Printed from: Interstate Technology & Regulatory Council (ITRC). 2017. *Bioavailability of Contaminants in Soil: Considerations for Human Health Risk Assessment.* BCS-1. Washington, D.C.: Interstate Technology & Regulatory Council, Bioavailability in Contaminated Soil Team. http://bcs-1.itrcweb.org.

11 Case Studies

The case studies describe how **bioavailability** values have been used in decision making at specific sites. Examples include results for lead, arsenic, and PAHs in **soil**. These case studies illustrate the type of work that might be undertaken in **site-specific bioavailability assessment** or in support of a new program on bioavailability. The studies outline the site-specific analyses that were conducted to support alternative (not default) inputs for bioavailability in the human health evaluation or remedy selection for the site. In some instances, the analyses were relatively straightforward and based on in vitro extraction data for soils from the site. In other instances, the effort entailed new research or the development of new research methods.

ITRC continues to collect case studies that illustrate the use of technologies for which it publishes guidance; contact team leaders to share a case study.

The case studies presented are summarized in Table 11-1.

Table 11-1. BCS Case Studies

Case study	Contaminants	Soil Type	Source Type	State
Empire Mine State Historic Park, CA	Arsenic	High Iron	Mining	California
Road 1815, Cattle Dip Vat Site, Ozark National Forest, AR	Arsenic	Sandy loam with gravel and cobbles	Pesticide, pre-1950	Arkansas
Hill Air Force Base, UT	Arsenic	Red-stained surface soil at former groundwater seeps on a hillside	Naturally occurring arsenic mobilized by reduced groundwater conditions and historical wastes	Utah
Resolution Copper West Plant Site, AZ	Arsenic	Not available	Smelter	Arizona
Red Rock Road, Douglas County, OR	Arsenic	Well-graded gravel with some fines. High in Iron oxides	Mining of mercury ore	Oregon
Confidential Site, Midwest, U.S.	Lead	Not available	Industrial	Midwest, U.S.
Former Foster Air Force Base, Victoria, TX	PAH	Clay, silt, sand with localized gravel and caliche	Skeet target fragments	Texas
Bingham-Magna Ditch, Salt Lake Valley, UT	Arsenic	Arsenic occurs predominantly in association with iron oxyhydroxides	Tailings water from copper precipitation plants, copper ore	Utah
Over the Horizon Backscatter (OTHB) Receiver site, CA	Arsenic	Red soils, high in iron oxides	CCA wood preservative	California
Former MGP site, MI	Arsenic	Fill, fine to medium grained sand	MGP coal ash	Michigan
Barker, Hughesville Mining District, MT	Lead	Not available	Mining	Montana
Silver Bow Creek/Butte Area Superfund Site, Butte, MT	Lead	Alluvial deposits, sandy clay to sand and gravel	Mining	Montana
Midvale Slag NPL Site, Midvale UT	Lead	Soil and slag	Former smelter	Utah