

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name Merritt 6-66-9-0659CDH HZ

Location NWNE SEC 9, T6N, R66W

State COLORADO

County WELD

Country USA

Rig Number NABORS M22

API Number 05-123-37711-00

AFE # 18463D

Region DJ BASIN

Field EATON

Spud Date 9/11/2013

Drilling Completed 9/23/2013

Surface Coordinates 260' FNL x 2125' FEL

Bottom Hole Coordinates 550' FNL x 1890' FEL

Ground Elevation 4822'

K.B. Elevation 4844'

Logged Interval 4000' **To** 6806'

Total Depth 11885'

Formation SUSSEX - SHANNON

Type of Drilling Fluid LSND - WATER POLY MUD

Operator

Company BILL BARRETT CORP.

Geologist

Name John Roesink

Company Bill Barrett Corp.

Address 1099 18th Street, Suite 2300
Denver, CO 80202

Rock Types

? UNKNOWN

ANHYDRITE

BENTONITE

BRECCIA

COAL

CONGLOMERATE

DOLOMITE

GRANITE

METAMORPHIC

NO SAMPLE

SALT

SALT- PEPPER SAND

SHALY SILTSTONE

SILTSTONE

SILTY SHALE

TILL

	CEMENT		GYPSUM		SANDSTONE		TUFF
	CHALK		IGNEOUS		SHALE		WELDED TUFF
	CHERT		LIMESTONE		SHALE COLORED		
	CLAY CHOKE SAND		SIDERITE or LIMONITE		SHALE GRAY		
	CLAYSTONE		MARLSTONE		SHALY SANDSTONE		

