

The tracer source has a steady-state concentration. This boundary condition could represent a continuous, steady input or an excess mass of tracer where the solubility limits (and fixes) the input concentration.

The plume follows the flow lines (head map).

Some of the plume moves northward from the source, forming the swath of low concentration along the north edge of the plume.

The central well does not fully capture the plume, but the bulk of the plume will enter the central well.

The breakthrough curve (BTC) shows concentration vs. time at the monitoring well just west of the lake.

The peak BTC concentration is less than the peak source concentration: Lateral dispersion and mixing have

**Phase I: RI: Investigation**

**Goals:**

- 1) Establish the present location of the plume, focusing on TCE as the primary contaminant
- 2) Predict the future movement of the plume

**Outcomes:**

- 1) Determine hydraulic gradient
- 2) Determine plume speed and direction
- 3) Draw an approximate map of the plume within the plume.
- 4) Utilize Darcy’s Law and the map to predict future movement.

<u>Unit cost</u>	<u>Action</u>
\$500	Basemap (survey)
\$700	Installation of a pump and treat system
\$2000	Installation of a monitoring well (yields head and concentration)