

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Robertson #2-33
Location: 990' FNL & 2300' FEL, Sec. 33-T27S-R18W, Kiowa Co., KS.
Licence Number: 15-097-21718-0000 Region: Greensburg SW
Spud Date: 3/3/2012 Drilling Completed: 3/12/12
Surface Coordinates: 990' FNL & 2300' FEL, Sec. 33-T27S-R18W

Bottom Hole Same as above
Coordinates:
Ground Elevation (ft): 2194' K.B. Elevation (ft): 2205'
Logged Interval (ft): 3700' To: 4860' Total Depth (ft): 4900'
Formation: Kinderhook at TD.
Type of Drilling Fluid: Freshwater/Gel to 3293'; Chemical Gel 3293' to 4900'
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Strata Exploration, Inc.
Address: P.O. Box 401
Fairfield, IL. 62837-0401

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(Cherokee Lmst. - Miss. Chert) 4742' - 4786'(Corrected Depths to LOG) Test Times 15"-45"-60"-120" IFP Strong Blow BOB/30 Sec. Gas to Surface in 7 Min., Weak Surface Blowback on ISI; FFP Strong BOB Blow, Gas to Surface throughout Gauged Max. 32.4 MCFG, Stabilized at 27.6 MCFG/60 Min. of FFP; 5" Blowback on FSI; REC: 290' CGO(20%G, 80%O) API 39 Deg., 10' GOCM(40%G, 35%O, 25%M), no Water; IFP 80-47#, ISIP 1355#, FFP 62-101#, FSIP 1352#, IHP 2328#, FHP 2363#, BHT 125 Deg. F.

Comments

3/3/12 MIRU Sterling Drilling Rig #2, Spud at 6:00 PM.; 3/4/12 TD. 587' - CCH prior to Wiper Trip; 3/5/12 Drilling at 835'; 3/6/12 Drilling at 2451'; 3/7/12 Drilling at 2821'; 3/8/12 Drilling at 3591'; 3/9/12 TD. 4223' - CFS; 3/10/12 Drilling at 4555'; 3/11/12 TD. 4788' - Short trip for DST #1; 3/12/12 TD. 4860' - TOH for Logs - LTD. 4860'; 3/13/12 DDTD. 4900' - Running 5 1/2" Production Casing.

Set new 8 5/8"(23#) Surface Casing at 580' w/ 475 sx. Cement did Circulate(Basic Energy Services). PD. at 12:45 PM. 3/4/12. Cement fell 8' below GL, add 25 sx. dry cement to top off.

Set new 5 1/2"(15.5#) Production Casing at 4894' w/200 sx. of "Strata Blend" cement(Basic Energy Services). PD. 10:40 AM. 3/13/12.

Surveys: 0.5 Deg. at 587'(Surface Casing); 0.5 Deg. at 4788'(DST #1); 0.75 Deg. at 4860'.


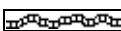
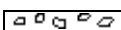

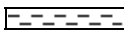

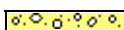





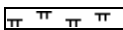

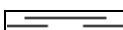



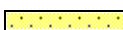
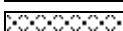
Pipe Strap at 4788'(DST #1): Strap 0.62' Short to the Board, no correction made to the Board.

After review of the Halliburton Logs, DST data, structural position and positive indications of commercial amounts of recoverable hydrocarbons, the operator elected to set new 5 1/2" (15.5#) Production Casing for completion in the Kinderhook Sand, Miss. Chert and Cherokee Lmst. zones.








































































NOTE: After the Robertson #2-33 was logged, the well was deepened to 4900' DDTD. Also, while Halliburton was logging the well, the logging tools were stuck/hungup at the base of the 8 5/8" Surface Casing, apparently due to a large washout hole condition. Due to this problem, the MIRL log was not run on the well, as previously planned.

LOG TOPS: Chase 2439(-234), Stotler Lmst. 3393(-1188), Howard 3592(-1387), Heebner Shale 4042(-1837), Toronto 4055(-1850), Brown Lmst. 4194(-1989), Lansing 'A' 4206(-2001), Lansing/KC. 'H' 4363(-2158), KC. 'I' 4410(-2205), Stark Shale 4498(-2293), Base Kansas City 4598(-2393), Marmaton 4638(-2433), Pawnee 4681(-2476), Cherokee Shale 4719(-2514), Miss. Chert 4760(-2555), Kinderhook Shale 4784(-2579), Kinderhook Sand 4819(-2614).

