

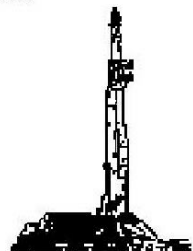
GOOLSBY BROTHERS
and associates, inc.

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: Reynolds Cattle 31N-23HZ

API: 05-123-39136-0000

Location: Section 23, T3N, R68W

License Number:

Spud Date: June 18, 2014

Surface Coordinates: NENE Sec 23 T3N R68W; 680' FNL & 155' FEL

Lat N 40.217051 Long W -104.96138

Bottom Hole Coordinates: SWNW Sec 23 T3N R68W; 1,472x' FNL; 113' FWL

Ground Elevation (ft): 4,933'

Logged Interval (ft): 7,000'

To: 12,457'

Formation: Pierre Shales/Sands, Niobrara B Target

Type of Drilling Fluid: Water & Poly to 6,600', LSND 6,600'-12,457'

K.B. Elevation (ft): 4,949'

Total Depth (ft): 12,457' DMTD

Region: Wattenberg, DJ Basin

Drilling Completed: June 24, 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, John Morgan

GEOLOGIST

Name: Andrew Krueger & Daniel Kabala

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

Address: 575 Union Blvd.

Suite 208,

Lakewood CO. 80228

E-logs

MWD GR 6,600' - 12,392'

Casing

9 5/8" Surface Casing set @ 1,364' MD

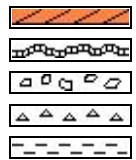
7" Intermediate Casing set @ 7,523' MD

4 1/2" Production Liner hung 06/xx/2014, landed @ xxxxx'

Comments

- 1) Drilling Contractor: Xtreme Drilling, Rig #20
Toolpusher: Joseph Contreras
- 2) Company Man: Marvin Hackworth & Tim Walker
- 3) Mud Company : AES
Engineer: Shannon Davis
- 4) Directional Drilling: Baker Hughes
Pulse Tool
Drillers: Barry Combs & Tony Besse
MWD: Greg Dore & David Camp
- 5) Gas Equipment: Pason Systems
- 6) Wellsite Geology: Goolsby Brothers & Associates
Geologists: Dan Kabala & Andrew Krueger

ROCK TYPES



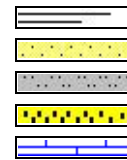
Anhy
Bent
Brec
Cht
Clyst



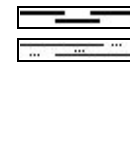
Coal
Oil sat.
Congl
Dol
Gyp



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
 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

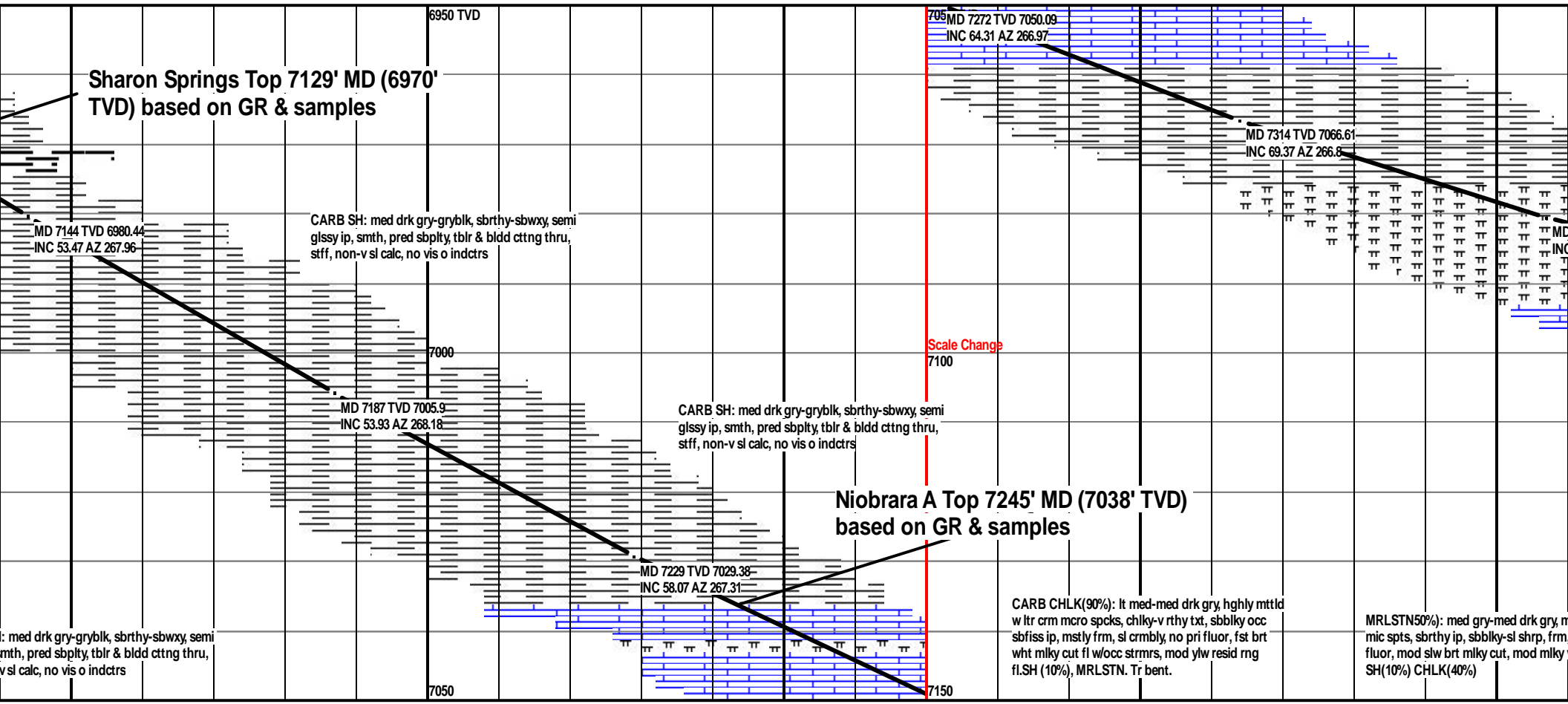
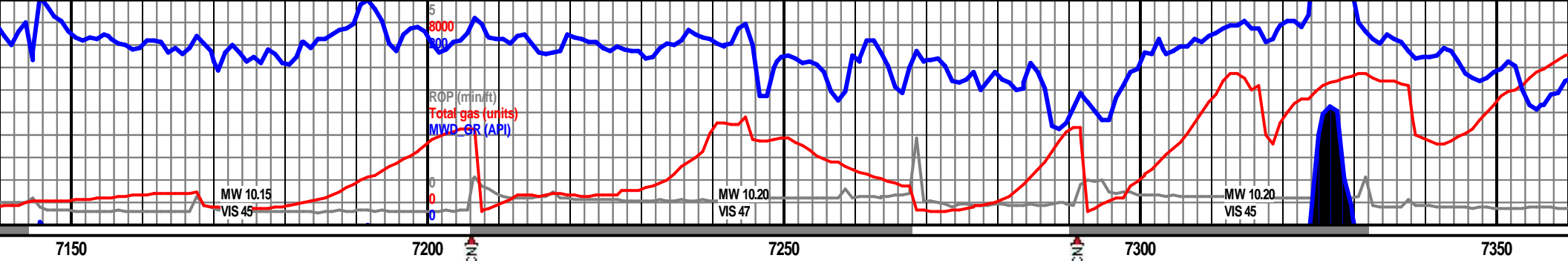
Inter
 Moldic
 Organic
 Pinpoint
 Vuggy

