



Scale: 5" / 100'  
Measured Depth Log

**Well Name** SHOOK 3-10-1CDH

**Location** NWSE SEC3 T1S, R67W

**State** COLORADO

**Country** USA

**API Number** 05-001-09968

**Geographic Region** DENVER-JULESBURG BASIN

**Spud Date** 4/8/2017

**Surface Coordinates** NWSE SEC3 T1S, R67W  
2058' FSL, 2289' FEL

Lat/Long: 39.99222/-104.8737

**Bottom Hole Coordinates** Section 10, 460' FSL, 462' FWL

**Ground Elevation** 5098'

**Logged Interval** 9008' **To** 13215'

**Formation** Codell

**Type of Drilling Fluid** OIL BASED MUD

**K.B. Elevation** 5111'

**Total Depth** 4207'

**County** ADAMS

**Rig Number** ENSIGN 145

**AFE #** 17002

**Field** WATTENBERG

**Drilling Completed** 5/20/2017

## Operator

**Company** PetroShare Corporation

**Address** 7200 S Alton Way  
Englewood, CO 80112



## Geologist

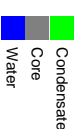
**Name** JEFF LACY, GARY MYERS, WEDGE HOWE

**Company** Terra Guidance







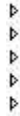



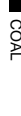


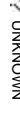















**Address** 1298 O Road  
Loma CO 81524  
(970) 260-5408



## Zone Color Coding












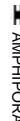


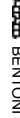












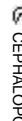
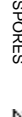
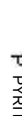
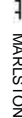














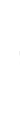



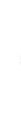







## Rock Types

|   |  |   |   |
|---|--|---|---|
|  LIMESTONE       |  SANDSTONE            |  DOLOMITE      |  BRECCIA     |
|  Chalk           |  BENTONITE            |  CHERT         |  TILL        |
|  Marl            |  CEMENT               |  COAL          |  TUFF        |
|  SHALE           |  UNKNOWN              |  MARLSTONE     |  IGNEOUS     |
|  Silty Shale     |  ANHYDRITE            |  CLAYSTONE     |  METAMORPHIC |
|  Shaly Siltstone |  GYPSUM               |  SHALE GRAY    |   |
|  SILTSTONE       |  SALT                 |  SHALE COLORED |   |
|  Shaly Sandstone |  SIDERITE or LIMONITE |  CONGLOMERATE  |   |



ARE

LAND, SAGE BETTS, JOEY LUCE

## Accessories

|  |   |  |   |
|--|---|--|---|
|  FOSSIL       |  ARGILLACEOUS    |  GLAUCONITE           |   |
|  GASTROPOD    |  ARGILLITE GRAIN |  GYPSIFEROUS          |   |
|  ALGAE        |  OOLITE          |  HEAVY MINERAL        |   |
|  AMPHIPORA    |  OSTRACOD        |  BITUMINOUS SUBSTANCE |  ANHYDRITE STRINGER    |
|  BELEMNITE    |  PELECYPOD       |  BRECCIA FRAGMENTS    |  BENTONITE STRINGER    |
|  BIOCLASTIC   |  PELLET          |  MARLSTONE            |  COAL STRINGER         |
|  BRACHIOPOD   |  PISOLITE        |  MINERAL CRYSTALS     |  DOLOMITE STRINGER     |
|  BRYOZOA      |  PLANT REMAINS   |  NODULES              |  GYPSUM STRINGER       |
|  CEPHALOPOD   |  PLANT SPORES    |  PHOSPHATE PELLETS    |  LIMESTONE STRINGER    |
|  CORAL        |  SCAPHOPOD       |  PYRITE               |  MARLSTONE (CALC) STRG |
|  CRINOID      |  STROMATOPOROID  |  SALT CAST            |  MARLSTONE (DOL) STRG  |
|  ECHINOID     |  FELDSPAR        |  SANDY                |  SANDSTONE STRINGER    |
|  FISH         |  Minerals        |  SILICEOUS            |  SHALE STRINGER        |
|  FORAMINIFERA |  ANHYDRITIC      |  FERRUGINOUS PELLET   |  SILTY                 |
|  |   |  FERRUGINOUS          |  TUFFACEOUS            |

## Oil Show

-  ORGANIC
-  PINPOINT

DEAD

VUGGY

EVEN

QUESTIONABLE

## Engineering

SPOTTED STAINING BIT

CASING

## Porosity

CONNECTION (LE

E EARTHY

CONNECTION (DO

FENESTRAL

CONNECTION G

FRACTURE

CORE - LOST

INTERCRYSTALLINE

CORE - RECOVER

INTEROOLITIC

DST INTERVAL

MOLDIC

FAULT

ng


Gas  
Pressure  
Seal

Other Symbols

 FORMATION TOP

L LITHOGRAPHIC

Rounding

 GAS SHOW

M<sub>X</sub> MICROXLN



MIN DEPTH

A<sub>Δ</sub> ANGULAR

M<sub>S</sub> MUDSTONE



NORMAL FAULT

R<sub>Δ</sub> ROUNDED

P<sub>S</sub> PACKSTONE



OIL SHOW

B<sub>Δ</sub> SUBANG

W<sub>S</sub> WACKSTONE



OVERTURNED STRATA

F<sub>Δ</sub> SUBRND

Sorting



REVERSE FAULT

Textures



SIDEWALL CORE (LEFT)

M<sub>Δ</sub> MODERATE



SIDEWALL CORE (RIGHT)

B<sub>S</sub> BOUNDSTONE

P<sub>Δ</sub> POOR



SLIDE

C<sub>Δ</sub> CHALKY

W<sub>Δ</sub> WELL



SURVEY

C<sub>X</sub> CRYPTOXLN



TRIP GAS

E<sub>Δ</sub> EARTHY

ConnectionGas(Vert)



