

**The Former Stimson Lumber Mill
Operable Unit 5
Institutional Control
Implementation and Assurance Plan
Revision 0**

USACE Contract No: W9128F-11-D-0023
Task Order No. 0009

U.S. Environmental Protection Agency



Libby Asbestos Superfund Site
Libby, Montana

August 2016



**CDM
Smith**

**Libby Asbestos Superfund Site
The Former Stimson Lumber Mill
Operable Unit 5
Lincoln County, Montana**

Institutional Control Implementation and Assurance Plan, Revision 0

USACE Contract No. W912DQ-08-D-0018

Task Order No. 0009


Reviewed by:


Geoffrey McKenzie, P.E.
CDM Smith Technical Reviewer

Date:

8/26/16

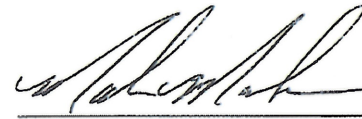
Approved by:


Thomas Cook, CHMM, PMP
CDM Smith Project Manager

Date:

8/29/16

Approved by:


Mark Meacham
USACE Program Manager

Date:

8/30/16

Approved by:


Dania Zinner
EPA Region VIII Remedial Project Manager

Date:

8/30/16

Document Revision Log

Revision No.	Date	Description
0	8/2016	---

Table of Contents

Section 1	Introduction	1-1
Section 2	Site Details	2-1
	2.1 Site Description	2-1
Section 3	Operable Unit 5 – Former Stimson Lumber Mill.....	3-1
	3.1 OU5 Characteristics and History.....	3-1
	3.2 Response Action Discussion	3-1
	3.2.1 Summary of Institutional Control Elements.....	3-1
	3.3 Contaminant of Concern	3-2
	3.3.1 Boundaries of Impacted Resources	3-2
	3.4 Current OU5 Site Information	3-3
	3.4.1 Parcel Ownership/Occupancy Information.....	3-3
	3.4.1.1 Kootenai Business Park Parcel Contact Information.....	3-3
	3.4.1.2 Motocross Track Parcel Contact Information	3-3
	3.4.1.3 International Paper Parcel Contact Information	3-3
	3.4.1.4 Flathead Substation Parcel Contact Information	3-3
	3.4.1.5 Stinger Welding Montana Inc. Contact Information	3-3
	3.4.2 Property Interest and Resource Ownership.....	3-4
	3.4.3 Current and Reasonably Anticipated Future OU5 Land Use.....	3-4
	3.4.3.1 Land Use	3-4
	3.4.3.2 Groundwater Use.....	3-4
	3.4.3.3 Surface Water Use	3-4
	3.4.4 Responsible Parties and Stakeholders	3-4
	3.4.5 Local Government Information.....	3-4
	3.5 Site Mapping	3-5
Section 4	Institutional Control Implementation.....	4-1
Section 5	Institutional Control Instruments.....	5-1
	5.1 Key Components	5-1
	5.1.1 Institutional Controls Objectives.....	5-1
	5.1.2 Current and Reasonably Anticipated Future Land Use	5-1
	5.1.3 Instrument Duration	5-1
	5.2 Instrument Categories.....	5-1
	5.2.1 Proprietary Controls	5-2
	5.2.1.1 Proprietary Controls Use Restrictions	5-2
	5.2.2 Government Controls	5-2
	5.2.2.1 Government Controls Use Restrictions	5-2
	5.2.3 Enforcement Documents with Institutional Control Components.....	5-2
	5.2.4 Informational Devices	5-3
	5.2.4.1 Informational Devices Use Restrictions	5-4
Section 6	Institutional Control Maintenance.....	6-1
Section 7	Institutional Control Enforcement.....	7-1
Section 8	Institutional Control Modification and Termination	8-1

List of Tables

Table 1-1	Libby Asbestos Site OUs
Table 4-1	Status of IC Implementation

List of Figures

Figure 1-1	Site Location Map
Figure 2-1	Operable Unit Map
Figure 3-1	OU5 Property Uses and Ownership
Figure 3-2	LA and Visible Vermiculite in Surface Soil at Operable Unit 5
Figure 3-3	LA and Visible Vermiculite in Sub-surface Soil at Operable Unit 5
Figure 3-3A	LA and Visible Vermiculite in Sub-surface Soil at Operable Unit 5 Insets

Appendices

Appendix A	Montana Department of Transportation Encroachment Application and Permit with Addendum
Appendix B	OU5 Best Management Practices Manual

Acronyms and Abbreviations

ABS	activity-based sampling
ARP	Asbestos Resource Program
BMP	best management practice
BNSF	BNSF Railway Company
BOH	City/County Board of Health
COC	contaminant of concern
DEQ	Montana Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
ESD	explanation of significant differences
Grace	W.R. Grace
IC	institutional control
ICIAF	Institutional Control Implementation and Assurance Plan
IUR	inhalation unit risk
LA	Libby amphibole asbestos
MDT	Montana Department of Transportation
MCA	Montana Code Annotated
O&M	Operations and Maintenance
OU	operable unit
Rfc	reference concentration
ROD	record of decision
ROW	right-of-way
SEMS	Superfund Enterprise Management System
Site	Libby Asbestos Superfund Site
U-Dig	Montana utility locate service
VCI	vermiculite-containing insulation

This page was intentionally left blank.

Section 1

Introduction

This Institutional Control Implementation and Assurance Plan (ICIAP) was prepared by the U.S. Environmental Protection Agency (EPA) for the EPA Region 8 Libby Asbestos Superfund Site (Site) (Figure 1-1) in Libby, Montana. The Site has been divided into eight separate operable units (OUs) (Table 1-1). This ICIAP addresses OU5, the former Stimson Lumber Mill. This plan discusses institutional controls (ICs) currently in place or planned for use on the OU5 site. For the purpose of use within this document ICs are defined as non-engineered instruments, such as administrative and/or legal controls that help to minimize the potential for human exposure to contamination and/or protect the integrity of remedy. The EPA and Montana Department of Environmental Quality (DEQ) will continue to work with the community to further develop ICs that will help clarify the tools that will be used to implement them. In addition, property owners within OU5 may develop additional ICs that would be addressed and detailed in their respective site management plan. This ICIAP will be updated upon any further development, additional, or modification to ICs. Investigation and response actions of OU5 were performed by the EPA, in consultation with the DEQ, under the Superfund law.

OU5 is the subject of this ICIAP and includes areas impacted by contamination from activities associated with mining, processing, and shipping of vermiculite by the W.R. Grace & Co. – Conn. (Grace). Exposure to vermiculite and Libby amphibole asbestos (LA) was largely mitigated by removal of surface soil and the placement of clean soil backfill and insulation and/or buildings materials in areas of OU5 (known as the former Stimson Lumber Mill) during removal activities. Potential LA material, however, remains (or may remain) at OU5 posing a potential hazard if disturbed during excavation or other activities. The purpose of this ICIAP is to ensure that ICs adopted are properly implemented, maintained, and enforced.

This ICIAP identifies current elements and instruments that are designed to implement, maintain, and enforce ICs at OU5, and the organizations responsible for conducting activities associated with management of ICs. This ICIAP will help ensure that OU5 ICs are properly implemented to protect the remedies in place, and continue to operate as intended. This document and the IC program are subject to change by the agencies (EPA and DEQ) should modification of the currently listed ICs be necessary, and as more robust IC tools become available in the future.

Future oversight of ICs at OU5 will be the responsibility of DEQ during operation and maintenance (O&M) phases on the OU5 site and are included in the *Draft Operations and Maintenance Plan, Former Stimson Lumber Mill, Operable Unit 5* (CDM Smith 2016b).

Table 1-1 Libby Asbestos Site OUs

OU#	Name
1	Former Export Plant
2	Former Screening Plant and nearby areas
3	Former Vermiculite Mine
4	Libby, Montana (residential, commercial, industrial, and public properties)
5	Former Stimson Lumber Mill

6	BNSF Railway
7	Troy, Montana (residential, commercial, and public properties)
8	U.S. and Montana State highways and secondary highways that lie within the boundaries of the Site.

This page was intentionally left blank.

Section 2

Site Details

2.1 Site Description

The Libby Asbestos Superfund Site (Superfund Enterprise Management System #MT0009083840) is located in and around the Cities of Libby and Troy, Montana. Libby is the county seat of Lincoln County and is in the northwest corner of Montana, about 35 miles east of Idaho and 65 miles south of Canada.

Numerous hard rock mines have operated in the Libby area since the 1880s, but the dominant impact to human health and the environment in the City of Libby has been from vermiculite mining and processing. The vermiculite deposit that was mined by Grace contains a distinct form of naturally occurring amphibole asbestos, LA, which is considered the contaminant of concern (COC) at the Libby Asbestos Superfund Site. EPA initiated an emergency response action in November 1999 to address questions and concerns raised by citizens of the City of Libby regarding possible ongoing exposures to asbestos fibers as a result of historical mining, processing, and exportation of asbestos-containing vermiculite. To facilitate a multi-phase approach to remediation of the Libby Asbestos Superfund Site, eight separate OUs were established. These OUs are shown on Figure 2-1 and are described below:

OU1. The Former Export Plant OU1 is situated just north of the downtown area of the City of Libby, Montana. The property is bounded by the Kootenai River on the north, Highway 37 on the east, the BNSF Railway Company (BNSF) railroad thoroughfare on the south, and State of Montana property on the west. OU1 includes the former Export Plant, Riverfront Park, and the embankments of City Service Road and Highway 37. The Highway 37 right-of-way adjacent to the OU1 site was included due to the proximity to the OU1 site and the known contamination in the right-of-way (ROW).

OU2. OU2 includes areas impacted by contamination released from the Former Screening Plant. The Highway 37 right-of-way adjacent to the OU2 site was included due to the proximity to the OU2 site and the known contamination in the ROW. For the purposes of this ICIAP, the contaminated portion of the Highway 37 right-of-way is considered part of Subareas 1, 2 and 3 within OU2.

OU3. The mine OU includes the former vermiculite mine and the geographic area (including ponds) surrounding the former vermiculite mine that has been impacted by releases from the mine, including Rainy Creek and the Kootenai River.

OU4. OU4 is defined as residential, commercial, industrial (not associated with former Grace operations), and public properties, including schools and parks in and around the City of Libby, or those that have received material from the mine not associated with Grace operations. OU4 includes only those properties not included in other OUs.

OU5. The Former Stimson Lumber Mill OU5 is the subject of this plan and includes all properties that were part of the former Stimson Lumber Mill and that are now primarily owned and managed by the Lincoln County Port Authority.

OU6. The rail yard owned and operated by BNSF is defined geographically by the BNSF property boundaries and extent of contamination associated with BNSF rail operations. Generally, the boundary

is as wide as the railroad right-of-way. Railroad transportation corridors are also included in this OU and no boundaries have been set at this time on the east-west length of the OU.

OU7. The Troy OU includes all residential, commercial, and public properties in and around the Town of Troy, approximately 20 miles west of downtown Libby.

OU8. OU8 is comprised of the U.S. and Montana State highways and secondary highways that lie within the boundaries of the Site.

Section 3

Operable Unit 5 – Former Stimson Lumber Mill

3.1 OU5 Characteristics and History

OU5 covers approximately 400 acres to the east of US Highway 2, just south of the City of Libby downtown area (Figure 3-1). OU5 is also referred to as the former Stimson Lumber Mill site, as many lumber processing facilities were located throughout the OU. The J. Neils Lumber Company began wood treating operations at OU5 in approximately 1946. The lumber company and wood treating operation was purchased by St. Regis Corporation in 1957. Champion International Corporation purchased the facility in 1985 who then sold it to Stimson Lumber Company in 1993.

The majority of lumber production activities ceased in 2003 when Stimson Lumber Company sold the property to the Lincoln County Port Authority. The OU5 site is currently being used for a variety of both recreational and industrial uses. (HDR 2013).

3.2 Response Action Discussion

Multiple investigation, pre-removal, and removal events have occurred at OU5 between 2001 and 2014. A majority of these activities were conducted by the EPA; however, some response actions at OU5, particularly removals completed prior to 2005, were conducted by the property owner at the time of the response. These activities are detailed in the *Final Remedial Investigation Report, Operable Unit 5 – Libby Asbestos National Priorities List Site* (HDR 2013) and the *Draft Final Remedial Action Report, Operable Unit 5 – The Former Stimson Lumber Mill* (CDM Smith 2016a).

3.2.1 Summary of Institutional Control Elements

The following is a summary of response action IC elements currently in place to satisfy the remedial alternatives discussed in the *Record of Decision for Libby Asbestos Superfund Site, Libby and Troy Residential and Commercial Properties, Parks and Schools, Transportation Corridors, Industrial Park, Operable Units 4-8* (EPA 2016):

For OU5, ICs will be used to ensure that any future encounters with residual contamination are managed appropriately. ICs for OU5 include governmental and proprietary land use restrictions and informational devices.

Below is the list of ICs currently in place or planned for the site; a status of each IC instrument is discussed in Table 4-1 and each IC is described in Section 5.

- DEQ environmental covenant
- Montana utility locate service (U-Dig) [Montana Code Annotated (MCA) 2011, 69-4-501].
- Montana Department of Transportation (MDT) encroachment application and permit
- Best management practices (BMP) manual
- Lincoln County Port Authority site management plan
- Operations and maintenance plan
- EPA Libby Asbestos Superfund Site website (source of information on site and site documents)

- City/County Board of Health¹ (BOH)-Asbestos Resource Program (ARP)
- Libby – EPA Information Center

3.3 Contaminant of Concern

The main COC and agent for potential exposure to the public, tenants, or owners at OU5 have been termed interchangeably by the EPA as Libby amphibole asbestos or LA. The EPA has established an inhalation unit risk (IUR) value and reference concentration (Rfc) value for exposure to LA at the Site. Information on the IUR value and Rfc value for exposure to LA is detailed in the *Final Site-wide Human Health Risk Assessment, Libby Asbestos Superfund Site, Libby, Montana* (CDM Smith 2015a).

The vermiculite deposit that was mined by Grace contains a distinct form of naturally-occurring amphibole asbestos that is comprised of a range of mineral types and morphologies. The term LA is used in this document to identify the mixture of amphibole mineral fibers of varying elemental composition (e.g., winchite, richterite, tremolite, etc.) that have been identified in the Rainy Creek complex near Libby, MT (Meeker et al. 2003). LA is a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act. LA has the ability to form durable, long, and thin structures that are generally respirable, can reasonably be expected to cause disease, and hence is considered the contaminant of concern at the Site.

Because vermiculite mined from Libby has been found to be contaminated with LA, which is known to cause human health effects, the EPA initiated an emergency response action in November 1999 to address questions and concerns raised by citizens of Libby regarding possible ongoing exposures to asbestos fibers as a result of historical mining, processing, and exportation of vermiculite.

3.3.1 Boundaries of Impacted Resources

As discussed previously, numerous investigations and response actions were conducted within OU5. Based on those investigations, contamination is known to be present in the following media:

- Soil (surface and subsurface)
- Building materials

Exposure to the contamination has been mitigated by various removal actions (see Section 3.2) conducted at OU5 primarily to remove accessible source materials.

Location of contamination left in place in the surface and subsurface soils at OU5, based on investigation activities and removal-related confirmation soil sampling, are shown in Figures 3-2 and 3-3.

Specific sources of contamination, as described in the *Draft Final Former Stimson Lumber Mill, Operable Unit 5, Draft Final Remedial Action Report* (CDM Smith 2016a) and the *Draft Former Stimson Lumber Mill, Operable Unit 5, Operations and Maintenance Plan* (CDM Smith 2016b) include the following:

- Soil – Surface soil is known to contain LA at non-detect and Trace (greater than non-detect and less than 0.2 percent [by mass]) levels. Subsurface soil is known to contain vermiculite and also

¹ City/County Board of Health will be involved in the process of developing and determining Site-wide ICs. Site-wide ICs have yet to be fully established at this time.

LA at non-detect, Trace, less than 1 percent, and 2 percent levels. The location of known LA remaining in the surface and subsurface is shown on figures 3-2 and 3-3.

- Building materials – Vermiculite-containing insulation (VCI) is likely to remain within portions of interior and exterior walls of the Central Maintenance Building, Finger-Jointer Building, and Finger-Jointer Building Valve House. VCI within these buildings is considered inaccessible, is currently sealed in place, and the amount of contamination is known.

3.4 Current OU5 Site Information

3.4.1 Parcel Ownership/Occupancy Information

The Listed parcel ownership information was collected from Montana Cadastral at the following web link: <http://svc.mt.gov/msl/mtcadastral/>.

3.4.1.1 Kootenai Business Park Parcel Contact Information

Owner: Lincoln County Port Authority
PO Box 1071
Libby, MT 59923

Kootenai Business Park: The property is currently listed as an industrial site and is being used primarily for industrial development, commercial uses, and some recreational purposes.

3.4.1.2 Motocross Track Parcel Contact Information

Owner: Millpond Motocross Association Inc.
PO Box 1000
Libby, MT 59923

Motocross Track: The property is currently listed as rural land and is being used primarily for recreational purposes.

3.4.1.3 International Paper Parcel Contact Information

Owner: International Paper Co
PO Box 2118
Memphis, TN 38101

International Paper: The property is currently listed as an industrial site and is being used primarily for industrial purposes. There are currently no plans to develop the property and is currently the site of the Libby Groundwater Superfund Site.

3.4.1.4 Flathead Substation Parcel Contact Information

Owner: Flathead Electric Cooperative Inc.
2510 US Highway 2 E
Kalispell, MT 59901

Flathead Substation: The property is currently listed as centrally assessed non-valued and is currently being used for an electrical substation.

3.4.1.5 Stinger Welding Montana Inc. Contact Information

Owner: Stinger Welding Montana Inc.
Mail to: Timothy Priebe

Dickinson, ND, 58602-1034

Stinger Welding: The property is currently listed as an Industrial property and was being used for industrial welding operations.

3.4.2 Property Interest and Resource Ownership

There are currently multiple businesses occupying spaces through lease/rental agreements from the Lincoln County Port Authority within OU5. It is the property owner's responsibility to ensure ICs impacting lessee/renter activities are communicated and adhered to throughout the duration of occupancy.

3.4.3 Current and Reasonably Anticipated Future OU5 Land Use

3.4.3.1 Land Use

For all areas of OU5, the ICs have been developed based upon the current land use, which is the reasonably anticipated future land use, as noted below.

Kootenai Business Park, is currently owned by the Lincoln County Port Authority and it is anticipated that the property will continue to be used for Industrial development and recreational purposes.

Motocross Track, is currently owned by the Millpond Motocross Association and it is anticipated that the property will continue to be used for recreational purposes.

International Paper, is owned by the International Paper Company and it is anticipated that the property will continue to be used industrial purposes.

Flathead Substation, is currently owned by the Flathead Electric Cooperative and it is anticipated that the property will continue to be used for industrial purposes.

3.4.3.2 Groundwater Use

The EPA does not consider groundwater to be a viable pathway for LA exposure within OU5, therefore, groundwater use is not included under this IC plan.

3.4.3.3 Surface Water Use

Potential impacts to surface water (Libby Creek) has been evaluated in both the *Final Site-wide Human Health Risk Assessment, Libby Asbestos Superfund Site, Libby, Montana* and *Site-wide Baseline Ecological Risk Assessment, Libby Asbestos Superfund Site, Libby, Montana* (CDM Smith 2015a, CDM Smith 2014).

