



# 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: SARAH 1-34H SANDRIDGE ENERGY, INC  
Location: SEC 34-T33S-R17W COMANCHE CO, KANSAS  
License Number: API-15033  
Spud Date: 03/9/2012  
Surface Coordinates: POINT OF MISSISSIPPI ENTRY  
Bottom Hole: 330'FSL & 810'FWL OF NW/4 OF 34-T33S-R17W  
Coordinates: LOGGED BY BLAKE JOHNSON & BRANDON POTTS  
Ground Elevation (ft): 1,831' K.B. Elevation (ft): 1,851'  
Logged Interval (ft): 790' To: 9,752' Total Depth (ft): 9,752  
Formation: MISSISSIPPI  
Type of Drilling Fluid: NATIVE GEL

Region: COLDWATER, KS

Drilling Completed:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

## OPERATOR

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

# GEOLOGIST

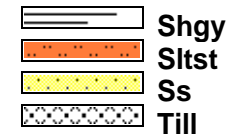
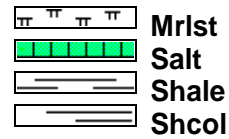
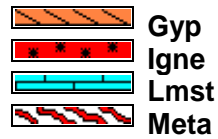
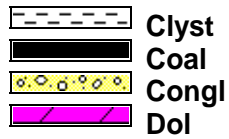
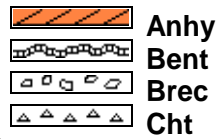
Name: KATHY GENTRY  
Company: SANDRIDGE ENERGY, INC  
Address: 123 Robert S. Kerr Avenue, Ste. 2430  
Oklahoma City, Oklahoma 73102-6406

## Cores

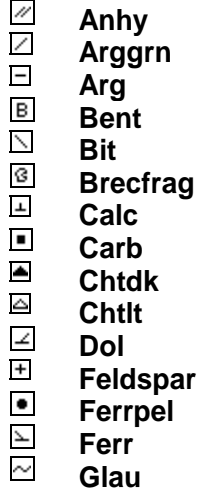
## DSTs

## Comments

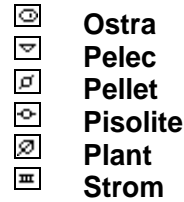
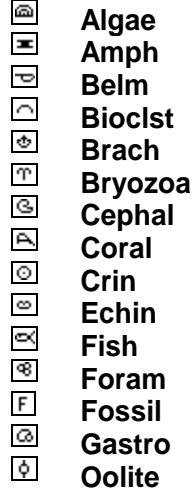
### ROCK TYPES



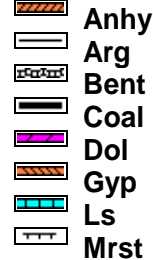
### MINERAL



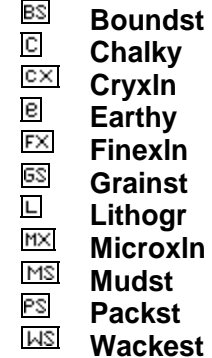
### FOSSIL



### STRINGER



### TEXTURE



**OTHER SYMBOLS**

**POROSITY**

- E Earthy
- Fenest
- F Fracture
- X Inter
- ⊗ Moldic
- Organic
- P Pinpoint

- V Vuggy

**SORTING**

- W Well
- M Moderate
- P Poor

**ROUNDING**

- R Rounded
- r Subrnd
- a Subang
- A Angular

**OIL SHOW**

- Even

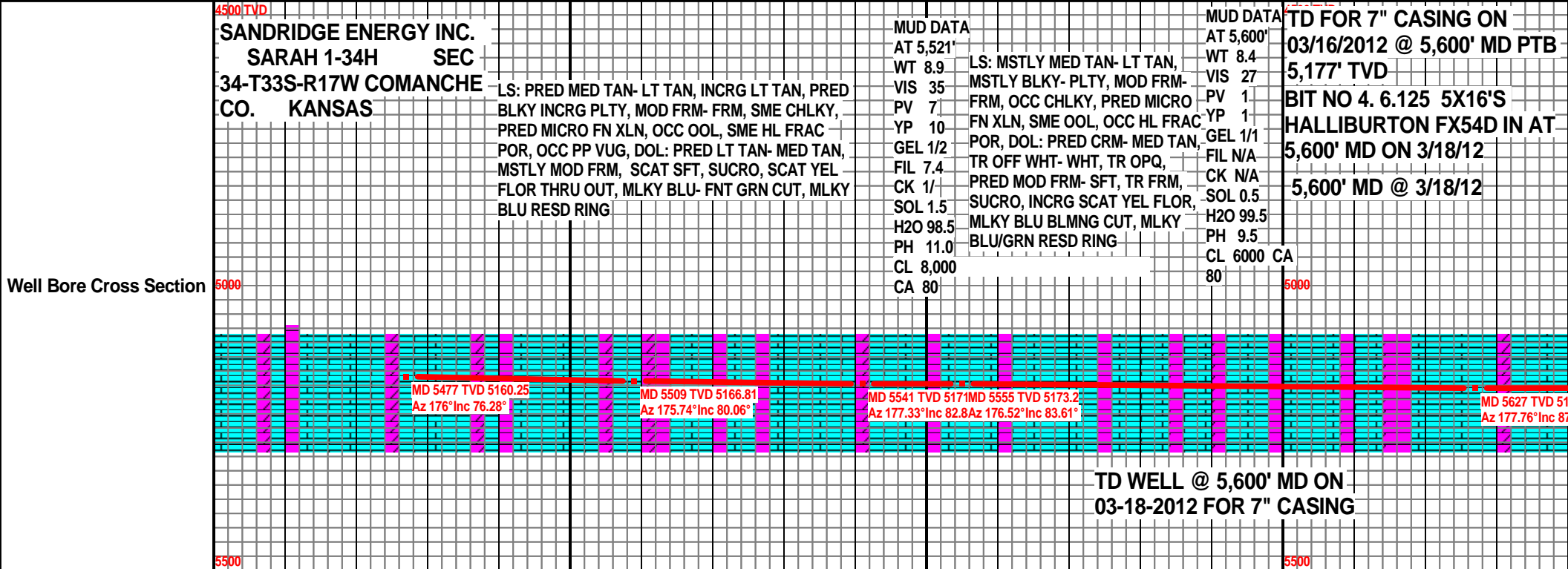
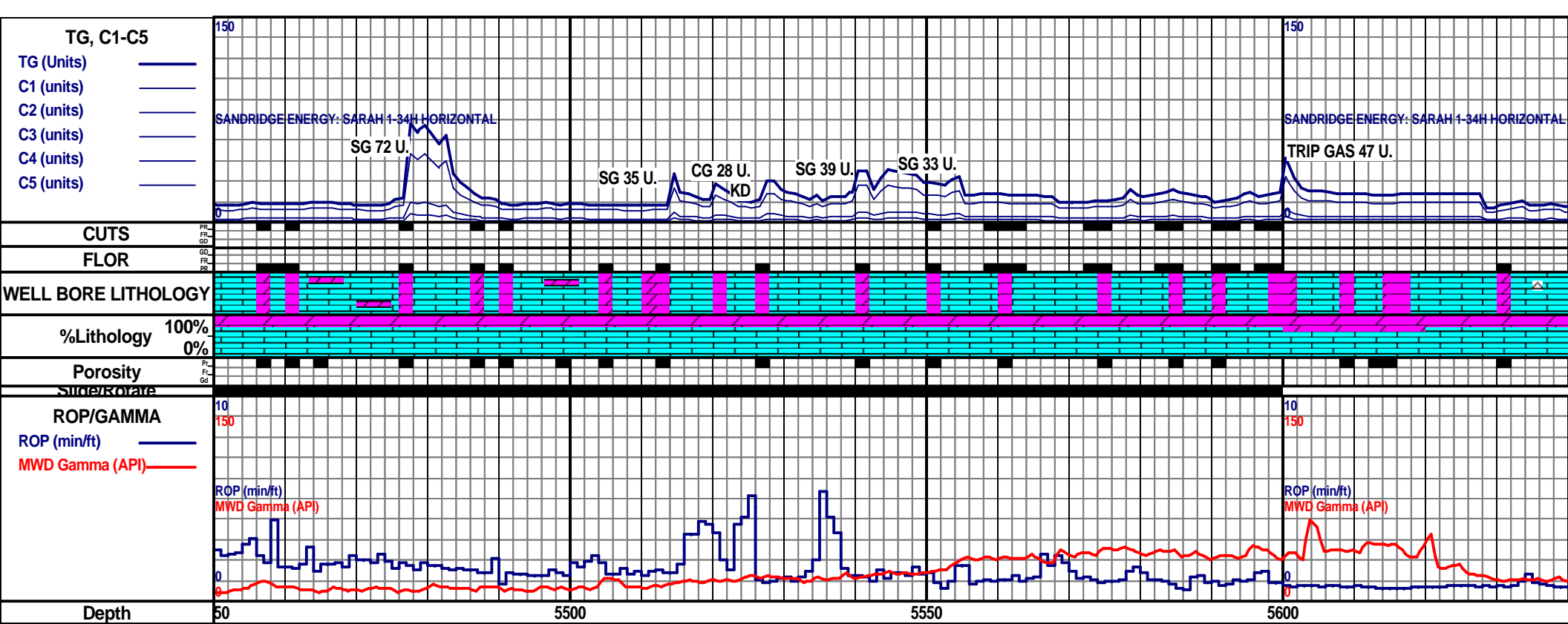
- ⊙ Spotted
- Ques
- D Dead

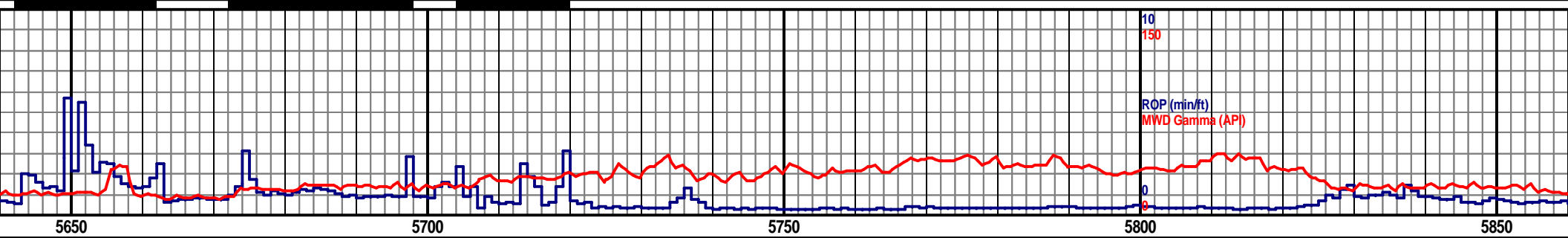
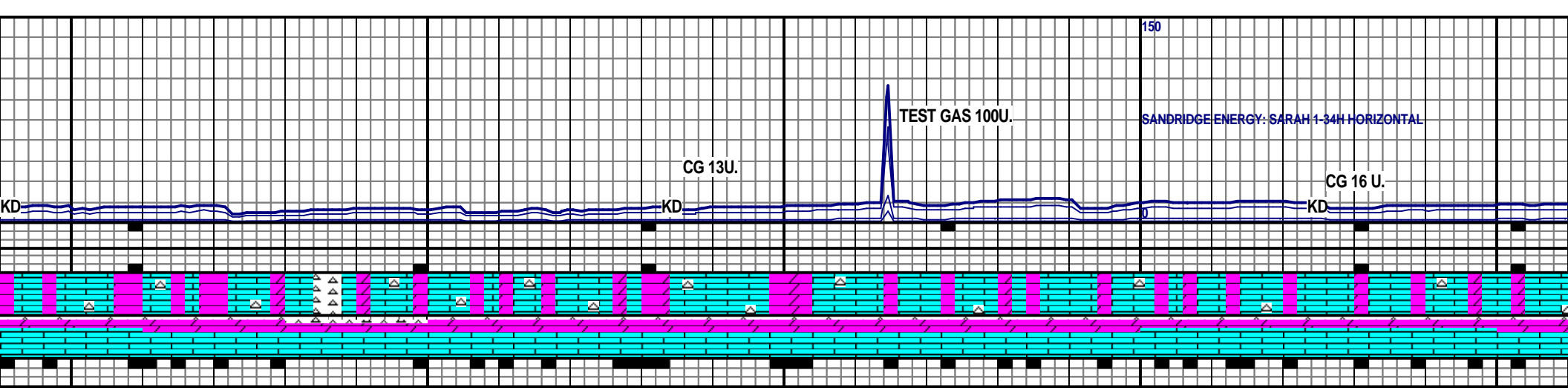
**INTERVAL**

- Core
- Dst

**EVENT**

- ▽ Rft
- ▴ Sidewall





LS: PRED LT GY-GY, SME MOTT, PRED BLKY, SME PLTY, MOD FRM-FRM, PRED MIC FN-FN XLN, PP VUG POR, HL FRAC POR, DOL CMT, DOL: LT GY-MED GY, SPTTD, MIC FN-FN XLN, HL FRAC POR, PP VUG POR, BLKY-PLTY, SUB RND-RND, MOD FRM-FRM, 10% OFF WH-WH CHT, OCC OPQ, BLKY-PLTY, SUB RND-SUB ANG, TR SPLTY, HD-V HD, V PR SCAT YEL FLOR, NO VIS CUT, NO RES RING

LS: MSTLY LT GY-GY, TR OFF WH-WH, TR OPQ, PRED BLKY, SME PLTY, MOD FRM-FRM, PRED MIC FN-V FN XLN, PP VUG POR, HL FRAC POR, DOL CMT, DOL: LT GY-MED GY, OCC MOTT, V LT CRM, MIC FN-FN XLN, HL FRAC POR, PP VUG POR, BLKY-PLTY, SUB RND-RND, MOD FRM-FRM, 10% OFF WH-WH CHT, OCC OPQ, BLKY-PLTY, SUB RND-SUB ANG, TR SPLTY, HD-V HD, PR SCAT LT FLOR, NO VIS CUT, NO RES RING

78.82  
7.44°

MD 5658 TVD 5180.22  
Az 178.77° Inc 87.38°

MD 5690 TVD 5181.09  
Az 180.04° Inc 89.51°

MD 5721 TVD 5181.04  
Az 178.08° Inc 90.66°

MD 5784 TVD 5181.08  
Az 179.81° Inc 89.26°

5000

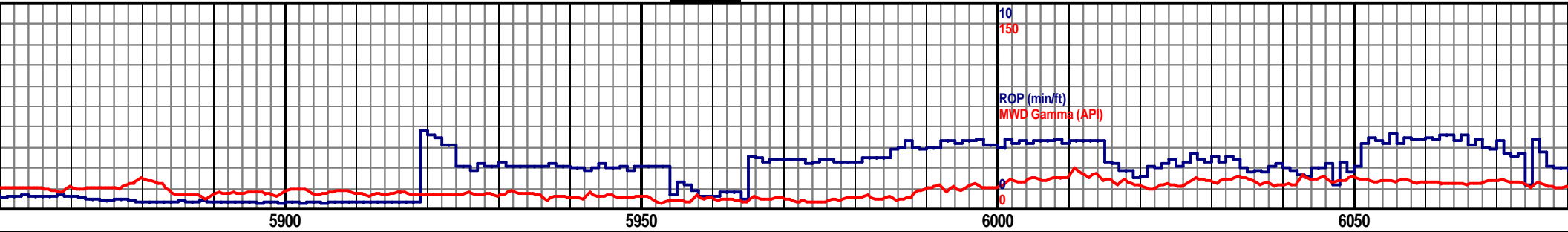
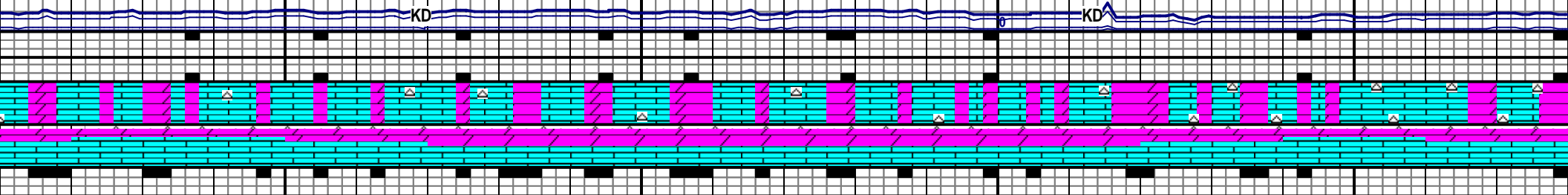
5500

LS:  
RN  
CM  
CH  
BL

DATA EXTRACT  
FROM TOTCO  
ROP PER MIN @  
5,917' MD

SANDRIDGE ENERGY: SARAH 1-34H HORIZONTAL

CG 33 U.



