

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Yost #4-28
Location: 1650' FSL & 1980' FWL, Sec. 28-T27S-R18W, Kiowa Co., KS.
Licence Number: 15-097-21845-00-00 Region: Einsel Field
Spud Date: 10/4/2018 Drilling Completed: 10/12/18
Surface Coordinates: 1650' FSL & 1980' FWL, Sec. 28-T27S-R18W

Bottom Hole Same as Above
Coordinates:
Ground Elevation (ft): 2199' K.B. Elevation (ft): 2210'
Logged Interval (ft): 3900' To: 4840' Total Depth (ft): 4840'
Formation: Kinderhook at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 3399'; Chemical Gel 3399' to 4840'

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OPERATOR

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Lawrenceville, IL. 62439-0838

GEOLOGIST

Name: Jon D. Christensen
Company: Consulting Petroleum Geologist
Address: 277 S. Maple Dunes Ct.
Wichita, KS. 67235-7500

Cores

None Taken

DSTs

DST #1(Lower K.C. 'H' + Upper K.C. 'I' Zone) 4390' - 4416'(Corrected Depths to Log) Test Times 30"-45"-30"-60" IFP Weak Blow built to 3.25", FFP Fair Blow built to 5.75", no Blowback on SI's; REC: 176' Gas in Pipe, 10' OCWM(5%O, 15%W, 80%M), 60' WM(55%W, 45%M), 60' GWM(5%G, 68%W, 27%M) CI 69,000 from MudCo.; IFP 12-45#, ISIP 1341#, FFP 51-75#, FSIP 1330#, IHP 2191#, FHP 2180#, BHT 115 Deg. F.

DST #2(Kansas City 'J' Zone) 4440' - 4458'(Corrected Depths to Log) Test Times 30"-45"-30"-60" IFP Weak Blow Built to 1.96", FFP Weak Blow built to 2.01", no Blowback on SI's; REC: 30' Gas in Pipe, 61' GCWM(3%G, 35%W, 62%M) CI 25,000 from MudCo., Mud 7000; IFP 12-30#, ISIP 1016#, FFP 34-47#, FSIP 1030#, IHP 2207#, FHP 2178#, BHT 106 Deg. F.

DST #3(Cherokee - Miss. Chert) 4736' - 4796'(Corrected Depths to Log) Test Times 30"-45"-30"-60" IFP Fair Blow built to 7", FFP Fair Blow built to 6", no Blowback on SI's; REC: 210' Rich Gas in Pipe, 30' Drlg. Mud w/oil specks, no water; IFP 43-46#, ISIP 118#, FFP 43-46#, FSIP 164#, IHP 2412#, FHP 2375#, BHT 117 Deg. F.

Comments

10/4/18 MIRU Sterling Drilling Co. Rig #4, Spud at 7:30 PM.; 10/5/18 TD. 613' - CCH to set Surf. Csg.; 10/6/18 Drilling at 1010'; 10/7/18 Drilling at 2889'; 10/8/18 Drilling at 3955'; 10/9/18 TD. 4418' - Short Trip for DST #1; 10/10/18 TD. 4430' - CFS; 10/11/18 Drilling at 4575'; 10/12/18 TD. 4798' - DST #3, Reached TD. 4840' at 4:48 PM; 10/13/18 RTD. 4840', LTD. 4839' - LDDP - P & A completed at 11:30 AM.

Set new 8 5/8"(24#) Surface Casing at 608' KB. with 350 sacks cement(Basic Energy Services). Cement did Circulate. PD. at 12:15 PM. 10/5/18.

Surveys: 0.50 Deg. at 613'(Surface Casing); 0.25 Deg. at 3940'(Bit Trip); 1.0 Deg. at 4418'(DST #1); 1.25 Deg. at 4798'(DST #3).


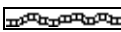
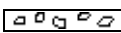
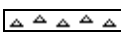
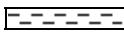







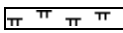
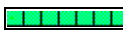
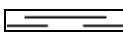
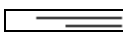
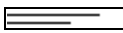



Pipe Strap at 3940'(Bit Trip): Strap 1.16' Short to the Board, no correction made to the Board.

After review if the Halliburton logs, DST and sample data, the operator elected to Plug and Abandon the #4-28 Yost at RTD. 4840' due to lack of commercial amounts of recoverable hydrocarbons.








































































LOG TOPS: Blaine Anhy. 1150(+1060), Chase 2441(-231), Stotler Lmst. 3398(-1188), Howard 3602(-1392), Heebner Shale 4039(-1829), Toronto 4052(-1842), Brown Lmst. 4191(-1981), Lansing 'A' 4202(-1992), Lansing/K.C. 'H' 4360(-2150), K.C. 'I' 4402(-2192), K.C. 'J' 4451(-2241), Stark Shale 4494(-2284), Swope 4503(-2293), Hertha 4554(-2344), Base K.C. 4584(-2374), Pleasanton 4612(-2402), Marmaton 4630(-2420), Pawnee 4674(-2464), Cherokee Shale 4714(-2504), Miss. Chert 4761(-2551), Kinderhook Shale 4796(-2586), Kinderhook Sand 4823(-2613).