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
 [F] Fenest
 [X] Fracture
 [Inter] Inter
 [Moldic] Moldic
 [Organic] Organic
 [Pinpoint] Pinpoint

[V] Vuggy

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

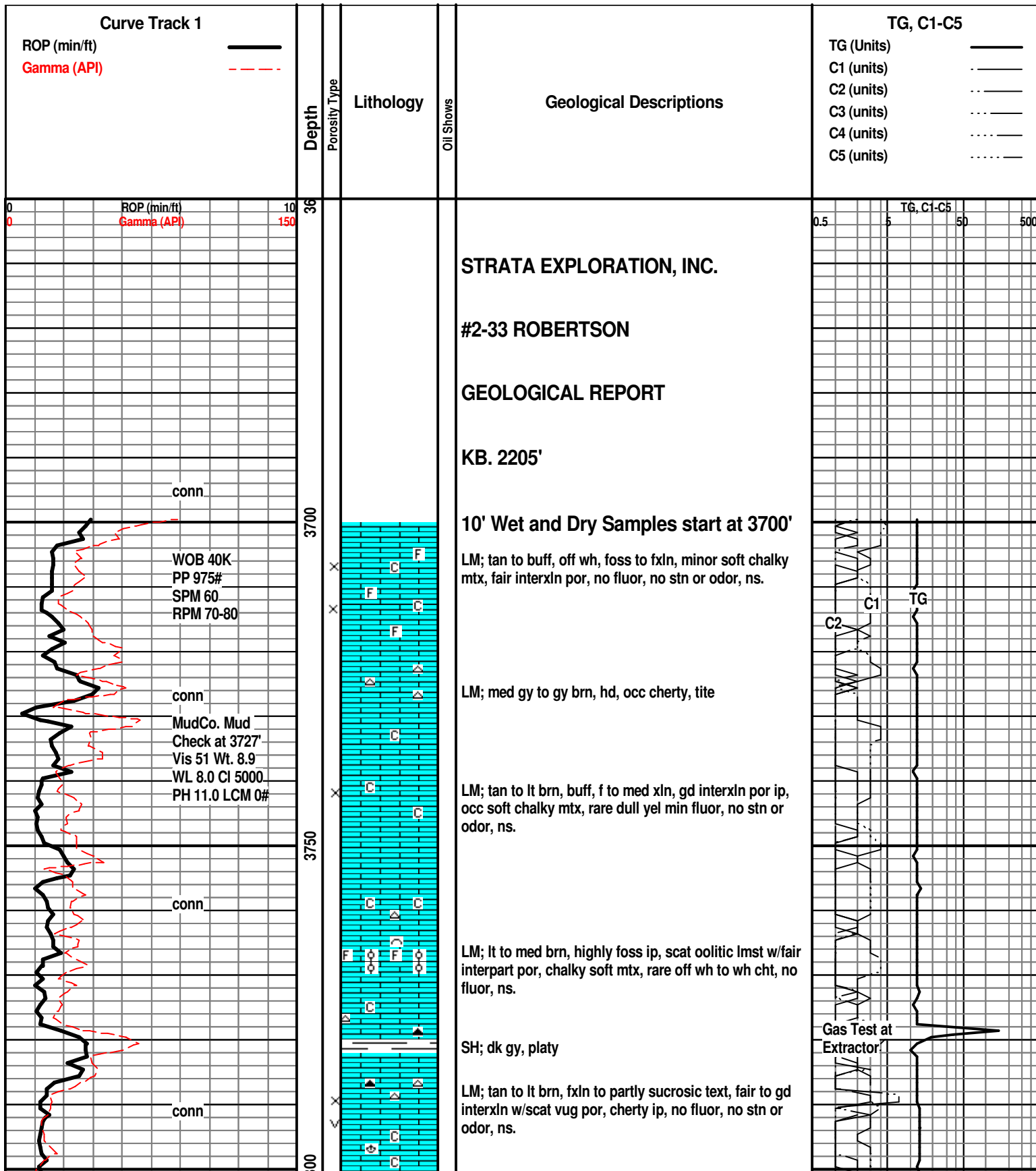
- ROUNDING**
 [R] Rounded
 [Subrnd] Subrnd
 [Subang] Subang
 [Angular] Angular

