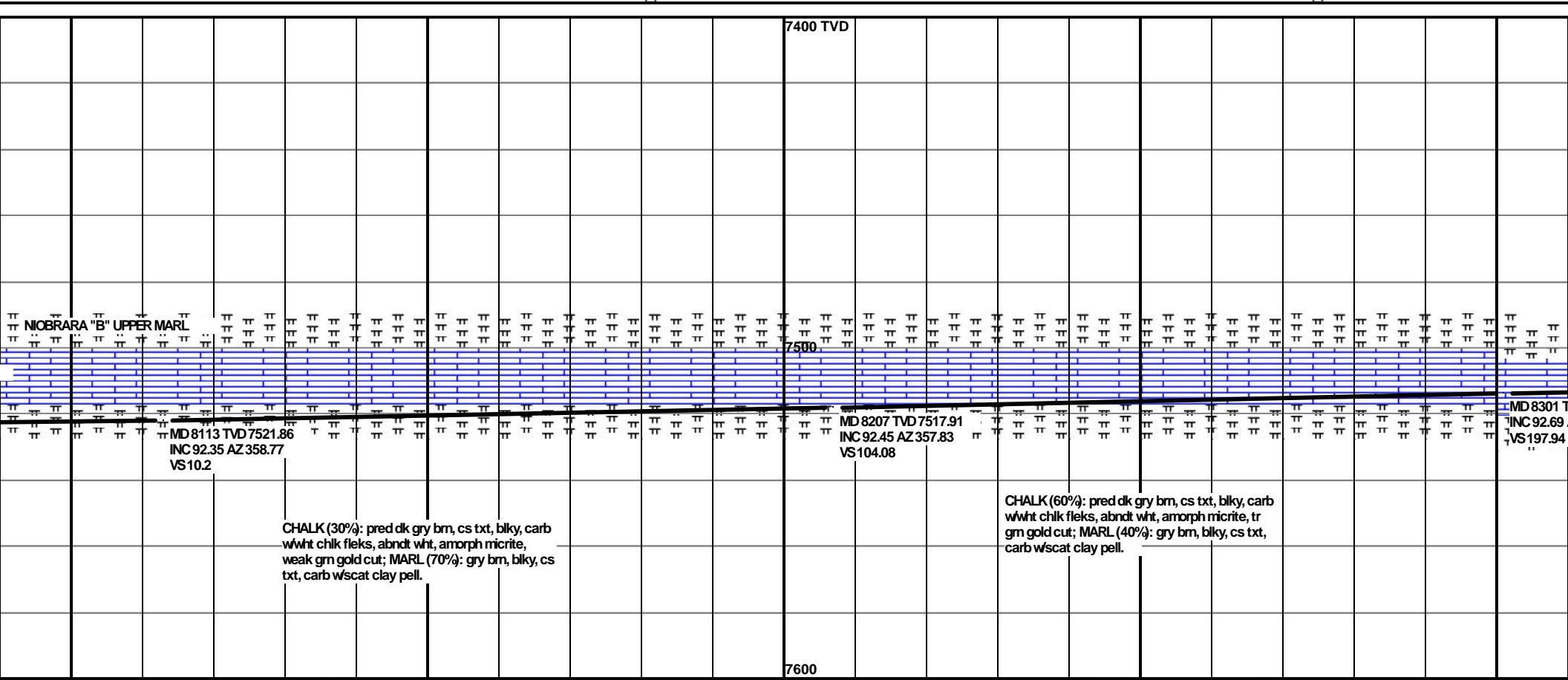
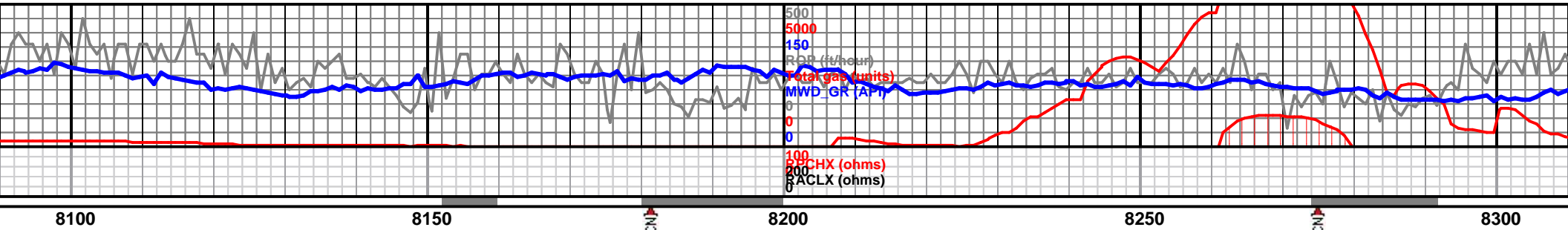


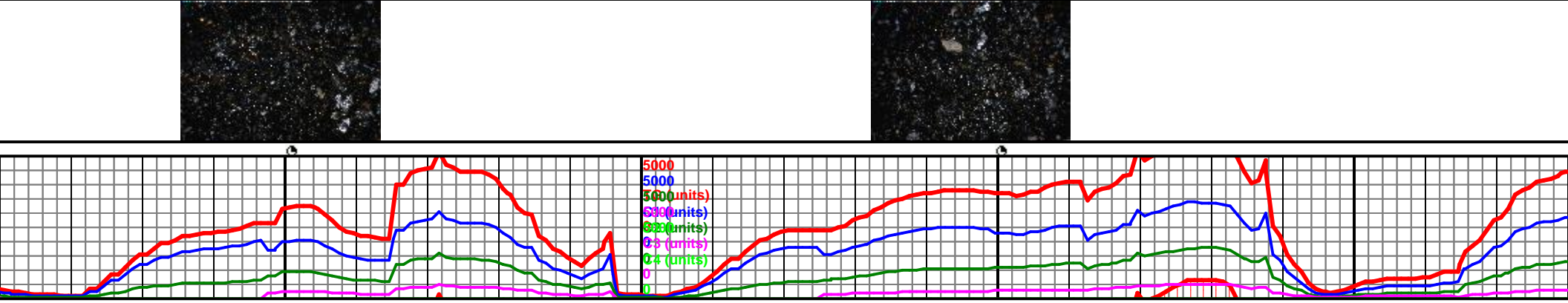
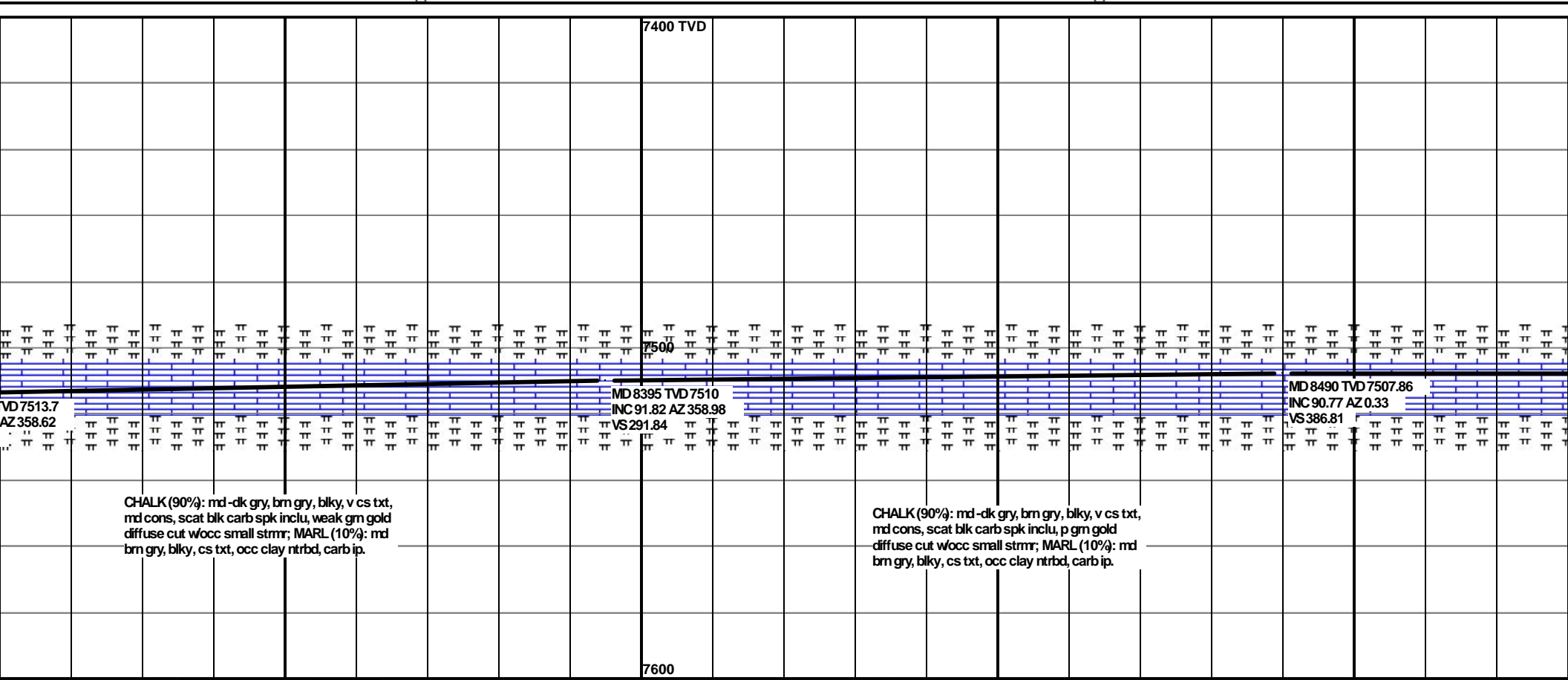
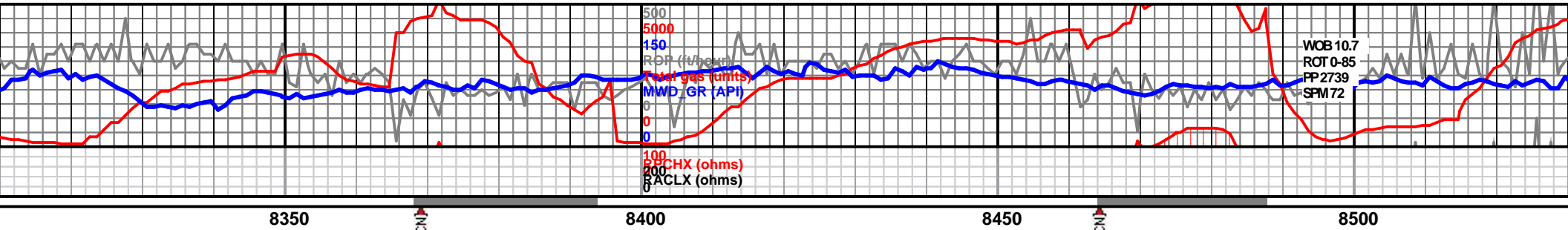


