



Scale: 5" / 100'  
Measured Depth Log

**Well Name** Raindance FD 20-242HN

**Location** NENE Sec 30-T6N-R67W

**State** Colorado

**Country** USA

**API Number** 05 123 44992 0000

**Geographic Region** Denver-Julesburg Basin

**Spud Date** 8/1/2017

**County** Weld

**Rig Number** Precision 460

**AFE #** 17DC0064

**Field** Wattenberg

**Drilling Completed** 8/3/2017

**Ground Elevation** 4789'

**Logged Interval** 6000' **To** 12703'

**Formation** Niobrara

**Type of Drilling Fluid** Oil Based Mud

**K.B. Elevation** 4809'

**Total Depth** 12703'

## Operator

**Company** Great Western Oil and Gas

**Address** 1801 Broadway, Ste 500  
Denver, CO 80202



## Geologist










**Name** Gabriel Rubio & Mark Sowinski

**Company** Terra Guidance

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






## Color Coding

|   |       |   |            |   |          |
|---|-------|---|------------|---|----------|
|  | Oil   |  | Condensate |  | Gas      |
|  | Note  |  | Core       |  | Pressure |
|  | Error |  | Water      |  | Seal     |


## Other



### Oil Show

|   |          |
|---|----------|
|  | ORGANIC  |
|  | PINPOINT |

|   |       |
|---|-------|
|  | DEAD  |
|  | VUGGY |

|   |      |
|---|------|
|  | EVEN |
|---|------|

|   |              |
|---|--------------|
|  | QUESTIONABLE |
|---|--------------|

|   |                  |
|---|------------------|
|  | SPOTTED STAINING |
|  | BIT              |

### Engineering


|   |        |
|---|--------|
|  | CASING |
|---|--------|



### Porosity

|   |                   |
|---|-------------------|
|  | CONNECTION (LEFT) |
|---|-------------------|

|   |                    |
|---|--------------------|
|  | E EARTHY           |
|  | CONNECTION (RIGHT) |

|   |                |
|---|----------------|
|  | FENESTRAL      |
|  | CONNECTION GAS |






























|   |             |
|---|-------------|
|  | F FRACTURE  |
|  | CORE - LOST |

|   |                  |
|---|------------------|
|  | INTERCRYSTALLINE |
|  | CORE - RECOVERED |











































|   |              |
|---|--------------|
|  | INTEROOLITIC |
|  | DST INTERVAL |

|   |        |
|---|--------|
|  | MOLDIC |
|  | FAULT  |








## 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 Sandston  |    | SIDERITE or LIMONITE |    | CONGLOMERATE  |   |             |


## Accessories

|   |              |   |                      |   |                    |
|---|--------------|---|----------------------|---|--------------------|
|  | F FOSSIL     |  | ARGILLACEOUS         |  | GLAUCONITE         |
|  | GASTROPOD    |  | ARGILLITE GRAIN      |  | GYPSIFEROUS        |
|  | ALGAE        |  | B BENTONITE          |  | HEAVY MINERAL      |
|  | AMPHIPORA    |  | BITUMENOUS SUBSTANCE |  | KAOLIN             |
|  | BELEMNITE    |  | BRECCIA FRAGMENTS    |  | MARLSTONE          |
|  | BIOCLASTIC   |  | CALCAREOUS           |  | MINERAL CRYSTALS   |
|  | BRACHIOPOD   |  | CARBONACEOUS FLAKES  |  | NODULES            |
|  | BRYOZOA      |  | CHTDK                |  | PHOSPHATE PELLETS  |
|  | CEPHALOPOD   |  | COAL - THIN BEDS     |  | PYRITE             |
|  | CORAL        |  | DOLOMITIC            |  | SALT CAST          |
|  | CRINOID      |  | FELDSPAR             |  | SANDY              |
|  | ECHINOID     |  | FERRUGINOUS PELLET   |  | SILICEOUS          |
|  | FISH         |  | FERRUGINOUS          |  | SILTY              |
|   | FORAMINIFERA |   | TUFFACEOUS           |   |                    |
|   |              |   |                      |  | SILTSTONE STRINGER |

### Stringer

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

# Symbols


 FORMATION TOP

L LITHOGRAPHIC

GAS SHOW

## Rounding

 MICROXLN


 MN DEPTH

 ANGULAR

 MUDSTONE


ORMAL FAULT

 ROUNDED

 PACKSTONE

IL SHOW

 SUBANG

 WACKESTONE

VERTURNED STRATA

 SUBRAND

## Sorting

EVERSE FAULT

## Textures

IDEWALL CORE (LEFT)

 MODERATE

IDEWALL CORE (RIGHT)  BOUNDSTONE


 POOR

IDE

 CHALKY

 WELL


SURVEY

 CRYPTOXLN

TRIP GAS

 EARTHY

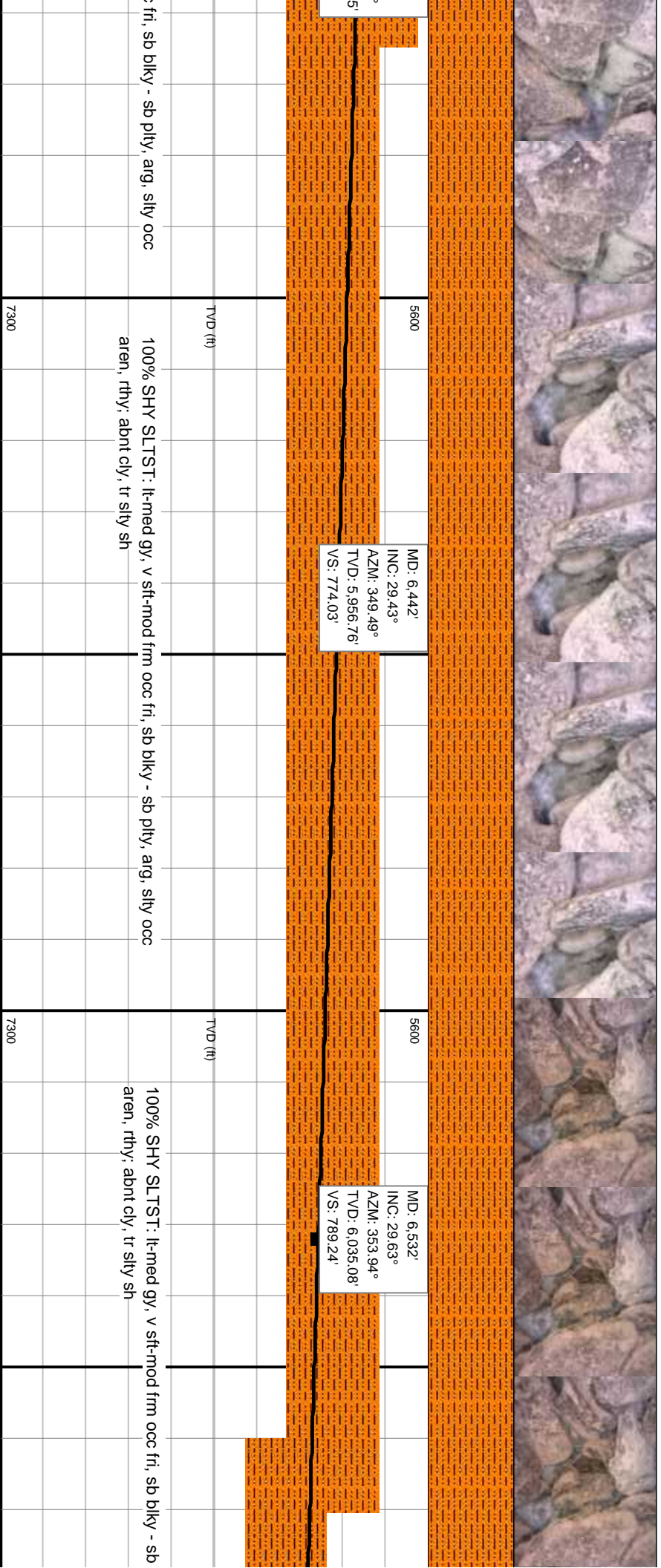
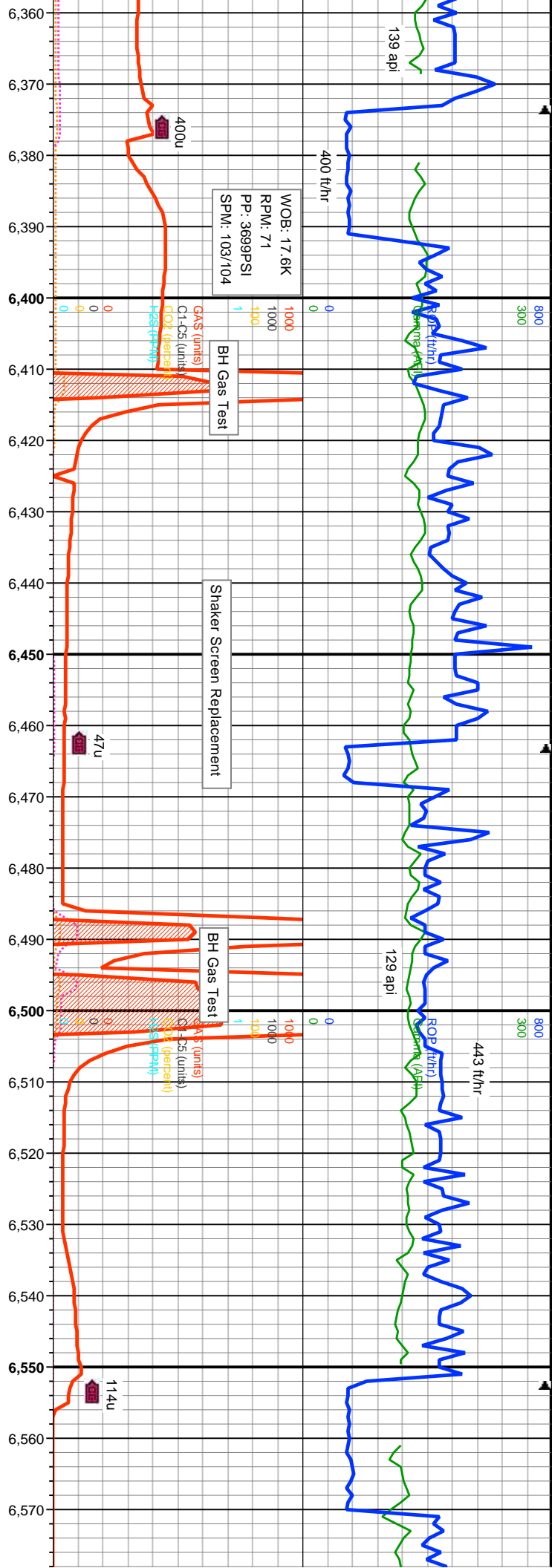
/IRELINE TESTED - LEFT  FINELYXLN

/IRELINE TESTED - RT  GRAINSTONE



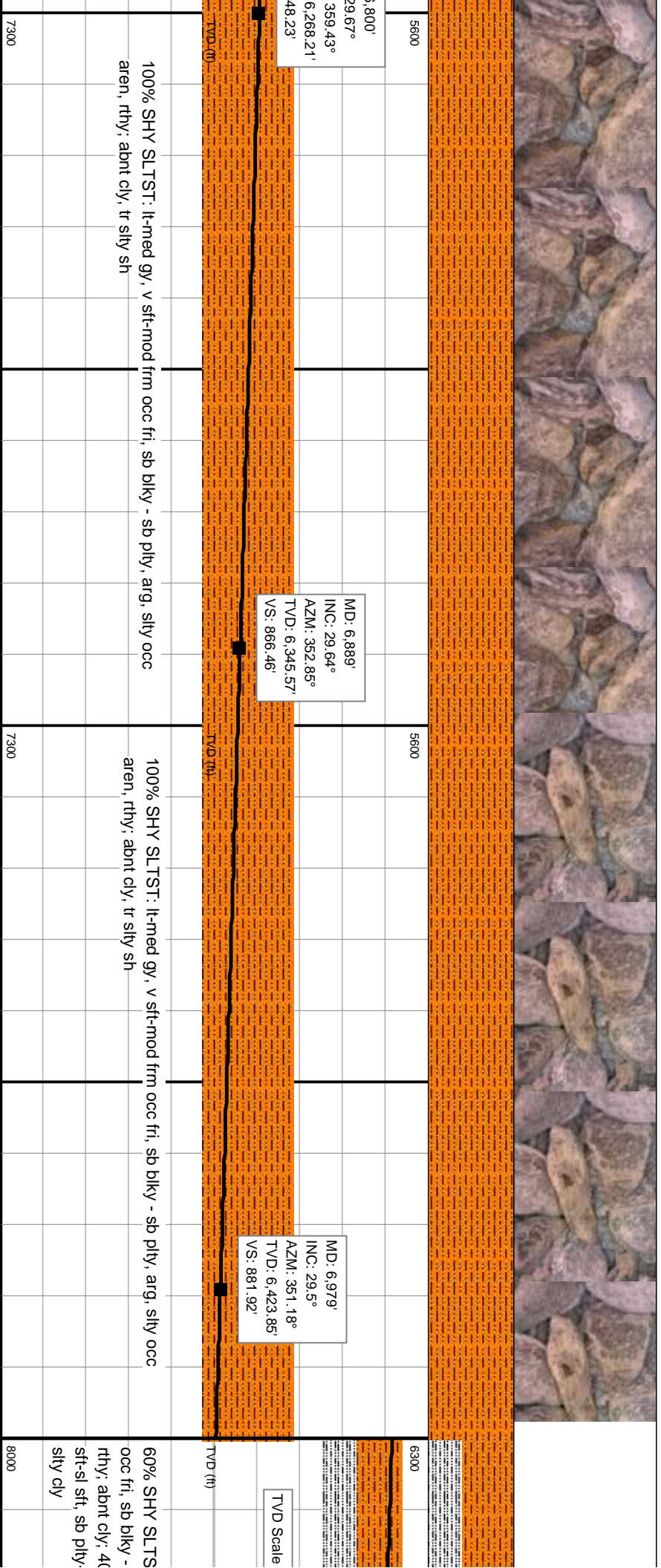
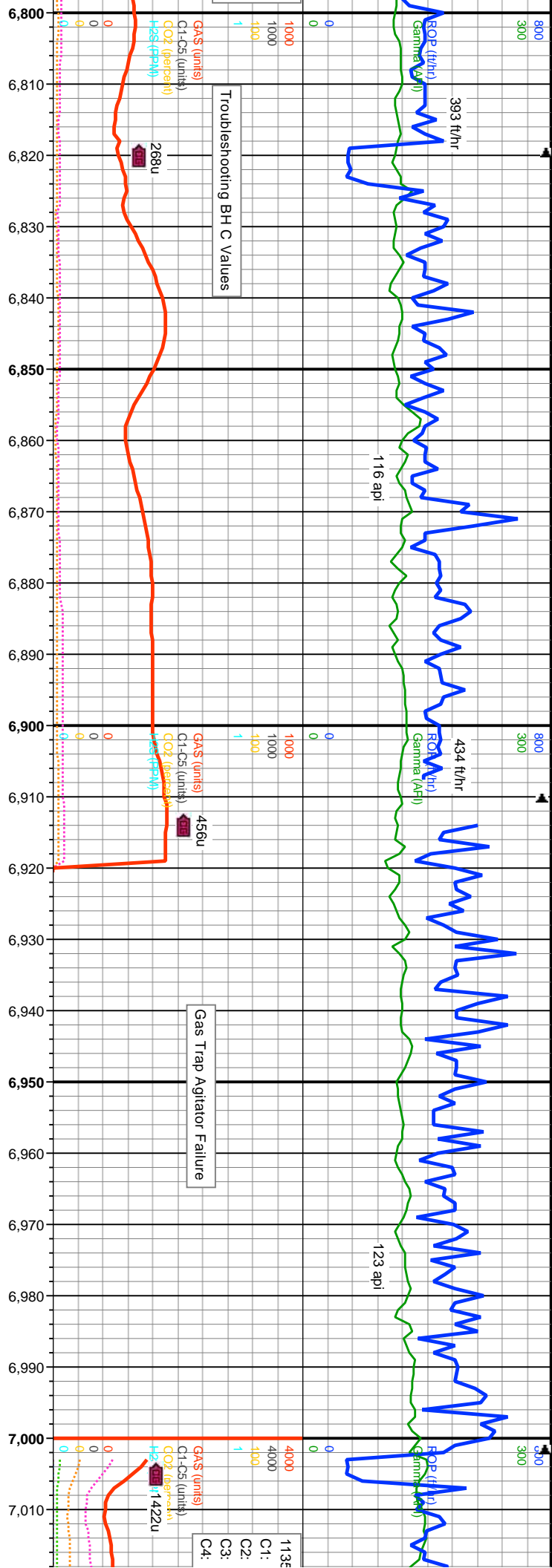




