



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

Well Name: KOEHN "F" # 1 - 29
API: 15 - 081 - 22,201 - 00 - 00
Location: NW-SW-NE
License Number: 5003 (KCC) **Region:** Haskell
Spud Date: 11/01/2019 **Drilling Completed:** 11/11/2019
Surface Coordinates: 1650' FNL & 2310' FEL SEC. 29 - T. 29 S. - R. 31 W.

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2849' **K.B. Elevation (ft):** 2862'
Logged Interval (ft): 1832' **To:** 5699' **Total Depth (ft):** 5700'
Formation: MISSISSIPPIAN "ST. LOUIS"
Type of Drilling Fluid: Chemical/Polymer/Gel & Mud Displacement at 3485'

Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCoy Petroleum Corporation
Address: 9342 E. Central
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GEOLOGIST

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

CASING AND DEVIATION SURVEY'S:

Surface Casing: Spud at 6:30 pm on 11/01/19. Drilled 12-1/4" to 1836'. Ran 43 joints of new 24#, 8-5/8" casing. Tallied 1812.40' + 18.50 LJ + 1.00' shoe. Set at 1831.99' KB. Welded straps on bottom 3 joints, tacked collars on top 2 joints. Centralizers (4) on joints 1,3,5,7. Float insert in top of 1st collar. Rubber plug. Cemented with 625 sks A-Serv Lite; 3% CC, 1/4# CF and tailed with 200 sks Class C with 2% CC & 1/4# CF. Cement did circulate. Float did not hold. Plug down at 3:15 pm on 11/03/19. Basic Energies Cementing ticket #19813

Deviation Surveys Taken: @ 1836' = 1/4 degree. @ 4815' = 3 degrees; @ 5261' = 3 1/4 degrees; @ 5700' = 1 3/4 degrees.

DSTs

~~DST # 1~~ Interval: 4761'- 4815'. Times: 3"-30"-60"-150";
 Blow: IF=Strong/10". FF= BOB/Instant & Built to 131".
 Recovery: 2174' G.I.P. & 90' GOM (10% G; 5 % Oil & 85% Mud)
 Pressures: IH=2421#; FH=2386#; IF=37-27#; FF=37-50#;

ISIP= 834#; FSIP= 895#; Temp= 120 degrees F.

~~ DST #@ ~~ Interval: 5182-5261'. Times: 3"-30"-60"-150";


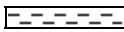

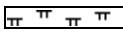
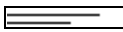
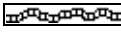




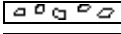




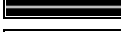
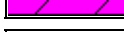
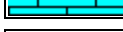
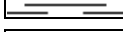
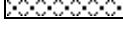
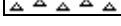


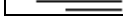
Blow: IF=Weak Surface Blow 1.1"; FF= Weak Surface Blow 1.1" & Died. Recovery: 5' Drilling Mud. Pressures:
 IH=2525#;
 FH = 2649#; IF =32-23#; FF= 23-25#; ISIP=65#; FSIP=64#;
 Temp= 125 degrees F.

Comments












































































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.

ROCK TYPES

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

ACCESSORIES

MINERAL	 Gyp	 Amph	 Pelec	 Ssstrg
 Anhy	 Hvymin	 Belm	 Pellet	
 Arggrn	 Kaol	 Bioclst	 Pisolite	TEXTURE
 Arg	 Marl	 Brach	 Plant	 Boundst
 Bent	 Minxl	 Bryozoa	 Strom	 Chalky
 Bit	 Nodule	 Cephal		 Cryxln
 Brecfrag	 Phos	 Coral	STRINGER	 Earthy
 Calc	 Pyr	 Crin	 Anhy	 Finexln
 Carb	 Salt	 Echin	 Arg	 Grainst
 Chlorite	 Sandy	 Fish	 Bent	 Lithogr
 Chtdk	 Silt	 Foram	 Coal	 Microxln
 Chtlt	 Sil	 Fossil	 Dol	 Mudst
 Dol	 Sulphur	 Fuss	 Grysh	 Packst
 Feldspar	 Tuff	 Gastro	 Gyp	 Wackest
 Ferrpel	FOSSIL	 Oolite	 Ls	
 Ferr	 Algae	 Oomold	 Mrst	
 Glau		 Ostra	 Sltstrg	

OTHER SYMBOLS

- POROSITY**
- Earthy
 - Fenest
 - Fracture
 - Inter
 - Moldic
 - Organic
 - Pinpoint

- Vuggy

- SORTING**
- Well
 - Moderate
 - Poor

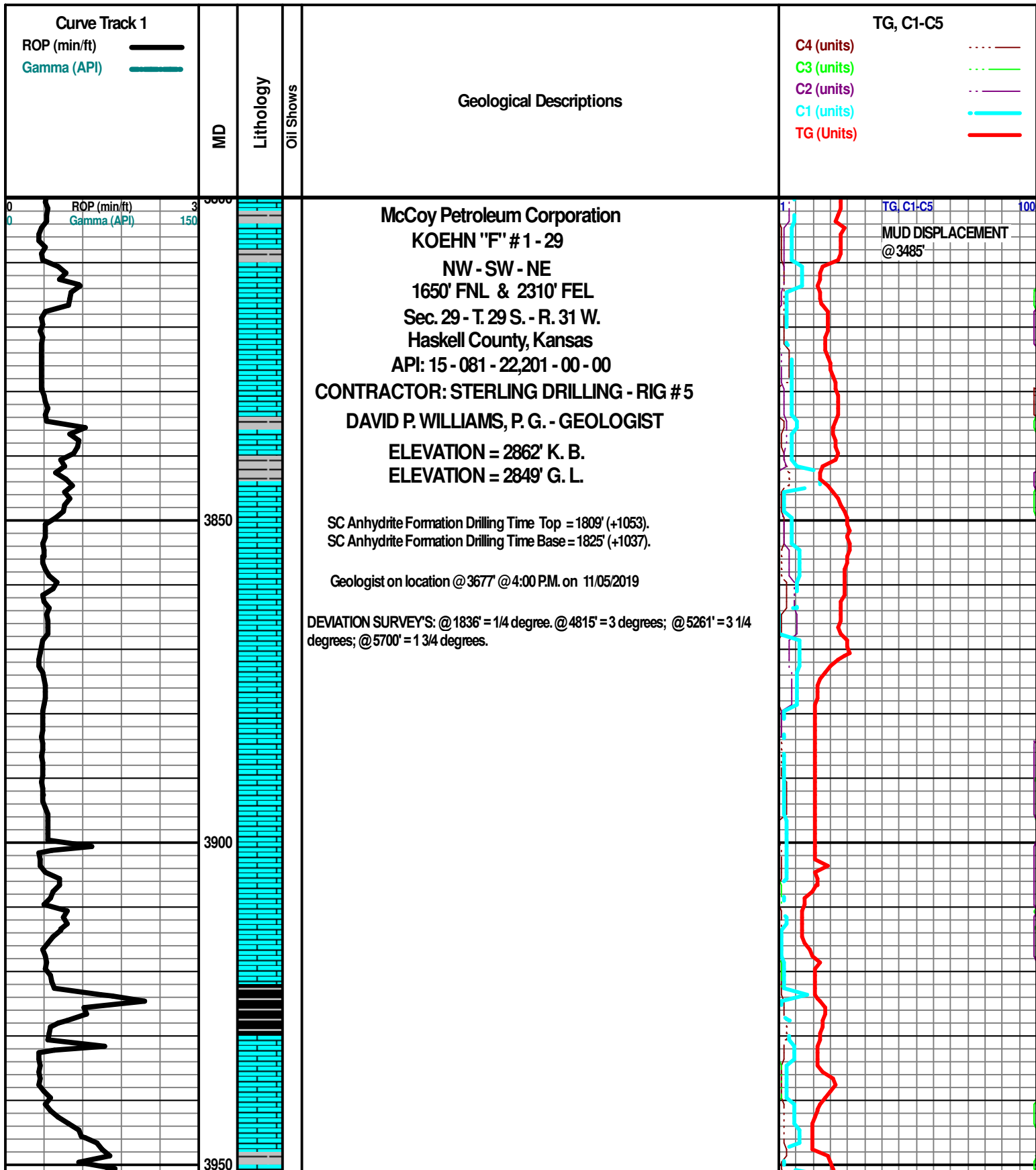
- ROUNDING**
- Rounded
 - Subrnd
 - Subang
 - Angular

