



Mudgrove

PETROLEUM CORPORATION
Clairlin, Kansas

NOTES

Company: Robert F. Hembree

Lease: Schwartzkopf A #2

Field: McDonald Northeast

Location: NE-NE-SW-NE

Sec: 34 Twsp: 18S Rge: 24W

County: Ness State: Kansas

KB: 2308' GL: 2301'

API #: 15-135-25798-00-00

Contractor: Pickrell Drilling Co. Rig #10

Spud: 07/30/2014 Comp: 08/07/2014

RTD: 4340'

Mud Up: 3500' Type Mud: Chemical

Samples Saved From: 3600' to RTD

Drilling Time Kept From: 3600' to RTD

Samples Examined From: 3600' to RTD

Geological Supervision from: 3600' to RTD

Geologist on Well: Wyatt Urban

Surface Casing: 8 5/8@ 221'

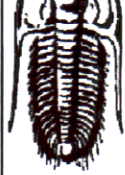
Electronic Surveys: None

Robert F. Hembree well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Robert F. Hembree- Schwartzkopf A#2 NE-NE-SW-NE 34-18S-24W 2308 KB					Chief Drilling Co.- Spanier #1 SE-NW-NE 34-18S-24W 2312 KB				Robert F. Hembree- #1 Schwartzkopf A E2-SE-SW-NE 34-18S-24W 2336 KB			
					Structural Relationship				Structural Relationship			
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heebner	3690	-1382			3688	-1376	-6		3713	-1377	-5	
Toronto	3710	-1402							3723	-1387	-15	
Lansing	3737	-1429			3727	-1415	-14		3757	-1421	-8	
BKC	4028	-1720							4047	-1711	-9	
Marmaton	4068	-1760			4061	-1749	-11		4086	-1750	-10	
Pawnee	4155	-1847			4146	-1834	-13		4171	-1835	-12	
Ft. Scott	4224	-1916			4229	-1917	1		4247	-1911	-5	
Cherokee Sh.	4253	-1945										
Miss	4329	-2021			4330	-2018	-3		4346	-2010	-11	
RTD	4340	-2032			4347	-2035	3		4358	-2022	-10	
LTD									4359	-2023	2023	



DRILL STEM TEST REPORT



TRILOBITE TESTING, INC

Robert F Hembree
P. O. Box 542
Ness City KS 67560-0542
ATTN: Wyatt Urban

34 18s 24w Ness

Schwartzkopf A # 2

Job Ticket: 56129 **DST#:** 1
Test Start: 2014.08.07 @ 10:04:00

GENERAL INFORMATION:

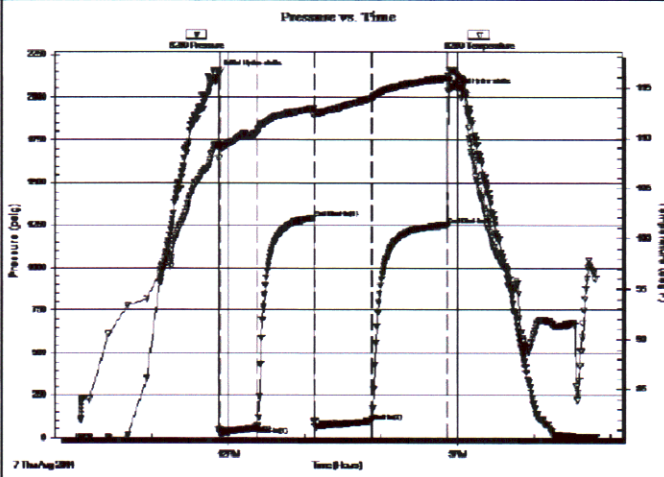
Formation: **Miss**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole (Initial)**
 Time Tool Opened: **11:53:00** Tester: **Jim Svaty**
 Time Test Ended: **16:48:00** Unit No: **76**
 Interval: **4288.00 ft (KB) To 4340.00 ft (KB) (TVD)** Reference Elevations: **2308.00 ft (KB)**
 Total Depth: **4340.00 ft (KB) (TVD)** **2301.00 ft (CF)**
 Hole Diameter: **7.88 inches-hole Condition: Fair** KB to GR/CF: **7.00 ft**

Serial #: 8289

Outside

Press@RunDepth: **100.11 psig @ 4300.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2014.08.07** End Date: **2014.08.07** Last Calib.: **2014.08.07**
 Start Time: **10:04:02** End Time: **16:48:15** Time On Btm: **2014.08.07 @ 11:52:30**
 Time Off Btm: **2014.08.07 @ 14:52:45**

