ENTRADA GeoSciences

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

Well Name:	Spyglass State 4-16		
Location:	NW NW Sec 16, 19N, 4E, Harding County, SD		
Licence Number:	API #40-063-20605	Region:	Wildcat
Spud Date:	9/4/06	Drilling Completed:	9/15/06
Surface Coordinates:	Lat. 45.616275 Long. -103.646211		
Bottom Hole Coordinates:	Lat. 45.616275 Long. -103.646211		
Ground Elevation (ft):	2998'	K.B. Elevation (ft):	3012'
Logged Interval (ft):	850' To: 5972'	Total Depth (ft):	5972'
Formation:	Minnelusa		
Type of Drilling Fluid:	Invert		

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Spyglass Cedar Creek, L.P.
Address: 595 South Castell Ave.
New Braunfels, TX 78130

GEOLOGIST

Name: Brian Reddick, Scott Mastin, Joe Walsh
Company: Entrada Geosciences, LLC
Address: 11 Inverness Way South
Englewood, CO. 80112
303-825-7140

Rig

Western Star Rig E-25

Formation tops

All formation tops not noted as e-log tops are at drilled depths.

Comments

All gas in this well was Methane, however, the methane line was shifted to 85% of total gas in order to separate the two lines. This is for graphical purposes only, and has no bearing on the actual composition of the hydrocarbon gasses present in the well (100% Methane).

ROCK TYPES

Anhy, Bent, Brec, Cht, Clyst, Coal, Congl, Dol, Gyp, Igne, Lmst, Meta, Mrlst, Salt, Shale, Shcol, Shgy, Sltst, Ss, Till

ACCESSORIES

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

MINERAL
Anhy, Arggrn, Arg, Bent, Bit, Brecfrag, Calc, Carb, Chtdk, Chtlt, Dol, Feldspar, Ferrpel, Ferr, Glau, Gyp, Hvymin, Kaol, Marl, Minxl, Nodule, Phos, Pyr, Salt, Sandy, Silt, Sil, Sulphur, Tuff

STRINGER
Anhy, Arg, Bent, Coal, Dol, Gyp, Ls, Mrst, Sltstrg, Ssstrg

TEXTURE
Boundst, Chalky, Cryxln, Earthy, Finexln, Grainst, Lithogr, Microxln, Mudst, Packst, Wackest

OTHER SYMBOLS

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

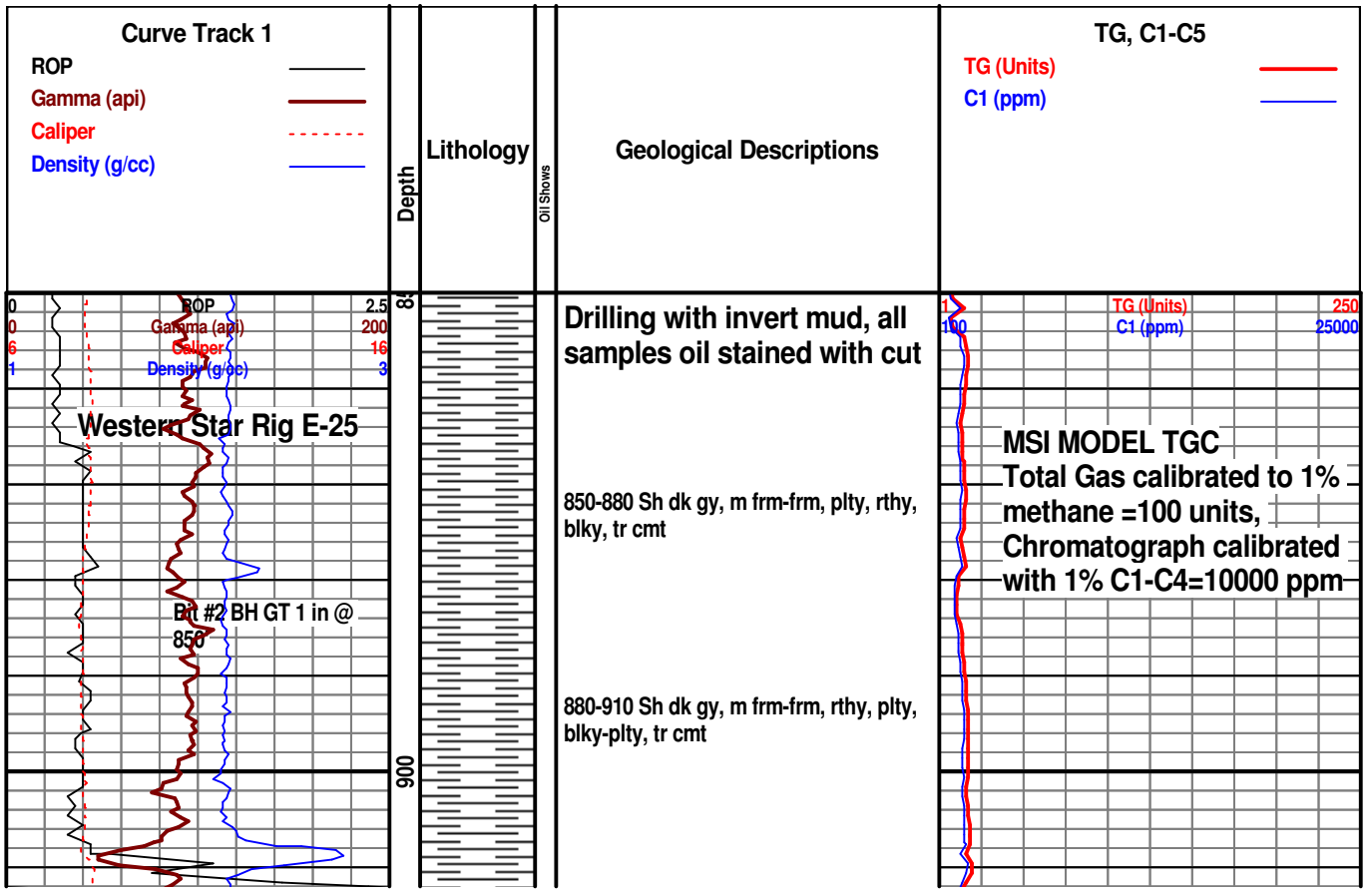
OIL SHOW
Even, Spotted, Ques, Dead

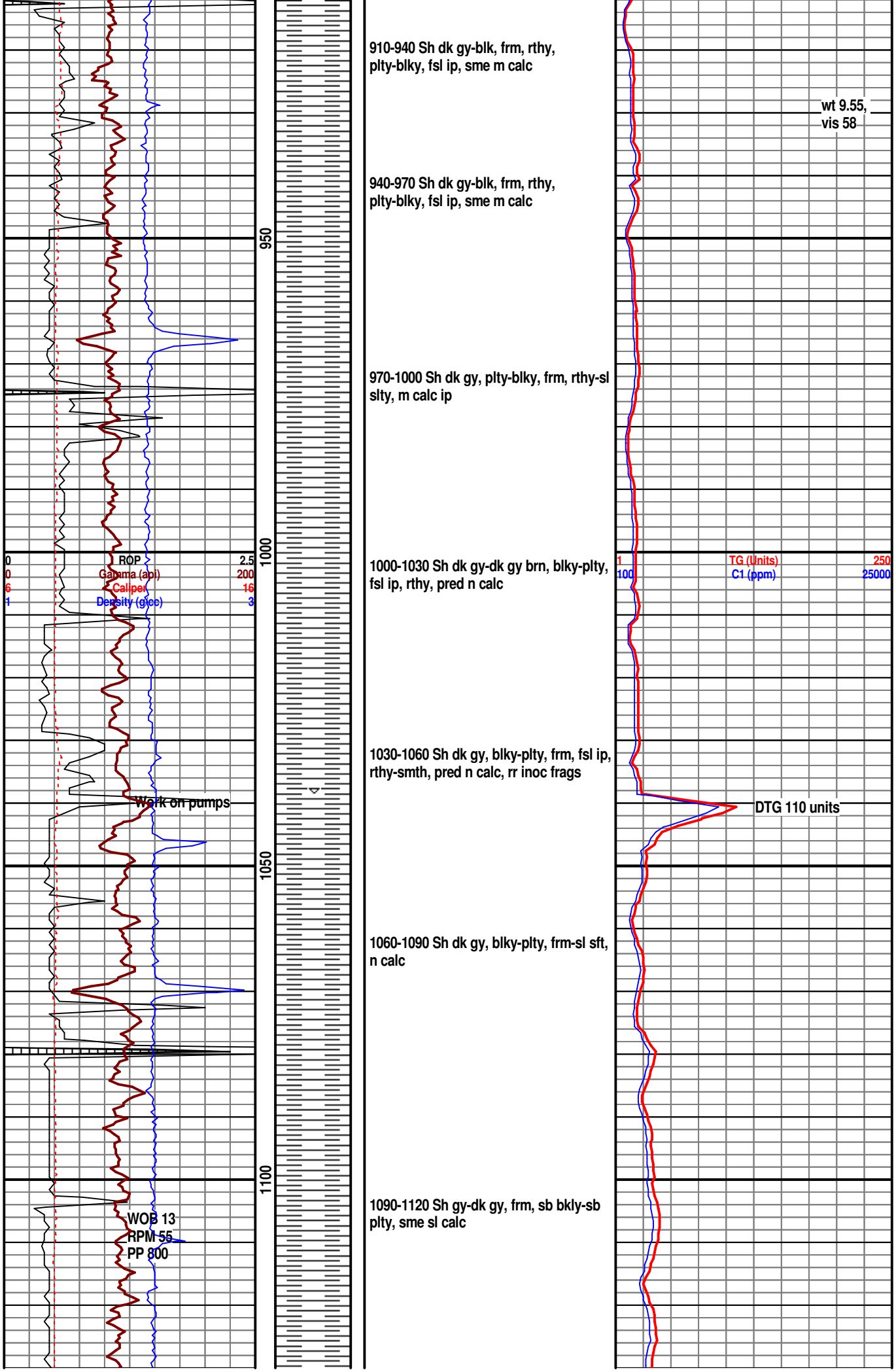
SORTING
Well, Moderate, Poor

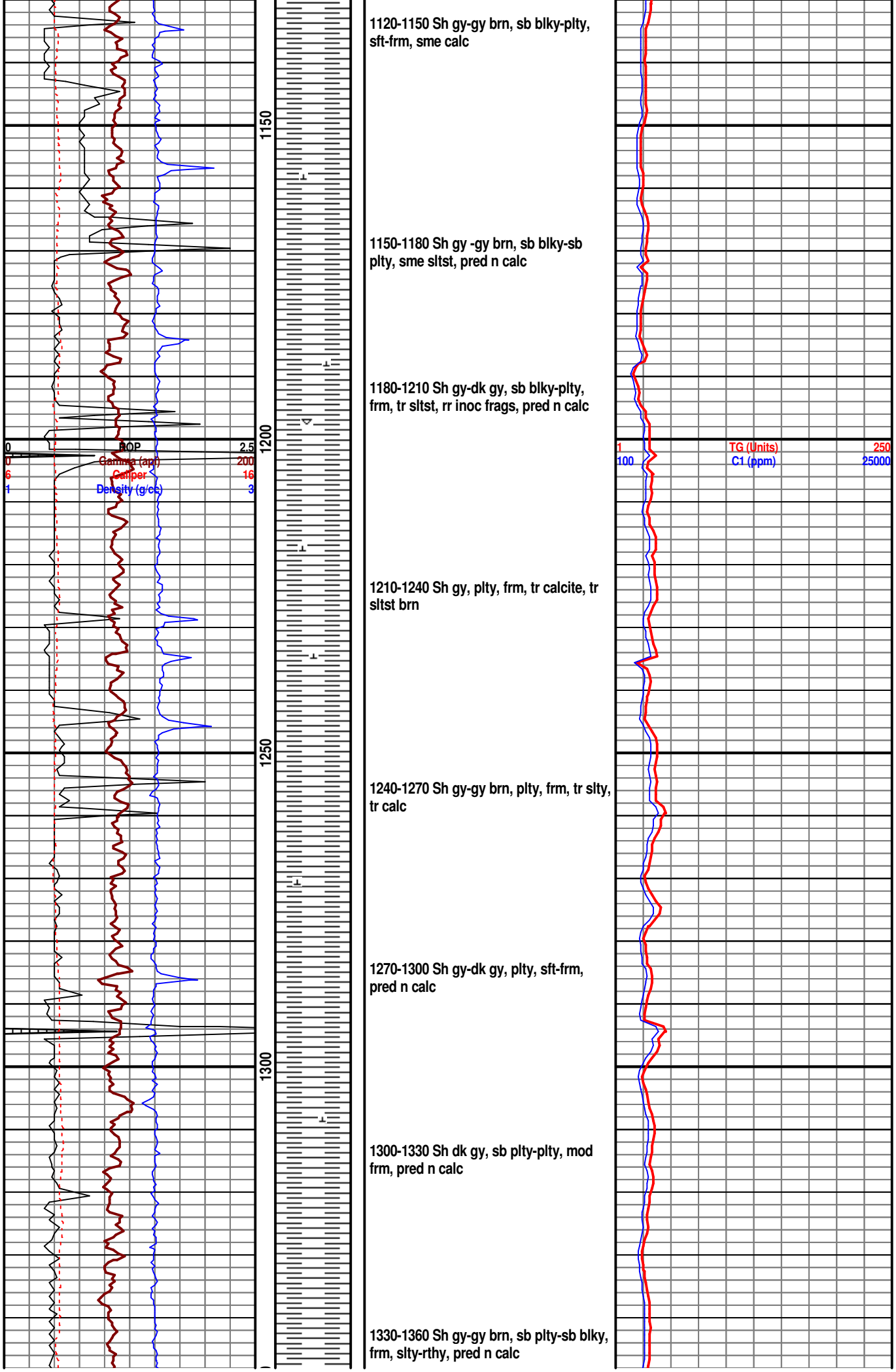
ROUNDING
Rounded, Subrnd, Subang, Angular

INTERVAL
Core, Dst

EVENT
Rft, Sidewall




950
1000
1050
1100
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
Work on pumps
WOB 13
RPM 55
PP 800
910-940 Sh dk gy-blk, frm, rthy, plty-blky, fsl ip, sme m calc
wt 9.55, vis 58
940-970 Sh dk gy-blk, frm, rthy, plty-blky, fsl ip, sme m calc
970-1000 Sh dk gy, plty-blky, frm, rthy-sl slty, m calc ip
1000-1030 Sh dk gy-dk gy brn, blky-plty, fsl ip, rthy, pred n calc
1
TG (Units)
250
100
C1 (ppm)
25000
1030-1060 Sh dk gy, blky-plty, frm, fsl ip, rthy-smth, pred n calc, rr inoc frags
DTG 110 units
1060-1090 Sh dk gy, blky-plty, frm-sl sft, n calc
1090-1120 Sh gy-dk gy, frm, sb bkly-sb plty, sme sl calc



