

**Scale: 5" / 100'**  
**Measured Depth Log**

**Well Name** Gaston 25-10-2 1H

**Location** N/2 N/2 NW NE, SECTION 2, T25S-R10W

**State** KS **County** RENO

**Country** United States **Rig Number** DUKE 20

**API Number** 15-155-21645

**Spud Date** 3/18/2013 **Drilling Completed** 4/3/2013

**Ground Elevation** 1,752 **K.B. Elevation** 1,764

**Logged Interval** 3,400 **To** 8,526 **Total Depth** 8,526

**Formation** Osage

**Operator**

**Company** Dorado E&P Partners, LLC

**Address** 1401 17th Street  
Suite #1500  
Denver, CO 80202

**Geologist**

**Name** Dave Wheeler

**Company** Dorado E&P Partners, LLC.  
1401 17th Street  
Suite #1500  
Denver, CO 80202

**Other**

Mudloggers

Bobby Carl, Brian Bretton, Levi Birt

## Core Information

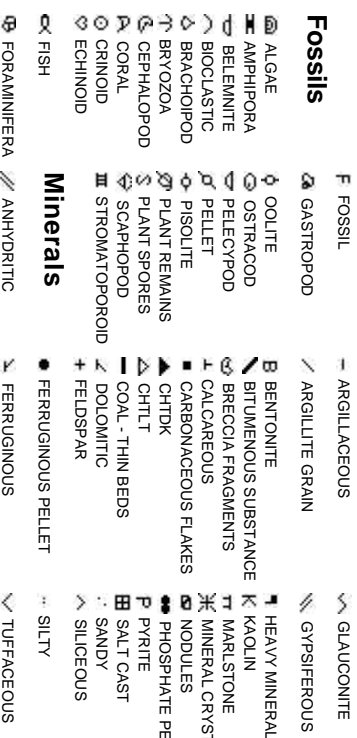
Contractor Hembras Hydrocarbons

## Other Symbols

## Rock Types



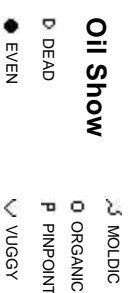
## Accessories



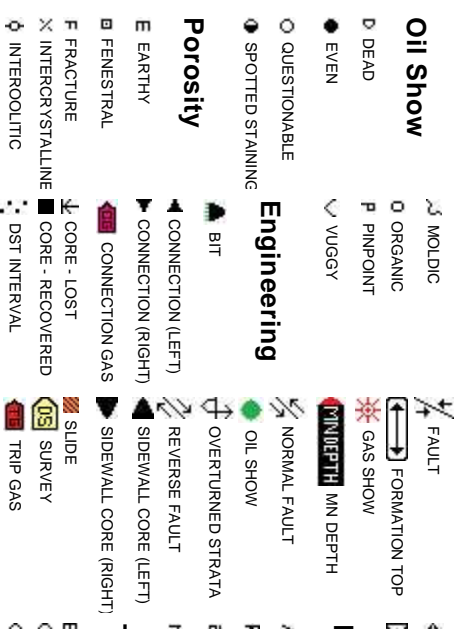
## Stringer



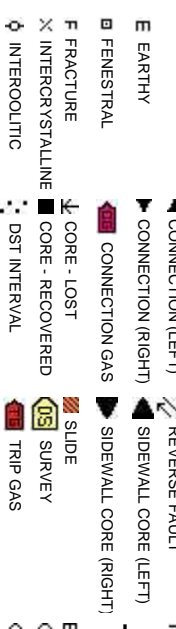
## Oil Show



## Engineering



## Porosity



## Textures



- LEFT E EARTHY

- RT F~~X~~ FINELYXLN

ES GRAINSTONE

L LITHOGRAPHIC

M~~X~~ MICROXLN

M~~S~~ MUDSTONE

P~~S~~ PACKSTONE

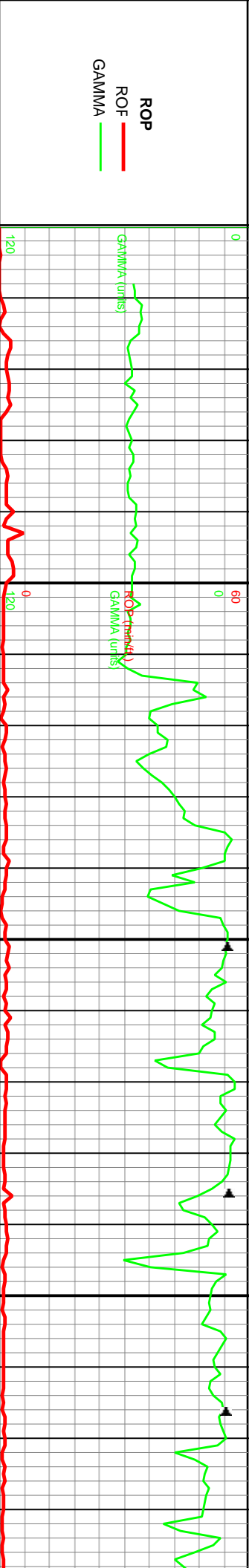
M~~S~~ WACKSTONE

### Sorting

M MODERATE

P POOR

W WELL

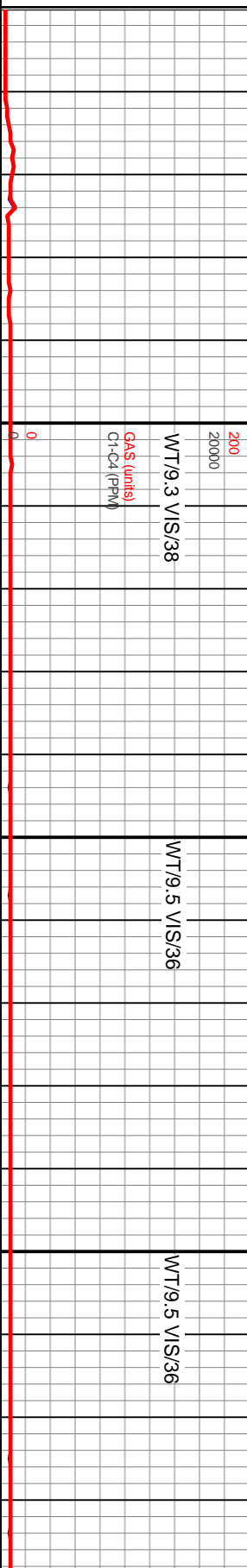


Slide/Rotate

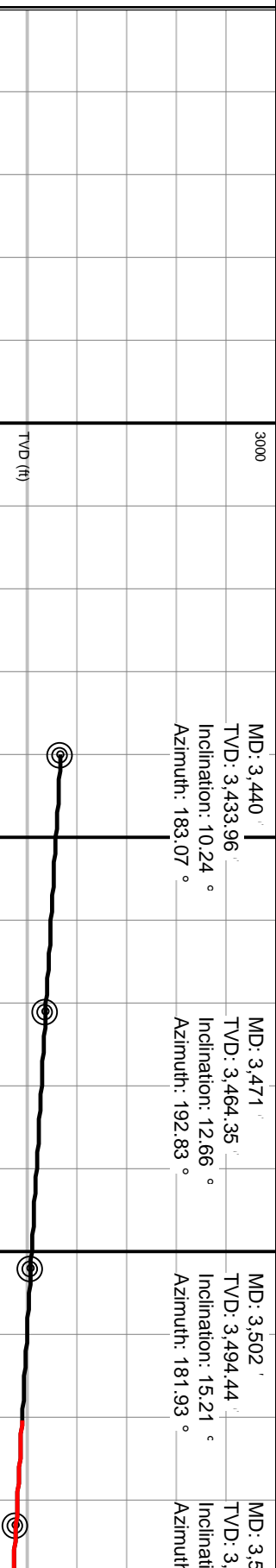
Depth Labels: 3.360, 3.370, 3.380, 3.390, 3.400, 3.410, 3.420, 3.430, 3.440, 3.450, 3.460, 3.470, 3.480, 3.490, 3.500, 3.510, 3.520, 3.530

Total Gas & Chromatograph

- GAS
- C1
- C2
- C3
- C4



Well Bore  
 TVD



MD: 3,440'  
 TVD: 3,433.96'  
 Inclination: 10.24 °  
 Azimuth: 183.07 °

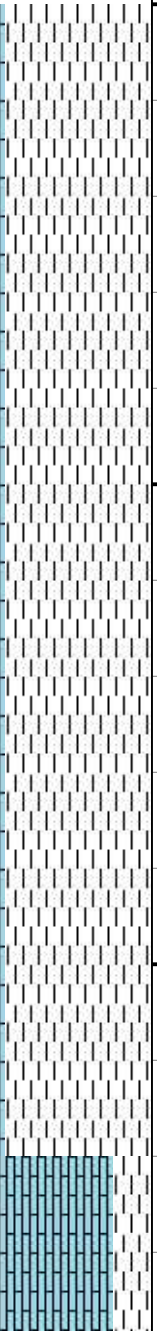
MD: 3,471'  
 TVD: 3,464.35'  
 Inclination: 12.66 °  
 Azimuth: 192.83 °

MD: 3,502'  
 TVD: 3,494.44'  
 Inclination: 15.21 °  
 Azimuth: 181.93 °

MD: 3,500'  
 TVD: 3,494.44'  
 Inclination: 15.21 °  
 Azimuth: 181.93 °

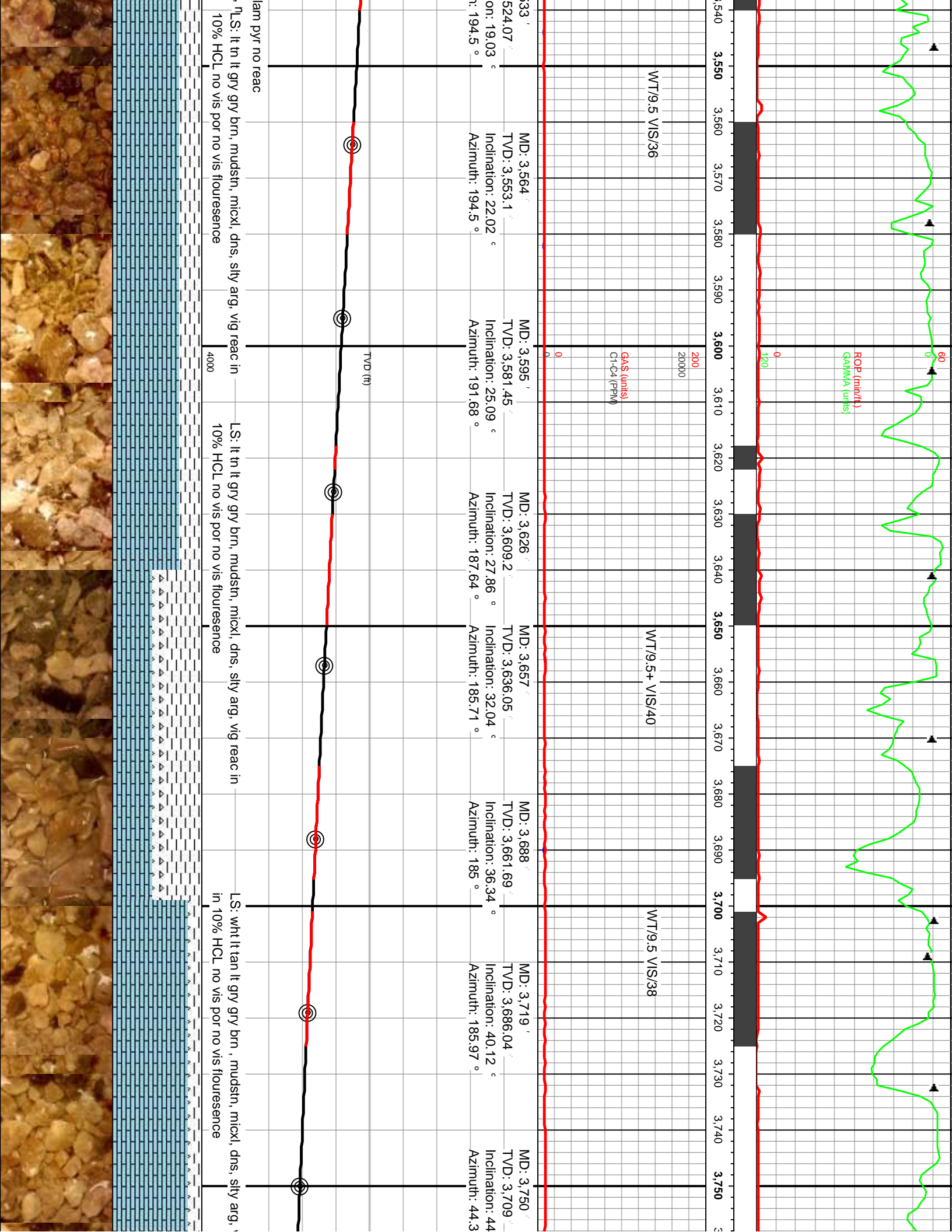
95% SH: lt gry gry dk gry, sft frm, pily, f lam, sil stly aren, tr in 10% HCL no vis por no vis flouresence: 5% LS: lt gry gry stly arg. vig reac in 10% HCL no vis por no vis flouresence

