



Scale: 5" / 100'
Measured Depth Log

Well Name SHOOK 3-10-2NAH_VERT_CURVE

Location SECTION 3, T1S, R67W

State COLORADO

County ADAMS

Country USA

Rig Number ENSIGN 145

API Number 0500109972

AFE # 1700014

Geographic Region DJ BASIN

Field WATTENBERG

Spud Date 4/18/2017

Drilling Completed 7/19/2017

Surface Coordinates Section 3, 2058' FSL x 2124' FEL
39.99222, -104.8737

Bottom Hole Coordinates Section 3, 884' FSL x 1028' FEL
39.989065, -104.869898

Ground Elevation 5098'

K.B. Elevation 5111'

Logged Interval 1816' **To** 7879'

Total Depth 6063'

Formation QUATERNARY SANDS to NIOBRARA A CHALK

Type of Drilling Fluid OBM - OIL BASED MUD

Operator

Company Petro Share

Address 7200 S Alton Way
Englewood, CO 80112



Geologist

Name JOEY LUCE, SAGE BETTS

Company TERRA GUIDANCE

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

Zone Color Coding

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

Rock Types

| | | | | |
|----------------------|-----------|--------------|-----------------|-----------------|
| UNKNOWN | ANHYDRITE | CHALK | SHALE GRAY | SHALY SILTSTONE |
| GYPSUM | SILTSTONE | MARLSTONE | SHALE COLORED | SILTY SHALE |
| SALT | CHERT | CLAYSTONE | SANDSTONE | BENTONITE |
| SIDERITE or LIMONITE | SHALE | CONGLOMERATE | SHALY SANDSTONE | IGNEOUS |
| LIMESTONE | | | | METAMORPHIC |
| | | | | CEMENT |

Accessories

Fossils

| |
|--------------|
| ALGAE |
| AMPHIPORA |
| BELEMNITE |
| BIOCLASTIC |
| BRACHIOPOD |
| BRYOZOA |
| CEPHALOPOD |
| CORAL |
| CRINOID |
| ECHINOID |
| FISH |
| FORAMINIFERA |

Fossil

| |
|----------------|
| GASTROPOD |
| OOLITE |
| OSTRACOD |
| PELECYPOD |
| PELLET |
| PISOLITE |
| PLANT REMAINS |
| PLANT SPORES |
| SCAPHOPOD |
| STROMATOPOROID |

Minerals

| |
|------------|
| ANHYDRITIC |
|------------|

Argillaceous

| |
|----------------------|
| ARGILLITE GRAIN |
| BENTONITE |
| BITUMENOUS SUBSTANCE |
| BRECCIA FRAGMENTS |
| CALCAREOUS |
| CARBONACEOUS FLAKES |
| CHTDK |
| CHTLT |
| COAL - THIN BEDS |
| DOLOMITIC |
| FELDSPAR |
| FERRUGINOUS PELLET |
| FERRUGINOUS |

Glaucconite

| |
|-------------------|
| GYPSIFEROUS |
| HEAVY MINERAL |
| KAOLIN |
| MARLSTONE |
| MINERAL CRYSTALS |
| NODULES |
| PHOSPHATE PELLETS |
| PYRITE |
| SALT CAST |
| SANDY |
| SILICEOUS |
| SILTY |
| TUFFACEOUS |

Stringer

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

Oil Show

| |
|------------------|
| DEAD |
| EVEN |
| QUESTIONABLE |
| SPOTTED STAINING |

Porosity

| |
|------------------|
| EARTHY |
| FENESTRAL |
| FRACTURE |
| INTERCRYSTALLINE |
| INTEROOLITIC |
| MOLDIC |

Organic

| |
|----------|
| PINPOINT |
| VUGGY |

Engineering

| |
|--------------------|
| BIT |
| CASING |
| CONNECTION (LEFT) |
| CONNECTION (RIGHT) |
| CONNECTION GAS |
| CORE - LOST |
| CORE - RECOVERED |
| DST INTERVAL |
| FAULT |

Formation Top

| |
|------------------------|
| GAS SHOW |
| MN DEPTH |
| NORMAL FAULT |
| OIL SHOW |
| OVERTURNED STRATA |
| REVERSE FAULT |
| SIDEWALL CORE (LEFT) |
| SIDEWALL CORE (RIGHT) |
| SLIDE |
| SURVEY |
| TRIP GAS |
| WIRELINE TESTED - LEFT |
| WIRELINE TESTED - RT |

Rounding

| |
|---------|
| ANGULAR |
| ROUNDED |
| SUBANG |
| SUBRND |

Textures

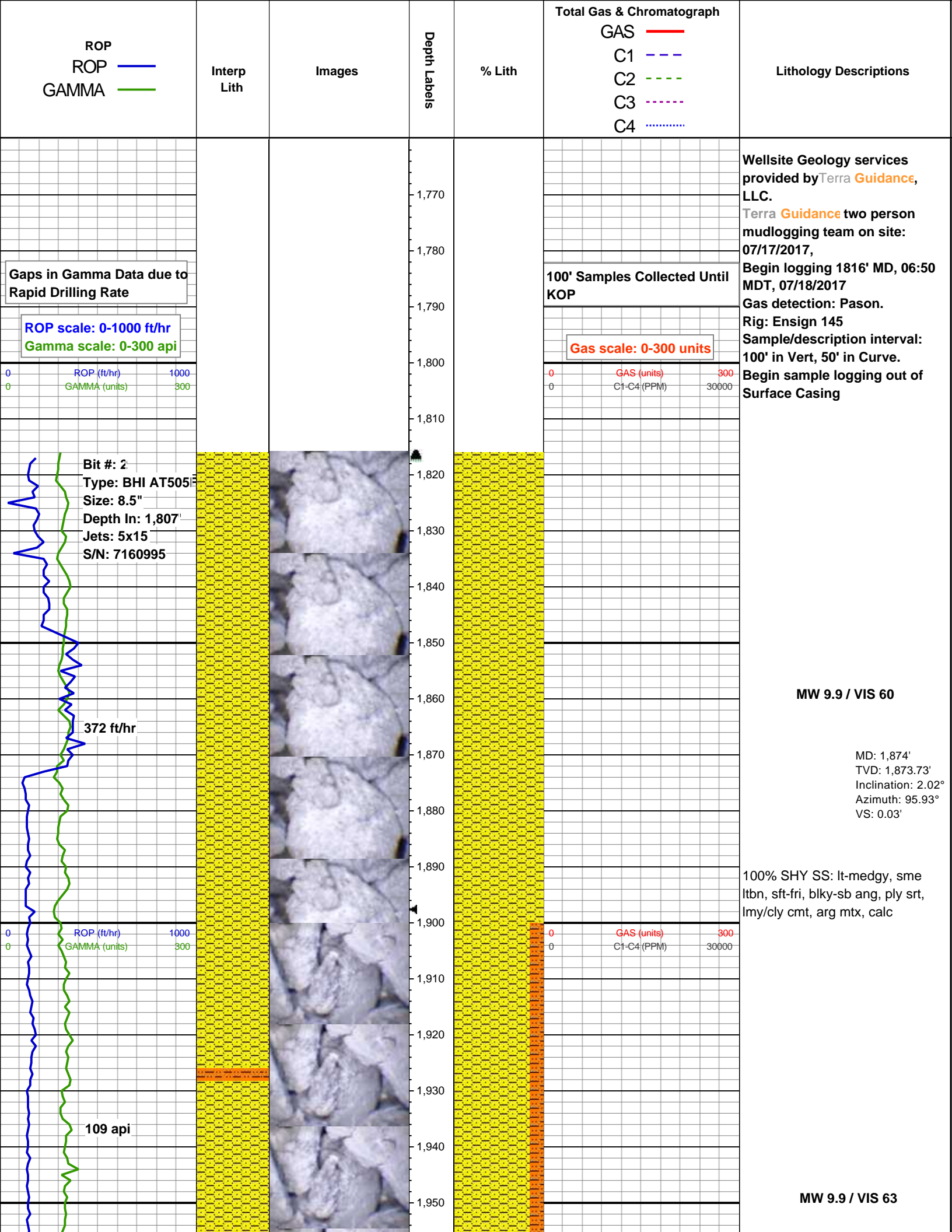
| |
|------------|
| BOUNDSTONE |
| CHALKY |
| CRYPTOXLN |
| EARTHY |
| FINELYXLN |
| GRAINSTONE |

