VOLATILITY WILL CONTINUE UNTIL MORALE IMPROVES

Crude Oil Key Takeaways:

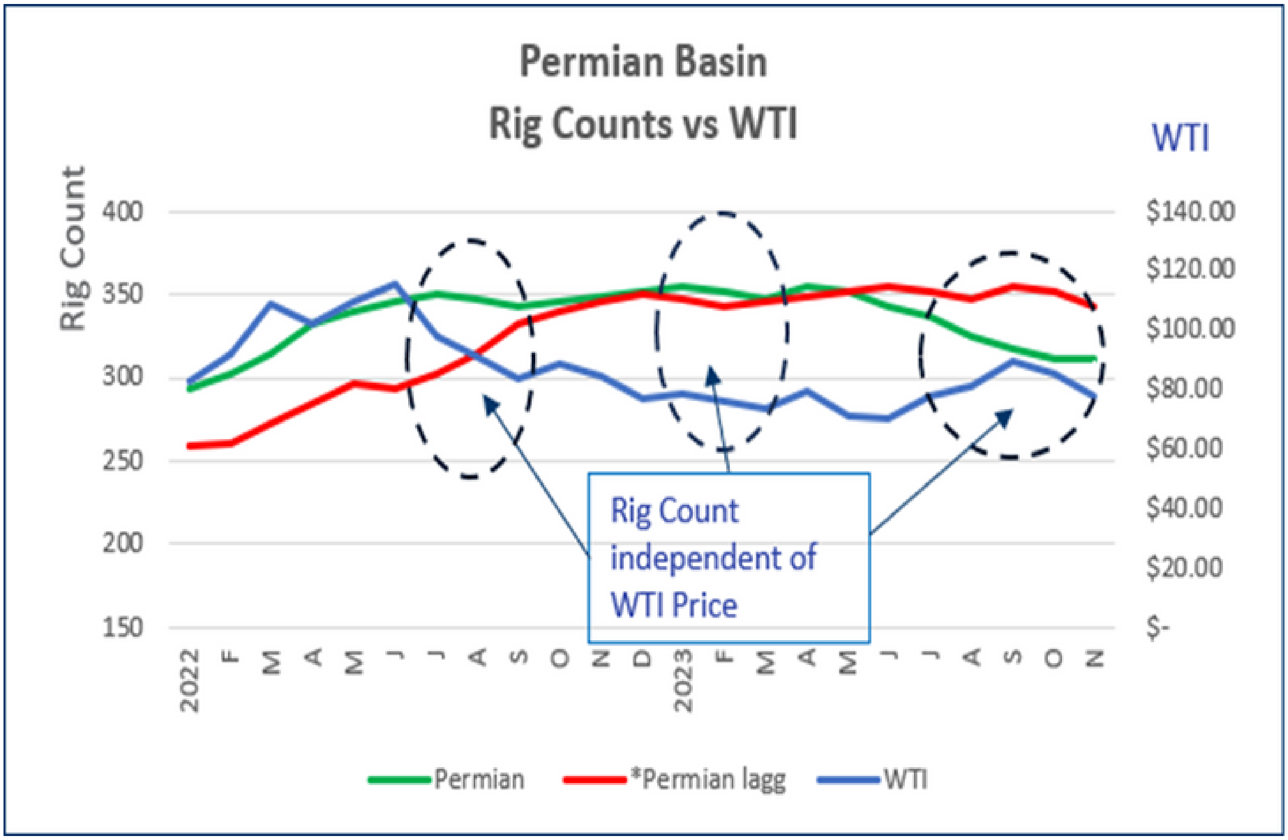
Throughout 2023, we have seen record US (United States) crude oil production while the global community wrestles with global crude oil supply and demand balances. US producers continue to drive higher production output; however, they are balancing capital discipline, often over traditional responsiveness to fundamental price signals. Despite this, as the world crude oil flows continue to change, the US is expected to continue to play a larger role. Exports will become a greater share of the US balance and producers and midstream companies will develop new export terminals to efficiently reach markets and new pipelines to transport growing crude oil supplies. In our 2024 annual outlook, Dirty Little Secrets, we will delve into how the following themes permeate the US market and the reactions and indifference to market volatility.

