

# MBC WELL LOGGING LLC

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

Well Name: WELCH BELL 1 AFE 61714 MERIT ENERGY  
API: 15-081-22178-00  
Location: HASKELL CO. KS USA  
License Number: 5447  
Spud Date: 7-20-2018  
Surface Coordinates: 580'FEL 2278'FNL, SEC 4-T28S-R34W  
Bottom Hole Coordinates: HLS-DIL/SP/GR CNL/CAL/PE/BHV SONIC SFC  
Ground Elevation (ft): 3078' K.B. Elevation (ft): 3090'  
Logged Interval (ft): 4000' To: 5570' Total Depth (ft): ELOG 5566'  
Formation: MORROW  
Type of Drilling Fluid: MUDCO WBM TONY MAESTAS(316)-772-6679  
Region: EUBANK NORTH  
Drilling Completed: 7-24-2018  
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

## OPERATOR

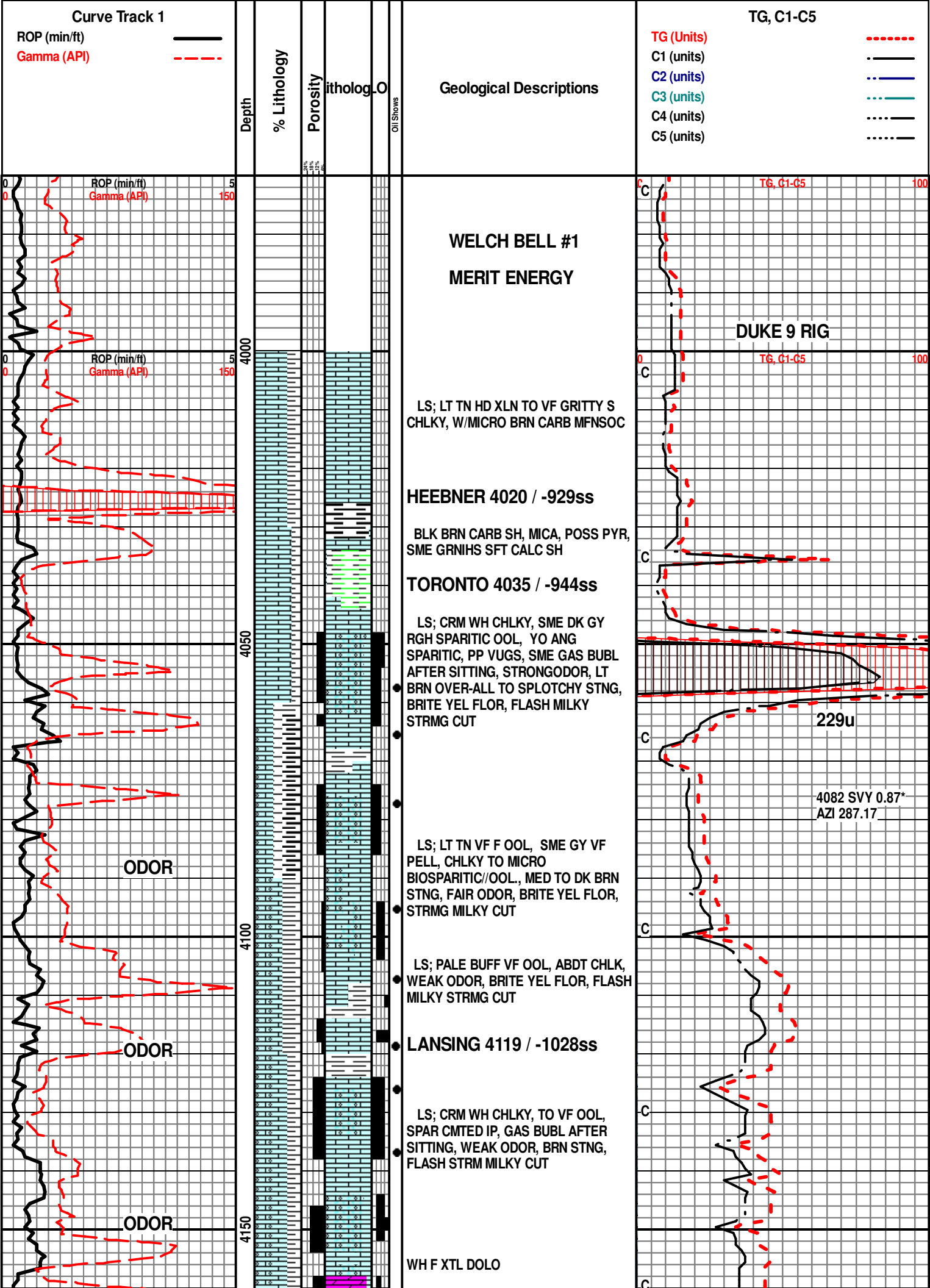
Company: MERIT ENERGY CO LLC  
Address: ATTN: MATTHEW GARVIN GEOLOGY  
13727 NOEL RD STE 1200  
DALLAS, TEXAS 75240

