



Scale: 5" / 100'
Measured Depth Log

Well Name Bybee 1

Location Sec 14, T2N, R68W

State Colorado

County Weld

Country USA

Rig Number Patterson 346

API Number 05-123-41800-00

Field Wattenburg

Geographic Region DJ Basin

Drilling Completed 2/27/2016

Spud Date 2/23/2016

Surface Coordinates SHL: 2267' FSL, 1080' FEL

Lat: 40° 8' 15.5796"

Long: -104° 57' 53.5386"

Ground Elevation 4,889'

K.B. Elevation 4,913.5'

Logged Interval 5,000' **To** 12,661'

Total Depth 12,661'

Formation Niobrara B Chalk

Type of Drilling Fluid Oil Based Mud

Operator

Company Extaction Oil & Gas

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



Geologist

Name Vivian Spiess / 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-113

Comments Start: 02-24-16
TD: 02-27-16

Services Provided 2-man Logging
On Site Geosteering

Logger Names Nicholas Watkins / Brian Ferwerda

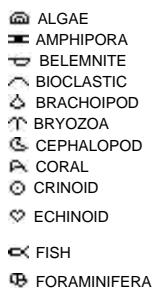
Address Empirica, LLC.
6360 W Sam Houston Pkwy N
Suite 100
Houston, TX 77041

Rock Types



Accessories

Fossils



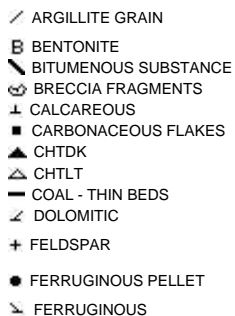
Fossil



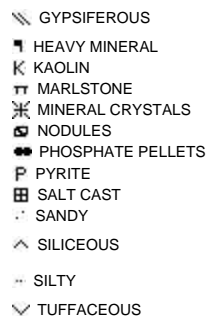
Minerals



Argillaceous



Glaucconite

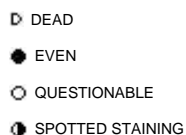


Stringer

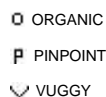
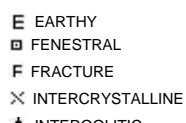


Other Symbols

Oil Show



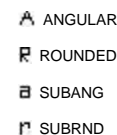
Porosity



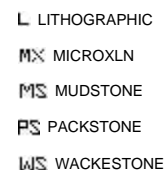
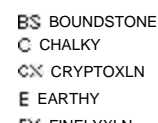
Engineering



