

SURVEY @ 301.66mMDRT
INC:1.12° AZI:268.86°

DRILL WITH SEAWATER AND
PHG SWEEPS

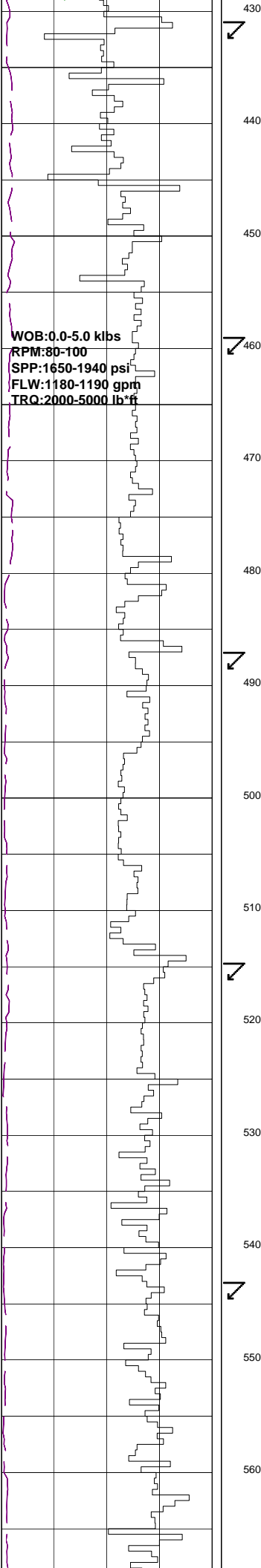
36" CASING @ 332.8mMDRT

SURVEY @ 343.76mMDRT
INC:0.51° AZI:334.66°

SURVEY @ 375.00mMDRT
INC:0.39° AZI:309.43°

DRILL WITH SEAWATER AND
PHG SWEEPS

SURVEY @ 402.39mMDRT
INC:0.16° AZI:330.15°



SURVEY @ 430.92mMDRT
INC:0.16° AZI:1.93°

DRILL WITH SEAWATER AND
PHG SWEEPS

SURVEY @ 459.00mMDRT
INC:0.45° AZI:340.51°

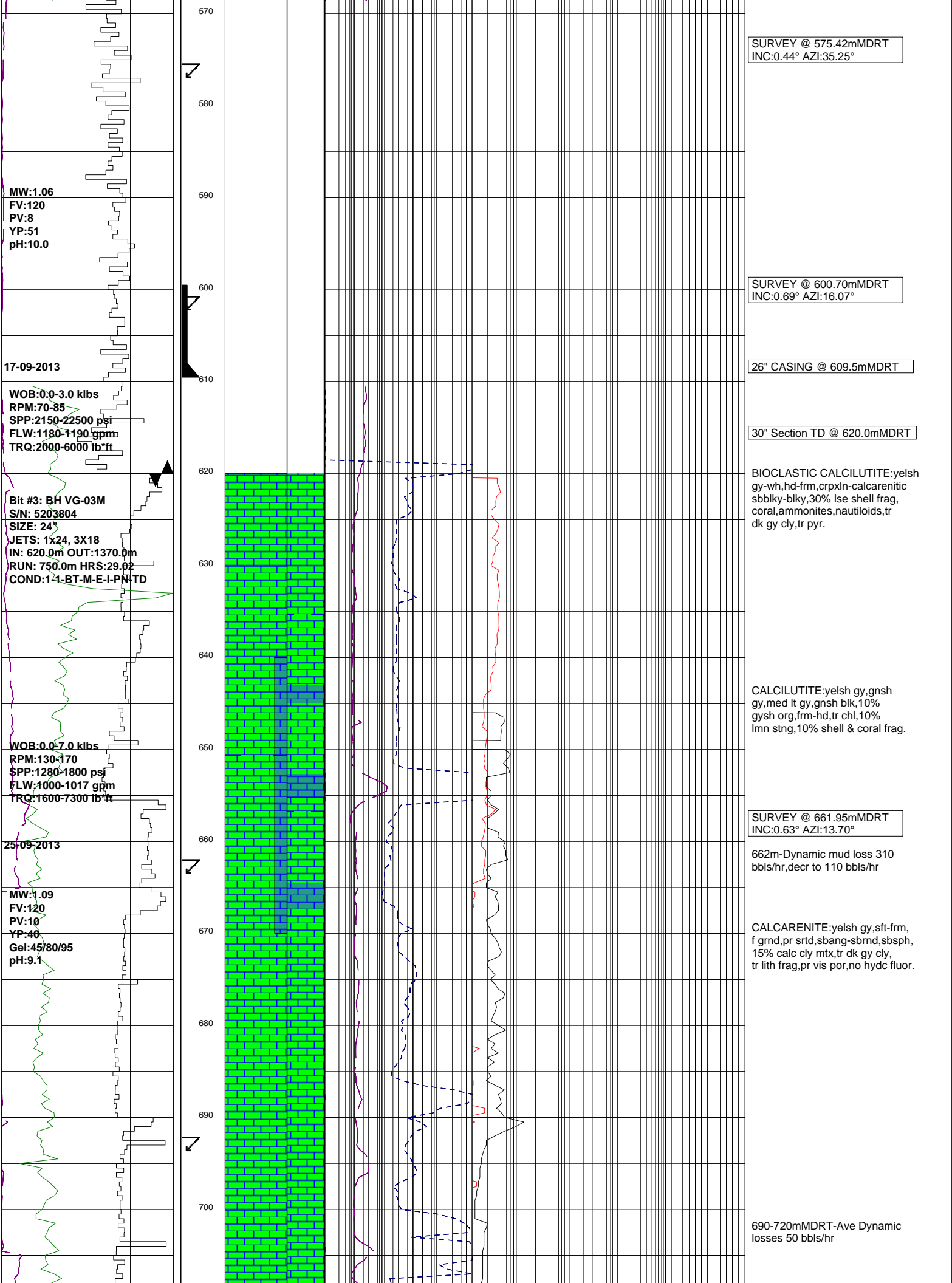
SURVEY @ 487.02mMDRT
INC:0.49° AZI:17.62°

DRILL WITH SEAWATER AND
PHG SWEEPS

SURVEY @ 514.68mMDRT
INC:0.43° AZI:5.65°

SURVEY @ 543.07mMDRT
INC:0.40° AZI:4.99°

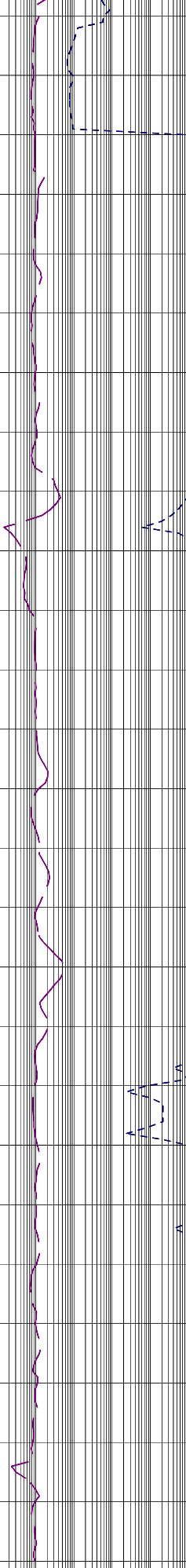
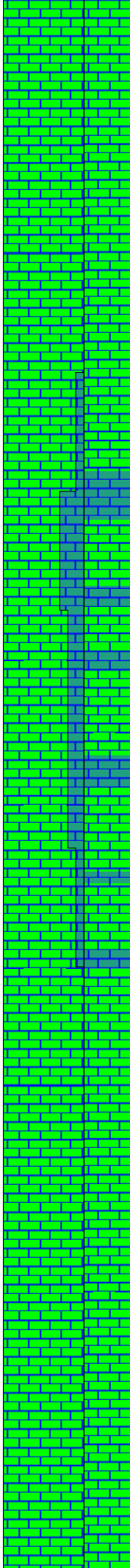
DRILL WITH SEAWATER AND
PHG SWEEPS



WOB:0.0-16.0 klbs
RPM:128-178
SPP:1131-2110 psi
FLW:812-1053 gpm
TRQ:1085-10861 lb*ft

MW:1.09
FY:120
PV:7
YP:41
Gel:46/109/112
pH:9

WOB:5.0-28.0 klbs
RPM:161-190
SPP:1795-2515 psi
FLW:1012-1168 gpm
TRQ:2759-12857 lb*ft



Working on GZG

CALCILUTITE:wh,bish wh,tr
yelsh gy,frm-mod hd,sbblky,
grdg loc-f grnd CALCARENITE,
tr chl,tr shell frag.

SURVEY @ 722.95mMDRT
INC:0.58° AZI:345.90°

CALCILUTITE:wh,bish wh,tr
yelsh gy,frm-mod hd,sbblky,
grdg loc-f grnd CALCARENITE,
tr chl,tr shell frag.

735-865mMDRT-Ave Dynamic
losses 120-200 bbls/hr

SURVEY @ 751.69mMDRT
INC:0.55° AZI:350.70°

CALCARENITE:pl yelsh brn,
lt olv gy,f grnd,frm-hd,sbblky,wl
srted,sbang-sbrnd,sbsph,tr carb
spk,tr gysh blk lith grn,tr pyr,pr
vis por,no hydc fluor.

CALCILUTITE:wh,frm-hd,xln-
chky,sbblky,tr pyr.

SURVEY @ 780.57mMDRT
INC:0.04° AZI:101.56°

CALCILUTITE:wh,tr pl pnk,
pl yelsh org stng,frm-hd,
xln-chky,sbblky,tr chl,
tr bioclastic frag,including
ammonites & corals.

SURVEY @ 809.70mMDRT
INC:0.20° AZI:61.70°

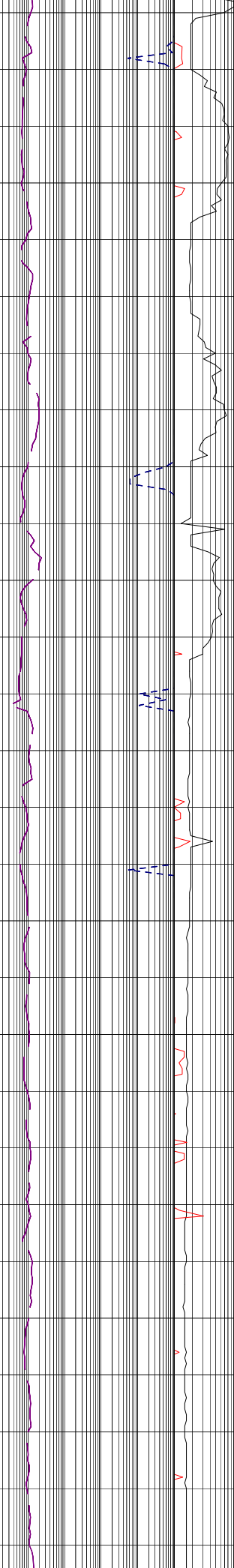
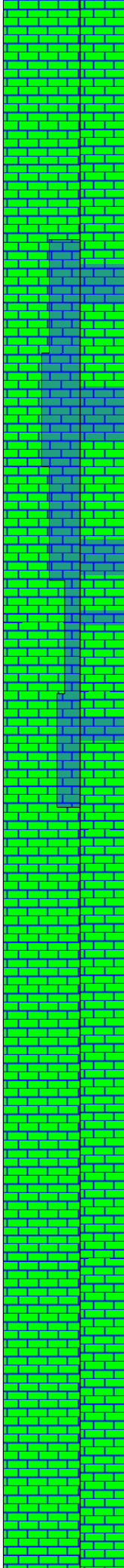
SURVEY @ 838.15mMDRT
INC:0.36° AZI:51.22°

CALCILUTITE:wh,frm-hd,xln-chky,
sbblky,tr chl,tr bioclastic frag,
including ammonites & coral.

MW:1.10
FV:120
PV:6
YP:26
Gel:28/58/70
pH:9.1

WOB:1.4-13.8 klbs
RPM:167-198
SPP:1824-2219 psi
FLW:1016-1162 gpm
TRQ:2926-16710 lb*ft

MW:1.13
FV:120
PV:10
YP:16
Gel:16/35/48
pH:9



865-1010mMDRT-Ave Dynamic losses 45 bbls/hr

SURVEY @ 869.89mMDRT
INC:0.35° AZI:89.92°

CALCILUTITE:wh,sft-frm,amor
i/p,sbbiky,tr pl yelsh org & mod
rdsh brn lith frag (lmn?/hem?),
tr carb mat.

SURVEY @ 892.82mMDRT
INC:0.64° AZI:306.27°

CALCARENITE:pl yelsh brn,
lt olv gy,f grnd,frm-hd,sbbiky,
wl srted.sbang-sbrnd,sbsph,
5% coral frag,fr vis por,no
hydc fluor

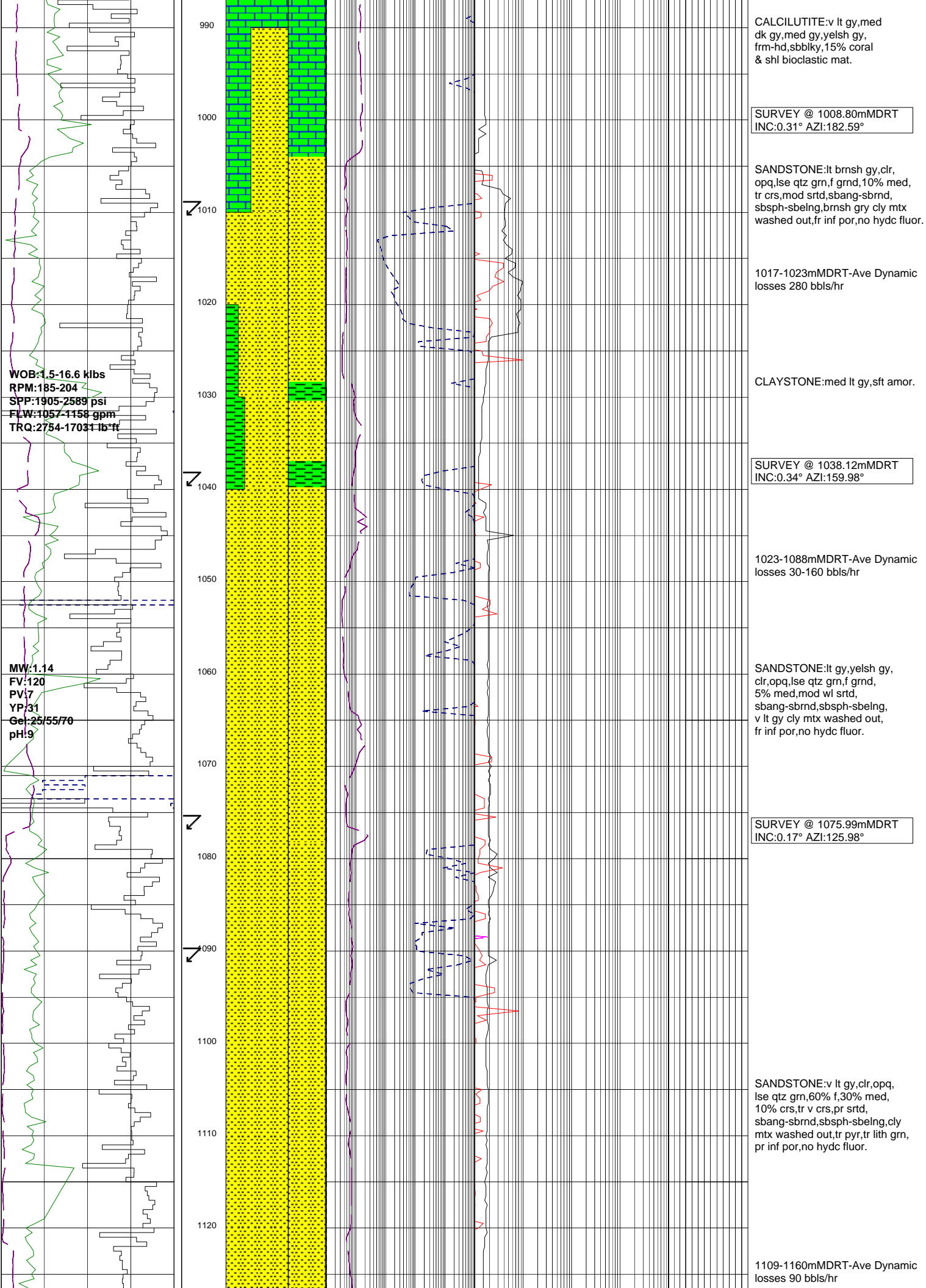
CALCILUTITE:v lt gy,med dk gy,
med gy,wh,frm-hd,sbbiky,tr coral
frag.

