

9/13/2014
DAY 02
0 FT/24HRS

WOB 30.9K
PP 3256
RPM 60
SPM 86/86

ROP (Ft/Hr)
Gamma (API)

MD 2591 TVD 2582.22
INC 6.86 AZ 44.29
VS -74.98

MD 2683 TVD 2673.47
INC 7.79 AZ 44.01
VS -82.93

8.75", HDBS, MMD56 (S/N) 12529666
IN @ 684' MD



SURFACE 2500' MD - 2600' MD

2500' MD-2600' MD: SLTST: 75% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, FREE
SLTY SH, IMBD PYR, 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, SANDY, IMBD
PYR, IMBD GLAUC, INTGR POR,
NO STN, NO FLOR, NO O FLOR, NO
CUT, NO RNG

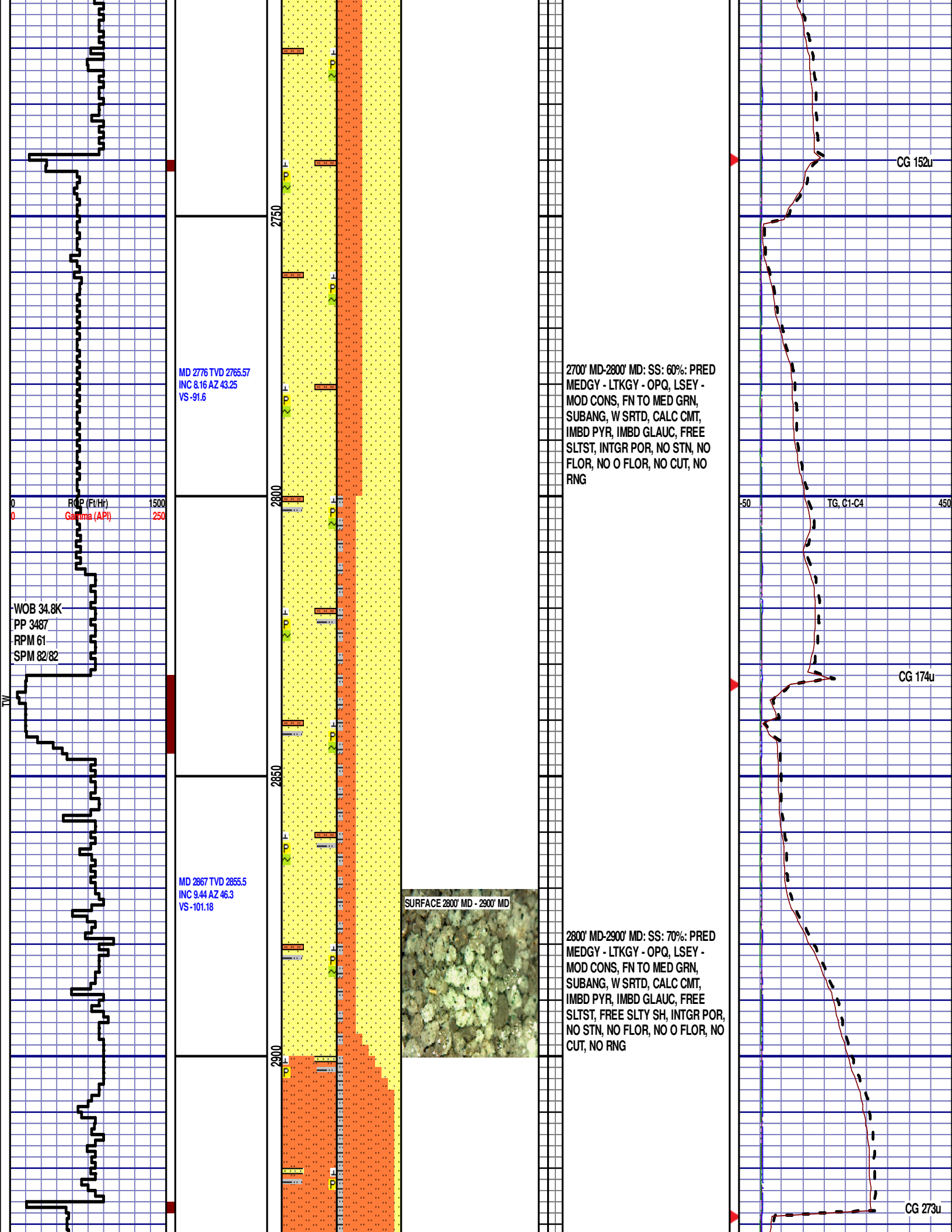
DEPTH 684'
WT 8.60
VIS 27
PH 8.60
FIL 25.0
CL 2400
CAL 280
H2O 97.8
OIL 0.0
LGS 1.9
GEL 1/2/2
PV 2
YP 1
CK 2/0
SOL 1.9

