



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

Well Name: Moeder 'A' Unit #1  
Location: Sec. 22 - T11S - R34W, Logan County, KS  
Licence Number: API No.: 15-109-21037-0000  
Spud Date: October 6, 2011  
Surface Coordinates: 2530' FSL & 2550' FWL; 3-D Location  
Region: Wildcat  
Drilling Completed: October 15, 2011

**Bottom Hole Coordinates:**

Ground Elevation (ft): 3173'      K.B. Elevation (ft): 3183'  
Logged Interval (ft): 3600'      To: 4780'      Total Depth (ft): 4780' (LTD)  
Formation: Mississippian  
Type of Drilling Fluid: Chemical Gel/Polymer

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**OPERATOR**

Company: Russell Oil, Inc.  
Address: P.O. Box 8050  
Edmond, OK 73083

**GEOLOGIST**

Name: Derek W. Patterson  
Company: Valhalla Exploration, LLC  
Address: 133 N. Glendale  
Wichita, KS 67208

**REMARKS**

The Moeder 'A' Unit #1 was a proposed location based off of 3-D seismic interpretation. The well ran structurally low throughout its course, with respect to nearby dry holes and the anticipated datums based off of the interpretation. After review of the open hole logs and sample evaluation it was decided upon by operator to plug and abandon said well as a dry hole.

The well samples were saved, submitted, and will be available for review at the Kansas Geologic Survey's Well Sample Library located in Wichita, KS.

Respectfully Submitted,

Derek W. Patterson

**COMMENTS**

No DSTs were performed.

The RTD and LTD were both 4780'.

# Russell Oil, Inc.

## DAILY DRILLING REPORT

Company: Russell Oil, Inc.  
P.O. Box 8050  
Edmond, OK 73083  
Contact: LeRoy Holt II  
Cell: 405.401.6464  
Office: 405.752.7600

Geologist: Derek W. Patterson  
Cell: 316.655.3550  
Office: 316.558.5202

Drilling Contractor: H D Drilling, LLC - Rig #2  
Toolpusher: Doug Roberts

Well: Moeder 'A' Unit #1  
Location: 2530' FSL & 2550' FWL  
Sec. 22 - T11S - R34W  
Logan Co., KS

Elevation: 3173' GL - 3183' KB  
Field: Wildcat

API: 15-109-21037-0000  
Surface Casing: 252' of 8 5/8" set @ 264' KB  
Spud Date: October 6, 2011  
Drilling Complete: October 15, 2011

DATE	7:00 AM DEPTH	PREVIOUS 24 HOURS OF OPERATIONS
10.13.2011	4173'	Drilling and connections Topeka. Bit trip @ 3849', 2230 hrs 10.11.11. Resume drilling following bit trip, 0430 hrs 10.12.11. Drilling and connections Topeka. Geologist Derek W. Patterson on location, 1255 hrs 10.12.11. Reset Bloodhound depth, test system, resume drilling and connections Topeka, Heebner, Toronto, and into Lansing. Decision made to bit trip @ 4130' due to very tight connections and poor sample return. CTCH, drop survey, short trip, 2215 hrs 10.12.11. Resume drilling following bit trip, 0430 hrs 10.13.11. Drilling and connections Lansing. Made XXX' over past 24 hrs of operations. DMC: \$330.75 CMC: \$9,111.85
10.14.2011	4436'	Drilling and connections Lansing. CFS @ 4272' (LKC 'H'), resume drilling and connections Lansing. CFS @ 4296' (LKC 'I'). Resume drilling and connections Lansing. CFS @ 4330' (LKC 'J'/Stark). Resume drilling and connections Lansing. CFS @ 4360' (LKC 'K'). Resume drilling and connections Lansing, Base Kansas City, and into Marmaton. Made 263' over past 24 hrs of operations. DMC: \$1,346.15 CMC: \$10,458.00
10.15.2011	4659'	Drilling and connections Marmaton and into Pawnee. CFS @ 4550' (Pawnee). Resume drilling and connections Pawnee and into Myrick Station. CFS @ 4576' (Myrick Station). Resume drilling and connections into Fort Scott. CFS @ 4610' (Fort Scott). Resume drilling and connections Fort Scott, Cherokee, and into Johnson Zone. Made 223' over past 24 hrs of operations. DMC: \$1,523.00 CMC: \$11,981.00
10.16.2011	RTD - 4780' LTD - 4780'	Drilling and connections Johnson Zone. CFS @ 4690' (Johnson). Resume drilling and connections Johnson, Morrow, and into Mississippian. CFS @ 4727' (Miss). Resume drilling and connections Mississippian ahead to RTD of 4780'. RTD reached, 2020 hrs 10.15.11. CTCH, short trip (20 stands CTCH, drop survey, TOH for open hole logging operations, 0000 hrs 10.16.11. Commence open hole logging operations, 0330 hrs 10.16.11. Made 121' over past 24 hrs of operations. CMC: \$11,981.00
10.17.2011	RTD - 4780' LTD - 4780'	Conducting open hole logging. Open hole logging operations complete, 0745 hrs 10.16.11. Orders received to plug and abandon well as a dry hole. Geologist Derek W. Patterson off location, 0830 hrs 10.16.11. CMC: \$11,981.00

