



Scale: 5" / 100'  
Measured Depth Log

**Well Name** Winder South 5

**Location** Sec. 9-T6N-R67W

**State** Colorado

**County** Weld

**Country** USA

**Rig Number** Patterson 346

**API Number** 05-123-43407-00

**Field** Wattenberg

**Geographic Region** DJ Basin

**Spud Date** 9/8/2016

**Surface Coordinates** SHL: 2306'FNL, 448' FEL, Sec. 9 T6N R67W

Lat: 40.502674  
Long: -104.890483

**Bottom Hole Coordinates** BHL: 1870'FFSLL, 460' FFWLL, Sec. 8 T6N R67W

**Ground Elevation** 4,855'

**K.B. Elevation** 4,879.5'

**Logged Interval** 5,000' MD To 6,920'

**Formation** Codell

**Type of Drilling Fluid** Oil Based Mud

## Operator

**Company** Extaction Oil & Gas









**Address** 1888 Sherman St., Suite 200  
Denver, CO 80203

## Geologist

**Name** Jared Rouse

**Company** Extraction Oil & Gas

## Zone Color Coding

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

**Address** 1888 Sherman St., Suite 200  
Denver, CO 80203

## Other

**Equipment** ML-589

**Comments** Start: 9-9-16  
TD: xx-xx-xx

**Services Provided** 2-man Logging  
On Site Geosteering

**Logger Names** Dominic Pitre/ Nicholas Watkins

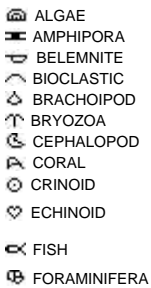
**Address** ALS Empirica  
6510 Guhn Road  
Houston, Texas 77040

## Rock Types



## Accessories

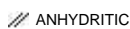
### Fossils



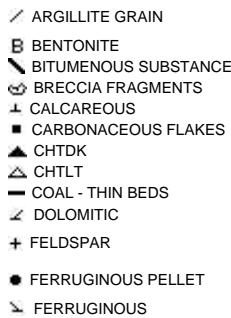
### Fossil



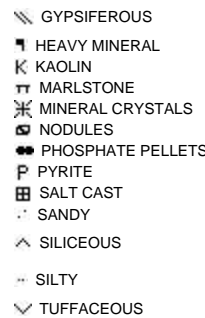
### Minerals



### ARGILLACEOUS



### GLAUCONITE

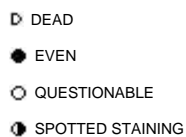


### Stringer

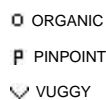
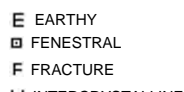


## Other Symbols

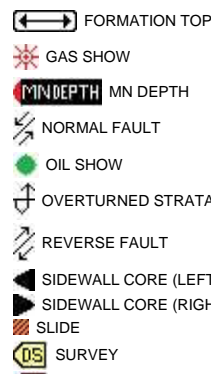
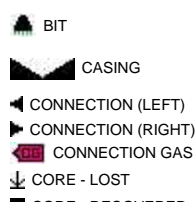
### Oil Show



