



# Weatherford®

## Surface Logging Systems

10000 Pilot/P.O. Box 80531  
Midland, TX/Midland, TX  
79706/79708  
432.561.8892 Main  
432.561.8895 Fax

COMPANY: MESQUITE

WELL: CEDAR CANYON SWD 1

FIELD: \_\_\_\_\_

COUNTY: EDDY STATE: NM

LOCATION: SEC 8, T24S, R29E

Spud Date: 2/12/17

Started: 2/15/17 At: 1434

Ended: \_\_\_\_\_ At: \_\_\_\_\_

Api No.: 30-015-44054

G.L.: \_\_\_\_\_

K.B: 2985

### Logging Personnel:

SCOTT MILLIGAN

NICK KIRKWOOD/BOB BEARD

Unit No.: 3758

Rig: UNITED 50

Filename: MESQUITE-CEDAR-CANYON-SWD-1.mlw

Geologist: DANIEL RIVAS

### Abbreviations:

NB...New Bit  
CO...Circ Out  
NR...No Returns  
TG...Trip Gas  
WOB...Wt on Bit  
RPM...Rev/Min  
SG...Survey Gas  
DST...Drill Stem Test  
DS...Directional Survey  
CG...Connection gas  
LAT...Logged After Trip  
PP...Pump Pressure  
SPM...Strokes/Min  
DTG...Down Time Gas

### Mud Data

WT..Weight V..Viscosity  
PH..Acidity F..Filtrate  
CHL..Chlorides SC..Solids Content

### Lithology Symbols:

Anhydrite Salt Granite  
Siltstone Chert Sandstone  
Dolomite Conglomerate Limestone  
Coal Shale Bentonite  
Carb Shale Granite Wash Quartz Wash  
Red Sh Org Sh Green Sh  
Cust Sh1 Cust Sh2 Cust Sh3  
Cust Sh4 Cust Sh5 Cust Sh6