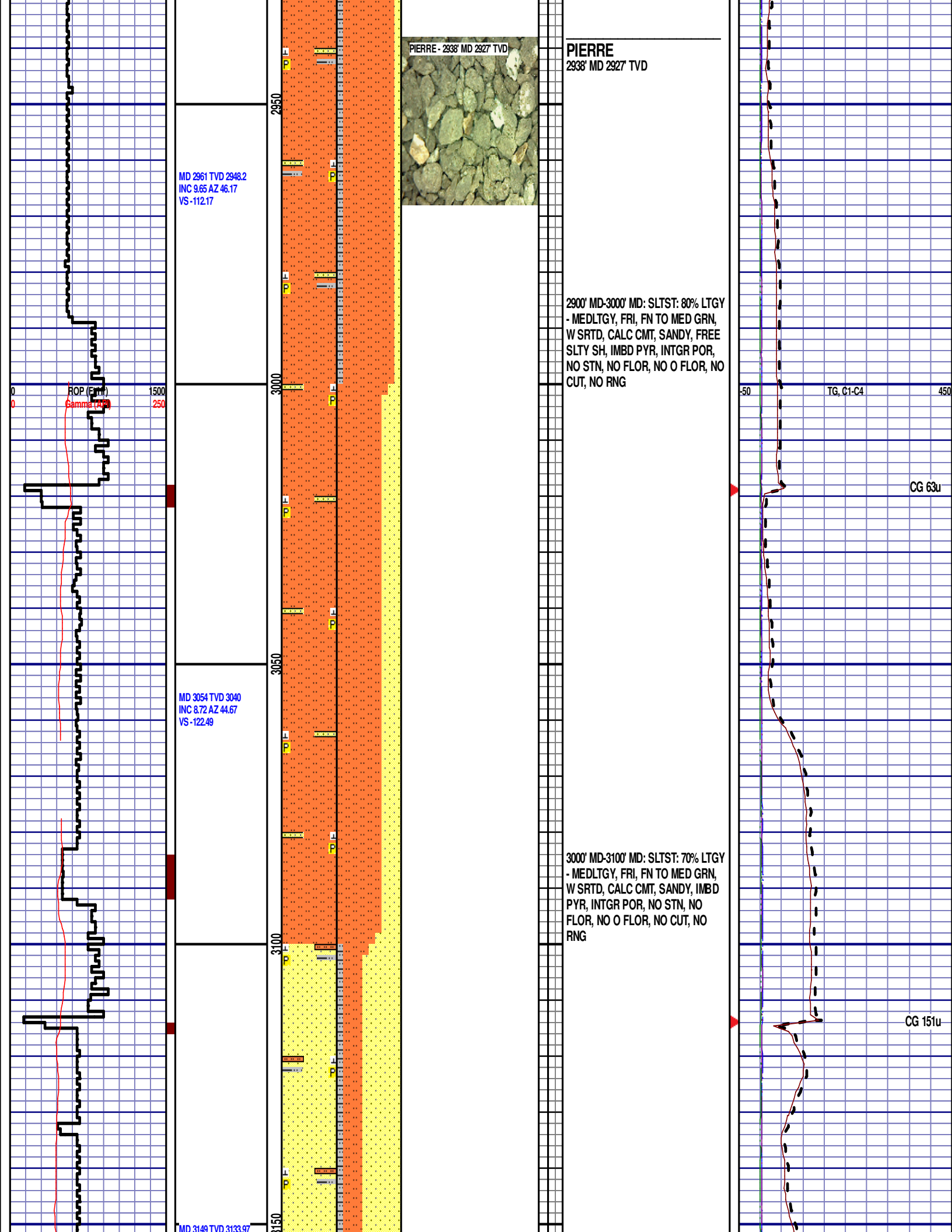
CG 144u

TG, C1-C4

CG 66u

DEPTH 2652'
WT 8.75
VIS 28
PH 9.9
FIL 73.5
CL 2300
CAL 160
H2O 97.0
OIL 0.0
LGS 21.1
GEL 1/3/5
PV 2
YP 3
CK 3/0
SOL 2.7





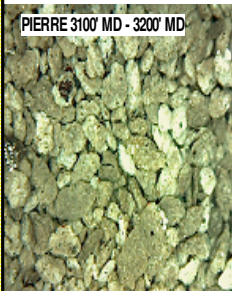
INC 8.22 AZ 43.36
VS -131.96

RO (Ft/Hr) 1500
Gamma (API) 250

MD 3243 TVD 3227.11
INC 7.29 AZ 41.45
VS -140.29

MD 3338 TVD 3321.37
INC 7.01 AZ 38.17
VS -147.64

PIERRE 3100' MD - 3200' MD



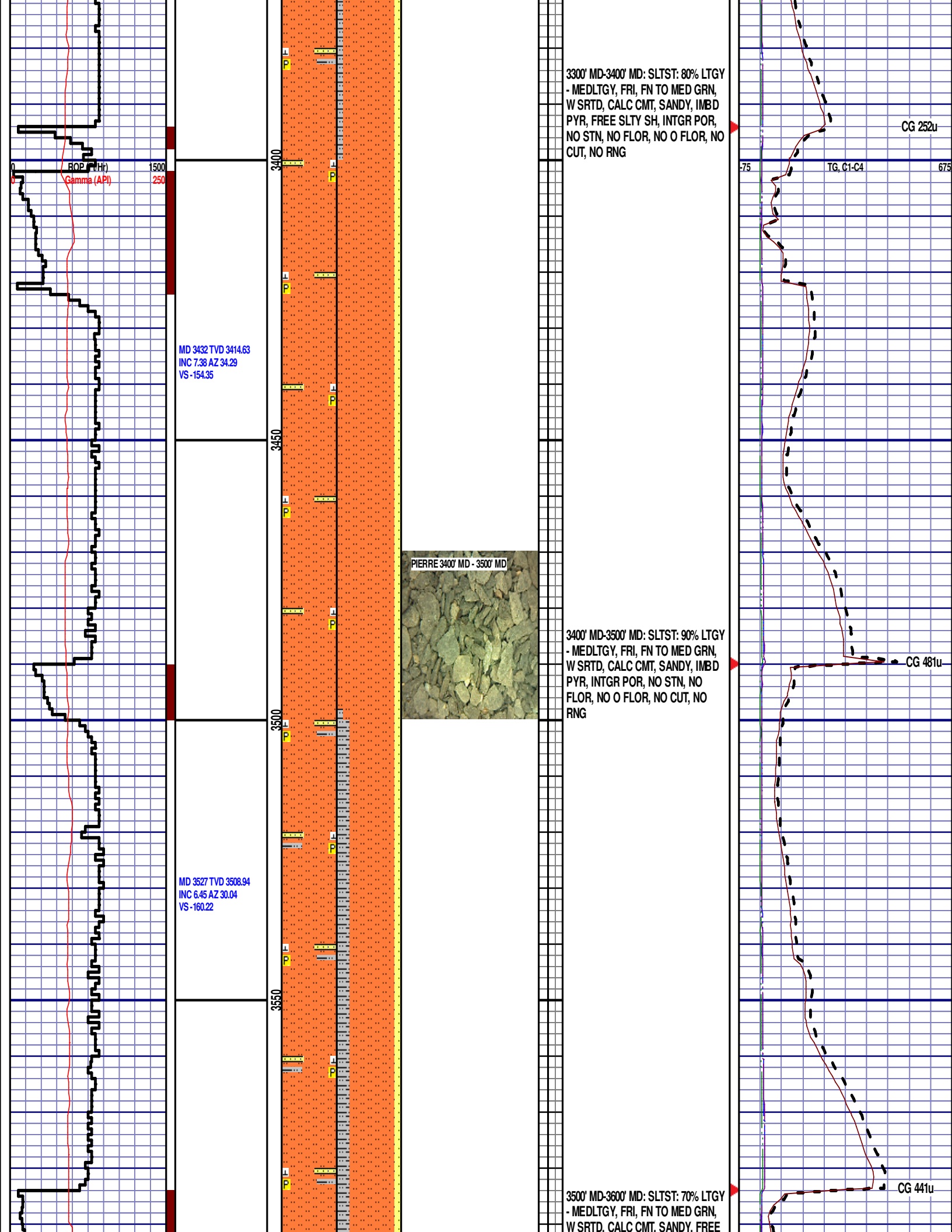
3100' MD-3200' MD: SS: 60%: PRED
MEDGY - LTKGY - OPQ, LSEY -
MOD CONS, FN TO MED GRN,
SUBANG, W SRTD, CALC CMT,
IMBD PYR, FREE SLTST, FREE
SLTY SH, INTGR POR, NO STN, NO
FLOR, NO O FLOR, NO CUT, NO
RNG

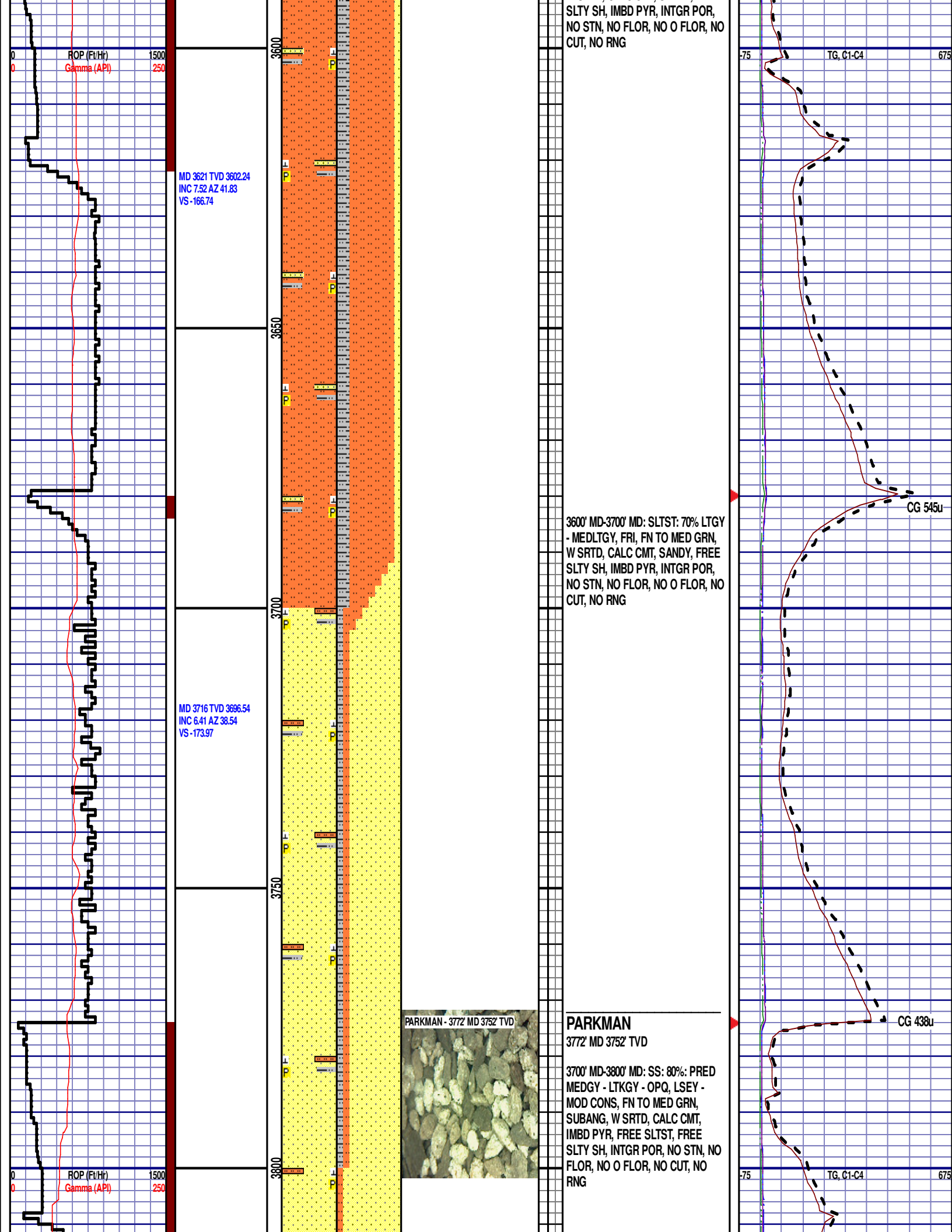
3200' MD-3300' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, IMBD
PYR, FREE SLTY SH, INTGR POR,
NO STN, NO FLOR, NO O FLOR, NO
CUT, NO RNG

