

Extraction Oil and Gas

Diamond Valley East #3

Weld County, Colorado
 Spud Date: xx-xx-xx
 Surface Casing @ 789'
 Intermediate Casing @ 7,341'
 2-man Logging / Geosteering Began
 (See header for specific dates)

ROP
 TG —
 ROF —
 GAMMA —

TG (Units)
 ROP (min/ft)
 GAMMA (Units)

Slide/Rotate



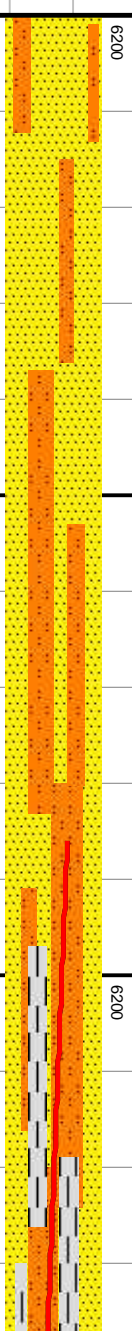
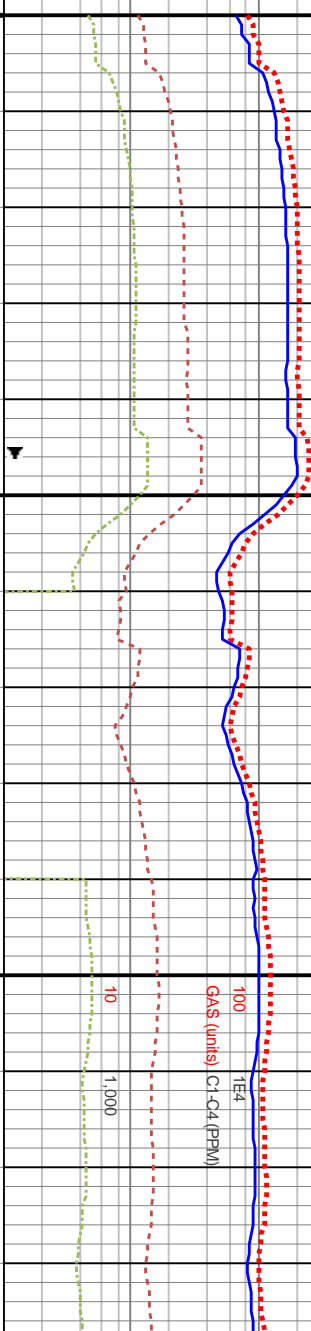
AVG BGC: 100u

Total Gas & Chromatograph

GAS — — — —
 C1 — — — —
 C2 — — — —
 C3 — — — —
 C4 — — — —

Equipment Parameters:
 1% C1 = 100 units
 100% C1 = 10000 units

All Depths Correspond to
 Driller's Pipe Tally



Well Bore
 TVD —

TVD (ft)

MD: 6,386'
 TVD: 6,373.11'
 Inclination: 4.8°
 Azimuth: 267.3°
 VS: -5.74'

TVD (ft)

WOB: 31.2K
 ROT: 0
 STKS: 136SPM
 Pump Rate: 573 GPM

6320-6380 SS/SL TST: med gy, dk gy ip, lt gy ip, rr
 tmsl/w h clus, tr wh, ang - rd, tr blk y, mod - w srt, f -
 vf gr, frm - sl hd, slty, arg ip, v w cmt d, sl - mod calc,
 tr sl pyrc, v sl glauc, tr cal xls

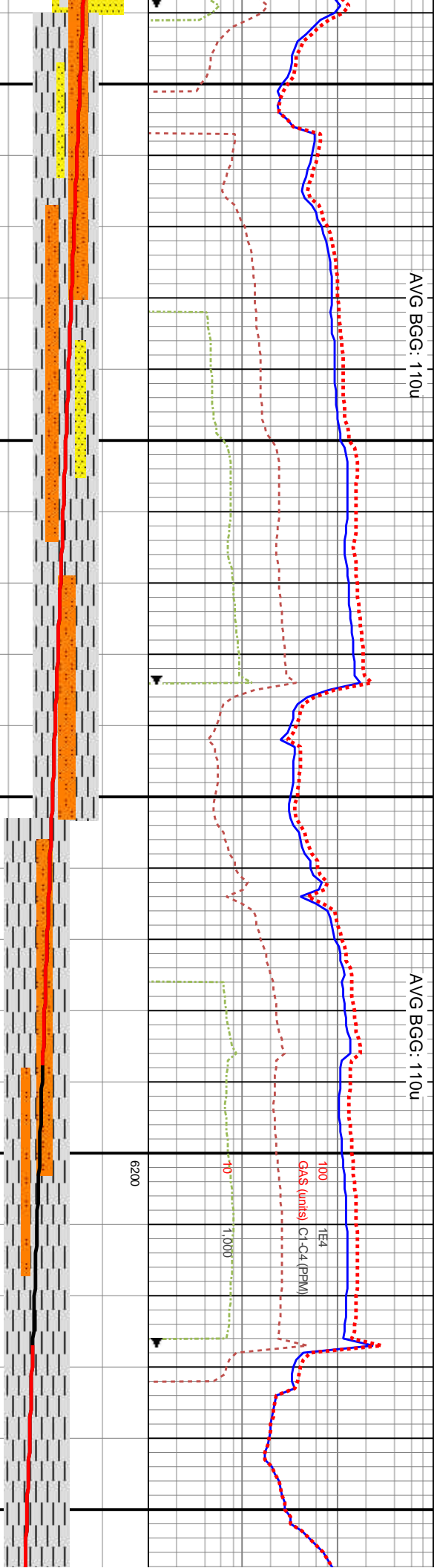
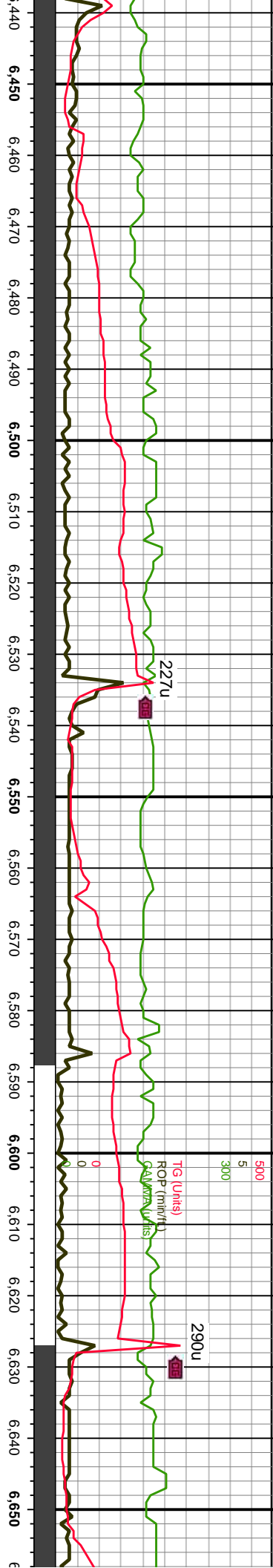
6380-6440 SS/SL TST: med gy, dk gy ip, tr lt gy, rr
 tmsl/w h clus, ang - rd, tr blk y, mod srt, f - vf gr, v
 frm - sl hd, slty, arg ip, v w cmt d, sl - mod calc, tr sl
 pyrc, v sl glauc

Oil Show

6260	6270	6280	6290	6300	6310	6320	6330	6340	6350	6360	6370	6380	6390	6400	6410	6420	6430	6440	

Images





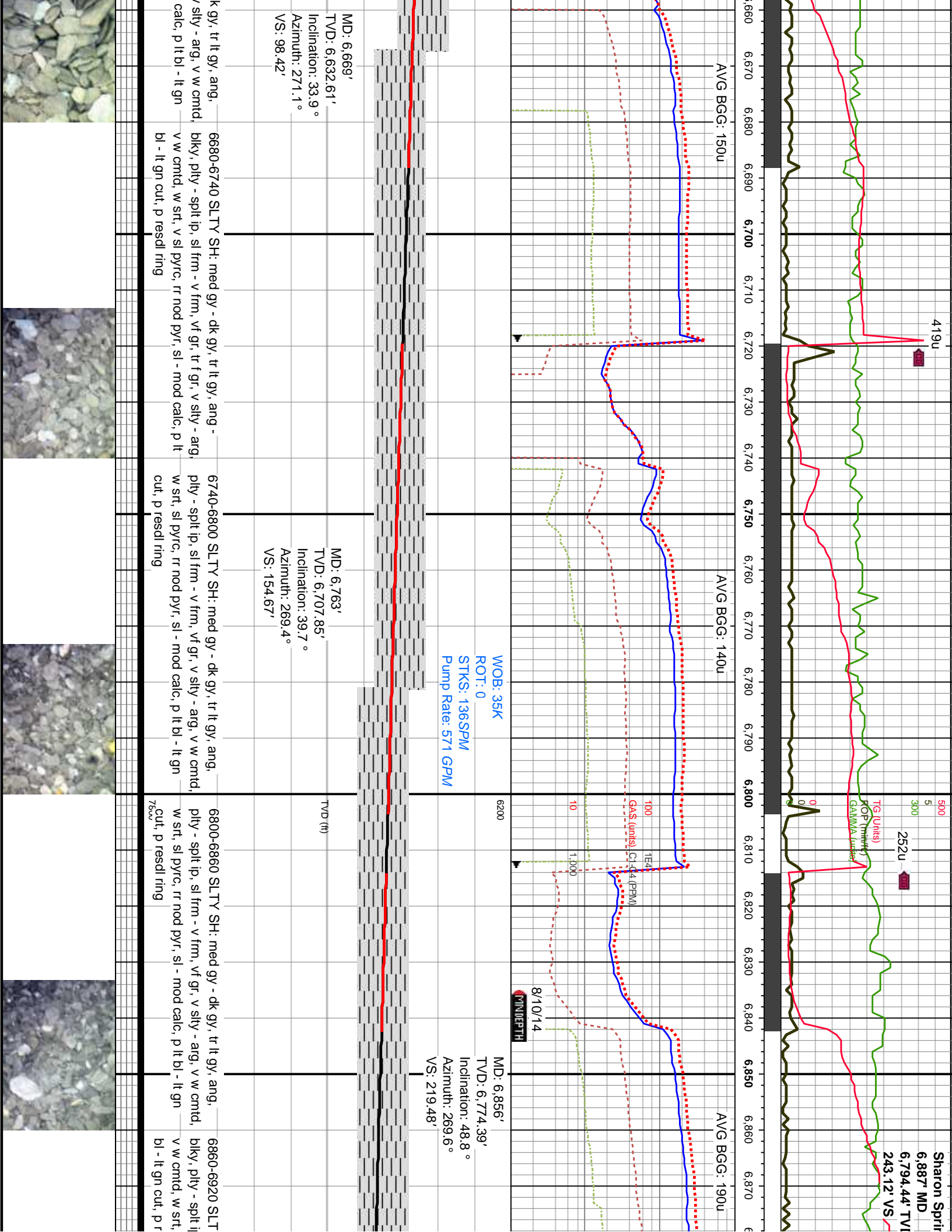
6440-6500 SLTST/SH: med gy, tr lt gy - ofwht, tr dk gy, rr wh - trns, ang - pty, spit ip, sl frm - sl hd, f - vf gr, rr ofwht sdy intbds, sh intbds, v slty - arg, v w cmt, mod srt, sl pyrc, rr nod pyr, sl - mod calc, p resdl ring

6500-6560 SLTST/SH: med gy - dk gy, tr lt gy - ofwht, ang - bkly, pty - spit ip, sl frm - v frm, f - vf gr, rr ofwht sdy intbds, v slty - arg, v w cmt, mod srt, sl pyrc, rr nod pyr, sl - mod calc, p resdl ring

6560-6620 SLTST/SH: med gy, tr lt gy - ofwht, tr dk gy, rr wh - trns, ang - pty, spit ip, sl frm - sl hd, f - vf gr, rr ofwht sdy intbds, sh intbds, v slty - arg, v w cmt, mod srt, sl pyrc, rr nod pyr, sl - mod calc, p resdl ring

6620-6680 SLTY SH: med gy - d pty - spit ip, sl frm - v frm, vf gr, w srt, sl pyrc, rr nod pyr, sl - mod cut, p resdl ring





Sharon Sprit

6,887 MD

6,794.44 TVD

243.12 VS

AVG BGG: 190u

AVG BGG: 140u

AVG BGG: 150u

8/10/14
PINDERPTH

MD: 6,856'
TVD: 6,774.39'
Inclination: 48.8°
Azimuth: 269.6°
VS: 219.48'

WOB: 35K
ROT: 0
STKS: 136SPM
Pump Rate: 571 GPM

MD: 6,763'
TVD: 6,707.85'
Inclination: 39.7°
Azimuth: 269.4°
VS: 154.67'

TVD (ft)

6860-6920 SLT
bky, pty - split li
v w cntd, w srt, p r

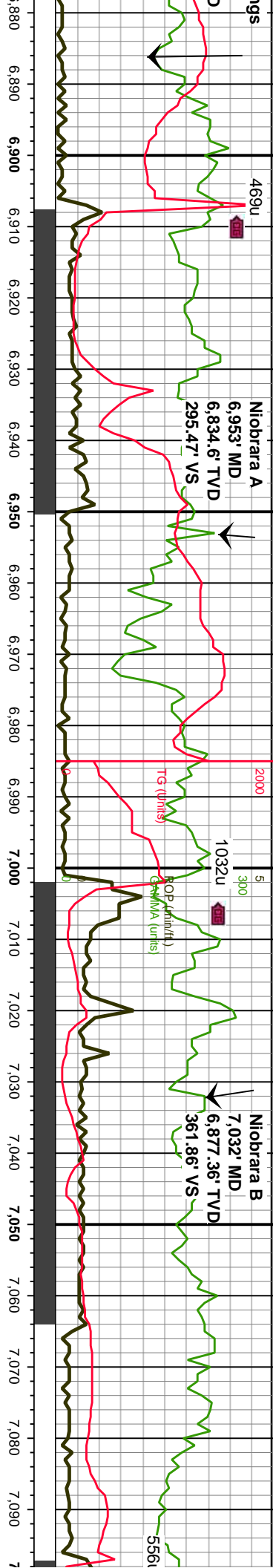
6800-6860 SLTY SH: med gy - dk gy, tr lt gy, ang, bky, pty - split li

6740-6800 SLTY SH: med gy - dk gy, tr lt gy, ang, pty - split ip, sl frm - v frm, vf gr, v slty - arg, w srt, sl pyr, rr nod pyr, sl - mod calc, p lt bl - lt gn cut, p resdl ring

6680-6740 SLTY SH: med gy - dk gy, tr lt gy, ang, bky, pty - split ip, sl frm - v frm, vf gr, v slty - arg, w srt, sl pyr, rr nod pyr, sl - mod calc, p lt bl - lt gn cut, p resdl ring

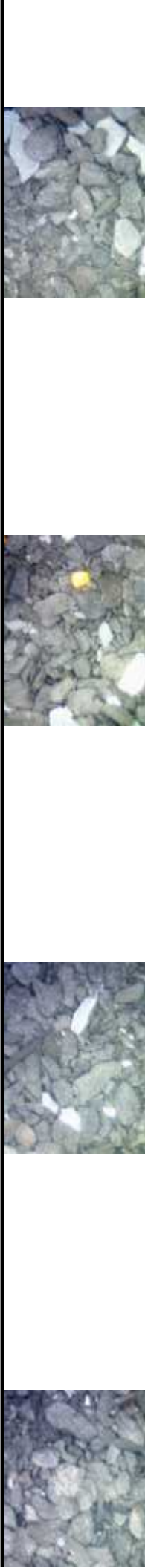
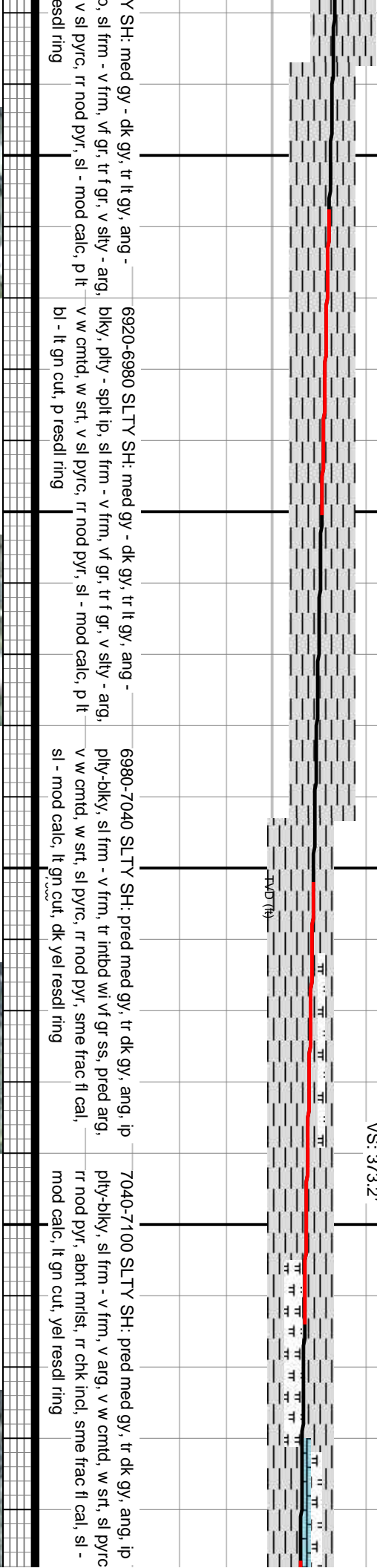
k gy, tr lt gy, ang, sly - arg, v w cntd, calc, p lt bl - lt gn

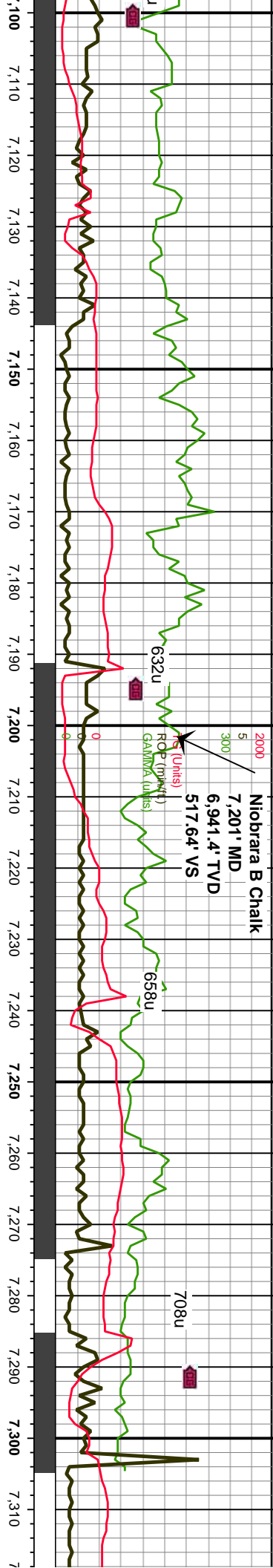




MD: 6,951'
 TVD: 6,833.45'
 Inclination: 54.3 °
 Azimuth: 268 °
 VS: 293.85'

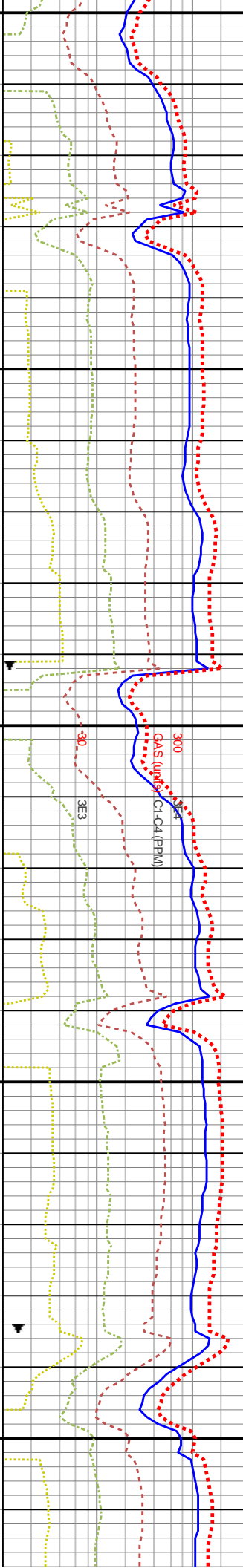
MOB: 31.5K
 ROT: 56
 STKS: 128SPM
 Pump Rate: 534 GPM





AVG BGG: 330u

AVG BGG: 370u

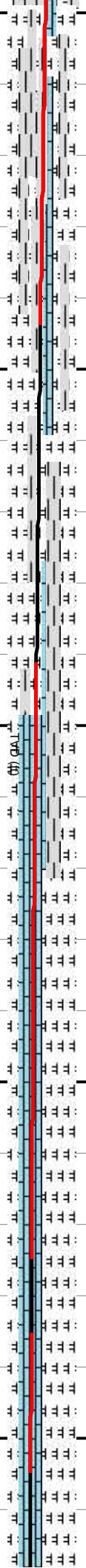


MD: 7,140'
 TVD: 6,923.16'
 Inclination: 69.9°
 Azimuth: 270.3°
 VS: 459.51'

WOB: 40.4K
 ROT: 0
 STKS: 117SPM
 Pump Rate: 494 GPM

MD: 7,235'
 TVD: 6,948.84'
 Inclination: 78.7°
 Azimuth: 270.1°
 VS: 550.82'

MD: 7,305'
 TVD: 6,957.06'
 Inclination: 87.8°
 Azimuth: 271°
 VS: 620.21'



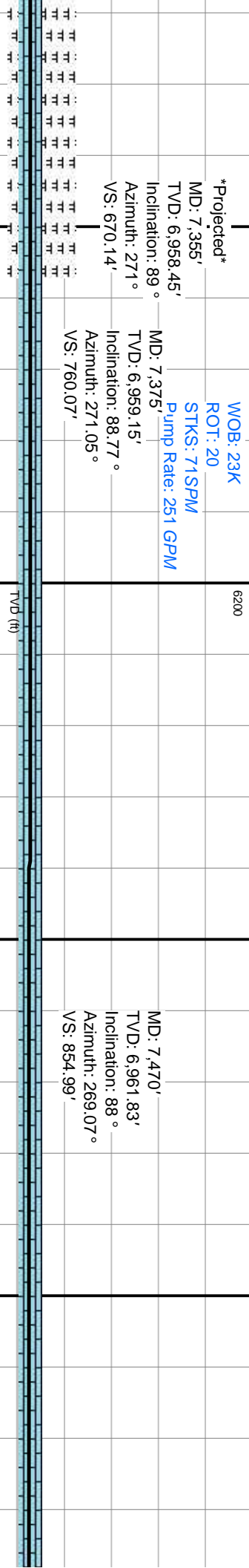
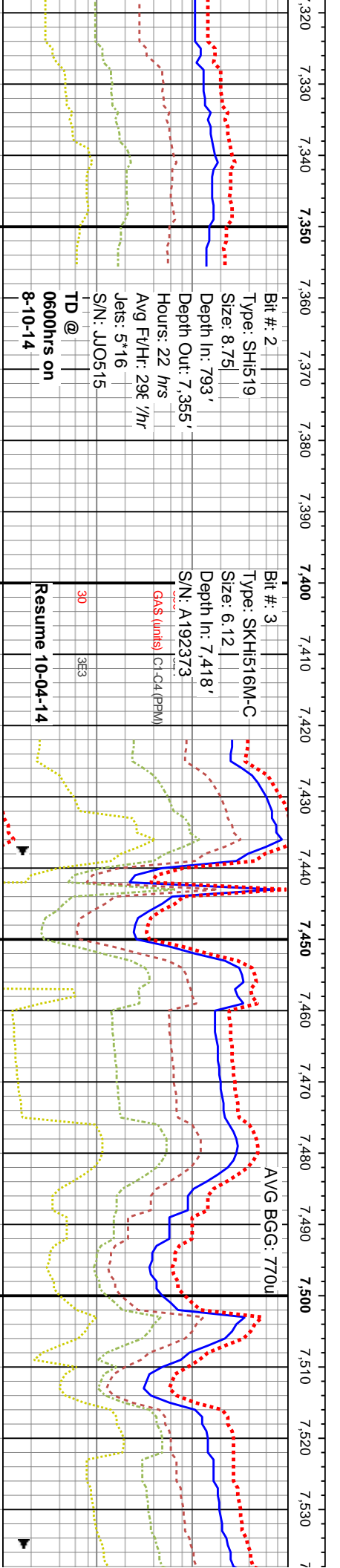
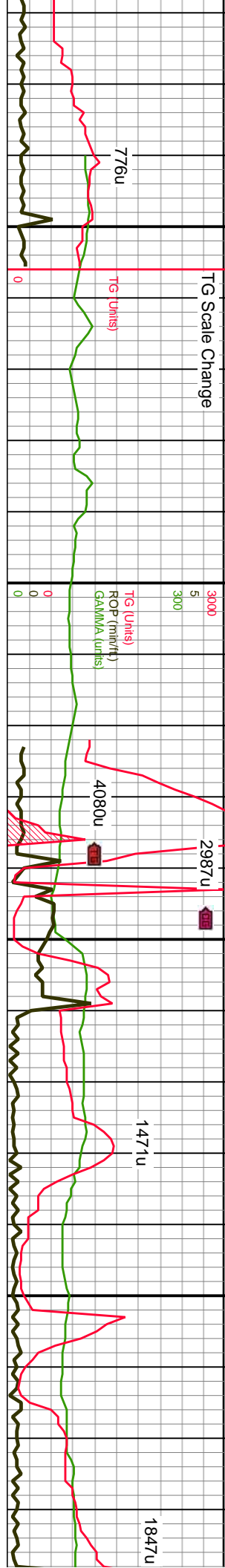
7100-7160 MRLY SH: med gy, occ dk gy, ang, blkly ip, sl frm - v frm, v arg, v w cmtd, w - v w srt, sl pyrc, abnt mlst, tr chk incl, sl - mod calc, p lt gn mky cut, yel resdl ring

