

Dear Parents and Guardians,

Your child is participating in a project called “Data to Action: A secondary school-based citizen science project to address arsenic contamination of well water” (aka All About Arsenic) as part of their science curriculum. This project is federally funded and connects schools and students with partners at the MDI Biological Laboratory, Dartmouth College, and local colleges and universities. Students are engaged in monitoring well water for contaminants, including arsenic, and learn scientific and data literacy skills, then share that knowledge with their communities.

Arsenic is the number one contaminant of concern for human health worldwide. Long term exposure to water with arsenic may lead to a host of health issues including: heart disease; cancer of the bladder, lung, liver, prostate, and skin; and diabetes. Public water systems must meet standards set by the Environmental Protection Agency (EPA) that limit the levels of contaminants in drinking water, called Maximum Contaminant Levels (MCLs). The MCL for arsenic is 10 ug/L. Though public drinking water is regulated, private wells are not. Maine and New Hampshire have among the highest per-capita reliance on private wells for drinking water in the United States (Maine: 56% and New Hampshire: 46%). Approximately 10% of Maine wells and 20% of New Hampshire wells have levels of arsenic above the MCL, yet testing rates are low.

About the sampling process

You and your child should work together to register your water sample on Anecdata.org and take a water sample from a home faucet (following the attached instructions). Your child’s teacher will send the water samples to Dartmouth for analysis.

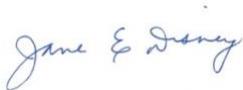
What should I do next?

Your child’s teacher will let you know when your test results are available. Should your test results reflect a reading above the Maximum Contaminant Level, please know that there are a variety of possible reasons why, many resources to help you understand and deal with your results, and steps you can take to improve your water quality. The resources and links on [All About Arsenic](http://AllAboutArsenic.org) under “Sampler Resources: FAQs” are a great place to start (www.allaboutarsenic.org/faqs/). If you have test results above the Maximum Contaminant Level for any contaminant OR have not conducted a comprehensive well water test, including bacteria, in the last 3 years, please contact one of the many certified commercial labs in your state to arrange another test. Please Note: The Dartmouth laboratory that is testing water samples specifically related to this project produces reliable data for research purposes, but it is not a certified water quality testing lab.

What about my privacy?

Though your individual results are being added to a collection of data from this project to better understand arsenic issues and to help students work with data, we have made sure no individual data can be identified. When you create an account on Anecdata.org and register your sample in the All About Arsenic project, **you are the only person who can see personally identifiable information such as your name, your child’s name, your address, and your preferences for sharing data**. Students will only be able to see well information, such as the type of well and if the sample was filtered or not, and your results. In addition, we have reduced the location precision on the publicly available map so no one will be able to link your results to your name or location. Questions? Contact Program Coordinator Anna Farrell at afarrell@mdibl.org.

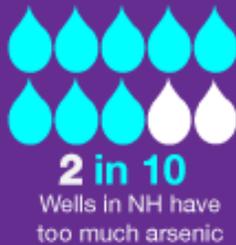
Thank you for your participation!



Jane Disney, Ph.D.
MDI Biological Laboratory
Principal Investigator

What about arsenic?

You can't see, smell, or taste arsenic, yet many people in the U.S. are exposed to low levels of arsenic through food, water, and other sources. If your drinking water comes from a private well, have it tested to make sure it doesn't contain arsenic. The EPA Maximum Contaminant Level for arsenic in drinking water is 10 ug/L (the same as 10 ppb).



10 ug/L
Maximum Contaminant Level

Data Literacy

- Develop** creative and practical skills
- Ask** real world questions
- Answer** using large and small datasets
- Communicate** findings with others

CURRICULUM



Scientific Process



Question



Sample



Analyze



Conclude



Share

Action



Community Meeting



More Sampling



Water Filtration



Talk with Others



Legislative Action



Please sign and return the permissions below to your child's teacher.

- I understand my child is involved in an arsenic sampling project as part of their science curriculum.
- I understand my child needs information about our well, such as well type and location (which will be publicly generalized), to participate. This information will help students ask and answer questions about well water quality.
- I understand that any personally identifying information I share will be kept confidential.
- I understand my sample results will be available on Anecdata's All About Arsenic project and that it's my responsibility to check my results. No one else can access my results unless I share my results with someone else.
- I agree that my well water data, including my location, may be shared with the Maine Center for Disease Control and Prevention or the New Hampshire Department of Environmental Services. They are interested in the data collected as part of this project so that they can better serve the public health needs of each state. They will keep your data confidential. (This question will be asked again when you register your sample.)

Parent Name

Parent Signature

____/____/_____
Date

Sample Number