



# Rockies Crude to the West Coast

*California Crude Market and How Rockies Crude Coming by Rail  
Will Reshuffle the Market Dynamics*

**Eric Peterson**  
**Senior Business Analyst**

*Moving Crude Supplies to West Coast End Markets*

*Los Angeles, CA*

*December 2014*

# Introduction to ARB Midstream

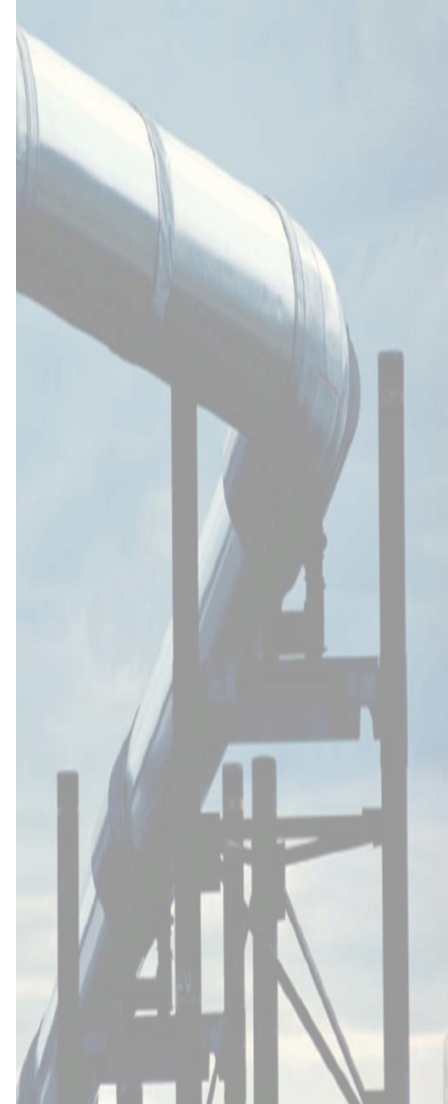


- Denver based infrastructure development company providing midstream solutions
- Strong financial support from private equity
- Utilize in-depth fundamental analysis to identify value propositions of our assets
- Emphasis on early stage development opportunities
- Developing a new crude-by-rail terminal
  - Niobrara Connector “NiCon”
  - Centrally located in the DJ Basin
  - Unit train capable
  - Scheduled in-service date: Q3 2015

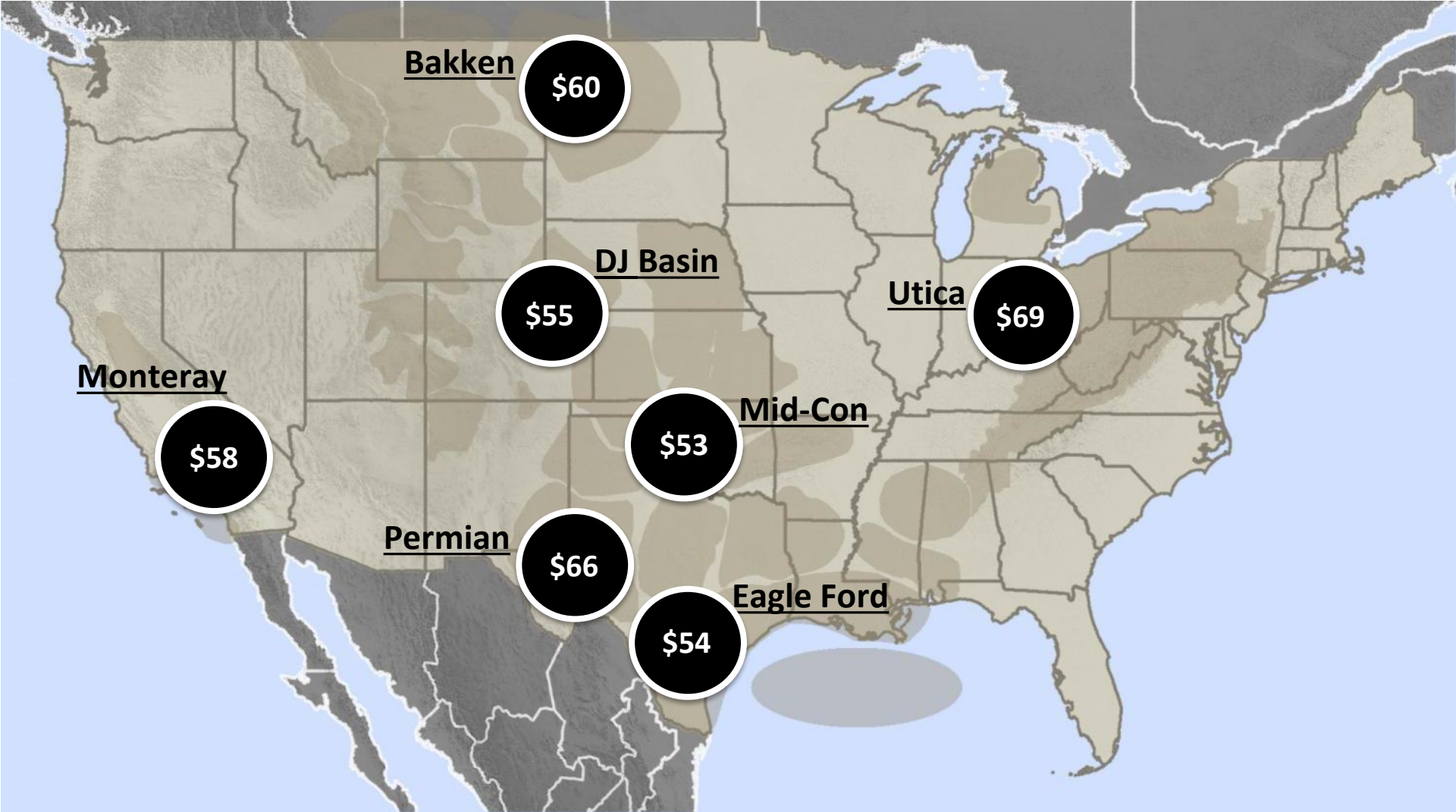


# Observations

- Drilling activity continues to accelerate in many plays, driving incremental growth in crude oil production
- Even in a low Brent price environment, many plays remain economical
- Midstream infrastructure build out continues, however, the West Coast is still disconnected from the pipeline network
- California imports ~800,000 bpd of waterborne crude from markets other than ANS and Canada
- ANS crude is well poised to reach the global markets, leaving possible market share for domestic US crudes
- Crude By Rail is critical to bringing more cost advantaged US crude oil barrels to the West Coast
- The Niobrara is more economical than other plays in terms of transport costs to parts of the West Coast

