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GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY: Executive Oil Inc.
LEASE: J. Fox
FIELD: Wildcat
LOCATION: 2310 FSL & 2310 FEL
SEC. 34 TWP. 32S RGE. 34W
COUNTY: Pratt STATE: Mo.
CONTRACTOR: Layne Western
SPUD: 2-2-84 COMPL.: 2-8-84
R.T. 8.5 (A) 8.5 (B) TYPE MUD: Gel Chem
MUD UP: 6,000'

ELEVATIONS: K.B. 1034 D.F. G.L. 1030
Measurements from K.B.
Total Depth: 6,000'

FORMATION TOPS & STRUCTURAL POSITION

FORMATION	SAMPLE	ELEVATION	STRUCTURAL POSITION
N. Mbar	354		
Bethany Falls	392		
Hertha	430		
Mbr. Fals	464		
Swope	512		
Hepler	521		
Marmaton	560		
Squirrel Sand	700		
"A"	814		
Cherokee	834		
Mississippian	880		

REMARKS: Hole was air drilled. Mud used to condition hole for logging. Plugging is recommended.

RECOMMENDATIONS AND REMARKS

FORMATION	PERFORATE INTERVAL	LOG ANALYSIS % POR. % SW.	TREATMENT & REMARKS
Channel Sands at 814' and 840' have good shows in sample but calculate tight and wet.		See report of log analysis by Midwest Surveys.	No completion.

LEGEND
Anhydrite, Salt, Sandstone, Shale, Carb. Sh., Limestone, Dol. Lime, Chert, Dolomite

SCALE 1"=100'

DEPTH	LITHOLOGY	DRILLING TIME - Minutes Per Foot (Rate of Penetration Decreases ↓) 5" 10" 15" 20"	SAMPLE DESCRIPTIONS	REMARKS
0			Soil, sand and clay	Drilling Time not available
			Soil, sand and clay	10-foot spls 0-440 ft
			Soil, sand and clay	
			Ss, vfg, v silty, clayey	Sample quality very good
			Sh, vf m-b, silty, v ferrug, pyr & carb, fr blky	
			carb. lgt pink? frags	
			Sd as ab, w/ sh, brn, carb	
			Ss, as ab, incr brn, carb Sh	
			Ss as ab	
			Ss, as ab	base of Tonganoxie 6" csg @ 81'
			Ls, m to c xln, m gry	
100			Sh, m gry, Fissile	
			Ls, vf xln, white, hard, dns	
			Ls, m xln, v lt gry hd, dns, and Sh	
			Ls, lt brn, fos frag	
			Ls, lt grey m xln, sli sdy	
			Ls, lt brn-gry, matrix w/ fos. incl crinoids	
			Sh, lt gry, silty, Tr green Sh	
			Sh, lt gry, carb, silty	
			Sh as ab	
			Ls, lt brn, crinoidal, algal Tr vfg Ss	
200			Ss, lt gry, silty, carb	
			Sh, as ab	
			Sh, as ab	
			Sh, as ab	
			Ls, lt brn, f xln, skeletal, dns	
			Ls, as ab and	
			Sh, lt gry, silty, carb	
			Ls, lt gry-brn, brachiopods	
			Sh, m gry, carb, clayey	
			Ls, lt gry-brn, mach algae	
			Sh and Ls as ab and black Sh	
			Ls, m xln, skel, v lt tan, dense	
			Ls, as ab	
300			Sh, lt-m gry, sticky Tr Ls, lt gry	
			Ls, f xln, wh, dense	
			Sh, green-gry	
			Ls, wh to pale tan, algal, skeletal, f xln	
			Sh, m gray, hd, silty	
			Sh as ab w/ Tr Fos dk gry Ls	
			Sh, m gry, carb, sticky	
			Sh as ab, and Ls, hard, f grain, Tan	
			Ls, wh, dns, f xln	
			Ls as ab	
			Sh black	
			Ls, wh, dense, clean, vf xln	Bethany Falls 392'
400			Ls, as ab	
			Sh, dk gry	
			Ls, lt brn, some wh,	424'
			Sh, lt gry, sticky	Base of Hertha
			Sh, m gry, pr, carb	
			Sh, m lt gry, sli carb	Begin 5-ft Spls at 440'
			Siltstone, shly, gry, v sli floor	Knobtown 430'
			Same, more Sh	
			Sh, m lt gry, v clayey	
			Sh as ab	
			Sh, as ab	
			lt Ss, fg, gry	
			Sh m lt gry, silty, carb	
			Sh, m lt gry, v silty, carb, pyr Tr red Sh	
500			Sh, as ab	
			Sh, as ab	
			Sh, soft gry, sli green, less silty	
			Sh, carb, fg, sli floor, silty, clay	
			Sh gry, sli floor, silty, clay	
			Sh, mostly red, Tr green, sticky	
			Sh, as ab	
			Sh, red and pale green	
			Ls, hd, cherty, red and gray	Marmaton Gr 542'
			Siltstone, sdy shly, v sfg, carb, gry and green w/ green Sh	
			Ss, vfg, silty, lt gry carb	
			Sh, v silty, lt-m gry, sticky	
			Sh, v silty, sli sdy, m gry	
			Ls, m gry	
			Sh, v silty, sli sdy, m gry	
			Sh, m gry, silty	
			Ss, m gry, silty, hard	
600			Sh, lt gry, carb, v clayey	
			Ls, lt brn-gry, f xln, hd, dns	
			Ss, m gry, v silty, v clayey, brown Fos ml, v gd floor	Hepler (?) 521' ●
			Sh, m gry, sli silty	
			sh, dk gry, sli silty	
"A" zone			Sh, m gry, v sfg, v clayey, lgt green Sh, v gd floor, v gd floor, frag oil	Squirrel Sd. Flor Logs show very low porosities ●
			Sh, m gr-gry, spot oily, less clay	
			Sh, sdy, silty, sli oil, gd floor	
			Ls, lt gry, f xln, silty	
			Sh, m gry, clayey	
			Sh, dk gry, v pr	
			Ls, lt brn-gry, f xln, silty, w/ sh Sh	
			Sh, blk, hd	
			Sh, lt gry, lt Ls, gry fine xln, hd	
			Sh, silty, lt gry hd, lt Ls as ab	
			Ls and Sh as ab	Marmaton ↑ Base of Fort Scott — Cherokee ↓
			Coal	
			Sh, m gry, carb, sticky	
700			Ss, fg, silty and Siltstone, carb sl floor, no oil	Squirrel Sand Top
			Siltstone, sdy, carb, sdy, pr	
			Ss, vfg, v silty, clayey, lt gry, sl oil	
			Sh, v silty, carb, m gry	
			Trace Ss, fg	
			Sh, m gry, v silty, sdy, pr, carb, Tr coal, w/ Pteridophyl, etc	
			Sh, as ab	
			Sh as ab, less carb	
			Sh as ab Tr Ss, fg, v silty clayey	
			Sh, as ab less silty, slicker	
			Sh and Tr Coal	
			Ls m gry hd dense	Ardmore Ls
			Sh, v silty, carb, m gry	
			Sh, v silty, carb, lt gry, hd	
			Sh, silty, carb, lt gry-green Sh, lt gry	
			Sh, silty, carb, m gry, hd	
			Sh, as ab, v fg	
800			Sh, silty, carb, lt-m gry, clayey	Spls end 800 TD Drlr 804