- US crude oil producers, highly propelled by export demand, prioritize capital discipline over market capture
- Crude oil markets will continue to see volatility created by the OPEC + production cuts, high export demand, low storage levels and stable US refinery demand
- Changes in crude oil flows will create opportunities as US markets adapt to refinery supply changes and export infrastructure efficiencies

Executive Summary

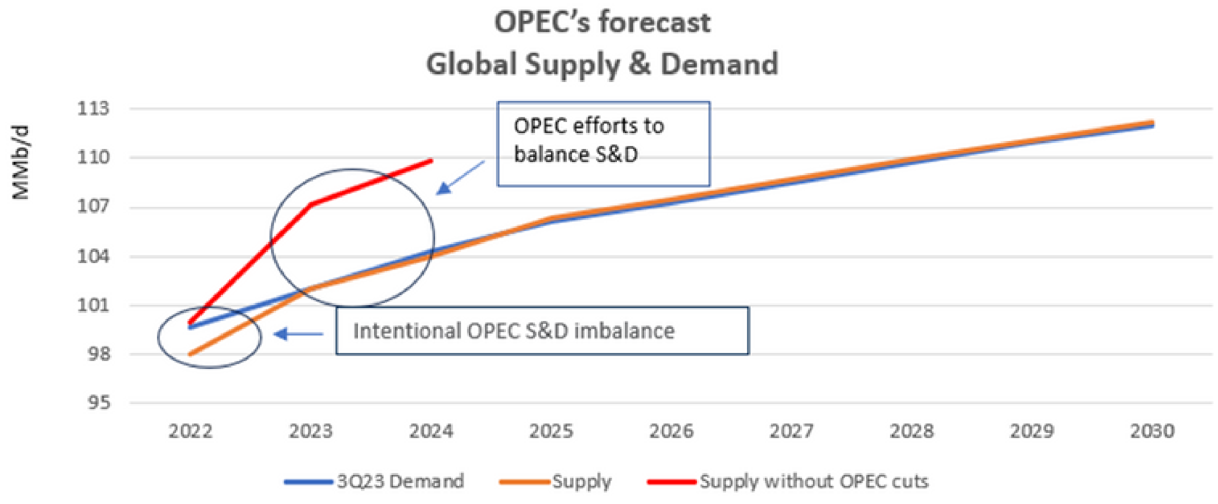
US crude oil producers, highly propelled by export demand, prioritize capital discipline over market capture:

US crude oil producers are in a unique position. On one hand, they are experiencing a strong export demand pull, enticing further production. On the other, they are prioritizing capital discipline and are less reactive to the volatility of the market - as long as it does not go below their independently determined floors. Throughout a 10-month period in 2023 rig counts held steady as WTI prices plunged by 28%. Production was growing, WTI was declining. Conversely, in mid 2023 as WTI gained momentum rig counts again held steady. Going forward, we can expect a tight market to continue to drive volatility, however producer behavior may not follow and in many cases go against the grain. Particularly if producers continue to consolidate in the Permian to shore up long-term inventory by reducing overall rig count.



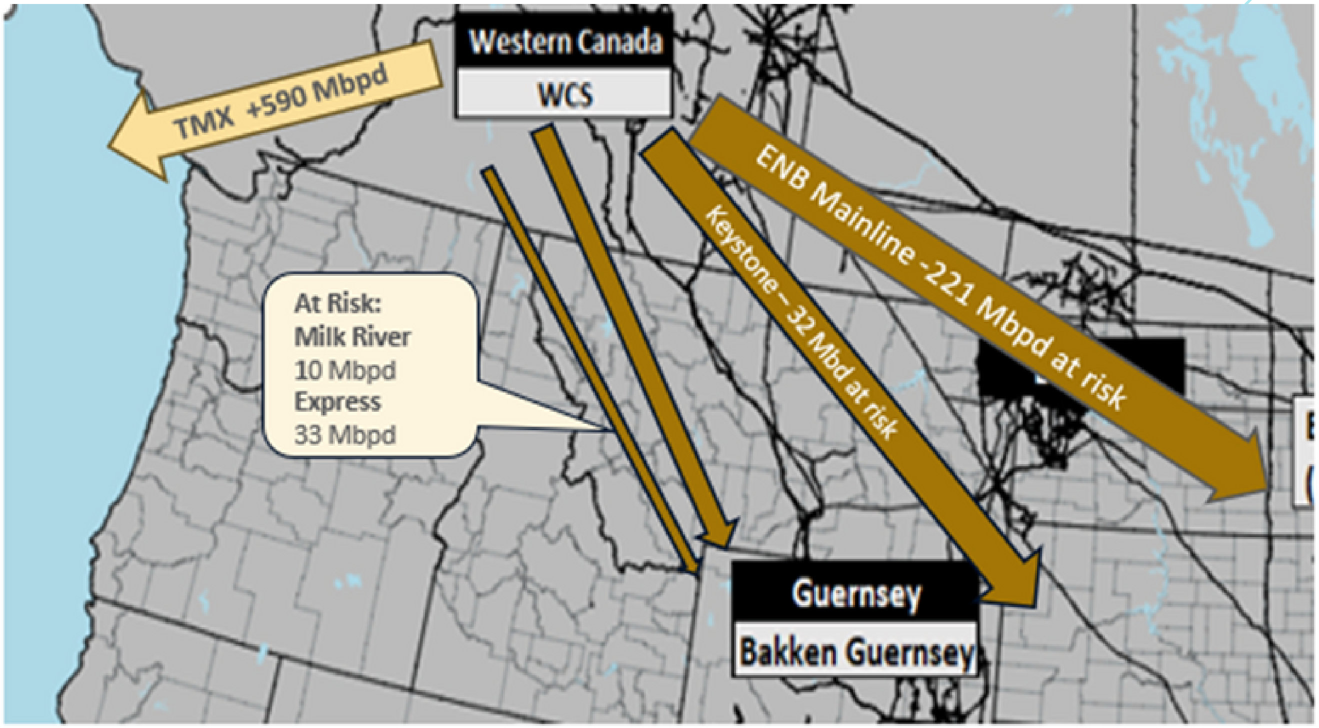
Crude oil markets will continue to see volatility created by the OPEC + production cuts, high export demand, low storage levels and stable US refinery demand:

