



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

Well Name: KGS Patterson # 5-25  
Well Id:  
Location: Sec 25 T22S R38W, Kearny County, Kansas  
License Number: 15-093-21979-00  
Spud Date: March 07, 2020  
Surface Coordinates: 100' FSL & 860' FEL / SE SW SE SE

Region: Patterson  
Drilling Completed:

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 3317' K.B. Elevation (ft): 3329'  
Logged Interval (ft): 3600' To: Total Depth (ft):  
Formation: Morrow, Viola, Arbuckle, Granite Wash  
Type of Drilling Fluid: Natural Chemical

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#### OPERATOR

Company: BEREXCO LLC  
Address: 2020 N. BRAMBLEWOOD  
WICHITA, KANSAS 67206  
CO. ENG: Mr. Dana Wreath

#### GEOLOGIST

Name: Edwin H. Grieves/Tim Hedrick  
Company: GRIEVES AND CO.  
Address: PO Box 3125  
Edmond, Oklahoma, 74083-3125  
Cell: 405-826-9027/Cell:580-754-0062

#### CORE #1

Contractor: DEVILBLISS CORING  
Core #: 1  
Formation: CHEROKEE  
Core Interval: From: 4616 To: 4676 Cut: 60'  
Recovered: 60'  
Bit type: SHORT C240 /SERIAL H463 IN AT 4615'  
Size: 7 7/8'  
Coring Time: 14:47

## CORING DATA

**CORE #2 4676' TO 4736' - CUT 60', RECOVERED 60' CORE/ BIT 7 7/8' BIT, SHORT C240/SER.# H463-(CORE TIME 13 HR 40 MIN.)**

**CORE #3 4736' TO 4796' -CUT 60' -RECOVERED 60'/ BIT 7 7/8" ,SHORT CZ308, SER# F265 - (CORE TIME 6HRS 40 MIN.)**

**CORE #4 4880' TO 4997' CUT 17' -RECOVERED 17'/ BIT- 7 7/8" SHORT CZ 410, SER.#H422 IN @ 4880**

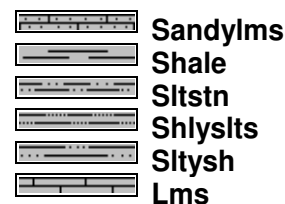
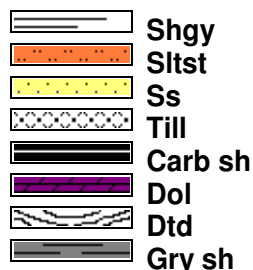
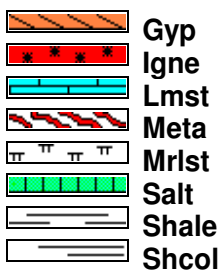
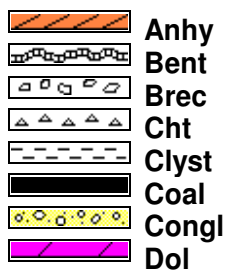
**CORE#5 4897 TO 4957' CUT 60' RECOVERED / BIT- 7 7/8" SHORT CZ 410, SER.#H422 IN @ 4897', OUT @ 4957'**

**CORE #6 5380' TO 5440' , CUT 60', RECOVERED 60' /BIT- 7 7/8" SHORT CZ 410, SER.#H422 IN @ 5380', OUT @ 5440'**

**CORE #7 5640 TO 5670' CUT 30', CORE JAMMED, RECOVERED 28.5' CORE, BIT-7 7/8 SHORT 22410, SER.QO46 IN @ 5640'**

**CORE#8 5670-5719' CUT 49' CORE, JAMMED, RECOVERED 49' /BIT 7 7/8" SHORT 22410 SER. QO46 IN AT 5640' OUT @ 5719'**

## ROCK TYPES



- 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
- Chlorite
- Dol
- Sand
- Sty

- FOSSIL**
- Algae
  - Amph
  - Belm
  - Bioclst
  - Brach
  - Bryozoa
  - Cephal
  - Coral
  - Crin
  - Echin
  - Fish
  - Foram

## ACCESSORIES

- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

- STRINGER**
- Anhy
  - Arg
  - Bent
  - Coal
  - Dol
  - Gyp
  - Ls
  - Mrst
  - Sltstrg
  - Ssstrg
  - Carbsh

- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

- TEXTURE**
- Boundst
  - Chalky
  - Cryxln
  - Earthy
  - Finexln
  - Grainst
  - Lithogr
  - Microxln
  - Mudst
  - Packst
  - Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

Angular

OIL SHOWS

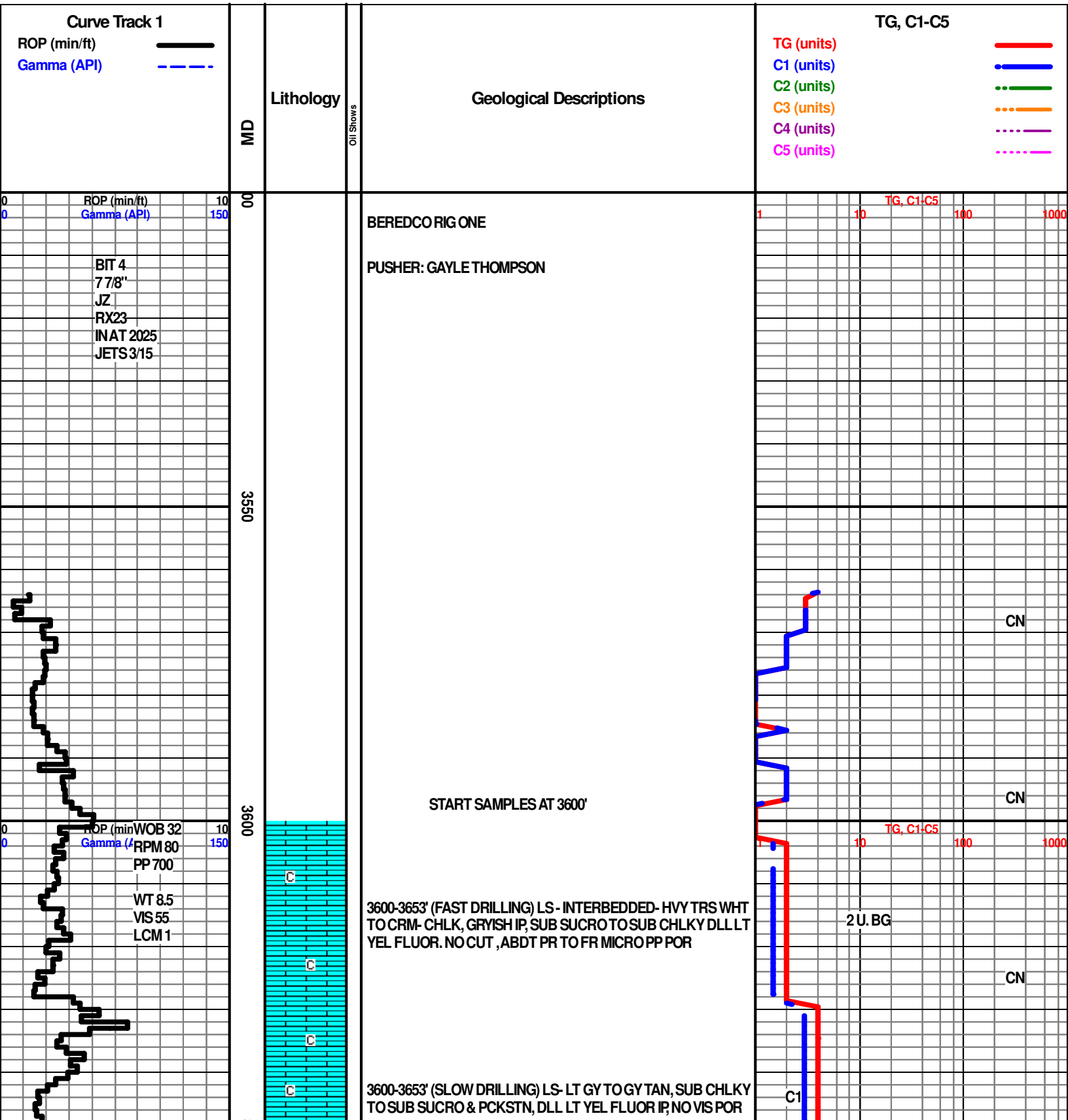
- Even
- Spotted
- Ques
- Dead
- Gas show

