

Air Drilling Specialist  
Oil & Gas Wells

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

PO Box 449  
Caney, KS 67333

Date Started	<b>2/14/2011</b>
Date Completed	<b>2/16/2011</b>

Well No.	Operator	Lease	A.P.I #	County	State
<b>2-36</b>	<b>Layne Energy Operating</b>	<b>Dickey</b>	<b>15-125-32034-00-00</b>	<b>Montgomery</b>	<b>Kansas</b>

1/4	1/4	1/4	Sec.	Twp.	Rge.
			<b>36</b>	<b>32</b>	<b>13</b>

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
<b>Sean/Billy</b>	<b>Gas</b>	<b>4</b>	<b>21.5' 8 5/8</b>	<b>1496</b>	<b>6 3/4</b>

**Formation Record**

0-2	DIRT	984-990	BLACK SHALE	1348-1350	LIME
2-10	CLAY	987	GAS TEST-2#,1/4",MCF-12.7	1350-1382	SHALE
10-106	SHALE	990-991	COAL (LEXINGTON)	1363	GAS TEST - SAME
106-120	LIME	991-995	SHALE	1382-1386	RED SHALE
120-136	LMY SHALE	995-1007	SAND	1386-1434	SHALE
136-202	SHALE	1007-1053	SANDY SHALE	1434-1435	COAL
202-250	SAND (WET)	1053-1079	LIME (OSWEGO)	1435-1475	SHALE
236	WENT TO WATER	1079-1089	BLK SHALE (SUMMIT)	1438	GAS TEST - SAME
250-300	SANDY SHALE	1089-1108	LIME	1475-1483	SDY LIME/PICKED UP SOME GAS
300-440	SHALE	1108-1115	BLK SHALE (EXCELLO)	1483-1492	MISS. CHATT (MISS.)
440-517	SANDY SHALE	1115-1116	COAL (MULKEY)	1488	GAS TEST-15#,1/2",MCF-147
517-568	LIME	1116-1126	LIME	1492-1496	BROWN CHERTY LIME/LOTS OF GAS
568-576	SHALE	1126-1135	SHALE	1496	GAS TEST-3#,2" CHOKE
576-630	SAND	1135-1136	COAL	1496	TD
630-747	SHALE	1136-1153	SHALE		
747-750	LMY SHALE	1153-1155	LIME		
750-760	SHALE	1155-1157	SHALE		
760-765	LIME	1157-1158	COAL (CROWBERG)		
765-801	SAND	1158-1170	SAND		
801-820	SHALE	1170-1200	SANDY SHALE		
820-851	LIME	1200-1202	COAL		
851-857	SHALE	1202-1252	SHALE		
857-877	SAND	1252-1258	SANDY SHALE		
877-882	SANDY SHALE	1258-1259	COAL		
882-909	SAND/ 889-LITE ODOR	1259-1270	SHALE		
909-960	SANDY SHALE	1263	GAS TEST - SAME		
912	GAS TEST-5#,1/4",MCF-20.7	1270-1280	RED SHALE		
960-961	COAL (MULBERRY)	1280-1293	SHALE		
961-964	SHALE	1293-1301	SAND		
964-984	LIME (PAWNEE)	1301-1348	SHALE		