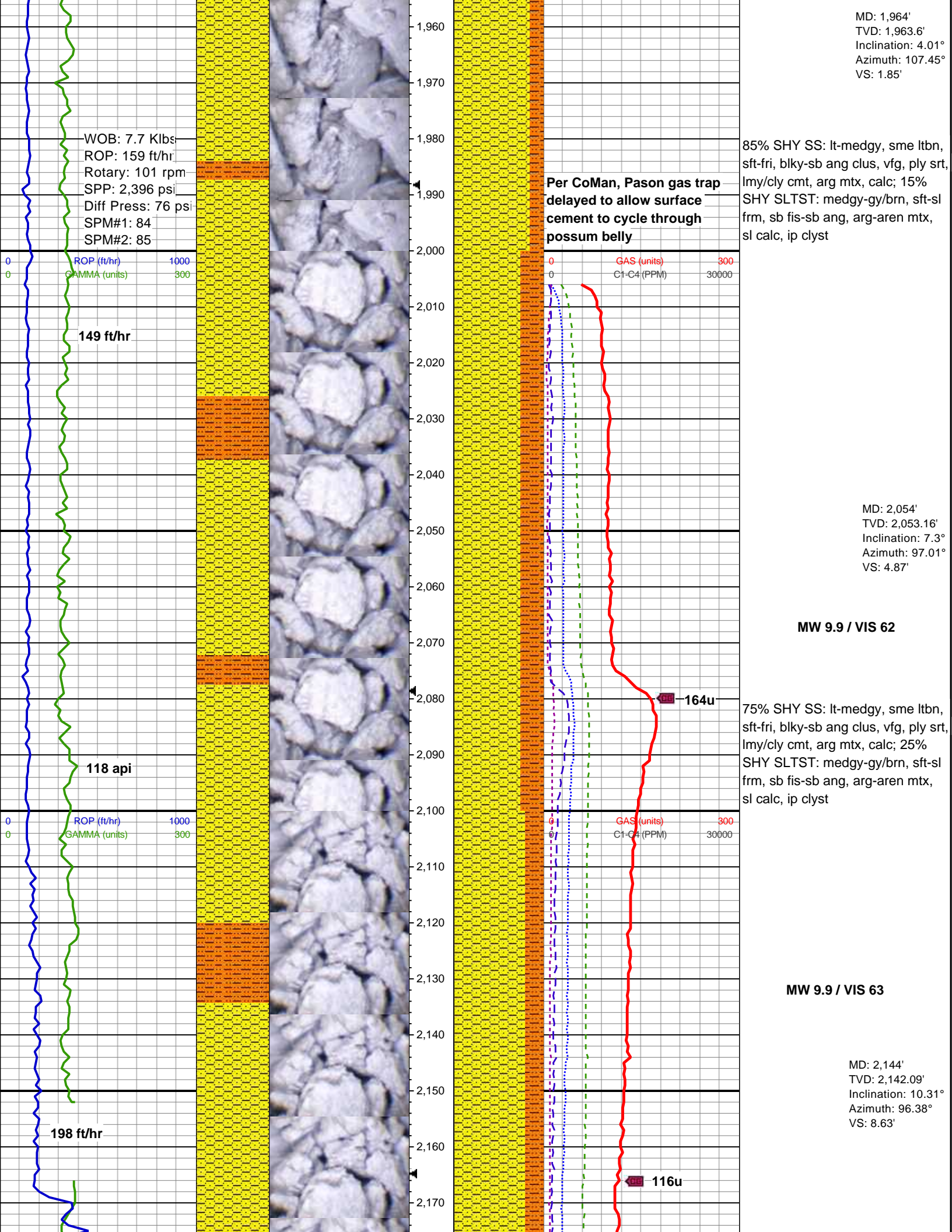
Lithographic

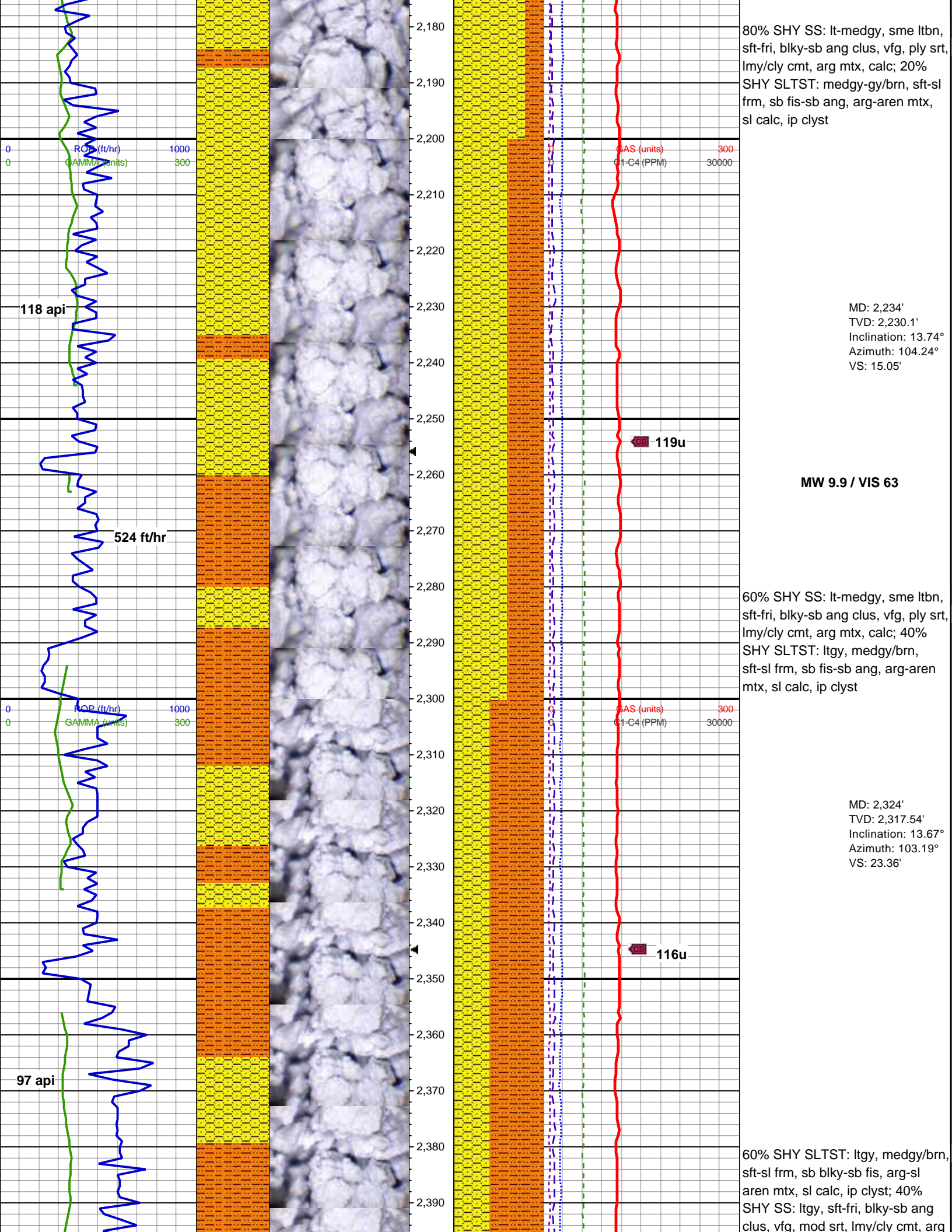
| |
|------------|
| MICROXLN |
| MUDSTONE |
| PACKSTONE |
| WACKESTONE |

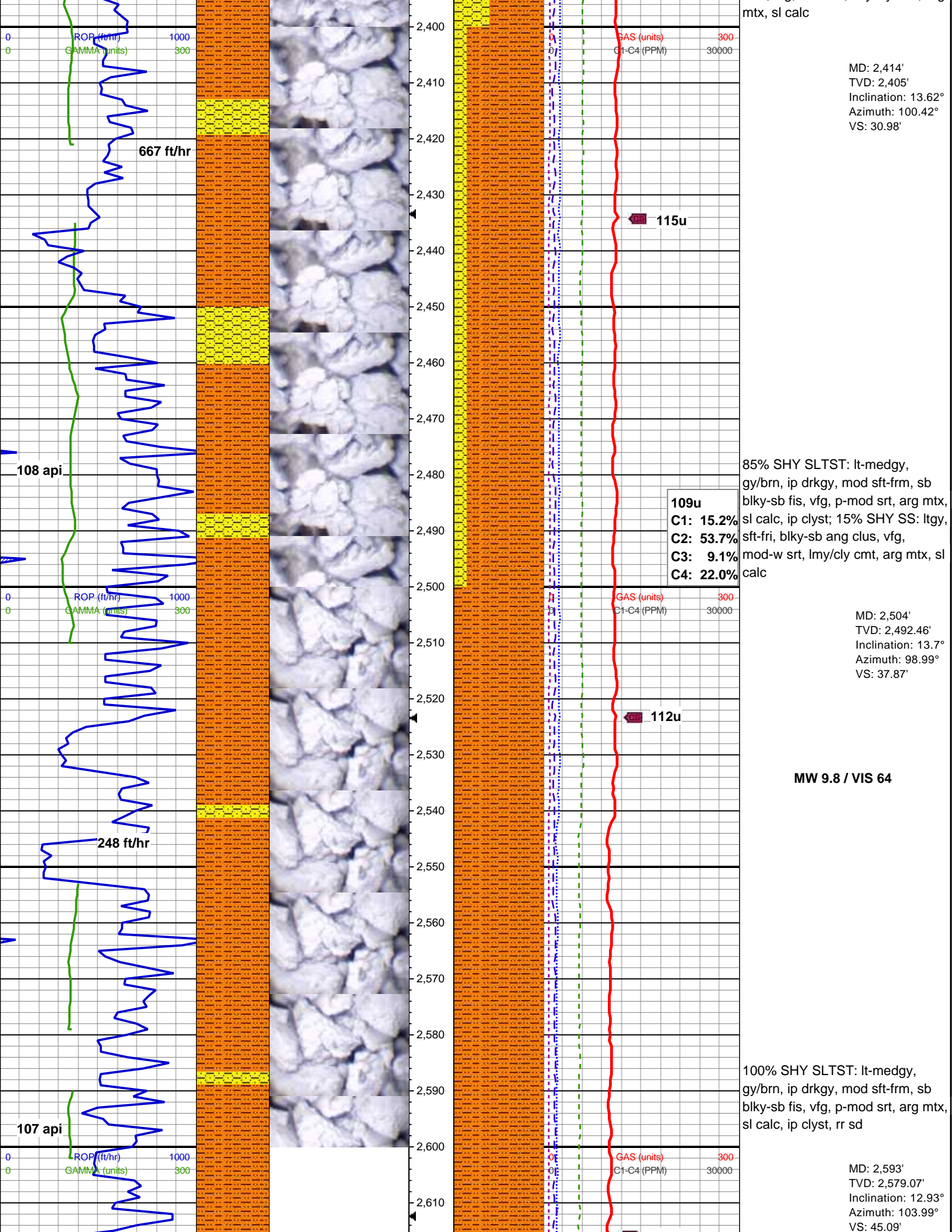
Sorting

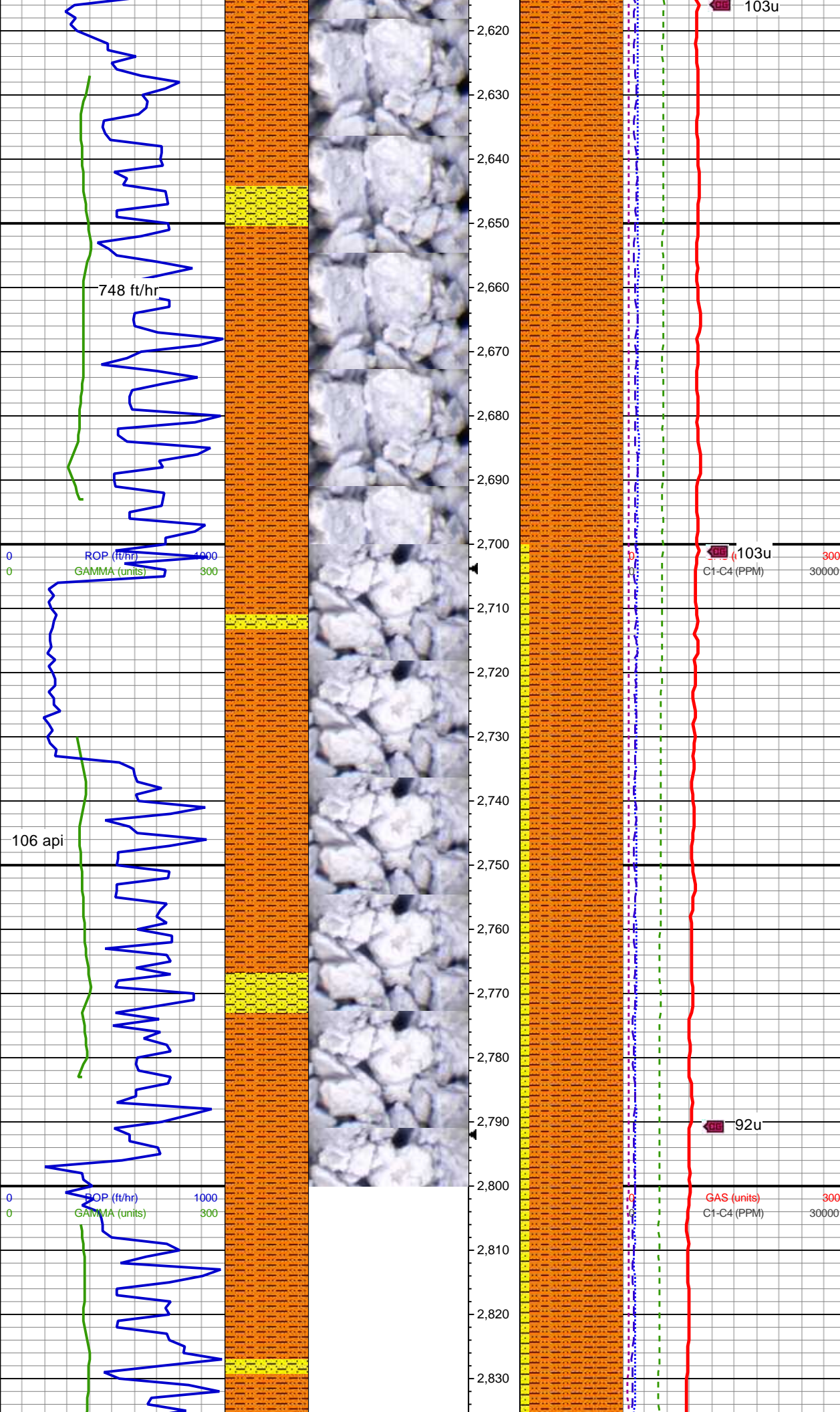
| |
|----------|
| MODERATE |
| POOR |
| WELL |









