



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: Vogel 3306 1-1 SANDRIDGE ENERGY INC.
Location: Section 1, T33S, R6W
License Number: 15-077-21940-00-00 Region: HARPER CO., KS
Spud Date: 6/22/13 Drilling Completed:
Surface Coordinates: SHL: 660' FSL & 1,980' FWL of Section 1, T33S, R6W
Bottom Hole REPORT FOR: TAMMY ALCORN
Coordinates: LOGGERS: MR. AARON KING, MS. MINDY CAUDILL
Ground Elevation (ft): 1,357' K.B. Elevation (ft): 1,375'
Logged Interval (ft): 3,000' To: Total Depth (ft):
Formation: MISSISSIPPIAN
Type of Drilling Fluid: WATER/NATIVE MUD

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

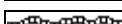
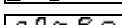
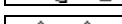
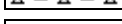
Cores

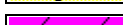
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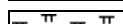
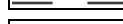
Comments

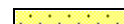
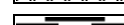
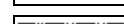
LOGGERS: MR. AARON KING, MRS. MINDY CAUDILL
MCWL TRAILER: #25

ROCK TYPES

 Sndylm
 Anhy
 Bent
 Brec
 Cht
 Clyst

 Coal
 Leach
 Congl
 Dol
 Gyp
 Igne

 Lmst
 Meta
 Mrlst
 Salt
 Shale
 Shcol

 Shgy
 Ss
 Till
 Hotsh
 Sltst

ACCESSORIES

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

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
 Ssstrg
 Sltstrg

TEXTURE

 Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

OTHER SYMBOLS

POROSITY

 Earthy
 Fenest
 Fracture
 Inter
 Moldic
 Organic
 Pinpoint
 Vuggy
 New symbol

 New symbol
 Sndylm
 New symbol

SORTING

 Well
 Moderate
 Poor

ROUNDING

 Rounded
 Subrnd
 Subang
 Angular

OIL SHOW

 Even
 Spotted
 Ques

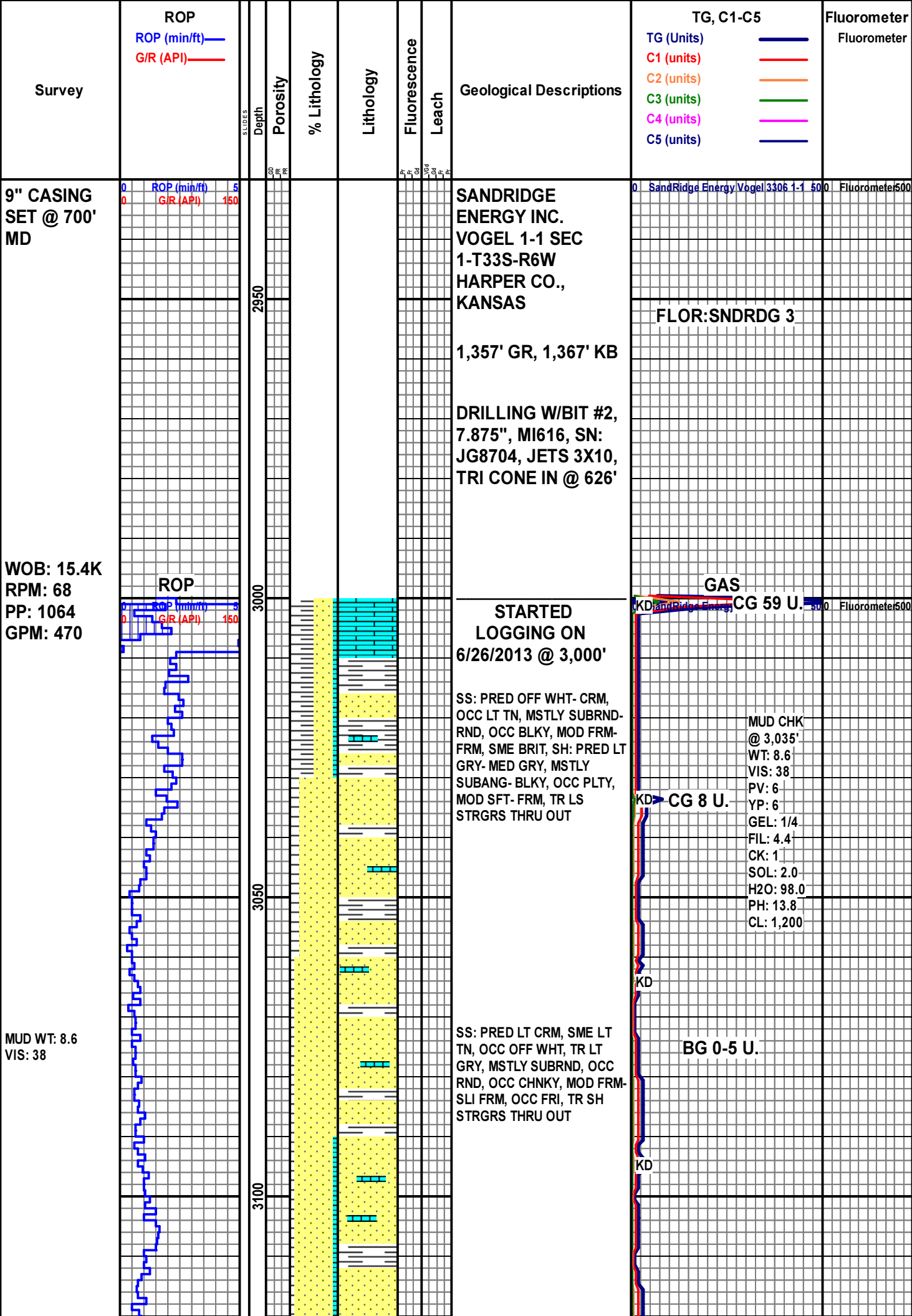
 Dead

INTERVAL

 Core
 Dst

EVENT

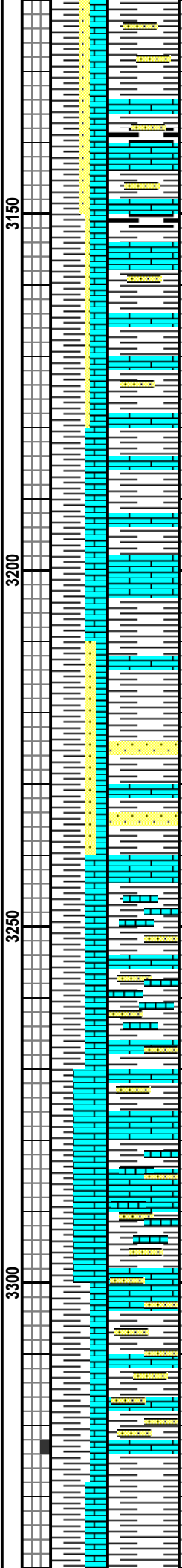
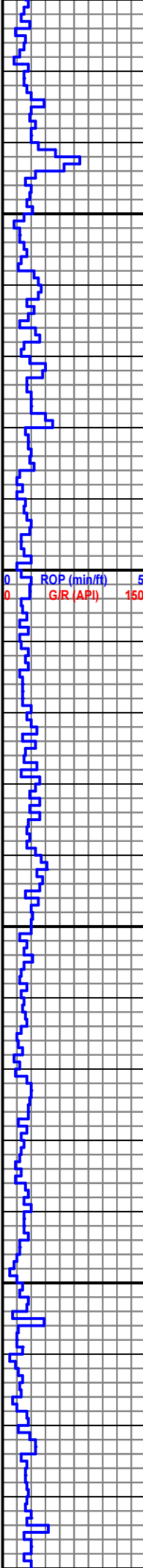
 Rft
 Sidewall



MUD WT: 8.7
VIS: 38

WOB: 13.3K
RPM: 73
PP: 991
GPM: 439

WT: 8.6
VIS: 41



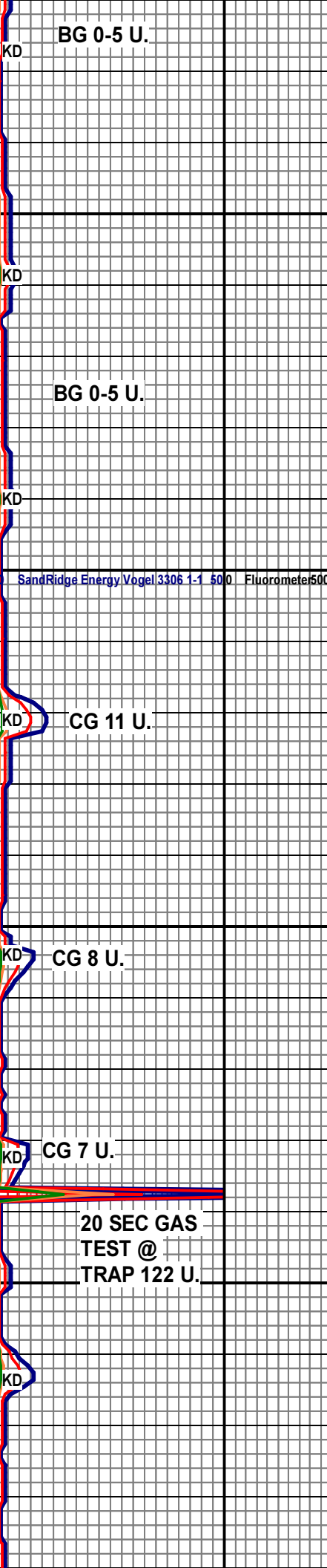
SH: PRED MED GRY, OCC LT GRY, TR RED, MSTLY SUBANG- PLTY, OCC BLKY, OCC CHNKY, MOD SFT- SLI FRM, OCC CHKY, OCC FRI, LS: PRED CRM, MSTLY SUBANG- SUBRND, OCC CHNKY, OCC FLKY, MOD FRM- SLI HRD, OCC BRIT, SCAT SS STRGRS THRU OUT

BASE HEEBNER @
3,154' (-1,787')

SH: PRED LT- MED GRY, OCC LT GRN, OCC BLK CARB, MSTLY SUBANG- BLKY, OCC CHNKY, OCC PLTY, TR SPLNTRY, MOD SFT- SLI FRM, OCC CHKY, OCC BRIT, MED- SMTH TXT, LS: PRED OFF WHT- LT TN, OCC CRM, TR WHT, MSTLY SUBANG- SUBRND, SME FLKY, OCC BLKY, MOD FRM- SLI HRD, OCC FRI, MED- RGH TXT, FN XLN, SCS SS STRGRS

SH: MED GRY, GRY, BLKY, EARTHY, MOD SFT- MOD FRM, OCC CONSOL MED GRN SS CLSTRS, LS: GLDN TN, OFF WHT, CRM, CHNKY-BLKY, SM DRK GRY STN, MOD FRM, ABNDT FRAC POR, HL FRAC POR, TR VUG POR, SM PALE YEL FLOR,

SH: MED GRY- GRY, BLKY-CHNKY, MED CRS TXT, MOD FRM, LS: DECREASING LS, SMLLR CUTTINGS, TN, CRM, OFF WHT, OCC FRAC POR, TR VUG POR, MICRO-FN XLN, OCC BRGHT