5,887' @ 3/19/12

POWER LOSS/TOTCO  
DOWN @ 12:30 AM ON  
3/19/12

PRED LT GY-GY, INCRS OFF WH-WH, SME OPQ, PRED BLKY-PLTY, SME SUB  
D-RND, MOD FRM-FRM, MIC FN-V FN XLN, SUCC TXT, PP VUG POR, HL FRAC POR, DOL  
T, DOL: PRED LT GY-MED GY, V LT CRM, OCC, BLKY-SUB RND, MOD FRM-FRM, OCC  
LKY, HL FRAC POR, PP VUG POR, 5% OFF WH-WH CHT, SME OPQ, HD-C HD,  
KY-PLTY, SUB RND-SUB ANG, PR SCAT YEL-YEL GLD FLOR, NO VIS CUT, NO RES RING

LS: PRED LT GY- MED GY, MSTLY BLKY, MOD FRM- FRM, PRED MICRO FN- V FN  
XLN, SCAT DNSE THRU OUT, SME HL FRAC POR, TR PP VUG POR, DOL: PRED LT  
GY, SME CRM, PRED MOD FRM, OCC FRM, MSTLY BLKY, PRED MICRO FN XLN,  
SCAT SUCRO THRU OUT, OOL, TR HL FRAC POR, CHT: MSTLY OFF WHT- WHT, SME  
OPQ, MSTLY PLTY, PRED V HD- HD, SCAT YEL/GLD FLOR THRU OUT, NO VIS CUT,  
NO RESD RING

LS: MSTLY LT GY- M  
FN XLN, SCAT DNSE  
GY, SME CRM, PRED  
SUCRO THRU OUT,  
MSTLY PLTY, PRED  
MLKY BLU RESD RI

MD 5877 TVD 5180.86  
Az 180.66° Inc 91.02°

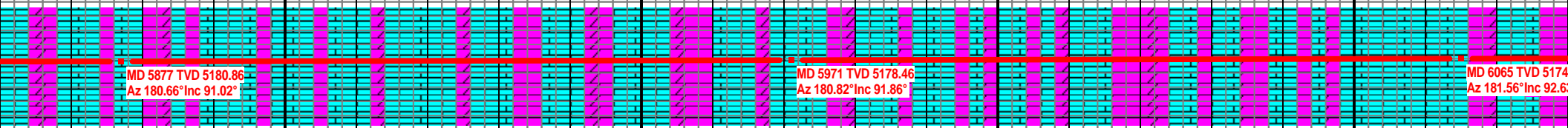
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Az 180.82° Inc 91.86°

MD 6065 TVD 5174  
Az 181.56° Inc 92.6

4500 TVD

5000

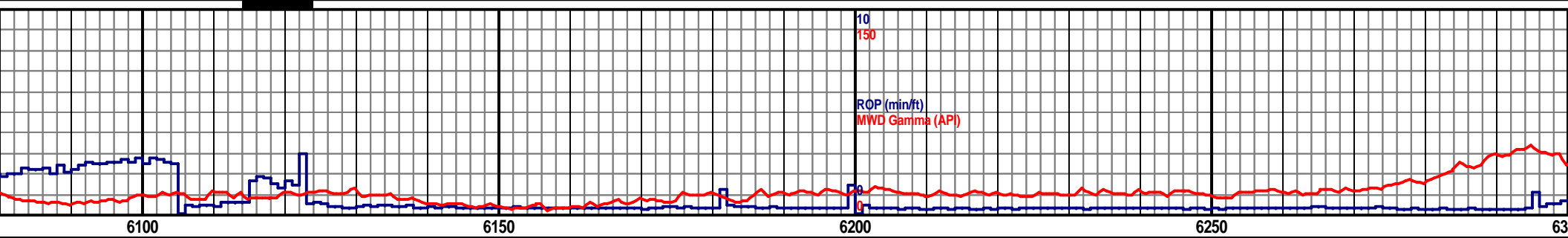
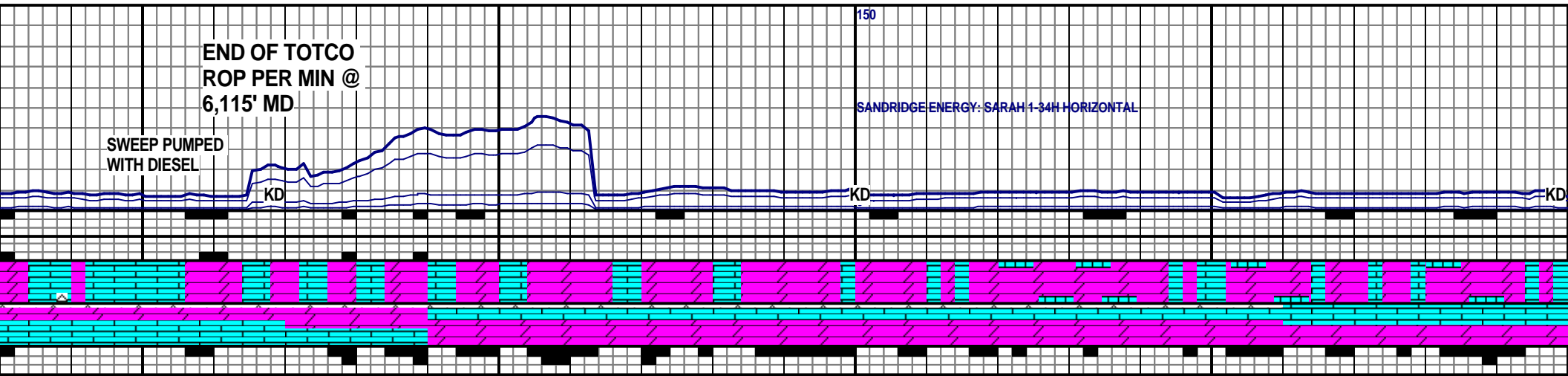
5500



END OF TOTCO  
ROP PER MIN @  
6,115' MD

SWEEP PUMPED  
WITH DIESEL

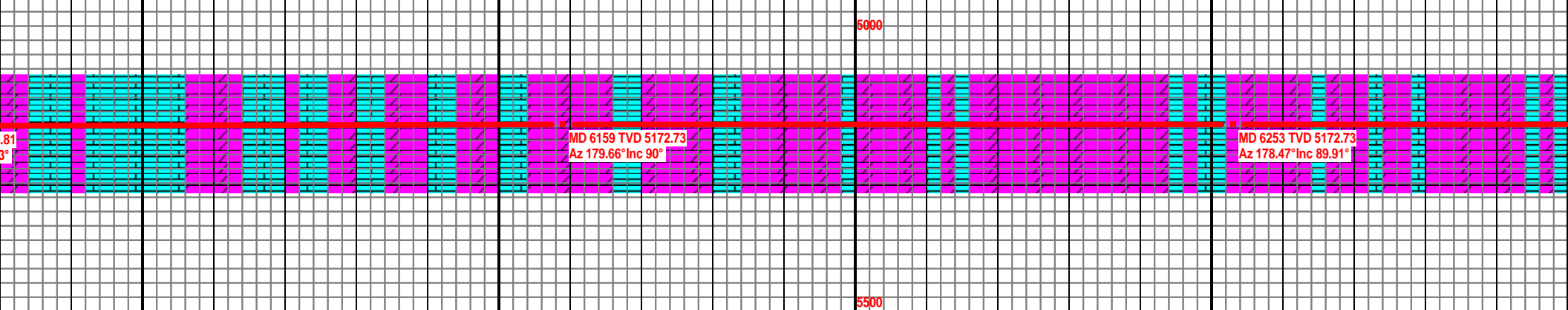
SANDRIDGE ENERGY: SARAH 1-34H HORIZONTAL



MED GY, PRED BLKY, PRED MOD FRM- FRM, MSTLY MICRO FN- V  
E THRU OUT, SME HL FRAC POR, TR PP VUG POR, DOL: PRED LT  
D MOD FRM, OCC FRM, MSTLY BLKY, PRED MICRO FN XN, SCAT  
OOL, TR HL FRAC POR, CHT: MSTLY OFF WHT- WHT, SME OPQ,  
V HD- HD, SCAT YEL/GLD FLOR THRU OUT, MLKY BLU CUT,  
NG

DOL: MSTLY LT GY- MED GY, PRED MICRO FN XLN, INCRG SUCRO, MSTLY BLKY,  
PRED MOD FRM, OCC HL FRAC POR, SCAT V PR PP VUG POR, LS: PRED OFF MED  
GY- LT GY, MSTLY MICRO FN- V FN XLN, SCAT DNSE THRU OUT, SME OOL, MSTLY  
MOD FRM- FRM, SME CHLKY, OCC HL FRAC POR, CHT: PRED OFF WHT- WHT, SME  
OPQ, MOD FRM- FRM, V WTHRD, PRED PLTY- BLKY, SCAT YEL FLOR THRU OUT,  
MLKY BLU/GRN CUT, WK MLKY BLU CUT

DOL: MSTLY LT GY- MED GY, PRED MICRO  
BLKY, PRED MOD FRM, OCC HL FRAC POR  
OFF MED GY- LT GY, MSTLY MICRO FN- V  
OOL, MSTLY MOD FRM- FRM, SME CHLKY,  
WHT- WHT, SME OPQ, MOD FRM- FRM, V W  
FLOR THRU OUT, FNT MLKY BLU/ FNT GRN



.81  
3°

MD 6159 TVD 5172.73  
Az 179.66° Inc 90°

MD 6253 TVD 5172.73  
Az 178.47° Inc 89.91°

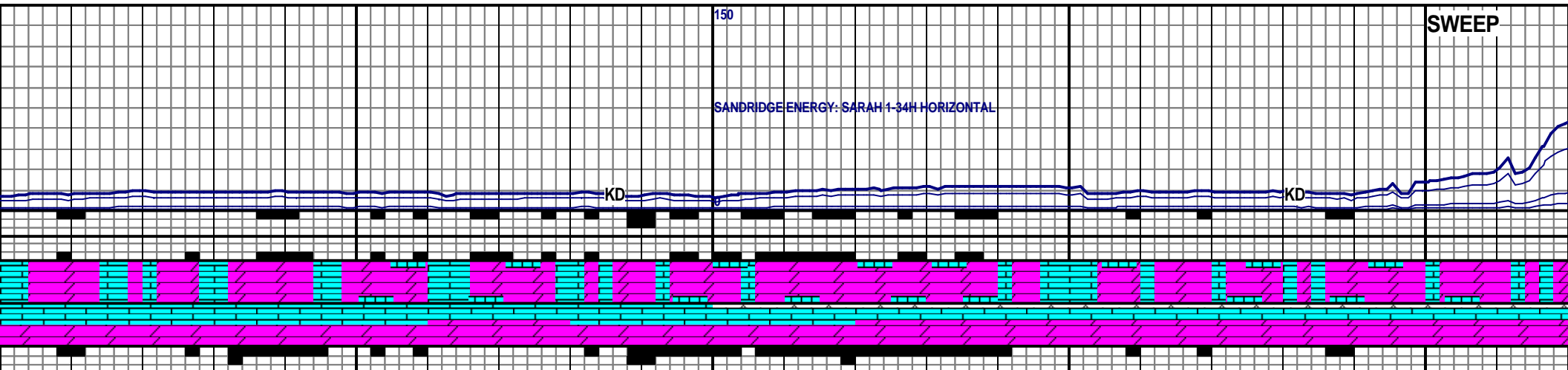
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150

SANDRIDGE ENERGY: SARAH 1-34H HORIZONTAL

KD

KD

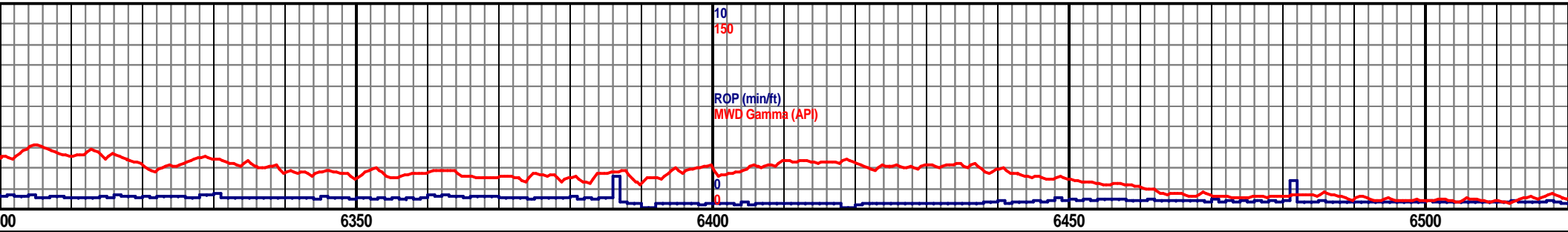


10

150

ROP (min/ft)

MWD Gamma (API)



00

6350

6400

6450

6500

4500 TVD

FN XLN, INCRG SUCRO, MSTLY  
 R, SCAT V PR PP VUG POR, LS: PRED  
 FN XLN, SCAT DNSE THRU OUT, SME  
 OCC HL FRAC POR, CHT: PRED OFF  
 WTHRD, PRED PLTY- BLKY, BRI YEL  
 N CUT, FNT MLKY BLU RESD RING

DOL: PRED LT GY- MED GY, INCRG LT GY, SCAT CRM THRU OUT, MSTLY  
 BLKY, TR PLTY, PRED MOD FRM, OCC SFT, MSTLY MICRO FN XLN, INCRG  
 SUCRO, HL FRAC POR, TR PP VUG POR, LS: PRED MED GY- LT GY, MICRO  
 FN XLN, OCC DNSE, OOL, TR HL FRAC POR, YEL- BRI YEL FLOR THRU OUT,  
 MLKY BLU/GRN CUT BCMG GRN, BLU/GRN RESD RING

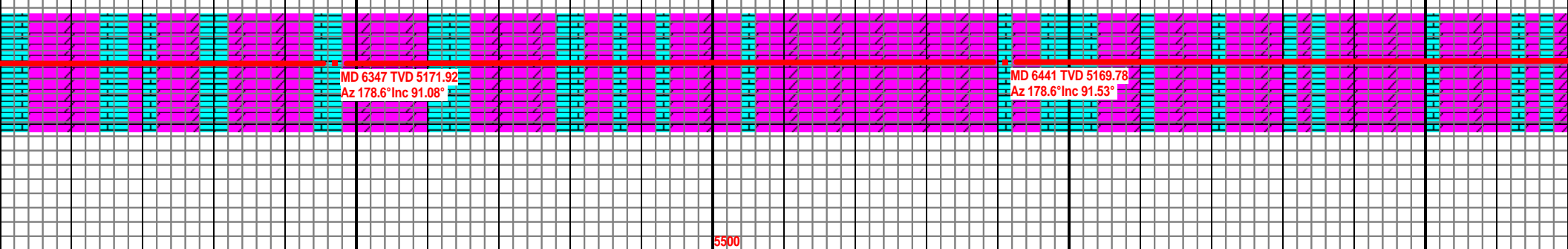
DOL: MSTLY LT GY- MED GY, PRED MICRO FN XLN, SUCRO  
 MOD FRM, OCC HL FRAC POR, SCAT V PR PP VUG POR, LS  
 LT GY, MSTLY MICRO FN- V FN XLN, SCAT DNSE THRU OUT  
 MOD FRM- FRM, SME CHLKY, OCC HL FRAC POR, CHT: PRED  
 SME OPQ, MOD FRM- FRM, V WTHRD, PRED PLTY- BLKY, S  
 OUT, MLKY BLU/GRN CUT, WK MLKY BLU CUT

