



## What should I know about the Bioremediation Pilot Study in Algonia?

Starting in mid-August the Boeing Company will begin a pilot study to see if bioremediation, a potential groundwater cleanup method, will work to reduce the levels of TCE in Algonia groundwater.

### What is bioremediation?

Bioremediation is when naturally occurring or deliberately introduced microbes are used to clean up contaminated soil or groundwater. Microbes are very small organisms, such as bacteria, that live naturally in the environment. Bioremediation stimulates the growth of certain microbes that consume contaminants, such as TCE, turning them into small amounts of water and harmless gases.

### What will occur during this pilot study?

Landau Associates, Boeing's contractor, will install five injection wells between July 27<sup>th</sup> and August 5<sup>th</sup> on private commercial property in Algonia at 851 Milwaukee Ave N (see map). These wells will be used to inject LactOil solution into the groundwater starting the week of August 17<sup>th</sup> and continuing through September 25<sup>th</sup>.

LactOil is a combination of corn-derived ethyl lactate and soy oil. Both are non-toxic and food-grade. Typically the introduction of more food leads to an increase in the population of the natural microbes in the groundwater and a faster breakdown of contaminants.

Groundwater in the area will be monitored to determine if the conditions in Algonia allow for effective bioremediation of TCE in groundwater.

### Why is this pilot study being conducted?

This technology has worked well when the concentrations of TCE and breakdown products have been present at higher concentrations (such as on the Boeing property during the 2004 - 2005 Interim Action). Many site-specific factors play into the potential success of bioremediation techniques. This pilot study will assist the Department of Ecology, who oversees the investigation and cleanup process, in deciding if this is a viable cleanup option for the groundwater contamination in Algonia and Auburn, where TCE concentrations are low.

### Pilot Study Timeline

Timeframe	Activity
<i>July 27th - August 5th</i>	Well Drilling
<i>August 6th - 7th</i>	Well Development
<i>August 12th - 14th</i>	Set up for Pilot Test Injection
<i>August 13th - 14th</i>	Initial Well Sampling
<i>August 17th - September 25th</i>	Pilot Test LactOil Injection

## Where will it occur?



## What's next?

Following the injections, groundwater will be monitored to determine if this method works to reduce contamination levels. It could take months to determine if the pilot study has been successful. The Department of Ecology will post results on their website.

The results of the pilot study will be used in the Feasibility Study to select an effective cleanup option.

APAC will work with the community to provide information on the pilot study in order to continue the cleanup process.

You can find more information on the pilot study at [wa-apac.org](http://wa-apac.org).

Feel free to contact Jeanette Ordonez at (253) 347-0460

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