

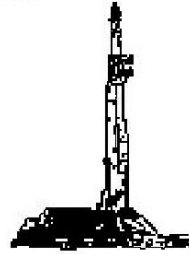
GOOLSBY BROTHERS
and associates, inc.

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 28N-8HZ
Well Id:
Location: Sec. 8 T1N R67W Weld County, CO.
License Number: API:051233894700 AFE: 2085763 Region: Wattenberg
Spud Date: April 2nd, 2014 Drilling Completed: April 7th, 2014
Surface Coordinates: 350' FSL, 2274' FWL
Lat. 40.0593010, Lon. -104.9158230, Sec.8, T1N R67W
Bottom Hole 460' FNL, 2385' FWL
Coordinates: Lat. 40.0715760, Lon. -104.9153860, Sec. 8, T1NR67W
Ground Elevation (ft): 5052' K.B. Elevation (ft): 5077'
Logged Interval (ft): 6850' To: 12722' Total Depth (ft): 12722'
Formation: Niobrara "B" Chalk
Type of Drilling Fluid: LSND (Polymer-Water)
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: 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

Intermediate casing: 7", 26#, HTC 110 LTC, set at 7942'

Liner: 4 1/2", packer and assembly, 11.5#, HCP 110, LTC & D2X, set at 12707'

Comments

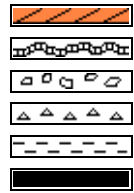
Drilling Contractor: H&P 311

Pumps 1 & 2: Gardner Denver PZ 11 6" x 11" (.0914 bbl/stk)

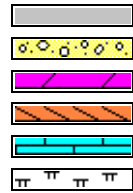
Rig Manager: Jack Truett, James Baggett.

Drillers: Michael Munroe, Christopher Beckstead

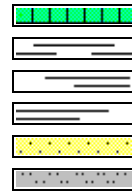
ROCK TYPES



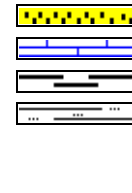
Anhy
Bent
Brec
Cht
Clyst
Coal



Oil sat.
Congl
Dol
Gyp
Lmst
Mrlst



Salt
Shale
Shcol
Shgy
Ss
Sltst



Ss
Chalk
Carb sh
Sltly sh

ACCESSORIES

MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlit
	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
	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

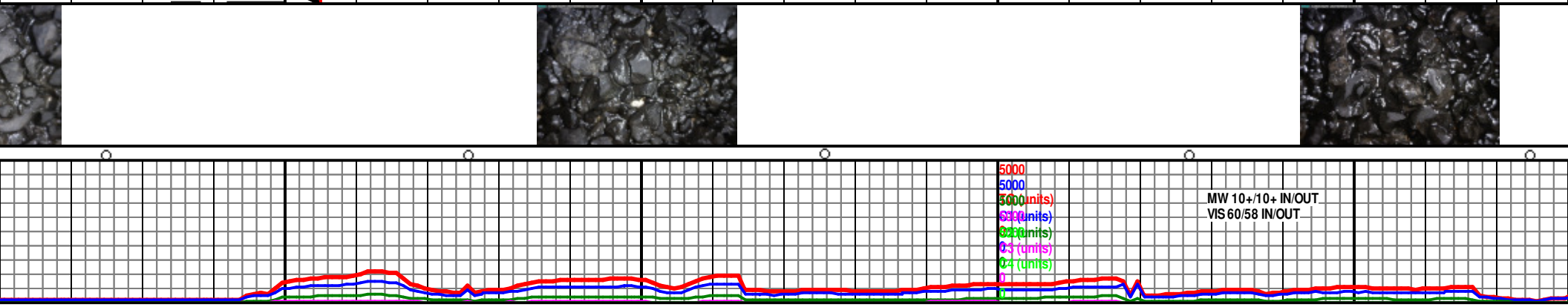
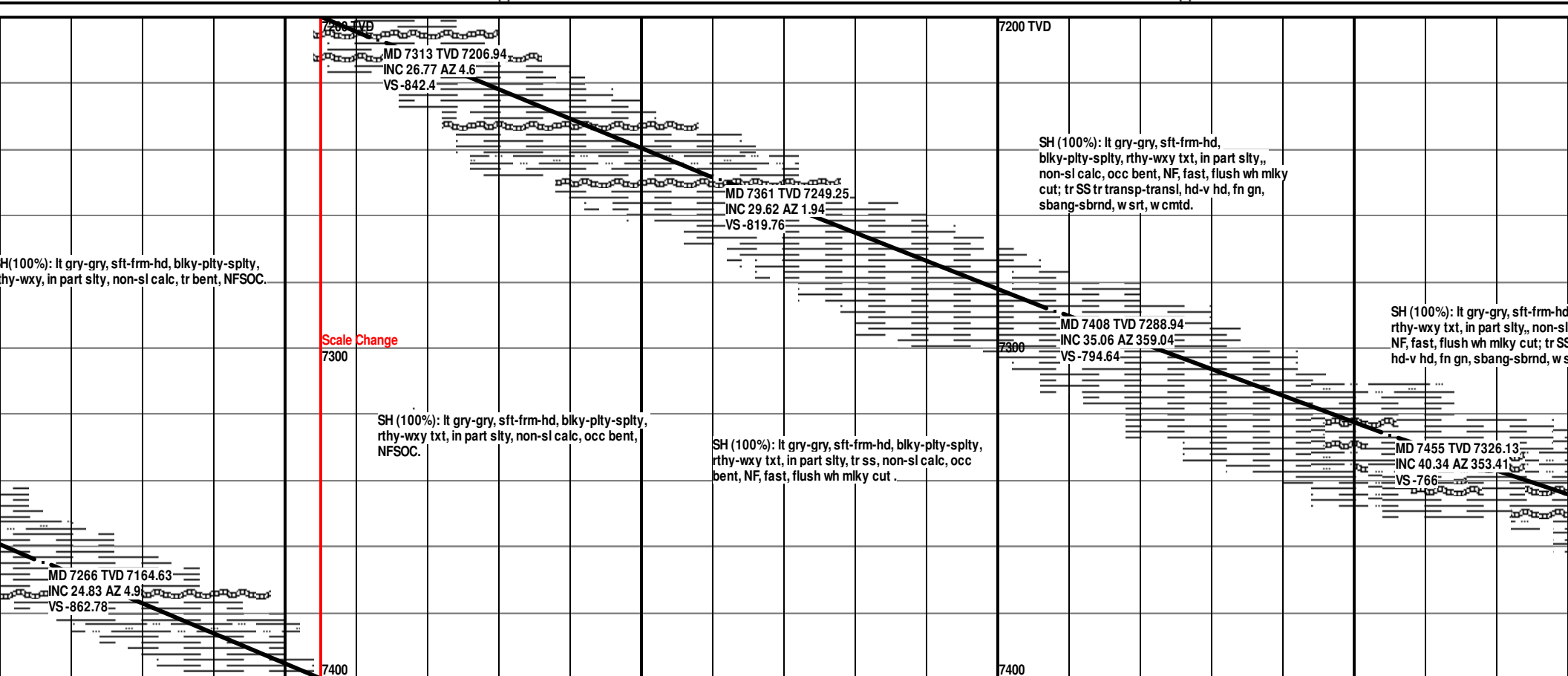
ROUNDING

