

# LITHOLOGY STRIP LOG

## WellSight Systems

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

Well Name: Stapleton #6-10  
Location: 335' FNL & 2590' FEL, Sec. 10-T30S-R32W, Haskell Co., KS.  
Licence Number: 15-081-21959-0000 Region: Diaden Field Ext.  
Spud Date: 8/12/2011 Drilling Completed: 8/23/2011  
Surface Coordinates: 335' FNL & 2590' FEL, Sec. 10-T30S-R32W

Bottom Hole Same as Above  
Coordinates:  
Ground Elevation (ft): 2891' K.B. Elevation (ft): 2904'  
Logged Interval (ft): 4000' To: 5625' Total Depth (ft): 5625'  
Formation: St. Louis at Total Depth  
Type of Drilling Fluid: Freshwater/Gel to 3086'; Chemical Gel 3086' to 5625'.

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### OPERATOR

Company: Strata Exploration, Inc.  
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### GEOLOGIST

Name: Jon D. Christensen  
Company: Consulting Petroleum Geologist  
Address: 9002 W. Silver Hollow St.  
Wichita, KS. 67205-8856

### Cores

None Taken

### DSTs

DST #1(Upper Morrow Sand) 5242' - 5332'(Corrected Depths to LOG) Test Times 15"-45"-30"-60" IFP Weak Blow built to 4", FFP Weak Blow Built to 6", no Blowback on SI's; REC: 166' Gas in Pipe, 20' VSGCM, no oil or water; IFP 49-47#, ISIP 171#, FFP 44-48#, FSIP 334#( building at 35 Deg. angle), IHP 2689#, FHP 2467#, BHT 130 Deg. F.

DST #2(Chester Sands) 5326' - 5421'(Corrected Depth to LOG) Test Times 15"-45"-30"-60" IFP Strong Blow BOB/Immediately, Gas to Surface in 3.5 Min., FFP Strong Blow BOB Immediately, Gauged gas throughout Stabilized at 1.564 MMCFG/30" of FFP, no Blowback on SI's; REC: 215' GCM, no oil or water; IFP 312-323#, ISIP 340#, FFP 322-321#, FSIP 339#, IHP 2735#, FHP 2469#, BHT 136 Deg. F.

## Comments

8/12/11 MIRU Sterling Drilling Co. Rig #5, Spud at 7:15 PM.; 8/13/11 TD. 595' - TIH - Lost Circulation; 8/14/11 Drilling at 1500'; 8/15/11 TD. 1851' - WOC; 8/16/11 Drilling at 2420'; 8/17/11 Drilling at 3520'; 8/18/11 Drilling at 4180'; 8/19/11 Drilling at 4650'; 8/20/11 Drilling at 5058'; 8/21/11 TD. 5336' - CCH for DST #1; 8/22/11 TD. 5425' - CCH for DST #2; 8/23/11 Drilling at 5555' , Reached Total Depth of 5625' at 1:35 PM; 8/24/11 RTD. 5625' - LTD. 5620' - LDDP for setting 5 1/2" Production casing.

Set new 8 5/8"(24#) Surface Casing at 1846' KB. w/705 sx.(Basic Energy Services). Cement Did Circulate. PD. 1:30 AM. on 8/15/2011.

Set new 5 1/2"(15.5#) Production Casing at 5616' w/260 sx. cement(Basic Energy Services). PD. 4:45 PM. 8/24/11.

Surveys: 1 Deg. at 1851'(Surface Casing); 0.5 Deg. at 5336'(DST #1); 0.25 Deg. at 5625' RTD.

Pipe Strap at 5336'(DST #1): Strap 1.62' Short to the Board, no correction made to the Board.


After review of the Halliburton Logs, DST data and positive shows of commercial amounts of hydrocarbons, the operator elected to set new 5 1/2" (15.5#) Production Casing for completion in the St. Louis and Chester Sand zones.

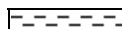



The Pawnee(4948' - 4954') and Atoka "2nd and 3rd" porosity zones(5132' - 5138' and 5149' - 5152') should be perforated and tested prior to abandonment of the Stapleton #6-10. In addition, a St. Genevieve Sandy zone exhibited a good gas kick and oil shows, and should be perforated and tested from 5337' to 5343'.





LOG TOPS: Heebner Shale 4150(-1246), Toronto 4170(-1266), Lansing 'A' 4248(-1344), Lansing 'F' 4447(-1543), Kansas City 'A' 4708(-1804), Marmaton 4844(-1940), Pawnee 4945(-2041), Cherokee Shale 4992(-2088), Atoka 5093(-2189), Morrow Shale 5248(-2344), Upper Morrow Sand 5296(-2392), Lower Chester Sand 5392(-2488), St. Genevieve 5419(-2515), St. Louis 'A' 5530(-2626), St. Louis 'B' 5559(-2655).

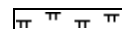
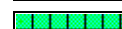

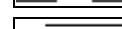
NOTE: This log was shifted upward by 4' - 5' for correlation purposes with the Halliburton openhole Logs.



