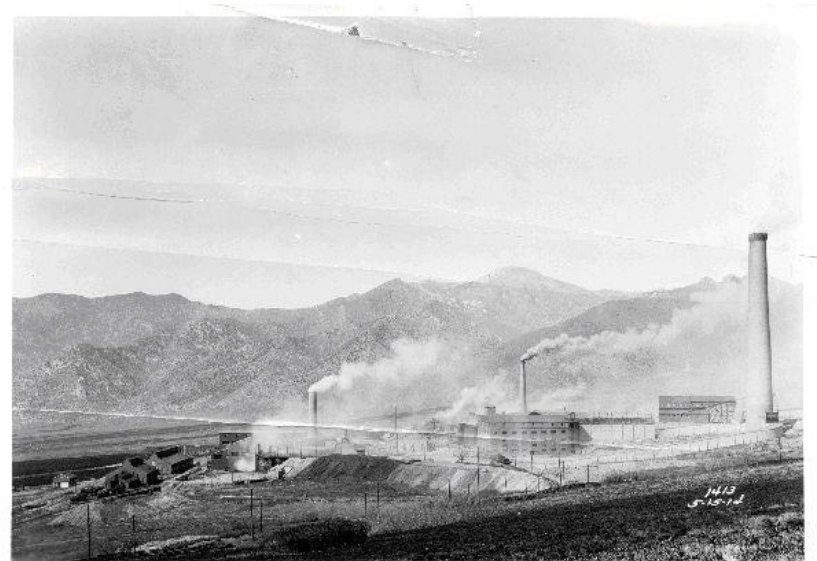


Notes:

**International Smelting and Refining
Environmental Protection Agency
Superfund Site**

Informational Booklet



Original IS&R Smelter, 1912

Tooele County Health Department
151 North Main Street
Tooele, Utah 84074
(435) 277-2440
www.tooelehealth.org



Introduction

The International Smelting and Refining Company site was placed on the National Priority List in July of 2000. Atlantic Richfield Company, a potentially responsible party at the site, is conducting studies to characterize waste on and around the site. Atlantic Richfield and the regulatory agencies will evaluate a variety of clean up options.

This booklet provides a brief site history and discusses the hazardous wastes associated with the site. It describes what activities **ARE** and **ARE NOT** acceptable on the site. Community members are encouraged to be knowledgeable about their surroundings.



(Area photo taken Aug. 2002)

Links & Resources

For more information about the IS&R and/or the Carr Fork Mine Operations, the following websites can give you more detail:

Environmental Protection Agency narrative discussion about the IS&R and Carr Fork history can be found at:

www.epa.gov/region08/superfund/sites/intnsmlt.html

To read more about the Superfund Sites in the State of Utah visit:

www.epa.gov/region08/superfund/sites/ut/ut_sf.html

For more information about Arsenic visit:

www.atsdr.cdc.gov/tfacts2.html

For more information about Lead visit:

www.atsdr.cdc.gov/tfacts13.html

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Health Concerns

Arsenic:

What it is:

● A naturally occurring element distributed in the earth's crust

How humans are exposed:

- Eating food, drinking water, or breathing air, which contains arsenic
- Breathing sawdust or burning smoke from wood treated with arsenic
- Living near uncontrolled hazardous waste sites containing arsenic
- Living in areas with unusually high natural levels of arsenic in the rock

Potential Health effects:

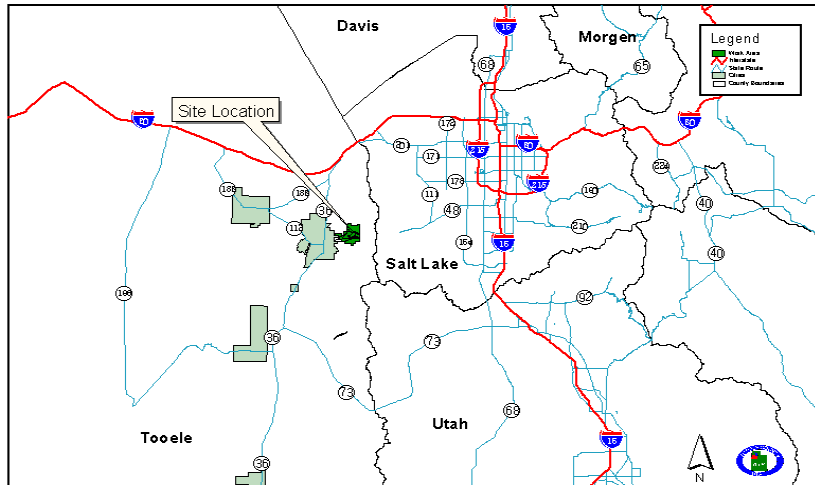
- Sore throat or irritated lungs
- Excessively high amounts are fatal
- Lower amounts cause nausea & vomiting
- Decreased production of red blood cells
- Abnormal heart rhythm
- Sensation of "Pins and Needles" in hands & feet
- Small "corns" or "warts" on the body
- Redness and swelling
- Increases the risk of different types of cancer

To find out if you have been exposed:

● Get tested - health care providers can test for arsenic

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Map



Health Concerns

Lead

What it is:

● A naturally occurring metal found in the earth's crust & all parts of the environment. Lead is found in some fossil fuels. It's also found in mining and manufacturing.

How humans are exposed:

- Eating contaminated foods
- Spending time in areas where lead-based paints have been used and are deteriorating
- Working in a job where lead is used
- Using health-care products or folk remedies, which contain lead

Potential Health effects:

- Most sensitive is the central nervous system in children
- Damages kidneys & reproductive system
- At high levels, decreases reaction time
- Weakness in fingers, wrist, & ankles
- Possibly affects memory
- Connection between health effects and exposure to low levels of lead is uncertain

To find out if your children have been exposed:

● **The Tooele County Health Department is offering free blood lead testing for children. Call (435) 843-2310 for an appointment.**



During this time, 326 acres of tailings were covered or disposed of on site. The copper smelter was closed in 1946. The lead smelter was closed in 1972, and was demolished during the years 1972 – 1974.

In 1974, Anaconda constructed and operated a copper mine and mill known as the “Carr Fork Operations”. It was located just east of the IS&R Smelter Site in Pine Canyon. It was in operation from 1974 – 1981. (Atlantic Richfield purchased Anaconda in 1977.) As part of the Carr Fork Operation, a new tailings dam along the western edge of the original tailing site was constructed.

The mine stopped production in November 1981, while Anaconda waited for copper prices to rise. When this did not happen, the processing facilities were torn down, sold, and removed from the property in late 1984.

The Carr Fork Operation property was sold to Kennecott Copper in October 1985. This included the mine and mill along with several acres of land east of the smelter site. It excluded the settling and tailing ponds, currently owned by Atlantic Richfield.

Sampling

Sampling was conducted in 2002 to identify any contaminants in the land and surface water.

Atlantic Richfield has provided to the Environmental Protection Agency summaries of soil sediment along with surface and ground water sampling.

On-site samples were taken from various locations and soil depths. Water samples were taken from streams. Eight residential samples were taken which included:

- soil samples from the yard
- dust sample from inside the home

Sampling Results

(Samples are expressed in parts per million. This booklet contains residential sampling only. Results of all sampling are available at the TCHD Environmental Health Office at 151 North Main Street in Tooele (435) 843-2340.)

Homes: (0-2" depth)		
LEAD in Soil (ppm)		
Minimum	Maximum	Average
33.6	1100	360
Lead Dust in the home		
93	310	190

An action level to determine any remediation measures will be determined by the Environmental Protection Agency in the spring of 2003.