TEST COMMENT: 30-IFP- Surface Blow Building to 6 3/4in.
 45-ISIP- No Blow
 45-FFP- Surface Blow Building to 9 1/2in.
 60-FSP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2135.07	109.36	Initial Hydro-static
1	31.20	108.92	Open To Flow (1)
30	60.54	110.46	Shut-in(1)
75	1292.78	112.88	End Shut-in(1)
76	68.06	112.51	Open To Flow (2)
120	100.11	113.89	Shut-in(2)
180	1251.29	115.90	End Shut-in(2)
181	2035.70	116.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
193.00	WMCO 3%w 30%v 67%o	2.71
0.00	117 GP	0.00

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

ROCK TYPES

- Cht vari
- Lmst fw<7
- shale, gry
- shale, red
- Dolprim
- shale, grn
- Carbon Sh

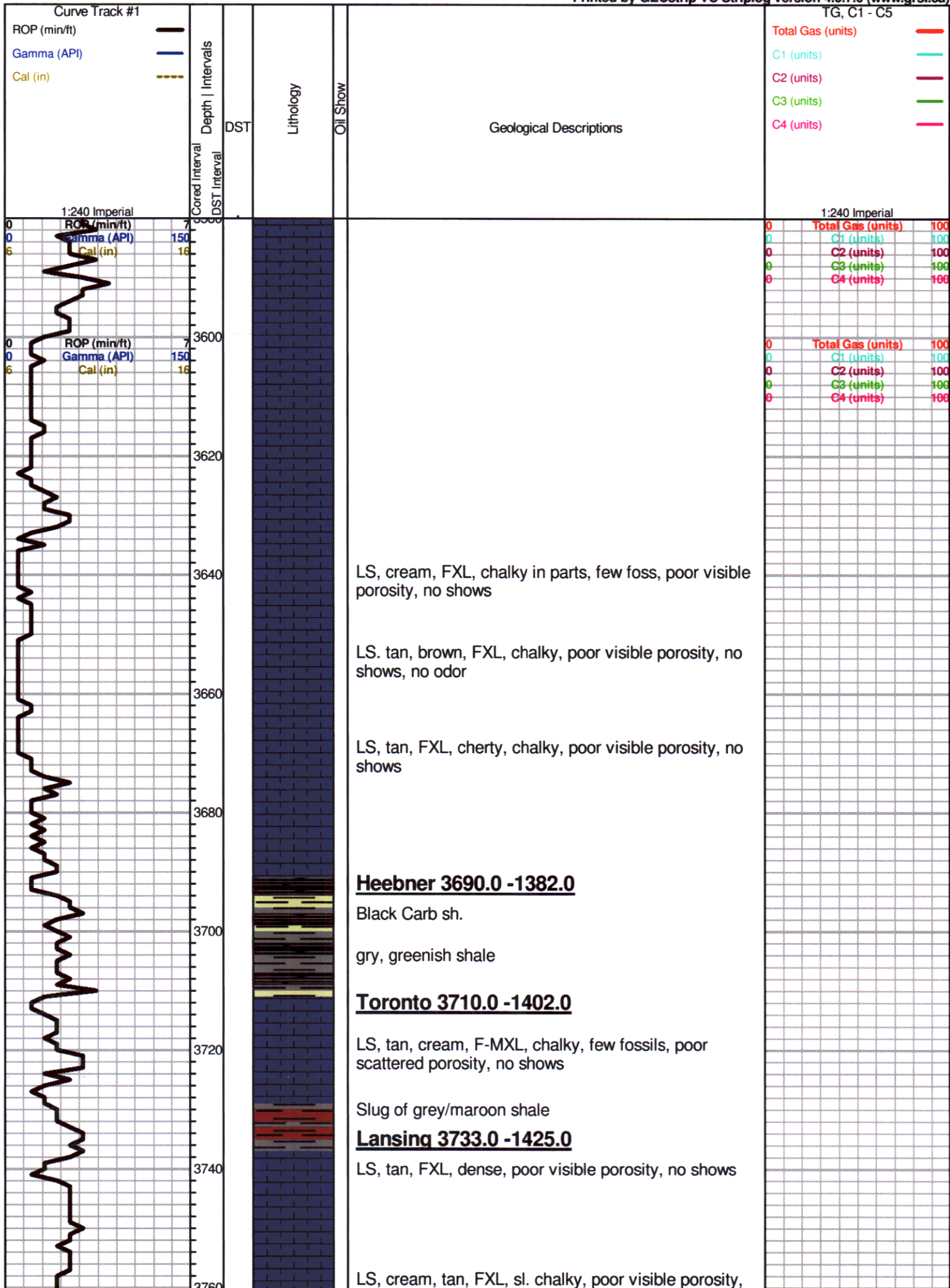
OTHER SYMBOLS

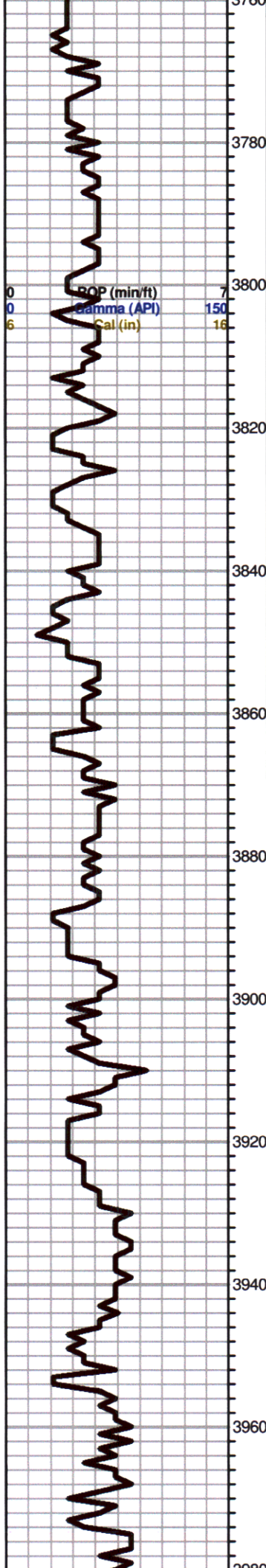
Oil Show

- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- tail pipe





no shows

LS, cream, FXL, chalky, poor visible porosity, no shows

LS, cream, tan, FXL, few ool, poor scattered porosity, no shows

LS, cream, tan, FXL, few ool, poor scattered porosity, no shows,

LS, cream, tan, FXL, dense, slightly chalky, few foss, poor visible porosity no shows

LS, white, tan, FXL, ool, poorly developed, poor visible porosity, no shows

LS, tan, gry, FXL, dense, slightly chalky, poor visible porosity, no shows, trc. boney, opaque cherts

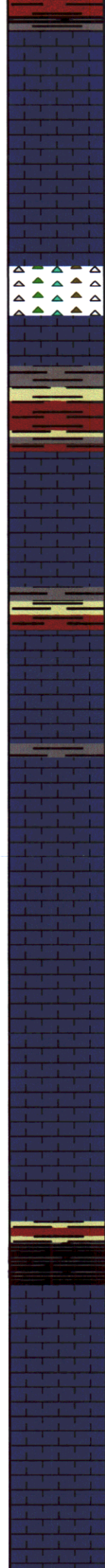
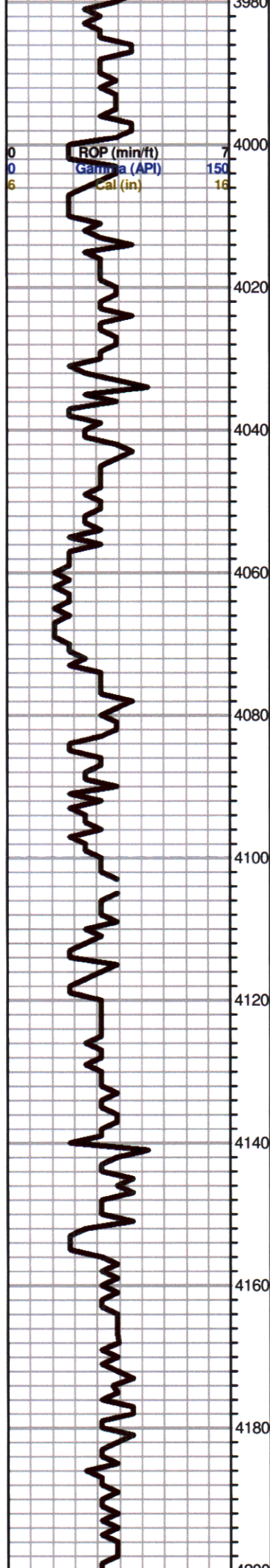
LS, tan, brown, FXL, dense, poor scattered porosity, no shows

LS, cream tan, FXL, few ool, slightly cherty in parts, poor visible porosity, no shows, no odor

