

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Cretia Barnes #1-10
Location: 990' FSL & 1650' FEL. Sec. 10-T27S-R18W, Kiowa Co., KS.
Licence Number: 15-097-21742-0000 Region: Greensburg NW
Spud Date: 1/6/2013 Drilling Completed: 1/15/2013
Surface Coordinates: 990' FSL & 1650' FEL, Sec. 10-T27S-R18W

Bottom Hole Same as above
Coordinates:
Ground Elevation (ft): 2176' K.B. Elevation (ft): 2187'
Logged Interval (ft): 3350' To: 4868' Total Depth (ft): 4868'
Formation: Viola at Total Depth
Type of Drilling Fluid: Freshwater/Gel to 2988'; Chemical Gel 2988' to 4868'
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(Lansing 'A') 4173' - 4190' Test Times 15"-45"-30"-60" IFP Weak Surface Blow, FFP Weak Surface Blow, no Blowback on SI's; REC: 30' Gas in Pipe, 2' WOSpkd M(1%O, 12%W, 87%W), not enough wtr to get CI reading; IFP 14-27#, ISIP 1182#, FFP 17-41#, FSIP 1051# Building, IHP 2070#, FHP 2008#, BHT 116 Deg. F.

DST #2(Miss. Chert) 4716' - 4741' Test Times 15"-45"-Open tool - Lost Packer seat - Pull Test; IFP Weak 2" Blow, No Blowback on ISI, FFP None; REC: 858' Drlg Mud due to lost packer seat, no shows of oil or gas; IFP 19-34#, ISIP 1181#(not valid), no FFP or FSIP; IHP 2429#, FHP 2411#, BHT 122 Deg. F.

DST #3(Kinderhook Sand) 4732' - 4780' Test Times 15"-45"-30"-60" IFP Weak 0.25" Blow, FFP Weak 0.25" Blow, no Blowback on SI's; REC: 65' Drlg. Mud, no shows; IFP 22-39#, ISIP 716#, FFP 40-52#, FSIP 230#, IHP 2347#, FHP 2295#, BHT 121 Deg. F.

Comments


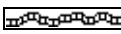
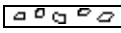
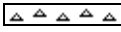
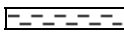







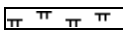
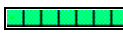

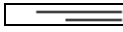
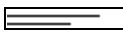



1/5 & 1/6/13 MIRU Sterling Drilling Rig #2, Spud 6:45 PM; 1/7/13 TD. 566' - WOC; 1/8/13 Drilling at 1745'; 1/9/13 Drilling at 2655'; 1/10/13 Drilling at 3365'; 1/11/13 Drilling at 4000'; 1/12/13 TD. 4190' - TOH with DST #1; 1/13/13 Drilling at 4570'; 1/14/13 TD. 4741' - TIH after DST #2; 1/15/13 Drilling at 4830', reached TD. of 4868' at 9:40 AM

Set new 8 5/8"(24#) Surface Casing at 561' with 350 sacks cement(Basic Energy Services). Cement did Circulate. PD. 4:15 PM. 1/6/13.




















































Surveys: 1 Deg. at 566'(Surface Casing); 0.50 Deg. at 4190'(DST #1); 0.75 Deg. at 4741'(DST #2); Deg. at 4868' RTD.

Pipe Strap at 4741'(DST #2): Strap 1.34' Short to the Board, no Correction made to the Board.
























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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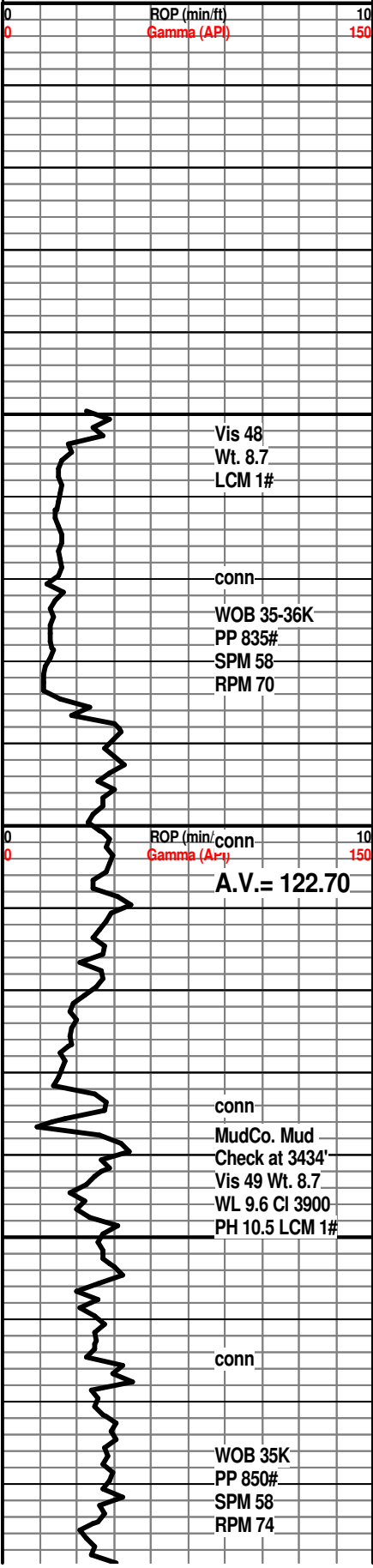
OTHER SYMBOLS