5000

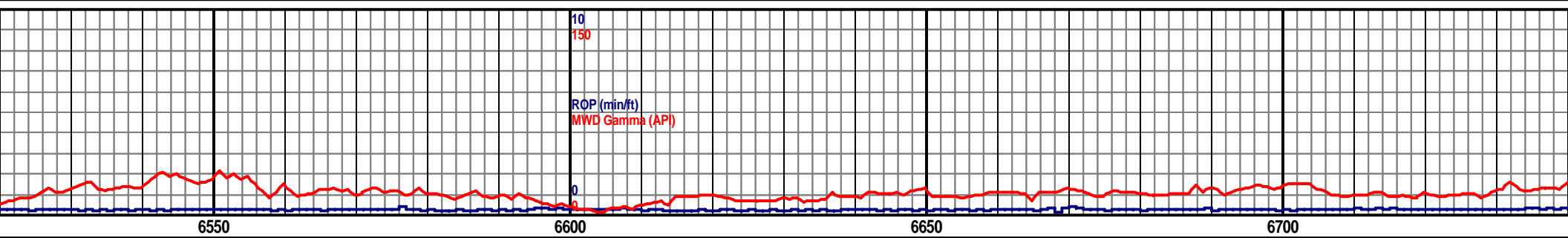
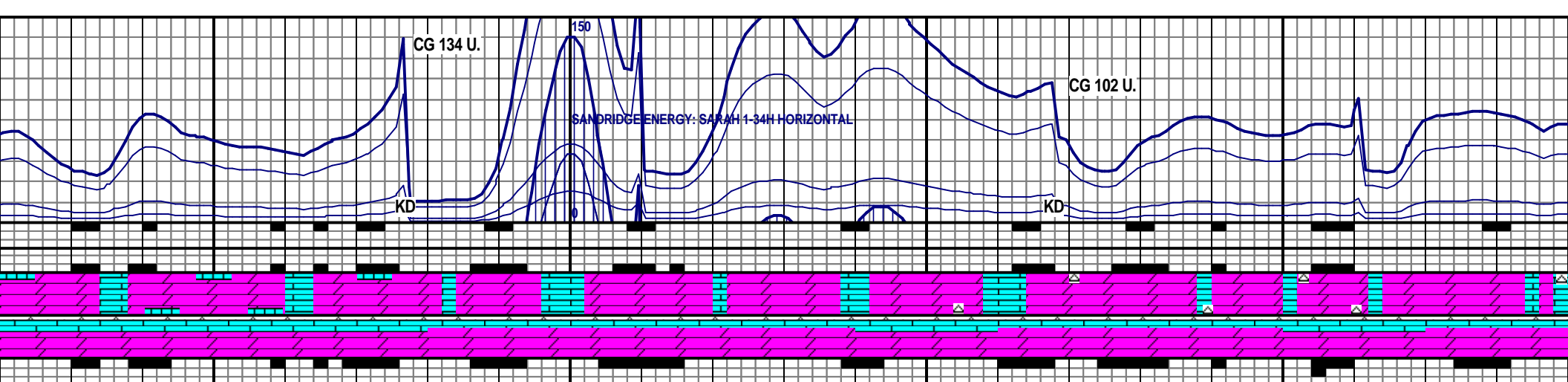
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 Az 178.6° Inc 91.08°

MD 6441 TVD 5169.78  
 Az 178.6° Inc 91.53°

5500





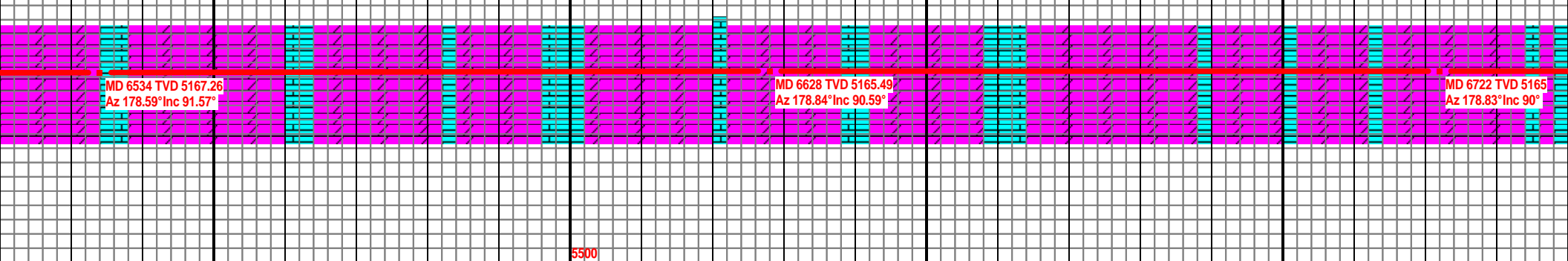


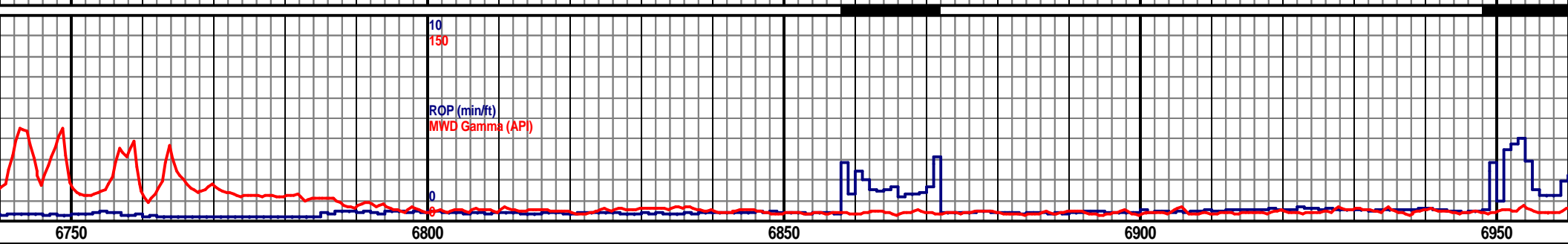
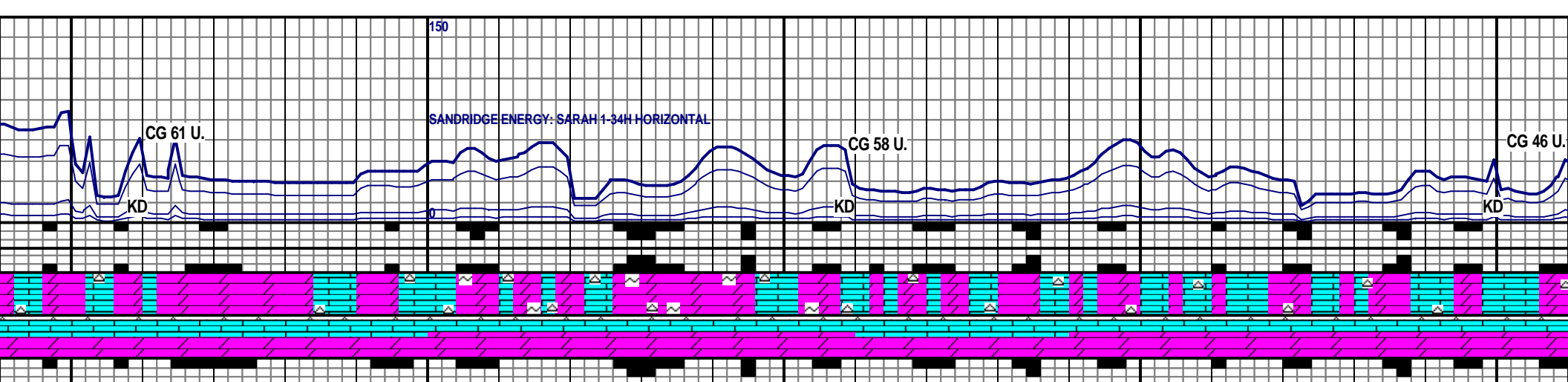
, MSTLY BLKY, PRED  
 : PRED OFF MED GY-  
 , SME OOL, MSTLY  
 D OFF WHT- WHT,  
 CAT YEL FLOR THRU

**MUD DATA**  
 AT 6,576'  
 WT 8.6  
 VIS 29  
 PV 1  
 YP 2  
 GEL 1/2  
 FIL N/A  
 CK N/A  
 SOL 1.5  
 H2O 98.5  
 PH 9.5  
 CL 1000 CA  
 80

**DOL:** PRED LT GY, SME CRM- LT TAN, MICRO FN XLN, SCAT SUCRO THRU  
 OUT, PRED MOD FRM, OCC FRM, PRED BLKY, OCC PLTY, SME HL FRAC  
 POR, OCC PP VUG POR, LS: MSTLY MED GY- LT GY, PRED MICRO FN XLN,  
 SME DNSE, PRED MOD FRM- FRM, SME CHLKY, SCAT HL FRAC POR, OCC  
 PP VUG POR, YEL FLOR- BRI YEL FLOR, MLKY BLU CUT FNT GRN, FNT  
 MLKY BLU/GRN RESD RING

**DOL:** MSTLY LT GY, SME CRM- LT TAN, MICRO FN XLN, SCAT SUCRO THRU OUT,  
 PRED MOD FRM, SME FRM, PRED BLKY, OCC PLTY, SME HL FRAC POR, OCC PP  
 VUG POR, LS: MSTLY MED GY- LT GY, PRED MICRO FN XLN, SME DNSE, PRED MOD  
 FRM- FRM, SME CHLKY, SCAT HL FRAC POR, OCC PP VUG POR, YEL FLOR- BRI YEL  
 FLOR, MLKY BLU CUT FNT GRN, MLKY BLU/WHT RESD RING

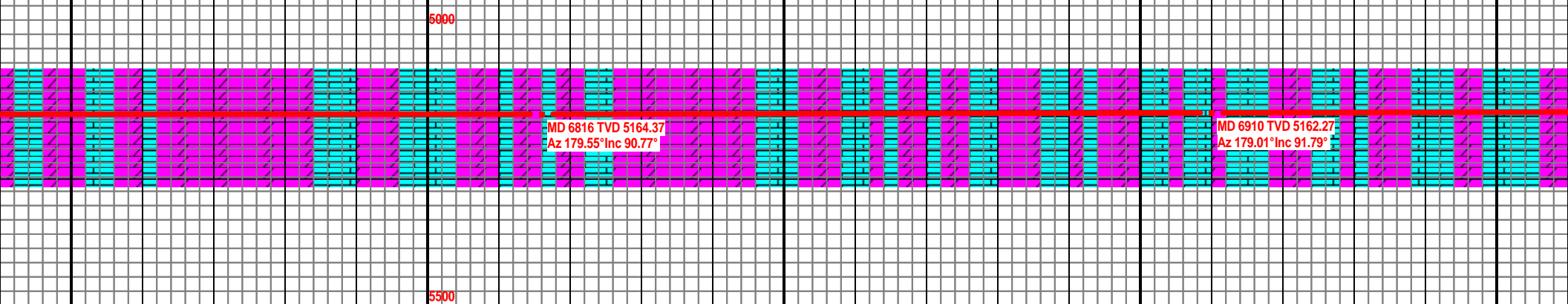


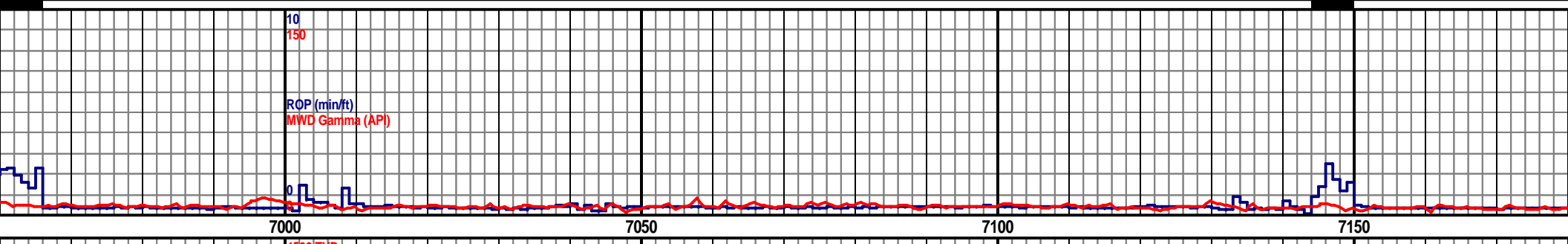
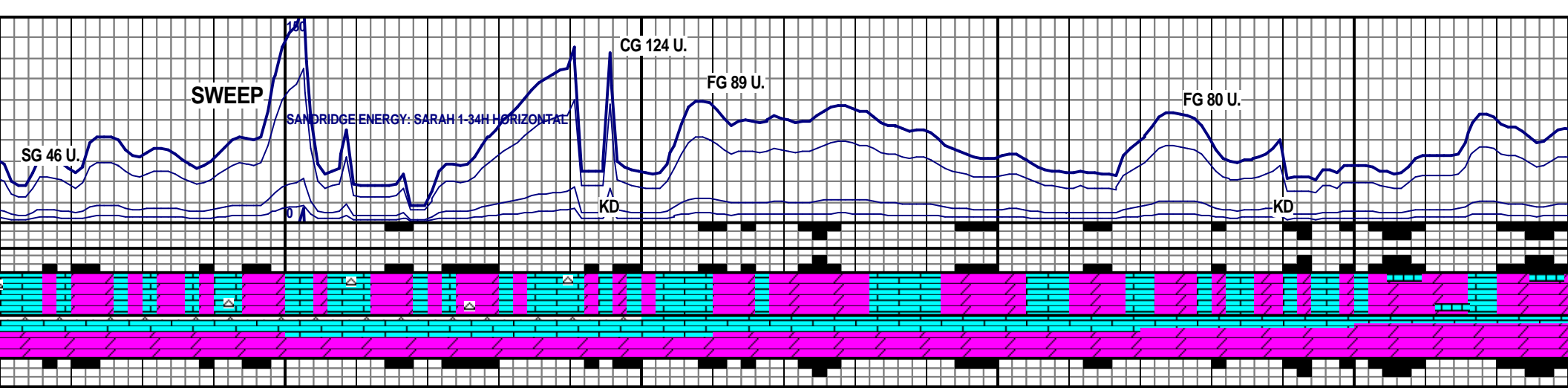


4500 TVD

DOL: PRED LT GY- LT TAN, SME CRM, BCMG LT TAN- CRM, MSTLY MICRO FN XLN, DCRG SUCRO, MSTLY MOD FRM, INCRG FRM, MSTLY BLKY, DCRG PLTY, HL FRAC POR, OCC PP VUG POR, LS: PRED LY GY, OCC OFF WHT, MOD FRM- FRM, PRED BLKY, OCC PLTY, HL FRAC POR, PP VUG POR, TR GLAU, SCAT BRI YEL FLOR, SLW STRMNG MLKY BLU CUT, MLKY BLU RESD RING

DOL: MSTLY LT GY- LT TN, SME CRM, LT TAN- CRM, MSTLY MICRO FN XLN, DCRG SUCRO, MSTLY MOD FRM, INCRG FRM, PRED BLKY, DCRG PLTY, HL FRAC POR, OCC PP VUG POR, LS: PRED OCC OFF WHT, TR LT GY, MOD FRM- FRM, PRED BLKY, SME PLTY, HL FRAC POR, PP VUG POR, DOL CMT, SCAT BRI YEL-YEL GLD FLOR, FST MLKY BLU CUT, MED MLKY BLU RES RING

