



MID CONTINENT WELL LOGGING SERVICE, INC.

CONTINUOUS WELL LOGGING / COMPLETE HYDROCARBON ANALYSIS

2222 WESTPARK DR. STE. A
NORMAN, OK 73069
OFFICE (405) 360-7333
OPERATIONS (405) 590-3655
SALES (405) 203-9989

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

Well Name: Clay 3419 1-6H SANDRIDGE ENERGY
Location: Section 6, T34S, R19W, Comanche County, Kansas
License Number: API #15033216970100 Region: Comanche County
Spud Date: 3/9/2013 Drilling Completed: 3/29/2013
Surface Coordinates: SHL: 210' FSL & 660' FWL
BHL: 330' FNL & 660' FWL
Bottom Hole Report For: Maggie Roden
Coordinates: Logger: Donavan Stevens
Ground Elevation (ft): 1,810' K.B. Elevation (ft): 1,830'
Logged Interval (ft): 2,250' To: 9,620' Total Depth (ft): 9,620'
Formation: Mississippi
Type of Drilling Fluid: CARBONOX/QUIK-THIN

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

OPERATOR

Company: Sandridge Energy, INC.
Address: 123 Robert S. Kerr Avenue, Ste. 2430
Oklahoma City, Oklahoma 73102-6406

GEOLOGIST

Name: Maggie Roden
Company: Sandridge Energy, Inc
Address: 123 Robert S. Kerr Avenue, Ste. 2430
Oklahoma City, Oklahoma 73102-6406

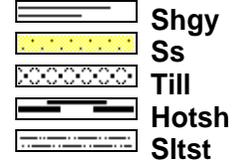
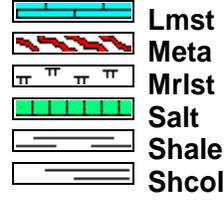
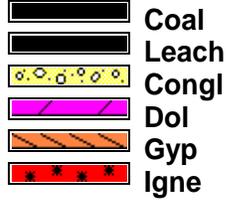
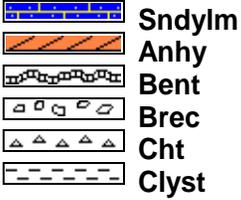
Cores

DSTs

Comments

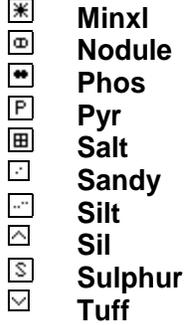
Trailer 28.

ROCK TYPES

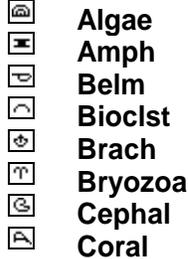


ACCESSORIES

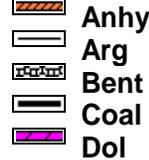
MINERAL



FOSSIL



STRINGER

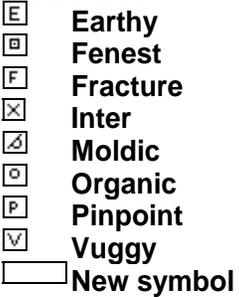


TEXTURE



OTHER SYMBOLS

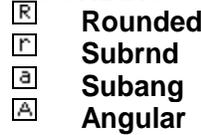
POROSITY



SORTING



ROUNDING



OIL SHOW

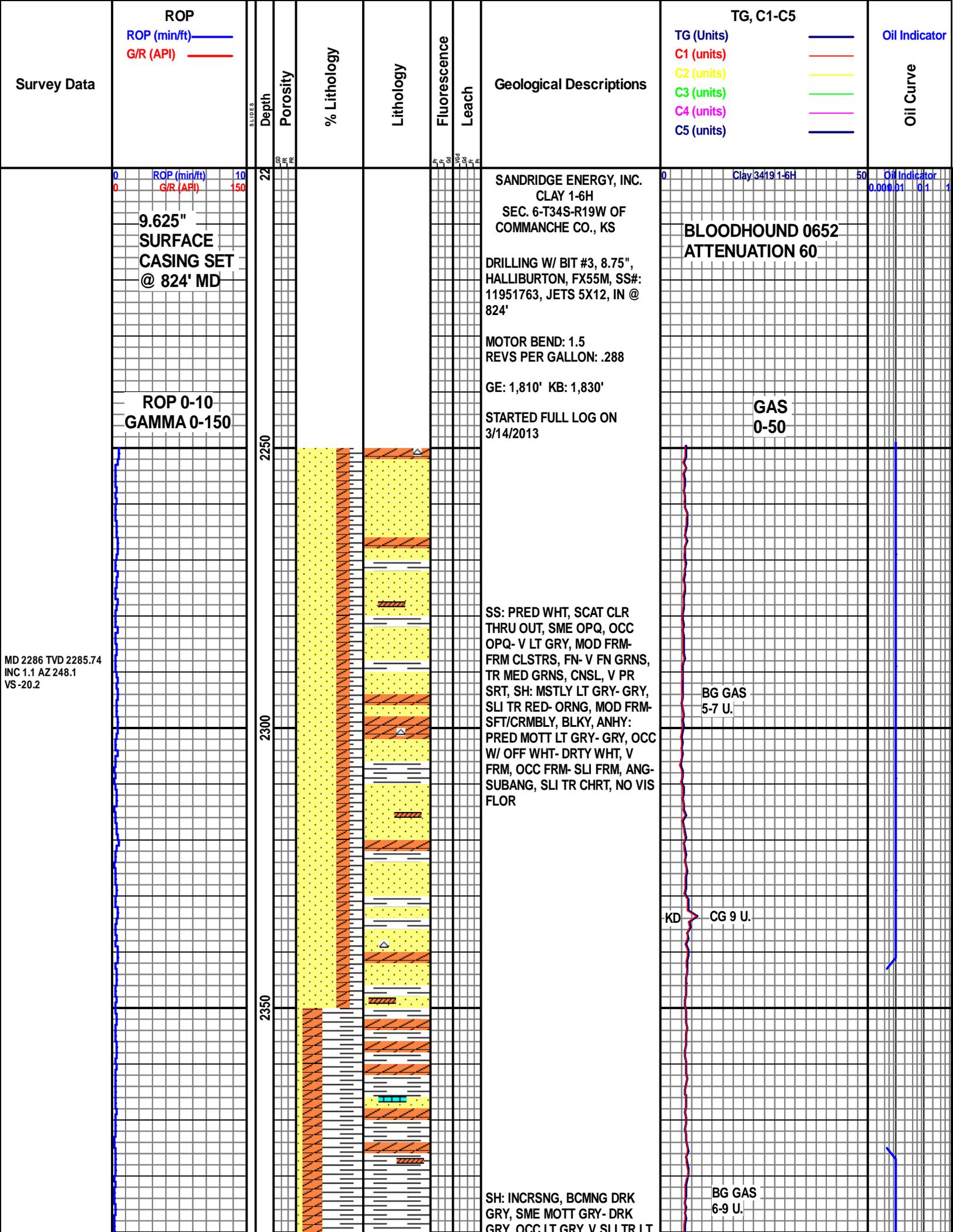


INTERVAL

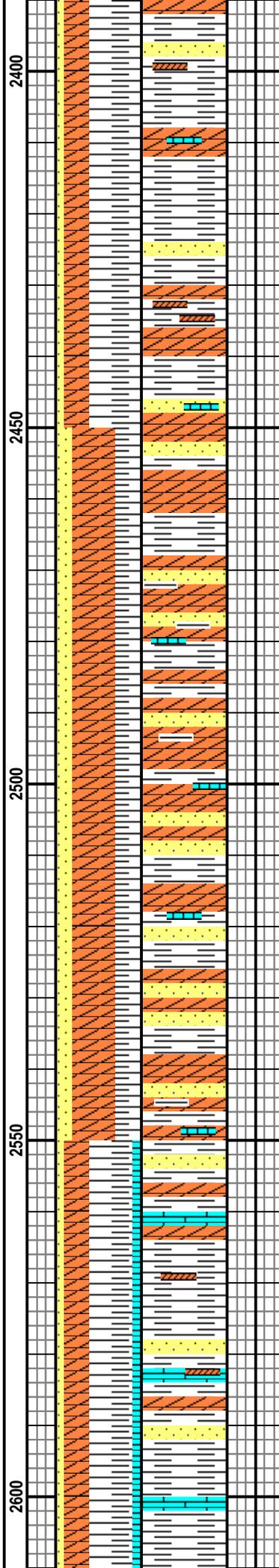
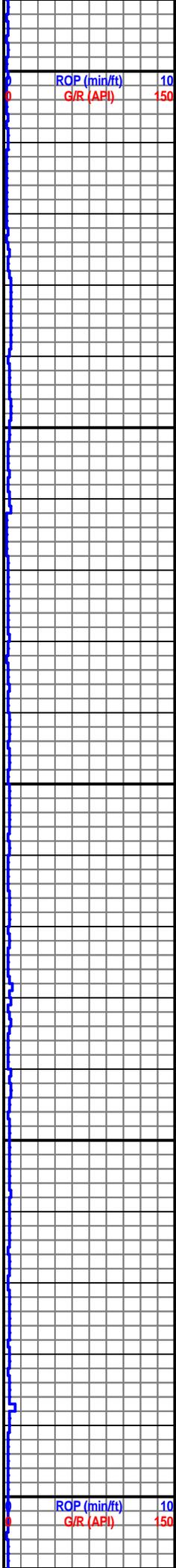


EVENT





WOB: 13.3
RPM: 60
PP: 2623
SPM: 119



ORNG- LT BRN, MOD FRM- SFT,
SUBANG, BLKY, V SLI SLTY
TXT, SUBWXY, ANHY: SLI
INCRSE, PRED MOTT LT GRY-
GRY, SME W/ DRK GRY, V FRM-
MOD FRM, OCC FRI, ANG-
SUBANG, SS: TR, MSTLY WHT-
CLR, OCC OPQ, OCC LT GRY,
CNLS FN GRNS, PR SRT, V SLI
TR LS STRNGRS, NO VIS FLOR

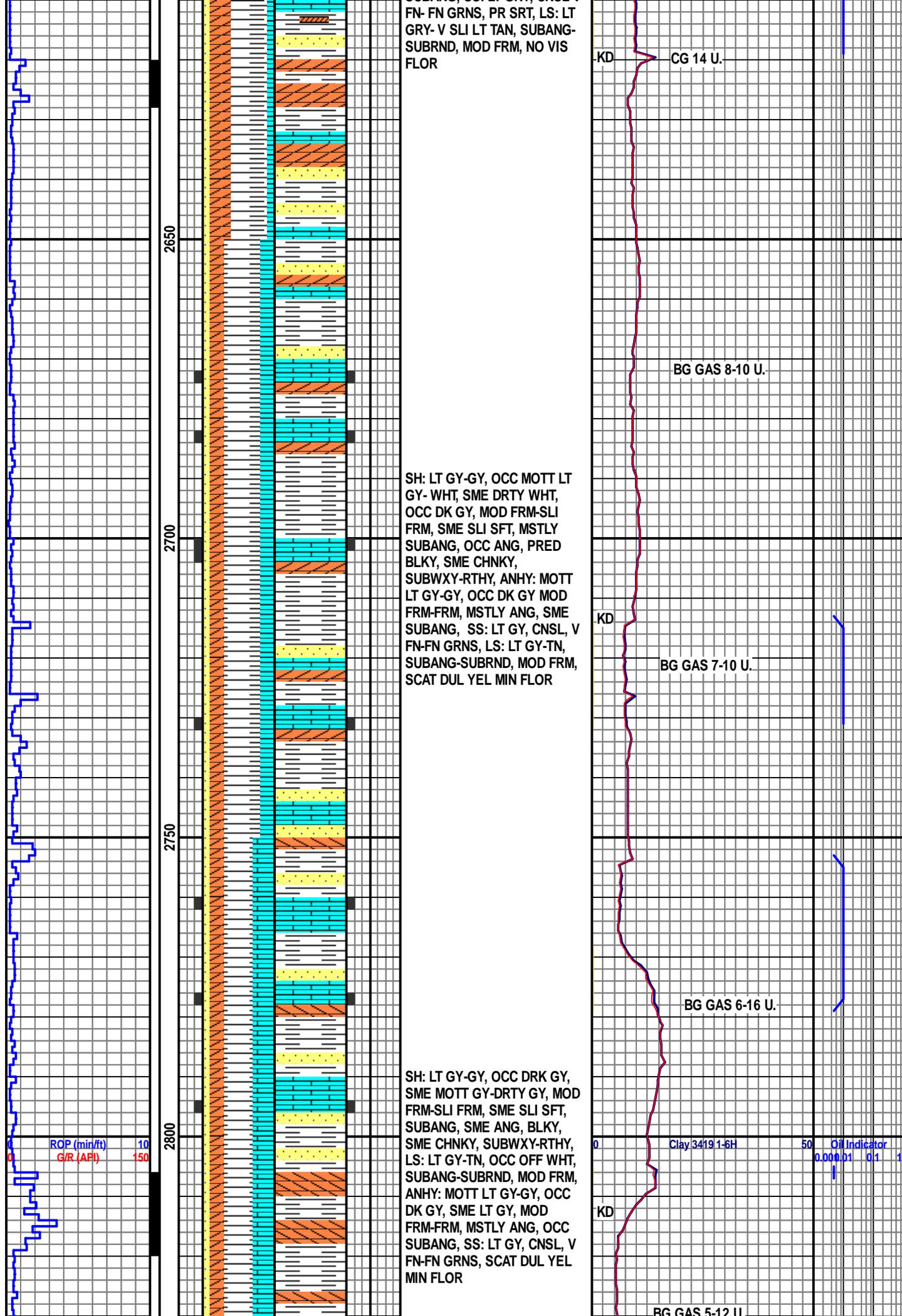
ANHY: PRED DRK GRY, SCAT
MOTT LT GRY/DRK GRY, OCC
LT GRY- OFF WHT, MOD FRM,
OCC FRM- V FRM, OCC FRI,
ANG- SUBANG, BLKY, OCC
CHNKY, SH: MSTLY GRY- DRK
GRY, OCC LT GRY, OCC LT
BRN W/ V LT ORNG TNT, V SLI
SLTY, SUBWXY TXT, TR DULL
TXT, SS: MSTLY DRTY WHT- LT
GRY, OCC GRY- LT GRY, CNLS
FN- V FN GRNS, PR SRT, TR LS
STRNGRS, NO VIS FLOR

