



Scale: 5" / 100'
Measured Depth Log

Well Name Diamond Valley East #13

Location Diamond Valley East Pad Sec.23-T06-R67W

State Colorado

County Weld

API Number NA

Rig Number Frontier #10

Spud Date 11-15-14

Field Wattenberg

Ground Elevation 4,968.5'

K.B. Elevation 4,971'

Logged Interval 5,000' To 6,800'

Total Depth NA

Type of Drilling Fluid Water Based

Other Symbols

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

ORGANIC

PINPOINT

VUGGY

Engineering

BIT

CASING

CONNECTION (LEFT)

CONNECTION (RIGHT)

CONNECTION GAS

CORE - LOST

CORE - RECOVERED

DST INTERVAL

FAULT

FORMATION TOP

GAS SHOW

MINDEPTH 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

MX MICROXLN

MS MUDSTONE

PS PACKSTONE

WS WACKSTONE

Sorting

M MODERATE

P POOR

W WELL

Zone Color Coding

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

Accessories

Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHIOPOD

F FOSSIL

GASTROPOD

OOLITE

OSTRACOD

PELECPOD

PELLET

PISOLITE

ARGILLACEOUS

ARGILLITE GRAIN

BENTONITE

BITUMENOUS SUBSTANCE

BRECCIA FRAGMENTS

CALCAREOUS

CARBONACEOUS FLAKES

GLAUCONITE

GYPSEFEROUS

HEAVY MINERAL

KAOLIN

MARLSTONE

MINERAL CRYSTALS

NODULES

Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLOMITE STRINGER
- GYPSE STRINGER