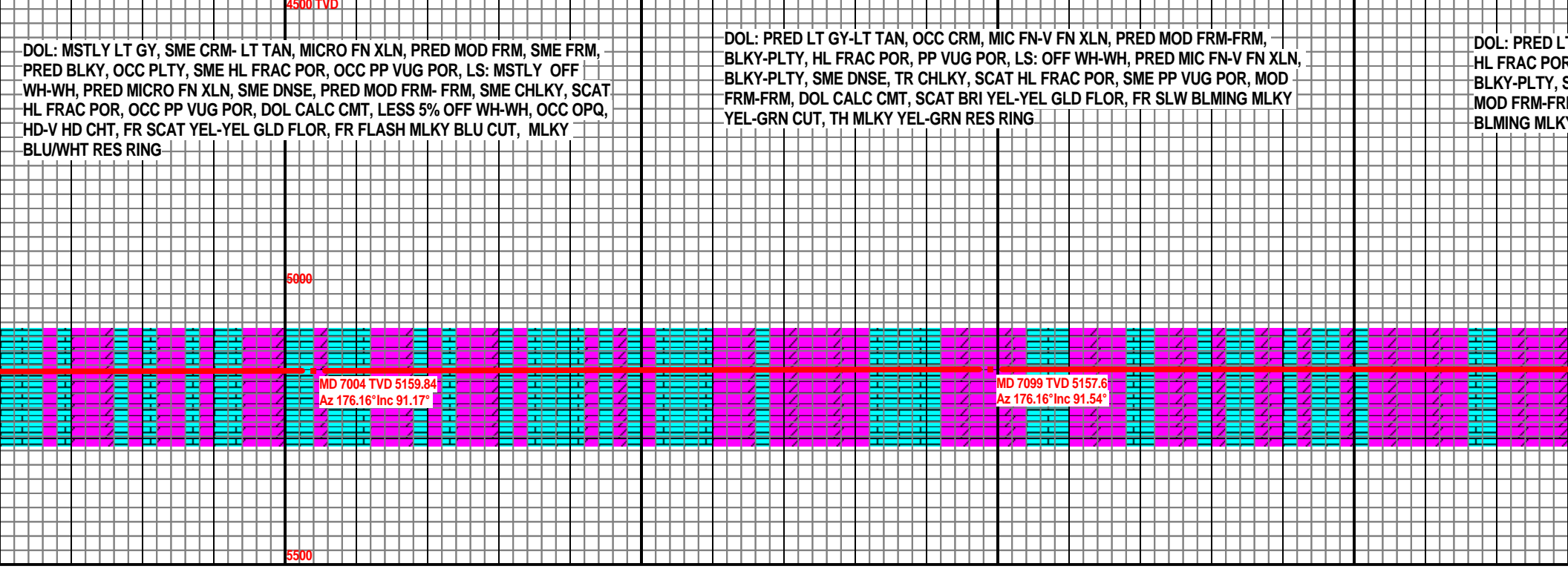


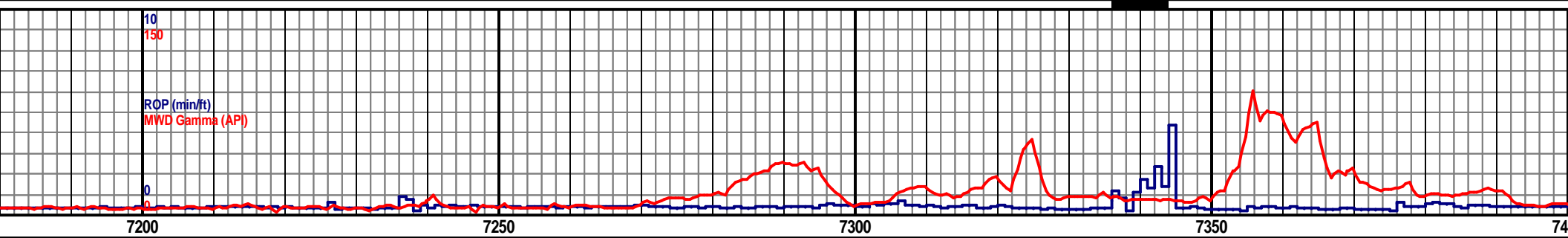
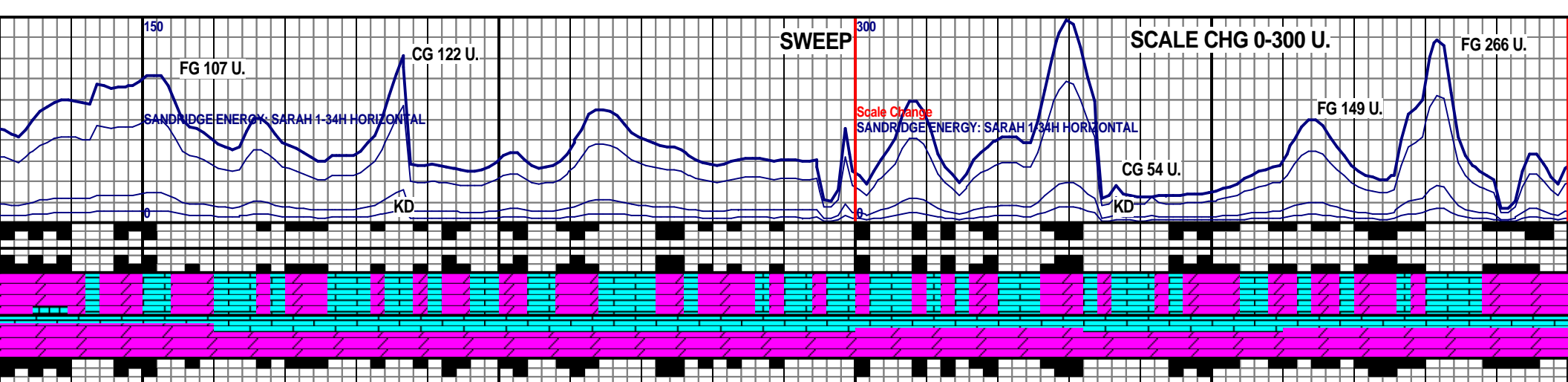


DOL: MSTLY LT GY, SME CRM- LT TAN, MICRO FN XLN, PRED MOD FRM, SME FRM, PRED BLKY, OCC PLTY, SME HL FRAC POR, OCC PP VUG POR, LS: MSTLY OFF WH-WH, PRED MICRO FN XLN, SME DNSE, PRED MOD FRM- FRM, SME CHLKY, SCAT HL FRAC POR, OCC PP VUG POR, DOL CALC CMT, LESS 5% OFF WH-WH, OCC OPQ, HD-V HD CHT, FR SCAT YEL-YEL GLD FLOR, FR FLASH MLKY BLU CUT, MLKY BLU/WHT RES RING

DOL: PRED LT GY-LT TAN, OCC CRM, MIC FN-V FN XLN, PRED MOD FRM-FRM, BLKY-PLTY, HL FRAC POR, PP VUG POR, LS: OFF WH-WH, PRED MIC FN-V FN XLN, BLKY-PLTY, SME DNSE, TR CHLKY, SCAT HL FRAC POR, SME PP VUG POR, MOD FRM-FRM, DOL CALC CMT, SCAT BRI YEL-YEL GLD FLOR, FR SLW BLMING MLKY YEL-GRN CUT, TH MLKY YEL-GRN RES RING

DOL: PRED L  
HL FRAC POR  
BLKY-PLTY, S  
MOD FRM-FR  
BLMING MLKY



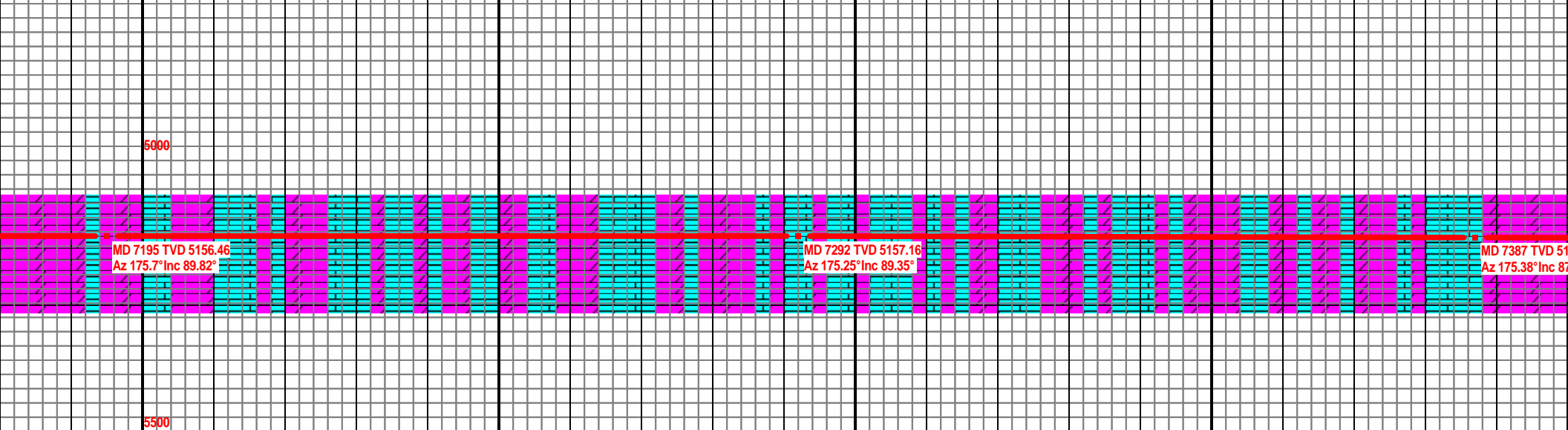


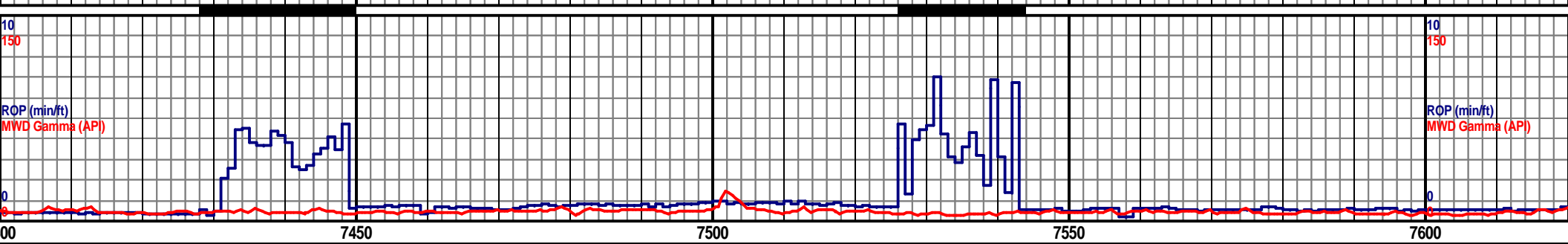
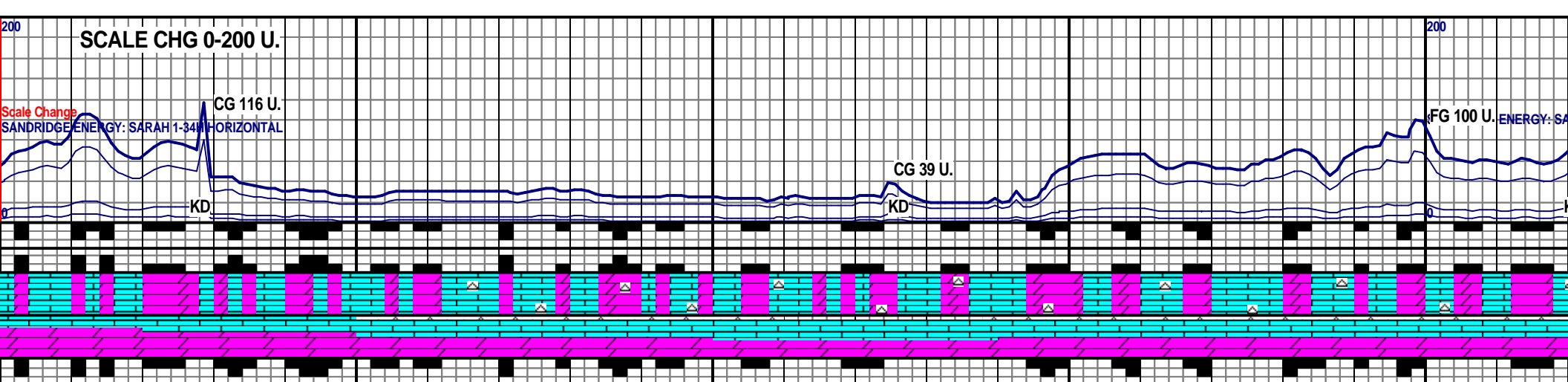
4500 TVD

T TN-CRM, MIC FN-V FN XLN, PRED MOD FRM-FRM, BLKY-PLTY, PP VUG POR, LS: OFF WH-WH, PRED MIC FN-V FN XLN, SME DNSE, TR CHLKY, SCAT HL FRAC POR, SME PP VUG POR, M, DOL CALC CMT, SCAT BRI YEL-YEL GLD FLOR, FR SLW YEL-YEL-GRN CUT, TH MLKY YEL-GRN RES RING

DOL: PRED LT TN-CRM, MIC FN-V FN XLN, PRED MOD FRM-FRM, BLKY-PLTY, OCC SPLTY, HL FRAC POR, SME PP VUG POR, LS: PRED OFF WH-WH, OCC LT TAN, SME CRM, BLKY-PLTY, MIC FN-V FN XLN, SCAT HL FRAC POR, PP VUG POR, DOL CALC CMT, SCAT BRI YEL-YEL GLD FLOR, BRI BLU-BLU WH FLASH CUT, BRI TH YEL-YEL GRN RES RING

DOL: PRED LT TAN-CRM, MIC FN-V FN XLN, M HL FRAC POR, PP VUG POR, LS: PRED OFF W MIC FN-V FN XLN, SCAT HL FRAC POR, PP VU BRI BLU-BLU WH FLASH CUT, TH BRI YEL-YEL



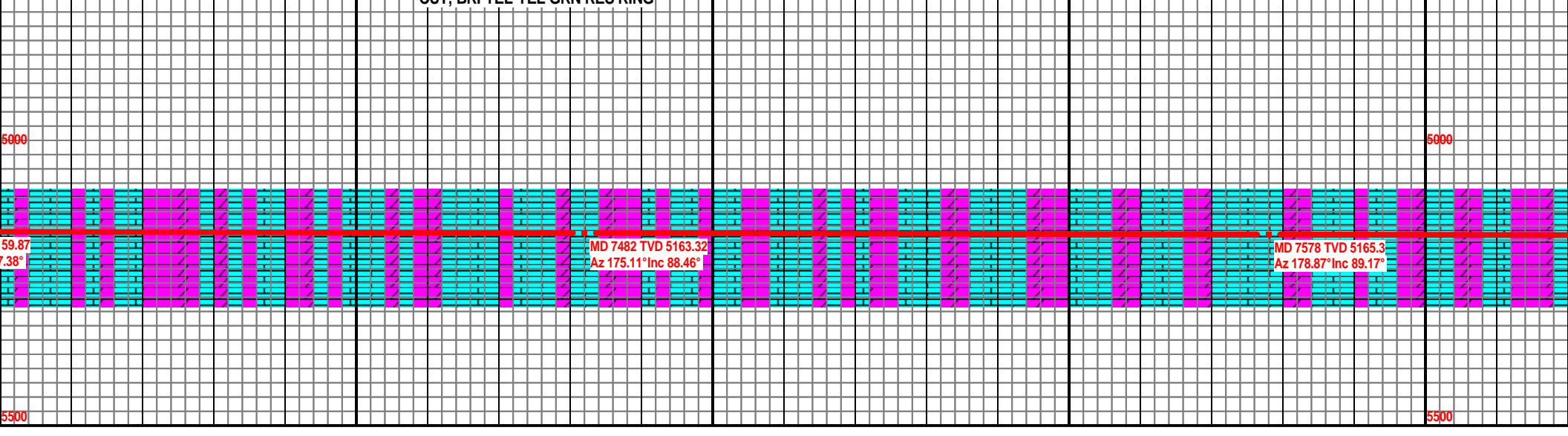


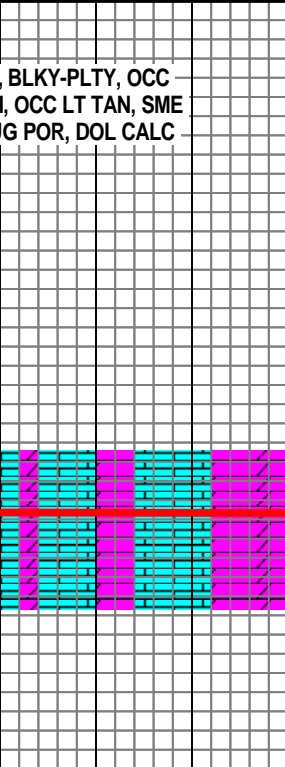
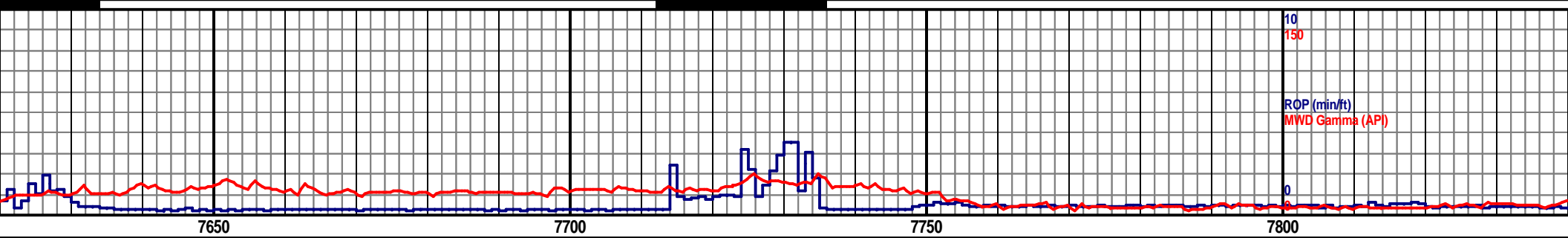
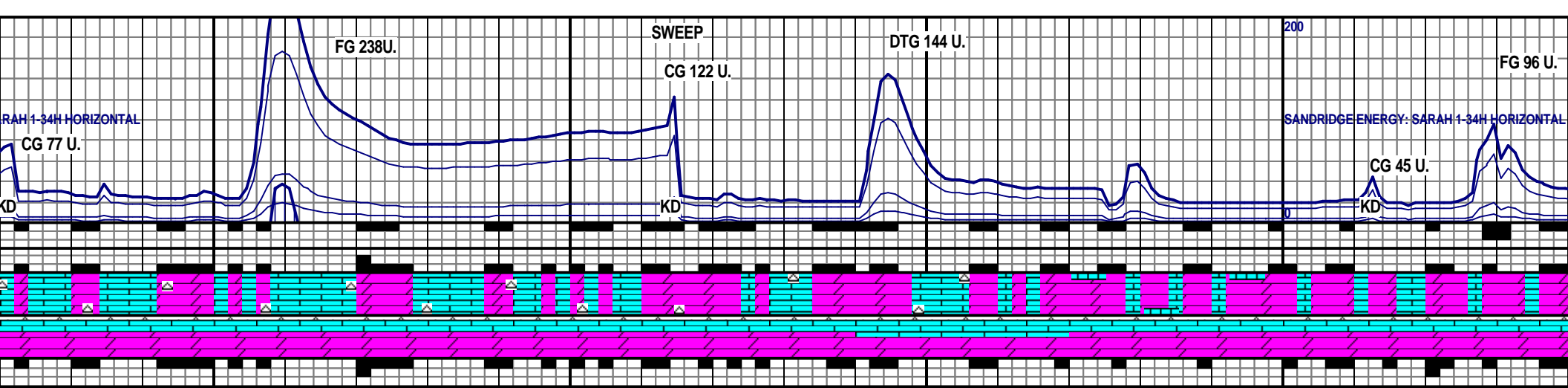
4500 TVD 7,444' MD @ 3/20/12 4500 TVD