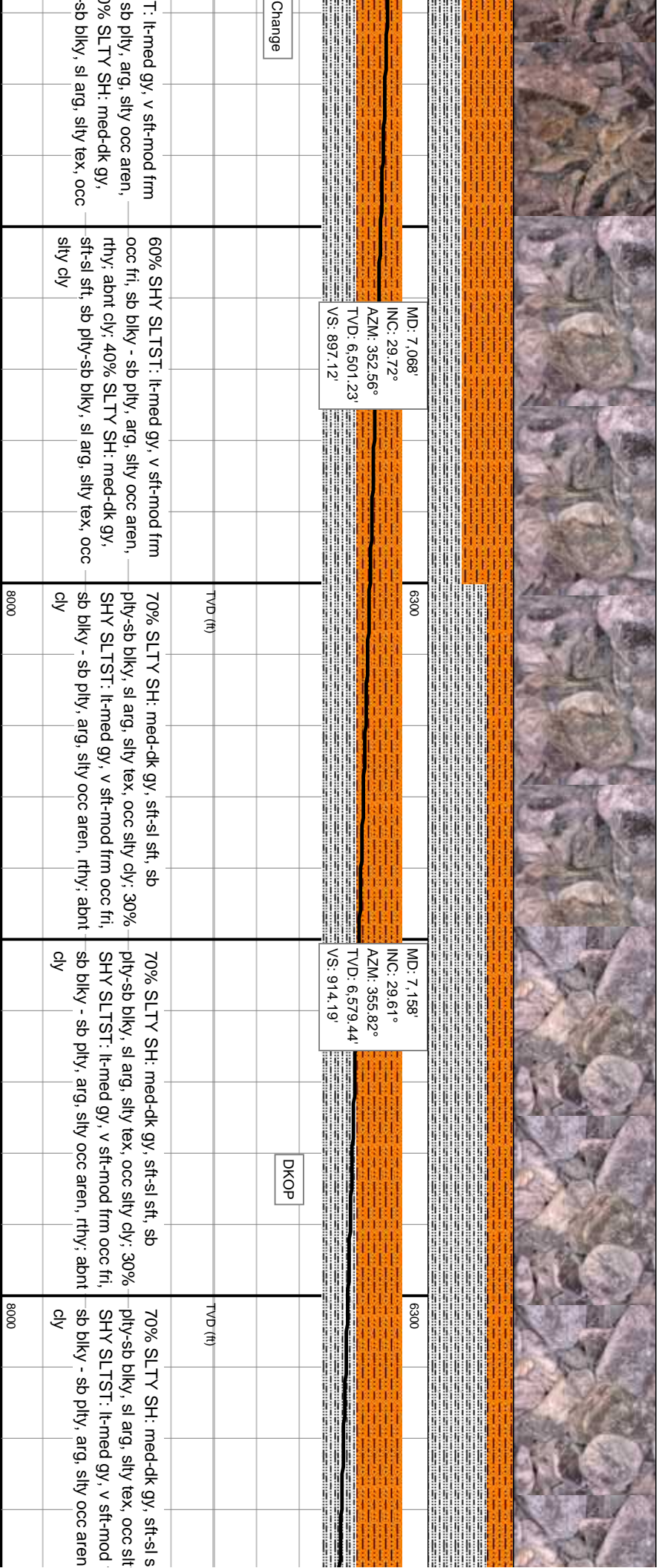
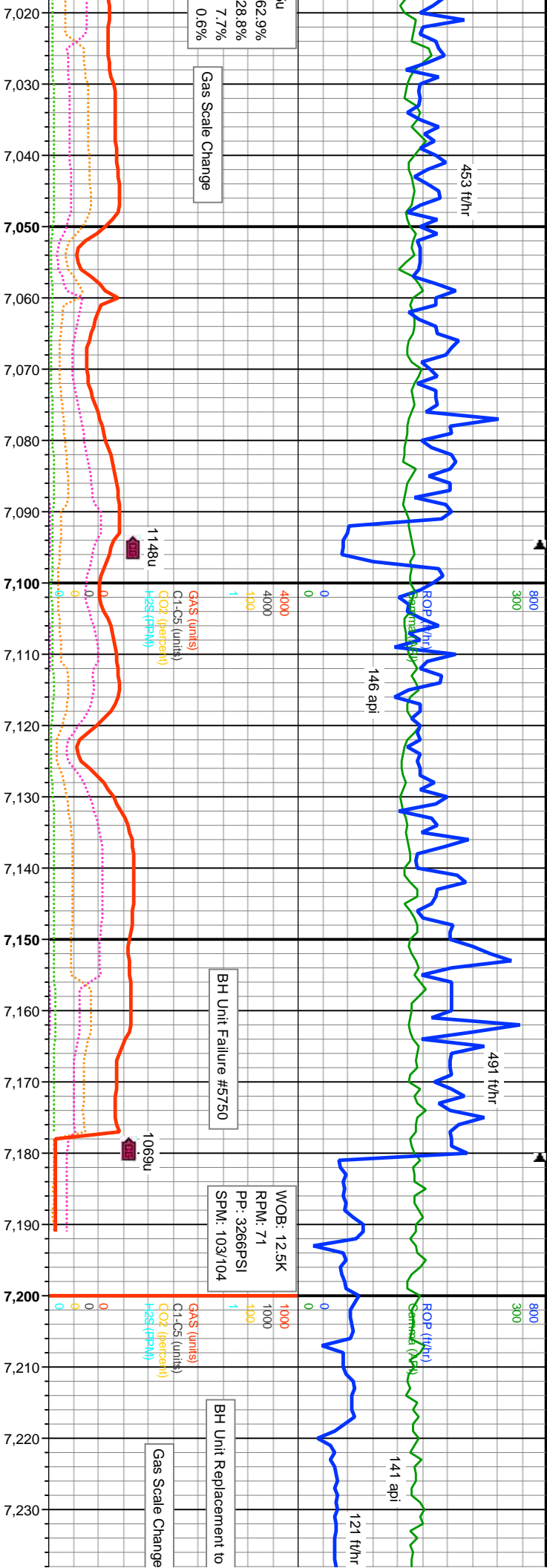


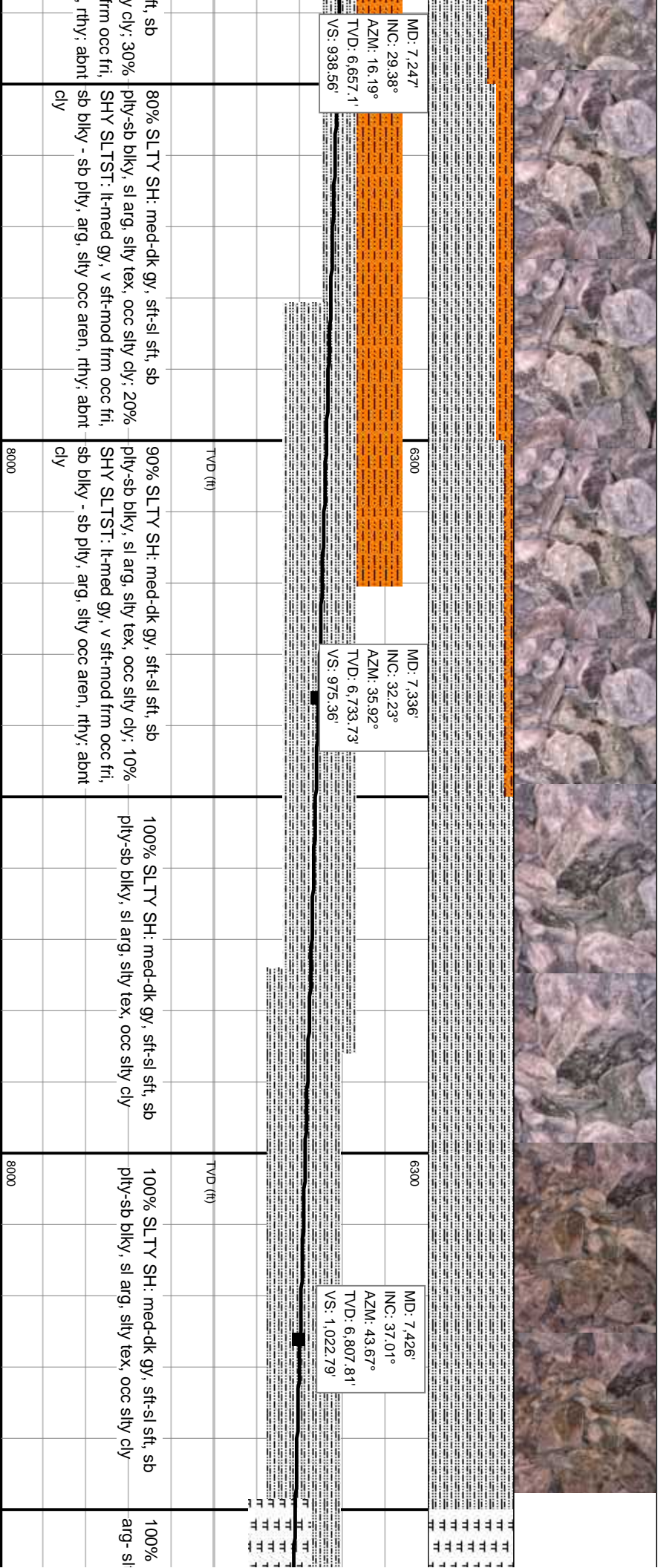
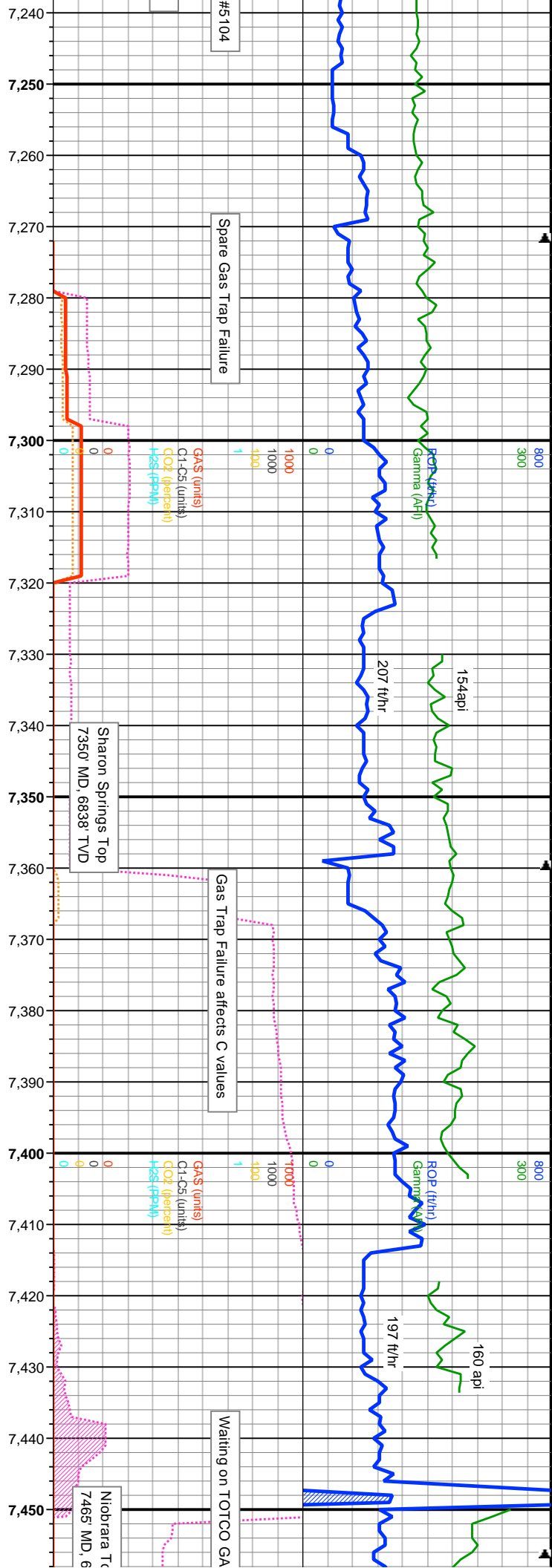




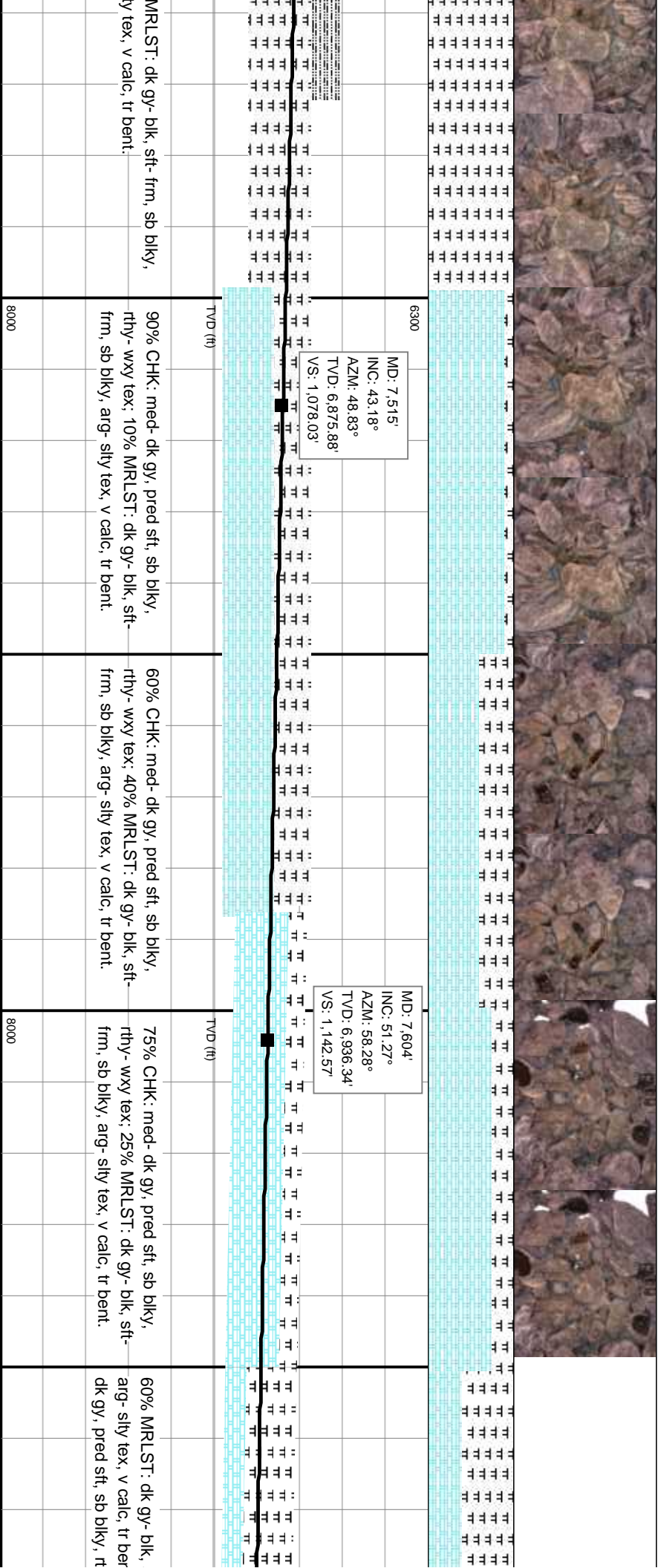
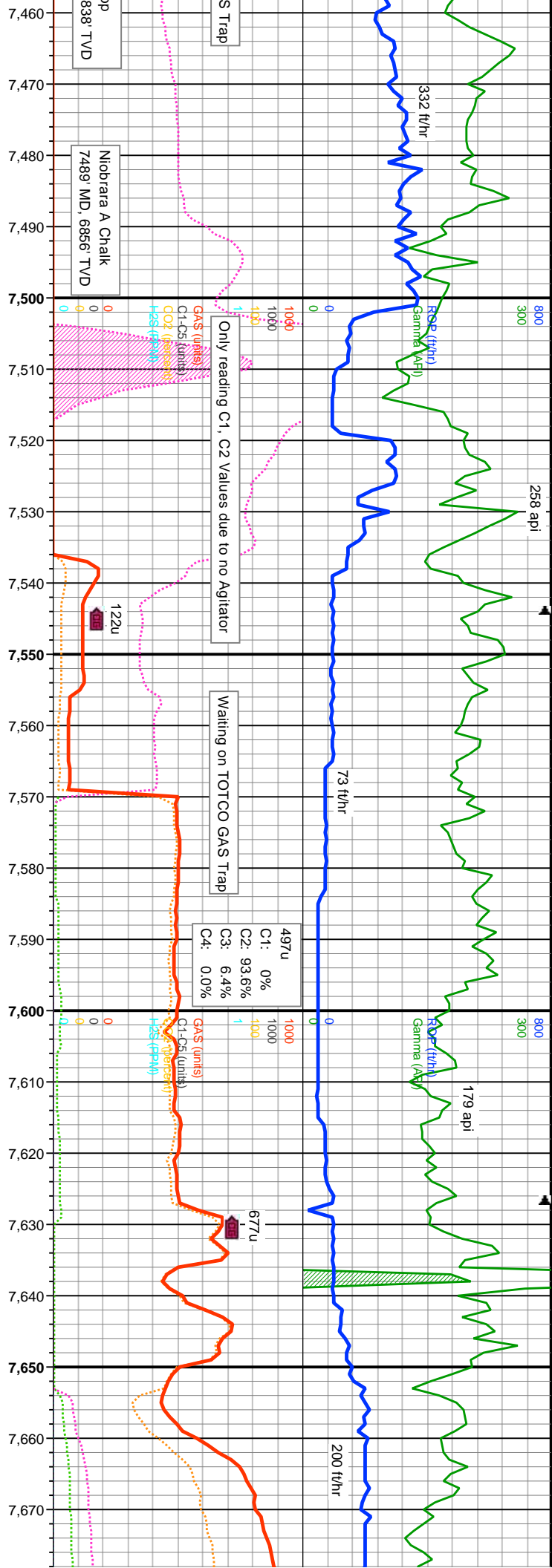




