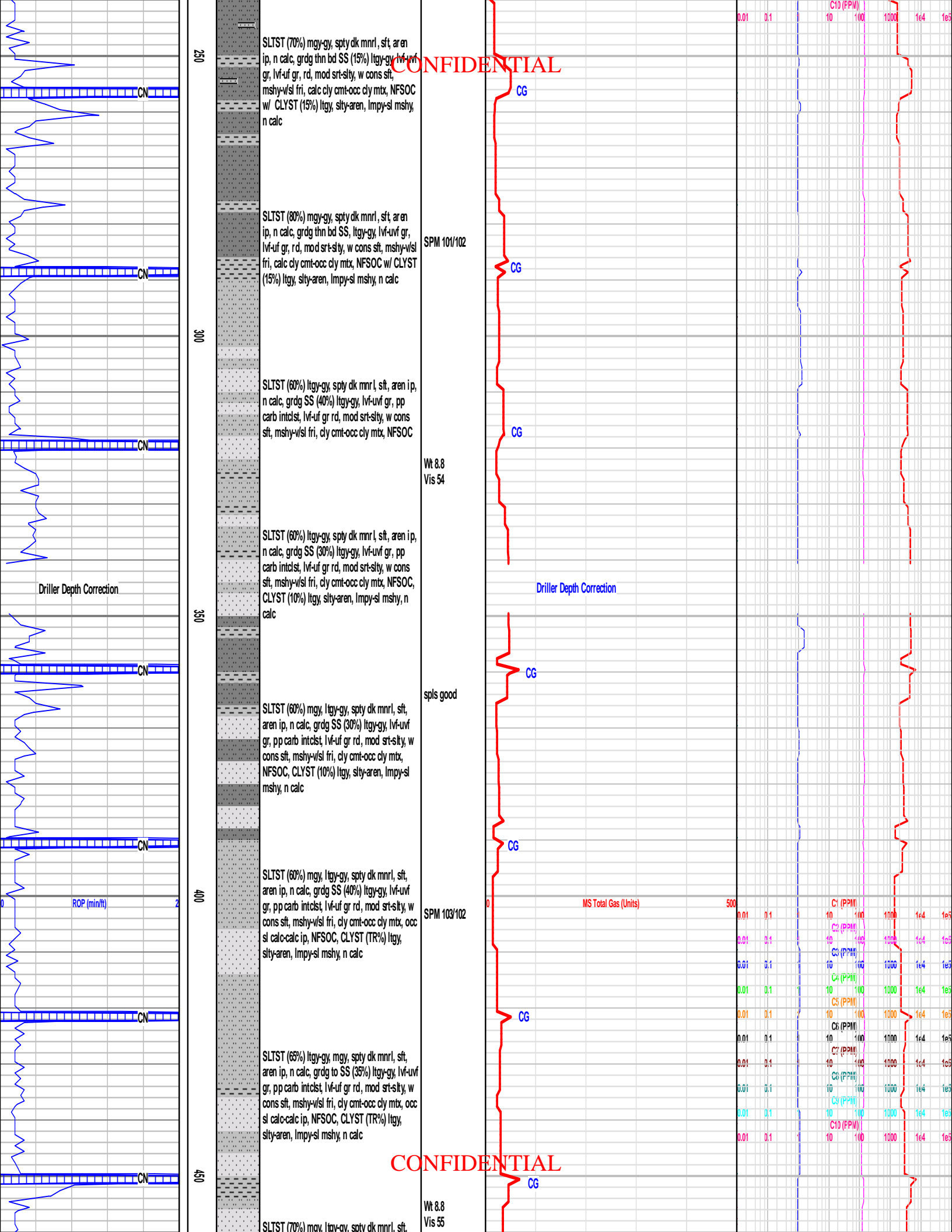
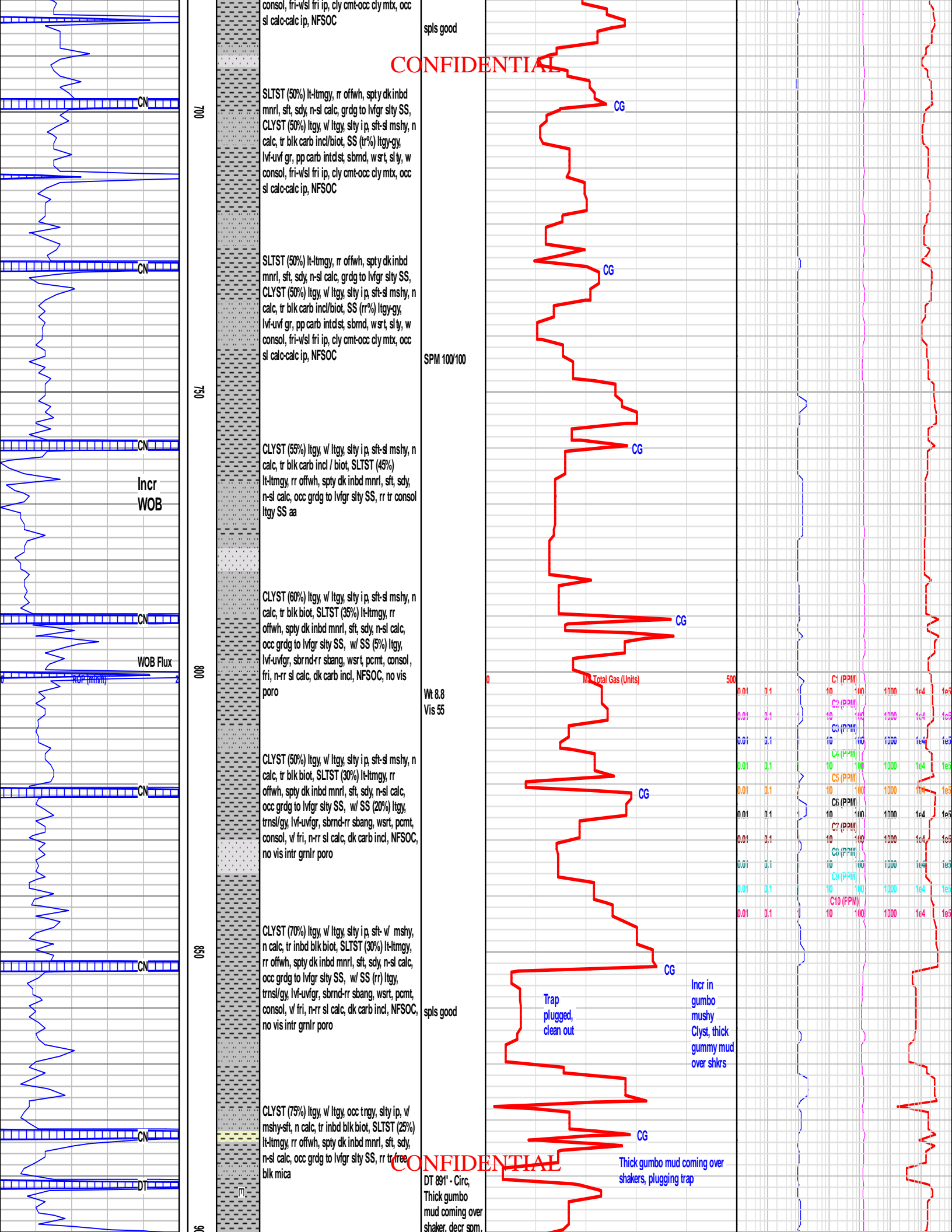


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ROP (min/ft)	DEPTH	Lithology	Geological Descriptions	Rig/Mud Data	MS Total Gas (Units)	Components C1 thru C10
0	0		<p>ALTA MESA SERVICES Fallon 1-10 API # 11-075-20032 AFE: 0004311DC1 GL Elevation: 2155ft KB Elevation: 2167 ft</p> <p>King Canyon Buffalo, Inc. On location 2/6/2018 @ 0900 hrs MT, Rigged up & fully operational 2/6/2018 @ 1130 hrs MT</p> <p>SPUD on 2-07-2018 @ 0030 hrs MT</p> <p>16" Conductor set at 132' (KB)</p> <p>KCB mudloggers catching 30' lagged samples starting at 150'</p> <p>SLTST (100%) mgy-gy, spty dk mnrl, sft, aren, n calc, occ grdg w/sdy, w/ Tuff (TR) lt org, vit, hd, aphn-pyro frag & chrty frag</p> <p>SLTST (85%) mgy-gy, spty dk mnrl, sft, aren, n calc, bcmg incr sdy, w/ SS (15%) ltgy-gy, lvf-uvf gr, lvf-uf gr, rd, mod srt-slty, w cons sft, mshy-wsl fri, calc cly cmt-occ cly mtz, NFSOC w/ CLYST (TR) ltgy, sly-aren, decr Tuff (RR) lt org, vit, hd, aphn frag</p> <p>SLTST (75%) mgy-gy, spty dk mnrl, sft, aren ip, n calc, w/ SS (20%) ltgy-gy, lvf-uvf gr, lvf-uf gr, rd, mod srt-slty, w cons sft, mshy-wsl fri, calc cly cmt-occ cly mtz, NFSOC w/ CLYST (5%) ltgy, sly-aren, lmpy-sl mshy, n calc</p>	<p>Mud Type: Water/Gel</p> <p>Rig / Mud Data</p> <p>MW In/Out Vis In/Out</p> <p>Drilling 12 1/4" Surface hole</p> <p>NB #1, 12 1/4", RR Smith, FDS, 3x15 jets, Tricone in at 132', w/ set of Jars, No Mud Mtr</p> <p>Wt 8.8 Vis 55</p> <p>SPM 100/100</p> <p>spils good</p>	<p>MS Total Gas (Units)</p> <p>0 500</p> <p>BGG = Background Gas BIB = Break in Bit CN = Connection CG = Connection gas CO = Circulate out DOT = Dropped on trip DT = Downtime DTG = Downtime gas FMG = Formation gas LTC = Lagged to Connection LTD = Lagged to Downtime NB = New Bit ST = Short Trip STG = Short Trip Gas TG = Trip Gas WLS = Wireline Survey</p>	<p>C1 (PPM) 10 100 1000 1e4 1e5</p> <p>C2 (PPM) 10 100 1000 1e4 1e5</p> <p>C3 (PPM) 10 100 1000 1e4 1e5</p> <p>C4 (PPM) 10 100 1000 1e4 1e5</p> <p>C5 (PPM) 10 100 1000 1e4 1e5</p> <p>C6 (PPM) 10 100 1000 1e4 1e5</p> <p>C7 (PPM) 10 100 1000 1e4 1e5</p> <p>C8 (PPM) 10 100 1000 1e4 1e5</p> <p>C9 (PPM) 10 100 1000 1e4 1e5</p> <p>C10 (PPM) 10 100 1000 1e4 1e5</p>
0	100					<p>ALTA MESA SERVICES Fallon 1-10 API # 11-075-20032 AFE: 0004311DC1 GL Elevation: 2155ft KB Elevation: 2167 ft</p>





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spls good

consol, fri-v/sl fri ip, cly cmt-occ cly mtx, occ sl calco-calc ip, NFSOC

SLTST (50%) lt-ltmg, rr offwh, spty dkinbd mnrl, sft, sdy, n-sl calc, grdg to lvgr sty SS, CLYST (50%) ltgy, v/ ltgy, sty ip, sft-sl mshy, n calc, tr blk carb incl/biot, SS (tr%) ltgy-gy, lvf-uvf gr, pp carb intdst, sbmd, wsr, slty, w consol, fri-v/sl fri ip, cly cmt-occ cly mtx, occ sl calco-calc ip, NFSOC

SLTST (50%) lt-ltmg, rr offwh, spty dkinbd mnrl, sft, sdy, n-sl calc, grdg to lvgr sty SS, CLYST (50%) ltgy, v/ ltgy, sty ip, sft-sl mshy, n calc, tr blk carb incl/biot, SS (tr%) ltgy-gy, lvf-uvf gr, pp carb intdst, sbmd, wsr, slty, w consol, fri-v/sl fri ip, cly cmt-occ cly mtx, occ sl calco-calc ip, NFSOC

SPM 100/100

CLYST (55%) ltgy, v/ ltgy, sty ip, sft-sl mshy, n calc, tr blk carb incl / biot, SLTST (45%) lt-ltmg, rr offwh, spty dk inbd mnrl, sft, sdy, n-sl calc, occ grdg to lvgr sty SS, rr tr consol ltgy SS aa

Incr WOB

CLYST (60%) ltgy, v/ ltgy, sty ip, sft-sl mshy, n calc, tr blk biot, SLTST (38%) lt-ltmg, rr offwh, spty dk inbd mnrl, sft, sdy, n-sl calc, occ grdg to lvgr sty SS, w/ SS (5%) ltgy, lvf-uvfgr, sbmd-rr sbang, wsr, pamt, consol, fri, n-rr sl calc, dk carb incl, NFSOC, no vis poro

WOB Flux

CLYST (50%) ltgy, v/ ltgy, sty ip, sft-sl mshy, n calc, tr blk biot, SLTST (30%) lt-ltmg, rr offwh, spty dk inbd mnrl, sft, sdy, n-sl calc, occ grdg to lvgr sty SS, w/ SS (20%) ltgy, trns/gy, lvf-uvfgr, sbmd-rr sbang, wsr, pamt, consol, v/ fri, n-rr sl calc, dk carb incl, NFSOC, no vis intr grnlr poro

Wt 8.8
Vis 55

CLYST (70%) ltgy, v/ ltgy, sty ip, sft-v/ mshy, n calc, tr inbd blk biot, SLTST (30%) lt-ltmg, rr offwh, spty dk inbd mnrl, sft, sdy, n-sl calc, occ grdg to lvgr sty SS, w/ SS (rr) ltgy, trns/gy, lvf-uvfgr, sbmd-rr sbang, wsr, pamt, consol, v/ fri, n-rr sl calc, dk carb incl, NFSOC, no vis intr grnlr poro

spls good

CLYST (75%) ltgy, v/ ltgy, occ trngy, sty ip, v/ mshy-sft, n calc, tr inbd blk biot, SLTST (25%) lt-ltmg, rr offwh, spty dk inbd mnrl, sft, sdy, n-sl calc, occ grdg to lvgr sty SS, rr tr free blk mica

DT 891' - Circ,
Thick gumbo mud coming over shaker, decr som.

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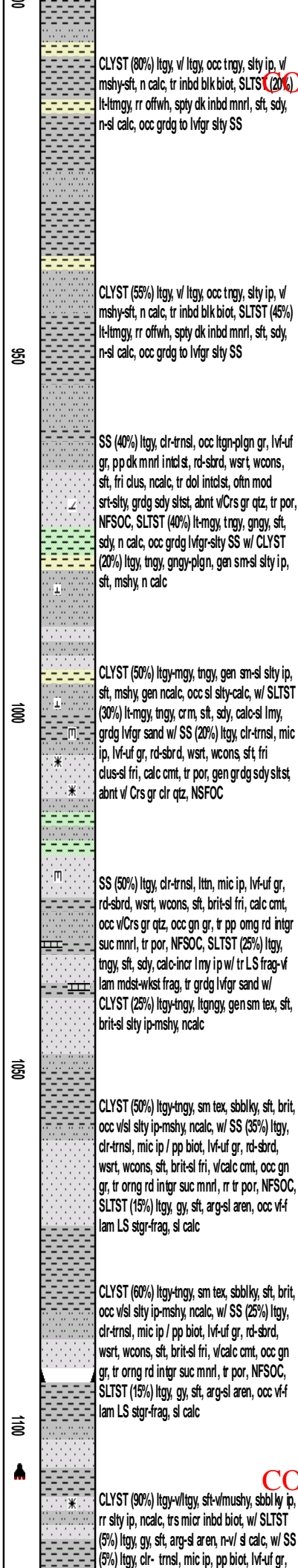
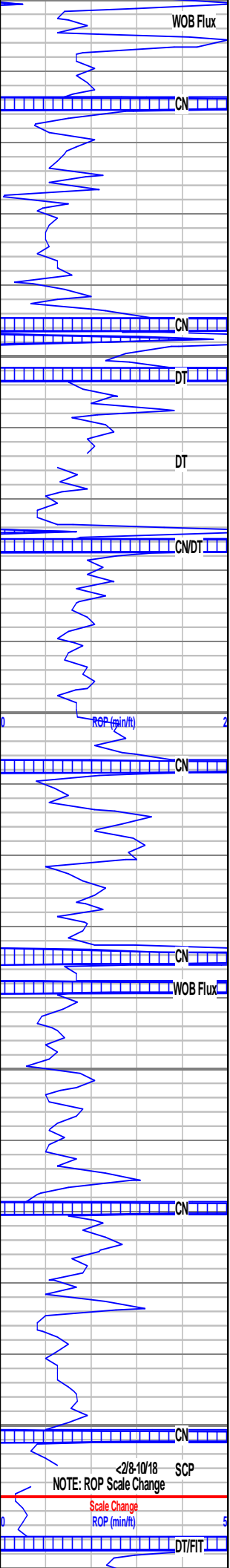
M Total Gas (Units)

0.01	0.1	C1 (PPM)	1000	1e4	1e5
0.01	0.1	C2 (PPM)	1000	1e4	1e5
0.01	0.1	C3 (PPM)	1000	1e4	1e5
0.01	0.1	C4 (PPM)	1000	1e4	1e5
0.01	0.1	C5 (PPM)	1000	1e4	1e5
0.01	0.1	C6 (PPM)	1000	1e4	1e5
0.01	0.1	C7 (PPM)	1000	1e4	1e5
0.01	0.1	C8 (PPM)	1000	1e4	1e5
0.01	0.1	C9 (PPM)	1000	1e4	1e5
0.01	0.1	C10 (PPM)	1000	1e4	1e5