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

Other Symbols

Oil Show

DEAD
 EVEN
 QUESTIONABLE
 SPOTTED STAINING

Porosity

E EARTHY
 F FENESTRAL
 F FRACTURE
 X INTERCRYSTALLINE
 O INTEROOLITIC

MOLDIC

O ORGANIC
 P PINPOINT
 V VUGGY

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

Rounding

A ANGULAR
 R ROUNDED
 B SUBANG
 P SUBRND

Textures

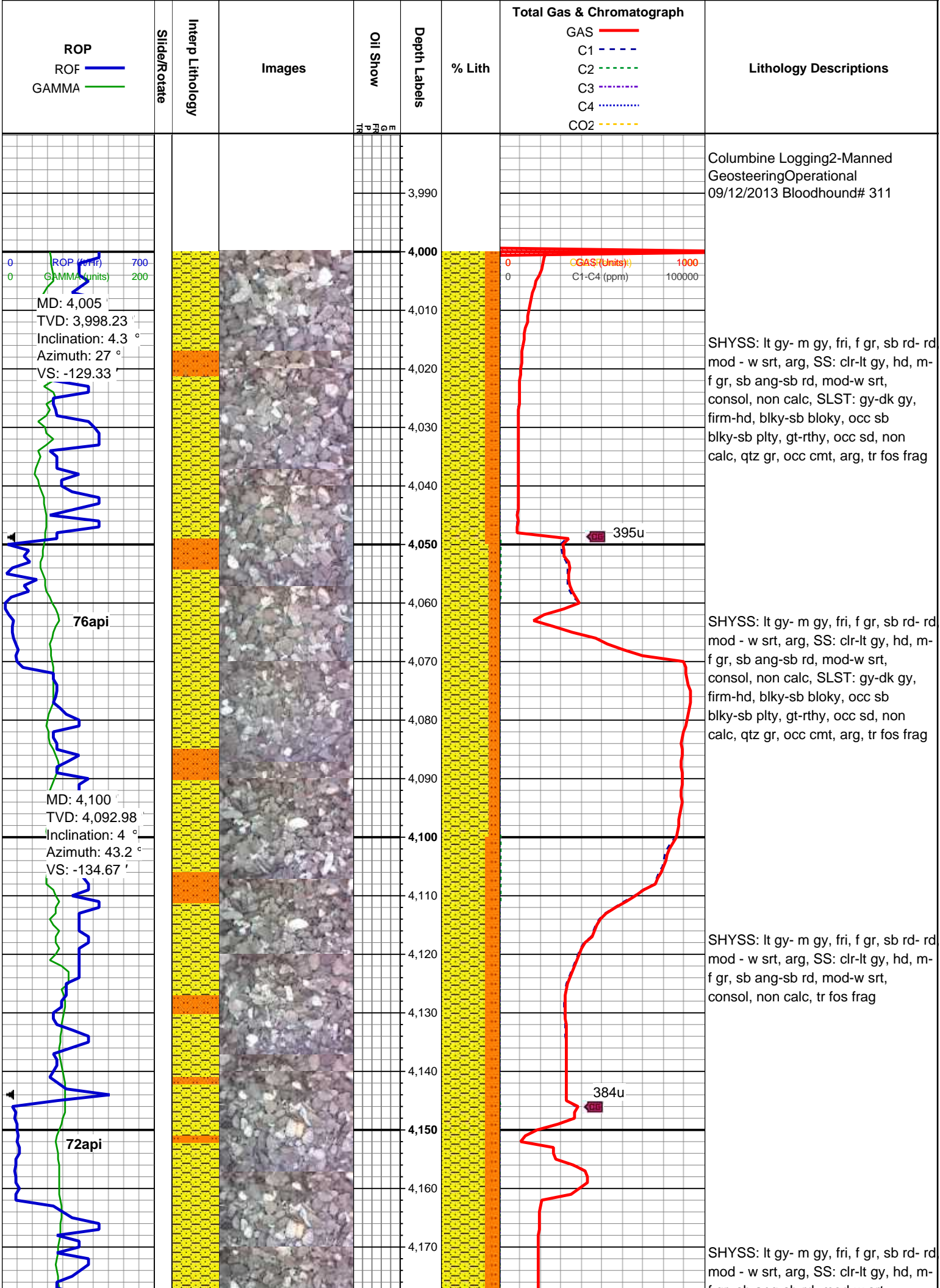
BS BOUNDSTONE
 C CHALKY
 CX CRYPTOXLN

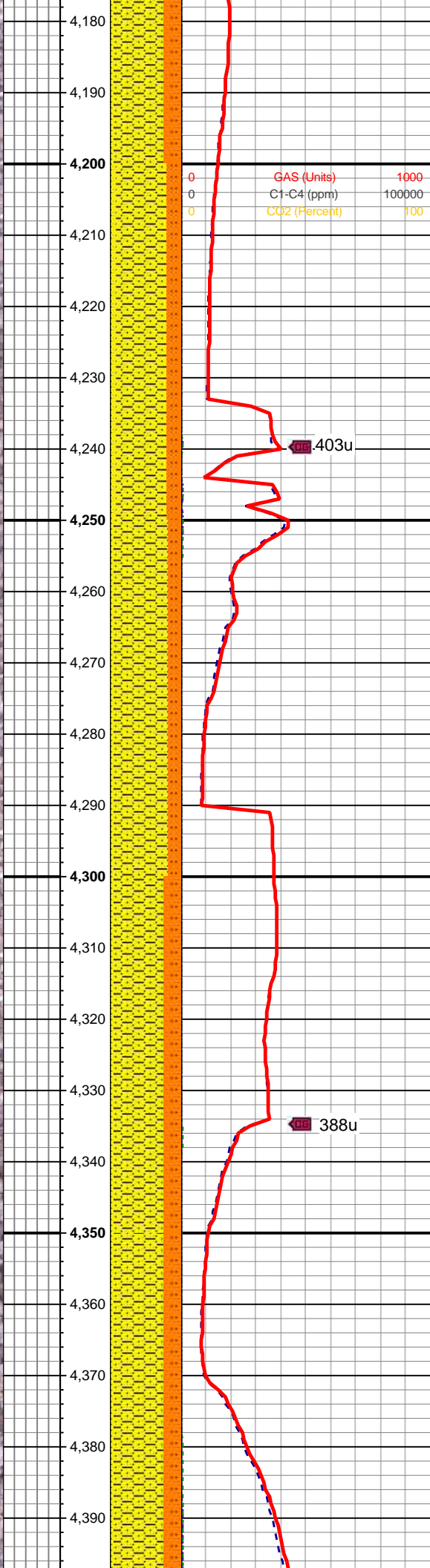
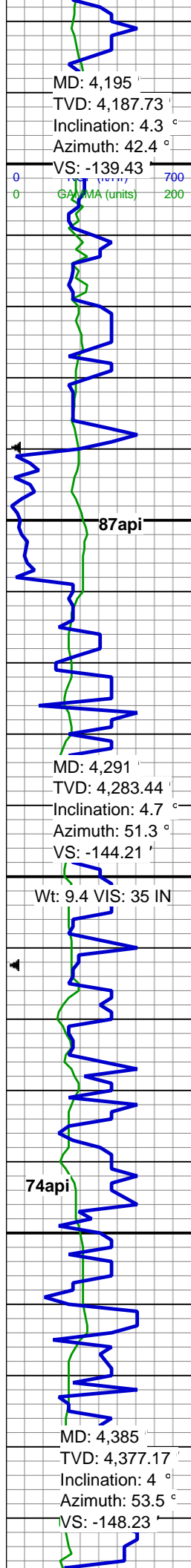
E EARTHY

FX FINELYXLN
 GS GRAINSTONE
 L LITHOGRAPHIC
 MX MICROXLN
 MS MUDSTONE
 PS PACKSTONE
 WS WACKESTONE

Sorting

M MODERATE
 P POOR
 W WELL



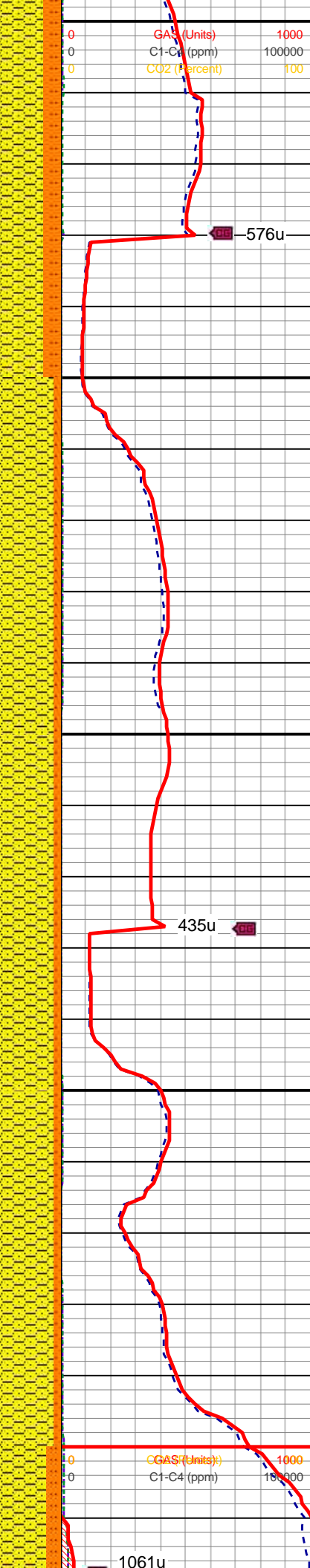
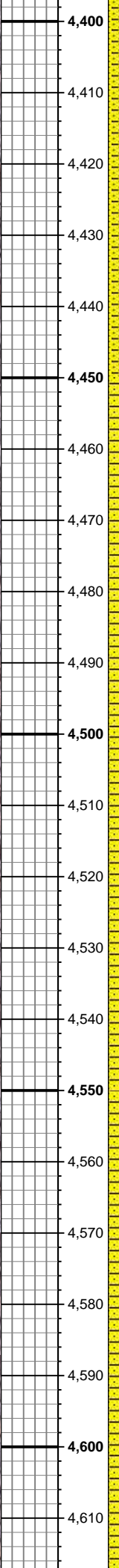
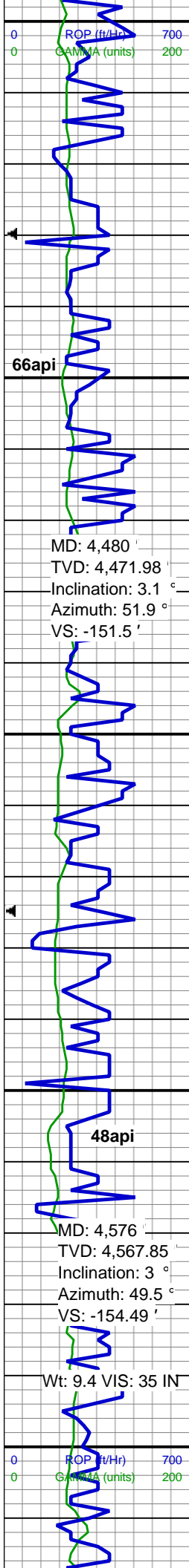


r gr, sb ang-sb rd, mod-w srt,
consol, non calc, tr fos frag

SHYSS: lt gy- m gy, fri, f gr, sb rd- rd
mod - w srt, arg, SS: clr-lt gy, hd, m-
f gr, sb ang-sb rd, mod-w srt,
consol, non calc, tr fos frag

SHYSS: lt gy- m gy, fri, f gr, sb rd- rd
mod - w srt, arg, SS: clr-lt gy, hd, m-
f gr, sb ang-sb rd, mod-w srt,
consol, non calc, tr fos frag

SHYSS: lt gy- m gy, fri, f gr, sb rd- rd
mod - w srt, arg, SS: clr-lt gy, hd, m-
f gr, sb ang-sb rd, mod-w srt,
consol, non calc, tr fos frag

