Oil and Gas News Briefs Compiled by Larry Persily February 7, 2022

Shale boom slowing down, unless companies drill a lot more wells

(The Wall Street Journal; Feb. 2) - The end of the boom is in sight for America's frackers. Less than 3½ years after the shale revolution made the U.S. the world's top oil producer, drillers in Texas, New Mexico and North Dakota have tapped many of their best wells. If the largest shale players kept their output roughly flat, as they have during the pandemic, many could continue drilling profitable wells for 10 or 20 years, according to a Wall Street Journal review of inventory data and analyses. If they boosted production 30% a year — the pre-pandemic growth rate in the Permian, the country's biggest oil field — they would run out of prime drilling locations in just a few years.

Shale companies once drilled rapidly in pursuit of breakneck growth. Now, many are holding back from increasing production, despite the highest oil prices in years. The limited inventory of prime sites suggests that the era in which U.S. shale companies could quickly flood the world with oil is receding, and that market power is shifting back to other producers, many overseas. U.S. output, at about 11.5 million barrels a day, is well below its high in early 2020 of about 13 million barrels a day. The U.S. Energy Information Administration expects output to grow about 5.4% through the end of 2022.

A concern is that big companies already have to drill hundreds of wells a year just to keep production flat. Shale wells produce prodigiously early on, but their production declines rapidly. Some companies will eventually have to start spending money to explore for new hot spots, executives and investors said, and even then, those efforts are likely to add only incremental inventory. Many drillers say they will never return to pre-pandemic production growth of up to 30% a year, in part due to rising costs for labor and materials, a lack of financing and the large number of new wells it would require.

'Tank bottoms' at U.S. oil storage hub are a costly indicator

(Bloomberg opinion; Feb. 3) - To understand what's going on in the oil market, you can look at global supply and demand — big picture stuff like Saudi production and Chinese consumption. Alternatively, you can examine the small town of Cushing, Oklahoma, population 8,327. Cushing calls itself the "pipeline crossroads of the world," where traders of West Texas Intermediate oil store their barrels in dozens of tank farms spread on the outskirts. These can hold 76.6 million barrels, or nearly 15% of U.S. oil storage capacity. Right now, the Cushing market is flashing red — as in red hot as prices surge.

Inventories are dropping in the tanks as global demand outpaces supply. According to U.S. government data, they have fallen to about 30.5 million barrels, and traders are betting they will drop further — perhaps throughout the month. For its part, OPEC+ is ignoring an overheated market and releasing extra production too little and too slowly. But as the tank farm balances in Cushing say now, the market needs more — and soon.

At the current estimate of 30.5 million barrels, the buzzword in the market now is "tank bottoms." For operational reasons, tanks always need to have some oil in them so they are never fully empty. Traders talk about tank bottoms when Cushing inventories drop toward the 20-million to 25-million barrel range. The last time Cushing stocks dropped below 25 million — in mid-2018 — oil prices made a push toward \$100 a barrel.

Not everyone agrees that Cushing is heading to tank bottoms. Refinery maintenance season is around the corner, and that should lower demand for crude in the U.S. But if OPEC+ doesn't act, the Cushing indicator could transform into more prosaic and painful figures: sharply rising gasoline prices and, with that, even higher inflation.

Conoco CEO says too much production growth is a concern

(Bloomberg; Feb. 3) – ConocoPhillips said traders should be worried about strong oil production growth coming out of the U.S. this year and in 2023, potentially echoing the supply surges of the past decade. The Houston-based oil major upgraded its forecast for U.S. oil supply growth this year after surprise announcements in recent days by ExxonMobil and Chevron to aggressively ramp up their Permian Basin production.

Output will grow by as much as 900,000 barrels a day this year, CEO Ryan Lance said on a conference call Feb. 3. That's more than a third higher than the Energy Information Administration's forecast. "I'm absolutely concerned" about it, he said. "If you're not worried about it, you should be." Brent crude is up 17% this year to more than \$90 a barrel as the world accelerates its recovery from COVID-19, oil inventories run low and concern that some OPEC nations cannot fulfill their quota for increased production.