Trap plugged, clean out

Incr in gumbo mushy Cyst, thick gummy mud over shkr

Thick gumbo mud coming over shakers, plugging trap



cln shkrs

SPM 103/101

952' - Circ, work on Pason EDR

964' - PU, Circ, work on #1 pump 2 hrs

976' - PU, Circ, work on #1 pump

Wt 9.0
Vis 51

SPM 104/102

spls good

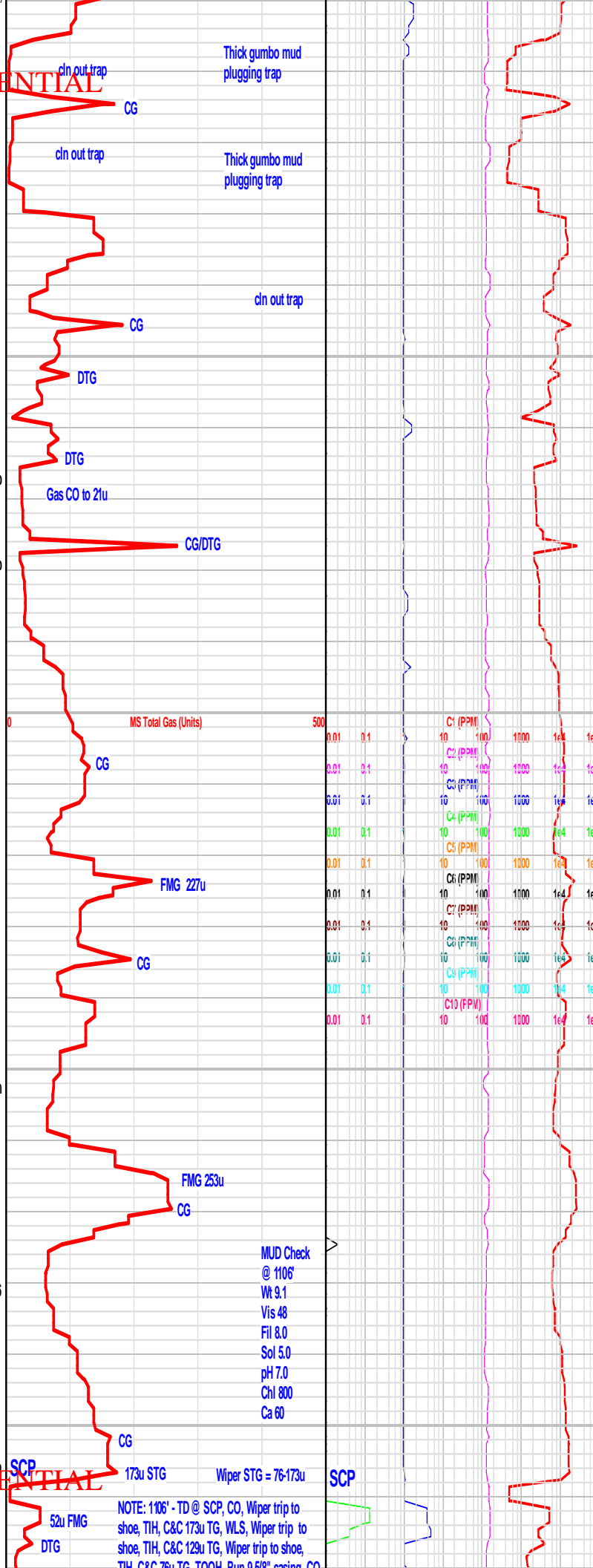
Bit #1 Drld 974' in 14.00 hrs (avg 69.6 ft/hr)

WLS @ 1066' = 1.00"

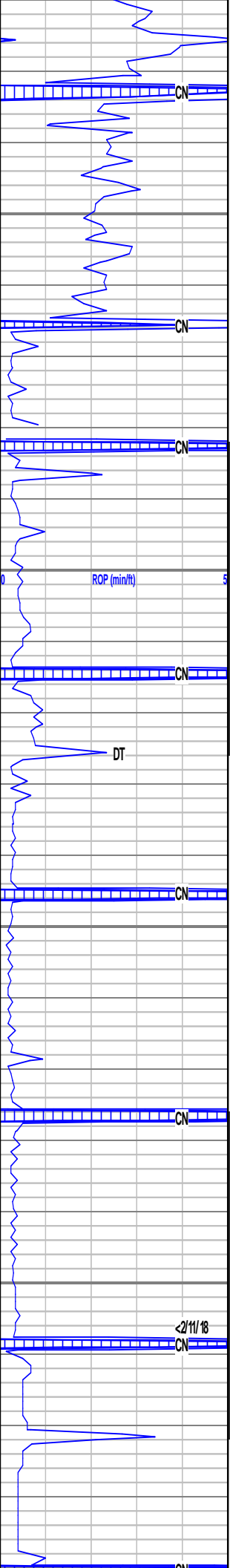
NB #2, 8 1/2", Smith, FDS, 3x16 jets, RR Tri cone in at 1106', w/ Jars, No Mud Mtr

9 5/8" casing set @ 1094'

1106' TD @ SCP on 2-7-18 @ 1815 hrs, see NOTE in gas track, 1116'-FIT to 12.5 EMMV, 2-11-18



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1150
1200
1250
1300

rd-sbrd, msrt, pred consol, fri, sl calc cmt, consol pcs w/ mod cly fil cmt, no vis por, NFSOC, w/ rr tr crsgr clr rnd qtz

CLYST (100%) ltgy-w/ltgy, sft-w/mushy, tr mgy frm, sbbkly ip, sl stly ip, ncalc, trs micr inbd biot, w/ SLTST (tr%) ltgy-gy, sft, arg-sl aren, n-v sl calc, w/ tr metal shvgs in spl, poor spl (gumbo)

CLYST (100%) ltgy-w/ltgy, v/mushy, sft, sbbkly ip, sl stly ip, ncalc, trs micr inbd biot, w/ SLTST (tr%) ltgy-gy, sft, arg-sl aren, n-v sl calc, w/ tr metal shvgs in spl, poor spl (gumbo)

CLYST (100%) gy-mgy, some gygn, sft, gen brit, sbbkly ip, occ sl stly ip, ncalc, w/ LS (TR) crm, mdst tex, gen arg, sme wkst-grst tex, sft, f lam, tr sdy ip w/ thnbd mic SS stgr, NFSOC

CLYST (75%) gy-mgy, tngy, occ gygn, sft, gen brit, sbbkly ip, gen ncalc, incr stly ip-sl calc w/ SLTST (15%) tngy, sft, arg-vsl aren, calc-v/calc, tr sdy ip w/ tr thnbd mic SS stgr, LS (10%) bu-crm, mdst tex, sft, v-f lam, tr sdy ip w/ thnbd mic SS stgr, NFSOC

CLYST (70%) tngy, occ gy-mgy, sft, gen mshy, sbbkly-splnty, gen ncalc, incr stly ip-sl calc w/ SLTST (15%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip w/ tr thnbd mic SS stgr, LS (10%) bu-crm, mdst tex, sft, v-f lam, NFSOC, w/ SS (5%) thn bd, ltgy, gngy, lvf-uf gr, rd, wst, wcons, sft, sl fri, calc cmt, tr por, NFSOC

CLYST (80%) gy-mgy, sft, gen brit, sbbkly ip, gen ncalc, occ tngy, stly ip-sl calc w/ SLTST (10%) tngy, sft, arg-vsl aren, calc-v/calc, LS (10%) bu-crm, mdst-tr pkst tex-sdy ip, sft, v-f lam, NFSOC

CLYST (80%) gy-mgy, sft, gen brit, sbbkly ip, gen ncalc, occ tngy, stly ip-sl calc w/ SLTST (10%) tngy, sft, arg-vsl aren, calc-v/calc, LS (5%) bu, mdst-tr pkst tex, sft, v-f lam, tr micxn frag, NFSOC

Drill out 1/3 Surf
Csg on 2-10-18 @
1025 hrs w/ 10.0
MW

Wt 10.0
Vis 55

spls poor

Bit #2 Drid 74' in
2.5 hrs (avg 29.6
ft/hr)

Start curve @
1180'

1180' - CO,
TOOH, PU dir.
tools, chg bits

NB #3, 8.5",
Smith, XR+PS,
3x16 jets, Tricone
in at 1180', w/ set
of Jars, Mud
Mtr/MWD

MWD Survey
MD 1235'
Incl 2.2°
Azm 201.5°
Tvd 1234.97'

spls good

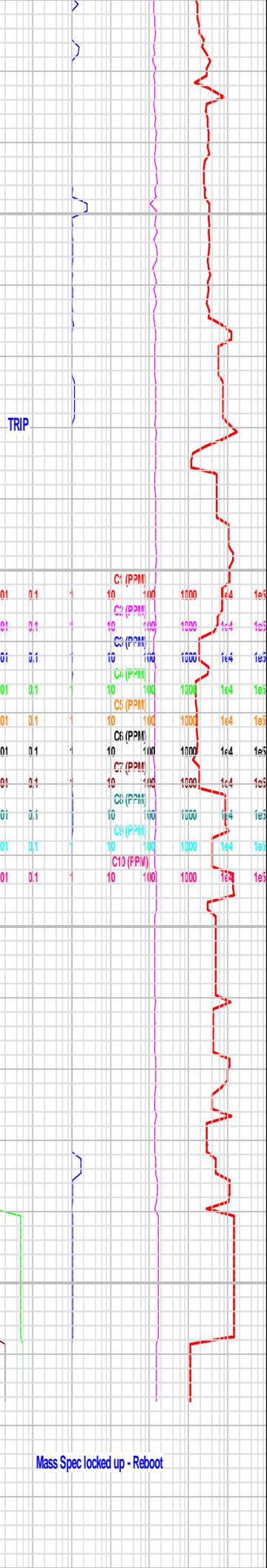
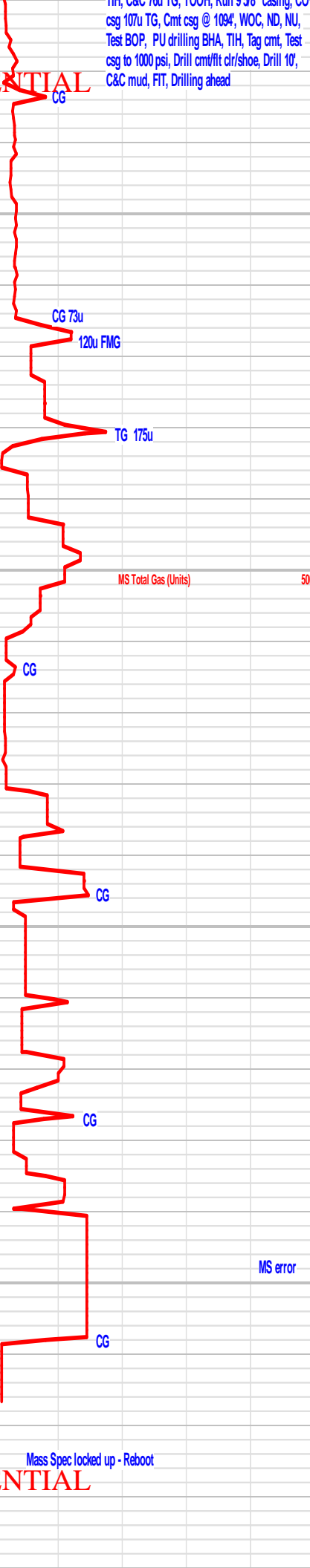
Wt 9.6
Vis 42

SPM 94/93

MUD Check @
1303'
Wt 10.1
Vis 39
Fil 4.0
Sol 8.0
pH 8.1
Chl 800
Ca 120

MWD Survey
MD 1328'
Incl 4.3°
Azm 202.0°
Tvd 1327.79'

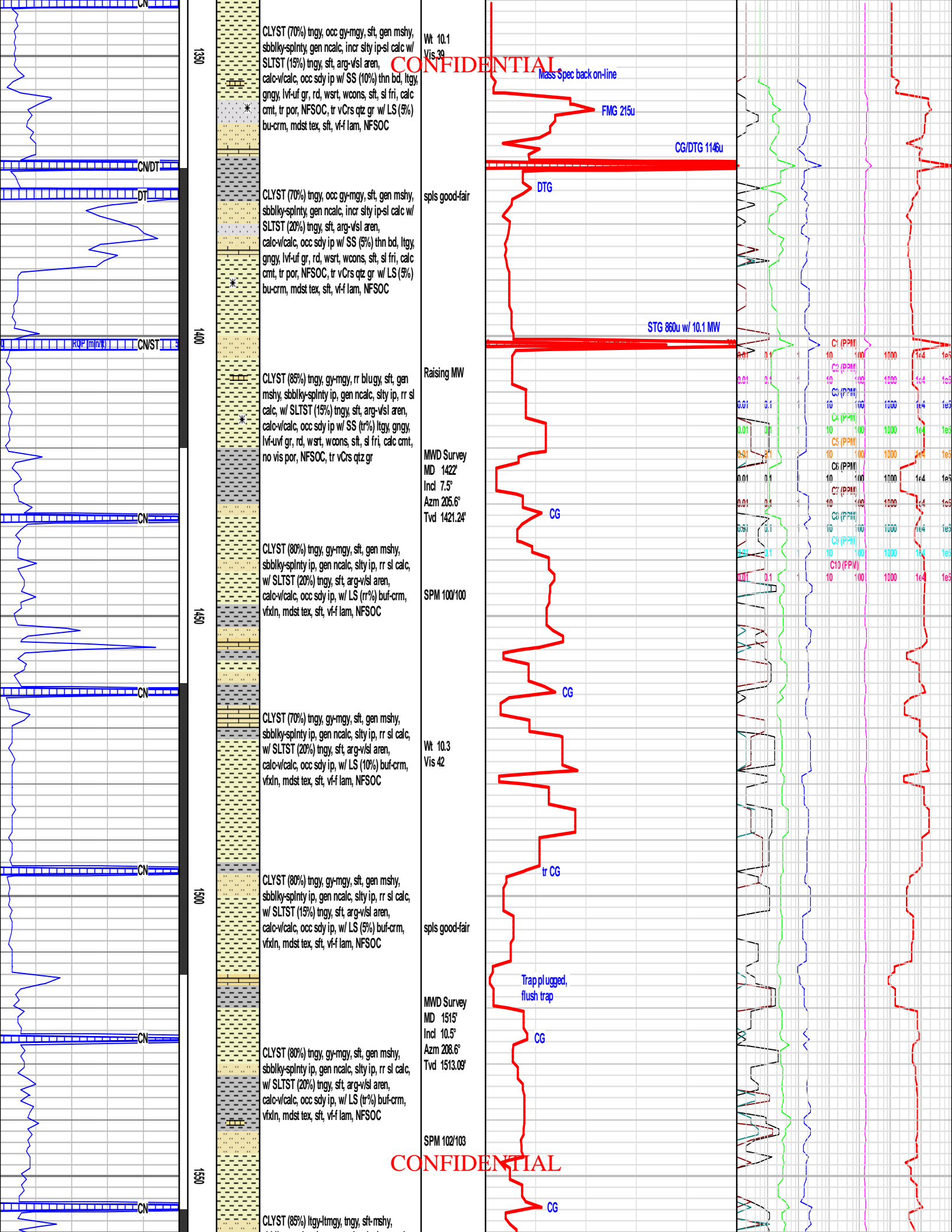
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Mass Spec locked up - Reboot

Mass Spec locked up - Reboot

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CLYST (70%) tngy, occ gy-mgy, sft, gen mshy, sbblky-splnty, gen ncalc, incr stly ip-sl calc w/ SLTST (15%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip w/ SS (10%) thn bd, ltgy, gngy, lvf-uf gr, rd, wsr, wcons, sft, sl fri, calc cmt, tr por, NFSOC, tr vCrs qtz gr w/ LS (3%) bu-frm, mdst tex, sft, vf-lam, NFSOC

CLYST (70%) tngy, occ gy-mgy, sft, gen mshy, sbblky-splnty, gen ncalc, incr stly ip-sl calc w/ SLTST (20%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip w/ SS (5%) thn bd, ltgy, gngy, lvf-uf gr, rd, wsr, wcons, sft, sl fri, calc cmt, tr por, NFSOC, tr vCrs qtz gr w/ LS (3%) bu-frm, mdst tex, sft, vf-lam, NFSOC

CLYST (85%) tngy, gy-mgy, rr blugy, sft, gen mshy, sbblky-splnty ip, gen ncalc, stly ip, rr sl calc, w/ SLTST (15%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip w/ SS (tr%) ltgy, gngy, lvf-uf gr, rd, wsr, woons, sft, sl fri, calc cmt, no vis por, NFSOC, tr vCrs qtz gr

CLYST (80%) tngy, gy-mgy, sft, gen mshy, sbblky-splnty ip, gen ncalc, stly ip, rr sl calc, w/ SLTST (20%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip, w/ LS (tr%) buf-frm, vfxln, mdst tex, sft, vf-lam, NFSOC

CLYST (70%) tngy, gy-mgy, sft, gen mshy, sbblky-splnty ip, gen ncalc, stly ip, rr sl calc, w/ SLTST (20%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip, w/ LS (10%) buf-frm, vfxln, mdst tex, sft, vf-lam, NFSOC

CLYST (80%) tngy, gy-mgy, sft, gen mshy, sbblky-splnty ip, gen ncalc, stly ip, rr sl calc, w/ SLTST (15%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip, w/ LS (5%) buf-frm, vfxln, mdst tex, sft, vf-lam, NFSOC

CLYST (80%) tngy, gy-mgy, sft, gen mshy, sbblky-splnty ip, gen ncalc, stly ip, rr sl calc, w/ SLTST (20%) tngy, sft, arg-vsl aren, calc-v/calc, occ sdy ip, w/ LS (tr%) buf-frm, vfxln, mdst tex, sft, vf-lam, NFSOC

CLYST (85%) ltgy-ltmg, tngy, sft-mshy,

Wt 10.1
Vis 39

spls good-fair

Raising MW

MWD Survey
MD 1422'
Incl 7.5°
Az 206.6°
Tvd 1421.24'

SPM 100/100

Wt 10.3
Vis 42

spls good-fair

MWD Survey
MD 1515'
Incl 10.5°
Az 208.6°
Tvd 1513.09'