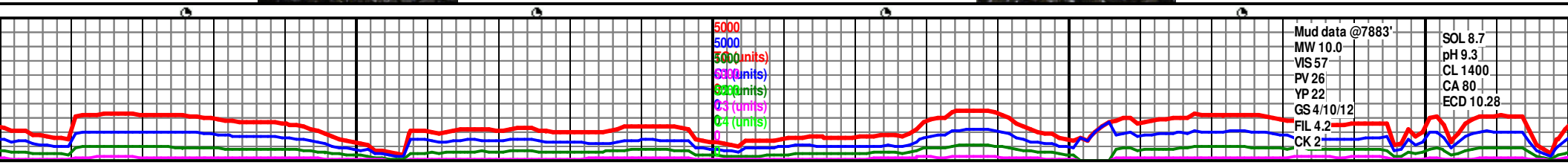
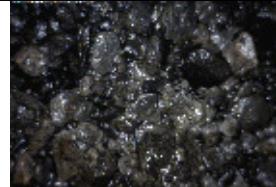
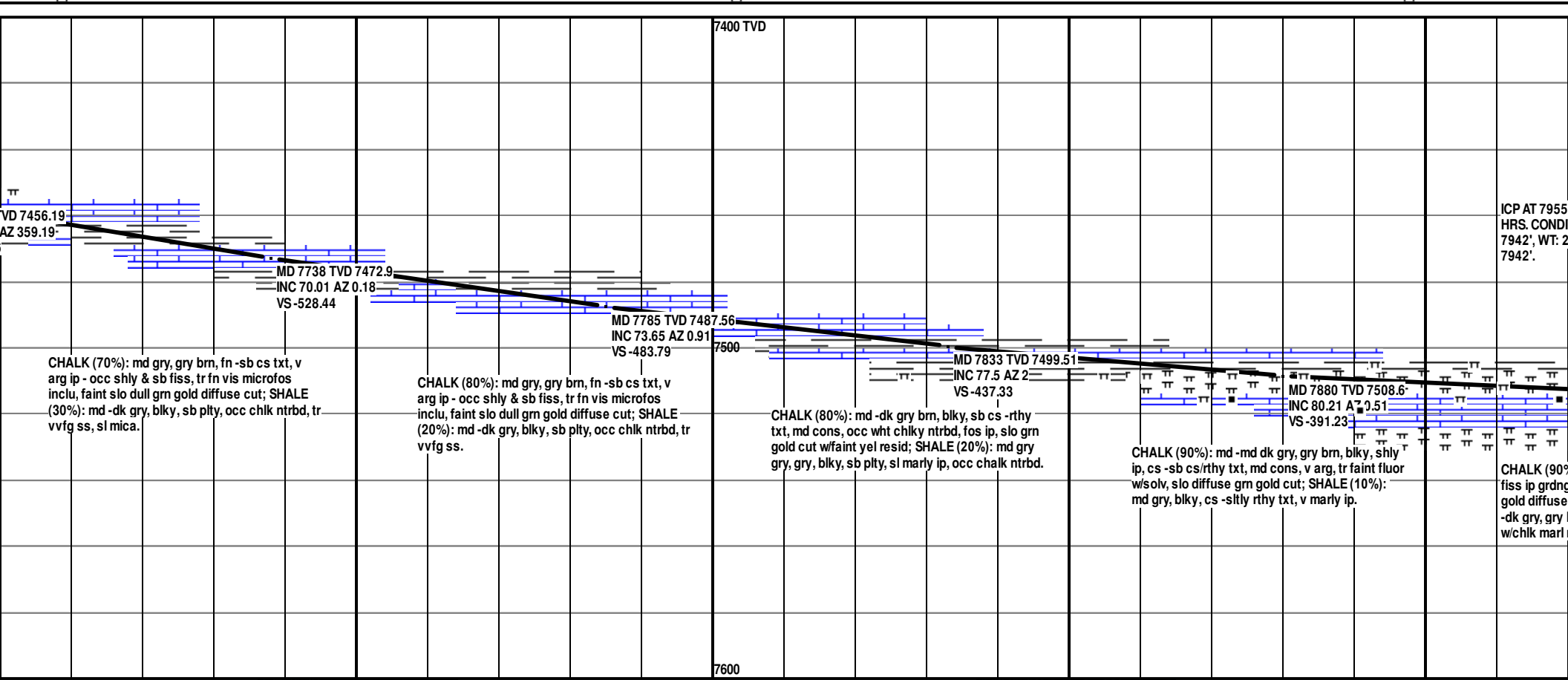
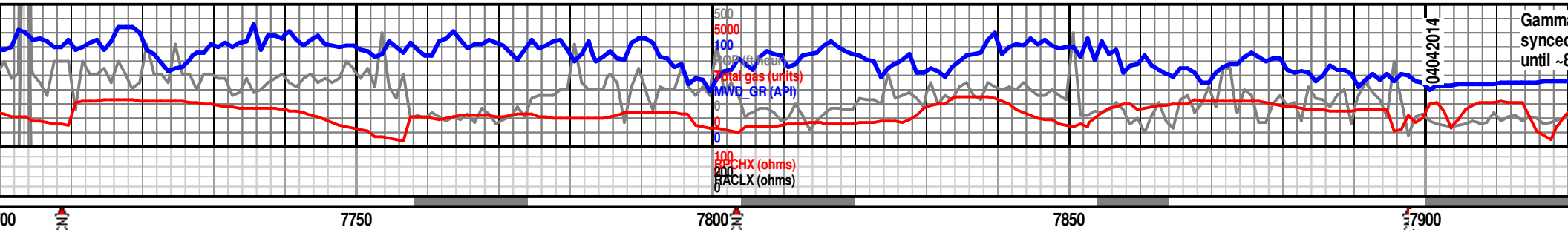
	Rounded
	Subrnd
	Subang

	Angular
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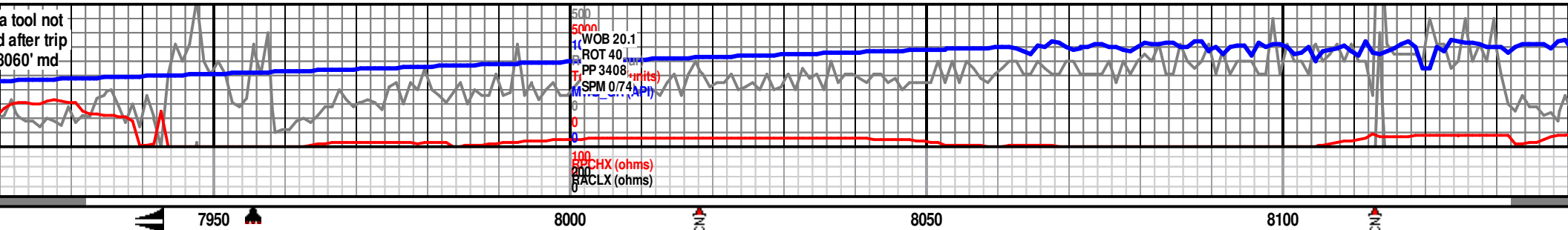
SORTING