BRYOZOA
CEPHALOPOD
CORAL
CRINOID
ECHINOID
FISH
FORAMINIFERA

PLANT REMAINS
PLANT SPORES
SCAPHOPOD
STROMATOPOROID

Minerals

ANHYDRITIC

CHTDK
CHTLT
COAL - THIN BEDS
DOLOMITIC
FELDSPAR
FERRUGINOUS PELLET
FERRUGINOUS

PHOSPHATE PELLETS
PYRITE
SALT CAST
SANDY
SILICEOUS
SILTY
TUFFACEOUS

LIMESTONE STRINGER
MARLSTONE (CALC) STRG
MARLSTONE (DOL) STRG
SANDSTONE STRINGER
SHALE STRINGER
SILTSTONE STRINGER

Rock Types

UNKNOWN
ANHYDRITE
GYPSUM
SALT
SIDERITE or LIMONITE
LIMESTONE

DOLOMITE
CHERT
COAL
MARLSTONE
CLAYSTONE
SHALE

SHALE GRAY
SHALE COLORED
SILTSTONE
SANDSTONE
CONGLOMERATE
BRECCIA

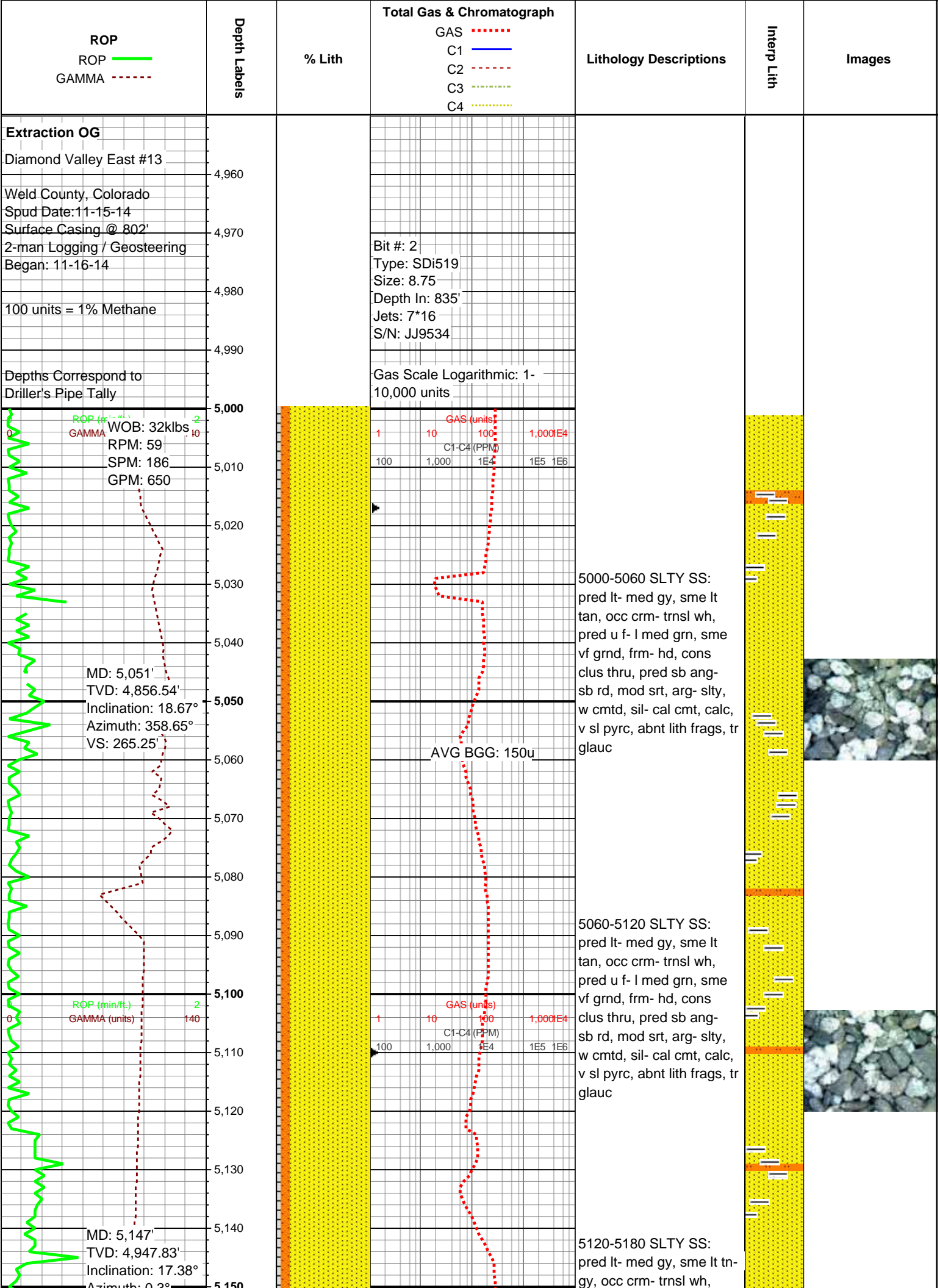
TILL
BENTONITE
TUFF
IGNEOUS
METAMORPHIC
CEMENT

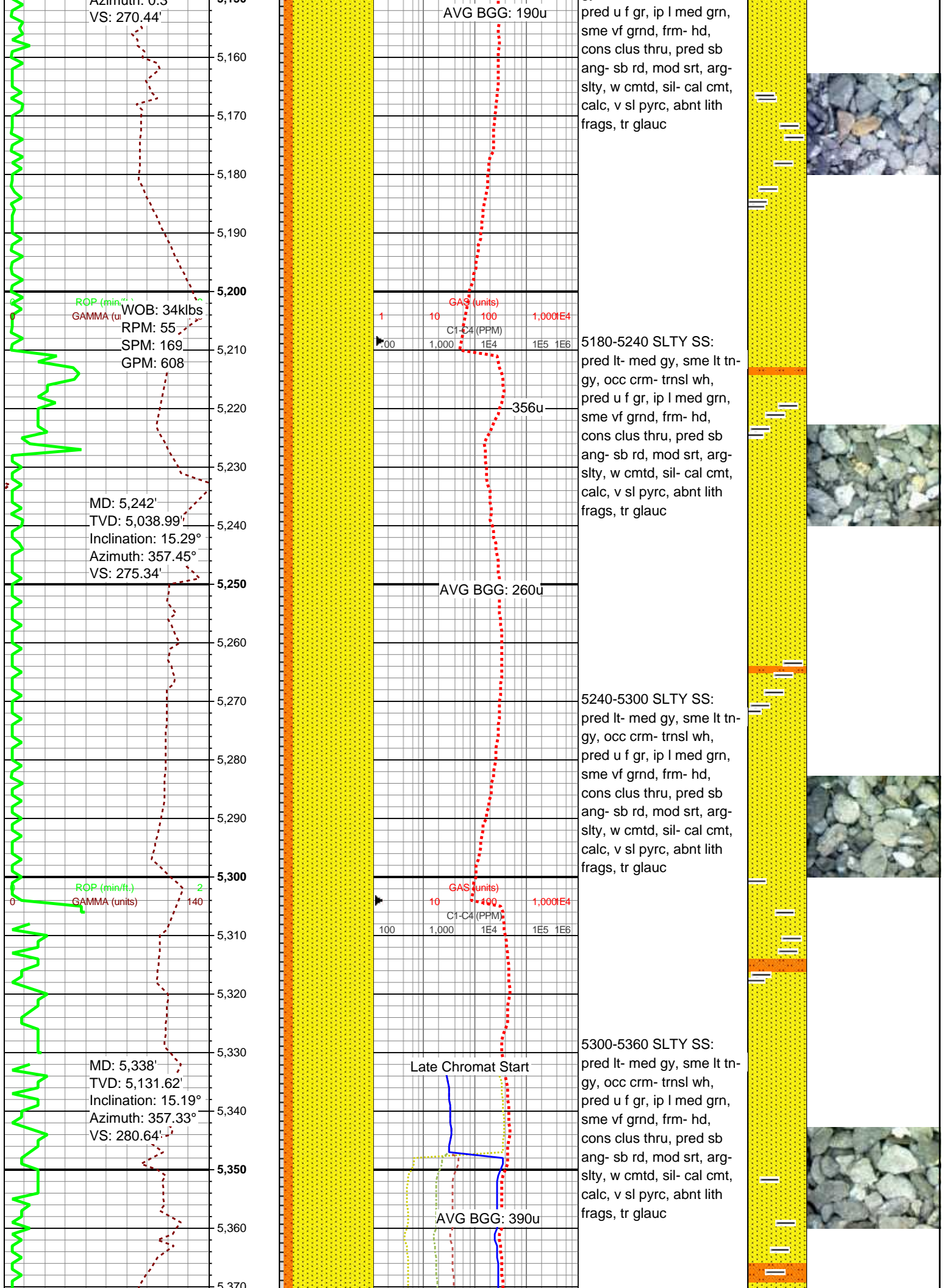
