



Scale: 5" / 100'
Measured Depth Log

Well Name Silverback 1

Location Sec 36, T12N, R62W

State CO

County Weld

Country USA

Rig Number Savanna 802

API Number 05-123-42283

Field Wildcat

Region DJ Basin

Drilling Completed 11/9/2015

Spud Date 11/3/2015

Surface Coordinates Lat: 40° 58' 21.184" N
Long: 104° 16' 19.978" W

Bottom Hole Coordinates Lat: 40° 56' 13.023" N
Long: 104° 16' 30.230" W

Ground Elevation 5,282'

K.B. Elevation 5,297'

Logged Interval 5,000' To 6,800'

Total Depth 17,510'

Formation Codell

Type of Drilling Fluid Invert

Operator

Company Extraction Oil & Gas

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










Geologist

Name Jared Rouse

Company Extraction Oil & Gas

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

Zone Color Coding

 Oil	 Condensate	 Gas
 Note	 Core	 Pressure
 Error	 Water	 Seal

Other

Equipment ML-197

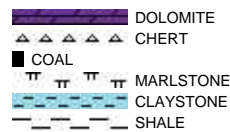
Comments Start: 11-5-15
End: 11-9-15

Logger Names Brian Ferwerda/Mark Gross

Services Provided 2-man logging

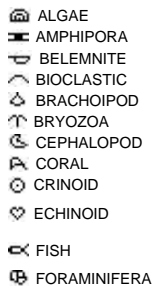
Address Empirica, LLC.
6360 W Sam Houston Pkwy N
Suite 100
Houston, TX 77041

