U.S. Environmental Protection Agency Region 3

Fact Sheet on Proposed Remedy

Chillum Gasoline Spill site

October 4, 2007

Why the need for this fact Sheet?

The United States Environmental Protection Agency (EPA) has been investigating a gasoline release from the former Chevron gas station located in Chillum, Maryland, and its impact on the neighboring Riggs Park community located in the District. The investigation is now completed. On August 30, 2007, EPA issued a Statement of Basis in support of EPA's proposed remedy. On September 6, 2007, EPA held a public meeting in the community to explain the proposed remedy and the public comment process. In response to public comments received at the public meeting, EPA has prepared this fact sheet to further explain EPA's proposed remedy.

Why the need for the Statement of Basis?

In December 2002, EPA issued an Administrative Order to Chevron that requires Chevron to conduct an investigation and evaluate cleanup alternatives for the gasoline release. This Statement of Basis provides the justifications on why EPA believes the proposed remedy is the best alternative to clean up the release.

Why the need for public comment?

EPA has long recognized that public participation is essential in identifying a remedial alternative that is best for and acceptable to the community. EPA routinely requests public comments before selection of the final remedy.

What remedy has EPA proposed?

EPA has proposed a remedy that consists of three components:

(1) Continued operation of the existing groundwater remediation system;

(2) Expansion of the existing system by installing angle recovery wells across Eastern Avenue; and

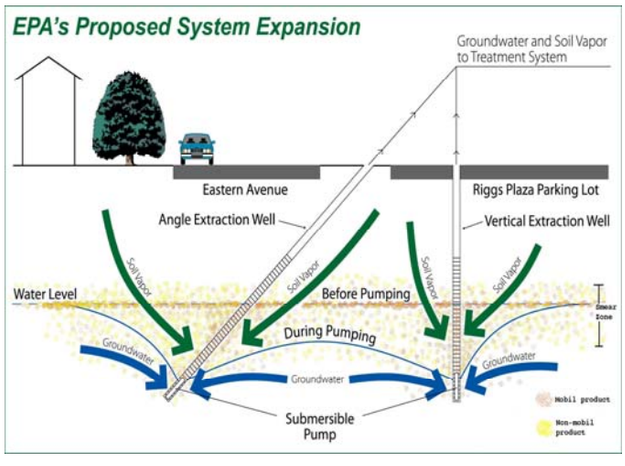
(3) Installation of individual vapor mitigation system in homes above the tainted groundwater plume where the measured vapor levels exceed EPA's standards.

What are the cleanup goals?

For groundwater cleanup, the goal is to restore groundwater to national drinking water standards. For vapor mitigation, the goal is to restore indoor air to local background levels with respect to gasoline vapor.

How does groundwater cleanup work?

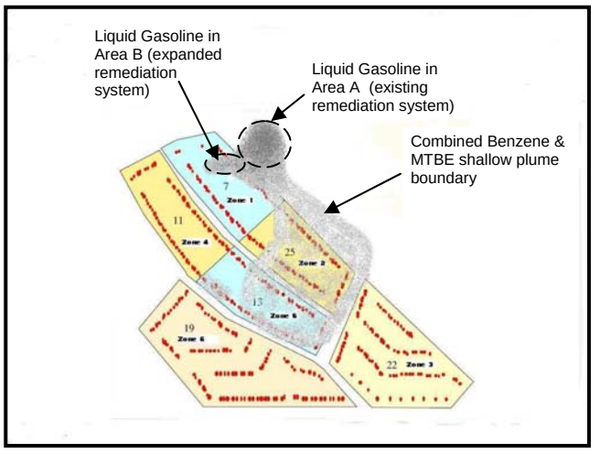
Groundwater cleanup is accomplished by removing liquid gasoline by pumping groundwater and vacuuming vapor in soil through recovery wells into a treatment system. The proposed expansion of the cleanup by installing angle recovery wells will allow access to high traffic areas beneath and across Eastern Avenue for the cleanup activities. Once the liquid gasoline source is eliminated, the tainted groundwater plume is self cleaning because there will be no new dissolved hydrocarbons adding to the underlying groundwater which is constantly being replaced by fresh groundwater.