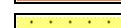

### ROCK TYPES

	Anhy
	Bent
	Brec
	Cht

	Clyst
	Coal
	Congl
	Dol

	Gyp
	Igne
	Lmst
	Meta

	Mrlst
	Salt
	Shale
	Shcol

	Shgy
	Sltst
	Ss
	Till

### ACCESSORIES

#### MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- 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

- Siltstrg
- Ssstrg

#### TEXTURE

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

### OTHER SYMBOLS

#### POROSITY

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

- Vuggy

#### SORTING

- Well
- Moderate
- Poor

#### ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

- Spotted
- Ques
- Dead

#### INTERVAL

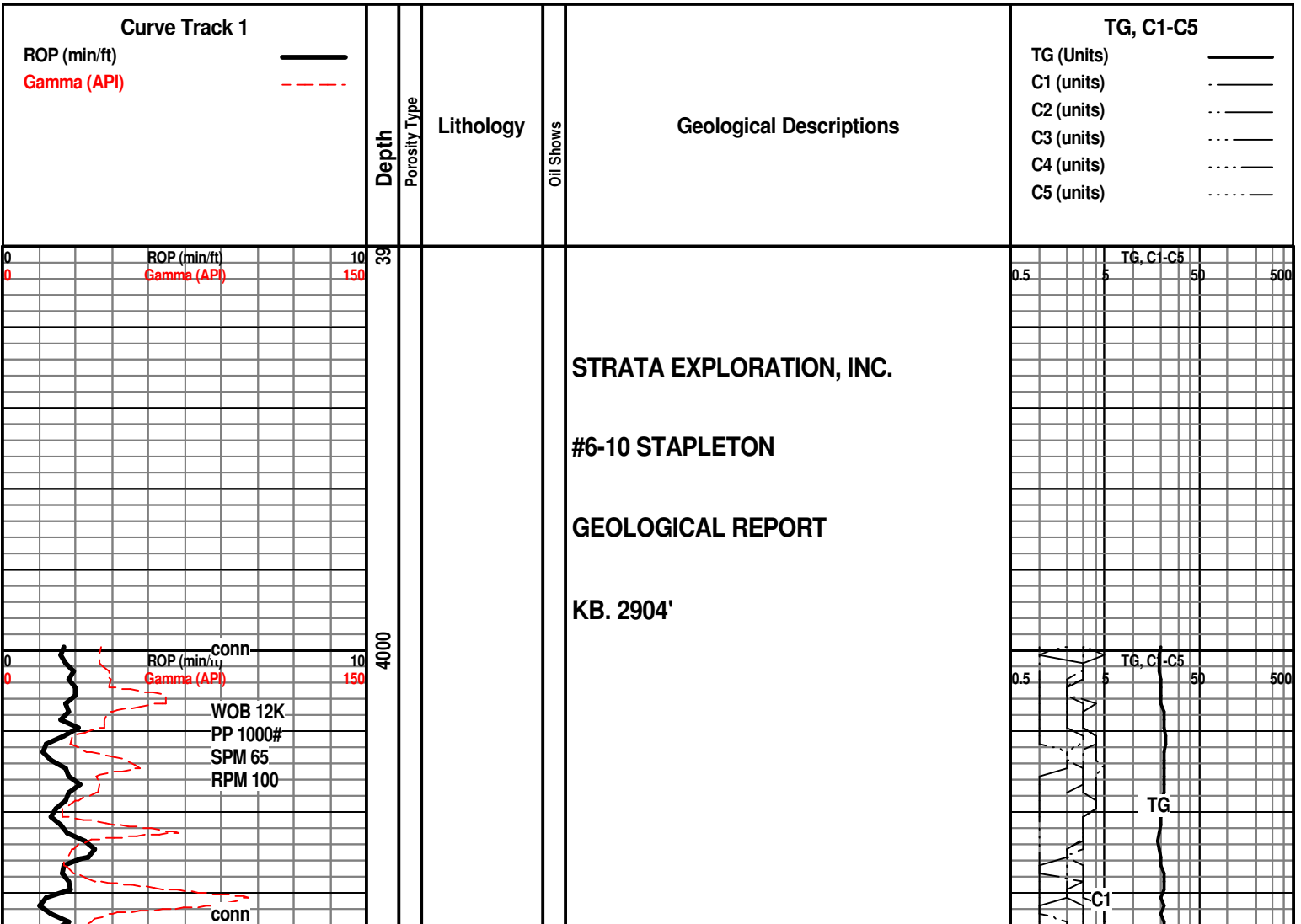
- Core
- Dst

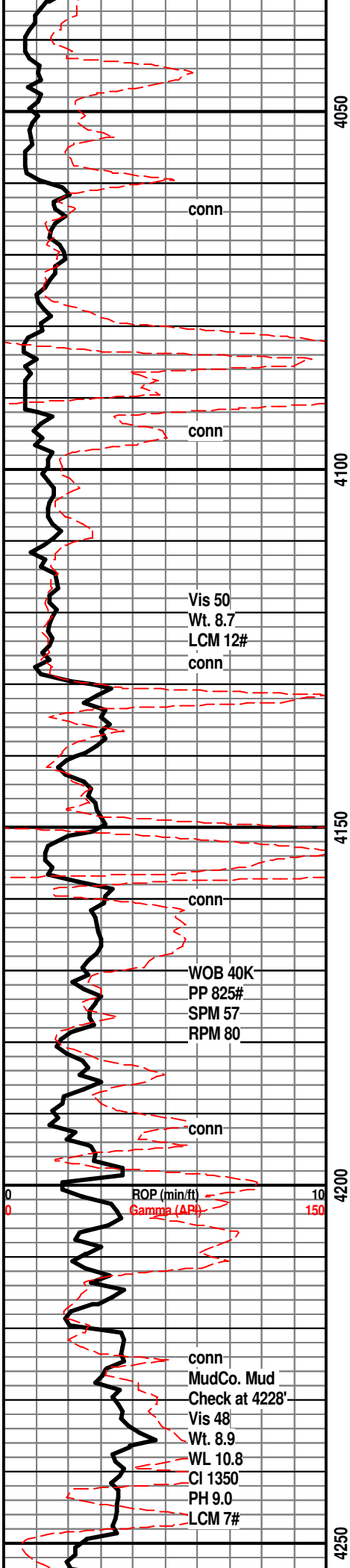
#### EVENT

- Rft
- Sidewall

#### OIL SHOW

- Even