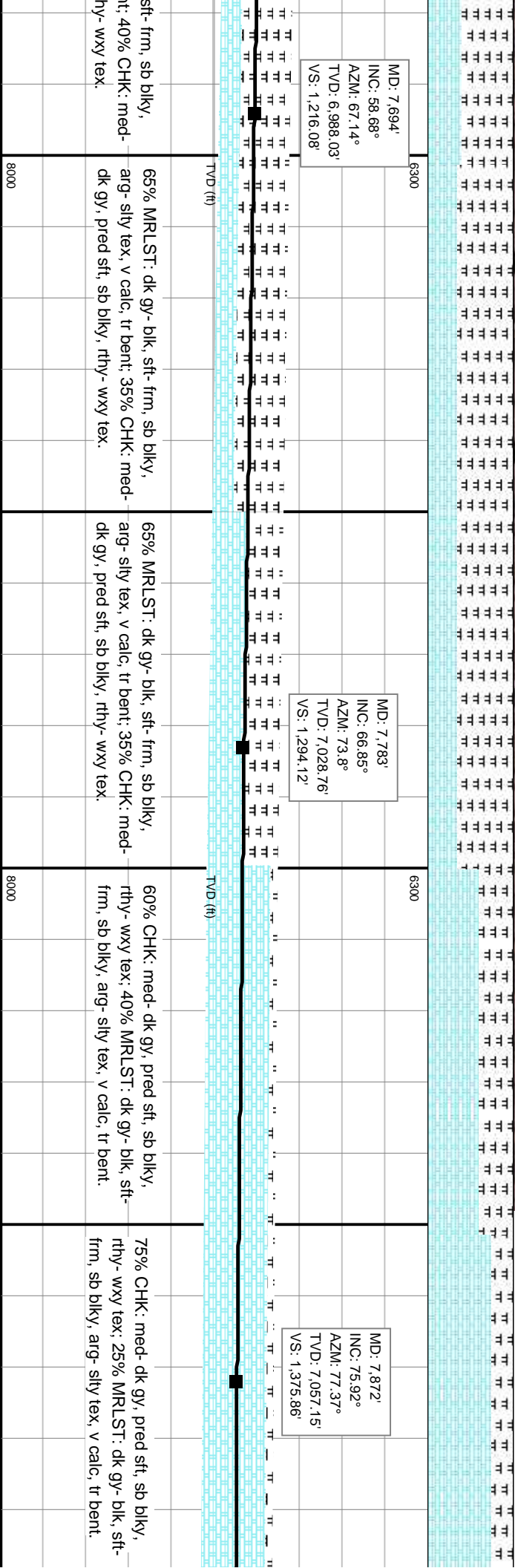
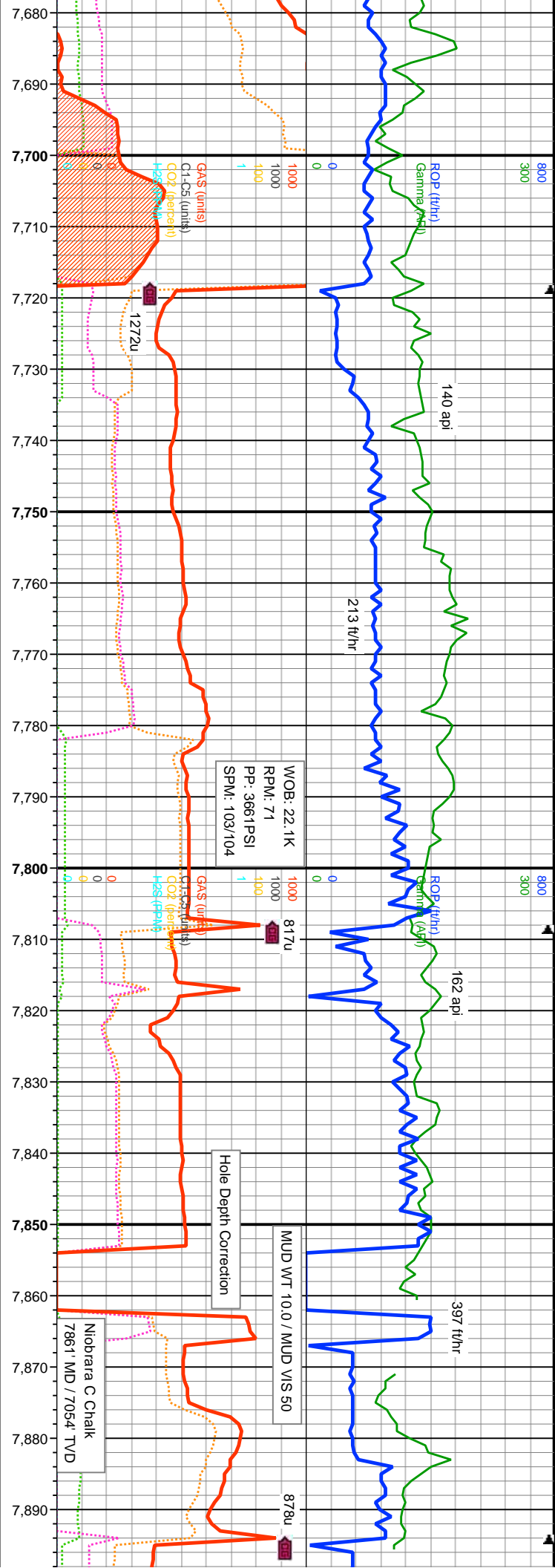


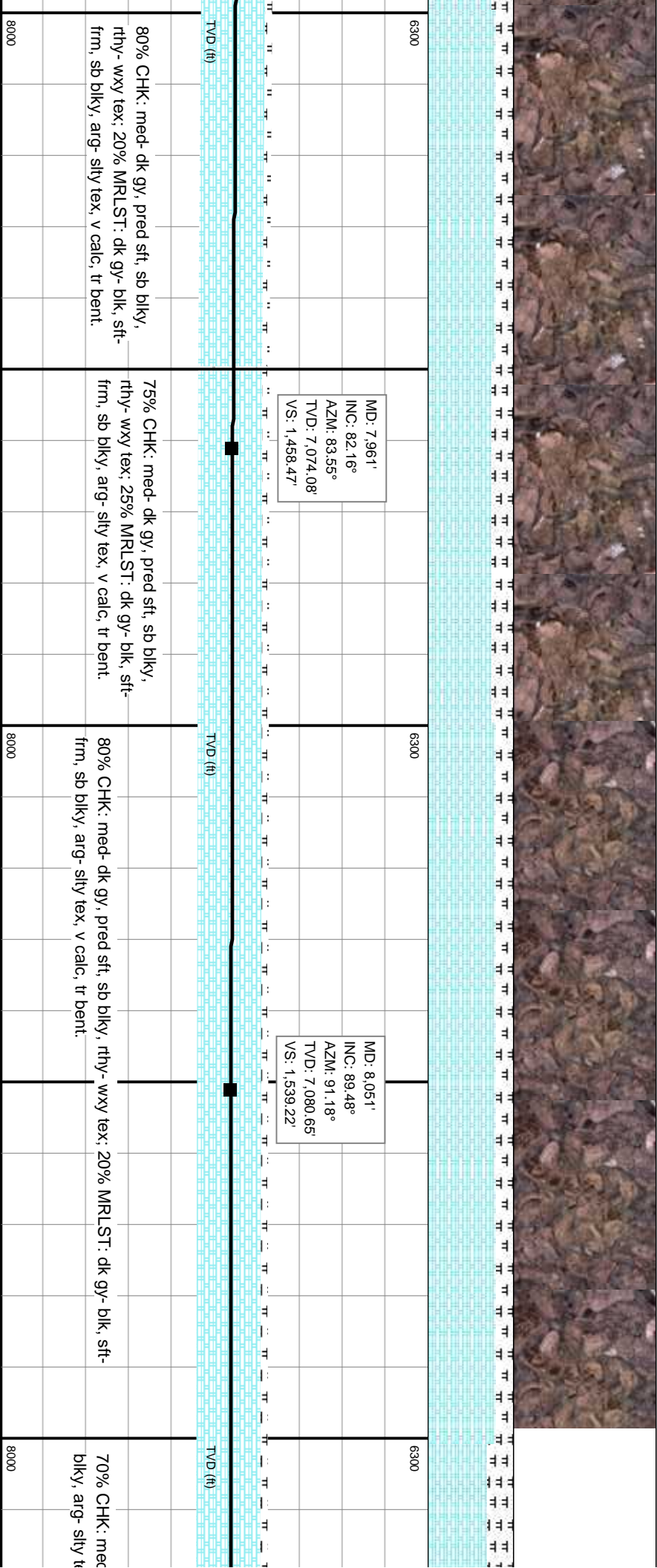
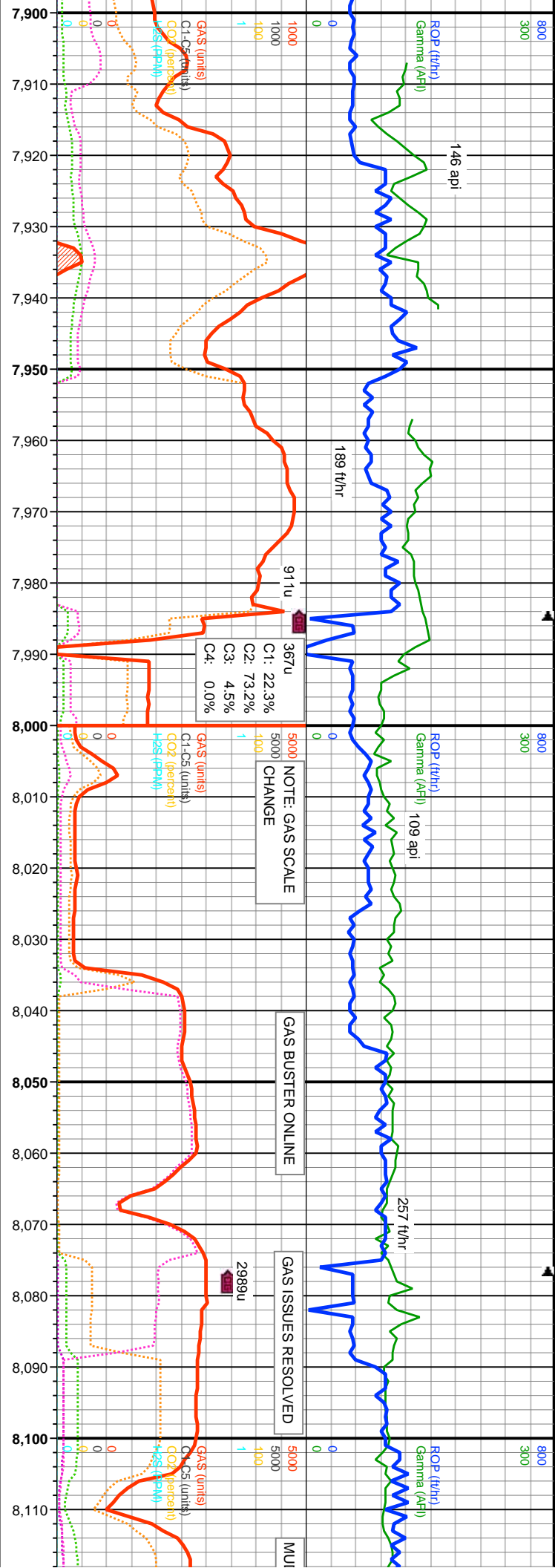




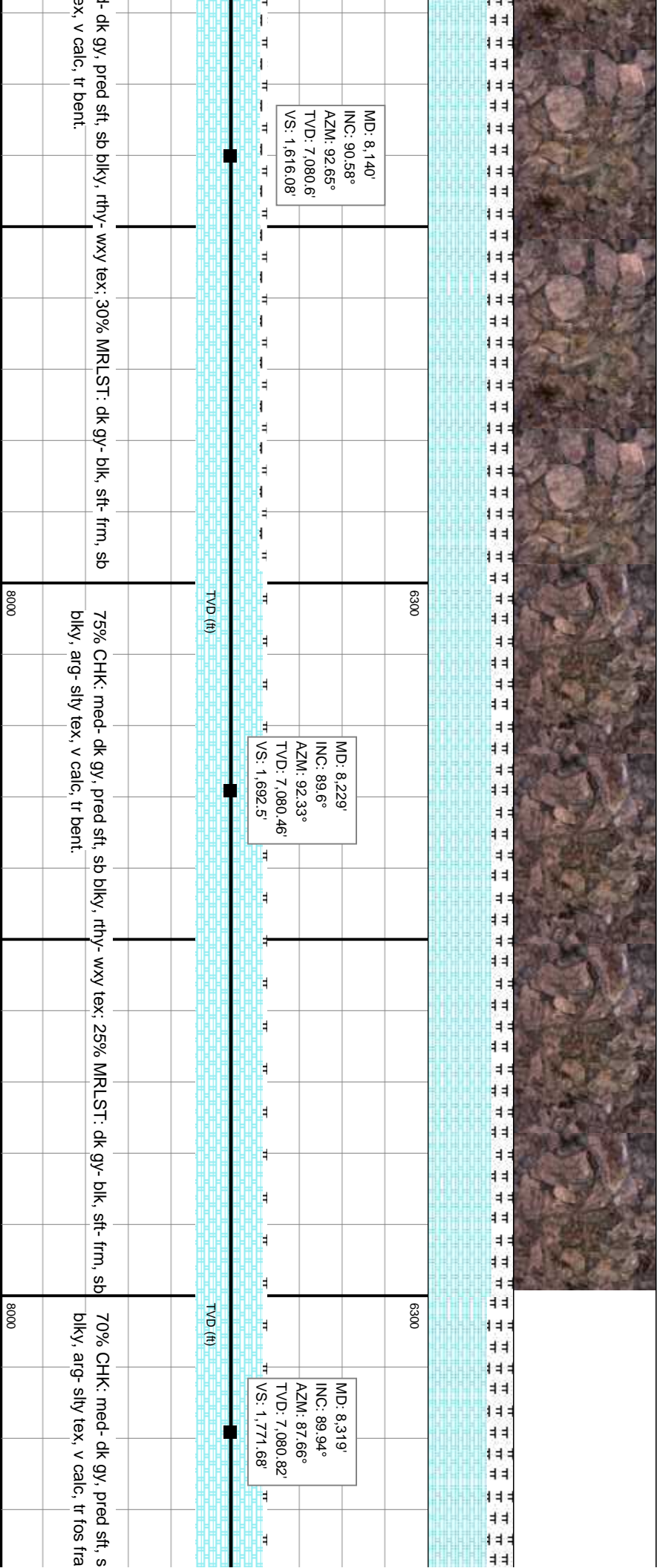
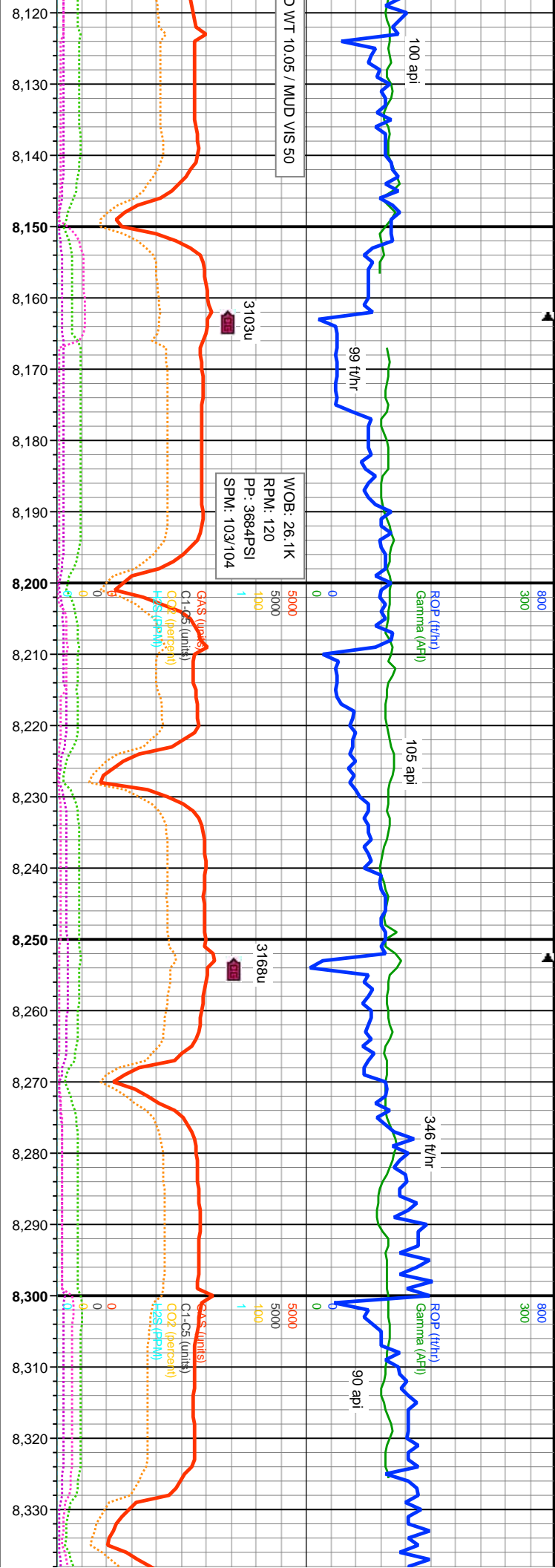




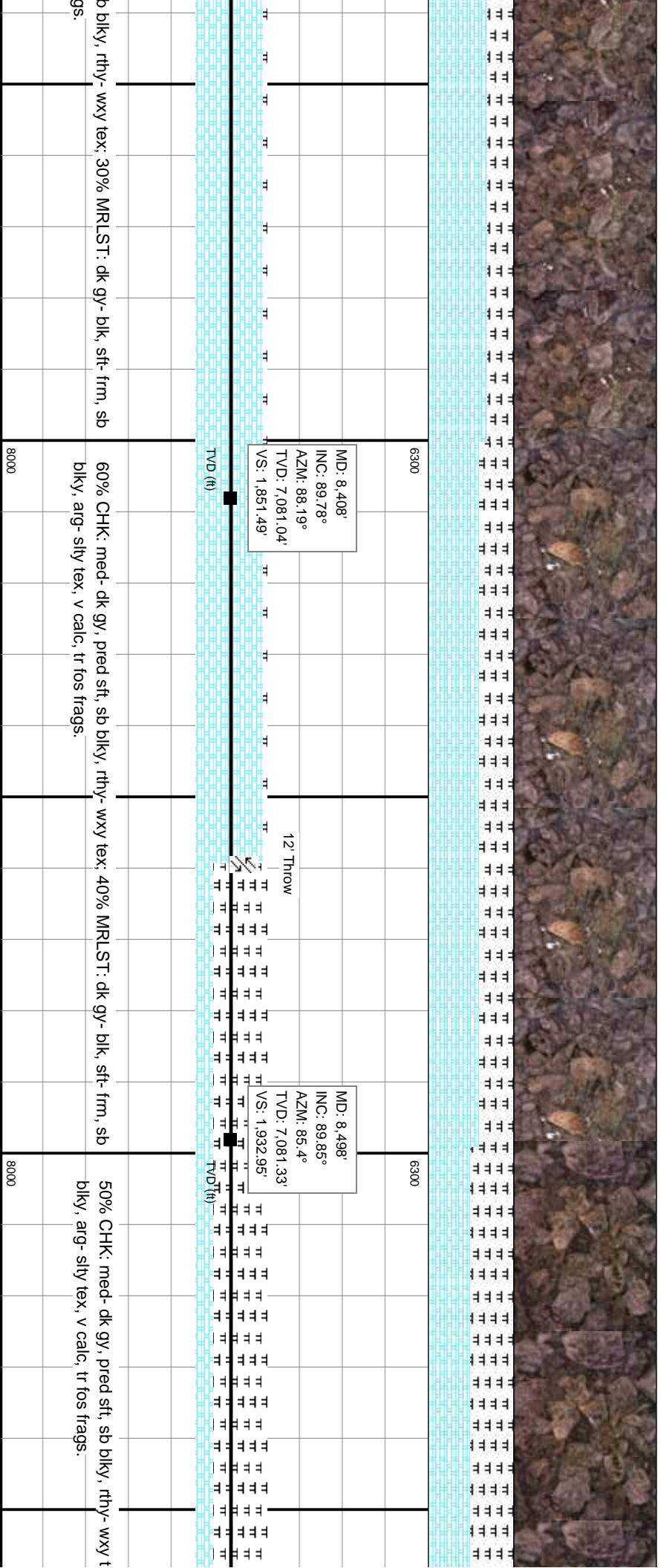
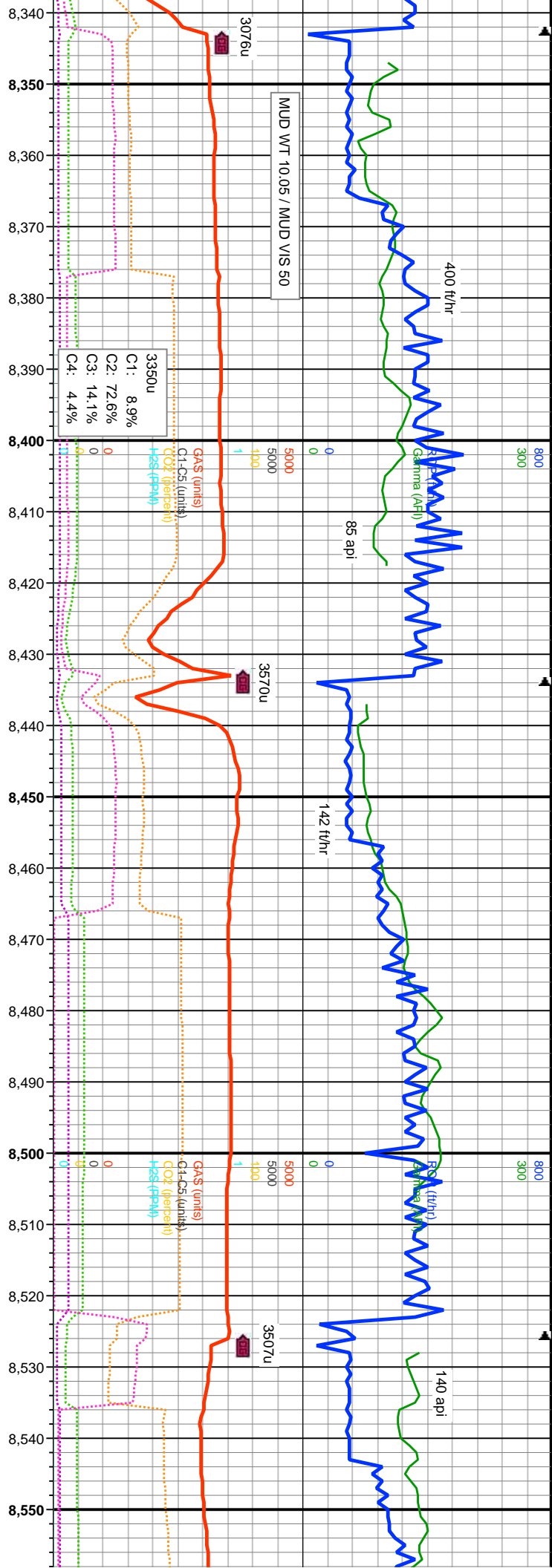


