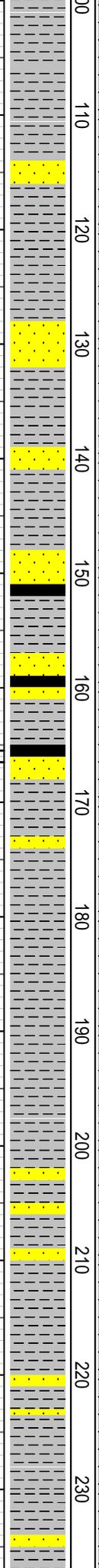
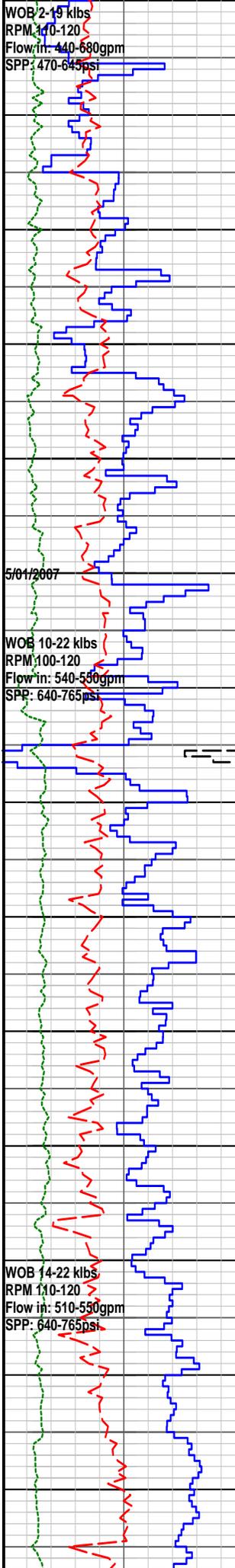


WOB: 2-15 klbs
RPM: 110-120
Flow in: 440-680 gpm
SPP: 470-645 psi

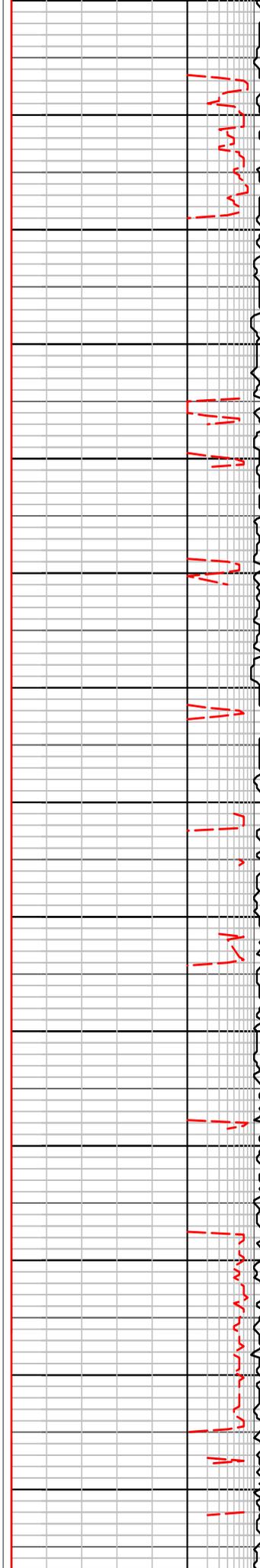
5/01/2007

WOB: 10-22 klbs
RPM: 100-120
Flow in: 540-550 gpm
SPP: 640-765 psi

WOB: 14-22 klbs
RPM: 110-120
Flow in: 510-550 gpm
SPP: 640-765 psi



100
110
120
130
140
150
160
170
180
190
200
210
220
230



Claystone: lt dk gy-med dk gy, v sf, v stky, amrp-sblky, v silty i/p, tr carb mat

Claystone: lt dk gy-med gn gy- lt br gy, v sf, v stky, sblky-blky, v silty i/p, tr carb mat

Sandstone: lt gn gy-dk gy, occ lt yel gy, vf-f, occ crs, poor-mod srtd, non calc, pred qtz grn, lt gy-gy volc mat, tr carb mat, n vis por, n fluor

MWIN: 8.90ppg Mud temp: 35deg
PV/YP: 8/13 FV: 46 Gels: 8/9
Solids: 3.8% pH: 8.3

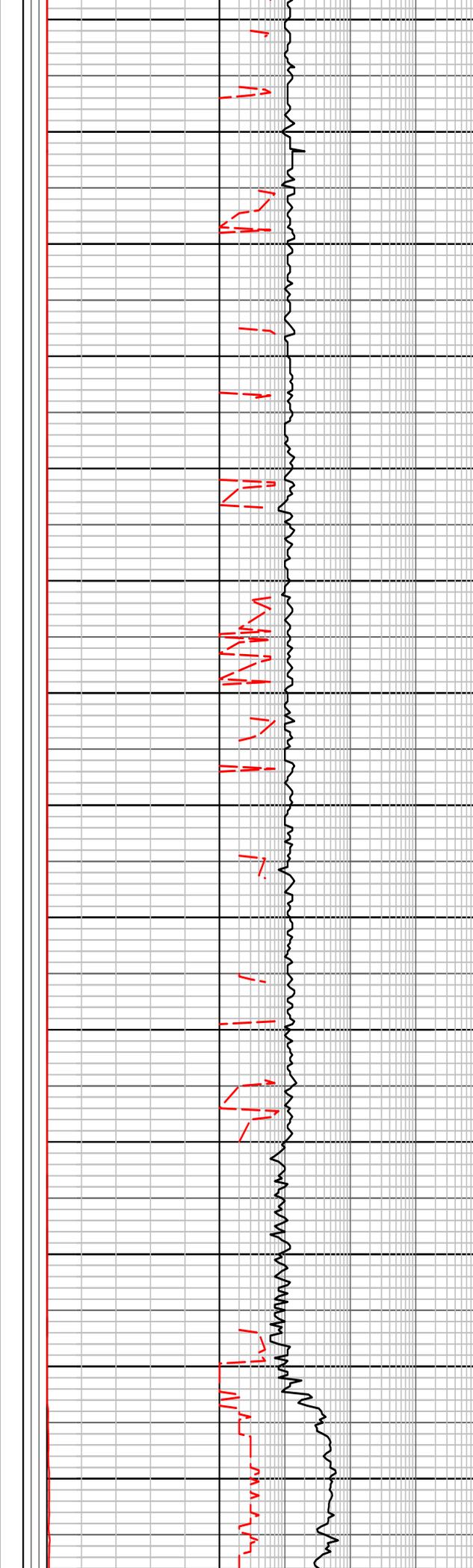
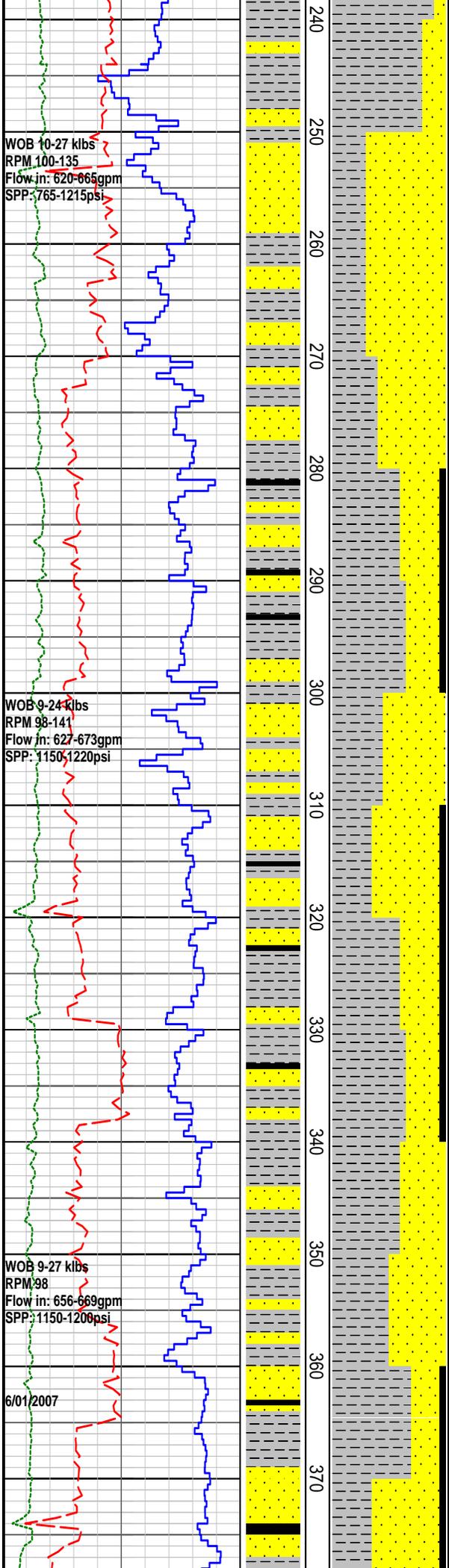
Coal: dk bn-blk, sblky-blky, ea-sl sbvit lstr, sl arg i/p, sf-fm, brit i/p

Survey @ 166.00m
Inc = 1.25 deg

Claystone: lt dk gy-med dk gy, occ med gn gy-med bn gy, sf-fm, mod hd i/p, v stky, sblky-blky, sl calc, tr carb detri, sbfiss

Survey @ 204.00
Inc = 1.00 deg

Claystone: lt dk gy-med dk gy, occ med gn gy-med bn gy-dk gy, fm-mod hd, sf i/p, v stky, sblky-blky, sl calc, tr carb detri, tr micromic, sbfiss



MWIN:8.95ppg Mud temp:46deg
PV/YP:8/12 FV:40 Gels:13/14
Solids:4.1% pH:8.0

Sandstone: off wh-yel wh-lt gn gy-dk gy, v f-f, ang-sbrnd, i/p rnd, v f wh-gy arg matrix, poor-mod srtd, wk calc cmt, fm-hd, tr carb mat, n vis por,

Claystone: lt gy-gy-dk gy, gen fm, occ mod hd, stky, sbbkly-sbang, v silty i/p, sl calc, com-abnt carb mat.

Sandstone: opq, off wh-lt yel wh-lt gy-dk gy, pred v f-f, sbrnd-rnd, occ sbang, v f wh-gy arg matrix, mod-w srtd, sl calc cmt, fm-hd,

abnt carb matl, n vis por.