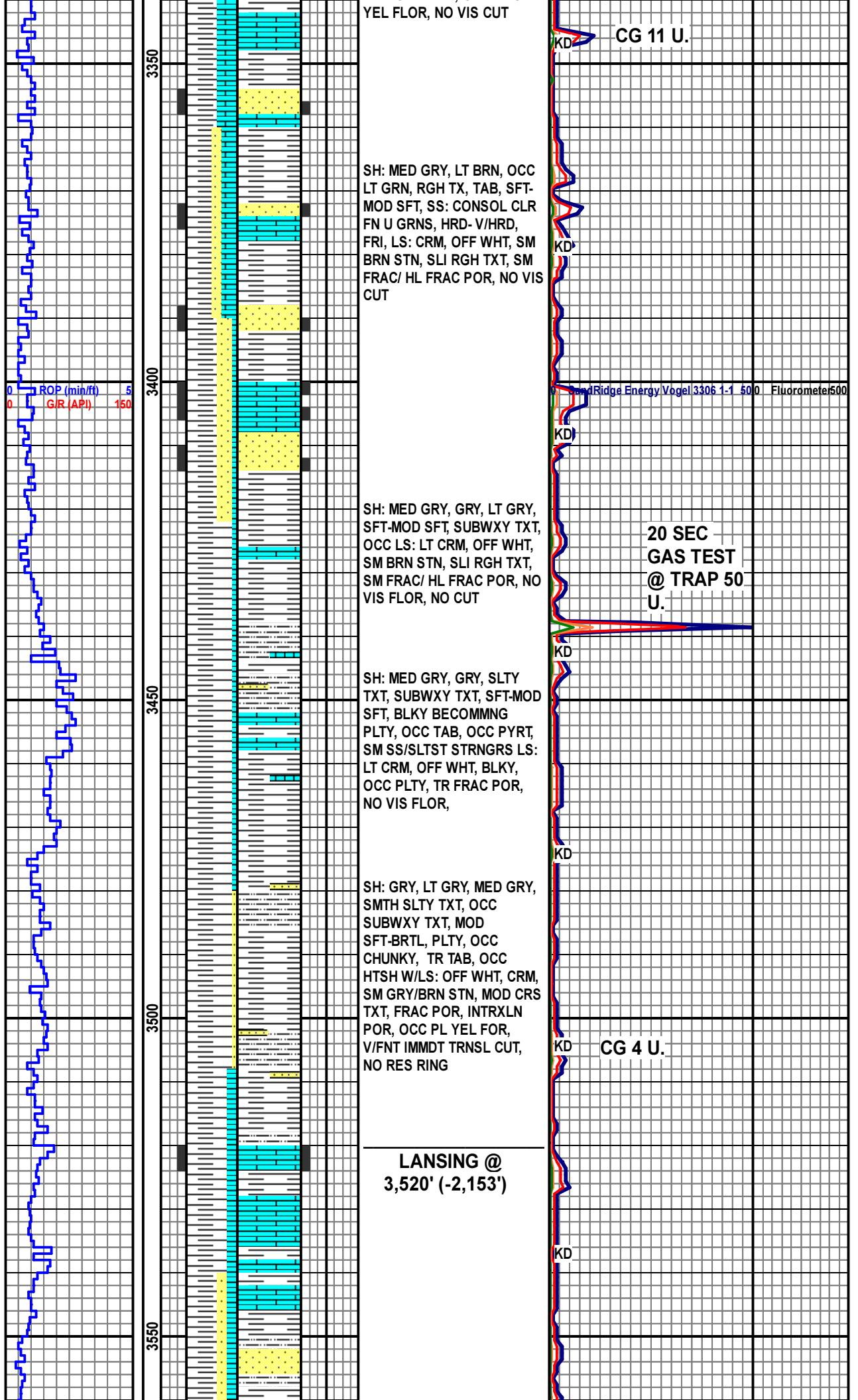


WT: 8.5
VIS: 44

WOB: 12K
RPM: 72
PP: 956
GPM: 440

DEVIATION
SURVEY @
3,486' 0.5°

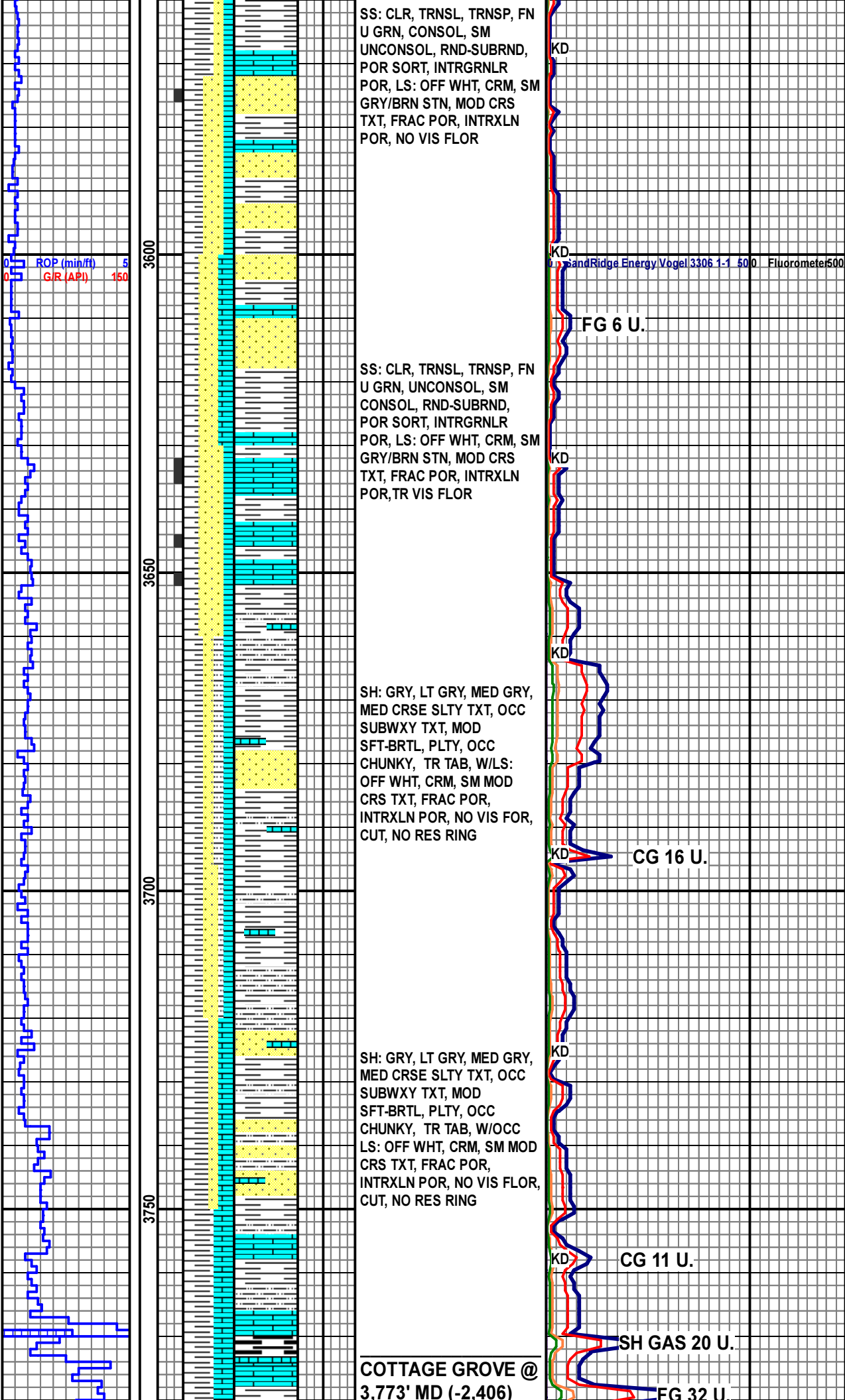
06/27/13



WT: 8.7
VIS44

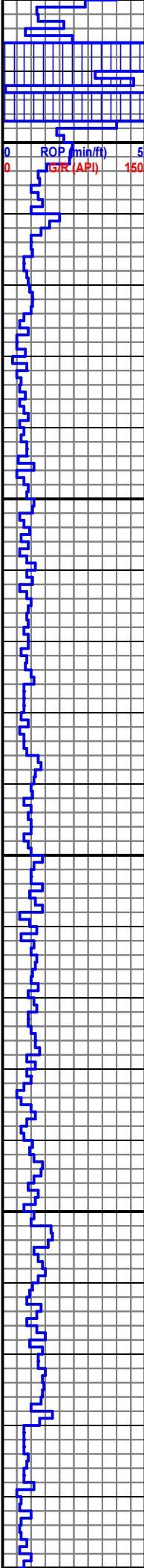
WOB: 12K
RPM: 67
PP: 969
GPM: 345

WT: 8.9
VIS: 50



COTTAGE GROVE @
3,773' MD (-2.406)

WOB: 20.4K
RPM: 62
PP: 917
GPM: 312



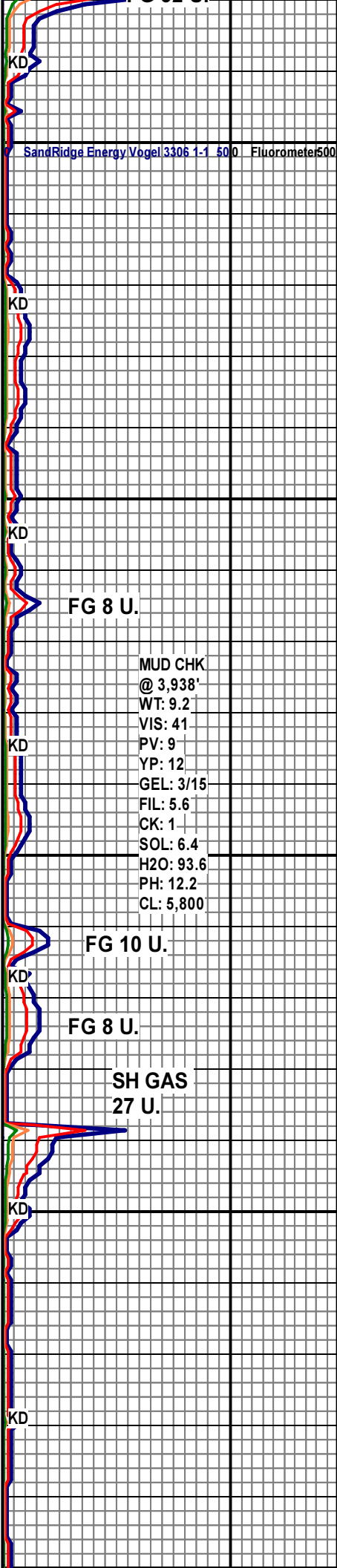
3800
3850
3900
3950
00

LS: PRED CRM, OCC LT TN,
OCC OFF WHT, MSTLY
SUBANG- SUBRND, SME
CHNKY, MOD FRM- SLI BRIT,
OCC HRD, MSTLY MED- RGH
TXT, FN XLN, SH: PRED LT
GRY- MED GRY, OCC DRK
GRY, OCC LT GRN, MSTLY
SUBANG- BLKY, OCC PLTY,
MOD SFT- FRM, OCC SLI
CHKY, MED TXT, NO FLOR,
NO VIS CUT, NO RES RNGS

LS: PRED LT TN, SME OFF
WHT, OCC BUFF, TR LT BRN,
MSTLY SUBANG- BLKY, SME