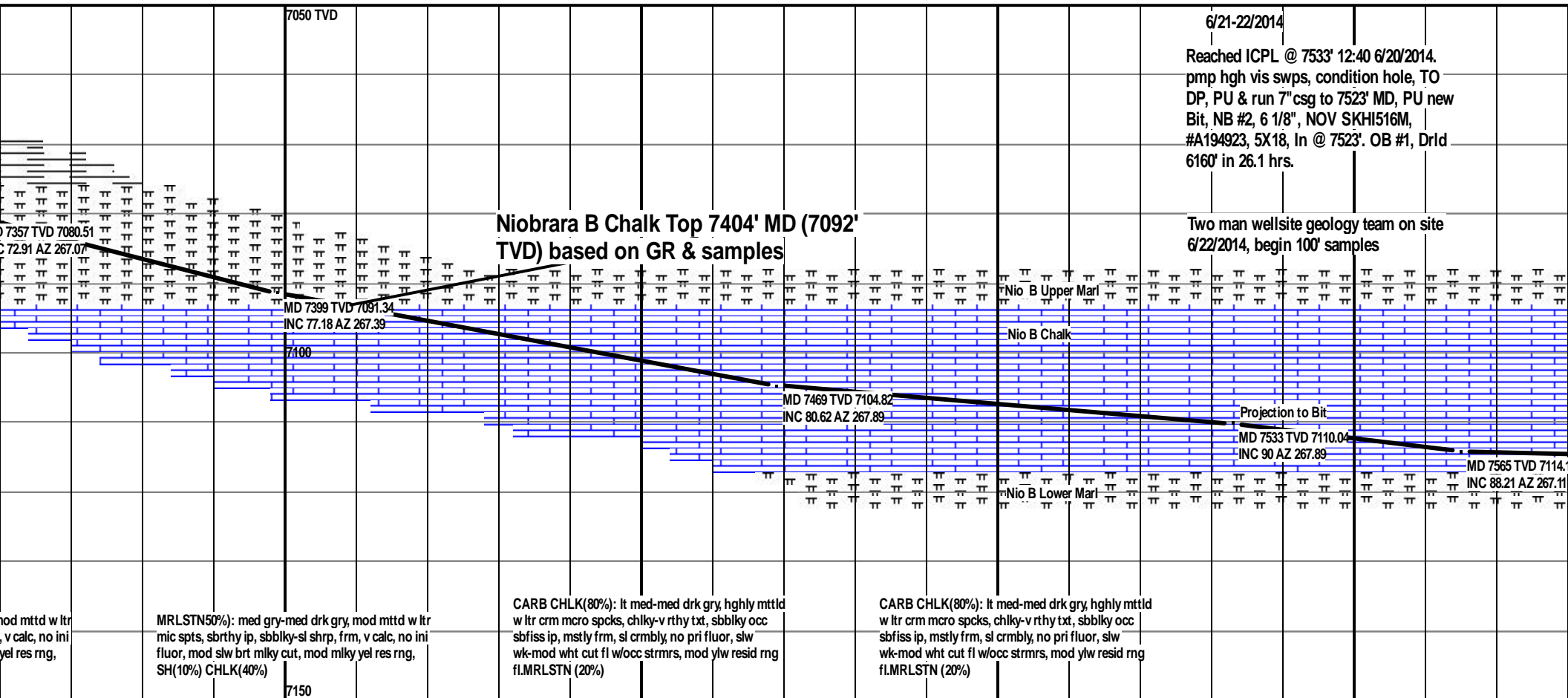
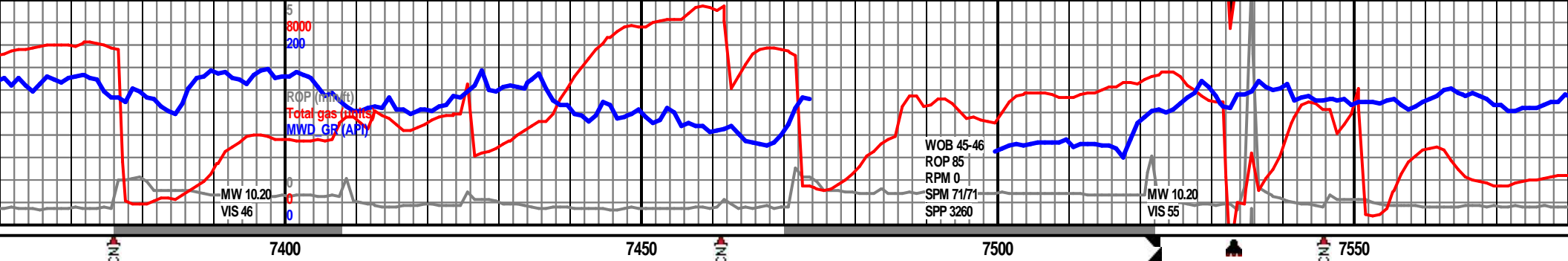
ROUNDING

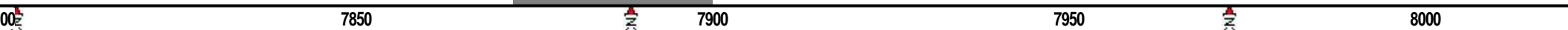
Rounded
 Subrnd
 Subang
 Angular

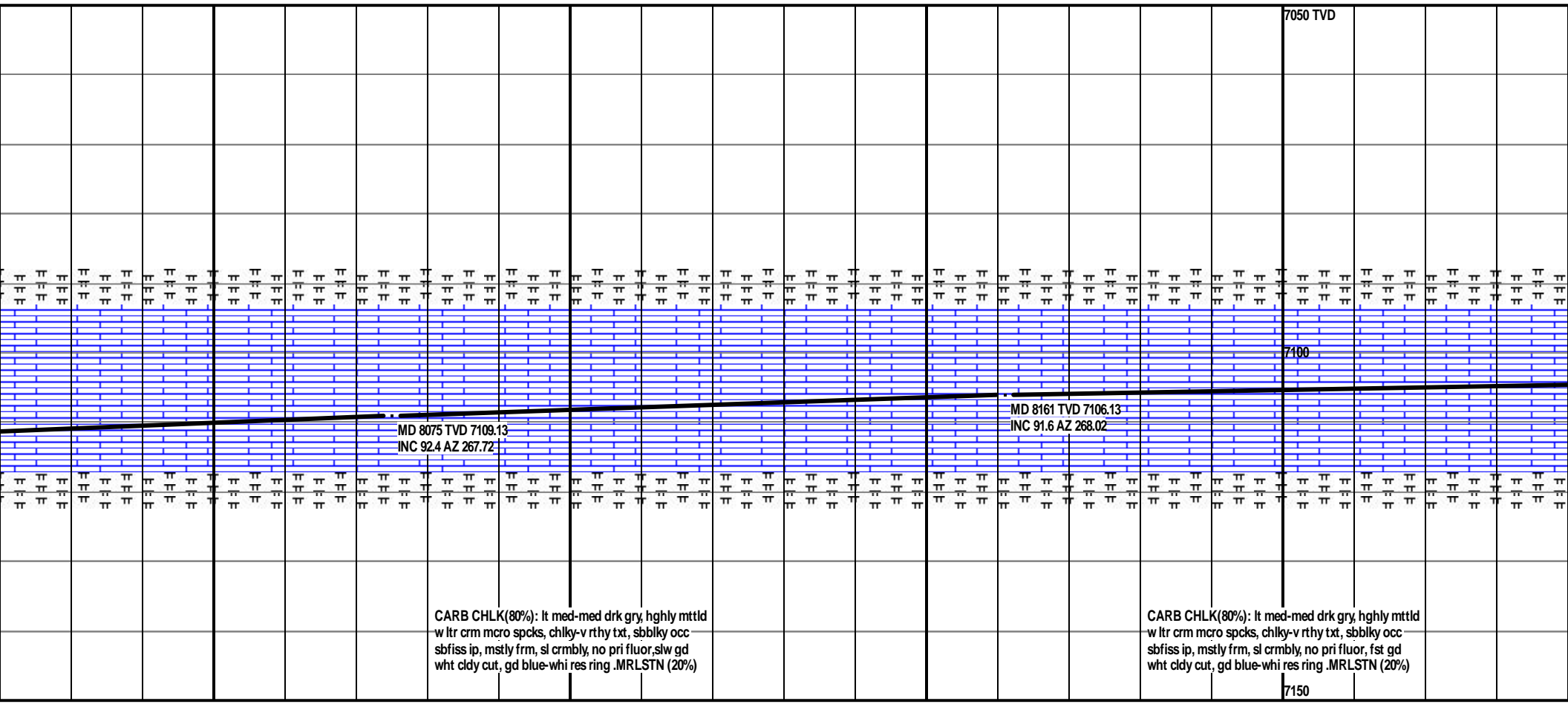
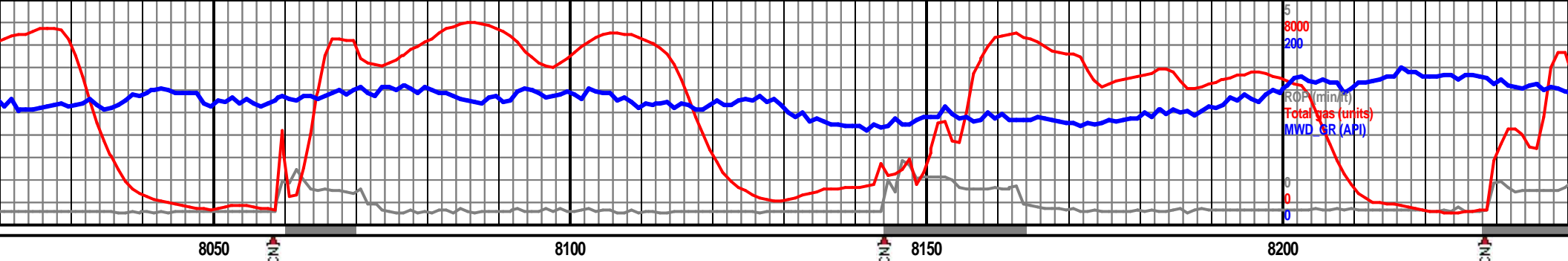
SORTING