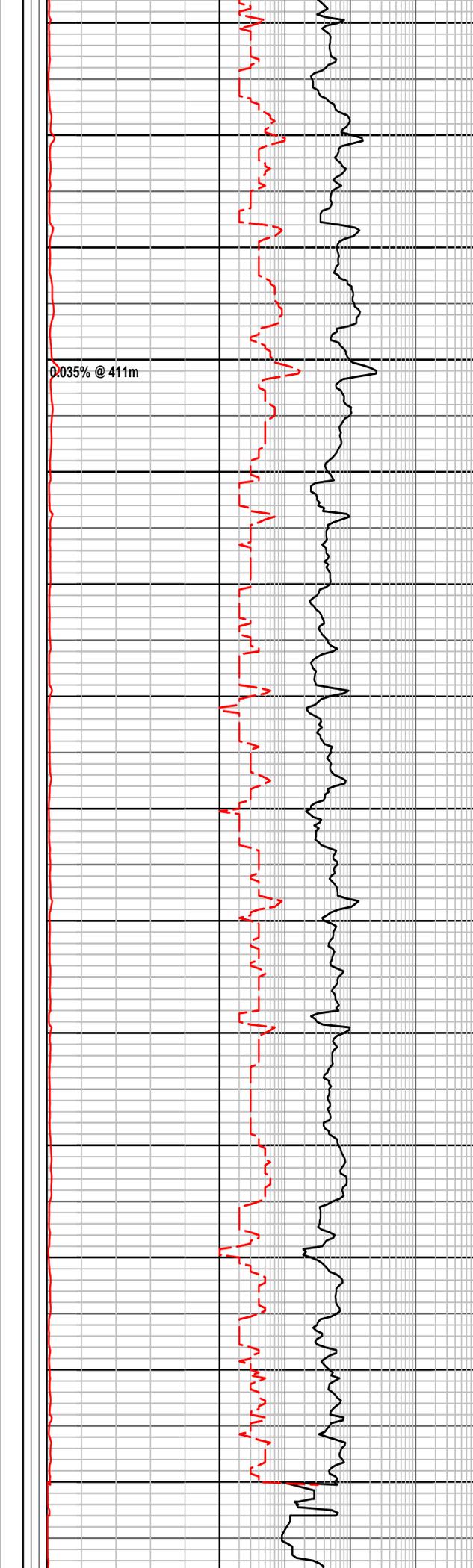
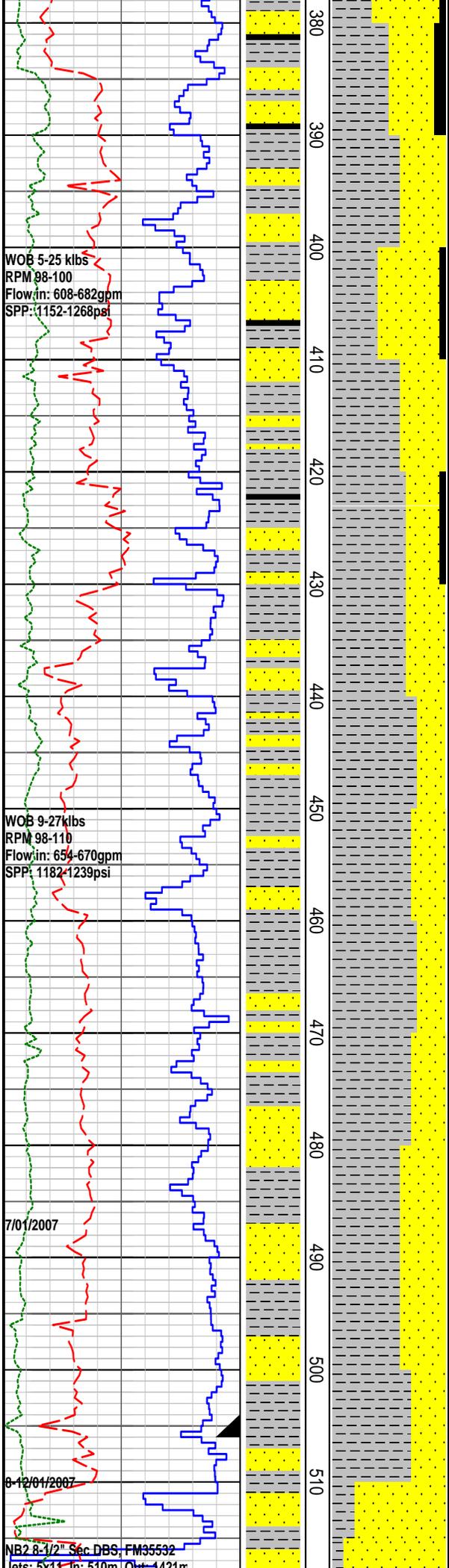
Survey @ 316.00m
Inc = 1.50 deg

Coal: blk, occ v dk gy, sbang-sblky, occ plty, sbvit lstr, arg i/p, sf-fm, brit i/p

Claystone: lt gy-gy-dk gy, occ olv gy-dk olv gy, fm-mod hd, sl stky, sbbkly-sbang, occ sbrnd, silty i/p, sl calc, com-abnt carb matl.

MWIN:8.95ppg Mud temp:51deg
PV/YP:7/12 FV:40 Gels:16/19
Solids:4.1% pH:8.0

Sandstone: opq, off wh-lt yel wh-lt gy-dk gy, pred v f-f, crse i/p, sbrnd-rnd, occ sbang, v f wh-gy arg matrix, poor-mod, sl calc



cmt, fm-hd, abnt carb matl, n vis por, no fluo

Claystone: lt gy-dk gy, olv gy-lt olv gy, gy-grn gy, gen mod hd, occ v fm, sl stky, sbblky-blky, sl calc, com-abnt carb matl, occ grdng to sltst.

MWIN:9.00ppg Mud temp:52deg
PV/YP:5/11 FV:40 Gels:16/20
Solids:4.4% pH:8.0

Survey @ 419.00m
Inc = 0.75 deg

Sandstone: opq, off wh-lt gy, dk gy, pred v f-f, occ med, sbrnd-rnd, occ sbang, v f wh-gy arg matrix, gen mod srted, w srted i/p, occ sl calc, mod hd, occ hd, occ fri, com abnt carb

grdng to sltst, no fluor.

Claystone: lt gy-gy, lt olv gy-olv gy, gen mod hd, occ v fm, non stky, sbblky-blky, sl calc, com carb matl, occ grdng to sltst.

MWIN:9.10ppg Mud temp:54deg
PV/YP:5/13 FV:37 Gels:20/22
Solids:5.1% pH:8.0

Sandstone: opq, off wh-lt gy, dk gy, pred v f-f, occ med, sbrnd-rnd, occ sbang, v f wh-gy arg matrix, gen mod srted, w srted i/p, occ sl calc, mod hd, occ hd, occ fri, com abnt carb

grdng to sltst, no fluor.

Survey @ 503.00m
Inc = 1.00 deg

LOT @ 513m = 21.3 ppg EMW

Sandstone: lt brn-med grn gy, v f-f, dom f, sband-rnd, mod srted, abnt off wh arg mtx, mod

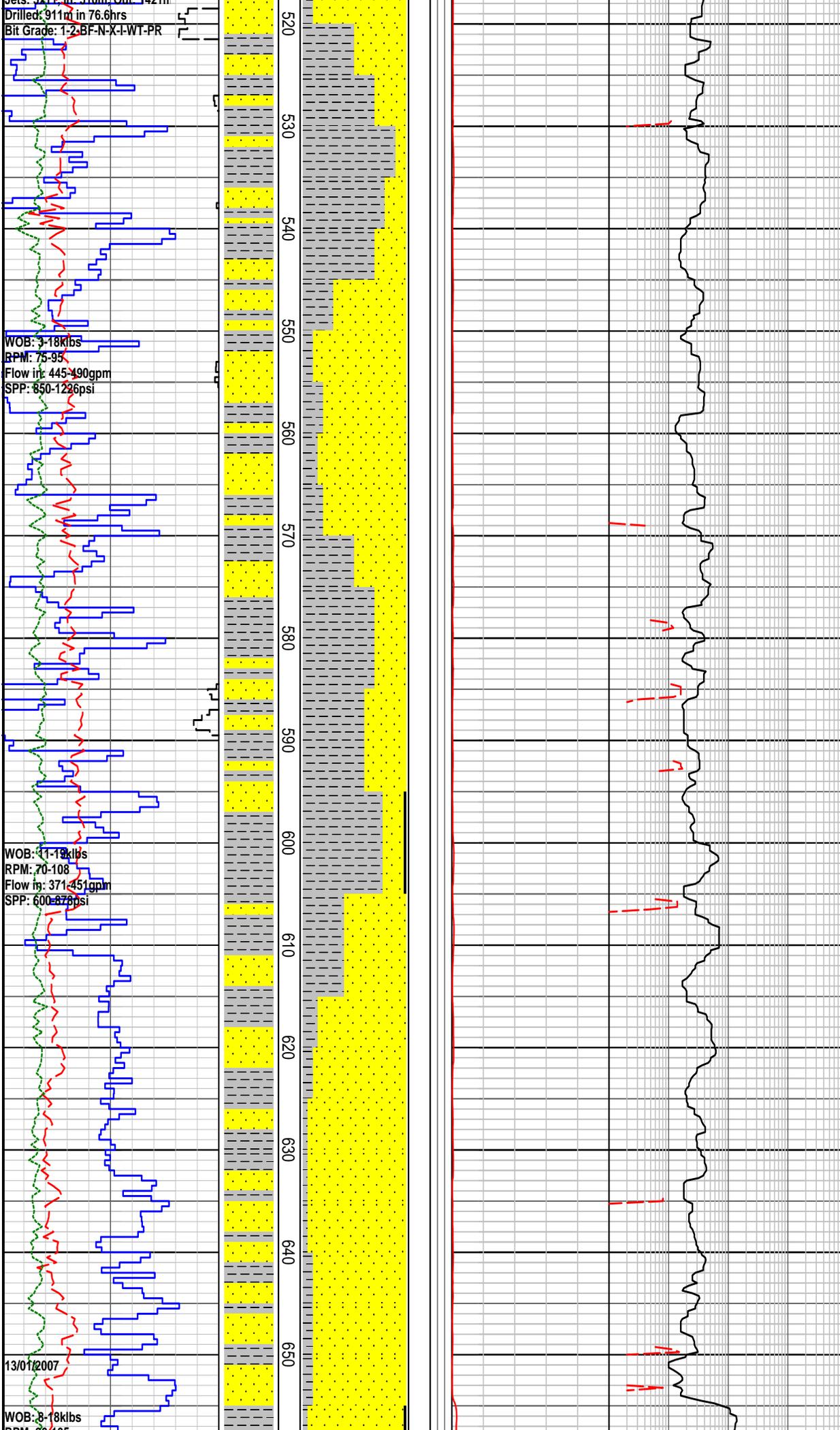
Drilled: 911m in 76.6hrs
Bit Grade: 1-2-BF-N-X-I-WT-PR

WOB: 3-18kibs
RPM: 75-95
Flow in: 445-490gpm
SPP: 850-1226psi

WOB: 11-19kibs
RPM: 70-108
Flow in: 371-451gpm
SPP: 600-878psi

13/01/2007

WOB: 3-18kibs
RPM: 75-95



sil & strong calc cmt, abnt off wh altrd felds grn, com qtz & gy grn volc lith grn, tr red

brn lith, tr f blk coal det, mod hd, v pr vis por, no oil fluor.

Claystone: lt-dk gy-med grn gy-med brn gy, v stly i/p, v f aren w/altrd felds grn, mod carb i/p, tr-com blk carb flks & det, tr mic, mod hd, sbfiss.