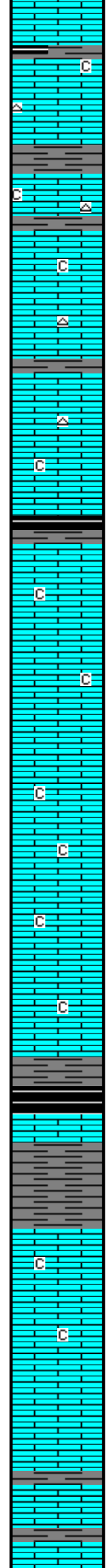
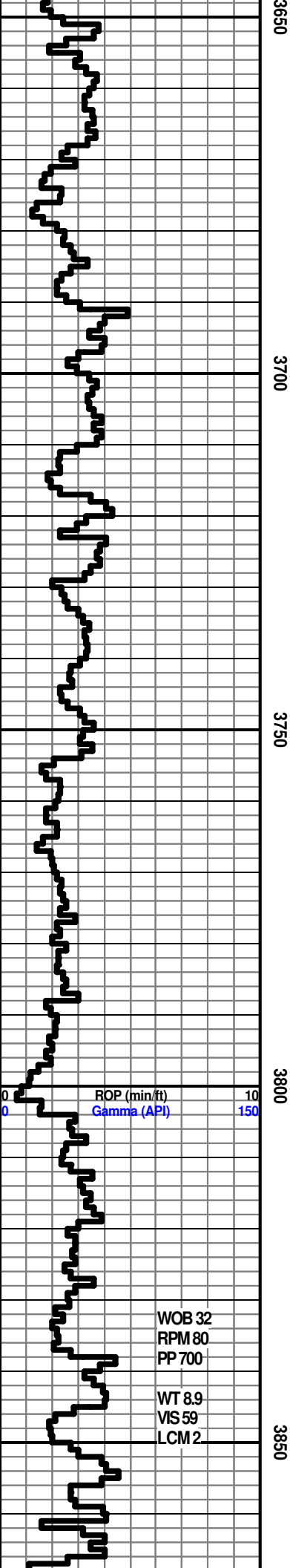
INTERVALS

- Core
- Dst
- Dst

EVENTS

- Rft
- Sidewall





3653-3655' SH- V/DK GRY TO BLK CARB

3655'-3720' INTERBEDDED LS SIMILAR RO 3600-3653' W/ SLI TRS CHERT WHTISH GRY TO OPQUE

3720-3723' SH V/ DK GRY TO BLK SFT CARB

3723-3754' LS- INTERBEDDED LS SIMILAR TO 3600-3653'

3754-3798' LS- V/ TO EXTREMELY ABDT WHT TO CRM CHLK & LT GY TO TAN SUB SUCRO TO PCKSTN, DLL LT TO LT YEL FLUOR, NO CUT, ABDT PR FR GD TO TRS EXCEL MICRO PP & INTER-XLN POR, POR INCREASES W/ DEPTH

**B. HEEBNER 3804' - 475'**

SH- V/ DK GRY TO BLK CARB

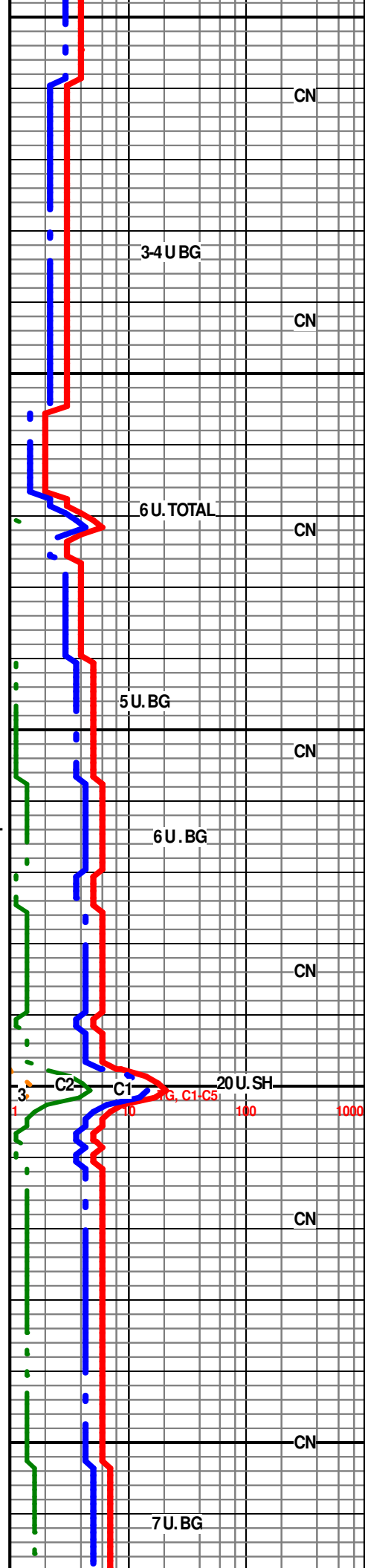
3804-3808' LS CRYPTO-XLN TRS SUB LITHO- DLL YRL FLUOR, NO VIS POR

3819-3838' LS- HVY TRS WHT TO CRM CHLK & CRM TO TAN, SUB CHLKY SUB SUCRO TO SUCRO, DLL LT TO BRITYEL FLUOR, NO CUT, TRS PR TO FR MICRO PP & INTER-XLN POR

3838-3845-LS- CRM LT TN GY IP, CRYPTO-VV/FN-XLN TRS S-LITHO, YEL FLUOR, NO VIS POR

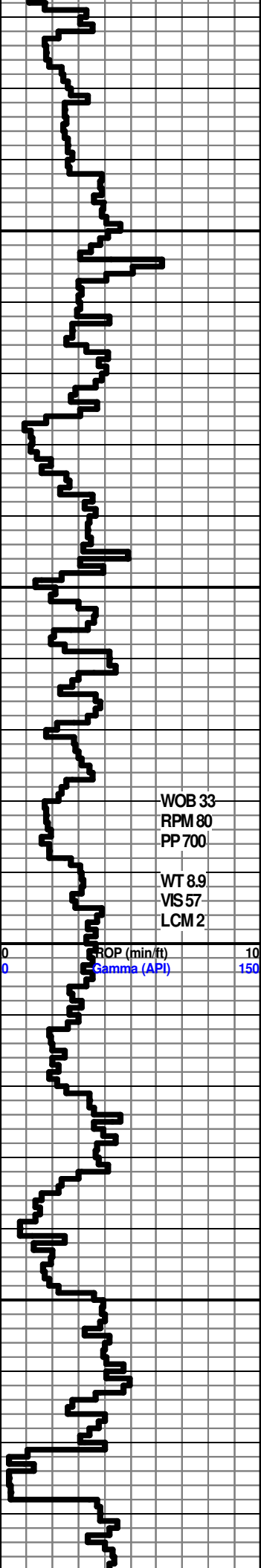
3845-3863' LS-LT GRY TO TN, SHLY IP, CRYPTO-XLN & PCKSTN, DLL LT YEL FLUOR, NO VIS POR

**LANSING FM - 3863' - 534'**



WOB 32  
RPM 80  
PP 700

WT 8.9  
VIS 59  
LCM 2



3900

3950

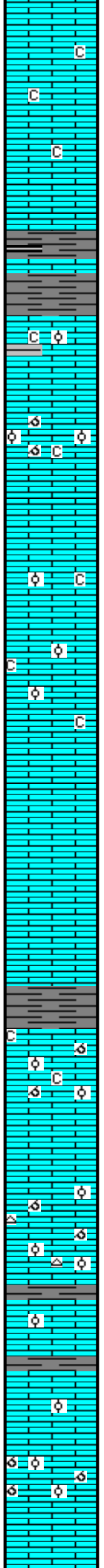
4000

4050

WOB 33  
RPM 80  
PP 700

WT 8.9  
VIS 57  
LCM 2

ROP (min/ft)  
Gamma (API)



3863'-3892' LS- LT GRY TO TN- CRYPTO-V/V/FN-XN TRS PCKSTN, DLL YEL FLUOR, NO VIS POR

3872'-3892' LS- HVY TRS WHT TO CRM-CHLK & TAN SUB CHLKY TO SUB SUCRO, DLL YEL FLUOR, NO CUT, TRS PR FR TRS GOOD MICRO PP POR

3892'-3901 LS-SIMILAR TO 3863' 3872' W/ HVY TRS SUB LITHO

3901-3904- SH- MED TO DK GRY CALC TO BLK CARB

3907-3912- SH- MED GRY W/ TRS RED SH

3912-3917 LS- LT TO MED GRY, SHLY IP, SUB SUCRO SUB CHLKY W/ SHLY OOLITES, LT YEL FLUOR, NO CUT NO VIS POR

3917-3926' LS- GRYSH TAN TO TAN- CRYPTO TO V/V/FN-XLN, DLL LT TOLT YEL FLUOR, NO CUT, NO VIS POR

3926-3937' LS- HVY TRS CHLK TO TAN SUB SUCRO SUB CHLKY, EXTRMY OOLITIC W/ TRS OOLICASTIC MTRX, DLL LT TO LT YEL FLUOR, NO CUT, TRS POOR OOLICASTIC TO PR PP POR

3937-3948' LS- LT GRY TO TAN, CRYPTO TO V/V/FN-XLN, SUB LITHO, DLL LT TO LT YEL FLUOR, NO CUT, NO VIS POR

3748- 3977( FASTER DRLLNG) LS- HVY TRS CHLK TO TAN SUB SUCRO SUB CHLKY, OOLITIC W/ TRS OOLICASTIC MTRX, DLL LT TO LT YEL FLUOR, NO CUT, TRS POOR OOLICASTIC TO PR PP POR

3948-3977 ( SLOWER DRLLNG) LS- LT GRY TO TAN, CRYPTO TO V/V/FN-XLN, SUB LITHO, DLL LT TO LT YEL FLUOR, NO CUT, NO VIS POR

