



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

**Well Name:** R & S Gates "A" # 1-2  
**API:** 15-081-22,197-00-00  
**Location:** N2-Nw-Sw  
**License Number:** KCC #5003  
**Spud Date:** 10/22/2019  
**Surface Coordinates:** 2310' FSL & 660' FWL Sec. 2 - T. 30 S. - R. 31 W.

**Region:** Haskell  
**Drilling Completed:** 10/30/2019

**Bottom Hole  
Coordinates:**  
**Ground Elevation (ft):** 2841'      **K.B. Elevation (ft):** 2854'  
**Logged Interval (ft):** SURFACE CTo:IN5690'      **Total Depth (ft):** 5700'  
**Formation:** Mississippian "St. Louis"  
**Type of Drilling Fluid:** Chemical/Polymer/Gel & Mud Displacement at '

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

**OPERATOR**

**Company:** McCoy Petroleum Corporation  
**Address:** 9342 E. Central  
Wichita, KS 67206

**GEOLOGIST**

**Name:** David P. Williams, P.G., KSBTP #88  
**Company:** DW ENERGY, LLC (DWE)  
**Address:** 312 N. BROADVIEW STREET  
WICHITA, KANSAS 67208

**Qualifiers: CARBONATE CLASSIFICATION: AFTER DUNHAM:**

**GRAIN;** any fossil, fossil fragment, sand grain, or other rock fragment within the rock.

**MUDSTONE;** muddy carbonate rocks containing <(less than 10%) grains.

**WACKSTONE;** mud supported carbonate rocks with > (more than 10%) grains.

**PACKSTONE;** grain supported muddy carbonate rocks.

**GRAINSTONE;** mud free carbonate rock, grain supported.

**BOUNDSTONE;** carbonate rock bound together at deposition (coral, etc.).

**CRYSTALLINE CARBONATE;** carbonate rock retaining to little of their depositional texture to be classified.

**Qualifiers;** (Fossils, Minerals, Shows, Porosity, etc.)

**Rare =** < (less than 1%) of sample total.

**Trace =** < (less than 5%) of sample total, > (greater than 5%) an estimate of total percentage.

## CASING AND DEVIATION SURVEY'S:

Surface Casing: Spud at 6:00 pm on 10/22/19. Drilled 12-1/4" to 1830'. Ran 43 joints of new 24#, 8-5/8" casing. Tallied 1809.83' + 14.50 LJ + 1.00' shoe. Set at 1825.13' KB. Welded straps on bottom 3 joints, tacked collars on top 2 joints. Centralizers (6) on joints 1,4,6,8,10,12. Float insert in top of 1st collar. Rubber plug. Cemented with 625 sks A-Serv Lite; 3% CC, 1/4# PF and tailed with 200 sks Class C with 2% CC & 1/4# PS. Cement did circulate. Plug down at 7:00 pm on 10/24/19. Basic Energies Cementing ticket #19810. Float held. Pumped 2 bbl excess but plug did not land. Cement fell 150' down annulus. At 12 am cemented from top through 1" tubing down annulus with 175 sks class C; 2% CC. Job completed at 1:00 am on 10/25/19. Cementing ticket #19811.

DEVIATION SURVEY'S: @ 1830' = 1/2 degree. @ 4340' = 3/4 degree; @ 5700' = 3/4 degree.

### DSTs

None.


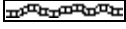
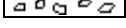
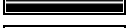

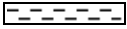









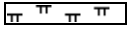


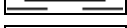
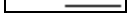
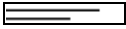

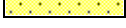
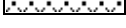
### Comments

After review of all geologic samples as examined, combined with the analysis from the electric logs run, it was determined by all parties that this well is non-commercial and should be plugged and abandoned as a dry hole.











































































Respectfully submitted,

David P. Williams, P.G. KSBTP # 88.

### ROCK TYPES

 Anhy  Bent  Brec  Carb sh  Cht	 Clyst  Coal  Congl  Dol  Grn sh	 Gry shale  Gyp  Igne  Lmst  Meta	 Mrlst  Red shale  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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### ACCESSORIES

<b>MINERAL</b>  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  <b>FOSSIL</b>  Algae  Amph	 Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fuss  Fossil  Gastro  Oolite  Oomold  Ostra  Pelec	 Pellet  Pisolite  Plant  Strom  <b>STRINGER</b>  Anhy  Arg  Bent  Coal  Dol  Gry shale  Gyp  Ls  Mrst  Sltstrg  Ssstrg	<b>TEXTURE</b>  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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**OTHER SYMBOLS**