3.4.4 Responsible Parties and Stakeholders

There are currently no additional responsible parties or stakeholders other than those described above in Section 3.4.1.

3.4.5 Local Government Information

The BOH has entered into a cooperative agreement with the EPA in which the ARP was developed. The BOH-ARP under the direct supervision of the Lincoln County Environmental Health Department was developed to assist with education, managing risks associated with asbestos exposure, and implementing initiatives to reduce the risk of asbestos exposure.

3.5 Site Mapping

Mapping of residual contamination, site boundaries, physical remedy components, and site features for OU5 is shown on Figure 3-2, 3-3, and 3-3A.

Section 4

Institutional Control Implementation

The following table (Table 4-1) provides a brief summary of the implementation for all IC instruments for OU5 set forth by this plan. Details regarding IC instruments are provided in Section 5.

Table 4-1 Status of IC Implementation

Instrument Name	Environmental Covenant	U-Dig	Encroachment Permit	BOH-ARP	EPA Information Center	BMP Manual	O&M Plan	Lincoln County Port Authority Site Management Plan
Instrument Category	Proprietary Control	Government Controls	Government Controls	Informational Device	Informational Device	Informational Device	Informational Device	Informational Device
IC Objectives (a)	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Use to Maintain Protectiveness of Remedy	Under Development	Not Applicable	Penetration of the protective physical remedy, disturbance and transportation of potential contaminated sub-surface soil	Not Applicable	Not Applicable	Not Applicable	Best Management Practices and Engineering Controls	Penetration of the protective physical remedy, disturbance and transportation of potential contaminated sub-surface soil
Implementation Prerequisites	Must be approved by DEQ and filed with the Clerk and Recorder's Office of Lincoln County	Already in place	Already in place	Already in place	Already in place	Already in place	Not in place	Not in place
Implementation Complete	Legal recording of institutional control	Already in place	Already in place	Already in place	Already in place	Already in place	Not in place	Not in place
Person or Organization Responsible for Performing Implementation	DEQ	EPA/BOH-ARP	MDT	EPA/BOH-ARP	EPA / DEQ	EPA / DEQ / Property owner	EPA / DEQ	Lincoln County Port Authority
Instrument Lifespan	To be Determined				Temporary	To be Determined		
Conditions for Termination of IC	Complete removal and disposal of all LA contamination at the subject property				Throughout Remedial Action at the Site	Complete removal and disposal of all LA contamination at the subject property		

(a) IC Objectives

1. *Soil – Prevent LA fibers that may remain in soil within OUS after meeting remedial criteria for the land use category from becoming a future source of unacceptable risk.*
2. *Building Materials – Prevent LA fibers that remain in inaccessible building materials from becoming a future source of unacceptable exposure.*
3. *Land Use – Track changes in land use and develop a notification system to ensure that property owners, prospective property owners, and workers are aware of remaining or potential LA, which could become a future source of unacceptable exposure and IC requirements.*

Section 5

Institutional Control Instruments

The following section outlines IC components and the four types of IC instruments (categories) in place or planned at OU5: proprietary controls, governmental controls, and informational devices.

5.1 Key Components

5.1.1 Institutional Controls Objectives

The following are the main objectives of the ICs in place at OU5 based on the *Record of Decision for Libby Asbestos Superfund Site, Libby and Troy Residential and Commercial Properties, Parks and Schools, Transportation Corridors, Industrial Park. Operable Units 4-8* (EPA 2016):

1. **Soil** – Prevent LA fibers that may remain in soil within OU5 after meetings remedial criteria for the land use category from becoming a future source of unacceptable risk.
2. **Building Materials** – Prevent LA fibers that remain in inaccessible building materials from becoming a future source of unacceptable exposure.
3. **Land Use** – Track changes in land use and develop a notification system to ensure that property owners, prospective property owners, and workers are aware of remaining or potential LA, which could become a future source of unacceptable exposure and IC requirements.

5.1.2 Current and Reasonably Anticipated Future Land Use

The ICs in place at OU5 are expected to allow for the current and reasonably anticipated future uses of industrial, commercial, parks (recreational), and maintenance activities at the site. ICs are expected to serve to control any potential disturbance of the protective remedy through such means as a Section 75-10-727, MCA, institutional control (environmental covenant), U-Dig, MDT encroachment application and permit, BMPs, contacting the BOH-ARP, the EPA Information Center, Lincoln County Port Authority site management plan, and other OU5 property owners site management plans, as applicable.

5.1.3 Instrument Duration

All IC Instruments set forth for OU5 are expected to be in-place in perpetuity, with the exception of the EPA Information Center. The EPA Information Center is a temporary informational device expected to be available throughout remedial action at the Site. The only condition for termination of other individual IC Instruments will be the complete removal and proper disposal of all LA contaminated soil and building materials.

5.2 Instrument Categories

Institutional controls are typically divided into four distinct categories: proprietary controls, government controls, enforcement documents, and informational devices. The following sections identify the IC instruments associated with OU5 under each of these four categories.

5.2.1 Proprietary Controls

Proprietary controls involve legal instruments placed in the chain of title of the site or property. For OU5, under Section 75-10-727, MCA, a DEQ-approved IC has been drafted and will be instituted to restrict the property, as necessary, to mitigate the risk to public health by way of an environmental covenant. This IC will also notify future land owners/users of previous response actions completed at OU5 and of known or potential LA contamination within the soils or buildings at the site. In the event any such instrument receives final approval by DEQ, it will be included within this plan as an appendix. The landowner must agree to place this IC on the property.

5.2.1.1 Proprietary Controls Use Restrictions

Any use restrictions for this IC will be identified in DEQ's environmental covenant pursuant to MCA 75-10-727.

5.2.2 Government Controls

Government controls at OU5 include U-Dig. Montana state law (MCA 2013, 69-4-503) requires that all parties planning to excavate, drill, or perform other subsurface activities, notify the designated U-Dig notification center prior to the start of these activities. The BOH-ARP is notified by the U-Dig call center for all activities planned within OU5 boundaries. Advice on how to address the contamination, if disturbance is required, would be obtained from the BOH-ARP. In addition to providing advice and instruction, the BOH-ARP will assist with management of contamination encountered, as necessary. Assistance in managing contamination may include, but is not limited to, providing resource materials and best management practices, contractor referrals, and/or removal of contamination. An additional government control includes an MDT encroachment application and permit. All individuals and organizations intending to perform work within the ROW of US Highway 2 must apply for an encroachment permit with the MDT. Any application for the OU5 ROW along US Highway 2 is accompanied by an addendum, which notifies the permittee to take precautions to guard against potential exposure to LA contamination. A copy of the MDT encroachment application and permit, along with an addendum is included in this document as Appendix A.

5.2.2.1 Government Controls Use Restrictions

Use restrictions related to this government control are identified by Montana state law (MCA 2013, 69-4-503). Persons intending to disturb any protective physical remedy in place at OU5 will be required to notify a designated "One-call" center (i.e., U-Dig) prior to conducting the activities. The BOH-ARP will then provide advice on performing the activities according to best management practices, and provide assistance with management of contamination encountered. Use restrictions related to the MDT document are identified within the MDT encroachment application and permit with accompanied addendum. Applicants will be provided with restrictions on activities that may penetrate the physical remedy, and may result in disturbance and transportation of potential contaminated sub-surface soil.

5.2.3 Enforcement Documents with Institutional Control Components

There are currently no enforcement documents with IC components related to OU5. Once site-wide ICs are further developed and enforcement documents are instituted, this ICIAP will be amended.

5.2.4 Informational Devices

Currently informational devices related to OU5 include the BOH-ARP, EPA Libby Asbestos Superfund Site website, OU5 O&M plan, the EPA information center, the OU5 BMP manual, and Lincoln County Port Authority site management plan.

The BOH-ARP is a program currently staffed in Lincoln County, Montana and funded by the EPA. BOH-ARP was developed as an interim program to educate the public regarding the remaining risks of LA exposure; provide resources to manage the risks associated with LA exposure; and implement initiatives to reduce or prevent the risk of LA exposure. Assistance in managing contamination may include, but is not limited to, providing resource materials and best management practices, contractor referrals, and/or removal of contamination. The BOH-ARP is available for any persons interested in information regarding LA and/or resources available to minimize risks associated with LA and/or resources available are encouraged to contact the BOH-ARP at 406-291-5335, or visit the BOH-ARP website: www.LCARP.com.

The EPA Libby Asbestos Superfund Site website (<http://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0801744>) is also a source for information about the Libby Asbestos Superfund Site (EPA 2016). The EPA currently manages the website, which provides a source for information to the public regarding current activities, including finalized OU5 documents, at the Libby Asbestos Superfund Site. If necessary, additional informational sources may be established and maintained including advertisements, handouts, and training classes.

All information for OU5 (historical and current site documents) and any associated best management practices, are available to the public at the EPA Information Center. This informational device will be maintained by the EPA or another government organization throughout the lifespan of IC instrument implementation at OU5.

A manual has been developed for the purpose of outlining BMPs for working within the EPA Libby Asbestos Superfund Site at OU5. This BMP manual discusses guidance provided for means and methods to assist in the prevention or reduction in the release and exposure to LA within OU5 and is attached as Appendix B.

The Lincoln County Port Authority Site Management Plan will be an informational device and management tool used to protect the remedy, prevent exposure, and for the development and operation of the Lincoln County Port Authority's property within OU5. In addition, other property owners within OU5 may elect to develop a site management plan or similar document to ensure management of their owned parcels with the operable unit are protective of the remedy.

For information handouts and contractor training classes individuals may contact the EPA Information Center or the BOH-ARP at the following:

Libby - EPA Information Center	City/County Board of Health-Asbestos Resource Program
108 E 9 th St	418 Mineral Ave
Libby, MT 59923	Libby, MT 59923
(406) 293-6194	(406) 291-5335

5.2.4.1 Informational Devices Use Restrictions

No use restrictions are associated with these informational devices. The EPA Information Center (or other government organization) and ARP will simply act as an informational resource.

Section 6

Institutional Control Maintenance

Institutional control maintenance consists of periodic monitoring and reporting to confirm that ICs are in place and providing protection as intended. Maintenance activities consist of notifications to new land owners or lessees, continuing education for landowners and property users through annual updates and information available through the EPA Information Center, and periodic review of the property and ICs by the implementing agency, entity, or organization.

In the event of a transfer of ownership, it is the transferor's responsibility to ensure that the new owner is informed of the ICs in place at the property. In the event of any change in ownership, it will be the new owner's responsibility to inform tenants of ICs in place at the property. In the case of a property transfer, the intended use of the property may need to be evaluated to determine if the existing ICs in place are sufficient to protect land users from exposure.

To facilitate monitoring of the ICs, roles and responsibilities, schedule, and corrective actions, reporting requirements will be performed in accordance with the O&M plan and its associated checklists.

In general, routine reports summarizing O&M activities, which includes verifying the integrity of ICs, will be prepared by DEQ and submitted to the EPA remedial project manager and the OU5 property owners on an annual basis.

In addition, special reports may be prepared by the entity responsible for O&M, due to unforeseen events or conditions. An example of a special report is an incident report, which are used to document the details of accidents involving site personnel, and other unusual events such as fires, floods, weather damage, or any extreme or unusual breach of the remedy as may be required by the O&M plan. Another example of a special report is a record of modification or amendment to governing site documents. These special reports should be made available to the EPA, DEQ, the OU5 property owner, and other interested parties in a timely manner.

Periodic monitoring will consist of at least yearly in-person investigations and annual contacts to the relevant property owners to remind them of the presence and requirements of the ICs. The monitoring will assess for changes in land use, property transfers, and failure of any implemented ICs. ICs will be evaluated and updated (if necessary) on an annual basis. The routine and critical evaluation of ICs will assess:

1. Whether the selected IC instruments remain in place.
2. Whether the ICs are enforced such that they meet the stated objectives and performance goals and provide protection required by the response (EPA 2012).

In the event of a property transfer or change of use, more frequent monitoring may be necessary.

Similar to employee education, public education can serve as an important tool for IC maintenance. A well-informed public can provide extra monitoring during use of the site. In the event a member of the public identifies a potential issue at OU5, a method of reporting should be made available. For OU5,

the BOH-ARP and EPA Information Office are available to the community to respond to concerns and provide information and guidance.

Details regarding site inspections, which include the monitoring of ICs currently in place are included within the *Draft Former Stimson Lumber Mill, Operable Unit 5, Operations and Maintenance Plan* (CDM Smith 2016b).

Section 7

Institutional Control Enforcement

Institutional control enforcement consists of methods for addressing issues related to improper or incomplete implementation of ICs, maintenance of ICs, and breaches of ICs. Generally, enforcement at OU5 will be the responsibility of the EPA or DEQ and MDT. In the event that enforcement is not properly implemented, the EPA has the authority to request compliance, and if necessary, impose penalties for lack of compliance or in cases of ongoing non-compliance.

At OU5, enforcement of Section 75-10-727, MCA, institutional controls (deed restriction) is an administrative process that can be supported by legal action if necessary. In the case of easements, legal action is often necessary in the event of enforcement problems or issues. Informational ICs are generally not an enforceable component, but if the responsible entity has failed to implement the ICs outlined, legal action may be used to ensure the ICs are implemented as designed.

Guidance recommends that often the most effective method of enforcement is early problem identification and communication. This can include site visits and issuing letters or notices to provide documentation of the problem.

Further details regarding site inspections for the purpose of enforcing and monitoring ICs currently in place are included within the *Draft Former Stimson Lumber Mill, Operable Unit 5, Operations and Maintenance Plan* (CDM Smith 2016b).

This page was intentionally left blank.

Section 8

Institutional Control Modification and Termination

At OU5, modification of ICs may be required in the event of further development of ICs, modification of existing ICs, or a change in land use or ownership. If an event occurs that could lead to a modification, this plan should be reviewed and revised accordingly to ensure the ICs at OU5 continue to provide adequate protection. In addition, the EPA will accept public comment on site-wide ICs and prepare a modification to the record of decision (ROD) for the Site known as an “Explanation of Significant Differences” (ESD). The ESD will reference this ICIAP and will identify the specific IC requirements and IC tools that EPA will use to implement the ICs selected in the ROD. Termination of ICs may occur if all remaining contamination at OU5 is removed to a level below that which poses an unacceptable risk to health and the environment. The EPA is responsible for determining modification of this document. The EPA, DEQ (for Section 75-10-727, MCA, institutional controls), and/or MDT are responsible for termination of ICs related to OU5.

This page was intentionally left blank.

Section 9

References

CDM Smith. 2014. *Site-wide Baseline Ecological Risk Assessment*, Libby Asbestos Superfund Site, Libby, Montana. December.

_____. 2015. *Final Site-wide Human Health Risk Assessment*, Libby Asbestos Superfund Site, Libby, Montana. November.

_____. 2016a. *Draft Final Remedial Action Report, Operable Unit 5 – Former Stimson Lumber Mill*, Libby Asbestos Superfund Site, Lincoln County, Montana. July.

_____. 2016b. *Draft Operations and Maintenance Plan, Former Stimson Lumber Mill, Operable Unit 5*, Libby Asbestos Superfund Site, Lincoln County, Montana, July.

EPA. 2012. *Institutional Controls: A Guide to Preparing Institutional Control Implementation and Assurance Plans at Contaminated Sites*, OSWER 9200.0-77, EPA-540-R-09-002. December.

_____. 2016. *Record of Decision for Libby Asbestos Superfund Site, Libby and Troy Residential and Commercial Properties, Parks and Schools, Transportation Corridors, Industrial Park. Operable Units 4-8*, Lincoln County, Montana. January.

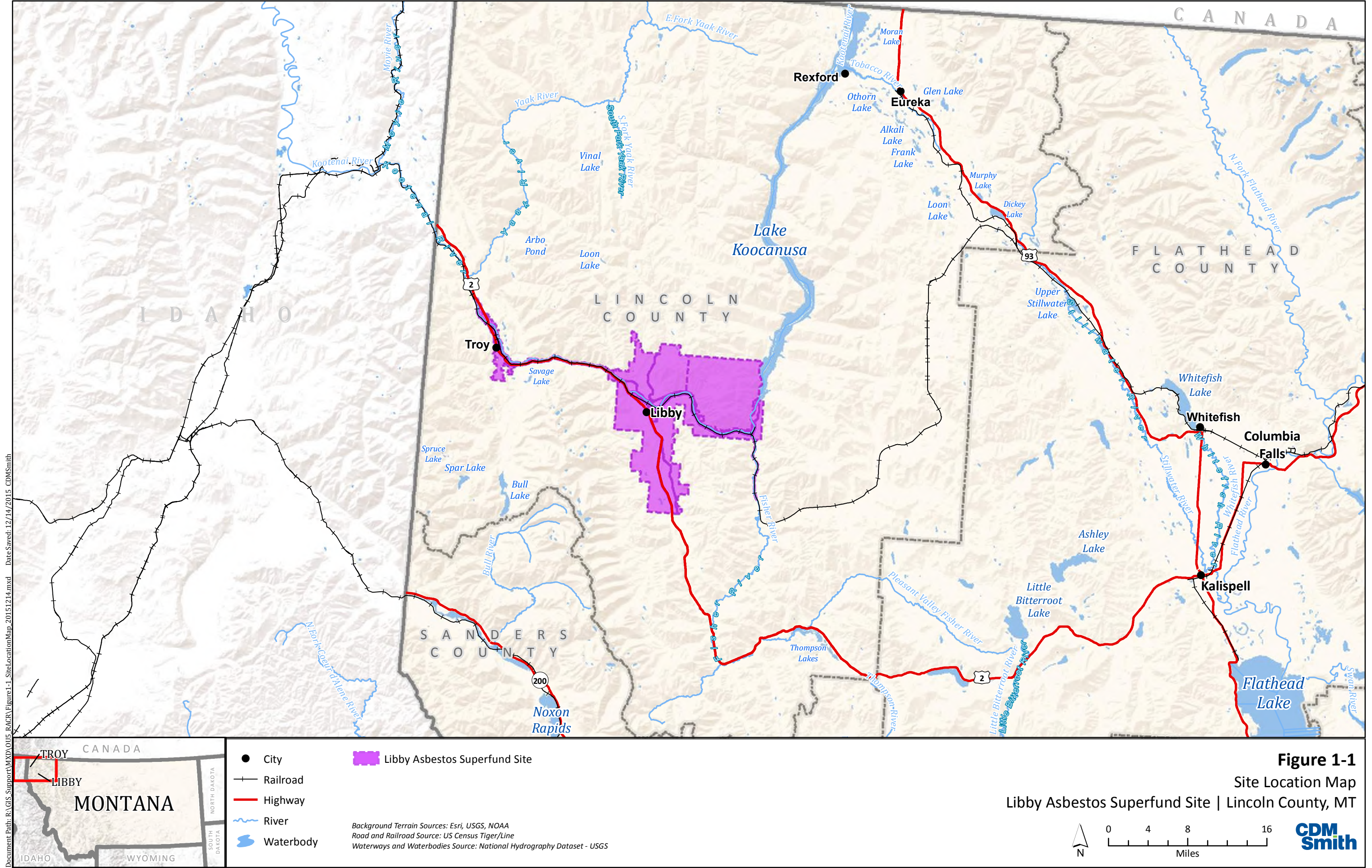
HDR. 2013. *Final Remedial Investigation Report, Operable Unit 5*, Libby Asbestos National Priorities List Site, Libby Montana. June.

