

BASINS TO WATCH

South America



drillinginfo

better, faster decisions

One continent with three basins **worth watching**

In this paper, we provide a short overview of and comparisons between three South American basins—The Campos Basin in Brazil, the Neuquen Basin in Argentina and the Sureste Basin in Mexico—all ripe with significant opportunities. See which basin commands the highest prices in bid rounds and identify future potential for investment activity. DI International is the ideal source for the who, what, where, when and why of the global energy industry. Learn about South America's role in the industry's future.

What's the Status of Current Activity in the Three Basins?

Today, production in the Campos Basin is mostly post-salt with 2 kilometers of salt positioned on top of pre-salt. Pre-salt does, however, still come into play, such as the 2017 pre-salt discovery in the Marlim Sul area. While production has been in decline (around 9% per year), there is still considerable activity. Petrobras, for example, is in the process of chartering a floating, production storage and offloading (FPSO) vessel for the Jubarte field – a unitization area with estimated post-salt resources of up to 100 MMBOE.

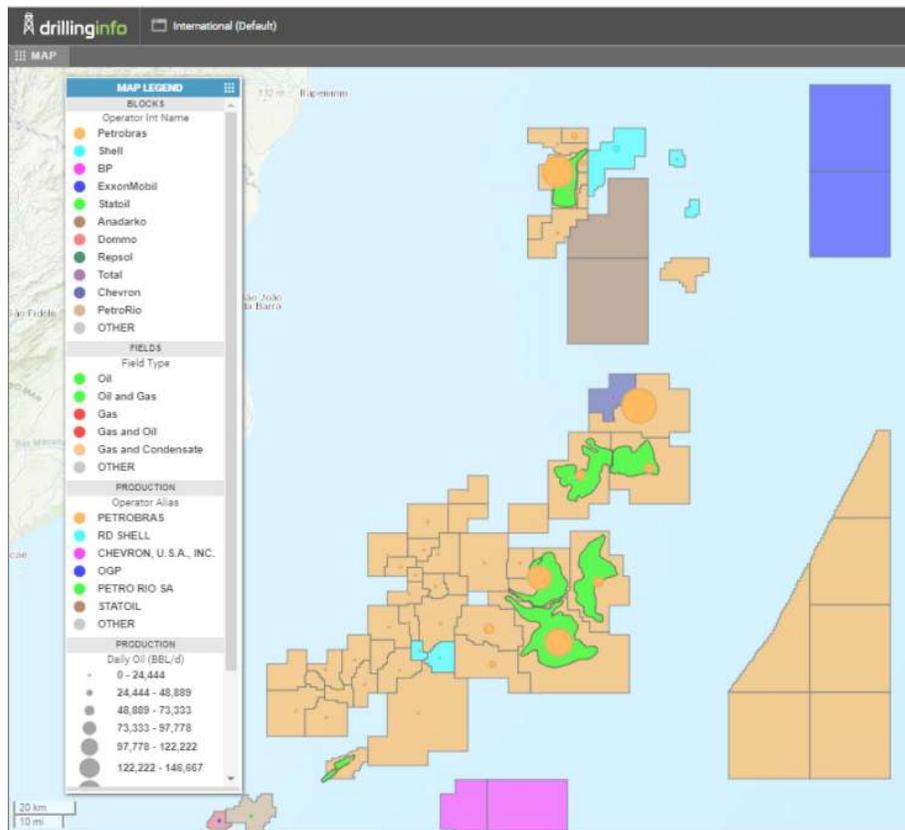


Figure 1 – Current Activity in the Campos Basin

In the **Neuquén Basin**, which covers most of Neuquén province in Argentina and is where Drillinginfo has been tracking activity since 2014, there are currently 10,000 producing wells. There is also considerable current activity in unconventional. In Vaca Muerta, for example, one of the world's largest shale formations, there are 31 planned wells. A recent US Geological Society survey highlighted huge potential for the basin with an estimated 14.4 billion barrels of oil and 38 trillion cubic feet of gas.¹