Rock Types



Accessories

Fossils



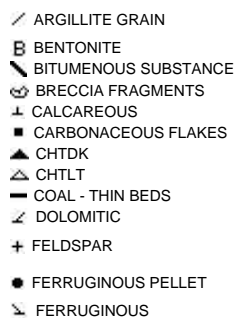
Fossil



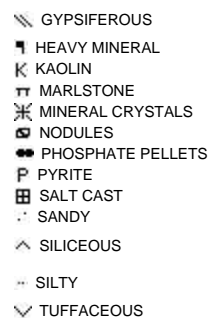
Minerals



Argillaceous



Glauconite

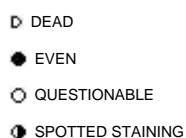


Stringer

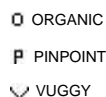


Other Symbols

Oil Show



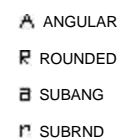
Porosity



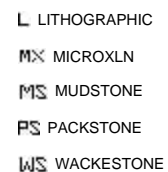
Engineering



Rounding



Textures



Sorting



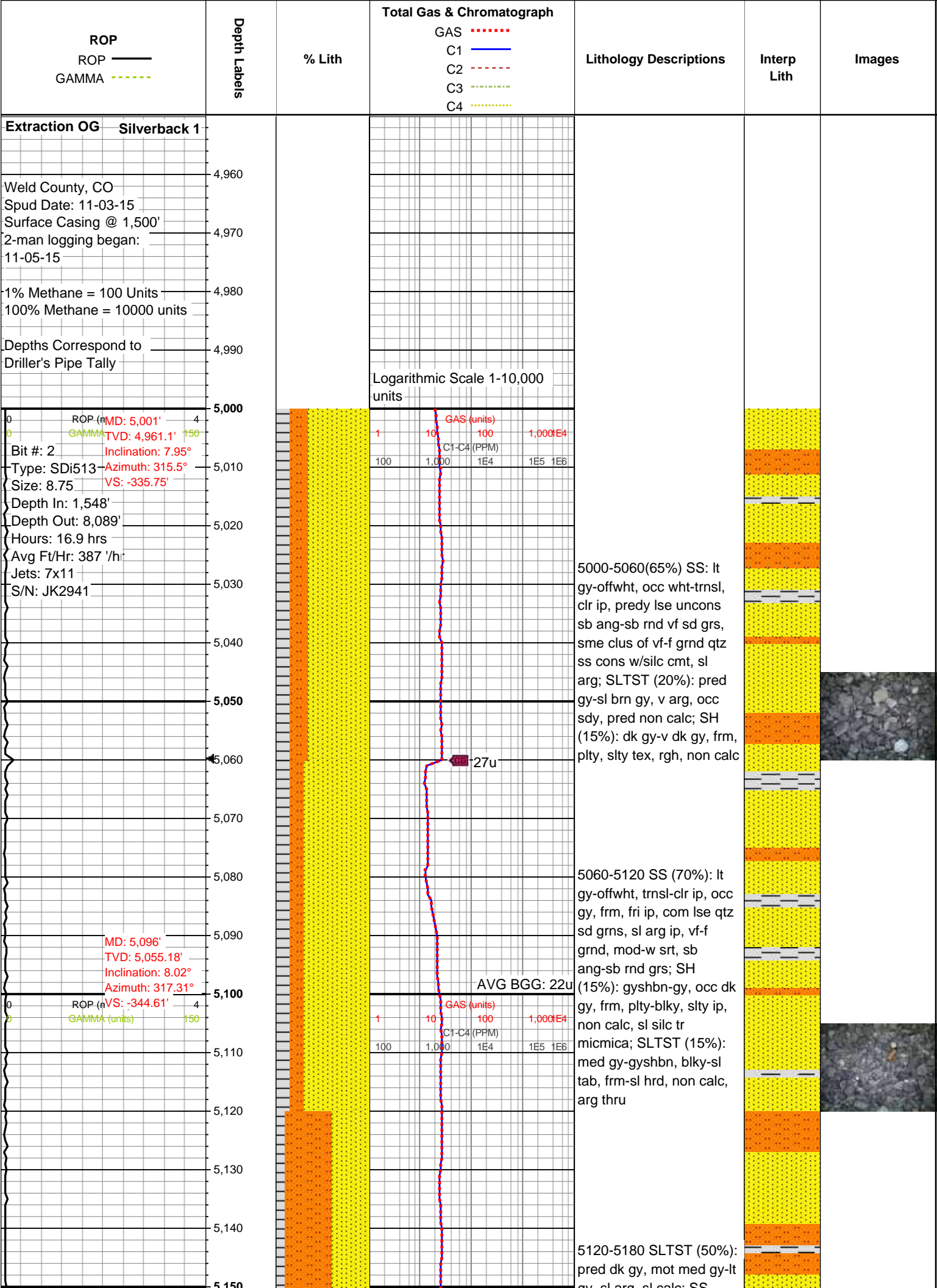
E EARTHY
F FENESTRAL
F FRACTURE
X INTERCRYSTALLINE
Φ INTEROOLITIC
M MOLDIC

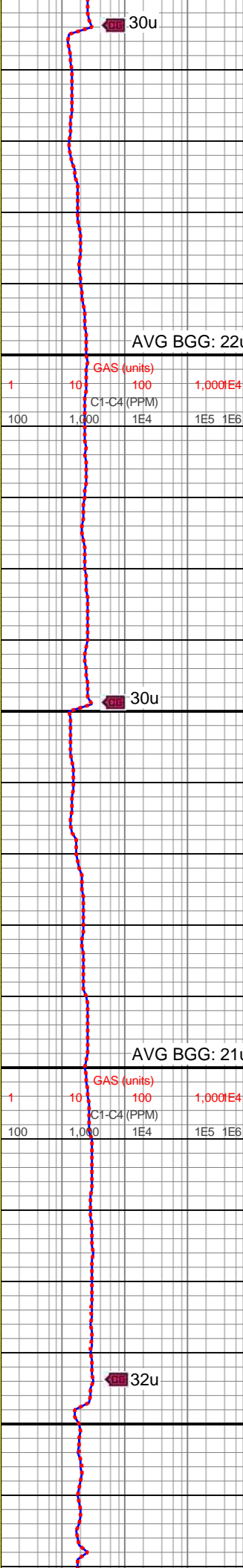
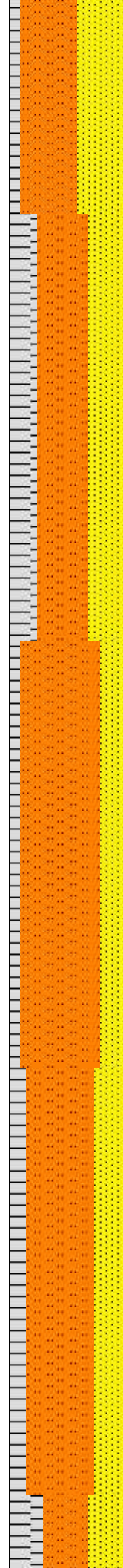
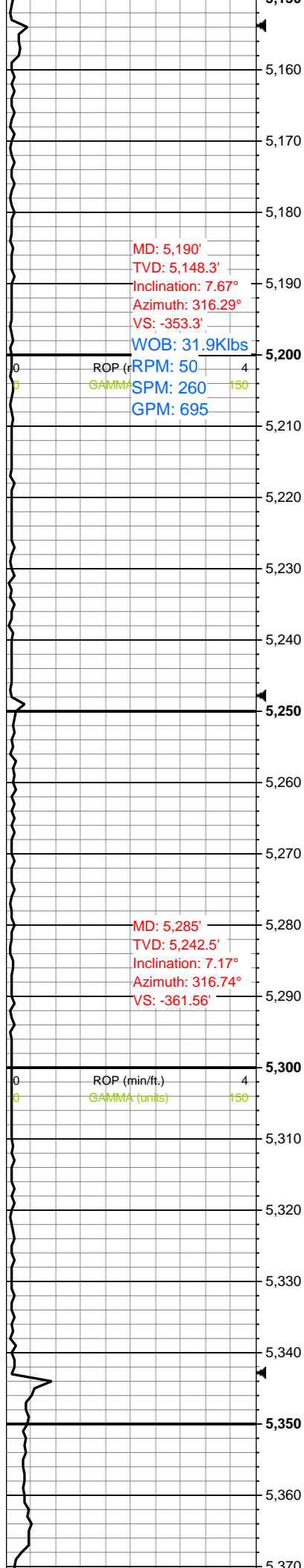
◀ CONNECTION (LEFT)
▶ CONNECTION (RIGHT)
CONNECTION GAS
CORE - LOST
CORE - RECOVERED
DST INTERVAL
FAULT