POROSITY  Earthy  Fenest  Fracture  Inter  Moldic  Organic  Pinpoint	 Vuggy SORTING  Well  Moderate  Poor	ROUNDING  Rounded  Subrnd  Subang  Angular OIL SHOW  Even	 Spotted  Ques  Dead INTERVAL  Core  Dst	EVENT  Rft  Sidewall
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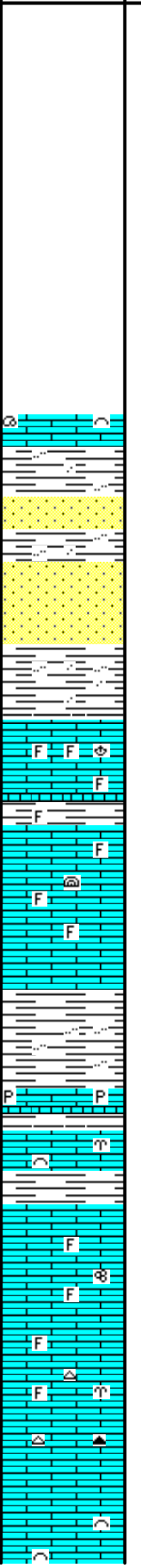
Curve Track 1

ROP (min/ft) ———
 Gamma (API) - - - - -

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



Depth
 Porosity Type
 33
 3350
 3400
 3450



Oil Shows

STRATA EXPLORATION, INC.

CRETIA BARNES #1-10

KB. 2187'

GEOLOGICAL REPORT

LM; lt to med brn, v. foss, well cem, blocky

SH; lt to med gy, sandy ip, interbdd vf to f gr qtz ss

SS; lt gy, scat red/brn, f gr qtz, clusters, mica ip, fair to gd intergran por, no stn, no gas kick, ns.

SH; med gy, silty to sandy, platy

STOTLER LMST. 3387(-1200)

LM; tan to buff, off wh, foss, abnt fusulinids, most dense, scat lt yel min fluor, no stn or odor, no fis por, no gas kick, ns.

GOOD SAMPLES

LM; tan to lt brn, rare med brn, scat foss mat, most dense, blocky, no vis por, dull yel to no fluor, ns.

SH; med gy, rarely dk gy, soft, silty ip.

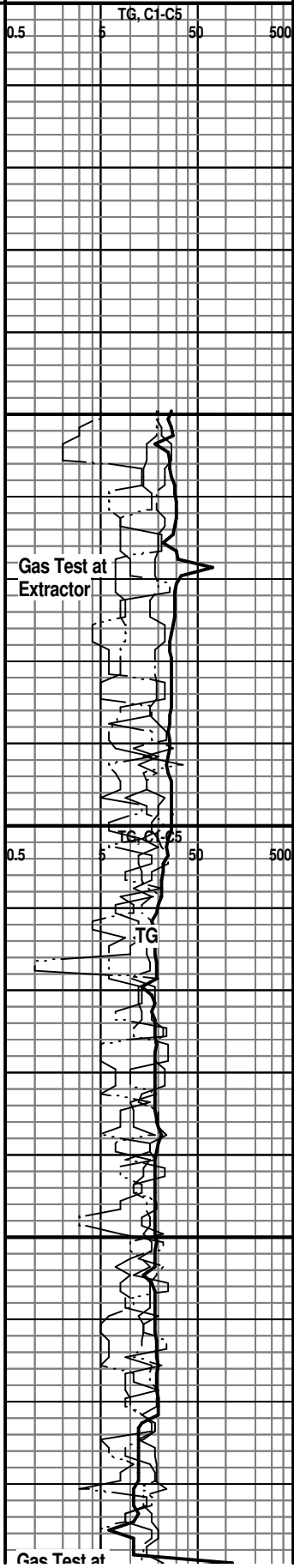
LM; med to dk gy brn, dense, occ pyr

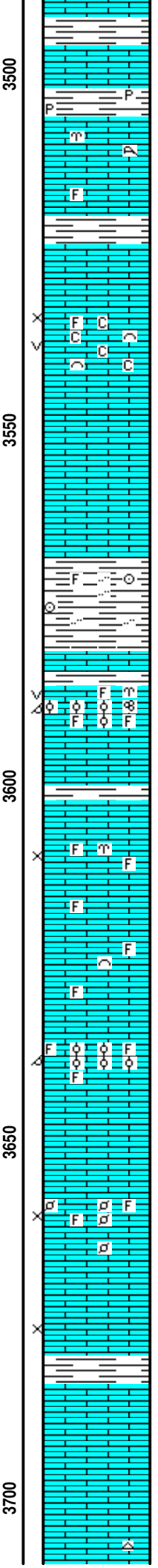
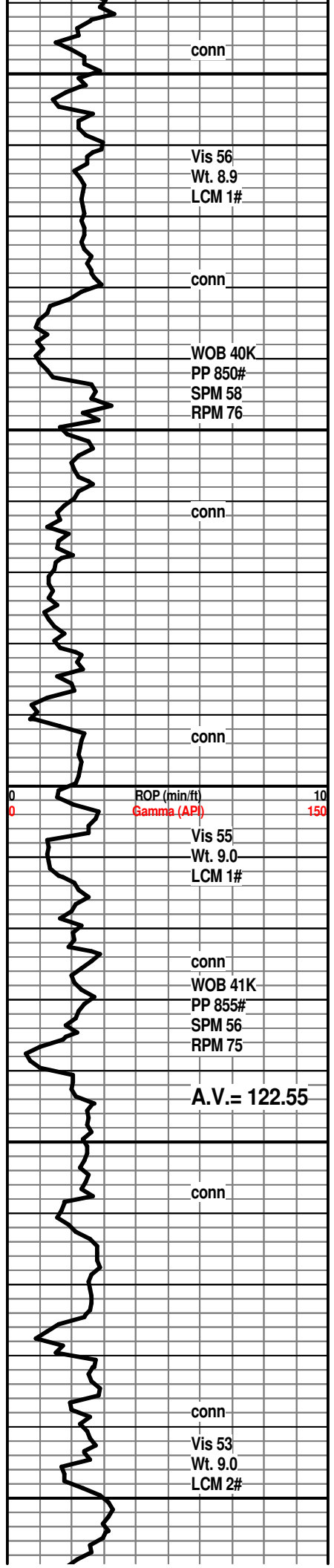
LM; med gy brn, hd, blocky, foss ip, tite

LM; off wh, tan, buff, fxln w/poor to fair p-p por, scat foss mat, lt to dull yel fluor, no stn, ns.