SURVEY @ 920.25mMDRT
INC:0.67° AZI:310.52°

SURVEY @ 949.28mMDRT
INC:0.58° AZI:282.27°

CALCILUTITE:v lt gy,med dk gy,
yelsh gy,frm-hd,sbbiky,15% coral
& shell bioclastic mat.

SURVEY @ 978.68mMDRT
INC:0.41° AZI:270.58°



WOB:1.5-18.6 klbs
RPM:160-208
SPR:1584-2589 psi
FLW:968-1179 gpm
TRQ:1822-1703 lb*ft

1130
1140
1150
1160
1170
1180
1190
1200
1210
1220
1230
1240
1250
1260

WOB:0.0-15.7 klbs
RPM:154-191
SPR:1862-2338 psi
FLW:1002-1130 gpm
TRQ:2322-13199 lb*ft

MW:1.11
FV:120
PV:10
YP:30
Gel:28/61/61
pH:9.65

SANDSTONE:lt gy,clr,opq,qtz grn
40% f,60% med,mod srted,sbang-
sbrnd,sbsph-sbelng,clt mxt
washed out,tr lith grn,fr inf por,
no hydc fluor.

1168-1200mMDRT-Ave Dynamic
losses 165 bbls/hr

SURVEY @ 1175.30mMDRT
INC:0.55° AZI:10.23°

SANDSTONE:v lt gy,clr,opq,
lse qtz grn,60% f,30% med,
10% crs,mod srted,sbang-sbrnd,
sbsph-sbelng,clt mxt washed out,
tr lith grn,fr inf por,no hydc fluor.

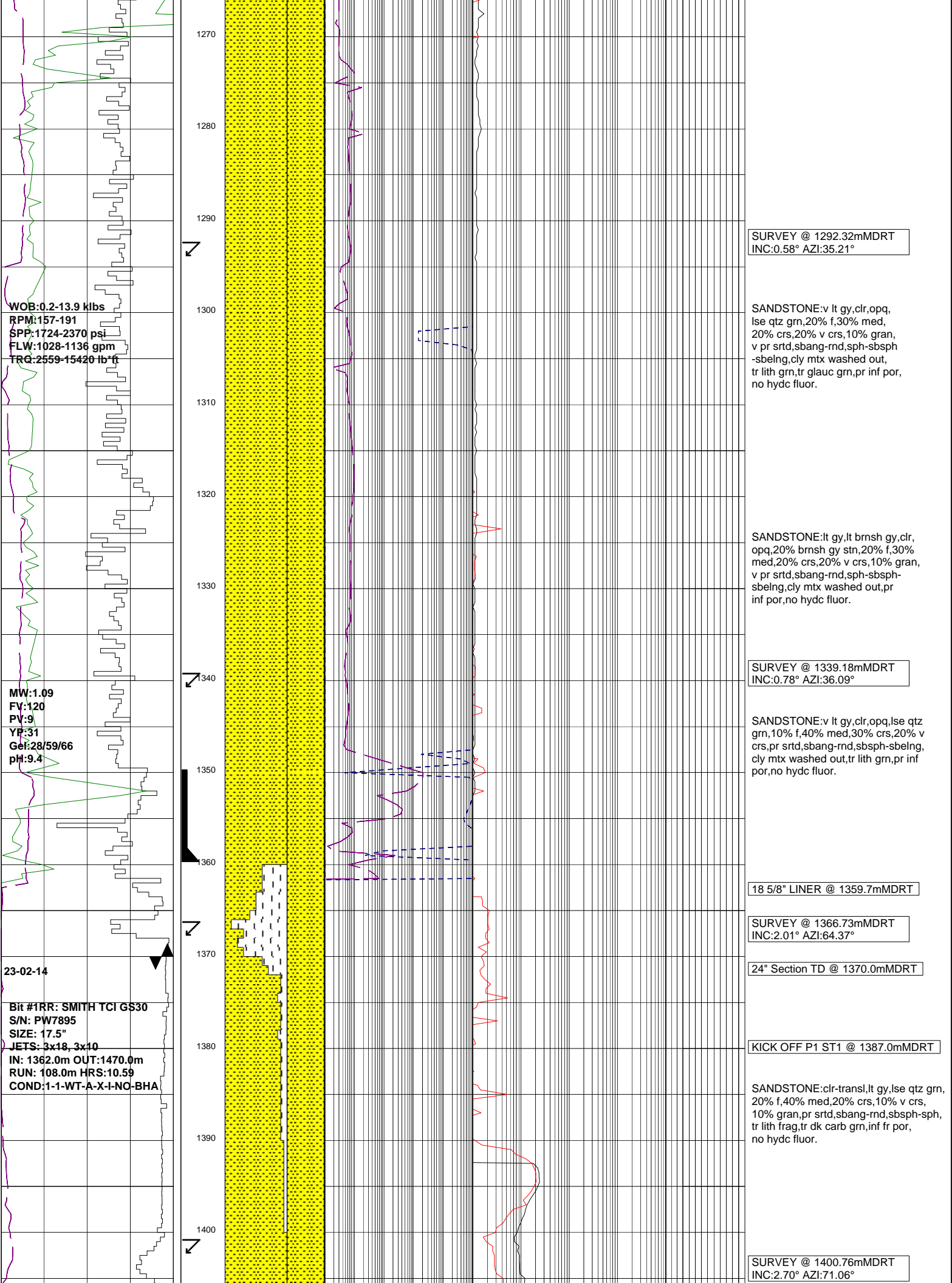
1200-1370mMDRT-Ave Dynamic
losses 115-165 bbls/hr

SURVEY @ 1211.29mMDRT
INC:0.73° AZI:20.46°

SURVEY @ 1238.76mMDRT
INC:0.83° AZI:32.02°

SANDSTONE:v lt gy,clr,opq,lse
qtz grn,10% f,20% med,40% crs,
20% v crs,10% gran,v pr srted,
sbang-sbrnd,sbsph-sbelng,clt mxt
washed out,tr lith grn,pr inf por,
no hydc fluor.

SURVEY @ 1265.08mMDRT
INC:0.56° AZI:337.6°



WOB:0.2-13.9 klbs
RPM:157-191
SPP:1724-2370 psi
FLW:1028-1136 gpm
TRQ:2559-15420 lb*ft

MW:1.09
FY:120
PV:9
YP:31
Gel:28/59/66
pH:9.4

23-02-14

Bit #1RR: SMITH TCI GS30
S/N: PW7895
SIZE: 17.5"
JETS: 3x18, 3x10
IN: 1362.0m OUT:1470.0m
RUN: 108.0m HRS:10.59
COND:1-1-WT-A-X-I-NO-BHA

SURVEY @ 1292.32mMDRT
INC:0.58° AZI:35.21°

SANDSTONE:v lt gy,clr,opq,
lse qtz grn,20% f,30% med,
20% crs,20% v crs,10% gran,
v pr srted,sbang-rnd,sph-sbsph
-sbelng,clt mtz washed out,
tr lith grn,tr glauc grn,pr inf por,
no hydc fluor.

SANDSTONE:lt gy,lt brnsh gy,clr,
opq,20% brnsh gy stn,20% f,30%
med,20% crs,20% v crs,10% gran,
v pr srted,sbang-rnd,sph-sbsph-
sbelng,clt mtz washed out,pr
inf por,no hydc fluor.

SURVEY @ 1339.18mMDRT
INC:0.78° AZI:36.09°

SANDSTONE:v lt gy,clr,opq,lse qtz
grn,10% f,40% med,30% crs,20% v
crs,pr srted,sbang-rnd,sbsph-sbelng,
clt mtz washed out,tr lith grn,pr inf
por,no hydc fluor.

18 5/8" LINER @ 1359.7mMDRT

SURVEY @ 1366.73mMDRT
INC:2.01° AZI:64.37°

24" Section TD @ 1370.0mMDRT

KICK OFF P1 ST1 @ 1387.0mMDRT

SANDSTONE:clr-transl,lt gy,lse qtz grn,
20% f,40% med,20% crs,10% v crs,
10% gran,pr srted,sbang-rnd,sbsph-sph,
tr lith frag,tr dk carb grn,inf fr por,
no hydc fluor.

SURVEY @ 1400.76mMDRT
INC:2.70° AZI:71.06°

WOB:0.0-9.2 klbs
RPM:70-144
SPP:720-1472 psi
FLW:635-902 gpm
TRQ:0-11345 lb*ft

24-02-14

MW:1.06
FV:46
PV:8
YP:18
Gel:11/13/-
pH:9.5

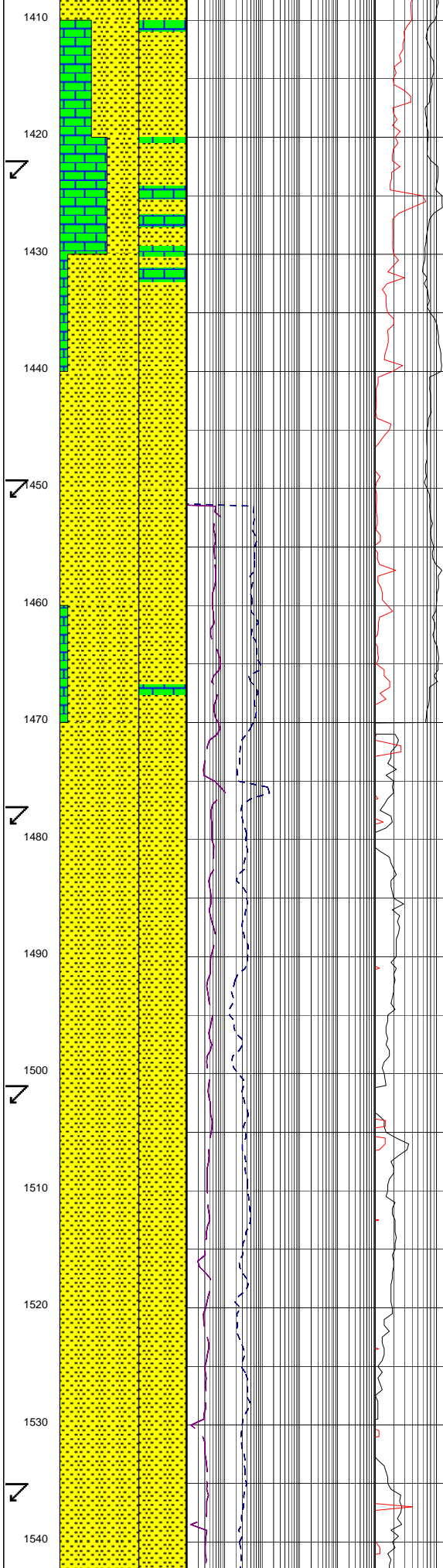
24-02-14

25-02-14

Bit #: KYMERA HP633F
SN: 7038286
SIZE: 17.5"
JETS: 9x12
IN: 1470.0m OUT:2407.0m
RUN: 937.0m HRS:44.98
COND:2-3-BT-S-X-1/16-NO-TD

WOB:6.2-16.4 klbs
RPM:79-89
SPP:1104-1216 psi
FLW:778-783 gpm
TRQ:0 lb*ft

MW:1.06
FV:51
PV:7
YP:22
Gel:18/24/27
pH:11.0



CALCULUTITE:gysh org-pl yel brn,hd,
sbbiky-blky,xln,20% chky,tr shell frag.

SURVEY @ 1422.51mMDRT
INC:3.18° AZI:74.80°

SANDSTONE-2:clr-transl,pl yelsh brn,
lt olv-olv gy,hd,f grnd,wl srted,sbang-
sbrnd,sbsph-sph,no vis mtx,tr calc
& sil cmt,tr lith,pr por,no hydc fluor.

SURVEY @ 1449.25mMDRT
INC:2.82° AZI:79.39°

SURVEY @ 1477.44mMDRT
INC:3.07° AZI:82.14°

SANDSTONE:clr,opq,lse qtz grn,
20% f,70% med,10% crs,tr v crs,
mod srted,sbang-rnd,sbsph-sph,tr
lith frag,tr dk carb grn,inf fr por,
no hydc fluor.

SURVEY @ 1500.98mMDRT
INC:3.31° AZI:88.12°

SANDSTONE:clr,opq,lse qtz grn,
20% f,70% med,10% crs,tr v crs,
mod srted,sbang-rnd,sbsph-sph,tr
gnsh gy & dk gy qtz grn,tr lith frag,
tr dk carb grn,inf fr por,no hydc fluor.

SURVEY @ 1535.54mMDRT
INC:4.72° AZI:91.20°

26-02-14

WOB:0.0-3.3 kips
RPM:148-150
SPP:1623-1877 psi
FLW:947-986 gpm
TRQ:2912-4912 lb*ft

MW:1.05
FV:52
PV:8
YP:21
Gel:17/21/34
pH:9.8

1550

1560

1570

1580

1590

1600

1610

1620

1630

1640

1650

1660

1670

1680

SURVEY @ 1564.36mMDRT
INC:5.05° AZI:96.60°

SANDSTONE-2:clr,opq,pl yelsh brn,
lt olv gy,fri-frn,f grnd,wl srtld,sbang
-sbrnd,sbsph-sph,tr calc cmt,tr lith
frag,tr dk carb grn,pr-fr vis por,
no hydc fluor.

SURVEY @ 1593.68mMDRT
INC:4.88° AZI:99.28°

SANDSTONE:clr,opq,lse qtz grn,
30% f,50% med,20% crs,tr v crs,
mod srtld,sbang-rnd,sbsph-sph,
tr gnsh gy & dk gy qtz grn,tr lith frag,
tr dk carb grn,inf fr por,no hydc fluor.

SURVEY @ 1625.41mMDRT
INC:4.54° AZI:97.59°

SANDSTONE-2:clr,opq,pl yelsh brn,
lt olv gy,fri-frn,80% f,20% med,mod
wl srtld,sbang-sbrnd,sbsph-sph,tr
calc cmt,tr lith frag,tr dk carb grn,
pr-fr vis por,no hydc fluor.

SANDSTONE:clr,opq,lse qtz grn,
30% f,50% med,20% crs,tr v crs,
mod srtld,sbang-rnd,sbsph-sph,tr
gnsh gy & dk gy qtz grn,tr lith frag,
tr dk carb grn,inf fr por,no hydc fluor.