% Lith

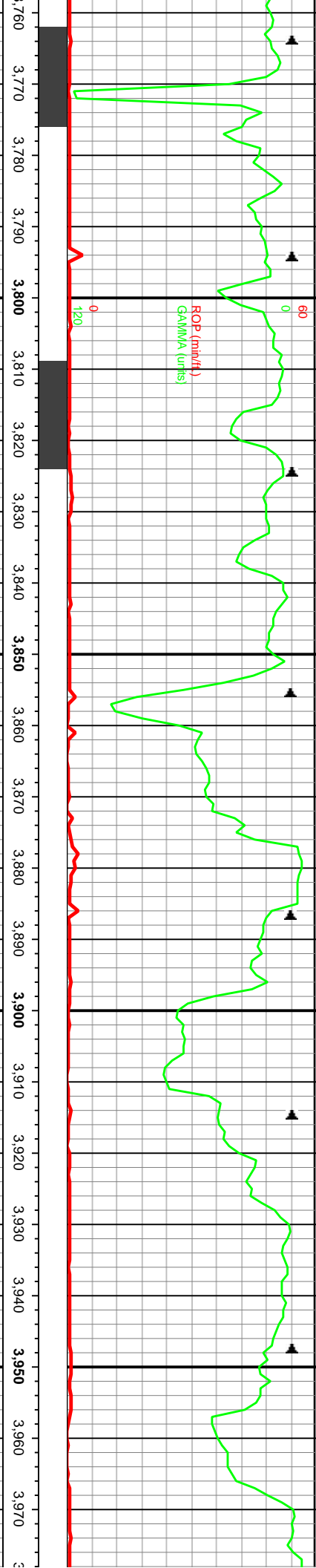


Images









WT/9.5 VIS/38  
 GAS (units)  
 C1-C4 (PPM)

Note: Gas Test @ 3862' MD=121u

WT/9.6 VIS/35  
 NOTE: COND' PREMIX

WT/9.4 VIS/42

MD: 3,781'  
 TVD: 3,730.75'  
 Inclination: 46.58°  
 Azimuth: 180.52°

MD: 3,811'  
 TVD: 3,750.69'  
 Inclination: 50.1°  
 Azimuth: 179.29°

MD: 3,842'  
 TVD: 3,769.78'  
 Inclination: 53.88°  
 Azimuth: 179.03°

MD: 3,873'  
 TVD: 3,788.21'  
 Inclination: 53.13°  
 Azimuth: 176.57°

MD: 3,904'  
 TVD: 3,806.09'  
 Inclination: 56.43°  
 Azimuth: 176.3°

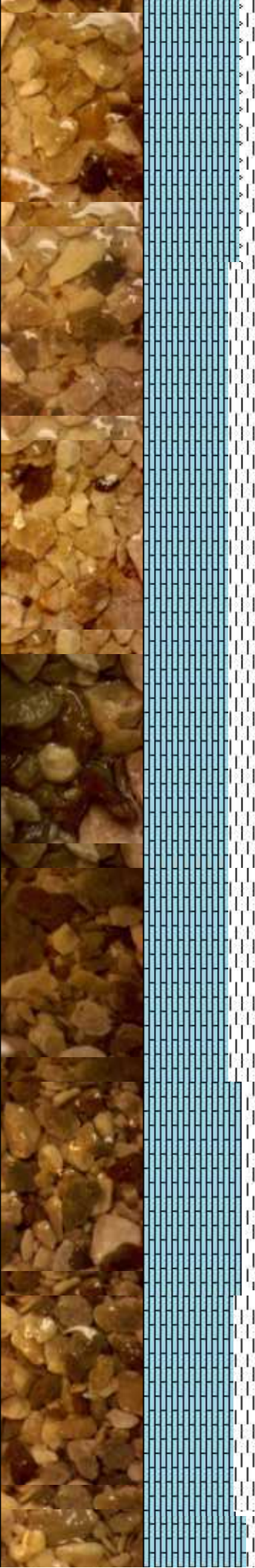
MD: 3,935'  
 TVD: 3,822.35'  
 Inclination: 60.29°  
 Azimuth: 176.48°

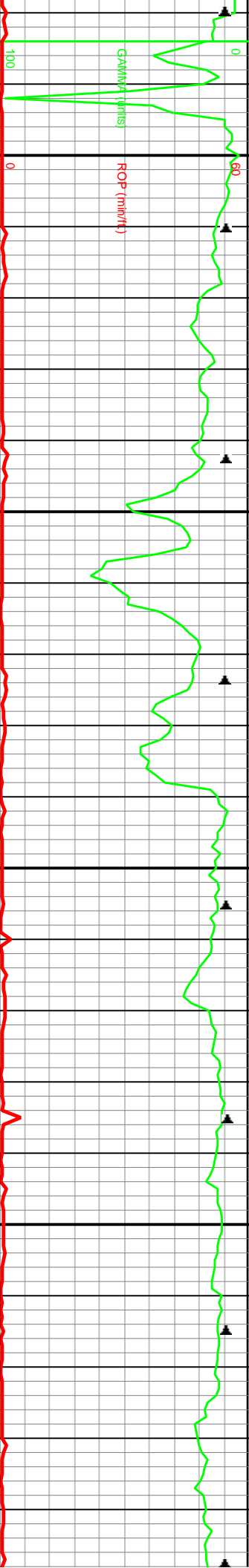
MD: 3,966'  
 TVD: 3,836.81'  
 Inclination: 64.07°  
 Azimuth: 177.36°

TVD (ft)

LS: wht creamy lt tan lt gry gry brn, mudstn, mixcl, dns, slty arg,  
 vlg reac in 10% HCL no vis por tr vis flourescence

LS: wh, crm, tn, lt gry, mudstn, mixcl, dns, arg,  
 vlg reac in 10% HCL, no vis por, no vis fluor





3,980 3,990 4,000 4,010 4,020 4,030 4,040 4,050 4,060 4,070 4,080 4,090 4,100 4,110 4,120 4,130 4,140 4,150 4,160 4,170 4,180 4,190 4

Gas (units)  
C1-C4 (ppm)

NOTE: Gas Test @ 4154 MD=13u

MD: 3,997'  
TVD: 3,849.29'  
Inclination: 68.47°  
Azimuth: 177.36°

MD: 4,028'  
TVD: 3,860.38'  
Inclination: 69.61°  
Azimuth: 178.41°

MD: 4,059'  
TVD: 3,870.3'  
Inclination: 73.04°  
Azimuth: 177.62°

MD: 4,090'  
TVD: 3,878.18'  
Inclination: 77.52°  
Azimuth: 177.47°

MD: 4,121'  
TVD: 3,884.11'  
Inclination: 80.42°  
Azimuth: 178.41°

MD: 4,152'  
TVD: 3,888.3'  
Inclination: 84.02°  
Azimuth: 178.85°

MD: 4,183'  
TVD: 3,890.82'  
Inclination: 86.66°  
Azimuth: 179.73°

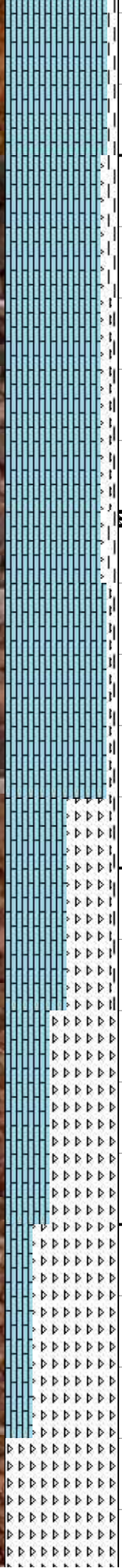
NOTE: TVD SCALE CHANGE @ 4,050'

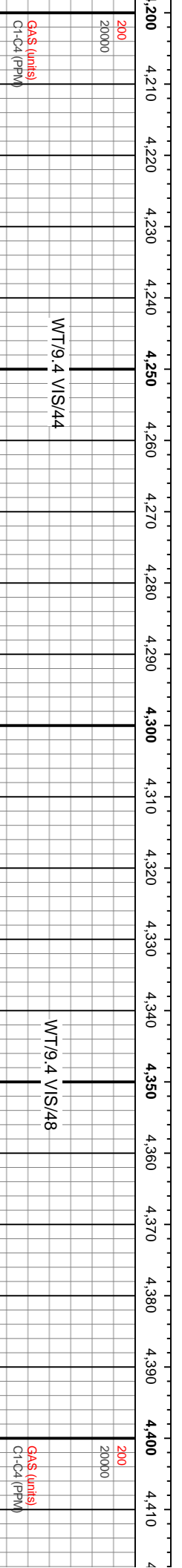
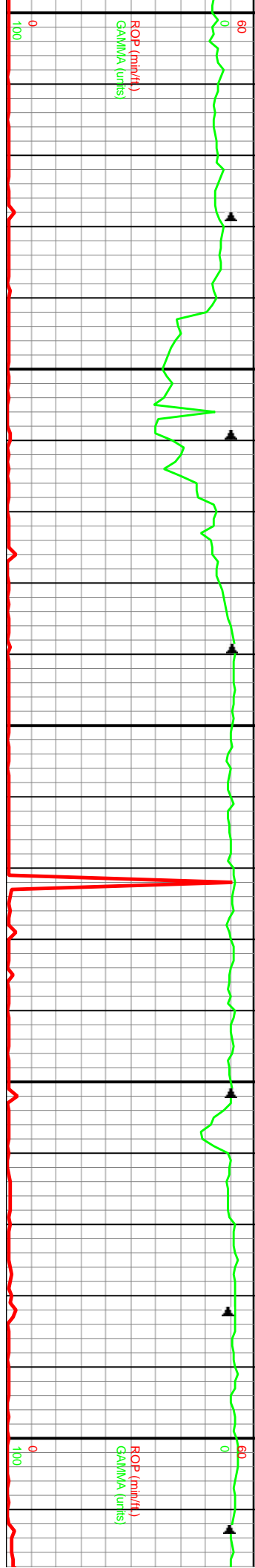
TVD (ft)

TVD (ft)

LS: wh, crm, tn, lt gyl, mudstn, mickl, dns, arg, vig reac in 10% HCL, no vis por, no vis fluor

CHT: wh, opq, lt, tn, vhd, sbblky, crpxln, smth - sli rgn, tr ls, tr pyr, sli calc, 80% dull yel fluor, no cut