◀ SIDEWALL CORE (LEFT)
▶ SIDEWALL CORE (RIGHT)
SLIDE
SURVEY
TRIP GAS
WIRELINE TESTED - LEFT
WIRELINE TESTED - RT

BS BOUNDSTONE
C CHALKY
CX CRYPTOXLN
E EARTHY
FX FINELYXLN
GS GRAINSTONE

M MODERATE
P POOR
W WELL



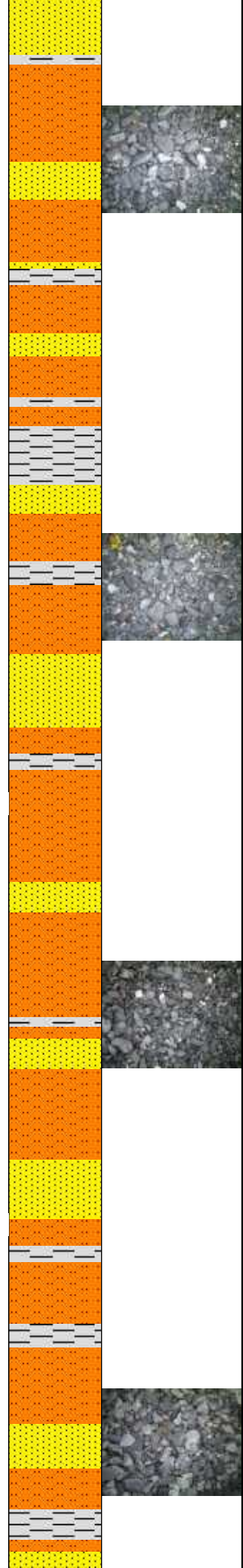


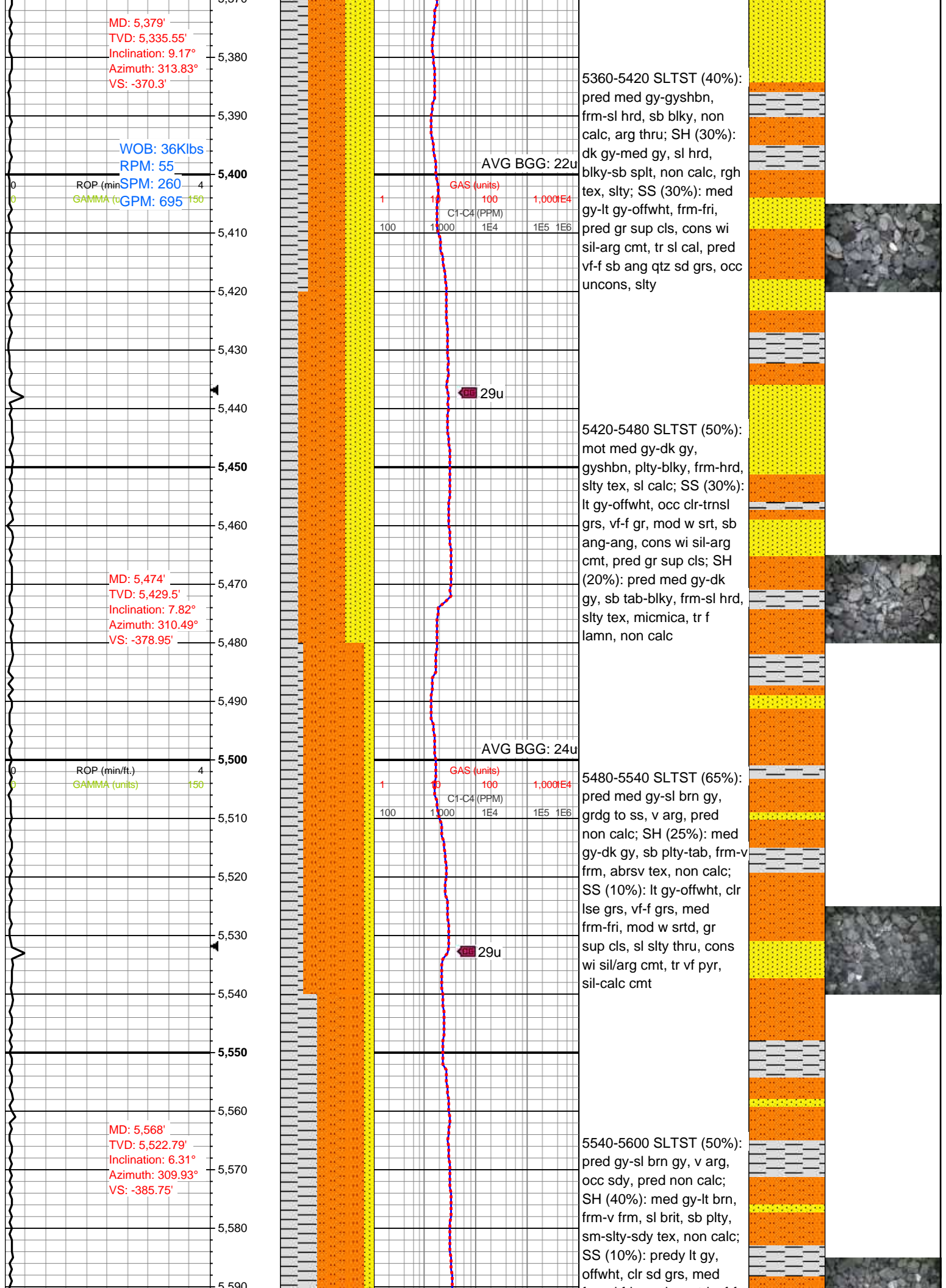
gy, sl arg, sl calc, SS (40%): pred lt gy-offwht, clr-trnsl grns, vf-f gr, sb ang-sb rnd, mod w srtld, pred gr sup cls wi sil-arg cmt, tr-sl cal, tr mic pyr; SH (10%): med gy-sl dk gy, sb plty-splt, slty tex, frm-sl hrd, tr micmica, tr f lam, non calc