MSTLY MOD FRM-FRM, BLKY-PLTY, SME SPLTY,  
WH-WH, SME CRM-LT TAN, BLKY-PLTY, SME DNSE,  
G POR, DOL CALC CMT, FR SCAT BRI YEL FLOR,  
L GRN RES RING

DOL: PRED LT TAN-CRM, PRED BLKY-PLTY, MOD FRM-FRM, MIC FN-V FN XLN, HL FRAC  
POR, PP VUG POR, LS: MSTLY OFF WH-WH, OCC LT TAN, TR CRM, BLKY-PLTY, OCC  
DNSE, MIC FN-V FN XLN, HL FRAC POR, PP VUG POR, DOL CALC CMT, 5% OFF WH-WH  
CHT, SME OPQ, BLKY, HD-V HD, FR SCAT YEL-YEL GLD FLOR, MLKY BLU-BLU WH FLASH  
CUT, BRI YEL-YEL GRN RES RING

DOL: PRED LT TN-CRM, MIC FN-V FN XLN, PRED MOD FRM-FRM,  
SPLTY, HL FRAC POR, SME PP VUG POR, LS: PRED OFF WH-WH  
CRM, BLKY-PLTY, MIC FN-V FN XLN, SCAT HL FRAC POR, PP VU  
CMT, MLKY BLU/WHT CUT, GRN/YEL RESD RING





BLKY-PLTY, OCC  
 I, OCC LT TAN, SME  
 G POR, DOL CALC

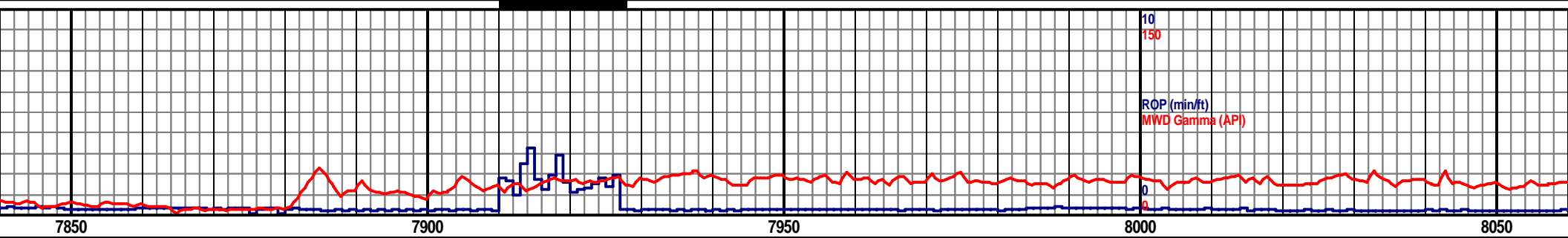
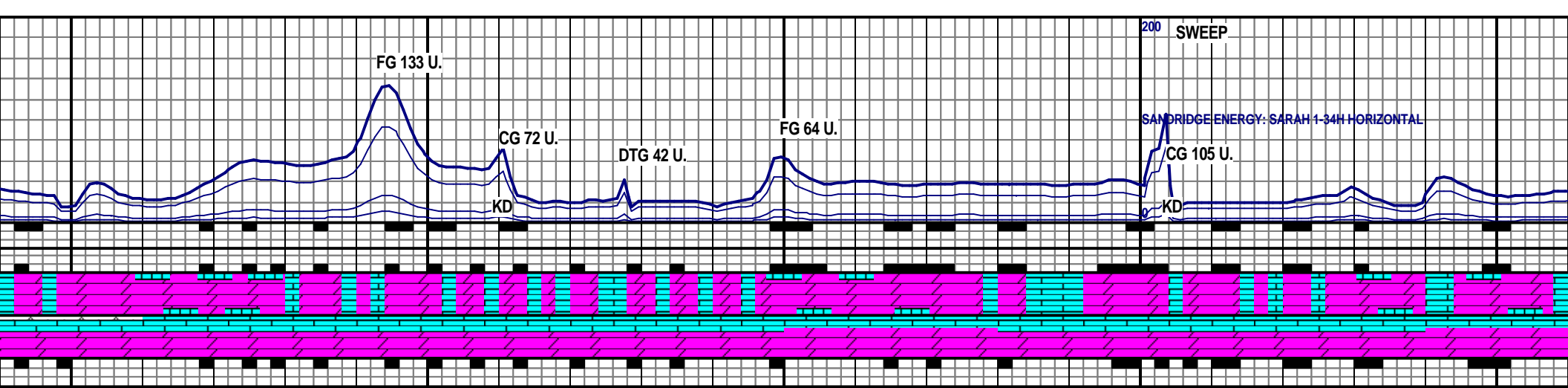
DOL: PRED MED TAN- LT TAN, BCMG LT TAN- CRM, MSTLY MICRO FN- V FN XLN, PRED  
 MOD FRM- FRM, OCC SFT, MSTLY BLKY, SCAT PLTY THRU OUT, HL FRAC POR, FR PP  
 VUG POR, LS: PRED LT TAN- CRM, OCC MED TAN, BLKY- PLTY, MSTLY MICRO FN- V FN  
 XLN, MOD FRM- FRM, HL FRAC POR, PP VUG POR, CHT: PRED WHT- OFF WHT, SCAT  
 OPQ, TR MED TAN, PRED CHNKY, TR PLTY, SME HL FRAC POR, OCC WTHRD, TR GLAU,  
 BRI YEL- YEL FLOR THRU OUT, FLASH MLKY BLU CUT BCMG MLKY GRN CUT, MLKY  
 BLU/GRN RESD RING

DOL: PRED LT TAN- CRM, OCC MED TAN, MSTLY MICRO FN- V FN XLN, MSTLY MO  
 FRM, OCC SFT, BLKY, SCAT PLTY THRU OUT, HL FRAC POR, FR PP VUG POR, LS:  
 LT TAN- CRM, OCC MED TAN, BLKY- PLTY, SME ANG, PRED MICRO FN- V FN XLN,  
 DOLO CMNT, MOD FRM- FRM, HL FRAC POR, PP VUG POR, DCRG CHT: PRED WHT  
 WHT, SCAT OPQ, TR MED TAN, PRED BLKY, ANG, TR PLTY, SME HL FRAC POR, OC  
 WTHRD, TR GLAU, BRI YEL- YEL FLOR THRU OUT, MLKY BLU/GRN CUT, MLKY GR  
 BLU RESD RING

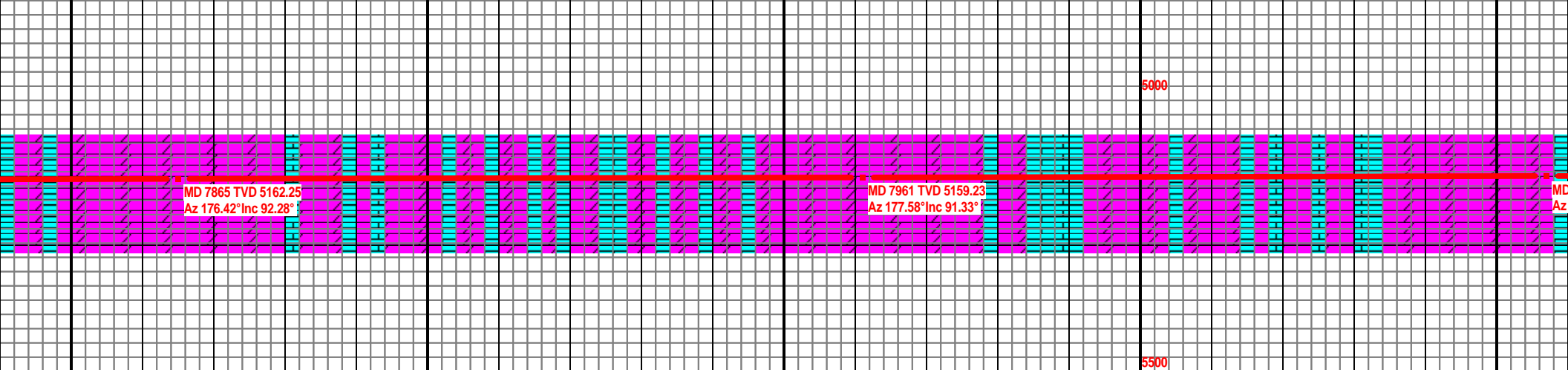
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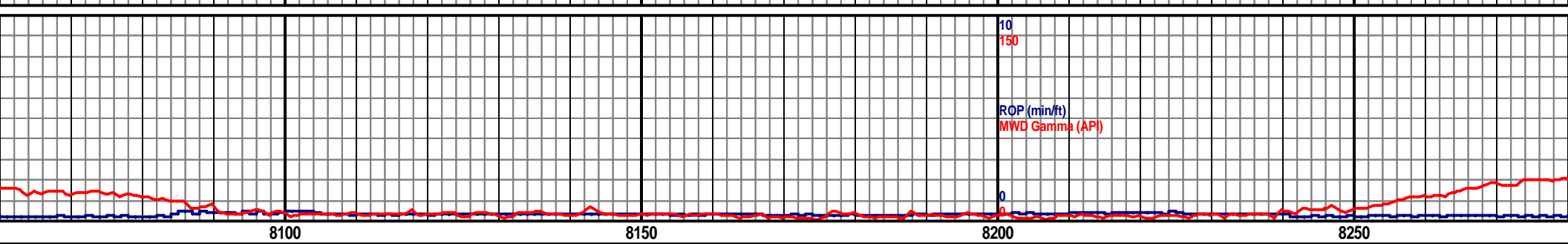
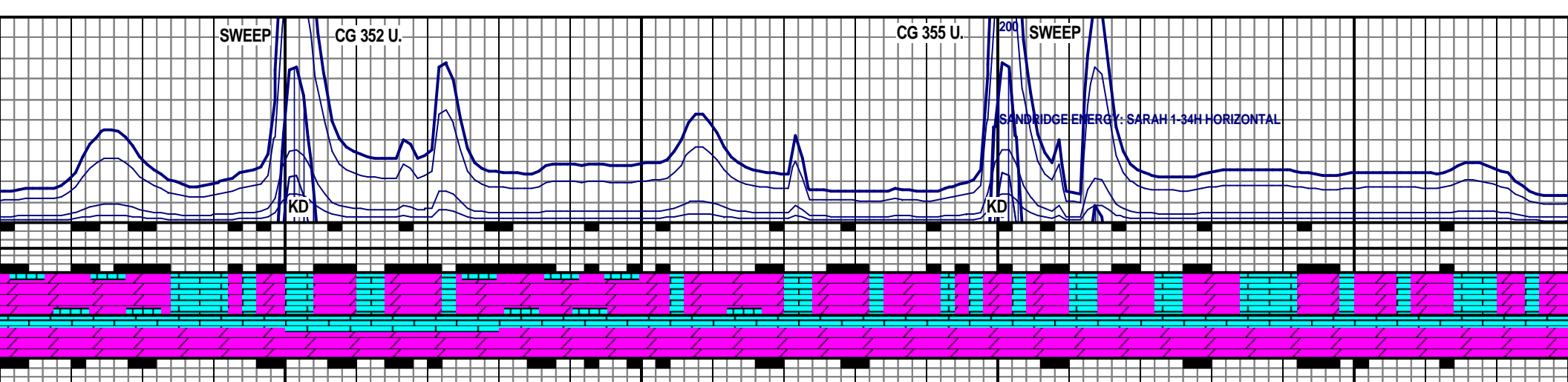
MD 7770 TVD 5165.75  
 Az 176.26° Inc 91.94°

5500



<p>DOL: PRED MED TAN- LT TAN, SCAT CRM THRU OUT, PRED MICRO FN XLN, SCAT V FN XLN, TR SUCRO, PRED MOD FRM- FRM, MSTLY BLKY, OCC PLTY, HL FRAC POR, PP VUG POR, TR STN, LS: PRED LT TAN- CRM, MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, PRED BLKY, SME PLTY, HL FRAC POR, OCC PP VUG POR, SCAT CHT: OFF WHT- WHT, OCC OPQ, BLKY, ANG, OCC HL FRAC POR, YEL FLOR THRU OUT, MLKY GRN/YEL FLASH CUT, MLKY YEL- GRN RESD RING</p>	<p>DOL: MSTLY MED TAN- LT TAN, SCAT CRM THRU OUT, MSTLY MICRO FN XLN, SCAT V FN XLN, TR SUCRO, PRED MOD FRM- FRM, MSTLY BLKY, OCC PLTY, HL FRAC POR, PP VUG POR, LS: PRED LT TAN- CRM, MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, PRED BLKY, SME PLTY, HL FRAC POR, OCC PP VUG POR, SCAT CHT: OFF WHT- WHT, OCC OPQ, BLKY, ANG, OCC HL FRAC POR, YEL FLOR THRU OUT, SLW MLKY YEL/GRN CUT, MLKY YEL RESD RING</p>
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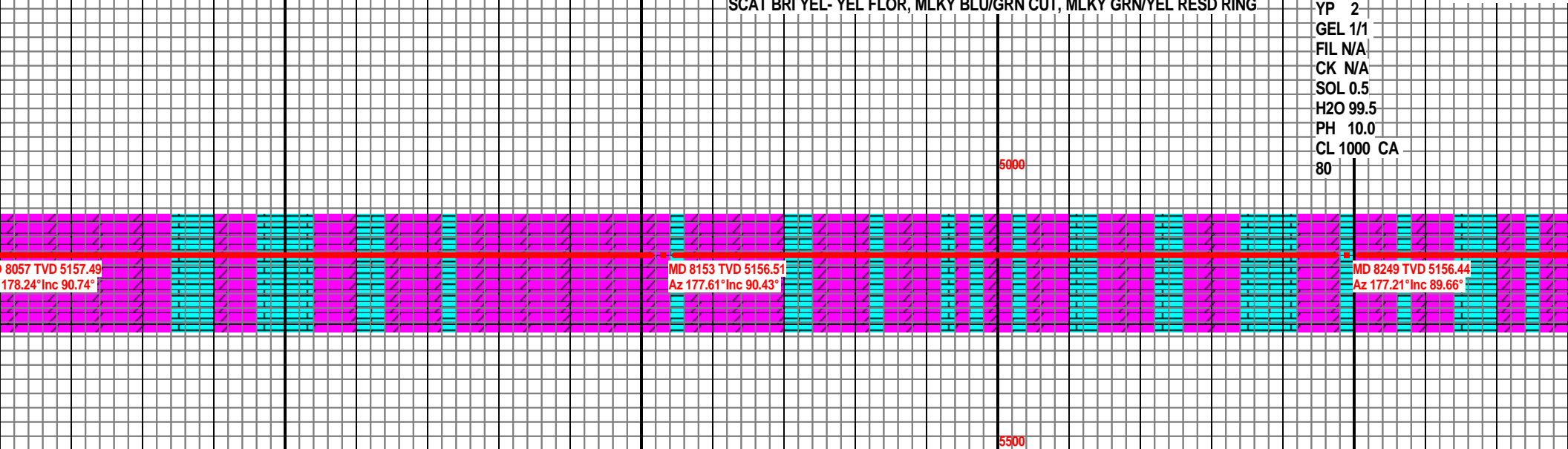
8100 8150 8200 8250