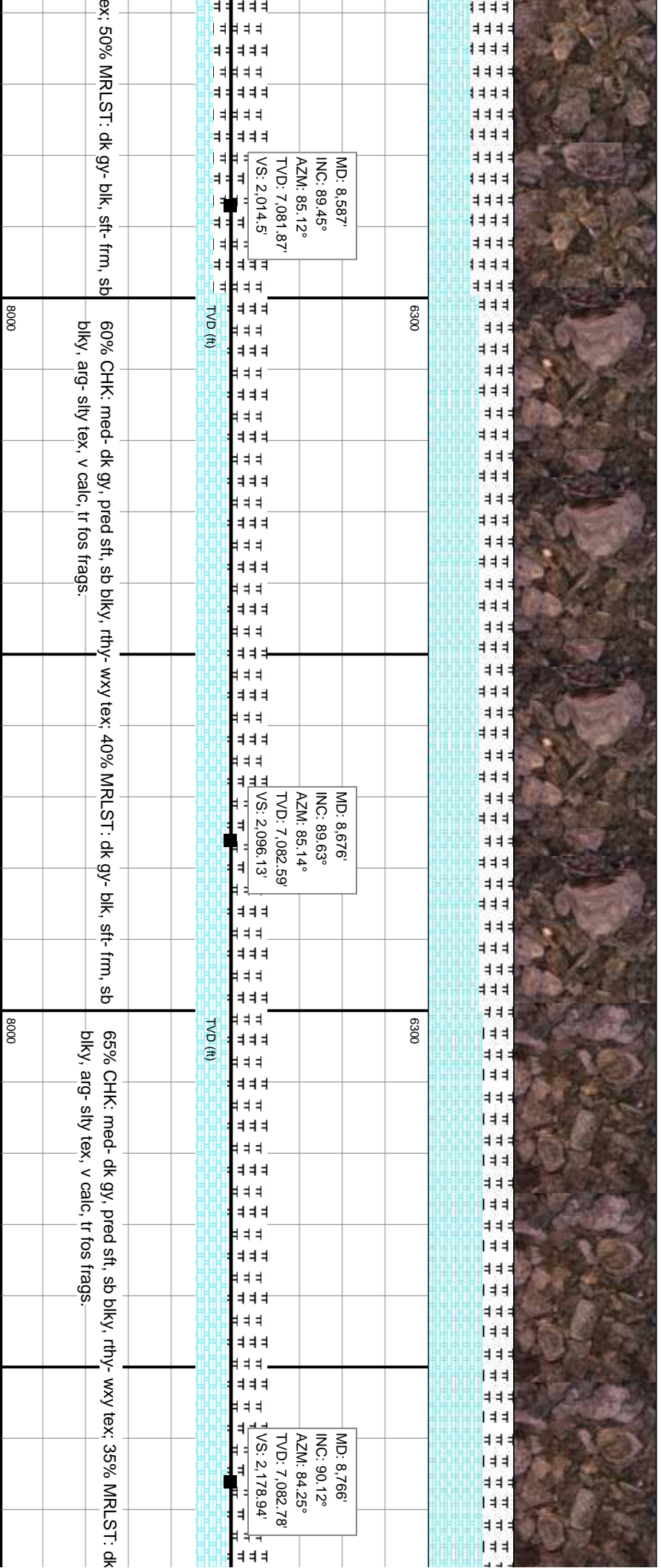
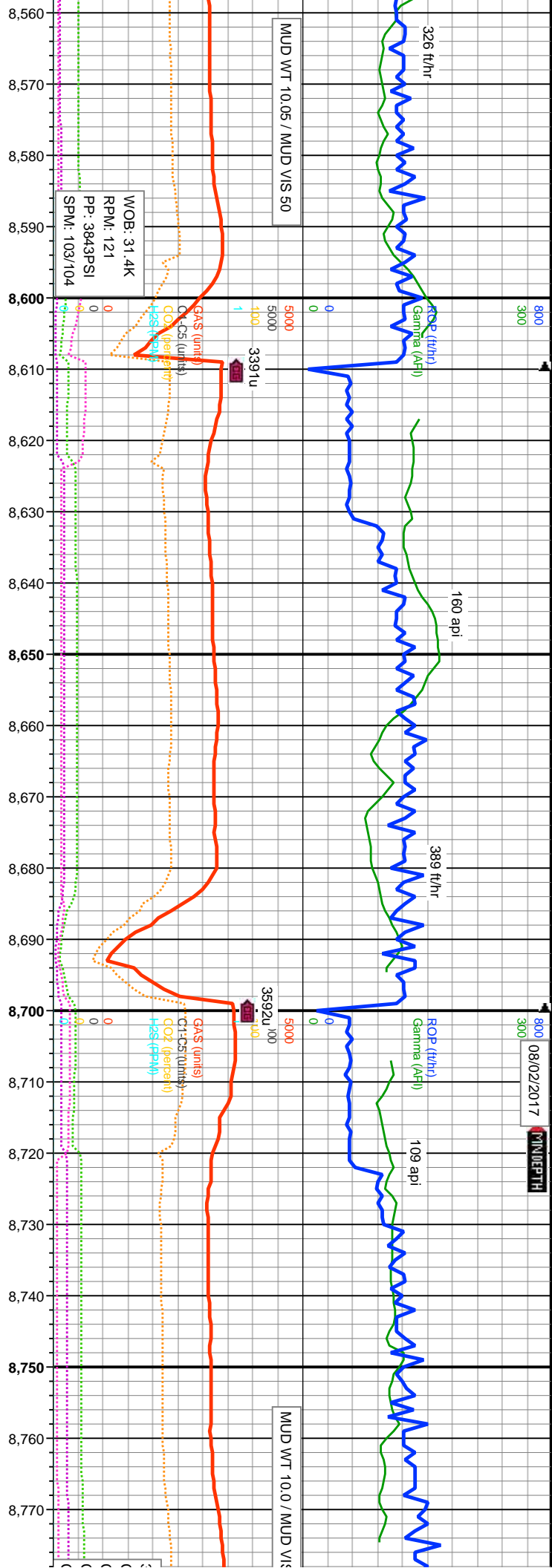




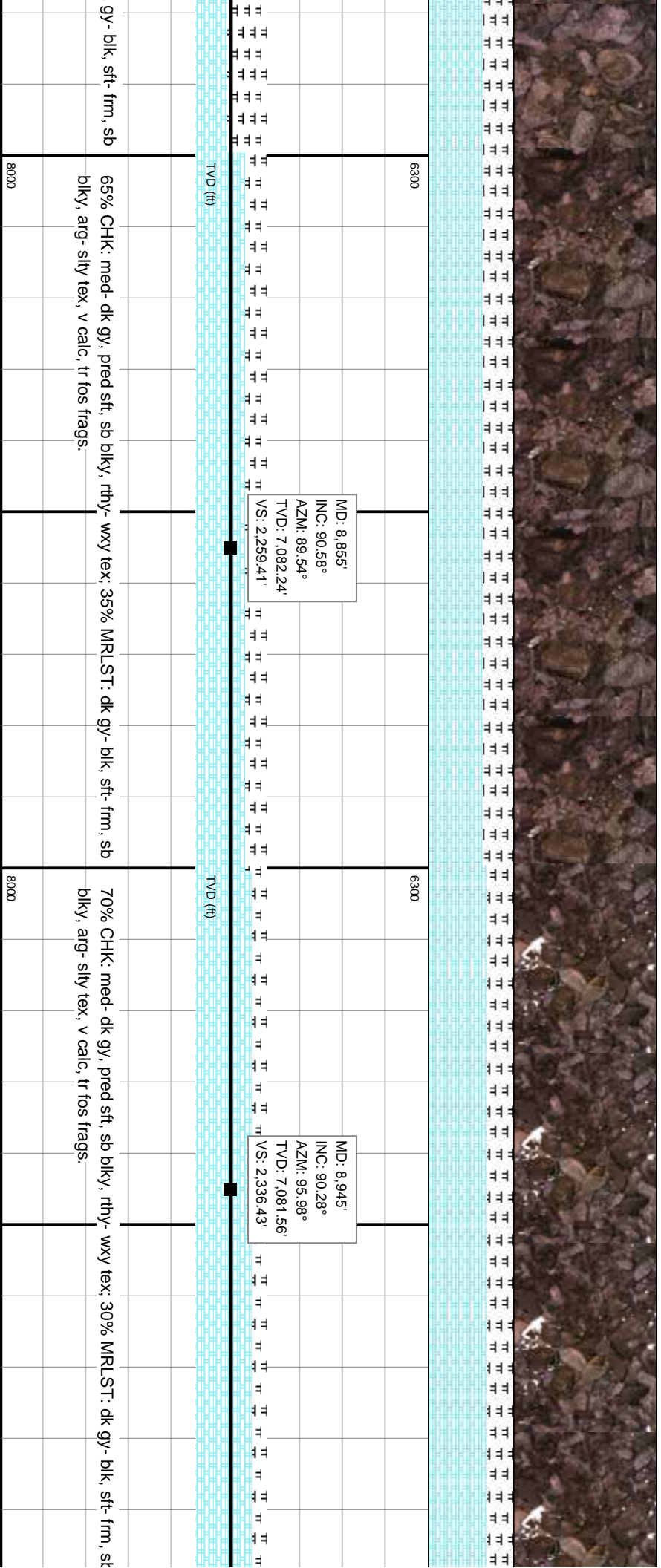
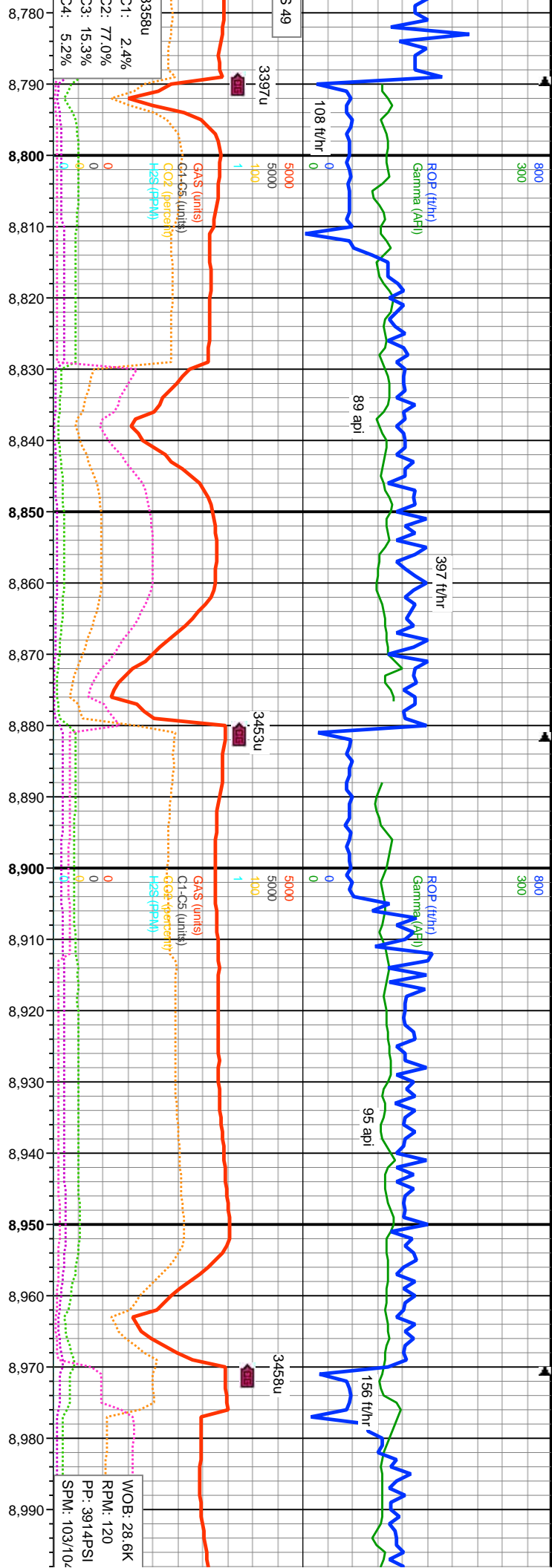






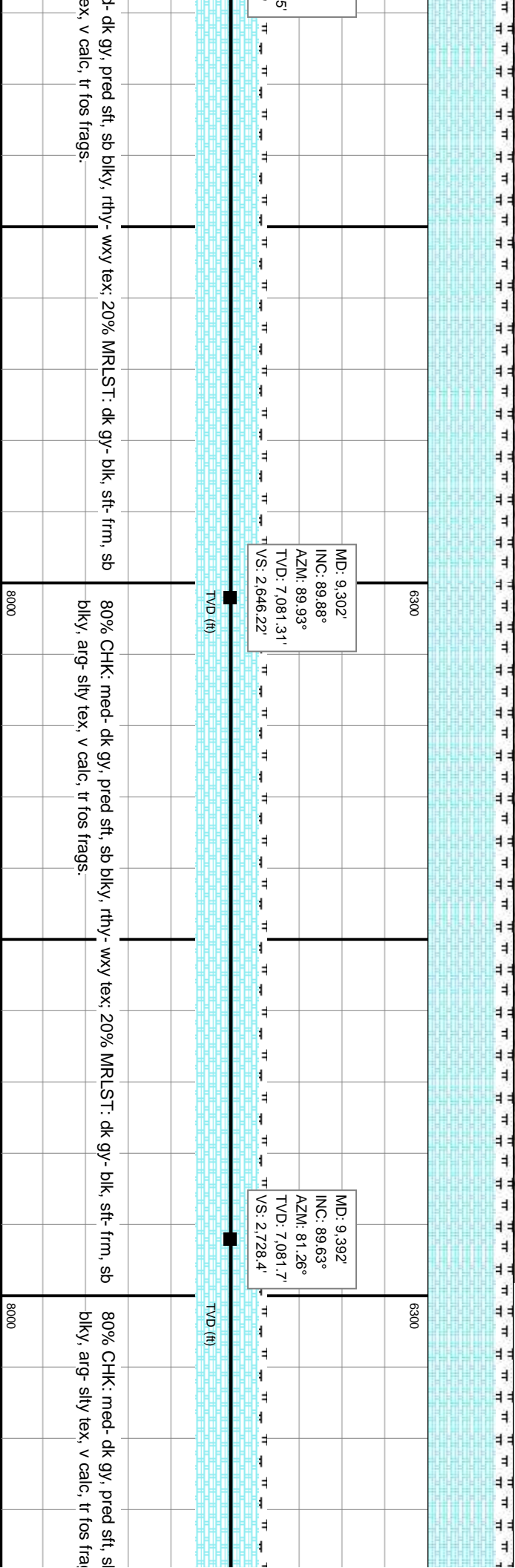
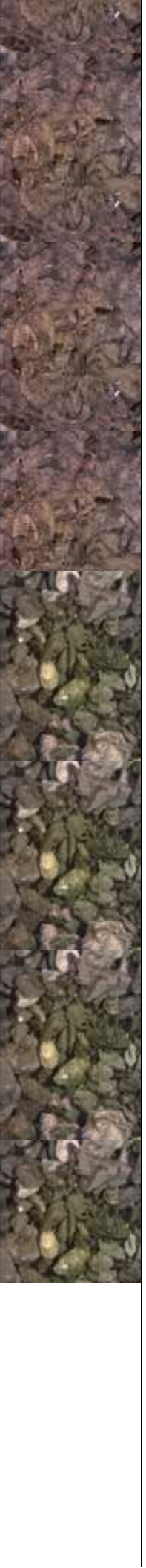
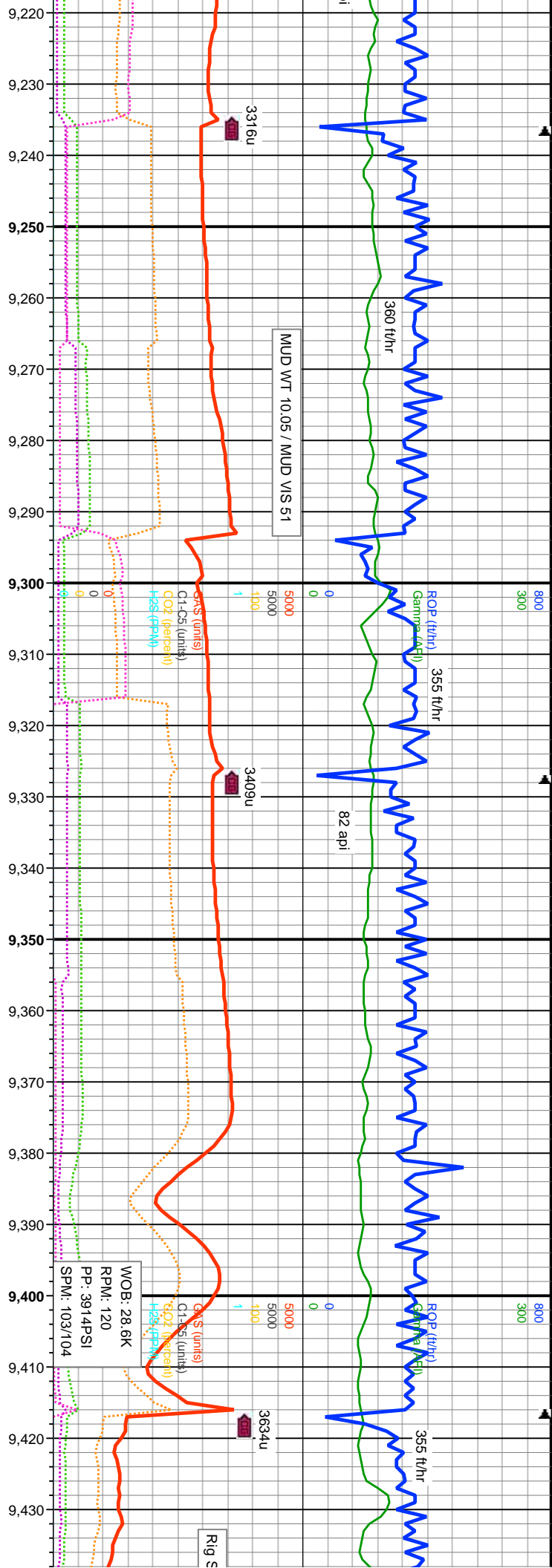