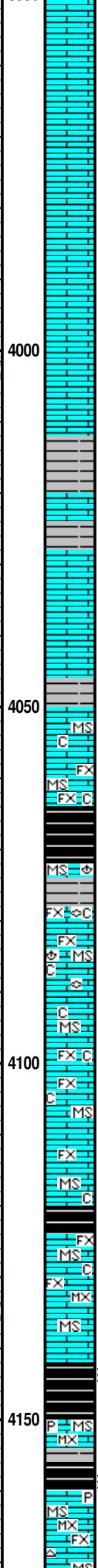
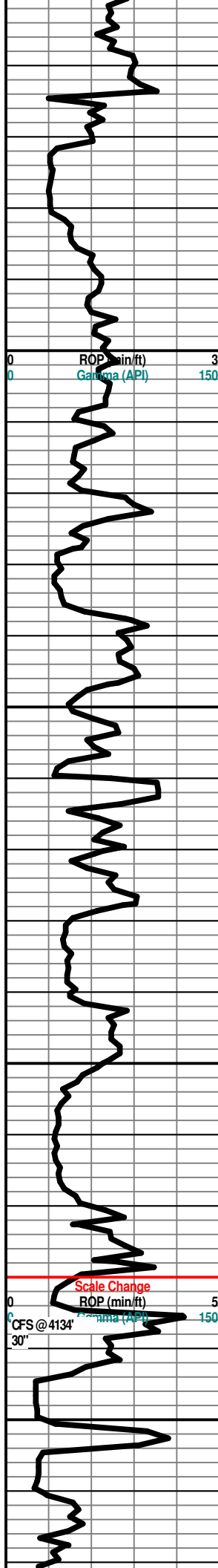
- OIL SHOW**
- Even

- Gas show
- Spotted
- Ques
- Dead

- INTERVAL**
- Dst_alt
 - Dst

- EVENT**
- Rft
 - Sidewall





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

Begin 20' Sample Examination at 4100'

QUEEN HILL SHALE 4064' (- 1202)

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

Ls Wht-Crm-Gry Fxln Dns Mudstone Poor Ixln Ø Chalky Fos (Brach, Fuss) Cht Wht Op Shp Vit Sh Blk-Carb-Char-Gry-Maroon Fissil-Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Fxln Dns Mudstone Poor Ixln Ø Chalky Cht Wht Op Shp Vit Sh Char-Gry-Maroon Fissil-Soft No Odor No Flor No Stn NS

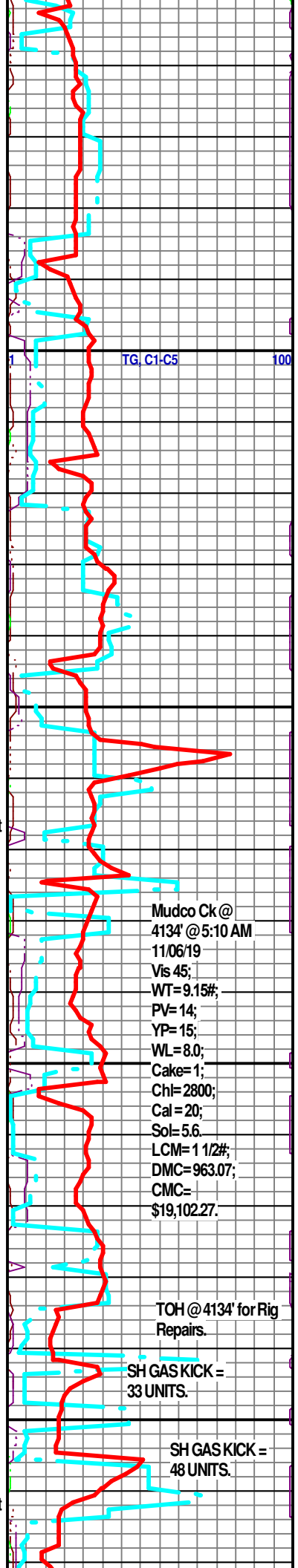
30' CFS @ 4134' Ls Wht-Crm-Gry Fxln Dns Mudstone Poor Ixln Ø Chalky Sh Char-Gry-Maroon Fissil-Soft No Odor No Flor No Stn NS

HEEBNER 4145' (-1283)

Sh Blk-Carb Fissil (w/GSG) Abd Ls Wht-Crm-Gry Mxln Dns Mudstone No Vis Ø Grad Fxln Poor Ixln Ø Chalk No Odor No Stn No Flor GSG in Sh

LEVENWORTH 4151' (- 1289)

TORONTO 4161' (- 1297)
 Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Fxln Poor-Fair Ixln Ø Cht Lt Brn Op Shp Vit Pyr Mass Chalk Sh Blk-Carb- Gry-Grn (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

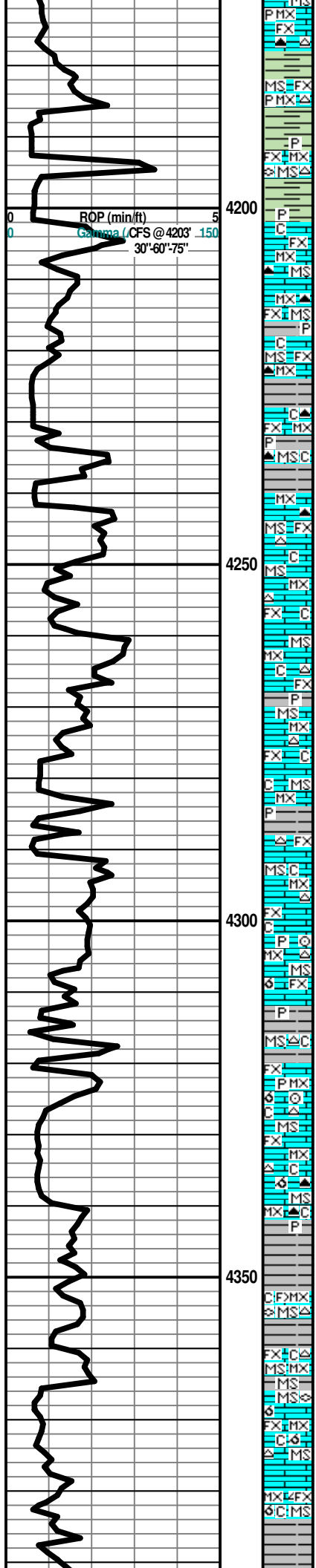


Mudco Ck @
 4134' @ 5:10 AM
 11/06/19
 Vis 45;
 WT= 9.15#;
 PV= 14;
 YP= 15;
 WL= 8.0;
 Cake= 1;
 Ch= 2800;
 Cal = 20;
 Sol= 5.6.
 LCM= 1 1/2#;
 DMC= 963.07;
 CMC=
 \$19,102.27.