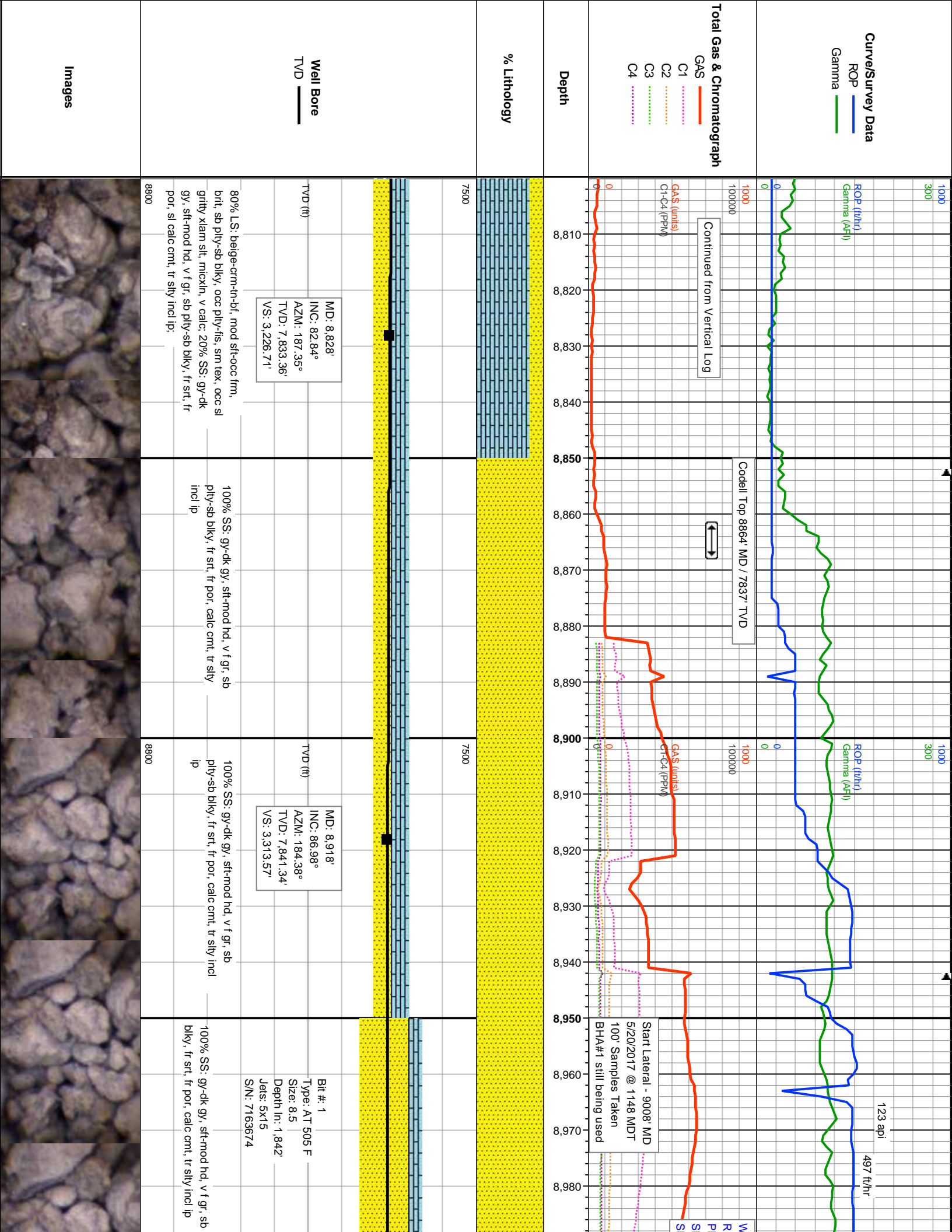
WIRELINE TESTED - LEFT

F<sub>X</sub> FINELYXLN

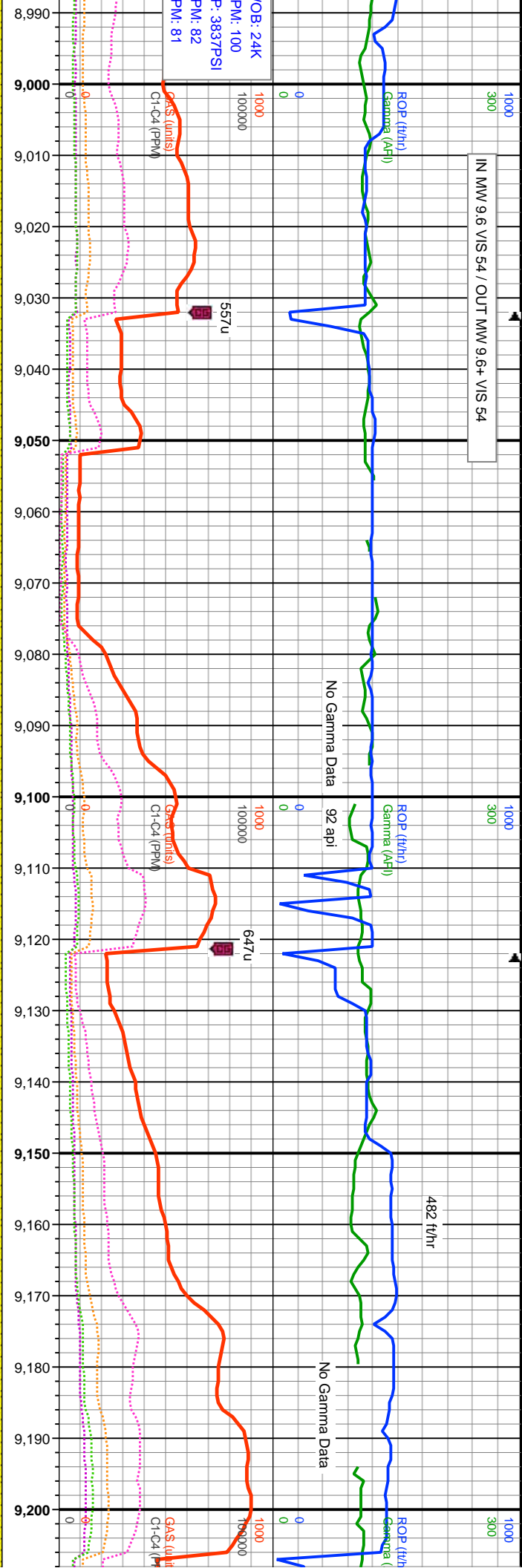


WIRELINE TESTED - RT

G<sub>S</sub> GRAINSTONE







Landed Build - 9008' MD/7843' TVD  
5/20/2017 - @ 1148 MDT

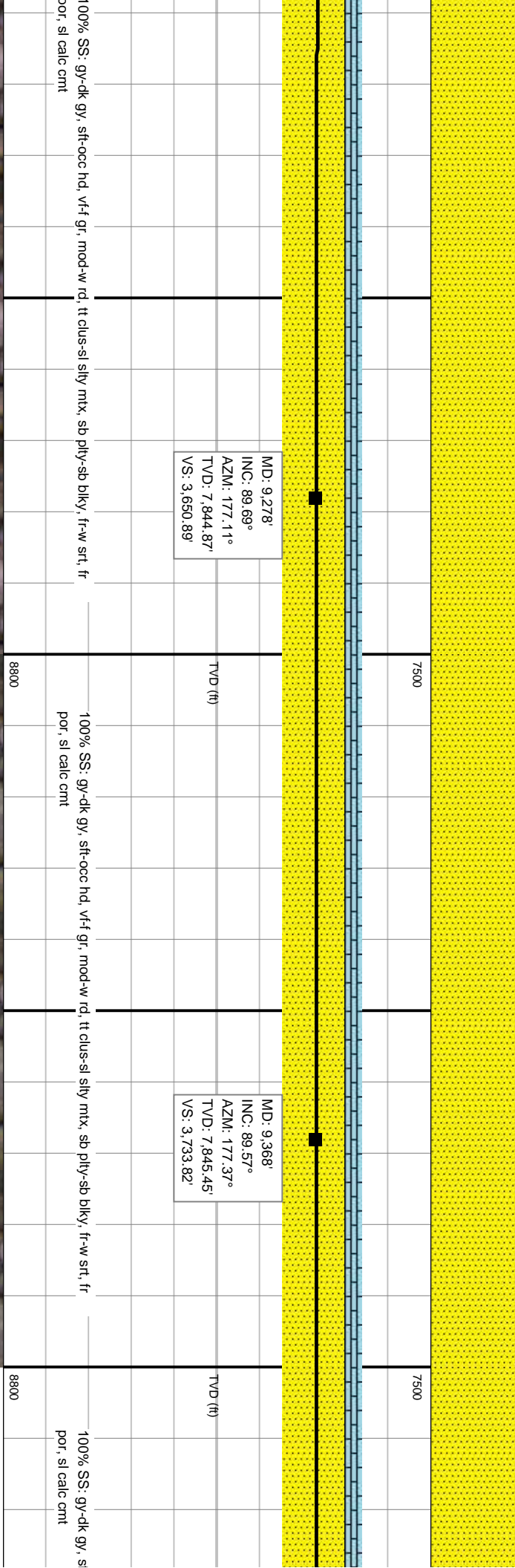
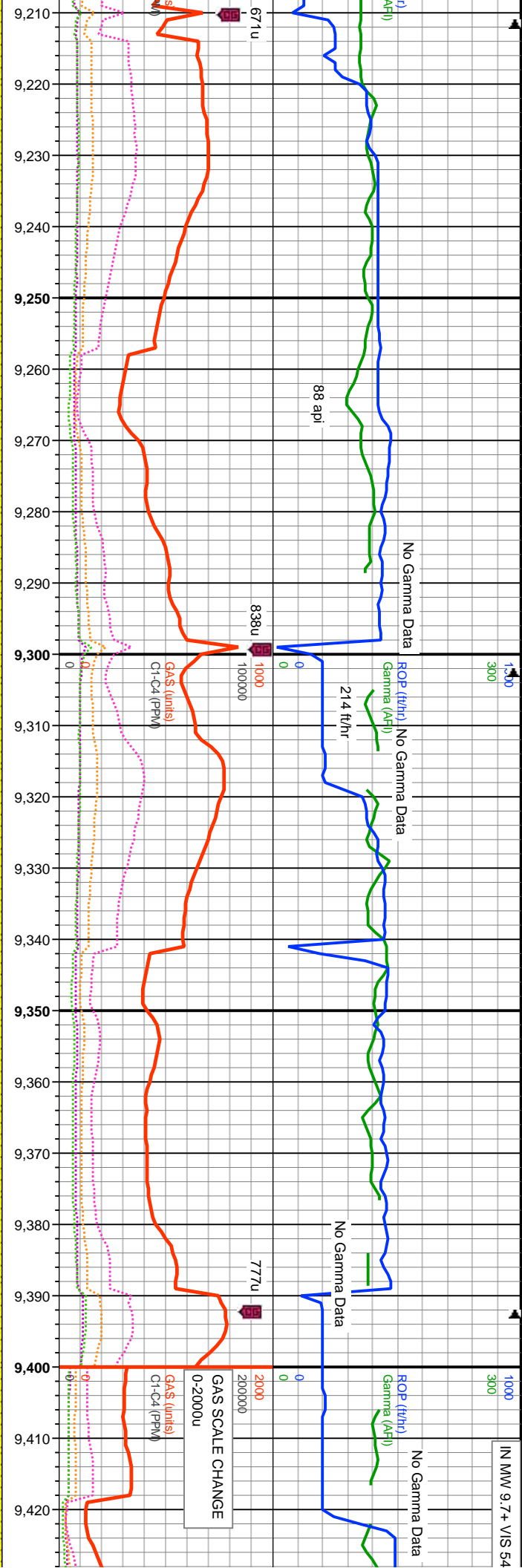
MD: 9,008'  
INC: 90.28°  
AZM: 182.61°  
TVD: 7,843.5'  
VS: 3,399.77'

MD: 9,098'  
INC: 89.51°  
AZM: 178.19°  
TVD: 7,843.66'  
VS: 3,484.48'

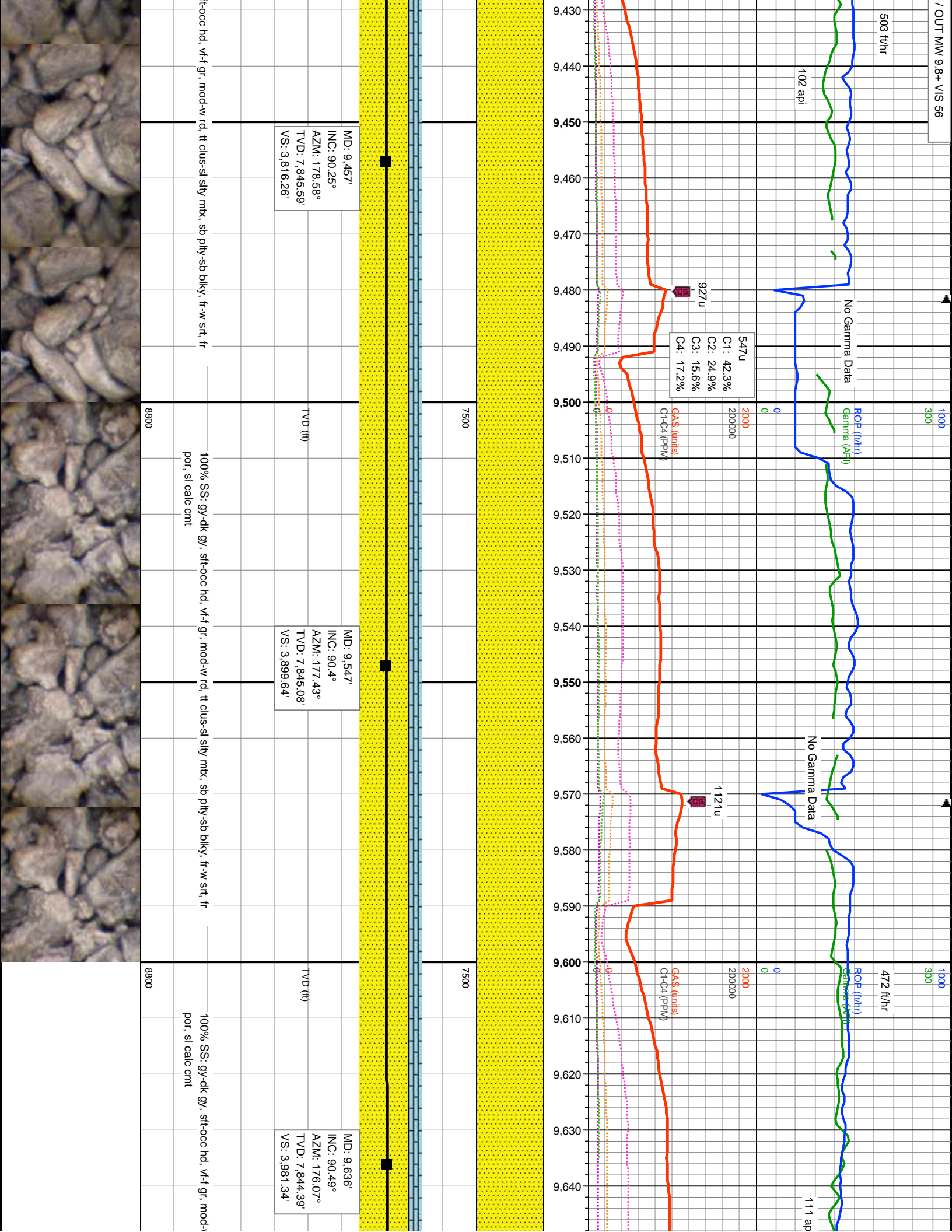
MD: 9,188'  
INC: 89.63°  
AZM: 177.78°  
TVD: 7,844.34'  
VS: 3,567.85'