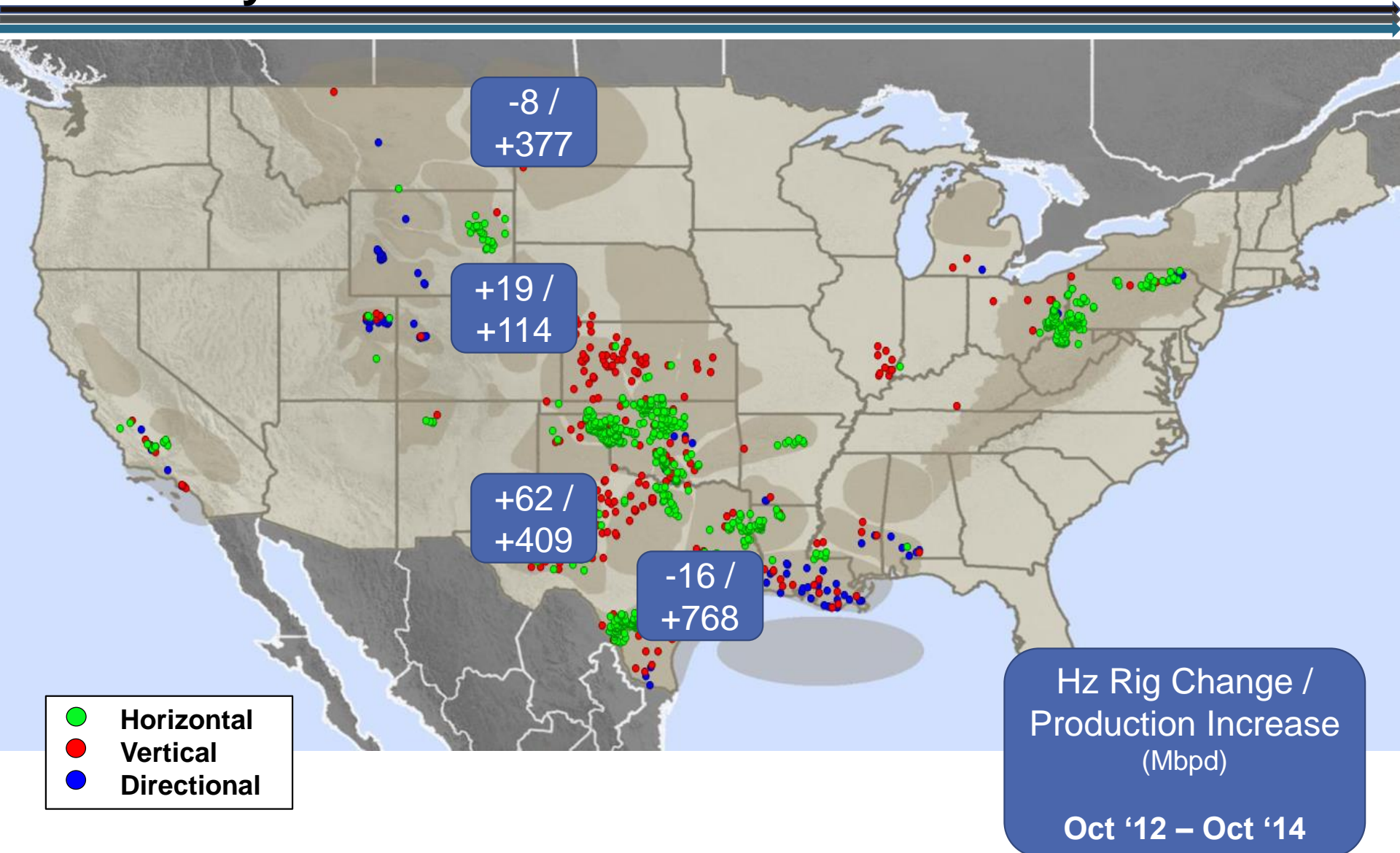


# Brent Breakeven Prices of Various Plays

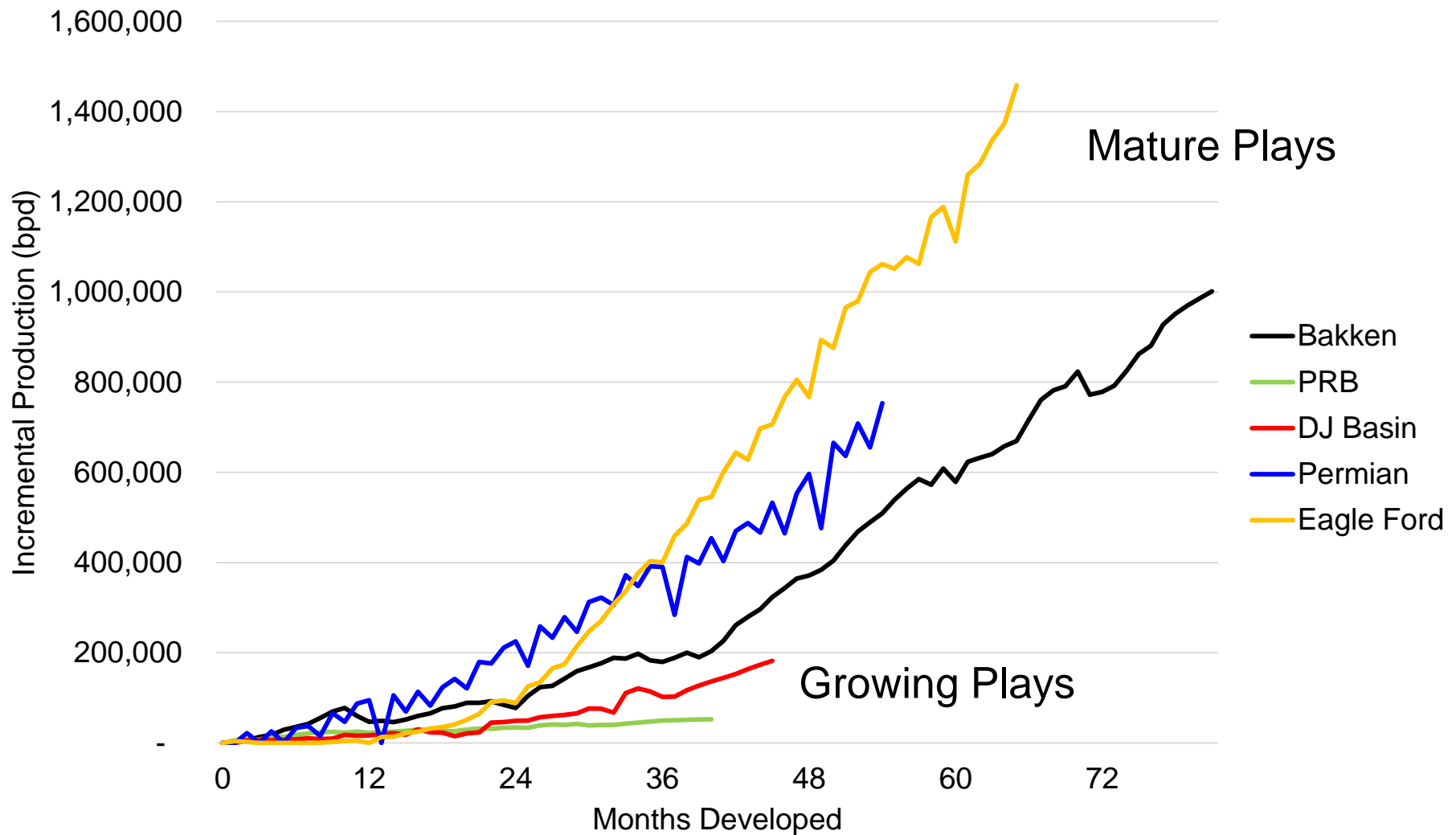


Source: Company Reports and Citi Research Estimates

# Growing Plays Show a Rapid Increase in Hz Rig Count, While Mature Plays Focus on Rig Efficiency



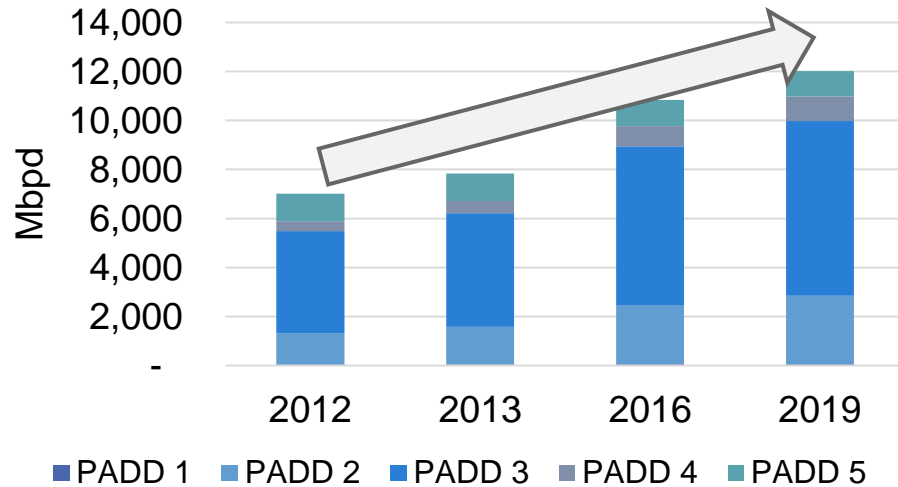
# The Introduction of Hz Rigs and Their Continued Increase in Numbers Has Caused Rapid Growth in Crude Production



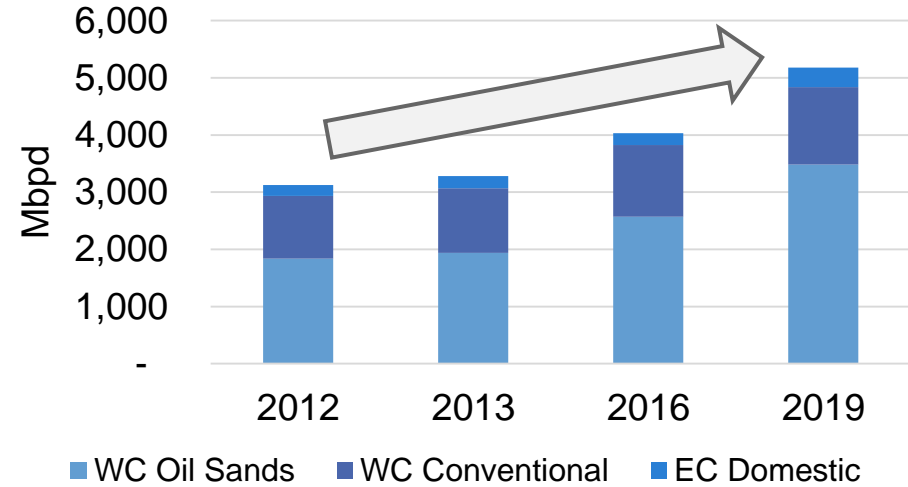
# Over the Next 5 Years, New Shale Oil and Oil Sands Supply Will Find New Markets in the U.S, While Displacing Over 5MMbpd of Waterborne Crude Imports



