

Air Drilling Specialist  
Oil & Gas Wells

**THORNTON AIR ROTARY, LLC**  
Office Phone: 620-879-2073

PO Box 449  
Caney, KS 67333

Date Started	<b>10/9/2010</b>
Date Completed	<b>10/10/2010</b>

Well No.	Operator	Lease	A.P.I.#	County	State
<b>10J-34</b>	<b>Layne Energy Operating</b>	<b>Metzger</b>	<b>205-27866-00-00</b>	<b>Wilson</b>	<b>Kansas</b>

1/4	1/4	1/4	Sec.	Twp.	Rge.
			<b>34</b>	<b>30</b>	<b>14E</b>

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
<b>Billy</b>	<b>Oil</b>	<b>8</b>	<b>39' 8 5/8</b>	<b>1252</b>	<b>6 3/4</b>

### Formation Record

0-4	DIRT	761-774	SAND/LIGHT OIL ODOR	1116-1157	SHALE
4-72	LIME	774-802	SANDY SHALE	1152	GAS TEST - SAME
72-173	SHALE	802-803	COAL	1157-1165	BLACK SHALE
173-179	LIME	803-872	SHALE	1165-1187	SAND
179-320	SHALE	852	GAS TEST - NO GAS	1187-1252	SHALE
320-325	SANDY SHALE	872-873	COAL (MULBERRY)	1252	TD
325-370	SAND (DAMP)	873-901	LIME (PAWNEE)		
370-444	SANDY SHALE	901-906	BLK SHALE (LEXINGTON)		
444-450	LIME	906-920	LMY SHALE		
451	WENT TO WATER	920-926	SANDY SHALE		
450-461	SHALE	926-948	SAND		
461-470	LIME	948-957	SANDY SHALE		
470-496	SHALE	952	GAS TEST - NO GAS		
496-531	LIME	957-982	LIME (OSWEGO)		
501	GAS TEST - NO GAS	982-991	BLK SHALE (SUMMIT)		
531-536	SHALE	991-1000	LIME		
536-554	LIME	1000-1007	BLACK SHALE		
554-577	SAND	1002	GAS TEST-4#,1/4,MCF-18.5		
577-606	LIME	1007-1008	COAL (MULKEY)		
606-611	SHALE	1008-1015	LIME		
611-643	LIME	1015-1050	SANDY SHALE		
643-700	SHALE	1050-1051	COAL		
700-706	LMY SHALE	1051-1070	SHALE		
706-714	SHALE	1070-1072	LIME		
714-721	LMY SAND	1072-1074	SHALE		
721-738	SANDY SHALE	1074-1075	COAL (MINERAL)		
738-740	LIME	1075-1080	SHALE		
740-743	SHALE	1080-1090	SAND		
743-752	LIME	1090-1115	SANDY SHALE		
752-761	SHALE	1115-1116	COAL		