

# COLUMBINE LOGGING

Scale: 5" / 100'  
Measured Depth Log

**Well Name** Storis E24-76-1HN

**Location** SWSW SEC 24, T6N, R65W

**State** COLORADO

**County** WELD

**Country** USA

**Rig Number** H&P 330

**API Number** 05-123-38166

**Region** DJ BASIN

**Field** WATTENBERG

**Spud Date** 5/24/2014

**Drilling Completed** 5/26/2014

**Surface Coordinates** 350' FSL, 972' FWL

**Ground Elevation** 4691'

**K.B. Elevation** 4721'

**Logged Interval** 800' To 6140'

**Total Depth** 6140'

**Formation** NIOBRARA B CHALK

**Type of Drilling Fl...** LSND

## Operator

**Company** NOBLE ENERGY INC.

**Address** 1625 Broadway Suite 2200  
Denver, CO 80202

## Geologist

**Name** RENEE CLACKLER

**Company** NOBLE ENERGY INC.

**Address** 1625 Broadway Suite 2200  
Denver, CO 80202

## Other

ANDREA ZUIDEMA

JESSICA SIEBERG

## Rock Types

UNKNOWN	COAL	METAMORPHIC	SHALY SILTSTONE
ANHYDRITE	CONGLOMERATE	NO SAMPLE	SILTSTONE
BENTONITE	DOLOMITE	SALT	SILTY SHALE
BRECCIA	GRANITE	SALT- PEPPER SAND	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

### 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  
FENESTRAL  
FRACTURE  
INTERCRYSTALLINE  
INTEROOLITIC

MOLDIC  
ORGANIC  
PINPOINT  
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

ANGULAR  
ROUNDED  
SUBANG  
SUBRND

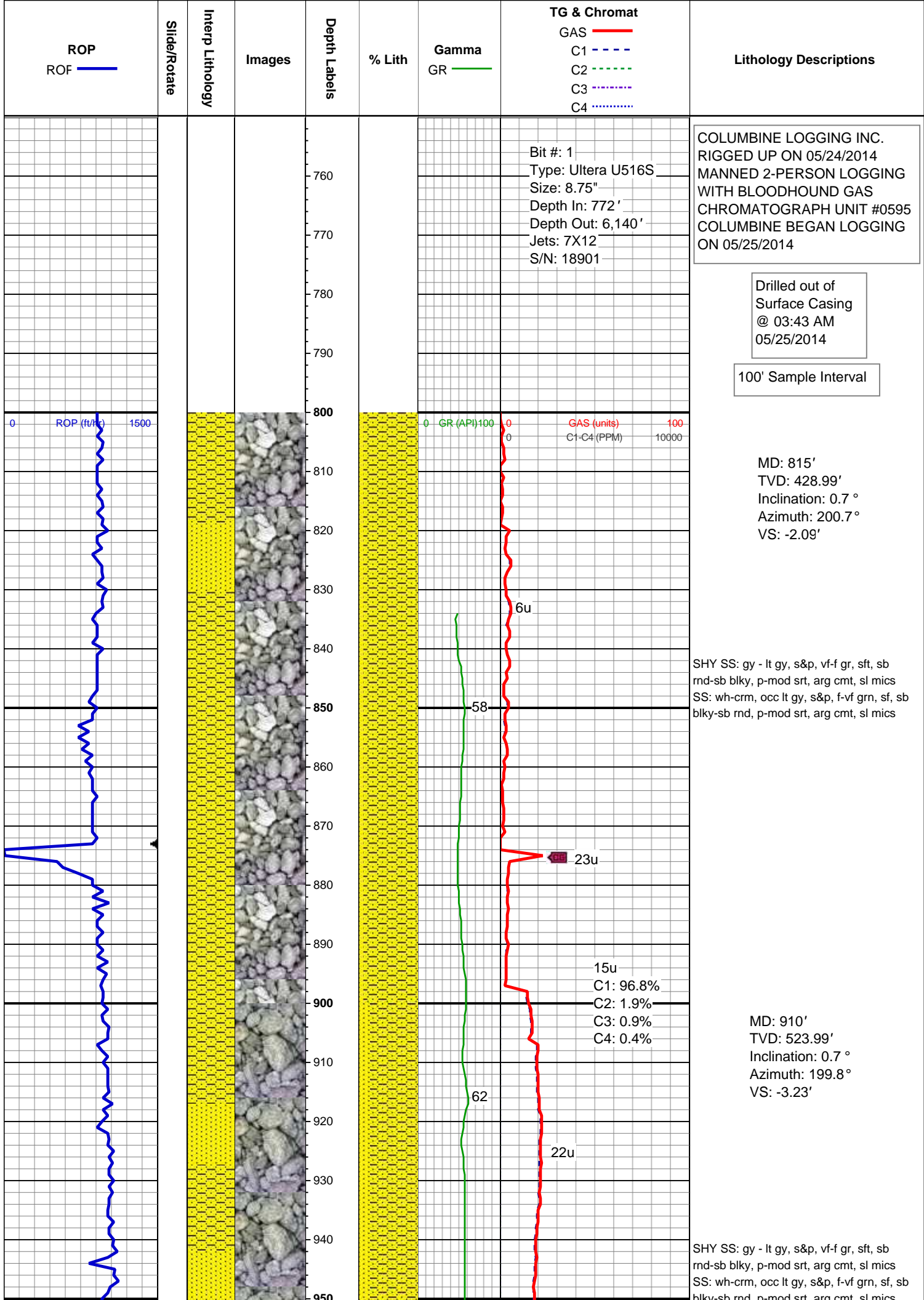
### Textures

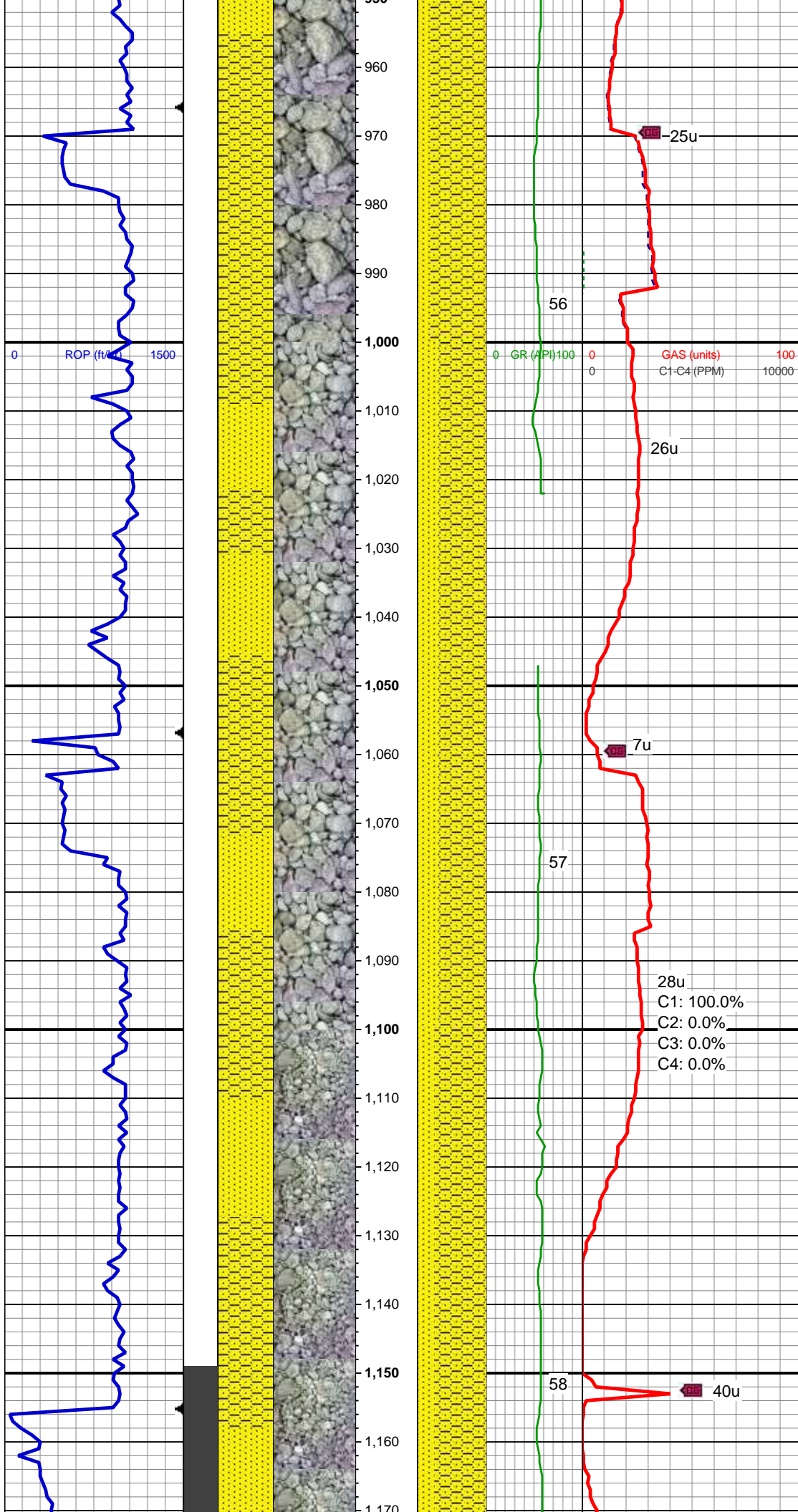
BOUNDSTONE  
CHALKY  
CRYPTOXLN

E EARTHY  
FINELYXLN  
GRAINSTONE  
L LITHOGRAPHIC  
MICROXLN  
MUDSTONE  
PACKSTONE  
WACKESTONE

### Sorting

M MODERATE  
P POOR  
W WELL





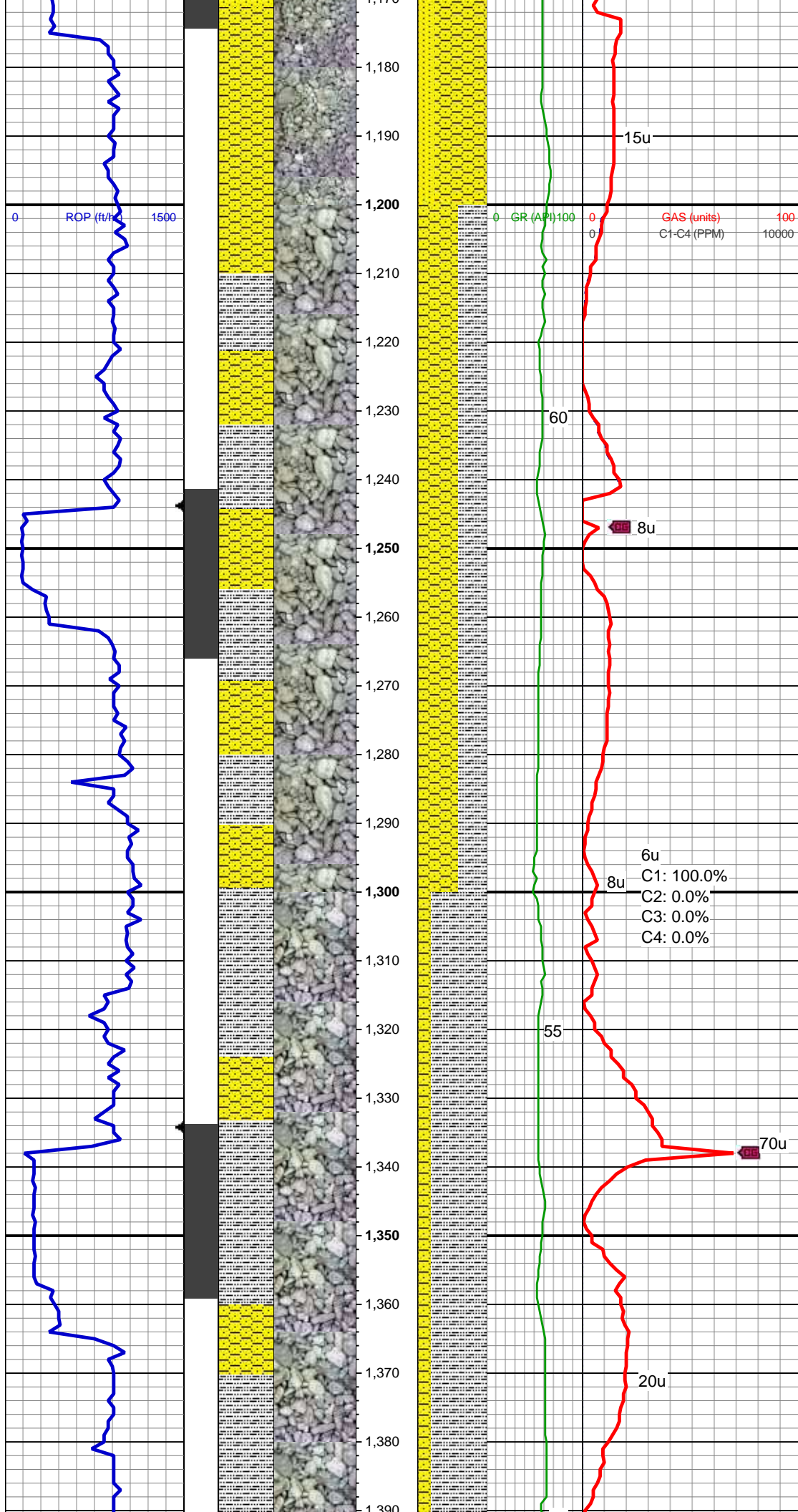
MD: 1,000'  
TVD: 613.98'  
Inclination: 0.8 °  
Azimuth: 218.8 °  
VS: -4.3'

