



# Knoche Trust 2408 31-1H

## Nabors 102

SHL						Well Information							
1,600' FEL			335' FNL			NAD 27 (Kansas State Plane)							
Section	31	T	24	R	8	N	458,504.31	E	2,075,300.93	SITP:	1000 psi	Network #:	30179228
County	Reno	State	Kansas	LAT	37° 55' 32.19"	LONG	98° 14' 20.18"	BHT:	136.4 °F	API #:	15-155-21611-01-00	Lease:	Knoche Trust 2408
400' FEL			330' FNL			BHL							
Section	31	T	24	R	8	N	463,790.90	E	207,468.86	CO2:	No	Permit MD/TVD:	8,480      3,900
County	Reno	State	Kansas	LAT	37° 56' 24.48"	LONG	98° 14' 27.74"	Well Life:	25 yrs	RKB   GROUND ELEV.:	31.70'	1643.0'	

Directional	Formation	MD	TVD	Mud Program	Evaluation
	Fresh water	200	200	Fresh Water / Spud Mud MW: < 9 ppg	Log Mud Gas to TD No cuttings sample
	<b>At 350 ft MD: Build @ 2°/100' to 8.62° Inc, 273° Azi Do not move surface pipe for 8 hrs after cementing</b>				
	Surface Casing point	321	321		
	Hutchinson Salt Top	889	884		
	Tangent	8.62 deg	272 AZM		
	Hutchinson Salt Base	1,282	1,277		
	Nolas Limestone	1,400	1,400		
	Fort Riley	1,587	1,579		
	Onaga	2,217	2,198		
	Topeka	2,747	2,723		
	Vertical	2,778	2,756		
	Heebner B	3,151	3,121		
	Kick-off Point	3,328	3,297		
	<b>Build /Turn @10°/100' to 90° Inc, 358.8° Azi</b>				
	Lansing-KC Group	3,341	3,310		
	Marmaton A	3,634	3,589		
	Hushpuckney Shale	3,689	3,627		
	Marmaton B	3,789	3,699		
	Basal Penn. Congl.				
	Top of Mississippi	4,093	3,838		
	Landing Point at 90°	4,222	3,858		
	Int. Csg. Point @ 90° Inc	4,290	3,858		
	Actual TD	8,945	3,858		
	Lateral @ 90° Inc.				
<b>Regulatory notifications</b>					
Spud date					
If no cement to surface, contact and develop plan					
				TOC (Surf): Surface	
				12-1/4" Hole	
				Top of tail: Surface	
				Tail 14.8 ppg	
				#	
				Max. Sfc. Csg. Depth = 800 ft MD	~100 ft above Salt Zone
				Perform FIT to 13.5 ppg EMW	
				8 3/4" Hole	
				TOC of Lead @ 900 ft MD	
				Lead: 12.4 ppg	
				<div style="border: 1px solid black; background-color: yellow; padding: 5px; width: fit-content;">                     Landing point will be updated based on Knoche Trust 2408 SWD                 </div>	
				Fresh Water	
				w/ gel sweeps	
				MW: Allow chlorides to increase MW	
				Dilute as required	
				Salt water	MWD
				w/ gel sweeps	GR
				Dilute as required	
				1782 ft Displace to:	Mud log
				LSND (GelLig WBM)	KOP to Int. Csg
				MW: < 9.4 ppg	Samples every 40'
				YP > 14, WL < 4	Min 3 samples/hr
				Increase Fluid loss through curve	<b>DO NOT LIMIT ROP</b>
				Run one Volant centralizer every joint up to 3000 ft	
				Top of Tail: 3790 ft MD	Total Volant centralizers ~ 55
				Tail: 14.2 ppg	Use TAWG or CRT to run 7" casing
				7" 26 # P110 DWC	
				Requires a thread rep + seal rings	
				M/U speed = 6 - 10 RPM	Mud Log in Lateral
				Bump plug & hold 500 psi over for 5 min	Cuttings samples every 60'
				6-1/8" Hole	Minimum 3 samples/hour
				Fresh Water	
				MW 8.4 ppg	MWD:
					GR
				4 1/2" Packer set at 30° Inc.	
				4-1/2" 11.6 # P110 LTC	
				Run one 4 1/2" x 5 3/4" Volant centralizer every other joint; total of ~ 65	
				Bump with 3800 psi to set packer, test backside to 4500 psi for 10 min	