### Accessories

Glauconite Pyrite Fossils Oolites  
Fractures Cement

### Gas Chromatograph Analysis:

TG -----  
C1 -----  
C2 -----  
C3 -----  
IC4 -----  
NC4 -----  
IC5 -----  
NC5 -----

Drilling Info

Drilling Rate

MIN/FT

Vis Por  
Tr / p  
f g

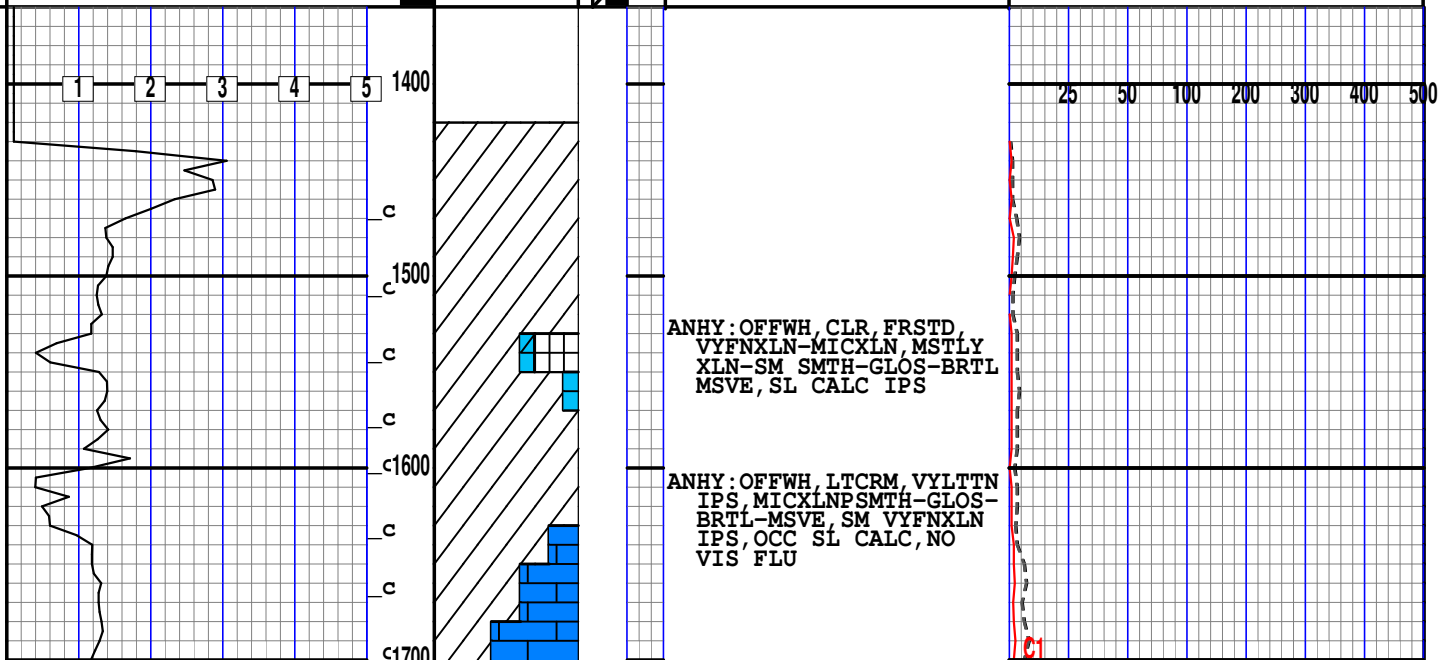
Lithology

% Oil Flu  
Cut  
Tr /  
p f g

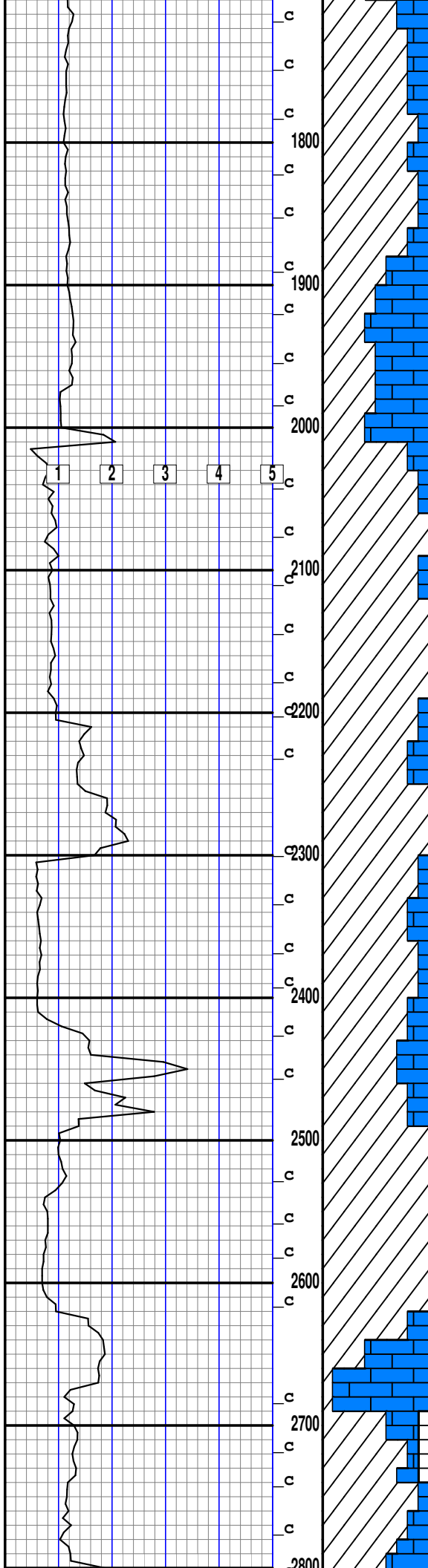
Descriptions/Remarks

Total Gas/Chromatograph

2/17/17



2/18/17



LS: TN OFFWH, CRM, VYFNXLN  
GRNLR, GRNSTN, ANHY INC  
IPS, NO VIS FLU

LS: MD-LTTN, CRM, OFFWH IP  
MICXLN, MSTLY SMTH-GLO  
BRTL-MSVE, VYFNXLN IPS  
ANHY, NO VIS FLU

LS: DRKTN, DRKCRM, OFFWH  
IPS, PRDM VYFN-FNXLN,  
SM SMTH-GLOS-BRTL-  
MSVE, ANHY, NO VIS FLU

LS: DRKTN, DRKCRM, OFFWH  
IPS, PRDM VYFN-FNXLN,  
SM SMTH-GLOS-BRTL-  
MSVE, ANHY, NO VIS FLU

LS: DRKTN, DRKCRM, OFFWH  
IPS, PRDM VYFN-FNXLN,  
SM SMTH-GLOS-BRTL-  
MSVE, ANHY, NO VIS FLU

ANHY: OFFWH-CRM, CLR IPS,  
MSTLY SMTH-DLL-AMORPH  
BRTL, SM FN-VYFNXLN, SL  
CALC IPS

LS: DRKTN, DRKCRM, OFFWH  
IPS, PRDM VYFN-FNXLN,  
SM SMTH-GLOS-BRTL-  
MSVE, ANHY, NO VIS FLU

ANHY: OFFWH-CRM, CLR IPS,  
MSTLY SMTH-DLL-AMORPH  
BRTL, SM FN-VYFNXLN, SL  
CALC IPS

ANHY: OFFWH-CRM, CLR IPS,  
MSTLY SMTH-DLL-AMORPH  
BRTL, SM FN-VYFNXLN, SL  
CALC IPS

ANHY: OFFWH-CRM, CLR IPS,  
MSTLY SMTH-DLL-AMORPH  
BRTL, SM FN-VYFNXLN, SL  
CALC IPS

ANHY: OFFWH, CRM, MICXLN-  
MSVE, SMTH-GLOS-BRTL,  
SALT INCLUS

C1

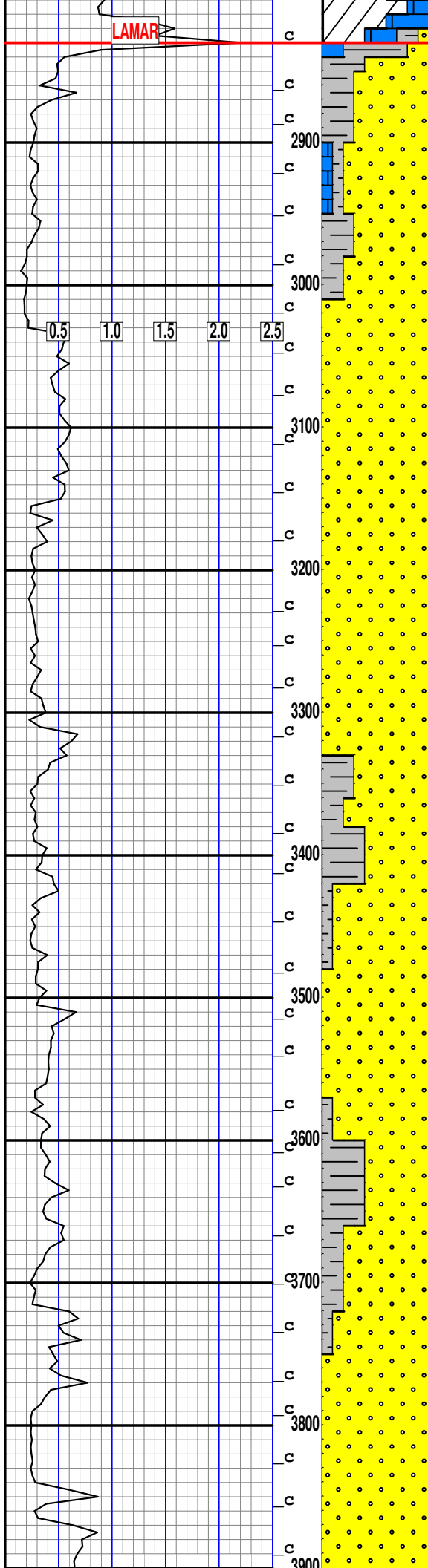
HW

C1

25 50 100 200 300 400 500

LAMAR

FNXLN, GRNSTN, ANHY INC  
IPS



SS: OFFFWH, LTGY, LTTN, LT  
CRM, VYFNGRN, SLT, MSTLY  
WLSRTD, WLCONSL, SBRND-  
SBANG, SBSPH-SBELG, CAL  
CARM, ARGL, TRCS LTYW  
FLU

SS: LTCRM, LTTN, LTGYBN, VY  
FNGRN, SLT, LSLY CONSOL  
-UNCONSL, SBRND-SB-ANG  
SBSPH-SBELNG, CALC CEM  
NO VIS FLU

SS: CLR, LTGY, GYBN, FRST  
VYFNGRN, WLSRTD, WLSRTD  
LSLY CONSOL, SBRND, SB-  
ANG, SBSPH, SBELNG, CALC  
CEM, ARGL IPS, NO VIS  
FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNGRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNGRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

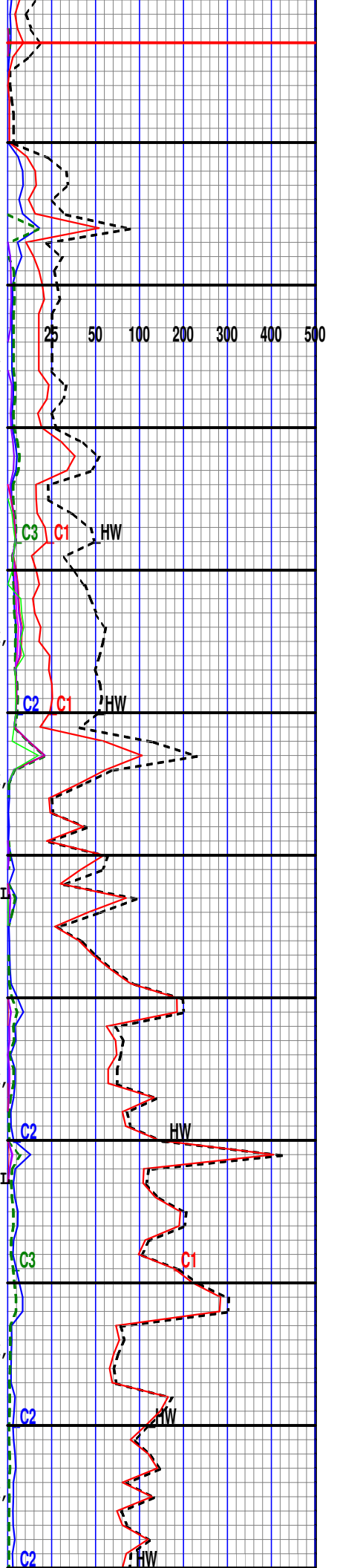
SH: MD-LTGY, LTGYBN, MOD-  
SFT, ETHY-DLL, SMTH, BRTD  
IP, SM VFYN GRTY TXT,  
SL CALC, SLTY, SBBLKY

SS: OFFFWH-LTGY, LTGYBN,  
VYFNGRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

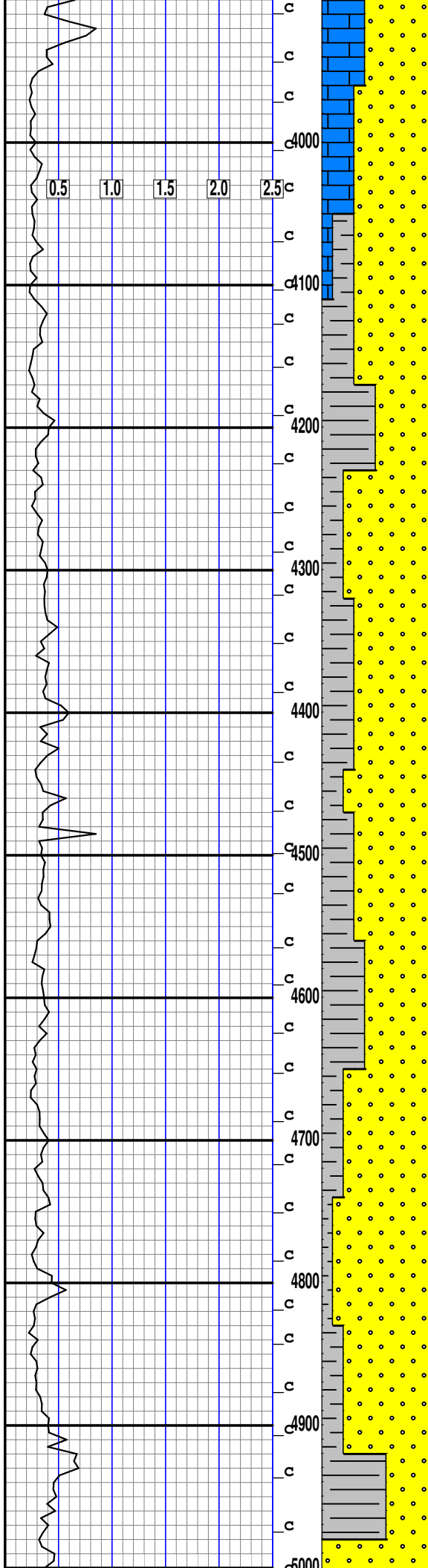
SH: MD-LTGY, LTGYBN, MOD-  
SFT, ETHY-DLL, SMTH, BRTD  
IP, SM VFYN GRTY TXT,  
SL CALC, SLTY, SBBLKY

SS: OFFFWH-LTGY, LTGYBN,  
VYFNGRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,

SS: OFFFWH-LTGY, LTGYBN,  
VYFNGRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU



2/22/17



LS: LTCRM, LTTN, MICXLN-  
SMTH-DLL, MSVE, BRTL  
IP, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SH: DK-MDGY, LTGYBN, MOD-  
SFT-SFT, ETHY-DLL, SMTH  
BRTL, GRTY TXT, SL CALC  
SLTY IP, SBBLKY

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

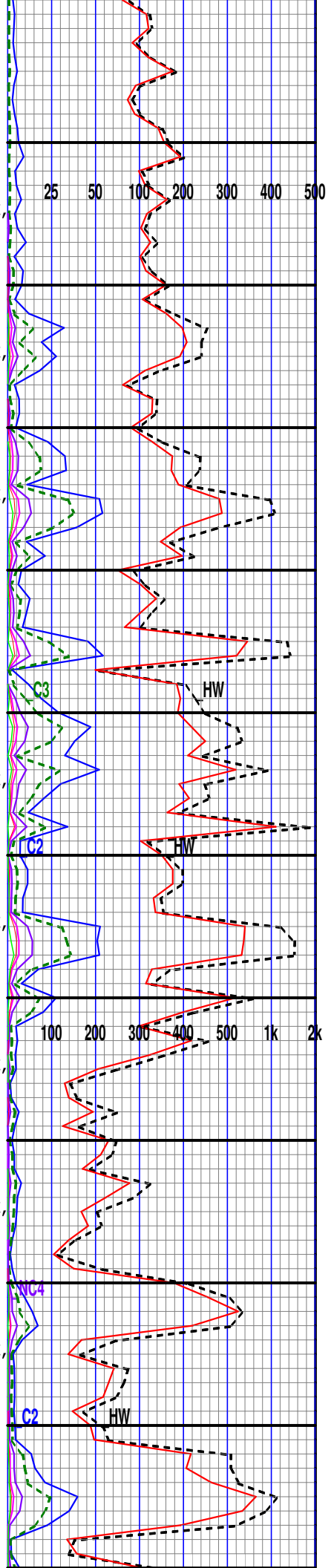
SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

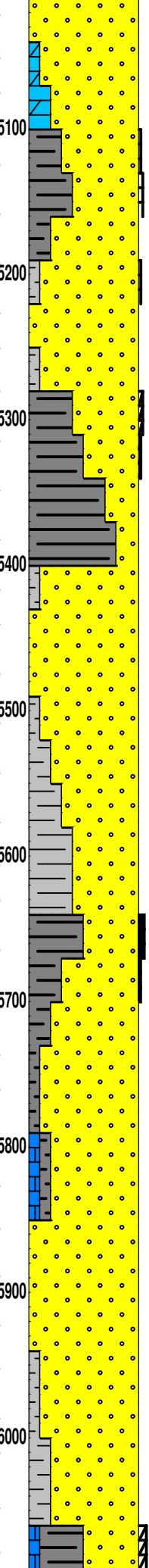
SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,  
SBSPH, SBELNG, CALC CEM,  
ARGL IPS, NO VIS FLU