	Well
	Moderate
	Poor



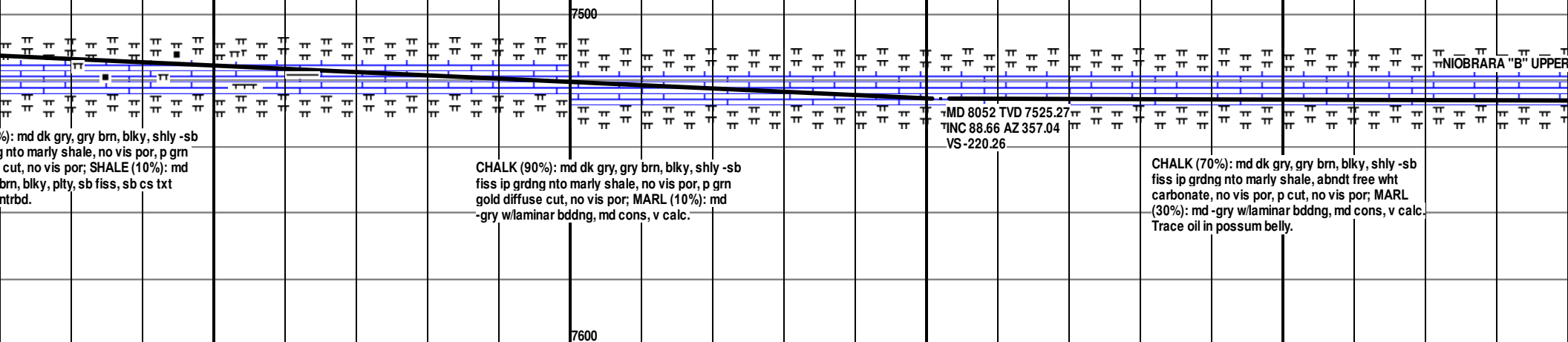


a tool not
d after trip
3060' md—



REACHED ON 04/03/14 @ 23:29
 TION HOLE, TOH, 7" CASING, SET @
 6 ppf; Grade: HCP110, SET @ MD

Bit # 2 - 6.125" Smith SDi513, SN:
JJ0312; Jets 4x16, 2x16; w/MWD
GR/Survey BHA & Dir MM (1.5°) 0.28
RPG., In @ 7955'; Out @ 12722'; Drilled
4767' in 32.5 hrs: Average

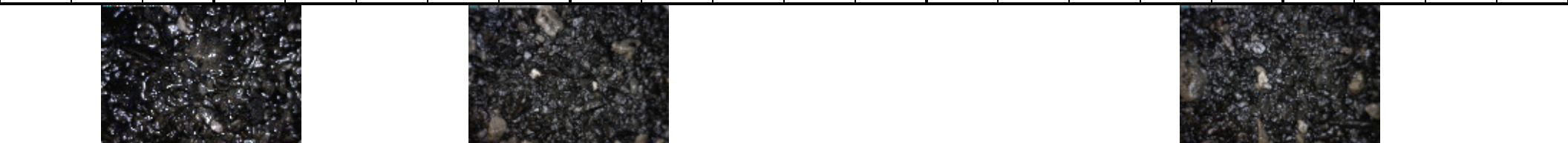


(%): md dk gry, gry brn, blk, shly -sb
gnto marly shale, no vis por, p grn
cut, no vis por; SHALE (10%): md
brn, blk, plty, sb fiss, sb cs txt
cntrbd.

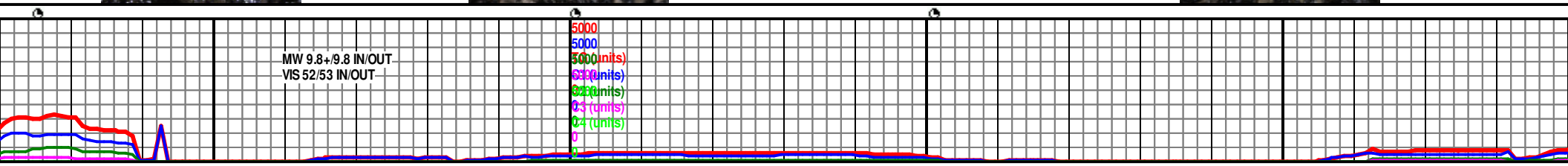
CHALK (90%): md dk gry, gry brn, blk, shly -sb
fiss ip grding nto marly shale, no vis por, p grn
gold diffuse cut, no vis por; MARL (10%): md
-gry w/laminar bddng, md cons, v calc.

