"COPY"

WELL NO. 0081

B. C. Fugate #3
Fitch, et al
Lee County, Virginia
(Samples examined by Louise B. Freeman)

75-88 - Gray sandy and shaly sand.

88-108 - Some sand is quartzitic, some greenish and coarse, rare rounded and frosted grains isolated.

108-16 - Less sand, dark greenish gray shale, coarse-grained.

116-28 - Dark gray quartzitic sandstone and shale; trace hematite in tiny gastropods.

128-37 - Trace coarser sand with may heavy minerals.

137-70 - Shale, sandy green and dark red.

170-80 - Dark red shale.

180-85 - Red and green shale

185-245 - Shale, green with trace limestone, fine-grained, greenish and slightly fossiliferous with bryozoans.

256-77 - Shale and limestone as above; some shale red and some limestone is red

277-93 - Same with more limestone than above.

393-16 - As above with some sand, quartzitic and medium grained.

316-21 - Limestone, greenish-brown, fine-grained, argillaceous

321-64 - Limestone, very argillaceous, dark gray-green with some dark red at 359-64

364-400 - Very dark red argillaceous limestone

400-20 - Argillaceous limestone, gray-green; little red.

420-503 - More gray than green; argillaceous and slightly fossilferous limestone

503-14 - Same kind of crystalline to dense fossiliferous limestone interbedded with shaly lime; plus a little slightly calcareous sand.

514-65 - Limestone and shale as above; no sand

565-98 - Very dark gray calcareous and argillaceous sand; and shale.

598-600 - Very dark gray silty shale and more fossils shale; trace ls

608-18 - Very dark gray almost black shale, some slightly silty; limestone, dense and crystalline

618-759 - Shale, very dark gray, almost black; trace ls

759-806 - Limestone, fossiliferous, crystalline, gray, phosphatic; little shale

806-08 - (Well making 4 bbls. of oil); Limestone more brown than gray, finer grained and cleaner than above; fossiliferous

808-810'4" - Limestone, brown, dense, fossiliferous; oil rose in hole 300'/24 h

810-78 - Limestone as above

878-900 - Limestone, fossiliferous, phosphatic, light creamy gray

900-48 - Limestone, dark brown, ostracodal; traces of argillaceous ls

948-1032 - Limestone as above; trace translucent brown chert.

1032-34 - (contained oil) Limestone, tan, almost lithographic, fossiliferous.

1034-37 - Limestone, darker brown to leached and fossiliferous; trace oil stain

1037-44 - Limestone, tan, dense to crystalline fossiliferous

1044-1100 - Limestone, brown, almost lithographic

1100-10 - Limestone little more mottled and crystalline; little dark and shaly

1110-1250 - Limestone, brown, dense to crystalline fossiliferous; little dark green to black shale; less fossiliferous and thus less crystalline below about 1150

1250-1429 - Limestone, some brown dense, fine-grained, some coarsely crystalline fossiliferous and slightly phosphatic; little dark shale streaks.

1429-46 - Limestone, very dark brown, dense with a little more shale than above less crystalline lime.

1446-57 - Limestone, dark brown, fine-grained; some crystalline and phosphatic; some dark gray shale.

1457-91 - Limestone, more crystalline, fossiliferous and phosphatic.

1491-1625 - Limestone more brown and fine-grained than above; little dark shale, with occasional streaks fossiliferous and phosphatic.

1625-31 - Logged show oil, gas and salt water; limestone as above with no obvious porosity.

1631-33 - Limestone, brown crystalline to dense; more shale than above, gray-brown

1633-38 - Same with some brown, shiny bentonitic shale.

1638-64 - Shale, some bentonitic and dark limestone

1664-84 - Shale as above; limestone more crystalline -- seems to be interbedded with shale.

1684-92 - Shale, very dark gray-brown, different from than above

1692-97 - Shale, very dark gray-brown, slightly calcareous; little fossiliferous limestone

1697-1734 - Shale, calcareous as above; more fossiliferous, dark gray limestone occasional fragments of very dark and shiny shale

1734-45- Limestone, tan to gray, mottled, very fossiliferous

1745-73 - Little limestone as above; mainly dark gray shale; occasional streaks of denser limestone with ostracodes.

Mr. Fitch:

All of this looks more like Trenton (of the Tennessee variety--Cannon) than like any part of the Black River. Butts says that the Athens is absent in Lee County where it crops out. The bentonite (pencil cave) at the top of the Black River should be easily recognized in that area, I should think, and if that is so would give us an easily recognizable base for the true Trenton.

LBF