SH: LT GRY- GRY, SME MOTT
LT GRY- DRTY WHT, OCC DRK
GRY, MOD FRM- SLI FRM, SME
SLI SFT- SFT, SUBANG- ANG,
MSTLY BLKY, OCC SLTY TXT,
SUBWXY- RTHY, ANHY: MOTT
LT GRY- GRY, OCC DRK GRY,
MOD FRM- FRM, SME SLI
FRM/FRI, OCC V FRM, ANG-
SUBANG. SS: LT GRY. CNLS V



WOB: 16.3
RPM: 61
PP: 2413
SPM: 104

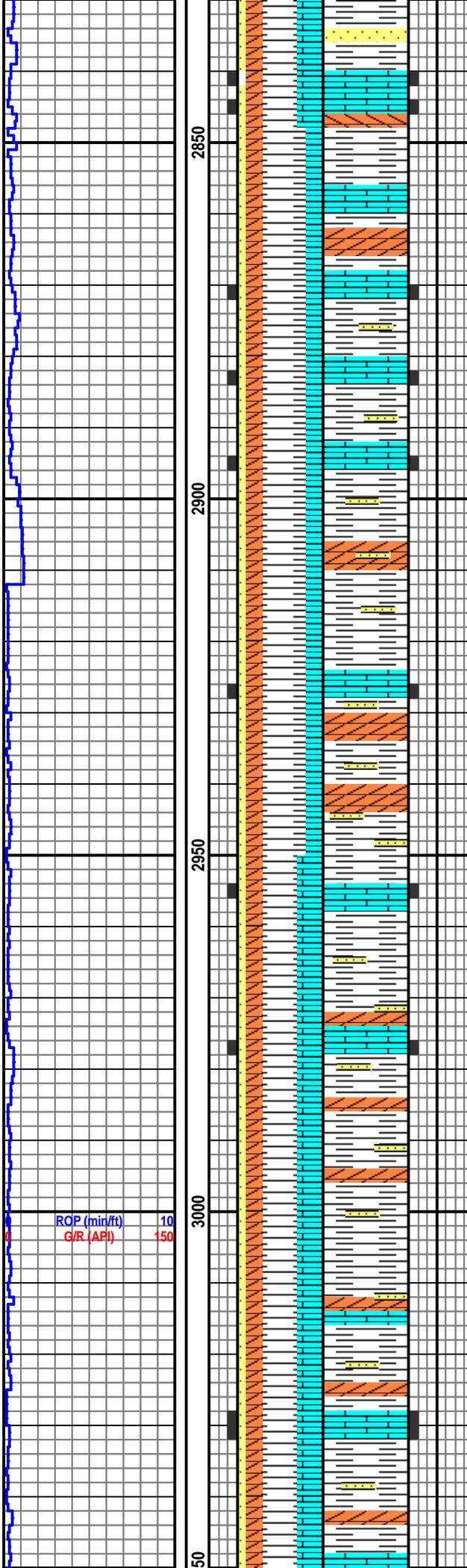
MD 2761 TVD 2760.64
INC 1.3 AZ 254.5
VS -23.36



ROP (min/ft) 10
G/R (API) 150

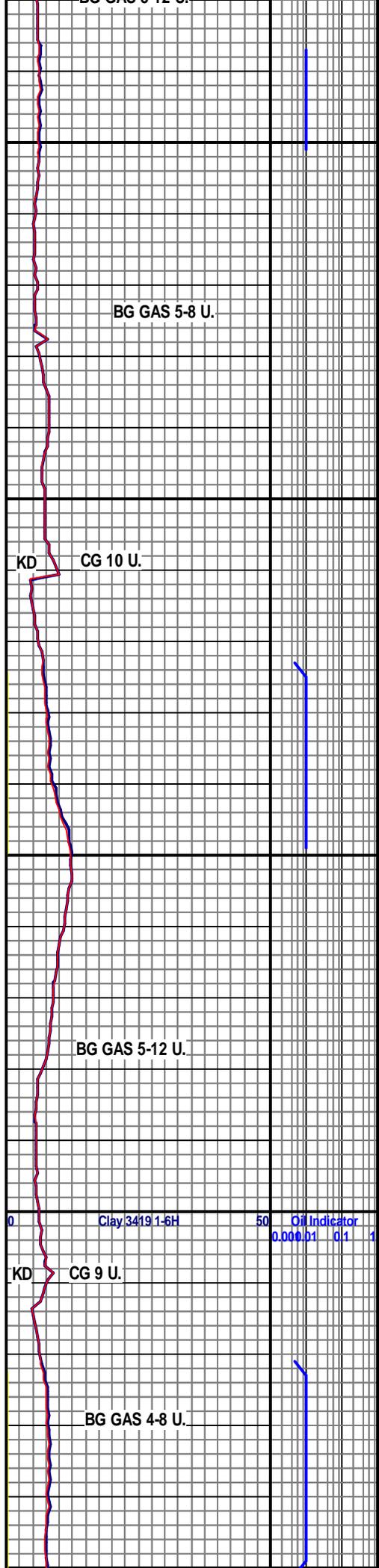
0 Clay 3419 1-6H 50 Oil Indicator
0.000 0.01 0.1 1

WOB: 13.6
 RPM: 62
 PP: 2601
 SPM: 98



SH: LT GY, SME GY, OCC OFF
 GY, SME DRK GY, MOD
 FRM-SLI FRM, SME SLI SFT,
 SUBANG, OCC ANG, PRED
 BLKY, SME CHNKY,
 SUBWXY-RTHY TXT, ANHY:
 MOTT GY-WHT, OCC DK GY,
 MOD FRM-FRM, MSTLY ANG,
 LS: LT GY-TN, SME GY, OCC
 OFF WHT, SUBANG-SUBRND,
 MOD FRM, OCC MOD SFT, SS:
 LT GY, SME MOTT LT GY-GY,
 MOD FRM, CNSL, V FN-FN
 GRNS, SCAT DUL YEL MIN
 FLOR

SH: LT GY-DK GY, MOD FRM,
 OCC SLI FRM, OCC SLI SFT,
 PRED SUBANG, OCC ANG,
 PRED BLKY, SUBWXY-RTHY
 TXT, LS: LT GY-TN, OFF GY,
 SUBANG-SUBRND, MOD FRM,
 SME MOD SFT, ANHY: MOTT
 GY-DK GY, MOD FRM-FRM,
 MSTLY ANG, SS: TR, LT GY,
 SME MOTT GY-LT GY, MOD
 FRM, CNSL, V FN-FN GRNS,
 SCAT DUL YEL MIN FLOR



ROP (min/ft) 10
 G/R (API) 150

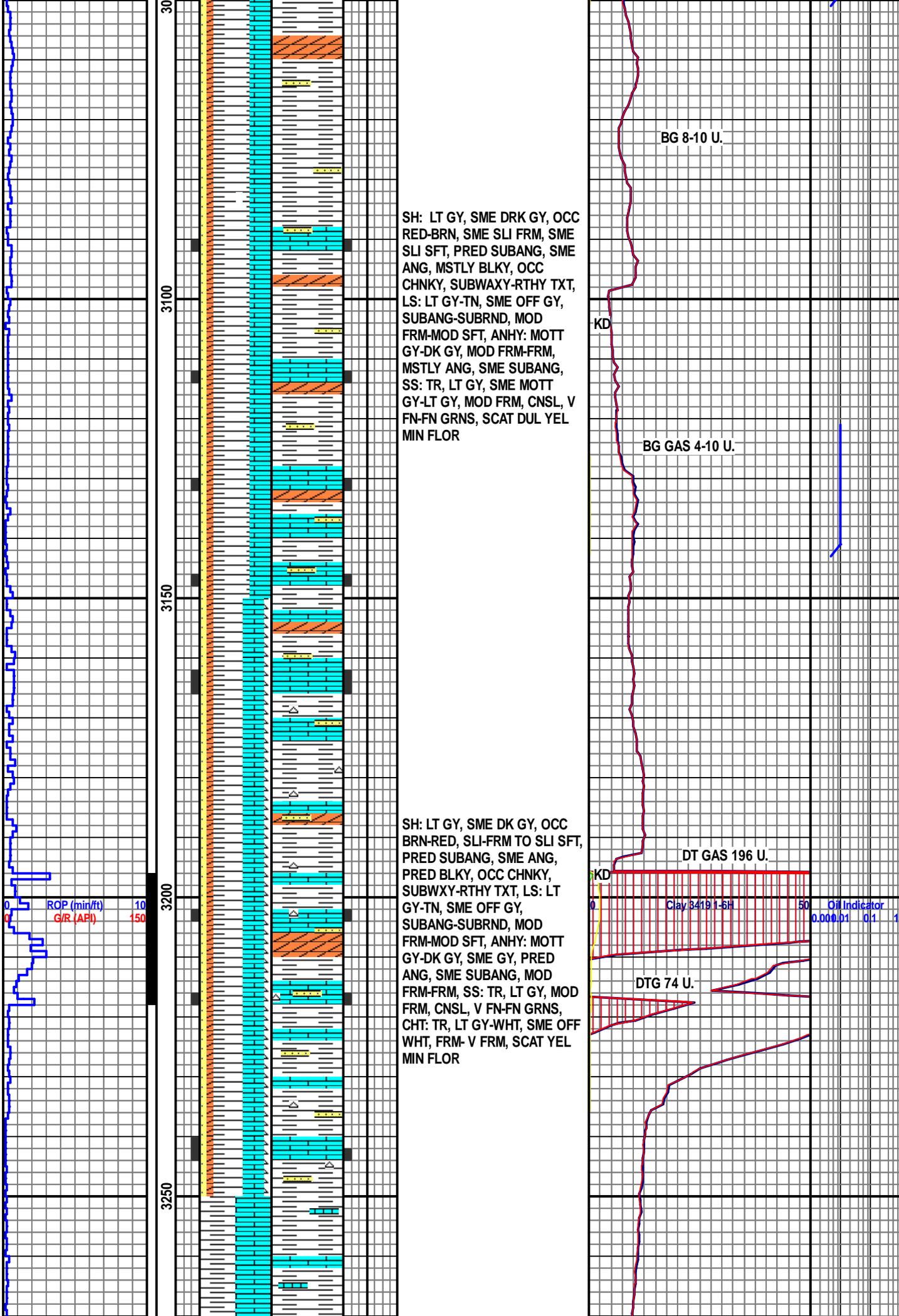
Clay 3419 1-6H 50
 Oil Indicator 0.000, 0.01, 0.1, 1