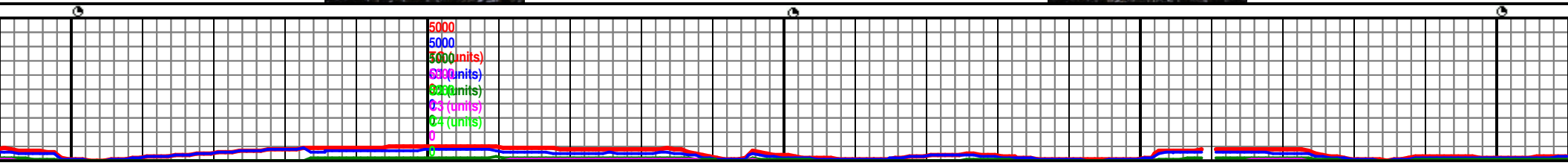
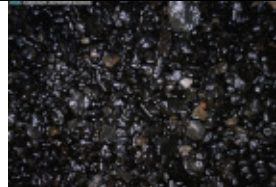
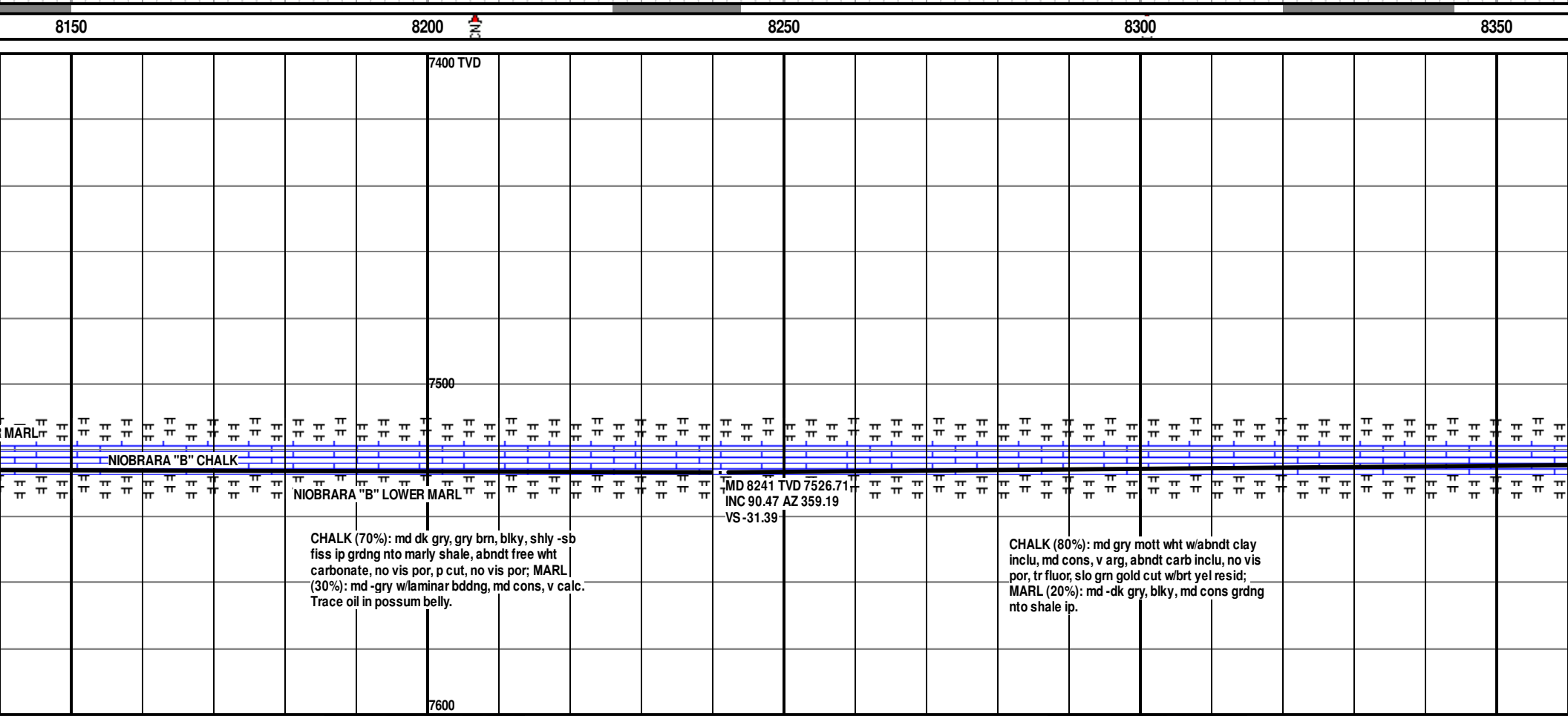
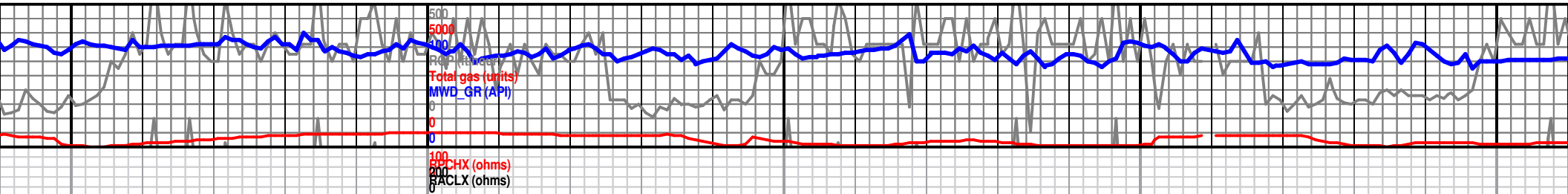
MD 8052 TVD 7525.27
INC 88.66 AZ 357.04
VS-220.26

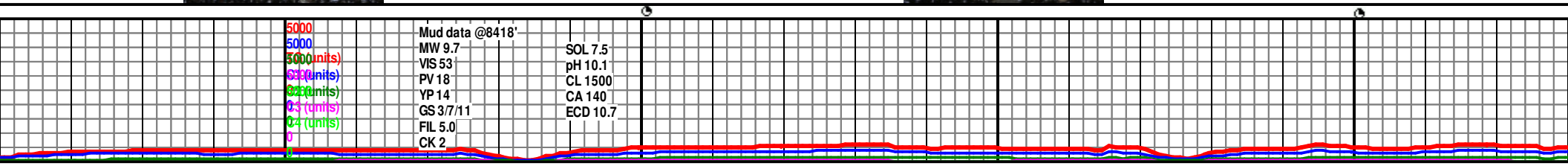
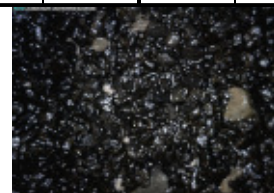
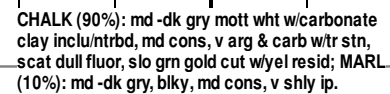
CHALK (70%): md dk gry, gry brn, blk, shly -sb
fiss ip grdng nto marly shale, abndt free wht
carbonate, no vis por, p cut, no vis por; **MARL**
(30%): md -gry w/laminar bddng, md cons, v calc.
Trace oil in possum belly.

