

Crude Oil by Rail in California

Union Pacific in CA

2013 Fast Facts

Miles of Track..... 3,267

Capital Investment ..\$326.7 million

Total Carloads..... 3,039,489
(originated or terminated)

Crude Oil Carloads.....10,613

First respondersApprox. 800
in California trained
by Union Pacific



Moving crude oil through California by rail

In 2013, Union Pacific shipped approximately 163,000 carloads of crude oil on our 23-state network. A small portion of our crude oil business, approximately 1 percent, moves on Union Pacific track in California. On a monthly basis, this amounts to approximately 800-1,000 carloads.

The majority of the crude oil Union Pacific moves through California originates in Canada. We do not currently move any crude oil in California originating from the Bakken region.

Union Pacific moves carloads of crude oil in California primarily on “manifest” trains in which tank cars carrying crude oil are interspersed with other commodities loaded in box cars, hopper cars, etc. We currently move one “unit train” (a train that carries the same product in every car) of crude oil in California from San Luis Obispo County to oil refineries in Southern Los Angeles; this is a regular shipment that has been handled by Union Pacific for many years. We move carloads of crude oil on “manifest” trains using the I-5 corridor and our coast route. In 2013, Union Pacific moved just two carloads of crude oil on the southern corridor running from Los Angeles to Yuma, Ariz.

Preventing Derailments

Union Pacific works diligently to prevent derailments and other accidents. We spent more than \$21.6 billion in private capital investments from 2007-2013, and will spend a record \$3.9 billion this year, continuing to strengthen our infrastructure. Doing so helps us improve safety for employees, communities and customers.

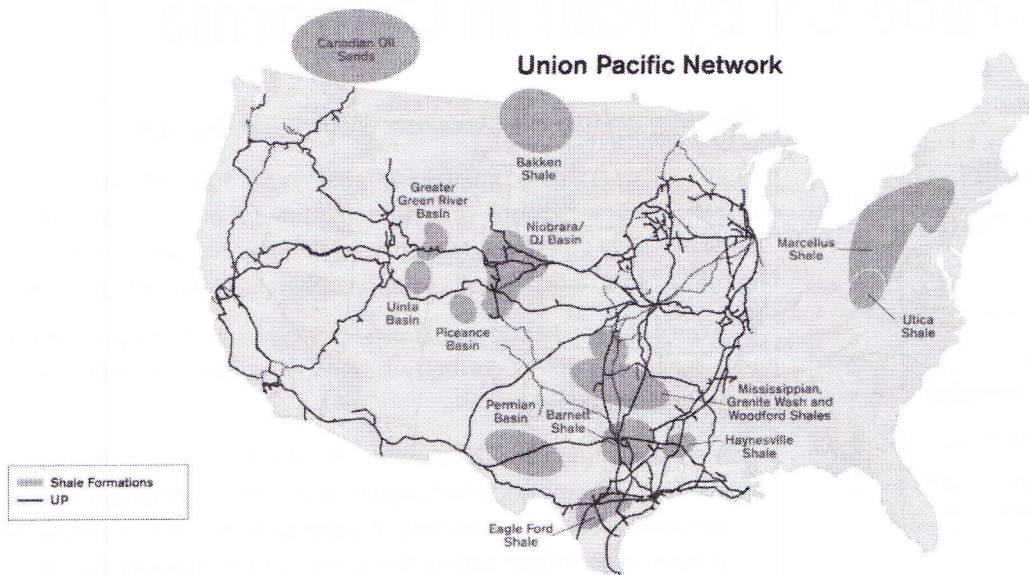
We decreased derailments 23 percent during the last 10 years, due in large part to our robust derailment prevention and risk reduction process. This process includes, among others, the following measures:

- Developing and using the latest technology such as lasers and ultrasound to identify rail imperfections.
- Forecasting potential failures before they happen by tracking acoustic wheel vibrations.
- Performing a real-time analysis of every rail car moving on our system each time it passes a trackside sensor, equaling 20 million car evaluations per day.
- Conducting rigorous safety training programs on a regular basis to help employees identify and prevent potential derailments.

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Preparing California emergency first responders

We understand that the risks associated with crude-by-rail are a very real concern and take our responsibility to ship crude oil seriously. Union Pacific follows the strictest safety practices and in many cases, exceeds federal safety regulations. Our goal is to have zero derailments and we work tirelessly with the Association of American Railroads (AAR), Federal Railroad Administration (FRA), Pipeline and Hazardous Materials Safety Administration (PHMSA) and our customers to ensure we operate the safest railroad possible.

We identified 184 primary fire departments along Union Pacific rail lines in California. Union Pacific reaches out to fire departments as well as organizations along our lines to offer comprehensive training to hazmat first-responders in communities where we operate. We annually train local, state and federal first-responders on protocols to minimize the impact of a derailment in their communities.

Union Pacific has trained nearly 38,000 public responders and almost 7,500 private responders (shippers and contractors) since 2003. This includes classroom and hands-on training in tank car anatomy, hazmat shipping documentation and equipment securement.



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