50 TG, C1-C4 450
CG 164u

GAS SCALE: -75u TO 675u
(75 UNITS/DIVISION)
CG 204u

Scale Change
TG, C1-C4
-75 675





MD 3811 TVD 3790.82
INC 7.68 AZ 43.29
VS -181.41

MD 3906 TVD 3884.53
INC 11.14 AZ 42.68
VS -191.7

MD 4000 TVD 3976.52
INC 12.6 AZ 43.67
VS -204.59

ROP (in/hr)
Gamma (API)

3850

3900

3950

4000

3800' MD-3900' MD: SS: 90%: PRED
MEDGY - LTKGY - OPQ, LSEY -
MOD CONS, FN TO MED GRN,
SUBANG, W SRTD, CALC CMT,
IMBD PYR, FREE SLTST, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, NO CUT, NO RNG

3900' MD-4000' MD: SS: 80%: PRED
MEDGY - LTKGY - OPQ, LSEY -
MOD CONS, FN TO MED GRN,
SUBANG, W SRTD, CALC CMT,
IMBD PYR, FREE SLTST, FREE
SLTY SH, INTGR POR, NO STN, NO
FLOR, NO O FLOR, NO CUT, NO
RNG

CG 435u

CG 499u

75

TG, C1-C4

675

WOB 29.3K
PP 3895
RPM 60
SPM 86/86

MD 4095 TVD 4069.23
JNC 12.61 AZ 42.52
VS -218.37

MD 4190 TVD 4162.14
JNC 11.44 AZ 41.15
VS -231.21

RO (Ft/Hr) 1500
Gamma (API) 250

PARKMAN 4000' MD - 4100' MD



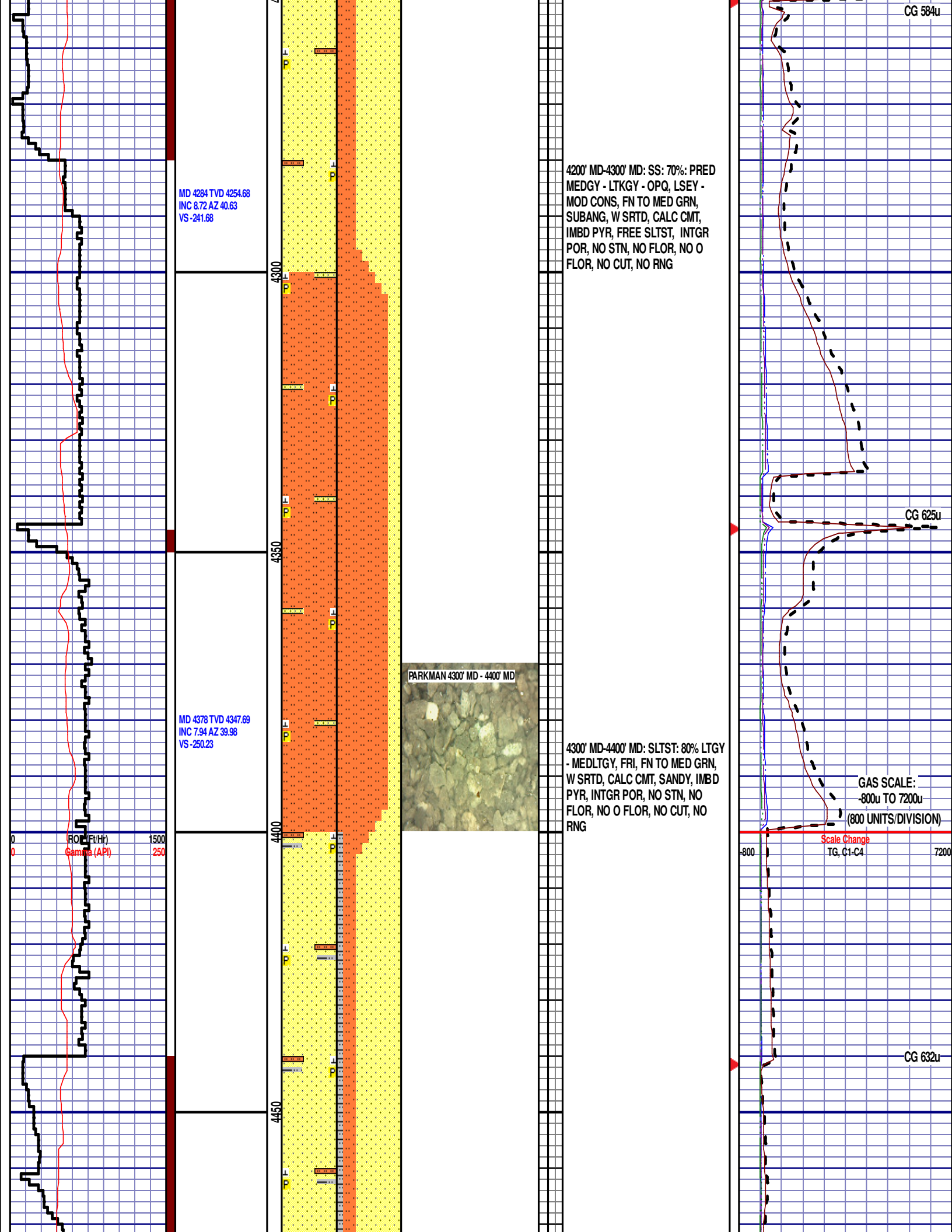
4000' MD-4100' MD: SS: 60%: PRED
MEDGY - LTKGY - OPQ, LSEY -
MOD CONS, FN TO MED GRN,
SUBANG, W SRTD, CALC CMT,
IMBD PYR, FREE SLTST, FREE
SLTY SH, INTGR POR, NO STN, NO
FLOR, NO O FLOR, NO CUT, NO
RNG

4100' MD-4200' MD: SLTST: 80% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, SANDY, FREE
SLTY SH, IMBD PYR, INTGR POR,
NO STN, NO FLOR, NO O FLOR, NO
CUT, NO RNG

CG 619u

CG 654u

TG, C1-C4



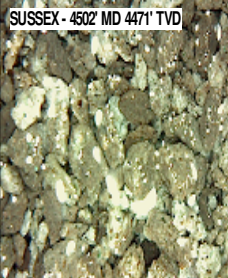
MD 4473 TVD 4442.04
INC 5.36 AZ 38.9
VS -257.03

MD 4568 TVD 4536.66
INC 4.93 AZ 37.59
VS -262.14

MD 4662 TVD 4630.34
INC 4.56 AZ 34.65
VS -266.57

4400' MD-4500' MD: SS: 70%: PRED
MEDGY - LTKGY - OPQ, LSEY -
MOD CONS, FN TO MED GRN,
SUBANG, W SRTD, CALC CMT,
IMBD PYR, FREE SLTST, FREE
SLTY SH, INTGR POR, NO STN, NO
FLOR, NO O FLOR, NO CUT, NO
RNG

SUSSEX
4502' MD 4471' TVD



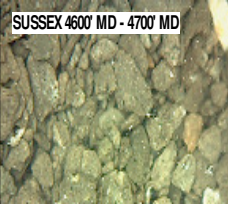
4500' MD-4600' MD: SS: 80%: PRED
MEDGY - LTKGY - OPQ, LSEY -
MOD CONS, FN TO MED GRN,
SUBANG, W SRTD, CALC CMT,
IMBD PYR, FREE SLTST, FREE
SLTY SH, INTGR POR, NO STN, NO
FLOR, NO O FLOR, WEAK LZY CUT,
LT BLSHWT RNG