Operator

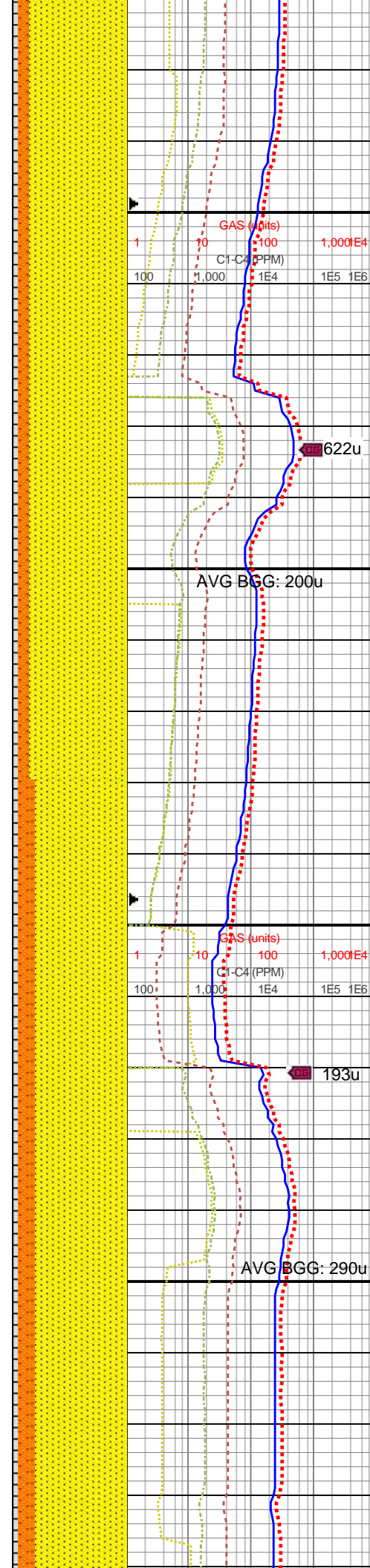
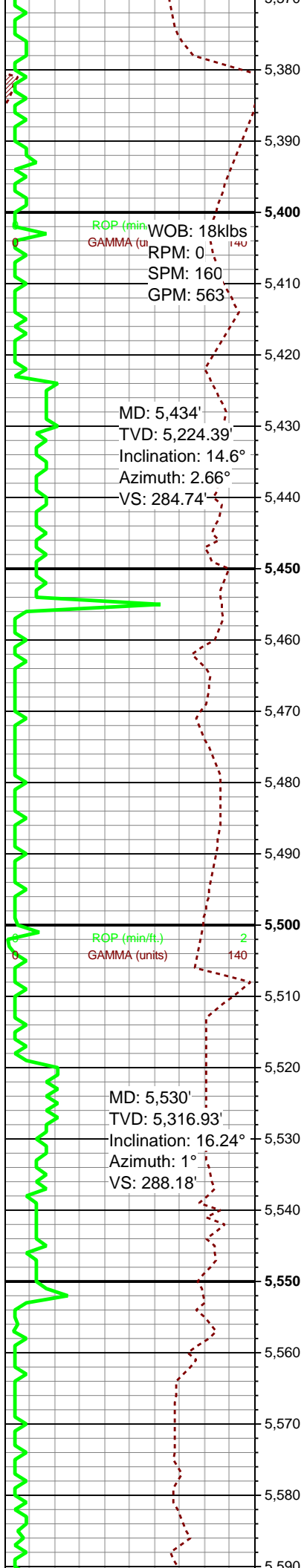
Company Extraction Oil & Gas

Geologist

Name Dominic Pitre / Vivian Spiess







5360-5420 SLTY SS:
pred lt- med gy, sme lt tn-
gy, occ crm- trnsl wh,
pred f- f v gr, occ l med
grn, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd, mod srt, pred ss w
sltst intbds, arg- slty, w
cmtd, sil- cal cmt, calc, v
sl pyrc, abnt lith frags, tr
glauc



5420-5480 SLTY SS:
pred lt- med gy, sme lt tn-
gy, occ crm- trnsl wh,
pred f- f v gr, occ l med
grn, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd, mod srt, pred ss w
sltst intbds, arg- slty, w
cmtd, sil- cal cmt, calc, v
sl pyrc, abnt lith frags, tr
glauc