NOTE: This log was shifted upward by 2' for correlation purposes with the Halliburton logs.

ROCK TYPES

 Anhy  Bent  Brec  Cht	 Clyst  Coal  Congl  Dol	 Gyp  Igne  Lmst  Meta	 Mrlst  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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ACCESSORIES

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

- POROSITY**
- [E] Earthy
 - [B] Fenest
 - [F] Fracture
 - [X] Inter
 - [M] Moldic
 - [O] Organic
 - [P] Pinpoint

[V] Vuggy

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

- ROUNDING**
- [R] Rounded
 - [r] Subrnd
 - [a] Subang
 - [A] Angular

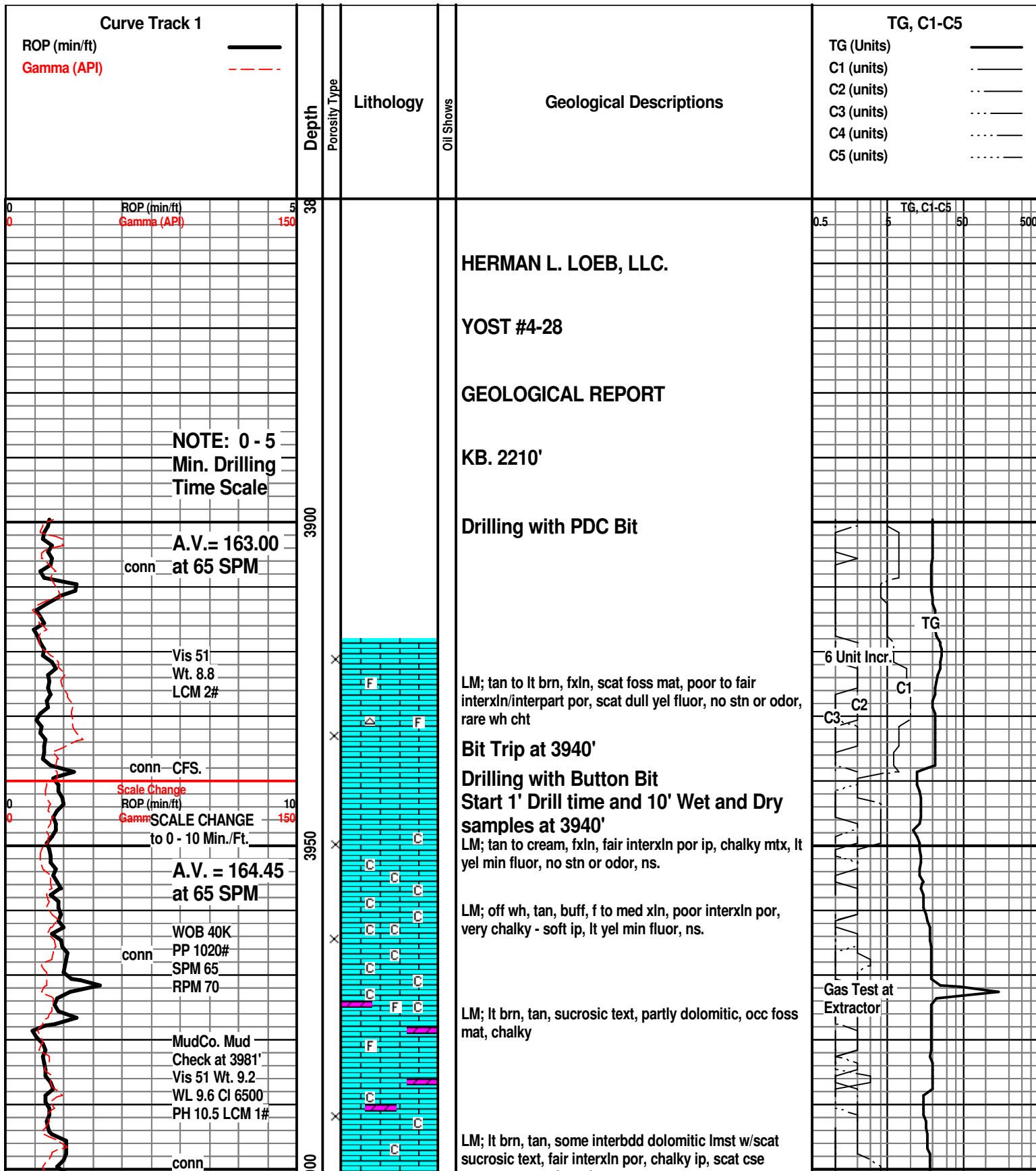
OIL SHOW

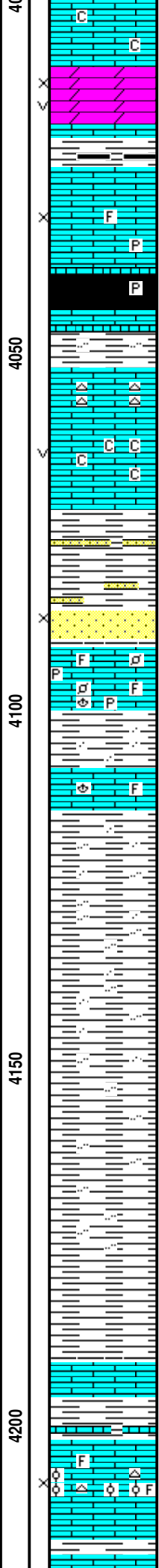
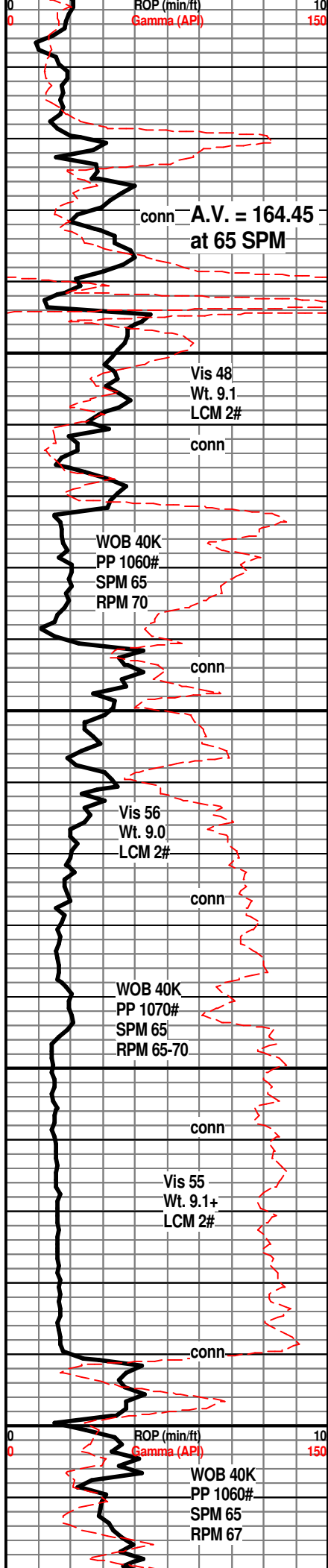
- [●] Even

- [●] Spotted
- [○] Ques
- [D] Dead

- INTERVAL**
- [■] Core
 - [□] Dst

- EVENT**
- [▽] Rft
 - [▲] Sidewall





opaque spar calc xtals, ns.

DOL; lt brn, sucrosic, fair interxln w/occ small vug por, lt yel min fluor, no stn or odor, ns.