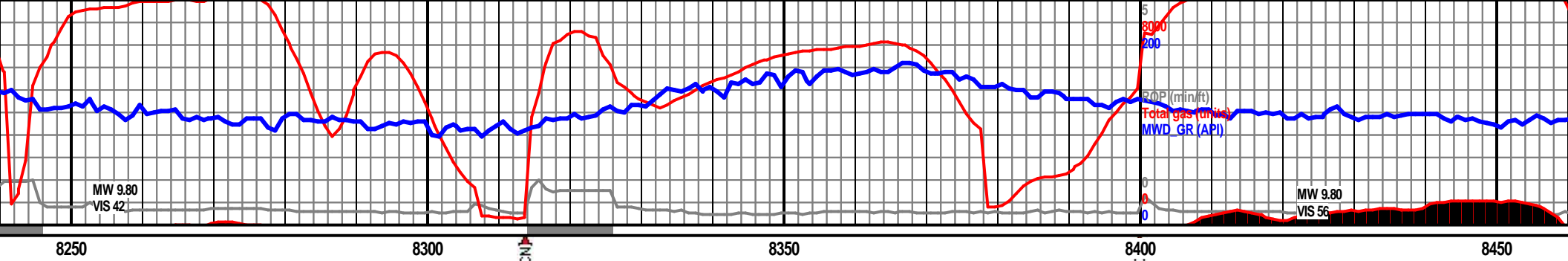
Well
 Moderate
 Poor





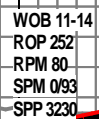






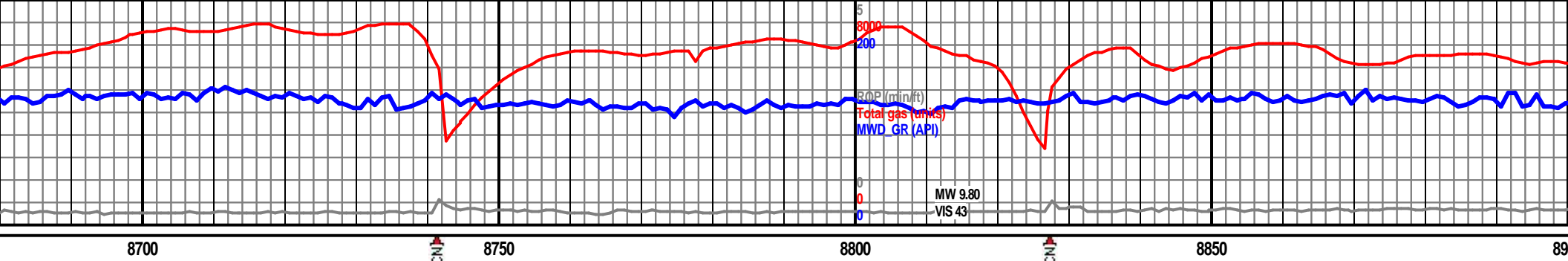
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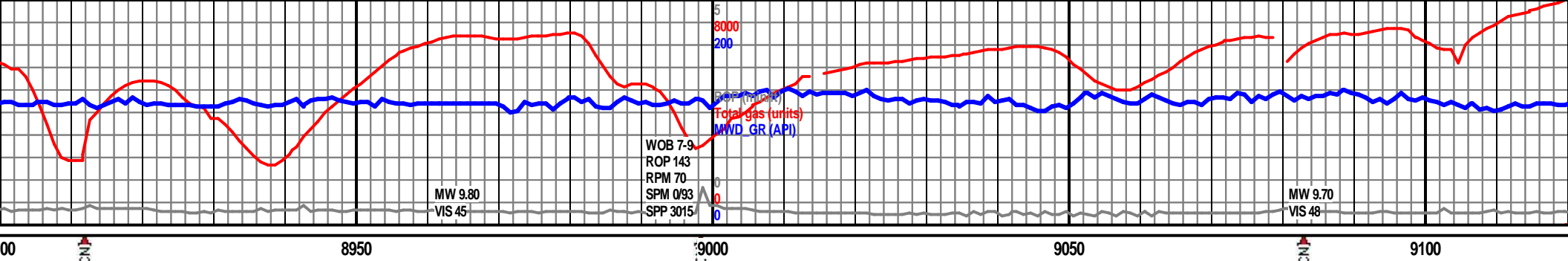
CARB CHLK(90%): lt med-med drk gry, highly mttld
w ltr crm micro spcks, chlkly-v rthy txt, sbblky occ
sbfiss ip, mstly frm, sl crmbly, no pri fluor, fst gd
wht cldy cut, gd blue-whi res ring .MRLSTN (10%)





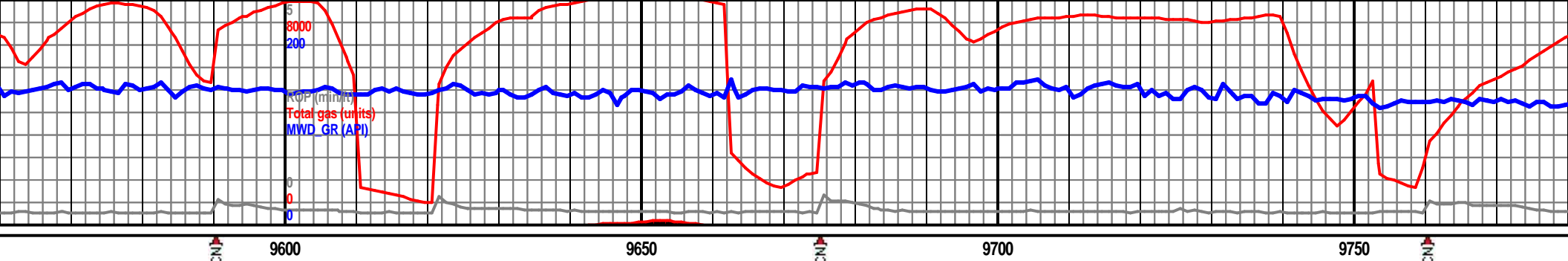
7050 TVD																													
7100																													
D 7107.81 Z 268.53										MD 8757 TVD 7107.6 INC 89.72 AZ 267.84										MD 8842 TVD 7107.72 INC 90.12 AZ 267.49									
CARB CHLK(90%): lt med-med drk gry, highly mttld w ltr crm micro spcks, chlky-v rthy txt, sbbiky occ sbfiss ip, mstly frm, sl crmbly, no pri fluor, fst gd wht cldy cut, gd blue-whi res ring .MRLSTN (10%)										CARB CHLK(90%): lt med-med drk gry, highly mttld w ltr crm micro spcks, chlky-v rthy txt, sbbiky occ sbfiss ip, mstly frm, sl crmbly, no pri fluor, fst gd wht cldy cut, gd blue-whi res ring .MRLSTN (10%)										MRLSTN(80%): med gry mic spts, sbrthy ip, sbbiky fluor, mod slw brt mlky CHLK(20%)									
7150																													