MWIN:8.50ppg Mud temp:31deg
PV/YP:9/9FV:46Gels:1/1
Solids:0.8% pH:10.5

Sandstone: lt brn gy-med grn gy, v f-occ med, dom f, sband-rnd, mod srtd, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz & gy grn volc lith grn,

tr rd brn lith, tr f blk coal det, mod hd, v pr vis por, no oil fluor.

Claystone: lt dk gy-med grn gy-med brn gy, v stly i/p, v f aren w/altrd felds grn, mod carb i/p, tr com blk carb flks & det, tr mic, mod hd, sbfiss.

Sandstone: lt-med grn gy, v f-f, dom v f, sband-rnd, mod srtd, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz & gy

grn volc lith grn, tr rd brn lith, tr f blk coal det, mod hd, v pr vis por, no oil fluor.

Coal: blk-v dk bn, oft v arg, ethy lstr w/blky frac where arg, sbvit lstr w/sbconch frac where clean, hd, britl.

Sandstone: lt-med grn gy, v f-f, dom v f, sband-rnd, mod srtd, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz & gy

grn volc lith grn, tr rd brn lith, com blk coal det, mod hd, v pr vis por, no oil fluor.

Sandstone: lt-med grn gy, v f-med, dom v f, sband-rnd, mod srtd, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz &

gy grn volc lith grn, tr rd brn lith, com blk coal det, tr calc ln frac, mod hd, v pr vis por, no oil fluor.

MWIN:8.60ppg Mud temp:36deg
PV/YP:8/9 FV:42 Gels:1/1
Solids:1.5% pH:10.2

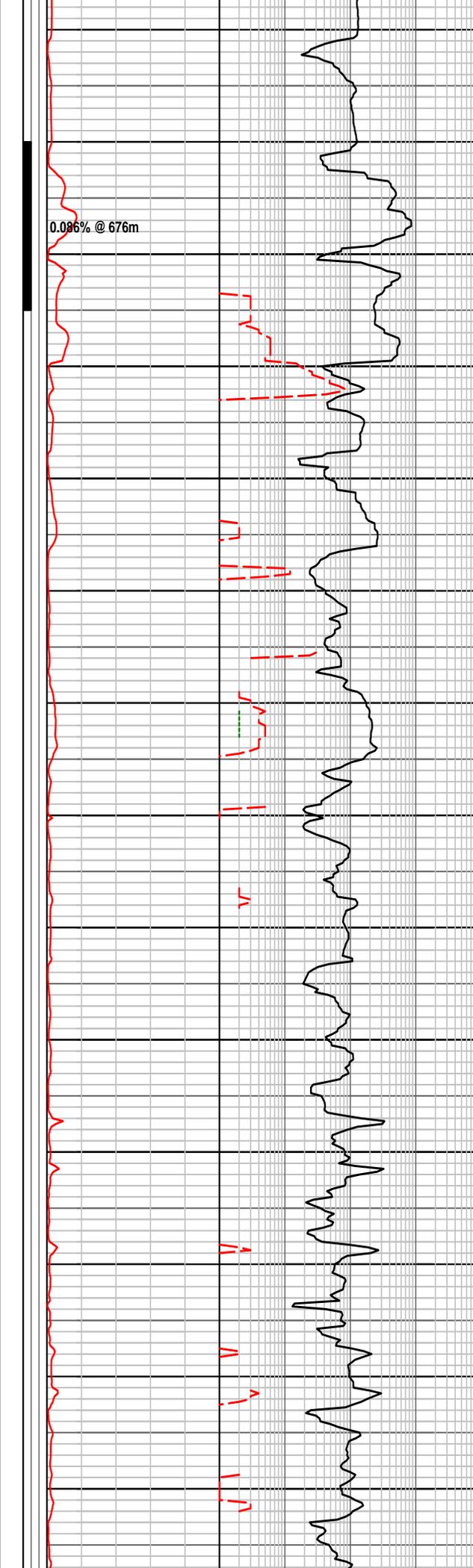
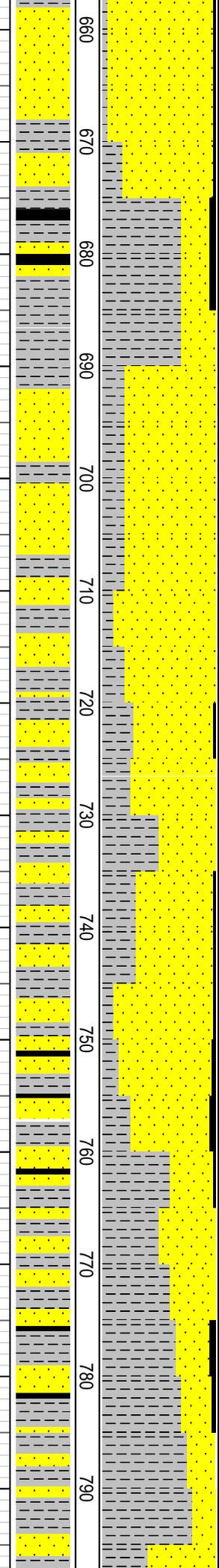
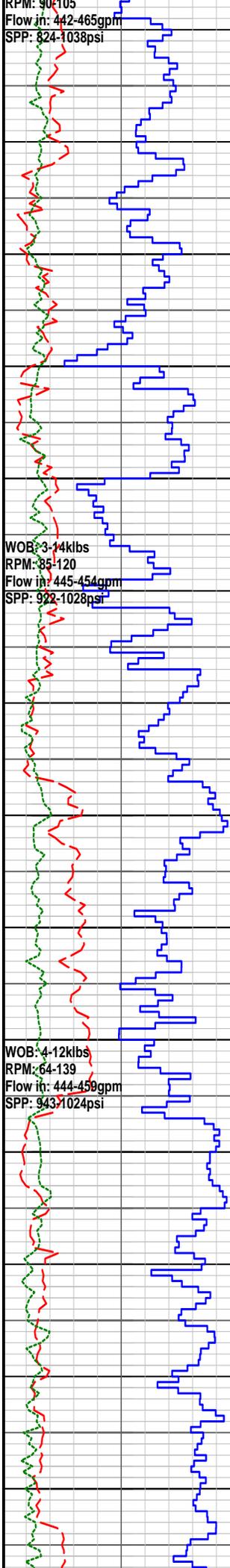
Sandstone: lt-med grn gy, v f-med, dom v f, sband-rnd, mod srtd, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz &

gy grn volc lith grn, tr rd brn lith, com blk coal

RPM: 30-105
Flow in: 442-465gpm
SPP: 824-1038psi

WOB: 3-14kibs
RPM: 85-120
Flow in: 445-454gpm
SPP: 922-1028psi

WOB: 4-12kibs
RPM: 64-139
Flow in: 444-459gpm
SPP: 943-1024psi



det, tr calc ln frac, mod hd, v pr vis por, no oil fluor.

Sandstone: lt-med grn gy, v f-med, dom f, sband-rnd, mod srted, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz &

gy grn volc lith grn, tr rd brn lith, com blk coal det, tr calc ln frac, mod hd, v pr vis por, no oil fluor.

Fluorescence (670m-685m): the calc frac infill mat has 10% mod bright patchy lt yel fluor giving wk dull yel wh crush cut, tr residue.

Claystone: med-dk gy-med bn gy-med gn gy, of v slty, oft v f aren w/altrd felds grn, mod carb, com blk carb flks & det, tr mic, tr cacl lined frac, mod hd, sbfiss.

Survey @ 705.00m
Inc = 3.00 deg

Sandstone: lt-med grn gy, v f-med, dom f, sband-rnd, mod srted, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz &

gy grn volc lith grn, tr rd brn lith, com abnt blk coal det, tr calc ln frac, mod hd, v pr vis por, no oil fluor.

Claystone: med-dk gy-med bn gy-med gn gy, of v slty, oft v f aren w/altrd felds grn, mod carb, com blk carb flks & det, tr mic, tr calc lined frac mod hd, sbfiss.

MWIN:8.65ppg Mud temp:39deg
PV/YP:9/7 FV:41 Gels:0/1
Solids:1.8% pH:10.0

Sandstone: lt-med grn gy, v f-med, dom f, sband-rnd, mod srted, abnt off wh arg mtx, mod sil & mod calc cmt, abnt off wh altrd felds grn, com qtz &

gy grn volc lith grn, tr rd brn lith, com blk coal det, tr calc ln frac, mod hd-hd, v pr vis por, no oil fluor.

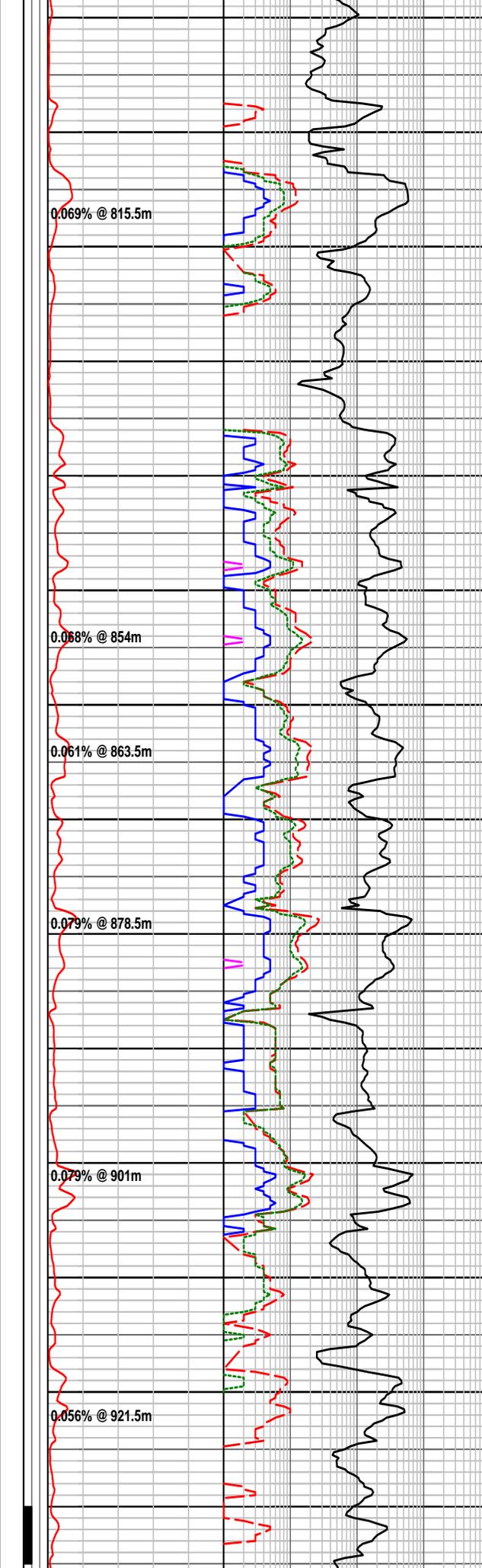
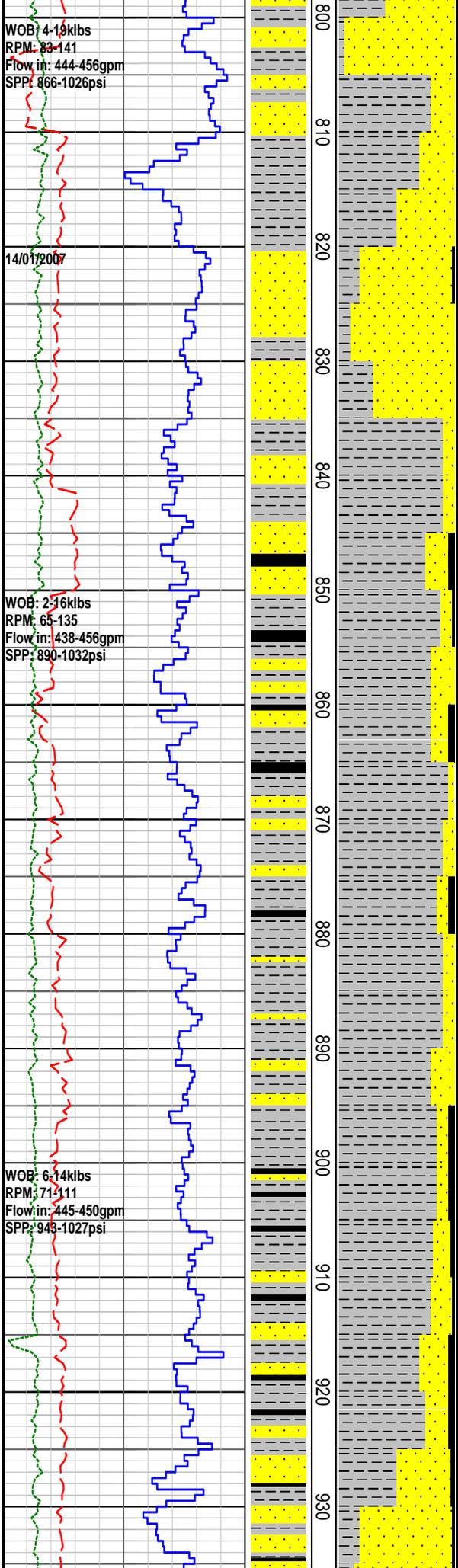
Coal: bk-v dk bn, oft v arg, ethy lstr w/blk frac where arg, sbvit lstr w/sbconch frac where clean, hd, britl.