# Russell Oil, Inc.

## WELL COMPARISON

DRILLING WELL					COMPARISON WELL				COMPARISON WELL				COMPARISON WELL			
Russell Oil - Moeder 'A' Unit #1 2530' FSL & 2550' FWL Sec. 22 - T11S - R34W  3183 KB					Donald Slawson - James 'M' #1 C SW NW Sec. 22 - T11S - R34W				Falcon - Peterson #1 'OWWO' 545' FNL & 2475' FEL Sec. 16 - T11S - R34W				Vess- Wasse Miller Jenik Unit #1-24 NW SW NW Sec. 24 - T11S - R34W			
					Dry		Structural		Oil - LKC 'J' /Cher		Structural		Oil - LKC 'I' / 'J'		Structural	
					3178 KB		Relationship		3219 KB		Relationship		3148 KB		Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Heebner	4057	-874	4055	-872	4050	-872	-2	0	4072	-853	-21	-19	4020	-872	-2	0
Toronto	4078	-895	4078	-895	4071	-893	-2	-2	4095	-876	-19	-19	4044	-896	1	1
Lansing	4097	-914	4097	-914	4091	-913	-1	-1	4114	-895	-19	-19	4060	-912	-2	-2
Muncie Creek	4240	-1057	4240	-1057	4233	-1055	-2	-2	4258	-1039	-18	-18	4200	-1052	-5	-5
Lansing 'H'	4256	-1073	4256	-1073	4250	-1072	-1	-1	4275	-1056	-17	-17	4218	-1070	-3	-3
Lansing 'I'	4288	-1105	4285	-1102	4281	-1103	-2	1	4305	-1086	-19	-16	4250	-1102	-3	0
Lansing 'J'	4308	-1125	4302	-1119	4299	-1121	-4	2	4324	-1105	-20	-14	4271	-1123	-2	4
Stark	4327	-1144	4321	-1138	4322	-1144	0	6	4343	-1124	-20	-14	4286	-1138	-6	0
Swope	4339	-1156	4337	-1154	4333	-1155	-1	1	4355	-1136	-20	-18	4298	-1150	-6	-4
Hushpuckney	4363	-1180	4361	-1178	4356	-1178	-2	0	4378	-1159	-21	-19	4323	-1175	-5	-3
Base Kansas City	4386	-1203	4389	-1206	4377	-1199	-4	-7	4401	-1182	-21	-24	4357	-1209	6	3
Marmaton	4420	-1237	4422	-1239	4417	-1239	2	0	4437	-1218	-19	-21	4390	-1242	5	3
Pawnee	4518	-1335	4522	-1339	4513	-1335	0	-4	4532	-1313	-22	-26	4485	-1337	2	-2
Myrick Station	4565	-1382	4563	-1380	4557	-1379	-3	-1	4569	-1350	-32	-30	4524	-1376	-6	-4
Fort Scott	4580	-1397	4580	-1397	4574	-1396	-1	-1	4587	-1368	-29	-29	4543	-1395	-2	-2
Cherokee	4611	-1428	4609	-1426	4607	-1429	1	3	4616	-1397	-31	-29	4572	-1424	-4	-2
Johnson Zone	4654	-1471	4654	-1471	4650	-1472	1	1	4660	-1441	-30	-30	4619	-1471	0	0
Mississippian	4724	-1541	4723	-1540	4741	-1563	22	23	4732	-1513	-28	-27	4696	-1548	7	8
Total Depth	4780	-1597	4780	-1597	4774	-1596	-1	-1	4816	-1597	0	0	4734	-1586	-11	-11

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**BIT RECORD**

Bit #	Size	Make	Type	Serial Number	Depth In	Depth Out	Feet	Hours
1	12 1/4"	JZ	RR	RR	0'	267'	267'	2.5
2	7 7/8"	JZ	QX20	H08131	267'	2651'	2384'	34.5
3	7 7/8"	JZ	QX20	J24892	2651'	3849'	1198'	37.5
4	7 7/8"	JZ	QX20	H04143	3849'	4780'	931'	63.00

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**SURFACE CASING RECORD**

10.7.2011 Ran 6 joints of new 23#/ft 8 5/8" casing tallying 252', set @ 264' KB.

Plug down @ 0830 hrs, 10.7.11.

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***DEVIATION SURVEY RECORD***

<u>Depth</u>	<u>Survey</u>
267'	1°
3849'	1/2°
4130'	1/2°
4780'	1 1/2°

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***PIPE STRAP RECORD***

<u>Depth</u>	<u>Pipe Strap</u>
3849'	1.65' Short to Board

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## ROCK TYPES

### LITHOLOGY

- Anhy
- Bent
- Brec
- Cht
- Clyst
- Coal
- Congl
- Dol
- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Till
- Sltstn
- Shale
- Sandylms
- Lms
- Gry sh
- Dtd
- Dol
- Carb sh
- pipesymbol

- unknown lith
- Red shale

### FOSSIL

- Oomoldic
- Fuss
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

- MINERAL
- Sity

- Sand
- Dol
- Chlorite
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chilt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil

### STRINGER

- Red shale
- Sh
- Sandylms
- Lms
- Gryslt
- Grysh
- Dol
- Clystn
- Carbsh
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

### TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln

- Sulphur
- Tuff

- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

### OIL SHOW

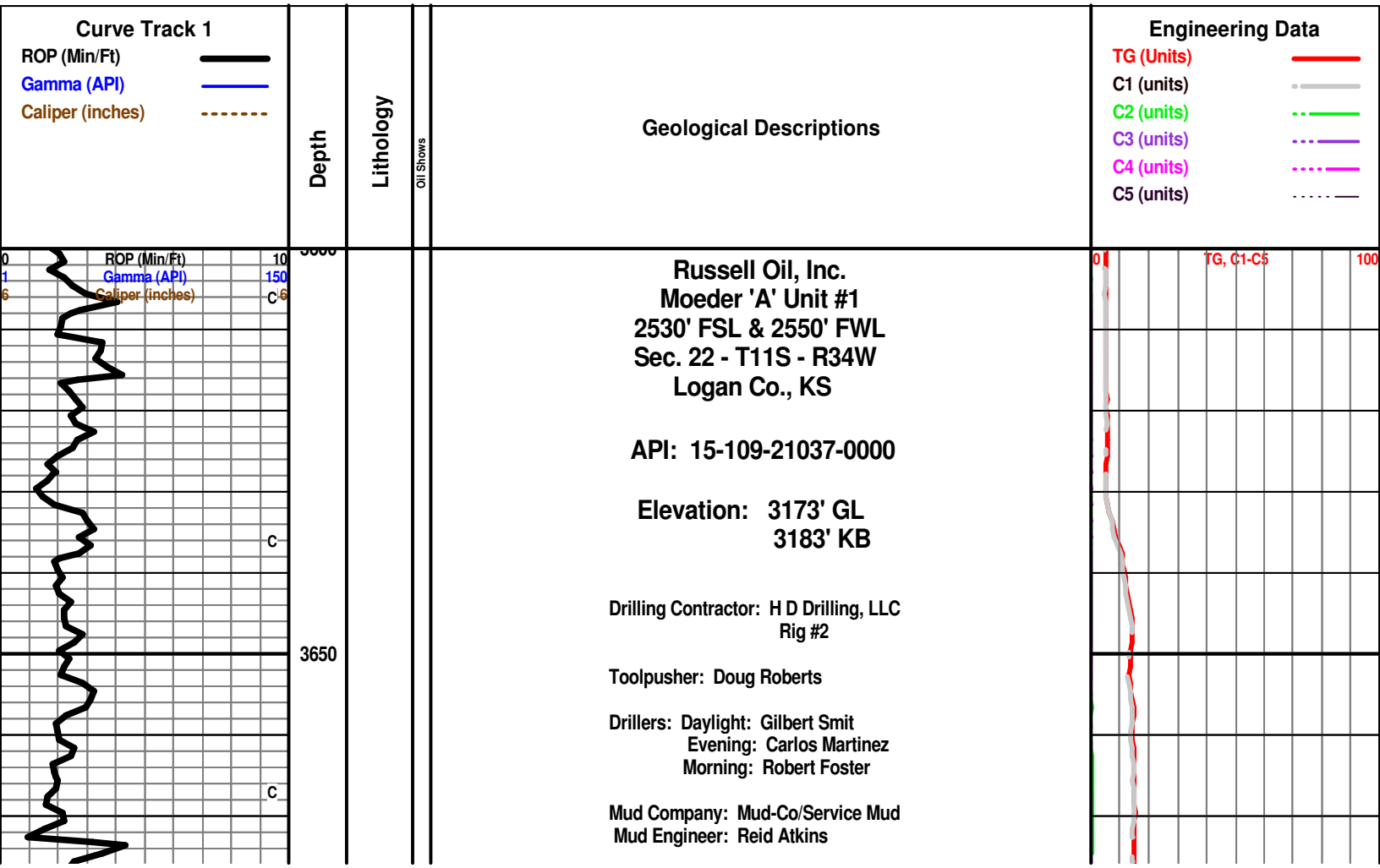
- Gas show
- Good
- Fair
- Poor
- Dead

### INTERVAL

- Dst
- Core
- Dst
- Straddle test

### EVENT

- Rft
- Sidewall
- Dst
- Open hole
- Perforations



Geologist: Derek W. Patterson

Bloodhound Unit 0258 on location and operational @ 1130'. The ROP, TG, C1 (Methane), C2 (Ethane), C3 (Propane) & C4 (N-Butane = C4 Butane + C5 Iso Butane) DATA was downloaded from the Bloodhound Unit. Said DATA was imported and displayed on this Geo Log.

Displaced Mud System @ 3606'

Start 20' Wet & Dry Samples @ 3800'

Limestone: gray lt gray, dense matrix, vf-microxln, fossiliferous in part, poor interxln porosity, no shows noted, little-no mineral fluorescence.

Limestone: gray lt gray, dense matrix, vf-microxln, sub-fossiliferous to fossiliferous, poor interxln porosity, no shows noted, little-no mineral fluorescence.

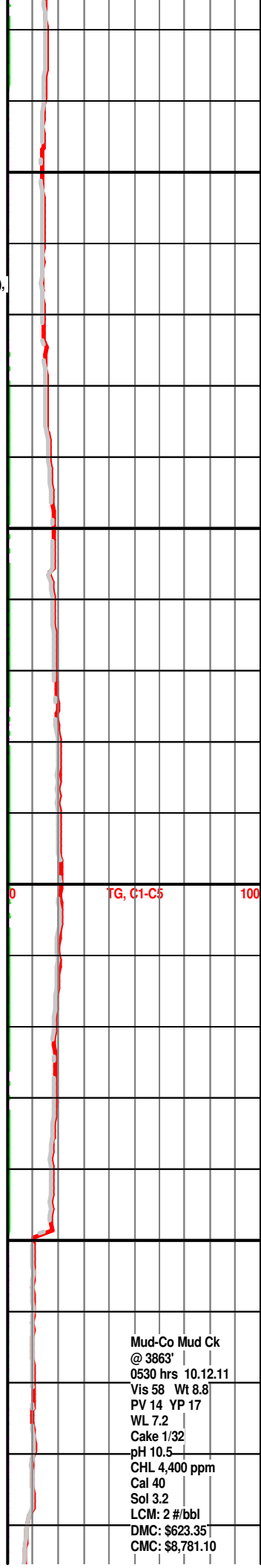
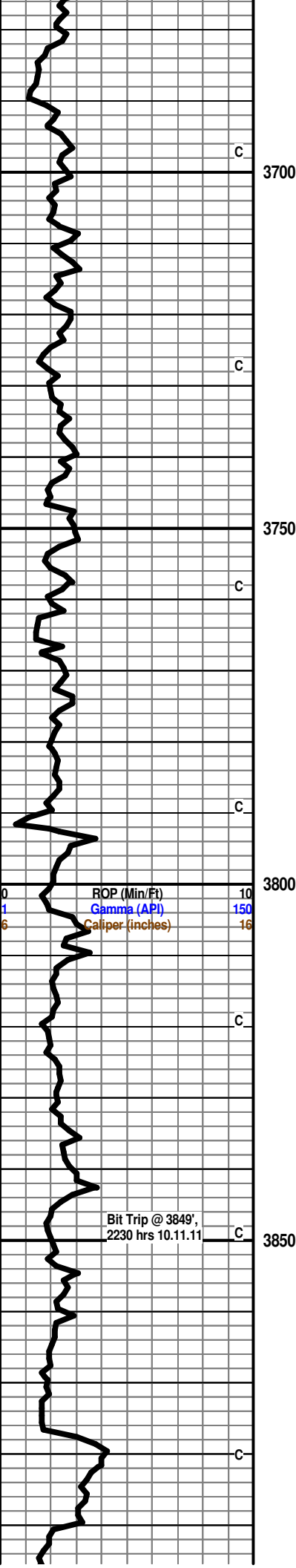
Limestone: cream gray mottled, dense tight matrix, micro-vfxln, fossiliferous in part, poor interxln porosity, no shows noted, no fluorescence.