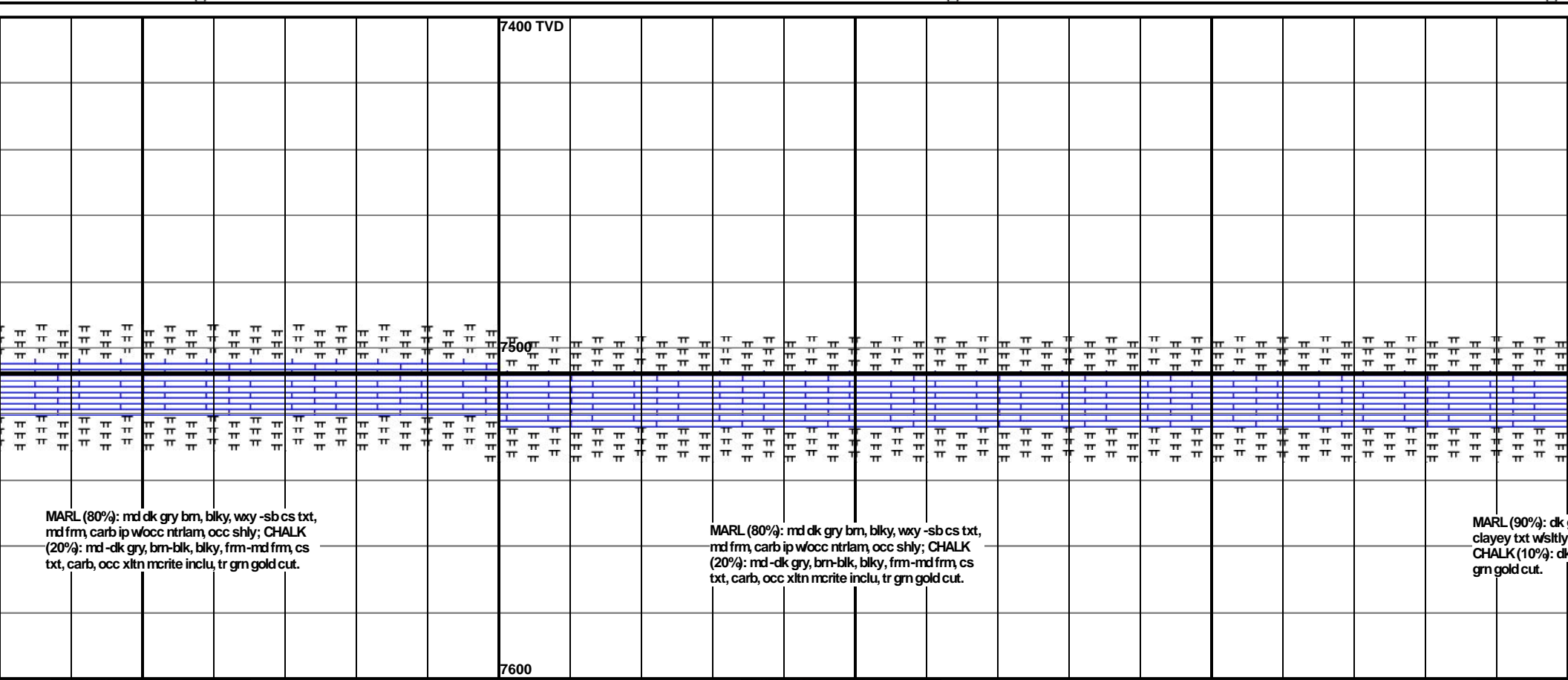
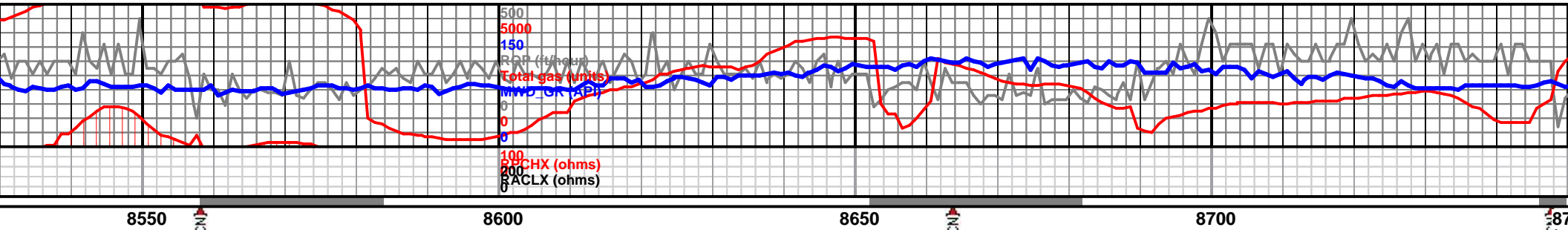


MRLS (60%): brn-dk grybrn, frm-hd, crypxln-micrxln, blkyl-plytly-splyt, rthy, v abdn prismatic clcitr. **CHALK (40%):** md gry brn, frm-hd, crypxln-micrxln, blkyl-sbbkly, md cons fos detritus in clay mtx, slty, NSFOC.





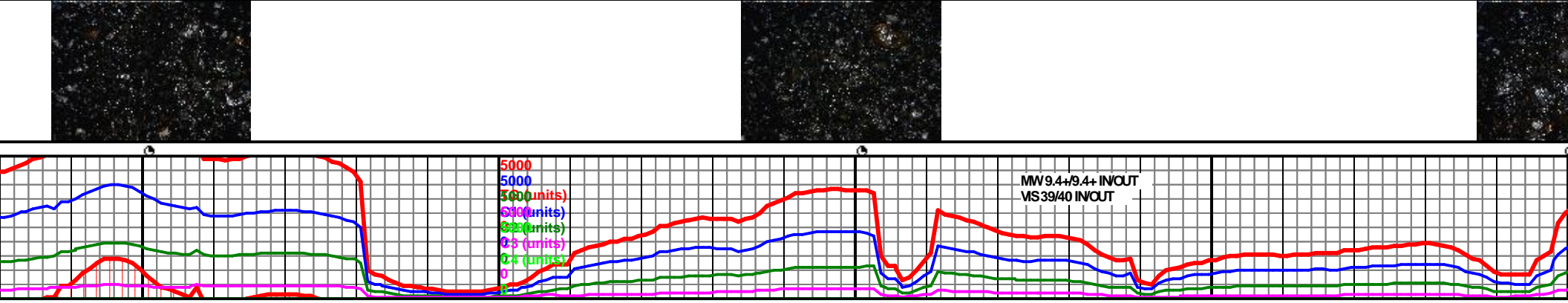


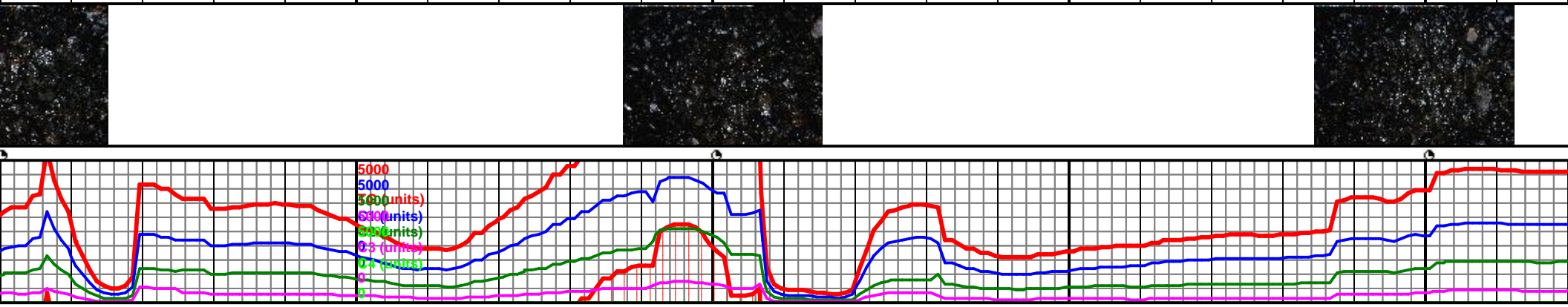
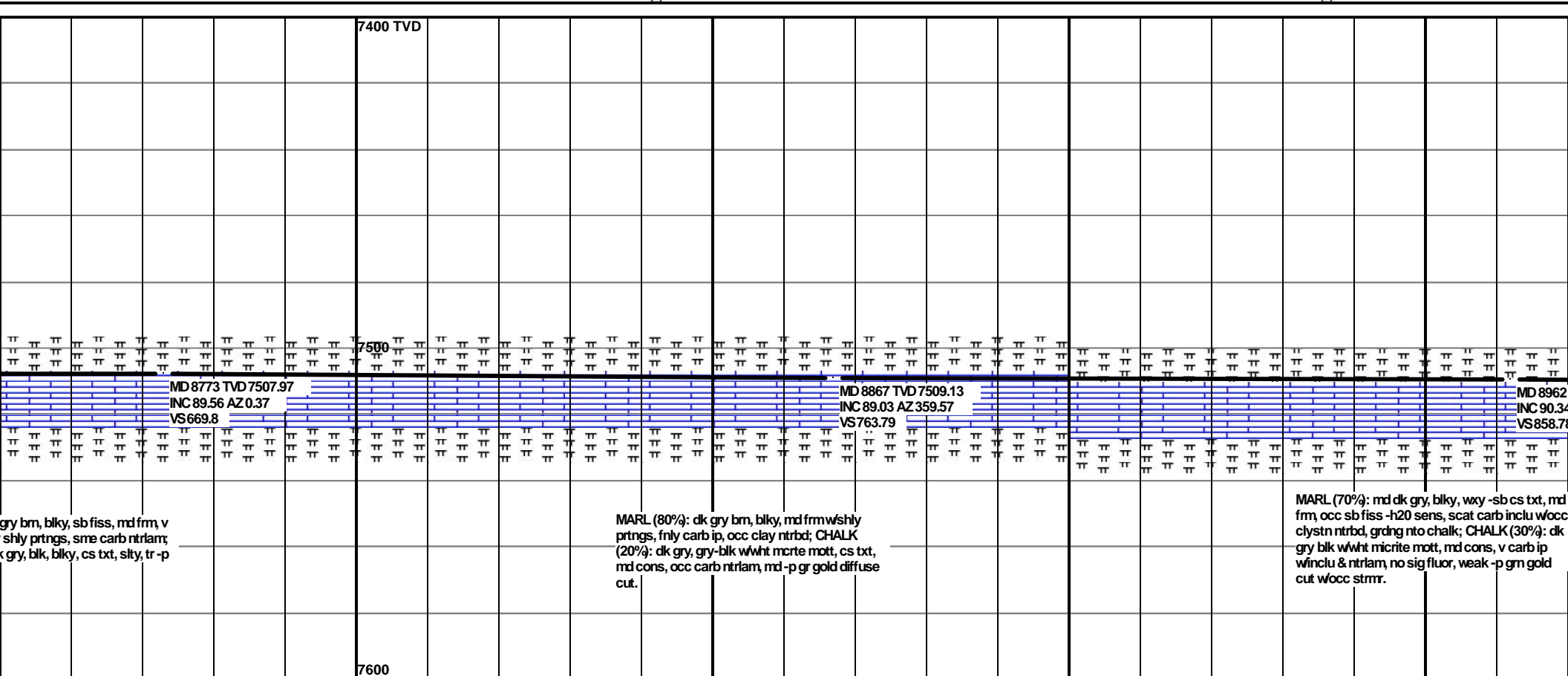


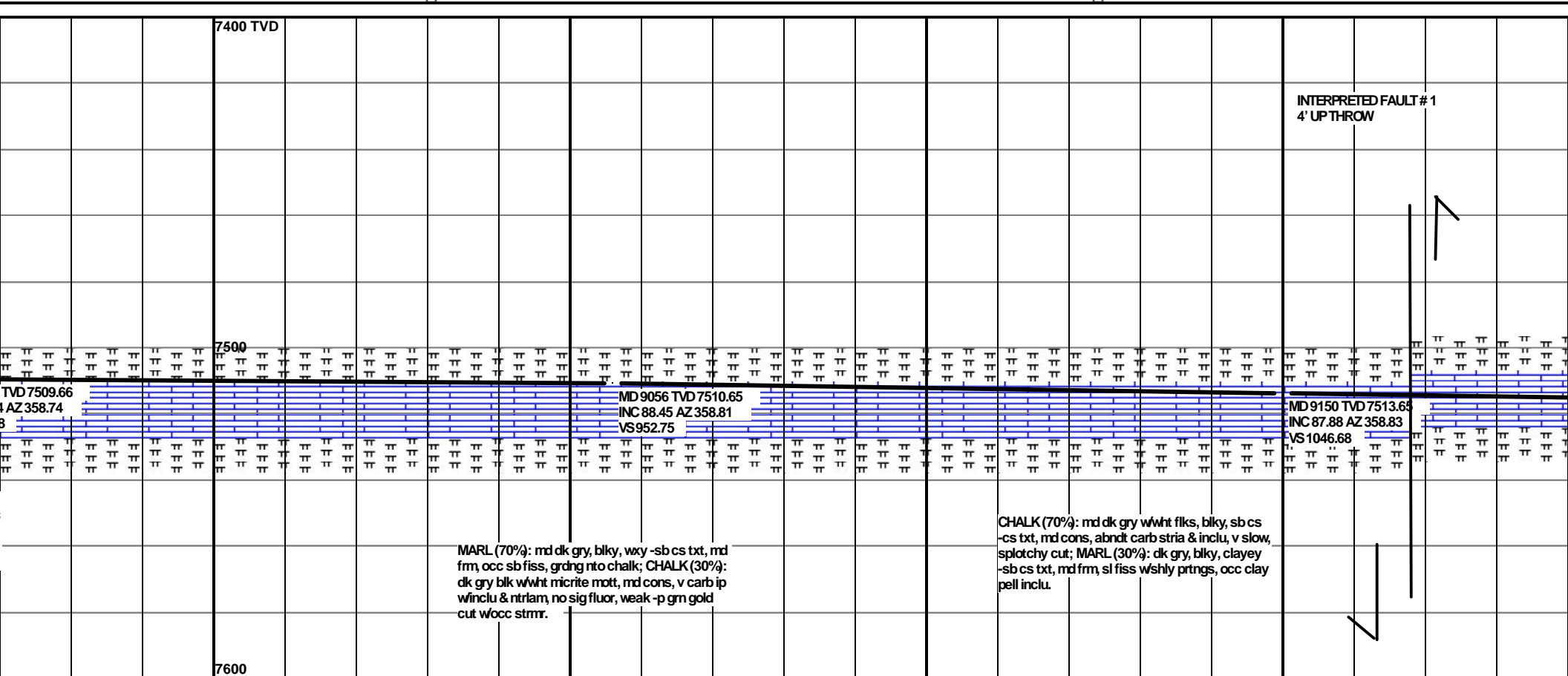
MARL (80%): md dk gry bm, blk, wxy -sb cs txt,
md frm, carb ip wocc ntrlam, occ shly; CHALK
(20%): md -dk gry, bm-blk, blk, frm-md frm, cs
txt, carb, occ xltm mcrite inclu, tr grn gold cut.