SH; med to dk gy, rare blk, platy

LM; lt to occ med brn, most dense, interbdd fxln to foss lmst w/poor interxln por, trc pyr, dull yel fluor, ns.

HEEBNER SHALE 4039(-1829)
SH; blk, carb, platy, trc pyr.
LM; med to dk brn, dense, micritic
SH; grn, gy grn, silty, firm

TORONTO 4052(-1842)
LM; tan - cream, off wh, fxln, scat wh fresh cht, interbdd soft chalk and chalky lmst, poor interxln w/occ small vug por, scat lt yel fluor, no stn or odor, ns.

DOUGLAS SHALE 4072(-1862)
SH; lt gy, occ pale gy grn, sandy, most soft

SS; lt gy, vf to f gr qtz, mica, poorly sorted, fri ip w/fair intergran por, interbdd lt gy sh

LM; tan to med brn, foss - pelletal ip, scat pyr, hd, blocky, lt yel min fluor, no vis por, ns.

SH; lt gy, sandy ip, soft

LM; med to dk brn, foss ip, most dense - blocky, no vis por, ns.

SH; lt gy, silty to occ sandy, platy

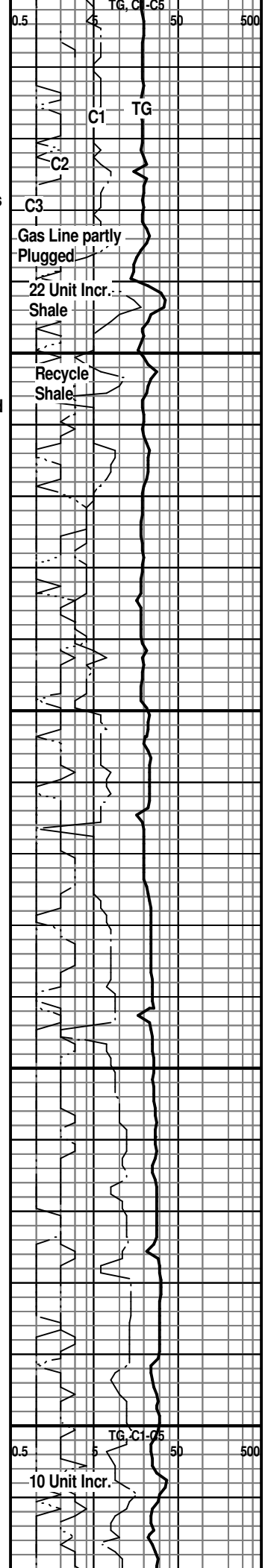
SH; lt to med gy, platy, silty to occ sandy