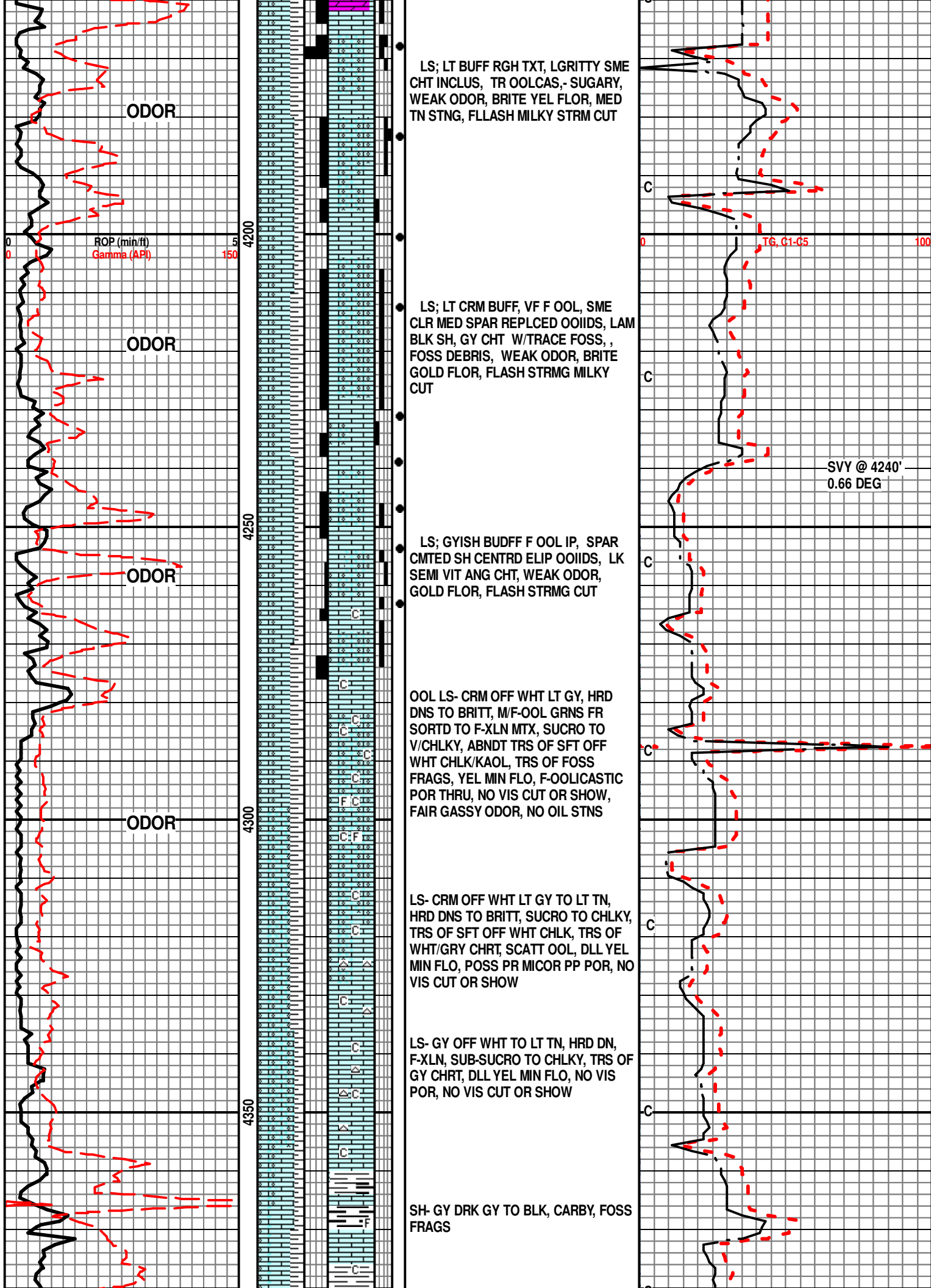
## MUDLOGGER

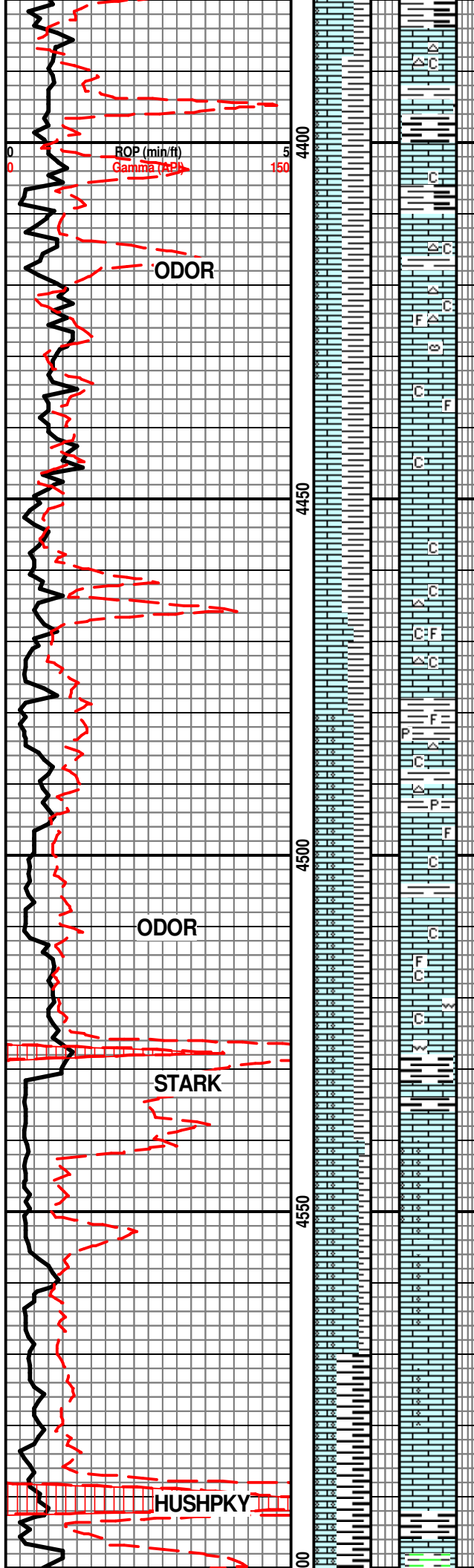
Name: TROY FOWLER//A. GARNER  
Company: MBC WELL LOGGING LLC  
Address: 21156 RD 22  
MEADE, KANSAS 67864