SURVEY @ 1650.24mMDRT
INC:5.56° AZI:91.30°

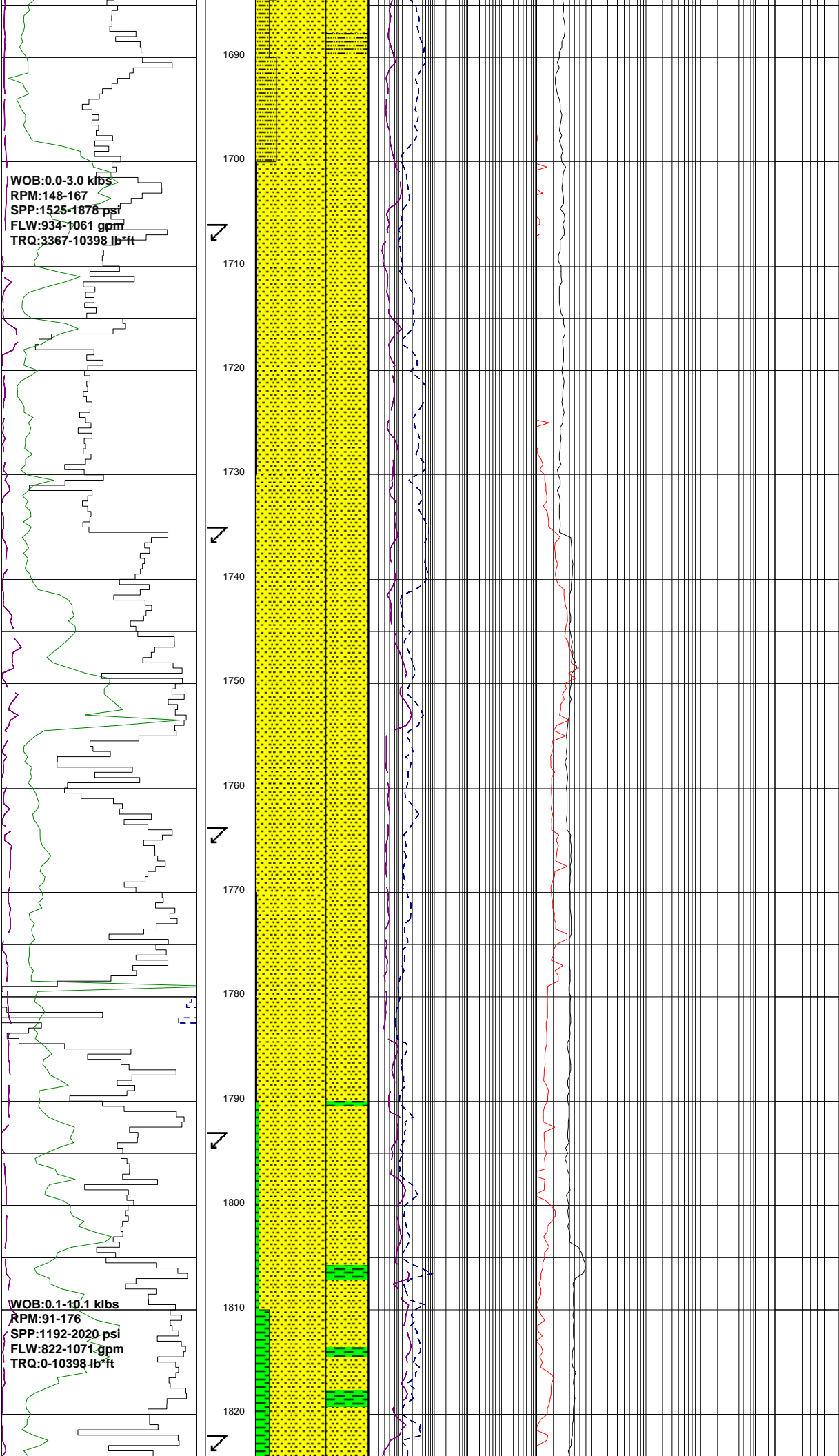
SANDSTONE-2:clr,opq,pl yelsh brn,
lt olv gy,fri-frn,90% f,10% med,mod
wl srtld,sbang-sbrnd,sbsph-sph,tr
calc cmt,tr lith frag,tr dk carb grn,
pr-fr vis por,no hydc fluor.

SANDSTONE-3:med dk gy,brn gy-olv
gy,fri,v f-f grnd,wl srtld,sbang-sbrnd,
sbsph,tr-5% dk cly mnx,5-10% lith &
carb mat,nl-v pr vis por,no hydc fluor.

SURVEY @ 1678.18mMDRT
INC:4.79° AZI:86.77°

WOB:0.0-3.0 klbs
RPM:148-167
SPP:1525-1876 psi
FLW:934-1061 gpm
TRQ:3367-10398 lb*ft

WOB:0.1-10.1 klbs
RPM:91-176
SPP:1192-2020 psi
FLW:822-1071 gpm
TRQ:0-10398 lb*ft



SANDSTONE:clr,opq,lse qtz grn, 10% f,30% med,35% crs,20% v crs, 5% gran,pr srt,dbang-rnd,sbsph-sph,tr gnsh gy & dk gy qtze grn,tr lith frag,tr dk carb grn,tr dism & nod pyr, inf fr por,no hydrc fluor.

SANDSTONE-2:clr,opq,pl yelsh brn, lt olv gy,fri-frm,90% f,10% med,mod wl srt,dbang-sbrnd,sbsph-sph, tr calc cmt,tr lith frag,tr dk carb grn, pr-fr vis por,no hydrc fluor.

SURVEY @ 1706.44mMDRT
INC:4.36° AZI:90.56°

SANDSTONE-3:med dk gy,brnsh gy-olv gy,fri,v f-f grnd,wl srt,sbang-sbrnd, sbsph,tr-5% dk cly mtx,5-10% lith & carb mat,nl-v pr vis por,no hydrc fluor.

SURVEY @ 1735.75mMDRT
INC:4.73° AZI:90.49°

SANDSTONE:clr,opq,lse qtz grn, 20% f,50% med,30% crs,tr v crs, pr-mod srt,sbang-rnd,sbsph-sph, tr gnsh gy & dk gy qtze grn,tr lith frag,tr dk carb grn,tr dism & nod pyr,inf fr por,no hydrc fluor.

SURVEY @ 1763.25mMDRT
INC:6.50° AZI:88.73°

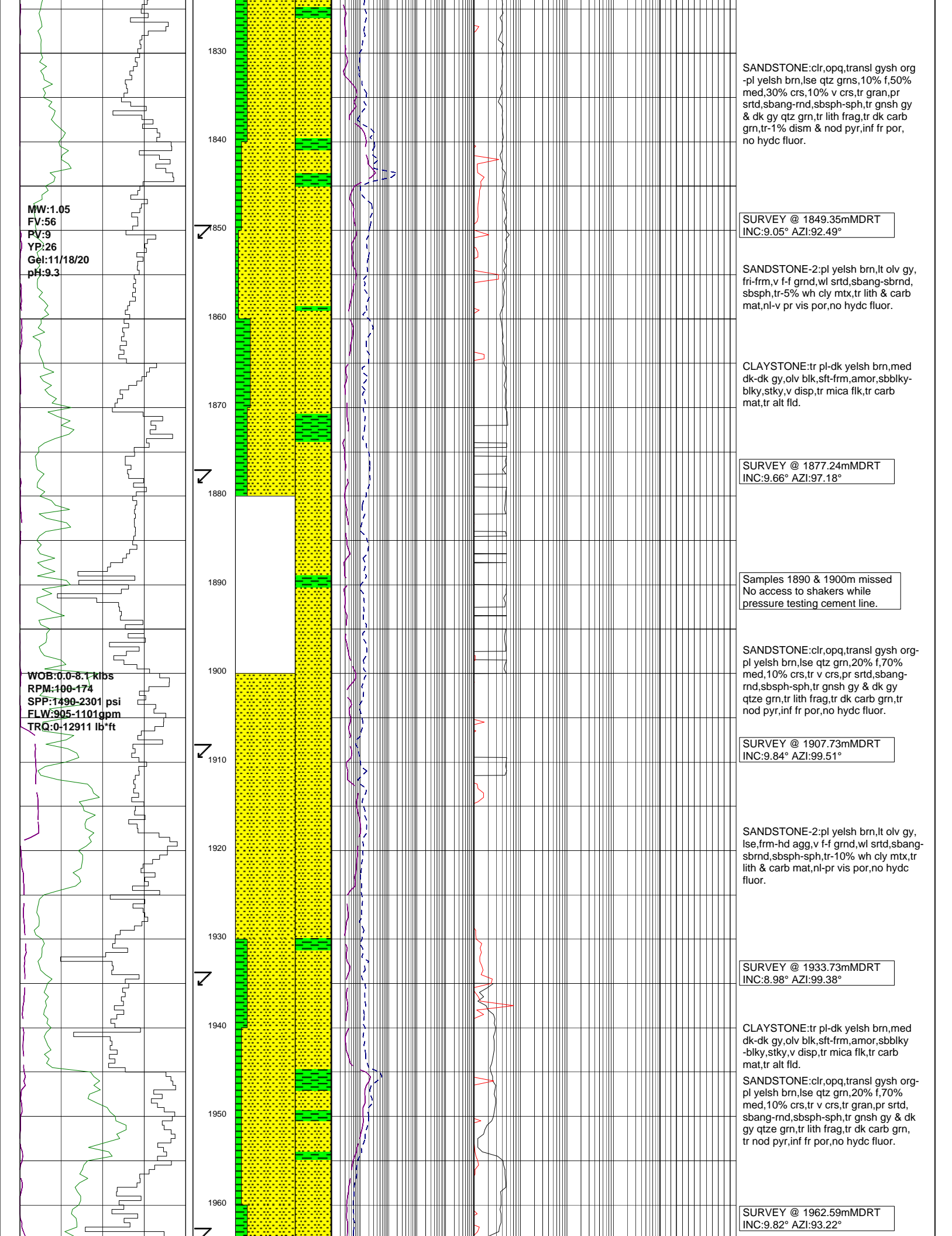
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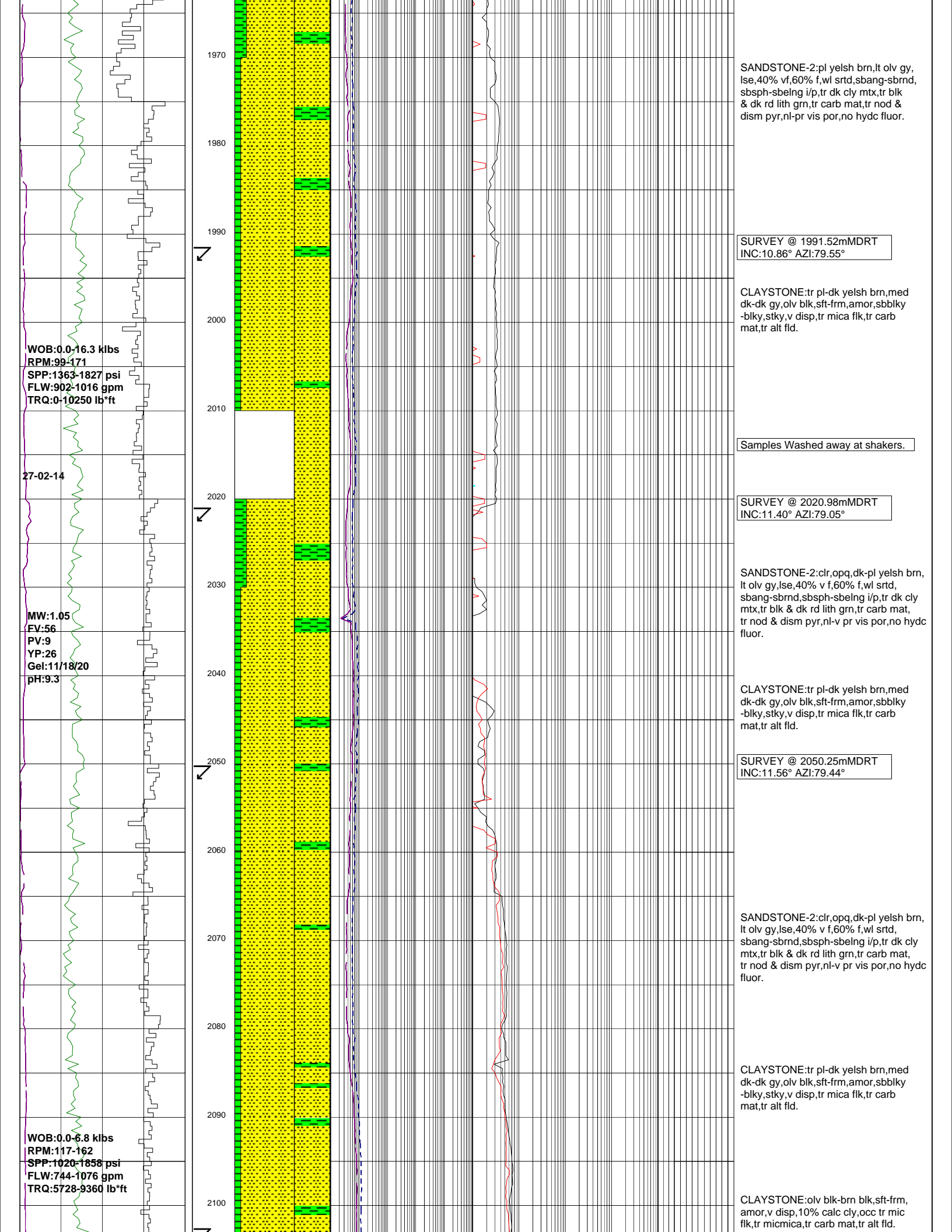
SURVEY @ 1793.28mMDRT
INC:9.19° AZI:87.92°

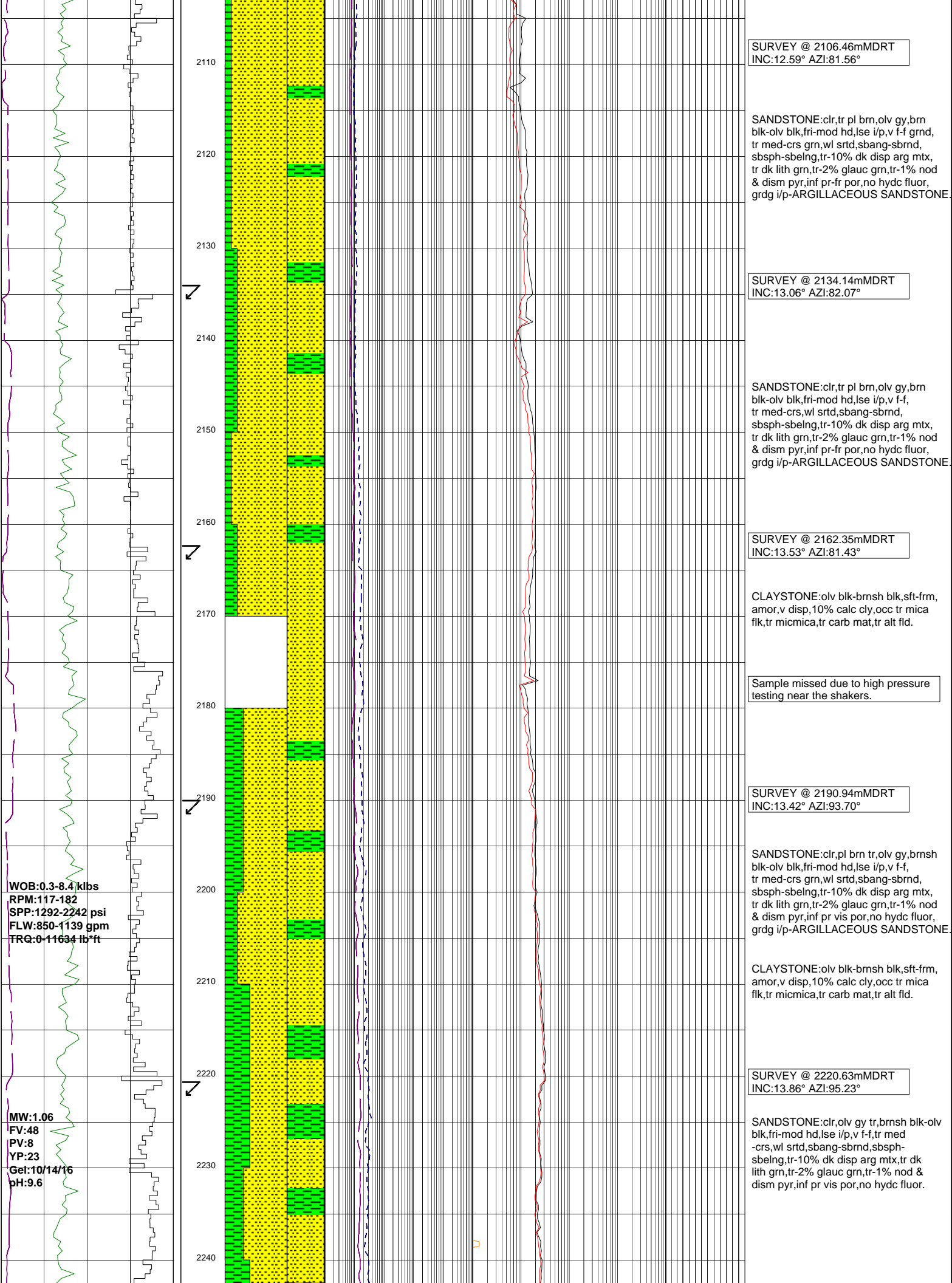
SANDSTONE:clr,opq,transl gysh org-pl yelsh brn,lse qtz grn,10% f,50% med,30% crs,10% v crs,pr-mod srt, sbang-rnd,sbsph-sph,tr gnsh gy & dk gy qtze grn,tr lith frag,tr dk carb grn,tr dism & nod pyr,inf fr por, no hydrc fluor.