SH; lt to med gy, platy, occ silty

BROWN LMST. 4191(-1981)
LM; med brn, dense, micritic

LANSING 'A' 4202(-1992)
LM; lt to med brn, foss - partly oolitic, most well cem, poor interpart por, scat lt yel fluor, no vis stn, no odor, looks tite, few pcs of oolitic cht

SH; med gy, gy grn, platy



LANSING 'B' 4225(-2015)

LM; off wh, tan, f to med xln, most tite, scat poor interxln por, no fluor, rare wh to off wh cht, ns.

LM; off wh, lt gy, fxln, chalky soft mtx ip, occ p-p and small vug por, no stn or odor, no gas kick, ns.

LM; tan to cream, off wh, fxln, soft ip w/occ chalky mtx, no fluor, poor interxln por, ns.

LM; med to dk brn, hd, blocky, scat brn fresh cht, tite

SH; med gy, gy grn, fiss.

DOL; tan, off wh, sucrosic, fair interxln w/occ vug por, dull yel to no fluor, poss. faint odor, no vis stn, no cut

LM; tan to lt brn, hd, scat tan to lt brn cht, most dense - micritic, tite

LM; tan, foss - oolitic ip, abnt cht - off wh, tan, lt brn, fresh, poor oomoldic por, dull yel fluor, no stn or odor, ns.

LM; tan, oolitic, fair oomoldic and occ vug por, scat foss mat, dull yel min fluor, no stn or odor, no gas kick, ns.

LM; lt brn, sucrosic text, partly dolomitic, poor to fair interxln/vug por, cherty, no stn or odor, ns.

LM; tan, off wh, scat cse spar calc xtals, chalky ip, ns.

LM; lt brn, dense, scat gy cht, tite

SH; med gy, platy, foss ip.

LANSING/K.C. 'H' ZONE 4360(-2150)

LM; lt brn, oolitic, fairly well dev. moldic and vug por, brittle ip, dull yel fluor, no stn or odor, questionable gas bubbles??

LM; tan to lt gy, gy brn, blocky, scat cht, tite

LM; off wh, finely oolitic/pelletal, fair interpart por, fair odor, med yel fluor, SSFO when crushed(light oil), few gas bubbles, fair/gd cut, mostly spotted lt brn stn, some tite

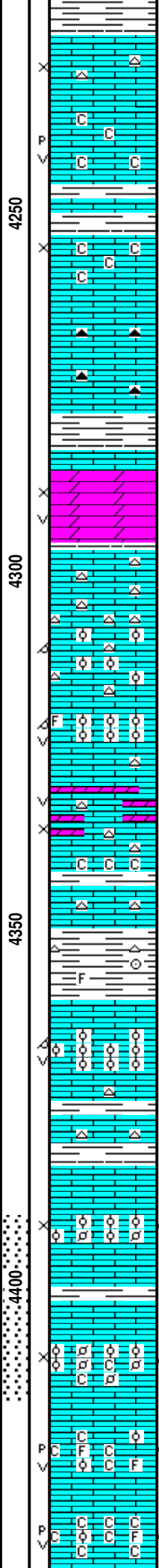
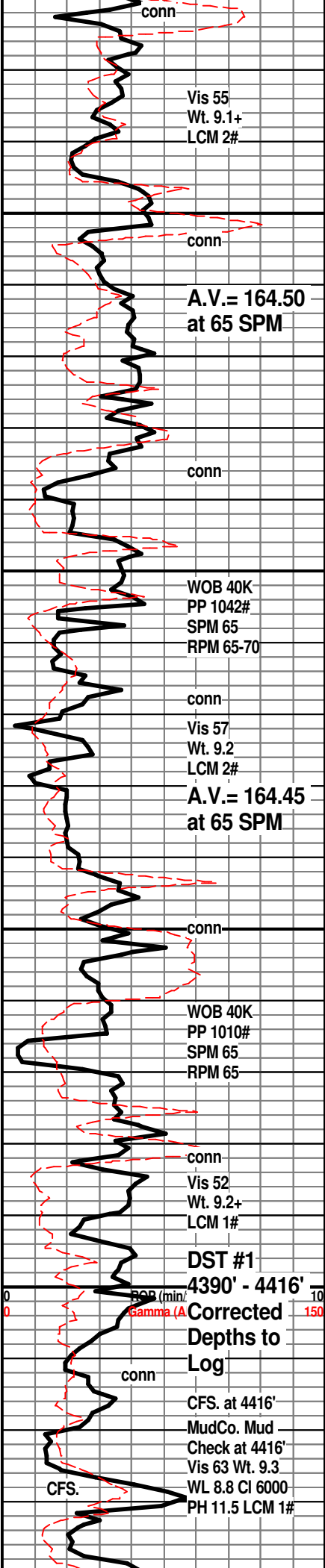
KANSAS CITY 'I' ZONE 4402(-2192)