TOH @ 4134' for Rig Repairs.

SH GAS KICK = 33 UNITS.

SH GAS KICK = 48 UNITS.



30" CFS @ 4203' Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Fxln Poor-Fair lxn Ø Cht Lt Brn-Wht Op Shp Vit Pyr Mass Chalk Sh Blk-Carb- Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

60" & 75" CFS @ 4203' Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Fxln Poor-Fair lxn Ø Cht Wht Op Shp Vit Pyr Mass Fos (Fuss) Chalk Sh Blk-Carb- Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

LANSING 4203' (- 1341)

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Cht Drk Brn Op Shp Vit Chalk Sh Blk-Carb- Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Cht Drk-Brn Op Shp Vit Chalk Sh Blk-Carb- Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Cht Wht Op Shp Vit (Abd) Chalk Sh Blk-Carb-Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Cht Wht Op Shp Vit (Tr Only) Chalk Sh Blk-Carb-Gry-Gm-Aqua (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

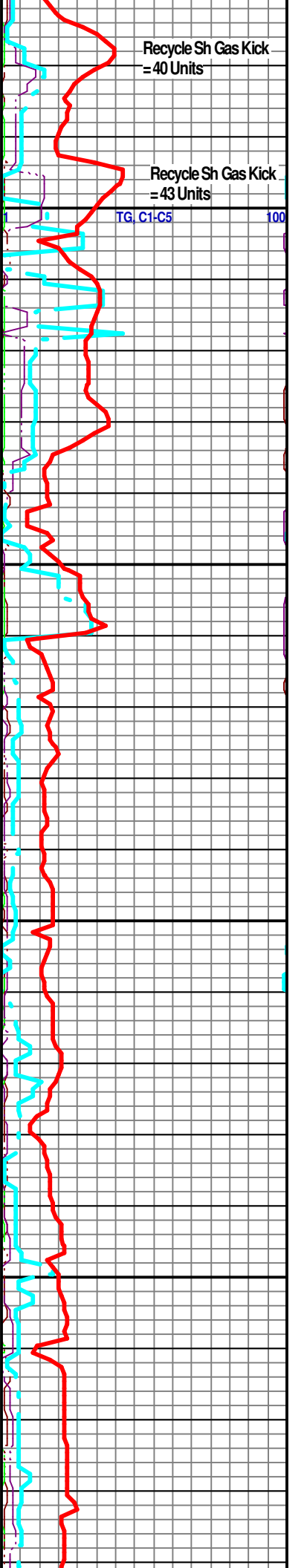
Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Poor-Fair OOM Ø Fair Dissolu Leaching Cht Wht Op Shp Vit Chalk Fos (Crin) Sh Blk-Carb-Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

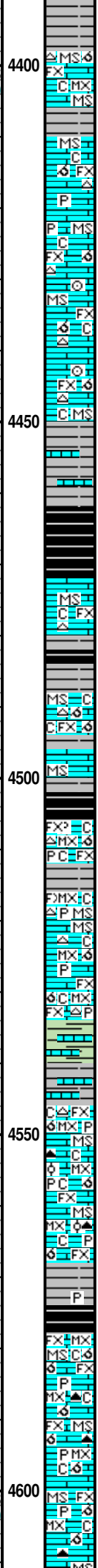
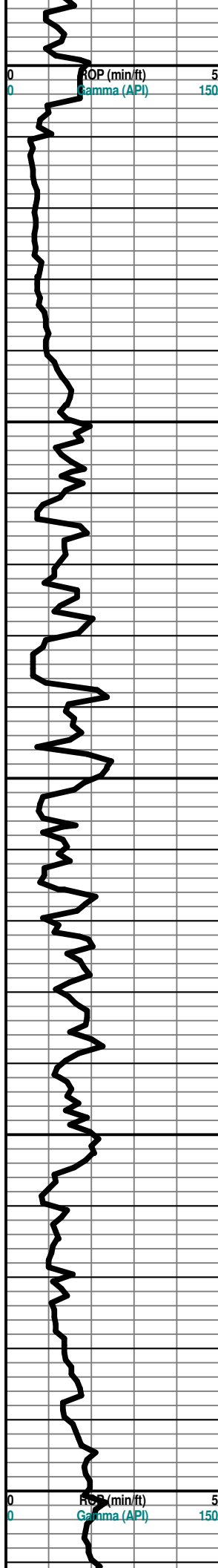
Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Poor-Fair OOM Ø Fair Dissolu Leaching Cht Wht Op Shp Vit Chalk Fos (Crin) Sh Blk-Carb-Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Cht Wht-Tan Op Shp Vit Chalk Sh Char-Drk-Gry-Gm (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Poor OOM Ø Cht Wht-Tan Op Shp Vit Fos (Fuss) Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxln-Fxln Dns Mudstone No Vis Ø Grad Poor OOM Ø Poor Develop Poor Leaching Cht Wht Op Shp Vit Fos Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor Ns





Ls Wht-Crm-Gry Mxn-Fxln Dns Mudstone No Vis Ø Grad Poor OOM Ø Poor Develop
 Poor Leaching Cht Wht Op Shp Vit Fos Chalk Sh Char-Gry Soft-Fissil No Odor No
 Stn No Flor Ns

LANSING "G" 4411' (- 1549)

Ls Wht-Crm-Gry Fxln Dns Mudstone No Vis Ø Grad Poor OOM Ø Poor Develop Poor
 Leaching Cht Wht Op Shp Vit Pyr Mass Chalk Sh Char-Gry Soft-Fissil No Odor No
 Stn No Flor Ns

Ls Wht-Crm-Gry Fxln Dns Mudstone No Vis Ø Grad Poor OOM Ø Poor Develop Poor
 Leaching Cht Wht Op Shp Vit Fos (Crin) Chalk (V Abd) Sh Char-Gry Soft-Fissil No
 Odor No Stn No Flor Ns

Sh Blk Carb-Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Mudstone No Vis Ø Cht
 Wht Op Shp Vit Chalk (Tr Only) No Odor No Stn No Flor Ns

KANSAS CITY "IOLA" 4488' (- 1626)