OIL SHOW
 [Even] Even

- [Spotted] Spotted
 [Ques] Ques
 [Dead] Dead

- INTERVAL**
 [Core] Core
 [Dst] Dst

- EVENT**
 [Rft] Rft
 [Sidewall] Sidewall



Curve Track 1

ROP (min/ft) ———
 Gamma (API) - - - -

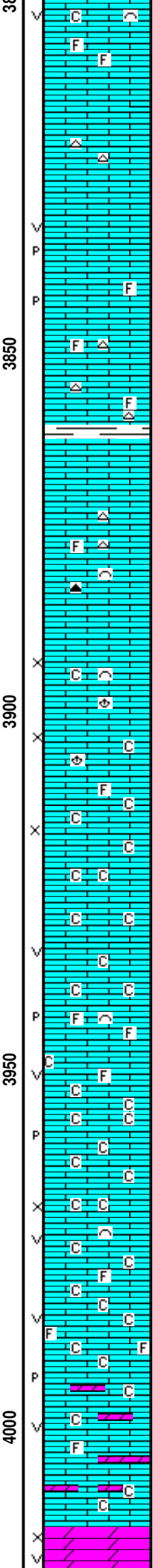
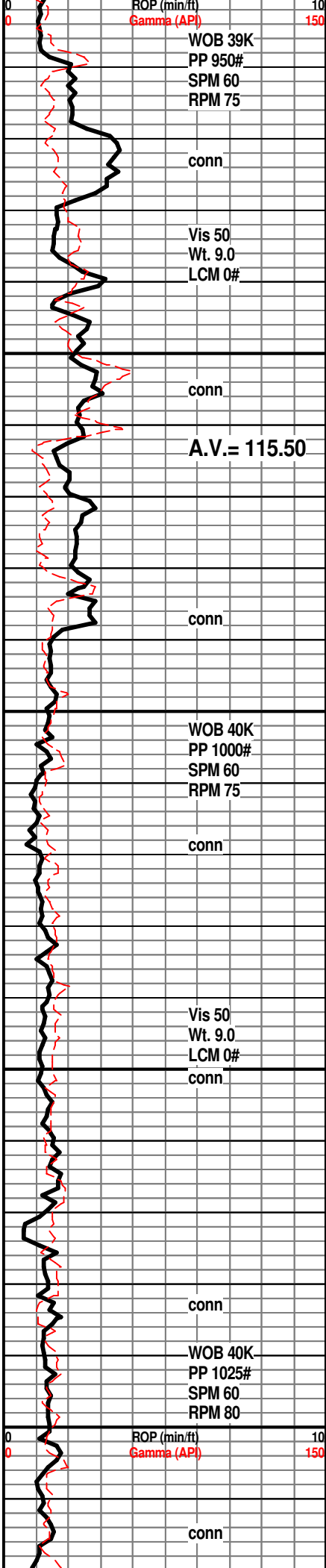
TG, C1-C5

TG (Units) ———
 C1 (units) - - - -
 C2 (units)
 C3 (units)
 C4 (units)
 C5 (units)

WOB 40K
 PP 975#
 SPM 60
 RPM 70-80

MudCo. Mud
 Check at 3727'
 Vis 51 Wt. 8.9
 WL 8.0 CI 5000
 PH 11.0 LCM 0#

Gas Test at
 Extractor



LM; lt brn, off wh, med to cse xln, much gd interxln w/vug por, scat foss mat, occ lt yel fluor, chalky mtx ip, no stn or odor, ns.

LM; tan to lt gy brn, hd, micritic, cherty ip, tite

LM; lt gy, lt gy brn, lt brn, f to med xln, scat vug and p-p por, dull yel min fluor, no stn or odor, ns.

LM; lt brn, tan, foss ip, most well cem, scat gy to off wh occ foss cht, no vis por, no fluor, ns.

SH; med gy to grn, platy

LM; lt to med brn, most dense, foss ip, hd, blocky, scat tan to dk gy cht, ns.

LM; tan to lt brn, f to med xln, scat cse spar calc xtals, minor soft chalky mtx, gd interxln por, interbdd foss lmst, lt yel fluor, no stn or odor, ns.

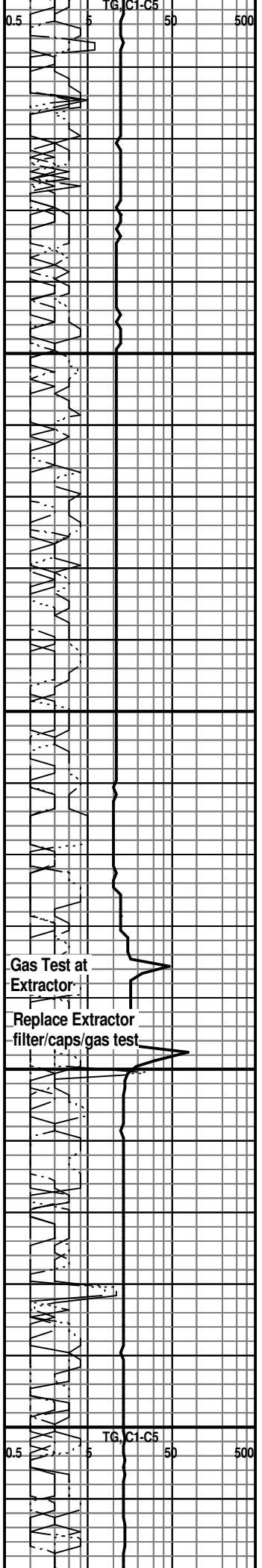
LM; tan to buff, lt brn, med to occ cse xln, much soft chalky mtx, lt yel min fluor, no stn or odor, ns.