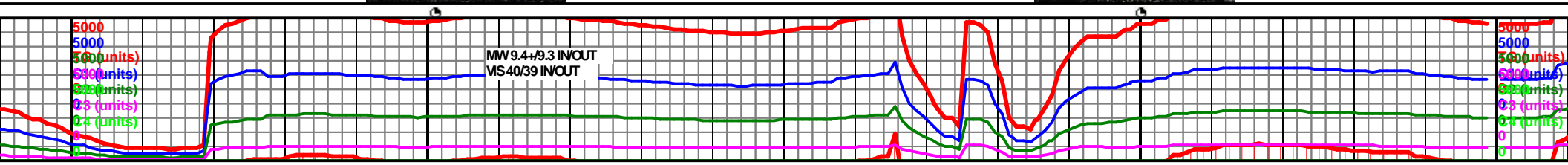
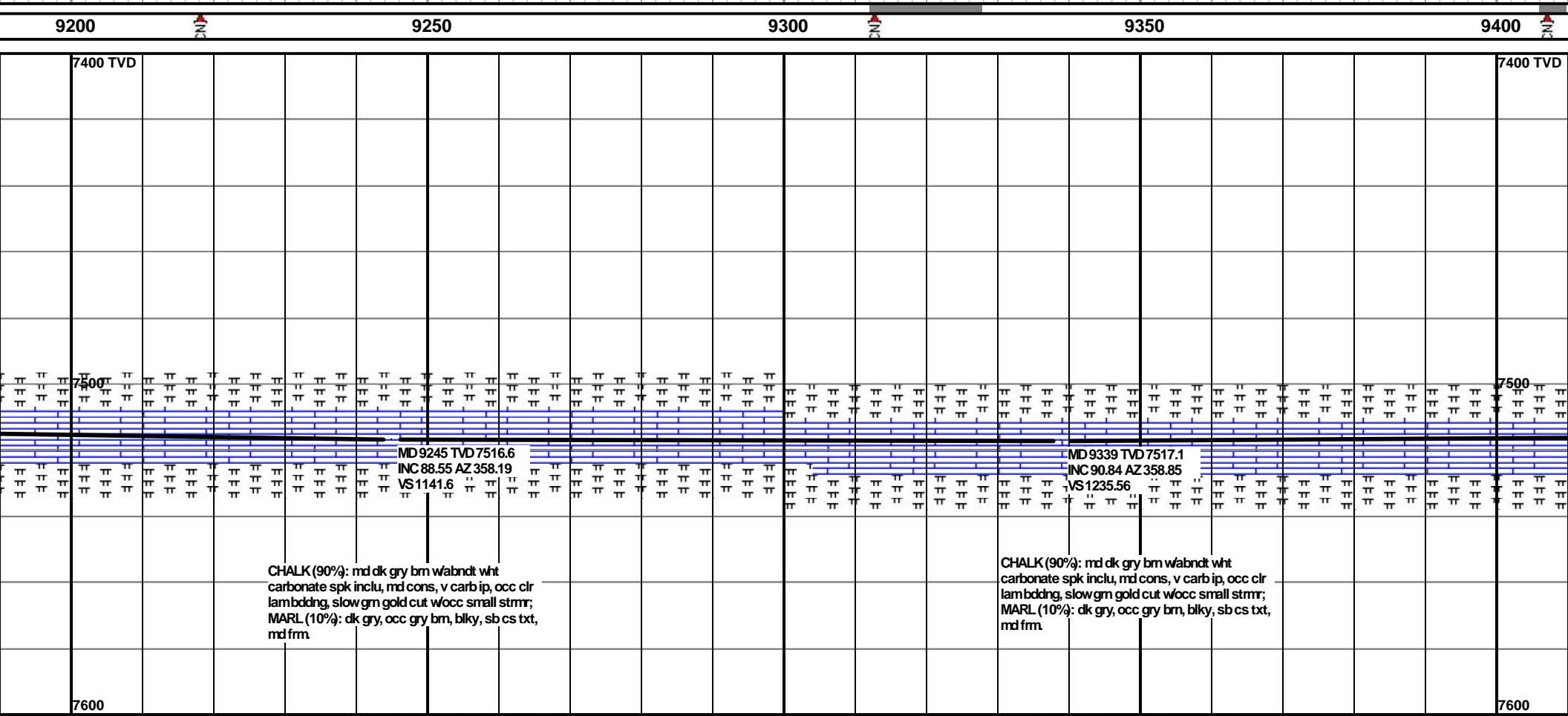
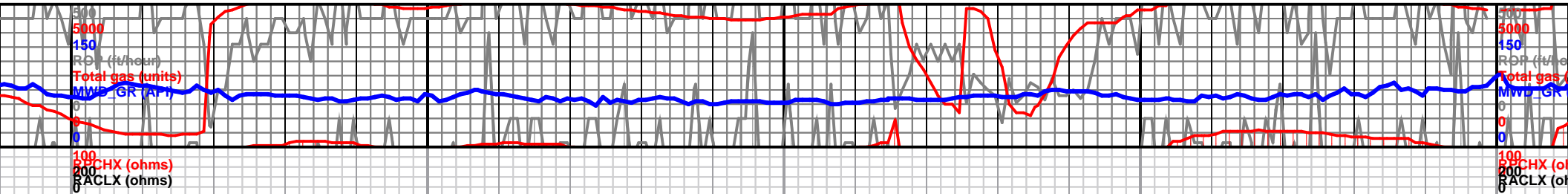
MARL (80%): md dk gry bm, blk, wxy -sb cs txt,
md frm, carb ip wocc ntrlam, occ shly; CHALK
(20%): md -dk gry, bm-blk, blk, frm-md frm, cs
txt, carb, occ xltm mcrite inclu, tr grn gold cut.

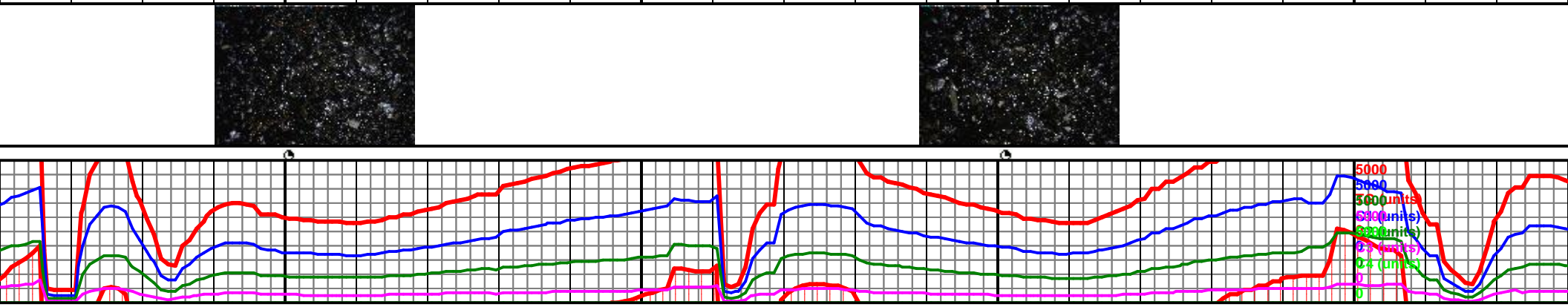
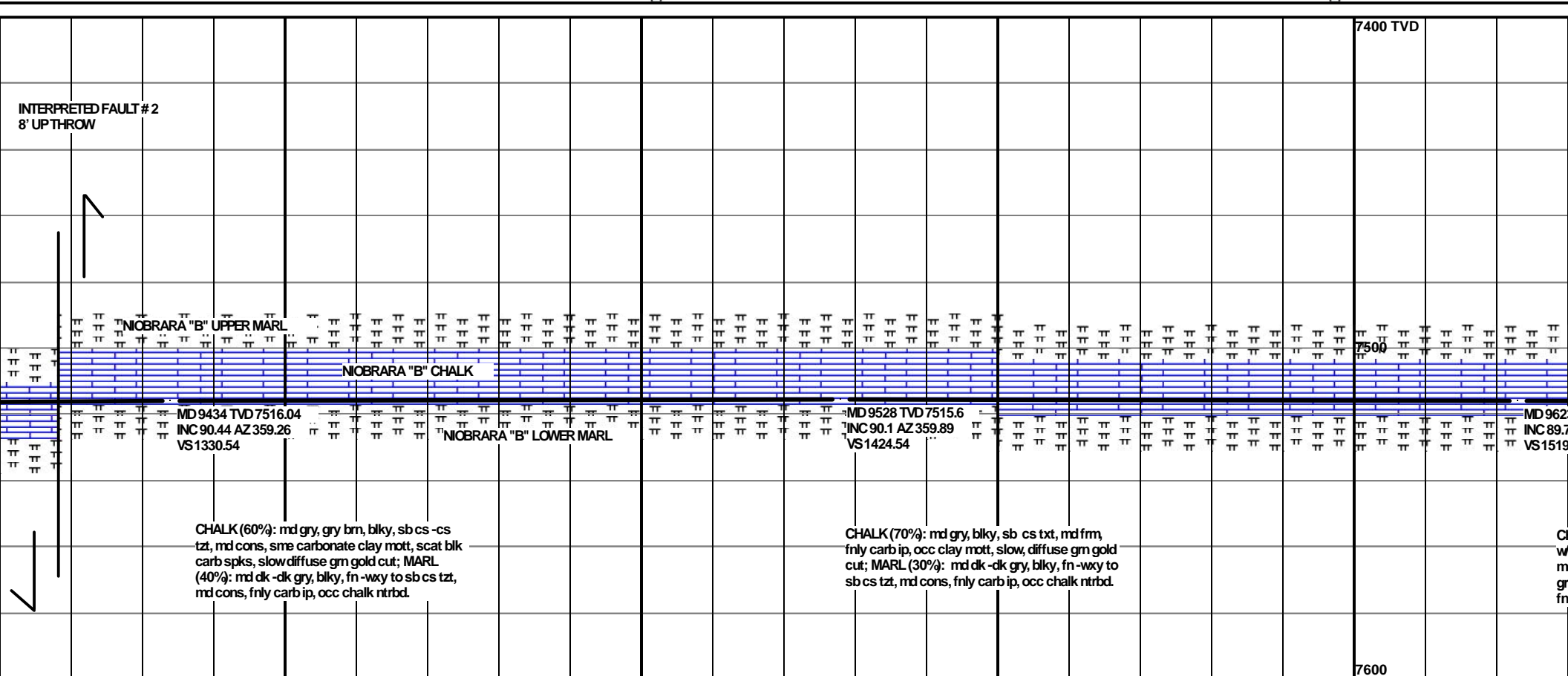
MARL (90%): dk
clayey txt wstly
CHALK (10%): dk
grn gold cut.