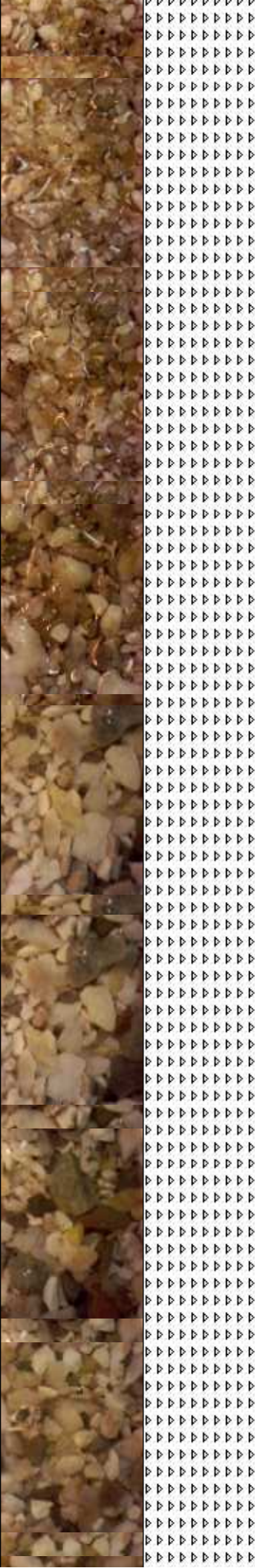




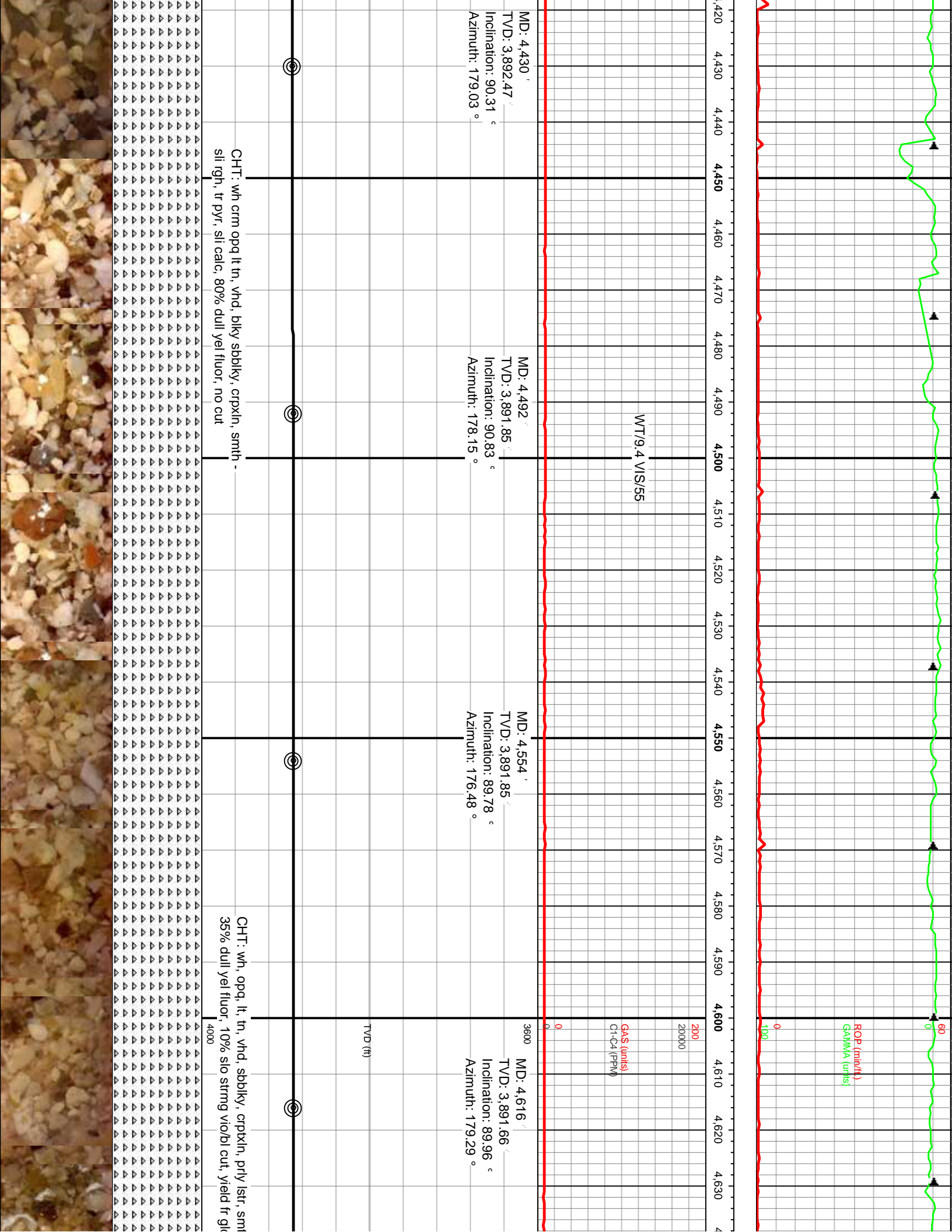
MD (ft)	TVD (ft)	Inclination (°)	Azimuth (°)
3600	MD: 4,214	TVD: 3,892.28	Inclination: 87.93
	MD: 4,245	TVD: 3,893.43	Inclination: 87.85
	MD: 4,276	TVD: 3,893.94	Inclination: 90.26
	MD: 4,307	TVD: 3,893.72	Inclination: 90.53
	MD: 4,368	TVD: 3,893.04	Inclination: 90.75
3600	MD: 4,307	TVD: 3,893.72	Inclination: 90.53
	MD: 4,368	TVD: 3,893.04	Inclination: 90.75

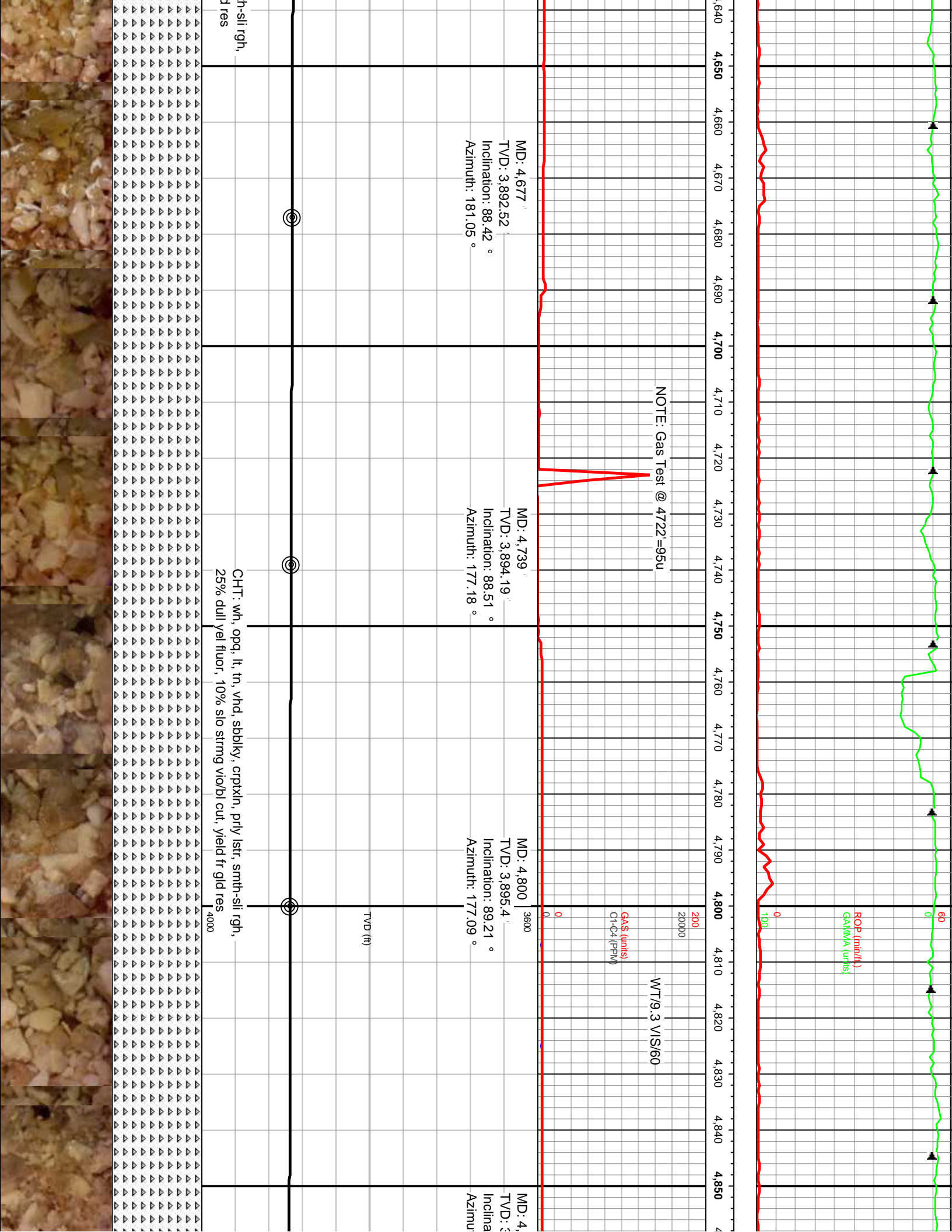
CHT: wh, opq, lt, tn, vhd, blk, sbblk, crpxln, smth - sli rgh, tr pyr, sli calc, 75% dull yel fluor, no cut

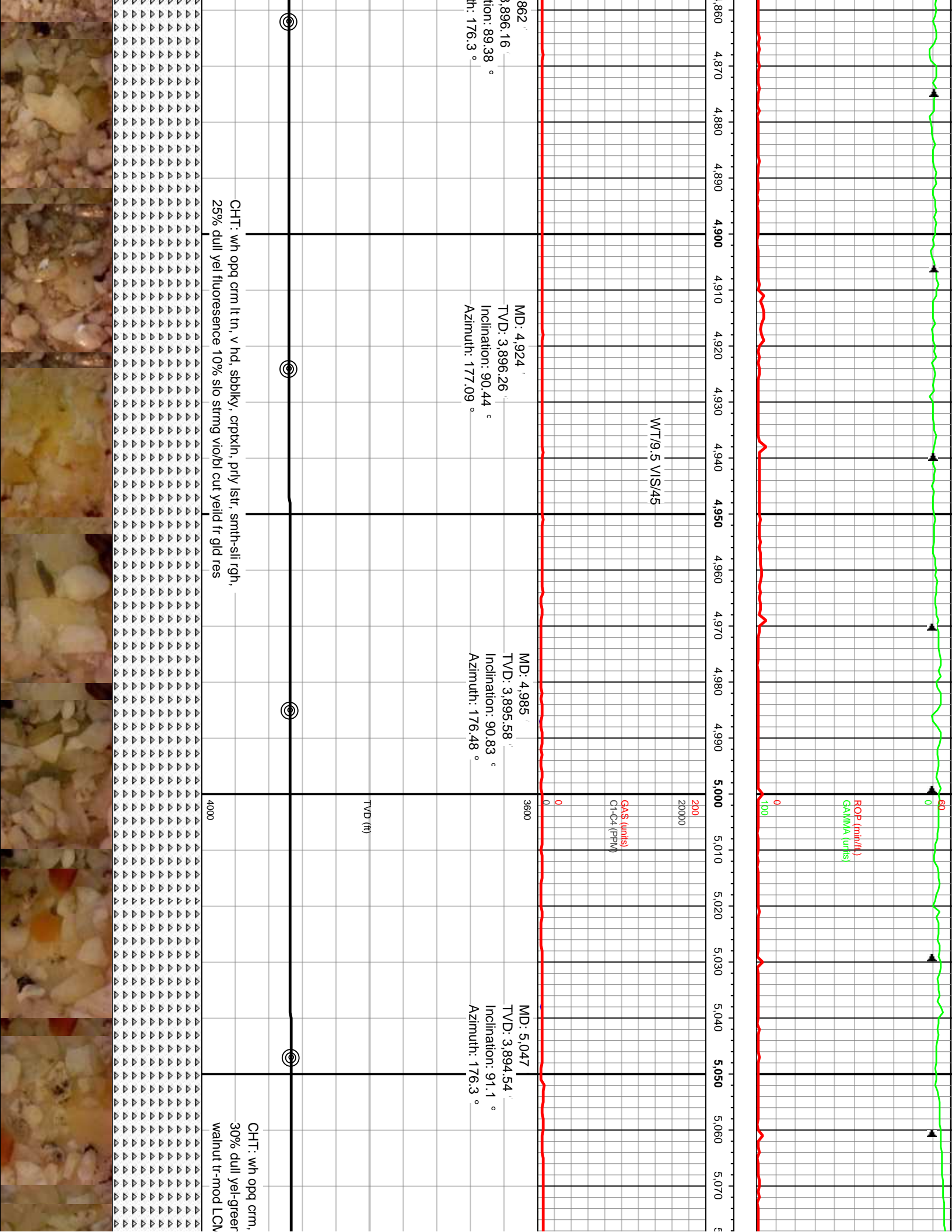
CHT: wh crm opq lt tn, vhd, blk, sbblk, crpxln, smth - sli rgh, tr pyr, sli calc, 90% dull yel fluor, no cut