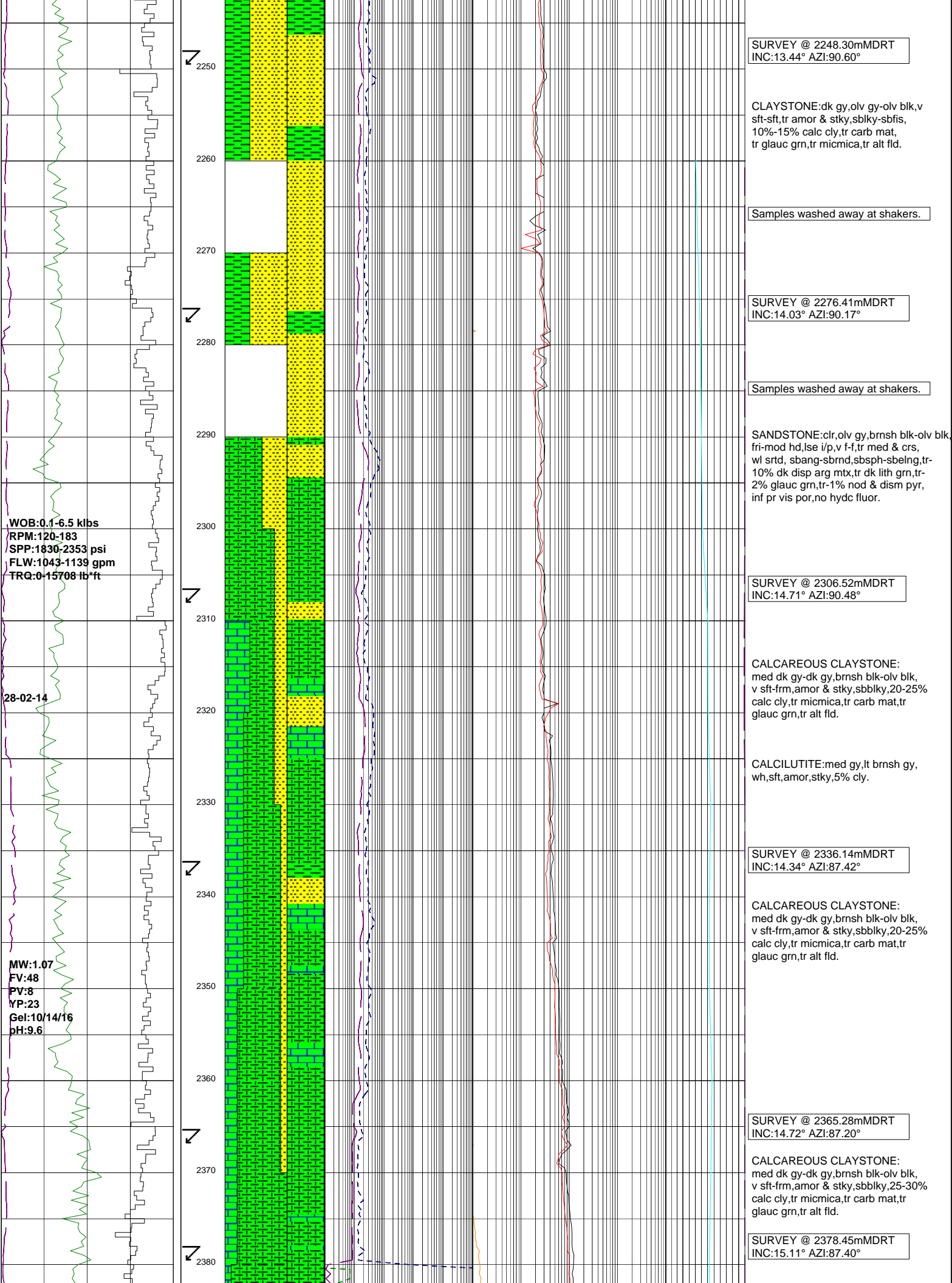
CLAYSTONE:tr pl-dk yelsh brn, med dk-dk gy,olv blk,sft-frm,amor, sbblky-blky,stky,v disp,tr mica flik, tr carb mat,tr alt fld.

SURVEY @ 1821.73mMDRT
INC:9.50° AZI:88.69°









SURVEY @ 2248.30mMDRT
INC:13.44° AZI:90.60°

CLAYSTONE:dk gy,olv gy-olv blk,v
sft-sft,tr amor & stky,sbiky-sbfis,
10%-15% calc cly,tr carb mat,
tr glauc grn,tr micmica,tr alt fld.

Samples washed away at shakers.

SURVEY @ 2276.41mMDRT
INC:14.03° AZI:90.17°

Samples washed away at shakers.

SANDSTONE:clr,olv gy,brnsh blk-olv blk,
fri-mod hd,lse i/p,v f-f,tr med & crs,
wl srted, sbang-sbrnd,sbsph-sbelng,tr-
10% dk disp arg mtx,tr dk lith grn,tr-
2% glauc grn,tr-1% nod & dism pyr,
inf pr vis por,no hydc fluor.

SURVEY @ 2306.52mMDRT
INC:14.71° AZI:90.48°

CALCAREOUS CLAYSTONE:
med dk gy-dk gy,brnsh blk-olv blk,
v sft-frn,amor & stky,sbbiky,20-25%
calc cly,tr micmica,tr carb mat,tr
glauc grn,tr alt fld.

CALCILUTITE:med gy,lt brnsh gy,
wh,sft,amor,stky,5% cly.

SURVEY @ 2336.14mMDRT
INC:14.34° AZI:87.42°

CALCAREOUS CLAYSTONE:
med dk gy-dk gy,brnsh blk-olv blk,
v sft-frn,amor & stky,sbbiky,20-25%
calc cly,tr micmica,tr carb mat,tr
glauc grn,tr alt fld.

SURVEY @ 2365.28mMDRT
INC:14.72° AZI:87.20°

CALCAREOUS CLAYSTONE:
med dk gy-dk gy,brnsh blk-olv blk,
v sft-frn,amor & stky,sbbiky,25-30%
calc cly,tr micmica,tr carb mat,tr
glauc grn,tr alt fld.

SURVEY @ 2378.45mMDRT
INC:15.11° AZI:87.40°

WOB:0.1-6.5 klbs
RPM:120-183
SPP:1830-2353 psi
FLW:1043-1139 gpm
TRQ:0-15708 lb*ft

28-02-14

MW:1.07
FV:48
PV:8
YP:23
Gel:10/14/16
pH:9.6

WOB:0.0-8.4 klbs
RPM:99-176
SPP:1474-2187 psi
FLW:901-1124 gpm
TRQ:0-14564 lb*ft

28-02-14

28-08-14

Bit #3: MSI713 HLBPX
S/N: JJ6086
SIZE: 12.25"
JETS: 3x13, 7x14
IN: 2407.0m, OUT: 4312.0m
RUN: 1905.0m HRS: 77.40
COND: 1-2-BT-G-X-1/16-CT-TD

MW:1.40
FV:100
PV:31
YP:15
Gel: 9/11/14

WOB:0.1-9.2 klbs
RPM:71-149
SPP:1688-2821 psi
FLW:692-956 gpm
TRQ:5272-12529 lb*ft

MW:1.44
FV:40
PV:20
YP:80
Gel: 10/17/17

2390

2400

2410

2420

2430

2440

2450

2460

2470

2480

2490

2500

2510

2520

CALCILUTITE: med gy, lt brnsh gry,
wh, sft, amor, stky, 5% cly.

13 3/8" CSG SHOE @ 2397.4mMDRT.

17 1/2" Section TD @ 2407.0mMDRT.

SURVEY @ 2414.66mMDRT
INC: 14.84° AZI: 87.56°

CLAYSTONE: gysh blk-olv blk, med
dk gy, tr brnsh blk, frm-mod hd, sft i/p,
blky-sbblky, i/p amor, tr-5% slt, 10-i/p
20% calc cly, tr carb spk, tr micmica, i/p
bcmg CALCAREOUS CLAYSTONE.

CLAYSTONE: gysh blk-olv blk,
med dk gy, tr brnsh blk, frm
-mod hd, sft i/p, blky-sbblky,
i/p amor, tr-5% slt, 5-10%
calc cly, tr carb spk,
tr micmica.

SURVEY @ 2443.25mMDRT
INC: 15.49° AZI: 89.39°

CALCILUTITE: med gy-med lt gy,
wh, lt brnsh gy, sft, amor, 5-10% cly.

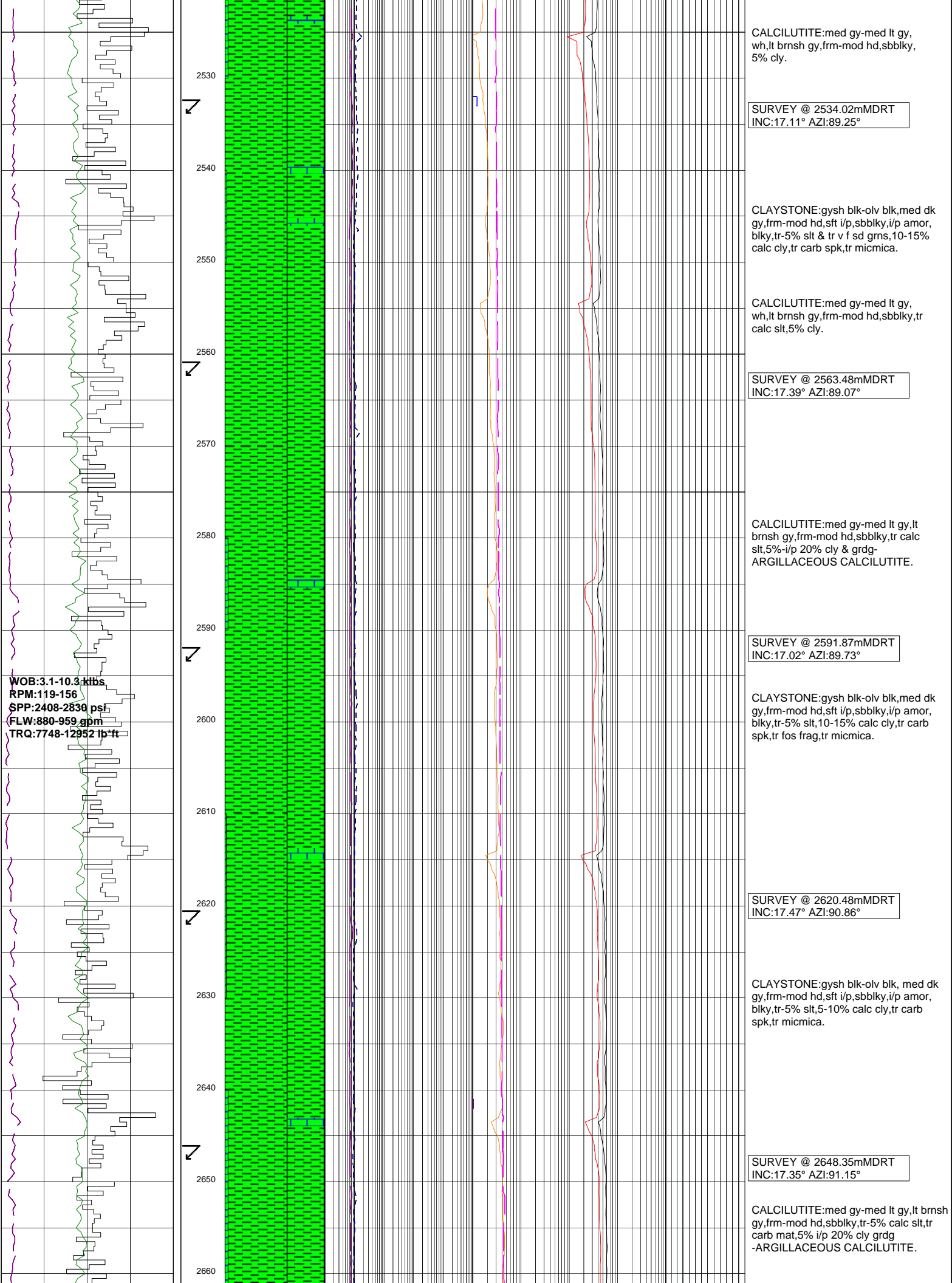
CLAYSTONE: gysh blk-olv blk,
med dk gy, tr brnsh blk, frm
-mod hd, sft i/p, blky-sbblky,
i/p amor, tr-5% slt, 5-10% calc
cly, tr carb spk, tr micmica.

SURVEY @ 2473.34mMDRT
INC: 16.37° AZI: 89.31°

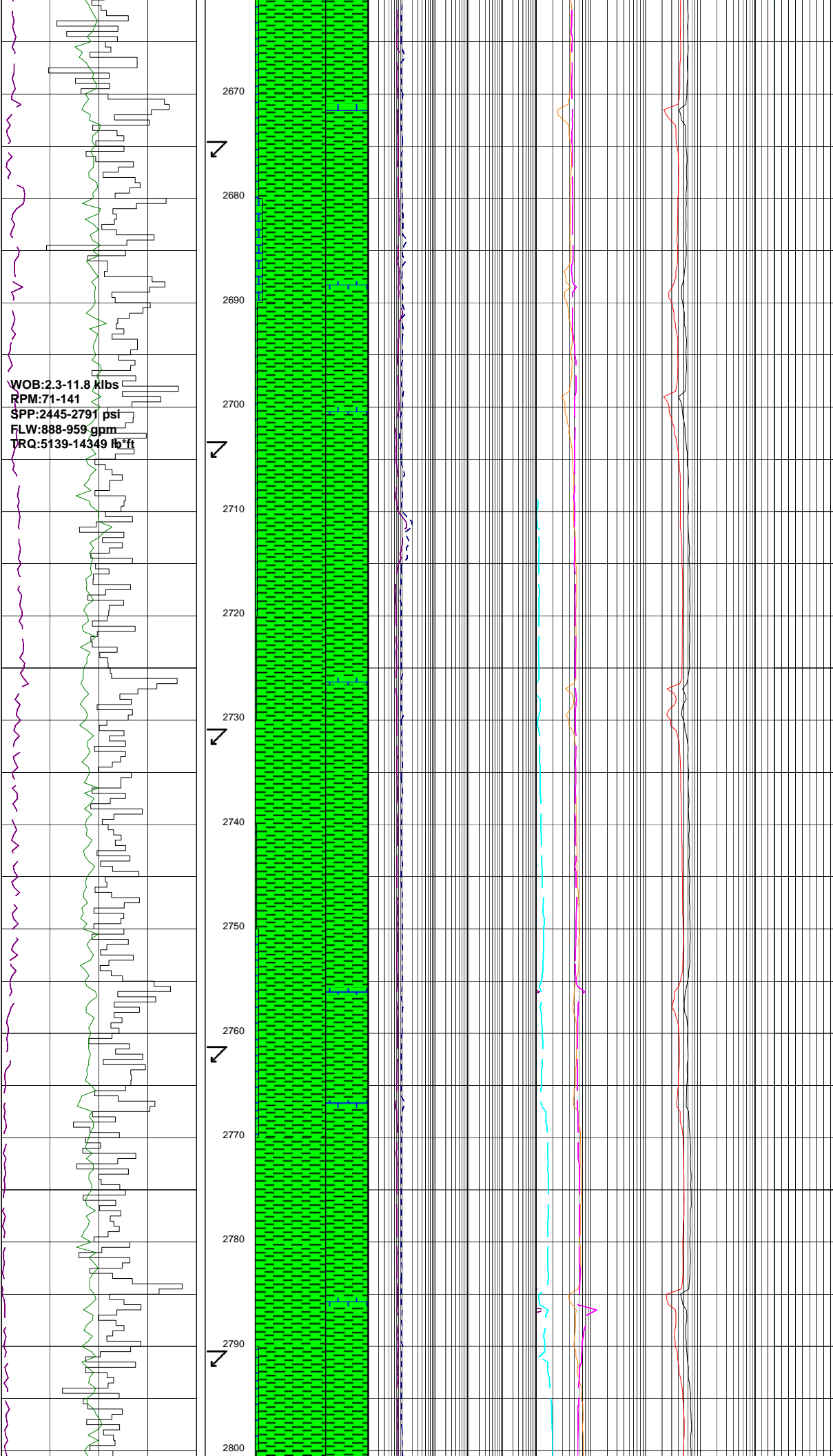
CLAYSTONE: med dk gy, gysh blk
-olv blk, frm-mod hd, sft i/p, blky
-sbblky, i/p amor, tr-5% slt, 10-i/p
20% calc cly, tr carb spk, tr micmica,
i/p bcmg CALCAREOUS
CLAYSTONE.

SURVEY @ 2503.98mMDRT
INC: 17.14° AZI: 88.88°

CLAYSTONE: gysh blk-olv blk, med
dk gy, frm-mod hd, sft i/p, sbblky, i/p
amor, blky, tr-5% slt & tr v f sd grn,
10-15% calc cly, tr carb spk, tr
micmica.



WOB:2.3-11.8 klbs
RPM:71-141
SPP:2445-2791 psi
FLW:888-959 gpm
TRQ:5139-14349 lb*ft



CLAYSTONE:gysh blk-olv blk, med dk gy,i/p lt gy,frm-mod hd,sft i/p,sbblky,i/p amor,tr-5% slt,5-10% calc cly,tr carb spk,tr micmica.

