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Independent Petroleum Geologist

GEOLOGIST'S REPORT

Drill Time & Sample Log

LEASE 2 LOCATION 2 FIELD U SECT. 6 T	QUAIL OIL & GAS, LC SWD SLY 1,155' FSL & 335' FEL JINKNOWN COWNSHI 17S MORRIS	RANGE STATE	6E KS		API 15-127-20597-0000 ALT. ID ELEVATIONS KB 1,403 GL 1,399 START SAMPLE REPORT 1,400' END SAMPLE REPORT 2,750'
CONTRACTOR		., RIG #2 COMP LTD	11/30/16		CASING SURFACE 287' 8 5/8", 28#, set @ 286' PRODUCTION
FORMATION TO	OPS	LOG	SAMPLE		CHRONOLOGY
LANSING STARK BASE KANS MISS CHEF MISS LIME KINDERHO HUNTON MAQUOKE VIOLA SIMPSON ARBUCKLI	SAS CITY RT E DOK		1,756 1,848 1,908 2,067 2,104 2,135 2,302 2,443 2,507 2,590 2,681	(-173) (-445) (-505) (-664) (-701) (-732) (-899) (-1040) (-1104) (-1187) (-1287)	SPUD 11/18/2016 set surface, shut down for Thanksgiving 11/28, resume drlg 11/29, drlg 1,747' 11/30, drlg 2,567' 11\30 TD 2,750

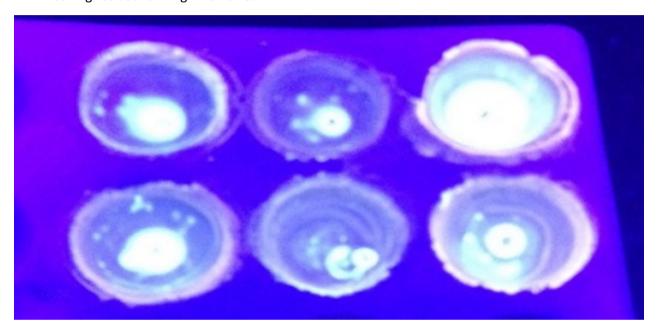
REMARKS	
The only shows of oil encountered in this well were in the Miss Chert.	

DST CHARTS

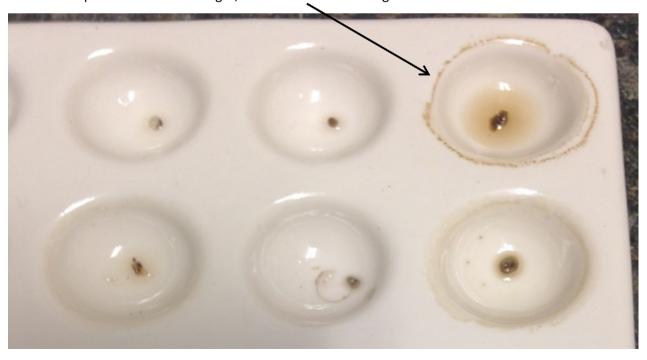
NONE

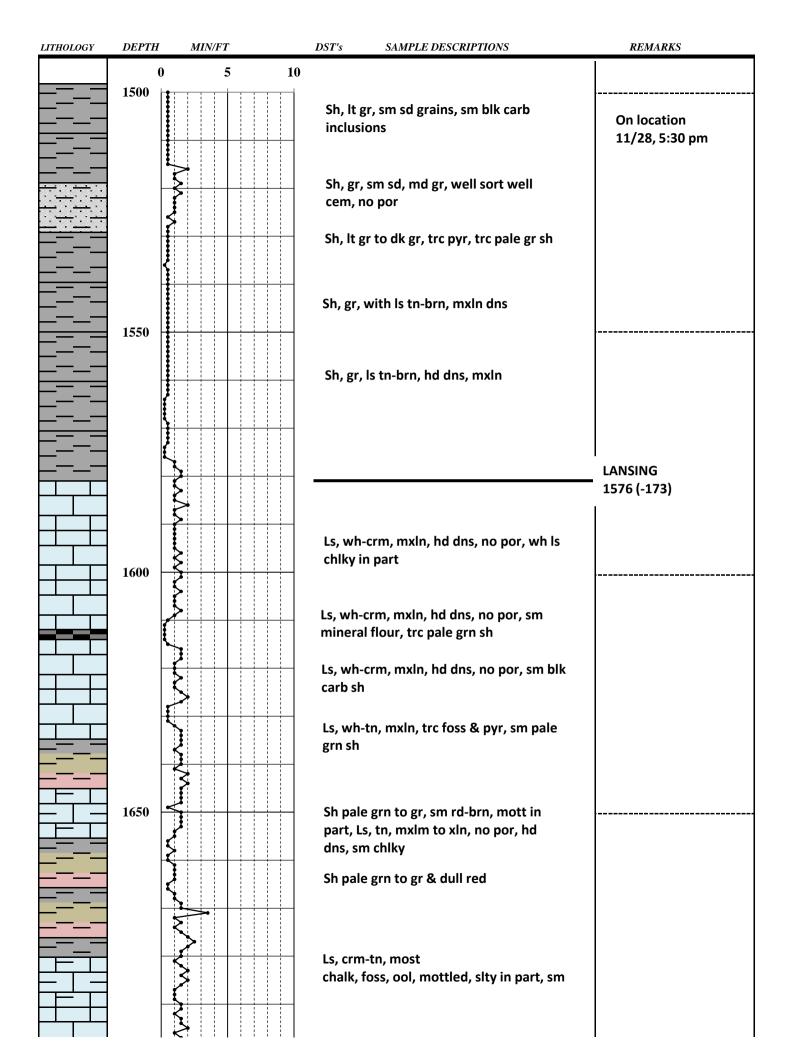
Oil flourcence from top 10' of the Miss Chert sample from 2,070'-2,080'