4500 TVD

DOL: PRED LT TAN- CRM, OCC MED TAN, MSTLY MICRO FN- V FN XLN, MSTLY MOD FRM- FRM, OCC SFT, BLKY, SCAT PLTY THRU OUT, HL FRAC POR, PP VUG POR, LS: PRED LT TAN- CRM, OCC MED TAN, BLKY- PLTY, SME ANG, PRED MICRO FN- V FN XLN, MOD FRM- FRM, HL FRAC POR, PP VUG POR, BRI YEL- YEL FLOR THRU OUT, LT BLU CUT, MLKY BLU RESD RING

DOL: LT TAN- CRM, OCC WHT, PRED MICRO FN XLN, SCAT V FN XLN THRU OUT, MOD FRM- FRM, TR SFT, MSTLY BLKY, SME PLTY, HL FRAC POR, PP VUG POR, LS: LT TAN- MED TAN, OCC OFF WHT- WHT, PRED BLKY- PLTY, PRED MICRO FN- V FN XLN, MOD FRM- FRM, HL FRAC POR, PP VUG POR, SCAT BRI YEL- YEL FLOR, MLKY BLU/GRN CUT, MLKY GRN/YEL RESD RING

MUD DATA  
 AT 8,290'  
 WT 8.4  
 VIS 28  
 PV 1  
 YP 2  
 GEL 1/1  
 FIL N/A  
 CK N/A  
 SOL 0.5  
 H2O 99.5  
 PH 10.0  
 CL 1000 CA  
 80



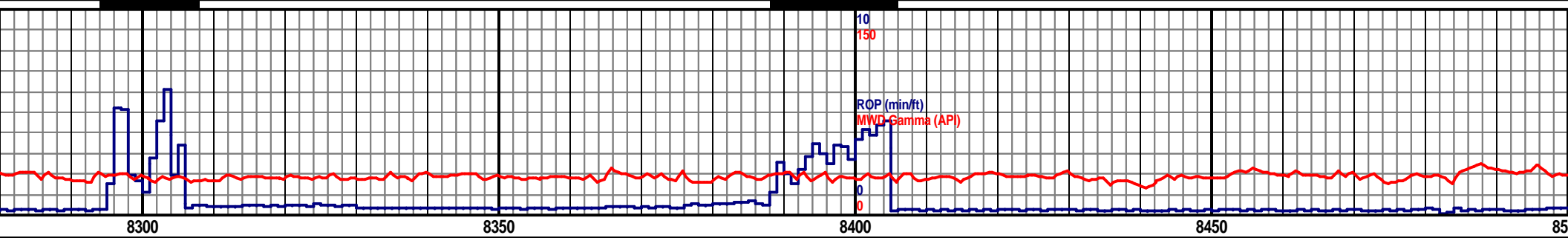
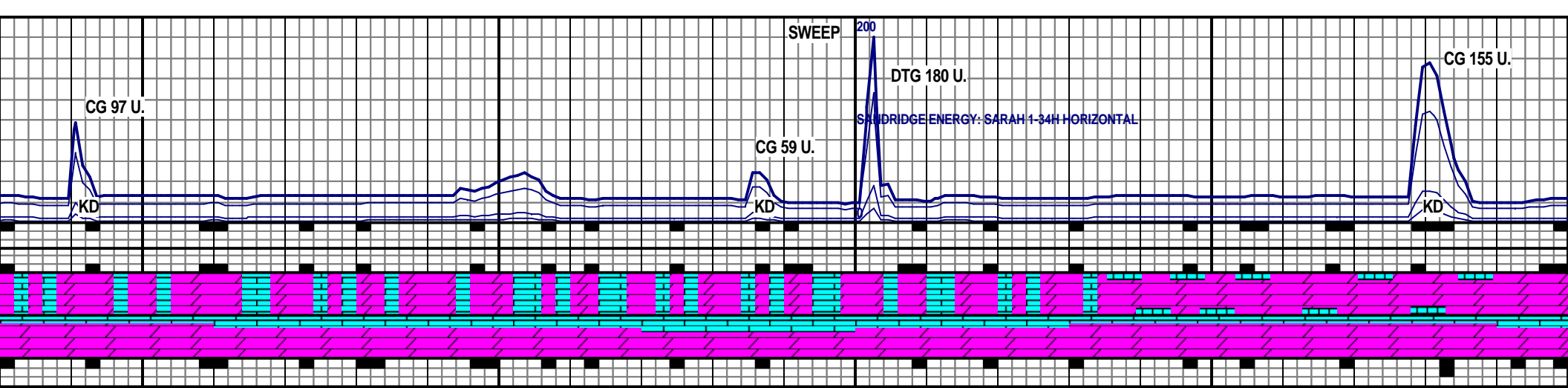
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MD 8249 TVD 5156.44  
Az 177.21° Inc 89.66°

5500



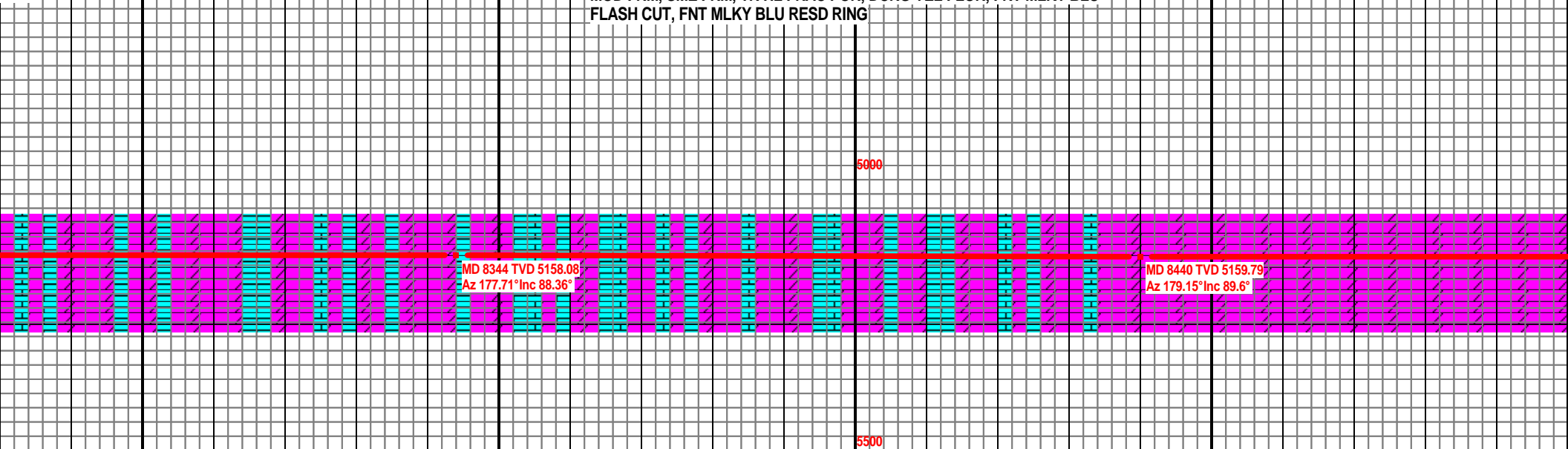


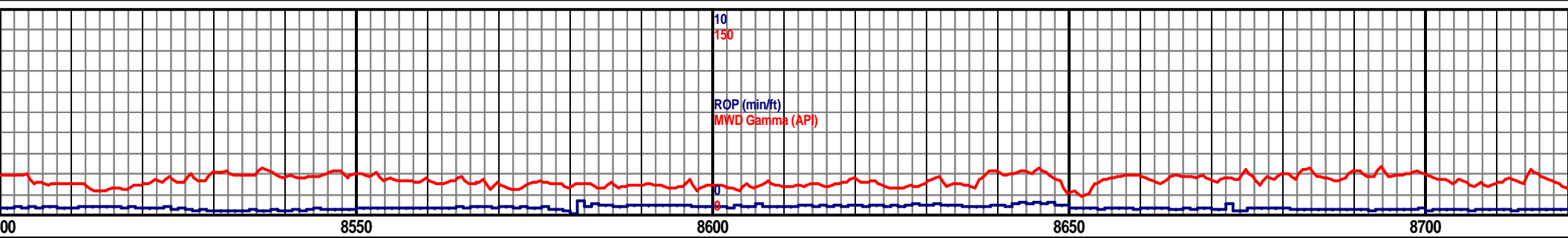
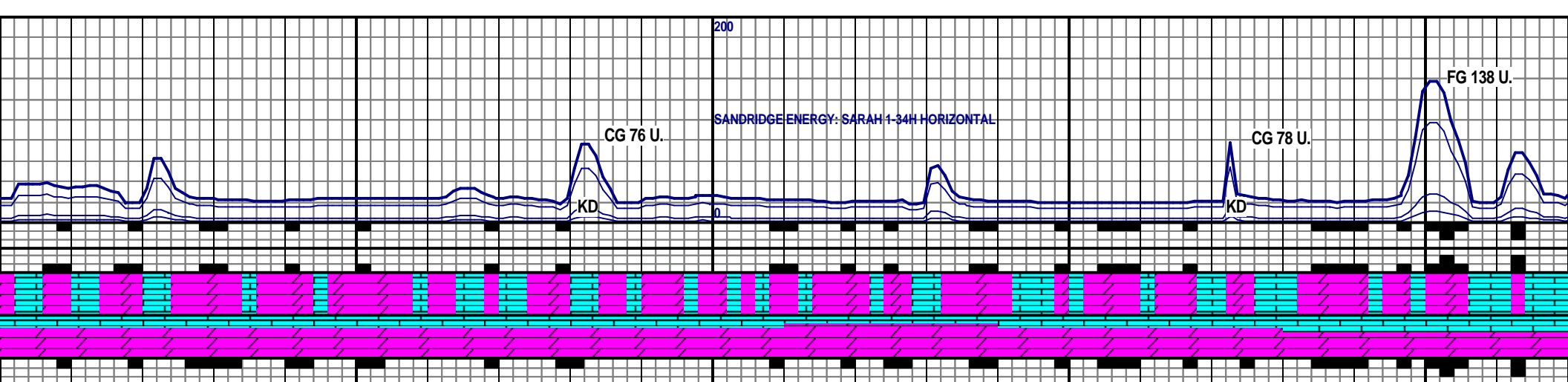
8300 8350 8400 8450 8500

AN- CRM, OCC WHT, MSTLY MICRO FN- V FN XLN, PRED MOD  
 FT, MSTLY BLKY, SME PLTY, HL FRAC POR, PP VUG POR, LS:  
 MED TAN, OCC OFF WHT- WHT, PRED BLKY, SUB RND- SUB  
 C POR, SCAT BRI YEL- YEL FLOR, MLKY BLU/GRN CUT, MLKY  
 RING

DOL: MSTLY LT TAN, SCAT CRM THRU OUT, TR WHT, PRED MICRO FN- V FN  
 XLN, SME SUCRO, MSTLY BLKY, OCC PLTY, PRED MOD FRM- SFT, SCAT  
 FRM, LS: PRED LT TAN- CRM, SCAT MED TAN, PRED BLKY, SUB RND, MSTLY  
 MOD FRM, SME FRM, TR HL FRAC POR, DCRG YEL FLOR, FNT MLKY BLU  
 FLASH CUT, FNT MLKY BLU RESD RING

DOL: MSTLY LT TAN, SCAT CRM  
 V FN XLN, SME SUCRO, MSTLY E  
 SCAT FRM, LS: PRED LT TAN- C  
 RND, MSTLY MOD FRM, SME FRM  
 FNT MLKY BLU FLASH CUT, FNT

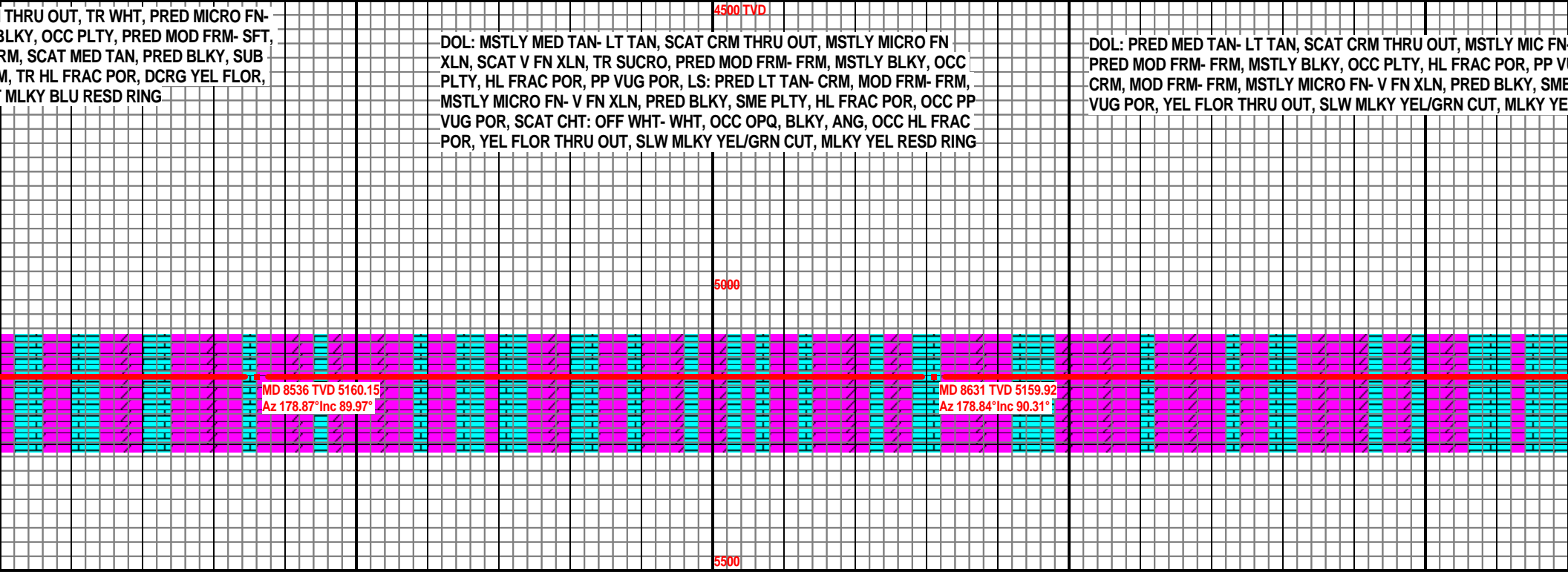


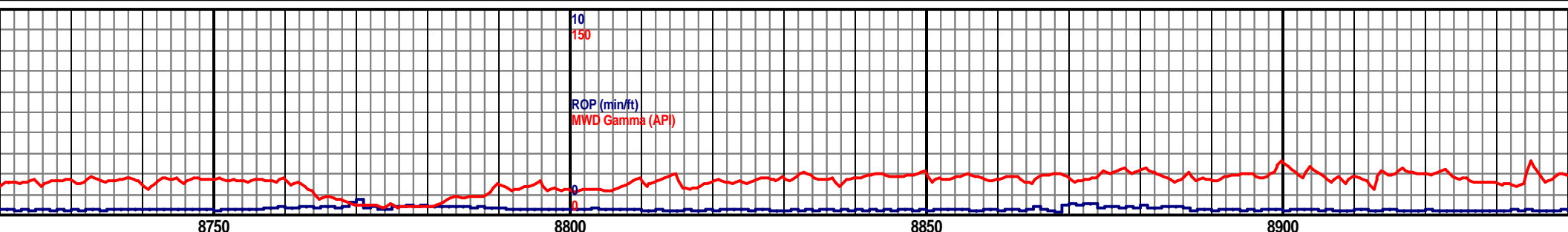
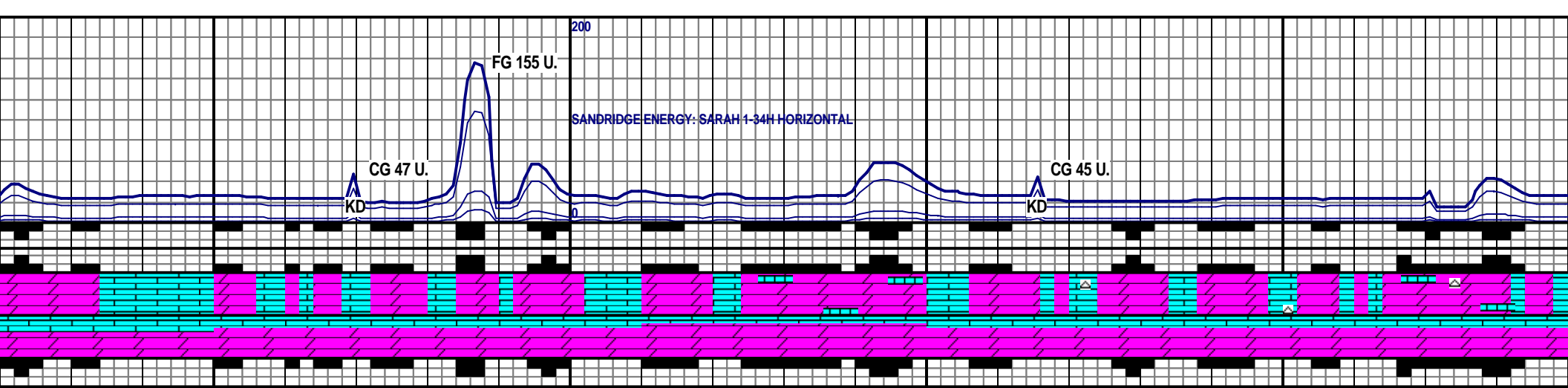