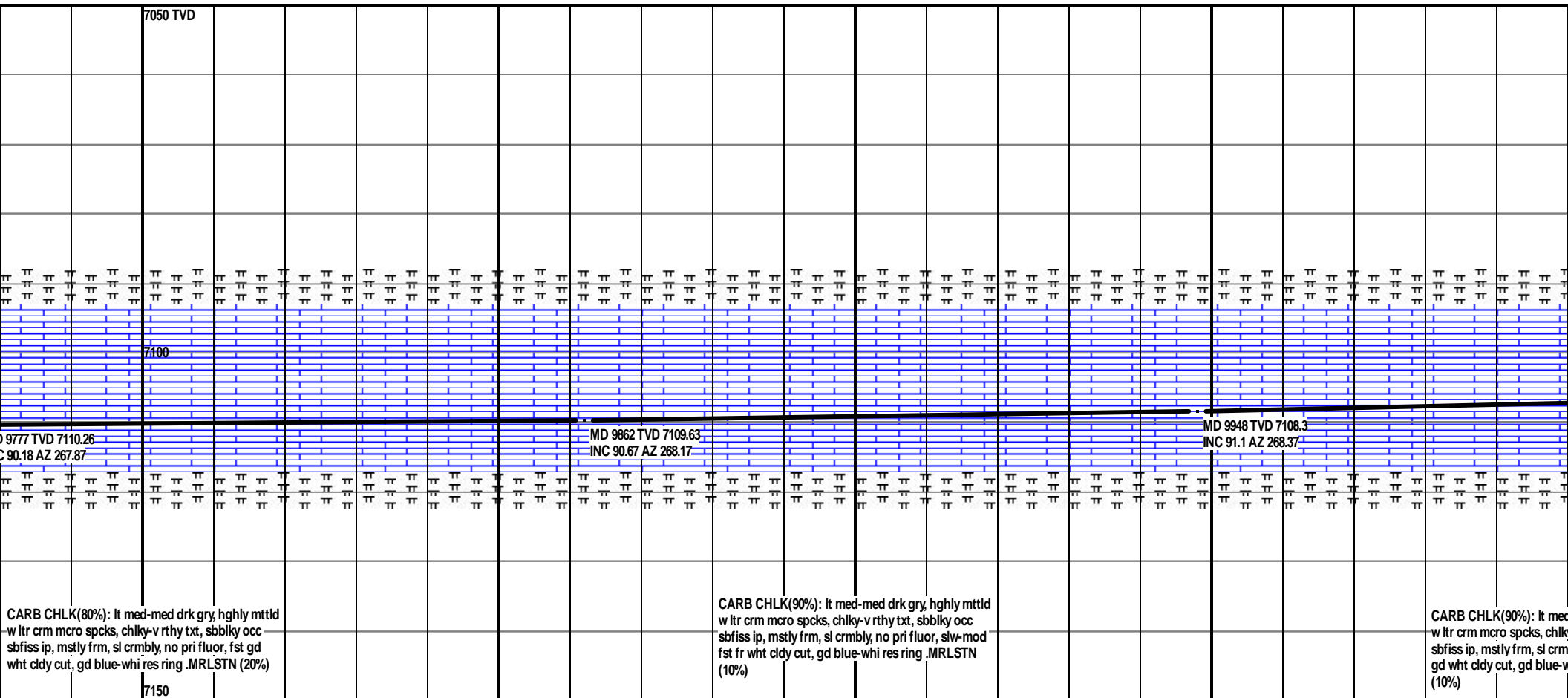
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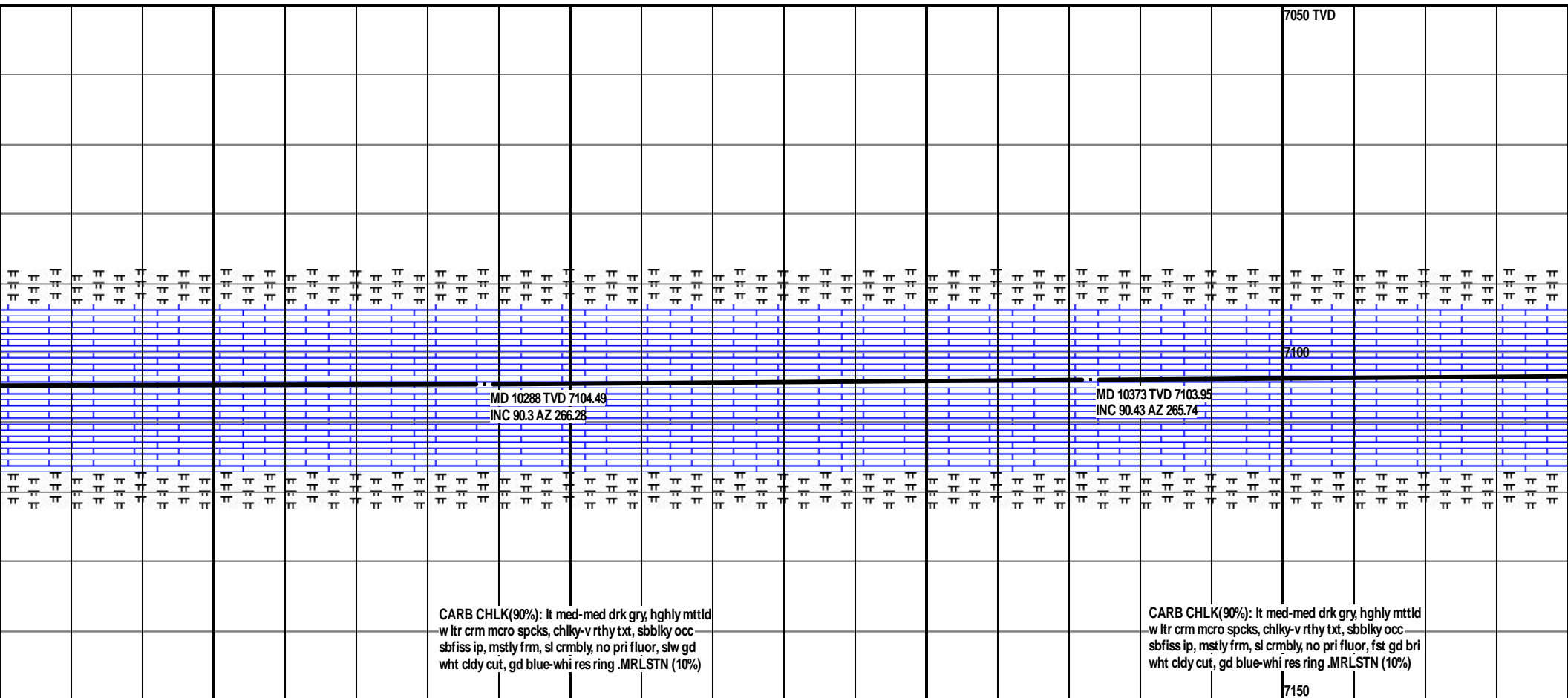