1120-1150 Sh gy-gy brn, sb blky-plty, sft-frm, sme calc

1150-1180 Sh gy -gy brn, sb blky-sb plty, sme sltst, pred n calc

1180-1210 Sh gy-dk gy, sb blky-plty, frm, tr sltst, rr inoc frags, pred n calc

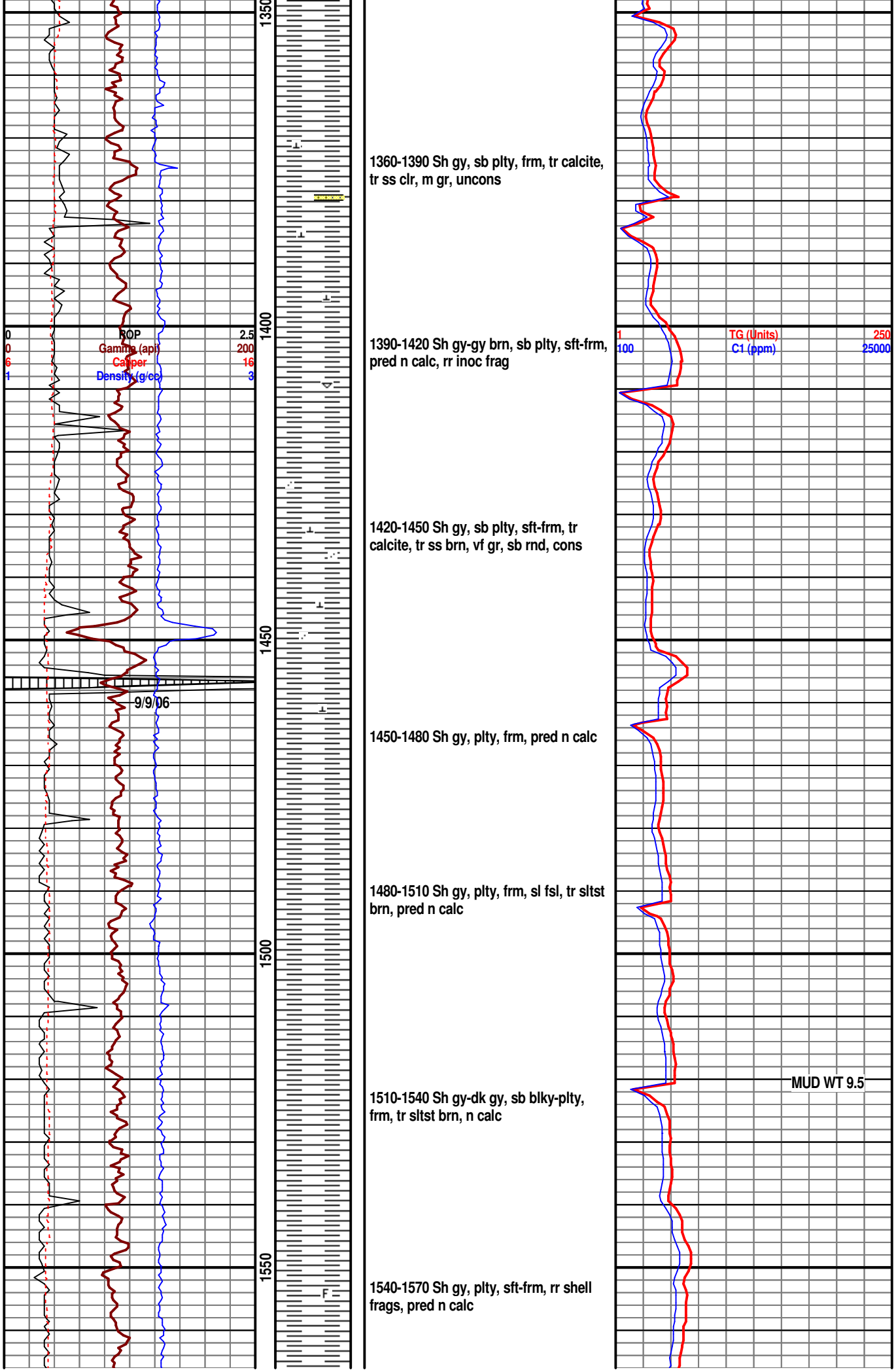
1210-1240 Sh gy, plty, frm, tr calcite, tr sltst brn

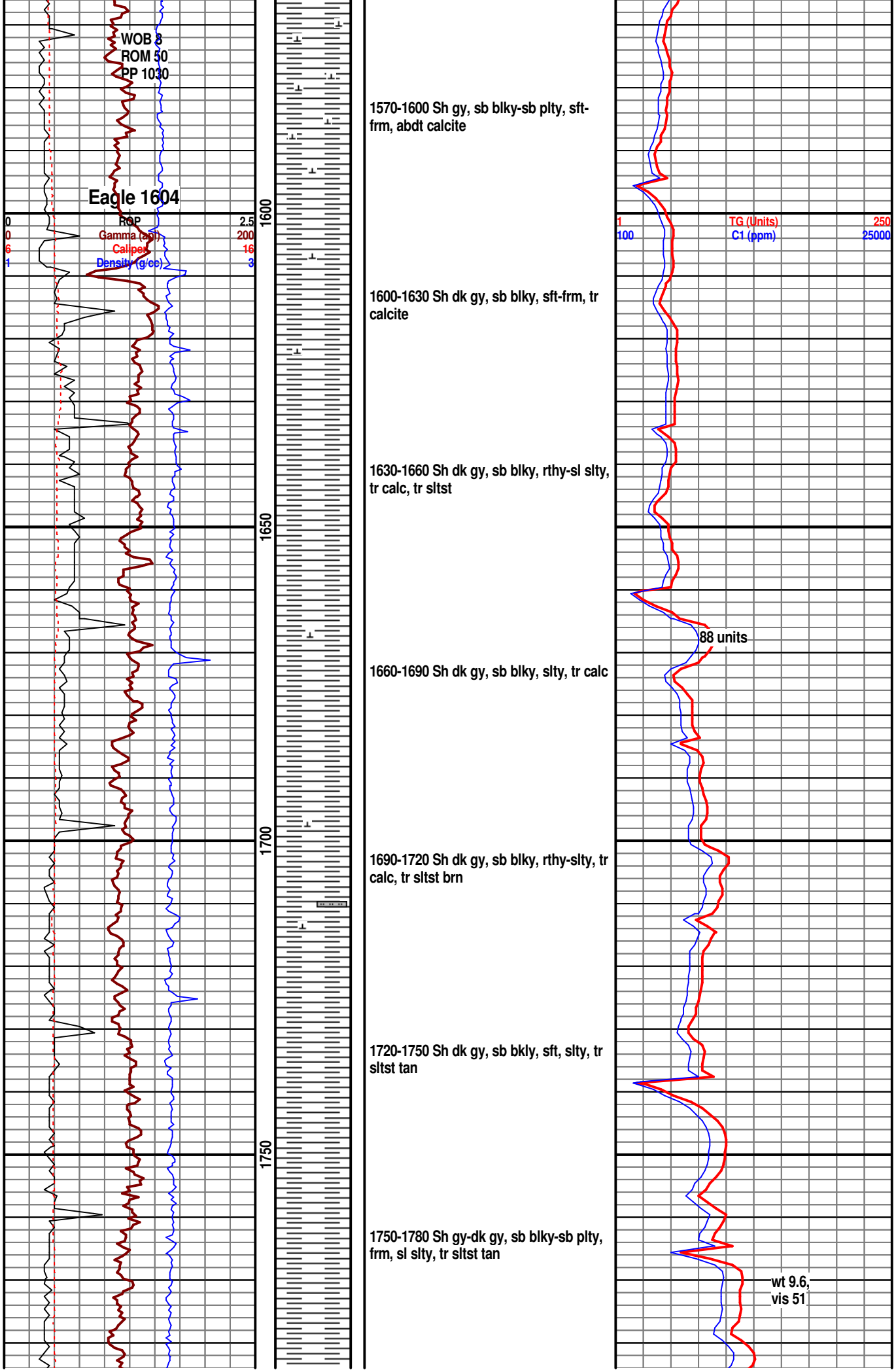
1240-1270 Sh gy-gy brn, plty, frm, tr slty, tr calc

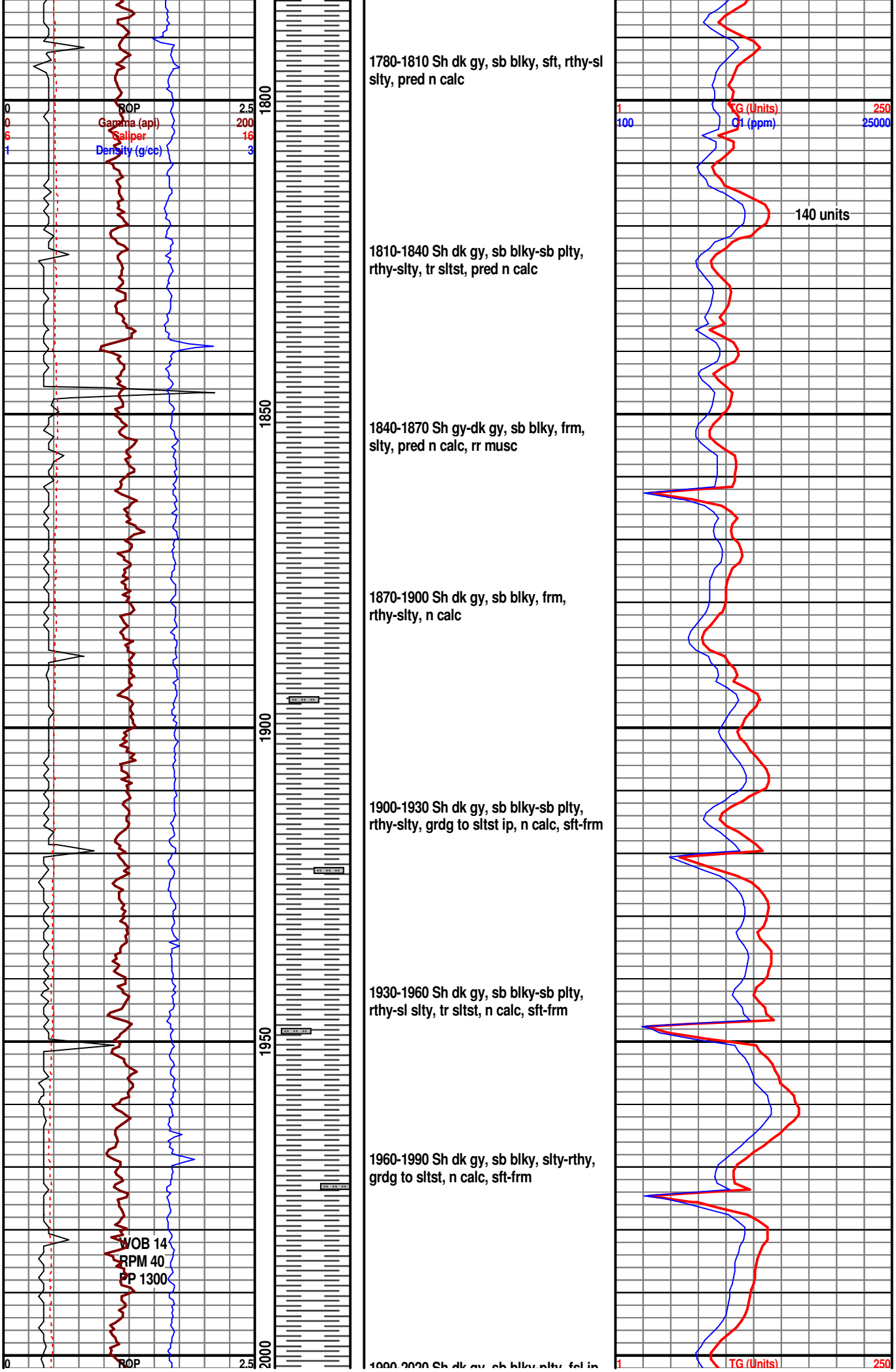
1270-1300 Sh gy-dk gy, plty, sft-frm, pred n calc

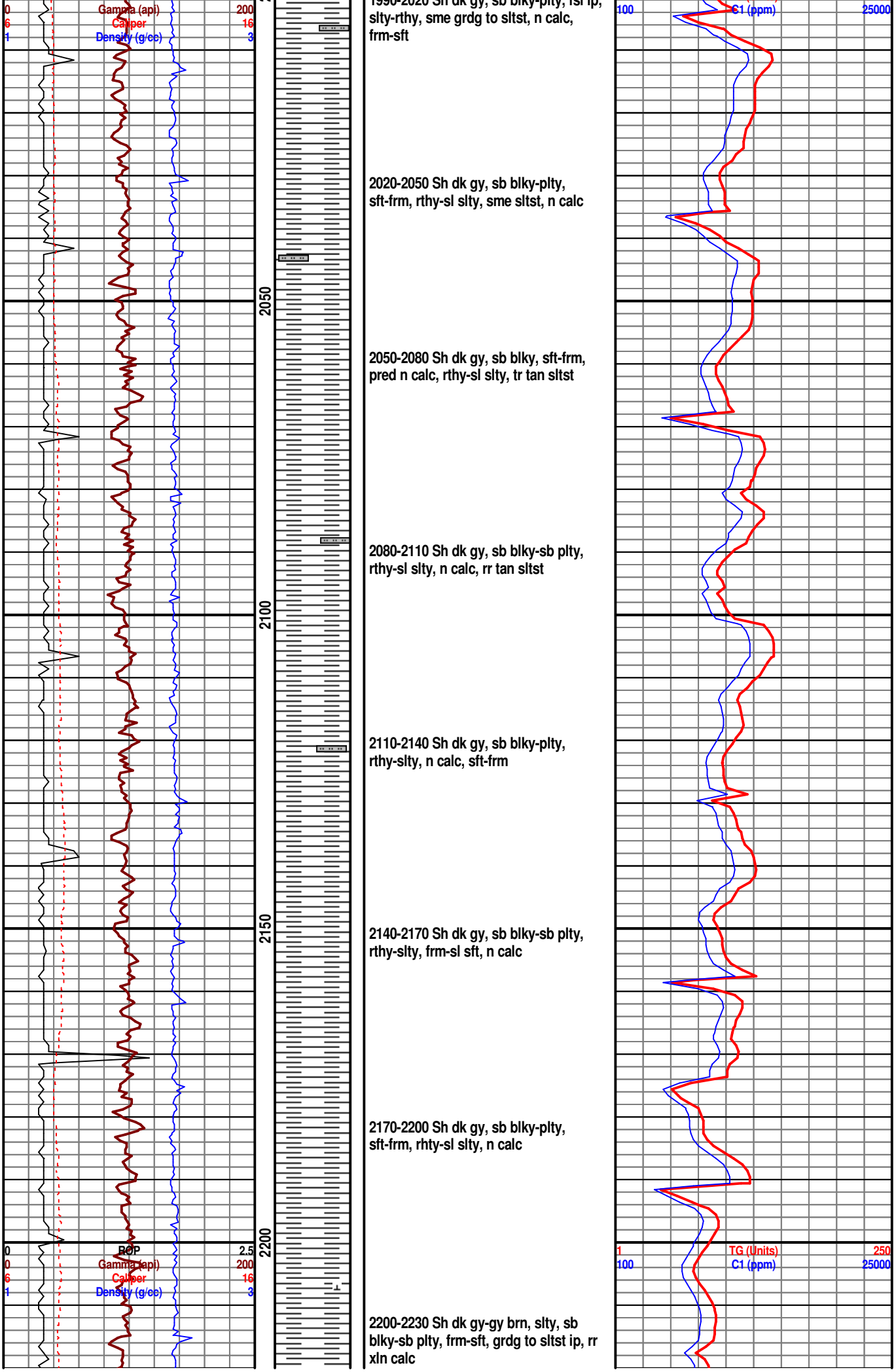
1300-1330 Sh dk gy, sb plty-plty, mod frm, pred n calc