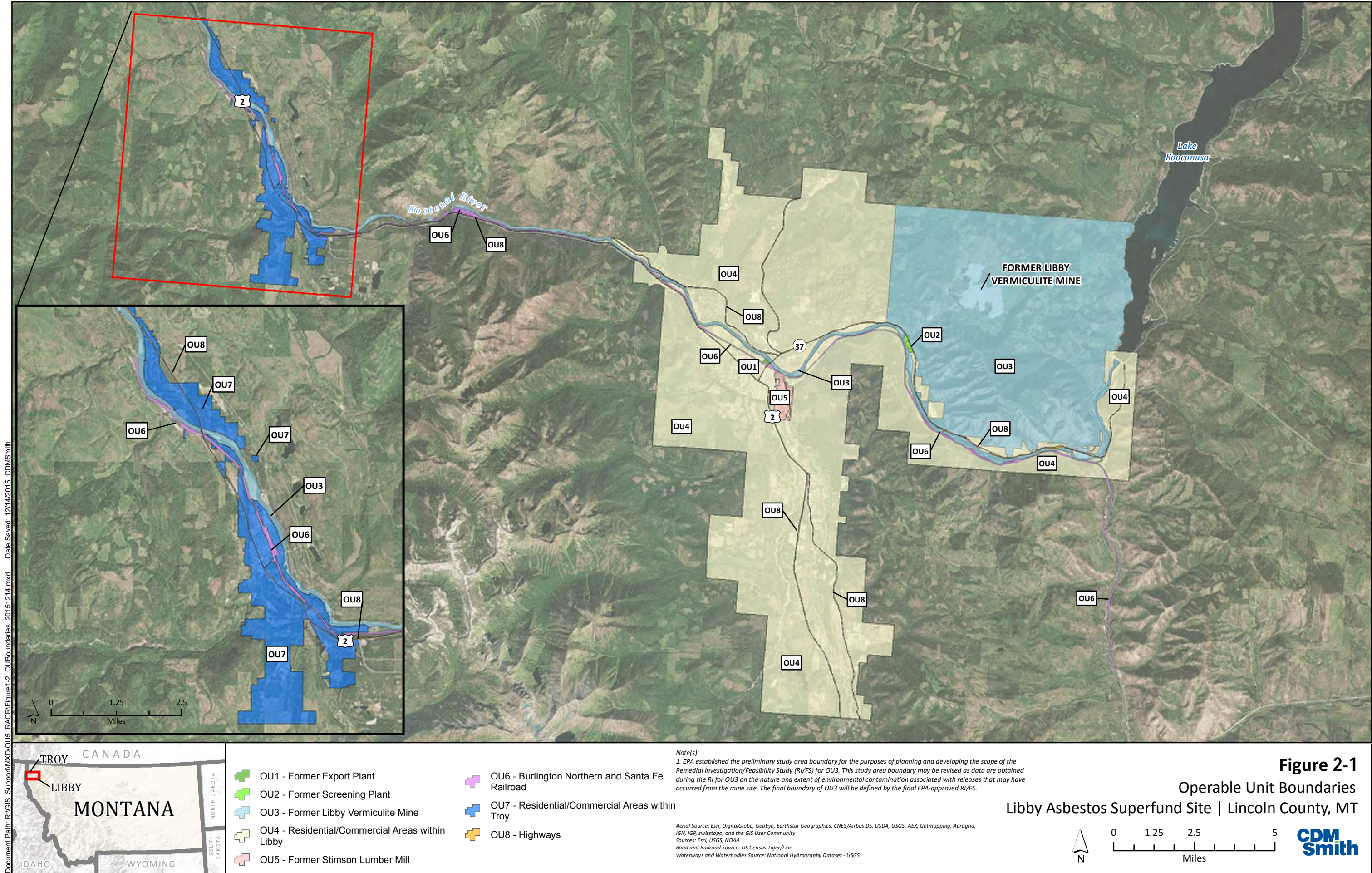
Meeker GP, Bern AM, Brownfield IK, Lowers HA, Sutley SJ, Hoeffen TM, Vance JS. 2003. The Composition and Morphology of Amphiboles from the Rainy Creek Complex, Near Libby, Montana. *American Mineralogist*. 88:1955-1969.

MCA. 2013. Title 69. Public Utilities and Carriers, Chapter 4. Utility Lines and Facilities, Part 5. Excavations Near Underground Facilities, 69-4-501. Definitions.

This page was intentionally left blank.

Figures





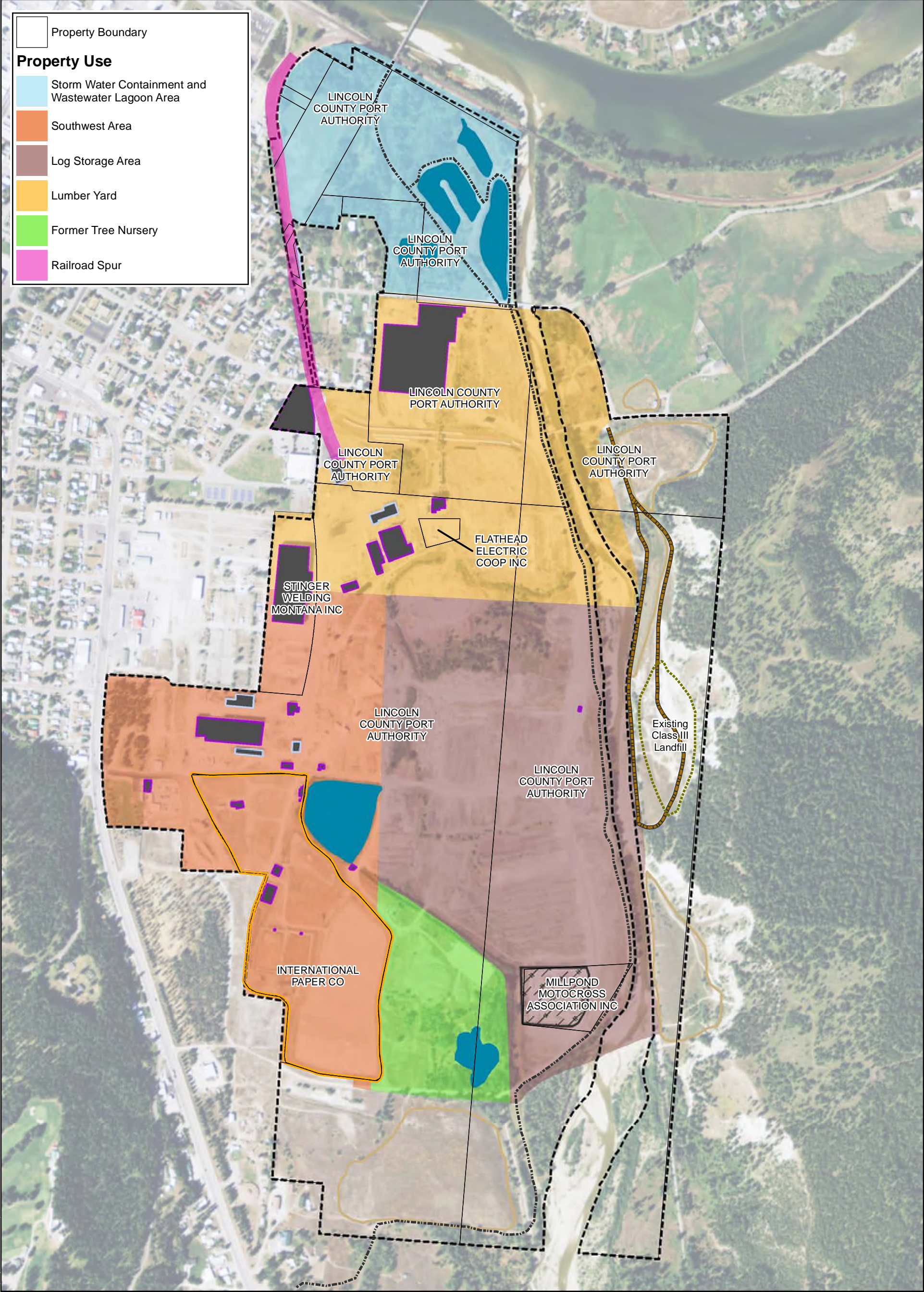


Figure 3-1
OU5 Property Uses and Ownership
Libby Asbestos Superfund Site | Lincoln County, MT
OU5 Draft ICIAP
July 22, 2016

- | | |
|--|-----------------------------------|
| OU 5 Boundary | Libby Groundwater Superfund Site |
| Bike Path (Paved as of September 2010) | Approved Waste Bark Disposal Area |
| Bike Path (Unpaved or Partially Paved) | Building Status |
| MotoX Track | Open Air |
| Surface Water | Enclosed Building |

Shapefile source: HDR Engineering, Inc. - OU5 Remedial Investigation
Aerial: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Map #	Building Description	Location ID
1	Diesel Fire Pump House	BD-002106
2	Electric Pump House	BD-002108
3	Electric Motor Shed	BD-002261
4	Wagner Shed	BD-002260
5	Steel Storage	BD-002111
6	Fire Hall	BD-002112
7	Central Maintenance (multiple removals completed)	BD-002098
8	Truck Barn	BD-002110
9	Main Office	BD-002269
10	Pipe Shop	BD-002263
11	Shed 12	BD-002268
12	Finger Jointer Processing Plant removal completed (September 2010)	BD-002097/ BD-005971
13	Storage and Locomotive Shed	BD-002264
14	Power House and Power House Office	BD-002265/ BD-002266
15	Astrodome	BD-002262 / BD-007602
16	Log Yard Truck Scale House	BD-002104
17	LTU Leachate (Building #2)	BD-005467
18	LTU Leachate (Building #1)	BD-005466
19	Tank Farm Building	BD-005463
20	Bioreactor Building	BD-005555
21	Intermediate Injection Building	BD-005460
22	Office/Laboratory	BD-005556
23	Chemical Storage Building	BD-005465
24	Former Welding Shop - Constructed after Abatement (Lumber Kilns)	BD-002267
26	Former Plywood Plant removal completed (September 2010)	BD-002099
27	Former Popping Plant removal completed (November 2011)	NA

Surface Soil Results*

LA in Surface Soil

(Grab)

- <1 %
- Trace (<0.2%)
- Non-detect

LA in Surface Soil

(Composite)

- ≥1 %
- <1 %
- Trace (<0.2%)
- Non-detect

Qualitative Status

- Visible Vermiculite Observed
- No Visible Vermiculite Observed

NOTES:
*Results shown on figure represent post-removal conditions. Surface soil samples were generally collected from the 0-6 inch below ground surface (bgs) interval. Exceptions were made for soil samples collected beneath waste bark test pits (0-12 inches bgs) and samples collected from the rail spur (0-18 inches bgs)
**Results shown were collected from the land farm associated with the Libby Groundwater Superfund Site
Approximate centroid of sample area is shown on this figure and is not intended to represent the lateral extent of the sample area.
Shapefile source: HDR Engineering, Inc. - OUS Remedial Investigation
Aerial: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- OU 5 Boundary

Bike Path (Paved as of September 2010)

Bike Path (Unpaved or Partially Paved)

MotoX Track

Surface Water

Worker ABS Areas

Soil Removal Action Areas
- Libby Groundwater Superfund Site**

Approved Waste Bark Disposal Area

Status

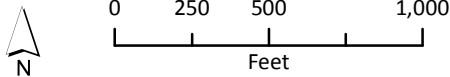
Open Air

Enclosed Building

Figure 3-2

LA and Visible Vermiculite in Surface Soil at OU5
Libby Asbestos Superfund Site | Lincoln County, MT

OU5 Draft ICIAP
July 22, 2016



Map #	Building Description	Location ID
1	Diesel Fire Pump House	BD-002106
2	Electric Pump House	BD-002108
3	Electric Motor Shed	BD-002261
4	Wagner Shed	BD-002260
5	Steel Storage	BD-002111
6	Fire Hall	BD-002112
7	Central Maintenance (multiple removals completed)	BD-002098
8	Truck Barn	BD-002110
9	Main Office	BD-002269
10	Pipe Shop	BD-002263
11	Shed 12	BD-002268
12	Finger Jointer Processing Plant removal completed (September 2010)	BD-002097/ BD-005971
13	Storage and Locomotive Shed	BD-002264
14	Power House and Power House Office	BD-002265/ BD-002266
15	Astrodome	BD-002262 / BD-007602
16	Log Yard Truck Scale House	BD-002104
17	LTU Leachate (Building #2)	BD-005467
18	LTU Leachate (Building #1)	BD-005466
19	Tank Farm Building	BD-005463
20	Bioreactor Building	BD-005555
21	Intermediate Injection Building	BD-005460
22	Office/Laboratory	BD-005556
23	Chemical Storage Building	BD-005465
24	Former Welding Shop - Constructed after Abatement (Lumber Kilns)	BD-002267
26	Former Plywood Plant removal completed (September 2010)	BD-002099
27	Former Popping Plant removal completed (November 2011)	NA

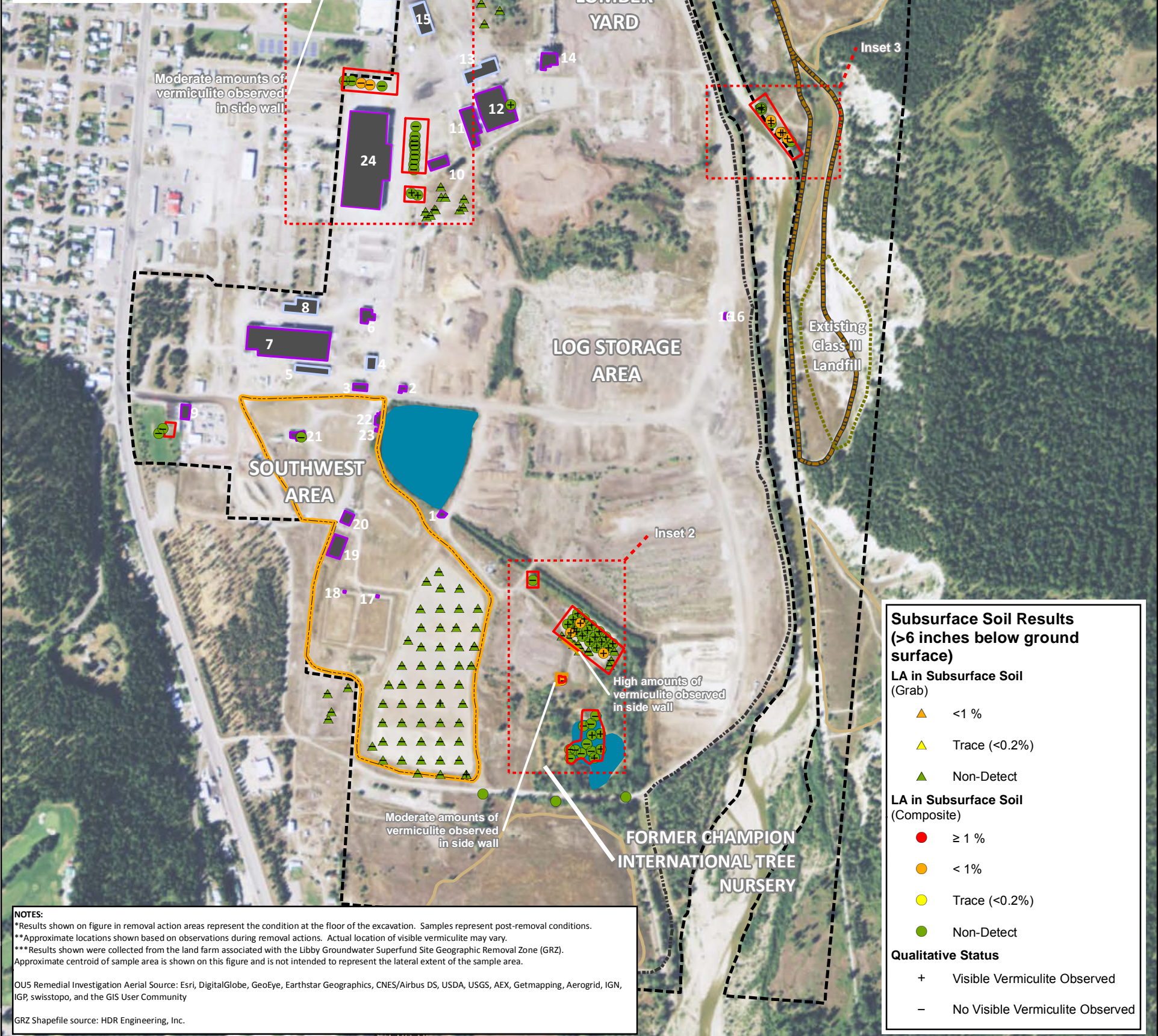
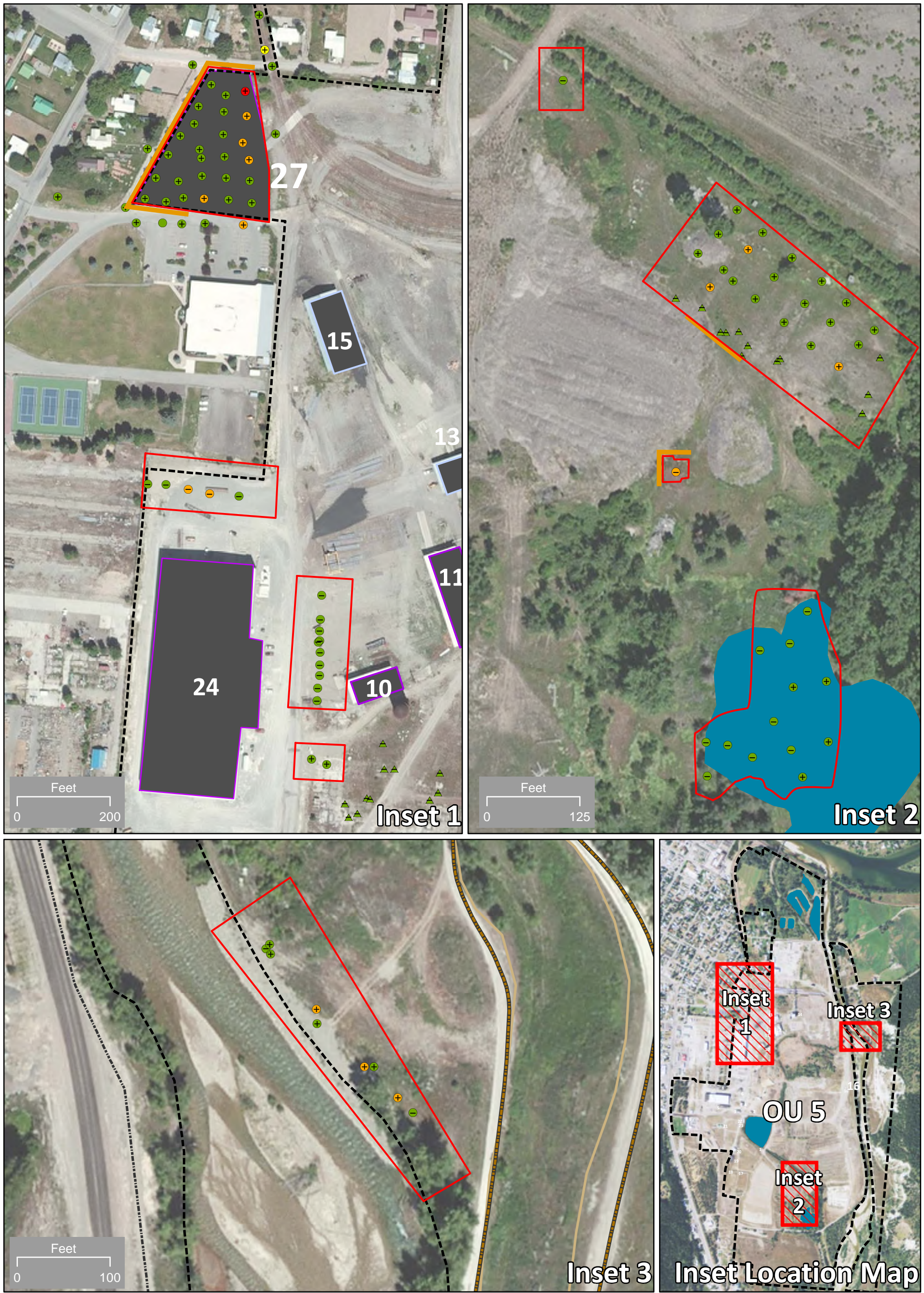


Figure 3-3
LA and Visible Vermiculite in Subsurface Soil at OU5
Libby Asbestos Superfund Site | Lincoln County, MT
OU5 Draft ICIAP
July 22, 2016



NOTES:
*Results shown on figure in removal action areas represent the condition at the floor of the excavation. Samples represent post-removal conditions.
**Approximate locations shown based on observations during removal actions. Actual location of visible vermiculite may vary.
***Results shown were collected from the land farm associated with the Libby Groundwater Superfund Site Geographic Removal Zone (GRZ).
Approximate centroid of sample area is shown on this figure and is not intended to represent the lateral extent of the sample area.