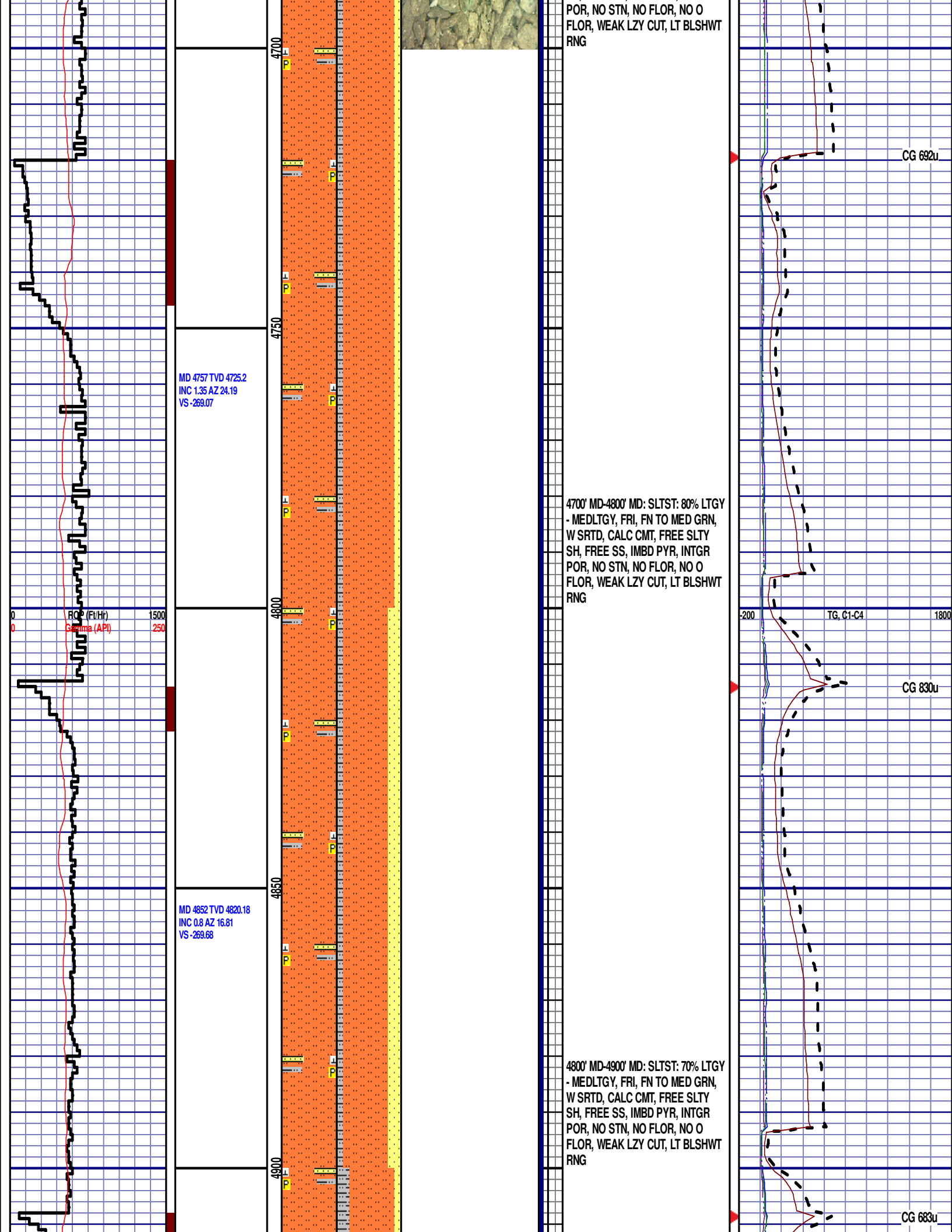
GAS SCALE: -200u
TO 1800u
(200 UNITS/DIVISION)

Scale Change
TQ, C1-C4

CG 936u

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





MD 4947 TVD 4915.18
INC 0.2 AZ 27.8
VS -269.93

4950

5000

5050

5100



SUSSEX 4900' MD - 5000' MD

4900' MD-5000' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SLTY
SH, FREE SS, IMBD PYR, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, WEAK LZY CUT, LT BLSHWT
RNG

MD 5042 TVD 5010.18
INC 0.22 AZ 335.56
VS -269.93

5050

5100



SHANNON - 5118' MD 5086' TVD

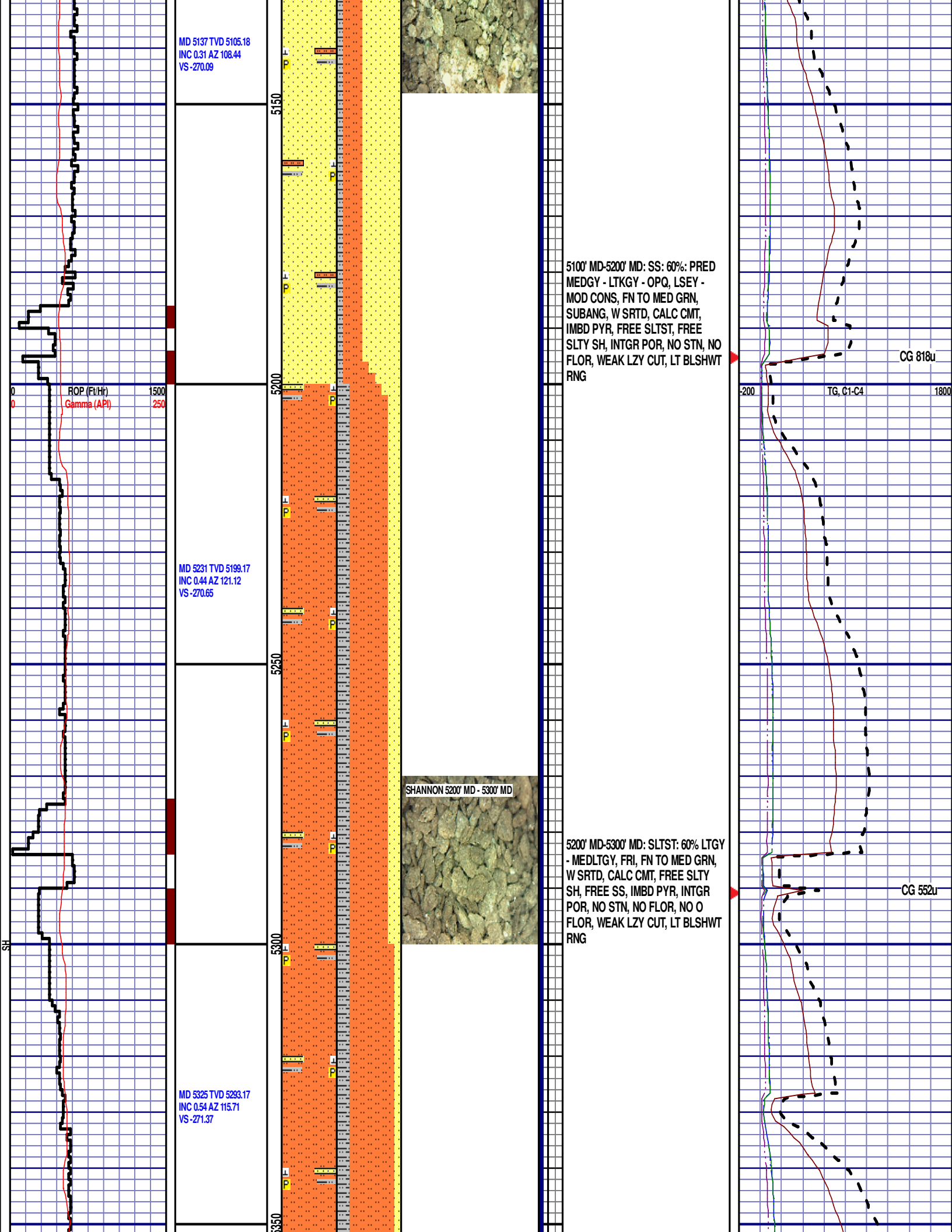
5000' MD-5100' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, FREE SLTY
SH, FREE SS, IMBD PYR, INTGR
POR, NO STN, NO FLOR, NO O
FLOR, WEAK LZY CUT, LT BLSHWT
RNG