LM; tan to med brn, gy brn, scat foss mat, most well cem, rare gy/amber/brn cht, no vis por, no fluor, ns.

LM; tan to cream, fxln w/scat foss mat, poor to fair interpart por, minor chalky mtx, lt yel fluor, no stn, ns.





SH; med gy, gy grn, fiss

LM; lt to med brn, hd, micritic, tite

SH; dk gy, fiss to flakey, occ pyr

LM; lt to med brn, scat foss mat, mos well cem, no vis por, no fluor, ns.

SH; med to dk gy, firm

LM; off wh, wh, buff, med to cse xln, scat foss mat, scat cse opaque spar calc, fair to occ gd interxln w/vug por, soft chalky mtz in some, lt yel fluor, no stn or odor, no gas kick, ns.

LM; lt to med brn, most dense, blocky, micritic, rare dk gy micrite, no vis por, ns.

SH; lt gy grn, grn, silty, foss ip.

HOWARD 3581(-1394)

LM; lt brn, tan, cse foss frags w/scat oolitic lmst, vug w/some oomoldic por, lt to occ med yel fluor, no stn, no gas kick, ns.

LM; tan to lt brn, fxln w/some foss mat, scat poor to fair interpart por, interbdd hd brn micrite, lt yel fluor, no stn, ns.

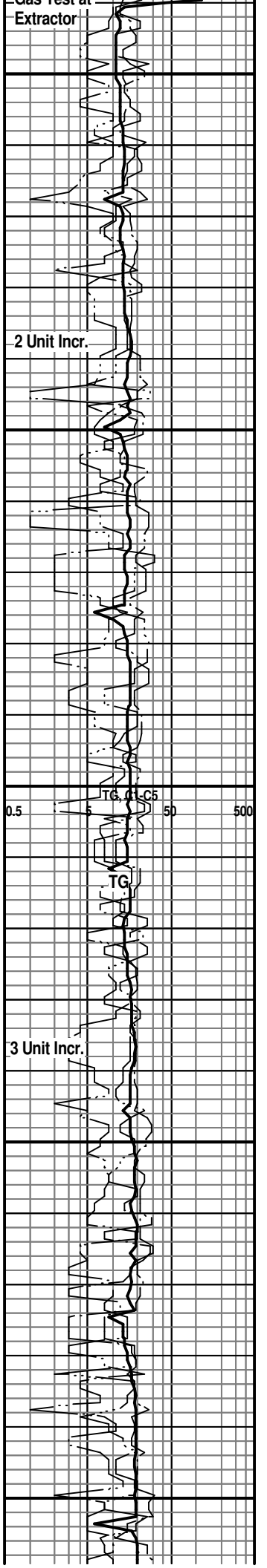
LM; tan to buff, lt brn, foss-oolitic, med size molds, gd oomoldic por, brittle ip, med yel min fluor, no stn or odor, ns.

LM; tan to buff, cream, foss w/scat small pellets and ooids, fair interpart por, no stn, lt yel min fluor, ns.

LM; tan to lt brn, med xln to gran text, gd interxln por, lt yel fluor, ns.

SH; med to dk gy, fiss

LM; lt brn, tan, fxln to dense, interbdd hd micrite, scat lt yel min fluor, no vis por, ns.



