Thomas L Funk Petroleum Geologist
785-542-3359

OPERATOR	Murfin Drilling Co., Inc.
LEASE	Wieland Unit WELL NO. #1-36
LOCATION	1560' FNL & 550' FEL
SEC. 36	COUNTY Logan TWP. 12S RGE. 32W
STATE Kansas	
SPUD	10/29/21 COMP. 11/06/21
ELEVATION	KB 2997
DF 2994	GL 2989
Measurements are all	from KB
CASING RECORD	Surface at 261feet w/225sxs
Production	None
ELECTRICAL SURVEYS	Dual Induction, Dual Compensated Porosity, Microlog
DRILL STEM TESTS	None
CORING	None
SAMPLE	30 to TD
DEVIATION	0 to TD
MUD	Chemical
CIRCUL. MEDS	None

Geologists Report
Mud Logging and Sample Log

Date	Depth	Rig Reports Spd Bit	Mud Type	Wt.	Vis.	Wl.	Bit Record Bit Size	Type	Depth Out	Feet	Hours
10/29/21	261'	Spud									
10/30/21	1710'	1	12 1/4"	Sand	9.0	35	12 1/4	STR	261'	1449'	24
10/31/21	2710'	2	7 7/8"	Sand	Water		7 7/8				
11/01/21	2910'	3	7 7/8"	Sand	9.0	35	7 7/8	STR	2910'	2649'	48
11/02/21	3270'	4	7 7/8"	Sand	9.0	35	7 7/8	STR	3270'	360'	9
11/03/21	3400'	5	7 7/8"	Sand	9.0	35	7 7/8	STR	3400'	130'	3
11/04/21	3600'	6	7 7/8"	Chem	9.0	40	7 7/8	STR	3600'	200'	5
11/05/21	3800'	7	7 7/8"	Chem	9.0	40	7 7/8	STR	3800'	200'	5
11/06/21	4000'	8	7 7/8"	Chem	9.0	40	7 7/8	STR	4000'	200'	5
11/07/21	4150'	9	7 7/8"	Chem	9.0	40	7 7/8	STR	4150'	150'	4
11/08/21	4400'	10	7 7/8"	Chem	9.0	40	7 7/8	STR	4400'	250'	6
11/09/21	4600'	11	7 7/8"	Chem	9.0	40	7 7/8	STR	4600'	200'	5
11/10/21	4750'	12	7 7/8"	Chem	9.0	40	7 7/8	STR	4750'	150'	4

Remarks And Recommendations:

Drill to RTD. Log and run production casing if warranted. Based on the results of the well logs and drill stem tests, a decision can be made to run production casing or plug and abandon.

Thomas Funk
Petroleum Geologist

LEGEND

Anhydrite, Salt, Sandstone, Shale, Carb Shale, Limestone, Oolitic Limestone, Chert, Dolomite

