

Air Drilling Specialist
Oil & Gas Wells

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

PO Box 449
Caney, KS 67333

Date Started	1/24/2011
Date Completed	1/25/2011

Well No.	Operator	Lease	A.P.I #	County	State
15N-29	Layne Energy Operating	Ratzlaff	15-205-27905-00-00	Wilson	Kansas

1/4	1/4	1/4	Sec.	Twp.	Rge.
			29	30	14E

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
Seab	Oil	8	43' 8 5/8	1236	6 3/4

Formation Record

0-2	DIRT	736-765	SHALE	1134-1138	SAND
2-12	CLAY	765-780	LIME	1138-1149	SHALE
12-123	SHALE	780-787	SAND	1149-1158	SAND/54-58-LITE ODOR
123-154	LIME	787-812	SANDY SHALE	1158-1165	SANDY SHALE
154-162	SHALE	812-853	SHALE	1165-1166	COAL
162-164	LIME	853-870	SAND	1166-1236	SHALE
164-180	SHALE	870-882	SANDY SHALE	1236	TD
180-184	LIME	882-885	LIME		
184-240	SHALE	885-886	COAL		
240-260	LMY SHALE	886-918	LIME		
260-362	SHALE	918-922	BLACK SHALE		
362-390	SANDY SHALE	922-967	SHALE		
390-407	SAND	967-989	LIME (OSWEGO)		
410	GAS TEST-12#,1/4",MCF-34	989-995	BLK SHALE (SUMMIT)		
407-440	SANDY SHALE	995-1001	LIME		
440-445	LIME	1001-1005	BLACK SHALE		
445-470	SHALE	1005-1006	COAL		
470-485	LIME	1006-1010	LIME		
485-498	SHALE	1010-1050	SHALE		
498-577	LIME	1050-1051	COAL		
560	WENT TO WATER	1051-1067	SHALE		
577-596	SHALE	1067-1069	LIME		
596-662	LIME	1069-1071	SHALE		
662-693	SHALE	1071-1072	COAL		
693-700	LIME	1072-1080	SAND		
700-704	BLACK SHALE	1080-1109	SANDY SHALE		
704-705	COAL	1109-1111	COAL		
705-707	LIME	1111-1130	SHALE		
707-724	SANDY SHALE	1111	GAS TEST - SAME		
724-736	LIME	1130-1134	SANDY SHALE		