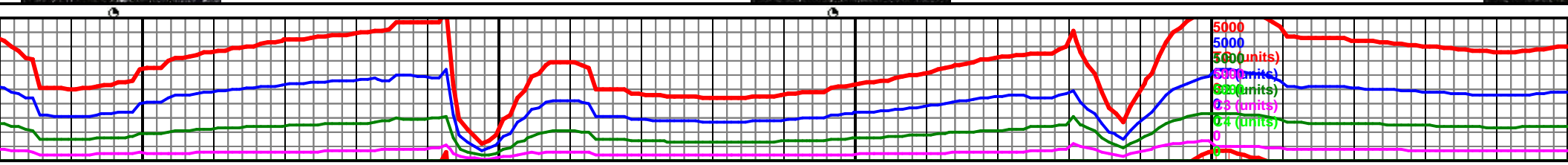
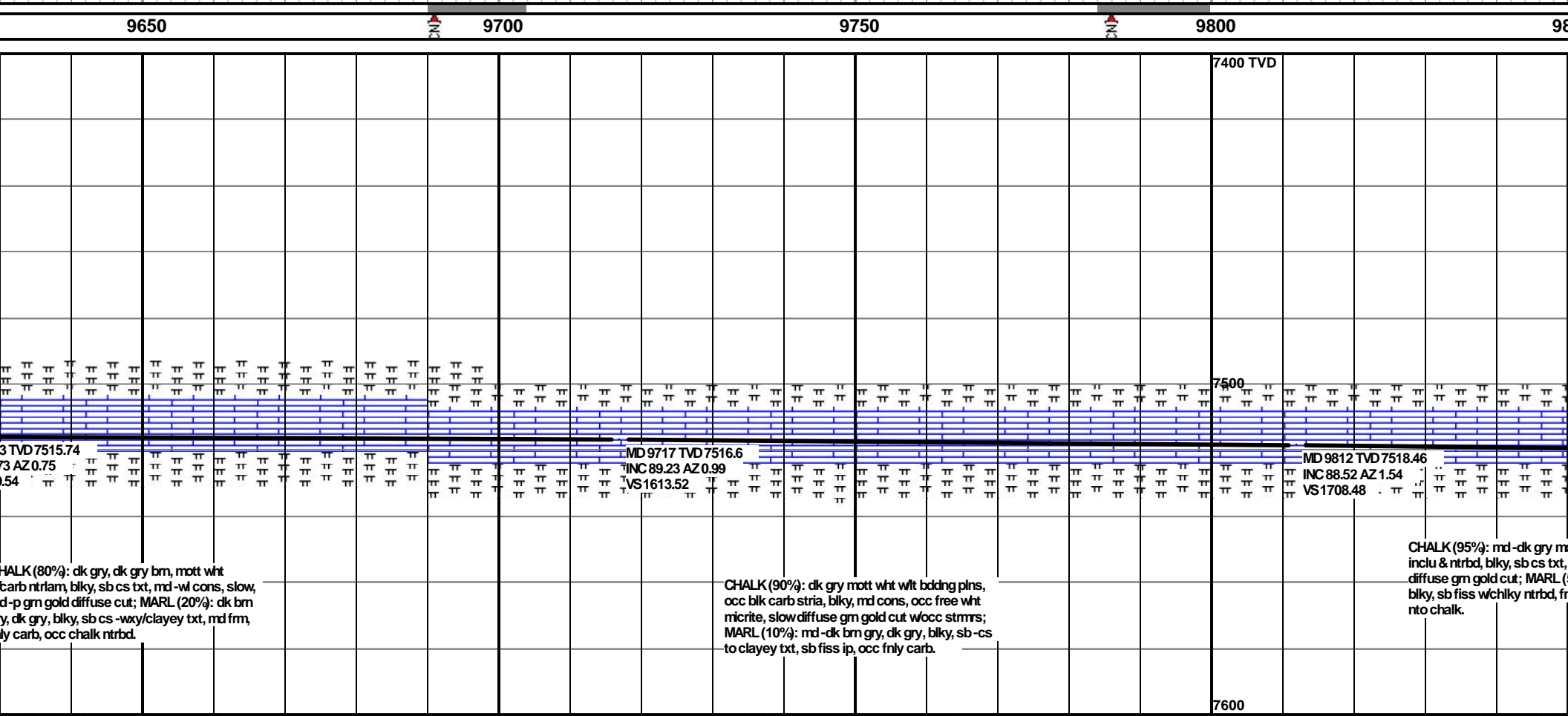
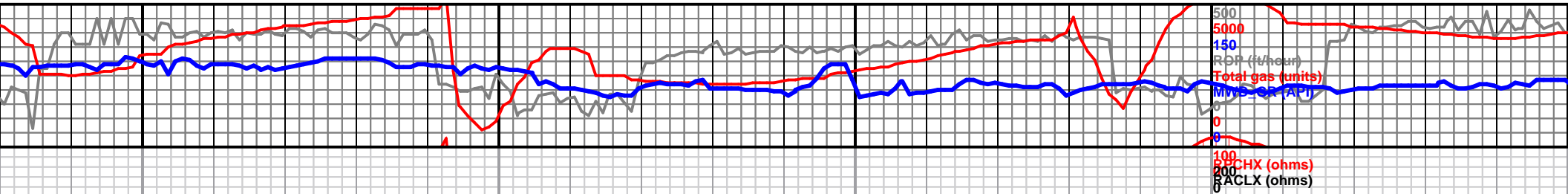


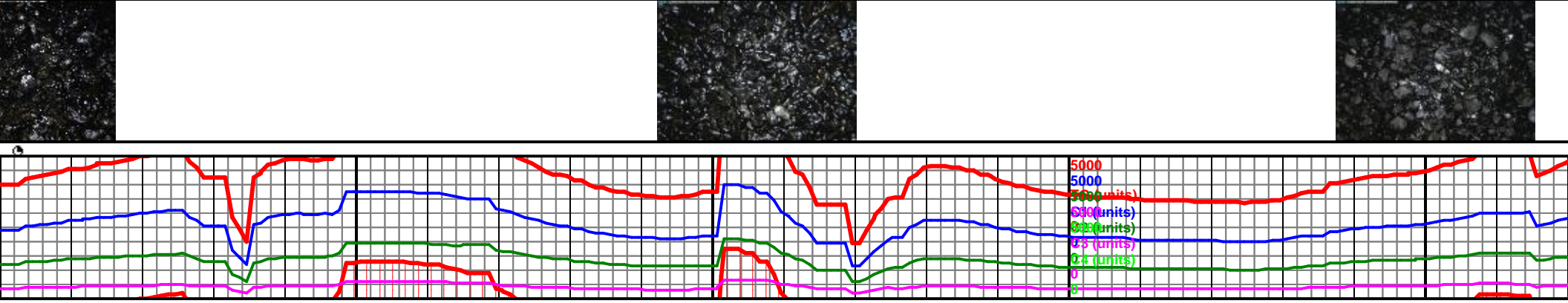
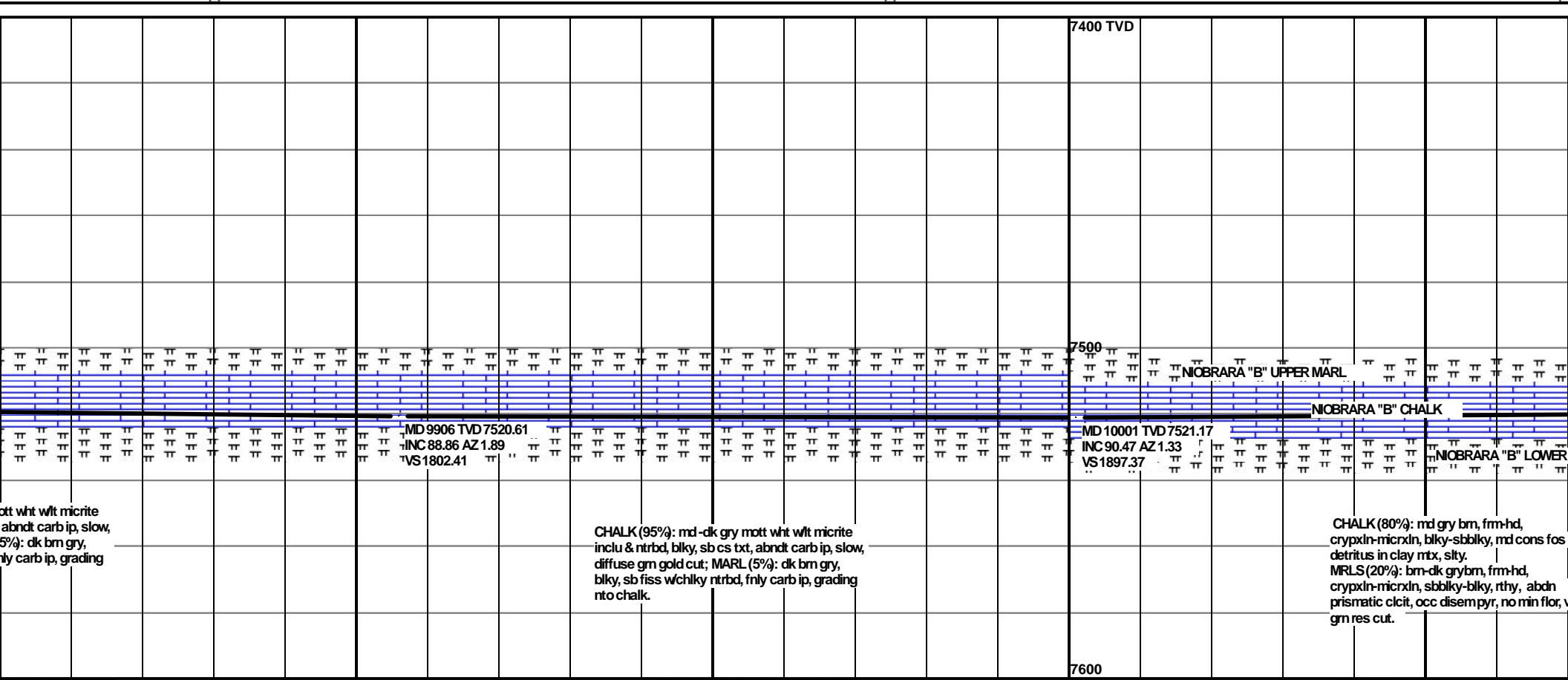


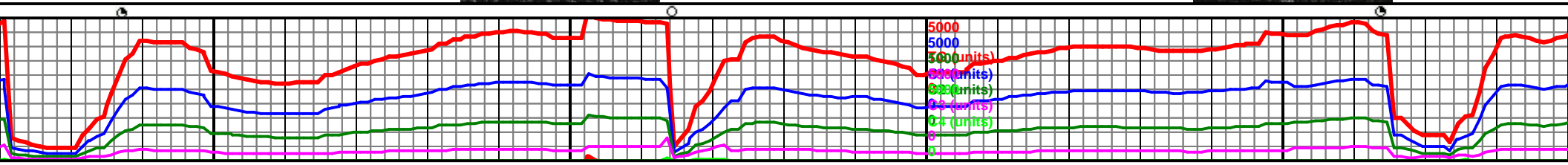
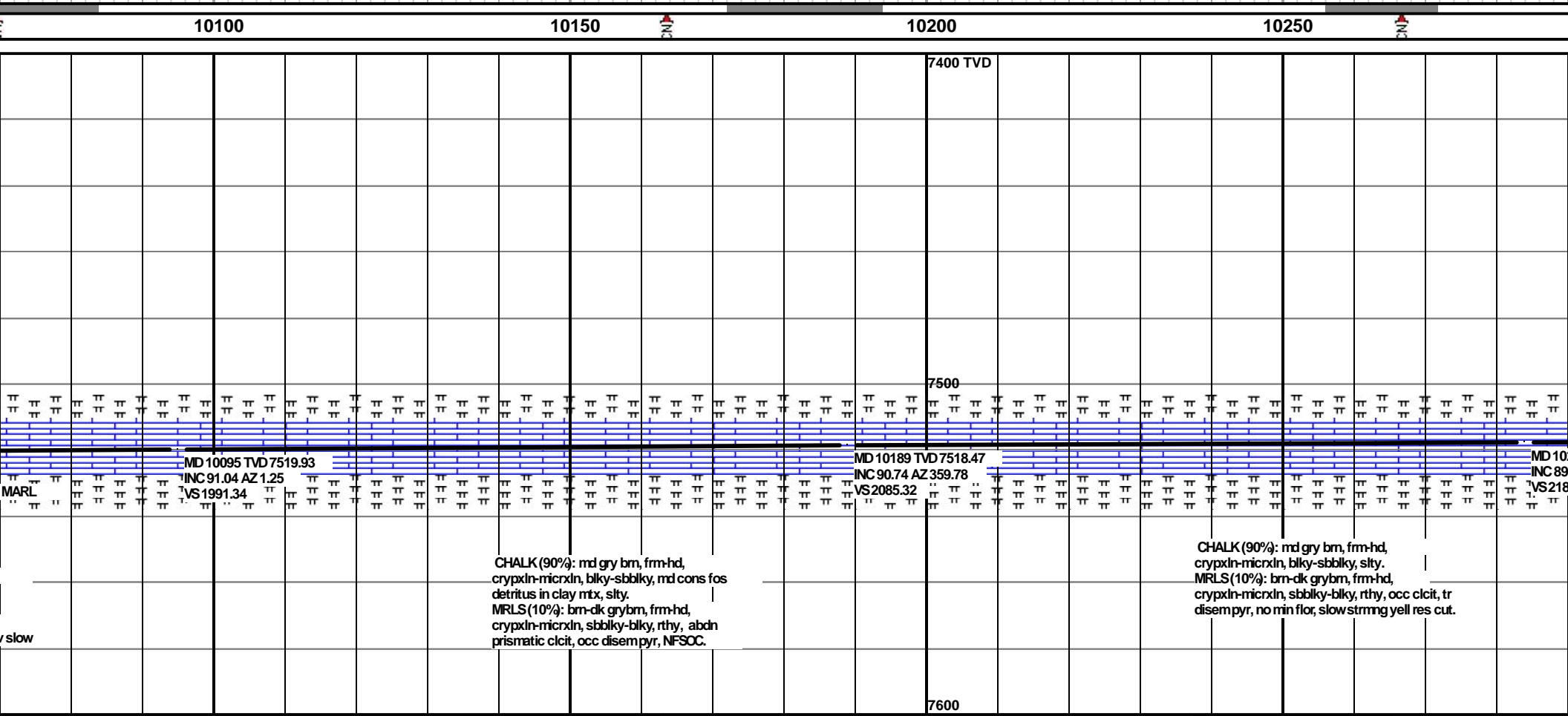
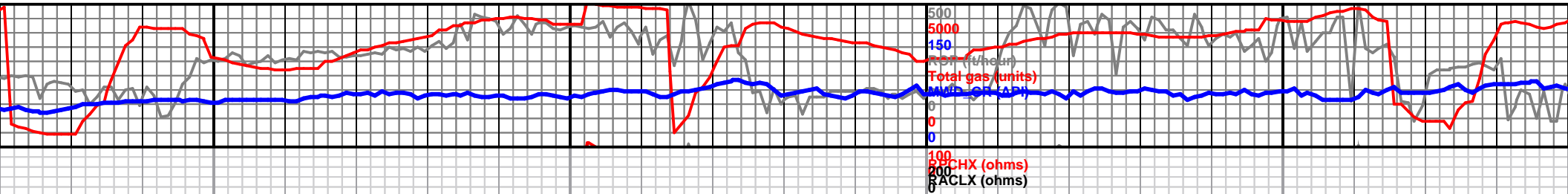


