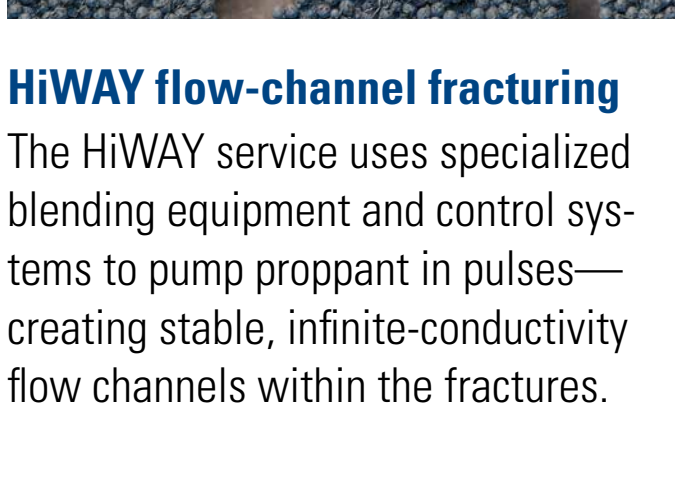
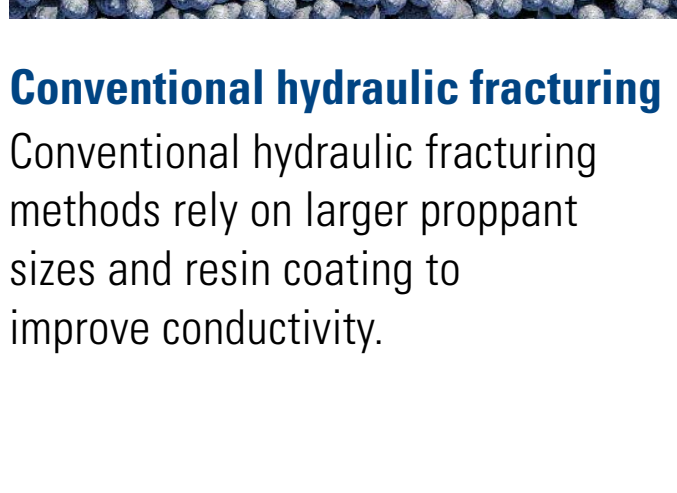


Since 2010, the HiWAY* flow-channel hydraulic fracturing service has helped operators increase production while using less water and proppant. The first technique of its kind, the HiWAY fracturing service creates stable channels within the fractures—decoupling fracture conductivity from the proppant pack. This results in infinite fracture conductivity.

"Petrohawk has converted 100% of frac services provided by Schlumberger in the Eagle Ford to the HiWAY technique."