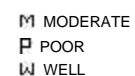
Rounding





Textures





Sorting



 INTERCOLTIC


 DST INTERVAL

 WIRELINE TESTED - LEFT

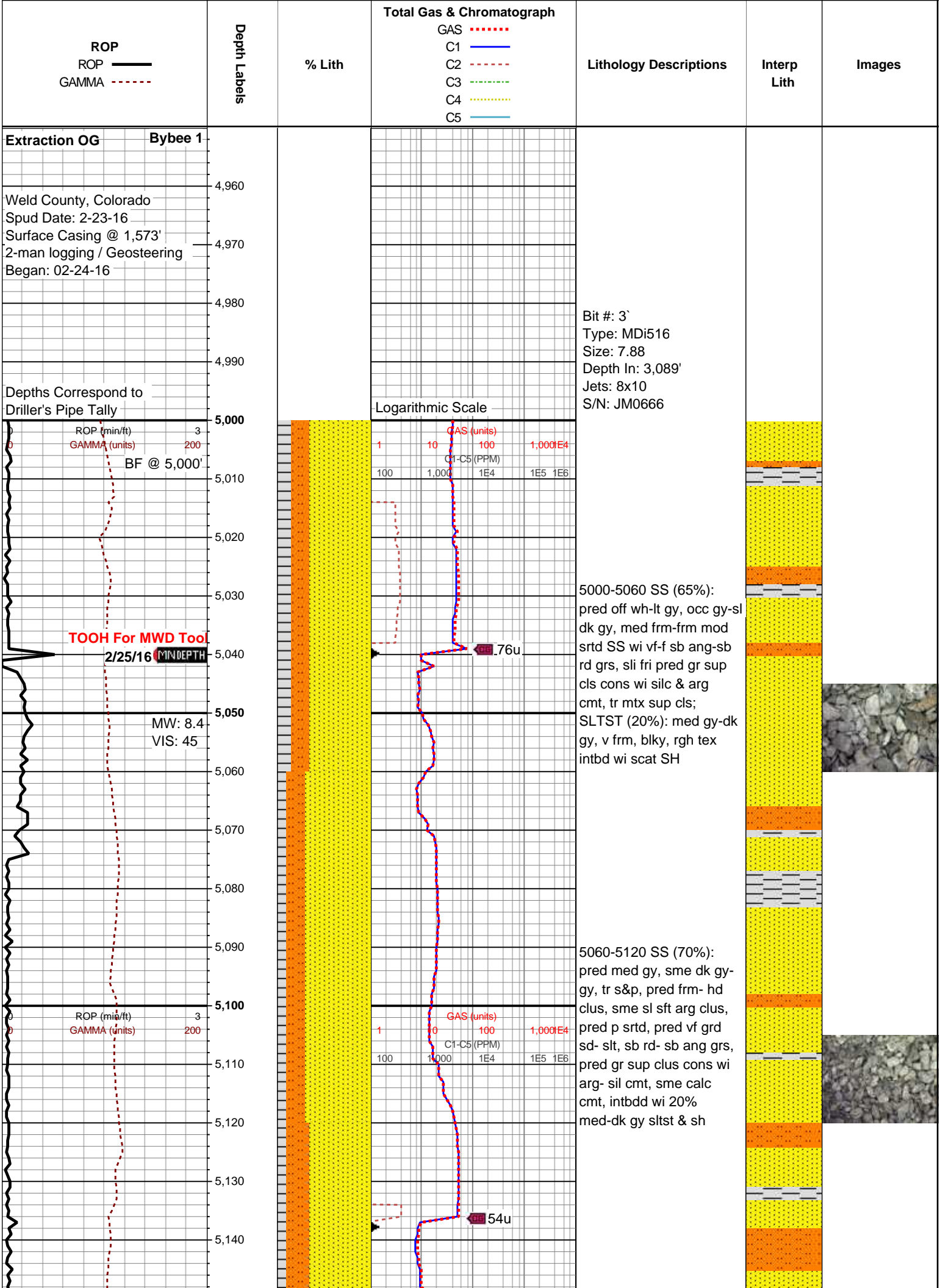
 FINELYXLN

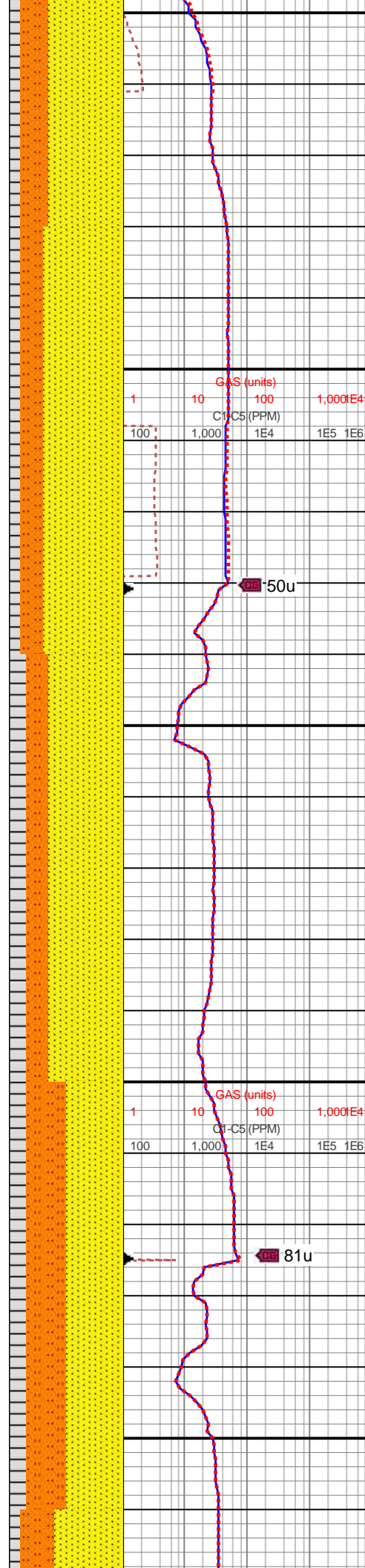
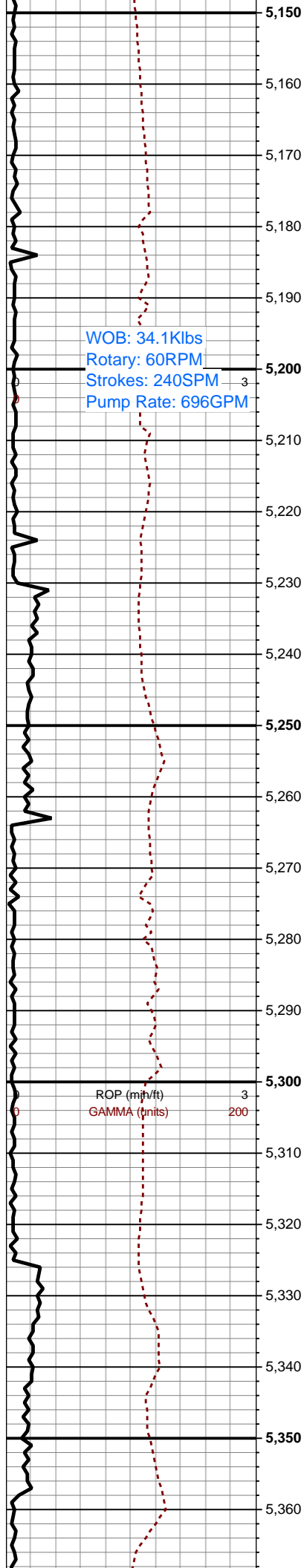
 MOLDIC