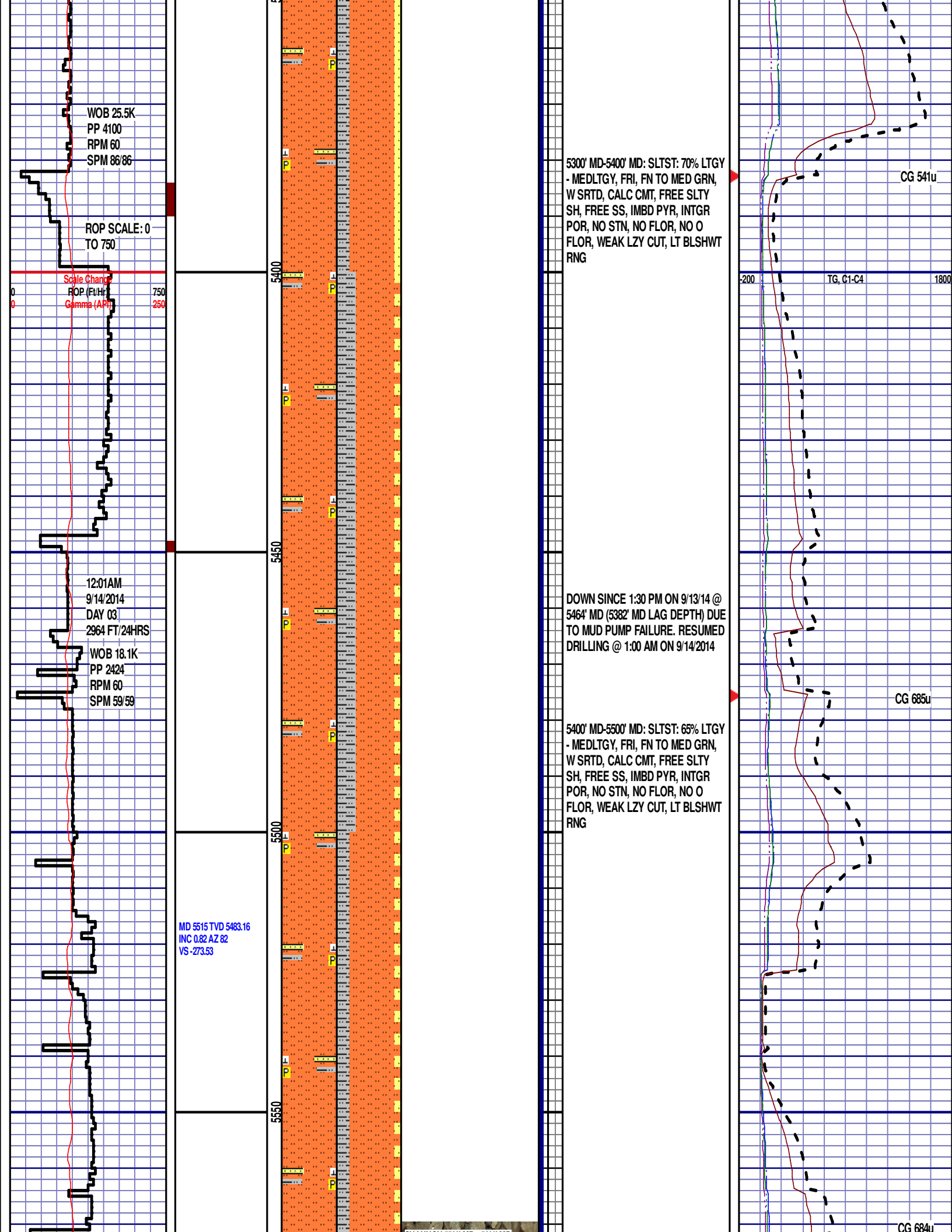
SHANNON
5118' MD 5086' TVD

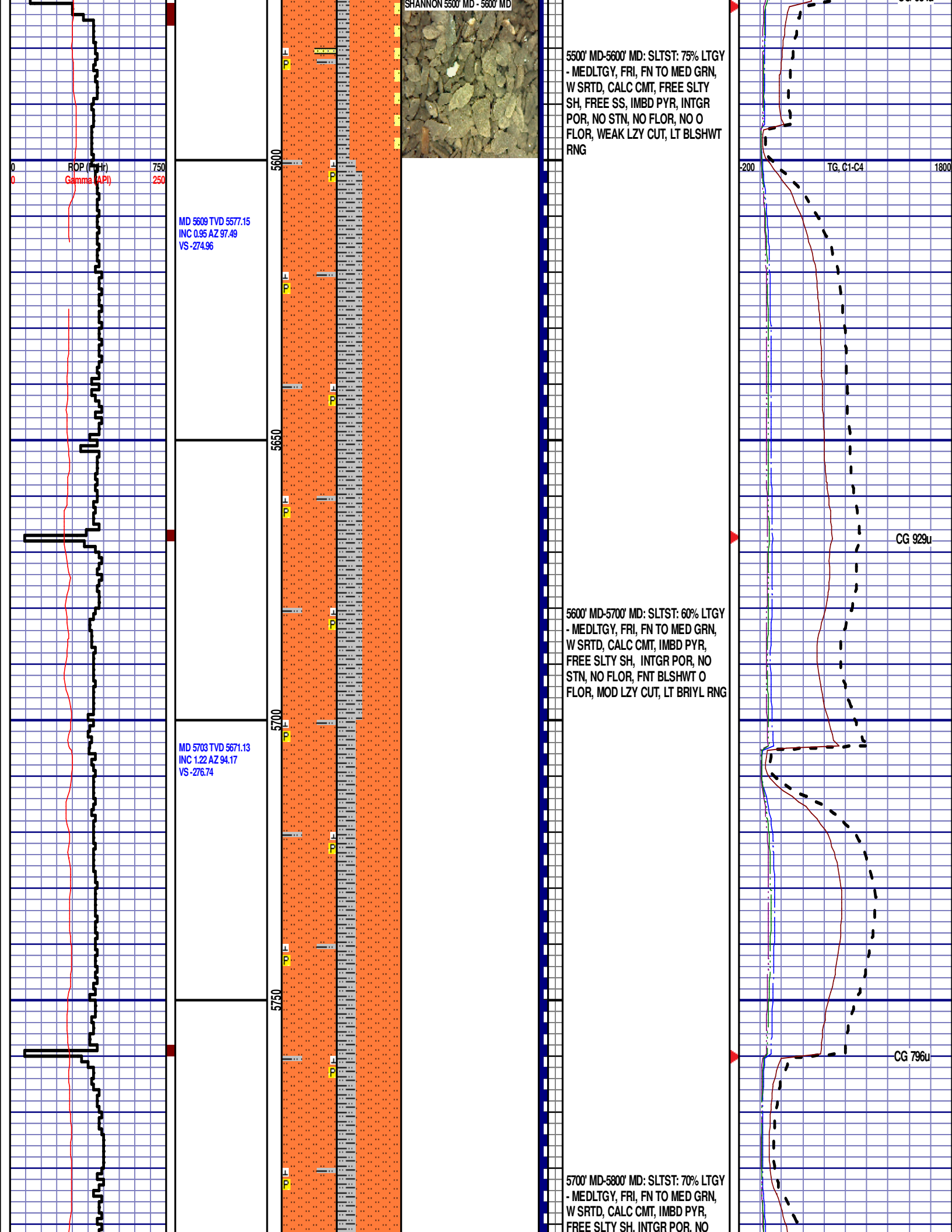
-200 TG, C1-C4 1800

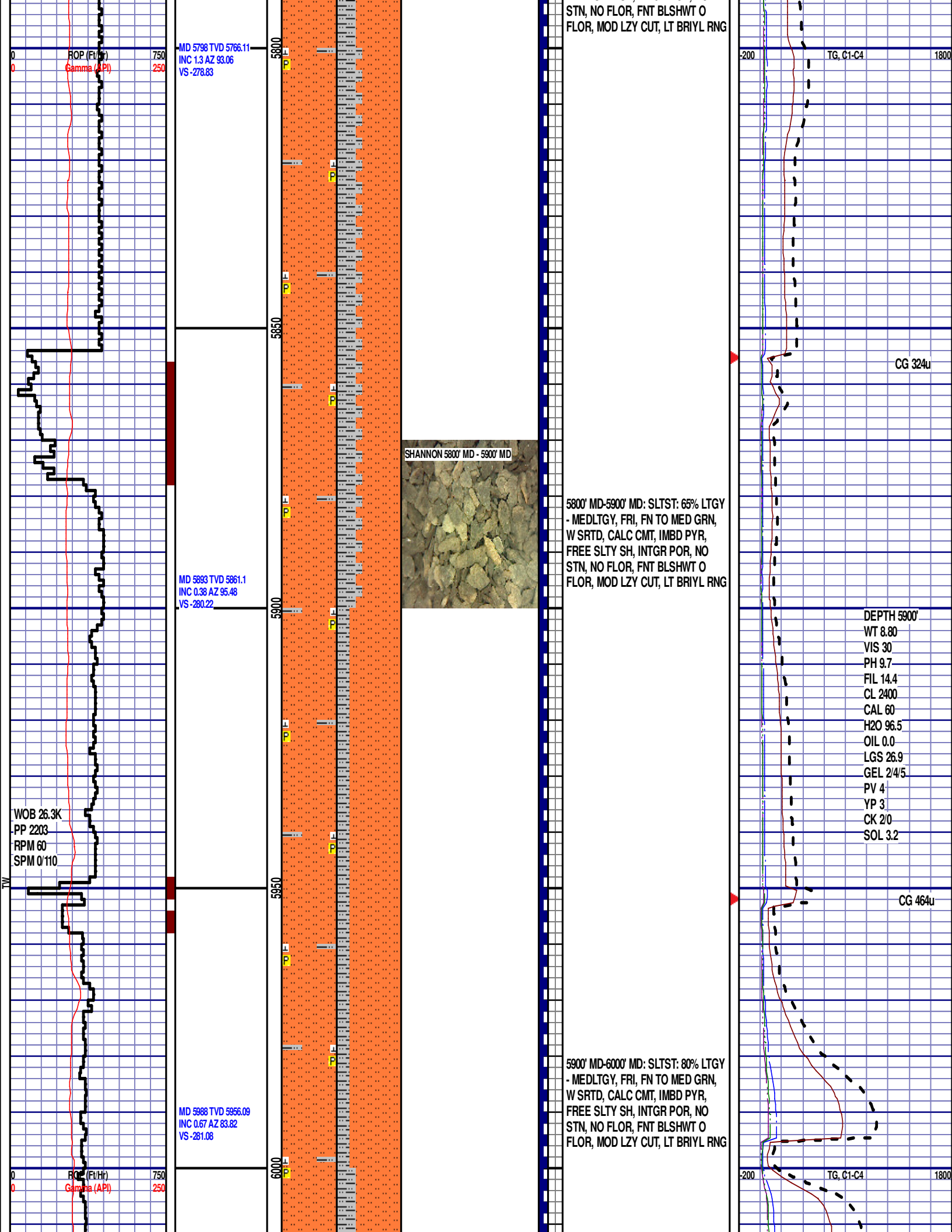
CG 819u

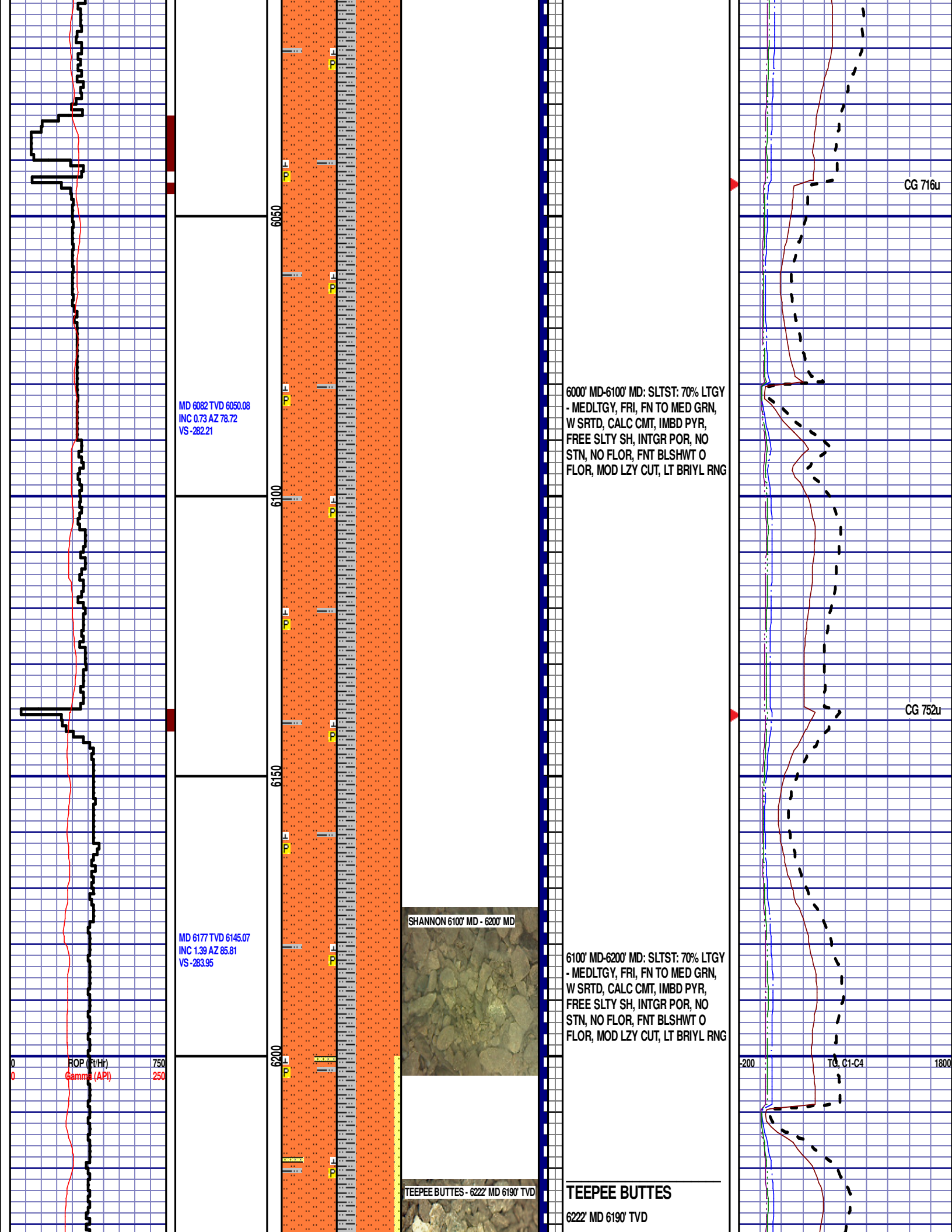
CG 981u

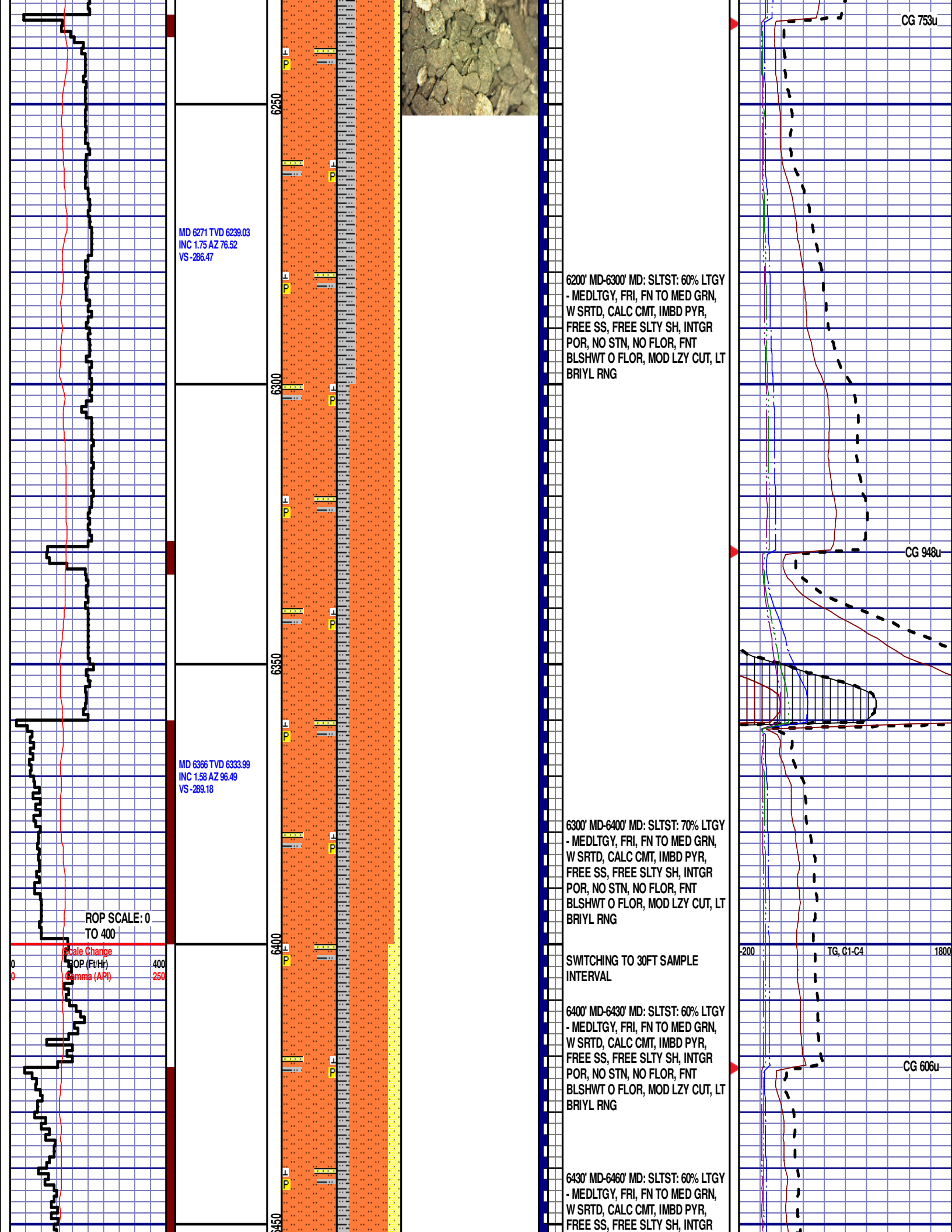


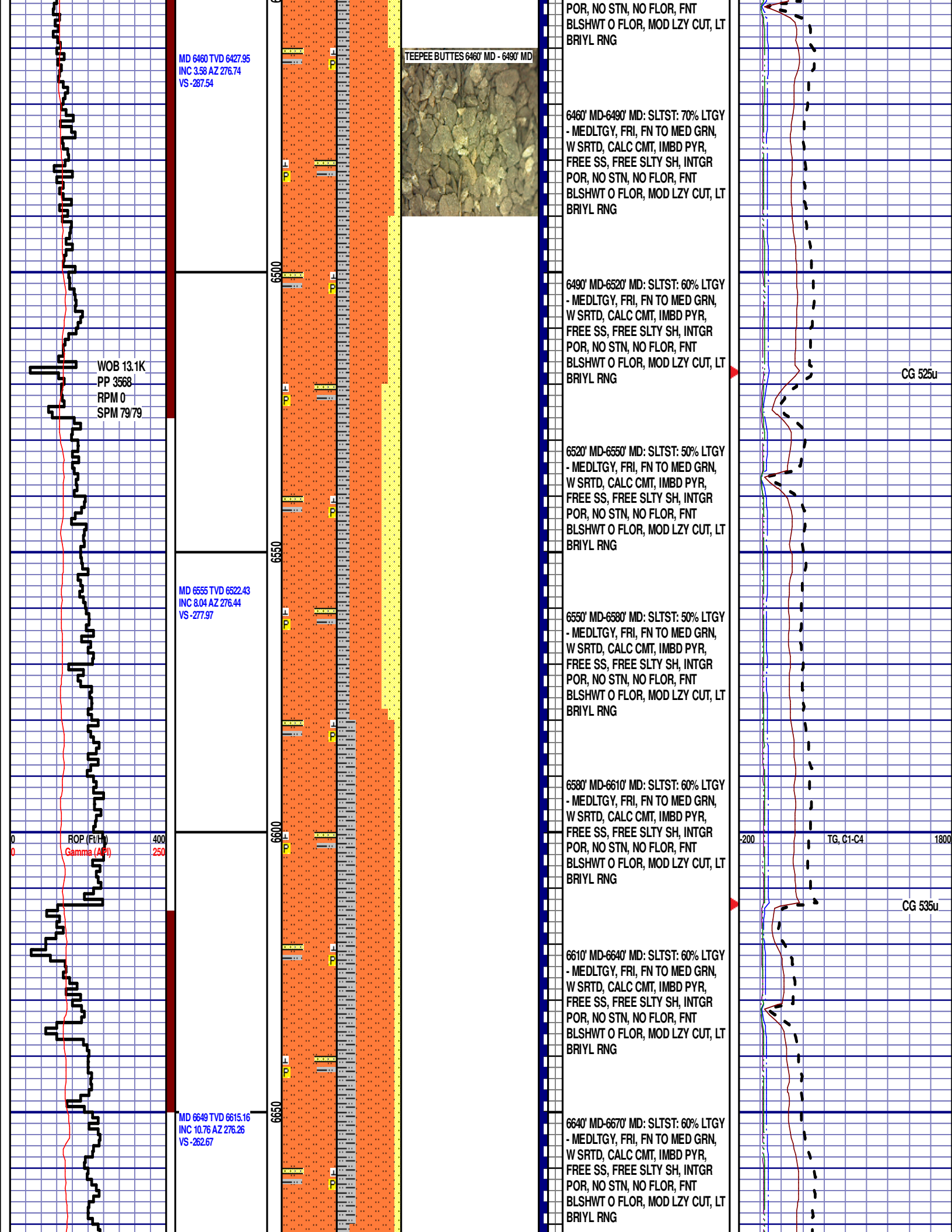


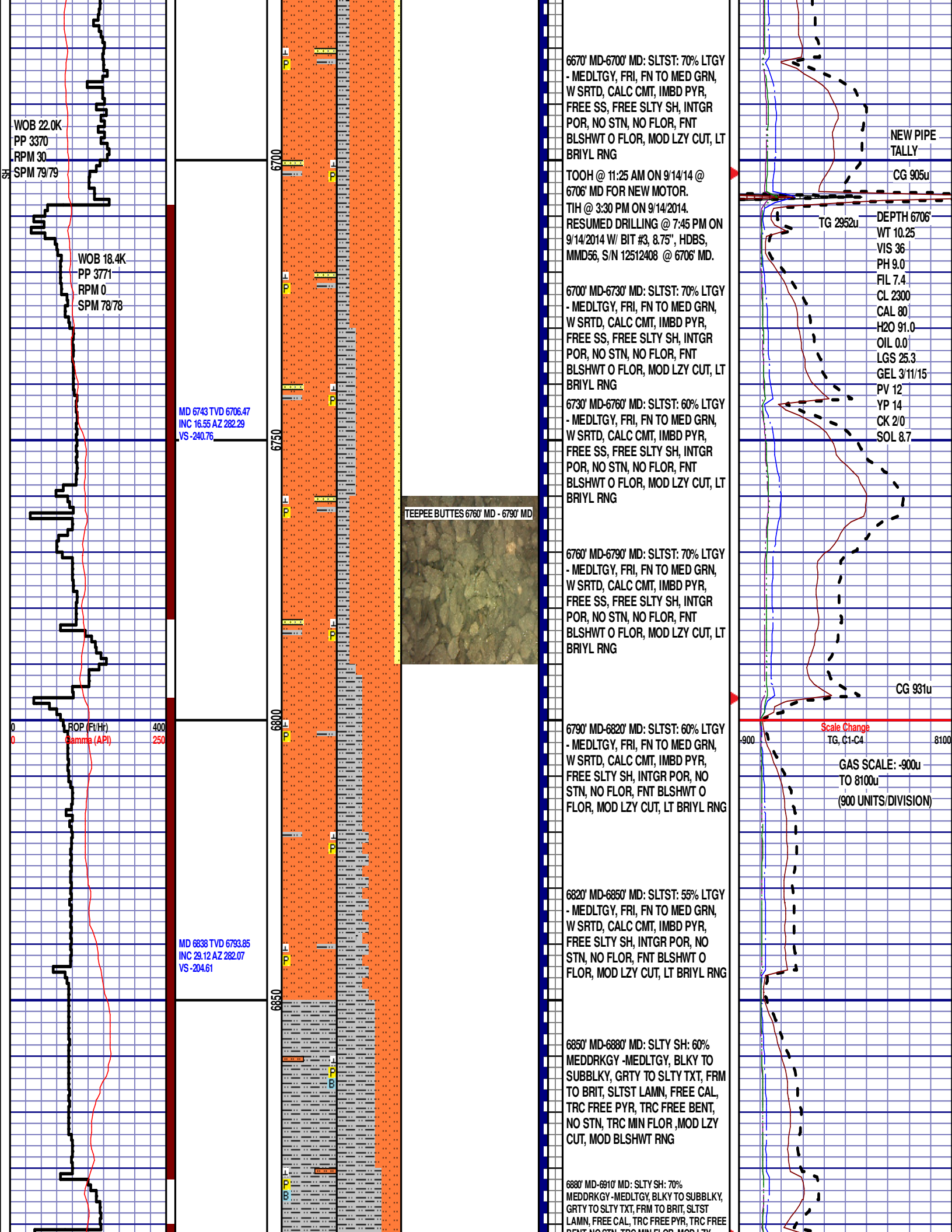












WOB 22.0K
PP 3370
RPM 30
SPM 79/79

WOB 18.4K
PP 3771
RPM 0
SPM 78/78

MD 6743 TVD 6706.47
INC 16.55 AZ 282.29
VS -240.76

ROP (Ft/Hr)
Gamma (API)

400
250

MD 6838 TVD 6793.85
INC 29.12 AZ 282.07
VS -204.61

TEEPEE BUTTES 6760' MD - 6790' MD



6670' MD-6700' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, IMBD PYR,
FREE SS, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, FNT
BLSHWT O FLOR, MOD LZY CUT, LT
BRIYL RNG

TOOH @ 11:25 AM ON 9/14/14 @
6706' MD FOR NEW MOTOR.
TIH @ 3:30 PM ON 9/14/2014.
RESUMED DRILLING @ 7:45 PM ON
9/14/2014 W/ BIT #3, 8.75", HDBS,
MMD56, S/N 12512408 @ 6706' MD.

6700' MD-6730' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, IMBD PYR,
FREE SS, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, FNT
