



## Tech Talk - The Oil under Los Angeles

Posted by [Heading Out](#) on June 12, 2011 - 5:41am

The development of oil [in Texas](#) produced, in its time, the four richest men in the world (H.L. Hunt, Sid Richardson, Roy Cullen and Clint Murchison) and the single [richest acre of oil production](#) at Kilgore but is not where the greatest number of productive fields of oil per acre, or perhaps the most expensive acre in the country lies. (And the current richest American oilman, Harold Hamm, incidentally is now [from Oklahoma](#) - oh, tempora). That expensive acreage is found [in and around Los Angeles](#) in California, and so it is California that I will write about today.

Oil Field	Year Discovered	Cumulative Production (Mbbbl*)	Est. Reserves (Mbbbl*) 12/31/08	2008 Production (Mbbbl*)	Producing Wells (2008)
Wilmington**	1932	2,687,674	296,682	14,586	1,428
Long Beach	1921	942,727	3,469	1,498	299
Santa Fe Springs	1919	628,264	5,490	647	106
Brea-Olinda	1880	412,116	19,175	1,127	475
Inglewood	1924	396,467	33,081	3,107	449
Dominguez	1923	274,030	60	8	3
Coyote, West***	1909	252,960	0	0	0
Torrance	1922	225,944	5,595	387	110
Seal Beach	1924	214,289	6,649	491	129
Montebello	1917	203,935	5,839	648	106
Beverly Hills	1900	149,082	10,129	884	95

\* Thousands of barrels: \*\* 2nd Largest in California: \*\*\* Overlaped into Orange County

*Oilfields of Los Angeles County (Source via [Los Angeles Almanac](#) is [California Dept. of Conservation, Division of Oil, Gas & Geothermal Resources](#).)*



### *Oil fields under Los Angeles and environs ([CLUI](#))*

The first productive oil well in California was drilled in the northern part of the state in the Mattole River Valley in 1865, after an initial well had been tried in 1861. The oil was taken west to San Francisco for refining and apparently [sold for \\$1.40 a gallon](#). This started the production in the state, but it was not until the Southern California fields around what is now Los Angeles began to develop that Californian production became a significant player on the national stage.

Many of the early discoveries of oil relate back to the oil seeps that percolated up through the ground, and indicated that oil could be found, not too far beneath them. One of the more famous of these is known as the [La Brea Tar Pits](#) now surrounded by Los Angeles, and next door to the [Los Angeles County Museum of Art](#). The tar has been trapping animals since before the days of the mammoth, and is an ongoing site for [archeological work](#), mainly on the residual skeletons, blowfly puparia, and other relics that have been preserved by the tar.

The first successful commercial well was the one known as Pico No 4, which was originally drilled in the 1870's and not shut-in [until 1990](#), giving a start to the first oil town, Mentryville, in the state. It led to the development of the Los Angeles Basin, of which:

As attorney for the petroleum industry, Bruce Webster, once commenting to Los Angeles magazine about an oilfield, said, "They ruined a perfectly good oilfield by building a city on top of it."

The first well was apparently drilled using the [sharpened end of a eucalyptus tree](#), in 1892; by 1894 there were 80 wells in the area, and by 1897 some 500. Unfortunately Emma Summers, who owned half the production in 1900, was not a relative. She became known as "California's petroleum Queen," [owning fourteen wells](#).