SUBRND- PLTY, OCC FLKY,
MOD FRM- SLI HRD, OCC
FRI, MED TXT, FN- MED XLN,
SH: PRED LT GRY, SME LT
GRN, OCC MED GRY, MSTLY
BLKY- PLTY, OCC CHNKY,
MOD SFT- SLI FRM, SME
CHKY, OCC BRIT, FN- SMTH
TXT, NO FLOR, NO VIS CUT,
NO RES RNGS

LS: PRED LT BRN- MOTT LT
GRY, SME OFF WHT, OCC LT
TN, MSTLY SUBANG-
SUBRND, SME FLKY, MOD
FRM- SLI HRD, FN XLN, MED-
RGH TXT, SH: PRED LT GRN,
OCC LT GRY, OCC MED GRY,
MSTLY SUBANG- BLKY, OCC
CHNKY, OCC PLTY, TR
SPLNTRY, MOD SFT- FRM,
SME CHKY, SMTH- MED TXT,
NO FLOR, NO VIS CUT, NO
RES RNGS

SH: PRED LT GRY- MED GRY,
SME LT GRN, OCC BLK
CARB, MSTLY PLTY, SME
BLKY, OCC CHNKY, MOD
FRM- SLI FRM, SMTH TXT,



FG 8 U.

MUD CHK
@ 3,938'
WT: 9.2
VIS: 41
PV: 9
YP: 12
GEL: 3/15
FIL: 5.6
CK: 1
SOL: 6.4
H2O: 93.6
PH: 12.2
CL: 5,800

FG 10 U.

FG 8 U.

SH GAS
27 U.