Dick Stoneburner,
COO and President, Petrohawk

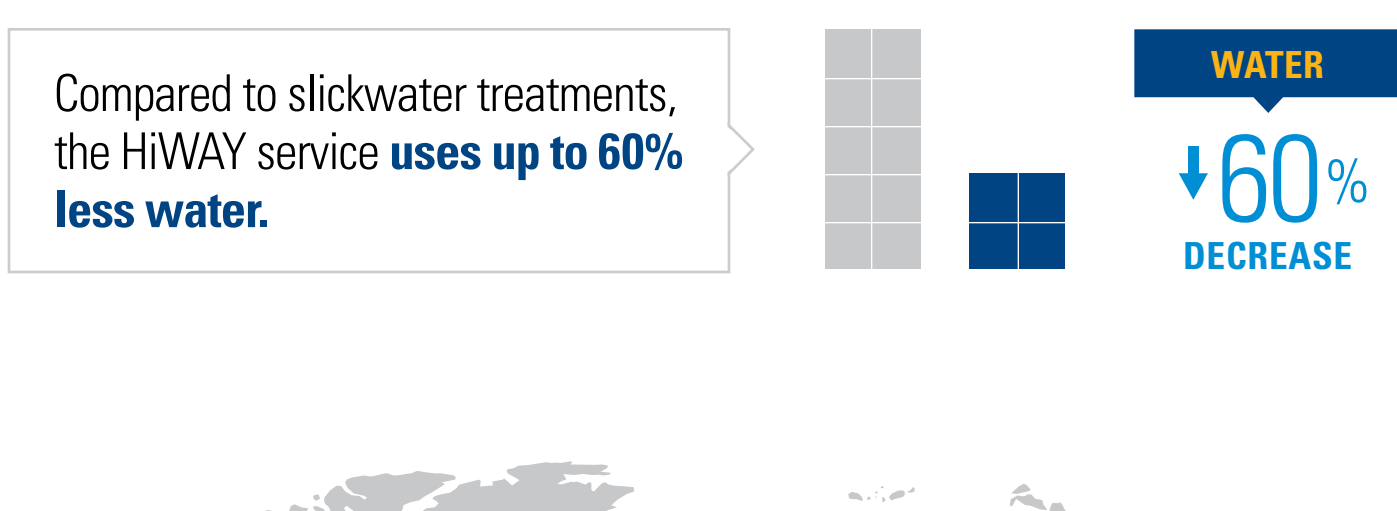


Conventional hydraulic fracturing

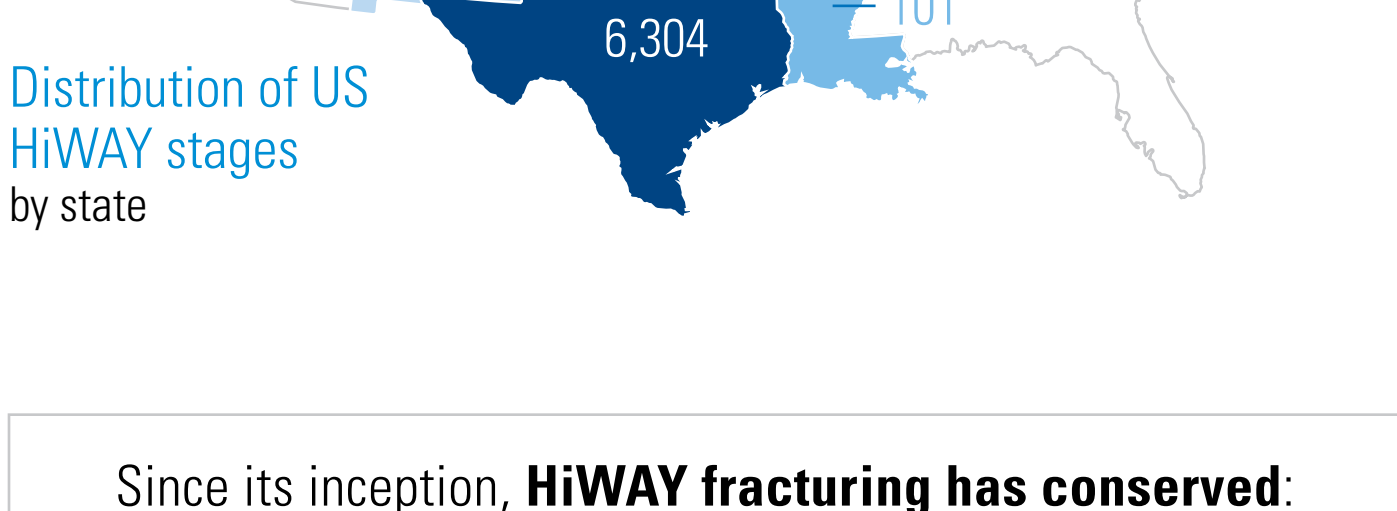
Conventional hydraulic fracturing methods rely on larger proppant sizes and resin coating to improve conductivity.

HiWAY flow-channel fracturing

The HiWAY service uses specialized blending equipment and control systems to pump proppant in pulses—creating stable, infinite-conductivity flow channels within the fractures.



