

Décollement  
Consulting  
Inc.



Scale: 5" / 100'  
Measured Depth Log

Well Name State Seventy Holes T-P-6HNB

Location SESE Sec 6 T4N R62W

State Colorado

Country USA

API Number 05-123-37405-00

County Weld

Rig Number Ensign 136

Field DJ. Basin

Spud Date 9/5/2013

Drilling Completed 9/12/2013

Surface Coordinates 430 FSL X 1133 FEL

Ground Elevation 4530'

K.B. Elevation 4543'

Logged Interval 5800'

To 10920'

Total Depth 10920'

Formation Niobrara "B" Chalk

Type of Drilling Fluid WBM

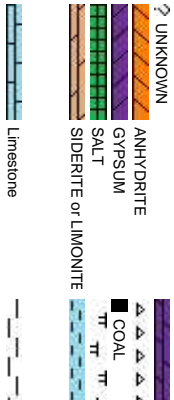
Company Bonanza Creek Energy

Address 410 17th Street, Suite 1100  
Denver, CO 80202

Name Leo Carrasco/Chris Irwin

Company Décollement Consulting

Address 13300 Braun Road  
Golden, CO 80401



Operator

500

Geologist

Inc.

Rock Types

DOLomite

CHERT

MARLSTONE

CLAYSTONE

SHALE

SHALE GRAY

SHALE COLORED

SILTSTONE

SANDSTONE

CONGLOMERATE

TILL

BENTONITE

TUFF

IGNEOUS

METAMORPHIC

BRECCIA

Chalk

Accessories

F FOSSIL

GASTROPD

ALGAE

AMPHIPORA

BELLENITE

BIOLCLASTIC

BRACHIOPOD

BRYOZOA

CEPHALOPD

CORAL

CRINOID

ECHINOID

FISH

FORAMINIFERA

- ARGILLACEOUS

/ ARGILLITE GRAIN

B BENTONITE

BITUMENOUS SUBSTANCE

BRECCIA FRAGMENTS

C CALCAREOUS

■ CARBONACEOUS FLAKES

▲ CHRTK

▲ CHRTL

— COAL - THIN BEDS

▲ DOLOMITIC

+ FELDSPAR

● FERRUGINOUS PELLET

▲ FERRUGINOUS

▼ GLAUCONITE

▨ GYPSIFEROUS

† HEAVY MINERAL

† KAOLIN

† MARLSTONE

✱ MINERAL CRYSTALS

● NODULES

● PHOSPHATE PELLET

P PYRITE

田 SALT CAST

: SANDY

▲ SILTY

▼ TUFFACEOUS

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

O ORGANIC

P PINPOINT

D DEAD

EVEN

O QUESTIONABLE

SPOTTED STAINING

GAS SHOW

P PINPOINT

✓ VUGGY

NORMAL FAULT

OIL SHOW

↕ OVERTURNED STRATA

↗ REVERSE FAULT

▲ SIDEWALL CORE (LEFT)

▲ SIDEWALL CORE (RIGHT)

