



Scale: 5" / 100'
Measured Depth Log

Well Name Henrickson 13C-18HZ

Location NWSW SEC 7 T3N R66W

State COLORADO

County WELD

Country UNITED STATES OF AMERICA

Rig Number ENSIGN 145

API Number 05-123-37673-00

AFE # 2084503

Region DJ BASIN

Field WATTENBERG

Spud Date 9/30/2013

Drilling Completed 10/6/2013

Surface Coordinates 1736' FSL 814' FWL

Bottom Hole Coordinates 460' FSL 700' FWL

Ground Elevation 4793'

K.B. Elevation 4808'

Logged Interval 6800'

To 13994'

Total Depth 7194'

Formation SUSSEX, SHARON SPRINGS, NIOBRARA A, NIOBRARA B, NIOBRARA C, FORT HAYS, CODELL

Type of Drilling Fluid FW LSND

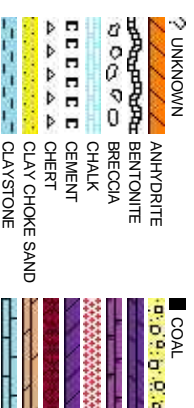
Company Anadarko

Address 1099 18th St. Suite 1800
Denver, CO. 80202

Name Zack Heider

Company Anadarko Petroleum Co
Address 1099 18th St. Suite 1800
Denver, CO. 80202

Lead Wellsite Geologist
Second Wellsite Geologist



Operator

Geologist

orporation

Other

Lacey Little

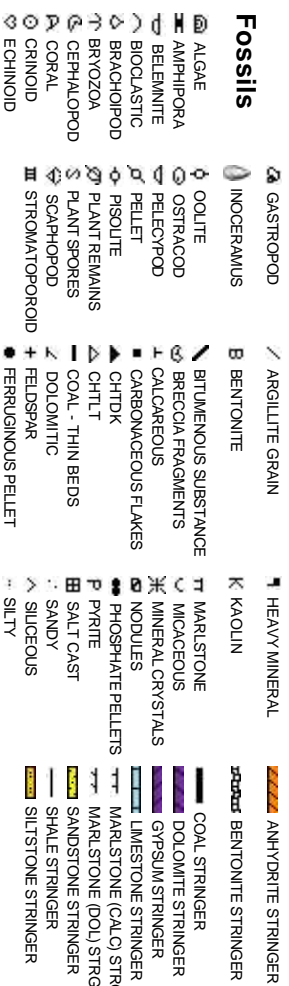
Whitney Jacks

Rock Types

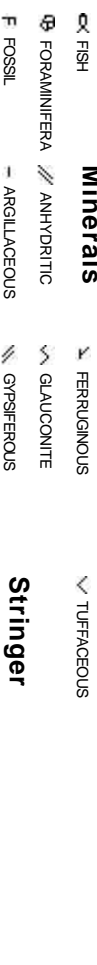


Accessories

Fossils

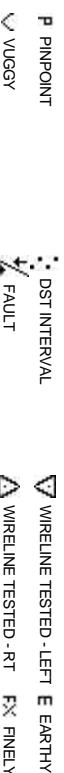


Minerals

**Springer**

Other Symbols

Oil Show



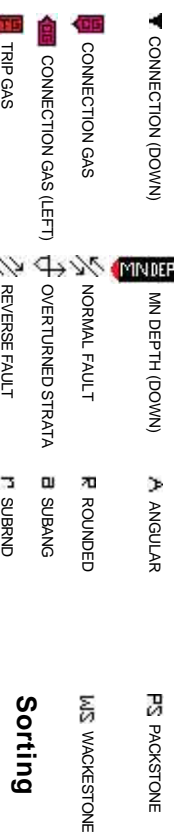
Engineering



Rounding



Porosity



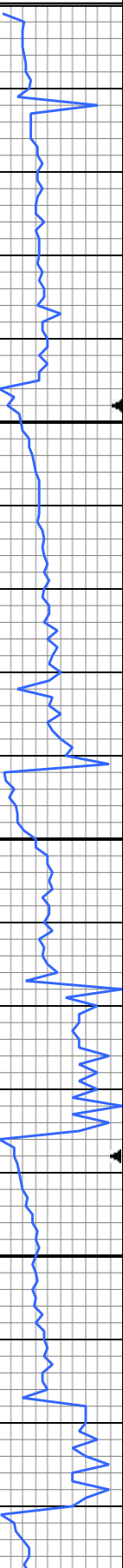
Sorting

Textures



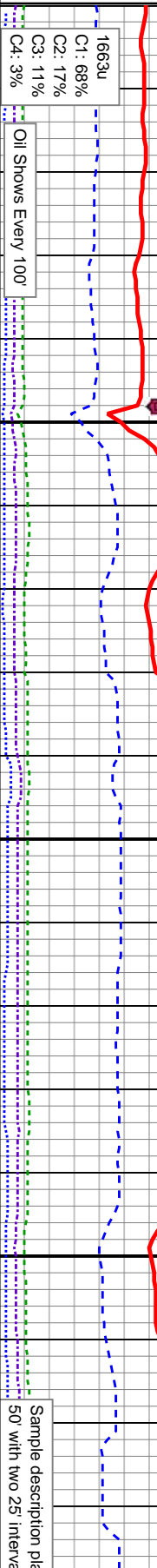
Slide/Rotate

ROP



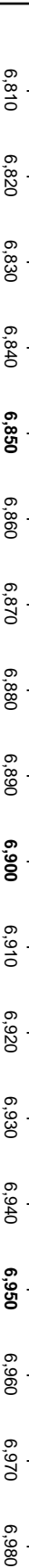
Total Gas & Chromatograph

GAS

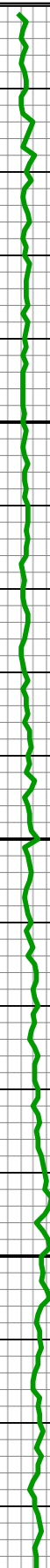


Sample description plan
50' with two 25' intervals

Depth Labels



Curves



% Lith



Well Bore
TV D —

TV D —

COLUMBINE LOGGING 10/01/2013 - Rig Up
DRILLING STARTED 10/02/2013
MANNED 2-PERSON LOGGING
WITH BLOODHOUND GAS
CHROMATOGRAPH UNIT #0598

MD: 6,834
TVD: 6,803.27
Inclination: 14.7
Azimuth: 175.23

MD: 6,879
TVD: 6,846.28
Inclination: 19.4
Azimuth: 175.21

MD: 6,924
TVD: 6,888.42
Inclination: 21.61
Azimuth: 175.24

MD: 6,969
TVD: 6,929.77
Inclination: 24.87
Azimuth: 175.12

100% SLTY SH: lt - med gry, sft - mod, pfty - sb
pfty, v f gr, slty tex, rthy lstr, non calc; O SHW:
yel/wh, mod stmg, tr sn, tr o

100% SLTY SH: lt - med gry, sft - mod, plty - sb
plty, v f gr, slty tex, rhy lstr, non calc, tr ss; O
SHW: yel/wh, mod stmg, tr stn, tr o

100% SLTY SH: lt - med gry, sft - mod, pty - sb
 pty, v f gr, slty tex, rthy lstr, non calc; O SHW: b
 wh, mod stmg, sl tr stn, sl tr o

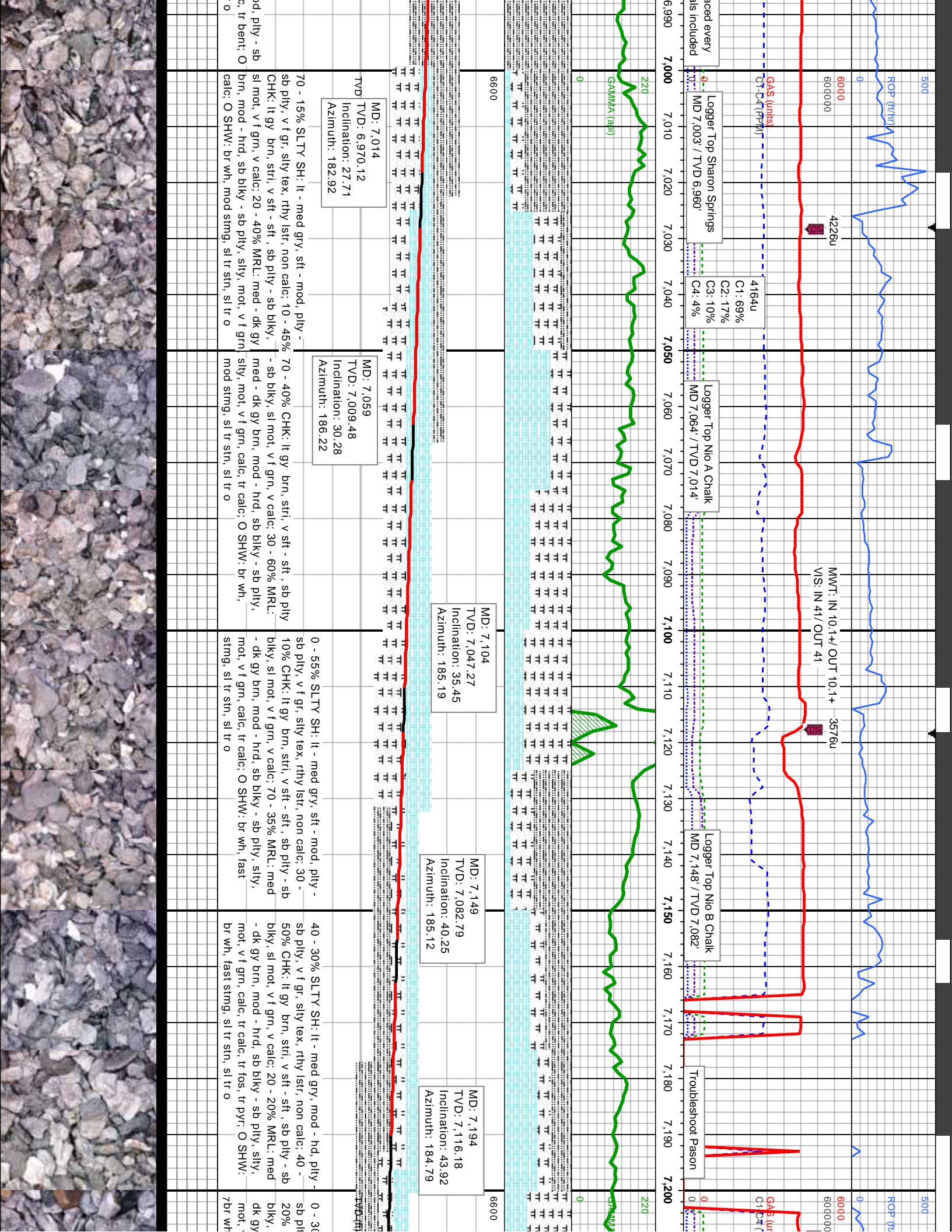
100% SLTY SH: lt - med gry, sft - mod
plty, v f gr, sfty tex, rthy lstr, non cal
SHW: br wh, mod stmg, sl tr stn, sl tr

