

# TEXTRON ROCHESTER UPDATE

April 2009

## GROUNDWATER FLOW FACT SHEET

This fact sheet was prepared based on questions posed by residents who live near the TORX facility.

**By understanding the direction of groundwater flow, the direction and extent of chemical migration can be evaluated.**

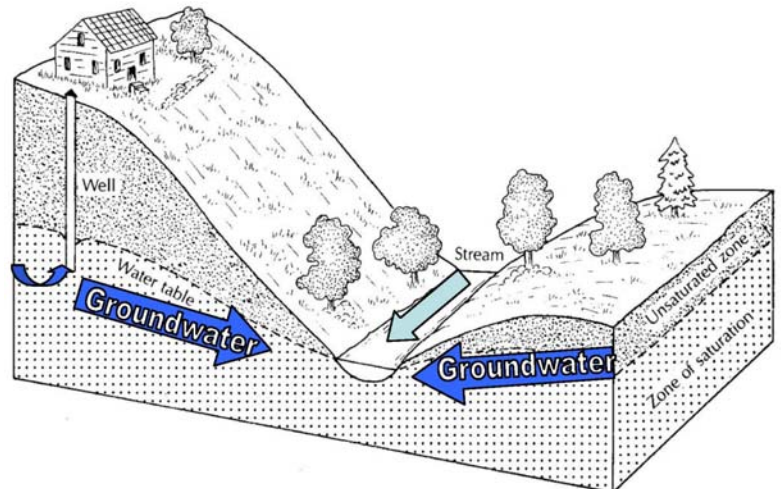
Typically the direction of groundwater flow in unconsolidated aquifers (*similar to the aquifer beneath the TORX facility*) mimics the topography of the ground surface.

In other words, if water on the ground surface flows toward the river, then water beneath the ground surface will generally flow toward the river. The figure to the right illustrates the direction of groundwater flow in an unconsolidated aquifer.

The direction of groundwater flow beneath the TORX facility has been evaluated through the installation of monitoring wells and the completion of professional engineering surveys.

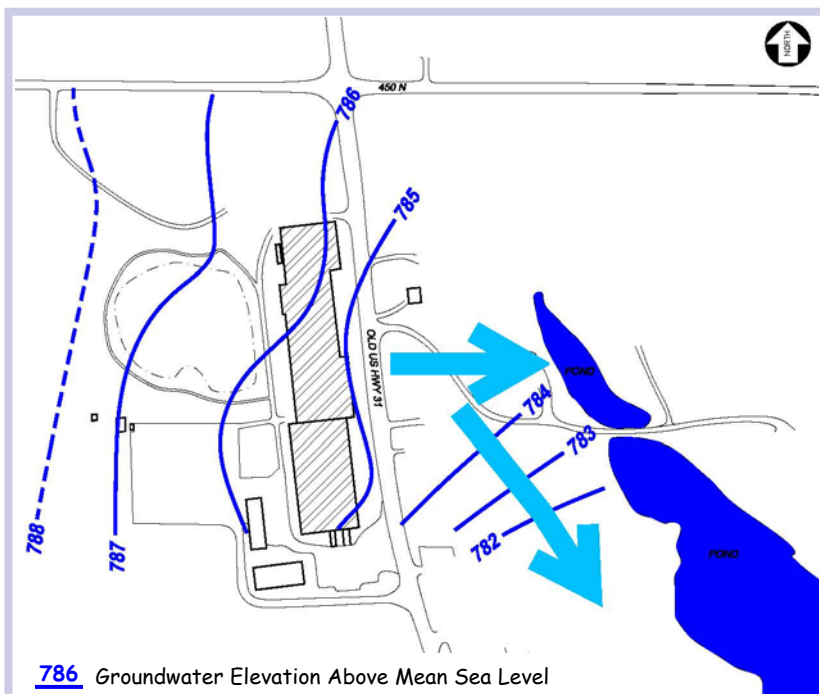
Based on 2008 data, groundwater beneath the TORX facility flows in an easterly and southerly direction. The additional monitoring wells that are being installed as part of the most recent investigation will provide more information in regards to the direction of groundwater flow beneath the surrounding properties.

Since chemicals in groundwater generally flow with groundwater, the newly installed monitoring wells will help us to evaluate the direction that the chemicals in groundwater have traveled from the TORX facility (*direction of migration*).



(Diagram adapted from Applied Hydrogeology, C.W. Fetter, 1994.)

**Depiction of the relationship between topography, groundwater flow and surface water discharge in an unconsolidated aquifer similar to the TORX facility in Rochester, Indiana.**



To be protective of human health and the environment, we also evaluate the potential for chemicals in groundwater to reach other media, such as soil gas, indoor air, and surface water.

By understanding the direction of groundwater flow away from the TORX facility, we are able to evaluate the most appropriate locations to collect samples from the desired media.

The sample results can then be used to evaluate how far the chemicals have traveled from the TORX facility (*extent of migration*).

**The direction of groundwater flow beneath the TORX facility is shown on the figure to the left.**

(Based upon 2008 water level data and professional survey data.)

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## TEXTRON ROCHESTER UPDATE

### YOU ARE INVITED TO... COMMUNITY INFORMATION SESSION

Thursday, May 28, 2009, 6-8 P.M. (Doors open at 5:30 P.M.)

Fulton County/Rochester Public Library  
320 West 7th Street  
Rochester

Textron, Inc. invites you to attend a Community Information Session regarding environmental activities related to impacted groundwater associated with the TORX facility.

Textron staff and consultants from MACTEC, Inc. will update the community regarding ongoing groundwater investigations and next steps. In addition to the presentation, community members will have the opportunity to view informational displays on the investigation efforts and site status and ask questions about the project. Representatives from the Indiana Department of Environmental Management (IDEM) and the US Environmental Protection Agency (EPA) are also expected to be present and available to answer questions.

### RESULTS OF VAPOR MONITORING

Twelve vapor monitoring wells were drilled in December 2008 at eight residential properties south of the TORX facility. As many as three soil vapor probes were installed in each vapor monitoring well. The purpose of the drilling was to evaluate whether the chlorinated organic compounds detected in the groundwater samples collected in the vicinity of the TORX facility have negatively affected soil gas, thereby having the potential to impact indoor air.

None of the chlorinated organic compounds believed to be associated with the TORX facility were detected in any of these off-site soil vapor probes. The laboratory results indicated that chlorinated organic compounds in soil gas air are not a concern and would not be present in indoor air south of the TORX facility (*direction of migration*).



Photograph of one vapor monitoring well with two soil vapor probes.

Comments  
?????  
Questions

Please Feel Free  
to Contact:

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For additional  
information regarding the  
investigation, please visit our  
new website at:

[WWW.TORXREMIATIONPROJECT.COM](http://WWW.TORXREMIATIONPROJECT.COM)