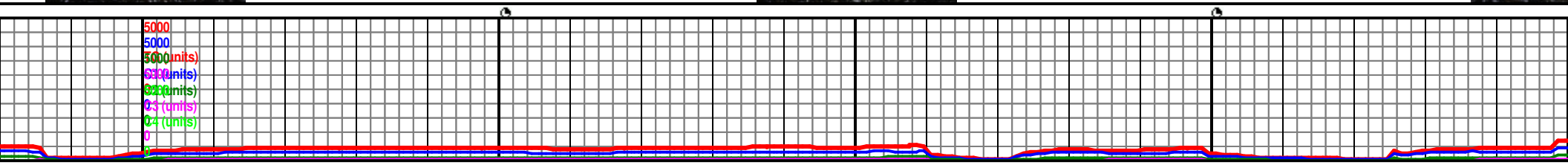
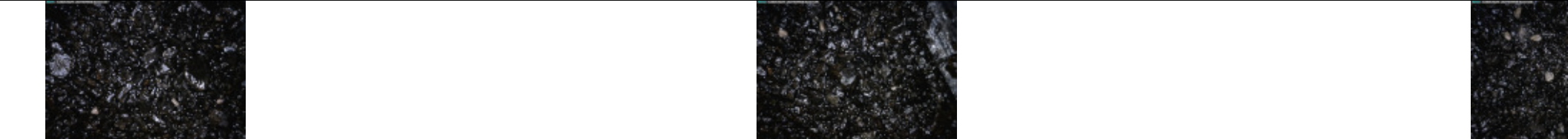
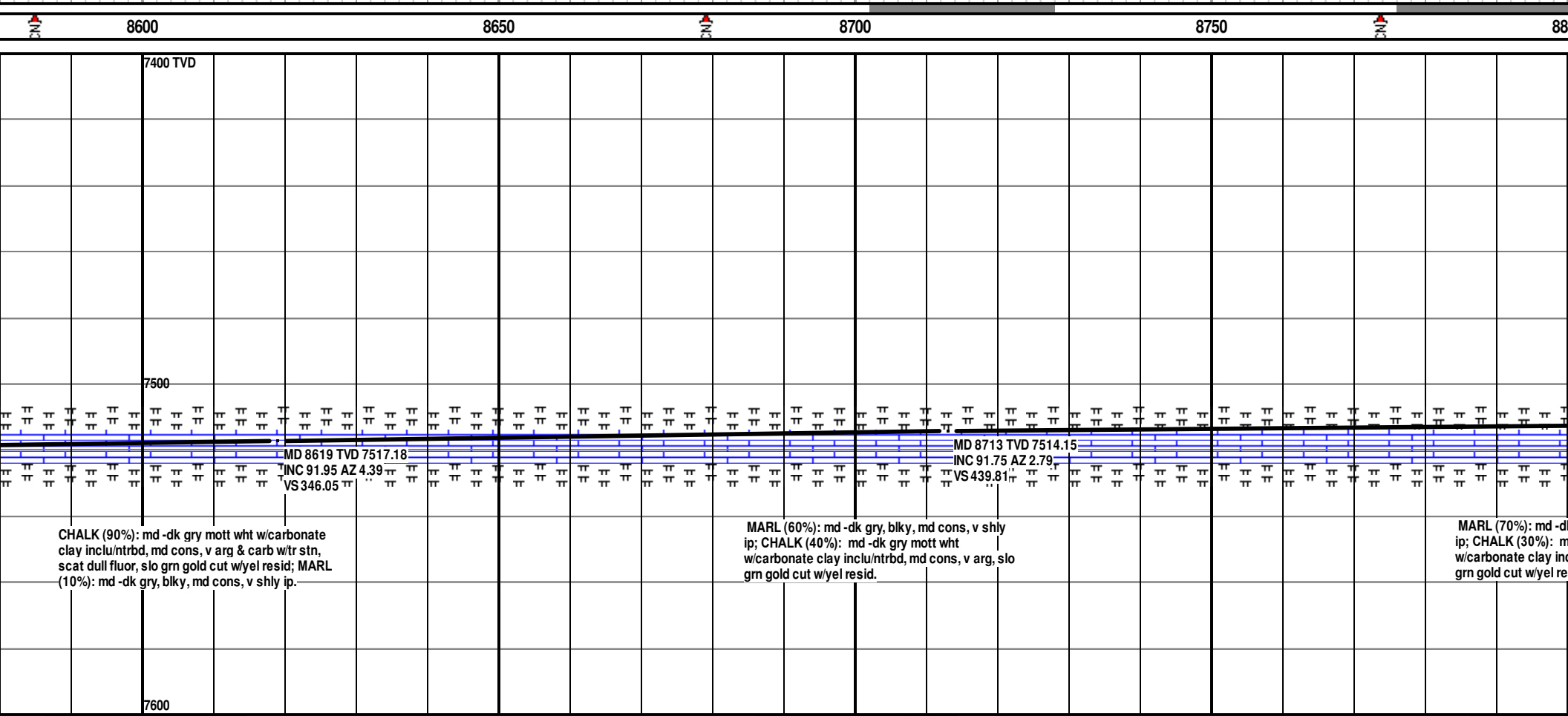
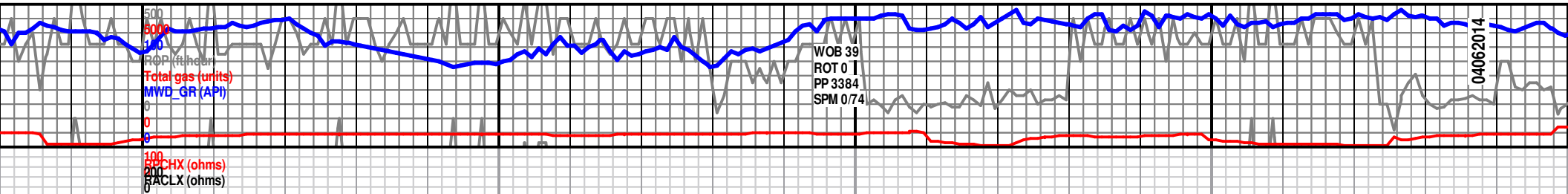


