



Scale: 9.60" / 100'
Measured Depth Log

Well Name GoodmanPoint#26(Lateral)(M-13)

Location SHL: 2327 FSL & 241 FEL, Section 7 T36N R17W NMPM

State CO

County Montezuma

Country US

Rig Number M-13

API Number 05-083-06703-01

Region GoodmanPoint

Field McElmo Dome

Spud Date 11/6/2013

Bottom Hole Coordinates BHL: Horizontal well, 921 FSL & 1186 FWL, SECTION 8 T36N R17W 135 Degree azimuth from SHL; (2000' max lateral extension)

Ground Elevation 6934'

K.B. Elevation 6954'

Logged Interval 7808'

Formation Leadville

Type of Drilling Fluid Fresh water

Operator

Company KINDER MORGAN

Geologist

Company Above Enterprise

Rock Types

| | | | | |
|---|---|---|---|---|
|  UNKNOWN |  ANHYDRITE |  DOLOMITE |  SHALE GRAY |  TILL |
|  GYPSUM |  CHERT |  SHALE COLORED |  BENTONITE |  TUFF |
|  SALT |  COAL |  SILTSTONE |  IGNEOUS |  METAMORPHIC |
|  SIDERITE or LIMONITE |  MARLSTONE |  SANDSTONE | | |
|  LIMESTONE |  CLAYSTONE |  CONGLOMERATE | | |
| |  SHALE |  BRECCIA | | |

Accessories

Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHIOIPOD
- BRYOZOA
- CEPHALOPOD
- CORAL
- CRINOID
- ECHINOID
- FISH
- FORAMINIFERA

F FOSSIL

- GASTROPOD
- OOLITE
- OSTRACOD
- PELECYPOD
- PELLET
- PISOLITE
- PLANT REMAINS
- PLANT SPORES
- SCAPHOPOD
- STROMATOPOROID

Minerals

- ANHYDRITIC

— ARGILLACEOUS

- ARGILLITE GRAIN
- BENTONITE
- BITUMENOUS SUBSTANCE
- BRECCIA FRAGMENTS
- CALCAREOUS
- CARBONACEOUS FLAKES
- CHTDK
- CHTLT
- COAL - THIN BEDS
- DOLOMITIC
- FELDSPAR
- FERRUGINOUS PELLET
- FERRUGINOUS

∩ GLAUCONITE

- GYPSIFEROUS
- HEAVY MINERAL
- KAOLIN
- MARLSTONE
- MINERAL CRYSTALS
- NODULES
- PHOSPHATE PELLETS
- PYRITE
- SALT CAST
- SANDY
- SILICEOUS
- SILTY
- TUFFACEOUS

Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLOMITE STRINGER
- GYPSUM STRINGER
- LIMESTONE STRINGER
- MARLSTONE (CALC) STRG
- MARLSTONE (DOL) STRG
- SANDSTONE STRINGER
- SHALE STRINGER
- SILTSTONE STRINGER

Other Symbols

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

- MOLDIC
- ORGANIC
- PINPOINT
- VUGGY

Engineering

- BIT
- CONNECTION (LEFT)
- CONNECTION (RIGHT)
- CONNECTION GAS
- CORE - LOST
- CORE - RECOVERED
- DST INTERVAL

Porosity

- EARTHY
- FENESTRAL
- FRACTURE
- INTERCRYSTALLINE
- INTEROOLITIC

⚡ FAULT

- FORMATION TOP
- GAS SHOW
- MN DEPTH
- NORMAL FAULT
- OIL SHOW
- OVERTURNED STRATA
- REVERSE FAULT
- SIDEWALL CORE (LEFT)
- SIDEWALL CORE (RIGHT)
- SLIDE
- SURVEY
- TRIP GAS