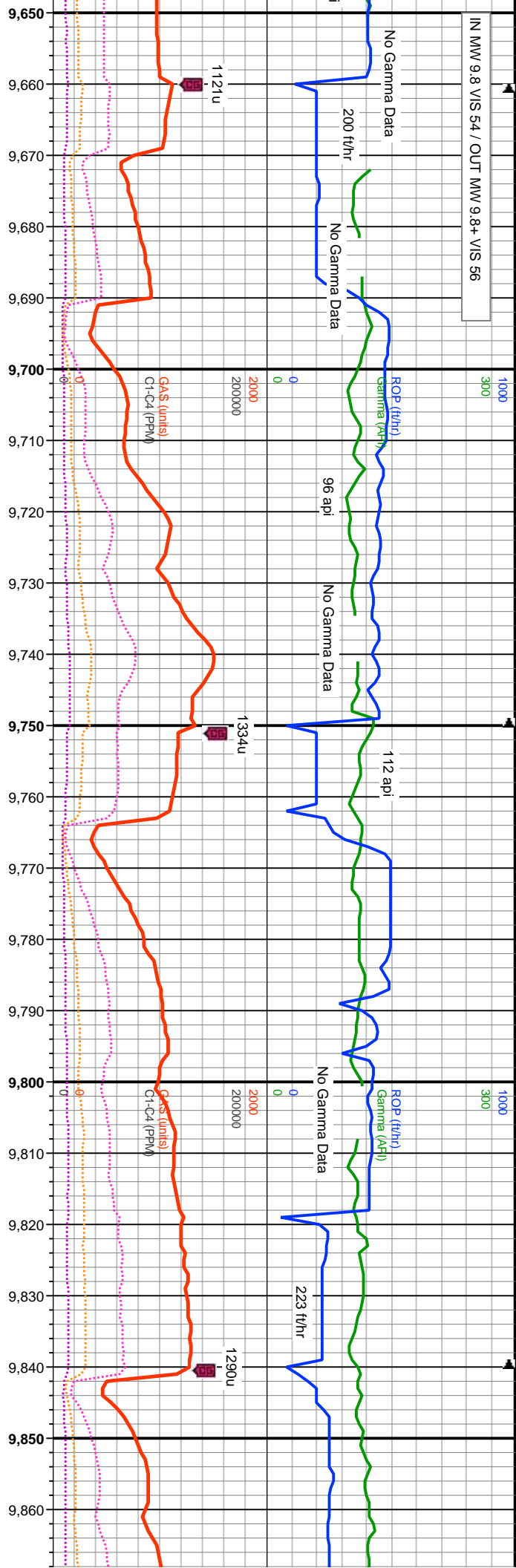
100% SS: gy-dk gy, sft-occ hd, vf-f gr, mod-w rd, tt clus-sil silty mt, sb pily-sb blk, fr-w srt, fr por, sl calc cnt

100% SS: gy-dk gy, sft-occ hd, vf-f gr, mod-w rd, tt clus-sil silty mt, sb pily-sb blk, fr-w srt, fr por, sl calc cnt