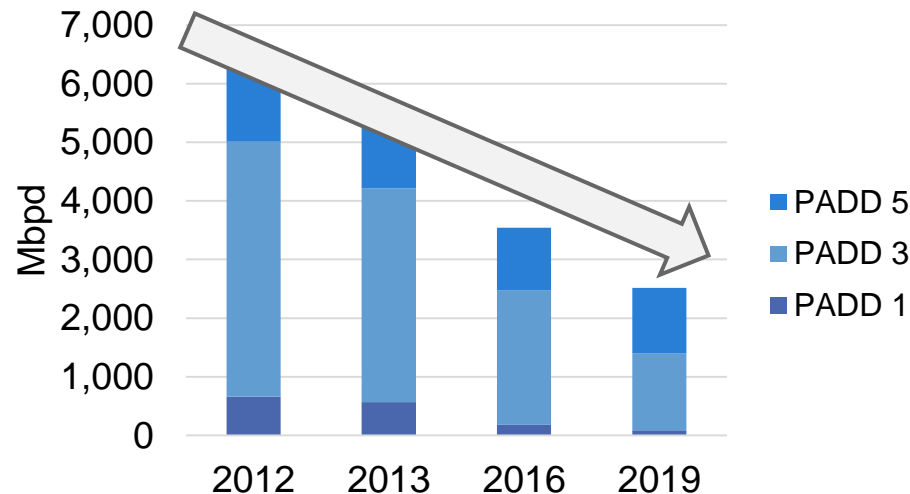
## US Crude Oil Production



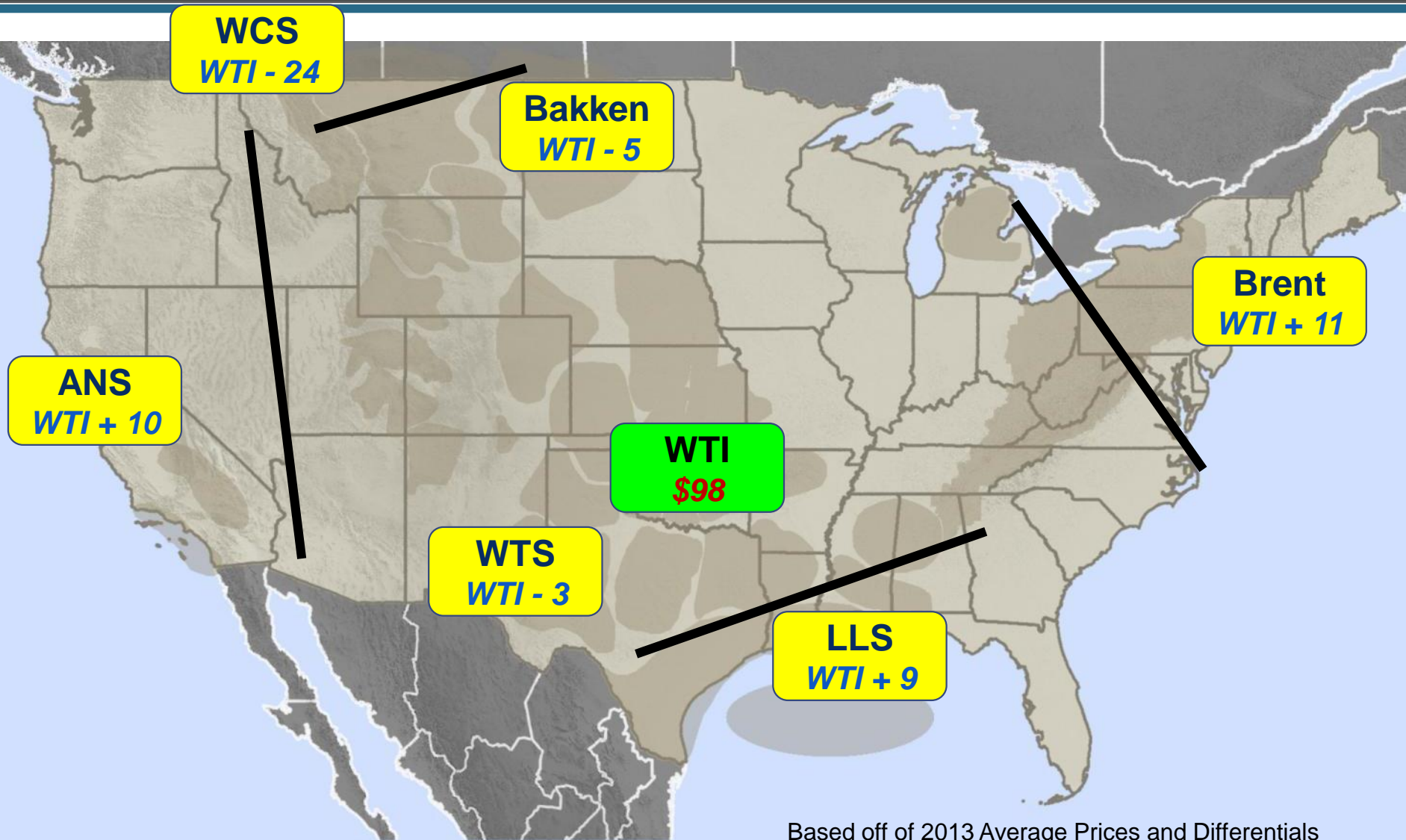
## Canadian Production



## US Waterborne Imports



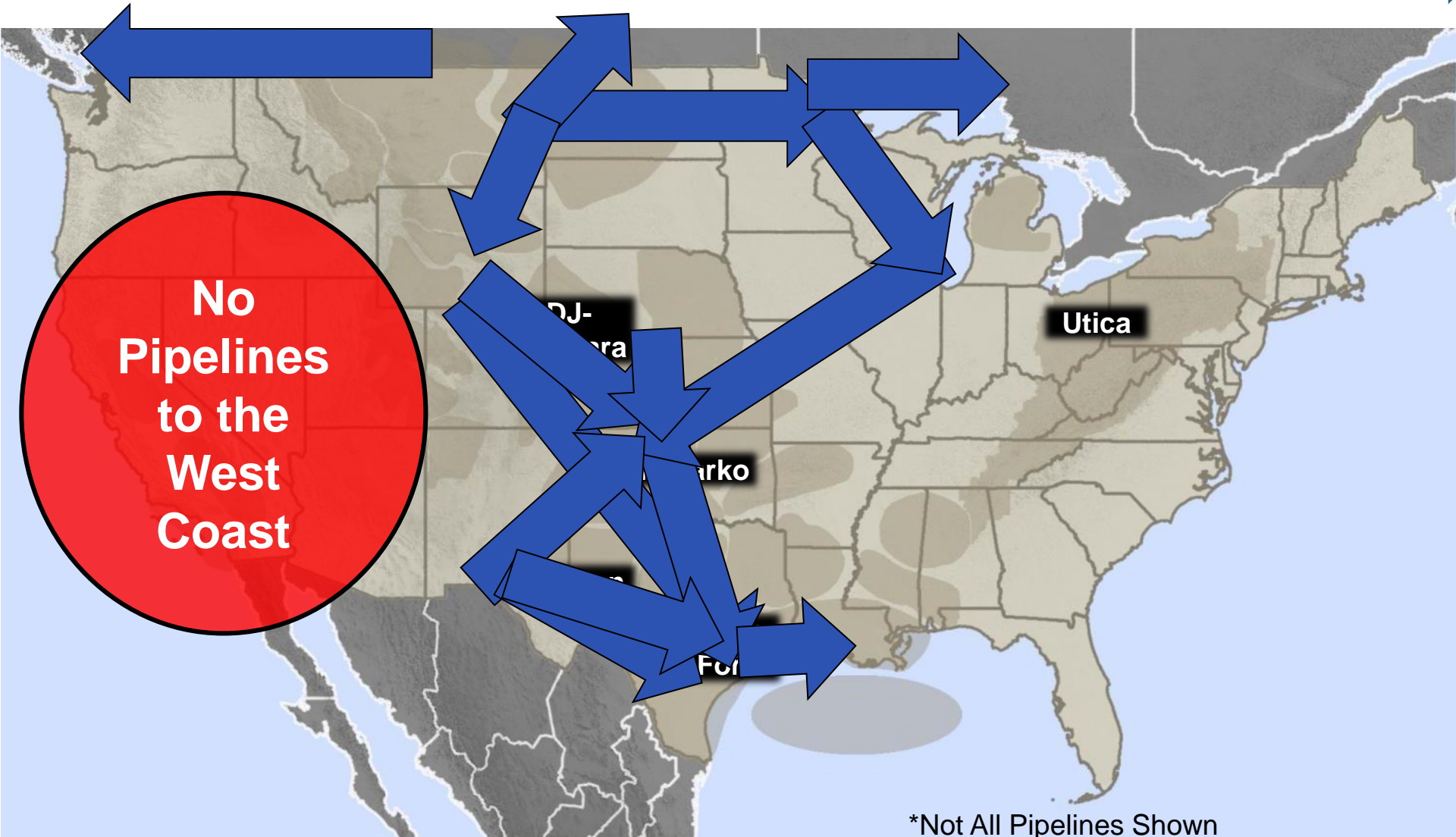
# Big Differentials Cause the Market to Build Pipelines to Break Through the Barriers



