

Executive Summary: Assessment of Contamination at the former Tongue River Lumber Facility

Based upon the results of a recent study of the presence of contaminants at the former Tongue River Lumber Facility (TRLF) it is recommended that the Northern Cheyenne Tribe consider the following actions to be implemented at the TRLF in Ashland, MT:

- 1) Implement Tribal "Institutional Controls" on the facility to minimize any hazard from exposure to the contaminants present in the surface soils at the facility by:
 - control of access to the facility by the general public;
 - allowing access only by persons with proper training and safety equipment/clothing; and
 - prohibit any removal of soils from the facility except to a proper treatment or disposal facility.
- 2) Seek funding to remove and replace the contaminated surface soils at the facility to allow the safe reuse and redevelopment of the facility.

Background:

The URS Operating Systems, a U.S. EPA Superfund Contractor, conducted a Targeted Brownfield Assessment, Phase II Environmental Site Assessment at the TRLF in May 2011 and has submitted the draft *PHASE II ANALYTICAL RESULTS REPORT*, dated Sept. 28, 2011.

The purpose of the assessment was to develop sufficient information about the presence of previously identified recognized environmental conditions at the property to meet the objectives of the NCT and to provide sufficient data to assist the NCT in making informed decisions with regard to the future use of the property by the NCT.

The assessment collected surface soil, subsurface soil, and shallow groundwater samples to evaluate if environmental risk above standardized risk-based concentrations exists to current and potential future users of the property and to determine if cleanup or further evaluation is required before the property can be developed as intended by the Northern Cheyenne Tribe. The included the collection of 21 surface soil samples, 10 subsurface soil samples, and 11 groundwater samples.

Results of the Assessment:

The soils were analyzed for the presence of metals, Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs) that may be harmful to human health or the environment since they can cause illness or in some cases are carcinogens (cancer causing). The following contaminants exceeded US EPA screening levels. These are the levels that trigger the need for possible cleanup of a site due to a potential risk to human health or the environment depending on the current and future use of a site. The current or future use of a site can be used to determine the risk based cleanup levels that are determined to be necessary by the Tribe.

Metals in Soils: Arsenic in surface soils exceeded the EPA Regional Screening Levels (RSLs);

Barium, iron, and selenium were detected in most of the surface soil samples at concentrations above the EPA Soil Screening Levels (SSLs);

Surface soil samples with elevated VOC and SVOC concentrations included:

- the drum loading and storage area, surrounding the easternmost building in the lumber facility operations area;
- the former drum storage area west of the main sawmill maintenance shop.

VOCs detected above EPA SSLs in the surface soil samples included:

- 2-hexanone,
- 1,1-dichloroethene; and
- methylene chloride.

SVOCs detected above EPA SSLs in the surface soil included:

- bis(2-ethylhexyl)phthalate;
- butylbenzylphthalate;
- benzo(a)anthracene;
- Bis(2-ethylhexyl)phthalate;
- Naphthalene; and
- Pentachlorophenol (PCP – used for wood treatment).

EPA Contractor Recommendations:

Safely and Properly remove contaminants in accordance with all State, Tribal and Federal Regulations. The removal of the corresponding soil is recommended to be completed with assistance of the Northern Cheyenne Tribe-Environmental Protection Department-Brownfields Coordinator. Areas for recommended soil removal include:

- the drum loading and storage area;
- the area surrounding the easternmost building in the lumber facility operations area;
- the former drum storage area west of the main sawmill maintenance shop; and
- the south side of the garage and near the old transformer.

All soil should be removed to a minimum depth of 1 foot below ground surface (bgs). All Activities must be in accordance with recommended Health Safety Plan available at the EPD office with Jolisa Bahr-Whiteface. (406)477-6506 ext 102; jolisa.whiteface@gmail.com