Alta Mesa Holdings, LP

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	DJS Properties 2-14	ALTA MESA SERVICES	
API:	11-075-20023		
Location:	Sec 14, T8N, R4W	Payette County, ID	
License Number:	AFE: 113DC1592	Region:	Wildcat
Spud Date:	9/12/2014	Drilling Completed:	9/16/2014
Surface Coordinates:	See drilling report		
Bottom Hole Coordinates:	See drilling report		
Ground Elevation (ft):	2480'	K.B. Elevation (ft):	2494'
Logged Interval (ft):	100' To: 5500'	Total Depth (ft):	5500'
Formation:	Wildcat Sand		
Type of Drilling Fluid:	WBM to SCP, Invert Emulsion to TD		

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OPERATOR

Company: Alta Mesa Services
Address: 15021 Katy Freeway
Ste 400
Houston, TX 77094-1813

GEOLOGIST

Name: Phil Littlefield, Adam Johnson
Company: King Canyon Buffalo, Inc.
Address: 33 King Canyon Rd.
Chadron, NE 69337

Comments

Company Man: Jesse Tatman, Mike Dumas
Alta Mesa Engineer: David Tubbs
Alta Mesa Geologist: Mike McMennamy
Contractor: PGDS Rig #7 (Paul Graham Drilling Service)
Tool Pusher: Jeff Lopez, Dave Landers
Mud Company: Newpark Drilling Fluids
Mud Engineer: Richard Magee, Brett Karasek
KCB Wellsite Geology: Phil Littlefield, Adam Johnson, Brent Weeks, Angela Gelfer

ROCK TYPES

- Dol gy
- Anhy rose
- Anhy wh
- Bent
- Cht
- Coal
- Ls off wh
- Ls crmtn
- Congl
- Dol brn
- Ls ltgy
- Ls tn
- Ls wh
- Ls med brn
- Ls medgy
- Sh medgy
- Sltst brn
- sltst wh
- sltst ltgy
- Sltst tn
- sltst mgy
- Sltst
- Ss loose qtz
- Ss gy
- Ss
- Sh rdbrn
- Shale sndy
- Sh brn
- Sh tan
- Sh ltblu
- Carbshdkgy
- Sh carb
- Sh dkgy
- Sh grn
- Sh medgy
- Sh ltgy
- NO SMPL nosmpl
- Csgpt
- clyst tan/buff
- clyst brn
- clyst mar
- clyst wh
- clyst ltgrn
- clyst rdbrn
- clyst blgy
- clyst lt-mgy
- Coal
- Tuff ltgy
- Tuff ltgrn
- Tuff white
- Tuff dkgy
- Tuff orng
- Basalt flow top
- Basalt entab
- Basalt columnade
- Carbsh
- clyst m-mdkgy

ACCESSORIES

MINERAL

- Vertfrac
- Anhy
- Arggrn
- Arg
- Mica
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Qtz or calct xls
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Clyst gy
- Lsgy
- Lscrmtn

TEXTURE

- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

OTHER SYMBOLS

POROSITY
- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING
- Well
- Moderate
- Poor

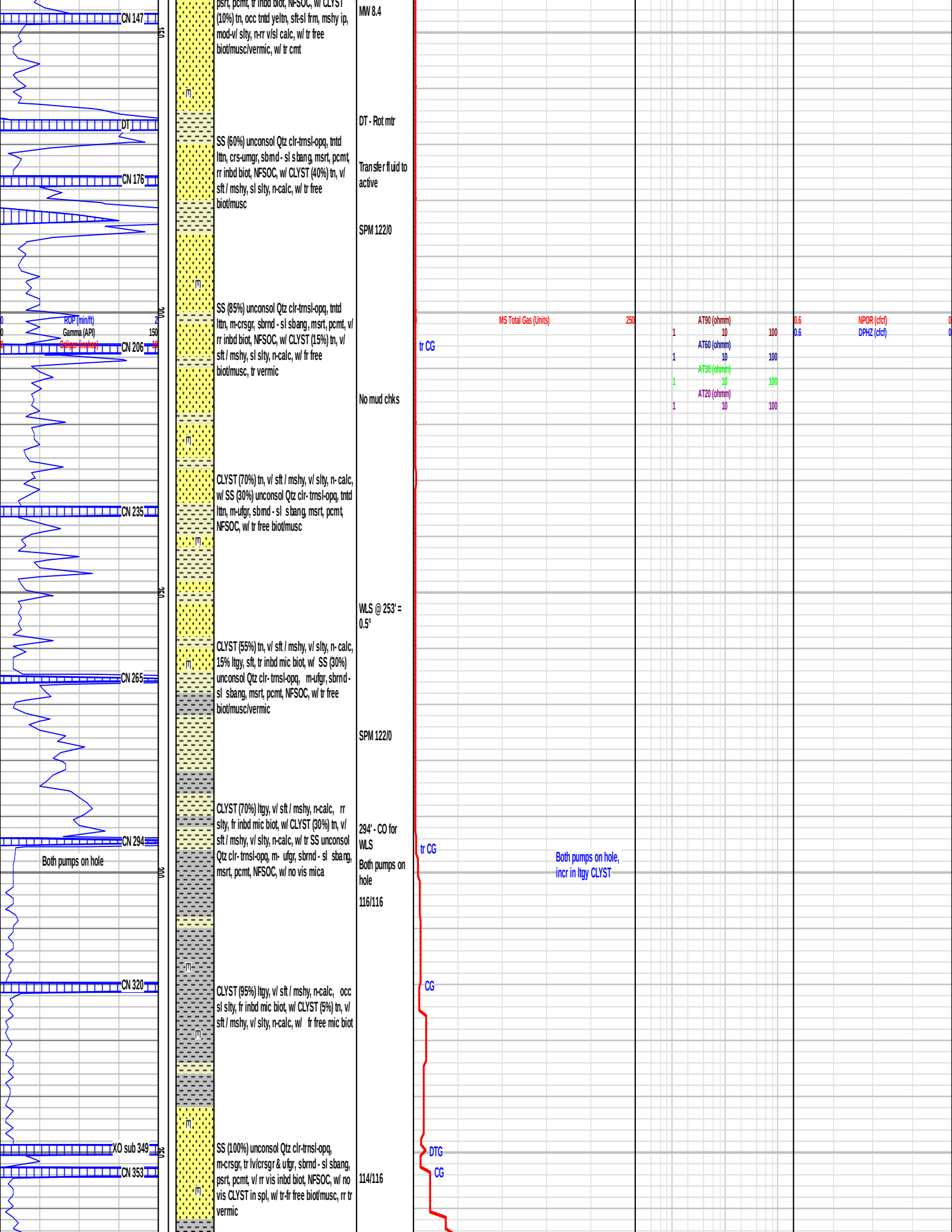
ROUNDING
- Rounded
- Subrnd
- Subang
- Angular