Based off of 2013 Average Prices and Differentials



# Over 9MMbpd of New Pipeline Capacity Has Been Built Since 2012 With Another ~9.5MMbpd Under Construction or Planned

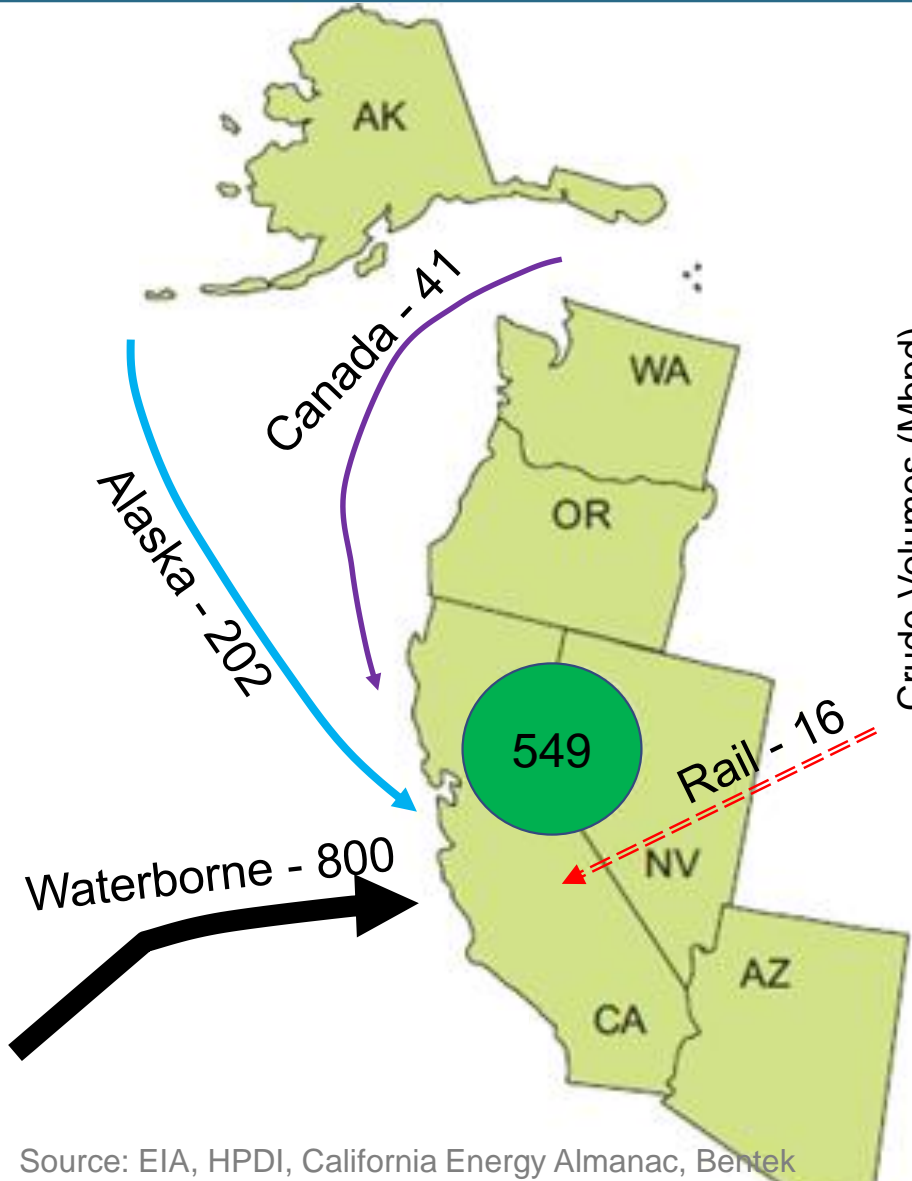


---

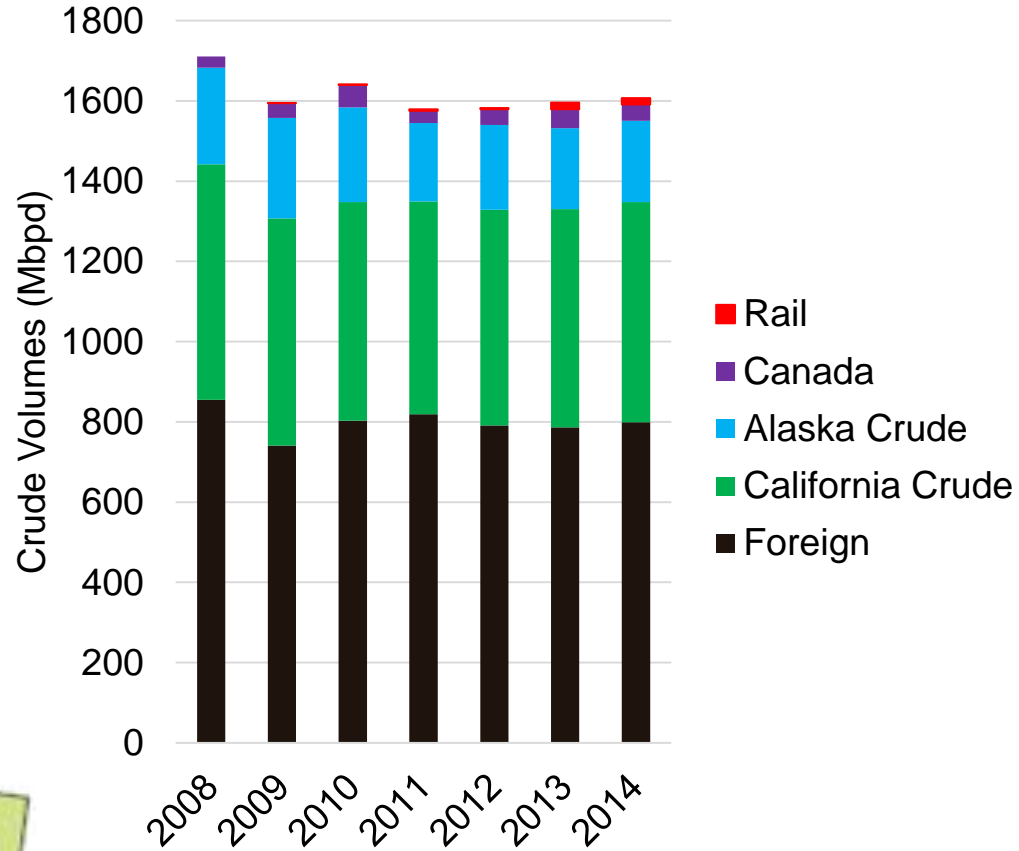
# California Balance



# Largest Sources of Crude Oil Are Expensive ANS and Foreign Waterborne



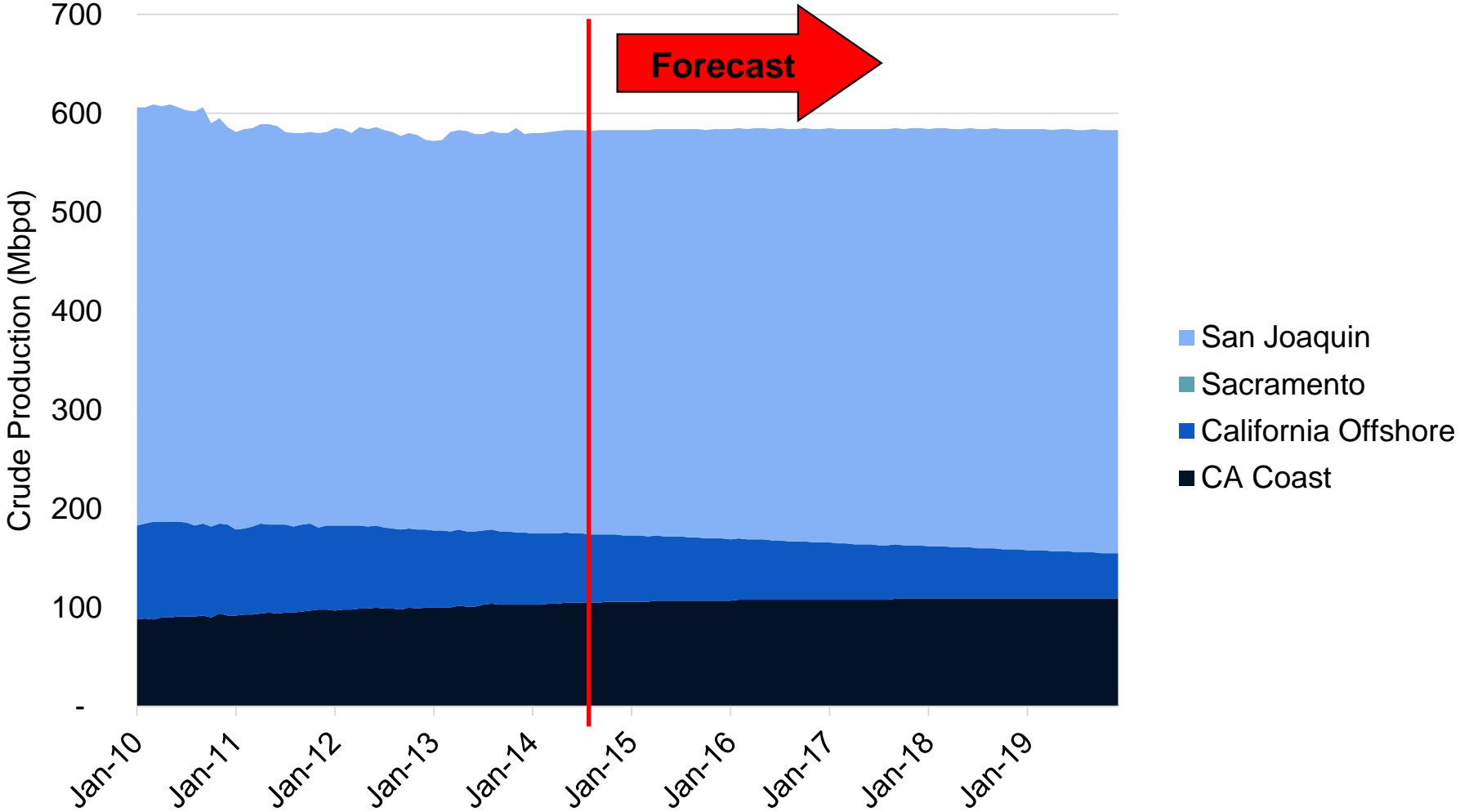
## California Crude Supply



# Little to No Growth in California Production