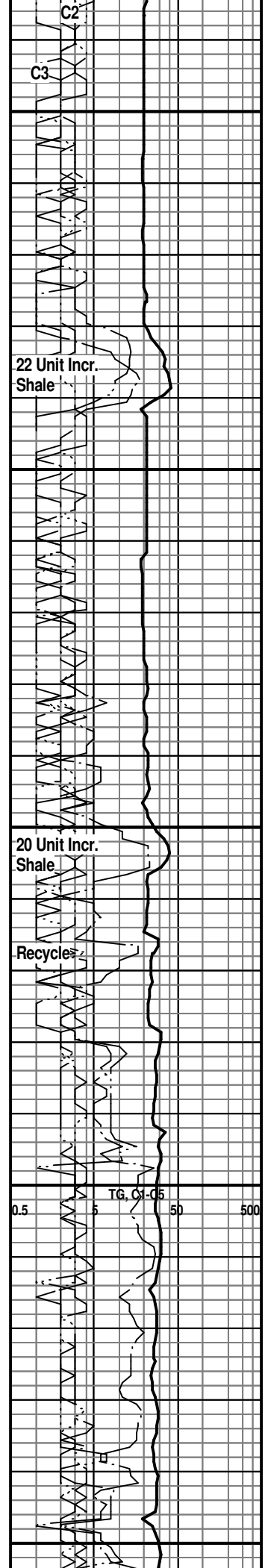


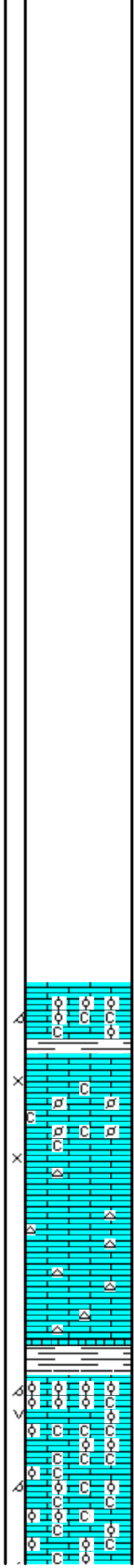
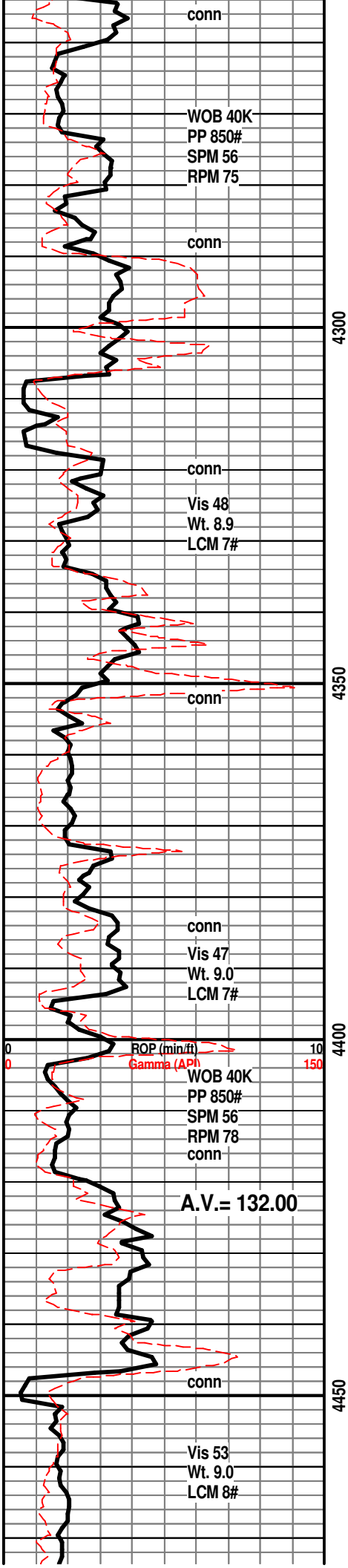
Bit Trip at 4116' - Lost Approx. 150 Bbl. Mud - mix LCM and regain full returns

HEEBNER SHALE 4150(-1246)

TORONTO 4170(-1266)

LANSING 'A' 4248(-1344)





**Start 10' Wet & Dry Samples at 4400'**  
LM; tan to lt brn, foss - partly oolitic, fair oomoldic por, scat soft chalky mtx, dull yel fluor, no stn or odor, ns.

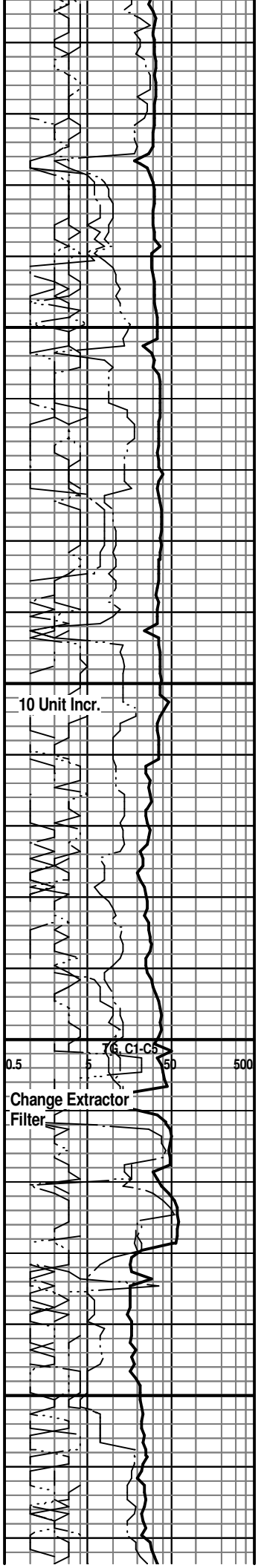
LM; tan to cream, buff, fxl n to finely pelletal, fair to gd interxln/interpart por, scat soft chalky mtx, lt yel fluor, no stn or odor, ns.

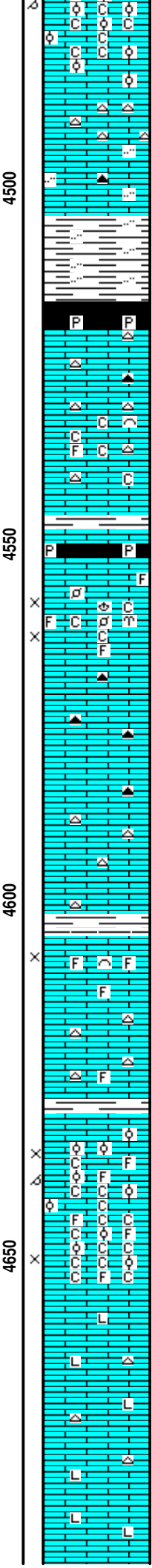
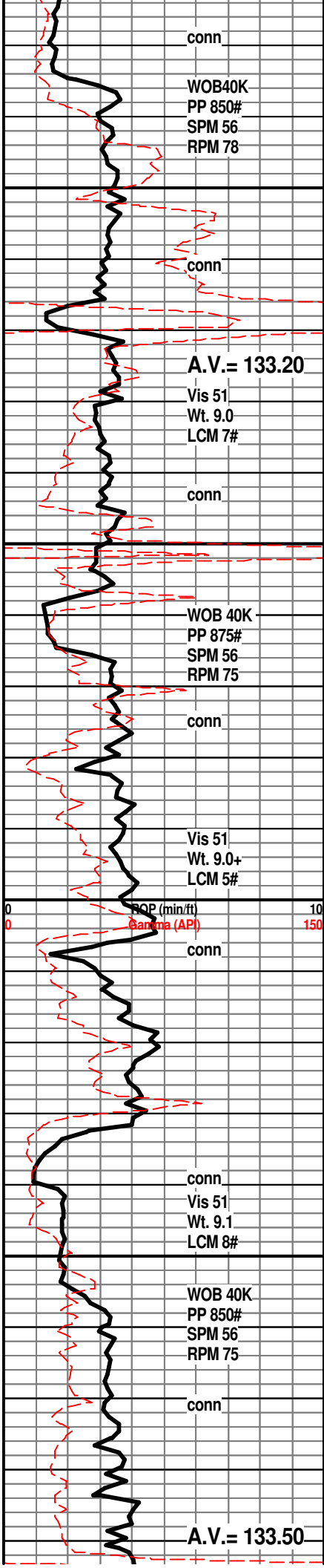
LM; tan to cream, lt brn, cherty ip, poss. gassy odor, dull yel fluor, no stn vis, no sample shows