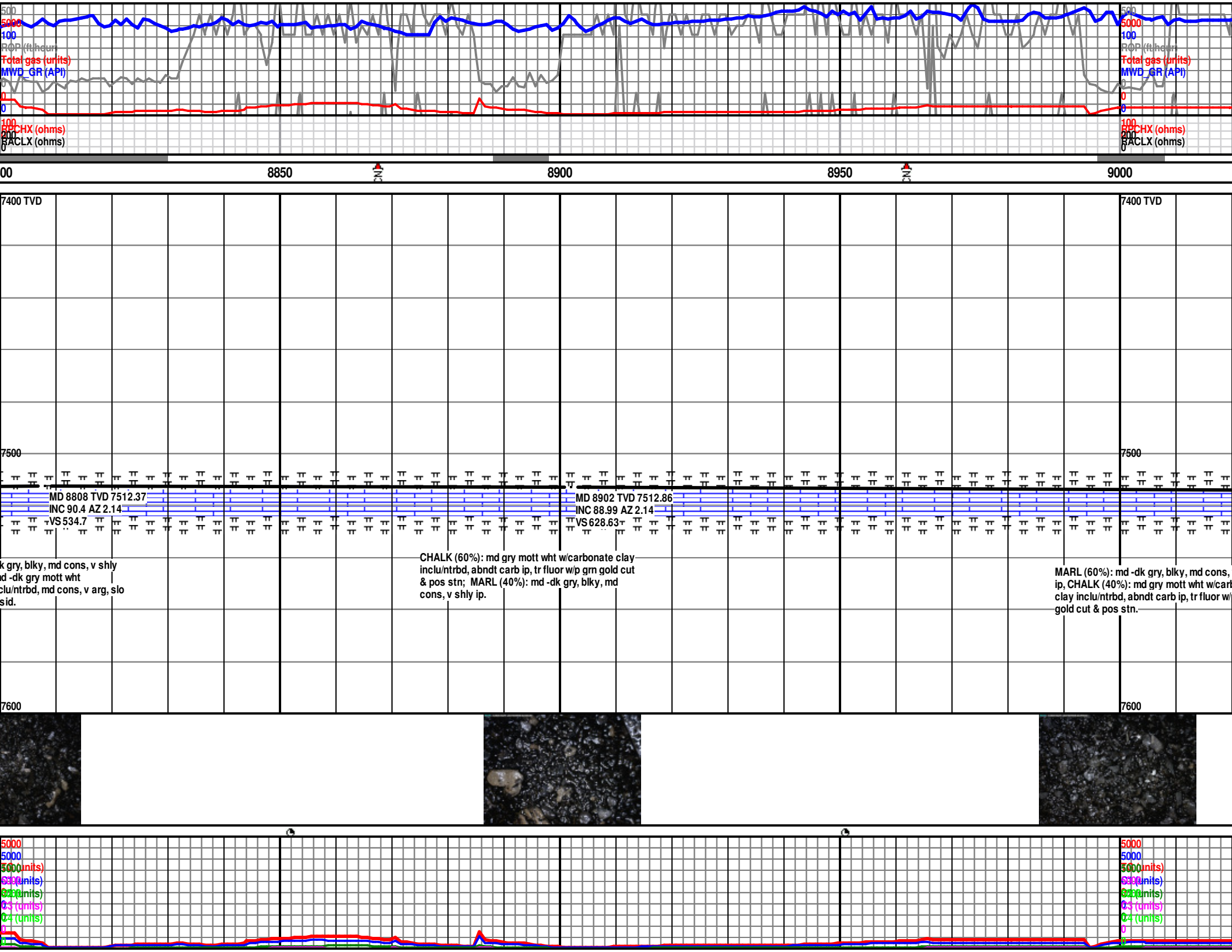
MW 9.8+/-9.8 IN/OUT.
VIS 52/53 IN/OUT

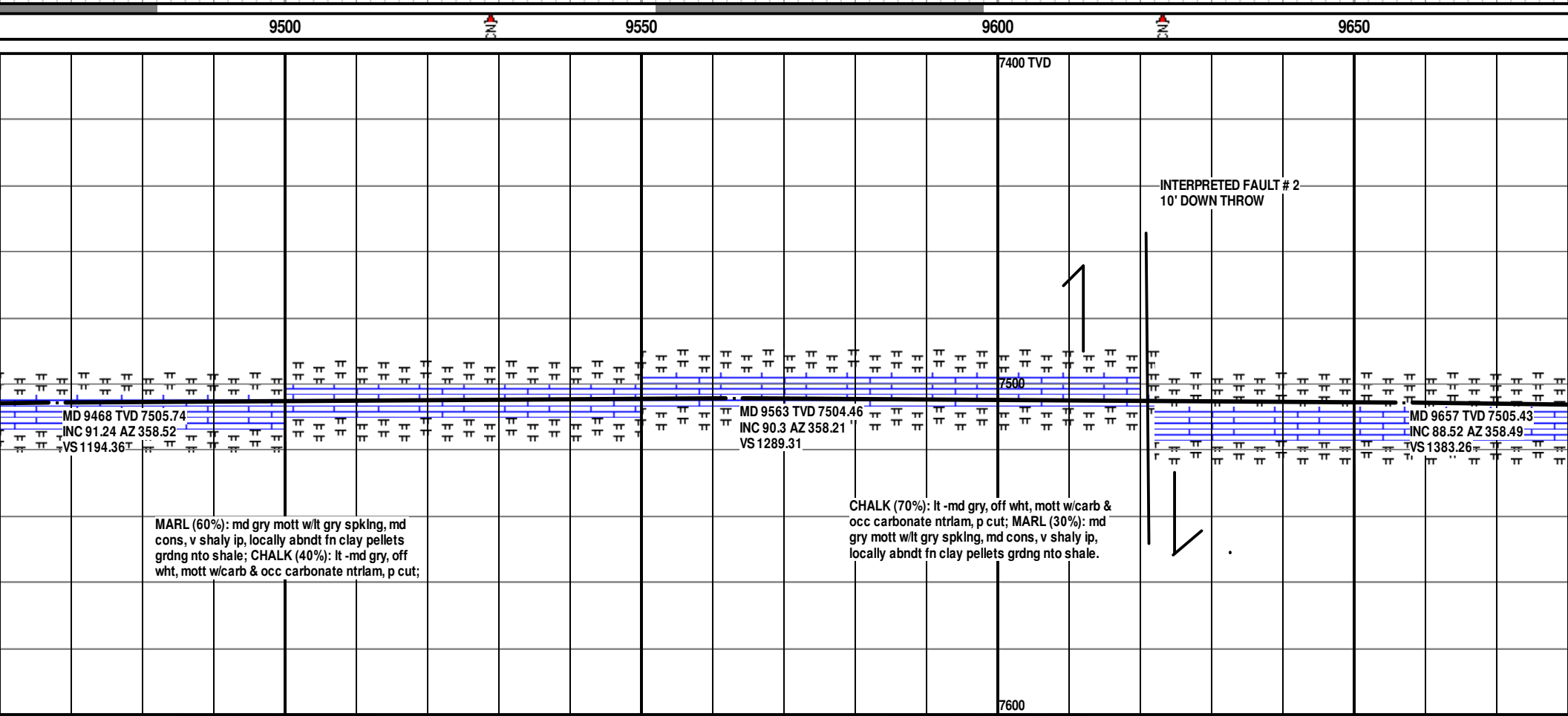
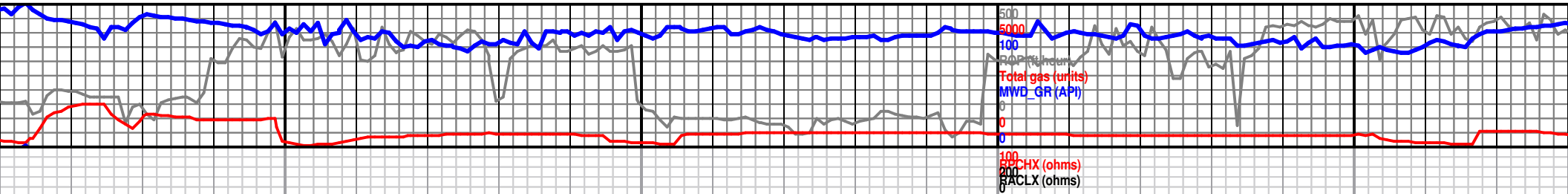












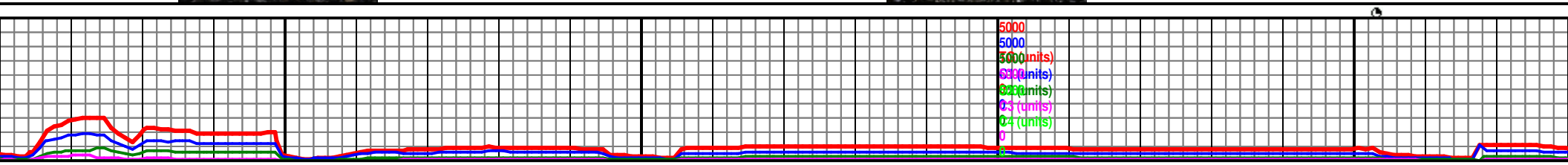
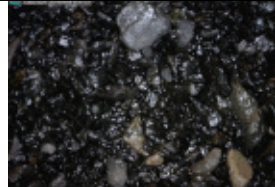
MD 9468 TVD 7505.74
INC 91.24 AZ 358.52
VS 1194.36