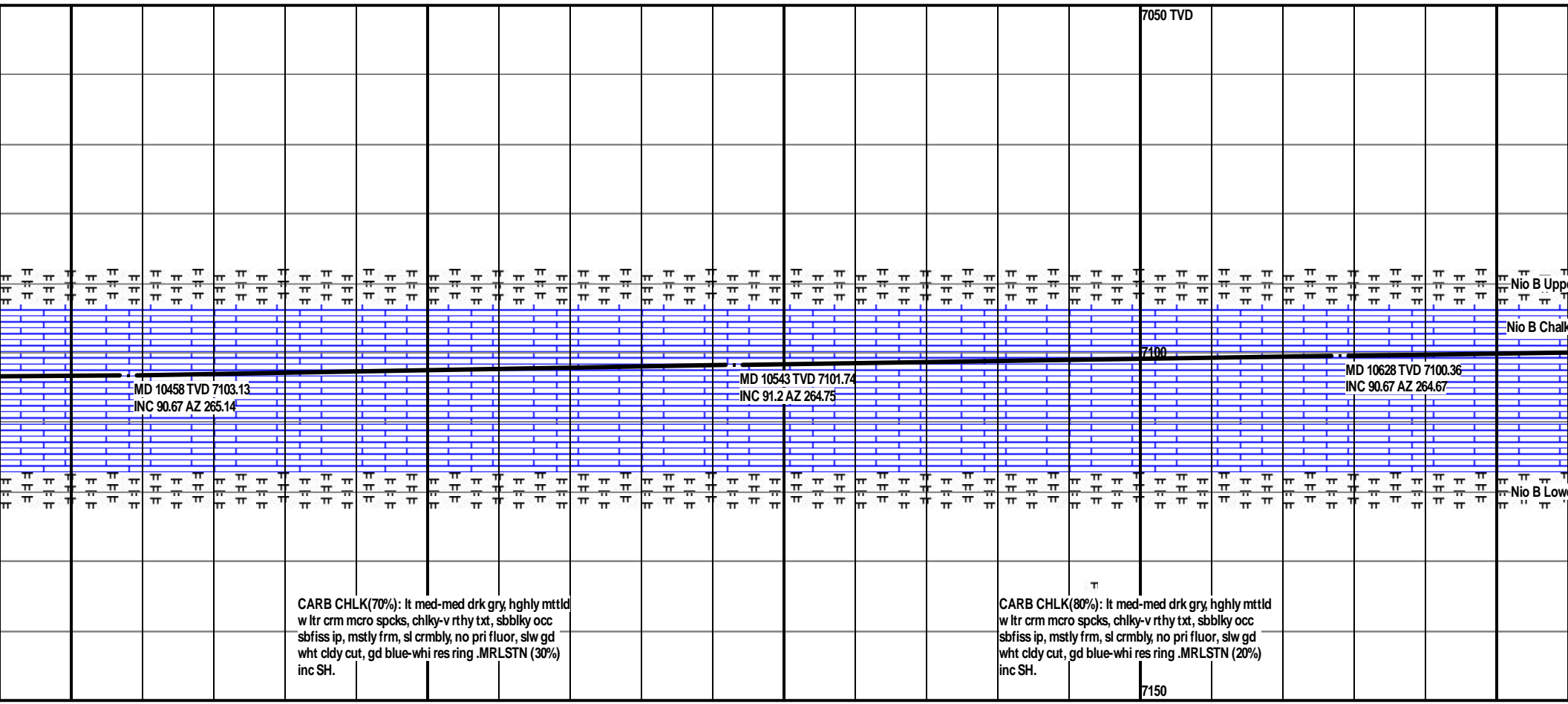
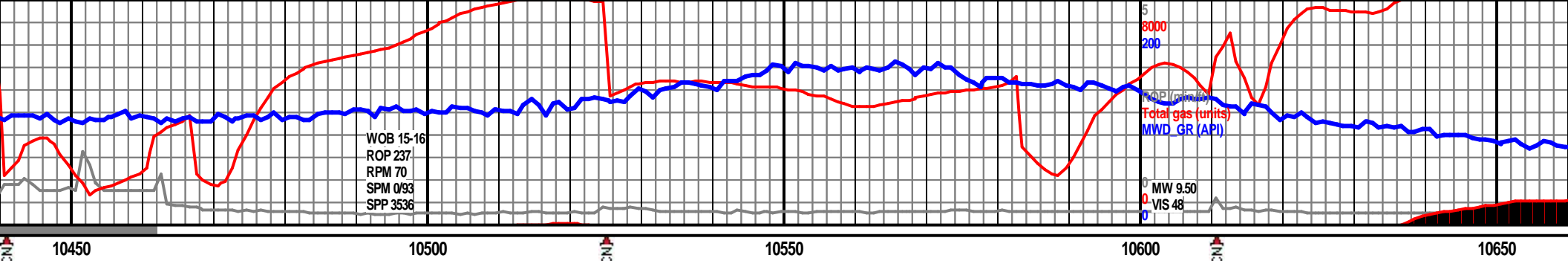


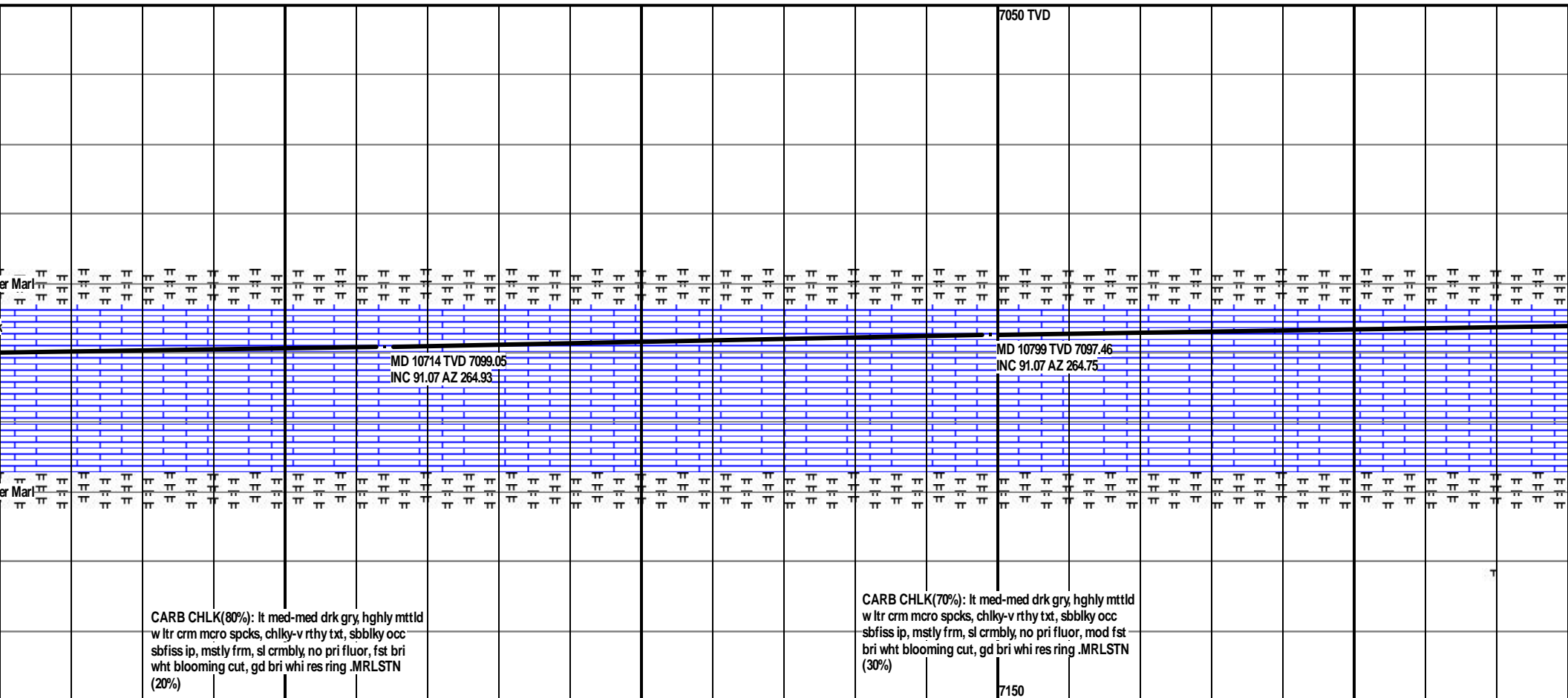
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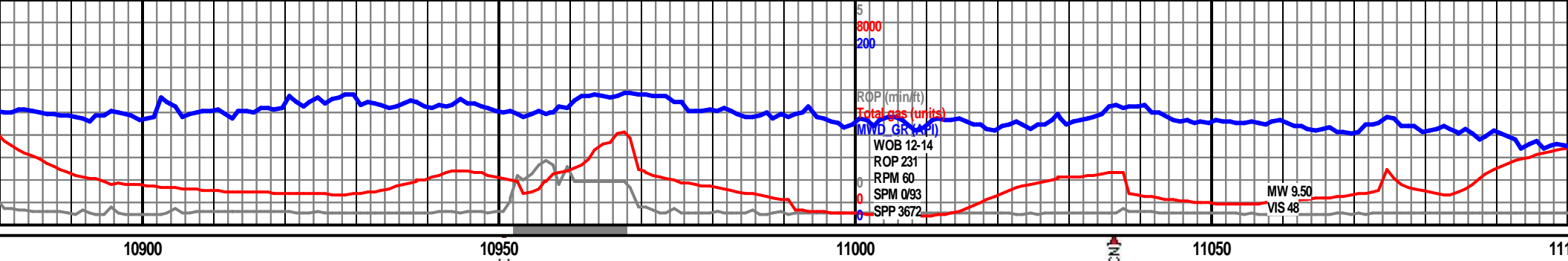