Over the Next 5 Years



### California Production

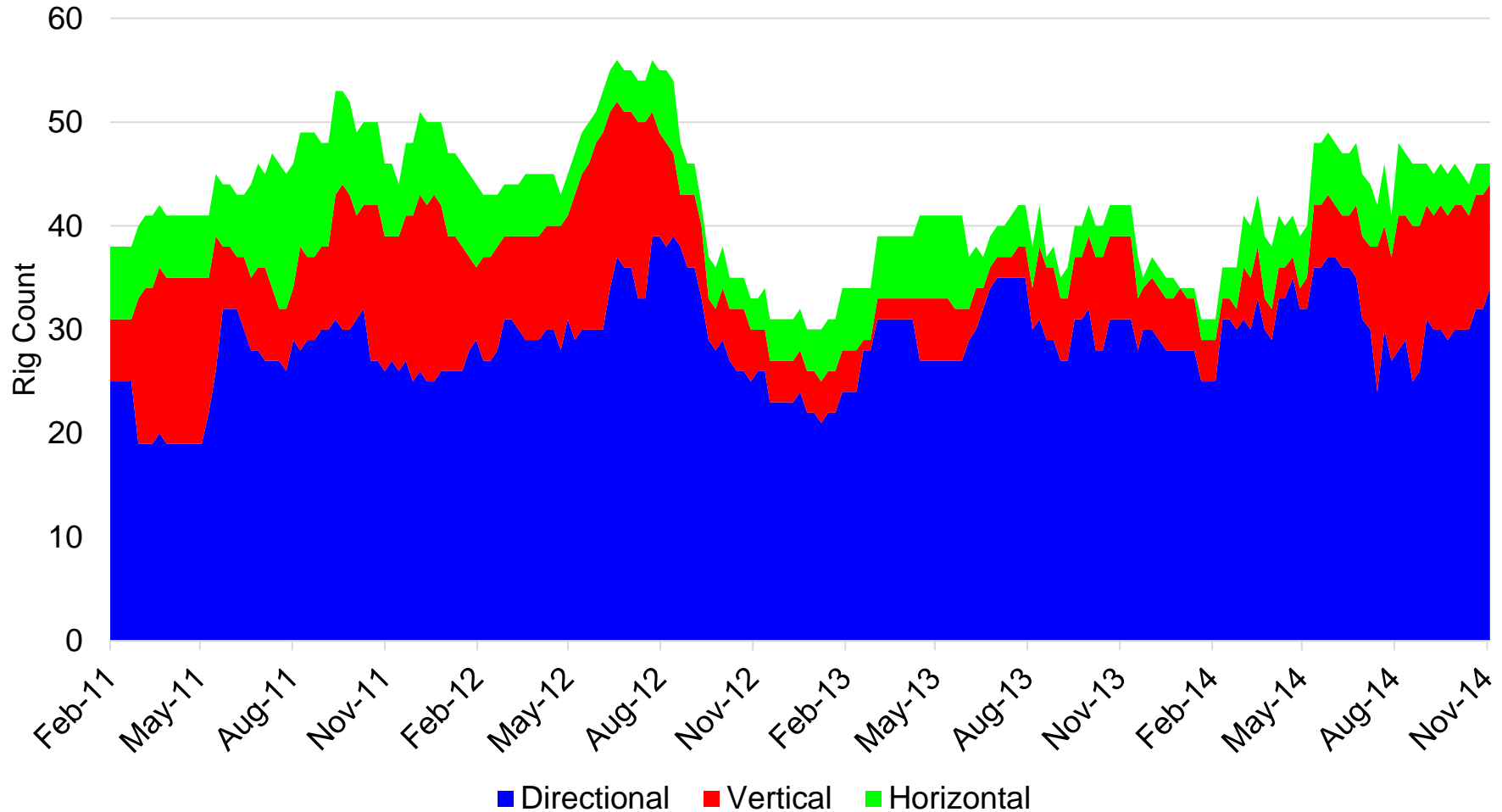


Source: HPDI, Bentek

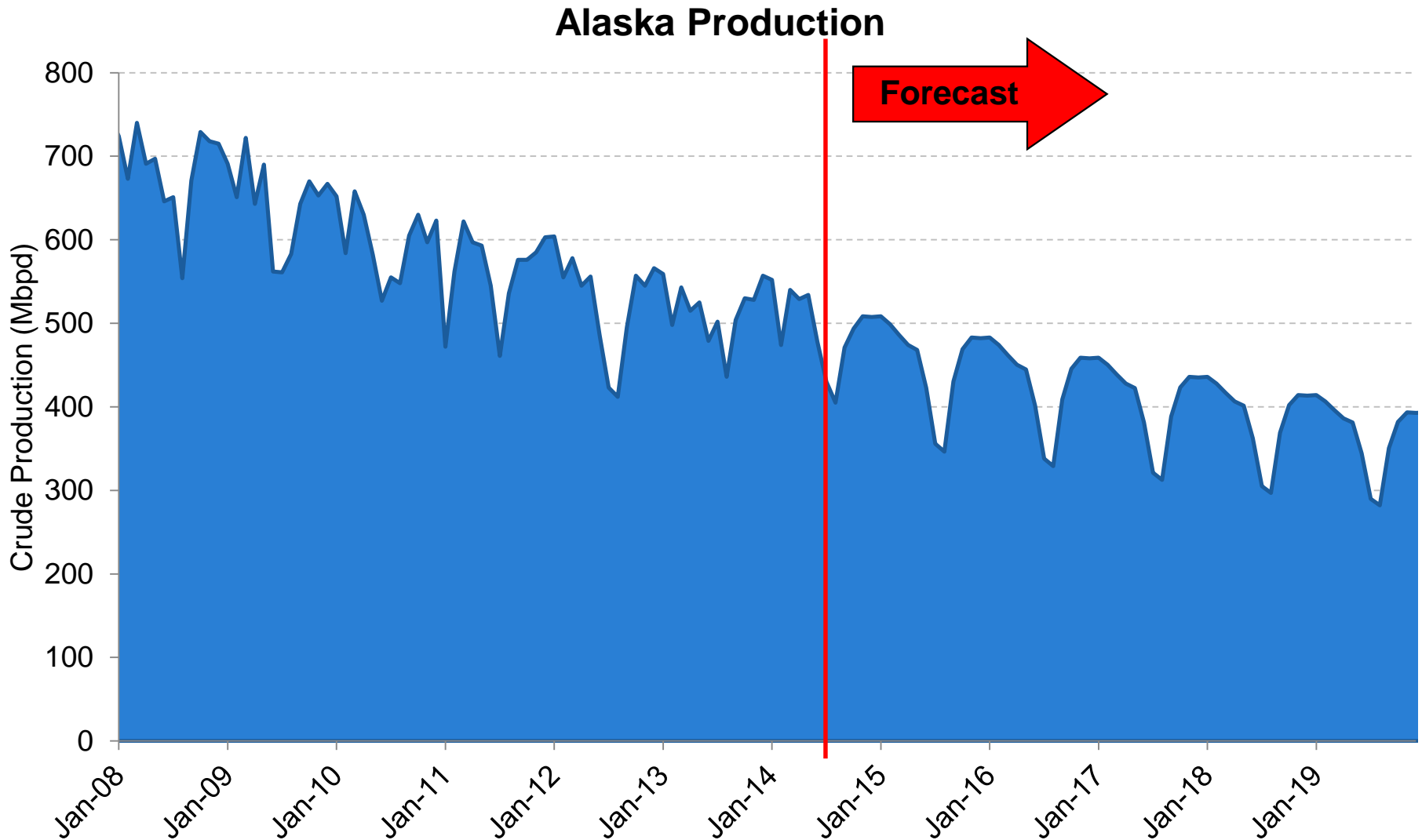
# Horizontal Rigs, A Key Part of Unlocking Tight Oil In North America, Have Not Made Meaningful Progress In California



## California Rig Count by Type

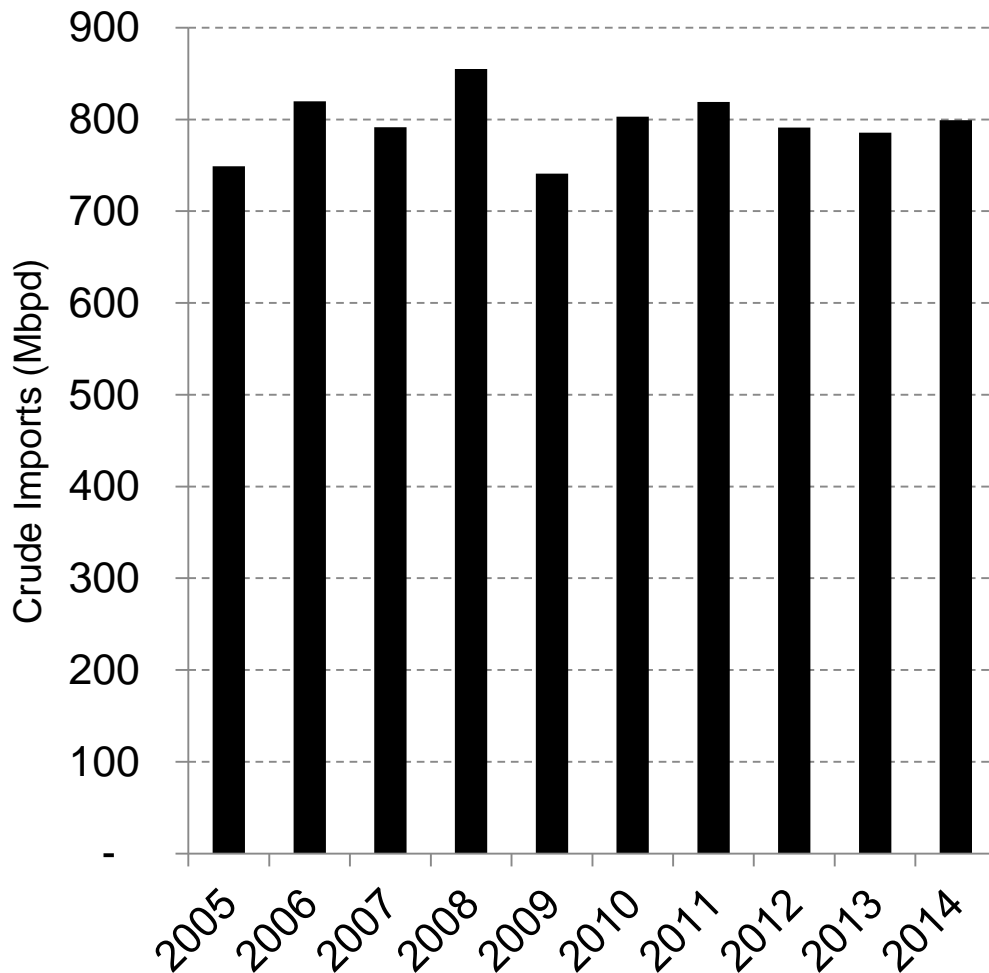


# Meanwhile ANS Production, A Major Input Into California, Set To Decline 20% (100kbpd) Leaving Production Just Under 400kbpd