 FAULT

 WIRELINE TESTED - RT

 GRAINSTONE



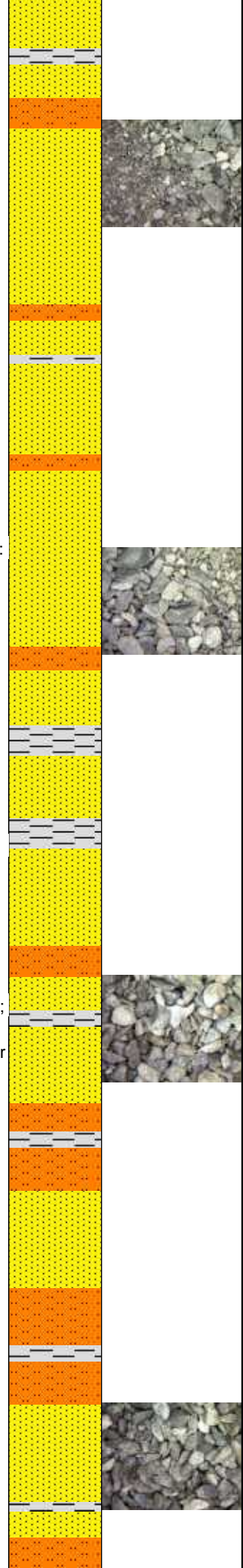


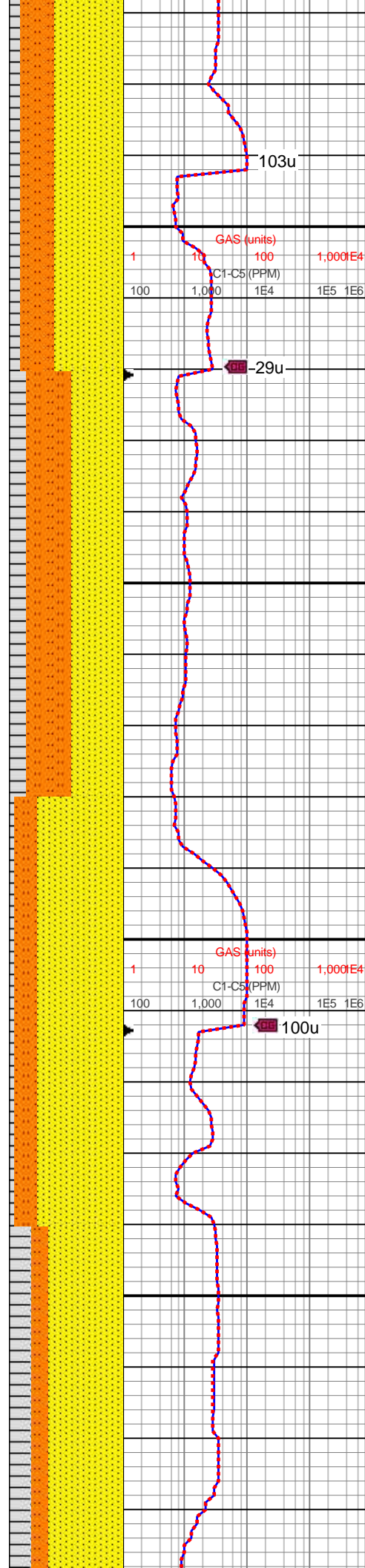
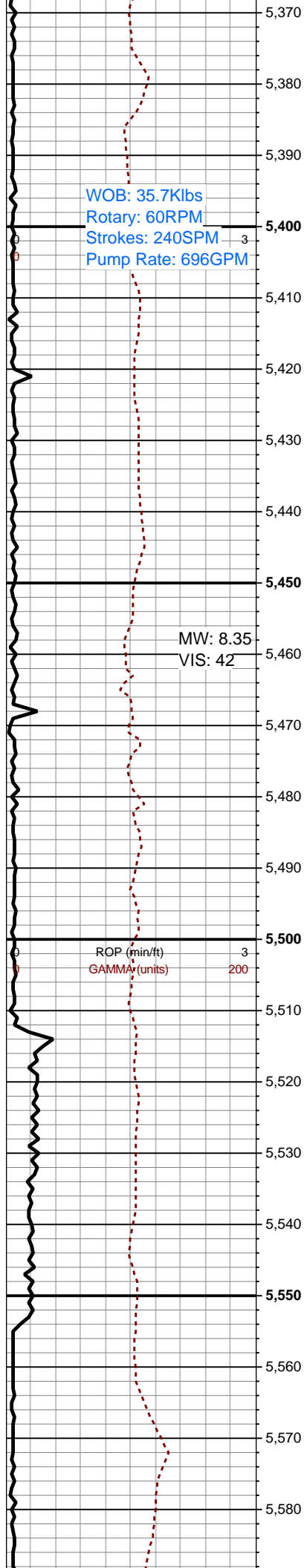
5120-5180 SS (65%):
pred med gy- dk gy, ip
offwht-sl tn, pred frm-hd
clus, pred p srted, pred vf
grd sd- slt, rr f grd sd, sb
rd- sb ang grs, pred gr
sup clus cons wi arg- sil
cmt, sme calc cmt, tr v f
lse grs, lith frags, intbdd
wi 25% med gy sltst & sh

5180-5240 SS (70%): off
wh-lt gy-gy, pred vf-f mod
srted sb rd grs, med
frm-frm sli fri mtx-gr sup
cls cons wi arg cmt, silc
cmt ip, tr vf pyr, sl-l calc,
grdg to sdy SLTST (20%):
pred gy-dk gy ang-plty, wi
tr-rr vf pyr strg ip, silc &
non calc, sme wi intbdd
SH

5240-5300 SS (65%): off
wh-v lt gy-occ lt gy brn, vf
p-mod srted sd grs grdg to
slt, med frm-frm sli fri
mtx-gr sup cls cons wi
pred arg cmt, pred non
calc, sl calc ip, tr vf pyr;
SLTST (20%): v lt gy-v lt
gy tn, frm,sb ang-blky-tab
ctgs, tr vf pyr, sl-mod calc;
SH (15%): lt gy-gy-dk gy,
ang-plty, silc, wi tr-rr vf pyr
strg ip, non calc

5300-5360 SS (50%):
pred med gy, sme dk
gy-gy, com offwht, pred
frm- hd clus, sme sl sft
arg clus, pred p srted,
pred vf grd sd- slt, sb rd-
sb ang grs, pred gr sup
clus cons wi arg- sil cmt,
sme sl calc cmt; SLTST
(50%): pred med- dk gy,
sme gy mot, pred blky,
intbdd wi vf sd, pred arg,
lith frags