GRZ Shapefile source: HDR Engineering, Inc.
OU5 Remedial Investigation Aerial Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 3-3A
LA and Visible Vermiculite in Subsurface Soil at OU5 Insets
Libby Asbestos Superfund Site | Lincoln County, MT
OU5 Draft ICIAP
July 22, 2016

See Figure 3-3 Legend for Symbol Definitions



Appendix A

Montana Department of Transportation MDT Encroachment Application and Permit with Addendum

STATE OF MONTANA - DEPARTMENT OF TRANSPORTATION
HELENA, MT 59620-1001
ENCROACHMENT APPLICATION AND PERMIT

– To be filled in by Department of Transportation Personnel –

AGREEMENT NO.:

MAINTENANCE NO.:

PROJECT NO.:

SIGN ROUTE:

PROJECT NAME:

ID NUMBER:

CORRIDOR:

RB:

MP:

COUNTY:

– To be filled in by Department of Transportation Personnel and the requesting Company –

COMPANY OR CORPORATION	Date	MONTANA DEPARTMENT OF TRANSPORTATION	Date
TITLE		TITLE	
SIGNATURE		SIGNATURE	

Subject to the terms and conditions shown on Page 2 hereof; this permit is hereby approved and granted.

The "Permittee" agrees to the terms of this permit.

APPLICANT (PROPERTY OWNER)

APPLICATION FOR PERMISSION TO: *
(Give sufficient detail to permit thorough understanding and submit blueprints or sketches in triplicate.)

*If work involves Environmental-Related cleanup or monitoring, also complete Section 7.

Township	Range	Section

1.

Name of Applicant:
2.

Address of Applicant:
3.

Applicant's Phone #:

Fax #:

Email:
4.

If Applicant is a Corporation, give State of Incorporation and names of President and Secretary:
5.

Highway survey stations, milepost, distances to centerline, and distance from right-of-way line (in metric units) near which installations or structures will be installed:
6.

For how long a period is the permit desired?:
7.

Nature of Permit:
8.

Environmental actions involving hazardous waste sites? (Superfund, Spills, Underground Storage Tanks, Old Mines, etc.)
- YES:

☐ If YES is checked continue to **Page 3** to complete the **Environmental Questions Pertaining to #8 on Page #1.**
- NO:

☐ If No is checked continue to **Page 2, Instructions Concerning Use of this Form.**

**(INSTRUCTIONS
CONCERNING USE OF THIS FORM)**

Applicant will complete this form along with plans, sketches and an environmental checklist and send to the appropriate District Maintenance Chief for review and approval.

AN ENVIRONMENTAL CHECKLIST MUST BE COMPLETED BY APPLICANT AND MUST BE ATTACHED TO THIS PERMIT. THE PERMIT MUST NOT BE PROCESSED WITHOUT AN ENVIRONMENTAL CHECKLIST.

IF THE PROPOSED INSTALLATION WILL RESULT IN SIGNIFICANT, PERMANENT OR LONG TERM IMPACTS TO THE TRANSPORTATION NETWORK IN TERMS OF SUBSTANTIAL INCREASE TRAFFIC VOLUMES, WEIGHT OR DELAYS TO TRAFFIC ON STATE ROADWAYS, SUCH AS MAJOR MINES GREATER THAN FIVE ACRES, A RAILROAD AT-GRADE CROSSING, RAILROAD UNDER OR OVERPASS, OR STRIP MINES, OR IF THE PROPOSED ACTION HAS PERMANENT IMPACTS TO OTHER FORMS OF TRANSPORTATION (RAIL, TRANSIT, OR AIR MOVEMENT), THE ENCROACHMENT PERMIT MUST BE SUBMITTED TO THE TRANSPORTATION PLANNING DIVISION FOR REVIEW PRIOR TO ISSUANCE OF THIS PERMIT.

Subject to the following terms and conditions, the permit applied for upon the reverse side hereof, is hereby granted:

1. TERM. This permit shall be in full force and effect from the date hereof until revoked as herein provided.
2. FEE. The fee for issuance of this permit is ._____.
3. REVOCATION. This permit may be revoked by State upon giving **45** days notice to Permittee by ordinary mail, sent to the address shown herein. However, the State may revoke this permit without notice if Permittee violates any of its conditions or terms.
4. COMMENCEMENT OF WORK. No work shall be commenced until Permittee notifies the Maintenance Chief shown in application the date the Permittee proposes to commence work.
5. CHANGES IN HIGHWAY. If State highway changes necessitate changes in structures or installations installed under this permit, Permittee will make necessary changes without expense to State.
6. STATE SAVED HARMLESS FROM CLAIMS. As a consideration of being issued this permit, the Permittee, its successors or assigns, agrees to protect the State and save it harmless from all claims, actions or damage of every kind and description which may accrue to, or be suffered by, any person or persons, corporations or property by reason of the performance of any such work, character of materials used, or manner of installations, maintenance and operation, or by the improper occupancy of said highway right-of-way, and in case any suit or action is brought against the State and arising out of, or by reason of, any of the above causes, the Permittee, its successors or assigns, will, upon notice to them of the commencement of such action, defend the same at its sole cost and expense and satisfy any judgment which may be rendered against the State in any such suit or action.
7. PROTECTION OF TRAFFIC. The Permittee shall protect the work area with traffic control devices that comply with the Manual of Uniform Traffic Control Devices. The Permittee may be required to submit a traffic control plan to the Maintenance Chief for approval prior to starting work. During work, the Maintenance Chief or designee may require the Permittee to use additional traffic control devices to protect traffic or the work area. No road closure shall occur without prior approval from the District Engineer.
8. HIGHWAY AND DRAINAGE. If the work done under this permit interferes in any way with the drainage of the State highway affected. Permittee shall, at the Permittee's expense, make such provisions as the State may direct to remedy the interference.
9. RUBBISH AND DEBRIS. Upon completion of work contemplated under this permit, all rubbish and debris shall be immediately removed and the roadway and roadside left in a neat and presentable condition satisfactory to the State.
10. INSPECTION. The installation authorized by this permit shall be in compliance with the attached plan and the conditions of this permit. The Permittee may be required to remove or revise the installation, at sole expense of Permittee. If the installation does not conform with the requirements of this permit or the attached plan.
11. STATE'S RIGHT NOT TO BE INTERFERED WITH. All changes, reconstruction or relocation shall be done by Permittee so as to cause the least interference with any of the State's work, and the State shall not be liable for any damage to the Permittee by reason of any such work by the State, its agents, contractors or representatives, or by the exercise of any rights by the State upon the highways by the installations or structures placed under this permit.
12. REMOVAL OF INSTALLATIONS OR STRUCTURES. Unless waived by the State, upon termination of this permit, the Permittee shall remove the installations or structures installed under this permit at no cost to the State and restore the premises to the prior existing condition, reasonable and ordinary wear and tear and damage by the elements, or by circumstances over which the Permittee has no control, excepted.
13. MAINTENANCE AT EXPENSE OF PERMITTEE. Permittee shall maintain, at its sole expense, the installations and structures for which this permit is granted, in a condition satisfactory to the State.
14. STATE NOT LIABLE FOR DAMAGE TO INSTALLATIONS. In accepting this permit, the Permittee agrees that any damage or injury done to said installations or structures by a contractor working for the State, or by any State employee engaged in construction, alteration, repair, maintenance or improvement of the State highway, shall be at the sole expense of the Permittee.
15. STATE TO BE REIMBURSED FOR REPAIRING ROADWAY. Upon being billed, therefore, Permittee agrees to promptly reimburse State for any expense incurred in repairing surface of roadway due to settlement at installation, or for any other damage to roadway as a result of the work performed under this permit.
16. The Permittee shall not discharge or cause discharge of any hazardous or solid waste by the installation or operation of the facility of a State Right-of-Way.
17. The Permittee will control noxious weeds within the disturbed installation area for two (2) years.
18. In accordance with Mont. Code Ann. § 76-3-403(2), Permittee shall, at Permittee's expense, employ the services of a Montana Licensed Professional Land Surveyor to re-establish all existing survey monuments disturbed by work contemplated under this permit.
19. The use of explosives is prohibited for the installation.
20. Any condition of this permit shall not be waived without written approval of the appropriate District Engineer.
21. OTHER CONDITIONS AND/OR REMARKS: _____

Environmental Questions Pertaining to #8 on Page #1- Environmental actions involving hazardous waste sites? (Superfund, Spills, Underground Storage Tanks, Old Mines, etc.)

8a. Name of Facility:_____ Facility ID:_____

Address: _____

City: _____ State:_____ Zip: _____

8b. Leaking underground storage tank site? ☐ Yes ☐ No

If yes, provide MDEQ identification number: _____

Petro Fund Eligible? ☐ Yes ☐ No

8c. Remediation Response Sites (State Superfund Site)? ☐ Yes ☐ No

If yes, identification number and/or site name: _____

8d. Federal Superfund Site? ☐ Yes ☐ No

If yes, identification number and/or site name: _____

8e. Active Mine: ☐ Yes ☐ No **OR** Abandoned Mine: ☐ Yes ☐ No

If yes, list the Mine Site ID#: _____

Mine Description or Name: _____

8f. Spill: ☐ Yes ☐ No

Spill Site: _____

Spill Description: _____

8g. Other Environmental Action: _____

For each well installed in MDT R/W, provide GPS coordinates in state plane coordinates (preferred) or well survey information in another format (continue on another sheet if necessary).

NOTE: Each well request needs to be submitted on a separate application form.

Well Designation	Easting	Northing

Control Number	Project Identification Number	Name/ Location Description	Route/Corr.	Fed Funds Involved? Yes <input type="checkbox"/> No <input type="checkbox"/>																																																																																																				
(↑For MDT Use Only↑)																																																																																																								
<div>ENVIRONMENTAL CHECKLIST for:</div> <div><input type="checkbox"/> Approach Permit</div> <div><input type="checkbox"/> Encroachment/Occupancy (incl. Utility)</div> <div><input type="checkbox"/> Maintenance Projects (with No Right-Of-Way Acquisition, Sale or Transfer)</div>																																																																																																								
Location: Highway or Route: _____ Milepost(s): _____																																																																																																								
Physical Address: _____ City: _____																																																																																																								
Legal Description: County: _____ Township: _____ Range: _____ Section(s): _____																																																																																																								
Applicant Information: Name: _____ Phone: _____																																																																																																								
Company/Utility _____ Business Phone: _____																																																																																																								
Mailing Address: _____ City _____ State _____ Zip Code _____																																																																																																								
<table><tr><th colspan="2">Impact Questions</th><th>Yes</th><th>No</th><th>Comment, Explanation, and/or Informat Source (Attach supporting information, necessary.)</th></tr><tr><td colspan="5">Actions that qualify for Categorical Exclusion under MEPA and/or NEPA (See ARM 18.2.261 and 23 CFR 771.117)</td></tr><tr><td>1.</td><td>Will the proposed action impact any known historical or archaeological site(s)?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>2.</td><td>Will the proposed action impact any publicly owned parkland(s), recreation area(s), wildlife or waterfowl refuge(s)?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>3.</td><td>Will the proposed action impact prime farmlands? (If yes, attach a completed Farmland Conversion Impact Rating Ad-1006.)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>4.</td><td>a. Will the proposed action have an impact on the human environment that may result from relocations of persons or businesses, changes in traffic patterns, changes in grade, or other types of changes?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td></td><td>b. Has the proposed action received any preliminary or final approval from the local land use authority?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>5.</td><td>For the proposed action, is there documented controversy on environmental grounds? (For example, has the applicant received a letter of petition from an environmental organization?)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>6.</td><td>Will the proposed action require work in, across or adjacent to a listed or proposed Wild or Scenic River?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>7.</td><td>Will the proposed action require work in a Class I Air Shed or nonattainment area?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>8.</td><td>Will the proposed action impact air quality or increase noise, even temporarily?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>9.</td><td>Will the proposed action have potential to affect water quality, wetlands, streams or other water bodies? If the answer is YES, an environment-related permit or authorization may be required.</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>10.</td><td>Are solid or hazardous wastes or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.)</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>11.</td><td>a. Are there any listed or candidate threatened or endangered species, or critical habitat in the vicinity of the proposed action?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td></td><td>b. Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>12.</td><td>Will the proposed action require an environmental-related permit or authorization? If the answer is "yes," please list the specific permits or authorizations.</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>13.</td><td>a. Is the proposed action on or within approximately 1 mile of an Indian Reservation?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td></td><td>b. If "Yes", will a Tribal Water Permit be required</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td>N/A <input type="checkbox"/></td></tr><tr><td>14.</td><td>Will the proposed action result in increased traffic volumes, increased wait or delays on state highways, or have adverse impacts on other forms of transportation (rail, transit or air movements)?</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr><tr><td>15.</td><td>Is the proposed action part of a project that may require other governmental permits, licenses or easements? If "Yes", describe the full extent of the project and any other permits, licenses or easements that may be necessary for the applicant to acquire.</td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td></td></tr></table>					Impact Questions		Yes	No	Comment, Explanation, and/or Informat Source (Attach supporting information, necessary.)	Actions that qualify for Categorical Exclusion under MEPA and/or NEPA (See ARM 18.2.261 and 23 CFR 771.117)					1.	Will the proposed action impact any known historical or archaeological site(s)?	<input type="checkbox"/>	<input type="checkbox"/>		2.	Will the proposed action impact any publicly owned parkland(s), recreation area(s), wildlife or waterfowl refuge(s)?	<input type="checkbox"/>	<input type="checkbox"/>		3.	Will the proposed action impact prime farmlands? (If yes, attach a completed Farmland Conversion Impact Rating Ad-1006.)	<input type="checkbox"/>	<input type="checkbox"/>		4.	a. Will the proposed action have an impact on the human environment that may result from relocations of persons or businesses, changes in traffic patterns, changes in grade, or other types of changes?	<input type="checkbox"/>	<input type="checkbox"/>			b. Has the proposed action received any preliminary or final approval from the local land use authority?	<input type="checkbox"/>	<input type="checkbox"/>		5.	For the proposed action, is there documented controversy on environmental grounds? (For example, has the applicant received a letter of petition from an environmental organization?)	<input type="checkbox"/>	<input type="checkbox"/>		6.	Will the proposed action require work in, across or adjacent to a listed or proposed Wild or Scenic River?	<input type="checkbox"/>	<input type="checkbox"/>		7.	Will the proposed action require work in a Class I Air Shed or nonattainment area?	<input type="checkbox"/>	<input type="checkbox"/>		8.	Will the proposed action impact air quality or increase noise, even temporarily?	<input type="checkbox"/>	<input type="checkbox"/>		9.	Will the proposed action have potential to affect water quality, wetlands, streams or other water bodies? If the answer is YES, an environment-related permit or authorization may be required.	<input type="checkbox"/>	<input type="checkbox"/>		10.	Are solid or hazardous wastes or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.)	<input type="checkbox"/>	<input type="checkbox"/>		11.	a. Are there any listed or candidate threatened or endangered species, or critical habitat in the vicinity of the proposed action?	<input type="checkbox"/>	<input type="checkbox"/>			b. Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?	<input type="checkbox"/>	<input type="checkbox"/>		12.	Will the proposed action require an environmental-related permit or authorization? If the answer is "yes," please list the specific permits or authorizations.	<input type="checkbox"/>	<input type="checkbox"/>		13.	a. Is the proposed action on or within approximately 1 mile of an Indian Reservation?	<input type="checkbox"/>	<input type="checkbox"/>			b. If "Yes", will a Tribal Water Permit be required	<input type="checkbox"/>	<input type="checkbox"/>	N/A <input type="checkbox"/>	14.	Will the proposed action result in increased traffic volumes, increased wait or delays on state highways, or have adverse impacts on other forms of transportation (rail, transit or air movements)?	<input type="checkbox"/>	<input type="checkbox"/>		15.	Is the proposed action part of a project that may require other governmental permits, licenses or easements? If "Yes", describe the full extent of the project and any other permits, licenses or easements that may be necessary for the applicant to acquire.	<input type="checkbox"/>	<input type="checkbox"/>	
Impact Questions		Yes	No	Comment, Explanation, and/or Informat Source (Attach supporting information, necessary.)																																																																																																				
Actions that qualify for Categorical Exclusion under MEPA and/or NEPA (See ARM 18.2.261 and 23 CFR 771.117)																																																																																																								
1.	Will the proposed action impact any known historical or archaeological site(s)?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
2.	Will the proposed action impact any publicly owned parkland(s), recreation area(s), wildlife or waterfowl refuge(s)?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
3.	Will the proposed action impact prime farmlands? (If yes, attach a completed Farmland Conversion Impact Rating Ad-1006.)	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
4.	a. Will the proposed action have an impact on the human environment that may result from relocations of persons or businesses, changes in traffic patterns, changes in grade, or other types of changes?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
	b. Has the proposed action received any preliminary or final approval from the local land use authority?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
5.	For the proposed action, is there documented controversy on environmental grounds? (For example, has the applicant received a letter of petition from an environmental organization?)	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
6.	Will the proposed action require work in, across or adjacent to a listed or proposed Wild or Scenic River?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
7.	Will the proposed action require work in a Class I Air Shed or nonattainment area?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
8.	Will the proposed action impact air quality or increase noise, even temporarily?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
9.	Will the proposed action have potential to affect water quality, wetlands, streams or other water bodies? If the answer is YES, an environment-related permit or authorization may be required.	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
10.	Are solid or hazardous wastes or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.)	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
11.	a. Are there any listed or candidate threatened or endangered species, or critical habitat in the vicinity of the proposed action?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
	b. Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
12.	Will the proposed action require an environmental-related permit or authorization? If the answer is "yes," please list the specific permits or authorizations.	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
13.	a. Is the proposed action on or within approximately 1 mile of an Indian Reservation?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
	b. If "Yes", will a Tribal Water Permit be required	<input type="checkbox"/>	<input type="checkbox"/>	N/A <input type="checkbox"/>																																																																																																				
14.	Will the proposed action result in increased traffic volumes, increased wait or delays on state highways, or have adverse impacts on other forms of transportation (rail, transit or air movements)?	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
15.	Is the proposed action part of a project that may require other governmental permits, licenses or easements? If "Yes", describe the full extent of the project and any other permits, licenses or easements that may be necessary for the applicant to acquire.	<input type="checkbox"/>	<input type="checkbox"/>																																																																																																					
16. <input type="checkbox"/> Attach a brief description of the work to be performed, including any subsurface work.																																																																																																								
17. <input type="checkbox"/> Attach representative photos of the site(s) where the proposed action would be implemented. Photos are to include any structures, streams, irrigation canals, and/or potential wetlands in the project area.																																																																																																								
18. <input type="checkbox"/> Attach map(s) showing the location(s) of the proposed action(s); Section, Township, Range; highway or route number and approximate route post(s).																																																																																																								
Checklist preparer: _____																																																																																																								
Applicant		Title		Date																																																																																																				
Reviewed for completeness by:																																																																																																								