10,000+ stages | 80+ customers | 15 countries

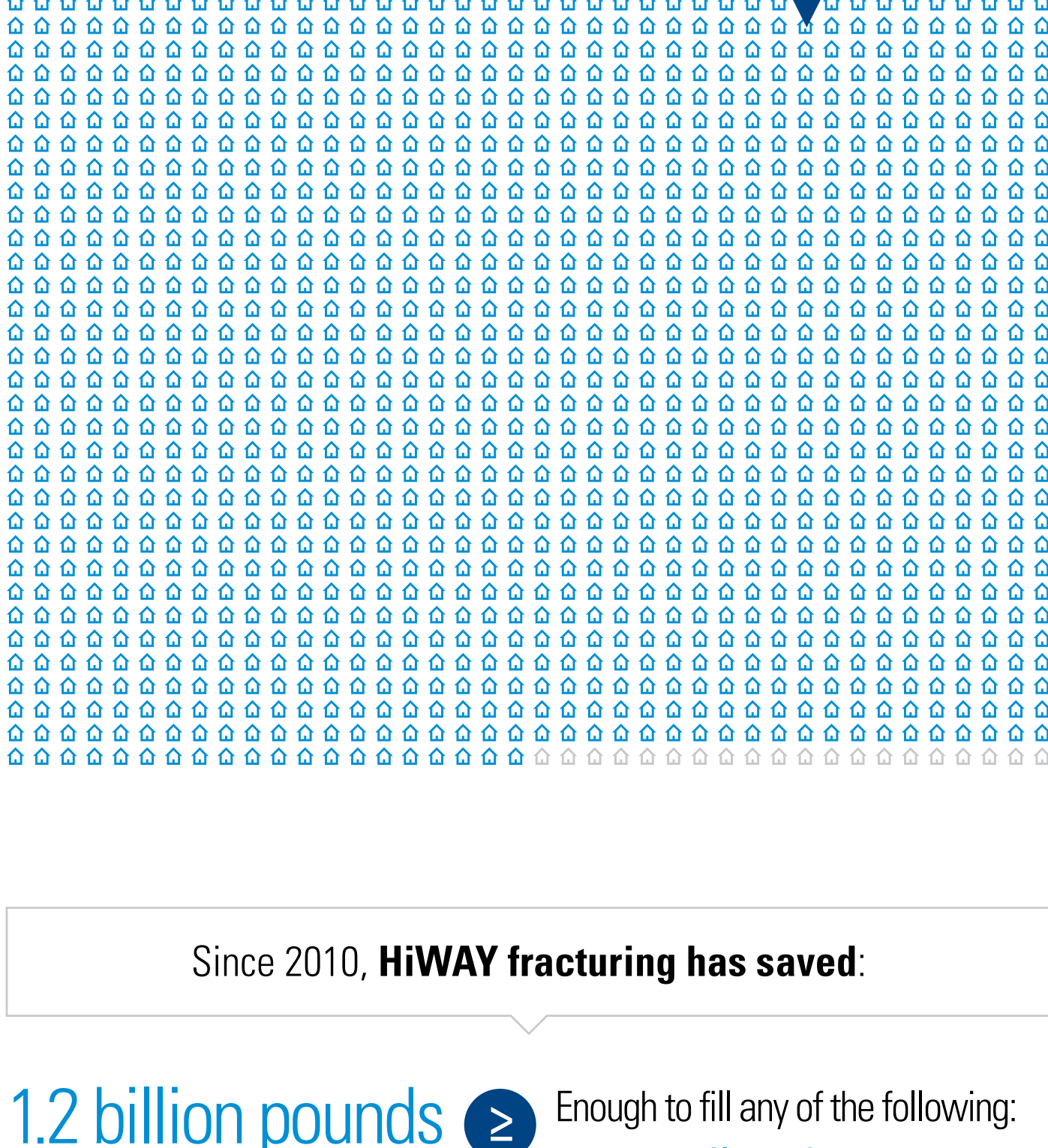


Since its inception, **HiWAY fracturing has conserved:**

350,000,000 gallons of water
8,300,000 barrels

≥

2,400+ households[†]
annual water usage



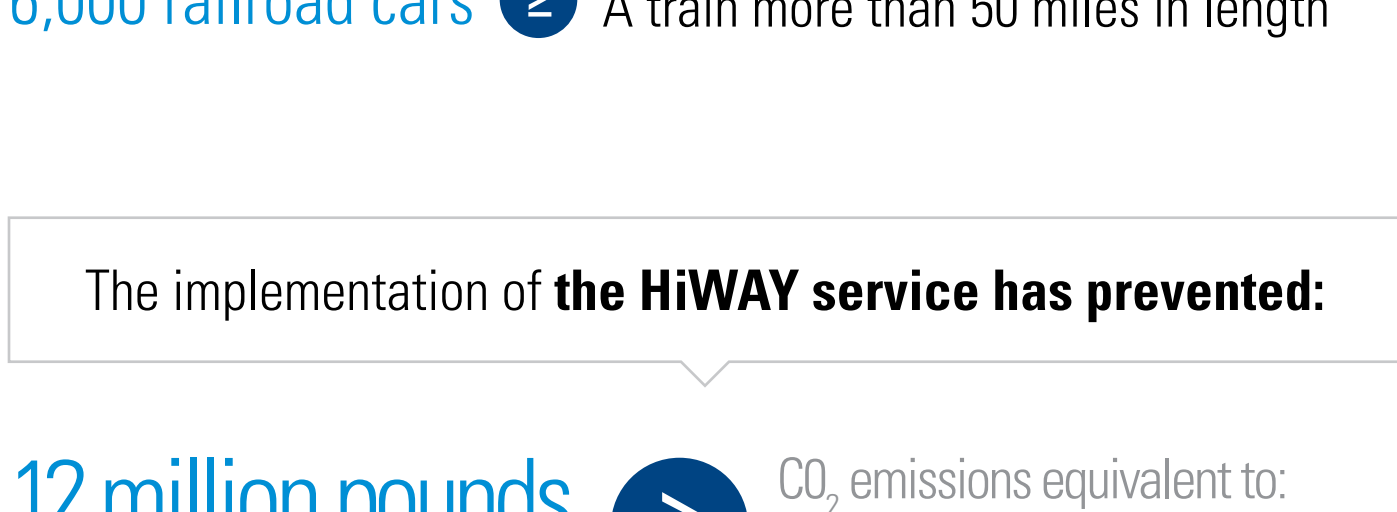
Since 2010, **HiWAY fracturing has saved:**

1.2 billion pounds of proppant
10,206,386 ft³

≥

Enough to fill any of the following:

- 6,000 railroad cars
- 320 Boeing 747 interiors[†]
- 60 Big Bens (Clock Tower)
- 9 Washington Monuments
- 2 RMS Titans