**POROSITY**

- ∅
- E Earthy
- F Fenest
- Fracture
- Inter
- Oomold
- Organic

- P Pinpoint
- V Vuggy

- SORTING**
- W Well
  - M Moderate
  - P Poor

**ROUNDING**

- R Rounded
- Subrnd
- Subang
- Angular

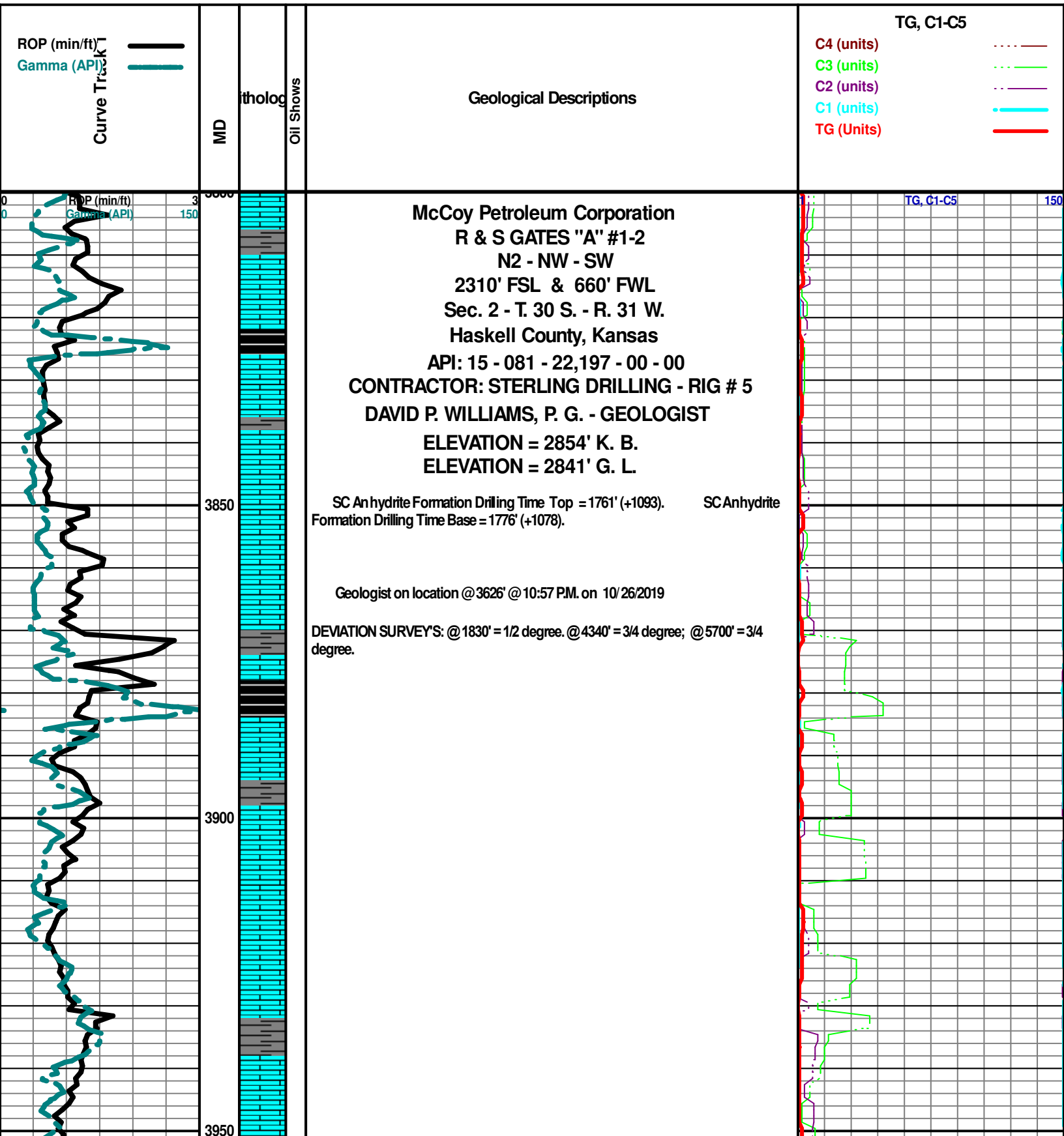
- OIL SHOW**
- Gas show

- Even
- Spotted
- Ques
- Dead

- INTERVAL**
- Dst
  - Dst\_alt

**EVENT**

- Rft
- Sidewall



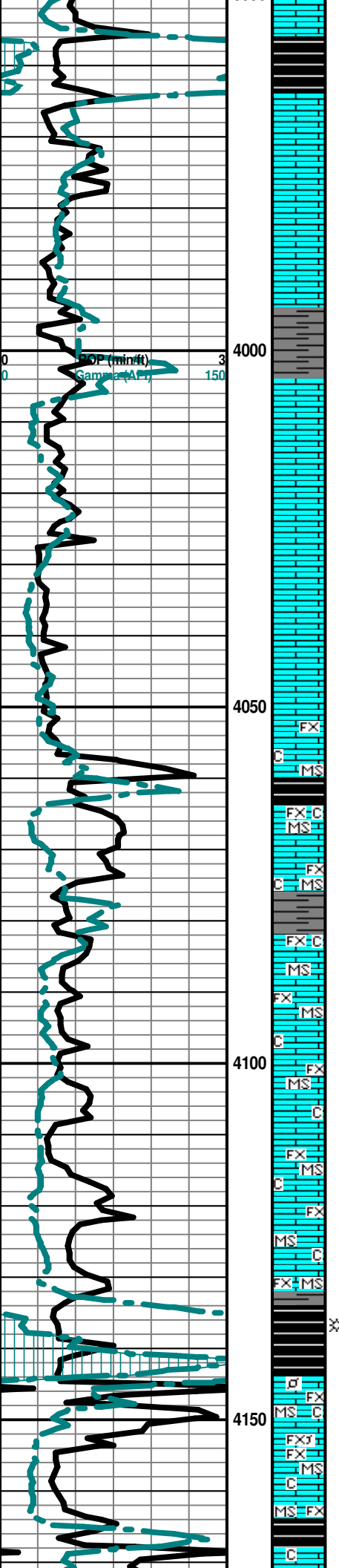
**McCoy Petroleum Corporation**  
**R & S GATES "A" #1-2**  
**N2 - NW - SW**  
**2310' FSL & 660' FWL**  
**Sec. 2 - T. 30 S. - R. 31 W.**  
**Haskell County, Kansas**  
**API: 15 - 081 - 22,197 - 00 - 00**  
**CONTRACTOR: STERLING DRILLING - RIG # 5**  
**DAVID P. WILLIAMS, P. G. - GEOLOGIST**  
**ELEVATION = 2854' K. B.**  
**ELEVATION = 2841' G. L.**

SC Anhydrite Formation Drilling Time Top = 1761' (+1093).      SC Anhydrite  
 Formation Drilling Time Base = 1776' (+1078).

Geologist on location @ 3626' @ 10:57 PM. on 10/26/2019

DEVIATION SURVEY'S: @ 1830' = 1/2 degree. @ 4340' = 3/4 degree; @ 5700' = 3/4  
 degree.

**TG, C1-C5**  
 C4 (units) .....  
 C3 (units) .....  
 C2 (units) .....  
 C1 (units) .....  
 TG (Units) .....



NOTE: ALL SAMPLES HAVE BEEN LAGGED TO DEPTH BY CALCULATED TIME.

Begin 20' Sample Examination at 4100'

Ls Wht-Crm-Gry Fxln Dns Mudstone Grad Pin-Pt lxn Ø Abd Chak Sh Char-Gry Drab  
Gm Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Dns Mudstone Grad Pin-Pt lxn Ø Abd Chak Sh Char-Gry Drab  
Gm Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Dns Mudstone Grad Pin-Pt lxn Ø Abd Chak Sh Char Gry-Drab  
Gm Soft Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry (w/Pyr Inclu) Fissil Ls Wht-Crm-Gry Fxln Dns Mudstone Poor  
lxn Ø Chalk No Odor No Stn No Flor NS

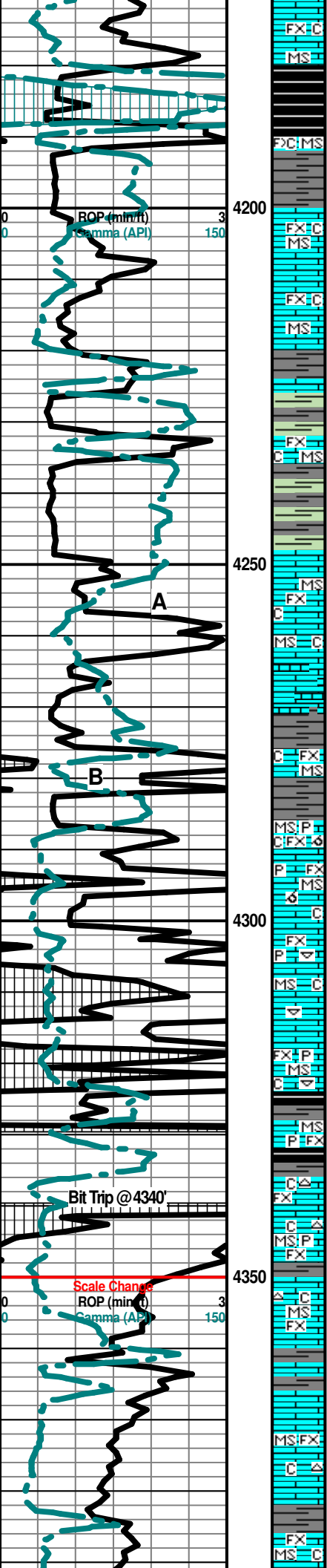
Ls Wht-Crm-Gry Fxln Dns Mudstone Grad Pin-Pt lxn Ø Chalk Fos (Pelec) Sh Blk  
Carb-Char-Drab Gm Fissil No Odor No Stn No Flor NS



@4121' Adj. Annular  
Velocity (AV) = 210 @  
66 SPM.