LM; lt brn, tan, most dense, blocky, interbdd gy to off wh cht, no vis por, poss. gassy odor, no vis stn, no sample shows

**LANSING 'F' 4447(-1543)**  
LM; lt to med brn, oolitic, med to lrg molds, well dev. oomoldic por, scat vug por, lt to med yel min fluor, chalky, no stn or odor, ns.

LM; lt to med brn, rare gy, oolitic, very chalky - much pure wh soft chalk, poor to fair oomoldic por, scat dull vel min fluor. ns.





LM; tan to lt brn, buff, blocky, cherty ip, some litho, hd, no vis por, ns.

LM; dk brn, gy brn, hd, blocky, sl. gritty text, lt yel min fluor, scat blk/smoky cht, ns.

SH; med to dk gy, silty, firm

SH; blk, brittle ip, occ pyr

LM; tan to off wh, lt brn, hd, blocky, dense, scat wh, lt gy to tan/amber cht, no vis por, no stn or odor, ns.

LM; off wh, wh, rare lt gy, most dense, scat well cem foss mat, minor chalky mtx, no fluor, ns.

SH; dk gy, firm, platy

SH; blk, fiss, pyr ip.

LM; off wh to tan, gran to med xln, scat foss, fair/gd interpart/interxln por, occ soft chalky mtx, scat med yel fluor, no stn or odor, ns.

LM; tan to lt brn, most massive - blocky, hd, interbdd blue/gy cht, no vis por, ns.

LM; lt to med brn, hd, blocky, scat gy to off wh cht, tite, ns.

SH; med gy to grn, fiss

LM; tan to buff, lt brn, fxln, scat foss mat, fair interpart por, some soft, no fluor, no stn or odor, no gas kick, ns.

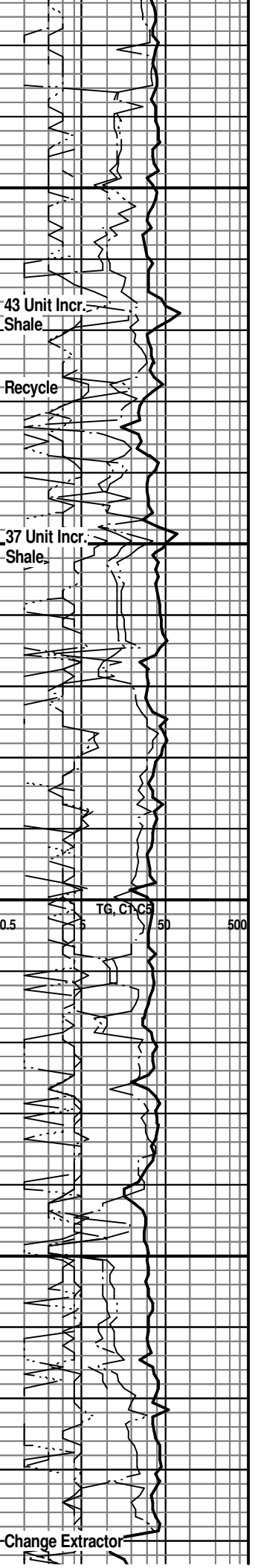
LM; med gy to brn, hd, blocky, scat tan to gy occ foss cht, no vis por, ns.

LM; lt brn, tan, foss to oolitic, fair to gd interpart/scat oomoldic por, dull to lt yel fluor, no stn or odor, no gas kick, ns.

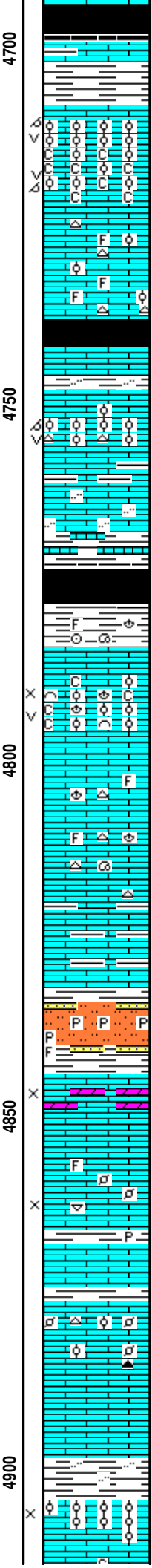
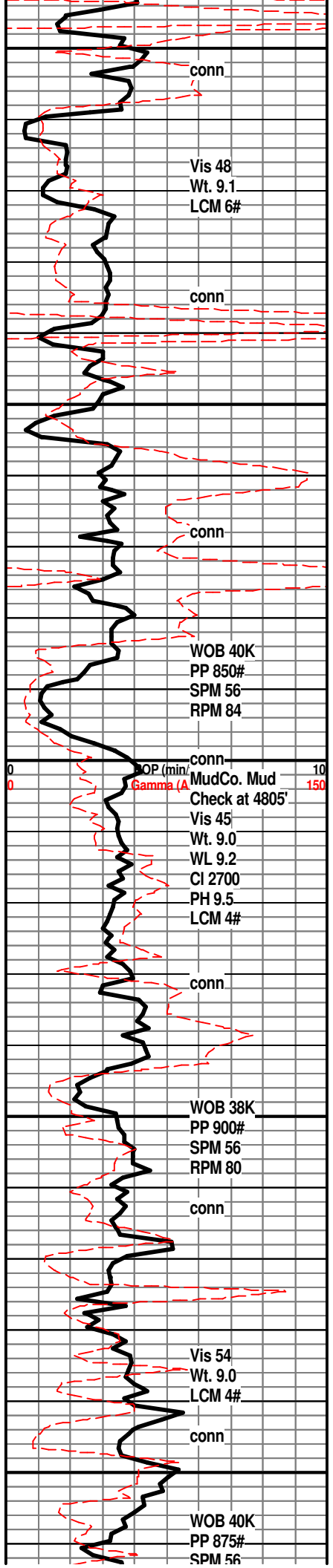
LM; tan to lt brn, foss - partly oolitic, poor to fair interpart por, abnt soft wh chalk and chalky mtx, lt yel fluor, no stn or odor, ns.