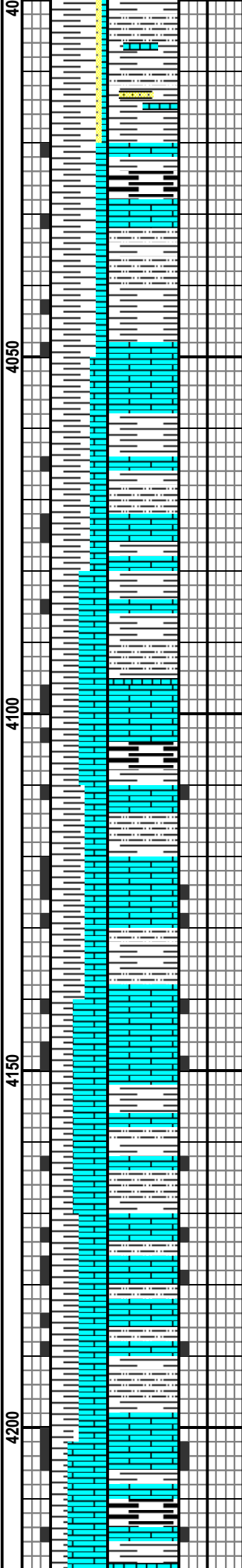
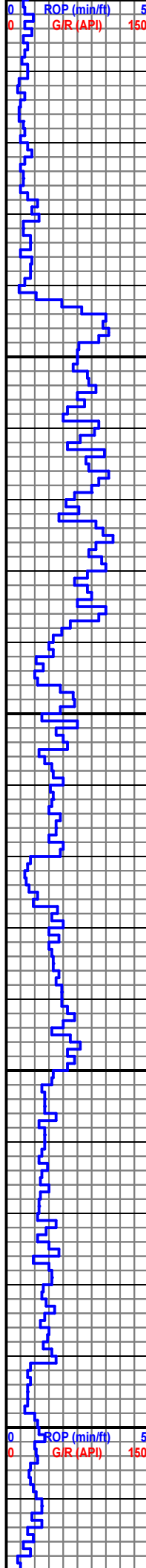
WOB: 18.3K
RPM: 61

PP: 1418
GPM: 442

WT: 9.1
VIS: 48

WT: 8.9
VIS: 43

WOB: 30.0K
RPM: 79
PP: 1070
GPM: 325



LS: PRED LT BRN, SME OFF
WHT, OCC LT TN, MSTLY
SUBANG- RND, OCC
SUBRND, MOD FRM- FRM,
FN- MED XLN, MED- CRS
TXT, TR SS STRGRS, NO
FLOR, NO VIS CUT, NO RES
RNGS, FLUOROMETER
READING: VERY GOOD

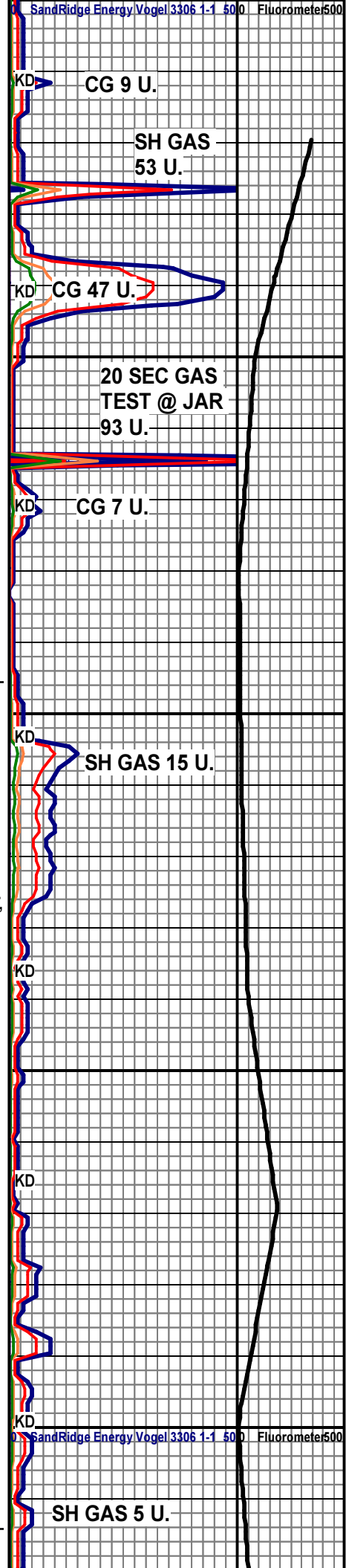
SH: DRK GRY- MED GRY,
SME LT GRN, OCC BLK
CARB, BLKY- PLTY, OCC
CHNKY, EARTHY, MOD FRM-
SLI FRM, FN TXT, LS: CRM,
SME OFF WHT, OCC LT TN,
BLKY-CHNKY, TR PLTY, MOD
FRM- FRM, MICRO-FN XLN,
NO FLOR, NO VIS CUT, NO
RES RNGS, FLUOROMETER
READING: NONE- FAIR

**OSWEGO LIME @
4,095' (-2,728')**

SH: LT GRY, GRY, SM V/DRK
GRY, MED CRSE TXT, MOD
FRM, CHY- SME BLKY, LS:
OFF WHT, LT TN, CHNKY,
V/FN XLN, OCC FRAC POR,
V/PL SCTTRD FLOR, NO CUT,
NO RES RNG,
FLUOROMETER READING:
NONE- FAIR

LS: OFF WHT, CRM, LT TN,
SM BRN STN, CHNKY, SM
PLTY, FN-MED XLN, SLI
CRSE TXT, SM FRAC POR,
SM HL FRAC POR, TR VUG
POR, SH: GRY, SM BRN,
CHNKY, SM TAB, FN TXT,
SCTTRD BRIGHT YEL FOR,
NO CUT, NO RES RING,
FLUOROMETER READING:
FAINT- EXCELLENT

**CHEROKEE @
4,214' (-2,847')**



CG 9 U.

SH GAS
53 U.

CG 47 U.

20 SEC GAS
TEST @ JAR
93 U.

CG 7 U.

SH GAS 15 U.

KD

KD

SandRidge Energy/Vogel 3306 1-1 500 Fluorometer/500

SH GAS 5 U.