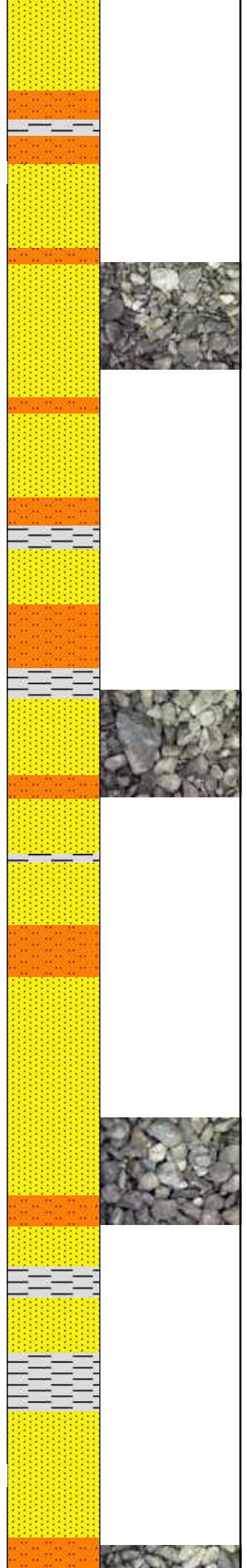


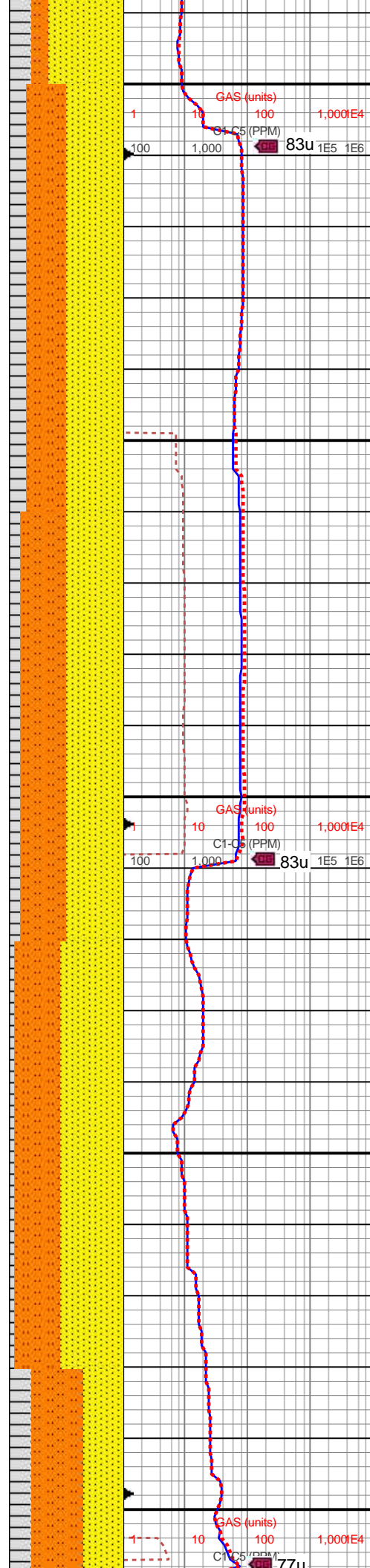
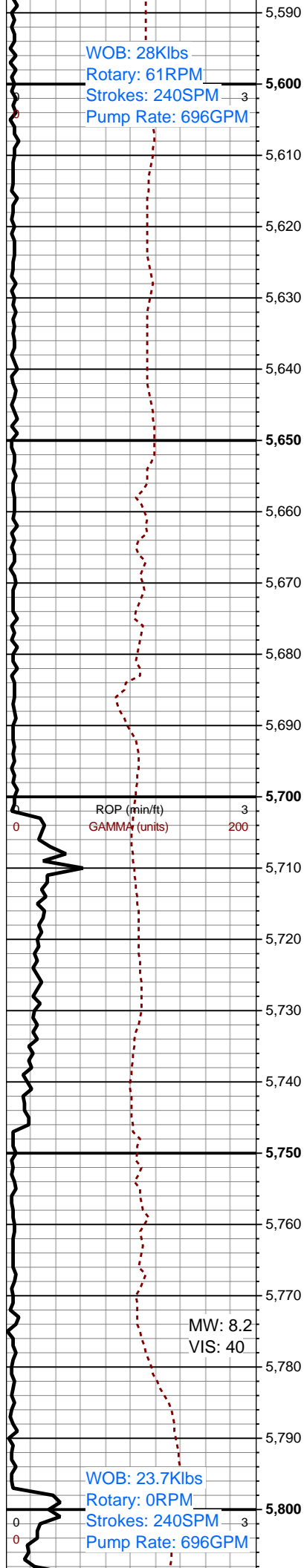
5360-5420 SS (60%):
gy-dk gy, occ lt gy, rr brn
hue ip, pred vf-f mod srted
sb rd grs, med frm-frm sli
fri mtx-gr sup cls cons wi
pred arg cmt, silc cmt ip,
rr wh dolc strg tr vf pyr,
sl-l calc, grdg to sdy
SLTST (30%): pred gy-dk
gy ang-pty ctgs cons wi
silc & occ dk arg cmt, tr-rr
vf pyr strg ip, non calc

5420-5480 SS (45%):
pred med gy- dk gy, ip
offwht, pred frm-hd clus,
sme sl sft arg clus, pred
p srted, pred vf grd sd- slt,
rr f grd sd, sb rd- sb ang
grs, pred gr sup clus
cons wi arg- sil cmt, sme
calc cmt; SLTST (40%):
pred med gy-dk gy, sme
gyshbn, v frm-sl hrd, pred
blky, non calc, intbdd wi
sh, tr f lam

5480-5540 SS (75%): off
wh-lt gy-gy, wi brn hue ip,
pred vf-f mod srted sb rd
grs, med frm-frm sli fri
mtx-gr sup cls cons wi
arg cmt, silc cmt ip, tr vf
pyr, sl-l calc, grdg to sdy
SLTST (25%): pred gy-dk
gy ang-pty ctgs, wi tr-rr vf
pyr strg ip, silc & non calc

