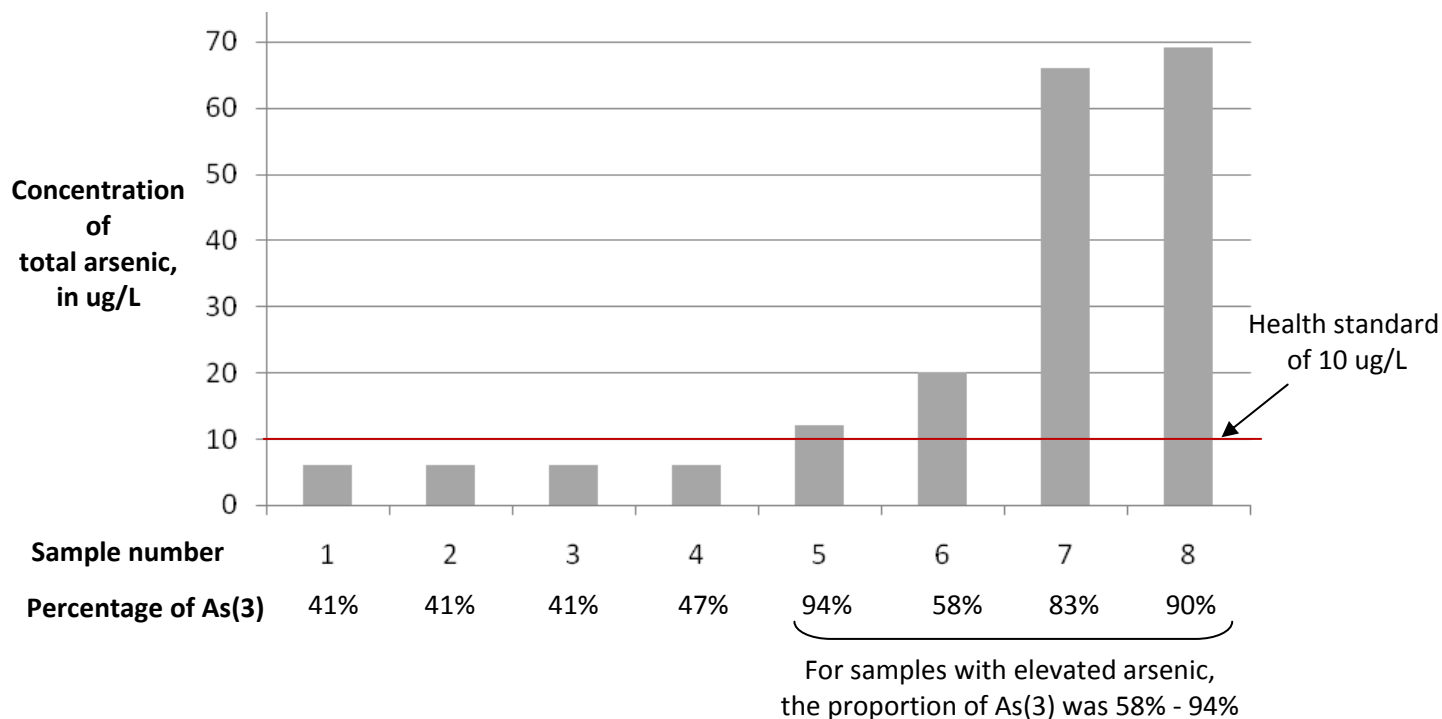


### Arsenic species in samples of Ohio groundwater

The plot below shows the proportion of As(3) in samples of groundwater analyzed by the USGS and USEPA. Elevated arsenic concentrations were detected in 4 samples, and the proportion of As(3) in these samples was 58 –94 percent.

This is important in relation to water treatment because As(3) is harder to remove from water than As(5).



| Sample number | County  | Well type                     | Arsenic concentration, in micrograms per liter (ug/L) | Percent As(3)                                      | Source of information                  |
|---------------|---------|-------------------------------|---|--|--|
|               |         |                               |   | $\frac{\text{As(3)}}{\text{As(3)} + \text{As(5)}}$ |  |
| 1             | Preble  | Observation well <sup>1</sup> | 6   | 41%  | <i>Thomas and others, 2008</i>         |
| 2             | Clark   | Public-supply well            | 6   | 44%  | <i>USEPA, 2007</i>                     |
| 3             | Licking | Public-supply well            | 6   | 44%  | <i>Chen and others, 2011</i>           |
| 4             | Preble  | Observation well <sup>1</sup> | 6   | 47%  | <i>Thomas and others, 2008</i>         |
| 5             | Madison | Public-supply well            | 12  | 94%  | <i>Sorg and Chen, 2012</i>             |
| 6             | Preble  | Observation well <sup>1</sup> | 20  | 58%  | <i>Thomas and others, 2008</i>         |
| 7             | Preble  | Household well                | 66  | 83%  | <i>Thomas and others, 2008</i>         |
| 8             | Licking | Public-supply well            | 69  | 90%  | <i>Tom Sorg, 2012, written commun.</i> |

<sup>1</sup> Observation wells are used to collect information for groundwater studies, and are not used as a source of drinking water