LM; off wh, finely oolitic/pelletal, fair interpart por, gd to strong odor, much brite yel fluor, SFO, sev. gas bubbles, spotted lt brn stn, fair to gd cut, few pcs. with better por, chalky ip.

DST #1: K.C. 'H' + 'I' 4390' - 4416'

LM; off wh, foss, scat well dev. p-p and vug por, spotted lt brn stn, gd to strong odor, most barren por, scat med to occ brite yel fluor, chalky ip, no gas kick

LM; tan to cream, wh, foss ip, very chalky - soft, scat fair p-p and vug por, faint odor, scat med yel fluor, no vis stn, odor from above??



SH; med gy, gy grn, platy

LM; off wh, tan, f to med xln, most tite, scat poor interxln por, no fluor, rare wh to off wh cht, ns.

LM; off wh, lt gy, fxln, chalky soft mtx ip, occ p-p and small vug por, no stn or odor, no gas kick, ns.

LM; tan to cream, off wh, fxln, soft ip w/occ chalky mtx, no fluor, poor interxln por, ns.

LM; med to dk brn, hd, blocky, scat brn fresh cht, tite

SH; med gy, gy grn, fiss.

DOL; tan, off wh, sucrosic, fair interxln w/occ vug por, dull yel to no fluor, poss. faint odor, no vis stn, no cut

LM; tan to lt brn, hd, scat tan to lt brn cht, most dense - micritic, tite

LM; tan, foss - oolitic ip, abnt cht - off wh, tan, lt brn, fresh, poor oomoldic por, dull yel fluor, no stn or odor, ns.

LM; tan, oolitic, fair oomoldic and occ vug por, scat foss mat, dull yel min fluor, no stn or odor, no gas kick, ns.

LM; lt brn, sucrosic text, partly dolomitic, poor to fair interxln/vug por, cherty, no stn or odor, ns.

LM; tan, off wh, scat cse spar calc xtals, chalky ip, ns.

LM; lt brn, dense, scat gy cht, tite

SH; med gy, platy, foss ip.

LANSING/K.C. 'H' ZONE 4360(-2150)

LM; lt brn, oolitic, fairly well dev. moldic and vug por, brittle ip, dull yel fluor, no stn or odor, questionable gas bubbles??

LM; tan to lt gy, gy brn, blocky, scat cht, tite

LM; off wh, finely oolitic/pelletal, fair interpart por, fair odor, med yel fluor, SSFO when crushed(light oil), few gas bubbles, fair/gd cut, mostly spotted lt brn stn, some tite

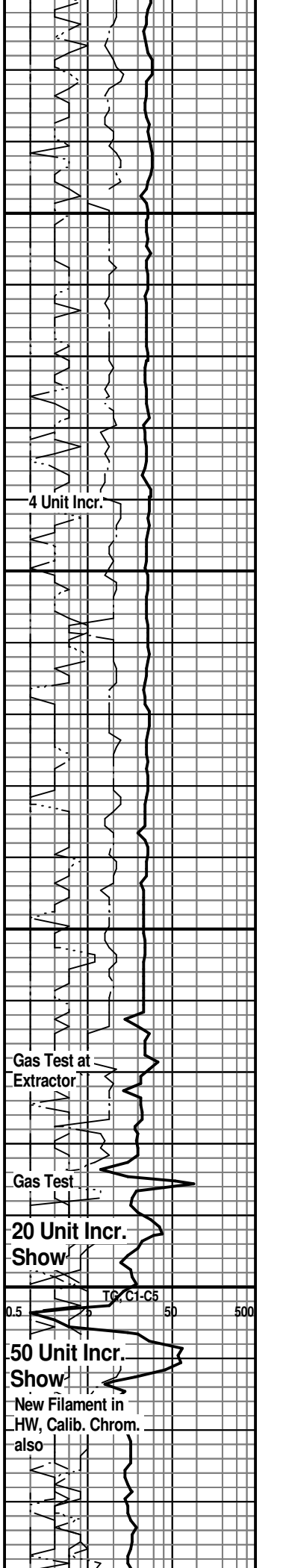
KANSAS CITY 'I' ZONE 4402(-2192)