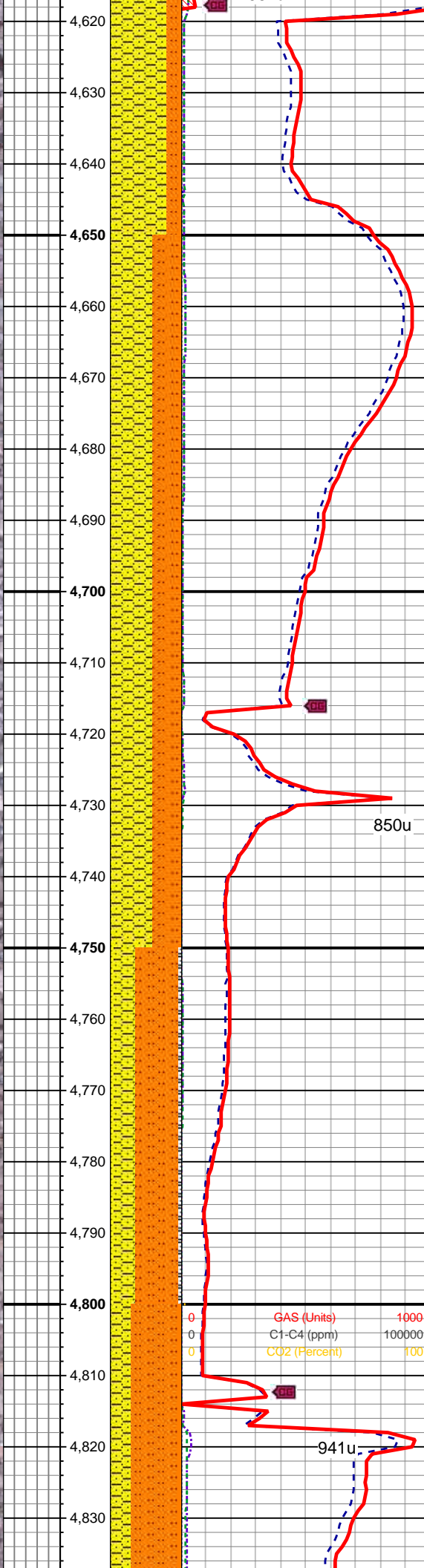
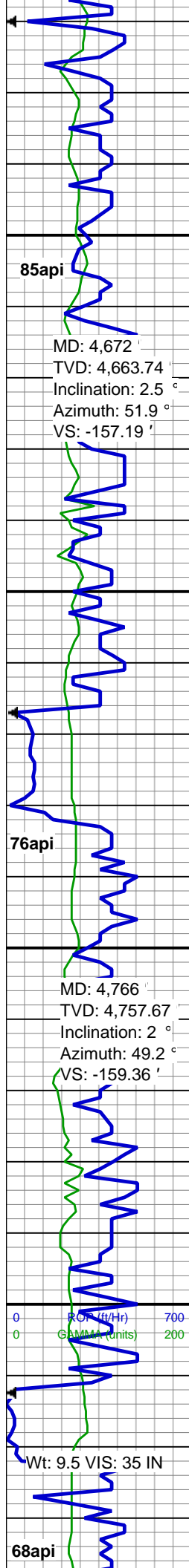


SHYSS: lt gy- m gy, fri, f gr, sb rd- rd mod - w srt, arg, SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, consol, non calc, tr fos frag

SHYSS: lt gy- m gy, fri, f gr, sb rd- rd mod - w srt, arg, SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, consol, non calc, tr fos frag, SLST: gy-dk gy, firm-hd, blk- sb bloky, occ sb blk- sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg

SHYSS: lt gy- m gy, fri, f gr, sb rd- rd mod - w srt, arg, SLST: gy-dk gy, firm-hd, blk- sb bloky, occ sb blk- sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg

SHYSS: lt gy- m gy, fri, f gr, sb rd- rd mod - w srt, arg, SLST: gy-dk gy, firm-hd, blk- sb bloky, occ sb blk- sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg



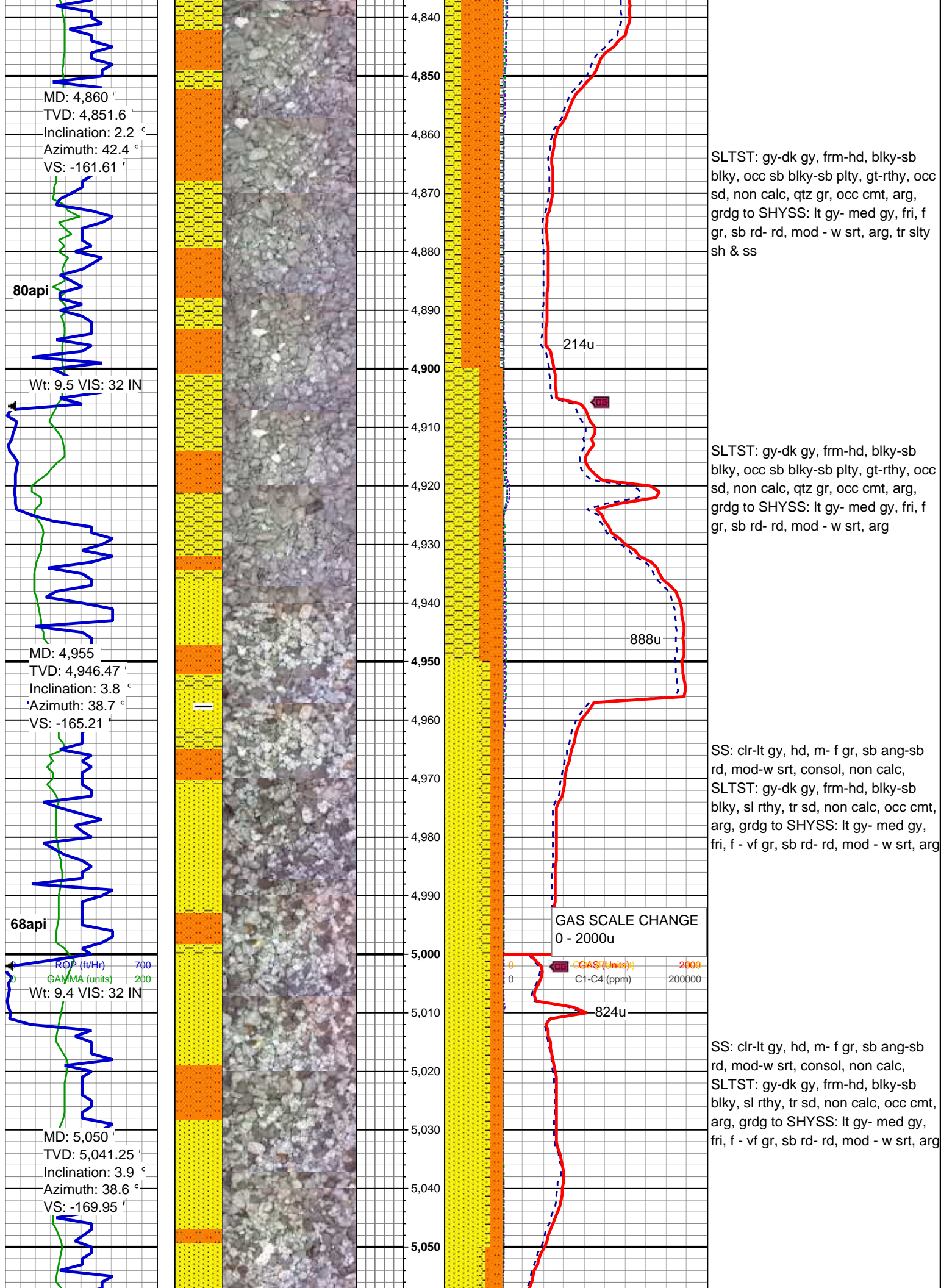
mod - w srt, arg, SSLST: gy-dk gy, firm-hd, blkly-sb bloky, occ sb blkly-sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg

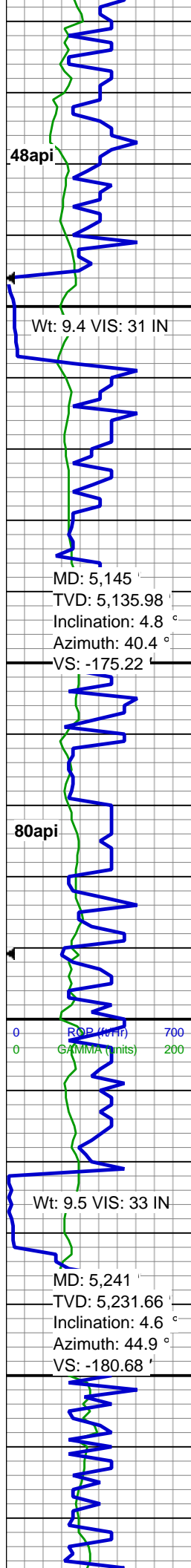
SHYSS: lt gy- med gy, fri, f gr, sb rd- rd, mod - w srt, arg, grd to SLST: gy-dk gy, frm-hd, blkly-sb blkly, occ sb blkly-sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg

SHYSS: lt gy- med gy, fri, f gr, sb rd- rd, mod - w srt, arg, grd to SLST: gy-dk gy, frm-hd, blkly-sb blkly, occ sb blkly-sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg

SLTST: gy-dk gy, frm-hd, blkly-sb blkly, occ sb blkly-sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grd to SHYSS: lt gy- med gy, fri, f gr, sb rd- rd, mod - w srt, arg, tr slty sh & ss

SLTST: gy-dk gy, frm-hd, blkly-sb blkly, occ sb blkly-sb plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grd to SHYSS: lt gy- med gy, fri, f gr, sb rd- rd, mod - w srt, arg, tr slty sh & ss





48api

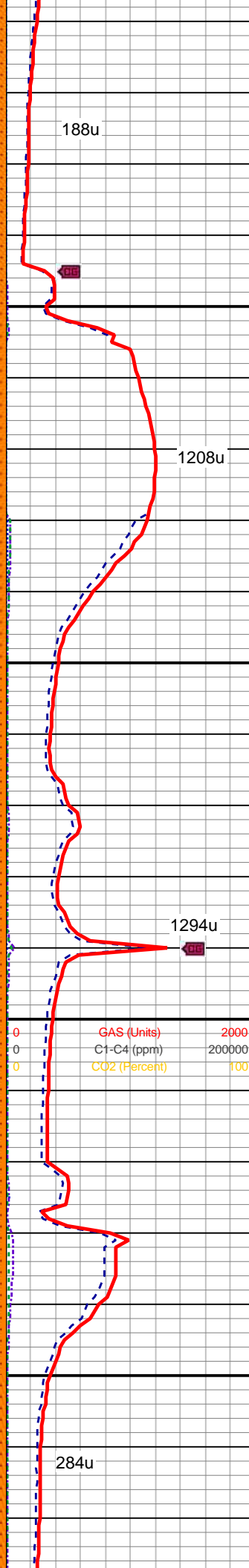
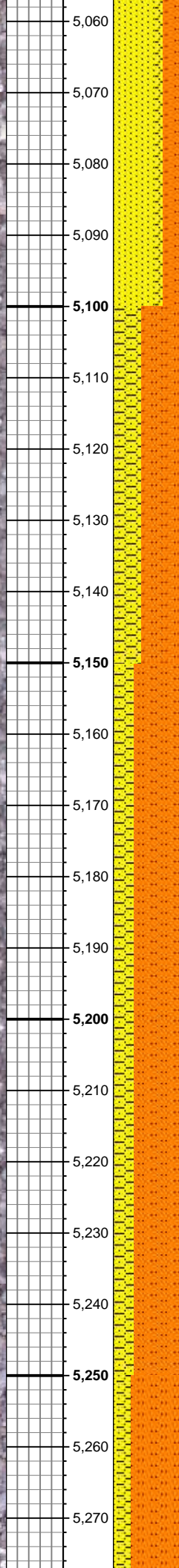
Wt: 9.4 VIS: 31 IN

MD: 5,145 '
TVD: 5,135.98 '
Inclination: 4.8 °
Azimuth: 40.4 °
VS: -175.22 '

80api

Wt: 9.5 VIS: 33 IN

MD: 5,241 '
TVD: 5,231.66 '
Inclination: 4.6 °
Azimuth: 44.9 °
VS: -180.68 '



188u

1208u

1294u

284u

SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, consol, non calc, SLTST: gy-dk gy, frm-hd, blk-sb blk, sl rthy, tr sd, non calc, occ cmt, arg, grdg to SHYSS: lt gy- med gy, fri, f - vf gr, sb rd- rd, mod - w srt, arg

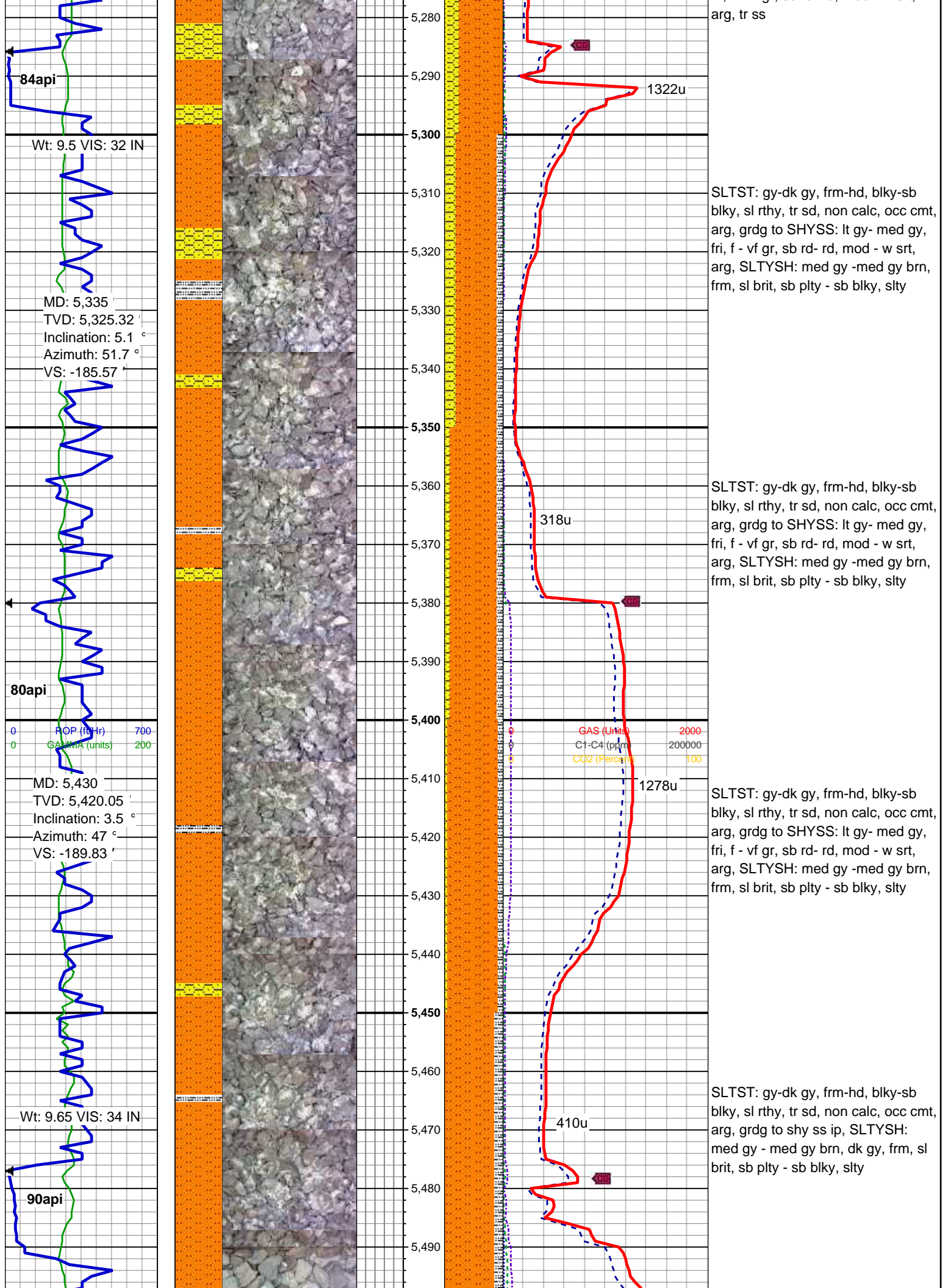
SLTST: gy-dk gy, frm-hd, blk-sb blk, sl rthy, tr sd, non calc, occ cmt, arg, grdg to SHYSS: lt gy- med gy, fri, f - vf gr, sb rd- rd, mod - w srt, arg, tr ss