conn

Vis 56
Wt. 8.9
LCM 1#

conn

WOB 40K
PP 850#
SPM 58
RPM 76

conn

conn

ROP (min/ft) 0 10
Gamma (AP) 0 150

Vis 55
Wt. 9.0
LCM 1#

conn

WOB 41K
PP 855#
SPM 56
RPM 75

A.V.= 122.55

conn

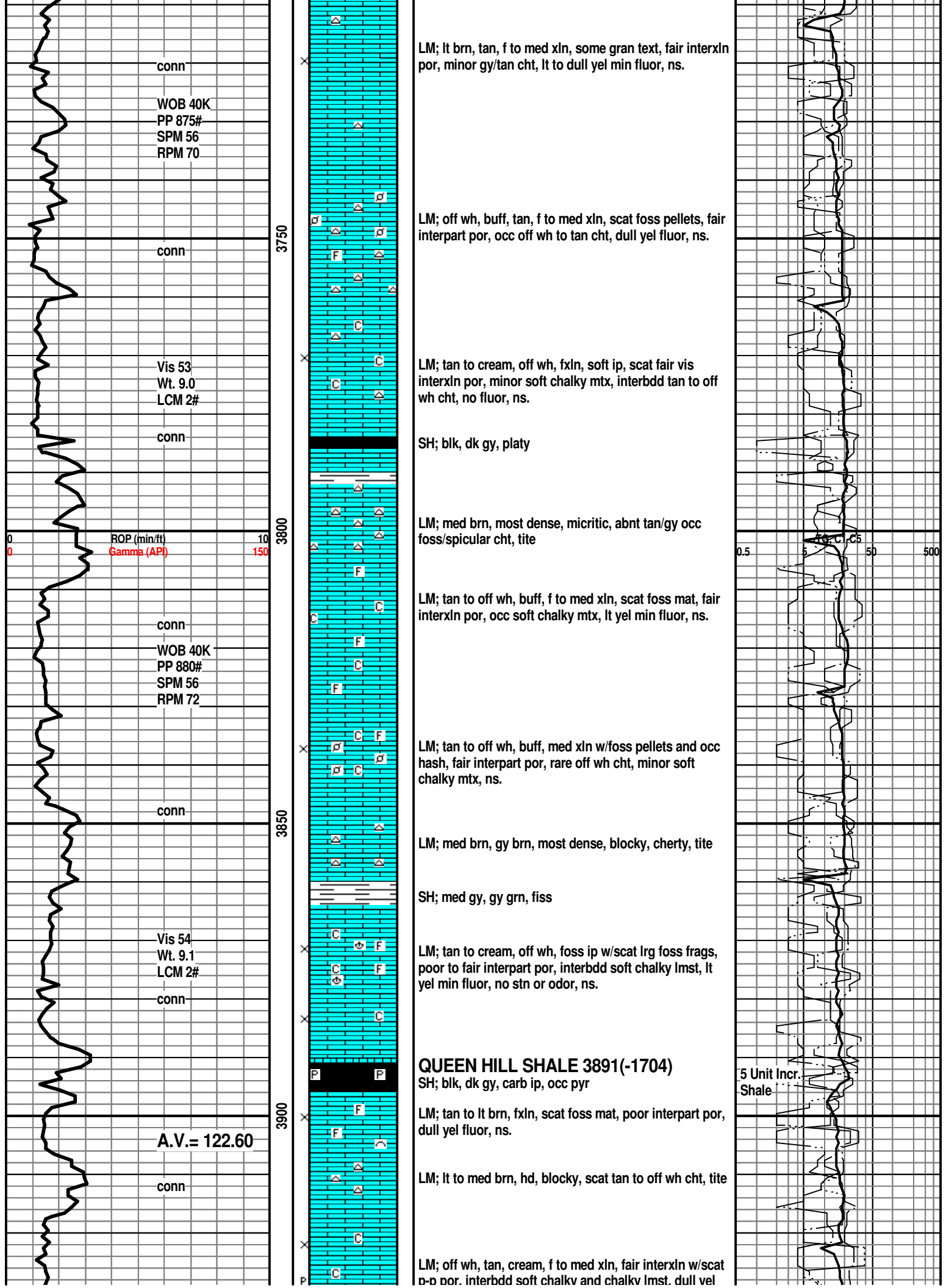
conn

Vis 53
Wt. 9.0
LCM 2#

Gas Test at
Extractor

2 Unit Incr.

3 Unit Incr.



conn
WOB 40K
PP 875#
SPM 56
RPM 70

LM; lt brn, tan, f to med xln, some gran text, fair interxln por, minor gy/tan cht, lt to dull yel min fluor, ns.

conn

LM; off wh, buff, tan, f to med xln, scat foss pellets, fair interpart por, occ off wh to tan cht, dull yel fluor, ns.

Vis 53
Wt. 9.0
LCM 2#

LM; tan to cream, off wh, fxln, soft ip, scat fair vis interxln por, minor soft chalky mtx, interbdd tan to off wh cht, no fluor, ns.

conn

SH; blk, dk gy, platy

ROP (min/ft)
Gamma (API)

LM; med brn, most dense, micritic, abnt tan/gy occ foss/spicular cht, tite

conn
WOB 40K
PP 880#
SPM 56
RPM 72

LM; tan to off wh, buff, f to med xln, scat foss mat, fair interxln por, occ soft chalky mtx, lt yel min fluor, ns.

conn

LM; tan to off wh, buff, med xln w/foss pellets and occ hash, fair interpart por, rare off wh cht, minor soft chalky mtx, ns.

LM; med brn, gy brn, most dense, blocky, cherty, tite

SH; med gy, gy grn, fiss

Vis 54
Wt. 9.1
LCM 2#

LM; tan to cream, off wh, foss ip w/scat lrg foss frags, poor to fair interpart por, interbdd soft chalky lmst, lt yel min fluor, no stn or odor, ns.

conn

QUEEN HILL SHALE 3891(-1704)
SH; blk, dk gy, carb ip, occ pyr

5 Unit Incr. Shale

A.V. = 122.60

LM; tan to lt brn, fxln, scat foss mat, poor interpart por, dull yel fluor, ns.

conn

LM; lt to med brn, hd, blocky, scat tan to off wh cht, tite

LM; off wh, tan, cream, f to med xln, fair interxln w/scat por, interbdd soft chalky and chalky lmst, dull vel

WOB 40K
PP 900#
SPM 56
RPM 70
conn

3950

Vis 55
Wt. 9.1
LCM 2#
conn

4000

ROP (min/ft)
Gamma (API)

WOB 40-42K
PP 900#
SPM 56
RPM 73
conn

A.V. = 122.65

conn
Vis 55
Wt. 9.3
LCM 1#

4050

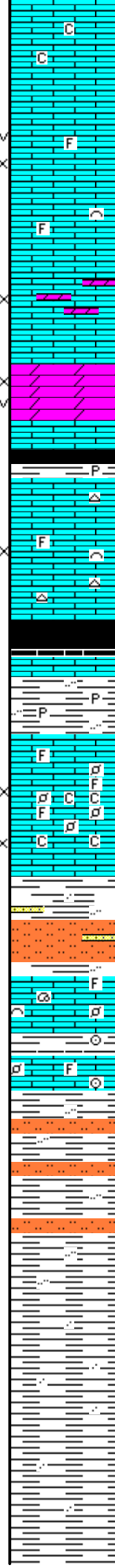
conn
WOB 40-42K
PP 900#
SPM 56
RPM 80

Vis 50
Wt. 9.5
LCM 1#

4100

conn
MudCo. Mud
Check at 4105'
Vis 46 Wt. 9.5+
WL 12.0 Cl 5000
PH 9.5 LCM Trc.

conn



PP 900#, interbedded calc. cherty and cherty mat, tan yel
min fluor, ns.

LM; tan to lt gy, fxln w/scat foss mat, fair interxln w/scat
vug por, lt yel min fluor, no stn or odor, ns.

10 Unit Incr.

LM; tan to off wh, buff, f to med xln, scat foss mat, trc
sucrosic text, partly dolomitic, lt yel min fluor, no stn or
odor, ns.