Survey @ 771.00m
Inc=3.00 deg Azi=7.00 deg
TVD=770.70m

MWIN:8.60ppg Mud temp:41deg
PV/YP:13/14 FV:49Gels:1/2
Solids:1.5% pH:10.0

Claystone: med-dk gy-med bn gy-med gn gy, of v slty, oft v f aren w/altrd felds grn, mod carb, com blk carb flks & det, tr mic, tr calc lined frac mod hd, sbfiss.

Sandstone: lt-med grn gy, v f-f, dom f, sband-rnd, mod srted, abnt off wh arg mtx-mtx sptrd, mod-strg sil & mod calc cmt, abnt off wh altrd felds grn,



com qtz & gy grn volc lith grn, tr rd brn lith, con blk coal det, rare calc in frac, hd, no vis por, no oil fluor.

Claystone: lt-dk gy-med bn gy, oft v slty, oft v f aren w/altrd felds grn, mod carb i/p, tr-com blk carb flks & coaly det, com mic, mod hd, sbfiss.

Sandstone: off wh-med grn gy, v f-occ med, dom f, sband-rnd, mod srtd, abnt off wh arg mtx-mtx suptrd, mod-strg sil & mod calc cmt, abnt off wh altrd

felds grn, com gy grn volc lith grn, tr rd brn lith & qtz grn, com blk coal det, hd, no vis por, no oil fluor.

Claystone: lt-dk bn gy-med bn gy, oft v slty, oft v f aren w/altrd felds grn, mod carb i/p, tr-com blk carb flks & coaly det, com mic, tr cacl lined frac, mod hd, sbfiss.

Coal: v dk bn-bk, oft v arg, ethy lstr, blkly-pty frac where arg, sbvit lstr w/sbconch frac where clean, hd.

Claystone: lt-dk bn gy-med gy, oft v slty, oft v f aren w/altrd felds grn, mod carb i/p, abdnt blk carb flks & coaly det, com mic, com cacl lined frac, mod hd, sbfiss.

Survey @ 884.00m
Inc=4.00 deg Azi=7.00 deg
TVD=883.49m

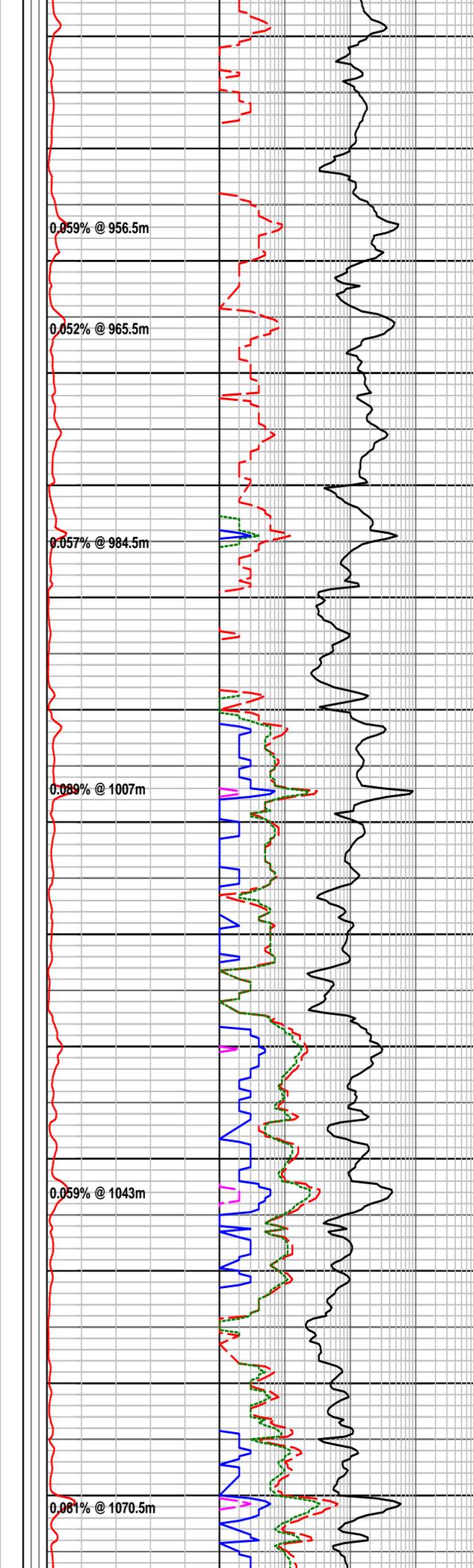
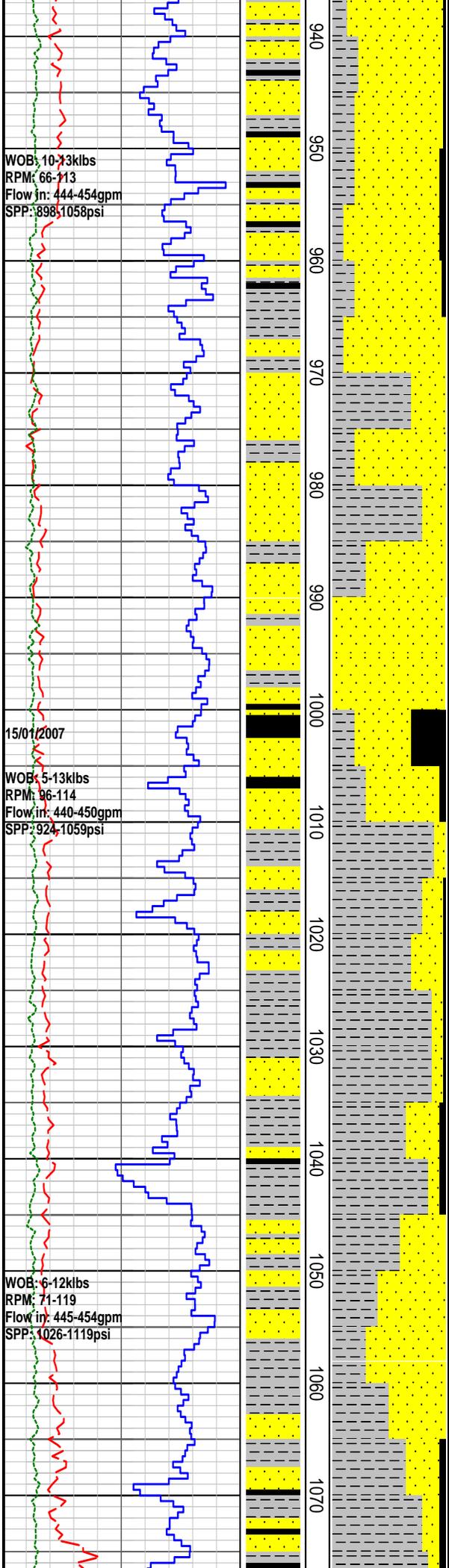
MWIN:8.65ppg Mud temp:44deg
PV/YP:14/15FV:49Gels:1/2
Solids:1.9% pH:10.0

Coal: v dk bn-bk, oft v arg, ethy lstr, blkly-pty frac where arg, sbvit lstr w/sbconch frac where clean, hd.

Claystone: lt-dk bn gy-med gy, oft v slty, oft v f aren w/altrd felds grn, mod carb i/p, abdnt blk carb flks & coaly det, com mic, com cacl lined frac, mod hd, sbfiss.

Sandstone: off wh-med grn gy, vf-occ med, don f, sbang-rnd, mod srtd, abnt off wh arg mtx, mtx srtd, mod-strng sil & calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr rd brn lith & qtz grn com blk coal det, tr-com calc lined frac, hd, no



vis por, no intergranular oil fluor

Fluorescence (930m-935m): the calc frac infill matl has tr mod brt ptchy lt yel fluor, wk dull wh crsh cut, tr res.

Coal: v dk brn-blk, oft v arg, ethy lstr, blkly-ptyl frac where arg, subvit lstr w/subconch frac where clean, hd.

Claystone: lt-dk brn-med gy, oft v slty, oft v aren w/altrd felds grn, mod carb i/p, tr-com blk carb flks & coal det, com mic, tr calc lined frac, hd, sbfiss.

Survey @ 987.00m
Inc=5.00 deg Azi=357.00 deg
TVD=986.17m

Sandstone: off wh-med grn gy, vf-med, dom f grn, sbang-rnd, mod srtd, abnt off wh arg mtx, mtx sprtd, mod-strng sli & calc cmt, abnt off wh altrd felds grn, com gy grn volc lith,

tr rd brn lith & qtz grn, com blk coal det, tr calc lined frac, hr, no vis por, no oil fluor.