◀ WIRELINE TESTED - LEFT

▶ WIRELINE TESTED - RT

Rounding

- ANGULAR
- ROUNDED
- SUBANG
- SUBRND

Textures

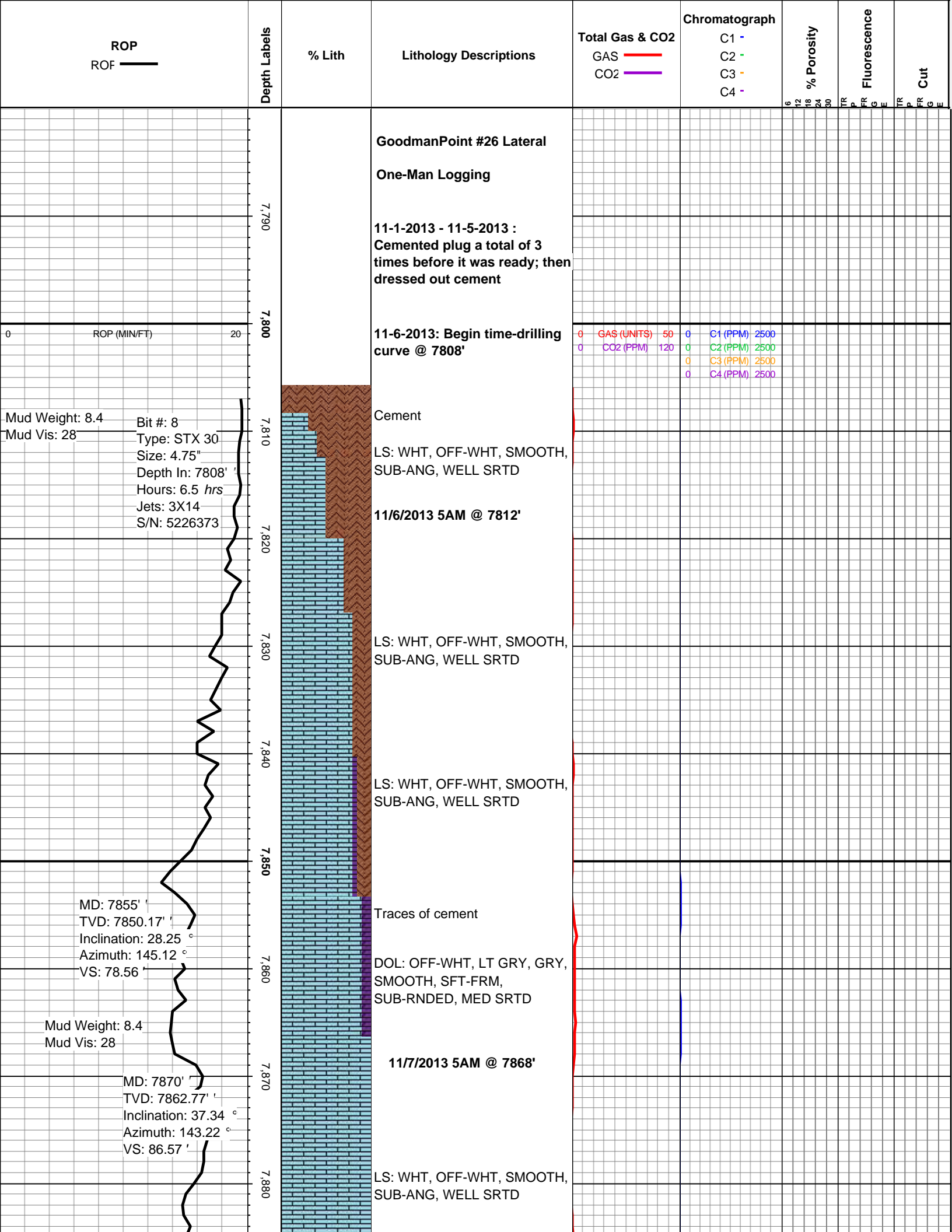
- BOUNDSTONE
- CHALKY
- CRYPTOXLN

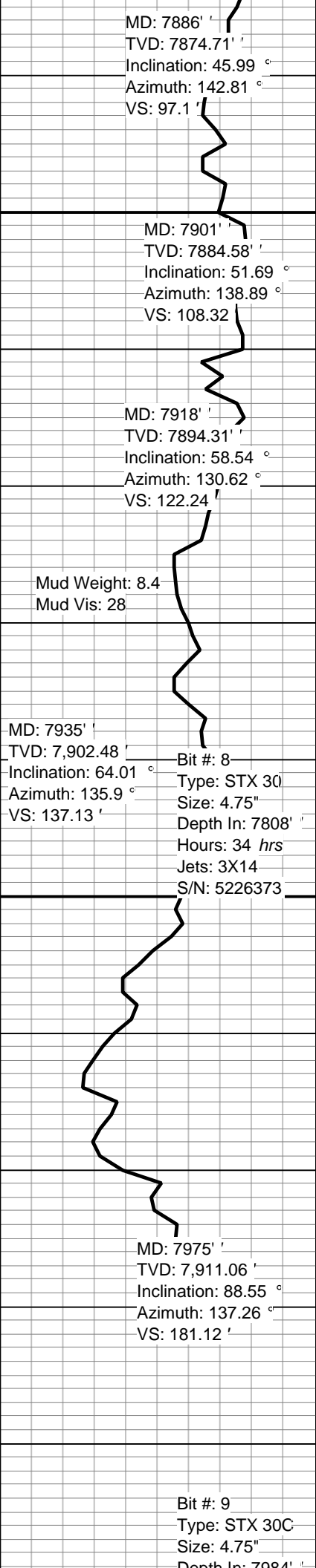
E EARTHY

- FINELYXLN
- GRAINSTONE
- LITHOGRAPHIC
- MICROXLN
- MUDSTONE
- PACKSTONE
- WACKESTONE

Sorting

- MODERATE
- POOR
- WELL





LS: WHT, OFF-WHT, SMOOTH, SUB-ANG, WELL SRTD

DOL: OFF-WHT, LT GRY, GRY, SMOOTH, SFT-FRM, SUB-RNDED, MED SRTD

DOL: 5% DARK

DOL: 5% DARK

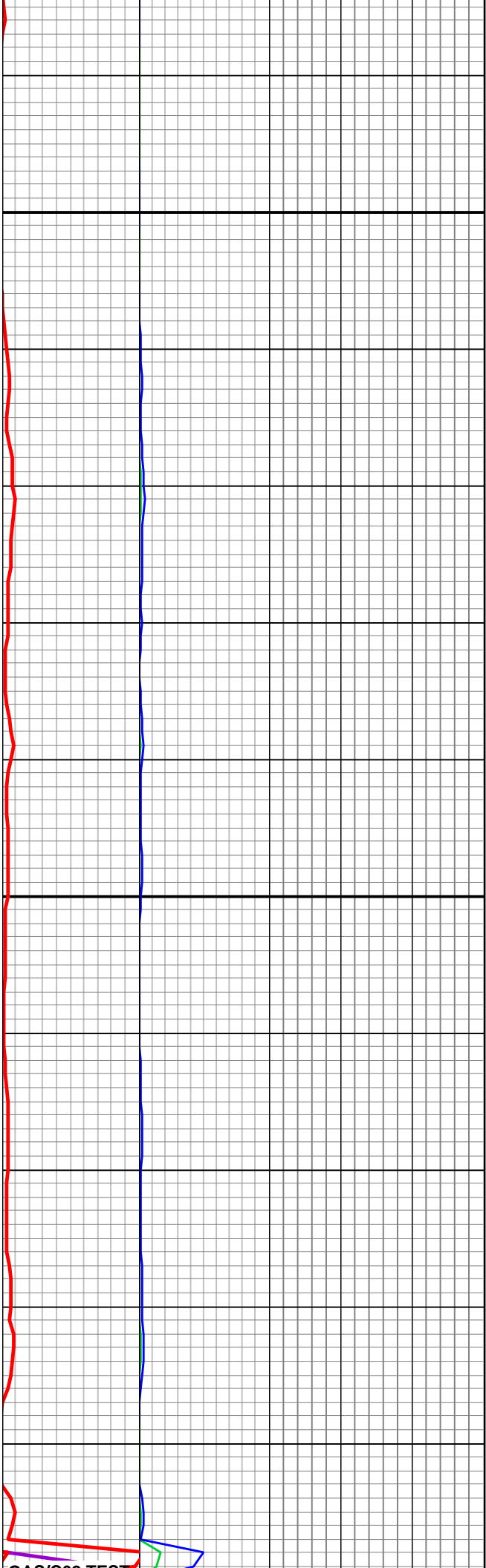
LOST 100% CIRCULATION @ 7837' - NO RETURNS

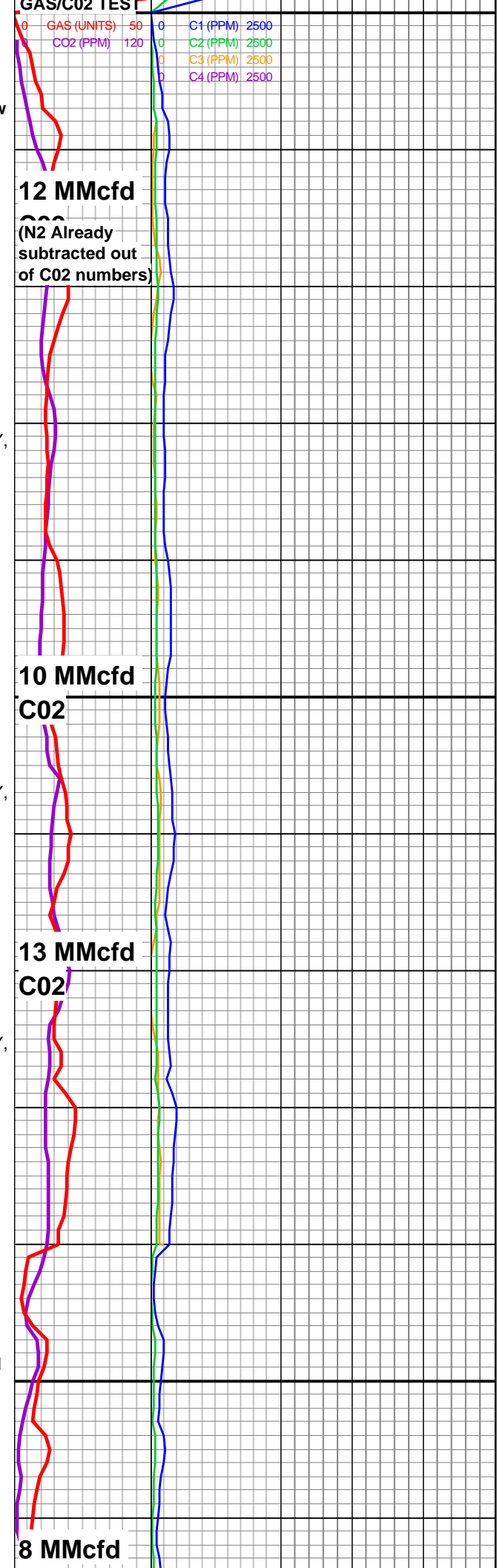
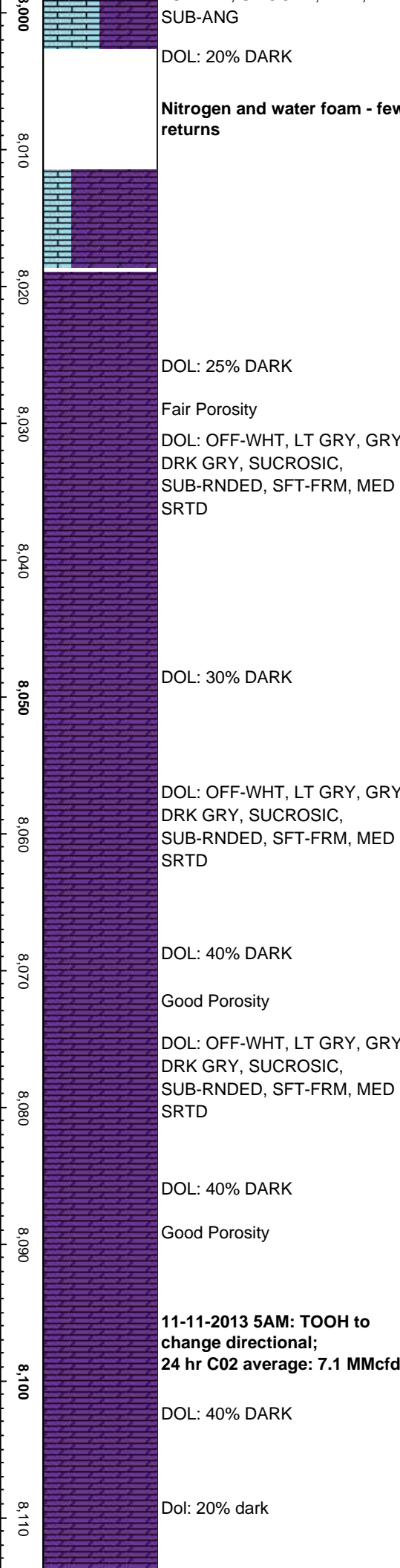
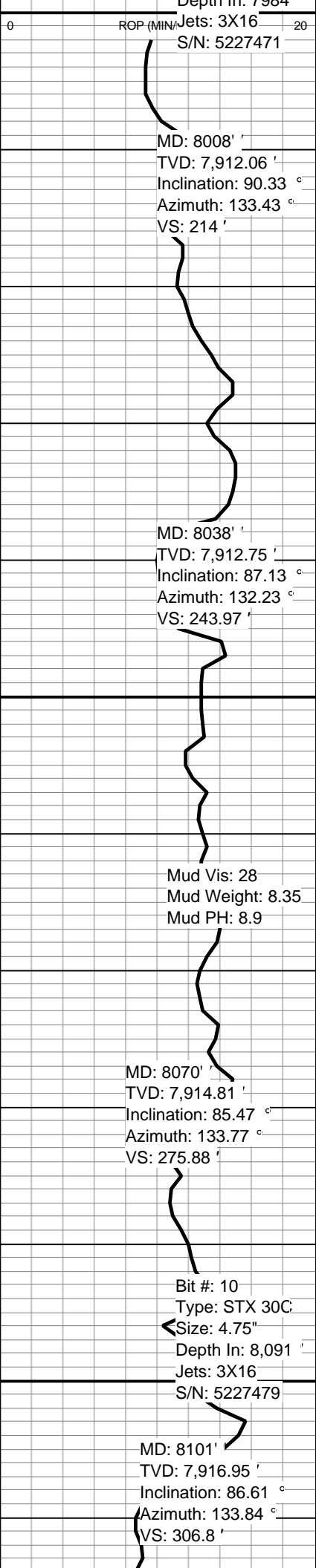
11/8/2013 5AM @ 7983; TOOH

11/9/2013 : TOOH, pick up new directional motor, TIH, unload hole

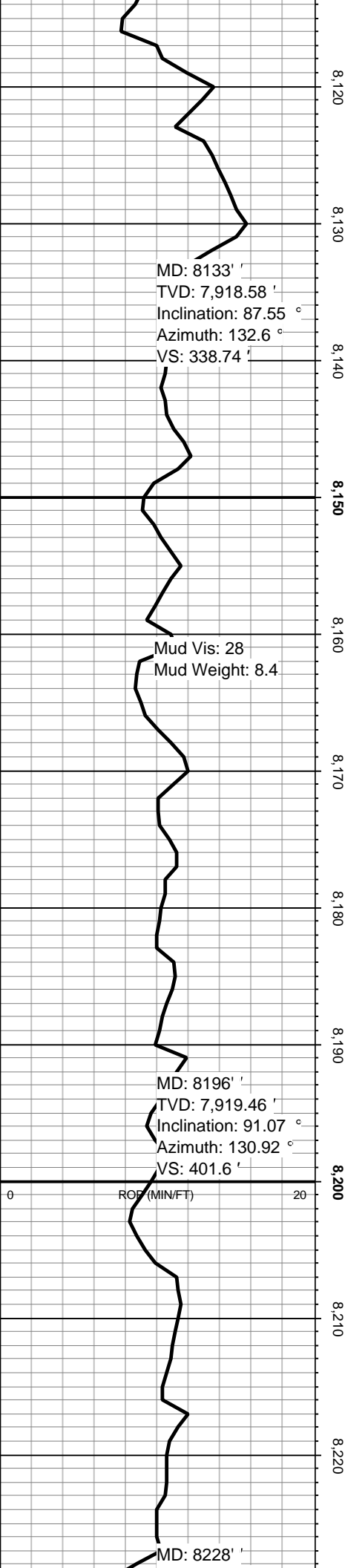
11/10/2013 1230PM: DRILLING AHEAD

LS: WHT. SMOOTH. FRM.