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

7 Unit Incr.

SH; dk gy, blk, platy to flakey, trc pyr

LM; tan to cream, buff, fxln w/scat foss mat, poor to fair
interpart por, occ off wh to gy cht, dull yel fluor, no stn
or odor, ns.

ITC G-C5
0.5 50 500

HEEBNER SHALE 4016(-1829)

SH; blk, carb, platy, soft to blocky
LM; med to dk brn, hd, micritic

14 Unit Incr.
Shale

SH; grn, gy grn, silty ip, occ dissem. pyr

TORONTO 4032(-1845)

LM; off wh, wh, buff, f to med xln w/foss mat, small
pellets, chalky mtx ip, lt yel fluor, no stn or odor, no gas
kick, ns.

LM; off wh, foss to med xln, gd interxln por, minor
chalky mtx, lt yel fluor, ns.

DOUGLAS SHALE 4052(-1865)

SH; lt to med gy, some varic sh - red, brn, grn

SLTST; lt gy, soft ip, mica w/trc vf gr qtz ss

Gas Test at
Extractor

LM; med brn, foss, well cem, most dense, tite

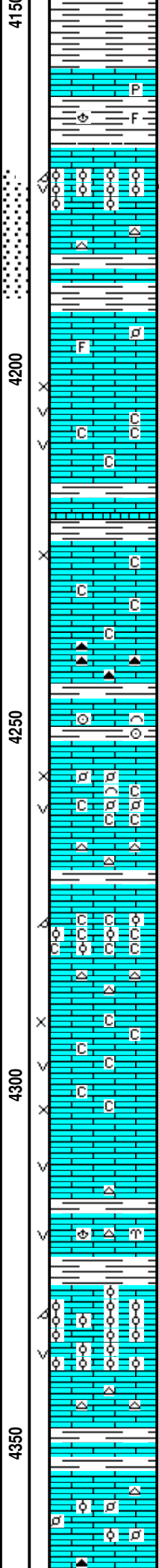
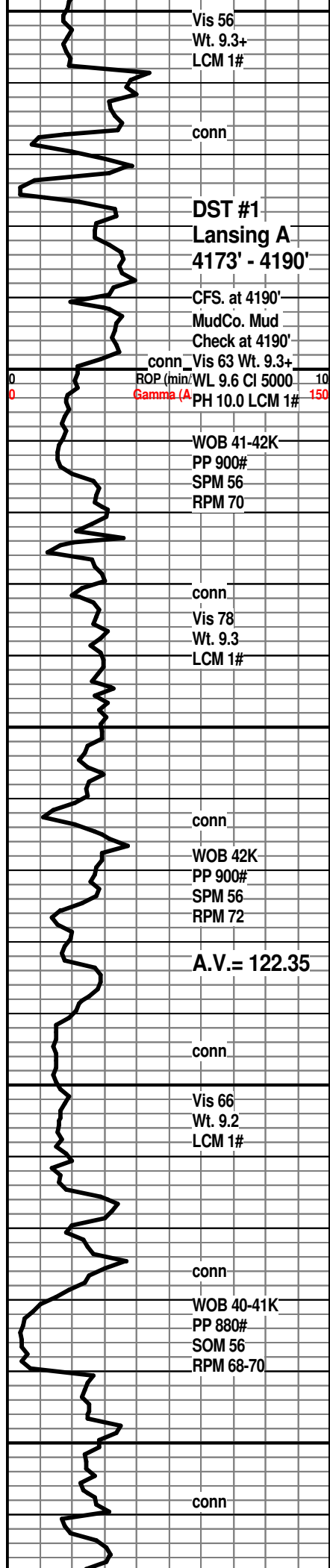
LM; med to dk brn, gy brn, foss ip, hd

SH; lt to med gy, silty w/interbdd sltst.

SH; lt to med gy, fiss to flakey, silty ip.

SH; lt to med gy, fiss, occ silty

SH; med gy, platy to flakey, some sticky



BROWN LMST. 4158(-1971)

LM; med to dk brn, dense, micritic, pyr ip.

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

LANSING 'A' 4169(-1982)

LM; med brn, oolitic, med size molds, gd oomoldic w/occ vug por, med golden to brite yel fluor, faint to fair odor, gas bubbles, spotted lt brn oil stn w/Trc. FO., fair cut

LM; off wh, tan, most dense, oolitic cht, tite

DST #1: Lansing 'A' 4173' - 4190'

LANSING 'B' 4192(-2005)

LM; lt gy, lt gy brn, foss, interbdd f to med xln, spar calc xtals, fair interxln w/vug por, dull yel fluor, no vis stn, no odor, ns.

LM; off wh, wh, lt gy, fxln, v. chalky ip, fair interxln w/occ vug por, lt yel fluor, ns.

SH; dk gy, platy, foss ip, interbdd med to dk brn dense lmst.

LM; off wh, wh, f to med xln, scat cse spar calc xtals, poor to fair interxln por, scat soft chalky mtx, dull yel fluor, no stn or odor, ns.

LM; lt to med brn, pyr ip, some hd, interbdd dk gy/blk and brn cht, no vis por, ns.

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

LM; off wh, tan, cream, foss ip, scat small pellets and foss hash, poor to fair interpart w/occ vug por, occ chalky mtx, no fluor, ns.

LM; lt gy, tan, hd, micritic, blocky, cherty

LANSING 'G' PORO. 4274(-2087)

LM; wh, off wh, oolitic ip, small to med size molds, v. chalky mtx w/much pure chalk, no fluor, no stn or odor, ns.

LM; off wh, buff, med to cse xln, scat cse spar calc xtals, fair interxln w/scat lrg vug por w/calc overgrowths, interbdd soft chalky mtx, no fluor, no stn or odor, barren, ns.

LM; wh, off wh, tan, med to cse xln, v. chalky mtx, interbdd wh cht, scat fair vug por, no fluor, no stn, ns.