WOB: 16.6
RPM: 69
PP: 2301
SPM: 100

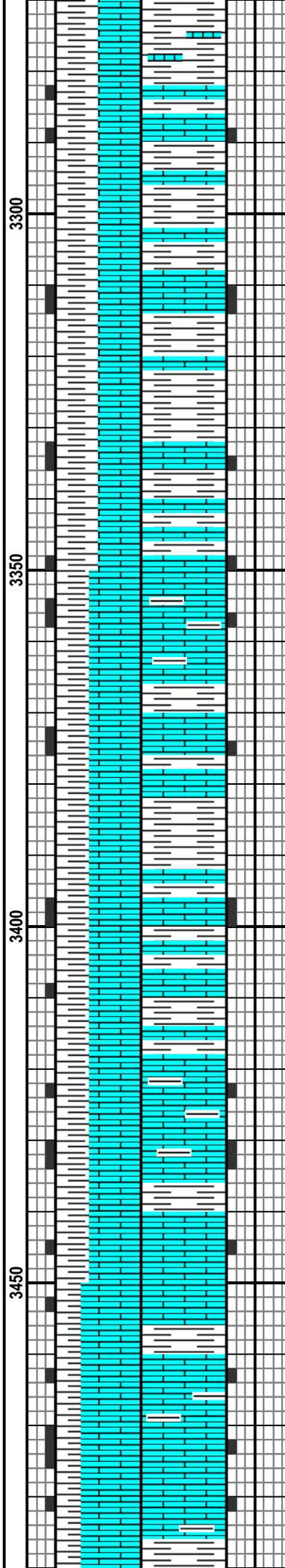
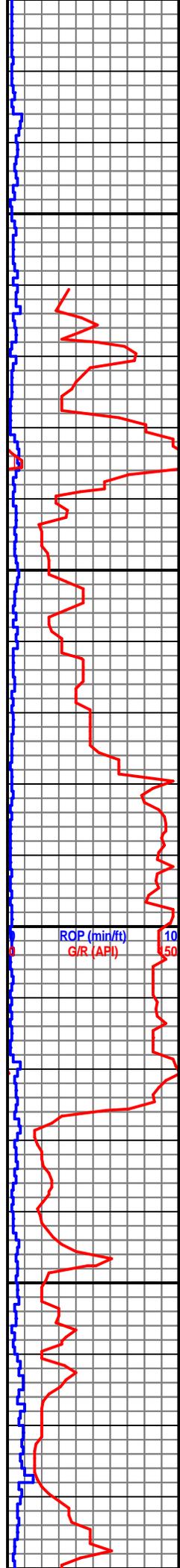
3/15/2013

MD 3236 TVD 3235.56
INC 1.1 AZ 320.2
VS -21.31

WOB: 9.4
RPM: 70
PP: 2352
SPM: 104



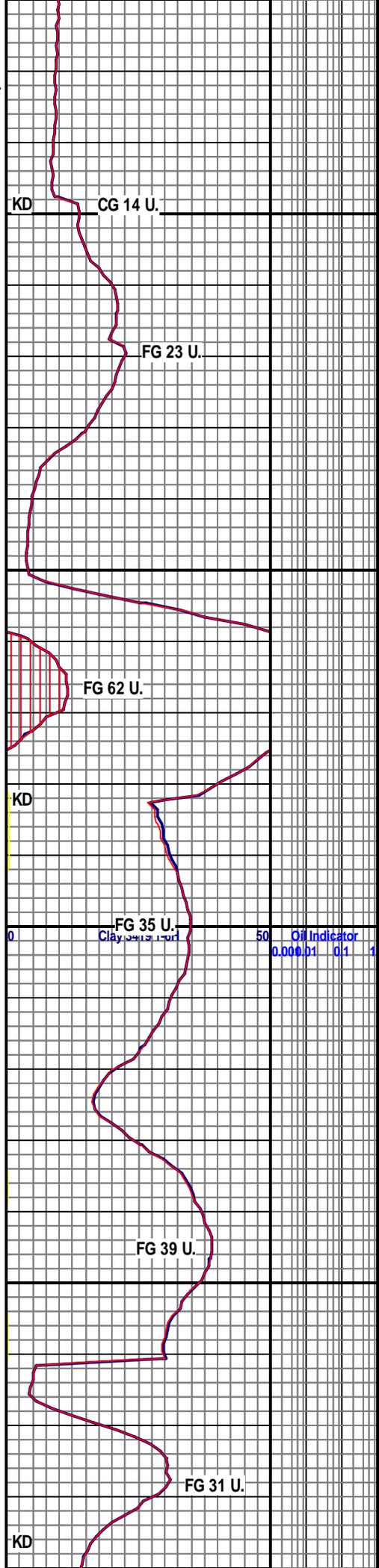
WOB: 18.0
RPM: 70
PP: 2340
SPM: 103



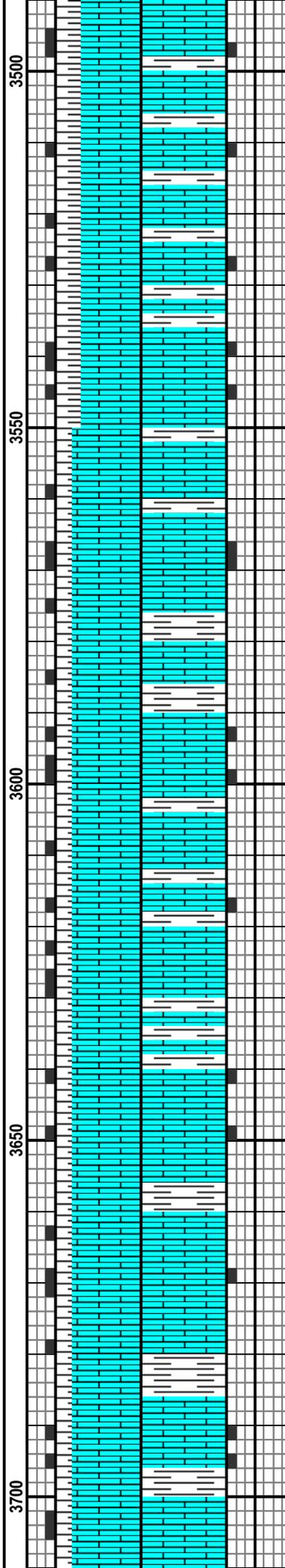
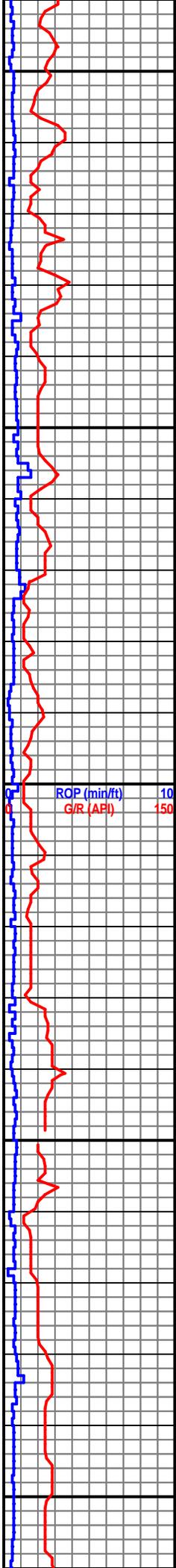
LS: PRED CRM, SME WHT- OFF
WHT, SME CRM- LT TAN, MOD
FRM- SLI FRM, OCC FRM, TR
CHLKY, MSTLY BLKY,
SUBANG- SUBRND, V FN XLN,
V PR SLI TR INTRXLN POR,
SH: MSTLY LT GRY, OCC GRY-
DRK GRY, OCC LT BRN- BRN
W/ V SLI ORNG TNT, MSTLY
RGH TXT, SME SMTH TXT,
PRED SUBWXY, SME V FNT LT
YEL MNRL FLOR

LS: MSTLY LT TAN- CRM, SME
WHT, OCC OFF WHT, TR LT
TAN- TAN, MOD FRM- SLI FRM,
SME SLI FRM- SLI SFT, OCC
CHLKY, OCC FRM, BLKY, TR
CHNKY, SUBANG- SUBRND, TR
RND, V FN- MIC FN XLN, OCC
MED XLN, V PR SLI TR
INTRXLN POR, SH: PRED MED
GRY, SME LT GRY, OCC GRY-
DRK GRY, OCC- TR LT BRN-
BRN W/ V SLI RED/ORNG TNT,
PRED SMTH TXT, OCC RGH
TXT, SUBWXY, OCC WXY, SME
DLL LT YEL MNRL FLOR THRU
OUT

LS: PRED DRTY WHT W/ LT
TAN, SME CRM- OFF WHT, OCC
WHT, OCC LT TAN- TAN, TR
TAN- LT BRN. MOD FRM- FRM.



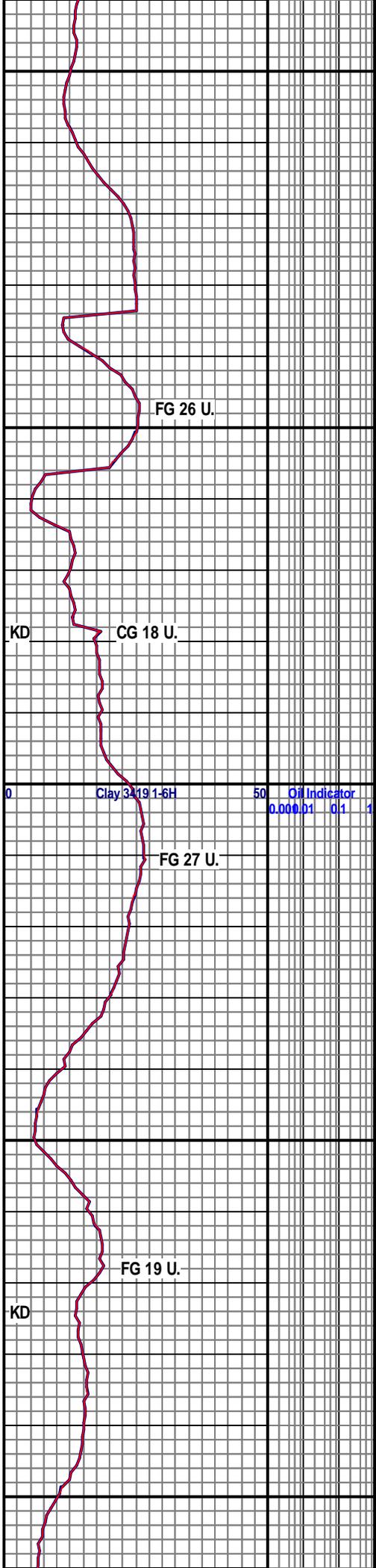
WOB: 14.7
RPM: 69
PP: 2658
SPM: 104



OCC SLI FRM, TR V FRM,
BLKY- CHNKY, SUBANG- ANG,
OCC SUBRND, V FN- MIC FN
XLN, OCC MED XLN, TR PR
FRAC POR, V PR SLI TR
INTRXLN POR, SH: LT GRY,
SME GRY, OCC DRK GRY,
DCRSNG TO TR BRN W/ V SLI
RED/ORNG TNT, PRED SMTH
TXT, OCC RGH TXT, SUBWXY-
WXY, OCC RTHY/DULL, SME
PR LT YEL- YEL MNRL FLOR

LS: INCRSNG, PRED WHT, SME
WHT- DRTY WHT, TR CRM- LT
TAN, MSTLY FRM, SME MOD
FRM- SLI FRM, BLKY- CHNKY,
SUBANG- SUBRND, OCC ANG,
V FN XLN, SLI TR FRAC POR,
TR PR PP VUG POR, SH:
DCRSNG, MSTLY BRN- LT BRN
W/ V FNT SLI ORNG/RED TNT,
SME GRY- LT GRY, MSTLY
SMTH TXT, SME RGH TXT,
SUBWXY- WXY, TR DLL, SCAT
FNT LT YEL- YEL MNRL FLOR

LS: MSTLY WHT, SME CRM,
SME OFF WHT- V SLI LT GRY,
OCC LT TAN, MOD FRM- SLI
FRM, SME FRM, OCC
SFT/CHLKY, BLKY- CHNKY,
SUBANG- SUBRND, V FN- MIC
FN XLN, SLI TR FRAC POR, SH:
PRED LT BRN- BRN W/ SLI
ORNG/RED TNT, SME GRY- LT
GRY, TR DRK GRY, PRED SMTH



TX, OCC RGH TXT, WXY-
SUBWXY, SME PR LT YEL-
OCC YEL MNRL FLOR

BG GAS
6-18 U.

NOTE
SCALE
CHANGE

Scale Change
Clay 3419 1-6H

CG 77 U.

KD

Clay 3419 1-6H

Oil Indicator
0.000 0.01 0.1 1

FG 62 U.

