

Red Butte Creek

THE FINAL PUBLIC HEALTH ASSESSMENT IS NOW AVAILABLE

This fact sheet gives highlights of the Utah Department of Health's (UDOH) Public Health Assessment (PHA) on the Red Butte Creek site. If you would like a copy of the full PHA report, contact the UDOH, Environmental Epidemiology Program (EEP). Contact information is located on the back of this summary or visit: www.health.utah.gov/enviroepi

Overview:

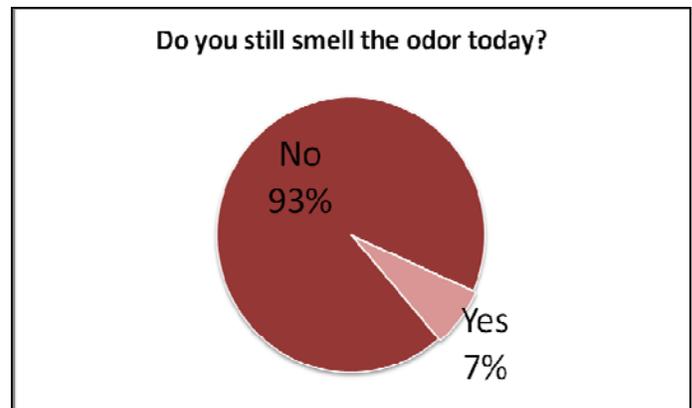
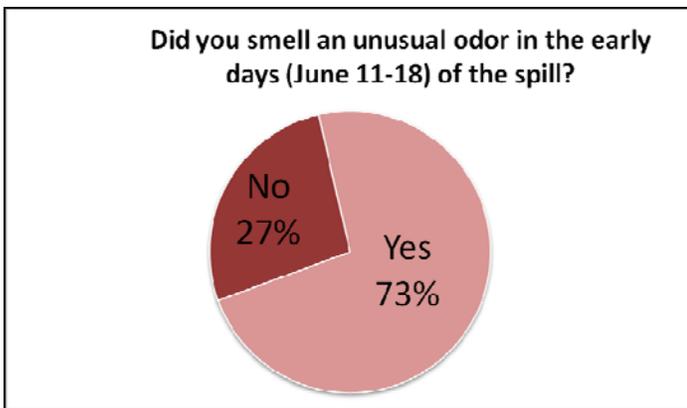
The PHA evaluated the health risks to residents from crude oil contamination and the impact to the environment from the crude oil spill, specifically focusing on water and air. Based upon the available data regarding air and water contamination of the Red Butte Creek due to the Chevron oil spill, the EEP finds NO immediate health hazard to the community.

Based upon EEP's review of the Red Butte Creek surface water and air data and the concerns expressed by community members, the following actions are recommended:

- The cancer incidence study specific for cancer types linked to crude oil exposure should be re-evaluated every five years, as additional cancer data becomes available.
- Coordination with the Utah Department of Environmental Quality (UDEQ) will continue to assess future sampling data during the remediation process, including flush events.

Odor:

A smell isn't the same as toxicity. In this case, health effects or symptoms from odor exposure can be traced to two causes, the individual's sensitivity to the odor or the odor itself. Symptoms vary depending on the frequency, concentration, and duration of the odor. The most common complaints are eye, nose, and throat irritation, headache, nausea, sore throat, cough, nasal congestion, drowsiness, and mood changes. Odors in the air are usually not at levels that cause disease. Symptoms generally only occur at the time of exposure and decrease within a short time after the odor ceases.



Comparison of odor believed to be detected in June 2010, when the initial release occurred and November 2010, when a community needs assessment was distributed to area residents.

Specific Chemical Health Effects:

Although remediation of the oil and restoration of the creek has occurred, many area residents are concerned about acute and chronic health effects resulting from exposure to crude oil. Their concerns include exposures to contaminants in the water as well as volatile organic compounds (VOCs) in the air during and after the spill.

VOCs—Volatile organic compounds are emitted as gases. VOCs are very volatile and dissipate into the air quickly. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors.

BTEX—BTEX is the term used for benzene, toluene, ethylbenzene, and xylene—volatile organic compounds typically found in petroleum products

The potential for adverse health effects depends on many factors, including:

- (1) The amount of each chemical to which a person is or has been exposed;
- (2) How long a person is exposed;
- (3) The manner by which a person is exposed;
- (4) The health condition of the person;
- (5) The nutritional status of the person; and
- (6) Exposure to other chemicals (such as cigarette smoke or chemicals in the work place).

B—Benzene is a colorless liquid with a sweet odor. It evaporates quickly into air and does not readily dissolve in water. Breathing benzene can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness.

T—Toluene is a colorless gas that occurs naturally in crude oil and has a distinctive smell. Exposure to toluene at low to moderate levels can result in fatigue, confusion, weakness, memory loss, nausea, loss of appetite, and loss of hearing and/or color vision

E—Ethylbenzene is a colorless yet flammable liquid with a gasoline-like smell. Health effects from acute exposures to ethylbenzene include eye and throat irritation and dizziness.

X—Xylene is a colorless, flammable gas with a distinctly sweet smell. Health affects resulting from exposure to high levels of xylene include headache, lack of muscle control, dizziness, confusion, and a change in balance. Acute high levels of xylene can cause irritation of the skin, eyes, nose, and throat, difficulty breathing, stomach irritation, and memory problems. Liver and kidney damage are also possible.

Naphthalene

Naphthalene is a volatile white solid. Health effects from exposures of large quantities of naphthalene include damage to red blood cells, called hemolytic anemia. Other health effects include nausea, vomiting, diarrhea, blood in the urine, and jaundice.

FOR MORE INFORMATION:

Local:

Salt Lake Valley Health Department
www.slvhealth.org



State:

Utah Department of Health
Environmental Epidemiology Program
(801) 538-6191
www.health.utah.gov/enviroepi



Federal:

Agency for Toxic Substance and
Disease Registry
www.atsdr.cdc.gov
www.atsdr.cdc.gov/toxfaqs