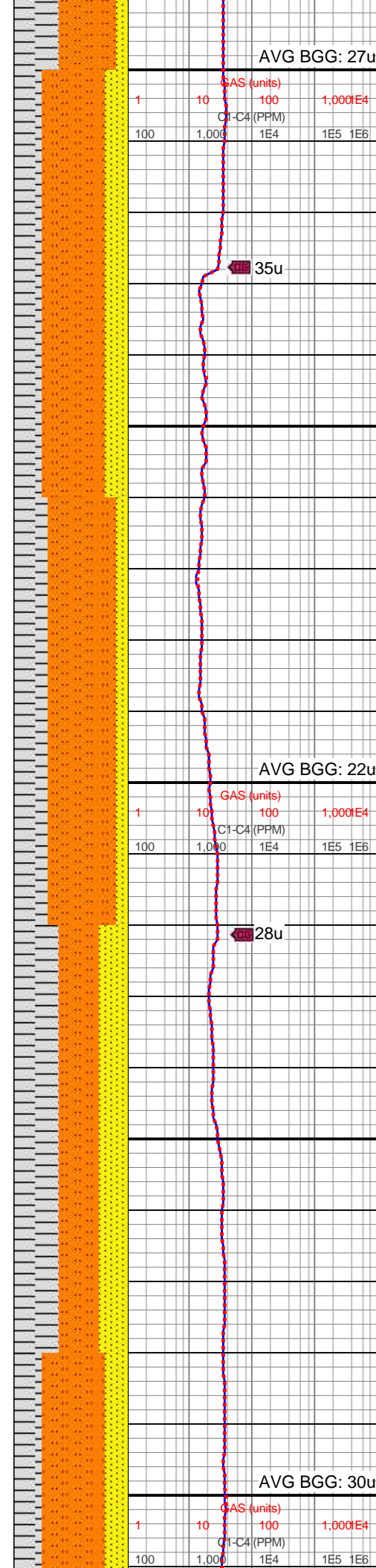
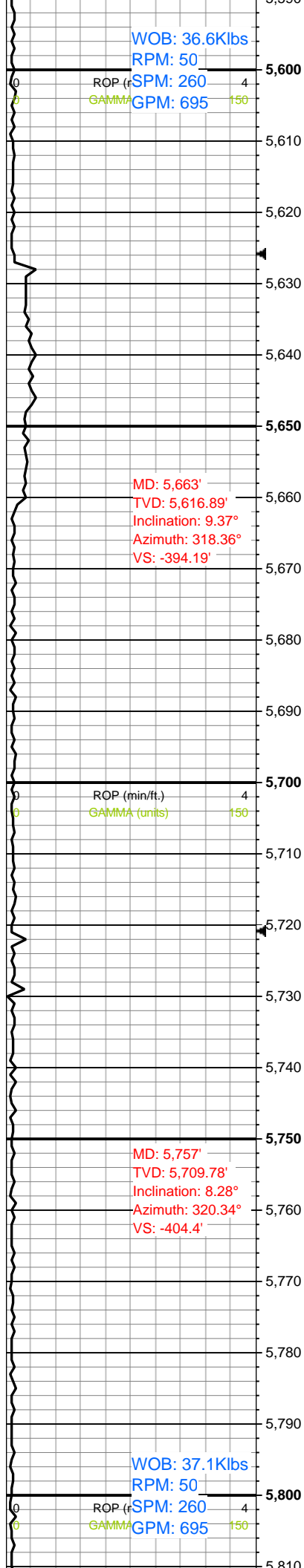
5180-5240 SLTST (45%): pred gy-sl brn gy, v arg, occ sdy, pred non calc; SS (30%): pred lt gy-offwht, trnsl-clr ip, frm-fri ip, com lse qtz grns, sb rnd-sb ang, vf-f, mod w srtld, com gr sup cls, cons wi silc-sl arg cmt, tr imbd pp pyr; SH (25%): gyshbn-med gy, occ dk gy, frm, tab-blky, slty ip, non calc, sl silc tr micmica

5540-5600 SLTST (70%): mot dk gy-med gy, frm-sl hrd, sb blky-plty, tr-v sl calc, slty-abrsv tex; SS (20%): lt gy-offwht, gyshbn, frm, mod w cons, gr sup cls, vf-f gr, mod srt, sb ang-sb rnd grns, sl calc-arg cmt; SH (10%): pred med gy-dk gy, frm, blky, sm-sl slty tex, non calc

5300-5360 SLTST (60%): pred med gy-dk gy, frm-sl hrd, sb blky-plty, occ sb plty, v arg, occ sdy, predy non calc; SS (25%): predy lt gy, occ offwht-clr sd grs, mod w srtld, vf-f grs, med frm-sl fri, sil cmt-com arg cmt, sl slty thru; SH (15%): gy-med gy, frm, plty-blky, sm-slty tex, rr f pyr, non calc







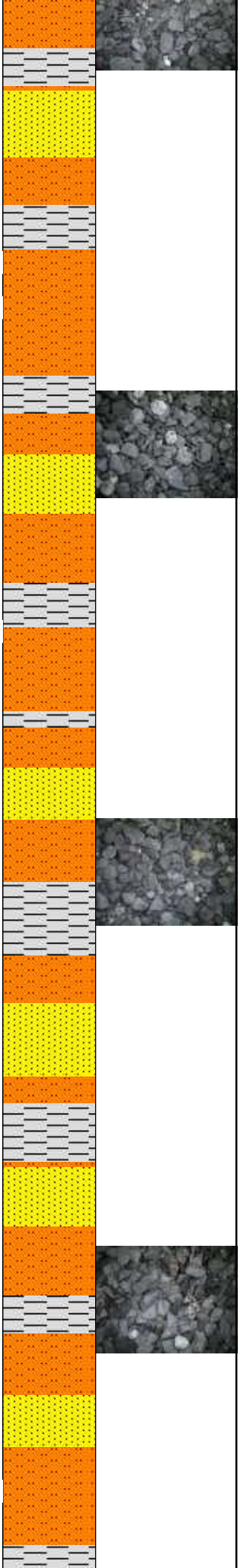
frm-sl fri, mod w srted, vf-f
grs, sil-arg cmt, sl slty
thru;