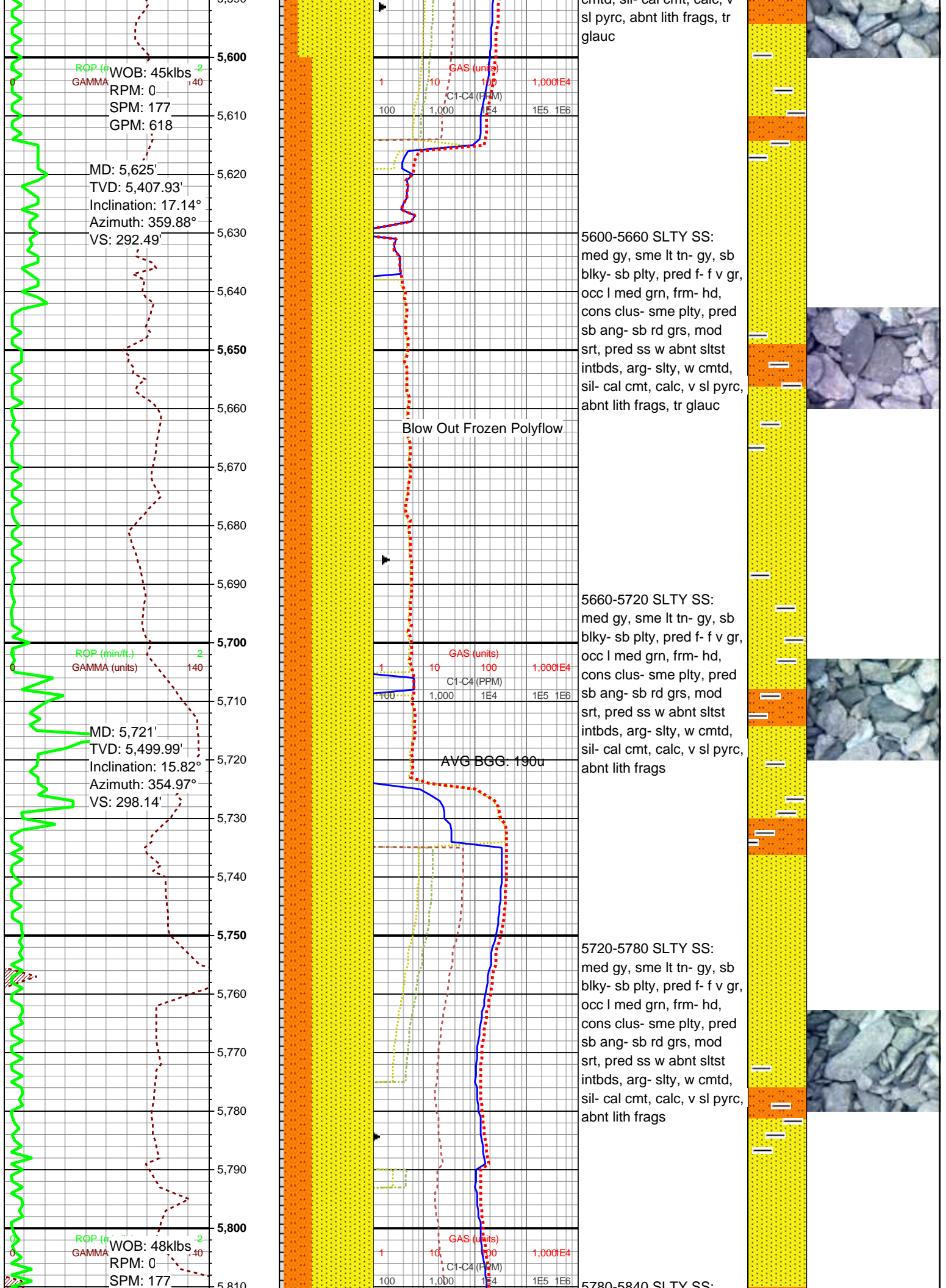


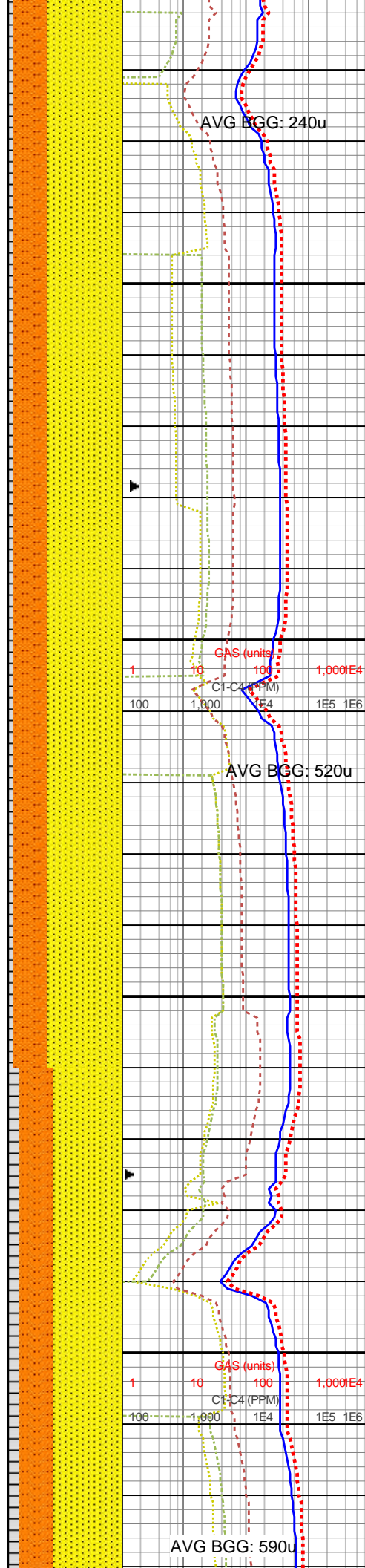
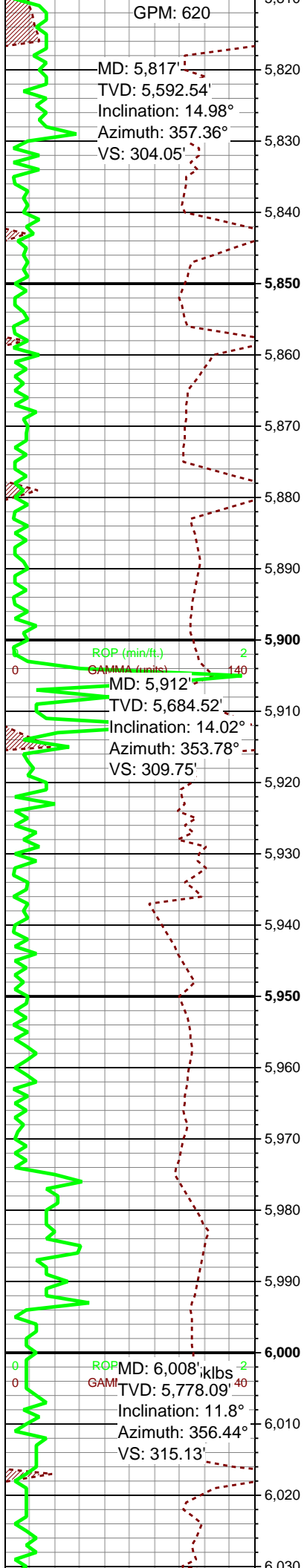
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gy, occ crm- trnsl wh,
pred f- f v gr, occ l med
grn, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd, mod srt, pred ss w
sltst intbds, arg- slty, w
cmtd, sil- cal cmt, calc, v
sl pyrc, abnt lith frags, tr
glauc



5540-5600 SLTY SS:
pred lt- med gy, sme lt tn-
gy, occ crm- trnsl wh,
pred f- f v gr, occ l med
grn, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd, mod srt, pred ss w
sltst intbds, arg- slty, w
cmtd, sil- cal cmt, calc, v
sl pyrc, abnt lith frags, tr
glauc