MWIN: 8.60ppg Mud temp: 51 deg
PV/YP: 15/18FV: 51 Gels: 2/3
Solids: 1.6% pH: 9.5

Coal: bk, mod arg i/p, ethy lstr, blkly-sbconch ethy-sbvit lstr, hd, brttl

Sandstone: off wh-med grn gy, vf-occ f, dom v f, sbang-rnd, mod srtd, abnt off wh arg mtx, mtx sprtd, mod-strng sli & calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr rd brn lith & qtz grn, com blk coal det, tr calc lined frac, hd, no vis por, no oil fluor.

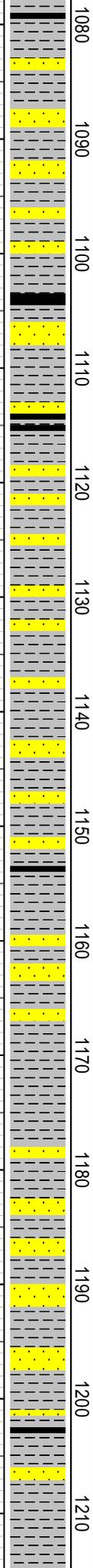
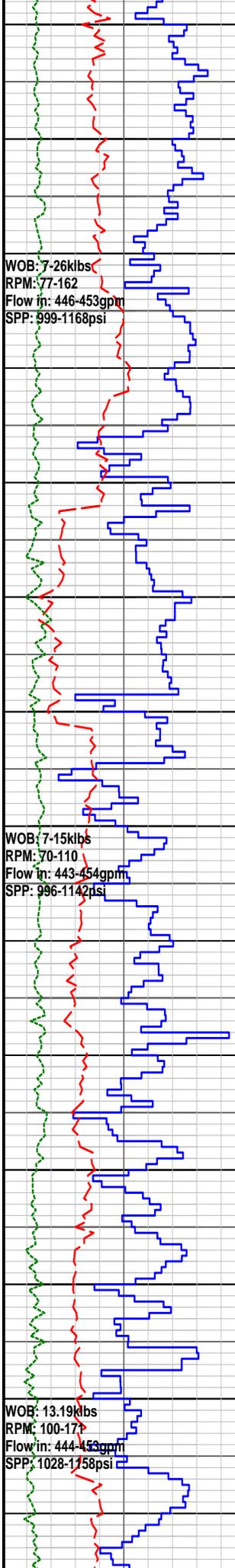
Claystone: med-dk gy-med-dk bn gy, oft v slty, occ v f aren w/altrd felds grn, mod-v carb i/p, com blk carb flks & coal det, com mic, tr calc lined frac, hd, sbfiss.

Coal: bk, mod arg i/p, ethy lstr, blkly-sbconch ethy-sbvit lstr, hd, brttl

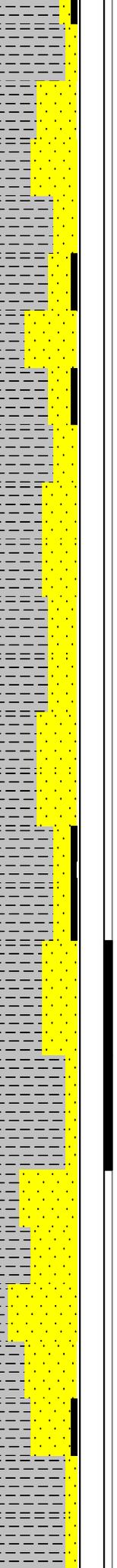
Sandstone: off wh-med grn gy, vf-f, dom v f, sbang-rnd, mod srtd, abnt off wh arg mtx, mtx sprtd, mod-strng sli & calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr rd brn lith & qtz grn, com blk coal det, rare calc lined frac, hd, no vis por, no oil fluor.

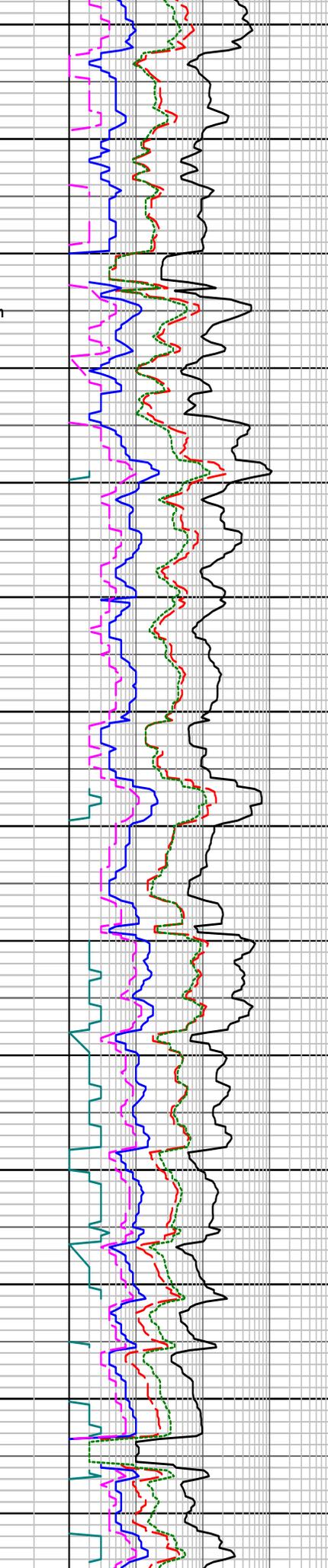
Claystone: med-dk gy-med-dk bn gy, oft v slty, occ v f aren w/altrd felds grn, v carb i/p, abnt blk carb flks & coal det, com mic, tr calc lined frac, hd, sbfiss.



1080
1090
1100
1110
1120
1130
1140
1150
1160
1170
1180
1190
1200
1210



0.063% @ 1080m
0.094% @ 1104.5m
0.090% @ 1115m
0.201% @ 1119m
0.145% @ 1147m
0.114% @ 1160m



Claystone: gy-dk gy-med brn gy, oft v slty, oft v f aren w/altrd felds grn, sl-mod carb, com blk carb flks & coal det, com mic, rr calc lines frac, hd, sbfiss.

Survey @ 1090.00m
Inc=5.50 deg Azi=347.00 deg
TVD=1088.74m

Sandstone: off wh-med grn gy-med brn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com gy grn volc lith,

tr red brn lith & qtz grn, tr blk coal det, rr calc lined frac, hd, no vis por, no oil fluor.

Carbide Lag Check @ 1111m
Calculated Average Hole Size: 9.2"

Coal: blk, v arg i/p, grng to clyst, blkly-subconch frac, ethy-sbvit lstr, hd, brit.

Claystone: gy-dk gy-med brn gy, oft v slty, oft v f aren w/altrd felds grn, sl-v carb, com blk carb flks & coal det, com mic, rr calc lines frac, hd, sbfiss.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, rr calc lined frac, hd, no vis por, no oil fluor.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, rr calc lined frac, hd, no vis por, no intergranular oil fluor.

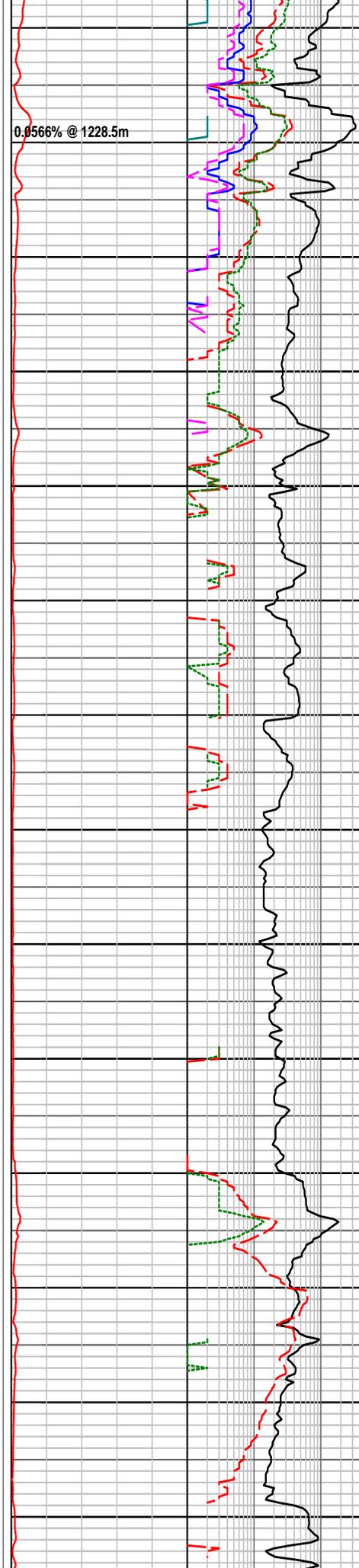
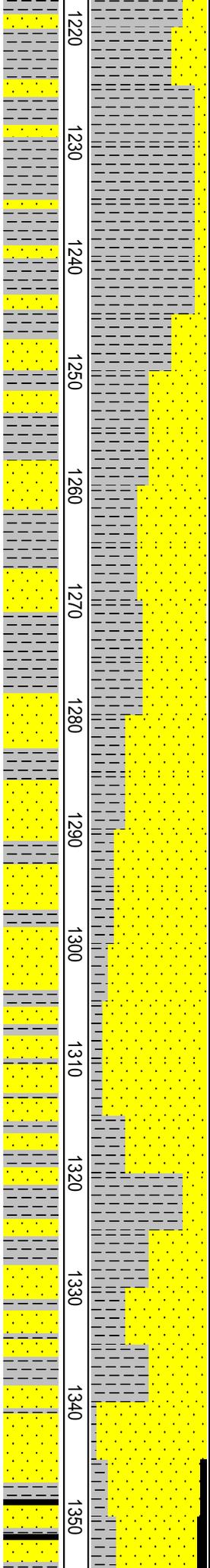
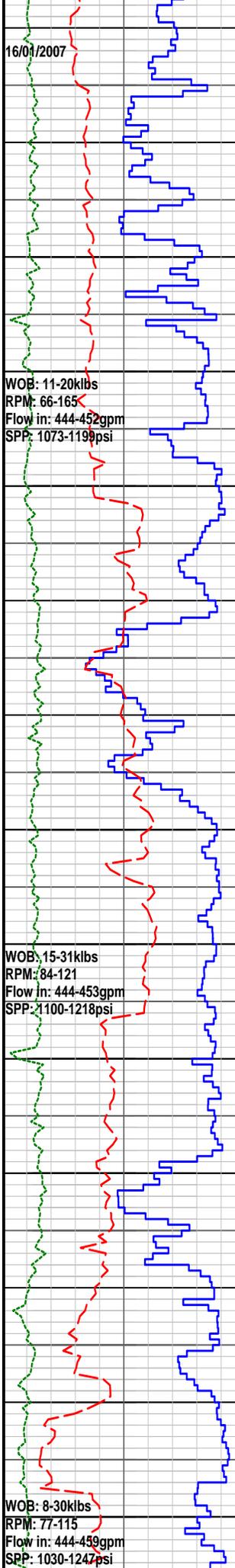
Fluorescence (1160-1180m): the calc frac infill matl has 5% mod brt-brt ptchy lt yel-wh fluor, wk dull mlky wh crsh cut, tr res.

