

Geological Report

KCC
JUL 27 2006
CONFIDENTIAL

Harris #1-16

1650 FSL, 9909 FEL
Section 16-T16S-R25E
Miami Co., Kansas
API#15-121-28195
Elevation: 1015' GL
Drilling Contractor: Glaze Drilling (Lic. #5885)
Spud: 06-08-06
Production Bore Hole: 9 1/2"
Rotary Total Depth: 543' on 06-22-06
Drilling Fluid: air
Production Csg.: 4 1/2"
Geologist: Meredith Pearce

<u>Formation</u>	<u>Driller Log Tops</u>	<u>Datum</u>
Stark Shale	No call	
Hushpuckney Shale	169'	846'
Base Kansas City	184'	831'
Knobtown Sand	No call	
Carbonaceous Zone in Tacket Fm.	No call	
"Big Lake" Sand	No call	
South Mound Zone	347'	668'
Hepler (Wayside) Sand	No call	
"Upper" Mulberry Zone	No call	
Mulberry Zone	No call	
Weiser Sand	401'	614'
Myrick Station	418'	597'
Anna Shale (Lexington Coal Zone)	424'	591'
Peru Sand	No call	
Summit Shale Zone	468'	547'
Mulky Coal/Shale Zone	488'	527'
Squirrel Sand	No call	
Rotary Total Depth	543'	

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Drilling @167' in Kansas City at 2pm on 06-09-06
Background Gas (BG) 10 units

HUSHPUCKNEY SHALE called @169-170', gas kick to 11 units, 1 over BG
****GAS TEST @192', No Open Flow****

167-177 LS: tan, gy, calcite in fractures - SH: gy, dk gy, TR blk
177-187 LS: tan, gy, calcite - SH: gy
CG @192 33 units, 7 BG
187-197 SH: gy, sandy in places, TR lmy
197-207 SH: gy, sandy in places TR lmy - LS: tan, sandy
Stopped drilling @207'

Resumed drilling at 8am on 06-12-06

207-217 SH: gy, sandy, lmy in places, slight free oil
CG @217 28 units, 26 BG

KNOBTOWN SAND not called, gas kick to 26 units, 1 over BG

217-227 SH: gy, sandy - SS: clr, gy, ang., poor sort, free oil
227-237 SH: gy, silty, sandy in places
CG @242 33 units, 25 BG
237-247 SH: gy, sandy in places, TR pyrite, TR LS: tan
247-257 SH: gy
257-267 SH: gy, sandy in places, TR LS: tan
CG @267 27 units, 25 BG
267-277 SH: gy, silty
277-287 SH: gy, silty
CG @292 30 units, 23 BG
287-297 SH: gy, lmy in places, TR sandy, TR coal w/free gas
297-307 SH: gy, lmy in places, TR sandy
307-317 SH: gy, lmy in places, sandy in places, TR LS: brn
CG @317 24 units, 22 BG
317-327 SH: gy, sandy, TR lmy
327-337 SH: gy
CG @342 22 units, 21 BG
337-347 SH: gy, dk gy, TR blk

SOUTH MOUND ZONE called @347-350', gas kick to 20 units, 2 over BG

****GAS TEST @350', No Open Flow****

347-357 SH: gy, dk gy, blk, TR coaly, TR pyrite, slight free gas
357-367 SH: gy, sandy, TR blk w/very slight free gas
CG @367 38 units, 20 BG
367-377 SH: gy, grn, TR blk - LS: tan to brn, calcite in fractures
377-387 LS: tan to brn, calcite - SH: gy
CG @392 39 units, 23 BG
387-397 LS: brn, tan, calcite, fossils - SH: gy

WEISER SAND called @401', gas kick to 35 units, 11 over BG

397-407 LS: brn, tan, calcite - SH: gy, sandy - SS: clr, gy, brn, TR pyrite,
ang., poor sort, free oil, strong odor
407-417 SH: gy, silty

LEXINGTON COAL ZONE called @424', kick to 1145 units, 1113 over BG

****GAS TEST @425', 38 MCF****

417-425 LS: dk brn, brn, calcite - SH: gy, blk w/free gas, TR pyrite
Stopped drilling @425' to cement casing

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Resumed drilling at 10am on 06-21-06

****MORNING GAS TEST @458', Too Small to Measure****

SUMMIT SHALE ZONE called @468-470', No kick, water in pipe

****GAS TEST @478', Increase to 16 MCF Total****

458-468 LS: gy, brn, calcite, TR fossils, TR pyrite - SH: gy, dk gy

468-478 SH: gy, dk gy, blk w/slight free gas - LS: brn, calcite

478-488 SH: gy, lmy in places, TR blk

MULKY COAL/SHALE ZONE called @488-492', No kick, water in pipe

****GAS TEST @498', Test Unsuccessful****

Stripper head does not seal, Gas flowing out around diverter

488-498 SH: gy, blk w/free gas, coaly, pyritic - LS: tan, shly

498-503 SH: gy, sandy, pyritic, dk gy, TR blk, TR LS: tan

****GAS TEST @503', Test Unsuccessful****

Stopped @503' at 6:30pm

Resumed drilling at 7:30am on 06-22-06

503-513 SH: gy, lmy in places - SS: clr, brn, micaceous, TR pyrite, TR cal,
angular, poorly sorted - LS: tan, gy

SQUIRREL SAND not called, no kick, water in pipe

513-523 SS: clr, brn, micaceous, pyritic in part, TR shly, TR LS: gy, ang., poor
sort, slight oil odor

523-533 SS: aa - SH: gy, sandy - LS: gy

533-543 SS: aa - SH: gy

Total Rotary Depth: 543' on 06-22-06

****GAS TEST @543', 239 MCF Total****

Brief Summary

Stark	No open flow
Hushpuckney	No open flow
South Mound	No open flow
Lexington	38 MCF
Summit	16 MCF
Mulky/Squirrel	223 MCF
Total	239 MCF

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