

Fact Sheet Regarding Drilling Permit for the Savoy Energy, USA and State South Branch 1-8

The Department of Environmental Quality (DEQ) has issued a Permit to Drill and Operate to Savoy Energy, L.P. for the proposed USA & State South Branch 1-8 well (the so-called "Mason Tract Well"). The purpose of the well is to explore for and produce natural gas from the Prairie Du Chien formation at a depth of about 11,000 feet.

The DEQ received the permit application on May 5, 2003. The proposed well is on federal land east of the Mason Tract in Crawford County. The DEQ found the original application to be inadequate and twice returned it to Savoy. Savoy moved the proposed well site and submitted additional information, including plans for enhanced protection of the environment and justification for the drilling location. The DEQ thoroughly evaluated the application in conjunction with the Department of Natural Resources (DNR), U.S. Forest Service (USFS), and U.S. Bureau of Land Management (BLM), and evaluated public input received through letters, e-mails, and public meeting comments. The DEQ found the amended application to meet the requirements of the law and issued the permit on November 26, 2003. Federal permits are also required, and Savoy has filed an application for a drilling permit with the BLM and a surface use plan of operations with the USFS.

Following are the concerns raised by citizens and the DEQ, and the responses and actions taken by Savoy to address these concerns:

- **BOTTOM HOLE LOCATION.** Moving the bottom hole location (the terminus of the well) could allow the surface drill site to be moved further from the river. Savoy verified that it selected the bottom hole location based on its interpretation of geophysical surveys and geological information. Moving the bottom hole location away from the preferred target increases the chance the well will not be successful.
- **SURFACE LOCATION.** The well will be drilled directionally, with the surface drill site located about 2200 feet to the southeast of the bottom hole location. In its original application, Savoy proposed a drill site that was 702 feet from the Mason Tract boundary. The application was amended to move the drill site about 1700 feet to the southeast of the original location, to the maximum distance where the objective targets may be reasonably reached. The new drill site is 1655 feet from the Mason Tract boundary, 2977 feet from the Au Sable River, and 4212 feet from the Mason Chapel. The maximum horizontal distance between the surface and bottom hole locations is limited to about 2200 feet for two reasons:
 1. First, Savoy plans to drill the first 8250 feet to allow the well bore to vertically penetrate the A1 and A2 Carbonate Formations. These formations may contain high-pressure gas that needs to be controlled while drilling through them. Drilling vertically reduces the likelihood of technical problems that could lengthen the time required to drill the well, and minimizes the chance of release of gas to the atmosphere. The DEQ agrees this is the safest method to drill this portion of the hole.
 2. Secondly, there are two potential targets in the Prairie Du Chien that are separated in depth by about 1000 feet. The directional portion of the well is now planned at a 45-degree angle. As a result, the well bore will encounter the upper target at a location about 1000 feet southeast of the lower target. If the horizontal distance between the surface and bottom hole locations are increased, then the displacement between the upper and lower targets is increased, which further moves the well bore off the feature Savoy wants to explore.

In addition, the USFS, which manages the land where the well and access road are to be located, restricts development of new access roads. As a result, any well location must be accessible from existing trails. Moving the drill site further to the east could marginally shorten the widened portion of the existing trail but would result in the well site being more visible to the public en route to the Mason Chapel.

- NOISE. The time frame for drilling and completing this well is restricted to December 1 through April 15 when there is reduced public use of the area. The drilling rig and completion rig will be equipped with “hospital-type” mufflers to reduce noise. If the well is productive, the production facility (which may include treatment and storage vessels, a compressor, and auxiliary equipment) will be located two miles east of the Au Sable River. After drilling is concluded, there will be no noise sources at the well itself, because no pumps will be used at the well site during production.
- GROUNDWATER AND SURFACE WATER CONCERNS. Surface casing (thick-walled steel pipe) will be set through all fresh water intervals and cemented back to surface to isolate and protect all fresh water aquifers. The lined reserve pit, which is used to store fluids and rock cuttings, will be removed upon completion of drilling, which will remove that source as a potential for ground water contamination. The production facility will have impervious secondary containment and groundwater monitoring wells. The flow line carrying gas from the well to the production facility will have an automatic shut down device in case of a leak.
- IMPACTS TO FOREST. The access road will turn off the trail to the Chapel; the well will not be adjacent to the Chapel trail. Widened portions of the road will be returned to their original state when the well is abandoned. The drill pad will be reduced in size after drilling, and will be reseeded and recontoured after the well is plugged. Clearing an area the size of the drill pad is not unique in the vicinity of the Mason Tract. Clearings for wildlife habitat, of a similar size, have previously been established within the Mason Tract.
- PRESERVING THE SPIRIT OF MASON TRACT. The original Mason Tract comprised approximately 1,500 acres. The State has since added additional property to expand the tract to approximately 5300 acres, to provide a protective buffer and help preserve the natural environment of the river corridor. The drilling and production operations will be conducted well outside of the current boundary and will employ a number of additional restrictions to further protect the environment. The approved plan of development represents a prudent balance between producing Michigan’s hydrocarbons and protecting the unique resources of the Mason Tract, both of which benefit the citizens of the state.
- IMPACTS TO TOURISM. The additional measures required for the drilling and operation of the proposed well are there to protect both natural resources and aesthetic enjoyment of this area. Three wells were previously drilled in his vicinity, with fewer protective measures, and there is no evidence that they had negative impacts on tourism.
- WHY NOT DENY IT? Savoy has acquired mineral leases that grant the right to explore for and produce oil and gas in this area. State regulations, in conjunction with the additional special conditions placed on the permit by the DEQ, are designed to allow for orderly development of oil and gas while protecting the environment and aesthetic values of this area. The DEQ has fulfilled its duty to assess all feasible alternatives, and there is no further legal basis to deny a permit for this well.
- INVESTIGATE LAND SWAPPING OPPORTUNITIES. There is no available land of comparable value that the State or United States government could exchange for the parcel Savoy wishes to develop. Any such parcels are already under lease or being developed for oil and gas production. In the past, the DNR has exchanged lands and mineral rights for federally owned lands and mineral rights to consolidate ownership, and will reassess the possibilities for land exchanges in light of the heightened public interest in this issue.