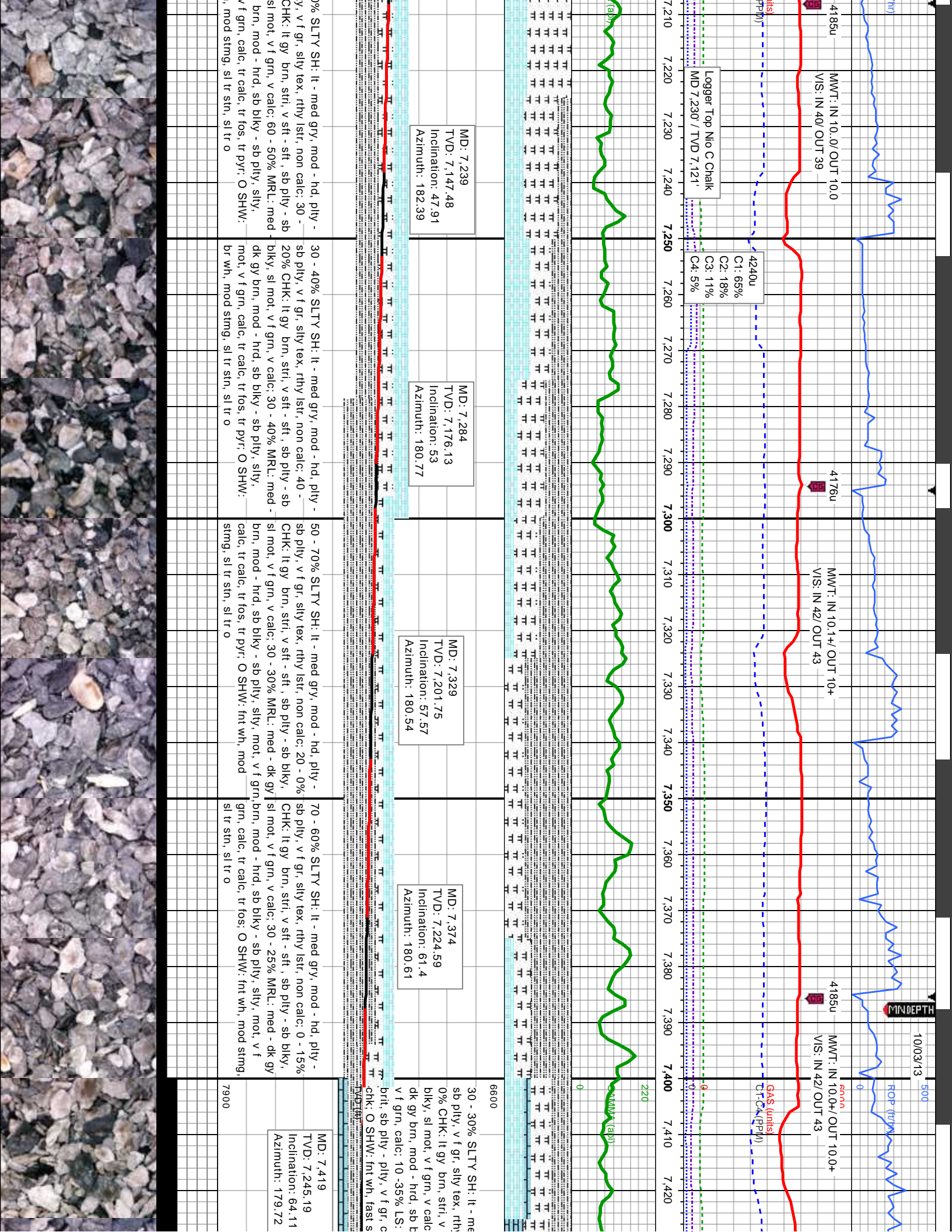
Oil Show

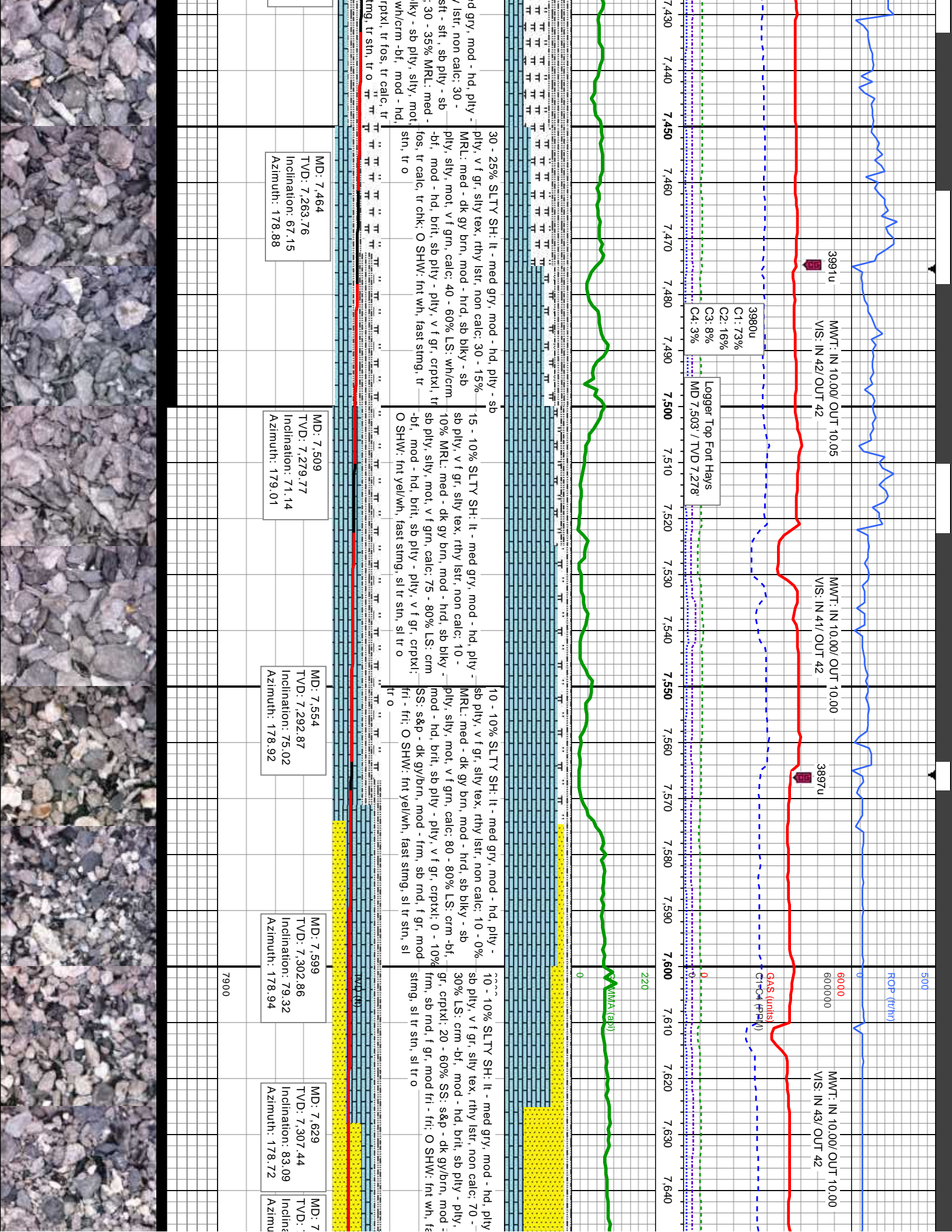
ST-PMGM

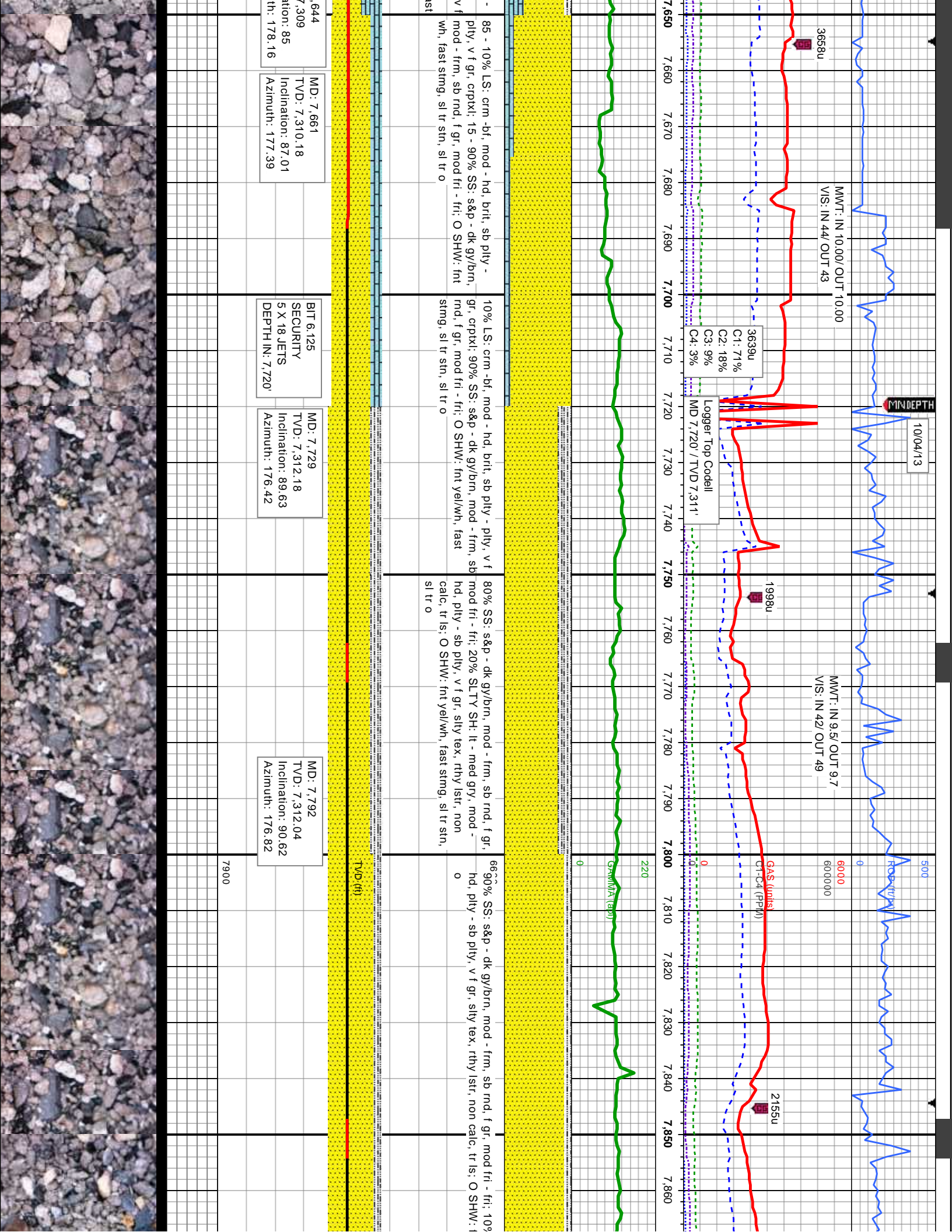


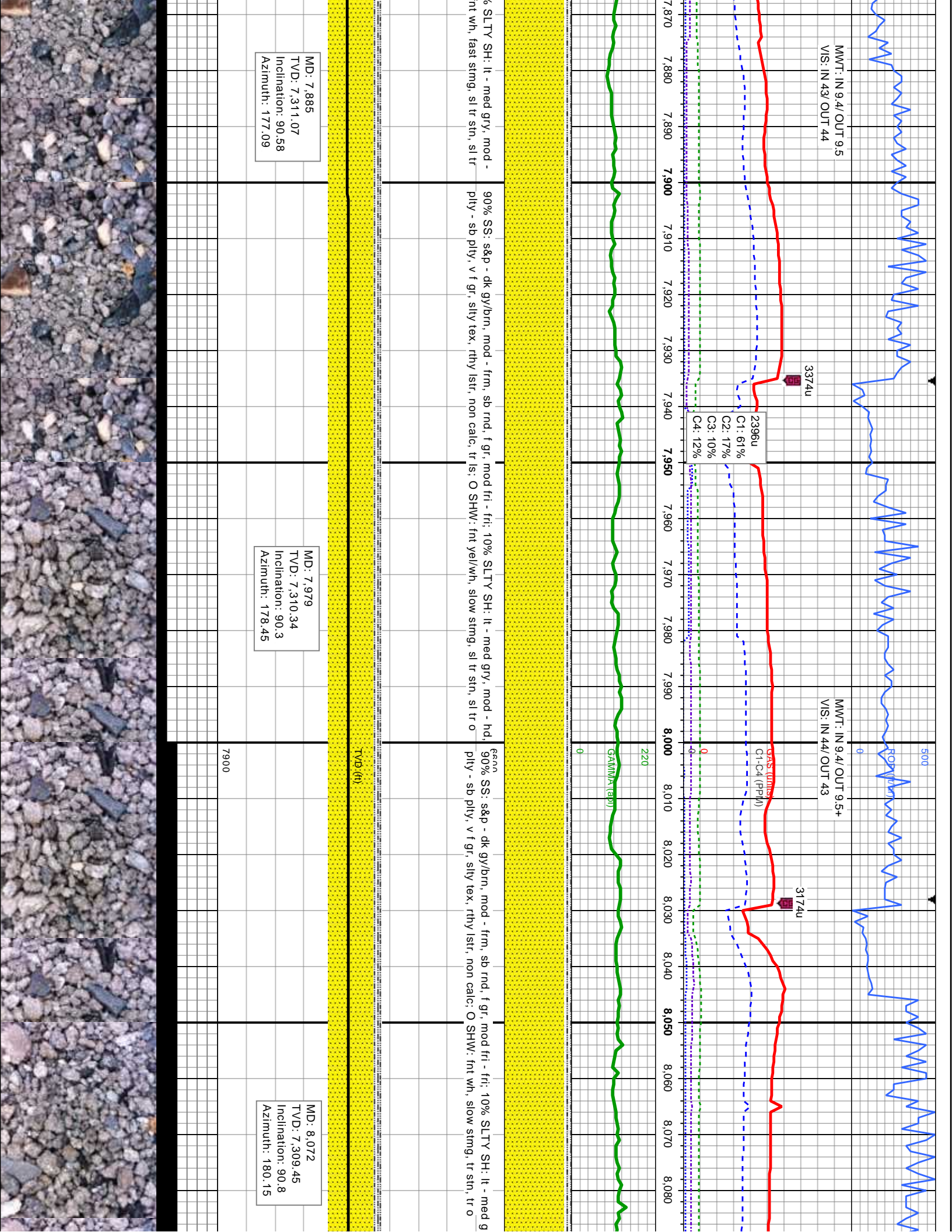
Images











MMWT: IN 9.4/ OUT 9.5
VIS: IN 43/ OUT 44

3374u

2396u
C1: 61%
C2: 17%
C3: 10%
C4: 12%

MMWT: IN 9.4/ OUT 9.5+
VIS: IN 44/ OUT 43

3174u

Gas (units)
C1-C4 (PPI/I)

GAMMA (cp)

220

