

3/05/2014
DAY 02
0 FT/24HRS

C.S.

WOB 24.1K
PP 3885
RPM 85
SPM 67/67

MD 2500 TVD 2496.55
INC 10.77 AZ 187.62
VS 4.1

MD 2595 TVD 2589.81
INC 11.32 AZ 200.63
VS 10.18

MD 2690 TVD 2683.17
INC 9.99 AZ 198.11
VS 17.55

@ 8:00 AM ON 3/05/2014 W/BIT # 2,
8.75", PDC ULTERRA, UO1978 (S/N)
19680 IN @ 628' MD

PIERRE

CAME IN BEFORE LOGGING
DEPTH

PIERRE 2500' MD - 2600' MD



2500' MD-2600' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SS,
FREE SLTY SH, INTGR POR, NO
STN, NO FLOR, NO O FLOR, NO
CUT, NO RNG

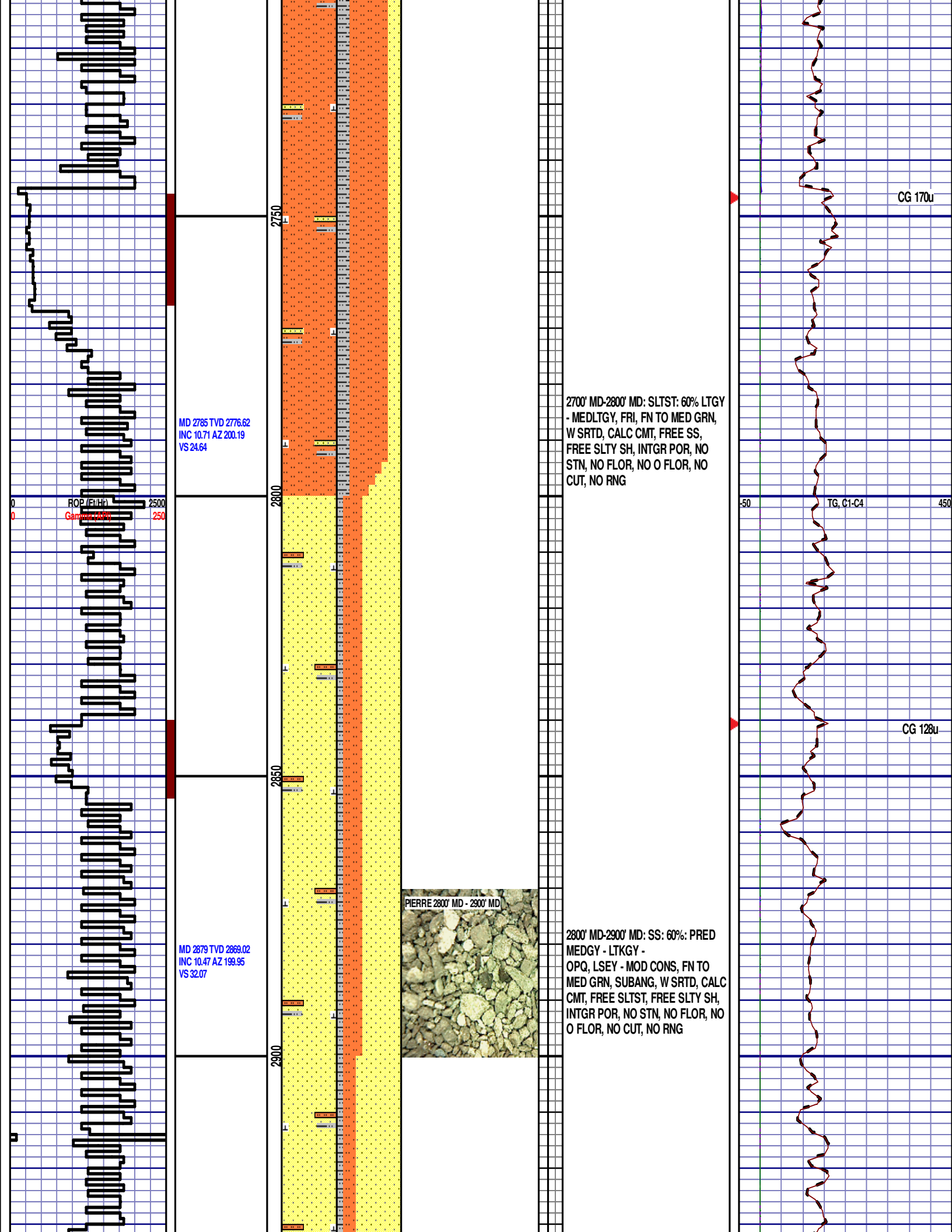
2600' MD-2700' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SS,
FREE SLTY SH, INTGR POR, NO
STN, NO FLOR, NO O FLOR, NO
CUT, NO RNG

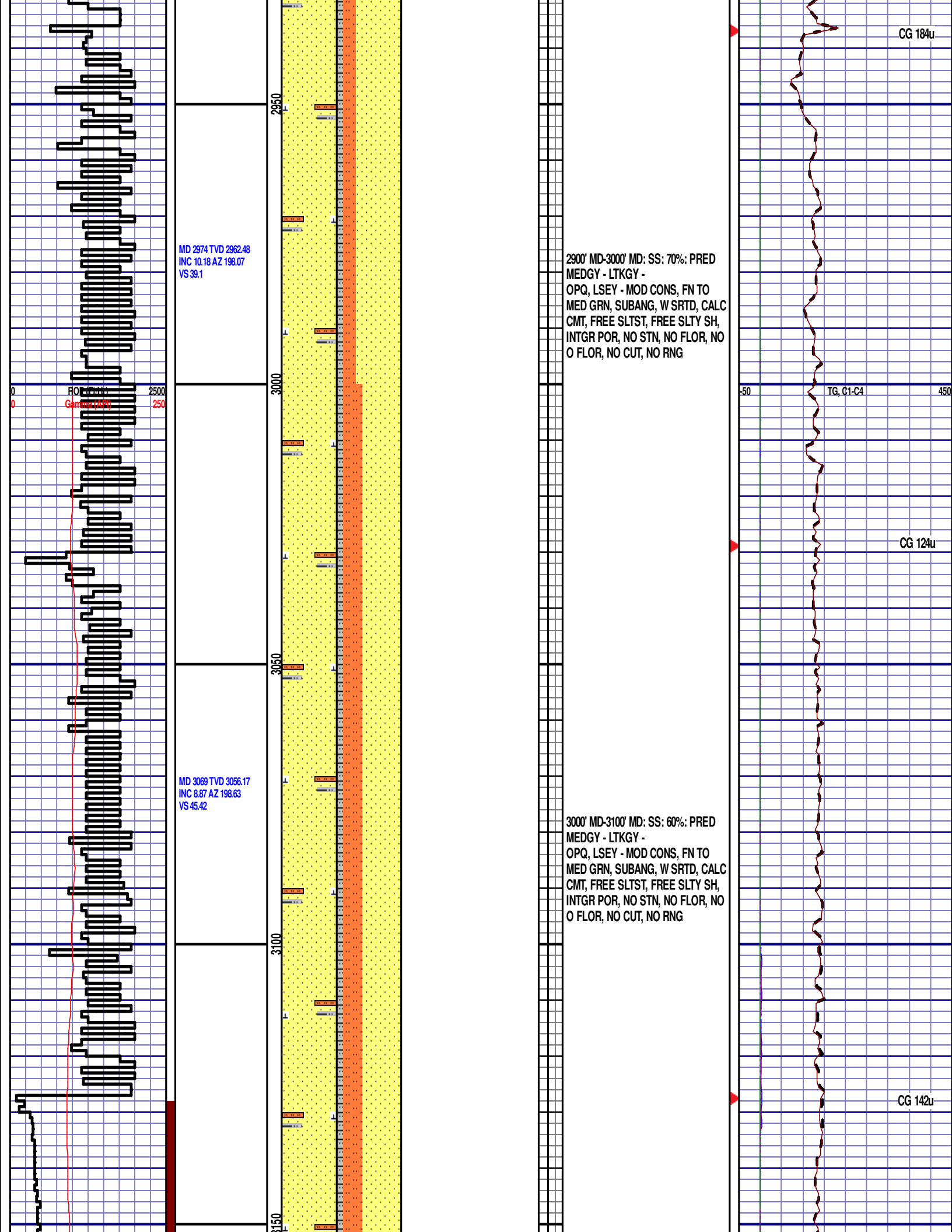
DEPTH 767
WT 8.55
VIS 29
PH 11.3
FIL 18.0
CL 2100
CAL 80
H2O 98.5
OIL 0.0
LGS 7.5
GEL 1/2/3
PV 3
YP 3
CK 1/0
SOL 1.2