LM; lt to med brn, hd, micritic to litho, scat gy to tan cht, tite

LM; med brn, dense, litho, no vis por, ns.



Change Extractor



SH; blk, carb ip, trc gas

LM; med gy brn, argil ip, hd

**KANSAS CITY 'A' 4708(-1804)**

LM; lt brn, oolitic, med to lrg molds, gd oomoldic and occ vug por, rextalized ip, scat med yel min fluor, no stn or odor, no gas kick, bcm v. chalky, ns.

LM; tan to lt brn, most dense, scat well cem ooids and foss mat, occ dk gy cht, no vis por, no fluor, ns.

**KANSAS CITY 'B' 4742(-1838)**

SH; blk, carb ip, gassy

SH; grn, silty, platy

LM; tan to buff, off wh, oolitic, fair oomoldic w/scat vug por, brittle ip, lt yel min fluor, interbdd oolitic cht, no stn or odor, ns.

LM; med to dk brn, gy brn, argil, gritty/silty ip, interbdd lmy sh

**KANSAS CITY 'C' 4784(-1880)**

SH; dk gy to blk, platy

SH; dk gy, silty, firm, occ foss

LM; tan to med gy brn, oolitic w/abnt cse foss frags and ooids, fair interpart w/trc vug por, abnt chalk and chalky mtx, lt yel fluor, no stn or odor, no gas kick, ns.

LM; tan to lt brn, foss ip, most well cem, scat gy to tan cht, no fluor, ns.

LM; dk brn, dk gy brn, dense, argil ip, tite

SLTST; lt gy, grn, sandy ip, dissem pyr, interbdd foss sandy sh, trc varic sh

**MARMATON 4844(-1940)**

LM; tan to off wh, sucrosic text, partly dolomitic, fair interxln por, scat soft chalky mtx, lt yel fluor, no stn or odor, no gas kick, ns.

LM; off wh, to tan, med to cse xln, occ foss, poor to no vis interxln por, lt yel min fluor, no stn or odor, ns.

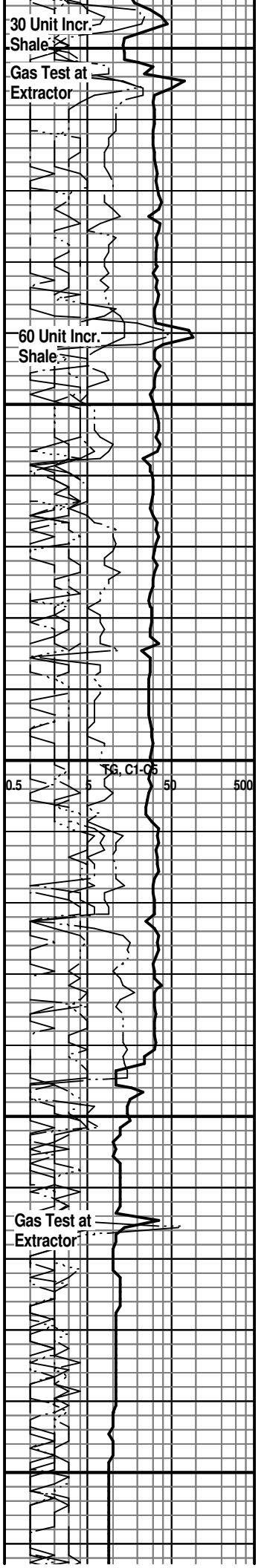
SH; grn, brite grn, pyr ip, fss

LM; lt to med brn, foss ip, scat poor interpart por, most well cem, occ tan to brn foss cht, dull yel min fluor, no stn or odor, ns.

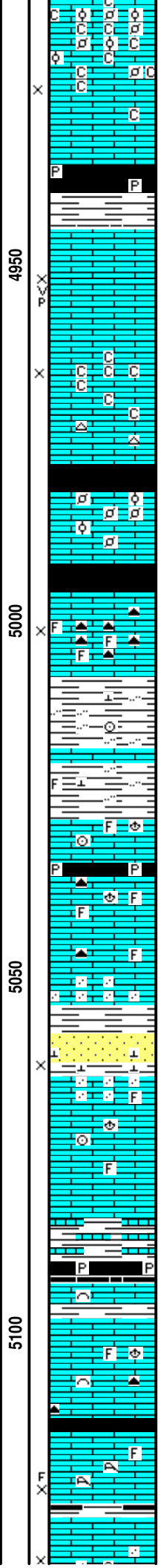
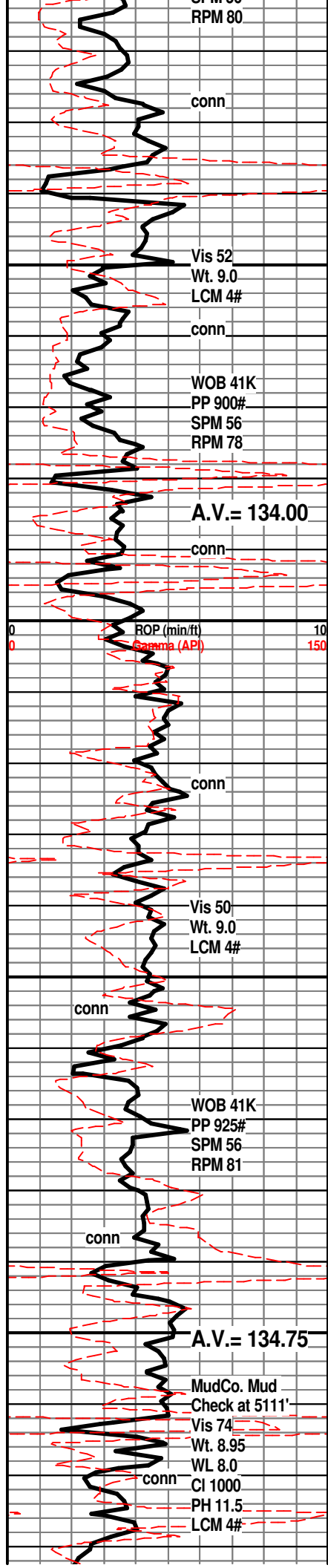
LM; med to dk brn, dense, v. hd, tite

SH; med gy, grn, silty ip.