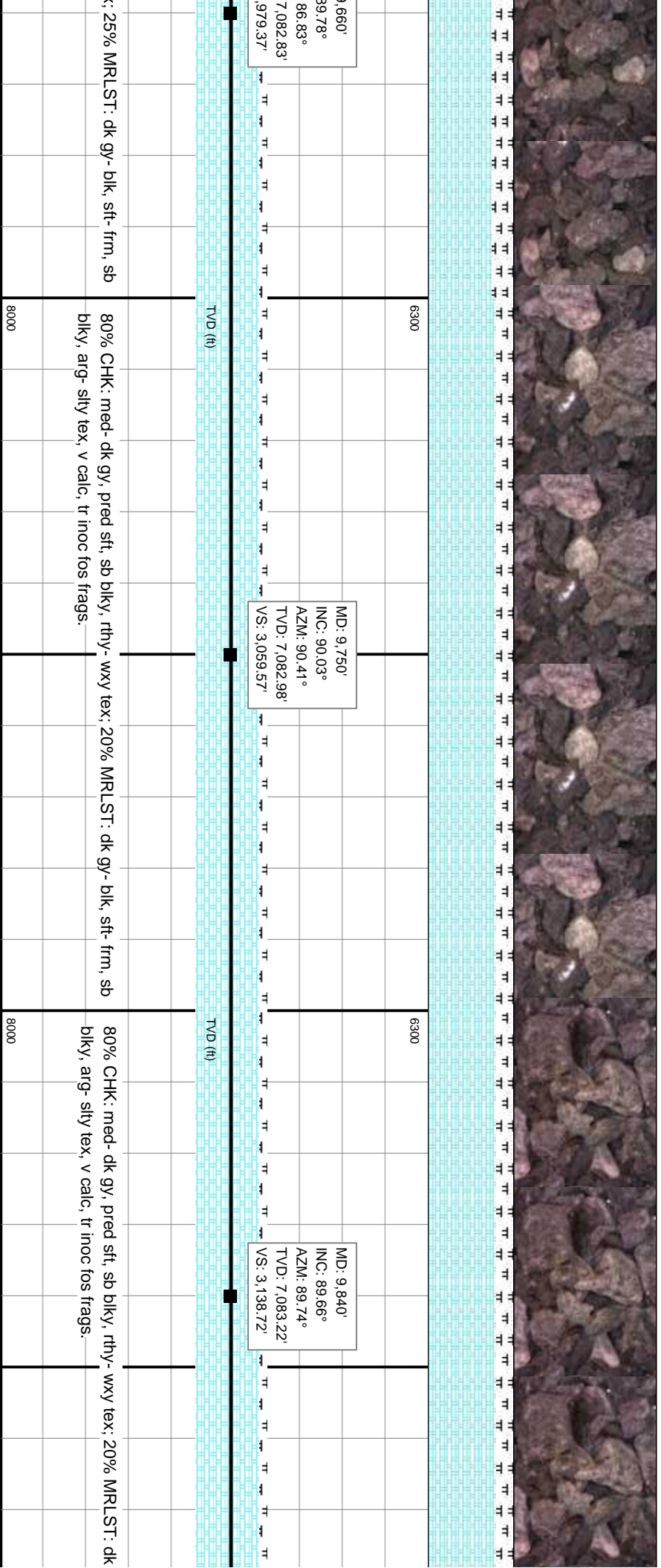
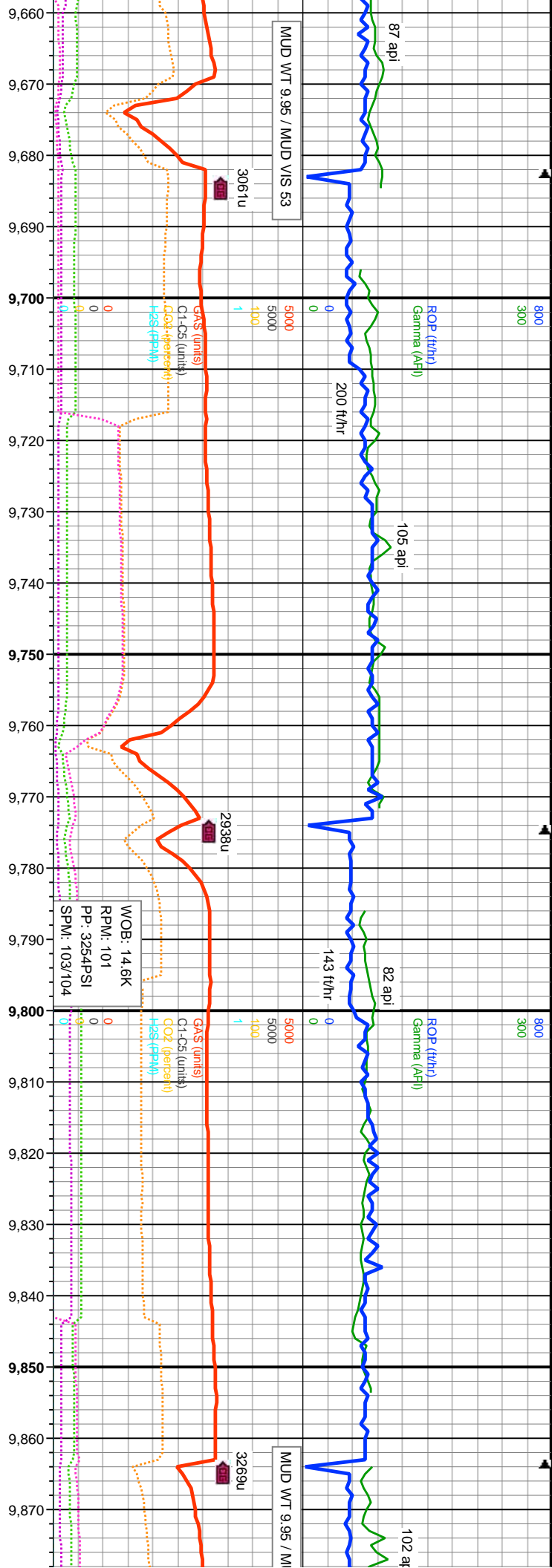


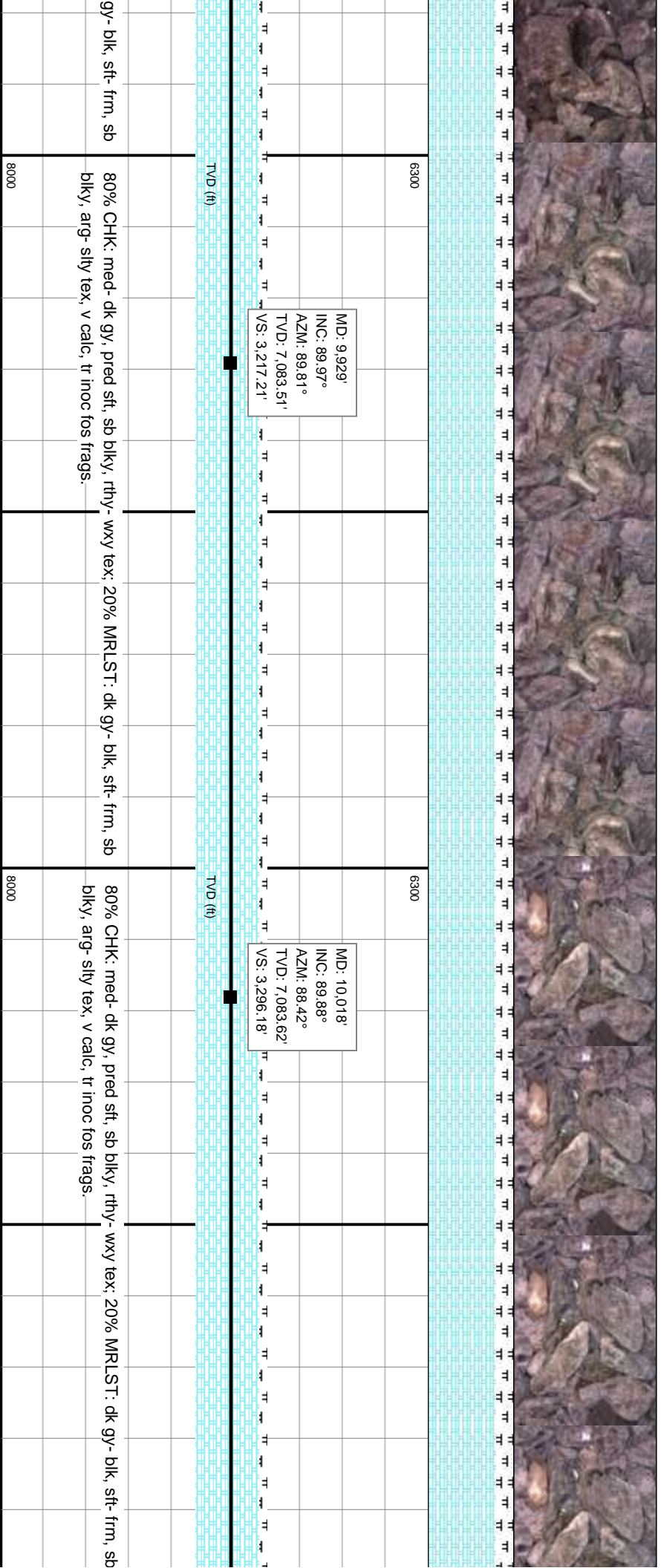
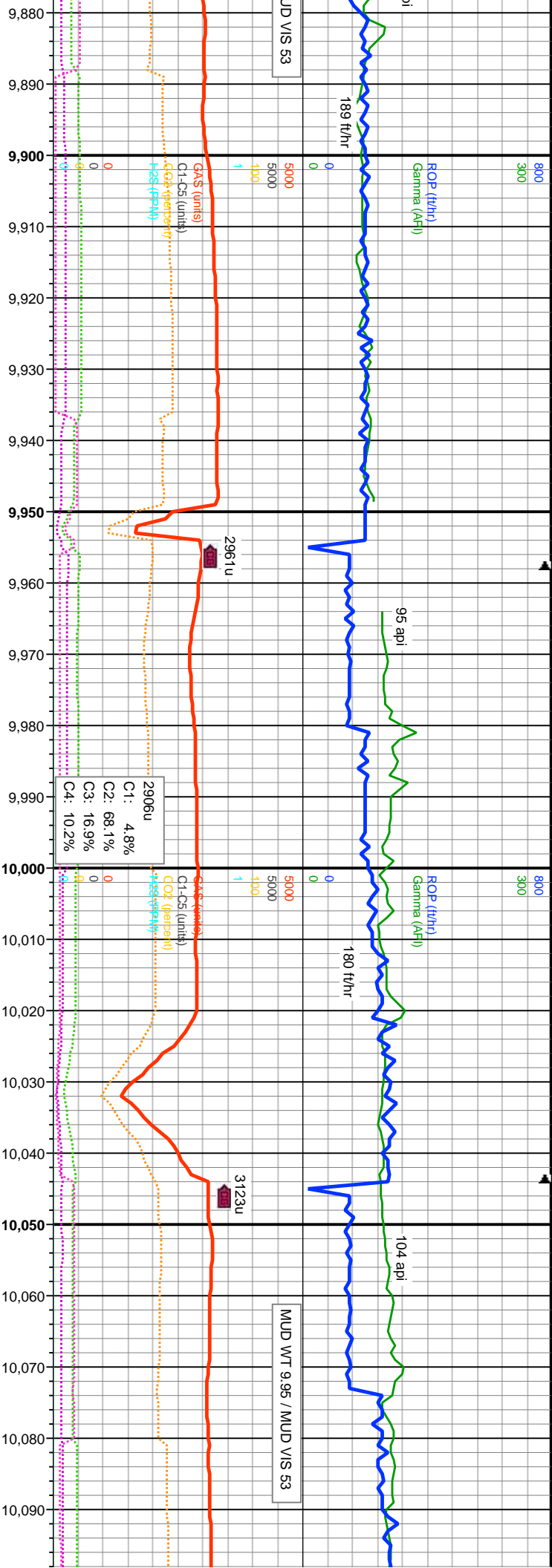




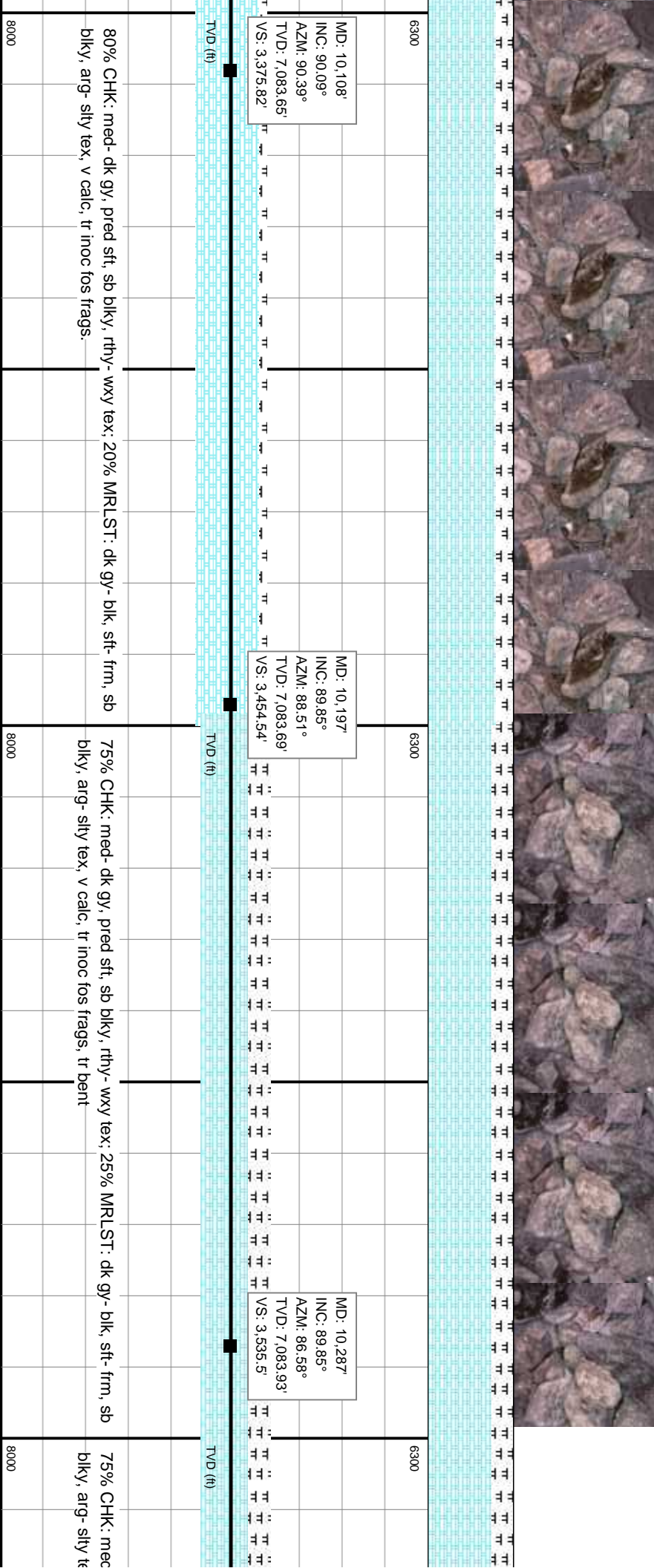
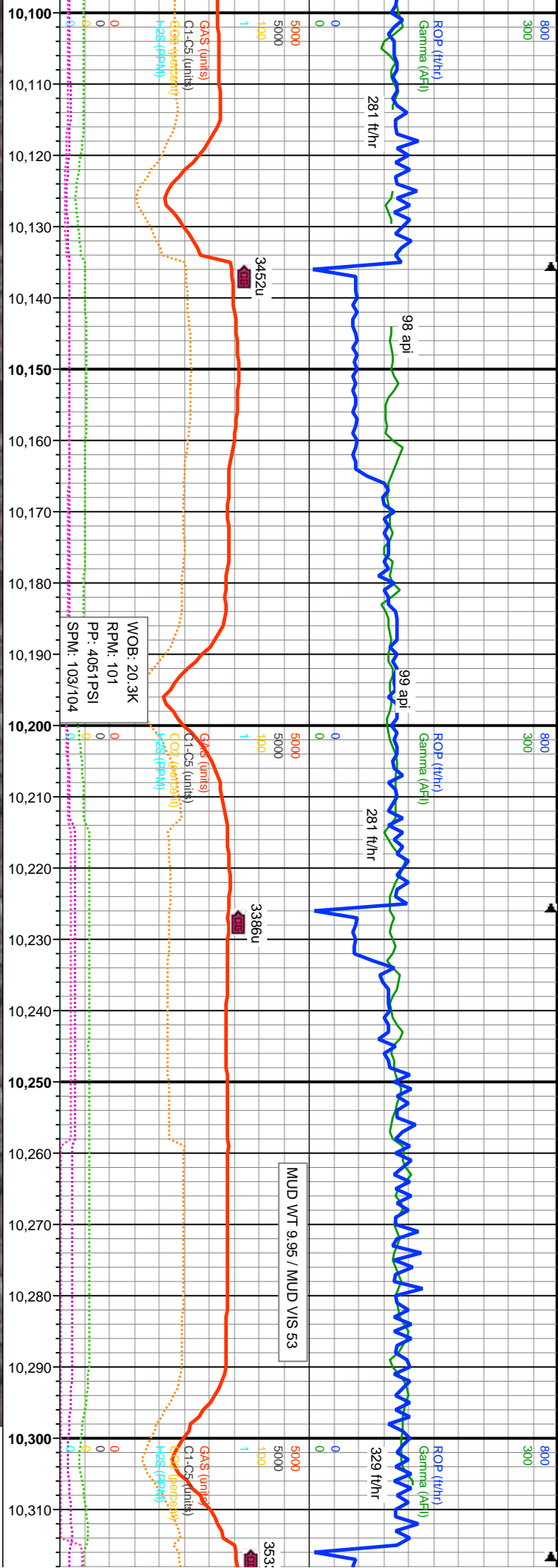