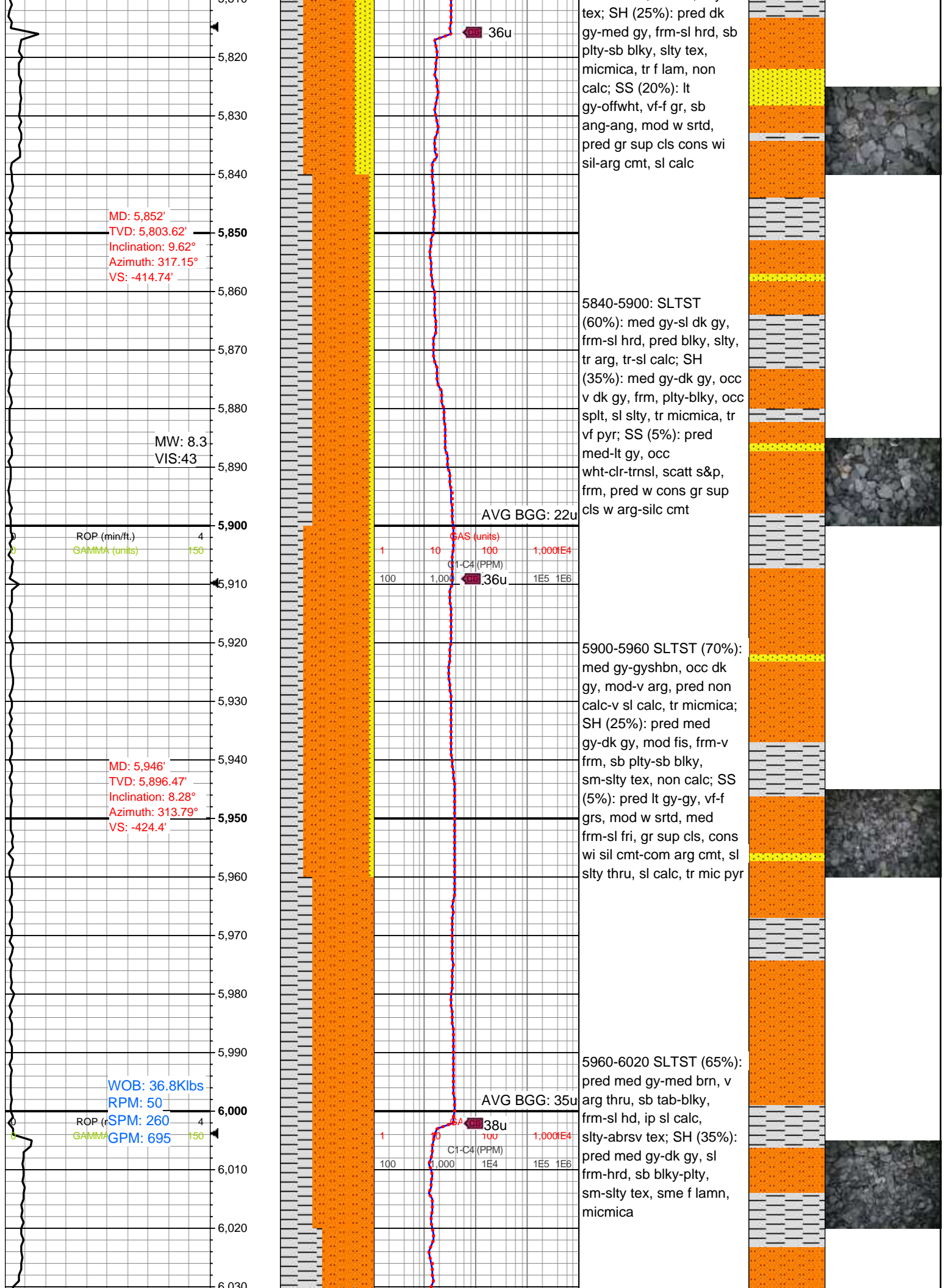
5600-5660 SLTST (55%):
pred dk gy-gyshbn, frm-sl
hrd, plty-sb blk, non calc,
arg thru; SH: (25%) dk
gy-med gy, sl hrd, sb plty,
non calc, rgh tex, slty; SS
(20%): med gy-lt
gy-offwh, frm, fri, pred gr
sup cls wi sil-arg cmt, tr
sl cal, occ uncons, pred
vf-f sb ang qtz sd grs, slty