SH GAS KICK=  
119 UNITS.

SH GAS KICK=118 UNITS.



**HEEBNER 4180' (- 1326)**

Sh Blk Carb-Char-Gry (w/Pyr Inclu) Fissil Ls Wht-Crm-Gry Fxln Dns Mudstone Poor  
 bxn Ø Chalk No Odor No Stn No Flor NS

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**TORONTO 4200' (- 1346)**

Ls Wht-Crm-Gry Fxln Dns Mudstone Grad Pin-Pt bxn Ø Chalk Sh Blk  
 Carb-Char-Drab Gm Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Dns Mudstone (w/ Pyr Inclus) Grad Poor Pin-Pt bxn Ø Sh AA  
 No Odor No Stn No Flor NS

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**LANSING 4252' (- 1395)**

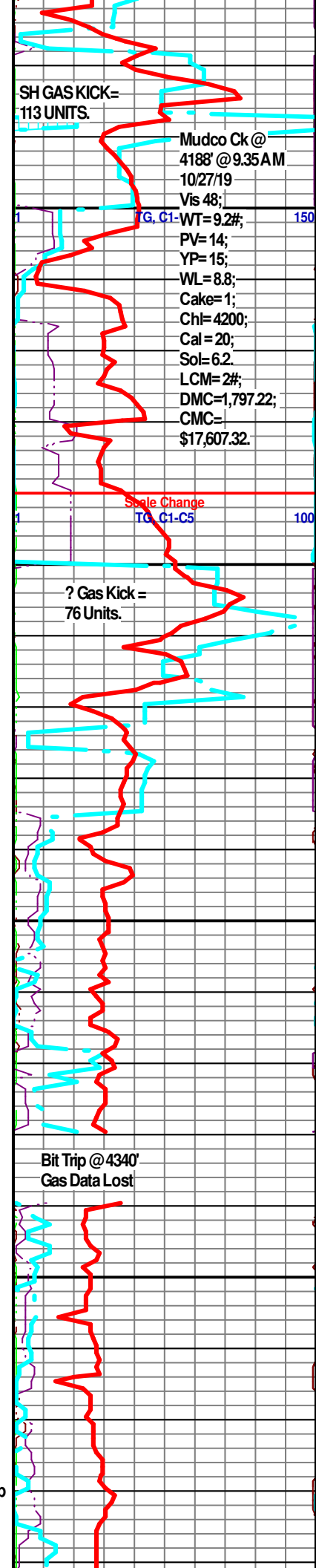
Ls Wht-Crm-Tan-Gry (w/Pyr Inclus) Fxln Dns Mudstone Grad Med Pin-Pt bxn Grad  
 Fair-Med Vu g OOM Ø Fair Leaching Dissolu Chalky Sh Blk Carb-Char-Gry-Gm  
 Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry (w/Pyr Inclus) Fxln Dns Mudstone Grad Med Pin-Pt bxn Grad  
 Fair-Med Vu g OOM Ø Fair Leaching Dissolu Chalky Sh Blk  
 Carb-Char-Gry-Gm-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry (w/Pyr Inclus) Fxln Dns Mudstone Grad Poor bxn Ø Pyr Mass  
 Fos (Pelec) Cht Tan-Lt Bm Translu-Op Shp Vit Chalky Sh Char-Gry-Gm Soft-Fissil  
 No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry (w/Pyr Inclus) Fxln Dns Mudstone Grad Poor bxn Ø Cht Tan-Lt  
 Bm Translu-Op Shp Vit Chalky Sh Char-Gry-Gm- Maroon- Red Soft-Fissil No Odor  
 No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor bxn Ø Chalky Abd Cht Wht Op Shp  
 Vit Sh Char-Gry-Gm-Maroon-Red Soft-Fissil No Odor No Stn No Flor NS

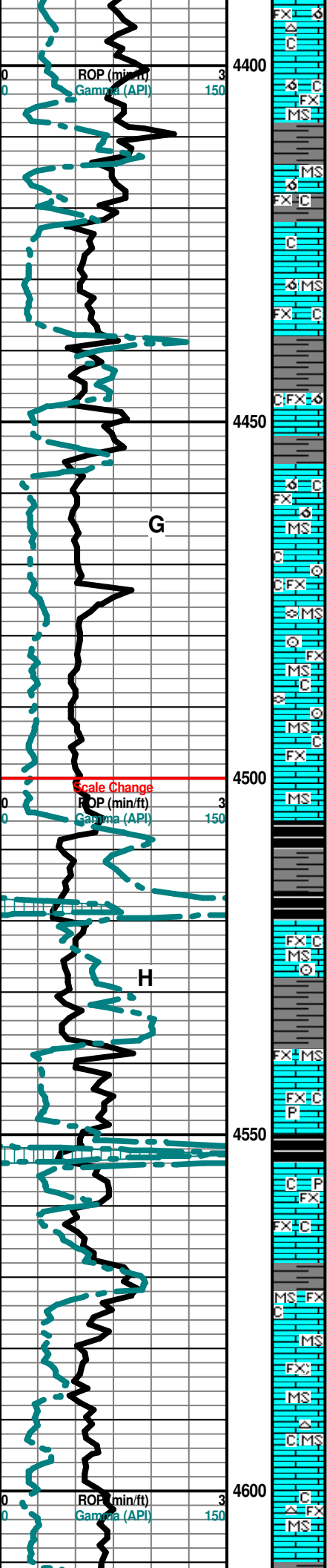


Mudco Ck @  
 4188' @ 9.35AM  
 10/27/19  
 Vis 48;  
 WT= 9.2#;  
 PV= 14;  
 YP= 15;  
 WL= 8.8;  
 Cake= 1;  
 Chl= 4200;  
 Cal= 20;  
 Sol= 6.2.  
 LCM= 2#;  
 DMC= 1,797.22;  
 CMC=;  
 \$17,607.32.

Scale Change  
 TO C1-C5

? Gas Kick =  
 76 Units.

Bit Trip @ 4340'  
 Gas Data Lost



Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Grad Tr Poor-Fair OOM Ø  
 Poor Develop Poor Leaching Chalky Sh Char-Gry-Gm Soft-Fissil No Odor No Stn No Flor NS

TG, C1-C5

100

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Grad Tr Poor-Fair OOM Ø  
 Poor Develop Poor Leaching Chalk V ABD Sh Char-Gry-Gm Soft-Fissil No Odor No Stn No Flor NS

**LANSING "G" 4448' (- 1594)**

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Grad Tr Poor-Fair OOM Ø  
 Poor Develop Poor Leaching Chalk V ABD Sh Char-Gry-Gm Soft-Fissil No Odor No Stn No Flor NS

G

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Grad Tr Poor-Fair OOM Ø  
 Poor Develop Poor Leaching Chalk V ABD Cht Tan-Bm (w/Fos Inklus (Crin, Fuss))  
 Translu-Op Shp Vit Sh Char-Gry-Gm Soft-Fissil No Odor No Stn No Flor NS

4500

Sh Blk-Carb-Char-Gry-Gm Abd Soft-Fissil Ls Crm-Tan-Gry Fxln Dns Mudstone  
 w/Poor lxln Ø Chalk (V ABD) Fos (Crin) No Odor No Stn No Flor NS

