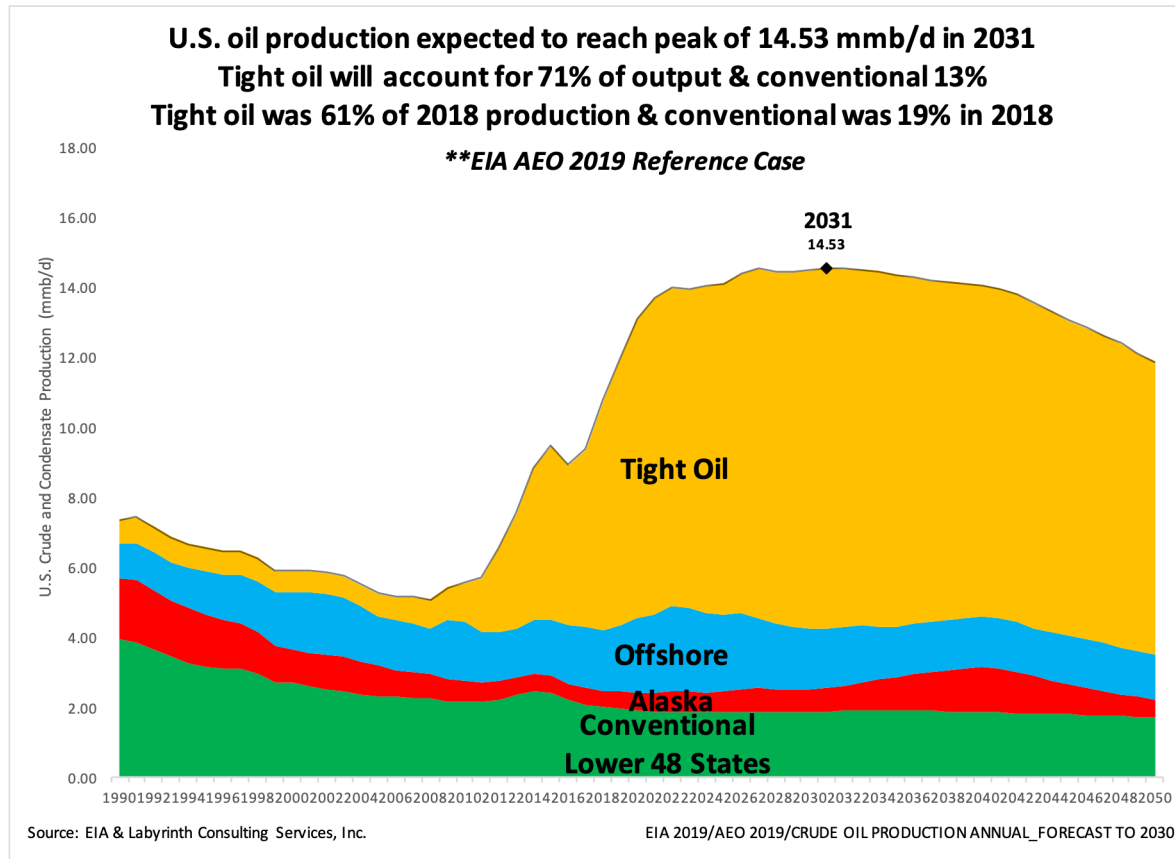




## **MacroVoices May 22, 2019**

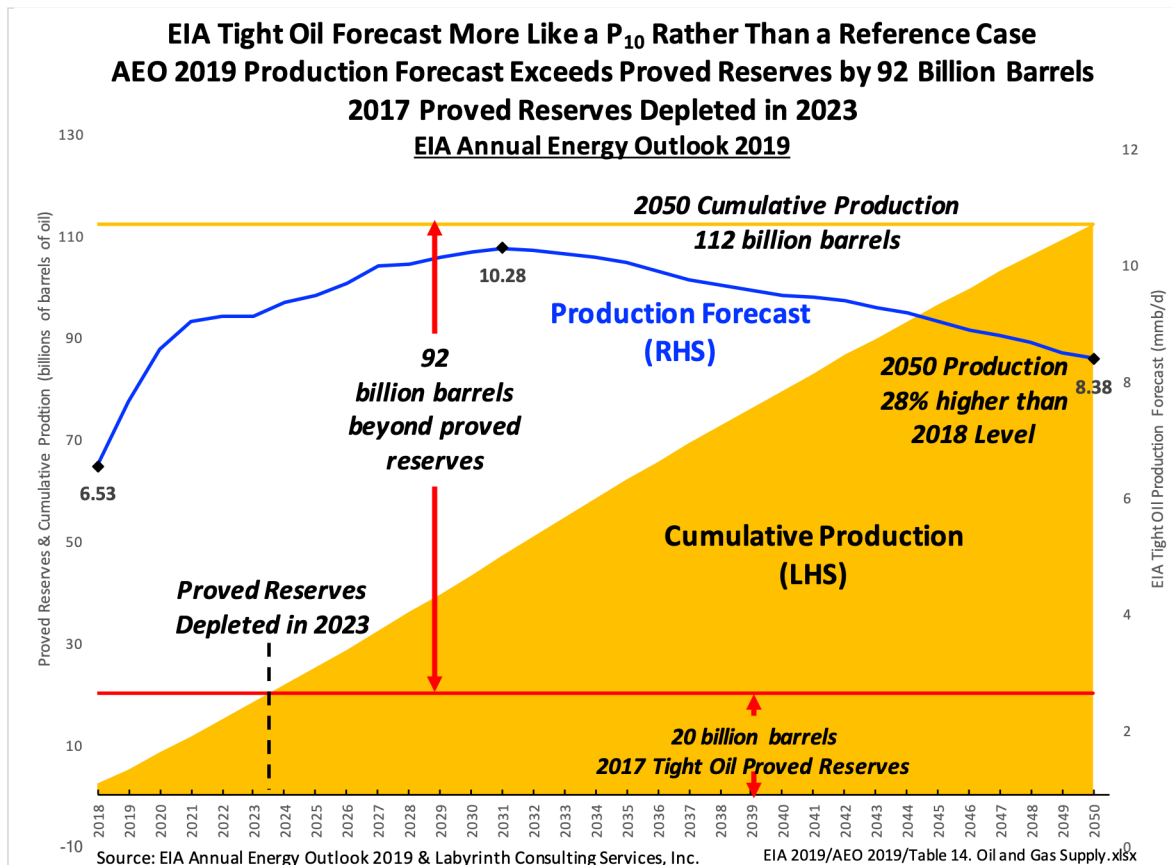
**Art Berman  
Labyrinth Consulting Services, Inc.**

## EIA Reference Case for U.S. production and tight oil growth is unrealistic



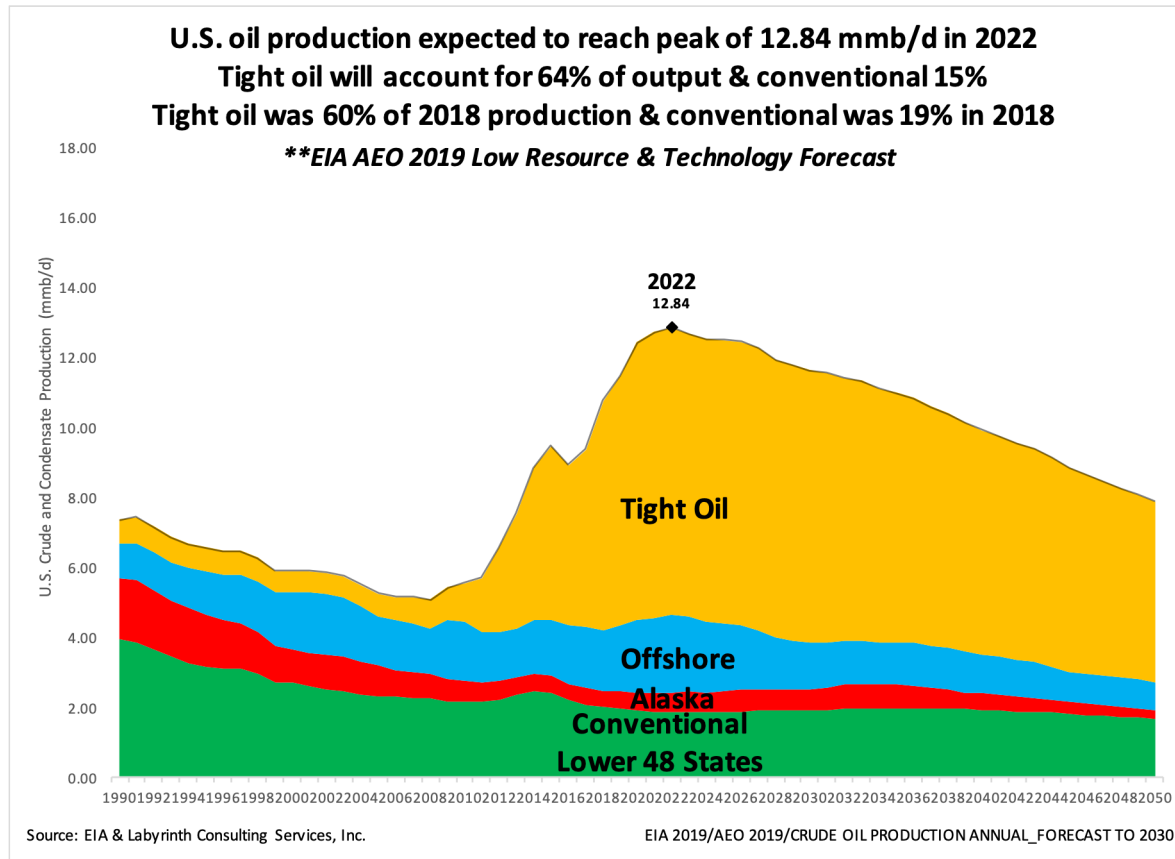
- EIA reference case for U.S. production largely reflects endless tight oil growth.
- It is unrealistic.
- It calls for peak of U.S. production of 14.53 (10.28 mmb/d of tight oil) in 2031 that only declines 1% per year until 2050.