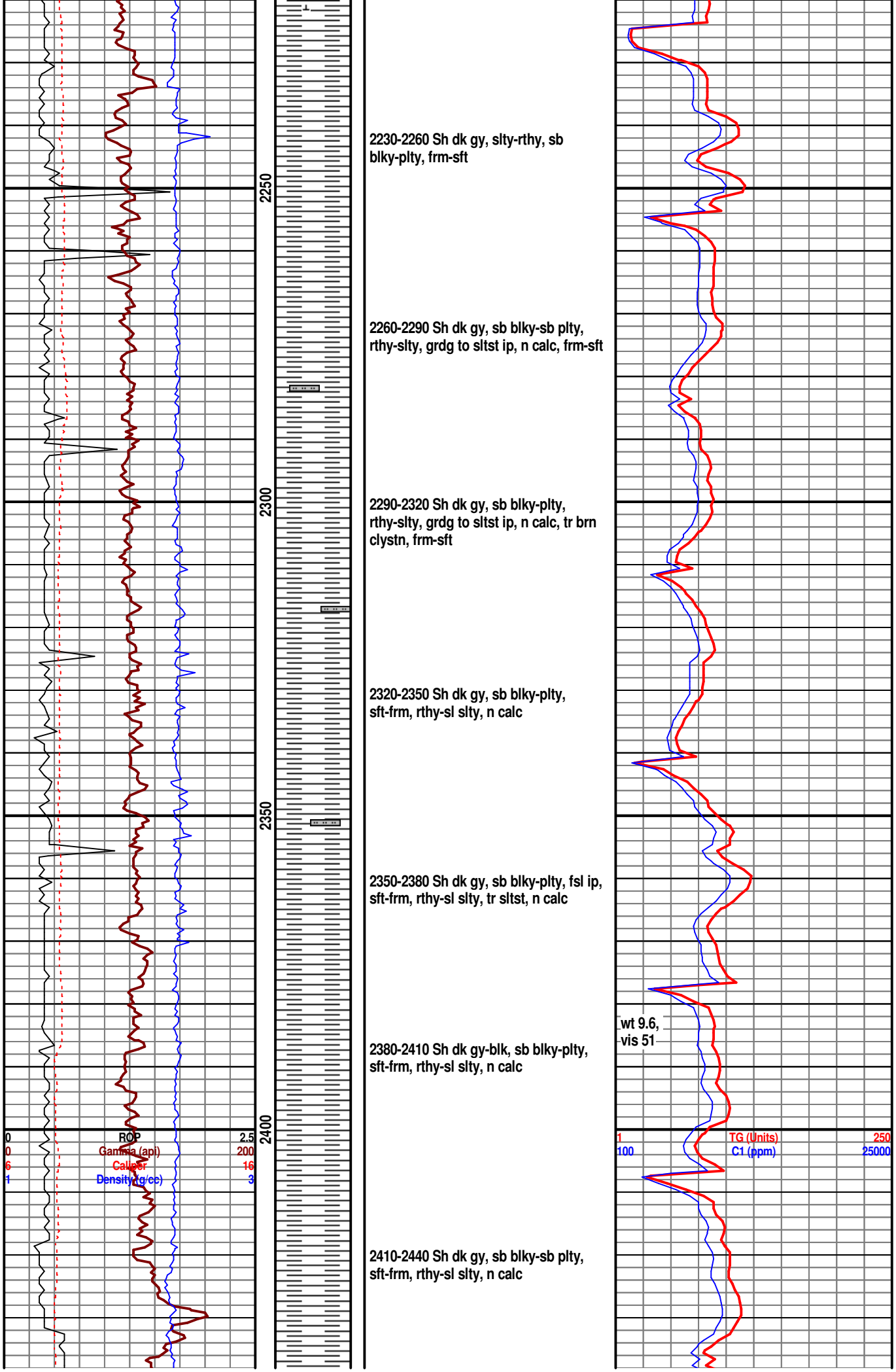
1330-1360 Sh gy-gy brn, sb plty-sb blky, frm, slty-rthy, pred n calc

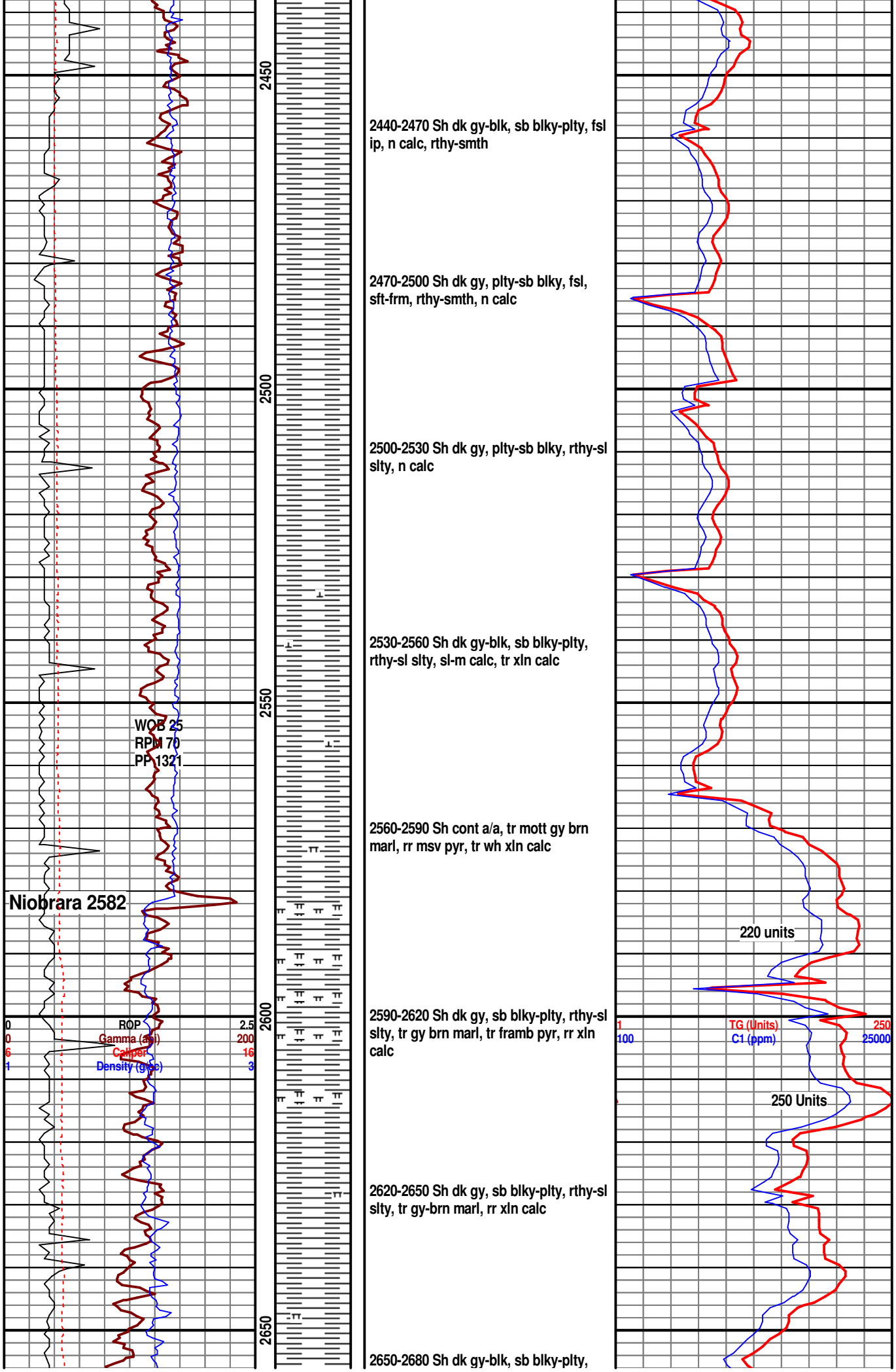

0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
1
TG (Units)
250
100
C1 (ppm)
25000
1350
1400
1450
1500
1550
9/9/06
MUD WT 9.5
1360-1390 Sh gy, sb plty, frm, tr calcite, tr ss clr, m gr, uncons
1390-1420 Sh gy-gy brn, sb plty, sft-frm, pred n calc, rr inoc frag
1420-1450 Sh gy, sb plty, sft-frm, tr calcite, tr ss brn, vf gr, sb rnd, cons
1450-1480 Sh gy, plty, frm, pred n calc
1480-1510 Sh gy, plty, frm, sl fsl, tr sltst brn, pred n calc
1510-1540 Sh gy-dk gy, sb blky-plty, frm, tr sltst brn, n calc
1540-1570 Sh gy, plty, sft-frm, rr shell frags, pred n calc

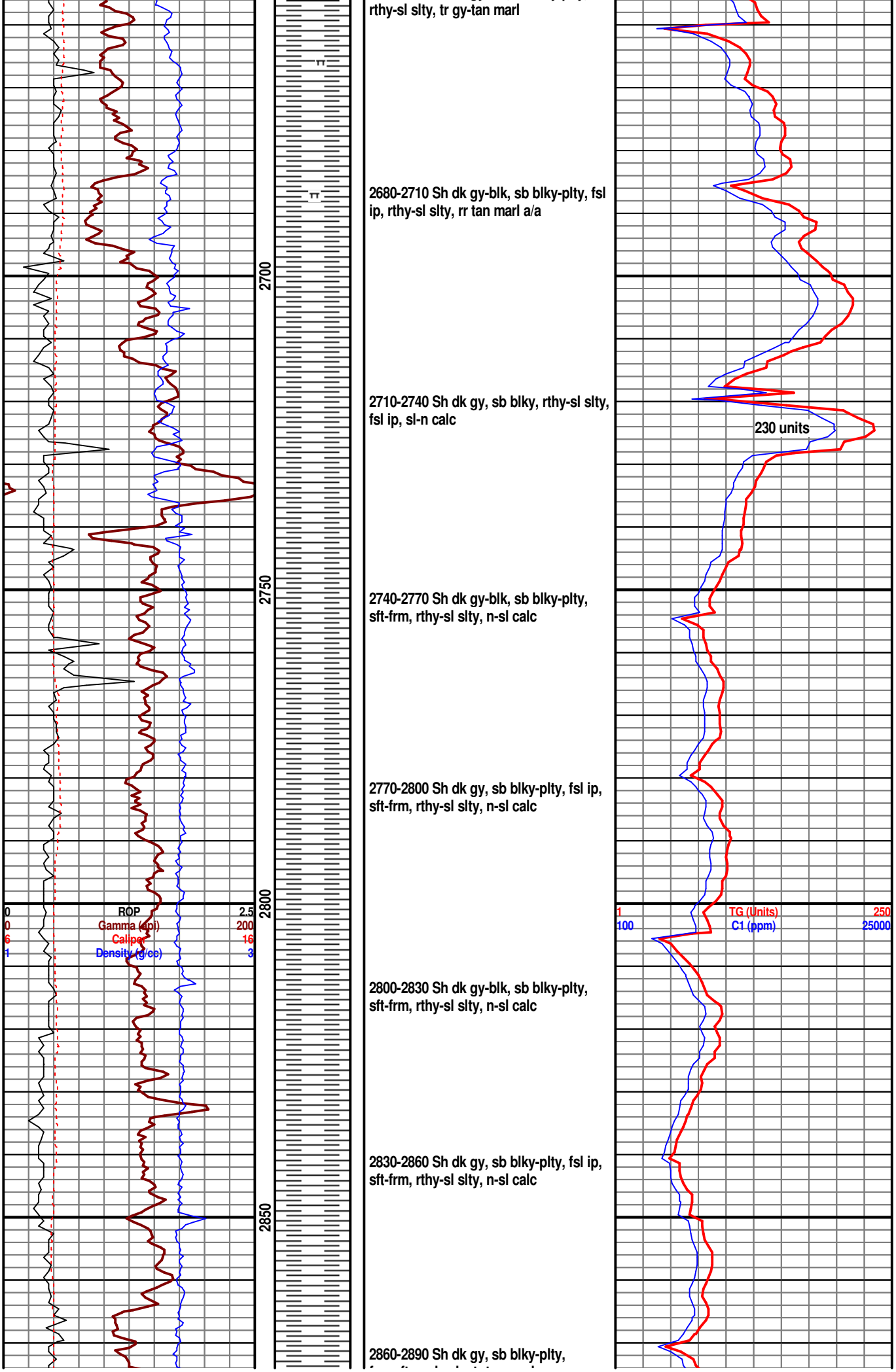

WOB 8
ROM 50
PP 1030
Eagle 1604
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
1600
1650
1700
1750
1570-1600 Sh gy, sb blky-sb plty, sft-frm, abdt calcite
1600-1630 Sh dk gy, sb blky, sft-frm, tr calcite
1630-1660 Sh dk gy, sb blky, rthy-sl slty, tr calc, tr sltst
1660-1690 Sh dk gy, sb blky, slty, tr calc
1690-1720 Sh dk gy, sb blky, rthy-slty, tr calc, tr sltst brn
1720-1750 Sh dk gy, sb bkly, sft, slty, tr sltst tan
1750-1780 Sh gy-dk gy, sb blky-sb plty, frm, sl slty, tr sltst tan
1
TG (Units)
250
100
C1 (ppm)
25000
88 units
wt 9.6,
vis 51

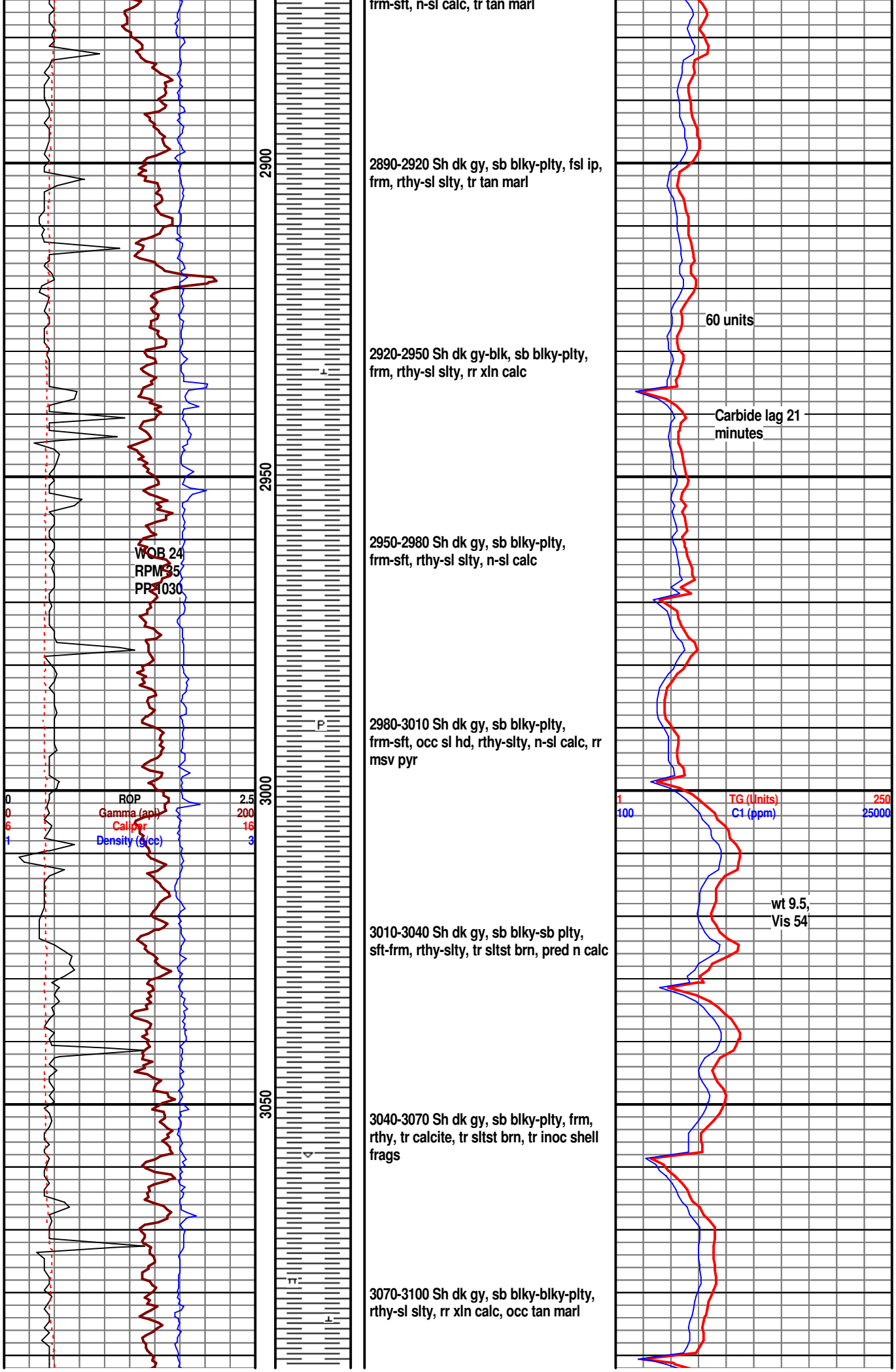

0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
1800
1850
1900
1950
2000
WOB 14
RPM 40
PP 1300
1780-1810 Sh dk gy, sb blky, sft, rthy-sl slty, pred n calc
1810-1840 Sh dk gy, sb blky-sb plty, rthy-slty, tr sltst, pred n calc
1840-1870 Sh gy-dk gy, sb blky, frm, slty, pred n calc, rr musc
1870-1900 Sh dk gy, sb blky, frm, rthy-slty, n calc
1900-1930 Sh dk gy, sb blky-sb plty, rthy-slty, grdg to sltst ip, n calc, sft-frm
1930-1960 Sh dk gy, sb blky-sb plty, rthy-sl slty, tr sltst, n calc, sft-frm
1960-1990 Sh dk gy, sb blky, slty-rthy, grdg to sltst, n calc, sft-frm
1990-2020 Sh dk gy, sb blky-plty, fsl ip
1
TG (Units)
250
100
C1 (ppm)
25000
140 units
1
TG (Units)
250