5540-5600 SS (65%):
gy-dk gy, occ lt gy, rr brn
hue ip, pred vf-f mod srted
sb rd grs, med frm-frm sli
fri mtx-gr sup cls cons wi
pred arg cmt, silc cmt ip,
rr wh dolc strg tr vf pyr,
sl-l calc, grdg to sdy





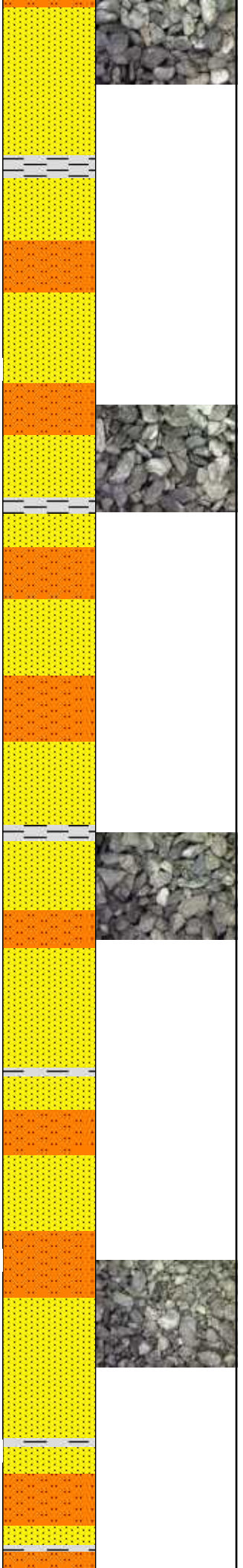
SLTST (35%): pred gy-dk
gy ang-pty ctgs, wi tr-rr vf
pyr strg ip, silc & non calc

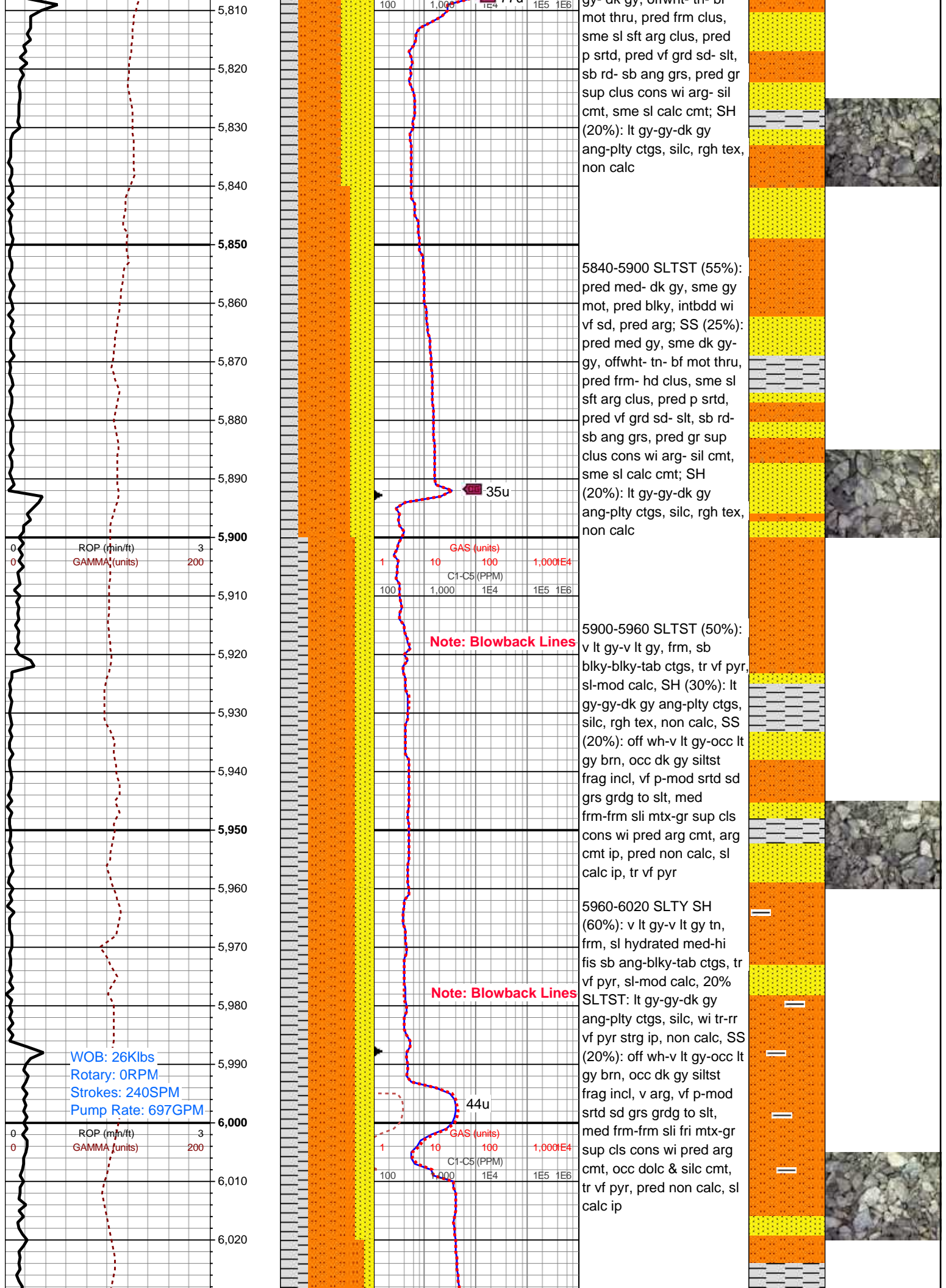
5600-5660 SS (50%):
pred med gy- gy, sme
brn- gy, occ offwht- bf, ip
tn- offwht mot, pred frm-
hd, sme sl frm- fri, sb
blky- blky, grn sup clus,
pred v f sd- slt intbdd, occ
f grd, arg- sil cmt thru,
occ sl calc; SLTST (35%):
pred med- dk gy, sme sl
blk, frm- hd, occ sl frm,
sb blky- sb plty, ip v f sd
intbds, mod sft ltgy- tn
shy lam intbds, scat SH