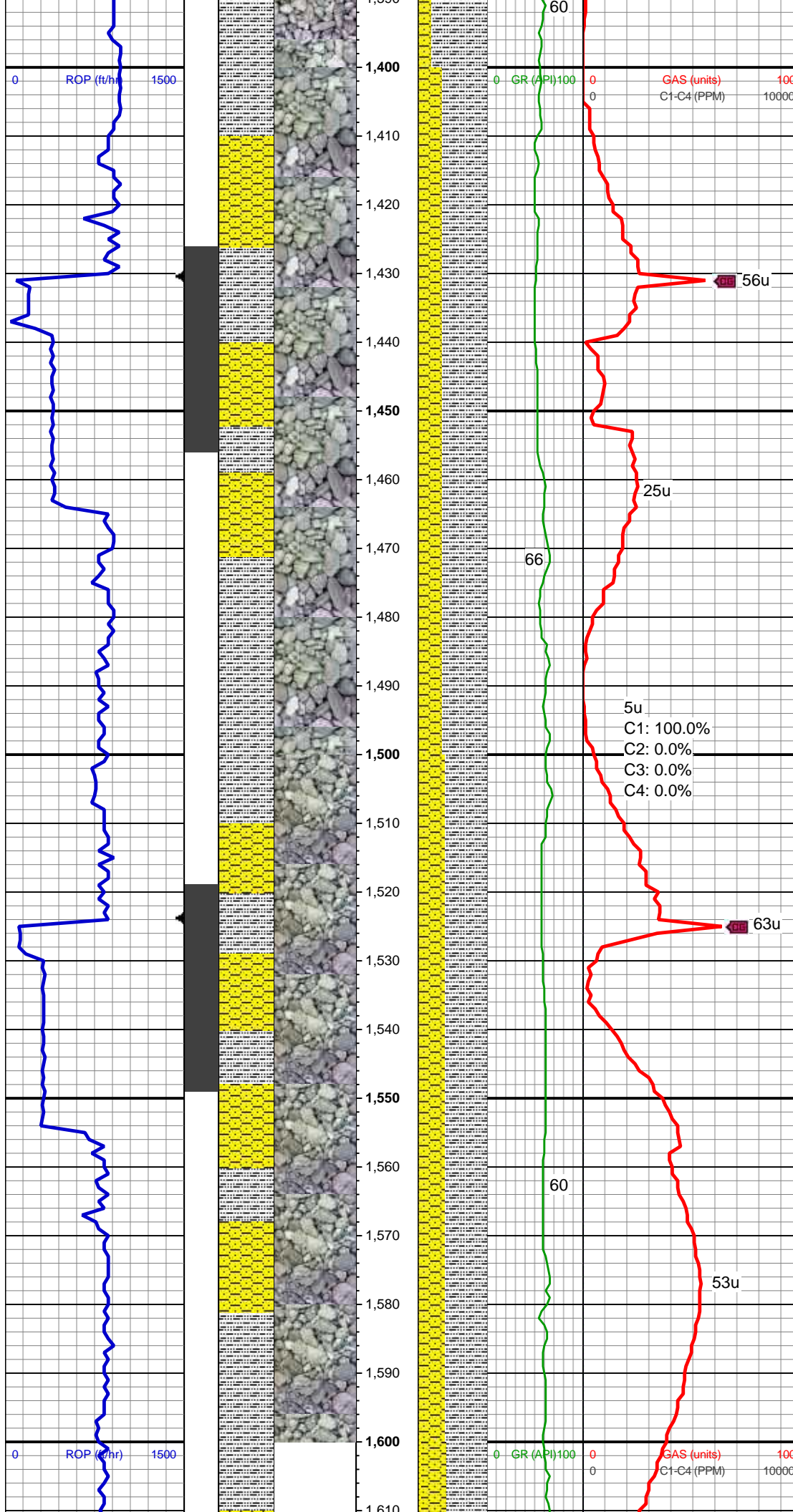
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blkly, p srt, arg cmt, sl mics  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blkly-sb rnd, p-mod srt, arg cmt, sl mics

MD: 1,093'  
TVD: 706.97'  
Inclination: 0.9 °  
Azimuth: 220.3 °  
VS: -5.46'

SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blkly, p srt, arg cmt, sl mics  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blkly-sb rnd, p-mod srt, arg cmt, sl mics







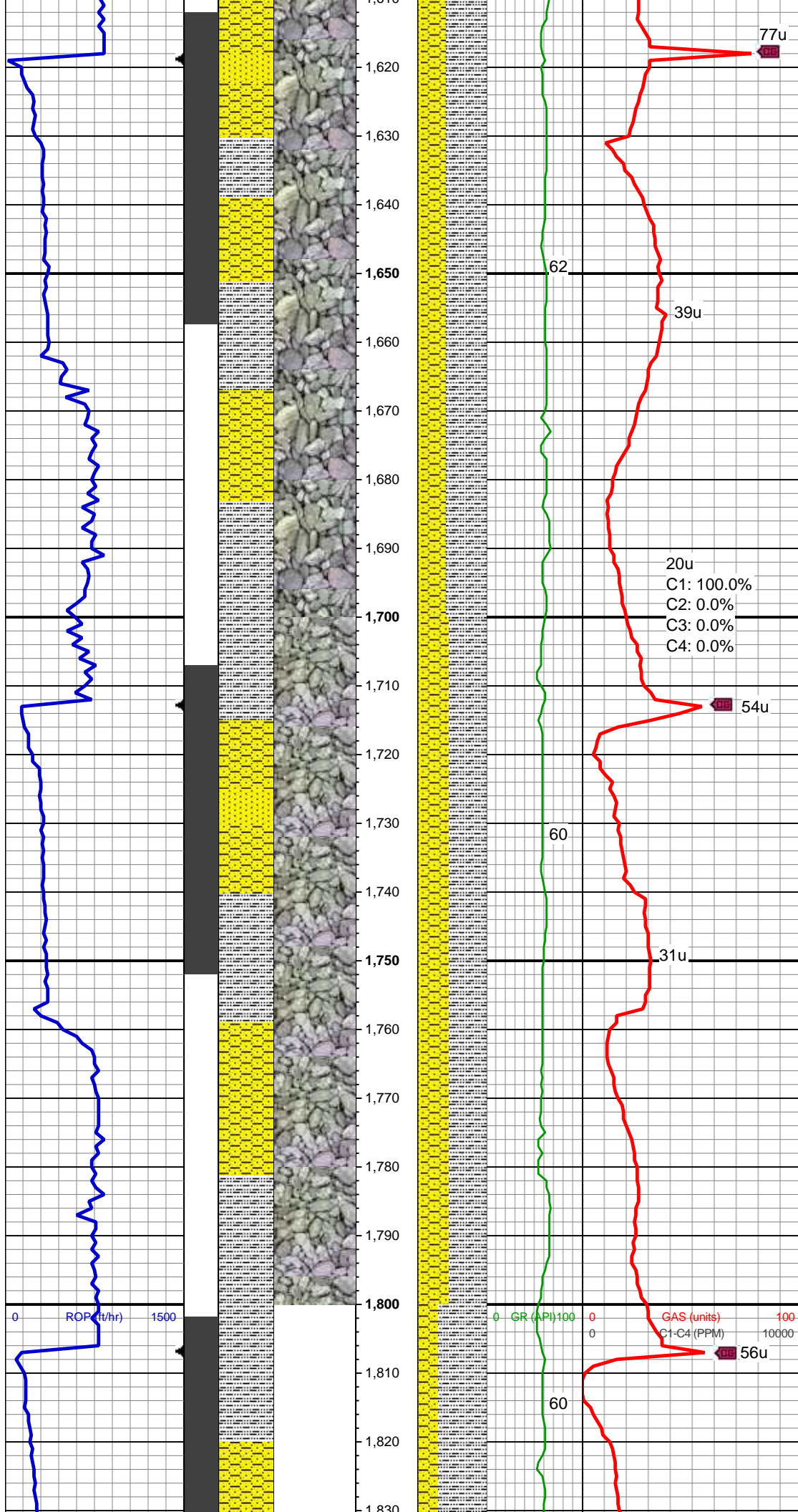
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blkly-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blkly, p srt, arg cmt, sl mics

MD: 1,463'  
TVD: 1,462.6'  
Inclination: 4.8 °  
Azimuth: 96.8 °  
VS: -2.78'

SLTY SH: lt-med gy, occ dk gy, sft, sb  
blkly-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb ang, p srt, arg cmt, sl mics

MD: 1,556'  
TVD: 1,555.21'  
Inclination: 5.8 °  
Azimuth: 104.7 °  
VS: -2.05'





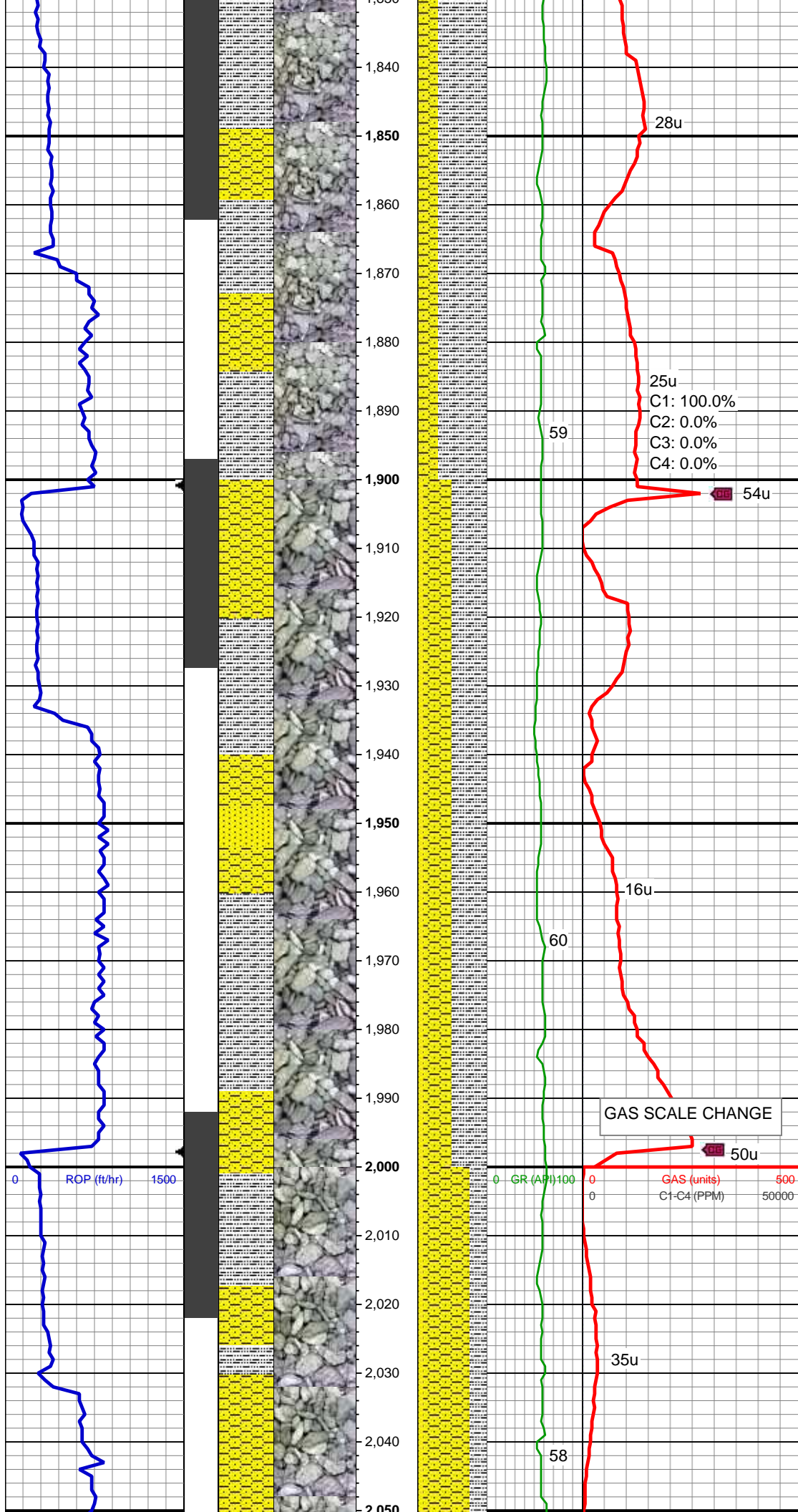
SLTY SH: lt-med gy, oMD: 1,651' :ib  
blky-sb plty, arg-rthy mTVD: 1,649.52'  
SHY SS: gy - lt gy, s&p, arg cmt, sl mics  
rnd-sb blky, p srt, arg cmt, sl mics  
SS: wh-crm, occ lt gy, VS: -1.13', sf, sb  
blky-sb rnd, p-mod srt, arg cmt, sl mics

MD: 1,746'  
TVD: 1,743.46'  
Inclination: 9.2 °  
Azimuth: 103.1 °  
VS: 0.07'

SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtz, non calc  
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blky-sb rnd, p-mod srt, arg cmt, sl mics

MUD WT 8.65 VIS 27

MD: 1,841'  
TVD: 1,836.98'



Inclination: 11 °  
Azimuth: 101.2 °  
VS: 1.23'

SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics, tr ss

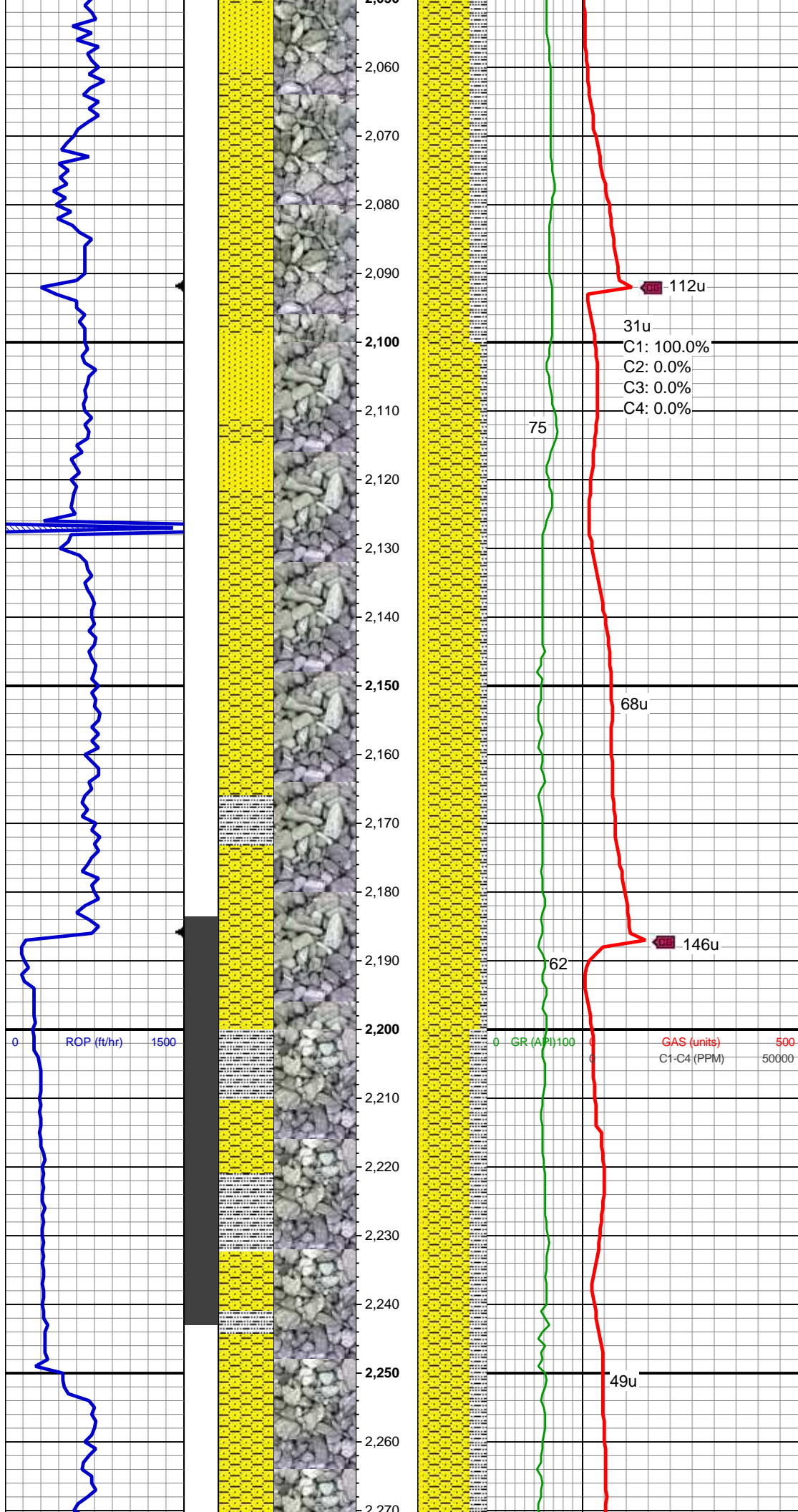
MD: 1,936'  
TVD: 1,930.1'  
Inclination: 11.9 °  
Azimuth: 102.9 °  
VS: 2.53'

SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blky-sb rnd, p-mod srt, arg cmt, sl mics

MD: 2,032'  
TVD: 2,023.99'  
Inclination: 12.2 °  
Azimuth: 95.4 °  
VS: 4.96'

SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc





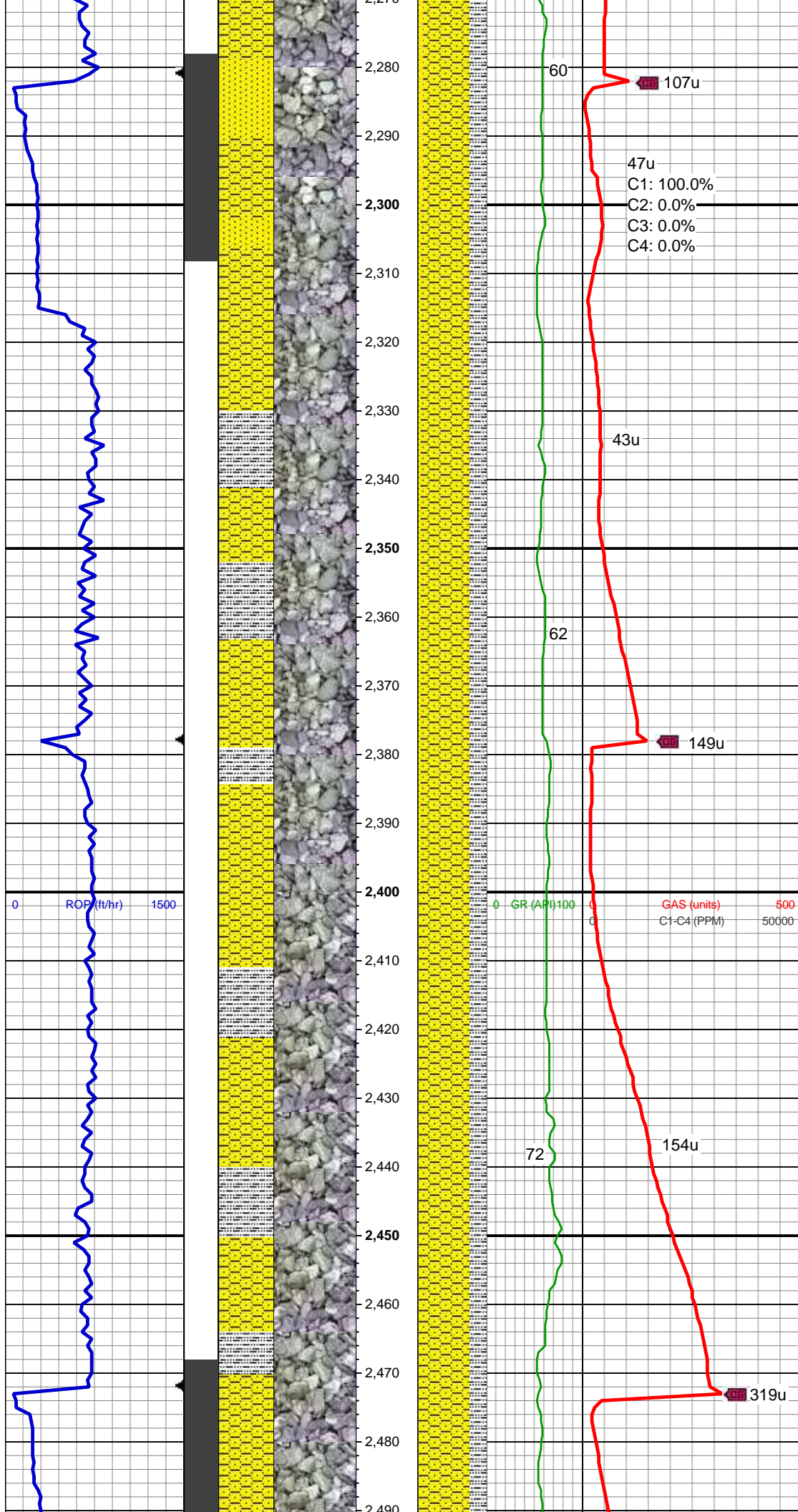
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blky-sb rnd, p-mod srt, arg cmt, sl mics

MD: 2,127'  
TVD: 2,117.11'  
Inclination: 10.6 °  
Azimuth: 93.5 °  
VS: 8.71'

SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blky-sb rnd, p-mod srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtz, non calc

MD: 2,222'  
TVD: 2,210.27'  
Inclination: 12 °  
Azimuth: 102 °  
VS: 11.31'

SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtz, non calc  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blky-sb rnd, p-mod srt, arg cmt, sl mics



MD: 2,317'  
TVD: 2,303.08'  
Inclination: 12.7 °  
Azimuth: 104.5 °  
VS: 12.28'

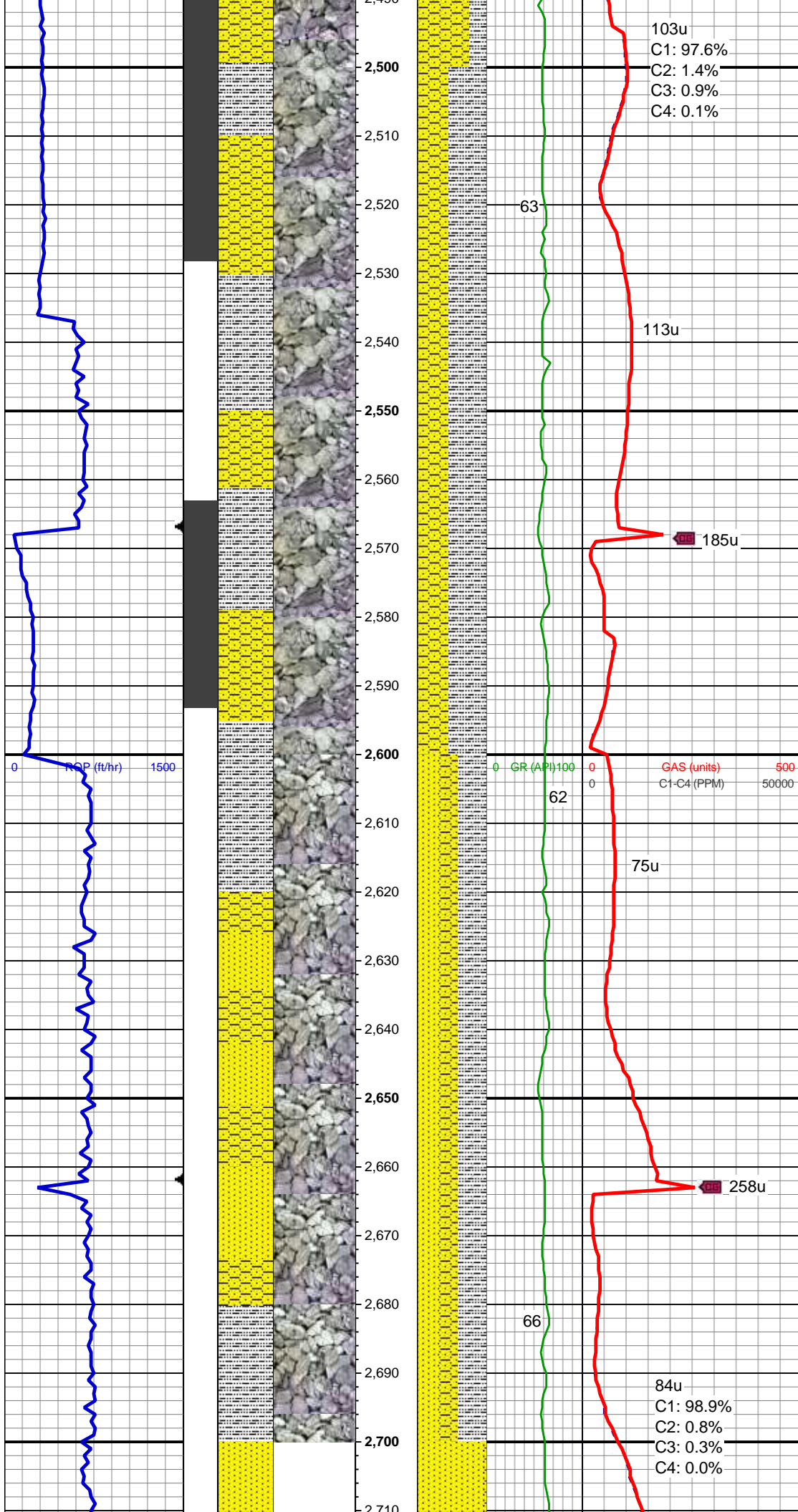
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blk, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blk-sb plty, arg-rthy mtx, non calc  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blk-sb rnd, p-mod srt, arg cmt, sl mics

MUD WT 8.65 VIS 27

MD: 2,412'  
TVD: 2,396.18'  
Inclination: 10.3 °  
Azimuth: 104.2 °  
VS: 12.83'

SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blk, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blk-sb plty, arg-rthy mtx, non calc





103u  
C1: 97.6%  
C2: 1.4%  
C3: 0.9%  
C4: 0.1%

MD: 2,507'  
TVD: 2,489.4'  
Inclination: 11.9 °  
Azimuth: 104.7 °  
VS: 13.33'