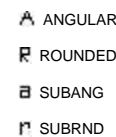
### Porosity



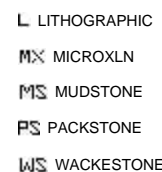
### Engineering



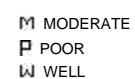
### Rounding



### Textures



### Sorting



✕ INTERCRYSTALLINE

⊕ INTEROOLITIC

↗ MOLDIC

■ CORE - RECOVERED

⋮ DST INTERVAL

↗ FAULT

🔴 TRIP GAS

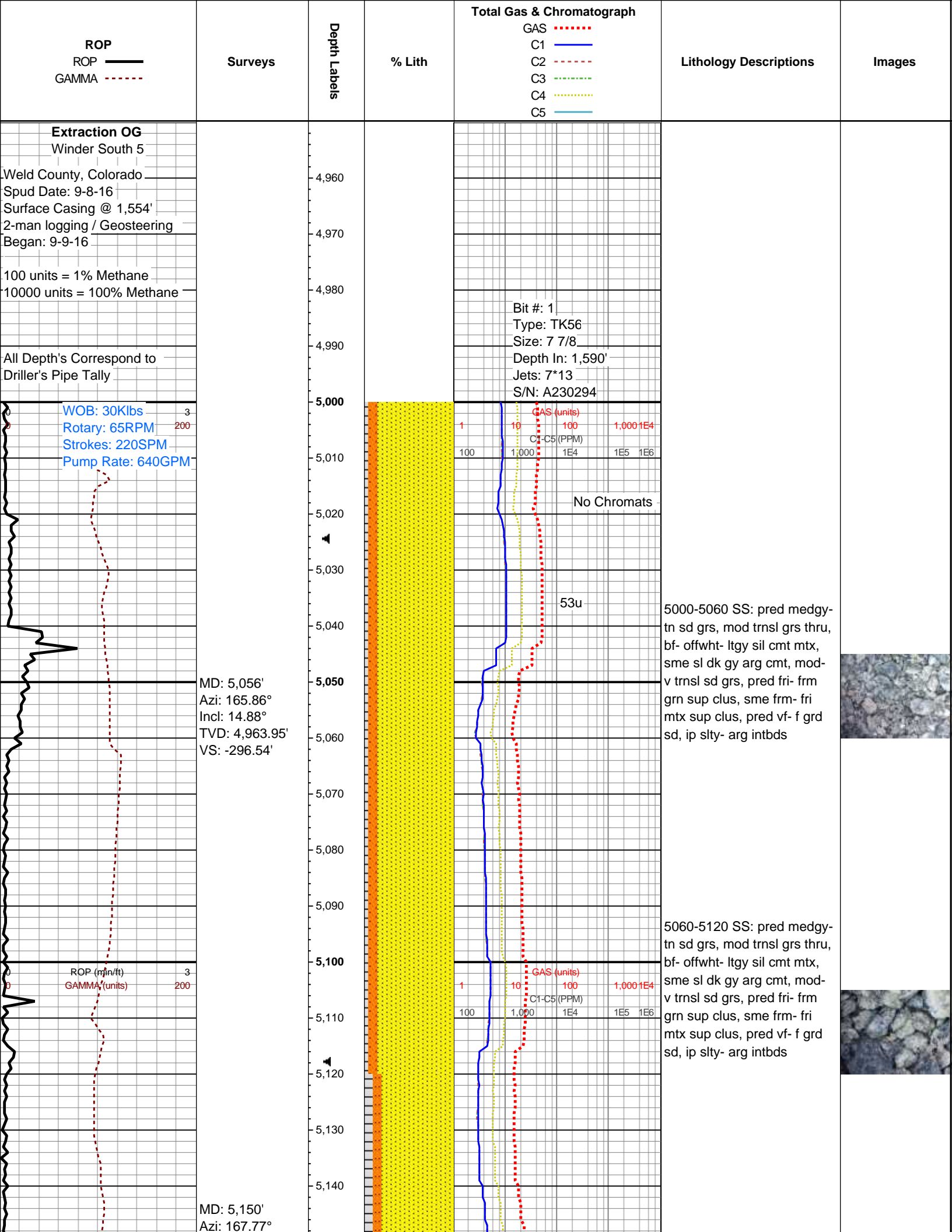
◀ WIRELINE TESTED - LEFT

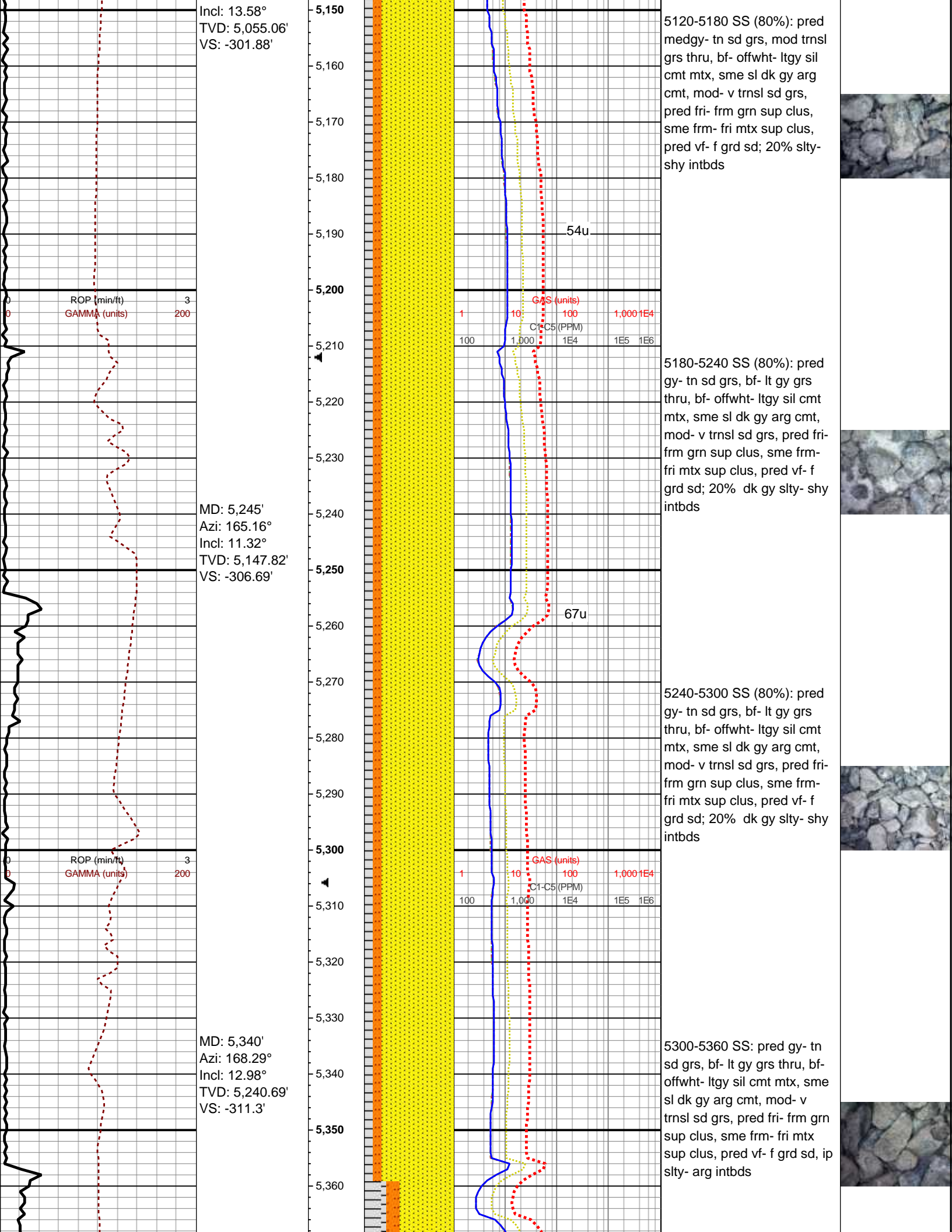
▶ WIRELINE TESTED - RT

⚡ EARTHY

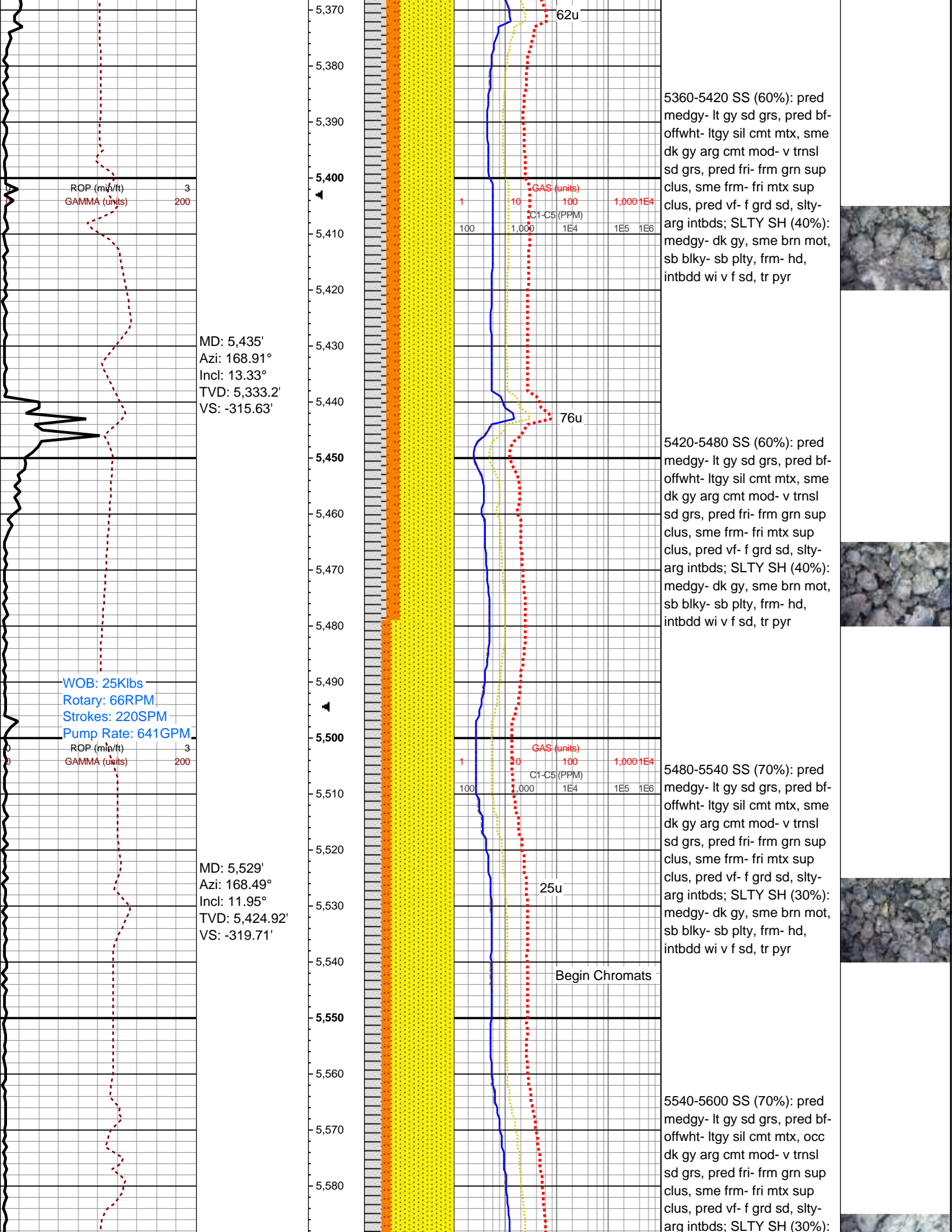
FX FINELYXLN

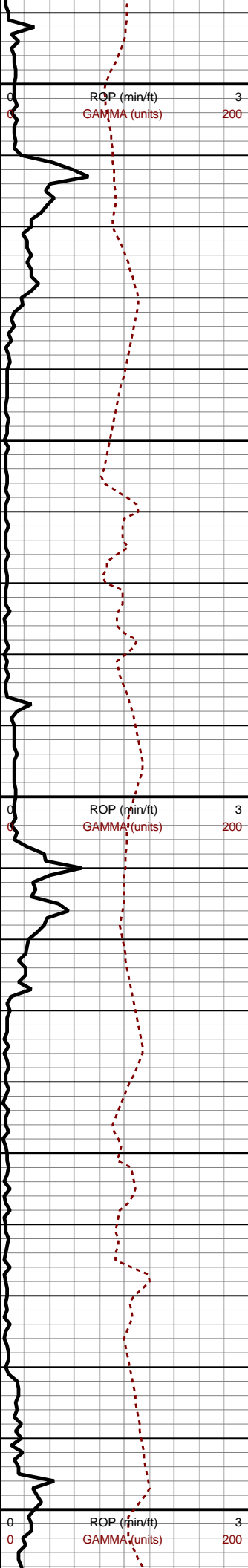
SS GRAINSTONE







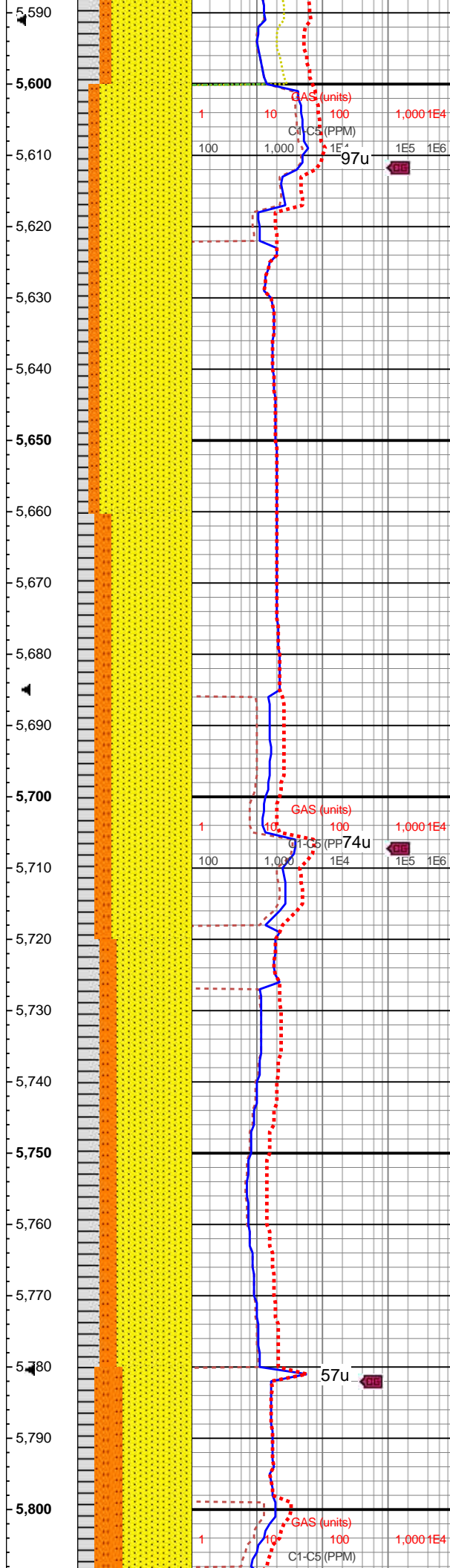