7160-7220 70% MRLY SH, 30% CHK: med gy, occ dk gy, ang, blkly ip, sl frm - v frm, v arg, v w cmtd, w - v w srt, sl pyrc, abnt mlst, sme chk incl, tr ise chk, sl - mod calc, sme v calc, p lt gn - bl mky cut, yel resdl ring

7220-7280 50% CHK: pred med- dk gy, pred mot, sl frm - frm, ang - blkly, sme microxin, occ ise chk, tr intbd mlst - sly sh, v calc, v arg, tr frac fl cal, sl pyrc, occ f lam, g lt gn cut, gn resdl ring: 50% MRLY SH: dk gy- blk, med gy ip, ang- plty, tr spl, sl frm, sl - mod calc, v arg, sl pyrc DP @ 7,250'

7280-7340 70% CHK: pred n mot, sl frm - frm, ang - blkly, sme microxin, lse chk, tr intbd mlst - sly sh, v calc, v arg, tr frac fl cal, sl pyrc, occ f lam, g lt gn cut, ring: 30% MRLY SH: dk gy- blk, med gy ip, ang- plty, tr spl, sl frm, sl - mod calc, v arg, sl pyrc



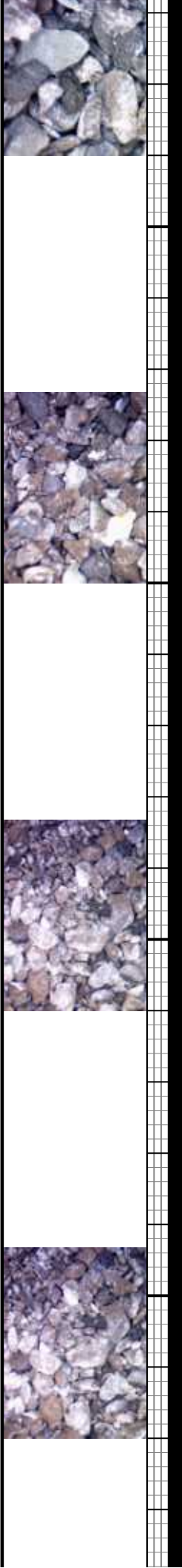


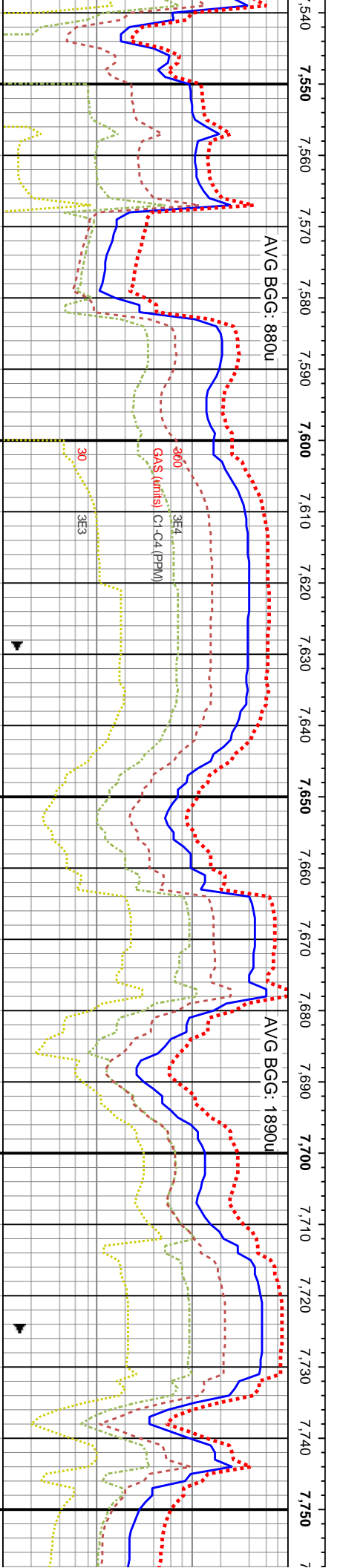
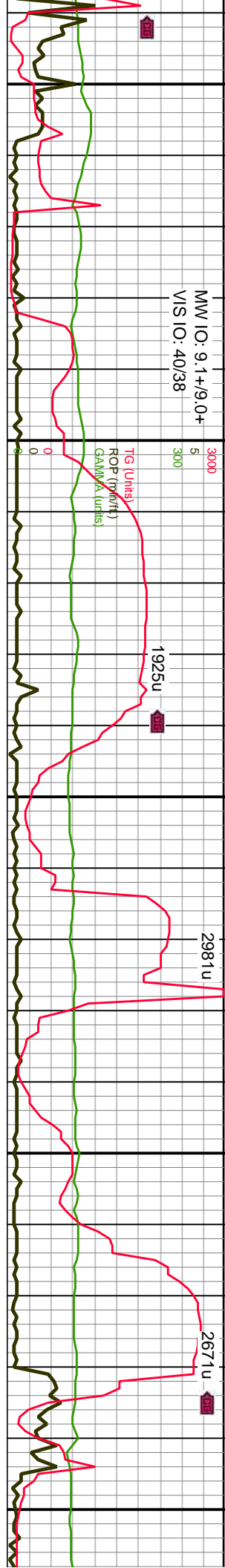
med- dk gy, pred
me microxl, occ
, v calc, v arg, tr
g lt gn cut, gn resdl
blk, med gy ip, ang-
calc, v arg, sl pyrc

7340-7400 CHK: pred gy- med gy, sl
frm- sl hd, pred blk- ang, pred arg ls,
rr inbd mlst, v calc, v arg, tr frac fl cal,
sl pyrc, occ fl am, g lt gn cut, g lt gn
resdl ring

7400-7460 CHK: pred gy- med gy, sl frm- sl
hd, pred blk- ang, pred arg ls, rr inbd mlst,
v calc, v arg, tr frac fl cal, sl pyrc, occ fl am, g
lt gn cut, g lt gn resdl ring

7460-7520 CHK: pred gy- med gy, sl frm- sl
hd, pred blk- ang, pred arg ls, rr inbd mlst,
v calc, v arg, tr frac fl cal, sl pyrc, occ fl am, g lt
gn cut, g lt gn resdl ring





MOB: 12K
ROT: 65
STKS: 82SPM
Pump Rate: 289 GPM

MD: 7.566'
TVD: 6,963.61'
Inclination: 89.88 °
Azimuth: 269.45 °
VS: 950.96'

6200

TVD (ft)

MD: 7.661'
TVD: 6,963.3'
Inclination: 90.49 °
Azimuth: 269.9 °
VS: 1,045.93'

MD: 7.757'
TVD: 6,963
Inclination:
Azimuth: 2
VS: 1,141.5'

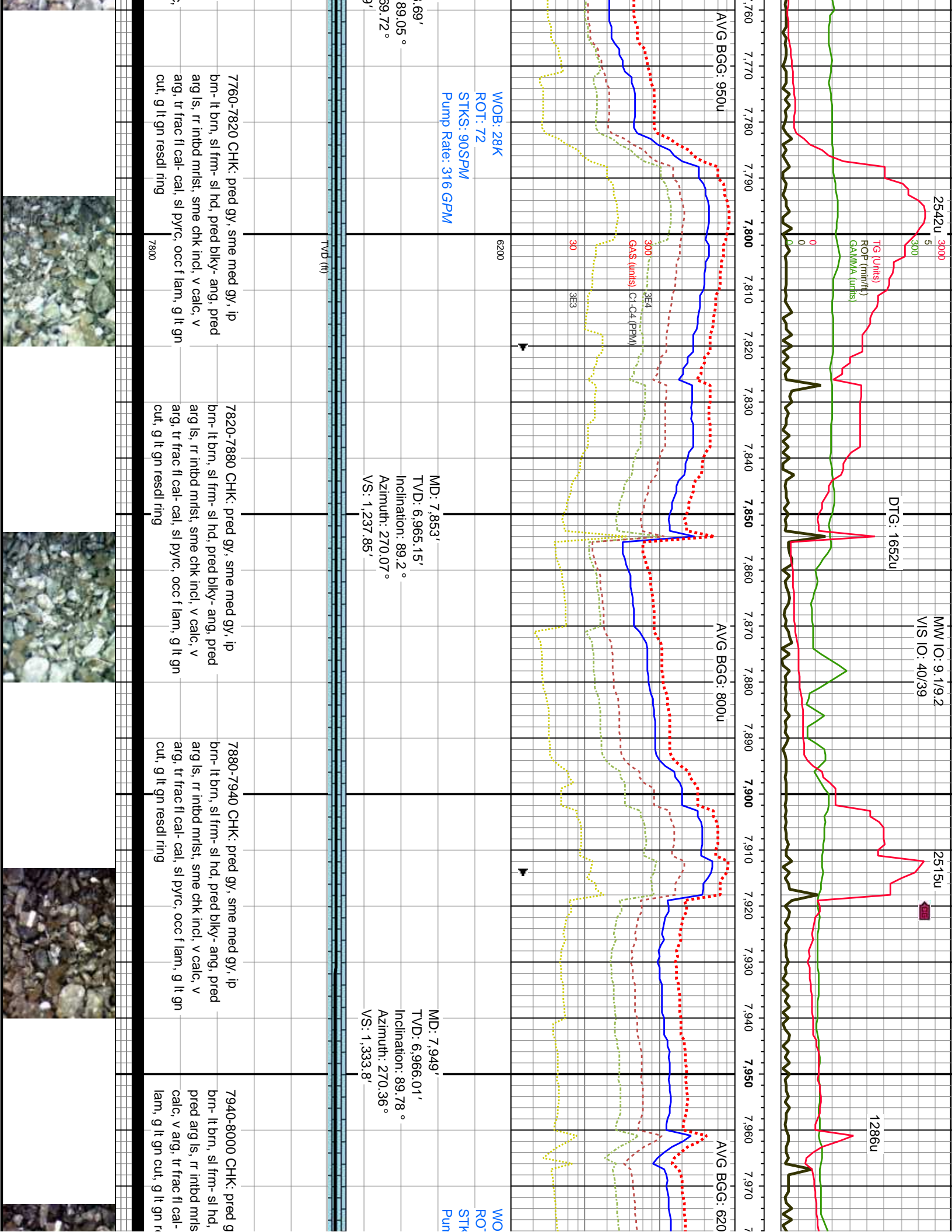
7520-7580 CHK: pred gy- med gy, sl frm- sl hd, pred blk- ang, pred arg ls, r intbd mlst, v calc, v arg, tr frac fl cal, sl pyrc, occ f lam, g lt gn cut, g lt gn resdl ring

7580-7640 CHK: pred gy- med gy, sl frm- sl hd, pred blk- ang, pred arg ls, r intbd mlst, v calc, v arg, tr frac fl cal, sl pyrc, occ f lam, tr bent, g lt gn cut, g lt gn resdl ring

7640-7700 CHK: pred gy- med gy, sl frm- sl hd, pred blk- ang, pred arg ls, r intbd mlst, v calc, v arg, tr frac fl cal, sl pyrc, tr bent, occ f lam, g lt gn cut, g lt gn resdl ring

7700-7760 CHK: pred gy- med gy, ip brn- lt brn, sl frm- sl hd, pred blk- ang, pred arg ls, r intbd mlst, tr chk incl, v calc, v arg, tr frac fl cal, sl pyrc, occ f lam, g lt gn cut, g lt gn resdl ring





2542u
3000
5
300

DTG: 1652u

MW IO: 9.1/9.2
VIS IO: 40/39

2515u

1286u

AVG BGG: 950u

AVG BGG: 800u

AVG BGG: 620

WOB: 28K
ROT: .72

STKS: 90SPM
Pump Rate: 316 GPM

WO

RO
STK
Pun

.69'
89.05 °
89.72 °

MD: 7.853'
TVD: 6,965.15'
Inclination: 89.2 °
Azimuth: 270.07 °
VS: 1,237.85'

MD: 7.949'
TVD: 6,966.01'
Inclination: 89.78 °
Azimuth: 270.36 °
VS: 1,333.8'

7760-7820 CHK: pred gy, sme med gy, ip
brn- lt brn, sl frm- sl hd, pred blk- ang, pred
arg ls, rr inbd mlst, sme chk incl, v calc, v
arg, tr frac fl cal- cal, sl pyrc, occ f lam, g lt gn
cut, g lt gn resdl ring

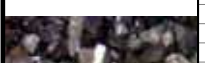
7820-7880 CHK: pred gy, sme med gy, ip
brn- lt brn, sl frm- sl hd, pred blk- ang, pred
arg ls, rr inbd mlst, sme chk incl, v calc, v
arg, tr frac fl cal- cal, sl pyrc, occ f lam, g lt gn
cut, g lt gn resdl ring

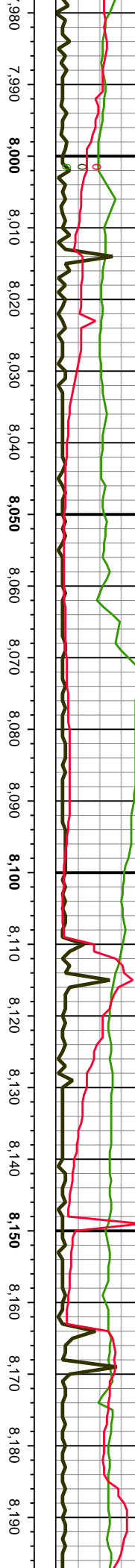
7880-7940 CHK: pred gy, sme med gy, ip
brn- lt brn, sl frm- sl hd, pred blk- ang, pred
arg ls, rr inbd mlst, sme chk incl, v calc, v
arg, tr frac fl cal- cal, sl pyrc, occ f lam, g lt gn
cut, g lt gn resdl ring

7940-8000 CHK: pred g
brn- lt brn, sl frm- sl hd,
pred arg ls, rr inbd mlst
calc, v arg, tr frac fl cal-
lam, g lt gn cut, g lt gn r

TVD (ft)

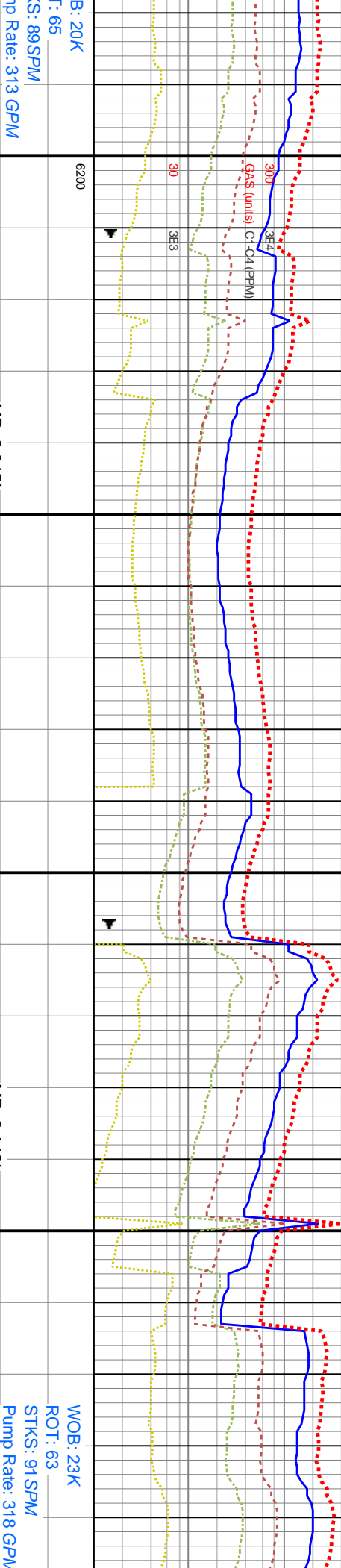
7800





AVG BGG: 200u

AVG BGG: 560u



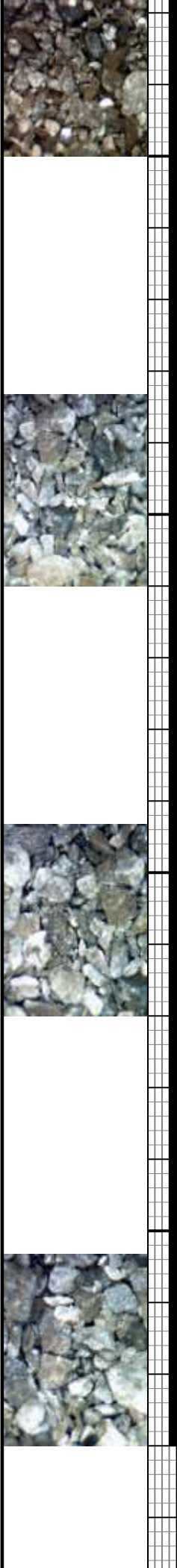
B: 20K
I: 65
STKS: 89SPM
IP Rate: 313 GPM

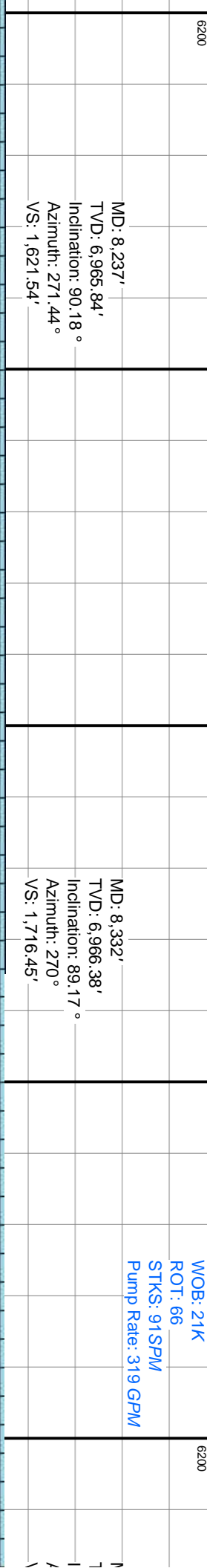
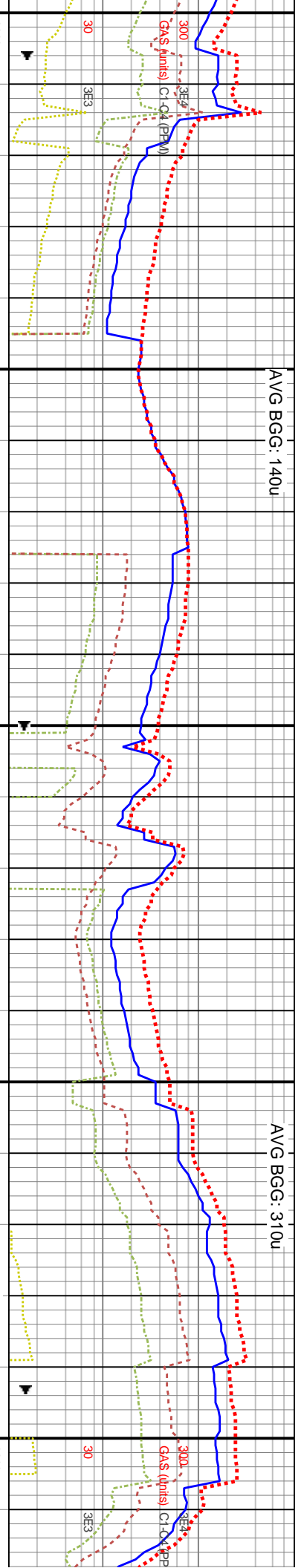
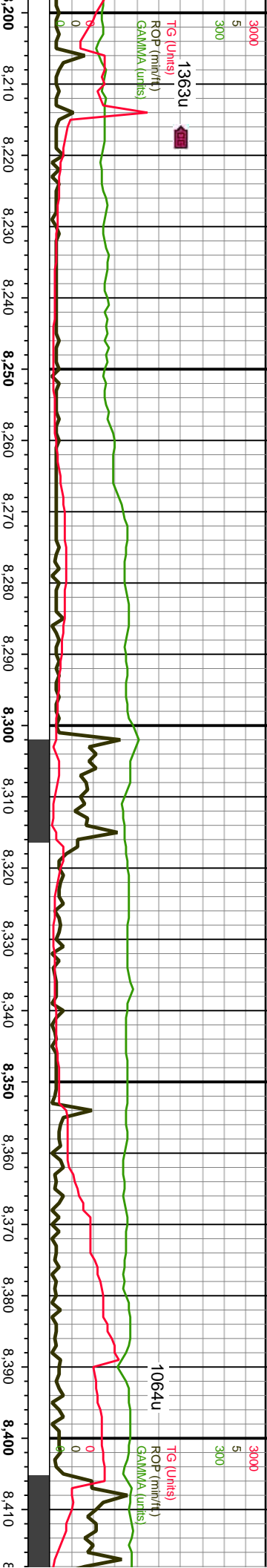
WOB: 23K
ROT: 63
STKS: 91SPM
Pump Rate: 318 GPM

MD: 8.045'
TVD: 6,966.22'
Inclination: 89.97°
Azimuth: 270.57°
VS: 1,429.73'

MD: 8.140'
TVD: 6,966.12'
Inclination: 90.15°
Azimuth: 270.79°
VS: 1,524.65'

8000-8060 CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, occ intbd mlst, sme chk incl, v calc, v arg, tr frac fl cal- cal, sl pyrc, occ flam, g lt gn cut, g lt gn resdl ring	8060-8120 CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, occ intbd mlst, sme chk incl, v calc, v arg, tr frac fl cal- cal, sl pyrc, occ flam, g lt gn cut, g lt gn resdl ring	8120-8180 CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, occ intbd mlst, sme chk incl, v calc, v arg, tr frac fl cal- cal, sl pyrc, occ flam, g lt gn cut, g lt gn resdl ring	8180-8240 CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, occ intbd mlst, sme chk incl, v calc, v arg, tr frac fl cal- cal, sl pyrc, occ flam, g lt gn cut, g lt gn resdl ring
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MD: 8,237'
TVD: 6,965.84'
Inclination: 90.18 °
Azimuth: 271.44 °
VS: 1,621.54'

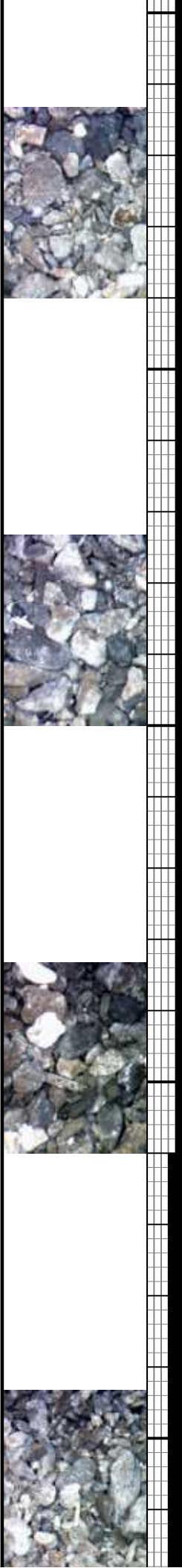
MD: 8,332'
TVD: 6,966.38'
Inclination: 89.17 °
Azimuth: 270 °
VS: 1,716.45'

WOB: 21K
ROT: 66
STKS: 91SPM
Pump Rate: 319 GPM

8240-8300 90% CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, occ intbd mlst, sme chk incl, v calc, v arg, sme free cal, sl pyrc, occ flam, fr- g lt gn cut, g lt gn resdl ring; 10% MRLST: dk gy- blk, ang- plty, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

8300-8360 90% CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, occ intbd mlst, sme chk incl, v calc, v arg, sme free cal, sl pyrc, occ flam, fr- g lt gn cut, g lt gn resdl ring; 10% MRLST: dk gy- blk, ang- plty, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

8360-8420 CHK: pred gy, sme med gy- brn, sl frm- sl hd, pred blk- ang, pred arg ls, sme intbd mlst, sme chk incl, v calc, v arg, sme free cal, sl pyrc, occ flam, fr- g lt gn resdl ring

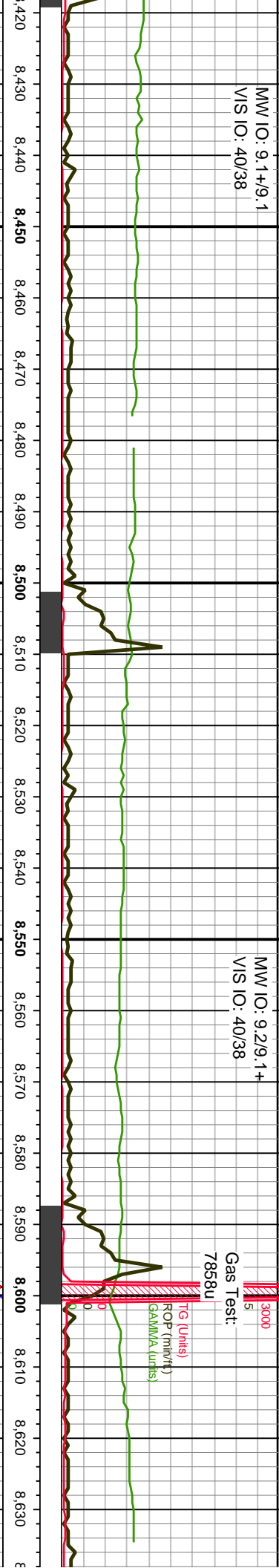


MW IO: 9.1+/9.1
VIS IO: 40/38

MW IO: 9.2/9.1+
VIS IO: 40/38

Gas Test:
7858u

TG (units)
ROP (min/ft)
GAMMA (units)



