



Revitalizing the Giant Oil Fields of the LA Basin: New Opportunities / New Challenges

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Outline

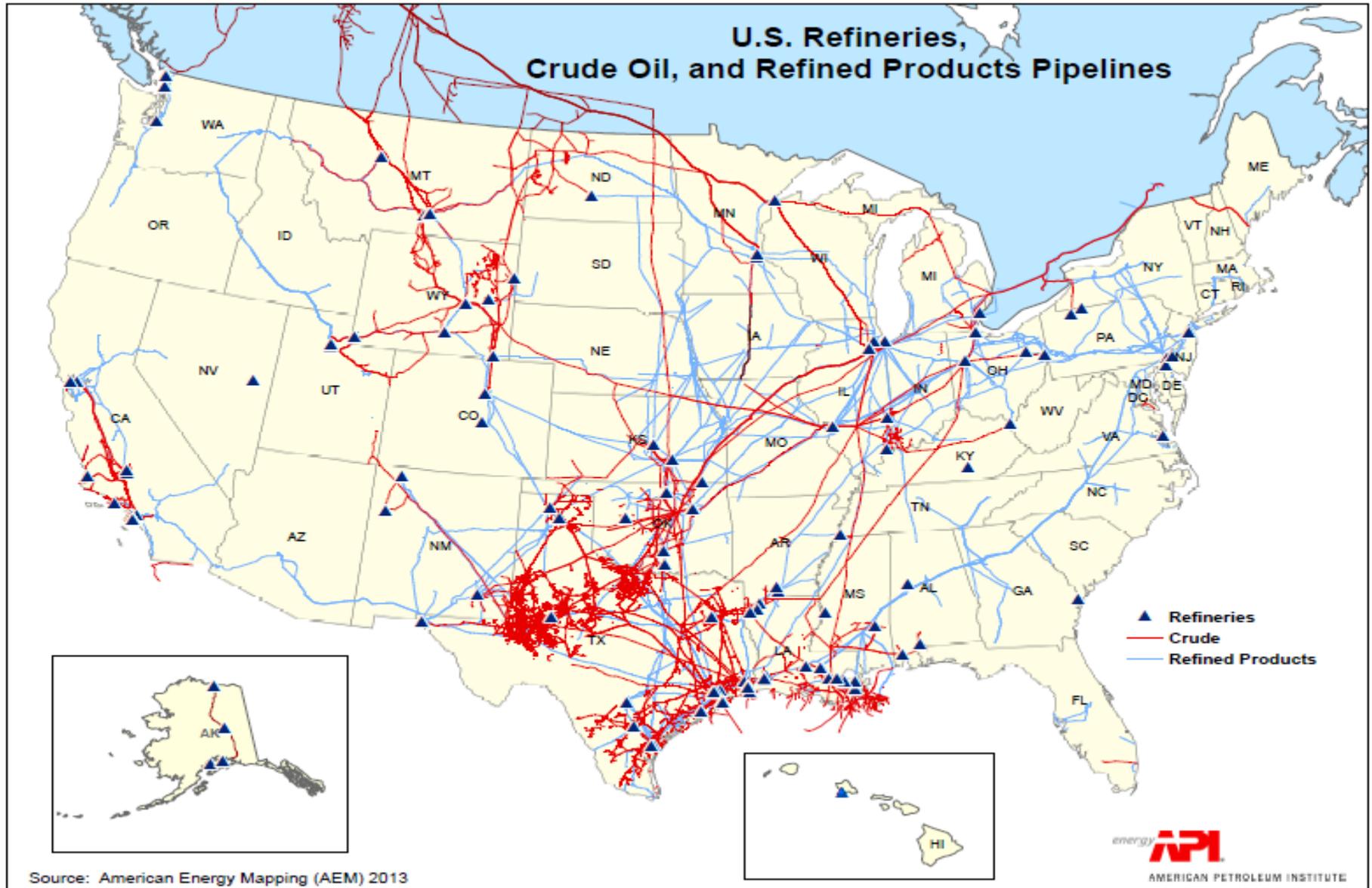
- California demand vs. supply
- Oil and the LA Basin: history and remaining resource potential of the giant fields
- Opportunities and challenges