SPM 102/103

Mass Spec back on-line

FMG 215u

CG/DTG 114u

DTG

STG 860u w/ 10.1 MW

CG

CG

tr CG

Trap plugged,
flush trap

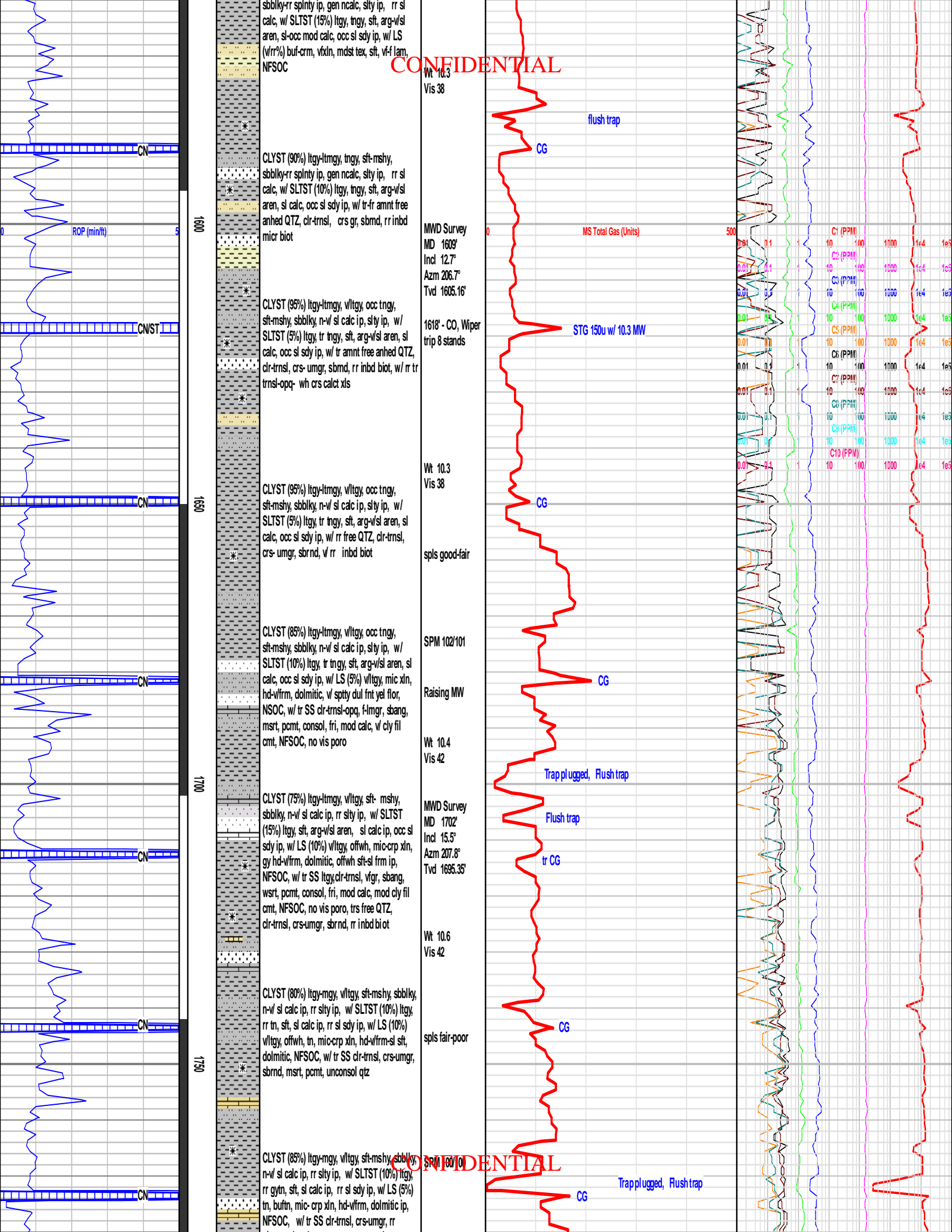
CG

CG

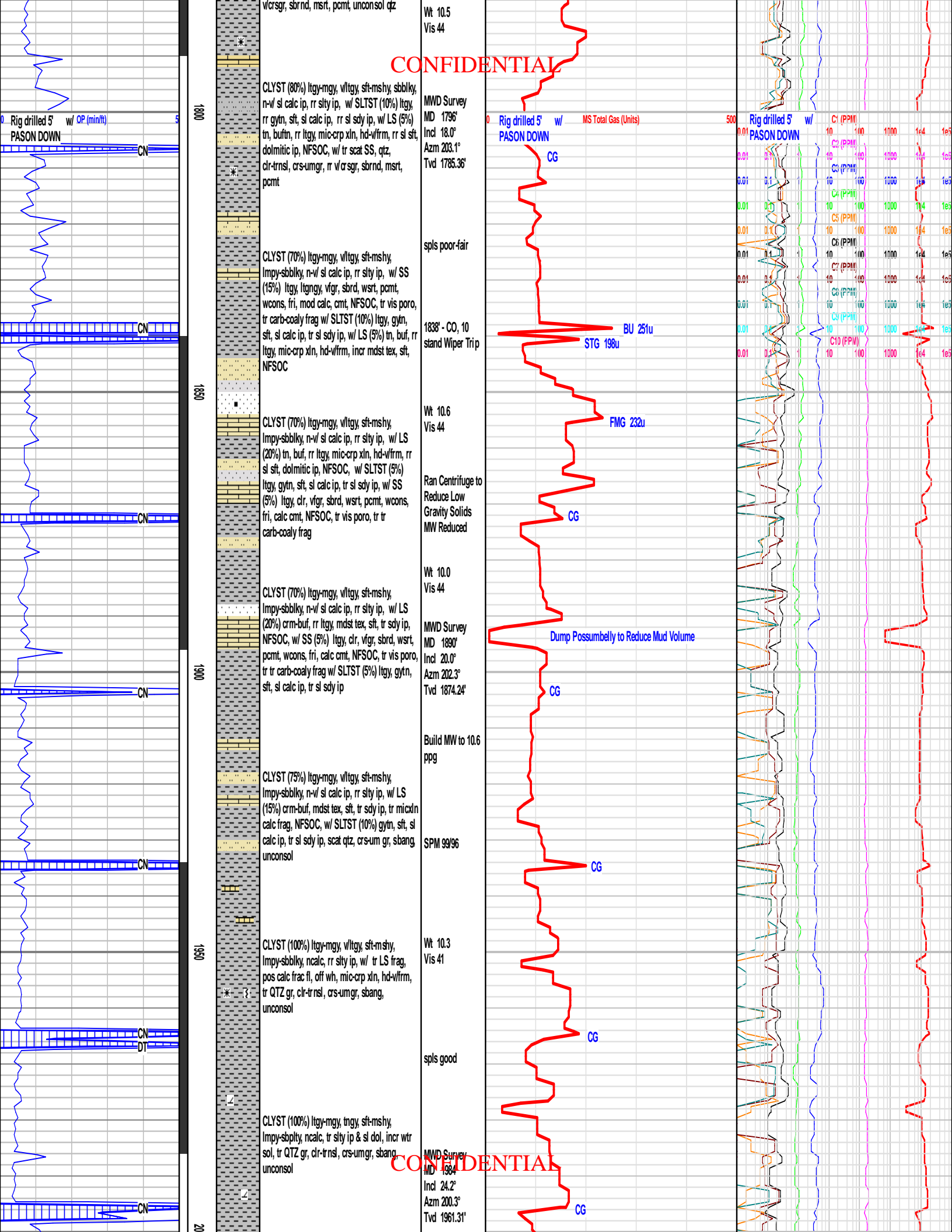
Element	Unit	Value	Scale
C1	(PPM)	1000	1e4
C2	(PPM)	1000	1e4
C3	(PPM)	1000	1e4
C4	(PPM)	1000	1e4
C5	(PPM)	1000	1e4
C6	(PPM)	1000	1e4
C7	(PPM)	1000	1e4
C8	(PPM)	1000	1e4
C9	(PPM)	1000	1e4
C10	(PPM)	1000	1e4

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Rig drilled 5' w/ OP (min/ft) PASON DOWN

1800

CLYST (80%) ltgy-mgy, vltgy, sft-mshy, sbbiky, n-w sl calc ip, rr stly ip, w/ SLTST (10%) ltgy, rr gytn, sft, sl calc ip, rr sl sdy ip, w/ LS (5%) tn, buf, rr ltgy, mic-crp xln, hd-wfrm, rr sl sft, dolmitic ip, NFSOC, w/ tr scat SS, qtz, cl-trnsl, crs-umgr, rr v/c sgr, sbrnd, msrt, pcmt

MWD Survey
MD 1796'
Incl 18.0°
Az 203.1°
Tvd 1785.36'

Rig drilled 5' w/ MS Total Gas (Units) PASON DOWN

Rig drilled 5' w/ C1 (PPM) PASON DOWN

CLYST (70%) ltgy-mgy, vltgy, sft-mshy, lmpy-sbbiky, n-w sl calc ip, rr stly ip, w/ SS (15%) ltgy, ltggy, vfg, sbrd, wsr, pcmt, wcons, fri, mod calc, cmt, NFSOC, tr vis poro, tr carb-coaly frag w/ SLTST (10%) ltgy, gytn, sft, sl calc ip, tr sl sdy ip, w/ LS (5%) tn, buf, rr ltgy, mic-crp xln, hd-wfrm, incr mdst tex, sft, NFSOC

spls poor-fair

1838' - CO, 10 stand Wiper Trip

BU 251u
STG 198u

C1 (PPM) 10 100 1000 1e4 1e5
C2 (PPM) 10 100 1000 1e4 1e5
C3 (PPM) 10 100 1000 1e4 1e5
C4 (PPM) 10 100 1000 1e4 1e5
C5 (PPM) 10 100 1000 1e4 1e5
C6 (PPM) 10 100 1000 1e4 1e5
C7 (PPM) 10 100 1000 1e4 1e5
C8 (PPM) 10 100 1000 1e4 1e5
C9 (PPM) 10 100 1000 1e4 1e5
C10 (PPM) 10 100 1000 1e4 1e5

1850

CLYST (70%) ltgy-mgy, vltgy, sft-mshy, lmpy-sbbiky, n-w sl calc ip, rr stly ip, w/ LS (20%) tn, buf, rr ltgy, mic-crp xln, hd-wfrm, rr sl sft, dolmitic ip, NFSOC, w/ SLTST (5%) ltgy, gytn, sft, sl calc ip, tr sl sdy ip, w/ SS (5%) ltgy, cl, vfg, sbrd, wsr, pcmt, wcons, fri, calc cmt, NFSOC, tr vis poro, tr carb-coaly frag

Wt 10.6
Vis 44

Ran Centrifuge to Reduce Low Gravity Solids MW Reduced

FMG 232u

1900

CLYST (70%) ltgy-mgy, vltgy, sft-mshy, lmpy-sbbiky, n-w sl calc ip, rr stly ip, w/ LS (20%) crm-buf, rr ltgy, mdst tex, sft, tr sdy ip, NFSOC, w/ SS (5%) ltgy, cl, vfg, sbrd, wsr, pcmt, wcons, fri, calc cmt, NFSOC, tr vis poro, tr carb-coaly frag w/ SLTST (5%) ltgy, gytn, sft, sl calc ip, tr sl sdy ip

Wt 10.0
Vis 44

MWD Survey
MD 1890'
Incl 20.0°
Az 202.3°
Tvd 1874.24'

Dump Possumbely to Reduce Mud Volume

Build MW to 10.6 ppg

1950

CLYST (75%) ltgy-mgy, vltgy, sft-mshy, lmpy-sbbiky, n-w sl calc ip, rr stly ip, w/ LS (15%) crm-buf, mdst tex, sft, tr sdy ip, tr micxn calc frag, NFSOC, w/ SLTST (10%) gytn, sft, sl calc ip, tr sl sdy ip, scat qtz, crs-um gr, sbang unconsol

SPM 99/96

Wt 10.3
Vis 41

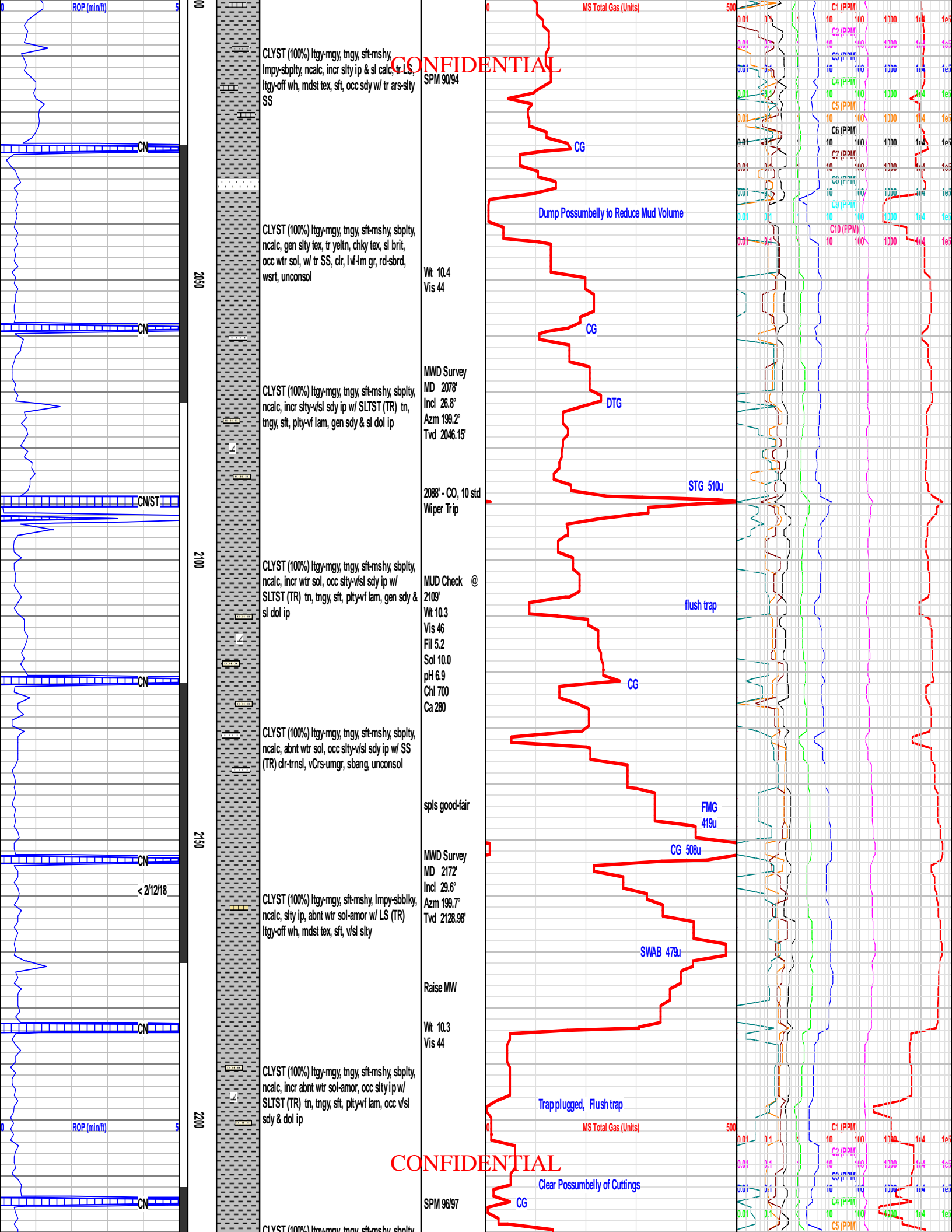
CLYST (100%) ltgy-mgy, vltgy, sft-mshy, lmpy-sbbiky, ncal, rr stly ip, w/ tr LS frag, pos calc frac fl, off wh, mic-crp xln, hd-wfrm, tr QTZ gr, cl-trnsl, crs-umgr, sbang, unconsol

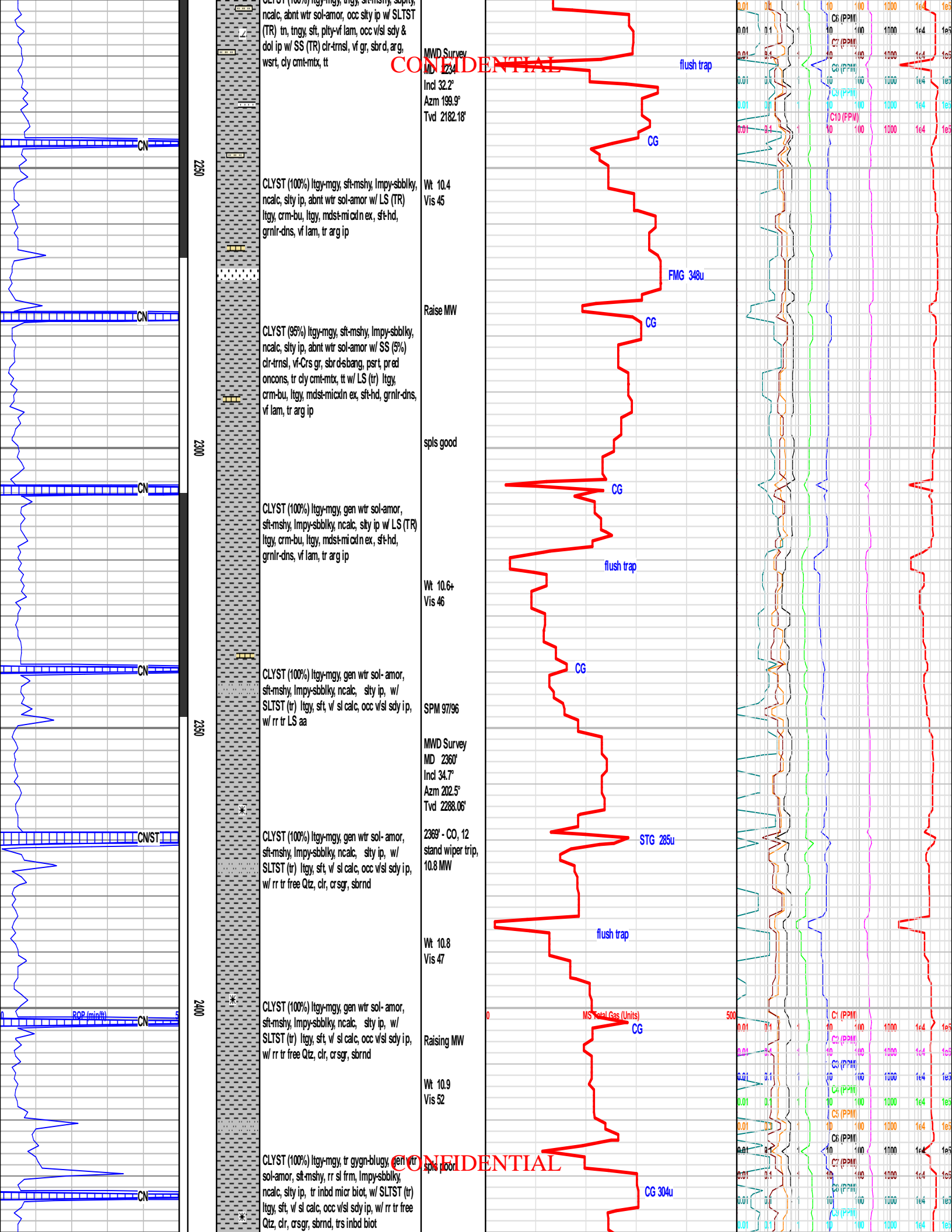
spls good

20

CLYST (100%) ltgy-mgy, mgy, sft-mshy, lmpy-sbply, ncal, tr stly ip & sl dol, incr wtr sol, tr QTZ gr, cl-trnsl, crs-umgr, sbang, unconsol