3977-4006' LS- TAN GRY IP, CRYPTO-V/V/FN-XLN PCKSTN TO SLI SUCRO IP, TR SUB LITHO, DLL LT YEL FLUOR, NO CUT, NO VIS POR

4006-4012' SH- LT TO MED GRY-SLI TO V/ CALC W/ REDS

4012-4021-LS- WHT TO CRM CHLK, SUCRO SUB CHLKY, ABDT PHNTM OOLITIC TO OOLICASTIC MTRX, DLL LT TO LT YEL FLO, NO CUT, TRS OOLITIC, PP, MICRO PP POR, QUEST PERM

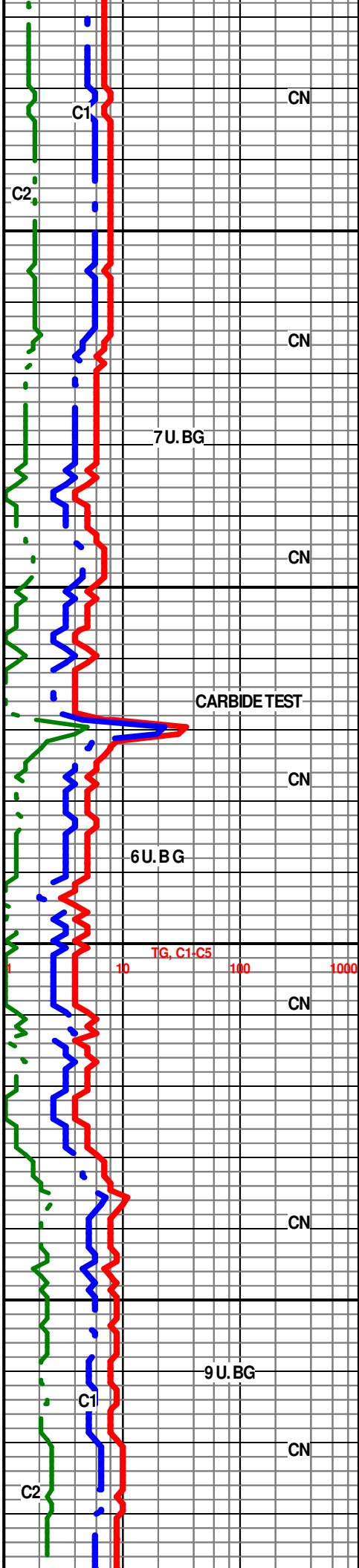
4021-4033 LS- TAN GRYISH IP, CRYPTO-V/V/FN-XLN, SUB - LITHO, LT YEL TO LT YEL FLUOR, NO CUT, NO VISPOR

4033-4049' LS WHT TO CRM CHLJK TAN GRYISH IP, PHANTM OOLITIC TO OOLITIC MTRX, SUB SUCRO DLL LT LT YEL FLUOR, NO CUT, PR FR TO GD MICRO PPPOR W/ TRS WHTISH GRYOPUE CHERT

4049-4071' LS LT GRY TO TAN, CRYPTO-V/V/FN-XLN, PCKSTN, TR GRY OOLITES, DLL LT TO YEL FLUOR, NO CUT, NO VIS POR

4071-4078 LS- TAN SUB SUCRO TO SUCRO MTRX, V/ OOLICASTIC TO V/ OOLITIC, DLL LT TO LT YEL FLUOR, NO CUT, PR FR TO GD OOLICASTIC POR

4078-4092' LS- LT GRY TO TAN, CRYPTO-V/V/FN-XLN TO SUB



C2

C2

C1

TG, C1-C5

C1

C2

7 U. BG

CARBIDE TEST

6 U. BG

9 U. BG

CN

CN

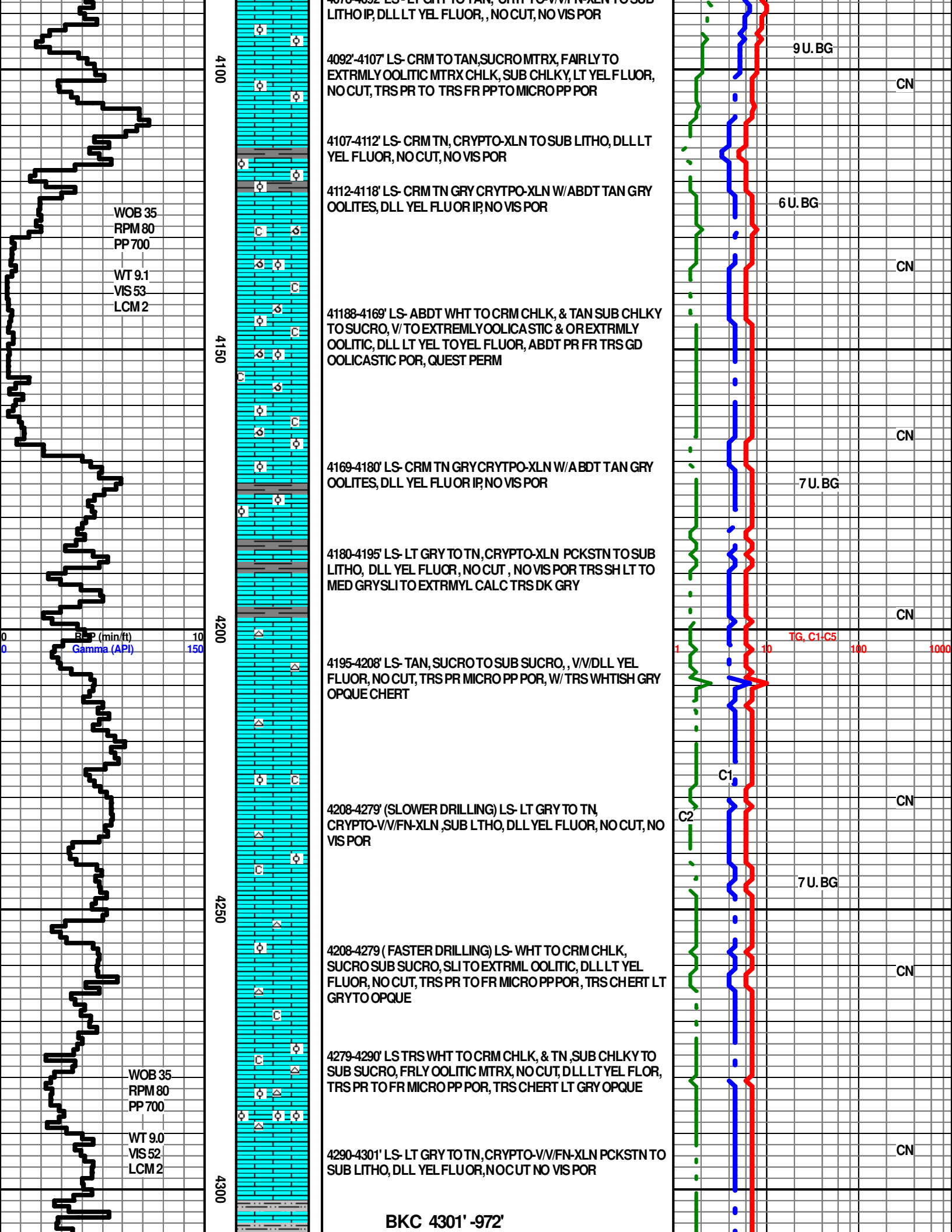
CN

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CN



4078-4092' LS- LT GRN TO TAN, CRM TO V/FN XLN TO SUB LITHO IP, DLL LT YEL FLUOR,, NO CUT, NO VIS POR

4092'-4107' LS- CRM TO TAN,SUCRO MTRX, FAIRLY TO EXTRMLY OOLITIC MTRX CHLK, SUB CHLKY, LT YEL FLUOR, NO CUT, TRS PR TO TRS FR PPTO MICRO PP POR

4107-4112' LS- CRM TN, CRYPTO-XLN TO SUB LITHO, DLL LT YEL FLUOR, NO CUT, NO VIS POR

4112-4118' LS- CRM TN GRY CRYPTO-XLN W/ABDT TAN GRY OOLITES, DLL YEL FLUOR IP, NO VIS POR

4118-4169' LS- ABDT WHT TO CRM CHLK, & TAN SUB CHLKY TO SUCRO, V/ TO EXTREMELY OOLITIC & OR EXTRMLY OOLITIC, DLL LT YEL TO YEL FLUOR, ABDT PR FR TRS GD OOLITIC POR, QUEST PERM

4169-4180' LS- CRM TN GRY CRYPTO-XLN W/ABDT TAN GRY OOLITES, DLL YEL FLUOR IP, NO VIS POR

4180-4195' LS- LT GRY TO TN, CRYPTO-XLN PCKSTN TO SUB LITHO, DLL YEL FLUOR, NO CUT, NO VIS POR TRS SH LT TO MED GRYS LI TO EXTRMYL CALC TRS DK GRY

4195-4208' LS- TAN, SUCRO TO SUB SUCRO, VV/DLL YEL FLUOR, NO CUT, TRS PR MICRO PP POR, W/ TRS WHTISH GRY OPQUE CHERT

4208-4279' (SLOWER DRILLING) LS- LT GRY TO TN, CRYPTO-V/FN-XLN, SUB LTHO, DLL YEL FLUOR, NO CUT, NO VIS POR

4208-4279' (FASTER DRILLING) LS- WHT TO CRM CHLK, SUCRO SUB SUCRO, SLI TO EXTRML OOLITIC, DLL LT YEL FLUOR, NO CUT, TRS PR TO FR MICRO PPPOR, TRS CHERT LT GRY TO OPQUE