Sh Blk Carb-Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Mudstone No Vis Ø Grad
 Fair-Med OOM Ø Poor-Fair Leaching Dissolu (Tr Poor-Fair Vug Leaching) Cht Wht
 Op Shp Vit Chalk (Tr Only) No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxn-Fxln Dns Mudstone (w/Pyr Inklus) No Vis Ø Grad Fair-Med
 OOM Ø Fair-Med Dissolu Vug Leaching Cht Wht Op Shp Vit Chalk Sh Gry-Gm
 Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxn-Fxln Dns Mudstone (w/Pyr Inklus) No Vis Ø Grad Fair-Med
 OOM Ø Fair-Med Dissolu Vug Leaching Cht Wht Op Shp Vit Chalk Sh Gry-Gm
 Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxn-Fxln Dns Mudstone (w/Pyr Inklus) No Vis Ø Grad Fair-Med
 OOM Ø Fair-Med Dissolu Vug Leaching (w/OOL in pl) Cht Gry Op Shp Vit Chalk Sh
 Gry-Gm Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxn-Fxln Dns Mudstone (w/Pyr Inklus) No Vis Ø Grad Fair OOM Ø
 Fair Dissolu Vug Leaching (Dec) Cht Gry Op Shp Vit Chalk (Abd) Sh Gry-Gm
 Soft-Fissil No Odor No Stn No Flor Ns

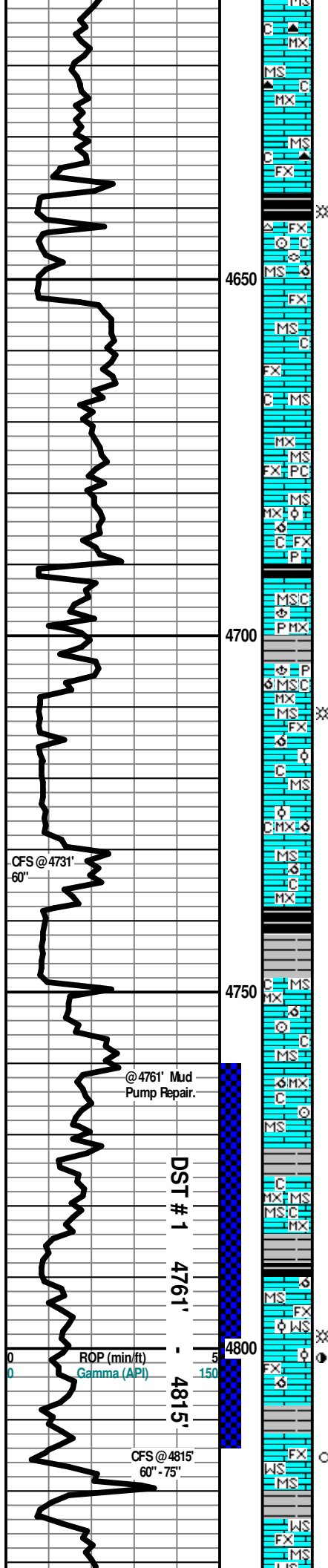
Ls Wht-Crm-Gry Mxn-Fxln Dns Mudstone (w/Pyr Inklus) No Vis Ø Grad Fair OOM Ø
 Fair Dissolu Vug Leaching (Dec) Cht Gry Op Shp Vit Chalk (Abd) Sh Char-Gry-Gm
 Soft-Fissil No Odor No Stn No Flor Ns

TG C1-C5 100

Sh Gas Kick
 = 43 Units

Mudco Ck @
 4591' @ 9:40 AM
 11/07/19
 Vis 49;
 WT=9.2#;
 PV= 16;
 YP= 16;
 WL=9.2;
 Cake= 1;

TG C 100



Ls Wht-Crm-Gry Mxin Dns Mudstone No Vis Ø Cht Lt Gry Op Shp Vit Chalk Sh
Char-Gry-Gm Soft-Fissil No Odor No Stn No Flor Ns

STARK SHALE 4638' (- 1776)
KANSAS CITY "SWOPE" 4642' (- 1780)

Sh Blk Carb-Char-Gry Soft-Fissil Ls Wht-Crm-Gry Fxin Dns Mudstone No Vis Ø Grad Fair OOM Ø Fair Leaching Dissolu Cht Wht Op Shp Vit Fos (Crin, Fuss) Chalk No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Fxin Dns Mudstone No Vis Ø Cht Wht-Lt Brn Op Shp Vit Chalk Sh
Char-Gm-Gry Soft-Fissil No Odor No Stn No Flor Ns

Ls Wht-Crm-Gry Mxin-Fxin Dns Mudstone (w/Pyr Inklus) No Vis Ø Grad Fair OOM Ø Fair Dissolu Vug Leaching (w/OOL in pl) Cht Wht- Lt Gry Op Shp Vit Chalk Sh
Char-Gry-Gm Soft-Fissil No Odor No Stn No Flor Ns

KANSAS CITY "HERTHA" 4692' (- 1830)

Sh Blk Carb (w/GSG)-Char-Gry (w/Pyr Inklus) Soft-Fissil Ls Wht- Crm-Gry Mxin Dns Mudstone (w/Pyr Inklus) No Vis Ø Tr Fair OOM Ø w/Fair Leaching (? Stuff) Cht Wh-Gry Translu-t Op Shp Vit Fos (Brach) Chalk No Odor No Stn No Flor Ns

60" CFS @ 4731' Ls Wht-Crm Fxin Dns Mudstone Fair-Med OOM Ø (w/small-Med-Lg OOL in pl) Fair-Med Develop Fair-Med Leaching (w/Poor-FSG Under Heat in Wtr) Cht Wht Op Shp Vit Fos (Crin) Chalk Sh Char-Gry Soft-Fissil Fair Odor No Stn Sli (Lt Grn Flor-10 Pcs in tray) SSG

75" CFS @ 4731' Ls AA SSG Poor-Fair Odor Sli Flor SSG AA

Sh Char-Gry-Blk Carb Soft-Fissil Ls Wht- Crm-Gry Mxin Dns Mudstone No Vis Ø Tr Poor-Fair OOM Ø w/Poor-Fair Leaching (? Stuff) Chalk No Odor No Stn No Flor Ns

MARMATON "A" 4749' (- 1887)

Ls Wht- Crm-Gry Mxin Dns Mudstone No Vis Ø Tr Poor OOM Ø (w/OOL in pl) Poor Leaching Cht Wht Op Shp Vit Fos (Crin) Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor Ns

Sh Char-Gry-Blk Carb Soft-Fissil Ls Wht- Crm-Gry Mxin Dns Mudstone No Vis Ø Tr Poor-Fair OOM Ø w/Poor-Fair Leaching (? Stuff) Chalk No Odor No Stn No Flor Ns

MARMATON " B" 4791' (- 1929)

30" CFS @ 4815' Ls Wht- Crm Fxin Dns Mudstone/Wackestone Fair-Med Pin-Pt Ixln Ø (w/Fair SO when Bkn Lt Grn.Wht Flor) Tr Poor-Fair OOM Ø (w/Poor-Fair Leaching & OOL in pl) Chalk Fair-Med Odor Scat Flor (Lt Grn-Wht + 20 Pcs) Fair-Med SG (in Wtr Under Heat) Good Cut (Lt Grn/Wht w/Acid) Pin-Pt Scat Stn Fair-Med SG & SSO

60" & 75" CFS @ 4815' Ls Wht- Crm Fxin Dns Mudstone/Wackestone Fair-Med Pin-Pt Ixln Ø (w/Fair SO when Bkn Lt Grn.Wht Flor) Fair-Med Odor Scat Flor (Lt Grn-Wht + 10 Pcs) Fair-Med SG (in Wtr Under Heat) Good Cut (Lt Grn/Wht w/Acid) Pin-Pt Scat Stn Fair-Med SG & SSO

Ls Wht- Crm Fxin Dns Mudstone/Tr Wackestone (4 Pcs & Dec) AA Poor-Fair Pin-Pt

Chl= 4800;
Cal= 20;
Sol= 6.1;
LCM= 2 #;
DMC= \$ 1005.37;
CMC=
\$20,107.64.