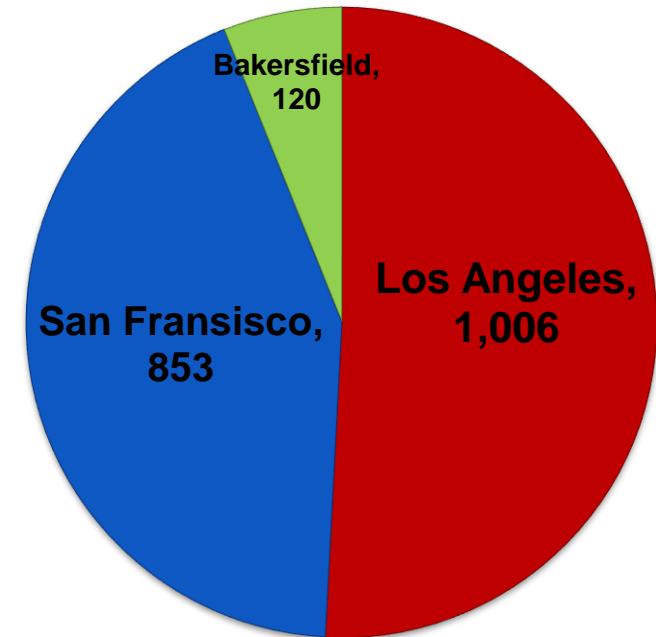


# 800,000 bpd of Waterborne Imports Into California

## Foreign Imports Into California

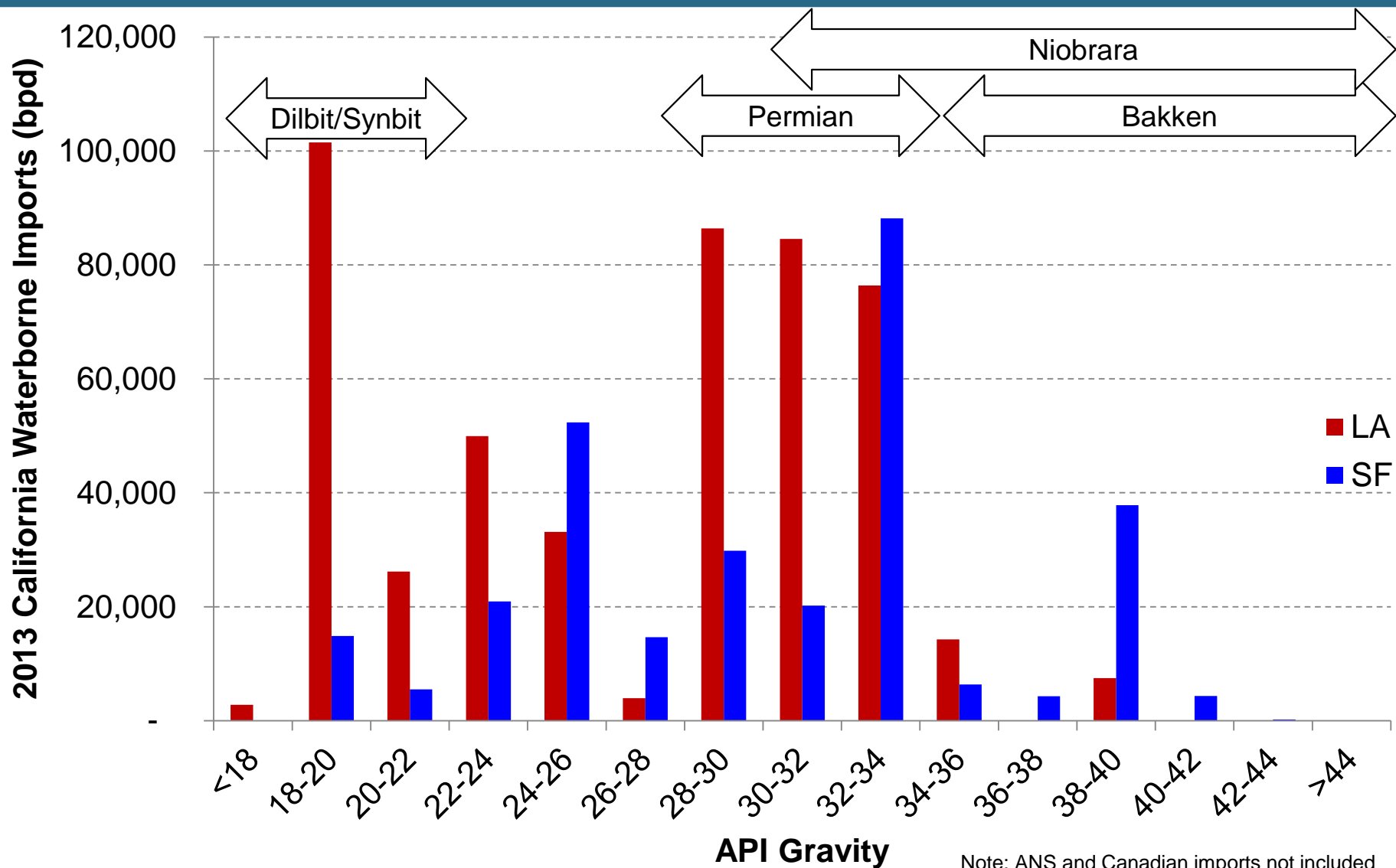


## Refining Capacity ('000s bpd)



Note: ANS and Canadian imports not included