Survey @ 1193.00m
Inc=5.75 deg Azi=338.00 deg
TVD=1191.25m

Coal: blk, v arg i/p, grng to clyst, blkly-subconch frac, ethy-sbvit lstr, hd, brit.

MWIN:8.65ppg Mud temp:48deg
PV/YP:16/18FV:50Gels:2/3
Solids:1.9% pH:9.2

Claystone: gy-dk gy-med brn gy, oft v slty, oft v f aren w/altrd felds grn, sl-v carb, com blk carb flks & coal det, com mic, rr calc lines frac, hd, sbfiss.



Claystone: med-dk gy-med grn-med brn, oft v slty, v f aren w/altrd felds gr i/p, sli-mod carb, com blk carb flecks & coal det com mic, tr-com calc lined frac, hd, sbfiss.

Fluorescence (1240-1270): the calc frac infill has 5-10% mod brt-brt patchy pl yel fluor giving a wk dull yel wh crsh cut, tr res.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, tr-com calc lined frac, hd, no vis por, no intergranular oil fluor.

Sandstone: off wh-med grn gy-lt brn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, tr calc lined frac, hd-v hd, no vis por, no intergranular oil fluor.

Survey @ 1296.00m
Inc=4.75 deg Azi=357.00 deg
TVD=1293.82m

Fluorescence (1280-1290 & 1300-1305): the calc frac infill has tr mod brt-brt patchy pl yel fluor giving a wk dull yel wh crsh cut, tr res.

Claystone: gy-med grn gy-med brn gy, oft v slty v f aren w/altrd felds grn i/p, sl-mod carb, com blk carb flks & coal det, com mic, tr calc lines frac, hd, sbfiss.

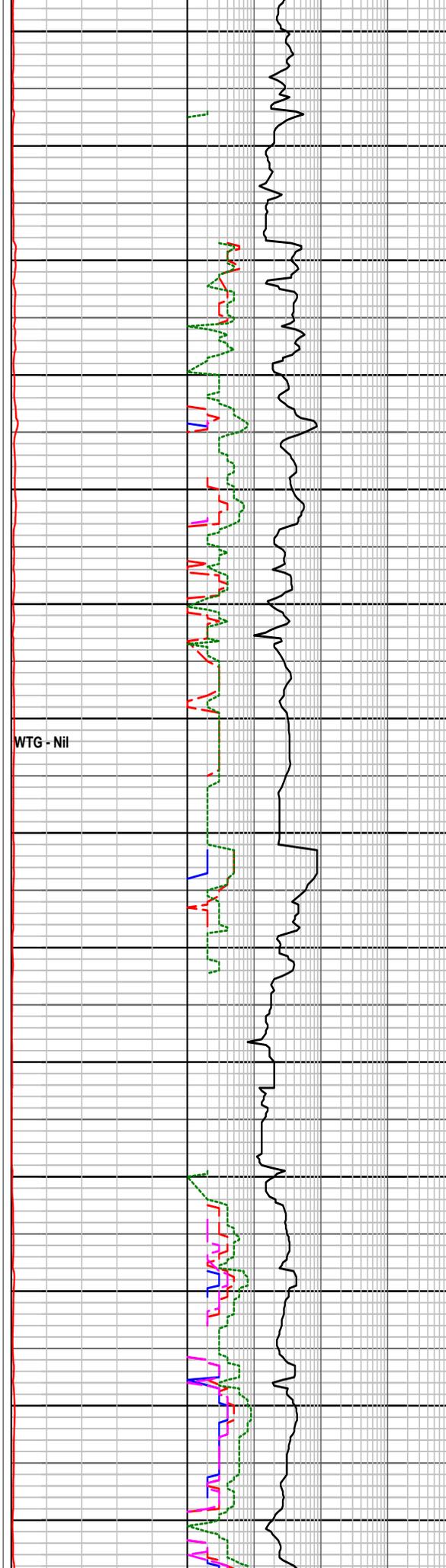
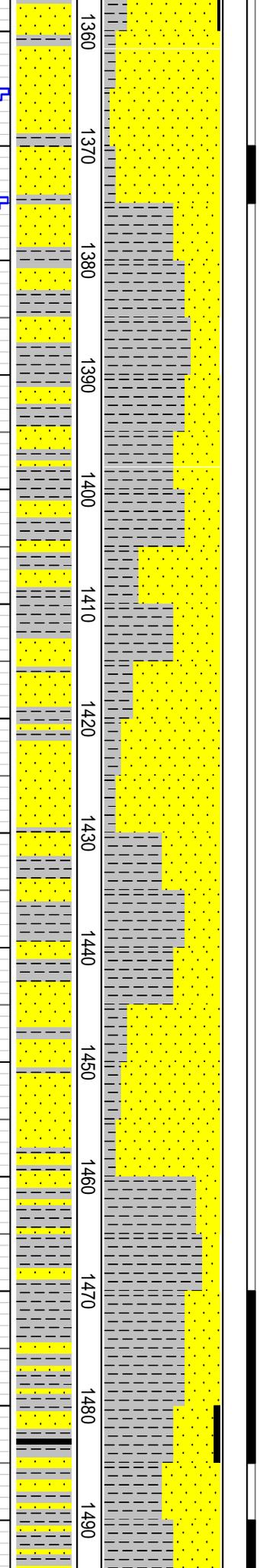
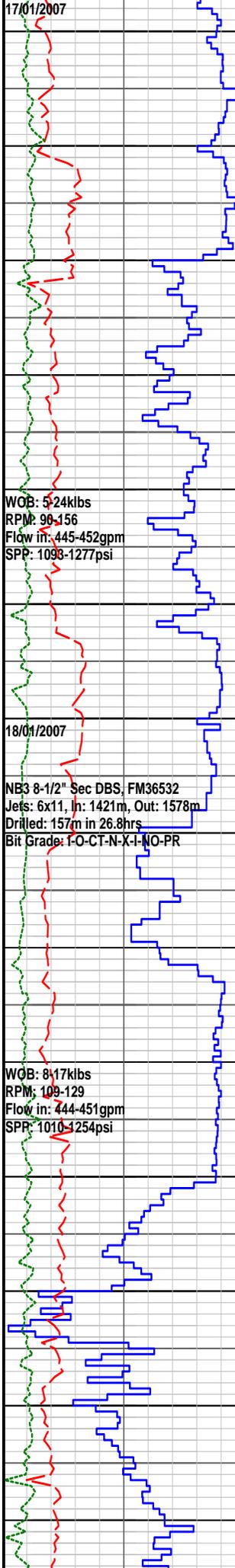
Carbide Lag Check @ 1318m
Calculated Average Hole Size: 10.0"

Fluorescence (1310-1330 & 1335-1340): the calc frac infill has 10-20% mod brt-brt patchy pl yel fluor giving a wk dull yel wh crsh cut, thin

ring res, tr med dk brn oil staining on some cal xtal surf.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, com calc & tr goethite lined frac, hd-v hd, no vis por, no intergranular oil fluor.



Claystone: gy-med grn gy-med brn gy, oft v slty v f aren w/altrd felds grn i/p, sl-mod carb, com blk carb flks & coal det, com mic, tr calc lines frac, hd, sbfiss.

Fluorescence (1370-1375): the calc fract infill has 5% mod bri -bri ptchy pl yel fluor giving a wk dull yel wh crsh cut, tr res.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, rr calc lined frac, hd, no vis por, no intergranular oil fluor.

Survey @ 1399.00m
Inc=4.00 deg Azi=352.00 deg
TVD=1396.52m

Sandstone: off wh-med grn gy, vf-f, dom vf, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith & qtz grn, com blk coal det, tr calc lined frac, hd-v hd, no vis por, no intergranular oil fluor.

POOH to change bit.

Sandstone: off wh-med grn gy, vf-med, dom f-med, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil & calc cmt, abnt off wh altrd

felds grn, com gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, rr calc lined frac, v hd, no vis por, no intergranular oil fluor.

Claystone: gy-dk gy-med brn gy-med grn gy, of v slty, v f aren w/altrd felds grn i/p, sl-mod carb, com blk carb flks & coal det, com mic, rr calc lines frac, hd, sbfiss.

Sandstone: off wh-med grn gy, vf-med, dom med, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com gy grn volc lith, tr red

brn lith & qtz grn, tr blk coal det, hd-v hd, no vis por, no oil fluor.

Claystone: gy-dk gy-med grn gy-med brn gy, v slty i/p, vf aren w/altrd felds gr i/o, sl-mod carb, tr blk carb flks & coal det com mic, hd, sbfiss.

Fluorescence (1470-1485 & 1490-1505): the calc frac infill has tr-5% mod bri-bri ptchy pl yel fluor giving a wk dull yel wh crsh cut, tr res.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

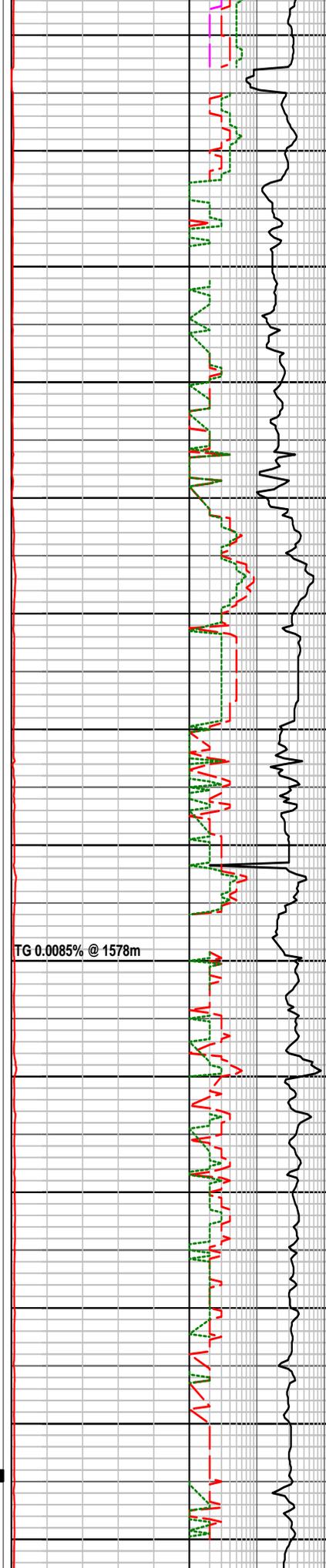
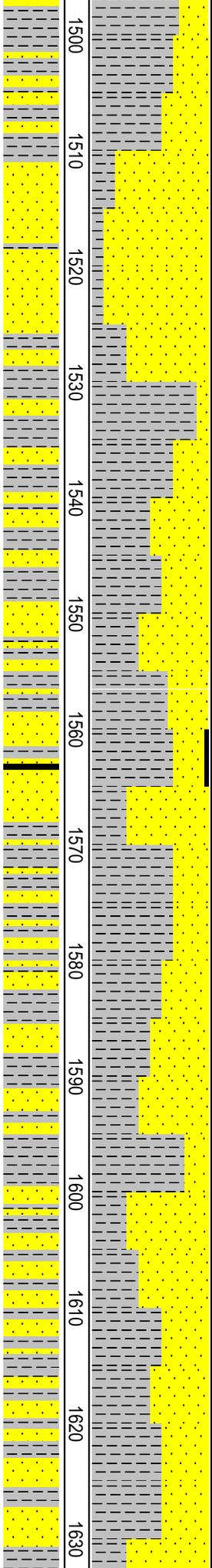
WOB: 5-15klbs
 RPM: 53-133
 Flow in: 439-487gpm
 SPP: 1106-1183psi

19/01/2007

WOB: 4-18klbs
 RPM: 80-129
 Flow in: 443-451gpm
 SPP: 1058-1433psi

20/01/2007
 NS4 8-1/2" Sec DBS, XS16D
 Jets: 3x13, In: 1578m, Out: 1810m
 Drilled: 232m in 61.2hrs
 Bit Grade: 2-4-WT-S-B-I-SS-PR

WOB 1.8-29.85 klbs
 RPM 89-136
 Flow in: 441-458gpm
 SPP: 1056-1684psi



TG 0.0085% @ 1578m

Survey @ 1493.00m
 Inc=4.00 deg Azi=350.00 deg
 TVD=1490.27m

Sandstone: off wh-med grn gy, vf-med, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr red brn lith & qtz grn, tr blk coal det, tr calc lined frac, hd-v hd, no vis por, no oil fluor.