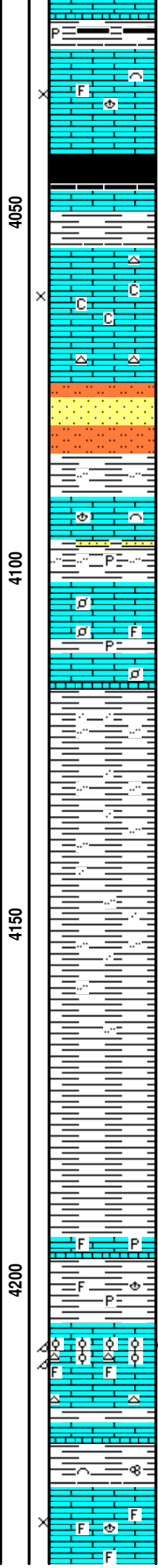
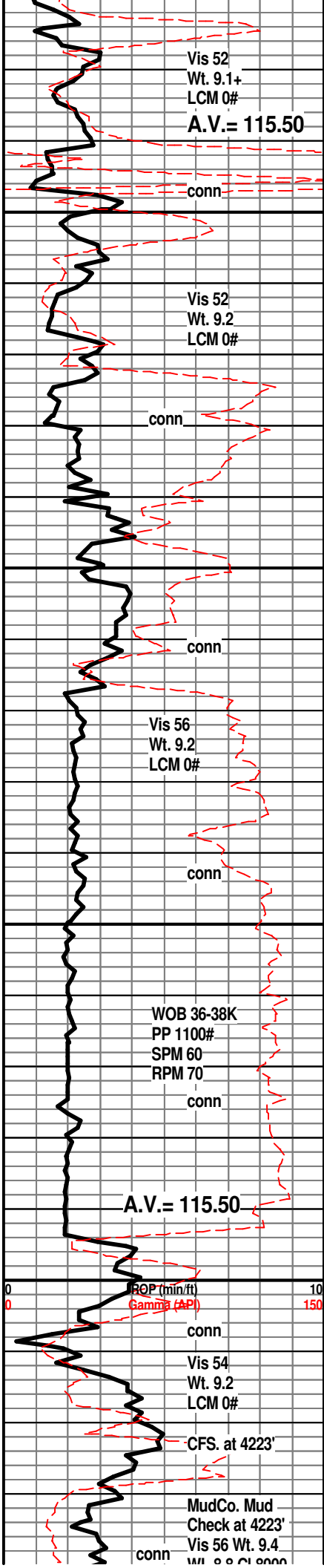
LM; tan to lt brn, buff, foss ip, scat med xln to gran text, occ gd vug and p-p por, lt yel min fluor, much soft chalky mtx, no stn or odor, ns.

LM; lt brn, buff, tan, f to med xln, foss ip, scat v. gd vug and p-p por, much soft chalky mtx, dull to lt yel min fluor only, occ cse spar calc xtals, no stn or odor, ns.

LM; tan to lt brn, cse xln, dolomitic, some med rhombic, scat well dev. vug por, occ cse spar calc, lt yel min fluor, ns.

DOL; tan to buff, lt brn, rare lt gy, sucrosic to finely rhombic, scat cse opaque calc/rhombs, fair to gd interxln w/vug por, lt yel fluor, ns.





interlin w/vug por, lt yel fluor, ns.

SH; dk gy, trc blk, platy, occ pyr

LM; tan to lt gy, fxl, scat foss mat, lt yel min fluor, some fair interpart por, no stn or odor, ns.

HEEBNER SHALE 4042(-1837)
SH; blk, carb ip, platy
LM; med brn, hd, blocky, tite

TORONTO 4055(-1850)
LM; off wh, lt gy, tan, fxl, much soft chalky mtz ip, scat sucrosic text, dolomitic ip, lt to med yel fluor, no vis stn, no odor, occ wh to off wh cht, ns.