PUMPS
OFF

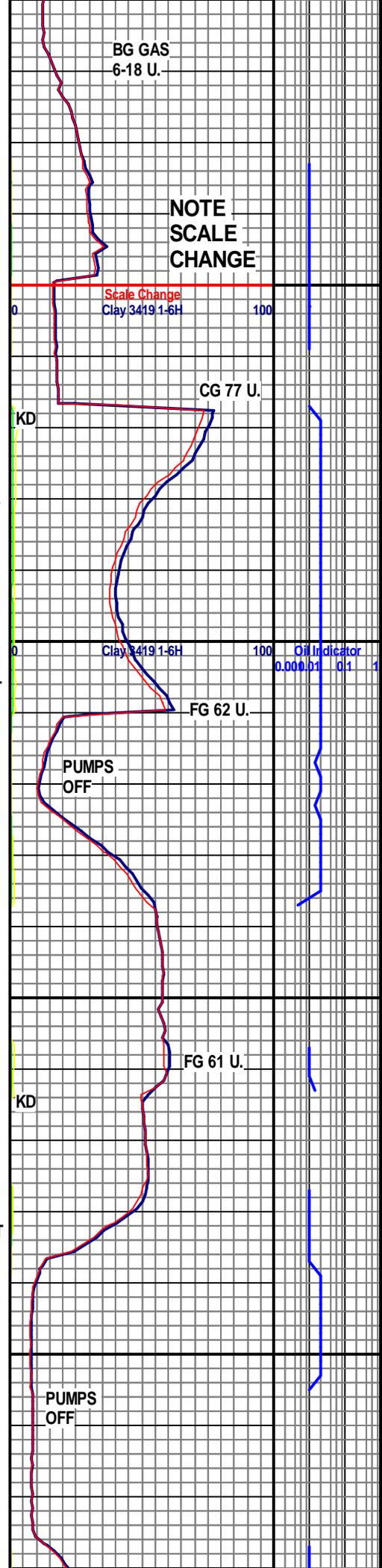
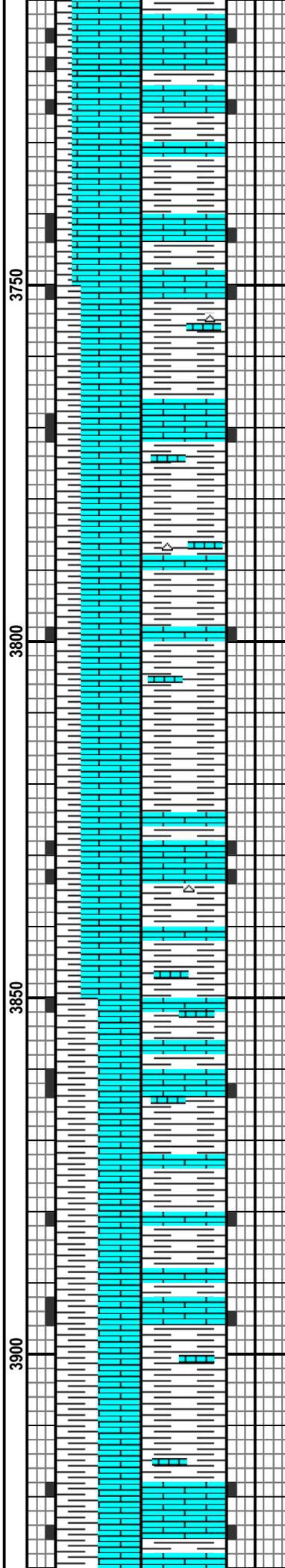
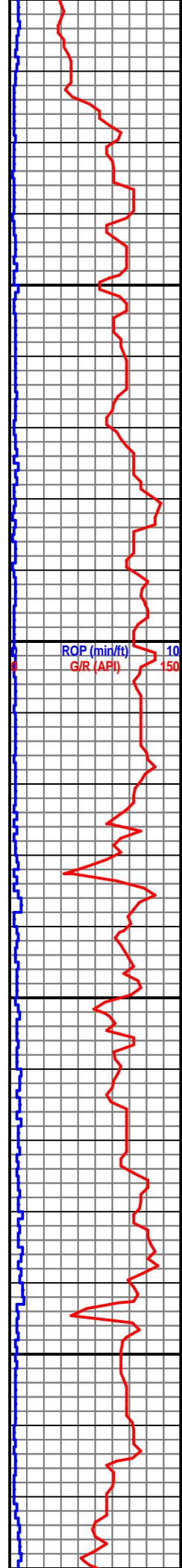
FG 61 U.

KD

PUMPS
OFF

LS: SCAT WHT, SME CRM- OFF
WHT, OCC LT GRY, OCC CRM-
LT TAN, TR LT TAN- LT BRN,
MOD FRM- FRM, SME SLI FRM,
OCC SLI SFT/CHLKY, TR V
FRM, BLKY- CHNKY, SUBANG-
SUBRND, V FN- MIC FN XLN,
TR MED XLN, TR FRAC POR,
SLI TR PR INTRXLN POR, SH:
MSTLY GRY- DRK GRY, SME LT
BRN- BRN W/ SLI ORNG/RED
TNT, OCC LT GRY, SME SMTH
TXT, SME RGH TXT, WXY-
SUBWXY, TR DULL/RTHY TXT,
SLI TR CHRT, SME FNT LT YEL
MNRL FLOR THRU OUT

LS: MSTLY CRM- DRTY WHT,
SME WHT, SME OFF WHT- V LT
TAN, OCC OFF WHT- LT GRY,
TR LT TAN- TAN, FRM, SME
MOD FRM- SLI FRM, TR V FRM,
SUBANG, OCC ANG- SUBRND,
BLKY, OCC CHNKY, V FN- MIC
FN XLN, TR FRAC POR, TR PR
PP VUG POR, SH: MSTLY DRK
GRY- GRY, OCC V DRK GRY,
OCC- TR LT GRY, TR LT BRN-
BRN W/ SLI ORNG TNT, MSTLY
SMTH, OCC RGH, SUBWXY-
WXY, OCC PR LT YEL MNRL
FLOR



WOB: 20.7
RPM: 69
PP: 2838
SPM: 102

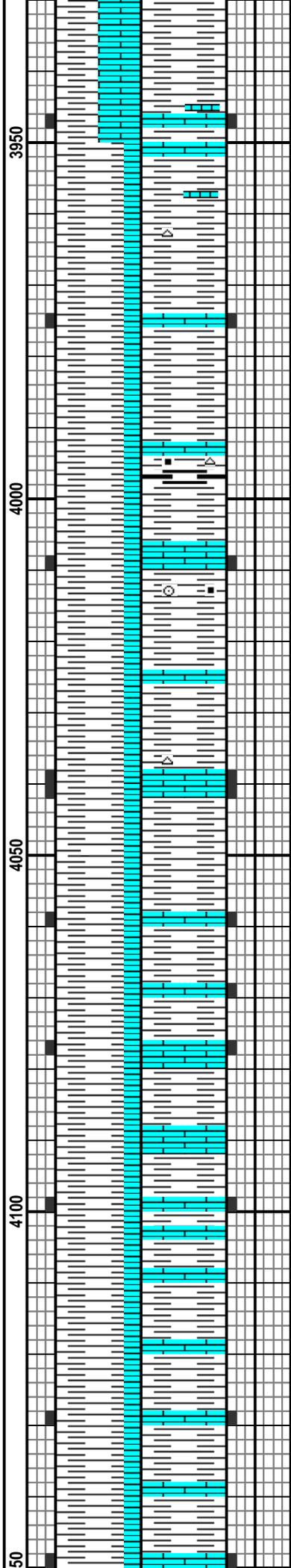
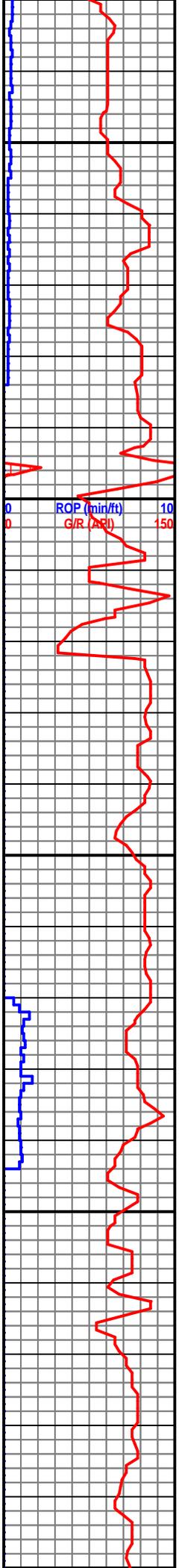
MUD CK @: 3,861'
MW: 9.75
FV: 34
PV: 5
YP: 5
GEL: 2/4/7
API: 6.4
CAKE: 2/0
SOL: 5.5
OIL/WAT: 0.0/90.3
PH: 11.4
MA: 1.70
FA: 0.70/1.8
CHL: 78,000
LCM: -

LIGHT PLANT FAILURE CAUSED TOTCO TO GO DOWN, DRILLING AHEAD WITHOUT TOTCO/WITS

TOTCO DOWN, DRILLING AHEAD WITHOUT TOTCO/WITS

NO AVAILABLE DRILLING PARAMETERS

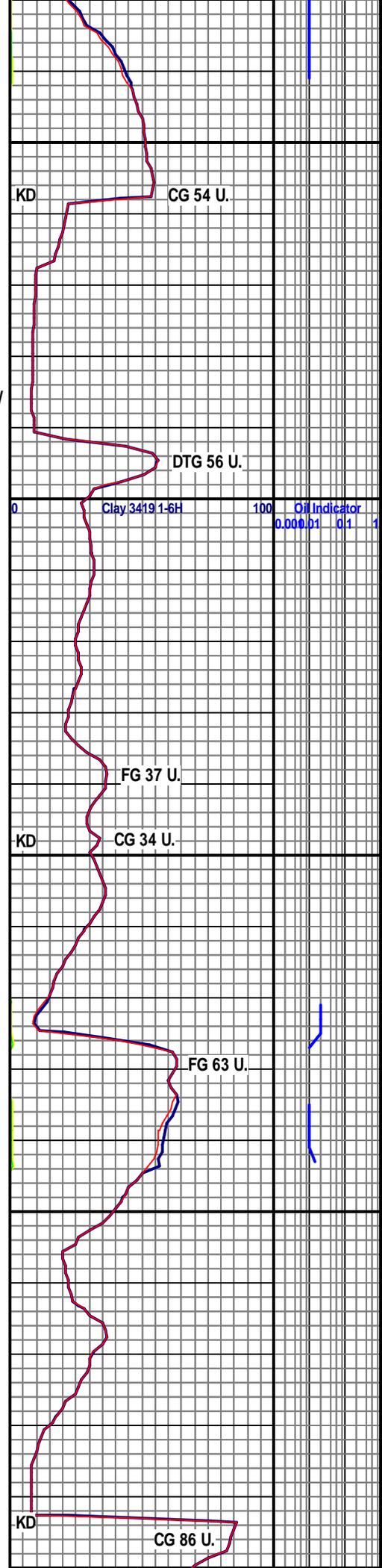
TOTCO DOWN, DRILLING AHEAD WITHOUT TOTCO/WITS



*** GAS DATA AFTER 3,984' IS ESTIMATED AND LAGGED TO THE BEST OF THE LOGGERS' CAPABILITIES ***

SH: INCRSE, PRED DRK GRY-GRY, SME V DRK GRY, OCC-TR LT GRY, TR LT BRN-BRN W/ V SLI ORNG TNT, MOD FRM-SLI FRM, SME SLI SFT, OCC FRM, PRED RGH TXT, OCC SMTH, BLKY, OCC CHNKY, MSTLY SUBRND, OCC SUBANG, WXY- SUBWXY, LS: DCRSE, MSTLY CRM- WHT, SME DRTY WHT, SLI TR CRM-V LT TAN, MOD FRM- SLI FRM, OCC FRM- V FRM, BLKY, V FN-MIC FN XLN, ANG- SUBANG, OCC PR FRAC POR, TR PR INTERXLN POR, TR V FNT DLL LT YEL MNRL FLOR

SH: PRED DK GY-GY, SME BRN-RED, MOD FRM-SLI FRM, SME RGH TXT, SME SLTY TXT, OCC SMTH, PRED BLKY, OCC CHNKY, SUBANG, SME SUBRND, WXY-RTHY LS: WHT-OFF WHT, SME GY, SME DRTY WHT, OCC TN, MOD FRM-SLI FRM, ANG-SUBANG, OCC PR FRAC POR, DUL YEL MIN FLOR