Learn more at drillinginfo.com

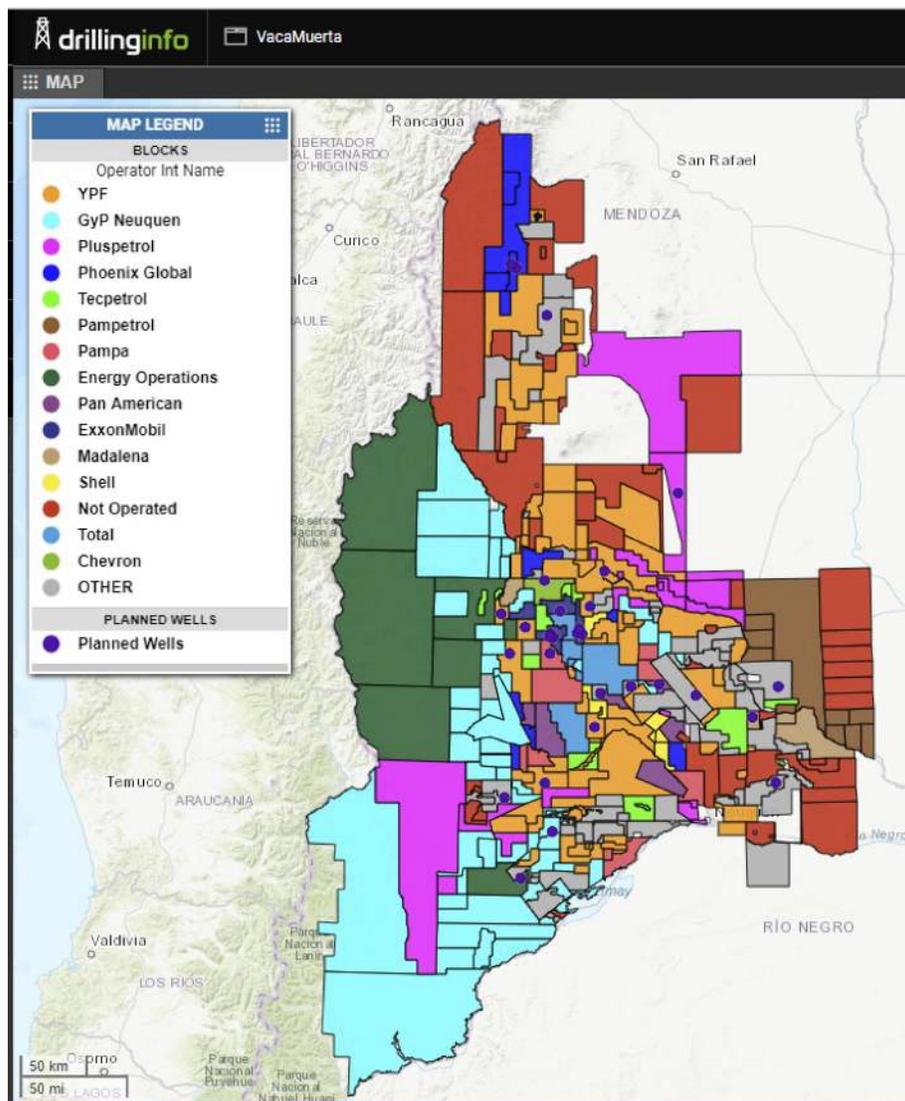


Figure 2 – Current Activity in the Neuquén Basin

In the Sureste Basin in southeast Mexico, there are 130 producing wells. The Mexican energy reforms of 2012/2013 have also led to other operators in addition to Pemex entering the basin. Recent discoveries include the Zama 1 discovery led by Talos Energy – the first time in Mexico that Pemex has operated in a unitization agreement with a private company – and Amoca, with some commentators suggesting that the Sureste could claim to have ‘super basin’ status.² Figure 3 illustrates current activity.

¹Assessment of continuous oil and gas resources in the Neuquén Basin Province, Argentina, 2016, USGS <https://pubs.er.usgs.gov/publication/fs20173025>

²Mexico’s Sureste Basin returns to super basin spotlight, Hart’s E&P, April 2018, <https://www.epmag.com/mexicos-sureste-basin-returns-super-basin-spotlight-1694296>