SLIDE

SURVEY

TRIP GAS

▽ WIRELINE TESTED - LEFT

▽ WIRELINE TESTED - RT

L LITHOGRAPHIC

MX MICROXLN

MMS MUDSTONE

▲ ANGULAR

R ROUNDED

a SUBANG

r SUBRND

BBS BOUNDSTONE

P POOR

C CHALKY

CX CRYPTOXLN

E EARTHY

FX FINELYXLN

BS GRAINSTONE

L LITHOGRAPHIC

Sorting

M MODERATE

P POOR

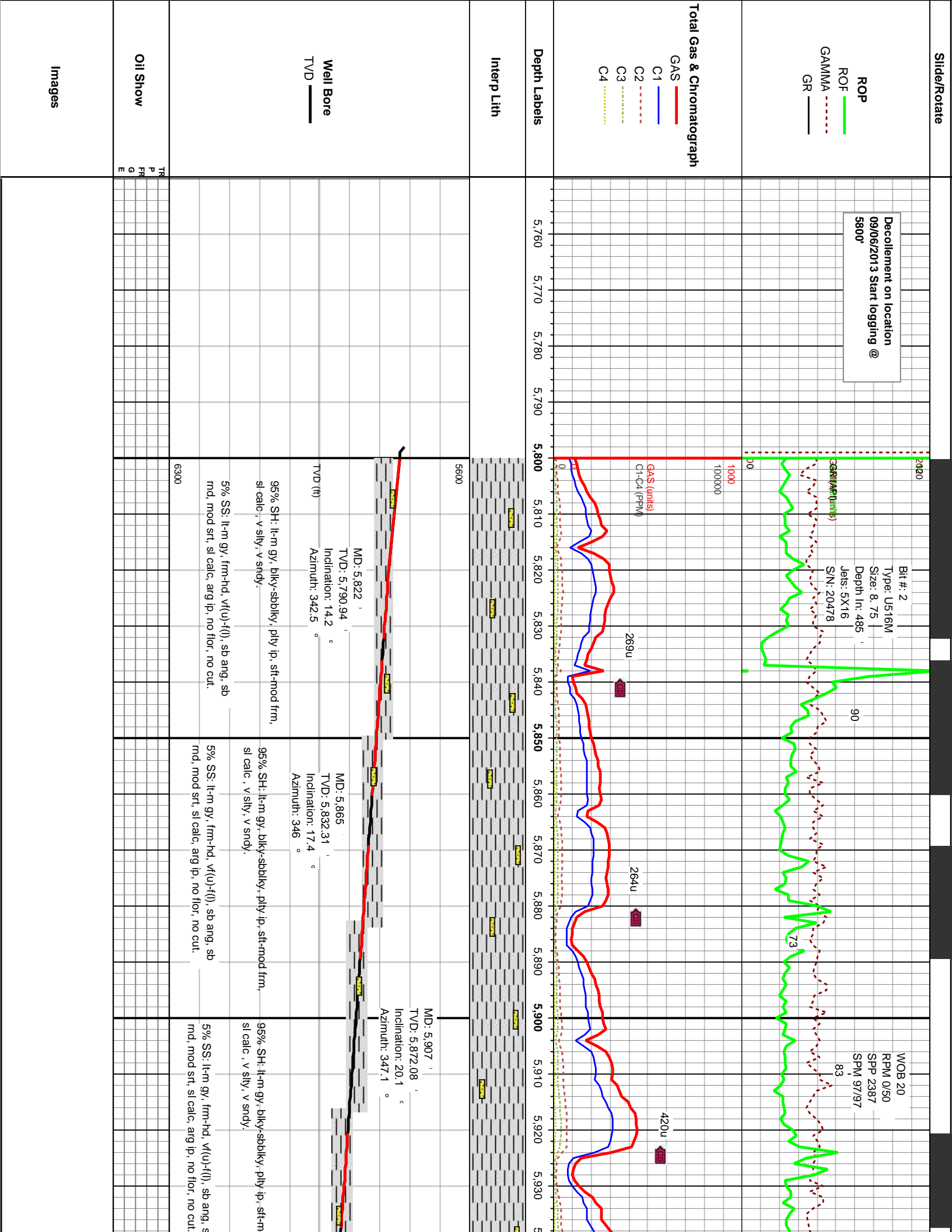
W WELL

Chalk

FAULT

FORMATION TOP

Rounding



MW: 9.5 VIS 40

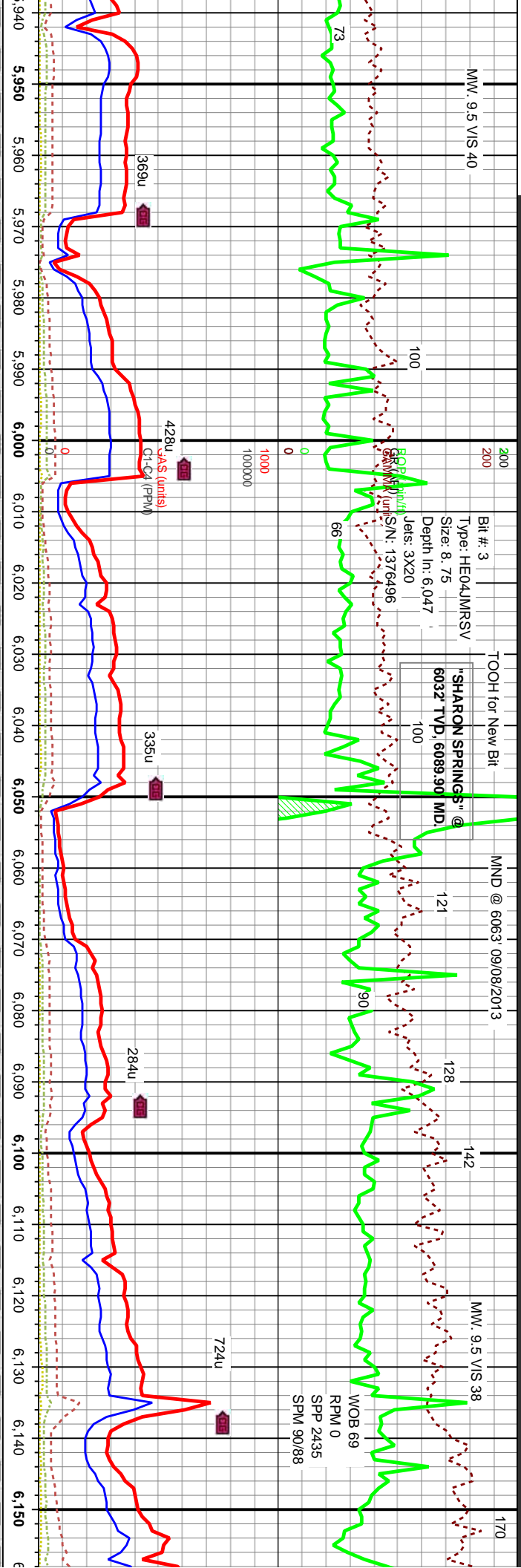
Bit # 3  
Type: HE04MRSV  
Size: 8.75  
Depth In: 6.047  
Jes: 3X20

MND @ 6063' 09/08/2013

MW: 9.5 VIS 38

WOB 69  
RPM 0  
SPM 2435  
SPM 90/88

"SHARON SPRINGS" @  
6032' TVD, 6089.90' MD



MD: 5.950  
TVD: 5.912.03  
Inclination: 23.3 °  
Azimuth: 347.8 °

MD: 5.993  
TVD: 5.951.06  
Inclination: 26.3 °  
Azimuth: 351.8 °

100%SH: lt-m gy, blk-y-sbbkly, pily ip, sft-mod  
frm, sl calc, v slty, tr SS.

100%SH: lt-md gy, blk-y-sbbkly, pily ip, wxy ip  
sm tr-bent, pale yel flr, slw wh cut.

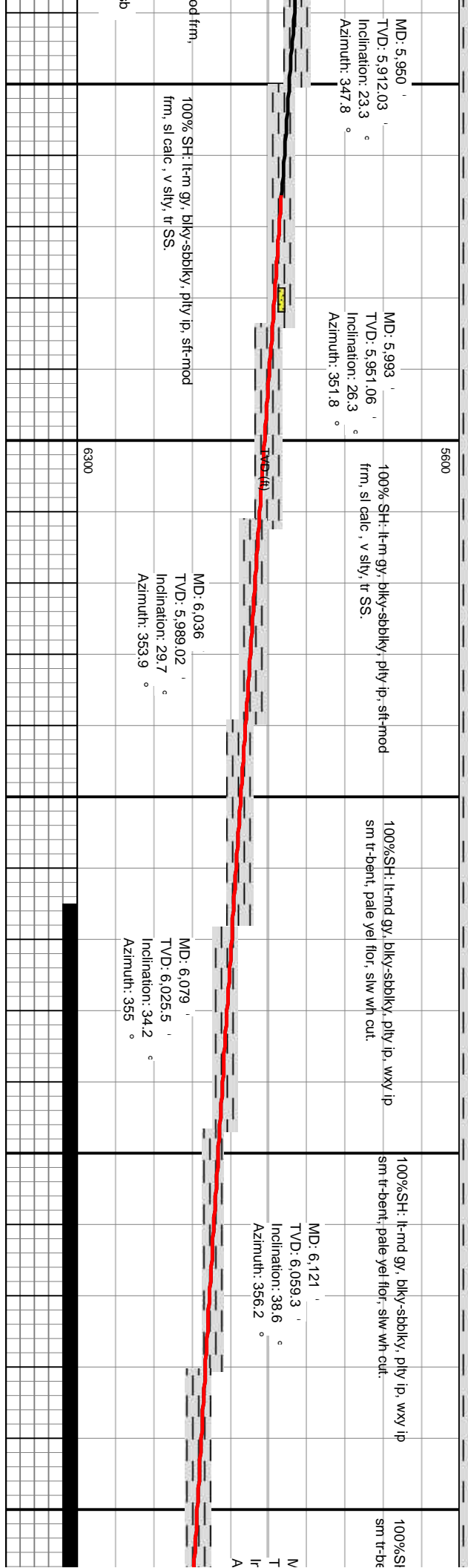
100%SH: lt-md gy, blk-y-sbbkly, pily ip, wxy ip  
sm tr-bent, pale yel flr, slw wh cut.

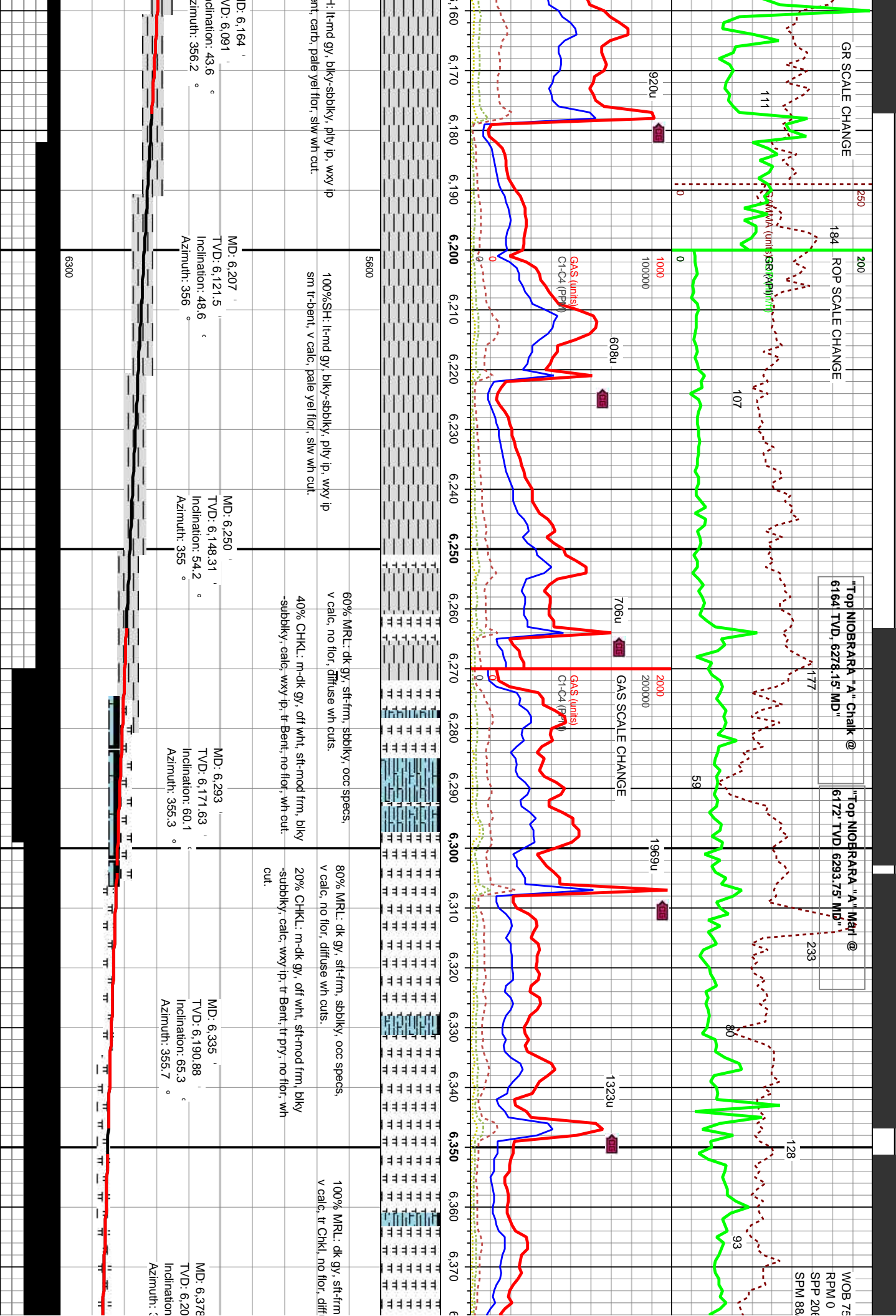
MD: 6.121  
TVD: 6.059.3  
Inclination: 38.6 °  
Azimuth: 356.2 °

