Kelci Van Treese

"Well" How Old Are You?

I became interested in this project because in 2004 our house well tested positive for coliform bacteria. The drinking water standard does not allow for any presence of coliform bacteria, so we treated our well with concentrated bleach. By doing this experiment, I was hoping to find useful information about the amount of coliform bacteria found in a well in correlation to the age of the well. Since our house well is 91 years old, I thought there might be a correlation between coliform and the age of well. If there was a strong correlation then it would provide information to people buying a house with a well to check the well's age and have it tested. Also, with the new GAP rules, many Department of Health suggest yearly water samples. With help from the Sangre De Cristo Lab in Alamosa, I found that the data did not fully support my hypothesis. By using the EPA Approved Membrane Filter Method, I tested well water of different aged wells. I found that one of my wells had some coliform bacteria in it. The well wasn't the oldest but it was one of the older ones. The results were inconclusive because I did not have enough information to prove my hypothesis correct. In conclusion, I have learned a lot about coliform bacteria, how to test for coliform and about the age difference in wells and I hope that my experiment will be useful to the public.