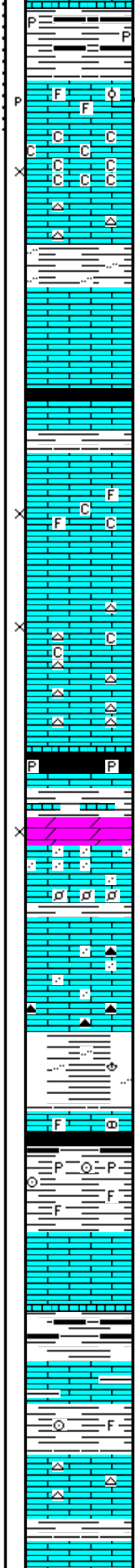
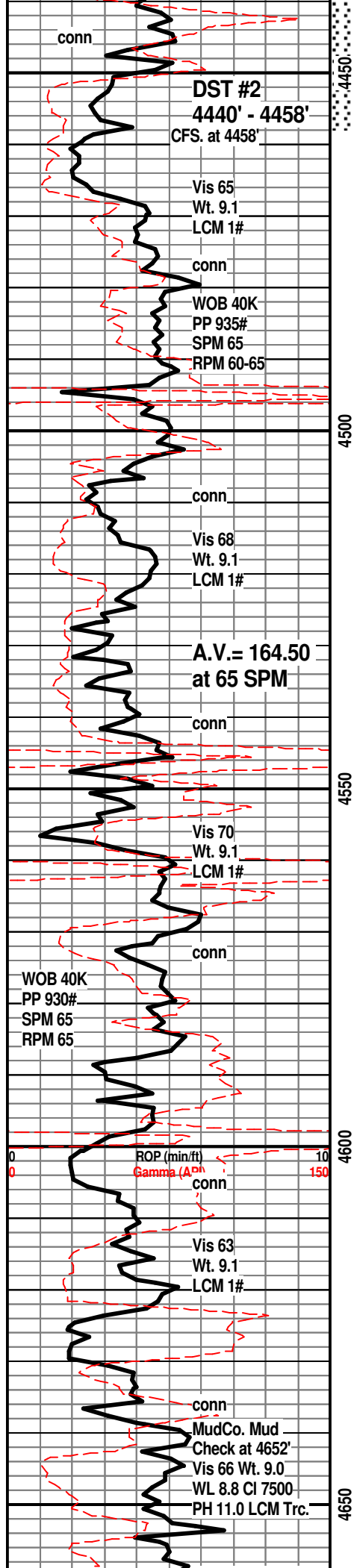
LM; off wh, finely oolitic/pelletal, fair interpart por, gd to strong odor, much brite yel fluor, SFO, sev. gas bubbles, spotted lt brn stn, fair to gd cut, few pcs. with better por, chalky ip.

DST #1: K.C. 'H' + 'I' 4390' - 4416'

LM; off wh, foss, scat well dev. p-p and vug por, spotted lt brn stn, gd to strong odor, most barren por, scat med to occ brite yel fluor, chalky ip, no gas kick

LM; tan to cream, wh, foss ip, very chalky - soft, scat fair p-p and vug por, faint odor, scat med yel fluor, no vis stn, odor from above??





vis stn, uclr from above!

SH; dk gy to blk, carb ip, scat pyr

KANSAS CITY 'J' ZONE 4451(-2241)
 LM; tan to cream, fxln, occ foss, chalky mtz, scat med/brite yel fluor, fair odor, few pcs w/fair p-p por, spotty lt oil stn, alot looks fairly tite

DST #2: K.C. 'J' Zone 4440' - 4458'
Corrected Depths to Log
 LM; off wh, wh, fxln, very chalky - soft, poor vis interxln por, no fluor, no stn or odor, ns.

SH; med gy, gy grn, silty ip, firm

LM; med to dk brn, hd, blocky, tite

STARK SHALE 4494(-2284)
 SH; blk, carb ip, platy

SWOPE 4503(-2293)
 LM; wh, off wh, rare lt gy, med xln w/occ foss mat, poor to fair interxln/interpart por, minor chalky mtz, no fluor, no stn or odor, ns.

LM; off wh, tan, f to med xln, scat off wh to brn cht, poor interxln por, occ chalky, no fluor, ns.

LM; med brn, hd, occ brn cht, tite

HUSH. SHALE 4545(-2335)
 SH; blk, carb ip, scat pyr

HERTHA 4554(-2344)
 DOL; wh, off wh, sucrosic, soft, fair to gd interxln por, lt yel min fluor, no stn or odor, ns.

LM; off wh, sandy - siliceous, hd, blocky, no vis por, no fluor, ns, interbdd foss - finely pelletal tite lmst.

LM; med brn, gritty/sandy text, tite, scat dk gy/dk brn cht, ns.

BASE KANSAS CITY 4584(-2374)
 SH; gy grn, rust red, foss ip, flakey, occ silty

LM; med brn, foss ip, nodular, tite

SH; grn, gy grn, rare blk, platy, occ waxy, pyr, occ foss

PLEASANTON 4612(-2402)
 LM; tan to lt gy, most massive bdd, blocky, no vis por, no fluor, ns.