THRU OUT, TR WHT, PRED MICRO FN-  
BLKY, OCC PLTY, PRED MOD FRM- SFT,  
RM, SCAT MED TAN, PRED BLKY, SUB  
M, TR HL FRAC POR, DCRG YEL FLOR,  
MLKY BLU RESD RING

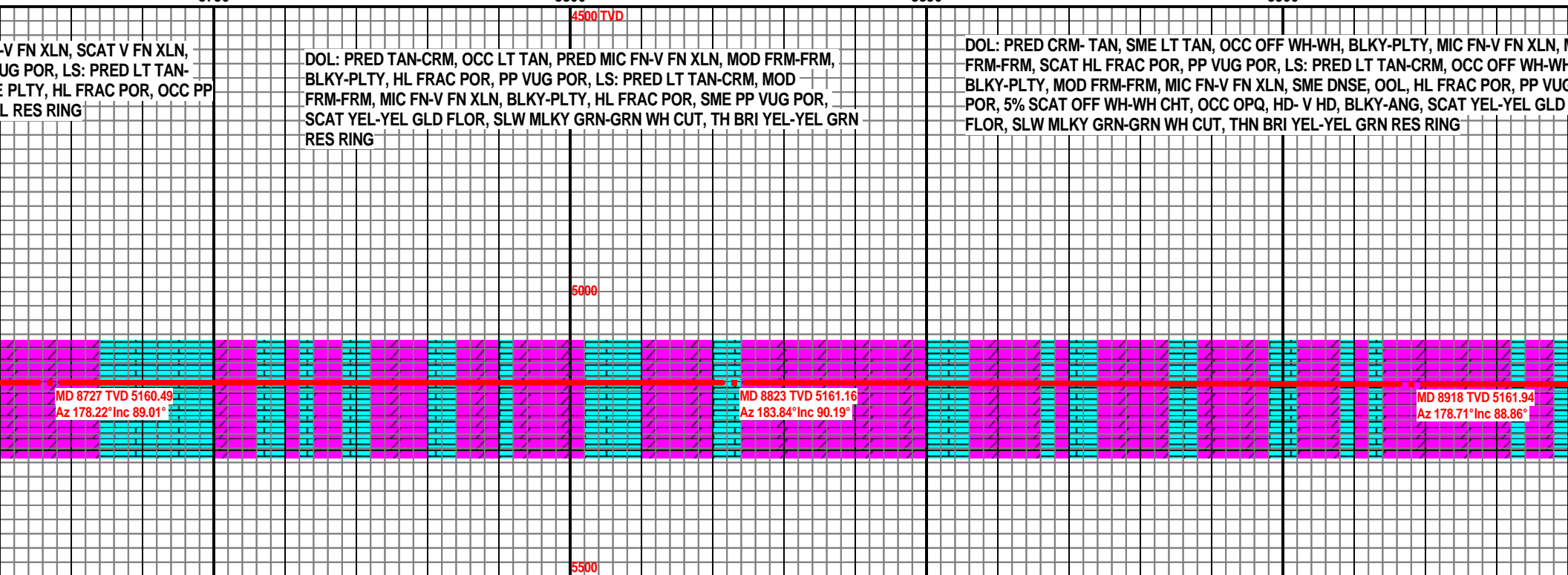
DOL: MSTLY MED TAN- LT TAN, SCAT CRM THRU OUT, MSTLY MICRO FN  
XLN, SCAT V FN XLN, TR SUCRO, PRED MOD FRM- FRM, MSTLY BLKY, OCC  
PLTY, HL FRAC POR, PP VUG POR, LS: PRED LT TAN- CRM, MOD FRM- FRM,  
MSTLY MICRO FN- V FN XLN, PRED BLKY, SME PLTY, HL FRAC POR, OCC PP  
VUG POR, SCAT CHT: OFF WHT- WHT, OCC OPQ, BLKY, ANG, OCC HL FRAC  
POR, YEL FLOR THRU OUT, SLW MLKY YEL/GRN CUT, MLKY YEL RESD RING

DOL: PRED MED TAN- LT TAN, SCAT CRM THRU OUT, MSTLY MIC FN  
PRED MOD FRM- FRM, MSTLY BLKY, OCC PLTY, HL FRAC POR, PP V  
CRM, MOD FRM- FRM, MSTLY MICRO FN- V FN XLN, PRED BLKY, SME  
VUG POR, YEL FLOR THRU OUT, SLW MLKY YEL/GRN CUT, MLKY YE





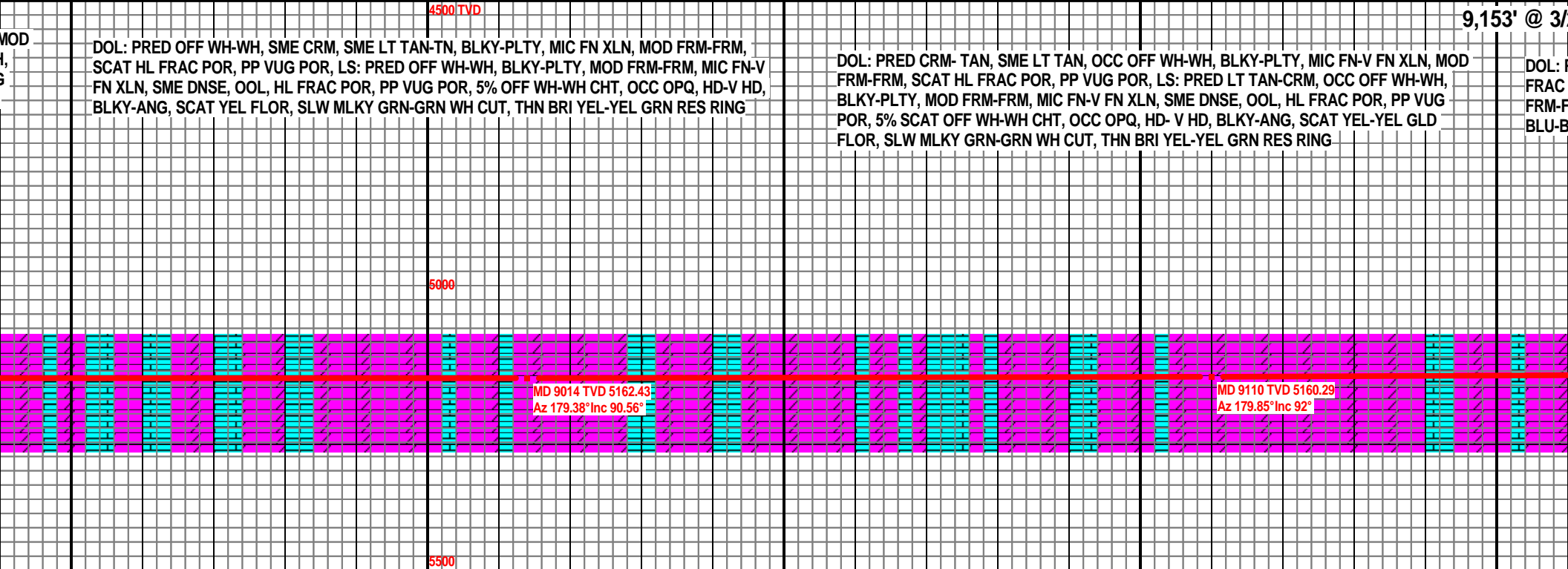
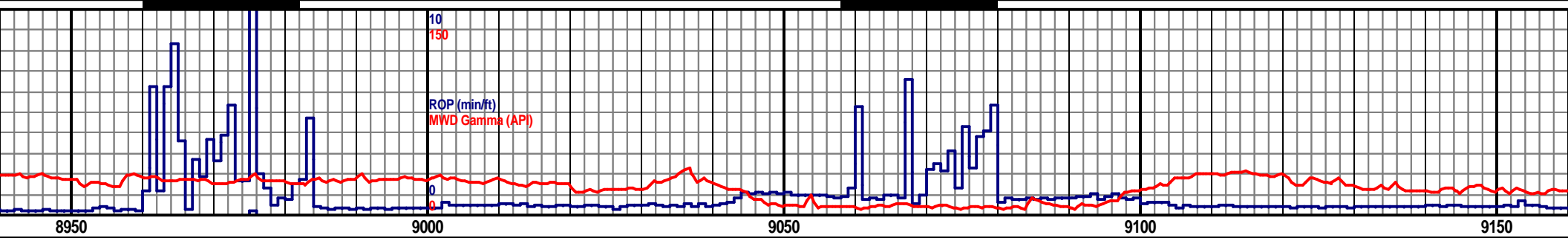
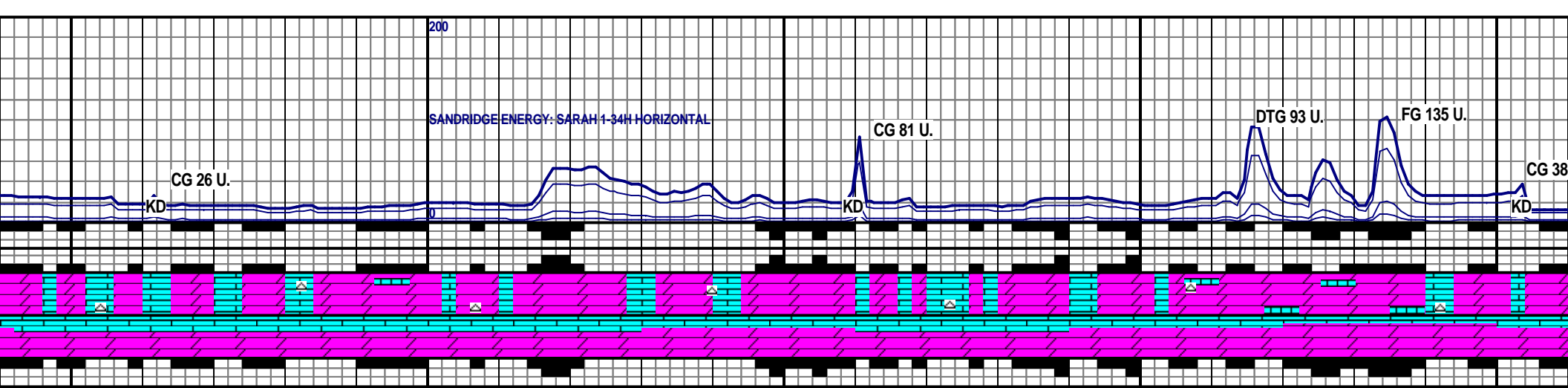
8750 8800 8850 8900



V FN XLN, SCAT V FN XLN,  
UG POR, LS: PRED LT TAN-  
E PLTY, HL FRAC POR, OCC PP  
L RES RING

DOL: PRED TAN-CRM, OCC LT TAN, PRED MIC FN-V FN XLN, MOD FRM-FRM,  
BLKY-PLTY, HL FRAC POR, PP VUG POR, LS: PRED LT TAN-CRM, MOD  
FRM-FRM, MIC FN-V FN XLN, BLKY-PLTY, HL FRAC POR, SME PP VUG POR,  
SCAT YEL-YEL GLD FLOR, SLW MLKY GRN-GRN WH CUT, TH BRI YEL-YEL GRN  
RES RING

DOL: PRED CRM- TAN, SME LT TAN, OCC OFF WH-WH, BLKY-PLTY, MIC FN-V FN XLN, M  
FRM-FRM, SCAT HL FRAC POR, PP VUG POR, LS: PRED LT TAN-CRM, OCC OFF WH-WH  
BLKY-PLTY, MOD FRM-FRM, MIC FN-V FN XLN, SME DNSE, OOL, HL FRAC POR, PP VUG  
POR, 5% SCAT OFF WH-WH CHT, OCC OPQ, HD- V HD, BLKY-ANG, SCAT YEL-YEL GLD  
FLOR, SLW MLKY GRN-GRN WH CUT, THN BRI YEL-YEL GRN RES RING



MOD  
DOL: PRED OFF WH-WH, SME CRM, SME LT TAN-TN, BLKY-PLTY, MIC FN XLN, MOD FRM-FRM, SCAT HL FRAC POR, PP VUG POR, LS: PRED OFF WH-WH, BLKY-PLTY, MOD FRM-FRM, MIC FN-V FN XLN, SME DNSE, OOL, HL FRAC POR, PP VUG POR, 5% OFF WH-WH CHT, OCC OPQ, HD-V HD, BLKY-ANG, SCAT YEL FLOR, SLW MLKY GRN-GRN WH CUT, THN BRI YEL-YEL GRN RES RING

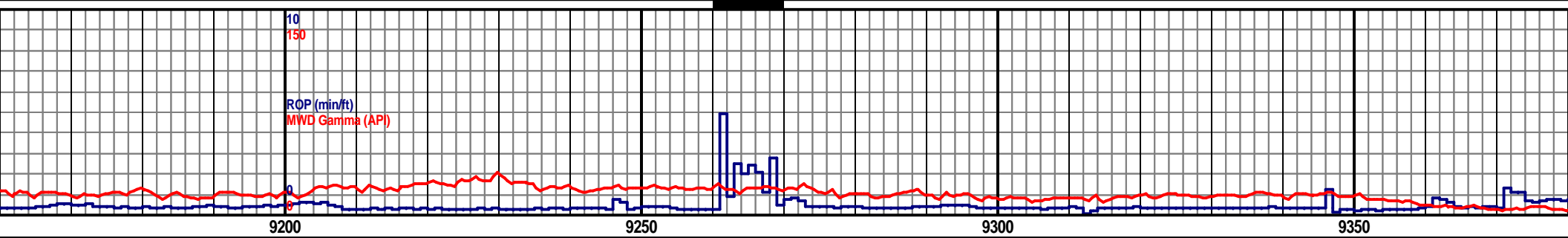
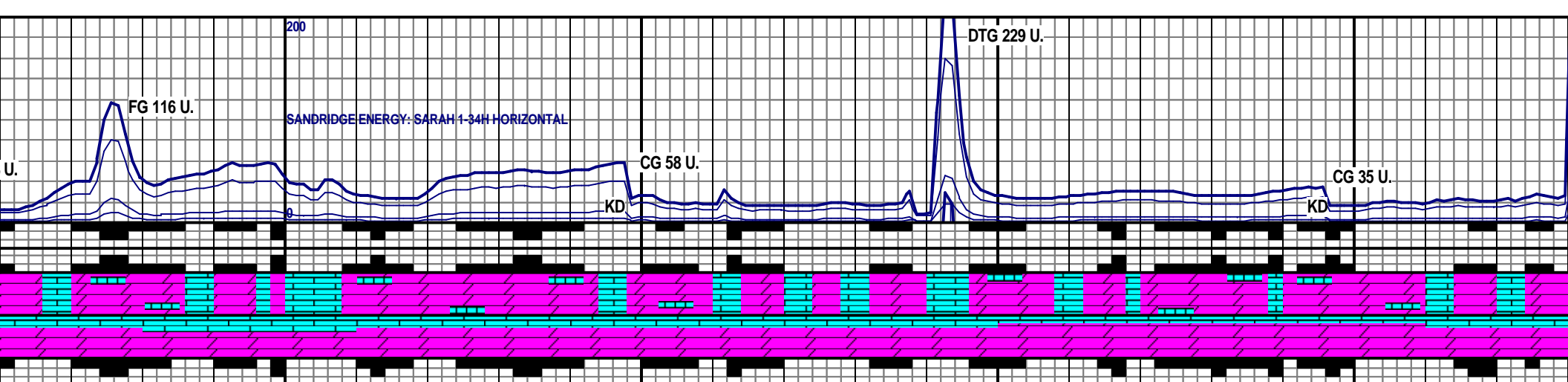
DOL: PRED CRM- TAN, SME LT TAN, OCC OFF WH-WH, BLKY-PLTY, MIC FN-V FN XLN, MOD FRM-FRM, SCAT HL FRAC POR, PP VUG POR, LS: PRED LT TAN-CRM, OCC OFF WH-WH, BLKY-PLTY, MOD FRM-FRM, MIC FN-V FN XLN, SME DNSE, OOL, HL FRAC POR, PP VUG POR, 5% SCAT OFF WH-WH CHT, OCC OPQ, HD- V HD, BLKY-ANG, SCAT YEL-YEL GLD FLOR, SLW MLKY GRN-GRN WH CUT, THN BRI YEL-YEL GRN RES RING