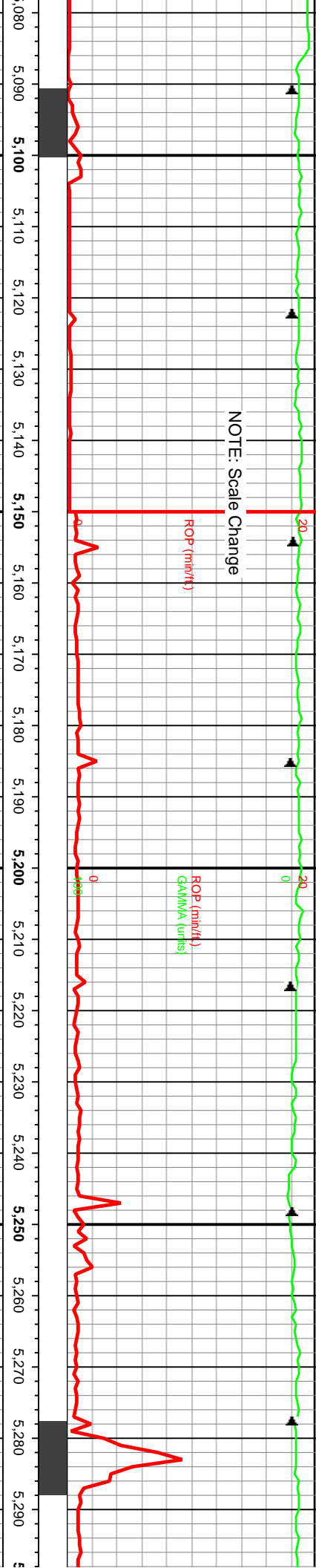












NOTE: Scale Change

ROP (min/hr/ft)

ROP (min/hr/ft)  
GAMMA (units)

GAS (units)  
C1-C4 (PPM)

MD: 5,109 '  
TVD: 3,894.04 '  
Inclination: 89.82 °  
Azimuth: 177.09 °

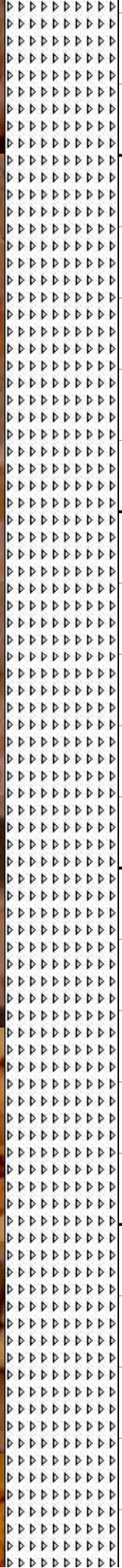
MD: 5,171 '  
TVD: 3,894.17 '  
Inclination: 89.95 °  
Azimuth: 176.21 °

MD: 5,233 '  
TVD: 3,893.93 '  
Inclination: 90.48 °  
Azimuth: 176.65 °

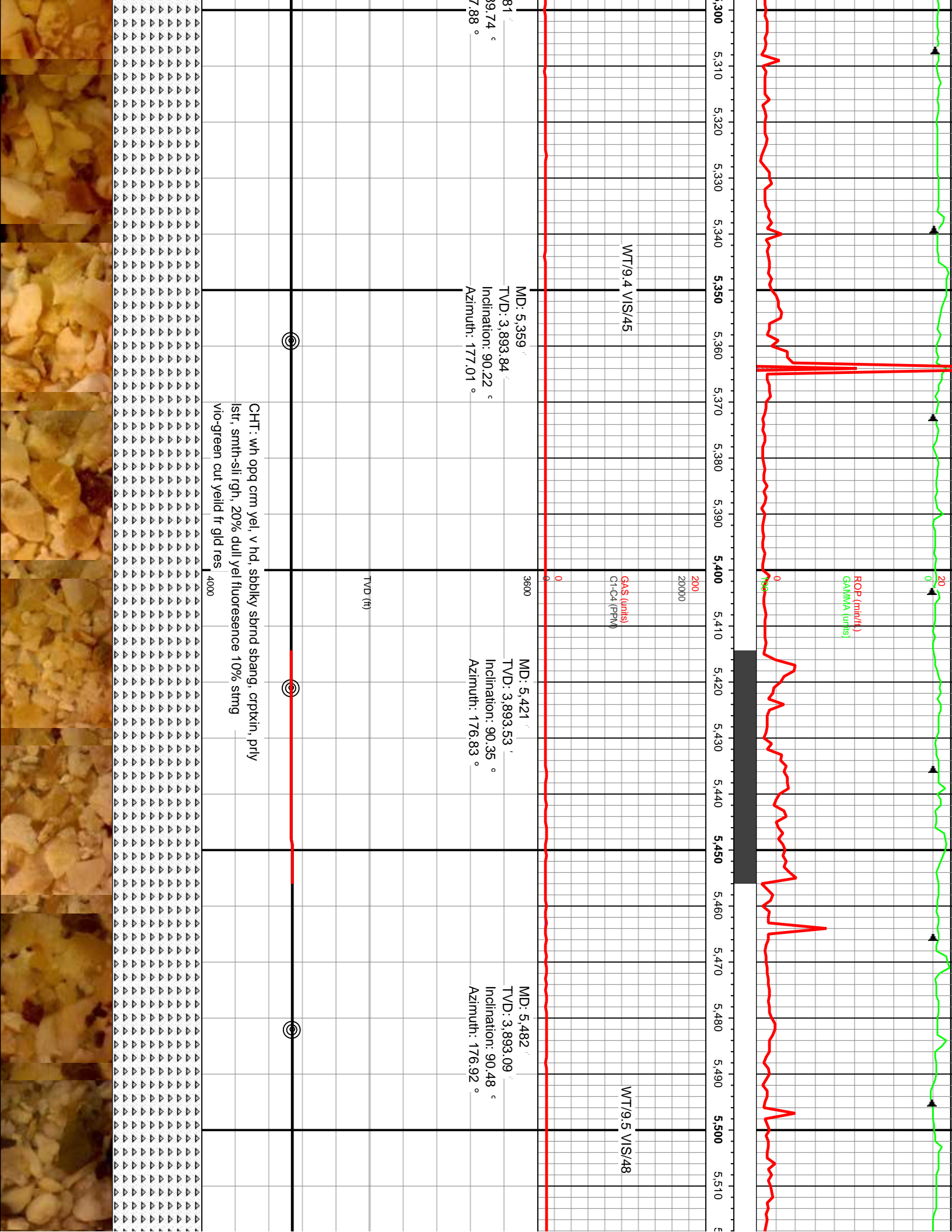
MD: 5,295 '  
TVD: 3,893.3 '  
Inclination: 89.82 °  
Azimuth: 177.09 °

v hd, sbblky sbmnd, crpxin, prly lstr, smth-sli rgh,  
fluorescence 10% slo strmg vio/bl cut yeild fr gld res  
1 in sample

CHT: wh opq cim yel, v hd, sbblky sbmnd, crpxin, prly lstr, smth-sli  
rgh, 20% dull yel fluorescence 10% smng vio/bl cut yeild fr gld res







5300 5310 5320 5330 5340 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 5460 5470 5480 5490 5500 5510

WT/9.4 VIS/45

WT/9.5 VIS/48

MD: 5,359  
 TVD: 3,893.84  
 Inclination: 90.22 °  
 Azimuth: 177.01 °

MD: 5,421  
 TVD: 3,893.53  
 Inclination: 90.35 °  
 Azimuth: 176.83 °

MD: 5,482  
 TVD: 3,893.09  
 Inclination: 90.48 °  
 Azimuth: 176.92 °

CHT: wh opq crm yel, v hd, sbolky sbnd shang, crptxin, prly istr, smth-sli rgh, 20% dull yel fluorescence 10% stmg vio-green cut yeild fr gld res

TVD (ft)

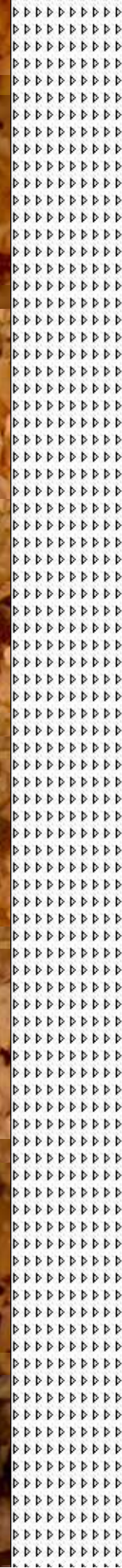
GAS (units)  
 C1-C4 (ppm)

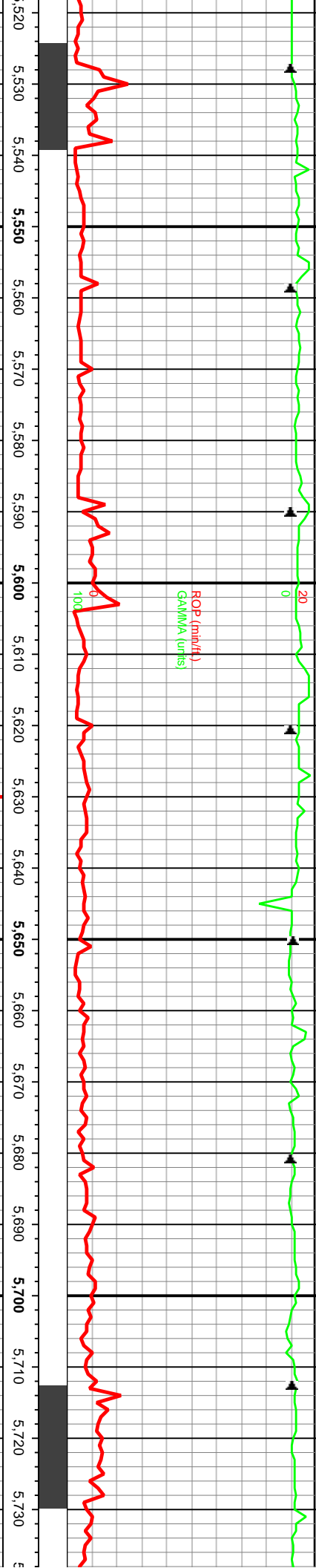
ROP (in/hr/ft)  
 GAMMA (units)

4000

20000

3600





ROP (min/hr/ft)  
GAMMA (units)

WT/9.4 VIS/48  
GAS (units)  
C1-C4 (PPM)

NOTE: Scale Change

FG @ 5703' = 282u

FG @ 5703' = 282u

MD: 5.544'  
TVD: 3,892.97'  
Inclination: 89.74 °  
Azimuth: 177.44 °

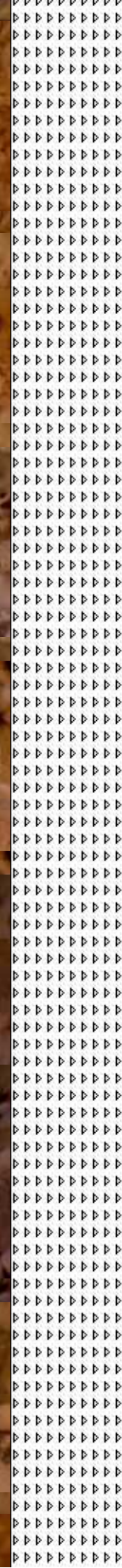
MD: 5.606'  
TVD: 3,893.49'  
Inclination: 89.3 °  
Azimuth: 179.03 °