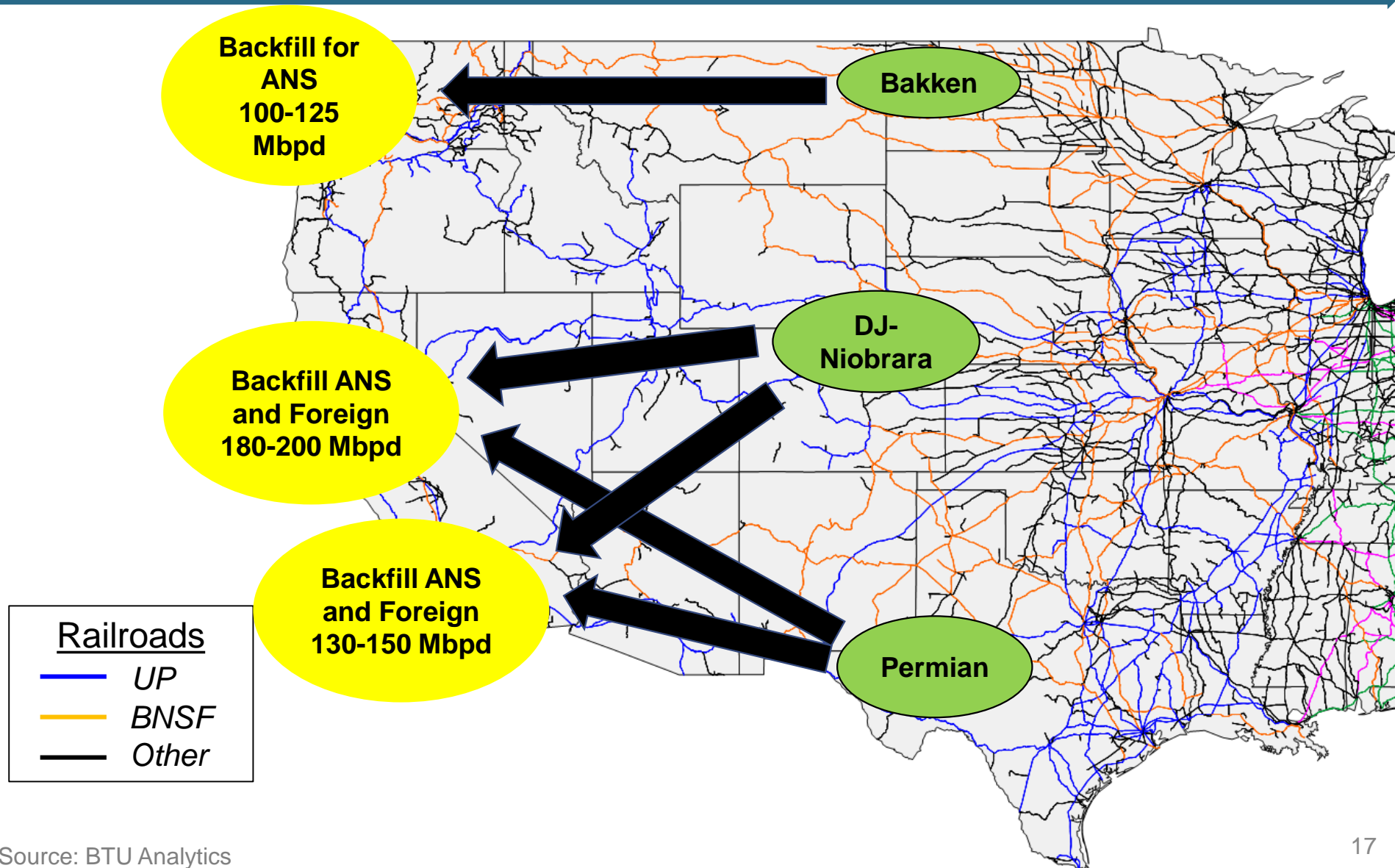
# 2013 California Imports by API show similar quality to Permian, Niobrara and Canadian.



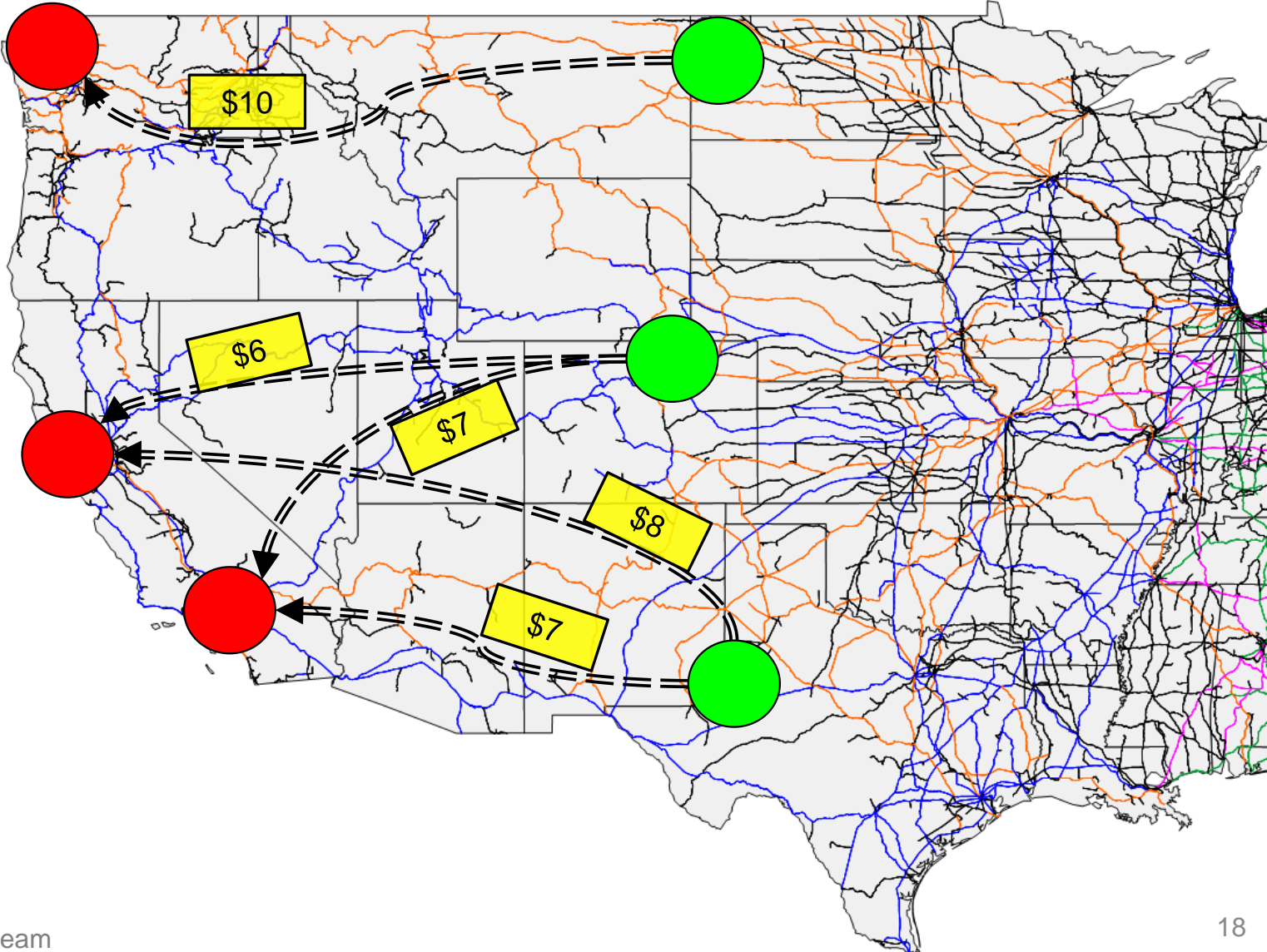
Note: ANS and Canadian imports not included