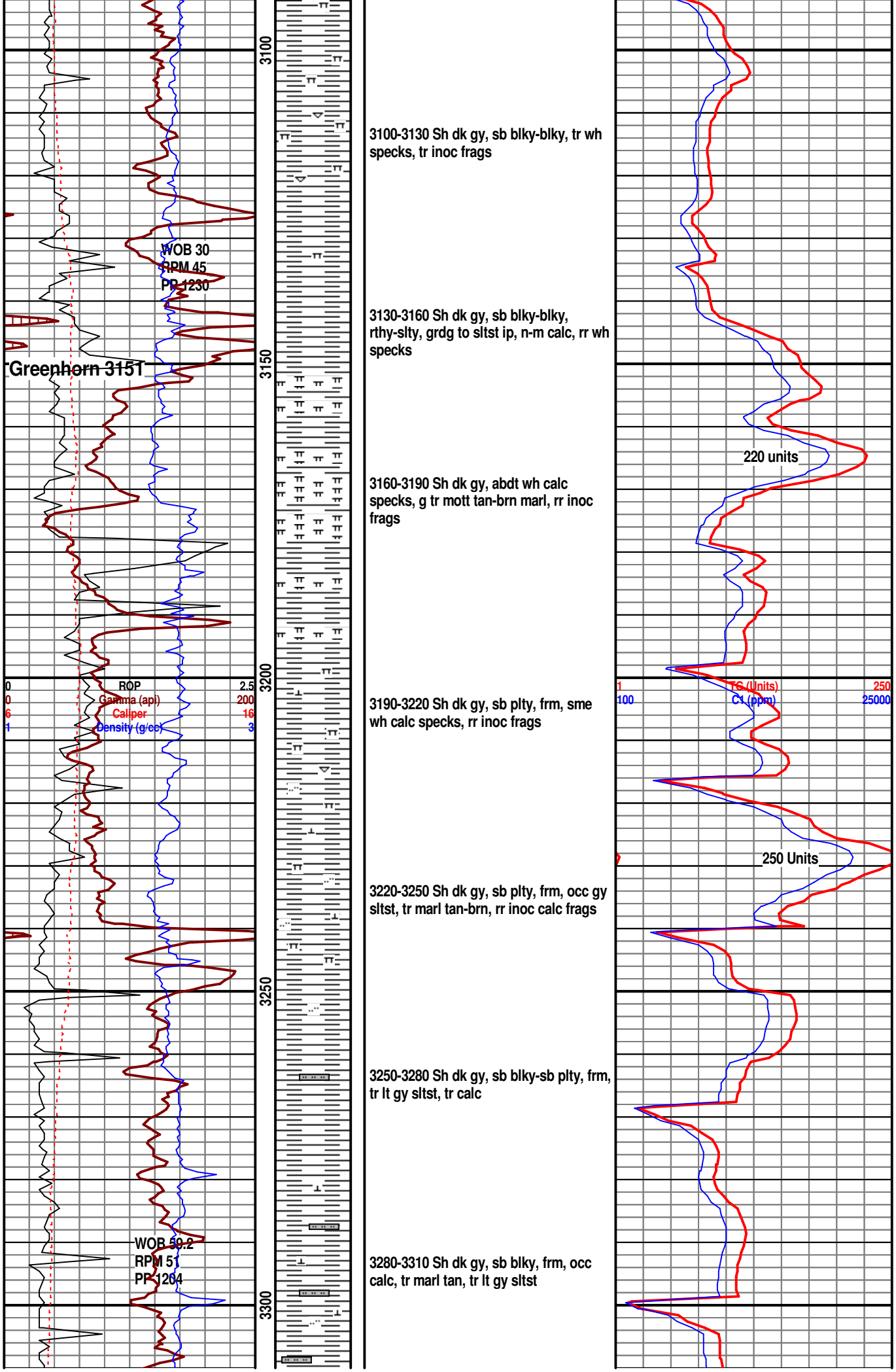

0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
2050
2100
2150
2200
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
1990-2020 Sh dk gy, sb blky-plty, rsl ip, slty-rthy, sme grdg to sltst, n calc, frm-sft
2020-2050 Sh dk gy, sb blky-plty, sft-frm, rthy-sl slty, sme sltst, n calc
2050-2080 Sh dk gy, sb blky, sft-frm, pred n calc, rthy-sl slty, tr tan sltst
2080-2110 Sh dk gy, sb blky-sb plty, rthy-sl slty, n calc, rr tan sltst
2110-2140 Sh dk gy, sb blky-plty, rthy-slty, n calc, sft-frm
2140-2170 Sh dk gy, sb blky-sb plty, rthy-slty, frm-sl sft, n calc
2170-2200 Sh dk gy, sb blky-plty, sft-frm, rhty-sl slty, n calc
2200-2230 Sh dk gy-gy brn, slty, sb blky-sb plty, frm-sft, grdg to sltst ip, rr xln calc
100
C1 (ppm)
25000
1
TG (Units)
250
100
C1 (ppm)
25000

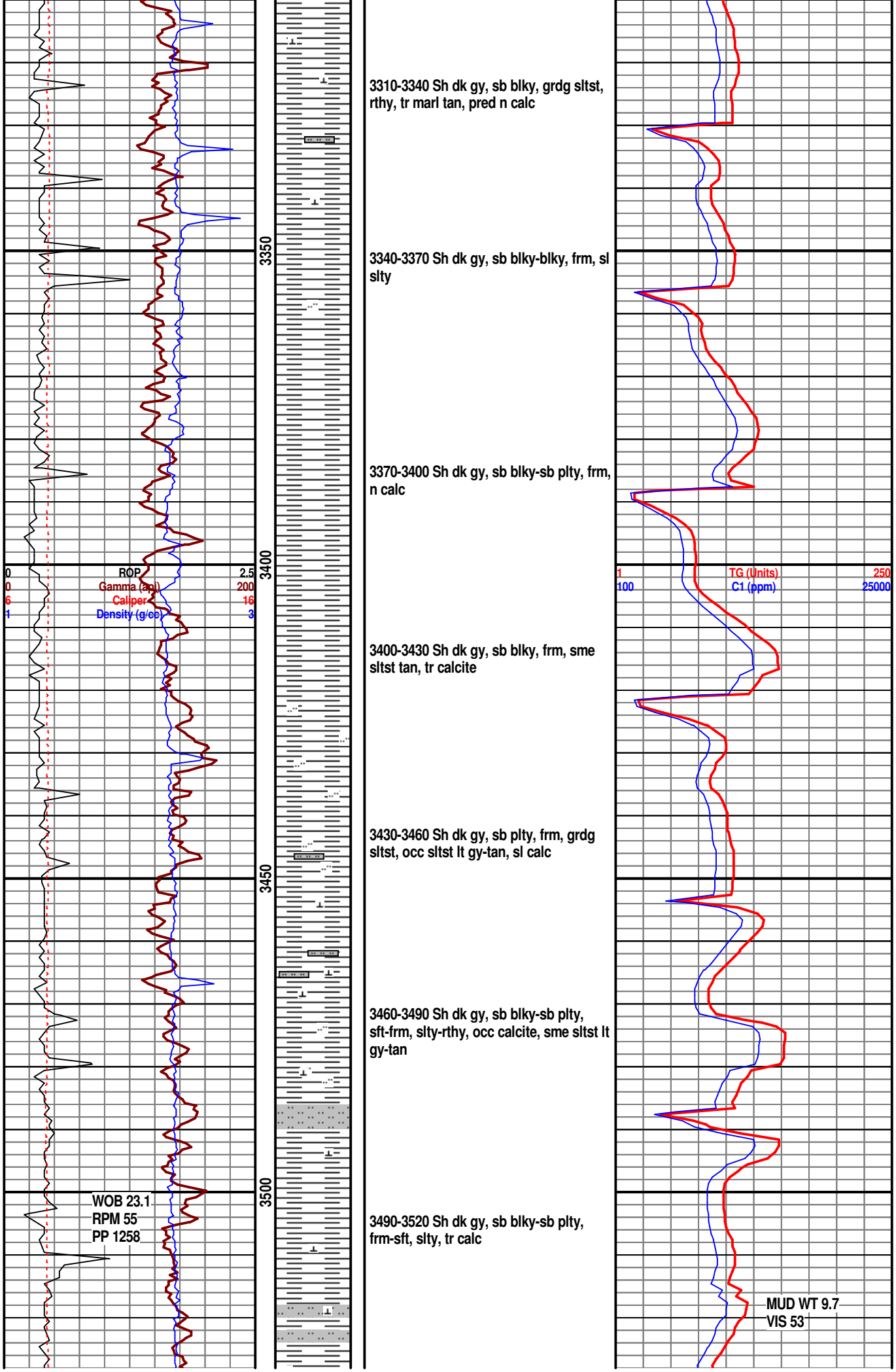

2250
2300
2350
2400
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
1
TG (Units)
250
100
C1 (ppm)
25000
wt 9.6,
vis 51
2230-2260 Sh dk gy, slty-rthy, sb blky-plty, frm-sft
2260-2290 Sh dk gy, sb blky-sb plty, rthy-slty, grdg to sltst ip, n calc, frm-sft
2290-2320 Sh dk gy, sb blky-plty, rthy-slty, grdg to sltst ip, n calc, tr brn clystn, frm-sft
2320-2350 Sh dk gy, sb blky-plty, sft-frm, rthy-sl slty, n calc
2350-2380 Sh dk gy, sb blky-plty, fsl ip, sft-frm, rthy-sl slty, tr sltst, n calc
2380-2410 Sh dk gy-blk, sb blky-plty, sft-frm, rthy-sl slty, n calc
2410-2440 Sh dk gy, sb blky-sb plty, sft-frm, rthy-sl slty, n calc

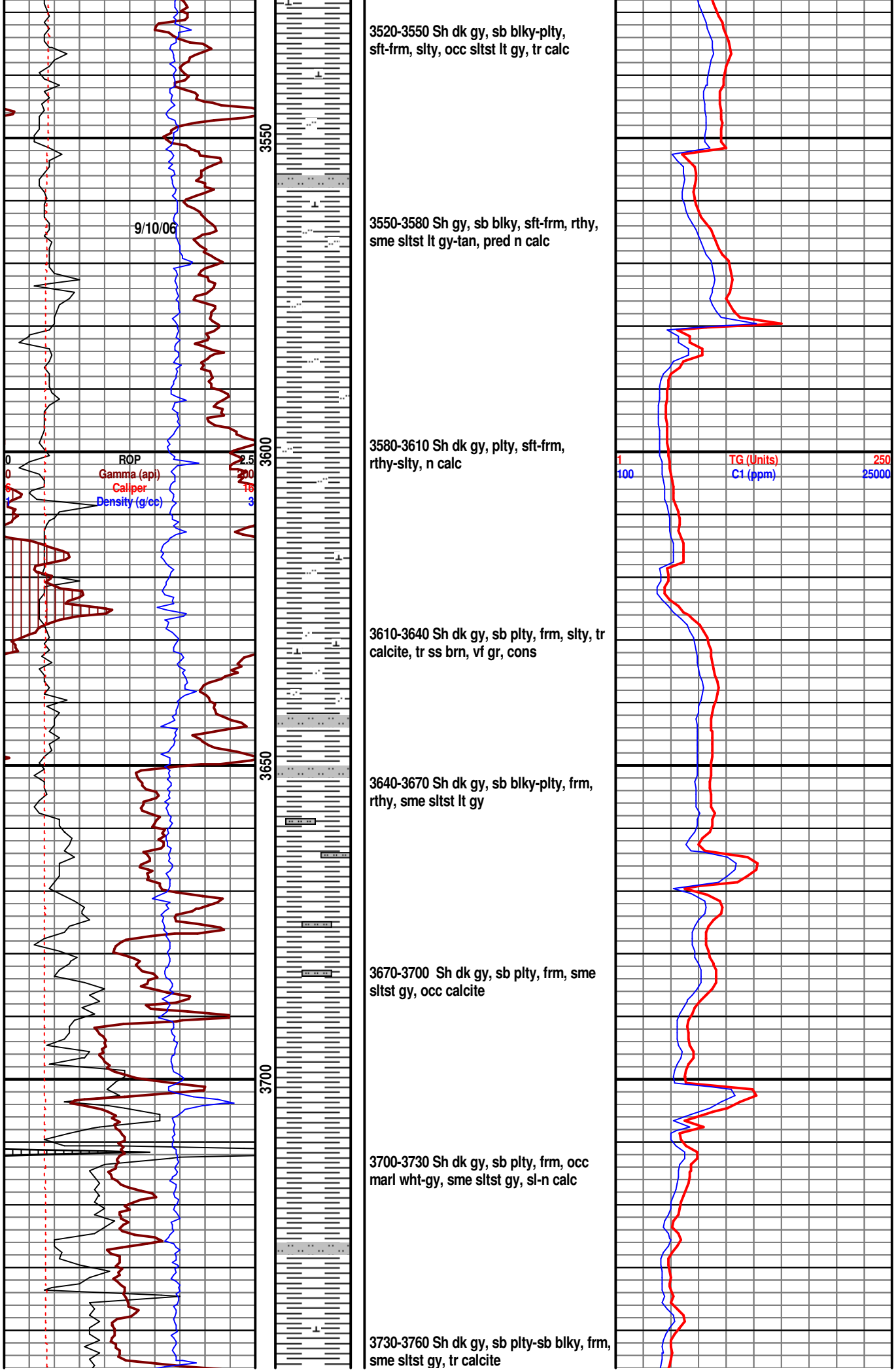

2450
2500
2550
2600
2650
WOB 25
RPM 70
PP 1321
Niobrara 2582
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
2440-2470 Sh dk gy-blk, sb blky-plty, fsl ip, n calc, rthy-smth
2470-2500 Sh dk gy, plty-sb blky, fsl, sft-frm, rthy-smth, n calc
2500-2530 Sh dk gy, plty-sb blky, rthy-sl slty, n calc
2530-2560 Sh dk gy-blk, sb blky-plty, rthy-sl slty, sl-m calc, tr xln calc
2560-2590 Sh cont a/a, tr mott gy brn marl, rr msv pyr, tr wh xln calc
2590-2620 Sh dk gy, sb blky-plty, rthy-sl slty, tr gy brn marl, tr framb pyr, rr xln calc
2620-2650 Sh dk gy, sb blky-plty, rthy-sl slty, tr gy-brn marl, rr xln calc
2650-2680 Sh dk gy-blk, sb blky-plty,
220 units
250 Units
1
TG (Units)
250
100
C1 (ppm)
25000