4279-4290' LS TRS WHT TO CRM CHLK, & TN, SUB CHLKY TO SUB SUCRO, FRLY OOLITIC MTRX, NO CUT, DLL LT YEL FLOR, TRS PR TO FR MICRO PP POR, TRS CHERT LT GRY OPQUE

4290-4301' LS- LT GRY TO TN, CRYPTO-V/FN-XLN PCKSTN TO SUB LITHO, DLL YEL FLUOR, NO CUT NO VIS POR

BKC 4301' -972'

WOB 35  
RPM 80  
PP 700  
WT 9.1  
VIS 53  
LCM 2

WOB 35  
RPM 80  
PP 700  
WT 9.0  
VIS 52  
LCM 2

9 U. BG

CN

6 U. BG

CN

7 U. BG

CN

TG, C1-C5

1 10 100 1000

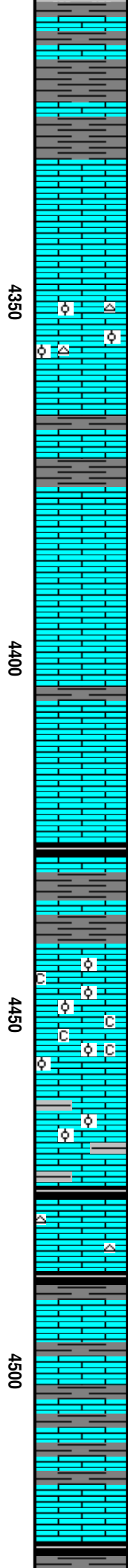
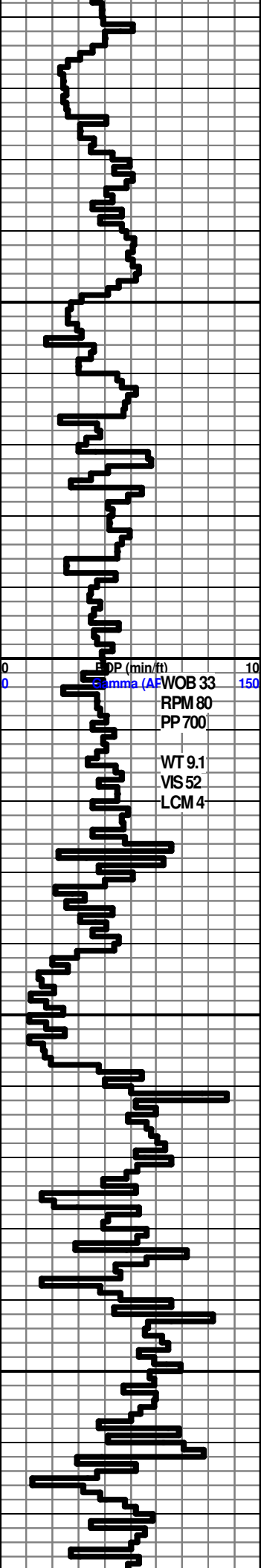
C1  
C2

CN

7 U. BG

CN

CN



4301-4329' LS-LT TO MED GRY, CRYPTO-V/V/FN-XLN S-CHLKY TO V/SHLY IP'S GRADING TO SH LT TO MED GRY, TR LT YEL FLO, NO CUT, NO VIS POR, TRS SILTST FN GRN SH FILLED

**MARMATON 4329' -1000'**

4329-4349' LS-LT GRY TO TN, CRYPTO- V/V/FN-XLN, TR PCKSTN, TR S-LITHO, DLL LT YEL FLUOR, NO CUT, NO VISPOR

4349-4360' LS- LT GRY TO TN,SUCRO TO S-SUCRO SLI TO V/ OOLITIC MTRX DLL YEL FLUOR, NO VIS POR, TRS CHERT TAN OPQUE

4360-4427 SH- MED TO V/DK GRY, CALC TO BLK CARB LOOKING

4360-4427' LS- LT TO MED GRY TO TN, CRYPTO-V/V/FN-XLN PCKSTN TO S-LITHO, TRS DLL YEL FLUOR. NO CUT, NO VIS POR

**PAWNEE 4428' -1099'**

4427'-4428' SH- V/DK GRY TO BLK CARB

4428'-4440' SH- MED TO V/DK GRY SLI TO V/CAL TO LS LT GRY TO TN CRYPTO-XLN PCKSTN TRS OOLITIC, TRS DLL YEL FLUOR, NO CUT, NO VIS POR

4440-4451' LS- A BDT WHT TO CRM CHLK W/LT GRY OOLITES IP, A BDT TAN OOLITES, SUB SUCRO TO SUB CHLKT MTRX, DLL LT YEL FLUOR, NO CUT, HVY TRS PR FRGD TO EXCEL MICRO PP POR

4457-4475' LS-LT GRY SLI TO FRLY SHLY CRYPTO-XLN PCKSTN, TR PHNTM OOLITES, DLL LT YEL FLUOR, NO CUT NO VIS POR

4475-4477 SH- V/DK GRY TO BLK CARB

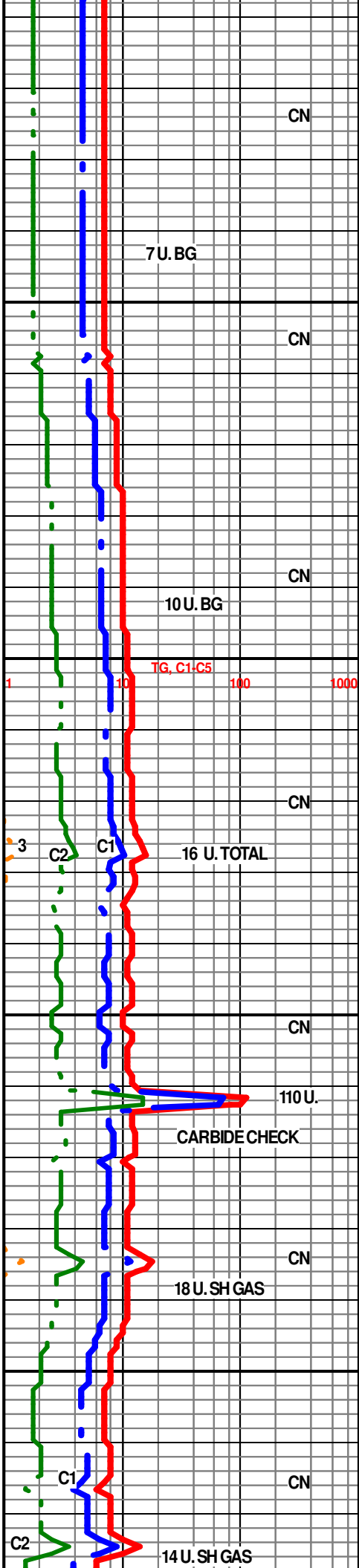
4477-4485' LS- SIMILAR TO 4457-4475, W/ TRS GRY CHERT

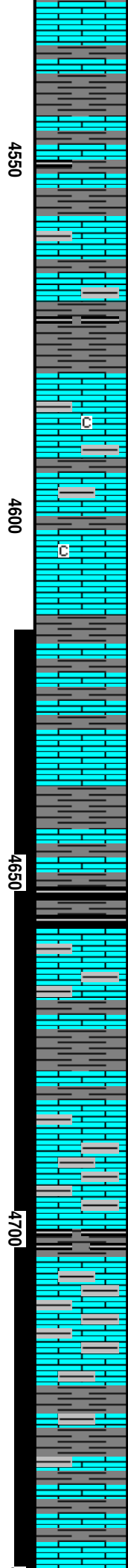
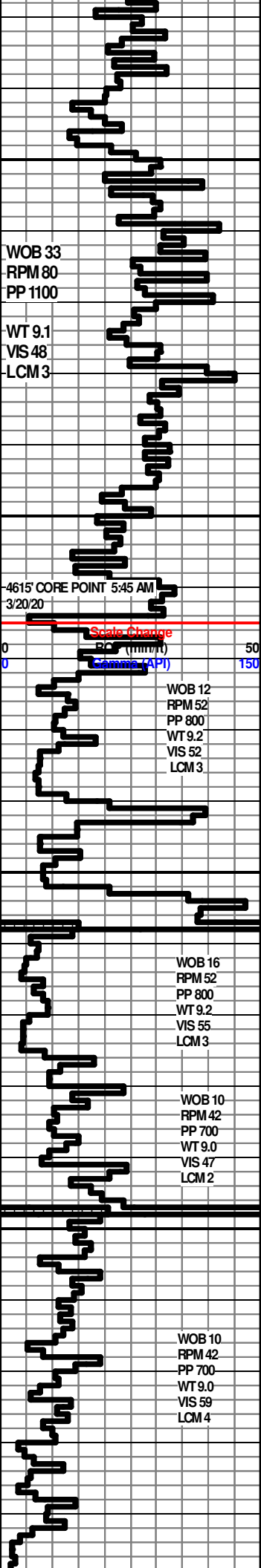
4585'-4590 SH- V/DK GRY TO BLK CARB

**CHEROKEE 4485' -1156'**

4490-4525 LS-LT TO MED GRY, SLI TO EXTRMY SHLY GRDING TO CALC SHALES LT TO MED GRY, SUB SUCRO TO PCKSTN, NO FLUOR TO TR DLL YEL FLUOR IP, NO CUT NO VIS SHOW

