**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_**

**Water Pollution Lab**

**Purpose**

* Model ground water pollution
* Map pollution using transects
* Create a story explaining the results in terms of point or nonpoint source pollution

**Materials**

* Landscape with pollution and grids
* Phenolphthalein (NaOH indicator)
* Well Plate
* Droppers
* Water

**Safety Considerations**

* Wear gloves and goggles when working with NaOH
* Phenolphthalein can stain fingers

**Procedure:** Find the water pollution source by mapping the area

1. Take a sample from every square of your plot.
2. Rinse the pipette with water between each sample
3. Add a drop of phenolphthalein to each well
4. Create a map of the relative concentration of sodium hydroxide in each square area of the plot (shade in to indicate darkness of pink)
5. In your map indicate the most likely source(s) of the contamination



**Data:**

Shade in the map, indicating the relative level of contamination where the pollution was found:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** |
| **A** |  |  |  |  |
| **B** |  |  |  |  |
| **C** |  |  |  |  |
| **D** |  |  |  |  |

**Conclusions: Write a story** indicating the likely source or sources of water pollution in your “landscape” and whether it/they would be considered Point-source pollution or Non-point source pollution. *Be creative!*