CG 150u

TG, C1-C4

CG 159u





MD 3163 TVD 3148.75
INC 11.04 AZ 201.1
VS 52.38

RO 3163
Gamma 100%

PIERRE 3100' MD - 3200' MD



3100' MD-3200' MD: SS: 60%: PRED
MEDGY - LTKGY -
OPQ, LSEY - MOD CONS, FN TO
MED GRN, SUBANG, W SRTD, CALC
CMT, FREE SLTST, FREE SLTY SH,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, NO CUT, NO RNG

MD 3257 TVD 3241.18
INC 9.93 AZ 204.07
VS 60.37

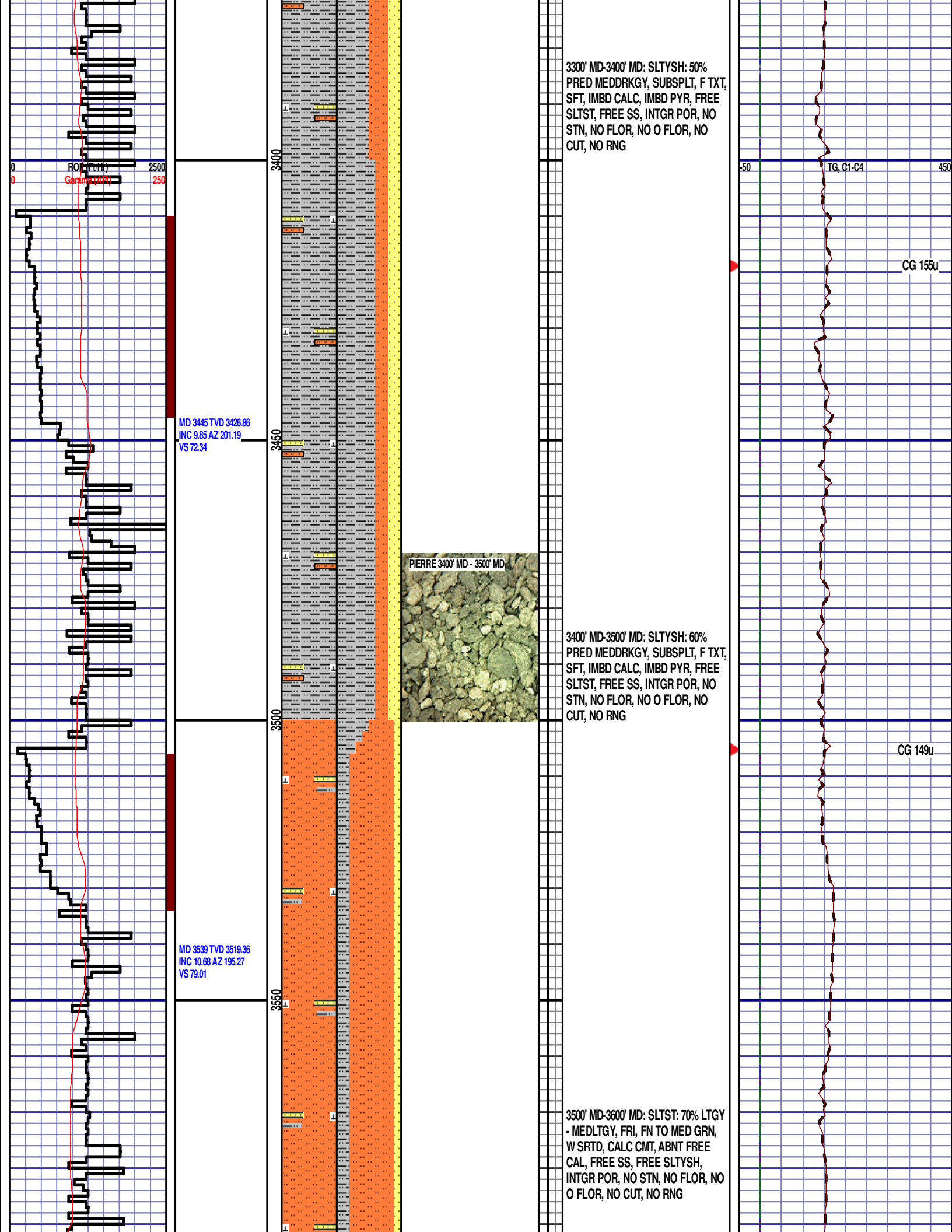
3200' MD-3300' MD: SLTYSH: 50%
PRED MEDDRKGY, SUBSPLT, F TXT,
SFT, IMBD CALC, IMBD PYR, FREE
SLTST, FREE SS, INTGR POR, NO
STN, NO FLOR, NO O FLOR, NO
CUT, NO RNG

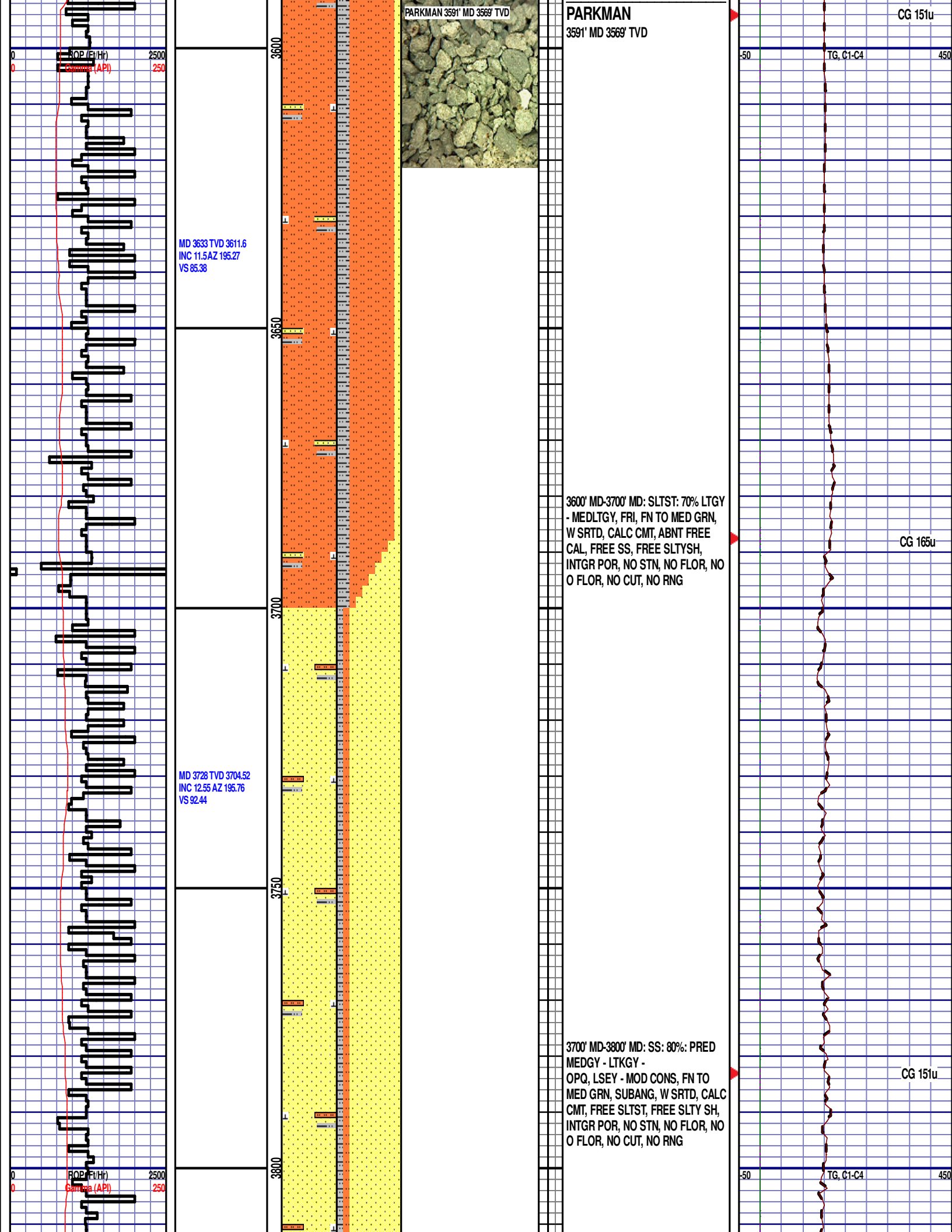
MD 3352 TVD 3335
INC 8.12 AZ 193.91
VS 66.61