Immediate streaming cuts (using oil solvent) from the Miss Chert porosity leaving residual oil ring when dried.



Same photo under normal light, note brown residual ring of oil

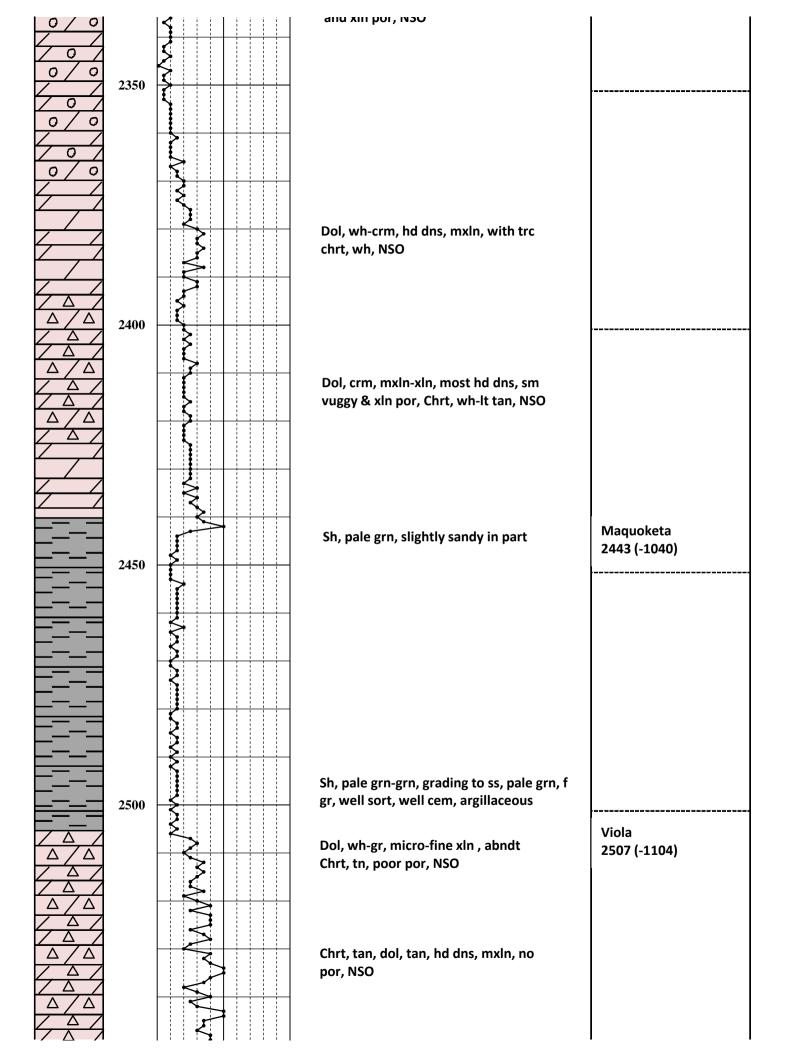




	1700		Ls, tn-gr, foss, mxln-fxln, sm dull grn-	
		3	gr, sh, trc pyr	
		\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Ls, tn-gr, mxln, dns, sm foss,	
		2	25, 61 61, 11,411, 4115, 5111 1055,	
		\$	Ls, tn-gr to crm, mxln, dns, sm pale grn	
	1750		sh	
	1750			
			Ls, tn, mxln, hd, trc ool, with pale grn	
0 0			sh, pyr	11/29, 8:00 am
		\$	Sh, gr-blk, mott, with sm Ls, crm, foss	
		\$	chlky	
			Ls, wh-crm, soft chlky, ool to foss	
	1800			
			Ls, tn-gr, mxln to fxln, foss with chert tn	
		,	Ls, wh-crm, mxln, hd dns, no por	
		\$	Ls, tn, hd dns with sm Sh, gr-dk gr	
		\$	Ls, gr, fxln, grading to dirty Ls, gr with Sh, gr	CTARK
	1850		Sh, blk, carb, Sh, gr, abndt pyr	STARK 1848 (-445)
			Ls, crm-tn, mxln, hd dns, trc Chrt, wh, no por, NS, with Sh, gr-grn	
		3	Sh, blk, carb, Sh, gr, sm pyr	
			Ls, tn, mxln to chlky, trc foss, soft	
			Ls, tn,mxln, hd dns, no por	
	1900		Ls, crm-tn, fxln, v foss, ool in prt, soft to chlky, NS	BASE KANSAS CITY
			Sh, dk gr-blk	1908 (-505)

			Sh, vari-color, gr-grn-tn, pyr	
			Sh, pale grn, to sandy sh with wh Is cem, no por, NS	
	1950		Sh, gr with carb inclusions, sandy in part, abndt pyr, np por, NS	,
_			Sh, dk gr-blk	
			Ls, tn-gr, argillaceous, foss in part	
		?	Ls, It gr, hd dns, mxln, grading to mottled gr argillaceous Ls	
			Ls, lt gr to dull yellow mottled, hd dns, mxln with Sh, gr	
	2000		Sh, vari colored gr-maroon, with Ls, tn, sm foss , hd dns, fxln	
	2000		Sh, vari colored gr-maroon-dull yellow	
			Sh, vari colored gr-maroon-dull yellow, abndt pyr, with Ls, tn, mxln grading to argillaceous	
			Sh, blk, carb Ls, tn, mxln, hd dns	
	2050		Sh, gr-brn-pale grn-blk Ls, tn-brn, mxln, hd dns, trc foss	
			Sh, brn-pale grn	
		S	Sh, blu-grn, trc chrt, wh-dull yellow, NSO	