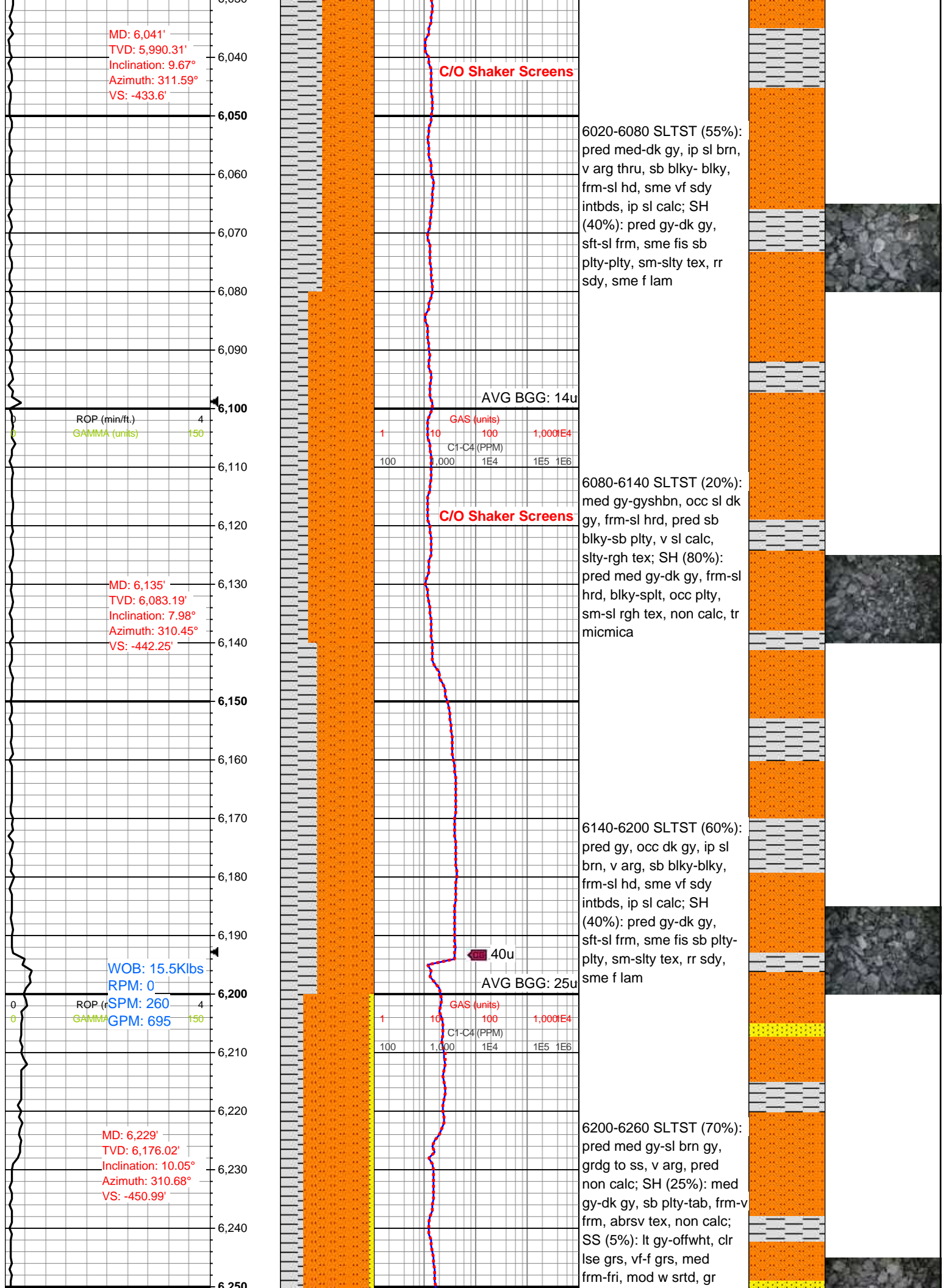
5660-5720 SLTST (60%):
pred med gy-gyshbn,
frm-sl hrd, sb blk, non
calc, arg thru; SH (30%):
dk gy-med gy, sl hrd,
blk-sb spl, non calc, rgh
tex, slty; SS (10%): med
gy-lt gy-offwh, frm-fri,
pred gr sup cls, cons wi
sil-arg cmt, tr sl cal, pred
vf-f sb ang qtz sd grs, occ
uncons, slty

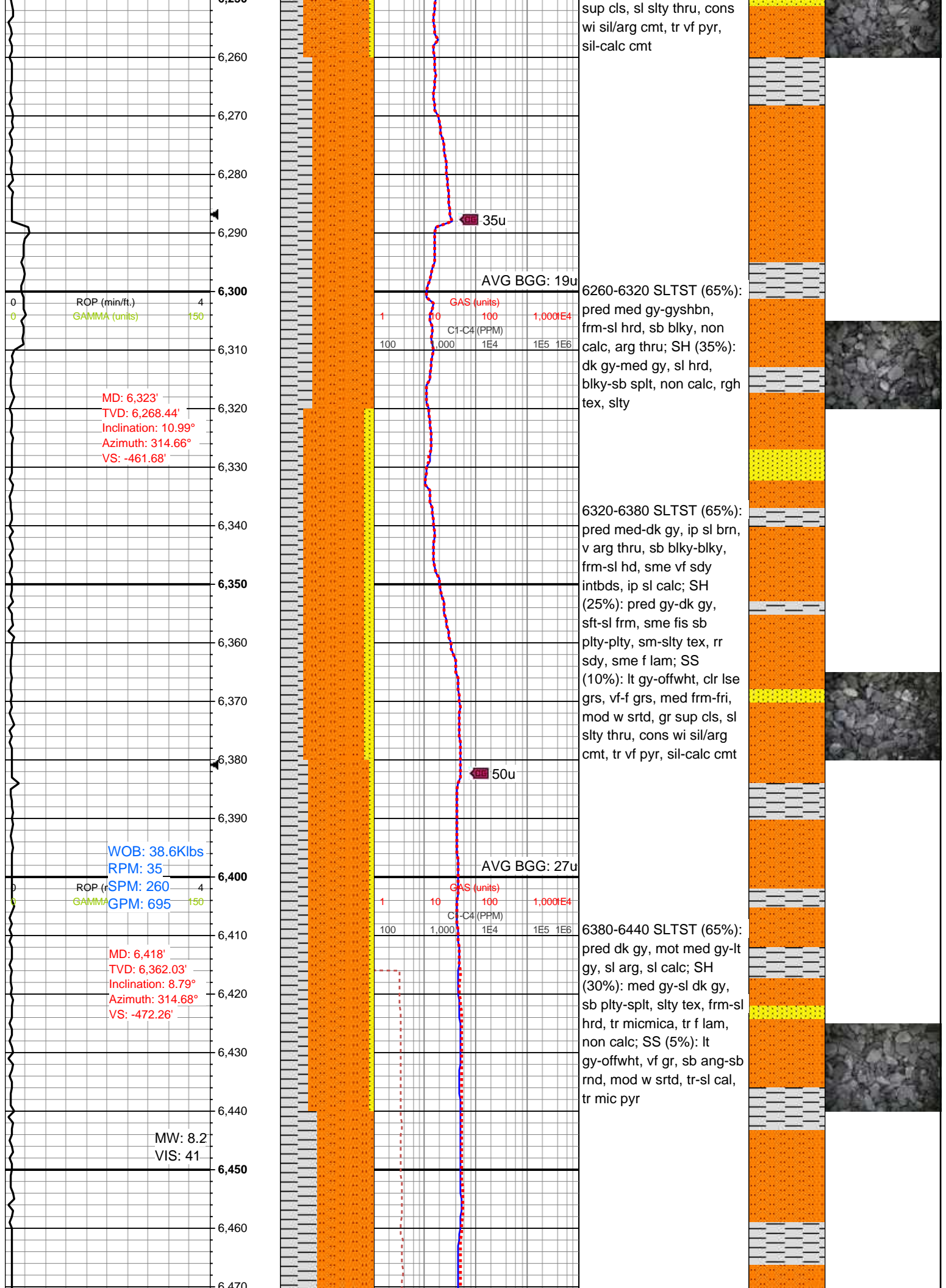
5720-5780 SH (40%):
med gy-dk gy, sb plty-tab,
frm-v frm, abrsv tex, non
calc; SLTST (35%): pred
med gy-sl brn gy, grd to
ss, v arg, pred non calc;
SS (25%): lt gy-offwh, cl
lse grs, vf-f grs, med
frm-fri, mod w srted, gr
sup cls, sl slty thru, cons
wi sil/arg cmt, tr vf pyr,
sil-calc cmt