Claystone: gy-v dk gy-med grn gy-med brn gy, v slty i/p, v f aren w/altrd felds gr i/p, mod-v carb, grd i/p-argll coal, com blk carb flecks, & coal det, com

mic, tr calc lined frac, hd, sbfiss.

Sandstone: off wh-med grn gy, vf-f, dom vf, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr red brn lith & qtz grn, com blk coal det, tr calc lined frac, hd-v hd, no vis por, no oil fluor.

Claystone: gy-dkgy-med grn gy-med brn gy, v slty i/p, vf aren w/altrd felds grn i/p, sli-mod carb, com blk carb flecks & coaly det, com mic, tr calc lined frac, hd, sbfiss-fiss.

POOH to change bit.

Sandstone: off wh-med grn gy,vf-med, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil & calc cmt, abnt off wh altrd felds grn,

com gy grn volc lith, tr red brn lith & qtz grns, com blk coal det, tr calc lined frac, v hd, no vis por, no oil fluor.

Survey @ 1596.00m
 Inc=3.25 deg Azi=354.00 deg
 TVD=1593.03m

Claystone: gy-dkgy-med grn gy-med brn gy, v slty i/p, vf aren w/altrd felds grn i/p, sli-mod carb, com blk carb flecks & coaly det, com mic, tr calc lined frac, hd, sbfiss-fiss.

Fluorescence (1620-1630): the wh xtlnc calc frac infill (tr-5% of tot spl) has 50-80% brt ptchy v pl yel wh fluor giving a wk instant followed by strng

brt mlky crsh cut, thk rr yel wh ring res.

21/01/2007

WOB: 5.75-35.96 klbs
RPM: 77-190
Flow in: 428-834gpm
SPP: 1439-1738psi

WOB: 18-33klbs
RPM: 72-85
Flow in: 443-455gpm
SPP: 1332-1822psi

22/01/2007

WOB: 21-33klbs
RPM: 149-183
Flow in: 330-349gpm
SPP: 894-1015psi

1640
1650
1660
1670
1680
1690
1700
1710
1720
1730
1740
1750
1760
1770

WTG 0.0082% @ 1722m

Sandstone: off wh-med grn gy, vf-f, dom vf, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

gy grn volc lith, tr red brn lith, tr blk coal det, tr calc lined frac, hd-v hd, no vis por, no oil fluor.

MWIN:9.0ppg Mud temp:54deg
PV/YP:19/19 FV:51 Gels:2/3
Solids:4.3% pH:10.0

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil & calc cmt, abnt off wh altrd felds grn,

com gy grn volc lith, tr red brn lith, tr-com blk coal det, tr calc lined frac, v hd, no vis por, no oil fluor.

Claystone: gy-dkgy-occ med brn gy-med grn gy v stly i/p, vf aren w/altrd felds grn i/p, mod carb, tr-com blk carb flecks & coaly det, com mic, tr calc lined frac, hd, sbfiss-fiss.

Survey @ 1710.00m
Inc=3.00 deg Azi=47.00 deg
TVD=1706.88m

Sandstone: off wh-med grn gy, vf-f, dom vf, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, strng sil & calc cmt, abnt off wh altrd felds grn, com

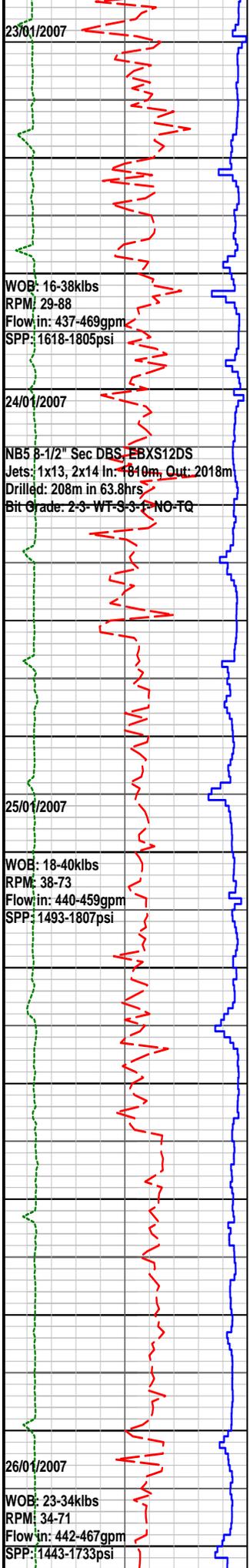
gy grn volc lith, tr red brn lith, tr blk coal det, tr calc lined frac, hd-v hd, no vis por, no oil fluor.

Claystone: gy-dk gy-med brn gy, v stly i/p, vf aren w/altrd felds gr i/p, mod carb, tr-com blk carb flecks & coal det, com micmic, rr calc lined frac, hd, sbfiss-fiss.

Sandstone: off wh-med grn gy, vf-f, dom f sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil & mod calc cmt, abnt off wh altrd felds

grn, com gy grn volc lith, tr red brn lith & qtz grn, tr-com blk coal det, rr calc lined frac, v hd, no vis por, no oil fluor.

MWIN:9.15ppg Mud temp:58deg
PV/YP:23/25 FV:56 Gels:3/4
Solids:5.3% pH:10.2



1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
1880
1890
1900
1910

23/01/2007

WOB: 16-38klbs
RPM: 29-88
Flow in: 437-469gpm
SPP: 1618-1805psi

24/01/2007

NB5 8-1/2" Sec DBS EBXS12DS
Jets: 1x13, 2x14 In. 1810m, Out: 2018m
Drilled: 208m in 63.8hrs
Bit Grade: 2-3-WT-3-3-F-NO-TQ

25/01/2007

WOB: 18-40klbs
RPM: 38-73
Flow in: 440-459gpm
SPP: 1493-1807psi

26/01/2007

WOB: 23-34klbs
RPM: 34-71
Flow in: 442-467gpm
SPP: 1443-1733psi

0.068% @ 1794m

TG 0.0141% @ 1810m

0.0485% @ 1851.5m

Shale: med brn-med dk brn gy-dk gy, mod slty i/p, mod carb, tr micmic, tr calcite & geothite lined frac, hd, sil text, subfiss.

Sandstone: off wh-med grn, vf-occ f, sbrrnd-rnd, mod srtd, abnt gn argil mtx, v strng sil, wk-mod calc cmt, abnt altd feld gr, com gy gn lith, com

rd brn lith, tr qtz gr, tr f brn mic flks, tr blk coal det, tr calcite and geothite lined frac, v hd, no vis por, no oil fluor.

Claystone: off wh-med brn-med brn gy-med dk gy, v slty i/p, v f aren w/altrd felds grn i/p, sl-v carb, tr-com blk carb flks & coal det, com mic, tr calc lined frac, hd sbfiss-fiss.

Survey @ 1821.00m
Inc=2.25 deg Azi=68.00 deg
TVD=1817.77m

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil, mod calc cmt, abnt off wh altrd felds gr,

com gy grn rd & brn lith, tr-com qtz gr, tr-com blk coal det, tr calc lined frac, v hd, no vis por, no oil fluor.

Fluorescence (1830-1855): the calc vein infill has tr-20% mod brt, ptchy, v pl, yel fluor, giving a wk mlky wh crsh cut, tr res.

Sandstone: off wh-med grn gy, vf-f, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil, mod calc cmt, abnt off wh altrd felds gr,

com gy grn rd & brn lith, tr-com qtz gr, tr blk coal det, tr calc lined frac, v hd, no vis por, no intergranular oil fluor.

Sandstone: off wh-med grn gy, vf-occ med, dom f, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil, mod calc cmt, abnt off wh altrd felds

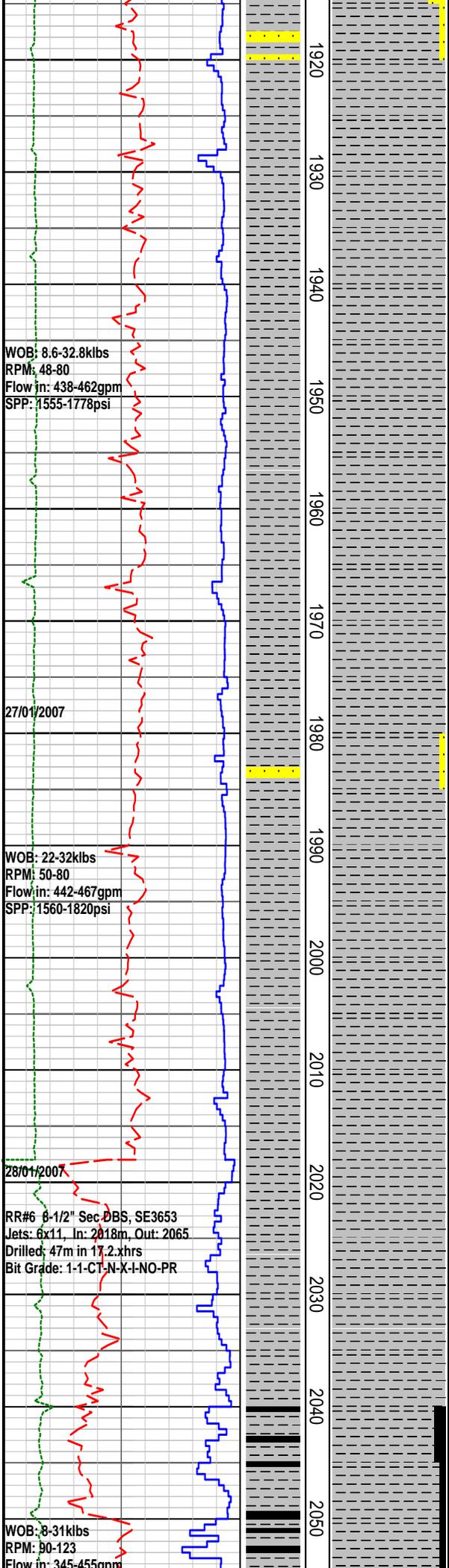
gr, com gy grn, rd & brn lith, tr qtz gr, tr blk coal det, tr calc lined frac, v hd, no vis por, no oil fluor.