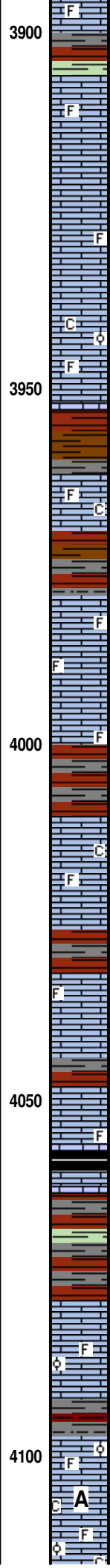
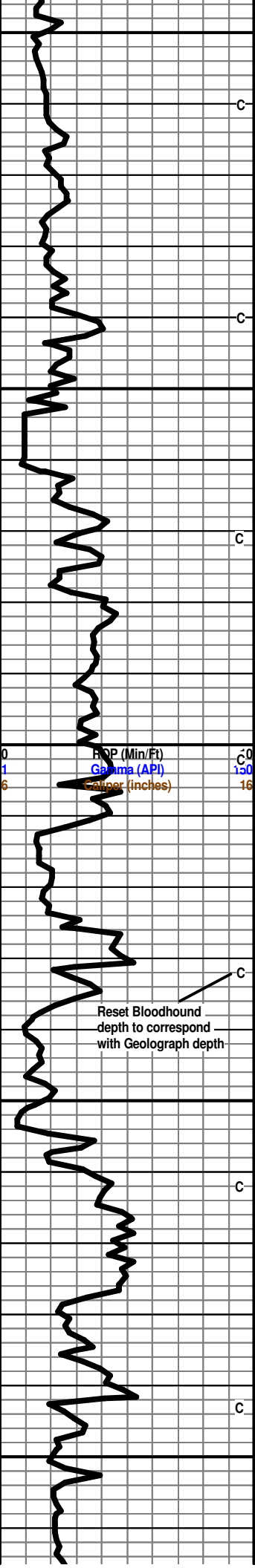
Resume Drilling Following Bit Trip, 0430 hrs 10.12.11

Limestone: lt cream lt gray gray, dense tight matrix, vfxln, fossiliferous in part, poor interxln porosity, poor bright yellow mineral fluorescence, with scattered Chalk in sample.

Shale: gray dk gray brick red, blocky and hard, fissile in part.

Limestone: gray dk gray, dense tight matrix, micro-vfxln, fossiliferous in part, poor interxln porosity,





no shows noted, little-no mineral fluorescence.

Shale: gray dk gray pale green brick red, blocky and hard.

Limestone: cream lt cream, dense sub-chalky matrix, vfxln, fossiliferous in part, poor interxln porosity, no shows noted, even bright lt yellow fluorescence.

Limestone: cream lt cream lt gray, dense sub-chalky matrix, vfxln, fossiliferous with some scattered oolitic, poor interxln porosity, no shows noted, even bright lt yellow fluorescence.

ALTERNATING Shale: brick red gray dk gray brown, blocky to rounded, mostly hard, grading to Limestone: cream lt cream lt gray, dense sub-chalky matrix, vfxln, fossiliferous with some scattered oolitic, poor interxln porosity, no show noted, even bright lt yellow fluorescence, and back to Shale as above, sample washes reddish-brown.

Limestone: cream tan, dense tight matrix, vf-microxln, heavily fossiliferous, fair-poor interfossiliferous porosity in most, no show noted, even bright lt yellow mineral fluorescence.

**Start 10' Wet & Dry Samples @ 4000'**  
**Geologist Derek W. Patterson on location, 1255 hrs 10.12.11**

Limestone: lt gray lt cream, dense sub-chalky matrix, vfxln, fossiliferous in part, poor interxln porosity, no shows noted, little-no mineral fluorescence, with loose Chalk in sample.

**NOTE: Drill Time above 4032' has been shifted to match connections and may not be representative of actual ROP.**

Limestone: lt cream lt gray, dense xln matrix, vfxln, some grainy, fossiliferous to heavily fossiliferous, some scattered 2ndary xln, fair interfossiliferous porosity in most, no shows noted, even bright lt greenish-yellow mineral fluorescence, with interbedded Shale: gray dk gray brick red, blocky and hard with some softer and rounded.

**Heebner 4057 (-874)**

Shale: black dk gray, carbonaceous, mostly blocky and hard, some slightly waxy, no show gas bubbles.

Shale: red brick red gray dk gray dk green pale green, mostly blocky to rounded, hard with some softer and waxy.

**Toronto 4078 (-895)**

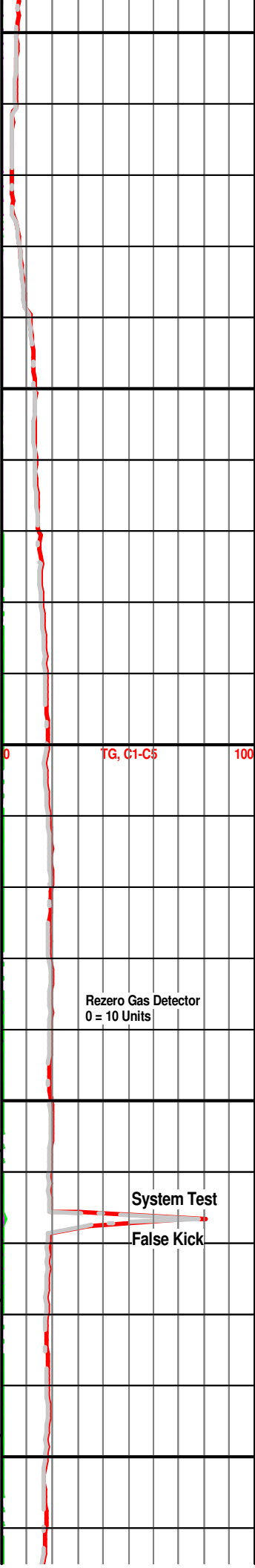
Limestone: off white lt cream, dense xln matrix, vfxln, fossiliferous with some scattered oolitic, fair amount of imbedded calcite crystals, fair-poor interfossiliferous porosity, no shows noted, even bright lt yellow mineral fluorescence.

Shale: gray dk gray brick red, blocky to rounded, hard to soft.