## ROCK TYPES

|  |               |  |                 |  |                |  |                 |
|--|---------------|--|-----------------|--|----------------|--|-----------------|
|  | Anhy          |  | Stgensndy-arkos |  | Sltst-1        |  | Stgensndy-arkos |
|  | Brec          |  | New ls-1        |  | Sltly-shale    |  | Sndy ool ls     |
|  | Cht           |  | Carby shale     |  | Lmy ss-1       |  | Sndy-ls-1       |
|  | Coal          |  | Lmy carby sh-3  |  | Arkosic snd    |  | Calc shale      |
|  | Congl         |  | Carb sh         |  | Ss             |  | Granitewash     |
|  | New dolomite  |  | Gyp             |  | Grn sh strk    |  | Ls shly-b       |
|  | Dolo new      |  | Sltst           |  | Lmy sh-2       |  | Poor sortd ss   |
|  | Newdolo ls 2  |  | Salt            |  | Grn mott gy sh |  | Snd-ls-sh       |
|  | Ls & ooids    |  | Sndy sh--red    |  | Shale-1        |  |                 |
|  | Oolitic ls -1 |  | Sndy sh         |  | Red sh-1       |  |                 |







### DRUM 4379 / -1288ss

LS- CRM OFF WHT, HRD DNS TO BRITT, F/VF-XLN, SUCRO TO CHLKY, TRS OF FOSS FRAGS, TRS OF GY OFF WHT CHRT,IMBD TO DISS GY BLK SH IP, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW

LS- CRM OFF WHT LT GY, HRD DNS TO BRITT, F/VF-XLN, SUCRO TO CHLKY, TRS OF CHLK, TN CHRT IP, TRS OF FOSS FRAGS SME SHADOW OOL IP, IMBD PYR, DLL YEL MIN FLO, POSS MICRO-PP POR, NO VIS CUT OR SHOW

LS- CRM OFF WHT TO GY, HRD DNS TO BRITT, F/VF-XLN POSS RE-XLN IP, SUCRO TO V/CHLKY, F/TRS OF FOSS FRAGS, OFF WHT OOL CHRT, DLL YEL MIN FLO, POSS PR MICRO-PP POR, NO VIS CUT OR SHOW,

SH- GY DRK GY, FRM BRITT, SMTH BLKY TO GRNY, POSS CARB IP, TRS OF PYR, F/TRS OF FOSS FRAGS, CALC GRNS IP

LS- CRM OFF WHT LT GY TO LT TN, HRD DNS TO BRITT, F-XLN, SUCRO TO CHLKY, TRS OF SFT OFF WHT SME WITH DISS GY/BLK SH, CHLK, F/TRS OF FOSS FRAGS, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW, FAINT GASSY ODOR