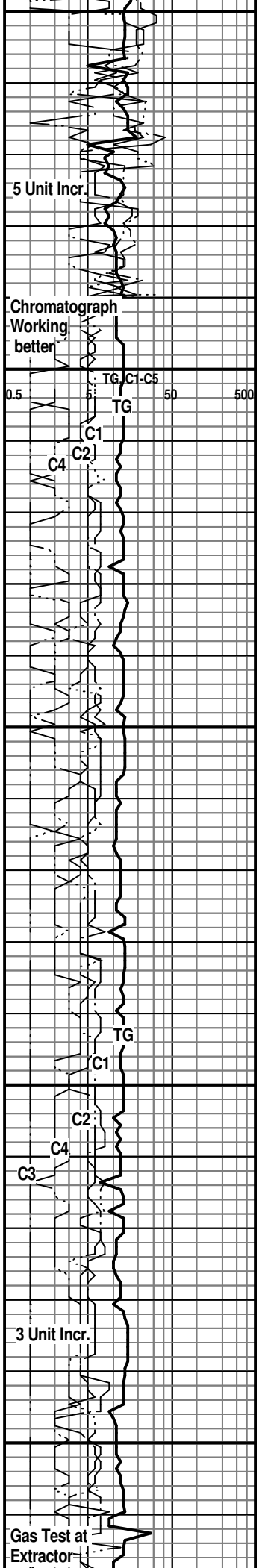
LM; lt to med brn, foss ip, scat vug por, lt yel min fluor, cherty ip, ns.

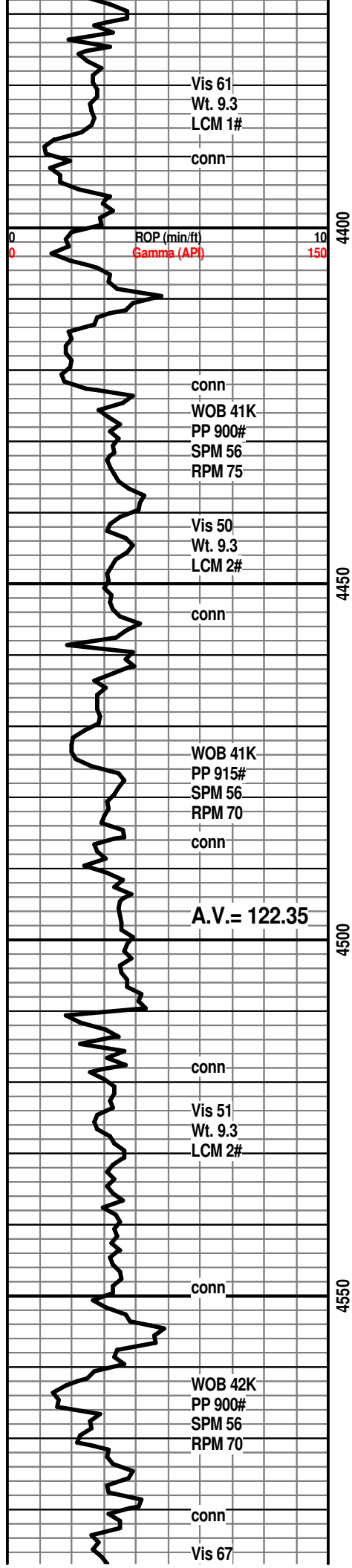
LANSING/K.C. 'H' 4328(-2141)

LM; lt to med brn, oolitic, med to lrg molds, v. gd oomoldic w/scat vug por, dull yel fluor, brittle, some rextalized, no stn or odor, no sample shows

SH; dk gy, trc gy grn, platy

LM; tan to lt brn, buff, foss to fxln, scat small pellets and oolites, most well cem, interbdd gy to brn/amber cht, dull yel fluor, no stn or odor, ns.





Vis 61
Wt. 9.3
LCM 1#
conn

ROP (min/ft)
Gamma (AP)

conn
WOB 41K
PP 900#
SPM 56
RPM 75

Vis 50
Wt. 9.3
LCM 2#
conn

WOB 41K
PP 915#
SPM 56
RPM 70
conn

A.V. = 122.35

conn
Vis 51
Wt. 9.3
LCM 2#

conn

WOB 42K
PP 900#
SPM 56
RPM 70

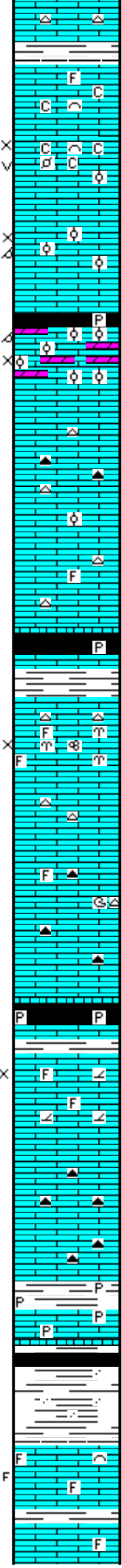
conn
Vis 67

4400

4450

4500

4550



K.C. 'I' ZONE 4377(-2190)

LM; off wh, wh, fxln, rare foss, well cem, no vis por, partly chalky, no stn or odor, ns.

LM; tan to buff, off wh, foss w/fair to gd interpart por, scatvug por, chalky mtx, soft, lt yel min fluor, no stn or odor, no gas kick, ns.

LM; off wh, buff, foss/party oolitic, scat oolitic cht, poor to fair interpart/moldic por, rare lt yel fluor, no stn, ns.

K.C. 'J' DENNIS 4414(-2227)

LM; tan to lt brn, foss - oolitic ip, scat sucrosic text - interbdd dolo w/fair interxln por, fair oomoldic por, dull yel min fluor, no stn, no gas kick, ns.