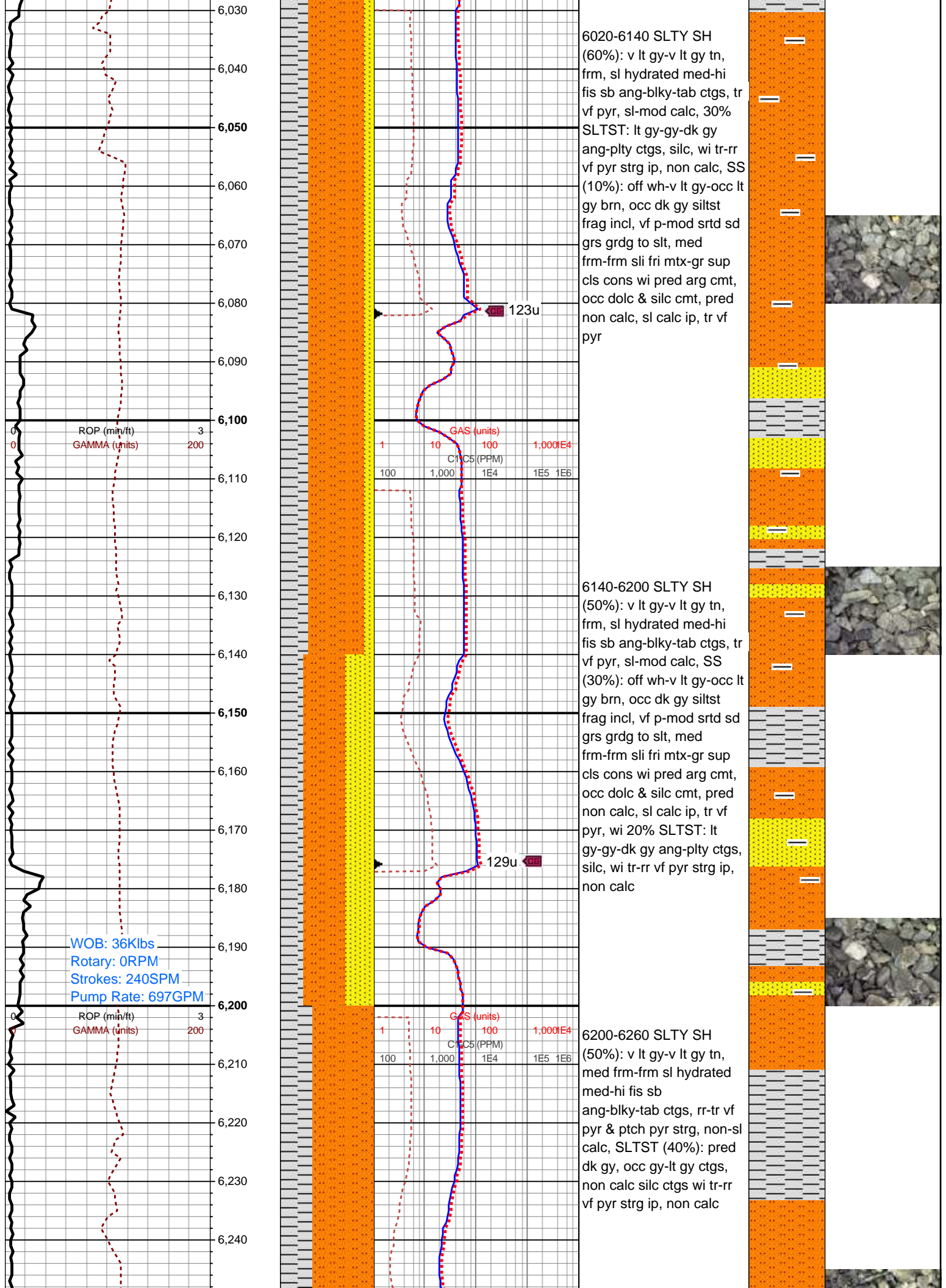
5660-5720 SS (50%): off
wh-lt gy-gy, wi brn hue ip,
pred vf-f mod srted sb rd
grs, med frm-frm sli fri
mtx-gr sup cls cons wi
arg cmt, silc cmt ip, tr vf
pyr, sl-l calc, grdg to sdy
SLTST (40%): pred gy-dk
gy ang-pty ctgs, wi tr-rr vf
pyr strg ip, silc & non
calc, tr SH