MD: 6.036  
TVD: 5.989.02  
Inclination: 29.7 °  
Azimuth: 353.9 °

MD: 6.079  
TVD: 6.025.5  
Inclination: 34.2 °  
Azimuth: 355 °

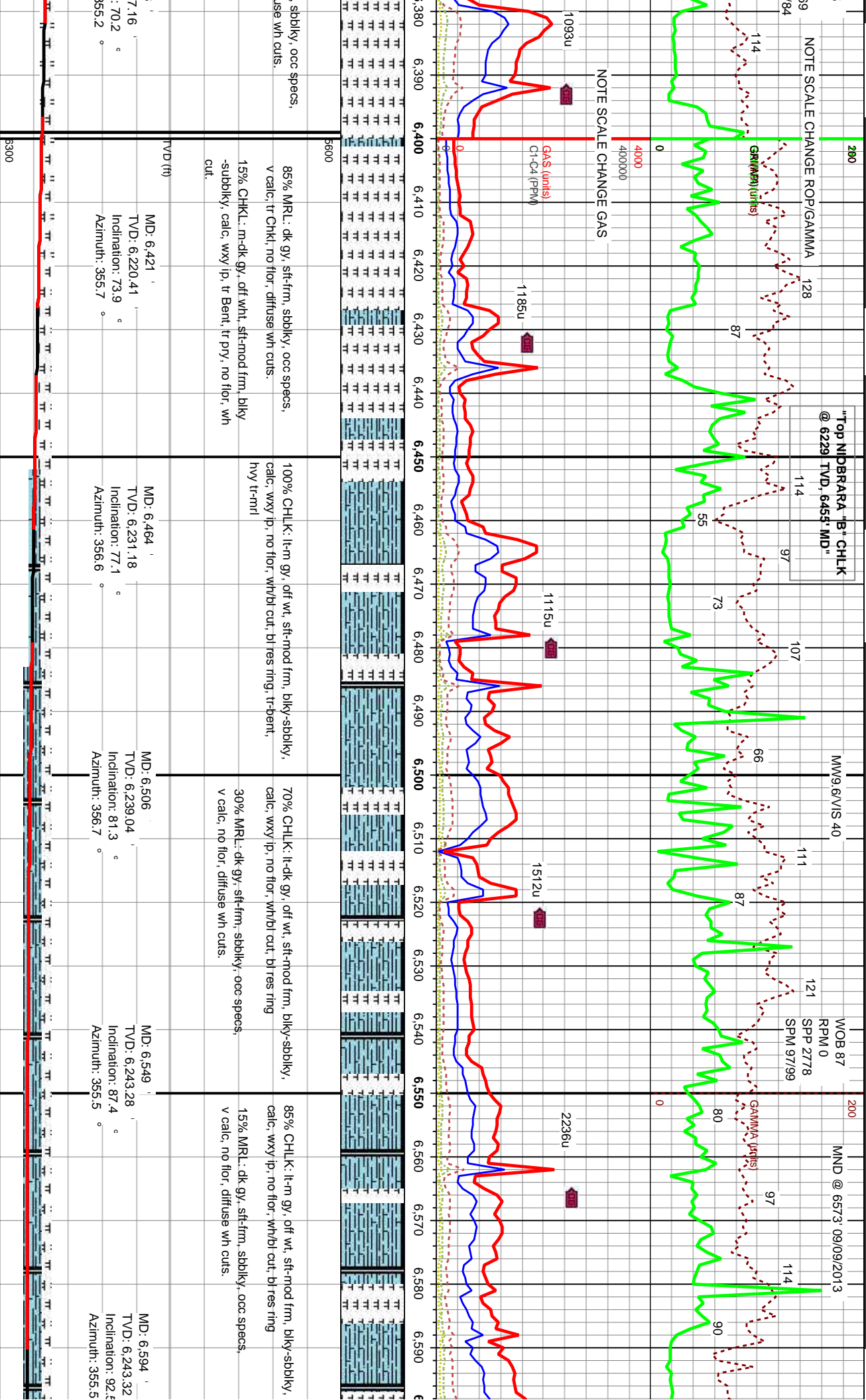
100%SH: lt-m gy, blk-y-sbbkly, pily ip, sft-mod  
frm, sl calc, v slty, tr SS.