**11-11-2013 5AM: TOOH to change directional;
24 hr C02 average: 7.1 MMcfd**



DOL: 10% DARK

DOL: LT GRY, GRY, DRK DRY, SUCROSIC, SUB-RNDED, FRM, WELL SRTD

DOL: 10% DARK

Poor Porosity

DOL: LT GRY, GRY, DRK DRY, SUCROSIC, SUB-RNDED, FRM, WELL SRTD

DOL: 10% DARK

Poor Porosity

DOL: LT GRY, GRY, DRK DRY, SUCROSIC, SUB-RNDED, FRM, WELL SRTD

DOL: 20% DARK

11-12-2013 5AM: Drilling ahead @ 8184'. 24 HR cum C02: 4.3 MMcf

DOL: 35% DARK

DOL: LT GRY, GRY, DRK DRY, SUCROSIC, SUB-RNDED, FRM, WELL SRTD

DOL: 20% dark

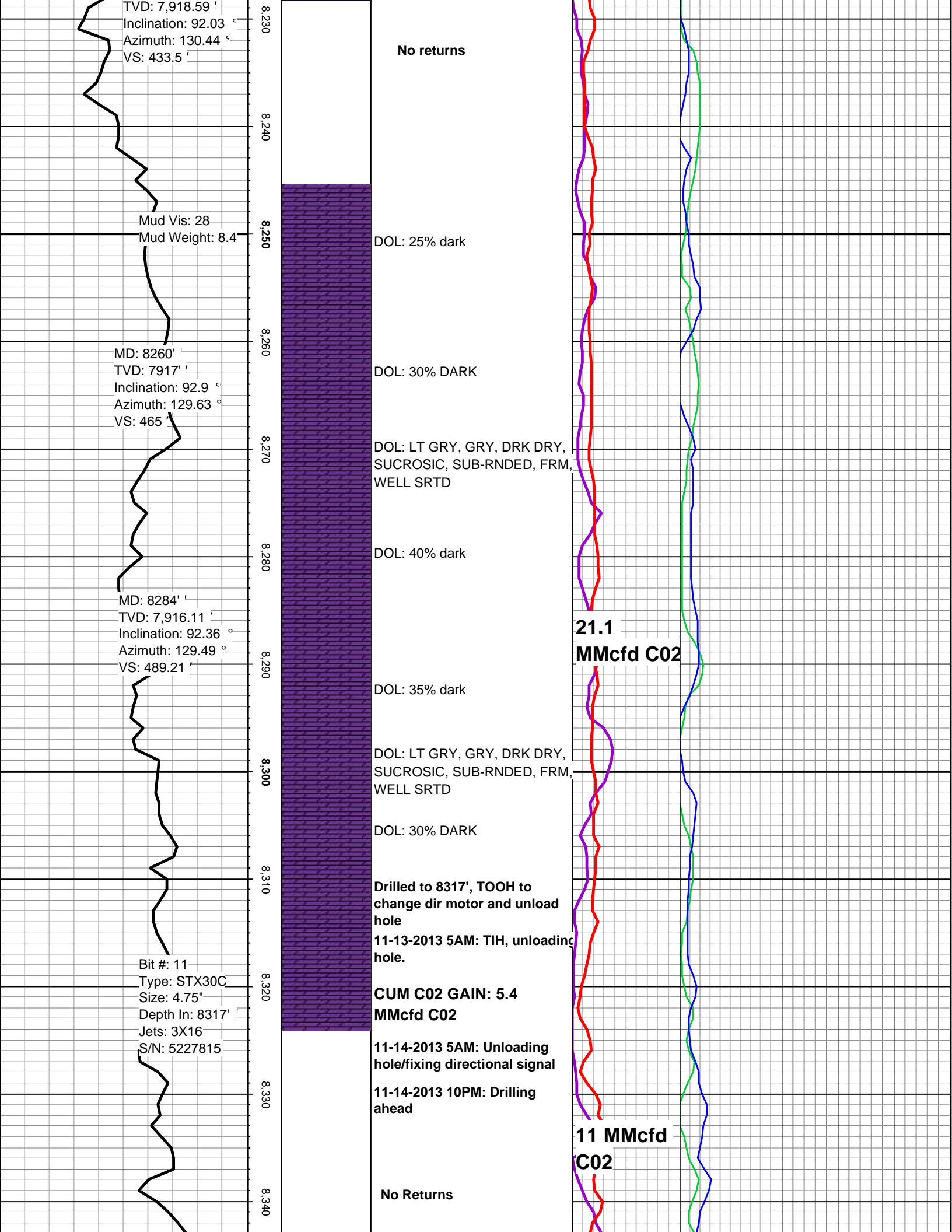
C02

GAS/C02 TEST

15.7 (UNITS) 50
 MMcf C02

- C1 (PPM) 2500
- C2 (PPM) 2500
- C3 (PPM) 2500
- C4 (PPM) 2500





TVD: 7,918.59 '
 Inclination: 92.03 °
 Azimuth: 130.44 °
 VS: 433.5 '

Mud Vis: 28
 Mud Weight: 8.4

MD: 8260' '
 TVD: 7917' '
 Inclination: 92.9 °
 Azimuth: 129.63 °
 VS: 465' '

MD: 8284' '
 TVD: 7,916.11' '
 Inclination: 92.36 °
 Azimuth: 129.49 °
 VS: 489.21' '

Bit #: 11
 Type: STX30C
 Size: 4.75"
 Depth In: 8317' '
 Jets: 3X16
 S/N: 5227815

No returns

DOL: 25% dark

DOL: 30% DARK

DOL: LT GRY, GRY, DRK DRY,
 SUCROSIC, SUB-RNDED, FRM,
 WELL SRTD

DOL: 40% dark

**21.1
 MMcfd C02**

DOL: 35% dark

DOL: LT GRY, GRY, DRK DRY,
 SUCROSIC, SUB-RNDED, FRM,
 WELL SRTD

DOL: 30% DARK

Drilled to 8317', TOOH to
 change dir motor and unload
 hole
 11-13-2013 5AM: TIH, unloading
 hole.

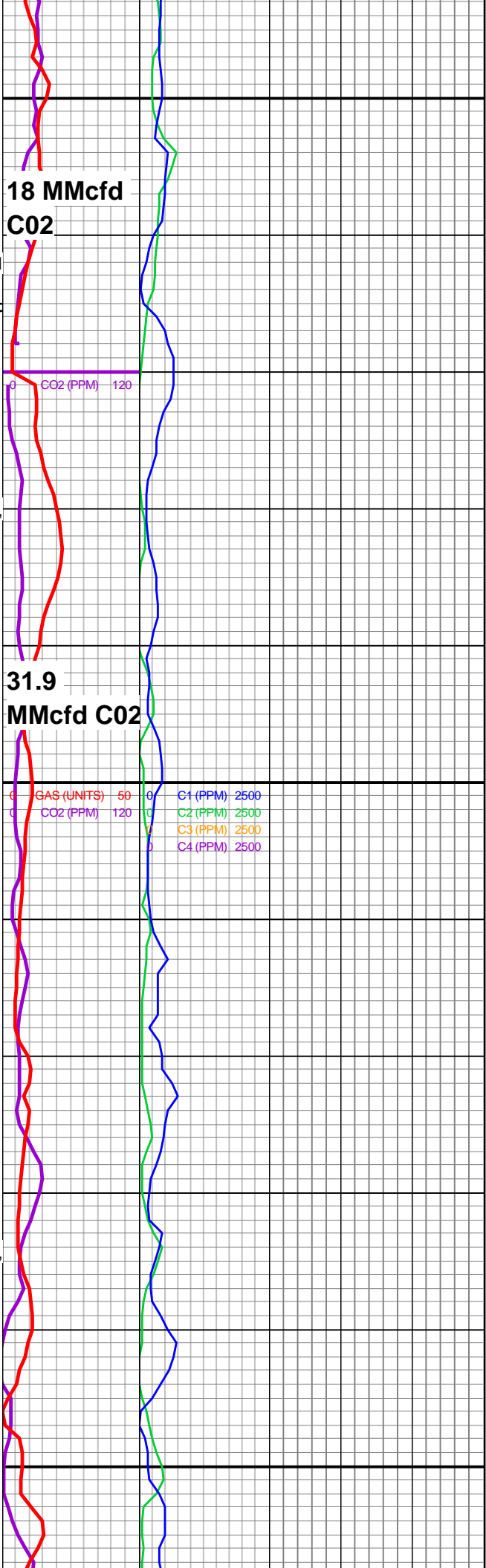
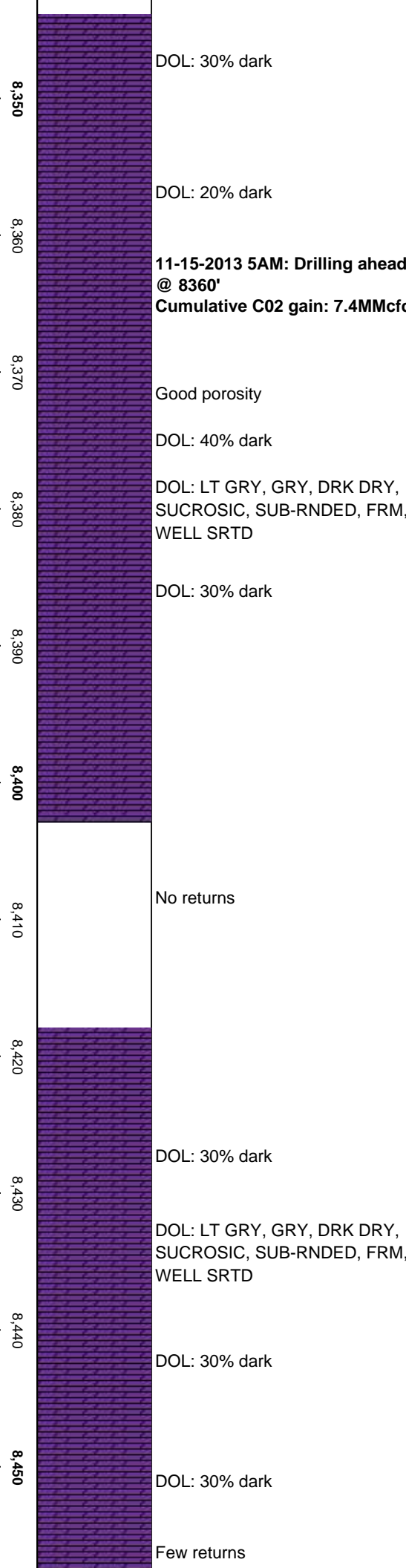
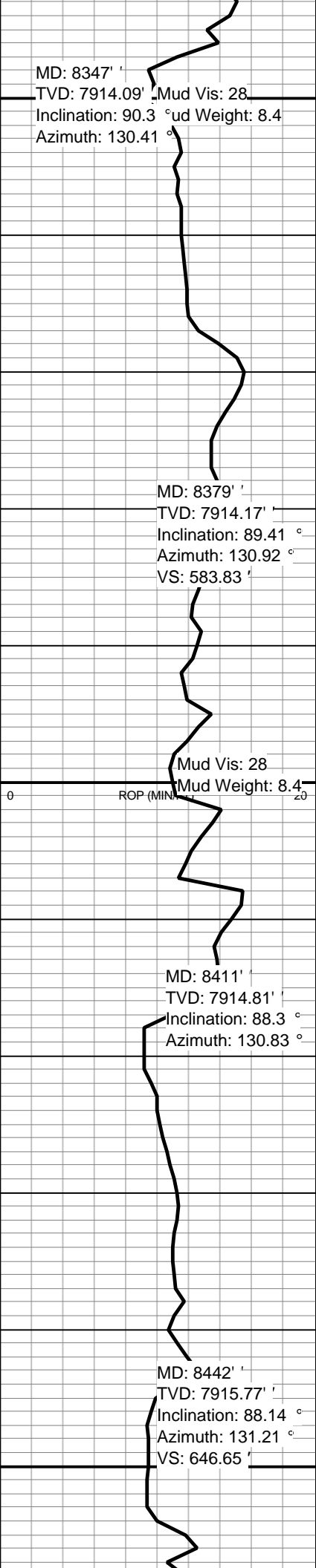
**CUM C02 GAIN: 5.4
 MMcfd C02**