SS: OFFFWH-LTGY, LTGYBN,  
VYFNCRN, WLSRTD, LSLY  
CONSOL, SBRND, SB-ANG,



0.5 1.0 1.5 2.0 2.5

0.5 1.0 1.5 2.0 2.5



ARGL, IPS, NO VIS FLU  
 SS: OFFWH, LTGY, LTGYBN,  
 VYFN, WLSRTD, LSLY,  
 CONSOL, SBRND, SB-ANG,  
 SBSPH, CALC CEM, ARGL  
 IPS, NO VIS FLU

SH: DRKGY-GYBN, MODSFT-  
 MODFRM, ETHY-DLL, VYFN  
 GRTY TXT, CARB, SL, CALC  
 IPS, SBBLKY

SS: OFFWH, CLR, LTGY, VYFN  
 GRN-SLT, WLSRTD, MODWL-  
 LSLY, CONSOL, SBRND-SB-  
 ANGLR, CALC CEM, OCC ARG  
 ABNDT BIT FLU, ABT 5%  
 MDYW-YWGRN FLU, PR SLW  
 BLDG CUT, BRYLW RESD  
 RNG

SS: OFFWH, LTGY, CRM, VYFN-  
 GRN, WLSRTD, WL-MODWL-  
 CONSOL, SBRND-SBANG, SB-  
 SPH-SBELNG, CALC CEM,  
 ARGL, ABT 5% FR MDYW  
 FLU, TRC SLW/DLYD BLDG  
 CUT, MD-DLLYD RESD RNG

SS: OFFWH, CRM, CLR, FSTD  
 IPS, FN, GRN, VYFN, IP  
 WLSRTD, LSLY-UNCONSOL,  
 SBANG-SBRND, SBSPH, CAL  
 IPS, NO VIS FLU

SS: CLR, LTGY, LTTN, FN-VY  
 FN, GRN, WLSRTD, MODWL  
 CONSOL, SBRND-SBSPH,  
 SBELNG, CALC CEM, ARGL  
 IPS, NO VIS FLU

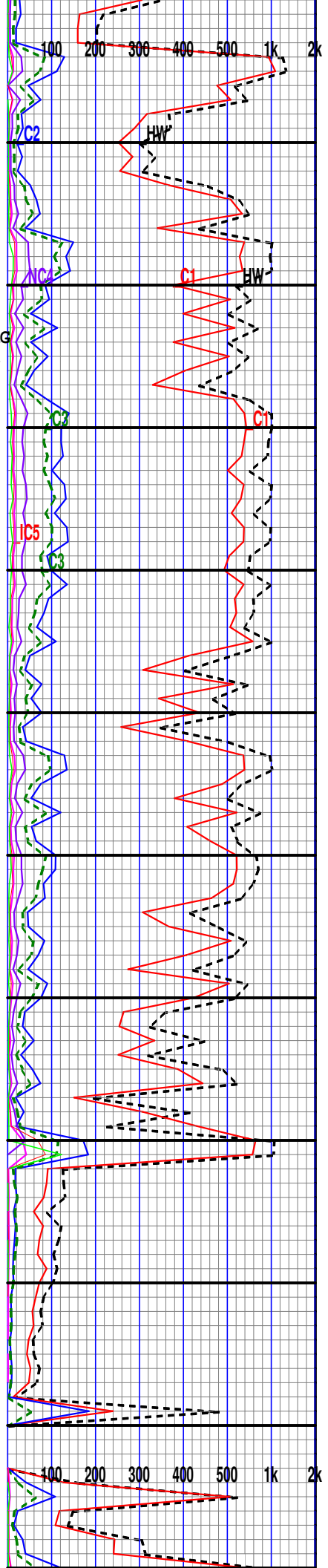
SH: MD-DRKGY, GYBN, IPS,  
 MODFRM-MODSFT, ETHY-DL  
 VYFN, GRTY TXT, SLTY,  
 SL, CALC IPS, CARB IPS,  
 SBBLKY

SH: DKYBN-BLK, MODFRM, ETH  
 DLL, SMTH, BRTL, CARB, SL  
 CALC IPS, SBBLKY

SS: LTGY, CLR, FRST IPS,  
 VYFN-FN, GRN, MODWLSRTD  
 MODWLCONSOL, SBRND-SB  
 ANGLR, SBSPH, CALC CEM  
 ABNDT BIT FLR, NO VIS  
 FLU

SS: LTGY, CLR, FRST IPS,  
 VYFN-FN, GRN, MODWLSRTD  
 MODWLCONSOL, SBRND-SB  
 ANGLR, SBSPH, CALC CEM  
 ABNDT BIT FLR, NO VIS

SH: DRKGY-GYBN, MODSFT-  
 MODFRM, ETHY-DLL, VYFN  
 GRTY TXT, SL, CALC, CARB  
 IPS, SBBLKY



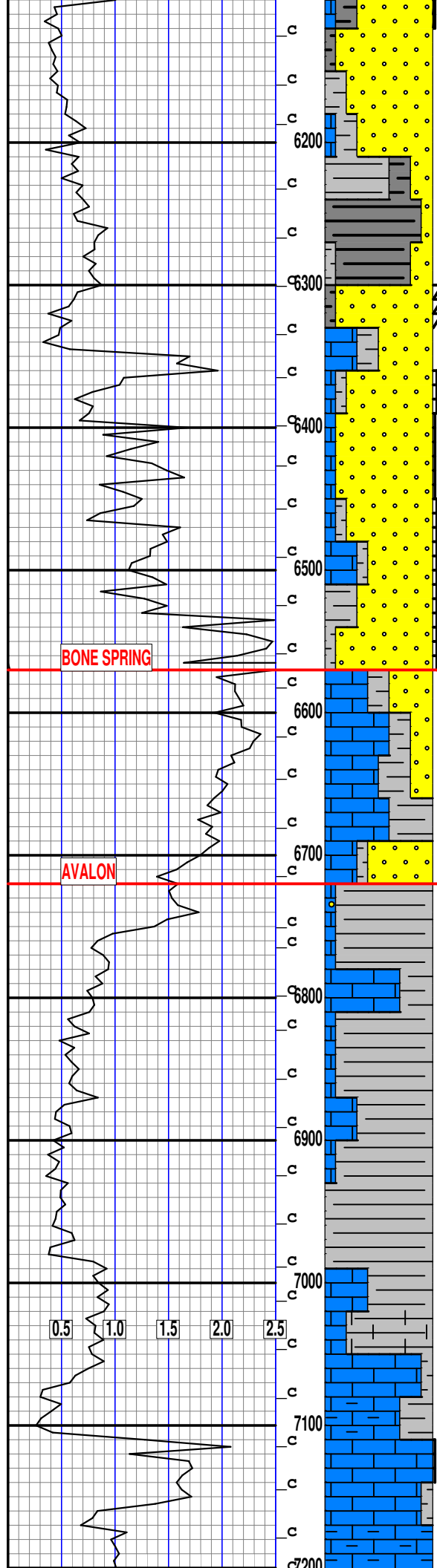
2/23/17

2/24/17



2/27/17

2/28/17



SH:DKBN-GYBN-BLK, MODSFT  
 -MODFRM, ETHY-DLL, VYFN  
 GRTY TXT, SM SMTH-BRTL  
 CARB, SL CALC IPS, SB-  
 BLKY

SH:MDGY, GYBN, BLK IPS,  
 MODSFT-MODFRM, ETHY-DL  
 SMTH-BRTL, VYFNLY GRTY  
 IPS, SLTY, SL CALC, SM  
 CARB, TRCS PYRTC IPS,  
 SBBLKY

SS:LTGY, CLR, FRSTD IPS,  
 VYFN-FNGRN, WLSRTD, WL  
 -MODWLCONSL, SBRND-SB-  
 ANGLR, SBSPH-SBELNG,  
 CALC CEM-TRCS CALC  
 BIT FLR, ABT 25% FR BR  
 YW-YWGRN FLU, FR EST  
 STRMG CUT, BRYW RESD  
 RNG

SS:LTCRM-LTTN, CLR-FRSTD  
 IPS, FNGRN, VYFN, MOD  
 WLSRTD, WL-MODWLCONSL,  
 SBRND-SBANG, SBSPH-SB-  
 ELNG, CALC CEM, OCC CAL  
 BIT FLR, ABT 5% PR LTY  
 FLU, PR-TRC SLW BLDG  
 CUT, PLYW RESD RNG

SS:LTGY, LTCRM, CLR, FRST  
 IPS, VYFN-FNGRN, WL-MOD  
 WLSRTD, MODWLCONSL, SB-  
 RND-SBANG, SBSPH-SBELN  
 CALC CEM, SM CALC CEM,  
 ABT 10% PR PLYW FLU,

LS:LTGY, LTTN, CRM, OFFWH  
 MICKLN-VYFNXLN, SMTH,  
 BRTTL-HRD-MSVE,

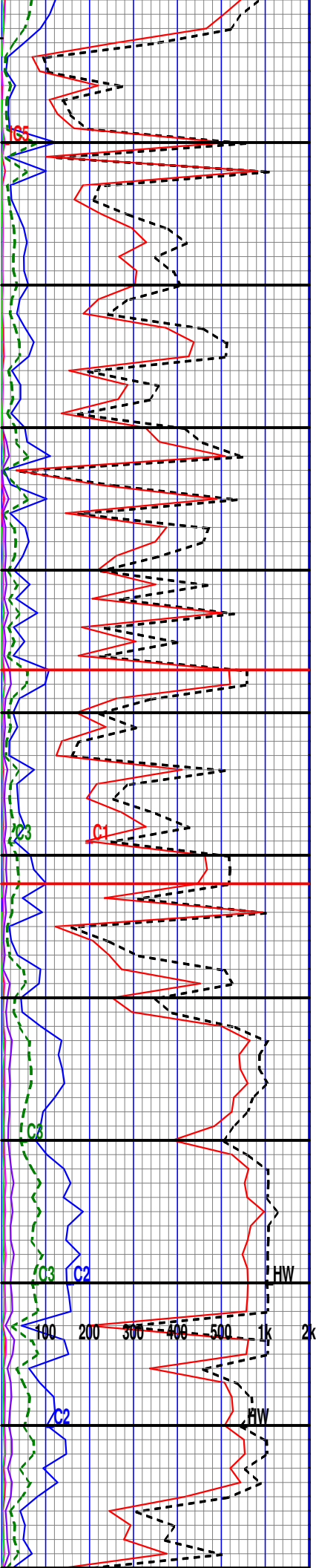
SS:LTGY, LTCRM, OFFWH, CLR  
 IPS, VYFN, SBRND-RND  
 SBSPH, CALC CEM-MTRY-  
 GRDG TO SNDY LS, NO