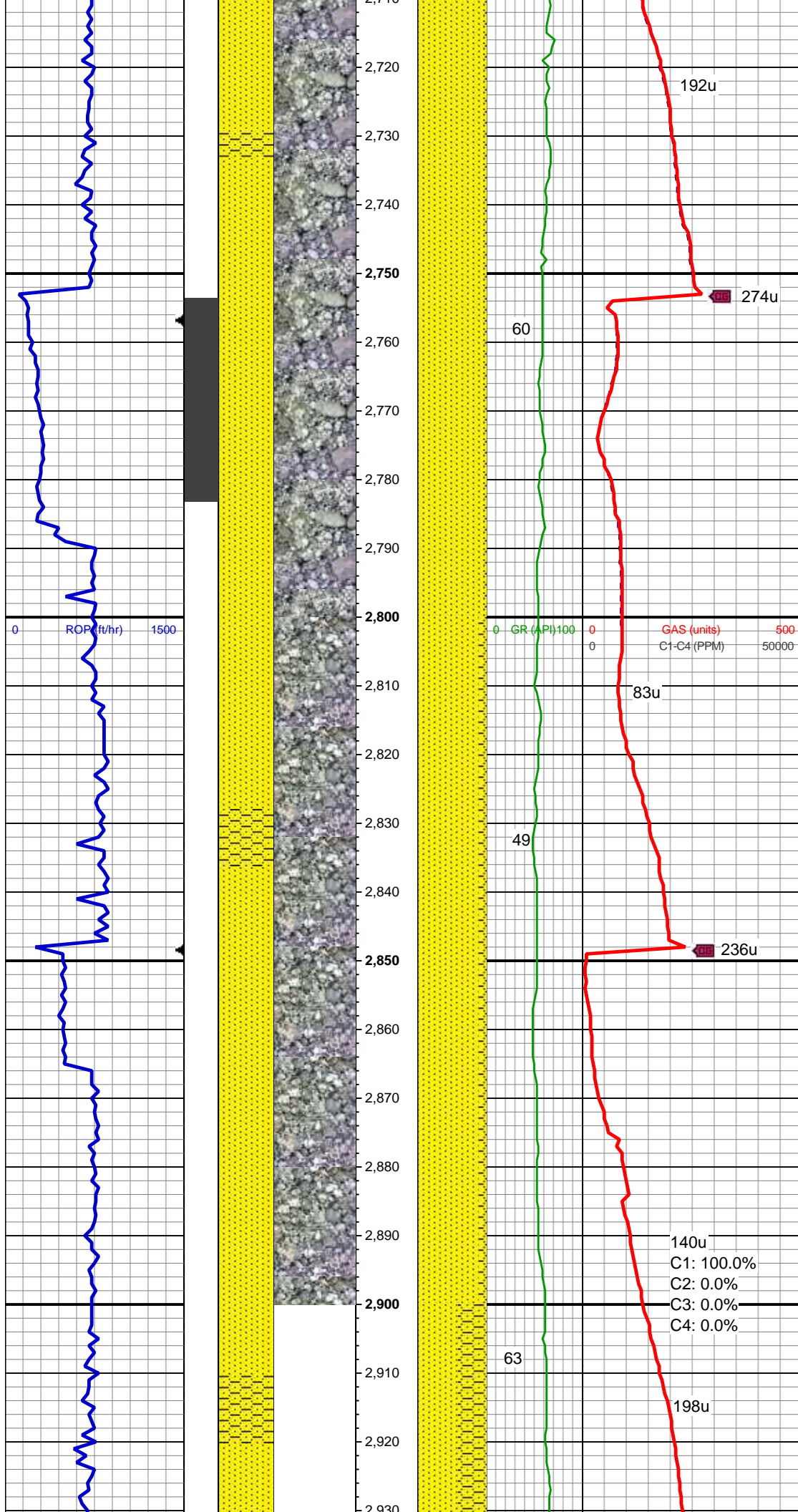
SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blk, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blk-sb plty, arg-rthy mtx, non calc

MD: 2,602'  
TVD: 2,582.13'  
Inclination: 13.3 °  
Azimuth: 100.2 °  
VS: 14.67'

SHY SS: gy - lt gy, s&p, vf-f gr, sft, sb  
rnd-sb blk, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blk-sb plty, arg-rthy mtx, non calc  
SS: wh-crm, occ lt gy, s&p, f-vf grn, sf, sb  
blk-sb rnd, p-mod srt, arg cmt, sl mics

MD: 2,697'  
TVD: 2,674.83'  
Inclination: 12 °  
Azimuth: 99.3 °  
VS: 16.92'





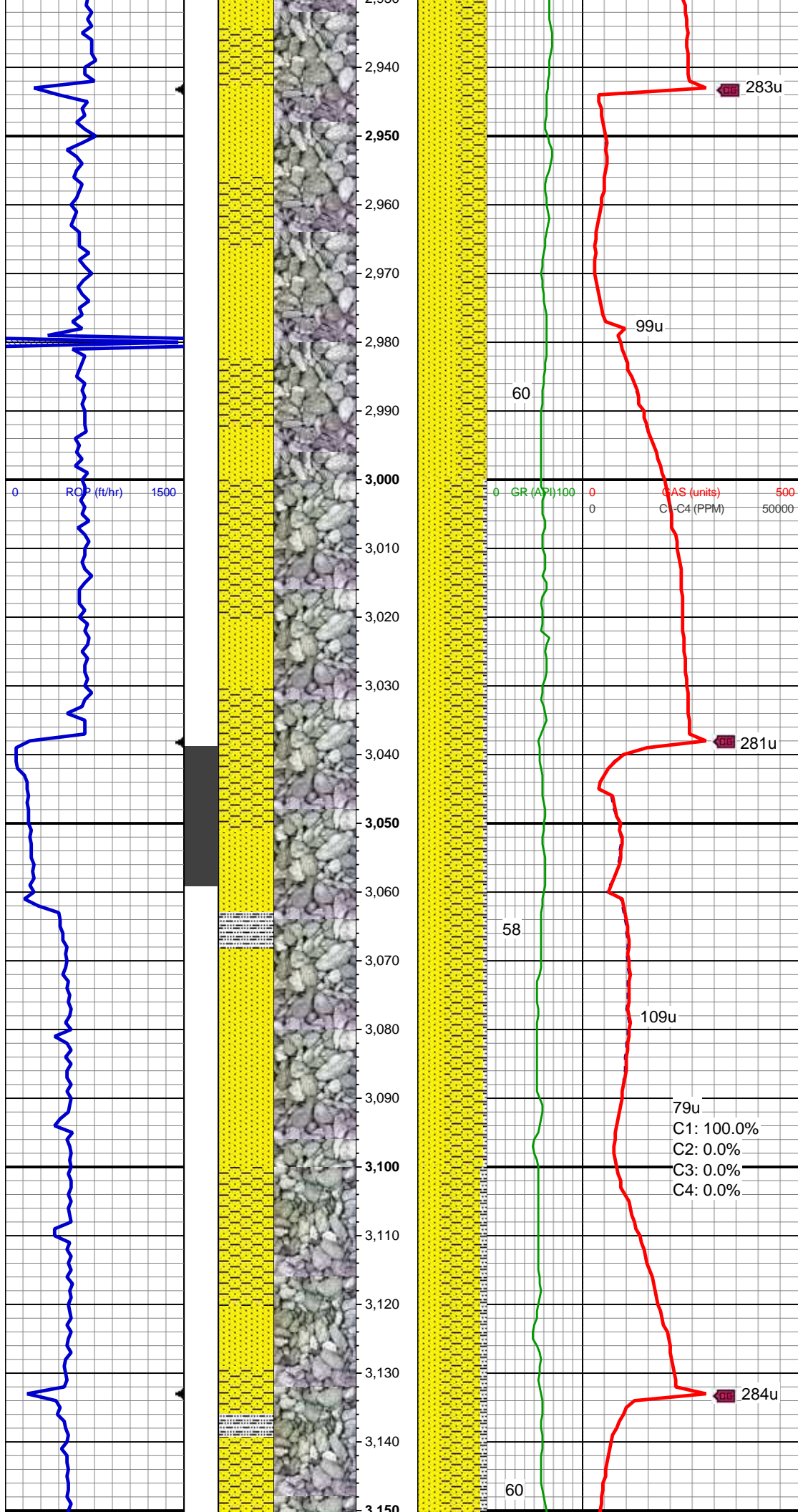
SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb blk-y-sb rnd, mod - w srt, arg  
cmt, mod uncons  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blk-y, p srt, arg cmt, sl mics

MD: 2,792'  
TVD: 2,767.51'  
Inclination: 13.4 °  
Azimuth: 98.5°  
VS: 19.5'

SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb blk-y-sb rnd, mod - w srt, arg  
cmt, occ uncons  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blk-y, p srt, arg cmt, sl mics

MD: 2,888'  
TVD: 2,860.9'  
Inclination: 13.4 °  
Azimuth: 96.8°  
VS: 22.74'

140u  
C1: 100.0%  
C2: 0.0%  
C3: 0.0%  
C4: 0.0%



SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb blk-y-sb rnd, mod srt, arg cmt,  
occ uncon  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blk-y, p srt, arg cmt, sl mics

MD: 2,983'  
TVD: 2,953.55'  
Inclination: 12.1 °  
Azimuth: 97.3°  
VS: 26.02'

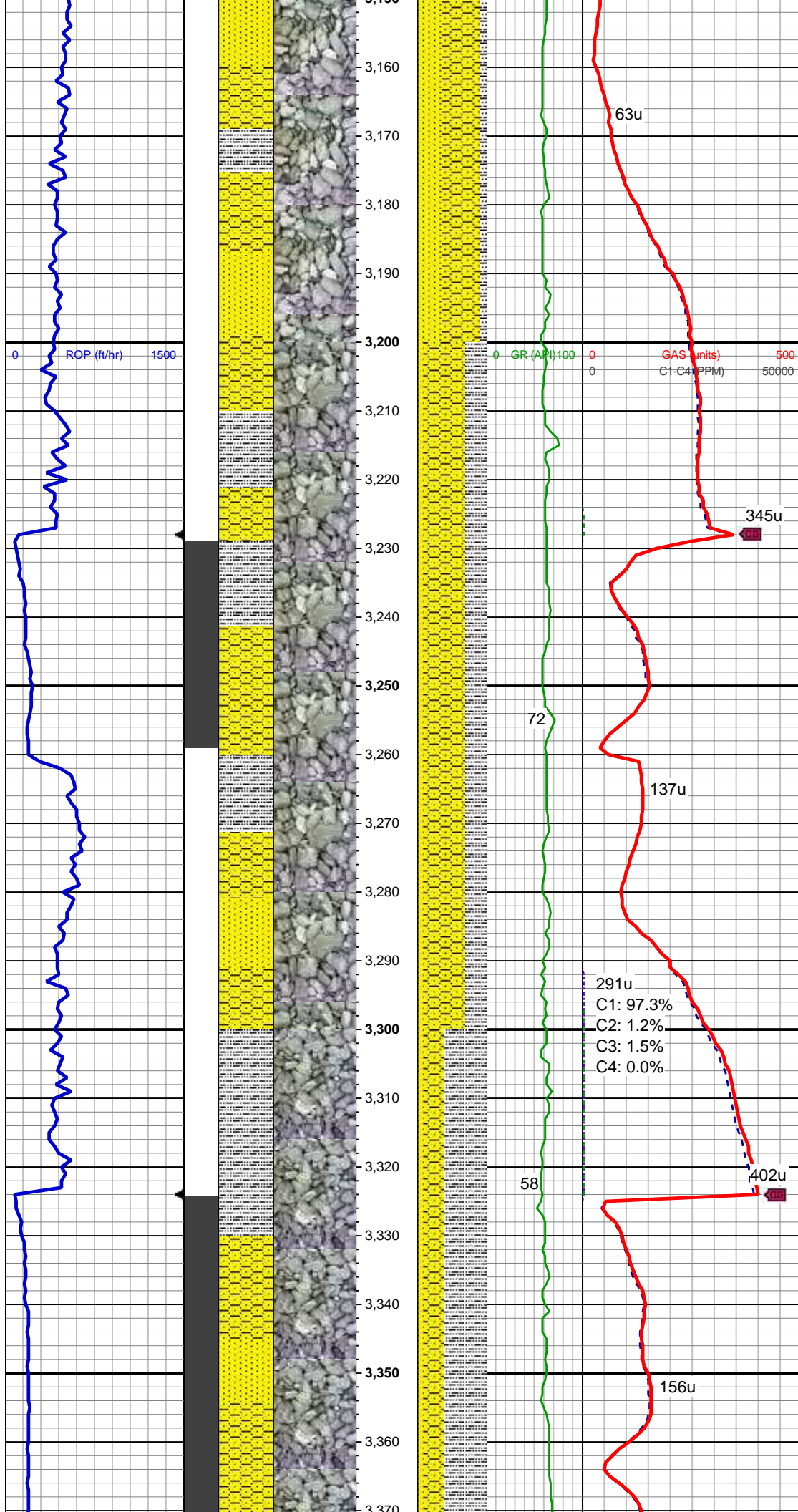
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blk-y, p srt, arg cmt, sl mics  
SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb ang - sb rnd, mod srt, arg cmt,  
sl uncon  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blk-y-sb plty, arg-rthy mtx, non calc

MD: 3,078'  
TVD: 3,046.37'  
Inclination: 12.6 °  
Azimuth: 96.9°  
VS: 29.17'

79u  
C1: 100.0%  
C2: 0.0%  
C3: 0.0%  
C4: 0.0%

SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blk-y, p srt, arg cmt, sl mics  
SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb ang - sb rnd, mod srt, arg cmt,





sl unconcs  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc

MD: 3,173'  
TVD: 3,139.23'  
Inclination: 11.8 °  
Azimuth: 95.2 °  
VS: 32.64'

SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc  
SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb ang - sb rnd, mod srt, arg cmt,  
sl unconcs