6,000 railroad cars ≥ A train more than 50 miles in length

The implementation of the **HiWAY service has prevented:**

12 million pounds of CO₂ emissions
More than 55,000 road journeys

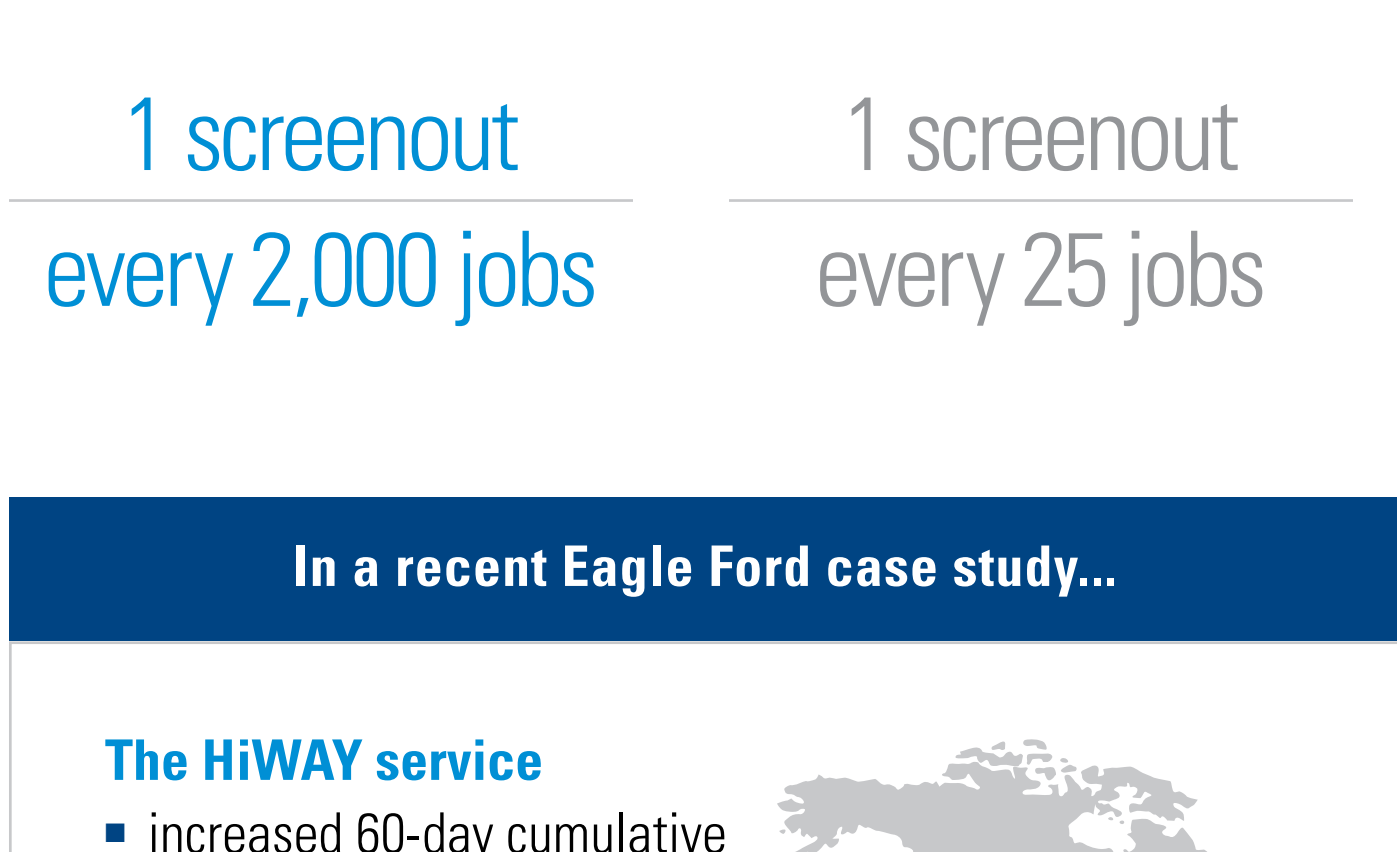
≥

CO₂ emissions equivalent to:

- 140,000 planted seedlings[†]
Carbon sequestered after 10 years
- 1,160 acres of forest[†]
Carbon sequestered annually
- 780 homes' electricity[†]
Annual usage

