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*Hit Me with Your Best (Lead) Shot: Lead Contamination on Rampart Shooting Range*

Rampart Shooting Range is literally covered with lead bullets left from 19 years of use - 334.4 tons at a minimum. That's a lot of lead. But how much of it leached into the soil and what is extent of contamination? If there was extensive soil contamination, the water supply for Manitou and Colorado Springs as well as the Manitou cave system would be at risk.

Soil samples were collected from the surface and at 5" depth starting at the range and moving away from it at 10 foot intervals. Then, lead was leached out of samples using vinegar, a weak acid. The vinegar was tested using the Abotex test and analyzed using camera chromatography methods. Samples were further tested, analyzed, and validated at Colorado Springs Utilities using an inductively coupled plasma optical emission spectrometer.

The results indicated that lead contamination did not extend far from the shooting range. Surface lead contamination extended only about 50 ft. off the range and the 5 in. deep contamination only extended 30 ft. A core sample on the range indicated that contamination extended 10 in. deep. Lead contamination in Phillips Creek in Williams Canyon was negligible.

My hypothesis was disproved; lead contamination did not extend as far nor was the area downstream from the range as contaminated as I hypothesized. While these results show that there is significant lead contamination on outdoor shooting ranges, contamination is not extensive. A cleanup effort would not have to extend far to minimize environmental effects of lead.