AVG BGG: 40u

AVG BGG: 30u

AVG

Trouble-shoot gas trap:
Re-run polyflow line

300 3E4
GAS (units) C1-C4 (PPM)
30 3E3

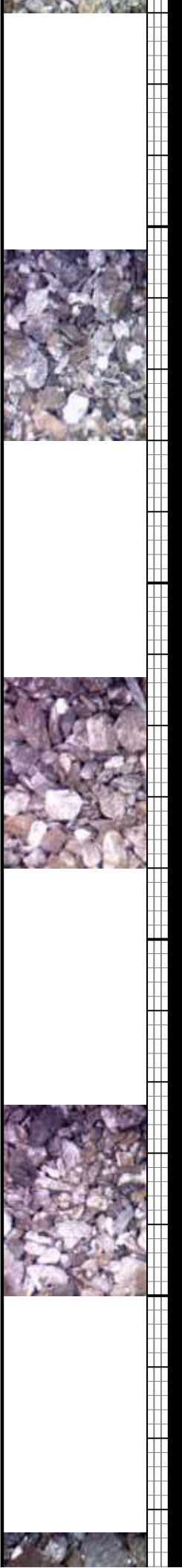
MD: 8.428' VD: 6.967.67' Inclination: 89.29 ° Azimuth: 270.68 ° VS: 1,742.42'	MD: 8.524' TVD: 6.968.98' Inclination: 89.14 ° Azimuth: 268.81 ° VS: 1,838.37'	VS @ 8580' MD WOB: 11.3K ROT: 65 STKS: 96SPM Pump Rate: 338 GPM	MD: 8.619' TVD: 6.969.18' Inclination: 90.62 ° Azimuth: 268.79 ° VS: 1,933.37'
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8420-8480 CHK: pred gy, sme med gy- brn, sl
frm- sl hd, pred blk- ang, pred arg ls, sme
intbd mlst, sme chk incl, v calc, v arg, sme free
cal, sl pyrc, occ flam, fr- g lt gn cut, g lt gn resd
ring

8480-8540 CHK: pred gy, sme med gy- lt gy brn,
sl frm- sl hd, pred sb blk- sb ang, pred arg ls,
sme intbd mlst, tr chk incl, v calc, v arg, sme free
blk- cal, sl pyrc, occ flam, fr- g lt gn cut, g lt gn
resd ring

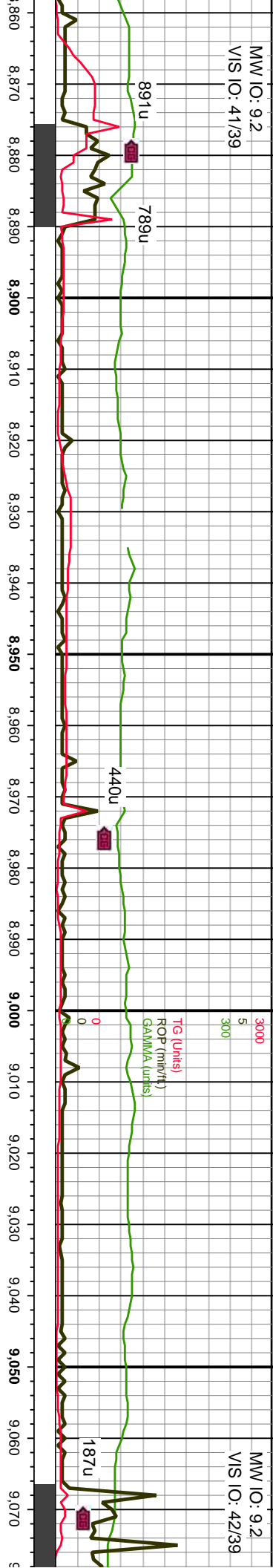
8540-8600 CHK: pred gy, sme med gy- lt gy brn, sl
frm- sl hd, pred sb blk- sb ang, pred arg ls, sme
intbd mlst, tr chk incl, v calc, v arg, sme free blk-
cal, sl pyrc, occ flam, fr- g lt gn cut, g lt gn resd
ring

8600-8660 CHK: pred gy, sme m
frm- sl hd, pred sb blk- sb ang, f
intbd mlst, tr chk incl, v calc, v ar
cal, sl pyrc, occ flam, fr- g lt gn c
ring



MW IO: 9.2
VIS IO: 41/39

MW IO: 9.2
VIS IO: 42/39



AVG BGG: 140u

AVG BGG: 60u

MD: 8,906'
 TVD: 6,964.68'
 Inclination: 90.46 °
 Azimuth: 271.82 °
 VS: 2,220.17'

WOB: 25.7K
 ROT: 66
 STKS: 92SPM
 Pump Rate: 323 GPM

MD: 9,002'
 TVD: 6,963.88'
 Inclination: 90.49 °
 Azimuth: 272.14 °
 VS: 2,315.97'

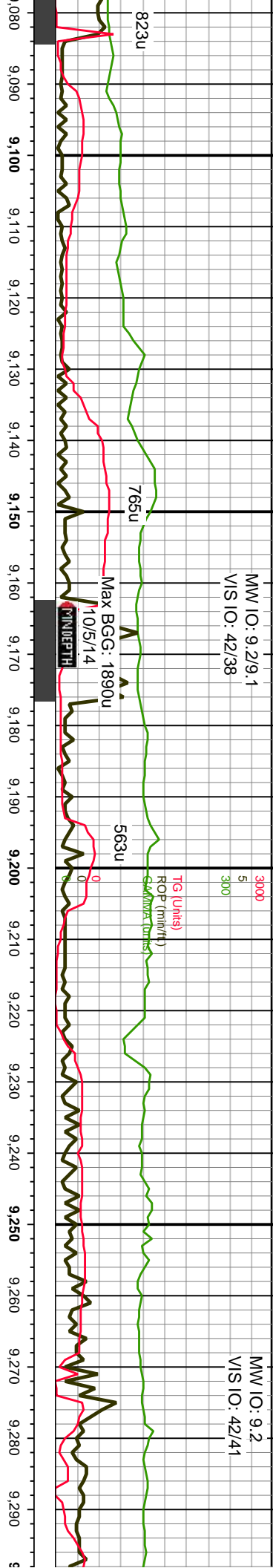
pred med gy, sme lt- med gy brn, v
 -sl hd, pred sb blk- sb ang, pred
 mlst, rr chk incl, v calc, v arg, sme
 cal, sl pyrc, occ f lam, fr lt gn cut, g lt

8900-8960 CHK: pred med gy, sme lt- med gy
 brn, v occ dk gy, sl frm- sl hd, pred sb blk- sb ang,
 pred arg ls, sme intbd mlst, rr chk incl, v calc, v
 arg, sme free cal, tr frac fl cal, sl pyrc, occ f lam, fr
 lt gn cut, g lt gn yel resdl ring

8960-9020 CHK: pred med gy, sme lt- med gy
 brn, v occ dk gy, sl frm- sl hd, pred sb blk- sb ang,
 pred arg ls, sme intbd mlst, rr chk incl, v calc, v
 arg, sme free cal, tr frac fl cal, sl pyrc, occ f lam, fr
 lt gn cut, g lt gn yel resdl ring

9020-9080 CHK: pred gy, sme lt- med gy brn, v occ
 dk gy, sl frm- sl hd, pred sb blk- sb ang, pred arg
 ls, sme intbd mlst, rr chk incl, v calc, v arg, scat
 free cal, tr frac fl cal, sl pyrc, occ f lam, fr lt gn cut, g
 lt gn yel resdl ring





MD: 9,097'
TVD: 6,964.86'
Inclination: 88.33 °
Azimuth: 271.52 °
VS: 2,410.79'

MD: 9,193'
TVD: 6,966.93'
Inclination: 89.2 °
Azimuth: 270.46 °
VS: 2,506.66'

WOB: 23.1K
ROT: 78
STKS: 86SPM
Pump Rate: 302 GPM

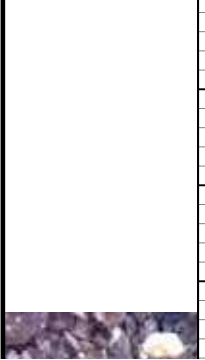
MD: 9,290'
TVD: 6,968.36'
Inclination: 89.11 °
Azimuth: 270.23 °
VS: 2,603.59'

9080-9140 CHK: pred med gy, dk gy, sme lt- med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mrlst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr lt gn cut, g lt gn yel resdl ring

9140-9200 90% CHK: pred med gy, dk gy, sme lt- med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mrlst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr lt gn cut, g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

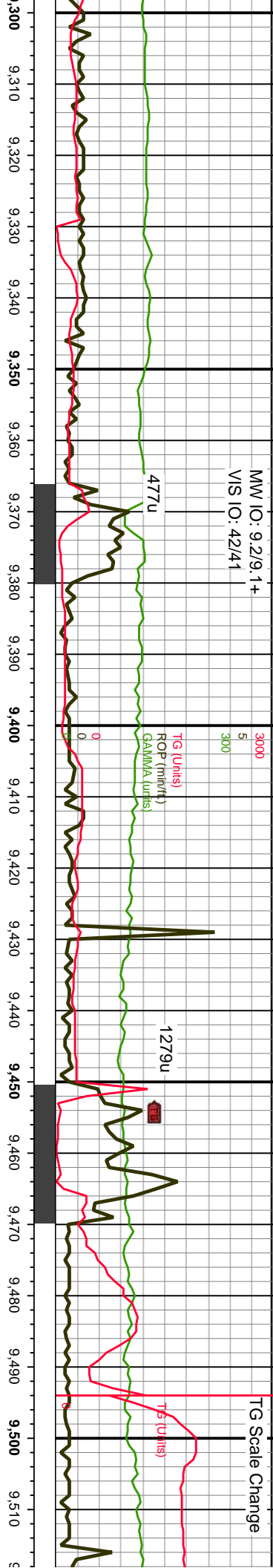
9200-9260 90% CHK: pred med gy, dk gy, sme lt- med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mrlst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr lt gn cut, g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

9260-9320 90% CHK: pred med gy, dk gy, sme lt- med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mrlst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr lt gn cut, g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal



MW IO: 9.219, 1+
VIS IO: 42/41

TG Scale Change

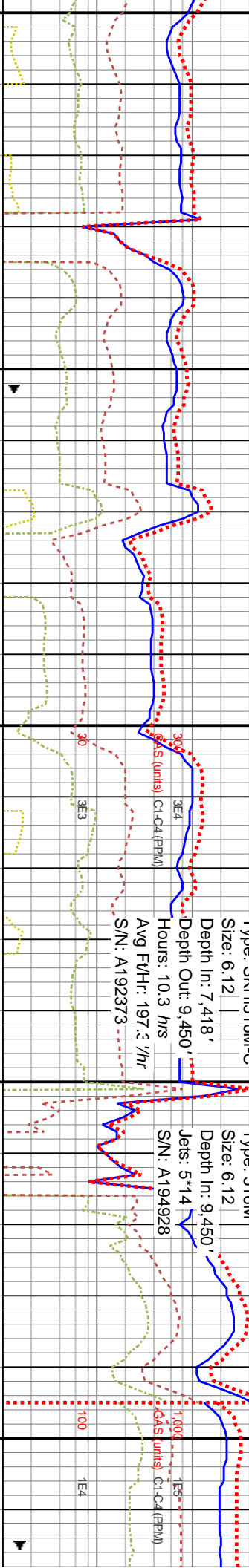


AVG BGG: 240u

AVG BGG: 230u

AVG BGG: 1490u

TG & Chromat Scale



MD: 9.389'
TVD: 6.969.42'
Inclination: 89.66 °
Azimuth: 268.28 °
VS: 2.702.57'

6200
WOB: 13.1K
ROT: 63
STKS: 87SPM
Pump Rate: 307 GPM

DP @ 9.450'

MD: 9.453'
TVD: 6.969.8'
Inclination: 89.66 °
Azimuth: 268.36 °
VS: 2.766.57'

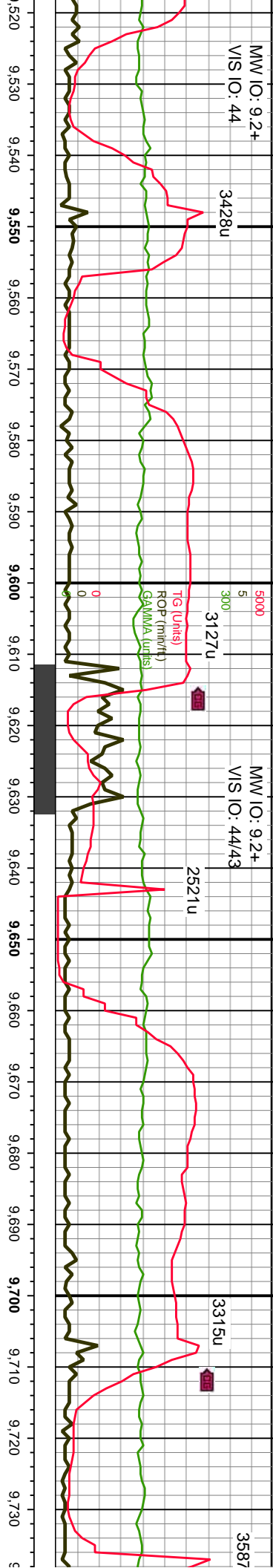
9320-9380 90% CHK: pred med gy, dk gy, sme med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr- g gn yel cut, g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

9380-9440 90% CHK: pred med gy, dk gy, sme med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr- g gn yel cut, f- g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

9440-9500 90% CHK: pred med gy, dk gy, sme med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr- g gn yel cut, f- g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal

9500-9560 90% CHK: pred med gy, dk gy, sme med gy brn, sl frm- sl hd, pred sb blk- sb ang, pred arg ls, sme inbd mst, sme amt chk incl, v calc, v arg, scat free cal, tr frac fl cal, tr pyrc bent, occ f lam, fr- g gn yel cut, f- g lt gn yel resdl ring: 10% MRLST: dk gy- occ blk, ang- pily, tr split, sl frm, mod calc, v arg, sl pyrc, lith frags, abnt cal





Change
AVG BGG: 1980u
AVG BGG: 1830u

MD: 9,549'
TVD: 6,970.35'
Inclination: 89.69 °
Azimuth: 269.59 °
VS: 2,862.56'

WOB: 16.7K
ROT: 63
STKS: 92SPM
Pump Rate: 323 GPM

6200

MD: 9,644'
TVD: 6,970.53'
Inclination: 90.09 °
Azimuth: 270.63 °
VS: 2,957.51'

MD: 9,740'
TVD: 6,970.53'
Inclination: 90.09 °
Azimuth: 270.63 °
VS: 3,052.51'

% CHK: pred med- dk gy, occ lt
pred blk- ang, pred arg ls, sme
cont chk incl, scat free chk, v calc, v
cal, tr frac fl cal, tr pyrc bent, occ f
yel cut, f- g bl wh resdl ring; 10%
pyrc, lith frags, abnt cal

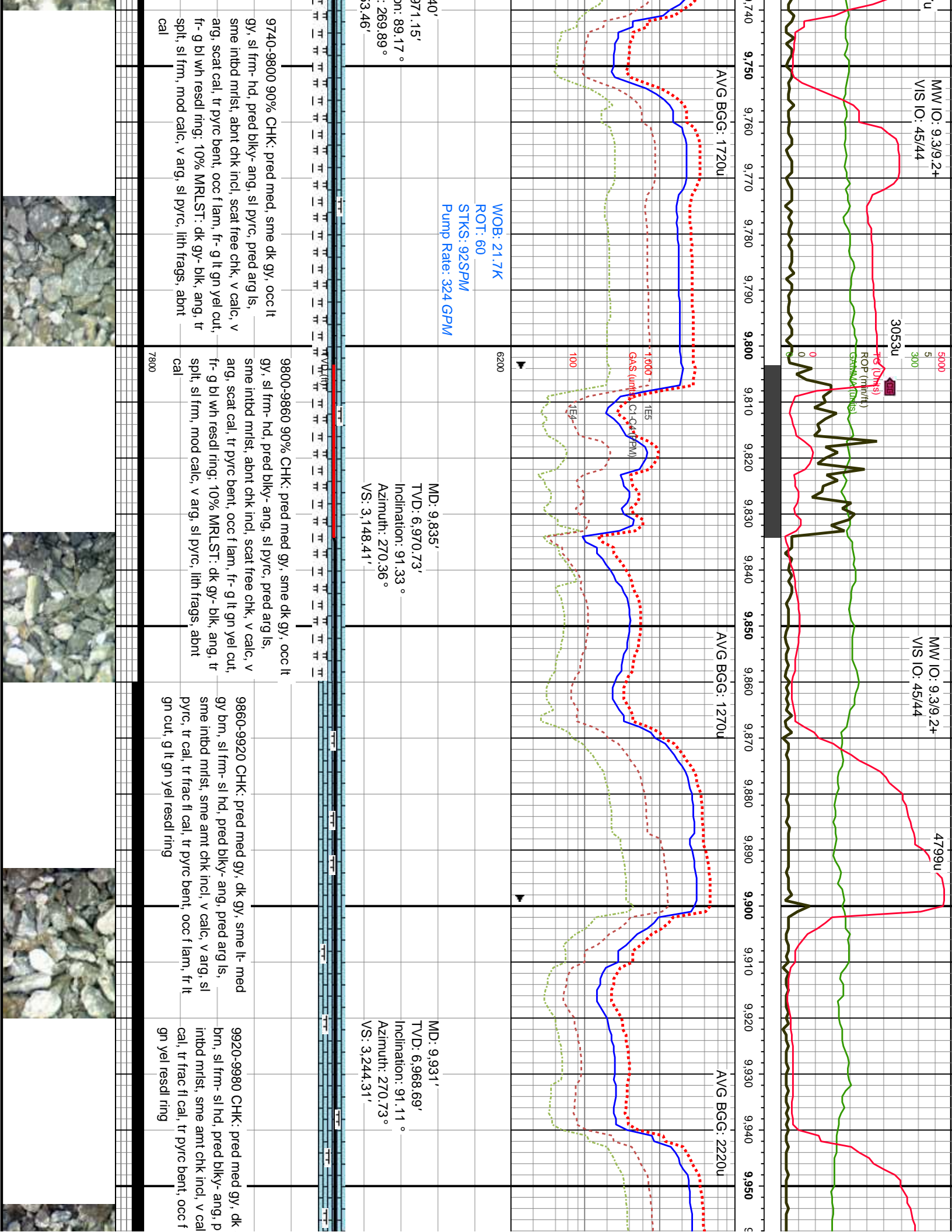
9560-9620 90% CHK: pred med- dk gy, occ lt gy,
sl frm- hd, pred blk- ang, pred arg ls, sme inbnd
mst, abnt chk incl, scat free chk, v calc, v arg,
scat tab cal, tr frac fl cal, tr pyrc bent, occ f lam, fr-
g lt gn yel cut, f- g bl wh resdl ring; 10% MRLST:
dk gy- blk, ang- pty, tr spl, sl frm, mod calc, v arg,
sl pyrc, lith frags, abnt cal

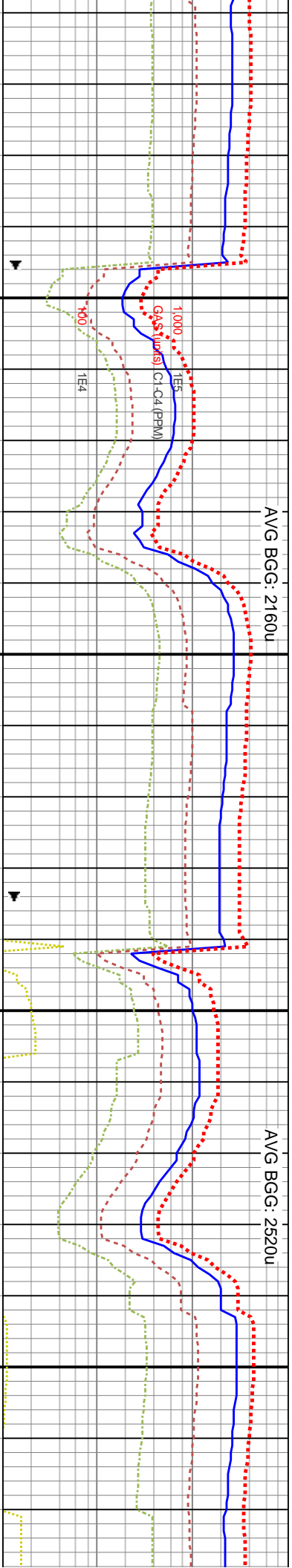
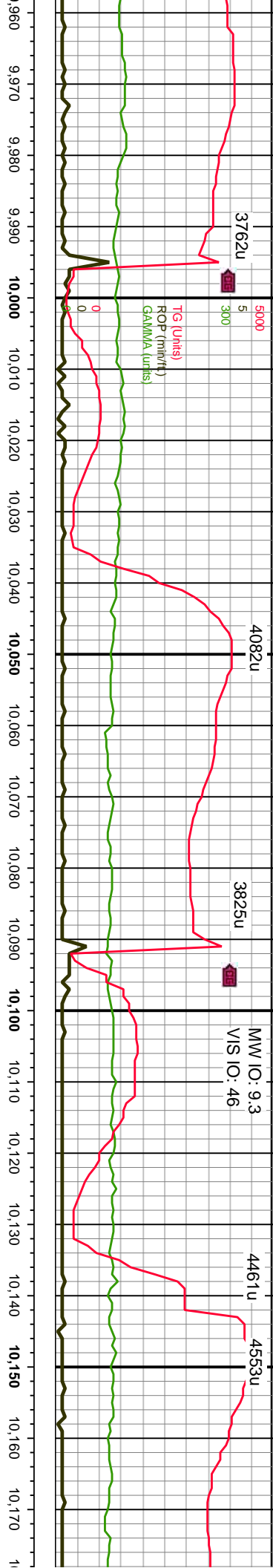
9620-9680 90% CHK: pred med, sme dk gy, occ lt
gy, sl frm- hd, pred blk- ang, sl pyrc, pred arg ls,
sme inbnd mst, abnt chk incl, scat free chk, v calc,
v arg, scat cal, tr pyrc bent, occ f lam, fr- g lt gn yel
cut, fr- g bl wh resdl ring; 10% MRLST: dk gy- blk,
ang, tr spl, sl frm, mod calc, v arg, sl pyrc, lith frags,
abnt cal

9680-9740 90% CHK: pred med, sme dk gy, occ lt
gy, sl frm- hd, pred blk- ang, sl pyrc, pred arg ls,
sme inbnd mst, abnt chk incl, scat free chk, v calc,
v arg, scat cal, tr pyrc bent, occ f lam, fr- g lt gn yel
cut, fr- g bl wh resdl ring; 10% MRLST: dk gy- blk,
ang, tr spl, sl frm, mod calc, v arg, sl pyrc, lith
frags, abnt cal

7800







WOB: 15.3K
 ROT: 63
 STKS: 93SPM
 Pump Rate: 326 GPM

MD: 10,027'
 TVD: 6,967.37'
 Inclination: 90.46 °
 Azimuth: 271.41 °
 VS: 3,340.2'

AVG BGG: 2160u

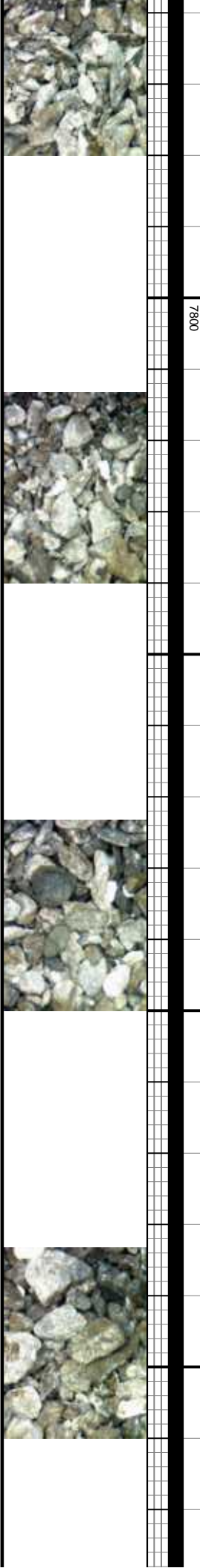
AVG BGG: 2520u

9980-10040 CHK: pred med gy, dk gy, sme lt- med gy brn, sl frm- sl hd, pred blk- ang, pred arg ls, sme intbd mlst, sme amt chk incl, v calc, v arg, sl pyrc, tr cal, tr frac fl cal, tr pyrc bent, occ f lam, fr lt gn cut, g lt gn yel resdl ring

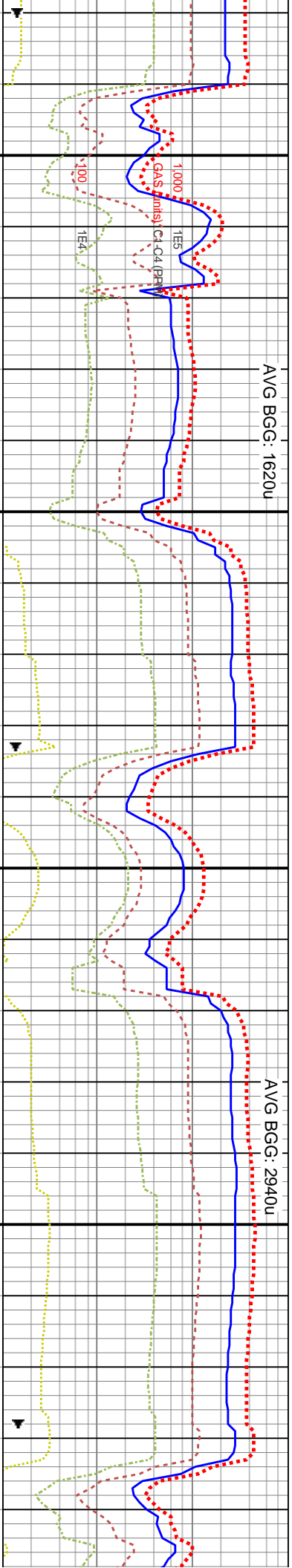
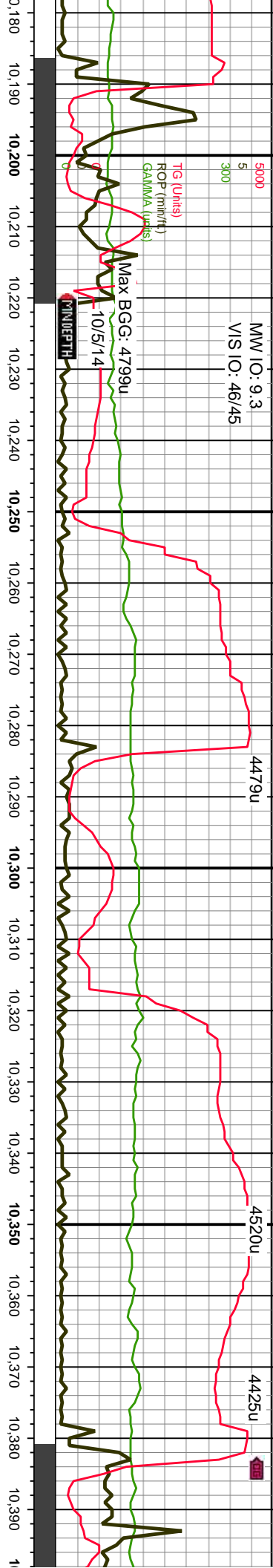
10040-10100 CHK: pred med gy, sme dk gy, occ lt- med gy brn, sl frm- sl hd, pred blk- sb ang, pred arg ls, sme intbd mlst, occ chk incl, v calc, v arg, tr pyr, tr tab cal, rr frac fl cal, occ f lam, fr lt gn cut, g lt bl wh resdl ring

