## Thomas Bard, Josiah Stanford, and the 1860's Hunt for California Crude

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In the summer of 1865, Thomas Bard arrived in Ventura County to begin exploration drilling on properties owned by his uncle, Thomas Scott, in the area of Sulphur Mountain. Scott had made a fortune investing in Pennsylvania railroads in the 1850's and in Titusville oil fields in the early 1860's.

Scott decided to undertake petroleum exploration in California based on sensational reports of the oil potential of California published by Yale Professor Benjamin Silliman in 1864. Writing to Scott about the Sulphur Mountain area, Silliman said that "its great value is in its almost fabulous wealth in the best of oil." He based this assessment on mapping of the abundance of oil seeps on the north side of Sulphur Mountain (Fig. 1).

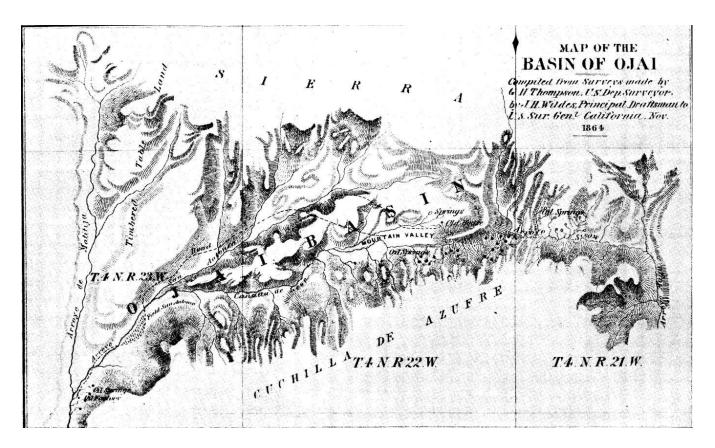


Figure 1: Professor Silliman's oil seep map of the Ojai Valley (1864)

On this basis, entrepreneur Scott bought 277,000 acres of prospective oil property in California, including land on the north flank of Sulphur Mountain in the Ojai Valley. He then

sent his 24-year old nephew, Thomas Bard (Fig. 2), around Cape Horn with a steampowered cable tool drilling rig to begin exploration of his properties in Ventura County.

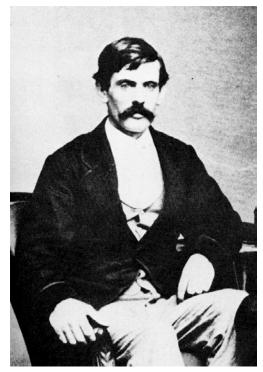


Figure 2: Thomas Bard

The demand for oil on the West Coast had been rising steadily since the discovery of oil by Edwin Drake at Titusville, Pennsylvania, in 1859. Drake's discovery touched off a boom in production of petroleum-derived kerosene because of its popularity as a fuel for oil lamps. Kerosene was cleaner burning than camphene lamp oil and cost less than whale oil. However, as a result of the Civil War, shipments of oil and kerosene from the east declined and interest rose in exploring for a California source of petroleum. Despite drilling in Humboldt County in 1861 and in other areas of the state, no commercial oil production was found. However, Silliman's enthusiastic report in 1864, combined with the Civil War-induced scarcity of kerosene, renewed interest in oil exploration in California and the state's first drilling boom began in 1865.

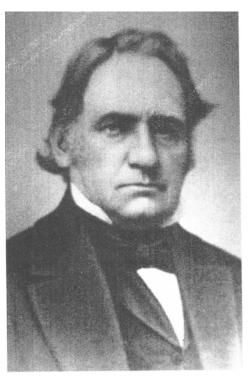
Thomas Bard was a participant in this drilling boom when he arrived in Ventura County in 1865 to begin drilling on the north side of Sulphur Mountain. However, Bard was not alone in his interest in the Sulphur

Mountain area. Another party was intent on finding a source of California oil - the Stanford

Brothers illuminant business in San Francisco. The company imported and sold kerosene shipped from the East Coast and had refined small amounts of scarce California oil in an attempt to produce kerosene. Josiah Stanford (Fig. 3) leased property on the south side of Sulphur Mountain hoping to find a steady source of California crude from which to refine kerosene for the Stanford Brothers business.

Being a mining engineer, Stanford's approach was different than Bard's: Stanford tunneled for oil (Fig. 4). Using Chinese labor from Ventura, Stanford dug an 80-foot tunnel into the north-dipping Miocene strata of Saltmarsh Canyon and began producing 20 BOPD in 1866. Crude shipments to the Stanford Brothers refinery in San Francisco began by boat in August of 1866. By tunneling, Josiah Stanford became the first person to establish commercial production of petroleum in the state.

Meanwhile, several miles to the north, Thomas Bard had drilled five dry holes on the north side of Sulphur Mountain by the end of 1866. He spudded the "Ojai"



*Figure 3: Josiah Stanford* (brother of Leland Stanford)

#6 well early in 1867 in the upper Ojai Valley near the present-day Thomas Aquinas College. On May 29, 1867, at a depth of 550 feet, California's first oil gusher came in with oil rising over the top of the 60-foot derrick for 15 minutes. The well settled to production of 10 to 20 BOPD of 20 gravity oil, the discovery well for the Silverthread area of the Ojai Field. Thomas Bard became the first person to establish sustained production of petroleum from a drilled well in the state.

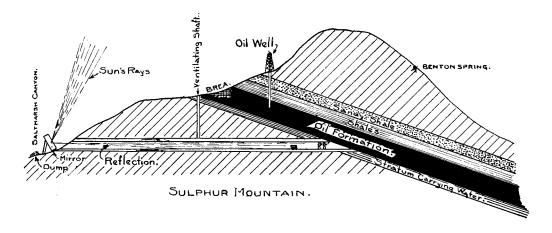


Figure 4: Cross sectional diagram of an oil tunnel at Sulphur Mountain

However, with the end of the Civil War on April 9, 1865, shipments of oil and kerosene resumed from the Pennsylvania oil fields to California. As a consequence, the price of kerosene in San Francisco dropped from \$2.50 per gallon in 1865 to \$1.70 per gallon in 1866 and then to 54 cents per gallon in 1867, a total decline of 78%. During the same time, the price of oil declined from \$6.50 per barrel to \$2.50 per barrel, a 61% decline.

Stanford and Bard soon found that they could not economically compete with cheaper imports of eastern petroleum products. As a result, Stanford Brothers again focused on importing oil and kerosene from the East Coast and selling it in the San Francisco market. Thomas Bard turned to developing the real estate properties that his uncle, Thomas Scott, had originally purchased for oil exploration. The California oil boom, begun in 1865, was over within two years, a victim of falling oil prices at a war's end. Oil exploration and development in the state would not begin again in earnest until the discovery of oil in Pico Canyon (near present-day Magic Mountain) in 1876 by Pacific Coast Oil Company, a predecessor of Chevron.

Thomas Bard, however, would get a second chance in the oil business, becoming the first president of Union Oil Company of California in 1890. Stanford's tunneling approach to oil field development proved economic in the 1890's when Union Oil Company dug approximately 50 oil tunnels at Sulphur Mountain to increase the company's production. These tunnels continued to produce small amounts of oil until being officially plugged and abandoned in 1998.