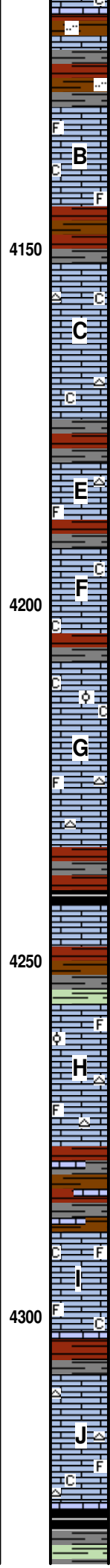
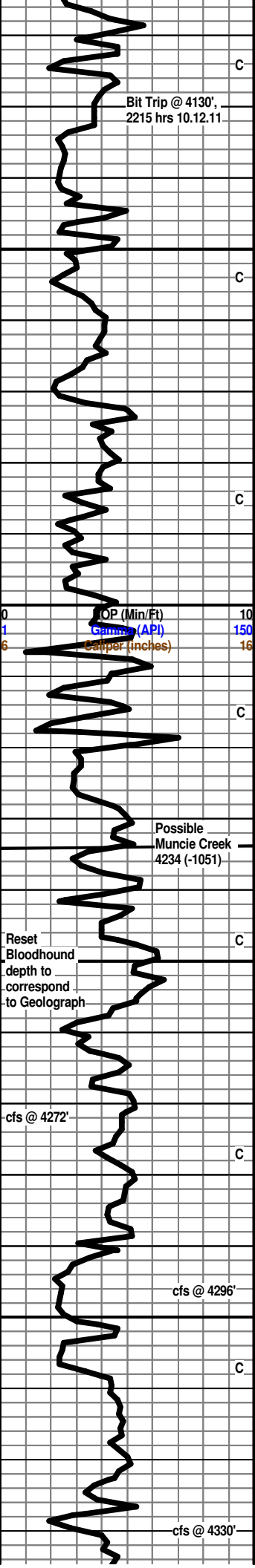
**Lansing 4097 (-914)**

Limestone: lt gray lt cream off white, dense matrix, vf-microxln, fossiliferous with some oolitic, fair-poor interxln/interfossiliferous porosity, no shows noted, even bright lt yellow mineral fluorescence.

Limestone: off white lt cream lt gray, dense matrix, vfxln, fossiliferous with some oolitic, fair-poor interxln/interfossiliferous porosity, no shows noted, even bright lt yellow mineral fluorescence, with moderate loose Chalk.







Shale: red brick red brown dk gray gray, mostly blocky and hard, some slightly silty.

**Resume Drilling Following Bit Trip, 0430 hrs 10.13.11**

Limestone: It cream cream off white, dense to sub-chalky matrix, micro-vfxln, sub-fossiliferous, overall poor visible porosity, no shows noted, even bright whitish-yellow mineral fluorescence.

Shale: red brick red brown gray dk gray, blocky to rounded, hard to soft.

Limestone: off white It cream, softer sub-chalky matrix, micro-vfxln, mostly barren, poor interxln porosity, no shows noted, scattered poor bright pale yellow mineral fluorescence, with abundant loose Chalk, and scattered Chert: tan cream, opaque, fresh and sharp, barren, sample washes white.

Limestone: It gray off white, dense to slightly chalky matrix, micro-vfxln, barren, poor interxln porosity, no shows noted, even pale yellowish-white mineral fluorescence, with continued Chert and decrease in loose Chalk, sample washes grayish-white.

Shale: gray dk gray brick red, blocky to rounded, hard to soft.

Limestone: gray It tan, dense sub-cherty matrix, micro-vfxln, mostly barren with trace sub-oolitic/sub-fossiliferous, overall poor visible porosity, no shows noted, no fluorescence, with trace Chert: tan cream, opaque, fresh and sharp, barren.

Limestone: It cream off white, softer chalky matrix, micro-vfxln, scattered fossiliferous with mostly barren, poor interxln porosity, no shows noted, poor dull It yellow mineral fluorescence, with moderate Chalk, sample washes whitish-gray.

Limestone: white off white It cream, tighter sub-chalky matrix, vfxln, some scattered oolitic, trace 2ndary xln veins, poor visible porosity, no shows noted, even dull pale yellow mineral fluorescence, with abundant loose Chalk, sample washes whitish-gray.

Limestone: It cream It gray off white, mostly dense tight matrix with some slightly chalky, vf-microxln, fossiliferous to barren, fair amount of imbedded calcite crystals, poor visible porosity, no shows noted, poor even It yellow mineral fluorescence, with scattered Chert: cream tan, opaque, fresh and sharp, barren.

Shale: red brick red some dk gray, mostly blocky and hard.

**Muncie Creek 4240 (-1057)**

Shale: black, carbonaceous, blocky and hard, waxy in part, no show gas bubbles.

Limestone: It tan It brown, dense tight matrix, micro, barren, no visible porosity, no shows noted, no fluorescence.

Shale: red brick red brown dk gray dk green, mostly blocky with some rounded, hard to slightly soft, fissile in part.

Limestone: tan It brown cream some mottled, dense tight matrix, vfxln, fossiliferous with some scattered oolitic, overall poor interxln/interfossiliferous porosity, no shows noted, very poor dull yellow mineral fluorescence, no cut fluorescence, no odor.

4272' cfs 20"/40"/60" - Limestone: as above with decrease in fossiliferous pieces, poor visible porosity, no shows noted, very poor dull yellow mineral fluorescence, no cut fluorescence, no odor, with scattered Chert: It gray cream, opaque, fresh and sharp.

Shale: brick red red brown gray, mostly blocky and hard, with Limestone stringers as above.

4296' cfs 20"/40"/60" - Limestone: cream It cream It gray, dense xln to slightly chalky matrix, vfxln, fossiliferous to barren, some scattered imbedded calcite crystals and 2ndary xln, trace small scattered vugs, overall fair interxln/vuggy porosity, no shows noted, even dull It yellow mineral fluorescence, no cut fluorescence, no odor, with some scattered Chalk, sample washes grayish-white.

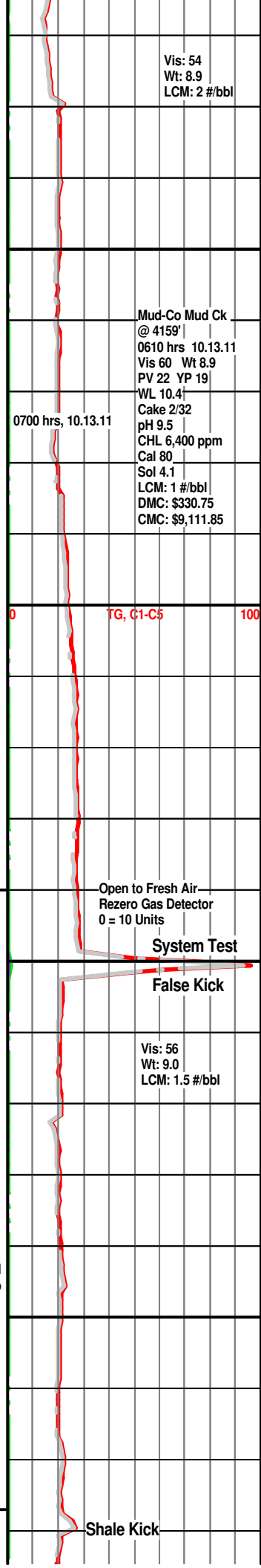
Shale: red brick red dk gray, mostly round with some blocky, softer.