## EIA Reference Case is unrealistic



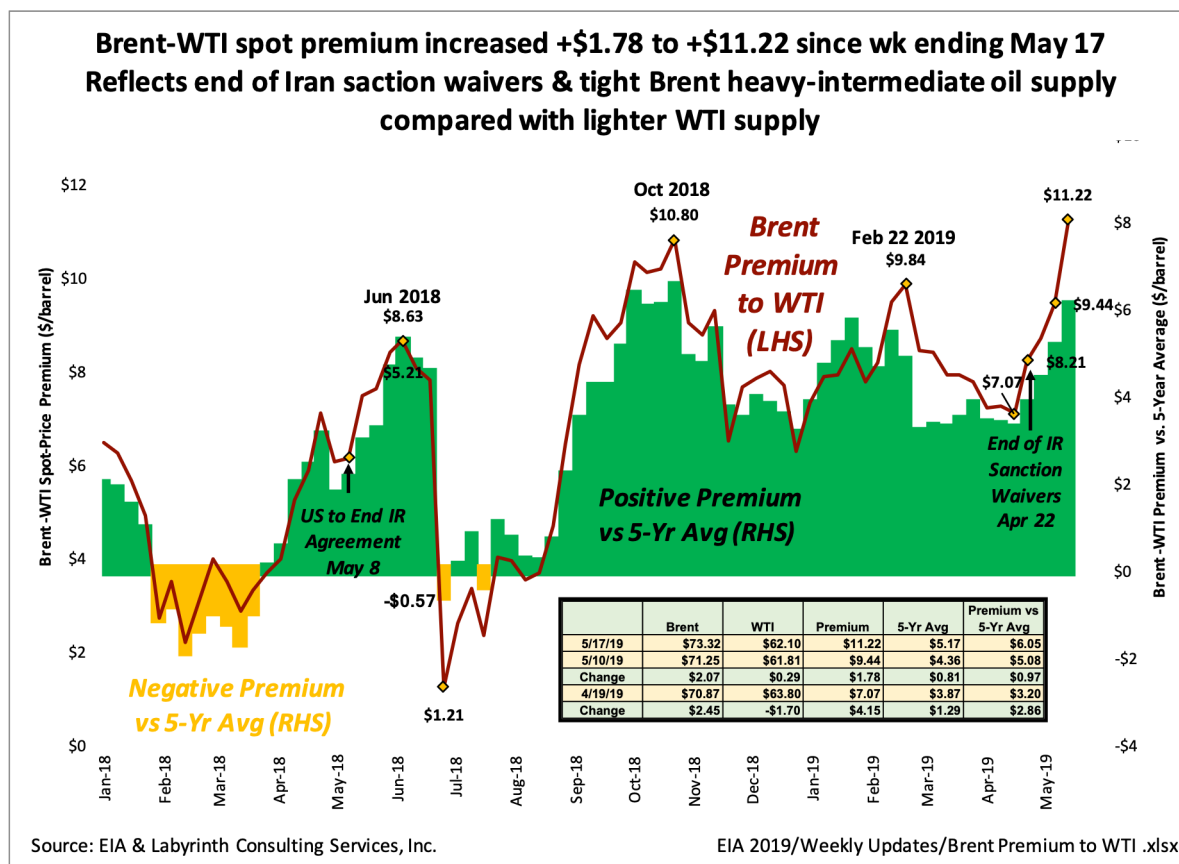
- It's unrealistic because it requires 92 mmb beyond current proved reserves.
- Proved reserves will increase but a 4.6x increase is unlikely at the current maturity of U.S. tight oil plays.

