

Air Drilling Specialist
Oil & Gas Wells

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

PO Box 449
Caney, KS 67333

Date Started	7/14/2014
Date Completed	7/15/2014

Operator	A.P.I #	County	State
L R Energy Inc.	15-125-32410-00-00	Montgomery	Kansas

Well No.	Lease	Section	Township	Range
12K-30	Gartner	30	32	14 E

Type of Well	Driller	Cement	Surface	TD	Size of Hole
Oil	Billy Thornton	4	21' 2" 8 5/8	1012	6 3/4

0-4	DIRT	726-736	SANDY SHALE	924-941	SHALE
4-8	CLAY	736-743	LIME	941-944	BLACK SHALE
8-45	SHALE /CLAY	743-753	SAND	944-965	LIME (PAWNEE)
45-86	SHALE	753-766	SANDY SHALE	965-971	BLACK SHALE
86-94	LIME	766-793	SHALE	971-972	COAL
94-161	SHALE	793-804	LIME	972-978	SANDY SHALE
161-163	BLACK SHALE	804-807	BLACK SHALE	978-980	LIME
163-168	LIME	807-813	SHALE	980-1012	SHALE
168-177	SHALE	813-816	LIME	1012	TD
177-180	SANDY SHALE	816-818	SHALE		
180-215	SAND / DAMP	818-823	LIME		
236	WENT TO WATER	823-826	BLACK SHALE		
215-240	SANDY SHALE	826-828	SANDY SHALE / LT ODOR		
240-394	SHALE	828-832	SAND / LT ODOR		
394-401	LMY SHALE	832-834	SANDY SHALE		
401-444	SHALE	834-844	SAND		
444-457	SAND	844-847	DK GRY SAND/ LT ODOR		
457-460	LIME	847-849	SAND		
460-480	SHALE	849-854	SAND / LT ODOR		
480-486	SAND	854-855	COAL		
486-491	LIME	855-871	SAND / GOOD ODOR, SHOW IN PIT		
491-498	SHALE	871-874	LAMINATED SAND		
498-541	LIME	874-891	SAND/ GOOD ODOR, SHOW IN PIT		
541-570	SAND	891-894	SAND / LT ODOR		
570-596	SANDY SHALE	894-897	SAND / GOOD ODOR		
596-642	SHALE	897-901	LAM. SAND/ LT ODOR		
642-645	LIME	901-905	SAND		
645-673	SHALE	905-908	SAND/ SHALE		
673-723	LMY SHALE	908-912	SHALE		
723-726	LIME	912-924	SANDY SHALE		