MD: 5,624'  
Azi: 154.44°  
Incl: 12.08°  
TVD: 5,517.86'  
VS: -326.02'

MD: 5,719'  
Azi: 156.31°  
Incl: 12.61°  
TVD: 5,610.66'  
VS: -334.53'

MD: 5,814'



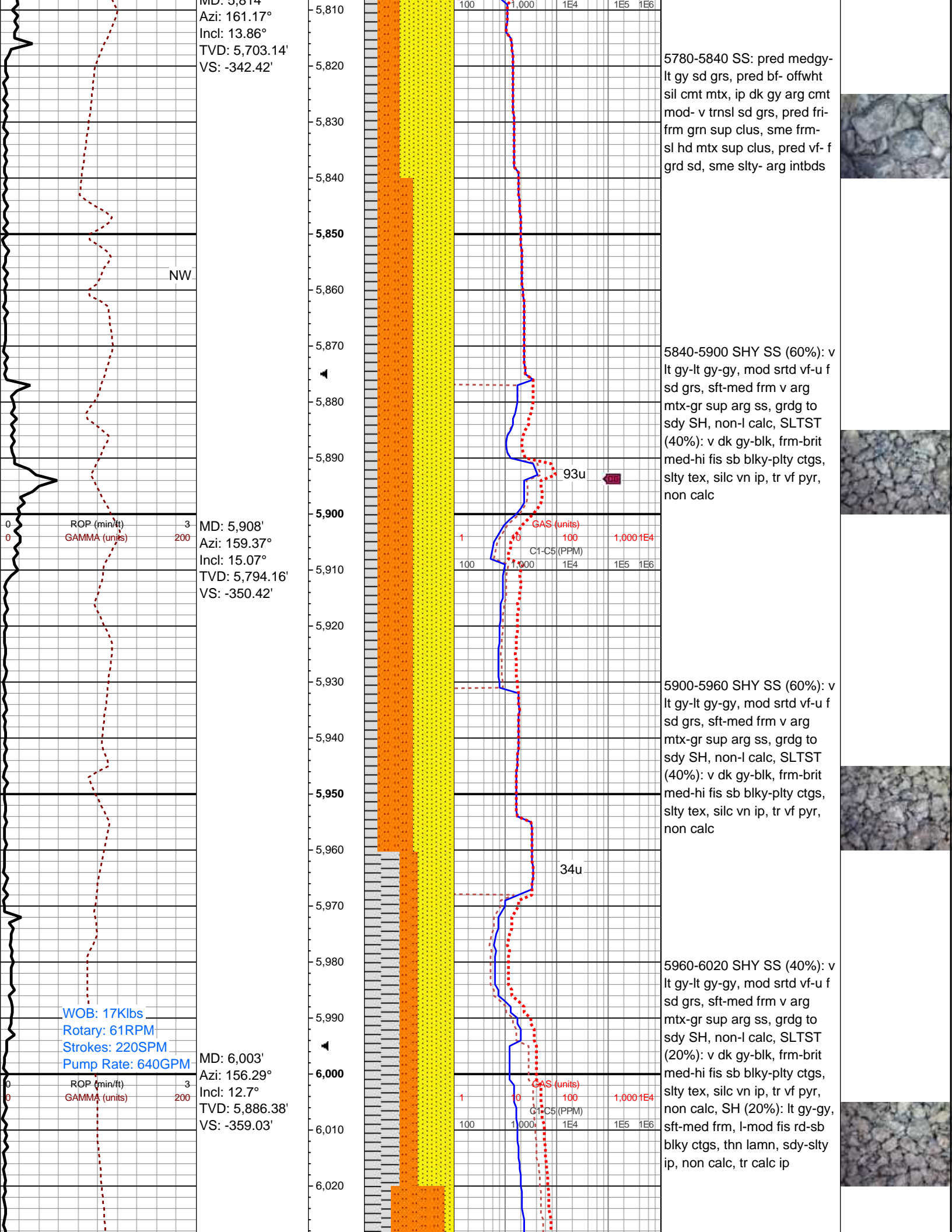
medgy- dk gy, sme brn mot,  
sb blk- sb plty, frm- hd,  
intbdd wi v f sd, tr pyr