LS, cream, tan, FXL, dense, poor visible porosity, no shows

LS, cream, tan, FXL, chalky, (few foss) poor scattered porosity,

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



Sh. black, gry, maroon, silty

LS, cream, tan, FXL, dense, poor visible porosity, no shows

LS, A/A, trc. chert, white, gry,

BKC 4028.0 -1720.0

Sh. gry, maroon, greenish, silty,

Sh. gry, maroon, greenish,
Trc. LS, tan, brown, FXL, dense, poor visible porosity,
no shows

Marmaton 4068.0 -1760.0

LS, tan, brown, FXL, dense, cherty, few foss, poor visible porosity, no shows

LS, A/A, trc. gry, silty shale

○ LS, cream, FXL, dense, poor scattered porosity, poor spotty trc. black stain, NSFO, no odor

LS, cream, tan, FXL, dense, slightly chalky in pts, poor visible porosity, no shows

○ LS, cream, brown, FXL, dense, poor visible porosity, Lt. spotty trc. stain, NSFO, no odor

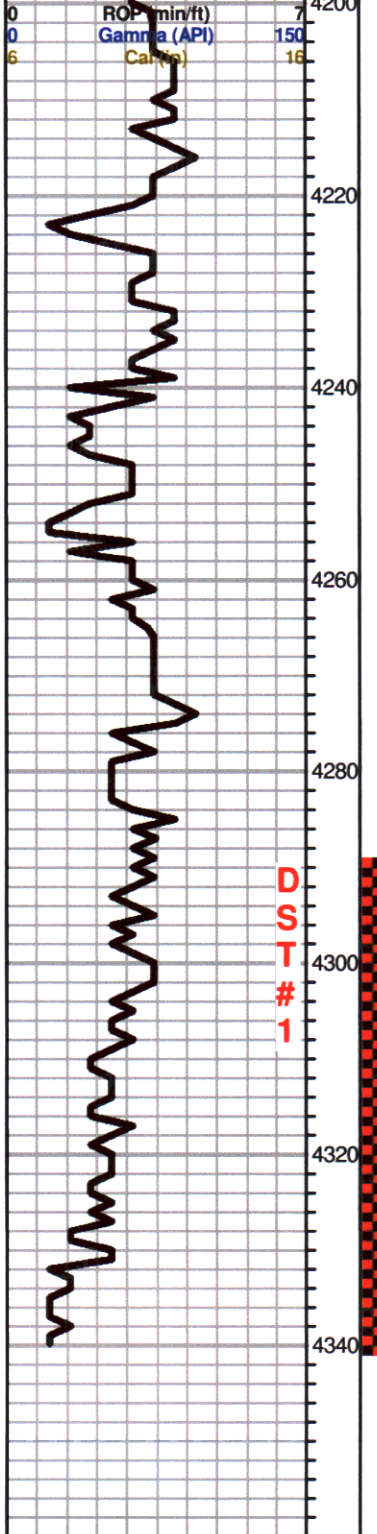
Black carb, greenish, maroon Sh.

Pawnee 4155.0 -1847.0

LS, white, cream, FXL, few foss, dense, poor scattered porosity, no shows

LS, tan, gry, FXL, dense, slightly chalky, poor visible porosity, no shows

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



LS, cream, tan, FXL, dense, few chalky, dense, poor visible porosity, few chalky, Lt. black stain, NSFO, no odor

LS, A/A, trc. Sh. gry, maroon, silty, soft

Ft. Scott 4224.0 -1916.0

Sh. gry, greenish, black, trc. LS, tan, cream, FXL, few foss, poor visible porosity, no shows

LS, tan, brown, FXL, poor visible porosity, chalky, poor trc. SFO, no odor

Cherokee Sh 4253.0 -1945.0

Black carb Sh.

LS, tan, brown, FXL, few foss, poor visible porosity, chalky, trc. spty SFO, ft. odor??? (caving?)

Trc. black, gry, silty sh.

LS, tan, FXL, dense, poor visible porosity, few cherts, white, opaque, no shows

LS, white, FXL, chalky, poor scattered porosity, no shows, trc. maroon, gry, shale, silty in pts

LS, white, gry, tan, FXL, dense, dol. poor scattered porosity, no shows

Miss 4329.0 -2021.0

Dol, tan, brown, FXL, poor to fair scattered vuggy porosity, golden brown stain, Lt. SFO, fair odor

RTD 4340.0 -2032.0

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

DST #1 4288-4340

30-45-45-60

Blow: 6 3/4"

Recovery:

117' GIP

193' OCM
(67% O, 3% W, 30% M)

Pressures:

ISIP 1292 psi
FSIP 1251 psi
IFP 31-60 psi
FFP 68-100 psi
HSH 2135-2035 psi