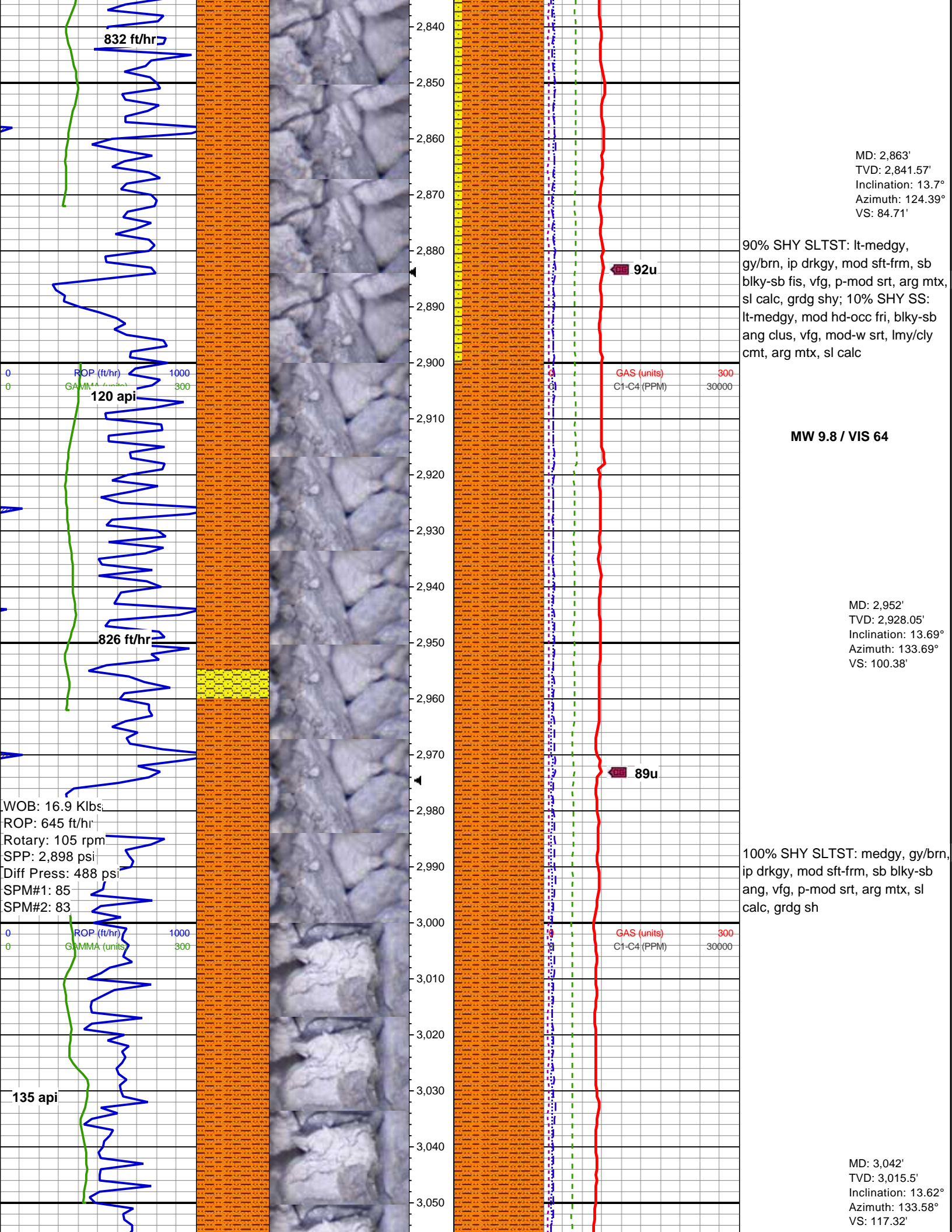


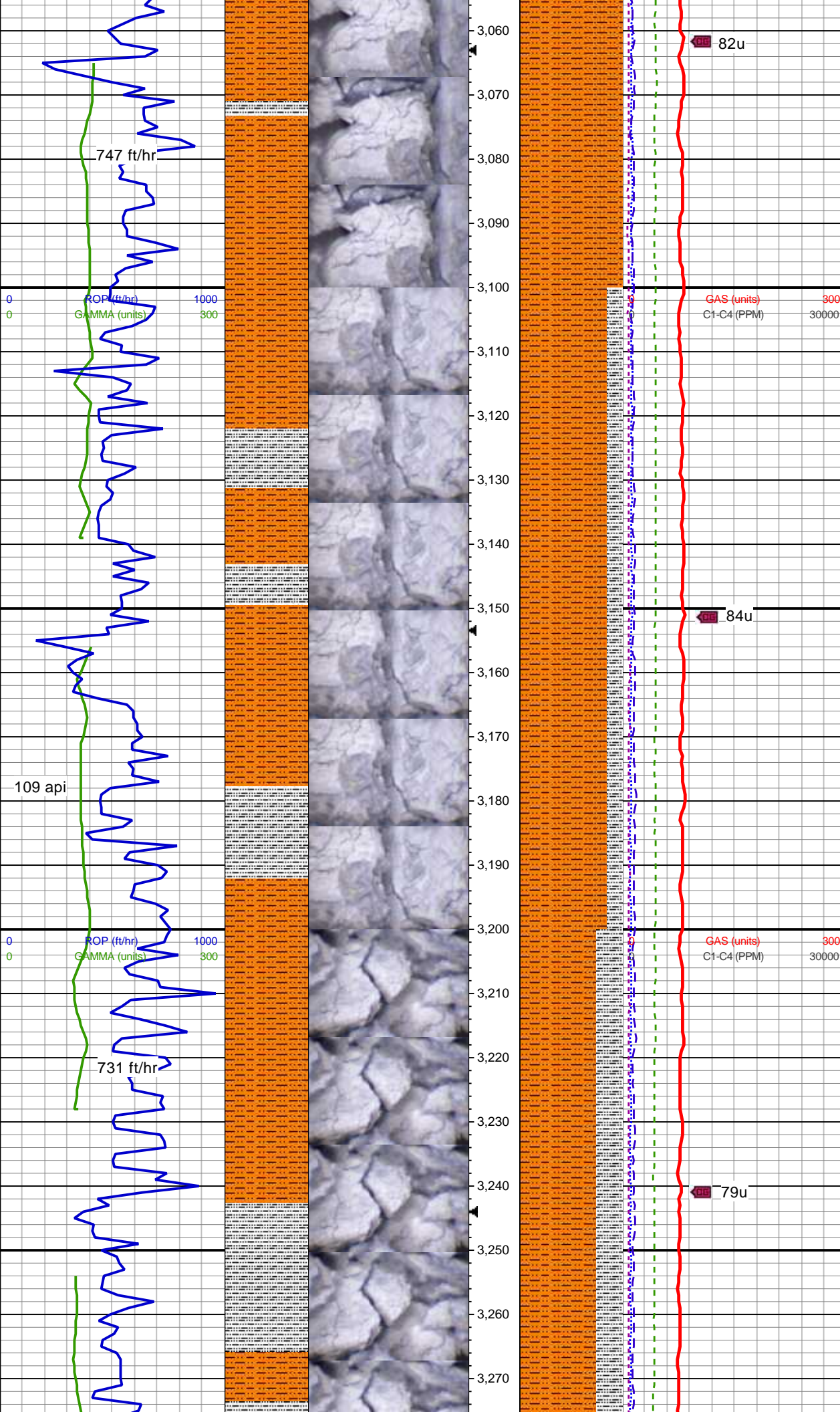
MD: 2,683'
TVD: 2,666.69'
Inclination: 13.62°
Azimuth: 119.43°
VS: 55.68'

100% SHY SLTST: lt-medgy,
gy/brn, ip drkgy, mod sft frm, sb
blky-sb fis, vfg, p-mod srt, arg mtz,
sl calc, ip clyst, rr sd

MD: 2,773'
TVD: 2,754.14'
Inclination: 13.75°
Azimuth: 125.53°
VS: 69.83'

90% SHY SLTST: lt-medgy,
gy/brn, ip drkgy, mod sft frm, sb
blky-sb fis, vfg, p-mod srt, arg mtz,
sl calc, grdg shy; 10% SHY SS:
lt-medgy, mod hd-occ fri, blky-sb
ang clus, vfg, mod-w srt, lmy/cly
cmt, arg mtz, sl calc



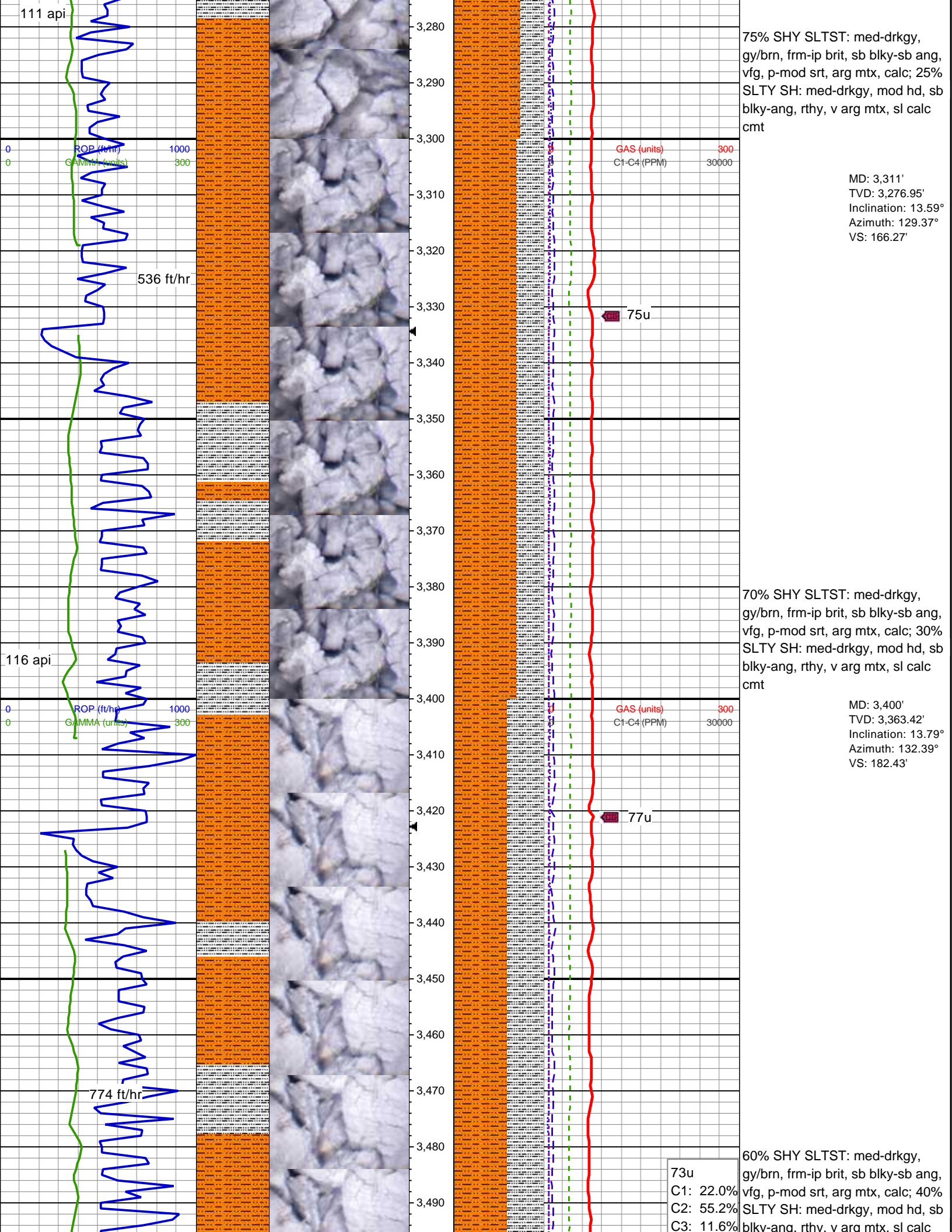


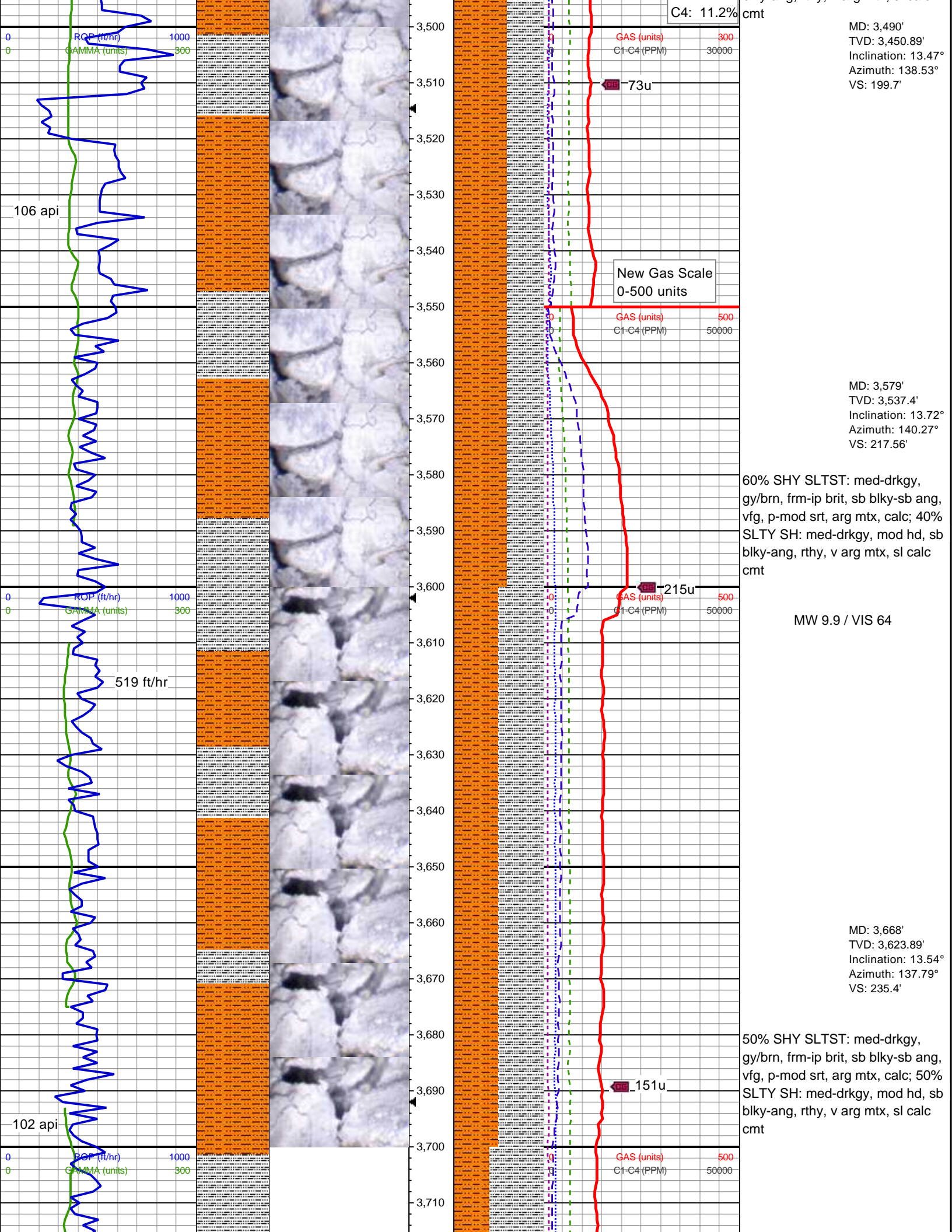
100% SHY SLTST: medgy, gy/brn, ip drkgy, mod sft frm, sb blk-y-sb ang, vfg, p-mod srt, arg mtx, sl calc, grdg sh