The surge in prices means that U.S. shale, financially decimated during 2020, has quickly become incredibly profitable and is on course to generate record cash flows this year. "We were a bit surprised at the strength of some of the (production growth) numbers that we were hearing" in recent days, Lance said. But a rebounding shale sector is a double-edged sword for global oil markets. Too much growth and it could prompt a response from Saudi Arabia and its allies, who have twice engaged in damaging price wars in the past decade after shale grabbed too much market share.

Oil prices will rise further if China replenishes inventories, trader says

(Bloomberg; Feb. 6) - Oil prices, already up about 20% this year, could be boosted by China potentially replenishing its inventories at the same time financial investors increase their long positions, according to Vitol Group. The world's biggest independent oil trader said there's a chance China looks to build up stockpiles following the Lunar New Year holiday. "I think it's fair to state that China is at bare-minimum" in terms of the volumes that oil state-owned enterprises need to hold, Mike Muller, Vitol's head of Asia, said Feb. 6 on a podcast hosted by Dubai-based consultant Gulf Intelligence.

"All eyes are on what happens in China after the Chinese New Year. There's a feeling that some restocking will be required," Muller said. Crude posted another gain last week, with Brent climbing above \$93 a barrel. Many traders believe it's a matter of time before prices reach triple digits. Demand has largely held up in spite of the spread of the Omicron coronavirus variant, while many major producers are struggling to raise output.

For China, the world's biggest oil importer, prices aren't yet high enough to dent consumption, Muller said. "It doesn't look like they've had their foot off the pedal. ... Up until the very last day before Chinese New Year, the state-owned enterprises seemed interested in buying crude at these prices." Meanwhile, hedge funds and other investors could increase their exposure to oil given how tight the market is and with inflation rising globally, according to Vitol. "The market is still relatively risk-off," Muller said.

Russia signs new long-term deals to supply China with oil and gas

(Bloomberg; Feb. 4) - Russia has forged new long-term energy supply deals with China as the Kremlin aims to strengthen ties with the Asian nation amid souring relations with the West. Energy giants Gazprom and Rosneft signed agreements with the world's largest energy consumer as President Vladimir Putin met his Chinese counterpart Xi Jinping in Beijing ahead of the Olympics. The leaders are drawing their nations closer together, united by political, military and economic frictions with Europe and the U.S.

Tensions with the West are motivating an acceleration of Russia's so-called "Pivot to Asia" that began last decade with multibillion-dollar oil and gas supply deals. During Putin's visit to Beijing, Gazprom signed its second long-term gas deal with China National Petroleum Corp. Under the agreement, the producer will deliver 350 billion cubic feet per year of gas over 25 years via a new pipeline from Russia's Far East.

Gazprom did not specify which fields will provide gas for the Far East route. Previously, it has said reserves from the offshore South-Kirinskoye field in the Pacific could be the feedstock. Currently under the U.S. sanctions, the field is set to start commercial gas production in 2023. Combined with deliveries via the 2-year-old Power of Siberia line, total contracted Russian gas flows to China are now set to reach 1.7 trillion cubic feet

per year. Last year, Gazprom shipped about 390 bcf of gas to China via the Siberia line — which continues its multiyear path toward full capacity of several times that volume.

Gazprom is in talks with China over a third route, the Power of Siberia 2, which could add 1.7 tcf a year to Russia's eastbound export capacity. "Given its size, negotiations for Power of Siberia 2 may take a while yet, but a conclusion could be reached in the course of 2022," BCS Global Markets analyst Ron Smith said in an emailed note.

Newest Louisiana plant starts producing LNG

(Bloomberg; Feb. 3) - Venture Global LNG began producing liquefied natural gas at its Calcasieu Pass plant in Louisiana, solidifying the U.S. position as the world's top producer of the fuel. The \$5.8 billion export facility began making LNG on Jan. 19, according to a Feb. 3 filing with the Federal Energy Regulatory Commission. When it starts commercial service in mid-2022, the U.S. will have the capacity to ship as much as 13.9 billion cubic feet of LNG per day, more than top producers Australia and Qatar.