LS; LT GY TN HD DNS XLN, TR STYOLITIC

### STARK SH 4527 / -1436ss

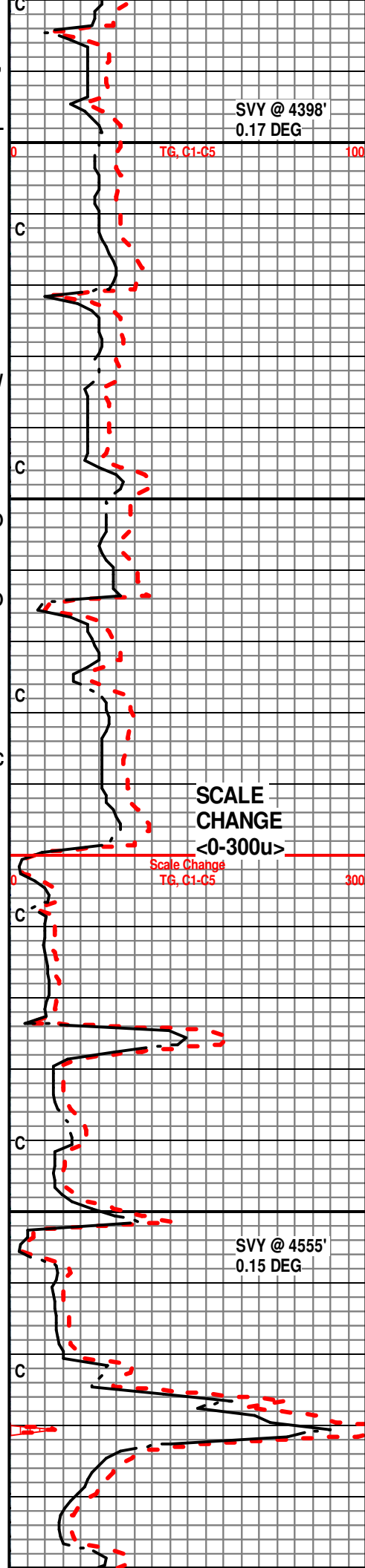
BLK BRN CRB SH MICA, SME PYR

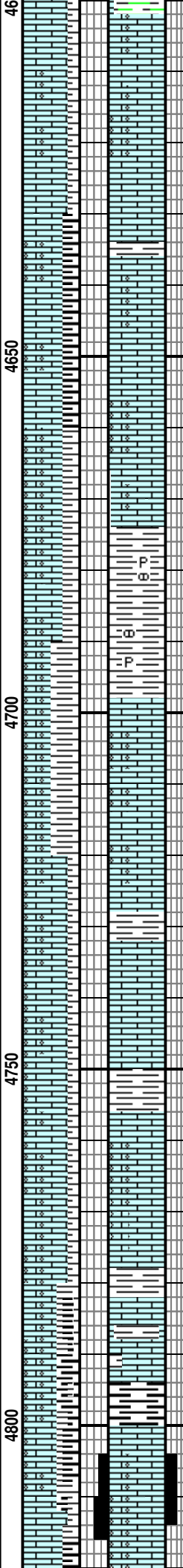
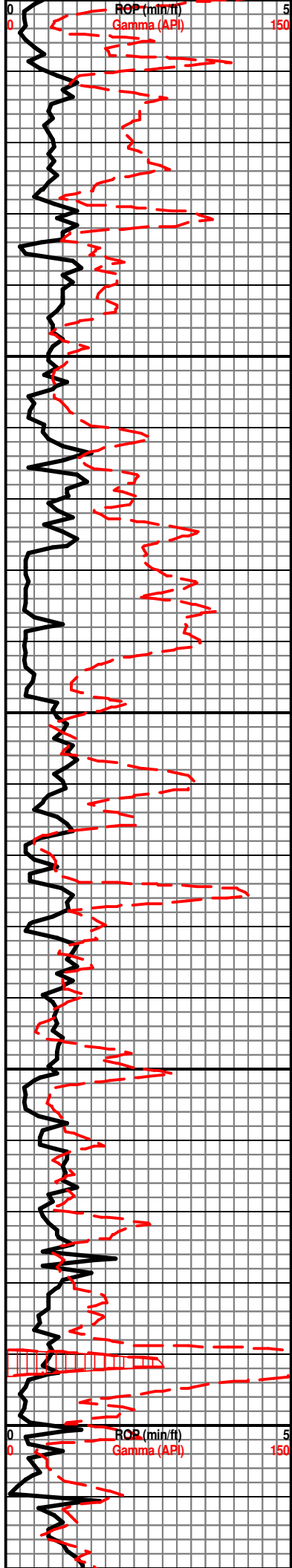
### SWOPE 4545 / -1454ss

LS; LT TN VF F SLI SUGARY OOLCAS, SME FOSS PCES, PURPLTO SCATT FAINT GOLD FLOR, N/O NSOC

LS; PALE GYISH BUFF, V/CHLKY, SHDW F-OOL, TR FREE TN MED OVAL OOIDS N/O, DK PURPL SCATT DULL WEAK GOLD FLOR NSOC

BLK CARB SH PYR,





SH GY SLI GRN PYR, CRIN

LS; LT TN SPARITIC WEATHD APPR  
VF OOL, TR TN RGH TXT PP-OOLCAS,  
N/O, FAINT GOLD FLOR NSOC

LS; LT BUFF TO GY HD DNS SHLY  
XLN SME LT GY-BUFF VF OOL,- RH  
TXT, N/O, SCATT FAINT GOLD FLOR  
NSOC

LS; GYISH CRM, TN BRTL CHLKY VF  
F OOL & FOSS, TO HD DNS XLN, NO  
SHOW

**PLSNT SH 4674 / -1582ss**

SH GY DK GY SMELT GRN

**MARMATON 4691 / -1599ss**

LS; LT TN HD DNS VF OOL IMBD, TR  
BRN MED FOSS FRGMTAL, W/CHOR,  
PYR, SME MED YEL FLOR, NSOC N/O

LS; B UFF TN WH SME VF  
BIOSPARITIC/VFOOL, BRTL  
TAB-CORAL, COMNLGD CRM CHLK &  
FOSS FRGMTL, N/O, FAINT GOLD  
FLOR NSOC