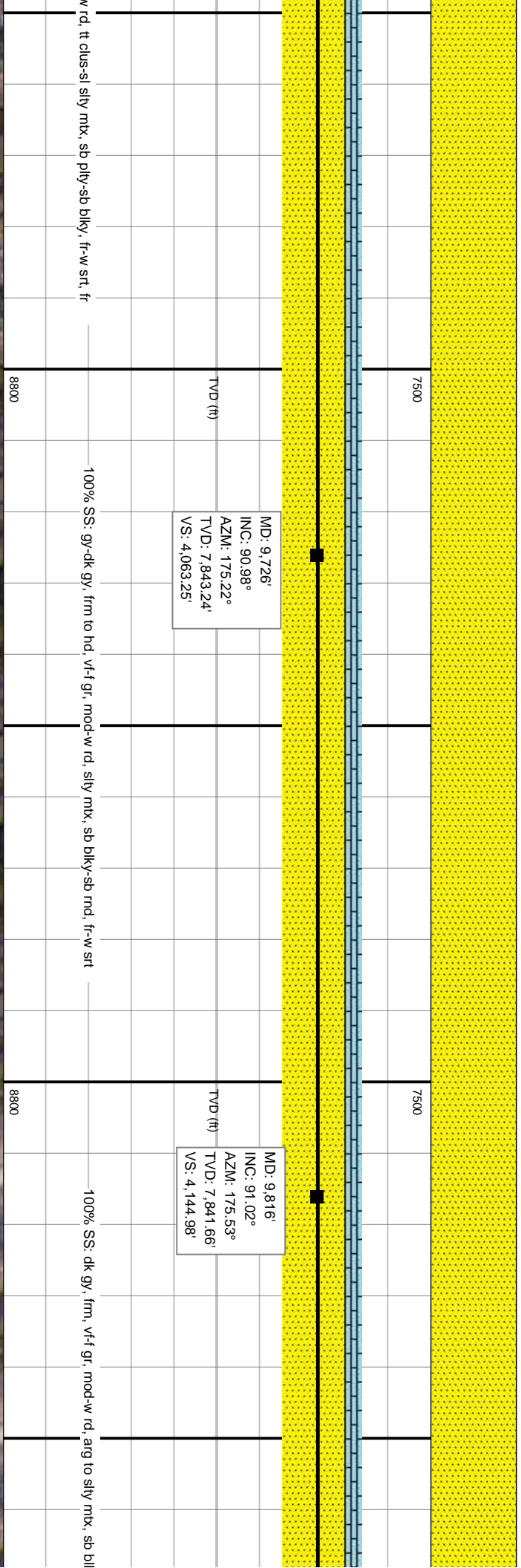




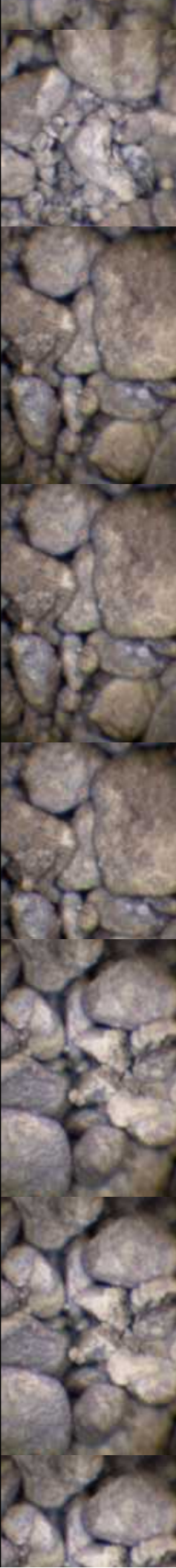
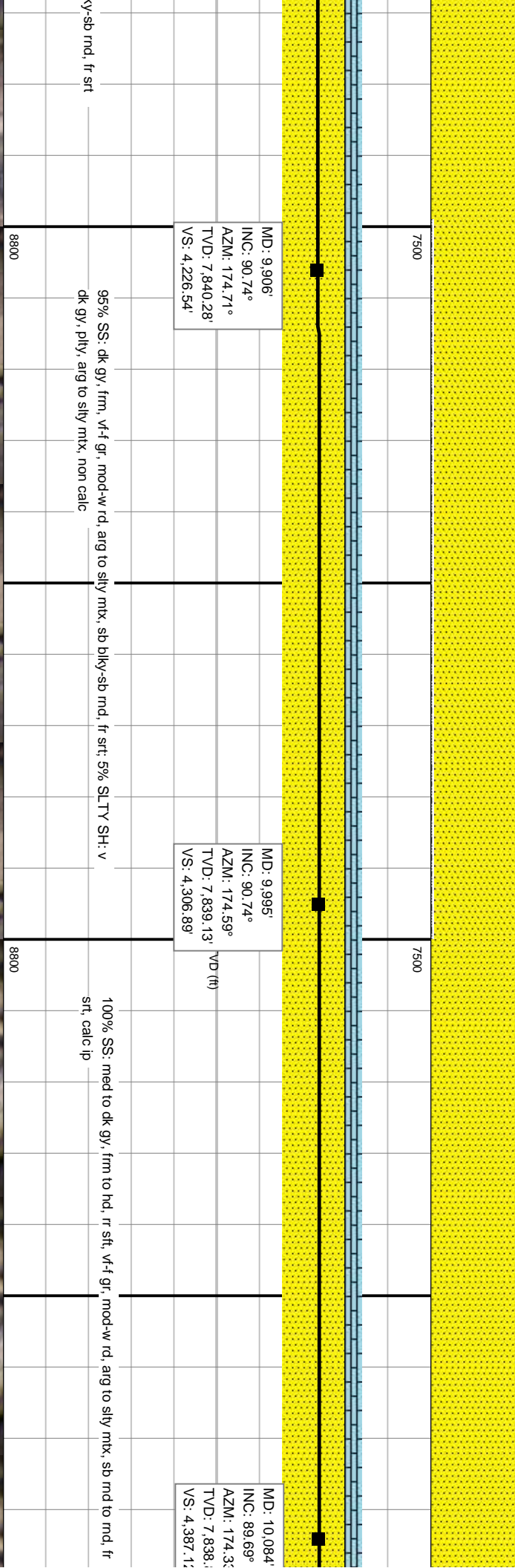
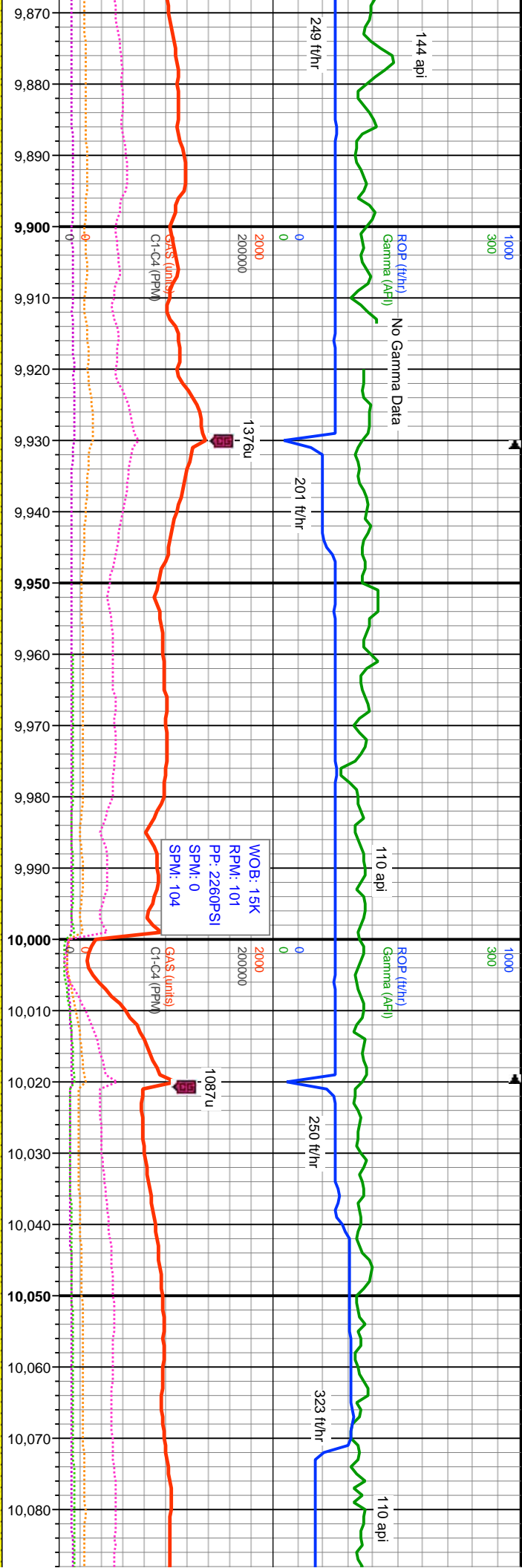


MD: 9.726'  
INC: 90.98°  
AZM: 175.22°  
TVD: 7.843.24'  
VS: 4.063.25'

MD: 9.816'  
INC: 91.02°  
AZM: 175.53°  
TVD: 7.841.66'  
VS: 4.144.98'

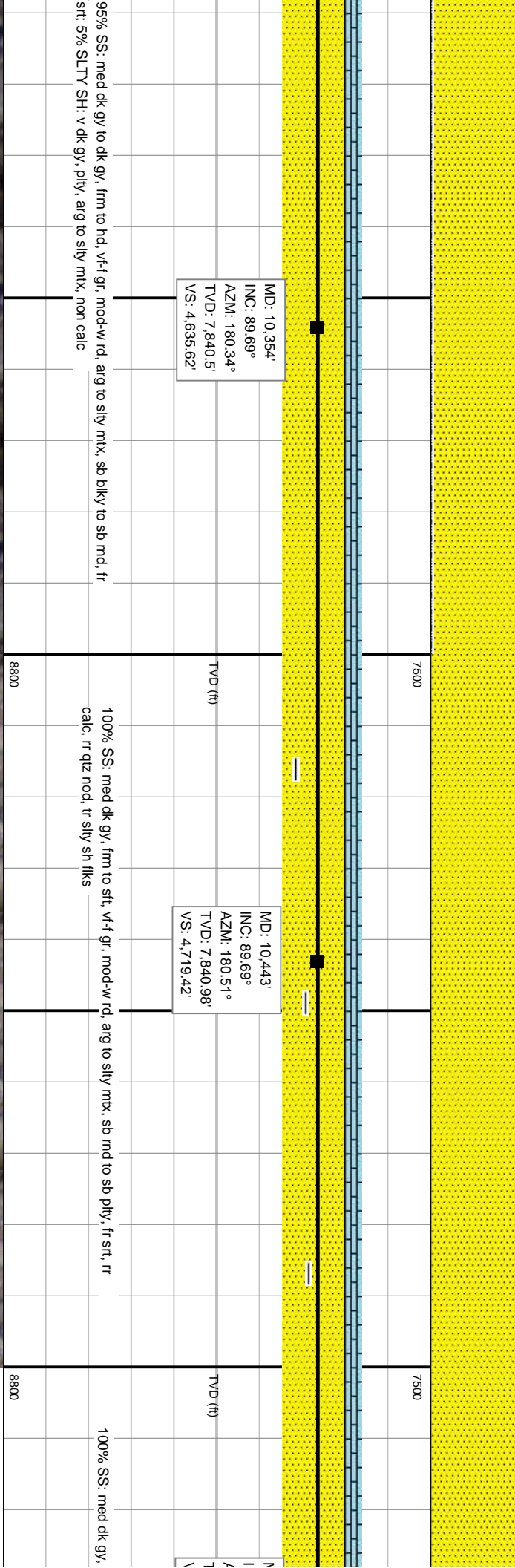
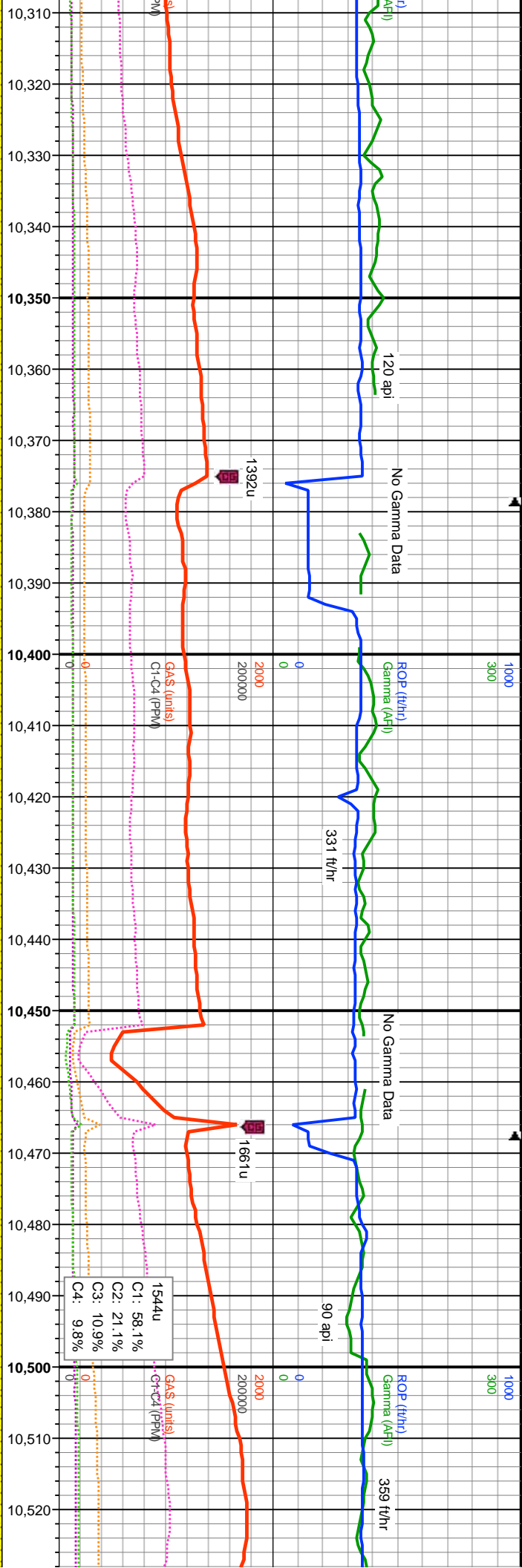