California Fuel Demand: >1.6 million bbl/day

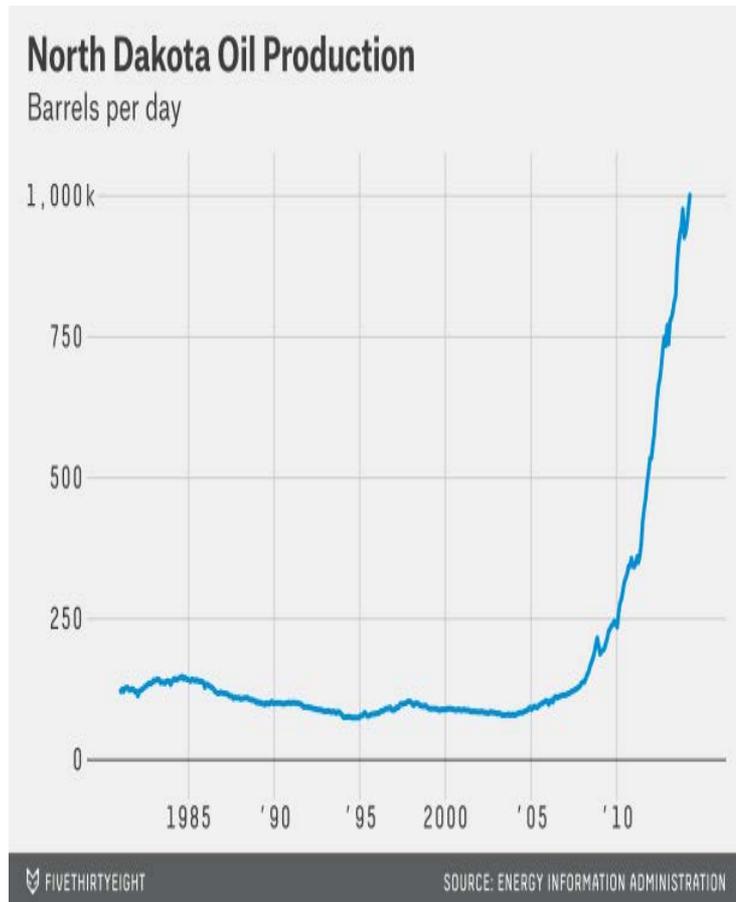


California Crude Production: <600,000 bbl/day

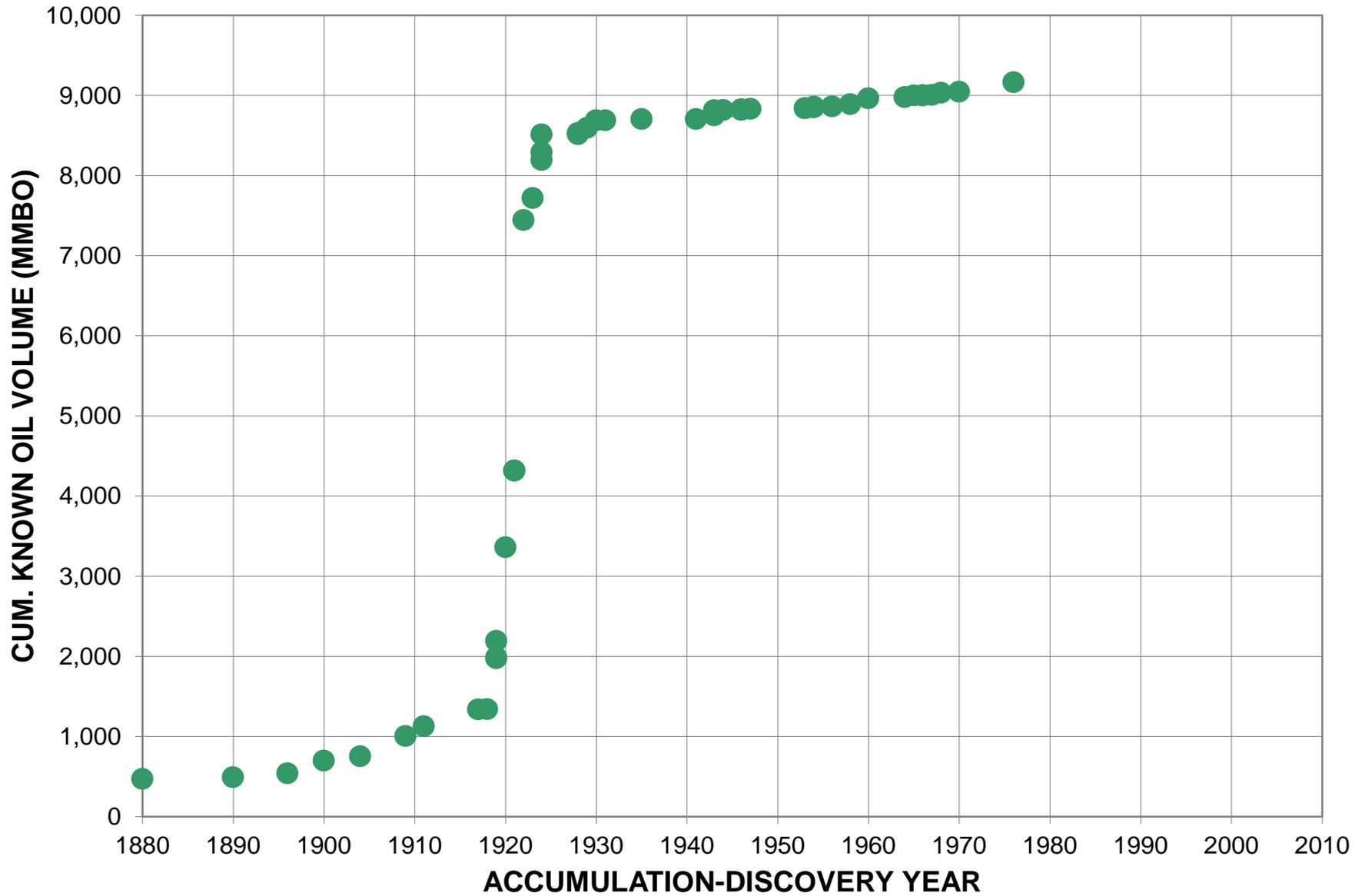
California is an “oil supply island”