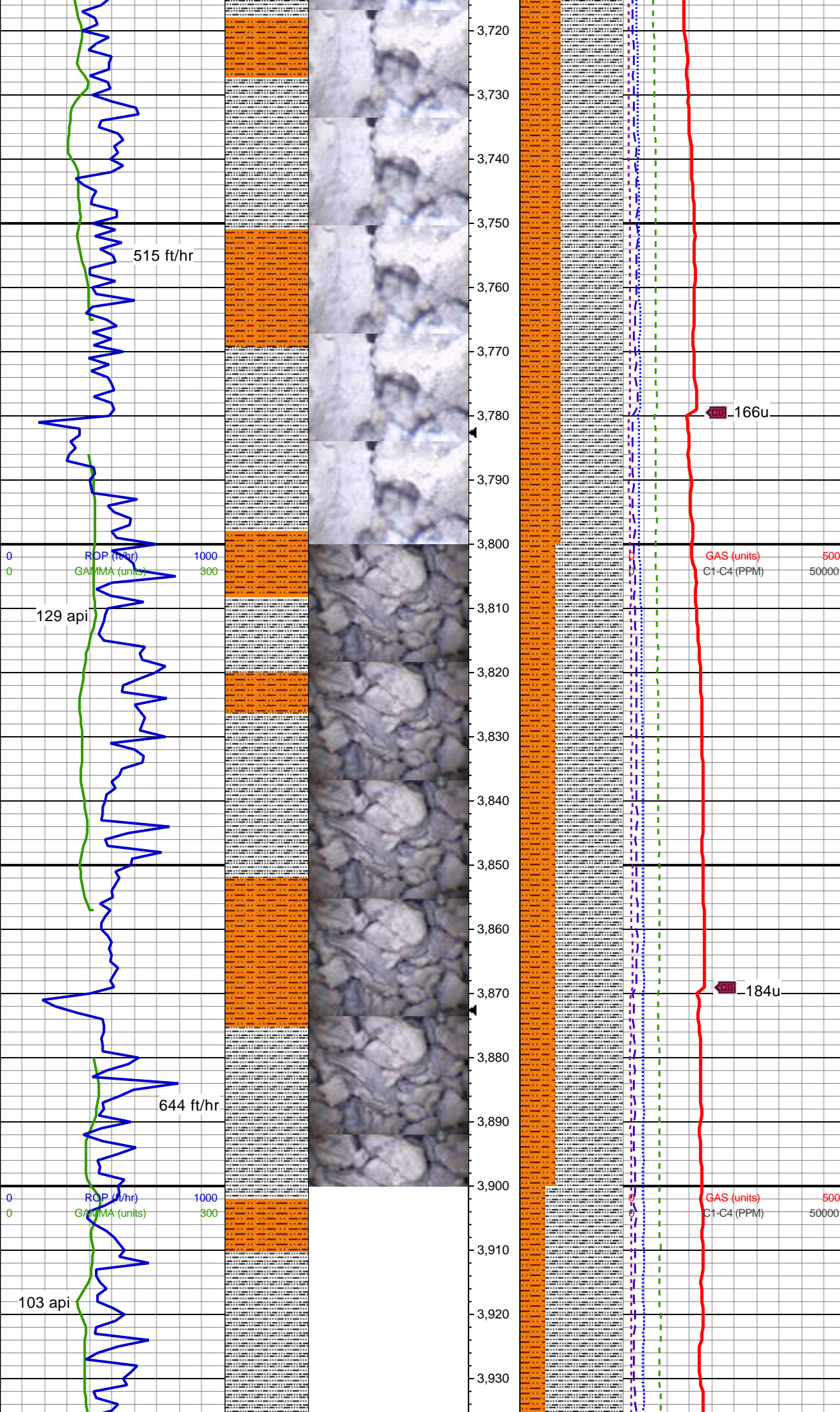
MD: 3,132'
TVD: 3,102.98'
Inclination: 13.6°
Azimuth: 130.89°
VS: 133.88'

85% SHY SLTST: med-drkgy, gy/brn, frm-ip brit, sb blk-y-sb ang, vfg, p-mod srt, arg mtx, calc; 15% SLTY SH: med-drkgy, mod hd, sb blk-y-ang, rthy, v arg mtx, sl calc cmt

MD: 3,221'
TVD: 3,189.48'
Inclination: 13.64°
Azimuth: 131.93°
VS: 150.08'







MD: 3,758'
TVD: 3,711.39'
Inclination: 13.53°
Azimuth: 133.5°
VS: 252.61'

60% SLTY SH: med-drkgy, mod
hd, sb blk-ang, rthy, v arg mtz, sl
calc; 40% SHY SLTST:
med-drkgy, gy/brn, frm-ip brit, sb
blk-sb ang, vfg, p-mod srt, arg
mtz, calc

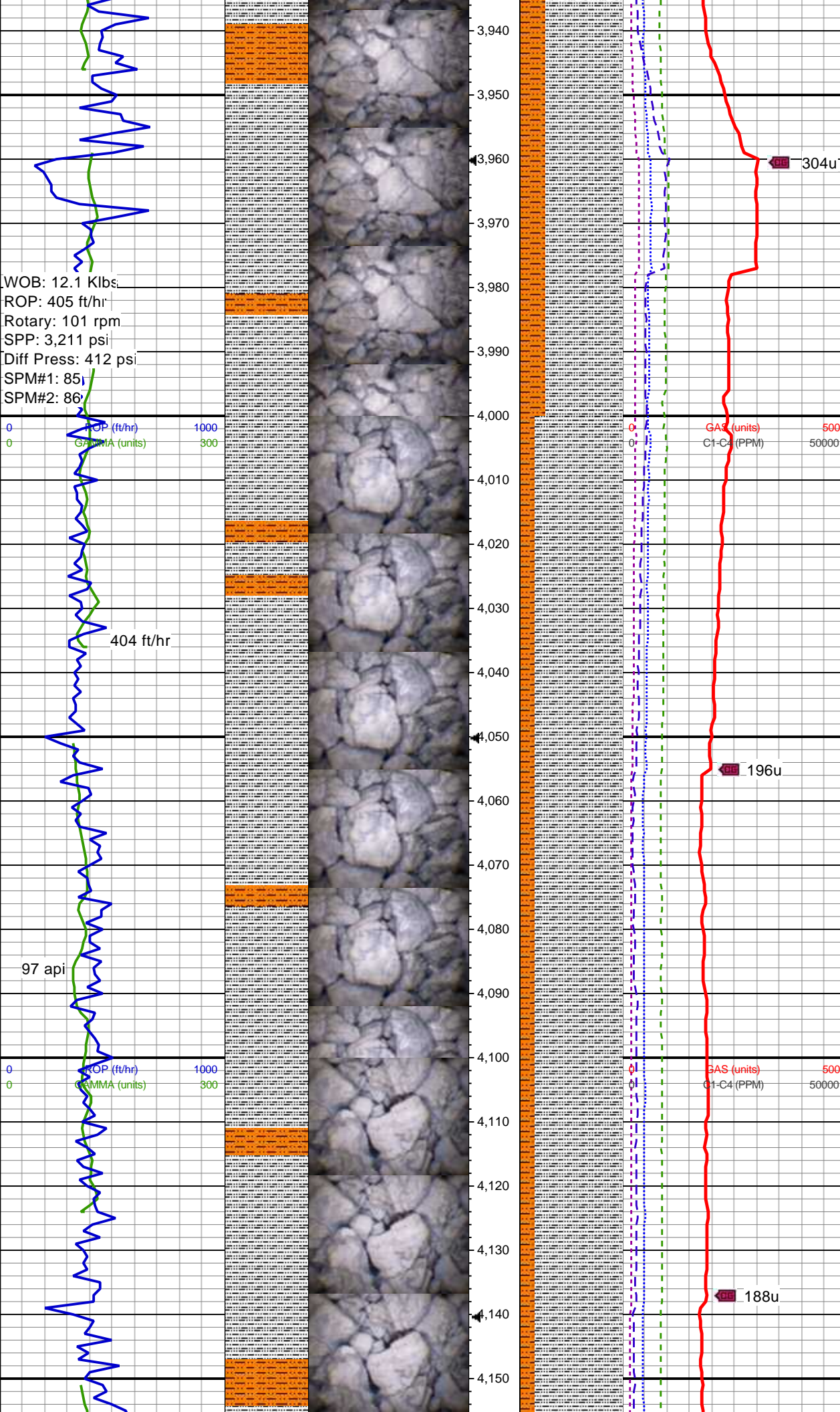
MD: 3,848'
TVD: 3,798.89'
Inclination: 13.54°
Azimuth: 132.64°
VS: 269.27'

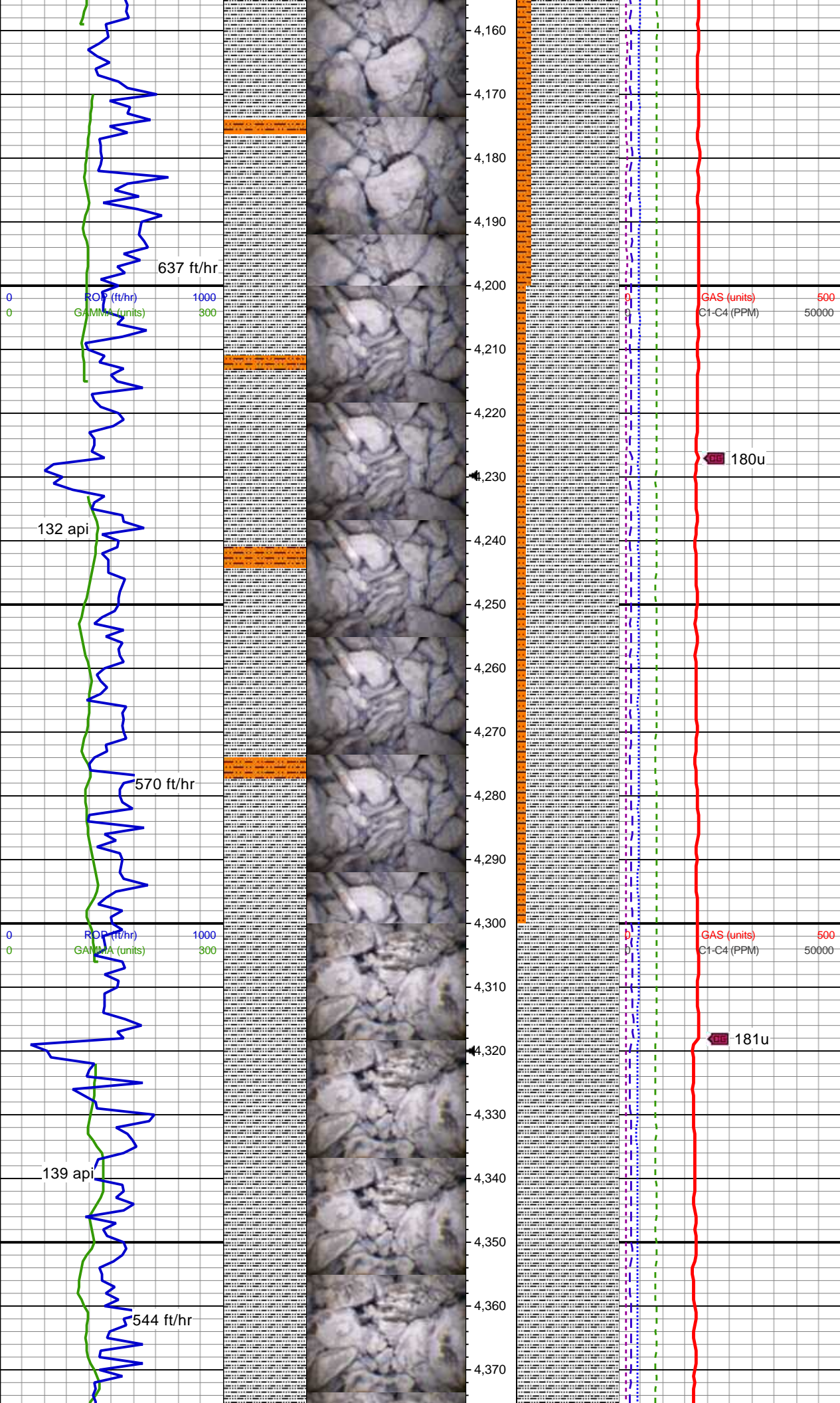
65% SLTY SH: med-drkgy, frm,
occ brit, sb blk-ang, fis ip, rthy, v
arg mtz, sl calc; 35% SHY SLTST:
med-drkgy, gy/brn, sl hd, sb
blk-sb ang, vfg, p-mod srt, arg
mtz, calc