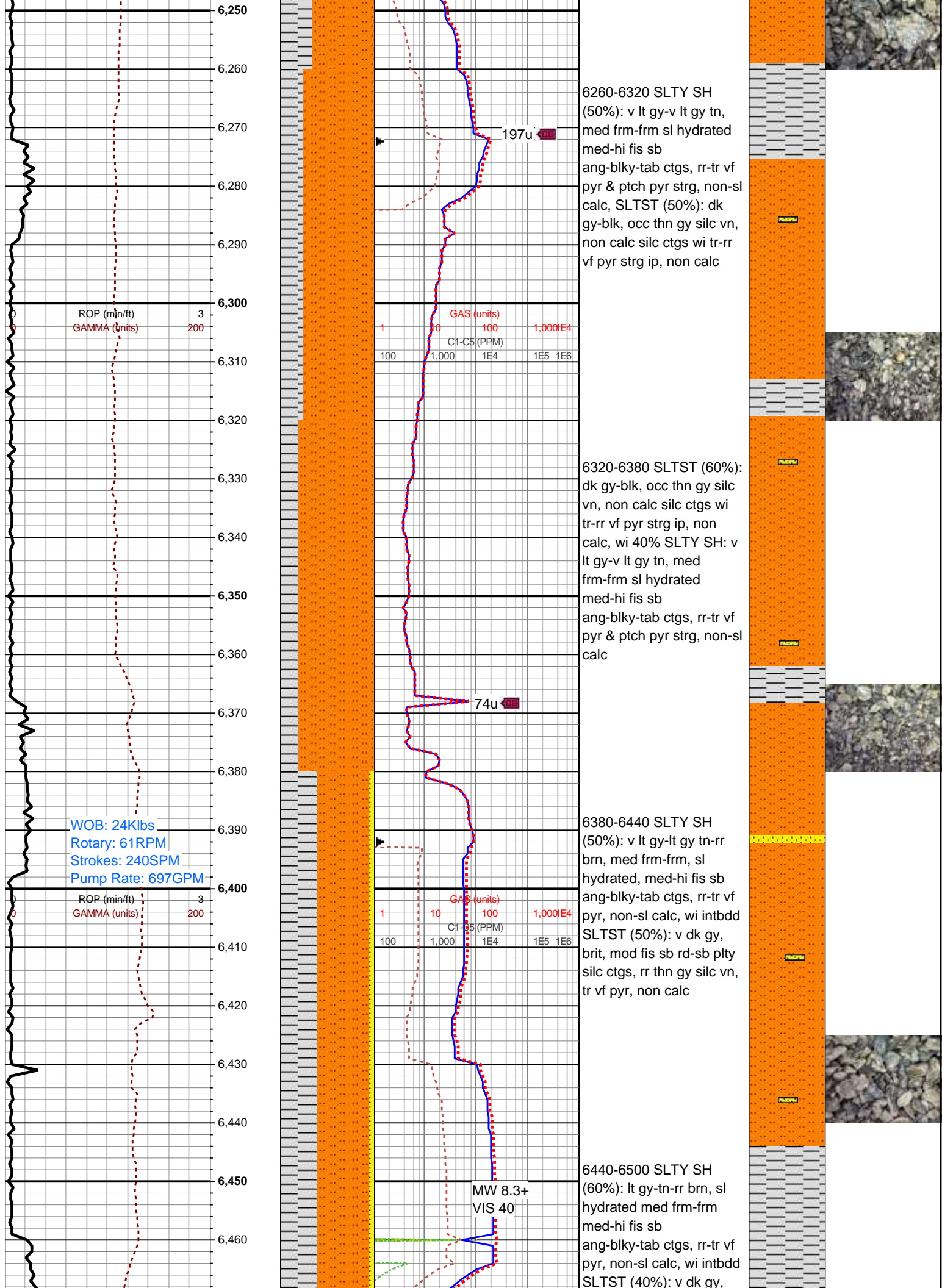
5720-5780 SS (60%):
pred med gy, sme dk gy-
gy, ip offwht- tn- bf mot
thru, pred frm- hd clus,
sme sl sft arg clus, pred
p srted, pred vf grd sd- slt,
sb rd- sb ang grs, pred gr
sup clus cons wi arg- sil
cmt, sme sl calc cmt,
intbdd wi 40% med- dk
gy slt

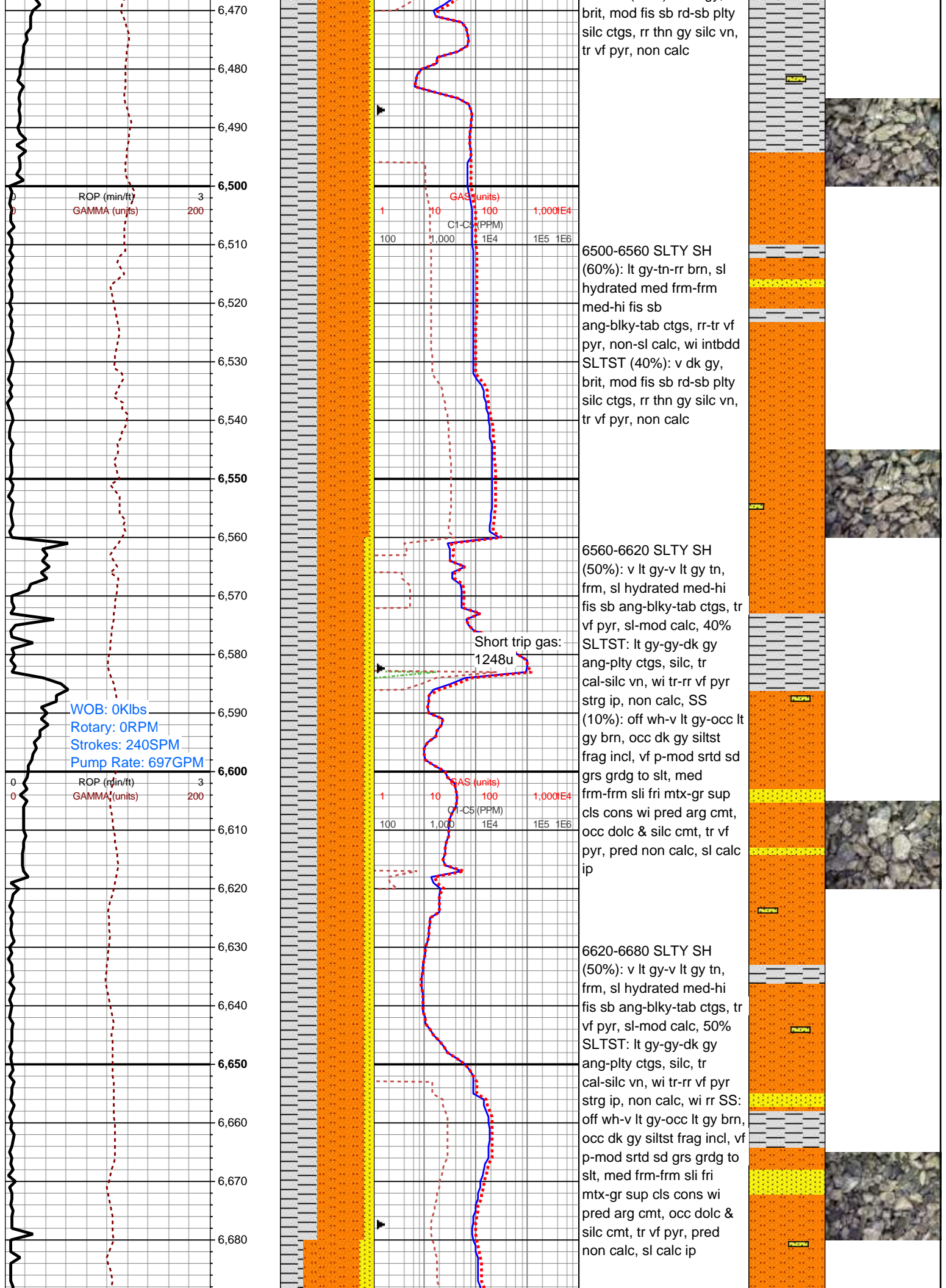
5780-5840 SLTST (45%):
pred med-dk gy, sme gy
mot, pred blky, intbdd wi
vf sd- slty sh, pred arg
thru; SS (35%): pred med
gy- dk gy, offwht- tn- bf