5600-5660 SS (80%): pred  
medgy- lt gy sd grs, pred bf-  
offwht- ltgy sil cmt mtx, occ  
dk gy arg cmt mod- v trns  
sd grs, pred fri- frm grn sup  
clus, sme frm- fri mtx sup  
clus, pred vf- f grd sd, slty-  
arg intbds; SLTY SH (20%):  
medgy- dk gy, sme brn mot,  
sb blk- sb plty, frm- hd,  
intbdd wi v f sd, tr pyr

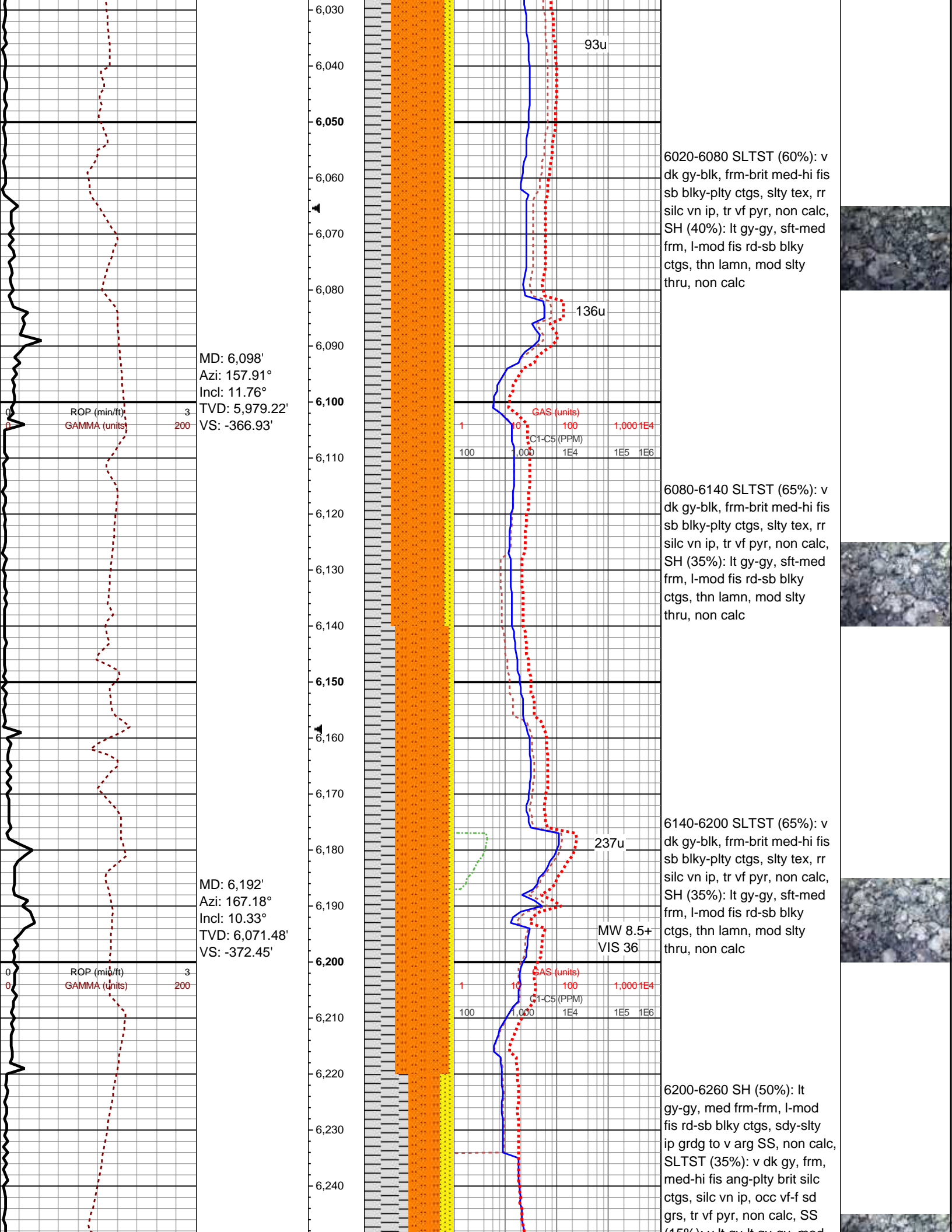
5660-5720 SS: pred medgy-  
lt gy sd grs, pred bf- offwht  
sil cmt mtx, ip dk gy arg cmt  
mod- v trns sd grs, pred fri-  
frm grn sup clus, sme frm-  
sl hd mtx sup clus, pred vf- f  
grd sd, sme slty- arg intbds