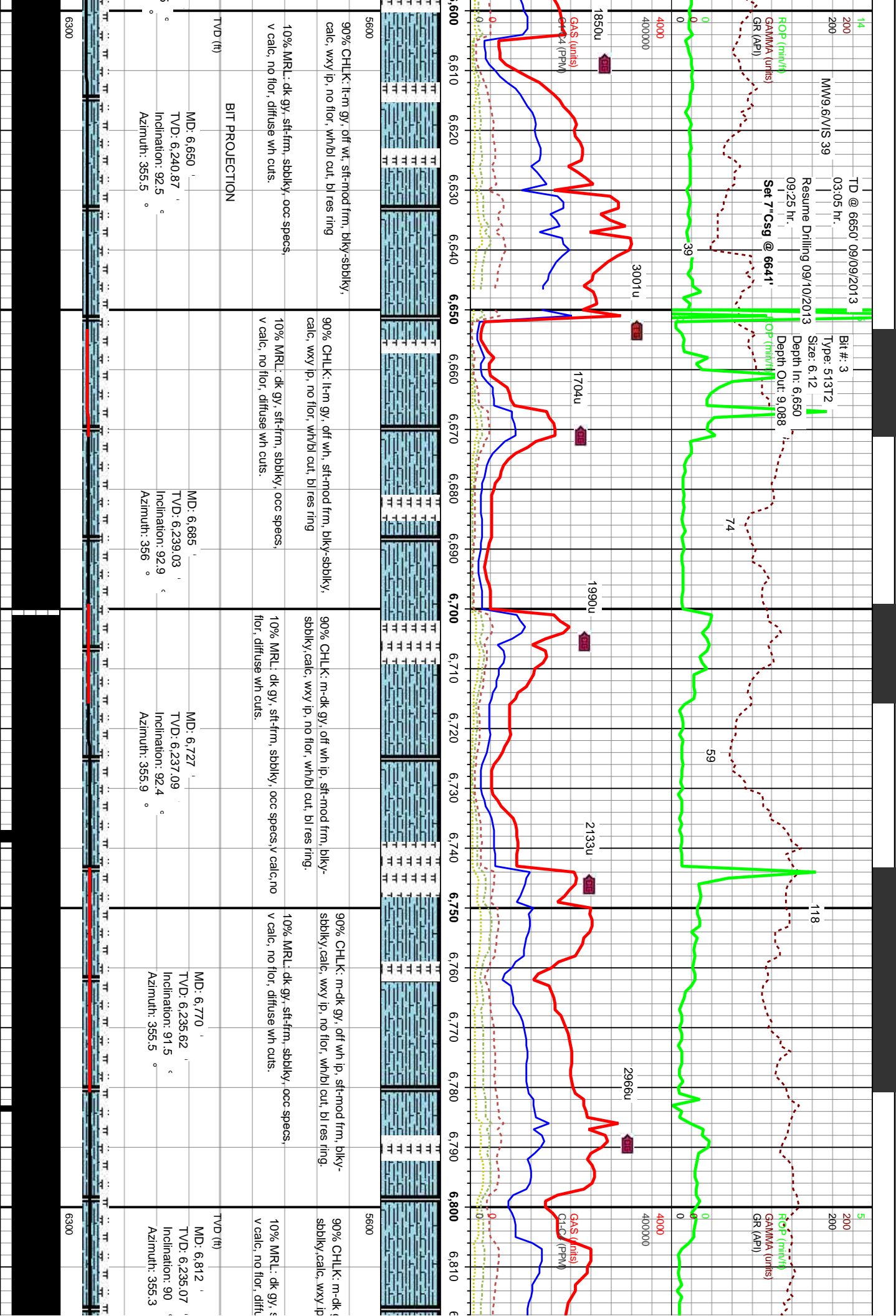


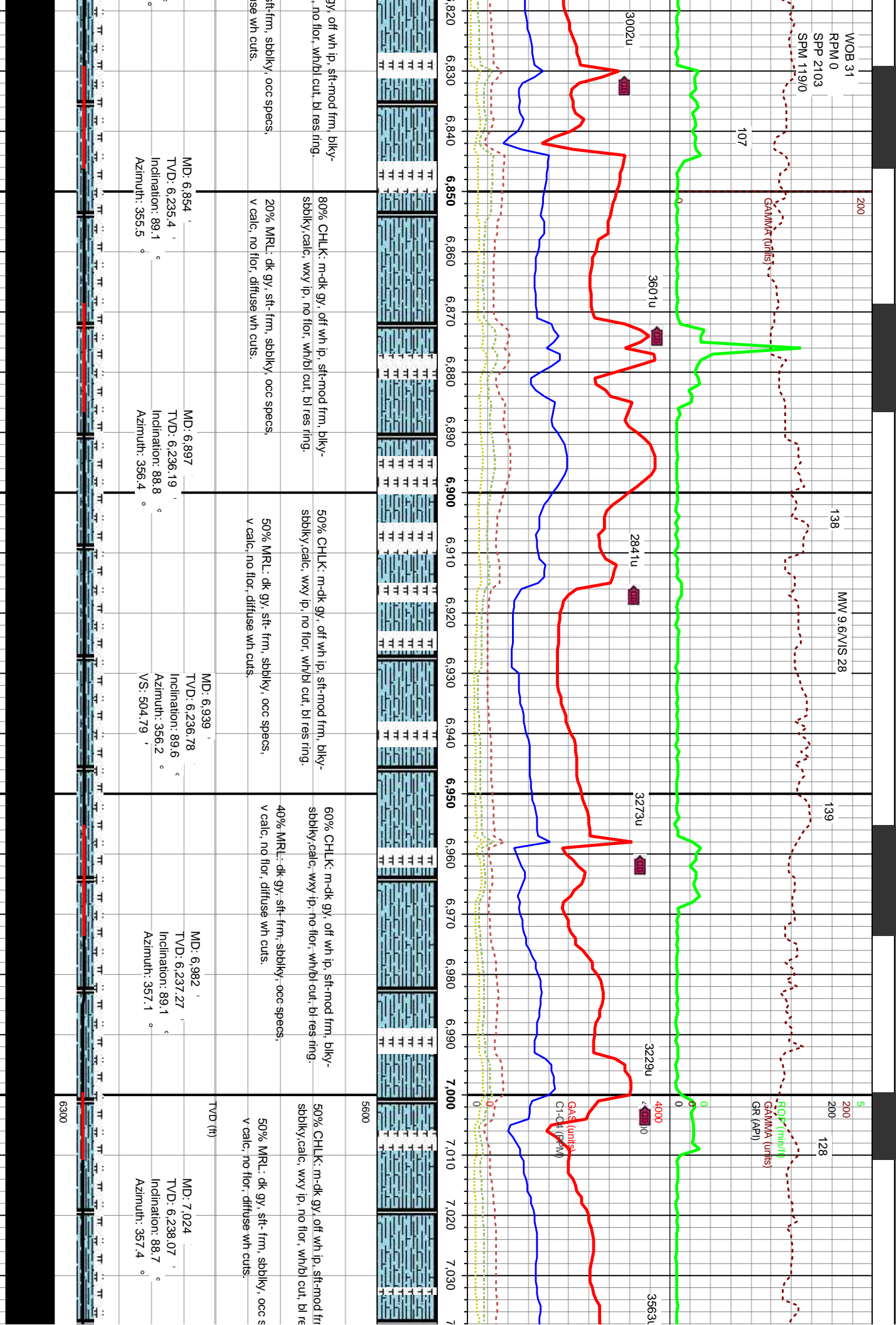




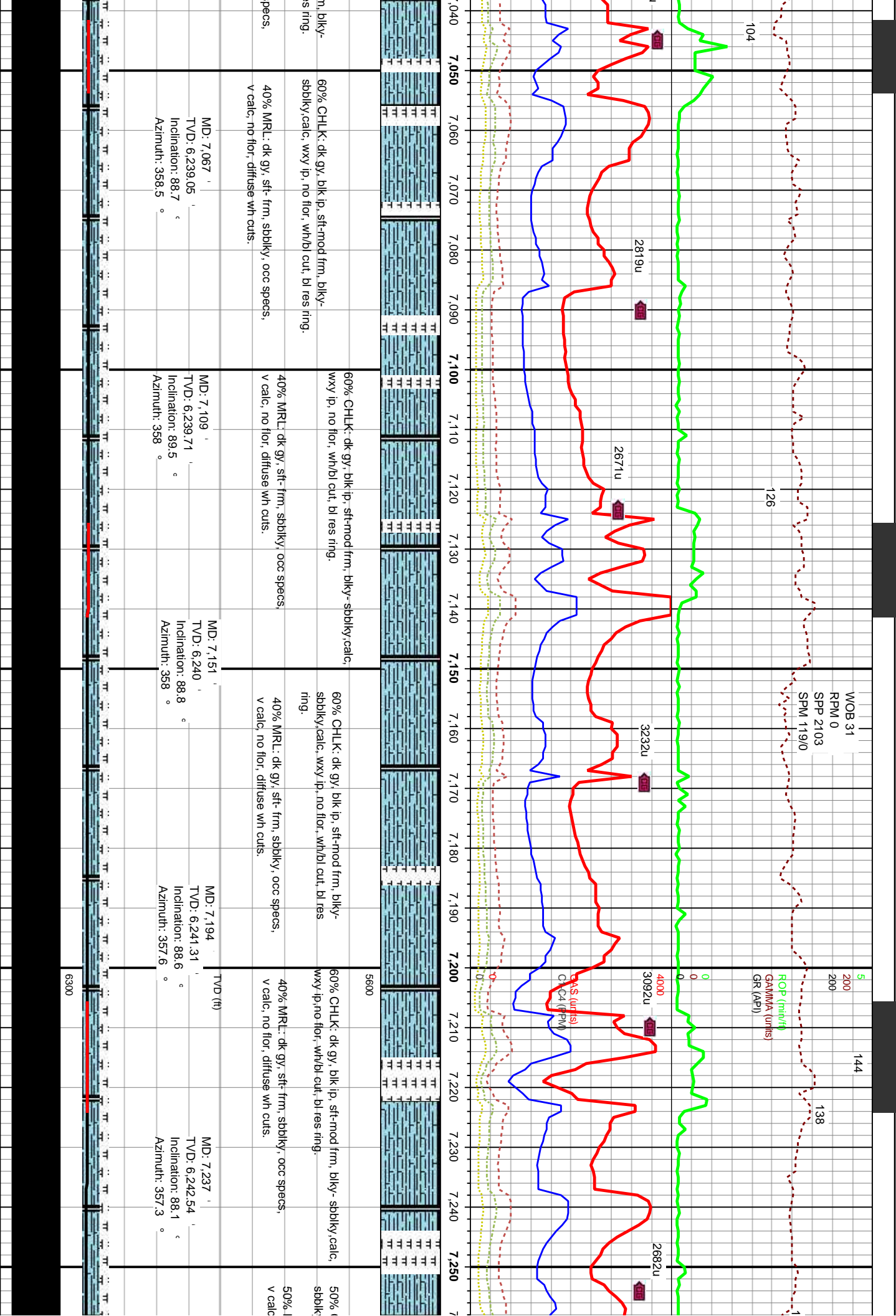
"Top NIDBARARA "B" CHLK  
@ 6229 TVD, 6455' MD"