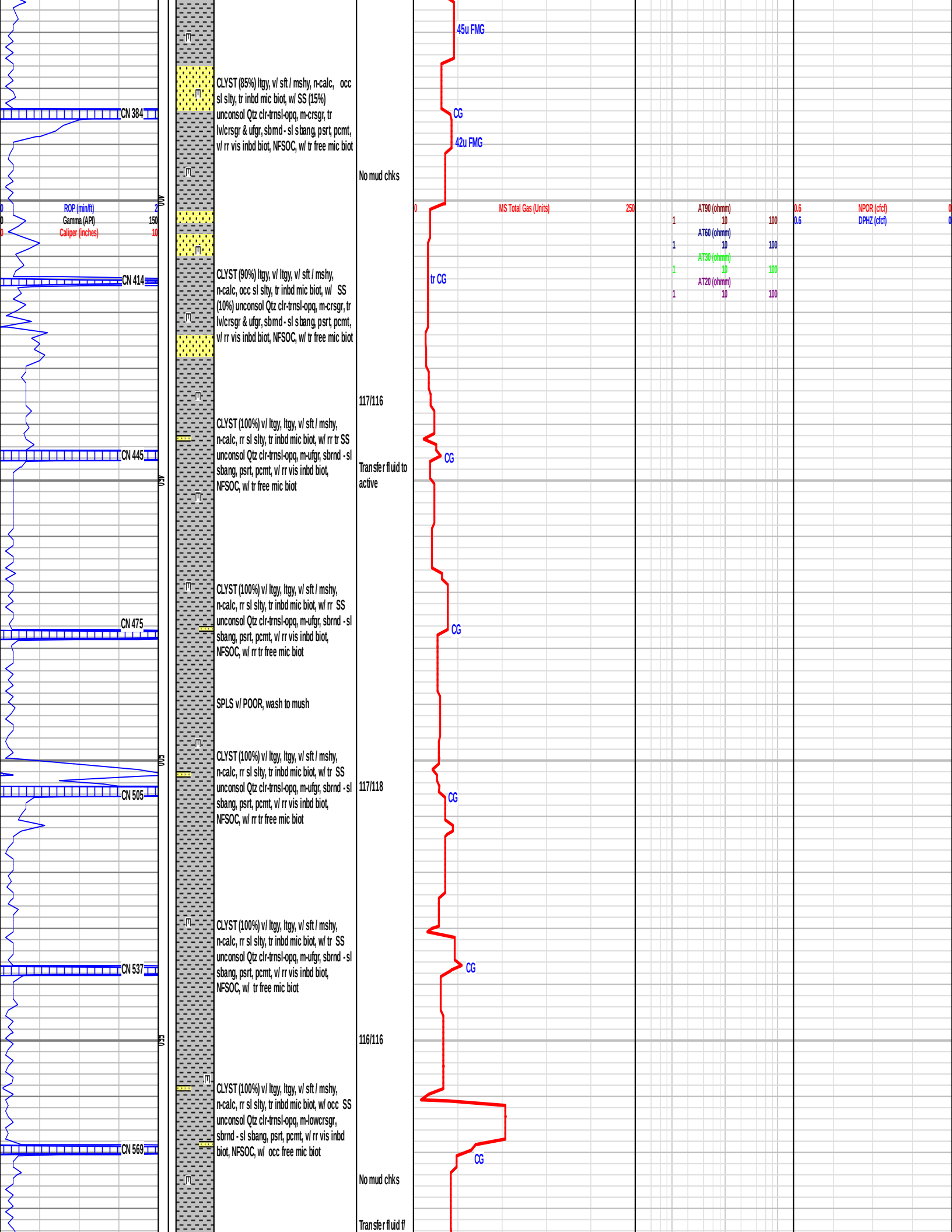
OIL SHOW
- Even
- Spotted
- Ques
- Dead

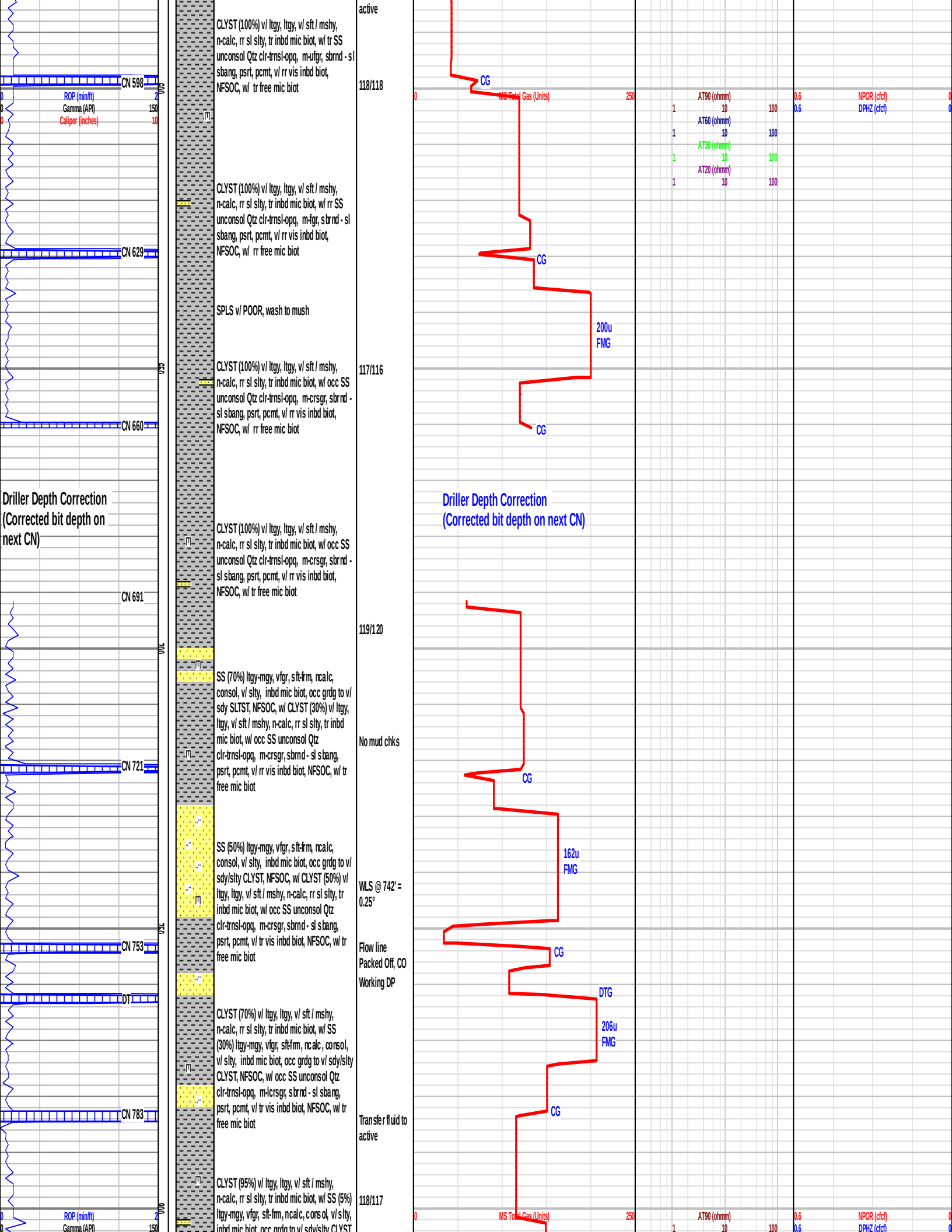
INTERVAL
- Core
- Dst
- Casing

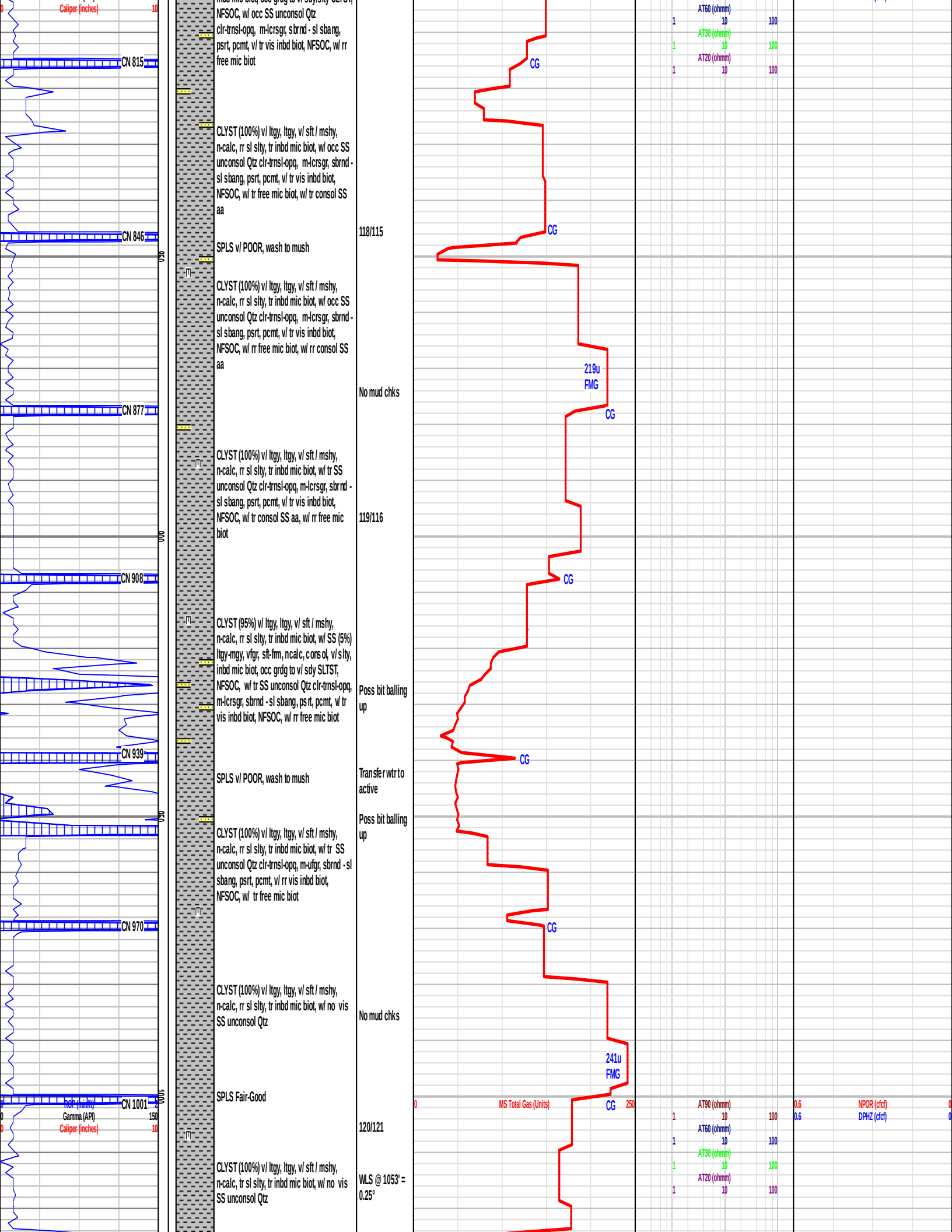
EVENT
- Rft
- Sidewall
- New bit

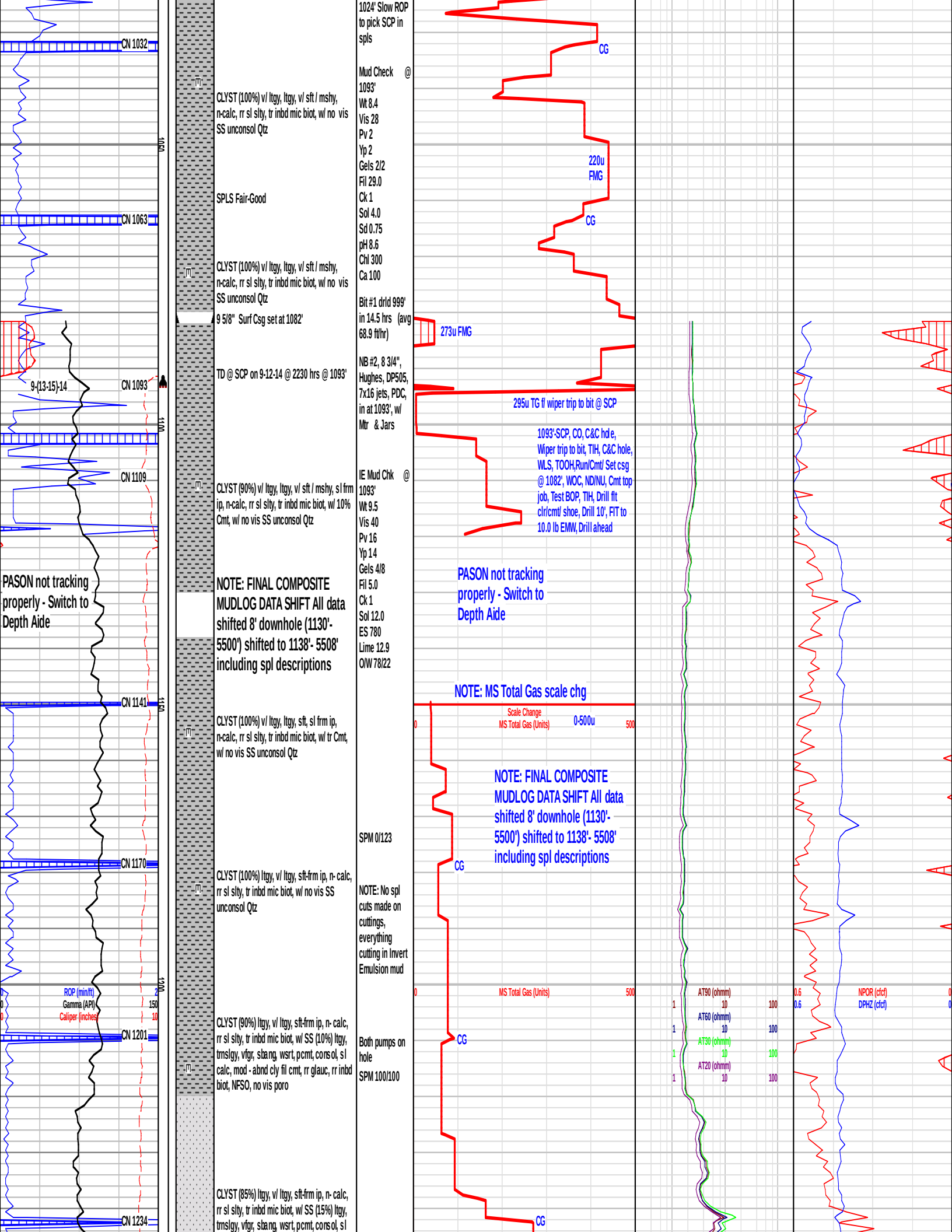
ROP (min/ft)	DEPTH	Lithology	Geological Descriptions	Rig/Mud Data	Mass Spec Total Gas	Resistivity	Porosity
ROP (min/ft) 0 – 2 Gamma (API) 0 – 150 Caliper (inches) 0 – 10					MS Total Gas (Units) 0 – 250	AT90 (ohmm) 1 – 10 – 100 AT60 (ohmm) 1 – 10 – 100 AT30 (ohmm) 1 – 10 – 100 AT20 (ohmm) 1 – 10 – 100	NPOR (cfcf) 0.6 – 0 DPHZ (cfcf) 0.6 – 0
KING CANYON BUFFALO, INC. 33 King Canyon Rd, Chadron, NE 69337 109 E 17th St, Ste 4159, Cheyenne, WY 82001 kcbison@yahoo.com http://www.kingcanyonbuffalo.com/wellsite/			ALTA MESA SERVICES DJS Properties 2-14 API # 11-075-20023 AFE: # 113DC1592 GL Elevation: 2480 ft KB Elevation: 2494 ft	Mud Type: Water Base Mud			
Mr. Chris Nerud, President (970) 212-6868 jcnerud@yahoo.com			King Canyon Buffalo, Inc. On location 9/11/2014 @ 10:30 hrs, Rigged up & fully operational 9/11/2014 @ 15:30 hrs	MW In/Out Vis In/Out	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 STG = Short Trip Gas TG = Trip Gas WLS = Wireline Survey		
	50		SPUD on 9-12-2014 @ 0730 hrs MST	Drilling 12 1/4" Surface hole			
Well Logged by Phil Littlefield, Adam Johnson, Angie Gelfer & Brent Weeks with FIT "dq1000" Mass Spectrometer (#1078) and Gas Cannibal Trap			KCB mudloggers catching 30' lagged samples starting at 100'	NB #1 (RR), 12 1/4", Hughes, VM-1, 3x18-1x12 jets, Tricone in at 134', w/ set of Jars, No Mud Mtr			
			13 3/8" Conductor casing set at 80' (94' KB)				
	100						
		m	SS (60%) unconsol Qtz clr-trnsl-opq, occ tntd yel, v/crs-crsgr, tr umgr, sb/ rnd - sl sbang, psrt, pcmt, NFSOC, w/ CMT (30%), w/ CLYST (10%) tnyel-yel, sft-sl frm, mshy ip, rr v/ sl slty ip, n-rr v/ sl calc, rr tr free musc/biot	SPM 122/0			
CN 117				Transfer fluid to active			
		m	SS (90%) unconsol Qtz clr-trnsl-opq, tr tntd yel, v/crs-crsgr, tr umgr, sbrnd - sl sbang,	Drlg w/ wtr			

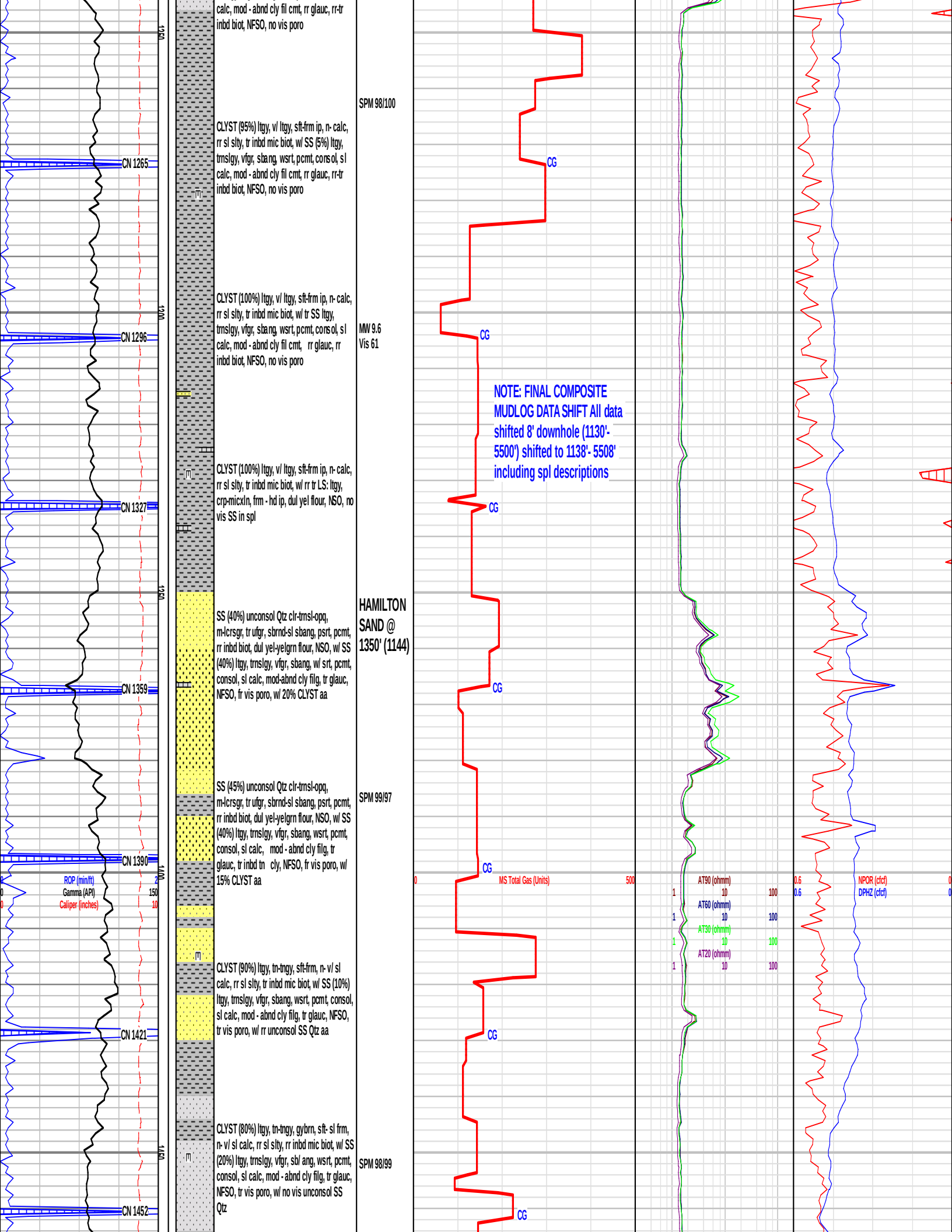

CN 147
DT
CN 176
ROP (min/ft)
Gamma (API)
Caliper (inches)
CN 206
CN 235
CN 265
CN 294
Both pumps on hole
CN 320
XO sub 349
CN 353
150
200
250
300
350
MW 8.4
DT - Rot mtr
Transfer fluid to active
SPM 122/0
No mud chks
WLS @ 253' = 0.5°
SPM 122/0
294' - CO for WLS
Both pumps on hole
116/116
114/116
tr CG
tr CG
CG
DTG
CG
MS Total Gas (Units)
250
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
DPHZ (cfcf)
0.6
Both pumps on hole, incr in ltgy CLYST

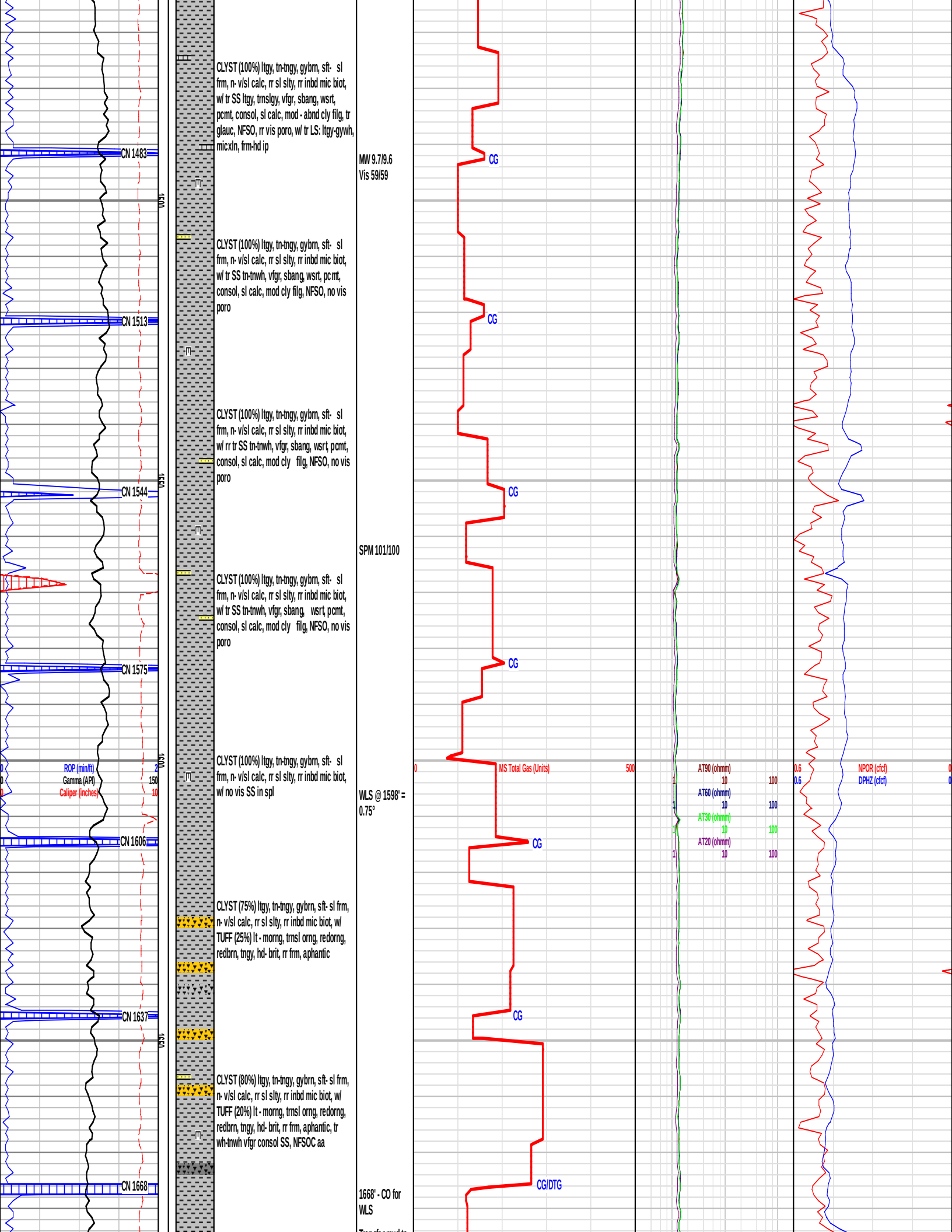

ROP (min/ft)
Gamma (API)
Caliper (inches)
CN 384
CN 414
CN 445
CN 475
CN 505
CN 537
CN 569
CLYST (85%) ltgy, v/ sft / mshy, n-calc, occ sl slty, tr inbd mic biot, w/ SS (15%) unconsol Qtz clr-trnsl-opq, m-crsgr, tr lv/crsgr & ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
No mud chks
CLYST (90%) ltgy, v/ ltgy, v/ sft / mshy, n-calc, occ sl slty, tr inbd mic biot, w/ SS (10%) unconsol Qtz clr-trnsl-opq, m-crsgr, tr lv/crsgr & ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
117/116
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl-opq, m-ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
Transfer fluid to active
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl-opq, m-ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ rr tr free mic biot
SPLS v/ POOR, wash to mush
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl-opq, m-ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ rr tr free mic biot
117/118
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl-opq, m-ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
116/116
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-lowcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ occ free mic biot
No mud chks
Transfer fluid f/
45u FMG
CG
42u FMG
tr CG
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)