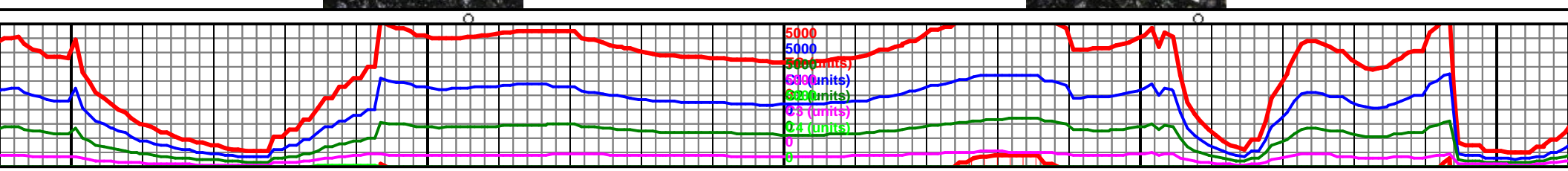
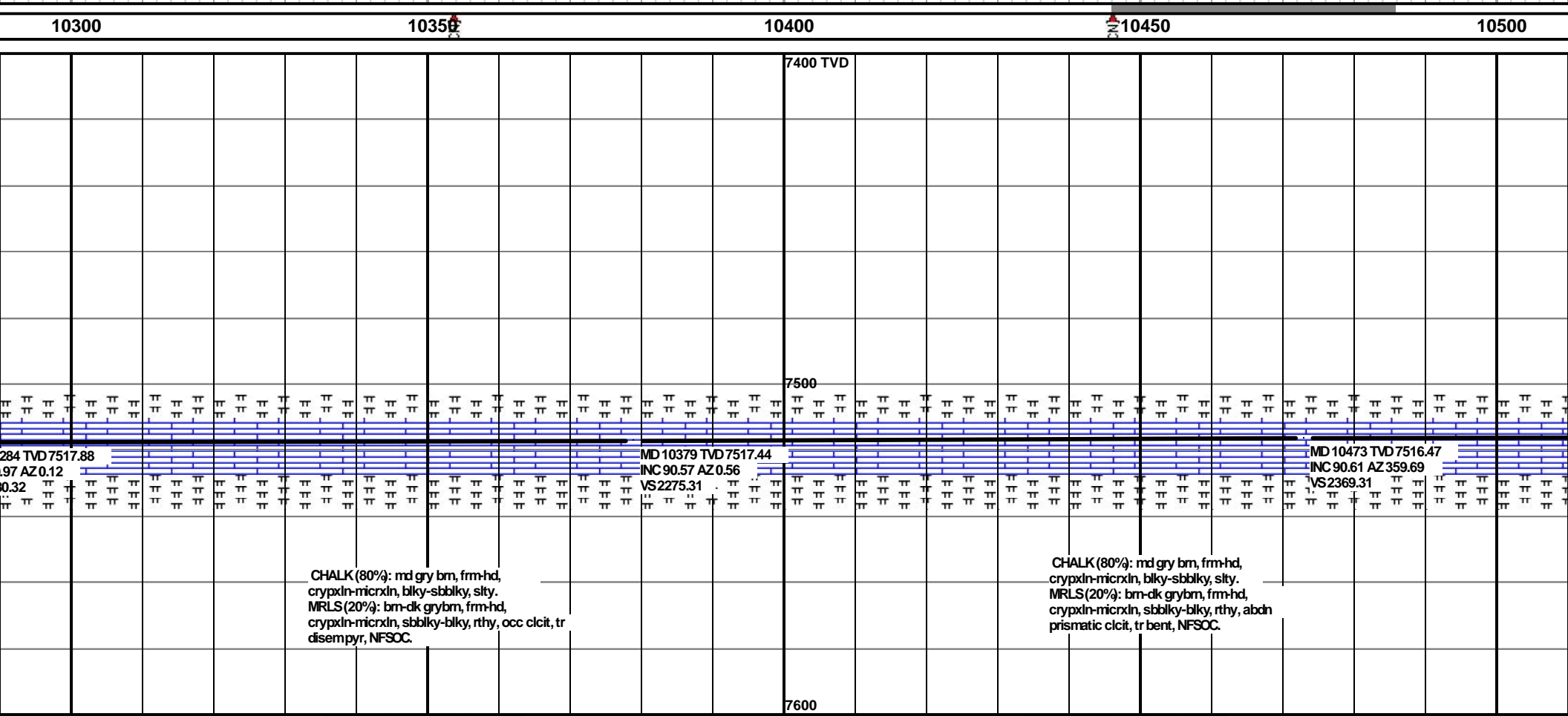
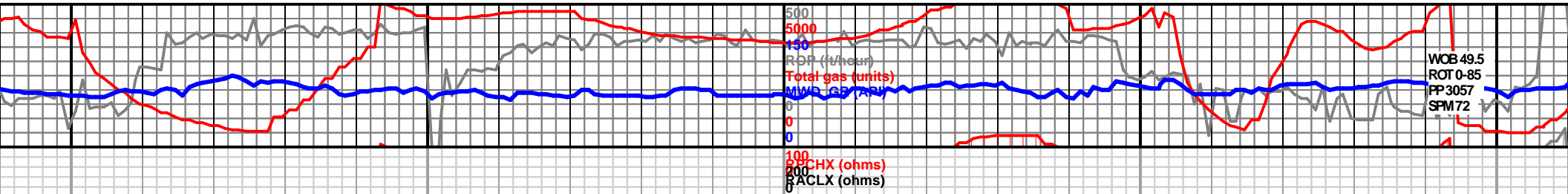


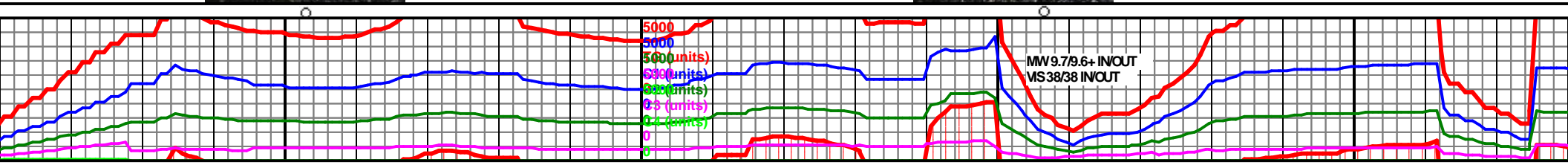
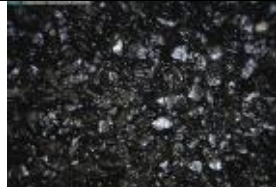
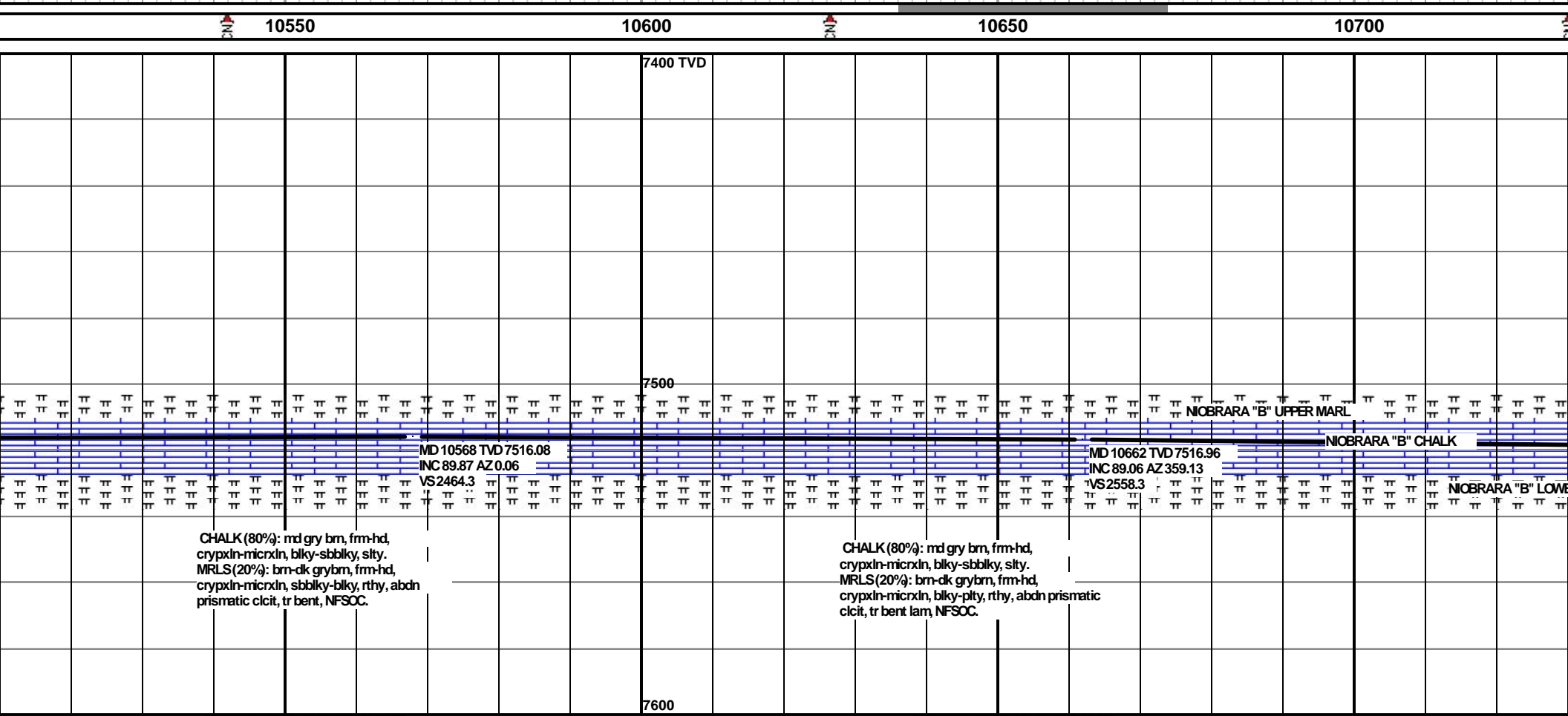
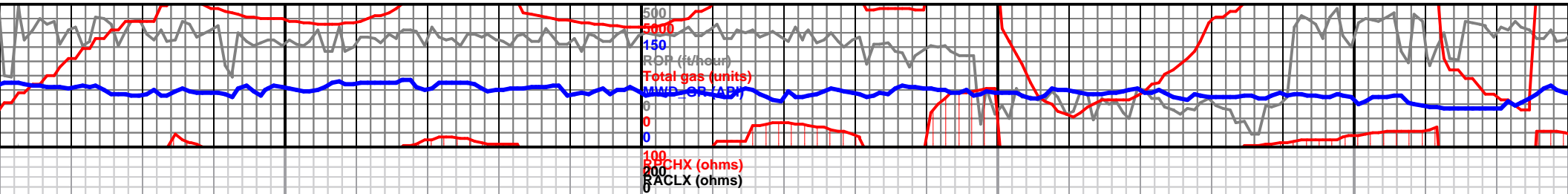