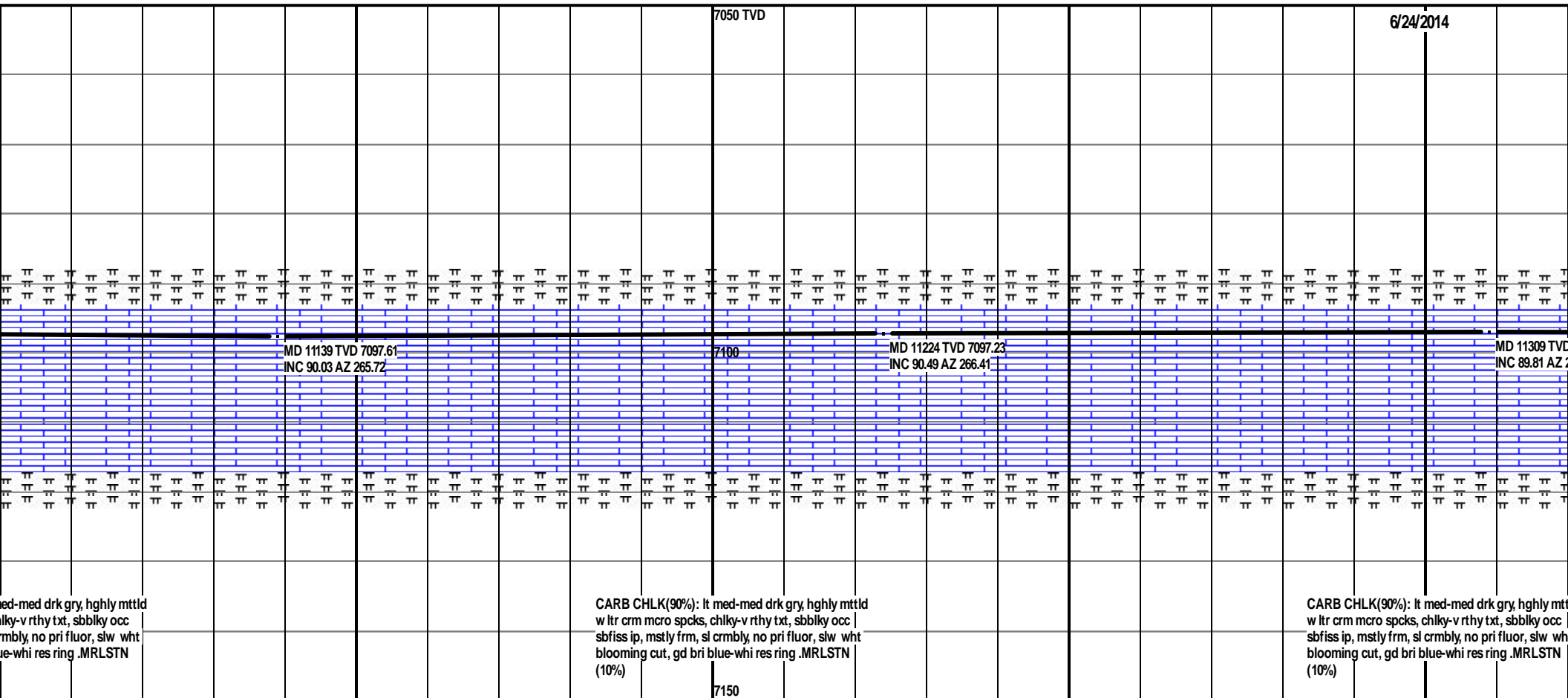


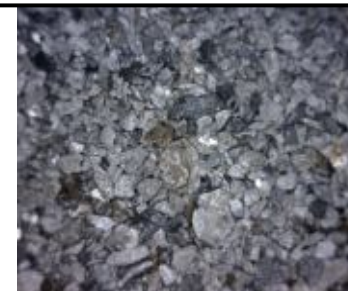
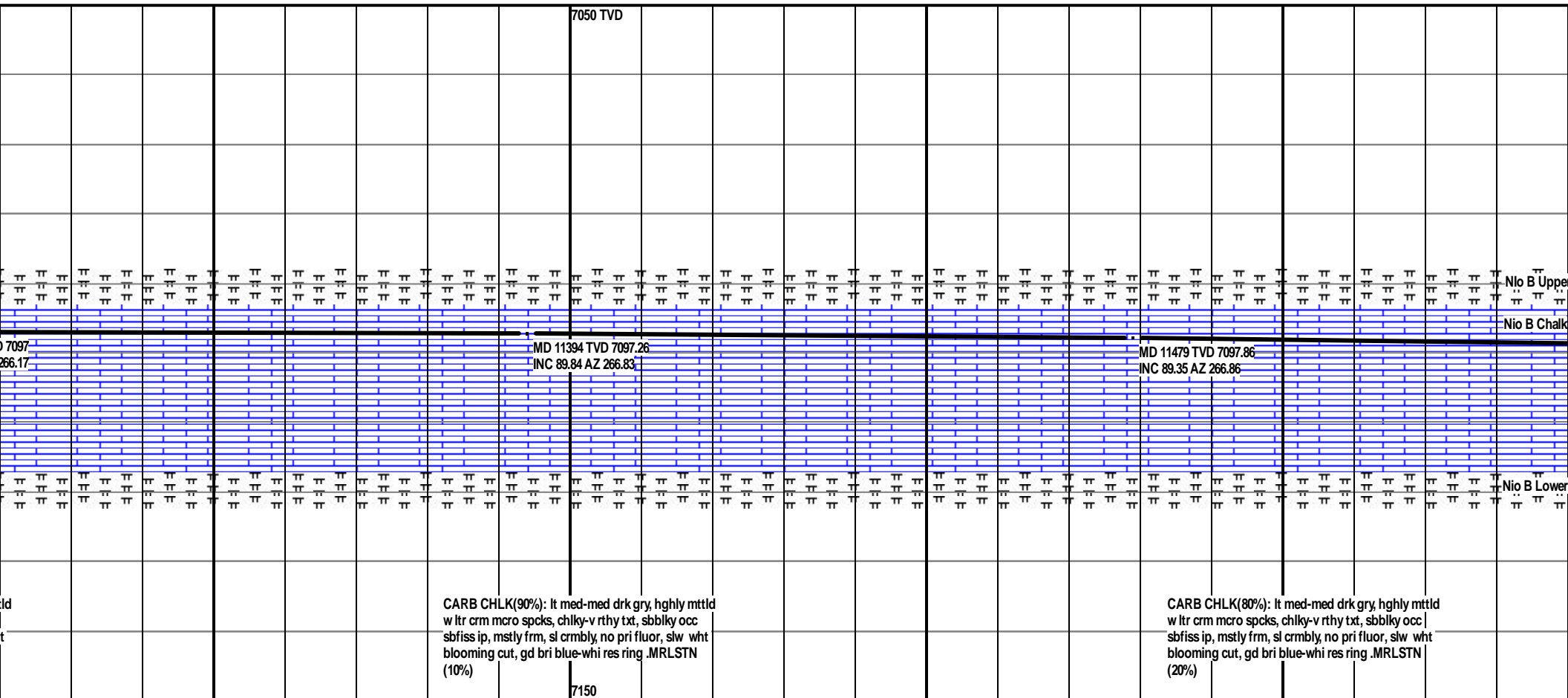