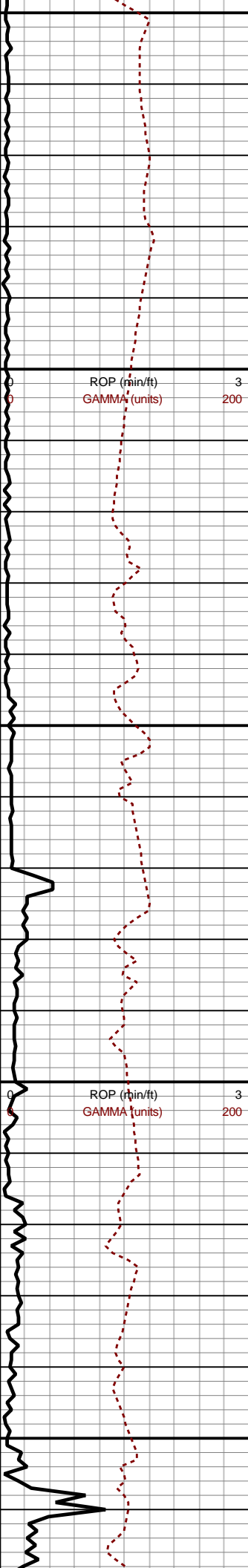
5720-5780 SS: pred medgy-  
lt gy sd grs, pred bf- offwht  
sil cmt mtx, ip dk gy arg cmt  
mod- v trns sd grs, pred fri-  
frm grn sup clus, sme frm-  
sl hd mtx sup clus, pred vf- f  
grd sd, sme slty- arg intbds





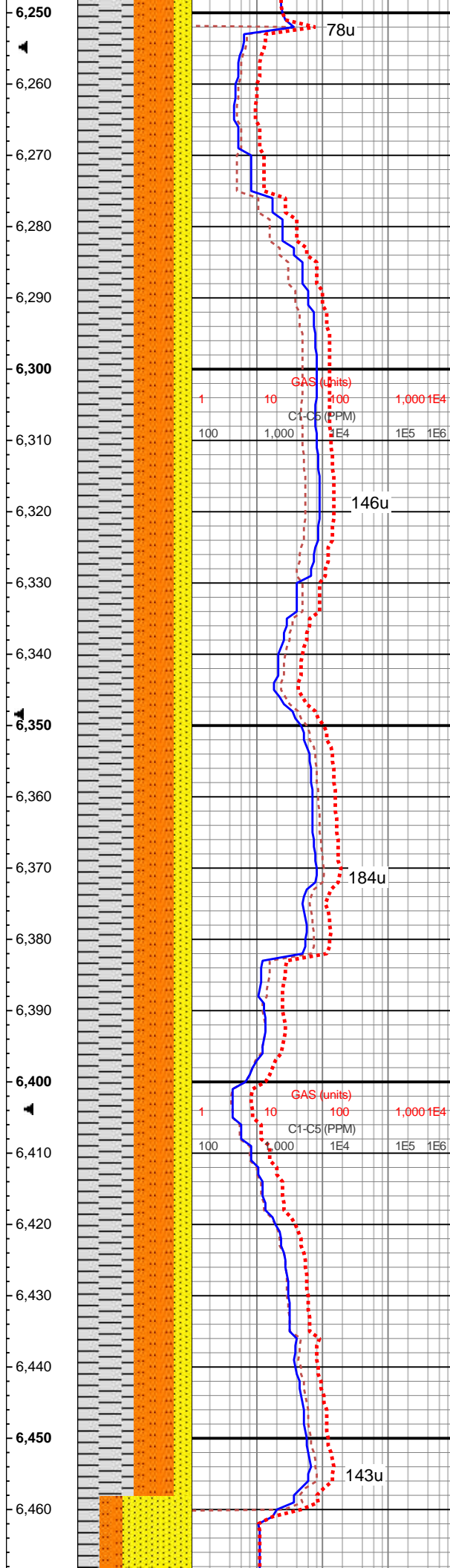






MD: 6,287'  
Azi: 168.65°  
Incl: 10.74°  
TVD: 6,164.88'  
VS: -376.13'

MD: 6,381'  
Azi: 169.7°  
Incl: 10.98°  
TVD: 6,257.2'  
VS: -379.5'



(15%): v lt gy-lt gy-gy, mod  
srted vf-u f sd grs, sft-med  
frm v arg mtx-gr sup arg ss,  
non-l calc