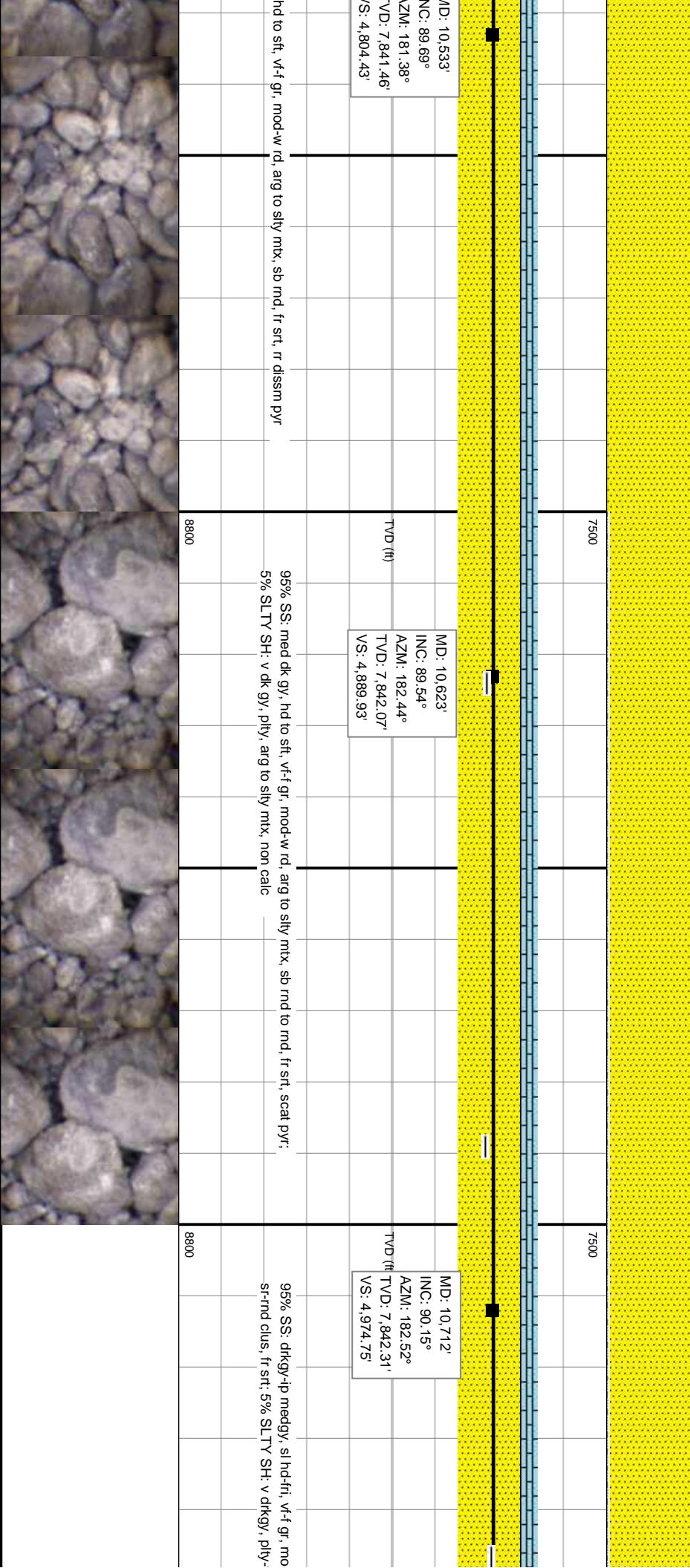
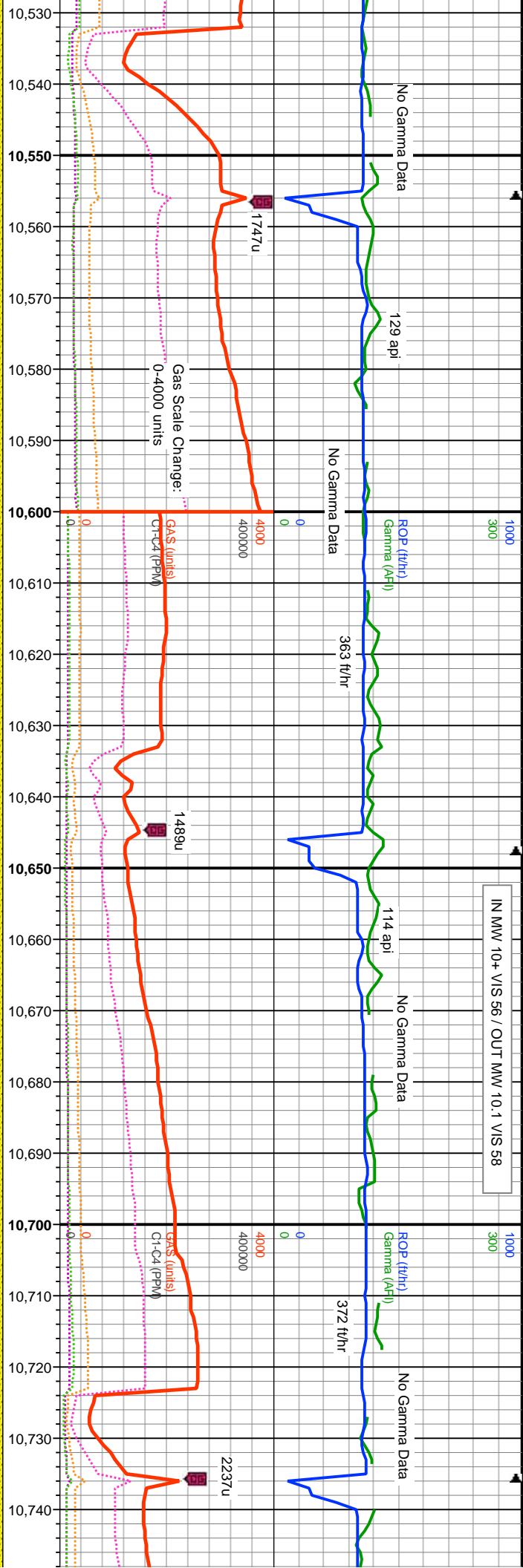


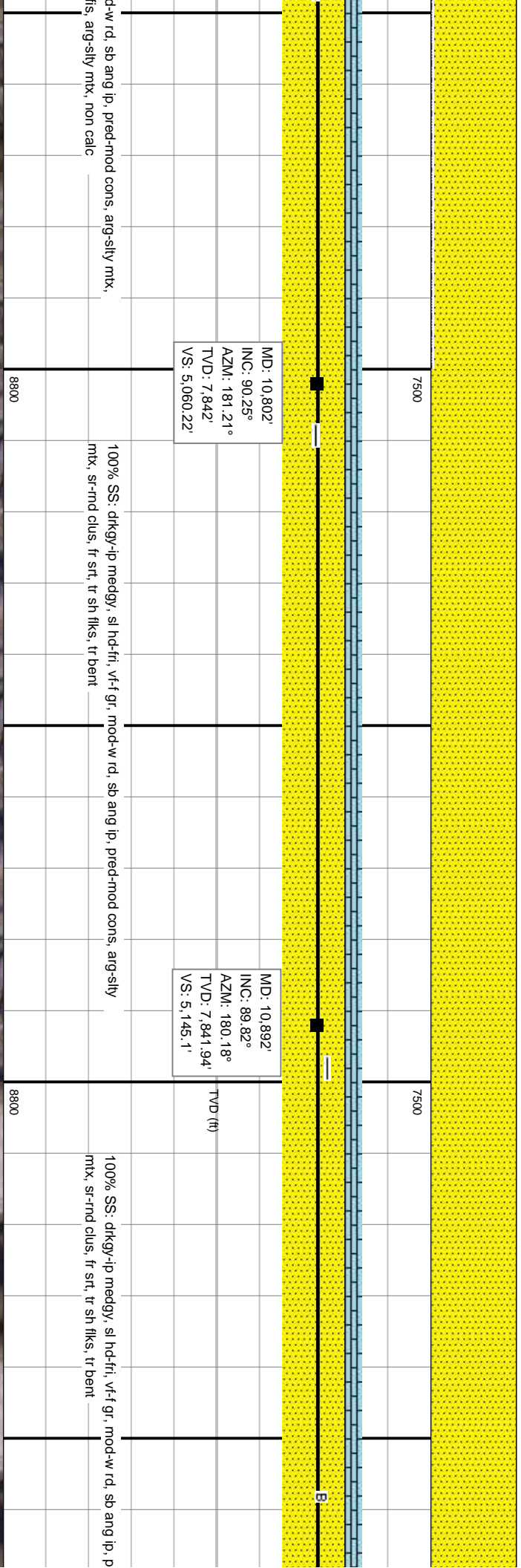
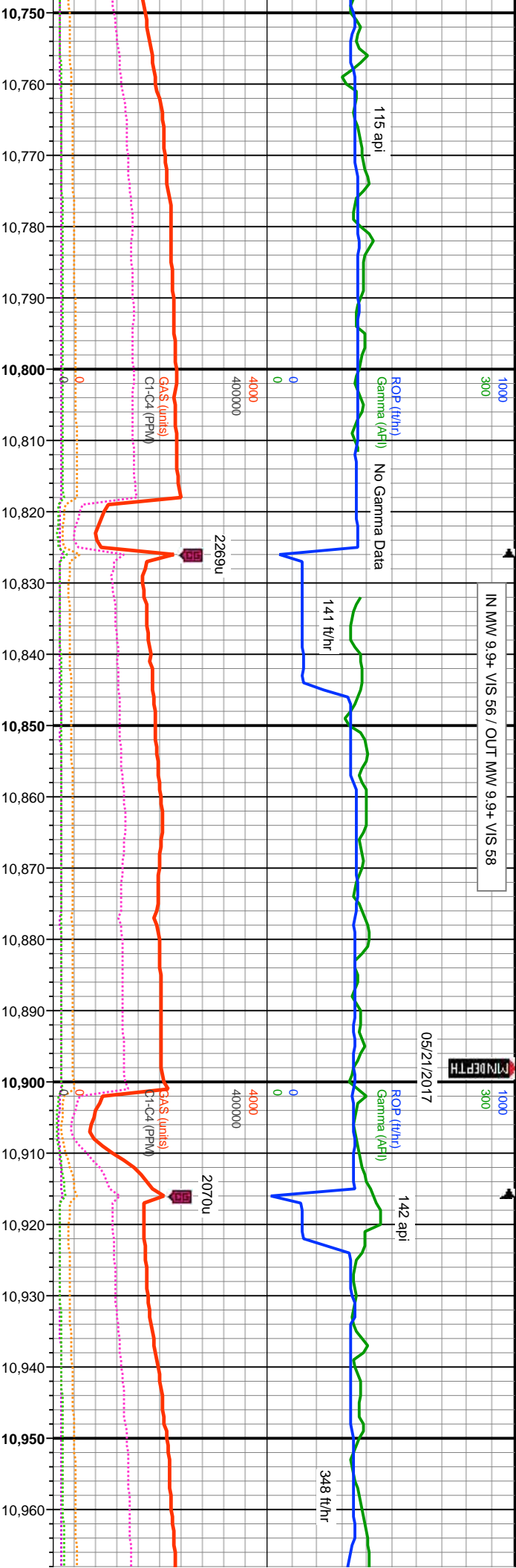