Claystone: lt-v dk gy-med brn gy-med brn, occ slty, v f aren w/altrd felds grn i/p, mod carb, tr blk carb flks & coal det, com mic, tr calc lined frac, hd sbfiss.

MWIN:9.20ppg Mud temp:59deg
PV/YP:19/21 FV:55 Gels:3/3
Solids:5.7% pH:10.0

Sandstone: off wh-med brn gy, vf, sbang-rnd, mod srtd, abnt off wh arg mtx-mtx sprtd, v strng sil & calc cmt, abnt off wh altrd felds gr, mtx sprtd,

com gy grn, rd & brn lith, tr qtz gr, tr blk coal det, tr calc lined frac, v hd, no vis por, no oi



WOB: 8.6-32.8klbs
 RPM: 48-80
 Flow in: 438-462gpm
 SPP: 1555-1778psi

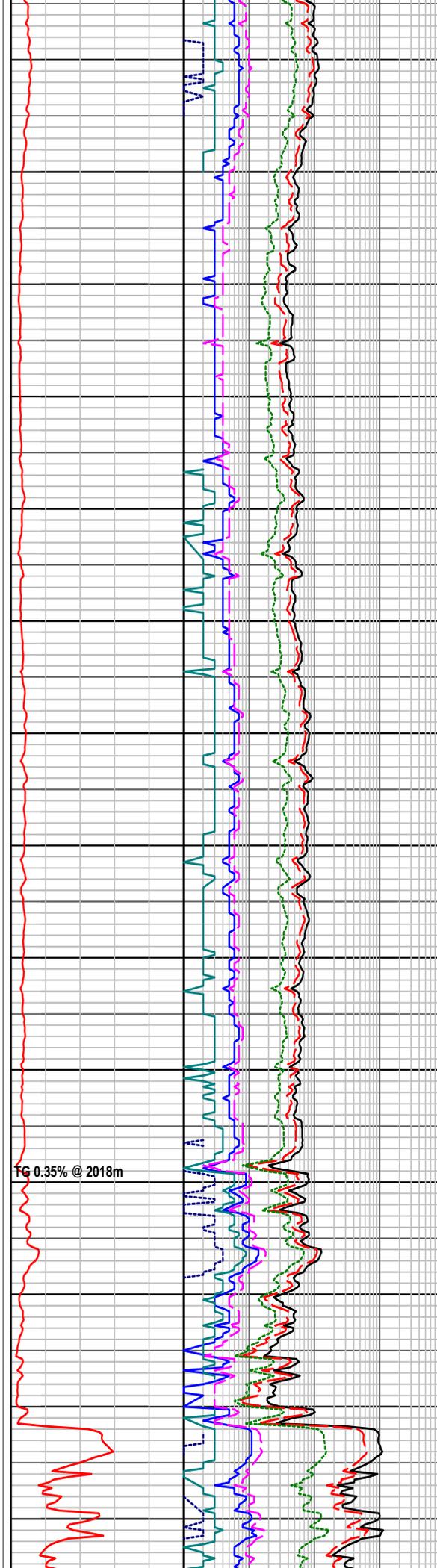
27/01/2007

WOB: 22-32klbs
 RPM: 50-80
 Flow in: 442-467gpm
 SPP: 1560-1820psi

28/01/2007

RR#6 6-1/2" Sec DBS, SE3653
 Jets: 6x11, In: 2018m, Out: 2065
 Drilled: 47m in 17.2.xhrs
 Bit Grade: 1-1-CT-N-X-I-NO-PR

WOB: 8-31klbs
 RPM: 90-123
 Flow in: 345-455gpm



TG 0.35% @ 2018m

det, tr calc lined frac, v hd, no vis por, no of fluor.

Survey @ 1915.00m
 Inc=3.75 deg Azi=96.00 deg
 TVD=1911.64m

Claystone: dk-v dk gy, occ mod slty, rr v f aren w/altrd felds grn, mod-dom v carb, tr blk carb flks & coal det, com mic, tr calc lined frac, hd sbfiss.

Claystone: dk-v dk gy, occ mod slty, rr v f aren w/altrd felds grn, mod-dom v carb, tr blk carb flks & coal det, com mic, tr calc lined frac, hd sbfiss.

Claystone: dk-v dk gy, rr med brn gy, occ mod slty, mod-dom v carb, tr black carb flcks, coaly det, com micmic, rr calc lnd fract, hd-sbfiss

MWIN:9.30ppg Mud temp:59.2deg
 PV/YP:20/22 FV:56
 Gels:4/5
 Solids:6.4% pH:9.8

Sandstone: off wh-med brn gy, vf, sbang-rnd, mod srted, abnt off wh arg mtx-mtx sprtd, abnt off wh altrd felds gr, no shows

Claystone: dk-v dk brn, occ slig slty, dom v carb, tr blk carb flks & coal det, com mic, tr calc lined frac, hd sbfiss.

MWIN:9.25ppg Mud temp:59.1deg
 PV/YP:19/23 FV:55 Gels:4/6
 Solids:6.0% pH:10.5

Survey @ 2006.00m
 Inc=6.75 deg Azi=79.00 deg
 TVD=2002.25m

POOH to change bit.

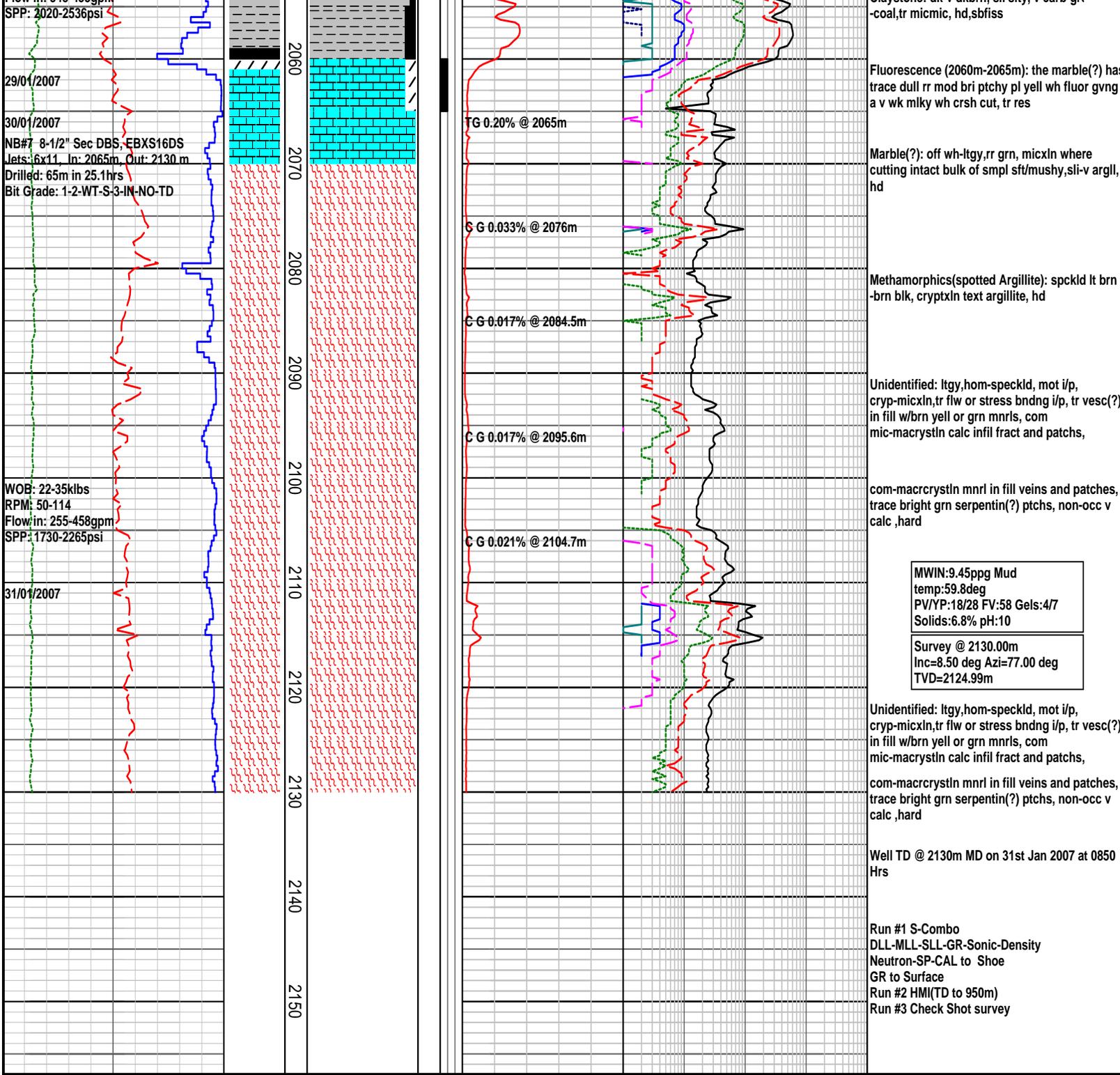
Claystone: dk-v dk gy, rr med brn gy, occ mod slty, mod-dom v carb, tr black carb flcks, coaly det, com micmic, rr calc lnd fract, hd-sbfiss

MWIN:9.30ppg Mud temp:54.3deg
 PV/YP:19/26 FV:58 Gels:4/6
 Solids:6.4% pH:10

Coal: dom v dkbrn, v argill, blk where clin, sbvit-ethy lstr,pty-blky fract, com slcknsd sfc,hd-brit,n fluor but gv a wk dull yell crsh cut,tr res

Survey @ 2053.00m
 Inc=8.50 deg Azi=77.00 deg
 TVD=2048.83m

Claystone: dk-v dkbrn, sli slty, v carb-rr



FORMATION EVALUATION LOG

RATE OF PENETRATION		INTERPRETED LITHOLOGY	MD meters 1:500	LITHOLOGY	OIL SHOWS CORE	TOTAL GAS	CHROMATOGRAPH	REMARKS						
ROP (0-50m/hr)						TOTAL GAS	1 Methane ppm 10000							
50	45	40	35	30	25	20	15	10	5	1	Ethane ppm 10000			
Backup ROP (50-200m/hr)		185	170	155	140	125	110	95	80	65	1	Propane ppm 10000		
WOB (klb)		5	10	15	20	25	30	35	40	45	50	1	iso-Butane ppm 10000	
TORQUE AVG		5	10	15	20	25	30	35	40	45	50	1	n-Butane ppm 10000	
		5	10	15	20	25	30	35	40	45	50	1	iso-Pentane ppm 10000	
													n-Pentane ppm	
													10 100 1000 10000	