

Crude Oil by Rail in California

Union Pacific in CA 2014 Fast Facts

Miles of Track.....	3,267
Capital Investment	\$432 million
Total Carloads.....	3,313,191 (originated or terminated)
Crude Oil Carloads.....	13,227
First responders	3,935 trained by Union Pacific since 2010



Supporting California's Energy Infrastructure

Union Pacific shipped approximately 141,000 carloads of crude oil on our 23-state network in 2014. Crude oil currently represents about 1 percent of our business in California. This amounts to 1,000 – 1,200 carloads of crude oil monthly.

The crude oil Union Pacific moves through California originates in California, Canada and Utah. We do not move any crude oil in California originating from the Bakken region.

Union Pacific moves crude oil in California two ways:

- On “manifest” trains with tank cars carrying crude oil interspersed with other commodities in box cars, hopper cars, etc.
- On “unit trains” made up of 80 -100+ cars with the same product in every car.

We move crude oil along our coast route between Los Angeles and the Central Coast, a service we have safely provided for decades. We also move crude oil on our I-5 corridor running from California's northern border to the Los Angeles region through the Central Valley. We do not currently move any crude oil in the Bay Area.

Preventing Derailments

Union Pacific works diligently to prevent derailments and other accidents. We spent more than \$31 billion in private capital investments from 2005-2014, and plan to spend a record \$4.3 billion in 2015 continuing to strengthen our infrastructure. Doing so helps us improve safety for our employees, communities and customers.

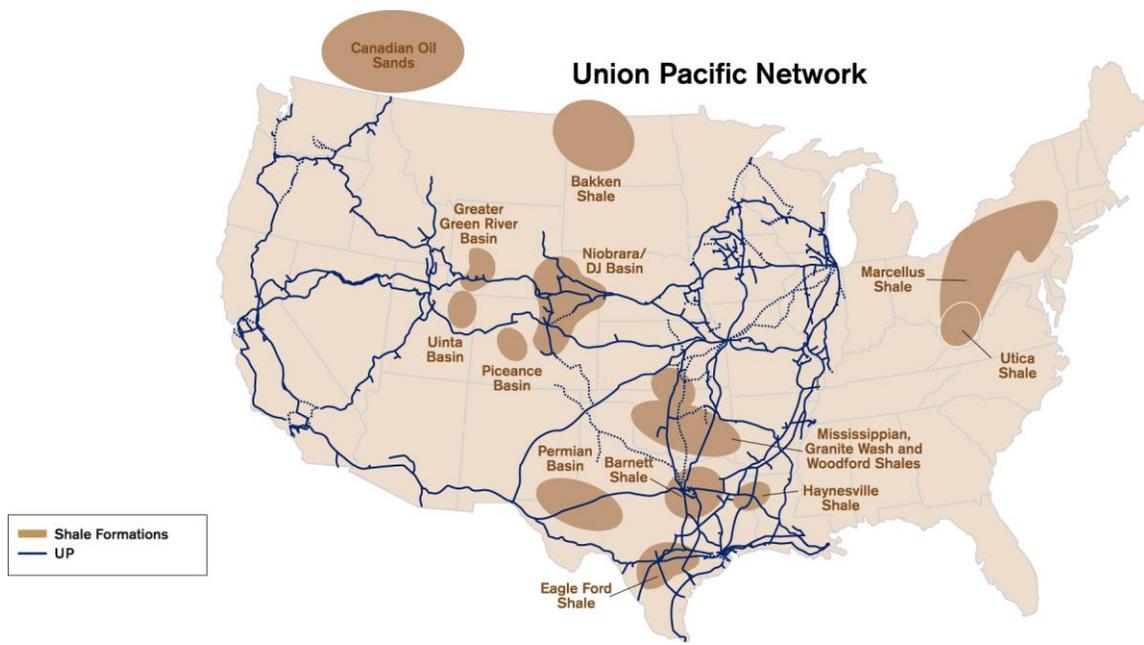
We decreased derailments 38 percent during the last 10 years, due in large part to our robust derailment prevention and risk reduction process. This process includes, among others, the following measures:

- 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's First Responders

Our goal is the same as our customers' and the communities' in which we operate: to deliver every tank car safely while at the same time being prepared to respond in the case of an accident. We take our responsibility to ship crude oil, as mandated by federal law, seriously. Union Pacific follows strict safety practices and in many cases exceeds federal safety regulations.

We work with 184 fire departments along Union Pacific rail lines in California. We work with fire departments and other emergency responders along our network to offer comprehensive hazmat response training in communities where we operate. Union Pacific trained more than 3,900 emergency responders across California since 2010. This includes classroom and hands-on training in tank car anatomy, hazmat shipping documentation and equipment securement.

Union Pacific has significant response resources located in California for the unlikely event of a crude oil spill or other hazmat-related incident. We have access to more than 176,000 feet of containment boom in the state, chemical transfer trucks, fire fighting foam, fire fighting trailers and more.

To provide additional information to emergency response professionals for training and response purposes, we are introducing AskRail,™ a new real-time mobile application produced by the Association of American Railroads. Once first responders download the AskRail app onto their mobile device, they can search by rail car identification number to identify the commodity inside the tank car. AskRail supplements existing response processes for hazardous materials-related incidents.



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