Learn more at drillinginfo.com

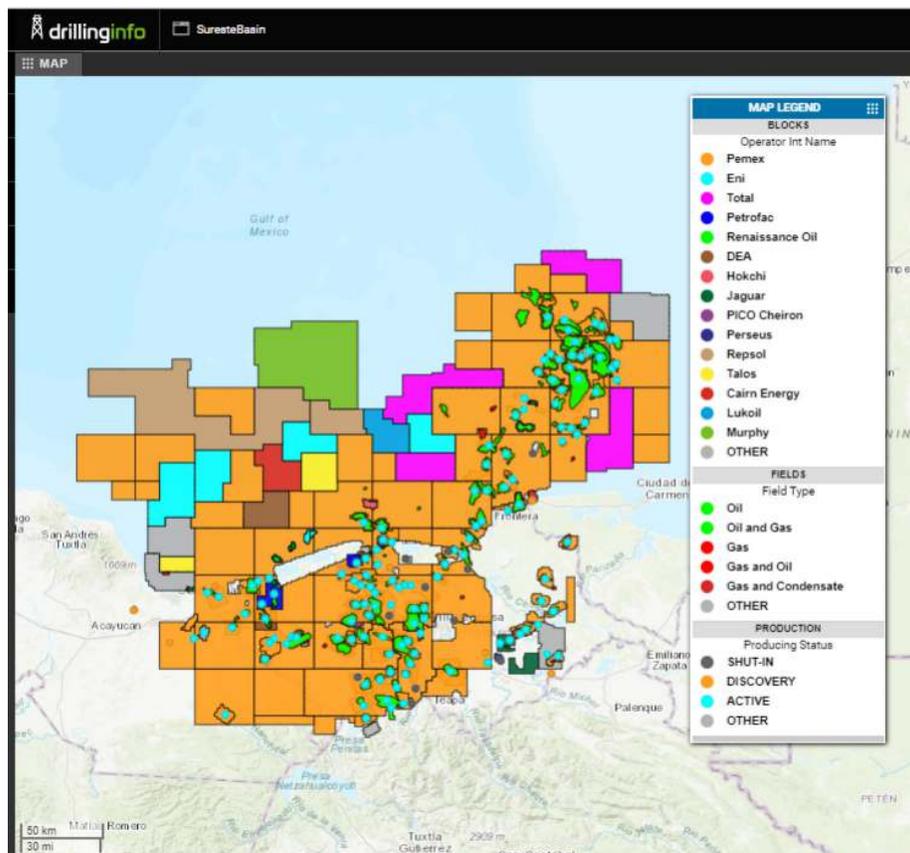


Figure 3 – Current Activity in the Sureste Basin

Who Are the Dominant Operators in These Basins?

Petrobras is by far the biggest leaseholder within the Campos Basin although there are a number of other operators, including BP, Equinor (formerly Statoil), Chevron and Shell. In the Neuquén Basin, Chevron and YPF are the top operators in the basin and recently signed a \$500 million development plan in the Vaca Muerta formation. In the Sureste Basin, Pemex is the dominant operator, but ENI and Total are also present. Expect this to change over the next few years following the 2012/2013 government energy reforms and as more international operators enter the basin.

What Is the Future Potential for the Three Basins?

Although it has been producing the longest, there is much still to play for in the **Campos Basin**. A Federal University of Rio de Janeiro study estimated that there are 176 billion barrels of recoverable oil and natural gas in pre-salt³ in the Campos and Santos basins. Furthermore, the fact that there is more infrastructure in place and post-salt reserves are easier and cheaper to drill, coupled with the possibility of a more favorable concession regime, positions the basin ahead of rival basins in Brazil for future development. There are also multiple upcoming licensing rounds – so watch this space!

Argentina's **Neuquén Basin** has traditionally focused on conventional production, having been online since the 1980s, but is now seeing a significant increase in unconventional production. There are now strong signs that technology advances to locate sweet spots, a favorable investment and pricing policy from the Argentinian government, and a high oil price will enable this basin to really take off. The Vaca Muerta is a formation of huge international interest, with Argentina poised to become the next major player in commercial unconventional production.

Finally, following the Zama and Amoca discoveries in 2017, the Sureste Basin is seeing a rebirth. Another benefit to interested parties is that there is lot of infrastructure in place, such as pipeline and oil facility handling, both near shore and shallow offshore, enabling operators to hit the ground running. The flurry of recent bidding, and a more open investment environment with Pemex looking to partner with international operators, bodes well for the future.

When it comes to accessing the latest international market data to power your global strategy, maximize opportunities and reduce risk, there's no better place to go than DI International. To find out more on these three basins and other international areas of interest, visit <https://info.drillinginfo.com/international/> or contact us today

³Brazil offshore subsalt holds 176 bln bbls of oil, gas- study,' Reuters, August 10, 2015, <https://www.reuters.com/article/brazil-oil-estimate-idUSL1N10L1SA20150810>

By monitoring the market, Drillinginfo continuously delivers innovative energy solutions that enable our customers to sustain a competitive advantage in any environment. Drillinginfo customers constantly perform above their competitors because they are more efficient and more proactive than the competition.

Learn more at drillinginfo.com