It's a stunning milestone for a nation that less than a decade ago was a net importer of natural gas. Since then, the shale boom has transformed the U.S. into the world's biggest gas producer, rivaling Qatar as the top exporter of the fuel that feeds power plants and heats homes. Calcasieu Pass is the seventh export facility to open since 2016, when Cheniere Energy kicked off a new era of U.S. LNG shipments with its first terminal, the Sabine Pass, Louisiana, project, which has since been expanded.

Venture Global's Calcasieu Pass plant is the first of four terminals under development by the company, which has touted its modular approach to construction. The next U.S. export terminal expected to come online is Golden Pass in Port Arthur, Texas, with an in-service target of 2024. The joint venture between ExxonMobil and Qatar Energy would bring U.S. LNG processing capacity to 16.3 billion cubic feet per day. That could ensure the U.S. remains the biggest exporter until at least 2027, when Qatar expects to complete an ambitious expansion that would bring its capacity to 16.6 bcf a day.

Low-cost producer Qatar well positioned with LNG expansion plans

(S&P Global Platts; Feb. 4) - When Qatar escalated its ambitious LNG expansion program in 2019, record volumes of production from other global suppliers were coming online, raising doubts about the need for more gas when prices were depressed. Just three years later, with spot prices near record highs, the Middle East producer could be having the last laugh. Energy Minister Saad al-Kaabi has met recently with officials from Pakistan, the U.K., Italy and the European Union as demand gets a boost from threats of gas supply disruptions due to Russia-Ukraine tensions and fears of a cold winter.

"The high spot environment at present may help them sign additional long-term, oilindexed contracts if end users seek to remove exposure to volatile, high spot prices," said Luke Cottell, of S&P Global Platts Analytics. "But a prolonged period of high prices could also lead to gas's role in the Asian energy mix being called into question due to uncompetitive economics, and thus subdue potential long-term demand growth."

When Qatar announced plans to boost LNG production capacity 64% to 126 million tonnes a year by 2026, Kaabi said he was unconcerned by pricing, given Qatar's status as a low-cost producer. "Demand for gas is going to be there for a long time," he said. "The issue is that if the price is so low it will force the higher-cost people to shut down."

Qatar is eager to develop its gas deposits as quickly as possible as customers turn to cleaner fuels, possibly making its huge North Field less needed, according to Siamak Adibi, head of FGE's Middle East gas team. Qatar enjoys some of the lowest production costs in the world, with an estimated long-run, break-even cost of new expansions at less than \$5 per million Btu landed into Asia, according to Platts Analytics.

Northeast, Midwest senators ask halt to new U.S. LNG export projects

(Houston Chronicle; Feb. 3) - Pressure is rising on President Joe Biden to restrict exports of liquefied natural gas, following a recent price spike in domestic gas prices. Ten senators from the Northeast and Midwest, all Democrats or independent, wrote to Biden on Feb. 2, asking for a halt to approval of new LNG facilities until there's a plan to "ensure natural gas remains affordable for American households," as the administration looks to increase LNG exports to Europe amid increasing tension with Russia.

On Jan. 28, the U.S. gas benchmark closed at \$5.69 per million Btu, up 38% from the previous week, amid intense trading and a colder-than-expected weather forecast for the next two weeks. On Feb. 3, gas was selling for \$4.93 on the New York Mercantile Exchange. "When establishing U.S. LNG export policies, we understand there are geopolitical factors and global and regional markets to consider," the senators wrote. "However, the Administration must also consider the potential increase in cost to American families because of higher export volumes."

The U.S. Department of Energy projects that LNG exports will reach 11.5 billion cubic feet per day this year, almost 12% of projected U.S. gas production, making the U.S. the world's largest LNG exporter ahead of Qatar and Australia. The surge in LNG terminals along the Texas and Louisiana coast has been a boon for gas producers, allowing access to markets outside North America where gas sells at a premium.