MWD Survey
MD 1984'
Incl 24.2°
Az 200.3°
Tvd 1961.31'





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CLYST (100%) ltgy-mgy, ngy, sft-mshy, ncalc, abnt wtr sol-amor, occ sity ip w/ SLTST (TR) tn, tngy, sft, plty-vf lam, occ v/sl sdy & dol ip w/ SS (TR) clr-trnsl, vf gr, sbrd, arg, wsrst, cly cmt-mtx, tt

MWD Survey
MD 2234
Incl 32.2°
Azim 199.9°
Tvd 2182.18'

2250

CLYST (100%) ltgy-mgy, sft-mshy, lmpy-sbbly, ncalc, sity ip, abnt wtr sol-amor w/ LS (TR) ltgy, crm-bu, ltgy, mdst-micln ex, sft-hd, grnlr-dns, vf lam, tr arg ip

Wt 10.4
Vis 45

2300

CLYST (95%) ltgy-mgy, sft-mshy, lmpy-sbbly, ncalc, sity ip, abnt wtr sol-amor w/ SS (5%) clr-trnsl, vf-Crs gr, sbrd-sbang, psrt, pred oncons, tr cly cmt-mtx, tt w/ LS (tr) ltgy, crm-bu, ltgy, mdst-micln ex, sft-hd, grnlr-dns, vf lam, tr arg ip

Raise MW

spls good

2350

CLYST (100%) ltgy-mgy, gen wtr sol-amor, sft-mshy, lmpy-sbbly, ncalc, sity ip w/ LS (TR) ltgy, crm-bu, ltgy, mdst-micln ex, sft-hd, grnlr-dns, vf lam, tr arg ip

Wt 10.6+
Vis 46

2400

CLYST (100%) ltgy-mgy, gen wtr sol-amor, sft-mshy, lmpy-sbbly, ncalc, sity ip, w/ SLTST (tr) ltgy, sft, v/ sl calc, occ v/sl sdy ip, w/ rr tr LS aa

SPM 97/96

CLYST (100%) ltgy-mgy, gen wtr sol-amor, sft-mshy, lmpy-sbbly, ncalc, sity ip, w/ SLTST (tr) ltgy, sft, v/ sl calc, occ v/sl sdy ip, w/ rr tr free Qtz, clr, crsgr, sbrnd

MWD Survey
MD 2360'
Incl 34.7°
Azim 202.5°
Tvd 2288.06'

2369' - CO, 12 stand wiper trip, 10.8 MW

Wt 10.8
Vis 47

CLYST (100%) ltgy-mgy, gen wtr sol-amor, sft-mshy, lmpy-sbbly, ncalc, sity ip, w/ SLTST (tr) ltgy, sft, v/ sl calc, occ v/sl sdy ip, w/ rr tr free Qtz, clr, crsgr, sbrnd

Raising MW

Wt 10.9
Vis 52

CLYST (100%) ltgy-mgy, tr gygn-blugy, gen wtr sol-amor, sft-mshy, rr sl frm, lmpy-sbbly, ncalc, sity ip, tr inbd micr biot, w/ SLTST (tr) ltgy, sft, v/ sl calc, occ v/sl sdy ip, w/ rr tr free Qtz, clr, crsgr, sbrnd, trs inbd biot

spls poor

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flush trap

CG

FMG 348u

CG

CG

flush trap

CG

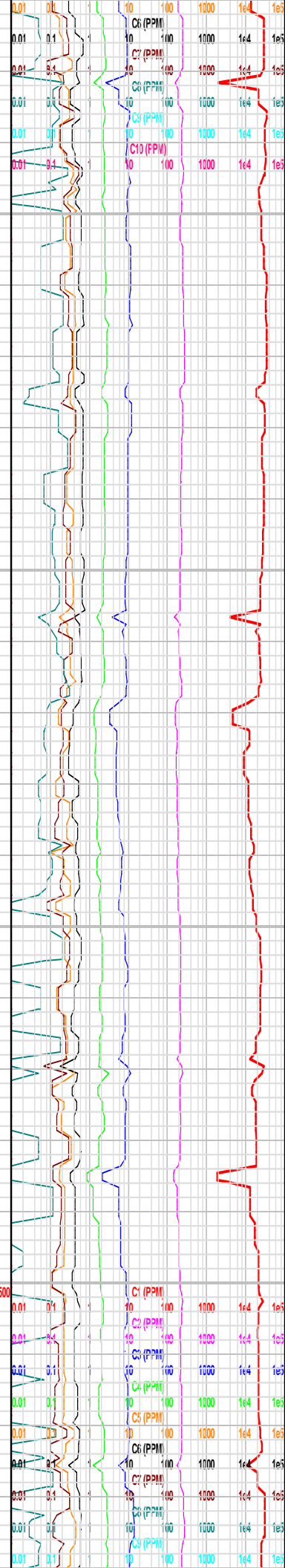
STG 285u

flush trap

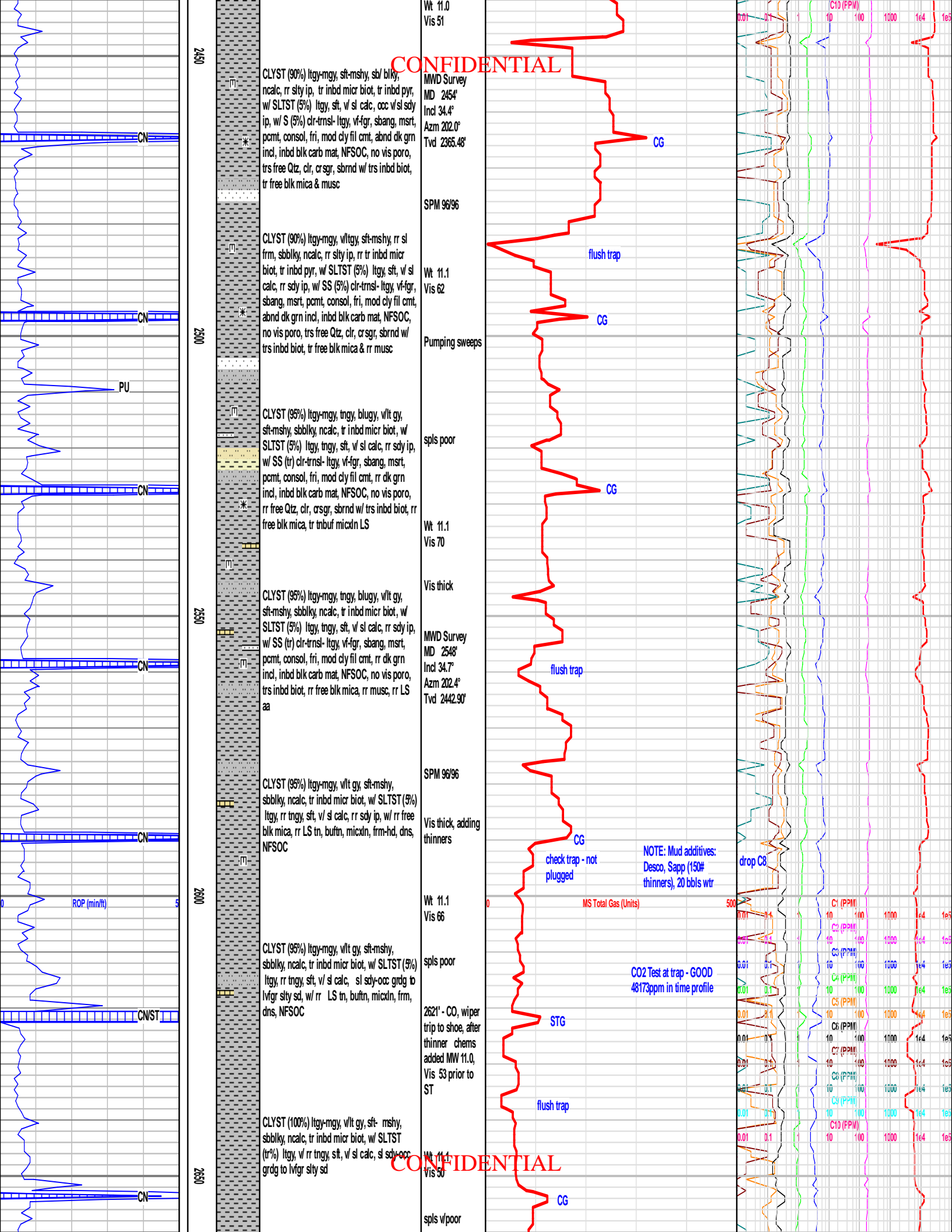
MS Total Gas (Units)

CG

CG 304u



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2450
2500
2550
2600
2650

CLYST (90%) ltgy-mgy, sft-mshy, sb/ blkly, ncalc, rr slty ip, tr inbd micr biot, tr inbd pyr, w/ SLTST (5%) ltgy, sft, v/ sl calc, occ v/ sl sdy ip, w/ S (5%) cl-trnsl- ltgy, v-fgr, sbang, msrt, pcmt, consol, fri, mod cly fil cmt, abnd dk grn incl, inbd blk carb mat, NFSOC, no vis poro, trs free Qtz, clr, crsgr, sbrnd w/ trs inbd biot, tr free blk mica & musc

CLYST (90%) ltgy-mgy, vltgy, sft-mshy, rr sl frm, sbbkly, ncalc, rr slty ip, rr tr inbd micr biot, tr inbd pyr, w/ SLTST (5%) ltgy, sft, v/ sl calc, rr sdy ip, w/ SS (5%) cl-trnsl- ltgy, v-fgr, sbang, msrt, pcmt, consol, fri, mod cly fil cmt, abnd dk grn incl, inbd blk carb mat, NFSOC, no vis poro, trs free Qtz, clr, crsgr, sbrnd w/ trs inbd biot, tr free blk mica & rr musc

CLYST (95%) ltgy-mgy, tngy, blugy, v/lt gy, sft-mshy, sbbkly, ncalc, tr inbd micr biot, w/ SLTST (5%) ltgy, tngy, sft, v/ sl calc, rr sdy ip, w/ SS (tr) cl-trnsl- ltgy, v-fgr, sbang, msrt, pcmt, consol, fri, mod cly fil cmt, rr dk grn incl, inbd blk carb mat, NFSOC, no vis poro, rr free Qtz, clr, crsgr, sbrnd w/ trs inbd biot, rr free blk mica, tr tnbuf micxn LS

CLYST (95%) ltgy-mgy, tngy, blugy, v/lt gy, sft-mshy, sbbkly, ncalc, tr inbd micr biot, w/ SLTST (5%) ltgy, tngy, sft, v/ sl calc, rr sdy ip, w/ SS (tr) cl-trnsl- ltgy, v-fgr, sbang, msrt, pcmt, consol, fri, mod cly fil cmt, rr dk grn incl, inbd blk carb mat, NFSOC, no vis poro, trs inbd biot, rr free blk mica, rr musc, rr LS aa

CLYST (95%) ltgy-mgy, v/lt gy, sft-mshy, sbbkly, ncalc, tr inbd micr biot, w/ SLTST (5%) ltgy, rr tngy, sft, v/ sl calc, rr sdy ip, w/ rr free blk mica, rr LS tn, bufn, micxn, frm-hd, dns, NFSOC

CLYST (95%) ltgy-mgy, v/lt gy, sft-mshy, sbbkly, ncalc, tr inbd micr biot, w/ SLTST (5%) ltgy, rr tngy, sft, v/ sl calc, sl sdy-occ grdg to lvfgr slty sd, w/ rr LS tn, bufn, micxn, frm, dns, NFSOC

CLYST (100%) ltgy-mgy, v/lt gy, sft-mshy, sbbkly, ncalc, tr inbd micr biot, w/ SLTST (tr%) ltgy, v/ rr tngy, sft, v/ sl calc, sl sdy-occ grdg to lvfgr slty sd

Wt 11.0
Vis 51
MWD Survey
MD 2454'
Incl 34.4°
Azim 202.0°
Tvd 2365.48'

SPM 96/96

Wt 11.1
Vis 62
Pumping sweeps

spls poor

Wt 11.1
Vis 70
Vis thick

MWD Survey
MD 2548'
Incl 34.7°
Azim 202.4°
Tvd 2442.90'

SPM 96/96

Vis thick, adding thinners

Wt 11.1
Vis 66
spls poor

2621' - CO₂ wiper trip to shoe, after thinner chems added MW 11.0, Vis 53 prior to ST

Wt 11.1
Vis 50
spls v/poor

CG

flush trap

CG

CG

flush trap

CG

check trap - not plugged

MS Total Gas (Units)

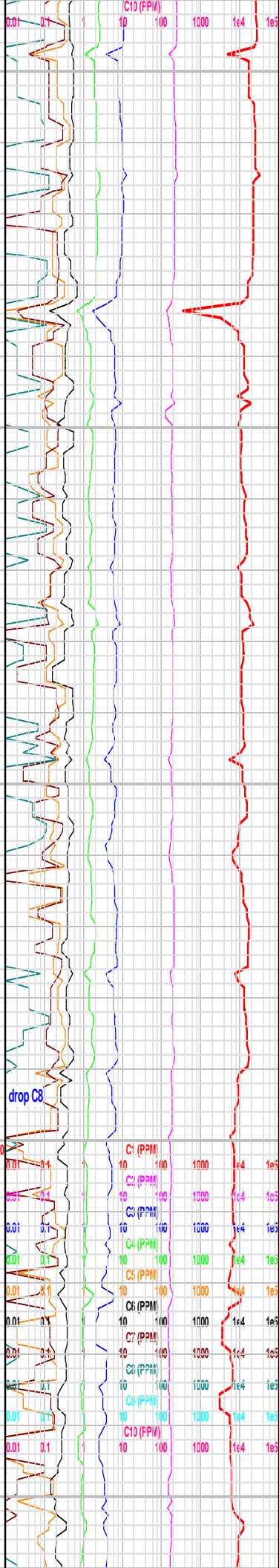
STG

flush trap

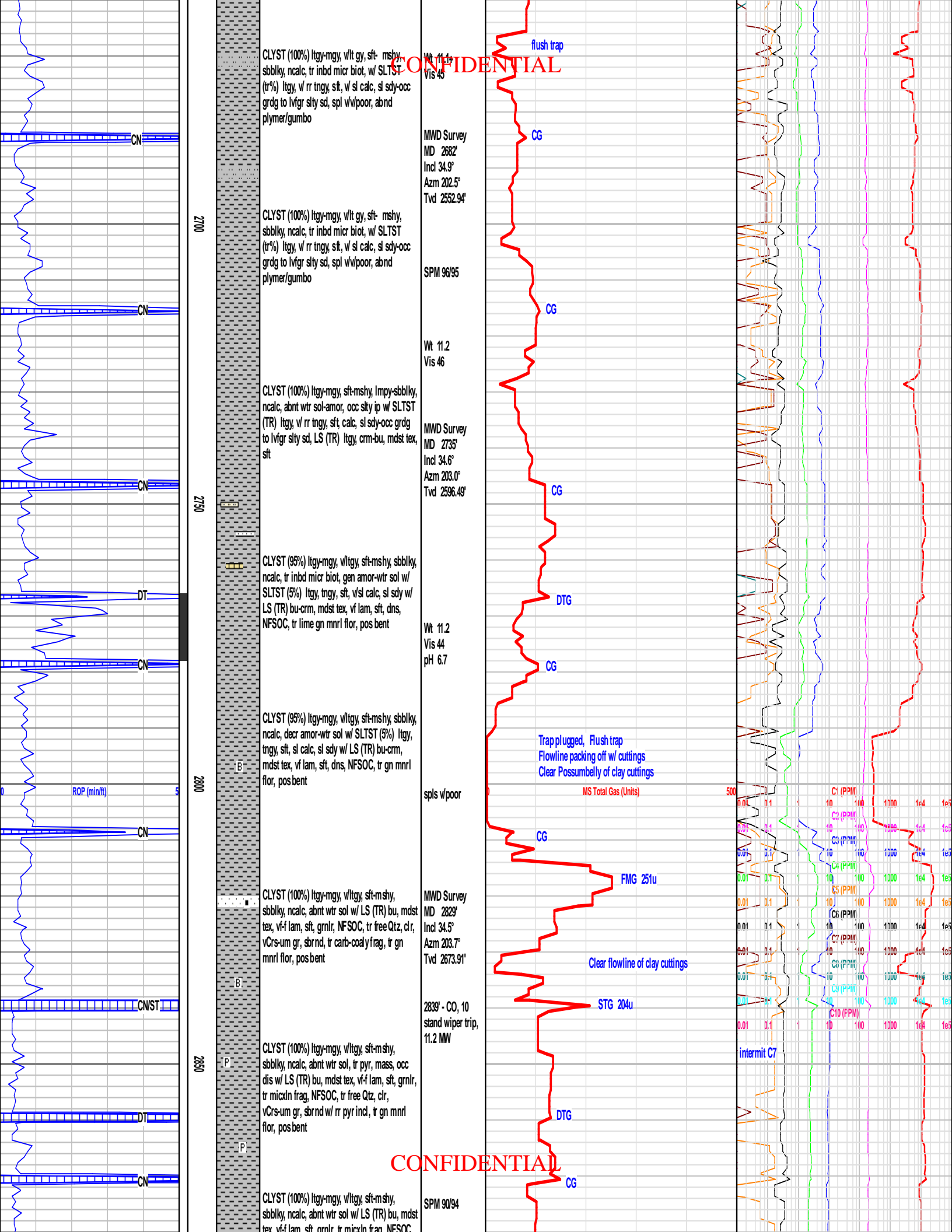
CG

NOTE: Mud additives: Desco, Sapp (150# thinners), 20 bbls wtr

CO₂ Test at trap - GOOD 48173ppm in time profile



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CLYST (100%) ltgy-mgy, v/lt gy, sft- mshy, sbblky, ncalc, tr inbd micr biot, w/ SLTST (tr%) ltgy, v/ rr tngy, sft, v/ sl calc, sl sdy-occ grdg to lvfgr stly sd, spl v/w/poor, abnd polymer/gumbo

CLYST (100%) ltgy-mgy, v/lt gy, sft- mshy, sbblky, ncalc, tr inbd micr biot, w/ SLTST (tr%) ltgy, v/ rr tngy, sft, v/ sl calc, sl sdy-occ grdg to lvfgr stly sd, spl v/w/poor, abnd polymer/gumbo