MW 9.9 / VIS 64

MD: 4,027'
TVD: 3,972.96'
Inclination: 13.51°
Azimuth: 130.3°
VS: 302.61'

MD: 4,116'
TVD: 4,059.48'
Inclination: 13.59°
Azimuth: 125.54°
VS: 317.88'





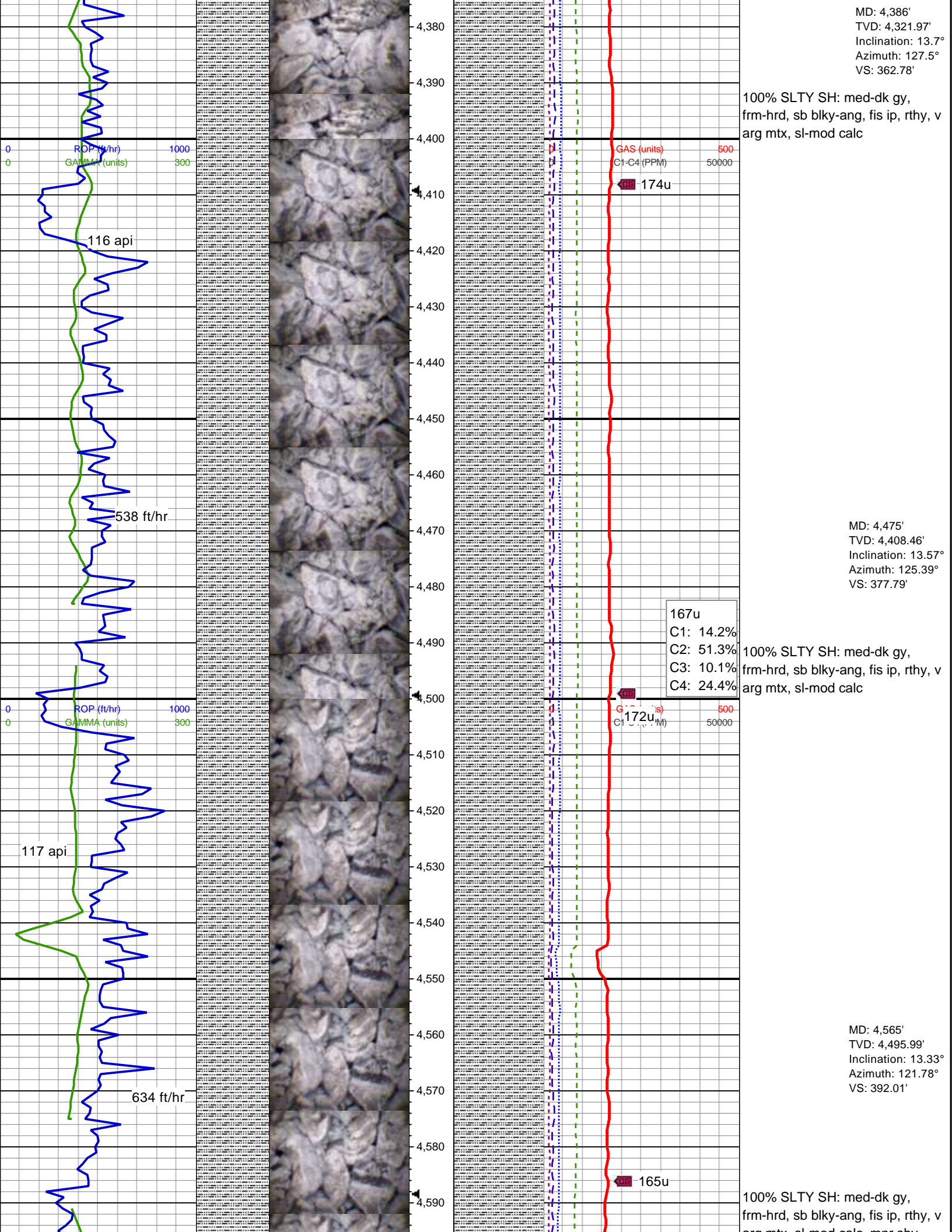
85% SLTY SH: med-drkgy, frm, occ brit, sb blkgy-ang, fis ip, rthy, v arg mtx, variably calc; 15% SHY SLTST: med-drkgy, gy/bm, sl hd, sb blkgy-sb ang, vfg, p-mod srt, arg mtx, calc

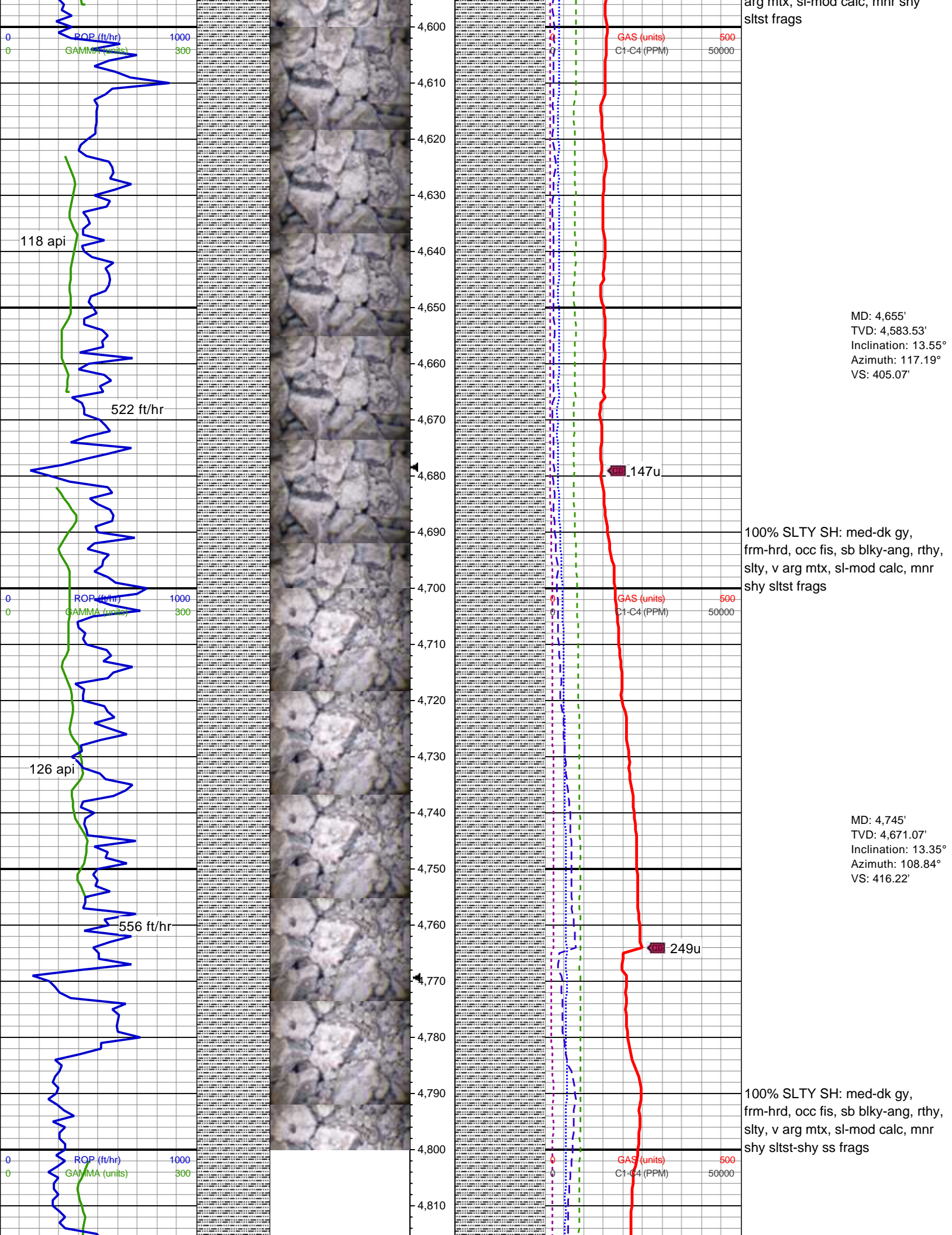
MD: 4,206'
TVD: 4,146.99'
Inclination: 13.44°
Azimuth: 124.59°
VS: 332.57'

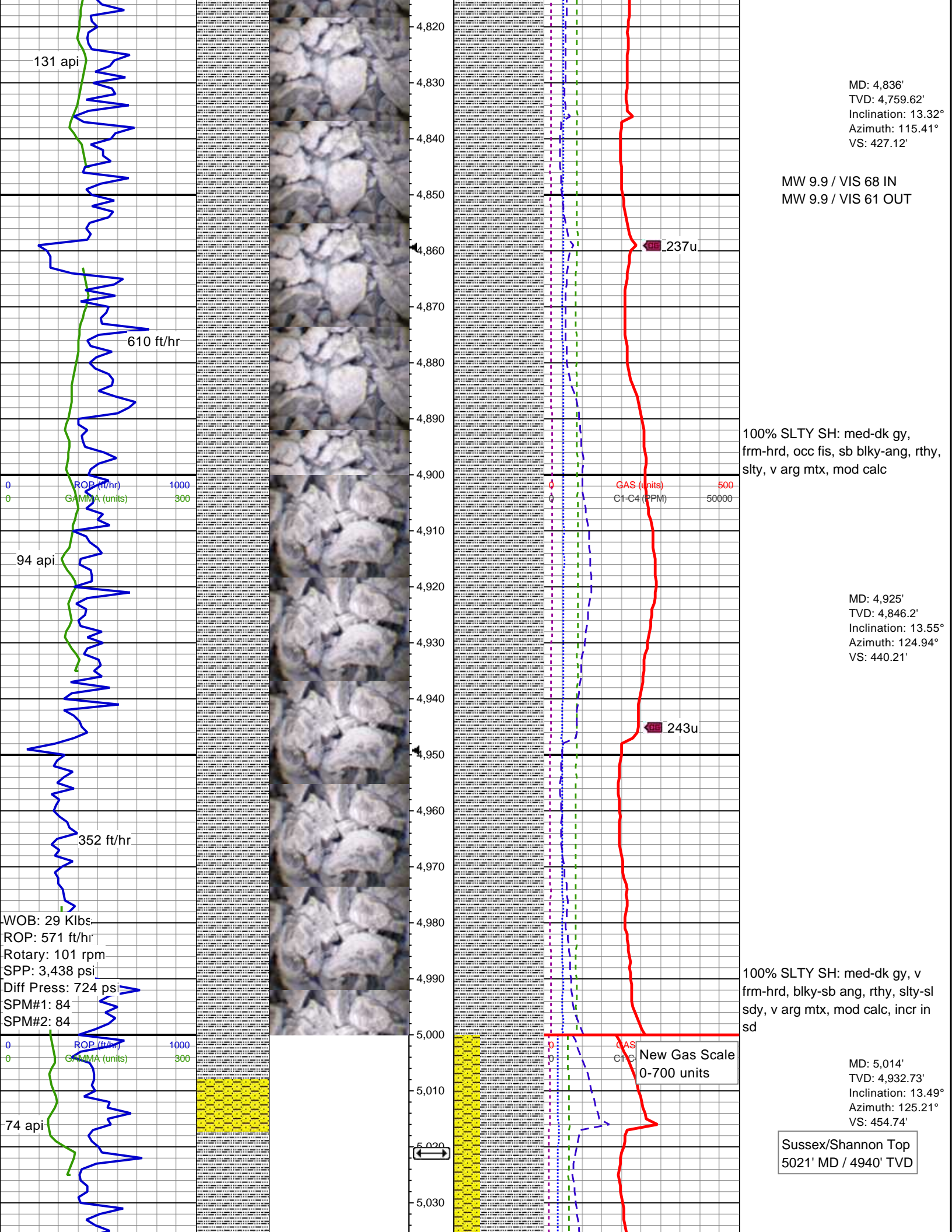
90% SLTY SH: med-drkgy, frm-hrd, sb blkgy-ang, fis ip, rthy, v arg mtx, variably calc; 10% SHY SLTST: med-drkgy, gy/bm, sl hd, sb blkgy-sb ang, vfg, p-mod srt, arg mtx, calc