SURVEY @ 2675.79mMDRT
INC:17.21° AZI:92.00°

CALCILUTITE:med gy-med lt gy,lt brnsh gy,frm-mod hd,sbblky,tr-5% calc slt,tr carb mat 10%-i/p 20% cly grdg-ARGILLACEOUS CALCILUTITE.

SURVEY @ 2704.54mMDRT
INC:17.30° AZI:91.34°

CLAYSTONE:gysh blk-olv blk,med dk gy,i/p brnsh blk,frm-mod hd,sft i/p, sbblky-blky,i/p amor,tr-5% slt,5-10% calc cly,tr carb spk,tr micmica.

SURVEY @ 2732.94mMDRT
INC:17.30° AZI:90.76°

CLAYSTONE:gysh blk-olv blk,med dk gy,i/p brnsh blk,frm-mod hd,sft i/p, sbblky-blky,i/p amor,tr-5% slt,5-10% calc cly,tr carb spk,tr micmica.

CALCILUTITE:med gy-med lt gy,lt brnsh gy,i/p wh,frm-mod hd,sbblky, tr-5% calc slt,tr carb mat,10-15% cly.

SURVEY @ 2762.65mMDRT
INC:17.36° AZI:90.50°

CLAYSTONE:gysh blk-olv blk,med dk gy,i/p brnsh blk,frm-mod hd,sft i/p , sbblky-blky,i/p amor,tr-5% slt,5-10% calc cly,tr carb spk,tr micmica.

SURVEY @ 2792.73mMDRT
INC:17.12° AZI:89.74°

CALCILUTITE:med gy-med lt gy,lt brnsh gy,i/p wh,frm-mod hd,sbblky, tr-5% calc slt,tr carb mat,10-15% cly.

WOB:0.1-14.0 klbs
RPM:126-157
SPP:2742-2899 psi
FLW:955-982 gpm
TRQ:7058-13713 lb-ft

MW:1.44
FV:39
PV:22
YP:71
Gel:11/16/17

WOB:0.0-9.2 klbs
RPM:127-162
SPP:2555-2956 psi
FLW:906-993 gpm
TRQ:7910-17599 lb-ft

MW:1.44
FV:36
PV:19
YP:78
Gel:11/19/17

2810

2820

2830

2840

2850

2860

2870

2880

2890

2900

2910

2920

2930

2940

CLAYSTONE:gysh blk-olv blk, med
dk gy,i/p brnsh blk,frm-mod hd,sft i/p,
sbbiky-blky,i/p amor,tr-5% slt,5-10%
calc cly,tr carb spk,tr micmica.

SURVEY @ 2822.44mMDRT
INC:17.02° AZI:90.21°

CLAYSTONE:gysh blk-olv blk,med
dk gy,i/p brnsh blk,frm-mod hd,sft i/p,
sbbiky-blky,i/p amor,tr-5% slt,10-15%
calc cly,tr carb spk,tr micmica.

CLAYSTONE:gysh blk-olv blk,med
dk gy,frm-mod hd,sft i/p,sbbiky-blky,
i/p amor,tr-5% slt,10-15% calc cly,tr
carb spk,tr micmica.

SURVEY @ 2853.16mMDRT
INC:17.16° AZI:89.58°

CLAYSTONE:gysh blk-olv blk,med
dk gy,rr yelsh gy,frm-mod hd,sbbiky
-blky,tr-5% slt,10-15% calc cly,tr
carb spk,tr micmica.

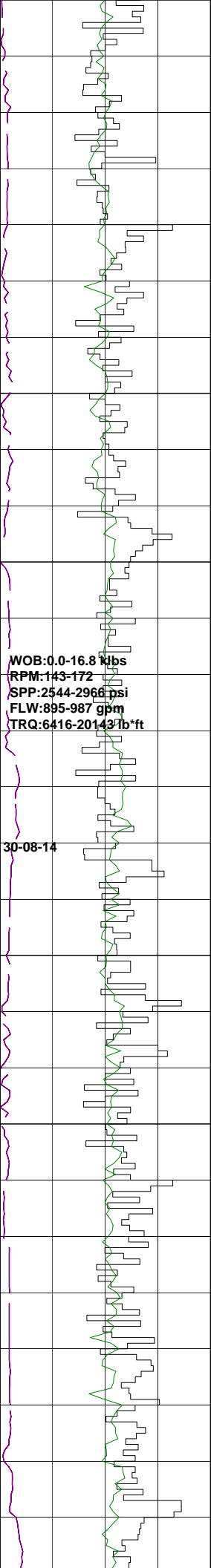
SURVEY @ 2882.11mMDRT
INC:17.31° AZI:91.05°

CLAYSTONE:gysh blk-olv blk,med
dk gy,rr yelsh gy,frm-mod hd,sbbiky
-blky,tr-5% slt,10-15% calc cly,tr
carb spk,tr micmica.

SURVEY @ 2910.08mMDRT
INC:17.49° AZI:92.21°

CLAYSTONE:gysh blk-olv blk,med
dk gy,rr yelsh gy,frm-mod hd,sft i/p,
sbbiky-blky,i/p amor,tr-5% slt,10-15%
calc cly,tr carb spk,tr micmica.

SURVEY @ 2938.41mMDRT
INC:17.50° AZI:93.03°



2950

2960

2970

2980

2990

3000

3010

3020

3030

3040

3050

3060

3070

CLAYSTONE:gysh blk-olv blk,med
dk gy,tr yelsh gy,frm-mod hd,sft i/p,
sbblky-blky,i/p amor,tr-i/p 10% slt,
10-15% calc cly,tr carb spk,tr micmica.

SURVEY @ 2966.05mDRT
INC:17.01° AZI:92.24°

CLAYSTONE:gysh blk-olv blk,med
dk gy,tr yelsh gy,frm-mod hd,sft i/p,
sbblky-blky,i/p amor,tr-i/p 10% slt,
10-15% calc cly,tr carb spk,tr micmica.

SURVEY @ 2994.73mDRT
INC:17.34° AZI:93.41°

CLAYSTONE:gysh blk-olv blk,med
dk gy,tr yelsh gy,frm-mod hd,sft i/p,
sbblky-blky,i/p amor,tr-i/p 10% slt,
10-15% calc cly,tr carb spk,tr
micmica.

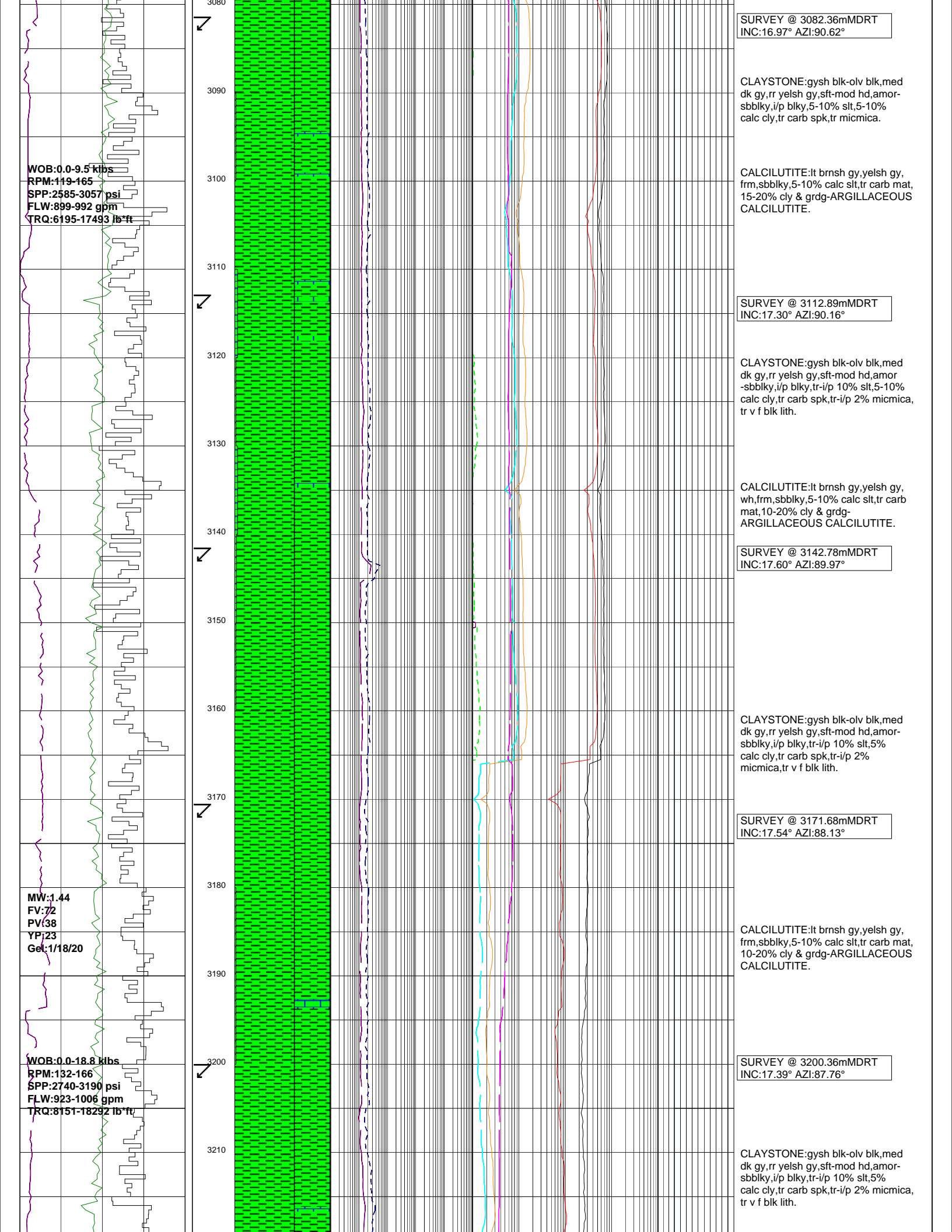
SURVEY @ 3022.93mDRT
INC:17.21° AZI:91.94°

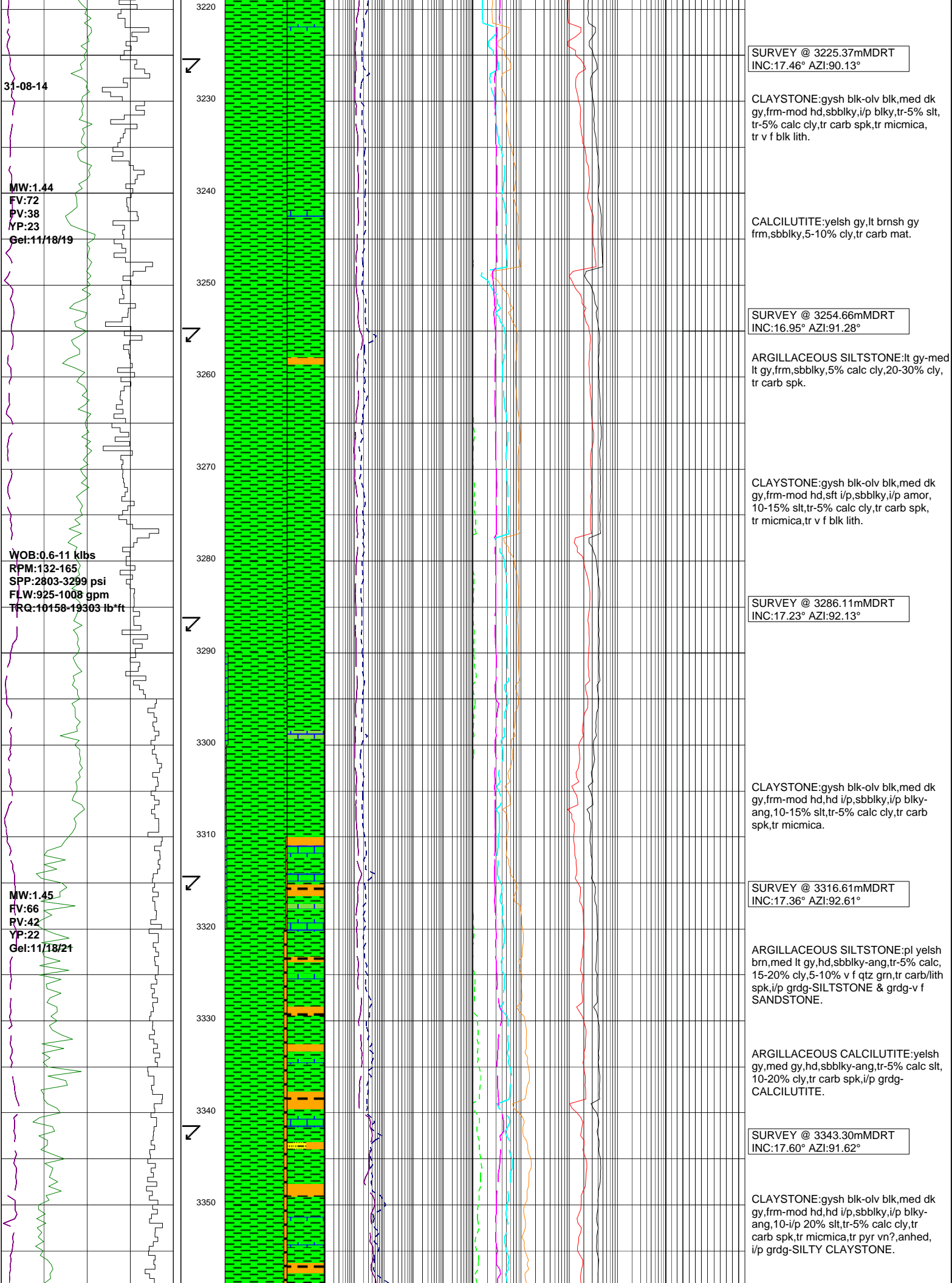
CALCILUTITE:lt brnsh gy,yelsh gy,
frm,sbblky,5% calc slt,tr carb mat,
15-20% cly & grdg-ARGILLACEOUS
CALCILUTITE.

SURVEY @ 3051.75mDRT
INC:17.21° AZI:89.86°

CLAYSTONE:gysh blk-olv blk,med
dk gy,rr yelsh gy,sft-mod hd,amor
-sbblky,i/p blky,tr-5% slt,10-15%
calc cly,tr carb spk,tr micmica.

CALCILUTITE:lt brnsh gy,yelsh gy,frm,
sbblky,5% calc slt,tr carb spk,15-20%
cly & grdg-ARGILLACEOUS
CALCILUTITE.





MW:1.45
FV:66
PV:43
YP:23
Gel:12/19/21

WOB:0.0-14.8
RPM:120-162
SPP:2867-3282 psi
FLW:939-1010 gpm
TRQ:8309-16308 lb*in

MW:1.45
FV:63
PV:46
YP:17
Gel:11/17/20

MW:1.45
FV:66
PV:42
YP:23
Gel:12/18/21

ARGILLACEOUS SILTSTONE:pl yelsh
brn,med lt gy,hd,sbbky-ang,tr-5% calc,
15-20% cly,5-10% v f qtz grn,tr carb/lith
spk,i/p grdg-SILTSTONE & grdg-
v f SANDSTONE.

SURVEY @ 3371.29mMDRT
INC:17.24° AZI:90.51°

CLAYSTONE:olv blk-brnsh blk,tr med
dk gy,frm-mod hd,sbbky,i/p blkyl,tr-5%
calc cly,5% slt,tr carb spk,tr micmica.

ARGILLACEOUS CALCILUTITE:pl
yelsh brn,yelsh gy,frm-mod hd,sbbky,
tr-5% calc slt,10-20% cly,tr carb spk,
grdg-CALCILUTITE.

CLAYSTONE:olv blk-brnsh blk,frm-mod
hd,sbbky,i/p blkyl,tr-5% calc cly,5% slt,
tr carb spk,tr micmica.

SURVEY @ 3401.43mMDRT
INC:17.76° AZI:90.79°

CLAYSTONE:olv blk-brnsh blk,frm-
mod hd,sft i/p,sbbky,i/p blkyl,amor,
tr-3% calc cly,10-20% slt w/ tr v f qtz
grn,tr-i/p 5% glauc,tr micmica,i/p
grdg-SILTY CLAYSTONE.

ARGILLACEOUS CALCILUTITE:pl
yelsh brn,yelsh gy,frm-mod hd,sbbky,
tr-5% calc slt,10-20% cly,tr carb spk,
grdg-CALCILUTITE.