-50 TG, C1-C4 450

CG 147u

CG 142u





MD 3822 TVD 3796.12
INC 13.36 AZ 195.39
VS 99.97

MD 3917 TVD 3888.9
INC 11.46 AZ 196.89
VS 107.44

MD 4010 TVD 3980.22
INC 10.36 AZ 195.56
VS 113.92



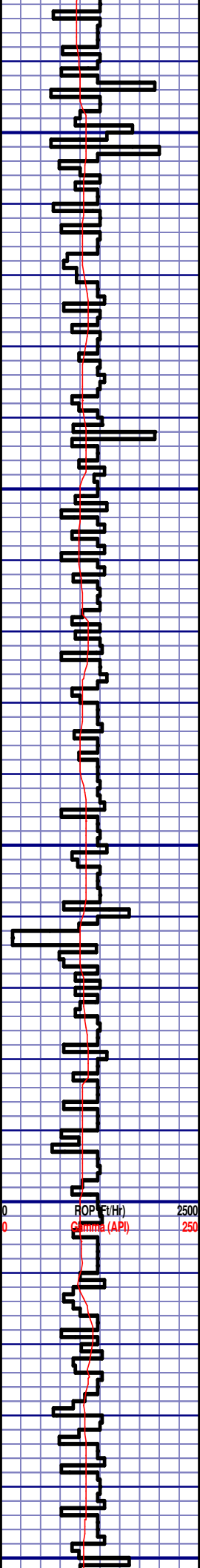
3800' MD-3900' MD: SS: 80%: PRED
MEDGY - LTKGY -
OPQ, LSEY - MOD CONS, FN TO
MED GRN, SUBANG, W SRTD, CALC
CMT, FREE SLTST, FREE SLTY SH,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, NO CUT, NO RNG

3900' MD-4000' MD: SS: 90%: PRED
MEDGY - LTKGY -
OPQ, LSEY - MOD CONS, FN TO
MED GRN, SUBANG, W SRTD, CALC
CMT, IMBD GLAU, FREE SLTST,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, NO CUT, NO RNG

CG 161u

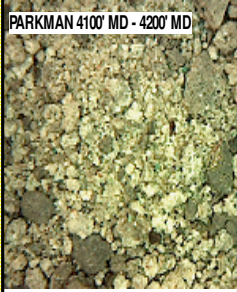
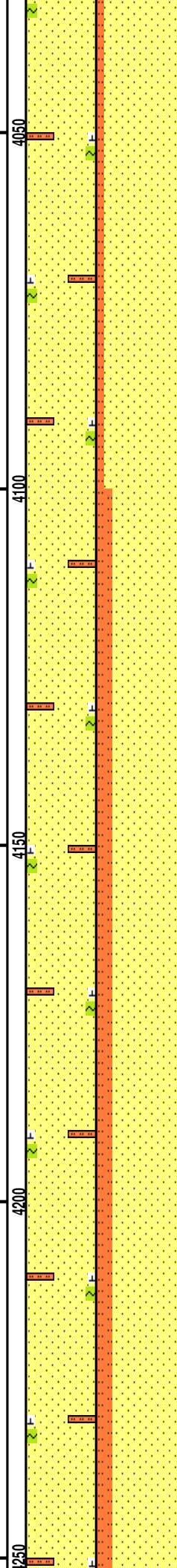
CG 150u

TG, C1-C4



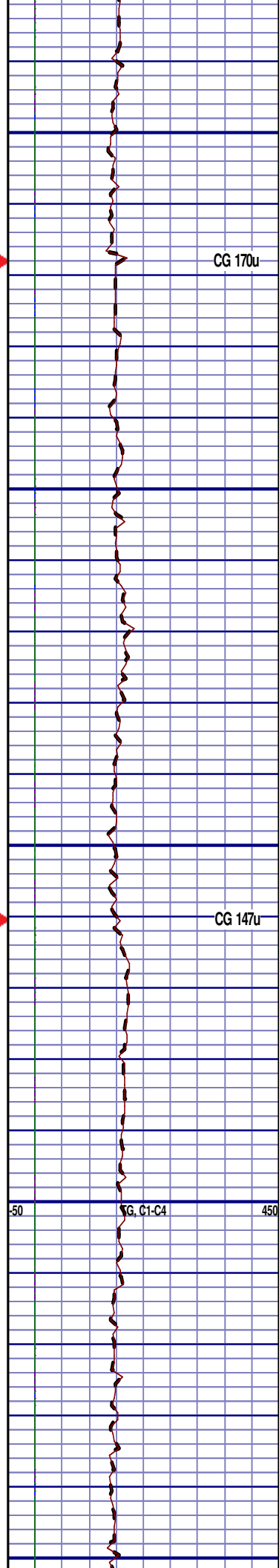
MD 4105 TVD 4073.86
INC 9.05 AZ 195.58
VS 119.65

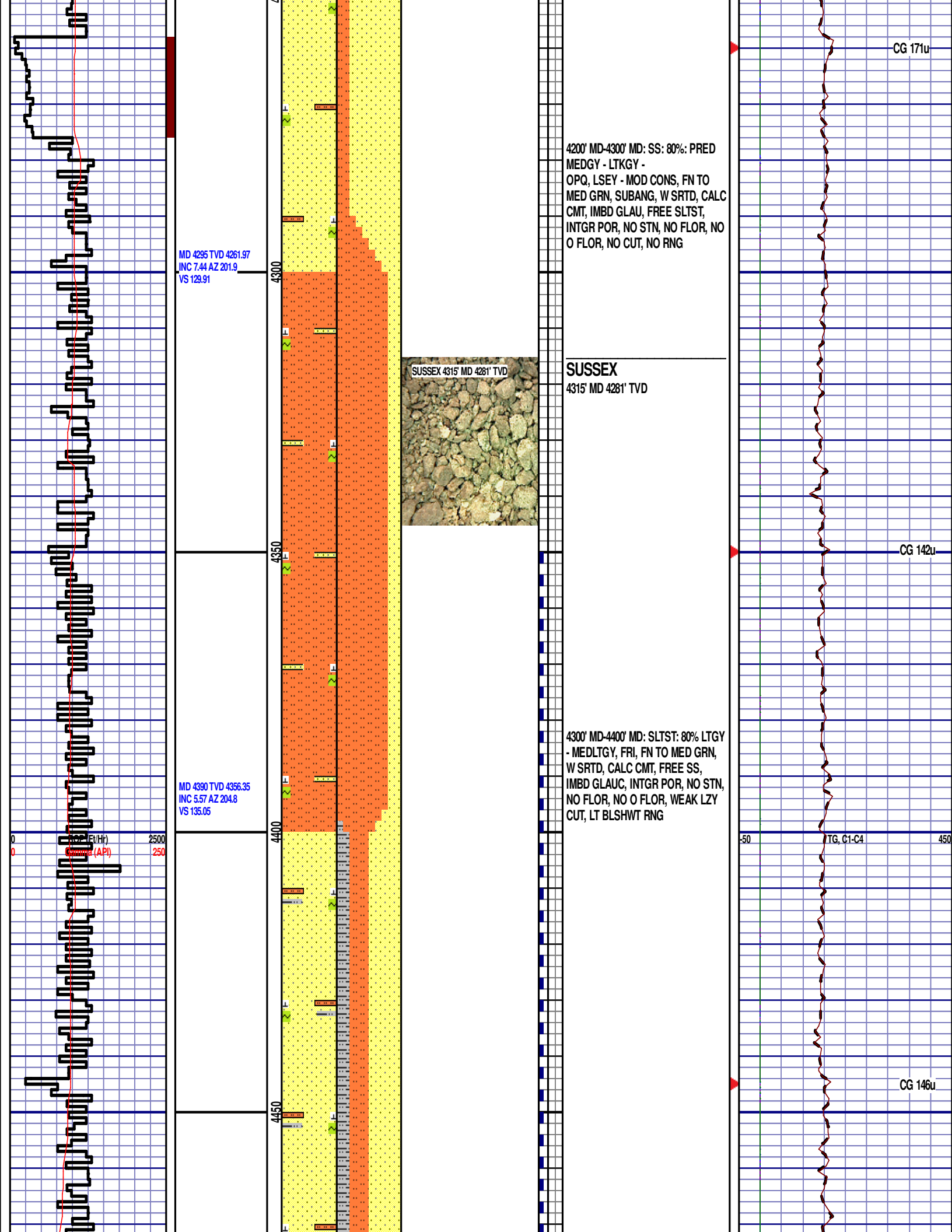
MD 4200 TVD 4167.82
INC 7.9 AZ 196.08
VS 124.7