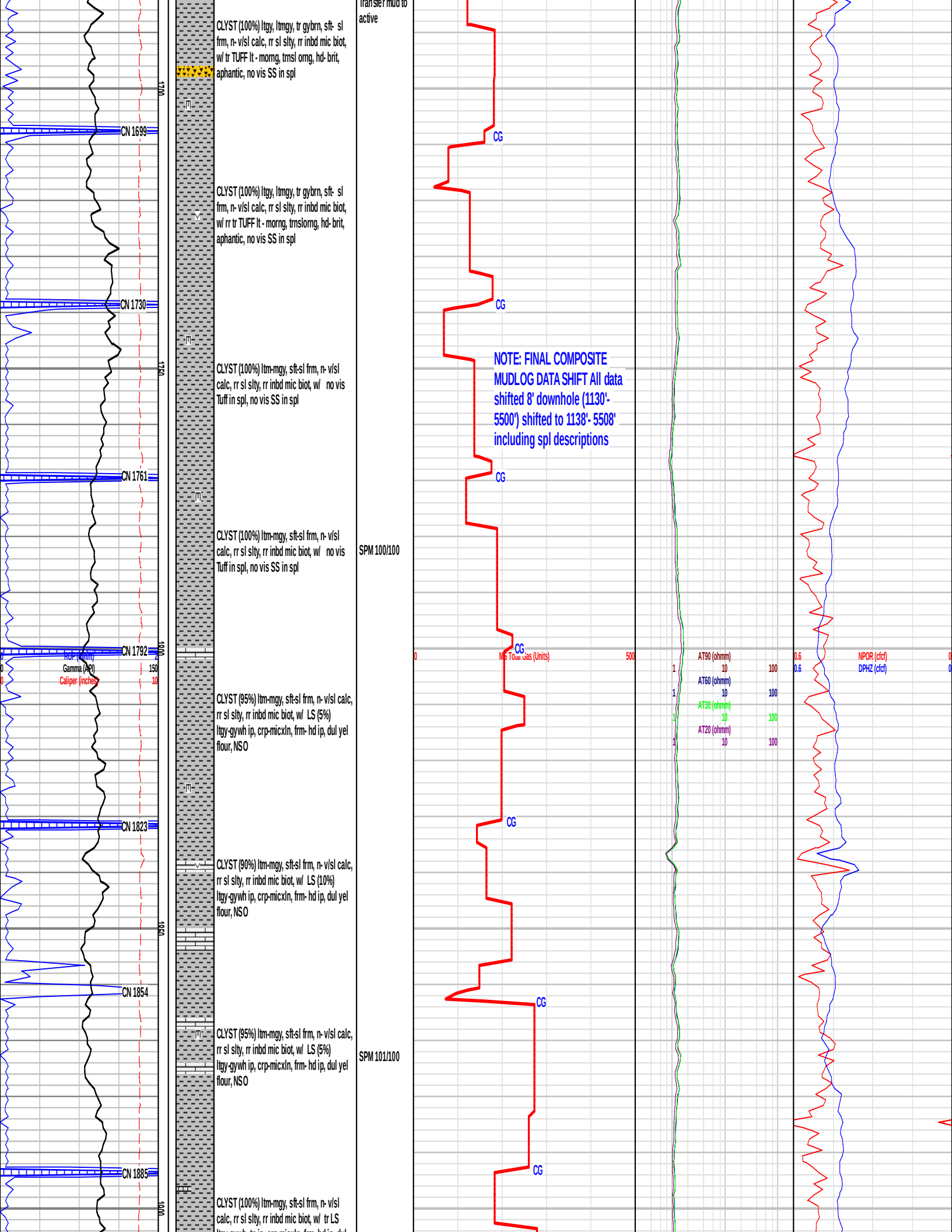

CN 598
ROP (min/ft)
Gamma (API)
Caliper (inches)
CN 629
CN 660
Driller Depth Correction
(Corrected bit depth on
next CN)
CN 691
CN 721
CN 753
DT
CN 783
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl-opq, m-ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl-opq, m-fgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ rr free mic biot
SPLS v/ POOR, wash to mush
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-crsgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ rr free mic biot
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-crsgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
SS (70%) ltgy-mgy, vfgr, sft-frm, ncalc, consol, v/ slty, inbd mic biot, occ grdg to v/ sdy SLTST, NFSOC, w/ CLYST (30%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-crsgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
SS (50%) ltgy-mgy, vfgr, sft-frm, ncalc, consol, v/ slty, inbd mic biot, occ grdg to v/ sdy/slty CLYST, NFSOC, w/ CLYST (50%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-crsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ tr free mic biot
CLYST (70%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ SS (30%) ltgy-mgy, vfgr, sft-frm, ncalc, consol, v/ slty, inbd mic biot, occ grdg to v/ sdy/slty CLYST, NFSOC, w/ occ SS unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ tr free mic biot
CLYST (95%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ SS (5%) ltgy-mgy, vfgr, sft-frm, ncalc, consol, v/ slty, inbd mic biot, occ grdg to v/ sdy/slty CLYST
active
118/118
117/116
119/120
No mud chks
WLS @ 742' = 0.25°
Flow line Packed Off, CO Working DP
Transfer fluid to active
118/117
MS Total Gas (Units)
CG
200u FMG
162u FMG
DTG
206u FMG
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)
Driller Depth Correction
(Corrected bit depth on next CN)

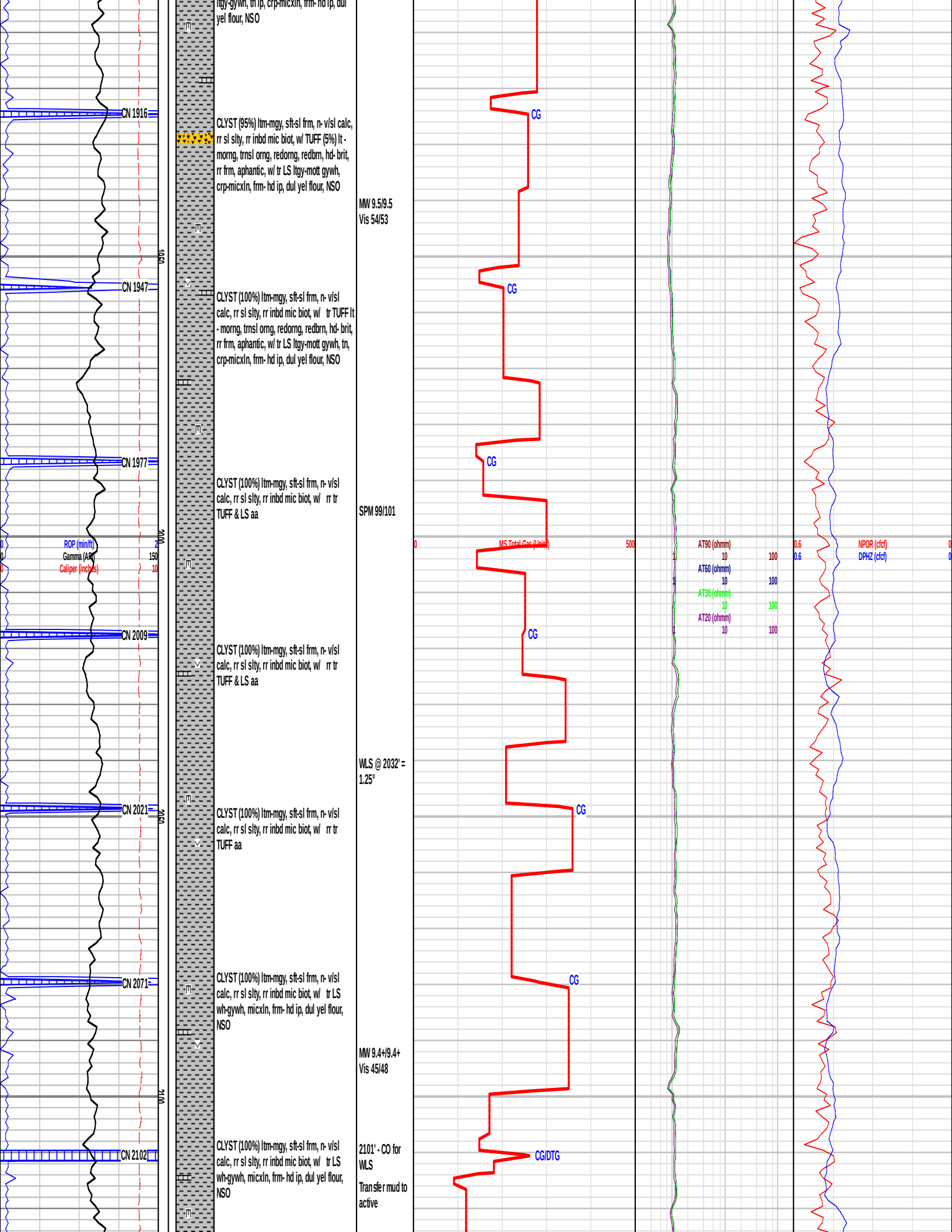

Caliper (inches)
10
CN 815
CN 846
CN 877
CN 908
CN 939
CN 970
CN 1001
ROP (min/ft)
Gamma (API)
150
Caliper (inches)
10
NFSOC, w/ occ SS unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ rr free mic biot
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ tr free mic biot, w/ tr consol SS aa
118/115
SPLS v/ POOR, wash to mush
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ occ SS unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ rr free mic biot, w/ rr consol SS aa
No mud chks
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ tr consol SS aa, w/ rr free mic biot
119/116
CLYST (95%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ SS (5%) ltgy-mgy, vfgr, sft-fm, ncalc, consol, v/ slty, inbd mic biot, occ grdg to v/ sdy SLTST, NFSOC, w/ tr SS unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd - sl sbang, psrt, pcmt, v/ tr vis inbd biot, NFSOC, w/ rr free mic biot
Poss bit balling up
SPLS v/ POOR, wash to mush
Transfer wtr to active
Poss bit balling up
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl-opq, m-ufgr, sbrnd - sl sbang, psrt, pcmt, v/ rr vis inbd biot, NFSOC, w/ tr free mic biot
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ no vis SS unconsol Qtz
No mud chks
SPLS Fair-Good
120/121
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, tr sl slty, tr inbd mic biot, w/ no vis SS unconsol Qtz
WLS @ 1053' = 0.25°
CG
219u FMG
241u FMG
MS Total Gas (Units)
0
250
AT60 (ohmm)
AT90 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
DPHZ (cfcf)
0.6

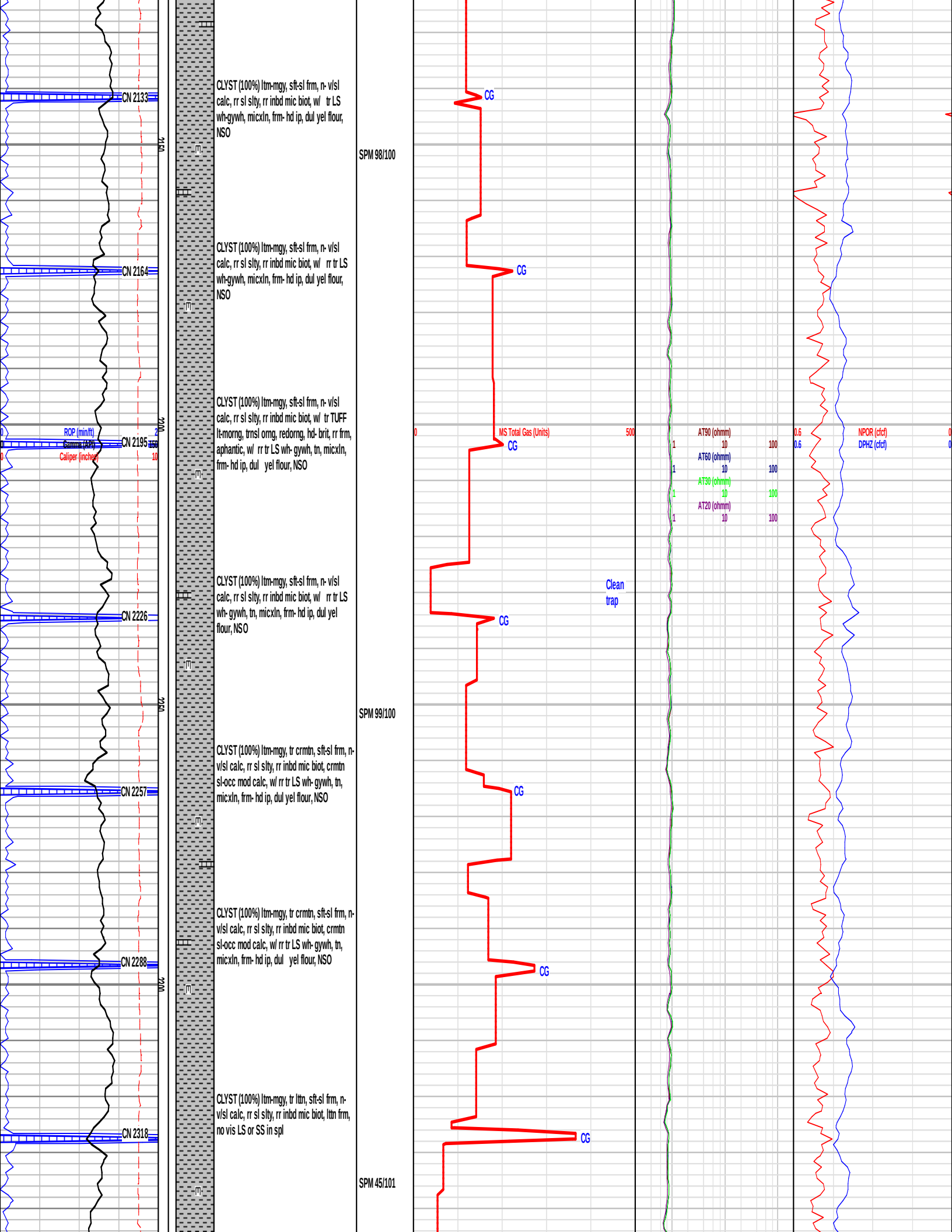

CN 1032
CN 1063
CN 1093
CN 1109
CN 1141
CN 1170
CN 1201
CN 1234
9-(13-15)-14
1050
1100
1150
1200
PASON not tracking properly - Switch to Depth Aide
ROP (min/ft)
Gamma (API)
Caliper (inches)
150
10
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ no vis SS unconsol Qtz
SPLS Fair-Good
CLYST (100%) v/ ltgy, ltgy, v/ sft / mshy, n-calc, rr sl slty, tr inbd mic biot, w/ no vis SS unconsol Qtz
9 5/8" Surf Csg set at 1082'
TD @ SCP on 9-12-14 @ 2230 hrs @ 1093'
CLYST (90%) v/ ltgy, ltgy, v/ sft / mshy, sl frm ip, n-calc, rr sl slty, tr inbd mic biot, w/ 10% Cmt, w/ no vis SS unconsol Qtz
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions
CLYST (100%) v/ ltgy, ltgy, sft, sl frm ip, n-calc, rr sl slty, tr inbd mic biot, w/ tr Cmt, w/ no vis SS unconsol Qtz
CLYST (100%) ltgy, v/ ltgy, sft-frm ip, n- calc, rr sl slty, tr inbd mic biot, w/ no vis SS unconsol Qtz
CLYST (90%) ltgy, v/ ltgy, sft-frm ip, n- calc, rr sl slty, tr inbd mic biot, w/ SS (10%) ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod - abnd cly fil cmt, rr glauc, rr inbd biot, NFSO, no vis poro
CLYST (85%) ltgy, v/ ltgy, sft-frm ip, n- calc, rr sl slty, tr inbd mic biot, w/ SS (15%) ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl
1024' Slow ROP to pick SCP in spls
Mud Check @ 1093'
Wt 8.4
Vis 28
Pv 2
Yp 2
Gels 2/2
Fil 29.0
Ck 1
Sol 4.0
Sd 0.75
pH 8.6
Chl 300
Ca 100
Bit #1 drld 999' in 14.5 hrs (avg 68.9 ft/hr)
NB #2, 8 3/4", Hughes, DP505, 7x16 jets, PDC, in at 1093', w/ Mtr & Jars
IE Mud Chk @ 1093'
Wt 9.5
Vis 40
Pv 16
Yp 14
Gels 4/8
Fil 5.0
Ck 1
Sol 12.0
ES 780
Lime 12.9
O/W 78/22
SPM 0/123
NOTE: No spl cuts made on cuttings, everything cutting in Invert Emulsion mud
Both pumps on hole
SPM 100/100
CG
220u FMG
273u FMG
295u TG f/ wiper trip to bit @ SCP
1093'-SCP, CO, C&C hole, Wiper trip to bit, TIH, C&C hole, WLS, TOOH,Run/Cmt/ Set csg @ 1082', WOC, ND/NU, Cmt top job, Test BOP, TIH, Drill flt clr/cmt/ shoe, Drill 10', FIT to 10.0 lb EMW, Drill ahead
PASON not tracking properly - Switch to Depth Aide
NOTE: MS Total Gas scale chg
Scale Change
MS Total Gas (Units)
0-500u
0
500
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
0.6
NPOR (cfcf)
DPHZ (cfcf)