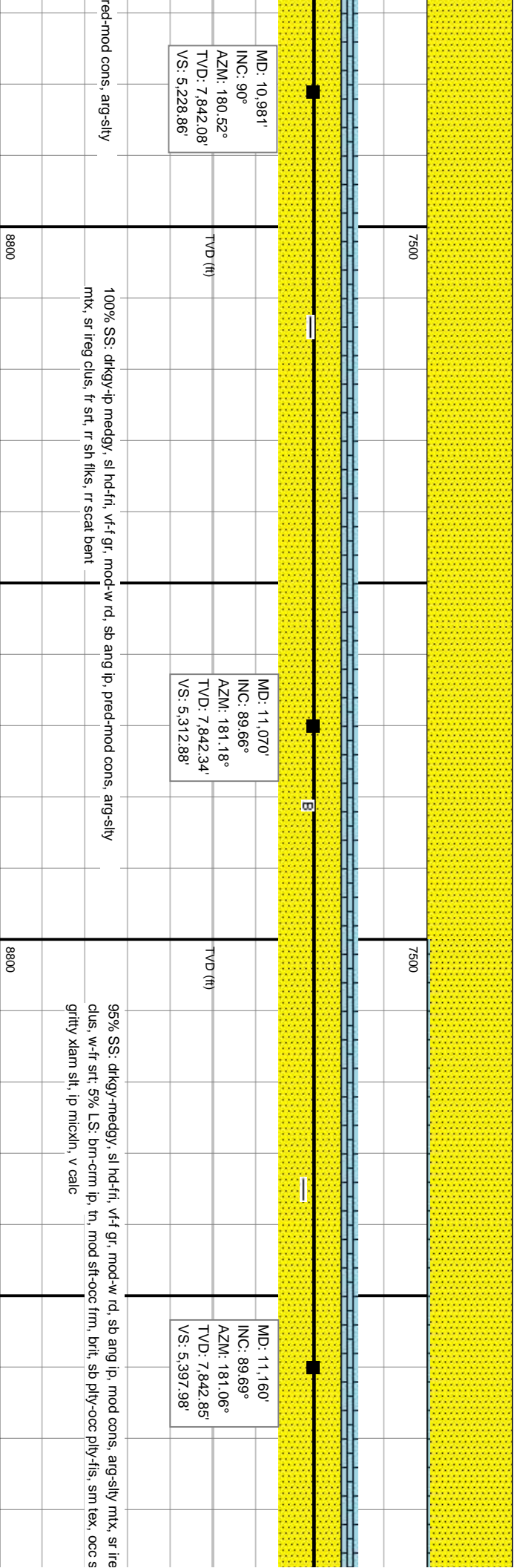
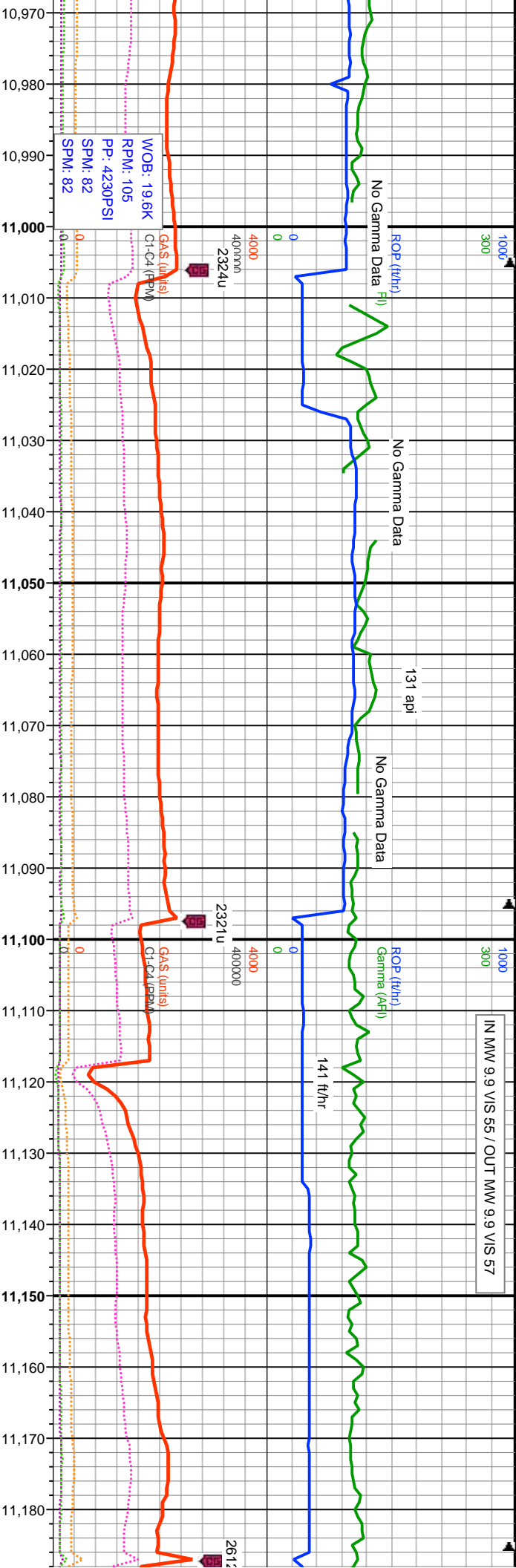