10100-10160 CHK: pred med gy, sme dk gy, occ lt- med gy brn, sl frm- sl hd, pred blk- sb ang, pred arg ls, sme intbd mlst, occ chk incl, v calc, v arg, tr pyr, tr tab cal, rr frac fl cal, occ f lam, fr lt gn cut, g lt bl wh resdl ring

10160-10220 CHK: pred med gy, sme dk gy, occ lt- med gy brn, sl frm- sl hd, pred blk- sb ang, pred arg ls, sme intbd mlst, occ chk incl, v calc, v arg, tr pyr, tr tab cal, rr frac fl cal, occ f lam, fr lt gn cut, g lt bl wh resdl ring



WC
 RO
 STI
 Pur



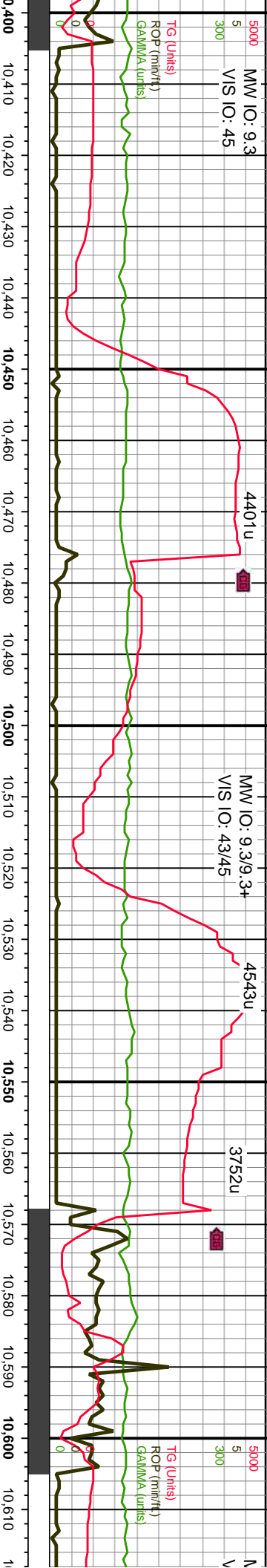
WB: 71.4K
 T: 4-41
 SS: 93SPM
 Pump Rate: 328 GPM
 MD: 10,219'
 TVD: 6,965.76'
 Inclination: 91.17°
 Azimuth: 272.23°
 VS: 3,531.84'

MD: 10,314'
 TVD: 6,964.2'
 Inclination: 90.71°
 Azimuth: 272.27°
 VS: 3,626.61'

MD: 10,219'
 TVD: 6,965.76'
 Inclination: 91.17°
 Azimuth: 272.23°
 VS: 3,531.84'

CHK: pred lt- med gy, sme dk gy, brn, sl frm- hd, pred blk- ang, pred med gy brn, occ dk gy- blk, sl frm- hd, pred blk- ang, pred arg ls, sme intbd mrlst, occ chk incl, v calc, v arg, tr pyr, scat tab cal, rr frac fl cal, occ f lam, fr lt gn cut, g lt bl wh resdl ring
 10220-10280 CHK: pred lt- med gy, sme dk gy, occ lt- med gy brn, sl frm- hd, pred blk- ang, pred arg ls, sme intbd mrlst, occ chk incl, v calc, v arg, tr pyr, scat tab cal, rr frac fl cal, occ f lam, fr lt gn cut, g lt bl wh resdl ring
 10280-10340 CHK: pred lt- med gy, sme dk gy, occ lt- med gy brn, sl frm- hd, pred blk- ang, pred arg ls, sme intbd mrlst, occ chk incl, v calc, v arg, tr pyr, scat tab cal, rr frac fl cal, occ f lam, fr lt gn cut, g lt bl wh resdl ring
 10340-10400 CHK: pred med gy, sme dk gy, occ lt- med gy brn, occ dk gy- blk, sl frm- hd, pred blk- ang, pred arg ls, sme intbd mrlst, occ chk incl, v calc, v arg, tr pyr, scat cal, rr frac fl cal, occ f lam, fr lt gn cut, fr- g lt gn wh resdl ring





5000
5
300

MW IO: 9.3
VIS IO: 45

MW IO: 9.3/9.3+
VIS IO: 43/45

5000
5
300

MW IO: 9.3/9.3+
VIS IO: 43/45

AVG BGG: 1460u

AVG BGG: 2500u

AVG

MD: 10,410'
TVD: 6,964.1'
Inclination: 89.41 °
Azimuth: 270.07 °
VS: 3,722.48'

MD: 10,502'
TVD: 6,965.24'
Inclination: 89.17 °
Azimuth: 271.99 °
VS: 3,814.37'

MD: 10,594'
TVD: 6,965.43'
Inclination: 90.59 °
Azimuth: 270.99 °
VS: 3,906.23'

WOB: 16.1K
ROT: 63
STKS: 94SPM
Pump Rate: 330

10400-10460 CHK: pred med gy, sme dk gy, occ lt-med gy brn, occ dk gy- blk, sl frm- hd, pred blk-ang, pred arg ls, sme intbd mrst, occ chk incl, v calc, v arg, tr pyr, scat cal, rr frac fl cal, occ f lam, fr lt gn cut, fr- g lt gn wh resdl ring

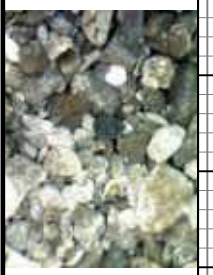
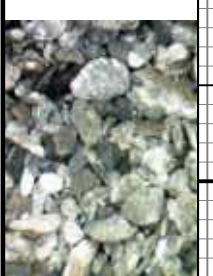
10460-10520 CHK: pred lt- med gy, sme dk gy, occ lt- med gy brn, sl frm- hd, pred blk-ang, pred arg ls, sme intbd mrst, occ chk incl, v calc, v arg, occ calc, tr pyr, rr frac fl cal, occ f lam, fr lt gn cut, fr- g lt bl wh resdl ring

10520-10580 CHK: pred lt- med gy, sme dk gy, occ lt- med gy brn, sl frm- hd, pred blk-ang, pred arg ls, sme intbd mrst, occ chk incl, v calc, v arg, occ calc, tr pyr, rr frac fl cal, occ f lam, fr lt gn cut, fr- g lt bl wh resdl ring

10580-10640 CHK: pred lt- med gy, sme dk gy, occ lt- med gy brn, sl frm- hd, pred blk-ang, pred arg ls, sme intbd mrst, scat fr incl, v calc, v arg, occ calc, tr pyr, rr frac fl cal, occ f lam, fr lt gn cut, fr- g lt bl wh resdl ring

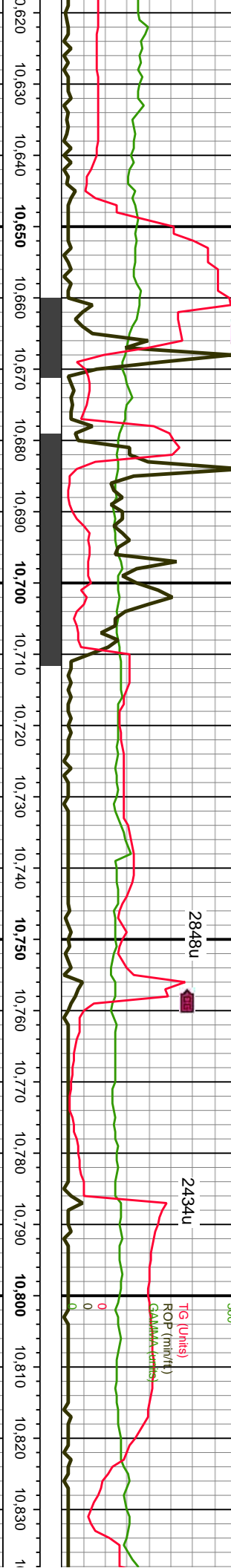
7800

7800



MW IO: 9.3/9.3+
 VIS IO: 42/44

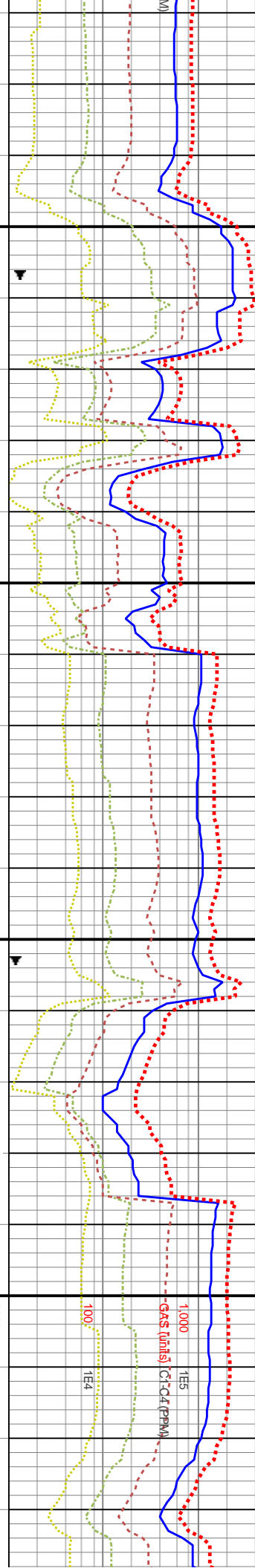
MW IO: 9.3/9.2
 VIS IO: 43



BGG: 860u

AVG BGG: 1120u

AVG BGG: 1400u



GPM

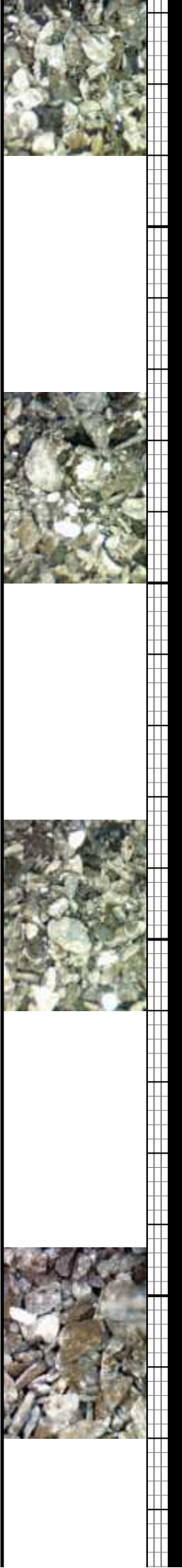
MD: 10,686'
 TVD: 6,964.64'
 Inclination: 90.4 °
 Azimuth: 270.19 °
 VS: 3,998.16'

MD: 10,778'
 TVD: 6,963.93'
 Inclination: 90.56 °
 Azimuth: 268.54 °
 VS: 4,160.11'

10640-10700 CHK: pred lt- med gy, sme dk gy, occ gy brn, sl frm- hd, pred blk- ang, sme pty- split, pred arg ls, sme intbd mrst, scat free chk, occ chk incl, v calc, v arg, occ calc, tr pyr, occ f lam, fr lt gn cut, fr- g lt bl wh resdl ring

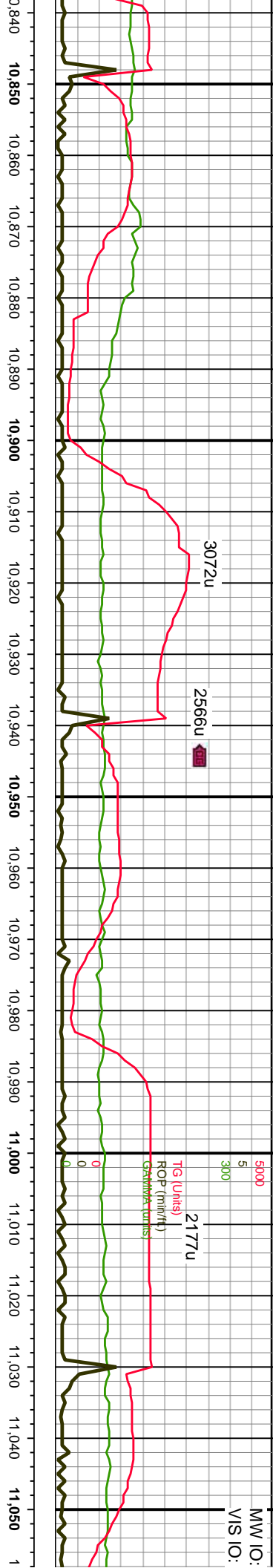
10700-10760 CHK: pred lt- med gy, sme dk gy, occ lt- med gy brn, sl frm- hd, pred blk- ang, sme pty, pred arg ls, sme intbd mrst, scat free chk, occ chk incl, v calc, v arg, occ calc, tr pyr, occ f lam, fr lt gn cut, fr- g lt bl wh resdl ring

10760-10820 CHK: pred lt gy- gy, sme med gy, occ lt- med brn, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, tr intbd mrst, chk incl, v calc, v arg, sme cal- tab cal- frac fl cal, tr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring



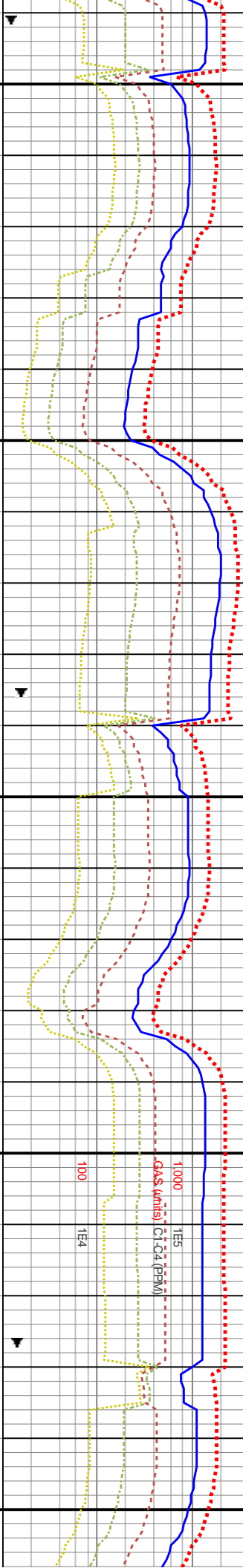
DP @ 10,800'
 7800

MW IO:
VIS IO:



AVG BGG: 1520u

AVG BGG: 1600u



WOB: 27K
ROT: 63
STKS: 93SPM
Pump Rate: 326 GPM

MD: 10,871'
TVD: 6,963.07'
Inclination: 90.5 °
Azimuth: 268.97°
VS: 4,253.1'

MD: 10,963'
TVD: 6,962.57'
Inclination: 90.12 °
Azimuth: 269.1 °
VS: 4,345.09'

MD: 11,055'
TVD: 6,962.6'
Inclination: 8 °
Azimuth: 269 °
VS: 4,437.08'

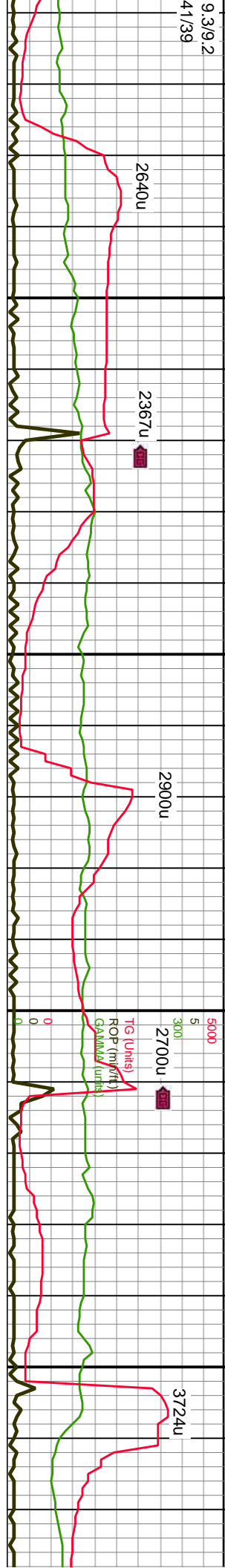
CHK: pred lt gy- gy, sme med gy,
rn, sl frm- sl hd, pred blk- ang, pred
intbd mlst, chk incl, v calc, v arg,
cal- frac fl cal, rr pyr, occ f lam, fr lt gn
resdl ring

10880-10940 CHK: pred lt gy- gy, sme med gy,
occ lt- med brn, sl frm- sl hd, pred blk- ang, pred
sl- v arg ls, tr intbd mlst, chk incl, v calc, v arg,
sme cal- tab cal- frac fl cal, rr pyr, occ f lam, fr lt
gn cut, g lt bl wh resdl ring

10940-11000 CHK: pred lt gy- gy, sme med gy,
occ brn, sl frm- sl hd, pred blk- ang, pred sl- v
arg ls, tr intbd mlst, chk incl, v calc, sme cal-
tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh
resdl ring

11000-11060 CHK: pred lt gy- gy, sme med gy,
occ brn, sl frm- sl hd, pred blk- ang, pred sl- v
arg ls, tr intbd mlst, chk incl, v calc, sme cal- tab
cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl
ring

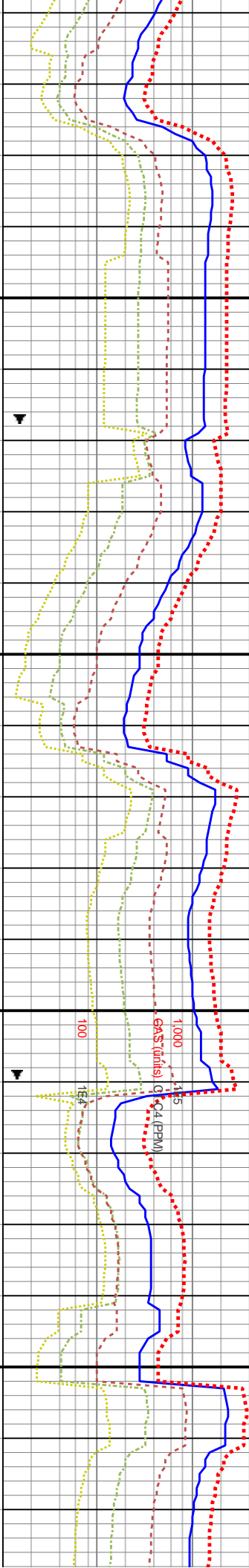




AVG BGG: 1540u

AVG BGG: 1300u

AVG BGG: 1470u



WOB: 31K
 ROT: 64
 STKS: 89SPM
 Pump Rate: 314 GPM

MD: 11,147'
 TVD: 6,963.51'
 Inclination: 89.01°
 Azimuth: 269.27°
 VS: 4,529.06'

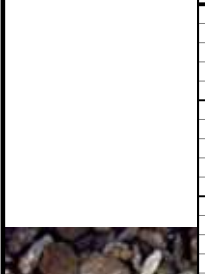
MD: 11,239'
 TVD: 6,964.58'
 Inclination: 89.66°
 Azimuth: 270.39°
 VS: 4,621.02'

11060-11120 CHK: pred lt gy- gy, sme med gy, occ brn, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, fr intbd mrtst, chk incl, v calc, sme cal- tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring

11120-11180 CHK: pred med gy- gy, occ brn- lt gy, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, sme intbd mrtst, abnt chk incl, v calc, sme cal- tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring

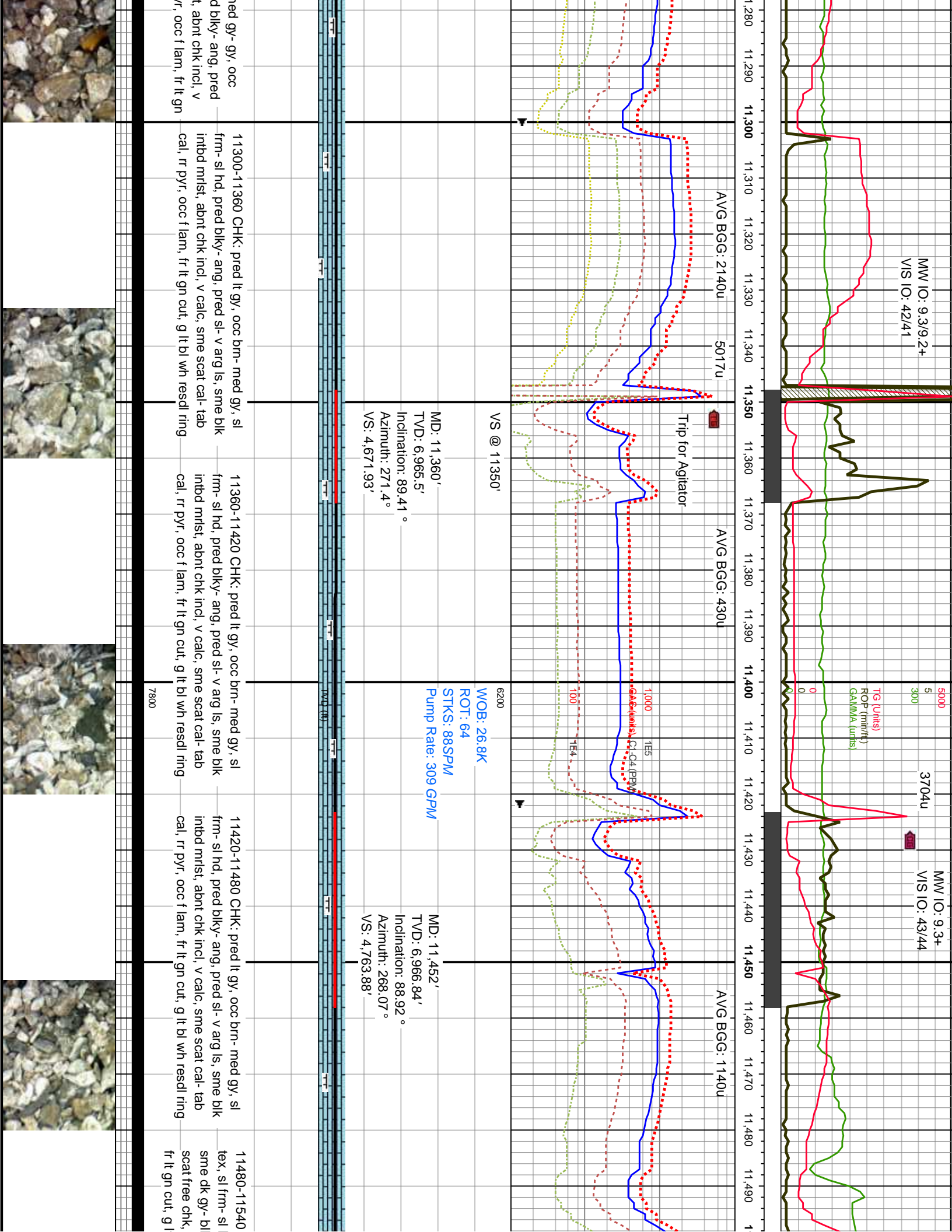
11180-11240 CHK: pred med gy- gy, occ brn- lt gy, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, sme intbd mrtst, abnt chk incl, v calc, sme cal- tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring

11240-11300 CHK: pred n brn- lt gy, sl frm- sl hd, pre sl- v arg ls, sme intbd mrtst, cal, sme cal- tab cal, rr pyr, cut, g lt bl wh resdl ring



7800

6200



MW IO: 9.3/9.2+
VIS IO: 42/41

3704u
MW IO: 9.3+
VIS IO: 43/44

TG (Units)
ROP (min/ft)
GAMMA (Units)

AVG BGG: 2140u

AVG BGG: 430u

AVG BGG: 1140u

Trip for Agiator

1000
1155
GAS (units) C/Cd (PPM)

100

VS @ 11350'

6200

WOB: 26.8K
ROT: 64
STKS: 88SPM
Pump Rate: 309 GPM

MD: 11,452'
TVD: 6,966.84'
Inclination: 88.92°
Azimuth: 268.07°
VS: 4,763.88'

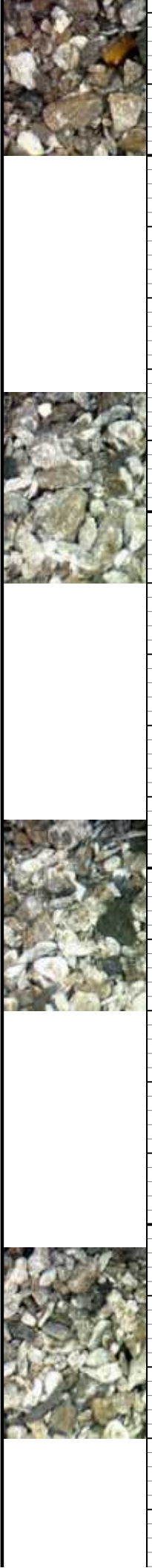
11300-11360 CHK: pred lt gy, occ brn- med gy, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, sme blk intbd mrist, abnt chk incl, v calc, sme scat cal- tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring

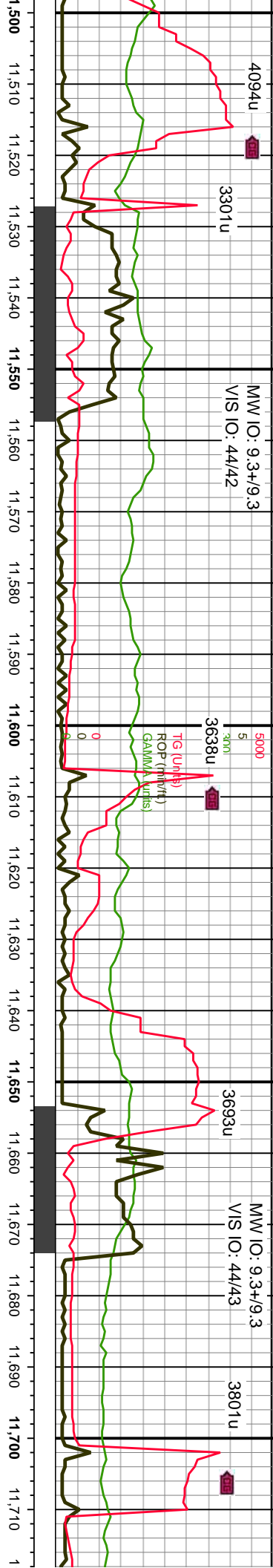
11360-11420 CHK: pred lt gy, occ brn- med gy, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, sme blk intbd mrist, abnt chk incl, v calc, sme scat cal- tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring

11420-11480 CHK: pred lt gy, occ brn- med gy, sl frm- sl hd, pred blk- ang, pred sl- v arg ls, sme blk intbd mrist, abnt chk incl, v calc, sme scat cal- tab cal, rr pyr, occ f lam, fr lt gn cut, g lt bl wh resdl ring

11480-11540
tex, sl frm- sl sme dk gy- blk scat free chk, fr lt gn cut, g l

pred gy- gy, occ d blk- ang, pred t, abnt chk incl, v r, occ f lam, fr lt gn





MW IO: 9.3+/9.3
VIS IO: 44/42

MW IO: 9.3+/9.3
VIS IO: 44/43

MW IO: 9.3+/9.3
VIS IO: 44/43

MW IO: 9.3+/9.3
VIS IO: 44/43

MW IO: 9.3+/9.3
VIS IO: 44/43

MD: 11,544'
TVD: 6,967.41'
Inclination: 90.37°
Azimuth: 267.06°
VS: 4,855.87'

WOB: 26.4K
ROT: 64
STKS: 88SPM
Pump Rate: 309 GPM

MD: 11,636'
TVD: 6,966.03'
Inclination: 91.35°
Azimuth: 267.79°
VS: 4,947.84'

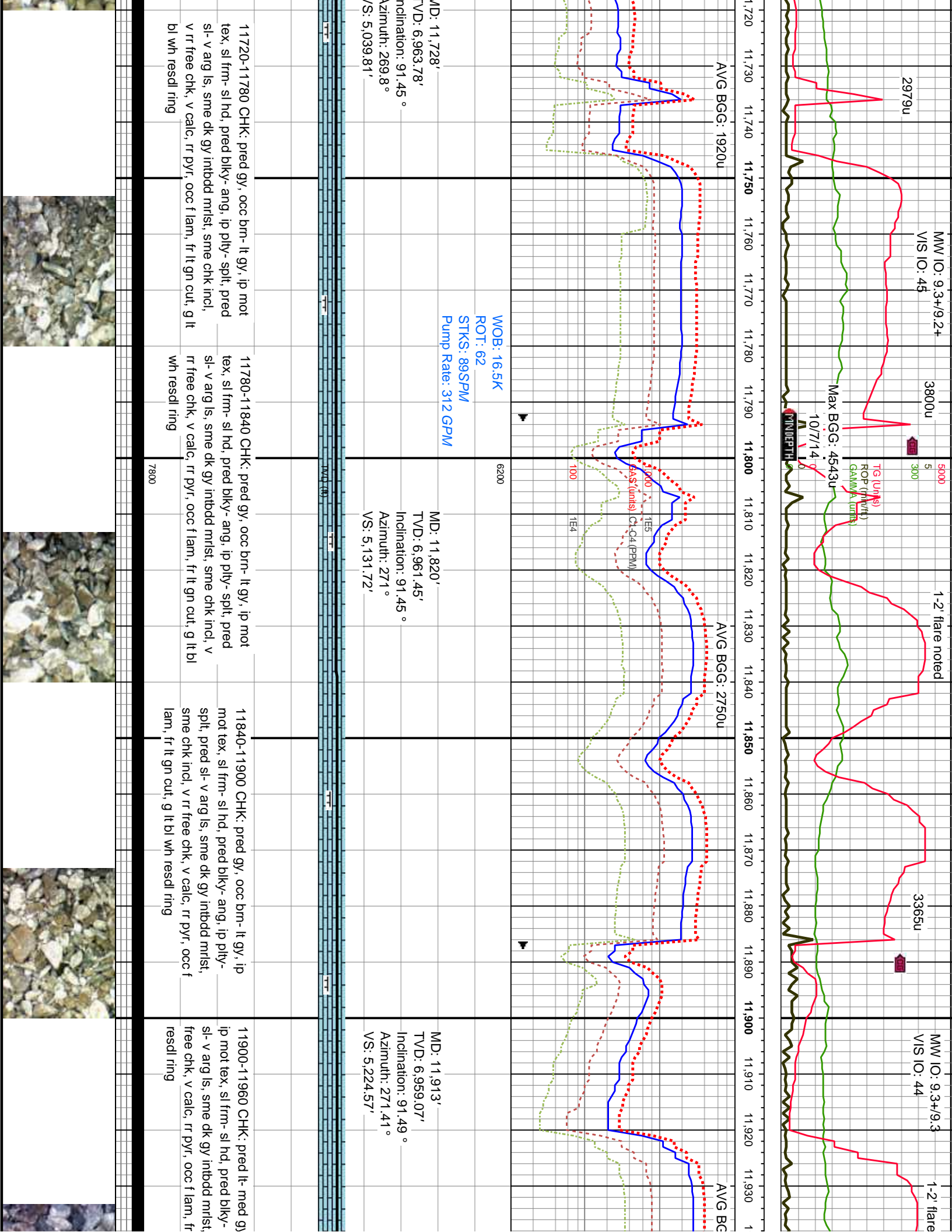
CHK: pred gy, occ brn- lt gy, ip mot
pred blk- ang, pred sl- v arg ls,
k intbdd mrlst, sme amt chk incl,
v calc, tr frac fl cal, rr pyr, occ f lam,
fr lt wh resdl ring

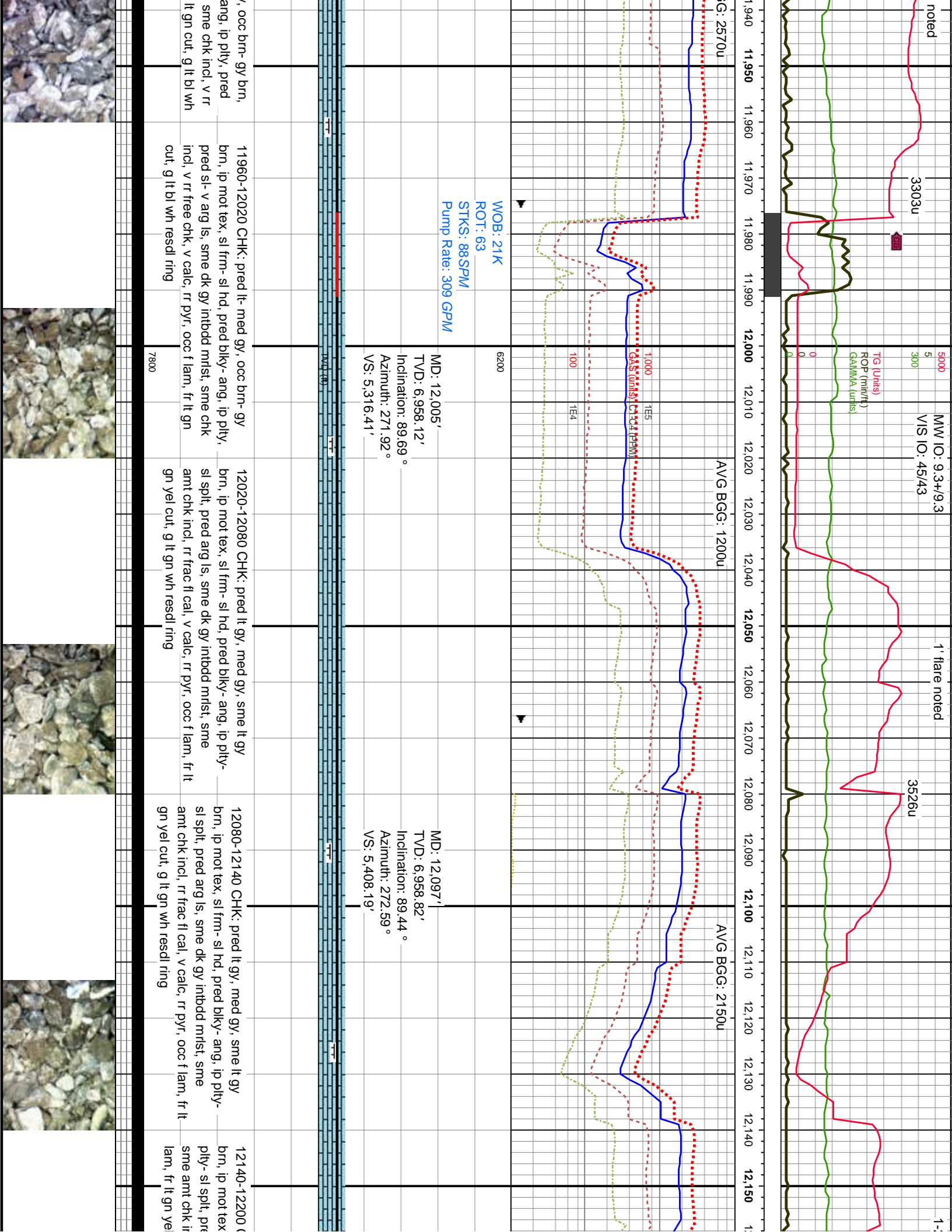
11540-11600 CHK: pred gy, occ brn- lt gy, ip mot
tex: sl frm- sl hd, pred blk- ang, pred sl- v arg ls,
sme dk gy- blk intbdd mrlst, sme amt chk incl,
scat free chk, v calc, tr frac fl cal, rr pyr, occ f lam,
fr lt gn cut, g lt bl wh resdl ring

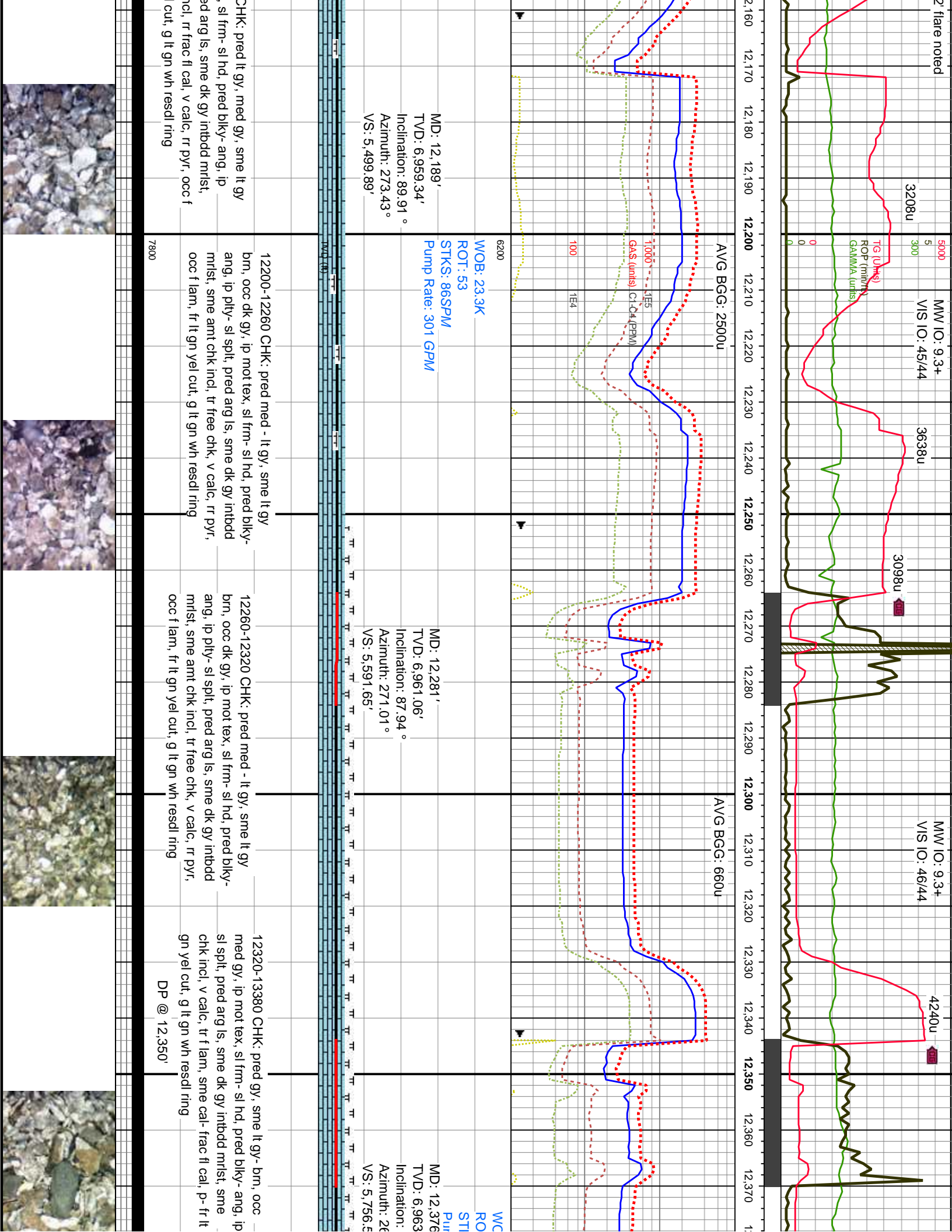
11600-11660 CHK: pred gy, occ brn- lt gy, ip mot
tex: sl frm- sl hd, pred blk- ang, pred sl- v arg ls,
sme dk gy- blk intbdd mrlst, sme amt chk incl, scat
free chk, v calc, tr frac fl cal, rr pyr, occ f lam, fr lt gn
cut, g lt bl wh resdl ring

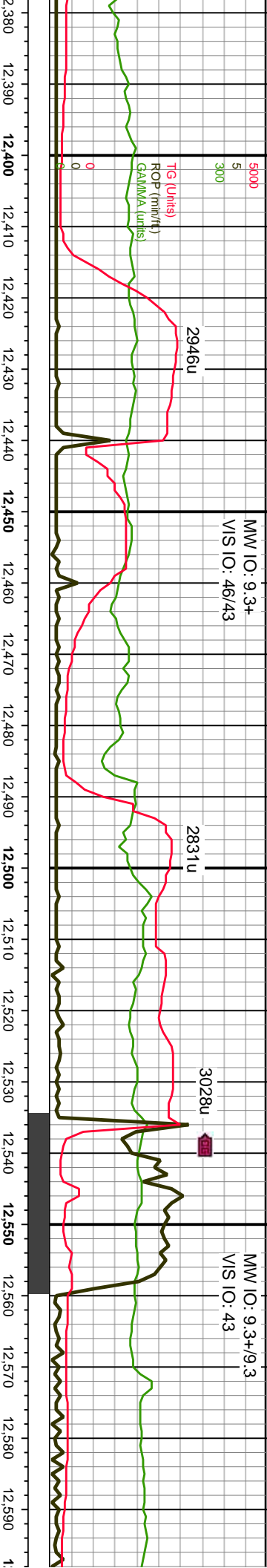
11660-11720 CHK: pred gy, occ brn- lt gy, ip mot
tex: sl frm- sl hd, pred blk- ang, ip ply- splt,
pred sl- v arg ls, sme dk gy intbdd mrlst, sme
chk incl, v rr free chk, v calc, rr pyr, occ f lam, fr lt
gn cut, g lt bl wh resdl ring











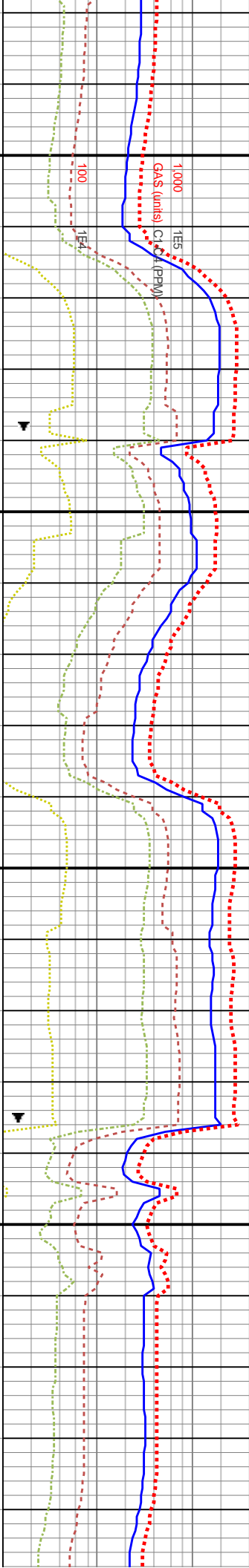
MW IO: 9.3+
VIS IO: 46/43

MW IO: 9.3+/9.3
VIS IO: 43

AVG BGG: 890u

AVG BGG: 1670u

AVG BGG: 1010u



WB: 26K
T: 62
KS: 85SPM
Pump Rate: 300 GPM

MOB: 26K
ROT: 57
STKS: 81SPM
Pump Rate: 286 GPM

83'
88.8°
88.53°
5'

MD: 12,472'
TVD: 6,966.08'
Inclination: 88.52°
Azimuth: 268.23°
VS: 5,852.52'

MD: 12,568'
TVD: 6,967.81'
Inclination: 89.41°
Azimuth: 269.7°
VS: 5,948.5'

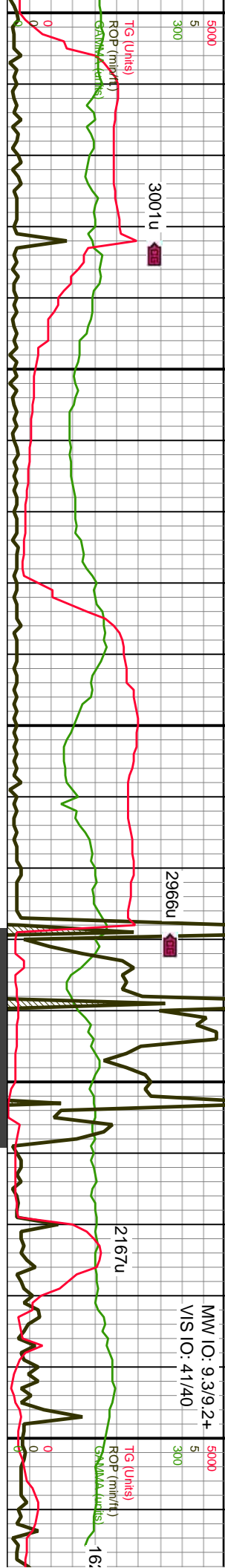
13380-13440 CHK: pred gy, sme lt gy- brn, occ med gy, ip mot tex, sl frm- sl hd, pred blk- ang, ip sl spl, pred arg ls, sme dk gy intbdd mlst, sme chk incl, v calc, tr f lam, sme cal- frac fl cal, p- fr lt gn yel cut, g lt gn wh resdl ring

12440-12500 CHK: pred gy, sme lt gy- brn, occ med gy, ip mot tex, sl frm- sl hd, pred blk- ang, ip sl spl, pred arg ls, sme dk gy intbdd mlst, sme chk incl, v calc, tr f lam, sme cal- frac fl cal, p- fr lt gn yel cut, g lt gn wh resdl ring

12500-12560 CHK: pred gy, sme lt gy- brn, occ med gy, ip mot tex, sl frm- sl hd, pred blk- ang, ip sl spl, pred arg ls, sme dk gy intbdd mlst, sme chk incl, v calc, tr f lam, sme cal- frac fl cal, p- fr lt gn yel cut, g lt gn wh resdl ring

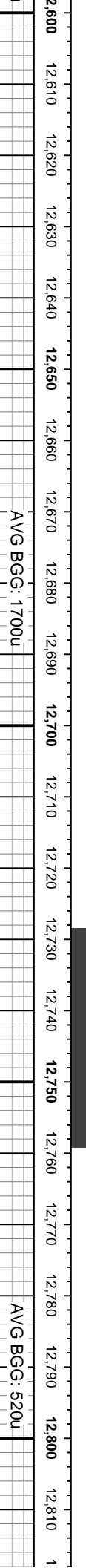
12560-12620 CHK: pred med dk brn, ip dk gy, ip mot tex, sl frm- sl hd, pred blk- ang, ip sl spl, pred arg ls, sme dk gy intbdd mlst, sme chk incl, v calc, tr f lam, sme cal- frac fl cal, p- fr lt gn yel cut, g lt gn wh resdl ring





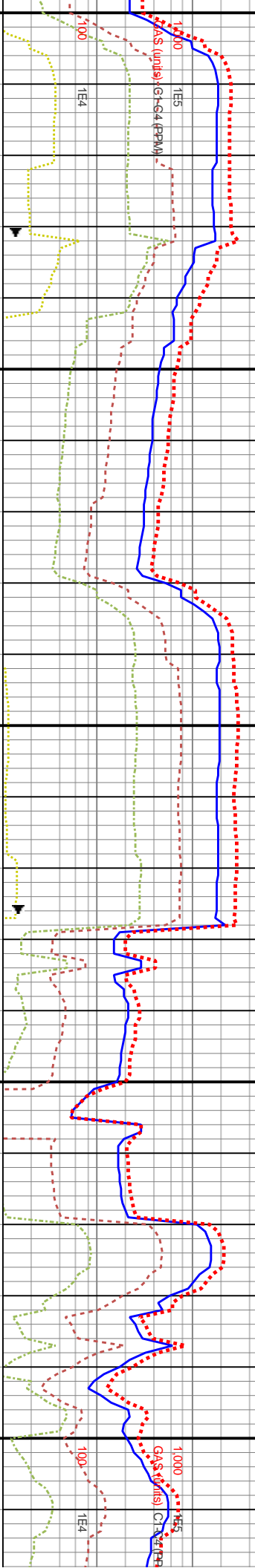
MW IO: 9.3/9.2+
VIS IO: 41/40

5000
5
300



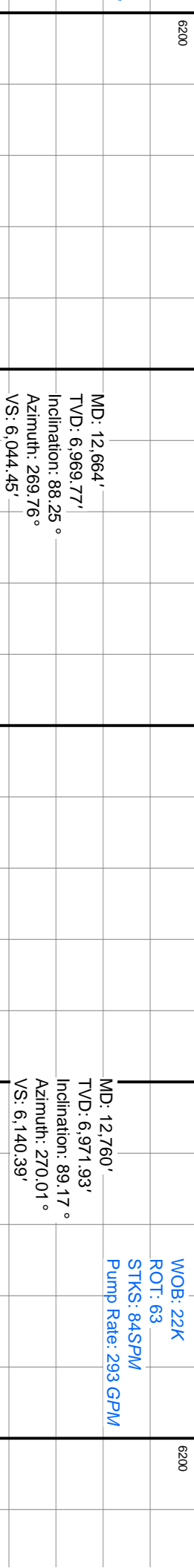
AVG BGG: 1700u

5000
5
300



AVG BGG: 520u

5000
5
300



MD: 12,664'
TVD: 6,969.77'
Inclination: 88.25 °
Azimuth: 269.76 °
VS: 6,044.45'

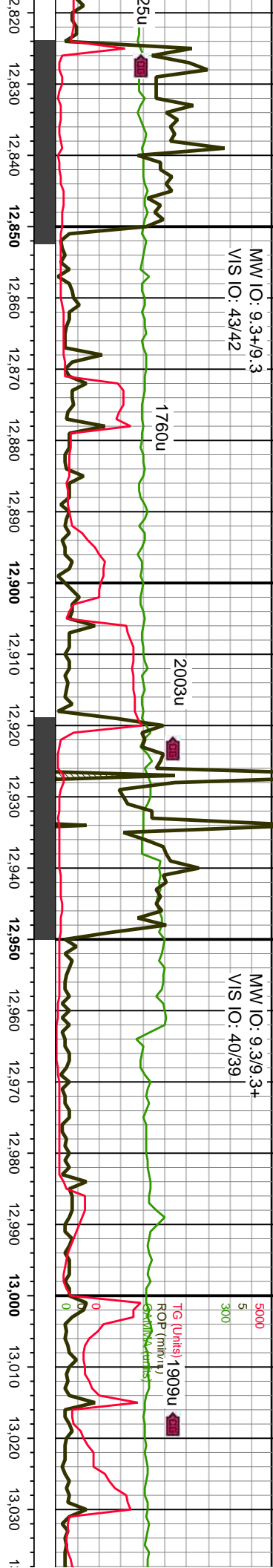
MD: 12,760'
TVD: 6,971.93'
Inclination: 89.17 °
Azimuth: 270.01 °
VS: 6,140.39'

WOB: 22K
ROT: 63
STKS: 84SPM
Pump Rate: 293 GPM

12620-12680 CHK: pred med gy, sme lt gy- brn- dk brn, ip dk gy, ip mot tex, sl frm- sl hd, pred blk- ang, ip sl spl, pred arg ls, abnt dk gy intbdd mlst, sme chk incl, v calc, tr flam, sme cal- tab cal, p- fr lt gn yel cut, g lt gn wh resdl ring	12680-12740 CHK: pred med gy, sme lt gy- brn- dk brn, ip dk gy, ip mot tex, sl frm- sl hd, pred blk- ang, ip sl spl, pred arg ls, abnt dk gy intbdd mlst, sme chk incl, v calc, tr flam, sme cal- tab cal, p- fr lt gn yel cut, g lt gn wh resdl ring	12740-12800 CHK: pred med gy- gy, sme lt gy- dk brn, occ dk gy, ip mot tex, sl frm- sl hd, pred blk- ang, sme spl, pred arg ls, sme dk gy intbdd mlst, sme chk incl, tr bent, v calc, tr flam, cal- tab cal, p- fr lt gn yel cut, g lt gn wh resdl ring
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12800-12860
brn, occ dk gy
ang, sme spl,
sme chk incl, v
fr lt gn yel c





MD: 12,856'
TVD: 6,972.37'
Inclination: 90.31 °
Azimuth: 268.76°
VS: 6,236.37'