Sh Gas Kick=72 Units.

Mudco Ck @
4815' @ 7:40 AM
11/08/19
Vis 60;
WT= 9.2#;
PV= 22;
YP= 1619
WL= 7.6;
Cake= 1;
Chl= 3600;
Cal= 20;
Sol= 6.2;
LCM= 4#;
DMC= \$1857.64;
CMC=
\$21,965.28.

Sh Gas Kick=87 Units.

Scale Change
TG, C1-C5

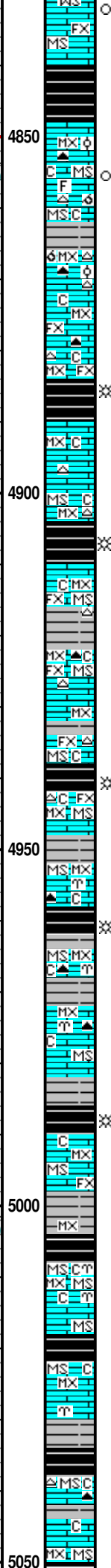
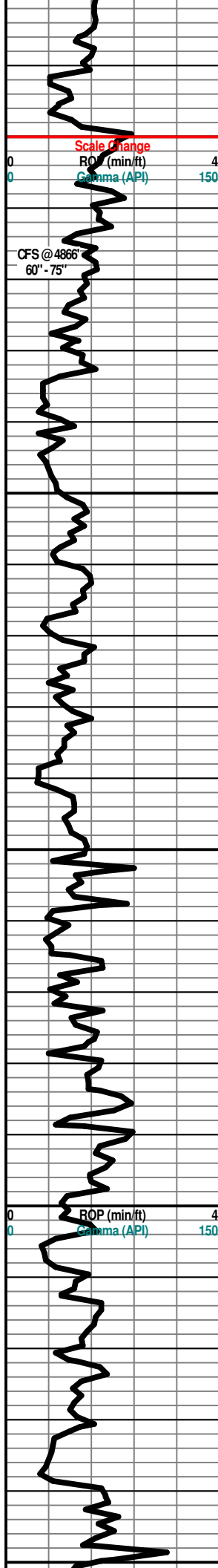
~ ~ DST # 1 ~ ~
Interval: 4761" - 4815".
Times: 3"-30"-60"-150";
Blow: IF=Strong/10".
FF= BOB/Instant & Built to 131" in Bucket.
Recovery: 2174' G.I.P. & 90' GOM (10% G; 5% Oil & 85% Mud).
Pressures:
IH = 2421#;
FH = 2386#;
IF = 37-27#; FF = 37-50#;
ISIP = 834#; FSIP = 895#;
Temp= 120 degrees F.

Gas Kick= 120 Units.

TG, C1-C5

Pipe Strap @ 4815' = 0.82' Short to Board

? Recycle Gas Kick= 100 Units.



Ls Wht-Crm Tan Mxn Dns Mudstone No Vis Ø Tr Poor OOM Ø (w/OOL in pl) Poor-No
 lxn Ø AA Poor ? Odor Scat Flor (Lt Gm-Wht + 5 Pcs) Scat Flor (Lt Gm-Wht Stn) AA ?
 VSSG & VSSO

PAWNEE 4848' (- 1986)

60" CFS @ 4866' Ls Wht-Crm-Gry Mxn Dns Mudstone No Vis Ø Tr Poor OOM Ø (w/OOL in pl) Poor-No
 Leaching Dissolu Cht Wht-Drk Brn Op Shp Vit Fos (?) Chalk Sh Char-Gry-Grm Banded Soft-Fissil ?
 Faint Odor No Stn VSli Flor (5 Pcs AA) NS

75" CFS @ 4866' Ls Wht-Crm-Gry Mxn Dns Mudstone No Vis Ø Tr Poor OOM Ø (w/OOL in pl)
 Poor-No Leaching Dissolu AA Cht Wht-Drk Brn Op Shp Vit Fos (?) Chalk Sh Char-Gry-Grm Banded
 Soft-Fissil ? Faint Odor No Stn ? VSli Min Flor NS

Ls Wht-Crm-Tan Mxn Dns Mudstone No Vis Ø Grad Fxin Poor lxn Pin-Pt Ø
 Mudstone Cht Gry Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn
 No Flor NS

FORT SCOTT 4889' (- 2027)

CHEROKEE SHALE 4904' (- 2042)

Sh Blk Carb-Char-Gry Fissil-Soft Ls Wht-Crm Mxn Mudstone AA Grad Fxin Poor lxn Ø AA Cht
 Wht-Gry-Clear Translu-Op Shp Chalk No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Mxn Dns No Vis Ø Grad Fxin Poor lxn Pin-Pt Ø Mudstone Cht
 Wht-Gry-Lt Brn Op Shp Vit Chalk Sh Char-Gry-Blk Carb AA Soft-Fissil No Odor No
 Stn No Flor NS

SECOND CHEROKEE SHALE 4938' (- 2074)

Ls Wht-Crm-Tan Mxn Dns No Vis Ø Grad Fxin Poor lxn Pin-Pt Ø Mudstone Cht Wht
 Op Shp Vit Chalk Sh Char-Gry-Blk Carb (Dec) AA Soft-Fissil No Odor No Stn No Flor
 NS

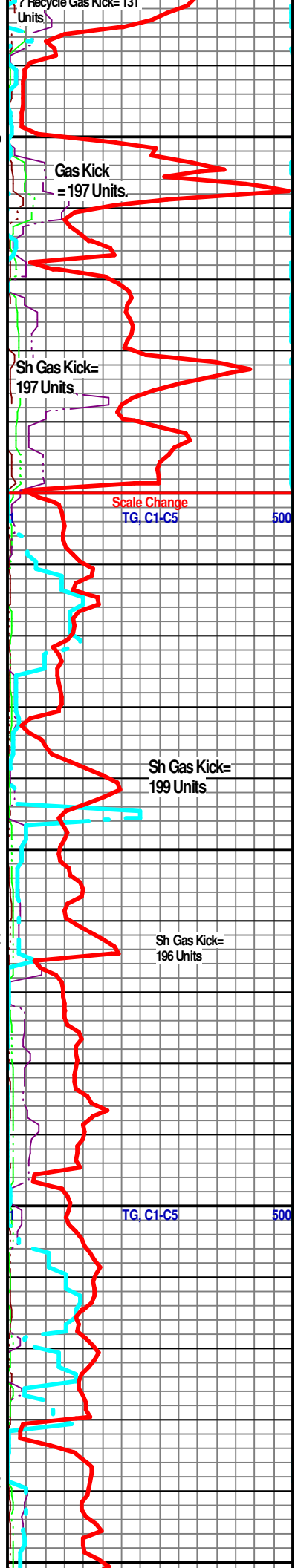
Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm Mxn Grad Poor Pin-Pt lxn Ø Mudstone Cht
 Lt Brn-Amber Op Shp Fos (Bry) Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char Fissil Ls Wht-Crm-Gry Dns Mxn Poor lxn Ø Mudstone Grad Fxin
 Poor Pin-Pt Ø Mudstone Chalk No Odor No Flor No Stn NS

THIRD CHEROKEE SHALE 5004' (- 2142)

Sh Blk Carb-Char Fissil Ls Wht-Crm-Gry Dns Mxn Poor lxn Ø Mudstone Grad Fxin
 Poor Pin-Pt Ø Mudstone Fos (Bry) Chalk No Odor No Flor No Stn NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm Mxn Grad Poor Pin-Pt lxn Ø Mudstone Cht
 Lt Brn-Amber Op Shp Chalky No Odor No Stn No Flor NS



Gas Kick
 = 197 Units.