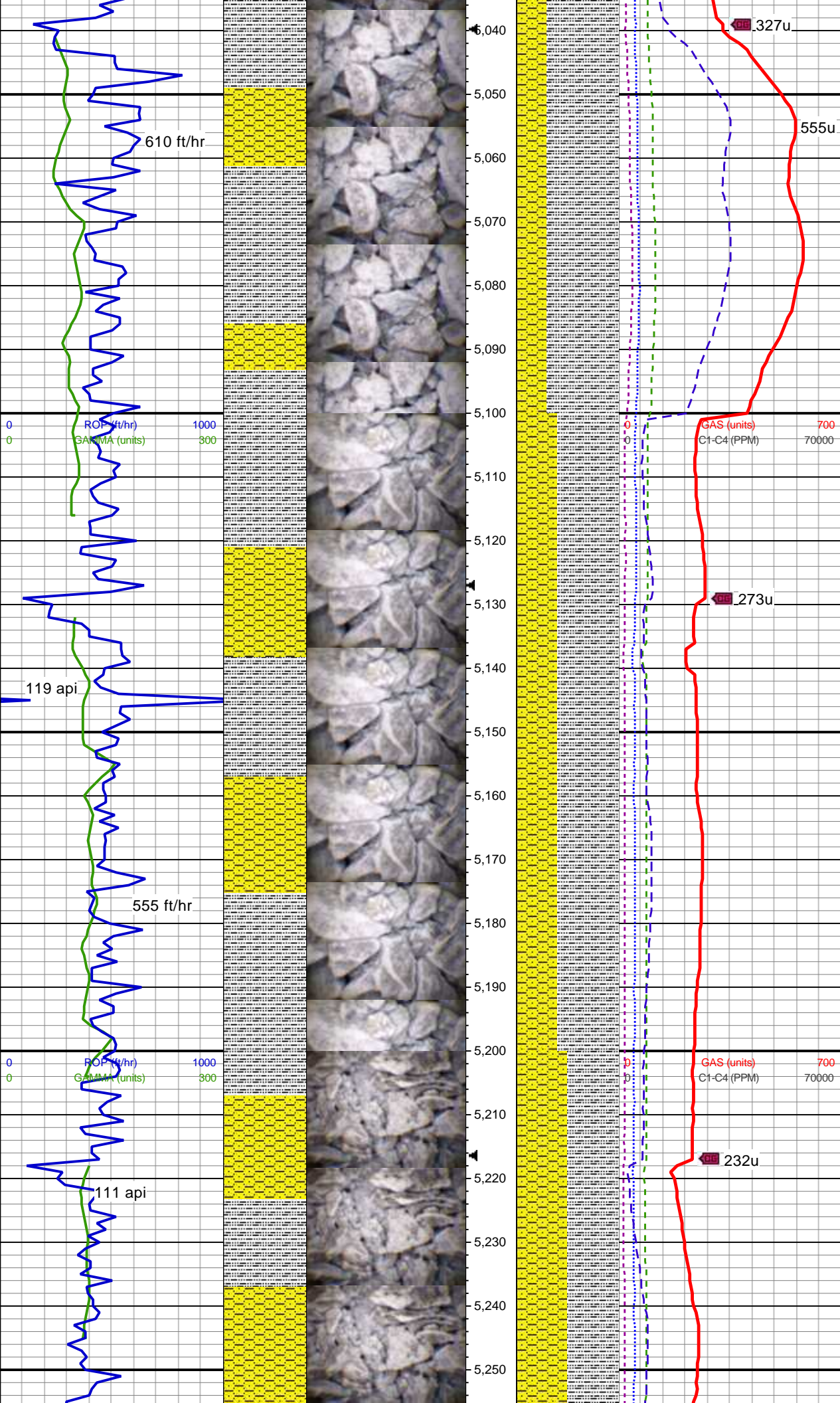
MD: 4,296'
TVD: 4,234.5'
Inclination: 13.57°
Azimuth: 126.87°
VS: 347.42'

MW 9.9 / VIS 62









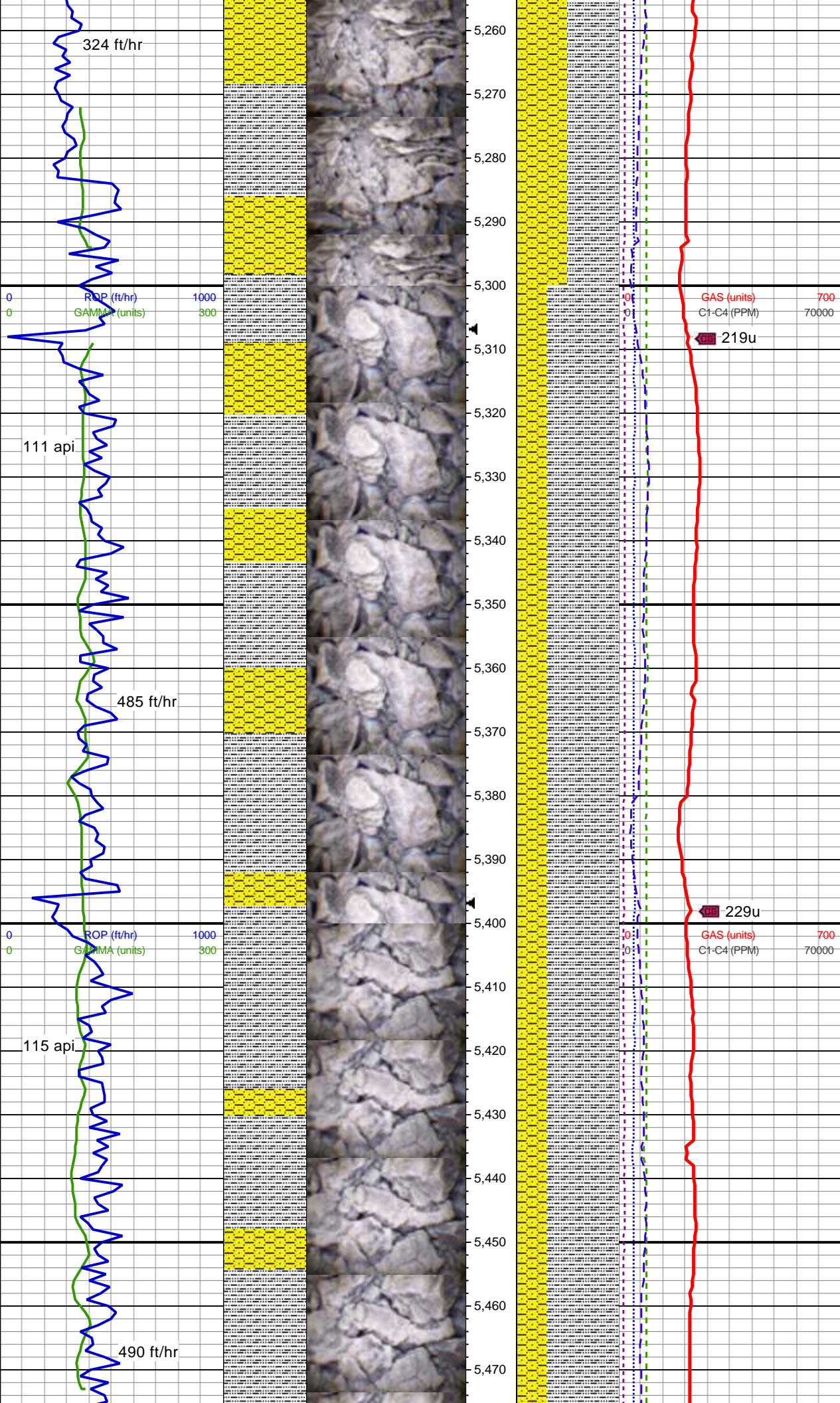
70% SLTY SH: med-dk gy, v
frm-hrd, blk-y-sb ang, rthy, slty-sl
sdy, v arg mtx, calc, incr in sd;
30% SHY SS: med lt gy-med dk
gy, frm-sl hrd, blk-y-ang, rthy,
slty-sdy, arg mtx, calc

MD: 5,103'
TVD: 5,019.22'
Inclination: 13.8°
Azimuth: 121.25°
VS: 468.9'

MW 9.9 / VIS 63 IN
MW 9.9 / VIS 67 OUT

60% SLTY SH: med-dk gy,
frm-hrd, blk-y-ang, rthy, slty-sl sdy,
v arg mtx, calc, incr in sd; 40%
SHY SS: med lt gy-med dk gy,
frm-hrd, blk-y-sb ang, rthy, slty-sdy,
arg mtx, calc

MD: 5,193'
TVD: 5,106.65'
Inclination: 13.66°
Azimuth: 116.25°
VS: 482.03'



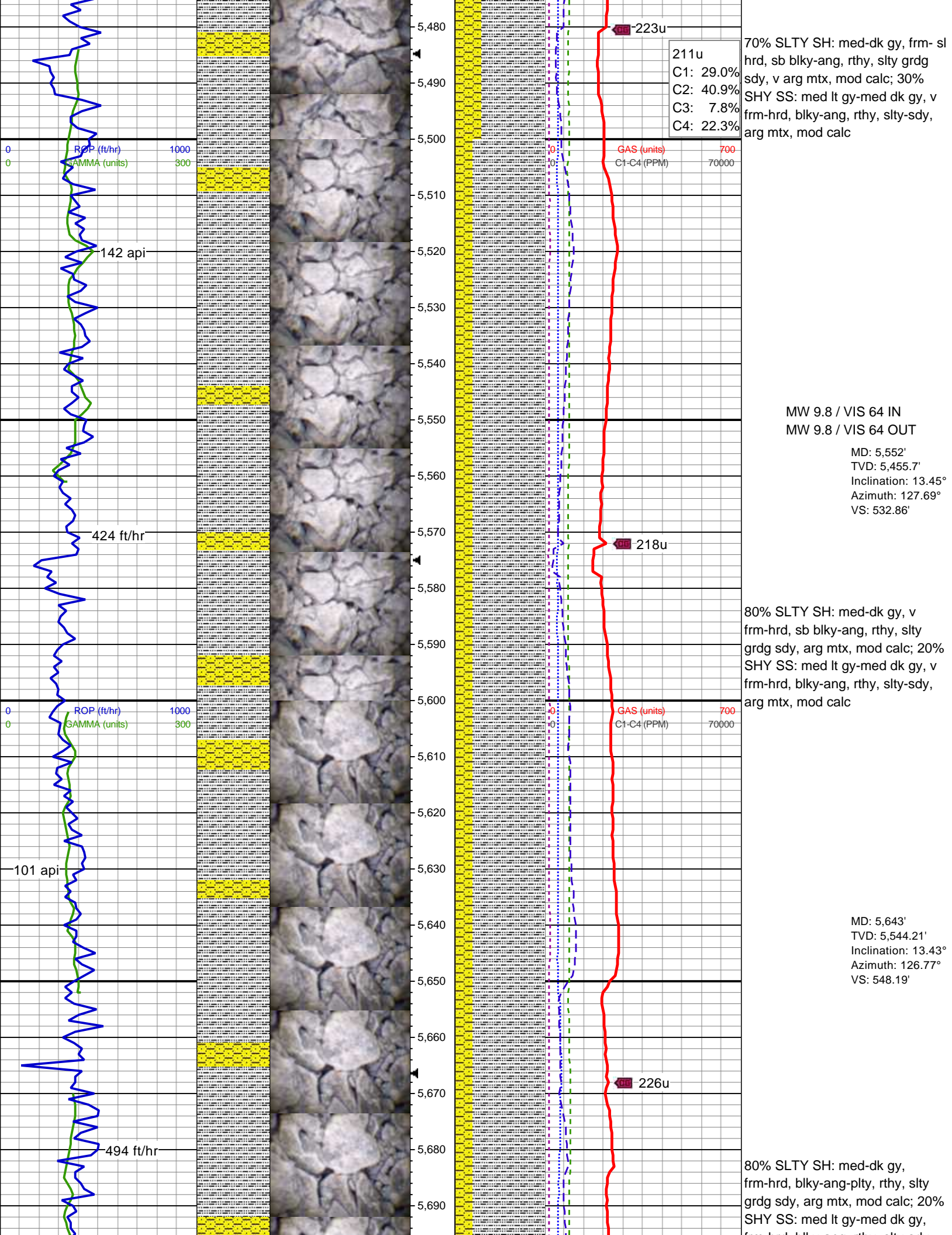
MD: 5,283'
TVD: 5,194.14'
Inclination: 13.5°
Azimuth: 112.56°
VS: 493.73'