U.S. crude-by-rail reaches 800,000 b/d in 2014 – will California come aboard?

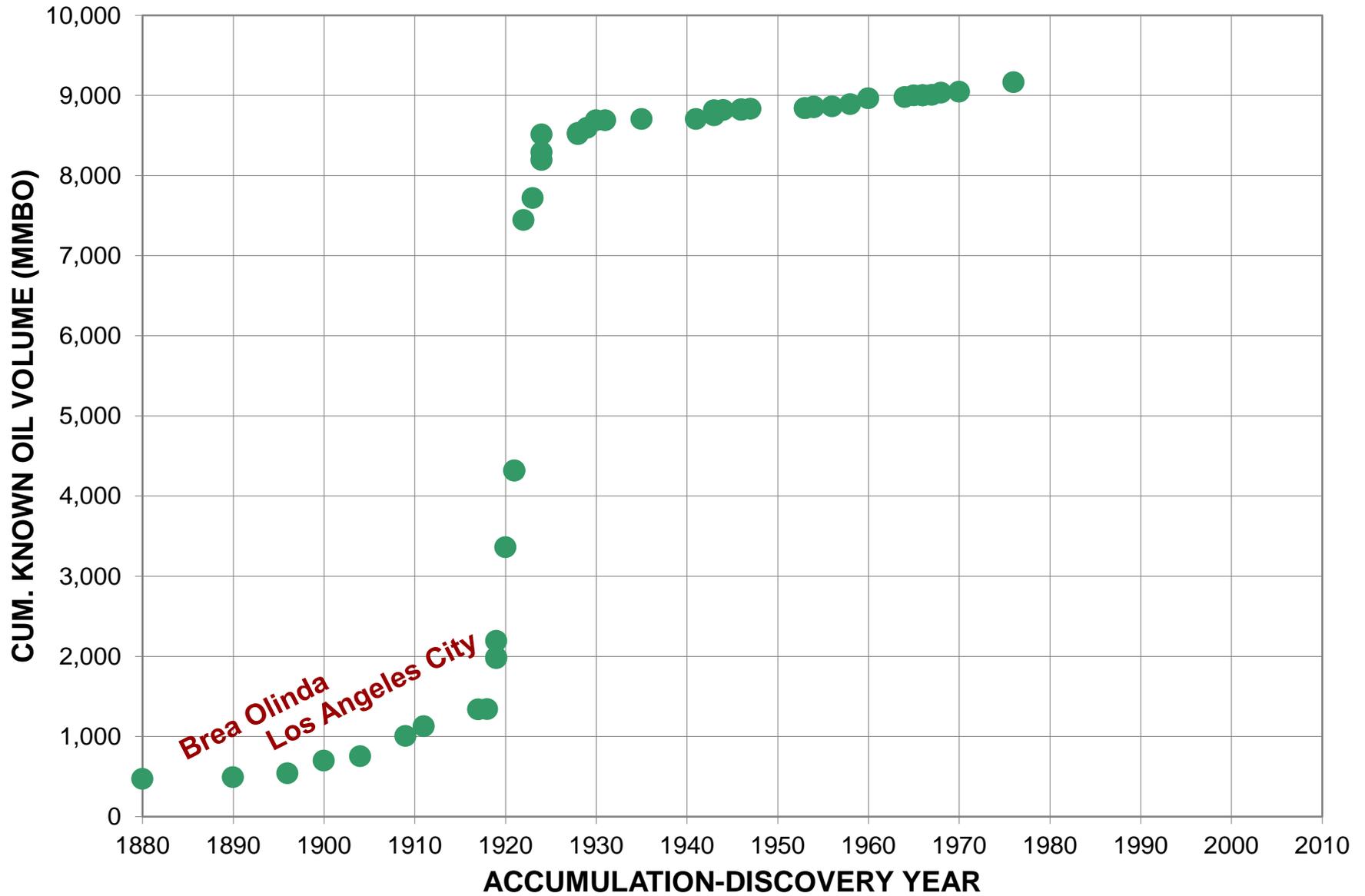


Oil and the LA Basin



Ref. Dr. Donald Gautier / USGS