0

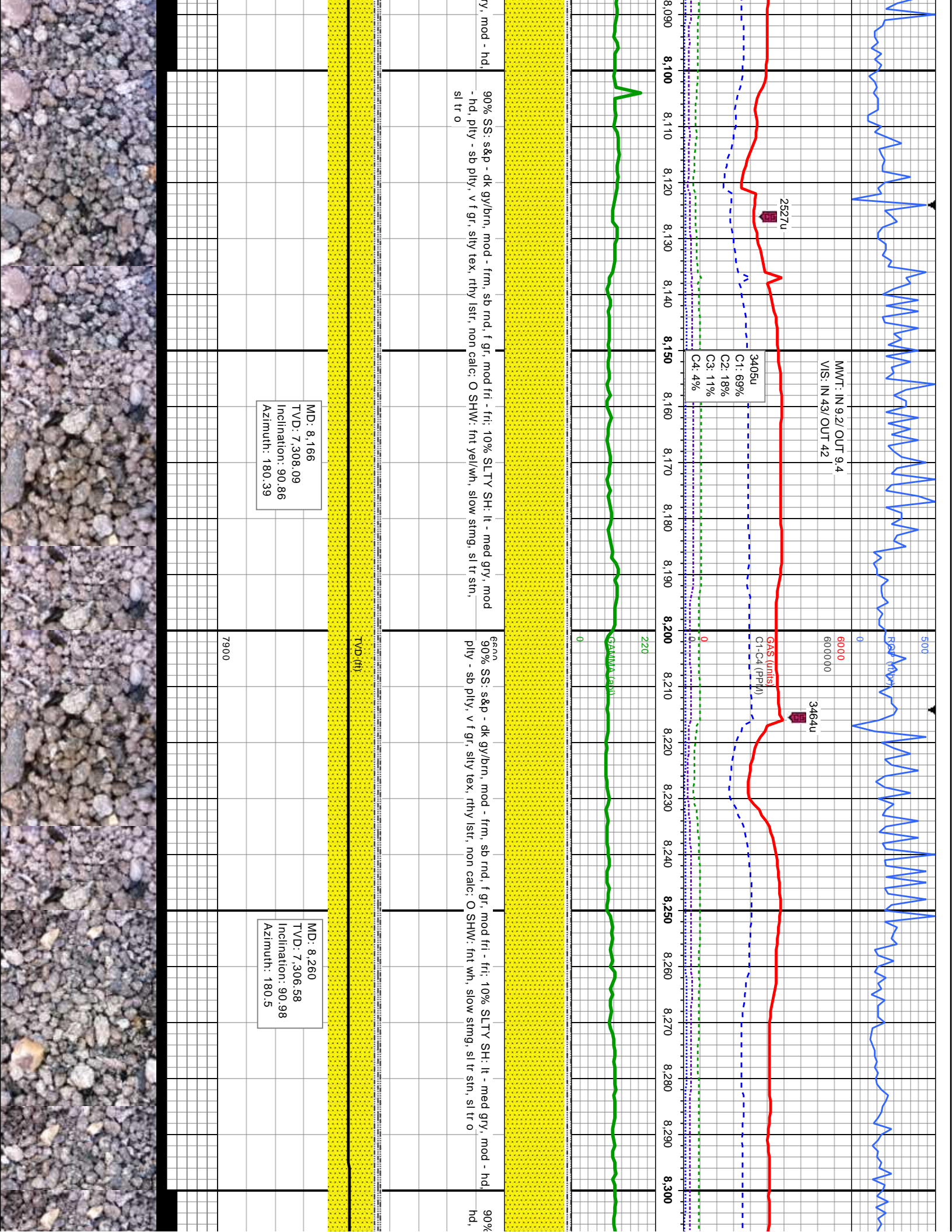
% SLTY SH: lt - med gry, mod -
fnt wh, fast stmg, sl tr stn, sl tr

90% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri; 10% SLTY SH: lt - med gry, mod - hd,
fnt wh, fast stmg, sl tr stn, sl tr o

90% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri; 10% SLTY SH: lt - med g
fnt wh, fast stmg, sl tr stn, sl tr o

TVD (ft)