DOUGLAS SHALE 4074(-1869)
SLTST & SS; lt gy, occ mica, most vf gr qtz, poor intergran por, tite
SH; lt to med gy, silty
LM; med to dk brn, foss, hd, blocky
SH; lt gy, silty, platy, interbdd hd vf gr ss strngs, occ pyr
LM; med to dk brn, dense, abnt foss pellets and hash, no vis por, ns.
SH; lt gy, silty to occ sandy, platy

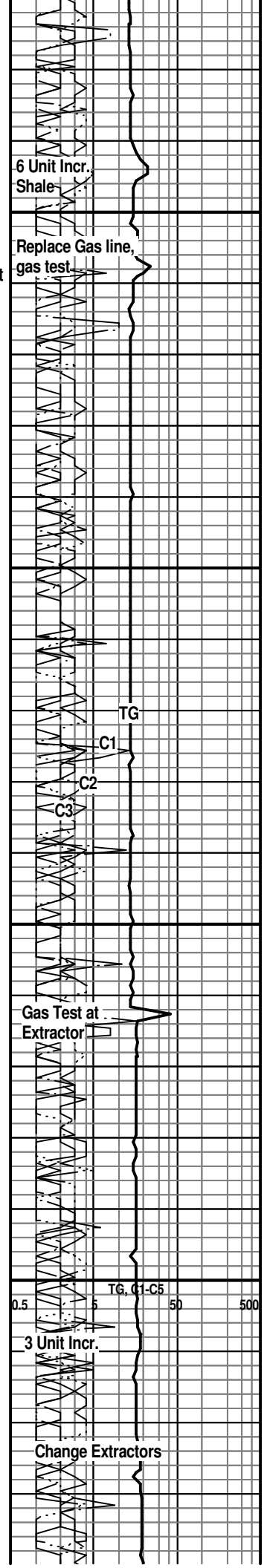
SH; lt gy, platy, silty to rarely sandy

SH; lt to med gy, most smooth, platy to flakey

BROWN LMST. 4194(-1989)
LM; med to dk brn, foss ip, dense, pyr ip, hd
SH; med gy to grn, foss ip, v. firm, occ pyr

LANSING 'A' 4206(-2001)
LM; lt brn, tan, foss - oolitic, poor to gd oomoldic por, med yel fluor, occ oolitic cht, trc lt brn oil stn, no FO., questionable odor, trc gas bubbles, much/most looks tite - poor show at best
SH; dk gy to gy grn, platy, foss ip.

LANSING 'B' 4229(-2024)
LM; tan to buff, fxl w/scat foss mat, fair to poor interpart por, dull yel fluor, questionable gas bubbles, no vis stn, no odor, ns.



WL 8.8 Cl 8000
PH 10.0 LCM 0#

CFS. at 4253'

conn
WOB 40K
PP 950#
SPM 55
RPM 70

conn

Vis 50
Wt. 9.3+
LCM 0#

conn

conn
WOB 40K
PP 1000#
SPM 57
RPM 65-70

Vis 53
Wt. 9.3
LCM 0#

conn

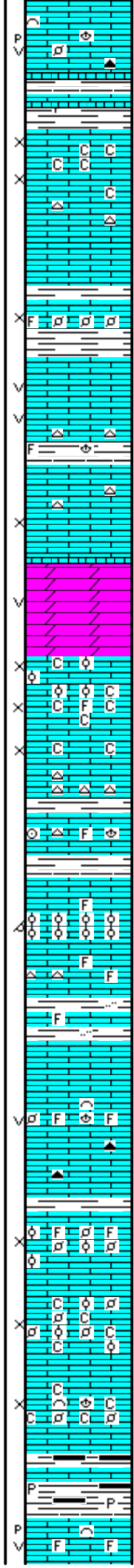
0 10
0 150
BHP (psi/ft)
Gamma (API)

CFS. at 4420'

conn

Vis 52
Wt. 9.3
LCM 0#

4250
4300
4350
4400
4450



LM; tan to lt gy, foss ip, fairly well dev. vug por, some rextalized, occ lt yel fluor, no vis stn, no odor, slight gas kick only

SH; med to dk gy, platy, occ foss

LM; tan to buff, lt brn, f to med xln, fair interxln por, occ chalky mtz, dull yel to no fluor, no stn or odor, ns.

LM; med brn, gy brn, hd, blocky

LM; tan to lt brn, foss, occ finely pelletal, most well cem, trc poor interpart por, scat lt yel min fluor, no stn or odor, ns.

LM; lt brn, buff, sucrosic to fxln, scat vug por, lt to med yel min fluor, no vis stn, no odor, ns.

SH; med gy, grn, foss ip, platy

LM; lt to med brn, gy brn, interbdd dolomitic lmst w/fair interxln por, occ cherty, dull yel fluor, no stn or odor, ns.

DOL; lt brn, tan, lt gy, sucrosic, fair interxln and vug por, lt yel fluor, no stn, ns.