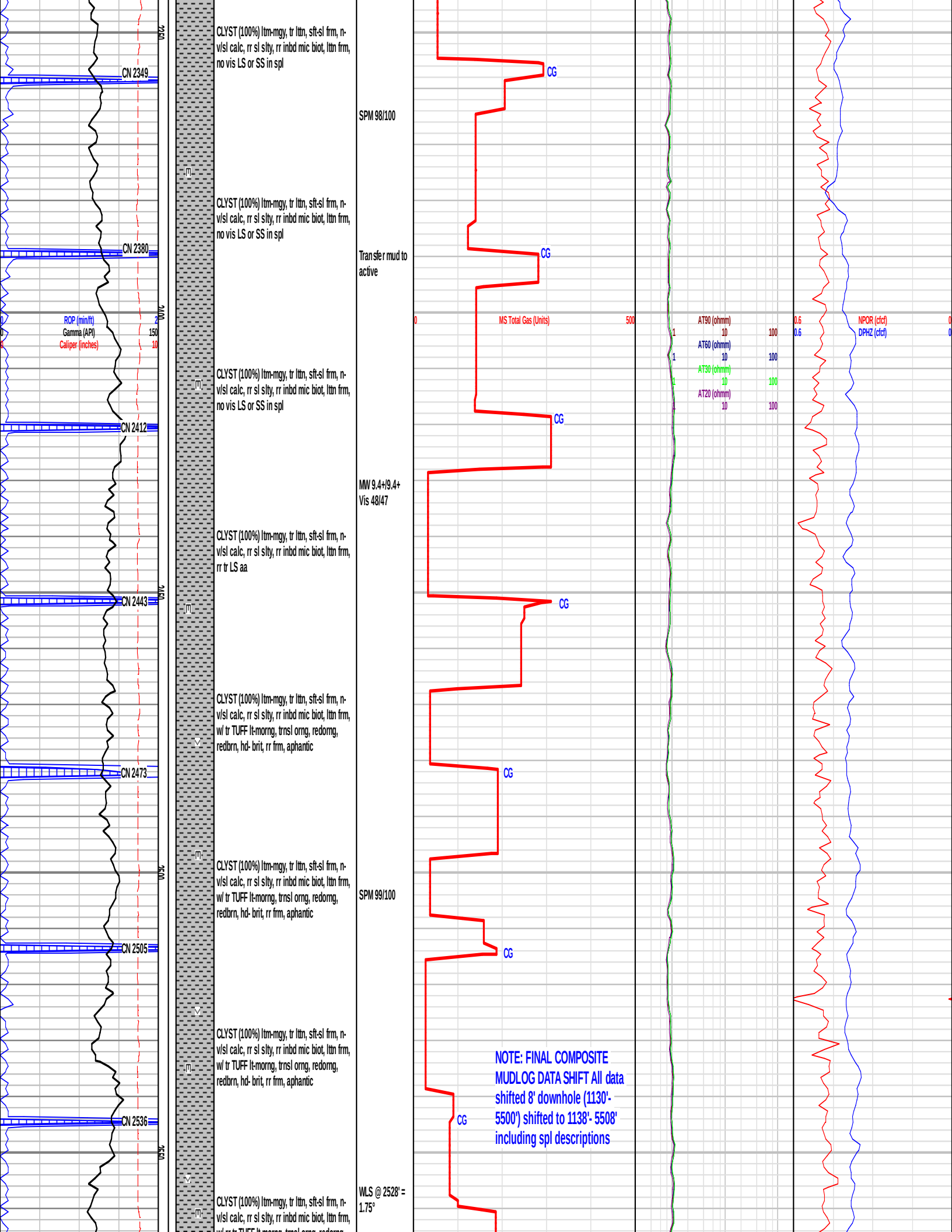

calc, mod - abnd cly fil cmt, rr glauc, rr-tr inbd biot, NFSO, no vis poro
SPM 98/100
CLYST (95%) ltgy, v/ ltgy, sft-frm ip, n- calc, rr sl slty, tr inbd mic biot, w/ SS (5%) ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod - abnd cly fil cmt, rr glauc, rr-tr inbd biot, NFSO, no vis poro
CN 1265
CLYST (100%) ltgy, v/ ltgy, sft-frm ip, n- calc, rr sl slty, tr inbd mic biot, w/ tr SS ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod - abnd cly fil cmt, rr glauc, rr inbd biot, NFSO, no vis poro
MW 9.6
Vis 61
CN 1296
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'- 5500') shifted to 1138'- 5508' including spl descriptions
CLYST (100%) ltgy, v/ ltgy, sft-frm ip, n- calc, rr sl slty, tr inbd mic biot, w/ rr tr LS: ltgy, crp-micxln, frm - hd ip, dul yel flour, NSO, no vis SS in spl
CN 1327
HAMILTON SAND @ 1350' (1144)
SS (40%) unconsol Qtz clr-trnsl-opq, m-lcrsgr, tr ufgr, sbrnd-sl sbang, psrt, pcmt, rr inbd biot, dul yel-yelgrn flour, NSO, w/ SS (40%) ltgy, trnslgy, vfgr, sbang, w/ srt, pcmt, consol, sl calc, mod-abnd cly filg, tr glauc, NFSO, fr vis poro, w/ 20% CLYST aa
CN 1359
SS (45%) unconsol Qtz clr-trnsl-opq, m-lcrsgr, tr ufgr, sbrnd-sl sbang, psrt, pcmt, rr inbd biot, dul yel-yelgrn flour, NSO, w/ SS (40%) ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod - abnd cly filg, tr glauc, tr inbd tn cly, NFSO, fr vis poro, w/ 15% CLYST aa
SPM 99/97
CN 1390
ROP (min/ft)
Gamma (API)
Caliper (inches)
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)
CLYST (90%) ltgy, tn-tngy, sft-frm, n- v/ sl calc, rr sl slty, tr inbd mic biot, w/ SS (10%) ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod - abnd cly filg, tr glauc, NFSO, tr vis poro, w/ rr unconsol SS Qtz aa
CN 1421
CLYST (80%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/ sl calc, rr sl slty, rr inbd mic biot, w/ SS (20%) ltgy, trnslgy, vfgr, sbl ang, wsrt, pcmt, consol, sl calc, mod - abnd cly filg, tr glauc, NFSO, tr vis poro, w/ no vis unconsol SS Qtz
SPM 98/99
CN 1452

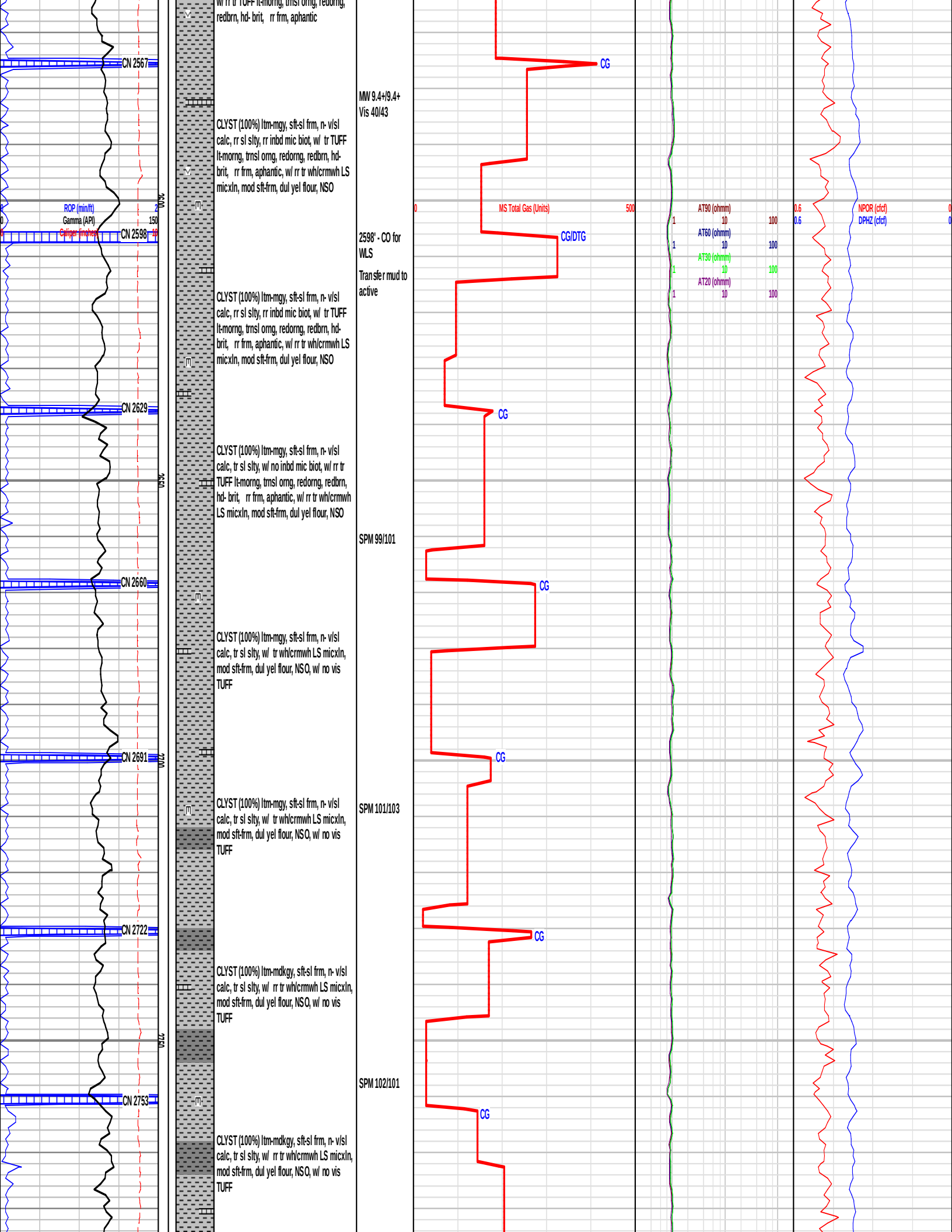

CN 1483
CN 1513
CN 1544
CN 1575
CN 1606
CN 1637
CN 1668
1500
1550
1600
1650
ROP (min/ft)
Gamma (API)
Caliper (inches)
150
10
CLYST (100%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS ltgy, trnslgy, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod - abnd cly filg, tr glauc, NFSO, rr vis poro, w/ tr LS: ltgy-gywh, micxln, frm-hd ip
MW 9.7/9.6
Vis 59/59
CLYST (100%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS tn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro
CLYST (100%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr SS tn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro
SPM 101/100
CLYST (100%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS tn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro
CLYST (100%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ no vis SS in spl
WLS @ 1598' = 0.75°
CLYST (75%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ TUFF (25%) lt - morng, trnsl orng, redorng, redbrn, tngy, hd- brit, rr frm, aphantic
CLYST (80%) ltgy, tn-tngy, gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ TUFF (20%) lt - morng, trnsl orng, redorng, redbrn, tngy, hd- brit, rr frm, aphantic, tr wh-tnwh vfgr consol SS, NFSOC aa
1668' - CO for WLS
CG
CG/DTG
MS Total Gas (Units)
0
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
0.6
NPOR (cfcf)
DPHZ (cfcf)

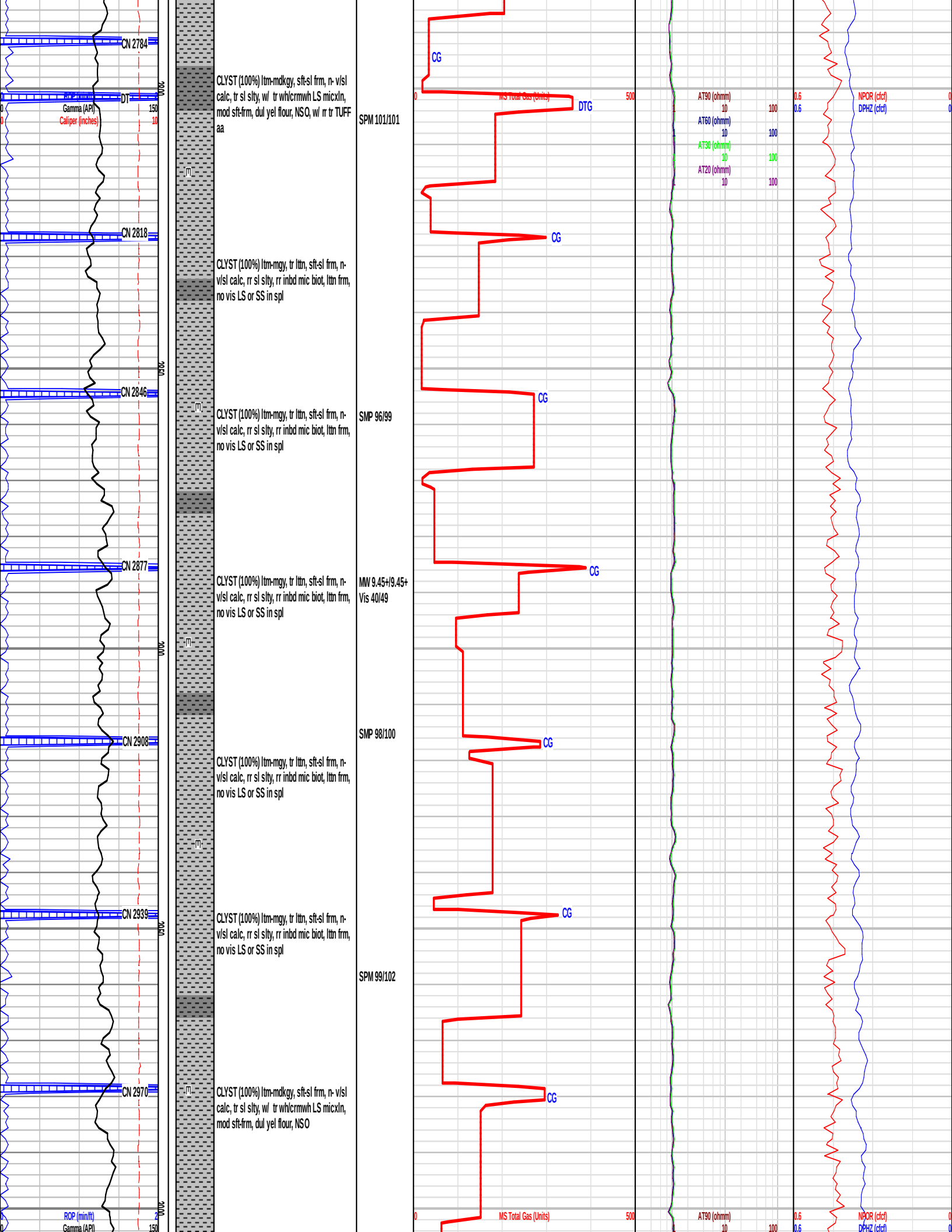

transfer mud to active
CLYST (100%) ltgy, ltmgy, tr gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr TUFF lt - morng, trnsl orng, hd- brit, aphantic, no vis SS in spl
CLYST (100%) ltgy, ltmgy, tr gybrn, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr TUFF lt - morng, trnslorng, hd- brit, aphantic, no vis SS in spl
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ no vis Tuff in spl, no vis SS in spl
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ no vis Tuff in spl, no vis SS in spl
SPM 100/100
CLYST (95%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ LS (5%) ltgy-gywh ip, crp-micxln, frm- hd ip, dul yel flour, NSO
CLYST (90%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ LS (10%) ltgy-gywh ip, crp-micxln, frm- hd ip, dul yel flour, NSO
CLYST (95%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ LS (5%) ltgy-gywh ip, crp-micxln, frm- hd ip, dul yel flour, NSO
SPM 101/100
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr LS
CN 1699
CN 1730
CN 1761
CN 1792
CN 1823
CN 1854
CN 1885
1700
1750
1800
1850
1900
ROP (ft/hr)
Gamma (API)
Caliper (inches)
150
10
CG
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'- 5500') shifted to 1138'- 5508' including spl descriptions
Total Gas (Units)
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)


ltgy-gywh, tn ip, crp-micxln, frm- hd ip, dul yel flour, NSO
CN 1916
CLYST (95%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ TUFF (5%) lt - morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic, w/ tr LS ltgy-mott gywh, crp-micxln, frm- hd ip, dul yel flour, NSO
MW 9.5/9.5
Vis 54/53
CN 1947
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr TUFF lt - morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic, w/ tr LS ltgy-mott gywh, tn, crp-micxln, frm- hd ip, dul yel flour, NSO
CN 1977
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr TUFF & LS aa
SPM 99/101
ROP (min/ft)
Gamma (API)
Caliper (inches)
CN 2009
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr TUFF & LS aa
WLS @ 2032' = 1.25°
CN 2021
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr TUFF aa
CN 2071
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr LS wh-gywh, micxln, frm- hd ip, dul yel flour, NSO
MW 9.4+/9.4+
Vis 45/48
CN 2102
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr LS wh-gywh, micxln, frm- hd ip, dul yel flour, NSO
2101' - CO for WLS
Transfer mud to active
CG
CG/DTG
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)