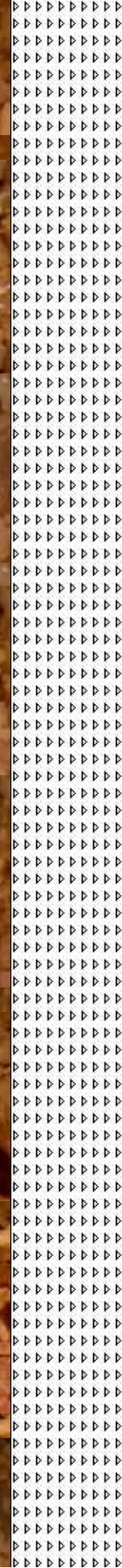
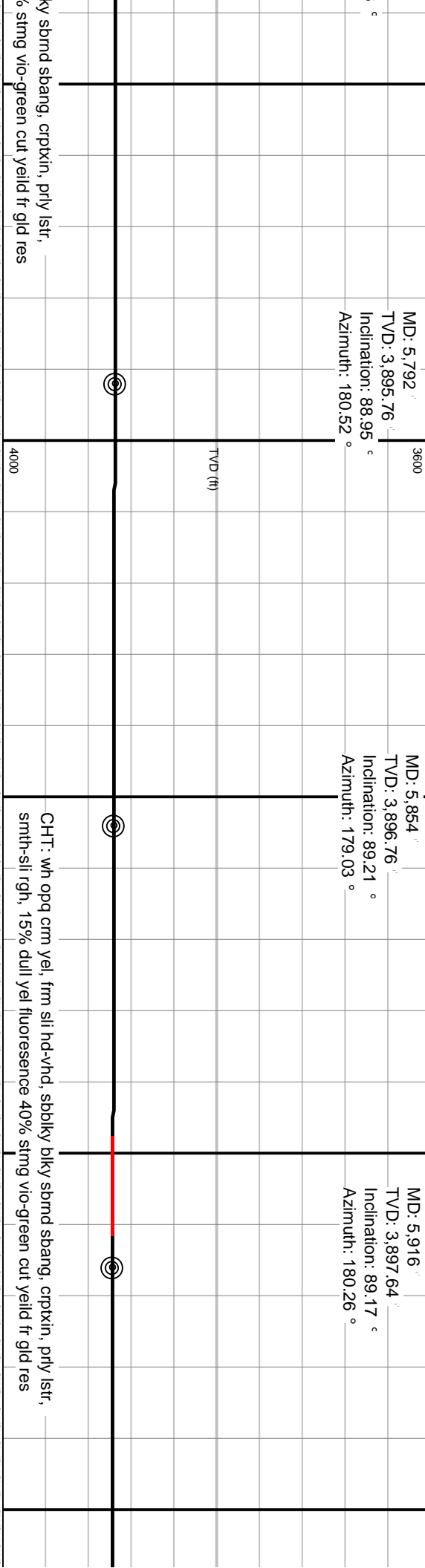
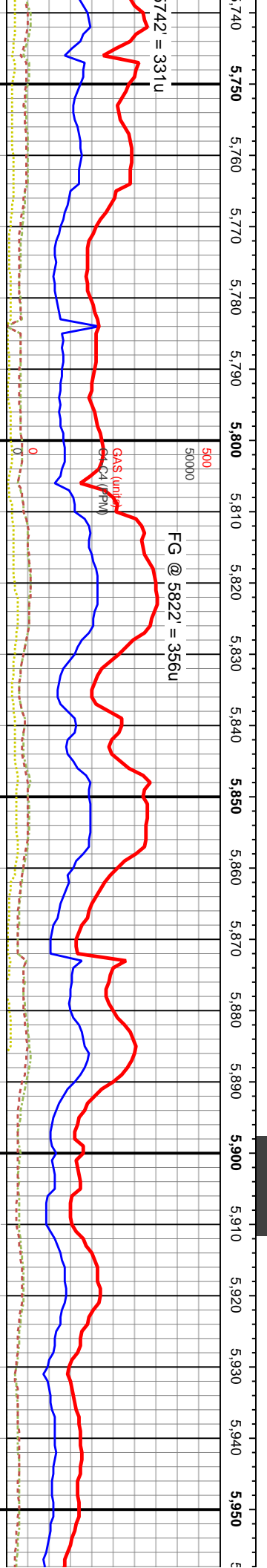
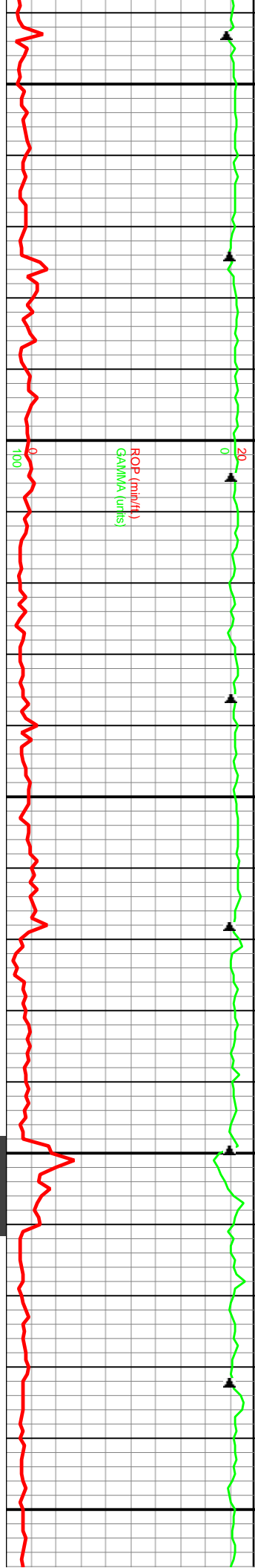
MD: 5.668'  
TVD: 3,894.03'  
Inclination: 89.69 °  
Azimuth: 177.62 °

MD: 5.730'  
TVD: 3,894.7'  
Inclination: 89.08 °  
Azimuth: 179.2 °

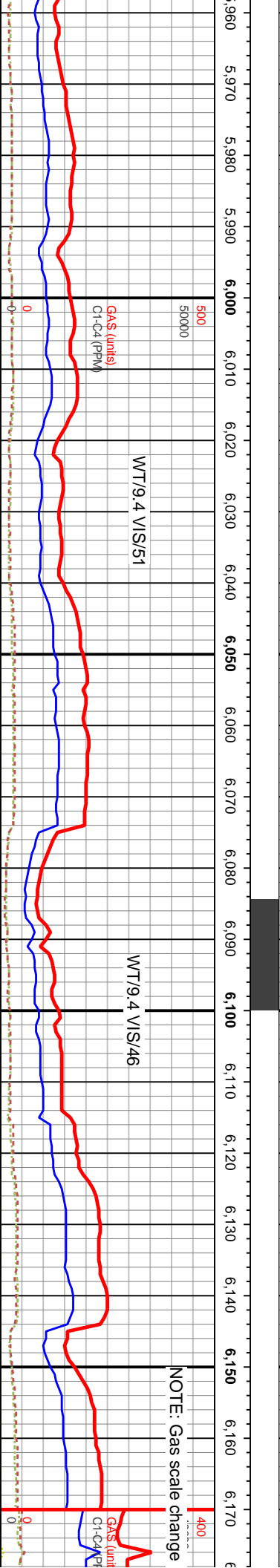
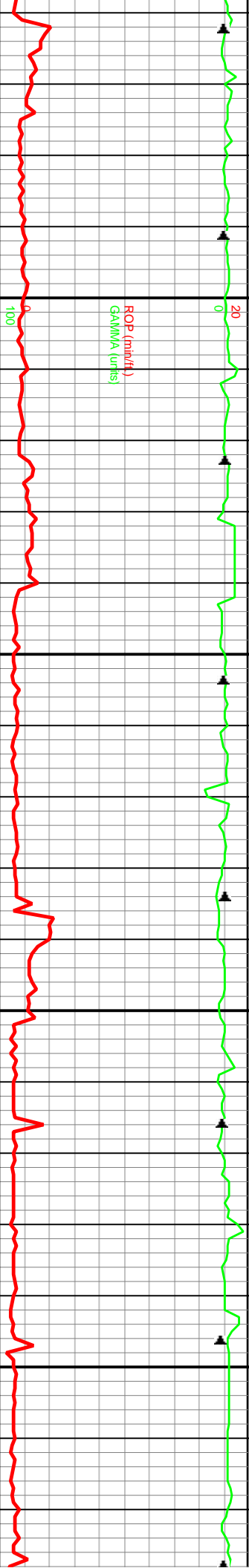
CHT: wh opq crm yel, frm sli hd britt, sbblyv sbmrd sbang, cprtkin,  
prly lst, smth-sli rgh, 30% dull yel fluorescence 40% strng  
vio-green cut yeld fr gld res

CHT: wh opq crm yel, frm sli hd britt, sbblyv  
smth-sli rgh, 20% dull yel fluorescence 40%





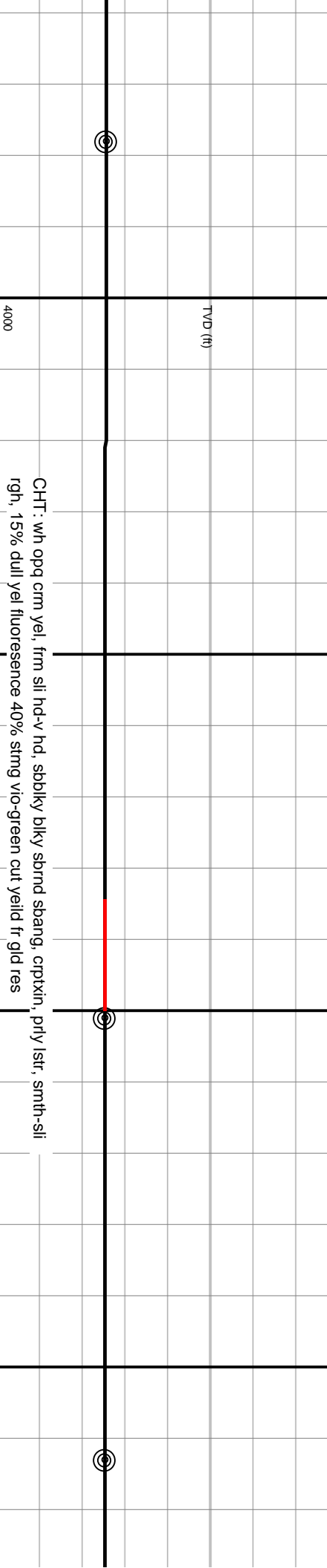




MD: 5,978'  
 TVD: 3,898.39'  
 Inclination: 89.43°  
 Azimuth: 180.87°

MD: 6,101'  
 TVD: 3,899.2'  
 Inclination: 90.22°  
 Azimuth: 181.49°

MD: 6,163'  
 TVD: 3,898.94'  
 Inclination: 90.26°  
 Azimuth: 181.14°

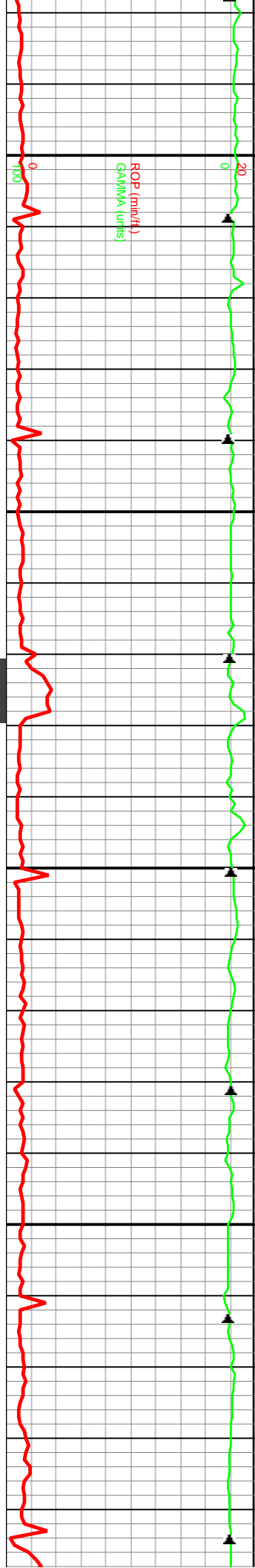


CHT: wh opq cm yel, frm sli hd-v hd, sbblky blkly sbnd sbang, crptxin, prly lstr, smth-sli rgh, 15% dull yel fluorescence 40% strng vio-green cut yelld fr gld res

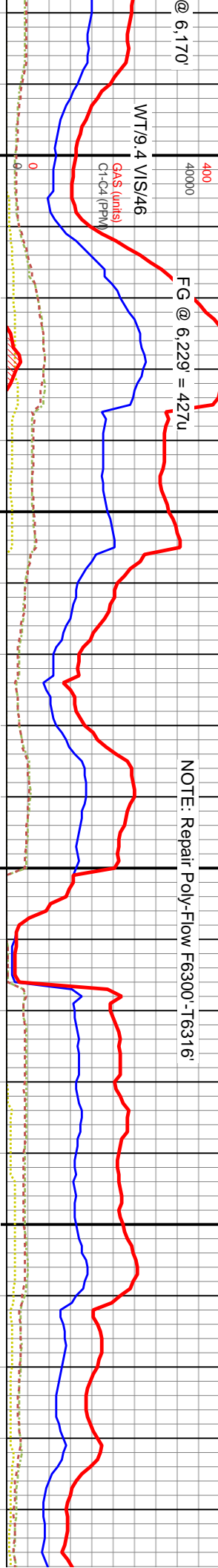


NOTE: Gas scale change





ROP (min/hr/ft)  
GAMMA (units)



WT/9.4 VIS/46  
GAS (units)  
C1-C4 (PPM)

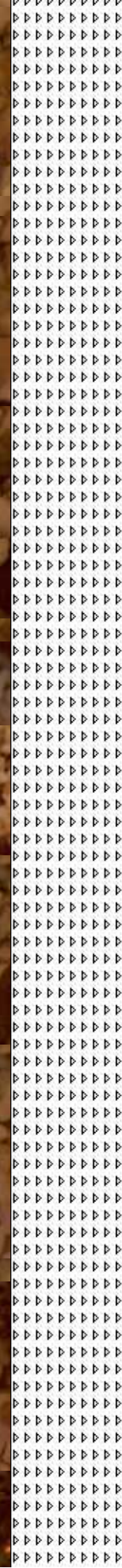


TVD (ft)

