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Geologist Report

H. McDaniel C #3  
APX. W/2 SW Sec. 28-T31S-R15E  
Montgomery County, Kansas  
API# 15-125-30270

Operator: Jones Gas Corporation. #32654

Contractor: Well Refined Drilling Company, Inc. #33072

Commenced: 05-05-03

Completed: 05-07-03

Surface Casing: 8 5/8"

Production Casing: 4 1/2"

Ground Level Elevation: 974'

Formation Log Tops  
(Open Hole)

Lenapah	663 +311
Altamont	706 +268
Pawnee	851 +123
Lexington Shale	872 +102
Oswego	938 +36
Summit Shale	970 +4
Mulky Shale	995 -21
Croweburg	1043 -69
Bartlesville Sand	1249 -275
Riverton Coal	1324 -350
Mississippi	1355 -381
R.T.D.	1403 -429

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Depths

Sample Descriptions

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700 - 706 Shale - gray, green, dark gray.

Altamont 706 (+268)

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706 - 717 Limestone - light brown, fine crystalline, fossiliferous, dense, fair odor, good stain, fair show free oil, gas bubbles, scattered poor intercrystalline porosity.

717 - 720 Shale - black carbonaceous, trace pyrite, popping gas.

720 - 732 Limestone - light brown, fine crystalline, fossiliferous, dense, mottled with gray green shale, no show, no visible porosity.

732 - 771 Shale - gray to medium gray, green, some calcareous, sandy, some dark gray mealy.

771 - 828 Sandstone - light gray to gray, fine grain, micaceous, argillaceous, some scattered carbonaceous material, no shows, poor porosity.

828- 843 Shale - gray, medium gray, some sandy, trace sandstone.

Mulberry Coal 843 (+131)

843 - 844 Coal - popping gas.

844 - 851 Shale - gray, medium gray.

Pawnee 851 (+123)

851 - 872 Limestone - light brown to brown, fine crystalline, fossils, dense, some cherty, no show, no visible porosity, 869 - 871 shale, black carbonaceous, gassy odor, popping gas.

Lexington Shale 872' (+102)

872 - 878 Shale - black, carbonaceous, popping gas, smells gassy.

Open flow test @ 883' 3 inches on 3/8" choke 6.18 mcfg.

878 - 897 Sandstone - brown, light brown, fine grain, argillaceous in part, micaceous, good odor, good dark stain, good show free oil, gas bubbles, fair porosity.

897 - 938 Shale - gray, medium gray, some sandy, laminated.

Oswego 938 (+36)

938 - 970 Limestone - light brown, dark brown, gray, fine crystalline, few fossils, dense, slightly cherty, @ bottom faint odor, scattered brown stain, slight show free oil, few gas bubbles, scattered poor intercrystalline porosity, with shale, dark gray 940 - 944.

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Summit Shale 970 (+4)

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970 - 976 Shale - black, carbonaceous, slightly popping gas.

Open flow test @ 983' 3 inches on 3/8" 6.18 mcfg no increase.

976 - 995 Limestone - dark gray, brown, gray, fine crystalline, dense, fossiliferous, chalky, trace with light brown stain, faint odor, scattered light stain, slight show free oil, gas bubbles, poor porosity.

Mulky Shale 995 (-21)

995 - 1001 Shale - black, carbonaceous, dark gray, with 1'+ coal @ bottom, fair show gas.

1001 - 1005 Limestone - brown, light brown, fine crystalline, fossiliferous, dense, no show, no visible porosity.

Open flow test @ 1003' 8 inches on 3/8" 10.7 mcfg (4.52 mcfg increase).

Shut down over night.

Found water took 340# to unload.

1005 - 1021 Shale - dark gray, gray.

Bevier Coal 1021' (-47)

1021 - 1022 Coal - pyrite, good show gas popping bubbles.

Open flow test @ 1023' weak blow TSTM.

1022 - 1040 Shale - dark gray, gray, sandy.

Ardmore 1040' (-66)

1040 - 1043 Limestone - brown, fine crystalline, dense, no show, no visible porosity.

Croweburg Shale 1043 (-69)

1043 - 1047 Shale - black, carbonaceous, 1' coal, dark gray.

Open flow test @ 1043' weak blow TSTM.

1047 - 1084 Shale - gray, dark gray, sandy, with interbedded sandstone, light gray, fine grain, calcareous, argillaceous, no show, no visible porosity.

1084 - 1087 Coal - popping gas.

Open flow test @ 1083' weak blow TSTM.

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- 1087 - 1095 Shale - gray, medium gray, some very sandy.  
1095 - 1106 Sandstone - brown, fine grain, micaceous, faint odor, scattered dark stain, trace free oil, poor porosity.  
1106 - 1109 Shale - gray.  
1109 - 1120 Sandstone - dark brown to gray, fine grain, argillaceous, faint odor, brown stain, trace free oil, poor porosity.  
1120 - 1127 Shale - gray, green, some sandy.  
1127 - 1137 Sandstone- as above.  
1137 - 1147 Shale - gray, medium gray, some sandy.

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Coal 1147' (-173)

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- 1147 - 1151 Coal - very few gas bubbles.  
1151 - 1166 Shale - gray to dark gray.

Open flow test @ 1163' weak blow TSTM.

- 1166 - 1174 Shale - dark gray to black, some carbonaceous, popping gas.  
1174 - 1195 Shale - gray, light gray with, sandstone - light brown, fine grain, black stain, slight show free oil, poor porosity.  
1195 - 1197 Coal - fair show gas bubbles.

Open flow test @ 1203' weak blow TSTM.

- 1197 - 1249 Shale - gray, dark gray, sandy.

Bartlesville Sand 1249' (-275)

- 1249 - 1272 Sandstone - brown fine grain, micaceous, abundant pyrite at bottom, fair to good odor, even stain, fair show free oil, gas bubbles, good fluorescence, fair to good porosity.

Open flow test @ 1263' 1 3/4 inches on 1 1/2" choke 505 mcfg.

- 1272 - 1278 Shale - gray, dark gray.  
1278 - 1294 Sandstone - white, light gray, fine grain, trace micaceous, black laminations, popping gas, fair to good porosity.

Open flow test @ 1283' 1 inch on 1 1/2" choke 371 mcfg (134 mcfg decrease).

- 1294 - 1300 Shale - dark gray  
1300 - 1300 Sandstone - as above.  
1300 - 1324 Shale - dark gray, gray.

Riverton Coal 1324' (-350)

- 1324 - 1328 Coal - good show gas.

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Open flow test @ 1323' 4 inches on 1 1/4" choke 480 mcfg (109 mcfg increase).

1328 - 1355 Shale - gray, dark gray.

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Mississippi 1355 (-381)

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1355 - 1364 Limestone - dark brown, fine crystalline, dense, cherty, faint odor, scattered dark stain, slight show free oil, few gas bubbles, scattered porosity.

Open flow test @ 1363' 3 inches on 1 1/4" choke 411 mcfg (69 mcfg decrease).

1364 - 1380 Chert - white, opaque, faint odor, slight show free oil, poor porosity.

1380 - 1403 Dolomite - dark brown, brown, fine crystalline, dense, no show, no visible porosity, with fresh chert, gray, blue, dark gray, banded, no show.

R.T.D. 1403'

Because of the gas show in the Bartlesville Sand, Riverton Coal, Mulky and Lexington Coal the decision was made to run casing and further test the shows through perforations.

Respectfully Submitted,



William M. Stout  
Geologist

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