Chris Peters

PETROLEUM GEOLOGIST

GEOLOGICAL WELL REPORT

GEOLOGY, ENGINEERING, PROJECT MANAGEMENT

OPERATOR	HARTMAN OIL CO. INC
LEASE	H-M UNIT #1-31
LOCATION	2574' FNL & 1665' FWL
SEC. 31	TWP. 18S RGE. 23W
FIELD Wildcat	STATE Kansas
API 15-203-20117	

ELEVATIONS	
KB	3191
GL	3181

Contractor: Abercrombie RTD Drilling

Spud: 10/10/2007 Comp: 10/20/2007

Total Depth: 4815 (-1622) Logs: Dual Induction, Density, Neutron, Sonic, Microlog

Casing: 8 5/8 @ 361'

Production: Dry & Abandoned

DRILLING TIME ELEVATION: 3190 ft. (+1)

SAMPLE ELEVATION: 3190 ft. (+1)

CORRELATION ELEVATION: 3190 ft. (+1)

CONTRACTOR: Southwind		RIG NO. 1	
MUD TYPE: Chemical gel		MUD WT: 9.2-9.4	
MUD ENGINEER: Mike Pickerill			
PUMPS: #1 Emsco D-365		#2 Emsco D-365	
SPM: 60		60	
SPM: 60		60	
PRESSURE: 1000		1000	
PRESSURE: 1000		1000	
PUMP SIZE: 6 1/2 x 14		6 1/2 x 14	
PUMP SIZE: 6 1/2 x 14		6 1/2 x 14	
PUMPS RUNNING: Both			
PUMPS RUNNING: Both			
SAMPLE CATCHER: Mike Pickerill			
SAMPLE CATCHER: Mike Pickerill			

TOP	DATUM	TOP	DATUM
Lansing	3190	Marmaton	3190
Kansas City	3190	Cherokee	3190
Pawnee	3190	Mississippian	3190
Fort Scott	3190		

ELECTRICAL SURVEYS:

Dual Induction

Density/Neutron

Sonic

Microlog

Contractor

Engineer: Mike Pickerill

Geologist: Chris Peters

DATE	7:00 AM DEPTH	REMARKS

LITH.	DRILL TIME (MIN/FT)	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
		3800	Sh, red	
			Ls, crm-gry, fx-sk, fels, pr wt port por, shky, no	
		3850	Ls, gry-maroon	
			Ls, gry-crm, fels, pr wt port porosity, shty, no	
			Sh, gry-maroon	
			Ls, crm-tan, fx-sk, fels, pr wt fels-port porosity	
		3900	Ls, crm-tan, sol-fels, pr wt port porosity, no	
			Ls, no, sh mott, barren	
			Sh, blk, carb	
		3950	Ls, tan, fx-sk, fels-sol, pr wt port porosity, no	
			Sh, maroon-gm-gry	
			Ls, cream-wt, fx-sk, sol, pr wt sol-port porosity, shty, wht, no	
			Ls, gry-tan, micro-sk, fels, pr wt port porosity, no	
		4000	Sh, blk, carb	
			Ls, wht-crm, fels-sol, mostly pr wt port porosity, few pcs fr wt port porosity, strofls, few pcs vuggy porosity, mottled fnbs, gassy, no odor, dull pl fluor, lt bun blk stn	DST #1 (4810-4840) TORONTO Open: surface blow built to 1.5" on bb 2nd Open: surface blow built to 1.5" on bb REC: 120 ft. Muddy Water, w/oil specs IFP: 24-40#/45" FSIP: 1070#/30" FFP: 40-60#/45" FSIP: 1047#/45"
			Sh, gry, maroon	
		4050	Ls, cream-wt, fels-sol, pr wt port porosity, shty,	
			Ls, gry, fx-sk, v fels, pr wt port porosity, dolomitic, no	
			Sh, blk, carb	HEEBNER 4030 (-839) EL
			Ls, wht, sol, p-r fr wt sol-porosity, p-r fnbs bry bun oil, p-r fr odor on bk, gassy, sat-sub sat dk bun stn, no fluor	TORONTO 4024 (-833) EL
		4100	Ls, crm, fx-sk, bxx, no vis porosity, no	
			Ls, wht-lt gry, very fels-sol, p-r fr pcs porosity w/sol vuggs, sp dk bun fn, pungent odor, no fluor, stat dk bun blk stn	LANSING 4057 (-866) EL
			Ls, wht, sh fels, mostly pr wt port porosity w/sol fr wt port porosity, scattered vuggs, mostly blocky, no odor	
			Ls, crm, fx-med sk, dolomitic, pr wt vis porosity, barren, no	
			Sh, gry-gm-maroon	
		4150	Ls, wht, sol-fels, sm-lg vuggs, p-r fr wt sol porosity, pr wt vuggs, sh fr fn fn on bk, gassy fr odor, no fluor, stat dk bun stn	DST #2 (4886-4936) LANSING "C" 1st Open: Bottom of the basket in 2", no bb 2nd Open: Bottom of the basket in 2", no bb REC: 1332 ft. sh Mud not Water IFP: 106-464#/30" ISIP: 1016#/30" FFP: 497-734#/30" FSIP: 1016#/30"
			Ls, wht-crm, fx-sk, pr wt fels porosity, sh fels, barren	
			Ls, crm, fx-med sk, dolomitic, barren	
			Sh, gm-maroon	
		4200	Ls, crm-lt gry, pr wt port porosity, no	
			Sh, blk, carb	
			Ls, crm, micro-sk, p-r pcs vuggs porosity, sm fluffy edge stn, soft, fst odor, v rare fr spot st	
		4250	Ls, wht-lt gry, sol-fels, abund nodrls strls, fr wt vis port porosity w/some lg vuggs, f-vgd stn, fr odor, dull pl fluor	DST #3 (4926-4978) LANSING "H" 1st Open: Bottom of basket in 8 min, no bb 2nd Open: Bottom of basket in 8 min, no bb REC: 192 ft. sh mud not Water IFP: 69-254#/30" ISIP: 1738#/30" FFP: 275-458#/30" FSIP: 1738#/30"
			Sh, blk, carb	
			Sh, maroon-gry-gm	
		4300	Ls, cream-gry, sol-fels, pr wt port porosity w/some vugs, infs, few pcs w/fair stn bk, fr odor, sh gassy odor, mod sub sat stn few pcs wt	DST #4 (4285-4318) LANSING "I" 1st Open: 1/4" built to 8 in., no bb 2nd Open: surface blow built 7 in., no bb Rec: 252 ft. Mud not Water w/ oil specs IFP: 22-66#/30" ISIP: 1238#/45" FFP: 76-125#/45" FSIP: 1240#/45"
			Sh, gm-maroon	STARK 4319 (-1128) EL
			Sh, blk, carb	
			Ls, lt gry-wht, sl-bxx, pr-fr wt port porosity, w/some vugs, infs w/few pcs fr stn, dk bun blk stn, pungent odor, v dk bun-blk stn, sub sat-sat stn	
		4350	Ls, gry, fx-sk, pr ppt porosity, mostly dense, no	
			Sh, blk, carb, f scale	
			Ls, gry-tan, fx-sk, sh fels, mostly doc, shty, gry-wht, spaqu	
		4400	Sh, blk, carb	BASE OF KANSAS CITY 4413 (-1222) EL
			Ls, gry, fx-sk, sh fels, doc, no	
			Ls, crm, fx-sk, sh fels, doc, no	
			Ls, gry-tan, fx-sk, fels-sol, sh mott, doc, no	
		4450	Sh, gm-maroon-gry, silty	
			Ls, tan, fx-sk, fels, pr ppt porosity, sucrs, fst odor, no fluor, stat dk stn	MARMATON 4462 (-1271) EL
			Ls, tan, fx-sk, fels, mostly doc, no	
			Ls, crm, fels, pr ppt porosity, sucrs, fst odor, no fluor, stat dk stn	
			Ls, tan, fx-sk, fels, mostly doc, no	
		4500	Ls, tan, fx-sk, sh fels, pr wt port porosity, sucrs, fst odor, spot bun stn	
			Ls, wht, vry sol, doc matrix, stat pr wt sol porosity, no odor and stn	
			Ls, cream-gry, fels, doc, no	
			Sh, blk, carb	
		4550	Ls, cream-gry, vry sol-fels, pr wt port porosity, sucr bun edge stn, fst odor, rare bun stn, shty	PAWNEE 4551 (-1360) EL
			Sh, blk, carb	
			Ls, gry-tan, fels, mott, no vis porosity, shaly, no	
		4600	Sh, blk, carb	FORT SCOTT 4600 (-1409) EL
			Ls, gry-crm, mott, fels, pr wt port porosity, sucr, vry fst odor	
			Ls, cream-gry, micro-sk, doc, no	
			Sh, blk, carb	CHEROKEE 4628 (-1437) EL
			Sh, maroon-gm	
		4650	Ls, cream-gry, fx-sk, bxx, no	
			Sh, gm-gry	
			Ls, gry, fx-sk, sh fels, doc, no	
			Ls, AA, no	
			Ls, cream-gry, fx-sk-micro-xlnrsm, fels-sol, pr wt sh porosity w/some vugs, infs, vry fst odor, no fluor, abund gry dnt, spot bun stn few pcs wt in fbs, dull ppt	JOHNSON ZN 4687 (-1496) EL
		4700	Sh, maroon-gm	
			Ls, gry-tan, micro-sk, mot, shaly, no vis porosity, no	
			Ls, AA, doc, no	
		4750	Ls, gry-tan, fx-sk, sh fels, doc, no	
			Ls, dk gry-tan, mott, doc, no	
			Ls, AA-no vis porosity, no	
			Sh, dk gry-gm, maroon	
			Sh, gm, silty, pyritic	
		4800	Sand, wht-lt gry, fx-med gm, clustrm, mod well sort, pyritic, sh silty, fr wt gm porosity, no	
			Sand, AA, vry pyritic, bmy matrix, pr-fr wt gm porosity, no	
			Ls, crm, fx-sk, p-r ppt porosity, sm fishey stn, sufu, fst odor, nofl	MISSISSIPPIAN 4813 (-1622) EL

Remarks and Recommendations.