

GEOLOGIST'S REPORT

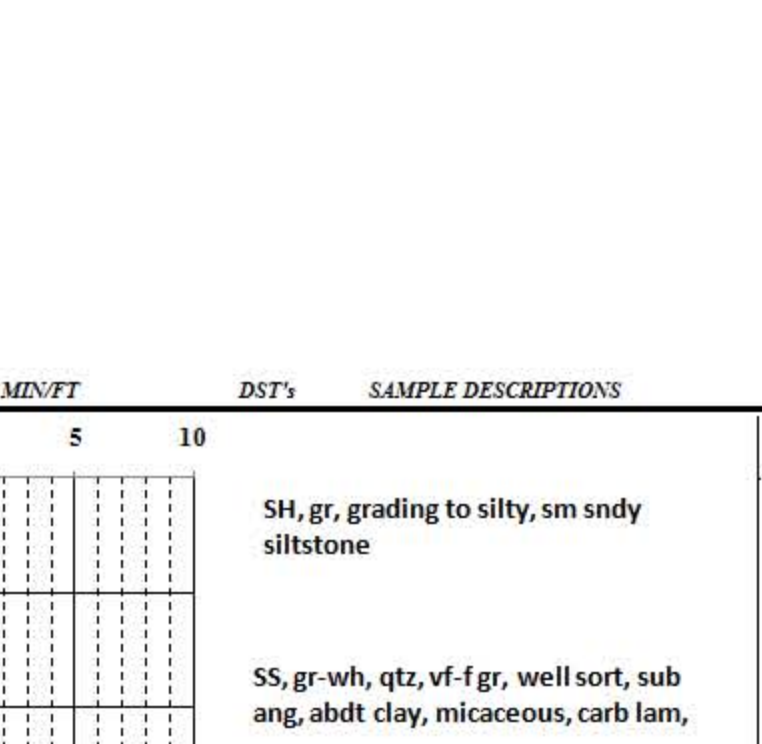
Drill Time & Sample Log

COMPANY <u>QUAIL OIL & GAS, LC</u>			API <u>15-135-24679-0000</u>
LEASE <u>ROSECRANS</u>			ALT. ID _____
LOCATION <u>2,510' FSL & 655' FWL</u>			ELEVATIONS KB <u>1,138</u> GL <u>1,129</u>
FIELD _____			START SAMPLE REPORT <u>2,100'</u> END SAMPLE REPORT <u>3,300'</u>
SECT. <u>32</u>	TOWNSHIP <u>33S</u>	RANGE <u>3E</u>	
COUNTY <u>COWLEY</u> STATE <u>KS</u>			
CONTRACTOR <u>C & G DRILLING, INC.</u>			CASING
SPUD <u>10/23/17</u>	COMP <u>10/29/17</u>	SURFACE 8 5/8 @ 311'	
RTD <u>3,300'</u>	LTD <u>3,300'</u>	PRODUCTION	
OPEN HOLE LOGS <u>Ind, Micro, Den-Neu, Sonic</u>			

FORMATION TOPS	LOG	SAMPLE	CHRONOLOGY
Iatan	2,156'	2,154'	10/23 MIRU
Stalaker	2,185'	2,196'	10/24 311' WOC
Layton	2,597'	2,586'	10/25 1,675' Drilling
Marmaton	2,937'	2,933'	Geo. on location 10/25 @ 3:00 pm
Pawnee	2,980'	2,975'	10/26 3,037'
Ft. Scott	3,021'	3,017'	10/27 3,185 DST #1
Cherokee	3,054'	3,050'	10/28 TD Logging
Bartlesville	3,153'	3,157'	
Miss	3,212'	3,198'	