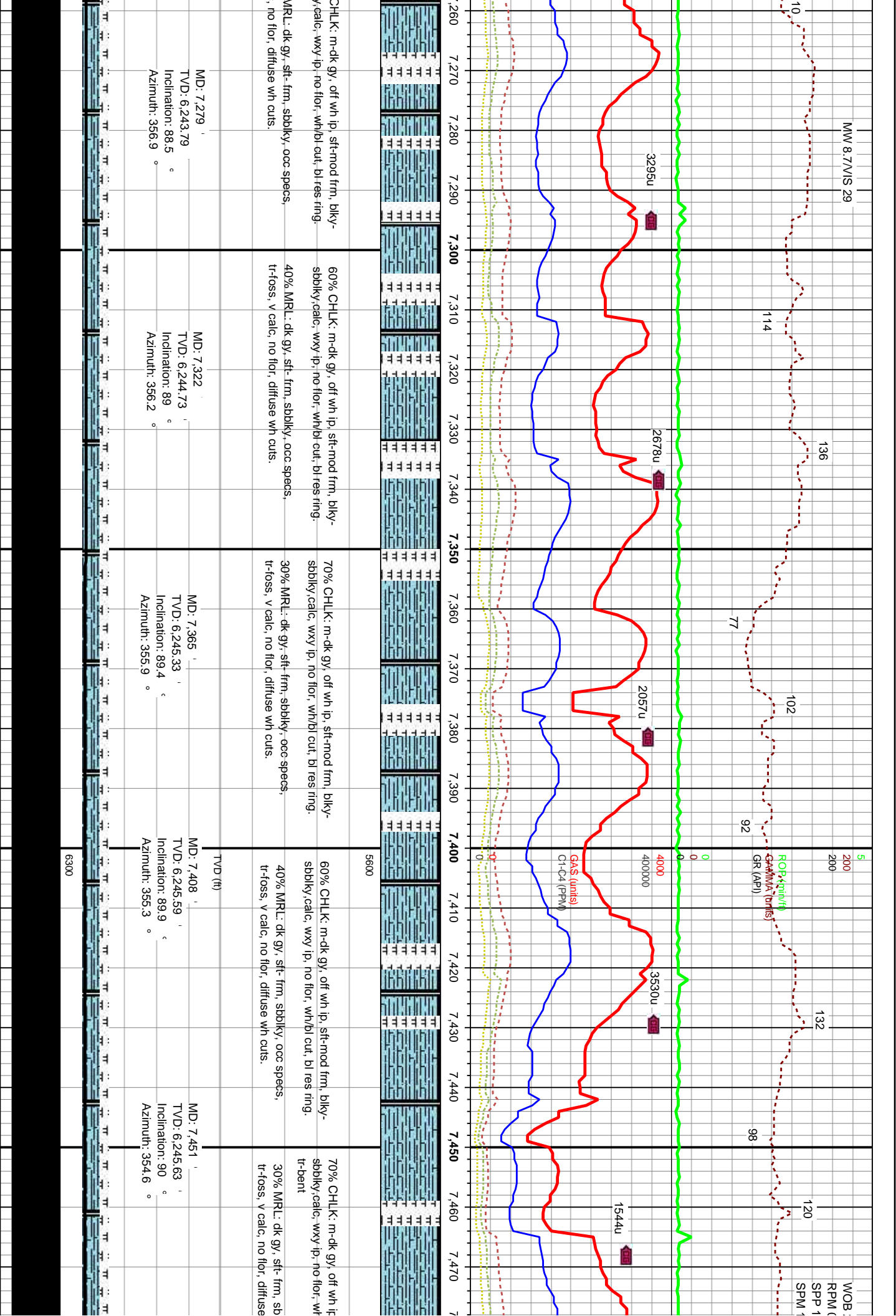


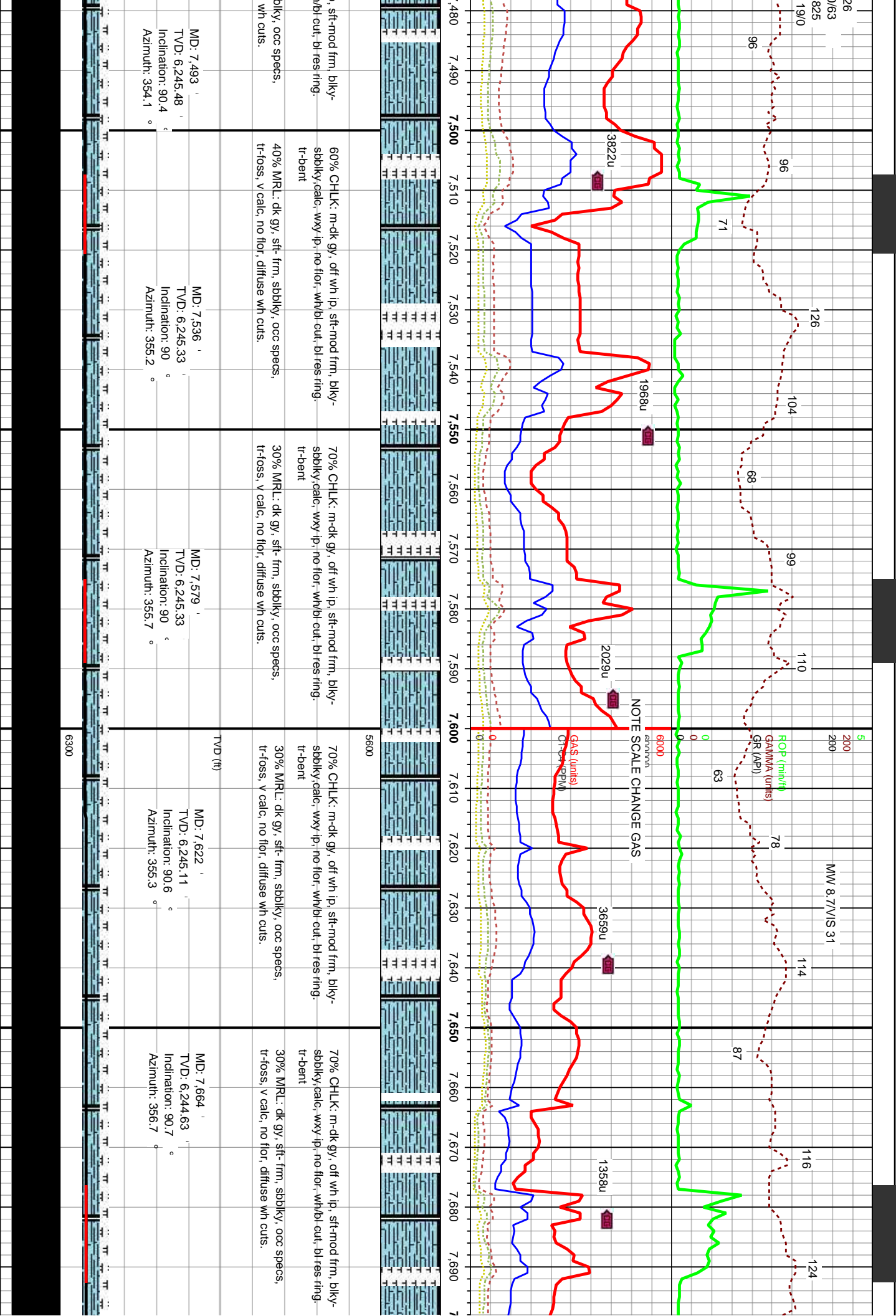




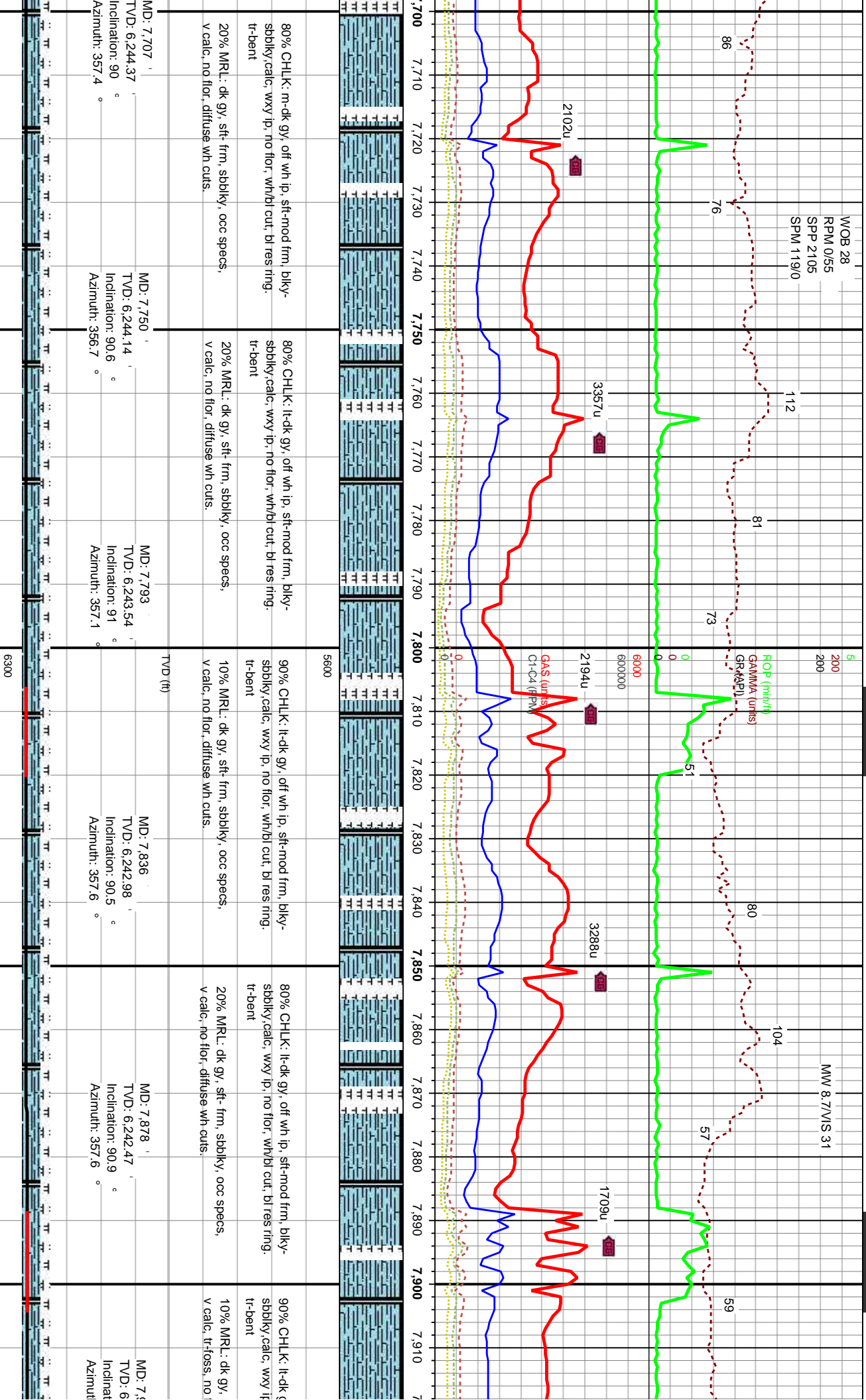


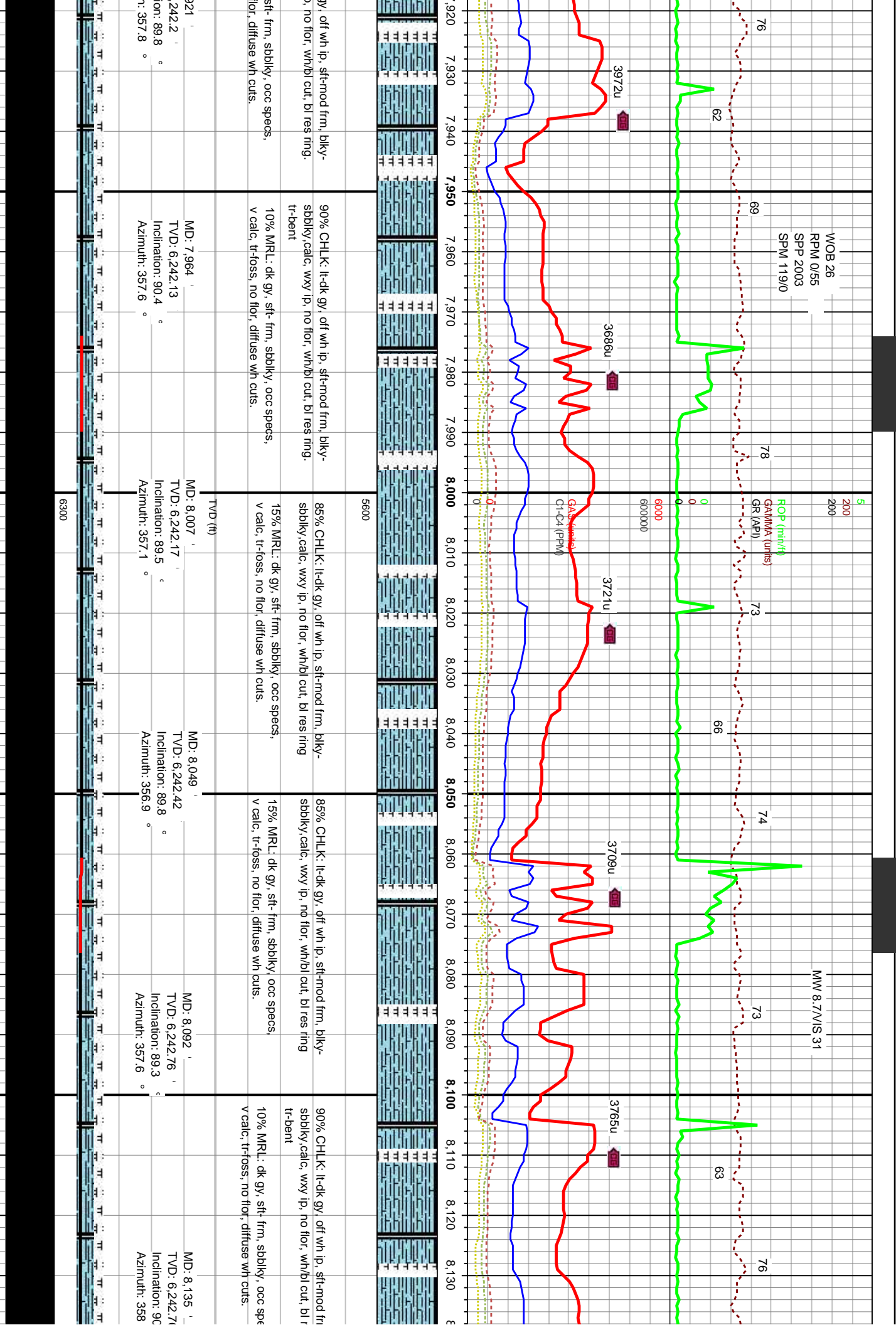




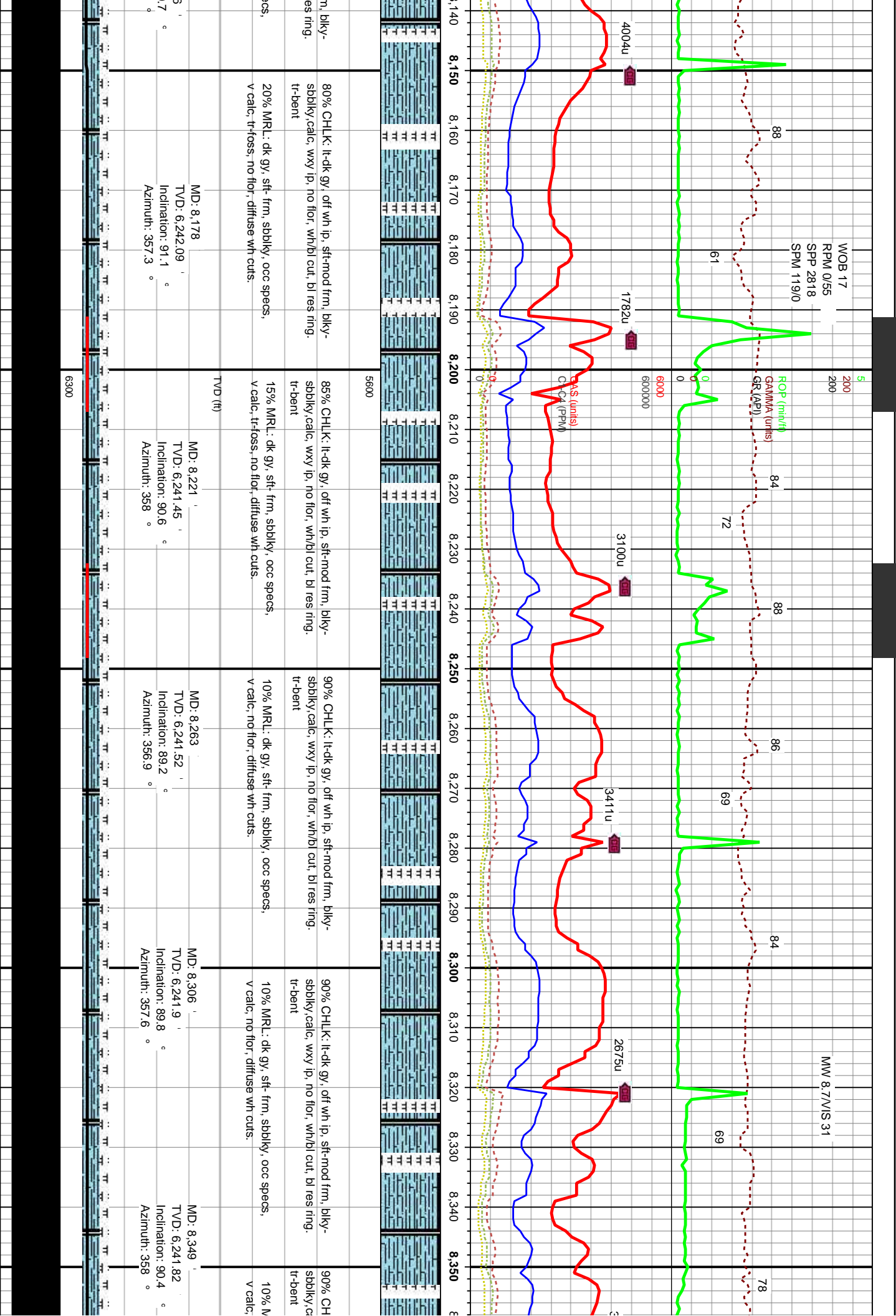


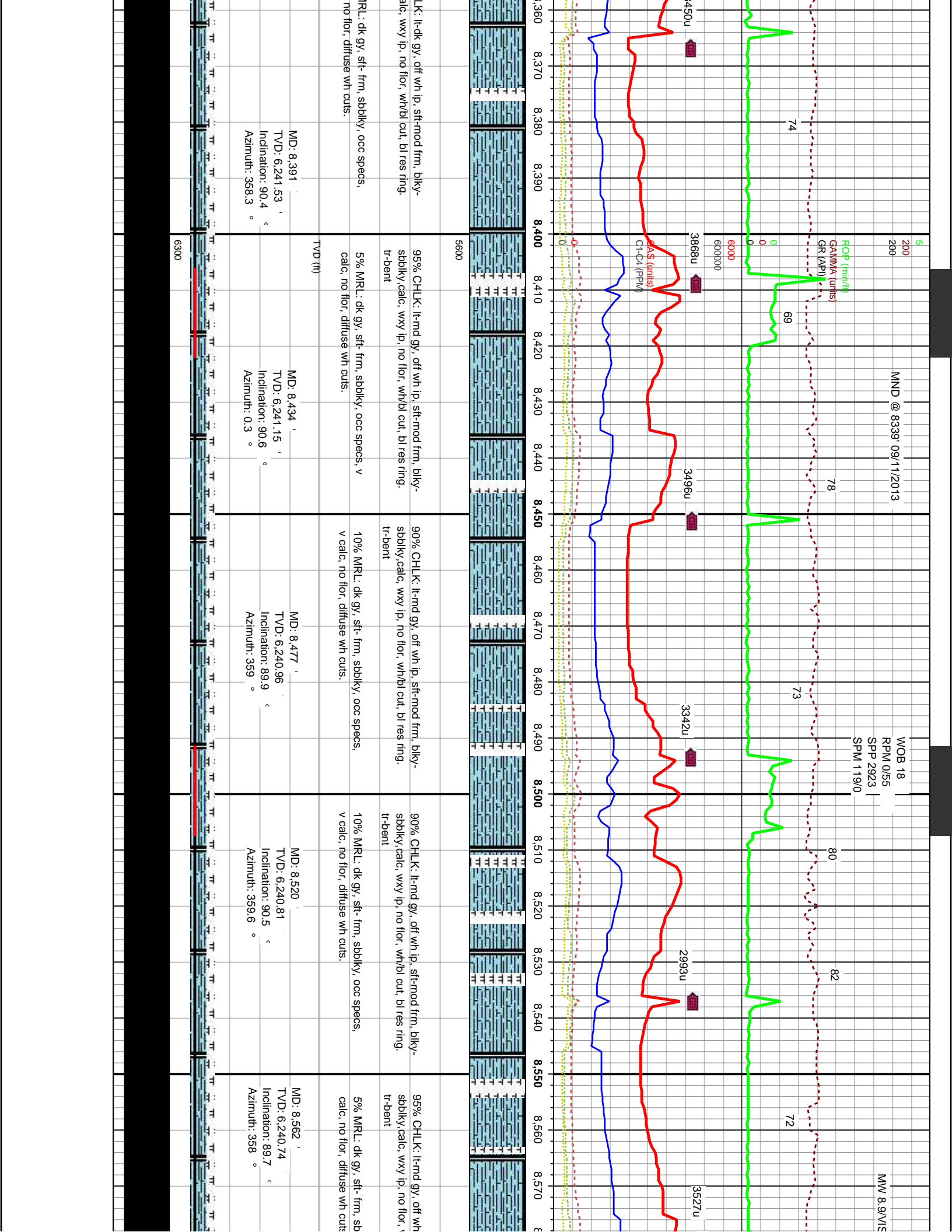


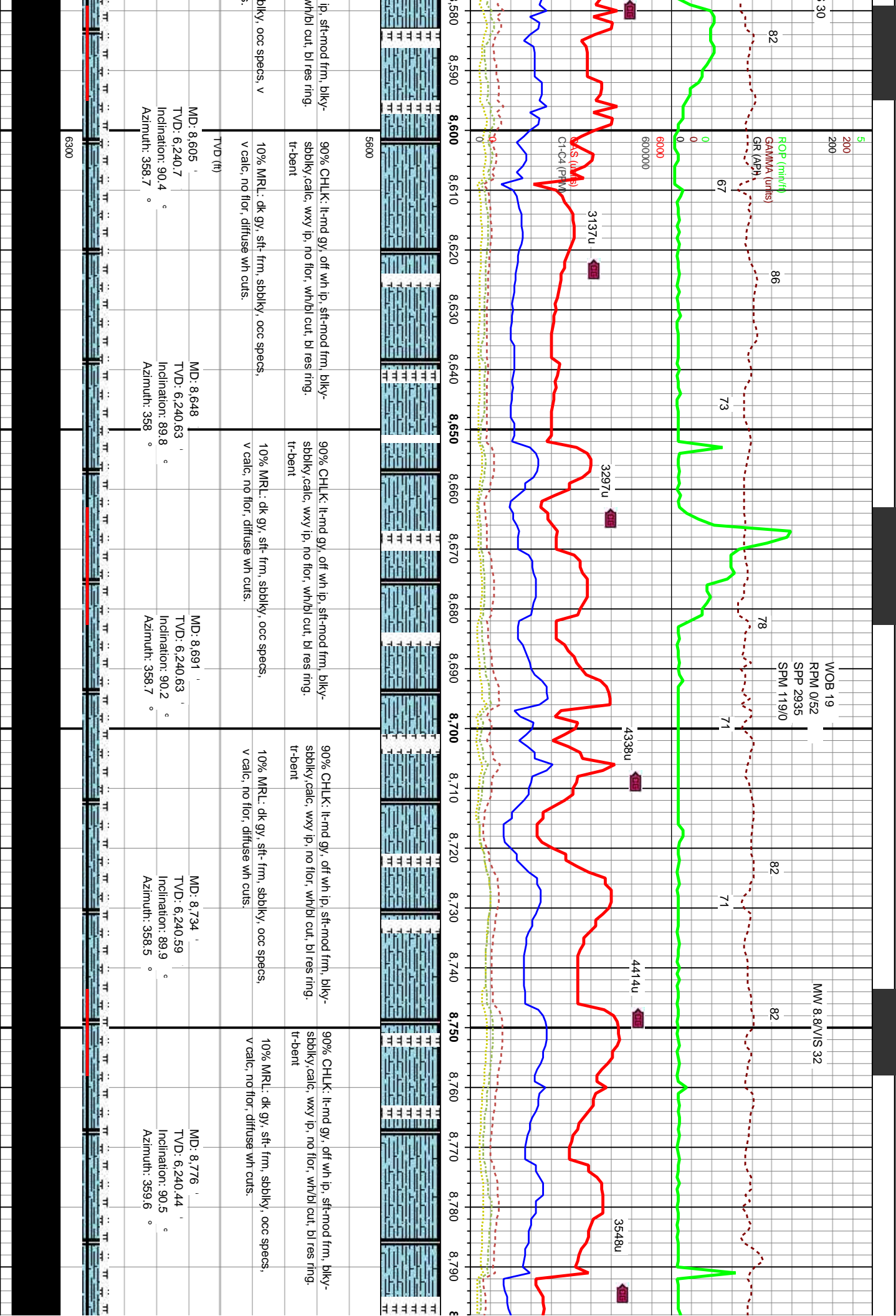




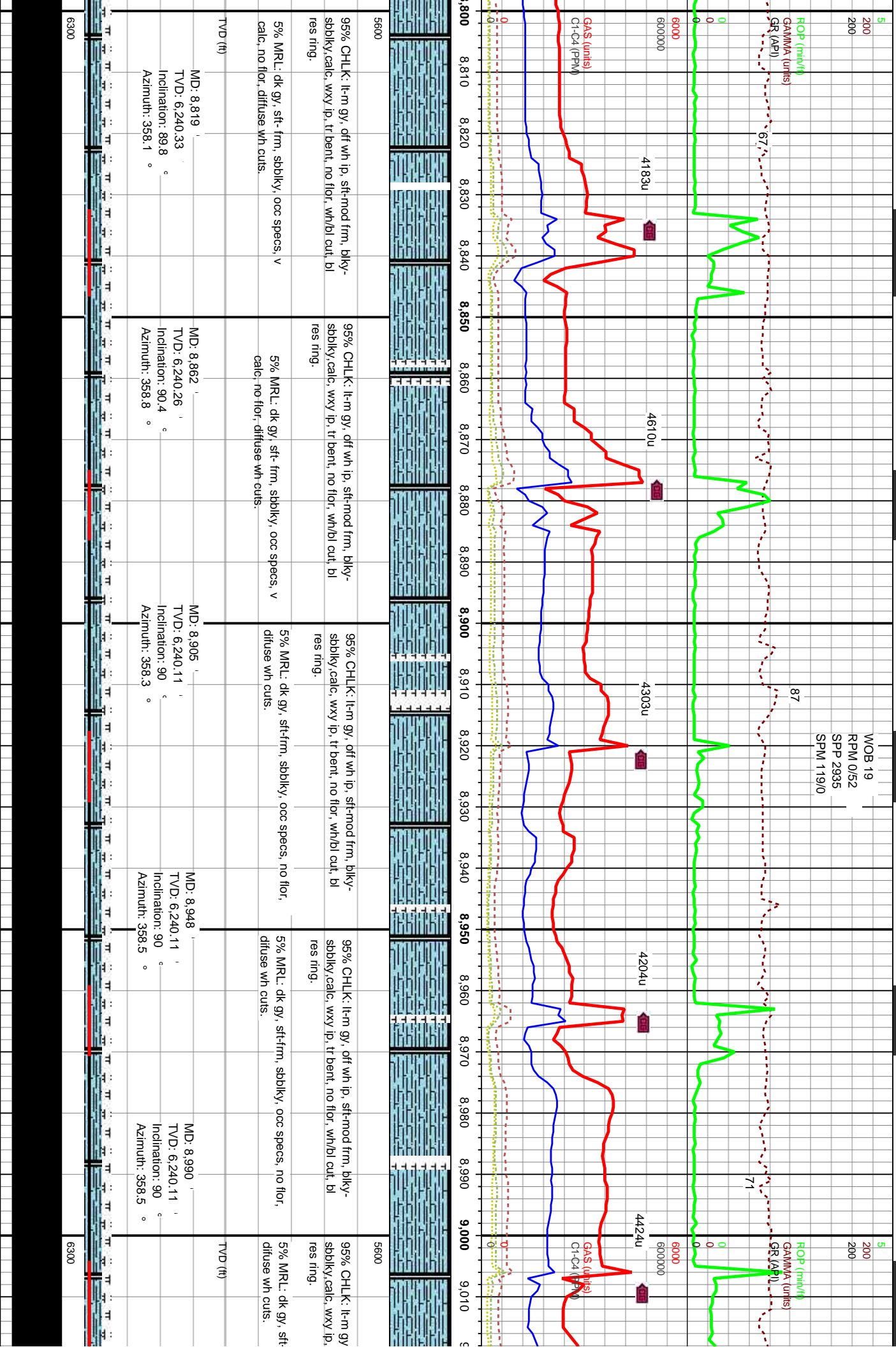