LM; tan to lt brn, most dense, blocky, scat tan to amber cht, no vis por, no fluor, ns.

LM; wh to off wh, fxln w/scat foss mat, most dense, blocky, rare wh cht, no fluor, ns.

STARK SHALE 4457(-2270)

SH; blk, platy, pyr ip.

SWOPE 4466(-2279)

LM; lt brn, buff, foss, scat bryozoans/small pellets, fair interpart por, dull yel min fluor, no stn or odor, ns.

LM; tan to lt brn, rarely foss, most micritic, hd, blocky, scat brn to amber/smoky cht, no vis por, ns.

LM; tan to off wh, buff, fxln, hd, scat brn cht, tite

SH; blk, carb, platy, occ pyr

HERTHA 4515(-2328)

LM; tan to cream, off wh, foss ip, scat fxln w/trc sucrosic text, party dolomitic, v. poor to no vis por, lt yel min fluor, no stn or odor, ns.

LM; med to dk brn, hd, micritic, scat dk gy/smoky cht, no vis por, ns.

BASE KANSAS CITY 4548(-2361)

SH; grn, gy grn, pyr

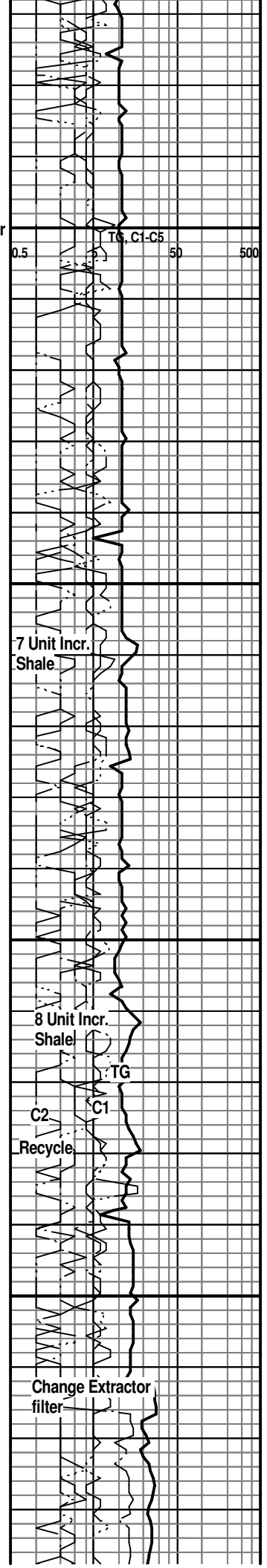
LM; med to dk brn, pyr, hd

SH; varic, blk, grn, rust red, maroon, platy, occ silty, some very soft

PLEASANTON 4571(-2384)

LM; lt brn, blocky, hd, scat well cem foss mat, trc frags w/edge calc xtals, most dense, interbdd med to dk gy shale, no fluor, no stn or odor, ns.

LM; off wh, buff, med xln, scat foss mat, well cem, lt yel



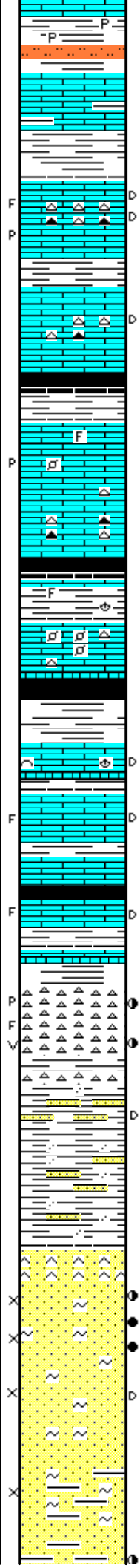
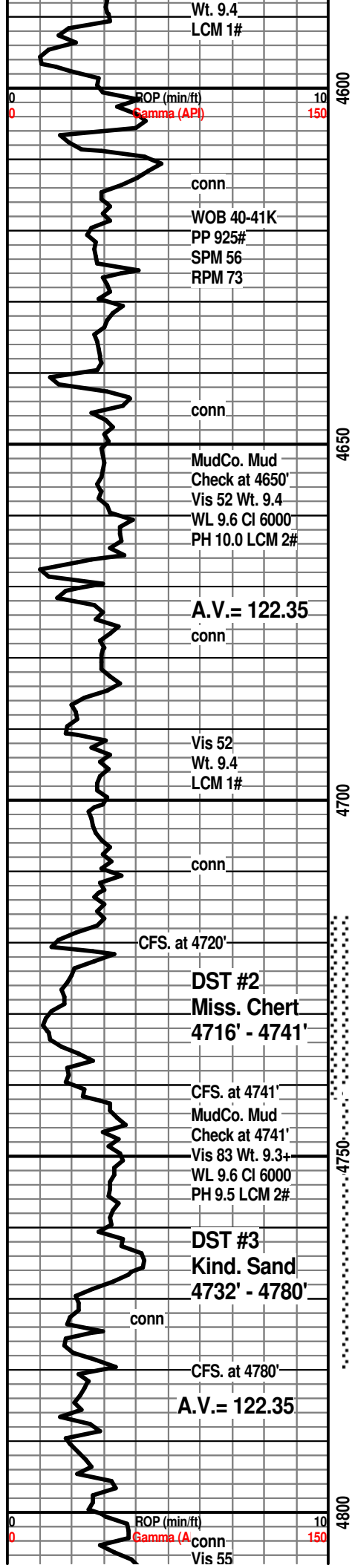
TG, C1-C5

7 Unit Incr. Shale

8 Unit Incr. Shale

TG
C2
C1
Recycle

Change Extractor filter



min fluor, ns.

MARMATON 4598(-2411)
 LM; med brn, some w/grn tint, argil ip, hd, no vis por, dull yel min fluor, ns.
 SH; varic, grn, brn, dk rust red, yel, pyr ip, interbdd sltst.