LS:LTGY, LTTN, CRM, OFFWH  
 MICKLN-VYFNXLN, SMTH,  
 BRTTL-HRD-MSVE,  
 SM SLTY TXT, MD-STN,  
 NO VIS LS FLU

SH:MDGY, GYBN, BLK IPS,  
 MODSFT-MODFRM, ETHY-DL,  
 SMTH-BRTL, GRTY IP,  
 SLTY, SL CALC, SL CARB,  
 TR PYR IP

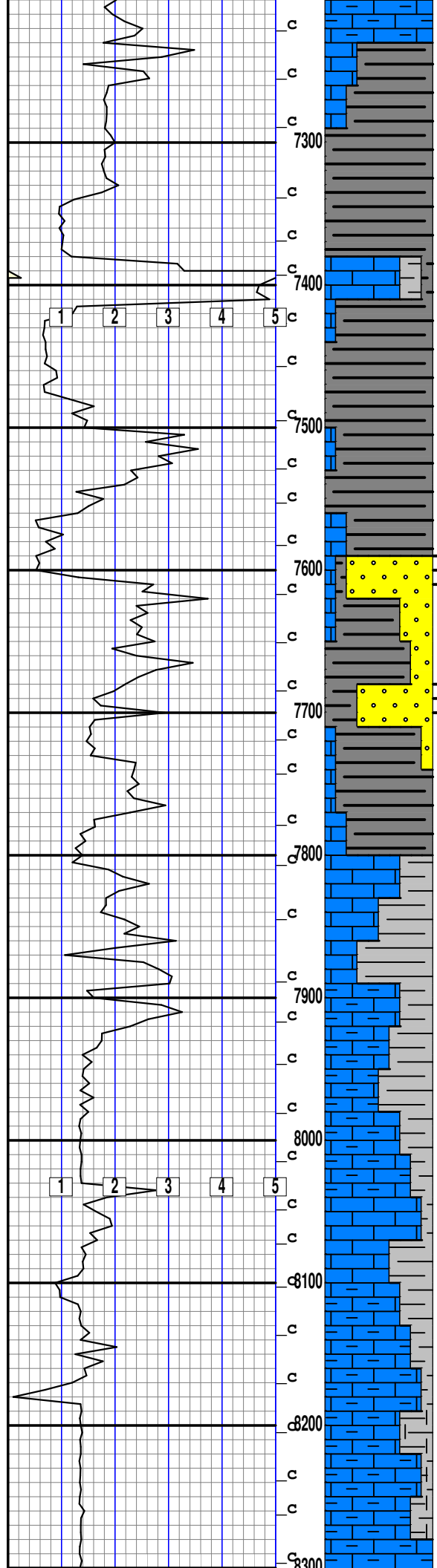
LS:LTGY, LTTN, CRM, OFFWH  
 MICKLN-VYFNXLN, SMTH,  
 BRTTL-HRD-MSVE,  
 SM SLTY TXT, MD-STN,

LS:LTGY-LTGYBN, MICKLN-  
 VYFNXLN, SMTH-GLOS-BRT  
 -MSVE, MRLY IPS, SM TRC  
 VYFNXLN-VYFNINTRXLN  
 IPS, WCKSTN-PCKSTN IPS  
 ABT 5% MDYW FLU, PR  
 SLW BLDG CUT, DLLYW



3/1/17

3/2/17



LS: LT-VYLTGY, LTGYBN, CRM  
 OFFWH, IPS, MTL, MICXLN  
 SMTH-DLL-MSVE-BRTL,  
 MDSTN-WCSTN, MRLY, ARGL  
 -HVLY ARGL, NO VIS FLU

SH: DRK-VYDRKGY, GYBN IP  
 MODFRM, ETHY-DLL, SMTH,  
 BRTL IPS, FLKY IPS, CRB  
 SL-MOD CALC, SBBLKY-SB  
 -PLTY

SH: DRKGY-BLK, DRKGYBN  
 MODFRM-MODSFT, ETHY-  
 DLL, SMTH, BRTL, CARB, SL  
 CALC IPS, SBBLKY

SH: BLK-DRKGYBN, LTGY IPS  
 MODFRM-MODSFT, ETHY-  
 DLL, SMTH, BRTL, CARB, SL  
 CALC IPS, SBBLKY

SS: CRM, LTTN, TAN, VLTBRN,  
 VLTGRY, LTGRY VF-F GRN,  
 MOD WL CONS, CALC/SILIC  
 MTRX, MOD-P SRTD, SBANG-  
 SBRNDD, LIMEY, 50%-60%

SS: CRM, LTTN, TAN, VLTBRN,  
 VLTGRY, LTGRY VF-F GRN,  
 MOD WL CONS, CALC/SILIC

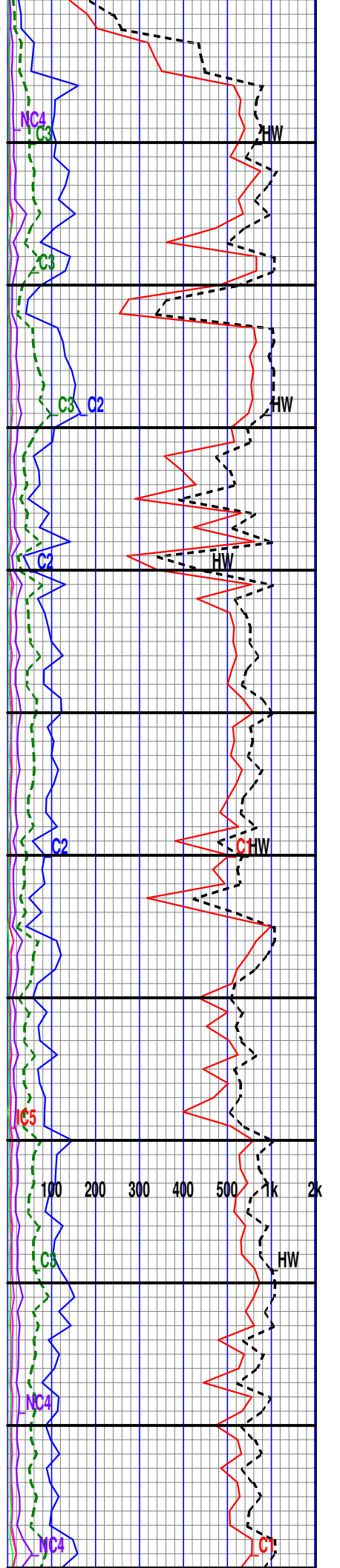
LS: LTGY, LTBN, OFFWH, MTL  
 MICXLN, SMTH-DLL, MSVE,  
 MRLY IPS, ARGL, BRTL IP  
 NO VIS FLU

LS: DKGY, BRN, LTGY, LTBRN,  
 OFFWH, MTL, MICTC,  
 AMOR, FRM-HD, ANHED IP,  
 MICXLN, SMTH-DLL, MSVE,

SH: MDGY, MODFRM-FRM, EHTY  
 DLL, SMTH, CALC-LMY,  
 BLKY

LS: LTGY, LTGYBN, OFFWH,  
 MTL, MICXLN, MCRT, BRTL  
 MRLY IPS, ARGL, NO VIS  
 FLU

SH: MD-LTGY, MODFRM-FRM,  
 ETHY-DLL, SMTH, CALC-  
 LMY, CARB IPS, TRCS PYR  
 BLKY



NC3

C3

C3

C2

C2

C2

C2

IC5

C3

NC4

NC4

HW

HW

HW

CHW

HW

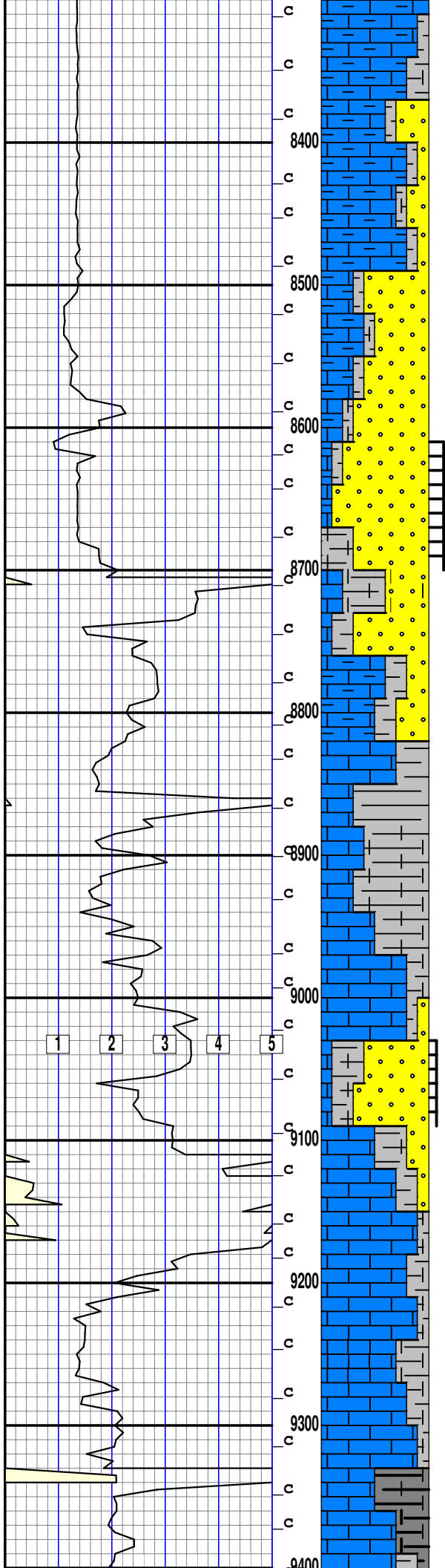
C

100 200 300 400 500 1k 2k

3/3/17

3/4/17

3/5/17



LS: LTGY-GYBN, OFFWH, CRM  
 MTLN, MICXLN, MCRTC, SMT  
 DLL-MSVE, BRTL, ARL, NO VIS FLU

LS: LTGY-GYBN, OFFWH, CRM  
 MTLN, MICXLN, MCRTC, SMT  
 DLL-MSVE, BRTL, ARL, NO VIS FLU

SS: CRM, LTTN, TAN, VLTBRN,  
 OFFWHT, VF-F GRN, MOD  
 WL CONS, CALC/SILIC  
 MTRX, MOD WL SRTD, RNDD-  
 SBRND, V LMY, NO VIS FLU

