# GRANITE CREEK TRIBUTARY MINES

# INITIATION OF CERCLA INVESTIGATION MEMORANDUM

## I. PURPOSE

The purpose of this Memorandum is to document, pursuant to the Guidelines of the National Oil and Hazardous Substance Contingency Plan (NCP), 40 CFR 300, et seq., the decision to initiate a CERCLA investigation, and such further CERCLA actions as may be subsequently determined appropriate, as authorized by Section 104 (42 USC 9604) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 42 USC 9601 et seq.), and Executive Order 12580, 52 Federal Register 2923-26 (January 23, 1987).

A release, or threat of a release, of hazardous substances, pollutants or contaminants that potentially pose a threat to public health or welfare or the environment, has occurred or may occur at the Granite Creek Tributary Mines (Site) on and/or from lands under the jurisdiction, custody, or control of the USDA Forest Service, Wallowa-Whitman National Forest (National Forest System or NFS lands).

## II. SITE CONDITIONS AND BACKGROUND

### A. Site Location

The Site consists of nine mine sites and is located on the USGS 7.5 minute quadrangle - Ireland:

- Upper Central
  - Legal – S23, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 20.7", Longitude: W118° 23' 27.2"
  - Elevation – 5300 feet above mean sea level (amsl)
- Central
  - Legal – S23, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 19", Longitude: W118° 23' 29"
  - Elevation – 5240 feet amsl
- Golden Fraction
  - Legal – S23, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 18.7", Longitude: W118° 23' 20"
  - Elevation – 5245 feet amsl
- Granite Creek Mine #5
  - Legal – S23, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 19.7", Longitude: W118° 23' 11"
  - Elevation – 5240 feet amsl
- Tillicum
  - Legal – S23, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 23", Longitude: W118° 22' 58"
  - Elevation – 5360 feet amsl

- Granite Creek Mine #7
  - Legal – S24, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 29.1", Longitude: W 118° 22' 28.6"
  - Elevation – 5520 feet amsl
- Cap Martin
  - Legal – S24, T8S, R35.5E, WM
  - Location – Latitude: N 44° 51' 25.5", Longitude: W 118° 22' 05.1"
  - Elevation – 5660 feet amsl
- Monumental
  - Legal – Sec 18 & 19, T 8 S, R 36 E, WM
  - Location - Latitude: N 44° 51' 37", Longitude: W 118° 21' 04"
  - Elevation – 6700 feet amsl

**B. Historical Activities**

- A detailed description of the historical activities for the Site can be located in the Abbreviated Preliminary Assessments (APA) and the Site Inspection (SI).
  - These documents can be located in the Administrative Record in the Wallowa-Whitman National Forest Supervisor's Office, Baker City, OR.

**C. Site Characteristics**

- A detailed description of the Site characteristics can be located in the SI.

**D. Release or Threatened Release into the Environment of a Hazardous Substance, Pollutant, or Contaminant**

- An SI has been completed at the Site to determine if a release or threat of a release has occurred and it has been determined that a release has occurred and that an Engineering Evaluation/Cost Analysis (EE/CA) is warranted.
- A human health and ecological risk assessment has been performed at the Site. It has been determined that a release exceeding acceptable exposure limits for human health and/or ecological receptors has occurred.
- The NCP states that an appropriate removal action may be conducted at a site when a threat to human health or welfare or the environment is identified.
  - The removal action is undertaken to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of a release at a site.
  - Section 300.415(b)(2) of the NCP outlines eight factors to be considered when determining the appropriateness of a removal action.
  - The applicable factors are outlined below and provide justification for completing the removal action.
    - **Threats to Public Health and Welfare**
      Factors from Section 300.415(b)(2) of the NCP that are associated with human health:
      - √ "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants."
        - – Complete exposure pathways to human (recreational) and ecological receptors (aquatic) have been documented during the risk assessment from exposure to wasterock, tailings, soil, and sediment.

- √ "High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate."
  - Surficial wasterock and soil is contaminated with metals, specifically arsenic.
  - Erosion of wasterock and soil at the Site has been documented entering Granite Creek.
  - There are water users within 5 miles downstream of the Site.
- √ "Other situations or factors that may pose threats to public health or welfare of the United States or the environment."
  - A portion of the Site is located in the Wallowa-Whitman NF, along a paved county road, where Site access is readily available to the public. The remainder of the Site is more difficult to access.

- **Threats to the Environment**
  Factors from Section 300.415(b)(2) of the NCP that are associated with human health:
  - √ "Actual or potential contamination of drinking water supplies or sensitive ecosystems."
    - Granite Creek and associated ecological receptors in the vicinity of the Site are being impacted by the erosion of contaminated wasterock and tailings.
  - √ "High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate."
    - Surficial wasterock, tailings, and soil are contaminated with metals. Erosion of wasterock and soil at the Site has been documented in Granite Creek.
    - Plants and invertebrates may be at risk at the Site from high concentrations of metals in the wasterock material.
  - √ "Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released."
    - Rain and snowmelt conditions cause migration of contaminated materials into Granite Creek.

### E. Actions Taken on the Site

- Recent actions taken at the Site include:
  - Abbreviated Preliminary Assessments, USFS 2003 and 2006
  - Site Inspection, EA 01/2004
  - Human and Ecological Risk Assessment, CES 04/2006

## III. PROPOSED ACTIONS AND ESTIMATED COSTS

The proposed action for the Site is to initiate CERCLA. In compliance with the NCP, an EE/CA will be performed to evaluate removal alternatives.

The anticipated costs for the various aspects of the project are uncertain at this time as valuable data is missing. However, costs for work completed and an estimate of future work is:

1. APA - $5000
2. SI - $121,000
3. PRP Search - $17,000
4. EE/CA - $120,000, cover datagaps
5. Removal Action - $840,000
6. Three year post-construction monitoring - $75,000
7. Total Anticipated Cost - $1,178,000

## IV. ADMINISTRATIVE RECORD AND COMMUNITY RELATIONS

Pursuant to 40 CFR 300.415(m), I designate Dennis Boles of the Ochoco National Forest as the On-Scene Coordinator and Greg Visconty of the Wallowa-Whitman National Forest as Spokesperson for the project.

A Community Relations Plan will be developed for this project. The Administrative Record for any response action selected will be compiled and made available during regular business hours at the office of the Wallowa-Whitman National Forest, Baker City, Oregon.

A Notice of Availability of the Administrative Record will be published in local newspapers.

## V. DECISION

By this Memorandum, I am initiating CERCLA activities at the Granite Creek Tributary Mines as appropriate.

By copy of this Memorandum, we are formally notifying the State of Oregon and EPA of our finding of the appropriateness of initiating CERCLA activities at the Site.

Richard Sowa
Director of Engineering
Pacific Northwest Region

Date: 2/20/2007

cc:
Oregon DEQ
EPA