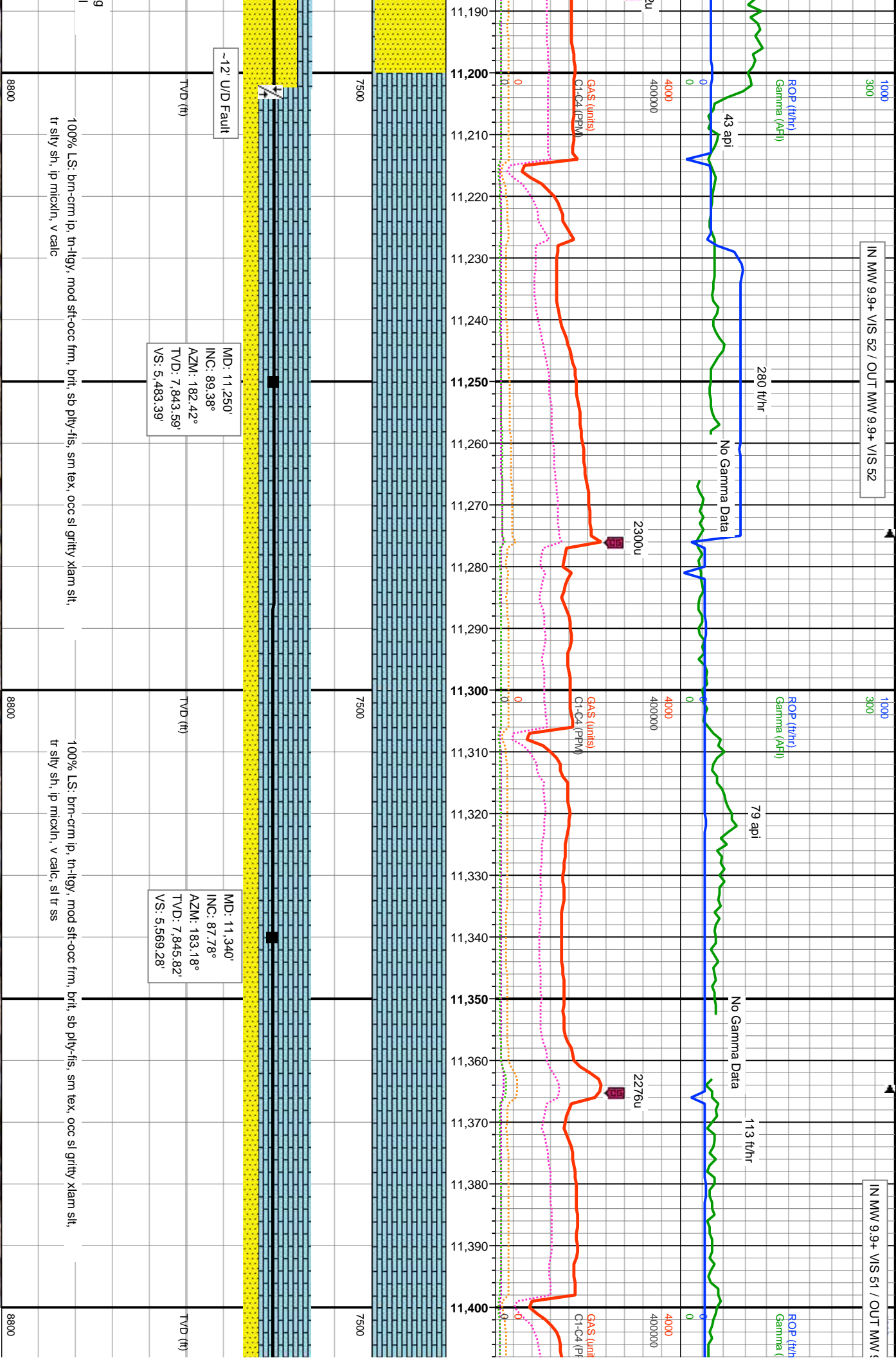


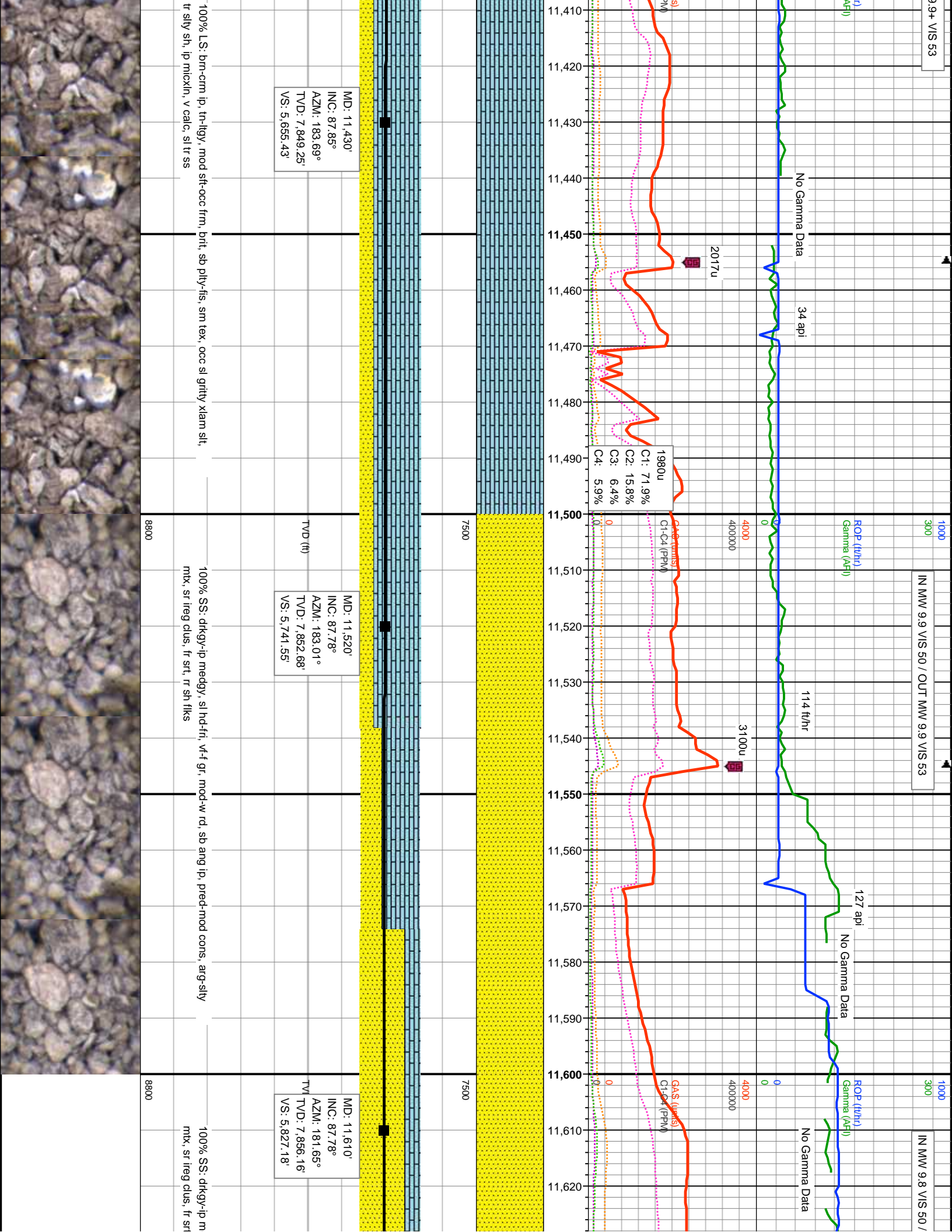




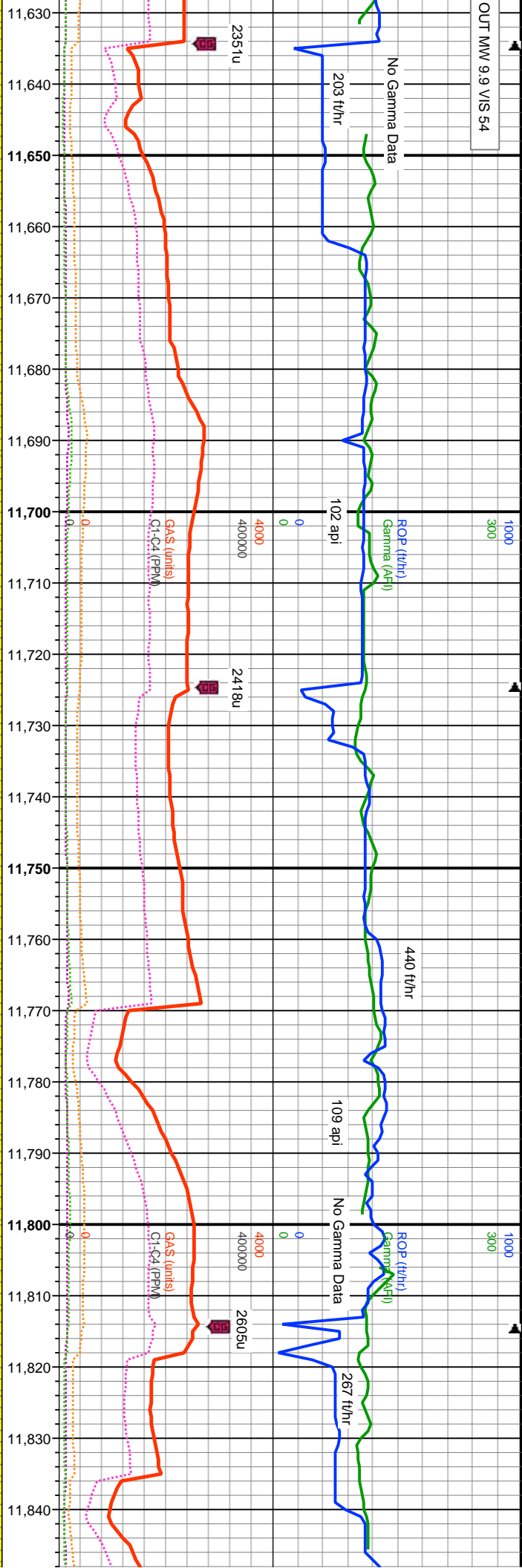












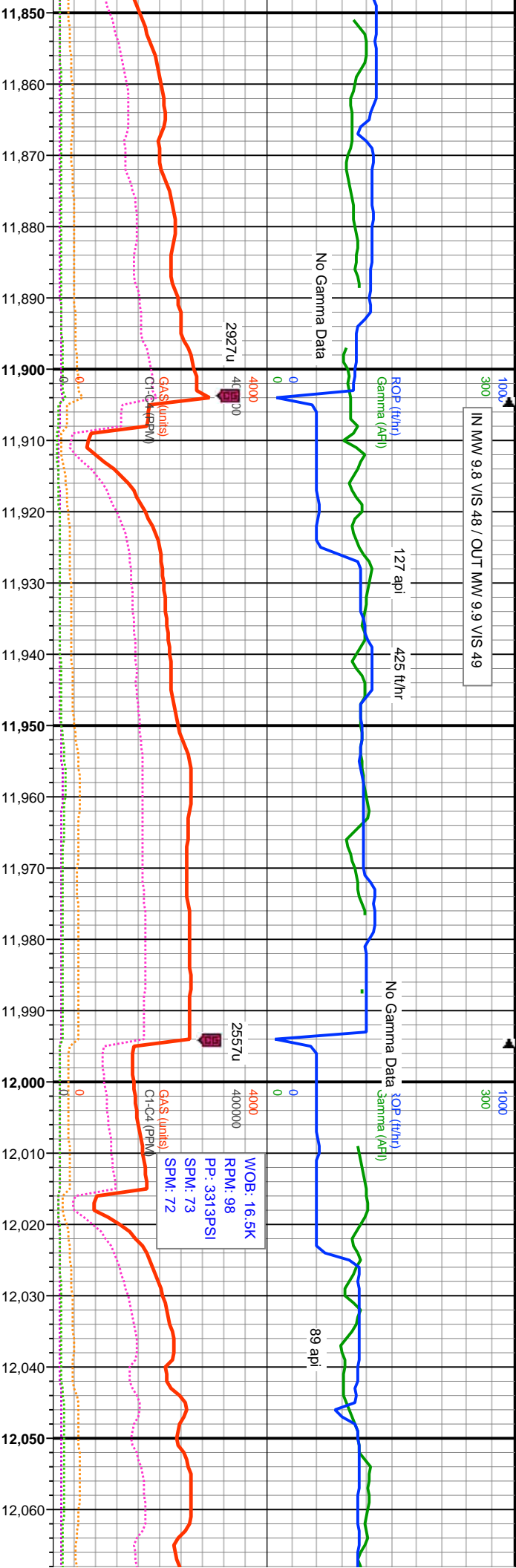
MD: 11,701'  
INC: 89.66°  
AZM: 181.27°  
TVD: 7,858.2'  
VS: 5,913.38'

MD: 11,790'  
INC: 89.6°  
AZM: 180.42°  
TVD: 7,858.77'  
VS: 5,997.39'

medgy, sl hd-fr, v-f gr, mod-w rd, sb ang ip, pred-mod cons, arg-sily  
100% SS: dkgy-ip medgy, sl hd-fr, v-f gr, mod-w rd, sb ang ip, pred-mod cons, arg-sily  
mtx, sr ireg clus, fr srt