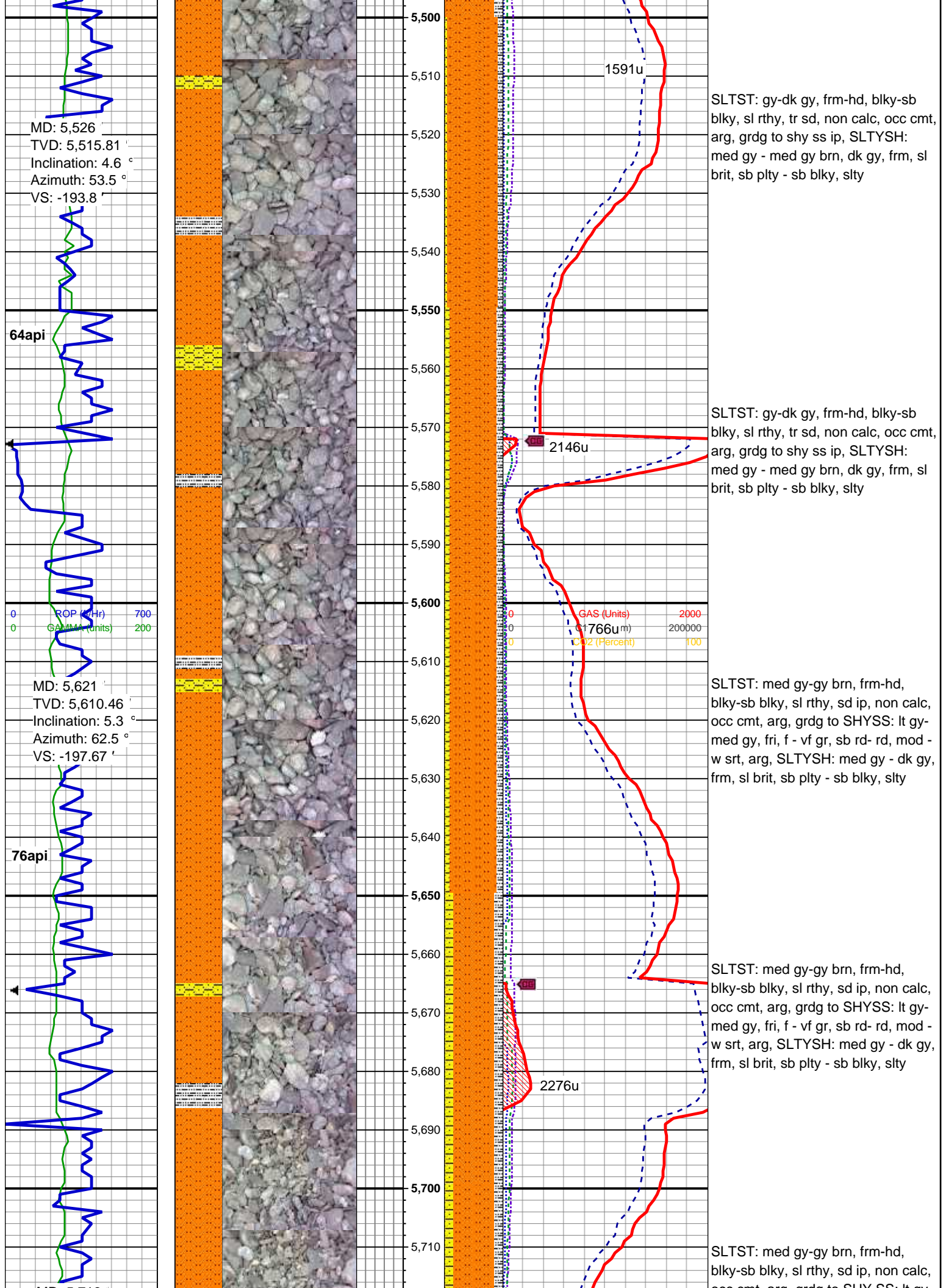
SLTST: gy-dk gy, frm-hd, blk-sb blk, sl rthy, tr sd, non calc, occ cmt, arg, grdg to SHYSS: lt gy- med gy, fri, f - vf gr, sb rd- rd, mod - w srt, arg, tr ss

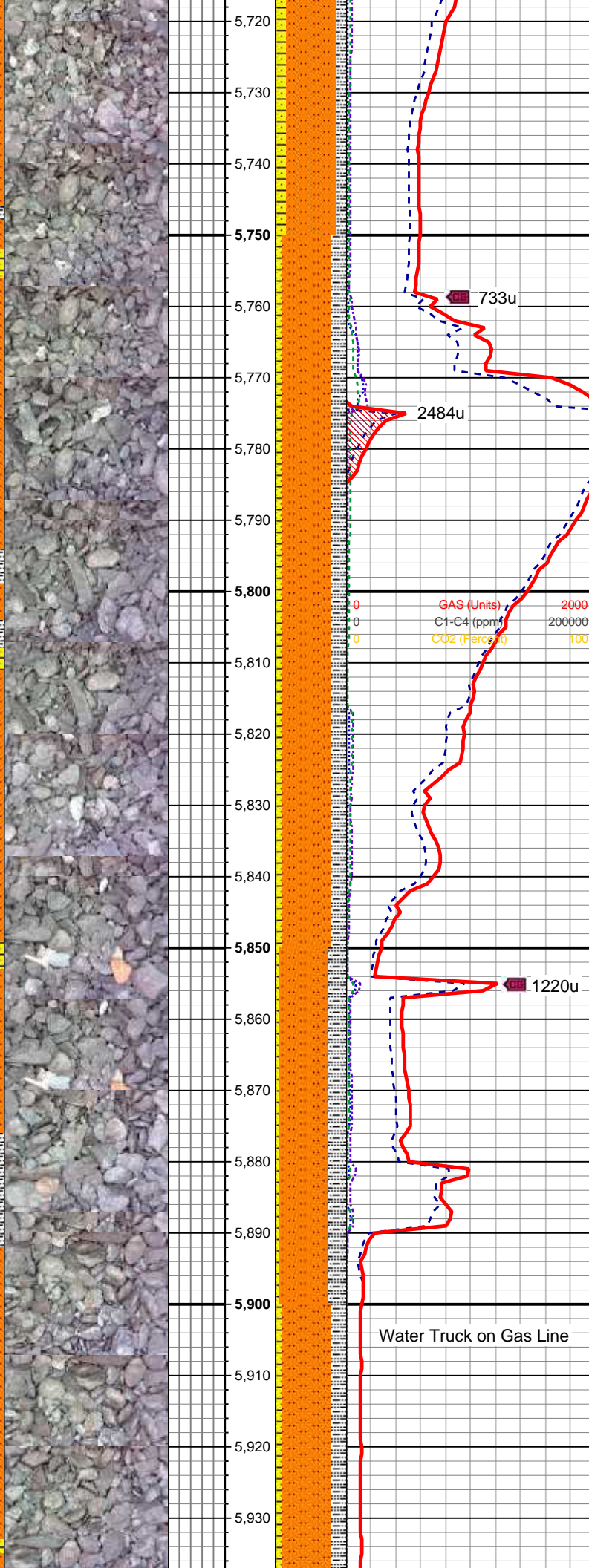
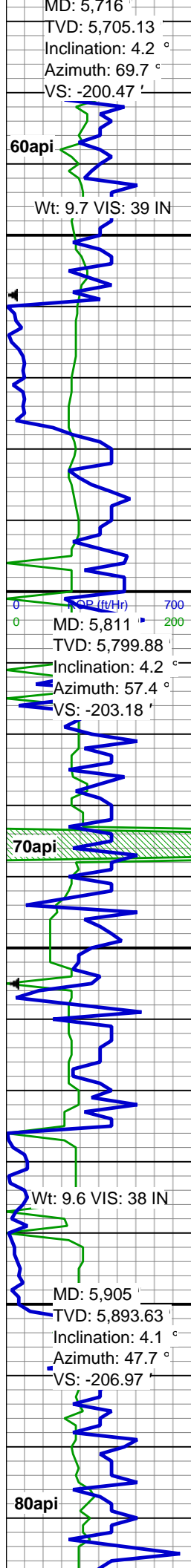
SLTST: gy-dk gy, frm-hd, blk-sb blk, sl rthy, tr sd, non calc, occ cmt, arg, grdg to SHYSS: lt gy- med gy, fri, f - vf gr, sb rd- rd, mod - w srt, arg, tr ss