WT: 8.9
VIS: 52

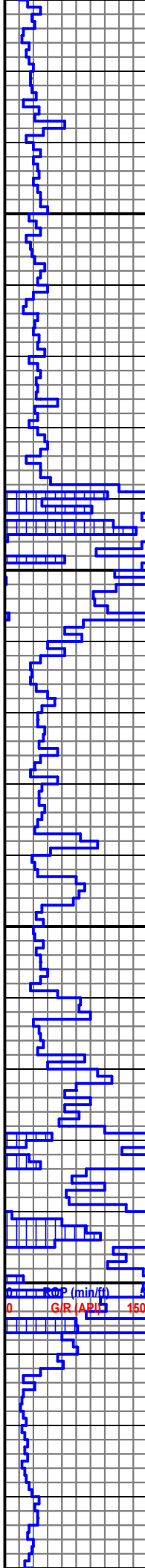
06/27/13

WT: 9
VIS: 46

WT: 9.1
VIS: 39

WOB: 22.5K
RPM: 61
PP: 924
GPM: 325

WT: 9.1
VIS: 36

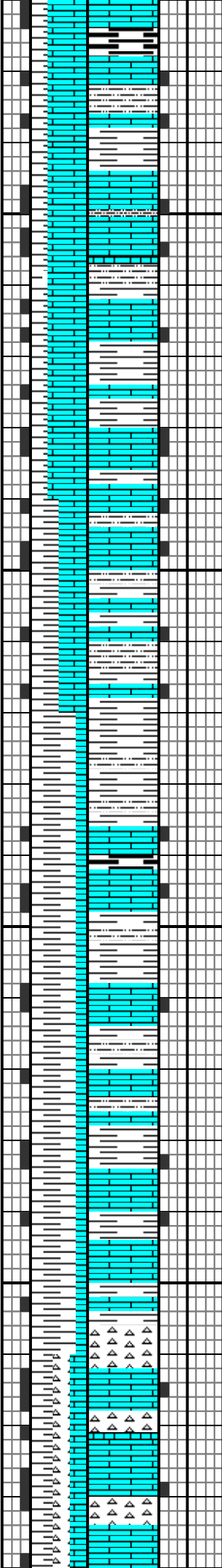


4250

4300

4350

4400



HTSH: BLCK, CHNKY, MED
CRSE TXT, TR PYR

VERDIGRIS @
4,244' (-2,877')

LS: OFF WHT, CRM, V/LT TN,
CHNKY, ABNDT PLTY,
MICRO- V/FN XLN, TR PYR,
SM SS/ SLTST STRNG, SM
FRAC POR, VUG POR, TR
BRGHT YEL FLOR, NO CUT,
FLUOROMETER READING:
EXCELLENT

LS: OFF WHT, CRM, V/LT TN,
CHNKY, ABNDT PLTY,
MICRO- V/FN XLN, TR PYR,
SM WELL SRTD SS/ SLTST
STRNG, SM FRAC POR, VUG
POR, TR BRGHT YEL FLOR,
NO CUT, NO RES RNGS,
FLUOROMETER READING:
NONE- VERY POOR

SH: PREDLT- MED GRY, OCC
LT GRN, OCC RED, OCC YEL,
MSTLY SUBANG- SUBRND,
OCC PLTY, OCC BLKY, MOD
SFT- FRM, SME CHKY, SLTY
THRU OUT, LS: PRED OFF
WHT- CRM, MSTLY SUBANG-
SUBRND, MOD FRM- FRM,
MED TXT, FN- MICRO FN
XLN, SCAT HL FRAC POR,
OCC VUG POR, INCR CHT
STRGRS, V PR LT YEL FLOR,
NO VIS CUT, NO RES RNGS,
FLUOROMETER READING:
FAINT- FAINT

MISS LIME @
4,421' (-3,054')

LS: PRED CRM, SME LT TN

SH GAS
24 U.

CG 5 U.

FG 12 U.

20 SEC GAS
TEST @
TRAP 69 U.

FG 6 U.

FG 14 U.

CG 62 U.

