# Town of Eureka Historic Smelters

July 2012

## Community Meeting to Discuss Elevated Lead and Arsenic Levels in Soil within the Town of Eureka - Agencies to Offer Free Testing

The Nevada Division of Environmental Protection (NDEP), the United States Environmental Protection Agency (EPA), and the Nevada State Health Division invite the public to a community meeting to learn about elevated lead and arsenic levels detected in soil as a result of historic smelting operations within the Town of Eureka. NDEP, EPA, and the Nevada State Health Division will also discuss their plan to offer free blood lead testing in July and free soil testing in August and September. The meeting will be held on July 23, 2012 from 6:00 p.m. to 8:00 p.m. at the Eureka Opera House.

### Community Meeting

**July 23, 2012**
**6:00 p.m. to 8:00 p.m.**

Eureka Opera House

## Introduction

The NDEP, EPA, and the Nevada State Health Division are evaluating the potential human health and environmental effects of residual materials from historic lead smelting activity in Eureka, Nevada. NDEP and EPA conducted initial sampling this spring by testing for concentrations of lead and arsenic in weathered slag piles and bare soil located throughout Eureka. Results found lead and arsenic concentrations in Eureka at or above levels for which the EPA recommends additional investigation to evaluate and address potential human health effects.

## Other Communities

Smelting operations like those that operated in Eureka occurred in numerous towns across the western United States. In many of these towns, the EPA and state agencies conducted cleanup activities to reduce potential health risks posed by elevated levels of lead and arsenic in soil. Residents in these communities have also taken steps to reduce their exposure to lead and arsenic.

## Site History

*The following summary of time periods, operations, and locations of smelting operations in Eureka is based on information obtained from publicly available historical sources, including US Bureau of Mines Information Circular 7022, Reconnaissance of Mining Districts in Eureka County, Nevada by William O. Vanderburg – June 1938 and The Engineering and Mining Journal #23 – The Silver-lead Mines of Eureka, Nevada by Walter Renton Ingalls – December 7, 1907.*

Eureka, Nevada is considered the birthplace of silver-lead smelting in America. Eureka's boom years lasted from 1870-1885. A map of Eureka dated 1878 clearly shows the locations of seven smelter sites and two mill sites within what is now the downtown area (see Figure 1). As early as 1869, lead smelters operated in Eureka. By 1873, 17 furnaces located in eight smelters were operating, with the Richmond Company and Eureka Consolidated smelters being the two largest and accounting for most of the production. In 1890 and 1891, the Richmond and Eureka smelters closed due to falling silver prices. In 1906, the Richmond and Eureka smelters merged to form the Richmond Eureka Consolidated, although a disastrous flood in 1910 ceased smelting operations.

### Free Blood Lead Testing

**July 24, 2012**
**9:00 a.m. to 7:00 p.m.**

Eureka Elementary School in the Multi-Purpose Room

### Free Lead and Arsenic Soil Sampling and Analysis

**Date and time to be determined**

At properties with signed access agreements

Ore processing and smelting activities produced slag waste material containing lead and arsenic. Smelter fumes emitted from furnace stacks also contained lead and arsenic and were deposited downwind. After smelting operations ceased, additional transport of lead and arsenic to other parts of town has likely occurred as a result of wind, water and human redistribution of byproducts from the smelting process.

## Initial Sample Results

NDEP and EPA staff collected 38 soil samples from publicly accessible locations in and near Eureka. Elevated concentrations of lead and arsenic were found in most samples. EPA generally considers concentrations of lead in soil that are below 400 milligrams per kilogram [(mg/kg) equivalent to parts per million] to be safe for residential use. The analytical laboratory reported 10 of the 38 samples below 400 mg/kg, 20 of the 38 samples between 400 mg/kg and 5,000 mg/kg, and 8 samples above 5,000 mg/kg. The highest concentrations of lead were found near the slag piles on the north and south ends of town and in areas associated with former smelter sites. The sample results for arsenic showed a distribution similar to lead.

## Next Steps

### Blood Testing

In order to evaluate whether health impacts resulting from lead exposure exist in Eureka, NDEP, EPA and the State Health Division will offer free blood lead level testing for all Eureka residents. The test involves a simple finger prick and results are available within a few days. Because young children are most susceptible to lead poisoning, testing is highly recommended for those between 6 months and 6 years of age. Testing is encouraged for all Eureka residents.

If blood lead levels are elevated above federal guidelines, behavior changes to reduce exposure to lead will be recommended (see attached FAQs), and, if warranted, the Nevada State Health Division will assist individuals and their families in locating additional resources.

### Soil Sampling

If Eureka residents or property owners wish to have the soil on their property tested for lead and arsenic, NDEP and EPA will provide sampling and testing free of charge. In order to have their property sampled, property owners must grant access by completing a voluntary access agreement form.

## Agency Contacts

NDEP, EPA, and the Nevada State Health Division also have staff that you can contact with any questions you might have.

### NDEP Contacts:

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### EPA Contacts:

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### Nevada State Health Division Contact:

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Forms will be provided at the community meeting, at the blood sampling event and upon request. Testing of each property takes about an hour. Several soil samples will be collected. Sampling involves the use of hand tools only; no heavy equipment will be used. Several shallow holes will be dug (about 4 inches in diameter and up to 1 foot deep), and the holes will be backfilled when completed. Sampling will be conducted in August and September at properties for which an access agreement has been signed by the property owner and provided to NDEP or EPA. Properties with elevated lead and arsenic concentrations coupled with the potential for childhood exposure will be considered a priority for additional evaluation and potential action.

## Community Involvement Partnership

To most effectively address the lead and arsenic impacts in Eureka, a partnership has formed between a group of Eureka public officials, the Nevada Division of Environmental Protection, the Nevada State Health Division and the United States Environmental Protection Agency. The purpose of this partnership is to provide the most effective investigation and solutions to the situation, and to enhance communications with the public on issues relating to site investigation and potential action.

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## For More Information

### Websites

Beginning on July 20, two websites with additional information about the investigation will go live. There are a number of ways for the public to learn about the site. Documents relating to the site will be placed in an Information Repository at the Eureka Library and on the following web pages:

Additional information can be found at

**www.epaosc.net/eurekasmelter** (live by July 20)
**www.ndep.nv.gov/eurekasmelter** (live by July 20)

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