LM; tan to off wh, buff, foss - oolitic ip, fair interpart por, some sucrosic text, minor soft chalky mtz, spotty lt yel min fluor, no stn or odor, ns.

LM; tan to cream, buff, off wh, med to occ cse xln, spar calc xtals, soft chalky mtz, fair interxln por, lt yel min fluor, occwh to off wh cht, ns.

LM; med brn, hd, occ cherty, foss ip, tite

LANSING/KC. 'H' 4363(-2158)

LM; lt brn, oolitic, most small to med size molds, brittle ip, dull yel min fluor, no stn or odor, no gas kick, ns.

LM; tan to off wh, buff, foss ip, most dense, interbdd gy/tan cht, no vis por, ns.

SH; med gy, grn, fiss, occ silty

LM; tan to lt brn, buff, foss ip, rare small vug por, most dense, no fluor, no stn or odor, scat dk gy to smoky cht, ns.

KC. 'I' 4410(-2205)

LM; lt gy brn, lt brn, finely pelletal/partly oolitic, small pellets, loosely cem, fair/some gd interpart por, dull yel fluor, no stn, no gas kick

LM; tan to off wh, buff, finely pelletal to partly oolitic, fair interpart por, soft chalky mtz ip, dull yel min fluor, no stn or odor, no gas kick

LM; off wh, tan, foss - finely pelletal, some foss hash, much soft chalky mtz, poor to fair interpart por, dull yel/no fluor, no stn/odor, ns.

SH; med to dk gy, trc blk, platy, occ pyr

KC. 'J' DENNIS 4453(-2245)

LM; off wh, wh, foss ip, most fxln w/scat vug and occ

3 Unit Incr.

TG

C1

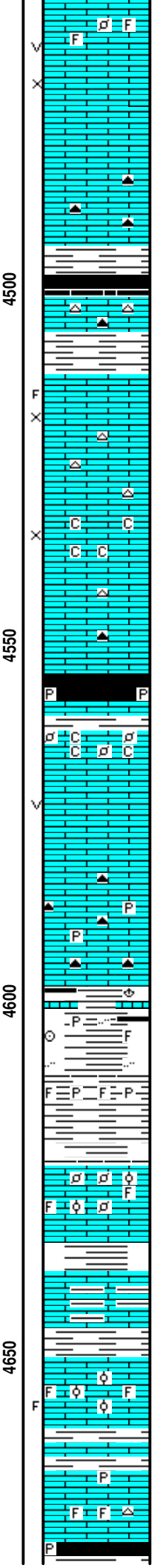
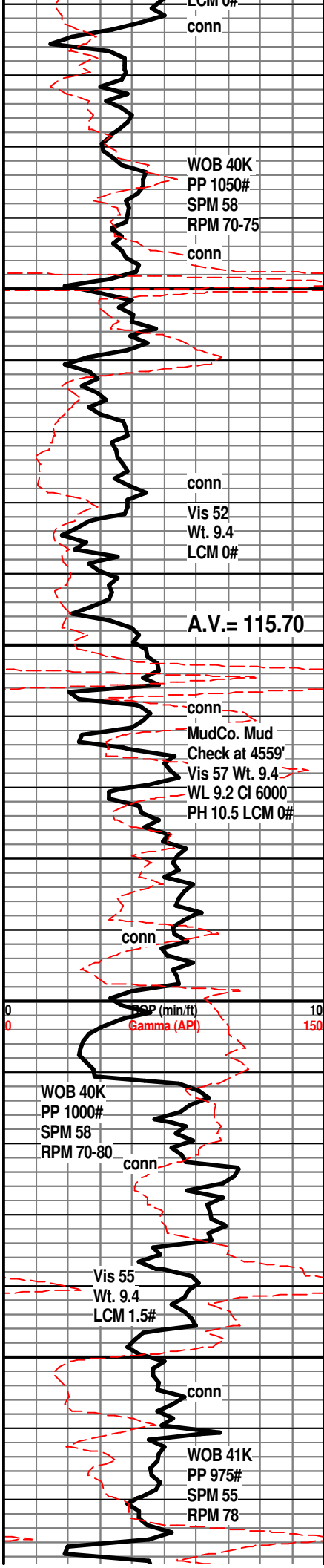
C2

C3

C4

Gas Test at Extractor

0.5 5 50 500
TG, C1-C5



pp por, some sacrosic text, minor chalky mtz, dull to
occ lt yel fluor, no vis stn, no odor, no gas kick

LM; tan to lt brn, foss ip, fair to gd interpart w/occ vug
por, lt yel fluor, no vis stn, ns.

