

Air Drilling Specialist  
Oil & Gas Wells

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

PO Box 449  
Caney, KS 67333

Date Started	<b>1/16/2012</b>
Date Completed	<b>1/18/2012</b>

Well No.	Operator	Lease	A.P.I #	County	State
<b>2G-12</b>	<b>Layne Energy Operating</b>	<b>Westfall</b>	<b>15-125-32152-00-00</b>	<b>Montgomery</b>	<b>Kansas</b>

1/4	1/4	1/4	Sec.	Twp.	Rge.
			<b>12</b>	<b>31</b>	<b>13</b>

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
<b>Chris</b>		<b>4</b>	<b>20' 8 5/8</b>	<b>1459</b>	<b>6 3/4</b>

### Formation Record

0-10	DIRT	946-965	SHALE	1270-1296	SHALE
10-15	LIME	965-975	SAND	1296-1300	SANDY SHALE
15-160	SHALE	975-977	SHALE	1300-1307	SHALE
160-184	SANDY SHALE	977-985	SAND	1307-1312	SAND / LITE ODOR
184-285	SHALE	985-996	SANDY SHALE	1312-1327	SHALE
285-300	LIME	996-1039	SHALE	1327-1330	SAND
300-315	SHALE	1039-1069	LIME (PAWNEE)	1330-1336	SHALE
315-325	LIME	1069-1071	SHALE	1336-1352	RED SHALE
325-376	SANDY SHALE	1071-1075	LIME	1337	GAS TEST - SAME
376-475	LMY SHALE	1075-1081	BLK SHALE (LEXINGTON)	1352-1404	SHALE
475-533	SHALE	1086	GAS TEST - NO GAS	1404-1405	COAL
533-552	SAND	1081-1124	SHALE	1405-1459	SHALE
552-553	COAL	1124-1144	LIME (OSWEGO)	1459	GAS TEST - SAME
553-580	SANDY SHALE	1144-1153	BLK SHALE (SUMMIT)	1459	TD
580-617	LIME	1153-1158	LIME		
617-620	LMY SHALE	1158-1162	BLK SHALE (EXCELLO)		
620-727	LIME	1162-1163	COAL (MULKY)		
710	WENT TO WATER	1163-1167	LIME		
727-728	COAL	1167-1178	SANDY SHALE		
728-757	SAND	1186	G.T.- SLIGHT BLOW		
757-760	SHALE	1178-1208	SHALE		
760-798	LIME	1208-1209	COAL (BEVIER)		
798-840	SHALE	1209-1225	SHALE		
840-870	LIME	1225-1226	LIME (VERDIGRIS)		
870-879	SHALE	1226-1229	SHALE		
879-901	SAND	1229-1230	COAL (CROWBERG)		
901-914	SHALE	1230-1251	SANDY SHALE		
912	GAS TEST - NO GAS	1236	GAS TEST - SAME		
912-930	LIME	1251-1268	SHALE		
930-946	SAND	1268-1270	COAL		