MD 4185 TVD 4184.38
INC 0.7 AZ 317.8
VS -6.13

MD 4220 TVD 4219.38
INC 0.5 AZ 309.3
VS -5.88

FLOOR CHANGED
DEPTH

NO AVAILABLE
DRILLING
PARAMETERS

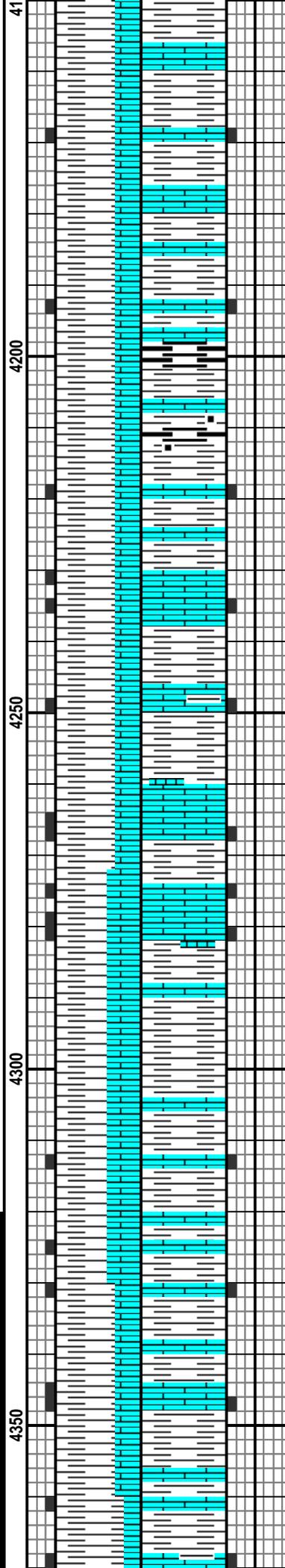
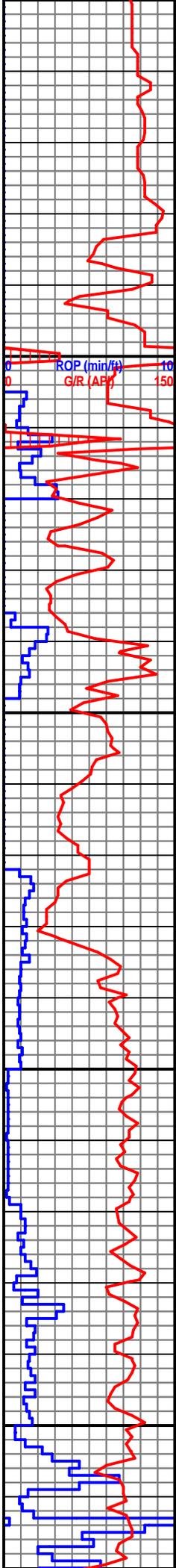
FLOOR CHANGED
DEPTH

3/16/2013
MD 4270 TVD 4269.37
INC 0.7 AZ 296.4
VS -5.6
TOTCO/WITS
RETURNED
3/17/2013

MD 4301 TVD 4300.37
INC 0.8 AZ 315.2
VS -5.37

MD 4333 TVD 4332.36
INC 1.7 AZ 336.9
VS -4.77

MD 4365 TVD 4364.33
INC 3.1 AZ 346.7



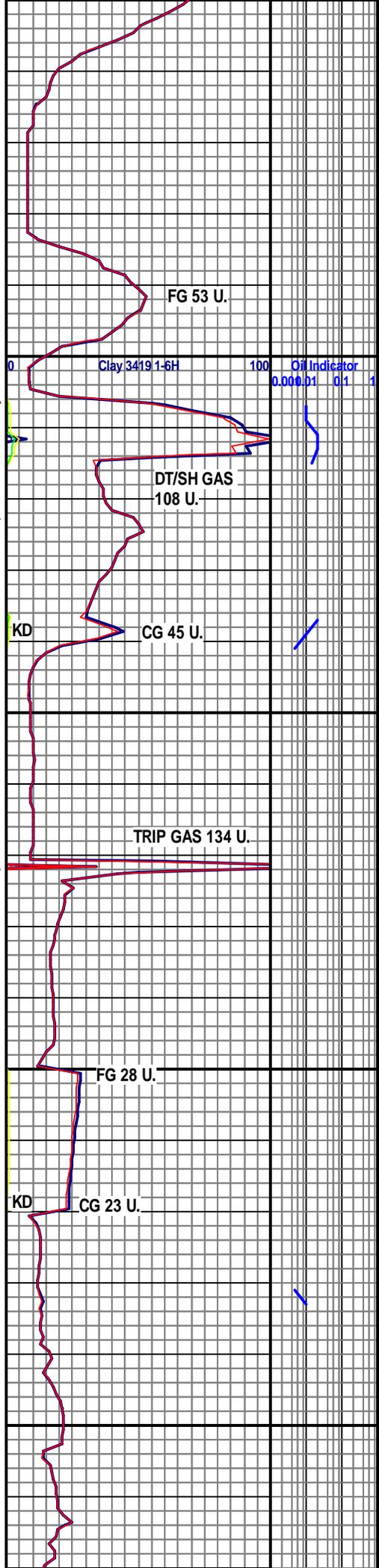
SH: DCRSE, MSTLY GY- DK GY,
SME V DK GY, SME BRN-RED,
OCC GY, MOD FRM-FRM, SME
RGH TXT, SME SLTY TXT,
BLKY, SME CHNKY, SUBANG,
OCC ANG, SME SUBRND,
WXY-SUBWXY LS: INCRSE,
WHT-OFF WHT, SME GY, OCC
DRTY WHT, OCC TN, MOD FRM-
SLI FRM, ANG-SUBANG, OCC
PR FRAC POR, SCAT DUL YEL
MIN FLOR

**HEEBNER @
4,200' MD, 4,199' TVD
(-2,369')**

**TOH FOR CURVE
ASSEMBLY @ 4,272'**
DRILLING W/ BIT #4, 8.75",
HALLIBURTON, FXD55M, SS#:
11900307, JETS 5X12, IN @
4,272'
MOTOR BEND: 2.12
REVS PER GALLON: .288

SH: MSTLY GY-DK GY, SME
BRN-RED, SME V DK GY, MOD
FRM-FRM, SME RGH TXT, SME
SLTY TXT, PRED BLKY,
SUBANG, OCC ANG,
WXY-SUBWXY, LS: WHT-OFF
WHT, SME TN, OCC LT GY,
MOD FRM-SLI FRM,
ANG-SUBANG, OCC SUBRND,
OCC PR FRAC POR, SCAT DUL
YEL MIN FLOR

SH: PRED MED GRY, SME



VS-3.49

MD 4396 TVD 4395.27
INC 4.1 AZ 348.4
VS -1.59

MD 4428 TVD 4427.17
INC 5.1 AZ 349.5
VS 0.93

WOB: 6.8
RPM: 2
PP: 1999
SPM: 79

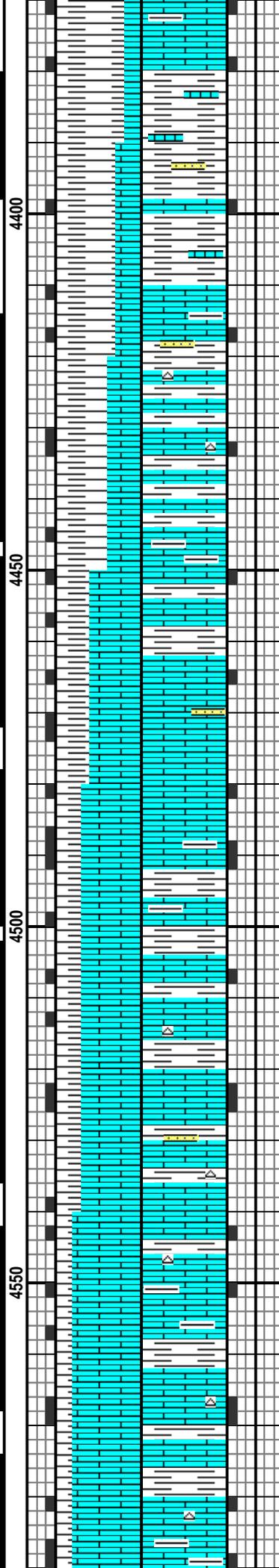
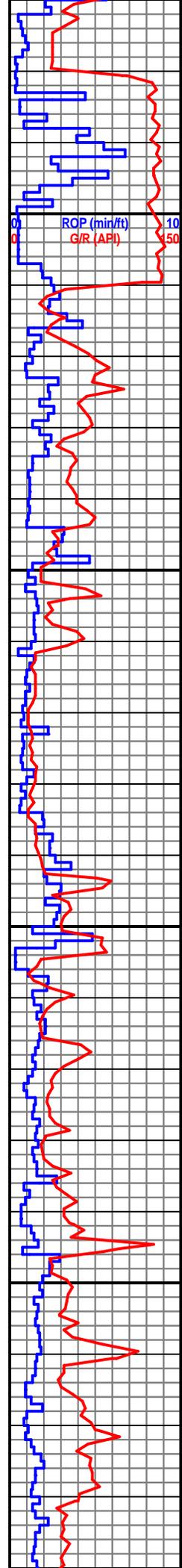
MD 4459 TVD 4457.99
INC 7.1 AZ 358
VS 4.19

MD 4491 TVD 4489.67
INC 9.2 AZ 1.2
VS 8.73

MD 4523 TVD 4521.13
INC 11.9 AZ 1.6
VS 14.59

MD 4554 TVD 4551.32
INC 14.2 AZ 0.1
VS 21.58

MD 4586 TVD 4582.19
INC 16.4 AZ 0.1
VS 28.53

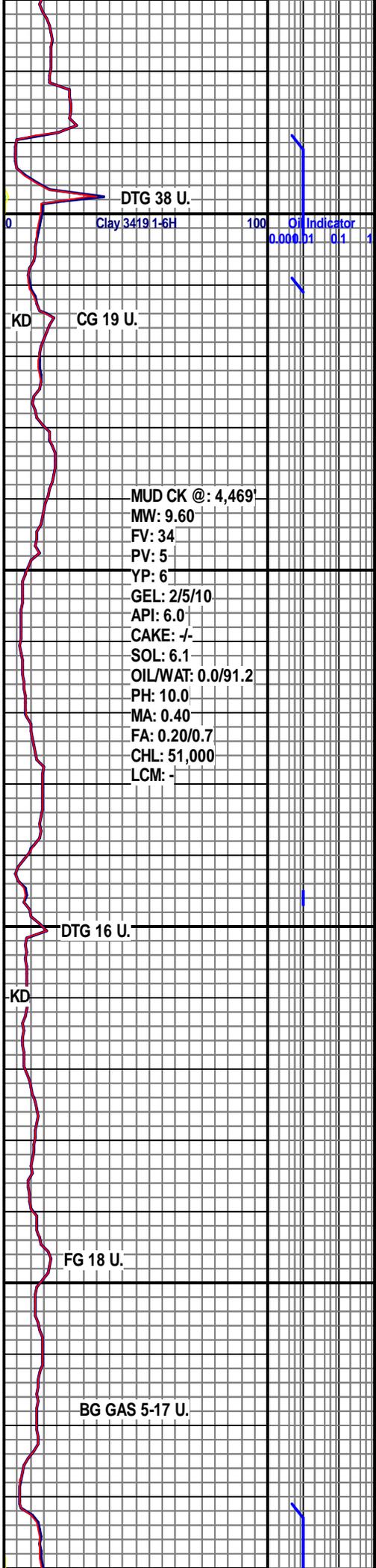


MOTT GRY W/ OCC BLK SPTS,
SME DRK GRY, OCC LT GRY,
TR LT BRN- BRN, FRM- SLI
FRM, SME SLI SFT- SFT, BLKY,
SUBANG- SUBRND, PRED RGH
TXT, TR SMTH TXT, RTHY-
SUBWXY, LS: CRM- LT TAN,
SME OFF WHT- WHT, OCC OFF
WHT- SLI LT GRY, FRM- MOD
FRM, OCC V FRM, BLKY, TR
PLTY, SUBANG- SUBRND, V FN
XLN, OCC PR FRAC POR, TR
SS, TR V DLL FNT LT YEL
MNRL FLOR

**LANSING @
4,410' MD, 4,409' TVD
(-2,579')**

LS: MSTLY LT TAN- LT GRY,
SME MOTT GRY/TAN/CRM,
SME DRTY WHT, OCC WHT, TR
TAN- LT BRN, FRM, SME V
FRM, OCC MOD FRM- SLI SFT,
TR BRIT, SUBANG- ANG, OCC
SUBRND, BLKY, OCC CHNKY, V
FN XLN, SME FRAC POR, SH:
SLWLY DCRSNG, PRED LT
GRY, SME LT GRY- GRY, TR
DRK GRY, SLI TR BRN- LT BRN,
FRM- SLI FRM, OCC SFT, PRED
RGH TXT, OCC SMTH,
SUBRND- SUBANG, BLKY,
DULL- SUBWXY, SLI TR SS,
OCC V DLL LT YEL- YEL MNRL
FLOR, NO CUT

LS: PRED OFF WHT- LT TAN,
SME CRM- WHT, OCC LT TAN-
TAN, OCC DRTY WHT- LT GRY,
FRM- V FRM, SME MOD FRM,
TR SLI SFT/CHLKY, SUBANG-
ANG, OCC SUBRND, BLKY-
CHNKY, V FN- MIC FN XLN,
SME FRAC POR, TR PP VUG
POR, SH: MSTLY LT GRY, SME
V DRK GRY, OCC MED GRY,
OCC BRN- LT BRN, FRM- MOD
FRM, SME SLI FRM- SFT, SME
RGH TXT, SME SMTH,
SUBANG- SUBRND, BLKY,
SUBWXY- RTHY TXT, TR CHRT,
SLI TR SS, OCC FNT PR V LT
YEL MNRL FLOR, NO CUT



DTG 38 U.

