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### **A Lease Bonus of \$14,375 Per Acre?**

Curtis Talley Jr. Farm Management Educator Michigan State University

Despite crude oil May futures prices near \$46 per barrel, Continental Resources paid \$2.3 million for the rights to lease 160 acres to explore and develop acreage in the Bakken shale formation in North Dakota.<sup>1</sup> This successful bid was at a state of North Dakota lease auction. Continental waited until the last 30 seconds of the auction and then submitted their winning bid. The \$2.3 million is considered the lease bonus payment. Continental already operates a well on nearby land. This land is near the Fort Berthold Indian Reservation which produces nearly a third of North Dakota's oil output. This is an indication that interest is very high when unleased lands become available in that area of the Bakken shale.

Harold Hamm, the chief executive officer of Continental told the Wall Street Journal in February that he projects oil prices will rebound by December. Despite current low prices, he expects his company's production to increase as much as 20% this year. Whiting Petroleum Corporation is the leading producer in the Bakken, followed by Continental. Whiting is also an active participant in the Michigan Oil and Gas industry, particularly Sanilac County.

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<sup>1</sup> Thomson Reuters March 19, 2015 Continental Resources adds to oil acreage at North Dakota auction by Ernest Scheyder

## **Supervisor of Wells Instruction for Oil and Gas Development in High Population Density Areas**

Curtis Talley Farm Business Management educator  
Dean Solomon, Senior Extension Educator

Over the past couple of years there has been lots of news, especially in southeast Michigan, about residents and local leaders who are concerned about impacts of oil and gas development near highly populated areas. State representatives from that part of the state introduced legislation during the 2014 to grant more authority to local governments to regulate oil and gas development through zoning. That legislation failed to gain approval, although similar Acts were again introduced earlier this year.

As a response to these concerns, the Supervisor of Wells has issued Instruction 1-2015. Its goal is to protect the right of mineral owners to harvest their oil and gas, while minimizing potential land use conflicts. Some of the major attributes of this Order are listed below. A link to the complete Order can be found on the Michigan State University Extension Oil and Gas web page [http://msue.anr.msu.edu/program/info/oil\\_and\\_gas](http://msue.anr.msu.edu/program/info/oil_and_gas) in the “Other Resources” category.

### **As stated in the Order, what is a high population density site?**

1. A planned well site within a county with a population of 750,000 or more (only Wayne, Oakland and Macomb Counties meet this criteria)
2. The well location is zoned exclusively residential
3. There are 40 or more structures used for public or private occupancy in any 90 degree quadrant within 1,320 feet of the well location

### **How the Instruction Affects Oil and Gas Drilling Permit Applications**

1. The oil and gas company will provide notice of a drilling permit application to the owners of structures within 1,320 feet of the proposed well location.
2. The Office of Oil, Gas and Minerals will provide notice of the permit application to the supervisor of the township

### **What Will the Oil and Gas Well Permit Application Now include?**

1. At least one groundwater monitoring well shall be installed close to, and down gradient of the well location before drilling
2. An evaluation of feasible and prudent alternatives to the proposed well location
3. Indicate plans and schedules for berming, screening, and/or enclosures to limit public views of wellheads and pump jacks
4. A permittee will communicate with the local fire marshal and emergency responders

5. A permittee shall post an identification sign in a clearly visible place at the entrance to the well location.
6. A permittee shall take necessary measures to prevent nuisance noise associated with drilling operations
7. If the supervisor or authorized representative receives complaints of noise attributed to the drilling operation, the permittee will be required to collect decibel readings to determine sound levels
8. Drill cuttings, muds, fluids shall be contained in tanks and not stored in in-ground pits or disposed at the well location
9. Combustive gas and vapor produced during well completion, testing and production shall be captures or burned in a flare or incinerator
10. Transportation of equipment and supplies to a well site after well completion is limited to between 8:00 am and 8:00 pm

There are other specifics to the Order that were not mentioned here that can be found by reading it in its entirety.

### **Hydraulic Fracturing Integrated Assessment is Useful** **Information for Local Officials**

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Hydraulic fracturing, also known as fracking, is the oil and gas development technique where large volumes of water mixed with sand and chemicals are pumped under high pressure to release deep oil and gas reserves. Although not widely used in Michigan, the method is controversial because of concerns about potential environmental and human health impacts.

Over the past couple of years, in response to resident's concerns, some planning commissions and township boards have been developing local regulations aimed at reducing the potential impacts of hydraulic fracturing in their community. State laws [greatly restrict](#) local government authority to regulate oil and gas development, including fracking, through zoning and other ordinances. Those preemptions are not absolute, although the opportunities for local regulation of oil and gas development and fracking are limited.

Before embarking on local regulation development, it is worthwhile for local officials to understand the state regulatory framework, and state-level policy options. The [University of Michigan Graham Sustainability Institute](#) recently published a draft report - the [Hydraulic Fracturing in Michigan Integrated Assessment](#) – that is an excellent resource for local officials

wishing to better understand the issues and state policy alternatives. (The current version is a draft report and will likely be revised before the final document is published late spring or early summer 2015.)

The [integrated assessment method](#) used by the University of Michigan team explores the environmental, social and economic aspects of real-world sustainability issues (like hydraulic fracturing). The step-by-step approach includes technical research and, importantly, stakeholder input. This specific effort is designed to address the question “*What are the best environmental, economic, social and technological approaches for managing hydraulic fracturing in the State of Michigan?*”

Three major policy categories are covered in the draft report:

- Public participation – ways to incorporate public values in unconventional shale gas development policy, public input approaches in state land leasing, and public participation in the well permitting process.
- Water resources - alternatives for modifying the water withdrawal approval process, and managing wastewater and water quality
- Chemical use – options for the way chemical information is disclosed and communicated, siting and construction requirements, and planning, response and liability policies.

The assessment does not advocate for specific policy options, rather presents information about strengths, weaknesses and outcomes of each. A [series of technical reports](#) published in 2013 provided background information used to develop policy options.

In a contentious township planning commission or township board meeting, where advocates on both sides of the issue are suggesting action, it’s difficult for local officials to make informed decisions under pressure. One option in these situations is for decision makers to pause and seek non-biased information to better evaluate the issues and policy choices, **before** making formal resolutions or regulations. Although the hydraulic fracturing integrated assessment is a bit of a heavy read – over 200 pages - it provides excellent context for planning officials and professional planners as they consider local approaches.

[Michigan State University Extension](#) has additional information about this and other topics on the [oil and gas information page](#).