rthy-sl slty, tr gy-tan marl
2680-2710 Sh dk gy-blk, sb blky-plty, fsl ip, rthy-sl slty, rr tan marl a/a
2710-2740 Sh dk gy, sb blky, rthy-sl slty, fsl ip, sl-n calc
230 units
2740-2770 Sh dk gy-blk, sb blky-plty, sft-frm, rthy-sl slty, n-sl calc
2770-2800 Sh dk gy, sb blky-plty, fsl ip, sft-frm, rthy-sl slty, n-sl calc
2800-2830 Sh dk gy-blk, sb blky-plty, sft-frm, rthy-sl slty, n-sl calc
2830-2860 Sh dk gy, sb blky-plty, fsl ip, sft-frm, rthy-sl slty, n-sl calc
2860-2890 Sh dk gy, sb blky-plty,
2700
2750
2800
2850
0 ROP 2.5
0 Gamma (api) 200
6 Caliper 16
1 Density (g/cc) 3
1 TG (Units) 250
100 C1 (ppm) 25000


frm-sft, n-sl calc, tr tan marl
2890-2920 Sh dk gy, sb blky-plty, fsl ip, frm, rthy-sl slty, tr tan marl
60 units
2920-2950 Sh dk gy-blk, sb blky-plty, frm, rthy-sl slty, rr xln calc
Carbide lag 21 minutes
2950-2980 Sh dk gy, sb blky-plty, frm-sft, rthy-sl slty, n-sl calc
WOB 24
RPM 35
PP 1030
2980-3010 Sh dk gy, sb blky-plty, frm-sft, occ sl hd, rthy-slty, n-sl calc, rr msv pyr
0 ROP 2.5
0 Gamma (api) 200
6 Caliper 16
1 Density (g/cc) 3
1 TG (Units) 250
100 C1 (ppm) 25000
wt 9.5, Vis 54
3010-3040 Sh dk gy, sb blky-sb plty, sft-frm, rthy-slty, tr sltst brn, pred n calc
3040-3070 Sh dk gy, sb blky-plty, frm, rthy, tr calcite, tr sltst brn, tr inoc shell frags
3070-3100 Sh dk gy, sb blky-blky-plty, rthy-sl slty, rr xln calc, occ tan marl
2900
2950
3000
3050


3100
3150
3200
3250
3300
WOB 30
RPM 45
PP 1230
Greenhorn 3151
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
WOB 59.2
RPM 51
PP 1264
3100-3130 Sh dk gy, sb blky-blky, tr wh specks, tr inoc frags
3130-3160 Sh dk gy, sb blky-blky, rthy-slty, grdg to sltst ip, n-m calc, rr wh specks
220 units
3160-3190 Sh dk gy, abdt wh calc specks, g tr mott tan-brn marl, rr inoc frags
1
TG (Units)
250
100
C1 (ppm)
25000
3190-3220 Sh dk gy, sb plty, frm, sme wh calc specks, rr inoc frags
250 Units
3220-3250 Sh dk gy, sb plty, frm, occ gy sltst, tr marl tan-brn, rr inoc calc frags
3250-3280 Sh dk gy, sb blky-sb plty, frm, tr lt gy sltst, tr calc
3280-3310 Sh dk gy, sb blky, frm, occ calc, tr marl tan, tr lt gy sltst


3350
3400
3450
3500
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
WOB 23.1
RPM 55
PP 1258
3310-3340 Sh dk gy, sb blky, grdg sltst, rthy, tr marl tan, pred n calc
3340-3370 Sh dk gy, sb blky-blky, frm, sl slty
3370-3400 Sh dk gy, sb blky-sb plty, frm, n calc
1
TG (Units)
250
100
C1 (ppm)
25000
3400-3430 Sh dk gy, sb blky, frm, sme sltst tan, tr calcite
3430-3460 Sh dk gy, sb plty, frm, grdg sltst, occ sltst lt gy-tan, sl calc
3460-3490 Sh dk gy, sb blky-sb plty, sft-frm, slty-rthy, occ calcite, sme sltst lt gy-tan
3490-3520 Sh dk gy, sb blky-sb plty, frm-sft, slty, tr calc
MUD WT 9.7
VIS 53



3520-3550 Sh dk gy, sb blky-plty, sft-frm, slty, occ sltst lt gy, tr calc

3550-3580 Sh gy, sb blky, sft-frm, rthy, sme sltst lt gy-tan, pred n calc

3580-3610 Sh dk gy, plty, sft-frm, rthy-slty, n calc

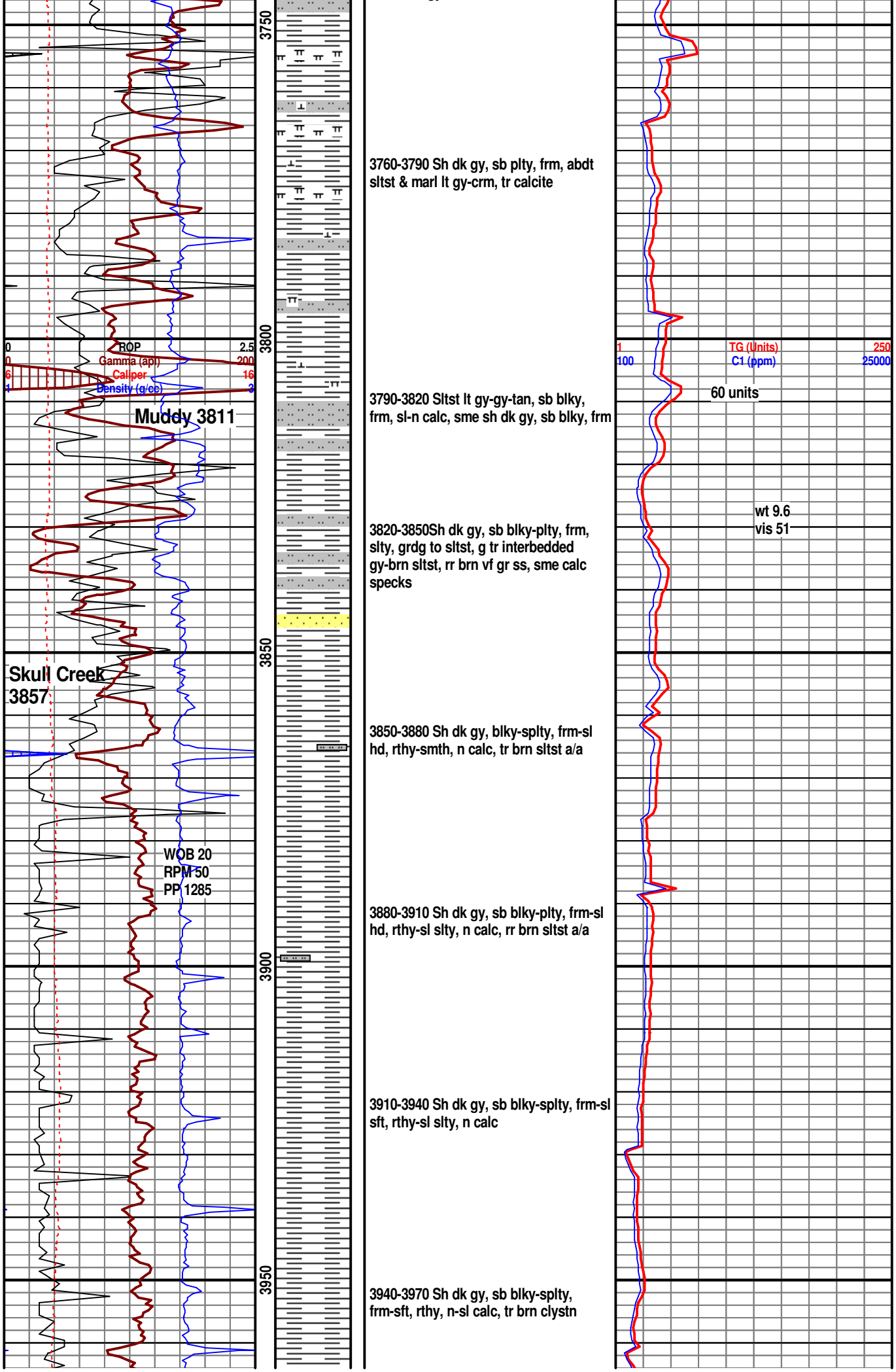
3610-3640 Sh dk gy, sb plty, frm, slty, tr calcite, tr ss brn, vf gr, cons

3640-3670 Sh dk gy, sb blky-plty, frm, rthy, sme sltst lt gy

3670-3700 Sh dk gy, sb plty, frm, sme sltst gy, occ calcite

3700-3730 Sh dk gy, sb plty, frm, occ marl wht-gy, sme sltst gy, sl-n calc

3730-3760 Sh dk gy, sb plty-sb blky, frm, sme sltst gy, tr calcite



3760-3790 Sh dk gy, sb plty, frm, abdt sltst & marl lt gy-crm, tr calcite

3790-3820 Sltst lt gy-gy-tan, sb blky, frm, sl-n calc, sme sh dk gy, sb blky, frm

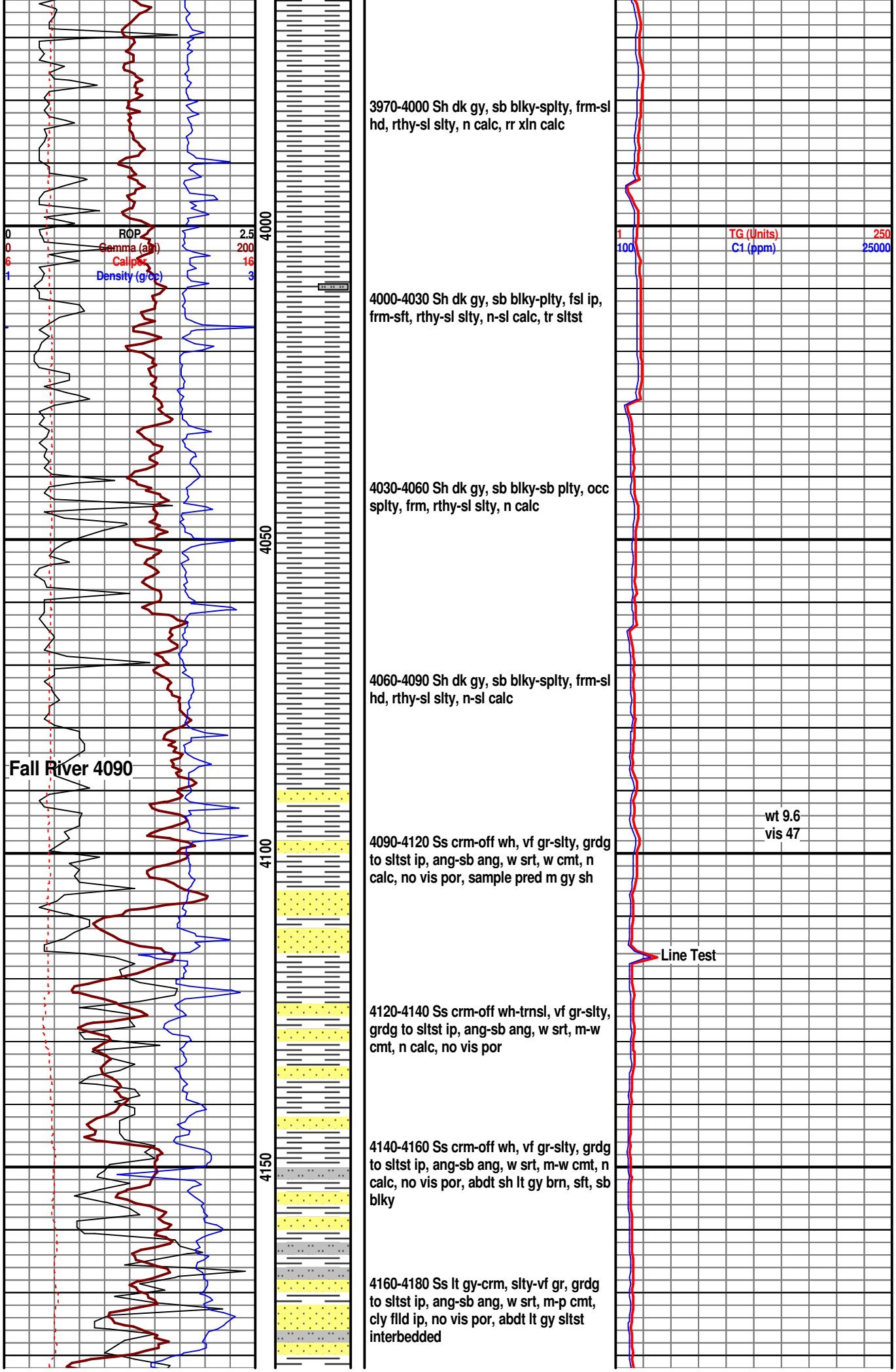
3820-3850Sh dk gy, sb blky-plty, frm, slty, grdg to sltst, g tr interbedded gy-brn sltst, rr brn vf gr ss, sme calc specks

3850-3880 Sh dk gy, blky-splty, frm-sl hd, rthy-smth, n calc, tr brn sltst a/a

3880-3910 Sh dk gy, sb blky-plty, frm-sl hd, rthy-sl slty, n calc, rr brn sltst a/a

3910-3940 Sh dk gy, sb blky-splty, frm-sl sft, rthy-sl slty, n calc

3940-3970 Sh dk gy, sb blky-splty, frm-sft, rthy, n-sl calc, tr brn clystn



3970-4000 Sh dk gy, sb blky-splty, frm-sl hd, rthy-sl slty, n calc, rr xln calc

4000-4030 Sh dk gy, sb blky-plty, fsl ip, frm-sft, rthy-sl slty, n-sl calc, tr sltst