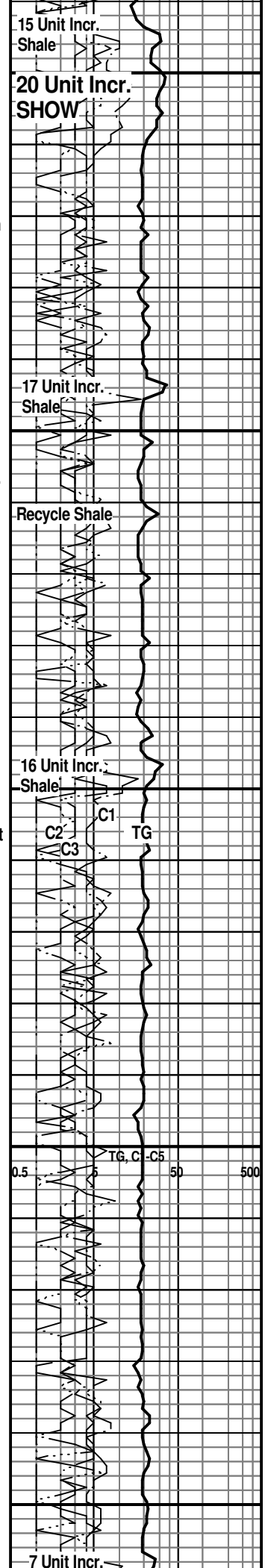
SH; med to dk gy, blk, varic - rust red, platy

MARMATON 4630(-2420)
 LM; lt gy brn, pale grn, argil ip, tite

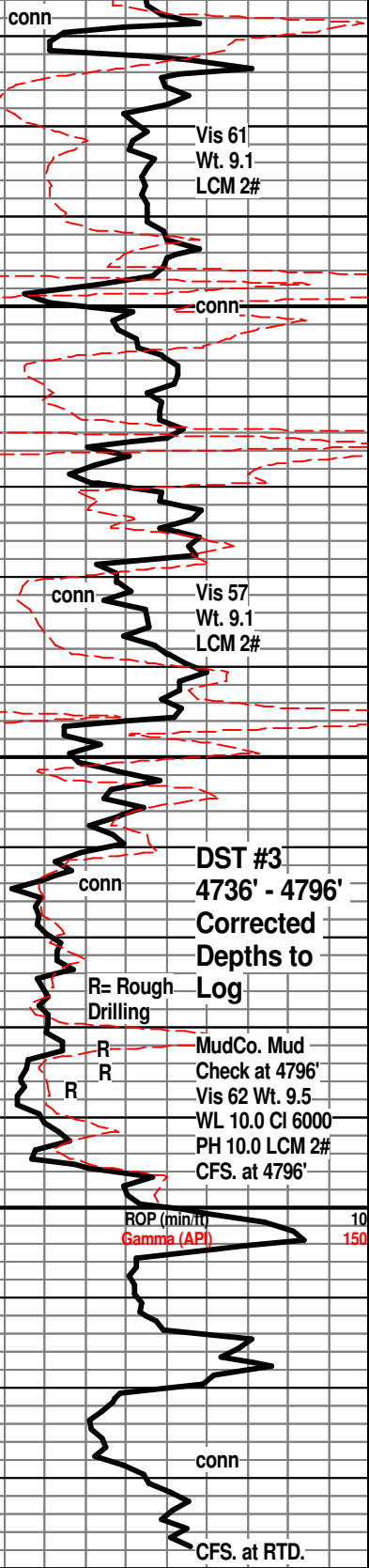
SH; med gy, grn, firm, foss ip.

ALTAMONT 4643(-2433)
 LM; tan to buff, cream, most dense - micritic, blocky, scat trans/pale org cht, no vis por, no fluor, ns.

LM; tan to buff, foss ip, rare small ooids/nellets, most



A.V.= 164.45
at 65 SPM



Vis 61
Wt. 9.1
LCM 2#

Vis 57
Wt. 9.1
LCM 2#

DST #3
4736' - 4796'
Corrected
Depths to
Log

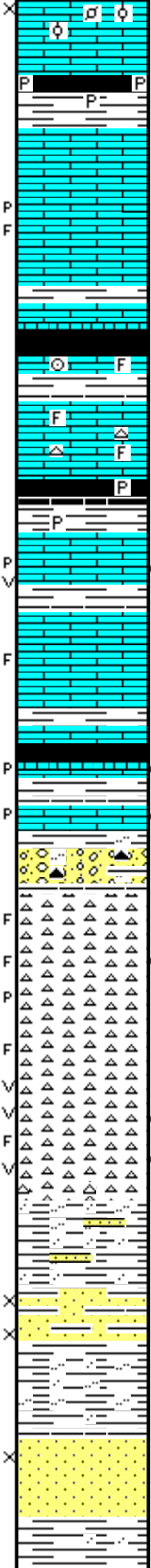
R= Rough
Drilling

MudCo. Mud
Check at 4796'
Vis 62 Wt. 9.5
WL 10.0 CI 6000
PH 10.0 LCM 2#
CFS. at 4796'

ROP (min/hr)
Gamma (API)

conn
CFS. at RTD.