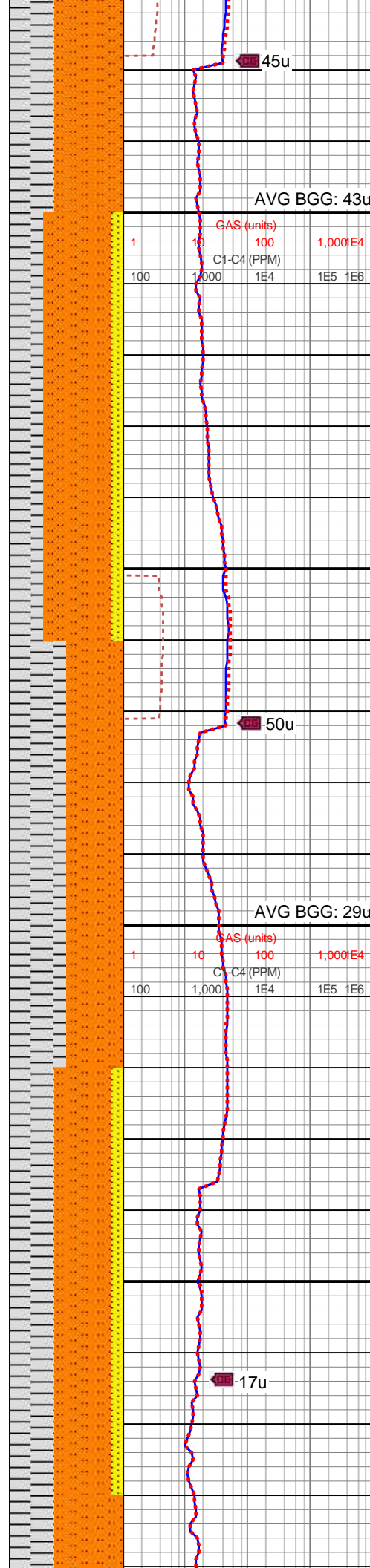
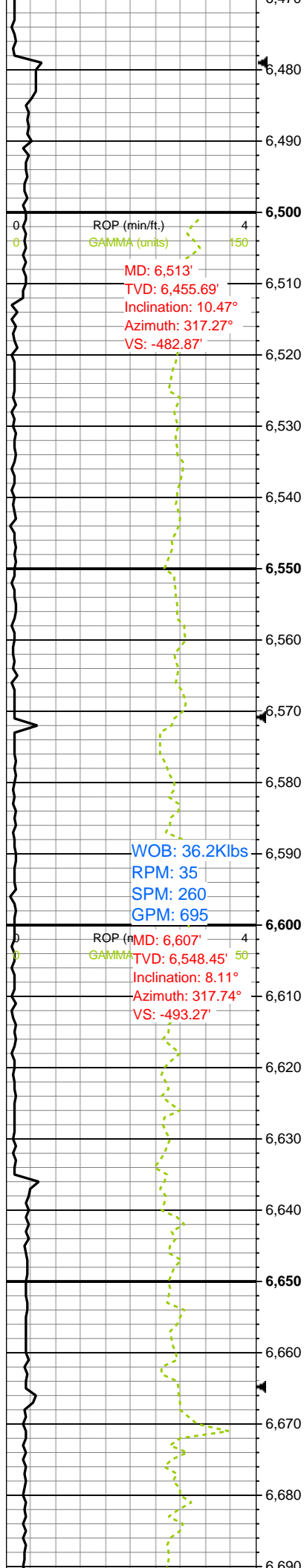
5780-5840 SLTST (55%):
mot med gy-dk gy, frm-v
frm, sb plty-blk, occ spl,
tr micmica, sl calc, slty