4000' MD-4100' MD: SS: 90%: PRED
MEDGY - LTKGY -
OPQ, LSEY - MOD CONS, FN TO
MED GRN, SUBANG, W SRTD, CALC
CMT, IMBD GLAU, FREE SLTST,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, NO CUT, NO RNG

4100' MD-4200' MD: SS: 80%: PRED
MEDGY - LTKGY -
OPQ, LSEY - MOD CONS, FN TO
MED GRN, SUBANG, W SRTD, CALC
CMT, IMBD GLAU, FREE SLTST,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, NO CUT, NO RNG





MD 4485 TVD 4450.98
INC 4.63 AZ 206.45
VS 139.38

MD 4580 TVD 4545.62
INC 5.26 AZ 206.92
VS 143.73

MD 4674 TVD 4639.29
INC 4.43 AZ 228.03
VS 148.95

4400' MD-4500' MD: SS: 50%: PRED
MEDGY - LTKGY -
OPQ, LSEY - MOD CONS, FN TO
MED GRN, SUBANG, W SRTD, CALC
CMT, IMBD GLAUC, FREE SLTST,
FREE SLTY SH, INTGR POR, NO
STN, NO FLOR, NO O FLOR, WEAK
LZY CUT, LT BLSHWT RNG

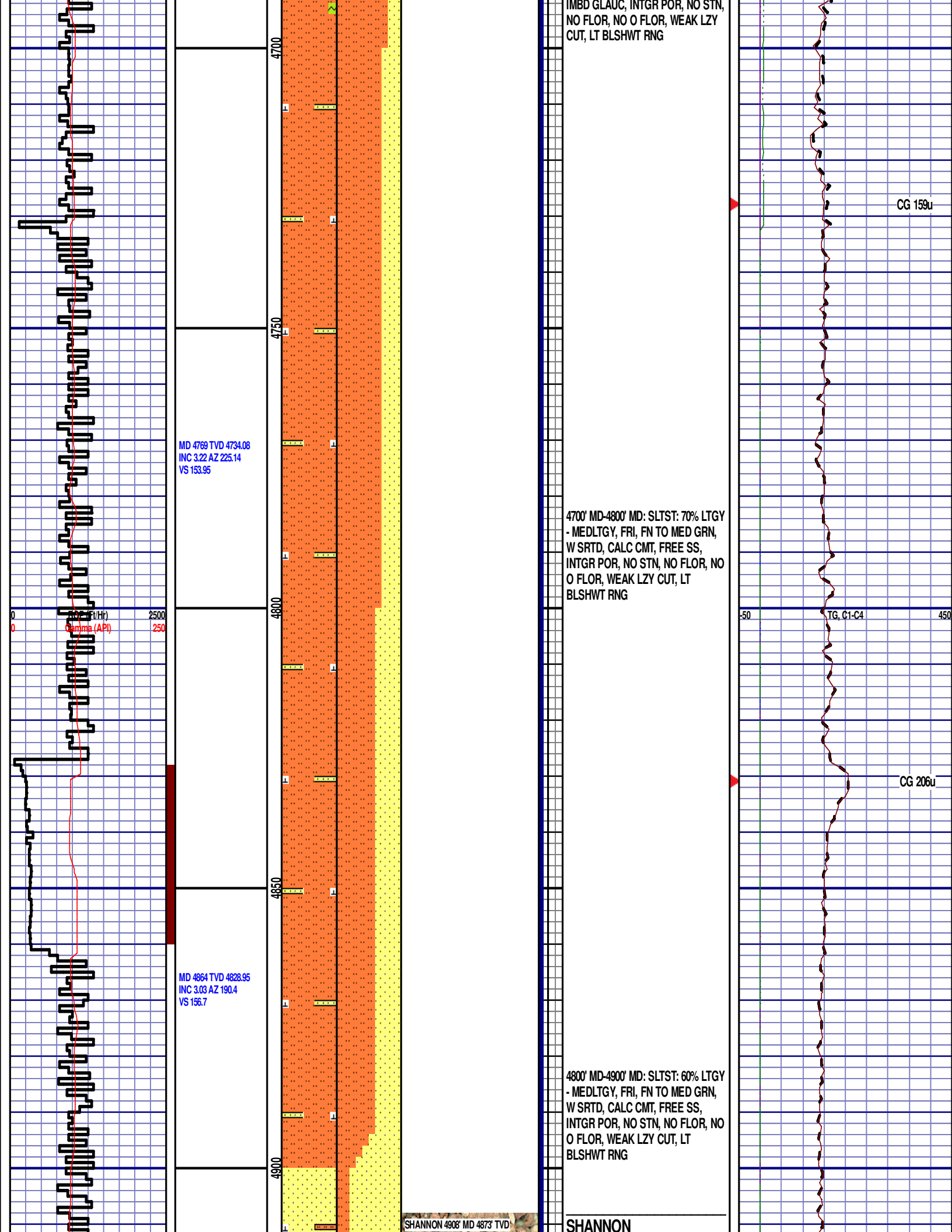


4500' MD-4600' MD: SLTST: 80% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SS,
IMBD GLAUC, INTGR POR, NO STN,
NO FLOR, NO O FLOR, WEAK LZY
CUT, LT BLSHWT RNG

DEPTH 4580'
WT 8.95
VIS 31
PH 8.6
FIL 16.8
CL 2200
CAL 60
H2O 96
OIL 0.0
LGS 25.4
GEL 2/3/4
PV 5
YP 4
CK 1/0
SOL 3.7

CG 164u

4600' MD-4700' MD: SLTST: 80% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SS,