4030-4060 Sh dk gy, sb blky-sb plty, occ splty, frm, rthy-sl slty, n calc

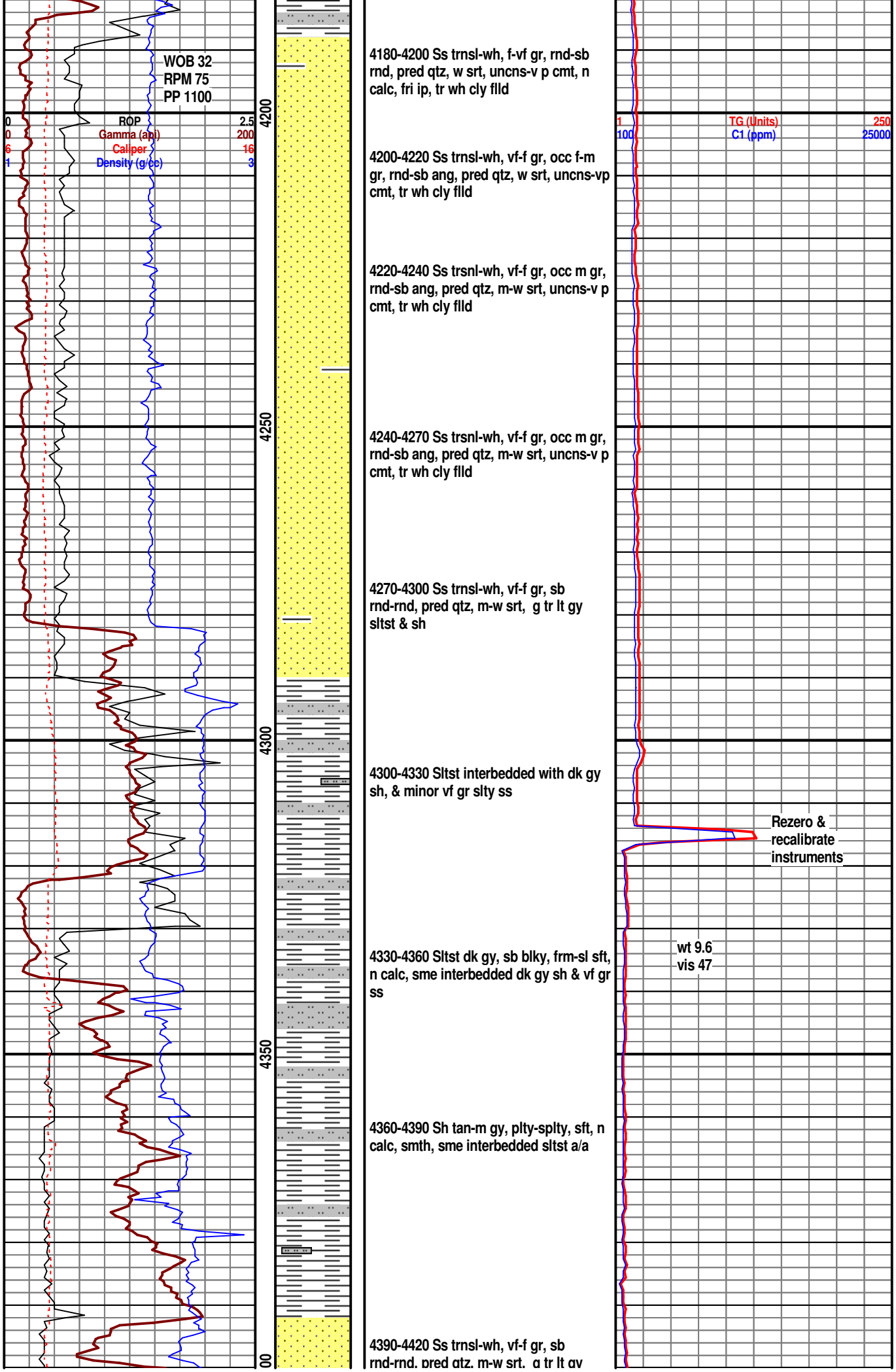
4060-4090 Sh dk gy, sb blky-splty, frm-sl hd, rthy-sl slty, n-sl calc

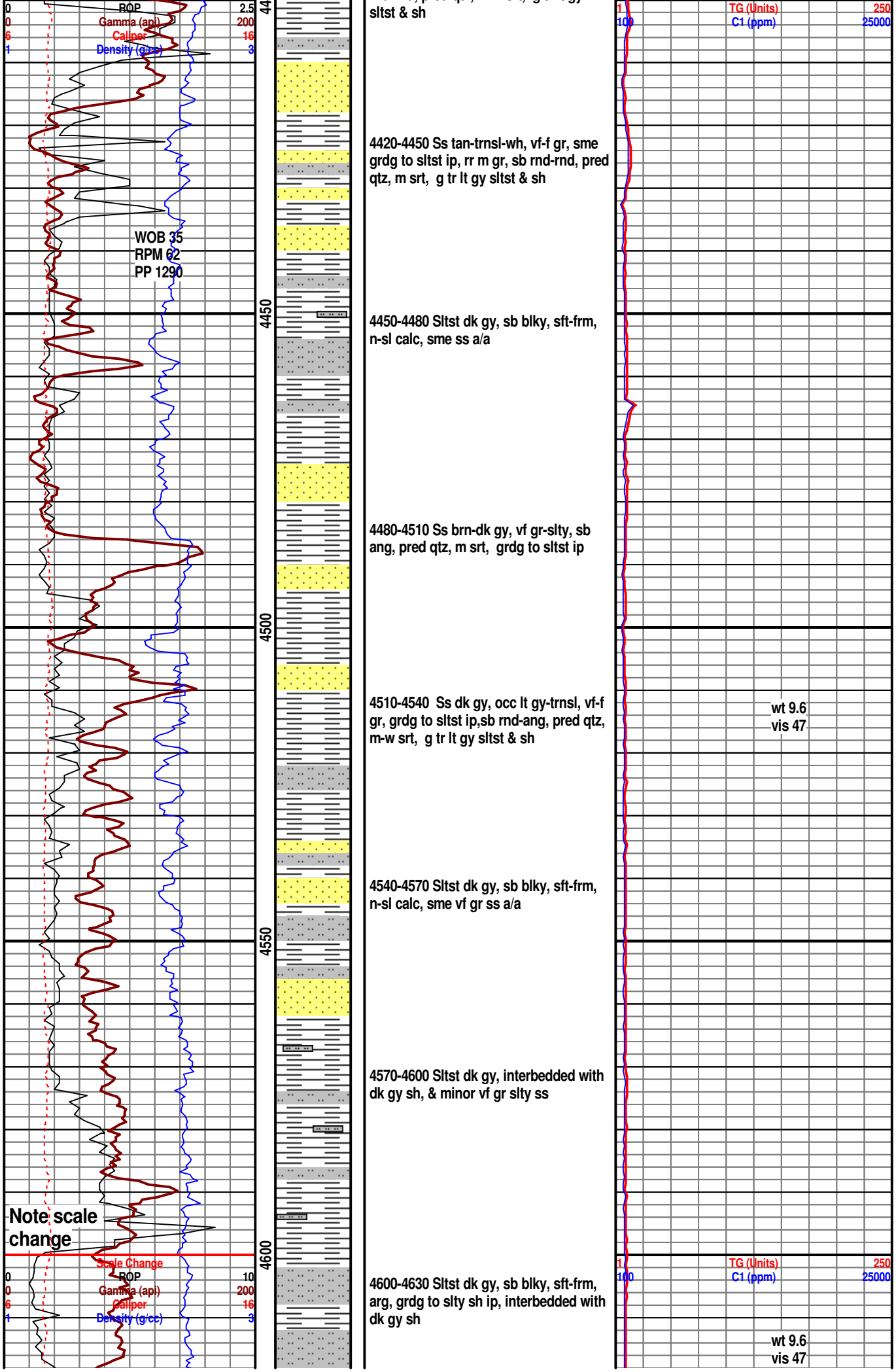
4090-4120 Ss crm-off wh, vf gr-slty, grdg to sltst ip, ang-sb ang, w srt, w cmt, n calc, no vis por, sample pred m gy sh

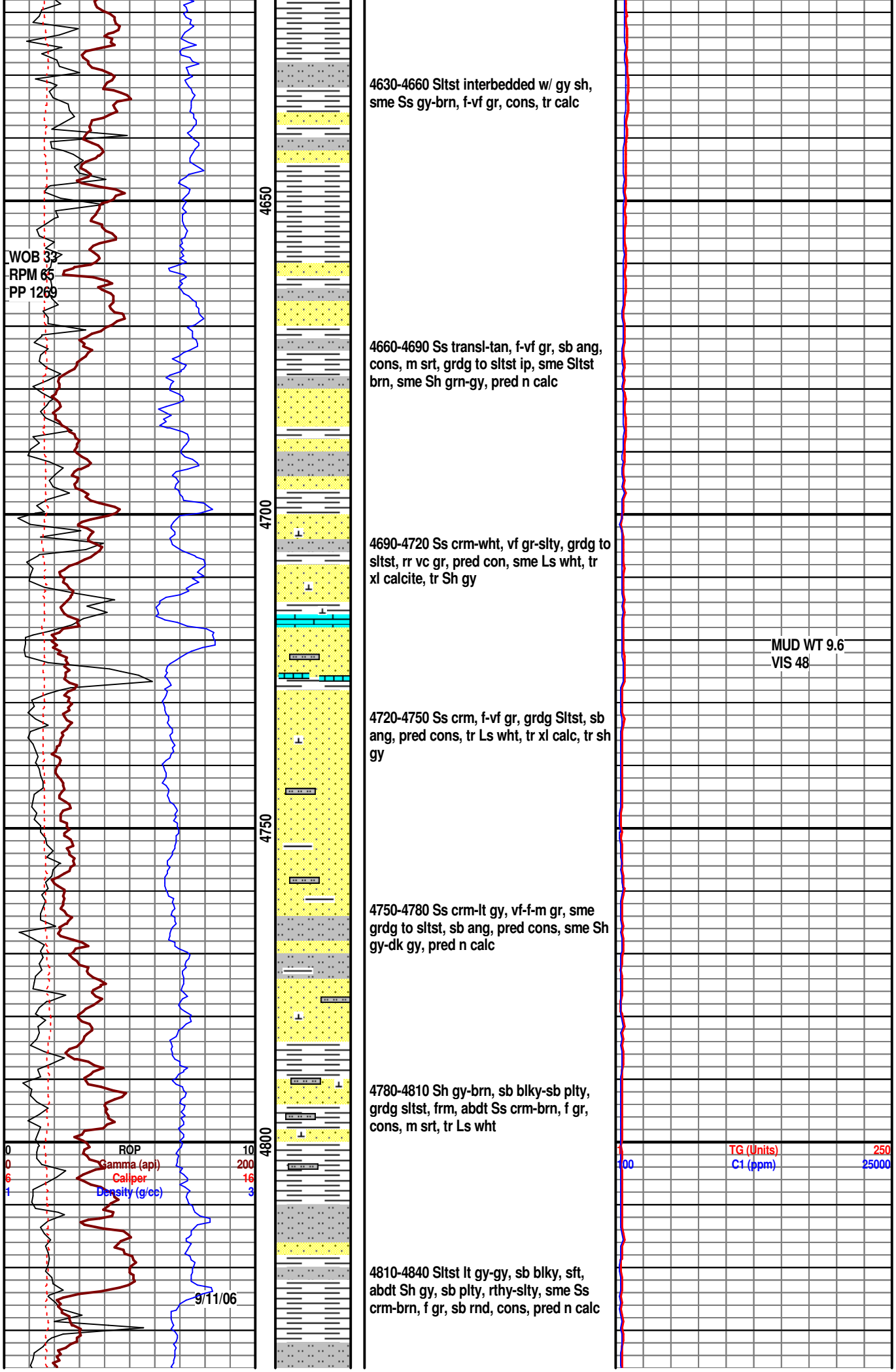
4120-4140 Ss crm-off wh-trnsl, vf gr-slty, grdg to sltst ip, ang-sb ang, w srt, m-w cmt, n calc, no vis por

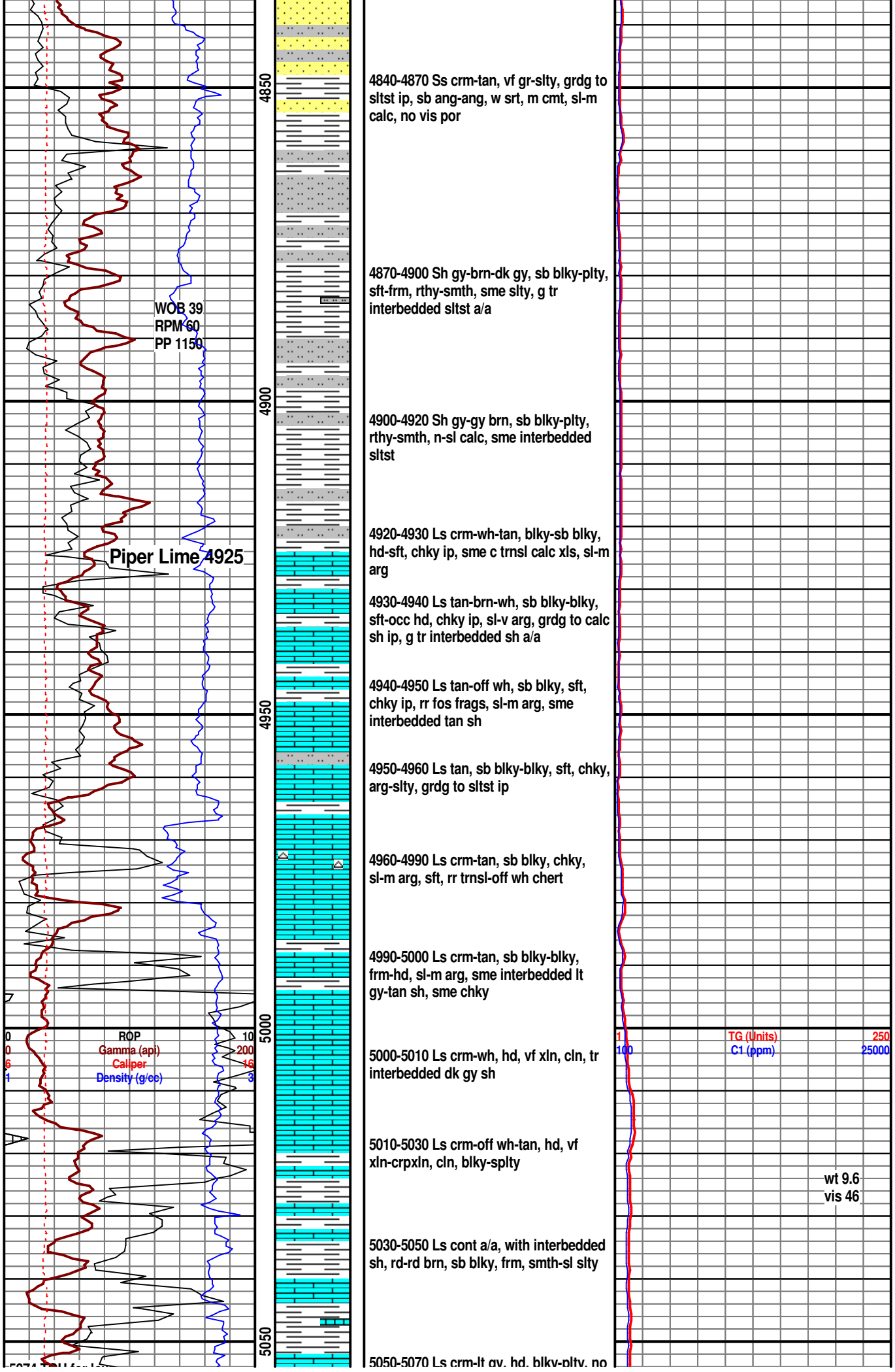
4140-4160 Ss crm-off wh, vf gr-slty, grdg to sltst ip, ang-sb ang, w srt, m-w cmt, n calc, no vis por, abdt sh lt gy brn, sft, sb blky

4160-4180 Ss lt gy-crm, slty-vf gr, grdg to sltst ip, ang-sb ang, w srt, m-p cmt, cly flld ip, no vis por, abdt lt gy sltst interbedded


WOB 32
RPM 75
PP 1100
0
ROP
2.5
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
4200
4250
4300
4350
00
4180-4200 Ss trnsl-wh, f-vf gr, rnd-sb rnd, pred qtz, w srt, uncns-v p cmt, n calc, fri ip, tr wh cly flld
4200-4220 Ss trnsl-wh, vf-f gr, occ f-m gr, rnd-sb ang, pred qtz, w srt, uncns-vp cmt, tr wh cly flld
4220-4240 Ss trsnl-wh, vf-f gr, occ m gr, rnd-sb ang, pred qtz, m-w srt, uncns-v p cmt, tr wh cly flld
4240-4270 Ss trsnl-wh, vf-f gr, occ m gr, rnd-sb ang, pred qtz, m-w srt, uncns-v p cmt, tr wh cly flld
4270-4300 Ss trnsl-wh, vf-f gr, sb rnd-rnd, pred qtz, m-w srt, g tr lt gy sltst & sh
4300-4330 Sltst interbedded with dk gy sh, & minor vf gr slty ss
4330-4360 Sltst dk gy, sb blky, frm-sl sft, n calc, sme interbedded dk gy sh & vf gr ss
4360-4390 Sh tan-m gy, plty-splty, sft, n calc, smth, sme interbedded sltst a/a
4390-4420 Ss trnsl-wh, vf-f gr, sb rnd-rnd, pred qtz, m-w srt, g tr lt gy
1
TG (Units)
250
100
C1 (ppm)
25000
Rezero &
recalibrate
instruments
wt 9.6
vis 47