KD

KD

KD

KD

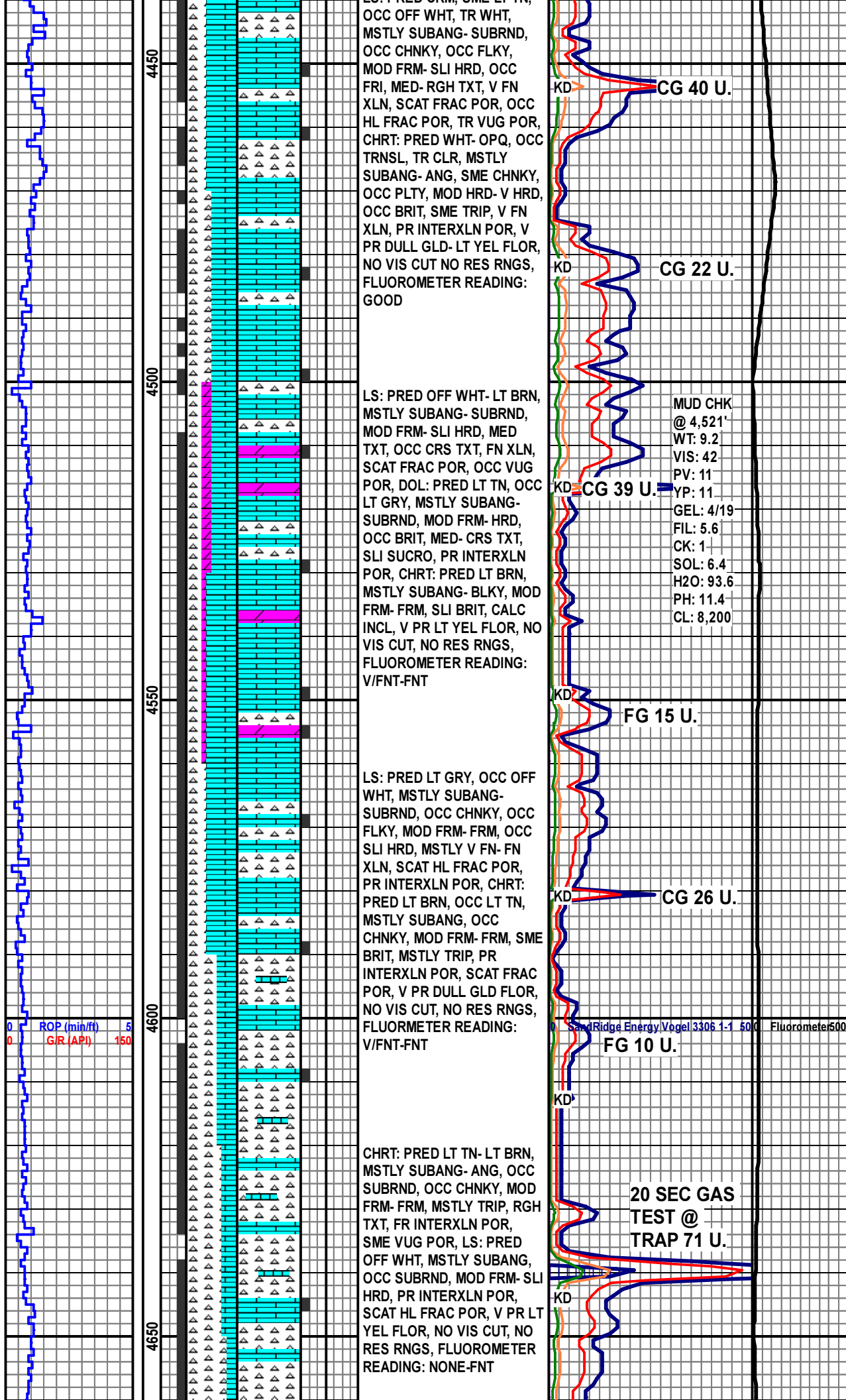
KD

KD

KD

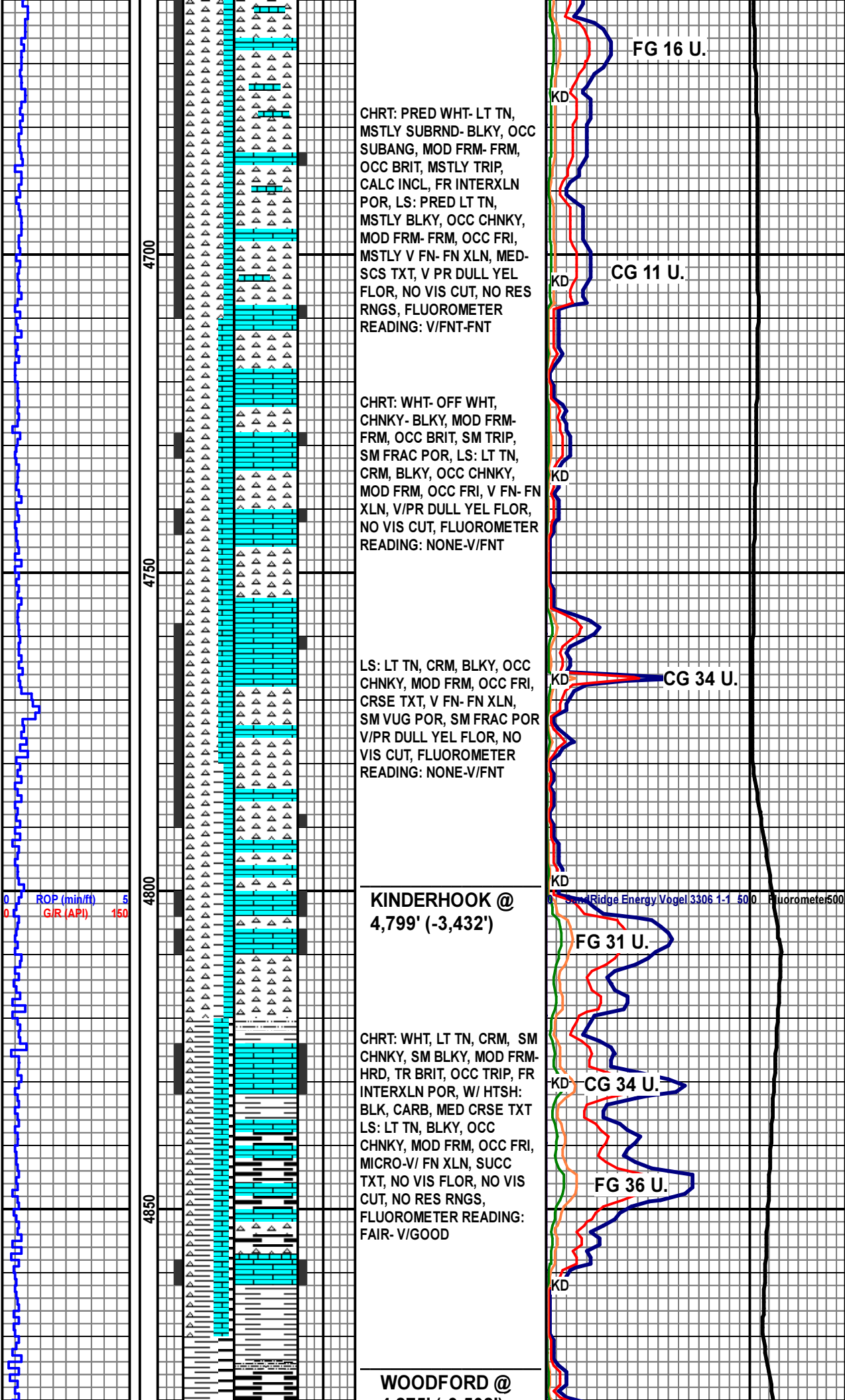
SandRidge Energy/Vogel 3306 1-1 500 Fluorometer/500

WOB: 21.4K
RPM: 64
PP: 1006
GPM: 326



WT: 9.2
VIS: 44

WOB: 21K
RPM: 65
PP: 975
GPM: 339



CHRT: PRED WHT- LT TN,
MSTLY SUBRND- BLKY, OCC
SUBANG, MOD FRM- FRM,
OCC BRIT, MSTLY TRIP,
CALC INCL, FR INTERXLN
POR, LS: PRED LT TN,
MSTLY BLKY, OCC CHNKY,
MOD FRM- FRM, OCC FRI,
MSTLY V FN- FN XLN, MED-
SCS TXT, V PR DULL YEL
FLOR, NO VIS CUT, NO RES
RNGS, FLUOROMETER
READING: V/FNT-FNT

CHRT: WHT- OFF WHT,
CHNKY- BLKY, MOD FRM-
FRM, OCC BRIT, SM TRIP,
SM FRAC POR, LS: LT TN,
CRM, BLKY, OCC CHNKY,
MOD FRM, OCC FRI, V FN- FN
XLN, V/PR DULL YEL FLOR,
NO VIS CUT, FLUOROMETER
READING: NONE-V/FNT

