TETRA TECH

September 15, 2025

Mr. Jason Seyler, Brownfields Coordinator
Montana Department of Environmental Quality
PO Box 200901
Helena, Montana 59620

Delivered via email: JSeyler@mt.gov

Subject: Analysis of Brownfields Cleanup Alternatives
Former Rocky Fork Inn
716 Broadway Avenue South
Red Lodge, Carbon County, Montana 59068

Dear Mr. Williams:

Tetra Tech, Inc. (Tetra Tech) is pleased to present the Analysis of Brownfields Cleanup Alternatives for the Former Rocky Fork Inn located at 716 Broadway Avenue South, Red Lodge, Carbon County, Montana 59068.

If you have any questions or comments, please contact me at 406-248-9161.

Sincerely,

TETRA TECH

Roger W. Herman, Jr.

Roger W. Herman, Jr.
Asbestos, Lead & IH Services Manager

Enclosure: Analysis of Brownfields Cleanup Alternatives

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ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES

FORMER ROCKY FORK INN
716 BROADWAY AVENUE SOUTH
RED LODGE, CARBON COUNTY, MONTANA 59068

Prepared for:

Montana Department of Environmental Quality
PO Box 200901
Helena, Montana 59620

Prepared by:

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September 2025

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1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech) prepared this Analysis of Brownfields Cleanup Alternatives (ABCA) for the Montana Department of Environmental Quality for the Former Rocky Fork Inn (Site) in Red Lodge, Carbon County, Montana 59068.

This ABCA is intended to briefly summarize information about the site, contamination issues, cleanup alternatives considered, and information on the effectiveness and cost of each proposed cleanup alternative, as well as an evaluation of how commonly accepted climate change conditions might impact proposed cleanup alternatives, and an analysis of the reasonableness of the cleanup alternatives.

Tetra Tech performed this ABCA based on the results of the Phase II Environmental Site Assessment (ESA) (Tetra Tech 2023). The Phase II ESA report concluded that, based on analytical results, there is a presence of asbestos-containing materials (ACMs), Mercury-containing components, PCB-containing components, and CFC-containing components throughout the Site and that these materials should be appropriately addressed before building demolition. This ABCA considers state and federal regulations regarding ACM and universal waste.

2.0 BACKGROUND AND DESCRIPTION

The address of the Site is 716 Broadway Avenue South, Red Lodge, Carbon County, Montana 59068. The legal description is described as RED LODGE FIRST ADDN, S34, T07 S, R20 E, RL 1ST ADDN LT 3 3RD AM COS 1364 RB #2. The Site (Figure 1) is owned by the City of Red Lodge.

The Site hosts a single parcel, occupied by a two-story structure. The building is currently unoccupied and in unstable condition.

The Site is of unknown construction date and was formerly used as a bed and breakfast.

3.0 PREVIOUS INVESTIGATIONS AND ABATEMENT

Previous investigation reports and documents for the Site include:

- 2023 Phase II ESA (Tetra Tech)

4.0 PLANS FOR FUTURE USE

The Site is currently unoccupied and owned by Musselshell County. Plans include demolition of the structure and leaving the site clear of all debris.

Asbestos and universal waste should be appropriately addressed before building demolition.

5.0 POTENTIAL CLEANUP ALTERNATIVES

The overall goal of any brownfields cleanup action is to address environmental conditions preventing or impeding the preferred type of subject property redevelopment and to do so in a manner protective of human health and the environment. This ABCA considers both ACM and universal waste.

Tetra Tech evaluated brownfields cleanup alternatives to address environmental impacts identified during the Phase II ESA (Tetra Tech 2023). The purpose of the ABCA is to present viable cleanup alternatives based on site-specific conditions, technical feasibility, and preliminary cost evaluations.

The following sections describe brownfields cleanup alternatives for addressing ACM and universal waste, including a "No Action" alternative. Following the description, each alternative is evaluated in terms of its effectiveness, implementability, and cost. The purpose of evaluating each alternative is to determine its advantages and disadvantages relative to the other alternatives, to identify key tradeoffs that would affect the selection of the preferred alternative.