100% SS: dkgy-ip medgy, sl hd-fr, v-f gr, n  
mtx, sr ireg clus, fr srt

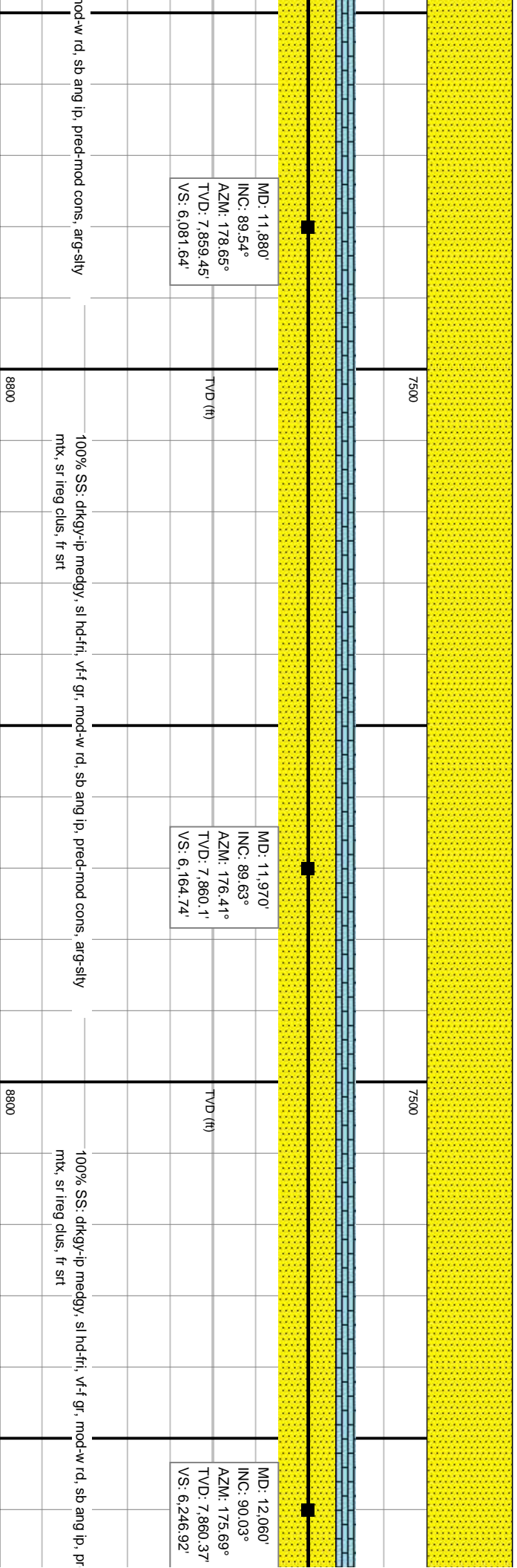


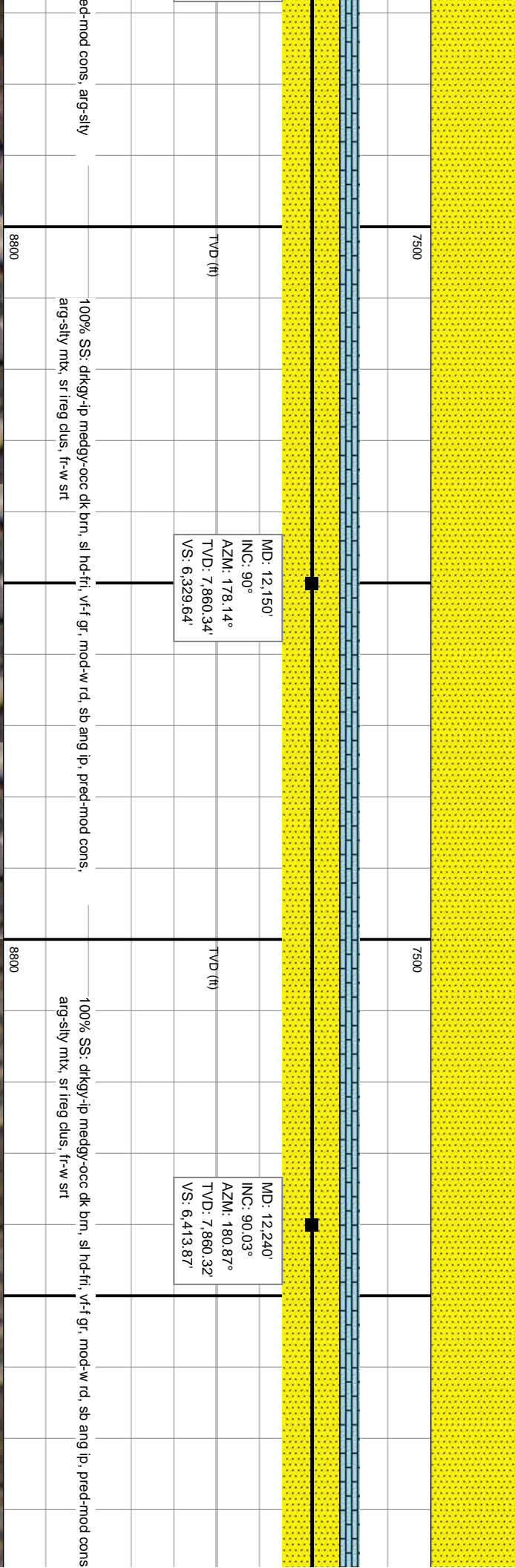
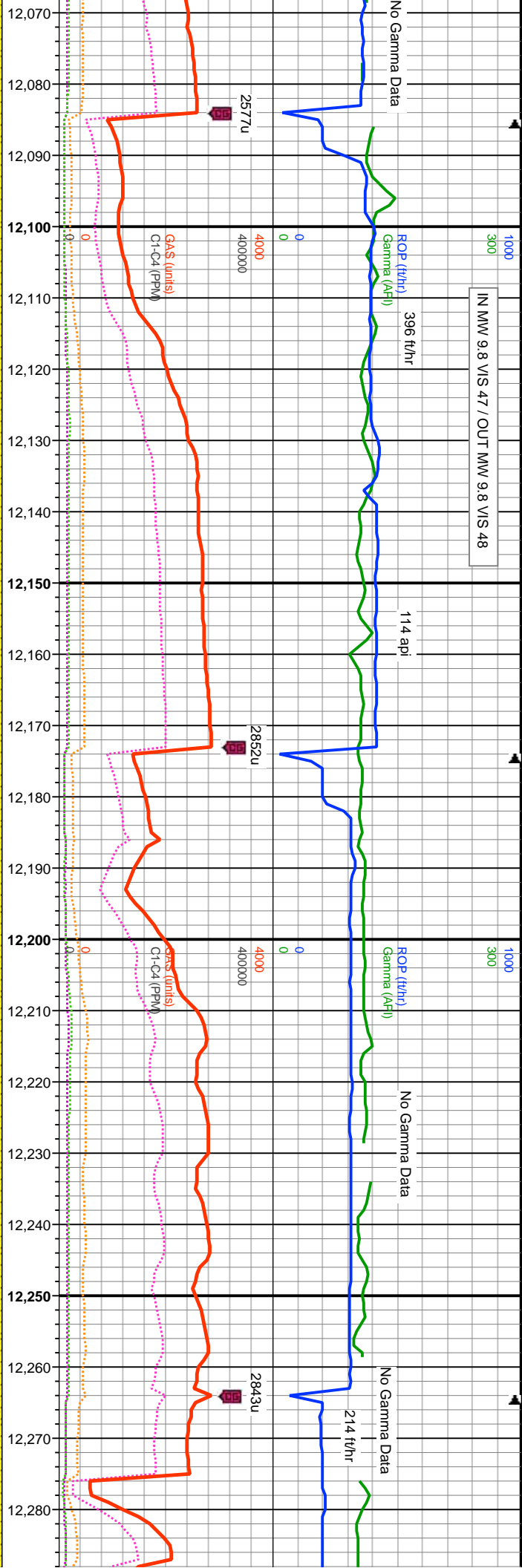


MD: 11,880'  
INC: 89.54°  
AZM: 178.65°  
TVD: 7,859.45'  
VS: 6,081.64'

MD: 11,970'  
INC: 89.63°  
AZM: 176.41°  
TVD: 7,860.1'  
VS: 6,164.74'

MD: 12,060'  
INC: 90.03°  
AZM: 175.69°  
TVD: 7,860.37'  
VS: 6,246.92'



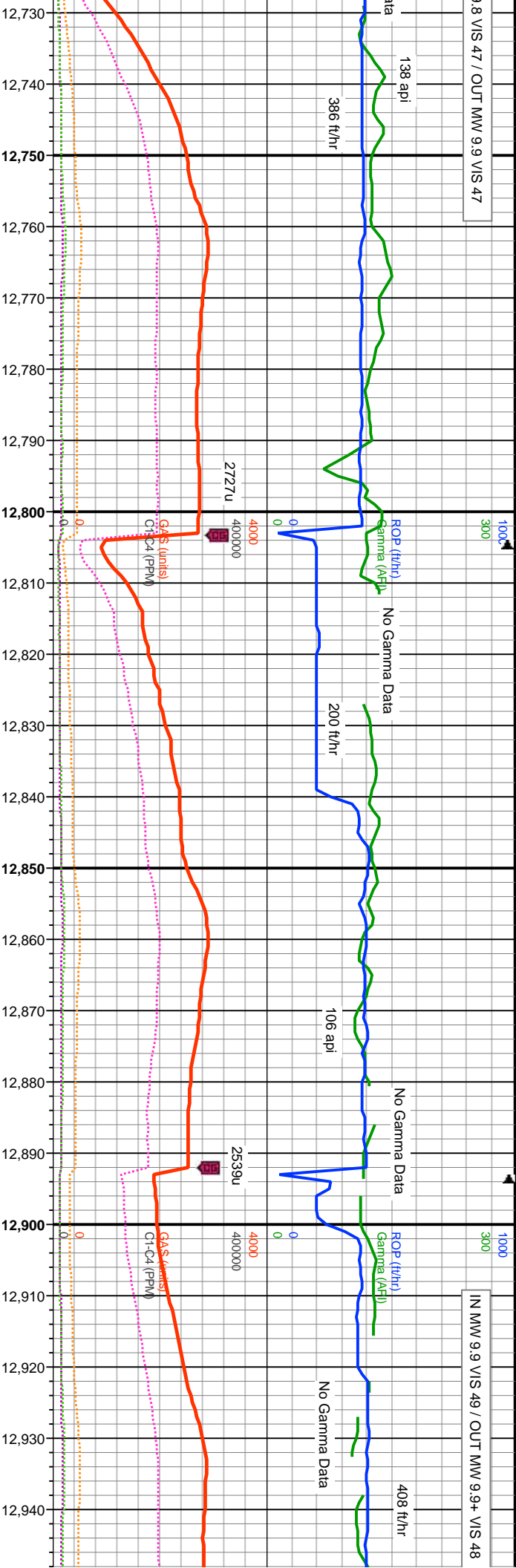












MD: 12,780'  
INC: 90.03°  
AZM: 179.71°  
TVD: 7,861.04'  
VS: 6,923.32'

MD: 12,870'  
INC: 90.52°  
AZM: 178.72°  
TVD: 7,860.61'  
VS: 7,007.4'