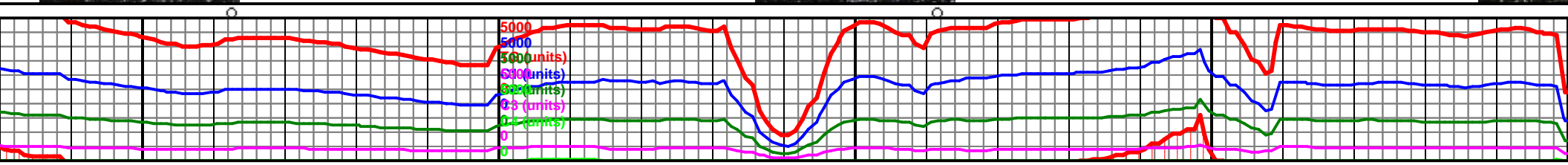
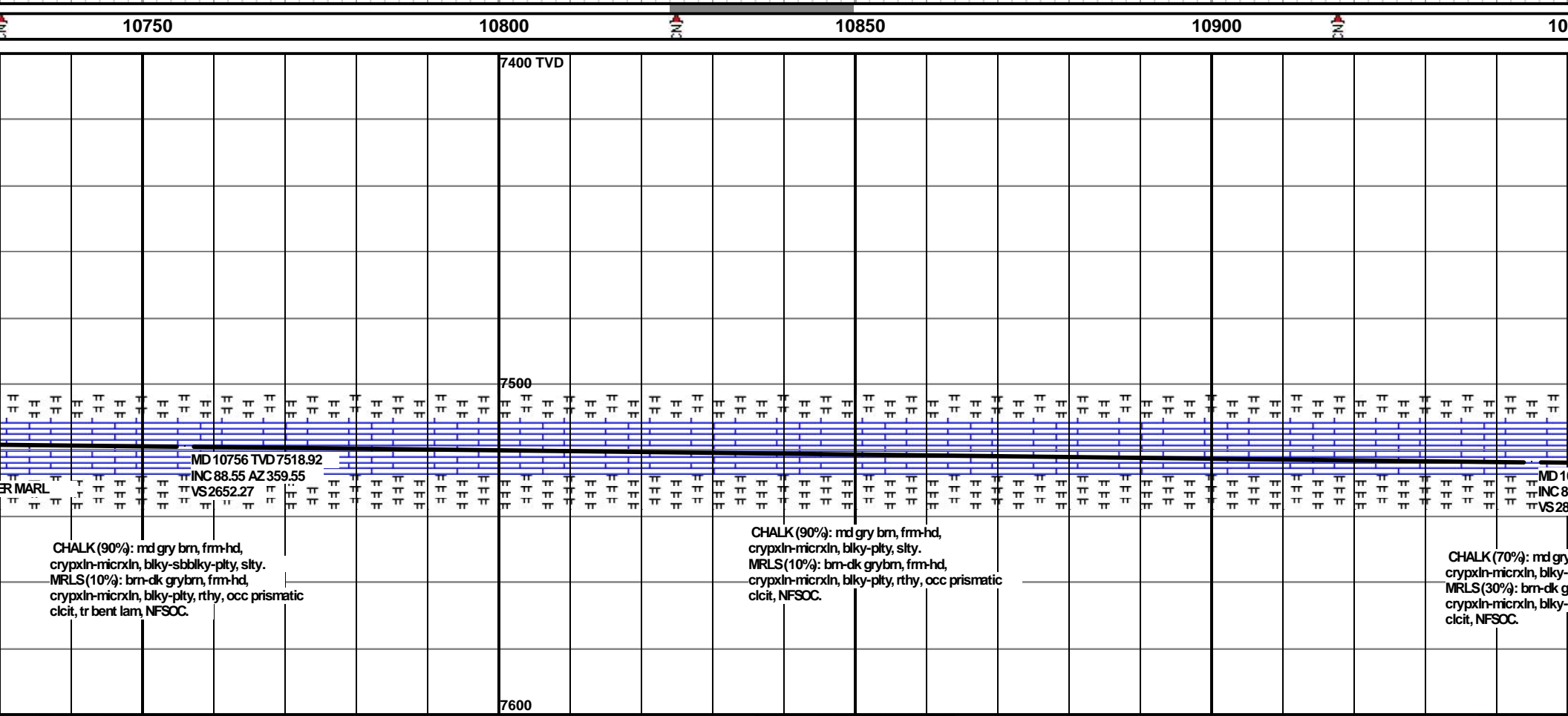
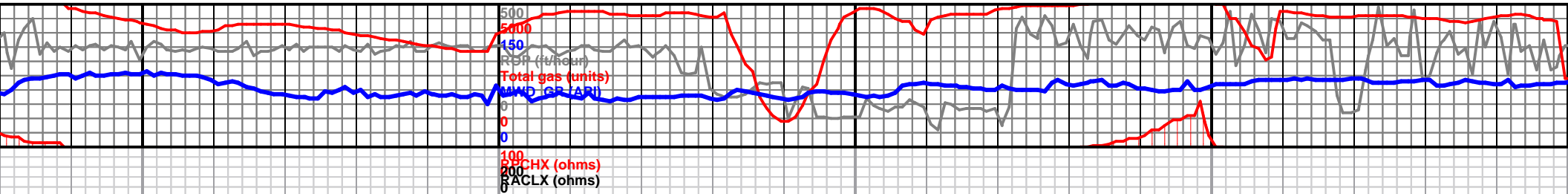


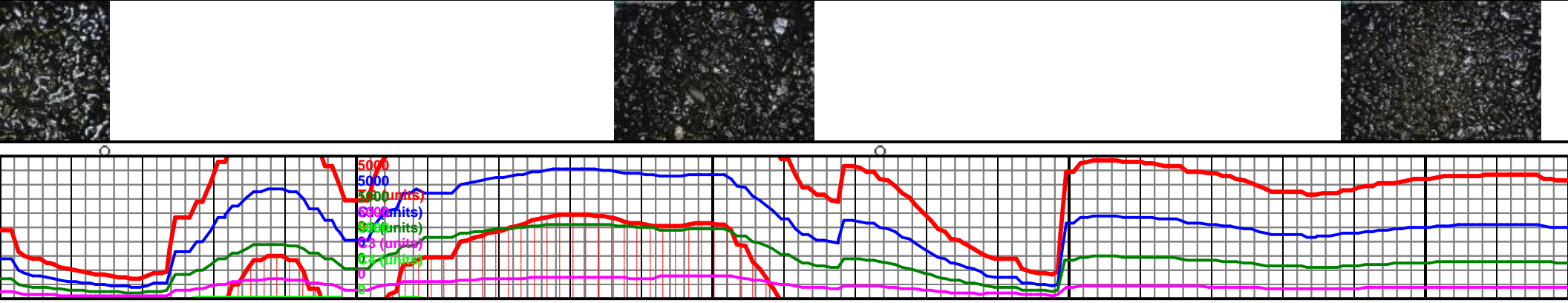
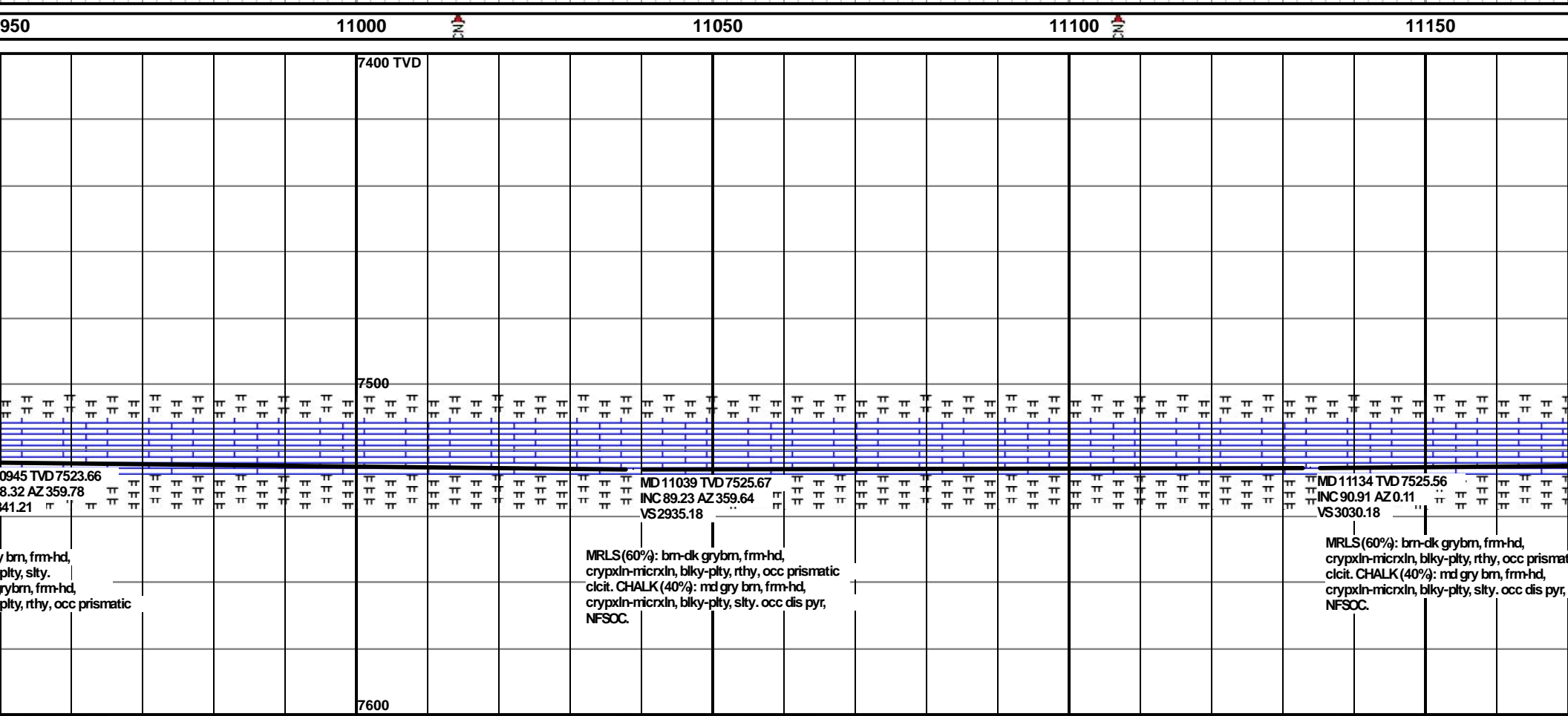
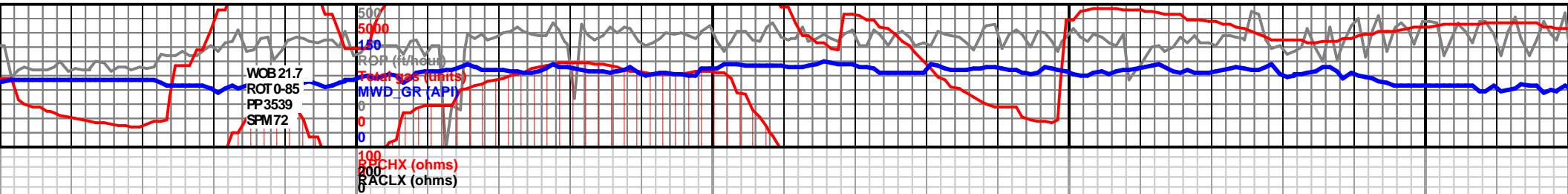