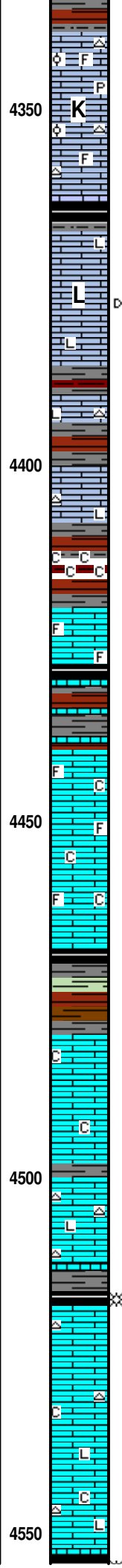
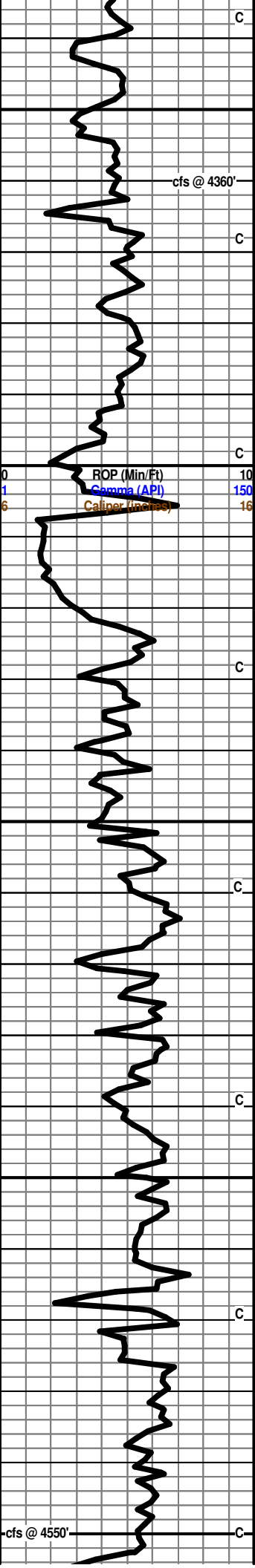
Limestone: tan It brown cream It cream, dense tight matrix, vf-microxln, barren, poor-no visible porosity, no shows noted, very poor even dull pale yellow mineral fluorescence, no cut fluorescence, no odor, with scattered Chert: gray cream, opaque, fresh and sharp, barren.

4330' cfs 20"/40" - Limestone: cream It cream, dense tight matrix, vf-microxln, mostly barren with some sub-fossiliferous, some imbedded calcite crystals, poor visible porosity, no shows noted, poor even dull pale yellow mineral fluorescence, no cut fluorescence, no odor, with continued Chert, and fair amount of loose Chalk.

**Stark 4327 (-1144)**

Shale: black, carbonaceous, blocky and hard with some softer and waxy, poor show bleeding gas bubbles.





Shale: gray dk gray green brick red, mostly blocky,

Limestone: cream lt cream, softer sub-chalky matrix, vfxln, fossiliferous in part with some oolitic, fair pinpoint porosity in most, with Limestone: tan brown cream, dense tight matrix, fossiliferous, some 2ndary xln, poor visible porosity, no shows noted, very poor dull pale yellow mineral fluorescence, no cut fluorescence, no odor, scattered Chert: gray cream, fresh and sharp, barren, and trace Pyrite nodules.

4360' cfs 20"/40"/60" - Limestone: cream lt cream, dense tight matrix with some slightly chalky matrix, vfxln, fossiliferous with trace oolitic, some fair pinpoint porosity with most poor visible porosity, no shows noted, poor dull pale yellow mineral fluorescence, no cut fluorescence, no odor, with continued scattered Chert.

**Hushpuckney 4363 (-1180)**

Shale: black dk gray, carbonaceous, blocky and hard with some slightly softer and waxy,

Limestone: cream tan lt cream, dense tight matrix, micro-cryptoxln with some lithographic non-descript, barren, some imbedded calcite crystals, no visible porosity, no shows noted, poor-no mineral fluorescence, no odor.

Limestone: cream gray lt cream, dense tight matrix, micro-cryptoxln with some lithographic non-descript, barren, some imbedded calcite crystals, no visible porosity, couple pieces with dead black staining along edges, no live shows noted, poor-no mineral fluorescence, no odor.

**Base Kansas City 4386 (-1203)**

Shale: gray dk gray some brick red, mostly blocky, hard to soft.

Limestone: cream tan gray, dense tight sub-cherty matrix, micro-cryptoxln with some lithographic non-descript, barren, no visible porosity, no shows noted, poor-no mineral fluorescence, no odor, with interbedded Shale: gray dk gray brick red, mostly blocky, hard to soft, some fissile.

Shale: gray dk gray brick red, mostly blocky and hard with some rounded and softer, with abundant loose Chalk in sample.

**Marmaton 4420 (-1237)**

Limestone: cream lt cream lt tan, very dense tight matrix, vf-microxln, heavily fossiliferous, fair-poor interfossiliferous porosity with overall poor visible porosity, no shows noted, no fluorescence.

Shale: black, carbonaceous, with Shale: dk gray brick red, mostly blocky and hard, some fissile, with abundant Limestone: as above, no shows noted.

Limestone: lt cream lt gray cream, dense tight matrix, vf-microxln, most fossiliferous, poor visible porosity, no shows noted, no fluorescence, with some loose Chalk in sample.

Limestone: lt cream lt gray cream, dense tight matrix, vfxln, fossiliferous to sub-fossiliferous with some barren, poor visible porosity, no shows noted, no fluorescence, with continued loose Chalk in sample.