Clay 3419 1-6H

Oil Indicator
0.000 0.1 0.1

KD

CG 19 U.

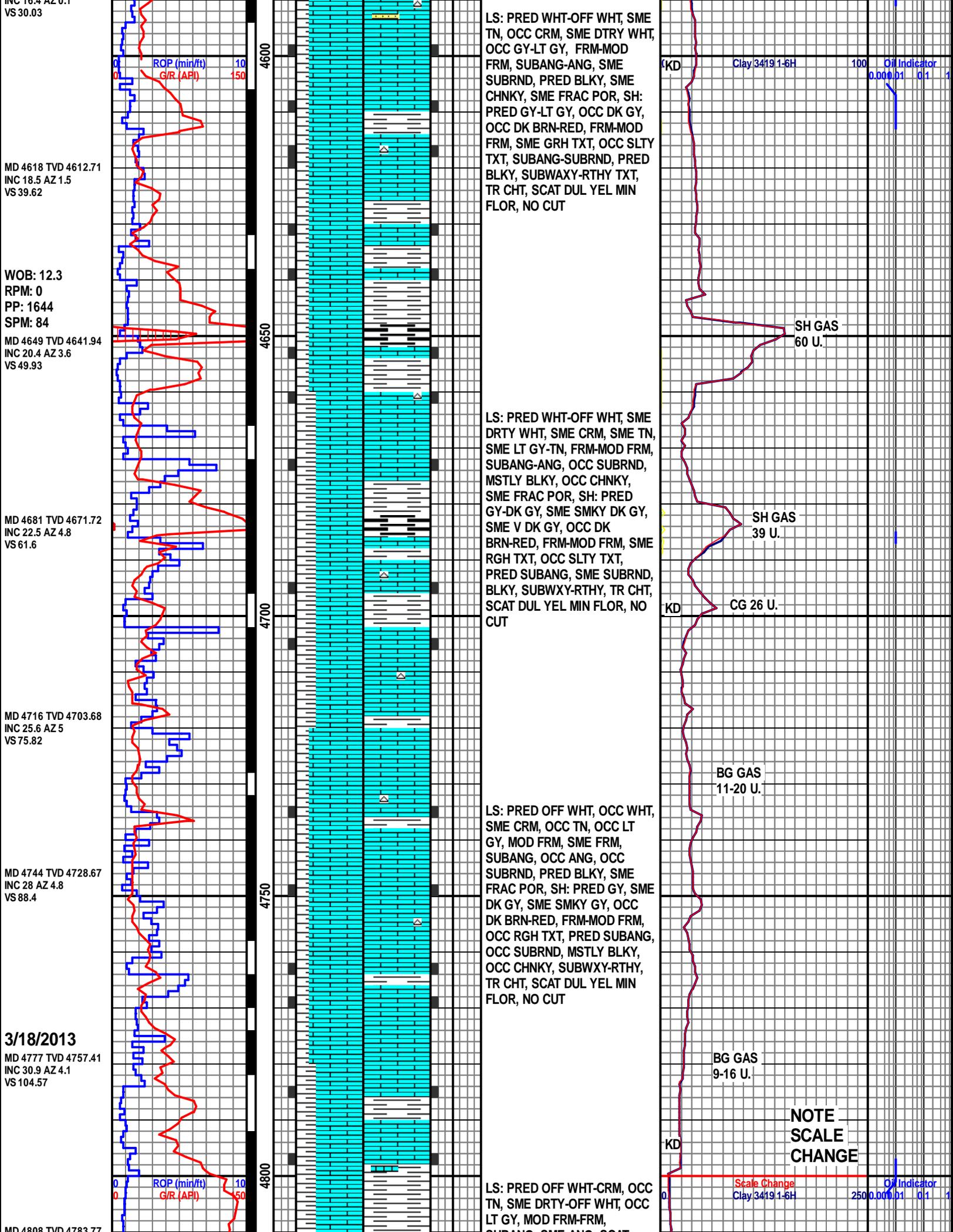
MUD CK @: 4,469'
MW: 9.60
FV: 34
PV: 5
YP: 6
GEL: 2/5/10
API: 6.0
CAKE: -/
SOL: 6.1
OIL/WAT: 0.0/91.2
PH: 10.0
MA: 0.40
FA: 0.20/0.7
CHL: 51,000
LCM: -

DTG 16 U.

KD

FG 18 U.

BG GAS 5-17 U.



MD 4839 TVD 4809.69
INC 33.9 AZ 3.1
VS 137.82

WOB: 4.1
RPM: 32
PP: 1965
SPM: 91

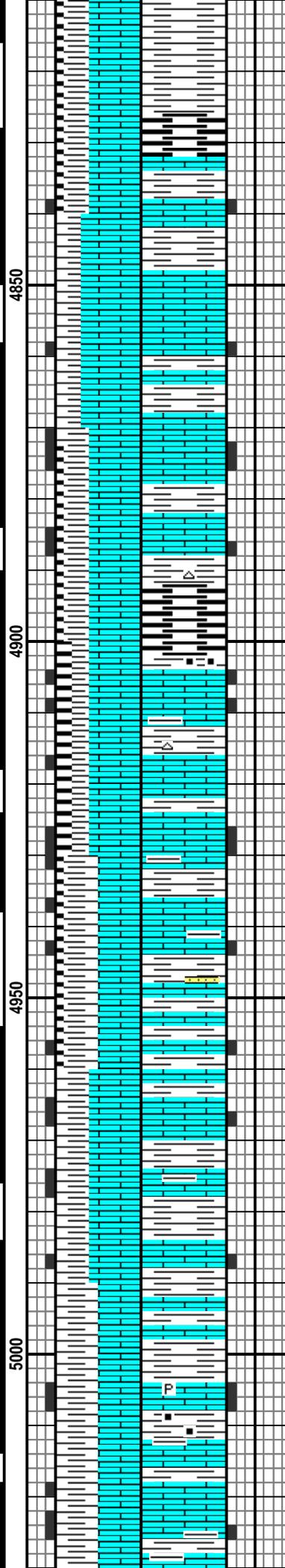
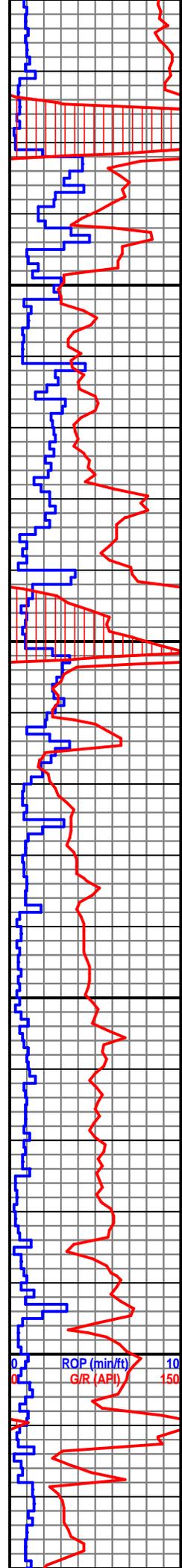
MD 4871 TVD 4835.85
INC 36.4 AZ 3.1
VS 156.22

MD 4903 TVD 4861.17
INC 39 AZ 3.4
VS 175.76

MD 4934 TVD 4884.95
INC 40.8 AZ 3
VS 195.61

MD 4966 TVD 4909.1
INC 41.2 AZ 3
VS 216.58

MD 4998 TVD 4933.05
INC 41.9 AZ 3
VS 237.78

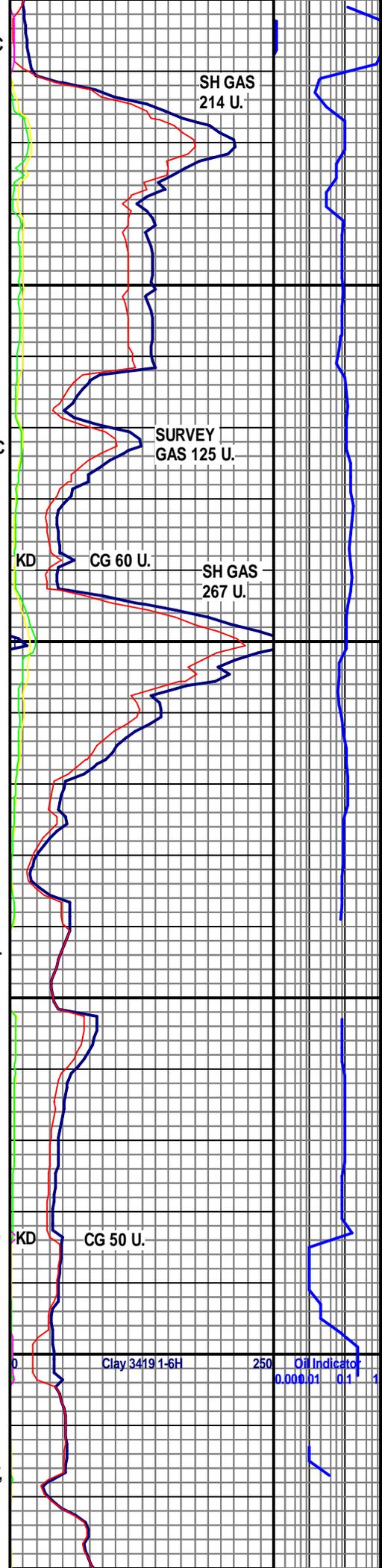


SUBANG, SME ANG, SCAI
SUBRND, MSTLY BLKY, OCC
FRAC POR, SH: PRED GY, OCC
DK GY, SME SMKY GY, SME
DRK BRN-RED, TR BLK CARB,
FRM-MOD FRM, SME RGH TXT,
SME SLTY TXT, MSTLY
SUBANG, OCC ANG, PRED
BLKY, SUBWXY-RTHY, TR CHT,
SCAT DUL YEL MIN FLOR, NO
CUT

LS: MSTLY DRTY WHT- SLI LT
GRY, SME CRM- OFF WHT, OCC
LT TAN, OCC WHT, FRM- MOD
FRM, SME V FRM, OCC SLI
FRM, TR FRI, BLKY- OCC
CHNKY, SUBANG- ANG, FN- V
FN XLN, OCC FRAC POR, SH:
PRED DRK GRY, SME GRY,
OCC V DRK GRY- BLK CARB,
FRM- MOD FRM, OCC SLI FRM,
OCC FLKY, BLKY, ANG-
SUBANG, WXY- SUBWXY,
SMTH- OCC RGH TXT, TR
CHRT, OCC PR LT YEL MNRL
FLOR, NO CUT

LS: DRTY WHT, SME OFF WHT-
CRM, SME OFF WHT- LT TAN,
OCC WHT, TR LT TAN- LT BRN,
MOD FRM- FRM, OCC SLI
FRM, OCC V FRM, TR BRIT,
BLKY- CHNKY, SLI TR PLTY,
SUBANG- ANG, FN- V FN XLN,
OCC FRAC POR, TR PR PP
VUG POR, SH: GRY- DRK GRY,
SME MED GRY, OCC LT GRY,
FRM- MOD FRM, SME SLI FRM,
BLKY, ANG- SUBANG, TR
SUBRND, WXY- SUBWXY,
SMTH- OCC RGH TXT, SLI TR
SS, SME FNT DLL LT YEL- YEL
MNRL FLOR, NO CUT

