



# Journigan's Mill, Death Valley National Park Engineering Evaluation/Cost Analysis Fact Sheet

## Overview

The National Park Service (NPS) is investigating the abandoned Journigan's Mill Site (Site) in Death Valley National Park to evaluate cleanup options. The Site covers approximately 3 acres and consists of the remnants of an old mill (Figure 1), including a wooden floor platform, two concrete foundations, and the foundations to the mill which are divided into three levels. The mill components also include several tanks that were used to support a cyanide operation. Mill tailings are situated around the mill foundations, in most of the tanks, near the foundations of former buildings, and in stockpiles at the Site. Access to the Site is via Emigrant Canyon Road (Figure 2).



Figure 1 - View of processing tanks at the base of the mill looking east along Emigrant Canyon

Access to the Site is via Emigrant Canyon Road (Figure 2).

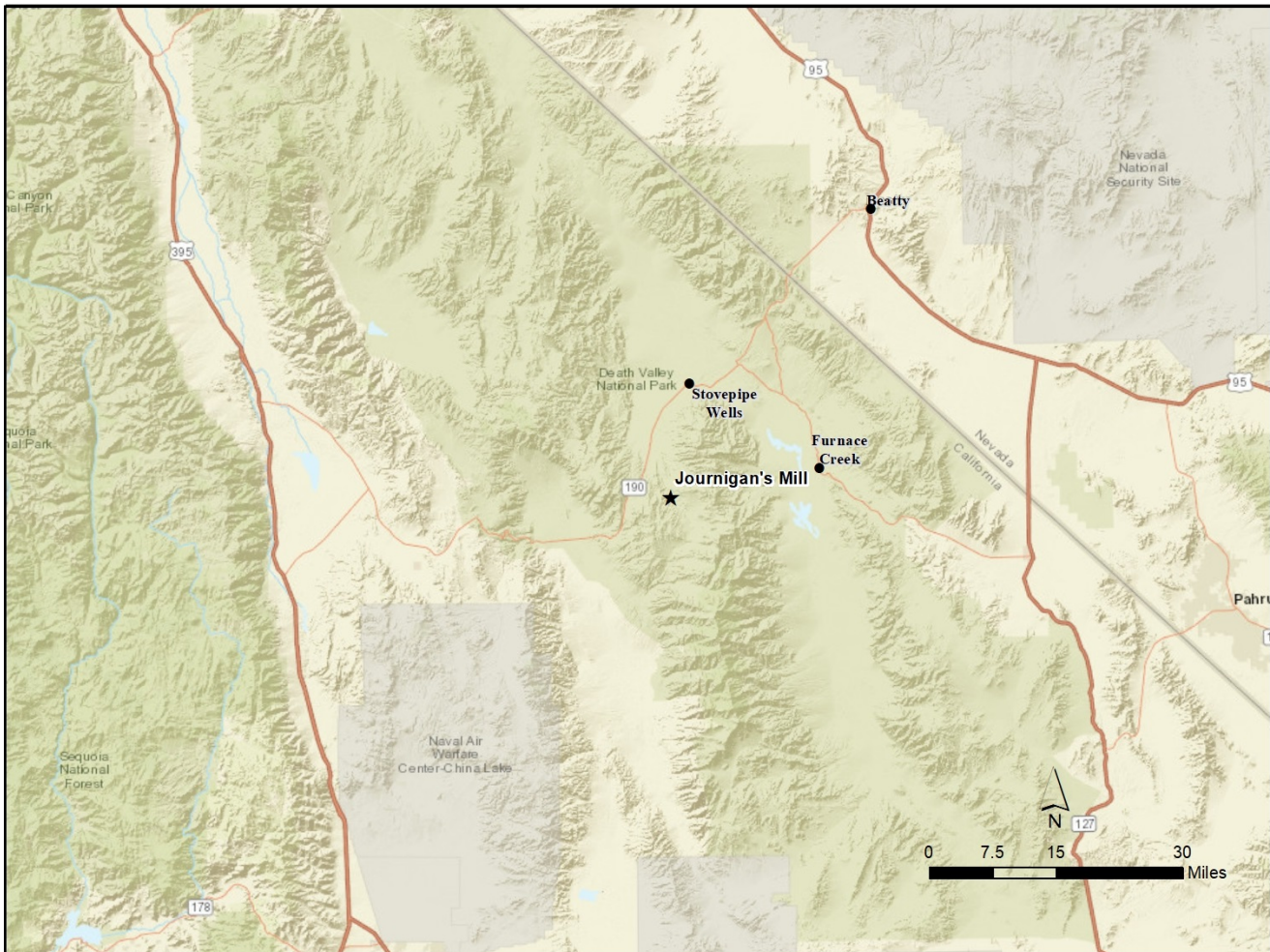


Figure 2 – Site Location Map



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## History of Journigan's Mill

The Site includes the largest ruin of an amalgamation and cyanide plant of the 1930s-1950s period left within the Park. In 1937, Roy Journigan built an amalgamation and cyanide plant on the Gold Bottom Mill property, known as Journigan's Mill. Water to power the mill was obtained from the Green, Burro, Willow, and Burns Springs. Prior to construction of the 1937 mill, one or possibly two smaller mills were located at the Site.

## Environmental Investigations at Journigan's Mill Site

### Contaminants of Concern

The milling operations left behind hazardous materials at Journigan's Mill Site, such as mill tailings. The NPS is investigating Journigan's Mill Site to evaluate cleanup options, pursuant to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Congress enacted CERCLA, also known as Superfund, in 1980 to address releases and threatened releases of hazardous substances into the environment.

A preliminary assessment of the Journigan's Mill Site was conducted in 2014. Based on operational history and information gathered during the preliminary assessment, the chemicals of concerns were cyanide and metals. During a site inspection in 2016, soil samples were collected and analyzed for metals, cyanide, and pH. Soil samples were analyzed for acid-base accounting, a measure of the potential for acid mine drainage from the Site.

Concentrations of several metals including antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, molybdenum, silver, thallium, vanadium, and zinc exceeded the background levels. Several metals exceeded regulatory levels that require further human and ecological risk evaluations. Acid mine drainage is not considered a concern at the Site.

### Upcoming Investigations and Cleanup

The NPS has determined that preparation of an engineering evaluation/cost analysis (EE/CA) is appropriate for Journigan's Mill Site, based on the chemicals of concern found there. The EE/CA is being prepared to evaluate associated potential risks to human health, safety, and the environment; identify relevant cleanup requirements; and develop a range of cleanup alternatives for the Journigan's Mill Site. Once the range of cleanup alternatives are identified, NPS will request public feedback during a public comment period.

## Further Information:

- **Online:** <https://parkplanning.nps.gov/Journigan>
- **Contact:** Abby Wines, Public Information Officer, 760-786-3221 or [abby\\_wines@nps.gov](mailto:abby_wines@nps.gov)
- **Full Documents Available to View:** at Furnace Creek Visitor Center and Stovepipe Wells Ranger Station