Shale: black, carbonaceous, with Shale: gray dk gray brick red pale green brown, blocky to round, hard to soft.

Limestone: cream lt cream lt gray, dense tight matrix with some slightly chalky matrix, vf-microxln, barren, some scattered 2ndary xln along edges, poor interxln porosity, no shows noted, spotty-no lt yellow mineral fluorescence.

Limestone: lt cream lt gray tan, dense tight sub-cherty matrix, micro-cryptoxln with some lithographic non-descript, barren, some scattered 2ndary xln along edges, no visible porosity, no shows noted, no fluorescence, with scattered Chert: lt gray cream, opaque, fresh and sharp, barren.

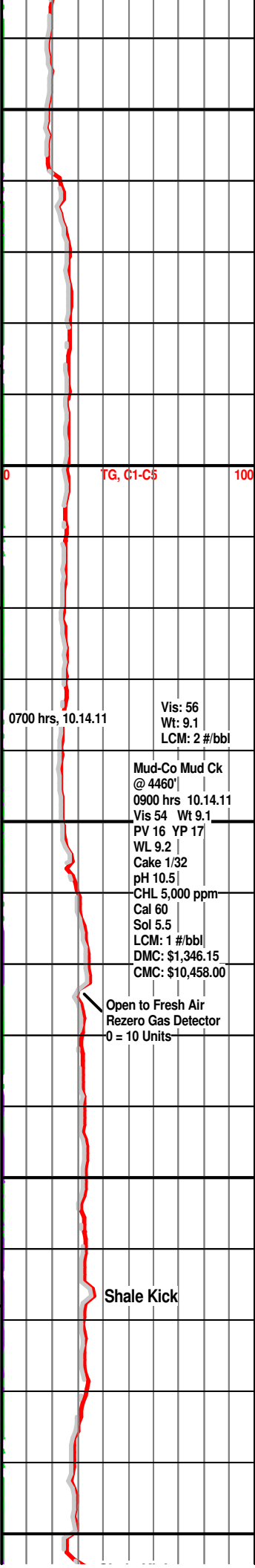
Shale: gray dk gray, mostly blocky and hard, grading to Shale: black, carbonaceous, blocky to rounded, mostly hard with some slightly waxy, poor show gas bubbles.

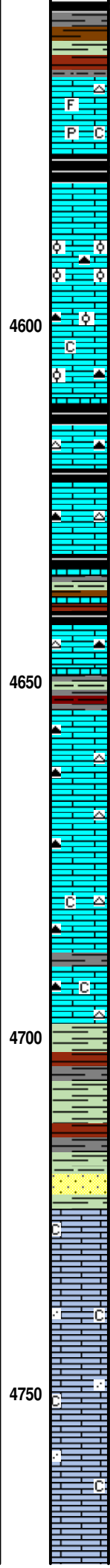
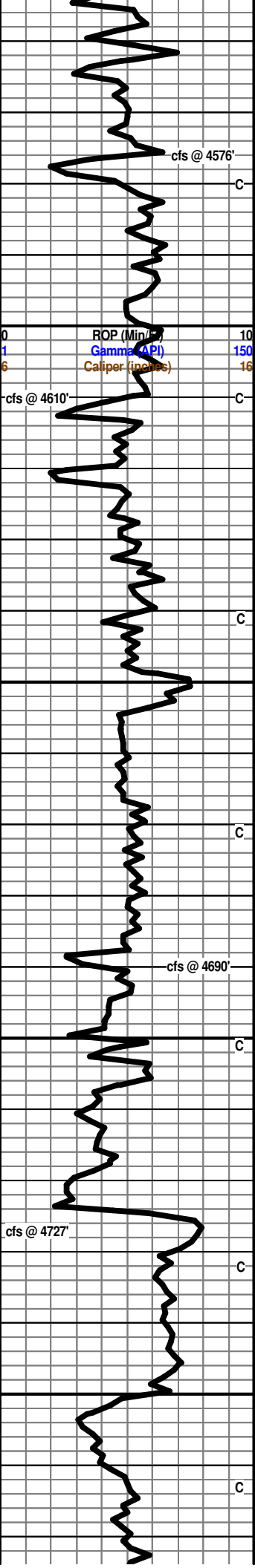
**Pawnee 4518 (-1335)**

Limestone: cream lt cream tan, dense tight matrix, microxln, barren, no visible porosity, no shows noted, even to spotty poor bright-dull lt yellow mineral fluorescence in most, no cut fluorescence, no odor, with scattered Chert: cream pink orange, opaque to sub-translucent, fresh and sharp, barren.

Limestone: cream lt cream, dense sub-chalky matrix, vfxln, barren, with Limestone: cream tan, dense tight matrix, micro-cryptoxln with some lithographic non-descript, barren, poor-no visible porosity in either, no shows noted, poor dull yellow mineral fluorescence in few pieces, no cut fluorescence, no odor, with continued scattered Chert.

4550' cfs 20"/40" - Limestone: cream lt cream some tan, dense tight matrix with some slightly chalky and dense, vf-microxln with some scattered lithographic non-descript, barren, poor-no visible porosity, no shows noted, even pale yellow mineral fluorescence in most, no cut fluorescence, no odor, with trace Chert as above.





Shale: black, carbonaceous, blocky and hard, very poor show gas bubbles, grading to Shale: gray dk gray brick red brown dk green, blocky and hard.

**Myrick Station 4565 (-1382)**

4576' cfs 0"/20"/40" - Limestone: brown cream tan, dense tight matrix, vfxln, fossiliferous to heavily fossiliferous, poor visible porosity, no shows noted, no fluorescence, with Limestone: cream lt cream, dense sub-chalky matrix, microxln, fossiliferous, overall poor visible porosity, no shows noted, even bright pale yellow mineral fluorescence in most, no cut fluorescence, no odor, and scattered Chert.

Shale: black, carbonaceous, blocky and hard, fair show gas bubbles.

**Fort Scott 4580 (-1397)**

Limestone: cream lt cream, dense sub-chalky matrix, vf-microxln, occasional fossil, poor interxln porosity, no shows noted, little-no mineral fluorescence, no cut fluorescence, no odor.