MD: 6,225' TVD: 3,898.85' Inclination: 89.91° Azimuth: 181.84°

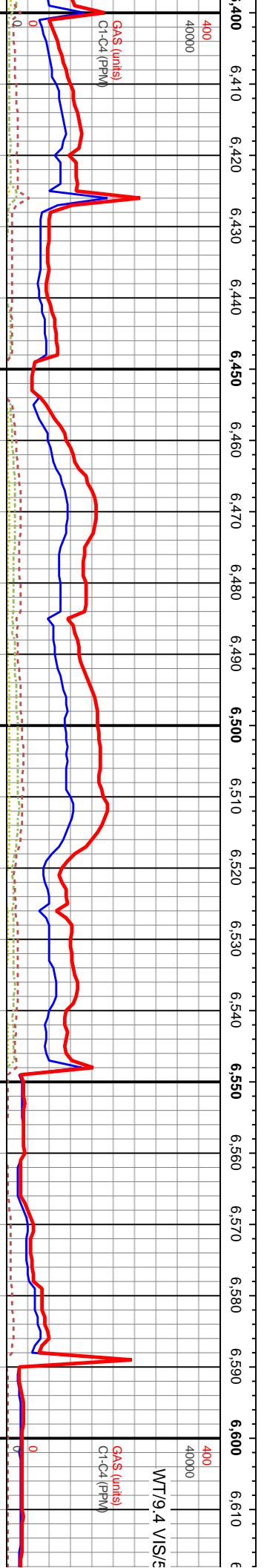
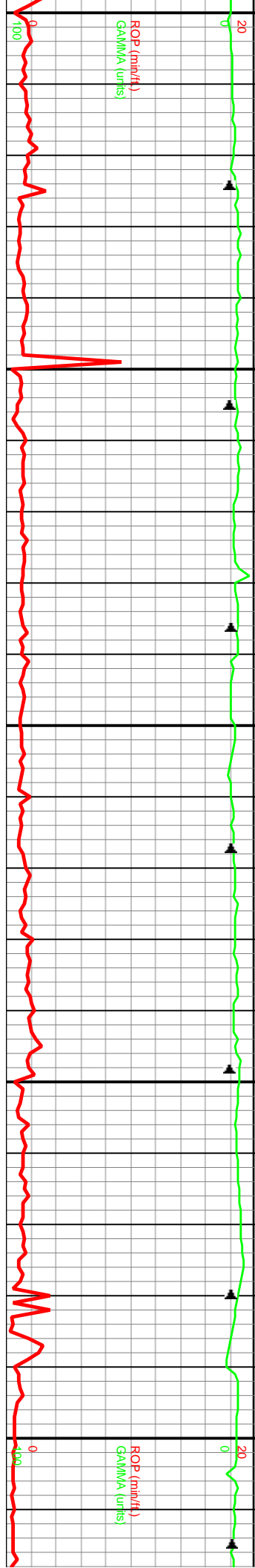
MD: 6,287' TVD: 3,898.59' Inclination: 90.57° Azimuth: 181.4°

MD: 6,349' TVD: 3,897.9' Inclination: 90.7° Azimuth: 181.93°



CHT: wht opq crm, frm sli hd v hd, sbblky blkly sbprnd, crptxin, prly istr, smth-sli  
 rgh, 20% dull yel fluorescence 40% stmg vio-green cut yeild fr gld res

CHT: wht opt crm off yel, frm sli h  
 istr, smth-sli rgh, 20% dull yel fluc

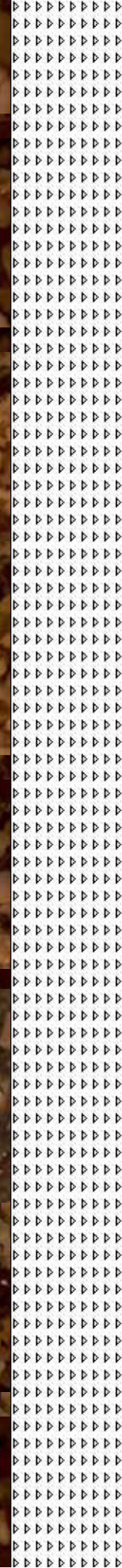
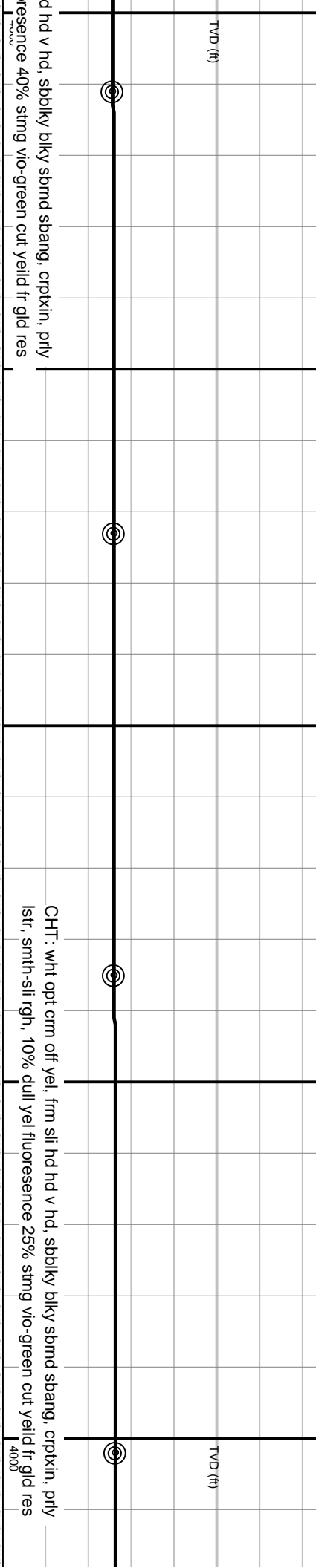


MD: 6,411  
TVD: 3,897.35  
Inclination: 90.31 °  
Azimuth: 180.78 °

MD: 6,473  
TVD: 3,896.88  
Inclination: 90.57 °  
Azimuth: 181.31 °

MD: 6,535  
TVD: 3,896.06  
Inclination: 90.83 °  
Azimuth: 180.52 °

MD: 6,602  
TVD: 3,895.44  
Inclination: 90.31 °  
Azimuth: 180.7 °



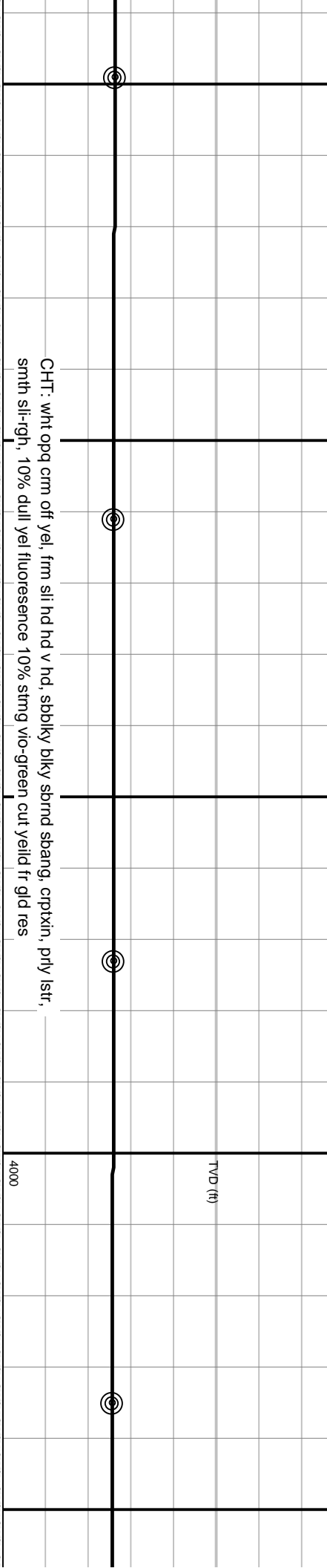
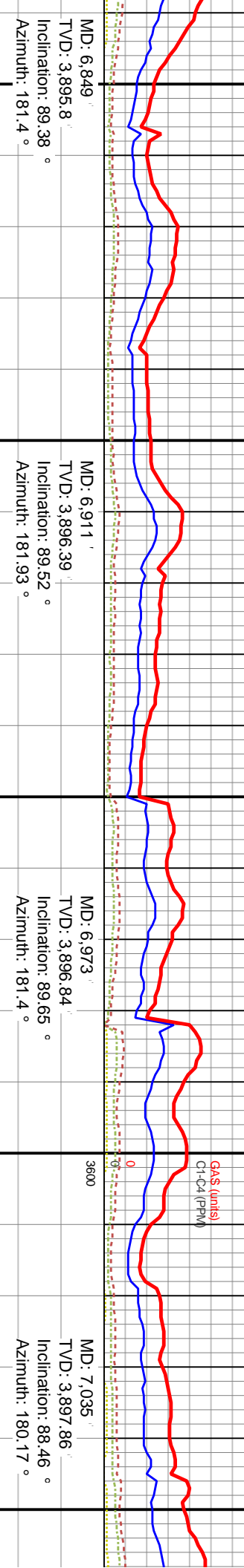
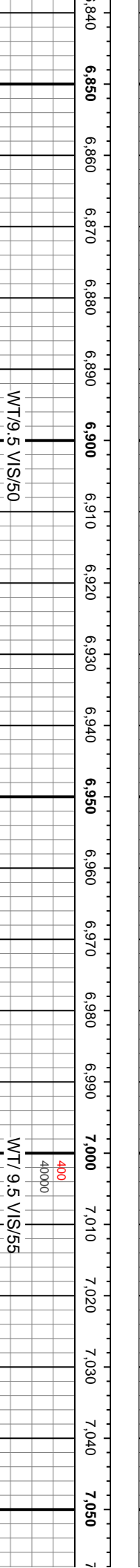
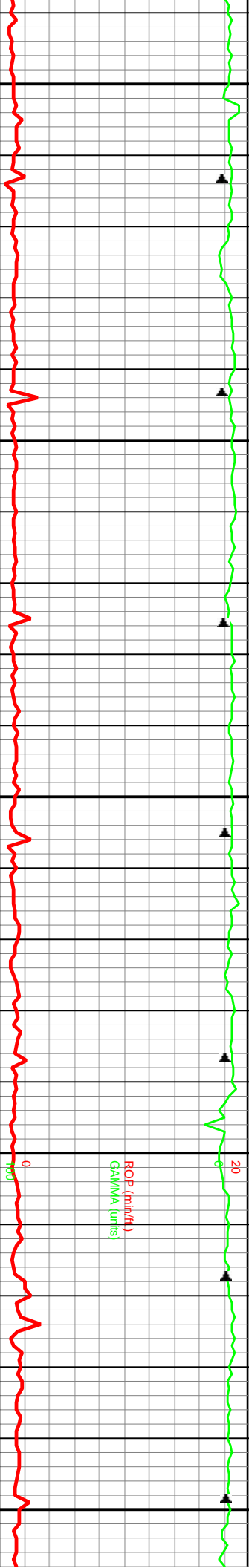
hd v hd, sbblky blk sbmd sbang, crptxin, prly  
resence 40% stmg vio-green cut yeild fr gld res

CHT: wht opt ctm off yel, frm sil hd hd v hd, sbblky blk sbmd sbang, crptxin, prly  
lstr, smth-sli rgh, 10% dull yel fluorescence 25% stmg vio-green cut yeild fr gld res

WT/9.4 VIS/E







MD: 6,849' TVD: 3,895.8' Inclination: 89.38° Azimuth: 181.4°

MD: 6,911' TVD: 3,896.39' Inclination: 89.52° Azimuth: 181.93°

MD: 6,973' TVD: 3,896.84' Inclination: 89.65° Azimuth: 181.4°

MD: 7,035' TVD: 3,897.86' Inclination: 88.46° Azimuth: 180.17°

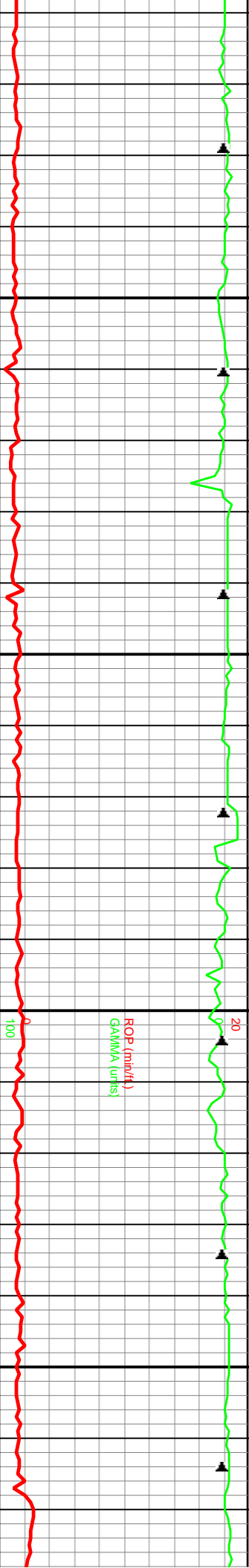
WT/9.5 VIS/50

WT/ 9.5 VIS/55

CHT: wht opq crm off yell, frm sli hd hd v hd, sbblky blkly sbnd sbang, crptxin, prly lstr, smth sli-rgn, 10% dull yell fluorescence 10% stmg vio-green cut yeild fr gld res







NOTE: Happy Easter!