Oil and the LA Basin



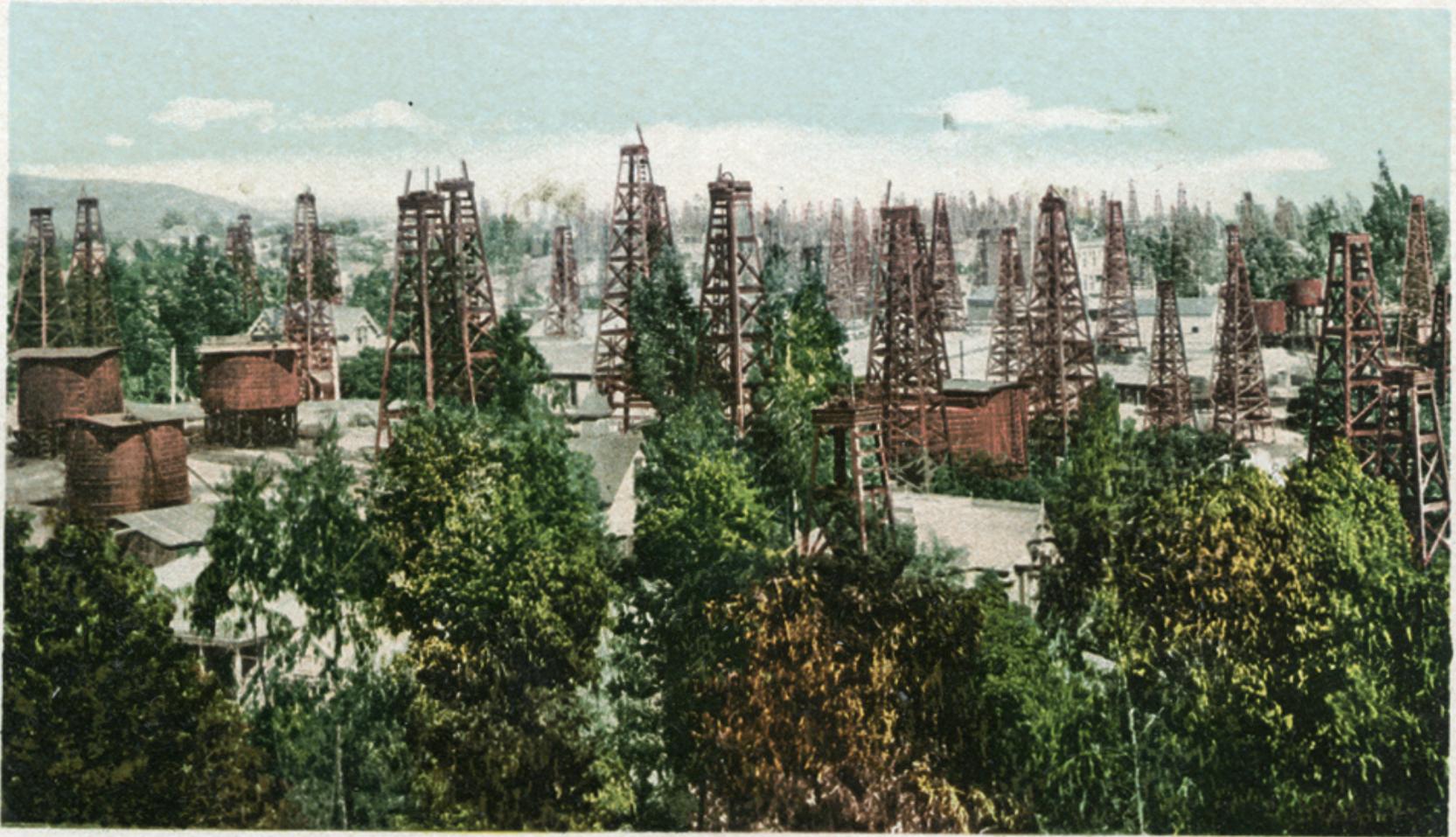
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Oil and the LA Basin – the beginning Los Angeles Oil Field - circa 1895