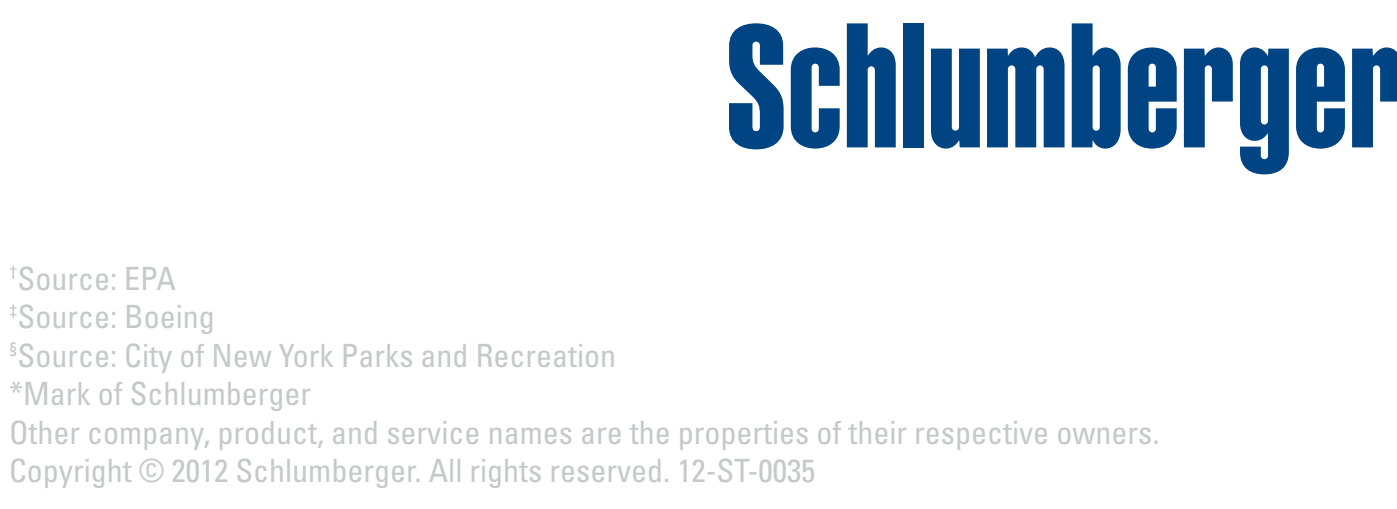
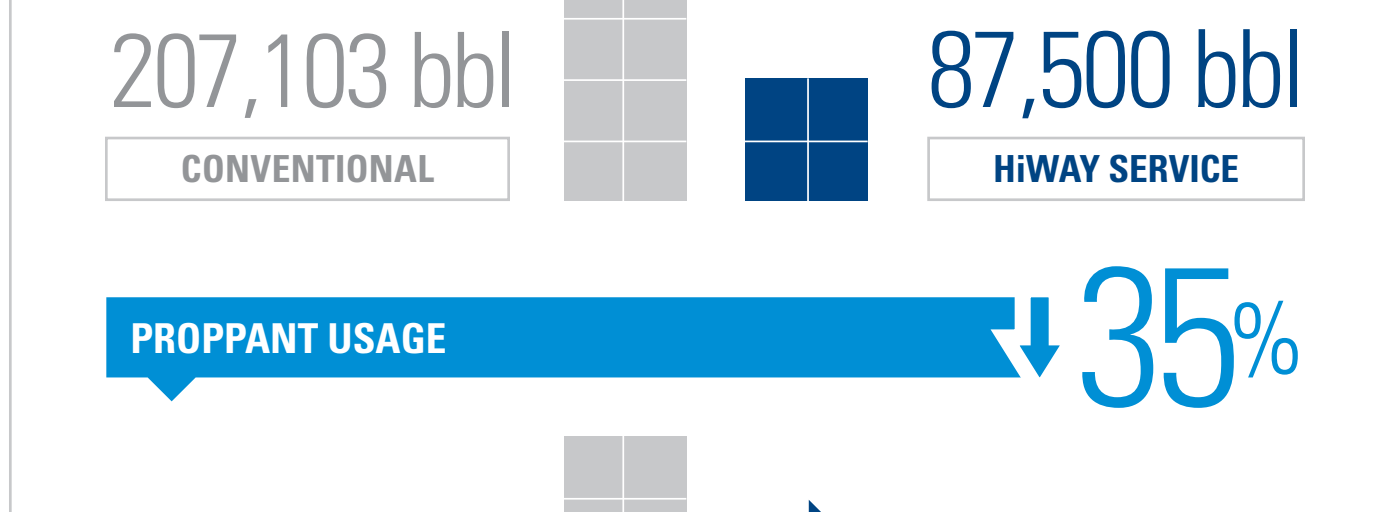
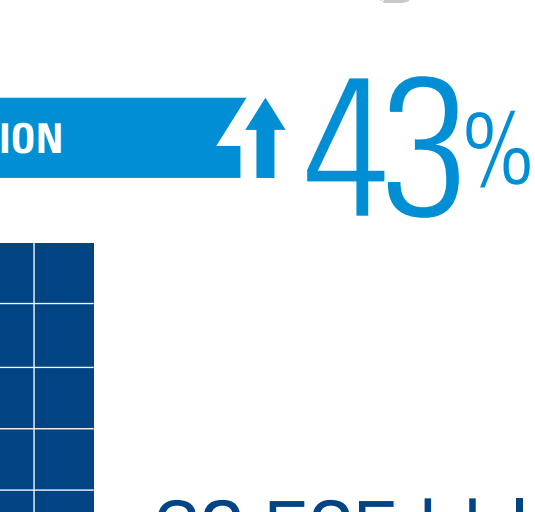
140,000 ≥ Trees lining Manhattan, New York, streets[§]

To date, the **HiWAY service has prevented over 400 screenouts.**



In a recent Eagle Ford case study...

- The **HiWAY service**
 - increased 60-day cumulative oil production 43%
 - increased 60-day cumulative gas production 61%
 - saved 5 million gallons of water per well
 - reduced proppant consumption by 1.3 million pounds per well.



Learn more at www.slb.com/HiWAY



[†]Source: EPA
[†]Source: Boeing
[†]Source: City of New York Parks and Recreation
[†]Mark of Schlumberger
Other company, product, and service names are the properties of their respective owners.
Copyright © 2012 Schlumberger. All rights reserved. 12-ST-0035