LM; med brn, gritty text ip, dense, scat dk gy to smoky
cht, no vis por, tite

STARK SHALE 4498(-2293)
SH; blk, platy, carb ip
LM; tan to lt brn, hd, blocky, scat amber/tan cht

SWOPE 4512(-2307)
LM; tan to lt brn, rare lt gy brn, fxln, trc blk dead tar/gils.
on few pcs, poor interxln por, scat lt to med yel fluor,
trc fracs, no odor, no live shows

LM; off wh, wh, tan, med xln, fair interxln por, much soft
chalky mtz, lt to occ med yel fluor, trc. dk brn dead oil
stn, no live shows

LM; tan to lt brn, hd, micritic, occ cherty

SH; blk, carb ip, occ pyr, trc gas

HERTHA 4562(-2357)
LM; tan/cream, off wh, finely pelletal, interbdd partly
chalky mtz, fair interpart por, dull yel fluor, no vis stn,
no odor, ns.
LM; med brn, cse xln, fair interxln por, rare vug por, v.
dull yel min fluor, no vis stn, no odor, ns.

LM; med to dk brn, occ dk gy, gritty text ip, occ pyr,
interbdd dk gy/smoky cht, tite

BASE KANSAS CITY 4598(-2393)
SH; varic, dk gy - blk, maroon, grn, rust red, rarely silty,
platy to flakey, occ foss

SH; varic: grn, rust red, cinammon brn, yel, flakey,
interbdd hd lmy occ pyr sh.

PLEASANTON 4623(-2418)
LM; off wh, tan, lt brn, v. foss ip, most well cem, scat
pelletal/partly oolitic lmsst, lt to med yel min fluor, no vis
por, no stn or odor, ns.

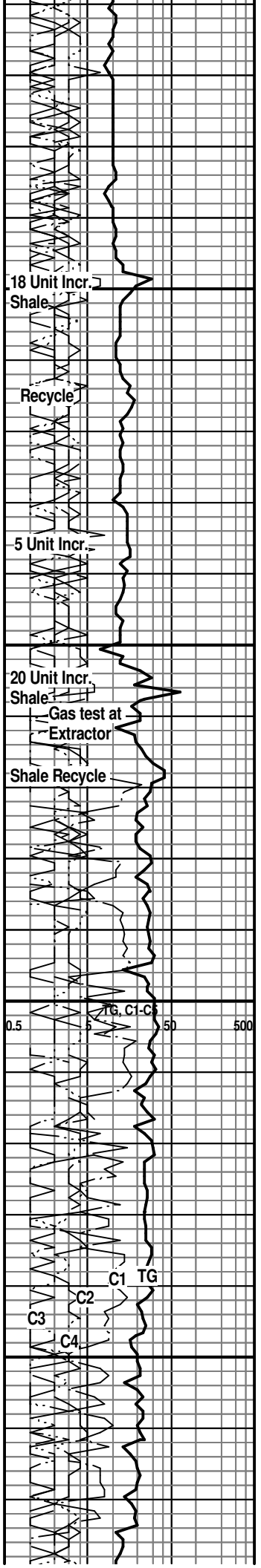
SH; varic: gy, grn, yel, platy to flakey

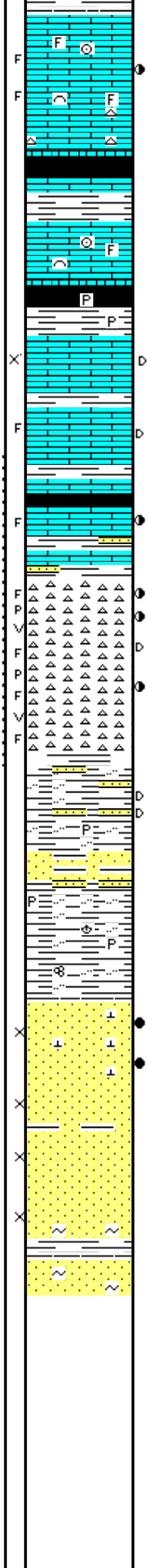
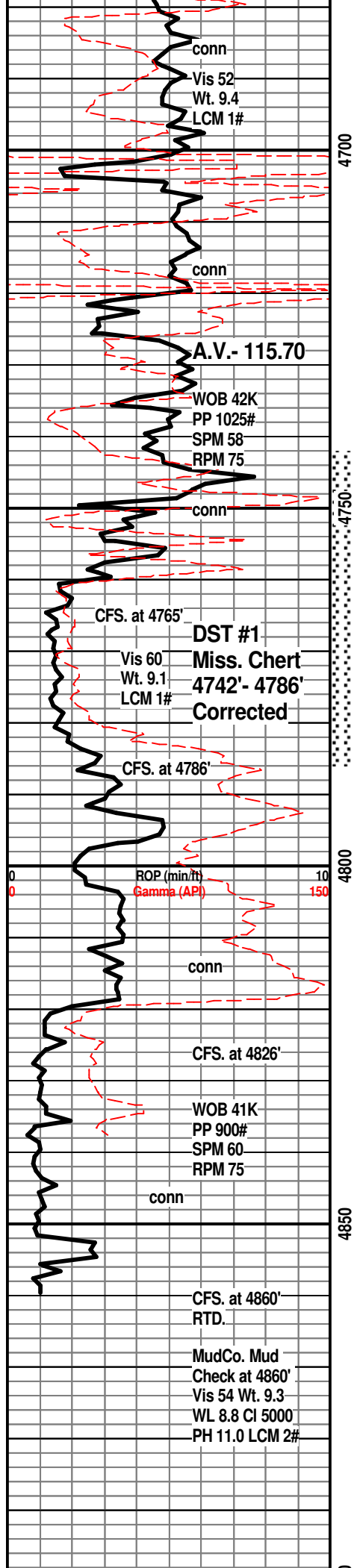
MARMATON 4638(-2433)
LM; lt brn, occ grn tint - argil ip, most micritic, scat spar
calc xtals, dull yel fluor, ns.