Δ Δ Δ Δ			Chrt, wh, tripolitic, F-GSFO, scatt flour, f- g odor, immed strm cut, good halo ring, 10% with oil sat por in weathered chert por, 25% with dk brn oil droplets	Miss Chert 2067 (-664)
	2100		Chrt, wh, slight SFO, no odor, poor scattered flour	
			Ls, wh-crm, mxln to fxln, hd dns, no por, NSO	Miss Lime 2104 (-701)

	2150	Sh, pale grn-maroon-gr Sh, gr, with very slty Sd, gr, pyr	Kinderhook 2135 (-732)
	2200	Sh, gr, with very slty Sd, gr, abndt pyr Sh, gr-maroon, mottled, with v slty Sd, gr, abdnt pyr Sh, gr, abndt pyr	
	2250	Sh, gr-maroon with v slty Sd, gr, well cem, abdnt pyr Sh, orng-dull yellow-red, sm mottled Sh, red-brn	
	2300	Sh, lt brn, mottled Dol, lt gr-wh, mxln-xln, sm rhombic vugs, hd dns, sm por, trc pyr, NSO, No odor, brite mineral flour	Hunton 2302 (-899)
0/0		Dol, It gr, hd, abndt pyr overgrowth, vugs	



Δ/Δ	2550			
/		\$		
Δ / Δ				
4/4		5	Ls, crm-buff, xln, no por, NSO	
		3		
				Simpson
	2600		Ss, brn, f-m gr, qtz, well sort, su-ang to rounded, clean, well cem with Is, NSO	2590 (-1187)
	2600	7		
			Ss, clear, qtz, course gr, fair por, well sorted, well rounded, frosted, ls	
			cem, NSO	
		<u> </u>	Ss, clear, qtz, course gr, v good por, well	
			sorted, well rounded, frosted, NSO	
			Ss, clear, qtz, med gr, well sort, well cem, ls,	
	2650		Ss, clear, qtz, course gr, v good por, well	<u></u>
			sorted, well rounded, frosted, NSO	
			Ss, clear, qtz, f-c gr, poor por, poorly sorted, well rounded, frosted, NSO	
		5	Sh, br & pale gr	
				Arbuckle 2681 (-1278)
Δ / Δ			Dol, gr-brn, mxln, hd dns, sm Chrt, wh, NSO	
Δ/Δ	2700	5	Dol, gr-tn, fxln to sucrosic, trc xvln	
0/0			vugs, p-f por, with Chrt clr-wh, NSO	
			Dol, gr-tn, xln to sucrosic, trc xvln	
0/0		\$	vugs, good inter-xln por, with Chrt clr- wh, NSO	
Δ/Δ				
Δ / Δ		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Dol, crm, xln to sucrosic, good inter-xln	
			por, with Chrt clr-wh, NSO	
	2750	3		TD 2,750'
				11/30/2016