SS: CRM, LTTN, TAN, VLTBRN,  
 OFFWHT, VF-F GRN, MOD  
 WL CONS, CALC/SILIC  
 MTRX, MOD WL SRTD, RNDD-  
 SBRND, V LMY, NO VIS FLU  
 DLL YLW/WHT CUT

SH: MD-DRKGY, GYBN, MODFRM  
 MODSFT, ETHY-DLL, VYFN  
 GRTY TXT-SLTY, CARB IP  
 SL CALC IPS, SBBLKY

SS: LTTN, LTGY, CRM, OFF  
 WH IPS VYFN, GRN, FNGRN  
 IPS, MSTLY WLSRTD, WL  
 CONS, SM CALC BIT FLR  
 CALC CEM, ARL, NO VIS  
 FLU

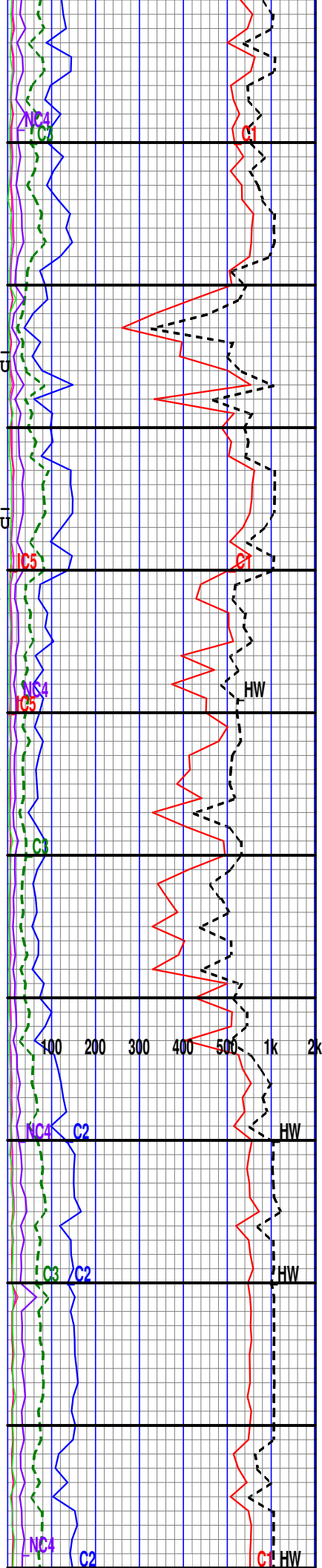
SH: DRKGY, MDGY, MODFRM-  
 FRM, ETHY-DLL, SMTH, SL  
 CALC, CARB IPS, SBBLKY-  
 BLKY

LS: LTGY, LTTN, OFFWH, IPS  
 VYFN-FNXLN, GRNLR, PCK  
 STN-GRNSTN, NO VIS FLU

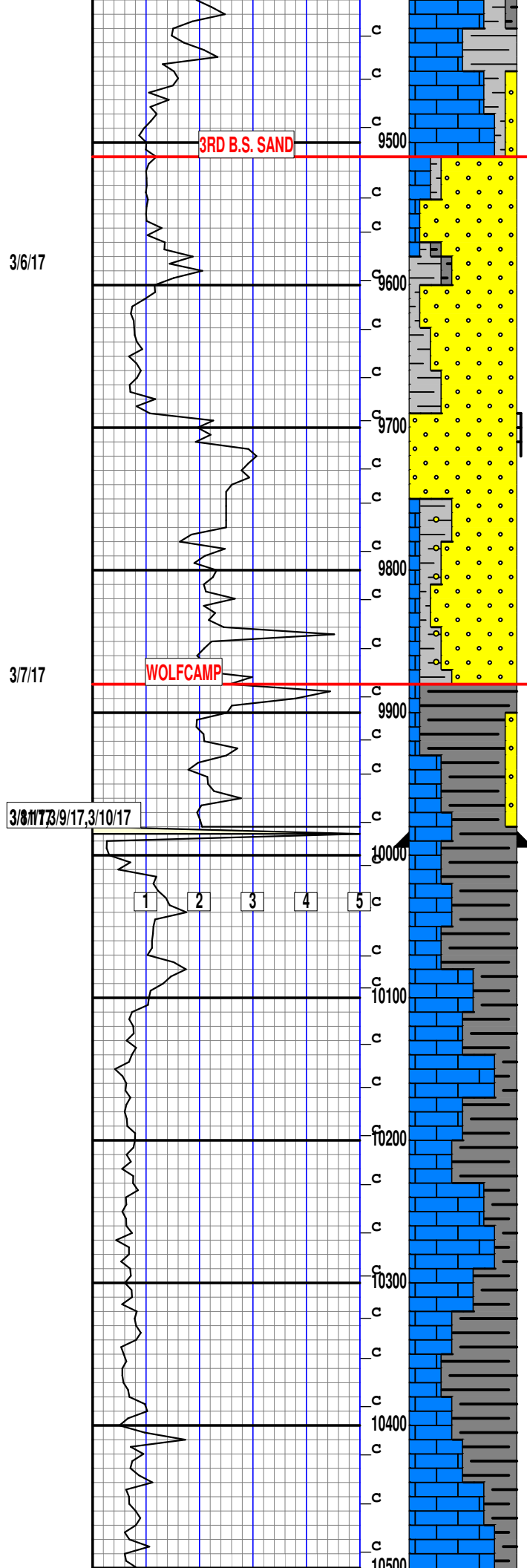
LS: LTGY, LTTN, OFFWH, IPS  
 VYFN-FNXLN, GRNLR, PCK  
 STN-GRNSTN, DLL-VIT,

LS: LTGY, LTTN, OFFWH, IPS  
 VYFN-FNXLN, GRNLR, PCK  
 STN-GRNSTN, DLL-VIT,  
 NO VIS FLU

LS: LTGY, LTTN, OFFWH, IPS  
 VYFN-FNXLN, GRNLR, PCK  
 STN-GRNSTN, DLL-VIT,







SH: DRK-MDGY, GYBN, MODSFT  
 MODFRM, ETHY-DLL, SMTH,  
 CRMBY, IPS, SBLKY

3RD B.S. SAND

SS: CLR, OFFWH, FRSTD, LT  
 CRM, LTTN, VYFN-FNGRN,  
 WLSRTD, WLCONSL-MODWL  
 CONSL, SBANG-ANGLR, SB-  
 SPH-SBELNG, CALC CEM,  
 OCC BIT FLR, OCC PYRTC  
 IPS, NO VIS FLU

SS: OFFWH, LTGY, CRM, VYFN-  
 FNGRN, WLSRTD, WL-MODWL  
 CONSL, SBRND-SBANG, SB-  
 SPH-SBELNG, CALC CEM,  
 ARGL IPS, NO VIS FLU

SS: OFFWH, CRM, LTGY, IPS,  
 VYFNFRN, SM FNGRN, MST  
 WLSRTD, MODWLCONSL, SB-  
 RND-SBANGLR, SBSPH-SB  
 ELNG, CALC CEM, OCC BIT  
 FLR, ABT 10% TRC LTYW  
 FLU, TRC SLW/DLYD BLDG  
 CRSH CUT

SS: CLR, CRM, OFFWH, LTGY,  
 VYFNFRN, SM FNGRN, MST  
 WLSRTD, MODWLCONSL, SB-  
 RND-SBANGLR, SBSPH-SB  
 ELNG, CALC CEM, OCC BIT

WOLFCAMP

SH: BLK, DKGY, MD-LTGY,  
 LTBN, MODSFT-SFT, ETHY-  
 DLL, SMTH, CRMBY, SL  
 CALC IPS, CARB, SBLKY

3/8/17, 3/9/17, 3/10/17

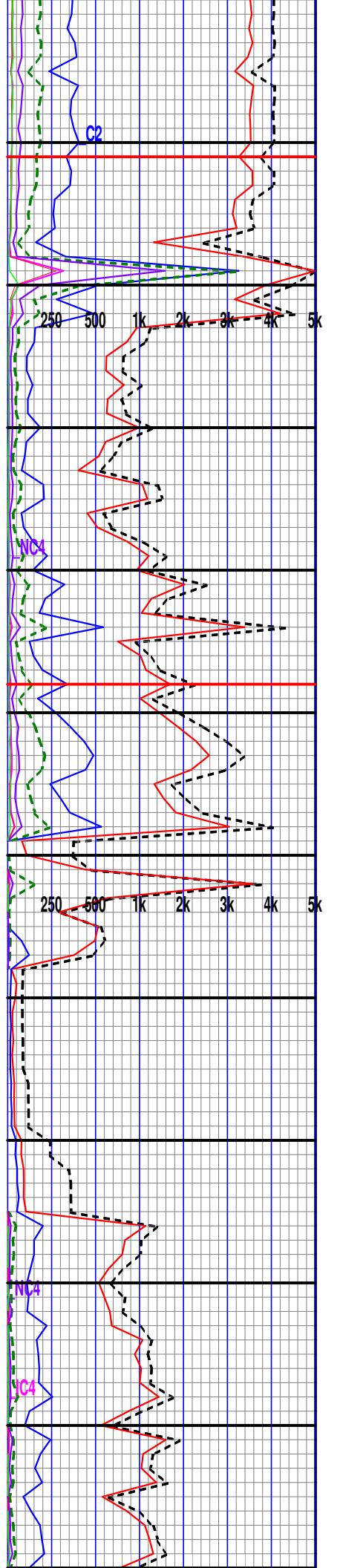
SH: BLK, DKGY, MD-LTGY,  
 LTBN, MODSFT-SFT, ETHY-  
 DLL, SMTH, CRMBY, SL  
 CALC IPS, CARB, SBLKY