4525-4526' SH- V/DK GRY TO BLK CARB





4526' 4571'- LS- TN GRY IP, CRYPTO-XLN TRS SUB LITHO, PCKSTN, ABDT TO V/SHLY IP, INTERBEDDED SHALES & LIMES, NO CUT, NO VIS POR

4571-4578' SH- MED TO DK GRY TO BLK CARB

4578-4615' LS- TN GRYISH TAN, CRYPTO-V/V/FN-XLN TRS CHLK WHT, SUB SUCRO PCKSTN, V/SHLY IP'S, DLL YEL FLUOR IP, NO CUT, NO VIS POR

CFS/ SHORT TRIP/ CTCH/ TRIP OUT TO PICK UP CORE BARREL

START CORE #1 @ 4:30 AM 3/22/20, PLEASE NOTE SCALE CHANGE @ 4616' DRILL TIME 0-50 MINUTES

NOTE: NO SAMPLES IN TRAP BOX

4616-4676' INTERBEDDED LS & SHALES 1. (FASTER DRILLING) LS- GRYISH IP TN, CRYPTO-XLN V/V/FN-XLN PCKSTN SUB LITHO, DLL YEL FLUOR, NO CUT, NO VIS POR

SH-V/DK GRY TO BLK CARB

2. (SLOWER DRILLING) LS-LT TO MED GRY- SLI TO V/SHLY, CRYPTO-XLN SUB SUCRO NO FLUOR, NO CUT, NO VIS POR

COMPLETE CUTTING CORE #1 7:17 PM 3/22/20

RECOVERED 60' CORE

START CORE #2 @ 4676' AT 5:25 AM 3/23/2020

4676'-4734' (FAST DRILLING) LS-LT TOMED GRY, SLI TO EXTRMLY SHLY, CRYPTO-XLN PCKSTN, ABDT SH PARTINGS, NO FLUOR, NO CUT, NO VIS POR

4699-4701'- SH- MED TO DK GRY- TO BLK CARB

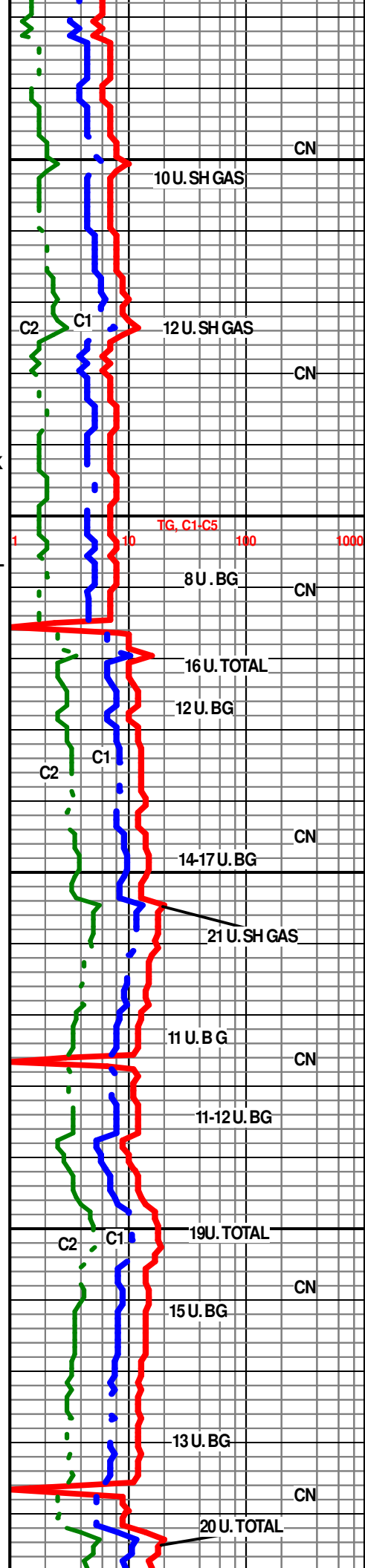
4676'-4734' (SLOW DRILLING) SH - MED TO V/ DK GRY, SLI TO EXTRMLY CALC TO BLK CARB, SOME INTERVALS MARLED SHALES & LIMES

4734-4736' SH-V/ DK GRY TO BLK FILL TO CRUMBLY

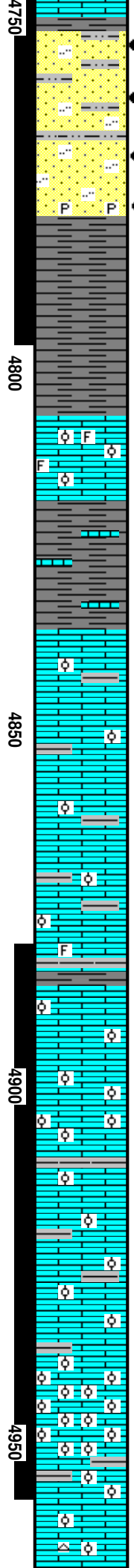
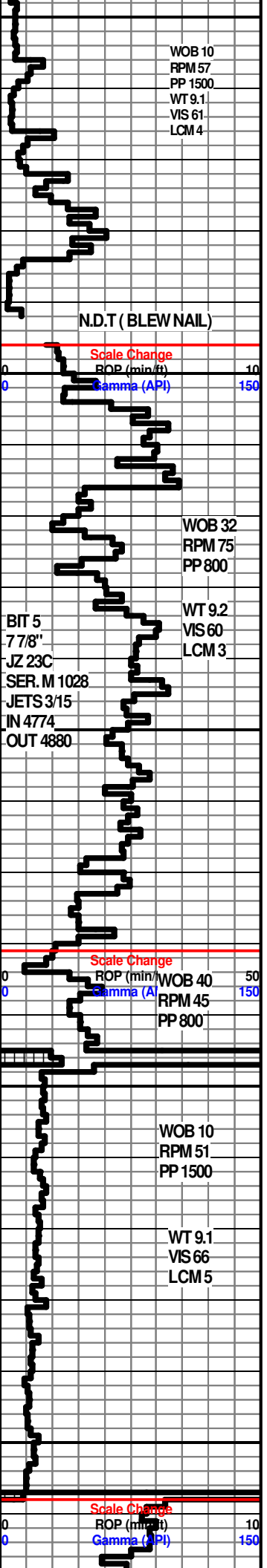
RECOVERD 59' CORE AND DESSIMATED SH CRUMBLES FOR 1' ON CORE #2

COMPLETE CORE #2 @ 4736' AT 7:05 PM 3/23/2020

START CORE #3 @ 3:15 AM 3/24/2020 @ 4736'







4751-4768' QURTZ SDST-(TAN DUE TO OIL STN) STRING OIL ODOR, V/V/FN TO V/FN, TRS FN, ANG TO S-ANG, SILT FILLED, PR TO FR SRT, GLDNYEL FLUOR, FL SH TO EXCEL STM CUTS, FR TO EXCEL LPP TO INTER-GRAN POR

4768- 4777'-QURTZ SDST- GRVISH TAN TO LT TAN FROM OIL STN, GD OIL ODOR,V/V/FN TO V/F-GRN , TRS FN GRN, ANG TO S-ANG, FR TO GD SRT, DLL GLDN YEL FLUOR, FL SH TO EXCEL STM CUT, FR TO EXCEL MICRO PP TO INTER-GRAN POR,BOTTOM HALF OF SS AP PEARLS FL SHED

4777-4778' QURTZ SDST, LT GRV TAN IP,V/V/FN TO FN GRN, ANG, POOR SRT, CLAY & SILT FILLED, ABDT FINLY DISS PYR, V/ DLL YEL FLUOR, V/SLOW STRM TO GD RING CUT, NO VIS POR

4778'-4796' SHMED TO DK GRV, FSS,SPLINTERY

**COMPLETE CORE #3 @ 9:55 AM 3/24/20 @ 4796'**

4798-4806' SH- MED TO GRV- SFT MUSHY WHEN WET TO DK GRYSPLINTERY

4806'-4818' LS- TN TO LT GRV- CRYPTO-V/V/FN-XLN,PCKSTN, V/OOLITC IP (TN GRV) TR FOSS, DLL YEL FLUOR IP, NO CUT NO VIS POR

4818-4836' SH- LT TO MED GRV, EARTHY TXTT, SLI TO V/ CALC W/ INTERBED LS IP

4836'-4880' LS- TRS WHT TO CRM CHLK & CRM TN, SUB SUCRO S-CHLKY PCKSTN, ABDT SLI TO V/PHNTM OOLITIC TO OOLITIC, W/ INTERBEDS LT TO MED GRVSH, DLL YEL FLUOR, NO CUT , NO VIS POR

**STARTED CORE #4 @ 4880' AT 10:57 AM 3/25/2020**

4880-4881' LS-LT LT GRV TR FOSS RE-XLN, CRYPTO-XLN DLL YEL FLUOR, NO CUT , NO VIS POR

4881-4882' SH-MED TO DK GY CALC

4884'4897' LS- LT GRV TAN, CRYPTO-XLN PHNTM OOLITIC IP, DLL YEL FLUOR NO CUT , NOVIS POR

**BARREL JAMMED CORE #4 @ 4897' 4:55 PM 3/25/2020**

**STARTED CORE #5 @ 4897' AT 4:55 AM 3/26/2020**

4897'-4910' LS- LT GRV TO GRVISH TN, CRYPTO-XLN V/ OOLITIC MTRX, SUB SUCRO IP, DLL YEL FLUOR, NO CUT , TRS V/PR MICRO PP POR