**KANSAS CITY "H" 4520' (- 1666)**

H

Sh Char-Gry-Gm Abd Soft-Fissil Ls Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø  
 Chalk (V ABD) Fos (Crin) No Odor No Stn No Flor NS

4550

**KANSAS CITY "IOLA" 4554' (-1700)**

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone (w/Tr Pyr Inklus) w/Poor lxln Ø Chalk Dec  
 Fos (Crin) Sh Blk Carb-Char-Gry-Gm- Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Chalky Sh Char-Gry-Gm-Blk  
 Carb Soft-Fissil No Odor No Stn No Flor NS

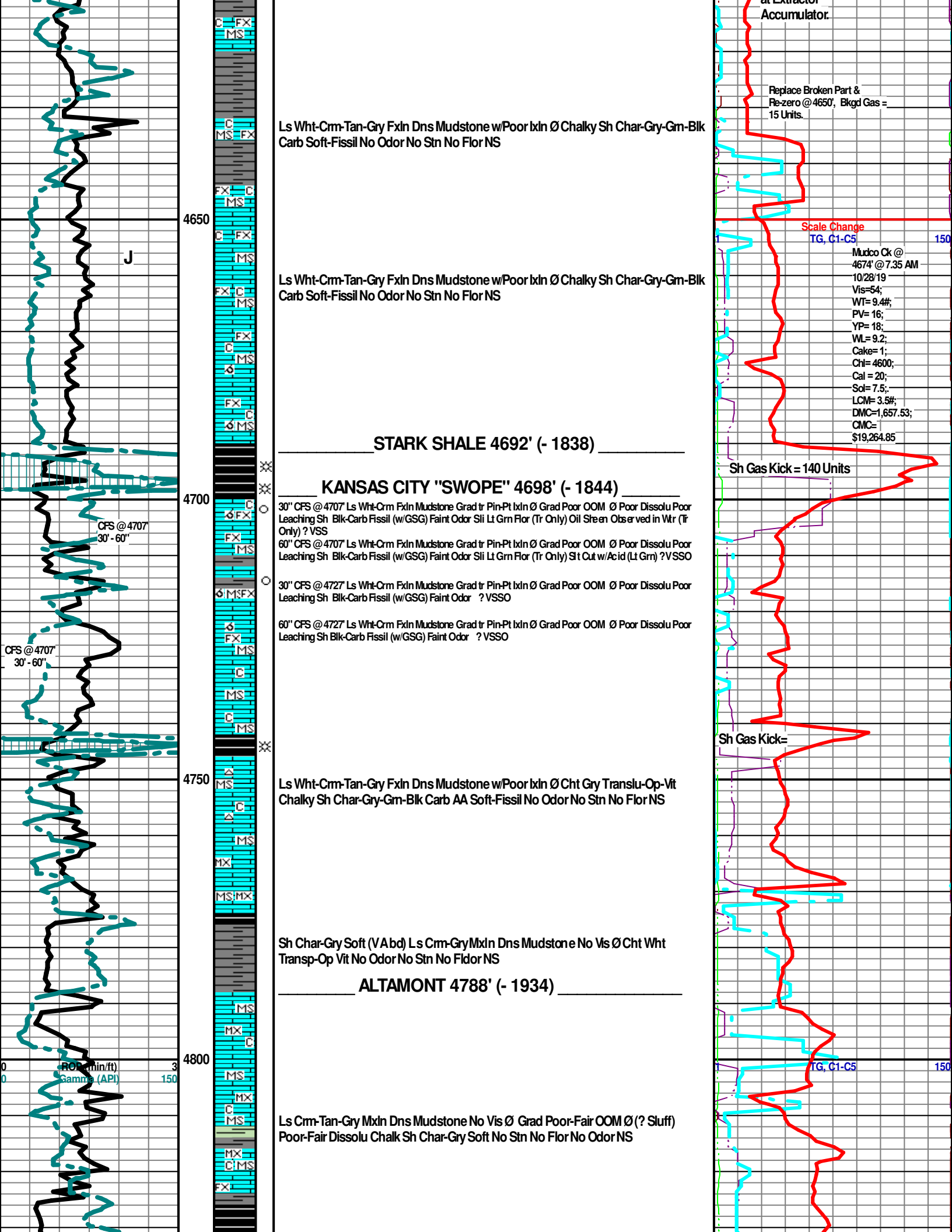
4600

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Grad Tr Poor OOM Ø Poor  
 Develop Poor Leaching Chalky Cht Wht Tr Only Op Shp Vit Sh Char-Gry-Gm  
 Soft-Fissil No Odor No Stn No Flor NS

TG, C1-C5

100

Broken Plastic Chamber- Lost Gas at Extractor



at Extractor Accumulator.

Replace Broken Part & Re-zero @ 4650', Bkgd Gas = 15 Units.

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Chalky Sh Char-Gry-Gm-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

4650

J

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Chalky Sh Char-Gry-Gm-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

Scale Change TG, C1-C5

Mudco Ck @ 4674' @ 7.35 AM 10/28/19  
 Vis=54;  
 WT= 9.4#;  
 PV= 16;  
 YP= 18;  
 WL= 9.2;  
 Cht= 4600;  
 Cal = 20;  
 Sol= 7.5;.  
 LCM= 3.5#;  
 DMC=1,657.53;  
 CMC= \$19,264.85

**STARK SHALE 4692' (- 1838)**

**KANSAS CITY "SWOPE" 4698' (- 1844)**

30" CFS @ 4707' Ls Wht-Crm Fxln Mudstone Grad tr Pin-Pt lxln Ø Grad Poor OOM Ø Poor Dissolu Poor Leaching Sh Blk-Carb Fissil (w/GSG) Faint Odor Sli Lt Grn Flor (Tr Only) Oil Stren Observed in Wtr (Tr Only) ? VSS

60" CFS @ 4707' Ls Wht-Crm Fxln Mudstone Grad tr Pin-Pt lxln Ø Grad Poor OOM Ø Poor Dissolu Poor Leaching Sh Blk-Carb Fissil (w/GSG) Faint Odor Sli Lt Grn Flor (Tr Only) Sit Cut w/Acid (Lt Grn) ? VSSO

30" CFS @ 4727' Ls Wht-Crm Fxln Mudstone Grad tr Pin-Pt lxln Ø Grad Poor OOM Ø Poor Dissolu Poor Leaching Sh Blk-Carb Fissil (w/GSG) Faint Odor ? VSSO

60" CFS @ 4727' Ls Wht-Crm Fxln Mudstone Grad tr Pin-Pt lxln Ø Grad Poor OOM Ø Poor Dissolu Poor Leaching Sh Blk-Carb Fissil (w/GSG) Faint Odor ? VSSO

CFS @ 4707' 30' - 60"

CFS @ 4707' 30' - 60"

Sh Gas Kick = 140 Units

Sh Gas Kick=

Ls Wht-Crm-Tan-Gry Fxln Dns Mudstone w/Poor lxln Ø Cht Gry Translu-Op-Vit Chalky Sh Char-Gry-Gm-Blk Carb AA Soft-Fissil No Odor No Stn No Flor NS