CLYST (100%) ltgy-mgy, sft-mshy, lmpy-sbblky, ncalc, abnt wtr sol-amor, occ stly ip w/ SLTST (TR) ltgy, v/ rr tngy, sft, calc, sl sdy-occ grdg to lvfgr stly sd, LS (TR) ltgy, crm-bu, mdst tex, sft

CLYST (95%) ltgy-mgy, v/ltgy, sft-mshy, sbblky, ncalc, tr inbd micr biot, gen amor-wtr sol w/ SLTST (5%) ltgy, tngy, sft, v/sl calc, sl sdy w/ LS (TR) bu-crm, mdst tex, v/ lam, sft, dns, NFSOC, tr lime gn mnrl flor, pos bent

CLYST (95%) ltgy-mgy, v/ltgy, sft-mshy, sbblky, ncalc, decr amor-wtr sol w/ SLTST (5%) ltgy, tngy, sft, sl calc, sl sdy w/ LS (TR) bu-crm, mdst tex, v/ lam, sft, dns, NFSOC, tr gn mnrl flor, pos bent

CLYST (100%) ltgy-mgy, v/ltgy, sft-mshy, sbblky, ncalc, abnt wtr sol w/ LS (TR) bu, mdst tex, v/f lam, sft, grnlr, NFSOC, tr free Qtz, clr, vCrs-um gr, sbnd, tr carb-coaly frag, tr gn mnrl flor, pos bent

CLYST (100%) ltgy-mgy, v/ltgy, sft-mshy, sbblky, ncalc, abnt wtr sol, tr pyr, mass, occ dis w/ LS (TR) bu, mdst tex, v/f lam, sft, grnlr, tr micxn frag, NFSOC, tr free Qtz, clr, vCrs-um gr, sbnd w/ rr pyr incl, tr gn mnrl flor, pos bent

CLYST (100%) ltgy-mgy, v/ltgy, sft-mshy, sbblky, ncalc, abnt wtr sol w/ LS (TR) bu, mdst tex, v/f lam, sft, grnlr, tr micxn frag, NFSOC

Wt 11.1
Vis 45

MWD Survey
MD 2682
Incl 34.9°
Azim 202.5°
Tvd 2552.94'

SPM 96/95

Wt 11.2
Vis 46

MWD Survey
MD 2735
Incl 34.6°
Azim 203.0°
Tvd 2596.49'

Wt 11.2
Vis 44
pH 6.7

spls v/poor

MWD Survey
MD 2829
Incl 34.5°
Azim 203.7°
Tvd 2673.91'

2839' - CO, 10
stand wiper trip,
11.2 MW

SPM 90/94

flush trap

CG

CG

CG

DTG

CG

Trap plugged, Flush trap
Flowline packing off w/ cuttings
Clear Possumbely of clay cuttings

CG

FMG 251u

Clear flowline of clay cuttings

STG 204u

DTG

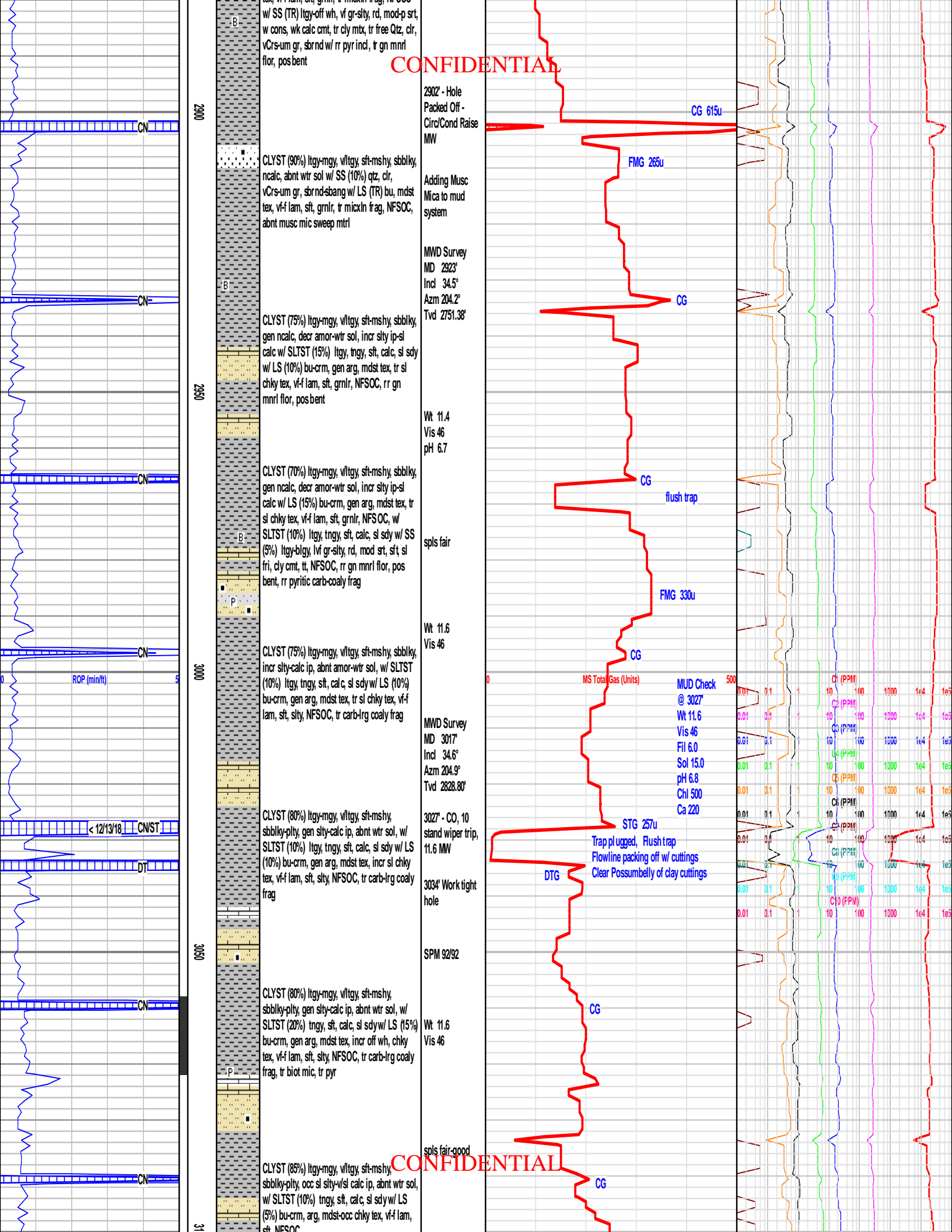
CG

MS Total Gas (Units)	C1 (PPM)	C2 (PPM)	C3 (PPM)	C4 (PPM)	C5 (PPM)	C6 (PPM)	C7 (PPM)	C8 (PPM)	C9 (PPM)	C10 (PPM)
500	100	100	100	100	100	100	100	100	100	100
1000	100	100	100	100	100	100	100	100	100	100
10000	100	100	100	100	100	100	100	100	100	100
100000	100	100	100	100	100	100	100	100	100	100
1000000	100	100	100	100	100	100	100	100	100	100

intermit C7

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w/ SS (TR) ltgy-off wh, vf gr-slt, rd, mod-p sr,
w cons, wk calc cmt, tr cly mtx, tr free Qtz, clr,
vCrs-um gr, sbrnd w/ rr pyr incl, tr gn mnrl
flor, pos bent

CLYST (90%) ltgy-mgy, vltgy, sft-mshy, sbblky,
ncalc, abnt wtr sol w/ SS (10%) qtz, clr,
vCrs-um gr, sbrnd-sbang w/ LS (TR) bu, mdst
tex, vf-f lam, sft, grnlr, tr miclin frag, NFSOC,
abnt musc mic sweep mtrl

CLYST (75%) ltgy-mgy, vltgy, sft-mshy, sbblky,
gen ncalc, decr amor-wtr sol, incr sity ip-sl
calc w/ SLTST (15%) ltgy, tngy, sft, calc, sl sdy
w/ LS (10%) bu-crm, gen arg, mdst tex, tr sl
chky tex, vf-f lam, sft, grnlr, NFSOC, rr gn
mnrl flor, pos bent

CLYST (70%) ltgy-mgy, vltgy, sft-mshy, sbblky,
gen ncalc, decr amor-wtr sol, incr sity ip-sl
calc w/ LS (15%) bu-crm, gen arg, mdst tex, tr
sl chky tex, vf-f lam, sft, grnlr, NFSOC, w
SLTST (10%) ltgy, tngy, sft, calc, sl sdy w/ SS
(5%) ltgy-bly, lvf gr-slt, rd, mod sr, sft, sl
fri, cly cmt, tt, NFSOC, rr gn mnrl flor, pos
bent, rr pyritic carb-coaly frag

CLYST (75%) ltgy-mgy, vltgy, sft-mshy, sbblky,
incr sity-calc ip, abnt amor-wtr sol, w/ SLTST
(10%) ltgy, tngy, sft, calc, sl sdy w/ LS (10%)
bu-crm, gen arg, mdst tex, tr sl chky tex, vf-f
lam, sft, sity, NFSOC, tr carb-rg coaly frag

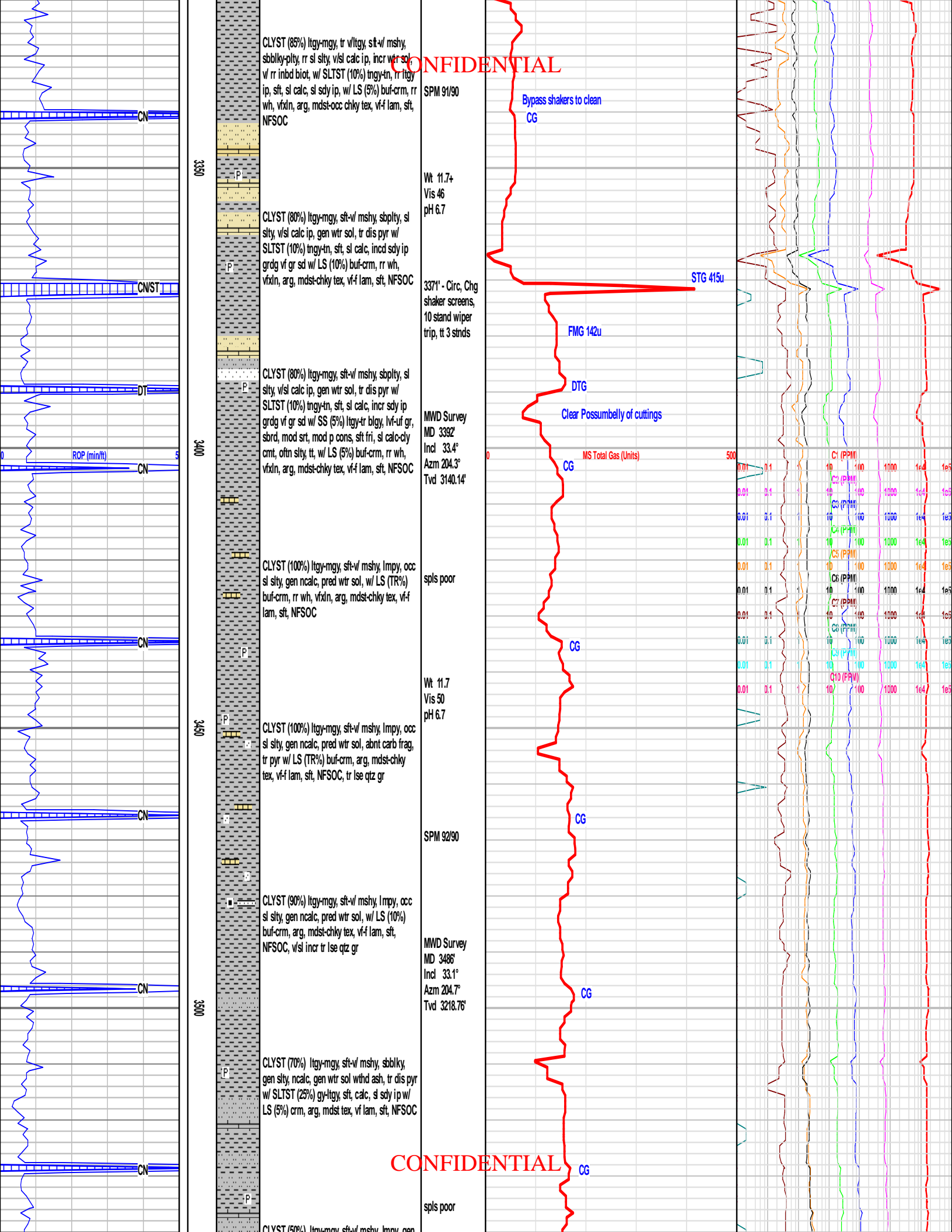
CLYST (80%) ltgy-mgy, vltgy, sft-mshy,
sbblky-pty, gen sity-calc ip, abnt wtr sol, w/
SLTST (10%) ltgy, tngy, sft, calc, sl sdy w/ LS
(10%) bu-crm, gen arg, mdst tex, incr sl chky
tex, vf-f lam, sft, sity, NFSOC, tr carb-rg coaly
frag

CLYST (80%) ltgy-mgy, vltgy, sft-mshy,
sbblky-pty, gen sity-calc ip, abnt wtr sol, w/
SLTST (20%) tngy, sft, calc, sl sdy w/ LS (15%)
bu-crm, gen arg, mdst tex, incr off wh, chky
tex, vf-f lam, sft, sity, NFSOC, tr carb-rg coaly
frag, tr biot mic, tr pyr

CLYST (85%) ltgy-mgy, vltgy, sft-mshy,
sbblky-pty, occ sl sity-w/ calc ip, abnt wtr sol,
w/ SLTST (10%) tngy, sft, calc, sl sdy w/ LS
(5%) bu-crm, arg, mdst-occ chky tex, vf-f lam,
sft, NFSOC

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Clyst (85%) ltgy-mgy, tr vltgy, sft-w/ mshy, sbblky-ply, rr sl sty, v/sl calc ip, incr wtr sol w/ rr inbd biot, w/ SLTST (10%) tngy-tn, rr ltgy ip, sft, sl calc, sl sdy ip, w/ LS (5%) buf-crm, rr wh, vfxln, arg, mdst-occ chky tex, vf-f lam, sft, NFSOC

SPM 91/90

Bypass shakers to clean CG

Wt 11.7+
Vis 46
pH 6.7

Clyst (80%) ltgy-mgy, sft-w/ mshy, sbply, sl sty, w/sl calc ip, gen wtr sol, tr dis pyr w/ SLTST (10%) tngy-tn, sft, sl calc, incd sdy ip grdg vf gr sd w/ LS (10%) buf-crm, rr wh, vfxln, arg, mdst-chky tex, vf-f lam, sft, NFSOC

3371' - Circ, Chg shaker screens, 10 stand wiper trip, tt 3 stnds

STG 415u

FMG 142u

Clyst (80%) ltgy-mgy, sft-w/ mshy, sbply, sl sty, w/sl calc ip, gen wtr sol, tr dis pyr w/ SLTST (10%) tngy-tn, sft, sl calc, incr sdy ip grdg vf gr sd w/ SS (5%) ltgy-tr blyg, lv-f uf gr, sbord, mod srt, mod p cons, sft fri, sl calc-chy cmt, oftn sly, tt, w/ LS (5%) buf-crm, rr wh, vfxln, arg, mdst-chky tex, vf-f lam, sft, NFSOC

MWD Survey MD 3392
Incl 33.4°
Az 204.3°
Tvd 3140.14'

DTG

Clear Possumbely of cuttings

MS Total Gas (Units)

Clyst (100%) ltgy-mgy, sft-w/ mshy, lmpy, occ sl sty, gen ncalc, pred wtr sol, w/ LS (TR%) buf-crm, rr wh, vfxln, arg, mdst-chky tex, vf-f lam, sft, NFSOC

spls poor

CG

Wt 11.7
Vis 50
pH 6.7

Clyst (100%) ltgy-mgy, sft-w/ mshy, lmpy, occ sl sty, gen ncalc, pred wtr sol, abnt carb frag, tr pyr w/ LS (TR%) buf-crm, arg, mdst-chky tex, vf-f lam, sft, NFSOC, tr lse qtz gr

SPM 92/90

CG

Clyst (90%) ltgy-mgy, sft-w/ mshy, lmpy, occ sl sty, gen ncalc, pred wtr sol, w/ LS (10%) buf-crm, arg, mdst-chky tex, vf-f lam, sft, NFSOC, v/sl incr tr lse qtz gr

MWD Survey MD 3486
Incl 33.1°
Az 204.7°
Tvd 3218.76'

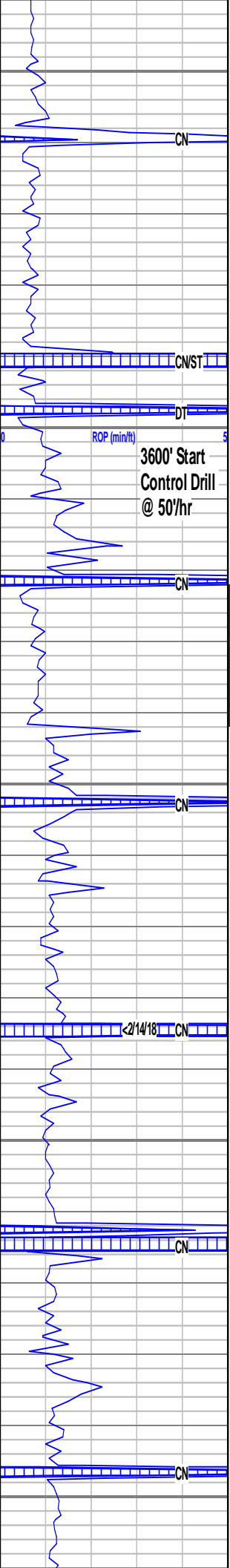
CG

Clyst (70%) ltgy-mgy, sft-w/ mshy, sbblky, gen sly, ncalc, gen wtr sol wthd ash, tr dis pyr w/ SLTST (25%) gy-ltgy, sft, calc, sl sdy ip w/ LS (5%) crm, arg, mdst tex, vf lam, sft, NFSOC

spls poor

CG

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3650
3600
3650
3700
3750

LET 37 (30%) Itgy-mgy, sft-w mshy, lmpy, gen stly, ncalc, gen wtr sol wthd ash, tr dis pyr w/ LS (40%) crm, arg, mdst-wkst tex, v-f lam, sft, w/ SLTST (10%) Itgy, sft, vcalc, sl sdy ip, abnt carb frag, NFSOC