# CBR Provides Backfill for ANS and Foreign Imports, creating up to 350Mbpd of California Incremental Demand for Inland US Crudes



# Unit Train Crude Transportation Rates



**Railroads**

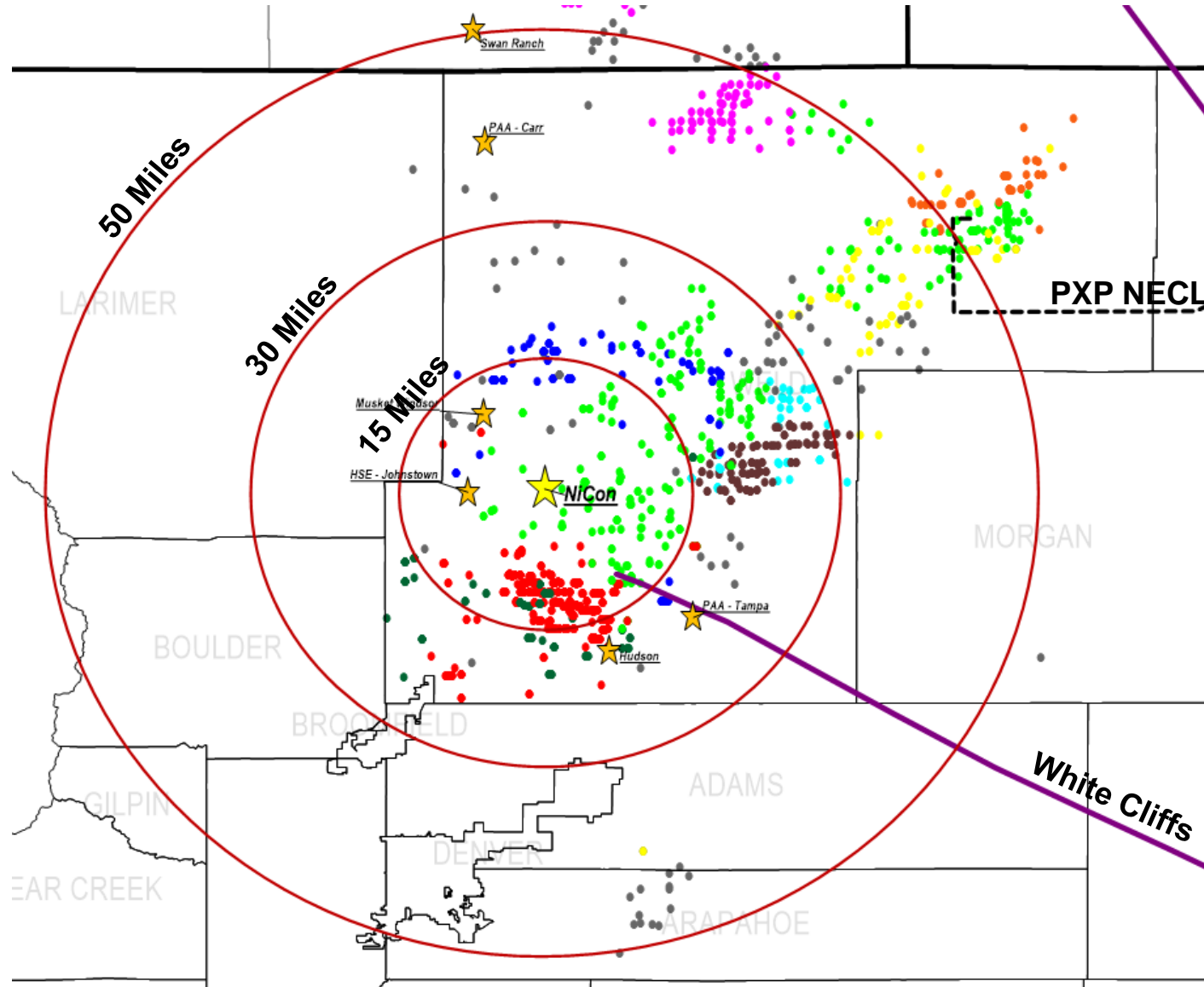
- UP
- BNSF
- Other

---

# Niobrara Connector “NiCon” Crude by Rail Terminal



# Niobrara Connector "NiCon" – Centrally located in the DJ Basin



# A Look at Niobrara Connector “NiCon” Crude-by-Rail Terminal Specifications

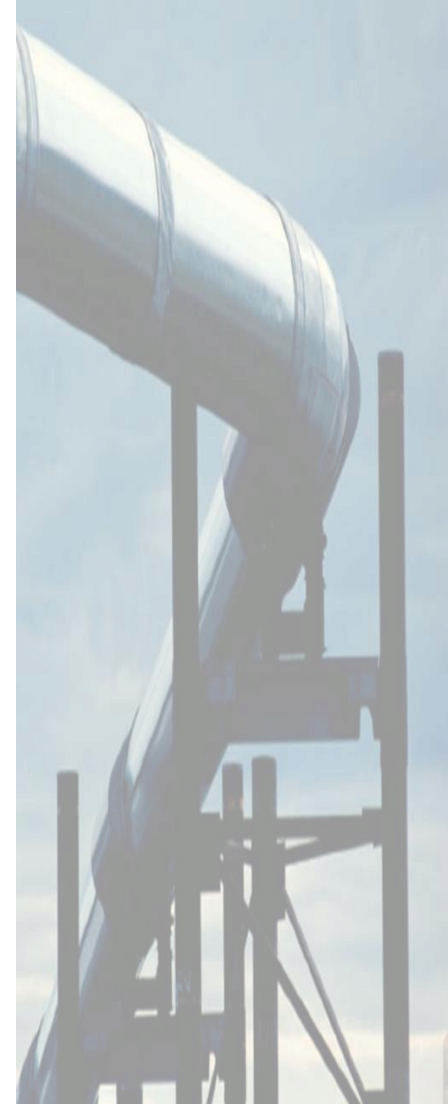


- 79,000 bpd nameplate capacity
- 120 car unit train capable
- 224 Acres
- Industrial spur serviced by the UP
- In Service date Q3 2015
- Segregation of product in up to 4 - 100,000 bbl tanks

NiCon Rail Terminal

# Summary

- Drilling activity continues to accelerate in many plays, driving incremental growth in crude oil production
- Even in a low Brent price environment, many plays remain economical
- Midstream infrastructure build out continues, however, the West Coast is still disconnected from the pipeline network
- California imports ~800,000 bpd of waterborne crude from markets other than ANS and Canada
- ANS crude is well poised to reach the global markets, leaving possible market share for domestic US crudes
- Crude By Rail is critical to bringing more cost advantaged US crude oil barrels to the West Coast
- The Niobrara is more economical than other plays in terms of transport costs to parts of the West Coast





**Eric Peterson**

Senior Business Analyst

[eric.peterson@arbmidstream.com](mailto:eric.peterson@arbmidstream.com)

[www.arbmidstream.com](http://www.arbmidstream.com)