LM; tan to cream, buff, foss ip, occ well cem
pellets/ooids, no vis por, interbdd hd micrite, no fluor,
occ calc fld fracs, ns.

LM; tan to buff, fxln, scat foss mat, most dense, poor to
no vis interpart por, no fluor, scat tan to amber cht, ns.

SH; blk, dk gy, carb ip, occ pyr





PAWNEE 4681(-2476)
LM; tan to lt brn, foss ip, most dense - micritic, trc frags w/spotted dk brn oil stn, scat lt yel fluor, faint/flashy odor, weak/no cut, most with no sample shows

SH; blk, carb, blocky, hd, gassy ip.
LM; med brn, blocky, dense

LM; tan to lt brn, rare gy brn, most micritic, hd, scat foss - well cem, no vis por, ns.

CHEROKEE SHALE 4719(-2514)
SH; blk, dk gy, some grn, lt gy, soft, pyr ip.

LM; tan to off wh, lt brn, fxl, scat frags w/blk tar/gils, occ lt yel fluor, no live shows, most tite

LM; lt to med brn, blocky, most micritic, scat blk tar/gils, trc frags, spotted lt yel fluor, no live shows, no odor

LM; off wh, tan, buff, fxl, scat dk brn/blk residual oil, trc live oil stn-fracs, no odor, lt yel fluor, trc med gr qtz rnd ss - loose gr

MISSISSIPPI CHERT 4760(-2555)
CHT; wh, lt blue gy, most fresh, occ trip, scat lt brn oil stn, frags w/edge stn, scat med yel fluor, trip has fair p-p/vug por, SSFO, gas bubbles

CHT; wh, yel, rare org, most fresh, scat blk tarry dead oil, frags, rare trip w/lt brn live oil stn, spotted med yel fluor, no odor, gas bubbles

CHT; wh, lt blue, gy, yel, most fresh, frags, rare trip cht, occ vugs, med yel fluor, v. faint gas odor, few gas bubbles, spotted lt/med brn stn

KINDERHOOK SHALE 4784(-2579)
DST #1: Miss. Chert 4742' - 4786'
Corrected Depths to LOG
SH; med gy, gy grn, platy, silty ip w/interbdd vf to f gr grn qtz ss strngs w/blk dead oil flakes
SS; wh, pale grn, vf to f gr qtz, soft, shaly ip, fri, clusters, no fluor, no stn or odor, ns.

SH; med gy, gy grn, silty to occ sandy, foss ip, occ pyr

KINDERHOOK SAND 4819(-2614)
SS; clr, wh, lt gy, all f gr qtz, clean, fri, clusters, WENT BACK TO DRILLING, ENCOUNTERED AN OIL STAINED TO OIL SATURATED SAND IN THE LOWER SAMPLES - MAY HAVE LARGE WASHOUT UPHOLE PREVENTION SAMPLES TO GET TO THE SURFACE, gd intergran por, med golden yel fluor, SFO, gd cut, fair to gd oil odor, trc gas bubbles

SS; clr, wh, f gr qtz, clusters, gd intergran por, v. spotted lt brn stn, some barren unstained sand, occ glau, interbdd shaly tite ss

RTD. 4860' at 4:30 AM. 3/12/12

LTD. 4860'
Halliburton DIL, NEU/DEN w/PE,
Microlog

NOTE: DRILLED DEEPER TO 4900' DDTD. AFTER LOGS WERE RUN.