WT/9.5 VIS/58

MD: 7,097  
 TVD: 3,899.36  
 Inclination: 88.77 °  
 Azimuth: 180.43 °

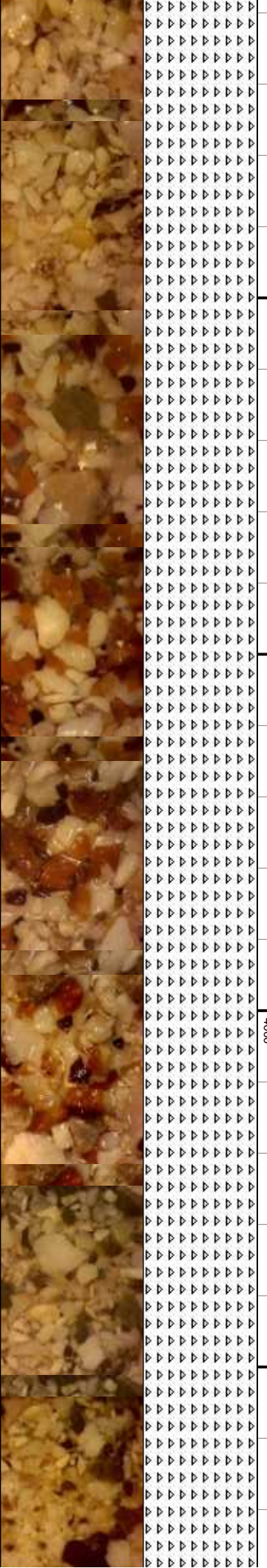
MD: 7,159  
 TVD: 3,900.93  
 Inclination: 88.33 °  
 Azimuth: 179.82 °

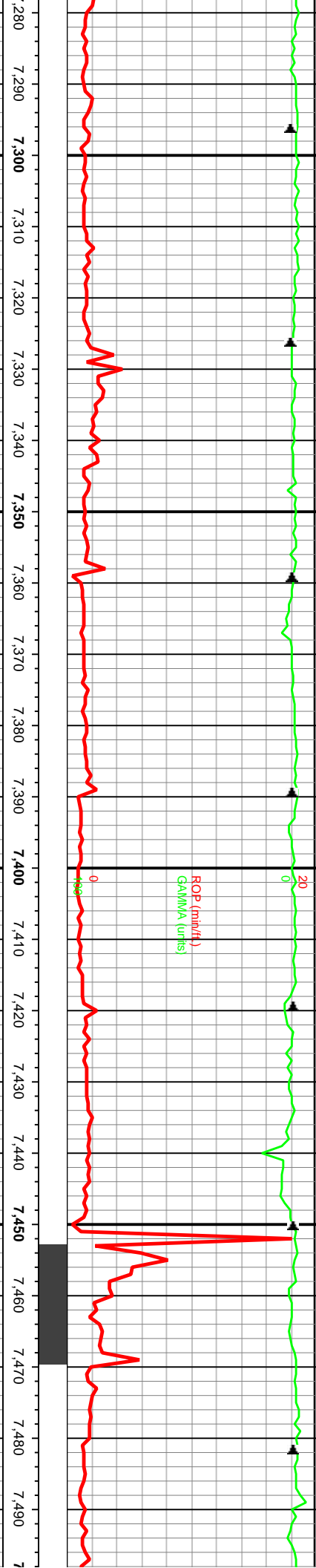
MD: 7,220  
 TVD: 3,902.5  
 Inclination: 88.73 °  
 Azimuth: 179.64 °

MD: 7  
 TVD:  
 Inclina:  
 Azimu

Note: Walnut Shale Added to Drilling Fluids -CHT: wht opq crm off yel, frm sli hd hd v hd, sbbkly blkly sbprnd  
 sbang, crptxin, prly lstr, smth sli-rgh, 10% dull yel fluorescence 10% sting vto-green cut yelid fr glid res

CHT: wht opq crm off yel, frm sli hd hd v hd, sbb  
 lstr, smth sli-rgh, 10% dull yel fluorescence 10% s





WT/9.4 VIS/60

NOTE: Rig Service @ 7357'

GAS (units)  
C1-C4 (PPM)

MD: 7,282'    TVD: 3,903.87'    Inclination: 88.81°    Azimuth: 179.2°

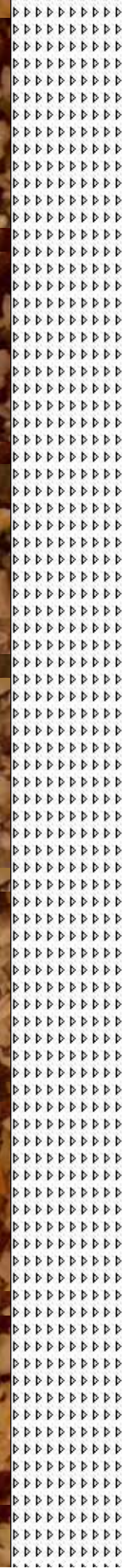
MD: 7,344'    TVD: 3,904.9'    Inclination: 89.21°    Azimuth: 180.52°

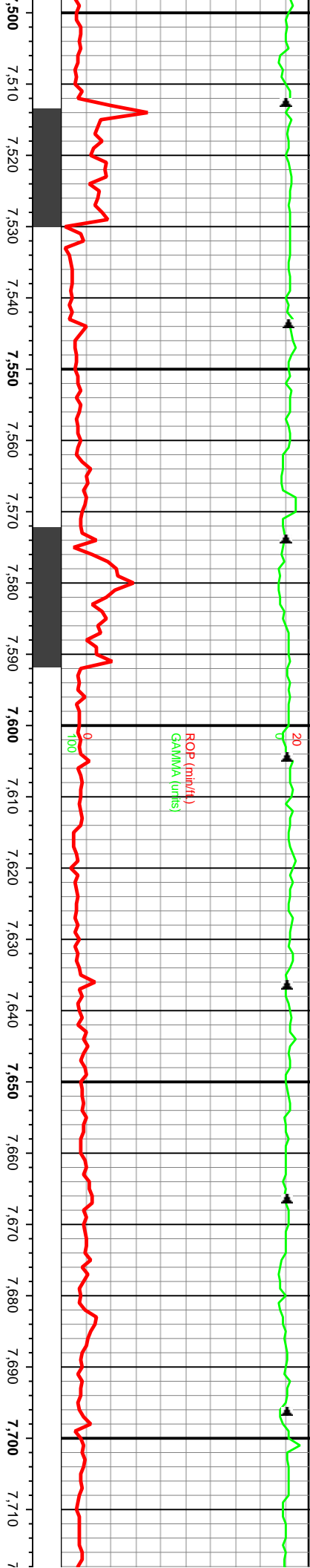
MD: 7,406'    TVD: 3,905.73'    Inclination: 89.25°    Azimuth: 180.26°

MD: 7,468'    TVD: 3,906.14'    Inclination: 89.99°    Azimuth: 180.76°

blky sbnd sbang, crpxin, prly  
stmg vio-green cut yeild fr gld res

CHT: wht opq crm off yel, frm sli hd hd v hd, sbblky blky sbnd  
lstr, smth sli-rgn, 10% dull yel fluorescence 10% stmg vio-green





NOTE: Repair Poly Flow

MD: 7,529  
TVD: 3,907.5  
Inclination: 89.47 °  
Azimuth: 180.61 °

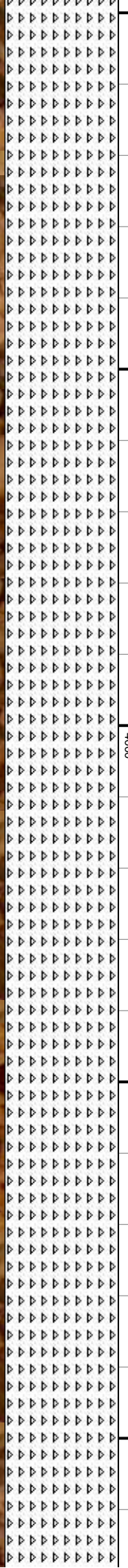
MD: 7,592  
TVD: 3,907.6  
Inclination: 90.35 °  
Azimuth: 180.35 °

MD: 7,693  
TVD: 3,907.23  
Inclination: 90.35 °  
Azimuth: 179.03 °

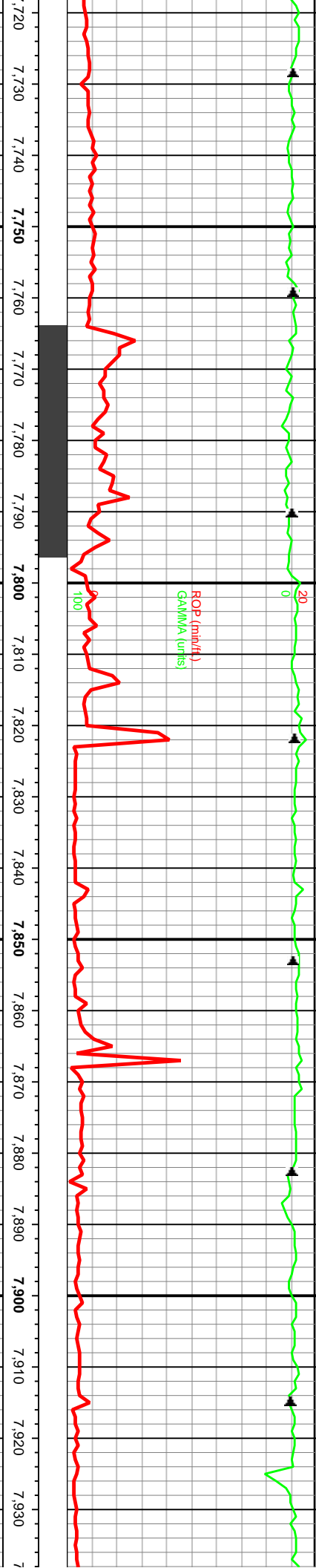
MD: 7,711  
TVD: 3,907.23  
Inclination: 90.35 °  
Azimuth: 179.03 °

sbang, cpxin, prly  
cut yeild fr gld res

CHT: wht opq crm off yel, frm sli hd hd v hd, sbblky blkly sprnd sbang,  
cpxin, prly lstr, smth sli-gh, 10% dull yel fluorescence, no cut







WT/9.4 VIS/53

Gas (units)  
C1-C4 (PPM)