0 ROP 2.5
0 Gamma (api) 200
6 Caliper 16
1 Density (g/cc) 3
WOB 35
RPM 62
PP 1290
4450
4500
4550
4600
Note scale change
Scale Change
0 ROP 10
0 Gamma (api) 200
6 Caliper 16
1 Density (g/cc) 3
sltst & sh
4420-4450 Ss tan-trnsl-wh, vf-f gr, sme grdg to sltst ip, rr m gr, sb rnd-rnd, pred qtz, m srt, g tr lt gy sltst & sh
4450-4480 Sltst dk gy, sb blky, sft-frm, n-sl calc, sme ss a/a
4480-4510 Ss brn-dk gy, vf gr-slty, sb ang, pred qtz, m srt, grdg to sltst ip
4510-4540 Ss dk gy, occ lt gy-trnsl, vf-f gr, grdg to sltst ip,sb rnd-ang, pred qtz, m-w srt, g tr lt gy sltst & sh
4540-4570 Sltst dk gy, sb blky, sft-frm, n-sl calc, sme vf gr ss a/a
4570-4600 Sltst dk gy, interbedded with dk gy sh, & minor vf gr slty ss
4600-4630 Sltst dk gy, sb blky, sft-frm, arg, grdg to slty sh ip, interbedded with dk gy sh
1 TG (Units) 250
100 C1 (ppm) 25000
wt 9.6
vis 47
1 TG (Units) 250
100 C1 (ppm) 25000
wt 9.6
vis 47


4650
4700
4750
4800
WOB 33
RPM 65
PP 1269
0
ROP
10
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
9/11/06
4630-4660 Sltst interbedded w/ gy sh, sme Ss gy-brn, f-vf gr, cons, tr calc
4660-4690 Ss transl-tan, f-vf gr, sb ang, cons, m srt, grdg to sltst ip, sme Sltst brn, sme Sh grn-gy, pred n calc
4690-4720 Ss crm-wht, vf gr-slty, grdg to sltst, rr vc gr, pred con, sme Ls wht, tr xl calcite, tr Sh gy
MUD WT 9.6
VIS 48
4720-4750 Ss crm, f-vf gr, grdg Sltst, sb ang, pred cons, tr Ls wht, tr xl calc, tr sh gy
4750-4780 Ss crm-lt gy, vf-f-m gr, sme grdg to sltst, sb ang, pred cons, sme Sh gy-dk gy, pred n calc
4780-4810 Sh gy-brn, sb blky-sb plty, grdg sltst, frm, abdt Ss crm-brn, f gr, cons, m srt, tr Ls wht
1
TG (Units)
250
100
C1 (ppm)
25000
4810-4840 Sltst lt gy-gy, sb blky, sft, abdt Sh gy, sb plty, rthy-slty, sme Ss crm-brn, f gr, sb rnd, cons, pred n calc



4840-4870 Ss crm-tan, vf gr-slty, grdg to sltst ip, sb ang-ang, w srt, m cmt, sl-m calc, no vis por

4870-4900 Sh gy-brn-dk gy, sb blky-plty, sft-frm, rthy-smth, sme slty, g tr interbedded sltst a/a

4900-4920 Sh gy-gy brn, sb blky-plty, rthy-smth, n-sl calc, sme interbedded sltst

4920-4930 Ls crm-wh-tan, blky-sb blky, hd-sft, chky ip, sme c trnsl calc xls, sl-m arg

4930-4940 Ls tan-brn-wh, sb blky-blky, sft-occ hd, chky ip, sl-v arg, grdg to calc sh ip, g tr interbedded sh a/a

4940-4950 Ls tan-off wh, sb blky, sft, chky ip, rr fos frags, sl-m arg, sme interbedded tan sh

4950-4960 Ls tan, sb blky-blky, sft, chky, arg-slty, grdg to sltst ip

4960-4990 Ls crm-tan, sb blky, chky, sl-m arg, sft, rr trnsl-off wh chert

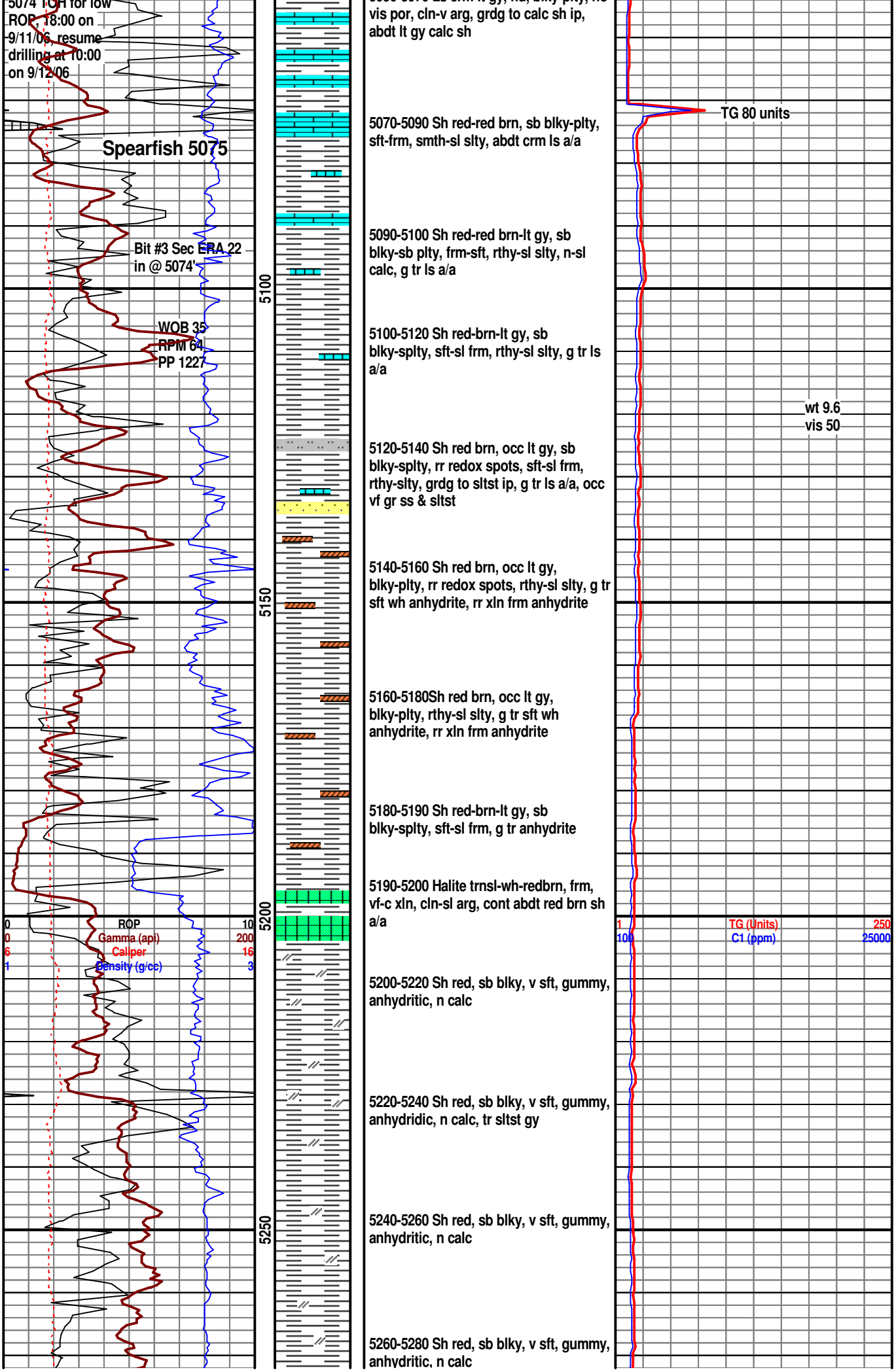
4990-5000 Ls crm-tan, sb blky-blky, frm-hd, sl-m arg, sme interbedded lt gy-tan sh, sme chky

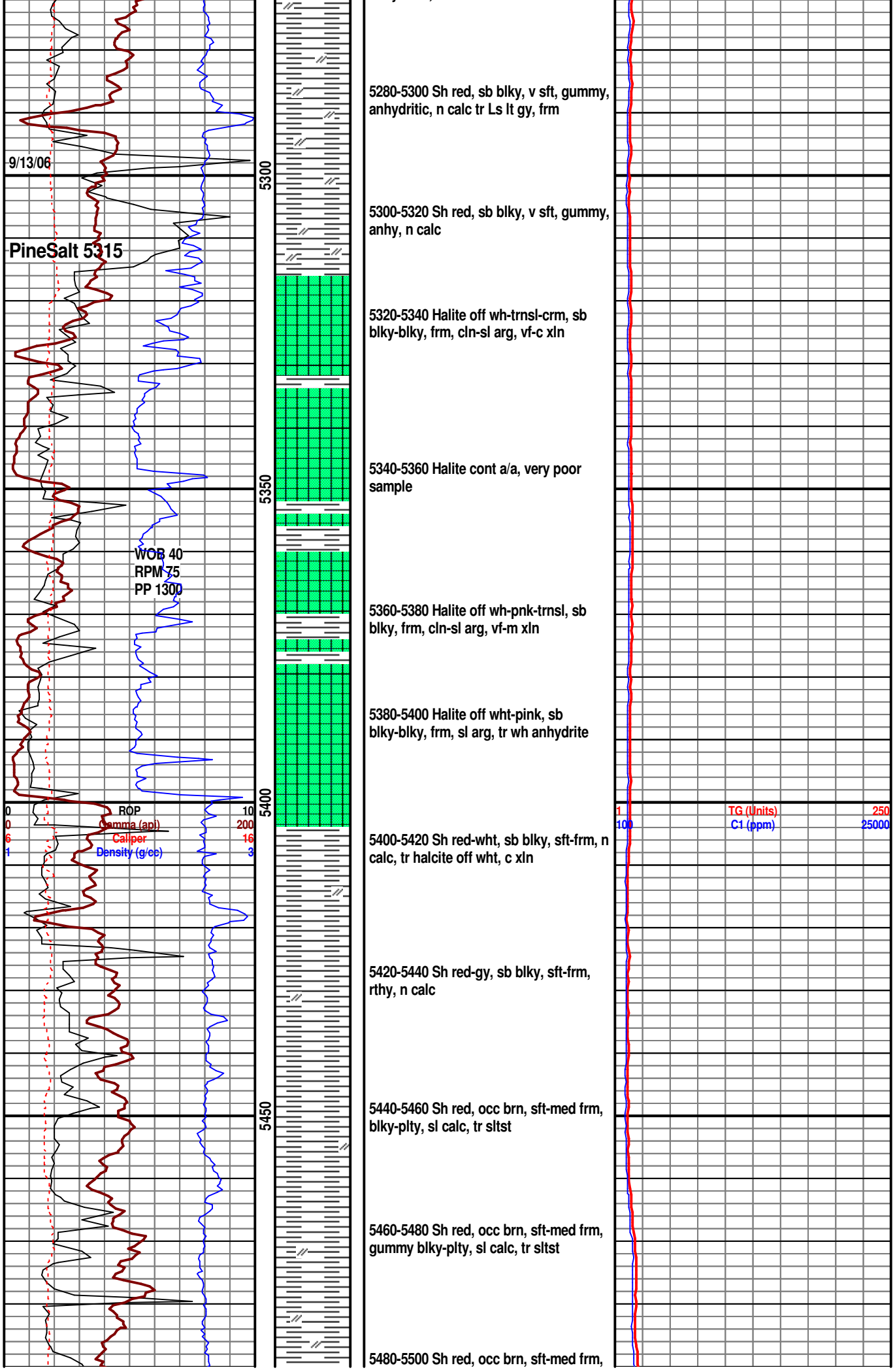
5000-5010 Ls crm-wh, hd, vf xln, cln, tr interbedded dk gy sh

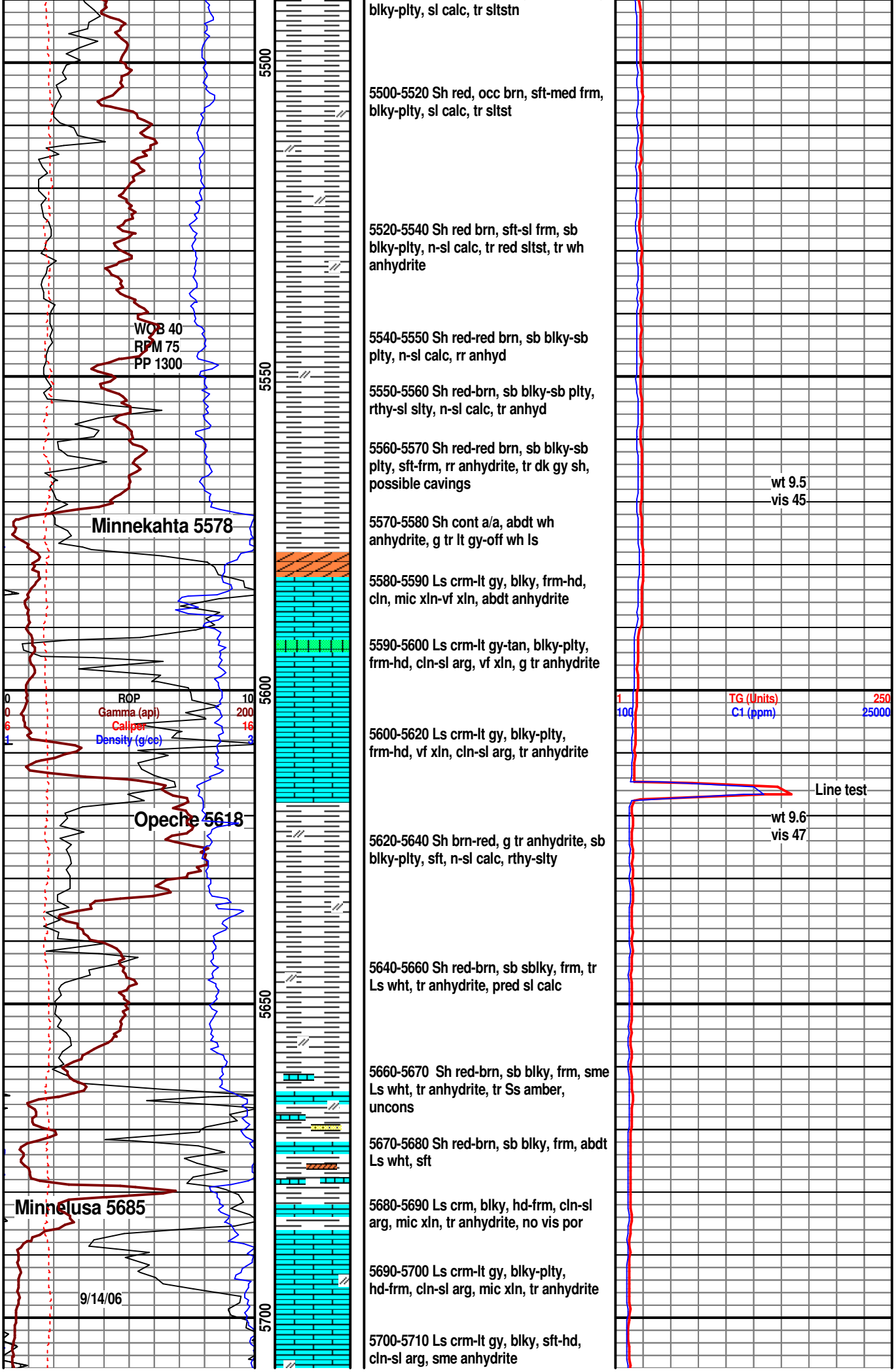
5010-5030 Ls crm-off wh-tan, hd, vf xln-crpxln, cln, blky-splty