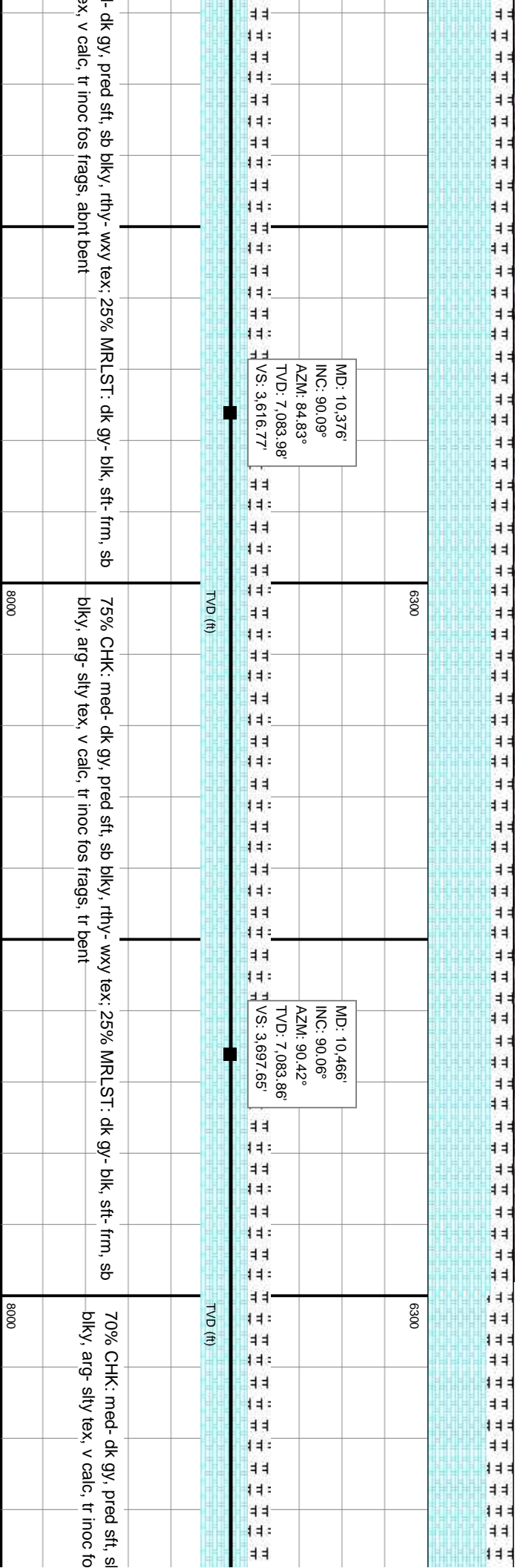
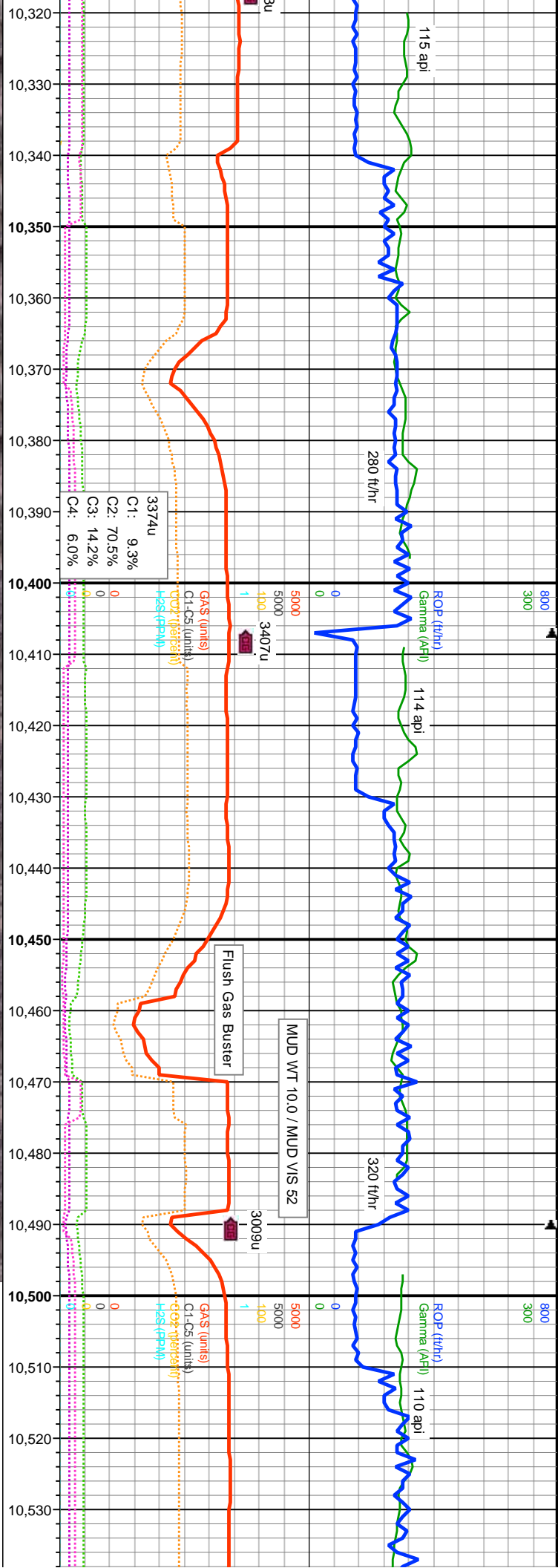




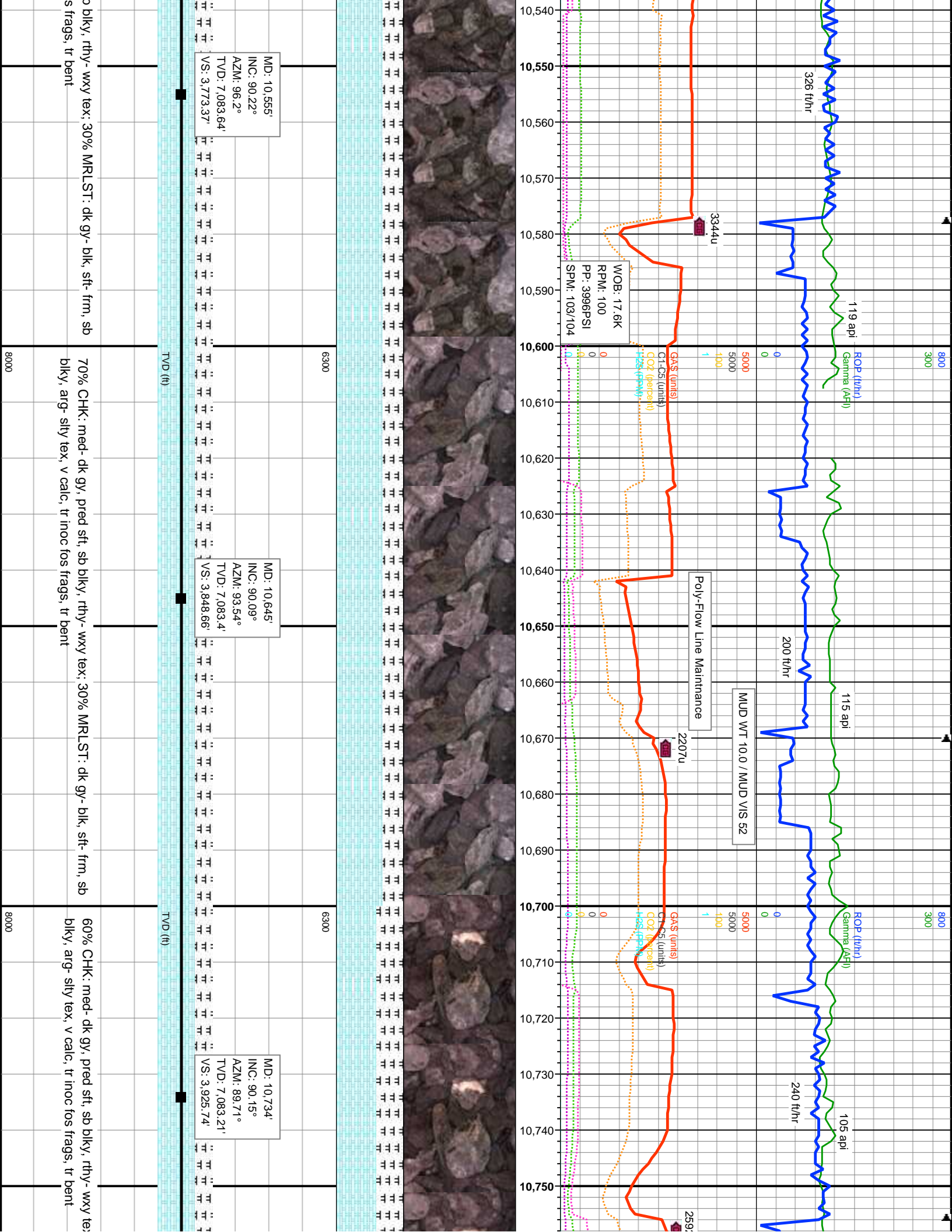


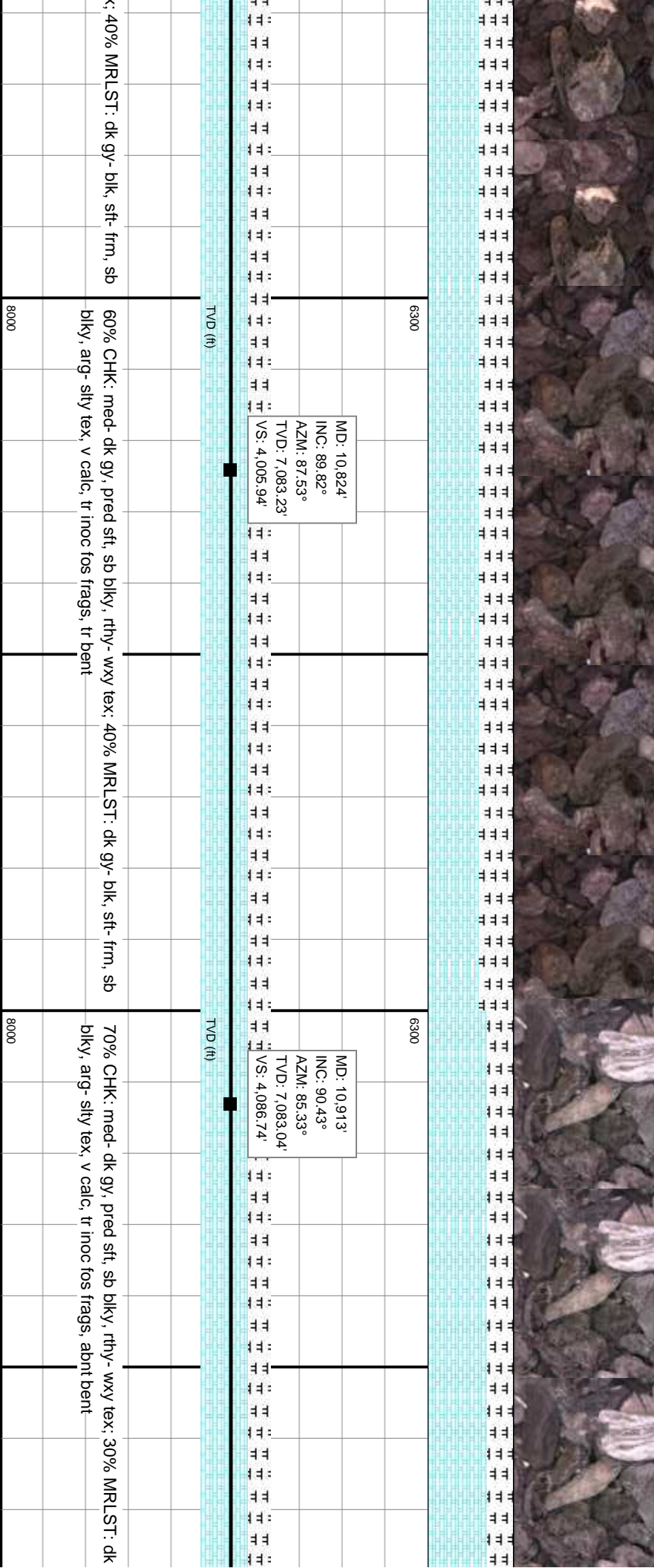
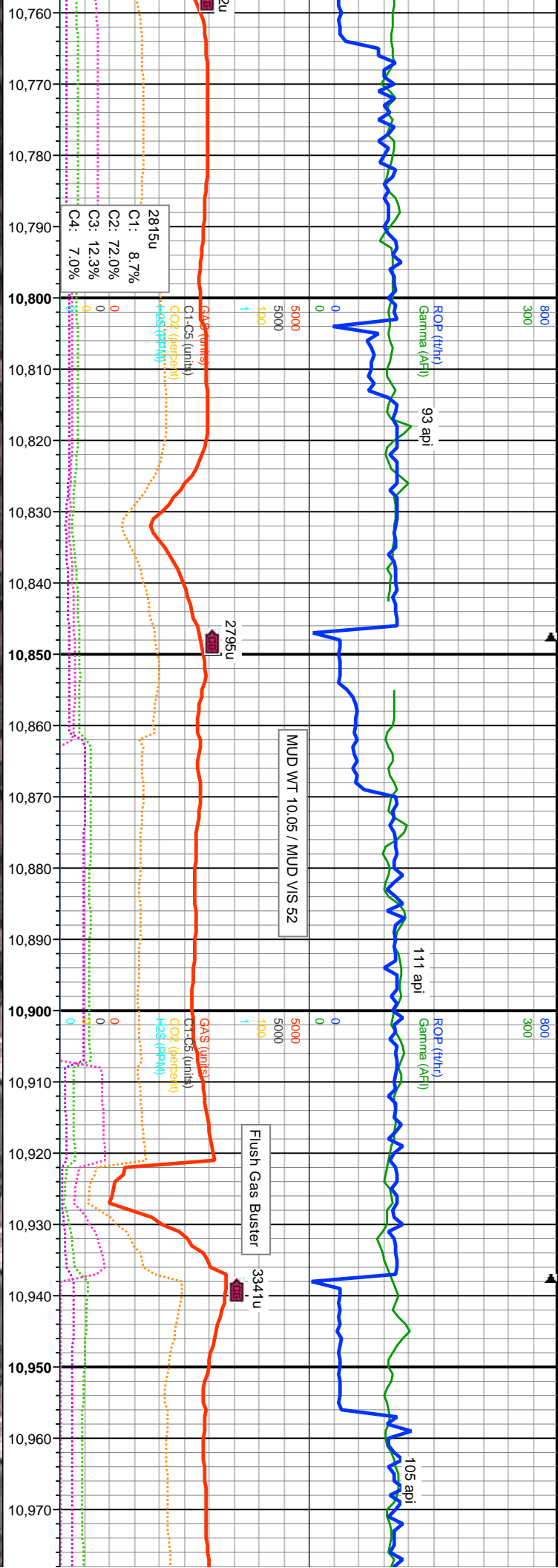