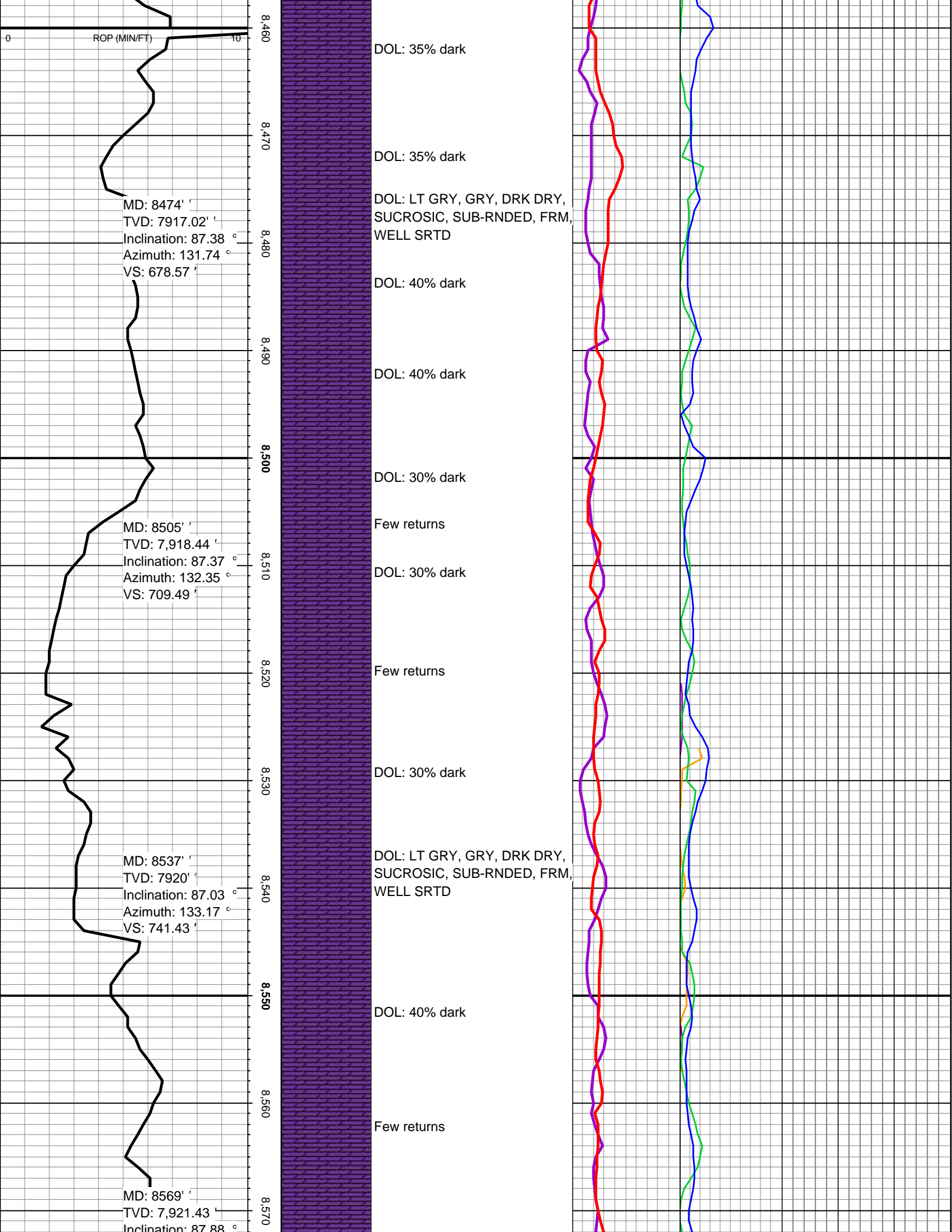
11-14-2013 5AM: Unloading
 hole/fixing directional signal

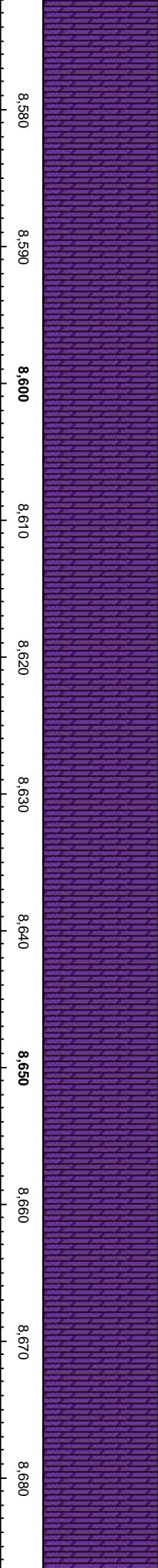
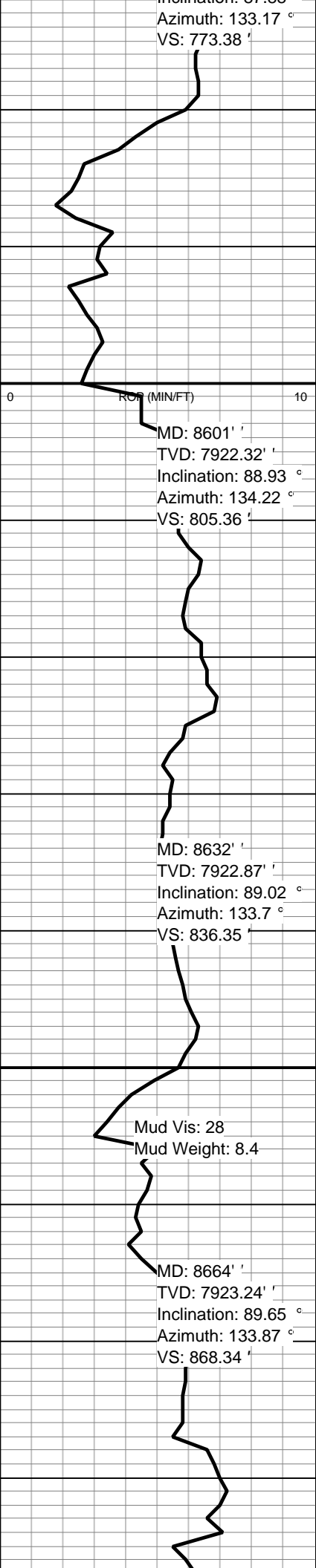
11-14-2013 10PM: Drilling
 ahead

**11 MMcfd
 C02**

No Returns







DOL: 40% dark

Good porosity

DOL: LT GRY, GRY, DRK DRY, SUCROSIC, SUB-RNDED, FRM, WELL SRTD

DOL: 30% dark

DOL: LT GRY, GRY, DRK DRY, SUCROSIC, SUB-RNDED, FRM, WELL SRTD

Good Porosity

DOL: 25% dark

DOL: 25% dark

11-16-2013 5AM: Drilling ahead @ 8639'

