

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name NCLP AA07-69-1AHNC

Location SEC 4 T6N R63W

State COLORADO

County WELD

Country USA

Rig Number H&P 322

API Number 05-123--39110

Field WATTENBERG

Region DJ BASIN

Drilling Completed 8/11/2014

Spud Date 8/3/2014

Surface Coordinates LAT: 40.50873°N
LONG: 104.45095°W
75' FSL
75' FWL

Bottom Hole Coordinates PROJECTED:
165' FNL
1530' FEL

Ground Elevation 4703'

K.B. Elevation 4727'

Logged Interval 1000' To 6065'

Total Depth 13335'

Formation NIOBRARA "C" CHALK

Type of Drilling Fluid MUD;WATER;POLY

Other Symbols

Oil Show

- ORGANIC
- PINPOINT
- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

Porosity

- E EARTHY
- FENESTRAL
- F FRACTURE
- X INTERCRYSTALLINE
- INTEROOLITIC
- MOLDIC

Engineering

- BIT
- 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
- CG

Rounding

- ANGULAR
- ROUNDED
- SUBANG
- SUBRND
- L LITHOGRAPHIC
- MX MICROXLN
- MS MUDSTONE
- PS PACKSTONE
- WS WACKESTONE

Textures

- BOUNDSTONE
- CHALKY
- CRYPTOXLN
- E EARTHY
- FNELYXLN
- GRAINSTONE

Sorting













- MODERATE
- POOR
- WELL

Zone Color Coding












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

Accessories

Fossils














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

F FOSSIL

 GASTROPOD
 INOCERAMUS
 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

 GLAUCONITE
 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

Rock Types









? UNKNOWN

 ANHYDRITE
 BENTONITE
 BRECCIA
 CEMENT
 CHALK
 CHERT
 CLAY CHOKE SAND
 CLAYSTONE

■ COAL

 CONGLOMERATE
 DOLOMITE
 GRANITE
 GYPSUM
 IGNEOUS
 LIMESTONE
 SIDERITE or LIMONITE
 MARLSTONE

■ METAMORPHIC

 NO SAMPLE
 SALT
 SALT- PEPPER SAND
 SANDSTONE
 SHALE
 SHALE COLORED
 SHALE GRAY
 SHALY SANDSTONE

■ SHALY SILTSTONE

 SILTSTONE
 SILTY SHALE
 TILL
 TUFF
 WELDED TUFF

Operator

Company Noble Energy Inc

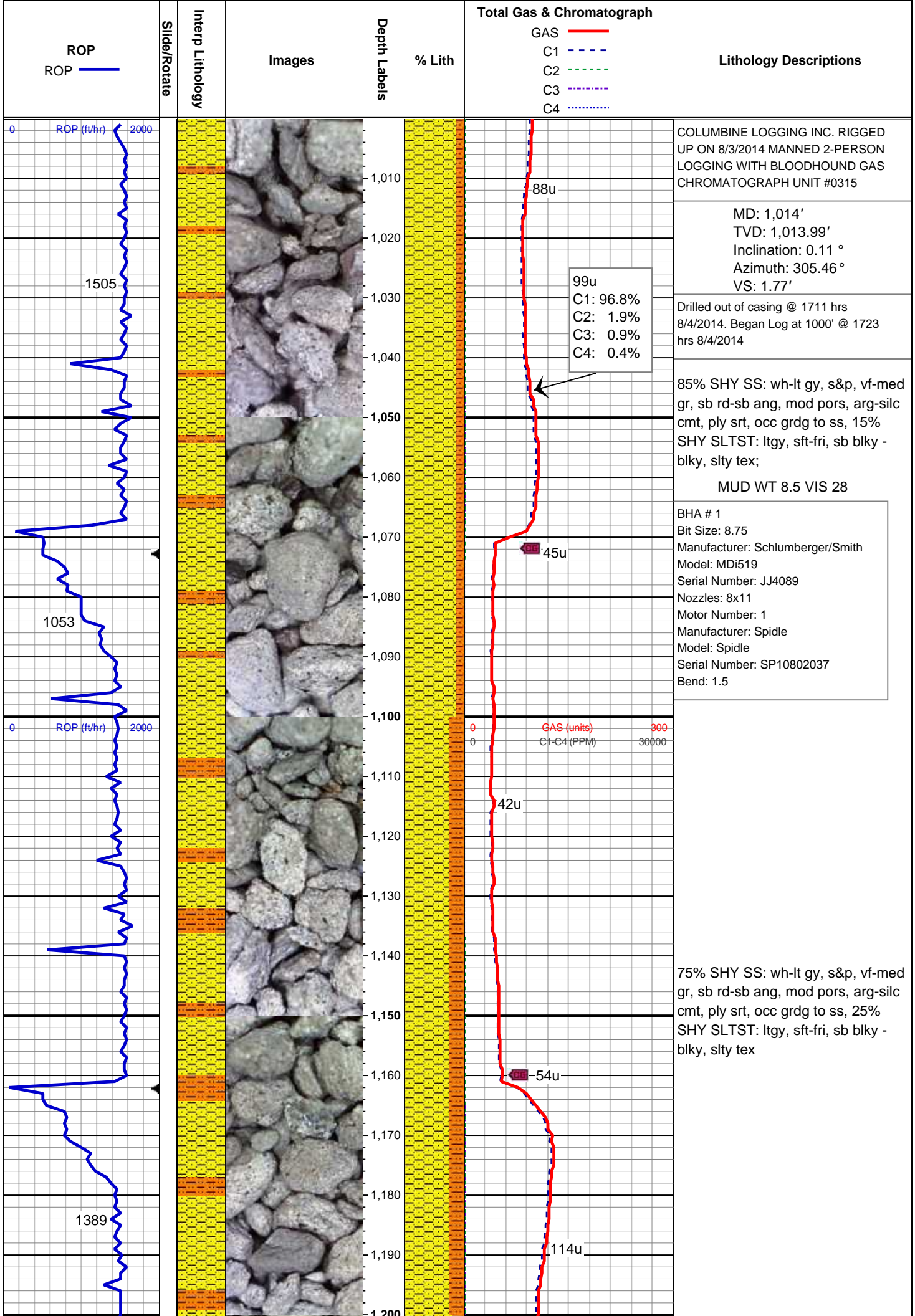
Address 1625 Broadway Suite 2200
Denver, CO 80202

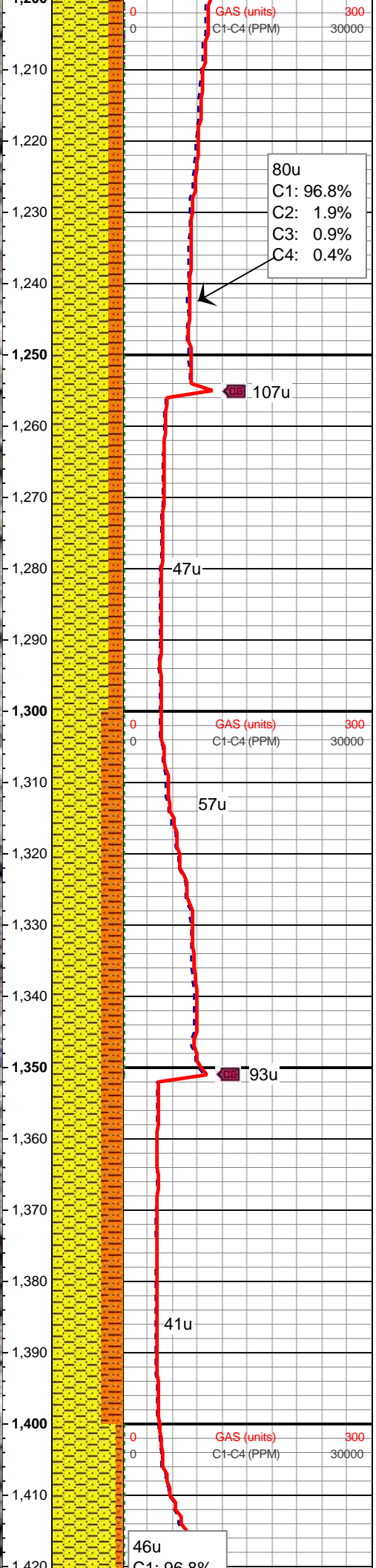
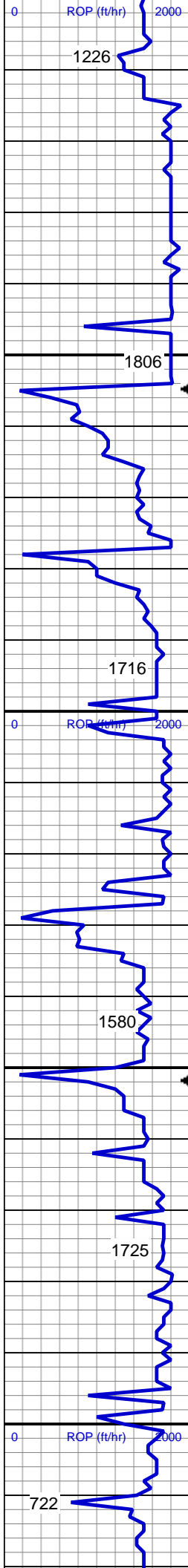
Geologist

Name MIKE GREENE;JERED KARR

Company COLUMBINE LOGGING, INC.

Address 2385 S. LIPAN ST
DENVER, COLORADO 80223
(303) 289-7764





80u
C1: 96.8%
C2: 1.9%
C3: 0.9%
C4: 0.4%

107u

47u

57u

93u

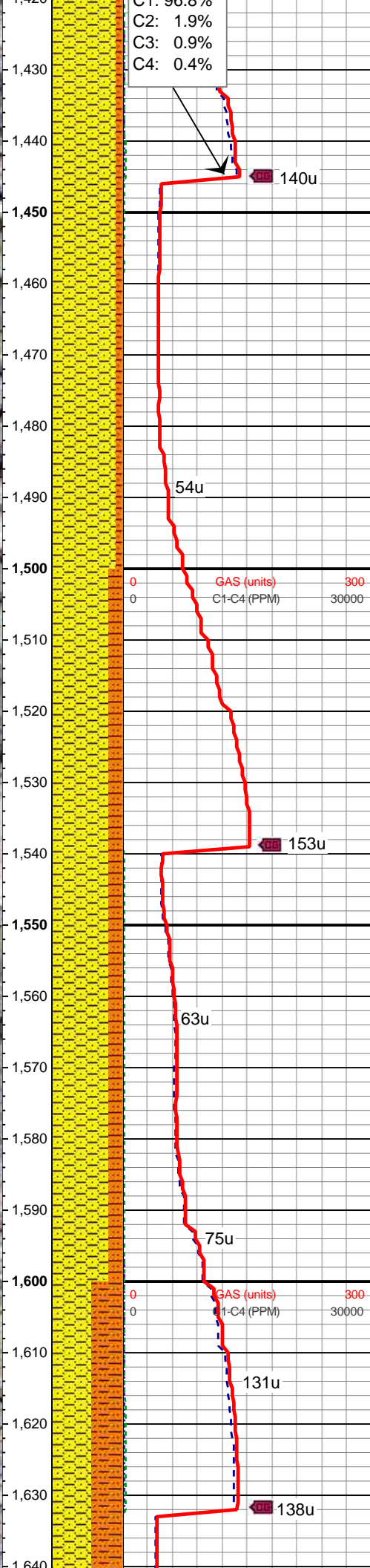
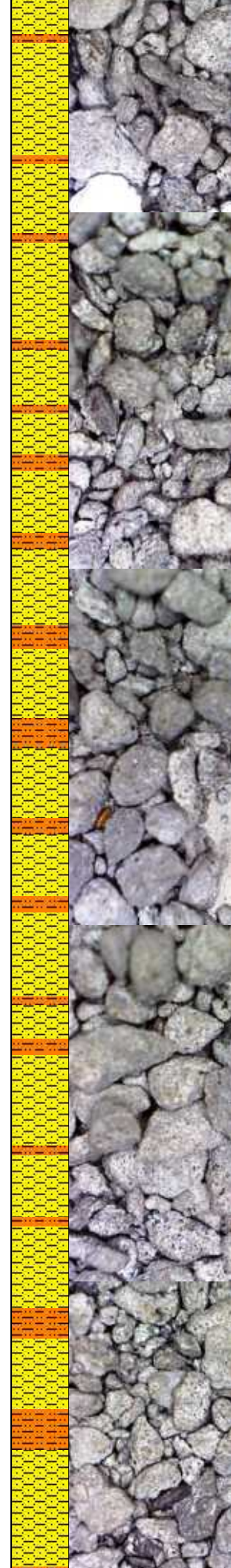
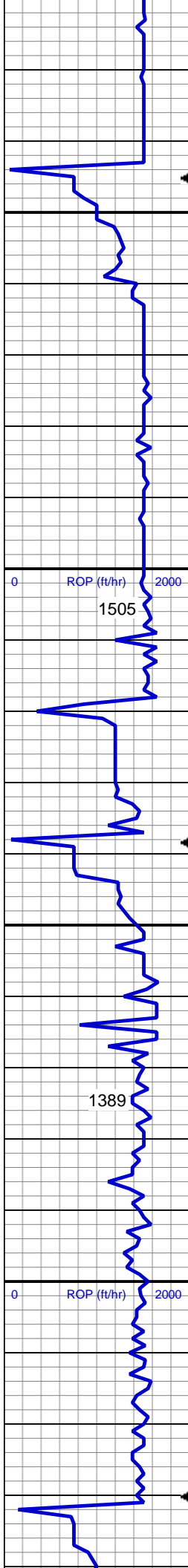
41u