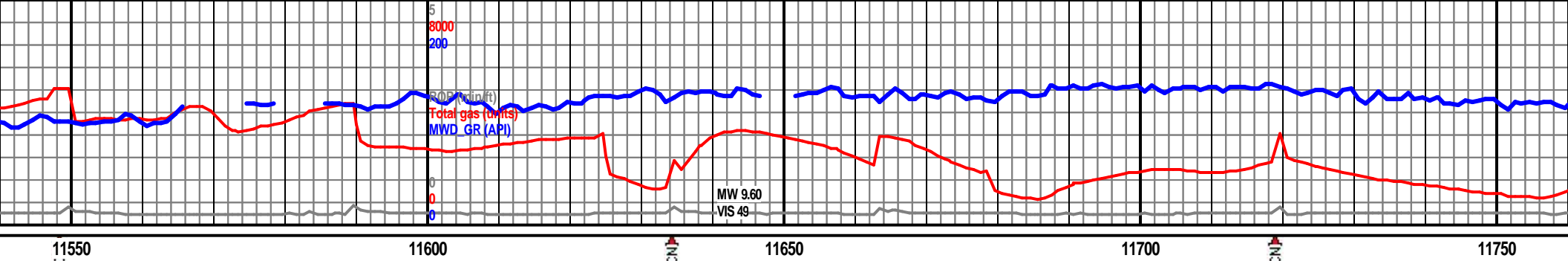


MD 10883 TVD 7096.12 INC 90.76 AZ 264.5									
MD 10969 TVD 7096.02 INC 89.38 AZ 265.39									
MD 11054 TVD 7097.06 INC 89.22 AZ 265.28									
CARB CHLK(80%): It med-med drk gry, hghly mttld w ltr crm mcro spcks, chiky-v rthy txt, sbblky occ sbfiss ip, mstly frm, sl crmbly, no pri fluor, fst ple wht blooming cut, gd bri blue-whi res ring .MRLSTN (20%)									
CARB CHLK(80%): It med-med drk gry, hghly mttld w ltr crm mcro spcks, chiky-v rthy txt, sbblky occ sbfiss ip, mstly frm, sl crmbly, no pri fluor, slw wht blooming cut, gd bri blue-whi res ring .MRLSTN (20%)									
CARB CHLK(90%): It m w ltr crm mcro spcks, ch sbfiss ip, mstly frm, sl cr blooming cut, gd bri bl (10%)									