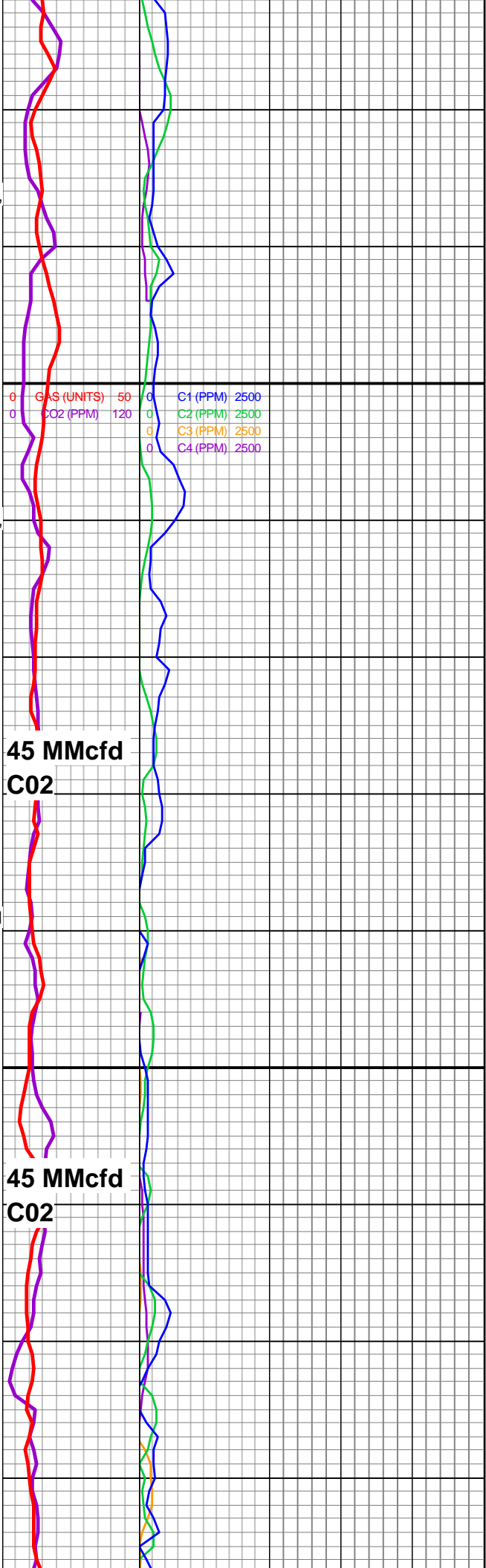
Net Gain C02: 13.1 MMcfd

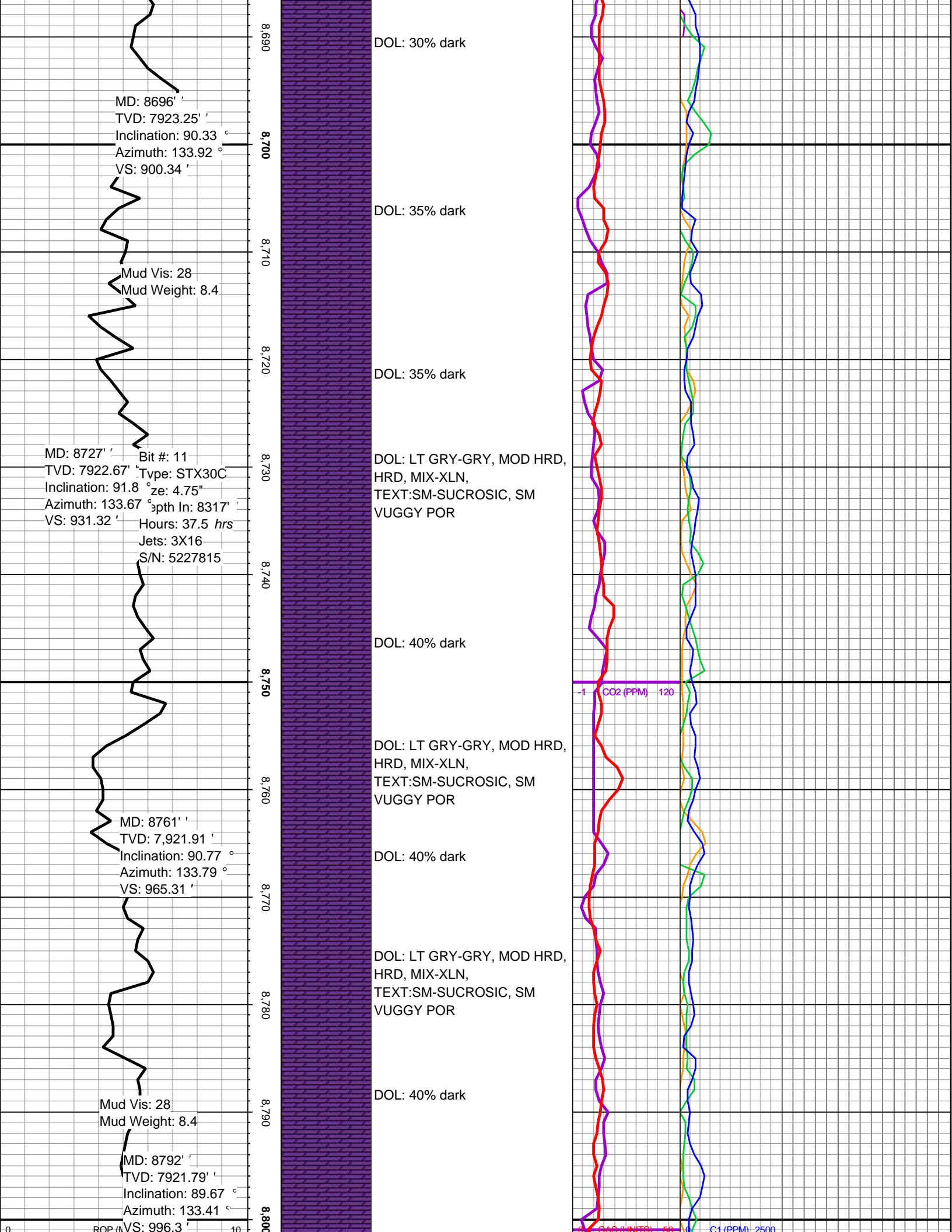
DOL: 25% dark

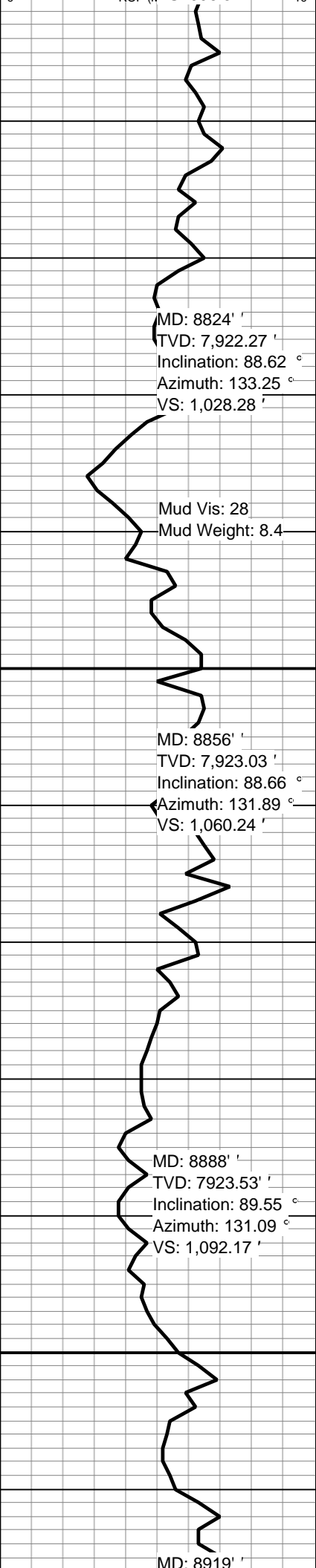
DOL: LT GRY-GRY, MOD HRD, HRD, MIX-XLN, TEXT:SM-SUCROSIC, SM VUGGY POR

DOL: 25% dark

DOL: LT GRY-GRY, MOD HRD, HRD, MIX-XLN, TEXT:SM-SUCROSIC, SM VUGGY POR







8,810
 8,820
 8,830
 8,840
 8,850
 8,860
 8,870
 8,880
 8,890
 8,900
 8,910



DOL: 40% dark

DOL: LT GRY-GRY, MOD HRD,
 HRD, MIX-XLN,
 TEXT:SM-SUCROSIC, SM
 VUGGY POR

DOL: 45% dark

**11-17-2013 5AM: Drilling ahead
 @ 8829'**

Net CO2 gain: 17.4 MMcfd

DOL: 45% dark

DOL: LT GRY-GRY, MOD HRD,
 HRD, MIX-XLN,
 TEXT:SM-SUCROSIC, SM
 VUGGY POR

DOL: 35% dark

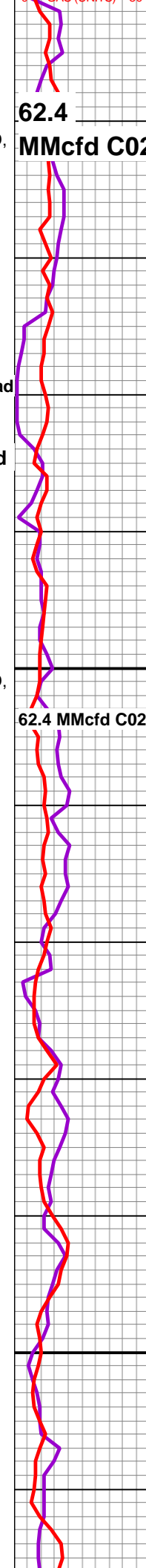
DOL: GRY- DRK GRY, SFT -
 FRM, MIC XLN, SMOOTH -
 SUCROSIC, VUGGY POR

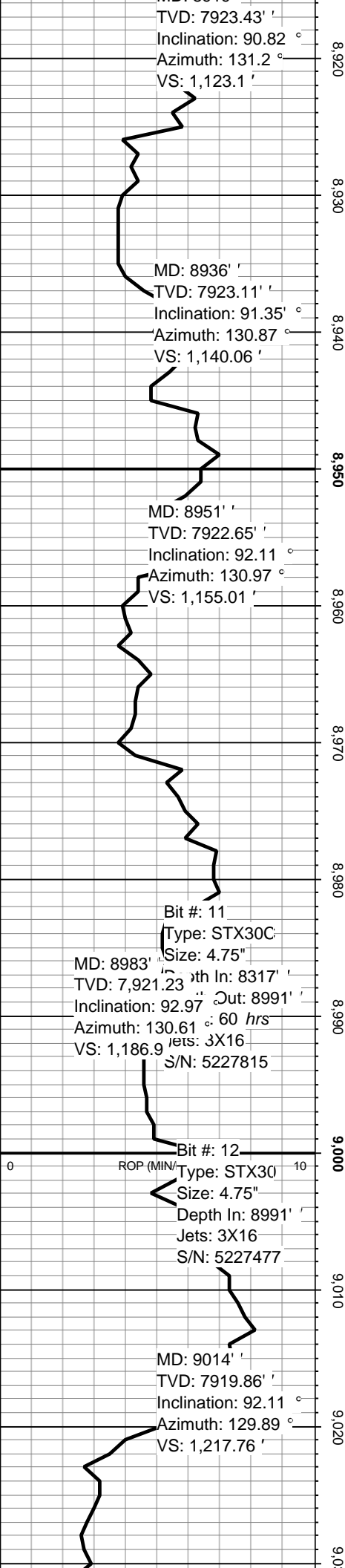
DOL: 35% dark