46u
C1: 96.8%

80% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss, 20% SHY SLTST: ltgy, sft-fri, sb blkly - blkly, slty tex

MD: 1,293'
TVD: 1,292.98'
Inclination: 0.17 °
Azimuth: 313.6°
VS: 2.26'

70% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss, 30% SHY SLTST: ltgy, sft-fri, sb blkly - blkly, slty tex



90% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss, 10% SHY SLTST: ltgy, sft-fri, sb blkly - blkly, slty tex

80% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss, 20% SHY SLTST: ltgy, sft-fri, sb blkly - blkly, slty tex

MD: 1,571'

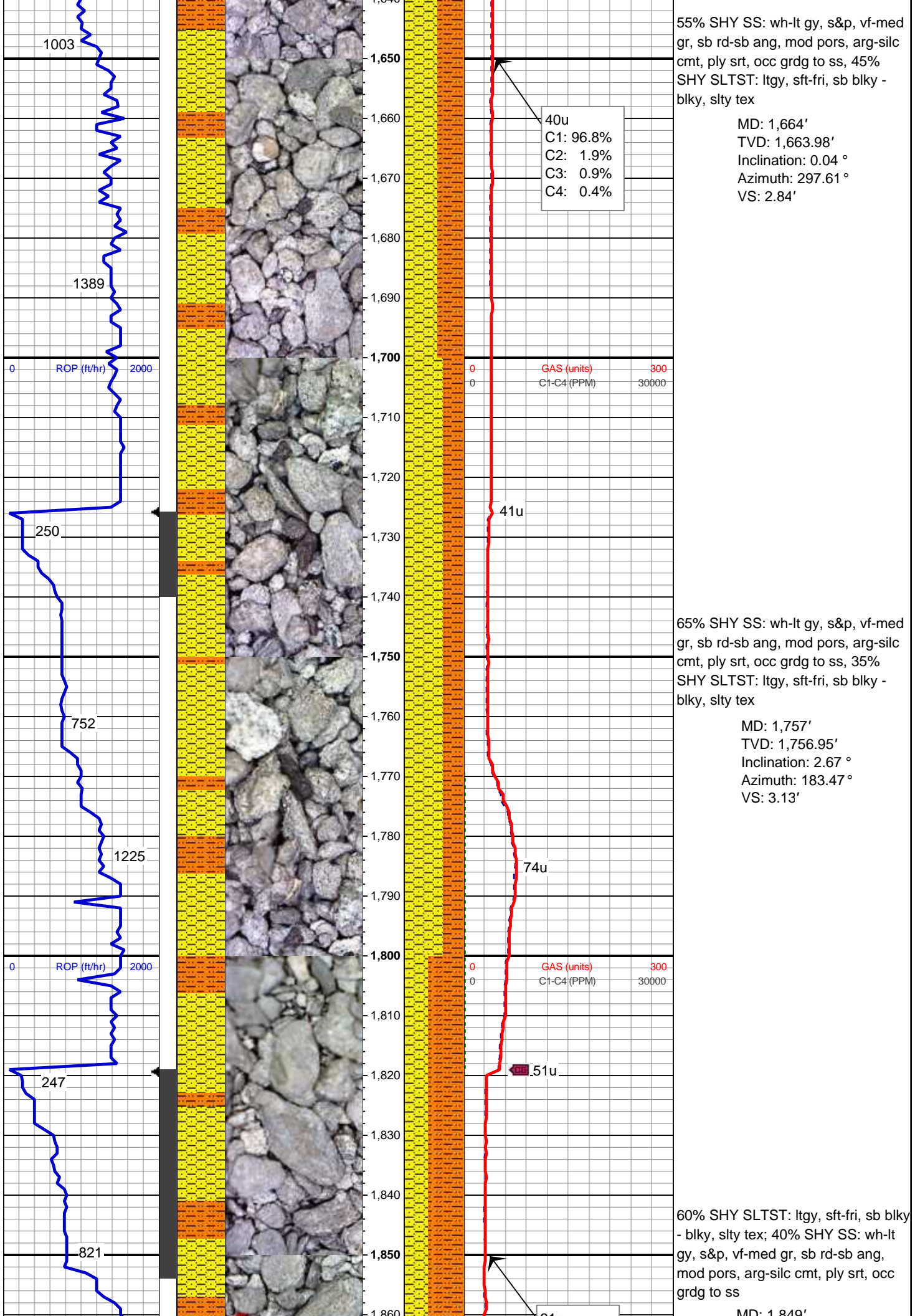
TVD: 1,570.98'

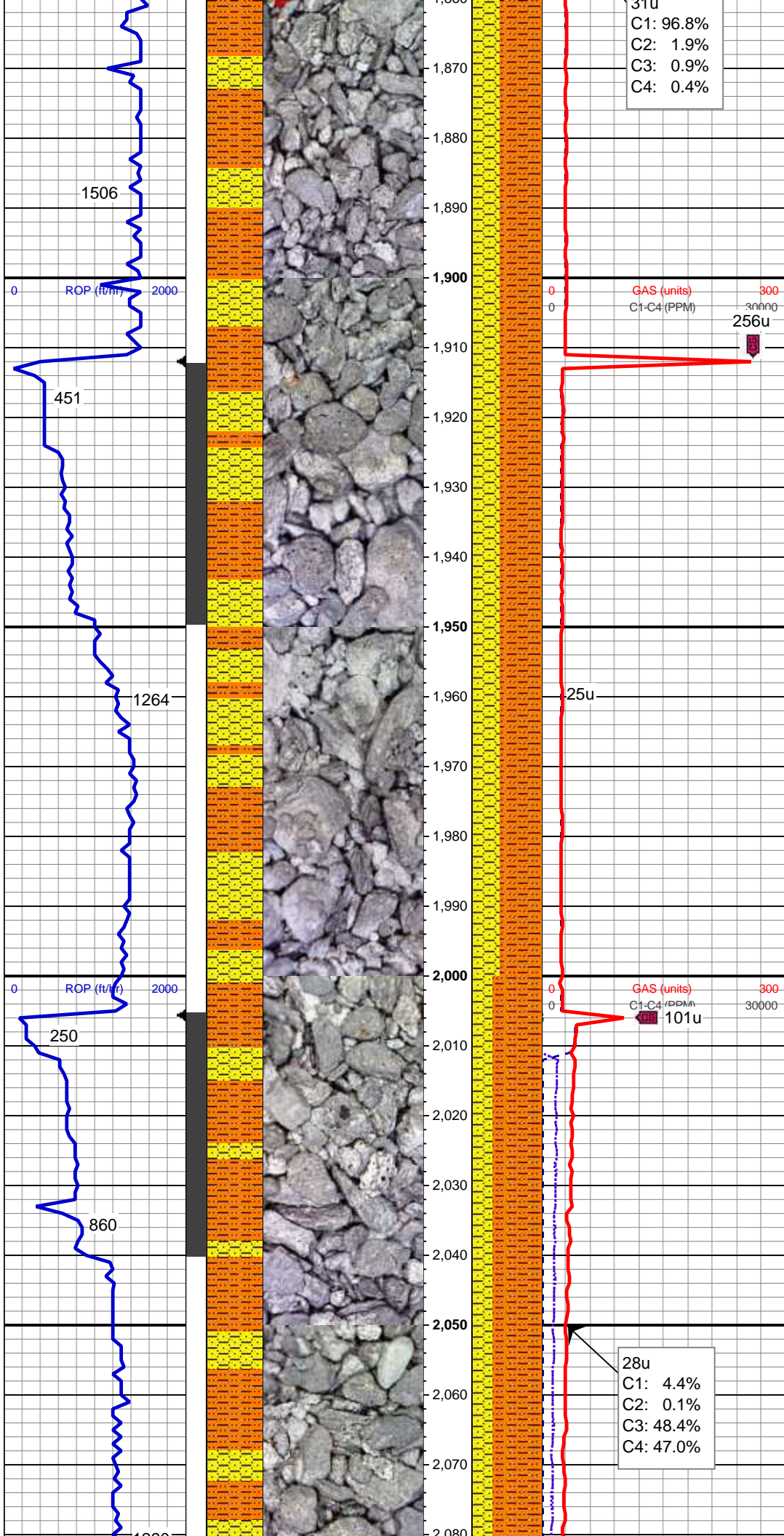
Inclination: 0.12 °

Azimuth: 307.38 °

VS: 2.74'

MUD WT 8.6 VIS 28





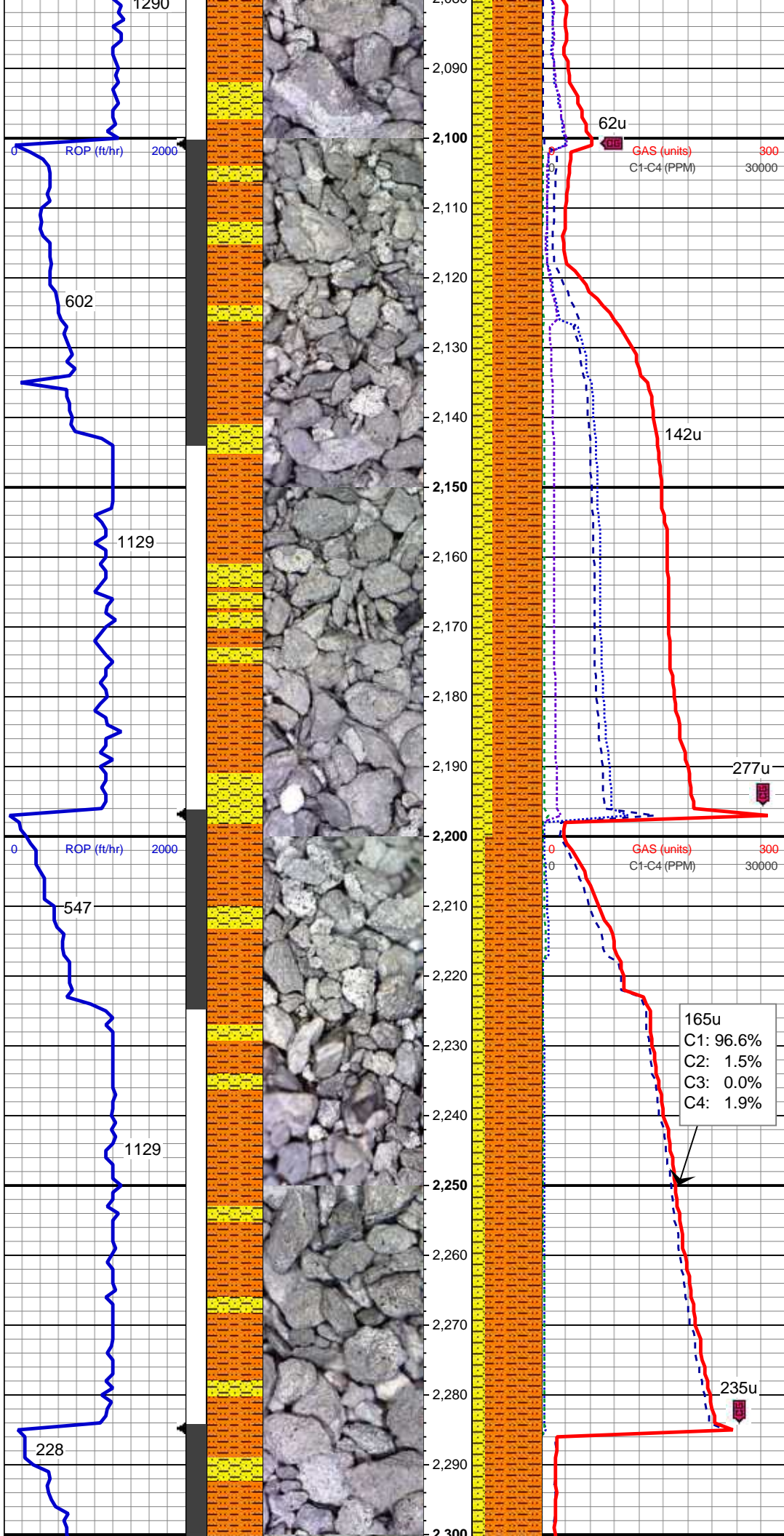
MD: 1,849'
TVD: 1,848.77'
Inclination: 4.56 °
Azimuth: 201.65 °
VS: 4.95'

60% SHY SLTST: ltgy, sft-fri, sb blk
- blk, slty tex; 40% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