P

CLYST (60%) Itgy-mgy, sft-w mshy, lmpy, gen stly, ncalc, gen wtr sol wthd ash, tr dis pyr w/ LS (20%) crm, tn, gen arg, mdst-wkst tex, tr micxn, hd, dns, v-f lam, sft w/ SLTST (20%) Itgy, sft, vcalc, incr sdy ip, abnt carb frag, NFSOC

P

CLYST (60%) Itgy-mgy, sft-w mshy, lmpy, gen stly, ncalc-v/sl Dol, gen wtr sol wthd ash, tr dis pyr w/ SLTST (20%) Itgy, sft, vcalc, incr sdy ip, tr carb frag, w/ LS (5%) crm, tn, gen arg, mdst-wkst tex, v-f lam, sft, occ micxn, hd, dns w/ NFSOC, incr lse qtz gr, tr ptyc sand-silt, scat Dol nods, Itpk, arg, chky-mdst tex

P

SS (85%) clr-trnsl, lm-ucrs gr, occ lvcrs, sbang-sbrd, uncons qtz, tr incl biot & pyr, scat carb frag, NFSOC, w/ CLYST (15%) tngy, gngy, sft, mod stly, n-sl calc-dol, w/ LS (tr) tn-clr, vfxln, mod sft, even dul yel mnrl flor, NSOC, tt

SPM 98/98

SS (75%) clr-trnsl, um-lcrs gr, occ ucrs gr, sbang-sbrd, uncons qtz, fnt dul res rng, even dul yel mnrl flor, extr fnt yel halo, NSO, w/ CLYST (25%) tngy, mgy, sft, smth tex, ncalc, w/ abnt n-clr, mic- vfxln calc

CO Gas @ CN

Wt 11.6
Vis 49
pH 6.7

PU Circ - Replace Trap

SS (70%) clr-trnsl, um-lcrs gr, occ ucrs gr, sbang-sbrd, uncons qtz, fnt dul res rng, even dul yel mnrl flor, NSO, w/ CLYST (30%) tngy, mgy, sft, smth tex, ncalc, w/ abnt n-clr, micln calc

CO Gas @ CN

MWD Survey MD 3673
Incl 32.0°
Azim 202.3°
Tvd 3376.34'

Wt 11.7
Vis 50

3714' - CO, 10 std wiper trip

SS (80%) clr-trnsl, lcrs-lvcrs gr, sbang, uncons qtz, fnt dul yel mnrl flor, extr fnt dul yel res rng, NSO, w/ CLYST (20%) tngy, mgy, sft, smth tex, ncalc, w/ abnt n-clr, micln calc

SPM 98/98

SS (85%) clr-trnsl, lcrs-lvcrs gr, sbang, uncons qtz, extr fnt dul yel res rng, NFSO, w/ CLYST (15%) Itgy, Itmgy, sft, smth tex, ncalc, tr musc & blk mica

Wt 11.8
Vis 41

MWD Survey MD 3767
Incl 31.0°

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Wt 11.6+
Vis 51

MWD Survey MD 3579
Incl 32.6°
Azim 204.8°
Tvd 3296.88'

3590' - Circ, 10 stand wiper trip

3600' - start 20' smpls, Control drill @ 50/hr

spls good

SPM 98/98

CO Gas @ CN

Wt 11.6
Vis 49
pH 6.7

PU Circ - Replace Trap

CO Gas @ CN

MWD Survey MD 3687
Incl 32.0°
Azim 202.3°
Tvd 3376.34'

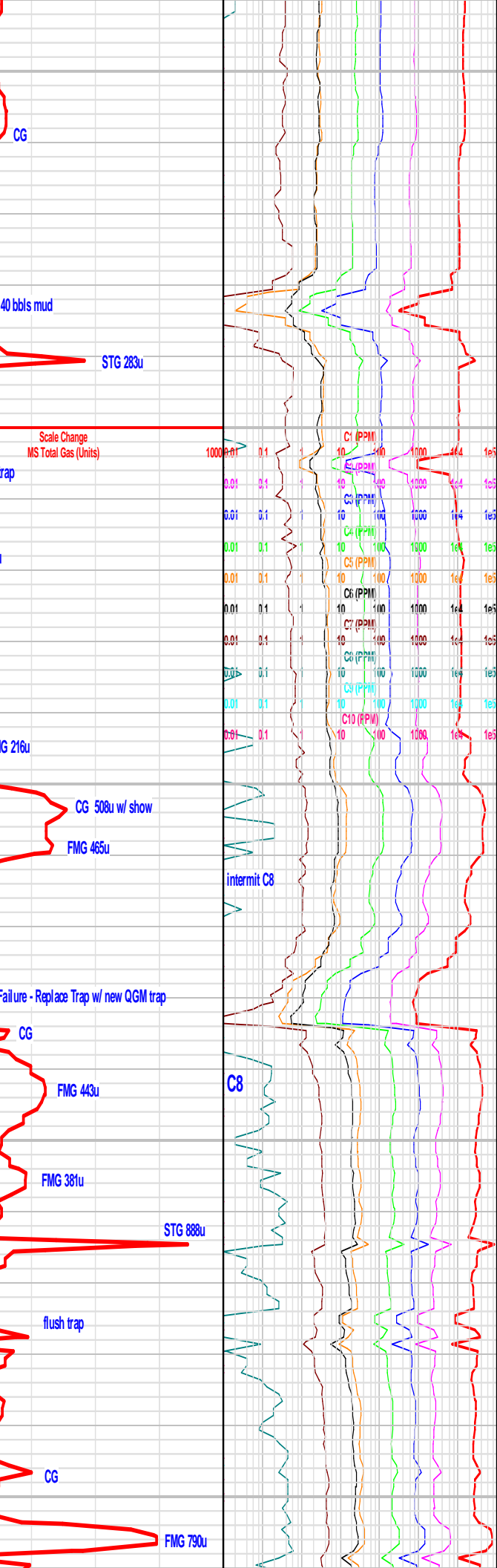
Wt 11.7
Vis 50

3714' - CO, 10 std wiper trip

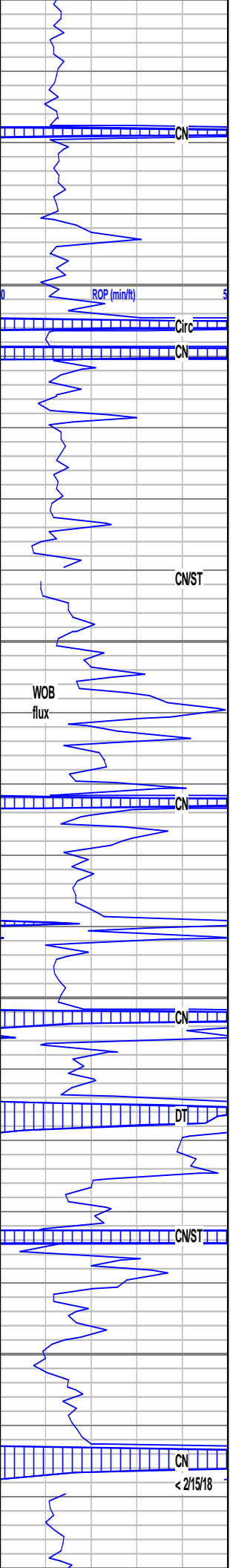
SPM 98/98

Wt 11.8
Vis 41

MWD Survey MD 3767
Incl 31.0°



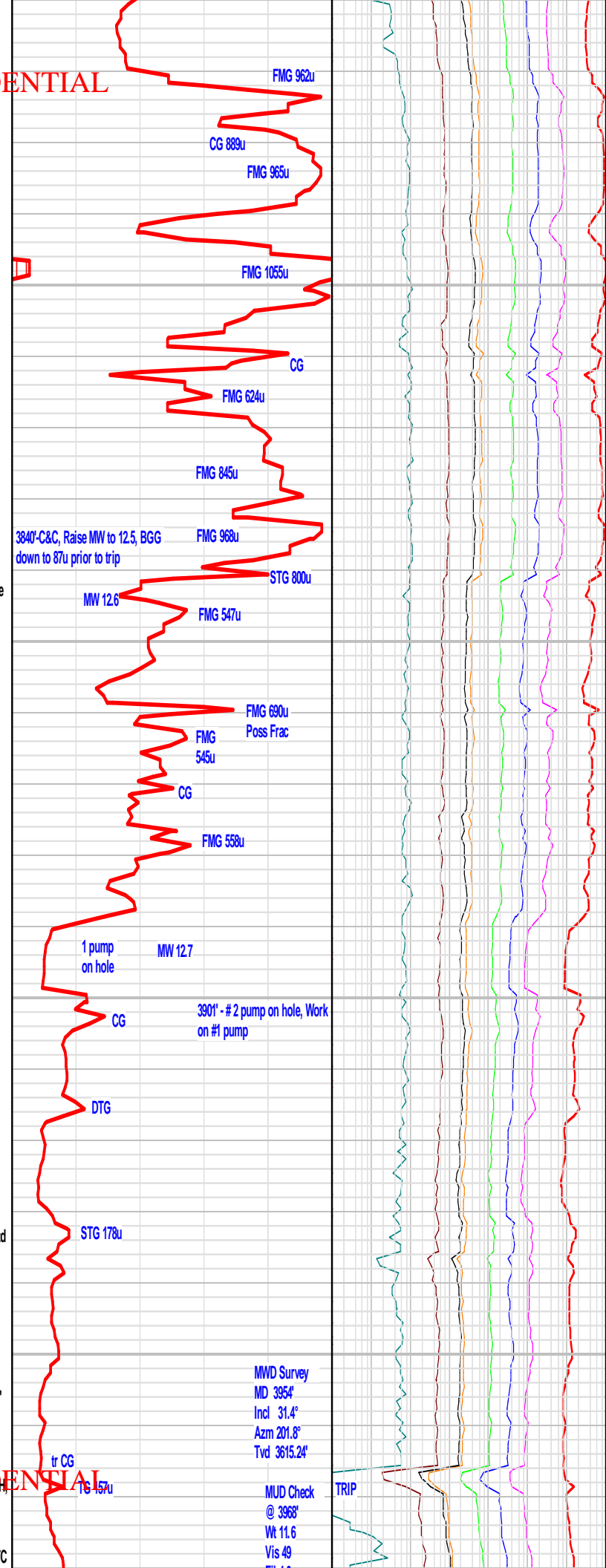
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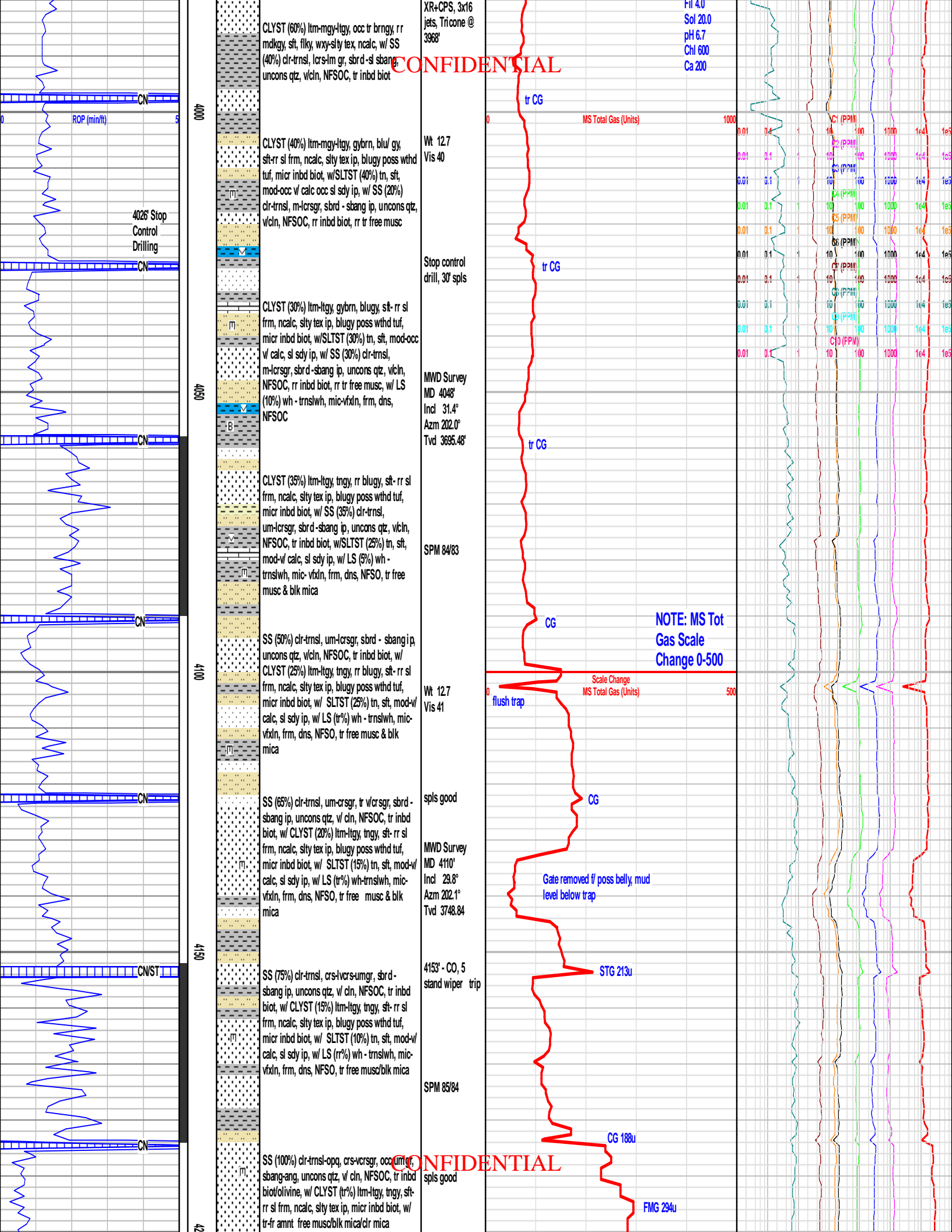
SS (95%) cl-trnsl-opq, lcrs-lvcrs gr, umgr, sbang, unconqz, v/cln, frnt dul yel res rng, NFSO, tr inbd biot, w/ CLYST (5%) Itgy, ltmgy, sft, smth tex, ncalc, tr musc & blk mica
 SS (100%) cl-trnsl-opq, lcrs-lvcrs gr, umgr, sbang, unconqz, v/cln, rr frnt milky pool, frnt dul yel res rng, NFSO, tr inbd biot, w/ CLYST (tr%) Itgy, ltmgy, rr tngy, sft, smth tex, ncalc, tr musc & blk mica
 SS (100%) cl-trnsl-opq, crs-lvcrs gr, umgr, sbang, unconqz, v/cln, rr frnt milky pool, frnt dul yel res rng, NFSO, tr inbd biot, w/ CLYST (tr%) Itgy, ltmgy, rr tngy, sft, smth tex, ncalc, tr blk mica
 SS (100%) cl-trnsl-opq, crs-lvcrs gr, umgr, sbang, unconqz, v/cln, v frnt dul yel res rng, NFSO, tr inbd biot, w/ CLYST (5%) Itgy, ltmgy, sft, smth tex, ncalc, tr free blk mica, rr tr musc
 SS (100%) cl-trnsl-opq, crs-lvcrs gr, tr umgr, sbang, unconqz, v/cln, v frnt dul yel res rng, NFSO, tr inbd biot, w/ CLYST (tr%) Itgy, ltmgy, sft, smth tex, ncalc, tr free blk mica, rr tr musc
 SS (100%) cl-trnsl-opq, crs-lvcrs gr, tr umgr, sbang, unconqz, v/cln, v frnt dul yel res rng, NFSO, tr inbd biot, w/ CLYST (tr%) Itgy, ltmgy, sft, smth tex, ncalc, tr free blk mica, rr tr musc
 SS (100%) cl-trnsl-opq, ucrs-um gr, i ncr sbrd, unconqz, v/cln, v frnt dul yel res rng, NFSO, fr inbd biot, w/ CLYST (tr%) Itgy, ltmgy, sft, smth tex, ncalc, tr free blk mica
 SS (100%) cl-trnsl-opq, lcrs-lm gr, sbrd, unconqz, v/cln, rr ltrng tuff frag, NFSO, fr inbd biot, rr tuff frag, w/ CLYST (tr%) Itgy, ltmgy, sft, smth tex, ncalc, tr free blk mica
 SS (60%) cl-trnsl-opq, lcrs-lm gr, sbrd, unconqz, v/cln, rr ltrng tuff frag, NFSOC, fr inbd biot, rr tuff frag, w/ CLYST (40%) dkgy-mgy, brngy, ltyy, sft, flky, wxy-slyt tex, ncalc, rr wthd basalt- wthd ash, tr pos bent cly w/ mnrl flor
 SS (50%) cl-trnsl-opq, lcrs-lm gr, sbrd-si sbang, unconqz, v/cln, rr ltrng tuff frag, NFSOC, tr-fr inbd biot, w/ CLYST (50%) m-mdkgy-ltmgy, occ tr brngy, ltyy, sft, flky, wxy-slyt tex, ncalc, rr wthd basalt- wthd ash, tr gy-tngy bent cly w/ mnrl flo