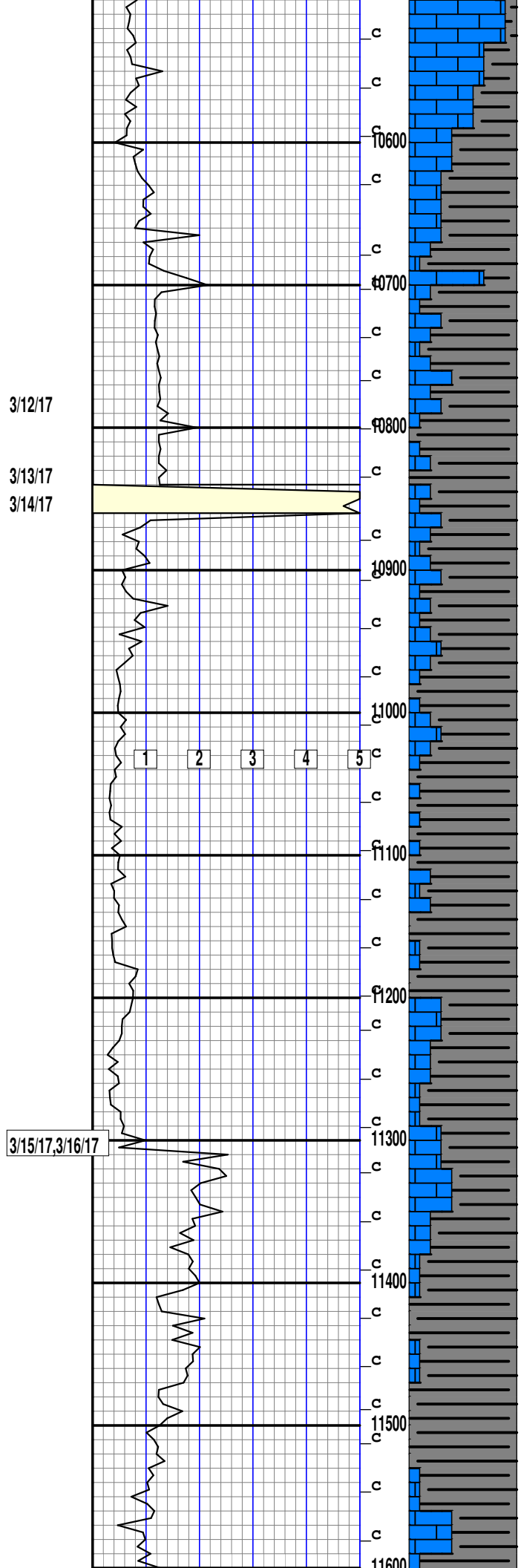
LS: DK GY, GYBN, GYTN, OCC  
 OFF WH, FRM TO HD, MDST,  
 FN TO MICKLN, NO VIS  
 FLUOR

SH: DK GY, GY, LT GY, GY,  
 GYBN, FRM TO OCC V FRM,  
 SUBRND TO SUBBLKY, CALC  
 NO VIS FLUOR

SH: DK GY, V DK GY, GYBN,  
 BN, OCC BLK FRM TO MOD  
 HD, SUBBLKY TO BLKY,  
 ERTHY IP, SLTY IP, CALC,  
 NO VIS FLUOR

LS: DK GY, GYBN, LT BN, OFF  
 WH, FRM TO HD, VF TO  
 MICKLN, ARG, TR FOSS, NO  
 VIS FLUOR





TO V FRM SUBBLKY TO  
BLKY, OCC SUBRND, SLTY IP  
CALC IP

SH:GY,DK GY,DK BN,GYBN,  
FRM TO HD SUBBLKY TO  
BLKY,ERTHY,TR SLTY,CALC

LS:DK GY,GY,BNGY,OFF WH  
FRM TO HD,ERTHY IP,VF  
TO MICXLN,ARG IP,NO  
VIS FLUOR

SH:V DK GY,DK GY,GYBN  
IP,OCC V DK GYBLK,ERTH  
IP,FRM TO MOD HD,

SH:V DK GY,DK GY,GYBN  
IP,OCC V DK GYBLK,ERTH  
IP,FRM TO MOD HD,  
SUBBLKY TO BLKY,TR  
SLTY,CALC

SH:V DK GY,DK GY,GYBN  
IP,OCC V DK GYBLK,ERTH  
IP,FRM TO MOD HD,  
SUBBLKY TO BLKY,TR  
SLTY,CALC

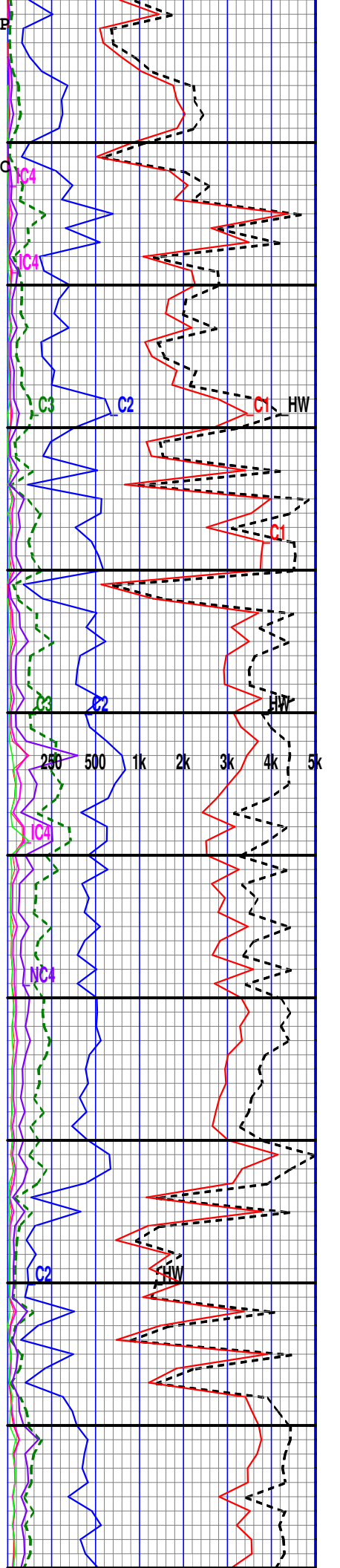
SH:V DK GY,DK GY,GYBN  
IP,OCC V DK GYBLK,ERTH  
IP,FRM TO MOD HD,  
SUBBLKY TO BLKY,TR  
SLTY,CALC

SH:V DK GY,DK GY,GYBN  
IP,OCC V DK GYBLK,ERTH  
IP,FRM TO MOD HD,  
SUBBLKY TO BLKY,TR  
SLTY,CALC

SH:V DK GY,DK GYBN,DK  
GY,FRM TO HD,SUBBLKY  
TO BLKY,PLTY,CALC

SH:DKGY,GY,LTGY,OCC  
BLK,FRM TO V FRM,  
SUBBLKY TO SUBRND,  
PLTY IP,CALC

SH:DKGY,GY,LTGY,OCC  
BLK,FRM TO V FRM,  
SUBBLKY TO SUBRND,  
PLTY IP,CALC

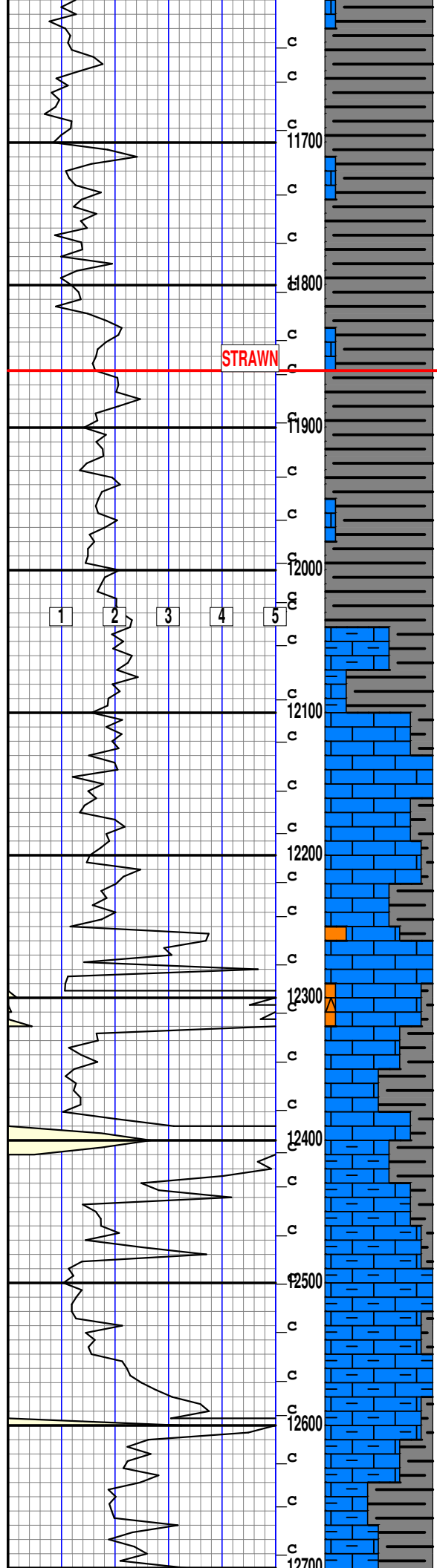


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SH:DKGY, GY, LTGY, OCC  
 BLK, FRM TO V FRM,  
 SUBBLKY TO SUBRND,  
 PLTY IP, CALC