4750

Sh Char-Gry Soft (VA bd) Ls Crm-GryMxln Dns Mudstone No Vis Ø Cht Wht Transp-Op Vit No Odor No Stn No Flor NS

**ALTAMONT 4788' (- 1934)**

Ls Crm-Tan-Gry Mxln Dns Mudstone No Vis Ø Grad Poor-Fair OOM Ø (? Sluff) Poor-Fair Dissolu Chalk Sh Char-Gry Soft No Stn No Flor No Odor NS

4800

ROD (min/ft) gamma (API)

150

TG, C1-C5

150

**MARMATON 4835' (- 1981)**

Ls Wht-Crm-Tan-Gry Fxin Dns Mudstone w/Poor Ixln Ø Cht Lt Brn Translu-op-Vit Chalky Sh Char-Gry-Gm-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Fxin Dns Mudstone w/Poor Ixln Ø Cht Lt Brn Translu-Op-Vit Chalky Sh Char-Gry-Gm-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

30" CFS @ 4905' Ls Wht-Crm-Tan Fxin Dns Mudstone (w/Pyr Inclus) Grad Poor-Fair Ixln Pin-Pt Ø Grad Poor OOM Ø (w/OOL in pl) Poor Leaching Dissolu Fos (Fuss) Sh Blk Carb-Char-Gry soft-Fissil No Odor No Stn Few Pcs (5) w/Tr ? Min Flor NS

60" CFS @ 4905' Ls Wht-Crm-Tan Fxin Dns Mudstone (w/Pyr Inclus) Grad Poor Ixln Pin-Pt Ø (Tr Only) Grad Poor OOM Ø (Tr Only) Sh Blk Carb-Char-Gry soft-Fissil No Odor No Stn Few Pcs (5) w/Tr ? Min Flor NS

75" CFS @ 4905' Ls AA Sh AA No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Fxin Dns Mudstone (w/Pyr Inclus) Fos (Crin) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

**PAWNEE 4938' (- 2084)**

Ls Wht-Crm-Tan Fxin Dns Mudstone (w/Pyr Inclus) Cht DTan-Lt B in Op Shp Vit Fos (Crin) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

**FORT SCOTT 4978' (- 2124)**

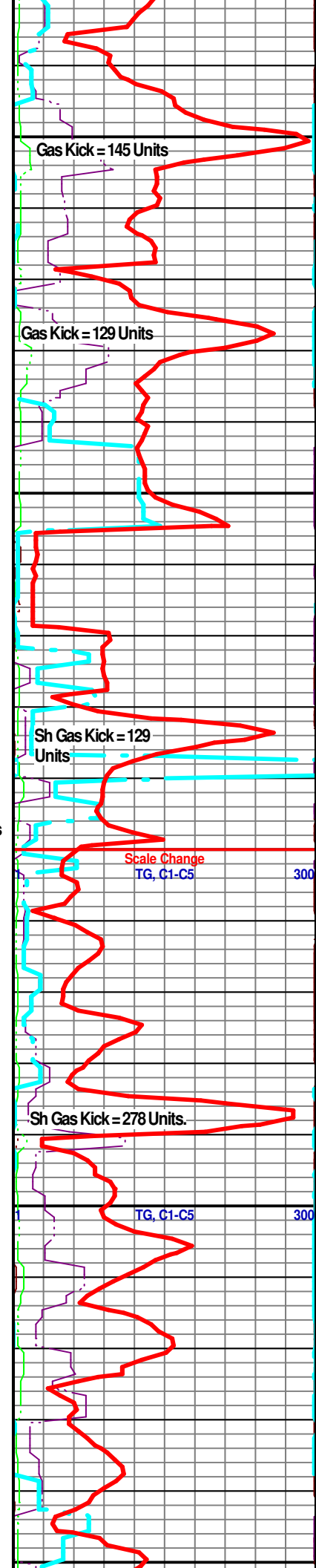
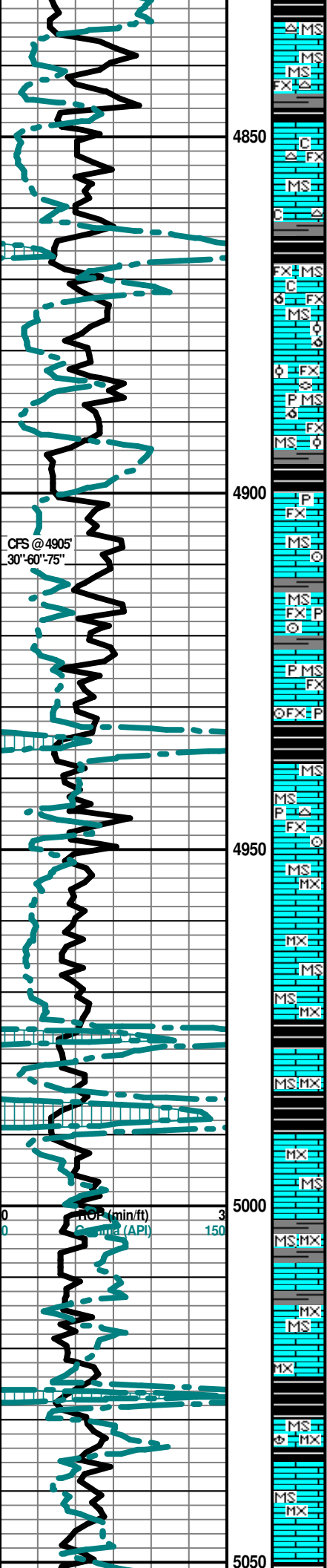
Sh Blk Carb-Char-Gry (w/GSG) Ls Wht-Crm Mxln Poor Ixln Ø Cht Wht Op Shp No odor No Stn No Flor NS

**CHEROKEE SHALE 4984' (- 2130)**

Ls Wht-Crm- Gry Dns Mxln Poor Ixln Ø Mudstone Chalk Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

**SECOND CHEROKEE SHALE 5035' (- 2181)**

Ls Wht-Crm- Gry Dns Mxln Poor Ixln Ø Mudstone Chalk Fos (Brach) Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS





Sh Blk Carb-Char-Gry Fiaail Ls Wht-Crm Mxin Poor Ixln Ø Cht Wht Op Shp No odor No Stn No Flor NS

**THIRD CHEROKEE SHALE 5180' (- 2326)**

Ls Wht-Crm- Gry Dns Fxln Poor Ixln Ø Mudstone (w/Tr Pyr Inclus) Grad Poor Pin-Pt Ø Chalk Fos (Crin) Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Dns Fxln Poor Ixln Ø Mudstone (w/Tr Pyr Inclus) Grad Poor Pin-Pt Igran Ixln Ø Cht Lt Brn-Tan-Lt Gry Translu-Op Vit Shp Sh Blk Carb-Ch ar Fissil No Odor No Flor No Stn NS

Ls Wht-Crm- Gry Dns Fxln Poor Ixln Ø Mudstone (w/Tr Pyr Inclus) Grad Poor Pin-Pt Ø Fos (Crin) Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Dns Fxln Poor Ixln Ø Mudstone (w/Tr Pyr Inclus) Grad Poor Pin-Pt Igran Ixln Ø Cht Lt Brn-Tan-Lt Gry Translu-Op Vit Shp Sh B k Carb-Char Fissil No Odor No Flor No Stn NS