AVG BGG: 550u

MD: 12,951'
TVD: 6,970.74'
Inclination: 91.57 °
Azimuth: 269.56°
VS: 6,261.37'

AVG BGG: 270u

WOB: 25.5K
ROT: 64
STKS: 89SPM
Pump Rate: 313 GPM

6200
VS @ 13000'

CHK: pred med gy- gy, sme lt gy- dk
ip mot tex, sl frm- sl hd, pred blk-
pred arg ls, sme dk gy intbdd mlst,
v calc, sme bent, tr f lam, cal- tab cal,
cut, g lt gn wh resdl ring

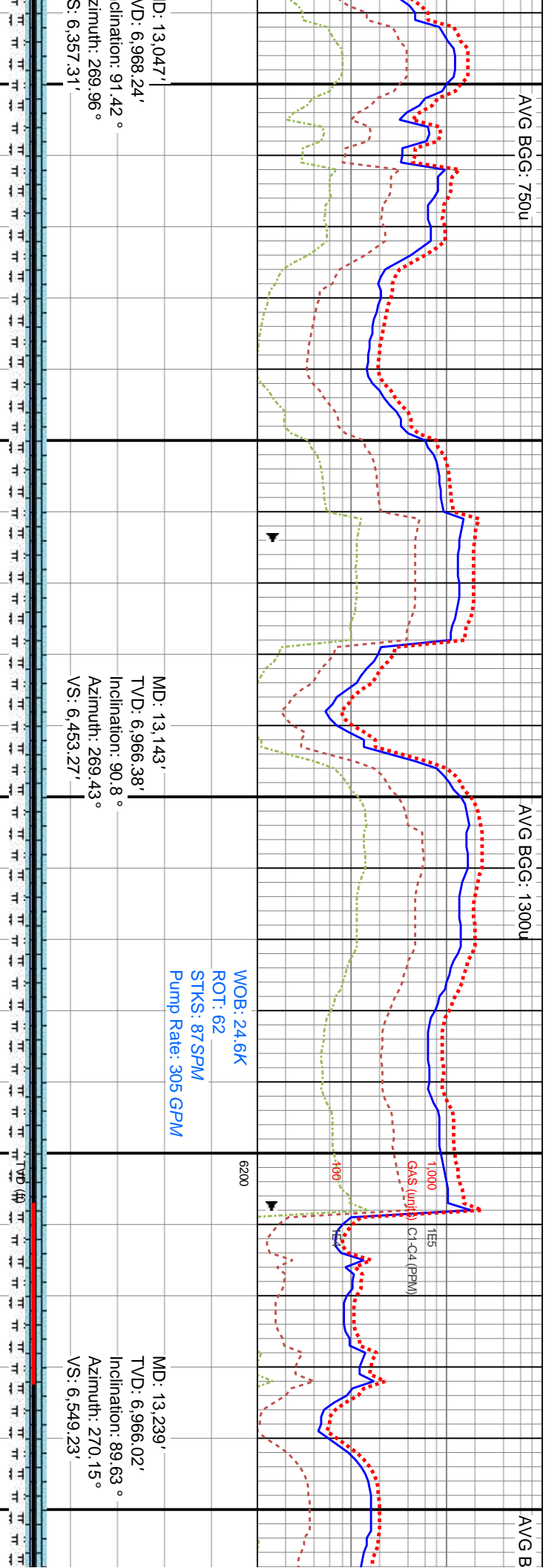
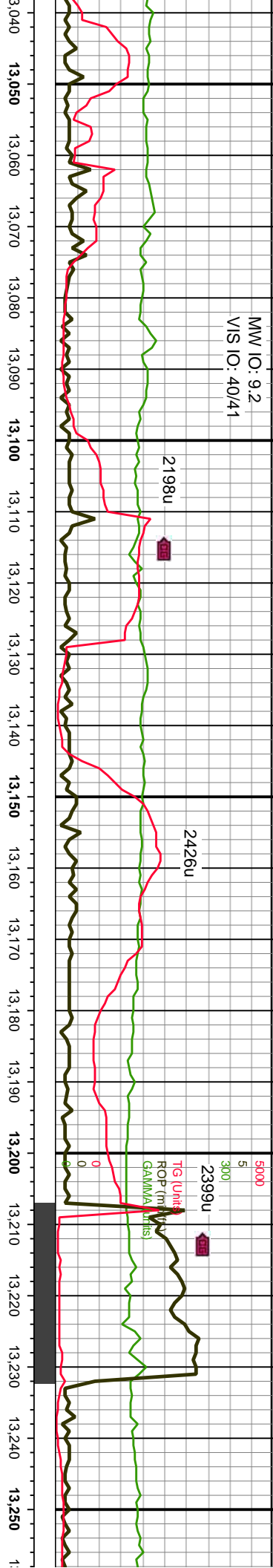
12860-12920 CHK: pred med gy- gy, sme dk gy-
dk brn, ip mot tex, sl frm- sl hd, pred blk- ang,
sme spl, pred arg ls, sme dk gy intbdd mlst,
sme chk incl, v calc, rr fos, sme bent, tr f lam,
sme cal, p- fr lt gn yel cut, g lt gn wh resdl ring

12920-12980 CHK: pred med gy- gy, sme dk gy-
dk brn, ip mot tex, sl frm- sl hd, pred blk- ang,
sme spl, pred arg ls, sme dk gy intbdd mlst,
sme chk incl, v calc, rr fos, sme bent, tr f lam,
sme cal, p- fr lt gn yel cut, g lt gn wh resdl ring

12980-13040 CHK: pred med gy- gy, occ dk gy- dk
brn, ip mot tex, sl frm- sl hd, pred blk- ang, sme
spl, pred arg ls, sme amt dk gy intbdd mlst, scat
chk incl, v calc, sme pyrc bent, tr f lam, sme tab cal,
p- fr lt gn yel cut, g lt gn wh resdl ring

7800





D: 13,047'
VD: 6,968.24'
Inclination: 91.42 °
Azimuth: 269.96 °
VS: 6,357.31'

13040-13100 CHK: pred med gy- gy, occ dk gy- dk brn, ip mot tex, sl frm- sl hd, pred blkv- ang, sme split, pred arg ls, sme amt dk gy intbdd mlst, scat chk incl, v calc, sme pyrc bent, tr f lam, sme tab cal, p- fr lt gn yel cut, g lt gn wh resdl ring

MD: 13,143'
TVD: 6,966.38'
Inclination: 90.8 °
Azimuth: 269.43 °
VS: 6,453.27'

13100-13160 CHK: pred med gy- gy, occ dk gy- dk brn, ip mot tex, sl frm- sl hd, pred blkv- ang, sme split, pred arg ls, sme dk gy intbdd mlst, abnt chk incl, v calc, scat pyrc bent, tr f lam, sme tab cal, p- fr lt gn yel cut, g lt gn wh resdl ring

WOB: 24.6K
ROT: 62
STKS: 87SPM
Pump Rate: 305 GPM

6200

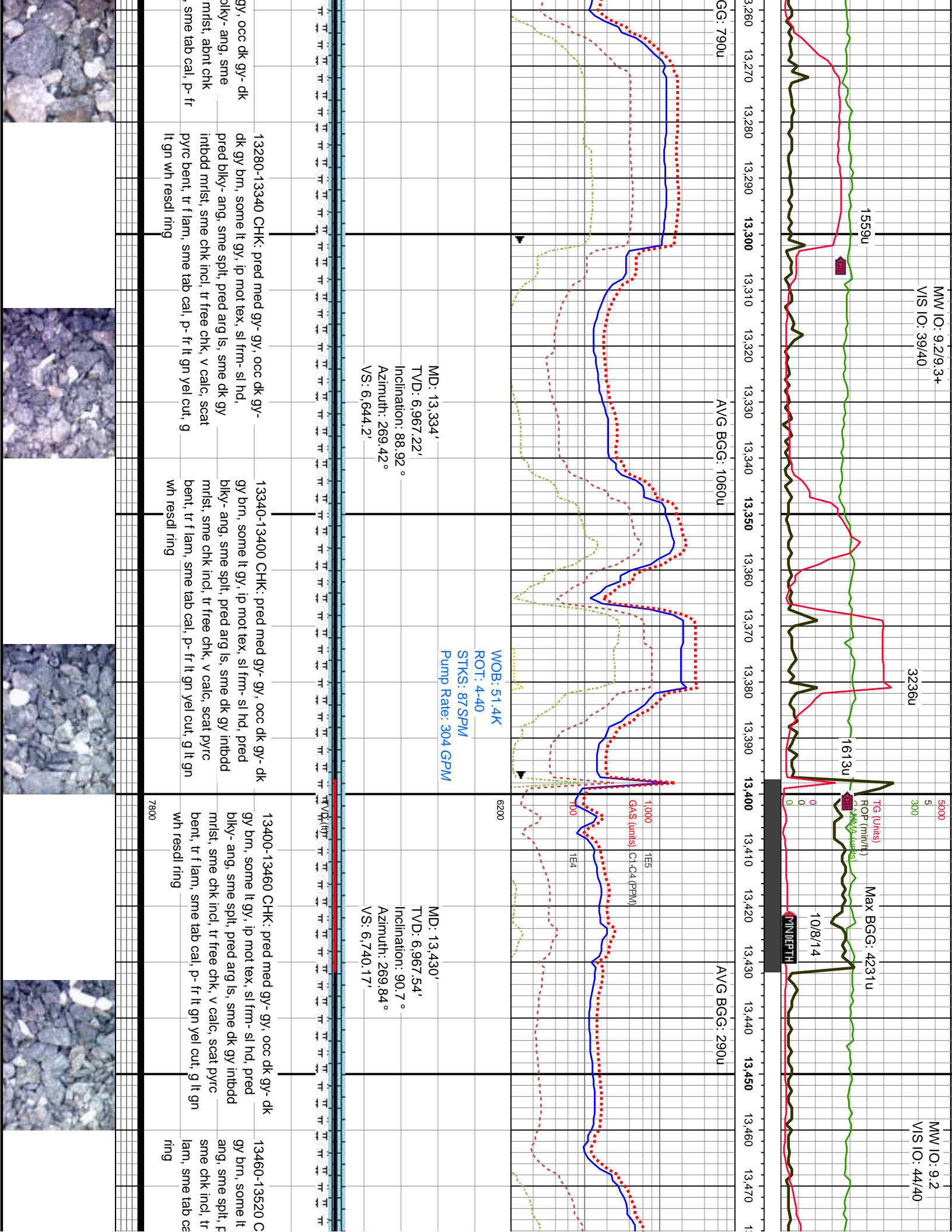
13160-13220 CHK: pred med gy- gy, occ dk gy- dk brn, ip mot tex, sl frm- sl hd, pred blkv- ang, sme split, pred arg ls, sme dk gy intbdd mlst, abnt chk incl, v calc, scat pyrc bent, tr f lam, sme tab cal, p- fr lt gn yel cut, g lt gn wh resdl ring

7800

MD: 13,239'
TVD: 6,966.02'
Inclination: 89.63 °
Azimuth: 270.15 °
VS: 6,549.23'

13220-13280 CHK: pred med gy- brn, ip mot tex, sl frm- sl hd, pred split, pred arg ls, sme dk gy intbdd incl, v calc, scat pyrc bent, tr f lam lt gn yel cut, g lt gn wh resdl ring





MW IO: 9.2/9.3+
VIS IO: 39/40

3236u

1559u

1613u

10/8/14

TG (Units)
ROP (ft/hr)
GAS (units) C1-C4 (PPM)

Max BGG: 4231u

MW IO: 9.2
VIS IO: 44/40

GG: 790u

AVG BGG: 1060u

AVG BGG: 290u

MD: 13.334'
TVD: 6,967.22'
Inclination: 88.92 °
Azimuth: 269.42 °
VS: 6,644.2'

WOB: 51.4K
ROT: 4-40
STKS: 87SPM
Pump Rate: 304 GPM

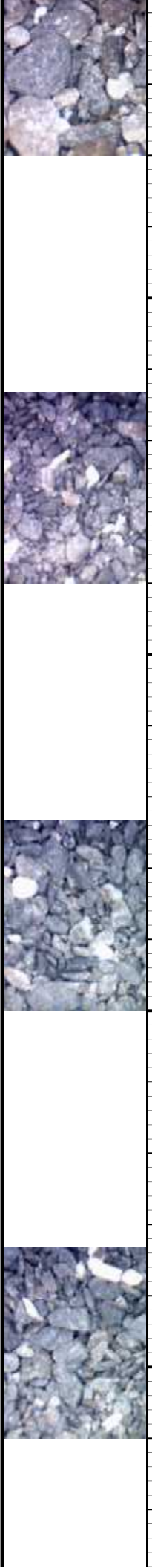
MD: 13.430'
TVD: 6,967.54'
Inclination: 90.7 °
Azimuth: 269.84 °
VS: 6,740.17'

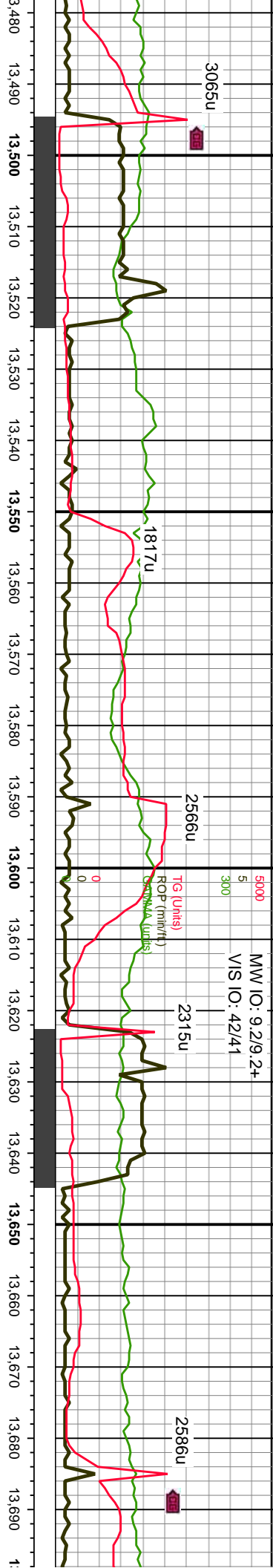
13280-13340 CHK: pred med gy- gy, occ dk gy-
dk gy brn, some lt gy, ip mot tex, sl frm- sl hd,
pred blk- ang, sme spl, pred arg ls, sme dk gy
intbdd mlst, sme chk incl, tr free chk, v calc, scat
pyrc bent, tr flam, sme tab cal, p- fr lt gn yel cut, g
lt gn wh resd ring

13340-13400 CHK: pred med gy- gy, occ dk gy-
gy brn, some lt gy, ip mot tex, sl frm- sl hd, pred
blk- ang, sme spl, pred arg ls, sme dk gy intbdd
mlst, sme chk incl, tr free chk, v calc, scat pyrc
bent, tr flam, sme tab cal, p- fr lt gn yel cut, g lt gn
wh resd ring

13400-13460 CHK: pred med gy- gy, occ dk gy-
gy brn, some lt gy, ip mot tex, sl frm- sl hd, pred
blk- ang, sme spl, pred arg ls, sme dk gy intbdd
mlst, sme chk incl, tr free chk, v calc, scat pyrc
bent, tr flam, sme tab cal, p- fr lt gn yel cut, g lt gn
wh resd ring

13460-13520 C
gy brn, some lt
ang, sme spl, f
sme chk incl, tr
lam, sme tab ce
ring





MW IO: 9.2/9.2+
VIS IO: 42/41

AVG BGG: 900u

AVG BGG: 930u

AVG BGG: 460u

MD: 13,526'
TVD: 6,965.04'
Inclination: 92.28 °
Azimuth: 272.04 °
VS: 6,836.03'

WOB: 20K
ROT: 40
STKS: 87SPM
Pump Rate: 306 GPM

MD: 13,621'
TVD: 6,961.65'
Inclination: 91.82 °
Azimuth: 272.47 °
VS: 6,930.75'

CHK: pred med gy- gy, occ dk gy- dk gy, ip mot tex, sl frm- sl hd, pred blk- pred arg ls, sme dk gy intbdd mlst, free chk, v calc, scat pyrc bent, tr f lam, p- fr lt gn yel cut, g lt gn wh resdl ring

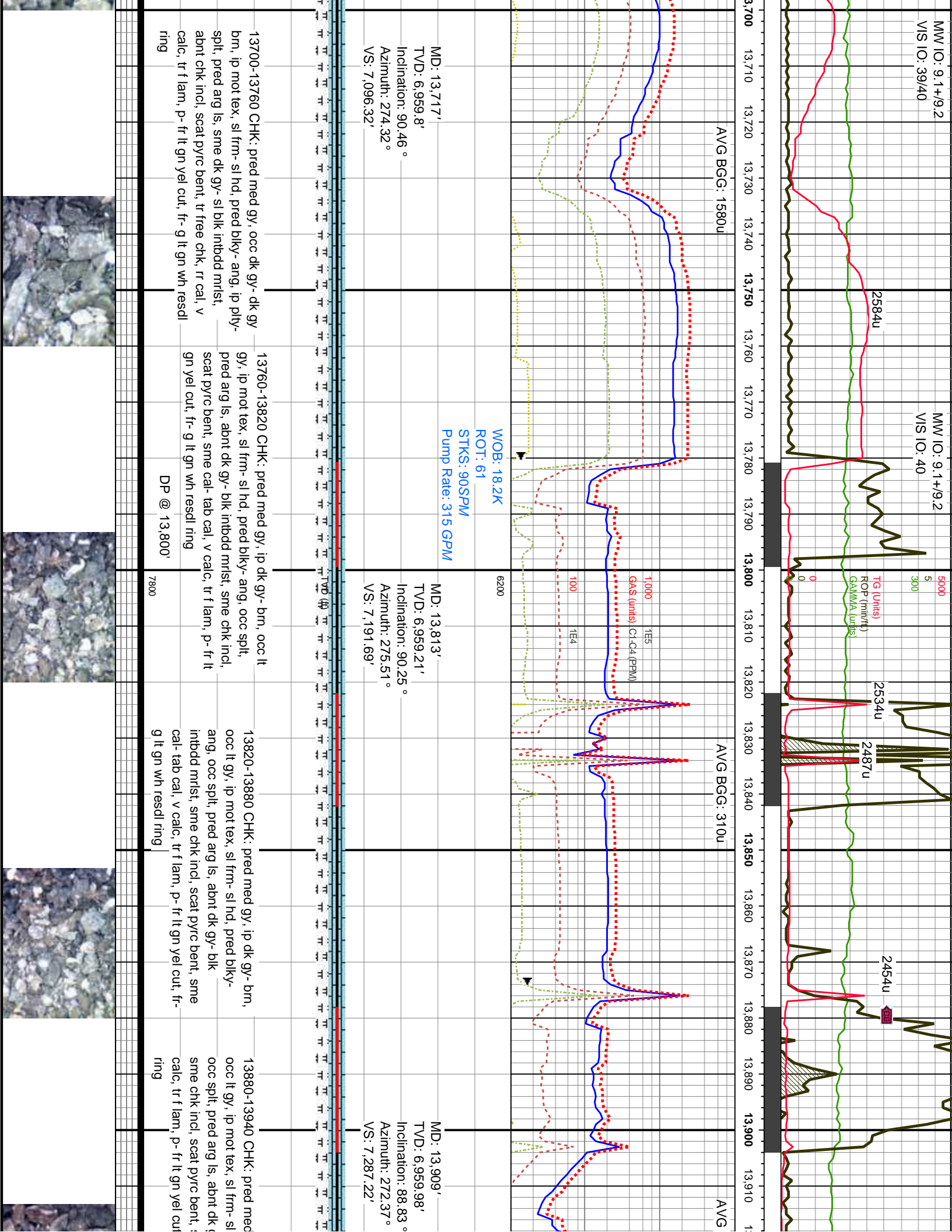
13520-13580 CHK: pred med gy- lt gy, occ dk gy- dk gy brn, ip mot tex, sl frm- sl hd, pred blk- ang, ip ply- spl, pred arg ls, sme dk gy- sl blk intbdd mlst, sme chk incl, scat free chk, v calc, tr f lam, sme cal, p- fr lt gn yel cut, g lt gn wh resdl ring

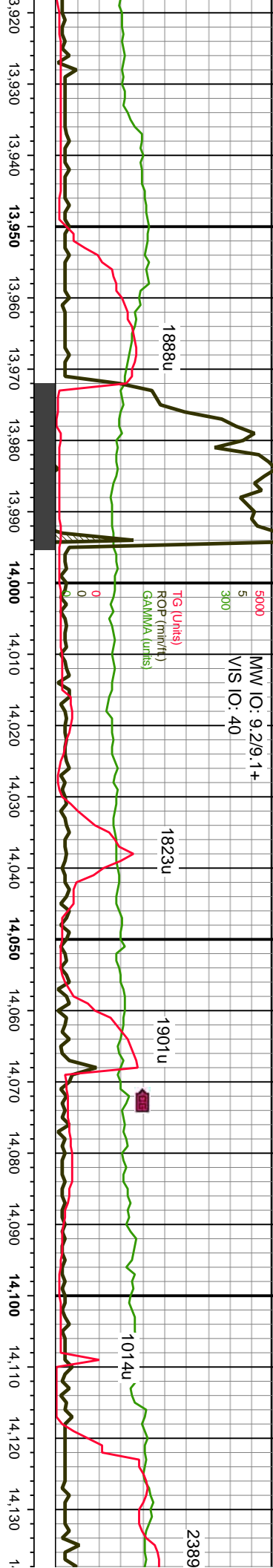
13580-13640 CHK: pred med gy- lt gy, occ dk gy- dk gy brn, ip mot tex, sl frm- sl hd, pred blk- ang, ip ply- spl, pred arg ls, sme dk gy- sl blk intbdd mlst, sme chk incl, scat free chk, v calc, tr f lam, sme cal, p- fr lt gn yel cut, g lt gn wh resdl ring

13640-13700 CHK: pred med gy, occ dk gy- dk gy brn, ip mot tex, sl frm- sl hd, pred blk- ang, ip ply- spl, pred arg ls, sme dk gy- sl blk intbdd mlst, about chk incl, scat pyrc bent, tr free chk, rr cal, v calc, tr f lam, p- fr lt gn yel cut, fr- g lt gn wh resdl ring

7800







WOB: 23K
 ROT: 52
 STKS: 87SPM
 Pump Rate: 307 GPM

MD: 14,005'
 TVD: 6,961.14'
 Inclination: 89.78 °
 Azimuth: 271.31 °
 VS: 7,383.03'

VS @ 14170'

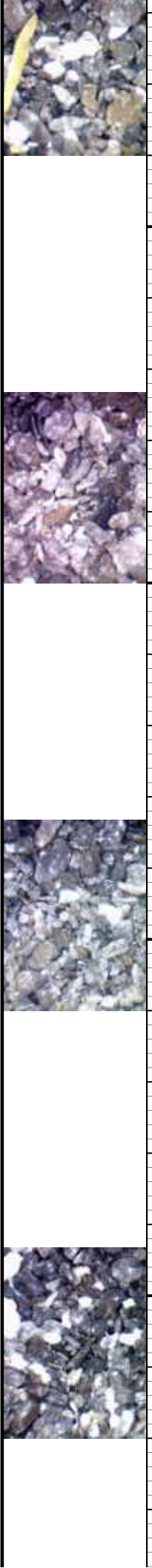
MD: 14,100'
 TVD: 6,962.13'
 Inclination: 88.95 °
 Azimuth: 270.95 °
 VS: 7,407.94'

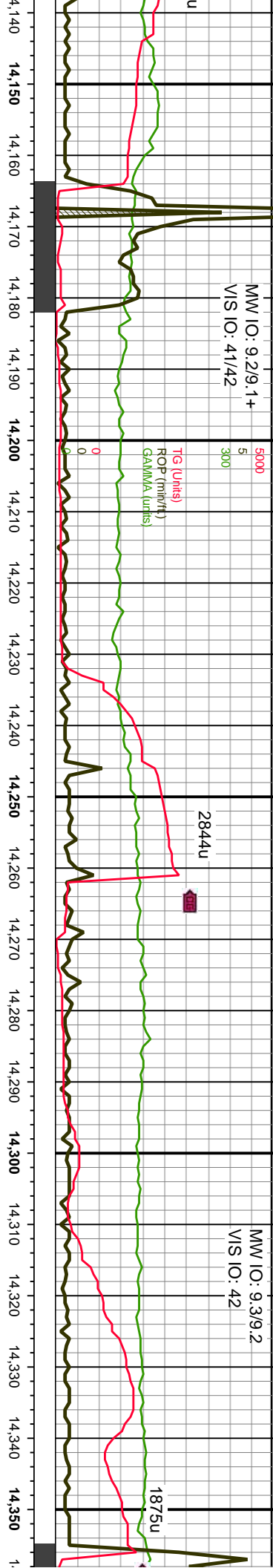
13940-14000 CHK: pred med gy, ip dk gy- brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl, pred arg ls, sme dk gy- blk intbdd mlst, abnt chk incl, tr scat pyrc bent, abnt cal- tab cal, v calc, tr f lam, p- fr lt gn yel cut, fr- g lt gn wh resdl ring

14000-14060 CHK: pred med gy, ip dk gy- brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl, pred arg ls, sme dk gy- blk intbdd mlst, abnt chk incl, tr scat pyrc bent, abnt cal- tab cal, v calc, tr f lam, p- fr lt gn yel cut, fr- g lt gn wh resdl ring

14060-14120 CHK: pred med gy, ip dk gy- brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl, pred arg ls, sme dk gy- blk intbdd mlst, abnt chk incl, tr scat pyrc bent, abnt cal- tab cal, v calc, tr f lam, p- fr lt gn yel cut, fr- g lt gn wh resdl ring

14120-14180 CHK: pred med gy, ip dk gy- brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl, pred arg ls, sme dk gy- blk intbdd mlst, abnt chk incl, tr scat pyrc bent, abnt cal- tab cal, v calc, tr f lam, p- fr lt gn yel cut, fr- g lt gn wh resdl ring





MD: 14,196'
 TVD: 6,963.39'
 Inclination: 89.54 °
 Azimuth: 270.65 °
 VS: 7,503.85'