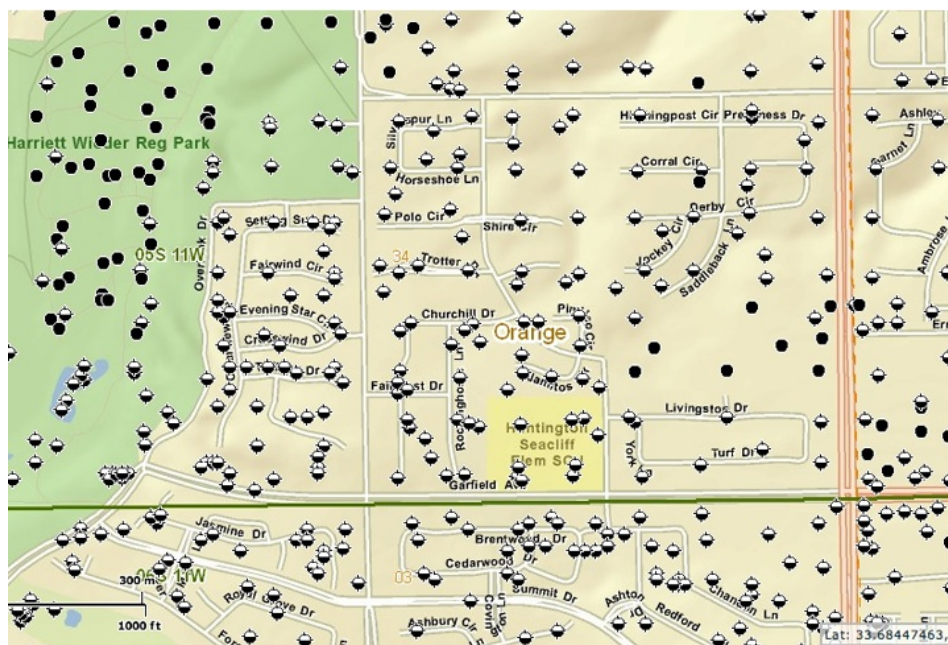
Her wells produced 50,000 barrels each month. At first she sold her oil through local brokers, but eventually took on that challenge in addition to managing her supplies, 40 horses, 10 wagons and a blacksmith shop. Summers sold her oil to downtown hotels, factories, Pacific Light & Power Co. and railroads.



*Emma Summers – California’s Oil Queen ([Petroleum History Resources](#))*

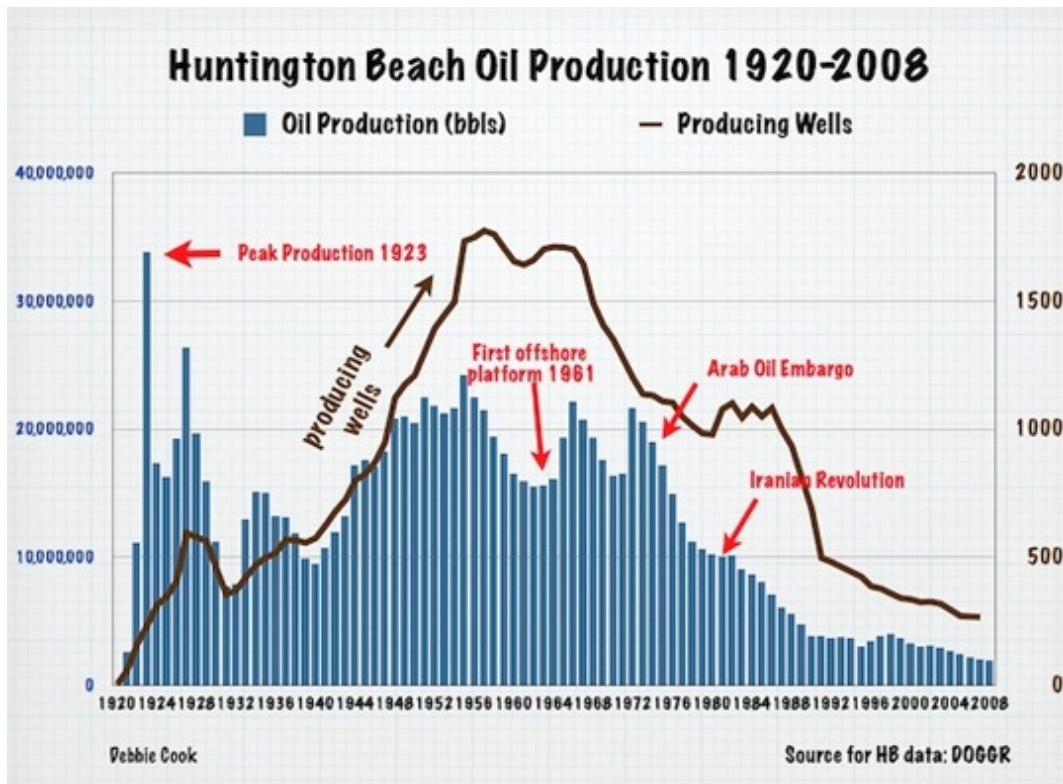
As the production of oil grew from 4 million barrels in 1900 to 77 million in 1910, so the city over the fields also grew, [tripling in size](#) over that decade. This has led to some conflict, and there is an [interesting video](#) showing how some of this has ultimately been resolved, with oil rigs camouflaged within the community.

As the original field began to deplete, exploration brought in other fields starting with Huntington Beach, in 1920. The first well there was not that encouraging, but the second came in at 2,000 bd, and the community rapidly grew. It is here that [directional drilling was first used](#), to reach out to the tidal region off-shore. The town was initially largely stripped of the original buildings as the oilfield developed, and I am indebted to [Debbie Cook](#) for this map, which shows active (black) and capped wells for the city in more recent times, and gives some sense of well density.