7900



MWLT: IN 9.2/ OUT 9.4
VIS: IN 43/ OUT 42

2527u

3405u
C1: 69%
C2: 18%
C3: 11%
C4: 4%

6000
600000

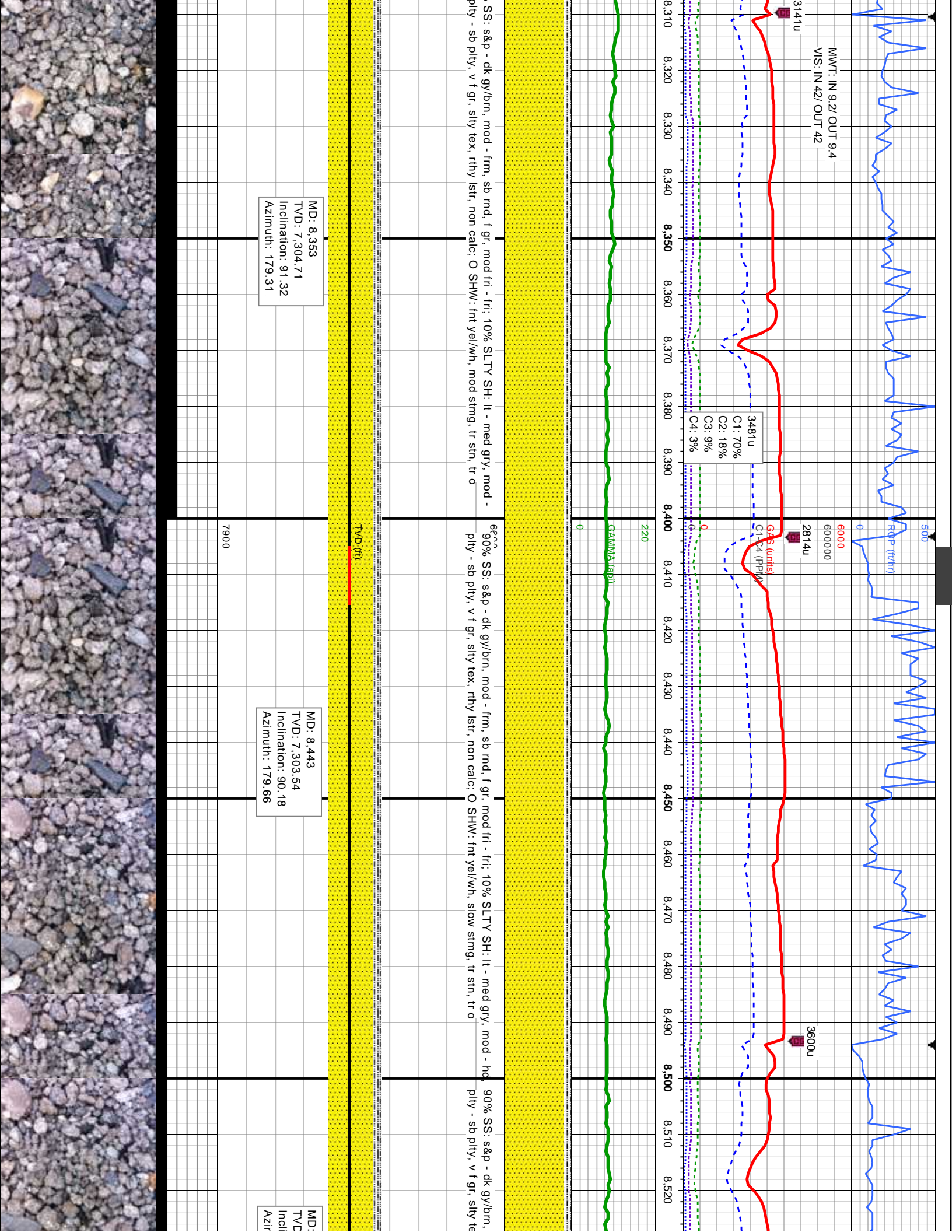
3464u

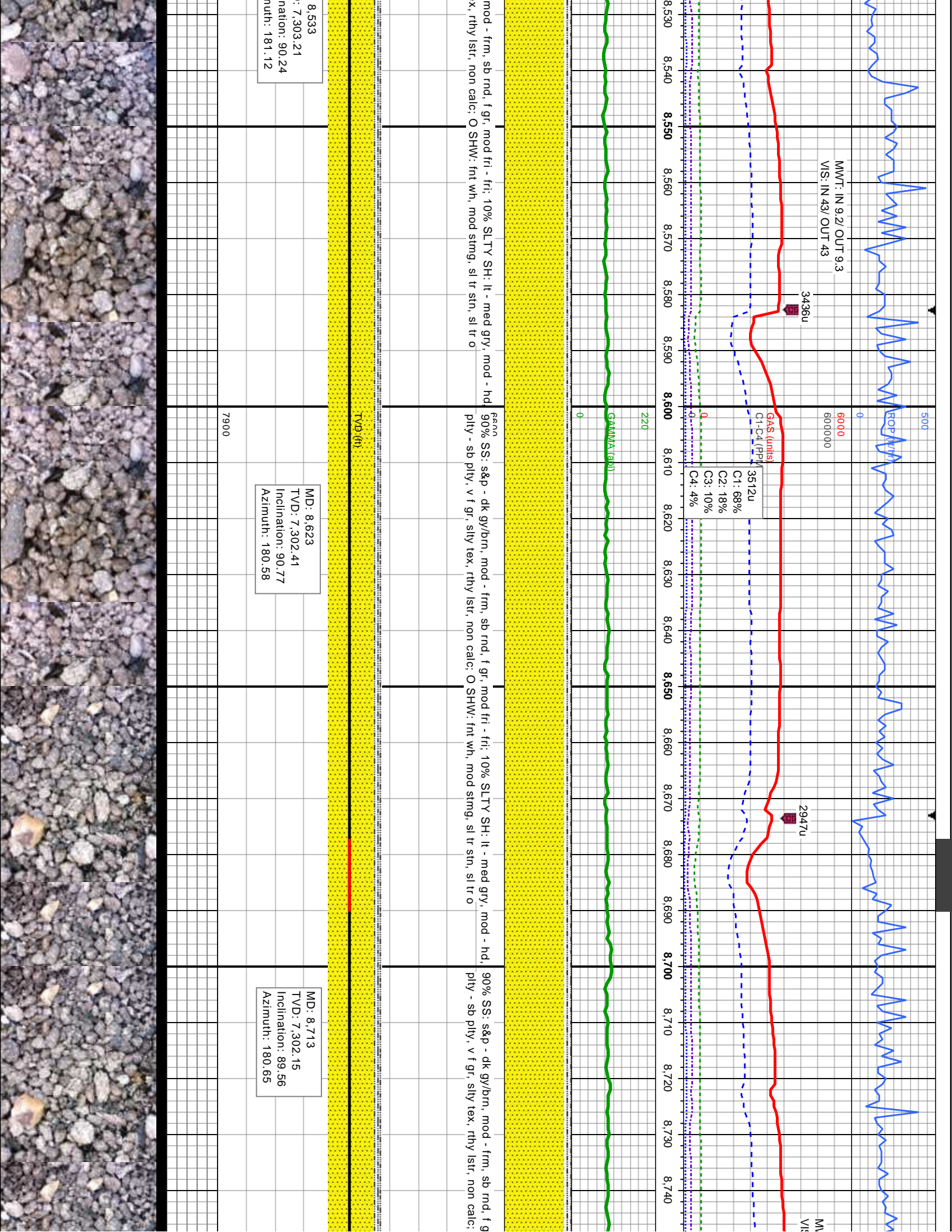
GAS (units)
C1-C4 (PPH)

TVD (ft)

MD: 8,166
TVD: 7,308.09
Inclination: 90.86
Azimuth: 180.39

MD: 8,260
TVD: 7,306.58
Inclination: 90.98
Azimuth: 180.5





10/05/13

MINDEPTH

MT: IN 9.3/ OUT 9.4

S: IN 43/ OUT 43

3649u

ROP (ft/h)

SCALE
CHANGE

7000

7000000

Gas (units)

C1-C4 (PPM)

SCALE
CHANGE

0

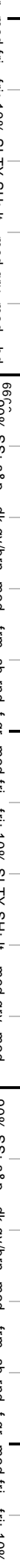
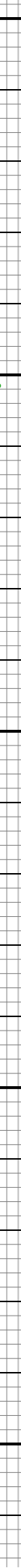
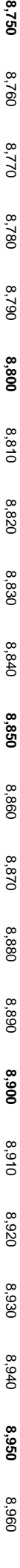
3490u

3217u

4173u

MMWT: IN 9.25/ OUT 9.4

VIS: IN 43/ OUT 43



66% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri: 10% SLTY SH: lt - med gry, mod - hd, pty - sb pty, v f gr, silty tex, rthy lstr, non calc; O SHW: fnt yel/wh, mod sting, sl tr stn, sl tr o

66% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri: 10% SLTY SH: lt - med gry, mod - hd, pty - sb pty, v f gr, silty tex, rthy lstr, non calc; O SHW: fnt yel/wh, mod sting, sl tr stn, sl tr o

90% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri: 10% SLTY SH: lt - med gry, mod - hd, pty - sb pty, v f gr, silty tex, rthy lstr, non calc; O SHW: fnt yel/wh, mod sting, sl tr stn, sl tr o

90% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri: 10% SLTY SH: lt - med gry, mod - hd, pty - sb pty, v f gr, silty tex, rthy lstr, non calc; O SHW: fnt yel/wh, mod sting, sl tr stn, sl tr o



TVD (ft)