MDT District Representative	Title	Date
Checklist Approved by:		
Environmental Services Bureau (When any of the items 1 through 15 are checked "Yes")	Title	Date
Transportation Planning (When items 14 or 15 are checked "Yes")	Title	Date

Checklist Conditions and Required Approvals

- A. The Applicant is **not** authorized to proceed with the proposed work until the checklist has been reviewed and approved, as necessary, and any requested conditions of approval have been incorporated.
- B. Complete the checklist items 1 through 15, indicating "Yes" or "No" for each item. Include comments, explanations, information sources, and a description of the magnitude/importance of potential impacts in the right hand column. Attach additional and supporting information as needed. Ensure that information required for items 16, 17, and 18, is attached. The checklist preparer, by signing, certifies the accuracy of the information provided.
- C. If "Yes" is indicated on any of the items, the Applicant must explain the impacts as applicable. Appropriate mitigation measures that will be taken to avoid, minimize, and/or mitigate adverse impacts must also be described. **Any proposed mitigation measures will become a condition of approval.** Use attachments if necessary. If the applicant checks "No" and the District concludes there may in fact be potential impacts, the Environmental Checklist must be forwarded to Environmental Services Bureau for review and approval.
- D. If "Yes" is indicated in item 11 a. (threatened or endangered species), the Applicant should provide information naming the particular species and the expected location, distribution and habitat use in the proposed action area, i.e. within the immediate area of the proposed action; or, in the general area on occasion (seasonally passes through) but does not nest, den or occupy the area for more than a few days.
- E. If the applicant checks "Yes" for any item, the approach permit, occupancy agreement or permit, along with the checklist and supporting information, including the Applicant's mitigation proposal, documentation, evaluation and/or permits must be submitted to MDT Environmental Services Bureau. Electronic format is preferred.
- F. When the applicant checks "Yes" to any item, the Applicant cannot be authorized to proceed with the proposed work until the MDT Environmental Services Bureau and/or Transportation Planning, as appropriate, reviews the information and signs the checklist.
- G. Applicant must obtain all necessary permits or authorizations from other entities with jurisdiction prior to beginning the proposed action or activity. The Applicant is solely responsible for any environmental impacts incurred as a result of the project; obtaining any necessary environmental permits, notifications, and/or clearances; and ensuring compliance with environmental laws and regulations.

Montana's Wild and Scenic Rivers system as published by the U.S. Department of Agriculture, or the U.S. Department of the Interior:

- 1. Middle Fork of the Flathead River (headwaters to South Fork of the Flathead River confluence)
- 2. North Fork of the Flathead River (Canadian Border to Middle Fork of the Flathead River confluence)
- 3. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir)
- 4. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge)

Stream Permitting Guidelines

To be used for informational purposes when filling out the Environmental Checklist for MDT approach permits, encroachment/occupancy permits or Maintenance projects.

The most commonly required permits or authorizations are listed below. **Other permits or authorizations may be required**, and other laws may apply depending on the type and the location of the proposed activity. For more information please refer to "A Guide to Stream Permitting in Montana" available on the Internet at <http://www.dnrc.mt.gov/permits/> or from your local conservation district office. (The information provided below was adapted from "A Guide to Stream Permitting in Montana")

Montana Natural Streambed and Land Preservation Act (310 Permit)

Any private, nongovernmental individual or entity that proposes any activity that physically alters or modifies the bed or banks of a **perennially flowing stream** must obtain a 310 permit before beginning work.

Contact the conservation district office to obtain a permit application, fill the application out and submit it to the local conservation district prior to any activity in or near a perennial-flowing stream. Once an application is accepted, a team that consists of a conservation district representative; a Department of Fish, Wildlife and Parks biologist; and the applicant may conduct an on site inspection. The team makes recommendations to the conservation district board, which has 60 days from the time the application is accepted to approve, modify, or deny the permit. Local rules apply. There is no charge for a 310 permit.

For more information, contact your local conservation district or the Conservation Districts Bureau – MT Department of Natural Resources and Conservation at (406) 444-6667, or the Montana Association of Conservation Districts (406) 443-5711

Montana Stream Protection Act (SPA 124 Permit)

Any agency or subdivision of federal, state, county, or city government proposing a project that may affect the natural existing shape and form of **any stream** or its banks or tributaries must obtain a SPA 124 permit before beginning work.

Any agency or unit of government planning a project must submit a Notice of Construction (application) to the Department of Fish, Wildlife and Parks, which has up to 60 days to review the application, perform an on-site investigation, and approve, modify, or deny the application. There is no application fee.

For more information contact the Habitat Protection Bureau – MT Fish, Wildlife and Parks (406) 444-2449.

Montana Floodplain and Floodway Management Act (Floodplain Development Permit)

Anyone planning new construction **within a designated 100 year floodplain** must obtain a floodplain development permit before beginning work. New construction includes, but is not limited to, placement of fill, roads, bridges, culverts, transmission lines, irrigation facilities, storage of equipment or materials, and excavation; new construction, placement, or replacement of manufactured homes; and new construction, additions, or substantial improvements to residential and commercial buildings. Check with local planning officials or the Floodplain Management Section of the Department of Natural Resources and Conservation to determine whether a 100-year floodplain has been designated for the stream of interest.

Floodplain Development Permits are available from the local floodplain administrator, who may be the city/county planner, sanitarian, building inspector, town clerk, or county commissioner. Permit applications are available from the local floodplain administrator or from the Department of Natural Resources and Conservation. Application fees are established by the local government and vary widely throughout the state. The application process may take up to 60 days. Joint application participant-see Permitting Tips section.

For more information contact the Floodplain Management Section – MT Department of Natural Resources and Conservation (406) 444-0860.

Federal Clean Water Act (404 Authorization or Permit)

Anyone proposing a project that will result in the **discharge or placement of dredged or fill material into waters of the United States** must obtain a 404 authorization or permit before beginning work. "Waters of the United States" include lakes, rivers, streams (including perennial, intermittent, and ephemeral channels with an ordinary high water mark), wetlands, and other aquatic sites.

Anyone planning a project must submit an application to the U.S. Army Corps of Engineers (Corps). The U.S. Environmental Protection Agency also has regulatory review and enforcement functions under the law. Permit authorization varies depending on the size and scope of the intended project.

Activities that meet the conditions for a Nationwide or Regional General Permit may be approved in 10 to 45 days. Individual Permits require more extensive review and require a public notice period. Permit approval may take 90 to 120 days. Application fees for Individual Permits may vary from \$10 for private individuals to \$100 for commercial applicants. Do not send money with the application. Applicants will be notified if a fee applies.

For more information contact the U.S. Army Corps of Engineers, 10 West 15th Street, Suite 2200, Helena, MT 59626, Phone (406) 441-1375.

Short-term Water Quality Standard for Turbidity (318 Authorization)

Anyone initiating construction activity that will cause **short term or temporary violations of state surface water quality standards for turbidity in any "State water"** must obtain a 318 Authorization before beginning work. "State water" includes any body of water, irrigation system, or drainage system, either surface or underground, including wetlands, except for irrigation water where the water is used up within the irrigation system and the water is not returned to other state water.

A 318 Authorization must be obtained prior to initiating a project. The authorization may be obtained from the Department of Environmental Quality, or may be waived by the Department of Fish, Wildlife and Parks during its review process under the Natural Streambed and Land Preservation Act (310 Permit) or the Stream Protection Act (SPA 124 Permit).

Individual applications submitted to the Department of Environmental Quality are normally processed within 30 to 60 days. Authorizations waived under the 310 or SPA 124 permit processes correspond to the time frame under each permit system, usually 30 to 60 days. There is an application fee of \$150.00 (make check or money order payable to Water Protection Bureau, Department of Environmental Quality).

For more information contact the Water Protection Bureau – MT Department of Environmental Quality (406) 444-3080.

Storm Water Discharge General Permits

Anyone proposing a construction **activity that will disturb one or more acres**, a defined industrial activity; a mining or oil and gas activity in which storm water will come into contact with overburden, raw material, intermediate products, finished products, or waste products located on the site of such operations (including active and inactive mine sites); or other defined activity that **has a discharge of storm water into surface waters**. Permit authorization is typically obtained under a Montana Pollutant Discharge Elimination System (MPDES) "General Permit".

For storm water discharges associated with construction activity, permit authorization is effective upon Department receipt of a complete Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and fee. This must be received no later than the construction activity start date. For other regulated storm water discharges, a complete Application Form, SWPPP (except for Small MS4s), and fee must be received for review at least 30 days prior to the discharge of storm water from the facility or activity. Fees vary depending on the type of permit. Contact the Department or visit the website listed below for various storm water discharge "General Permits," Application/NOI Forms, fee schedule, and other permitting forms/information.

For more information contact the Water Protection Bureau – MT Department of Environmental Quality, (406) 444-3080, <http://www.deq.mt.gov>.

ADDENDUM TO MDT APPROACH AND ENCROACHMENT/OCCUPANCY PERMIT
NOTIFICATION OF LIBBY AMPHIBOLE ASBESTOS

MDT right-of-way surface soil located within the boundaries of the Libby Asbestos National Priorities List Superfund site and in yet unidentified areas of MDT right-of-way in Lincoln Co., Montana may contain ubiquitous amounts of amphibole asbestos contamination. This contamination is sourced from the historic mining, processing, and transport of vermiculite from the former W.R. Grace Mine located north of Libby, MT. The releases of Libby amphibole asbestos (LA) to the environment have caused a range of adverse health effects in exposed people, including not only workers at the mine and processing facilities, but also residents of Lincoln County.

Testing by MDT and the U.S. Environmental Protection Agency (EPA) has confirmed the presence of LA in both asphalt aggregate and in MDT right-of way surface soil on MT 37 north of the Kootenai River Bridge to past the junction with Rainy Creek Road. Though not yet tested, LA may also be present in trees and vegetation. Testing also indicates that other transportation corridors in Lincoln Co. also contain varying amounts of LA in both surface soil and vegetation.

[\(Name of Permittee\)](#) is hereby put on notice that undiscovered areas of LA contamination may be present in MDT right-of-way surface soil in the permit area. Permittee should take all appropriate precautions to guard against potential exposure to LA contamination by its agents, employees, or other third parties while conducting any soil or vegetation disturbance in MDT right-of-way in the permit area. Permittee shall notify the EPA to report any planned disturbance of soil or vegetation within the permit area, at (406) 291-5335. For additional information or questions, Permittee may contact the EPA or MDT Environmental Services in Helena, MT at (406) 444-7632.

Permittee, its agents and employees, agree to protect, defend and indemnify the State of Montana, MDT, its agents, and employees, and save and hold each of them harmless from and against all claims, demands and causes of action of any kind or character, including defense costs, arising from activities conducted under this permit, from any claims or causes of action from the Permittee's agents, employees, or other third parties arising from or allegedly due to activities under this permit, and from any claims, demands and causes of action of any kind or character, including defense costs, or damages due to or allegedly caused to any third parties for personal injuries, property damage, loss of life or property, civil penalties, or criminal fines resulting from or in any way connected with activities pertaining to this permit.

This Addendum constitutes an addition to said permit. All other provisions of said permit remain unchanged.

Appendix B

OU5 Best Management Practices Manual

Libby Asbestos Superfund Site – Operable Unit 5

Best Management Practices Manual

This document has been prepared to outline best management practices (BMPs) for those involved in activities (e.g. OU5 landowners and their employees, utility workers, contractors, and subcontractors doing work on properties within OU5) working within the Environmental Protection Agency (EPA) Libby Asbestos Superfund Site, operable unit 5 (OU5). Discussion of the contaminant of concern (COC), BMPs, and where to find additional information pertaining to OU5, including, previous response actions, investigations, institutional controls (ICs), and the Site-wide Human Health Risk Assessment are provided within this document.

Contents

Section 1	Introduction.....	1-1
1.1	Contaminant of Concern.....	1-1
Section 2	Best Management Practices	2-1
2.1	Housekeeping	2-1
2.2	Building Renovation.....	2-2
2.3	Building Demolition	2-3
2.4	Excavation	2-4
2.5	New Construction Projects	2-5
2.6	Importing of Materials.....	2-6
2.7	Exporting of Materials.....	2-7
2.8	Recreational Activities.....	2-8
Section 3	Additional Information and Resources	3-1
Section 4	References	4-1

Section 1 Introduction

Libby amphibole asbestos (LA)-containing vermiculite and vermiculite products were transported using the railroad spur at OU5 (Figure 1-1), and vermiculite products previously were stockpiled on native soil at the former Expansion Plant. The railroad spur was used for shipping raw and processed vermiculite material to and from the mill. Vermiculite insulation was installed in buildings (central maintenance building, finger jointer, and the plywood plant) and all accessible material has since been removed. Furthermore, there has been extensive soil sampling and removal of contaminated soil within OU5 (EPA 2015).

Numerous hard rock mines have operated in the Libby area since the 1880s, but the dominant impact to human health and the environment in the City of Libby has been from vermiculite mining and processing. The vermiculite deposit that was mined by W.R. Grace (Grace) contains a distinct form of naturally occurring amphibole asbestos, LA, which is considered the COC at the Libby Asbestos Superfund Site. EPA initiated an emergency response action in November 1999 to address questions and concerns raised by citizens of the City of Libby regarding possible ongoing exposures to asbestos fibers as a result of historical mining, processing, and exportation of asbestos-containing vermiculite.



1.1 Contaminant of Concern

As previously stated, the COC for the site is LA. Asbestos fibers are odorless and tasteless and vary in length, structure, and chemical composition. Fibers are microscopic and environmentally persistent. They do not evaporate, burn, or dry out from heat or degrade in water. The toxicity of different types of asbestos fibers varies, but chronic and acute exposure to any one of them potentially can be fatal. While some chrysotile asbestos is likely present, it is not due to Site-related contamination and is not considered a COC. EPA actions at the Site have not focused on the removal of chrysotile or other forms of asbestos, only LA (EPA 2015).

Section 2 Best Management Practices

For the purposes of this document, BMPs are defined as means and methods when used in combination of developed ICs, provide guidance to owners, land users, tenants, and visitors for the prevention or reduction in the release and exposure to LA within OU5. The information within this section is grouped by the type of activities anticipated to take place in OU5 which could cause a release and potential exposure to LA.

2.1 Housekeeping

Housekeeping is defined as activities such as cleaning, routine maintenance of facilities, buildings or grounds on the property. The following BMPs are grouped by indoor (e.g., cleaning, indoor maintenance) and exterior (e.g., mowing, surveying, equipment storage) types of activities.

BMP Guidance

Indoors

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Resources section of this document.
2. Maintain a clean building by periodically cleaning with a high-efficiency particulate air (HEPA) filtered vacuum. Follow manufacturers instructions on how and when to change out bags and filters.
3. Avoid sweeping with a broom during maintenance activities. Utilize a mop and water or wet methods to clean horizontal surfaces.
4. Notify the property owner if suspected LA material is encountered during housekeeping activities.
5. See Attachment 1 for additional information and guidance regarding BMPs

Outdoors

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Resources section of this document.
2. Ensure equipment is stored on clean surfaces or free from areas where detectable levels of LA are documented to remain at ground surface.
3. When conducting mowing activities, attempt to mow when the area is damp or small amounts of moisture are present to minimize dust generation.
4. Clean and rinse tools after use and prior to storage
5. Attempt to keep soles of shoes clean after working outdoors and prior to entering buildings, vehicles, or heavy equipment.
6. Notify the property owner if suspected LA material is encountered during housekeeping activities.
7. See Attachment 1 for additional information and guidance regarding BMPs

2.2 Building Renovation

Building renovation includes, but is not limited to, any alterations, additions, or improvements to the interior or exterior of buildings or structures located on the property. Scale of renovation is not limited by financial or size of renovation and includes any protrusion into any existing wall system, removal of any wall surfacing material, or removal of any complete or partial wall systems currently in place.

BMP Guidance

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Recourses section of this document.
2. Notify the property owner well in advance and in writing of any known plans to conduct building renovations. Do not attempt to conduct renovations without prior notification or consent from the property owner.
3. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.
4. Notify the property owner or entity responsible for operation and maintenance (O&M) if suspected LA materials are encountered during renovation. Seal off the area with appropriate materials (i.e., poly sheeting).
5. During any renovation utilize point-of-cut ventilation (POCV) techniques with a HEPA vacuum at point of access and/or wet methods when cutting into any material to minimize dust generation, migration and exposure.
6. Do not attempt to vacuum known or suspected LA contaminated material without a device which contains a HEPA filter system.
7. Common dust or surgical masks are not effective against asbestos fibers! Wearing a respirator with a HEPA filter is the best way to avoid breathing asbestos fibers. However, they must be used properly or exposure may still occur. For information on respirator requirements, visit OSHA's website: www.osha.gov/SLTC/respiratoryprotection.
8. See Attachment 1 for additional information and guidance regarding BMPs

2.3 Building Demolition

Building demolition is defined by any complete or partial removal, destruction, or dismantling of any building or structure.

BMP Guidance

Before Demolition

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Resources section of this document.
2. Notify the property owner well in advance and in writing of any known plans to conduct building demolition. Do not attempt to conduct demolition without prior notification or consent from the property owner.
3. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.
4. Check local, state and federal regulations regarding demolition of buildings.
5. Check with the local landfill to learn if inspection of your debris is required.
6. The entity performing demolition should develop a contingency plan for cases where contamination is encountered during activities.
7. The entity performing demolition should arrange for offsite disposal of any materials prior to beginning demolition activities.
8. Common dust or surgical masks are not effective against asbestos fibers! Wearing a respirator with a HEPA filter is the best way to avoid breathing asbestos fibers. However, they must be used properly or exposure may still occur. For information on respirator requirements, visit OSHA's website: www.osha.gov/SLTC/respiratoryprotection.
9. See Attachment 1 for additional information and guidance regarding BMPs

During and After Demolition

1. Wet building, structure, or area prior to and during demolition; there should be no offsite migration of dust during demolition activities.
2. If a change of condition occurs whereby LA contaminated material is observed, contact the property owner or entity responsible for O&M for advice on how to manage the material.
3. Keep contaminated material encountered during activities wet.
4. Keep all debris wet and covered with a tarp during transportation.
5. Dispose of debris according to local, state, and federal laws.