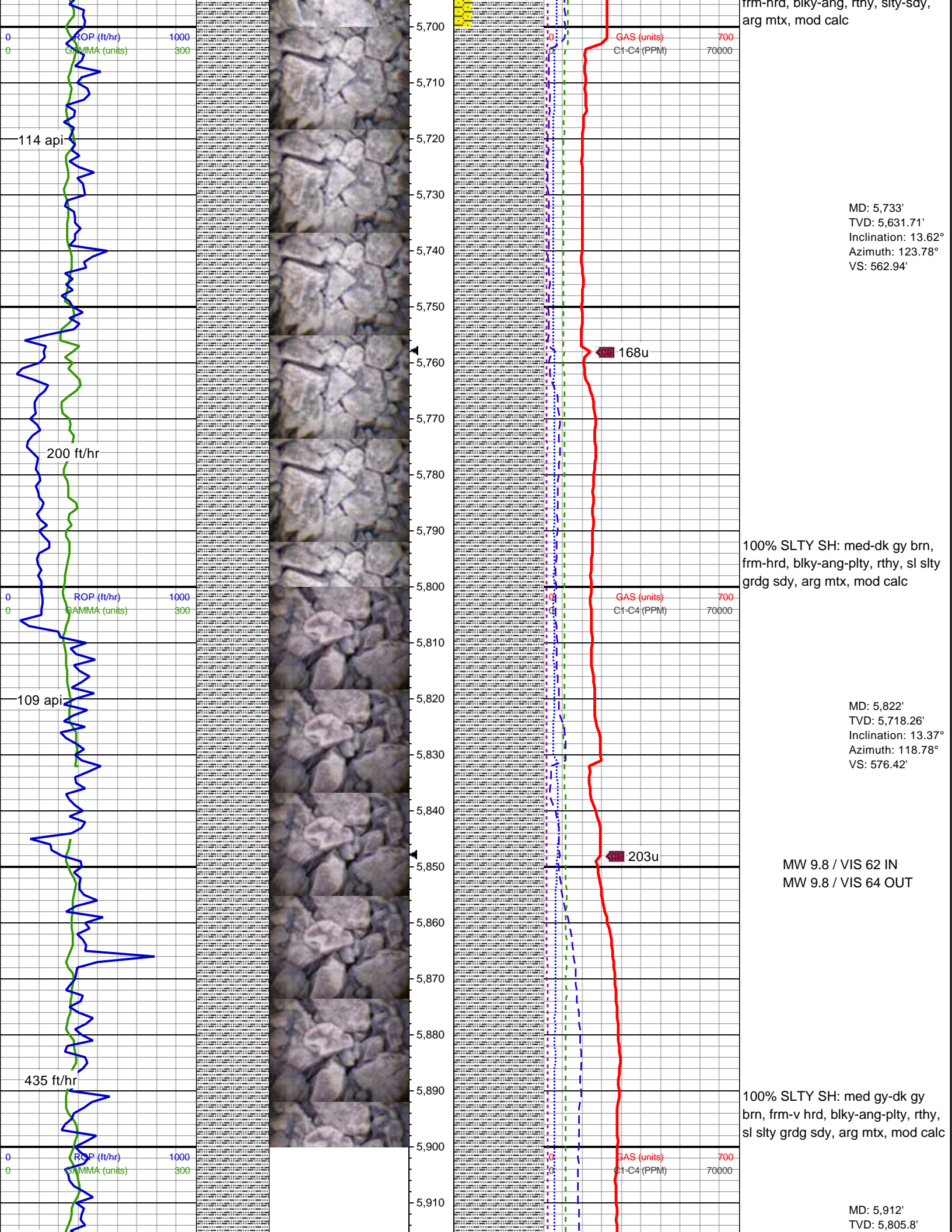
50% SLTY SH: med-dk gy, v
frm-hrd, blk-ang, rthy, slty grdg
sdy, v arg mtx, calc, incr in sd;
50% SHY SS: med lt gy-med dk
gy, frm-hrd, blk-sb ang, rthy,
slty-sdy, arg mtx, calc

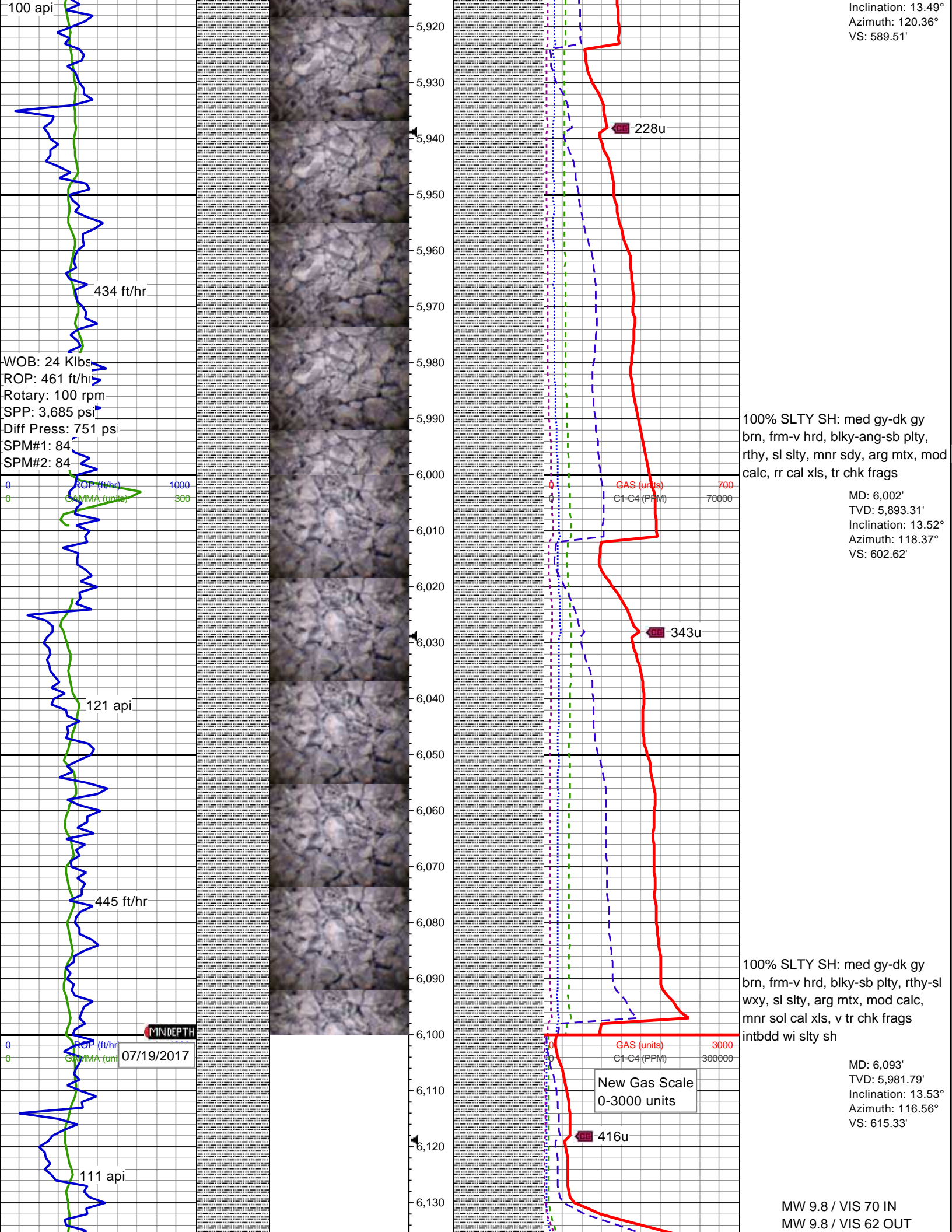
MD: 5,372'
TVD: 5,280.67'
Inclination: 13.55°
Azimuth: 116.23°
VS: 505.25'

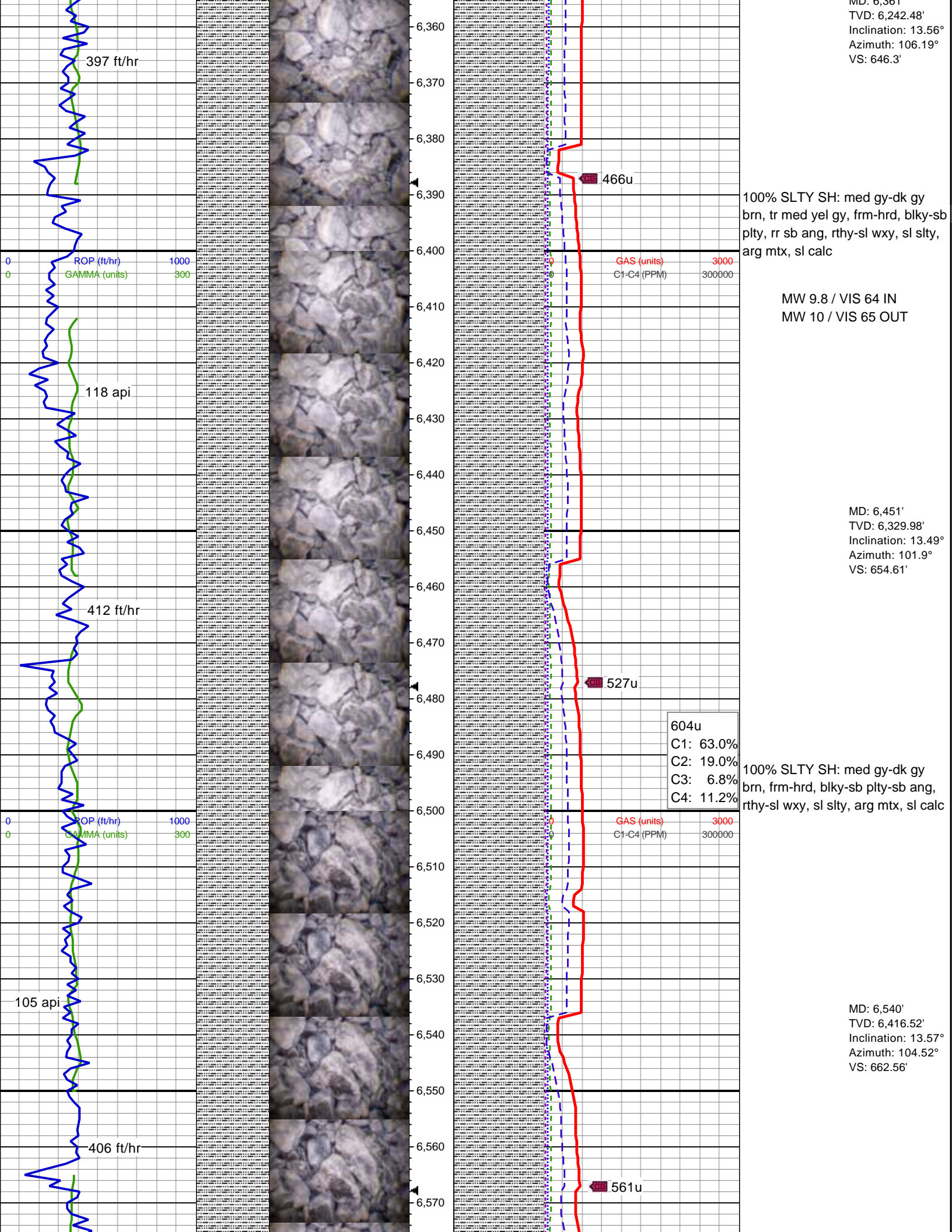
70% SLTY SH: med-dk gy,
frm-hrd, sb blk-ang, rthy, slty
grdg sdy, v arg mtx, calc, incr in
sd; 30% SHY SS: med lt gy-med
dk gy, v frm-hrd, blk-ang, rthy,
slty-sdy, arg mtx, mod calc