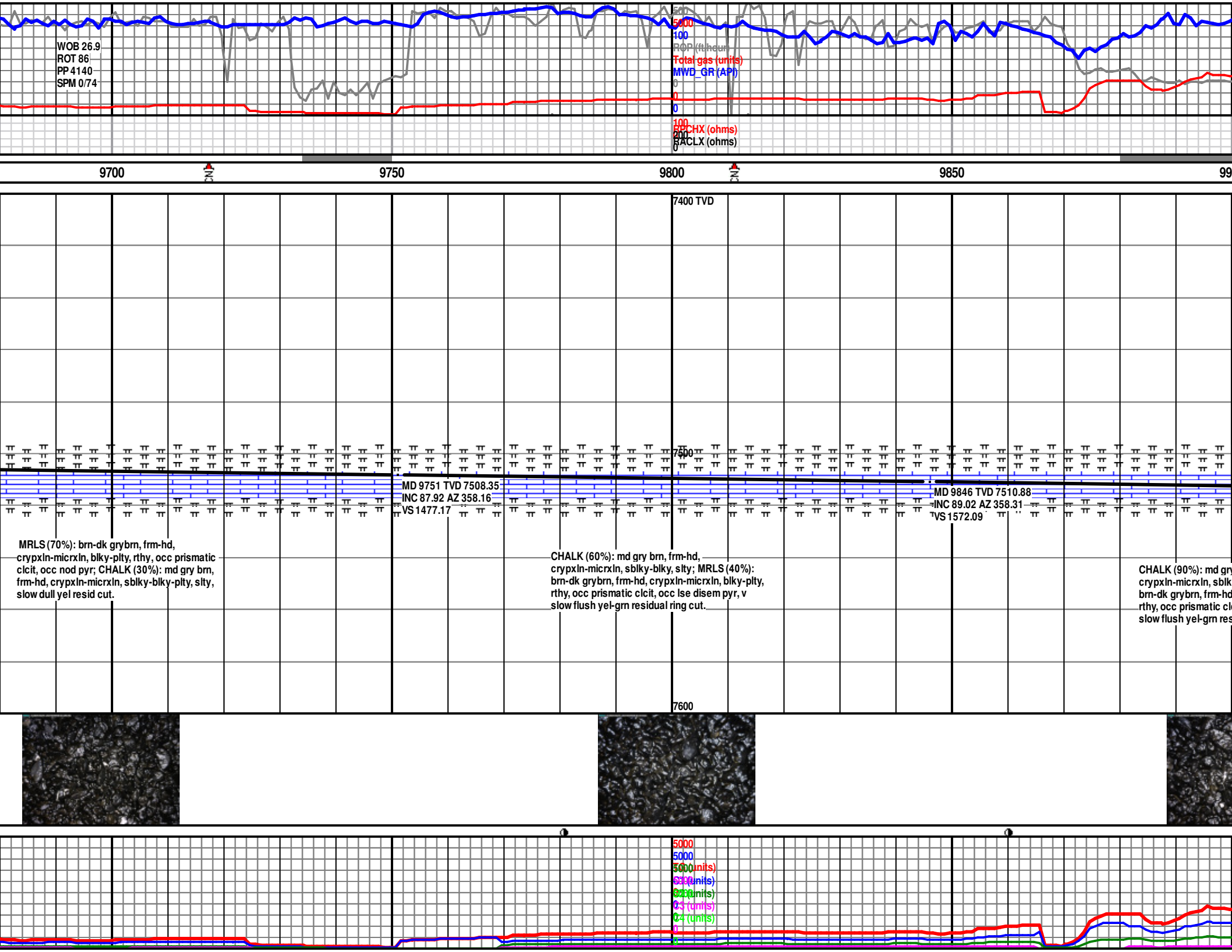
MD 9563 TVD 7504.46
INC 90.3 AZ 358.21
VS 1289.31

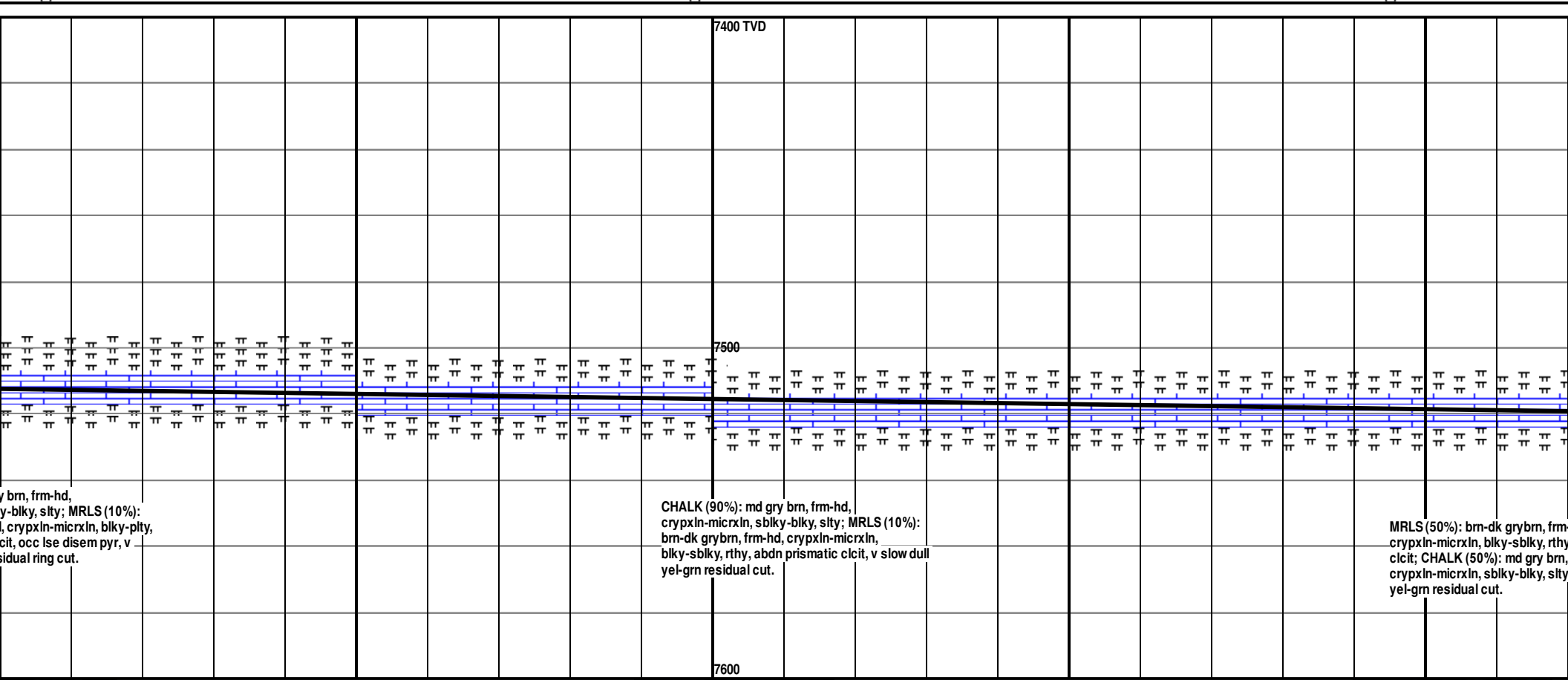
MD 9657 TVD 7505.43
INC 88.52 AZ 358.49
VS 1383.26