5030-5050 Ls cont a/a, with interbedded sh, rd-rd brn, sb blky, frm, smth-sl slty

5050-5070 Ls crm-lt gy, hd, blky-plty, no


5074' TOH for low ROP, 18:00 on 9/11/06, resume drilling at 10:00 on 9/12/06
Spearfish 5075
Bit #3 Sec ERA 22 in @ 5074'
WOB 35
RPM 64
PP 1227
5100
5150
5200
5250
0 ROP 10
0 Gamma (api) 200
6 Caliper 16
1 Density (g/cc) 3
vis por, cln-v arg, grdg to calc sh ip, abdt lt gy calc sh
5070-5090 Sh red-red brn, sb blky-plty, sft-frm, smth-sl slty, abdt crm ls a/a
5090-5100 Sh red-red brn-lt gy, sb blky-sb plty, frm-sft, rthy-sl slty, n-sl calc, g tr ls a/a
5100-5120 Sh red-brn-lt gy, sb blky-splty, sft-sl frm, rthy-sl slty, g tr ls a/a
5120-5140 Sh red brn, occ lt gy, sb blky-splty, rr redox spots, sft-sl frm, rthy-slty, grdg to sltst ip, g tr ls a/a, occ vf gr ss & sltst
5140-5160 Sh red brn, occ lt gy, blky-plty, rr redox spots, rthy-sl slty, g tr sft wh anhydrite, rr xln frm anhydrite
5160-5180Sh red brn, occ lt gy, blky-plty, rthy-sl slty, g tr sft wh anhydrite, rr xln frm anhydrite
5180-5190 Sh red-brn-lt gy, sb blky-splty, sft-sl frm, g tr anhydrite
5190-5200 Halite trnsl-wh-redbrn, frm, vf-c xln, cln-sl arg, cont abdt red brn sh a/a
5200-5220 Sh red, sb blky, v sft, gummy, anhydritic, n calc
5220-5240 Sh red, sb blky, v sft, gummy, anhydridic, n calc, tr sltst gy
5240-5260 Sh red, sb blky, v sft, gummy, anhydritic, n calc
5260-5280 Sh red, sb blky, v sft, gummy, anhydritic, n calc
TG 80 units
wt 9.6
vis 50
1 TG (Units) 250
100 C1 (ppm) 25000


9/13/06
PineSalt 5315
WOB 40
RPM 75
PP 1300
0
ROP
10
0
Gamma (api)
200
6
Caliper
16
1
Density (g/cc)
3
5300
5350
5400
5450
5280-5300 Sh red, sb blky, v sft, gummy, anhydritic, n calc tr Ls lt gy, frm
5300-5320 Sh red, sb blky, v sft, gummy, anhy, n calc
5320-5340 Halite off wh-trnsl-crm, sb blky-blky, frm, cln-sl arg, vf-c xln
5340-5360 Halite cont a/a, very poor sample
5360-5380 Halite off wh-pnk-trnsl, sb blky, frm, cln-sl arg, vf-m xln
5380-5400 Halite off wht-pink, sb blky-blky, frm, sl arg, tr wh anhydrite
5400-5420 Sh red-wht, sb blky, sft-frm, n calc, tr halcite off wht, c xln
5420-5440 Sh red-gy, sb blky, sft-frm, rthy, n calc
5440-5460 Sh red, occ brn, sft-med frm, blky-plty, sl calc, tr sltst
5460-5480 Sh red, occ brn, sft-med frm, gummy blky-plty, sl calc, tr sltst
5480-5500 Sh red, occ brn, sft-med frm,
1
TG (Units)
250
100
C1 (ppm)
25000



blky-plty, sl calc, tr sltstn

5500-5520 Sh red, occ brn, sft-med frm, blky-plty, sl calc, tr sltst

5520-5540 Sh red brn, sft-sl frm, sb blky-plty, n-sl calc, tr red sltst, tr wh anhydrite

5540-5550 Sh red-red brn, sb blky-sb plty, n-sl calc, rr anhyd

5550-5560 Sh red-brn, sb blky-sb plty, rthy-sl slty, n-sl calc, tr anhyd

5560-5570 Sh red-red brn, sb blky-sb plty, sft-frm, rr anhydrite, tr dk gy sh, possible cavings

5570-5580 Sh cont a/a, abdt wh anhydrite, g tr lt gy-off wh ls

5580-5590 Ls crm-lt gy, blky, frm-hd, cln, mic xln-vf xln, abdt anhydrite

5590-5600 Ls crm-lt gy-tan, blky-plty, frm-hd, cln-sl arg, vf xln, g tr anhydrite

5600-5620 Ls crm-lt gy, blky-plty, frm-hd, vf xln, cln-sl arg, tr anhydrite

5620-5640 Sh brn-red, g tr anhydrite, sb blky-plty, sft, n-sl calc, rthy-slty

5640-5660 Sh red-brn, sb sblky, frm, tr Ls wht, tr anhydrite, pred sl calc

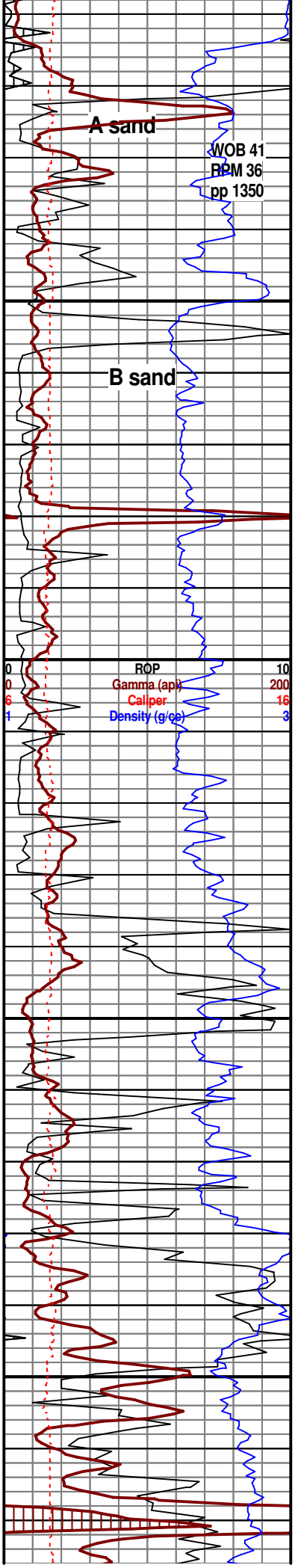
5660-5670 Sh red-brn, sb blky, frm, sme Ls wht, tr anhydrite, tr Ss amber, uncons

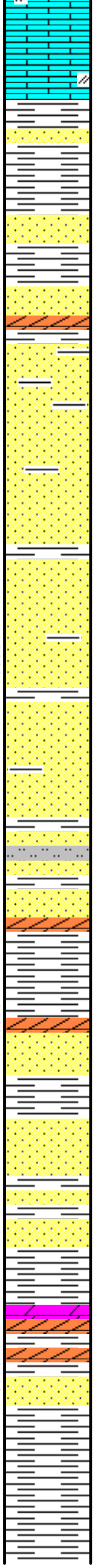
5670-5680 Sh red-brn, sb blky, frm, abdt Ls wht, sft

5680-5690 Ls crm, blky, hd-frm, cln-sl arg, mic xln, tr anhydrite, no vis por

5690-5700 Ls crm-lt gy, blky-plty, hd-frm, cln-sl arg, mic xln, tr anhydrite

5700-5710 Ls crm-lt gy, blky, sft-hd, cln-sl arg, sme anhydrite





5710-5720 Ls crm-off wh, blky-sb blky, hd-frm, sme anhydrite, g tr dk gy sh

5720-5730 Sh red brn, sb blky, sft-sl frm, rthy-sl slty, tr f gr uncns sd

5730-5740 Ss orng-red, vf-m gr, rnd-sb ang, v p srt, p cmt-fri, n calc, red cly matrix sptd, grdg to sdy sh ip, tr uncns sd, no vis por

5740-5750 Ss orng-trnsl, f-m gr, sb rnd-sb ang, p srt, fri-p cmt-uncns, n calc, g tr red cly mtx, no vis por

5750-5760 Ss orng-red, f-vf gr, rnd-sb ang, m srt, p cmt-fri, orng cly flld-orng cly mtx, n calc, no vis por

5760-5780 Ss orng, vf-f gr, rnd-sb ang, m srt, uncns-p cmt, n calc, occ orng cly flld

5780-5790 Ss orng, vf-f gr, rnd-sb ang, m srt, pred uncns, n calc, sme orng cly flld

5790-5800 Ss orng, vf-f gr, rnd-sb ang, m srt, pred uncns, occ p cmt, n calc, sme orng cly flld

5800-5810 Ss lt gy-orng, vf-f gr, rnd-sb ang, m srt, pred uncns, occ p cmt, n calc, sme cly flld

5810-5820 Ss lt gy, vf gr-slty, sb rnd-sb ang, m srt, uncns-p cmt, fri ip, n calc, sme grdg to sltst

5820-5830 Ss lt gy, vf gr-slty, sb ang-sb rnd, m srt, p cmt, fri, n calc, grdg to sltst ip, sme uncns sd

5830-5840 Ss trnsl-lt gy, vf gr-f gr, sb ang-sb rnd, m srt, uncns, n calc, tr anhydrite, abdt red brn sh

5840-5850 Sh red-brn, sb blky-blky, sft-frm, abdt wh-pink anhydrite, cont uncns sd a/a

5850-5860 Ss off wh-orng, vf-f gr, uncns-p cmt, abdt cly flld, cont tr anhydrite & sh a/a

5860-5870 Ss trnsl-orng, vf gr, uncns-p cmt, sme cly flld

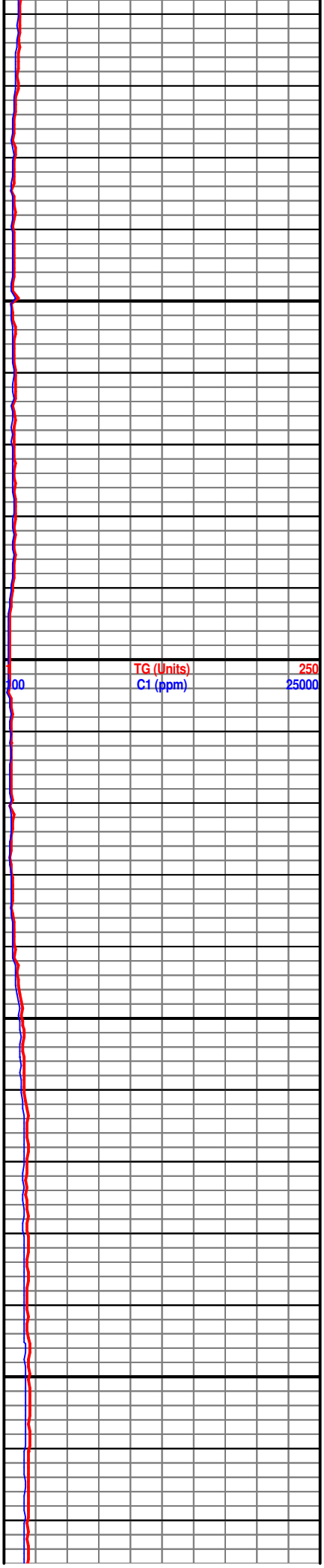
5870-5880 Ss trnsl-orng, vf gr, grdg to sltst, uncns-p cmt, abdt anhydrite

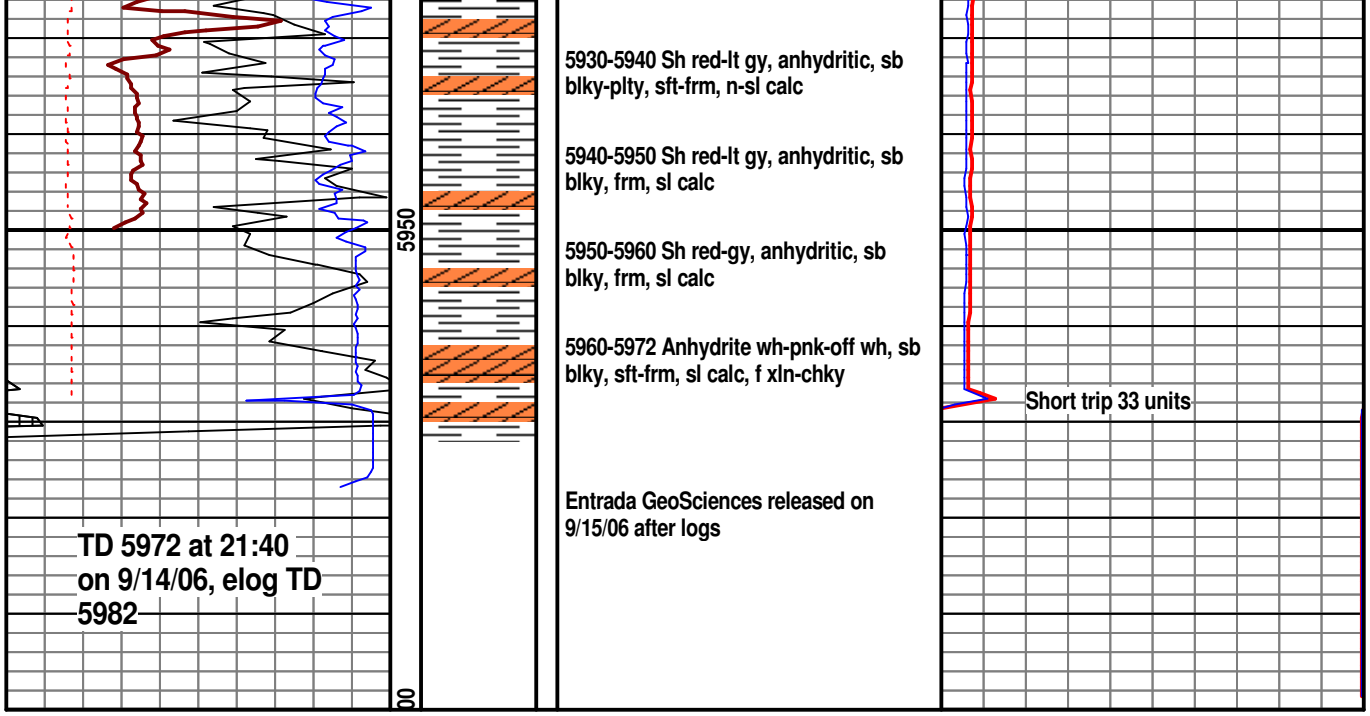
5880-5900 Sh red brn, sb blky-sb plty, rthy-slty, grdg to sltst ip, abdt anhydrite, tr crm dol

5900-5910 Ss trnsl-off wh, vf gr-slty, grdg to sltst, n calc, sl-m cmt, abdt sh a/a

5910-5920 Sh red brn-lt gy, anhydritic, sb blky-plty, sft-frm, n calc

5920-5930 Sh red brn-lt gy, anhydritic, sb blky-plty, sft-frm, n calc




5950
00
5930-5940 Sh red-lt gy, anhydritic, sb blky-plty, sft-frm, n-sl calc
5940-5950 Sh red-lt gy, anhydritic, sb blky, frm, sl calc
5950-5960 Sh red-gy, anhydritic, sb blky, frm, sl calc
5960-5972 Anhydrite wh-pnk-off wh, sb blky, sft-frm, sl calc, f xln-chky
Entrada GeoSciences released on 9/15/06 after logs
Short trip 33 units
TD 5972 at 21:40 on 9/14/06, elog TD 5982