US West Coast Operations February 2009
Nearing 130th Anniversary This Fall
Chevron

- Company Headquarters: San Ramon, California
- Worldwide Employees ~59,000
- Heritage Companies Within Chevron
  - Standard Oil of Kentucky 1961
  - Gulf Oil 1984
  - Texaco 2001
  - Unocal 2005
In the Beginning
During the 1870s, a time when the electric light bulb and the four-cycle internal combustion engine were being patented, California Star Oil Works (CSOW) began operations in Pico Canyon near Los Angeles. The company boasted just four roughhewn timber oil derricks, with one well pumping about 70 barrels a day. At the time, its proprietors Frederick Taylor and Demetrius Scofield owned the most productive well in all of California.

The company, however, needed more than just black gold to survive. Without facilities to store, transport and market its crude, Taylor and Scofield’s operation faced eventual extinction. On September 10, 1879, the San Francisco-based Pacific Coast Oil Company (PCOC) was incorporated and began absorbing CSOW’s assets.
Pico Canyon – California Star Oil - 1876

California Star Oil Works drilled and operated "Pico No. 4" -- the first commercial oil well in the western U.S.

The well was tucked away in the Santa Susana Mountains formation of Pico Canyon, ~4 miles west of the present-day Lyons Ave exit off of I-5 in the Santa Clarita Valley.

It had been punched to a depth of ~300 feet by a French immigrant named Charles Mentry, just 30 years old but nonetheless a veteran of the world's first commercial oil fields in Titusville, Pa.

Mentry used his mechanical skills to create improvised tools, including a drill-stem he built out of old railroad car axles, which he purchased and welded together.
From a depth of 300 feet, this fourth well averaged thirty barrels a day.

Using one of California's first steam-powered oil rigs, Mentry's crew went deeper.

On Sept. 26, 1876, at 600 ft, a mighty geyser shot through the 5 5/8-inch casing, producing 50 barrels a day.

Three weeks earlier, Southern Pacific Railroad president Charles Crocker had connected Los Angeles with San Francisco via rail in an historic ceremony at Lang Station, at the eastern end of the Santa Clarita Valley.
Mentry laid the state's first oil pipeline: a two-inch line from Pico to Ventura. S Pacific Rail lowered shipping rates, and the pipeline was never used.

Pico No. 4 gave birth to the oil industry in California; it was also the longest-running oil well in the world when it was finally capped in 1990.

In 1879, owner D.M. Scofield reorganized investors and oil properties into the Pacific Coast Oil Co.

In 1895, there were 40 wells operating in Pico Canyon producing 500 bpd.

Pico#4 produced 1,500,000 barrels.
In 1900, D.M. Scofield merged his interests with those of John D. Rockefeller's Standard Oil of New Jersey, which liquidated Pacific Coast Oil.

In October 1906, Standard's California holdings were reorganized into the Standard Oil Company of California with D.M. Scofield as its first president. In January 1977, Standard Oil of California was acquired by Chevron USA.

In 1995, Chevron donated the site and the surrounding 800 acres in Pico Canyon to the Santa Monica Mountains Conservancy.

A group called the Friends of Mentryville was organized to restore the buildings and open the old town as a historic park.

**Laborers in the late 1800s earned $2.50 per day.** Experienced drillers raked in $4. They worked twelve-hour days, six days a week.

**Oil Men of Pico**

Crude Assay 1995
Ventura Pipeline Mix
26.6 API
1.7% S
5400 ppm N
TAN ~1
Boiling Crude

The History of Refining at Chevron

Few companies today can claim a legacy that spans more than 100 years, or that has positively impacted the lives of people and communities around the world. Chevron's ability to grow and flourish for more than a century in a changing global environment is a powerful testimony to the commitment, ingenuity and sacrifice of the men and women of its refining operations. That proud tradition began in 1875 with California Star Oil Works' first still in Newhall, California and it continues today with Chevron's proprietary and joint venture facilities around the globe.