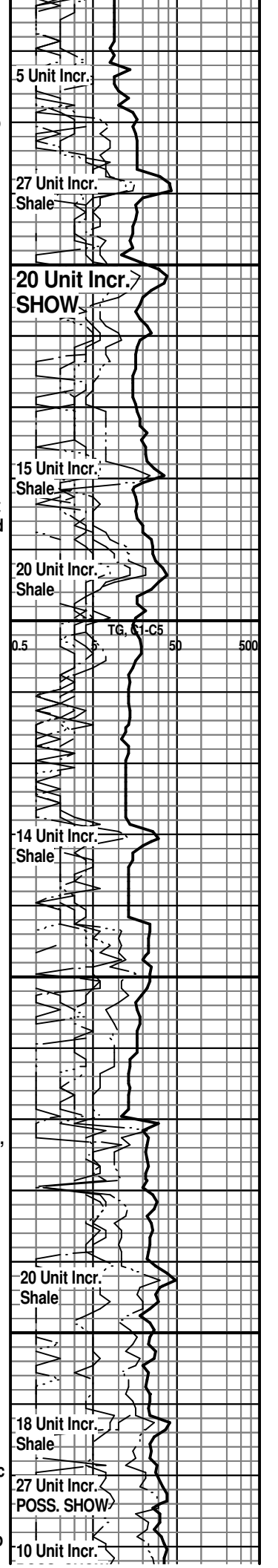
LM; tan to lt brn, buff, foss, scat well cem med size ooids, spar calc cmt, rare interpart por, dull yel fluor, no stn or odor, no gas kick, ns.



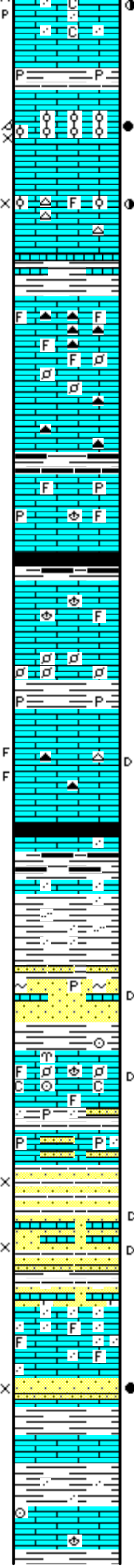
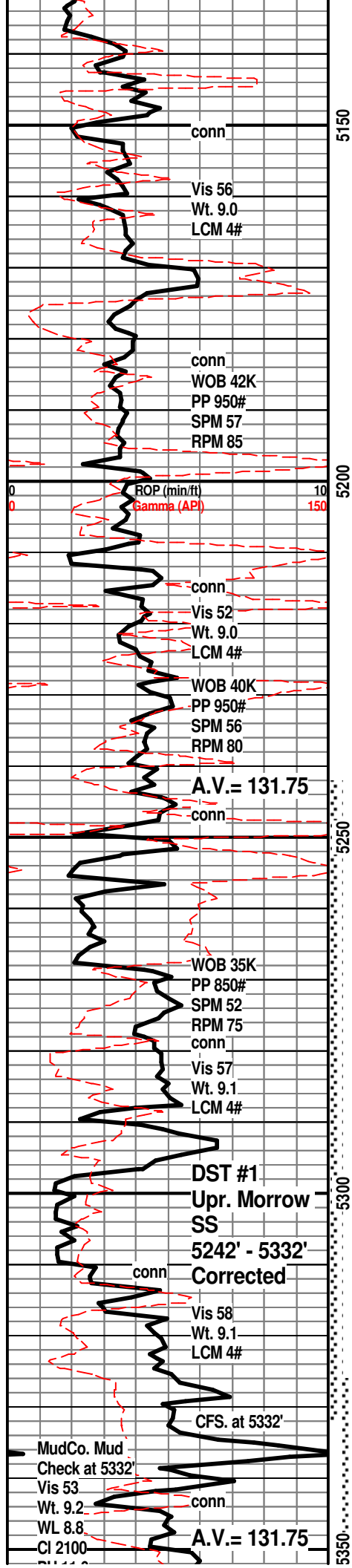




LM; wh to off wh, foss - partly oolitic, very chalky, soft ip, fair interpart por, lt yel fluor, no stn or odor, ns.  
 LM; off wh, wh, tan, foss to cse xln, fair interpart por, occ chalky, scat brite blue fluor, quest. gas bubbles, no vis stn, no odor  
 SH; blk, carb ip, gassy, scat pyr  
**PAWNEE 4945(-2041)**  
 LM; off wh, wh, tan, gran to cse xln, gd interxln w/occ p-p and small vug por, gas bubbles, lt yel fluor, spotted to rarely even lt brn oil stn, faint odor, VSSFO  
 LM; off wh, tan, f to med xln, fair interxln por, chalky soft ip, dull yel fluor, no vis oil stn, questionable odor, quest gas bubbles  
 SH; blk, carb ip, platy, gassy  
**FORT SCOTT 4982(-2078)**  
 LM; off wh, lt brn, v. foss - finely pelletal, all well cem, lt to med yel min fluor, hd, blocky, no vis por, trc blk dead tarry oil, no gas kick, tite  
**CHEROKEE SHALE 4992(-2088)**  
 SH; blk, carb ip, trc gas, soft to brittle  
 LM; med brn, med xln w/abnt brn - dk brn highly foss cht, fair interpart por, scat brite blue/pale yel fluor, poss. gas bubbles, no vis oil stn, no odor  
 SH; med to dk gy, silty, calc, interbdd hd lmy occ foss shale and shaly lmst.  
 LM; dk brn, hd, foss ip, tite  
 SH; blk, carb ip, platy, occ pyr  
 LM; med brn, gy brn, most dense, scat foss ip, no vis por, rare dk brn/dk gy cht, no stn, ns.  
 LM; med brn, rare gy brn, sandy/siliceous ip, dull yel fluor, no stn or odor, ns.  
 SS; lt gy, wh, most f gr qtz, fair intergran por, fri ip, lmy - calc cmt, rare mica, dull yel fluor, no stn or odor, no gas kick, ns.  
 LM; tan to buff, lt brn, sandy ip, scat foss mat, well cem, no vis por, no fluor, ns.  
 SH; dk gy, firm, lmy ip w/interbdd shaly lmst  
 SH; blk, brittle, pyr ip, fiss  
**ATOKA 5093(-2189)**  
 LM; lt brn, tan, most micritic, dense, rare well cem foss mat, no vis por, no fluor, ns.  
 LM; med to dk brn, hd, micritic, scat brn/amber cht, no vis por, ns.  
 SH; blk, carb ip, trc gas, soft  
 LM; med brn, foss ip, fxln, fair interxln por, scat corals, trc calc fld frags, scat lt yel fluor, no vis stn, no odor, trc gas bubbles  
 LM; off wh, tan, sandy text ip, fxln, fair interxln w/gd p-p oor. rare spotted lt brn oil stn. faint odor. trc gas







por, some minor cherty, minor FO., weak to no cut, some barren por

SH; dk gy to blk, platy, occ pyr

LM; lt brn, foss-oolitic, much lt brn even oil stn, fair interpart/some oomoldic por, brittle, gas bubbles, brite yel fluor, gd odor, SFO, gd cut, sev. oil saturated pcs.