SH:DKGY, GY, LTGY, OCC  
 BLK, FRM TO V FRM,

SH:DKGY, GY, LTGY, OCC  
 BLK, FRM TO V FRM,  
 SUBBLKY TO SUBRND,  
 PLTY IP, CALC

SH:DKGY, GY, LTGY, OCC  
 BLK, FRM TO V FRM,

SH:DKGY, GY, LTGY, OCC  
 BLK, FRM TO V FRM,  
 SUBBLKY TO SUBRND,  
 PLTY IP, CALC

LS:GY, DK GY, OFF WH, LT GY,  
 MOD FRM, TO OCC HD,  
 VF TO MICXLN, ARG, NO VIS  
 FLUOR

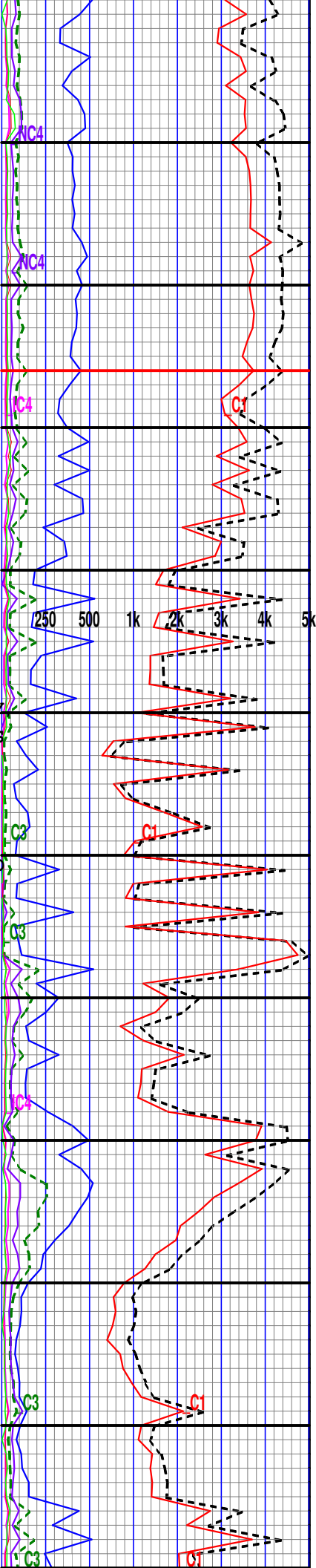
SH:DK GY, V DK GY, BLK,  
 FRM TO V FRM, SUBBLKY TO  
 SUBRND, SLTY IP, CALC

LS:GY, LT GY, OFF WH, GYTN  
 FRM TO V FRM, GRNULAR  
 IP, VF TO MICXLN, ARG  
 IP, HVY TR CHRT

LS:GY, LT GY, OFF WH, GYTN  
 FRM TO V FRM, GRNULAR  
 IP, VF TO MICXLN, ARG

LS:OFFWHT WHT CRM, LTN,  
 VLTGRY, MOTT IP, VFN-MIC  
 XLN, GRNLR, ERTHY/DLL,  
 ARG, NO VIS FLU

SH:VDKGRY, VDKBRN, DKGRY,  
 BLK, CARB, SLTY, CALC IP,  
 GRTTY, SM SMTH, DNS  
 ERTHY, DLL, WXY, SBBLKY



250 500 1k 2k 3k 4k 5k

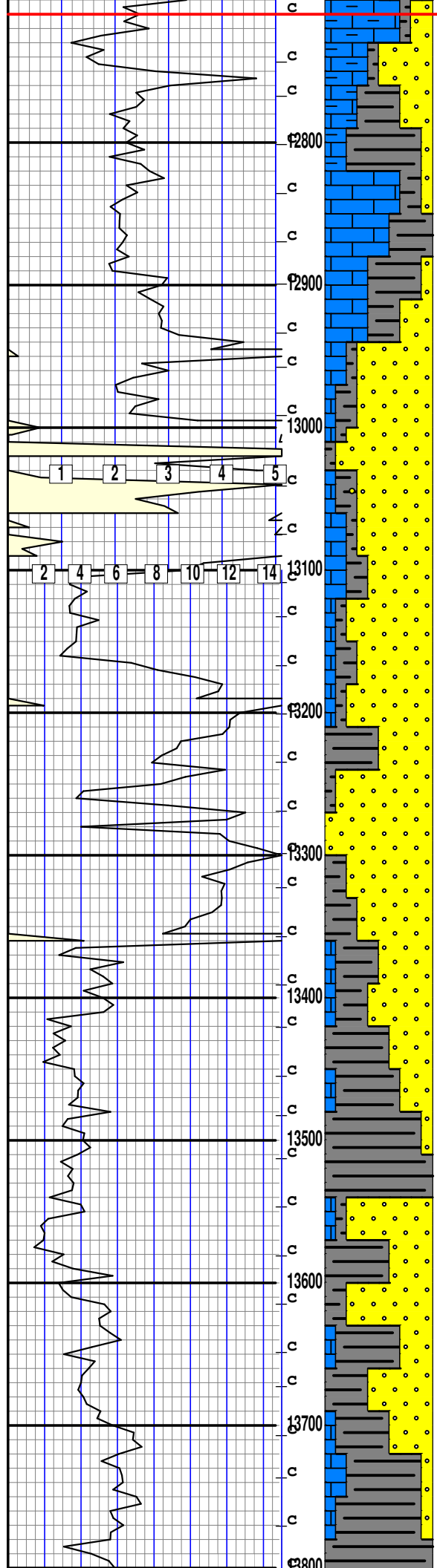
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SH: VDKGRY, VDKBRN, DKGRY,  
BLK, CARB, SLTY, CALC IP,  
GRTTY, SM SMTN, DNS,  
ERTHY, DLL, WXY, SBBLKY

SH: VDKGRY, VDKBRN, DKGRY,  
BLK, CARB, SLTY, CALC IP,  
GRTTY, SM SMTN, DNS,  
ERTHY, DLL, WXY, SBBLKY

SS: LT GY, OFF WH, CLR, MED  
TO FN GRN, WL TO MOD  
CONSL, SUBANG TO ANG, CALC  
CMT, NO VIS FLUOR

LS: WH, OFF WH, LT TN IP,  
FRM TO V FRM, VF TO  
MICXLN, NO VIS FLUOR

SH: V DK GY, DK GY, BLK,  
FRM TO MOD HD, SUBBLKY  
TO BLKY, CARB, CALC IP

SS: CLR, OFF WH, LT GY,  
UNCONSL TO OCC CONSL,  
VF TO FN GRN, ANG, NO  
VIS FLUOR

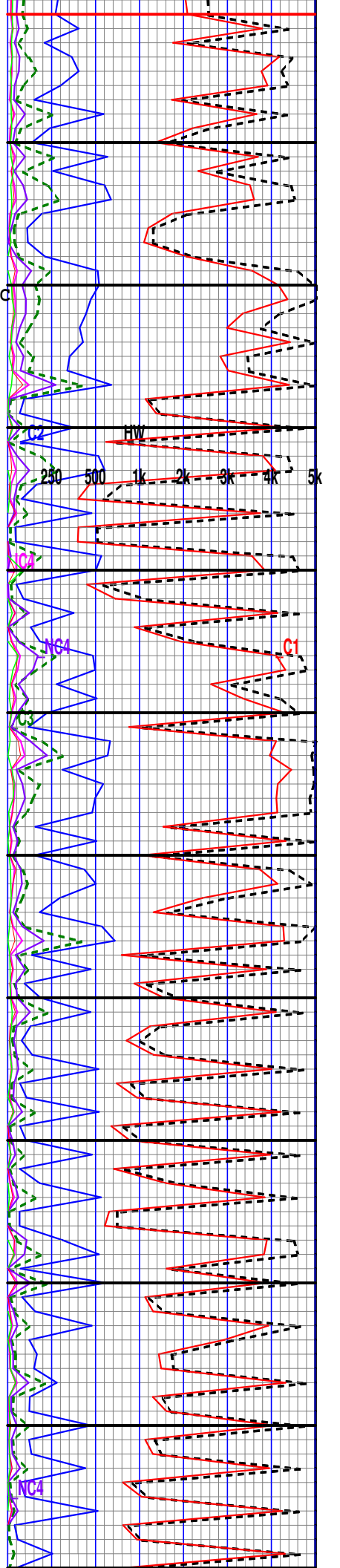
SH: V DK GY, DK GY, BLK, LT  
GY, SFT TO MOD HD,  
SUBBLKY TO BLKY TO  
SUBRND, CALC

SS: CLR, OFF WH, V LT GY,  
LT TN, FN TO MED TO VF  
GRN, PRED UNCONSL,  
CONSL IP, CALC CMT, NO  
VIS FLUOR

SH: V DK GY, DK GY, BLK, LT  
GY, SFT TO MOD HD,  
SUBBLKY TO BLKY TO  
SUBRND, CALC

SS: CLR, OFF WH, V LT GY,  
LT TN, FN TO MED TO VF  
GRN, PRED UNCONSL,  
CONSL IP, CALC CMT, NO  
VIS FLUOR

SH: DK GY, V DK GY, GYBN,  
BLK, FRM TO MOD HD,  
SUBBLKY TO BLKY, OCC  
SUBRND, SLTY IP, CALC IP



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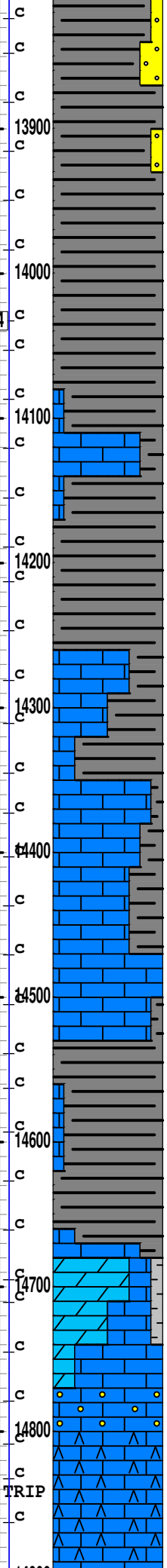
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4/1/17

4/2/17->4/9/17

2 4 6 8 10 12 14



SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

SH:GY, DK GY, LT GY, BLK, SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

SH:GY, DK GY, LT GY, BLK, SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

LS:DKGRY, GRY, BRN, DKBRN, VDKBRN, MOTT' IP, VFN-MIC XLN, ARG, NO VIS FLU

SH:GY, DK GY, LT GY, BLK, SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

SH:GY, DK GY, LT GY, BLK, SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

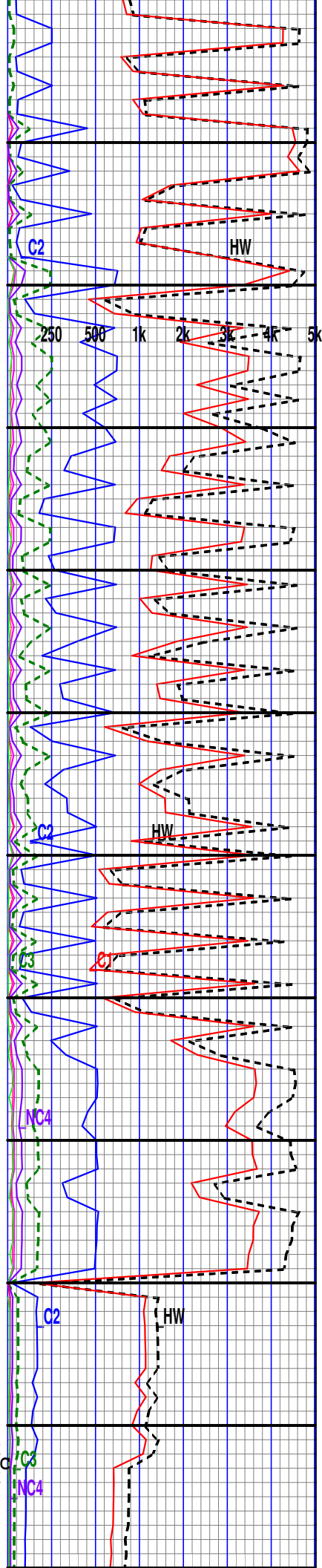
LS:DKGRY, GRY, BRN, DKBRN, VDKBRN, MOTT' IP, VFN-MIC XLN, ARG, NO VIS FLU  
SH:GY, DK GY, LT GY, BLK, SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

