# CALIFORNIA SCIENCE & ENGINEERING FAIR
# 2018 PROJECT SUMMARY

**Name(s)**

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**Project Number**

38037

**Project Title**

## Testing Local Water Sources for Contaminants

**Abstract**

**Objectives/Goals**

The objective of this project is to test water samples from a well, a spring, and city pumped water to determine which results had the most contaminants. We are testing each sample for lead, pesticides, bacteria, copper, iron, nitrites, nitrates, pH, hardness, alkalinity, and total chlorine. The result that stood out most was that city pumped water and well water both tested positive for lead. Another interesting result was that spring water tested for 1.3 ppm of copper, which is the limit of the safe zone for human consumption. In conclusion, this project taught us about local water pollution and that it is important to test our drinking water.

**Methods/Materials**

For materials, we used 3 water testing kits, a timer, water samples, and water tight containers. We collected water samples then tested each water based on the instructions in the test kits.

**Results**

The well water and the city pumped water tested positive for lead. Iron, nitrites, nitrates and chlorine all tested at 0 ppm. For spring water copper tested at 1.3 ppm, which is the limit of the safe zone. Spring water had much less hardness and alkalinity the the other two sources. pH tested at 9 for all three for the samples.

**Conclusions/Discussion**

Our results supported our hypothesis that well water would have the most contaminants out of the three sources of water. The purpose was to test local water so the community gains awareness the water they are consuming. Further testing would be needed to determine the impact of the contaminants in these sources.

**Summary Statement**

The objective of this project is to test water samples from a well, a spring, and city pumped water to determine which results had the most contaminants.

**Help Received**

My science teacher, Ms. Mayne, provided the materials, a printer, and a board.