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HISTORY AND GEOLOGY LEADING TO THE DISCOVERY OF THE UTICA/POINT PLEASANT PLAY IN THE APPALACHIAN BASIN

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The Ordovician Utica/Point Pleasant shaley limestone has long been known as the source rock for conventional Trenton, Black River, Copper Ridge, Rose Run and Beekmantown plays throughout the Appalachian and Michigan Basin. It has all of the correct ingredients; TOC, burial depth, porosity, permeability, seal and over-pressuring. The vast majority of the hydrocarbons produced in the "Utica" Play are actually from the Point Pleasant Formation, which is Ohio's terminology for the shelf edge deposits surrounding Trenton Limestone platforms in New York, Ohio, West Virginia, Kentucky, Michigan, surrounding states and Canada.

The Utica/Point Pleasant Shale Play dates back to 1859 when the rock's Michigan Basin equivalent, the Collingwood Shale, was mined and distilled into oil in Craigleith, Ontario. This endeavor was short lived due to the simultaneous discovery of oil in Pennsylvania. In the late 1880's Trenton gas was discovered in New York State along the shore of Lake Ontario. This high-pressure discovery was deemed to be from the Trenton Limestone, however it contained a shaley carbonate source rock, similar to the Point Pleasant.

John Galey drilled the deepest cable tool well in the world in 1944 in Butler County, PA, which had significant shows in the Point Pleasant interval. In more modern times several near-shelf-edge conventional Trenton fields were discovered in West Virginia, New York and Ohio. In 2009 Range Resources drilled the first horizontal Utica Point Pleasant test in the United States, located in Beaver County, PA. The well was deemed to be non-commercial and was not turned into line. The following year Chesapeake drilled their Buell discovery well in Harrison County, Ohio.

All of the old shows plus thousands of Trenton penetrations in the Ohio Knox play contributed to Chesapeake's successful campaign to initiate the "Utica Play" in Harrison and Carroll County, Ohio. Chesapeake paid attention to oilfield history and existing geological data to discover one of the premier unconventional plays in the world!