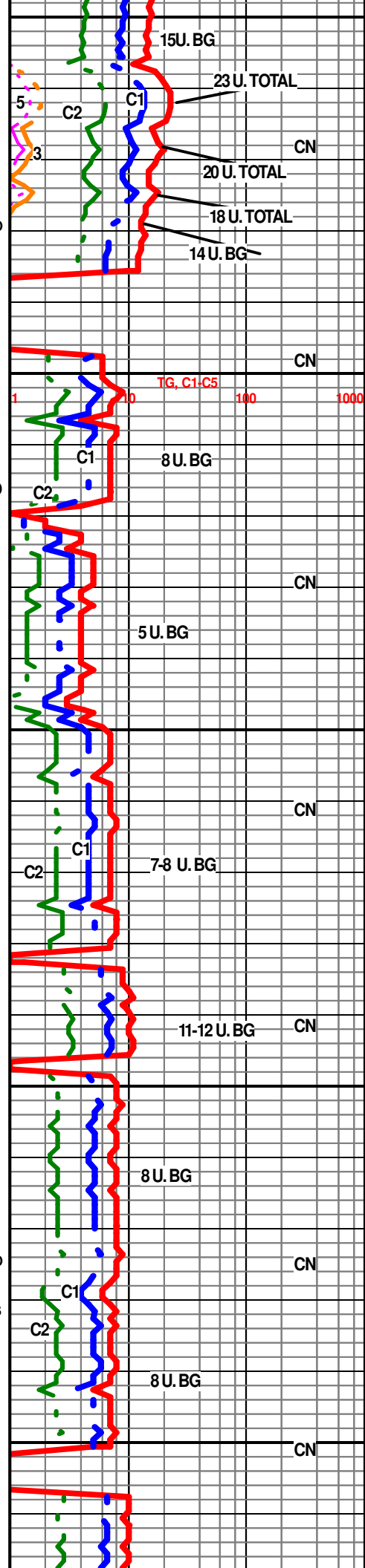
4910-4910.5 SH- LT GREEN TO GRVISH GREEN SFT

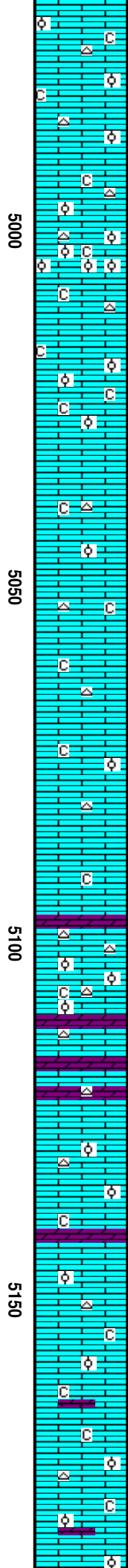
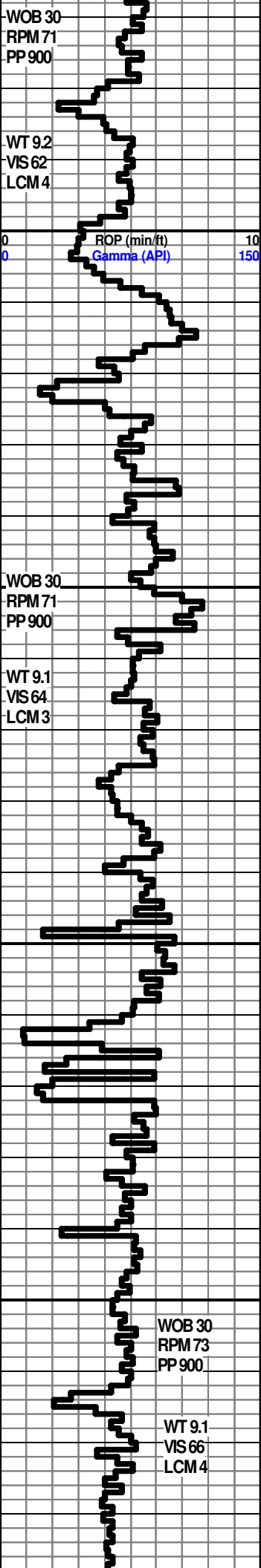
4910.5'-4937' LS- LT GRV TO GRVISH TN, CRYPTO-XLN V/ OOLITIC MTRX, SUB SUCRO IP,LAMINATED SH PARTNGS, DLL YEL FLUOR, NO CUT , TRS V/PR MICRO PP POR

4937-4954' LS- TN GRVSH IP, SUB SUCRO, V/ TO EXTRMLY OOLITIC (SMLL TO TRS MED OOL), DLL YEL FLUOR, ABDT PR, FR TRS GD TO EXCEL MICRO PP & SOME INTEROOLITIC POR, NO CUT, NO VIS SHOW, SCATT SH PARTNGS

4954-4957'LS- LT GRV -SUB SUCRO PCKSTN, PHNTM OOLITES, HVY TRS CARB & MED GRV SHPARTNGS, NO CUT , NO VIS POR

**CORE #5 COMPLETE 9:09 AM 3/26/2020**





4957-4998' LS- WHT TO CRM CHLK, SUB SUCRO PCKSTN, PHNTM OOLITIC TO OOLITIC IP, DLL YEL FLUOR, NO CUT, NO VIS POR, TRS CRM LT GRY OPQUE CHERT

4798-5007' LS- WHT TO CRM CHLK & LT TN, SUB SUCRO TO SUCRO V/TO EXTRMLY OOLITIC( MED TO LRG OOLITES) YEL TO GLDN YEL FLUOR, NO CUT, HVY TRS FR MICRO PP POR W/ TRS LT GRY OPQUE CHERT

5007-5018' LS- GRYISHTN TO TN, CRYPTO-VV/FN-XLN SUB LITHO, SLI OOLITIC, NO CUT DLL YEL FLUOR, W/ TRS CHERT LT GRY OPQUE

5018-5026' LS ABDT WHT TO CRM CHLK, TN SUB CHLKY ,PCKSTN TO S-LITHO IP, TRS SLI TO V/ OOLITIC, DLL YEL FLUOR, NO CUT, TRS PR MICRO PP POR

5026-5097' LS- TRS ABDT WHT TO CRM CHLK & LT TN TO MED GRY, CRYPTO-XLN SUB SUCRO TRS SUB LITHO, SLI OOLITIC, DLL YEL FLUOR IP, NO CUT, NO VIS POR, W/ TRS CHERT WHT TO LT GRY, OPQUE TO TRANSLCNT

5097-5099' DOLO-LT GRY SUB SUCRO TO V/ SUCRO YEL FLUOR, NO CUT NO VIS POR

5099' - 5110' LS- LT GRY TO TN, CRYPTO TO VV/FN-XLN TR SUB CHLKY IP, SLI TO V/ OOLITIC(SMLL TO MED OOLITES) DLL YEL FLUOR. NO VIS POR, W/ TRS CHERT WHT TO LT GRY OPQUE

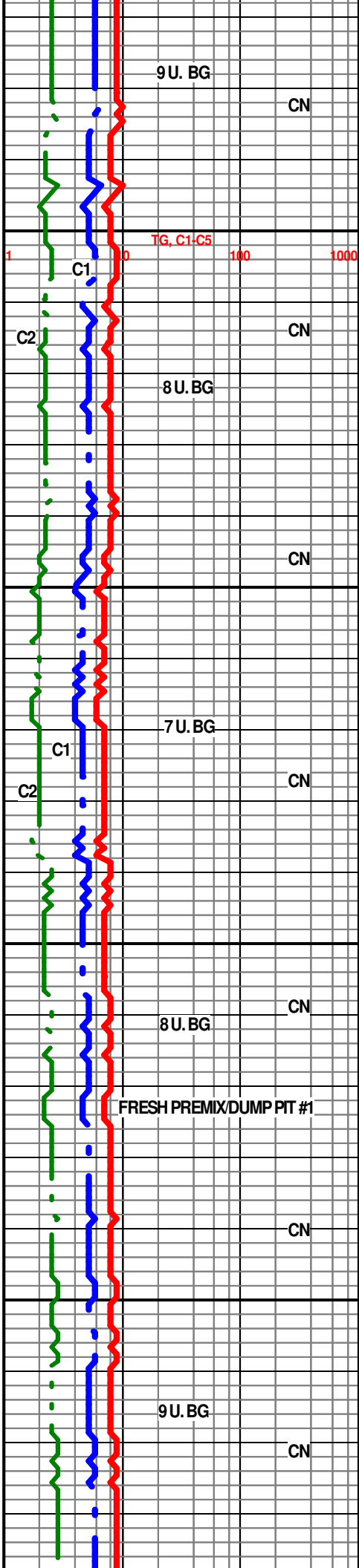
5110- 5122' INTERBEDED DOL & LS W/ TRS SH