DOL: GRY- DRK GRY, SFT -
 FRM, MIC XLN, SMOOTH -
 SUCROSIC, VUGGY POR

DOL: 35% dark

DOL: 35% dark





DOL: 40% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 40% dark

DOL: 40% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 40% dark

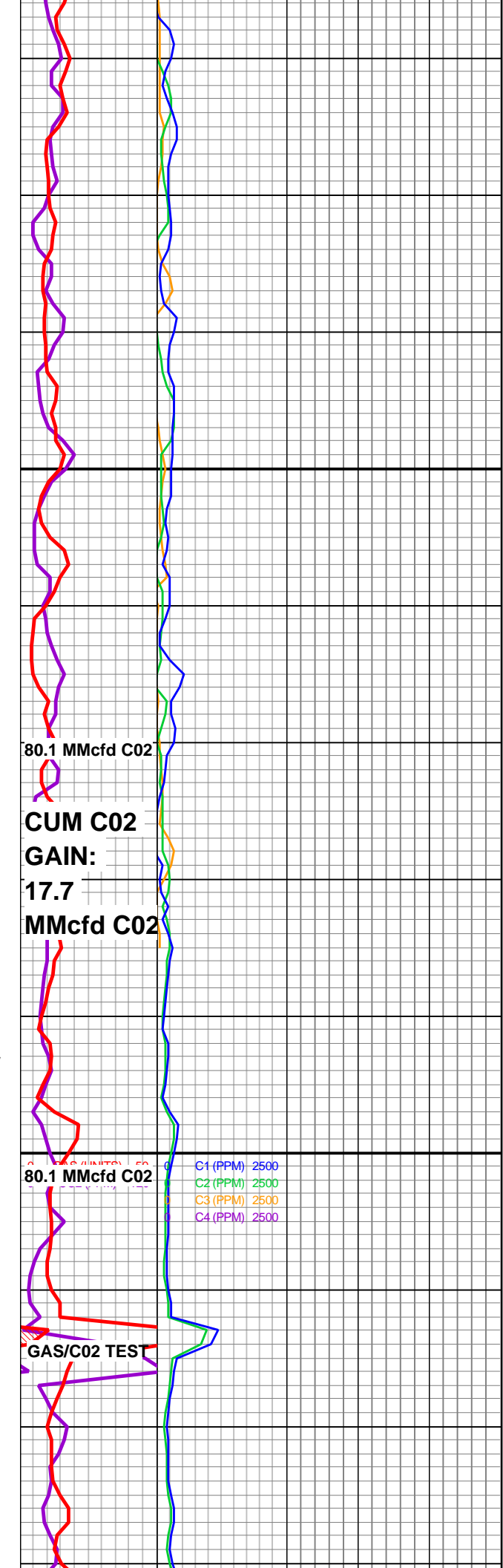
11-18-2013 5AM: New bit, Dir Motor. Preparing to TIH

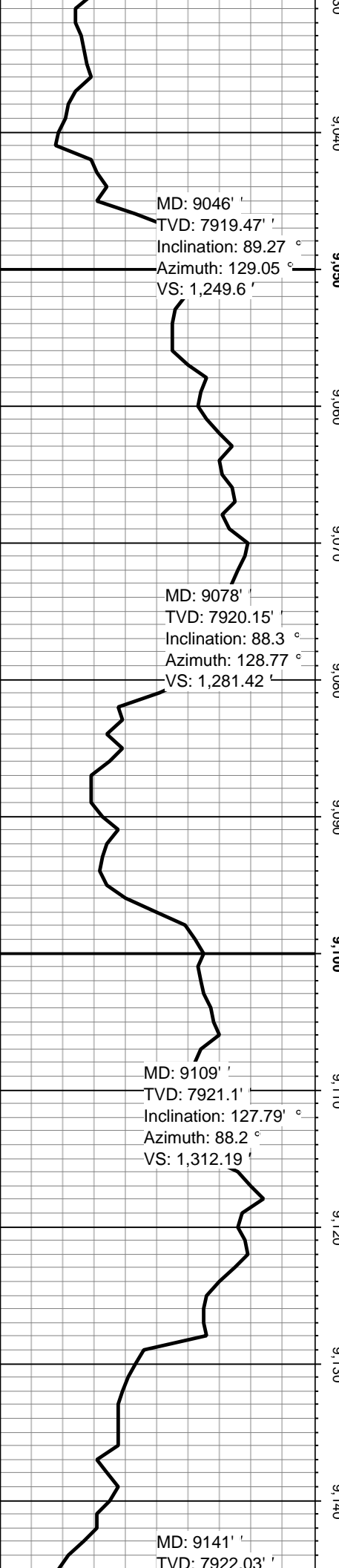
DOL: 40% dark

DOL: 40% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 40% dark





DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 40% dark

DOL: 35% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 35% dark

DOL: 35% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

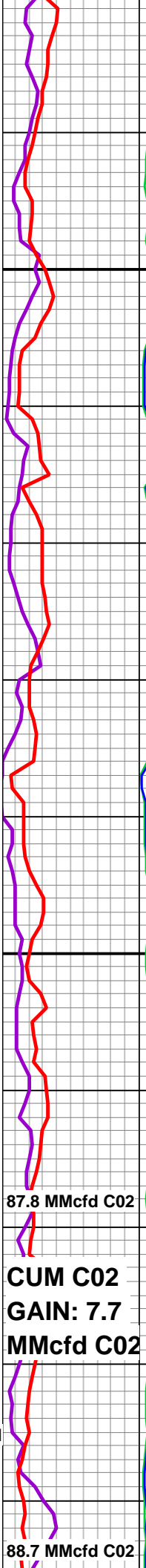
DOL: 30% dark

Poor Porosity

DOL: 30% dark

Poor Porosity

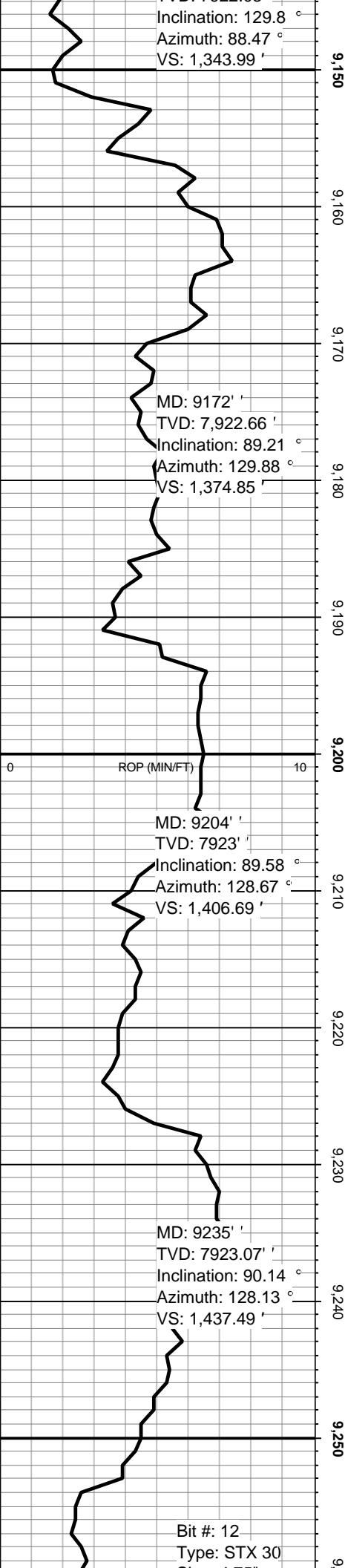
11-19-2013 5AM: Drilling ahead @ 9135'