BLSHWT O FLOR, MOD LZY CUT, LT
BRIYL RNG

6730' MD-6760' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, IMBD PYR,
FREE SS, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, FNT
BLSHWT O FLOR, MOD LZY CUT, LT
BRIYL RNG

6760' MD-6790' MD: SLTST: 70% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, IMBD PYR,
FREE SS, FREE SLTY SH, INTGR
POR, NO STN, NO FLOR, FNT
BLSHWT O FLOR, MOD LZY CUT, LT
BRIYL RNG

6790' MD-6820' MD: SLTST: 60% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, IMBD PYR,
FREE SLTY SH, INTGR POR, NO
STN, NO FLOR, FNT BLSHWT O
FLOR, MOD LZY CUT, LT BRIYL RNG

6820' MD-6850' MD: SLTST: 55% LTGY
- MEDLTGY, FRI, FN TO MED GRN,
W SRTD, CALC CMT, IMBD PYR,
FREE SLTY SH, INTGR POR, NO
STN, NO FLOR, FNT BLSHWT O
FLOR, MOD LZY CUT, LT BRIYL RNG

6850' MD-6880' MD: SLTY SH: 60%
MEDDRKGY -MEDLTGY, BLKY TO
SUBBLKY, GRTY TO SLTY TXT, FRM
TO BRIT, SLTST LAMN, FREE CAL,
TRC FREE PYR, TRC FREE BENT,
NO STN, TRC MIN FLOR, MOD LZY
CUT, MOD BLSHWT RNG

6880' MD-6910' MD: SLTY SH: 70%
MEDDRKGY -MEDLTGY, BLKY TO SUBBLKY,
GRTY TO SLTY TXT, FRM TO BRIT, SLTST