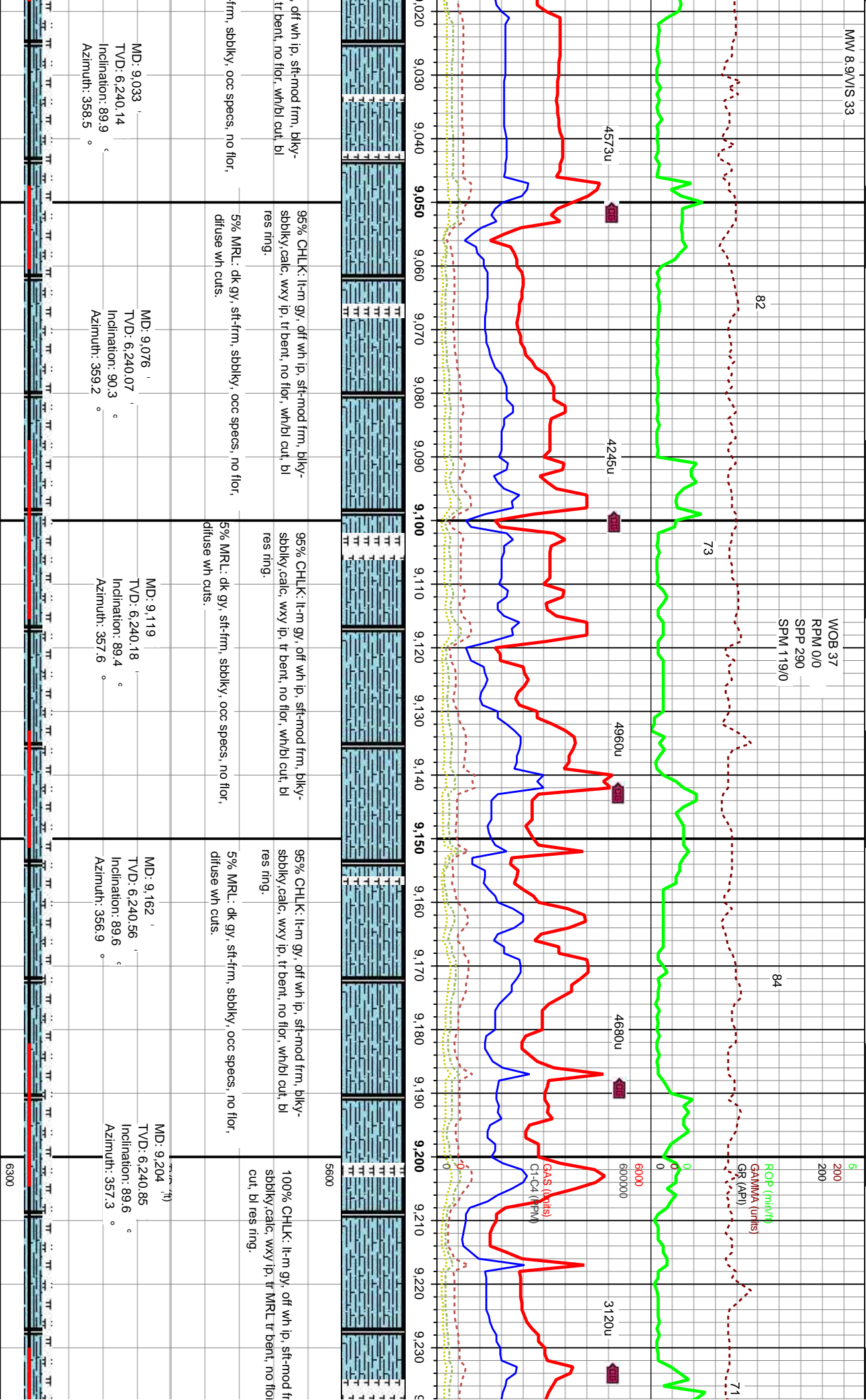






MW 8.9/VIS 33

WOB 37  
RPM 0/0  
SPM 290  
SPM 119/0



MD: 9,033  
TVD: 6,240.14  
Inclination: 89.9 °  
Azimuth: 358.5 °

MD: 9,076  
TVD: 6,240.07  
Inclination: 90.3 °  
Azimuth: 359.2 °

MD: 9,119  
TVD: 6,240.18  
Inclination: 89.4 °  
Azimuth: 357.6 °

MD: 9,162  
TVD: 6,240.56  
Inclination: 89.6 °  
Azimuth: 356.9 °

MD: 9,204  
TVD: 6,240.85  
Inclination: 89.6 °  
Azimuth: 357.3 °

95% CHLK: lt-m gy, off wh ip, sft-mod frm, blk-  
sbbky, calc, wxy ip, tr bent, no flor, wh/bl cut, bl  
res ring.

95% CHLK: lt-m gy, off wh ip, sft-mod frm, blk-  
sbbky, calc, wxy ip, tr bent, no flor, wh/bl cut, bl  
res ring.

95% CHLK: lt-m gy, off wh ip, sft-mod frm, blk-  
sbbky, calc, wxy ip, tr bent, no flor, wh/bl cut, bl  
res ring.

100% CHLK: lt-m gy, off wh ip, sft-mod fr  
sbbky, calc, wxy ip, tr MRL tr bent, no flor  
cut, bl res ring.

5% MRL: dk gy, sft-frm, sbbky, occ specs, no flor,  
diffuse wh cuts.

5% MRL: dk gy, sft-frm, sbbky, occ specs, no flor,  
diffuse wh cuts.

5% MRL: dk gy, sft-frm, sbbky, occ specs, no flor,  
diffuse wh cuts.

6300



