

Brite X Mica Mine –Steffie Expansion Project Hell Canyon Ranger District Black Hills National Forest

Custer County, South Dakota

This document describes the proposed mine expansion project and the actions proposed by the Forest Service to meet the obligations and requirements of 36 CFR 228 Subpart A, the Forest Service regulations for locatable mining activities.

Description of Proposal

Introduction

Pacer Corporation (Pacer) mines industrial minerals including mica and has processing facilities and offices located in Custer, South Dakota. Pacer produces a number of mica products for various uses including oil production, fire extinguishers, thermal and chemical barrier coatings, automotive sound dampening coatings, drywall joint compound, cosmetics, foundry coatings, plastic film, brake shoes, and rolled-roofing. Pacer employs approximately 27 people in the Custer area. The Brite X mica mine has been in operation since 1974 and currently encompasses an area of about 12 acres. The mine facilities include an open pit mine; portable rock crusher; equipment storage areas; topsoil, ore and waste rock stockpiles; erosion control structures; and the mine access road. In October, 2007 Pacer submitted a proposed Plan of Operations to the Hell Canyon Ranger District, of the Black Hills National Forest to expand their mine facility.

Location

The Brite X Mine and proposed mine expansion is located approximately 6 miles northwest of Custer, South Dakota, in the west half of Section 28, Township 2 South, Range 4 East, Black Hills Meridian. The project location is shown on **Figure 1**. The footprint of the existing mining operation, the area of proposed mine expansion, and the South Dakota Department of Environment and Natural Resources (DENR) Mine Permit Boundary area are each shown on **Figure 2**.

Description of Proposed Mine Expansion

Pacer's Brite X Mine Plan of Operations (and DENR Operating Permit #467) proposes to expand the perimeter boundary of the mica mine from the currently permitted size of 12 acres to a total area of about 41 acres. To accomplish this expansion, the existing mine pit would be extended approximately 800 feet to the northwest, north and northeast (**Figure 2**) to include an additional 29 acres of National Forest. The proposed mine expansion would allow Pacer to continue to mine mica in this area for an additional 50 years (2010-2060) at the current mining rate of 605 to 1000 tons per week.

The proposed expansion area consists of prominent forested ridges with numerous outcrops of mica-bearing metamorphic rocks. Trees would be removed from the area prior to mining. Drainage from the mine and proposed expansion area currently enters Tenderfoot Creek through an existing series of diversion ditches and settling ponds and a westerly draining ravine along the northwest edge of the expansion area that also drains into Tenderfoot Creek. As the mine

expands northward, additional surface water diversions and sediment basins would need to be constructed as part of the mines storm-water permitting in the vicinity of the westerly draining ravine area. Trees would be sold by the Forest Service for wood products. Topsoil and subsoil would be salvaged and stored in stockpiles in the relatively flat, open area along the southeast edge of the expansion area for use in mine reclamation.

The mine would continue to use conventional open pit mining, drilling, blasting and hauling methods for the northward expansion of the pit that would result in mined segments of the pit high-wall with a maximum height of 50 feet and a bench width of 30 to 50 feet. The blasted rock would be excavated with a front end loader or excavator. The rock would be hauled from the working face to either an existing waste rock dump or to the existing in-pit crushing plant with off-road haul trucks. Mine wastes would be stockpiled in the vicinity of the topsoil stockpiles along the south east edge of the expansion area and would also be used in final pit recontouring and reclamation. Crushed mica ore would be temporarily stockpiled within the existing mine disturbance area. The crushed rock would then be hauled to Pacer's mineral processing plant south of Custer for final processing using over-the-road haul trucks with trailers. Haulage of rock from the proposed expansion area to the mill would use a previously approved National Forest System Road (NFSR 474.1C), a private road, and South Dakota State Highways 385 and 16. Equipment and vehicles used in mining and hauling include; crushers, screening equipment, tracked excavators, bull dozers, wheeled loaders, on- and off-road dump trucks, drilling equipment, welding equipment, and a portable office and maintenance shop.

During the development, operations, and reclamation phases, Pacer would continue to institute existing environmental controls. The sediment control system of storm-water detention ponds, ditches, and culverts would continue to be used as part of the site-wide storm-water pollution prevention plan (SWPPP). Noxious weeds would be controlled on the site according to Forest Service guidelines. The existing spill and pollution control and contingency plan (SPCC) would be extended to cover the expansion area detailing response measures in the event of a spill of petroleum products or other hazardous substances.

Reclamation of the proposed expansion area and the current mine disturbance would commence immediately after permanent cessation of mining activities at the site. Reclamation would include constructing partial backfill of the mine pit using available fill material such as waste rock and existing rock fill from the project area. Final slopes constructed with unconsolidated fill would be limited to a maximum of 3:1 (horizontal:vertical). Final slopes consisting of solid bedrock high-walls would be limited to a maximum slope of 0.5:1. Mine facilities such as haul roads and access roads would be ripped or scarified to alleviate compaction. Topsoil or other suitable growth medium would be applied to the mine benches, backfill areas of the mine pit, and ancillary areas of the mine site. Soil would be amended with organic matter or fertilizer as necessary based on soil conditions. The area would be reseeded using a Forest Service approved seed mixture.