LAMN, FREE CAL, TRC FREE PYR, TRC FREE
BENT, MOD MIN FLOR, MOD LZY

NEW PIPE
TALLY

CG 905u

TG 2952u

DEPTH 6706'
WT 10.25
VIS 36
PH 9.0
FIL 7.4
CL 2300
CAL 80
H2O 91.0
OIL 0.0
LGS 25.3
GEL 3/11/15
PV 12
YP 14
CK 2/0
SOL 8.7

CG 931u

Scale Change
TG, C1-C4

GAS SCALE: -900u
TO 8100u
(900 UNITS/DIVISION)

CG 2364u

6901' MD 6845' TVD

6940' MD-6970' MD: CHK: 80% (CaCO3 60%)
MOTT LTGY - MEDDRKGY - DRKGY, BLKY
TO SUBBLKY, FXLN TO CHLKY, SFT, CHK
FRMWRK, IMBD CAL, FREE PYR, TRC FREE
BENT, 20% FREE MRL, TRC GRYSHBLK STN,
TRC LTR MIN FLOR, FNT BLSHWT O FLOR,
IMMED STRMG CUT, HVY BLSHWT RONG

6958' MD 6886' TVD

6986' MD 6904' TVD

6970 MD-7000 MD: MRL: 60% (CaCO3 45%)
MEDDRKG- DRKG, BLKY TO SUB BLKY,
FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD
CAL, FREE PYR, TRC FREE BENT, 40% CHK,
NO STN, TRC LTOR MIN FLOR, FNT BLSHW
O FLOR, IMMED STRMG CUT, HVY BLSHW
RNG

7000' MD-7030' MD: MRL: 70% (CaCO₃ 45%)
MEDDRKGY - DRKGY, BLKY TO SUBB LKY,
FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD
CAL, FREE PYR, TRC FREE BENT, 30% CHK,
NO STN, TRC LTOR MIN FLOR, FNT BLSHW