LS: MSTLY LT GRY- DRTY WHT,
SME MOTT OFF WHT W/ LT
GRY- LT TAN, OCC WHT, OCC
GRY, TR LT TAN- TAN, MOD
FRM- FRM, OCC V FRM, MSTLY



ROP (min/ft) 10
G/R (API) 150

Clay 3419 1-6H 250
Oil Indicator 0.000 0.1 0.1

MD 5029 TVD 4955.81
INC 43.6 AZ 3.1
VS 258.79

WOB: 3.8
RPM: 0
PP: 1924
SPM: 95

MD 5061 TVD 4978.62
INC 45.5 AZ 3.4
VS 281.21

BEGIN TANGENT
MD 5092 TVD 4999.77
INC 48.4 AZ 3.5
VS 303.82

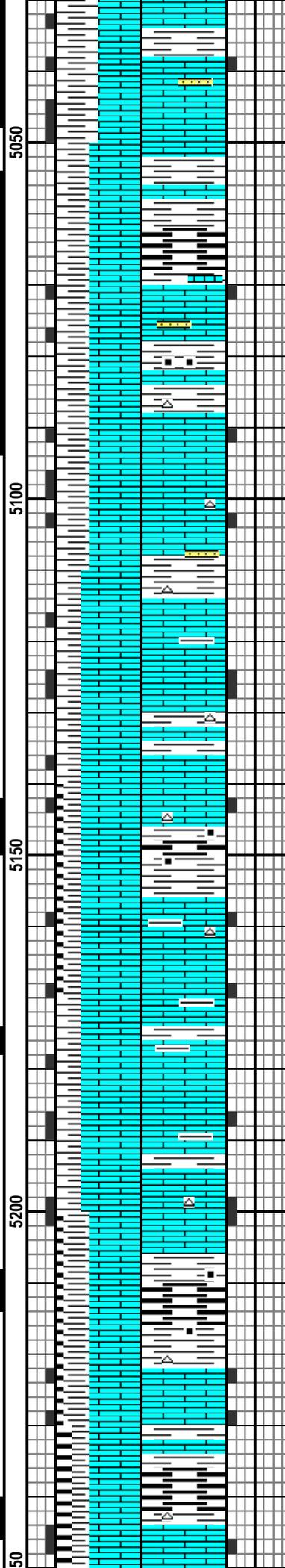
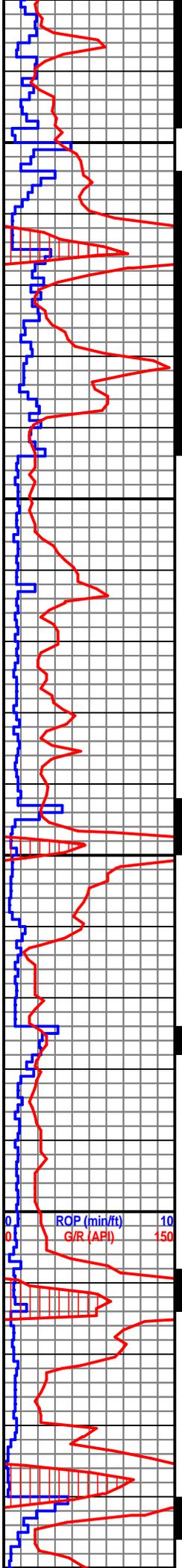
MD 5124 TVD 5020.87
INC 49.1 AZ 3.8
VS 327.83

MD 5156 TVD 5041.8
INC 49.2 AZ 4.2
VS 351.98

MD 5187 TVD 5061.96
INC 49.7 AZ 3.7
VS 375.48

MD 5219 TVD 5082.63
INC 49.8 AZ 4.3
VS 399.85

WOB: 8.0
RPM: 31
PP: 2253
SPM: 93



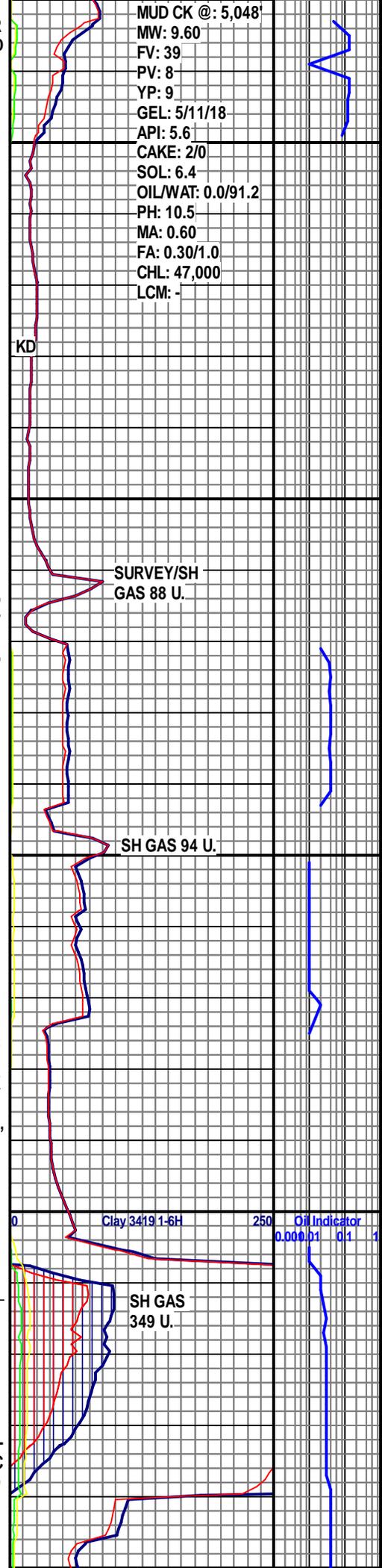
SUBANG, OCC ANG, BLKY-CHNKY, V FN- FN XLN, OCC PR FRAC POR, SH: DRK GRY- MED GRY, OCC LT GRY, OCC MOTT LT- DRK GRY, TR LT BRN- BRN, FRM, OCC MOD FRM, BLKY, SUBANG- SUBRND, SUBWXY, MSTLY SMTH TXT, OCC SLI RGH TXT, SLI TR SS, OCC V FNT LT YEL MNRL FLOR, NO CUT

LS: PRED CRM- LT TAN, SME DRTY WHT- LT GRY, SME OFF WHT, OCC WHT, OCC TAN- LT BRN, MOD FRM- V FRM, SME SLI FRM, SUBANG, OCC ANG- SUBRND, BLKY- CHNKY, V FN XLN, TR PR FRAC POR, SH: MSTLY MED GRY, SME LT GRY, OCC DRK GRY, SLI TR LT BRN- BRN, FRM- MOD FRM, OCC SLI SFT, BLKY, SUBANG- SUBRND, SUBWXY, TR WXY, SMTH TXT, TR CHRT, SLI TR SS, FNT PR LT YEL- YEL MNRL FLOR, NO CUT

LS: MSTLY LT TAN- TAN, SME DRTY WHT- LT TAN, OCC LT GRY, OCC OFF WHT, TR WHT, FRM- MOD FRM, OCC V FRM, OCC CRMBLY, TR SFT/CHLKY, BLKY- CHNKY, SUBANG, OCC ANG, V FN XLN, OCC PR FRAC POR, SH: MED GRY- LT GRY, OCC DRK- V DRK GRY, TR BLK CARB, FRM- MOD FRM, TR V FRM, TR FLKY, BLKY, SUBANG, OCC ANG, WXY- SUBWXY, MSTLY SMTH TXT, OCC MOD RGH TXT, TR CHRT, TR V DLL FNT LT YEL MNRL FLOR, NO CUT

**CHEROKEE @
5,212' MD, 5,078' TVD
(-3,248')**

LS: PRED LT TAN, SME LT TAN- TAN, SME CRM- OFF WHT, OCC DRTY WHT- LT GRY, FRM- MOD FRM, SME SLI FRM, OCC CRMBLY, OCC FRI, TR CHLKY, BLKY- CHNKY, SUBANG- ANG, TR SUBRND, SME PR FRAC



MUD CK @: 5,048'
MW: 9.60
FV: 39
PV: 8
YP: 9
GEL: 5/11/18
API: 5.6
CAKE: 2/0
SOL: 6.4
OIL/WAT: 0.0/91.2
PH: 10.5
MA: 0.60
FA: 0.30/1.0
CHL: 47,000
LCM: -

SURVEY/SH
GAS 88 U.

SH GAS 94 U.

SH GAS
349 U.

Clay 3419 1-6H

Oil Indicator

MD 5251 TVD 5103.29
INC 49.8 AZ 4.2
VS 424.23

MD 5282 TVD 5123.4
INC 49.3 AZ 4.1
VS 447.76

END OF TANGENT

MD 5314 TVD 5143.95
INC 50.8 AZ 3.6
VS 472.24

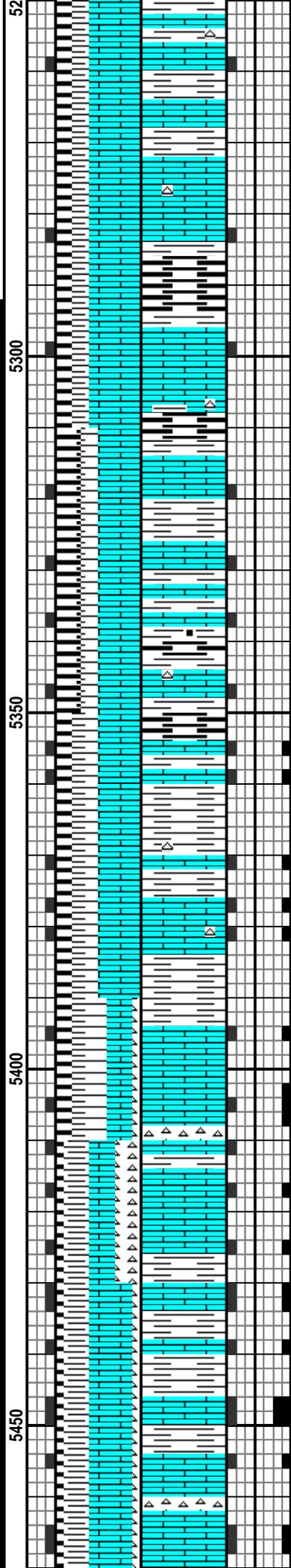
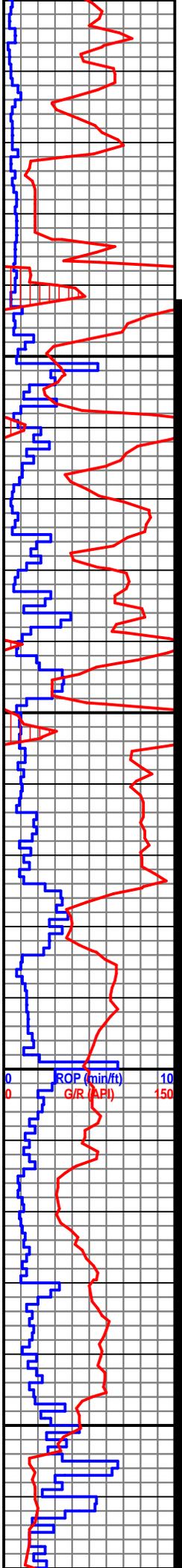
MD 5346 TVD 5163.36
INC 54.5 AZ 4.2
VS 497.62