SLTST: gy-dk gy, frm-hd, blk-sb blk, sl rthy, tr sd, non calc, occ cmt, arg, grdg to SHYSS: lt gy- med gy, fri, f - vf gr, sb rd- rd, mod - w srt,

0 GAS (Units) 2000
0 C1-C4 (ppm) 200000
0 CO2 (Percent) 100



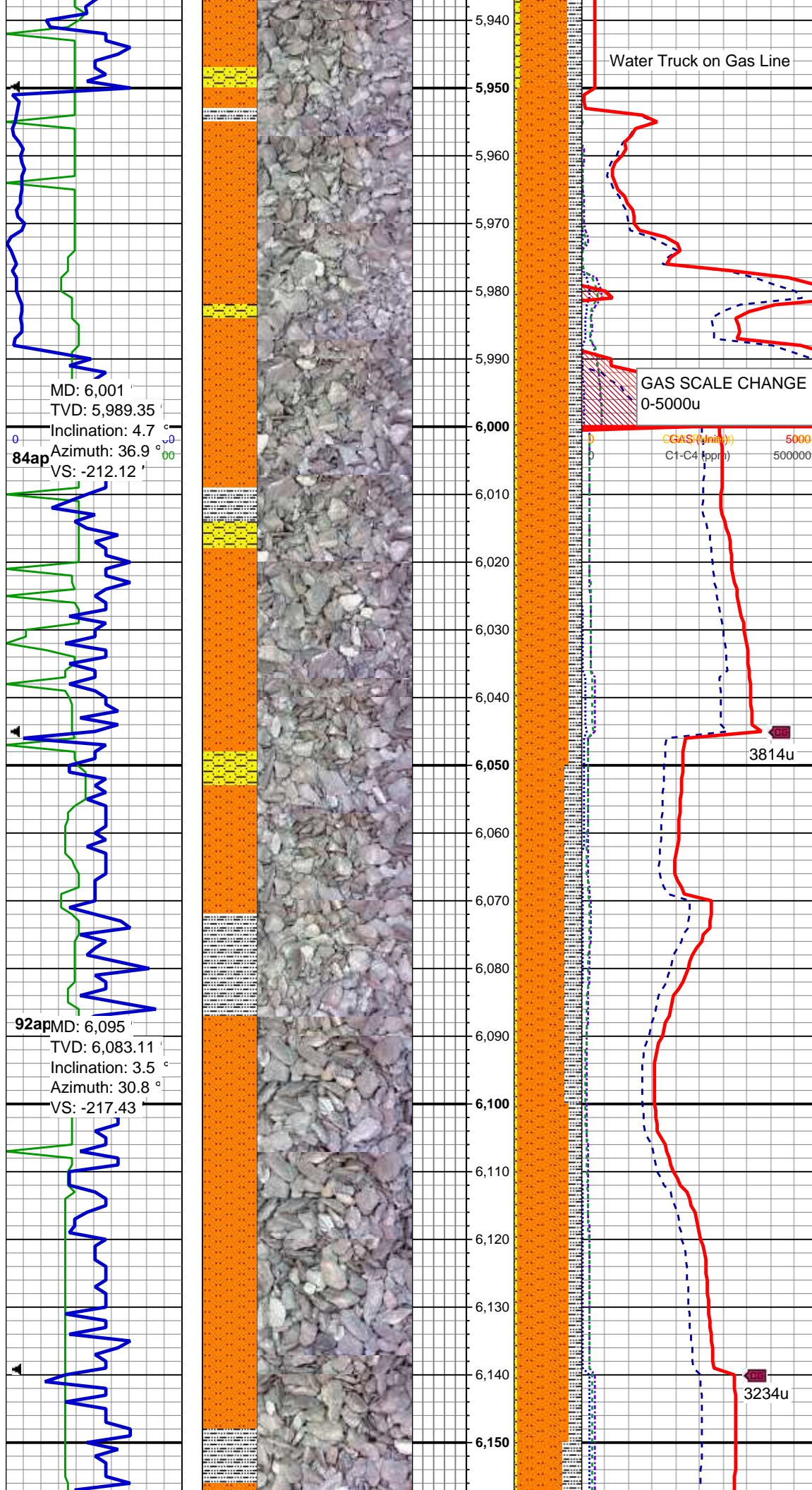




occ cmt, arg, grdg to SHY SS: lt gy-
med gy, fri, f - vf gr, sb rd- rd, mod -
w srt, arg, SLTY SH: med gy - dk gy,
frm, sl brit, sb plty - sb blkly, slty

SLTST: med gy-gy brn, frm-hd,
blkly-sb blkly, sl rthy, sd ip, non calc,
occ cmt, arg, grdg to SHY SS: lt gy-
med gy, fri, f - vf gr, sb rd- rd, mod -
w srt, arg, SLTY SH: med gy - dk gy,
frm, sl brit, sb plty - sb blkly, slty

SLTST: med gy-gy brn, frm-hd,
blkly-sb blkly, sl rthy, sd ip, non calc,
occ cmt, arg, grdg to SHY SS: lt gy-
med gy, fri, f - vf gr, sb rd- rd, mod -
w srt, arg, SLTY SH: med gy - dk gy,
frm, sl brit, sb plty - sb blkly, slty