MD: 8.803

TVD: 7.302.89

Inclination: 89.5

Azimuth: 180.23

MD: 8.894

TVD: 7.303.29

Inclination: 90

Azimuth: 179.83

MD: 8.803

TVD: 7.302.89

Inclination: 89.5

Azimuth: 180.23

MD: 8.894

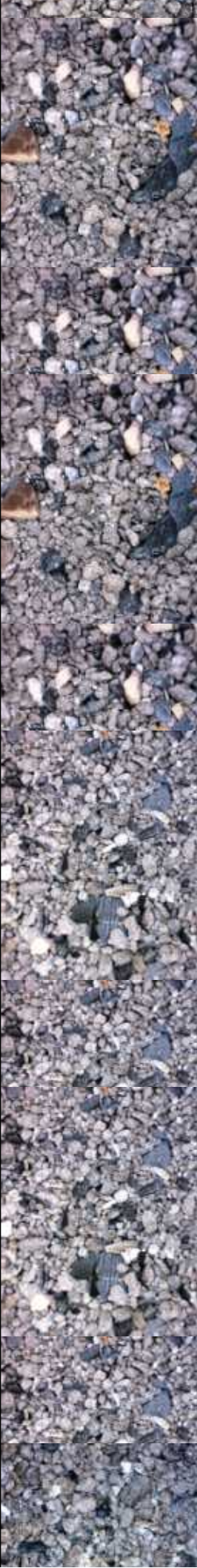
TVD: 7.303.29

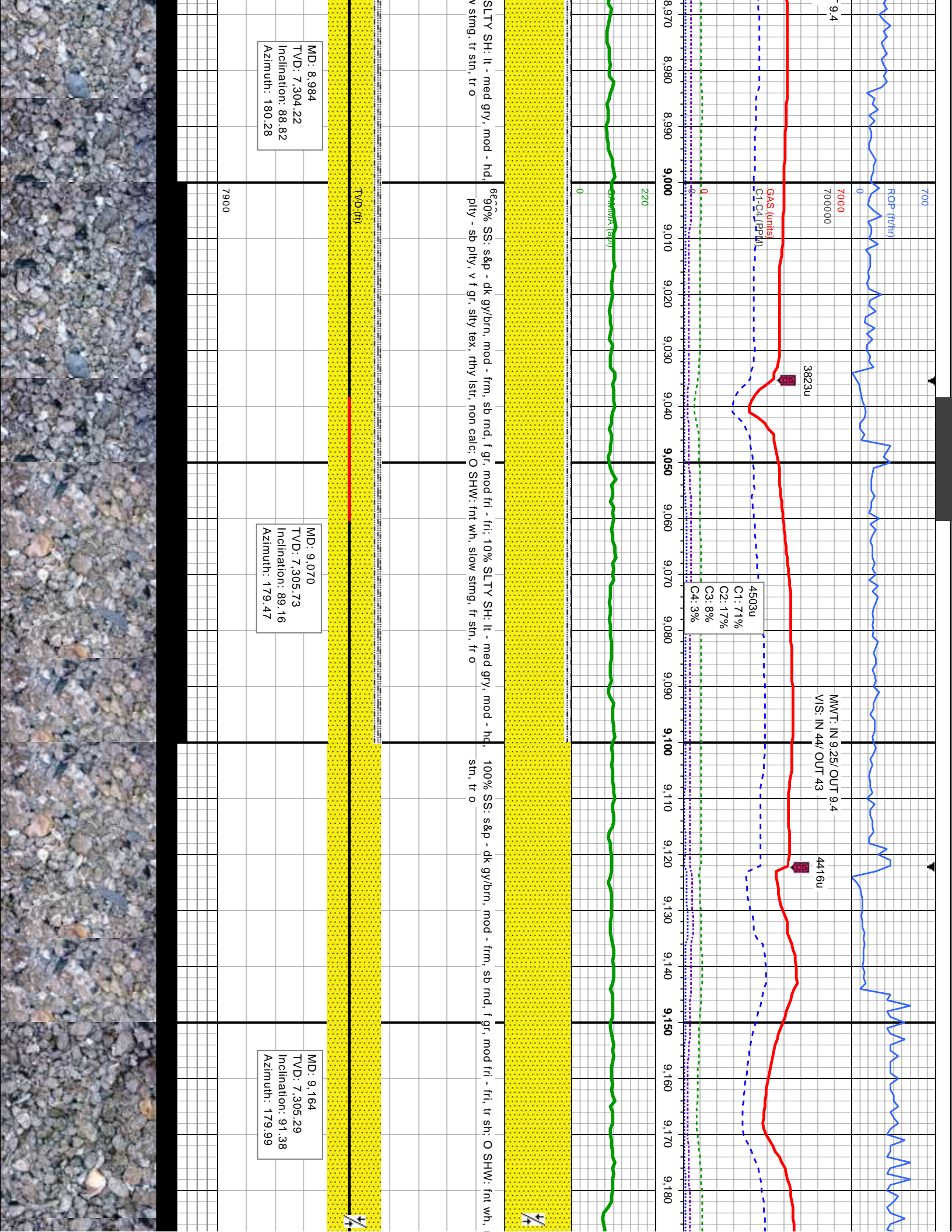
Inclination: 90

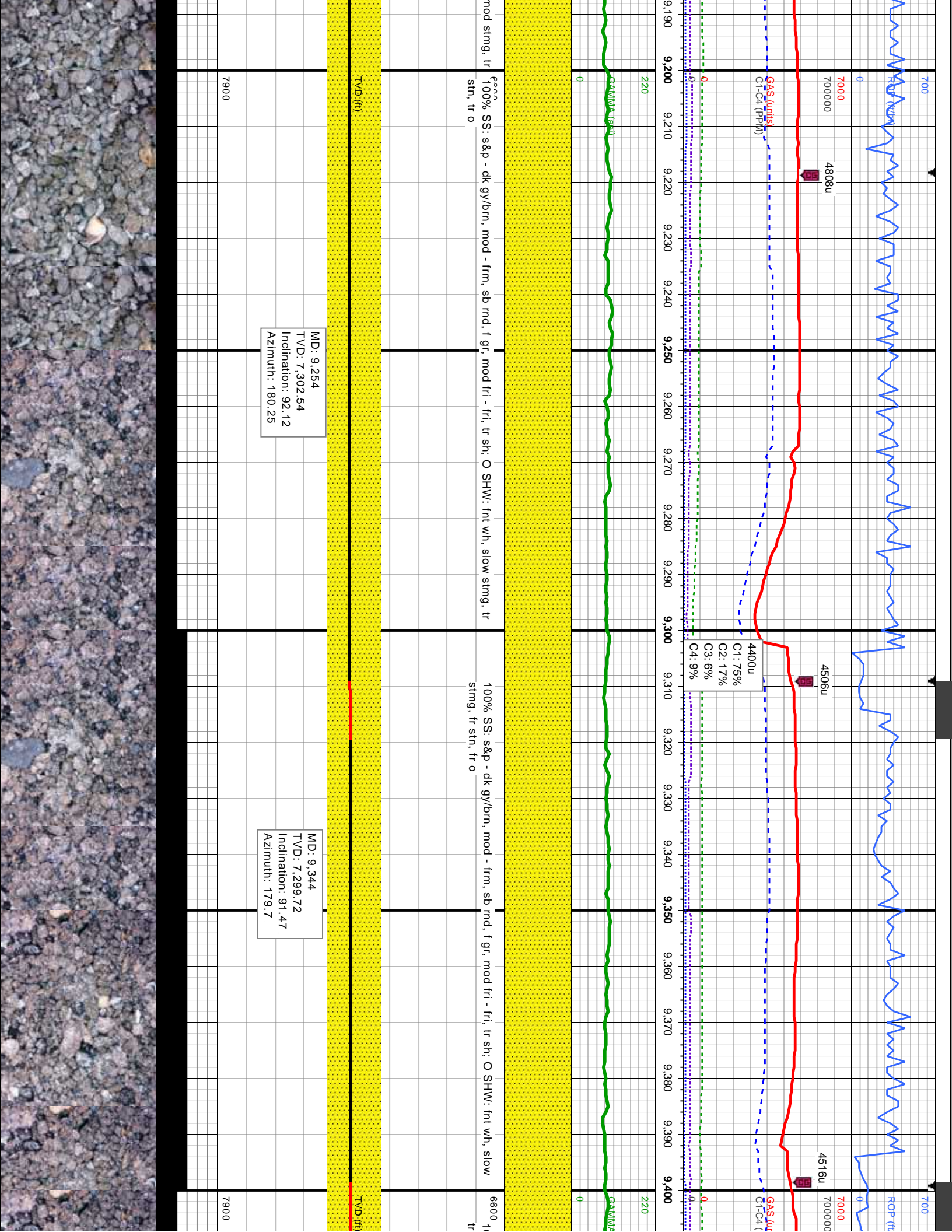
Azimuth: 179.83

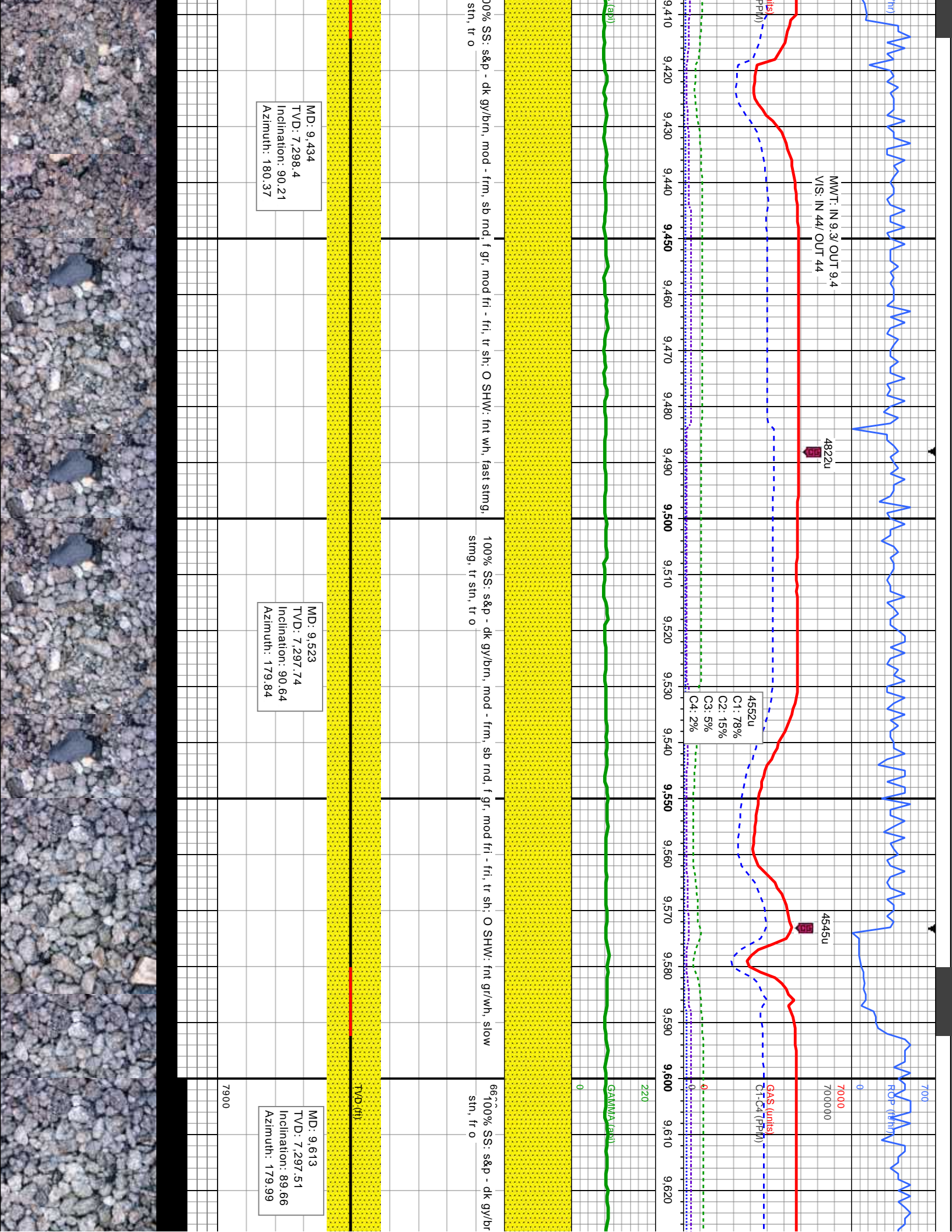
7900