SURVEY @ 3431.74mMDRT
INC:17.60° AZI:90.75°

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,sft i/p,sbbky,i/p blkyl,amor,tr calc cly,
10-20% slt w/ tr v f qtz grn,tr glauc,tr
micmica,i/p grdg-SILTY CLAYSTONE.

SURVEY @ 3461.42mMDRT
INC:17.18° AZI:88.13°

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,sft i/p,sbbky,i/p blkyl,amor,tr calc cly
10-15% slt w/ tr v f qtz grn,nl-tr glauc,tr
micmica.

SURVEY @ 3488.47mMDRT
INC:15.92° AZI:89.00°

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy-lt gy,frm-mod hd,sbbky,tr
calc cly,15-20% cly,tr carb spk.

WOB:0.0-9.0 klbs
RPM:115-169
SPP:2783-3387 psi
FLW:915-1022 gpm
TRQ:9347-19362 lb*ft

01-09-14

WOB:0.0-16.6 klbs
RPM:104-176
SPP:2928-3374 psi
FLW:941-1020 gpm
TRQ:8642-19862 lb*ft



3500
3510
3520
3530
3540
3550
3560
3570
3580
3590
3600
3610
3620
3630



CLAYSTONE:brnsh blk-olv blk,frm-mod hd,sft i/p,sbbkly,i/p blkly,amor,tr calc cly, 10-15% slt w/ tr v f qtz gm,nl-tr glauc,tr micmica.

SURVEY @ 3516.39mMDRT
INC:17.36° AZI:93.36°

ARGILLACEOUS SILTSTONE:pl yelsh brn,yelsh gy-lt gy,frm-mod hd,sbbkly,tr-5% calc cly,15-20% cly,tr carb spk/lam, tr v f blk lith.

SURVEY @ 3543.75mMDRT
INC:17.54° AZI:90.36°

CLAYSTONE:brnsh blk-olv blk,frm-mod hd,sft i/p,sbbkly,i/p blkly,amor,tr calc cly, 10-20% slt w/ tr v f qtz gm,nl-rr glauc, tr micmica,i/p grdg-SILTY CLAYSTONE.

SURVEY @ 3574.23mMDRT
INC:17.52° AZI:90.98°

CLAYSTONE:brnsh blk-olv blk,frm-mod hd,sft i/p,sbbkly,i/p blkly,amor,tr calc cly, 10-20% slt w/ tr v f qtz gm,nl-rr glauc, tr micmica,i/p grdg-SILTY CLAYSTONE.

SURVEY @ 3604.60mMDRT
INC:17.19° AZI:91.59°

ARGILLACEOUS SILTSTONE:pl yelsh brn,yelsh gy-lt gy,frm-mod hd,sft i/p, sbbkly,i/p amor,5-10% calc cly,15-20% cly,5-10% cly,tr carb,tr v f blk lith.

CLAYSTONE:brnsh blk-olv blk,med dk gy,frm-mod hd,sft i/p,sbbkly,i/p blkly, amor,tr calc cly,10-15% slt wth tr v f qtz gm,tr micmica.

SURVEY @ 3635.28mMDRT
INC:18.39° AZI:90.56°

MW:1.45
FV:68
PV:42
YP:24
Gel:12/20/22

MW:1.45
FV:67
PV:44
YP:25
Gel:14/21/25

3640
3650
3660
3670
3680
3690
3700
3710
3720
3730
3740
3750
3760
3770

CG: 3.7%

CALCILUTITE:yelsh gy,wh,frm-hd,
sbbly-ang,5% calc slt,10% cly,
tr carb mat.

CLAYSTONE:brnsh blk-olv blk,med dk
gy,frm-mod hd,sft i/p,sbbly,i/p blk,
amor,tr calc cly,10-15% slt wth tr v f qtz
grn,tr mica,i/p grdg-
SILTY CLAYSTONE.

SURVEY @ 3664.65mMDRT
INC:20.51° AZI:90.53°

CALCILUTITE:wh,frm-hd,sbbly-ang,
5% calc slt,10% cly,tr carb mat.

SURVEY @ 3693.74mMDRT
INC:22.96° AZI:89.81°

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy-lt gy,frm-mod hd,hd i/p,
sbbly,ang,5-10% calc cly,20-30% cly,
tr carb mat,tr v f blk lith,tr pyr frag,
anhed.

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,sbbly,i/p blk,tr calc cly,10-15% slt
w/ tr v f qtz grn,tr mica,i/p grdg-
SILTY CLAYSTONE.

SURVEY @ 3722.13mMDRT
INC:24.24° AZI:90.58°

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy-lt gy,tr brnsh blk,frm-mod
hd,hd i/p,sbbly-ang,5-10% calc cly,
20-30% cly,tr carb mat,tr v f blk lith.

SURVEY @ 3750.18mMDRT
INC:26.21° AZI:92.44°

CLAYSTONE:brnsh blk-olv blk,tr med dk
gy,frm-mod hd,sbbly-blk,nl-tr calc cly,
10-20% slt w/ tr v f qtz grn,tr mica,i/p
grdg-SILTY CLAYSTONE.

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy,frm-mod hd,hd i/p,sbbly-
ang,5% calc cly,20-30% cly,tr carb mat,
tr v f blk lith.

WOB:0.0-6.0 klbs
RPM:136-173
SPP:2956-3471 psi
FLW:921-1016 gpm
TRQ:10141-22447 lb*ft

MW:1.45
FV:70
PV:43
YP:25
Gel:14/22/25

WOB:1.1-7.5 klbs
RPM:136-175
SPP:3200-3642 psi
FLW:965-1049 gpm
TRQ:10253-22156 lb*ft



3780

3790

3800

3810

3820

3830

3840

3850

3860

3870

3880

3890

3900

3910

SURVEY @ 3777.95mMDRT
INC:28.55° AZI:91.22°

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,sbbiky-blky,nl-tr calc cly,15-20% slt
w/ tr v f qtz grn,tr micmica,i/p grdg-
SILTY CLAYSTONE.

SURVEY @ 3806.74mMDRT
INC:31.19° AZI:91.60°

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy,frm-mod hd,hd i/p,sbbiky-
ang,5% calc cly,20-30% cly,tr carb mat,
tr v f blk lith.

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,sbbiky-blky,nl-tr calc cly,15-20% slt
w/ tr v f qtz grn,tr micmica,i/p grdg-
SILTY CLAYSTONE.

SURVEY @ 3836.17mMDRT
INC:33.49° AZI:90.63°

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy,tr lt brnsh gy,frm-mod hd,
hd i/p,sbbiky-ang,5-10% calc cly,20%
cly,tr carb mat.

SURVEY @ 3866.61mMDRT
INC:35.76° AZI:89.40°

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,tr lt brnsh gy,sbbiky-blky,nl-tr calc
cly,15-20% slt w/ tr v f qtz grn,tr micmica,
i/p grdg-SILTY CLAYSTONE.

CALCILUTITE:v lt gy-wh,frm-mod hd,
sbbiky,tr calc slt,5% cly,tr carb mat.

SURVEY @ 3896.18mMDRT
INC:37.93° AZI:91.07°

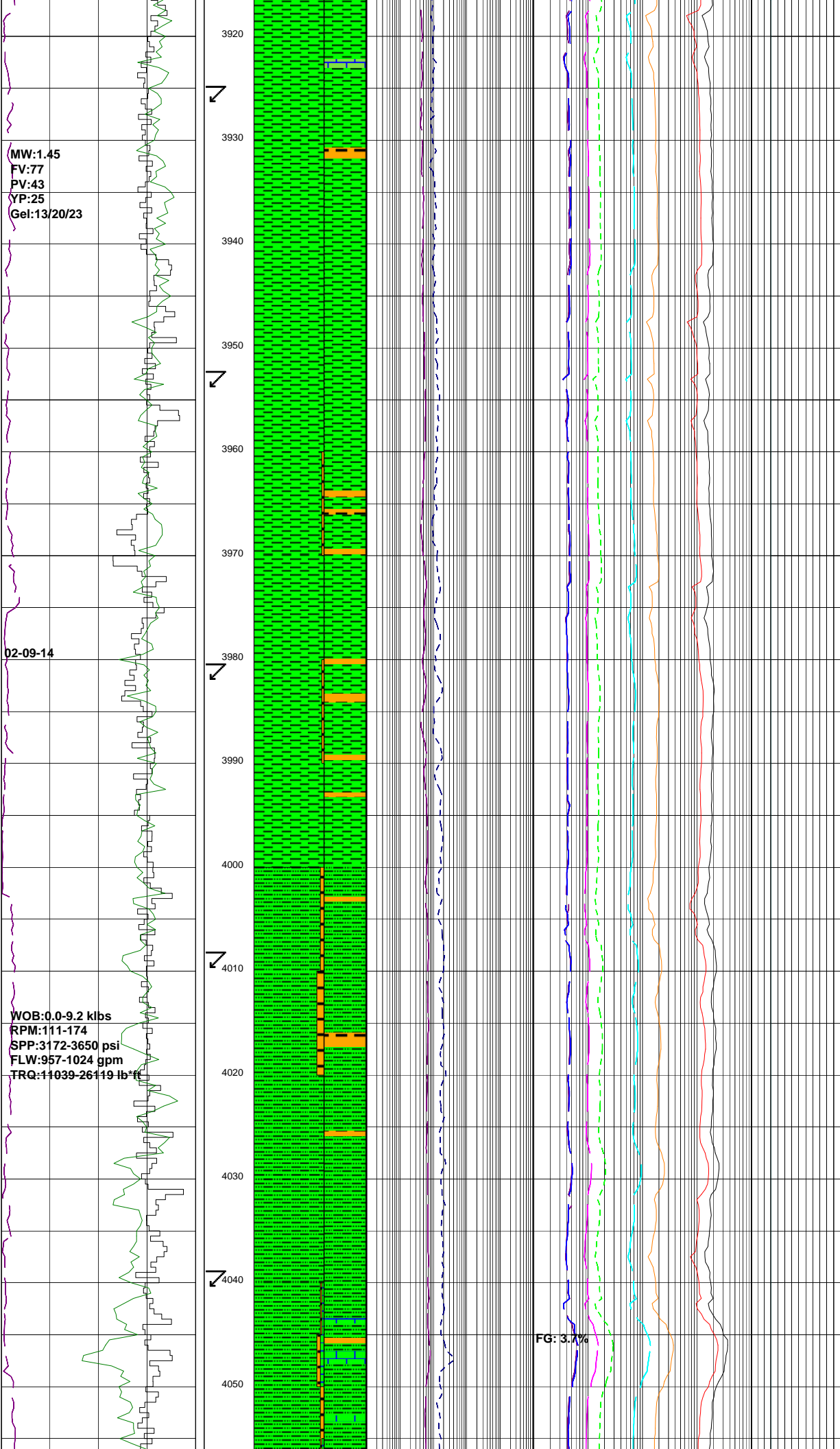
CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,tr lt brnsh gy,sbbiky-blky,nl-tr calc
cly,15-20% slt w/ tr v f qtz grn,tr
micmica,i/p grdg-SILTY CLAYSTONE.

CALCILUTITE:v lt gy-wh,frm-mod hd,

MW:1.45
FV:77
PV:43
YP:25
Gel:13/20/23

02-09-14

WOB:0.0-9.2 klbs
RPM:111-174
SPP:3172-3650 psi
FLW:957-1024 gpm
TRQ:11039-26119 lb*ft



FG: 3.7%

SURVEY @ 3924.80mMDRT
INC:40.05° AZI:90.81°

CALCILUTITE:wh,frm-hd,sbblky-ang,
5% calc slt,10% cly,tr carb mat.

ARGILLACEOUS SILTSTONE:pl yelsh
brn,tr lt brnsh gy,frm-mod hd i/p,sbblky
i/p ang,5-10% calc cly,20% cly,tr carb
mat.

SURVEY @ 3952.24mMDRT
INC:42.42° AZI:90.68°

ARGILLACEOUS SILTSTONE:pl yelsh
brn,yelsh gy,tr lt brnsh gy,frm-mod hd,
sbblky,5% calc cly,20% cly,tr carb mat,
tr v f lith,i/p grdg-v f SANDSTONE.

SURVEY @ 3980.41mMDRT
INC:45.21° AZI:90.87°

CLAYSTONE:brnsh blk-olv blk,frm-mod
hd,tr lt brnsh gy,sbblky-blky,nl-tr calc
cly,10-20% slt w/ tr v f qtz grn,tr micmica,
i/p grdg-SILTY CLAYSTONE.

SILTY CLAYSTONE:brnsh blk,olv gy,tr
olv blk,frm-mod hd,sbblky,i/p fri,blky,
nl-tr calc cly,20-30% slt,tr-i/p 5% v f qtz
grn,tr micmica.

SURVEY @ 4008.15mMDRT
INC:47.92° AZI:90.88°

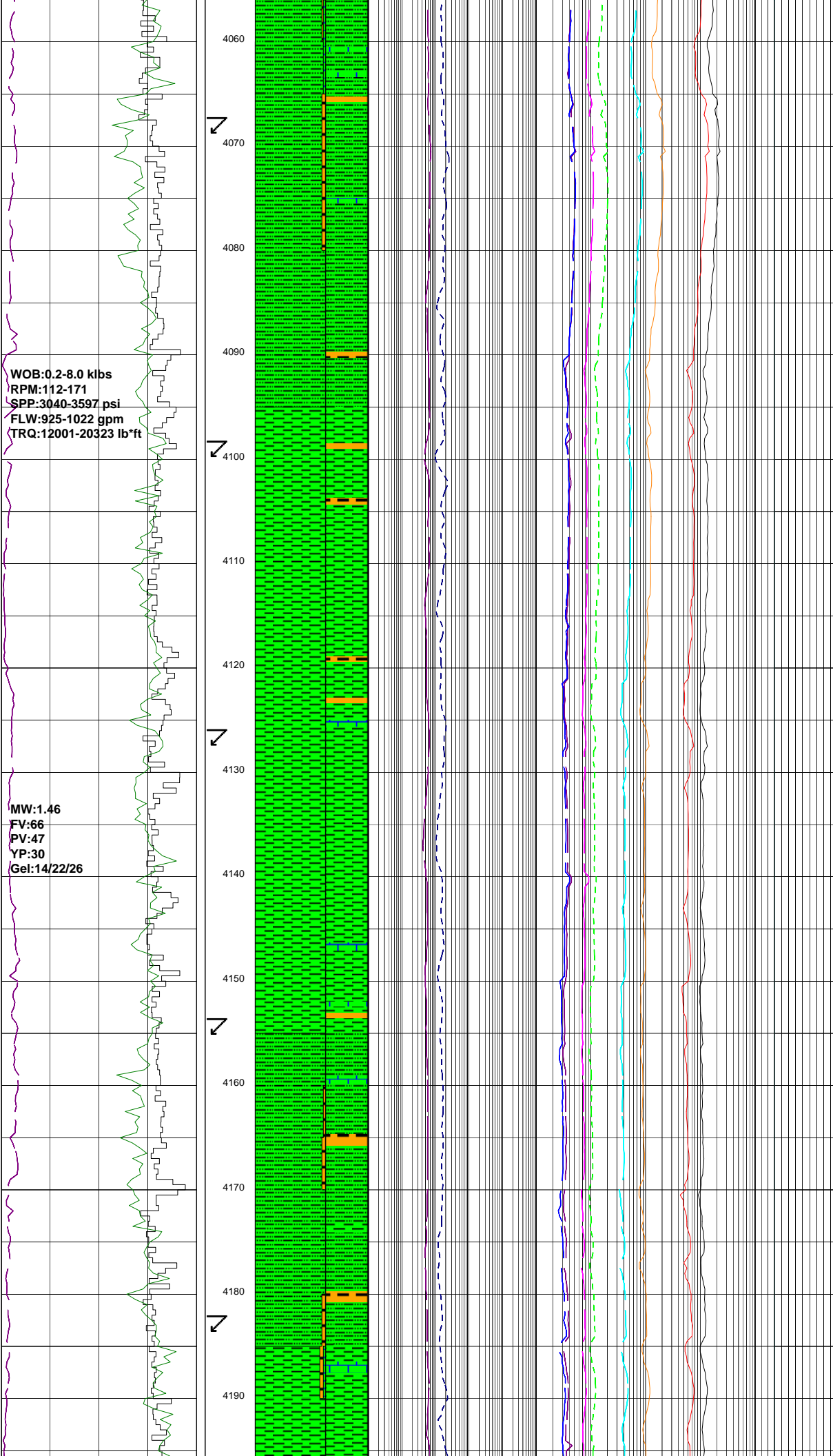
ARGILLACEOUS SILTSTONE:pl yelsh
brn,lt brnsh gy,frm-mod hd,sbblky,5%
calc cly,20% cly,tr carb mat.