MD: 1,942'
TVD: 1,941.34'
Inclination: 6.34 °
Azimuth: 208.66 °
VS: 9.27'

70% SHY SLTST: ltgy, sft-fri, sb blk
- blk, slty tex; 30% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

MD: 2,037'
TVD: 2,035.96'
Inclination: 4.01 °
Azimuth: 184.24 °
VS: 12.52'

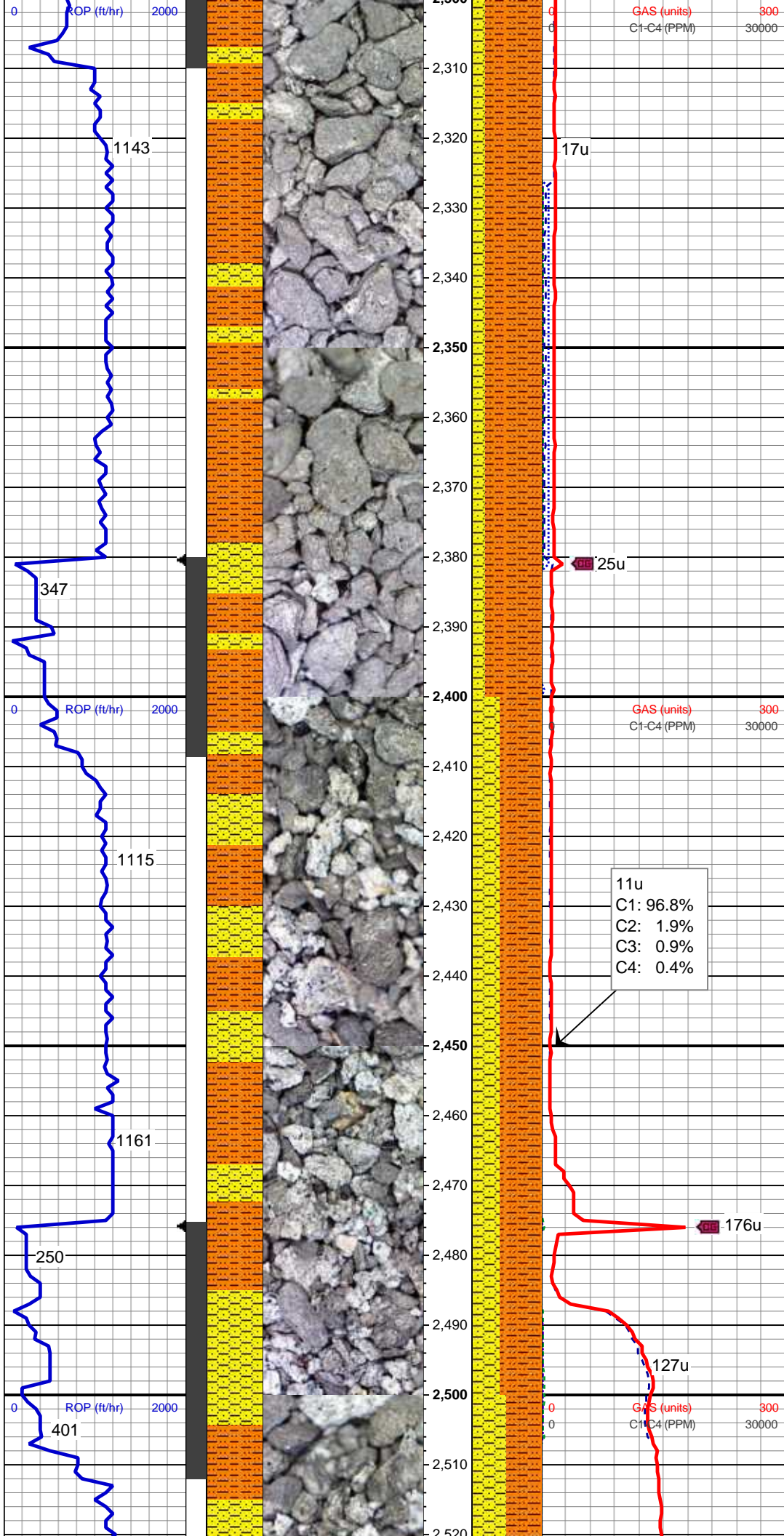


MD: 2,132'
TVD: 2,130.63'
Inclination: 5.51 °
Azimuth: 191.84 °
VS: 14.18'

70% SHY SLTST: ltgy, sft-fri, sb blk
- blk, slty tex; 30% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

MD: 2,227'
TVD: 2,225.06'
Inclination: 7.07 °
Azimuth: 196.87 °
VS: 17.43'

80% SHY SLTST: ltgy, sft-fri, sb blk
- blk, slty tex; 20% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss



MD: 2,322'
TVD: 2,319.29'
Inclination: 7.48 °
Azimuth: 198.24 °
VS: 21.77'

80% SHY SLTST: ltgy, sft-fri, sb blk
- blk, slty tex; 20% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

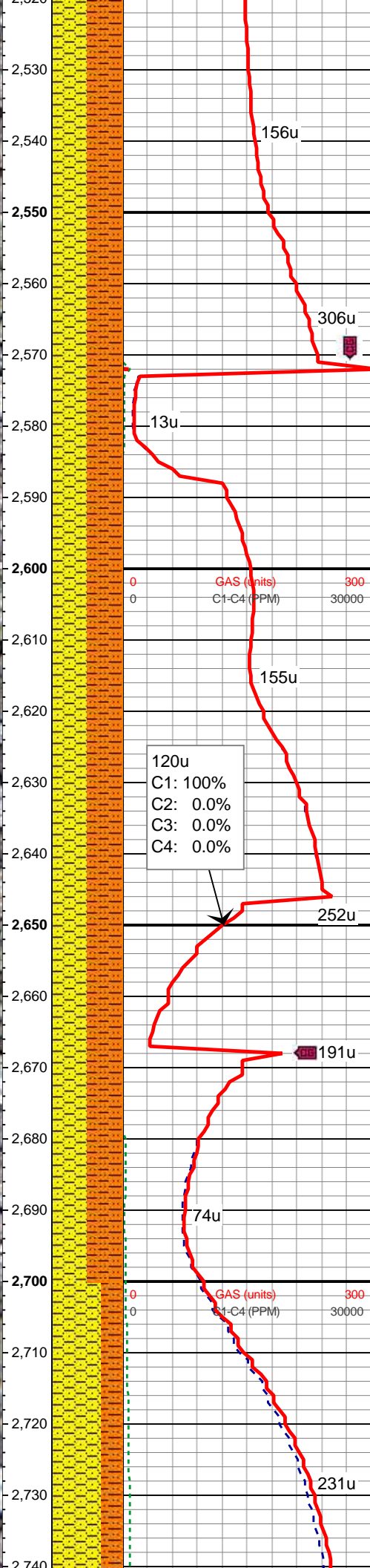
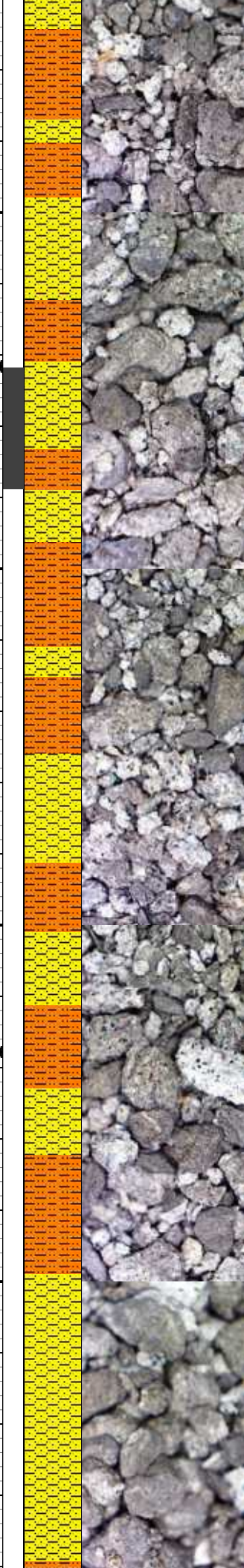
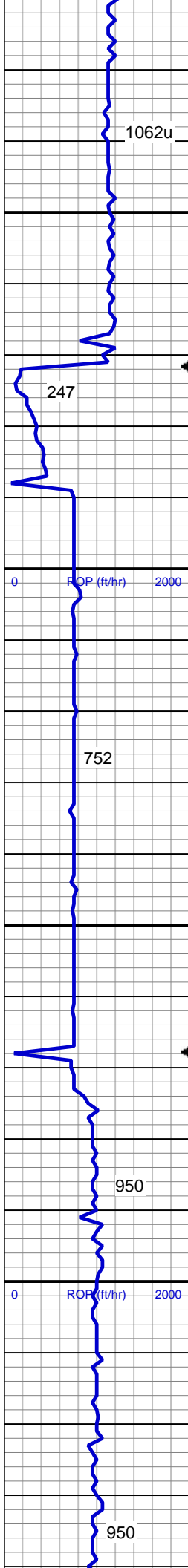
MUD WT 8.8 VIS 28

MD: 2,416'
TVD: 2,412.56'
Inclination: 6.89 °
Azimuth: 211.5 °
VS: 27.28'

11u
C1: 96.8%
C2: 1.9%
C3: 0.9%
C4: 0.4%

60% SHY SLTST: ltgy, sft-fri, sb blk
- blk, slty tex; 40% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

MD: 2,511'
TVD: 2,506.72'
Inclination: 8.35 °
Azimuth: 208.57 °
VS: 34.23'



50% SHY SLTST: ltgy, sft-fri, sb blkly
- blkly, slty tex; 50% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

MD: 2,606'
TVD: 2,600.66'
Inclination: 8.8 °
Azimuth: 199.37 °
VS: 40.73'

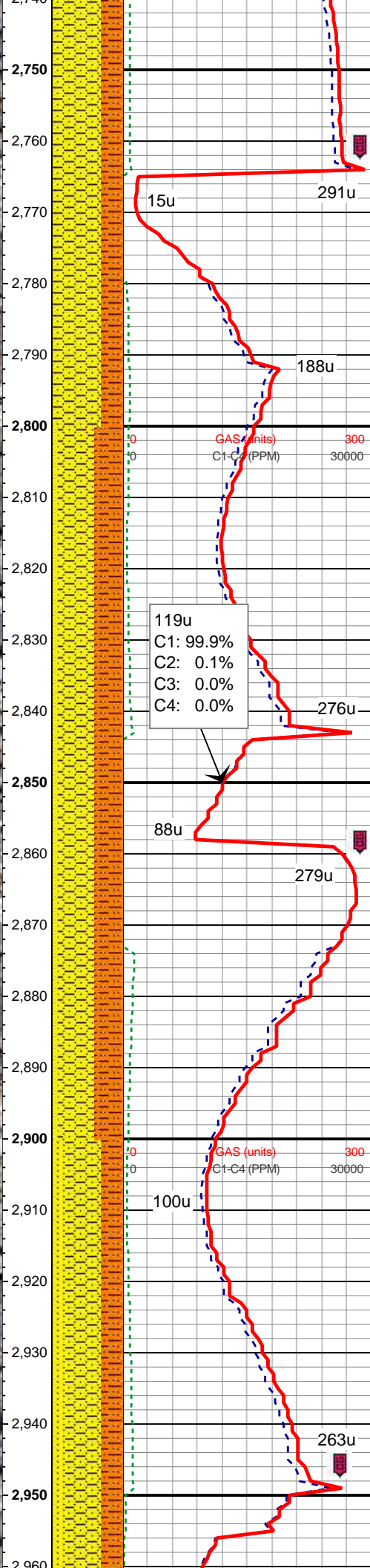
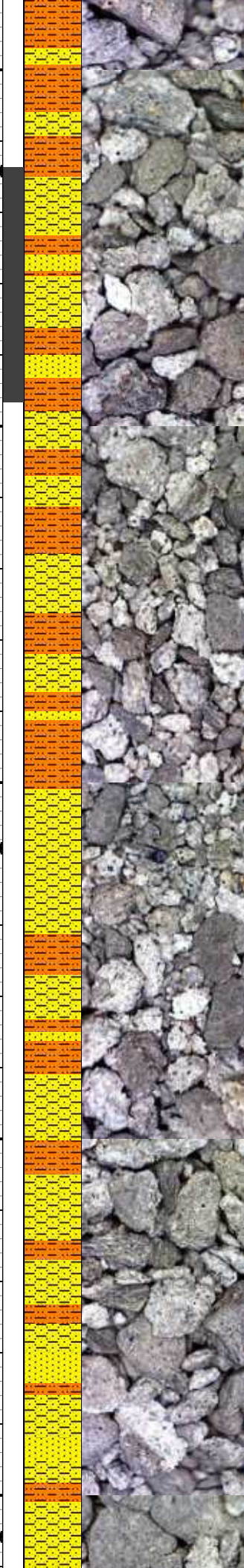
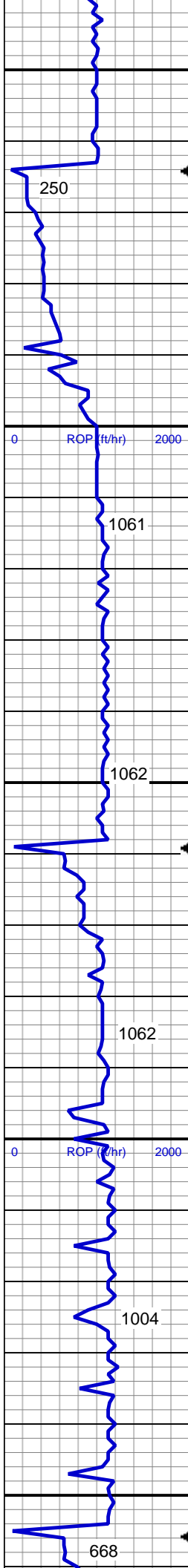
50% SHY SLTST: ltgy, sft-fri, sb blkly
- blkly, slty tex; 50% SHY SS: wh-lt
gy, s&p, vf-med gr, sb rd-sb ang,
mod pors, arg-silc cmt, ply srt, occ
grdg to ss