LM; lt brn, tan, foss to csely xln, scat lt to med brn oil stn, lt yel fluor, faint odor, cherty ip, fair cut, most tite

SH; med to dk gy, lmy, v. firm

LM; dk brn, hd, v. cherty w/foss dk brn to smoky cht, hd, blocky, no vis por, ns.

LM; med to dk gy, dk gy brn, dense, blocky, scat blk to smoky cht, interbdd foss - pelletal lmst, scat lt yel fluor, no stn or odor, ns.

SH; dk gy, blk, platy

LM; dk brn, dk gy, foss ip(fusulinids), hd, rare dissem pyr, tite

**ATOKA SHALE MARKER 5210(-2306)**

SH; dk gy to blk, pyr ip, platy

LM; med to dk gy, gy brn, foss ip, hd, scat dk gy cht, no vis por, ns.

LM; med brn, foss - finely pelletal, well cem, no vis por, no fluor, ns.

SH; dk gy, blk, fiss, occ pyr

LM; med to dk brn, occ gy brn, med xln, trc frags-cse spar calc xtals, scat lt yel fluor, faint odor, few pcs. w/blk tarry dead oil, occ gy to brn cht w/dead oil, no live show

**MORROW SHALE 5248(-2344)**

SH; blk, carb, trc coaly frags, firm, pyr ip.

LM; med gy, hd, sandy ip, tite

SH; med 'mouse' gy, soft, occ pyr, sandy to silty

SS; lt gy, vf to f gr, lmy, occ glau, poor intergran por, scat dk brn/blk residual oil stn, no odor, few gas bubbles, pyr ip.

SHORT TRIP AT 5280'

LM; off wh, tan, lt gy brn, foss, occ cse xln, minor soft chalky mtx, no vis por, dull yel min fluor, scat blk tar/gilsonite, no odor, no gas kick

SH; grn, platy, interbdd thin ss strngs, pyr ip.

LM; grn/tan, sandy, pyr, interbdd shaly ss

**UPPER MORROW SS 5296(-2392)**

SS; lt gy, gy brn, gy grn, vf to f gr qtz, fair intergran por, very shaly - much sandy sh, interbdd hd lmy ss, scat lt yel fluor, rare blk tar/gils. flakes, vis gas bubbles, faint odor

SS; clr, wh, med gr qtz, v. lmy - foss interbdd

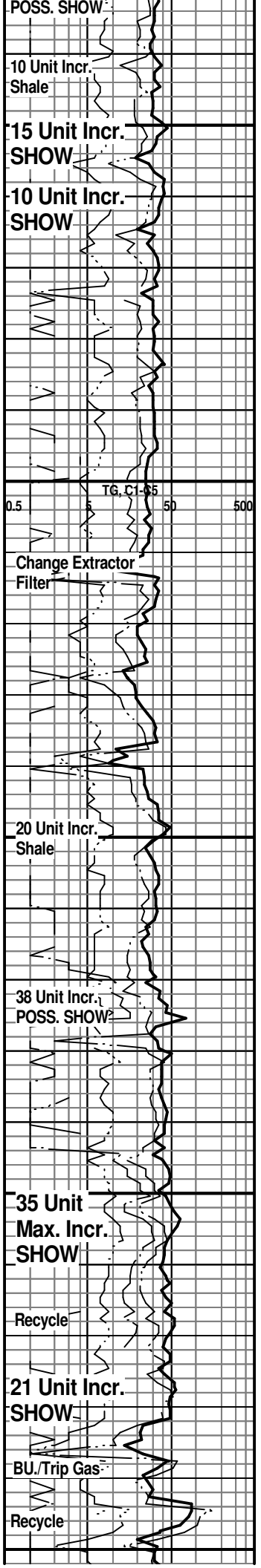
LM; lt to med brn, sandy text, foss ip, no vis por, no stn or odor, ns.

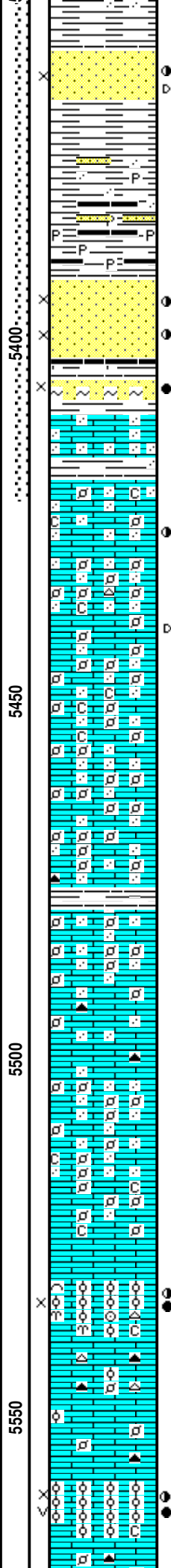
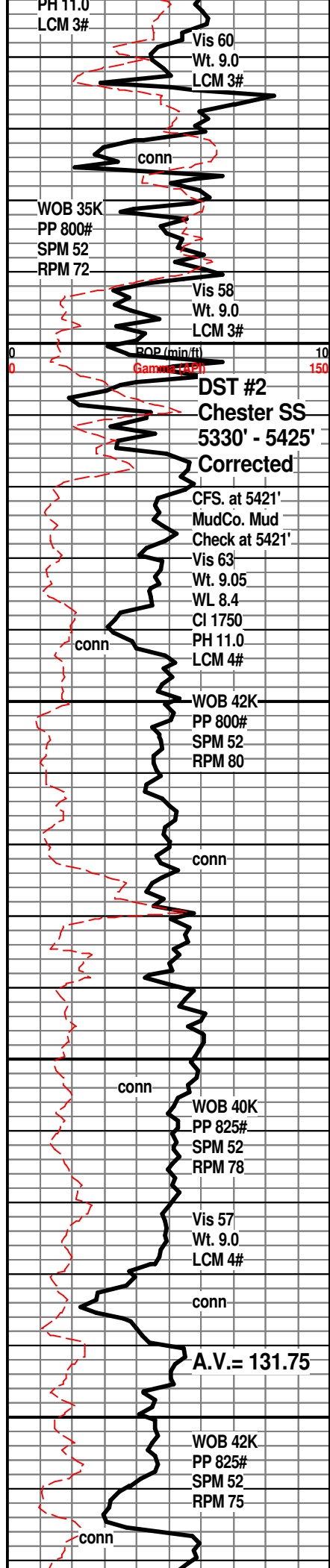
SS; brn(oil stn), f gr qtz, dk brn even oil stn to saturation, faint odor, golden yel fluor, poor to fair por, most residual oil, Trc. FO., trc gas bub.