CN 2133
CN 2164
CN 2195
CN 2226
CN 2257
CN 2288
CN 2318
ROP (min/ft)
Gamma (API)
Caliper (inches)
7150
7200
7250
7300
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr LS wh-gywh, micxln, frm- hd ip, dul yel flour, NSO
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr LS wh-gywh, micxln, frm- hd ip, dul yel flour, NSO
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr TUFF lt-morng, trnsl orng, redorng, hd- brit, rr frm, aphantic, w/ rr tr LS wh- gywh, tn, micxln, frm- hd ip, dul yel flour, NSO
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr tr LS wh- gywh, tn, micxln, frm- hd ip, dul yel flour, NSO
CLYST (100%) ltm-mgy, tr crmtn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, crmtn sl-occ mod calc, w/ rr tr LS wh- gywh, tn, micxln, frm- hd ip, dul yel flour, NSO
CLYST (100%) ltm-mgy, tr crmtn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, crmtn sl-occ mod calc, w/ rr tr LS wh- gywh, tn, micxln, frm- hd ip, dul yel flour, NSO
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
SPM 98/100
SPM 99/100
SPM 45/101
CG
MS Total Gas (Units)
0
500
Clean trap
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
DPHZ (cfcf)
0.6


CN 2349
CN 2380
CN 2412
CN 2443
CN 2473
CN 2505
CN 2536
ROP (min/ft)
Gamma (API)
Caliper (inches)
150
10
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, rr tr LS aa
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, w/ tr TUFF lt-morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic
SPM 98/100
Transfer mud to active
MW 9.4+/9.4+
Vis 48/47
SPM 99/100
WLS @ 2528' = 1.75°
CG
MS Total Gas (Units)
0
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
DPHZ (cfcf)
0.6
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions


w/ rr tr TUFF lt-morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic
CN 2567
MW 9.4+/9.4+
Vis 40/43
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr TUFF lt-morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic, w/ rr tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO
ROP (min/ft)
Gamma (API)
Caliper (inches)
CN 2598
2598' - CO for WLS
Transfer mud to active
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr TUFF lt-morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic, w/ rr tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO
CN 2629
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ no inbd mic biot, w/ rr tr TUFF lt-morng, trnsl orng, redorng, redbrn, hd- brit, rr frm, aphantic, w/ rr tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO
SPM 99/101
CN 2660
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO, w/ no vis TUFF
CN 2691
CLYST (100%) ltm-mgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO, w/ no vis TUFF
SPM 101/103
CN 2722
CLYST (100%) ltm-mdkgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ rr tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO, w/ no vis TUFF
SPM 102/101
CN 2753
CLYST (100%) ltm-mdkgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ rr tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO, w/ no vis TUFF
MS Total Gas (Units)
CG
CG/DTG
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)


CN 2784
DT
Gamma (API)
Caliper (inches)
150
10
2800
CLYST (100%) ltm-mdkgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO, w/ rr tr TUFF aa
SPM 101/101
CG
MS Total Gas (Units)
500
DTG
AT90 (ohmm)
10
100
AT60 (ohmm)
10
100
AT30 (ohmm)
10
100
AT20 (ohmm)
10
100
0.6
NPOR (cfcf)
DPHZ (cfcf)
CN 2818
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
2820
CN 2846
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
SMP 96/99
CN 2877
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
MW 9.45+/9.45+
Vis 40/49
2900
CN 2908
SMP 98/100
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
CN 2939
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, lttn frm, no vis LS or SS in spl
3000
SPM 99/102
CN 2970
CLYST (100%) ltm-mdkgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO
3100
ROP (min/ft)
Gamma (API)
150

Caliper (inches) 10

CN 3001

CLYST (100%) ltm-mdkgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO

SPM 99/100

MWT 9.45/9.45
VIS 47/46

CG

AT60 (ohmm) 1 10 100
AT30 (ohmm) 1 10 100
AT20 (ohmm) 1 10 100

CN 3032

CLYST (100%) ltm-mdkgy, sft-sl frm, n- v/sl calc, tr sl slty, w/ tr wh/crmwh LS micxln, mod sft-frm, dul yel flour, NSO

CG

3050

SPM 99/101

WLS @ 3055' = 2.5°

CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS unconsol Qtz: clr-trnsl- opq, v/crs-mgr, sbang-ang, psrt, pcmt, w/ tr SS tn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro

CN 3063

CG

CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS unconsol Qtz: clr-trnsl- opq, v/crs-mgr, sbang-ang, psrt, pcmt, w/ tr SS lttn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro

3100

CN 3094

SPM 99/101

CG

NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions

CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ tr SS lttn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro

CN 3125

3125' - CO for WLS
Transfer mud to active

CG/DTG

443u FMG

3150

CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr SS lttn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro

SPM 99/102

CN 3156

CG

CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS

CN 3187

CG

3200

ROP (min/ft) 0
Gamma (API) 0 150
Caliper (inches) 0 10

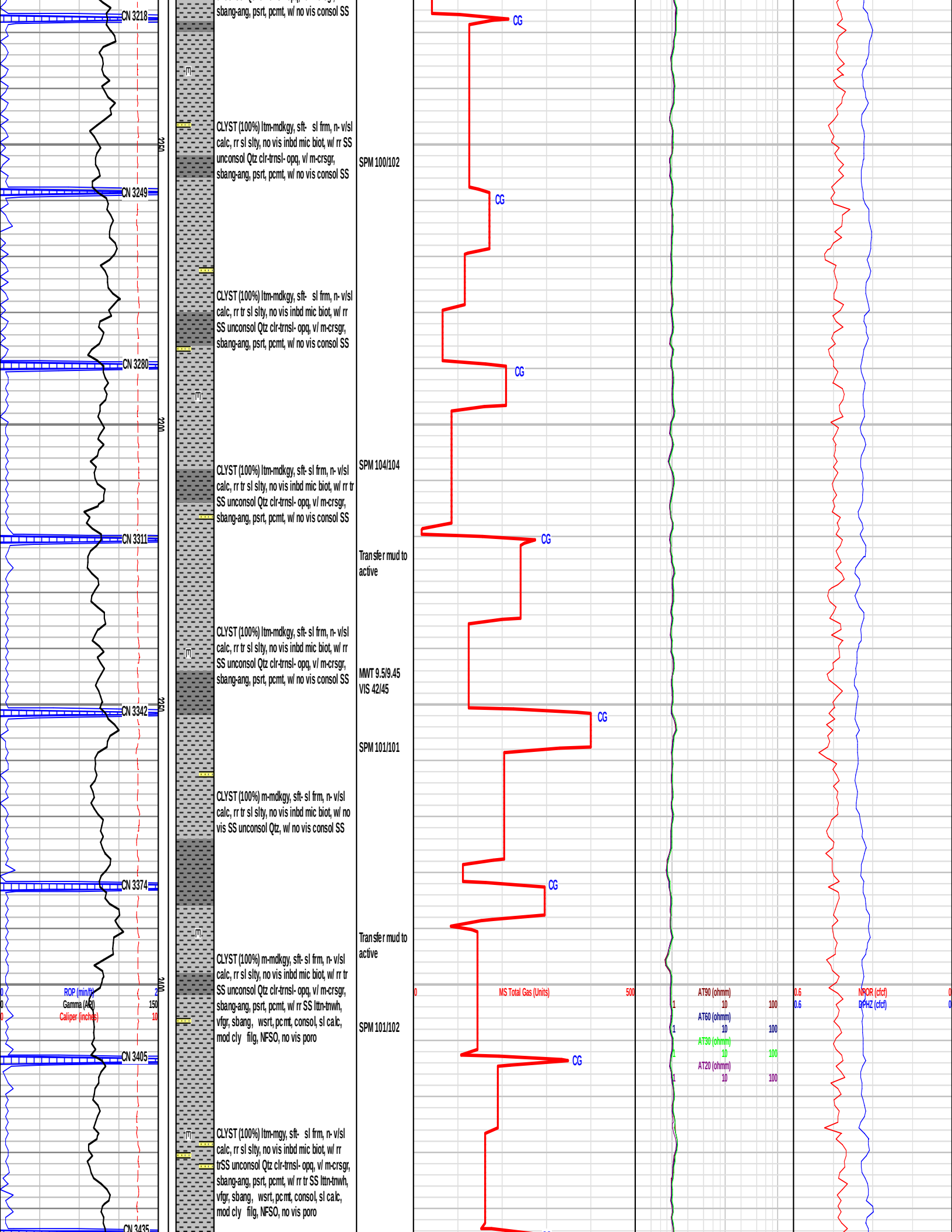
0 MS Total Gas (Units) 500

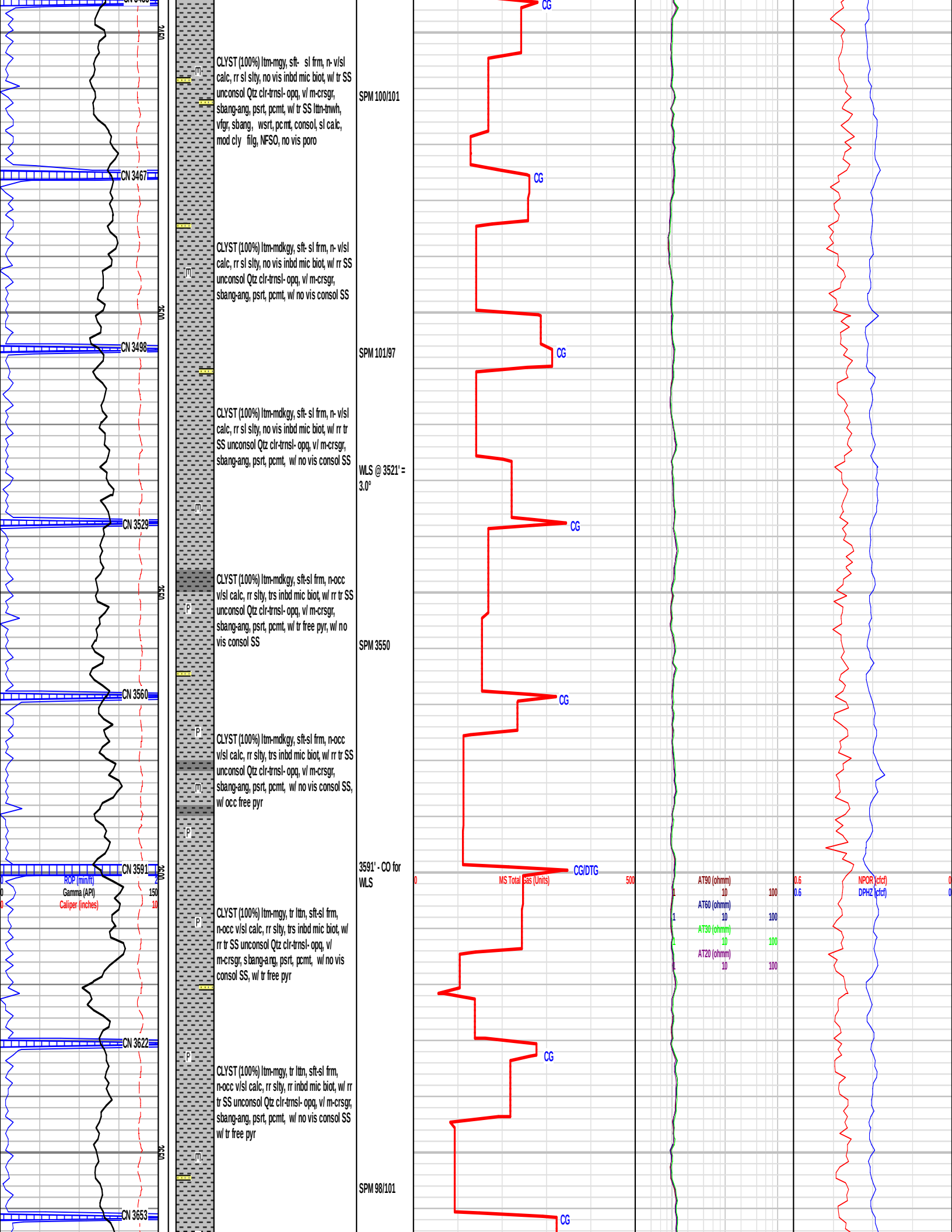
AT90 (ohmm) 1 10 100
AT60 (ohmm) 1 10 100
AT30 (ohmm) 1 10 100
AT20 (ohmm) 1 10 100