Oil and the LA Basin – the early days

“An Oil Well in Every Yard”

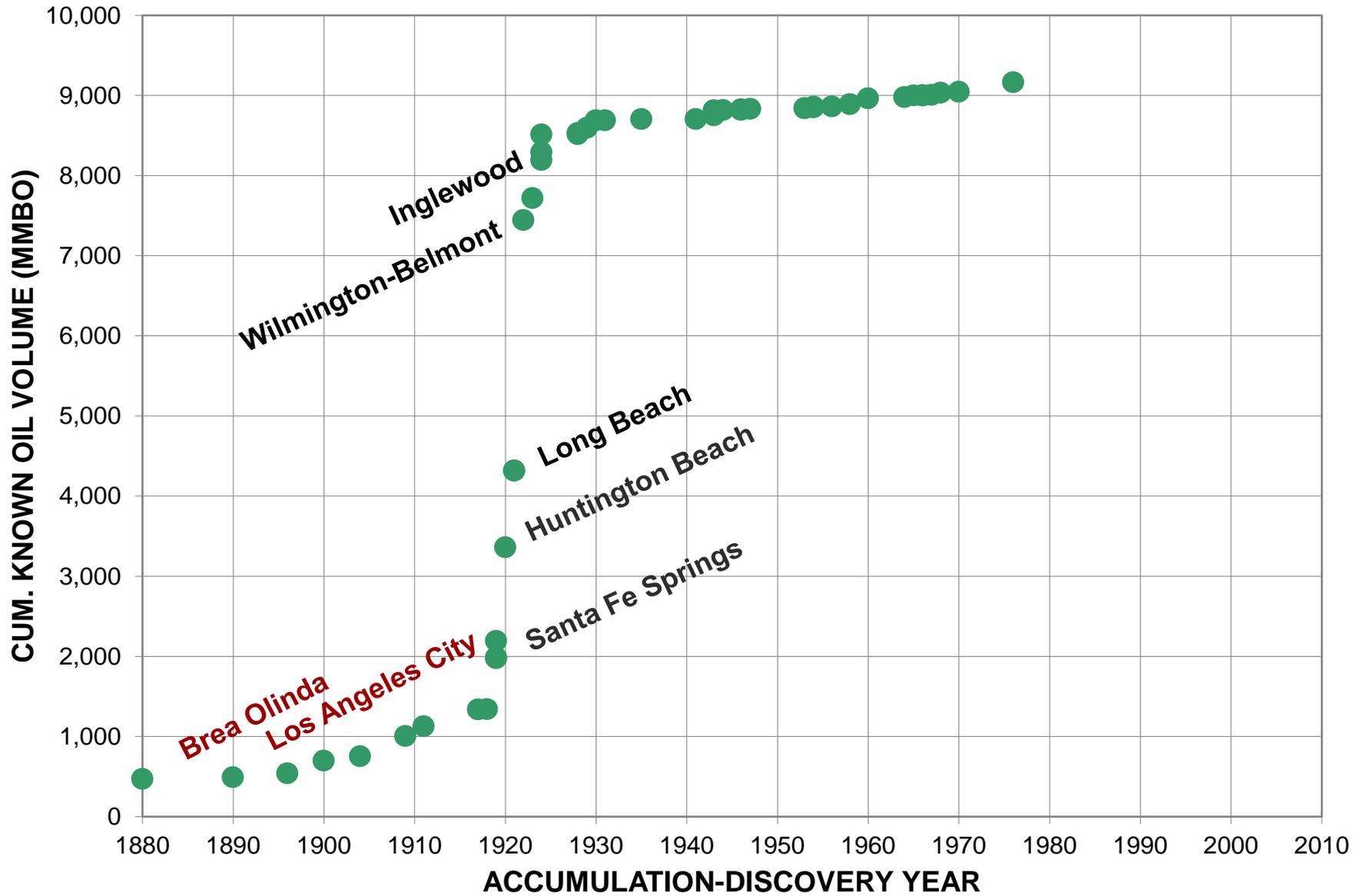


7775. "AN OIL WELL IN EVERY YARD," LOS ANGELES, CAL.