IMBD GLAUC, INTGR POR, NO STN,
NO FLOR, NO O FLOR, WEAK LZY
CUT, LT BLSHWT RNG

CG 159u

MD 4769 TVD 4734.08
INC 3.22 AZ 225.14
VS 153.95

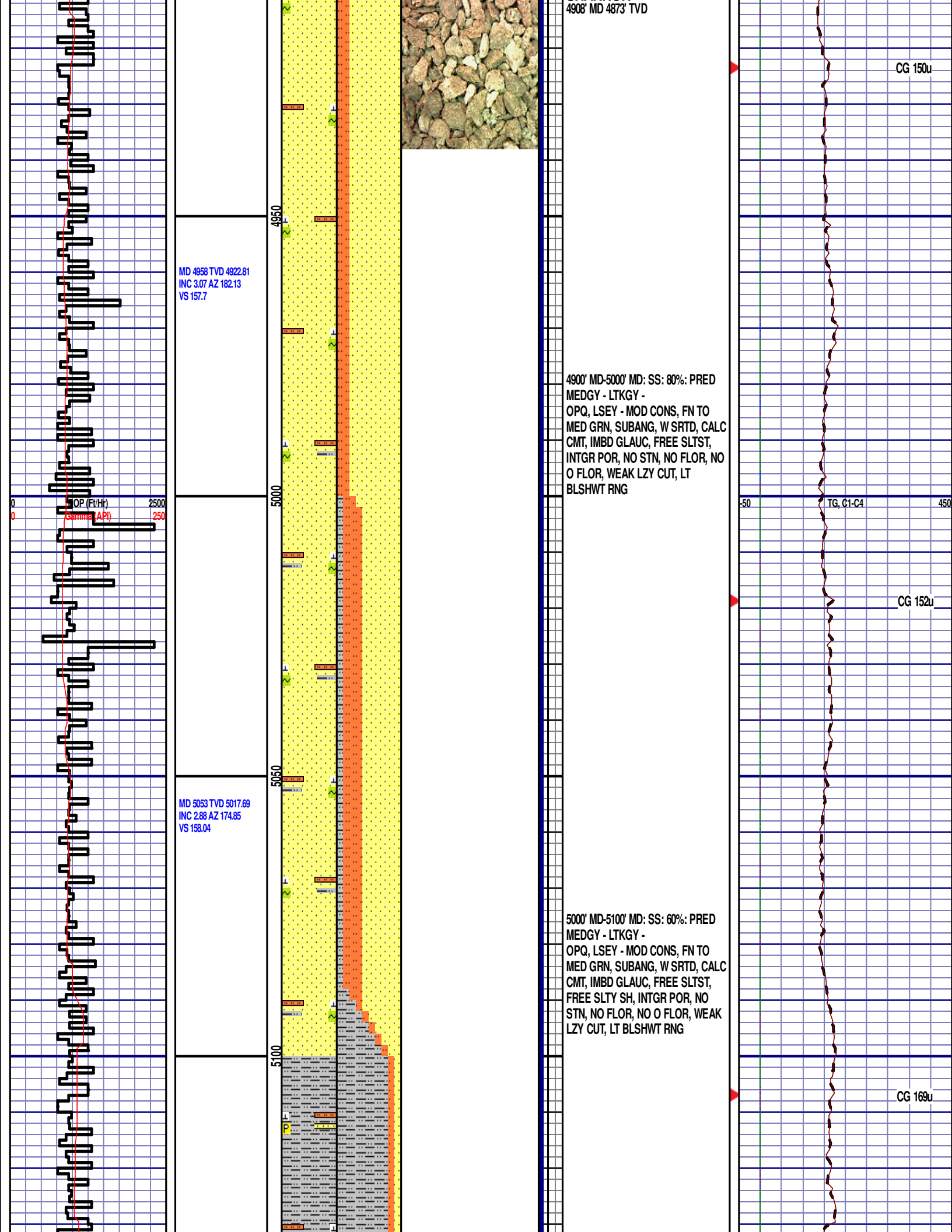
4700' MD-4800' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SS,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, WEAK LZY CUT, LT
BLSHWT RNG

-50 TG, C1-C4 450

CG 206u

MD 4864 TVD 4828.95
INC 3.03 AZ 190.4
VS 156.7

4800' MD-4900' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SS,
INTGR POR, NO STN, NO FLOR, NO
O FLOR, WEAK LZY CUT, LT
BLSHWT RNG



MD 5148 TVD 5112.59
INC 2.14 AZ 167.88
VS 157.84

SHANNON 5100' MD - 5200' MD



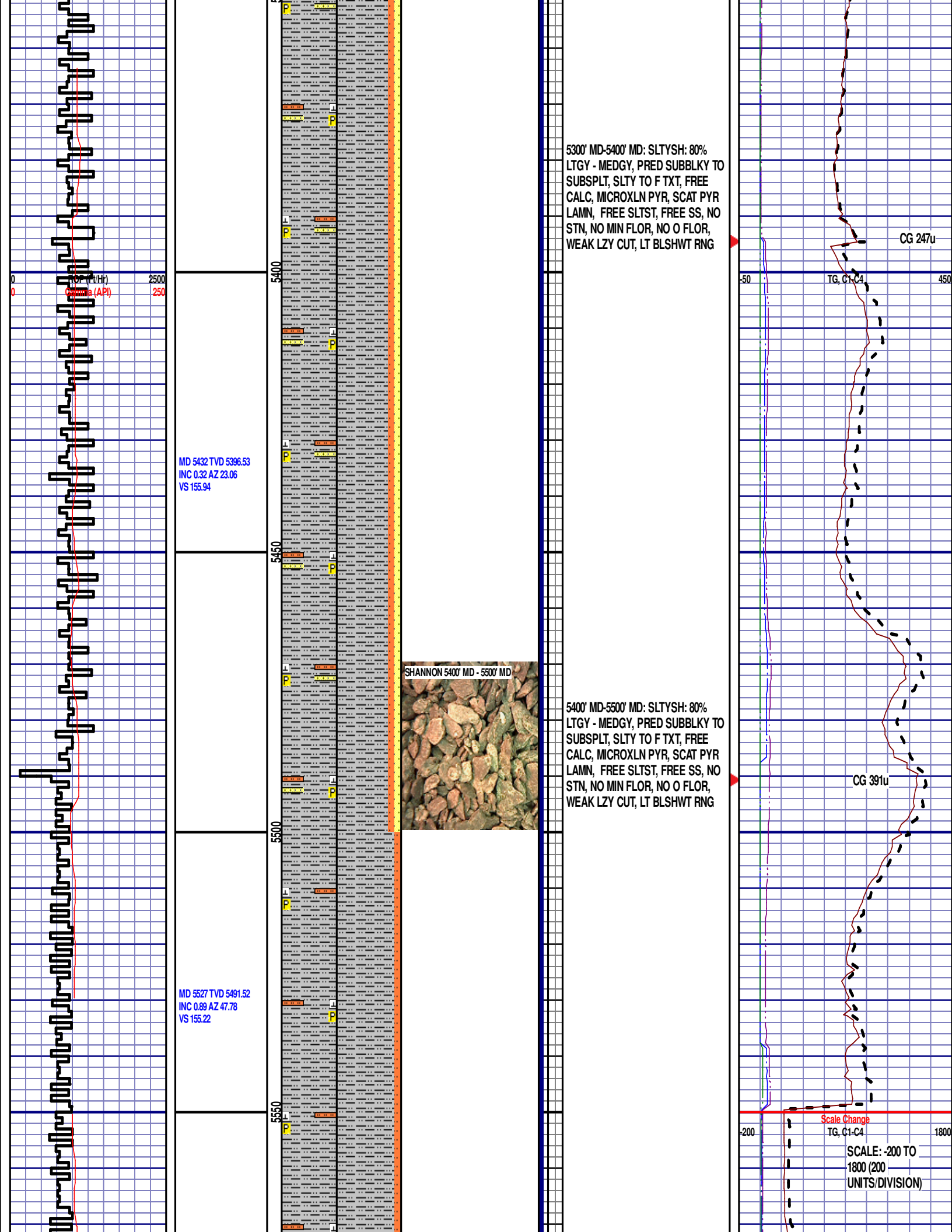
5100' MD-5200' MD: SLTYSH: 80%
LTGY - MEDGY, PRED SUBBLKY TO
SUBSPLT, SLTY TO F TXT, FREE
CALC, MICROXLN PYR, SCAT PYR
LAMN, FREE SLTST, FREE SS, NO
STN, NO MIN FLOR, NO O FLOR,
WEAK LZY CUT, LT BLSHWT RNG