Pacer will be required to submit a reclamation surety to the South Dakota Department of Environment and Natural Resources and the US Forest Service to provide for all reclamation costs at the site. The purpose of the surety is to ensure that adequate funds are available to complete reclamation in the event that Pacer fails to reclaim the site for any reason.

Purpose Of and Need For Action

The Purpose and Need for this action is to allow Pacer to exercise their rights under US mining laws while protecting the environment in accordance with Forest Service regulations for locatable minerals. The Purpose and Need has several components. Pacer has a right to develop the Brite X mine set forth by the General Mining Law of 1872 as amended. The Forest Service has the responsibility to protect surface resources of National Forest System land to the extent practicable. Forest Service mining regulations state that “operations shall be conducted so as, where feasible, to minimize adverse impacts on National Forest System surface resources (36 CFR 228.8).”

The General Mining Law of 1872 as amended provides for discovery, right of possession, and location of mining claims on lands reserved from the public domain such as the Brite X mine site. Minerals that may be claimed under authority of the General Mining Law of 1872 are termed “locatable” minerals. High purity mica used for the purposes described above is a locatable mineral. By staking mining claims on the Brite X deposit and discovering a valuable high-purity mica deposit, Pacer has established a statutory right to mine the deposit.

The Organic Administration Act of 1897 provides authority for the Forest Service to regulate the occupancy and use of National Forest System lands. The Organic Administration Act of 1897 also provides for the continuing right of the public to conduct mining activities under the General Mining Law as long as the rules and regulations covering National Forests are complied with. The act recognizes that miners and prospectors have the legal right of access into National Forests to prospect, locate, and develop mineral resources.

Forest Service authority to regulate locatable mining activities is set forth in 36 CFR 228 Subpart A. These regulations require a Plan of Operation if the authorized Forest Service officer determines that the mining operation will cause significant surface disturbance. The regulations also require that the mining operations be conducted, insofar as possible, in a manner which minimizes adverse impacts to National Forest System surface resources. The Plan of Operation must detail the steps the operator will take to mitigate adverse environmental impacts to surface resources. The regulations allow the Forest Service to require a reclamation bond based on the estimated cost to reclaim the site. The regulations also require that the Plan of Operations be approved by the authorized officer before mining operations are conducted.

The authorized Forest Service officer must determine the practicable and reasonable measures that are necessary to mitigate adverse impacts to surface resources of National Forest System lands. The authorized Forest Service officer has the responsibility to analyze the proposed Plan of Operations in a timely manner and to consider economic factors along with other factors in determining the reasonableness of requirements for surface protection.

Proposed Action

The Proposed Action is to approve the Plan of Operations submitted by Pacer (as described previously in this document-Description of Proposed Mine Expansion page 1). The Plan of Operations was not developed by the Forest Service. It was brought to the Forest Service by Pacer in accordance with their rights under the General Mining Law of 1872 and Forest Service mining regulations at 36 CFR 228 Subpart A.

Forest Plan Direction

Forest Service actions at the Brite X mica mine must comply with the 1997 Revised Black Hills National Forest Land and Resource Management Plan as amended (Forest Plan). The Forest Plan establishes goals, objectives, standards and guidelines for forest management. Goals and objectives

include providing for sustained commodity uses in an environmentally friendly manner. In addition, goals and objectives include protection of soil, air and water resources, maintenance and development of diverse ecosystems, and providing for scenic quality.

Management Area Direction

The Forest Plan also provides specific direction for management areas within Black Hills National Forest. The proposed mine expansion lies within Management Area 5.1, Resource Production Emphasis. These lands are managed primarily for wood products, water yield and forage production, while also providing other commercial products, visual quality, diversity of wildlife, and a variety of other goods.

Desired Condition

The Forest Plan goals and objectives establish desired future conditions for the forest. These desired future conditions included providing for sustained commodity uses in an environmentally friendly manner. This includes managing environmental impacts during development and operation of the mine, and reclaiming the mine in a manner that will provide for future productivity of the land.

Disturbance of surface resources is a necessary facet of mineral production. Forest Service regulations for locatable minerals, 36 CFR 228 Subpart A, require mitigation of adverse effects on surface resources, insofar as possible. The Forest Plan goals and objectives relating to environmental protection, diverse ecosystems, and scenic quality provide guidance in prioritizing mitigation of unavoidable adverse effects. Request for Comments

The Hell Canyon Ranger District would appreciate any comments or concerns you might have regarding this proposal. Your input will help us identify areas of concern and other possible management actions, specific to this project, which could be used to improve the Forest Service action. Your input will also be used to develop alternatives to the proposed action described above.

The proposed action does not represent a decision. We will keep you informed of the status of the project if you submit comments at any stage.