LsGry-Crm- Wht Dns Mxin Poor Ixln Ø Mudstone (w/Tr Pyr Inclus) Cht Lt Gry Op Vit Shp Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

**ATOKA SHALE 5200' (- 2346)**

Ls Crm-Wht-Tan Fxln Poor Ixln Ø Mudstone Dns Barren Chalk Soft Cht Drk Blk-Gry Op Shp Vit Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

30" CFS @ 5238' Ls Crm-Wht-Tan Mxin Poor Ixln Ø Mudstone Dns Chalk Soft Cht Drk Blk-Drk Amber Shp Translu-Op Vit Op Sh Blk Carb-Gry Fair Inc Odor No Flor No Stn NS

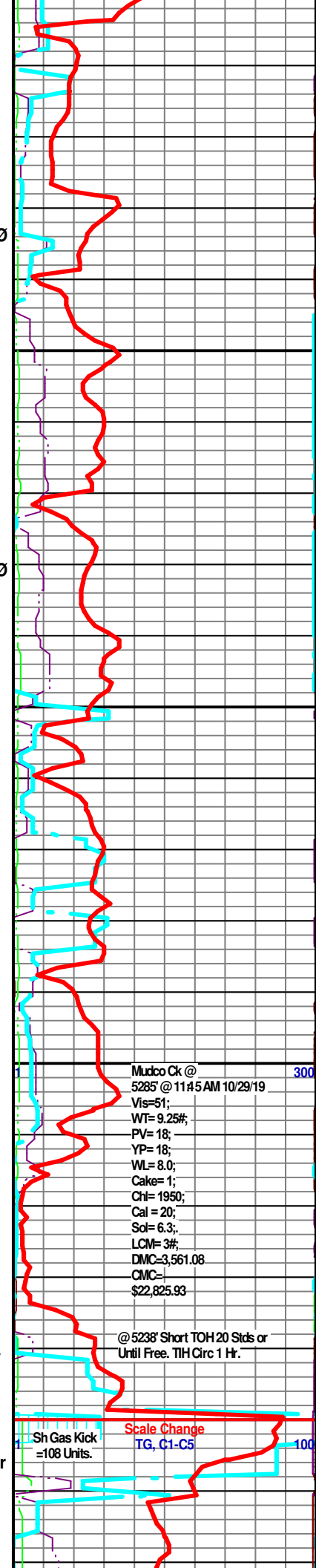
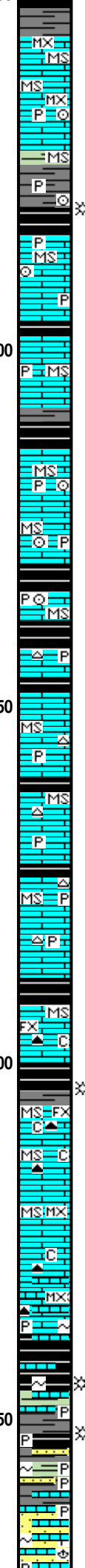
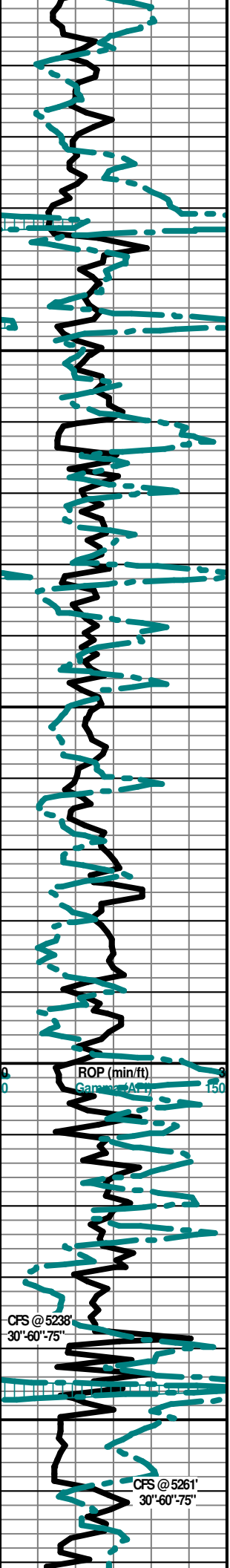
60" & 75" CFS @ 5238' Ls Crm-Wht-Tan Mxin Poor Ixln Ø Mudstone Dns Chalk Soft Cht Drk Blk-Drk Amber Shp Translu-Op/Vit Op Sh Blk Carb-GryFaint-Fair Odor No Flor No Stn NS

**MORROW SHALE 5239' (- 2385)**

30" CFS @ 5261' Sh Blk Carb-Char-Gry Fissil (V ABD) LsCrm Fxln Mudstone (w/Hvy Glacu & Pyr Inclus) Pyr Mass No Odor No STn No Flor NS

60" & 75" CFS @ 5261' Sh Blk Carb-Char-Gry- Aqua Fissil (VABD) Ls Crm Fxln Mudstone (w/Hvy Glacu & Pyr Inclus) Qtz Ss Wht-Gm Ang- Sub Ang Poor Igran Ø (w/Hvy Glacu & Pyr Inclus) Hvy CaCO3 Cmt Matrix Pyr Mass No Odor No Stn No Flor NS

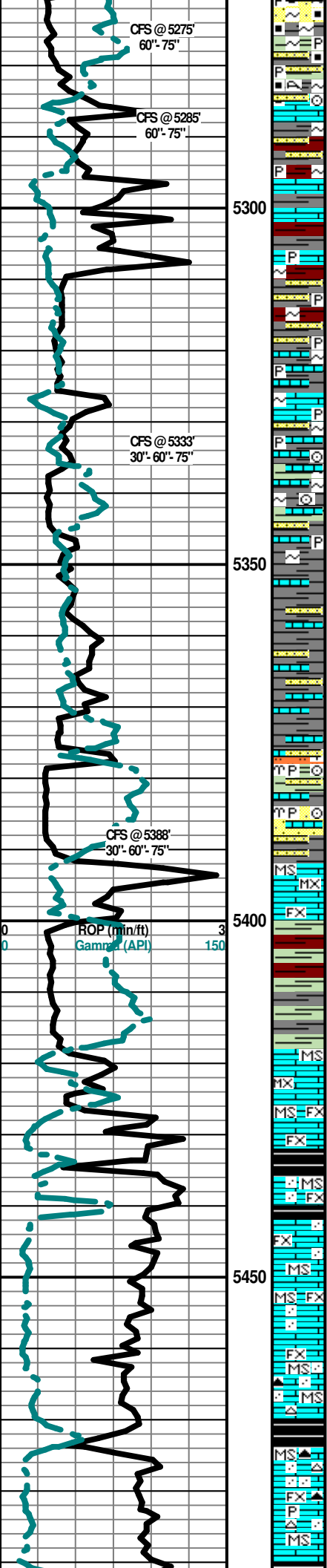
60" & 75" CFS @ 5275' Qtz Ss Wht-Gm Ang-SubAng Poor Igran Ø (w/Hvy Glacu & Pyr Inclus) Hvy CaCO3 Cmt Matrix Semi-Friable Ls Crm Fxln Mudstone (w/Hvy Glacu, Carb & Pyr Inclus) Fos (Brach) Sh Blk Carb-Char- Gry- Aqua Fissil Pyr Mass No Odor No Cut (w/Acid) No Stn No Flor NS



Mudco Ck @ 5285' @ 11:45 AM 10/29/19  
Vis=51;  
WT= 9.25#;  
PV= 18;  
YP= 18;  
WL= 8.0;  
Cake= 1;  
Cht= 1950;  
Cal = 20;  
Sol= 6.3;  
LCM= 3#;  
DMC=3,561.08  
CMC=

@ 5238' Short TOH 20 Stds or Until Free. TH Circ 1 Hr.