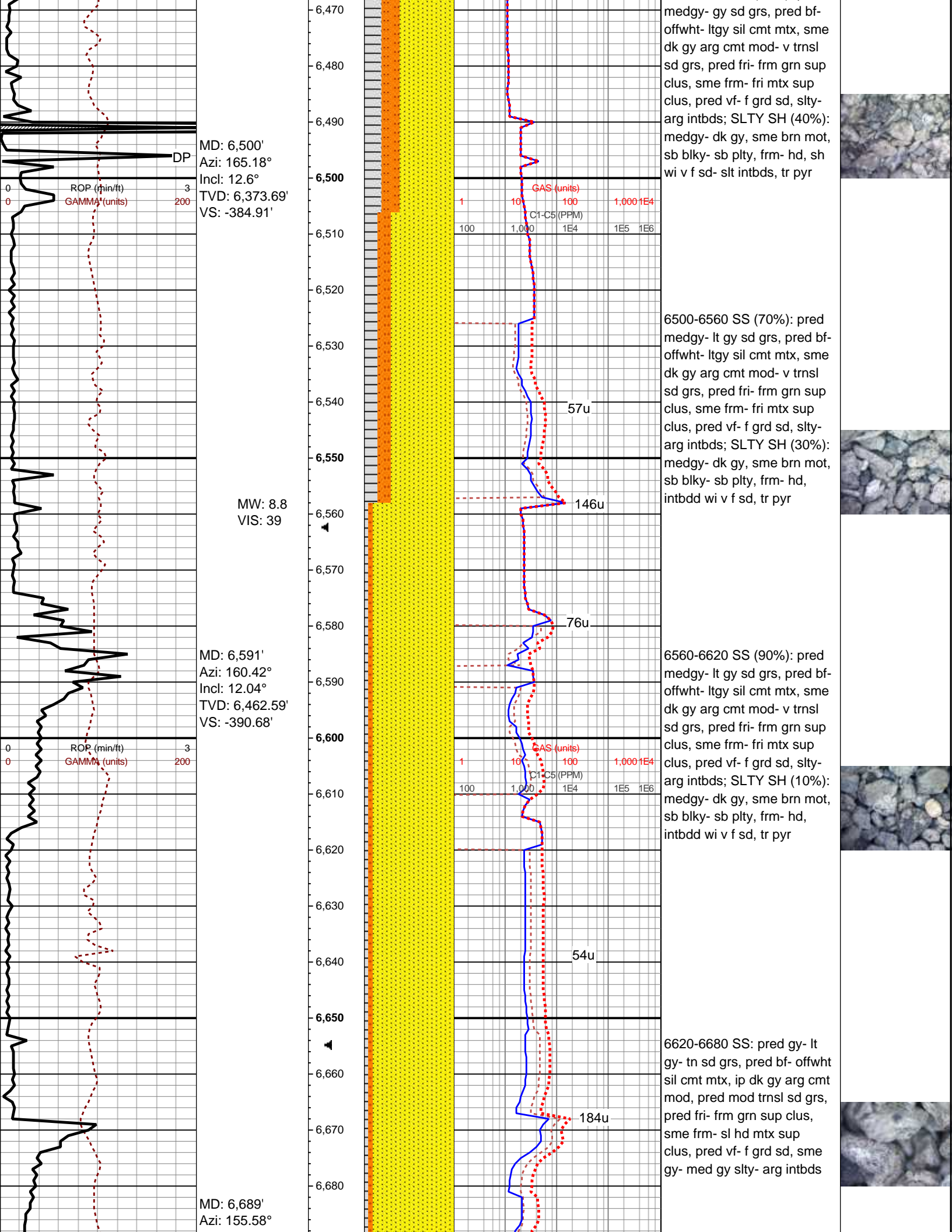
6260-6320 SH (50%): lt  
gy-gy, med frm-frm, l-mod  
fis rd-sb blk cy ctgs, sdy-slt  
ip grdg to v arg SS, non calc,  
SLTST (35%): v dk gy, frm,  
med-hi fis ang-plty brit silc  
ctgs, silc vn ip, occ vf-f sd  
grs, tr vf pyr, non calc, SS  
(15%): off wh-lt gy, mod srted  
vf-u f sd grs, sli fri gr-mtx  
sup ss clus cons wi arg  
cmt, non-l calc

6320-6380 SH (50%): lt  
gy-gy, med frm-frm, l-mod  
fis rd-sb blk cy ctgs, sdy-slt  
ip grdg to v arg SS, non calc,  
SLTST (30%): v dk gy, frm,  
med-hi fis ang-plty brit silc  
ctgs, silc vn ip, occ vf-f sd  
grs, tr vf pyr, non calc, SS  
(20%): off wh-lt gy, mod srted  
vf-u f sd grs, sli fri gr-mtx  
sup ss clus cons wi arg  
cmt, pred non calc, rr calc  
grs ip

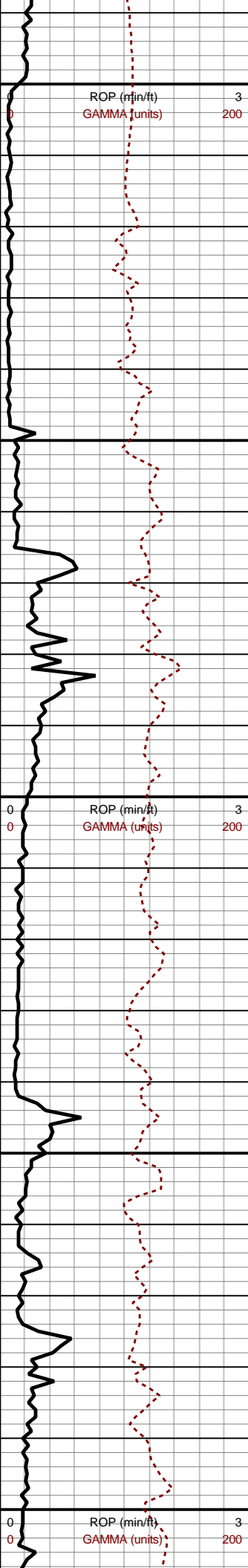
6380-6440 SH (50%): lt  
gy-gy, med frm-frm, l-mod  
fis rd-sb blk cy ctgs, sdy-slt  
ip grdg to v arg SS, non calc,  
SLTST (30%): v dk gy, frm,  
med-hi fis ang-plty brit silc  
ctgs, silc vn ip, occ vf-f sd  
grs, tr vf pyr, non calc, SS  
(20%): off wh-lt gy, mod srted  
vf-u f sd grs, sli fri gr-mtx  
sup ss clus cons wi arg  
cmt, non-l calc