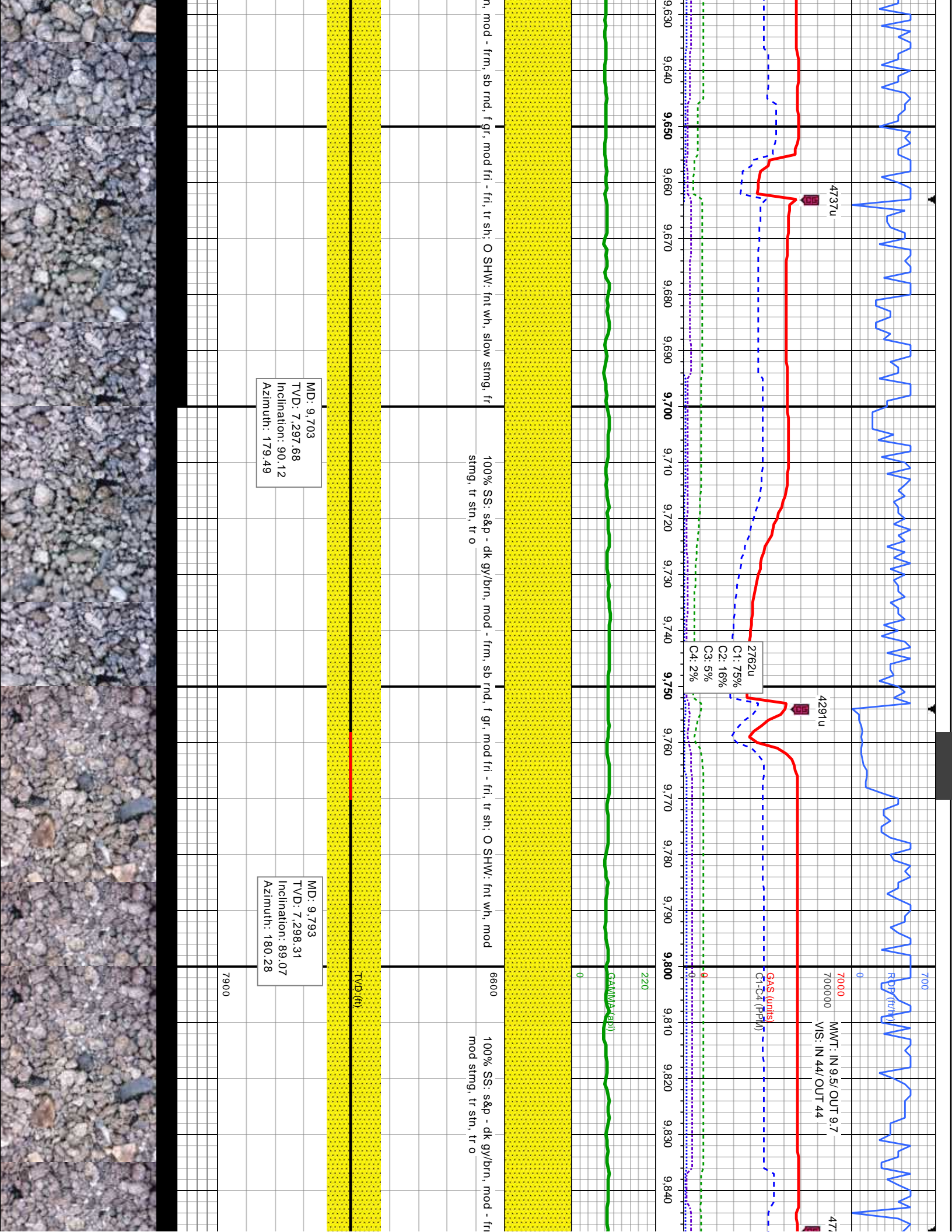
7900

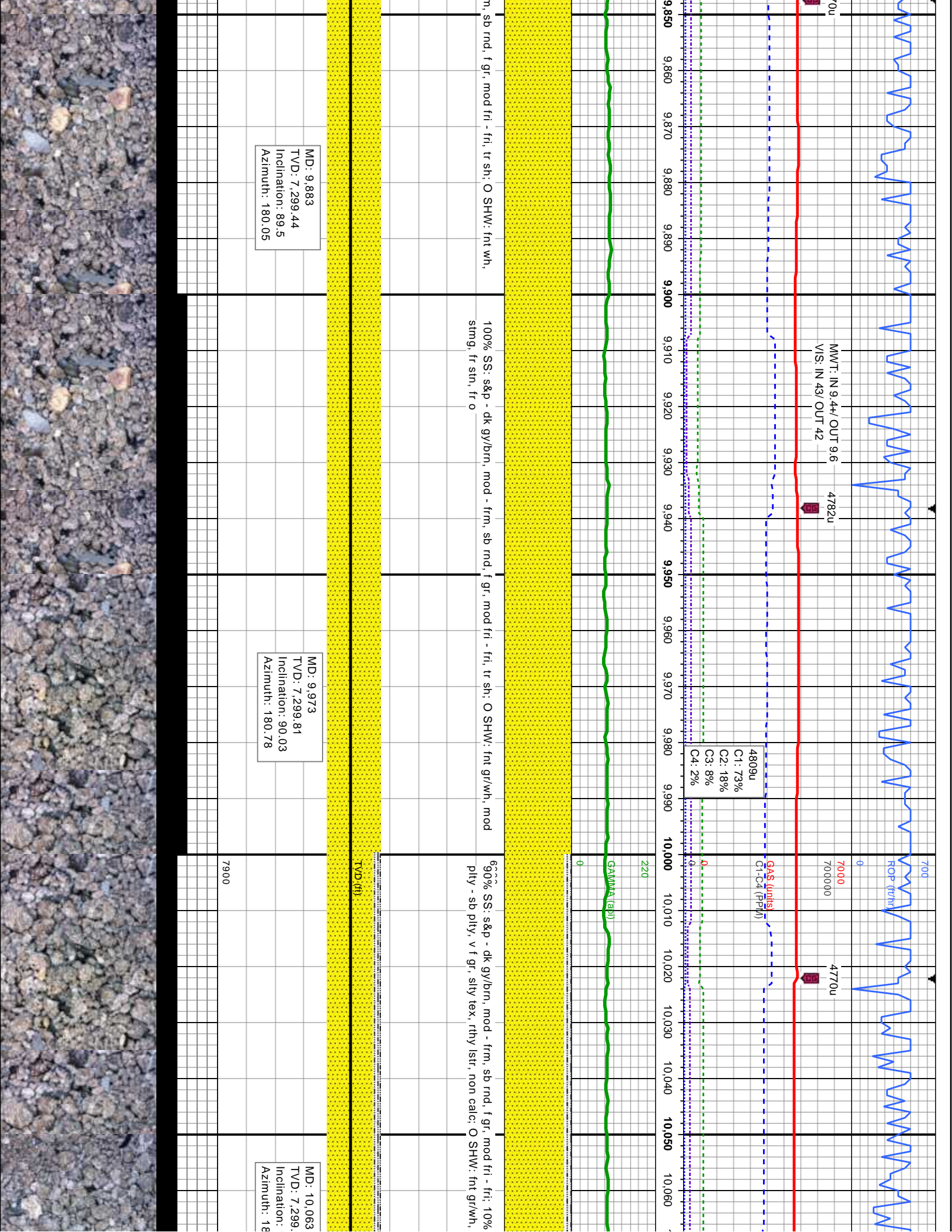


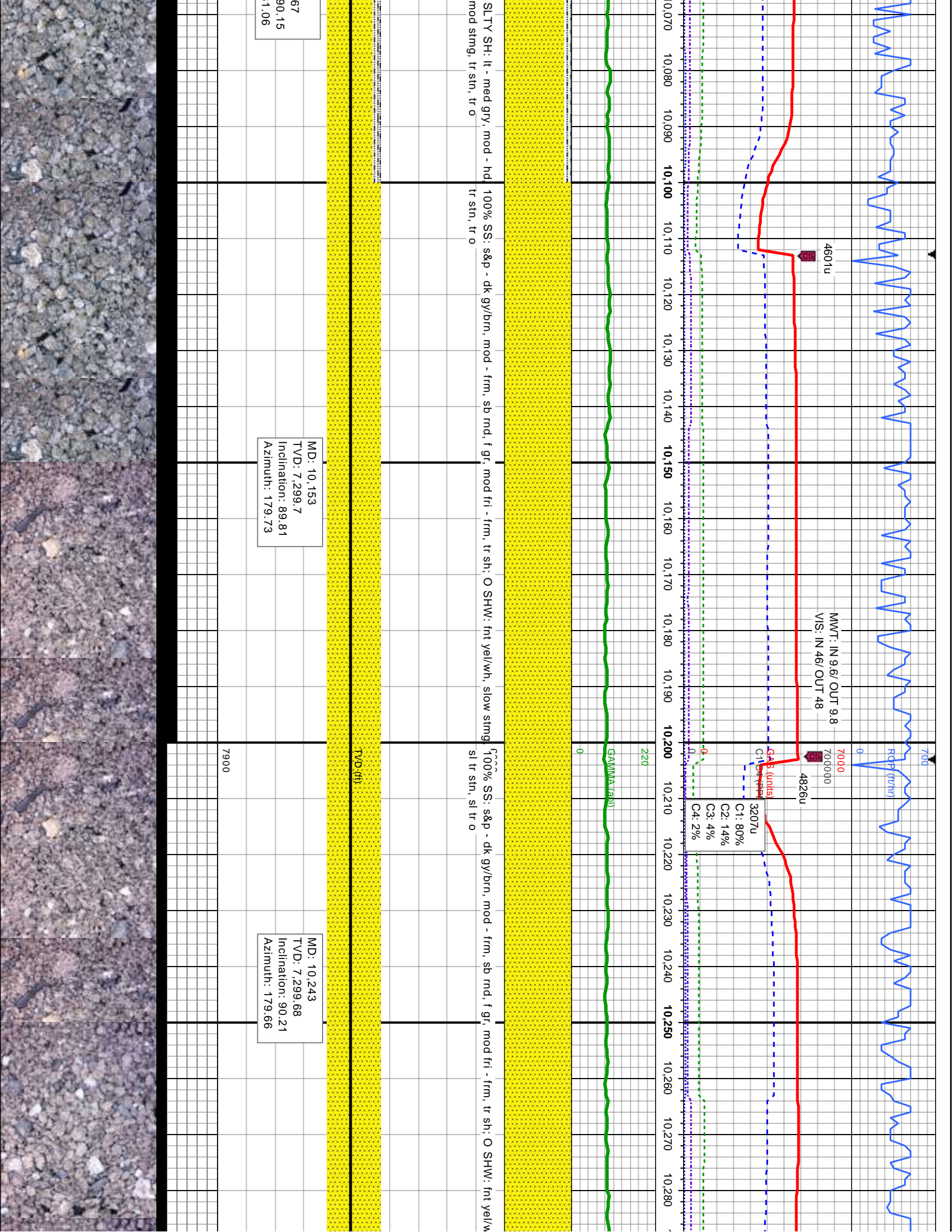












4601u

MWT: IN 9.6/ OUT 9.8
VIS: IN 46/ OUT 48

7000

700000

4826u

GAS (units)

C1: 80%
C2: 14%
C3: 4%
C4: 2%

3207u

GAMMA (api)

220

0

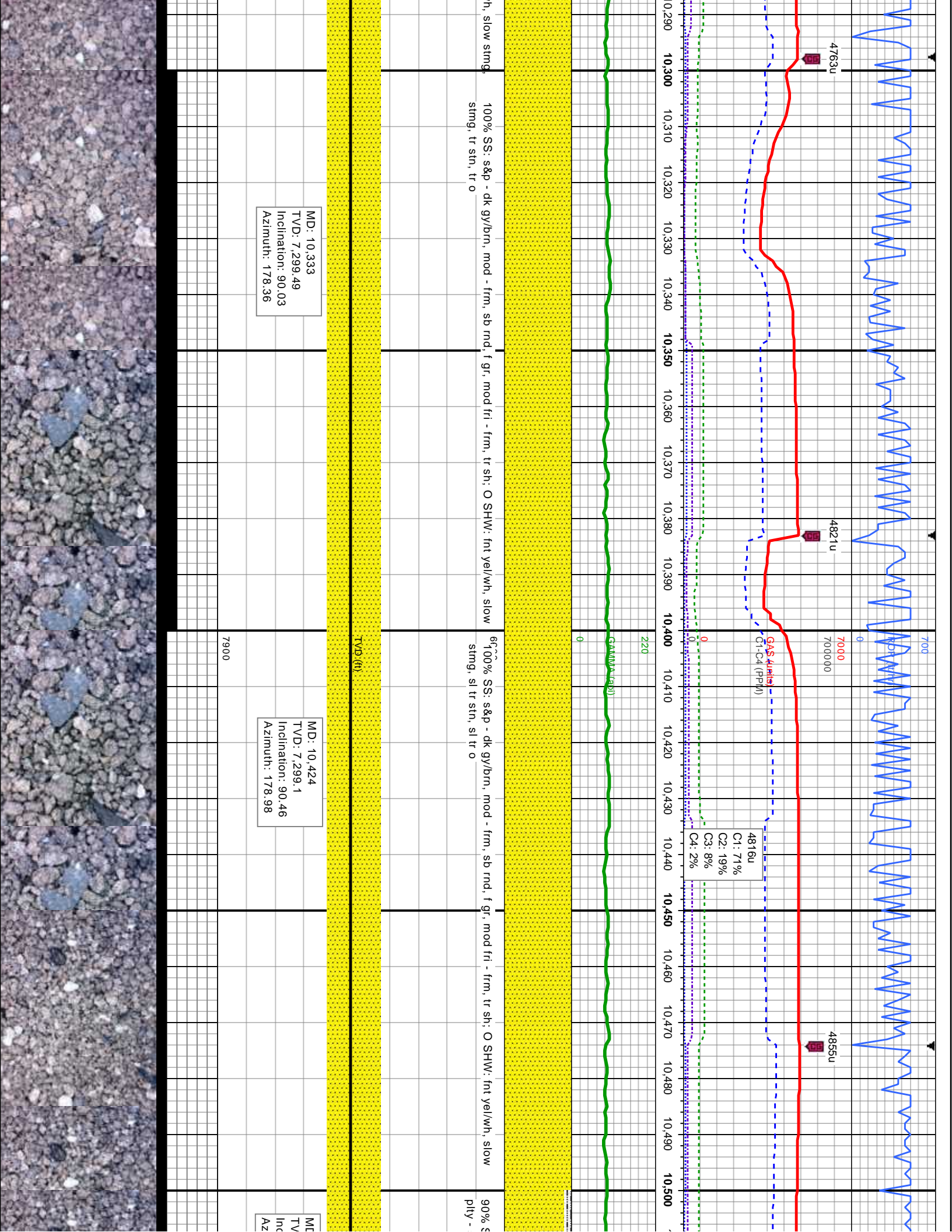
100% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - frm, tr sh; O SHW: fnt yel/wh, slow stmg