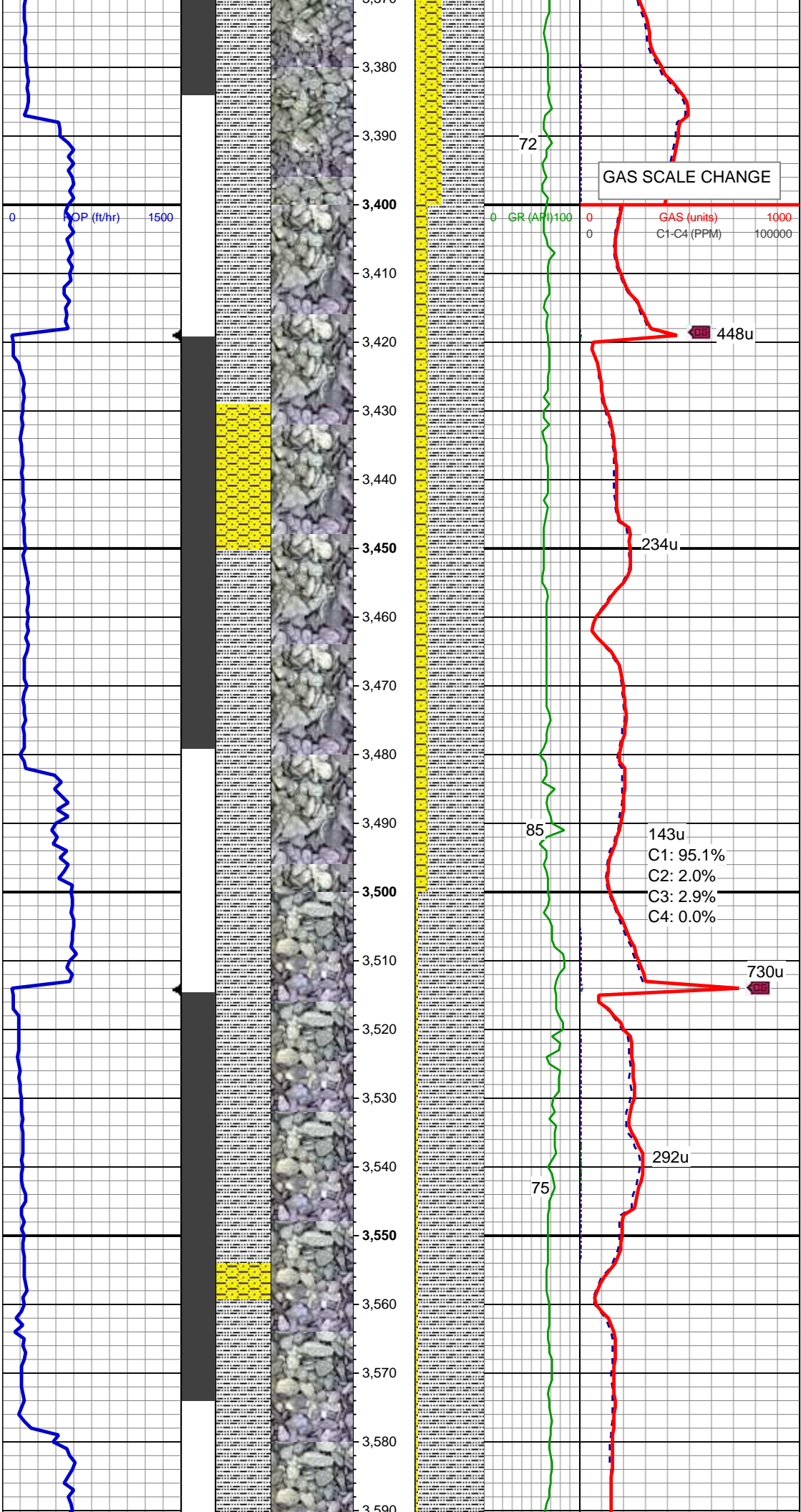
MD: 3,268'  
TVD: 3,232.34'  
Inclination: 11.2 °  
Azimuth: 102.5 °  
VS: 35.03'

SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb ang - sb rnd, mod srt, arg cmt,  
sl unconcs

MD: 3,363'  
TVD: 3,325.44'  
Inclination: 11.8 °



Azimuth: 109°  
VS: 35.09'

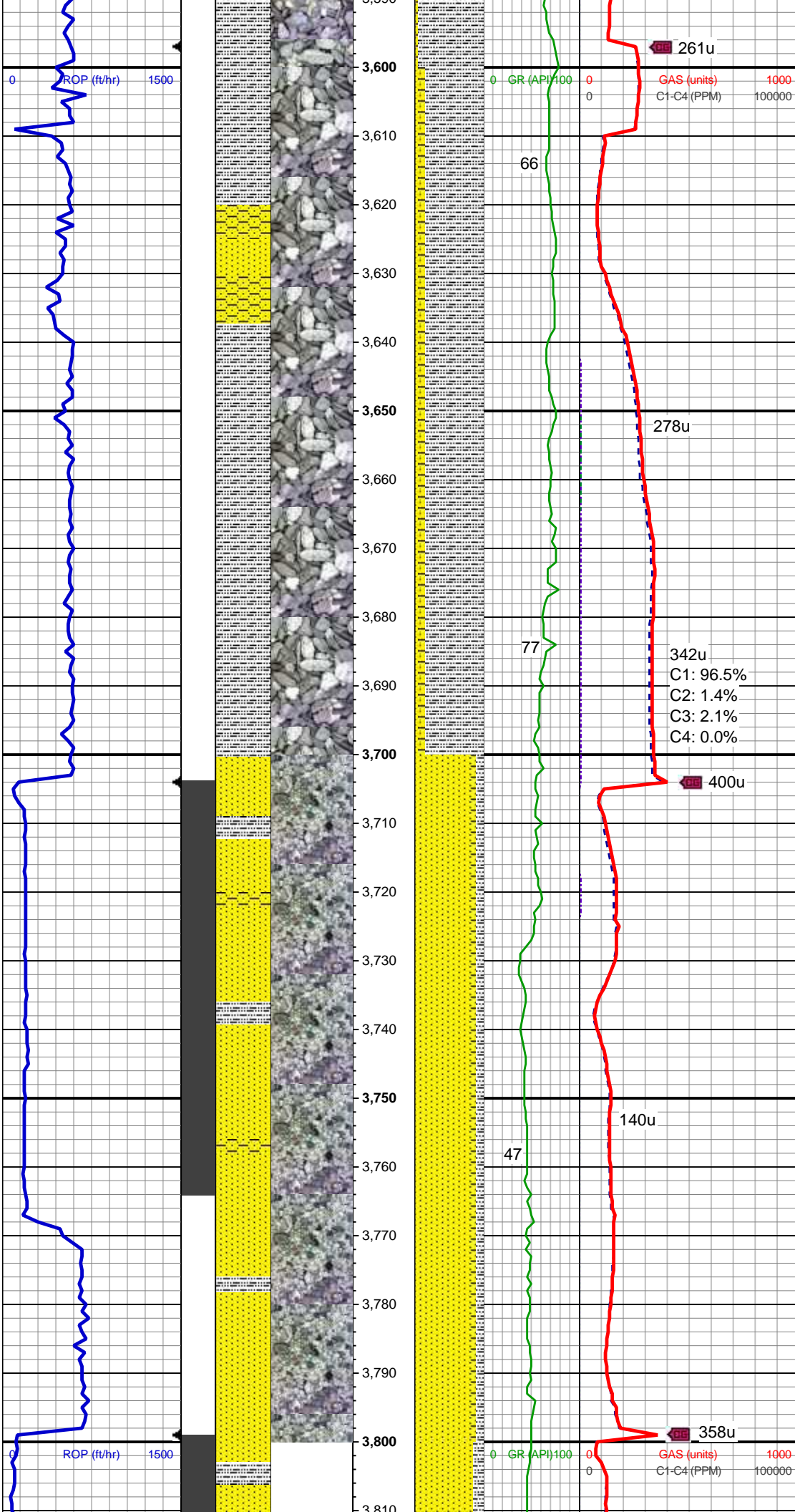


SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics

MD: 3,458'  
TVD: 3,418.26'  
Inclination: 12.8 °  
Azimuth: 108.3 °  
VS: 34.17'

SLTY SH: lt-med gy, dk gy, sft, sb blky-sb  
plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics

MD: 3,553'  
TVD: 3,510.81'  
Inclination: 13.3 °  
Azimuth: 98.5 °  
VS: 35.17'



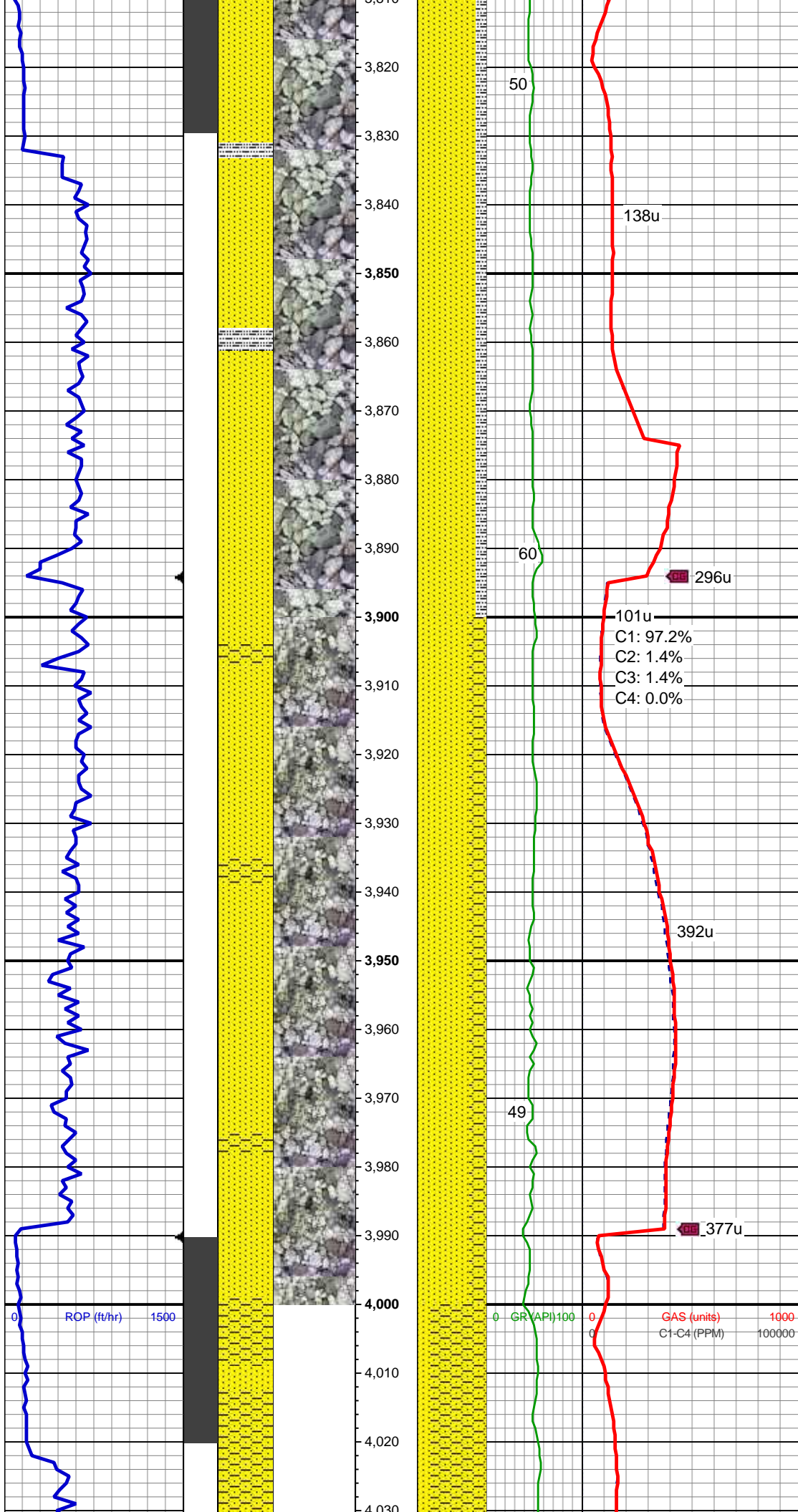
MD: 3,648'  
TVD: 3,603.65'  
Inclination: 11.2 °  
Azimuth: 94.6 °  
VS: 38.42'

SLTY SH: lt-med gy, occ dk gy, sft, sb  
blky-sb plty, arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blky, p srt, arg cmt, sl mics  
SS: wh - crm, trnsl, occ lt gy, s&p, f - vf  
grn, sf, sb ang - sb rnd, mod srt, arg cmt,  
sl uncons

MD: 3,743'  
TVD: 3,696.7'  
Inclination: 12.1 °  
Azimuth: 101.3 °  
VS: 41.07'

SS: wh - trns, occ lt gy, s&p, f - vf grn, sf,  
sb ang - sb rnd, p-mod srt, p cmt, v  
uncons  
SLTY SH: lt-med gy, sft, sb blky-sb plty,  
arg-rthy mtx, non calc  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd-sb blky, p-mod srt, arg cmt, sl mics





MD: 3,838'  
TVD: 3,789.21'  
Inclination: 14.2 °  
Azimuth: 105 °  
VS: 42.12'

SS: wh - trnsl, occ lt gy, s&p, f - vf grn, sf,  
sb ang - sb rnd, mod srt, arg cmt, sl  
uncons  
SLTY SH: lt-med gy, tr dk gy, sft, sb  
blky-sb plty, tr plty, arg-rthy mtx, non calc