MD: 6,001
TVD: 5,989.35
Inclination: 4.7 °
Azimuth: 36.9 °
VS: -212.12 °

84ap

MD: 6,095
TVD: 6,083.11
Inclination: 3.5 °
Azimuth: 30.8 °
VS: -217.43 °

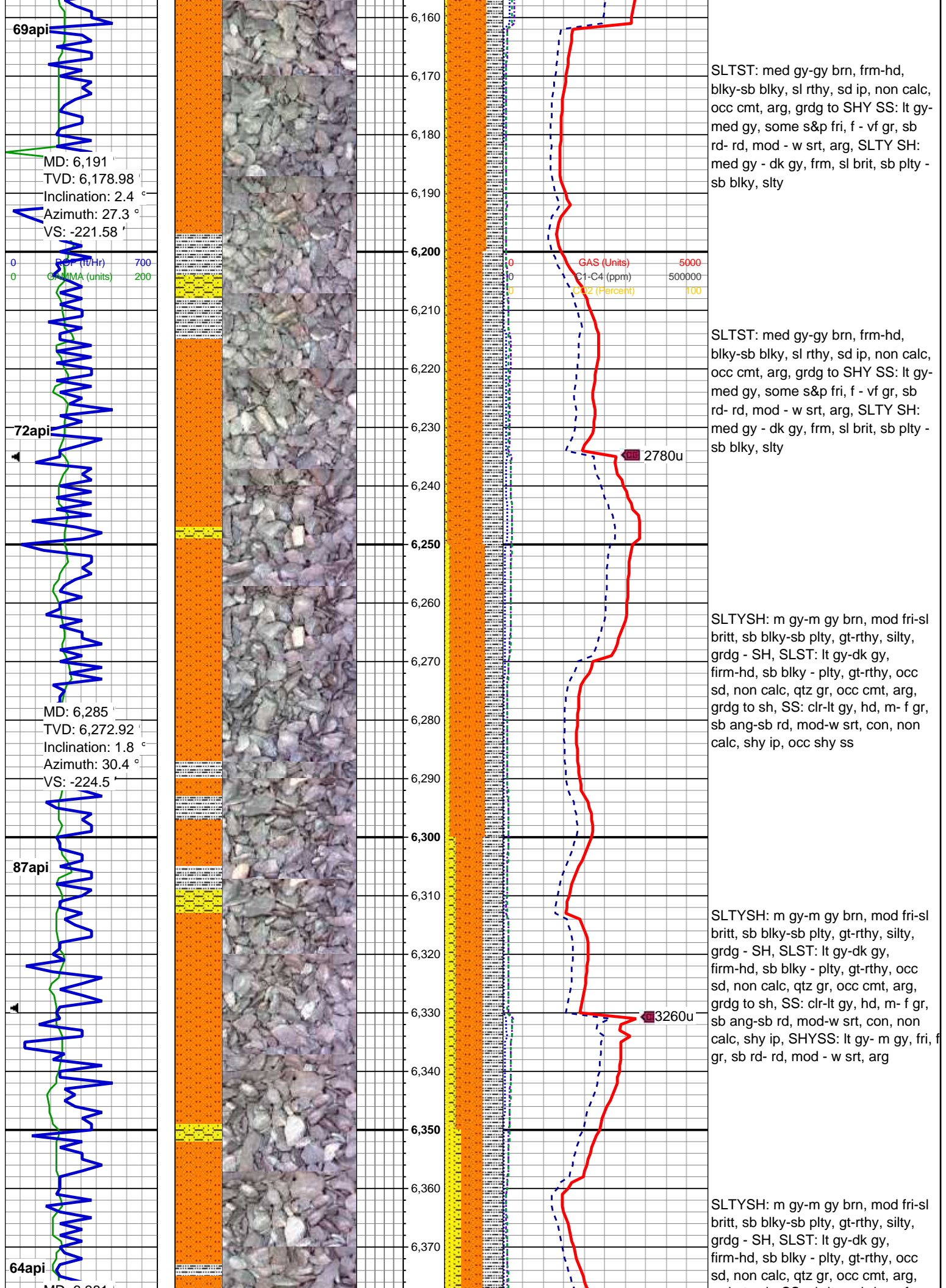
92ap

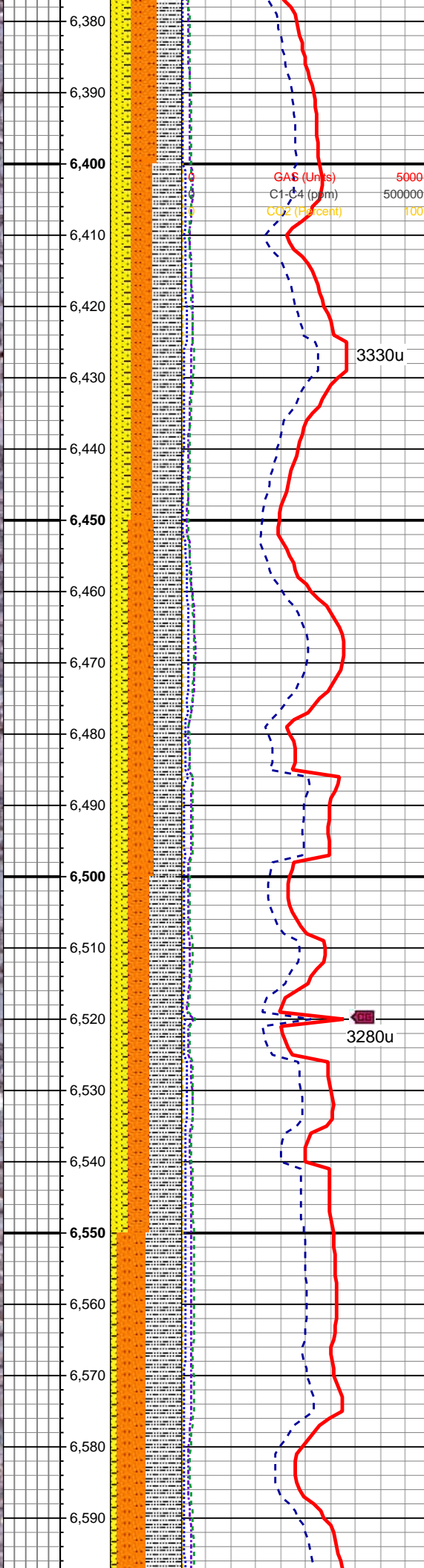
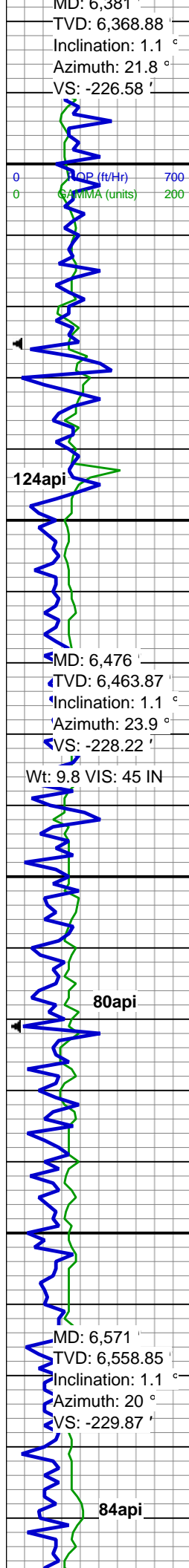
SLTST: med gy-gy brn, frm-hd, blky-sb blky, sl rthy, sd ip, non calc, occ cmt, arg, grdg to SHY SS: lt gy-med gy, fri, f - vf gr, sb rd- rd, mod - w srt, arg, SLTY SH: med gy - dk gy, frm, sl brit, sb plty - sb blky, slty