DETROIT PHOTOGRAPHIC CO., PUBLISHERS.

1890 - 1910

Oil and the LA Basin



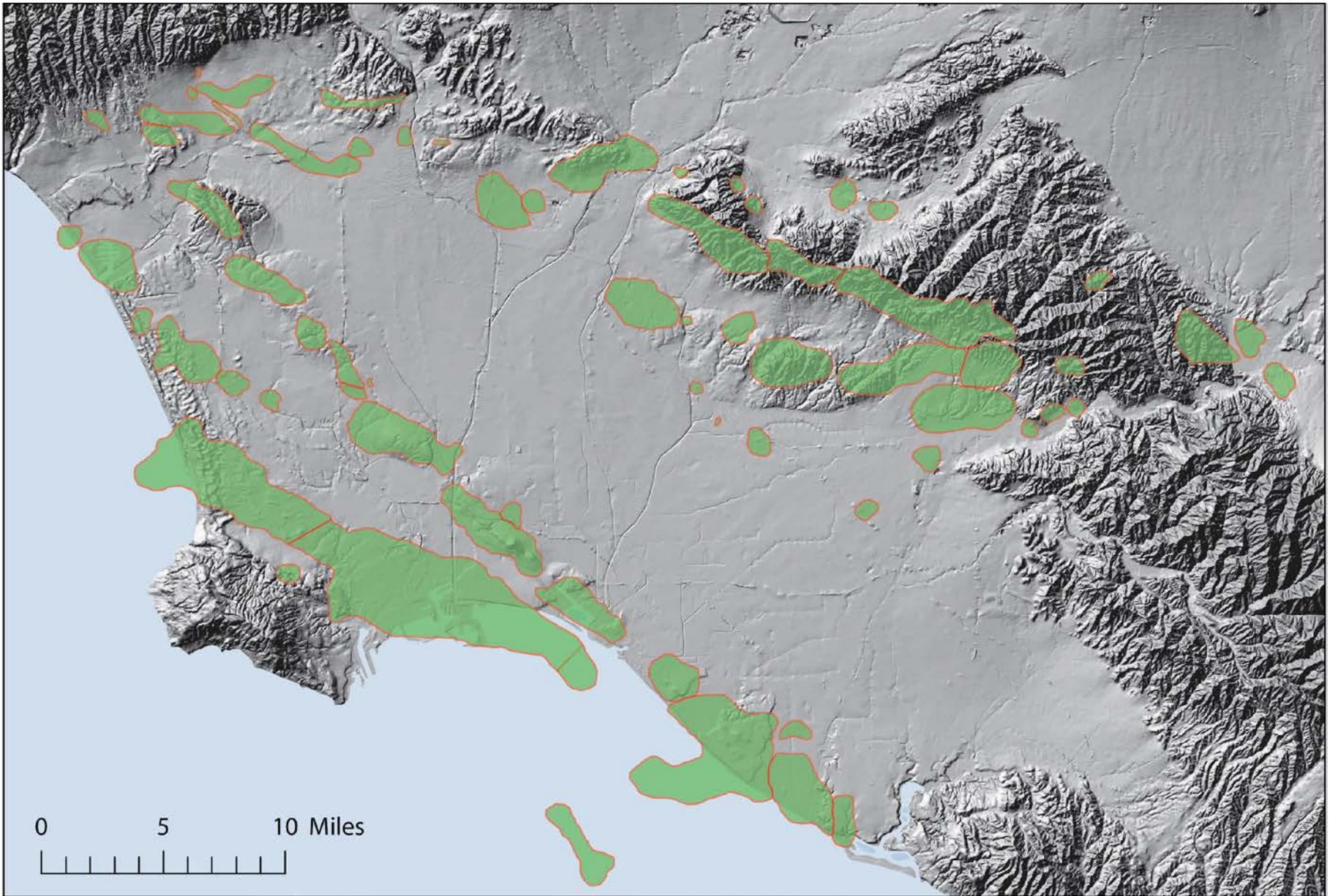
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Oil and the LA Basin