Refinery Factoid:
Richmond Refinery
Richmond, California, USA
225,000 bbls/day capacity
100% equity interest

1875
California Star Oil Works builds refinery at Newhall, CA.

1879
Pacific Coast Oil Company (PCOC) is organized.
Chevron Refining

North America West Coast

- Vancouver 55 mbd
- Richmond, Ca 240+ mbd
- El Segundo, Ca 260 + mbd
- Salt Lake City 45 mbd
- Hawaii 54 mbd
Chevron Upstream
San Joaquin Valley Facts

200+ mbd production

Very Large Resource Base

1,300 employees

~ 17,000 producing wells

Production:

- 79% Heavy
- 13% Light
- 8% Gas

Focused in eight fields. Operational synergies leveraged into large long-life fields.
San Joaquin Valley Strategic Business Unit
Asset Locations

- **Coalinga**
  - 9 MBD
  - Heavy Oil, Steamflood

- **Kettleman Hills**
  - 0.4 MBD
  - Light Oil/Gas

- **Lost Hills**
  - 22 MBD
  - Light Oil/Gas, Waterflood

- **Elk Hills**
  - 27 MBD
  - Light Oil/Gas, Non-Operated

- **Midway Sunset**
  - 38 MBD
  - Heavy Oil, Steamflood

- **San Ardo**
  - 3 MBD
  - Heavy Oil, Steamflood

- **Cymric**
  - 40 MBD
  - Heavy Oil, Cyclic/Steamflood

- **San Ardo**
  - 3 MBD
  - Heavy Oil, Steamflood

- **Kern River**
  - 84 MBD
  - Heavy Oil, Steamflood
Chevron Upstream Alberta

Mining & Upgrading
Athabasca Oil Sands Plant:
155 mbd bitumen to syncrude operation;
20% partner with Shell/Marathon

In-situ
Developing a field Steam Assisted
development called Ells River
The company was having trouble securing enough crude for its enormous Richmond facility. By 1909 the company began efforts to find and produce more of its own supplies.

In 1911 the famous antitrust suit against Rockefeller’s Standard Oil Company divided the business into 37 subsidiaries. SOCAL emerged with considerable assets, including oil fields, refineries, pipelines and tankers.

At the same time, the automobile industry was booming. Automobile registrations jumped from 8,000 in 1900 to 902,000 in 1912. Service stations began dotting American roads, and SOCAL was at the forefront, providing innovative products for these early cars, as well as paving miles of new roads with crude oil-based asphalt.

To meet the needs of a growing Southern California market, SOCAL opened the El Segundo Refinery in 1911. The town of El Segundo, named for the refinery, soon grew up around it. Nestled on the California coast, the site was chosen for its proximity to Pacific shipping lanes and the fast-growing city of Los Angeles.
Chevron Retail Marketing US West Coast

Scope

- 3440 retail sites
- #1 market share in PADD 5 (Lundberg)
- #1 market share in California (OPIS)
- Markets
  - Gasoline
  - Diesel
  - Jet
  - Lubes
Chevron Retail Marketing Awards and ExtraMile Franchise

- Two World-Class Brands – Chevron and Texaco Awards
  - “Chain of the Year” in 2008 by *Convenience Store Decisions*
  - *Convenience Store Petroleum’s* Mystery Shopper Award 2007/08
- ExtraMile franchise offering a popular choice for retailers
Who Is Chevron Pipe Line (CPL) Company?

**Liquids Pipelines:** Deliver over 2500 mbd (crude oil, refined products and LPG) on common carrier systems

**Terminals:** 11 million barrels of storage for crude and refined products

**Natural Gas Pipelines:** Deliver over 2 BCF per day

**Henry Hub:** Owner and Operator

**Gas Processing Capacity:**
1.2 BCFD; 50mbd NGL fractionator

**Natural Gas Storage:** About 70 BCF

**Employees:** ~ 1,000
Chevron Shipping Company, USWC

- Chevron manages annually:
  - 3,000 deep-sea tanker voyages
  - ~1 million barrels/day transported

- Richmond Refinery Long Wharf was built in 1947-1948
  - One of the largest marine terminals on the West Coast; a world-class oil terminal
  - ~750 vessels per year call at the Long Wharf
  - Largest vessel delivery is ~700mb

- El Segundo Offshore Marine Terminal
  - Connected by undersea line and a buoy mooring system
  - Largest vessel capacity is 1 mmb
Chevron Shipping Company, USWC

- Operates 27 ships
- ~1800 Employees
- CSC operates or manages:
  - Most of the vessels that deliver crude oil to Richmond and El Segundo refineries
  - Many other vessels importing or exporting various products along the west coast
- Chevron employs their own pilots for the Richmond Long Wharf and El Segundo conventional buoy moorings.
Chevron Lightering Operations