SH GRN GY SME BRN

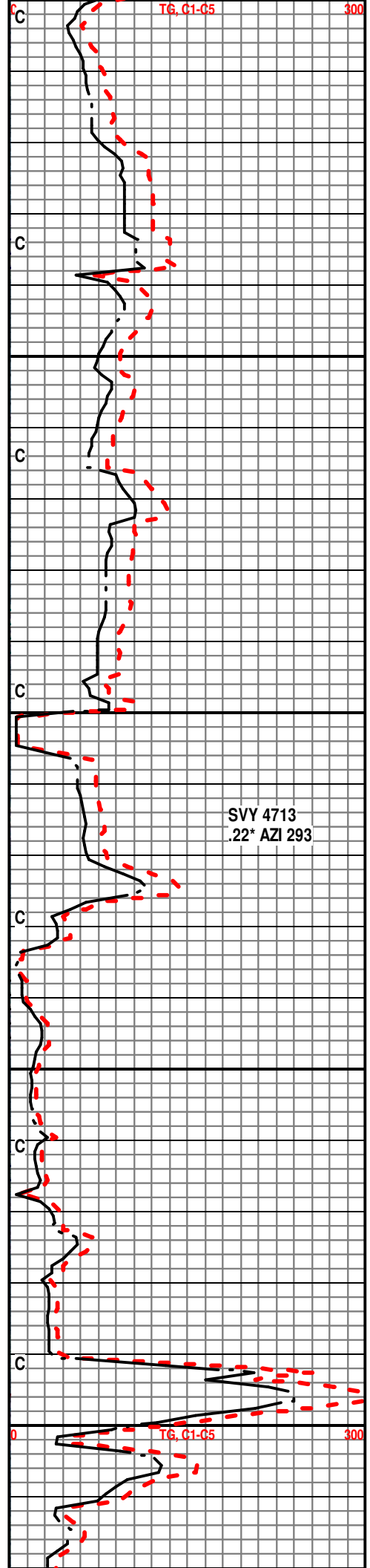
LS; LT TN BIOSPARITIC VF OOL,  
CHLKY TR CORAL, FREE VF TN  
OOIDS, N/O, FAINT GOLD TR MED  
YEL FLOR NSOC

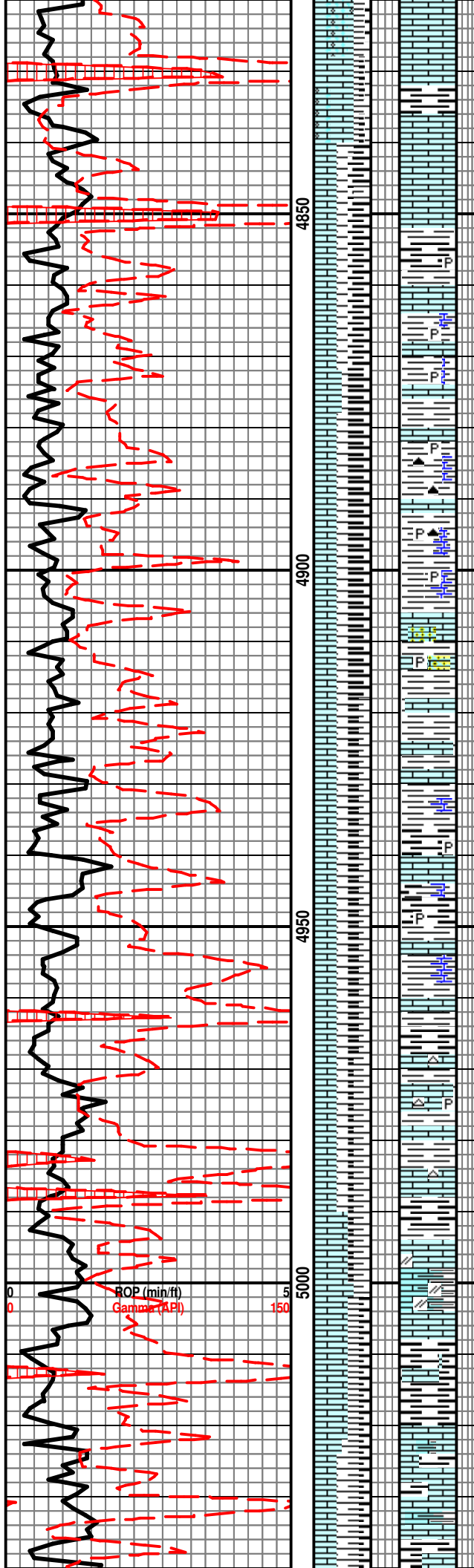
**BANDERA SH 4790-1700ss**

BLACK CARB SH

**PAWNEE 4795 / -1703ss**

TR TRACE (1) CRM WH V/CHLKY VF  
OOL, TR GAS BUBL, PP POR, TRACE  
FREE DK BRN OIL, YELGOLD FLOR  
N/O FLASH SLO MILKY CUT





LABETTE 4823 / -1732ss

CHEROKEE 4852 / -1760ss

SH- GY DRK GY TO BLK, FRM BRITT,  
BLK TO GRNY, PYR

INTERBD LS & SH- LS CRM OFF WHT  
LT GY, HRD BRITT, F-XLN, CHLKY, DISS  
TO INTERBD GY SH; SH- GY DRK GY  
TO BLK, SME DRK GY CHRT NODS IP,  
FRM BRITT TO SFT, GRNY, CALC IP TO  
CARB, PYR IP

VRDGS 4899 /-1807ss

LS- CRM OFF WHT TO GY, HRD BRITT,  
F-XLN T SNDY TXT IP, SUCRO TO  
CHLKY, DLL YEL MIN FLO, POSS PR  
MICRO-PP POR IP, NO VIS CUT OR  
SHOW