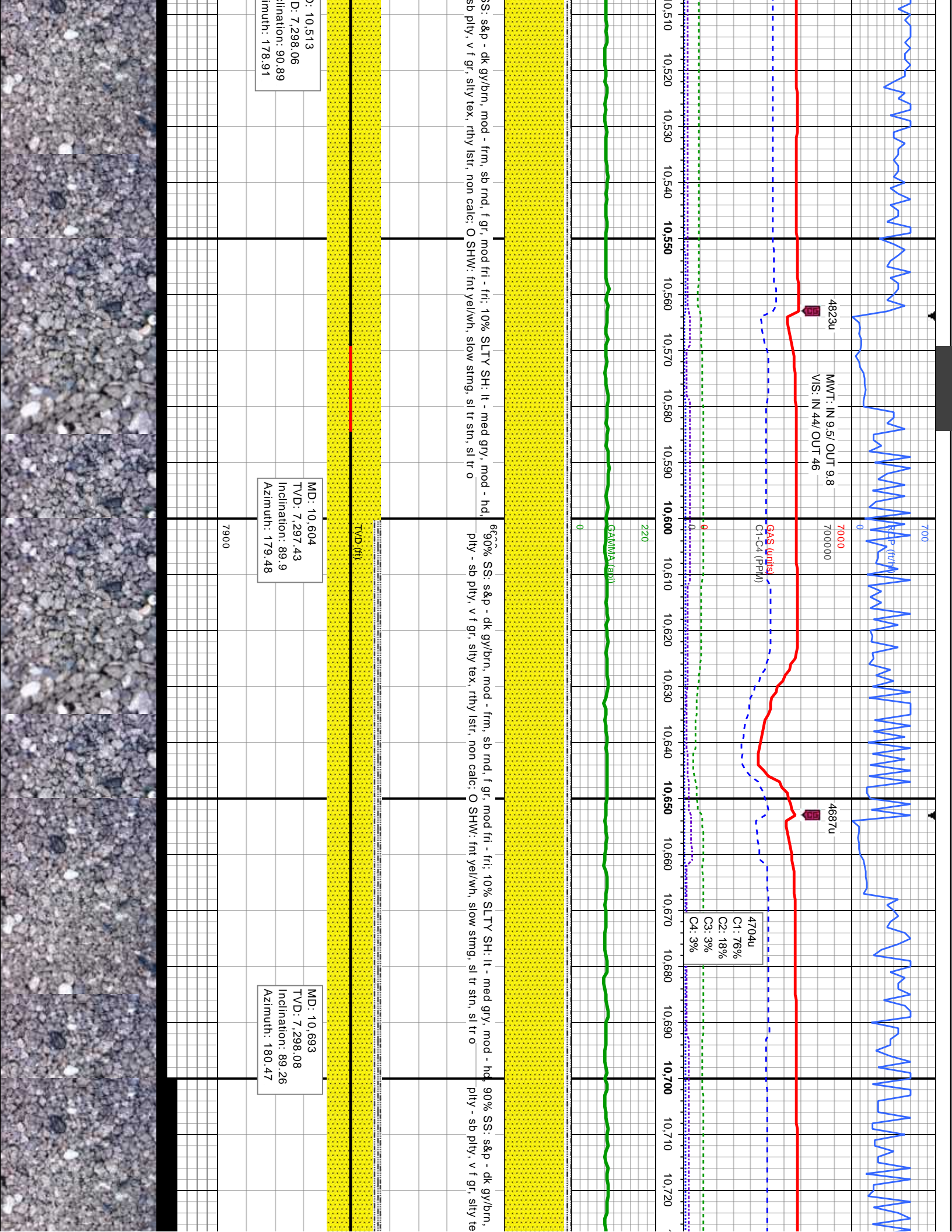
100% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - frm, tr sh; O SHW: fnt yel/wh, slow stmg

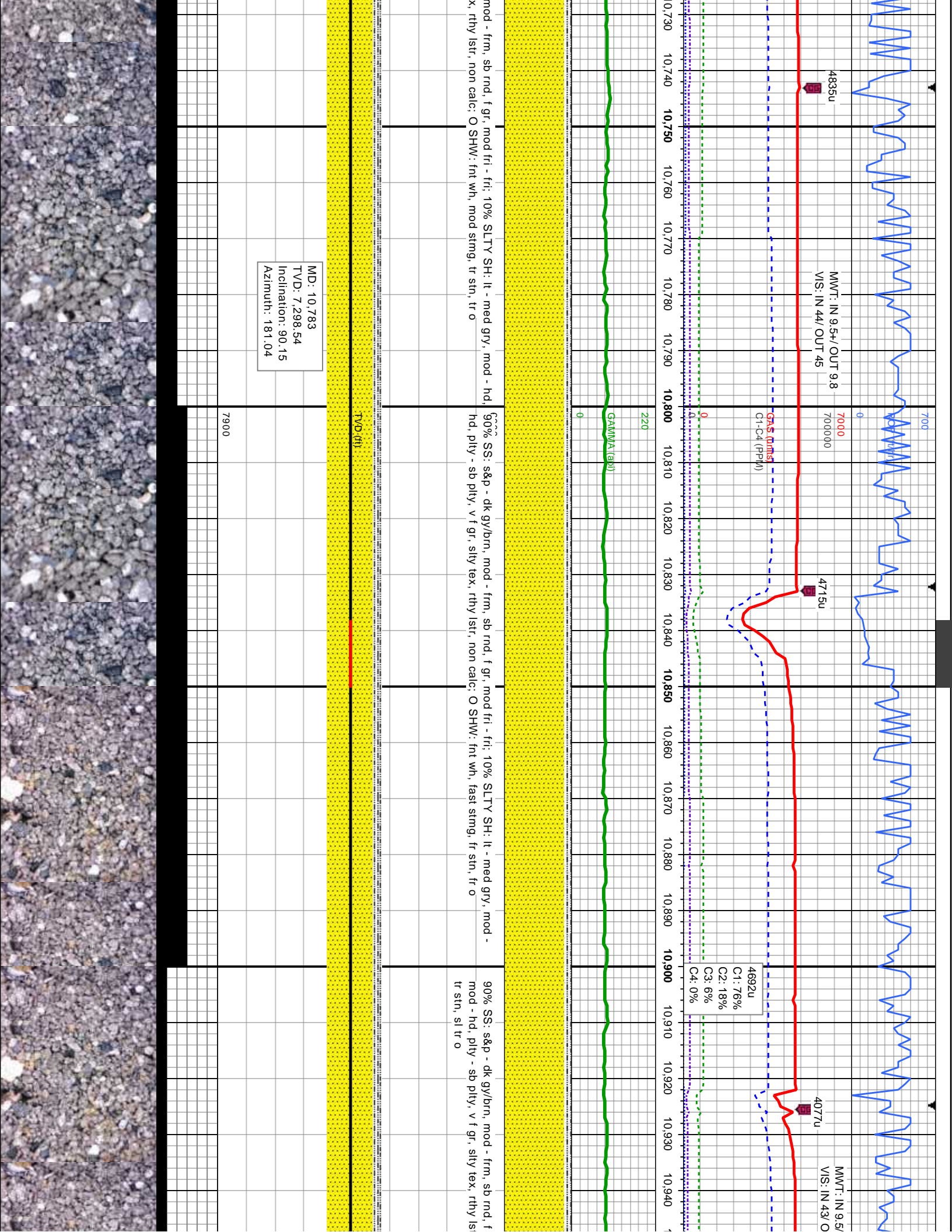
MD: 10.153
TVD: 7,299.7
Inclination: 89.81
Azimuth: 179.73

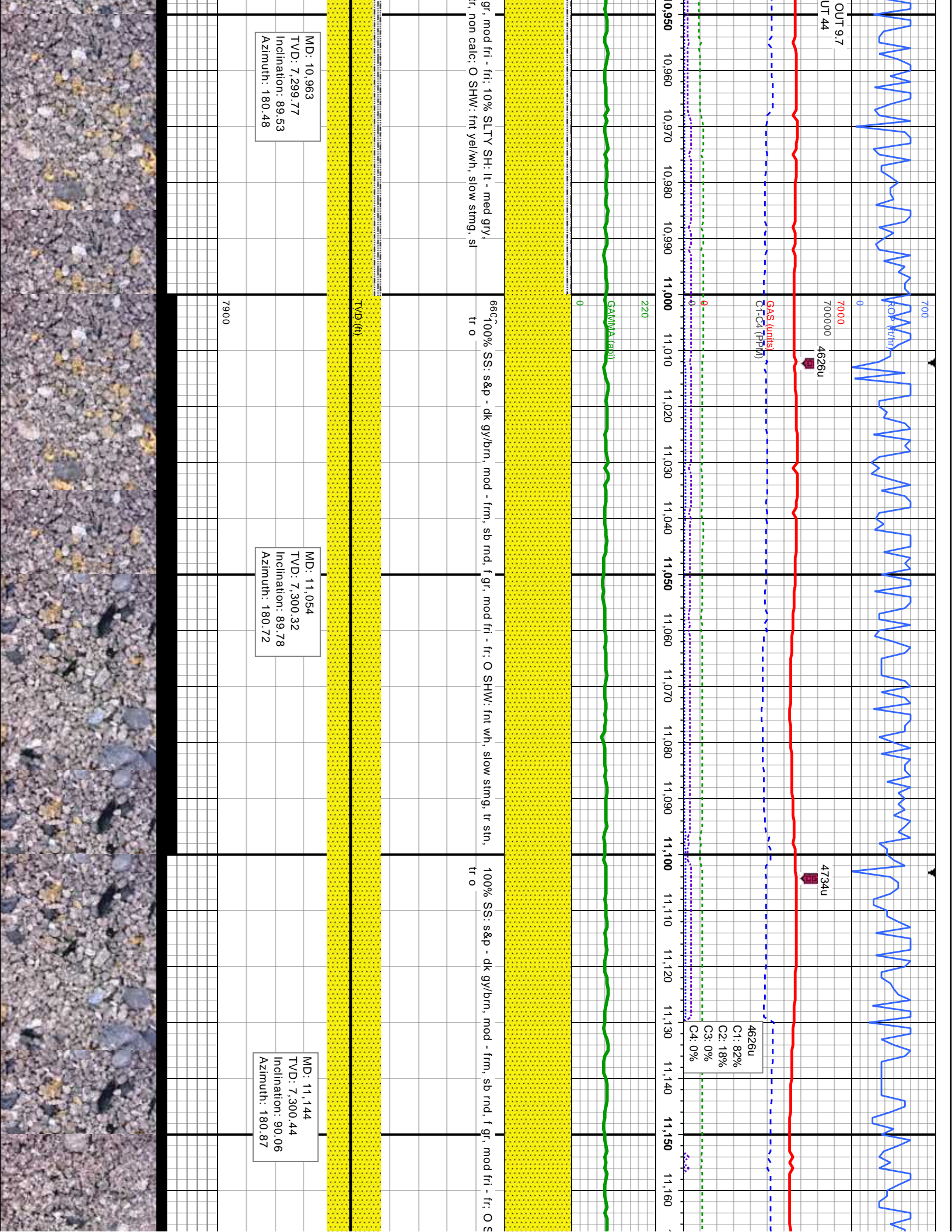
MD: 10.243
TVD: 7,299.68
Inclination: 90.21
Azimuth: 179.66