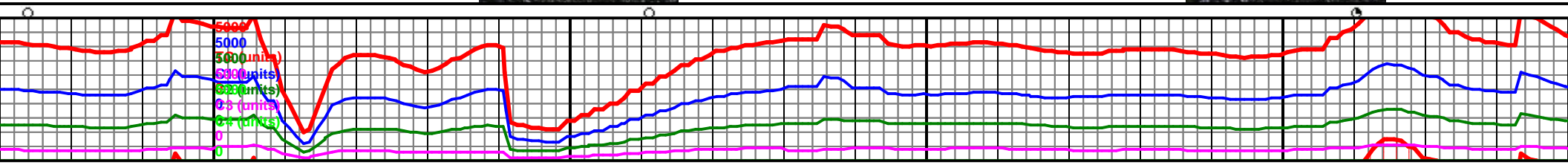
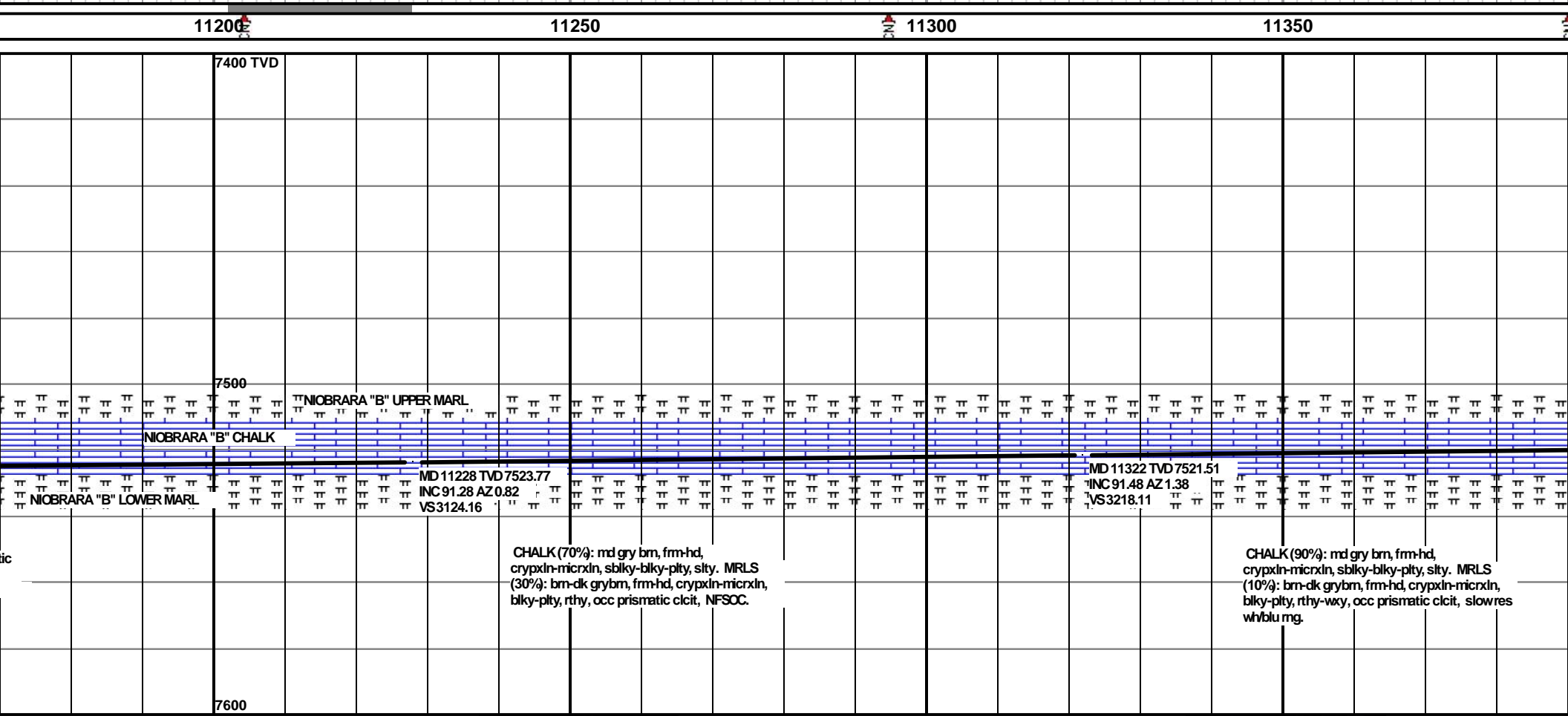
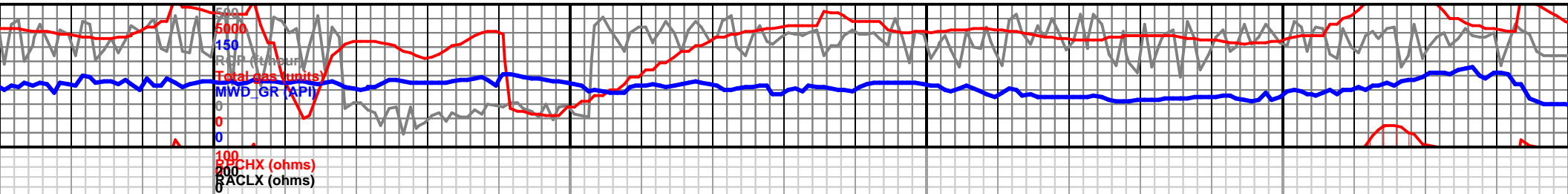


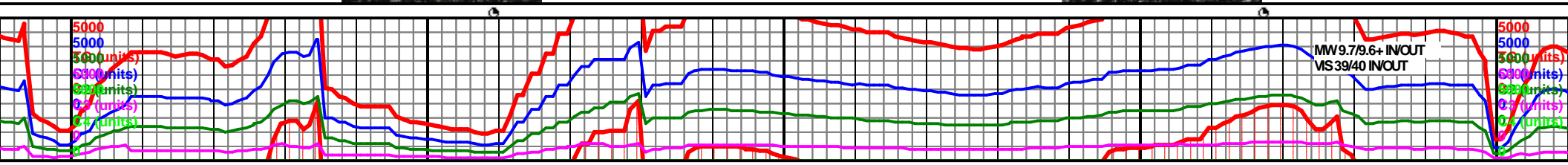
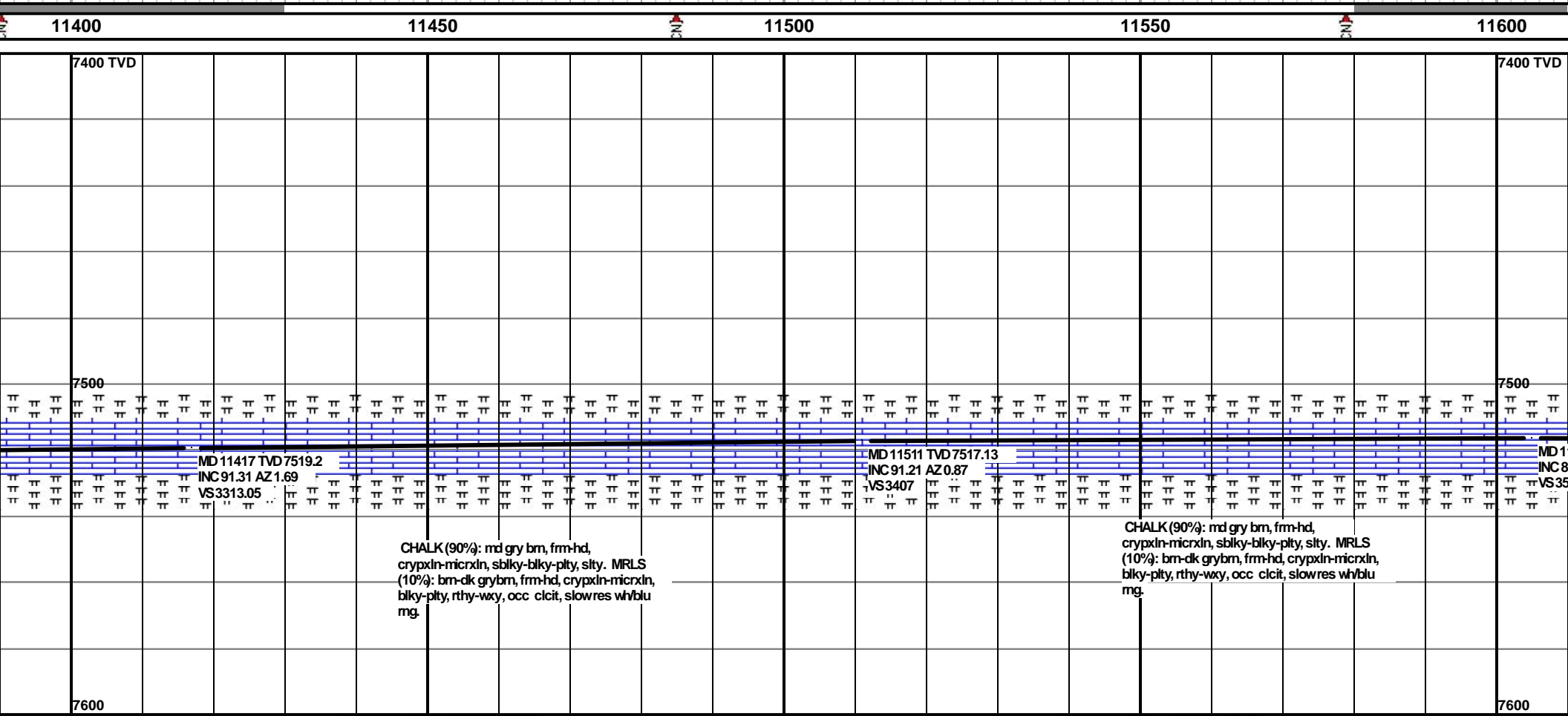
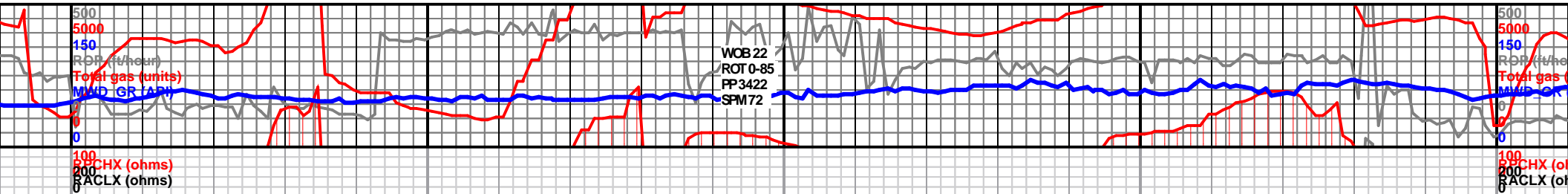


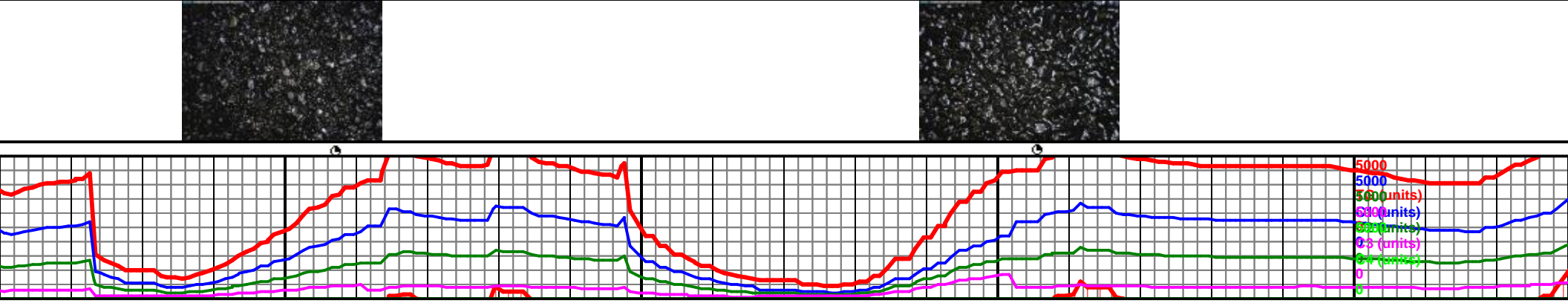
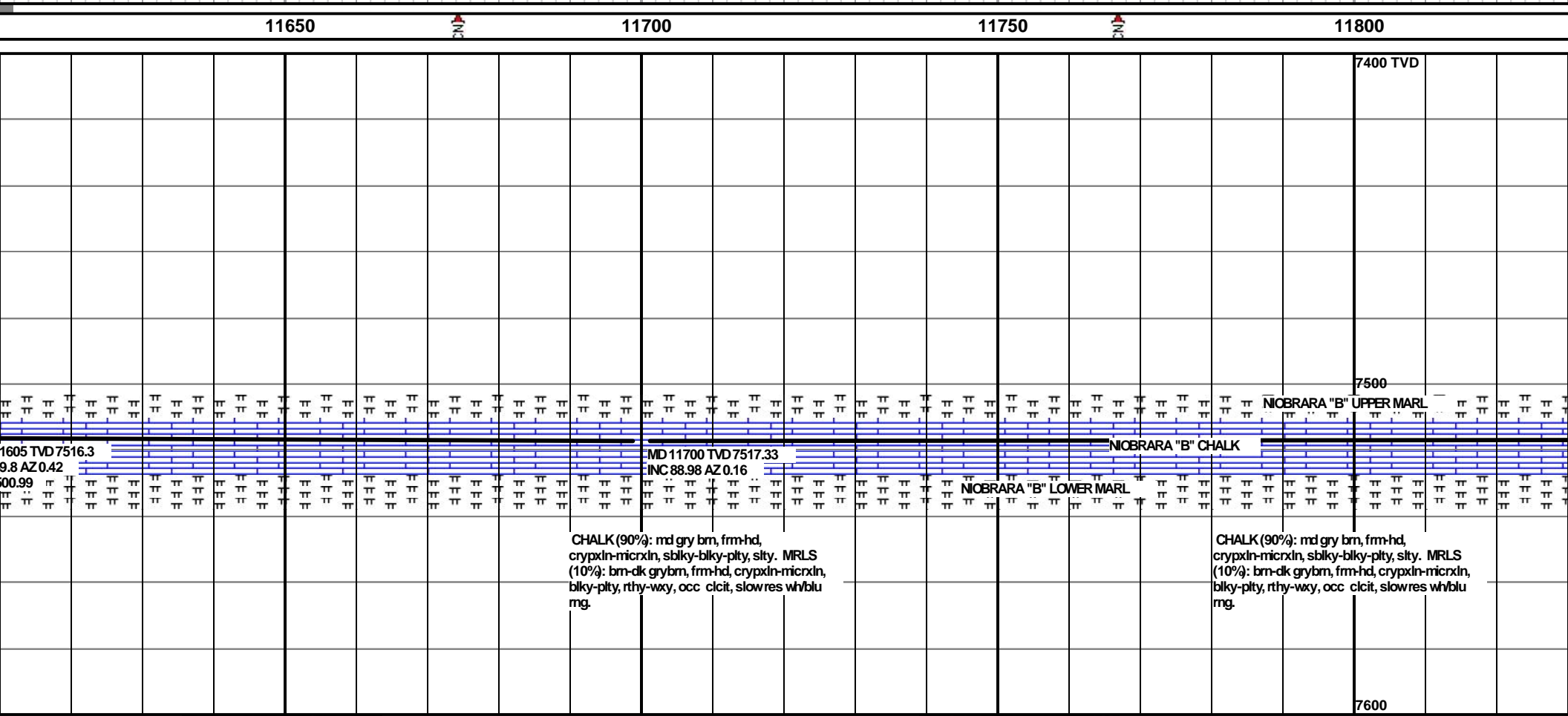
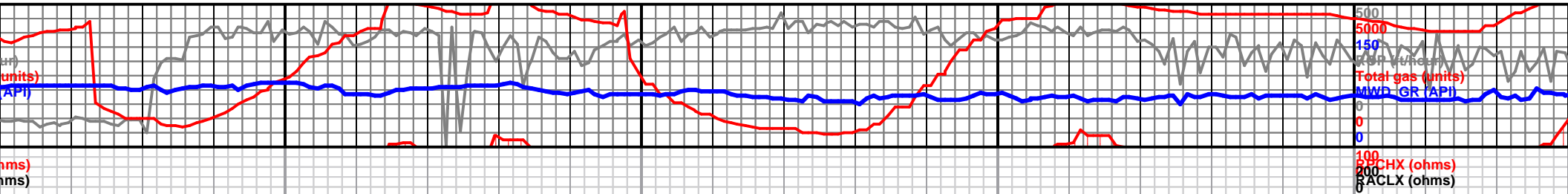