SILTY CLAYSTONE:brnsh blk,olv gy,tr
olv blk,frm-mod hd,sbblky,i/p fri,blky,
nl-tr calc cly,20-30% slt,tr-i/p 5% v f qtz
grn,tr micmica.

SURVEY @ 4038.84mMDRT
INC:51.33° AZI:90.62°

CALCILUTITE:v lt gy-wh,frm-mod
hd,sbblky,tr calc slt,5% cly,tr carb mat.

ARGILLACEOUS SILTSTONE:pl yelsh
brn,tr lt brnsh gy,frm-mod hd,sbblky,5%
calc cly,20% cly,tr carb mat.



WOB:0.2-8.0 klbs
RPM:112-171
SPP:3040-3597 psi
FLW:925-1022 gpm
TRQ:12001-20323 lb*ft

MW:1.46
FV:66
PV:47
YP:30
Gel:14/22/26

SILTY CLAYSTONE:brnsh blk,olv gy,tr olv blk,frm-mod hd,sbbkly,i/p fri,blky,nl-tr calc cly,20-30% slt,tr-i/p 5% v f qtz grn,tr micmica.

SURVEY @ 4068.89mMDRT
INC:54.62° AZI:90.63°

SILTY CLAYSTONE:olv gy,brnsh blk,tr olv blk,frm-mod hd,sbbkly,i/p fri,blky,nl-tr calc cly,20-30% slt,tr-i/p 5% v f qtz grn,tr micmica.

SURVEY @ 4099.07mMDRT
INC:57.45° AZI:90.26°

ARGILLACEOUS SILTSTONE:pl yelsh brn,tr lt brnsh gy,frm,sbbkly,5% calc cly, 20% cly,tr carb mat.

CLAYSTONE:brnsh blk-olv blk,mnr olv gy,frm-mod hd,sbbkly-blky,nl-tr calc cly, 15% slt,tr v f qtz grn,tr micmica,grdg-SILTY CLAYSTONE.

CALCILUTITE:v lt gy-wh,frm-mod hd, sbbkly,tr calc slt,5% cly,tr v f lith.

SURVEY @ 4127.19mMDRT
INC:59.76° AZI:90.04°

7" LINER TOP @ 4144.6mMDRT

CLAYSTONE:brnsh blk-olv blk,mnr olv gy,frm-mod hd,sbbkly-blky,nl-tr calc cly, 15% slt,tr v f qtz grn,tr micmica,grdg-SILTY CLAYSTONE.

CALCILUTITE:v lt gy-wh,frm-mod hd, sbbkly,tr calc slt,5% cly,tr v f lith.

SURVEY @ 4155.20mMDRT
INC:62.51° AZI:90.19°

SILTY CLAYSTONE:olv gy,brnsh blk,tr olv blk,frm-mod hd,sbbkly,i/p fri,blky,nl-tr calc cly,30% slt,tr-i/p 5% v f qtz grn,tr micmica,tr dk gy-blk lith.

ARGILLACEOUS SILTSTONE:pl yelsh brn,tr brnsh gy,frm,hd,sbbkly,tr calc cly, 20% cly,tr carb mat.

CLAYSTONE:lt blsh gy,wh,frm,i/p mod hd,sbbkly,non calc,rr micmica & blk lith spk.

SURVEY @ 4183.74mMDRT
INC:65.36° AZI:90.25°

CLAYSTONE:brnsh blk-olv blk,mnr olv gy,frm-mod hd,sbbkly-blky,nl-tr calc cly, 15-20% slt,tr v f qtz grn,tr micmica,grdg-SILTY CLAYSTONE.

WOB:0.1-9.3 klbs
RPM:150-177
SPP:3402-3673 psi
FLW:979-1024 gpm
TRQ:12051-20353 lb*ft

MW:1.46
FV:65
PV:44
YP:26
Gel:14/22/26

WOB:0.0-9.6 klbs
RPM:70-186
SPP:3402-3843 psi
FLW:983-1048 gpm
TRQ:10995-21932 lb*ft

03-09-14

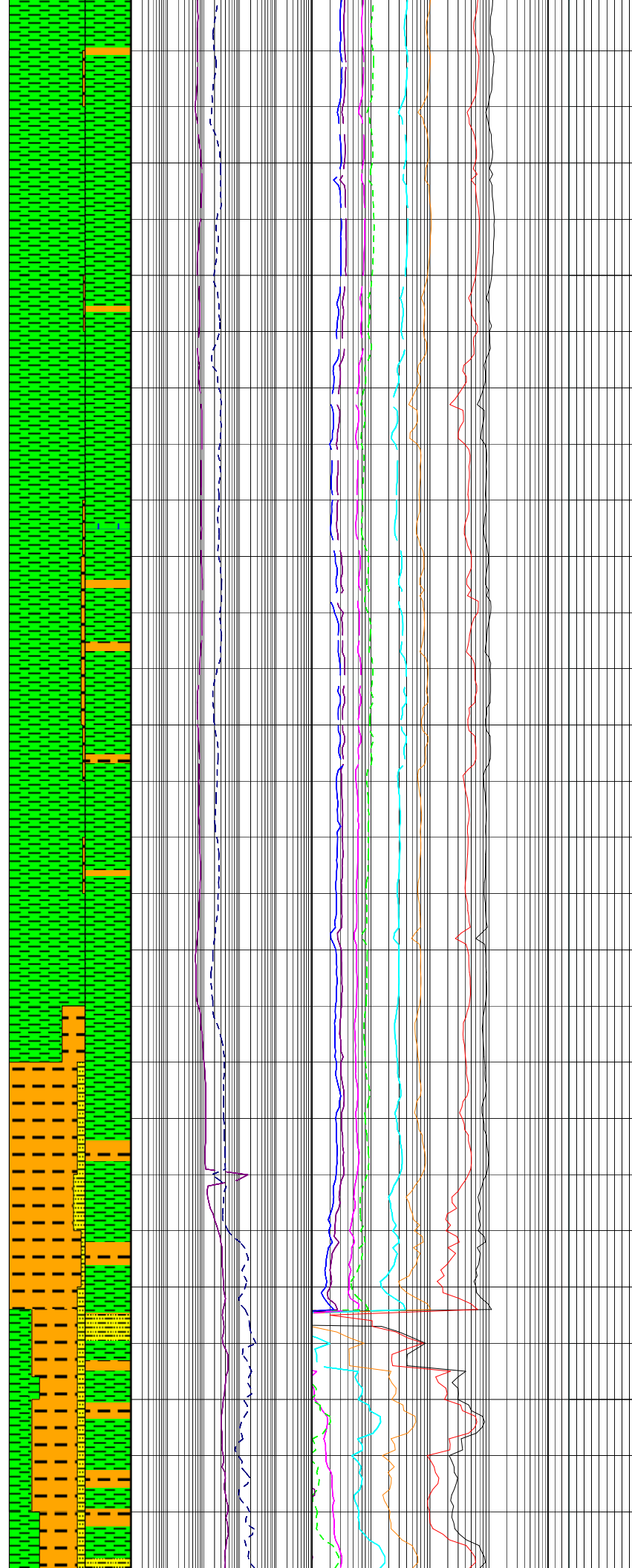
Bit #4: BHI KYMERA HP524
S/N: 7042989
SIZE: 8.5"
JETS: 2x14, 2x18
IN: 4312.0m OUT:4824.0m
RUN: 512.0m HRS:72.12
COND:2-8-JD-G-X-1/2-LM-PR
3-8-JD-G-F-1/2-PB-PR

12-09-14

MW:1.20
FV:57
PV:20



4200
4210
4220
4230
4240
4250
4260
4270
4280
4290
4300
4310
4320
4330



CALCULITE:yelsh gy-wh,frm-mod
hd,sbbkly,tr calc slt,tr cly,tr v f lith.

ARGILLACEOUS SILTSTONE:pl yelsh
brn,brnsh gy,frm,sbbkly,tr-5% calc cly,
20-30% cly,tr carb mat.

SURVEY @ 4212.97mMDRT
INC:68.17° AZI:90.04°

CLAYSTONE:brnsh blk-olv blk,mnr olv
gy,frm-mod hd,sbbkly-blky,tr calc cly,
15-20% slt,tr v f qtz grn,tr micmica,grdg-
SILTY CLAYSTONE.

ARGILLACEOUS SILTSTONE:pl yelsh
brn,brnsh gy,frm,sbbkly,tr-5% calc cly,
20-30% cly,tr carb mat.

SURVEY @ 4242.71mMDRT
INC:70.55° AZI:89.94°

CLAYSTONE:brnsh blk-olv blk,mnr olv
gy,frm-mod hd,sbbkly-blky,nl-tr calc cly,
15-20% slt,tr-5% v f qtz grn,tr micmica,
grdg-SILTY CLAYSTONE.

ARGILLACEOUS SILTSTONE:pl yelsh
brn,brnsh gy,frm,sbbkly,tr-5% calc cly,
20-30% cly,tr carb mat.

ARGILLACEOUS SILTSTONE:brnsh
gy,frm,sbbkly,tr calc cly,20% cly,tr-5%
v f qtz grn,tr carb mat.

SURVEY @ 4272.56mMDRT
INC:71.86° AZI:89.92°

CLAYSTONE:brnsh blk-olv blk,mnr olv
gy,tr lt gnsh gy,frm-mod hd,sbbkly-blky,
non calc,15% slt,tr v f qtz grn,tr micmica,
i/p grdg-SILTY CLAYSTONE.

SURVEY @ 4290.35mMDRT
INC:72.92° AZI:89.91°

ARGILLACEOUS SILTSTONE:lt brnsh
gy,lt olv gy,frm,i/p hd,sbbkly,i/p ang,nl-tr
calc cly,20% cly,5-10% v f qtz grn,tr carb
mat,i/p grdg-v f ARGILLACEOUS
SANDSTONE.

9 5/8" CSG SHOE @ 4301.7mMDRT

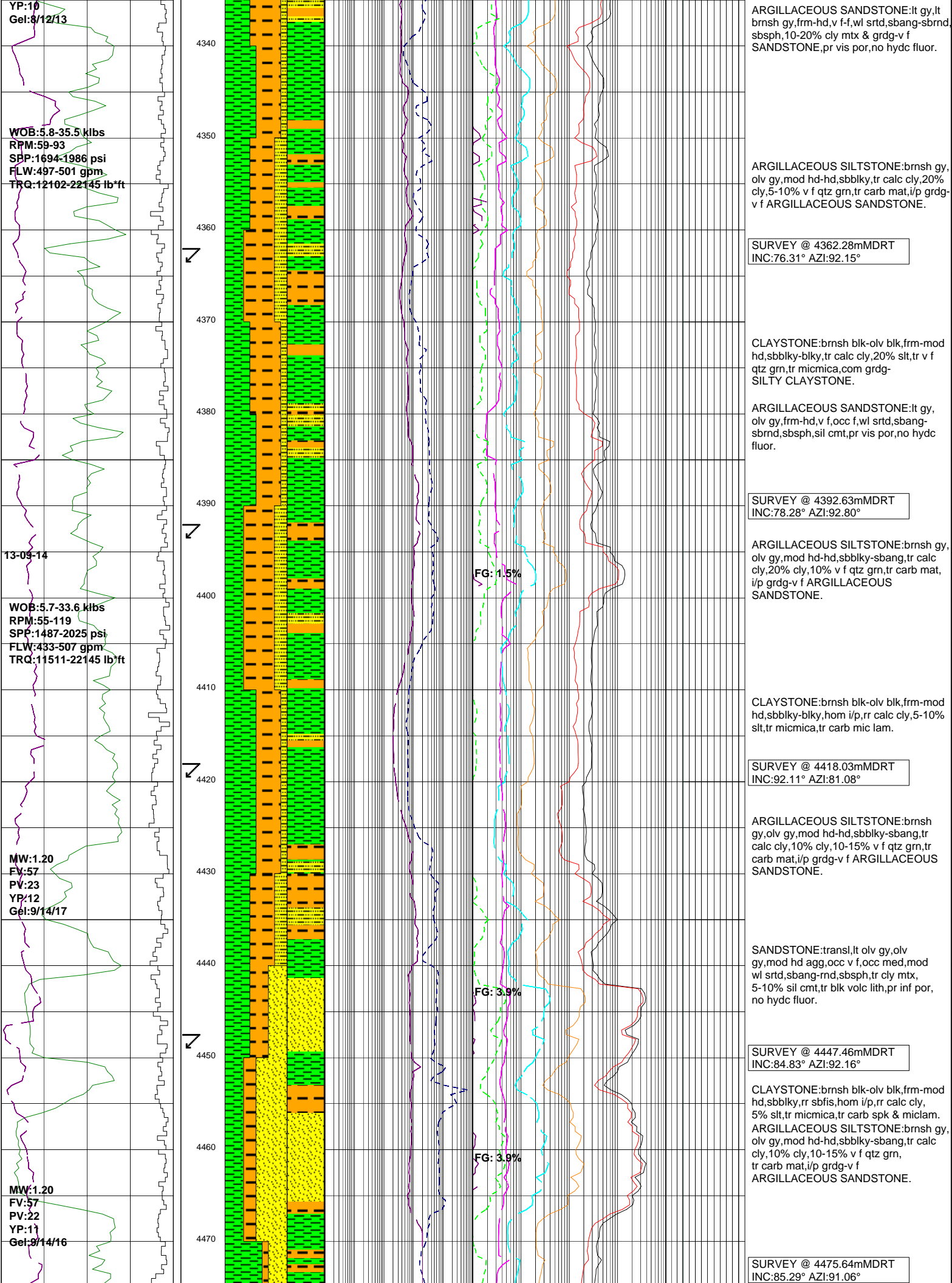
12 1/4" TD @ 4312.0mMDRT

ARGILLACEOUS SANDSTONE:lt brnsh
gy,lt gy,frm,fri,v f,wl srt,dbang-rnd,
sph,20% lt gy-wh cly mtx,pr vis por,no
hydc fluor.

SURVEY @ 4317.48mMDRT
INC:73.46° AZI:91.70°

CLAYSTONE:brnsh blk-olv blk,mnr olv
gy,frm-mod hd,sbbkly-blky,non calc,
15-20% slt,tr v f qtz grn,tr micmica,
i/p grdg-SILTY CLAYSTONE.