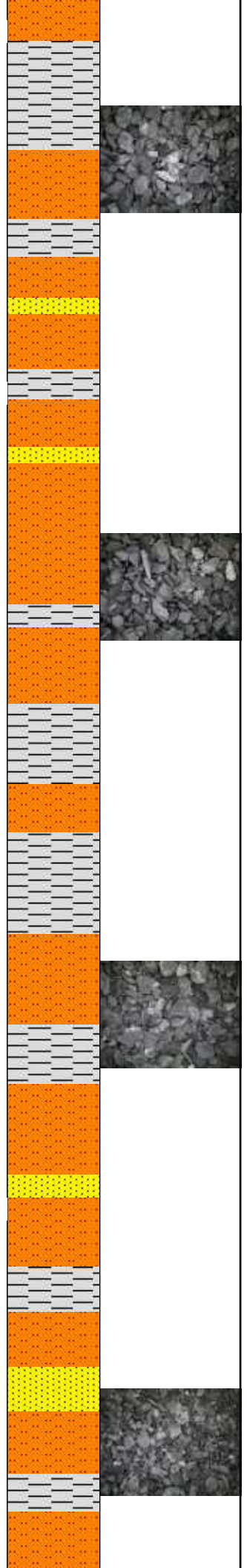


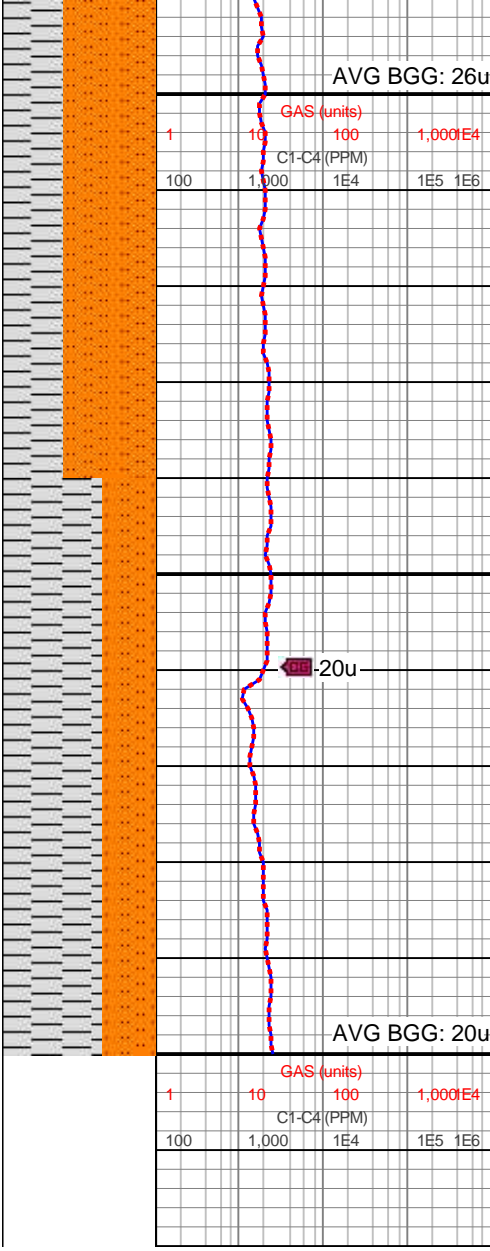
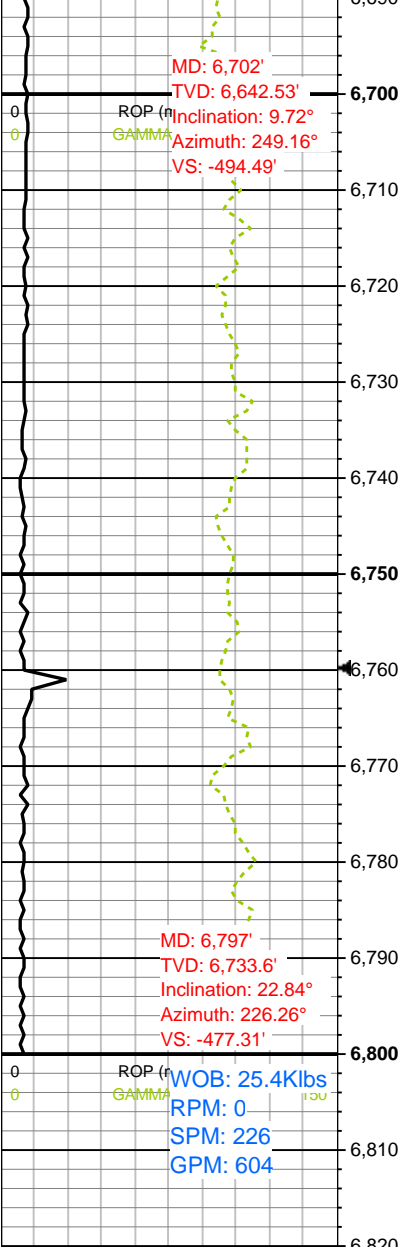
6440-6500 SLTST (50%):
pred gy, occ dk gy, ip sl
brn, v arg, sb blkyl-bky,
frm-sl hd, ip sl calc; SH
(50%): pred gy-dk gy,
sft-sl frm, sme fis sb
plty-plty, sm-sltly tex, rr
sdy, sme f lam

6500-6560 SLTST (60%):
pred med gy-gyshbn,
frm-sl hrd, sb blkyl, non
calc, arg thru; SH (30%):
dk gy-med gy, sl hrd,
blkyl-sb spl, non calc, rgh
tex, slty; SS (10%): lt
gy-offwht, vf-f grs, med
frm, mod w srt, cons,
mnr arg cmt, sl slty thru,
sl calc

6680-6740 SH (50%):
mot dk gy-med gy, sl hrd,
plty-blky, non calc, rgh
tex, slty; SLTST (50%):
pred med gy-gyshbn, v
arg, blkyl-plty, tr micmica,
non calc

6620-6680 SLTST (50%):
mot med gy-dk gy, frm-v
frm, sb plty-blky, occ spl, tr
micmica, sl calc, slty
tex; SH (40%): pred dk
gy-med gy, frm-sl hrd, sb
plty-sb blkyl, slty tex,
micmica, tr f lam, non
calc; SS (10%): lt
gy-offwht, vf-f gr, sb
ang-ang, mod w srt, pred
gr sup cls cons wi
sil-arg cmt, sl calc





6680-6740 SH (50%):
pred med gy-dk gy, sl
frm-hrd, sb blk-pty,
sm-slt tex, sme f lamn,
micmica; SLTST (50%):
pred med gy-med brn, v
arg thru, sb tab-blky,
frm-sl hd, ip sl calc,
slty-abrsv tex

6740-6800 SH (65%):
pred gy-dk gy, sft-sl frm,
sme fis sb pty- pty,
sm-slt tex, rr sdy, sme f
lam; SLTST (35%): pred
gy, occ dk gy, ip sl brn, v
arg, sb blk-pty, frm-sl
hd, sme vf sdy intbds, ip
sl calc

Log Continues in
Horizontal Format