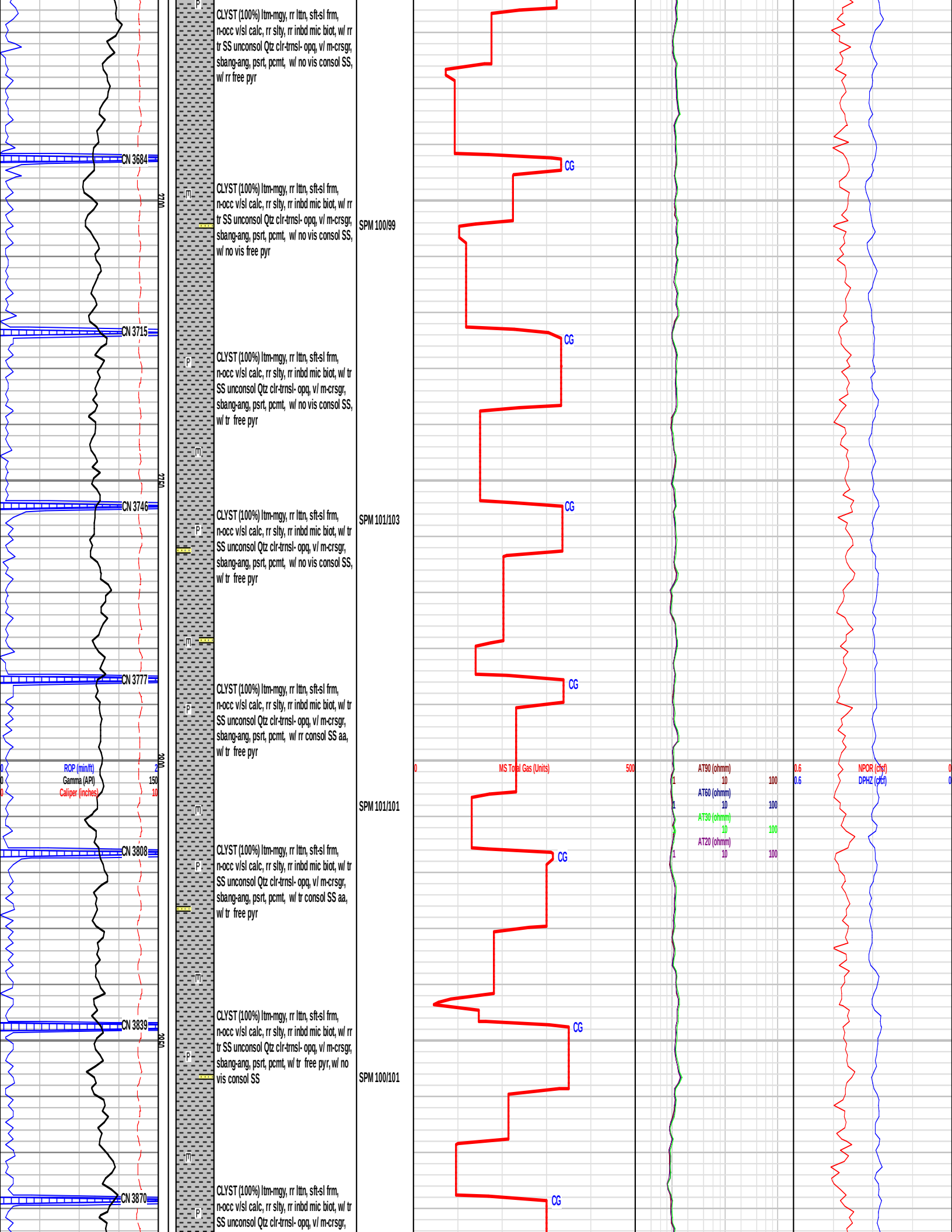
0.6 NPOR (cfcf) 0
0.6 DPHZ (cfcf) 0

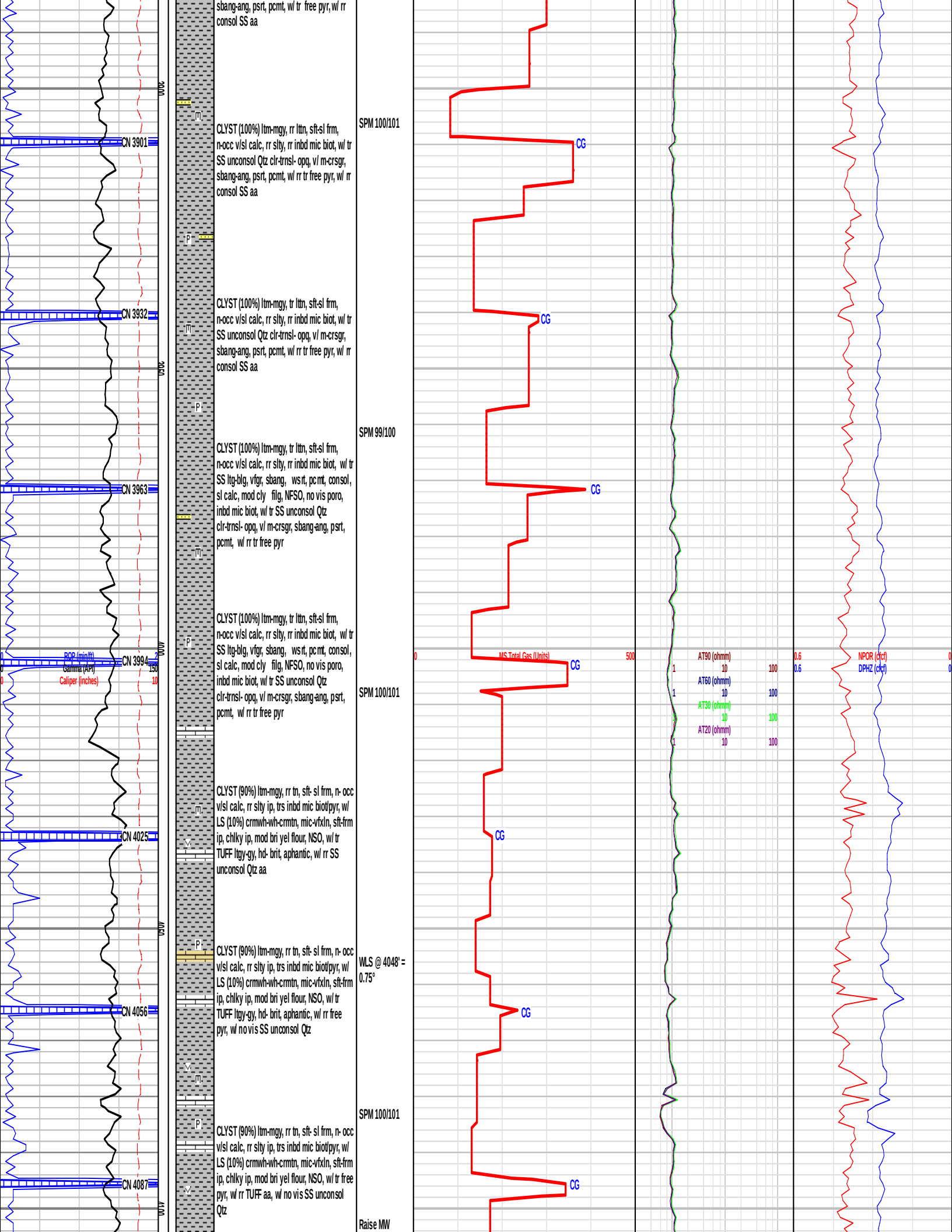
SPM 101/102

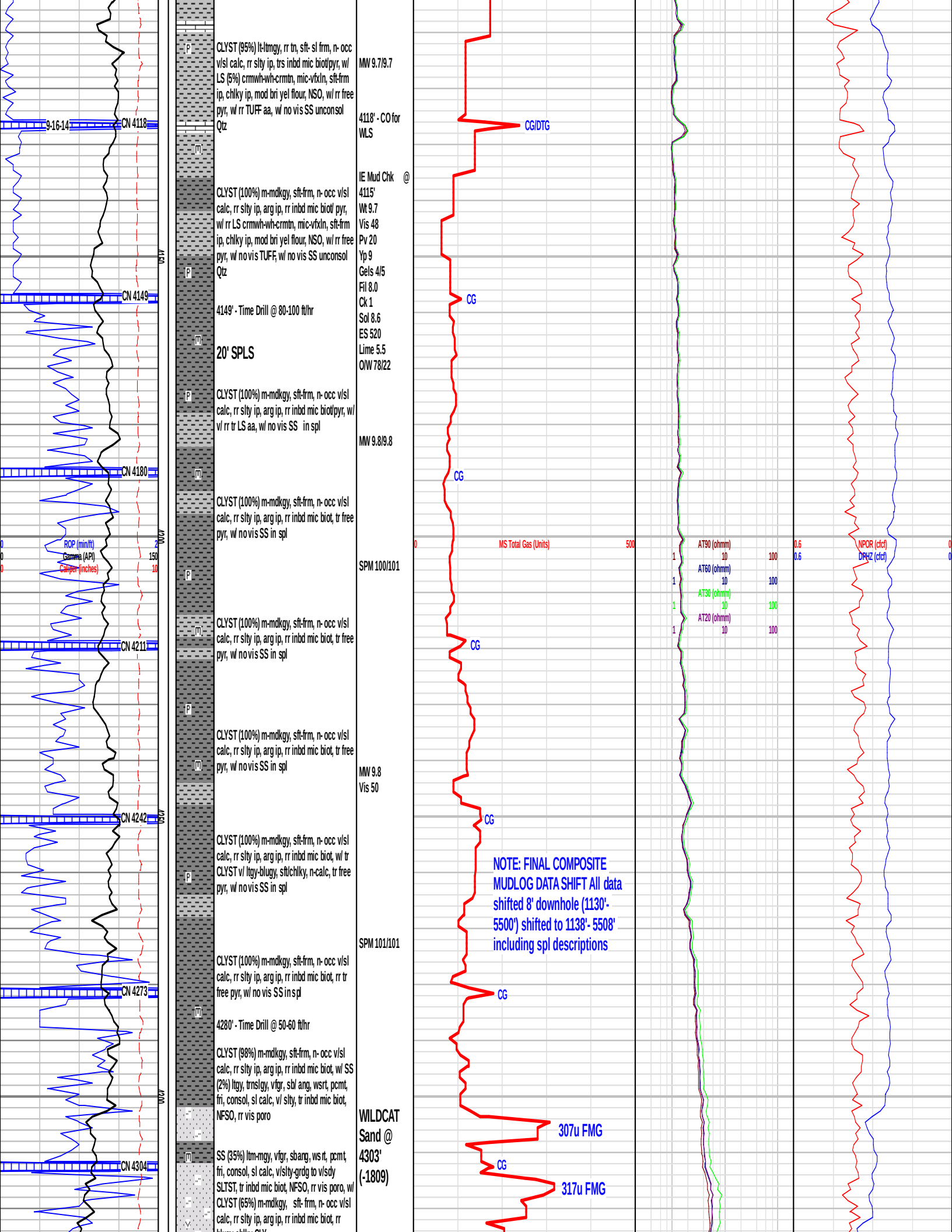
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr,

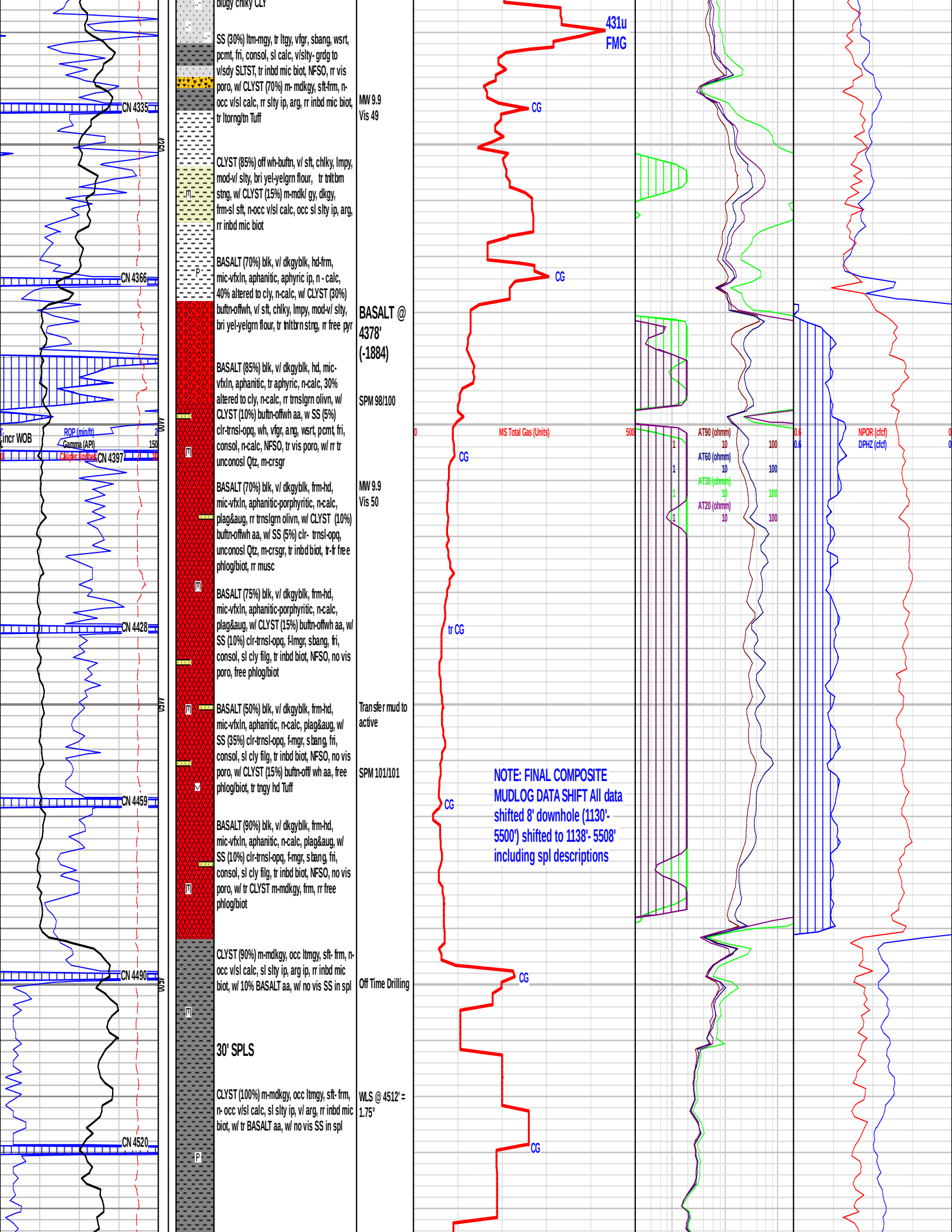

CN 3218
CN 3249
CN 3280
CN 3311
CN 3342
CN 3374
CN 3405
CN 3435
3150
3200
3250
3300
3350
ROP (min/ft)
Gamma (API)
Caliper (inches)
150
10
sbang-ang, psrt, pcmt, w/ no vis consol SS
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, no vis inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS
SPM 100/102
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr tr sl slty, no vis inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr tr sl slty, no vis inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS
SPM 104/104
Transfer mud to active
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr tr sl slty, no vis inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS
MWT 9.5/9.45
VIS 42/45
SPM 101/101
CLYST (100%) m-mdkgy, sft- sl frm, n- v/sl calc, rr tr sl slty, no vis inbd mic biot, w/ no vis SS unconsol Qtz, w/ no vis consol SS
Transfer mud to active
CLYST (100%) m-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, no vis inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr SS lttn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro
SPM 101/102
CLYST (100%) ltm-mgy, sft- sl frm, n- v/sl calc, rr sl slty, no vis inbd mic biot, w/ rr trSS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr tr SS lttn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro
CG
MS Total Gas (Units)
0
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
RPHZ (cfcf)
0.6


CN 3467
CN 3498
CN 3529
CN 3560
CN 3591
CN 3622
CN 3653
2450
2500
2550
2600
2650
ROP (min/ft)
Gamma (API)
Caliper (inches)
150
10
CLYST (100%) ltm-mgy, sft- sl frm, n- v/sl calc, rr sl slty, no vis inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ tr SS lttn-tnwh, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro
SPM 100/101
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, no vis inbd mic biot, w/ rr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS
SPM 101/97
CLYST (100%) ltm-mdkgy, sft- sl frm, n- v/sl calc, rr sl slty, no vis inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS
WLS @ 3521' = 3.0°
CLYST (100%) ltm-mdkgy, sft-sl frm, n-occ v/sl calc, rr slty, trs inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ tr free pyr, w/ no vis consol SS
SPM 3550
CLYST (100%) ltm-mdkgy, sft-sl frm, n-occ v/sl calc, rr slty, trs inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS, w/ occ free pyr
3591' - CO for WLS
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-occ v/sl calc, rr slty, trs inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS, w/ tr free pyr
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS w/ tr free pyr
SPM 98/101
CG
CG/DTG
MS Total Gas (Units)
0
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
0.6
NPOR (cfcf)
DPHZ (cfcf)

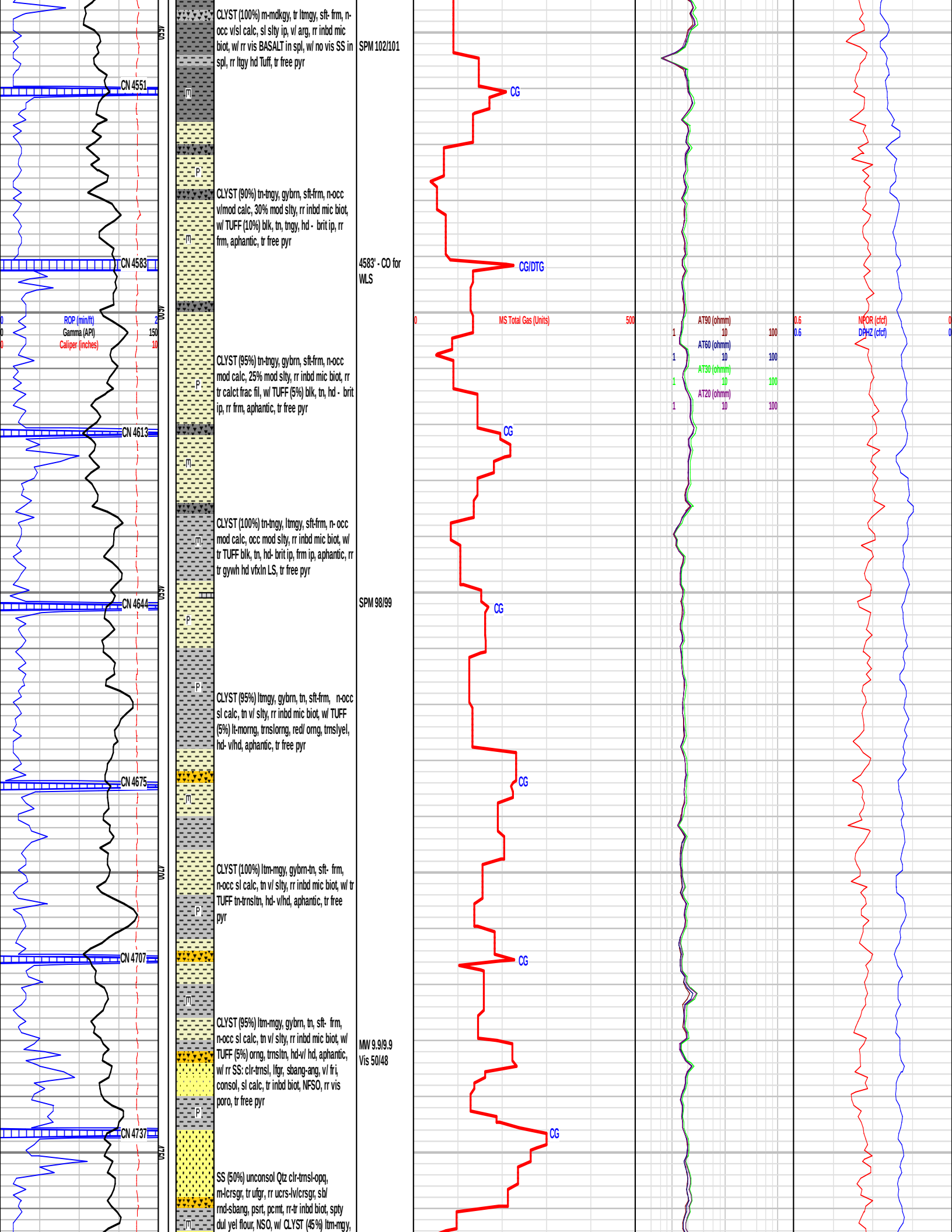

CN 3684
CN 3715
CN 3746
CN 3777
CN 3808
CN 3839
CN 3870
7100
7150
7200
7250
ROP (min/ft)
Gamma (API)
Caliper (inches)
150
10
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS, w/ rr free pyr
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS, w/ no vis free pyr
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS, w/ tr free pyr
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ no vis consol SS, w/ tr free pyr
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr consol SS aa, w/ tr free pyr
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ tr consol SS aa, w/ tr free pyr
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ rr tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ tr free pyr, w/ no vis consol SS
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr,
SPM 100/99
SPM 101/103
SPM 101/101
SPM 100/101
CG
MS Total Gas (Units)
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
10
100
0.6
NPOR (cfcf)
DPHZ (cfcf)

