

HAT DRILLING  
 12371 KS HWY 7  
 MOUND CITY, KS 66056  
 LICENSE # 33734

Runnebaum #I-22 SWD  
 API # 15-103-21398-00-00  
 SPUD DATE 10-17-13

Footage	Formation	Thickness	Set 142' of 8 5/8' TD 1529' Ran <del>1197'</del> of 2 7/8 on 10-23-13 1228'
2	Topsoil	2	
5	clay	3	
62	sand	57	
140	shale	78	
163	lime	23	
167	shale	4	
172	lime	5	
193	shale	21	
206	lime	13	
242	shale	36	
245	lime	3	
259	shale	14	
316	lime	57	
329	shale	13	
336	lime	7	
355	shale	19	
363	lime	8	
380	shale	17	
383	lime	3	
389	shale	6	
423	lime	34	
429	shale	6	
472	lime	43	
576	shale	104	
585	lime	9	
637	shale	52	
641	lime	4	
659	shale	18	
665	lime	6	
684	shale	19	
687	lime	3	
700	shale	13	
705	lime	5	
726	shale	21	
737	lime	11	
918	shale	181	
920	lime	2	
1083	shale	163	
1085	coal	2	
1171	shale	86	
1187	sand	16	
1224	shale	37	
1529	lime	305	Mississippi