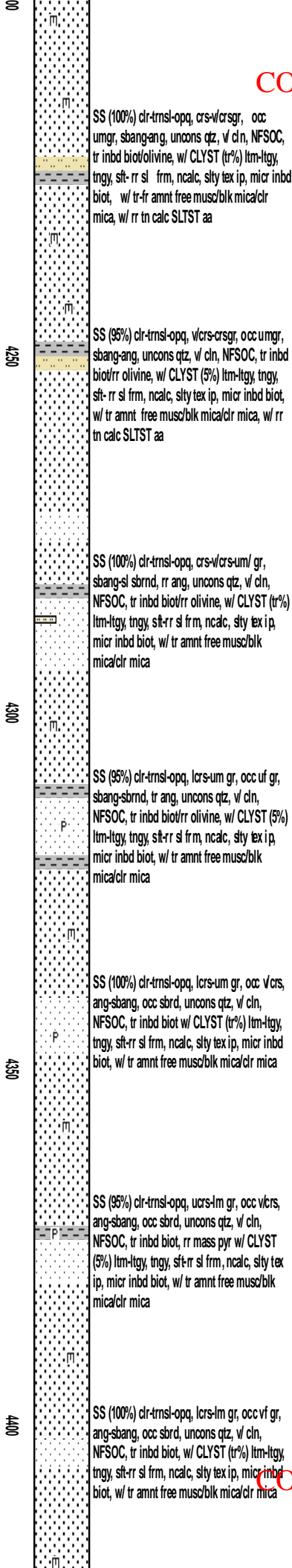
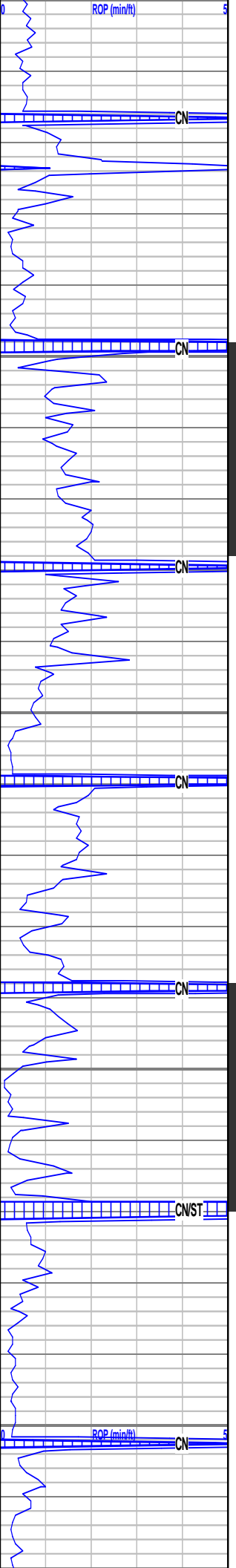
Incl 31.9
Azim 202.7°
Tvd 3456.10'
spils good
Raise MW
Wt 11.9+
Vis 41
3804' - CO gas
3808' - CO gas, Raise MW
Wt 12.1+
Vis 41
Wt 12.3
Vis 40
3840' - CO gas, C&C mud, Raise MW to 12.5, Wiper trip to ~2708', TIH, CO gas, Drill
MWD Survey MD 3861'
Incl 31.7°
Azim 202.4°
Tvd 3535.99'
Wt 12.6
Vis 38
Wt 12.7
Vis 38
SPM 89/89
3917' - both pumps back on hole
3933' - CO, 10 std wiper trip
Wt 12.7
Vis 38
pH 7.0
Bit #3 Drld 2788' in 59.5 hrs (avg 46.9 ft/hr)
3988' CO TOOL
Chg bits
NB #4, 8.5", STC



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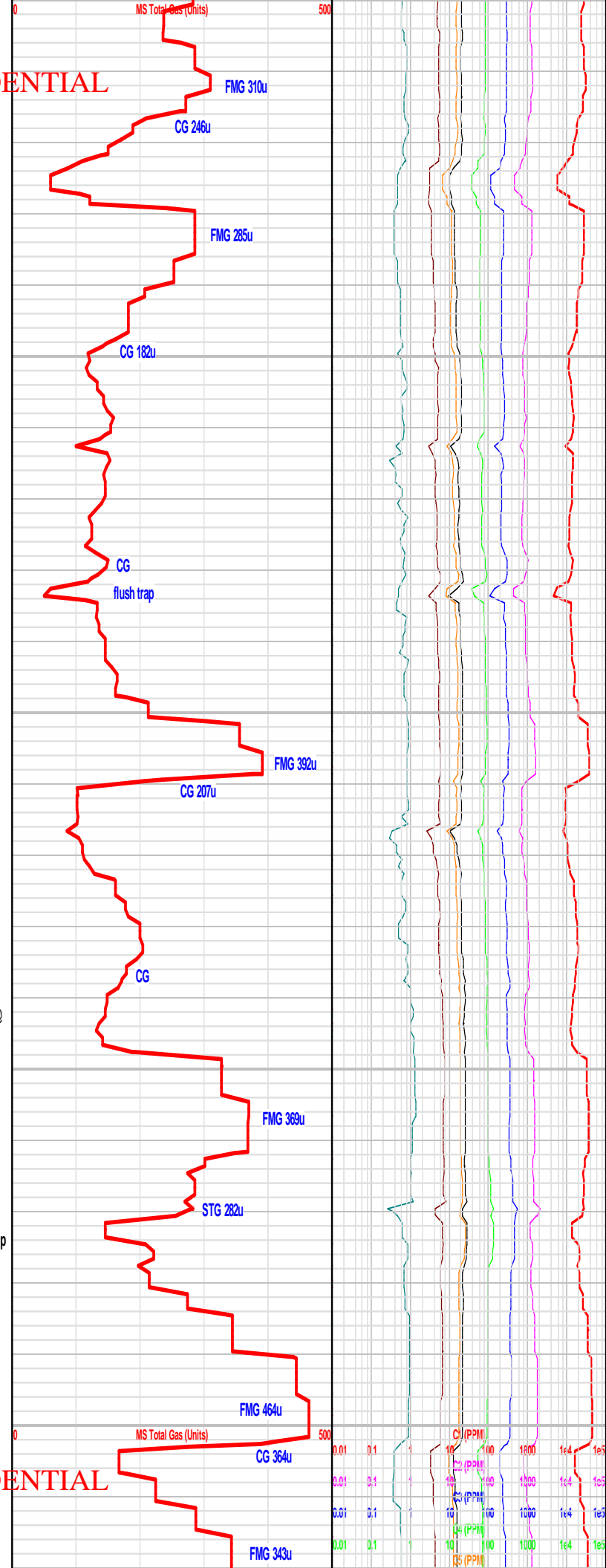
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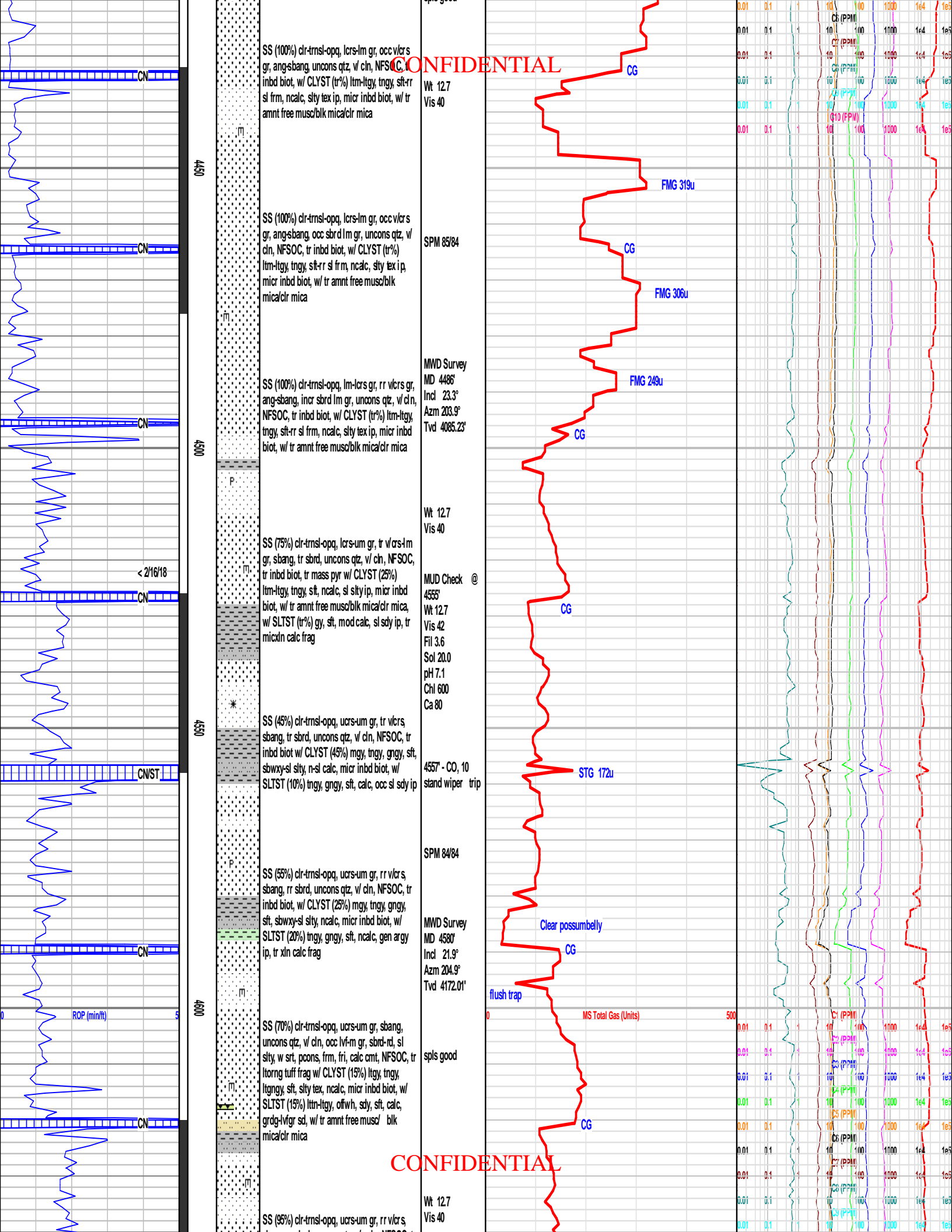
Wt 12.7
 Vis 40
 MWD Survey
 MD 4204'
 Incl 27.8°
 Azm 202.5°
 Tvd 3831.21'
 SPM 85/84
 spls good
 Wt 12.7
 Vis 39
 SPM 84/83
 MUD Check @
 4369'
 Wt 12.7
 Vis 38
 Fil 3.2
 Sol 20.0
 pH 7.0
 Chl 600
 Ca 80
 4369' - CO, 10
 stand wiper trip
 MWD Survey
 MD 4392'
 Incl 25.4°
 Azm 205.6°
 Tvd 3999.59'
 spls good

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Cl (PPM)	Br (PPM)	I (PPM)	Sr (PPM)	Zn (PPM)	As (PPM)	Se (PPM)	Mo (PPM)	Cd (PPM)	Pb (PPM)	Cr (PPM)	Mn (PPM)	Hg (PPM)	Co (PPM)	Ni (PPM)	Cu (PPM)	Fe (PPM)
0.01	0.1	1	10	100	1000	1e4	1e5	1e6	1e7	1e8	1e9	1e10	1e11	1e12	1e13	1e14
0.01	0.1	1	10	100	1000	1e4	1e5	1e6	1e7	1e8	1e9	1e10	1e11	1e12	1e13	1e14
0.01	0.1	1	10	100	1000	1e4	1e5	1e6	1e7	1e8	1e9	1e10	1e11	1e12	1e13	1e14
0.01	0.1	1	10	100	1000	1e4	1e5	1e6	1e7	1e8	1e9	1e10	1e11	1e12	1e13	1e14
0.01	0.1	1	10	100	1000	1e4	1e5	1e6	1e7	1e8	1e9	1e10	1e11	1e12	1e13	1e14



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SS (100%) clr-trnsl-opq, lcrs-lm gr, occ v/crs gr, ang-sbang, unconq qtz, v/ ch, NFSOC, tr inbd biot, w/ CLYST (tr%) ltm-ltgy, tngy, sft-rr sl frm, ncalc, slty tex ip, micr inbd biot, w/ tr amnt free musc/blk mica/clr mica

SS (100%) clr-trnsl-opq, lcrs-lm gr, occ v/crs gr, ang-sbang, occ sbrd lm gr, unconq qtz, w/ ch, NFSOC, tr inbd biot, w/ CLYST (tr%) ltm-ltgy, tngy, sft-rr sl frm, ncalc, slty tex ip, micr inbd biot, w/ tr amnt free musc/blk mica/clr mica

SS (100%) clr-trnsl-opq, lm-lcrs gr, rr v/crs gr, ang-sbang, incr sbrd lm gr, unconq qtz, v/ ch, NFSOC, tr inbd biot, w/ CLYST (tr%) ltm-ltgy, tngy, sft-rr sl frm, ncalc, slty tex ip, micr inbd biot, w/ tr amnt free musc/blk mica/clr mica

SS (75%) clr-trnsl-opq, lcrs-um gr, tr v/crs-lm gr, sbang, tr sbrd, unconq qtz, v/ ch, NFSOC, tr inbd biot, tr mass pyr w/ CLYST (25%) ltm-ltgy, tngy, sft, ncalc, sl slty ip, micr inbd biot, w/ tr amnt free musc/blk mica/clr mica, w/ SLTST (tr%) gy, sft, mod calc, sl sdy ip, tr micxn calc frag

SS (45%) clr-trnsl-opq, ucrs-um gr, tr v/crs sbang, tr sbrd, unconq qtz, v/ ch, NFSOC, tr inbd biot w/ CLYST (45%) mgy, tngy, gngy, sft, sbwxy-sl sly, n-sl calc, micr inbd biot, w/ SLTST (10%) tngy, gngy, sft, calc, occ sl sdy ip

SS (55%) clr-trnsl-opq, ucrs-um gr, rr v/crs sbang, rr sbrd, unconq qtz, v/ ch, NFSOC, tr inbd biot, w/ CLYST (25%) mgy, tngy, gngy, sft, sbwxy-sl sly, ncalc, micr inbd biot, w/ SLTST (20%) tngy, gngy, sft, ncalc, gen argy ip, tr xln calc frag

SS (70%) clr-trnsl-opq, ucrs-um gr, sbang, unconq qtz, v/ ch, occ lvf-m gr, sbrd-rd, sl slty, w srt, pcons, frm, fri, calc omt, NFSOC, tr ltrng tuff frag w/ CLYST (15%) ltgy, tngy, ltngy, sft, slty tex, ncalc, micr inbd biot, w/ SLTST (15%) ltm-ltgy, ofwh, sdy, sft, calc, grd-glvgr sd, w/ tr amnt free musc/ blk mica/clr mica

SS (95%) clr-trnsl-opq, ucrs-um gr, rr v/crs

Wt 12.7
Vis 40

SPM 85/84

MWD Survey
MD 4486'
Incl 23.3°
Az 203.9°
Tvd 4085.23'

Wt 12.7
Vis 40

MUD Check @
4555'
Wt 12.7
Vis 42
Fil 3.6
Sol 20.0
pH 7.1
Chl 600
Ca 80

4557' - CO, 10
stand wiper trip

SPM 84/84

MWD Survey
MD 4580'
Incl 21.9°
Az 204.9°
Tvd 4172.01'

spls good

Wt 12.7
Vis 40

CG

FMG 319u

CG

FMG 306u

FMG 249u

CG

CG

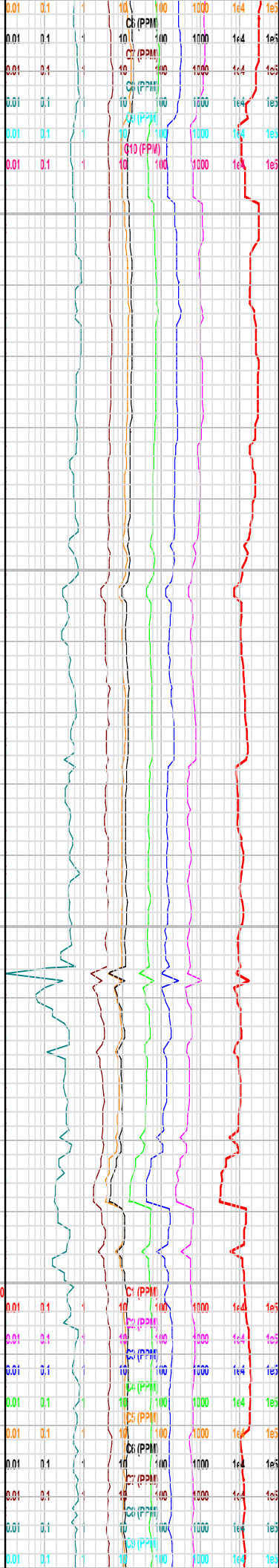
STG 172u

Clear possumbelly

flush trap

MS Total Gas (Units)

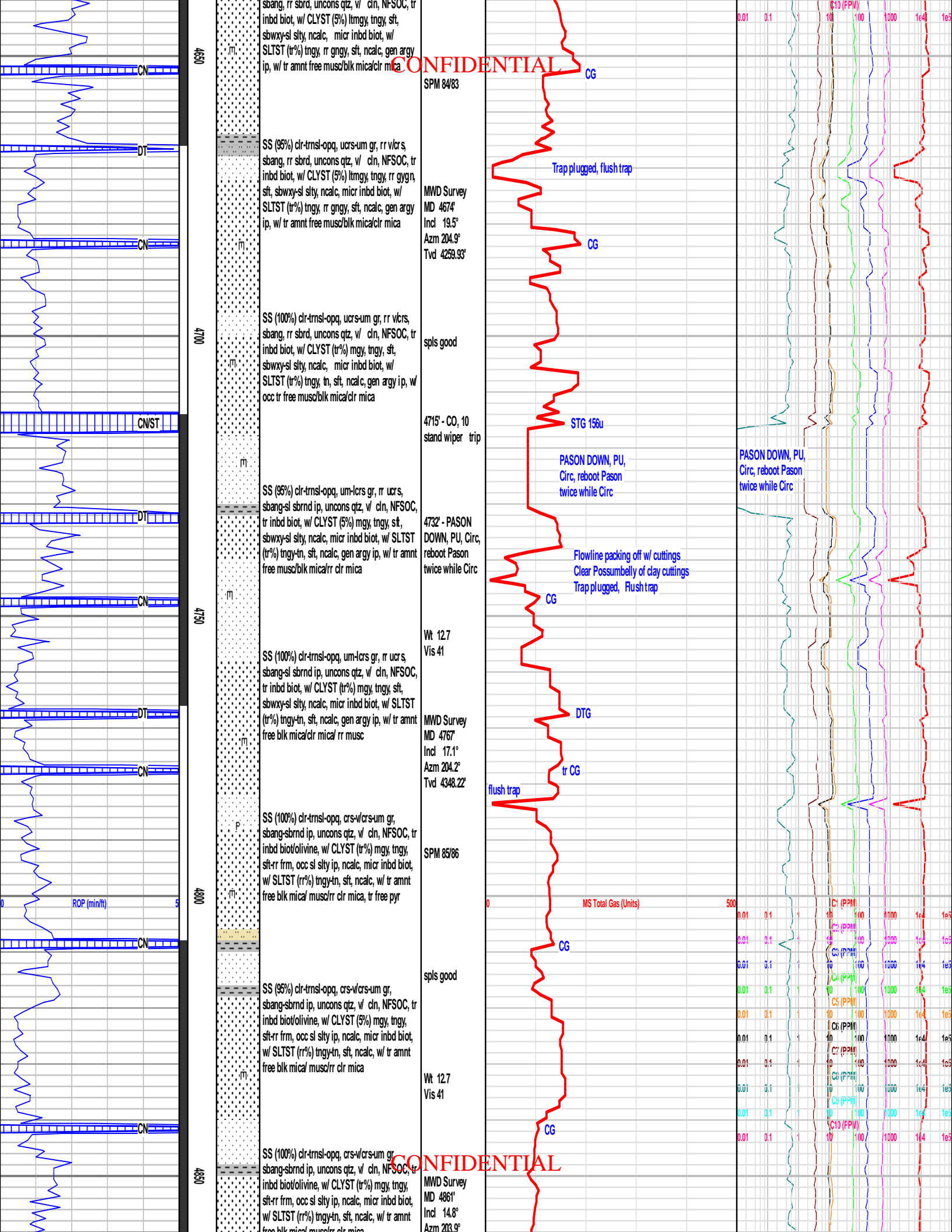
CG

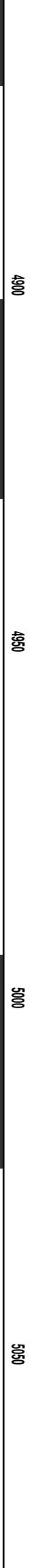
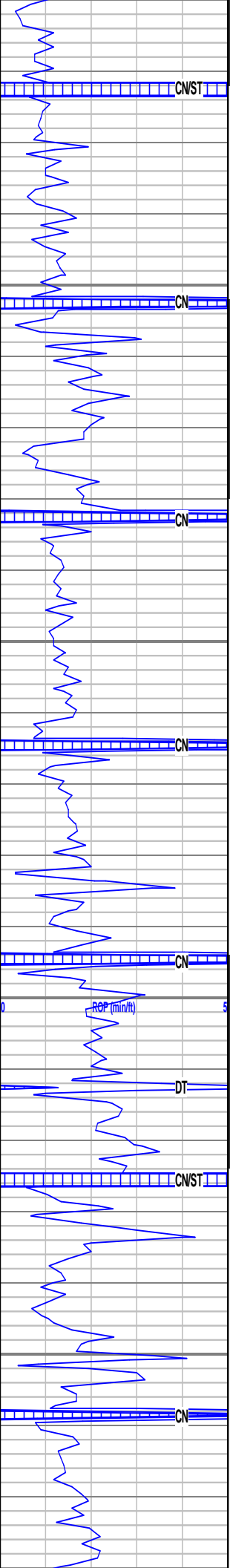