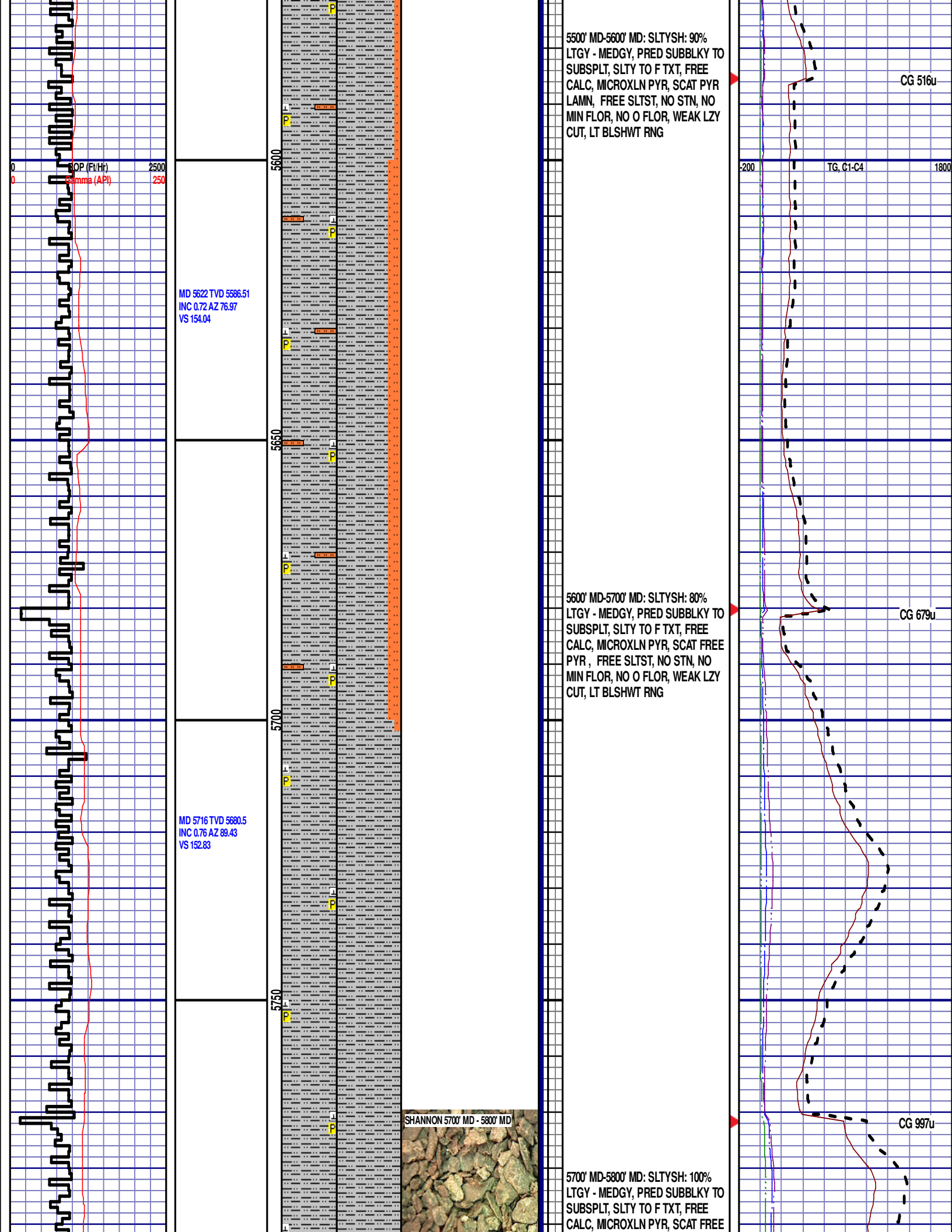
MD 5243 TVD 5207.55
INC 1.51 AZ 151.92
VS 157.15

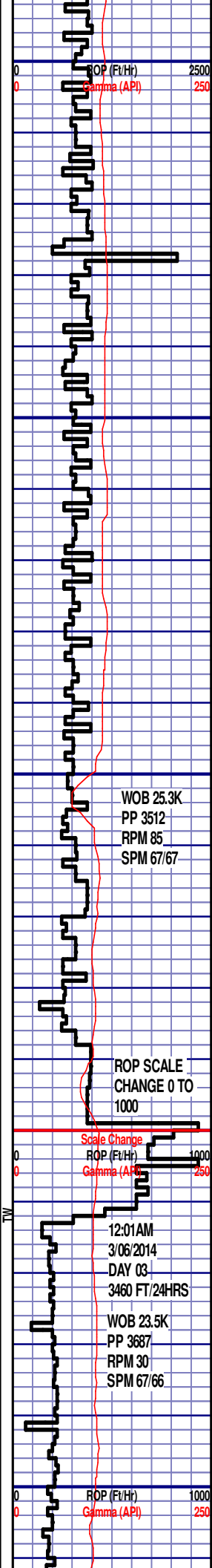
5200' MD-5300' MD: SLTYSH: 80%
LTGY - MEDGY, PRED SUBBLKY TO
SUBSPLT, SLTY TO F TXT, FREE
CALC, MICROXLN PYR, SCAT PYR
LAMN, FREE SLTST, FREE SS, NO
STN, NO MIN FLOR, NO O FLOR,
WEAK LZY CUT, LT BLSHWT RNG

CG C1-C4
CG 197u

CG 163u







MD 5811 TVD 5775.5
INC 0.65 AZ 98.03
VS 151.68

WOB 25.3K
PP 3512
RPM 85
SPM 67/67

MD 5906 TVD 5870.49
INC 0.71 AZ 138.34
VS 150.81

ROP SCALE
CHANGE 0 TO
1000

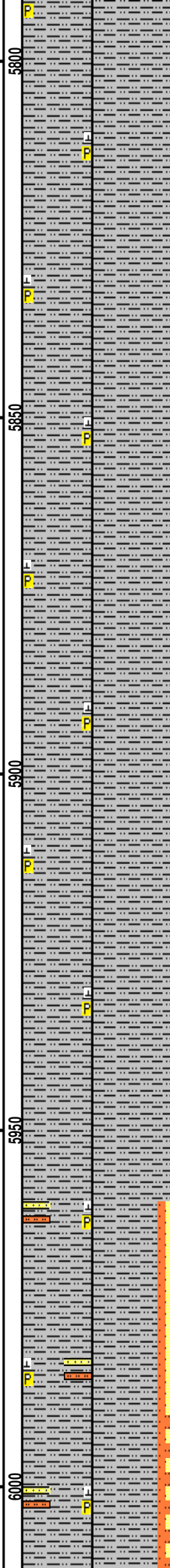
Scale Change
ROP (Ft/Hr)
Gamma (API)

12:01AM
3/06/2014
DAY 03
3460 FT/24HRS

WOB 23.5K
PP 3687
RPM 30
SPM 67/66

ROP (Ft/Hr)
Gamma (API)

MD 5996 TVD 5960.48
INC 1.27 AZ 164.82
VS 150.31



TEEPEE BUTTES 5856' MD 5821' TVD



PYR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZ Y CUT, LT BL SHWT
RNG

TEEPEE BUTTES

5856' MD 5821' TVD

5800' MD-5900' MD: SLTYSH: 100%
LTGY - MEDGY, PRED SUBBLKY TO
SUBSPLT, SLTY TO F TXT, FREE
CALC, MICROXLN PYR, SCAT FREE
PYR, NO STN, NO MIN FLOR, NO O
FLOR, WEAK LZ Y CUT, MOD
BL SHWT RNG

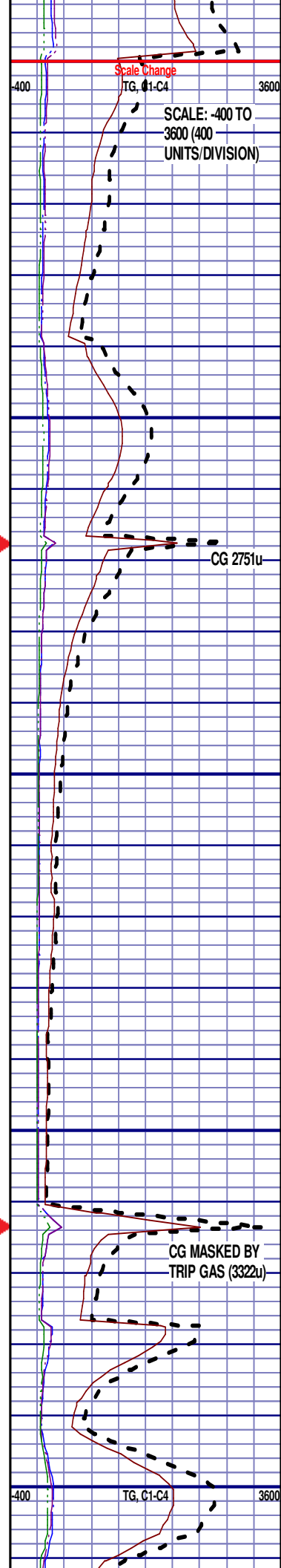
TOOH @ 5:00 PM ON 3/5/2014 @
5960' MD TO PICK UP CURVE
ASSEMBLY