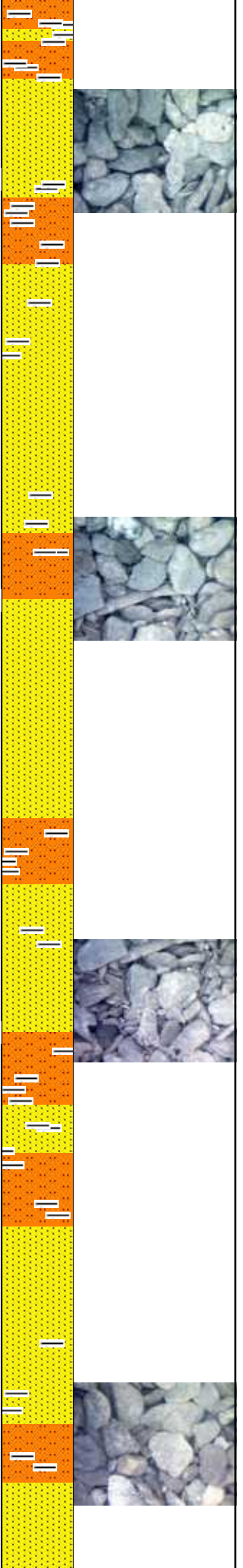


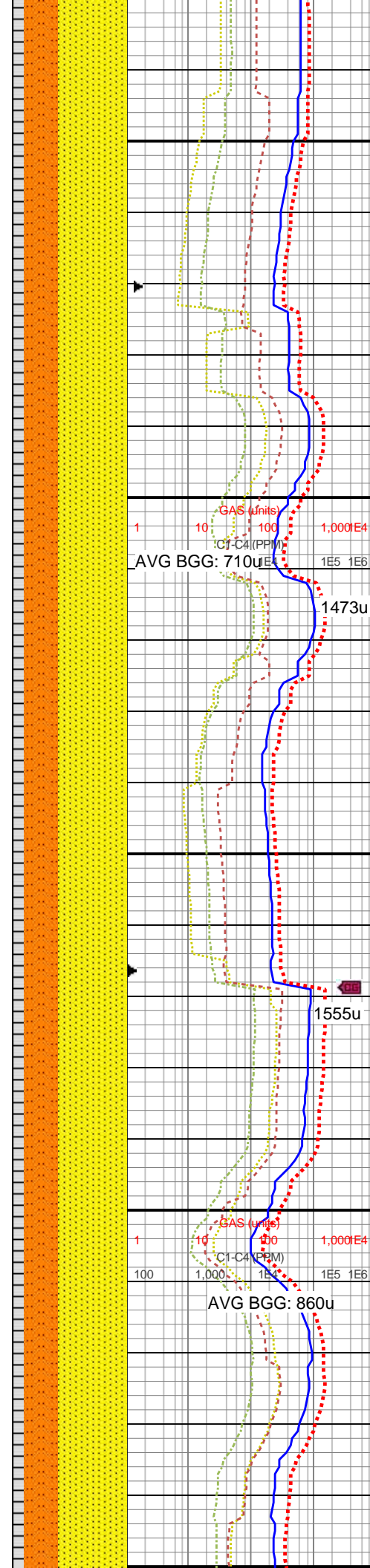
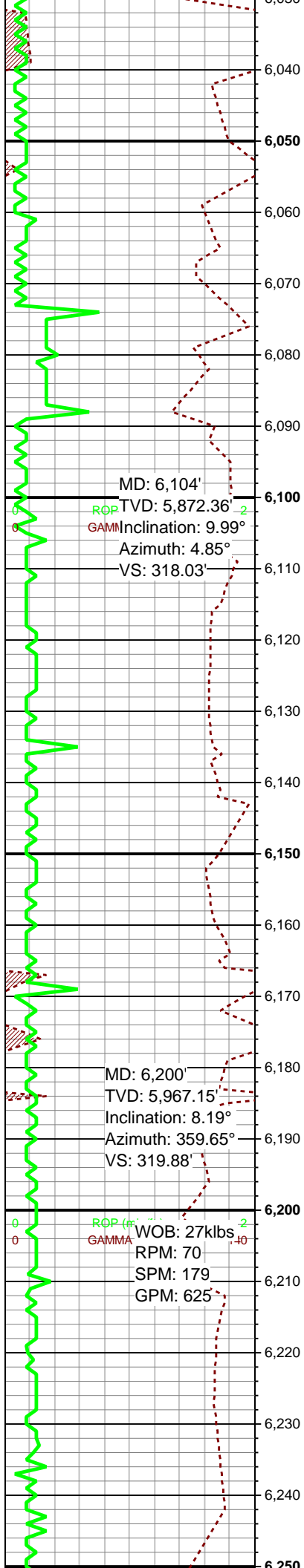
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blky- sb plty, pred f- f v gr,
occ l med grn, frm- hd,
cons clus- sme plty, pred
sb ang- sb rd grs, mod
srt, pred ss w abnt sltst
intbds, arg- slty, w cmtd,
sil- cal cmt, calc, v sl pyrc,
abnt lith frags, tr glauc

5840-5900 SLTY SS:
med gy, sme lt tn- gy, sb
blky- sb plty, pred f- f v gr,
occ l med grn, frm- hd,
cons clus- sme plty, pred
sb ang- sb rd grs, mod
srt, pred ss w abnt sltst
intbds, arg- slty, w cmtd,
sil- cal cmt, calc, v sl pyrc,
abnt lith frags, tr glauc

5900-5960 SLTY SS:
med gy, sme lt tn- gy, sb
blky- sb plty, pred f- f v gr,
occ l med grn, frm- hd,
cons clus- sme plty, pred
sb ang- sb rd grs, mod
srt, pred ss w abnt sltst
intbds, arg- slty, w cmtd,
sil- cal cmt, calc, v sl pyrc,
abnt lith frags

5960-6020 SLTY SS:
med gy, sme gy, tr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, pred ss w
abnt arg sltst intbds, arg-
slty, w cmtd, sil- cal cmt,
calc, tr pyr, abnt lith frags



