



GROUNDWATER MONITORING

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY

Division of Waste Management – Underground Storage Tank Program

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When installed and operated properly, groundwater monitoring meets the North Dakota leak detection requirements for underground storage tanks (UST) and piping. Groundwater monitoring uses strategically placed monitoring wells in the backfill or soil surrounding the tanks and piping to measure for the presence of petroleum in the groundwater which may indicate a release. To discover if leaked product has reached groundwater, these wells must be checked every 30 days with a bailer or continuously with permanently installed equipment.

What are the regulatory requirements for groundwater monitoring?

- Groundwater monitoring can only be used if the stored substance does not easily mix with water and floats on top of water.
- If groundwater monitoring is to be the sole method of leak detection, the groundwater must never be more than 20 feet below the surface, and the soil between the well and the UST system must be sand, gravel or other coarse materials.
- Product detection devices must be able to detect 1/8 inch or less of leaked product on top of the groundwater.
- Monitoring wells must be properly designed and sealed to keep them from becoming contaminated by outside sources. The wells must also be clearly marked and secured.
- Wells should be strategically placed in the UST system backfill so that they can detect a leak as quickly as possible.
- Monitoring must be performed at least **once every 30 days**.
- A written log must be kept documenting the monitoring results.
- At a minimum, the most recent 12 months of monitoring records must be maintained on file.

If groundwater monitoring detects a release, contact a service technician immediately to determine the source of the release and empty the product from the leaking tank and/or stop using the grade of fuel that is associated with the identified release. Report the confirmed release to the North Dakota Department of Environmental Quality at 701-328-5166.