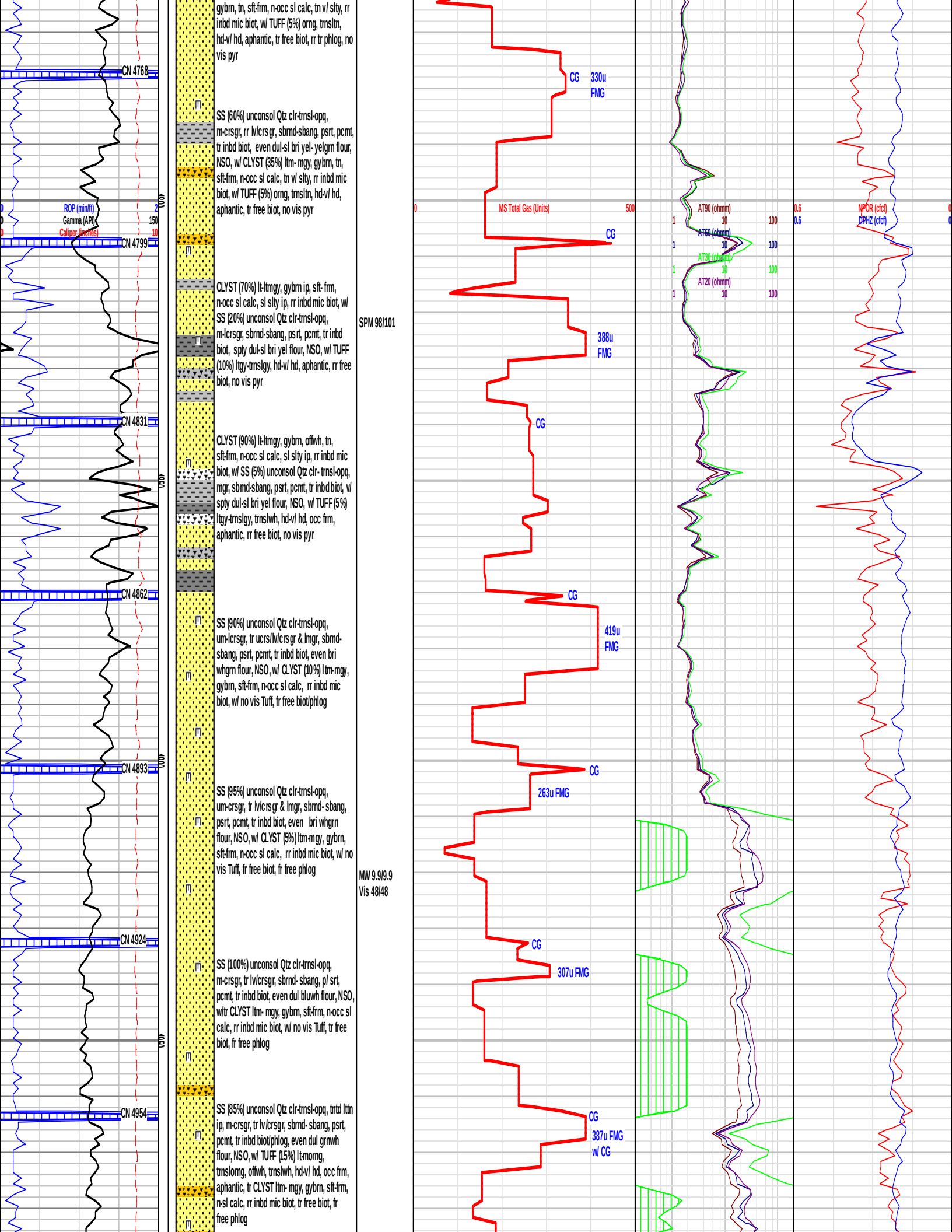

sbang-ang, psrt, pcmt, w/ tr free pyr, w/ rr consol SS aa
CN 3901
CLYST (100%) ltm-mgy, rr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr tr free pyr, w/ rr consol SS aa
SPM 100/101
CG
CN 3932
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr tr free pyr, w/ rr consol SS aa
SPM 99/100
CG
CN 3963
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS ltg-blg, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro, inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr tr free pyr
CG
CN 3994
ROP (min/ft)
Gamma (API)
Caliper (inches)
CLYST (100%) ltm-mgy, tr lttn, sft-sl frm, n-occ v/sl calc, rr slty, rr inbd mic biot, w/ tr SS ltg-blg, vfgr, sbang, wsrt, pcmt, consol, sl calc, mod cly filg, NFSO, no vis poro, inbd mic biot, w/ tr SS unconsol Qtz clr-trnsl- opq, v/ m-crsgr, sbang-ang, psrt, pcmt, w/ rr tr free pyr
SPM 100/101
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)
CG
CN 4025
CLYST (90%) ltm-mgy, rr tn, sft- sl frm, n- occ v/sl calc, rr slty ip, trs inbd mic biot/pyr, w/ LS (10%) crmwh-wh-crmtn, mic-vfxln, sft-frm ip, chlky ip, mod bri yel flour, NSO, w/ tr TUFF ltgy-gy, hd- brit, aphantic, w/ rr SS unconsol Qtz aa
CG
CN 4056
CLYST (90%) ltm-mgy, rr tn, sft- sl frm, n- occ v/sl calc, rr slty ip, trs inbd mic biot/pyr, w/ LS (10%) crmwh-wh-crmtn, mic-vfxln, sft-frm ip, chlky ip, mod bri yel flour, NSO, w/ tr TUFF ltgy-gy, hd- brit, aphantic, w/ rr free pyr, w/ no vis SS unconsol Qtz
WLS @ 4048' = 0.75°
CG
SPM 100/101
CN 4087
CLYST (90%) ltm-mgy, rr tn, sft- sl frm, n- occ v/sl calc, rr slty ip, trs inbd mic biot/pyr, w/ LS (10%) crmwh-wh-crmtn, mic-vfxln, sft-frm ip, chlky ip, mod bri yel flour, NSO, w/ tr free pyr, w/ rr TUFF aa, w/ no vis SS unconsol Qtz
CG
Raise MW

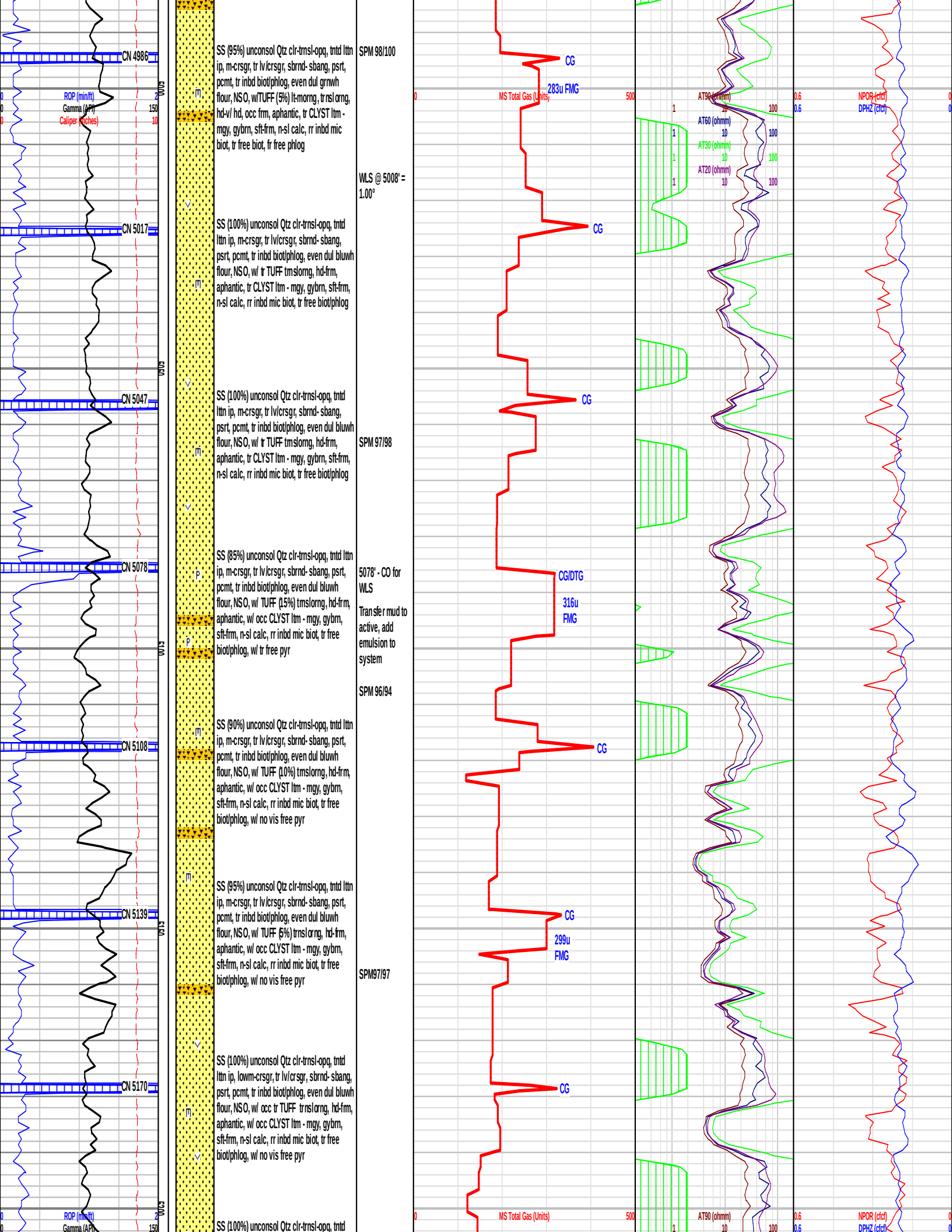

9-16-14
CN 4118
CN 4149
CN 4180
CN 4211
CN 4242
CN 4273
CN 4304
ROP (min/ft)
Gamma (API)
Caliper (inches)
CLYST (95%) lt-ltmgy, rr tn, sft- sl frm, n- occ v/sl calc, rr slty ip, trs inbd mic biot/pyr, w/ LS (5%) crmwh-wh-crmtn, mic-vfxln, sft-frm ip, chlky ip, mod bri yel flour, NSO, w/ rr free pyr, w/ rr TUFF aa, w/ no vis SS unconsol Qtz
MW 9.7/9.7
4118' - CO for WLS
CG/DTG
IE Mud Chk @ 4115'
Wt 9.7
Vis 48
Pv 20
Yp 9
Gels 4/5
Fil 8.0
Ck 1
Sol 8.6
ES 520
Lime 5.5
O/W 78/22
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot/ pyr, w/ rr LS crmwh-wh-crmtn, mic-vfxln, sft-frm ip, chlky ip, mod bri yel flour, NSO, w/ rr free pyr, w/ no vis TUFF, w/ no vis SS unconsol Qtz
4149' - Time Drill @ 80-100 ft/hr
20' SPLS
CG
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot/pyr, w/ v/ rr tr LS aa, w/ no vis SS in spl
MW 9.8/9.8
CG
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, tr free pyr, w/ no vis SS in spl
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)
SPM 100/101
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, tr free pyr, w/ no vis SS in spl
CG
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, tr free pyr, w/ no vis SS in spl
MW 9.8
Vis 50
CG
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, w/ tr CLYST v/ ltgy-blugy, sft/chlky, n-calc, tr free pyr, w/ no vis SS in spl
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions
SPM 101/101
CLYST (100%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, rr tr free pyr, w/ no vis SS in spl
CG
4280' - Time Drill @ 50-60 ft/hr
CLYST (98%) m-mdkgy, sft-frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, w/ SS (2%) ltgy, trnslgy, vfgr, sb/ ang, wsrt, pcmt, fri, consol, sl calc, v/ slty, tr inbd mic biot, NFSO, rr vis poro
WILDCAT Sand @ 4303' (-1809)
307u FMG
SS (35%) ltm-mgy, vfgr, sbang, wsrt, pcmt, fri, consol, sl calc, v/slty-grdg to v/sdy SLTST, tr inbd mic biot, NFSO, rr vis poro, w/ CLYST (65%) m-mdkgy, sft- frm, n- occ v/sl calc, rr slty ip, arg ip, rr inbd mic biot, rr
CG
317u FMG