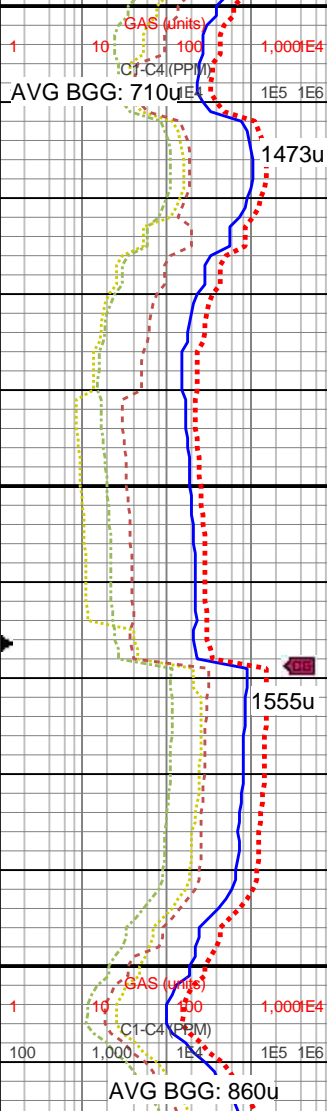


6020-6080 SLTY SS:
med gy, sme gy, tr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, pred ss w
abnt arg sltst intbds, arg-
sly, w cmt, sil- cal cmt,
calc, tr pyr, abnt lith frags

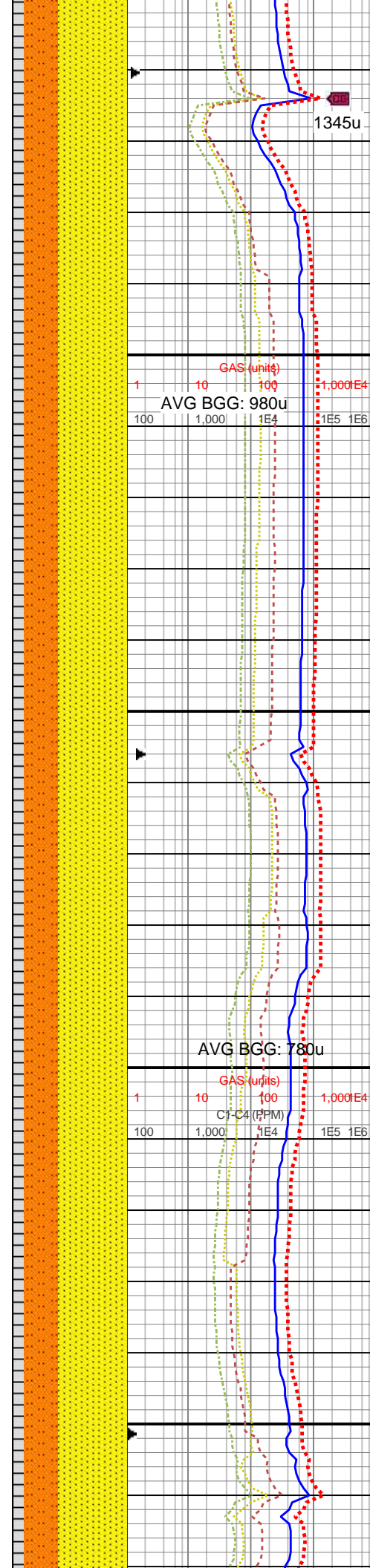
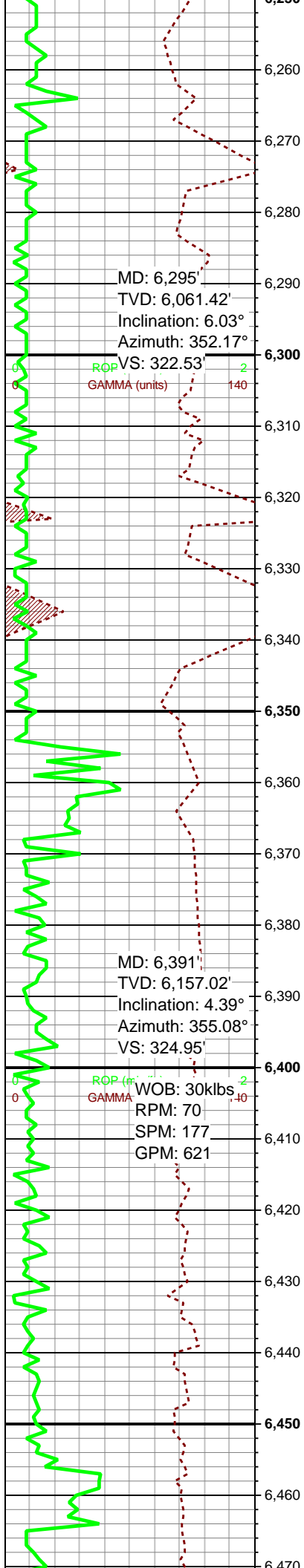
6080-6140 SLTY SS:
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blky- sb plty, pred f- f v gr,
occ u f- l med grn, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, pred ss w
abnt arg sltst intbds, arg-
sly, w cmt, sil- cal cmt,
calc, tr pyr, abnt lith frags

6140-6200 SLTY SS:
med gy, sme gy, tr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, pred ss w
abnt arg sltst intbds, arg-
sly, w cmt, sil- cal cmt,
calc, tr pyr, abnt lith frags

6200-6260 SLTY SS:
pred med gy- gy, tr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, pred ss w
abnt arg sltst intbds, arg-



MW IO: 9.2/9.0
VIS IO: 42/37



slty, w cmt, sil- cal cmt,
sl calc, tr pyr, abnt lith
frags

1345u

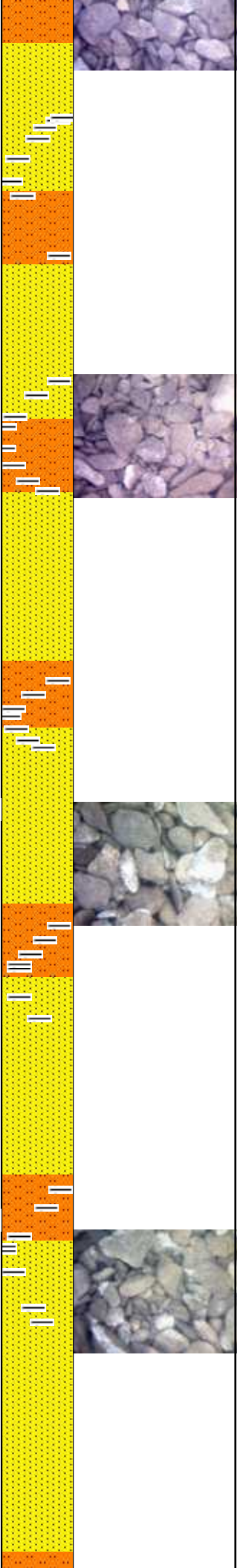
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pred med gy- gy, tr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, pred ss w
abnt arg sltst intbds, arg-
slty, w cmt, sil- cal cmt,
sl calc, tr pyr, abnt lith
frags

