

## **Underground Injection Control (UIC)**

**The Division protects Ohio's groundwater resources by regulating the disposal of brine and other wastes produced from the drilling, stimulation, and production of oil and natural gas in Ohio. DMRM received primacy of its UIC Program from U.S. EPA in 1983.**

Division UIC personnel **review construction specifications, engineering, geological data, and issue permits** for Class II wells used to inject fluids, primarily oil-field brine, into deep, underground geological formations for disposal or for secondary oil recovery. The Division also regulates the hauling and spreading of oil-field brine. Brine haulers in Ohio are required to be **registered, bonded, and insured** with the Division of Mineral Resources Management.

Oil-field brine is a saline by-product generated during oil and gas well operations. The salinity, or dissolved content, of Ohio oil-field brines vary considerably from one geologic formation and can vary regionally within the same formation. Ohio brines can be more than six times as salty as seawater.

Approximately 98 percent of all brine is safely disposed of by injection back into brine-bearing or depleted oil and gas formations deep below the surface. Nearly two percent is spread for dust and ice control subject to local government approval and requirements.

### **CLASS II AND CLASS III INJECTION WELLS**

Ohio's Class II disposal wells include conventional brine injection wells, annular disposal wells, and enhanced oil recovery injection wells. Enhanced recovery injection wells are used to increase production of hydrocarbons from nearby producing wells. Additionally, DMRM also regulates Class III [salt-solution mining](#) wells, which are used to produce saturated brine from the salt deposits that occur from 2000 to 3500 feet below Ohio's ground surface. The saturated brine is then used to make table salt, water softener salt, and salt blocks. All types of injection wells are designed to ensure safe injection into permitted formations.

With the passage of Senate Bill 165 in 2010, some changes to the UIC Program include an increase in the Class II saltwater injection permit application fee from \$100 to \$1000, and an injection disposal fee of \$.05 per barrel for brine originating in-district and \$.20 per barrel for brine originating out-of-district.

### **BRINE HAULING AND SPREADING**

The spreading of oil-field brine is a legal, cost-effective, and efficient way to control dust and ice problems on local roads and private property in Ohio. Ohio's UIC Program regulates the hauling and spreading of oil-field brine while local authorities, such as the County Commissioners and Township Trustees, permit the actual spreading on public roads and private property.

The Division **reviews all local brine spreading resolutions and plans** passed by the local jurisdictions to ensure compliance with state law. State law requires a minimum of nine brine spreading standards incorporated into all local resolutions. Local authorities have the power to require spreading standards that are more stringent than state law.

All registered brine haulers **must have the identification number issued by the Division**, the word "brine", and the name and telephone number of the hauler on the sides or rear of their trucks. All of this information must be in reflective paint and the letters on the vehicle must be no less than four inches in height. Ohio oil-field brine is tracked from "cradle to grave" and all brine haulers must **maintain a daily log** in their trucks.