Effectiveness of an alternative refers to its ability to meet the objectives of the brownfields cleanup. The criteria applied to assess the effectiveness of an alternative include the following:

- Overall protection of human health and the environment
- Long-term effectiveness
- Reduction of toxicity, mobility, or volume through treatment/removal
- Short-term effectiveness
- Climate change considerations

Criteria applied to assess the implementability of an alternative are:

- Technical feasibility
- Administrative feasibility
- Availability of services and materials required during the implementation of the alternative
- State acceptance
- Community acceptance
- Environmental Impact
- Safety

Each alternative is evaluated regarding its cost. The evaluations compare the alternatives' respective direct capital costs, which include equipment, services, and contingency allowances, as well as longer-term institutional control (IC) and operation and maintenance (O&M) costs. Again, the purpose of evaluating each alternative is to assess its advantages and disadvantages relative to the other alternatives to identify key tradeoffs that would affect the selection of the preferred alternative.

5.1 Evaluation Contamination

This ABCA evaluates ACM and universal waste. The sections below discuss contaminants and materials identified during the Phase II ESA (Tetra Tech 2023) at the Site.

5.1.1 Asbestos-Containing Material

During the Phase II ESA (Tetra Tech 2023), Tetra Tech collected 83 bulk samples of suspect ACM. Collection of samples of building materials accorded with National Emission Standards for Hazardous Air Pollutants (NESHAP) as adopted by the EPA, and with AHERA protocols. Suspect ACM samples were sent to Crisp Labs, Inc. of Carrollton, Texas, for analysis per EPA Method 600/R93/116 via polarized light microscopy (PLM). AHERA defines ACM as any material or product that contains more than 1% asbestos. Also, *regulated* ACM refers to friable asbestos material, including:

1. Category I non-friable ACM that has become friable. Category I material includes gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos, and have been or will be subjected to sanding, grinding, cutting, or abrading.
2. Category II non-friable ACM has a high probability of becoming, or becoming crumbled, pulverized, or reduced to powder during demolition or renovation operations.

The ACM survey identified the following ACMs:

- Black rolled roof system and associated black tar located on the central flat roof (650 SF) (RFH-M1.1A, B, C)
- Flooring material beneath associated flood debris located in Rooms 102-105 and 107 (1,800 SF) (RFH-F1.3 Assumed)

5.1.2 Universal Waste

An assessment was conducted to verify the existence of mercury-containing equipment, PCB-containing components, and CFCs or freon-containing components during the Phase II ESA (Tetra Tech 2023). Mercury-containing equipment, PCB-containing components, and CFCs or freon-containing components were identified on interior components. During Tetra Tech site visits, mercury-containing equipment, PCB-containing components, and CFCs or freon-containing components were identified.

1. Mercury-containing equipment
   - Linear fluorescent light bulbs located in Rooms 100, 100A, 107, 113C, 201A, and 201B
   - Switches in thermostats located in Rooms 100, 109, 110, 111, 202, 203, and 204
2. PCB-containing components
   - Light ballasts located in Rooms 100, 100A, 107, 113C, 201A, and 201B
3. CFCs or freon-containing components
   - Refrigerator located in Rooms 100, 102, and 107

5.2 EVALUATION OF CLEANUP ALTERNATIVES FOR ACM AND UNIVERSAL WASTE

Tetra Tech developed three cleanup alternatives to address ACM and universal waste at the Site: (1) no action; (2) abatement and disposal of all ACM and removal and disposal of universal waste; and (3) abatement, removal, and disposal of universal waste, and demolition of the building with the removal of all debris as regulated ACM.

5.2.1 Alternative 1: No Action

Alternative 1 (No Action) would leave ACM and universal waste materials.

Effectiveness

This alternative does not address asbestos and universal waste and is ineffective in preventing potential exposure to ACM and universal waste during demolition activities at the Site.

Implementation

Implementation of this alternative is easily implemented because the ACM and universal waste would be left in place, and no action would be taken at the Site. Future redevelopment would have to consider the location and condition of the ACM and universal waste materials and ensure that those materials remain undisturbed. Demolition activities at the Site could not occur before abatement.

Cost

This alternative would not involve any direct, indirect, or Operations and Maintenance (O&M) costs.

5.2.2 Alternative 2: Abatement of All Asbestos-Containing Material and Universal Waste

Alternative 2 would involve abatement of all ACM and universal waste identified by the Phase II ESA (Tetra Tech 2023), before demolition activities at the Site. Abatement and cleanup by an asbestos abatement contractor licensed in the State of Montana would be performed in accordance with applicable local, state, and federal regulations.