LS:DKGRY, GRY, BRN, DKBRN, VDKBRN, MOTT' IP, VFN-MIC XLN, ARG, NO VIS FLU

SH:GY, DK GY, LT GY, BLK, SFT TO FRM, SUBBLKY TO SUBRND, PLY, CALC IP

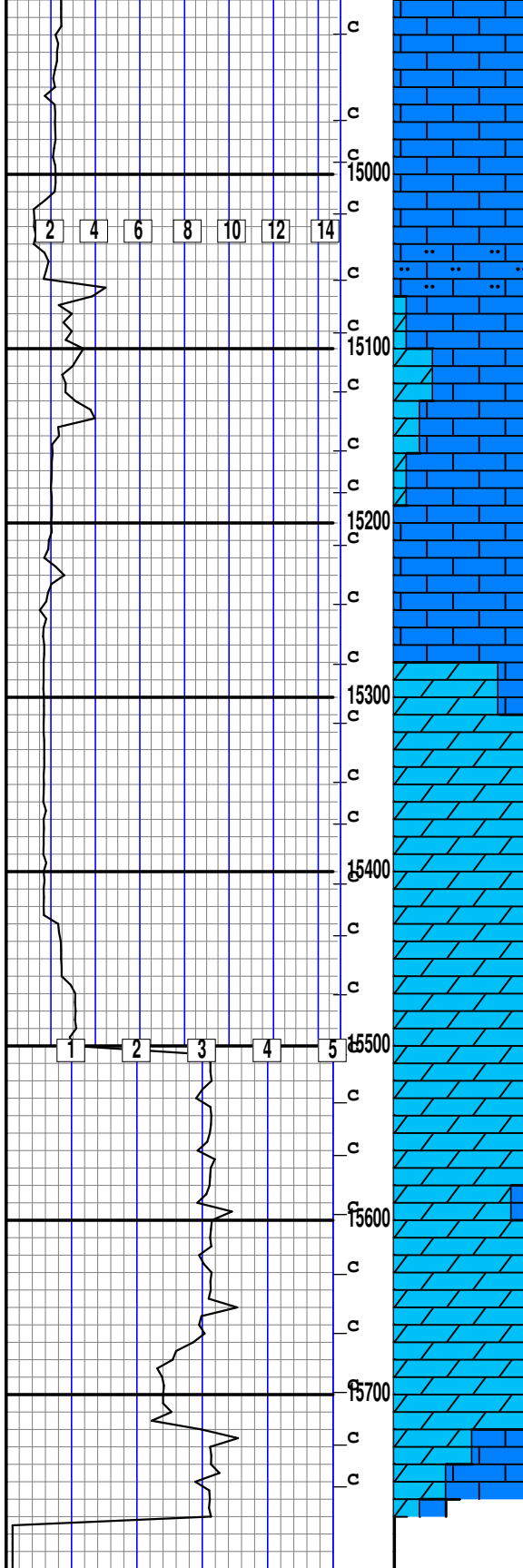
LS:WHT, OFFWHT, CRM, LTGRY, MD-HRD, VF-CRLN, CALC BRTL, DLL

LS:OFFWHT, LTGRY, GRY, CRM, MD-HRD, VF-MICR XLN, SUC, CALC, BRTL, SNDY, DLL, SM DOL, NO VIS FLU





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LS: LTGRY, GRY, DRK CRM, SM  
 WHT, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, SUC, SM DOL, SM  
 SH, NO VIS FLU

LS: LTGRY, GRY, DRK CRM, SM  
 WHT, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, SUC, SM DOL, SM  
 SH, NO VIS FLU

DL: OFFWHT, CRM, CLR, LT  
 GRY, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, AMOR, NO VIS FLU

LS: OFFWHT, CRM, LTGRY, SM  
 WHT, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, SLTY, SM DOL, NO

DOLO: WHT, OFFWHT, VLTGRY,  
 OPAQ-TRNSL, MIC-VF XLN,  
 ANHRL, AMOR, NACR, VIT, SM  
 WXY, DNS, RTHY

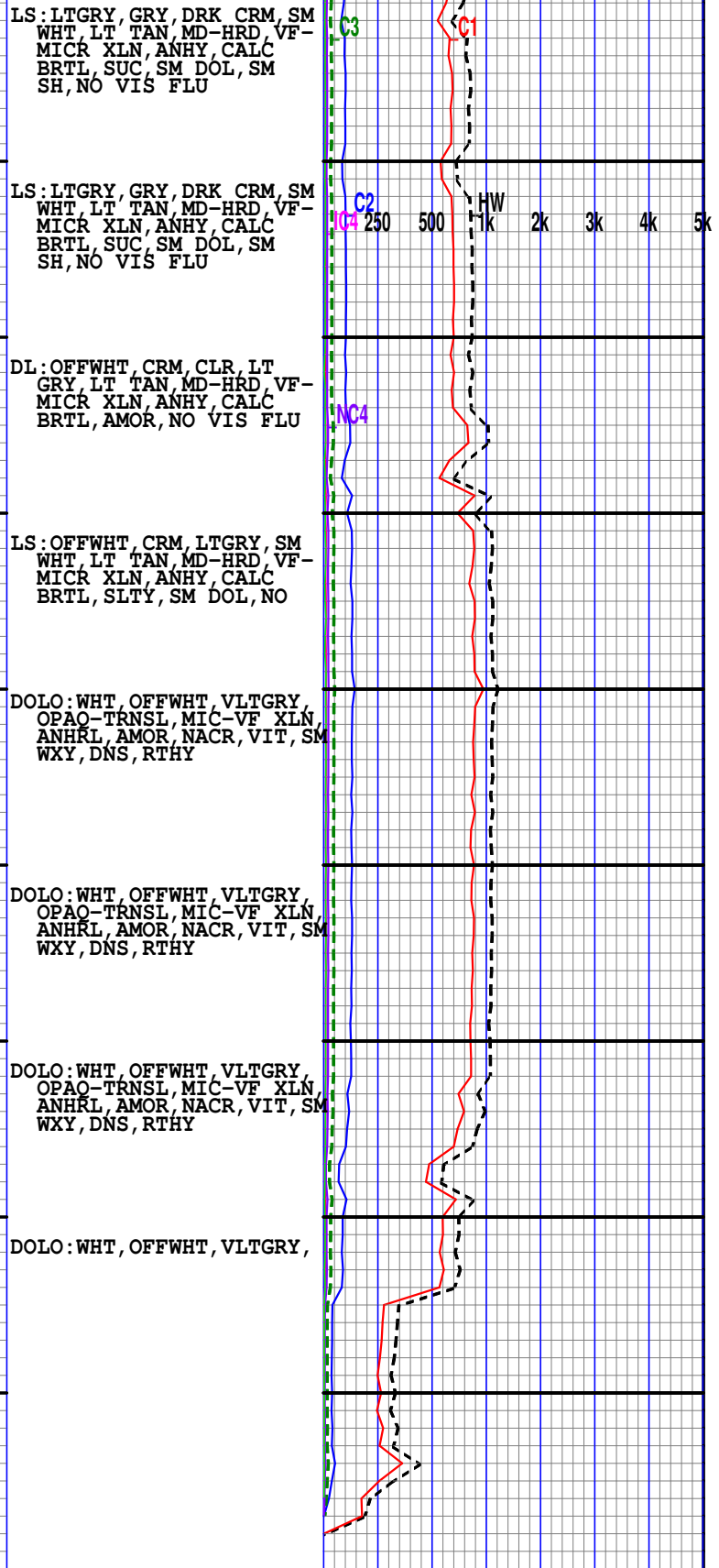
DOLO: WHT, OFFWHT, VLTGRY,  
 OPAQ-TRNSL, MIC-VF XLN,  
 ANHRL, AMOR, NACR, VIT, SM  
 WXY, DNS, RTHY

DOLO: WHT, OFFWHT, VLTGRY,  
 OPAQ-TRNSL, MIC-VF XLN,  
 ANHRL, AMOR, NACR, VIT, SM  
 WXY, DNS, RTHY

DOLO: WHT, OFFWHT, VLTGRY,

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4/12/17



LS: LTGRY, GRY, DRK CRM, SM  
 WHT, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, SUC, SM DOL, SM  
 SH, NO VIS FLU

LS: LTGRY, GRY, DRK CRM, SM  
 WHT, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, SUC, SM DOL, SM  
 SH, NO VIS FLU

DL: OFFWHT, CRM, CLR, LT  
 GRY, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, AMOR, NO VIS FLU

LS: OFFWHT, CRM, LTGRY, SM  
 WHT, LT TAN, MD-HRD, VF-  
 MICR XLN, ANHY, CALC  
 BRTL, SLTY, SM DOL, NO

DOLO: WHT, OFFWHT, VLTGRY,  
 OPAQ-TRNSL, MIC-VF XLN,  
 ANHRL, AMOR, NACR, VIT, SM  
 WXY, DNS, RTHY

DOLO: WHT, OFFWHT, VLTGRY,  
 OPAQ-TRNSL, MIC-VF XLN,  
 ANHRL, AMOR, NACR, VIT, SM  
 WXY, DNS, RTHY

DOLO: WHT, OFFWHT, VLTGRY,  
 OPAQ-TRNSL, MIC-VF XLN,  
 ANHRL, AMOR, NACR, VIT, SM  
 WXY, DNS, RTHY

DOLO: WHT, OFFWHT, VLTGRY,