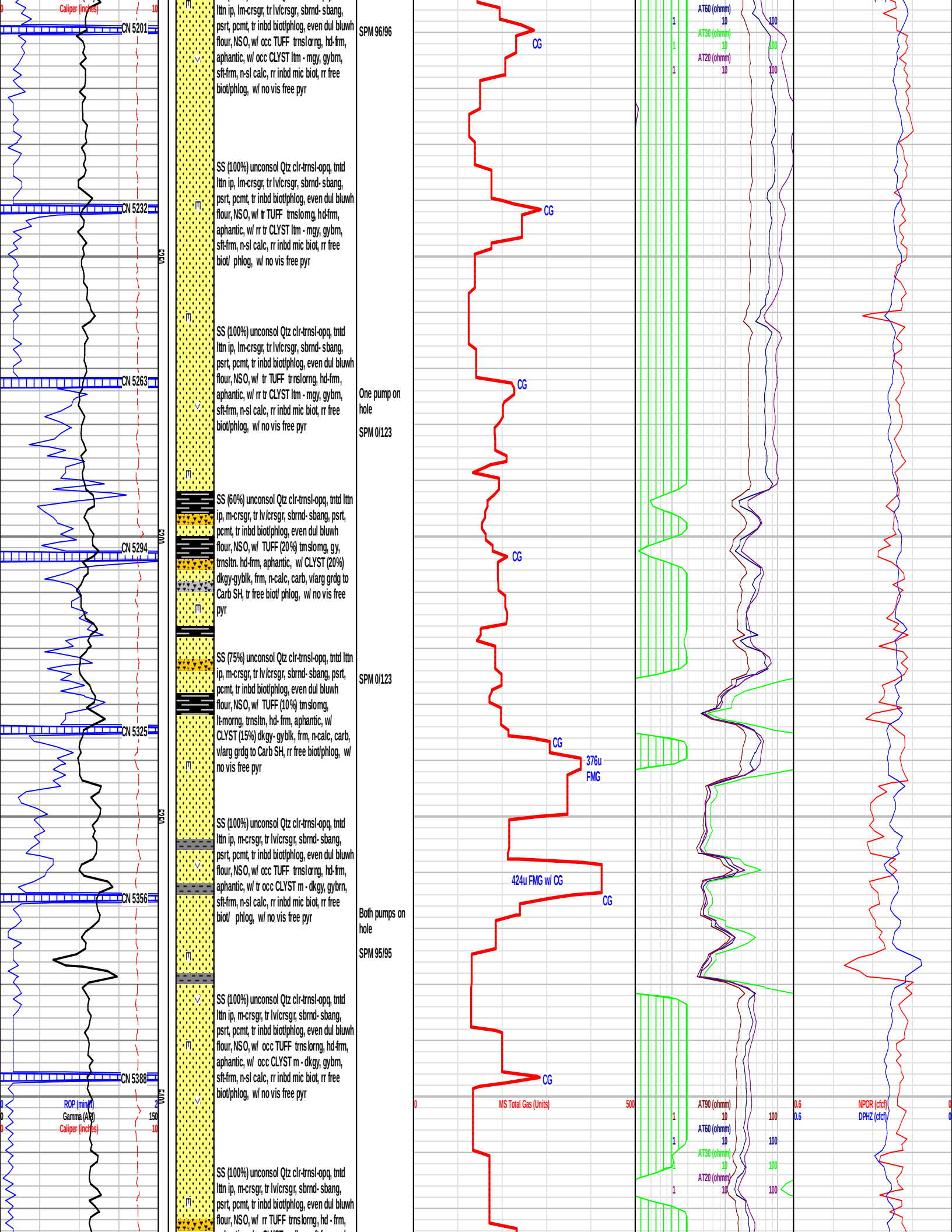


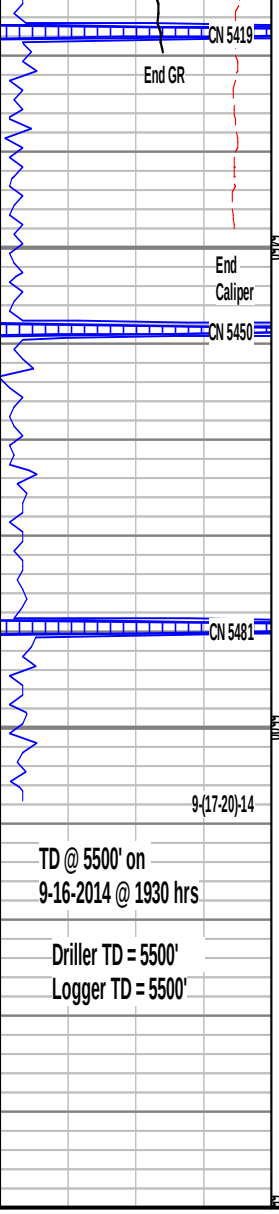
CN 4335
CN 4366
CN 4397
CN 4428
CN 4459
CN 4490
CN 4520
ROP (min/ft)
Gamma (API)
Caliper (inches)
Cincr WOB
150
4350
4400
4450
4500
blugy chlky CLY
SS (30%) ltm-mgy, tr ltgy, vfgr, sbang, wsrt, pcmt, fri, consol, sl calc, v/slty- grdg to v/sdy SLTST, tr inbd mic biot, NFSO, rr vis poro, w/ CLYST (70%) m- mdkgy, sft-frm, n-occ v/sl calc, rr slty ip, arg, rr inbd mic biot, tr ltorng/tn Tuff
MW 9.9
Vis 49
CLYST (85%) off wh-buftn, v/ sft, chlky, lmpy, mod-v/ slty, bri yel-yelgrn flour, tr tnltbrn stng, w/ CLYST (15%) m-mdk/ gy, dkgy, frm-sl sft, n-occ v/sl calc, occ sl slty ip, arg, rr inbd mic biot
BASALT (70%) blk, v/ dkgyblk, hd-frm, mic-vfxln, aphanitic, aphyric ip, n - calc, 40% altered to cly, n-calc, w/ CLYST (30%) buftn-offwh, v/ sft, chlky, lmpy, mod-v/ slty, bri yel-yelgrn flour, tr tnltbrn stng, rr free pyr
BASALT @ 4378' (-1884)
BASALT (85%) blk, v/ dkgyblk, hd, mic-vfxln, aphanitic, tr aphyric, n-calc, 30% altered to cly, n-calc, rr trnslgrn olivn, w/ CLYST (10%) buftn-offwh aa, w SS (5%) clr-trnsl-opq, wh, vfgr, ang, wsrt, pcmt, fri, consol, n-calc, NFSO, tr vis poro, w/ rr tr unconosl Qtz, m-crsgr
SPM 98/100
BASALT (70%) blk, v/ dkgyblk, frm-hd, mic-vfxln, aphanitic-porphyritic, n-calc, plag&aug, rr trnslgrn olivn, w/ CLYST (10%) buftn-offwh aa, w/ SS (5%) clr- trnsl-opq, unconosl Qtz, m-crsgr, tr inbd biot, tr-fr free phlog/biot, rr musc
MW 9.9
Vis 50
BASALT (75%) blk, v/ dkgyblk, frm-hd, mic-vfxln, aphanitic-porphyritic, n-calc, plag&aug, w/ CLYST (15%) buftn-offwh aa, w/ SS (10%) clr-trnsl-opq, f-lmgr, sbang, fri, consol, sl cly filg, tr inbd biot, NFSO, no vis poro, free phlog/biot
BASALT (50%) blk, v/ dkgyblk, frm-hd, mic-vfxln, aphanitic, n-calc, plag&aug, w/ SS (35%) clr-trnsl-opq, f-mgr, sbang, fri, consol, sl cly filg, tr inbd biot, NFSO, no vis poro, w/ CLYST (15%) buftn-off/ wh aa, free phlog/biot, tr tngy hd Tuff
Transfer mud to active
SPM 101/101
BASALT (90%) blk, v/ dkgyblk, frm-hd, mic-vfxln, aphanitic, n-calc, plag&aug, w/ SS (10%) clr-trnsl-opq, f-mgr, sbang, fri, consol, sl cly filg, tr inbd biot, NFSO, no vis poro, w/ tr CLYST m-mdkgy, frm, rr free phlog/biot
CLYST (90%) m-mdkgy, occ ltmgy, sft- frm, n-occ v/sl calc, sl slty ip, arg ip, rr inbd mic biot, w/ 10% BASALT aa, w/ no vis SS in spl
Off Time Drilling
30' SPLS
CLYST (100%) m-mdkgy, occ ltmgy, sft- frm, n- occ v/sl calc, sl slty ip, v/ arg, rr inbd mic biot, w/ tr BASALT aa, w/ no vis SS in spl
WLS @ 4512' = 1.75°
431u
FMG
CG
CG
CG
tr CG
CG
CG
CG
MS Total Gas (Units)
0
500
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
DPHZ (cfcf)
0.6
0.6
NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions


CN 4551
CN 4583
CN 4613
CN 4644
CN 4675
CN 4707
CN 4737
ROP (min/ft)
Gamma (API)
Caliper (inches)
CLYST (100%) m-mdkgy, tr ltmgy, sft- frm, n-occ v/sl calc, sl slty ip, v/ arg, rr inbd mic biot, w/ rr vis BASALT in spl, w/ no vis SS in spl, rr ltgy hd Tuff, tr free pyr
SPM 102/101
CLYST (90%) tn-tngy, gybrn, sft-frm, n-occ v/mod calc, 30% mod slty, rr inbd mic biot, w/ TUFF (10%) blk, tn, tngy, hd - brit ip, rr frm, aphantic, tr free pyr
4583' - CO for WLS
CLYST (95%) tn-tngy, gybrn, sft-frm, n-occ mod calc, 25% mod slty, rr inbd mic biot, rr tr calct frac fil, w/ TUFF (5%) blk, tn, hd - brit ip, rr frm, aphantic, tr free pyr
CLYST (100%) tn-tngy, ltmgy, sft-frm, n- occ mod calc, occ mod slty, rr inbd mic biot, w/ tr TUFF blk, tn, hd- brit ip, frm ip, aphantic, rr tr gywh hd vfxln LS, tr free pyr
SPM 98/99
CLYST (95%) ltmgy, gybrn, tn, sft-frm, n-occ sl calc, tn v/ slty, rr inbd mic biot, w/ TUFF (5%) lt-mornng, trnslornng, red/ ornng, trnslyel, hd- v/hd, aphantic, tr free pyr
CLYST (100%) ltm-mgy, gybrn-tn, sft- frm, n-occ sl calc, tn v/ slty, rr inbd mic biot, w/ tr TUFF tn-trnsltn, hd- v/hd, aphantic, tr free pyr
CLYST (95%) ltm-mgy, gybrn, tn, sft- frm, n-occ sl calc, tn v/ slty, rr inbd mic biot, w/ TUFF (5%) ornng, trnsltn, hd-v/ hd, aphantic, w/ rr SS: clr-trnsl, lfgr, sbang-ang, v/ fri, consol, sl calc, tr inbd biot, NFSO, rr vis poro, tr free pyr
MW 9.9/9.9
Vis 50/48
SS (50%) unconsol Qtz clr-trnsl-opq, m-lcrsgr, tr ufgr, rr ucrs-lv/crsgr, sb/ rnd-sbang, psrt, pcmt, rr-tr inbd biot, spty dul yel flour, NSO, w/ CLYST (45%) ltm-mgy,
CG
CG/DTG
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)


ROP (min/ft)
Gamma (API)
Caliper (inches)
CN 4768
CN 4799
CN 4831
CN 4862
CN 4893
CN 4924
CN 4954
gybrn, tn, sft-frm, n-occ sl calc, tn v/ slty, rr inbd mic biot, w/ TUFF (5%) orng, trnsltn, hd-v/ hd, aphantic, tr free biot, rr tr phlog, no vis pyr
SS (60%) unconsol Qtz clr-trnsl-opq, m-crsgr, rr lv/crsgr, sbrnd-sbang, psrt, pcmt, tr inbd biot, even dul-sl bri yel- yelgrn flour, NSO, w/ CLYST (35%) ltm- mgy, gybrn, tn, sft-frm, n-occ sl calc, tn v/ slty, rr inbd mic biot, w/ TUFF (5%) orng, trnsltn, hd-v/ hd, aphantic, tr free biot, no vis pyr
CLYST (70%) lt-ltmgy, gybrn ip, sft- frm, n-occ sl calc, sl slty ip, rr inbd mic biot, w/ SS (20%) unconsol Qtz clr-trnsl-opq, m-lcrsgr, sbrnd-sbang, psrt, pcmt, tr inbd biot, spty dul-sl bri yel flour, NSO, w/ TUFF (10%) ltgy-trnslgy, hd-v/ hd, aphantic, rr free biot, no vis pyr
SPM 98/101
CLYST (90%) lt-ltmgy, gybrn, offwh, tn, sft-frm, n-occ sl calc, sl slty ip, rr inbd mic biot, w/ SS (5%) unconsol Qtz clr- trnsl-opq, mgr, sbrnd-sbang, psrt, pcmt, tr inbd biot, v/ spty dul-sl bri yel flour, NSO, w/ TUFF (5%) ltgy-trnslgy, trnslwh, hd-v/ hd, occ frm, aphantic, rr free biot, no vis pyr
SS (90%) unconsol Qtz clr-trnsl-opq, um-lcrsgr, tr ucrs/lv/crsgr & lmgr, sbrnd-sbang, psrt, pcmt, tr inbd biot, even bri whgrn flour, NSO, w/ CLYST (10%) ltm-mgy, gybrn, sft-frm, n-occ sl calc, rr inbd mic biot, w/ no vis Tuff, fr free biot/phlog
SS (95%) unconsol Qtz clr-trnsl-opq, um-crsgr, tr lv/crsgr & lmgr, sbrnd- sbang, psrt, pcmt, tr inbd biot, even bri whgrn flour, NSO, w/ CLYST (5%) ltm-mgy, gybrn, sft-frm, n-occ sl calc, rr inbd mic biot, w/ no vis Tuff, fr free biot, fr free phlog
MW 9.9/9.9
Vis 48/48
SS (100%) unconsol Qtz clr-trnsl-opq, m-crsgr, tr lv/crsgr, sbrnd- sbang, p/ srt, pcmt, tr inbd biot, even dul bluwh flour, NSO, w/tr CLYST ltm- mgy, gybrn, sft-frm, n-occ sl calc, rr inbd mic biot, w/ no vis Tuff, tr free biot, fr free phlog
SS (85%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul grnwh flour, NSO, w/ TUFF (15%) lt-morng, trnslorng, offwh, trnslwh, hd-v/ hd, occ frm, aphantic, tr CLYST ltm- mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot, fr free phlog
CG
330u FMG
MS Total Gas (Units)
0
500
388u FMG
419u FMG
263u FMG
307u FMG
387u FMG w/ CG
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
1
10
100
NPOR (cfcf)
DPHZ (cfcf)
0.6


CN 4986
CN 5017
CN 5047
CN 5078
CN 5108
CN 5139
CN 5170
ROP (min/ft)
Gamma (API)
Caliper (inches)
SS (95%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul grnwh flour, NSO, w/TUFF (5%) lt-morng, tr nsl orng, hd-v/ hd, occ frm, aphantic, tr CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot, fr free phlog
SPM 98/100
WLS @ 5008' = 1.00°
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ tr TUFF tmslorng, hd-frm, aphantic, tr CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot/phlog
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ tr TUFF tmslorng, hd-frm, aphantic, tr CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot/phlog
SPM 97/98
SS (85%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ TUFF (15%) tmslorng, hd-frm, aphantic, w/ occ CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot/phlog, w/ tr free pyr
5078' - CO for WLS
Transfer mud to active, add emulsion to system
SPM 96/94
SS (90%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ TUFF (10%) tmslorng, hd-frm, aphantic, w/ occ CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot/phlog, w/ no vis free pyr
SS (95%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ TUFF (5%) trnsl orng, hd-frm, aphantic, w/ occ CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot/phlog, w/ no vis free pyr
SPM97/97
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, lowm-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ occ tr TUFF trnsl orng, hd-frm, aphantic, w/ occ CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, tr free biot/phlog, w/ no vis free pyr
SS (100%) unconsol Qtz clr-trnsl-opq, tntd
CG
283u FMG
CG/DTG
316u FMG
299u FMG
MS Total Gas (Units)
AT90 (ohmm)
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
NPOR (cfcf)
DPHZ (cfcf)


Caliper (inches)
10
CN 5201
CN 5232
CN 5263
CN 5294
CN 5325
CN 5356
CN 5388
5160
5200
5240
5280
5320
5360
5400
ROP (min/ft)
Gamma (API)
150
Caliper (inches)
lttn ip, lm-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ occ TUFF trnslorng, hd-frm, aphantic, w/ occ CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/phlog, w/ no vis free pyr
SPM 96/96
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, lm-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ tr TUFF trnslomg, hd-frm, aphantic, w/ rr tr CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/ phlog, w/ no vis free pyr
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, lm-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ tr TUFF trnslorng, hd-frm, aphantic, w/ rr tr CLYST ltm - mgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/phlog, w/ no vis free pyr
One pump on hole
SPM 0/123
SS (60%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ TUFF (20%) trnslomg, gy, trnsltn. hd-frm, aphantic, w/ CLYST (20%) dkgy-gyblk, frm, n-calc, carb, v/arg grdg to Carb SH, tr free biot/ phlog, w/ no vis free pyr
SS (75%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ TUFF (10%) trnslomg, lt-morng, trnsltn, hd- frm, aphantic, w/ CLYST (15%) dkgy- gyblk, frm, n-calc, carb, v/arg grdg to Carb SH, rr free biot/phlog, w/ no vis free pyr
SPM 0/123
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ occ TUFF trnslorng, hd-frm, aphantic, w/ tr occ CLYST m - dkgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/ phlog, w/ no vis free pyr
Both pumps on hole
SPM 95/95
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ occ TUFF trnslorng, hd-frm, aphantic, w/ occ CLYST m - dkgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/phlog, w/ no vis free pyr
SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ rr TUFF trnslorng, hd - frm,
CG
376u FMG
424u FMG w/ CG
0
MS Total Gas (Units)
500
AT60 (ohmm)
AT30 (ohmm)
AT20 (ohmm)
AT90 (ohmm)
1
10
100
0.6
NPOR (cfcf)
DPHZ (cfcf)



TD @ 5500' on
9-16-2014 @ 1930 hrs

Driller TD = 5500'
Logger TD = 5500'

aphantic, w/ rr CLYST m-dkgy, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/phlog, w/ no vis free pyr

SS (100%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ rr TUFF trns lorng, hd-frm, aphantic, w/ rr CLYST m - dkgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/phlog, w/ no vis free pyr

SS (90%) unconsol Qtz clr-trnsl-opq, tntd lttn ip, m-crsgr, tr lv/crsgr, sbrnd- sbang, psrt, pcmt, tr inbd biot/phlog, even dul bluwh flour, NSO, w/ TUFF (10%) tm slomg, lt-morng, hd-frm, v/hd, aphantic, w/ tr CLYST m - dkgy, gybrn, sft-frm, n-sl calc, rr inbd mic biot, rr free biot/phlog, w/ no vis free pyr

TD - CO, C&C hole, Wiper trip to bit, LD PDC bit, PU RR Tricone bit, TIH, CO, C&C hole, TOOH, Run ELOGS/SW Cores, TIH, CO, C&C hole, TOOH sideways (LD DP), Run/set/cmt casing

KCB Logging Unit released on 9-20-2014 @ 1830 hrs

THANK YOU FOR USING KING CANYON BUFFALO, INC

Phil Littlefield / Adam Johnson

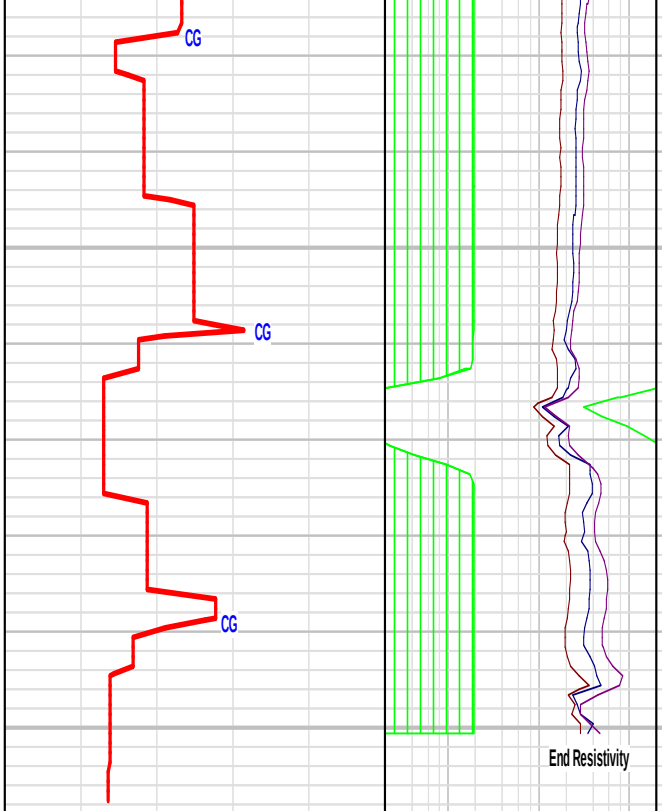
SPM 95/97

MW 9.9/9.9
Vis 49/50

SPM 95/93

Bit #2 drld 4407' in 29.5 hrs (avg 149.4 ft/hr)

5500' - TD @ 1930 hrs on 9-16-2014



5500' - TG after wiper trip to bit = 478u thru bstr w/ no flare

5500' - TG after Elogs/SW Cores = 461u thru bstr w/ no flare

5500' - TG CO Casing = 200u down flowline

NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions

NOTE: FINAL COMPOSITE MUDLOG DATA SHIFT All data shifted 8' downhole (1130'-5500') shifted to 1138'- 5508' including spl descriptions