2.4 Excavation

Excavation for the purpose of this document refers to any action of cutting, digging, or scooping soil, debris, or other materials from the ground surface or below.

BMP Guidance

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Resources section of this document.
2. Notify the property owner well in advance and in writing of any known plans to conduct excavation activities. Do not attempt to conduct excavation activities without prior notification or consent from the property owner.
3. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.
4. Notify the Montana One-call (U-Dig) utility locate service prior to any excavation activity. Do not attempt to excavate any area prior to all utilities having been marked.
5. When excavating, keep soil, debris, or other materials wet during work to minimize dust migration or potential exposure to LA.
6. Wear protective clothing while performing excavation activities (i.e., appropriate disposable protective clothing, gloves, and booties. Dispose of protective clothing appropriately.
7. Common dust or surgical masks are not effective against asbestos fibers! Wearing a respirator with a HEPA filter is the best way to avoid breathing asbestos fibers. However, they must be used properly or exposure may still occur. For information on respirator requirements, visit OSHA's website: www.osha.gov/SLTC/respiratoryprotection.
8. If a change of condition occurs whereby LA contaminated material is observed, contact the property owner or entity responsible for operation and maintenance (O&M) for advice on how to manage the material.
9. See details regarding importing and exporting of materials Section 2.6 and 2.7.
10. See Attachment 1 for additional information and guidance regarding BMPs

2.5 New Construction Projects

The following lists BMPs for any new construction projects planned by either the owner, tenant, or contractor involved in the overall construction of any new area located within OU5. New construction refers to any site preparation for and construction of entirely new areas, new buildings, or new structures on the site which would cause a change of condition to the ground surface, regardless of size or scale.

BMP Guidance

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Resources section of this document.
2. Notify the property owner well in advance and in writing of any known plans to conduct any new construction project. Do not attempt to conduct any new construction project without prior notification or consent from the property owner.
3. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.
4. The entity performing new construction projects should develop a contingency plan for cases where contamination is encountered during activities.
5. Follow BMPs for importing and exporting of materials Section 2.6 and 2.7.
6. See Attachment 1 for additional information and guidance regarding BMPs

2.6 Importing of Materials

Importing of materials refers to the hauling or transporting of any material for use, placement or disposal within the boundary of OU5. Materials include, but are not limited to, soil, rock, mulch, organic or non-organic debris, or building materials.

BMP Guidance

1. The property owner or entity responsible for maintaining control of the site should have a system in place to ensure importation of any materials does not have the potential to increase risk of LA exposure to land users. This may be satisfied through the use of a site management plan.
2. Any entity importing materials shall notify the property owner when importing materials to the site either through written documentation or in person. Entity shall make available any documentation confirming importation of materials will not have the potential to increase the risk of LA exposure or impact any protective remedy in place on the site.
3. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.

2.7 Exporting of Materials

Exporting of materials refers to the hauling or transporting of any material for use, placement or disposal from OU5 to another location. Materials include, but are not limited to, soil, rock, mulch, organic or non-organic debris, or building materials.

BMP Guidance

1. The property owner or entity responsible for maintaining control of the site should have a system in place to ensure exportation of any materials does not have the potential to increase risk of LA exposure to areas outside of OU5. This may be satisfied through the use of a site management plan.
2. Any entity exporting materials should notify the property owner when exporting materials from the site either through written documentation or in person. Entities should make available any documentation confirming exportation of materials will not have the potential to increase the risk of LA exposure or impact any protective remedy in locations outside of OU5.
3. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.
4. Check local, state and federal regulations regarding disposal or transportation of material.

2.8 Recreational Activities

For the purposes of this document, recreation is defined as, any activity occurring on the site by individuals for enjoyment, relaxation, or exercise. Recreation includes, but is not limited to, walking, jogging, bike riding, motoX activities, and fishing.

BMP Guidance

1. Obtain most current information on where contamination was removed or may remain. This information will be available from EPA developed documents as listed within the Additional Information and Resources section of this document.
2. Review IC plan for the site to ensure any listed proprietary controls, government controls, enforcement tools, or informational devices have been adhered to prior to conducting work.
3. Notify the property owner or entity responsible for O&M if suspected LA materials are encountered during recreation activities. Report unauthorized or suspected illegal activity to the property owner or proper authorities.

Section 3 Additional Information and Resources

The following resources are available to provide information to property owners, tenants, land users, or visitors while conducting activities within OU5.

Record of Decision for Libby Asbestos Superfund Site (EPA 2015b)

This document discusses the final decision and explains the remediation plan at the end of the detailed investigation and evaluation of conditions at the Site.

Site-Wide Human Health Risk Assessment – Libby Asbestos Superfund Site (EPA 2015a)

The purpose of this document is to quantify potential human health risks from exposures to LA at the Site under current and future conditions. Results of this risk assessment are intended to help Site managers determine if past removal actions have been sufficient to mitigate risk, if additional remedial actions are necessary to address risks, and if so, which exposure scenarios would need to be addressed in future remedial actions.

Remedial Investigation Report – Operable Unit 5 (HDR 2013)

This document describes the nature and extent of LA at OU5, focused primarily on investigative measures taken on the site to characterize the level of contamination.

Remedial Action Report – Operable Unit 5 (CDM Smith 2016a)

This document details the remedial actions and activities that have taken place at OU5.

Institutional Control Implementation and Assurance Plan – Operable Unit 5 (CDM Smith 2016b)

This document identifies activities that are designed to implement, maintain, and enforce ICs at OU5, and the organizations responsible for conducting these activities.

Operation and Maintenance Plan – Operable Unit 5 (CDM Smith 2016c)

This document presents the administrative, financial, and technical details and requirements for inspecting, operating, and maintaining at OU5.

Libby - EPA Information Center
108 E 9th St
Libby, MT 59923
(406) 293-6194

Asbestos Resource Program
418 Mineral Ave
Libby, MT 59923
(406) 291-5335
www.LCARP.com

The EPA Libby Asbestos Superfund Site website
<http://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0801744>

Additional federal and state websites with information to assist with the managing of asbestos

<https://www.epa.gov/asbestos/building-owners-and-managers>

<https://www.epa.gov/superfund/asbestos-superfund-sites>

<https://www.osha.gov/SLTC/asbestos/>

<http://deq.mt.gov/Public/asbestos>

Section 4 References

CDM Smith. 2016a. *Final Remedial Action Report, Operable Unit 5 – Former Stimson Lumber Mill*, Libby Asbestos Superfund Site, Lincoln County, Montana. January.

_____. 2016b. *The Former Stimson Lumber Mill Export, Operable Unit 5, Institutional Control Implementation and Assurance Plan*, Libby Asbestos Superfund Site. Libby Montana. Revision 0, January.

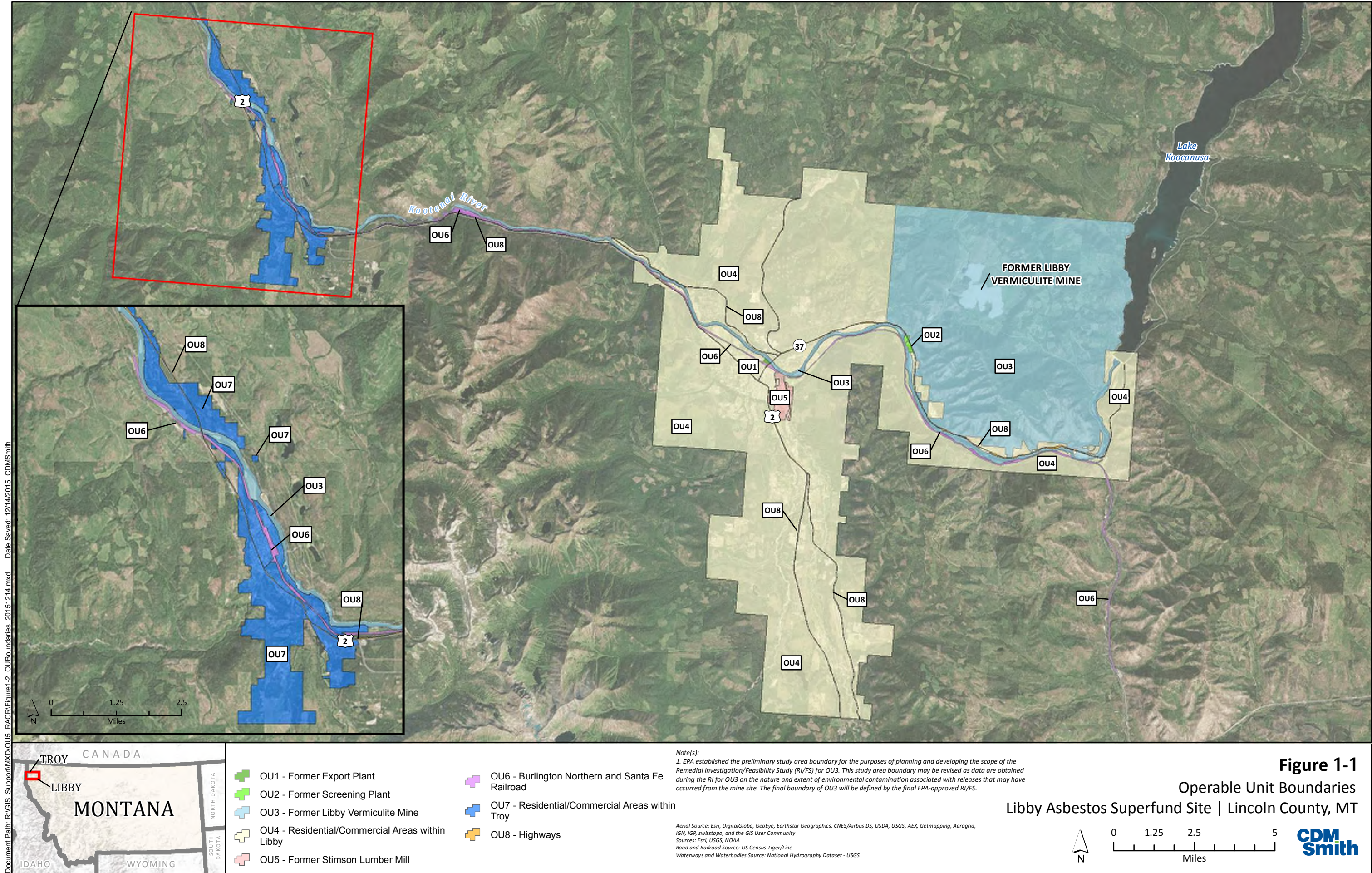
_____. 2016c. *Operations and Maintenance Plan, Former Stimson Lumber Mill*, Operable Unit 5, Libby Asbestos Superfund Site, Lincoln County, Montana, January.

EPA. 2015a. *Final Site-wide Human Health Risk Assessment*, Libby Asbestos Superfund Site, Libby, Montana. November.

_____. 2015b. *Record of Decision for Libby Asbestos Superfund Site, Libby and Troy Residential and Commercial Properties, Parks and Schools, Transportation Corridors, Industrial Park. Operable Units 4-8*, Lincoln County, Montana. December.

HDR. 2013. *Final Remedial Investigation Report, Operable Unit 5*, Libby Asbestos National Priorities List Site, Libby Montana. June.

Figure 1-1



Attachment 1

Reducing Asbestos Exposure

Vermiculite

Vermiculite was commonly used in and around homes in Lincoln County for a variety of different reasons, including as a soil additive, construction aggregate and attic insulation.

If vermiculite is present, it may contain Libby amphibole asbestos (LA). Exposure to LA could lead to serious asbestos-related diseases, such as asbestosis, lung cancer or mesothelioma.

It is not possible for the EPA to remove all of the vermiculite; therefore, you may encounter vermiculite while working in your yard, during renovations or during demolition activities. It may have been left intentionally in sealed walls, foundations or other inaccessible areas. If you encounter vermiculite, try not to disturb it further, this will cause LA to become airborne.

Libby Amphibole Asbestos

Libby amphibole asbestos is toxic and should be avoided or handled with extreme care. Exposure to LA has resulted in disease. The health risk from exposure to all asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts.

Frequent exposures to high levels of asbestos for lengthy periods of time pose a significant risk. Little disturbance of small amounts of vermiculite insulation or other products containing a low levels of asbestos poses a smaller risk, especially if you take basic precautions.

Renters – You have the right to know about any adverse conditions at your rental. Ask your landlord about the presence of vermiculite or contact the Asbestos Resource Program.



ARP Hotline – 406-291-5335

Call if you plan to remodel, demolish, excavate OR if you find vermiculite on your property. The Asbestos Resource Program (ARP) will send personnel out to inspect the situation and may recommend removal activities to be completed by the EPA. The ARP may also serve as a liaison during those activities.

You may come into contact with vermiculite during:

Renovating – removing old carpets or drywall, installing ceiling fans or removing wall outlets, taking down walls, putting in windows

Routine landscaping – gardening, rototilling or mowing

Extensive digging – septic systems, sprinklers or water lines

To avoid exposure:

For a small quantity, such as a handful of vermiculite, found outside, wet it and call the ARP Hotline. If possible, leave the material alone. Regular dust masks are not effective in reducing exposure to LA.

High efficiency particulate air (HEPA) filter vacuums are effective on small quantities of vermiculite indoors. NEVER vacuum vermiculite with a regular vacuum. Use a HEPA vacuum to remove dust from previously inaccessible locations such as under recently removed carpets, appliances and furniture.

For larger quantities of vermiculite, do not disturb the material. Do not vacuum, even with a HEPA vacuum. Leave the material alone and call the ARP Hotline.

Reducing Asbestos Exposure



Vermiculite in soil



Processed vermiculite often seen as insulation.

Additional Resources

Lincoln County Asbestos Resource Program

418 Mineral Avenue
Libby, MT 59923
406-283-2442

www.lincolncountymt.us/environmentalhealth/

United States Environmental Protection Agency

Information Center
108 E. 9th St
Libby, MT 59923
406-293-6194

www2.epa.gov/region8/libby-asbestos

Montana
Department of Environmental Quality
Asbestos Control Program
406-444-5300

Steps to take while renovating or demolishing:

- **Do** contact the ARP Hotline before renovating or demolishing
- **Do** check local, state and federal regulations regarding renovation and demolition of buildings.
- **Do** use point-of-cut ventilation techniques when pulling, cutting or accessing behind boards or wall coverings.
- **Do** use a HEPA vacuum at the point of access or disturbance to minimize dust migration and lessen potential exposure.

Demolition:

- **Do** use water to moisten the area being demolished to minimize dust.
- **Do** rinse off any equipment with in the work area.
- **Do** keep all debris wet and covered with a tarp during transportation.
- **Do** dispose of debris according to local, state and federal laws including landfill specific requirements.

Steps to take while working outside of your home:

- **Do** water your lawn often, a healthy lawn reduces dust.
- **Do** rinse off gardening tools outside within your work area after every use.
- **Do** wipe your feet off and/or take your shoes off at the door and leave them outside, if possible. Try not to bring any contaminated clothing or material back inside.
- **Do** wash your hands outdoors after any yard work, if possible.
- **Do not** disturb areas where you can see vermiculite. If it is a place you intend to work in, cover the vermiculite and call the ARP Hotline.
- **Do not** dig, cultivate, mow, rake or rototill your yard or garden when it is dry and dusty.
- **Do not** bring dusty or dirty things inside.

**CALL THE ARP HOTLINE IF YOU
SEE ANY VERMICULITE ON YOUR
PROPERTY, EVEN IF YOU ARE
UNSURE.**

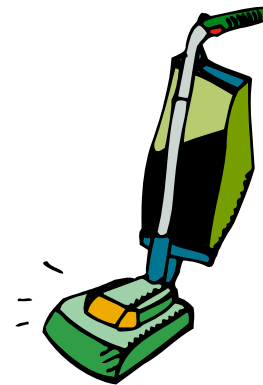
Who Will Receive a HEPA Vacuum?

EPA and DEQ are providing a HEPA vacuum to every residence or commercial property in Libby and Troy where there is a potential for indoor dust contamination. This includes properties where vermiculite was found anywhere inside or outside in yards, gardens, flowerbeds, or driveways. Residents do not have to initiate the process. The first people to receive a HEPA vacuum will be those whose properties EPA has cleaned up.

For properties that have not yet been cleaned up or that don't meet the criteria for EPA cleanup, EPA and DEQ will provide a HEPA vacuum only after dust samples are collected. This ensures that use of the vacuum does not affect the sample results and the resulting decision as to whether or not a cleanup should be done.

Even if a property does not meet the criteria for cleanup, there still may be low levels of Libby Amphibole Asbestos (LA) in the dust. Using a HEPA vacuum will minimize this problem.

The Superfund risk assessment will give EPA more information on the health risks of Libby Amphibole Asbestos (LA) in dust. As more information on LA becomes available, the details of the HEPA vacuum cleaner program might be adjusted in the future. EPA conducts post-cleanup sampling to evaluate how cleanup and HEPA vacuums performed.



The HEPA vacuum cleaner program is voluntary and property owners also have the option of purchasing their own HEPA vacuum now or in the future (including property owners that don't meet the general criteria for eligibility).

If you would like to buy your own vacuum cleaner, make sure the model you buy has a disposable 0.3 micron HEPA filter with disposable bags. EPA is now offering a choice between canister and upright models.

If you encounter a significant amount of vermiculite (more than a small handful), EPA recommends that you **call the Lincoln County Asbestos Resource Program (ARP) in at 406-291-5335** for tips on disposing of the material.

If you are remodeling and expect that you might run into vermiculite, a fact sheet entitled "Lincoln County Do-It-Yourselfers" will be helpful to you - it is available at the EPA Information Center (108 E 9th Street; Libby, MT 59923 406-293-6194.



Libby Asbestos Superfund Site HEPA Vacuum Cleaner Program

January 2014

EPA's objectives for removal actions in Libby and Troy are to:

1. Minimize the ongoing release of Libby Amphibole (LA) asbestos by removing or containing sources.
2. Reduce health risks associated with excess exposure to LA.

EPA is accomplishing these removal objectives through a robust response including:

- sampling and characterization
- attic and interior home cleaning
- outdoor soil removal
- distribution of vacuum cleaners with High Efficiency Particulate Air (HEPA) filters
- developing an Operations and Maintenance program in Libby



HEPA Vacuums as Part of the Overall Cleanup Approach

EPA intends to clean each property by designing and implementing a cleanup plan that will address most potential issues. However, EPA recognizes that no cleanup program can eliminate *all* exposures, levels of risk, or possibilities for recontamination. Situations presenting lower levels of risk may be dealt with later through additional investigations, potential additional cleanup, and/or by taking precautions during the remediation process.

Even after EPA's cleanup of hot spots is completed and the major LA sources are removed or contained, some fibers will remain that could lead to a low-level or short-duration exposure to LA.