ALTAMONT 4613(-2426)
 LM; off wh, tan, fxln, fracs w/scat blk tar/dead oil, rare p-p por, no odor, spotty med yel fluor, scat cht w/oil stn - bleeding oil
 LM; off wh, buff, fxln, scat tan w/rare org cht, most micritic, blocky, no vis por, few pcs w/blk tar/gilsonite spots, no gas kick
 SH; blk, v. dk gy, platy

PAWNEE 4647(-2460)
 LM; off wh, tan, f to med xln, rare foss mat, few pcs w/dk brn/blk stn, trc poor p-p por, no odor, spotted lt yel fluor, looks tite
 LM; off wh, tan, fxln to micritic, occ amber to tan cht, rare lt yel fluor, no vis por, no stn, ns.
 SH; blk, carb - coaly, gassy w/gas odor
 SH; med gy, grn, foss ip.
 LM; tan to lt brn, foss - finely pelletal ip, well cem, blocky, no vis por, scat tan cht, ns.

CHEROKEE SHALE 4683(-2496)
 SH; blk, dk gy, carb, platy w/varic platy-flakey sh
 LM; tan to cream, fxln w/rare foss, trc. blk tar/gils, dull yel fluor, no live shows, no gas kick
 LM; tan to buff, fxln to micritic, poss. fracs w/trc edge stn - gilsonite. no fluor, no live shows, no gas kick
 LM; off wh, tan, fxln, dense, no vis por, ns.
 LM; off wh, tan, foss ip, trc fracs w/rare pcs. w/tar/gilsonite, dull yel to no fluor, no odor
 SH; varic, flakey, interbdd off wh/grn lmst

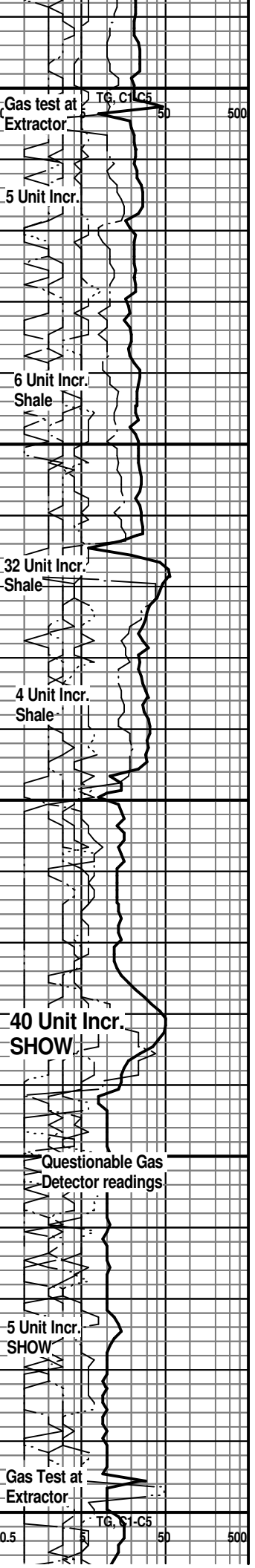
MISSISSIPPI CHERT 4726(-2539)
 CHT; wh, transl, fresh and trip, fracs w/med brn spotted live oil stn, fair p-p/vug por, no odor, few gas bubbles, no F.O., spotted med yel fluor

KINDERHOOK SHALE 4741(-2554)
 SH; grn, gy grn, sandy, intergdd vf to f gr qtz ss, some w/sat. blk tar/dead oil, dull yel fluor, no live shows, no gas kick
 SH; varic ip, some red/brn, grn, sandy ip, platy, interbdd vf to f gr ss strngs.

KINDERHOOK SAND 4763(-2576)
 SS; lt gy, clr, qtzitic, v. hd, siliceous, tite
 SS; clr to lt gy, f gr w/occ med gr qtz, clusters, fair intergran por, fri ip, spotted to occ even med brn stn, v. faint odor, med to brite yel fluor, SSFO, trc gas bubbles, occ glau, calc cmt.

DST #3: Kinderhook SS 4732' - 4780'
 SS; wh, lt gy, pred f gr qtz, clusters, occ grn glau, fair intergran por, rare dk brn/blk oil stn, med yel fluor, no odor, no gas kick
 SS; wh to grn, argil ip, most f gr qtz, some w/abnt glau, poor to fair intergran por, no fluor, no stn or odor, ns.

SS; red brn, brn, f gr, clusters, argil ip, v. firm, poor interaran por. trc v. spotted lt brn live oil stn. no odor



Wt. 9.2+
LCM 2#

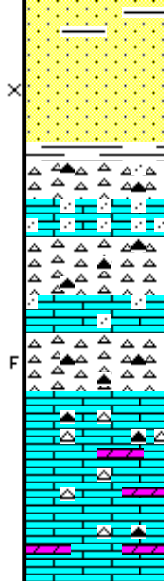
conn

MudCo. Mud
Check at 4862'
Vis 62 Wt. 9.2
WL 9.0 Cl 5500
PH 10.5 LCM 2#

CFS. at RTD.

4850

4900



SS; brn, red brn, off wh, f to med gr qtz, fair intergran por, clusters, barren, no stn, ns.

VIOLA 4824(-2637)

CHT; varic, org, red, yel, lmy ip w/interbdd red and red/brn sandy lmst

CHT; varic, sandy ip, with hd red/rose red cherty hd lmst, no fluor, ns.

CHT; org, red, brn, fresh - sharp, hd, poss frags, no fluor, ns.

LM; wh, off wh, some red/brn, hd, interbdd cherty lmst, trc off wh dolomitic lmst, no vis por, no fluor, ns.

RTD. 4868' at 9:40 AM. 1/15/13

LTD.

Halliburton DIL, NEU/DEN w/PE,
Microlog, Sonic

7 Unit Incr.