- Chevron has been conducting lightering operations for almost 40 years and off the U.S. West Coast since 1996
- Conducted over 5,000 lightering operations worldwide
- Chevron employs our own Lightering Masters for West Coast Operations
Chevron Energy Technology (ETC) Company

- Technology solutions and expertise for all Chevron operating companies globally
  - Over 2,300 employees
  - Major technology and hydroprocessing pilot lab centers:
    - Richmond, Ca. and Houston, Tx; New labs in Europe and Australia
  - First in the industry to establish a fully integrated upstream / downstream technology company
  - Invests to develop new technology solutions

- Provides expert technical consulting services worldwide to Chevron, industry and government

- JV partners with Lummus – Chevron Lummus Group – licenses technology worldwide
ETC Functional-Based Organization

Delivers value-creating technologies and competency

- Earth Sciences
- Reservoir & Production Engineering
- Drilling & Completions
- Facilities Engineering
- Health, Environment & Safety
- Process, Analytical & Catalysis
- Technical Computing
- Strategic Planning and Organizational Capability
ETC Pioneering Technology Advancements

ETC partners with Chevron’s Technology Ventures to evaluate renewable energy technologies such as biofuels and hydrogen

Emerging technologies

- Gas-to-products
- Coal-to-liquids
- Resid 100% conversion hydrocracking
On April 19, 1902, Superintendent William S. Rheem wrote a letter to Demetrius G. Scofield, vice president, Pacific Coast Oil Company, discussing the costs of staffing the new refinery [El Segundo] in Southern California. The details of the letter follow:

Dear Sir,

Please find enclosed estimated cost of construction of a refinery in Southern California. I gave you the amount over the telephone at [US$125,000], but after going over the estimate again I found it necessary to make some slight additions, which raised the total to [US$127,920].

It will require a permanent force to run the Refinery:

Permanent working force:
1 refiner at $125 per month;
1 referee man at $100 per month;
1 clerk at $65 per month;
1 night foreman at $100 per month;
1 treasurer at $90 per month;
1 treasurer’s helper at $65;
1 electrician at $75 per month;
1 inspector at $75 per month;
1 warehouse man at $75 per month;
1 warehouse man at $2.25 per day.

1 refiner, 2 still men at $2.75 per day;
2 still men’s helpers at $2.57;
2 water tenders at $2.65 per day;
2 boiler firemen at $2.57 per day;
2 pump men at $2.57 per day;
1 pipe fitter at $2.57 per day;
1 pipe fitter’s helper at $2.25 per day;
2 laborers (still cleaners) average, $2.57 per day;
1 acid works man at $2.75 per day;
1 acid works man at $2.57 per day.

This would make a permanent working force, but it might be increased slightly at times, depending upon the press of business or repairs.

Yours truly,

W. S. Rheem
Wind, rain, water and even earthquakes can't stop Chevron Texaco refining for long. Over the past 125 years, company refineries have felt the full force of nature's fury. Not only have the men and women of these refineries brought their facilities back on line, but they have also helped their communities in times of disaster.

**Richmond Refinery**
On April 18, 1906, Pacific Coast Oil Company's Richmond Refinery, along with the residents of the San Francisco Bay area, were jolted awake by a major earthquake. The 8.3 magnitude quake ignited fires that burned in the city for days and damaged the 40-foot tall stacks at No. 3 battery in the refinery. In addition to providing the funds needed to repair the refinery, John D. Rockefeller, Standard Oil founder, donated up to $100,000 for community disaster relief.

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**Refinery Factoids:**
- Société Anonyme de la Raffinerie des Antilles
  - Fort-de-France, Martinique
  - 16,700 bbls/day total capacity
  - 4.2% equity interest

**1970**
- New 250,000 barrels-per-day refinery opens at Freeport in the Bahamas.

**1977**
- SOCAL creates Chevron USA Inc. as its principle U.S. oil and gas subsidiary.
The Iron Mule

For more than 100 years, Global Refining employees have demonstrated a strong work ethic and an openness to change. The following story, which appeared in the February 1927 issue of Standard Oil Company (California) employee newsletter, Among Ourselves, tells one such tale of dedication and change.

The "Iron Mule" Supplants El Segundo's Last Team
Questions?


Chevron
59,000 people. 433 disciplines. 113 languages.