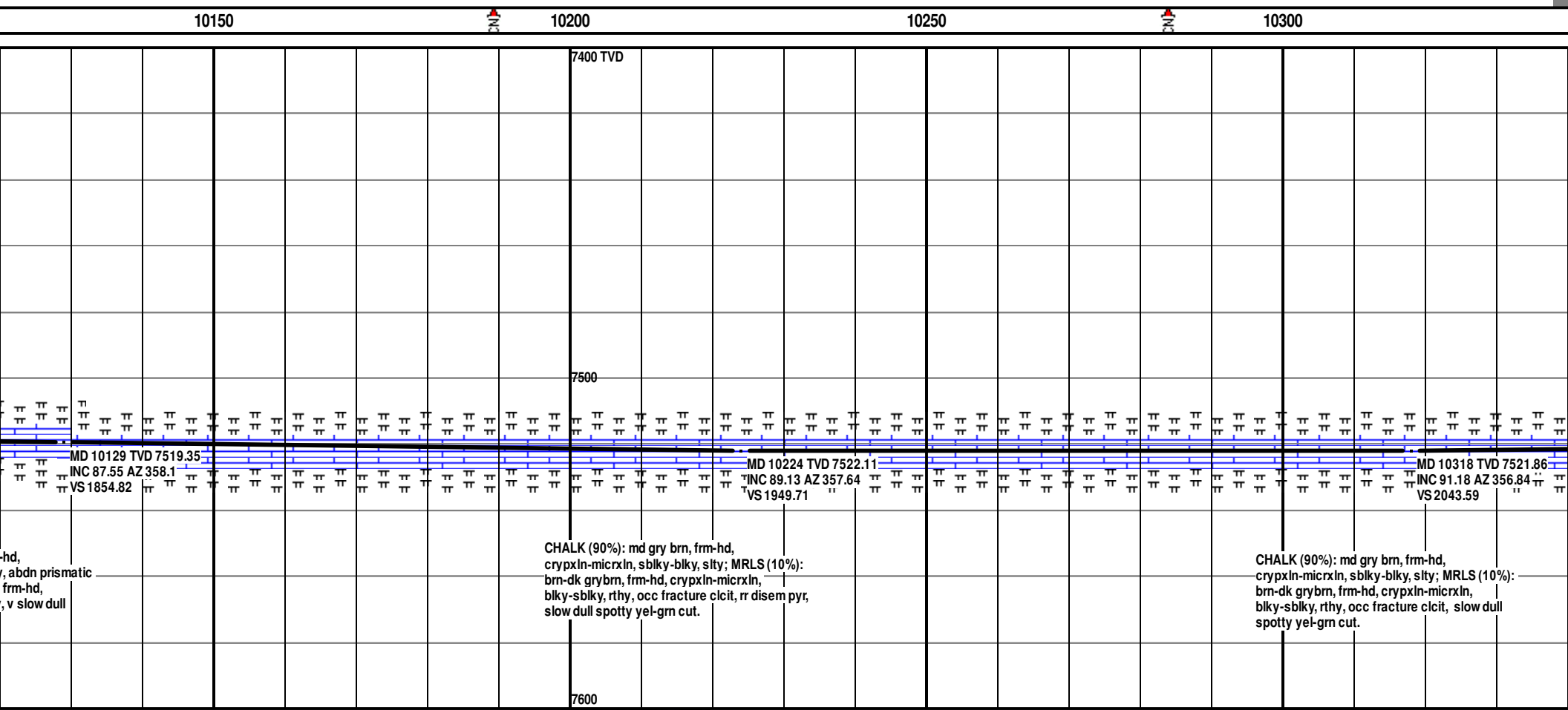
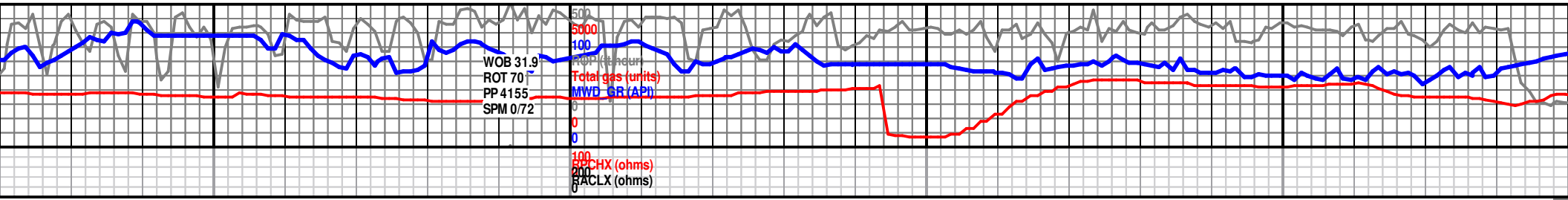
MARL (60%): md gry mott w/lt gry spkng, md cons, v shaly ip, locally abndt fn clay pellets grding nto shale; CHALK (40%): lt -md gry, off wht, mott w/carb & occ carbonate ntrlam, p cut;

CHALK (70%): lt -md gry, off wht, mott w/carb & occ carbonate ntrlam, p cut; MARL (30%): md gry mott w/lt gry spkng, md cons, v shaly ip, locally abndt fn clay pellets grding nto shale.









hd,
y, abdn prismatic
frm-hd,
v slow dull

CHALK (90%): md gry brn, frm-hd,
crypxln-micrxln, sbiky-blky, slty; MRLS (10%):
brn-dk grybrn, frm-hd, crypxln-micrxln,
blky-sbiky, rthy, occ fracture clcit, rr disem pyr,
slow dull spotty yel-grn cut.

CHALK (90%): md gry brn, frm-hd,
crypxln-micrxln, sbiky-blky, slty; MRLS (10%):
brn-dk grybrn, frm-hd, crypxln-micrxln,
blky-sbiky, rthy, occ fracture clcit, slow dull
spotty yel-grn cut.