O FLOR, IMMED STRMG CUT, HVY BLSHW
RNG

7030 MD-7060 MD: MRL: 80% (CaCO3 40%)
MEDDRKG- DRKG, BLKY TO SUBB LKY,
FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD
CAL, FREE PYR, TRC FREE BENT, 20% CHK,
NO STN, TRC LTOR MIN FLOR, FNT BLSHW
O FLOR, IMMED STRMG CUT, HVY BLSHW
RNG

7060 MD-7090 MD: MRL: 85% (CaCO₃ 40%)
MEDDRKGY - DRKGY, BLKY TO SJBB LKY,
FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD
CAL, FREE PYR, TRC FREE BENT, 15% CHK,
NO STN, TRC LTOR MIN FLOR, FNT BLSHW
O FLOR, IMMED STRMG CUT, HVY BLSHW
RNG

7090' MD-7120' MD: MRL: 75% (CaCO₃ 45%)
MEDDRKG - DRKG, BLKY TO SJBB LKY,
FXLN TO CHLKY, SFT, CHK FRMWRK, IMBD
CAL, FREE PYR, TRC FREE BENT, 25% CHK,
NO STN, TRC 1 TOR MIN FLOR, ENT BI SHWT

MD 6933 TVD 6870.74
INC 42.58 AZ 272.6
VS -149.47

ROP (Ft/Hr)
Gamma (API)

WOB 53.1K
PP 2424
RPM 0
SPM 108/0

MD 7027 TVD 6931.02
INC 57.41 AZ 267.11
VS -77.75

12:01AM
9/15/2014
DAY 04
1616
FT/24HRS

WOB 58.2K

PP 4028
RPM 0
SPM 78/78

ROCK, FINE GRANULAR, FINE GRAINED
O FLOR, IMMED STRMG CUT, HVY BLSHWT
RNG

END OF VERTICAL LOG @ 7120' MD
ON 9/15/14, CONTINUED ON
HORIZONTAL LOG

7150