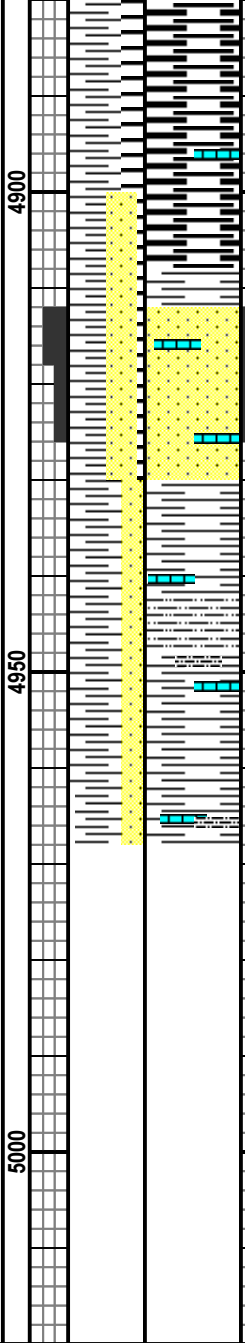
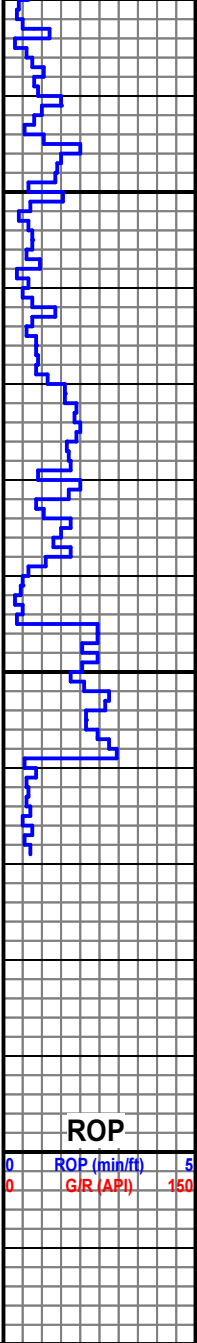
LS: LT TN, CRM, BLKY, OCC
CHNKY, MOD FRM, OCC FRI,
CRSE TXT, V FN- FN XLN,
SM VUG POR, SM FRAC POR
V/PR DULL YEL FLOR, NO
VIS CUT, FLUOROMETER
READING: NONE-V/FNT

KINDERHOOK @
4,799' (-3,432')

CHRT: WHT, LT TN, CRM, SM
CHNKY, SM BLKY, MOD FRM-
HRD, TR BRIT, OCC TRIP, FR
INTERXLN POR, W/ HTSH:
BLK, CARB, MED CRSE TXT
LS: LT TN, BLKY, OCC
CHNKY, MOD FRM, OCC FRI,
MICRO-V/ FN XLN, SUCC
TXT, NO VIS FLOR, NO VIS
CUT, NO RES RNGS,
FLUOROMETER READING:
FAIR- V/GOOD

WOODFORD @

WT: 9.2
VIS: 35



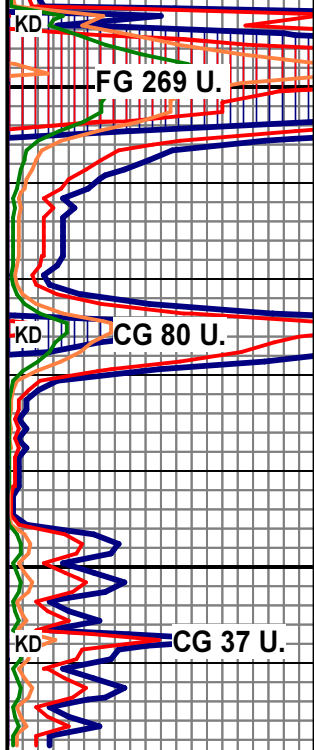
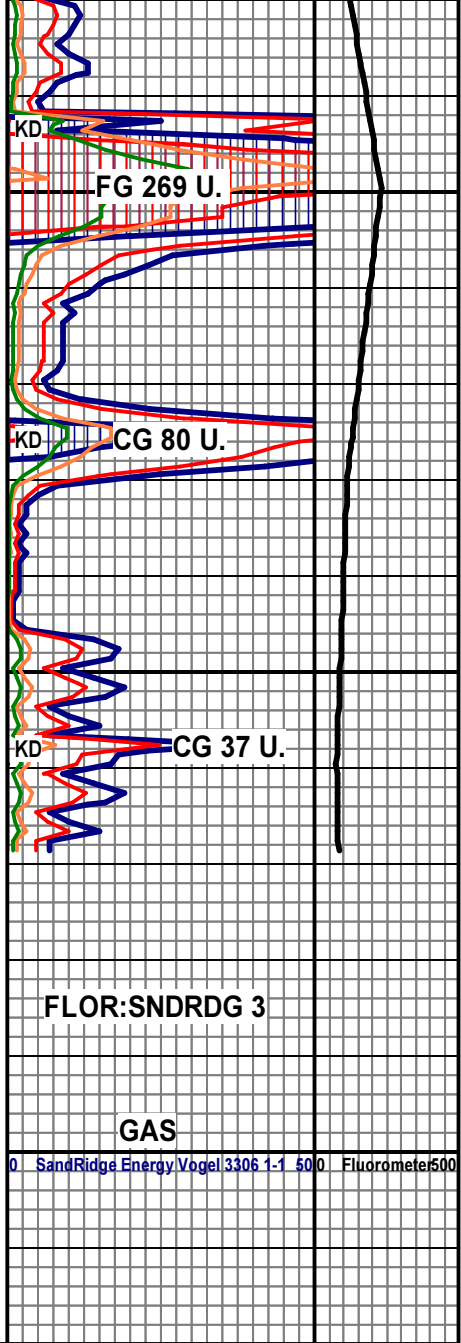
HTSH: BLK, CRSE TXT, TR
LAM PYRT, MICRO MICA,
CARB, CHNKY-BLKY, TR TAB
W/ACC MIN EMBEDD, NO
VIS FLOR, NO CUT,
FLUOROMETER READING:
FAIR- EXCELLENT

SS: CLR, TRNSP, TRNSL, SM
TN, SM LT TN, OCC BRN,
MOD SRTD, SUBRND-RND,
OCC SUBANG, MED L GRNS,
INTRGRNLR POR, ABNDTLY
UNCONSOL, TR CONSOL
CLSTR, W/ CHRT: CHRT:
WHT, LT TN, CRM, SM
CHNKY, SM BLKY, MOD FRM-
HRD, TR BRIT, OCC TRIP,
INTERXLN POR,
FLUOROMETER READING:
NONE-V/FNT

DRILLER'S TD @
4969' MD, ON
6/28/13

SANDRIDGE
ENERGY INC.
VOGEL 3306 1-1 SEC
1-T33S-R6W
HARPER CO.,
KANSAS

1,357' GR, 1,367' KB



FLOR:SNDRDG 3

GAS

0 SandRidge Energy/Vogel 3306 1-1 500 Fluorometer/500