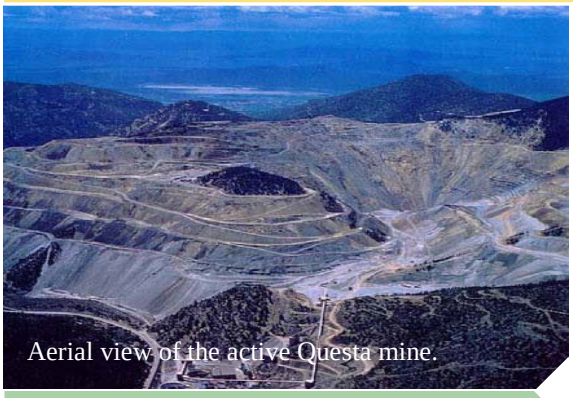
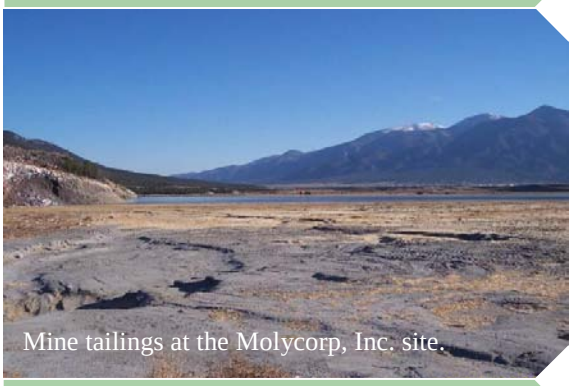
Celebrating Success: Molycorp, Inc. Questa, New Mexico

EPA
Superfund Redevelopment Initiative


Aerial view of the active Questa mine.

"Chevron's project is a great example of building renewable energy on disturbed lands, a fantastic way to utilize waste land by using our polluted past to get to our clean future." – Zoe Krasney, The Wilderness Society, Albuquerque


Mine tailings at the Molycorp, Inc. site.

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Groundbreaking of the solar energy project on May 13, 2010.

EPA's partnership with the state, the Village of Questa and the responsible parties at the Molycorp, Inc. site in Questa, New Mexico has ensured that Questa will no longer be seen as "just another mining town," but rather a renewable energy leader and home to the largest concentrated solar photovoltaic (CPV) facility in the United States.

The Molycorp, Inc. site encompasses two distinct areas: 1) a molybdenum mine on a 3.5-square-mile area and 2) associated mill tailing ponds on approximately one-square-mile of land. Mining operations began at the site in 1920 and continue today. From 1965 to 1983, open pit mining was conducted on the Site. As a result of this practice, over 328 million tons of potentially acid-generating waste rock were placed in nine piles surrounding the open pit area. Tailing seepage and historic runoff from the tailing ponds has resulted in ground water and soil contamination, and the acidic, metals-laden water generated by the weathering waste rock piles presents an additional threat to ground water and surface water. On December 10, 2010, EPA signed the Record of Decision (ROD) for the Site. The ROD describes the selected remedy for the Site, which includes containment of waste rock and tailing source materials, ground water extraction and treatment, temporary ground water restrictions, and provision of alternate water supply, if needed.

In conjunction with the planning of remedial actions at the Site, Chevron Technology Ventures approached EPA and the State about researching the use of CPV on a 20-acre portion of the on-site mill tailings area. The study will investigate the terrestrial use of CPV on Earth. CPV is a technology typically used in space, where solar energy is unrestricted. CPV is anticipated to be twice as efficient as traditional solar panels and also uses less photovoltaic materials. The 175 solar panels will automatically track the path of the sun and adjust for elevation and seasonal changes. The panels will produce up to one megawatt of energy, enough to power 500-600 homes. The electricity generated will be sold to the Kit Carson Electric Cooperative under a 20-year agreement. The solar project will also include an evaluation of various soil cover depths in prepartion for closure of the mill tailings area at the end of mining operations.

Construction of the CPV facility began in May 2010 and has been fully operational since February 2011. The CPV facility not only demonstrates and evaluates an emerging solar technonology, but also benefits the Village of Questa, bringing new jobs to the region and supplying a clean, renewable power source in an area striving to address its mining legacy.