Lithology

DRILLING TIME IN MINUTES PER FOOT

Depth	Sample Descriptions	Remarks
3650	Sh, blk & gry, mod-sft	Shut down for Christmas
3660	LS0001 - 3700 WL: 0.3 Ch: 0.0 WL: 0.3 Ch: 3.0	Start 10 Samples
3670	LS, crm-tan, crse grain in pel, foss, no vis por	
3680	Sh, k gry, sft	
3690	LS, m, f-xln, gran, dolo in pel, n foss	
3700	LS, crm, f-xln, foss, sm chalky, fr ool, sct fossiliod por, NS	
3710	LS, f gry, dns, v f-xln, blocky, fr foss	
3720	LS, crm-wht, f-xln, v chky, sft, pr vis por	
3730	LS, wht, f-xln, v chky, sct cht, sft	
3740	LS, crm-gry, f-xln, mod in pel, fr foss, pr vis por, NS	
3750	Sh, blk, carb LS, lt, sm, micro-xln, blocky, mod gry in pel, fr foss	
3760	Sh, gry, sl, lam, & sd	
3770	LS, crm, f-xln, chalky, sct cr-sol, pr vis por, NS	
3780	Sh, gry	
3790	LS, wht, f-xln, v chalky, sm sol in pel, brittle, sol cement por, NS	
3800	LS, crm-wht, f-xln, sol in pel, chalky, pr vis mdkle por, NS	
3810	LS, gry, dns, v f-xln, mod in pel, sm shale	
3820	LS, gry, dns, micro-xln, blocky	
3830	Sh, gry, mod-sft	
3840	LS, crm, f-xln, foss, lt sol, blocky, pr vis mdkle por, NS	DST #1 4201-4134 30-45-45-60 Blow built to 6.5 inches on IFP Blow built to 4 inches on FFP REC: 150' MCM (10%w, 90%m) IHP 2108 IFP 1117 ISIP 1117 FFP 1176 50' MCM (10%w, 90%m) 280' Total Fluid IHP 2108 FHP 2101 FFP 1176 FSIP 1176 Temp: 113 deg F Temp: 113 deg F
3850	LS, crm, f-xln, v chky, mod in pel, n foss	
3860	LS, crm, dns, v f-xln, fr foss, chky in pel, hrd	
3870	LS, crm-lt gry, micro-xln, hrd blocky, lt foss	
3880	LS, crm, dns, v f-xln, sct foss, lags, sm chaky	
3890	LS, f gry, dns, v f-xln, n foss	
3900	Sh, blk, carb LS, lt-crm, dns, foss, hrd, pr vis por, NS	
3910	LS, lt-crm-tn, f-xln, foss in pel, sm mod, chaky, pr vis p pl por, NS	
3920	LS, lt, dns, f-xln, blocky, lt foss	
3930	Sh, gry	
3940	LS, lt, dns, micro-xln, blocky	
3950	LS, crm, f-xln, sol in pel, v chaky, sft, pr vis por, NS	
3960	Sh, dk gry & vl, sft	
3970	LS, crm, f-xln, foss in pel, sct sol, chaky, pr vis por, NS	
3980	Sh, blk, carb	
3990	Sh, lt & mart, mod-sft	
4000	LS, crm-gry, f-xln, v chaky, sct sol, lt foss, pr vis p pl por, NS	
4010	LS, crm-tn, v f-xln, blocky, lt foss, hrd	
4020	Sh, blk, carb	
4030	LS, lt, dns, v f-xln, blocky, lt foss, pr vis por, NS	
4040	LS, f gry, dns, v f-xln, n foss	
4050	Sh, gry & vl, mod-frst	
4060	LS0001 - 4100 WL: 0.3 Ch: 0.0 WL: 0.3 Ch: 2.0	
4070	Sh, gry & lt, vl, sfty	
4080	LS, lt, dns, micro-xln, micro-sol in pel, blocky, sm chky	
4090	LS, f gry, dns, micro-xln, mod in pel, hrd	
4100	Sh, gry & lt, vl, sft	
4110	Sh, Ak	
4120	LS, gry, dns, micro-xln, hrd, blocky	
4130	LS, lbf, bnt dk gry, mod + Sh, gry, calc	
4140	Sh, dk gry + LS, lt, dns, v f-xln, n foss	
4150	LS, lt, dns, micro-xln, brittle, chky, tr foss	
4160	Sh, dk gry & brn	
4170	Sh, gry & lt, mod-sft	
4180	LS, f gry, dns, micro-xln, hrd, tr foss	
4190	Sh, dk gry & blk	
4200	LS, crm, f-xln, granitoid, chky, tr foss, pr vis por, NS	
4210	LS, Ak bec gry, dns, mod	
4220	Sh, blk, carb	
4230	Sh, gry & blk	
4240	LS, crm-lt gry, dns, v f-xln, foss in pel, sm chky, pr vis por, NS	
4250	Sh, blk, carb	
4260	LS, lt-crm, dns, v f-xln, micro sol in pel, sm chky, pr vis por, NS	
4270	Sh, gry + LS, f gry, dns, v f-xln, n foss	
4280	Sh, blk, carb	
4290	Sh, gry, calc in pel, v sft	DST #2 4308-4230 30'-60'-60'-30' Blow built to 7.5 inches on IFP Blow built to 1.75 inches on FFP REC: 120' MCM solid spks (95%w, 5%m) IHP 2135 ISIP 1217 IFP 38-73 FSIP 1284 FHP 2135 FFP 2145 Temp: 114 deg F
4300	Sh, vari-color, sft, v sct sd grns	
4310	LS, lt-crm, f-xln, v slty in pel, sm chky, sm gra angul + Ark Sh, vari-color	
4320	LS, crm, v f-xln, foss, sm brittle, w/sol sotly mod/sb por, SSFO, sh color, sct sol cement	
4330	LS, crm, f-xln, sct foss, sm chky, pr vis por, NS	
4340	Sh, gy & pwt, sm slty, sft + SS, wht-gry, v f-grn, dcrb, calc, dlo, NS	
4350	Sh, vari-color, mod-sft	
4360	Sh, Ak bec slty in pel	
4370	Sh, vari-color, sft, v sct sd grns	
4380	LS, lt-crm, f-xln, v slty in pel, sm chky, sm gra angul + Ark Sh, vari-color	
4390	LS0002 - 4570 WL: 0.3 Ch: 0.0 WL: 0.3 Ch: 3.0	
4400	LS, crm-wht & lt-tn, f-xln, sol in pel, brittle, sm slty, sct foss frags, no vis por, NS	
4410	LS, crm, f-xln, mod in pel, sdy, fnd, fr foss	
4420	LS, wht, f-xln, foss in pel, sm chalky, sft	
4430	LS, Ak bec lm, dns, v f-xln, blocky, lt foss	
4440	LS, lt, f-xln, gran in pel, sm dolo, blocky, n foss	
4450	LS, Ak	
4460	LS, gy, dns, v f-xln, mod, lt foss, sm granitoid	
4470	LS, gy & lt, v f-xln, dns, v sct foss frags, brittle	
4480		
4490		
4500		
4510		
4520		
4530		
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4740		
4750		

Lithology

DRILLING TIME IN MINUTES

Depth	Sample Descriptions	Remarks

COMPANY Murfin Drilling Co., Inc ELEVATION 2997 KB
LEASE #1-36 Wieland Unit
LOCATION 1560' FNL & 550' FEL Sec 36 TWP 12S RGE 32W
COUNTY Logan STATE Kansas