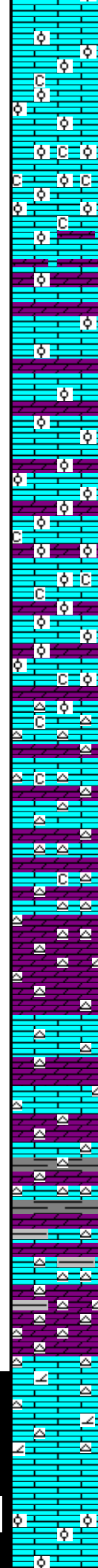
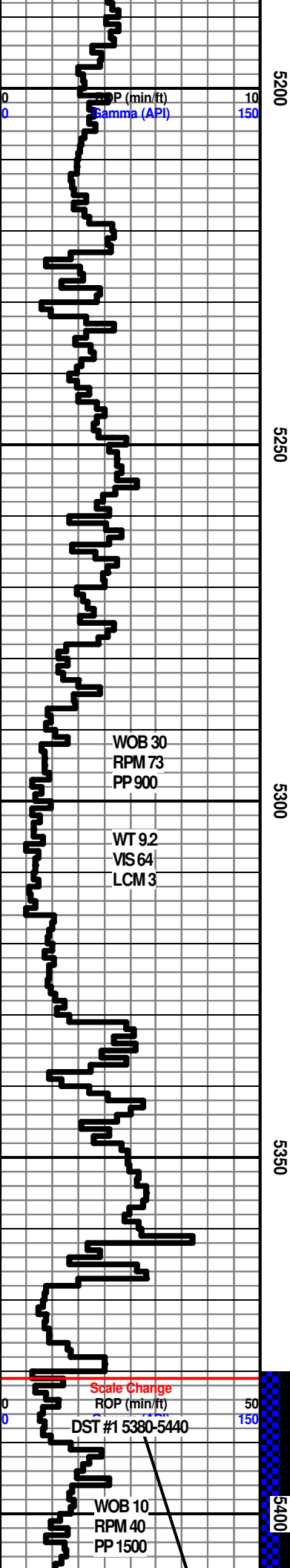
1. (FASTER DRILLING) DOLO-LT GRY SUB SUCRO TO V/ SUCRO YEL FLUOR, NO CUT NO VIS POR

2. (SLOWER DRILLING) LS- LT GRY TOTN, CRYPTO TO VV/FN-XLN TR SUB CHLKY IP, SLI TO V/ OOLITIC(SMLL TO MED OOLITES) DLL YEL FLUOR. NO VIS POR, W/ TRS CHERT WHT TO LT GRY OPQUE

5122' -5162' LS- TRS WHT TO CRM CHLK SUB CHLKY SUB SUCRO TO PCKSTN, TRS V/ OOLITIC IP( SMLL TOMED) DLL YEL FLUOR, NO VIS POR

5162' 5194' LS- TRS WHT TO CRM CHLK SUB CHLKY SUB SUCRO TO PCKSTN, TRS V/ OOLITIC IP( SMLL TOMED) DLL YEL FLUOR, NO VIS POR, SLI DOLO IP'S





5194'-5223' LS- ABDT WHT TO CRM CHLK, LT GRY TO GRYSH TN V/ TO EXTRMLY OOLITIC (SML, MED TR LR GOOLITES), SUB SUCRO SUB CHLKY, DLL YEL FLUOR IP, NO CUT, NO VIS POR

5223'-5232' DOL LS GRDNG TO DOLO, GRYSH TN TO TN, SUB SUCRO TO SUCRO, PHNTM OOLITIC IP, DLL GLDN YEL FLUOR, NO CUT, ABDT PR FR TO EXCEL INTER-XLN PP & MICRO PP POR

5232'-5287' LS TO DOLO LS & TRS DOL, LT GRY TO GRYSH TN, CRYPTO-V/F-XLN, SUB SUCRO IP, SUB CHLKY IP, SLI TO EXTRMLY OOLITIC (SMALL TO MED OOLITES) TRS SUB LITHO SILICEOUS, V/ DLL YEL FLUOR IP, SCATT TR PR TO FR MICRO PP POR, POSS INTER-XLN POR

5287'-5316' LS & DOLO INTERBEDDED & GRADATIONAL, CRYPTO-V/V/FN-XLN, ABDT CRM CHLK IP, EXTRMLY ABDT FRESH TO SLI WEATHERED CHERT, LT GRY TO OPQUE, DLL YEL FLUOR IP, HVY TR PR TO FR MICRO PP POR & POSS INTER-XLN POR

5316'-5331' DOLO SLI LIMY IP, TN TO DK TN, SUB SUCRO TO SUCRO, TR PHNTM OOLITES, V/DLL YEL FLUOR, NO CUT, PR TO FR MICRO PP & PROB INTER-XLN POR, W TR CHERT FRESH TO SLI WEATHERED WHT LT GRY OPQUE

5331'-5354' INTERBED LS & DOLO 1. LS- LT GRY TO TN, CRYPTO-V/F-XLN TO TO SUCRO SUB SUCRO, TRS WHT CHERT, DLL YEL FLUOR, NO CUT, TR PR MICRO PP POR 2. DOLO- LT GRY F-XLN TO SUCRO SUB SUCRO, TRS WHT MED TO COARSE DOLO XLS FRGS, NO CUT, NO VIS POR, MED TODK GRYSH IP

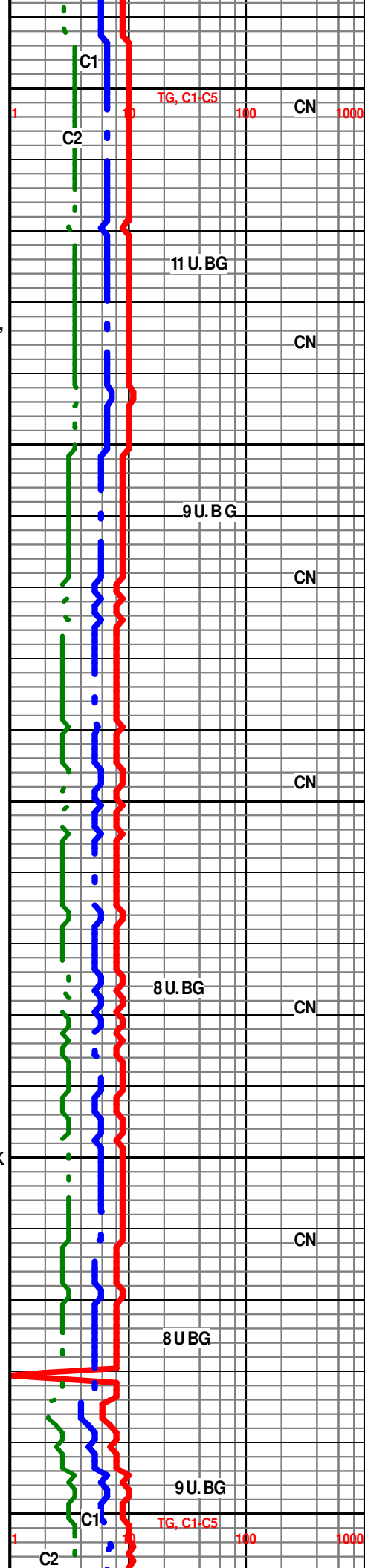
5367-5380' INTERBED DOLO & LS SIMILAR TO 5331-5354' W/ EXTRMLY ABDT WHT LT GY CHERT FRESH TO SLI WEATHERED, W/ ABDT SH MED TO DK GRY SPLINTERY, TR GREEN SH, LS & DOLO HAS PR TO FR MICRO PP POR, NO SHOW

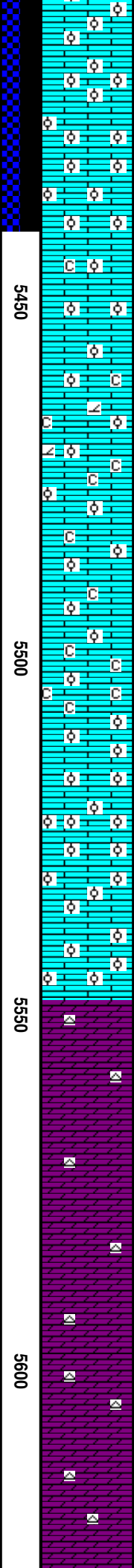
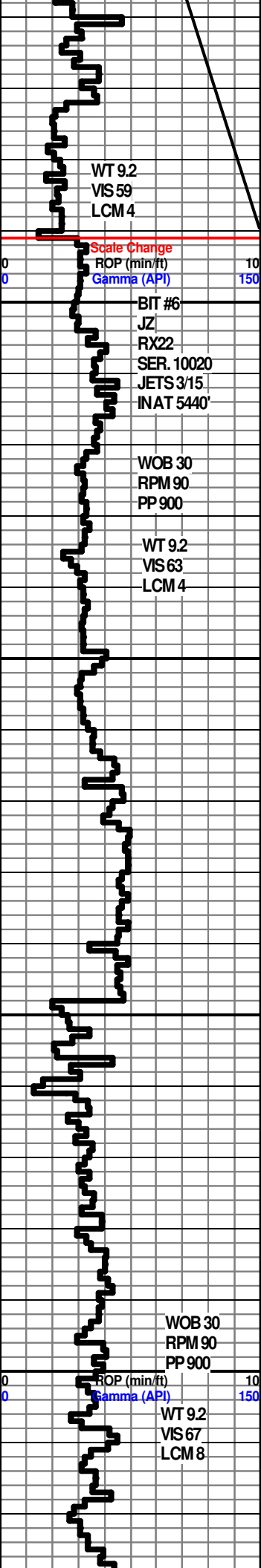
REACH CORE POINT #6 @ 5380' @ 1:30 AM 3/28/2020