Sh Gas Kick=
 197 Units

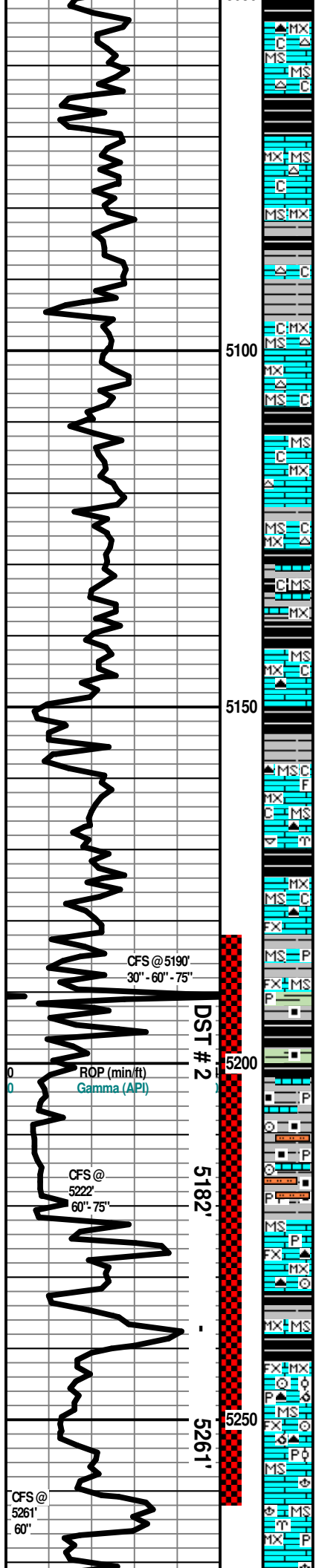
Scale Change
 TG, C1-C5

Sh Gas Kick=
 199 Units

Sh Gas Kick=
 196 Units

TG, C1-C5

500



Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht
Wht-Lt Brn Op Shp Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht
Wht-Lt Gry Op Shp Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht
Wht-Lt Gry Op Shp Chalky No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht Wht-Lt Gry Op Shp
Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht Amber-Gry-Wht Op
Shp Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

ATOKA SHALE 5150' (- 2288)

Sh Blk Carb-Char-Gry Fissil Ls Gry-Crm Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht
Lt Gry Op Shp Chalky No Odor No Stn No Flor NS

30" CFS@5190' Ls Gry-Crm-Wht Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht Drk
Gry (w/Wht Fos Inclus) Op Shp Fos (Bry, Pelec) Chalky Sh Blk Carb-Char-Gry Fissil
No Odor No Stn No Flor NS

60" & 75" CFS@5190' Ls Gry-Crm-Wht Mxln Grad Poor Pin-Pt Ixln Ø Mudstone Cht
Drk Gry-Blk (w/Wht Fos Inclus) Op Shp Fos (Bry, Pelec) Chalky Sh Blk Carb-Char-Gry
Fissil No Odor No Stn No Flor NS

MORROW SHALE 5191' (- 2329)

60" & CFS@5222' Sh Blk Carb-Gry (w/Pyr Inclus)-Gm Fissil Ls Crm Dns Fxln Poor
Ixln Ø Mudstone Grad Qtz SS B VFG (w/Laminated Carb & Pyr Inclus) Dns Poor-No
IGran Ø Poor Sort Fos (Brach, Crin & Pelec) No Odor No Stn No Flor NS

75" & CFS@5222' Sh Blk Carb-Gry (w/Pyr Inclus)-Gm Fissil Ls Crm Dns Fxln Poor
Ixln Ø Mudstone Grad Qtz SS Drk Brn VFG (w/Laminated Carb & Pyr Inclus) Dns
Siltstone Poor-No IGran Ø (w/Ssg Under Heat in Wtr) Fos (Brach, Crin & Pelec) No
Odor No Stn No Flor NS

Ls Wht-Crm-Gry Mxln-Fxln-Med Sil Coarse Grad Poor Pin-Pt Ixln Ø Mudstone Cht
Blk (w/Wht/Fos Inclus) Op Shp Fos (Brach, Crin) Chalky Sh Blk Carb-Char-Gry Fissil
No Odor No Stn No Flor NS

MISSISSIPPIAN "CHESTERIAN" 5242' (- 2380)

60" CFS@5261' Ls Crm-Tan Mxln-Fxln Dns Mudstone w/Pyr Inclus Grad Poor OOM
Ø (w/OOL in pl) Poor Dissolu VSSO (1 Droplet When Bkn Under Heat in Wtr) Cht Blk
(w/Wht Fos Inclus) Sh Char-Gry-Gm/Aqua-Blk Carb Fissil Fos (Coral, Brach) (Tr
Only) No Odor No Stn No Flor ? VVSO

Sh Gas Kick
= 230 Units

Mudco Ck @
5190' @ 6:30 AM
11/09/19
Vis 50;
WT=9.15#;
PV= 16;
YP= 18;
WL= 7.2;
Cake= 1;
ChI= 4600;
Cal= 20;
Sol= 5.4;
LCM= 3#;
DMC=\$2073.55;
CMC=
\$24,038.83.

Sh Gas Kick
= 211 Units
Short Trip 10-15
Stands @ 5190'

Gas Kick
= 211 Units
TG, C1-C5 500

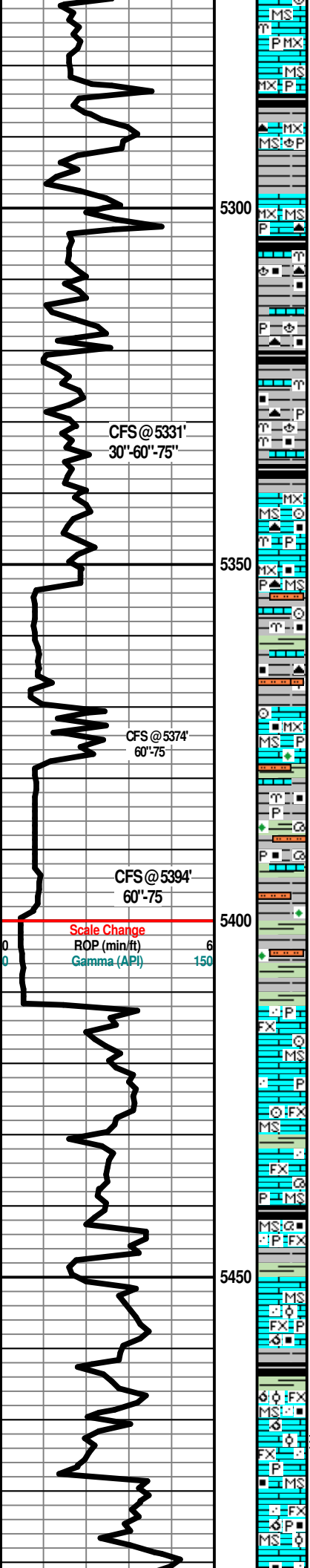
~ ~ DST # 2 ~ ~

Gas Kick
= 208 Units
Interval: 5182-5261'.
Times: 3"-30"-60"-150";
Blow: IF=Weak Surface
Blow 1.1".
FF= Weak Surface Blow 1.1"
& Died.
Recovery: 5' Drilling Mud.
Pressures:
IH = 2525#;
FH = 2649#;
IF = 32-23#;
23-25#;
ISIP = 65#;
64#;
Temp= 125 degrees F.