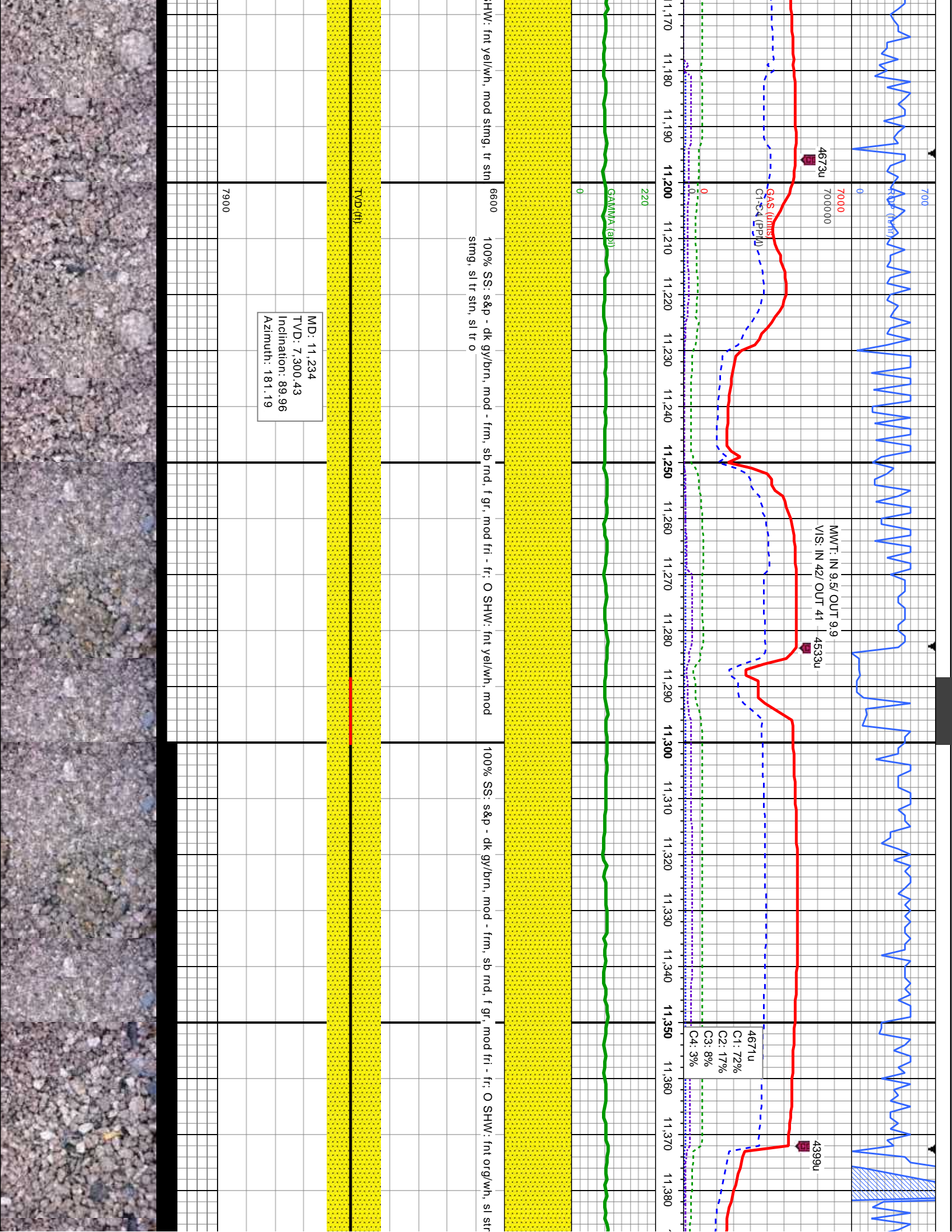
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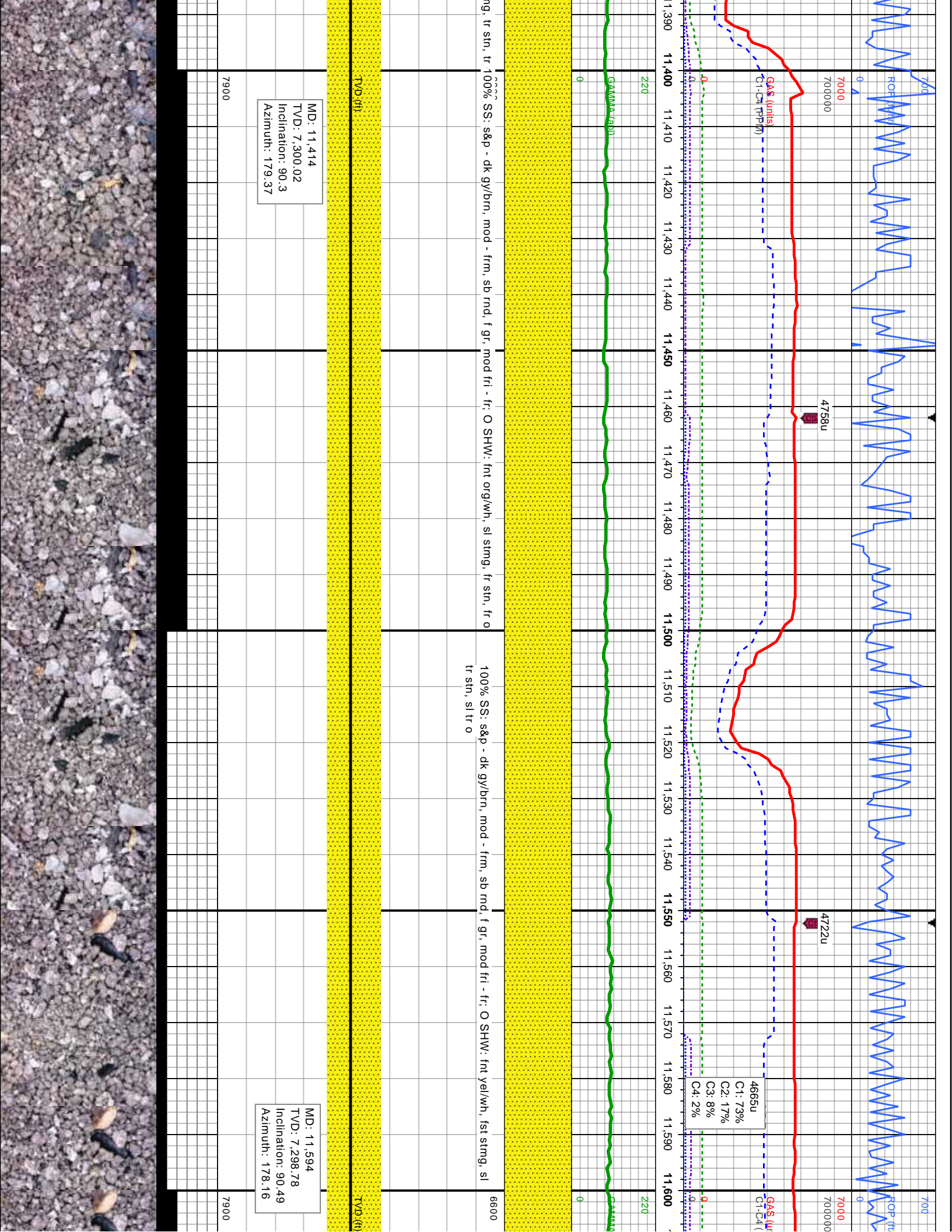


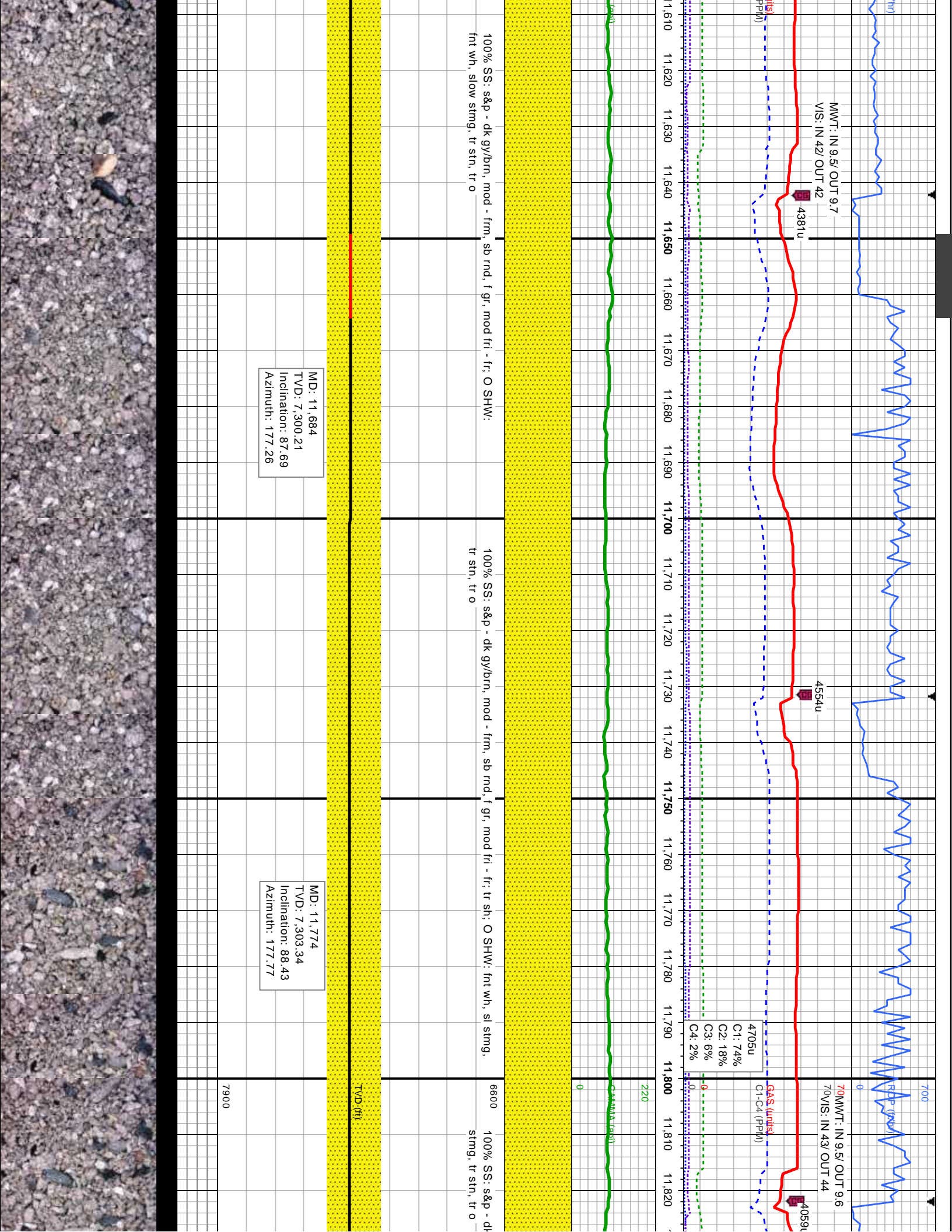












MMWT: IN 9.5/ OUT 9.7
VIS: IN 42/ OUT 42

4381u

4554u

4705u
C1: 74%
C2: 18%
C3: 6%
C4: 2%
GAS (units)
C1-C4 (PPI/I)

70MMWT: IN 9.5/ OUT 9.6
70VIS: IN 43/ OUT 44

4059u

100% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri; O SHW:
fnt wh, slow stmg, tr stn, tr o

100% SS: s&p - dk gy/brn, mod - frm, sb rnd, f gr, mod fri - fri; tr stn, tr o

100% SS: s&p - dk
stmg, tr stn, tr o

MD: 11,684
TVD: 7,300.21
Inclination: 87.69
Azimuth: 177.26

MD: 11,774
TVD: 7,303.34
Inclination: 88.43
Azimuth: 177.77

TVD (ft)

7900

220
0
GAS (units)