MOB: 22.1K
 ROT: 60
 STKS: 88SPM
 Pump Rate: 310 GPM

AVG BGG: 550u

AVG BGG: 710u

MD: 14,292'
 TVD: 6,964.71'
 Inclination: 88.89 °
 Azimuth: 270.53 °
 VS: 7,599.77'

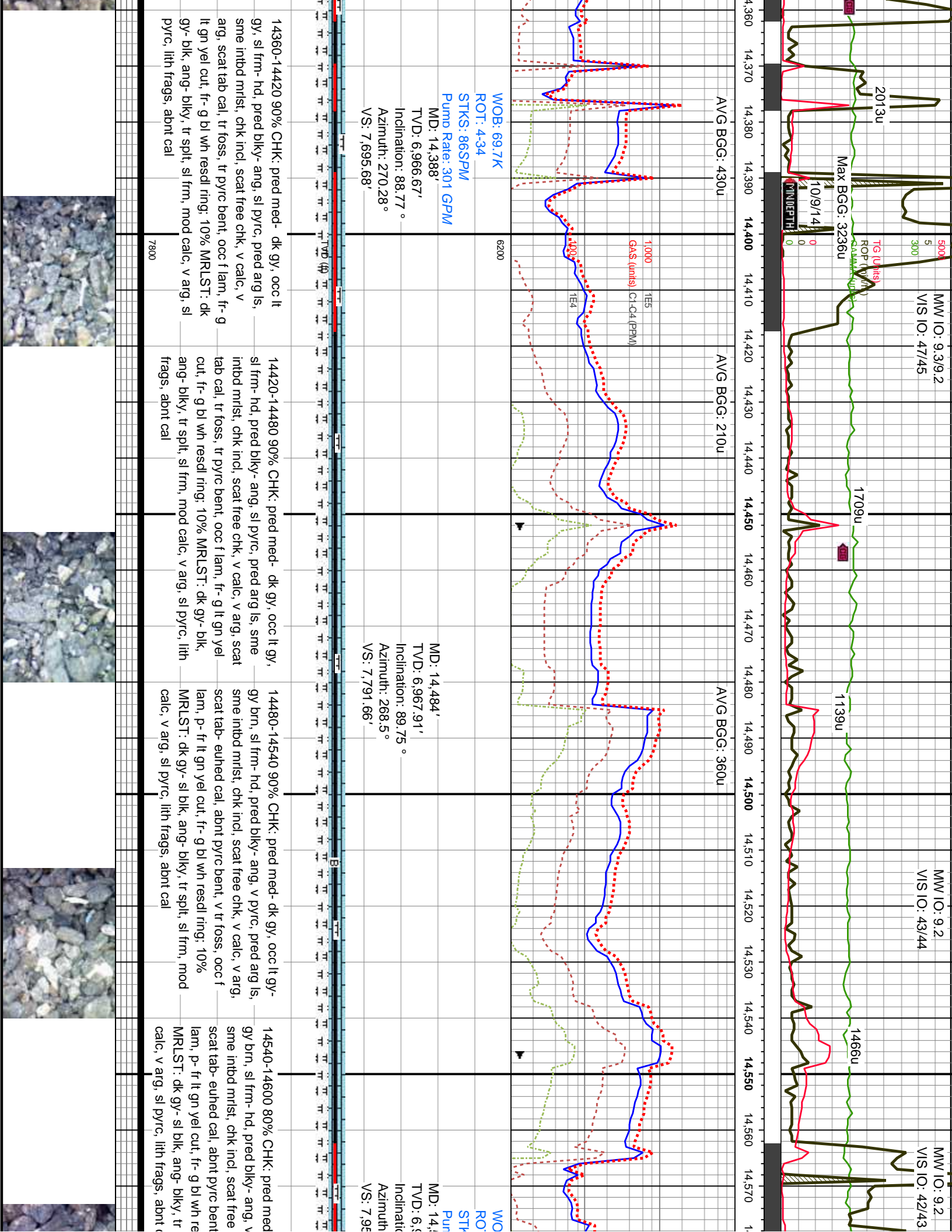
CHK: pred med gy, sme dk gy- brn, ip mot tex, sl frm- sl hd, pred blk- ply, pred arg ls, sme dk gy- blk bnt chk incl, scat free chk, tr scat tab cal, v calc, tr f lam, p lt gn yel resdl ring

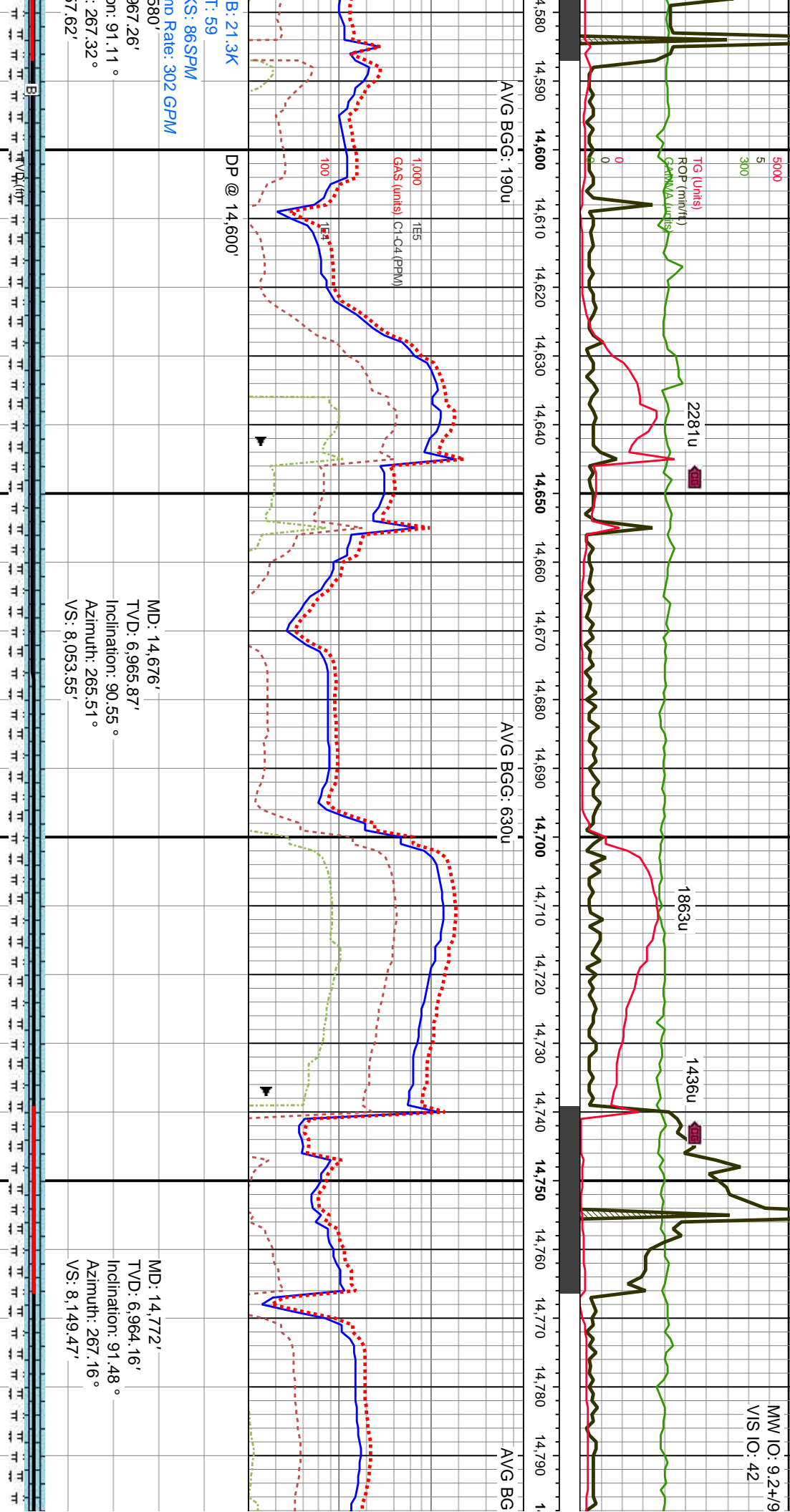
14180-14240 CHK: pred med gy, sme dk gy- brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl- ply, pred arg ls, sme dk gy- blk inbdd mri st, abnt chk incl, scat free chk, tr scat pycr bent, sme tab cal, v calc, tr f lam, p lt gn yel cut, fr- g lt gn yel resdl ring

14240-14300 CHK: pred med gy- gy, sme dk gy- gy brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl, rr ply, pred arg ls, sme dk gy- blk inbdd mri st, abnt chk incl, scat free chk, tr pycr bent, sme cal, v calc, tr f lam, p lt gn yel cut, fr- g lt gn yel resdl ring

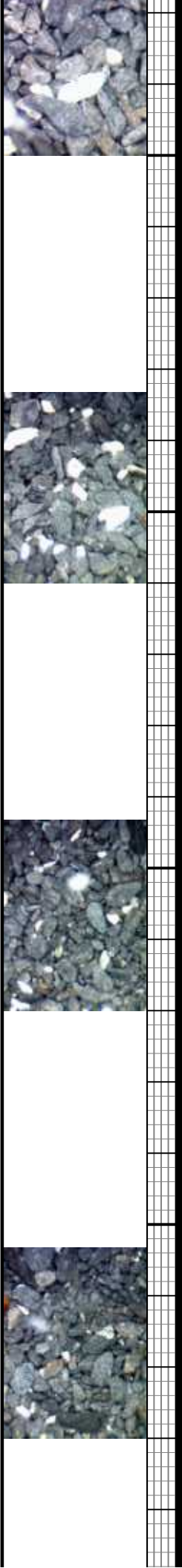
14300-14360 CHK: pred med gy- gy, sme dk gy- gy brn, occ lt gy- lt brn, ip mot tex, sl frm- sl hd, pred blk- ang, occ spl, rr ply, pred arg ls, sme dk gy- blk inbdd mri st, abnt chk incl, scat free chk, tr pycr bent, sme cal, v calc, tr f lam, p lt gn yel cut, fr- g lt gn yel resdl ring

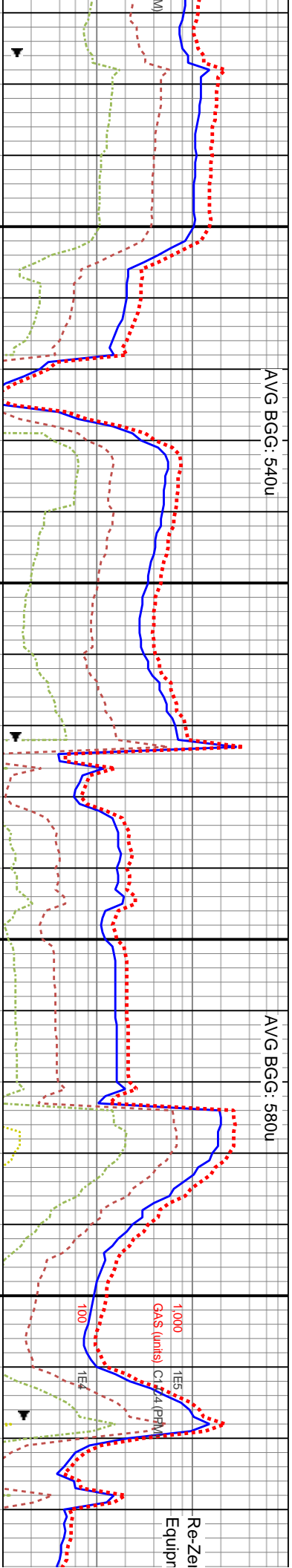
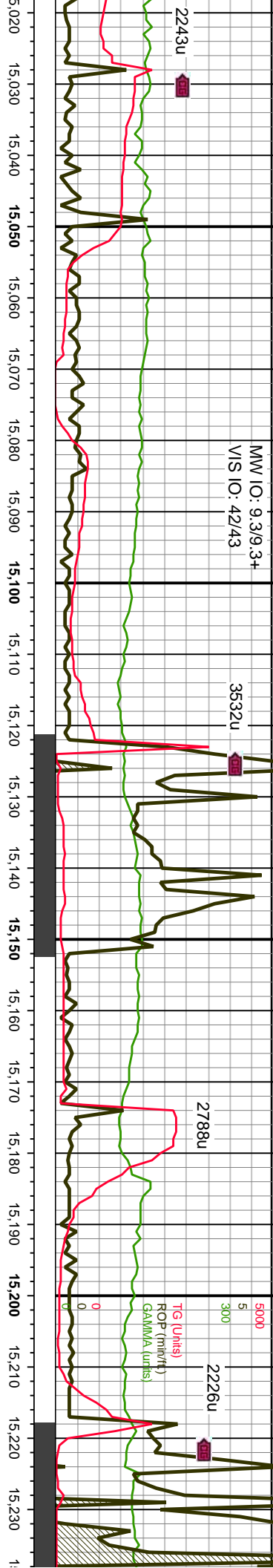






<p>B: 21.3K I: 59 S: 86SPM Ann Rate: 302 GPM 580'</p>	<p>DP @ 14,600'</p>	<p>MD: 14.676' TVD: 6,965.87' Inclination: 90.55 ° Azimuth: 265.51 ° VS: 8,053.55'</p>	<p>MD: 14.772' TVD: 6,964.16' Inclination: 91.48 ° Azimuth: 267.16 ° VS: 8,149.47'</p>
<p>- dk gy, occ lt gy- pyrc, pred arg is, chk, v calc, v arg, , v tr foss, occ f resd ring: 20% spl, sl frm, mod cal</p>	<p>14600-14660 80% CHK: pred dk gy- blk, ip med gy- dk brn, sl frm- hd, pred blk- ang, sme pyrc, pred arg is, abnt inbd mrlst, abnt chk incl, scat free chk, v calc, sme cal, pyrc bent, occ f lam, p- fr lt gn yel cut, fr- g bl wh resd ring: 20% MRLST: dk gy- blk, ang- blk, sme spl, sl frm, v calc, v arg, sl pyrc, lith frags, abnt cal</p>	<p>14660-14720 80% CHK: pred dk gy- blk, ip med gy- dk brn, sl frm- hd, pred blk- ang, sme pyrc, pred arg is, abnt inbd mrlst, abnt chk incl, scat free chk, v calc, sme cal, pyrc bent, occ f lam, p- fr lt gn yel cut, fr- g bl wh resd ring: 20% MRLST: dk gy- blk, ang- blk, sme spl, sl frm, v calc, v arg, sl pyrc, lith frags, abnt cal</p>	<p>14720-14780 70% CHK: pred v dk gy- blk, sme med gy- dk brn, sl frm- hd, pred blk- ang, sme pyrc, pred arg is, abnt inbd mrlst, abnt chk incl, scat free chk, v calc, sme cal, pyrc bent, carb, tr f lam, p- fr lt gn yel cut, fr- g bl wh resd ring: 30% MRLST: dk gy- blk, ang- blk, sme spl, sl frm, v calc, v arg, sl pyrc, carb, lith frags, abnt cal</p>
<p>7800 pyrc, lith frags, abnt cal</p>	<p>14780-148</p>	<p>med gy- dk pyrc, pred scat free cl lam, p- fr lt MRLST: dk calc, v arg,</p>	

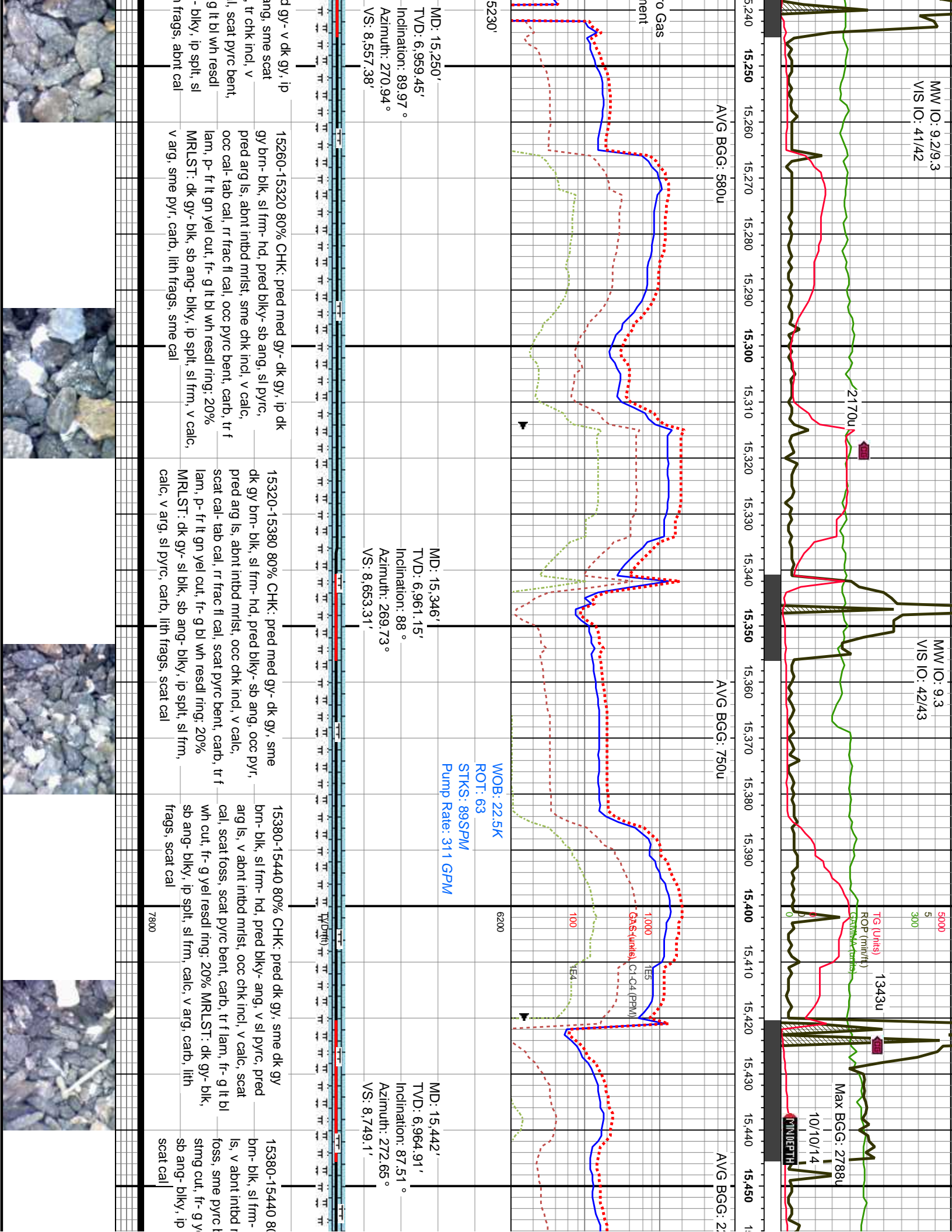


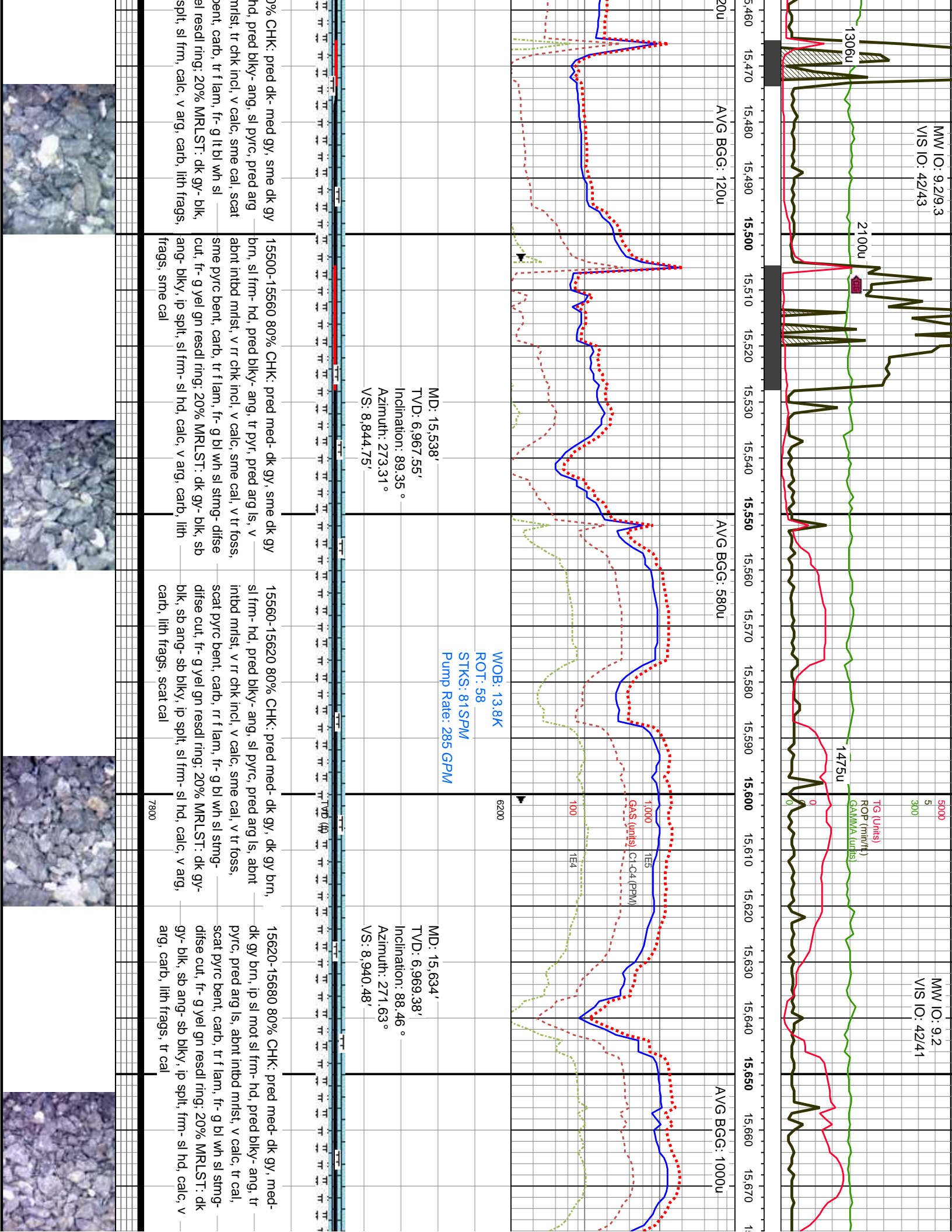


15020-15080 80% CHK: pred med gy- dk gy, ip blk- dk brn, sl frm- hd, pred blk- ang, sme pyr, pred arg ls, abnt intbd mlst, sme chk incl, v calc, sme cal- tab cal, sme pyr bent, tr fos, carb, tr flam, p- fr lt gn yel cut, fr- g bl wh resdl ring; 20% MRLST: dk gy- blk, ang- blk, sme spl, sl frm, v calc, v arg, sl pyr, carb, lith frags, abnt cal	15080-15140 80% CHK: pred med gy- dk gy, ip blk- dk brn, sl frm- hd, pred blk- ang, sme pyr, pred arg ls, abnt intbd mlst, sme chk incl, v calc, sme cal- tab cal, sme pyr bent, tr fos, carb, tr flam, p- fr lt gn yel cut, fr- g bl wh resdl ring; 20% MRLST: dk gy- blk, ang- blk, sme spl, sl frm, v calc, v arg, sl pyr, carb, lith frags, abnt cal	15140-15200 80% CHK: pred med gy- v dk gy, ip blk- dk brn, sl frm- hd, pred blk- ang, sme pyr, pred arg ls, abnt intbd mlst, sme chk incl, v calc, sme cal- tab cal- tr frac fl cal, sme pyr bent, carb, tr flam, p- fr lt gn yel cut, fr- g bl wh resdl ring; 20% MRLST: dk gy- blk, ang- blk, sme spl, sl frm, v calc, v arg, sl pyr, carb, lith frags, abnt cal	15200-15260 80% CHK: pred med dk brn- blk, sl frm- hd, pred blk- ang, sme pyr, pred arg ls, v abnt intbd mlst calc, occ cal- tab cal, v tr frac fl carb, tr flam, p- fr lt gn yel cut, fr- ring; 20% MRLST: dk gy- blk, ang- frm, v calc, v arg, sl pyr, carb, lith frags, abnt cal
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MOB: 19K
 ROT: 60
 STKS: 86SPM
 Pump Rate: 302 GPM
 VS @ 1





MW IO: 9.2/9.3
VIS IO: 42/43

MW IO: 9.2
VIS IO: 42/41

1306u
2100u

1475u

AVG BGG: 120u

AVG BGG: 580u

AVG BGG: 1000u

MD: 15,538'
TVD: 6,967.55'
Inclination: 89.35°
Azimuth: 273.31°
VS: 8,844.75'

WOB: 13.8K
ROT: 58
STKS: 81SPM
Pump Rate: 285 GPM

MD: 15,634'
TVD: 6,969.38'
Inclination: 88.46°
Azimuth: 271.63°
VS: 8,940.48'

97% CHK: pred dk- med gy, sme dk gy
hd, pred blk- ang, sl pyrc, pred arg
mst, tr chk incl, v calc, sme cal, scat
bent, carb, tr f lam, fr- g lt bl wh sl
resd ring: 20% MRLST: dk gy- blk,
splt, sl frm, calc, v arg, carb, lith frags,