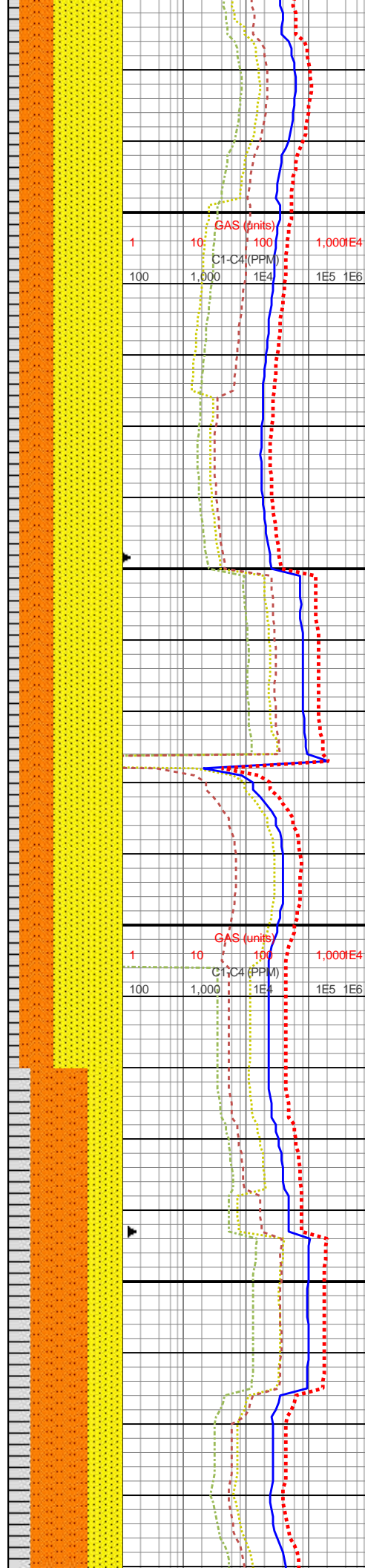
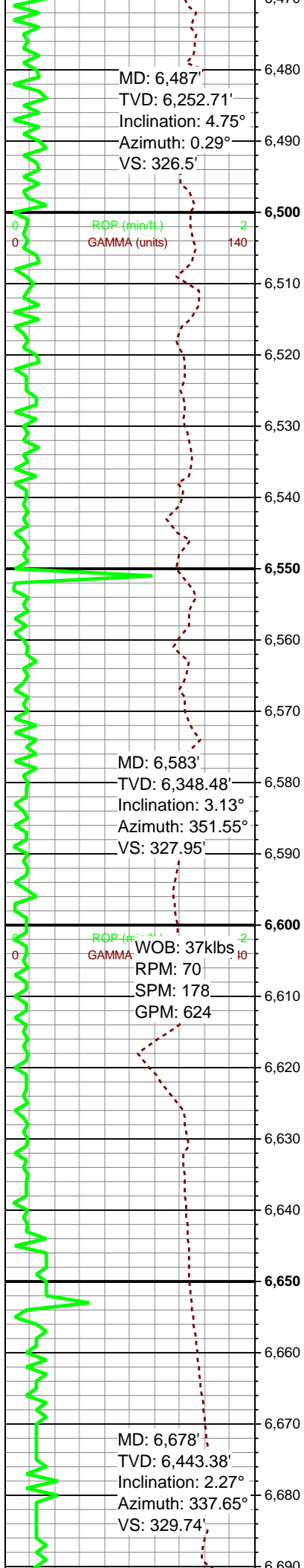
6320-6380 SLTY SS:
pred med gy- gy, rr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, ip v f
grnd, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd grs, mod- p srt, pred
ss w abnt arg sltst
intbds, arg- slty, w cmt,
sil- cal cmt, sl calc, tr pyr,
abnt lith frags

6380-6440 SLTY SS:
pred med gy- gy, rr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, ip v f
grnd, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd grs, mod- p srt, pred
ss w abnt arg sltst
intbds, arg- slty, w cmt,
sil- cal cmt, sl calc, tr pyr,
abnt lith frags