Currently, these remaining risks cannot be accurately quantified. However, the HEPA vacuums further reduce these lowered risks and help to ensure the continued protectiveness of the EPA cleanup program.

Examples of potential low-level or short-duration exposure to Libby Amphibole asbestos include these sources:

- vermiculite insulation in walls (a potential problem if the wall is opened up – such as when replacing a light fixture or electrical outlet)
- low levels of LA remaining in dust or in textiles (couches or curtains)
- LA present below carpets (a potential problem if carpet is removed)
- LA sources not discovered at depth in soils (a potential problem if dug up)
- personal possessions that were not cleaned
- Libby asbestos tracked in from soils or other materials outside of the property

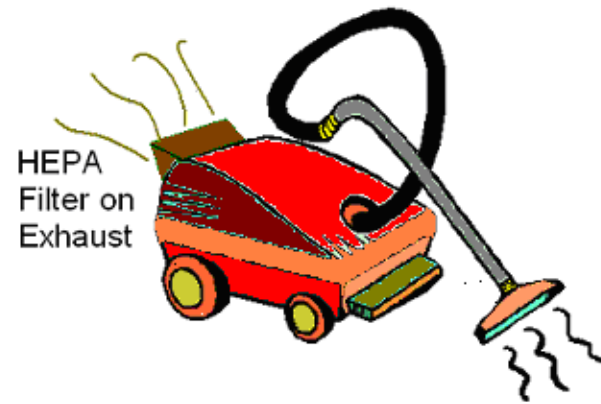
The HEPA vacuums are another step in an already rigorous cleanup program, not a substitute for cleanup!

What is a HEPA Vacuum Cleaner?

A vacuum with a HEPA filter is used exactly the same way as a standard vacuum. Its construction is also almost identical to a standard vacuum. The only real difference between a HEPA vacuum and a standard vacuum is that **a HEPA vacuum filters the exhaust air using a HEPA filter.**

A HEPA filter is made up of hundreds of square feet of filter paper folded into a couple of square feet of space. These filters can remove 99.97% of all particles that are 0.3 microns in size or larger. The majority of Libby Amphibole asbestos fibers are between 0.5 and 5 microns in size. For comparison, one inch contains about 25,000 microns.

This means HEPA vacuums, if used correctly, will successfully capture almost all of the fibers of current concern in your home.



Unlike some HEPA vacuum cleaners, the HEPA vacuum cleaners provided by EPA and DEQ will have a fully-sealed containment area and filtration system. This ensures that *all* air, debris, and lung-damaging particles pass through the vacuum bag and HEPA filter and do not exit out other areas of the vacuum cleaner.

In addition, the HEPA filter is located beyond the motor to ensure all air the motor draws in passes through it.

The HEPA vacuum cleaners provided by EPA and DEQ will come complete with a floor attachment and hand tools.

Operation and Maintenance

The manufacturer's instructions will provide direction on how and when to change the bag and filter. **It is important to follow these instructions carefully so that the integrity and performance of the filter is maintained!**

The vacuum will be covered under the manufacturer's warranty. Instructions on how to register the vacuum for the warranty will be provided with the vacuum. All maintenance will be the responsibility of the homeowner.

Why Use HEPA Vacuum Cleaners?

Standard vacuums *don't* filter out asbestos! The function of any vacuum is to remove dust and dirt from floors, furniture, or drapes. Vacuums draw in the dust and dirt and store it in either a bag or canister. The air that is taken in with the dust and dirt is pulled through the vacuum system and exhausted through the motor. Very small dust and dirt particles, such as asbestos fibers, can be drawn through the bag and canister and returned into the air.



It is important to note that the HEPA vacuums EPA is providing are NOT intended for bulk removal of vermiculite insulation from attics or walls!

HEPA vacuums *do* filter out most asbestos! Use of HEPA vacuums in the living space will provide property owners with a cost-effective, easy-to-use tool with the following benefits:

- Short-term, periodic use will reduce leftover contamination in dust that escaped EPA's cleanup. It will also reduce fibers present at levels that did not trigger an EPA cleanup.
- Long-term, periodic use will help prevent recontamination from outside sources or from areas EPA did not clean up. While EPA believes such occurrences will be minimal, the HEPA vacuum provides a practical way to address the issue with little effort, giving property owners additional assurance over time.
- Long-term, periodic use can address ongoing releases of non-Libby asbestos (generally chrysotile asbestos) from sources that EPA is not removing, such as pipe wrap, floor tiles, and ceiling tiles.
- One-time use can address situations where a small amount (less than a small handful) of Libby Amphibole asbestos is inadvertently introduced into the living space, such as when a wall is slightly opened up or when carpet is removed.

Questions?

If you have any questions or concerns regarding the HEPA Vacuum Program, please call the EPA Information Center at 406-293-6194



Contractors & Tradesmen Working Indoors

What To Do If You Find Vermiculite and Asbestos In A Home or Business

Lincoln County Asbestos Resource Program (ARP) – (406) 291-5335
EPA Information Center— 108 E. 9th Street, Libby, MT 59923— (406) 293-6194

Revised: January 2014



Vermiculite in Libby & Troy

For several decades, vermiculite was commonly used in and around homes in Lincoln County for a variety of applications, including as a soil additive, construction aggregate, and attic insulation.

If vermiculite is present, it might contain Libby Amphibole (LA) asbestos which is toxic. Exposure to LA could lead to such serious diseases as asbestosis, lung cancer, or mesothelioma. It will take several years for EPA to complete its cleanup, and workers might encounter vermiculite during that time and even after EPA has finished its work. It is not possible for EPA to remove (or to even know about) *all* the vermiculite in the area. In some cases, vermiculite might be intentionally left in sealed walls, home foundations, and other relatively inaccessible areas. Remodeling, repair, electrical, or plumbing work might uncover vermiculite that was otherwise sealed in place.

Always ask the homeowner if they know where you might find vermiculite.

It is possible that you might unexpectedly find vermiculite after starting your work, perhaps by cutting into a wall (drill a pilot test hole first) or uncovering something that EPA or the homeowner did not know about. **EPA strongly cautions you not to work with vermiculite or disturb it any way.**

Improper work practices can contaminate the interior of the home or building where you are working! It is your responsibility to know the state and local laws and regulations.



**Raw and Popped
Vermiculite Ore**

Precautionary Steps to Take So You Can Get On With Your Job

If you encounter vermiculite, it is likely that you will be exposed to Libby Amphibole asbestos. If you choose to continue working, take the following minimal steps:

1. **Always notify the resident.** If they haven't already told you about it, they might not know.
2. **For very small quantities, such as a handful, or if you are unsure as to whether it's vermiculite or not,** you can call the **Asbestos Resource Program (ARP)**. If you do not want to call the ARP, as a precaution, use a damp paper towel to scoop up the material into a sealable plastic bag or jar. Then use another damp towel to wipe down the area. Place the used paper towels in the container and throw everything away in a proper receptacle (a covered trash can is OK).
3. **Never vacuum vermiculite with a regular vacuum.** HEPA filter vacuums are effective on small quantities of vermiculite. Residents who have had a cleanup done should have a HEPA vacuum. If you do not have access to a HEPA vacuum, call the EPA Information Center.
4. **For larger quantities, such as what you might find in a breached wall, or if you are unsure as to whether it's vermiculite or not,** do not disturb the material. Do not vacuum large amounts of vermiculite - even with a HEPA vacuum. Isolate and cover the area and **call the ARP immediately.**
5. **No matter the volume or location of known or suspected vermiculite, contact the ARP** Please notify the ARP early to protect yourself and your workers and to ensure the most appropriate action is taken.

Libby Asbestos is toxic. It should be avoided or handled with extreme care. Exposure to Libby Amphibole asbestos has resulted in disease in workers and non-workers who have had contact with contaminated materials. Take care not to bring any contaminated clothing or material back to your home or business. Treat any asbestos containing material as regulated material and comply with all state and local regulations. The health risk from exposure to **all** asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts. **There is no known threshold risk level for asbestos-related materials, and any exposure will increase the risk of asbestos-related disease.** If you take the basic precautions outlined in this fact sheet, your risk from exposure will be less.

Who Can I Contact With Questions About Asbestos?

Common dust or surgical masks are not effective against asbestos fibers! Wearing a respirator with a HEPA filter is the best way to avoid breathing asbestos fibers. However, they must be used properly or exposure may still occur. For information on respirator requirements, visit OSHA's website: www.osha.gov/SLTC/respiratoryprotection.



EPA Information Center— (406) 293-6194 ARP— (406) 291-5335

The EPA, the ARP, or DEQ might send personnel out to inspect a situation involving vermiculite or LA. That guidance might include advising the owner to allow EPA or a licensed asbestos contractor or inspector to take samples, conduct cleanup, or take other special measures to reduce the risk of asbestos exposure. A list of licensed contractors and inspectors can be found at the Information Centers.

Montana Department of Environmental Quality—Asbestos Control Program (406) 444-5300

Montana law requires that employers hire a licensed inspector to determine if asbestos is present before doing any work. Asbestos that is not associated with the Libby vermiculite mine is still regulated by the Montana DEQ. If non-Libby asbestos is found, it should be dealt with according to Montana regulations. Explore Montana DEQ's Asbestos web site at: www.deq.mt.gov/Asbestos

Please learn about the risks of asbestos exposure and basic precautions by reviewing the fact sheets available at the **EPA Information Center** or the website listed below:

- **HEPA Vacuum Cleaner Program** – *Revised January, 2014.* Provides information on the effectiveness of HEPA vacuums and describes their role in Libby's cleanup.
- **Lincoln County Do-It-Yourselfers** – *Revised January, 2014.*
- **Contractors & Tradesmen Working Outdoors** – *Revised January, 2014.*
- **Demolition Activities** – *Revised January, 2014.*
- **Libby and Troy Residents: Vermiculite or Asbestos In or Around Your Home or Business** – *Revised January, 2014*
- **Yard Work and Gardening Activities** – *Revised July 2013*

Explore the EPA web site and its links at: <http://www2.epa.gov/region8/libby-asbestos>



Contractors & Tradesmen Working Outdoors

What To Do If You Find Vermiculite and Asbestos Around A Home or Business

Lincoln County Asbestos Resource Program (ARP) – Libby (406) 291-5335
EPA Information Center— 108 E. 9th Street, Libby, MT 59923— (406) 293-6194

Revised January 2014



Vermiculite in Libby

For several decades, vermiculite was commonly used in and around homes in Lincoln County for a variety of applications, including as a soil additive, construction aggregate, and attic insulation.

If vermiculite is present, it might contain Libby Amphibole asbestos (LA). Exposure to LA could lead to such serious diseases as asbestosis, lung cancer, and mesothelioma. It will take several years for EPA to complete the cleanup, and workers might encounter vermiculite during that time and even after EPA has finished its work. It is not possible for EPA to remove (or to even know about) *all* the vermiculite in the area. In some cases, vermiculite might be intentionally left in sealed walls, home foundations, and other relatively inaccessible areas. Construction, remodeling, or landscaping involving digging might uncover vermiculite either before or after EPA cleans the property.

Always ask the homeowner if they know where buried vermiculite might be. EPA might have information on the property based on the investigation, design, and cleanup that has been completed. When calling EPA, you will need to provide the address, location of the work, and the likely depth of excavation.

It is possible that you might unexpectedly find vermiculite after starting your work, perhaps by uncovering it while doing any major outdoor project. EPA strongly cautions you not to disturb it in any way that might cause LA to become airborne.



Precautionary Steps to Take

So You Can Get On With Your Job

If you encounter vermiculite, it is likely that you will be exposed to Libby Amphibole asbestos. If you choose to continue working, take the following minimal steps:

1. **Always notify the resident.** If they haven't already told you about it, they might not know.
2. **Stop work to assess the volume** of vermiculite. Cover or wet down the material, if possible.
3. **For very small quantities** of vermiculite, such as handful, EPA recommends you wet the area and contact the **Asbestos Resource Program (ARP) for appropriate evaluation and possible removal. If possible, leave it alone.** If the material is buried, leave it there. It's better to have it buried than at the surface.
4. **For larger quantities** of vermiculite such as when it was used as fill around pipes, around other structures, or as bulk fill (you may have sparkling soil) **do not to disturb the material – call the Asbestos Resource Program (ARP) immediately.**
5. **No matter the volume or location of known or suspected vermiculite, contact the ARP. Lincoln County, and EPA are considering a formal notification requirement. Please notify us early to protect yourself and your workers and to ensure the most appropriate action is taken.**

Libby Asbestos is toxic. It should be avoided or handled with extreme care. Exposure to Libby Amphibole asbestos has resulted in disease in workers and non-workers who have had contact with contaminated materials. Take care not to bring any contaminated clothing or material back to your home or business. Treat any asbestos containing material as regulated material and comply with all state and local regulations. The health risk from exposure to **all** asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts. **There is no known threshold risk level for asbestos-related materials, and any exposure will increase the risk of asbestos-related disease.** If you take the basic precautions outlined in this fact sheet, your risk from exposure will be much less.

Common dust or surgical masks are not effective against asbestos fibers! Wearing a respirator with a HEPA filter is the best way to avoid breathing asbestos fibers. However, they must be used properly or exposure may still occur. For information on respirator requirements, visit OSHA's website: www.osha.gov/SLTC/respiratoryprotection.



Who Can I Contact With Questions About Asbestos?

**EPA Information Center— (406) 293-6194
ARP— (406) 291-5335**

The EPA, the ARP, or DEQ might send personnel out to inspect a situation involving vermiculite or LA. That guidance might include advising the owner to allow EPA or a licensed asbestos contractor or inspector to take samples, conduct cleanup, or take other special measures to reduce the risk of asbestos exposure. A list of licensed contractors and inspectors can be found at the Information Centers.

**Montana Department of Environmental
Quality—Asbestos Control Program
(406) 444-5300**

Montana law requires that employers hire a licensed inspector to determine if asbestos is present before doing any work. Asbestos that is not associated with the Libby vermiculite mine is still regulated by the Montana DEQ. If non-Libby asbestos is found, it should be dealt with according to Montana regulations. Explore Montana DEQ's Asbestos web site at:
www.deq.mt.gov/Asbestos

Please learn about the risks of asbestos exposure and basic precautions by reviewing the fact sheets available at the **Information Centers** or the website listed below:

- **HEPA Vacuum Cleaner Program** – *January 2014*. Provides information on the effectiveness of HEPA vacuums and describes their role in Libby's cleanup.
- **Lincoln County Do-It-Yourselfers** – *Revised January 2014*
- **Contractors & Tradesmen Working Indoors** – *Revised January 2014*
- **Demolition Activities** – *January 2014*
- **Libby and Troy Residents: Vermiculite or Asbestos In or Around Your Home or Business** – *Revised January 2014*
- **Yard Work and Gardening Activities** – *January 2014*

Explore the EPA web site and its links at: <http://www2.epa.gov/region8/libby-asbestos>



Demolition Activities

What To Do If You Are Tearing Down Structures That Contain Vermiculite or Asbestos

Lincoln County Asbestos Resource Program (ARP); Libby and Surrounding Area – (406) 291-5335
EPA Information Center - 108 E. 9th St.; Libby, MT 59923 - (406) 293-6194

Revised: January 2014

Vermiculite In Libby & Troy



Raw and Popped Ore

For several decades, vermiculite was commonly used in and around homes in Lincoln County for a variety of applications, including as a soil additive, construction aggregate, and attic insulation.

If vermiculite is present, it might contain Libby Amphibole asbestos (LA). Exposure to LA could lead to serious diseases such as asbestosis, lung cancer, and mesothelioma. It will take several more years for EPA to complete the cleanup, and workers might encounter vermiculite during that time or even after EPA has finished its work. It is not possible for EPA to remove (or to even know about) *all* the vermiculite in the area. In some cases, vermiculite might be intentionally left in sealed walls, home foundations, and other relatively inaccessible areas. Demolition of any existing structure in the Libby/Troy area might uncover vermiculite either before or after EPA has completed its work.



It is possible that you might unexpectedly find vermiculite after starting your demolition project. EPA strongly cautions you not to disturb it in any way that might cause LA to become airborne.

Precautionary Steps To Take So You Can Get On With Your Job

Before Demolition:

1. **Contact the Asbestos Resource Program (ARP) for a free assessment of the situation.**
2. Check local, state and federal regulations regarding demolition of buildings.
3. Check with the local landfill to learn if inspection of your debris is required.

During Demolition:

1. **Use water to moisten the area being demolished to minimize dust generation.** There should be no offsite migration of dust during demolition activities.
2. **Stop work to assess the volume** of vermiculite. Call the ERS immediately if something unusual is encountered.
3. **Utilize point-of-cut ventilation techniques** when pulling, cutting, or accessing behind boards or wall coverings, use a HEPA vacuum at the point of access or disturbance to minimize dust migration to lessen potential exposure.
4. **For a small quantity** of vermiculite, such as a very isolated area or a few random flakes, EPA recommends you wet and place it in a sealable plastic bag (remember to rinse any tools used to transfer vermiculite) and put the bag in the trash.

After Demolition:

1. **Keep larger quantities of vermiculite wet** – vermiculite that was used as fill around pipes, in walls, as bulk fill, etc.
2. Keep all debris wet and covered with a tarp during transportation.
3. Dispose of debris according to local, state, and federal laws.

Un-exfoliated



Exfoliated



Libby Amphibole asbestos (LA) should be avoided or handled with extreme care. Exposure to LA has resulted in disease in workers and non-workers who have had contact with contaminated materials. Take care not to bring any contaminated clothing or material back to your home or business. Treat any asbestos containing material as regulated material and comply with all state and local regulations. There is no known threshold risk level for asbestos-related materials, and any exposure will increase the risk of asbestos-related disease. The health risk from exposure to all asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts. If you take the basic precautions outlined in this fact sheet, your project will be completed with minimal exposure to LA.

Common dust or surgical masks are not effective against asbestos fibers! Wearing a respirator with a HEPA filter is the best way to avoid breathing asbestos fibers. However, they must be used properly or exposure may still occur. For information on respirator requirements, visit OSHA's website: www.osha.gov/SLTC/respiratoryprotection.



Who Can I Contact With Questions About Asbestos?

**EPA Information Center - (406) 293-6194
ARP for the Libby area – (406) 291-5335**

EPA, the ARP, or DEQ may send personnel out to inspect a situation involving vermiculite or LA. They might advise the owner to allow EPA or a licensed asbestos contractor or inspector to take samples, conduct cleanup, or take other special measures to reduce the risk of asbestos exposure. A list of licensed inspectors and contractors can be found at the Information Centers.