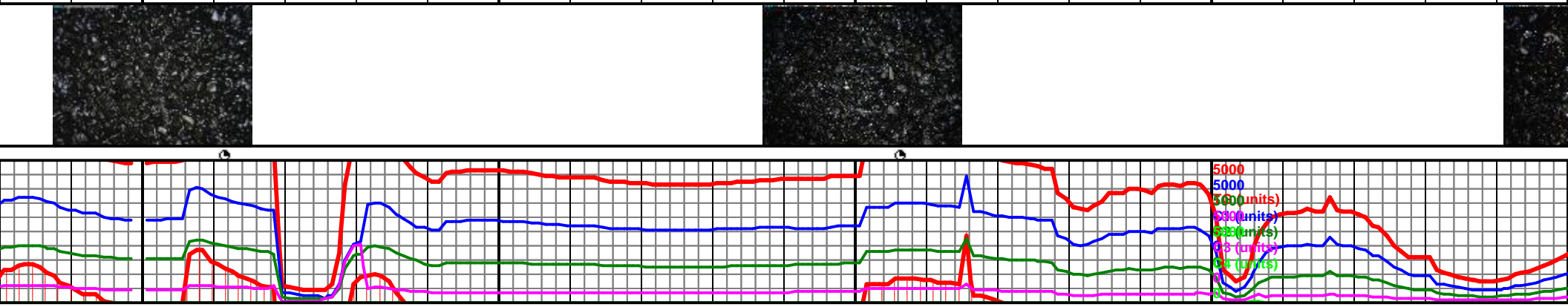
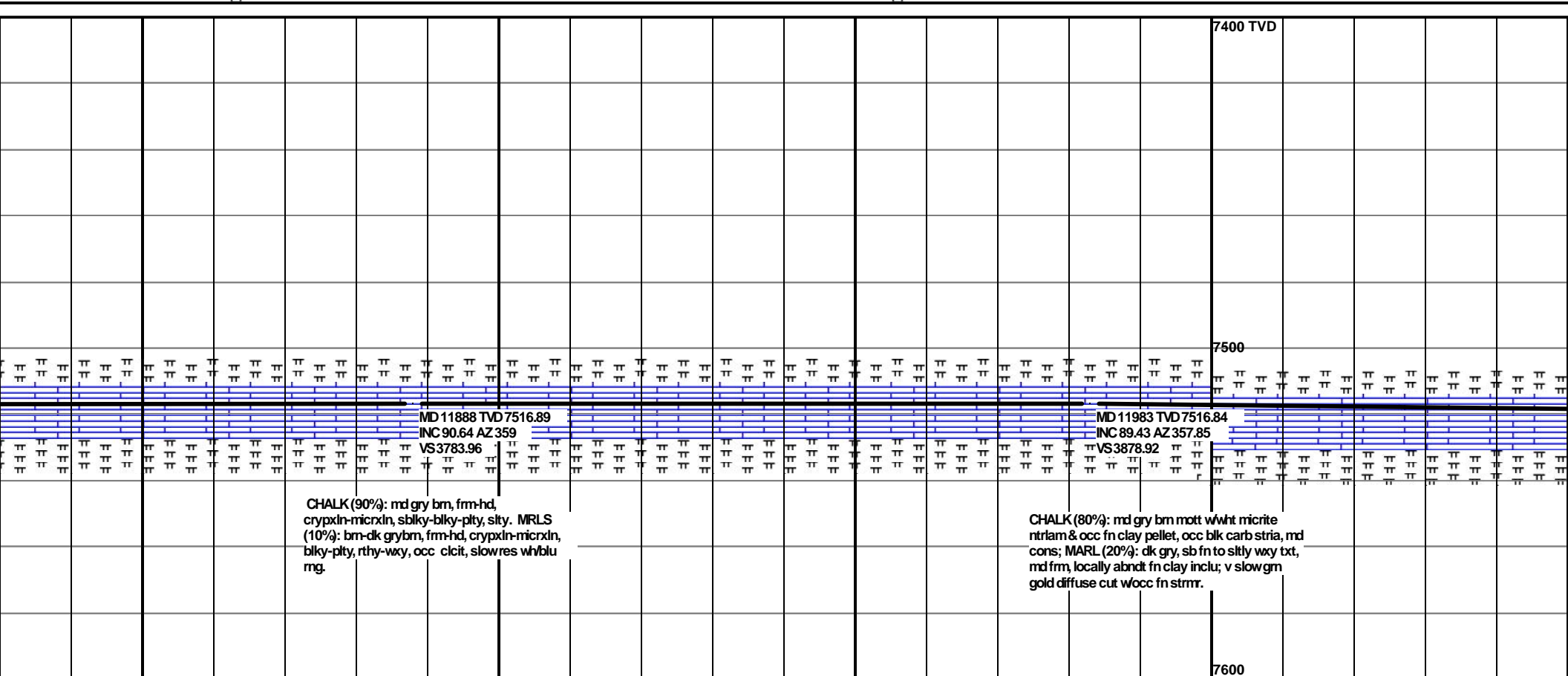


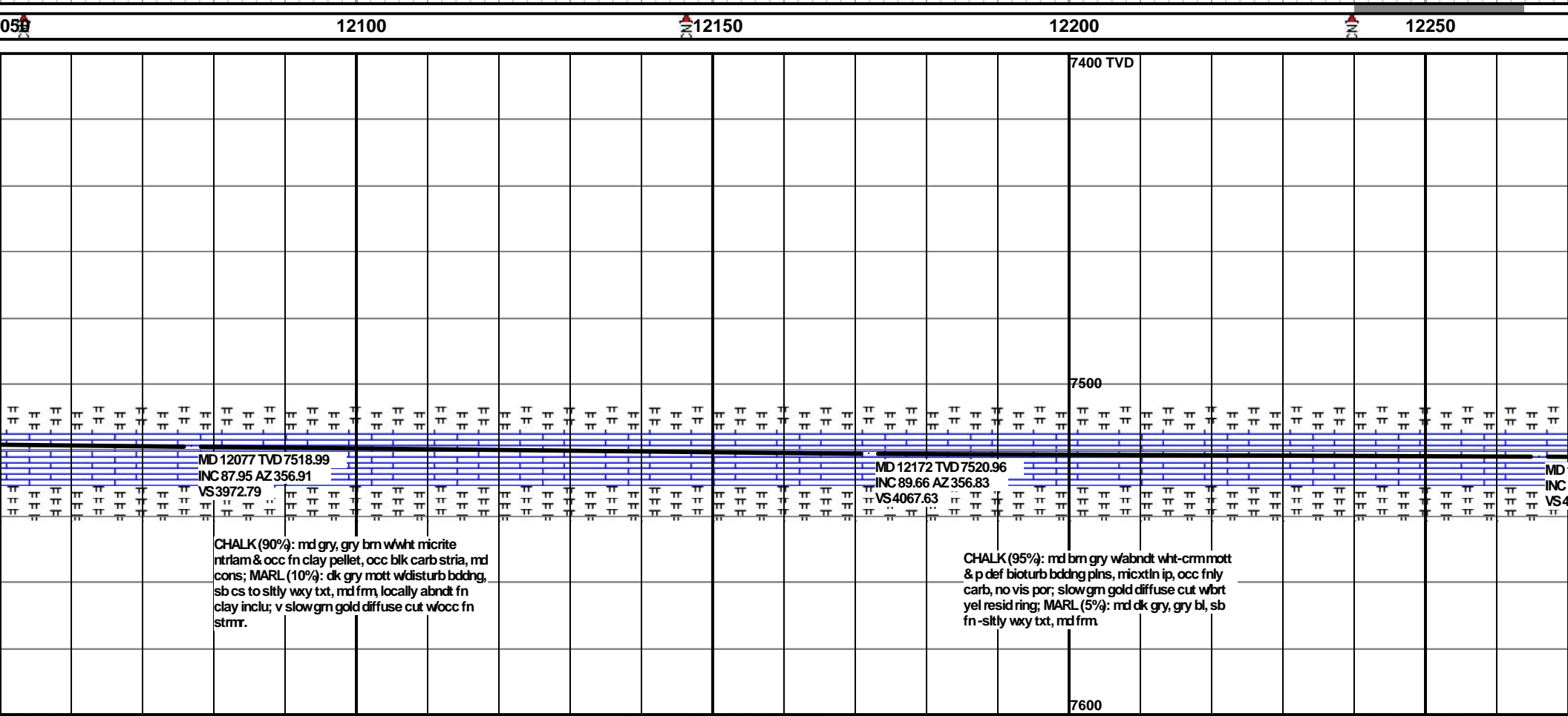
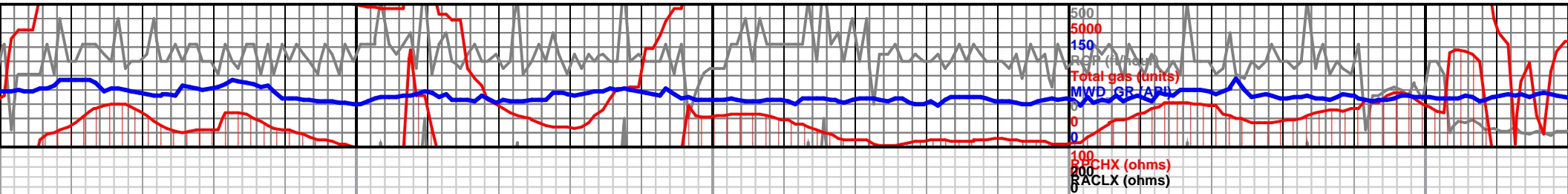












MD 12077 TVD 7518.99
INC 87.95 AZ 356.91
VS3972.79

CHALK (90%): md gry, gry brn w/wht micrite
ntrlam & occ fn clay pellet, occ blk carb stria, md
cons; MARL (10%): dk gry mott w/disturb bddng,
sb cs to silty wxy txt, md frm, locally abndt fn
clay inclu; v slow gm gold diffuse cut w/occ fn
stmr.

MD 12172 TVD 7520.96
INC 89.66 AZ 356.83
VS4067.63

CHALK (95%): md brn gry w/abndt wnt-crm mott
& p def bioturb bddng plns, micxtln ip, occ fnly
carb, no vis por; slow gm gold diffuse cut wbrt
yel resid ring; MARL (5%): md dk gry, gry bl, sb
fn-silty wxy txt, md frm.