MW / VIS IN: 9.9/41

6440-6500 SLTY SS:
pred med gy- gy, rr tn, sb



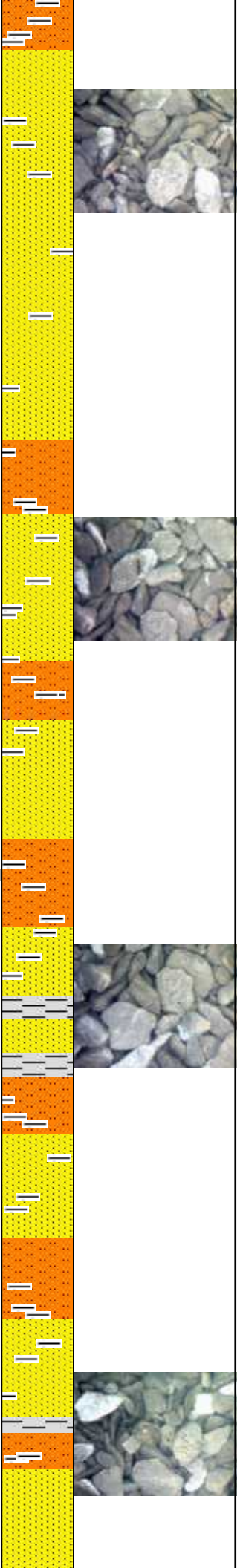


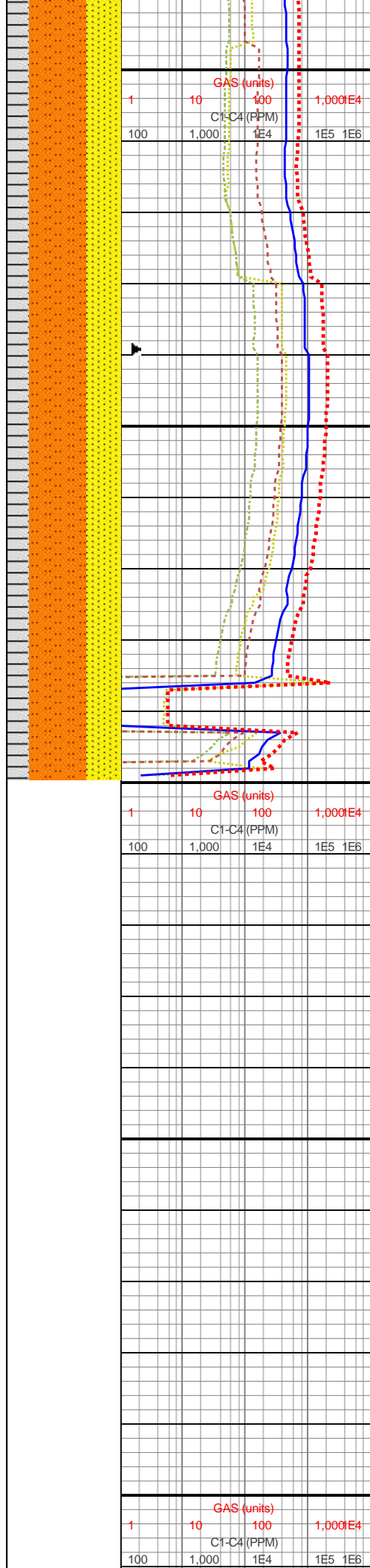
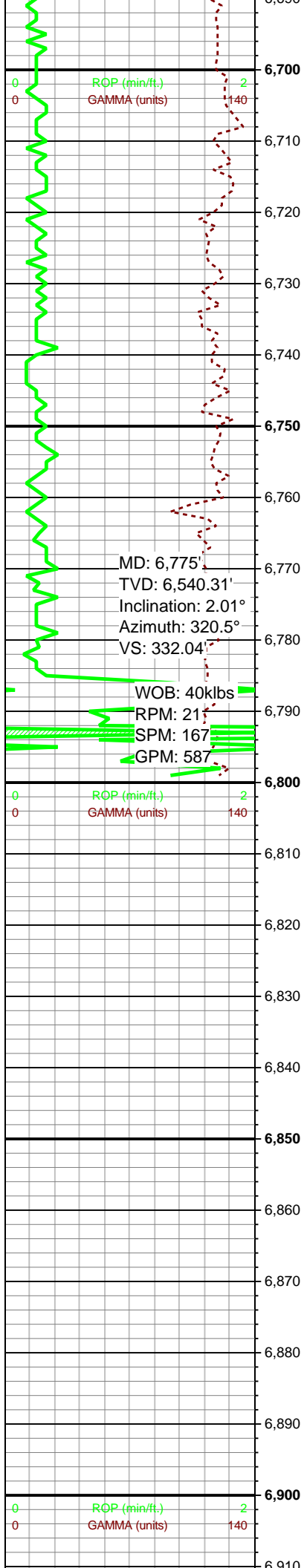
blky- sb plty, pred f- f v gr,
occ u f- l med grn, ip v f
grnd, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd grs, mod- p srt, pred
ss w abnt arg sltst
intbds, arg- slty, w cmt, d,
sil- cal cmt, sl calc, tr pyr,
abnt lith frags

6500-6560 SLTY SS:
pred med gy- gy, rr tn, sb
blky- sb plty, pred f- f v gr,
occ u f- l med grn, ip v f
grnd, frm- hd, cons clus-
sme plty, pred sb ang- sb
rd grs, mod- p srt, pred
ss w abnt arg sltst
intbds, arg- slty, w cmt, d,
sil- cal cmt, sl calc, tr pyr,
abnt lith frags

6560-6620 SLTST: pred
med gy- gy, sb blky- sb
plty, pred f- f v gr, occ u f-
l med grn, ip v f grnd, frm-
hd, cons clus- sme plty,
pred sb ang- sb rd grs,
mod- p srt, sme ss w
abnt arg sltst intbds, arg-
slty, w cmt, d, sil- cal cmt,
sl calc, tr pyr, abnt lith
frags

6620-6680 SLTST: pred
med gy- gy, sb blky, bcm
pred sb plty- plty, pred f- f
v gr, sme u f- l med gr,
frm- hd, ip cons ss clus-
sme plty sltst, pred sb
ang- sb rd grs, p srt, sme
ss w abnt arg sltst
intbds, arg- slty, w cmt, d,
sil- cal cmt, sl calc, tr pyr,
abnt lith frags





6680-6740 SLTST: pred med gy- gy, sb blk, bcm pred sb plty- plty, pred f- f v gr, sme u f- l med gr, frm- hd, ip cons ss clus- sme plty sltst, pred sb ang- sb rd grs, p srt, occ ss w abnt arg sltst intbds, arg- slty, w cmt, sil- cal cmt, sl calc, tr pyr, abnt lith frags

MW IO: 10
VIS IO: 43/42

6740-6800 SLTST: pred med gy- dk gy, sb blk, bcm pred plty, pred f- f v gr, sme u f- l med gr, frm- hd, sme plty sltst- occ ss clus, pred sb ang- sb rd grs, mod srt, occ ss w abnt arg sltst intbds, arg- slty, w cmt, sil- cal cmt, sl calc, tr pyr, abnt lith frags

Log Continued in Horizontal Format