Signal Hill, Long Beach 1923

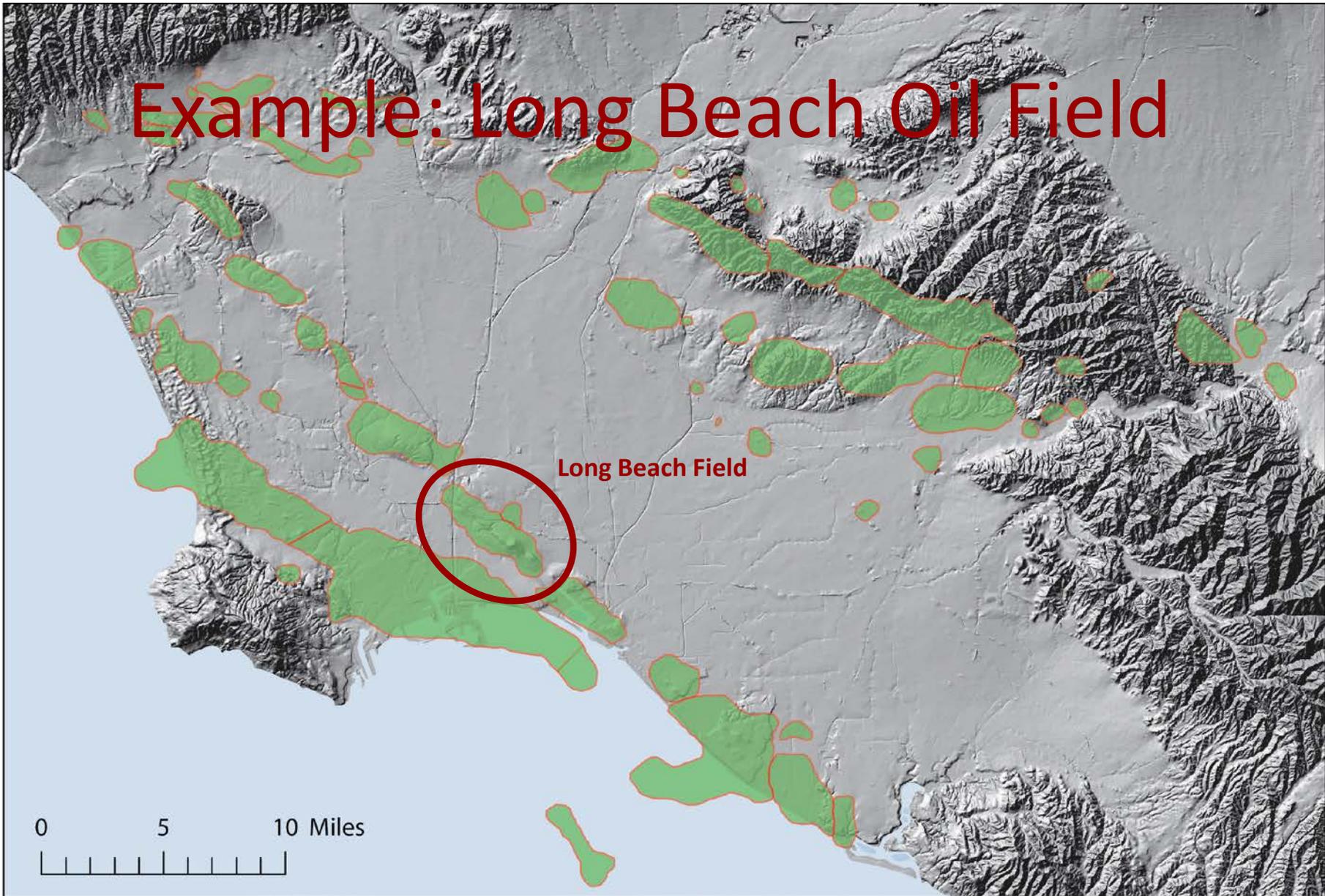
259,000 bbl / day



Example: Long Beach Oil Field

Long Beach Field

0 5 10 Miles



The Long Beach Oil Field

- Productive Area: 1725 acres
- Original oil in place: 3 to 3.6 billion barrels
- Oil per acre: 1.7 to 2.1 million barrels
- Cumulative production + reserves ~ 1 Billion bbl
- Current recovery efficiency: 26% to 32%
- Remaining oil: 2.05 to 2.65 billion barrels
- Additional oil recoverable with today's technology: 200 to 660 Million barrels

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Photo: Long Beach Historical Society