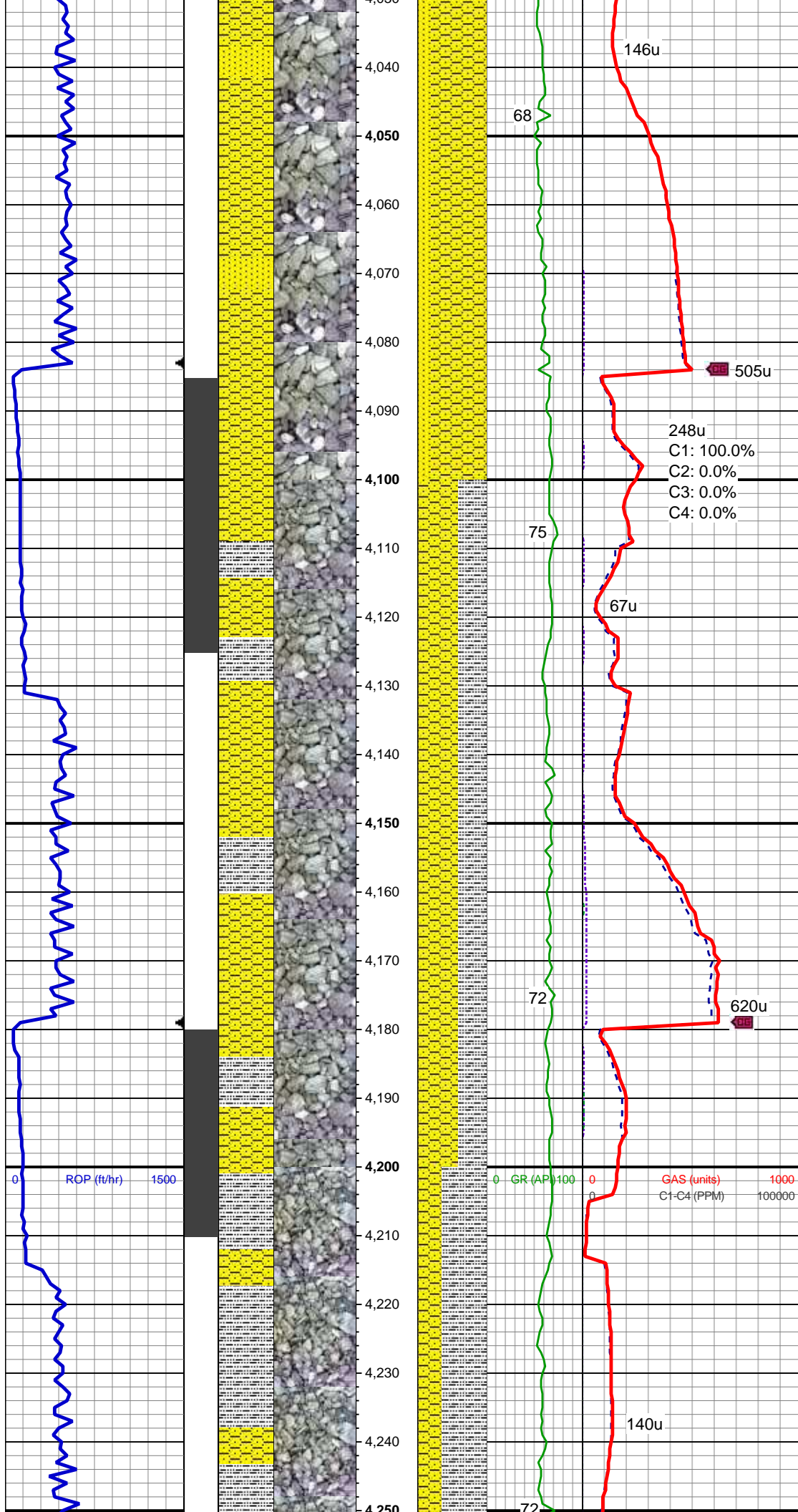
MUD WT 8.80 VIS 29

MD: 3,934'  
TVD: 3,882.07'  
Inclination: 15.2 °  
Azimuth: 104.9 °  
VS: 42.59'

SS: wh - lt gy, occ trnsl, s&p, f - vf grn, sf,  
sb ang - sb rnd, mod srt, arg cmt, sl  
uncons, tr glau  
SHY SS: gy - lt gy, tr dk gy, s&p, vf - f gr,  
sft, sb rnd-sb blky, mod srt, arg cmt, sl  
mics

MD: 4,029'  
TVD: 3,973.93'  
Inclination: 14.3 °





Azimuth: 99.9°  
VS: 44.11'

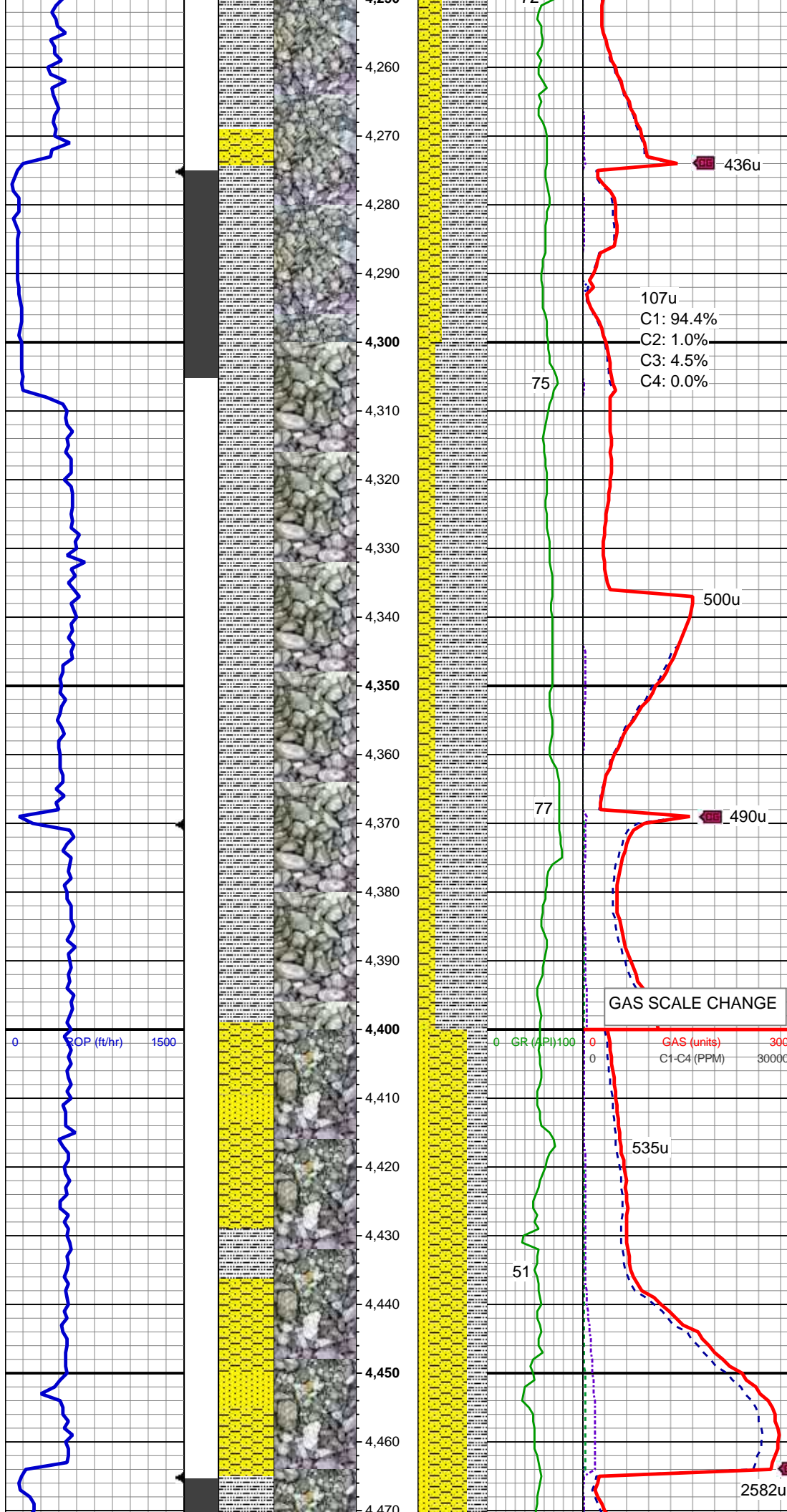
SHY SS: gy - dk gy, s&p, vf - f gr, sft, sb  
rnd-sb blkly, mod srt, arg cmt, sl mics  
SS: wh - lt gy, s&p, f - vf grn, sf, sb ang -  
sb rnd, mod srt, arg cmt

MD: 4,124'  
TVD: 4,066.41'  
Inclination: 12.1 °  
Azimuth: 93.2 °  
VS: 47.59'

SHY SS: gy - dk gy, tr lt gy, s&p, vf-f gr,  
sft, sb rnd-sb blkly, mod-w srt, arg cmt, occ  
ss  
SLTY SH: med-dk gy, occ gy, sft, sb  
blkly-sb plty, occ plty, arg-rthy mtx, non  
calc

MD: 4,219'  
TVD: 4,159.32'  
Inclination: 12 °  
Azimuth: 97.6 °  
VS: 51.26'

SLTY SH: med-dk gy, tr lt gy, sft, sb  
blkly-sb plty, occ plty, arg-rthy mtx, non  
calc



calc  
SHY SS: gy - dk gy, occ lt gy, s&p, vf-f gr,  
sft, sb rnd-sb blk, mod-w srt, arg cmt, tr ss

MD: 4,314'  
TVD: 4,252.12'  
Inclination: 12.8 °  
Azimuth: 100.5 °  
VS: 53.72'

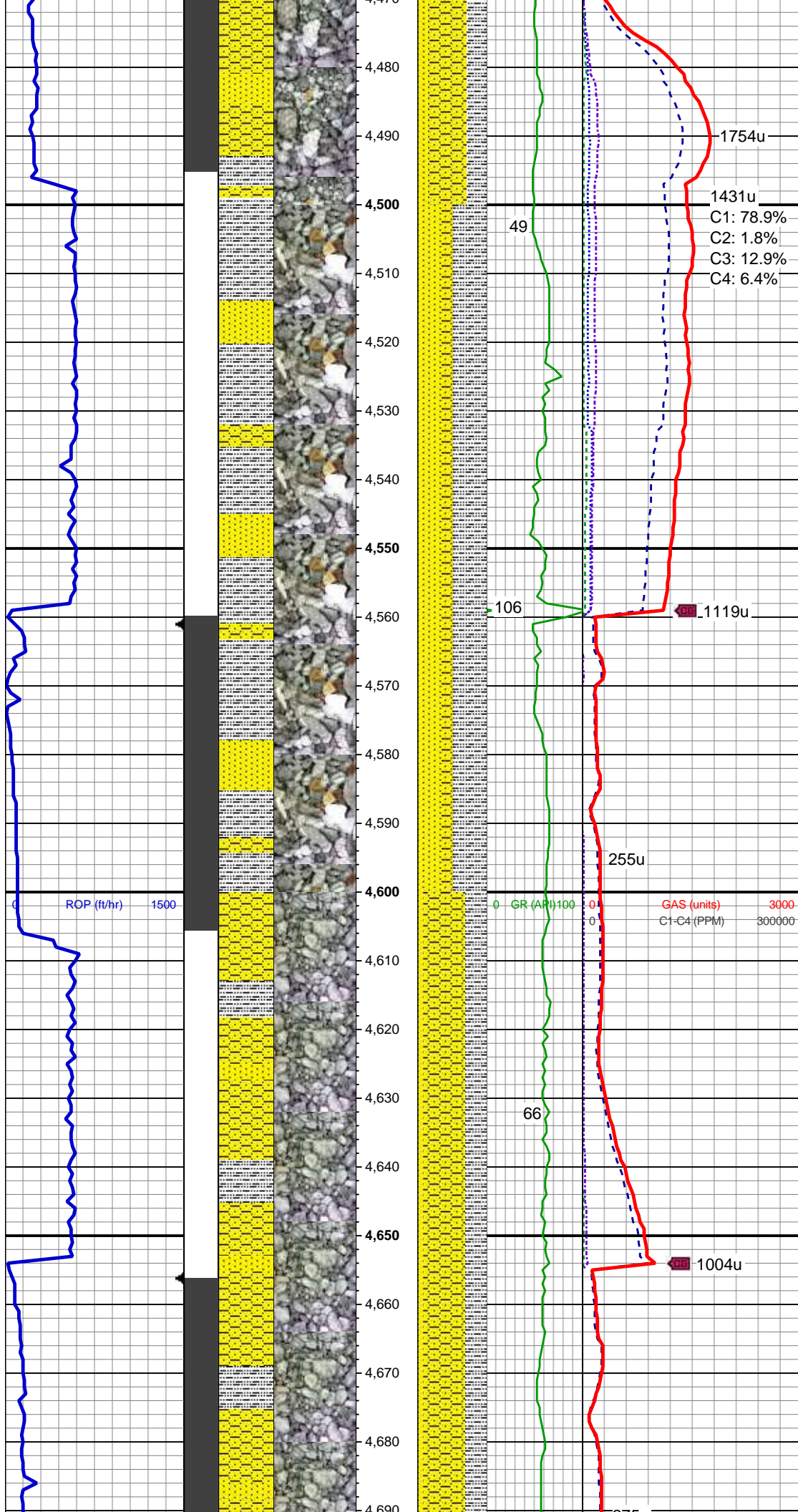
SLTY SH: med gy-gy, occ dk gy, sft, sb  
blk - sb plty, occ plty, arg - rthy mt, non  
calc  
SHY SS: gy - lt gy, occ med gy, s&p, vf -  
f gr, sft, sb rnd - sb blk, mod-w srt, arg  
cmt

MUD WT 8.90 VIS 28

MD: 4,409'  
TVD: 4,345.12'  
Inclination: 10.8 °  
Azimuth: 96.7 °  
VS: 56.18'

SHY SS: gy - med gy, s&p, vf - f gr, sft, sb  
rnd - sb blk, mod-w srt, arg cmt  
SLTY SH: med gy-gy, tr dk gy, sft, sb blk  
- sb plty, occ plty, arg - rthy mt, non  
calc  
SS: lt gy - wh, s&p, vf-f gr, sb rnd-sb blk,  
p-mod srt, occ glau, arg cmt





MD: 4,504'  
TVD: 4,438.59'  
Inclination: 9.8 °  
Azimuth: 102 °  
VS: 58.2'

