



Facts About...

Glenn Heights Subdivision

Site Location

The Glenn Heights Subdivision is a suburban residential neighborhood encompassing Titan Terrace, Apollo Terrace, Nova Drive, Telestar Way and part of Robin Hood Road near Havre de Grace, Harford County, Maryland.

Site History

The Maryland Department of the Environment (MDE) first discovered groundwater contamination in August 2005 while conducting a groundwater sampling survey related to a former dry cleaner on Route 40. While MDE does not believe that any of the contamination is related to the dry cleaning facility, traces of the chlorinated solvent trichloroethene ("TCE") were detected in a residential well on Titan Terrace during this survey. MDE expanded the survey to include the entire neighborhood. In all, 94 wells were sampled for the presence of volatile organic compounds (VOCs). The survey identified 8 wells along the southern portion of Titan Terrace with detections of TCE exceeding the U.S. EPA's Maximum Contaminant Level ("MCL") for drinking water of 5 parts per billion ("ppb"). During the survey, MDE discovered traces of perchloroethylene ("PCE") and TCE that did not exceed the MCL in three additional wells further north on Titan Terrace. Several scattered detections of methyl tert butyl ether (MTBE), a gasoline additive, were found throughout the neighborhood at levels below the State recommended standard of 20 ppb. The detections of PCE with TCE and individual detections of MTBE appear to be separate unrelated releases.

Environmental Investigations

After completing the initial sampling investigation and installing carbon units at the 8 wells in the 2300 block of Titan Terrace, MDE began a monthly sampling survey to monitor residential homes with and without carbon units in the affected area. After monitoring for 6 months, MDE elected to install another carbon unit on a home in the 2200 block of Titan Terrace that had repeatedly showed levels of TCE and PCA approaching the MCL and to reduce the sampling frequency on the carbon units to bimonthly based on the favorable results of past monitoring. Routine sampling will continue until an alternative water supply can be completed. Since sampling started, MDE has collected 315 samples related to the investigation.

Once the carbon units were installed and the residential well sampling survey was completed, MDE began interviewing residents to see if they could provide any information on possible sources of contamination. MDE also directed its contractor to acquire historical air photographs of the area to identify possible areas for further investigation. The information obtained from the interviews and the examination of the air photos did not reveal any identifiable sources. Consequently, MDE elected to install a series of passive soil gas probes in the ground. These probes are designed to stay in place for a period of time and accumulate VOCs present in the soil pore spaces. MDE elected to use this approach in an attempt to identify any locations where TCE could be detected in the shallow soil where it was spilled or released to the water table below. A series of 30 samples were collected from 11 lots in the study area. Sample locations were selected to provide a wide range of coverage and to focus on possible source areas such as septic systems. Of the 30 samples collected, detections of VOCs were obtained in only 3 probes collected on the north end of Titan Terrace.



However, it is unclear whether the detections represent an actual source, a minor unrelated release or a reflection from the contaminated groundwater below. MDE intends to collect additional passive soil gas samples across the area to determine if there is any spatial pattern that might indicate a source area. Additionally, quantitative soil gas samples will be collected to confirm the information provided by the passive sampling devices.

Current Status

With the approval of the petition for the extension of the water line by the community, MDE has met with Harford County to discuss possible sources of financial assistance for this water line extension project. MDE will continue to maintain all of the carbon units and sample individual homes until the project is completed. MDE is in the process of developing a second work plan as part of its source identification investigation. A copy of the draft plan will be posted on MDE's web page as soon as it is approved.

Contact

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