Uncertainty, doubt, and skepticism are a loud voice in global energy markets. Forecasts of supply and demand throughout the end of 2030 lead to endless debates by what parameters to measure both supply and demand and what a balanced market looks like.In early 2023 OPEC cut production to intentionally imbalance the market for price protection. In late 2023, further OPEC+ cuts to stabilize price added volatility to it. There was an uptick in prices leading up to the OPEC meetings, but once voluntary cuts were announced, prices reacted by declining ~10% the week following the announcement. The cuts weren't enough, and there was distrust that they would happen given their voluntary nature. The counterintuitive nature of production cuts and high export demand is fraught with volatility and when combined with low storage levels, market volatility will remain a constant in the energy markets.



Changes in crude oil flows will create opportunities as US markets adapt to refinery supply changes and export infrastructure efficiencies:

The evolving nature of crude oil flows both globally and domestically presents both challenges and opportunities for US markets. As Canada's Trans Mountain Pipeline expansion comes on-line in 2Q24 up to 590 Mb/d will be removed from US supply. The US will be impacted twofold in that not only will refiners lose ~250 Mb/d of a heavy sour barrel but they will lose a cheaper Canadian barrel as the competition for these barrels will increase, narrowing the WCS/WTI spread. Opportunities to replace these barrels may come from Gulf of Mexico production, Mexican Maya production or the aggregation of sour barrels throughout the Gulf Coast.



Globally crude flows have been dramatically altered due to Russian oil sanctions resulting in US crude being transported to markets requiring longer transports and better efficiencies. Prior to the sanctions, Europe received oil imports from Russia which took 4 days transport on a smaller Aframax vessel. Today the US is supplying a bulk of Europe's oil demand which requires ~20-days transport and shipments to China take upwards of 40-days. Better efficiency is needed. These efficiencies are the target of four offshore oil projects now in permitting stage that will be able to fully load a VLCC in one day. Final decisions on these projects are expected in 2024.

These new offshore ports, more closely tied to the Houston market, create a different dynamic for Permian flows, which have favored Corpus Christi. During the summer of 2023, Permian pipelines shipping production to the Corpus Christi docks became fully utilized.As utilization rates exceeded 85% and the much higher pipeline rates kicked in it became more economical to ship production to the Houston Ship Channel. Consequently, East Daley forecasts Permian to Houston pipeline utilization rates to be fully utilized by 2H24. With current Permian growth forecast of 7 MMb/d by year end 2027, East Daley believes total Permian egress utilization will exceed 90% by mid-year 2025 with current capacities. This will provide new opportunities for expansion, like Enbridge's recently proposed 200 Mb/d Gray Oak expansion to Corpus pipeline.

Join us as we discuss market implications of a US energy industry capital discipline mindset and how it is propelling record production numbers with an indifference to market fundamentals. We will talk about market volatility as it is seen through market tightness and finally the changing crude flows providing both challenges opportunities to the US oil markets.