87.8 MMcfd C02

**CUM C02
GAIN: 7.7
MMcfd C02**

88.7 MMcfd C02



DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 45% dark

Good porosity

DOL: 45% dark

Good porosity

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 40% dark

Good porosity

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

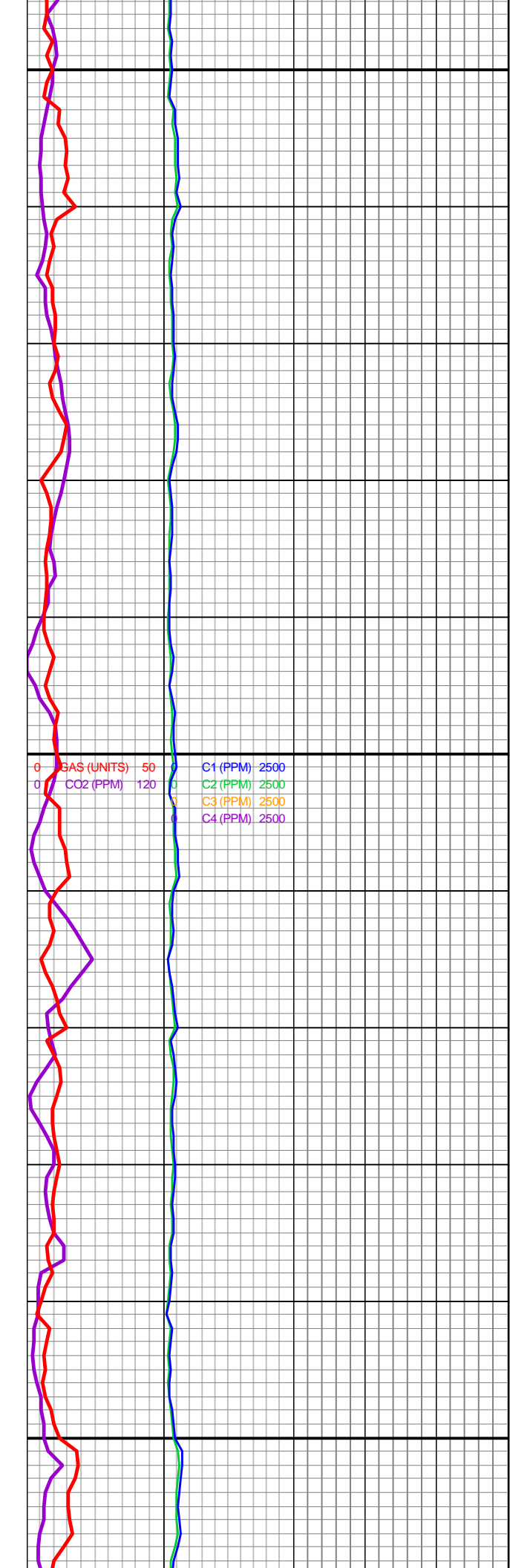
DOL: 40% dark

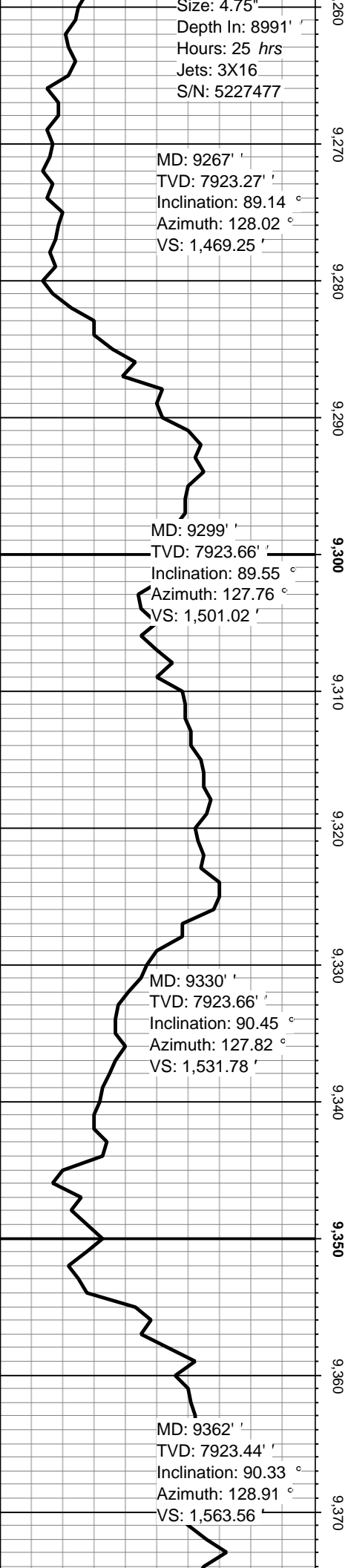
DOL: 40% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 35% dark

DOL: 35% dark





Fair porosity

DOL: 35% dark

DOL: GRY- DRK GRY, SFT - FRM, MIC XLN, SMOOTH - SUCROSIC, VUGGY POR

DOL: 30% dark

DOL: 30% dark

DOL: 30% dark

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

DOL: 30% dark

Fair porosity

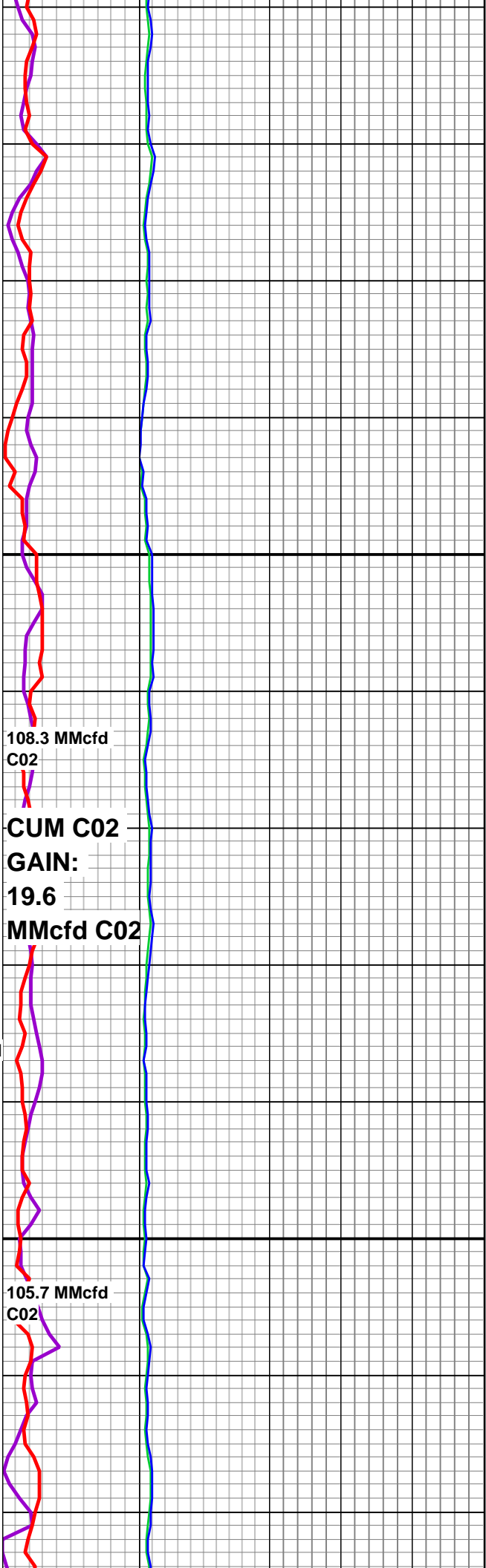
11-20-2013 5AM: Drilling ahead @ 7338'