MD 5377 TVD 5180.53
INC 58.2 AZ 4
VS 523.36

MD 5409 TVD 5196.48
INC 62 AZ 3.3
VS 551.04

MD 5441 TVD 5210.46
INC 66.2 AZ 2.4
VS 579.79

WOB: 11
RPM: 0
PP: 2011
SPM: 92



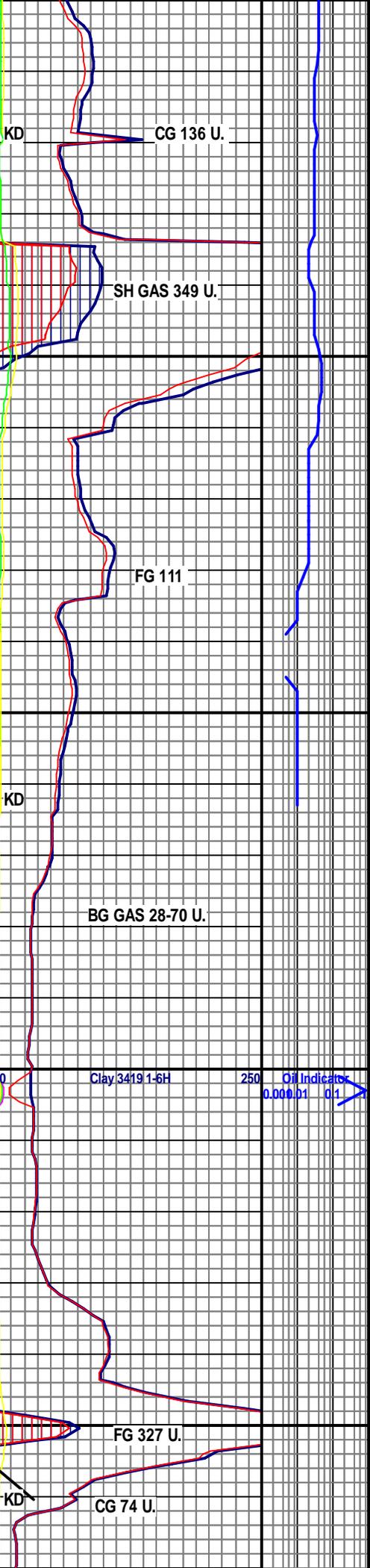
POR THRU OUT, SH: PRED
DRK- V DRK GRY, SME MED
GRY, OCC BLK CARB, OCC LT
GRY, TR RED- BRN, FRM- MOD
FRM, SME SLI FRM, TR FLKY,
BLKY, OCC CHNKY, WXY-
SUBWXY, SMTH TXT, OCC RGH
TXT, TR CHRT, SLI TR SS, OCC
PR YEL- LT YEL MNRL FLOR

LS: PRED TN-LT TN, SME CRM,
SME OFF WHT, SME DRTY
WHT, FRM-MOD FRM, PRED
BLKY, SME CHNKY,
SUBANG-ANG, OCC SUBRND,
SME PR FRAC POR, SH: PRE
DK GY, SME V DK GY, OCC
MED GY, OCC BLK CARB, TR
RED-BRN, FRM-MOD FRM, OCC
SLI FRM, BLKY, ANG, OCC SUB
ANG, WXY-SUBWXY, OCC
SMTH TXT, TR CHT, SCAT
DUL YEL MIN FLOR, NO CUT

LS: PRED TN-LT TN, OCC CRM,
SME OFF WHT, SME DRTY
WHT, FRM-MOD FRM, BLKY,
OCC CHNKY, SUBANG-ANG,
SME SUBRND, SME PR FRAC
POR, SH: GY-DK GY, SME V DK
GY, SME MED GY, BLK CARB,
TR RED-BRN, FRM-MOD FRM,
PRED BLKY, SME CHNKY, ANG,
OCC SUBANG, WXY-SUBWXY,
OCC SMTH TXT, TR CHT, SCAT
DUL YEL MIN FLOR, TR PR
SLO MLKY BLU/GRN CUT, V PR
THN SPTY LT BLU- SLI LT YEL
RESD RING

SH: GY-DK GY, OCC V DK GY,
BLK CARB, TR RED-BRN, FRM-
MOD FRM, BLKY, ANG, SME
SUB ANG, WXY, LS: PRED TN,
SME LT TN, SME CRM, OCC
DRTY WHT, FRM-MOD FRM,
PRED BLKY, OCC CHNKY,
SUBANG-ANG, OCC SUBRND,
SME PR FRAC POR, CHT:
WHT-OFF WHT, OCC TN, SME
TRANSUL, FRM- V FRM, OCC
HRD, ANG, TR YEL MIN FLOR,
PR- SLI FR MLKY BLU/GREEN
CUT, SLO FT YEL/GRN RES
RING

MISSISSIPPIAN @
5,452' MD, 5,214' TVD
(-3,384')



MD 5472 TVD 5222.07
INC 69.8 AZ 0.8
VS 608.52

3/19/2013

MD 5504 TVD 5232.35
INC 72.7 AZ 0
VS 638.81

MD 5536 TVD 5241.17
INC 75.3 AZ 359.7
VS 669.57

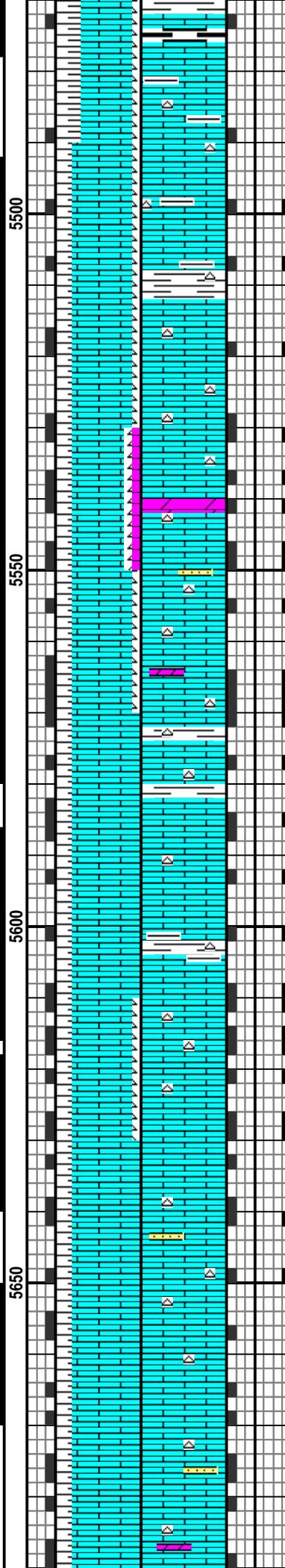
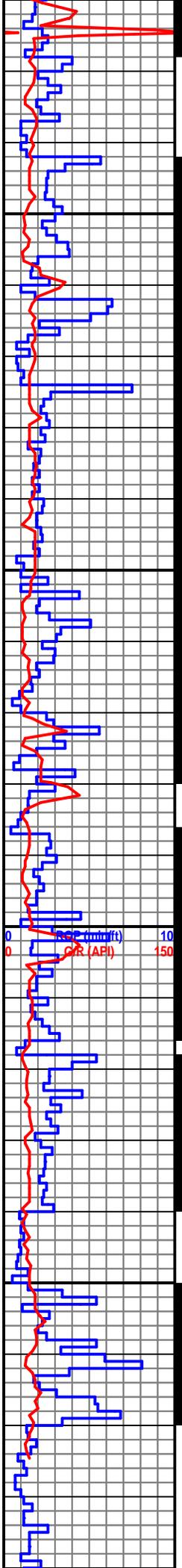
MD 5567 TVD 5248.28
INC 78.2 AZ 359.4
VS 699.74

MD 5599 TVD 5253.97
INC 81.3 AZ 359.4
VS 731.22

MD 5631 TVD 5257.9
INC 84.6 AZ 359.4
VS 762.98

WOB: 12.6
RPM: 0
PP: 2018
SPM: 92

MD 5662 TVD 5260.03
INC 87.5 AZ 359.4
VS 793.9



LS: MSLTY TN-OFF WHT, SME WHT, SME TN, OCC CRM, OCC DRTY WHT, FRM-MOD FRM, BLKY, SUBANG-ANG, OCC SUBRND, OCC PR FRAC POR, SH: GY-DK GY, TR BRN-RED, MOD FRM, OCC FRM, PRED BLKY, SME CHNKY, ANG, SME SUBANG, OCC SUBRND, OCC SLTY TXT, CHT: WHT-OFF WHT, OCC TN, TR TRANSLU, FRM- V FRM, SME HRD, ANG, TR YEL MIN FLOR, PR SLO FNT MLKY-BLU/GRN CUT, NO VIS RES RING

LS: PRED LT TAN, SME CRM-OFF WHT, SME LT TAN- TAN, TR WHT, FRM- MOD FRM, SME SLI FRM, OCC V FRM, TR BRIT/CRMBLY, SUBANG-SUBRND, OCC ANG, BLKY-OCC CHNKY, MSTLY V FN XLN, OCC PR FRAC POR, CHRT: OPQ- SLI CLR, OCC OFF WHT-WHT, HRD- V FRM, ANG, SH: PRED RECIRC, MED- DRK GRY, OCC LT GRY, TR V DRK GRY, TR BRN- LT BRN, TR DOL, SLI TR SS, TR YEL FLOR, V PR SLO FNT LT BLU- MLKY CUT, NO VIS RESD RING

LS: LT TAN, SME LT TAN- TAN, SME DRTY WHT- SLI LT GRY, OCC TAN- BRN, TR WHT, FRM-MOD FRM, SME SLI FRM, OCC V FRM, TR BRIT/CRMBLY, PRED SUBANG, OCC ANG-SUBRND, BLKY, V FN XLN, TR PR FRAC POR, CHRT: OPQ-OFF WHT, SME WHT, OCC OPQ- SLI TRNSL, PRED HRD, ANG, SH: PRED RECIRC, GRY, SME LT- DRK GRY, TR BRN- LT BRN W/ V LT ORNG, OCC BRI OFF WHT- LT YEL FLOR, PR- V PR SLO DIM LT BLU- MLKY CUT, V FNT V THN LT BLU- NO RESD RING

LS: PRED LT TN, SME TN, OCC DRTY WHT, OCC TN-BRN, TR OFF WHT, FRM-MOD FRM, PRED SUBANG, SME ANG, OCC SUBRND, PRED BLKY, OCC CHNKY, V FN XLN, TR PR FRAC POR, SH: PRED RECIRC, GY-DK GY, TR BRN, ANG, OCC SUBANG, TR CHT, SCAT BRI WHT YEL FLOR, NO VIS CUT

SURVEY GAS
37 U.

BG GAS
7-20 U.

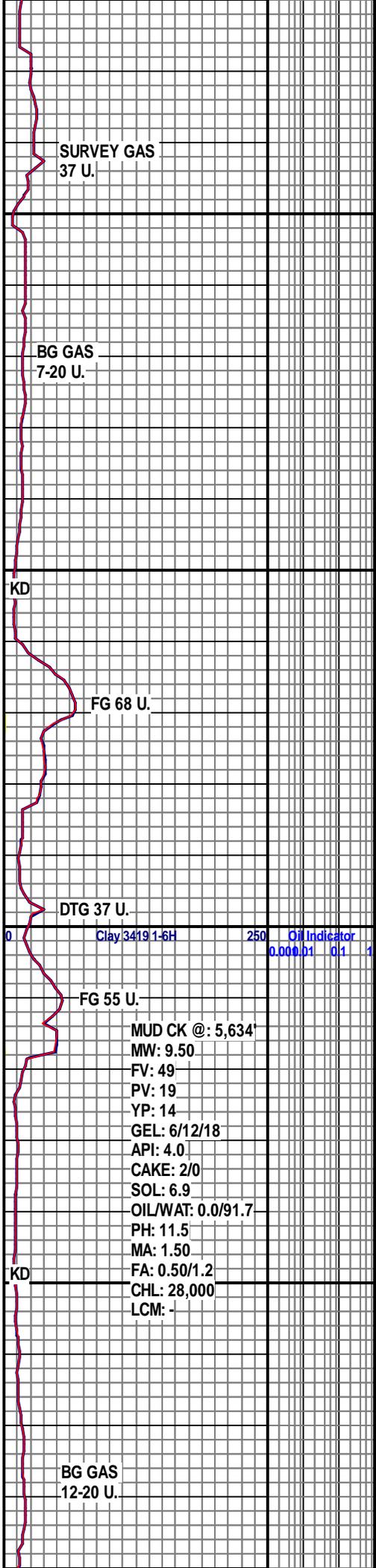
FG 68 U.

DTG 37 U.

FG 55 U.

MUD CK @: 5,634'
MW: 9.50
FV: 49
PV: 19
YP: 14
GEL: 6/12/18
API: 4.0
CAKE: 2/0
SOL: 6.9
OIL/WAT: 0.0/91.7
PH: 11.5
MA: 1.50
FA: 0.50/1.2
CHL: 28,000
LCM: -

BG GAS
12-20 U.

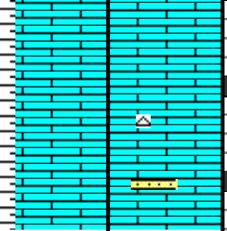


WHI-YEL FLOR, NO VIS CUT,
NO RES RING

ROP
GAMMA

5700

5750



TD INTERMEDIATE
CASING @ 5,714' MD
ON 3/19/2013

GAS

END VERTICAL LOG

SANDRIDGE ENERGY, INC.
CLAY 1-6H
SEC. 6-T34S-R19W OF
COMMANCHE CO., KS