Sampling (continued)

Homes			
Arsenic in Soil (ppm)			
Depth	Minimum	Maximum	Average
0-2"	7	150	42
Arsenic Dust in the home			
	10	30	21

Open Fields near Pine Canyon			
Lead in Soil (ppm)			
Depth	Minimum	Maximum	Average
0-2"	130	1990	583
Lead in Sediments			
0-2"	20	1800	590
2"-6"	35	1600	461

Open fields near Pine Canyon			
Arsenic in Soil (ppm)			
Depth	Minimum	Maximum	Average
0-2"	20	200	81
Arsenic in Sediment			
0-2"	14	330	83
2-6"	10	210	71

International Smelting & Refining Co. Site History

In the early 1900's, when International Smelting and Refining (IS&R) began looking for a place to build a smelter, the mouth of Pine Canyon in the Tooele Valley was considered ideal. It was believed that predominant westerly winds would carry stack emissions up the canyon and away from Tooele City. It was also thought to be an ideal site because it was near large ore (copper) supplies. In addition, it was near the main-line railroad. Ore from the east side of Oquirrh Mountain was brought to the site by aerial tramway and the 4.36 mile long Elton Tunnel. The original IS&R operations consisted of approximately 1200 acres of land located on a broad bench at the mouth of Pine Canyon. The Carr Fork Milling Operations were located on 12.5 acres within Pine Canyon.

Copper, lead, and zinc ore mining and processing occurred over a period of about 70 years.

Historically, the site included:

- Mine workings
- Mill site
- Tailings impoundment
- Landfill area
- Smelter area
- Slag pile
- Settling pond

Refining operations began in 1910. From 1910 through 1972, IS&R operated a copper and lead smelter. In the early years, tailings, slag, and flue dust were produced at an annual rate of 650,000 tons per year.

Current Land Use & Recreation

Currently, the site and surrounding areas are being managed as a wildlife conservation area. To encourage wildlife to use the area in winter, the Carr Fork Reclamation and Wildlife Management Area is closed to public access from December 1 through April 15th.



Not included in the conservation portion are two shooting ranges:

- A small pistol range is leased from Atlantic Richfield to the City of Tooele
- A shotgun range is leased from Atlantic Richfield to the Tooele Gun Club

Motorized vehicles are permitted within the gun club parcels only.

Approved activities

- Walking & jogging on the site and along the Carr Fork access road
- Wildlife observation
- Hunting (with hunting dogs) during the respective hunting seasons
- Pets will be allowed along the Carr Fork access road as long as they are on a leash and owners pick up their pets fecal material and dispose of it appropriately off site.



For more information about allowed recreation use, please contact the Utah Division of Wildlife Resources, Central Region Habitat Manager at 1115 North Main Street, Springville, Utah 84663. (Phone: 801-491-5678.)

Prohibited Activities

To preserve the land, topsoil, and vegetation, the following activities are **not allowed** in the conservation area:

- Motorized vehicles
- Motorcycles
- ATV's and other recreational equipment
- Bicycles
- Livestock grazing
- Swimming or wading
- Fires
- Dumping or leaving garbage

The land, topsoil, and vegetation are monitored closely. ATV's, motorcycles, dirt bikes and other recreational vehicles are not allowed.

**No motorized vehicles
(trucks, cars, campers, etc)**



No Motorcycles



**No ATV's or other off
road vehicles**



No bikes



Reclamation

The Utah Mined Land Reclamation Act of May 1975 required reclamation (clean-up) of the Carr Fork Operations. The IS&R smelter was considered “pre-law” which means it did not legally have to be cleaned up. However, during 1986 – 1987 Atlantic Richfield (who purchased Anaconda in 1977) voluntarily included both areas (IS&R and the Carr Fork Operations) in its reclamation work to control any potential risks to humans and the environment.

As part of a Reclamation/Stabilization Plan, Atlantic Richfield demolished all the buildings on-site, consolidated and isolated waste, graded the site with uniform slopes to minimize erosion, and planted a vegetated cover. After the reclamation effort, Atlantic Richfield entered into a conservation easement agreement with the Utah Division of Wildlife Resources to manage the site for wildlife habitat and conservation values.