ROP (min/ft)

< 2/16/18

spls good





SS (100%) cl-trnsl-opq, crs-lv/crs-u mgr, uv/crsgr, sbang-sbrnd ip, uncons qtz, v/cln, NFSOC, tr inbd biot/rr olivine, w/ CLYST (tr%) mgy, tngy, sft-frm, occ sl stly ip, ncalc, micr inbd biot, w/ SLTST (tr%) tngy-tn, st, ncalc, w/ tr amnt free blk mica/ musc/rr clr mica

SS (100%) cl-trnsl-opq, pred lcrs-um gr, sbang-sbrnd, uncons qtz, v/cln, NFSOC, abnt micxn calc frag, tr inbd biot, w/ CLYST (tr%) mgy, tngy, sft, occ sl stly ip, ncalc, micr inbd biot, tr mass pyr, rr glsy tuff frag

SS (80%) cl-trnsl-opq, pred ucrs-um gr, tr vcrs, sbang-sbrnd, occ ang, uncons qtz, v/cln, NFSOC, abnt micxn calc frag, tr inbd biot, w/ CLYST (20%) mgy, tngy, sft, occ sl stly ip, ncalc, micr inbd biot, rr glsy tuff frag

SS (90%) cl-trnsl-opq, pred ucrs-lm gr, sbang-incr sbrnd, uncons qtz, v/cln, NFSOC, abnt micxn calc frag, tr inbd biot, w/ CLYST (10%) mdgy, tngy, sft-frm, sl stly, ncalc, micr inbd biot, tr mass pyr, abnt ltomg-d oliv gn, glsy tuff frag

SS (100%) cl-trnsl-opq, pred lcrs-ucrs gr, occ lm gr, tr vcrs, gen sbang, uncons qtz, v/cln, NFSOC, abnt micxn calc frag, tr inbd biot, w/ CLYST (tr%) mdgy, tngy, sft-frm, sl stly, ncalc, micr inbd biot, tr glsy tuff frag

SS (60%) cl-trnsl-opq, pred lcrs-ucrs gr, occ lm gr, tr ucrs, gen sbang, uncons qtz, v/dn, NFOC, rr blk stn, tr inbd biot, tr glsy tuff frag w/ CLYST (25%) mdgy, tngy, sft-frm, sl stly, ncalc, micr inbd biot, LS (15%) wh-trnsl, clr, gy, mic-vlxn-grnlr w/ occ grst tex, frm, dns, vf lam, pp dl gn calc mnrl flr, rr blk stn, int odr, v/nt mlky pool, extr fnt-pp gnyel res

SS (70%) cl-trnsl-opq, lcrs-lv gr, sbang, abnt sbrnd, uncons qtz, v/cln, NFOC, rr blk stn, tr inbd biot, tr glsy tuff frag, w/ CLYST (15%) mdgy, tngy, sft-frm, sl stly, ncalc, micr inbd biot, LS (15%) wh-trnsl, clr, gy, mic-vlxn, frm, dns, spty dl gn calc mnrl flr, rr blk stn, int odr, v/nt mlky pool, extr fnt-sply yel gn res

Tvd 4438.60'
4872 - CO, Circ, Service pumps, 10 stand wiper trip

SPM 85/86

Wt 12.7
Vis 41

MWD Survey
MD 4955'
Incl 13.0°
Az 203.5°
Tvd 4529.84'

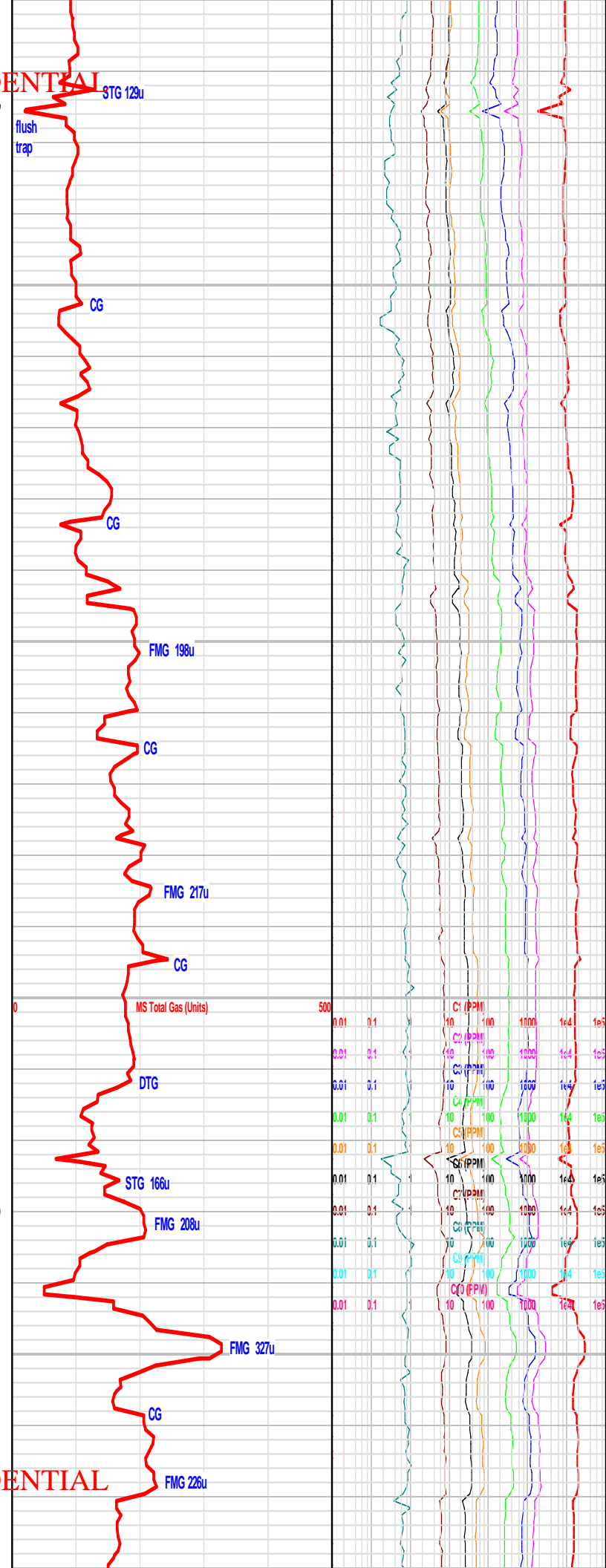
spls good

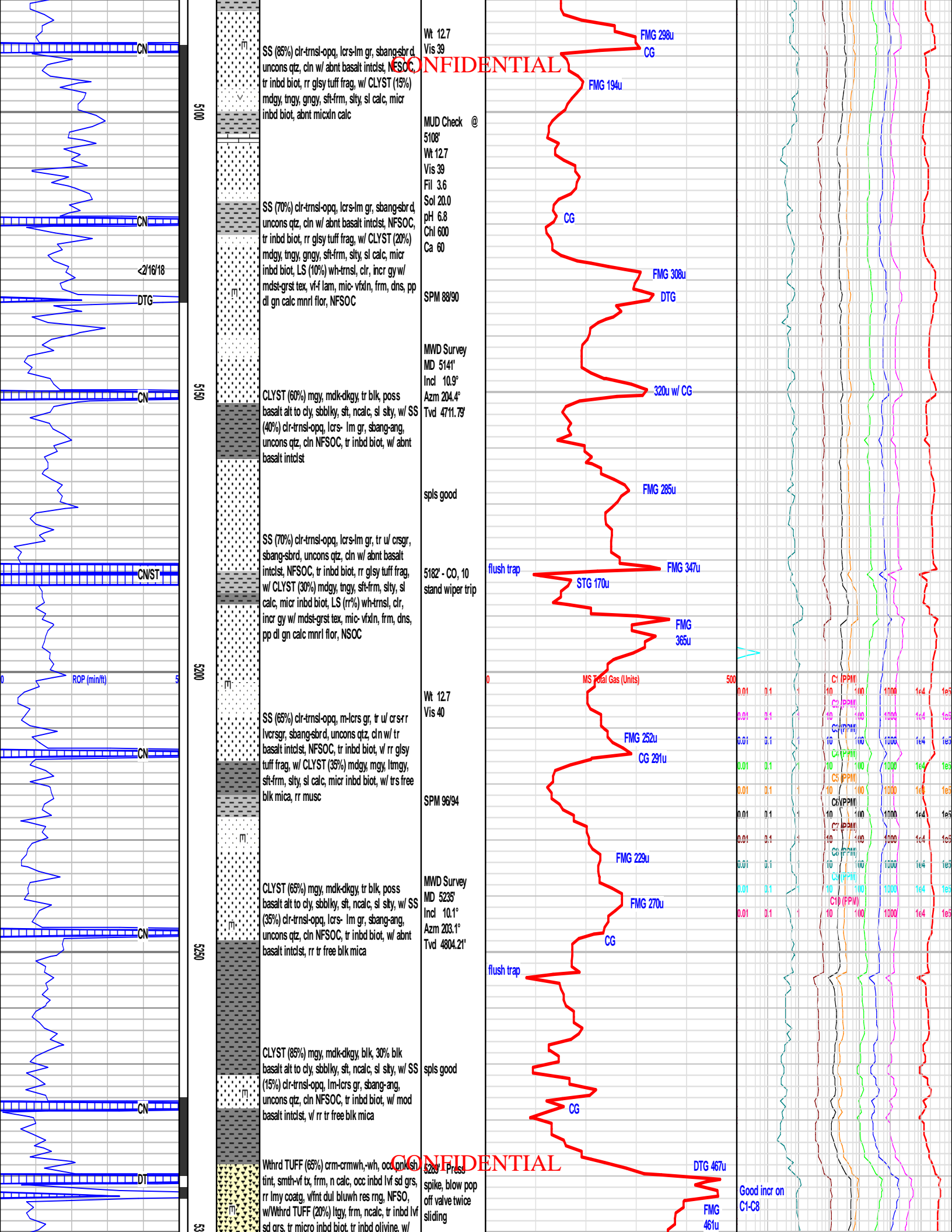
5025' - CO, 10 stand wiper trip

MWD Survey
MD 5048'
Incl 12.0°
Az 201.5°
Tvd 4620.64'

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5100

SS (85%) clr-trnsl-opq, lcrs-lm gr, sbang-sbrd, uncons qtz, cln w/ abnt basalt intlct, NFSOC, tr inbd biot, rr glsy tuff frag, w/ CLYST (15%) mdgy, tngy, gngy, sft-frm, stly, sl calc, micr inbd biot, abnt micxn calc

Wt 12.7
Vis 39

MUD Check @
5108'

Wt 12.7
Vis 39

Fil 3.6
Sol 20.0

pH 6.8
Chl 600

Ca 60

SPM 88/90

MWD Survey
MD 5141'

Incl 10.9°
Az 204.4°

Tvd 4711.79'

5150

CLYST (60%) mgy, mdk-dkgy, tr blk, poss basalt alt to cly, sbblky, sft, ncalc, sl stly, w/ SS (40%) clr-trnsl-opq, lcrs-lm gr, sbang-ang, uncons qtz, cln NFSOC, tr inbd biot, w/ abnt basalt intlct

spls good

5200

SS (70%) clr-trnsl-opq, lcrs-lm gr, tr w/ crsgr, sbang-sbrd, uncons qtz, cln w/ abnt basalt intlct, NFSOC, tr inbd biot, rr glsy tuff frag, w/ CLYST (30%) mdgy, tngy, sft-frm, stly, sl calc, micr inbd biot, LS (rr%) wh-trnsl, clr, incr gy w/ mdst-grst tex, mic-vfxn, frm, dns, pp dl gn calc mnrl flr, NSOC

5182' - CO, 10 stand wiper trip

Wt 12.7
Vis 40

SPM 96/94

MWD Survey
MD 5235'

Incl 10.1°
Az 203.1°

Tvd 4804.21'

5250

SS (65%) clr-trnsl-opq, m-lcrs gr, tr w/ crsgr, lcrsgr, sbang-sbrd, uncons qtz, cln w/ tr basalt intlct, NFSOC, tr inbd biot, v/ rr glsy tuff frag, w/ CLYST (35%) mdgy, mgy, lmggy, sft-frm, stly, sl calc, micr inbd biot, w/ trs free blk mica, rr musc

spls good

5300

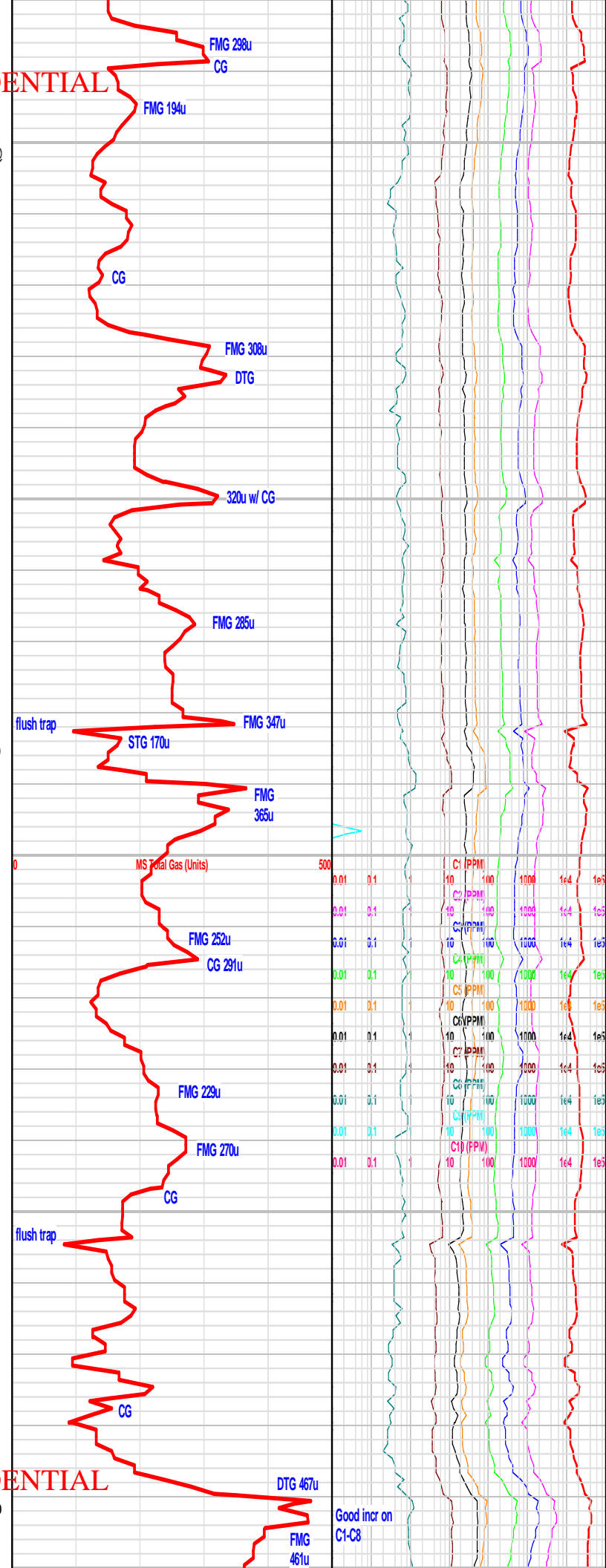
CLYST (65%) mgy, mdk-dkgy, tr blk, poss basalt alt to cly, sbblky, sft, ncalc, sl stly, w/ SS (35%) clr-trnsl-opq, lcrs-lm gr, sbang-ang, uncons qtz, cln NFSOC, tr inbd biot, w/ abnt basalt intlct, rr tr free blk mica

CLYST (85%) mgy, mdk-dkgy, blk, 30% blk basalt alt to cly, sbblky, sft, ncalc, sl stly, w/ SS (15%) clr-trnsl-opq, lm-lcrs gr, sbang-ang, uncons qtz, cln NFSOC, tr inbd biot, w/ mod basalt intlct, v/ rr tr free blk mica

Wthrd TUFF (65%) crm-crmwh-wh, occ onlv sh tint, smth-vf tx, frm, n calc, occ inbd lv sd grs, rr lmy coatg, v/nt dul bluwh res rng, NFSO, w/Wthrd TUFF (20%) ltyg, frm, ncalc, tr inbd lv sd ars, tr micro inbd biot, tr inbd olivine, w/

5283' Press spike, blow pop off valve twice sliding

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Good incr on C1-C8