Gas Test @ 7887' = 273u

NOTE: Repair Poly Flow

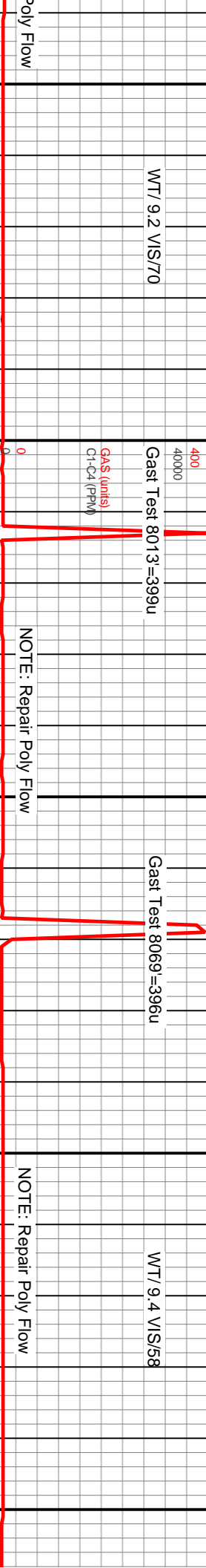
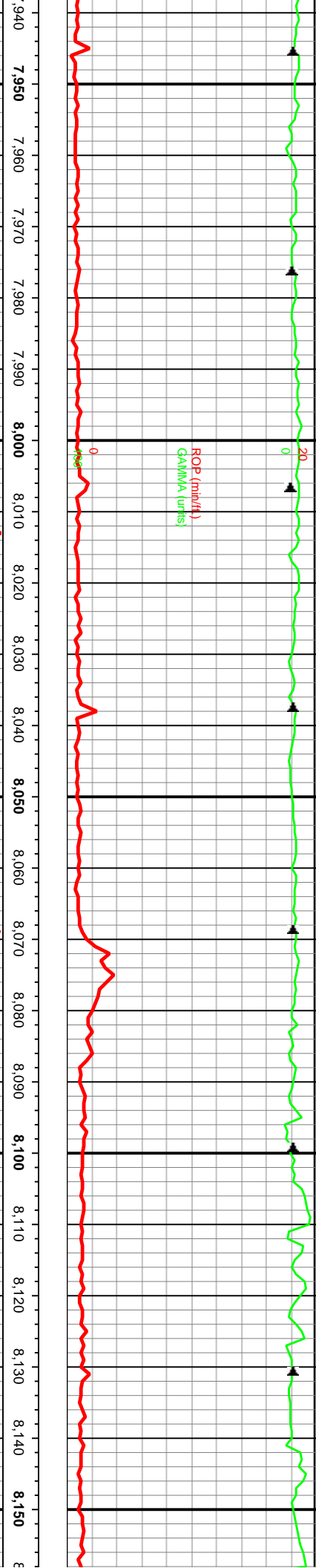
NOTE: Repair F

MD: 7,777'	MD: 7,839'	MD: 7,901'
TVD: 3,906.64'	TVD: 3,906.09'	TVD: 3,905.28'
Inclination: 90.31°	Inclination: 90.7°	Inclination: 90.79°
Azimuth: 179.55°	Azimuth: 179.99°	Azimuth: 180.17°

TVD (ft)

CHT: wht opq crm off yel, frm sli hd hd v hd, sbblky blkly sbnd spang,  
cpxtkn, prly lstr, smth sil-gh, 10% dull yel fluorescence, no cut



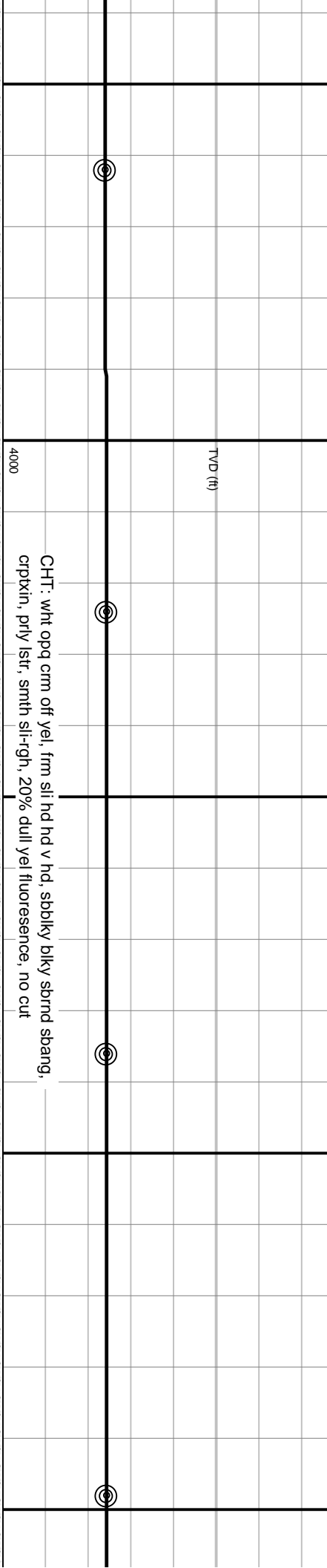


MD: 7,962'  
TVD: 3,904.62'  
Inclination: 90.92°  
Azimuth: 180.26°

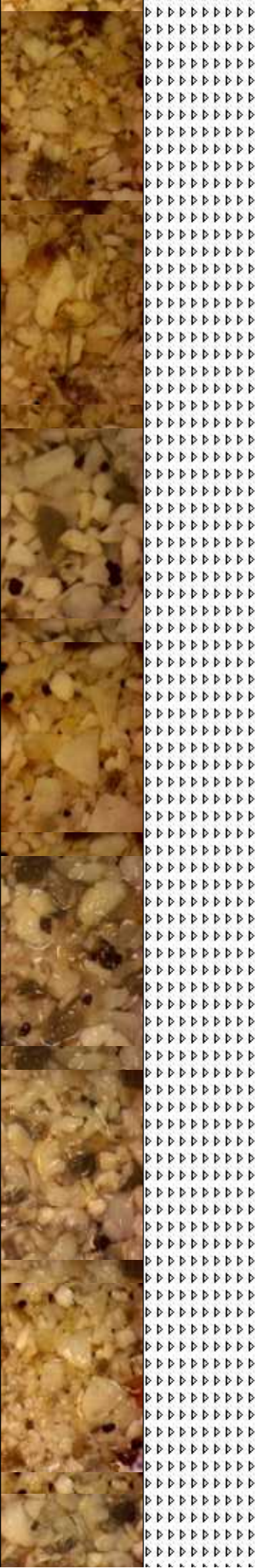
MD: 8,024'  
TVD: 3,903.26'  
Inclination: 91.14°  
Azimuth: 179.91°

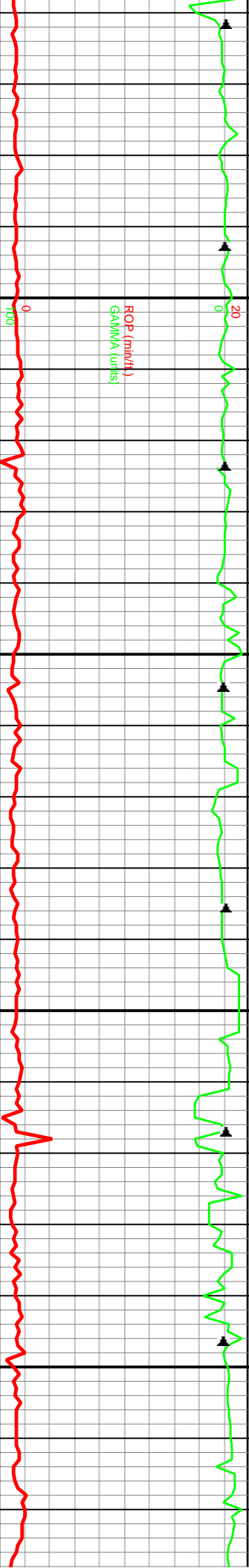
MD: 8,086'  
TVD: 3,902.83'  
Inclination: 89.65°  
Azimuth: 191.91°

MD: 8,148'  
TVD: 3,903.09'  
Inclination: 89.00°  
Azimuth: 180.00°



CHT: wht opq crm off yel, frm sll hd hd v hd, sbbkly bkly sbrnd sbang,  
crpxin, prly lstr, smth sll-rgh, 20% dull yel fluorescence, no cut





8,160  
8,170  
8,180  
8,190  
8,200  
8,210  
8,220  
8,230  
8,240  
8,250  
8,260  
8,270  
8,280  
8,290  
8,300  
8,310  
8,320  
8,330  
8,340  
8,350  
8,360  
8,370

WT/9.4 VIS/56

400  
40000  
GAS (units)  
C1-C4 (PPM)

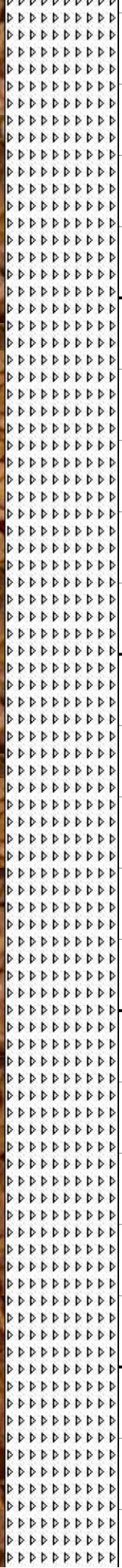
3600 MD: 8,210'  
TVD: 3,903.47'  
Inclination: 89.43 °  
Azimuth: 179.82 °

MD: 8,272'  
TVD: 3,903.99'  
Inclination: 89.6 °  
Azimuth: 180.08 °

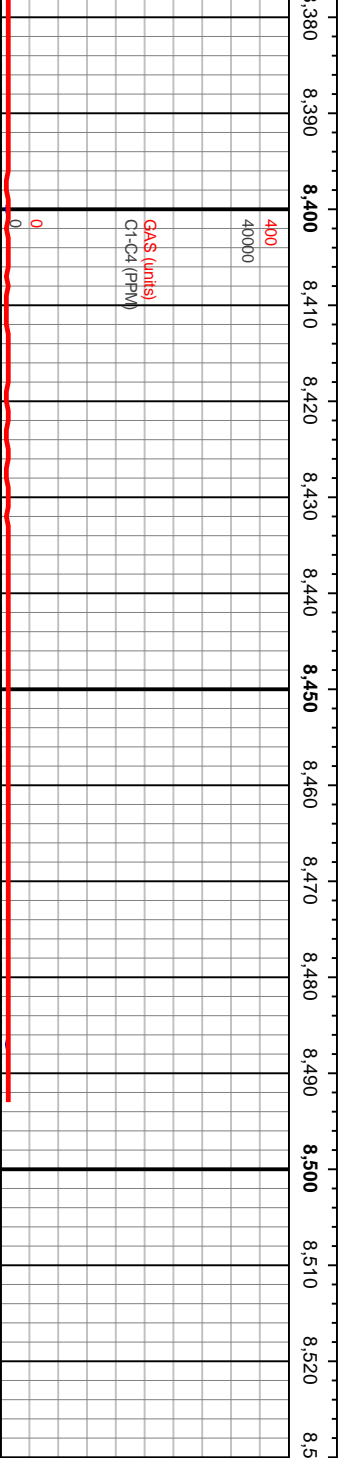
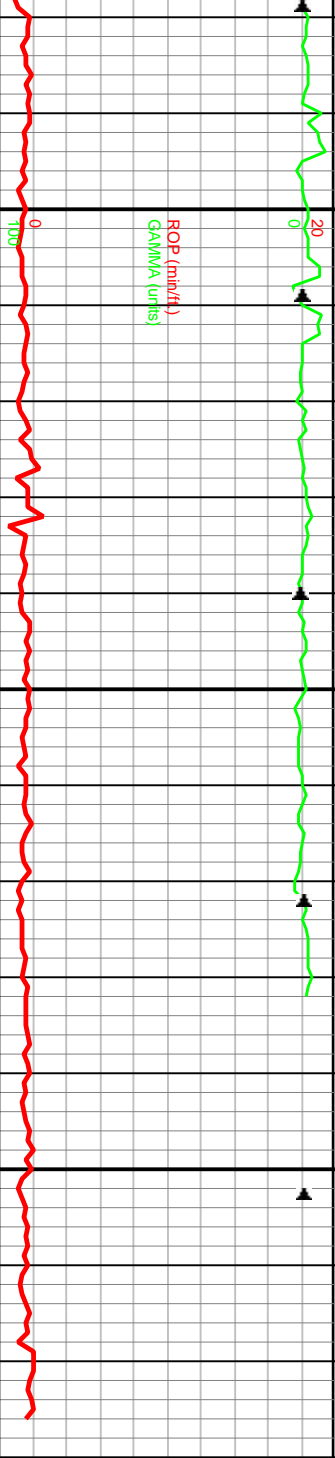
MD: 8,334'  
TVD: 3,904.38'  
Inclination: 89.69 °  
Azimuth: 180.26 °

TVD (ft)

CHT: wht opq crm off yell, frm sli hd hd v hd, sbblky blkly sbprd sbang,  
cpkxin, pily lsfr, smth sli-rgh, 25% dull yell fluorescence, no cut







MD: 8,396  
 TVD: 3,904.74  
 Inclination: 89.64 °  
 Azimuth: 180.43 °

MD: 8,482  
 TVD: 3,905.41  
 Inclination: 89.47 °  
 Azimuth: 180.7 °

CHI: wht opq crm off yel, frm sil hd hd v hd, sbbiky blkly sbnd sbang,  
 crpxin, prly lstr, smth sil-rgh, 25% dull yel fluorescence, no cut