DOL: P  
FRAC  
FRM-F  
BLU-B

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Az 179.38° Inc 90.56°

MD 9110 TVD 5160.29  
Az 179.85° Inc 92°

9,153' @ 3/4'

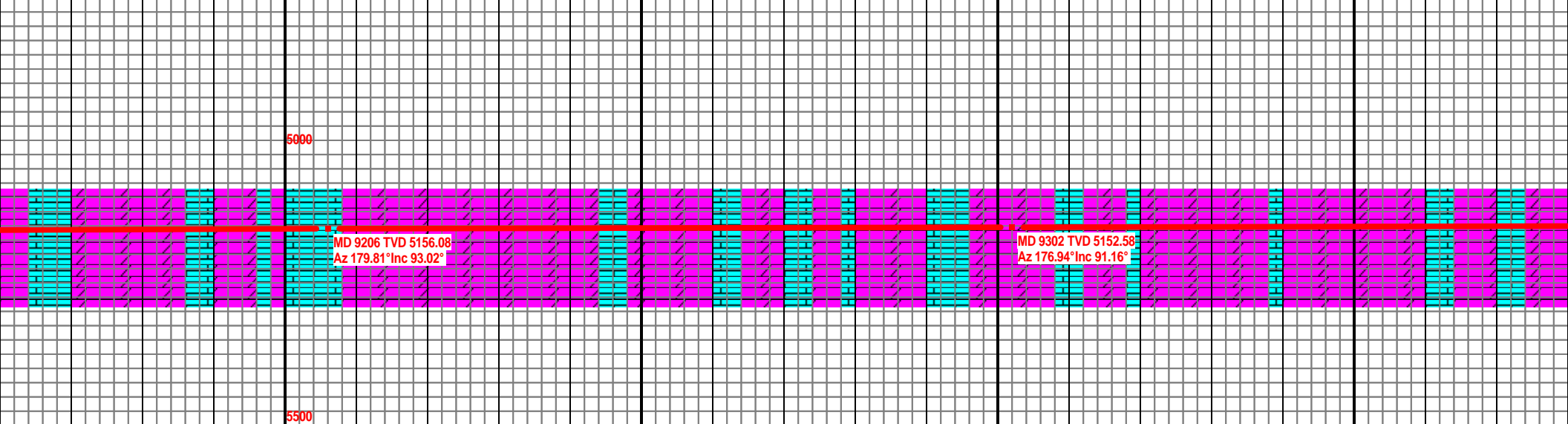


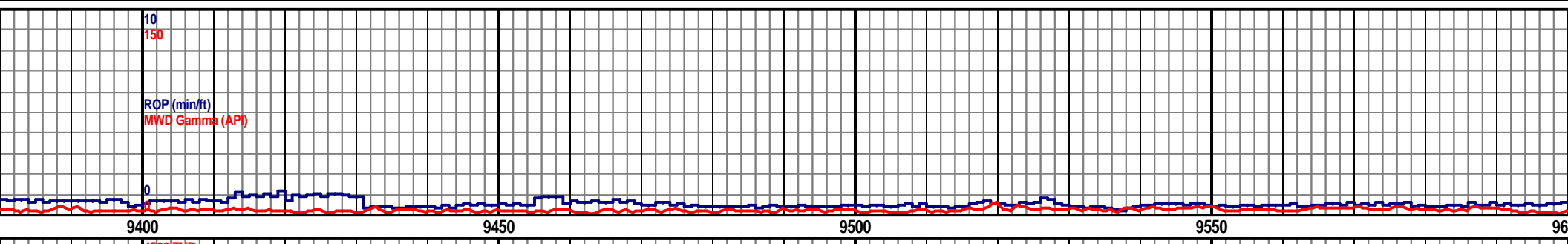
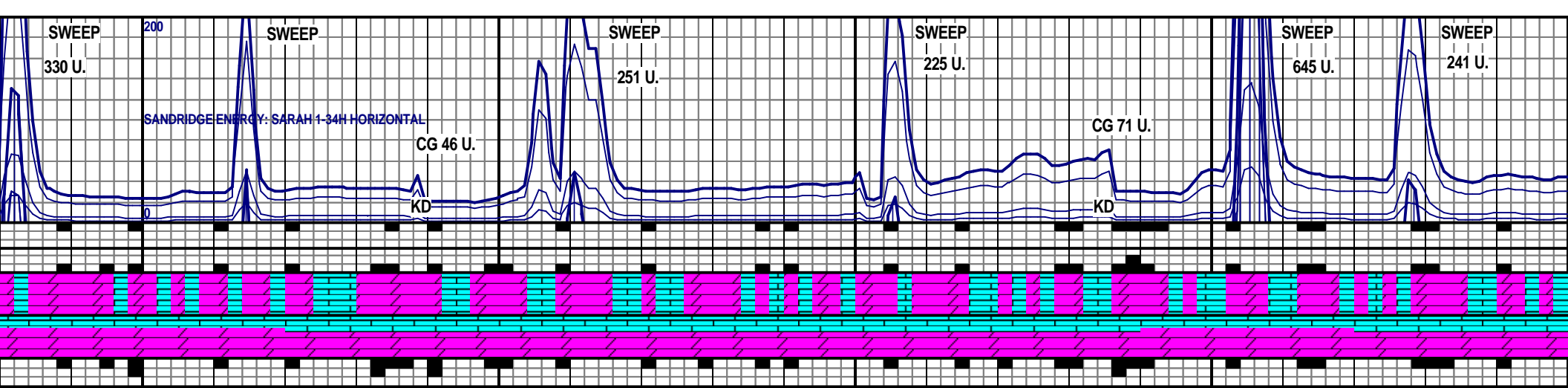
21/12 4500 TVD

PRED OFF WH-WH, SME CRM-LT TAN, BLKY-PLTY, MIC FN-V FN XLN, MOD FRM-FRM, HL POR, PP VUG POR, LS: MSTLY OFF WH-WH, OCC CRM-LT TAN, PRED BLKY-PLTY, MOD FRM-FRM, TR HD, DNSE, OOL, SCAT HL FRAC POR, PP VUG POR, SCAT YEL-YEL GLD FLOR, FR BLU WH FLASH CUT, MED THK BRI YEL-YEL GRN RES RING

DOL: PRED OFF WH-WH-, SME CRM-TAN, PRED BLKY-PLTY, MIC FN-V FN XLN, MOD FRM-FRM, SCAT HL FRAC POR, PP VUG POR, LS: PRED OFF WH-WH, SME CRM-TAN, BLKY-PLTY, MOD FRM-FRM DNSE, OOL, HL FRAC POR, PP VUG POR, SCAT YEL-YEL GLD FLOR, FR BLU-BLU WH FLASH CUT, GRN/YEL RES RING

DOL: PRED OFF WHT-PLTY, MSTLY MICRO FOUT, OCC PP VUG POR, MOD FRM-FRM, HL FR CUT, MLKY BLU RESD



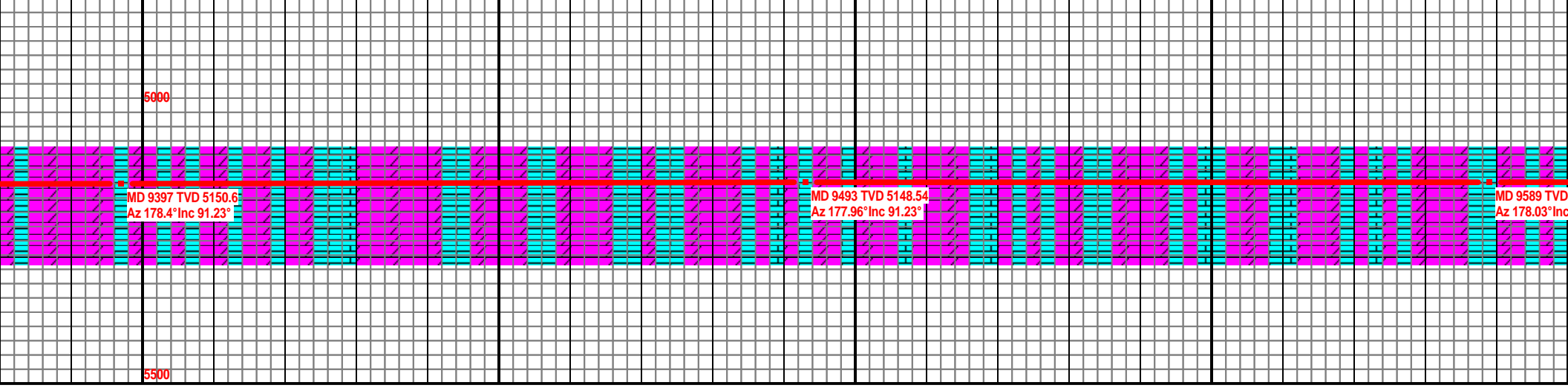


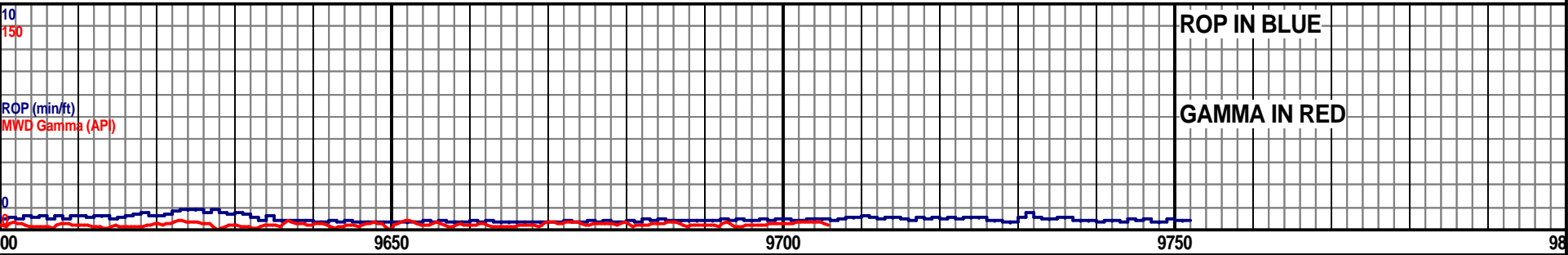
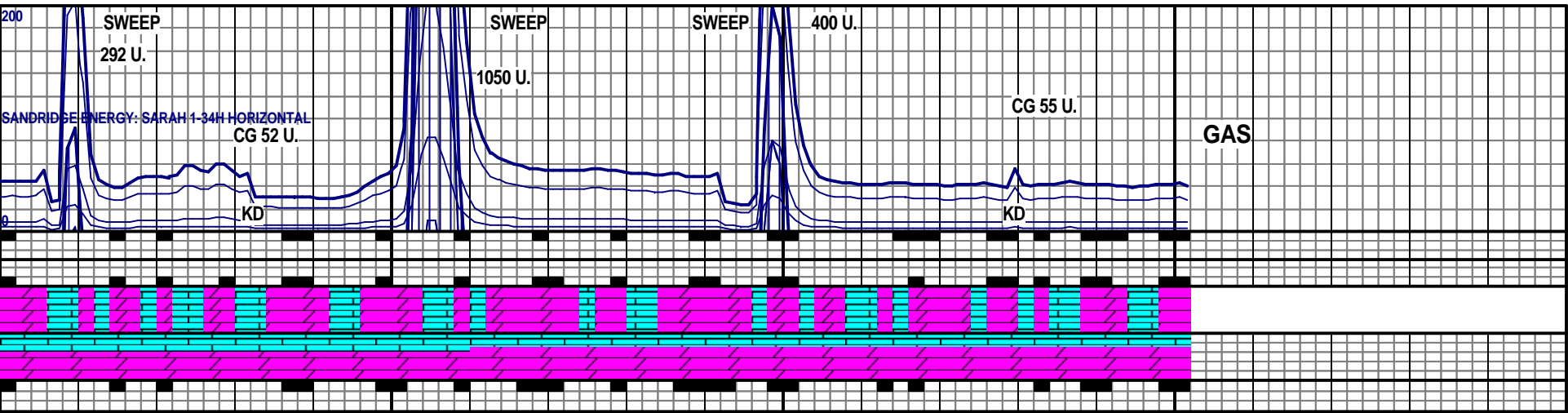
4500 TVD

WHT, BCMG OFF WHT- LT TAN, TR MED TAN, PRED BLKY, SCAT FN- V FN XLN, PRED MOD FRM, SCAT FRM, HL FRAC POR THRU R, LS: PRED OFF WHT- WHT, SCAT LT TAN, PRED BLKY, MSTLY FRAC POR, PP VUG POR, SCAT YEL FLOR, MLKY BLU/WHT FLASH RING

DOL: PRED OFF WHT- LT TAN, INCRG MED TAN, MSTLY BLKY, SCAT PLTY, PRED MICRO FN- V FN XLN, MSTLY MOD FRM- FRM, FR- PR HL FRAC POR, SME PP VUG POR, LS: MSTLY OFF WHT- LT TAN, SCAT MED TAN, PRED BLKY, MSTLY MOD FRM- FRM, HL FRAC POR, PP VUG POR, SCAT YEL FLOR, MLKY BLU/WHT FLASH CUT, DCRG MLKY BLU RESD RING

DOL: PRED LT TAN- OFF WHT, SCAT SCAT PLTY, PRED MICRO FN- V FN XLN, FRAC POR, SME PP VUG POR, LS: M TAN, MSTLY BLKY, PRED MOD FRM- SCAT YEL FLOR, MLKY BLU/GRN BL RING





4500 TVD

MED TAN INCRG, MSTLY BLKY, XLN, MSTLY MOD FRM- FRM, FR HL MSTLY LT TAN- OFF WHT, SME MED FRM, HL FRAC POR, PP VUG POR, MNG CUT, MLKY BLU/GRN RESD

DOL: PRED LT TAN- MED TAN, SCAT CRM THRU OUT, PRED BLKY, SCAT PLTY THRU OUT, PRED MICRO FN- V FN XLN, TR SUCRO, PRED MOD FRM- FRM, INCRG FRM, PR- FR HL FRAC POR, OCC PP VUG POR, LS: MSTLY LT TAN- MED TAN, SME OFF WHT, PRED BLKY, OCC PLTY, PRED MOD FRM- FRM, SME HL FRAC POR, OCC PP VUG POR, SCAT BRI YEL- YEL FLOR, SLW MLKY BLU/ V FNT GRN CUT, BLU/GRN RESD RING

TD WELL @ SANDRIDGE ENERGY INC.  
 9,752' MD SARAH 1-34H SEC  
 ON | 34-T33S-R17W COMANCHE  
 03/21/2012 CO. KANSAS