MD: 2,701'
TVD: 2,694.66'
Inclination: 7.8 °
Azimuth: 201.24 °
VS: 46.27'

120u
C1: 100%
C2: 0.0%
C3: 0.0%
C4: 0.0%

GAS (units)
C1-C4 (PPM)

GAS (units)
C1-C4 (PPM)



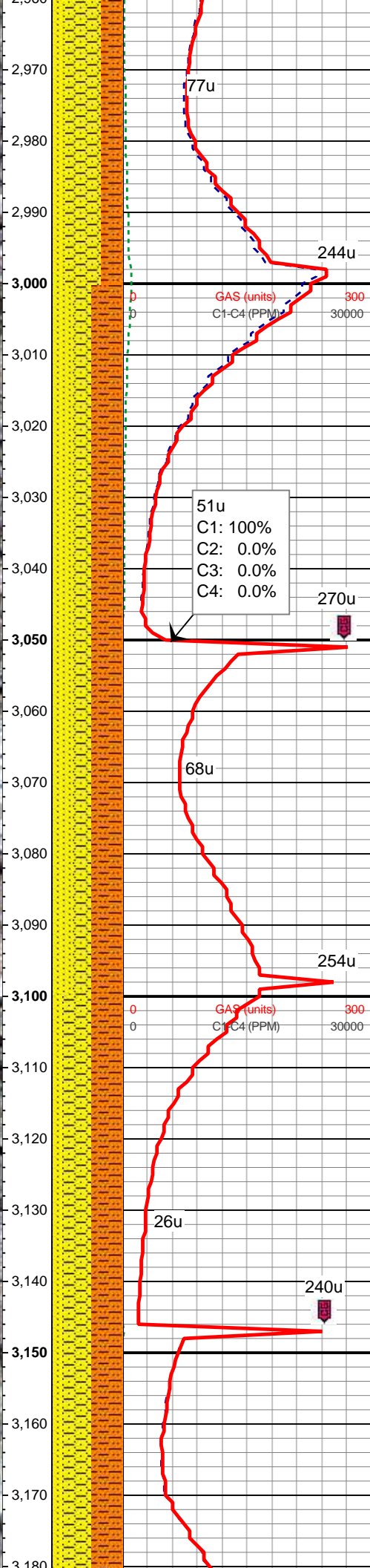
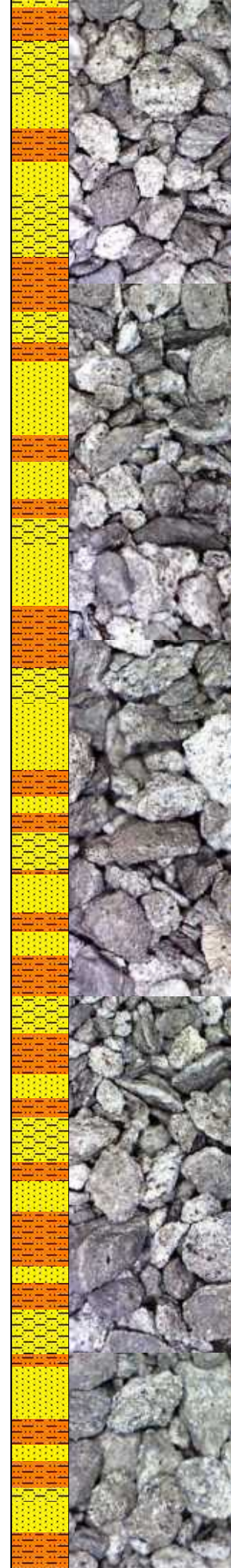
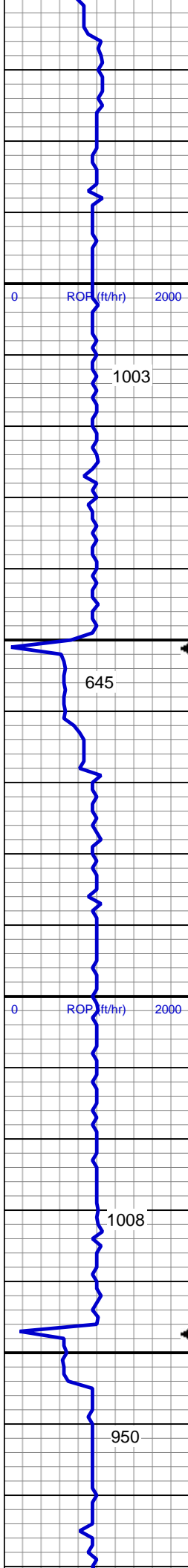
70% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss; 30% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex

MD: 2,796'
TVD: 2,788.62'
Inclination: 9.19 °
Azimuth: 201.71 °
VS: 52.21'

50% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss; 40% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 10% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt

MD: 2,891'
TVD: 2,882.46'
Inclination: 8.77 °
Azimuth: 199.55 °
VS: 58.3'

50% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss; 30% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 20% SS: offwht to bf, s&p, sb rd-sb ang, mod



MD: 2,986'
TVD: 2,976.34'
Inclination: 8.79 °
Azimuth: 201.69 °
VS: 64.24'

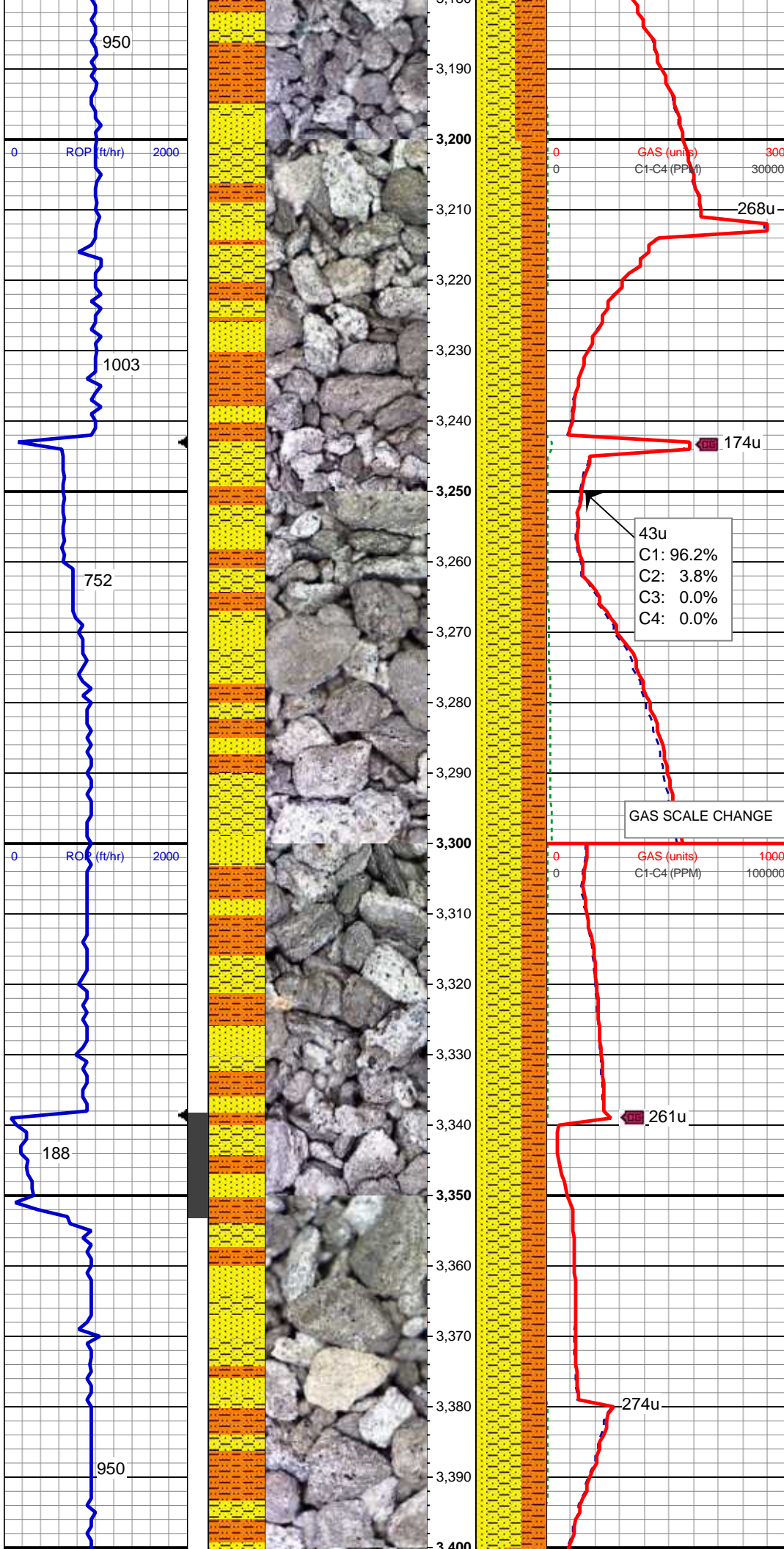
45% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 30% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt; 25% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grdg to ss

MD: 3,081'
TVD: 3,070.31'
Inclination: 8.08 °
Azimuth: 202.08 °
VS: 70.23'

45% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 40% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grdg to ss; 15% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt

MD: 3,176'
TVD: 3,164.4'
Inclination: 7.79 °
Azimuth: 203.38 °

VS: 76.03'



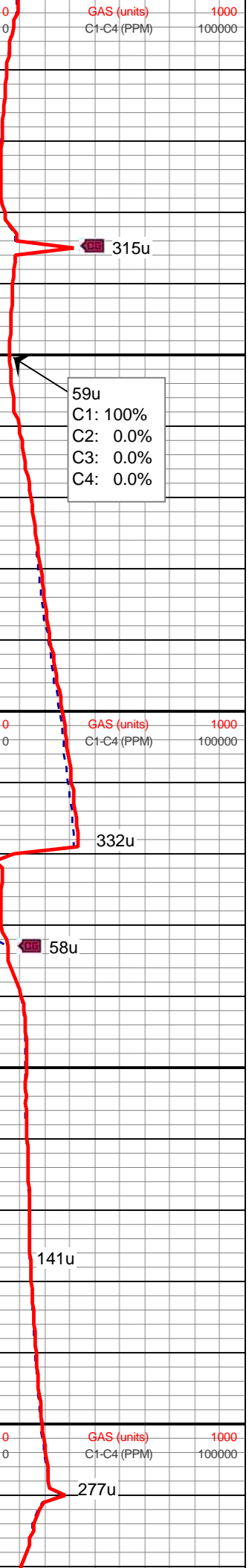
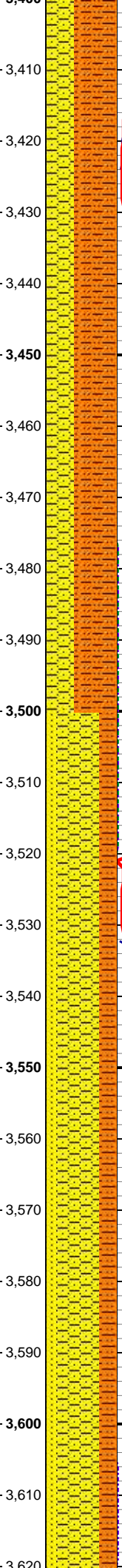
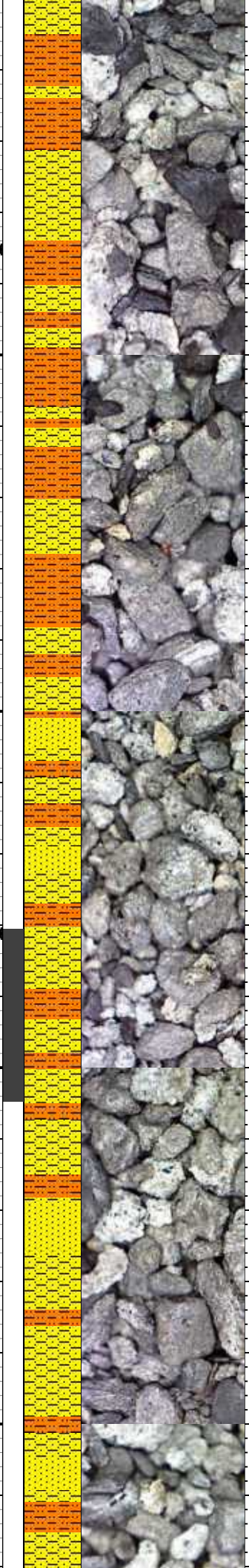
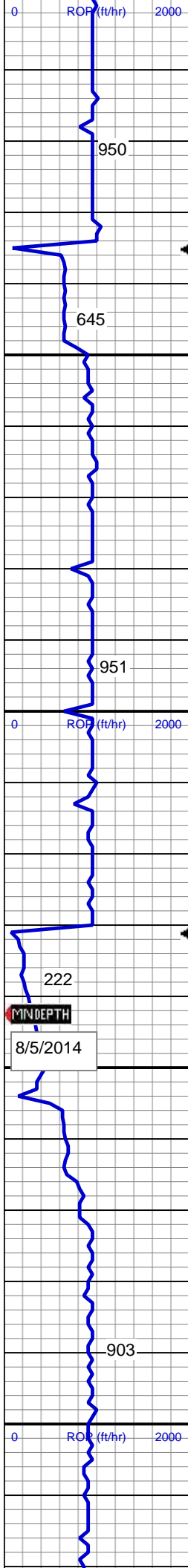
50% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss; 35% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 15% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt

MD: 3,271'
TVD: 3,258.62'
Inclination: 6.92 °
Azimuth: 203.83 °
VS: 81.59'

50% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss; 35% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 15% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt

MD: 3,365'
TVD: 3,352.05'
Inclination: 5.77 °
Azimuth: 215.2 °
VS: 87.15'

MUD WT 8.8 VIS 28

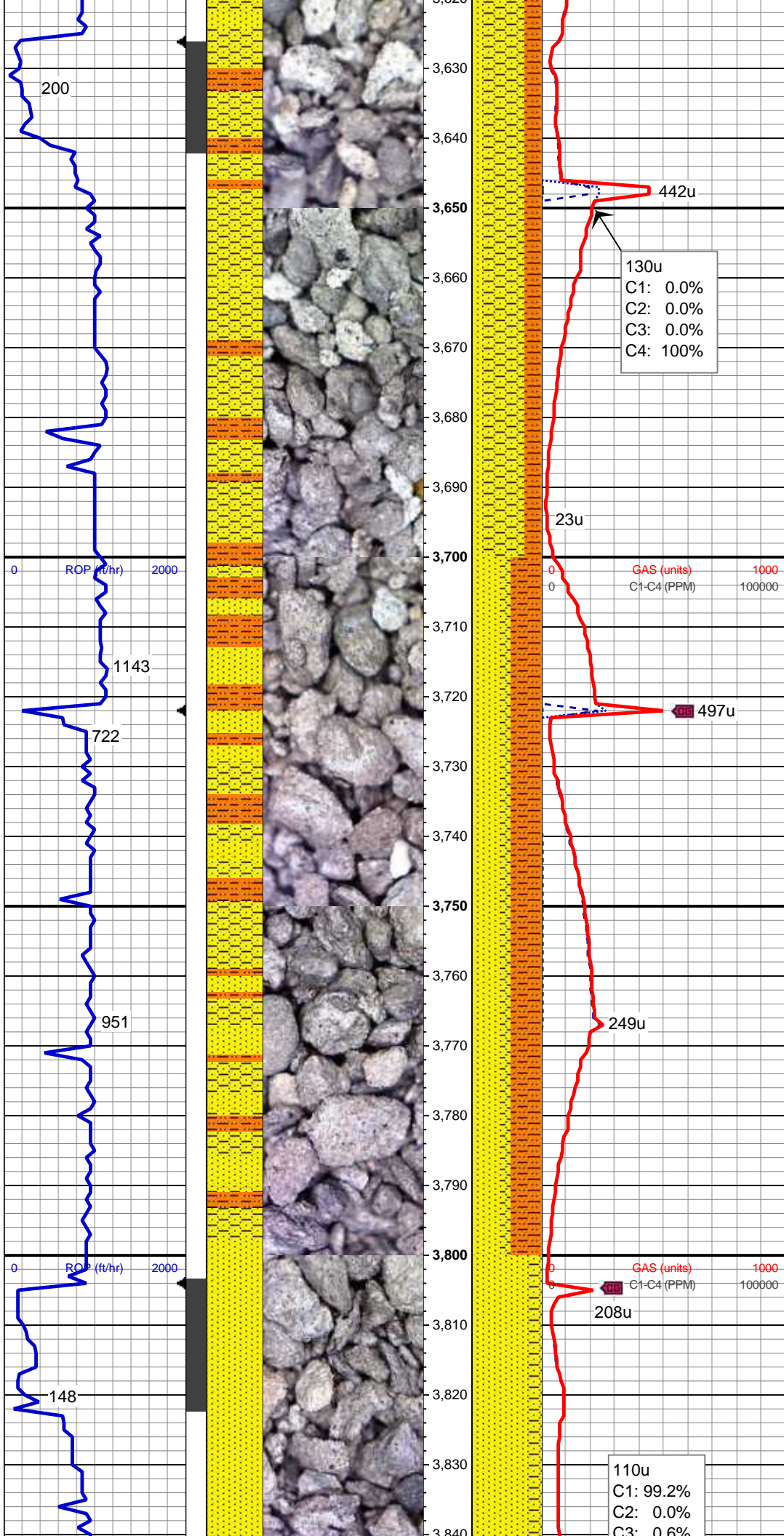


60% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex; 40% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grdg to ss

MD: 3,460'
TVD: 3,446.69'
Inclination: 4.17 °
Azimuth: 223.01 °
VS: 92.65'

60% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grdg to ss; 25% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex, occ pyr; 15% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt

MD: 3,556'
TVD: 3,542.39'
Inclination: 4.93 °
Azimuth: 204.31 °
VS: 97.12'



60% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss; 25% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex, occ pyr; 15% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt

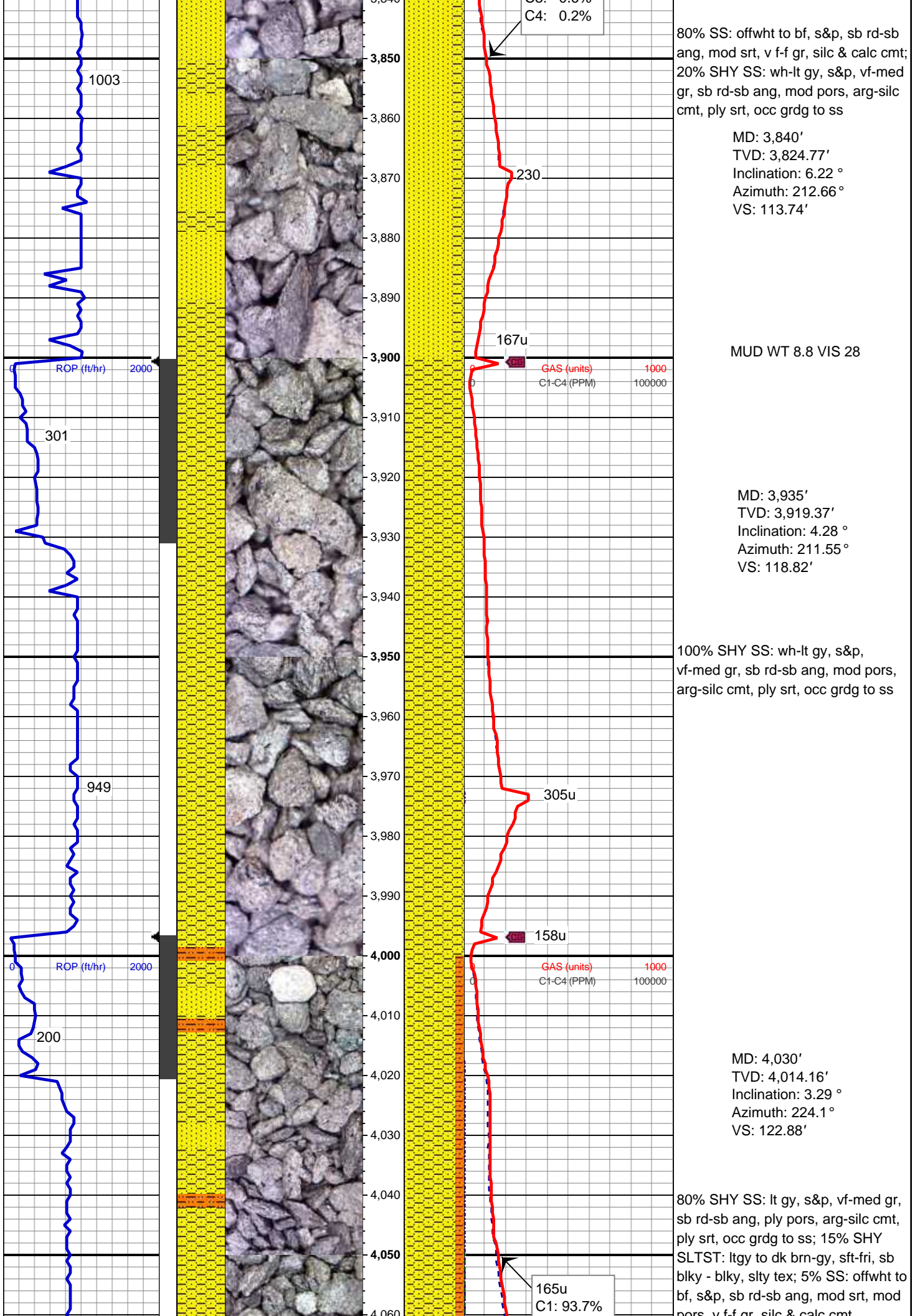
MD: 3,650'
TVD: 3,635.96'
Inclination: 6.01 °
Azimuth: 210.6 °
VS: 101.77'

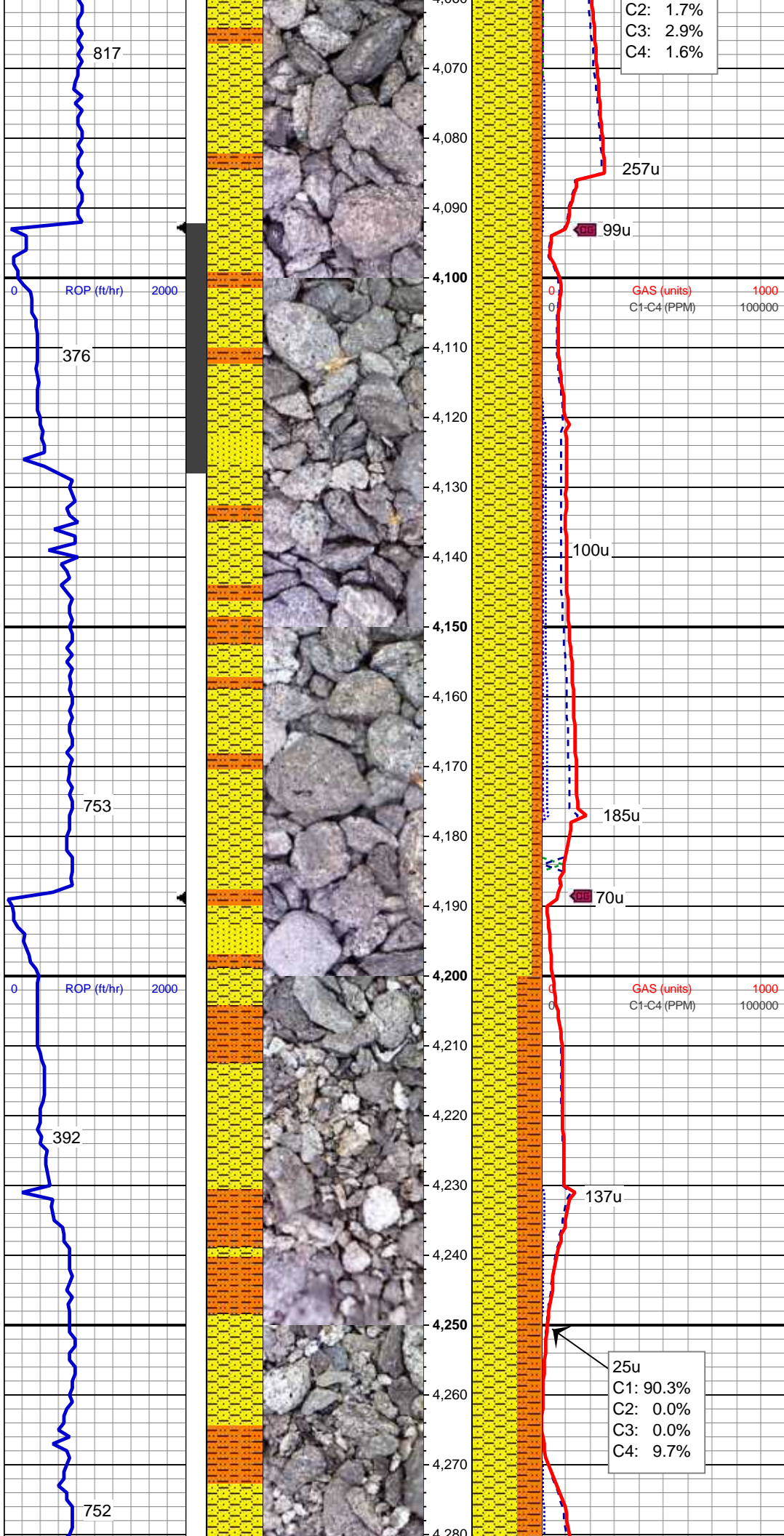
130u
C1: 0.0%
C2: 0.0%
C3: 0.0%
C4: 100%

45% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex, occ pyr; 40% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, v f-f gr, silc & calc cmt; 15% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt, occ grd to ss

MD: 3,745'
TVD: 3,730.38'
Inclination: 6.73 °
Azimuth: 209.88 °
VS: 107.63'

110u
C1: 99.2%
C2: 0.0%
C3: 0.6%



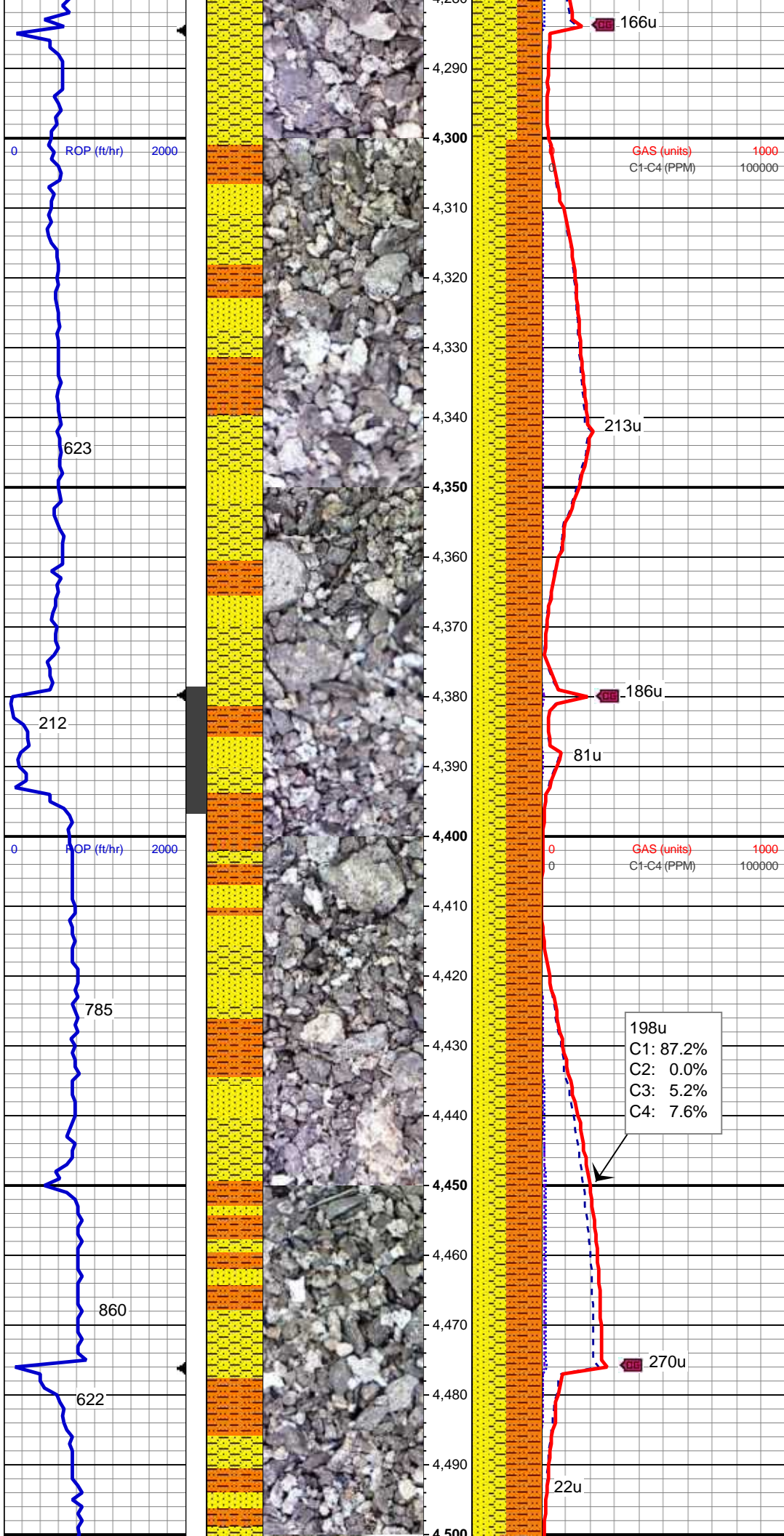


MD: 4,125'
TVD: 4,109.05'
Inclination: 2.38 °
Azimuth: 192.62 °
VS: 125.44'

80% SHY SS: lt gy, s&p, vf-med gr, sb rd-sb ang, ply pors, arg-silc cmt, ply srt, occ grdg to ss, rr cal frags;
15% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex; 5% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, mod pors, v f-f gr, silc & calc cmt

MD: 4,220'
TVD: 4,204.02'
Inclination: 0.65 °
Azimuth: 43.28 °
VS: 125.6'

65% SHY SS: lt gy, s&p, vf-med gr, sb rd-sb ang, ply pors, arg-silc cmt, ply srt, occ grdg to ss; 35% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex



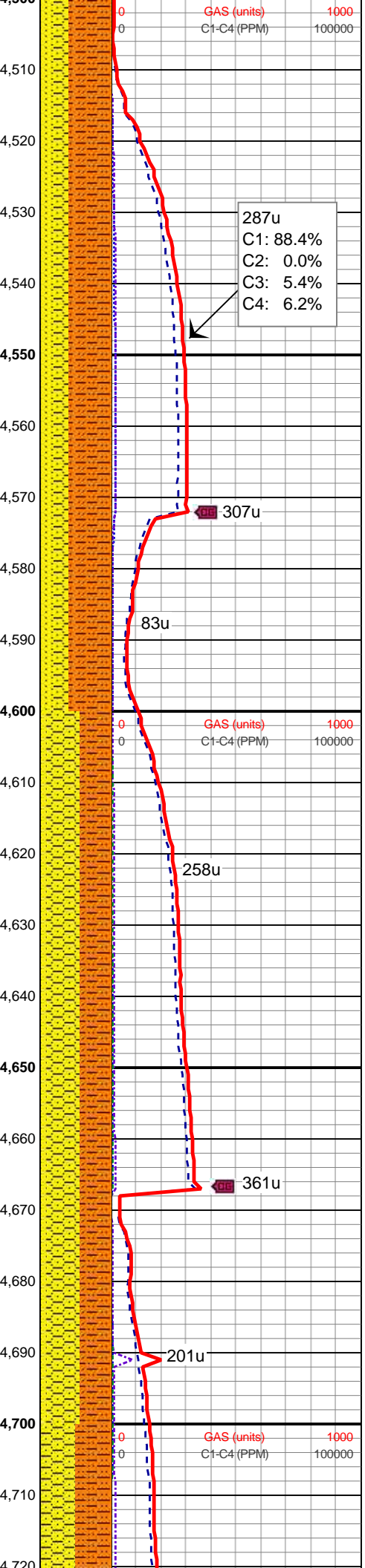
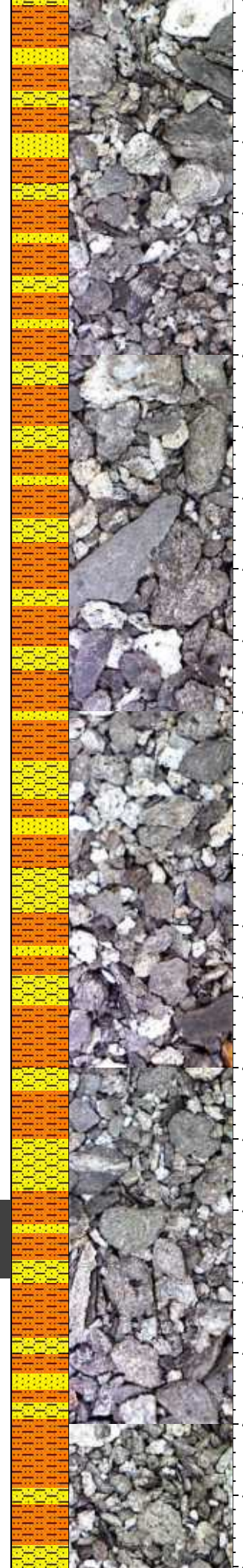
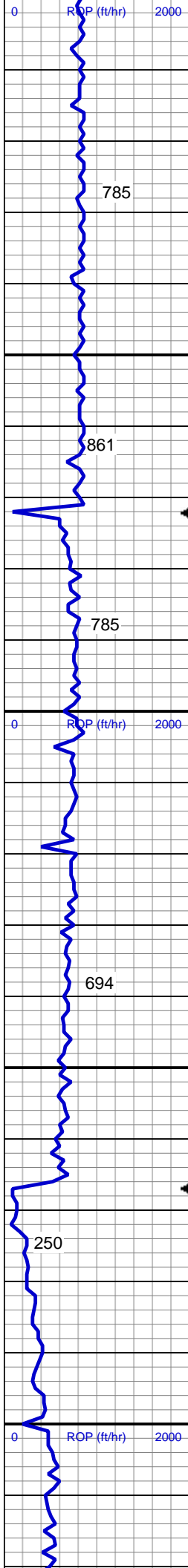
MD: 4,315'
TVD: 4,299.02'
Inclination: 0.79 °
Azimuth: 46.59°
VS: 124.7'

50% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex; 25% SHY SS: lt gy, s&p, vf-med gr, sb rd-sb ang, ply pors, arg-silc cmt, ply srt, occ grd to ss, rr cal frags; 25% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, mod pors, v f-f gr, silc & calc cmt

MD: 4,410'
TVD: 4,394.01'
Inclination: 0.48 °
Azimuth: 107.66°
VS: 123.83'

50% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex; 25% SHY SS: lt gy, s&p, vf-med gr, sb rd-sb ang, ply pors, arg-silc cmt, ply srt, occ grd to ss, rr cal frags; 25% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, mod pors, v f-f gr, silc & calc cmt;

MD: 4,505'
TVD: 4,489.01'
Inclination: 0.76 °



Azimuth: 31.25°
VS: 123.1'

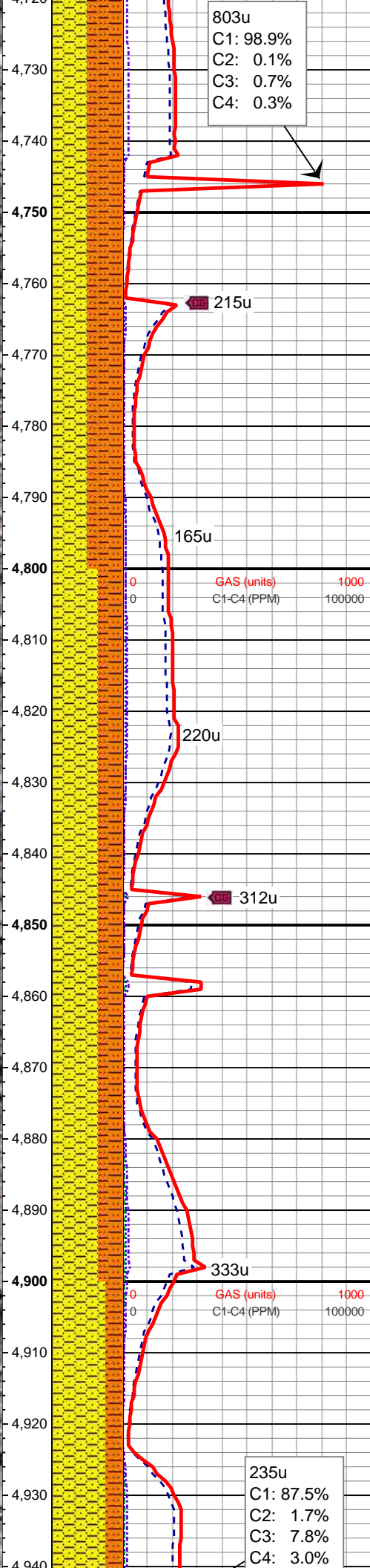
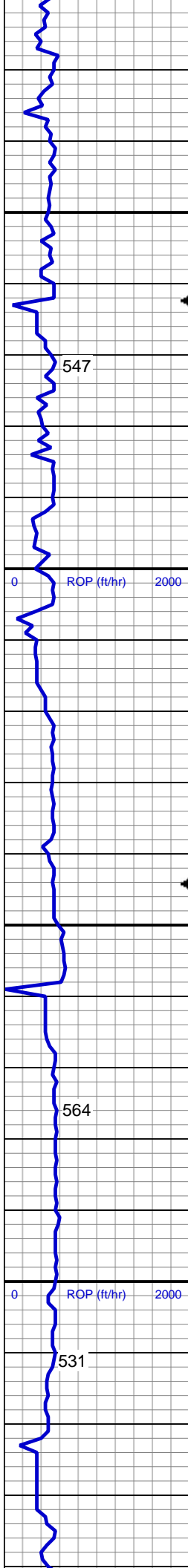
60% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex; 20% SHY SS: lt gy, s&p, vf-med gr, sb rd-sb ang, ply pors, arg-silc cmt, ply srt, occ grd to ss, rr cal frags; 20% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, mod pors, v f-f gr, silc & calc cmt;

