



DRILL LOG

Operator License # 33741 API # 15-059-26461-00-00
Operator Energex Kansas Lease Name Thoele South
Address 2038 S. Princeton St., Ste B Well # BSP-TS47
Ottawa, KS 66067
Contractor JTC Oil, Inc. Spud Date 7/05/13 Cement 7/09/13
Contractor License 32834 Location _____ of _____
T.D. 880 T.D. of Pipe 860 _____ feet from _____
Surf. Pipe Size 7" Depth 20' _____ feet from _____
Kind of Well Production County Franklin

Thickness	Strata	From	To	Thickness	Strata	From	To
2	Soil	0	2	8	Shale	230	238
2	Clay	2	4	32	Lime	238	270
16	Shale	6	20	6	Black Shale	270	276
26	Lime	20	46	25	Lime	276	301
77	Shale	46	123	4	Coal	301	305
23	Lime	123	146	12	Lime	305	317
23	Shale	146	169	162	Shale	317	479
4	Lime	169	173	17	Lime	479	496
5	Red Bed	173	178	7	Shale	496	503
37	Shale	178	215	11	Sand	503	514
15	Lime	215	230	23	Shale	514	537

2	Coal	537	539
5	Shale	539	544
8	Lime	544	552
12	Shale	552	564
2	Lime	564	566
19	Black Shale	566	585
9	Lime	585	594
13	Shale	594	607
2	Lime	607	609
3	Coal	609	612
6	Lime	612	618
2	Lime Oil	618	620 OK
3	Lime Oil	620	623 OK
2	Lime Oil	623	625 Good
3	Shale	625	628
2	Coal	628	630
15	Sand	630	645
20	Shale	645	665
28	Black Shale	665	693
2	Oil Sand	693	695 Good
3	Oil Sand	695	698 V-Good
2	Oil Sand	698	700 Good
2	Oil Sand	700	702 Broken
12	Shale	702	714

2	Coal	714	716	
19	Shale	716	735	
6	Sand	735	741	
21	Shale	741	762	
24	Sand/Shale	762	786	
6	Shale	786	792	
1	Oil Sand	792	793	Good
2	Oil Sand	793	795	Good
2	Oil Sand	795	797	Good
1	Oil Sand	797	798	Good
2	Oil Sand	798	800	Good
2	Oil Sand	800	802	Good
2	Oil Sand	802	804	Good
2	Oil Sand	804	806	Good
2	Oil Sand	806	808	OK
2	Oil Sand	808	810	V-Good
2	Oil Sand	810	812	V-Good
2	Oil Sand	812	814	V-Good
2	Oil Sand	814	816	V-Good
2	Oil Sand	816	818	V-Good
3	Oil Sand	818	821	V-Good
3	Oil Sand	821	824	Good
3	Sand/Shale	824	827	OK
3	Sand/Shale	827	830	Broken

3	Sand	830	833 Broken
9	Sand	833	842
38	Shale	842	880