TIH @ 9:15 PM ON 3/05/2014.
RESUMED DRILLING @ 12:30 AM
ON 3/06/2014 W/ BIT #3, 8.75", HDBS
MMD55M, S/N 12413369 IN @ 5960'
MD

SWITCHING TO 30FT SAMPLE
INTERVAL

5960' MD-5990' MD: SLTY SH: 80%
MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY,
GRTY TO SLTY TXT, FRM TO BRIT, IMBD SS
LAMN, SLTST LAMN, FREE CAL, FREE PYR,
NO STN, NO FLOR, NO O FLOR, MOD LZ Y
CUT, LT BRVLRNG

5990' MD-6020' MD: SLTY SH: 80%
MEDDRKGY - MEDLTGY, BLKY TO SUBBLKY,
GRTY TO SLTY TXT, FRM TO BRIT, IMBD SS



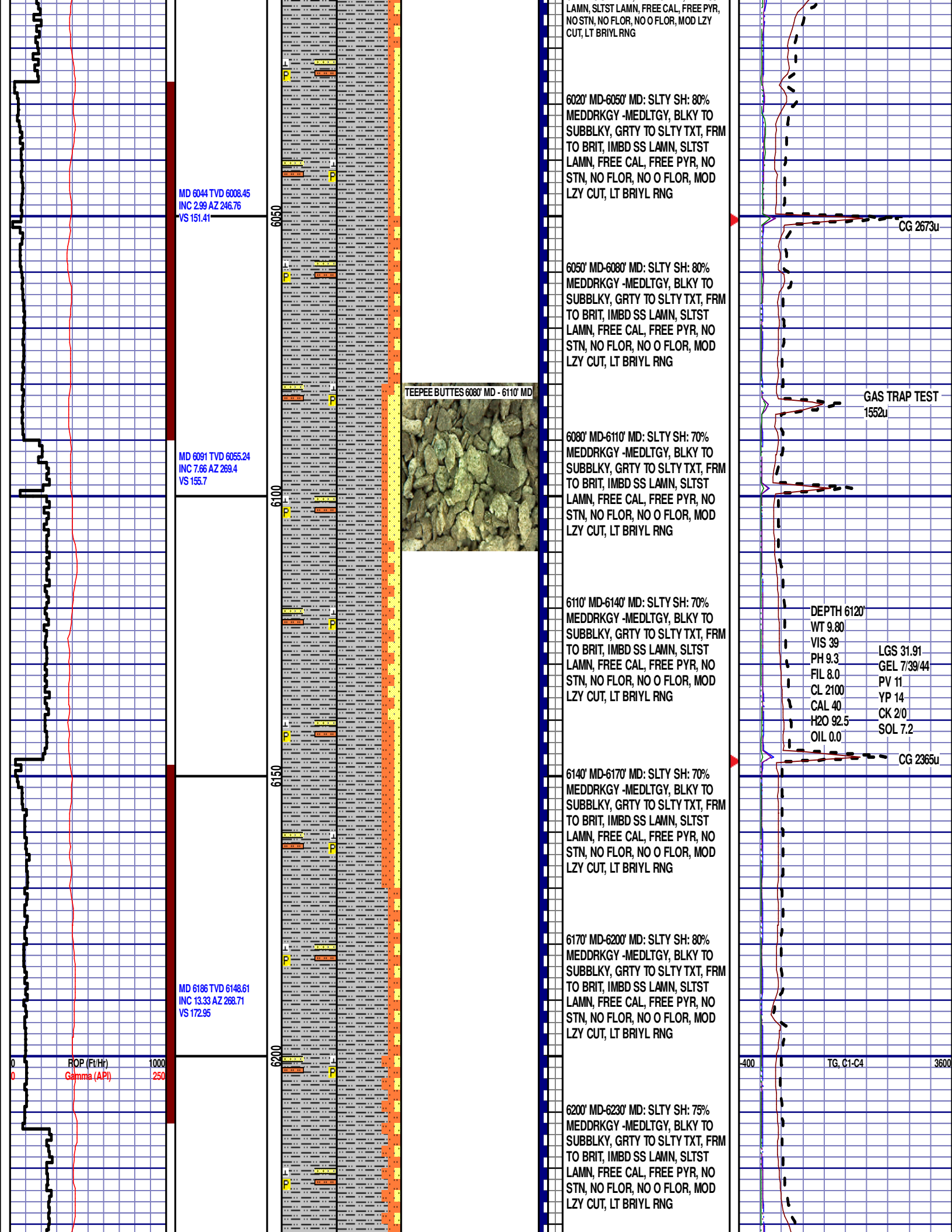
Scale Change
ROP (Ft/Hr)
Gamma (API)

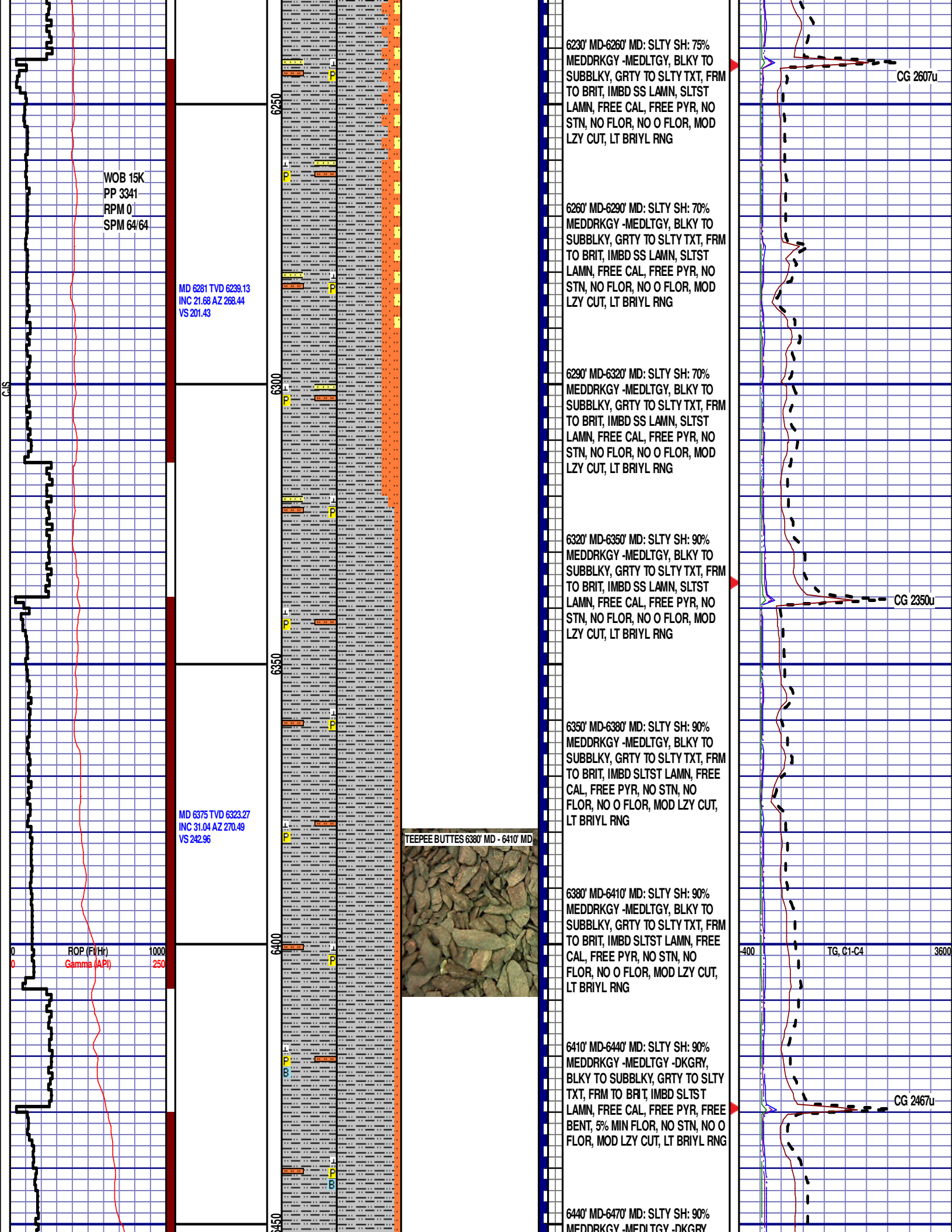
SCALE: -400 TO
3600 (400
UNITS/DIVISION)