MD: 4,599'
TVD: 4,582.98'
Inclination: 1.78 °
Azimuth: 0.58 °
VS: 122.64'

MUD WT 8.8 VIS 28

45% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blk - blk, slty tex; 45% SHY SS: lt gy, s&p, vf-med gr, sb rd-sb ang, ply pors, arg-silc cmt, ply srt, occ grd to ss, rr cal frags; 10% SS: offwht to bf, s&p, sb rd-sb ang, mod srt, mod pors, v f-f gr, silc & calc cmt;

MD: 4,694'
TVD: 4,677.97'
Inclination: 0.25 °
Azimuth: 345.42 °
VS: 122.57'

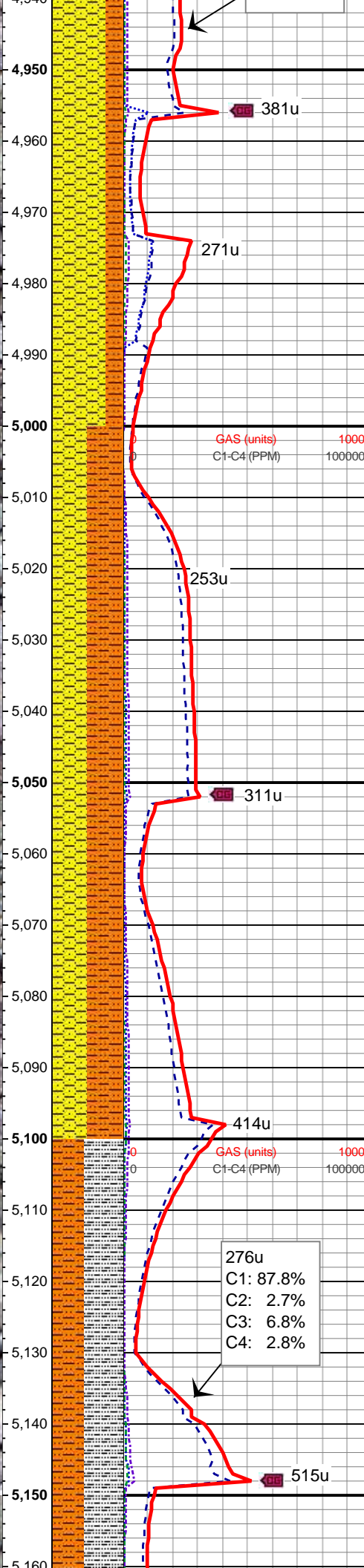
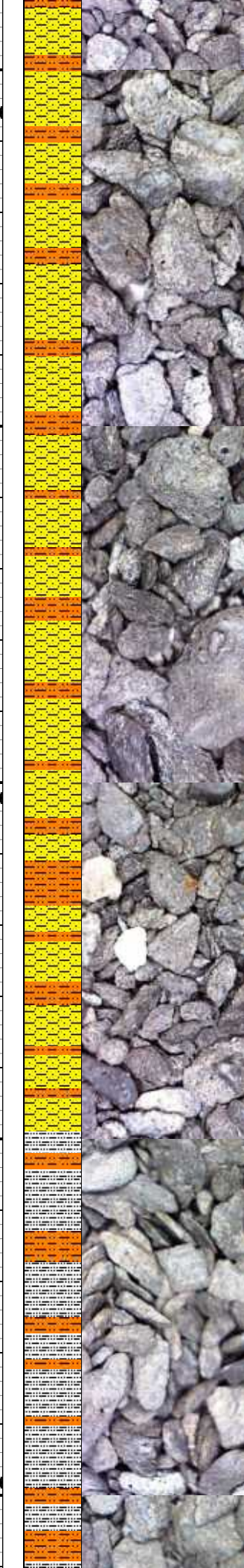
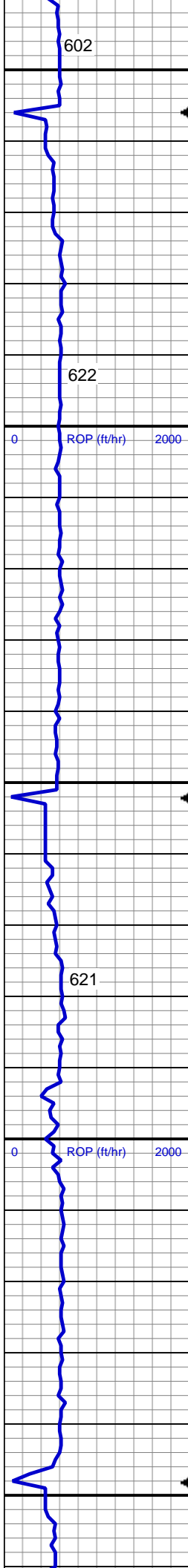


50% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt; 50% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex

MD: 4,788'
TVD: 4,771.97'
Inclination: 0.21 °
Azimuth: 333.7 °
VS: 122.67'

65% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt; 35% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex

MD: 4,883'
TVD: 4,866.96'
Inclination: 0.66 °
Azimuth: 133.2 °
VS: 122.37'



75% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt; 25% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex

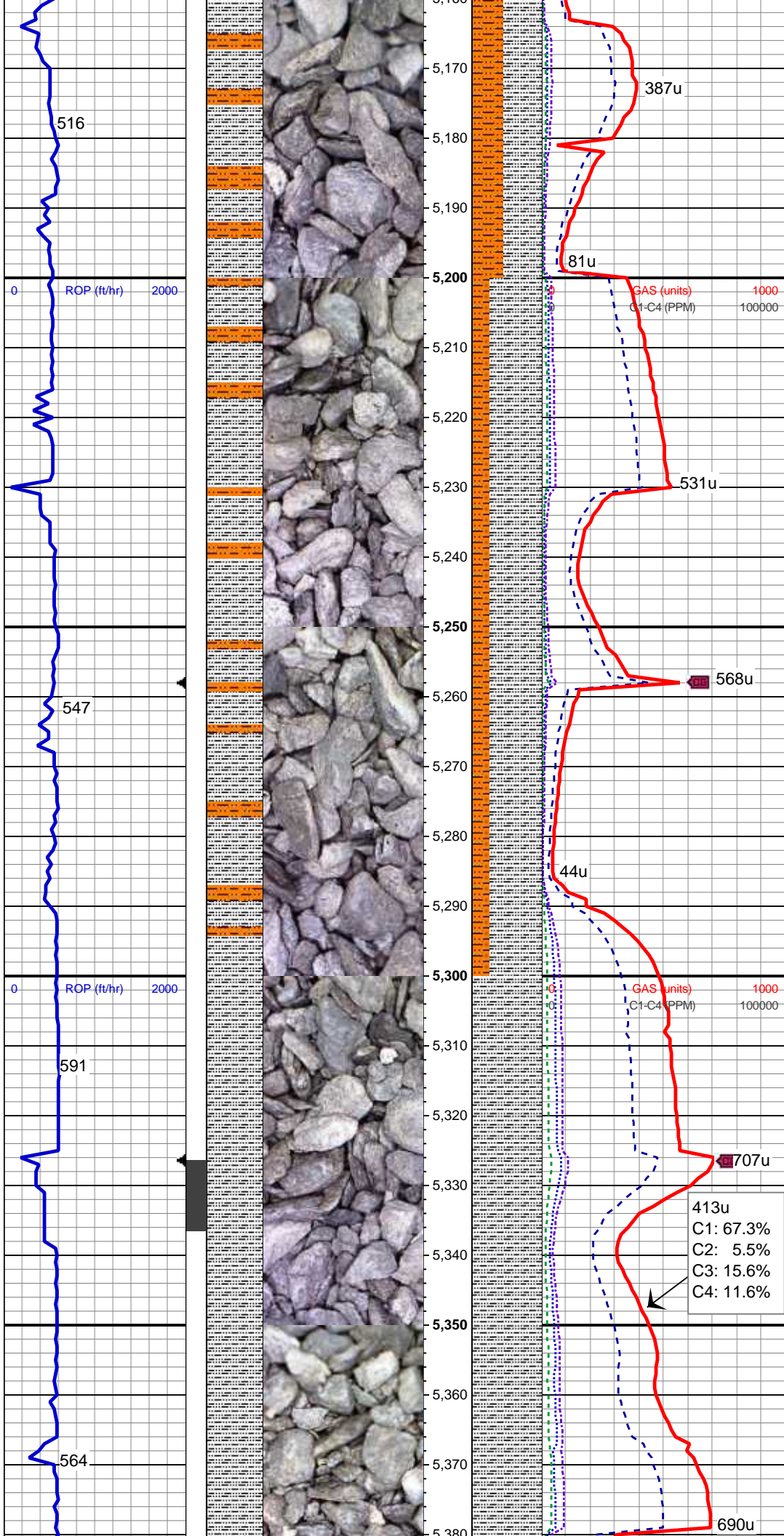
MD: 4,978'
TVD: 4,961.96'
Inclination: 0.53 °
Azimuth: 142.17 °
VS: 121.75'

50% SHY SS: wh-lt gy, s&p, vf-med gr, sb rd-sb ang, mod pors, arg-silc cmt, ply srt; 50% SHY SLTST: ltgy to dk brn-gy, sft-fri, sb blkly - blkly, slty tex

MD: 5,073'
TVD: 5,056.95'
Inclination: 0.9 °
Azimuth: 143.52 °
VS: 121.09'

MUD WT 8.8 VIS 28

55% SLTY SH: med-dk gy occ gy brn, firm-sl sft, plty, rthy-sl slty tex; 45% SHY SLTST: lt to med brn-gy, sft-fri, sb blkly - blkly, slty tex



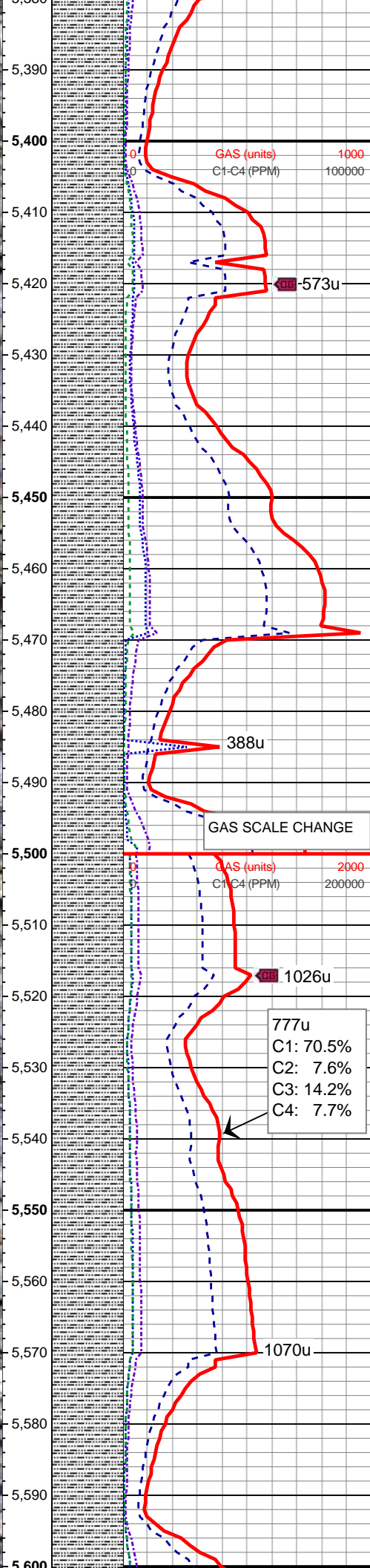
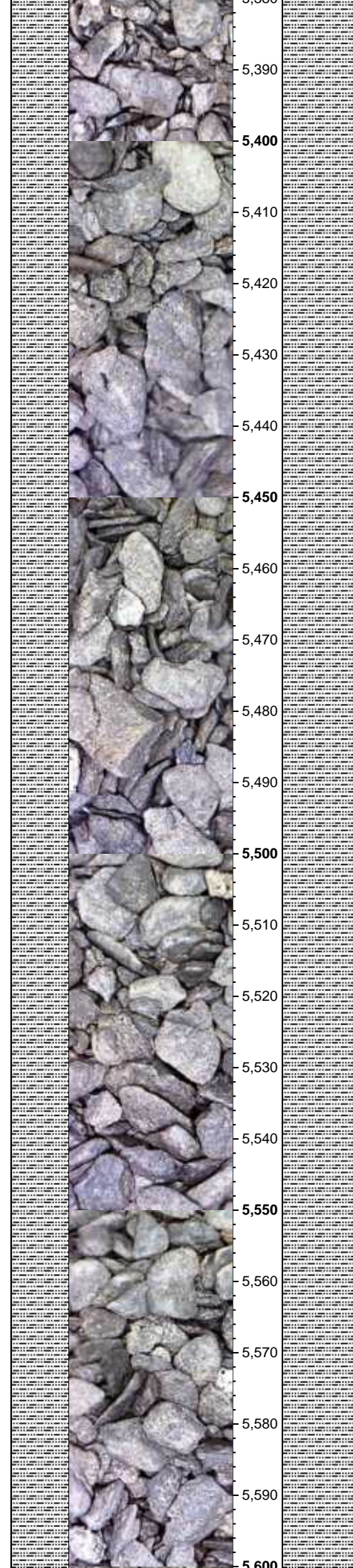
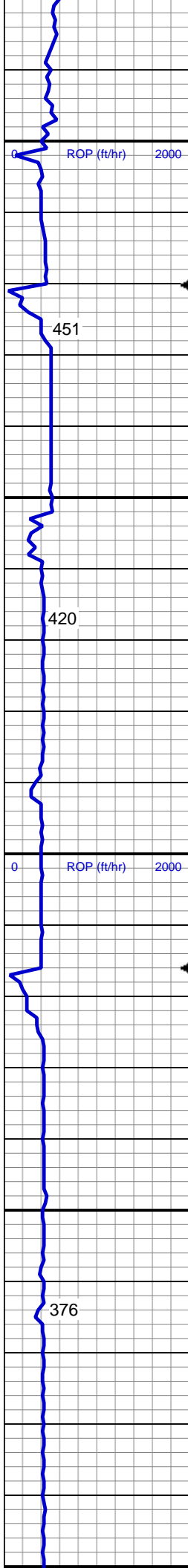
MD: 5,168'
TVD: 5,151.94'
Inclination: 0.58 °
Azimuth: 165.33 °
VS: 120.59'

75% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rhy-sl slty tex;
25% SHY SLTST: lt to med brn-gy,
sft-fri, sb blkly - blkly, slty tex

MD: 5,262'
TVD: 5,245.94'
Inclination: 0.7 °
Azimuth: 237.37 °
VS: 121'

100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rhy-sl slty tex

MD: 5,357'
TVD: 5,340.94'
Inclination: 0.39 °
Azimuth: 290.4 °
VS: 121.81'



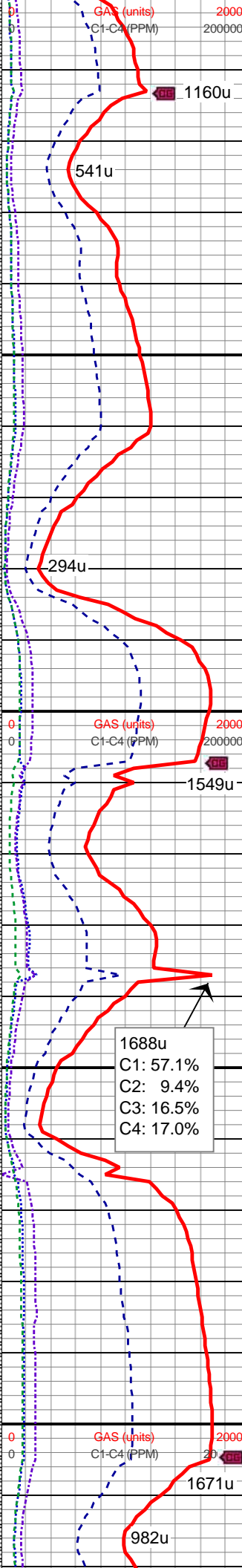
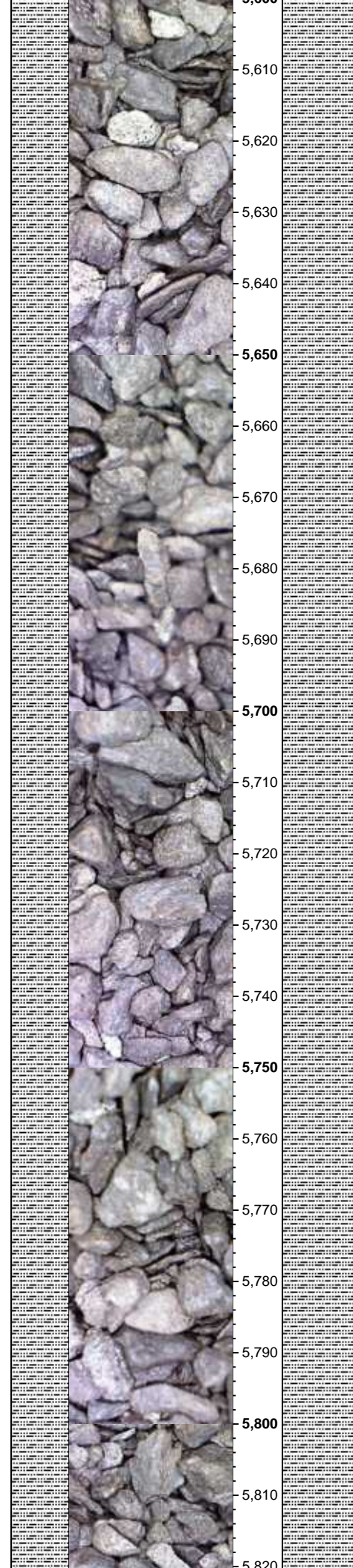
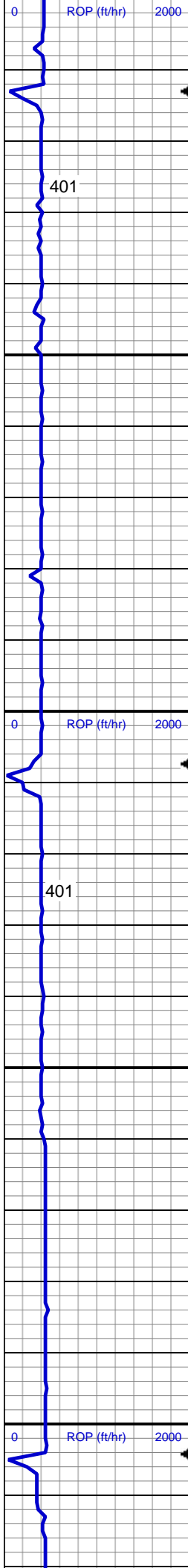
MUD WT 8.9 VIS 28

100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

MD: 5,452'
TVD: 5,435.93'
Inclination: 0.52 °
Azimuth: 259.76 °
VS: 122.53'

100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

MD: 5,547'
TVD: 5,530.93'
Inclination: 0.52 °
Azimuth: 276.84 °
VS: 123.38'

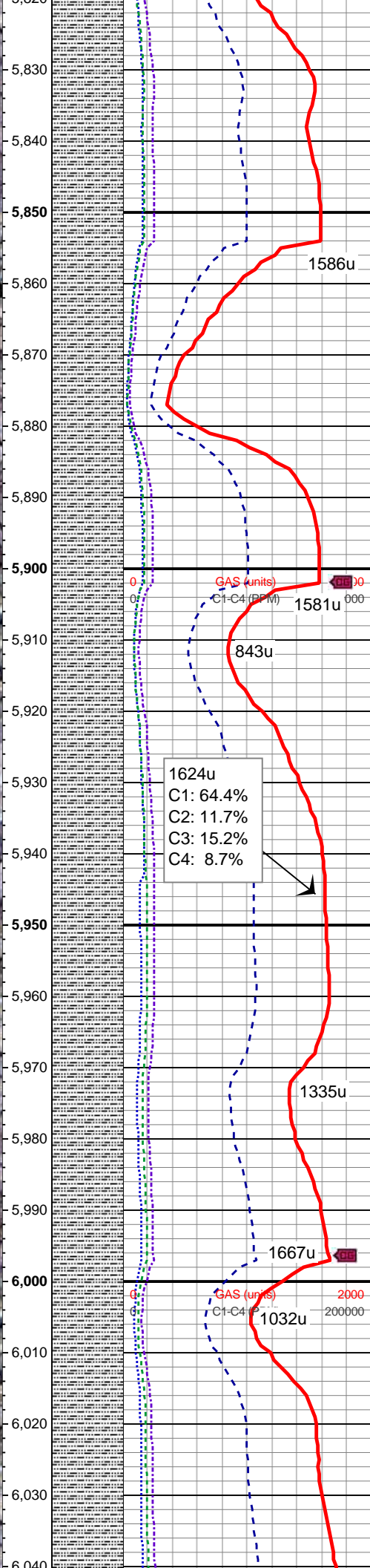
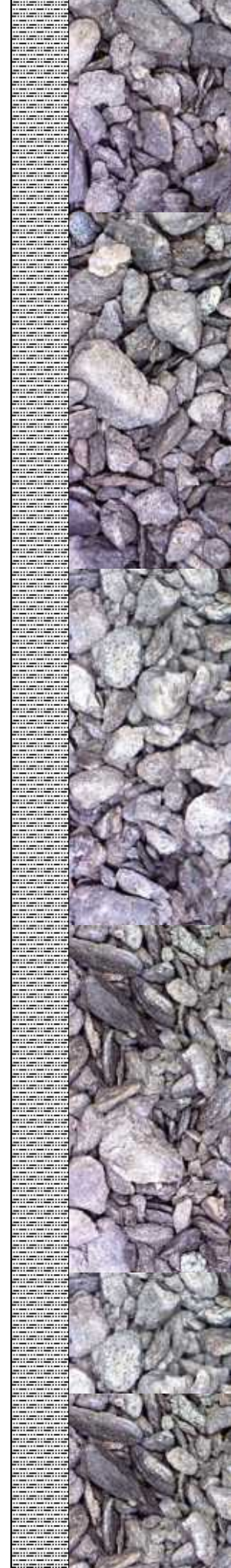
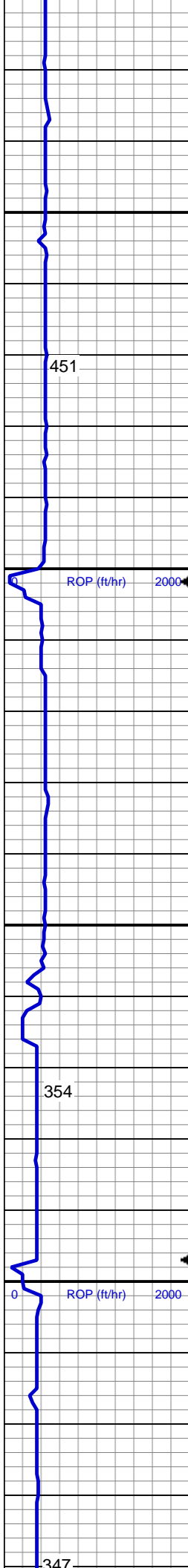


100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

MD: 5,737'
TVD: 5,720.91'
Inclination: 0.9 °
Azimuth: 227.1 °
VS: 125.87'

100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

MUD WT 9.0 VIS 29



MD: 5,831'
TVD: 5,814.9'
Inclination: 0.47 °
Azimuth: 286.89 °
VS: 126.8'

100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

MD: 5,926'
TVD: 5,909.9'
Inclination: 0.21 °
Azimuth: 191.56 °
VS: 127.21'

100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

MUD WT 9.1 VIS 31

MD: 6,006'
TVD: 5,989.9'
Inclination: 0.33 °
Azimuth: 181.73 °
VS: 127.27'

1624u
C1: 64.4%
C2: 11.7%
C3: 15.2%
C4: 8.7%

GAS (units)
C1-C4 (PPM)

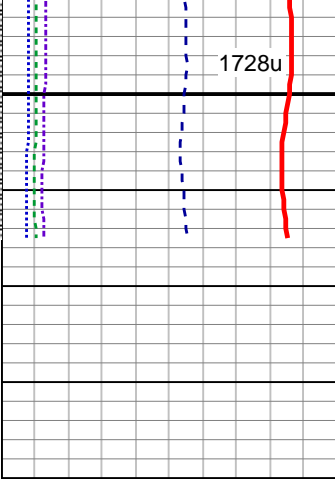
GAS (units)
C1-C4 (PPM)



100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex



6,040
6,050
6,060
6,070
6,080
6,090



100% SLTY SH: med-dk gy occ gy
brn, firm-sl sft, plty, rthy-sl slty tex

TD Vertical @ 6065 MD;
0841 hrs 8/5/2014

TOOH For Directional BHA

LOG CONTINUED ON:
NCLP AA07-69-1AHNC(HORZ).mplot

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Columbine Logging Inc.