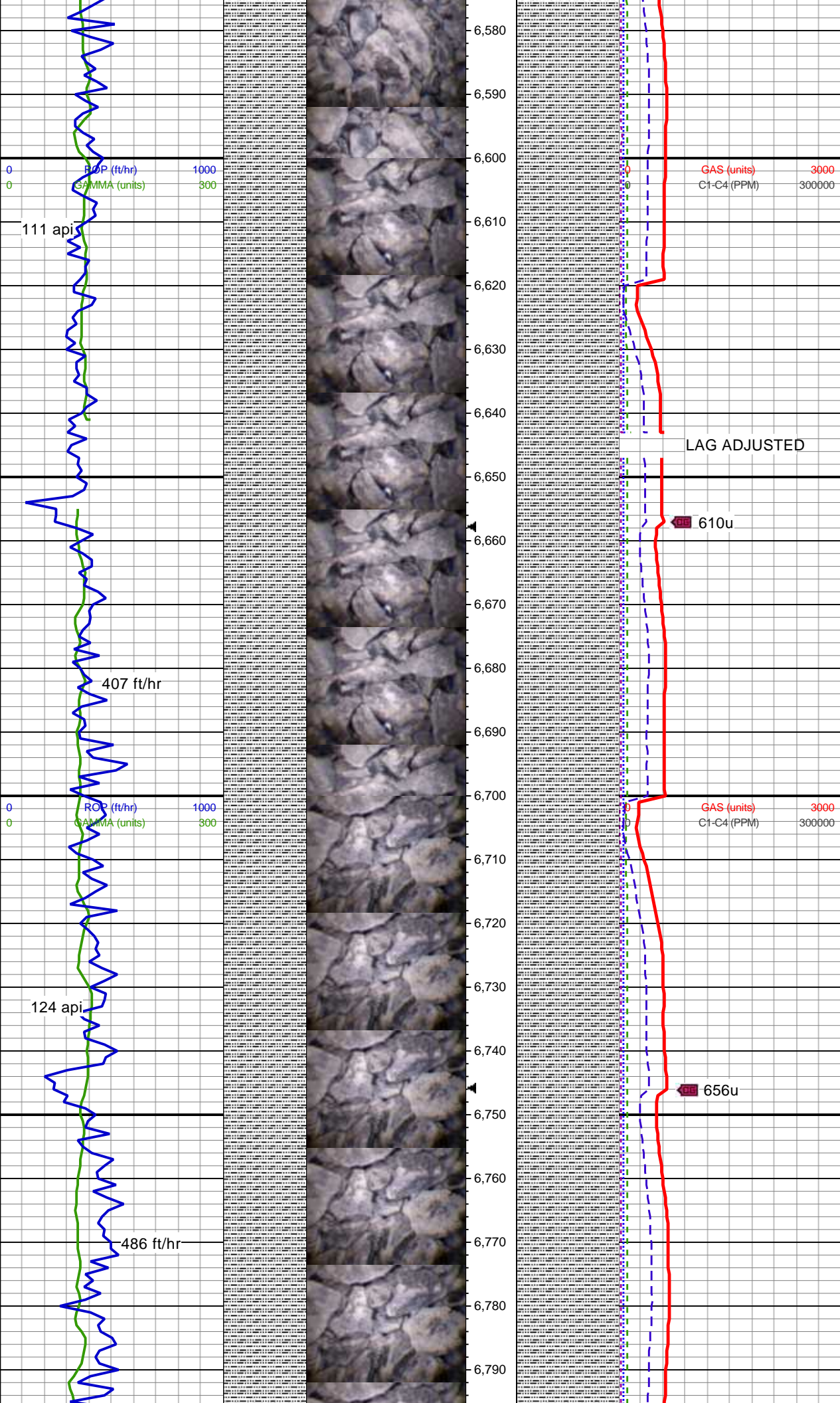
MD: 5,462'
TVD: 5,368.18'
Inclination: 13.52°
Azimuth: 121.96°
VS: 518.29'











100% SLTY SH: med gy-dk gy
brn, frm-hrd, blk-y-sb plty, rthy-sl
wxy, sl slty, arg mtx, sl calc

MD: 6,630'
TVD: 6,504'
Inclination: 13.62°
Azimuth: 107.39°
VS: 671.55'

MW 9.9 / VIS 69 IN
MW 9.9 / VIS 67 OUT

LAG ADJUSTED

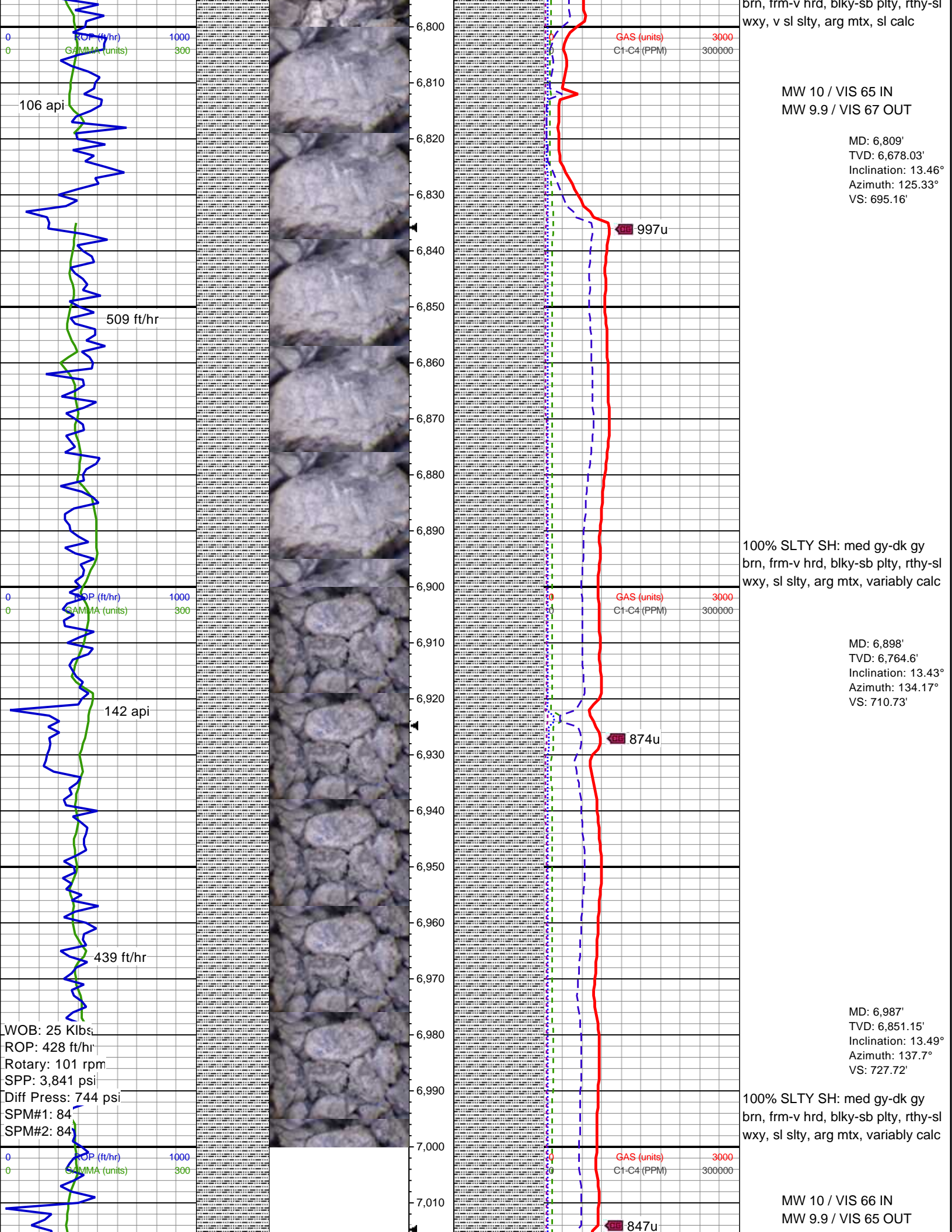
610u

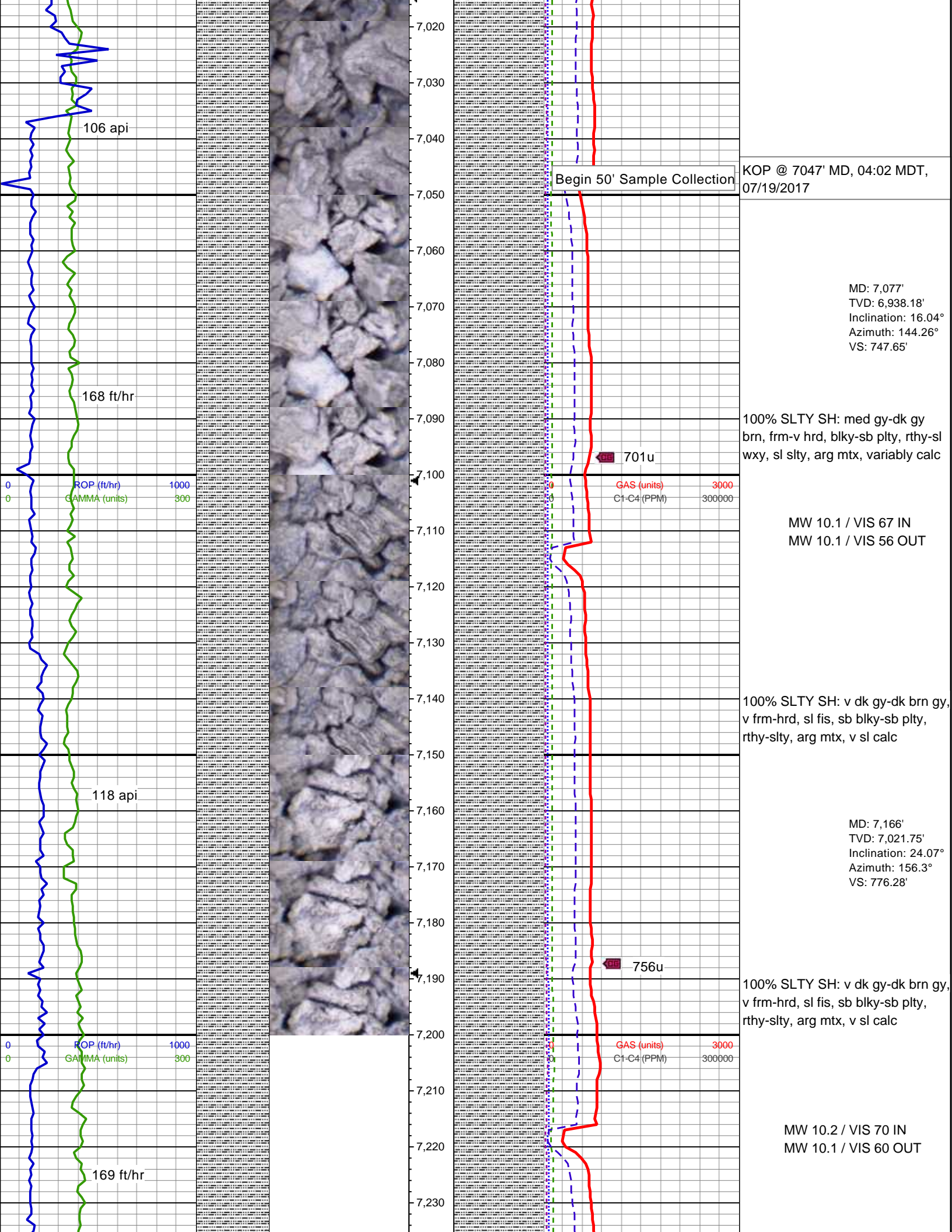
100% SLTY SH: med gy-dk gy
brn, frm-hrd, blk-y-sb plty, rthy-sl
wxy, sl slty, arg mtx, sl calc

MD: 6,720'
TVD: 6,591.48'
Inclination: 13.58°
Azimuth: 114.26°
VS: 682.13'

656u

100% SLTY SH: med gy-dk gy





106 api

168 ft/hr

118 api

169 ft/hr

Begin 50' Sample Collection

KOP @ 7047' MD, 04:02 MDT,
07/19/2017

MD: 7,077'
TVD: 6,938.18'
Inclination: 16.04°
Azimuth: 144.26°
VS: 747.65'

100% SLTY SH: med gy-dk gy
brn, frm-v hrd, blk-y-sb plty, rthy-sl
wxy, sl slty, arg mtx, variably calc

MW 10.1 / VIS 67 IN
MW 10.1 / VIS 56 OUT

100% SLTY SH: v dk gy-dk brn gy,
v frm-hrd, sl fis, sb blk-y-sb plty,
rthy-slty, arg mtx, v sl calc

MD: 7,166'
TVD: 7,021.75'
Inclination: 24.07°
Azimuth: 156.3°
VS: 776.28'

100% SLTY SH: v dk gy-dk brn gy,
v frm-hrd, sl fis, sb blk-y-sb plty,
rthy-slty, arg mtx, v sl calc

MW 10.2 / VIS 70 IN
MW 10.1 / VIS 60 OUT

701u

756u

GAS (units)
C1-C4 (PPM)

3000
300000