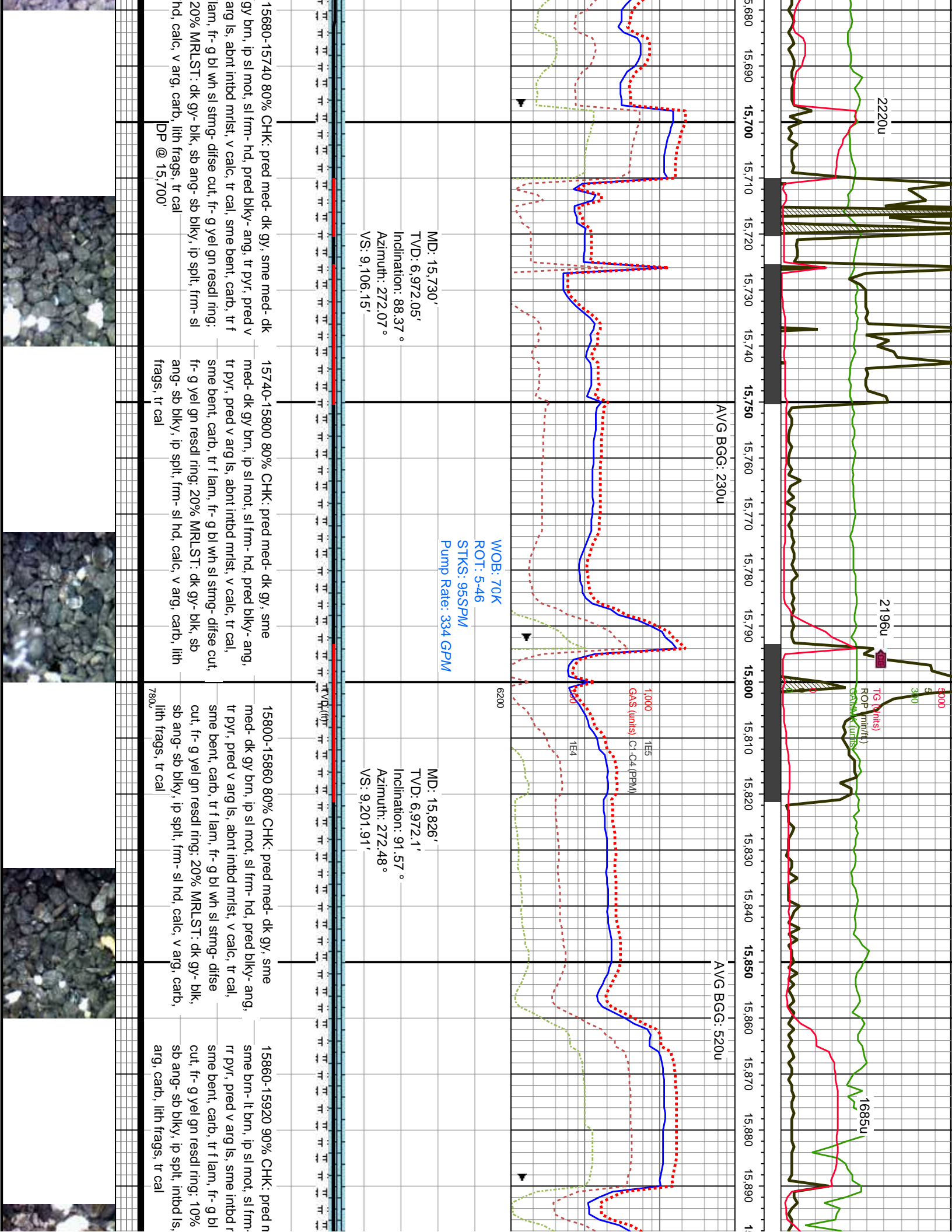
15500-15560 80% CHK: pred med- dk gy, sme dk gy
brn, sl frm- hd, pred blk- ang, tr pyr, pred arg ls, v
abt intbd mst, v tr chk incl, v calc, sme cal, v tr foss,
sme pyrc bent, carb, tr f lam, fr- g bl wh sl stmg- difse
cut, fr- g yel gn resd ring: 20% MRLST: dk gy- blk, sb
ang- blk, ip splt, sl frm- sl hd, calc, v arg, carb, lith
frags, sme cal

15560-15620 80% CHK: pred med- dk gy, dk gy brn,
sl frm- hd, pred blk- ang, sl pyrc, pred arg ls, abnt
intbd mst, v tr chk incl, v calc, sme cal, v tr foss,
scat pyrc bent, carb, tr f lam, fr- g bl wh sl stmg-
difse cut, fr- g yel gn resd ring: 20% MRLST: dk gy-
blk, sb ang- sb blk, ip splt, sl frm- sl hd, calc, v arg,
carb, lith frags, scat cal

15620-15680 80% CHK: pred med- dk gy, med-
dk gy brn, ip sl mot sl frm- hd, pred blk- ang, tr
pyrc, pred arg ls, abnt intbd mst, v calc, tr cal,
scat pyrc bent, carb, tr f lam, fr- g bl wh sl stmg-
difse cut, fr- g yel gn resd ring: 20% MRLST: dk
gy- blk, sb ang- sb blk, ip splt, frm- sl hd, calc, v
arg, carb, lith frags, tr cal

7800





2220u

2196u

3000
500
300
TG (units)
ROP (ml/ft)
ROP (units)

1685u

AVG BGG: 230u

AVG BGG: 520u

1000
1155
GAS (units) C1-C4 (ppm)

MD: 15,730'
TVD: 6,972.05'
Inclination: 88.37°
Azimuth: 272.07°
VS: 9,106.15'

WOB: 70K
ROT: 5.46
STKS: 955PM
Pump Rate: 334 GPM

6200

MD: 15,826'
TVD: 6,972.1'
Inclination: 91.57°
Azimuth: 272.48°
VS: 9,201.91'

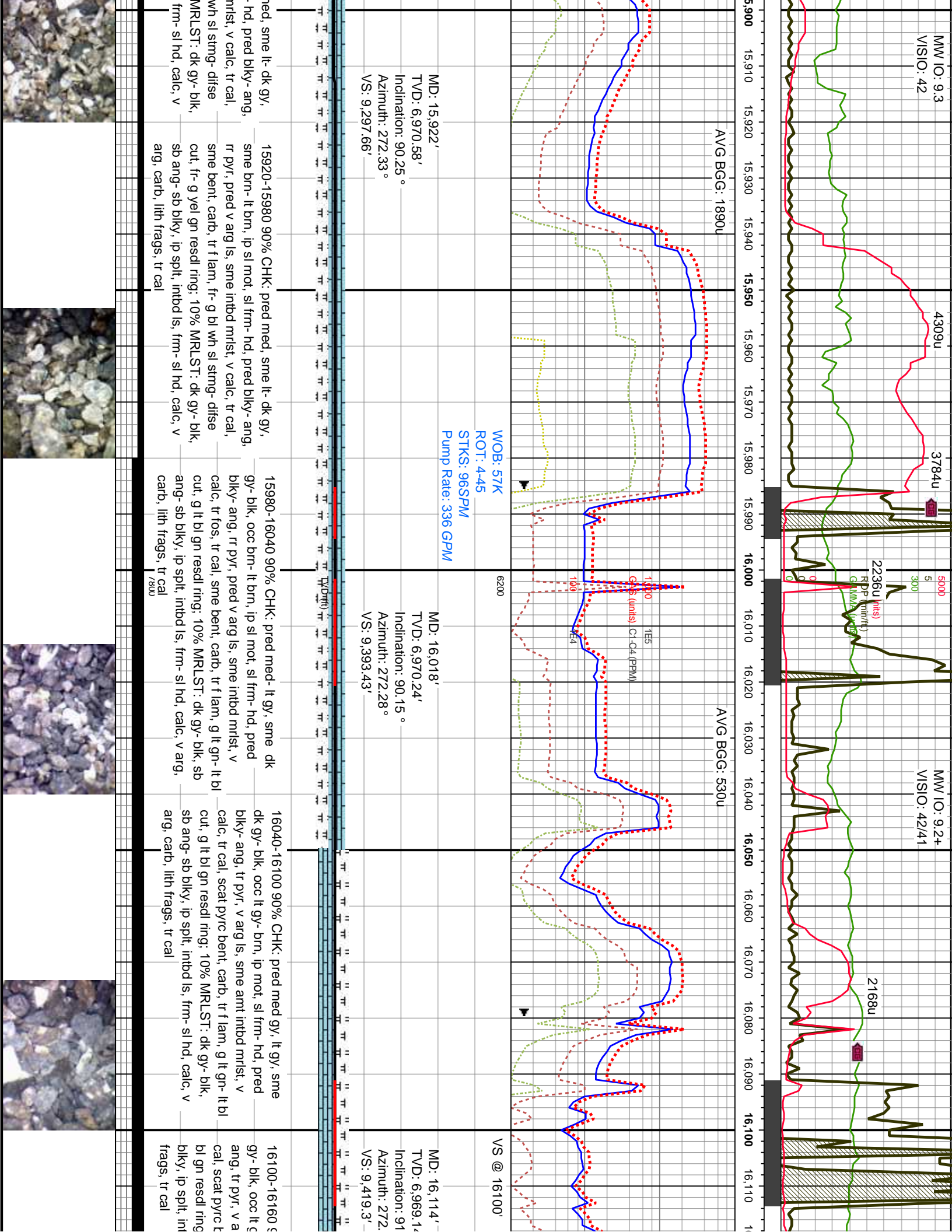
15660-15740 80% CHK: pred med- dk gy, sme med- dk gy brn, ip sl mot, sl frm- hd, pred blk- ang, tr pyr, pred v arg ls, abnt intbd mlst, v calc, tr cal, sme bent, carb, tr f lam, fr- g bl wh sl stmg- difse cut, fr- g yel gn resdl ring; 20% MRLST: dk gy- blk, sb ang- sb blk, ip spl, frm- sl hd, calc, v arg, carb, lith frags, tr cal DP @ 15,700'

15740-15800 80% CHK: pred med- dk gy, sme med- dk gy brn, ip sl mot, sl frm- hd, pred blk- ang, tr pyr, pred v arg ls, abnt intbd mlst, v calc, tr cal, sme bent, carb, tr f lam, fr- g bl wh sl stmg- difse cut, fr- g yel gn resdl ring; 20% MRLST: dk gy- blk, sb ang- sb blk, ip spl, frm- sl hd, calc, v arg, carb, lith frags, tr cal

15800-15860 80% CHK: pred med- dk gy, sme med- dk gy brn, ip sl mot, sl frm- hd, pred blk- ang, tr pyr, pred v arg ls, abnt intbd mlst, v calc, tr cal, sme bent, carb, tr f lam, fr- g bl wh sl stmg- difse cut, fr- g yel gn resdl ring; 20% MRLST: dk gy- blk, sb ang- sb blk, ip spl, frm- sl hd, calc, v arg, carb, lith frags, tr cal

15860-15920 90% CHK: pred n sme brn- lt brn, ip sl mot, sl frm- rr pyr, pred v arg ls, sme intbd r sme bent, carb, tr f lam, fr- g bl cut, fr- g yel gn resdl ring; 10% sb ang- sb blk, ip spl, intbd ls, arg, carb, lith frags, tr cal





MW IO: 9.3
VISO: 42

MW IO: 9.2+
VISO: 42/41

VS @ 16100'

AVG BGG: 1890u

AVG BGG: 530u

WOB: 57K
ROT: 4-45
STKS: 96SPM
Pump Rate: 336 GPM

MD: 15,922'
TVD: 6,970.58'
Inclination: 90.25 °
Azimuth: 272.33 °
VS: 9,297.66'

MD: 16,018'
TVD: 6,970.24'
Inclination: 90.15 °
Azimuth: 272.28 °
VS: 9,393.43'

MD: 16,114'
TVD: 6,969.1'
Inclination: 91 °
Azimuth: 272 °
VS: 9,419.3'

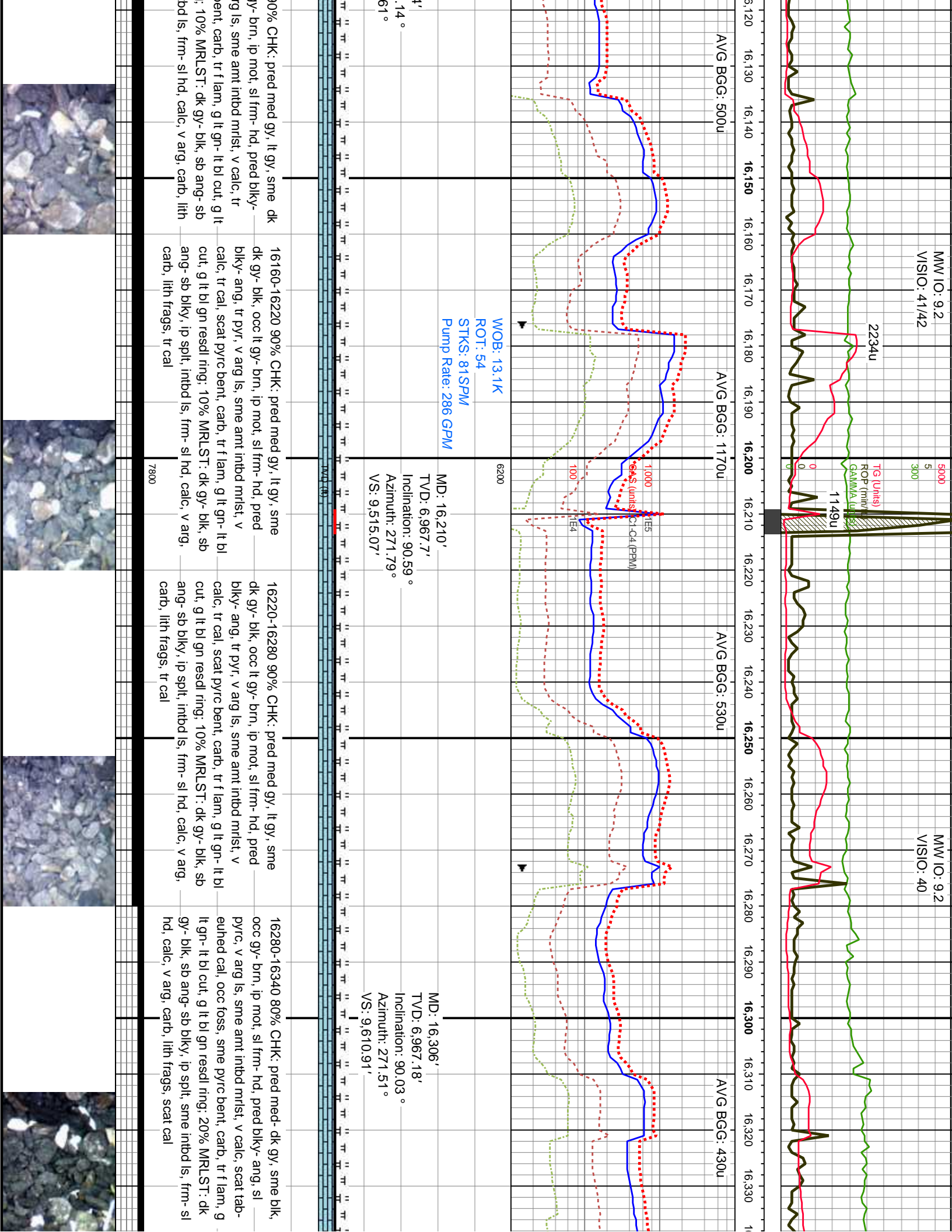
15920-15980 90% CHK: pred med, sme lt- dk gy, sme brn- lt brn, ip sl mot, sl frm- hd, pred blk- ang, rr pyr, pred v arg ls, sme intbd mrlst, v calc, tr cal, sme bent, carb, tr f lam, fr- g bl wh sl strng- difse cut, fr- g yel gn resdl ring: 10% MRLST: dk gy- blk, sb ang- sb blk, ip spl, intbd ls, frm- sl hd, calc, v arg, carb, lith frags, tr cal

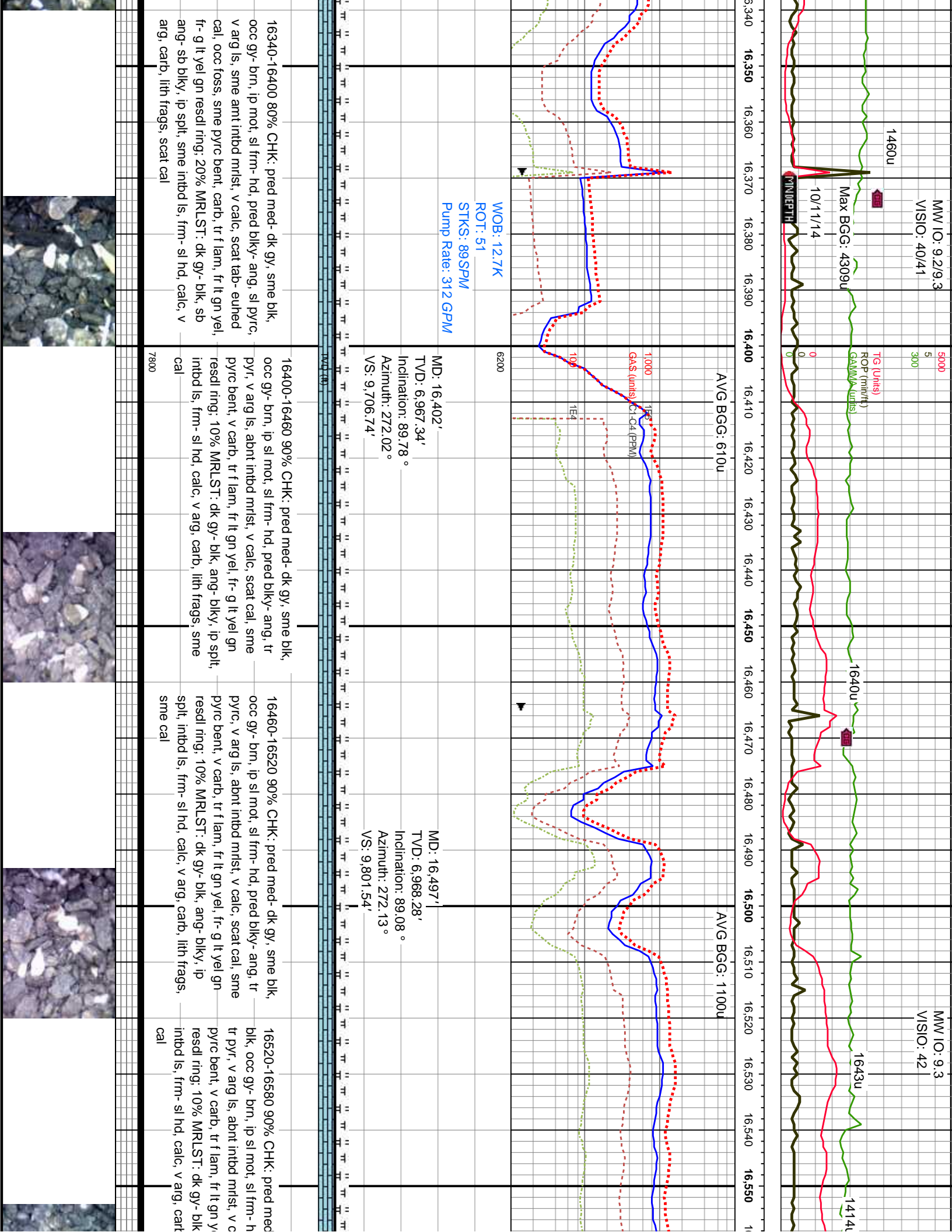
15980-16040 90% CHK: pred med- lt gy, sme dk gy- blk, occ brn- lt brn, ip sl mot, sl frm- hd, pred blk- ang, rr pyr, pred v arg ls, sme intbd mrlst, v calc, tr fos, tr cal, sme bent, carb, tr f lam, g lt gn- lt bl cut, g lt bl gn resdl ring: 10% MRLST: dk gy- blk, sb ang- sb blk, ip spl, intbd ls, frm- sl hd, calc, v arg, carb, lith frags, tr cal

16040-16100 90% CHK: pred med gy, lt gy, sme dk gy- blk, occ lt gy- brn, ip mot, sl frm- hd, pred blk- ang, tr pyr, v arg ls, sme amt intbd mrlst, v calc, tr cal, scat pyrc bent, carb, tr f lam, g lt gn- lt bl cut, g lt bl gn resdl ring: 10% MRLST: dk gy- blk, sb ang- sb blk, ip spl, intbd ls, frm- sl hd, calc, v arg, carb, lith frags, tr cal

16100-16160 90% CHK: pred med- lt gy, sme dk gy- blk, occ lt gy- brn, ip mot, sl frm- hd, pred blk- ang, tr pyr, v arg ls, sme amt intbd mrlst, v calc, tr cal, scat pyrc bent, carb, tr f lam, g lt gn- lt bl cut, g lt bl gn resdl ring: 10% MRLST: dk gy- blk, sb ang- sb blk, ip spl, intbd ls, frm- sl hd, calc, v arg, carb, lith frags, tr cal







MW IO: 9.2/9.3
VISO: 40/41

5000
5
300

MW IO: 9.3
VISO: 42

1460U

Max BGG: 4309U
10/1/14

TG (lbs)
ROP (min/ft)
GAMMA (units)

1640U

1643U

1414U

AVG BGG: 610u

AVG BGG: 1100u

WOB: 12.7K
ROT: 51
STKS: 89SPM
Pump Rate: 312 GPM

6200

MD: 16,402'
TVD: 6,967.34'
Inclination: 89.78 °
Azimuth: 272.02 °
VS: 9,706.74'

MD: 16,497'
TVD: 6,968.28'
Inclination: 89.08 °
Azimuth: 272.13 °
VS: 9,801.54'

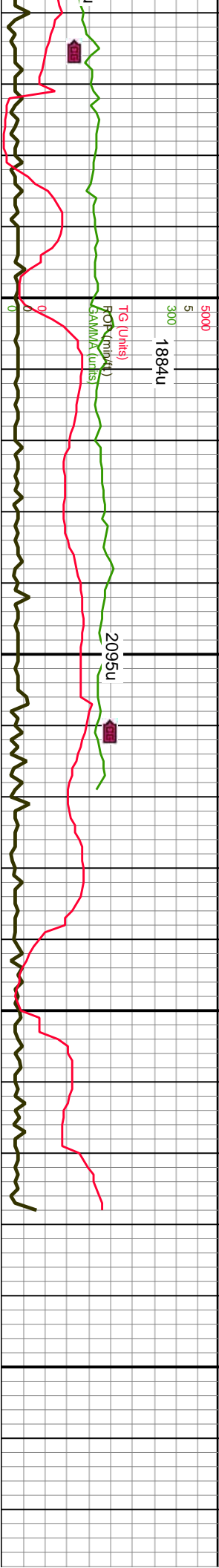
16340-16400 80% CHK: pred med- dk gy, sme blk, occ gy- brn, ip mot, sl frm- hd, pred blk- ang, sl pyrc, v arg ls, sme amt intbd mrst, v calc, scat tab- euhed cal, occ foss, sme pyrc bent, carb, tr f lam, fr lt gn yel, fr- g lt yel gn resdl ring: 20% MRLST: dk gy- blk, sb ang- sb blk, ip spl, sme intbd ls, frm- sl hd, calc, v arg, carb, lith frags, scat cal

16400-16460 90% CHK: pred med- dk gy, sme blk, occ gy- brn, ip sl mot, sl frm- hd, pred blk- ang, tr pyrc, v arg ls, abnt intbd mrst, v calc, scat cal, sme pyrc bent, v carb, tr f lam, fr lt gn yel, fr- g lt yel gn resdl ring: 10% MRLST: dk gy- blk, ang- blk, ip spl, intbd ls, frm- sl hd, calc, v arg, carb, lith frags, sme cal

16460-16520 90% CHK: pred med- dk gy, sme blk, occ gy- brn, ip sl mot, sl frm- hd, pred blk- ang, tr pyrc, v arg ls, abnt intbd mrst, v calc, scat cal, sme pyrc bent, v carb, tr f lam, fr lt gn yel, fr- g lt yel gn resdl ring: 10% MRLST: dk gy- blk, ang- blk, ip spl, intbd ls, frm- sl hd, calc, v arg, carb, lith frags, sme cal

16520-16580 90% CHK: pred med blk, occ gy- brn, ip sl mot, sl frm- h tr pyrc, v arg ls, abnt intbd mrst, v c pyrc bent, v carb, tr f lam, fr lt gn y resdl ring: 10% MRLST: dk gy- blk intbd ls, frm- sl hd, calc, v arg, carb





AVG BGG: 1260u

AVG BGG: 1420u

Bit #: 2
 Type: SMITH 516M
 Size: 6.12
 Depth In: 9,450'
 Depth Out: 16,728'
 Hours: 76.4 hrs
 Avg FV/Hr: 95.3 /hr
 Jets: 5*14
 S/N: A194928

6200
 WOB: 13.8K
 ROT: 47
 STKS: 83SPM
 Pump Rate: 290 GPM
 MD: 16,593'
 TVD: 6,970.73'
 Inclination: 88 °
 Azimuth: 271.82 °
 VS: 9,897.31'

MD: 16,665'
 TVD: 6,973.65'
 Inclination: 87.34 °
 Azimuth: 271.87 °
 VS: 9,969.12'

Projected
 MD: 16,728'
 TVD: 6,973.65'
 Inclination: 87.34 °
 Azimuth: 271.87 °

TD @ 0322hrs
 on 10-11-14

16580-16640 90% CHK: pred med gy, sme dk gy, occ med gy- brn, ip sl mot, sl frm- hd, pred sb blk- sb ang, sme pyr, v arg ls, sme intbd mlst, v calc, rr cal, tr pyr bent, v carb, tr f lam, fr lt gn yel, fr- g lt yel gn resdl ring: 10% MRLST: dk gy- blk, sb ang- sb blk, ip spl, sme intbd ls, frm- sl hd, v calc, v arg, carb, lith frags, tr cal

16640-16700 90% CHK: pred med- dk gy, occ med gy- brn, ip sl mot, sl frm- hd, pred sb blk- sb ang, tr pyr, v arg ls, sme intbd mlst, v calc, rr cal, tr pyr bent, v carb, tr f lam, fr lt gn yel, fr- g lt yel gn resdl ring: 10% MRLST: dk gy- sl blk, sb ang- sb blk, ip spl, sme intbd ls, frm- sl hd, calc, v arg, carb, lith frags, rr cal

16700-16728 90% CHK: pred med- dk gy, occ med gy brn, ip mot, sl frm- sl hd, pred blk- sb ang, sl pyr, v arg ls, sme intbd mlst, calc, rr cal, tr pyr bent, v carb, tr f lam, fr- g lt gn wh, g lt yel gn resdl ring: 10% MRLST: dk gy- sl blk, ang- blk, ip spl, ip intbd ls, frm- sl hd, calc, v arg, carb, lith frags, tr cal

7800





52