6440-6500 SS (60%): pred





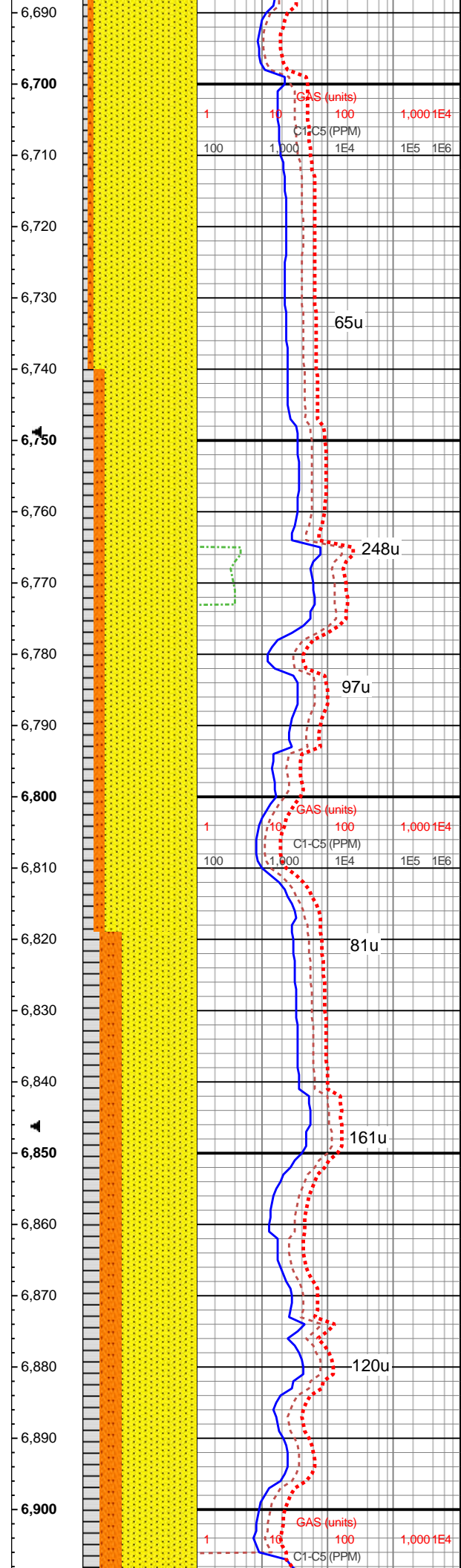




Incl: 16.67°  
TVD: 6,557.51'  
VS: -399.99'

MD: 6,783'  
Azi: 161.65°  
Incl: 16.98°  
TVD: 6,647.5'  
VS: -409.95'

MD: 6,878'  
Azi: 194°  
Incl: 24.35°  
TVD: 6,736.6'  
VS: -409.67'



6680-6740 SS: pred gy- lt gy- tn sd grs, pred bf- offwht sil cmt mtx, ip dk gy arg cmt mod, pred mod trnsl sd grs, pred fri- frm grn sup clus, sme frm- sl hd mtx sup clus, pred vf- f grd sd, sme gy- med gy slty- arg intbds

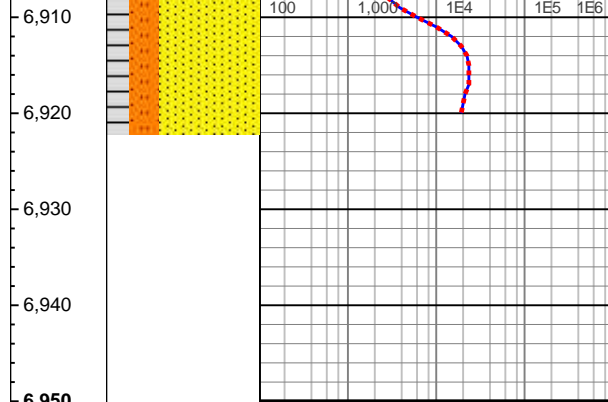
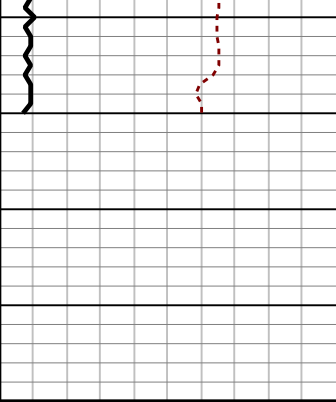
6740-6800 SS (80%): pred gy- lt gy- tn sd grs, pred bf- offwht sil cmt mtx, ip dk gy arg cmt mod, pred mod trnsl sd grs, pred fri- frm grn sup clus, sme frm- sl hd mtx sup clus, pred vf- f grd sd; SLTY SH (20%): med gy, sl frm, pred intbdd

6800-6860 SS (65%): pred gy- lt gy- tn sd grs, pred bf- offwht sil cmt mtx, ip dk gy arg cmt mod, pred mod trnsl sd grs, pred fri- frm grn sup clus, sme frm- sl hd mtx sup clus, pred vf- f grd sd; SLTY SH (35%): med gy, sl frm, pred intbdd

6860-6920 SS (65%): pred gy- lt gy- tn sd grs, pred bf- offwht sil cmt mtx, ip dk gy arg cmt mod, pred mod trnsl sd grs, pred fri- frm grn sup clus, sme frm- sl hd mtx sup clus, pred vf- f grd sd; SLTY SH (35%): med gy, sl frm, pred intbdd







sup clus, sme frm- sl nd  
mtx sup clus, pred vf- f grd  
sd; SLTY SH (35%): med gy,  
sl frm, pred intbdd



**\*Continued on horizontal  
log\***