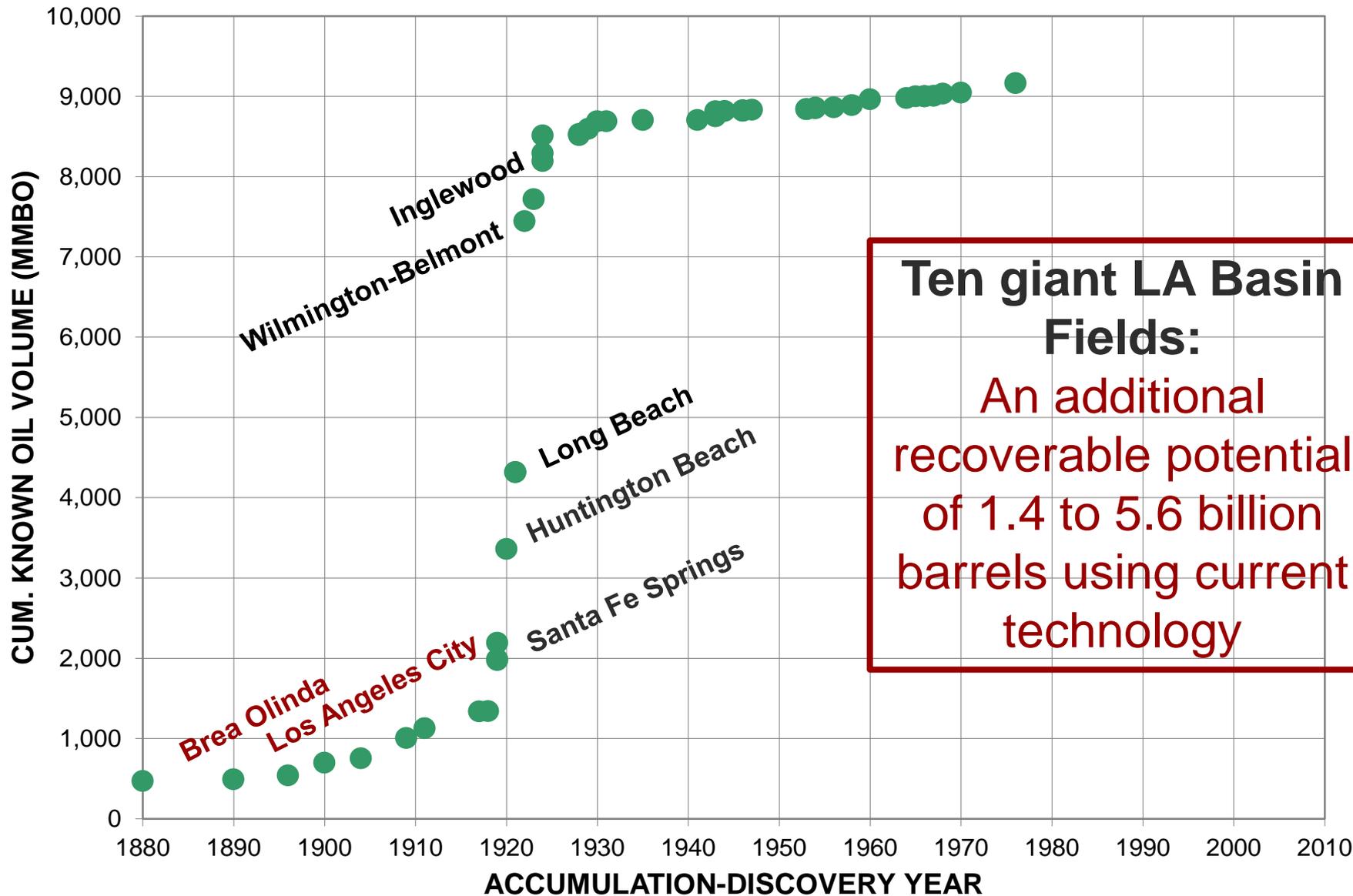
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Opportunities / Challenges: key messages

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Long Beach production islands



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- Message #1: California is a “supply island” and a major oil importer
- Message #2: The LA Basin has the geological potential for multi-billion barrel reserve additions by applying modern production technology to existing fields
- Message #3: The LA Basin has successful examples of co-existing with urban oil development
- Message #4: There is the potential to mobilize technological and engineering capabilities to develop these resources by establishing a new benchmark for minimizing environmental and societal impacts

Thank you



Ref. AAPG Explorer