Sh Gas Kick
= 211 Units

Scale Change
TG, C1-C5 300

@5261' Replace Clutch on
Mud Pump



Sh Gry-Char-Blk Carb Fissil Ls Gry-Crm-Wht (w/Pyr Inclus) Mxn Poor-No lxn Ø Mudstone Fos (Bry, Brach) No Odor No Stn No Flor NS

30" CFS @ 5331' Sh Gry (w/ Carb Inclus)-Char-Blk Carb Fissil Ls Gry-Crm-Wht (w/Caeb & Pyr Inclus) Mxn Poor-No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Fos (Bry, Brach) No Odor No Stn No Flor NS

MISS. "LOWER CHESTER" 5305' (- 2443)

60" CFS @ 5331' Sh Gry (w/ Carb Inclus)-Char-Blk Carb Fissil Ls Gry-Crm-Wht (w/Carb & Pyr Inclus) Mxn Poor-No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Fos (Bry, Brach) No Odor No Stn No Flor NS

75" CFS @ 5331' Ls Gry-Crm-Wht (w/Carb & Pyr Inclus) Mxn Poor-No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Fos (Bry, Brach) Pyr Mass Sh Gry (w/ Carb Inclus)-Char-Blk Carb Fissil No Odor No Stn No Flor NS

60" CFS @ 5374' Sh Gry (w/ Carb Inclus)-Char-Blk Carb Fissil Ls Gry-Crm-Wht (w/Carb & Pyr Inclus) Mxn Poor No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Fos (Bry, Crin) No Odor No Stn No Flor NS

75" CFS @ 5374' Sh Gry (w/ Carb Inclus)-Char-Blk Carb Fissil Ls Gry-Crm-Wht (w/Carb & Pyr Inclus) Mxn Poor No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Fos (Bry, Crin) No Odor No Stn No Flor NS

60" CFS @ 5394' Sh Gry (w/ Carb Inclus)-Char-Blk Carb-Aqua Fissil Ls Gry-Crm-Wht (w/Carb & Pyr Inclus) Mxn Poor No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Qtz Siltsotne (Tr Only- 4 Pcs) VFG Small Grns (w/Carb, Pyr & Galcu or Chlorite Inclus) Dns VPoor IGran Ø Sli Friable Fos (Gastro, Bry) No Odor No Stn No Flor NS

75" CFS @ 5394' Sh AA Ls AA SSAA No Odor No /stn No Flor NS

Sh Gry (w/ Carb Inclus)-Char-Blk Carb-Aqua-Yell Fissil Ls Gry-Crm-Wht (w/Carb & Pyr Inclus) Mxn Poor No lxn Ø Mudstone Cht Lt Brn-Wht Op Shp Vit Qtz Siltsotne (Tr Only- 4 Pcs) VFG Small Grns (w/Carb, Pyr & Galcu or Chlorite Inclus) Dns VPoor IGran Ø Sli Friable Fos (Gastro, Coral) No Odor No Stn No Flor NS

MISS. "STE. GEN" 5412' (- 2550)

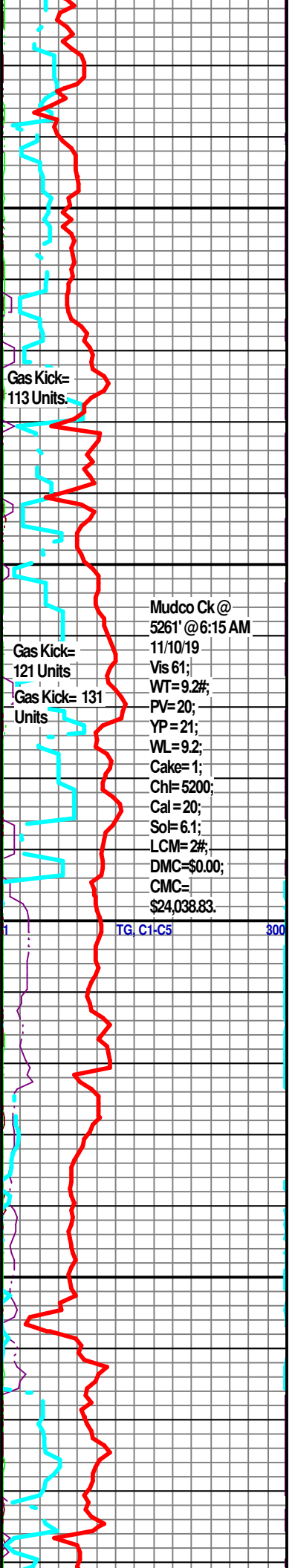
Sh Char-Blk Carb-Gry-Maroon-Aqua-Yell Soft-Fissil Ls Wht-Gry-Grm-Aqua Fxln Poor "Carbonate Sandy Ls" (w/Small Qtz Ss Inclus) Wht-Crm-Tan-Gry VFGm Ang-Sub Ang Inclus (fL=125-177 Microns= 3.0-2.25 Ø) Mudstone Fos (Crin) No Odor No Stn No Flor NS

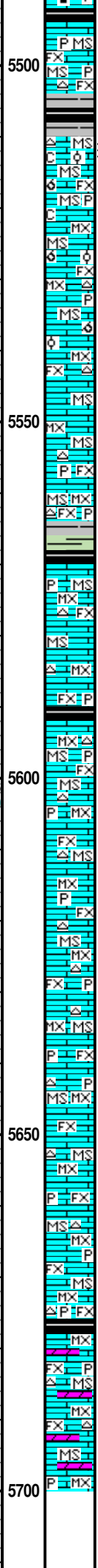
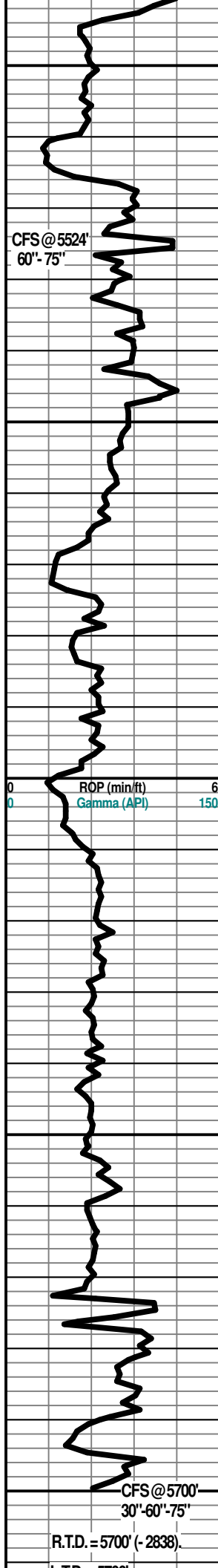
Sh Char-Blk Carb-Gry-Maroon-Aqua-Yell Soft-Fissil Ls Wht-Gry-Grm-Aqua Fxln Poor Igran Ø "Carbonate Sandy Ls" (w/Small Qtz Ss Inclus) Wht-Crm-Tan-Gry VFGm Ang-Sub Ang Inclus (fL=125-177 Microns= 3.0-2.25 Ø) Mudstone (w/Carb & Pyr Inclus) Fos (Gastro) No Odor No Stn No Flor NS