Scale Change TG, C1-C5



60" & 75" CFS @ 5285' Ls Wht-Crm Fxln Mudstone (w/Hvy Glacu, Pyr & Carb Inklus) Qtz Ss Wht-Gm Ang-Sub Ang Poor Igran Ø (w/Hvy Glacu, Carb & Pyr Inklus) Hvy CaCO3 Cmt Matrix Semi-Friable Fos (Coral, Crin) Sh Blk Carb-Char- Gry-Grn-Aqua Fissil Pyr Mass No Odor No Stn No Cut (w/Acid) No Flor NS

**MISSISSIPPIAN "CHESTER" 5282' (- 2428)**

Ls Wht-Crm Fxln Mudstone (w/Hvy Glacu, Pyr & Carb Inklus) Qtz Ss Wht-Gm Ang-Sub Ang Poor Igran Ø (w/Hvy Glacu, Carb & Pyr Inklus) Hvy CaCO3 Cmt Matrix Semi-Friable AA Sh Char-Gry-Gm- Aqua-Maroon Soft-Fissil (Wash Red) Pyr Mass No Odor No Stn No Flor NS

30" CFS @ 5333' Ls Wht-Crm Fxln Mudstone (w/Hvy Glacu, Pyr & Carb Inklus) Qtz Ss Wht-Gm Ang-Sub Ang Poor Igran Ø (w/Hvy Glacu, Carb & Pyr Inklus) Hvy CaCO3 Cmt Matrix Semi-Friable AA Sh Char-Gry-Gm-Aqua-Maroon Soft-Fissil (Wash Red) Pyr Mass No Odor No Stn No Flor NS

60" & 75" CFS @ 5333' Ls Wht-Crm Fxln Mudstone AA Qtz Ss Wht-Gm Ang-Sub Ang Poor Igran Ø (w/Hvy Glacu, Carb & Pyr Inklus) Decl AA Sh Blk Carb-Char-Gry-Gm-Aqua Soft-Fissil Pyr Mass No Odor No Stn No Flor NS

Ls Wht- Crm-Gry Mxln-Fxln Dns Mudstone (w/Pyr Inclu) Fos (Crin) Sh Char-Gry-Gm-Olive Soft-Fissil Pyr Mass No Odor No Stn No Flor NS

30" CFS @ 5388' Ls Wht- Crm-Gry Mxln-Fxln Dns Mudstone (w/Pyr Inclu) Qtz Ss Tan-Lt Brm-Crm VFG Ang/Sub-Ang (w/Small Gms) Poor-Fair Igran Ø Fos (Bry, Crin) Sh Varicolored Char-Gry-Gm- Olive Soft-Fissil Pyr Mass Odor No Stn No Flor NS

**? MISS. "LWR CHESTER SAND" 5376' (- 2522)**

60" & 75" CFS @ 5388' Ls Wht- Crm-Gry Mxln-Fxln Dns Mudstone (w/Pyr Inclu) Sh Varicolored Char-Gry-Gm-Olive-Yell Fissil-Soft Pyr Mass Qtz Ss Tan-Lt Brm-Crm VFG Ang-Sub Ang w/SmallGms) Fair Igran Ø (Few Pcs- 10) No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry- Gm-Aqua-Maroon Soft-Fissil Ls Wht-Crm (Banded Yell)-Gry-Lt Aqua Mxln-Fxln Dns Mudstone No Odor No Flor NS

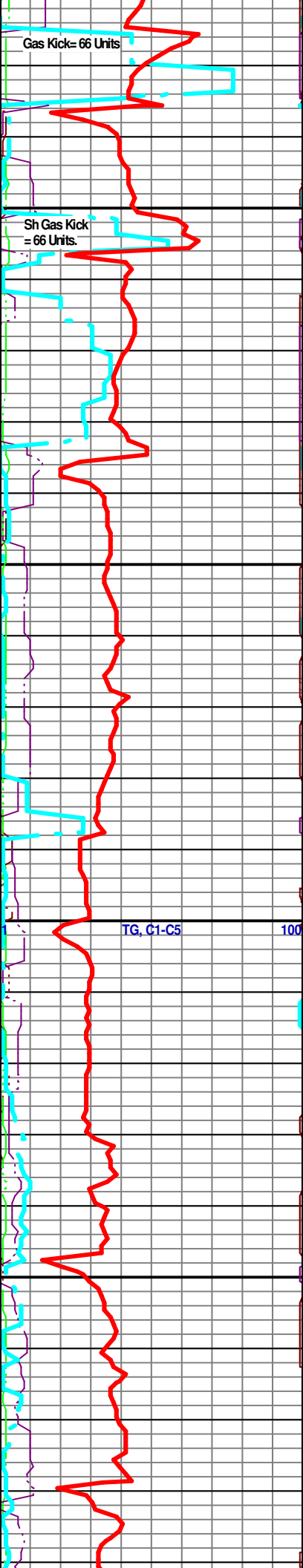
Ls Wht-Crm-Gry-Lt Aqua Mxln-Fxln Dns Mudstone Sh Blk Carb- Char-Gry- Gm-Aqua-Maroon Soft-Fissil No Odor No Flor NS

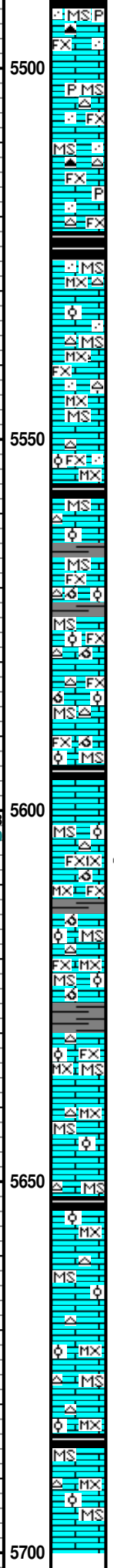
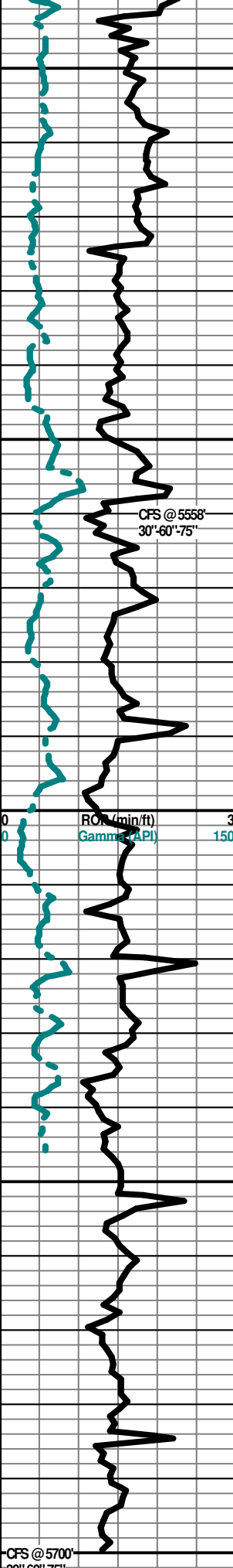
**MISSISSIPPIAN "STE. GEN" 5436' (- 2582)**