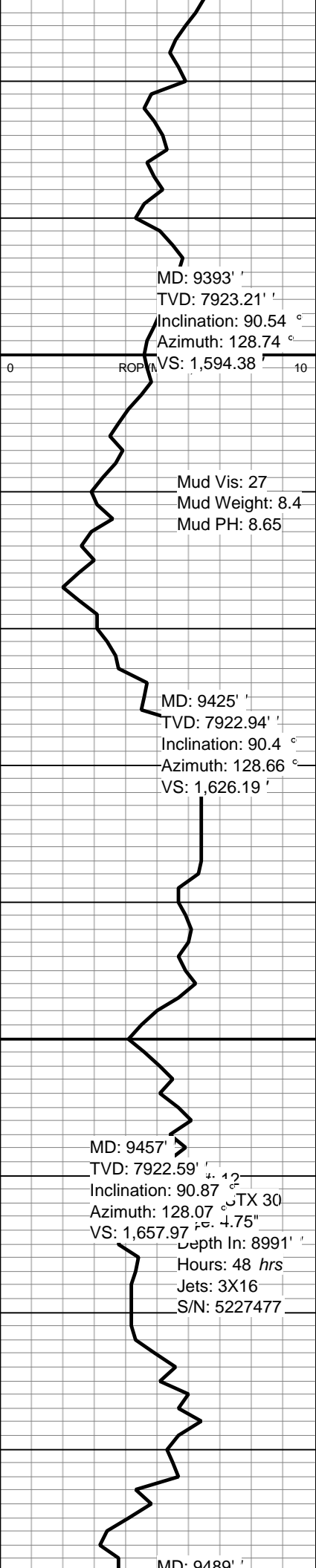
Few cuttings returned

DOL: 25% dark

Few cuttings returned

DOL: 25% dark





9,380
9,390
9,400
9,410
9,420
9,430
9,440
9,450
9,460
9,470
9,480



Few cuttings returned

DOL: 30% dark

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

DOL: 30% dark

Mud Vis: 27
Mud Weight: 8.4
Mud PH: 8.65

DOL: 30% dark

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

DOL: 40% dark

Good Porosity

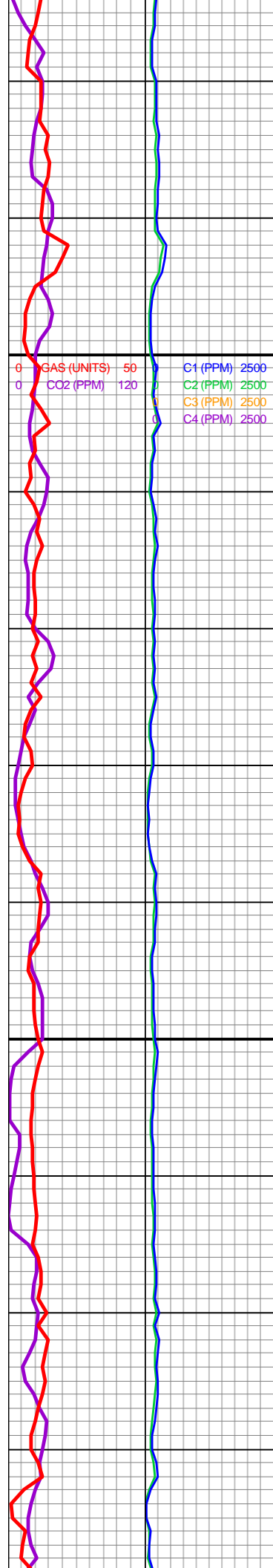
DOL: 40% dark

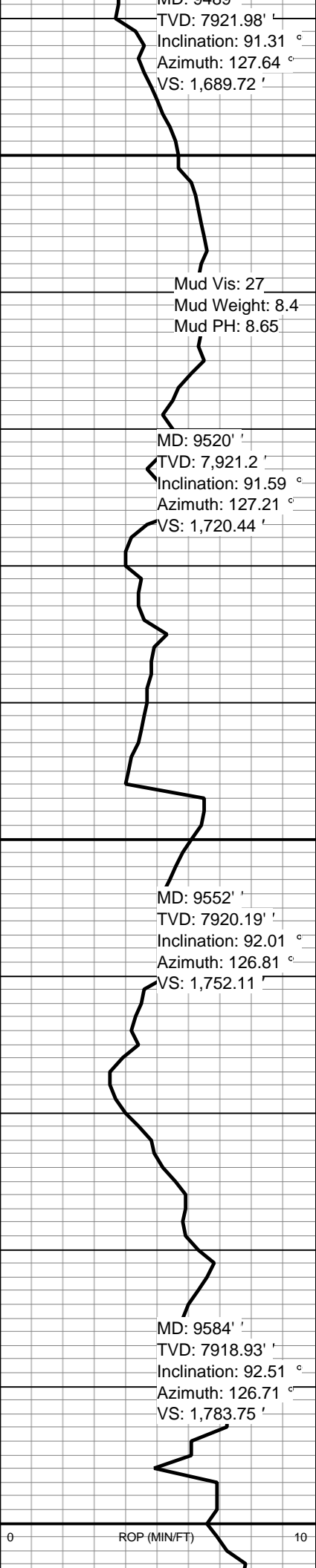
Good Porosity

DOL: 35% dark

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

DOL: 35% dark





9,490

Few cuttings returned

9,500

DOL: 35% dark

9,510

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

9,520

DOL: 35% dark

Good Porosity

9,530

DOL: 25% dark

11-21-2013 5am: Drilling ahead @ 9544'

9,540

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

9,550

DOL: 25% dark

9,560

DOL: 25% dark

9,570

DOL: 25% dark

9,580

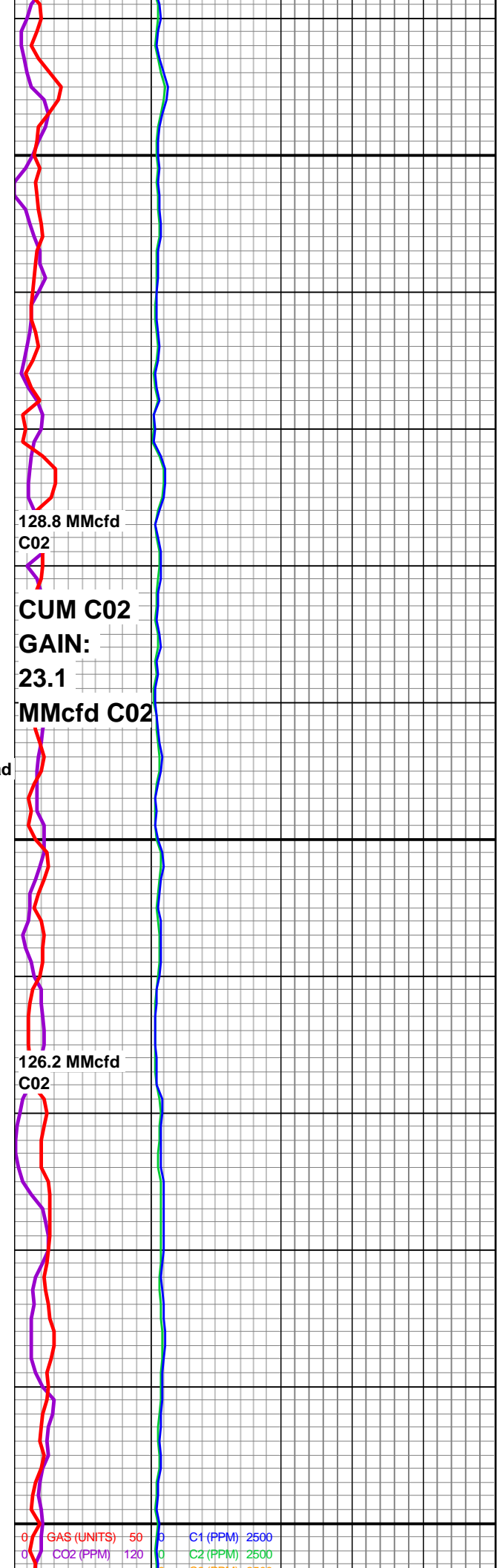
DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR

9,590

DOL: 20% dark

9,600

DOL: GRY- DRL GRY, FRM - HRD, MIC XLN, SMOOTH-SUCROSIC, SOME VUGGY POR



Bit #: 12
Type: STX 30
Size: 4.75"
Depth In: 8991' '
Depth Out: 9640' '
Hours: 71 hrs
Jets: 3X16
S/N: 5227477

9,610
9,620
9,630
9,640
9,650
9,660
9,670
9,680
9,690
9,700
9,710

DOL: 20% dark

DOL: 20% dark

DOL: 15% dark

TD - 9640'

11-22-2013 5AM: TOOH @ 9640

Mudlogger Steven Moran

Released by CM Tom Brown on 11/22/2013

Thanks for using Above enterprises!

142.3 MMcfd
C02

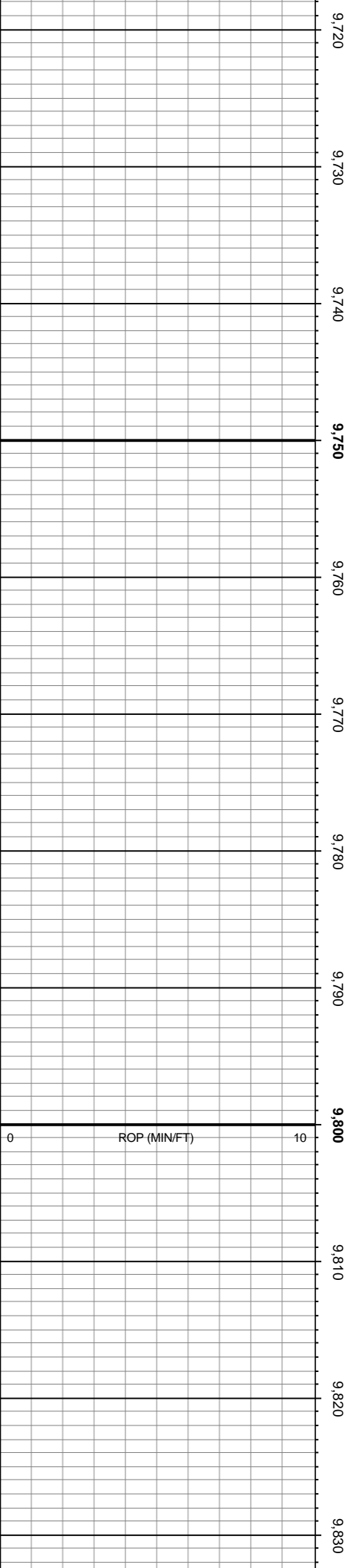
CUM C02

GAIN:

16.1

MMcfd C02

C3 (PPM): 2500
C4 (PPM): 2500



9,720

9,730

9,740

9,750

9,760

9,770

9,780

9,790

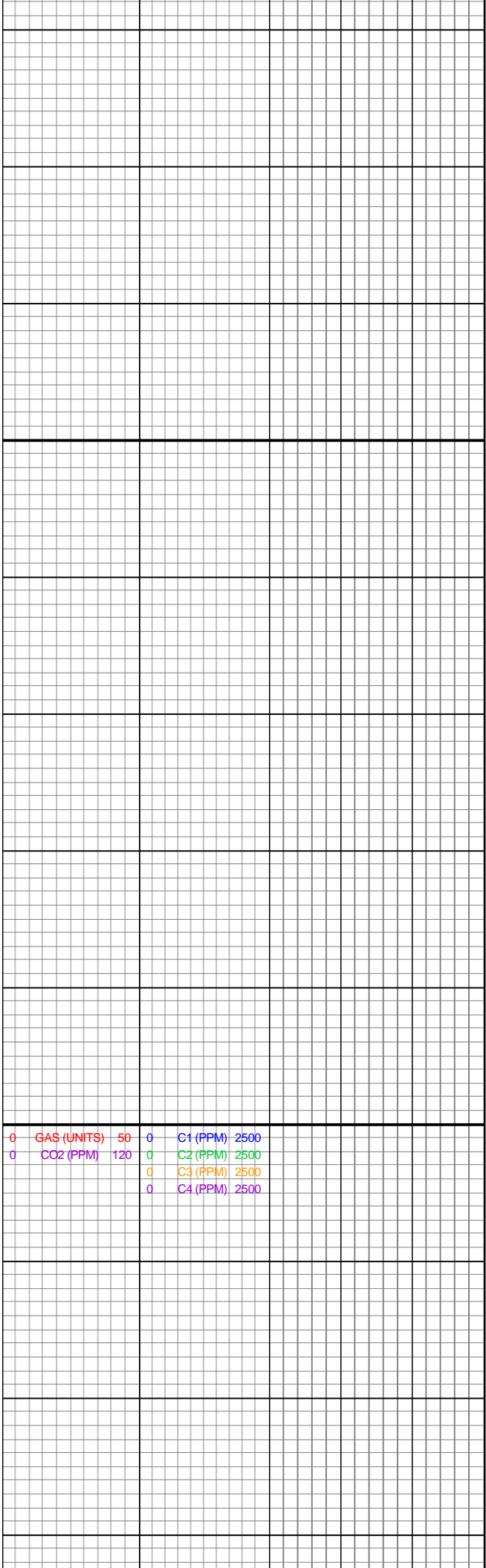
9,800

9,810

9,820

9,830

0 ROP (MIN/FT) 10



0 GAS (UNITS) 50 0 C1 (PPM) 2500
0 CO2 (PPM) 120 0 C2 (PPM) 2500
0 C3 (PPM) 2500
0 C4 (PPM) 2500