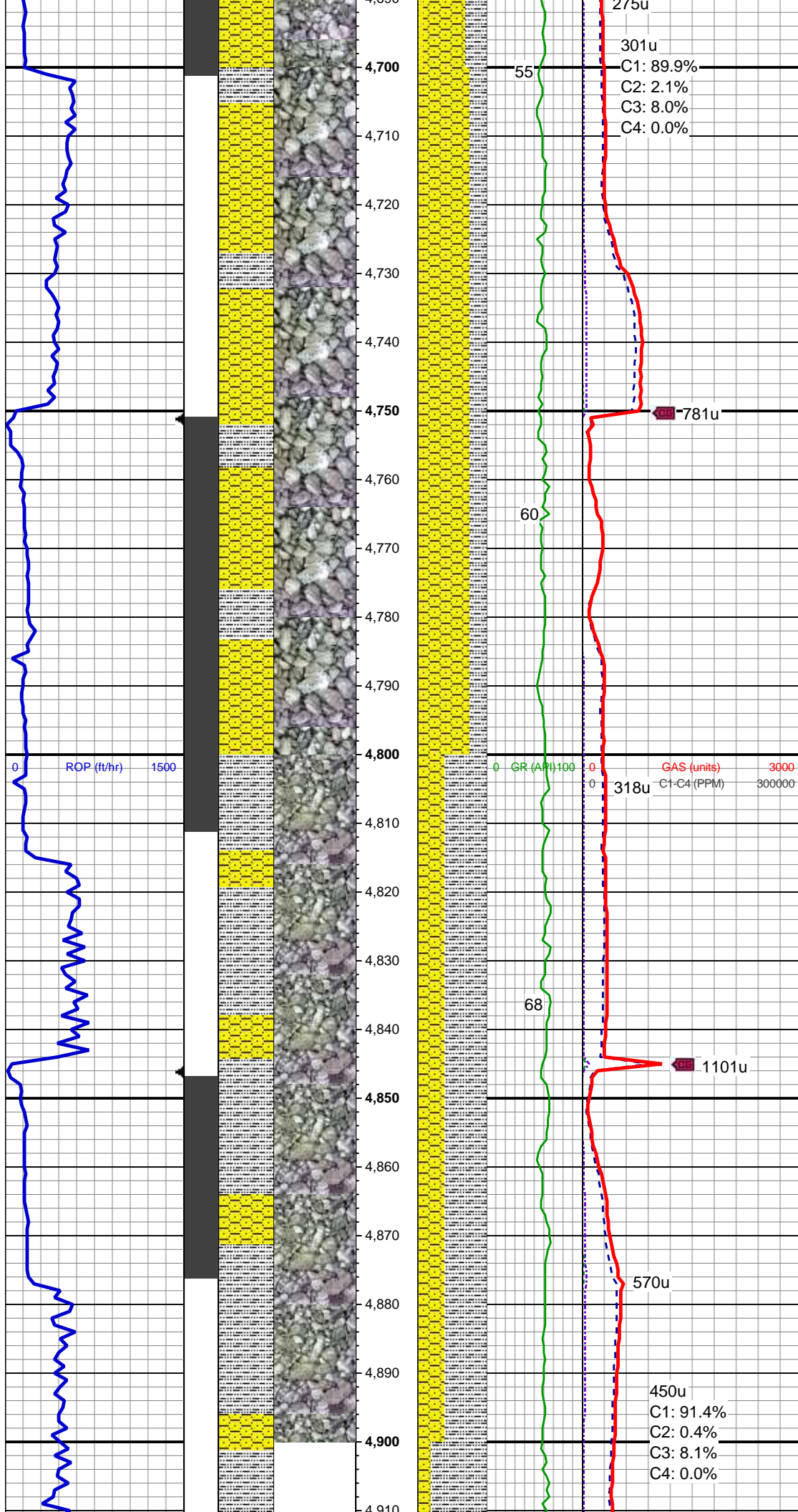
SLTY SH: med gy-gy, occ dk gy, sft, sb  
blky - sb plty, occ plty, arg - rthy mtx, non  
calc  
SS: lt gy - wh, tr trnsf, s&p, vf-f gr, sb  
rnd-sb blky, p-mod srt, tr glau, arg cmt  
SHY SS: gy - lt gy, s&p, vf - f gr, sft, sb  
rnd - sb blky, mod-w srt, arg cmt

MD: 4,600'  
TVD: 4,533.1'  
Inclination: 10.5 °  
Azimuth: 102.2 °  
VS: 59.35'

SHY SS: gy - lt gy, occ med gy, s&p, vf -  
f gr, sft, sb rnd - sb blky, mod-w srt, arg  
cmt  
SLTY SH: med gy-gy, tr dk gy, sft, sb blky  
- sb plty, tr plty, arg - rthy mtx, non calc  
SS: lt gy - wh, tr trnsf, s&p, vf-f gr, sb  
rnd-sb blky, p-mod srt, arg cmt

MD: 4,695'





TVD: 4,626.52'  
Inclination: 10.5 °  
Azimuth: 107.2 °  
VS: 59.74'

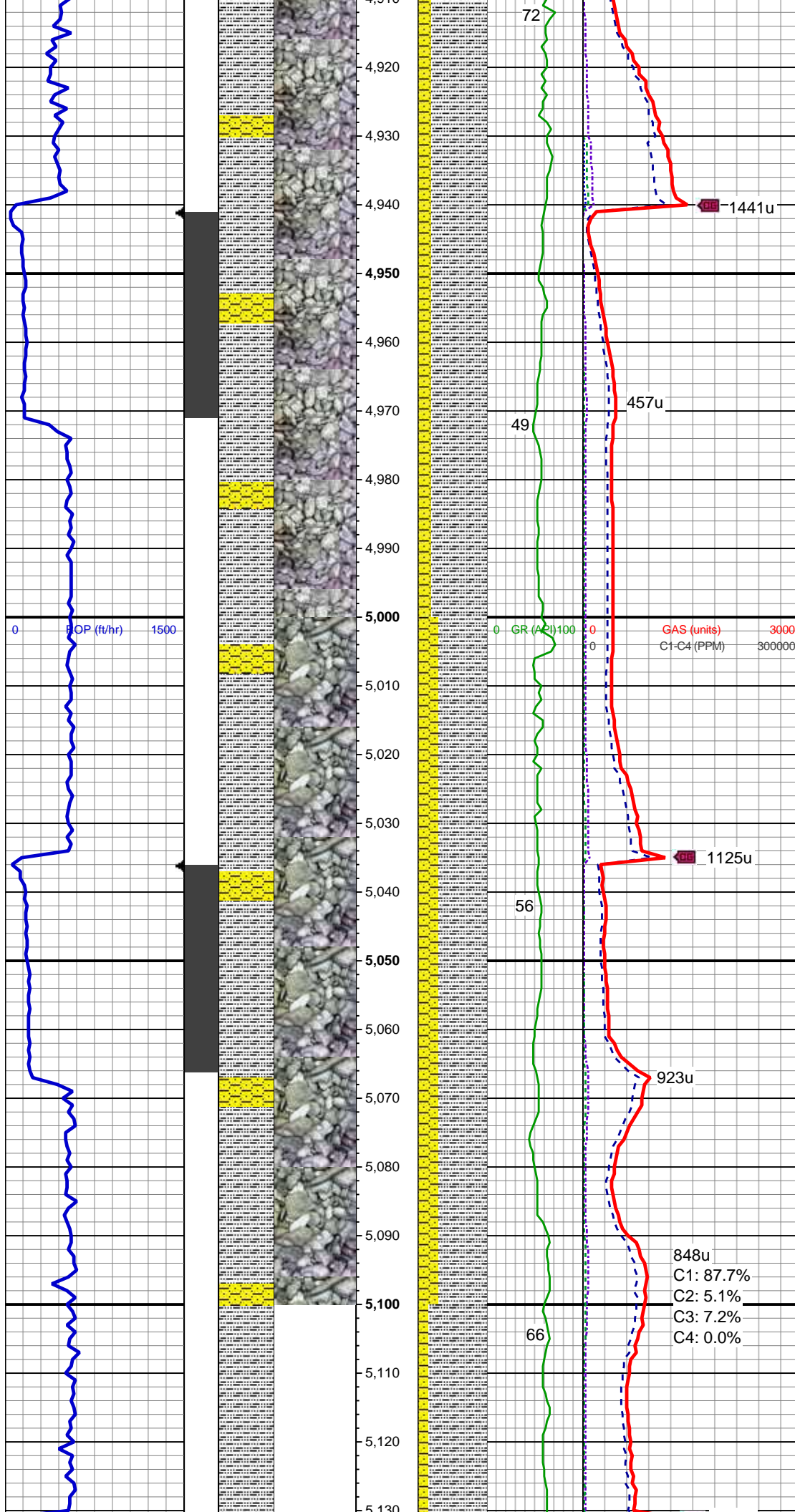
MUD WT 8.60 VIS 28

SHY SS: gy - med gy, occ lt gy, s&p, vf -  
f gr, sft, sb rnd - sb blkly, mod-w srt, arg  
cmt  
SLTY SH: med gy- dk gy, tr gy, sft, sb blkly  
- sb plty, occ plty, arg - rthy mtx, non  
calc, occ ss

MD: 4,790'  
TVD: 4,719.89'  
Inclination: 10.8 °  
Azimuth: 105.3 °  
VS: 59.67'

SLTY SH: med gy- dk gy, sft, sb blkly - sb  
plty, occ plty, arg - rthy mtx, non calc  
SHY SS: gy - med gy, s&p, vf gr, sft, sb  
rnd - sb blkly, mod-w srt, arg cmt, tr ss

MD: 4,885'  
TVD: 4,813.03'  
Inclination: 11.9 °  
Azimuth: 105.1 °  
VS: 59.93'



SLTY SH: med gy- dk gy, sft, sb blkly - sb  
plty, occ plty, arg - rthy mtx, non calc  
SHY SS: gy - med gy, tr lt gy, s&p, vf gr,  
sft, sb rnd - sb blkly, mod srt, arg cmt, occ  
ss

MD: 4,980'  
TVD: 4,906'  
Inclination: 11.9 °  
Azimuth: 99.3 °  
VS: 61.24'