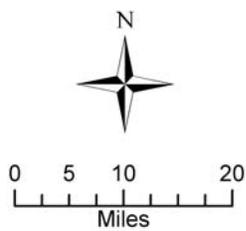
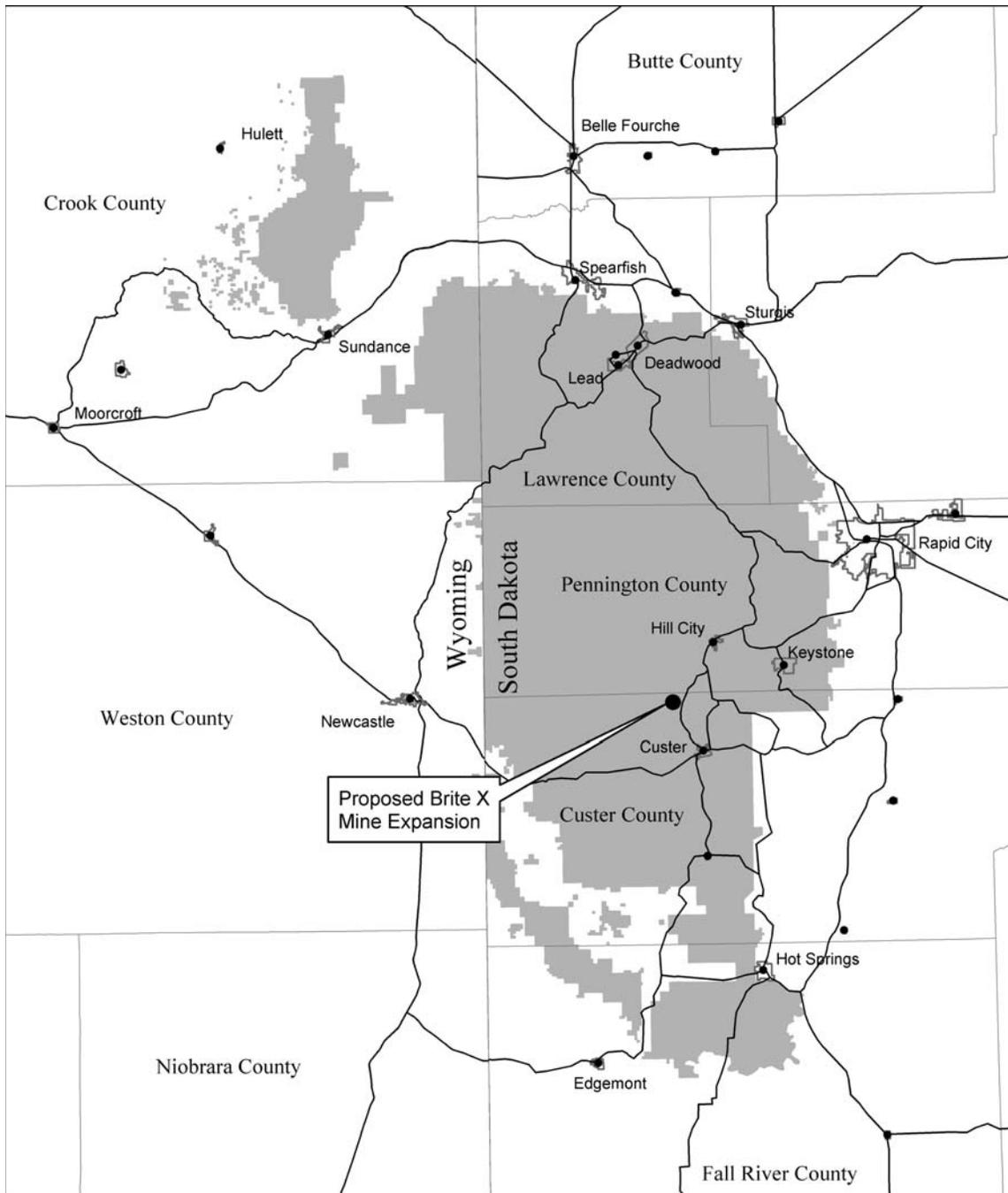
You may submit comments regarding the proposed mine expansion EA, identified as ‘‘Pacer – Brite X Mine Expansion Project’’ by any of the following methods:

- E-mail: lburns@fs.fed.us - include ‘‘Pacer - Brite X Mine Expansion Project’’ in the subject line of the message.
- Fax: (605) 673-5461.
- Mail, Hand Deliver, or Courier: Hell Canyon District, US Forest Service, 330 Mount Rushmore Road, Custer, SD 57730.

To be of the most help to the planning process, comments should be submitted by the close of business on March 18, 2009. For additional information, you may contact Laura Burns, Hell Canyon District of the Black Hills National Forest 605-673-4853

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Legend
 ■ Black Hills National Forest

**Figure 1
 Proposed Brite X
 Mine Expansion
 Location Map**