Sh Char-Blk Carb-Gry-Maroon-Aqua-Yell-Maroon Soft-Fissil Ls Wht-Gry-Grm-Aqua Fxln Poor Igran Ø "Carbonate Sandy Ls" (w/Small Qtz Ss Inclus) Wht-Crm-Tan-Gry VFGm Ang-Sub Ang Inclus (fL=125-177 Microns= 3.0-2.25 Ø) Mudstone (w/Carb & Pyr Inclus) Grad Tr Poor OOM Ø (w/OOL in pl) No Dissolu No Odor No Stn No Flor NS

MISS. " ST. LOUIS" 5578' (- 2716)

Sh Char-Blk Carb-Gry-Maroon-Aqua-Yell-Maroon Soft-Fissil Ls Wht-Gry-Grm-Aqua Fxln Poor Igran Ø "Carbonate Sandy Ls" (w/Small Qtz Ss Inclus) Wht-Crm-Tan-Gry VFGm Ang-Sub Ang Inclus (fL=125-177 Microns= 3.0-2.25 Ø) Mudstone (w/Carb & Pyr Inclus) Grad Tr Poor OOM Ø (w/OOL in pl) No Dissolu No Odor No Stn No Flor NS





60" & 75" CFS @ 5524' Ls Crm-Wht Mxln-Fxin Dns Mudstone Grad Poor OOM/OOL Ø (w Free Med-Lg Ooids in Try-5 indiv pcs) Poor Leaching Diissolu Grad Tr Poor Pin-Pt lxn & Sli Tr Vug Ø (wSSG-Under Heat in Wtr) Cht Gry Op (w/Wht OOL Inclus) Shp Vit Grad Tan/Clear (w/Wht Fos Inclus) Chalk (Abd) Sh Char (w/Pyr Inclus)- Maroon-Blk Carb-Gry Tr Poor Drk Blk Stn (? Dead Stn in Vugs) Fair Odor No Flor SSG

Ls Crm-Wht Mxln-Fxin Dns Mudstone Grad Poor OOM/OOL Ø Poor Leaching Diissolu Grad Tr Poor Pin-Pt lxn & Sli Tr Vug Ø (w/Free Ooid is Pl - 2 Wht-Clear) Cht Wht-Clear-Amber (Banded) Translu- Op Shp Vit Chalk (Abd) Sh Char (w/Pyr Inclus)-Blk Carb-Gry No Odor No Flor No Stn NS

Ls Crm-Wht Mxln-Fxin Dns Mudstone Poor lxn Ø AA Grad Poor lGran Ø Cht Gry-Wht-Org Translu-Op Shp Vit Sh Char (w/Pyr Inclus)-Gry-Gm-Aqua-Yell Soft-Fissil Pyr Mass No Odor No Stn No Flor NS

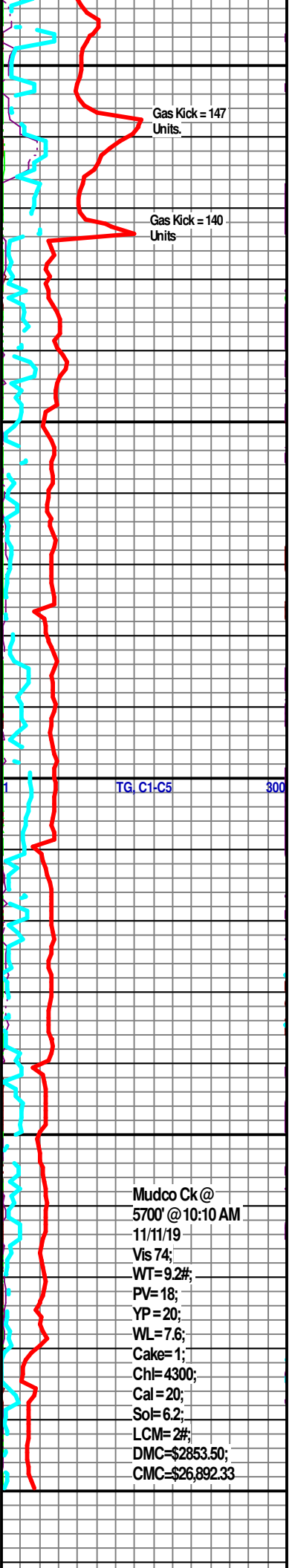
Ls Crm-Wht Mxln-Fxin Dns Mudstone Poor lxn Ø AA Grad Poor lGran Ø Cht Gry-Wht-Org- Clear Translu- Op Shp Vit Sh Char (w/Pyr Inclus)-Gry-Gm-Aqua-Yell Soft-Fissil Pyr Mass No Odor No Stn No Flor NS

Ls Crm-Wht Mxln-Fxin Dns Mudstone Poor lxn Ø AA Grad Poor lGran Ø Cht Gry-Wht-Clear Translu- Op Shp Vit Sh Char (w/Pyr Inclus)-Gry-Gm-Aqua-Yell Soft-Fissil Pyr Mass Fos (Crin) No Odor No Stn No Flor NS

Ls Crm-Wht Mxln-Fxin Dns Mudstone Poor lxn Ø AA Grad Poor lGran Ø Cht Gry-Wht Op Shp Vit Sh Char (w/Pyr Inclus)-Gry-Gm-Aqual Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Wht Mxln-Fxin Dns Mudstone Poor lxn Ø AA Grad Poor lGran Ø Cht Gry-Wht Op Shp Vit Sh Char (w/Pyr Inclus)-Gry-Gm-Aqual Soft-Fissil No Odor No Stn No Flor NS

30"-60"-75" CFS @ 5700' Ls Crm-Wht Mxln-Fxin Dns Mudstone Poor lxn Ø Grad Dolo Gry Mxln Dns No Vis Ø Cht Wht Op Shp Vit Sh Blk Carb-Char-Gry (w/Pyr Inclus) Soft-Fissil No Odor No Stn No Flor NS



Gas Kick = 147 Units

Gas Kick = 140 Units

TG C1-C5 300

Mudco Ck @
5700' @ 10:10 AM
11/11/19
Vis 74;
WT=9.2#;
PV= 18;
YP= 20;
WL= 7.6;
Cake= 1;
Ch= 4300;
Cal= 20;
SoF= 6.2;
LCM= 2#;
DMC=\$2853.50;
CMC=\$26,892.33

Electric Logs Run: By Halliburton Logging: Triple Combo: Dual Induction; Compensated Density-Neutron, Sonic and Microresistivity Logs.

CFS @ 5524'
60"-75"

ROP (min/ft)
Gamma (API)

CFS @ 5700'
30"-60"-75"

R.T.D. = 5700' (- 2838)

L.I.D. = 5700

Geologist Released From Locatom @ PM. on 11/ /2019.

5750

5800