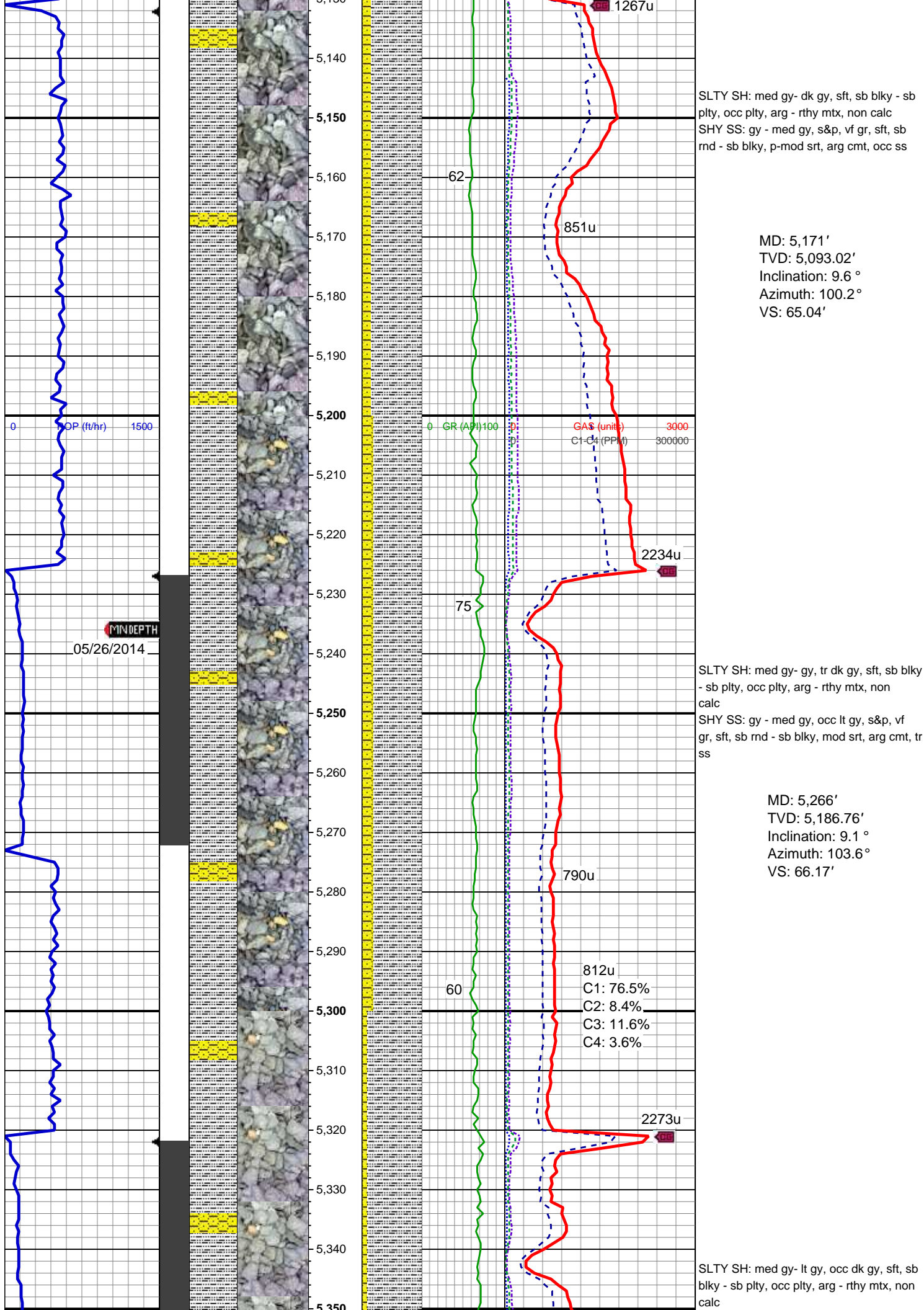
MUD WT 8.75 VIS 34

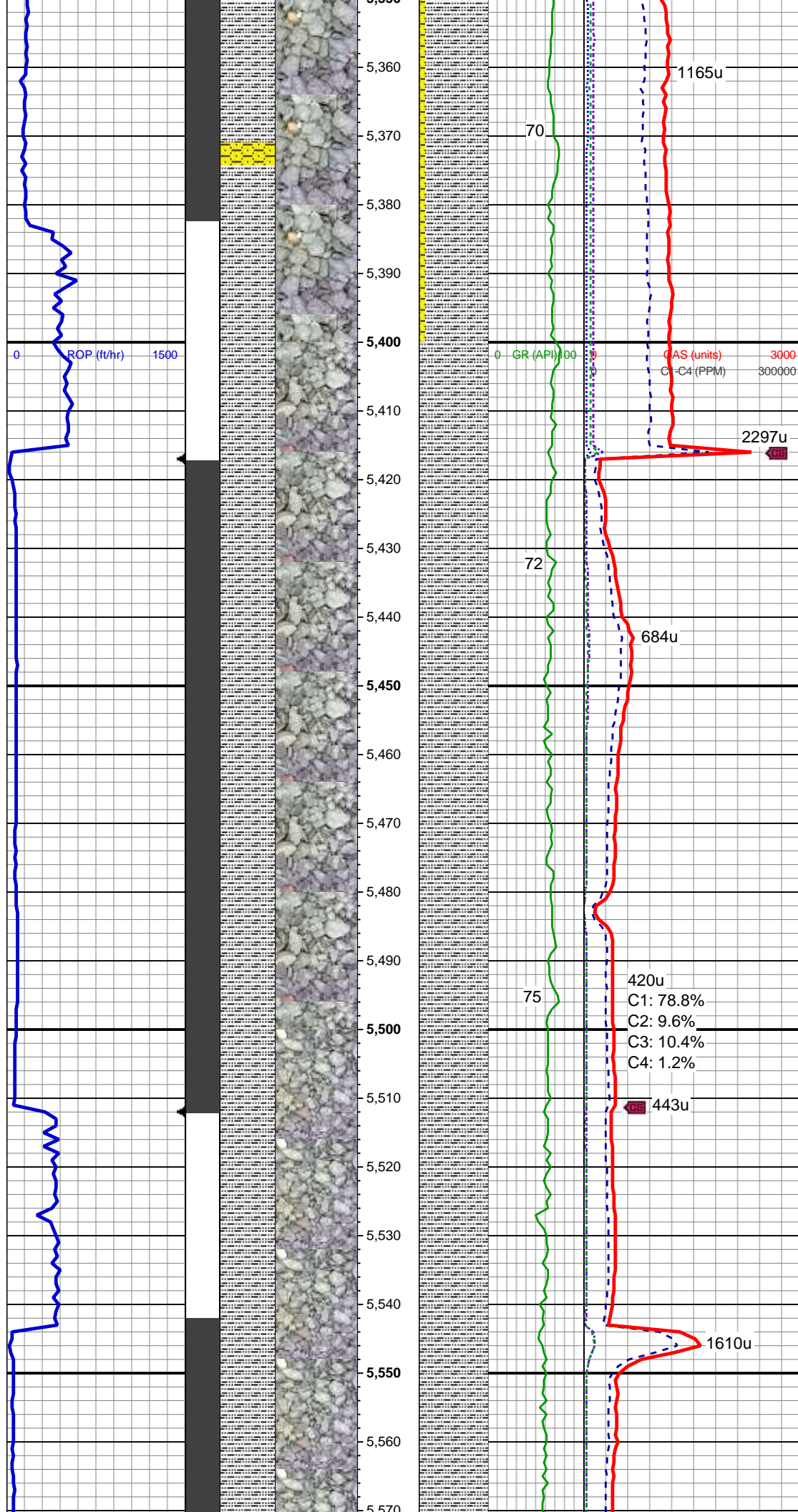
SLTY SH: med gy- dk gy, tr gy, sft, sb blkly  
- sb plty, tr plty, arg - rthy mtx, non calc  
SHY SS: gy - med gy, s&p, vf gr, sft, sb  
rnd - sb blkly, mod srt, arg cmt, tr ss

MD: 5,076'  
TVD: 4,999.81'  
Inclination: 12.7 °  
Azimuth: 101 °  
VS: 63.33'

848u  
C1: 87.7%  
C2: 5.1%  
C3: 7.2%  
C4: 0.0%







SHY SS: lt gy - gy, tr med gy, s&p, vf gr, sft, sb rnd - sb blk, mod srt, arg cmt, occ ss

MD: 5,361'  
TVD: 5,280.54'  
Inclination: 9.3 °  
Azimuth: 106.3 °  
VS: 66.46'

MUD WT 9.30 VIS 41

SLTY SH: med gy- lt gy, occ dk gy, sft, sb blk - sb plty, occ plty, arg - rthy mtx, non calc, occ shy ss, tr ss

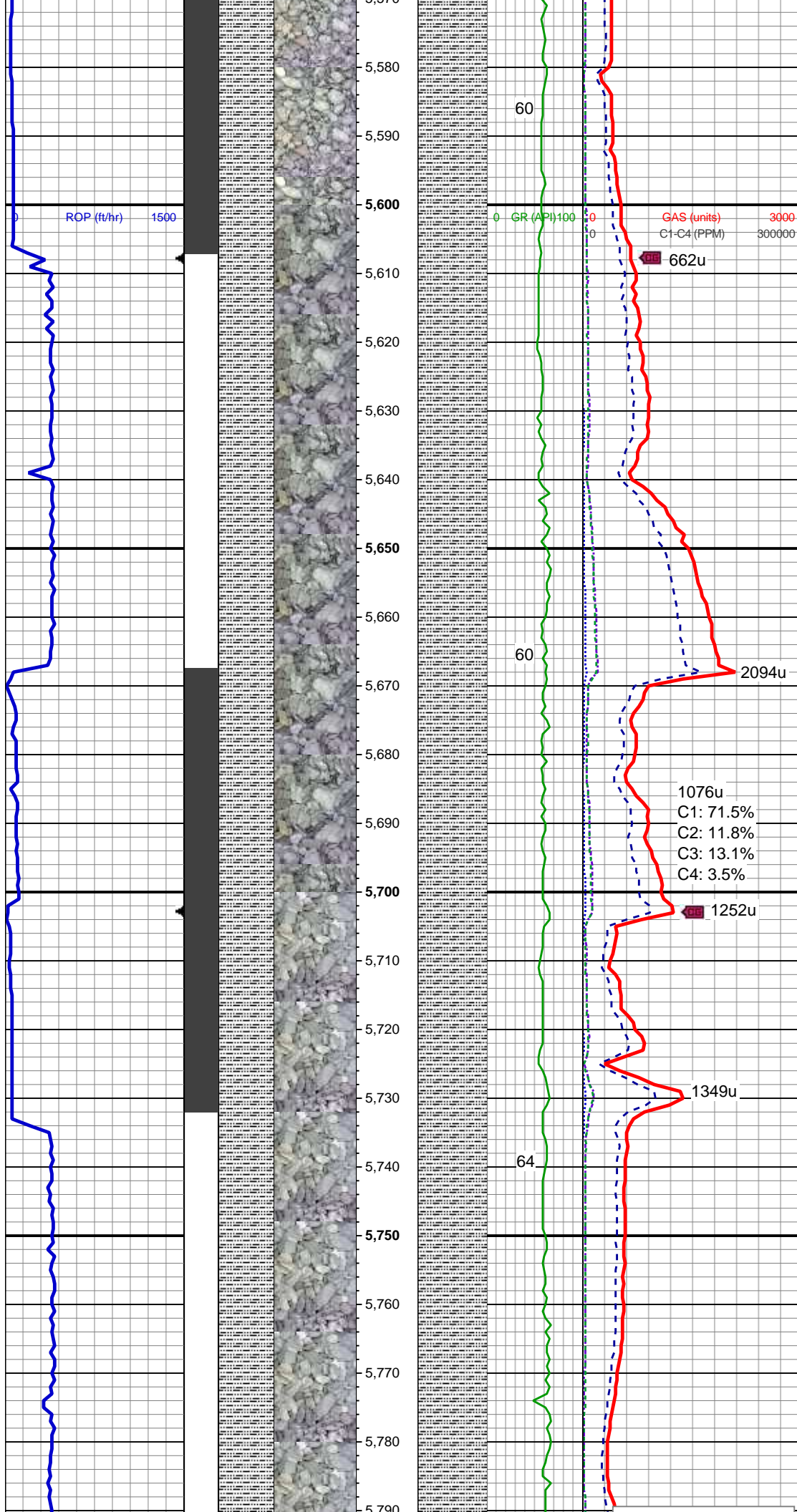
MD: 5,456'  
TVD: 5,374.01'  
Inclination: 11.3 °  
Azimuth: 108 °  
VS: 66.12'

420u  
C1: 78.8%  
C2: 9.6%  
C3: 10.4%  
C4: 1.2%

MD: 5,551'  
TVD: 5,466.9'  
Inclination: 12.9 °  
Azimuth: 101.8 °  
VS: 65.35'

SLTY SH: med gy- lt gy, dk gy, sft, sb blk - sb plty, occ plty, arg - rthy mtx, non calc, occ shy ss





MUD WT 9.40 VIS 37

MD: 5,646'  
TVD: 5,559.34'  
Inclination: 13.7 °  
Azimuth: 102.2 °  
VS: 66.88'

SLTY SH: med gy - dk gy, sft, sb blkly - sb  
plty, occ plty, rthy mtx, occ arg mtx, non  
calc, tr shy ss

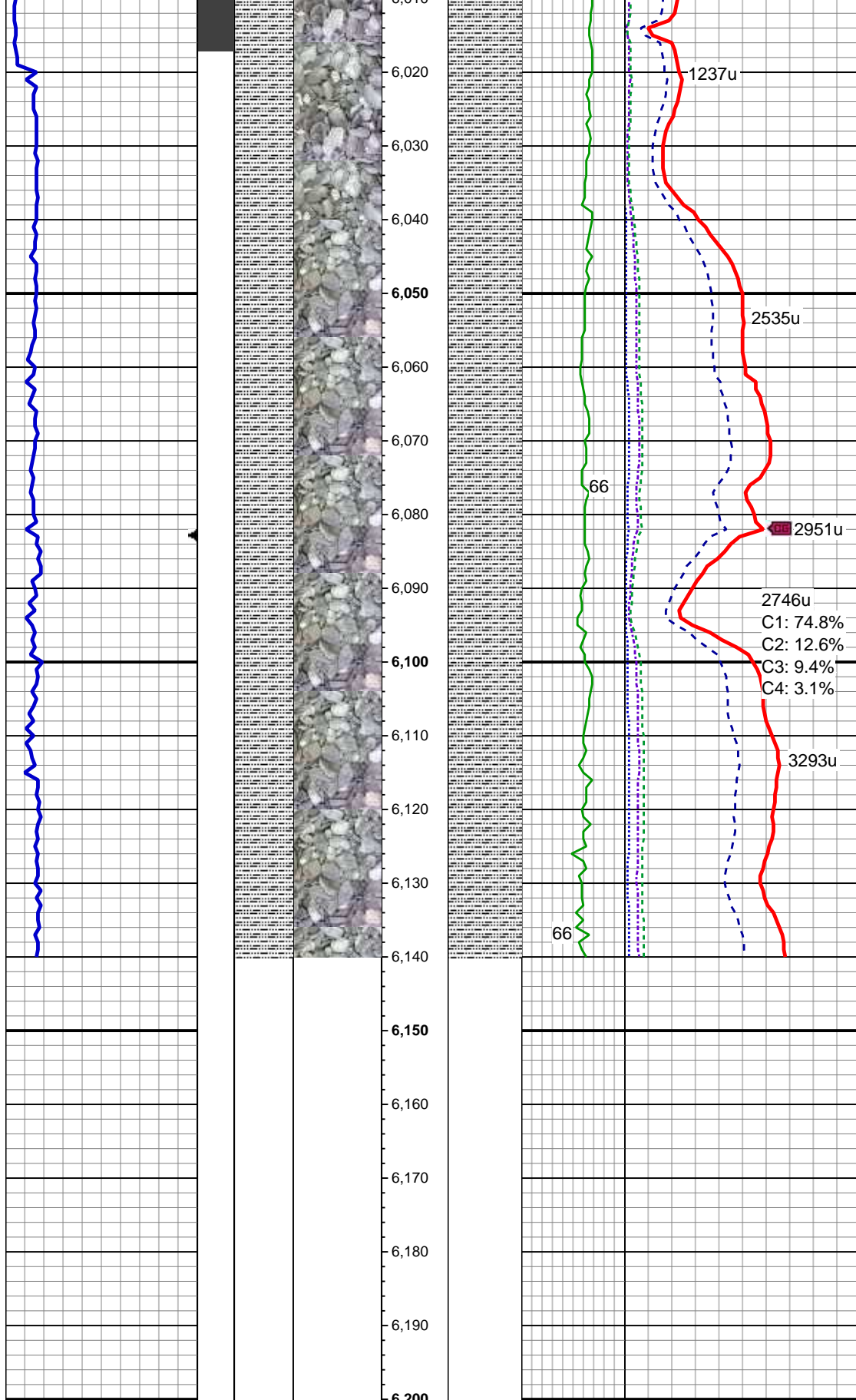
MUD WT 9.55 VIS 38

MD: 5,741'  
TVD: 5,651.46'  
Inclination: 14.6 °  
Azimuth: 97 °  
VS: 69.52'

SLTY SH: med gy - dk gy, sft, sb blkly - sb  
plty, occ plty, rthy mtx, occ arg mtx, non  
calc, tr shy ss







MD: 6,026'  
TVD: 5,927.99'  
Inclination: 13.6 °  
Azimuth: 97.4 °  
VS: 79.3'

SLTY SH: med gy - dk gy, sft, sb blkly - sb  
plty, occ plty, rthy mtx, occ arg mtx, non  
calc, tr shy ss, tr ss

MD: 6,084'  
TVD: 5,984.54'  
Inclination: 12.1 °  
Azimuth: 96.3 °  
VS: 81.35'

SLTY SH: med gy - dk gy, sft, sb blkly - sb  
plty, occ plty, rthy mtx, occ arg mtx, non  
calc, tr shy ss, tr ss

TD @ 6,140' MD  
05/26/2014 @ 09:08 AM

TOOH FOR CURVE BHA  
LOG CONTINUES ON MPlot  
"STORIS E24-76-1HN(HORZ)"

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