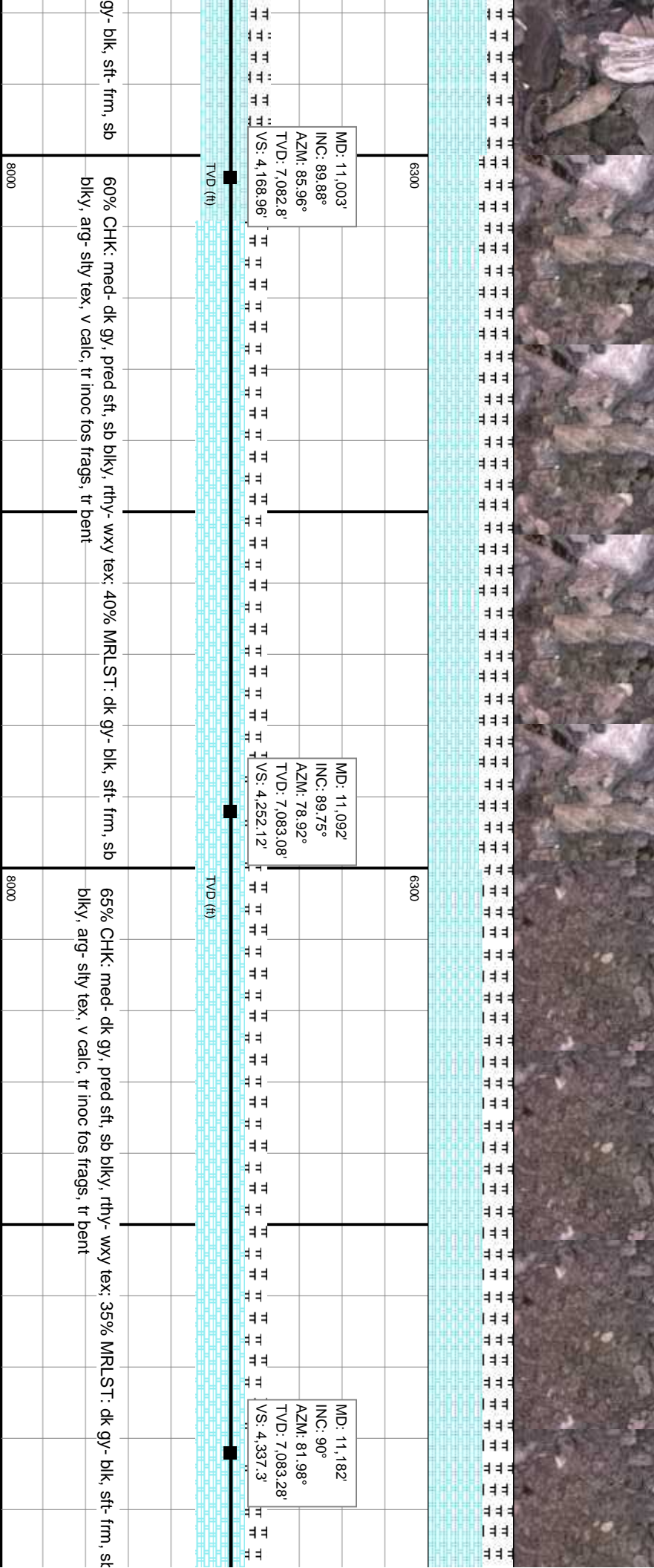
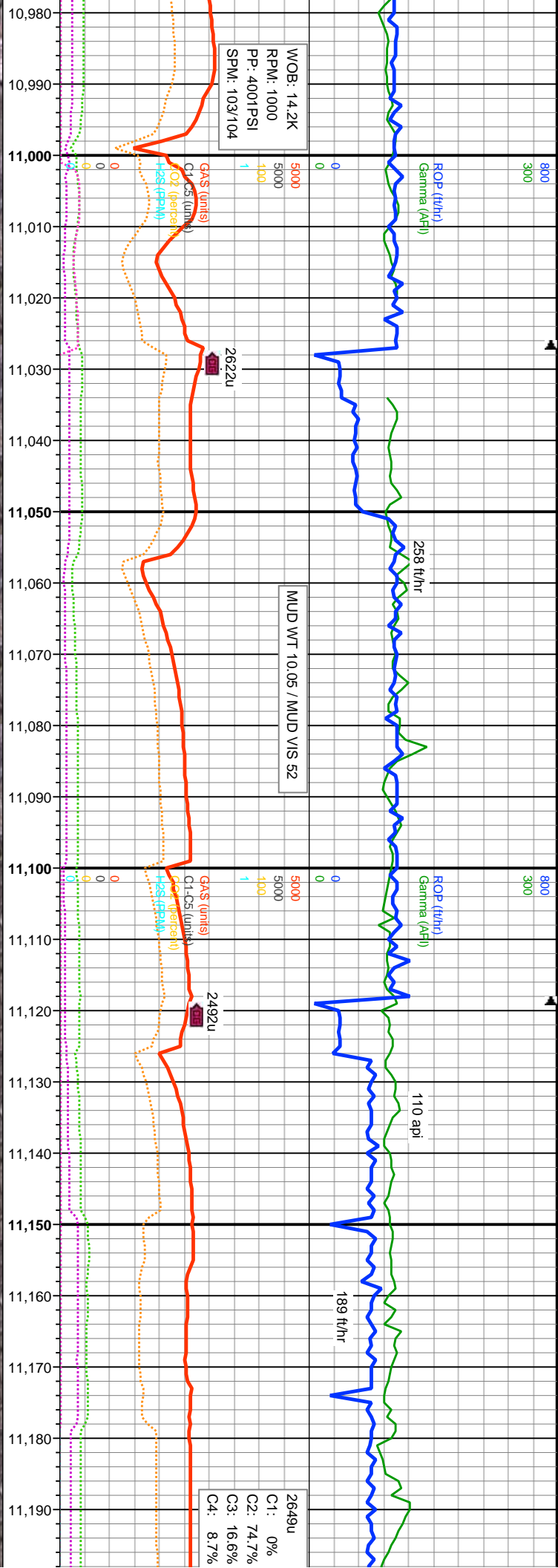






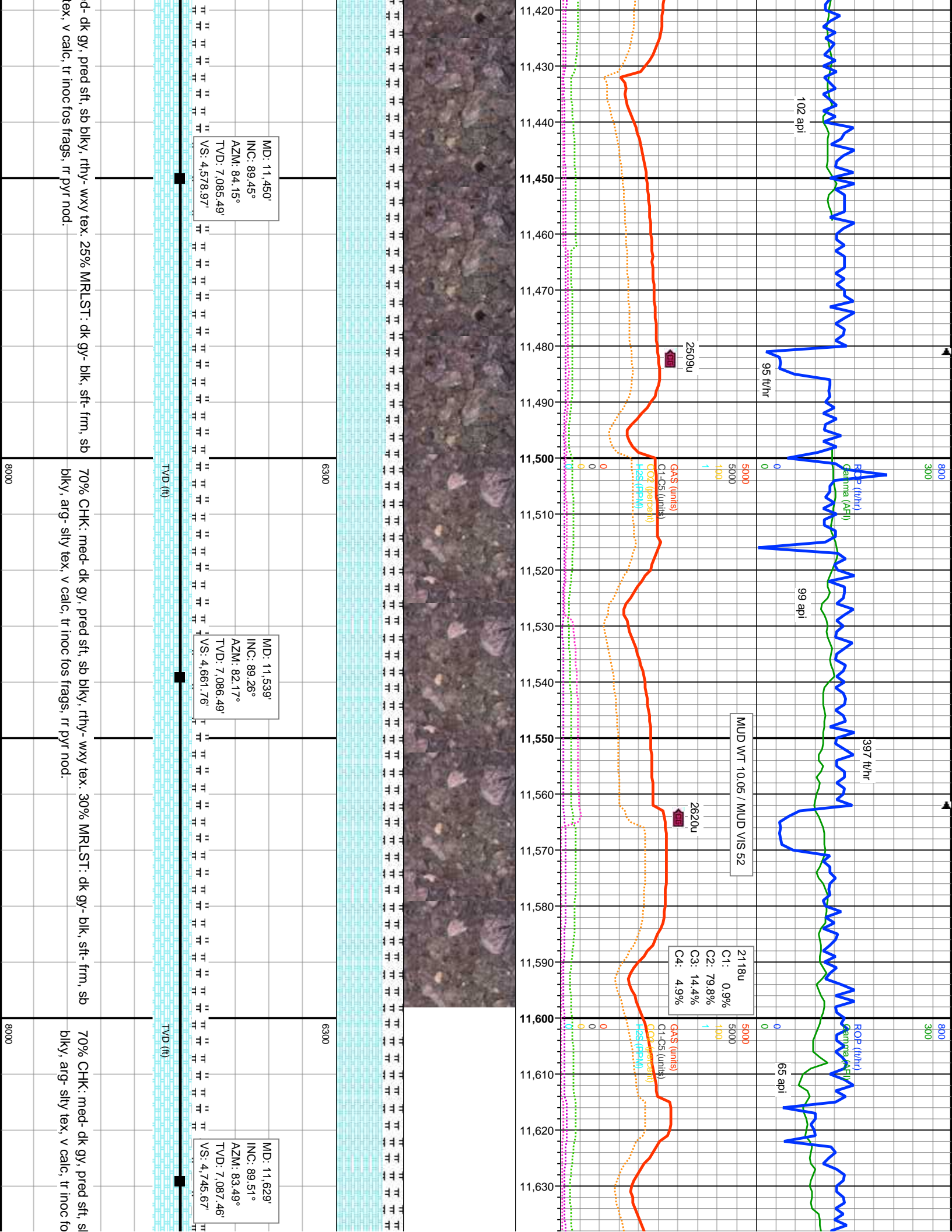


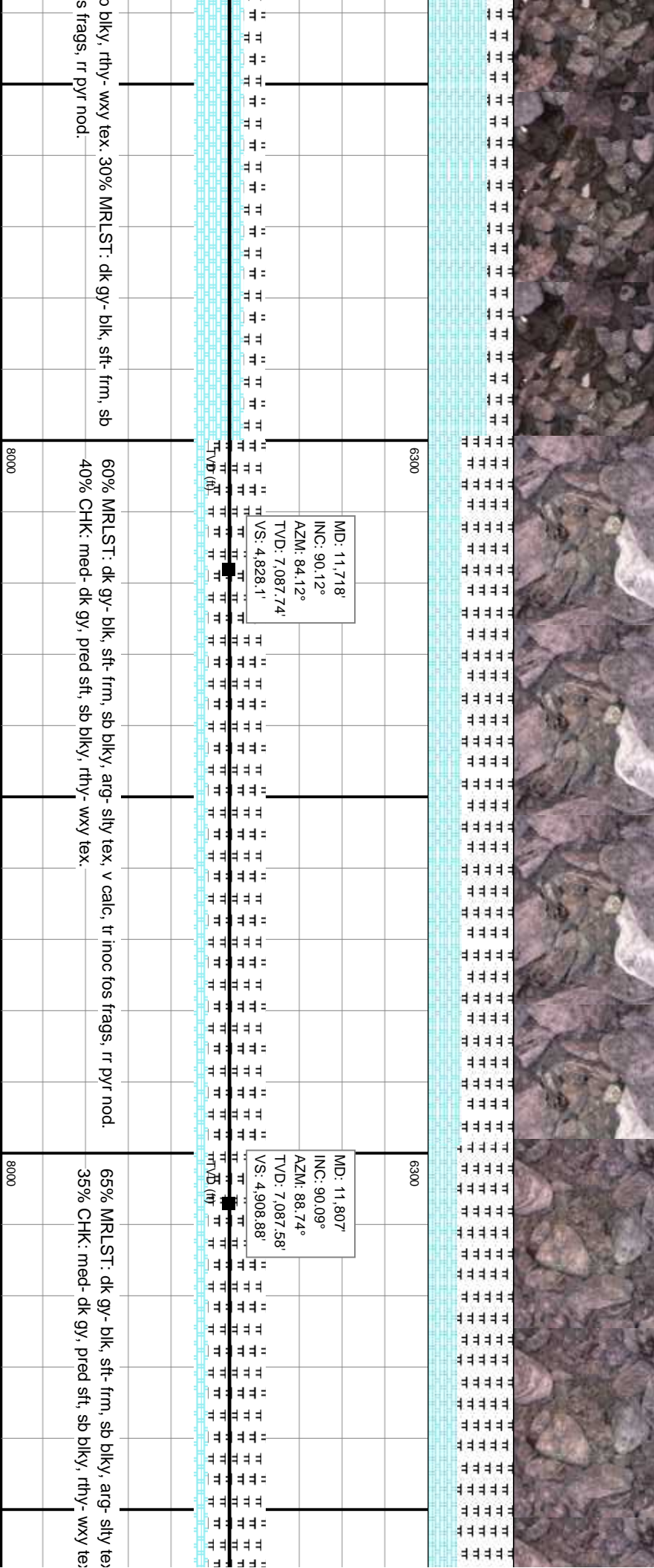
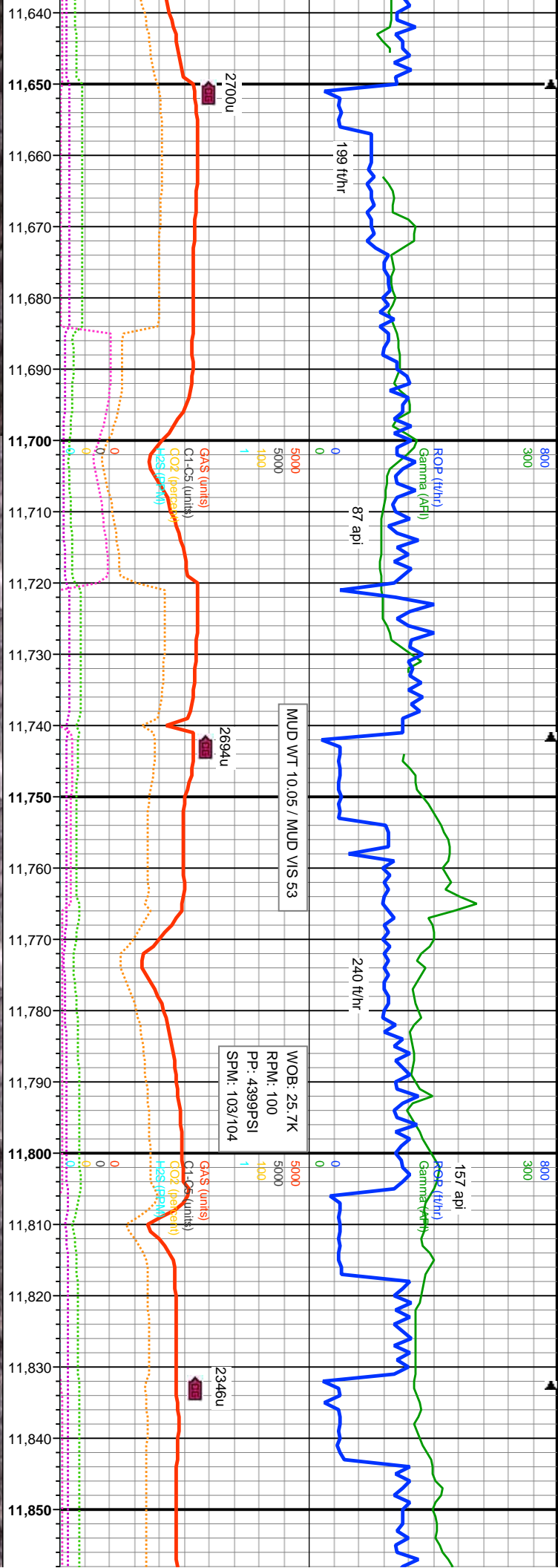




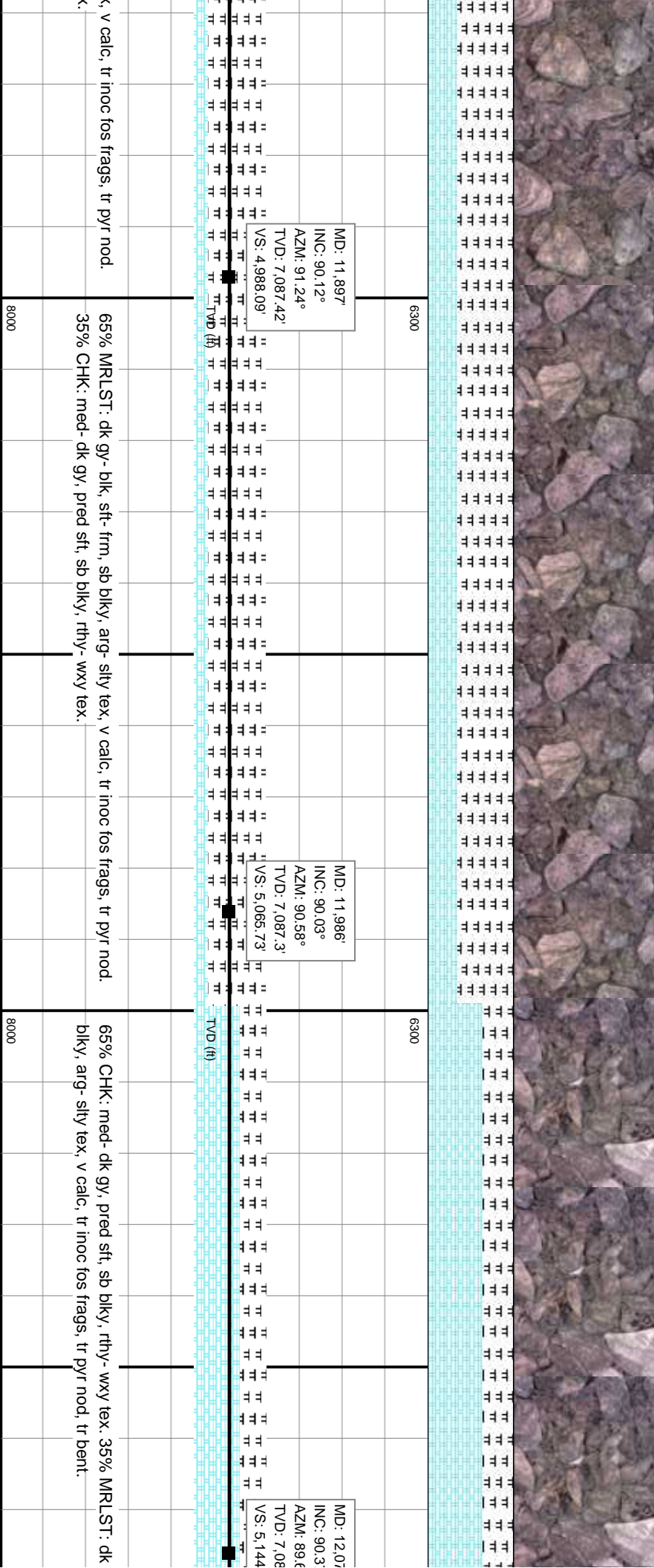
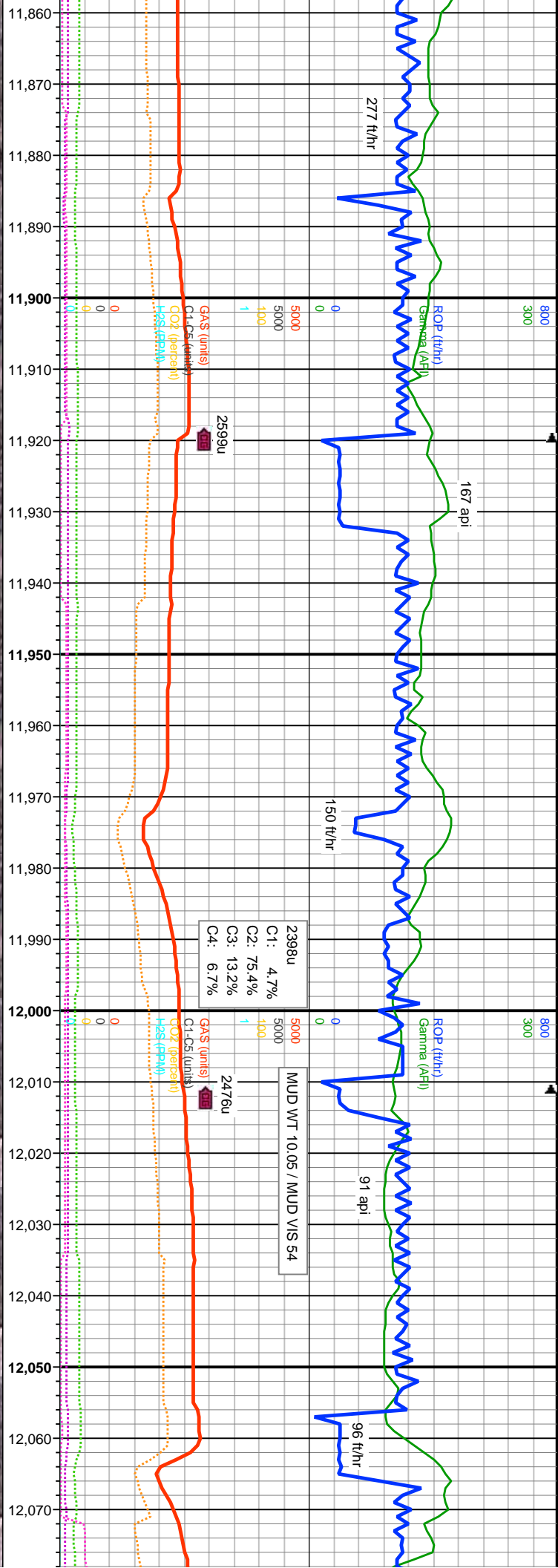