REMARKS

DST CHARTS



LITHOLOGY DEPTH MIN/FT DST'S SAMPLE DESCRIPTIONS REMARKS

LITHOLOGY	DEPTH	MIN/FT	DST'S	SAMPLE DESCRIPTIONS	REMARKS
	2100			SH, gr, grading to silty, sm sndy siltstone	
				SS, gr-wh, qtz, vf-f gr, well sort, sub ang, abdt clay, micaceous, carb lam,	
				SH, gr, with ss as above trc pyr, trc maroon sh	
	2150			LS, tn, mxln, hd dns, trc foss	Iatan 2154 (-1016)
				SH, gr, grading to silty, sm sndy siltstone	
				SH, gr-dkgr, sm sandy in part	
	2200			SS, wh-clr, qtz, f gr- m gr, well sort, sub ang, sm friable, f-good por, No Show	Stalaker 2196 (-1059)
				SH, lt gr	
				SS, clr, qtz, f gr, well sort, sub ang, sm friable, f por, No Show	
				SS, clr, fn gr, well sort, sub-angular, friable, sm loose angular med gr sand, fair to good por, NS	
	2250			SH, gr-dkgr	
				SH, gr-dkgr with silty SS, gr, vfn, micaceous	
	2300			SH, gr-dkgr	
				SH, gr-dkgr	
				SH, gr-dkgr with siltstone, gr, with vfn sd, micaceous	
	2350			SH, gr-dkgr-brn, trc gr-grn,	
				SS, very silty, gr, vf-gr, carb inclusions	
				SS, very silty, gr, vf-gr, carb inclusions	
	2400			SH, gr-dkgr	
				SH, gr-dkgr with very silty SS, micaceous, trc pyr, carb laminations	
				SS, wh-clr, vf-gr, carb inclusions, & lamintaons, sm mica, sm ls cem, clay filled por	
	2450			SH, gr-dkgr with silty SS, micaceous	
				SH, gr-dkgr	
	2500			SH, gr-dkgr	
				SH, gr-dkgr & trc SH blk	
				SH, gr-dkgr	
	2550			SH, gr-dkgr with sm maroon sh	
				SS, wh-gr, qtz, fn gr, micaceous, sm cem, hd, poor por, NS	Layton Sand 2586 (-1448)
				LS, wh-brn, mott, fxln, pelloids, hd dns	
				SS, gr, qtz, fn gr, well sorted, sm ls cem, sm fria, sm por, NS	
				LS, buff, microxln, micritic, hd dns, brt min flour	
				SS, silty, v fn to fn gr, well sort, rounded, micaceous, poor por, NS	
				SS, gr-wh, med gr, well sort, sub-ang, clean, good por, fri, carb inclusions, sm carl laminations, NS	
	2650			SS, gr-wh, med gr, well sort, sub-ang, clean, good por, fri, NS	
				SS, clr-wh, med gr, well sort, sub-ang, clean, good por, fri, NS	
	2700			SH, gr	
				LS, crm-gr, fxln, sm argillaceous, brt mineral flour, NS	
				LS, crm-tn, mxln, trc foss, most hd dns, NS	
				SH, gr-brn	
	2750			LS, crm-buff, mxln, chlky, soft	
				Sh, gr-blk	
				LS, crm-buff, mxln, chlky in part, trc foss, sm chrt lt gr	
	2800			LS, crm-lt gr, mxln to fxln, foss in part, poor por, NS	
				SH, dk gr	
	2850			LS, gr to lt gr, mxln, hd dns, tite	
				SH, gr	
				SH, gr to pale grn	
	2900			SS, lt gr-pale grn, fn gr, well sort, sub-ang, well cem to argillaceous, hd, trc mica, poor por, NS	
				Sh, gr & pale grn & brn	
				LS, crm, mxln, soft, chlky,	Marmaton 2933 (-1795)
	2950			SH, blk	
				SH, gr	
				LS, crm-tn, mxln, hd dns, poor por, NS	Pawnee 2975 (-1837)
				LS, lt gr-brn, mxln, hd dns, poor por, NS	
	3000			SH, blk	
				SH, gr	Ft. Scott 3017 (-1879)
				SH, blk	
				LS, tn, mxln, hd dns	
	3050			SH, blk	Cherokee 3050 (-1912)
				SH, gr	
				SS, qtz, pale grn, fn gr, well sorted, sub rounded, clay filled, no ls cem, hd to friable-soft, no flour, no odor, no stn, no bubbles, NS	Squirrel Sand
				SH, gr	
	3100			SH, gr-grn-brn	
				SH, gr-dkgr, sandy in part, with LS, gr micritic, hd dns, trc foss	
				SS, gr, qtz, fn gr, mod sort, clay filled por no ls cem, not friable, poor por, sm pyr, sd grades in part to silty, gr	Cattlemans Sand DST #1 3,145-3,185 IF weak blow dead in 11 min FF no blow Rec. 2' mud IH 1,554.39 IF 14.78-18.43 FF 20.58-22.70 ISI 1157.49 FSI 1016.32
	3150			SH, gr-dkgr-blk	
				SS, wh-ltgr, qtz, fn gr, well sorted, sub ang, mica, abd clay filling por, no ls cem, 10-15% of ss, brt yellow flour, lite odor, slow cut, no free oil, no stn	Bartlesville Sand 3157 (-2019)
				SH, gr-maroon-pale grn	
				SS, wh-lt gr, qtz, fn gr, well sorted, sub ang, mica, clay fill por, slow cut, no free oil, fair odor, brt flour	
	3200			LS, wh-crm, arenaceous, soft & chrt, wh-tn	Miss 3198 (-2060)
				LS, wh-crm, arenaceous, soft & chrt, wh-tn, faint odor, sm flour, sm moderate cut, no free oil	
				LS, wh-tn, arenaceous, soft & chrt, wh-tn, good odor, flour, moderate strm cut, stn, no free oil	
				LS, wh-tn, arenaceous, soft, trc chrt, wh, no odor	
	3250			LS, tn-lt brn, mxln-fxln, hd dns, chert, tn	
				LS, gr-dkgr, mxln-xln, hd dns, chert, dk gr	
	3300			TD 3,300'	
	3350				