**DST #1:Upper Morrow SS 5242' - 5332' Corrected Depths to LOG**

SH; med mouse gy, firm, sandy ip.

LM; lt brn, tan, foss ip, dense, tite





**UPPER CHESTER SS 5359(-2455)**  
SS; clr, lt brn, f to med gr qtz, fri, clusters, lt golden yel fluor, most w/gd intergran por, scat lt brn even to uneven oil stn, trc gas bubbles, scat blk dead oil flakes, faint odor, cse gr ss at base, fair cut, subrnd to subang gr

SH; med gy, rare grn, sandy, occ pyr, scat carb strks - trc coaly frags.

**LOWER CHESTER SS 5392(-2488)**  
SS; clr, lt brn(oil stained), most med gr, fri, gd to v. gd intergran por, sweet gassy odor, med golden yel/ brite yel fluor, subrnd gr, well srt, trc gas bubbles, interbdd blk pyr carb sh/coal

SS; grn, lt gy brn, f gr, qtz, glau, abnt gas bub., SFO, brite to golden yel fluor, gd odor, gd cut  
SH; grn, brite grn, sandy ip, w/sandy gy lmst.

**ST. GENEVIEVE 5419(-2515)**  
DST #2: Chester SS 5326' - 5421'  
Corrected Depths to LOG  
LM; lt brn, off wh, sandy, spotted med brn oil stn, med yel fluor, faint odor, poor por, fair cut

LM; wh, off wh, abnt blk dead oil flakes in mtx, hd, no vis por, dull yel fluor, fair cut, no odor

LM; wh, off wh, sandy to finely pelletal, minor soft chalky mtx, well cem, no vis por, rare off wh cht, no fluor, ns.

LM; wh to off wh, sandy to finely pelletal, scat multi-colored pellets, minor soft chalky mtx, no vis por, no fluor, few pcs of amber to brite org cht, ns.

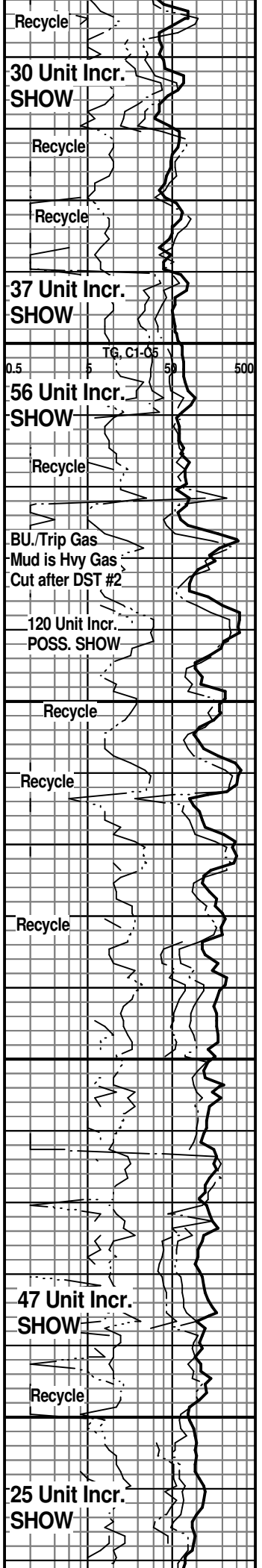
LM; off wh, lt gy, sandy to dense - micritic, blocky ip, scat org cherty lmst, no vis por, no stn or odor, ns.

LM; tan to lt brn, sandy to finely pelletal, occ med to cse subrnd to rnd qtz gr, minor soft chalky mtx, no fluor, no stn odor, ns.

**ST. LOUIS 'A' 5530(-2626)**  
LM; wh, oolitic, med size ooids, scat cse foss frags, fair interpart por, dk brn to occ blk live spotted to even oil stn, SSFO, trc gas bubbles, med to occ brite yel fluor, fair odor, gd cut, rare wh oolitic cht, minor chalky mtx

LM; tan to lt brn, finely pelletal w/scat well cem ooids, occ blue/gy to org cht, tite

**ST. LOUIS 'B' 5559(-2655)**  
LM; lt brn, oolitic, small to med size ooids, fair interpart/occ vug por, med/rare brite yel fluor, faint odor, SFO, med to dk brn spotted/even stn, trc gas bubbles, little/no chalk, fair/gd cut



MudCo. Mud  
Check at 5589'  
Vis 58  
Wt. 9.0  
WL 9.2  
CI 2900  
PH 9.5

conn

0 LCM 2# ROP (min/ft) 10  
0 Gamma (API) 150

CFS. at TD.

Vis 60  
Wt. 9.1  
LCM 3#

5600

5650

00



LM; lt to med brn, finely pelletal, dense, scat org/gy cht, no vis por, ns.

LM; lt brn, tan, sandy to finely pelletal, scat amber to transl. cht, minor chalky mtx, no vis por, no fluor, ns.

**ST. LOUIS 'C' 5609(-2705)**

LM; off wh, tan, oolitic, small/med size ooids, most well cem, chalky mtx, no fluor, no stn or odor, poor interpart por, barren, ns.

RTD. 5625' at 1:35 PM. 8/23/11

LTD. 5620'

Halliburton DIL, NEU/DEN w/PE,  
Microlog

**NOTE: This log was shifted upward by 5' for correlation purposes with the Halliburton LOGS.**

0.5 TG, C1-C5 50 500