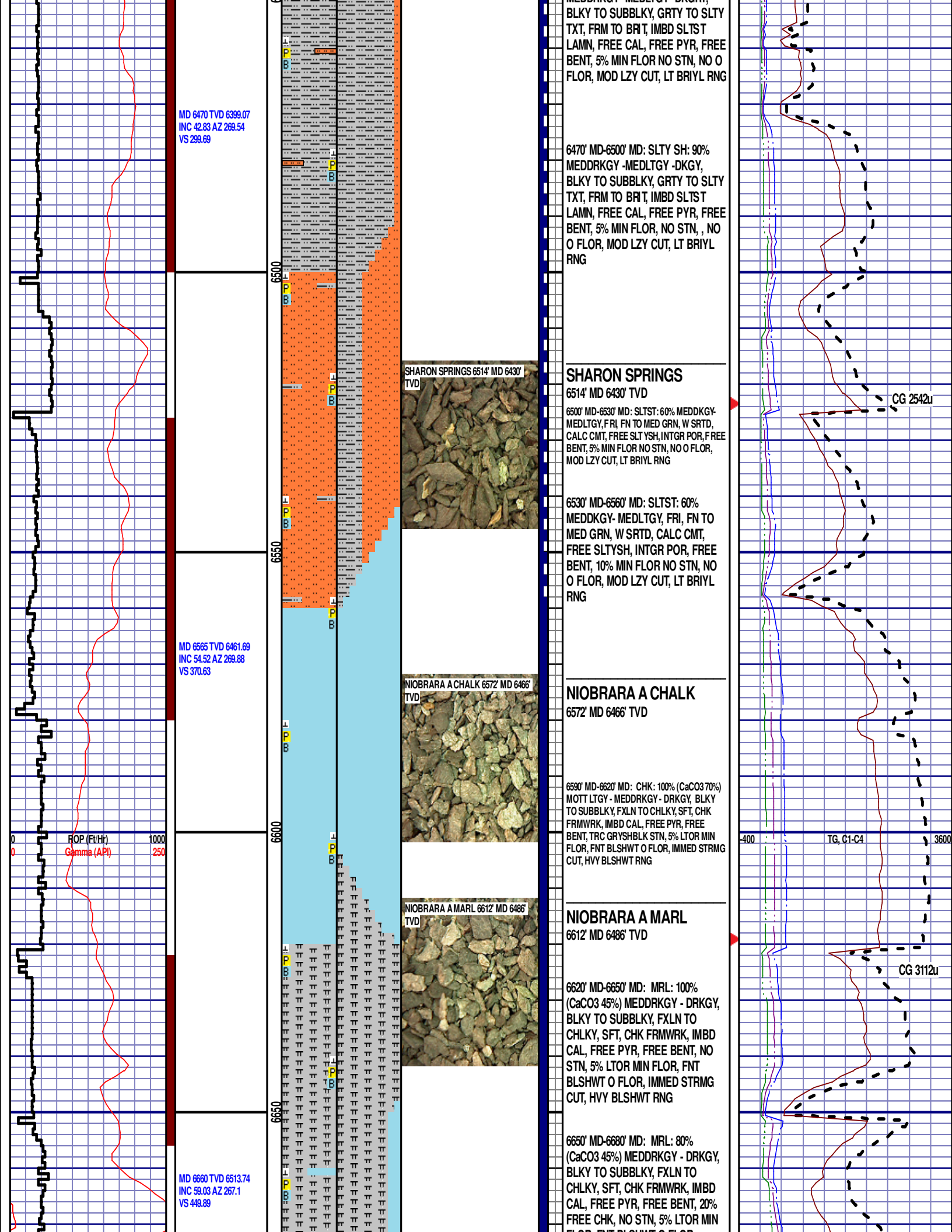
CG 2751u

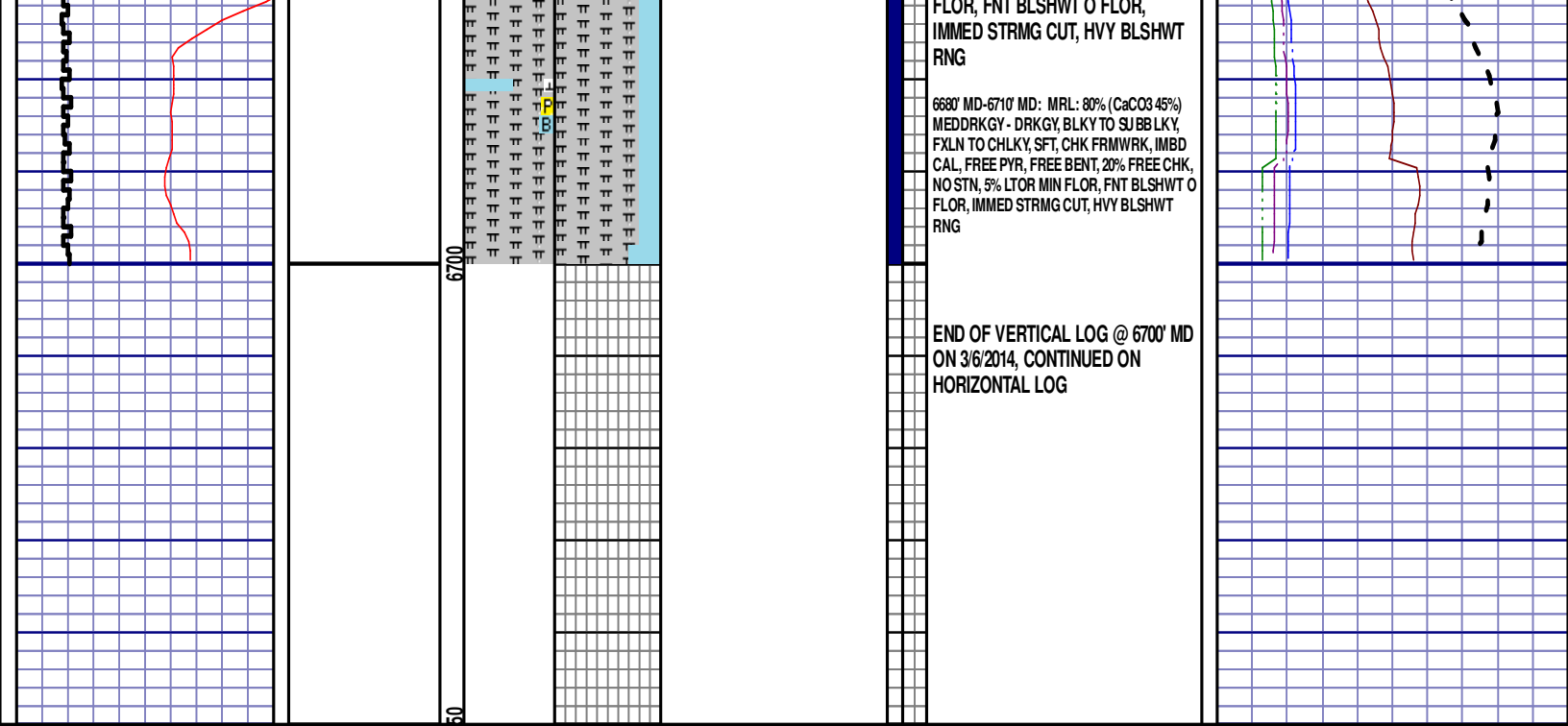
CG MASKED BY
TRIP GAS (3322u)

TG, C1-C4









6680' MD-6710' MD: MRL: 80% (CaCO3 45%)
MEDDRKGY - DRKGY, BLKY TO SJ BB LKY,
FXLN TO CHLKY, SFT, CHK FRMWK, IMBD
CAL, FREE PYR, FREE BENT, 20% FREE CHK,
NO STN, 5% LTOR MIN FLOR, FNT BLSHWT O
FLOR, IMMED STRMG CUT, HVY BLSHWT
RNG

END OF VERTICAL LOG @ 6700' MD
ON 3/6/2014, CONTINUED ON
HORIZONTAL LOG