*Wells in Huntington Beach CA ([Debbie Cook](#))*

As with many fields, the original high production from a relatively small number of wells was not matched in later years as the number of wells grew.



Huntington Beach oil production ([Debbie Cook](#))

Huntington Beach was followed by Santa Fe Springs, which went through a similar transformation. An initial well proved the field in 1919, and this was succeeded by the Bell #1 that [came in at 2,500 bd](#). By 1929 it was the state's largest oil producer, covering 1400 acres of land and it was producing some [275,000 bd](#).

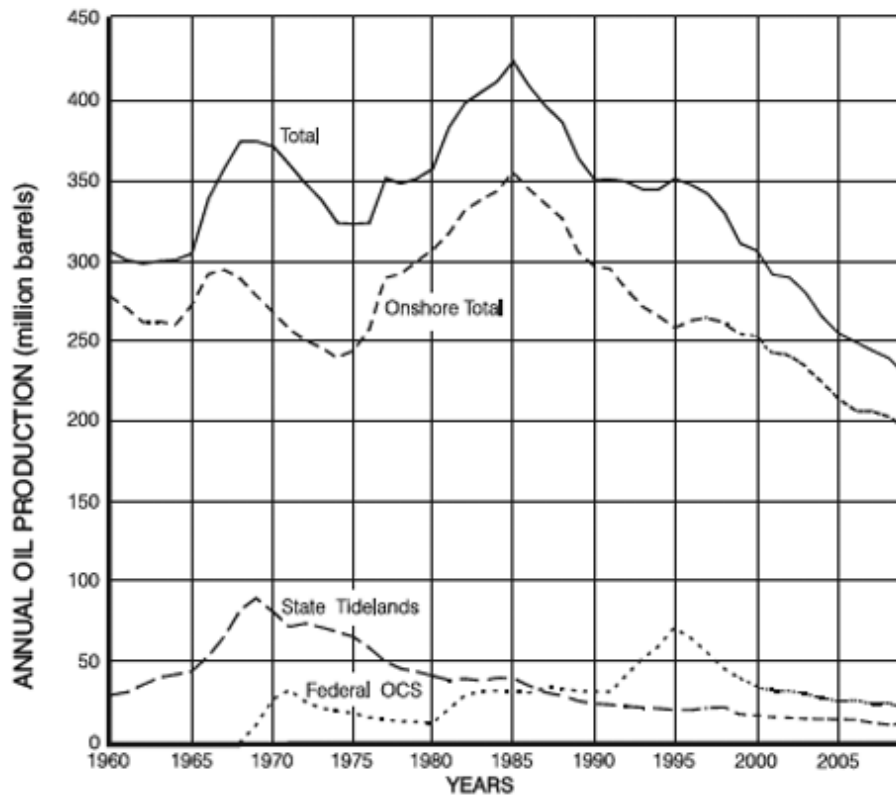
It was followed by the [Signal Hill discovery](#), beginning with the Alamitos #1 well, which came in on June 23, 1921, but caved in and had to be cleaned before establishing a production of 1,000 bd, with an ultimate recovery of some 700,000 bbl.

Oil promoters were selling shares of wells that had not yet been drilled. Signal Hill was to prove so prolific that, almost unbelievably, many of those buyers actually made money on their investments. The next-of-kin of persons buried in the Sunnyside Cemetery on Willow Street would eventually receive royalty checks for oil drawn out from beneath family grave plots.

By 1923 it was producing some 259,000 bd from some 300 wells, in comparison with Huntington Beach, which was then at 113,000 bd and Santa Fe Springs at 32,000 bd. In combination they were producing, at the time, a quarter of the world's petroleum. And, in a foreboding of the future problems of over production, this was the first year in a decade in which supply exceeded demand.

The Long Beach field, of which Signal Hill was a part, went on to produce over 900 million bbl of oil by 1980.

California's overall oil production peaked in 1985 and is currently declining at around 3.3% a year, with 2009 production at around 630,000 bd, with the largest production at that time coming from the Midway-Sunset field at some 93,600 bd average production. In 2009 [there were 2,570 wells completed](#) to production in the state.



*The last 50 years of California's oil production ([CA Dept of Conservation](#)).*

There are, however, some other aspects to the fields in California that I don't have space to cover in this post, and so I shall return to the topic next week.



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