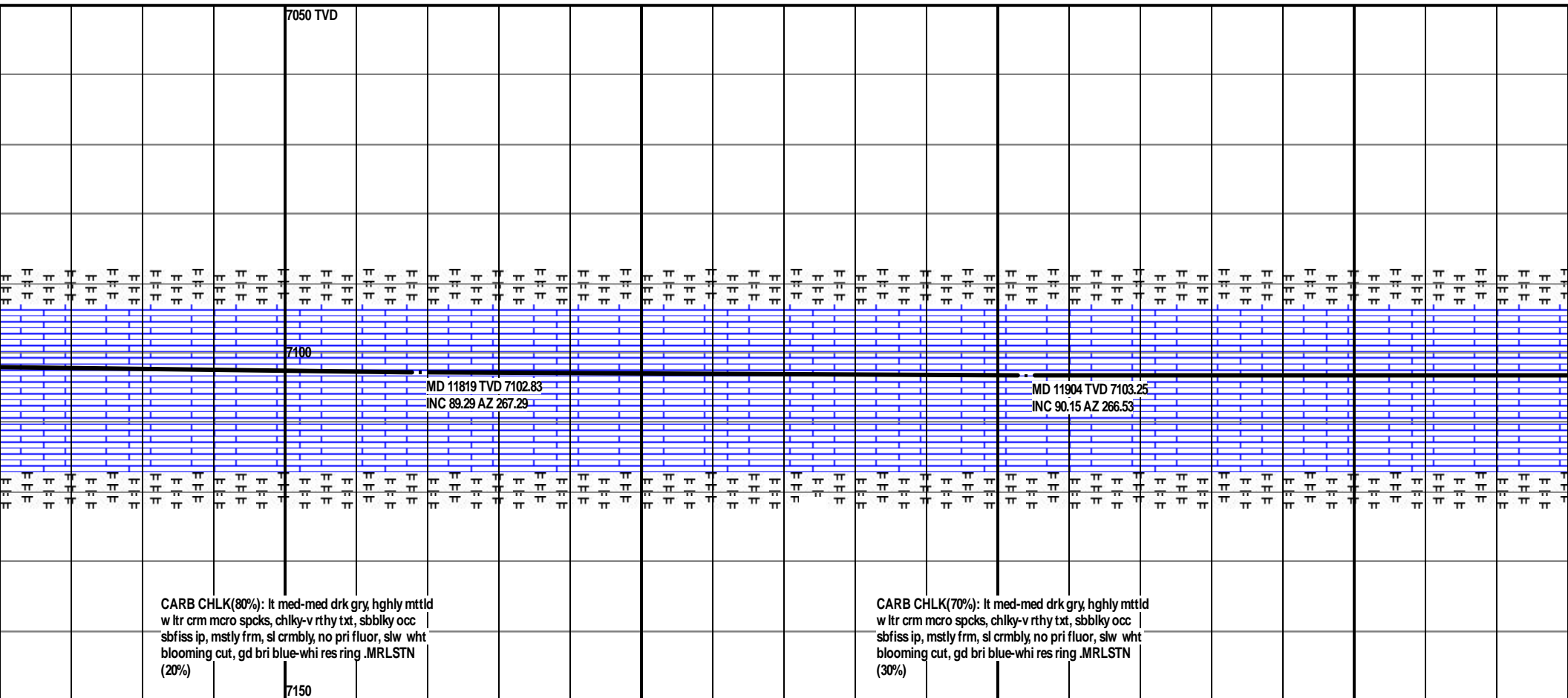


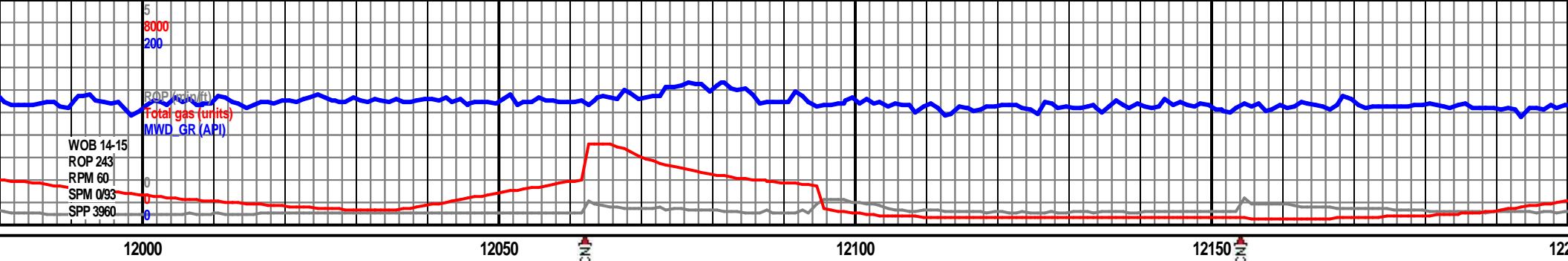




7050 TVD																									
Marl																									
MD 11564 TVD 7098.95 INC 89.19 AZ 267.15													MD 11649 TVD 7100.33 INC 88.95 AZ 266.94												
MD 11734 TVD 7101.71 INC 89.19 AZ 267.64																									
Marl																									
CARB CHLK(90%): lt med-med drk gry, hghly mttld w ltr crm micro spcks, chiky-v rthy txt, sbbiky occ sbfiss ip, mstly frm, sl crmbly, no pri fluor, slw wht blooming cut, gd bri blue-whi res ring .MRLSTN (10%)													CARB CHLK(80%): lt med-med drk gry, hghly mttld w ltr crm micro spcks, chiky-v rthy txt, sbbiky occ sbfiss ip, mstly frm, sl crmbly, no pri fluor, slw wht blooming cut, gd bri blue-whi res ring .MRLSTN (20%)												
7150																									

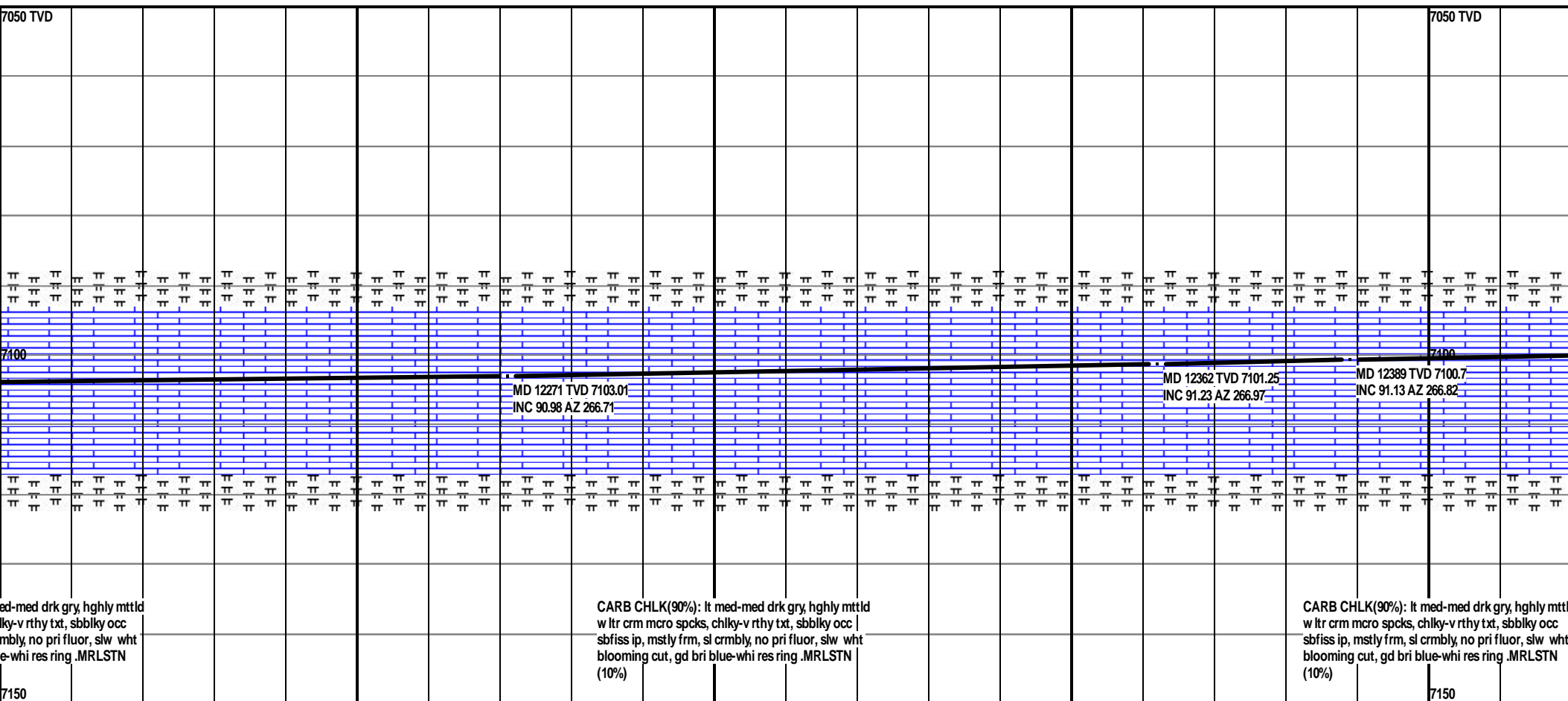
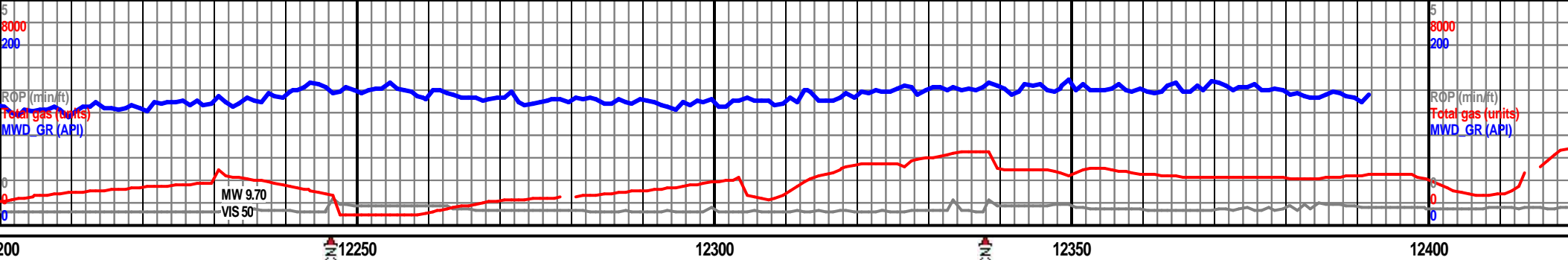


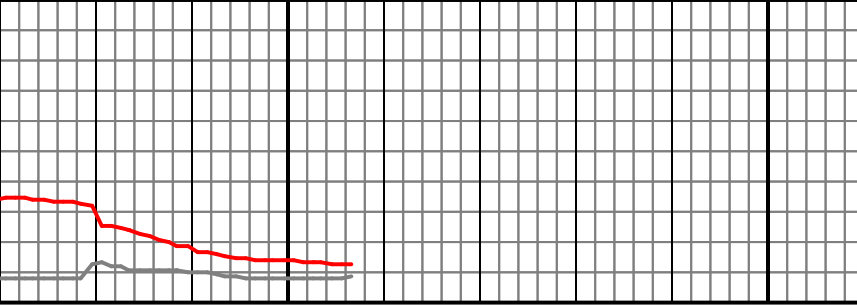




7050 TVD																			







12450

12500

DMTD reached @ 09:40hrs on June 24, 2014

Short Trip @ 12,457' DMTD, condition hole, hang
4 1/2" production liner landed @ 12,4xx' on
6/xx/2014

OB #2 Drilled 4924' in 27.9hrs

Nio B Upper Marl

Nio B Chalk

Projection to Bit

MD 12457 TVD 7099.36
INC 91.13 AZ 266.82

Geologic Tops picked by John Morgan,
Anadarko.

Nio B Lower Marl

Sharon Springs	6,971' (-2,022')
Niobrara	7,038' (-2,089')
Niobrara B Chalk	7,092' (-2,143')
DMTD	12,457'
Production csg	12,4xx'

Wellsight Geologists Andrew Krueger and Dan
Kabala, GBA.