Ls Wht-Gry Fxln Poor "Carbonate Sandy Ls" (w/Small Qtz Ss Inklus) Wht-Crm-Tan VFGm Ang-Sub Ang Inklus (fL=125-177 Microns= 3.0-2.25 Ø) Grad Crm-Tan-Gry Fxln Dns Mudstone Sh Char-Blk Carb-Gry-Maroon-Aqua Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Fxln Poor "Carbonate Sandy Ls" (w/Small Qtz Ss Inklus) Wht-Crm-Tan VFGm Ang-Sub Ang Inklus (fL=125-177 Microns= 3.0-2.25 Ø) Grad Crm-Tan-Gry Fxln Dns Mudstone Sh Char-Blk Carb-Gry-Maroon-Aqua Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Gry Fxln Poor "Carbonate Sandy Ls" (w/Small Qtz Ss Inklus) Wht-Crm-Tan VFGm Ang-Sub Ang Inklus (fL=125-177 Microns= 3.0-2.25 Ø) Grad Crm-Tan-Gry Fxln Dns Mudstone Cht Blk-Tan-Amber-Peach Op Shp Vit Pyr Mass Sh Char-Blk Carb-Gry-Maroon-Aqua Soft-Fissil No Odor No Stn No Flor NS





Ls Wht-Gry Fxn Poor "Carbonate Sandy Ls" (w/Small Qtz Ss Inclus) Wht-Crm-Tan VFGm Ang-Sub Ang Inclus (fL=125-177 Microns= 3.0-2.25 Ø) Grad Crm-Tan-Gry Fxn Dns Mudstone Cht Blk-Tan-Amber Translu- Op Shp Vit Pyr Mass Sh Char-Blk Carb-Gry- Maroon-Aqua Soft-Fissil No Odor No Stn No Flor NS

**MISSISSIPPIAN "ST. LOUIS" 5526' (- 2672)**

30" CFS @ 5558' Ls Wht-Crm Mxln-Fxn Dns Mudstone Grad Med-Lg OOL Ø (w/ Small-Med OOids in pl) Poor Leaching Poor Develop Poor OOL Dissolu Grad Poor lxn Ø Mudstone Cht Wht-Amber-Peach Translu-Op Shp Vit Sh Char-Blk Carb-Gry-Maroon- AquaSoft-Fissil No Odor No Fbr No Stn NS

60" CFS @ 5558' Ls Wht-Crm Mxln-Fxn Dns Mudstone Grad Med-Lg OOL Ø (w/ Small-Med OOids in pl) Poor Leaching Poor Develop Poor OOL Dissolu Grad Poor lxn Ø Cht Wht-Amber- Peach Translu-Op Shp Vit Sh Char-Gry-Aqua Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Mxln-Fxn Dns Mudstone Grad Small-Med OOL Ø (w/ Small-Med OOids in pl) Poor Leaching Poor Develop Poor OOL Grad Poor Inter OOL/OOM Ø Poor-No Dissolu Grad Poor lxn Ø Cht Wht-Amber- Peach Translu-Op Shp Vit Sh Char-Gry-Aqua Soft-Fissil No Odor No Flor No Stn NS

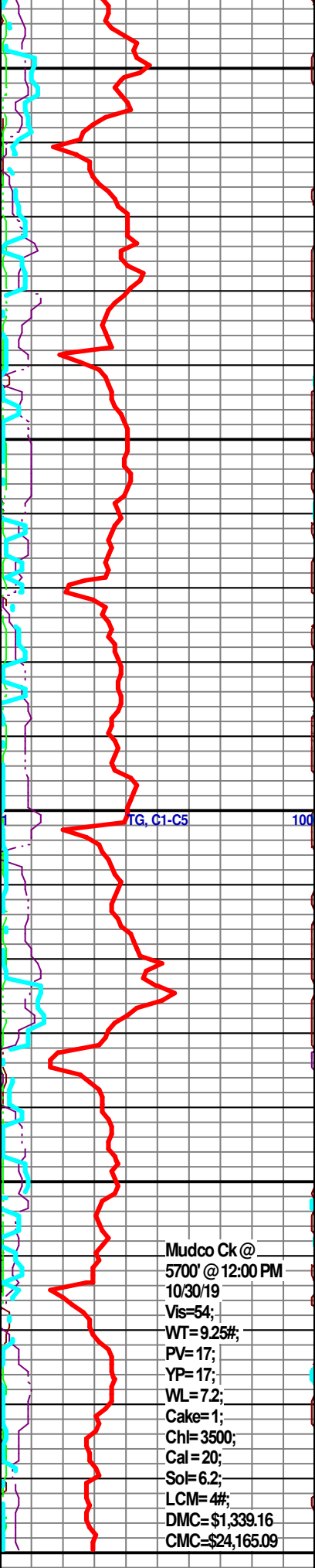
Ls Wht-Crm Mxln-Fxn Dns Mudstone Grad Small OOL Ø (w/ Small OOids in pl) Poor Leaching Poor Develop Poor OOL Grad Poor Inter OOL/OOM Ø Poor-No Dissolu Grad Poor lxn Ø Cht Gm Op Shp Vit Sh Char-Blk Carb Fissil ? Faint Odor No Flor No Stn NS

Ls Wht-Crm-Tan Mxln-Fxn Dns Mudstone Grad Small OOL Ø (w/ Small OOids in pl) Poor Leaching Poor Develop Poor OOL Grad Poor Inter OOL/OOM Ø Poor-No Dissolu Grad Poor lxn Ø Cht Gm Op Shp Vit Sh Char-Blk Carb Fissil ? Faint Odor No Flor No Stn NS

Ls Crm-Tan Microxln Mudstone Poor lxn Ø Dns Grad Poor Inter OOL Ø Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char-Maroon (Tr Only ? Sluff) Fissil No Odor No Stn No Flor NS

30" CFS @ 5700' Ls Crm-Tan Microxln Mudstone Poor lxn Ø Dns Grad Poor Inter OOL Ø Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char Fissil No Odor No Stn No Flor NS

60" & 75" CFS @ 5700' Ls Crm-Tan Microxln Mudstone Poor lxn Ø Dns Grad Poor Inter OOL Ø Cht Wht-Lt Gry Translu-Op Shp Vit Sh Char Fissil No Odor No Stn No Flor NS



Mudco Ck @  
5700' @ 12:00 PM  
10/30/19  
Vis=54;  
WT=9.25#;  
PV= 17;  
YP= 17;  
WL= 7.2;  
Cake= 1;  
Chl= 3500;  
Cal= 20;  
SoF= 6.2;  
LCM= 4#;  
DMC= \$1,339.16  
CMC= \$24,165.09

L.T.D. = 5700' (-2846)

Microresistivity Logs.

Geologist Released From Locatom @ 5 P.M. on 10/30/2019.

5750