SH- GY DRK GY TO BLK, FRM BRITT,  
SMTH BLKY TO GRNY, CARB, CALC IP,  
TRS OF PYR

LS- CRM GY TO TN, HRD DNS TO  
BRITT, F-XLN, SLI CHLKY, TRS OF IMBD  
PYR, GY CHRT IP, DLL YEL MIN FLO,  
NO VIS POR, NO VIS CUT OR SHOW

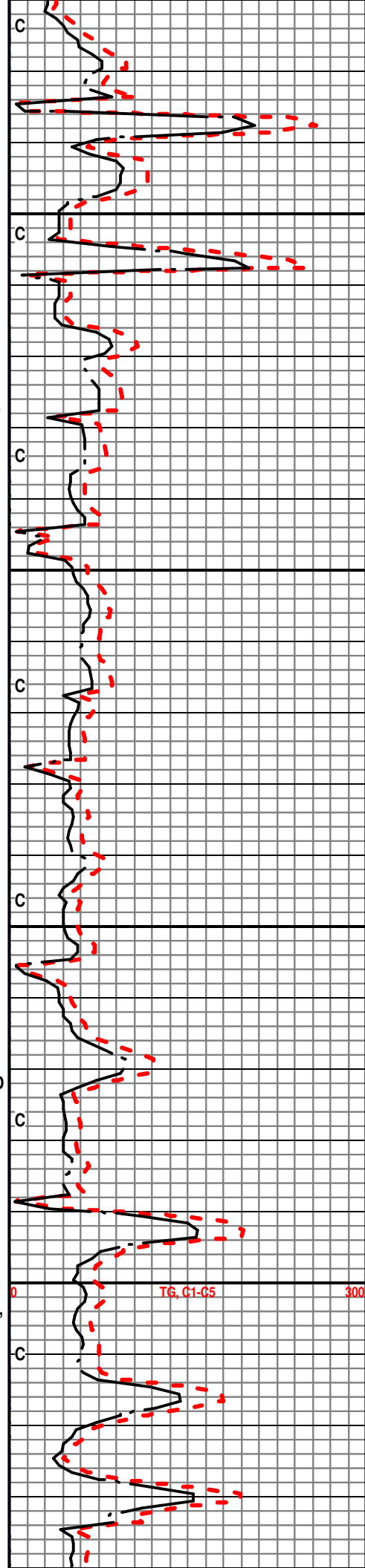
SH- GY DRK GY TO BLK, CARB

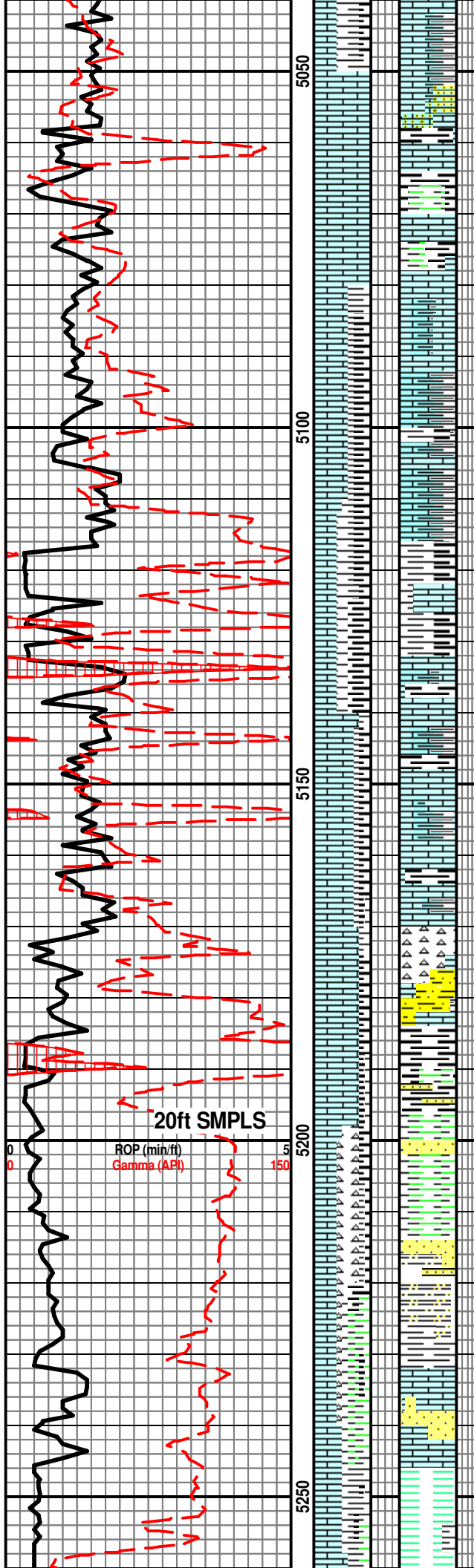
LS, TN HD DFNS XLN, TR ANHY NOD,  
PRED GY-BUFF SHLY NO SHOW

SH; BLK, PLATY TO BLKY, SME SFT  
CARB CALC

ATKN GRP 5031 / -1940'