What is the difference between liquid gasoline and a gasoline tainted plume?

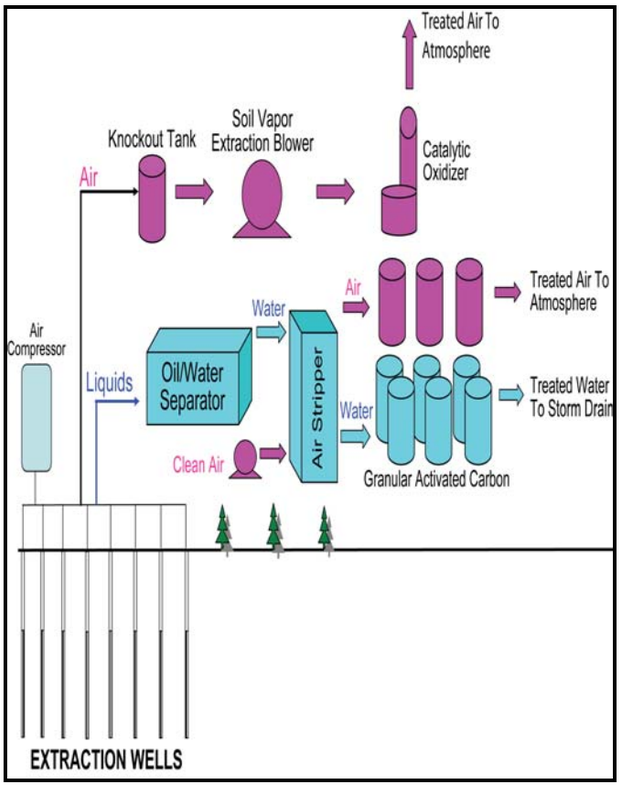
Liquid gasoline is the product to fill up your car. Liquid gasoline is a complex mixture of organic compounds known as hydrocarbons. A small fraction of the gasoline compounds, notably benzene, toluene, xylenes, ethylbenzene and MTBE, are soluble in water and will taint

groundwater if a sufficient quantity is released to the ground. At this release site, liquid gasoline has reached groundwater in a small area within approximately 150 feet of the gas station, but it has tainted a groundwater plume up to 1400 feet long.



Why did EPA propose to use the existing groundwater treatment system?

The existing groundwater treatment system was recently upgraded in early 2005. The system has sufficient capacity to handle additional flow and its sophisticated design allows for the cleanup of influent water and vapor to extremely low levels before discharging into the environment. Its location is in the commercial zone away from the residential area, thereby minimizing noise, emission, traffic and aesthetic disruptions to the community. The centralized control allows for the balancing of flow from all wells to optimize performance and prevent drawing the plume further into the District side.



How does the individual home vapor mitigation system work?

The vapor mitigation system works by drawing a slow stream of soil air beneath the slab and venting it outside so as to depressurize the surrounding soil to negate the "chimney effect" that would otherwise draw soil air into basements. The system is identical to a radon mitigation system which has been installed in millions of homes to restore elevated radon levels to background.

Are there other vapors that can enter my home?

Yes, outdoor air that enters your home is not pristine, and vapors are given off by common household products inside your home. Examples include paint, paint strippers or thinners, moth balls, new carpeting and furniture, stored fuel, cigarette smoke, air fresheners, shoe shine, solvents and dry-cleaned clothing. Thus, there is a possibility that the operation of the installed system may not reduce the elevated vapor levels if the primary source of the vapor contaminants is coming from within the house.

How can I provide comments?

The 60-day public comment period will end on October 29, 2007. All comments must be submitted in writing or by email to Andrew Fan, project manager for the Chevron gasoline investigation. See contact information below.

For Additional Information

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