SURVEY @ 4334.28mMDRT
INC:73.64° AZI:91.98°

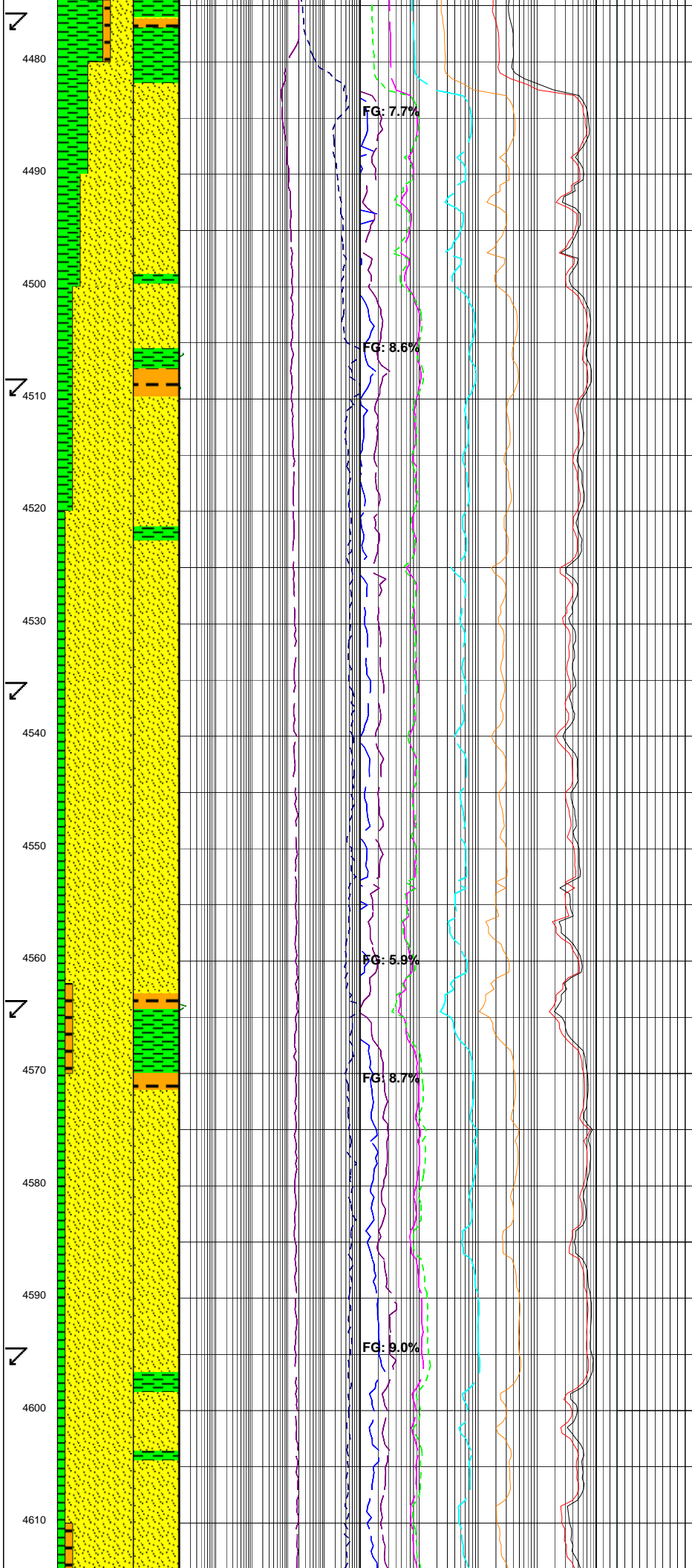


14-09-14

WOB:1.2-26.7 klbs
RPM:62-92
SPP:1203-1678 psi
FLW:375-460 gpm
TRQ:11000-20064 lb*ft

MW:1.20
FV:56
PV:25
YP:14
Gel:10/18/21

WOB:1.0-9.6 klbs
RPM:56-95
SPP:1072-1683 psi
FLW:343-452 gpm
TRQ:11386-20081 lb*ft



CLAYSTONE:brnsh blk-olv blk,frm-mod hd,sbbkly,rr sbfis,hom i/p,rr calc cly,5-15% silt,tr,grdg-ARGILLACEOUS SILTSTONE.

SANDSTONE:transl,transp,lt olv gy,olv gy,lse-mod hd agg,f-med,wl srted,sbang-rnd,sbsph,tr cly mtz,10% sil cmt,rr blk lith,pr inf por,no hydc fluor.

CLAYSTONE:olv blk,occ brnsh blk,frm-mod hd,sbbkly,rr blkly,hom i/p,5% silt,carb.

SURVEY @ 4508.25mMDRT
INC:84.89° AZI:89.13°

SANDSTONE:transl,transp,occ lt olv gy,off wh,lse-mod hd agg,f-med,wl srted,sbang-rnd,sbsph-sph,tr cly mtz,15% sil cmt,rr blk lith,pr inf por,no hydc fluor.

SURVEY @ 4535.20mMDRT
INC:84.80° AZI:89.79°

SANDSTONE:transl,transp,occ olv gy,lse agg,f-med,occ v f,rr med,wl srted,sbrnd-rnd,sbsph-sph,5% cly mtz,tr-5% sil cmt,rr blk lith,pr inf por,no hydc fluor.

SURVEY @ 4563.93mMDRT
INC:85.44° AZI:89.84°

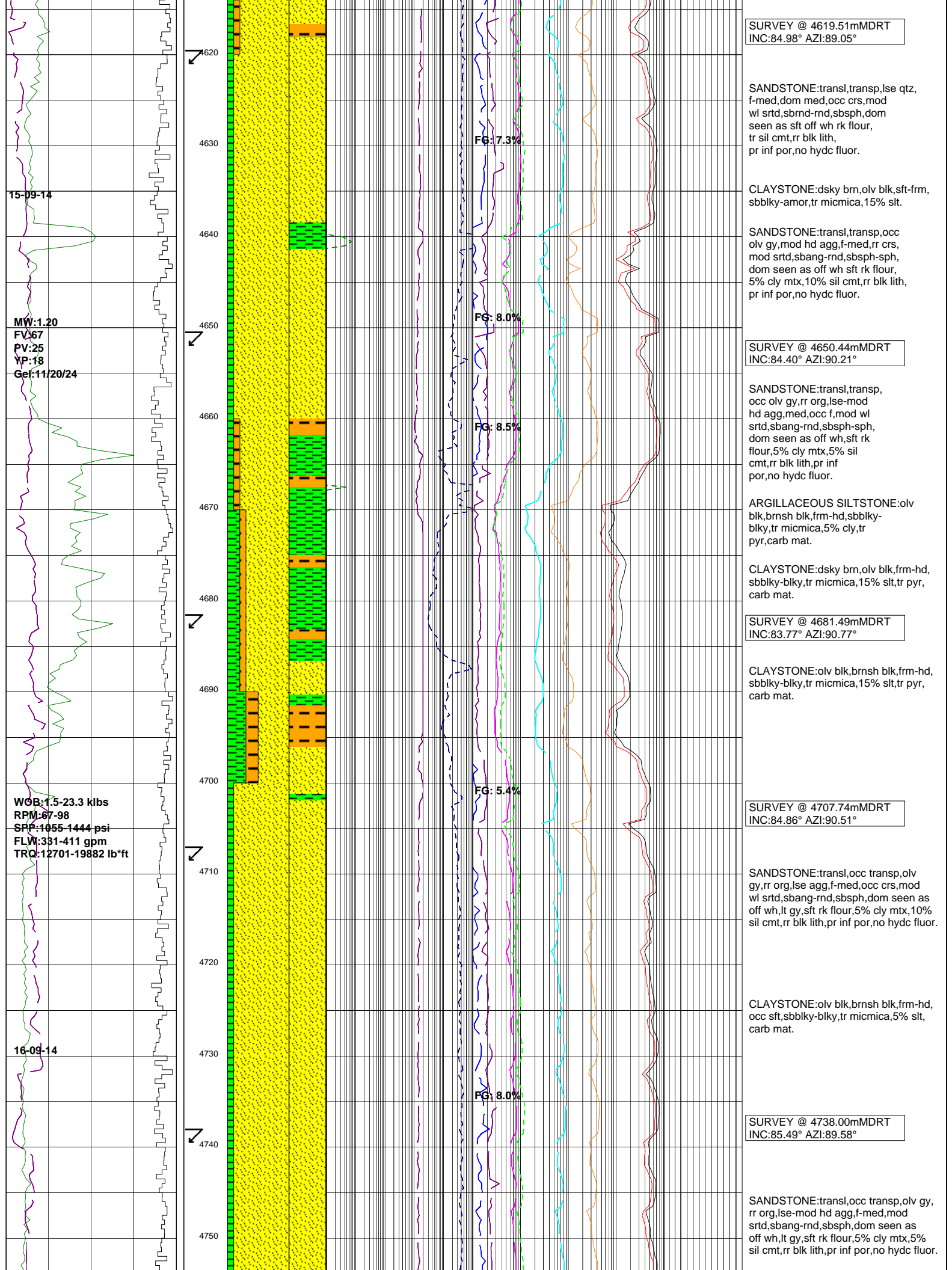
ARGILLACEOUS SILTSTONE:olv blk,brnsh blk,frm-hd,sbbkly-blky,tr micmica,5% cly,tr pyr,carb mat.

SANDSTONE:transl,transp,rr org,lse qtz,f-med,occ crs,wl srted,sbrnd-rnd,sbsph,occ seen as sft off wh rk flour,rr blk lith,pr inf por,no hydc fluor.

SANDSTONE:transl,transp,rr org,lse qtz,v f-med,dom f,occ med,mod wl srted,sbrnd-rnd,sbsph,occ seen as sft off wh rk flour,rr blk lith,pr inf por,no hydc fluor.

SURVEY @ 4594.41mMDRT
INC:85.70° AZI:89.18°

CLAYSTONE:olv blk,brnsh blk,sft-mod hd,sbbkly-blky,tr micmica,10% silt,carb mat.



WOB:3.4-24.7 klbs
RPM:74-97
SPP:1172-1367 psi
FW:354-383 gpm
TRQ:14492-19789 lb*ft

MW:1.21
FV:72
PV:26
YR:18
Gel:10/20/23

18-09-14

18-09-14

19-09-14

Bit #5: BHI KYMERA KM524
SN: 7041368
SIZE: 8.5"
JETS: 2x14, 2x18
IN: 4824.0m OUT:5003.0m
RUN: 179.0m HRS:19.27
COND:1-4-BT-S-X-I-JD-HP
1-8-BT-G-E-I-JD-HP

4760

4770

4780

4790

4800

4810

4820

4830

4840

4850

4860

4870

4880

4890

FG: 8.5%

FG: 8.0%

FG: 7.5%

FG: 7.4%

FG: 9.7%

CLAYSTONE:olv blk,brnsh blk,frm-hd,
sbbiky-blky,tr micmica,15% slt,tr pyr,
carb mat.

SURVEY @ 4768.47mMDRT
INC:85.21° AZI:89.67°

SANDSTONE:transl,occ transp,olv gy,
rr org,lse-frm agg,f-med,mod
srtld,sbang-rnd,sbsph,rr sbelng,dom
seen as off wh,wh,sft rk flour,10% cly
mtx,5% sil cmt,rr blk lith,pr inf por,
no hydc fluor.

SURVEY @ 4796.96mMDRT
INC:84.46° AZI:89.89°

CLAYSTONE:olv blk,brnsh blk,frm-hd,
occ sft,sbbiky-blky,tr micmica,10% slt,
carb mat.

SANDSTONE:transl-transp,olv
gy,rr org,lse agg,f-med,dom
med,occ crs,mod wl srtld,sbang-
rnd,sbsph,rr sbelng,dom seen as
off wh,wh,sft rk flour,5% cly mtx,
5% sil cmt,rr blk lith,pr inf por,
no hydc fluor.

CLAYSTONE:olv blk,brnsh blk,frm-hd,
sbbiky-blky,tr micmica,5% slt,
carb mat.

SURVEY @ 4835.42mMDRT
INC:84.72° AZI:88.83°

SANDSTONE:transp,occ transl,olv gy,
lss-occ mod hd agg,f-med,mod srtld,
sbang-rnd,sbsph,occ seen as off wh,
wh,sft rk flour,tr-5% cly mtx,5% sil
cmt,rr blk lith,pr inf por,no hydc fluor.

SURVEY @ 4865.24mMDRT
INC:84.63° AZI:88.91°

SANDSTONE:transp,occ lt olv gy,
lse-frm agg,f-med,occ vf,crs,
mod wl srtld,sbrnd-rnd,sbsph,occ
seen as off wh,sft rk flour,tr-5% cly
mtx,5% sil cmt,rr blk lith,pr inf por,
no hydc fluor.

SURVEY @ 4893.63mMDRT
INC:83.99° AZI:89.10°

WOB:0.2-14.1 klbs
RPM:73-89
SPP:1372-1530 psi
FLW:374-398 gpm
TRQ:15489-20750 lb*ft

MW:1.205
FV:73
PV:29
YP:17
Gel:11/22/25

20-09-14
WOB:0.8-18.1 klbs
RPM:55-85
SPP:1116-1558 psi
FLW:335-399 gpm
TRQ:12263-21184 lb*ft

MW:1.20
FV:72
PV:28
YP:15
Gel:10/20/21

21-09-14
25-09-14
Bit #6 BHI KYMERA HP524
S/N: 7043494
SIZE: 8.5"
JETS: 2x14, 2x18
IN: 5003.0m OUT:5139.0m
RUN: 136.0m HRS:19.20
COND:1-1-WT-S-A-I-NO-TD
1-2-BT-S-E-I-NO-TD

WOB:0.7-8.1 klbs
RPM:69-85
SPP:1140-1407 psi
FLW:305-354 gpm

CLAYSTONE:olv blk,dk gy,frm-hd,
occ sft,sbbiky-biky,tr micmica,15%
slt,carb mat.

SANDSTONE:transp,occ transl,
lse-frm agg,f-med,tr crs,mod
-pr srtld,sbang-rnd,sbsph-sph,tr
seen as off wh,sft rk flour,tr-5%
cly mtx,5% sil cmt,rr blk lith,
pr inf por,no hydc fluor.

SURVEY @ 4922.0mMDRT
INC:84.43° AZI:89.35°

SANDSTONE:transp,occ transl,
olv gy,lse-frm agg,f-med,
occ crs,wl srtld,sbrnd-rnd,
sbsph-sph,tr seen as off wh,
sft rk flour,tr-5% cly mtx,
tr-5% sil cmt,rr blk lith,
pr inf por,no hydc fluor.

SURVEY @ 4950.40mMDRT
INC:84.75° AZI:89.51°

CLAYSTONE:olv blk,dk gy,rr
med gy,frm-hd,occ sft,sbbiky-
biky,tr micmica,15% slt,grdg-
ARGILLACEOUS SILTSTONE.

SURVEY @ 4974.69mMDRT
INC:85.46° AZI:90.40°

ARGILLACEOUS SILTSTONE:
brnsh blk,dk gy,dk brn,frm-hd,
sbbiky-crmbyl,tr v f qtz grn incl.

SANDSTONE:transp,occ transl,
olv gy,lse-frm agg,f-med,
wl srtld,sbang-rnd,sbsph-sph,
tr seen as off wht,sft rk
flour,tr-5% cly mtx,5% sil
cmt,rr blk lith,pr inf por,
no hydc fluor.

SURVEY @ 5003.65mMDRT
INC:85.18° AZI:90.44°

CLAYSTONE:olv blk,dk gy,
frm-mod hd,tr sft,occ plas,sbbiky,
tr amor,rr micmica,15-20% slt.

SANDSTONE:transp,occ transl,olv
gy,brn,rr org,lse-frm agg,f-med,rr crs,
mod srtld,sbang-rnd,sbsph-sph,
tr-5-10% cly mtx,tr-5% sil cmt,
5% blk lith,pr inf por,no
hydc fluor.

SURVEY @ 5028.67mMDRT
INC:84.95° AZI:90.89°

FG: 10.4%

FG: 10.3%

TRQ:15672-20411 lb*ft

MW:1.18
FV:79
PV:31
YP:17
Gel:13/22/28

27-09-14

MW:1.18
FV:80
PV:31
YP:21
Gel:13/25/28

WOB:0.7-9.2 klbs
RPM:54-85
SRP:1140-1407 psi
FLW:303-353 gpm
TRQ:15672-20411 lb*ft

MW:1.18
FV:83
PV:31
YP:22
Gel:14/24/27

5040

5050

5060

5070

5080

5090

5100

5110

5120

5130

5140

FG: 10.5%

FG: 10.7%

FG: 10.5%

FG: 10.0%

FG: 13.8%

FG: 11.2%

SANDSTONE:transp,occ transl,olv gy,
rr org,lse-frm agg,f-med,rr crs,mod srtd,
sbang-rnd,sbsph-sph,tr-5% cly mtx,tr-
10% sil cmt,tr blk lith,rr DOLOMITE,
pr inf por,no hydc fluor.

SURVEY @ 5060.78mMDRT
INC:84.83° AZI:91.13°

CLAYSTONE:olv blk,dk gy,
frm-hd,hom i/p,sbbky,tr sbfis,
rr carb mat,10% slt.

ARGILLACEOUS SILTSTONE:
dk gysh brn,brnsh blk, dk brn, frm-sft,
crmbly,occ sbbky,tr-5% cly,tr v f-f
qtz grn incl.

SURVEY @ 5086.53mMDRT
INC:86.04° AZI:90.56°

SANDSTONE:transp,occ transl,
org,rdsh org,lse-frm agg,f-med,
rr crs,v f,mod srtd,sbang-sbrnd,
sbsph-sph,tr-5% cly mtx,10-5%
sil cmt,tr blk lith,rr glauc,pr inf por,
no hydc fluor.

SURVEY @ 5109.13mMDRT
INC:85.49° AZI:90.40°

CLAYSTONE:olv blk,dk gy,dk brn
frm-hd,hom i/p,sbbky,occ sbfis,
rr carb mat,10% slt.

7" LINER SHOE @ 5135.0mMDRT

SANDSTONE:transp,occ transl,
org,lse-frm agg,f-med,rr crs,v f,
mod srtd,sbang-sbrnd,sbsph-sph,
5% cly mtx,10-5% sil cmt,tr blk lith,
rr glauc,pr inf por,no hydc fluor.

PRELUDE P1 ST1 Total Depth of
5139.0mMDRT, 4104.9mTVDRT
reached @ 17:15 hrs on 27-09-2014