## The Low Resource & Technology Case is less unrealistic



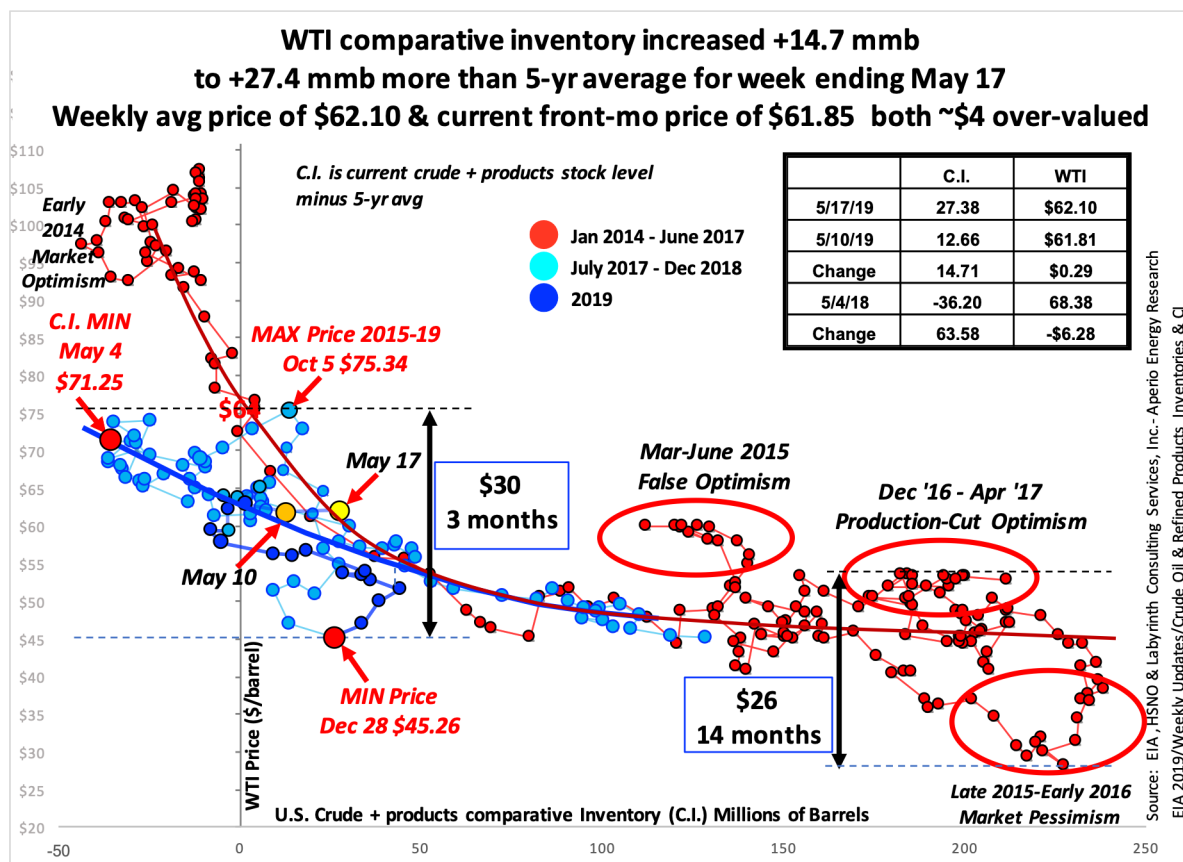
- The Low Resource & Technology Case calls for peak U.S. production of 12.84 mmb/d in 2022.
- Tight oil production expected to peak at 8.1 mmb/d in 2026 and then decline 2% per year through 2050.
- Bernstein recently published an analysis that calls for a peak of 13.3 mmb/d in 2022.

## Brent-WTI Premium has increased since announced end of Iran sanction waivers



- Brent-WTI spot premium increased +\$1.78 to +\$11.22 since wk ending May 17.
- This is a big increase but ~\$1 is seasonal.
- Increase in premium accelerated when end of Iran sanctions announced April 22.
- Also reflects increasing refinery urgency about Brent heavy-intermediate oil supply compared with lighter WTI supply.

## Tight world oil supply not reflected in U.S. inventories so far



- U.S. comparative inventory has increased +35.5 mmb over the last 8 weeks.
- It increased +14.7 mmb week ending May 17 and is now +27.4 mmb more than the 5-year average.
- WTI price is approximately \$4 over-valued at \$62/barrel.
- Inventories must shrink to lowest levels in 5 years for WTI to sustain \$70+.