**Montana Department of Environmental Quality -
Asbestos Control Program (406) 444-5300**

Montana law requires that employers hire a licensed inspector to determine if asbestos is present before doing any work. Asbestos that is not associated with the Libby vermiculite mine is still regulated by Montana DEQ. If non-Libby asbestos is found, it should be dealt with according to Montana regulations. Visit Montana DEQ's Asbestos web site at: www.deq.mt.gov/Asbestos

Please learn about the risks of asbestos exposure and basic precautions by reviewing the fact sheets available at the **Information Centers** or the website listed below:

- **HEPA Vacuum Cleaner Program** – *Revised January 2014*. Provides information on the effectiveness of HEPA vacuums and describes their role in Libby's cleanup.
- **Lincoln County Do-It-Yourselfers** – *Revised January 2014*
- **Contractors & Tradesmen Working Indoors** – *Revised January 2014*
- **Contractors & Tradesmen Working Outdoors** – *Revised January 2014*
- **Libby and Troy Residents: Vermiculite or Asbestos In or Around Your Home or Business** – *Revised January 2014*
- **Yard Work and Gardening Activities** – *Revised January 2014*
- Explore the EPA web site and its links at: <http://www2.epa.gov/region8/libby-asbestos>



Libby and Troy Residents

Vermiculite or Asbestos

In or Around Your Home or Business

EPA Information Center • 108 E. 9th Street, Libby, MT 59923 • 406-293-6194

Lincoln County Asbestos Resource Program (ARP) • 406-291-5335

Revised: January 2014



Vermiculite in Libby & Troy

Vermiculite was used in a variety of forms for decades in and around Libby homes as a soil additive, a lightweight aggregate for concrete, and attic insulation, among other things.

If vermiculite is present, it may contain Libby asbestos. It will take several years to complete the cleanup and people may encounter vermiculite during that time. Vermiculite will continue to be discovered from time to time long into the future and even after cleanup by the EPA. It is not possible for EPA to remove all the contaminated vermiculite. Vermiculite may be left in sealed walls, home foundations, and other relatively inaccessible areas.

Some encounters with vermiculite will be small and may include:

- **minor renovations** – removing old carpets, installing ceiling fans, or removing wall outlets
- **minor landscaping** – replacing bedding for plants and mowing

There will be times when a large pocket of vermiculite is discovered. Such situations may include:

- **intrusive digging** – septic systems, sprinklers, and water lines.
- **major renovations** – taking walls down, putting in windows, etc.
- **fires** – fire-fighting and subsequent cleanup.

Protect Yourself

Hiring a licensed asbestos contractor to clean up vermiculite spilled while doing home

improvements is recommended to minimize your exposure.

Take Steps to Avoid Exposure

1. For a small quantity, such as a handful of vermiculite, wet wipe it and throw it away. For a small quantity of vermiculite in surface soil, such as a very isolated area or a few random flakes, we recommend you wet it and have it removed by contacting the **Asbestos Resource Program (ARP)**. **If possible, leave it alone.** If the material is buried, keep it that way – it's better buried than at the surface.
2. HEPA filter vacuums are effective on small quantities of vermiculite indoors. **Never vacuum vermiculite with a regular vacuum.** HEPA vacuums and wet wiping can be used periodically to remove any small amounts of asbestos containing dust that is introduced into your home or to vacuum dust from previously inaccessible locations such as under recently removed carpets, appliances, and furniture.
3. For larger quantities of vermiculite, such as what you may find in a breached wall, do not disturb the material. **Do not vacuum large amounts of vermiculite – even with a HEPA vacuum.**
4. Dry mowing or rototilling in yards and gardens, where vermiculite is found may cause asbestos to become airborne. If possible, sprinkle your yard or garden with water before mowing or tilling.
5. If you encounter a large amount of vermiculite in soil that cannot be avoided, such as when it was used around pipes, around other structures, or as bulk fill – you may have

sparkling soil – **do not disturb the material.**
Contact ERS for appropriate evaluation and removal.

6. If you are planning on remodeling your home, find out if there is vermiculite in the attic or walls, or any of the materials that will be taken out, disturbed, or are likely to create dust. You can call the EPA Information Center at 293-6194, if you are unsure. You should also be aware of specific regulations regarding

remodeling, demolition, and disposal that may impact your work, especially big projects.

7. Renters – You have a right to know about any adverse conditions at your rental. Ask your landlord about the presence of vermiculite. If you do not receive the information you request, contact the EPA Information Center or Lincoln County Sanitarian.

Libby asbestos is toxic. It should be avoided or handled with extreme care. The health risk from exposure to all asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts. Frequent exposures to high levels of asbestos for lengthy periods of time pose a significant risk. Little disturbance of small amounts of vermiculite insulation or other products containing a low level of asbestos poses a smaller risk, especially if you take basic precautions.

Who Can I Contact With Questions About Asbestos?

EPA Information Center – (406) 293-6194

ARP for the Libby/Troy areas – (406) 291-5335

EPA, the ERS, or DEQ may send personnel out to inspect a situation involving vermiculite or LA. They might advise the owner to allow EPA or a licensed asbestos contractor or inspector to take samples, conduct cleanup, or take other special measures to reduce the risk of asbestos exposure. A list of licensed inspectors and contractors can be found at the Information Center.

**Montana Department of Environmental Quality
Asbestos Control Program
(406) 444-5300**

Montana law requires that employers hire a licensed inspector to determine if asbestos is present before doing any work. Asbestos that is not associated with the Libby vermiculite mine is still regulated by Montana DEQ. If non-Libby asbestos is found, it should be dealt with according to Montana regulations. Visit Montana DEQ's Asbestos web site at:

www.deq.mt.gov/Asbestos

Please learn about the risks of asbestos exposure and basic precautions by reviewing the fact sheets available at the **Information Centers** or the website listed below:

- **HEPA Vacuum Cleaner Program** – *Revised, January 2014*. Provides information on the effectiveness of HEPA vacuums and describes their role in Libby's cleanup.
- **Lincoln County Do-It-Yourselfers** – *Revised January 2014*
- **Contractors & Tradesmen Working Indoors** – *Revised January 2014*
- **Contractors & Tradesmen Working Outdoors** – *Revised January 2014*
- **Yard Work and Gardening Activities** – *Revised January 2014*
- **Demolition Activities** – *Revised January 2014*
- **Explore the EPA web site and its links at:** <http://www2.epa.gov/region8/libby-asbestos>

Lincoln County Do-It-Yourselfers



What to Do if You Find Vermiculite or Asbestos In or Around Your Home or Business

Lincoln County Asbestos Resource Program (ARP)—Libby- (406) 291-5335
EPA Information Center – 108 E. 9th Street, Libby, MT 59923 – (406) 293-6194

Revised: January 2014

Vermiculite in Libby & Troy



For several decades, vermiculite was commonly used in and around homes in Lincoln County for a variety of applications, including as a soil additive, construction aggregate, and attic insulation.

If vermiculite is present, it might contain Libby Amphibole asbestos (LA). Exposure to LA could lead to such serious diseases as asbestosis, lung cancer, or mesothelioma. It will take several years for EPA to complete its cleanup activity in Libby and Troy. Residents might encounter vermiculite during that time and even after EPA has finished its work. It is not possible for EPA to remove (or even know about) *all* of the vermiculite in the area. In some cases, it will intentionally be left in sealed walls, home foundations, attics, crawlspaces, and other relatively inaccessible areas.

Some encounters with vermiculite will be small in volume, such as a handful, and might include:

- **minor renovations**, such as removing old carpets or drywall, installing ceiling fans, or removing wall outlets
- **routine landscaping**, like gardening, rototilling, or mowing

There will be times when a large pocket of vermiculite is discovered, for example:

- **extensive digging** – for septic systems, sprinklers, or water lines
- **major renovations** - taking down walls, putting in windows, etc.
- **fires** - fire-fighting and subsequent cleanup

Protect Yourself

If you encounter vermiculite, it is likely that you will be exposed to Libby Amphibole asbestos. **If possible, leave it alone.** Hiring a licensed asbestos contractor to clean up vermiculite spilled while working on your home is strongly recommended to minimize your exposure. If you are unsure of what to do, call the **Asbestos Resource Program (ARP)**. If you choose to continue working in contaminated areas, take the following steps:

Take Steps to Avoid Exposure

1. Keeping in mind that any amount of vermiculite may cause a significant exposure risk, for a small indoor quantity, such as a handful of vermiculite, use a damp paper towel to scoop up the material into a sealable plastic bag or jar. Then use another damp towel to wipe down the area. Place the used paper towels in the container and throw everything away in a proper receptacle (a covered trashcan is OK). For a small quantity of vermiculite in soil, such as a very isolated area or a few random flakes, it is recommended that you wet it and **call ARP**. **If possible, leave it alone.** If the material is buried, keep it that way - it's better buried than at the surface.
2. HEPA filter vacuum cleaners are effective on small quantities of vermiculite found indoors. **Never vacuum vermiculite with a regular vacuum cleaner.** HEPA vacuums and wet wiping can be used periodically to remove small amounts of vermiculite introduced into your home. Use a HEPA vacuum to remove dust from previously inaccessible locations such as under recently removed carpets, appliances, and furniture.

3. For larger quantities of vermiculite, such as what you may find in a breached wall, do not disturb the material. **Do not vacuum large amounts of vermiculite - even with a HEPA vacuum – leave the material alone and call the ARP.**
4. Dry mowing or rototilling in yards and gardens where vermiculite is found might cause asbestos to become airborne. We encourage sprinkling your yard or garden with water before mowing or tilling. **Consult with the ARP if you are unsure about the vermiculite content in your yard.**
5. If you encounter a large amount of vermiculite in soil that cannot be avoided, such as when it is used around structures like pipes or foundations, or as bulk fill – **do not disturb the material, call the ARP.**
6. If you are planning on remodeling your home, find out if there is vermiculite in the attic or walls (drill small pilot test holes) or in any other material that will be taken out, disturbed, or is likely to create dust. You can call the EPA Information Center at 406-293-6194, if you are unsure. You should also be aware of specific state and local regulations regarding remodeling, demolition, and disposal that may impact your work, especially on big projects.

Renters - You have a right to know about any adverse conditions at your rental. Ask your landlord about the presence of vermiculite. If you do not receive the information you request, contact the EPA Information Center, or the ARP.

Libby Amphibole (LA) is toxic. It should be avoided or handled with extreme care. Exposure to Libby Amphibole asbestos has resulted in disease in workers and non-workers who have had contact with contaminated materials. There is no known threshold risk level for asbestos-related materials, and any exposure will increase the risk of asbestos-related disease. The health risk from exposure to **all** asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts. If you take the basic precautions outlined in this fact sheet, your risk from exposure will be less. It should be noted that regular dust or “painter’s” masks are not effective in reducing exposure to LA.

Who Can I Contact With Questions About Asbestos?

EPA Information Center - (406) 293-6194
ARP – (406) 291-5335

The EPA, ARP, or DEQ might send personnel out to inspect a situation involving vermiculite or Libby Amphibole asbestos. This guidance might include advising the owner to allow EPA or a licensed asbestos contractor or inspector to take samples, conduct cleanup, or take other special measures to reduce the risk of asbestos exposure. A list of approved asbestos inspectors and contractors is available at the Information Centers.

Montana Department of Environmental Quality
Asbestos Control Program (406) 444-5300

Montana law requires that employers hire a licensed inspector to determine if asbestos is present before doing any work. Asbestos that is not associated with the Libby vermiculite mine is still regulated by Montana DEQ. If non-Libby Asbestos is found, it should be dealt with according to Montana regulations. Explore Montana DEQ’s Asbestos web site at: www.deq.mt.gov/Asbestos

Please learn about the risks of asbestos exposure and basic precautions by reviewing these fact sheets (available at the **Information Centers** mentioned above) or the website listed below:

- **HEPA Vacuum Cleaner Program** – January 2014.
- **Contractors & Tradesmen Working Indoors** – Revised January 2014
- **Contractors & Tradesmen Working Outdoors** – Revised January 2014
- **Libby and Troy Residents: Vermiculite or Asbestos In or Around Your Home or Business** – Revised January 2014
- **Explore the EPA web site and its links at:** <http://www2.epa.gov/region8/libby-asbestos>



Yard Work and Gardening Activities

What To Do If You Are Working In Your Yard and Come Across Soil That Contains Vermiculite or Asbestos

Revised: January 2014

Vermiculite In Libby & Troy

For several decades, vermiculite was commonly used in and around homes in Lincoln County for a variety of applications, including as a soil additive, construction aggregate, and attic insulation. If vermiculite is present, it might contain Libby Amphibole asbestos (LA).

Exposure to LA could lead to serious diseases such as asbestosis, lung cancer, and mesothelioma. It will take several more years for EPA to complete the cleanup, and property owners might encounter vermiculite during that time or even after EPA has finished its work. It is not possible for EPA to remove (or to even know about) *all* the vermiculite in the area.

It is possible that you might unexpectedly find vermiculite after starting your yard work or gardening activities. If you do, EPA strongly cautions you not to disturb it further and cause LA to become airborne.



4. **Do** rinse off gardening tools outside within your work area after every use.
5. **Do** wipe your feet and/or take your shoes off at the door and leave them outside, if possible.
6. **Do** wash your hands outdoors after any yard work, if possible.
7. **Do** call the **Lincoln County Asbestos Resource Program (ARP)** at no cost to you if you see ANY vermiculite on your property, even if you are unsure. While waiting for ARP to arrive, take precautions to not disturb the area.

Precautionary Steps To Take While Working In Your Yard

The Do's:

1. **Do** water often. A healthy lawn reduces dust and contact with bare soil.
2. **Do** mow your lawn or roto-till your garden when it's damp—not when it's dry or dusty.
3. **Do** rinse off any rental equipment within your work area before returning the equipment.

The Don'ts:

1. **Don't** disturb areas where you can see vermiculite. If it's a place you intend to work in, cover the vermiculite and call **ARP**.
2. **Don't** dig, cultivate, mow, rake or roto-till your yard or garden when it's dry and dusty.
3. **Don't** bring dusty or dirty things inside.

The photo on the immediate right is an example of raw vermiculite in soils. When heated, vermiculite exfoliates (or pops), forming a lightweight material ideal for packing, insulation, and as a soil additive as shown in the far right photo.

Un-exfoliated



Exfoliated



Cautions regarding Libby Amphibole:

- LA should be avoided or handled with extreme care.
- Exposure to Libby Amphibole asbestos has resulted in disease in workers and non-workers who have had contact with contaminated materials. Take care not to bring any contaminated clothing or material back to your home or business.
- Treat any asbestos containing material as regulated material and comply with all state and local regulations.

There is no known threshold risk level for asbestos-containing materials, and any exposure will increase the risk of asbestos-related disease. The health risk from exposure to **all** asbestos depends greatly on the amount of asbestos in the material you are disturbing and how long the exposure lasts. If you take the basic precautions outlined in this fact sheet, your project will be completed with minimal exposure to LA.

Who Can I Contact With Questions About Asbestos?

EPA Information Center – 108 E. 9th Street; Libby, MT 59923 – (406) 293-6194

Lincoln County Asbestos Resource Program (ARP) – (406) 291-5335

Montana Department of Environmental Quality –

Asbestos Control Program (406) 444-5300

Please learn about the risks of asbestos exposure and basic precautions by reviewing the fact sheets available at the **Information Centers** or the website listed below:

- **HEPA Vacuum Cleaner Program** – *Revised May January 2014.*
- **Lincoln County Do-It-Yourselfers** – *Revised January 2014*
- **Contractors & Tradesmen Working Indoors** – *Revised January 2014*
- **Contractors & Tradesmen Working Outdoors** – *Revised January 2014*
- **Libby & Troy Residents: Vermiculite or Asbestos In or Around Your Home or Business** – *Revised January 2014*
- **Demolition Activities** — *Revised January 2014*

Explore the EPA web site and its links at: <http://www2.epa.gov/region8/libby-asbestos>

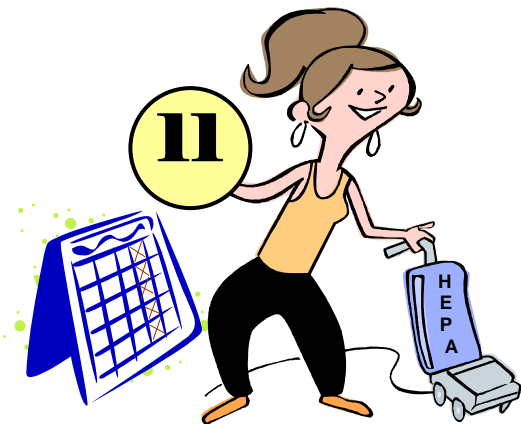
Indoors:



DO wipe your feet and/or take your shoes off at the door and leave them outside, if possible.



DO wash your hands after gardening, playing outdoors, or doing other messy things.



DO vacuum frequently, and only use a HEPA* vacuum.

*High Efficiency Particulate Air - learn more about these vacuums at the EPA Info Center



DO call the Lincoln County **Asbestos Resource Program (ARP)** if you see ANY vermiculite on your property (406) 291-5335.

If you are unsure about material you are bringing onto your property, call the **ARP** to have it sampled first.



DON'T bring dusty or dirty things inside.



DO keep your pets clean.



DO use a HEPA vacuum to remove dust from clothing, furniture, drapes, etc.



Photo of raw (left) and processed (right) vermiculite. View samples at the EPA Info Center.



Libby Asbestos Superfund Site
EPA Information Center
108 E. 9th ST., Libby, MT 59923
(406) 293-6194

Don't let an unwanted visitor into your home!!



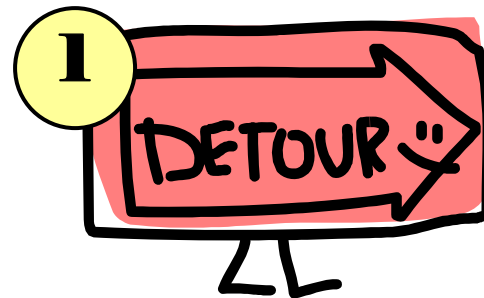
13 simple steps to
protect yourself and
your loved ones
from
**Libby Amphibole
Asbestos
(LA)**

*Reducing contact with
disturbed, contaminated soil is
important in reducing your
exposure to LA. LA poses the
greatest threat when it is
airborne.*

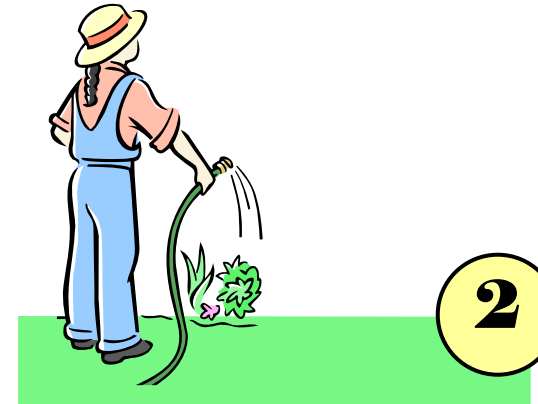
*For a lower risk of exposure,
focus on keeping contaminated
soil from being disturbed in your
yard and trapped in your home.*

This flyer gives some
common sense tips on
avoiding exposure to LA on
your property.

Outdoors:



DON'T disturb areas
where you can see
vermiculite (see picture on
back). Find other places
to play or garden.



DO water often. A healthy
lawn reduces dust and
contact with bare soil.



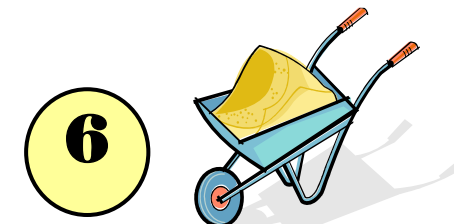
DO mow your lawn when
it's damp – not when it's dry
and dusty.



DON'T dig, cultivate, or
roto-till your garden soil
when it is dry and dusty,
and do suppress any dust
with water.



DO rinse off gardening
tools outside.



DON'T buy or accept free
topsoil or fill from an
unknown source. If you are
unsure, call the EPA Info
Center.