Limestone: tan brown, very dense tight matrix, micro-cryptoxln, heavily oolitic, no visible porosity, no shows noted, no fluorescence, no odor, with Chert: dk gray dk tan, translucent, fresh and sharp, oolitic, no shows noted.

Limestone: cream lt cream tan, dense tight matrix, micro-vfxln, oolitic to sub-oolitic, poor-no visible porosity, no shows noted, little-no fluorescence, no odor, with Chert: gray smokey gray, fresh and sharp, oolitic to barren, some pyritic, no shows noted.

4610' cfs 20"/40"/60" - Limestone: as above, with Limestone: cream lt cream, dense sub-chalky matrix, microxln, oolitic in part, poor-no visible porosity, no shows noted, even bright lt yellow mineral fluorescence in most, no cut fluorescence, no odor, and Chert.

**Cherokee 4611 (-1428)**

Shale: black, carbonaceous, blocky and hard, no show gas bubbles.

Limestone: tan brown gray, dense tight matrix, blocky, microxln, barren, poor-no visible porosity, no shows noted, no fluorescence, no odor, with interbedded Shale: black, carbonaceous, blocky and hard, no show gas bubbles, and scattered Chert: smokey gray, translucent, fresh and sharp, barren.

Limestone: tan cream lt cream, dense tight matrix, mostly blocky, microxln, barren, poor visible porosity, no shows noted, little-no fluorescence, no odor, with continued scattered Chert.

Predominately Shale: black, carbonaceous, with Shale: gray dk gray brick red brown dk green, nearly all blocky and hard, and interbedded Limestone as above.

Limestone: cream dk cream tan lt cream, dense tight matrix, micro-vfxln, barren, poor visible porosity, no shows noted, little-no fluorescence, no odor, with scattered Chert: smokey gray tan, translucent, fresh and sharp, barren.

Shale: gray dk gray pale green brick red, blocky and hard, some fissile.

**Johnson Zone 4654 (-1471)**

Limestone: cream tan lt cream, dense tight matrix, microxln, barren, scattered 2ndary xln in few pieces, poor visible porosity, no shows noted, little-no mineral fluorescence, no cut fluorescence, no odor, with Chert: smokey gray, translucent, fresh and sharp, mostly barren.

Limestone: cream tan lt cream dk tan, dense tight matrix, microxln, barren, scattered 2ndary xln in few pieces along edges, poor visible porosity, no shows noted, little-no mineral fluorescence, no cut fluorescence, no odor, with continued Chert.

4690' cfs 20"/40"/60" - Limestone: cream tan, dense tight sub-chalky in part matrix, micro-vfxln, barren, poor visible porosity, no shows noted, scattered pieces with even bright pale yellow mineral fluorescence, no cut fluorescence, no odor, with Chert: gray smokey gray, translucent to opaque, fresh and sharp, barren.

Limestone and Chert as above, no shows noted.

Shale: green pale green teal yellow red dk gray some purple, mostly blocky and hard, some slightly softer and waxy.

Shale: as above grading to Sandstone: clear quartz grains in white-lt gray calcareous matrix, mostly fgrained, fairly sorted and rounded, poorly cemented to friable, fair intergranular porosity in most, no shows noted, no fluorescence, no cut fluorescence, no odor.

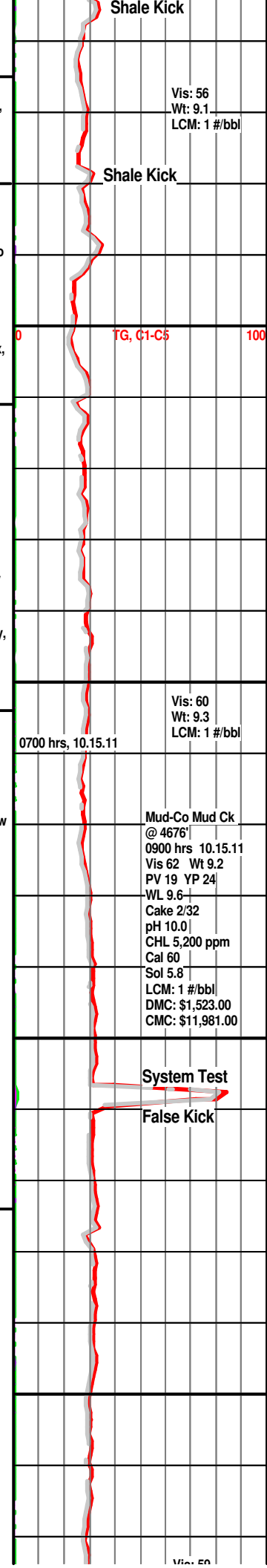
**Mississippian 4724 (-1541)**

Limestone: cream lt cream off white, dense sub-chalky matrix, microxln, barren, poor-no visible porosity, no shows noted, no fluorescence, with Limestone: tan lt brown, dense tight matrix, lithographic non-descript, no visible porosity, no shows noted, no fluorescence, no odor in sample.

Limestone: mixed as above, with Limestone: lt cream off white, softer chalky matrix, arenaceous to heavily arenaceous, fair intergranular/interxln porosity in most, no shows noted, no fluorescence, no odor in sample, and loose Chalk.

Limestone: cream lt cream off white, softer chalky matrix, microxln, barren, poor visible porosity, no shows noted, no fluorescence, with continued mixed Limestone as above, no odor in sample, and loose Chalk.

Limestone: lt cream off white lt tan, dense tighter matrix, micro-cryptoxln, barren, poor-no visible porosity, no shows noted, no fluorescence, no odor, with overall decrease in loose Chalk.



Short Trip, 2120 hrs 10.15.11  
TOH for Logging, 0000 hrs 10.16.11

4800

0	ROP (Min/Ft)	10
1	Gamma (API)	150
6	Caliper (inches)	16

**RTD 4780 (-1597)**  
**LTD 4780 (-1597)**

Rotary TD @ 4780', 2020 hrs 10.15.11  
Log-Tech Open Hole Logging TD @ 4780'  
Commence Open Hole Logging Operations, 0330 hrs 10.16.11  
Complete Open Hole Logging Operations, 0745 hrs 10.16.11  
Orders Received to Plug & Abandon Well

0 TG, C1-C5 100

Geologist Derek W. Patterson off location, 0830 hrs 10.16.11

**Respectfully Submitted,**  
**Derek W. Patterson**