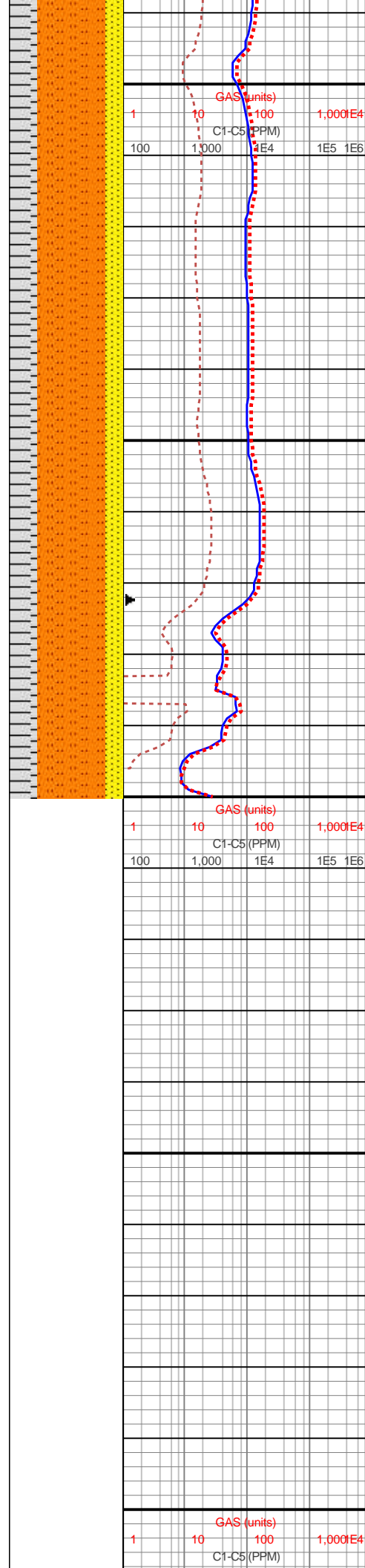
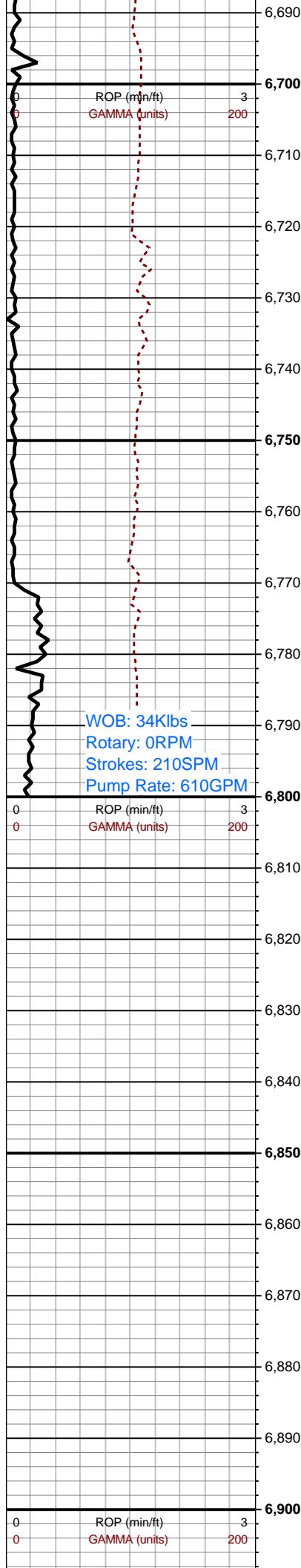












6680-6800 SLTY SH
(45%): lt gy-lt gy tn, med
frm-frm, sl hydrated ip,
med-hi fis sb
ang-blky-tab ctgs, l fis
gumbo ctgs, tr vf pyr,
sl-mod calc, SLTST
(40%): lt gy-gy-dk gy
ang-plty ctgs, silc, tr
cal-silc vn, wi tr-rr vf pyr
strg ip, non calc, wi 15%
SS: off wh-v lt gy-occ lt gy
brn, occ dk gy siltst frag
incl, vf p-mod strtd sd grs
grdg to slt, med frm-frm
sli fri mtx-gr sup cls cons
wi pred arg cmt, occ dolc
& silc cmt, tr vf pyr, pred
non calc, sl calc ip

Continued on horizontal
log