LS; DK GY BRN HD SHLY MICRO  
FOSS DEBRIS, PYR, INTBD CARBY SH





LS; TN HD XLN SME MICRO FOSS,  
PYR, TR VF SNDY, NO SHOW

SH BLK, DULL BLKY CARBY SME  
MARLY, INTBD LT GRN TO GY SH

LS; SMOKEY GY WH MICRO FOSS  
DEBRS, SHLY, INTBD GRN TO GY SH

LS; GY MOTT BUFF PYR, MARLY NO  
SHOW

**ATOKA SH 5111 / -2019ss**

SH; BLK SPLNTY TO PLATY CARBY,  
MICRO PYRITIC SPICULES

**ATOKA LM 5144 / -2053ss**

LS; GY MOTT CRM, TO OFF WH, SFT  
CHLKY TO HD XLN, SHLY, SME DK GY  
BRN HD XLN NO SHOW

CHT GY/OPAQ, SLI SUGARY, CONCORD FRAC,  
TR GLAU, BRN PELL, TR TRIPOLITIC, GRDS TO  
ASH-GY SLTST, BLK SH LENS, MICA, SME  
SPLOTCH BRN STNG, D.O.S., N/O, BLK FLOR,  
NSOC

DK TN TO GY MOTT HD LS

**MORROW 5180 / -2088ss**

SH; GRN TO DK GY BLK, BLKY TO SPLNTY, PYR,  
MICA, CARB,

TR GY WH VF GR SS, PYR, NO SHOW

SH OLIVE GRN BLK SK GY TR  
PYRITIC-COALY, ABDT FREE PYR,  
SME TR INTBD SLTY SNDY

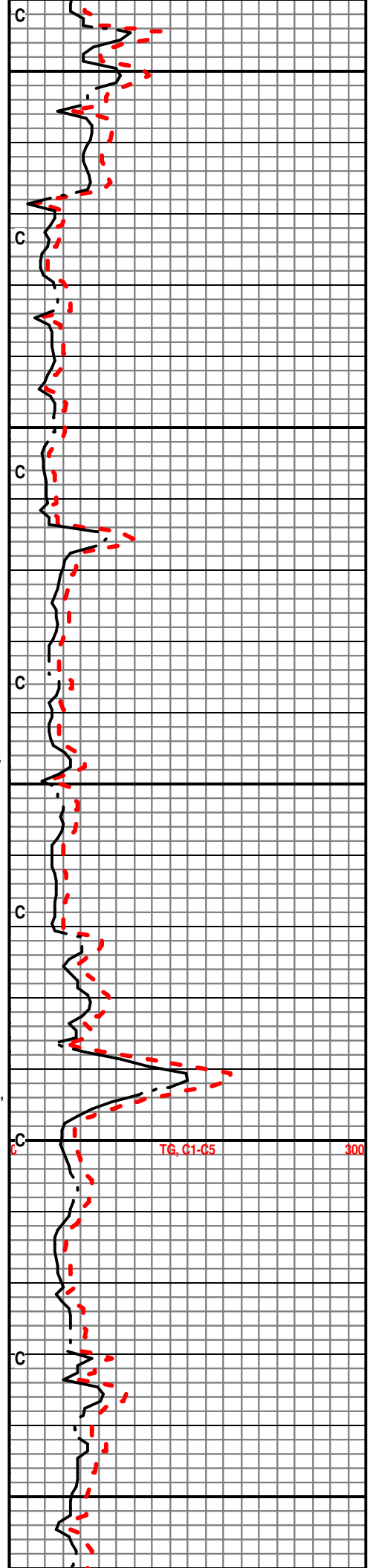
**MRRW LM A 5227 / -2136ss**

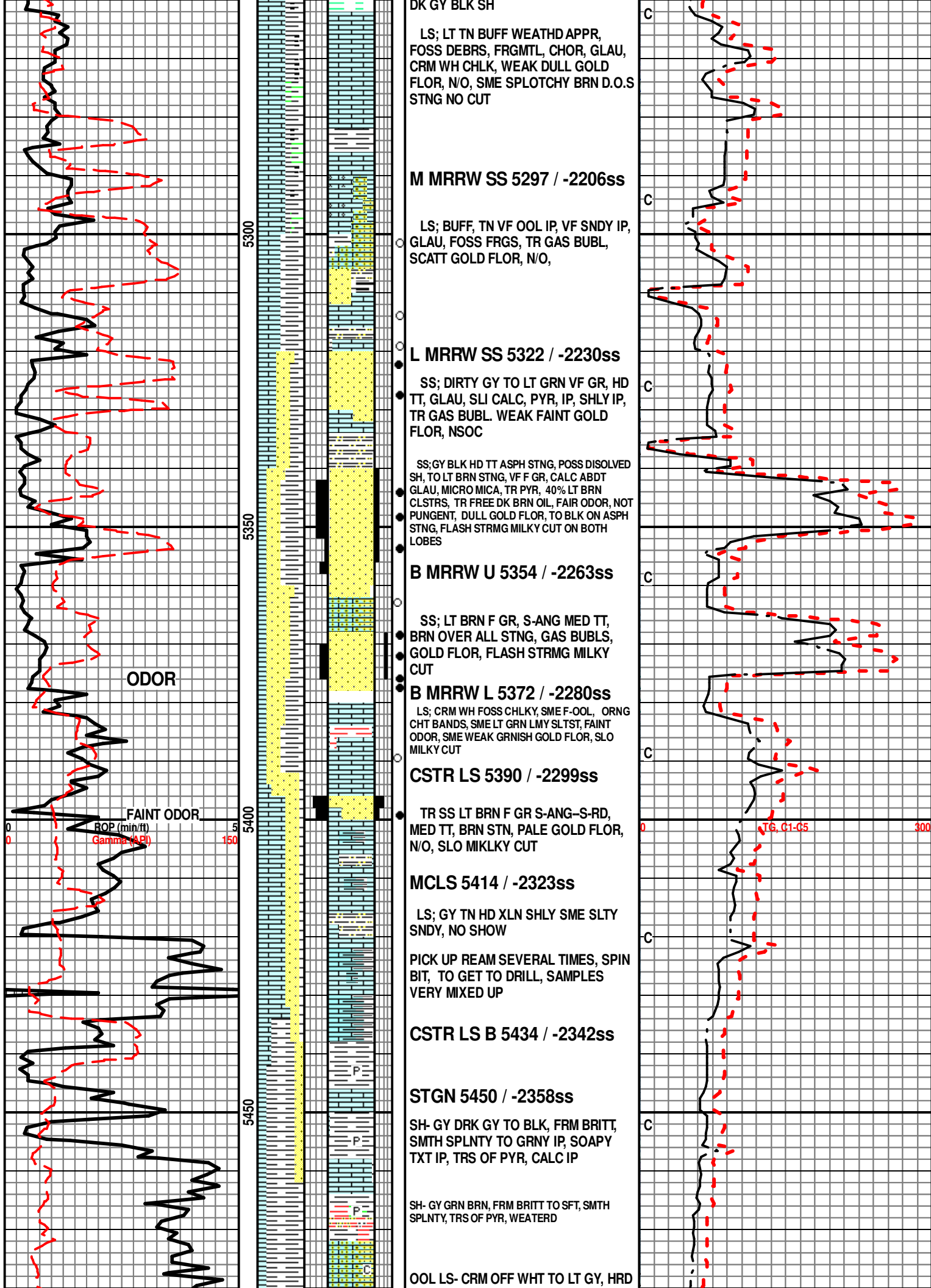
LS; TR LT BRN W/80% VF F PELL,  
SME FOSS DEBRS,

SS; OPAQ WH, VF GR, FRI, PYR, CARB  
INCLUS, NO SHOW

**M MRW LM 5252 / -2161ss**

SH; VARI GRN SILKY SMO, MICA, TO





DK GY BLK SH  
LS; LT TN BUFF WEATHD APPR,  
FOSS DEBRs, FRGMTL, CHOR, GLAU,  
CRM WH CHLK, WEAK DULL GOLD  
FLOR, N/O, SME SPLOTCHY BRN D.O.S  
STNG NO CUT