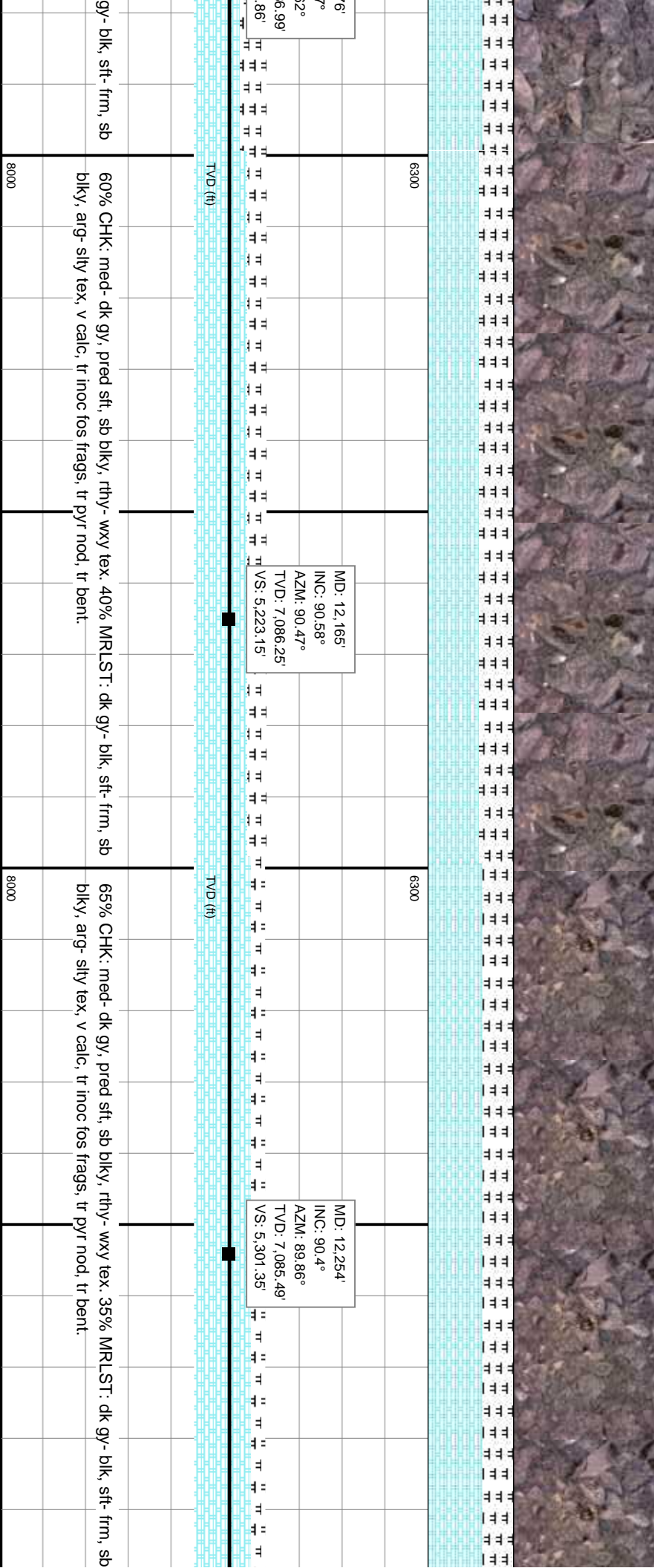
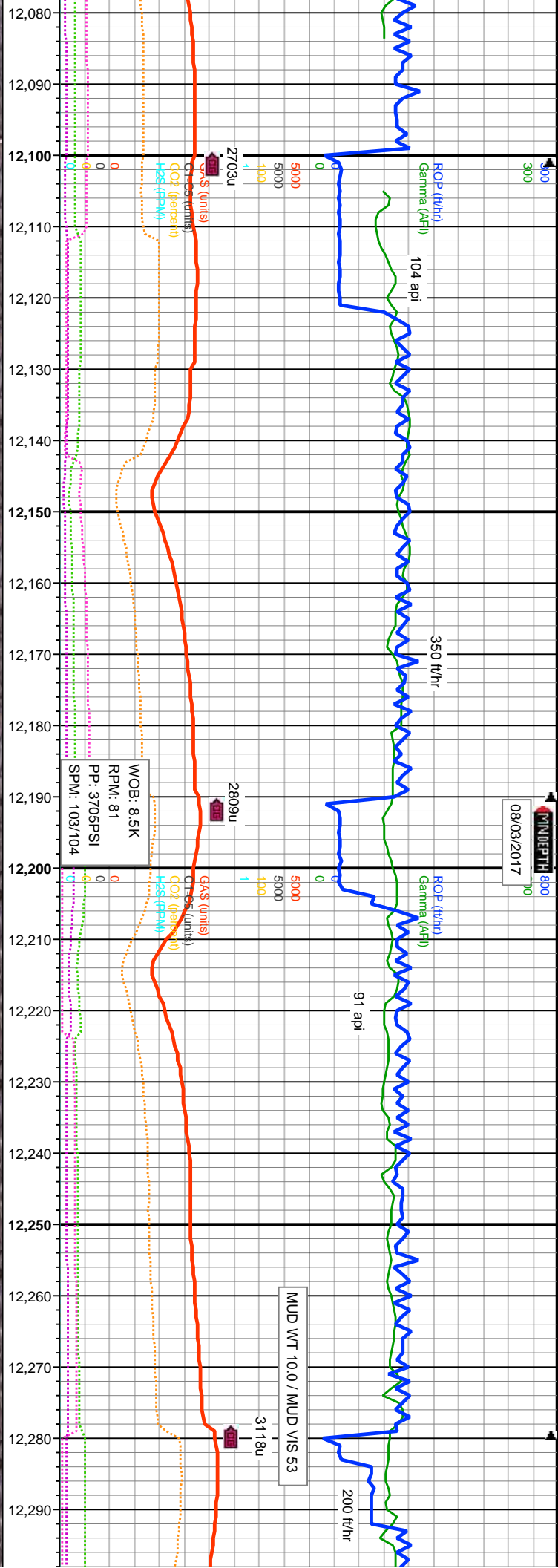




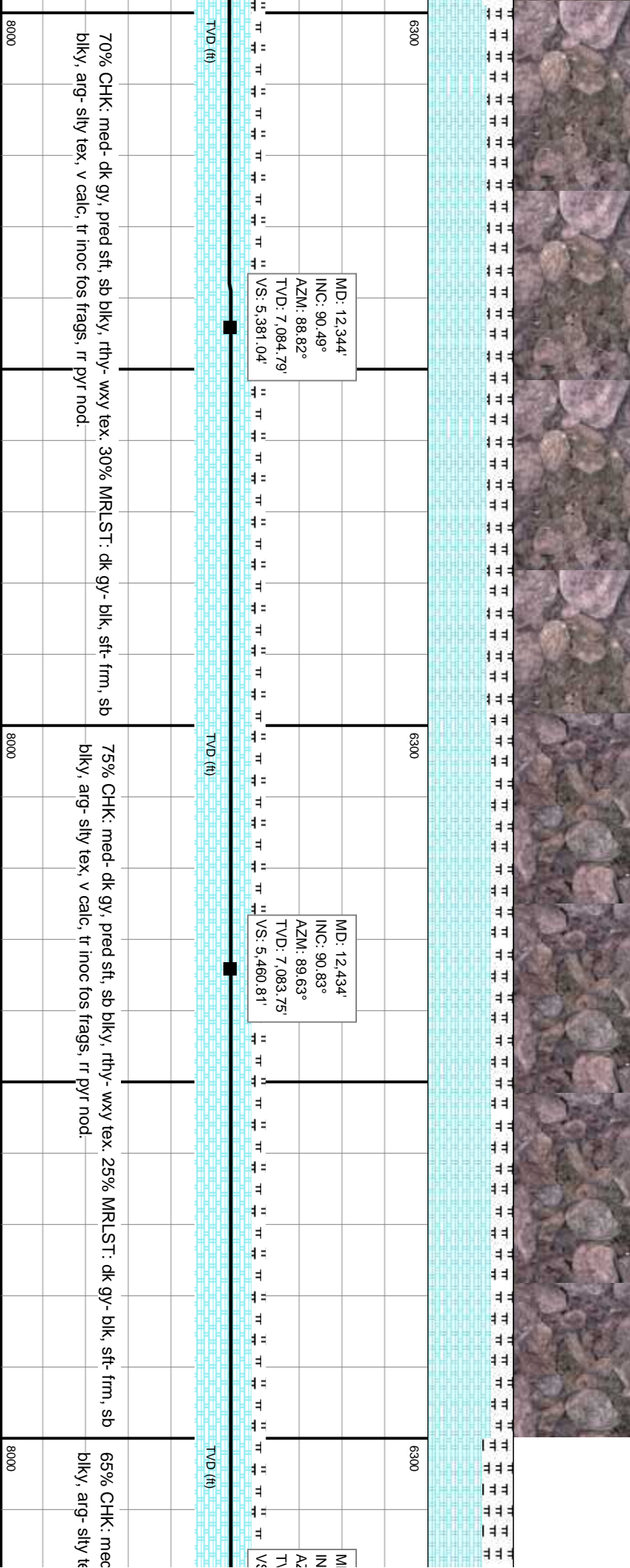
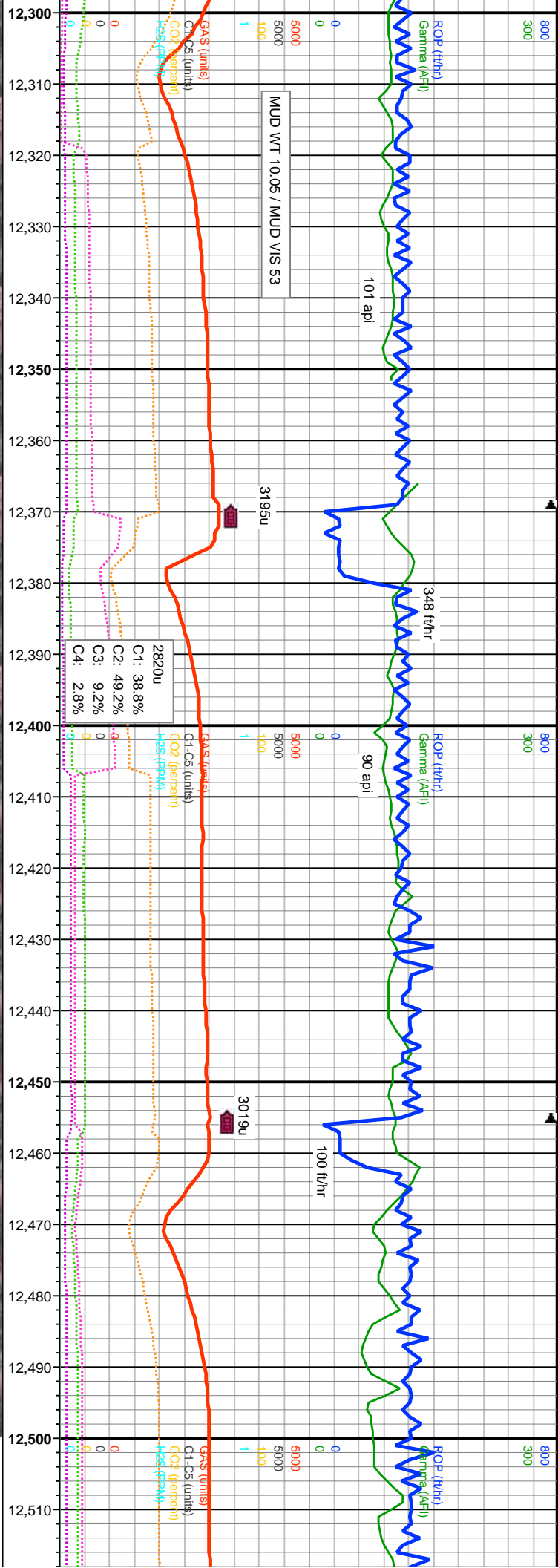


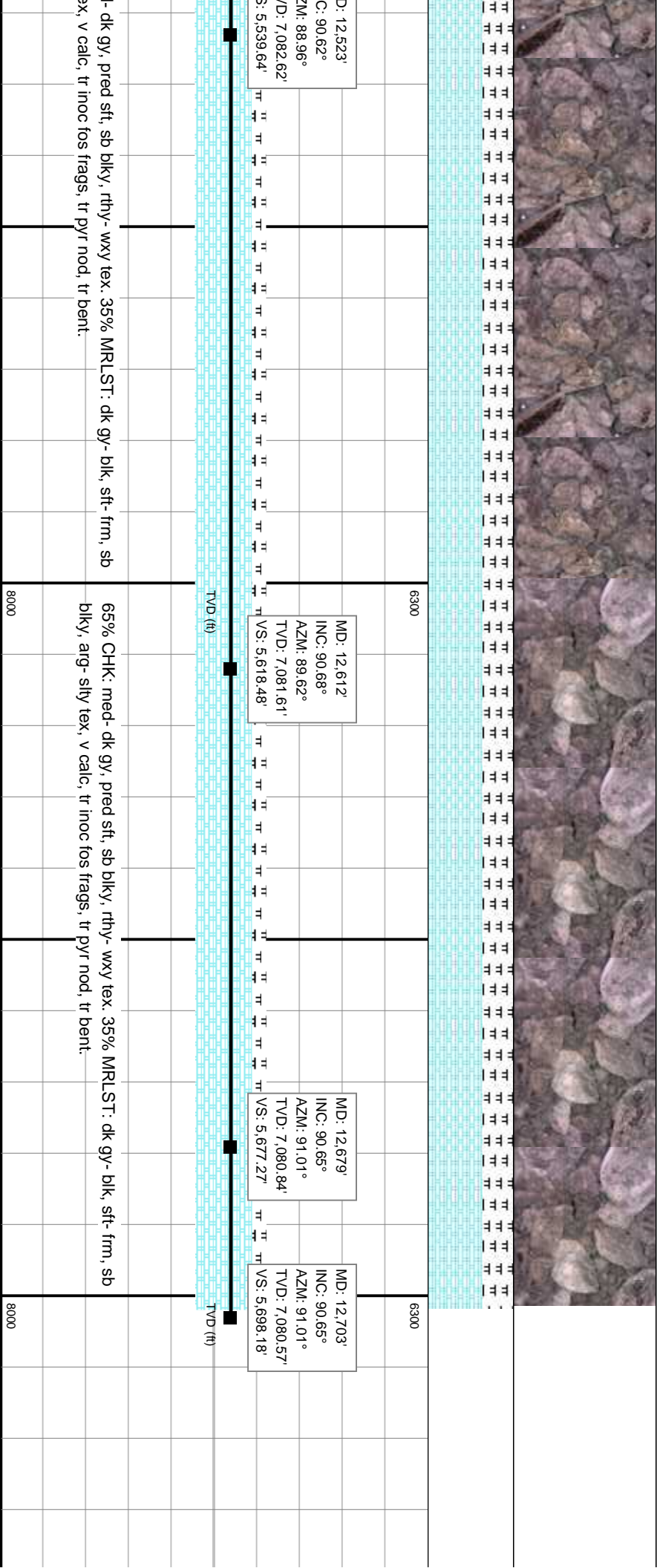
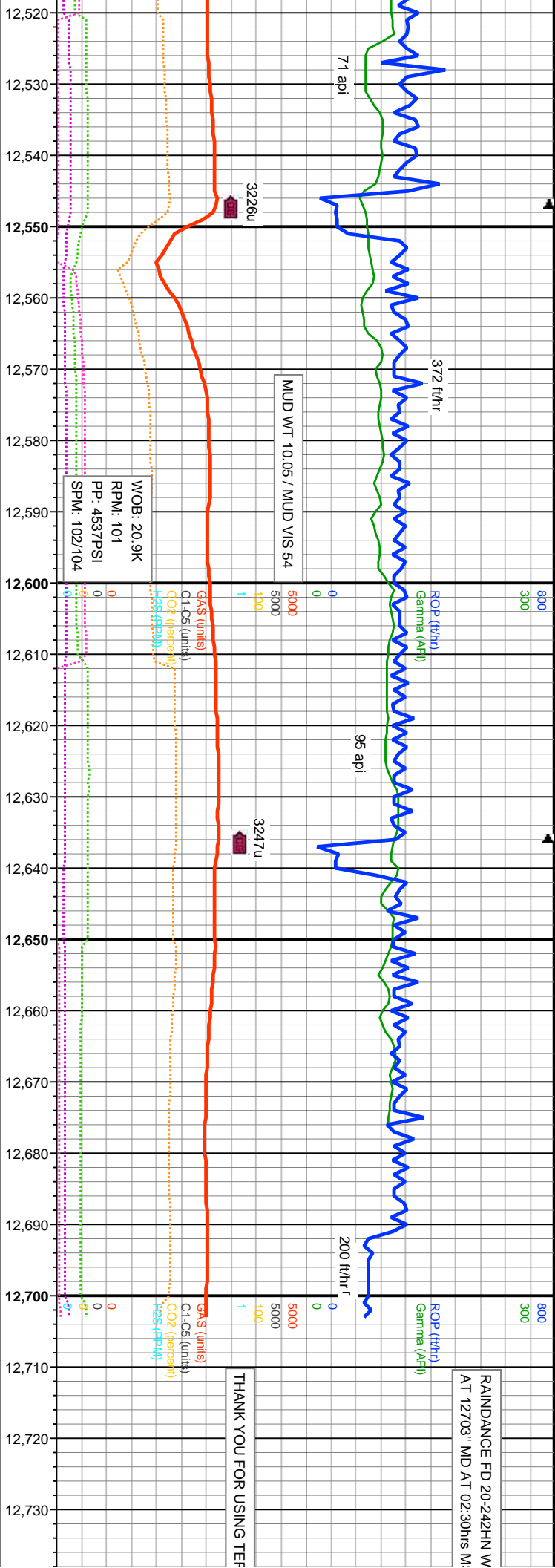














|  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

|  |
|--|
|  |
|--|