SLTST: med gy-gy brn, frm-hd, blky-sb blky, sl rthy, sd ip, non calc, occ cmt, arg, grdg to SHY SS: lt gy-med gy, some s&p fri, f - vf gr, sb rd- rd, mod - w srt, arg, SLTY SH: med gy - dk gy, frm, sl brit, sb plty - sb blky, slty

SLTST: med gy-gy brn, frm-hd, blky-sb blky, sl rthy, sd ip, non calc, occ cmt, arg, grdg to SHY SS: lt gy-med gy, some s&p fri, f - vf gr, sb rd- rd, mod - w srt, arg, SLTY SH: med gy - dk gy, frm, sl brit, sb plty - sb blky, slty

SLTST: med gy-gy brn, frm-hd, blky-sb blky, sl rthy, sd ip, non calc, occ cmt, arg, grdg to SHY SS: lt gy-med gy, some s&p fri, f - vf gr, sb rd- rd, mod - w srt, arg, SLTY SH: med gy - dk gy, frm, sl brit, sb plty - sb blky, slty



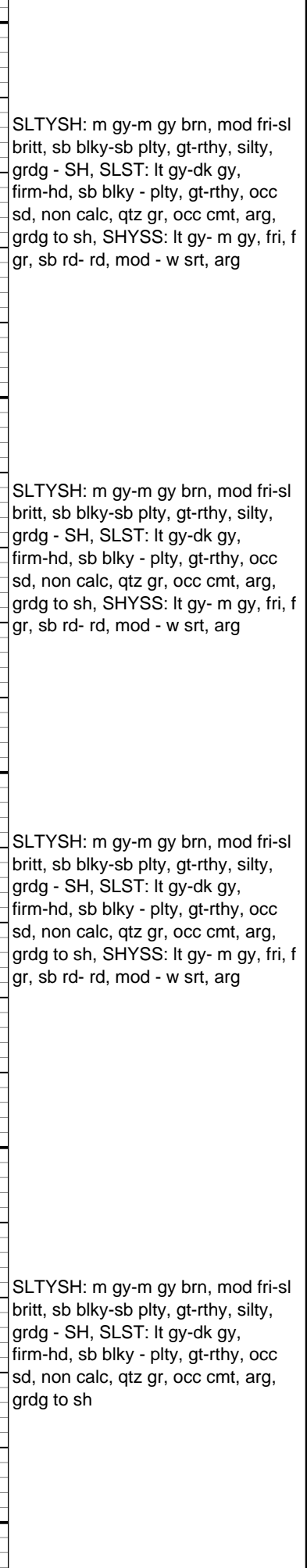
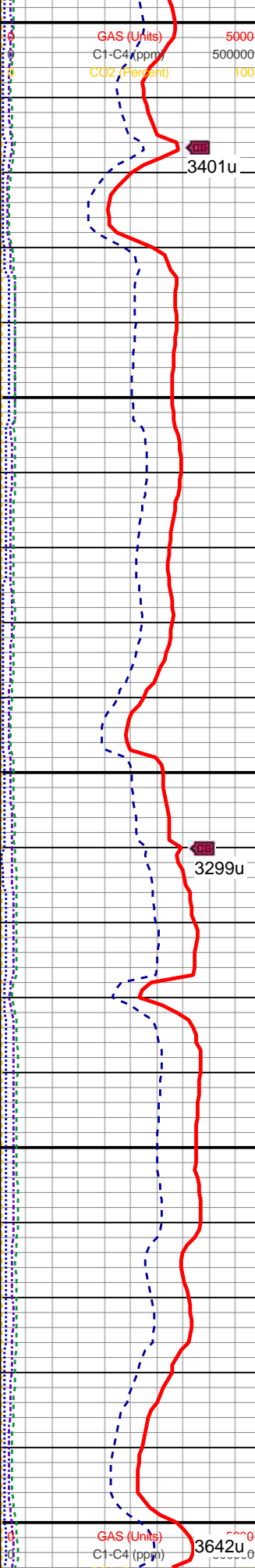
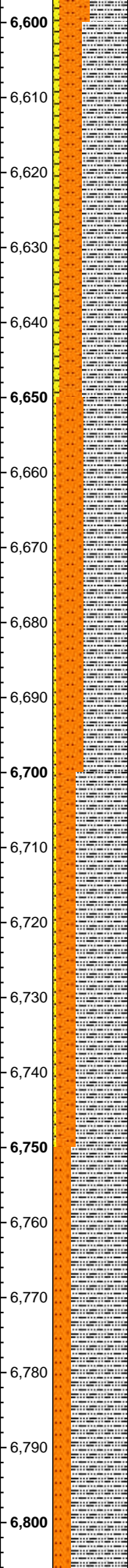
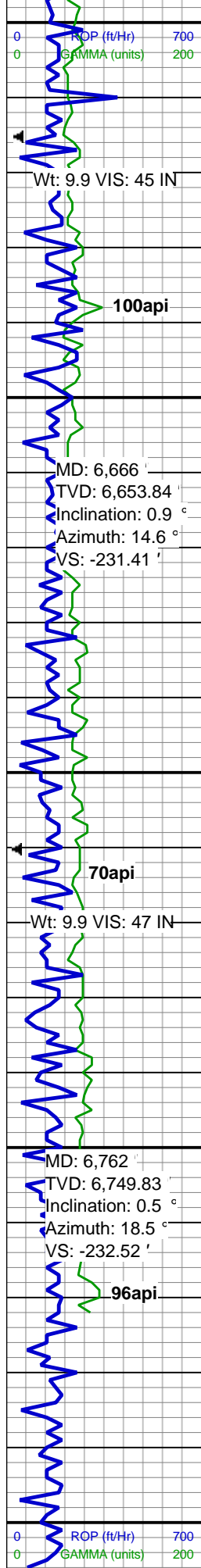


grdg to sh, SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, con, non calc, shy ip, SHYSS: lt gy- m gy, fri, f gr, sb rd- rd, mod - w srt, arg

SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blk- sb plty, gt-rthy, silty, grdg - SH, SLST: lt gy-dk gy, firm-hd, sb blk- plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh, SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, con, non calc, shy ip, SHYSS: lt gy- m gy, fri, f gr, sb rd- rd, mod - w srt, arg

SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blk- sb plty, gt-rthy, silty, grdg - SH, SLST: lt gy-dk gy, firm-hd, sb blk- plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh, SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, con, non calc, shy ip, SHYSS: lt gy- m gy, fri, f gr, sb rd- rd, mod - w srt, arg

SLTYSH: m gy-m gy brn, mod fri-sl britt, sb blk- sb plty, gt-rthy, silty, grdg - SH, SLST: lt gy-dk gy, firm-hd, sb blk- plty, gt-rthy, occ sd, non calc, qtz gr, occ cmt, arg, grdg to sh, SS: clr-lt gy, hd, m- f gr, sb ang-sb rd, mod-w srt, con, non calc, shy ip, SHYSS: lt gy- m gy, fri, f gr, sb rd- rd, mod - w srt, arg



[illegible]

6,820

6,830

[illegible]

6-66-9-0659CDH HZ