Effectiveness – Including Climate Change Considerations

The long-term effectiveness of this alternative is rated “good.” Removal of all identified ACM under Alternative 2 would limit exposure because all materials containing asbestos would be removed. Workers completing the abatement may be exposed to friable asbestos in the short term; however, this risk will be minimized with the use of personal protective equipment (PPE) and by following NESHAP guidance. Removal of Universal waste would limit exposure to mercury, PCB, and Fren by removing all components. This risk will be minimized with the use of PPE and by following OSHA guidance.

A comparison dataset of climate indicators for prior years (1976 – 2005) was used to calculate future climate indicators for the periods of early-century (2015 – 2044), mid-century (2035 – 2064), and late-century (2070 – 2099) by the Federal Emergency Management Agency (FEMA). Although climate conditions are predicted to change at the site with increasing time in the form of elevated temperatures and drier land conditions, negative effects caused by climate-induced factors (heat, drought, wildfire, and flooding), for all time periods indicated above, are calculated to be very low to reasonably low (CMRA 2024). Future weather-caused impacts to the site area are not considered to be consequential, and therefore, the site is not considered to be vulnerable to weather-caused events, and the site improvements proposed herein would be unaffected.

Implementation

This alternative would be implementable and would follow NESHAP and OSHA guidance to protect abatement workers and the environment.

Cost

Cost estimates are based on task assessments using the RSMeans cost estimating database, as well as inquiries to active vendors. The estimated cost to abate all ACM and remove all universal waste is projected to be $30,000 to $40,000. This estimate does not include any O&M costs that would be required to ensure a continued safe working environment, determined by the number of years of the Site's service life.

5.2.3 Alternative 3: Abatement of Universal Waste and Demolishing and Building as Asbestos Waste

Alternative 3 consists of removing all hazardous waste and demolition the building, and disposing of all debris as regulated asbestos waste. Demolition would utilize wet methods to control dust and would follow all applicable DEQ and EPA regulations. Alternative 3 differs from Alternative 2 in that the buildings will be demolished without abatement and the entire waste stream disposed of as asbestos.

Effectiveness – Including Climate Change Considerations

Moderate-to-High. Protecting the environment, human health, and preparing the site for redevelopment.

A comparison dataset of climate indicators for prior years (1976 – 2005) was used to calculate future climate indicators for the periods of early-century (2015 – 2044), mid-century (2035 – 2064), and late-century (2070 – 2099) by FEMA. Although climate conditions are predicted to change at the site with increasing time in the form of elevated temperatures and drier land conditions, negative effects caused by climate-induced factors (heat, drought, wildfire, and flooding), for all time periods indicated above, are calculated to be very low to reasonably low (CMRA 2024). Future weather-caused impacts to the site area are not considered to be consequential, and therefore, the site is not considered to be vulnerable to weather-caused events, and the site improvements proposed herein would be unaffected.

Implementation

Moderate. Demolishing buildings without conducting abatement will result in all demolition debris being classified as asbestos waste, and a large volume of specialized waste with associated additional requirements for tracking and pre-disposal approvals.

Cost

The cost of disposing of all demolition debris as asbestos waste would be high because of the large volume of waste. Cost estimates are based on task assessments using the RSMeans cost estimating database, as well as inquiries to active vendors. The estimated cost of disposing of all demolition debris as asbestos waste is projected to be $175,000 to $225,000.

Recommended Cleanup Alternatives

Future uses of the Site include demolition of the Site. The continued presence of ACM and universal waste materials for either of these alternatives is problematic to the health and safety of future users. Therefore, the most reasonable approach for all outcomes at the site includes addressing the presence of ACM and universal waste. The recommended removal alternatives that are determined to be the most cost-effective and viable options to successfully meet brownfields clean-up objectives for the site are presented below.

5.2.4 Abatement of Asbestos and Universal Waste

Alternative 2 is the recommended cleanup alternative for ACM and universal waste. Future plans at the subject property include demolition of the Site; therefore, removal of the identified ACM and universal waste would be required before initiation of demolition activities.

5.2.5 Total Cleanup Cost

Based on the recommended cleanup alternatives, the estimated total cleanup cost is $30,000 to $40,000.

6.0 REFERENCES

Tetra Tech. 2024. Phase II Environmental Site Assessment Report– Rocky Fork Inn

FIGURE

Figure 1
716 Broadway Ave South
Red Lodge, Carbon County, MT

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