4700
4750
4800
4850



LM; tan to buff, fxl n, most dense, most w/lt yel fluor, no odor, looks tite

SH; blk, dk gy, carb ip, scat pyr, blocky
PAWNEE 4674(-2464)

LM; off wh, tan, fxl n, most dense, most w/lt yel fluor, no vis por, no stn or odor, ns.

LM; tan to cream, buff, fxl n to micritic, few pcs w/dk brn to blk residual stn - gilsonite, dull yel fluor, v. poor p-p por, few calc fld fracs, no odor

SH; blk, carb, gassy w/faint gas odor
LM; med brn, foss ip, thinly bdd

LM; tan to lt brn, foss ip, dense, blocky, no vis por, no fluor, scat tan cht, tite

CHEROKEE SHALE 4714(-2504)
SH; blk, platy, scat pyr

LM; tan to cream, fxl n, scat fair p-p and occ vug por, lt yel fluor, spotted med brn stn, no odor, fair to gd cut

LM; tan to cream, buff, fxl n, most dense, few pcs w/lt brn edge stn - fracs, dull yel fluor, no odor

SH; blk, thinly bdd
LM; med brn, scat fair p-p por, much dk brn oil stn, golden yel fluor, instant cut

CONGL; org cht, weath lmst, shaly
MISSISSIPPI CHERT 4761(-2551)
CHT; wh, lt gy, yel, most fresh, some trip, sev. fracs w/edge stn, no odor, scat lt yel fluor, no F.O. visible, rare pcs w/p-p por and lt oil stn, some dead blk gilsonite, few gas bubbles

CHT; wh, most fresh, abnt fracs, scat lrg vug por, most dead oil - gilsonite, faint gas odor, dull to lt yel fluor, SSFO - some spotted live stn

CHT; wh, off wh, pale grn, most fresh, scat vugs and fracs, occ live oil stn, no odor, dull yel fluor

DST #3: Cher. + Miss. 4836' - 4796'
KINDERHOOK SHALE 4796(-2586)
SH; lt gy grn, silty, interbdd pale grn sandy sh

SS; wh, vf gr, argil, poor intergran por, stingers, no fluor, no stn or odor, ns.

SH; med gy, gy grn, waxy, occ silty to sandy, firm

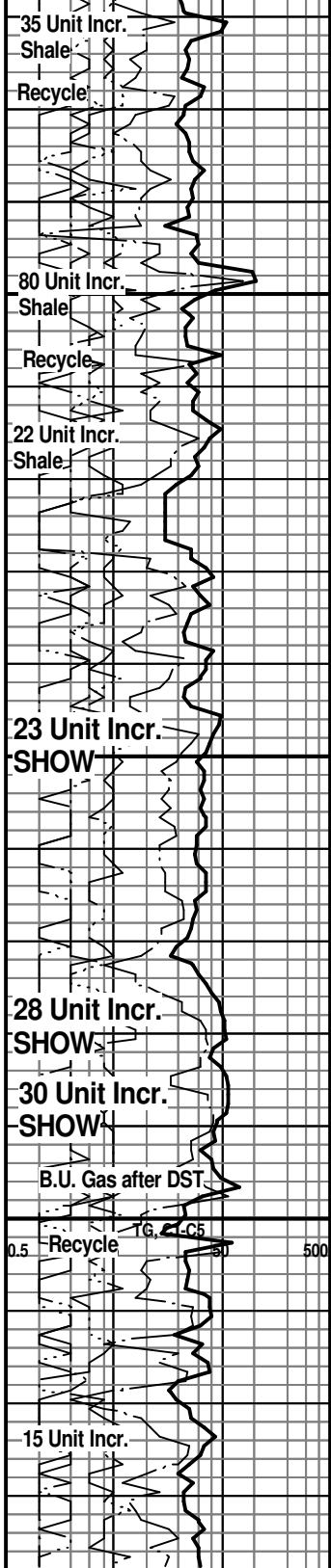
KINDERHOOK SAND 4823(-2613)
SS; clr, wh, most f gr qtz, clusters, poor to fair intergran por, f srt, no odor, v. dull yel fluor, few clusters w/blk tar/gilsonite, trc dk residual oil stn, no live oil shows

SH; med gy, gy grn, waxy ip, flakey, occ silty

RTD. 4840' at 4:48 PM 10/12/18

LTD. 4839'
Halliburton ACRT, NEU/DEN/PE,
Microlog

NOTE: This log was shifted upward by



0.5 Recycle TG. LCM 500