START CORE #6 @ 5380' @ 10:40 AM 3/29/2020

5380-5393' LS, LT GRY TN MARBLED CRYPTO TO V/V/FN-XLN SLI DOLO IP, SUB SUCRO PCKSTN, NO FLUOR TO TR DLL YEL FLUOR, NO CUT NO VIS POR, W/ TRS FRACT CHERT W/ DOLO TO LMY INFRACTURES

5393' - 5400 LS- TN CRYPTO TO V/V/FN-XLN SLI DOLO IP, SUB SUCRO PCKSTN, V/V DLL YEL FLUOR, NO CUT, NO VIS POR





5400-5422' LS TAN , CRYPTO-V// FN -XLN, EXTRMLYOOLITIC MTRX, SUB SUCRO, V//DLL YEL FLUOR, NO CUT, NO VIS POR IP TO SCATTERED TRS V/ P MICRO PP POR

5422' 5440 LS SIMILAR TO 5400-5422' W/ INCREASE TO PR TO FR MICRO PP POR

CORE#6 COMPLETE @ 11:30 PM 3/29/2020

RESUME DRILLING 8:48 AM 3/31/2020

5440 5454' LS TAN , CRYPTO-V// FN -XLN, EXTRMLY OOLITIC MTRX, SUB SUCRO, V//DLL YEL FLUOR, NO CUT, NO VIS POR IP TO SCATTERED PR TO FR MICRO PP POR

5454- 5471' LS W/TRS DOLO WHT TO CRM CHLK, TN TO TNISH GRYCRYPTO-V//FN-XLN, SUB SUCRO,ABDT OOLITIC, DLL YEL FLUOR, NO CUT, NO VIS POR

5471-5514' LS-ABDT WHT TO CRM CHLK W/ CHLKY OOLITES, LT TAN TO TN SUB SUCRO TO PCKSTN, ABDT OOLITIC, DLL YEL YEL FLUOR, NOCUT, TRS PR TO FR MICRO PP POR

5514-5548' LS - LT TN TO LT GRY, CRYPTO TO V//FN-XLN, V// TO EXTRMLY OOLITIC, TR SUB LITHO, DLL LT YEL FLUOR, NO CUT, NO VIS POR

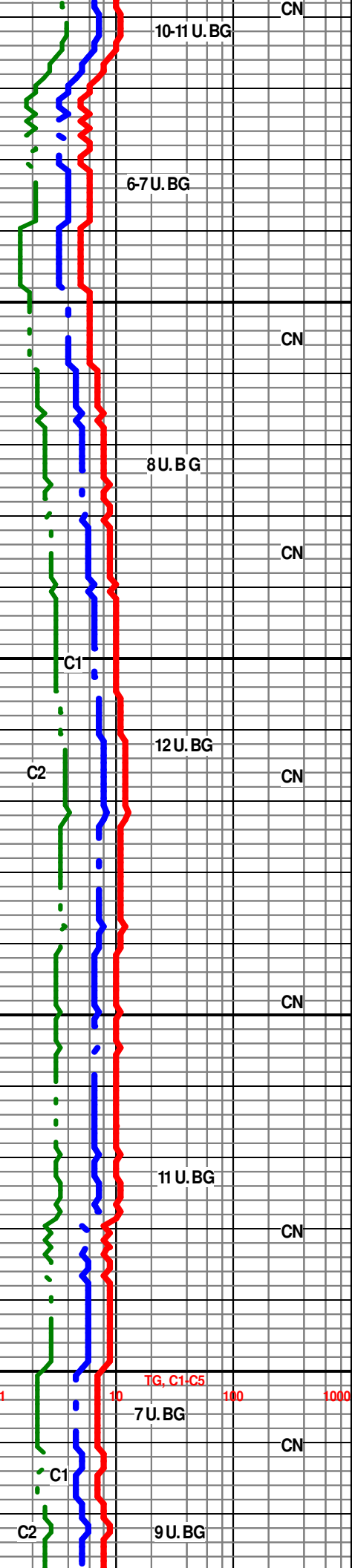
**VIOLA 5548' -2219'**

5548' TO 5583' DOLO, LT GRY TO TN , ULTRA TO V//FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, TR WHT MED TO COARSE DOLO XLS & FRAGS, V/F SUCRO HAS PR MICRO PP POR & PR TO GD INTER-XLN POR W/ TRS WHT TO LT GRY OPQUE CHERT

5583'-5627 1.(FASTER DRILLING)' DOLO, LT GRY TO TN , ULTRA TO V//FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, TR WHT MED TO COARSE DOLO XLS & FRAGS, V/F SUCRO HAS PR MICRO PP POR & PR TO GD INTER-XLN POR , V//SLI TRS WHT TO LT GRY OPQUE CHERT

5583'-5627 (SLOWER DRILLING) DOLO, SLI CALC IP, GRAYSH TN , CRYPTO-V//FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, NO VIS POR ,

5627-5640' INTERBEDDED DOLO, LT GRY TO TN , V//FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, TR WHT MED TO COARSE DOLO XLS & FRAGS, V/F SUCRO HAS PR TO EXCEL



10-11 U. BG

CN

6-7 U. BG

CN

8 U. BG

CN

C1

12 U. BG

CN

C2

CN

11 U. BG

CN

TG, C1-C5

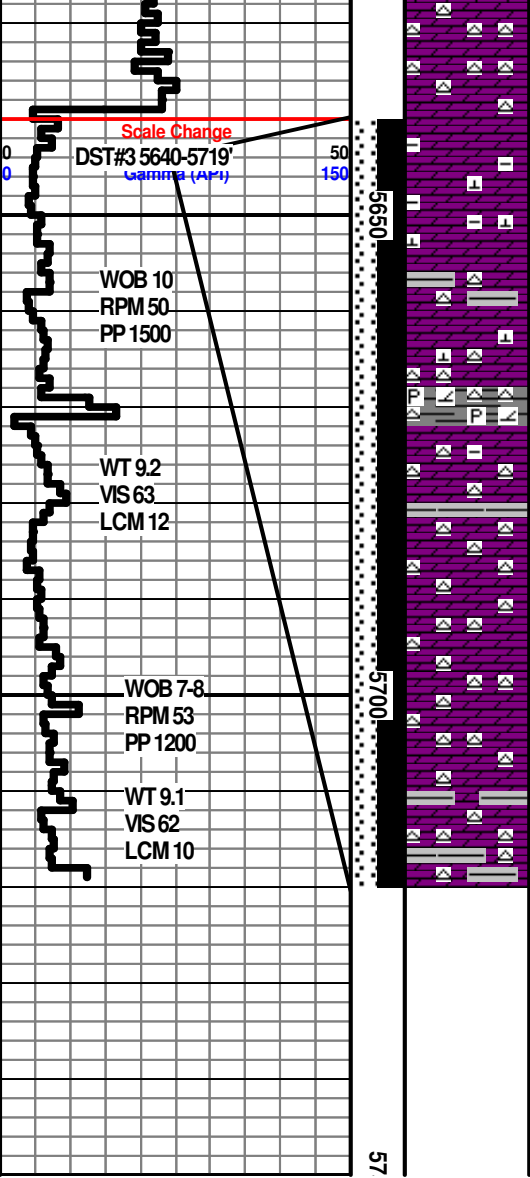
7 U. BG

CN

C1

9 U. BG

C2



INTER-XLN POR WHVY TRS WHT SLI TO WEATHERED LT GRYPQUE CHERT

REACHED CORE POINT #7 @ 9:15 PM 3/31/2020

START CORE #7 @ 9:17 AM 4/01/2020 @ 5640'

5640-5658' DOLO TR LS, GRYPISH TN TO TN, CRYPTO TO VV/FN-XLN SUCRO IP, HVY TRSH LAMINATIONS & GREEN VUG FILL, V/FN DOLO XLS IN VUGS, DLL GLDN YEL FLUOR, SLI TO EXCEL VUG POR TO NO POR IPTO TR PR TO FR MICRO PP TO INTER-XLN POR BETWEEN VUGS/ FRM 5658-5668' SIMILAR TO 5640-5658' W/ A BDT BLU GRYP CHERT & GREEN SH FILL

CORE JAMMED @ 5670' @ 12:28 PM 4/01/2020

START CORE #8 @ 5670' @ 10:30 PM 4/01/2020

5670-5671' INTERBED MARBLED GREEN SH, DOLO, BLU GRYP CHERT W/ DISS PYRIP

5671-5717-1. (FAST DRLLNG) DOLO LT TN TN MOTT, CRYPTO-VV/FN XLN SUB SUCRO IP, REPLCD OOLITES, A BDT RE-XLD FOSS & CHERT & DOLO, DLL GLDN YEL FLO NO VIS POR IPTO A BDT SMLL VUG POR W/ WHT DOLO XLS & FRGS, FR PP MICRO PP & INTER-XLN POR IP W/ WHT GRYP BLU OPQUE CHERT

2. (SLOW DRLLNG)-DOLO TN GRYPISH TN, CRYPTO TO VV/FN-XLN, PCKSTN, DLL GLDN YEL FLO, NO CUT CHERT NODULES BLU GRYPQUE

5717-5719- THIN SCATTERED SH, LT TO MED GRYP TO GREENISH, SLI TO FRLY DOLO IP, BLUE CHERT

CORE JAMMED @ 5719' @ 4:01 AM 4/02/2020