**M MRRW SS 5297 / -2206ss**

LS; BUFF, TN VF OOL IP, VF SN DY IP,  
GLAU, FOSS FRGS, TR GAS BUBL,  
SCATT GOLD FLOR, N/O,

**L MRRW SS 5322 / -2230ss**

SS; DIRTY GY TO LT GRN VF GR, HD  
TT, GLAU, SLI CALC, PYR, IP, SHLY IP,  
TR GAS BUBL. WEAK FAINT GOLD  
FLOR, NSOC

SS;GY BLK HD TT ASPH STNG, POSS DISSOLVED  
SH, TO LT BRN STNG, VF F GR, CALC ABDT  
GLAU, MICRO MICA, TR PYR, 40% LT BRN  
CLSTRs, TR FREE DK BRN OIL, FAIR ODOR, NOT  
PUNGENT, DULL GOLD FLOR, TO BLK ON ASPH  
STNG, FLASH STRMG MILKY CUT ON BOTH  
LOBES

**B MRRW U 5354 / -2263ss**

SS; LT BRN F GR, S-ANG MED TT,  
BRN OVER ALL STNG, GAS BUBLs,  
GOLD FLOR, FLASH STRMG MILKY  
CUT

**B MRRW L 5372 / -2280ss**

LS; CRM WH FOSS CHLKY, SME F-OOL, ORNG  
CHT BANDS, SME LT GRN LIMY SLTST, FAINT  
ODOR, SME WEAK GRNISH GOLD FLOR, SLO  
MILKY CUT

**CSTR LS 5390 / -2299ss**

TR SS LT BRN F GR S-ANG-S-RD,  
MED TT, BRN STN, PALE GOLD FLOR,  
N/O, SLO MIKLKY CUT

**MCLS 5414 / -2323ss**

LS; GY TN HD XLN SHLY SME SLTY  
SN DY, NO SHOW

PICK UP REAM SEVERAL TIMES, SPIN  
BIT, TO GET TO DRILL, SAMPLES  
VERY MIXED UP

**CSTR LS B 5434 / -2342ss**

**STGN 5450 / -2358ss**

SH- GY DRK GY TO BLK, FRM BRITT,  
SMTH SPLNTY TO GRNY IP, SOAPY  
TXT IP, TRS OF PYR, CALC IP

SH- GY GRN BRN, FRM BRITT TO SFT, SMTH  
SPLNTY, TRS OF PYR, WEATERD

OOL LS- CRM OFF WHT TO LT GY, HRD