High natural gas prices drive Europe to burn more coal

(Reuters; Feb. 3) - Russian coal merchants are proving to be the winners as European buyers, nervous that a feared Russian invasion of Ukraine could lead to disrupted natural gas supplies and continued high prices, stock up on the dirtiest fossil fuel. Despite Europe's ambitions to reduce carbon emissions to net zero by the middle of the century, which means weaning itself off all fossil fuels, especially coal, the continent has been switching to coal from gas since the middle of last year.

Even before the heightened risk that an invasion and possible Western sanctions on Russia could choke off gas from Europe's biggest supplier, fuel buyers had responded to record high gas prices by stocking up on coal. The European Union's coal imports rose by 55.8% in January versus a year ago — of which Russia supplied 43.2% — analysis from shipbroker Braemar ACM, based on ship tracking data, found. Australia provided about 19.1%. EU coal imports rose in December 2021 by 35.1% year-on-year.

For 2021 as a whole, imports of Russian thermal coal into Europe, of which the majority is shipped to Germany, Belgium and the Netherlands, rose to 31.1 million tonnes, a year-on-year increase of 16.2%, Braemar analysis showed. Meanwhile, high natural gas prices are expected to continue to lead to higher coal demand. The International Energy Agency said this week that European gas demand is expected to decline by 4.5% this year as coal is cheaper for power generation.

U.K. regulator allows household energy bills to jump 50% in April

(CNBC; Feb. 3) - Energy bills are set to rise drastically in the U.K. after the country's energy regulator announced its rate cap would rise by over 50% in April. The U.K. has limits on how much energy suppliers are able to charge consumers, with caps reviewed by the government every six months. Ofgem, the energy sector regulator, said Feb. 3 that its price cap — under which the average household's annual energy bill is currently between £1,277 (\$1,730) and £1,370 — would go up 54%, a record-breaking jump.

Many households could see their energy bills rise by more than £700 (\$950) a year. An estimated 22 million households will see their costs increase, Ofgem said. "The energy market has faced a huge challenge due to the unprecedented increase in global gas prices, a once-in-a-30-year event, and Ofgem's role as energy regulator is to ensure that, under the price cap, companies can only charge a fair price based on the true cost of supplying electricity and gas," Ofgem CEO Jonathan Brearley said Feb. 3.

Wholesale gas prices reached record highs in Europe last year, caused by a number of issues including low inventories and Russia tightening its supply, creating an energy crisis across the region. The U.K. has been hit hard due to its heavy reliance on gas. British Finance Minister Rishi Sunak announced on Feb. 3 that all residential electricity customers would receive a £200 (\$272) discount on their electricity bills from October,

to be repaid in installments over five years. He also said that the majority of households would be given a £150 rebate on the tax assessed on the value of their home.

France could deplete its natural gas stockpiles by end of winter

(Bloomberg; Feb. 3) – France's gas stockpiles could be nearly depleted at the end of winter and operators must keep importing the fuel to meet demand in case of a cold snap, the head of the country's main gas pipeline network said. "We'll probably be close to zero toward the end of March, and we remain vigilant on that topic," GRTgaz chief Thierry Trouve said in a presentation in Paris on Feb. 3.

France's stockpiles were about 34% full as of Feb. 1, below the five-year average of 42%, according to data from Gas Infrastructure Europe. Inventories are now at the lowest seasonal level since 2018, when the country ended the heating season with storage at a record low of just 3%. Back then, Europe was hit by an extreme cold snap known as the Beast from the East.

Mild weather is expected to continue across much of Europe this month, but some concerns remain after rebounding global demand pushing on gas prices and supply. The situation in France has been exacerbated by a lower-than-usual availability of Electricite de France's nuclear plants, boosting the use of gas and other energies to generate power in the midst of winter.

Iran's cut to gas flows creates shortages in Turkey and Iraq

(Bloomberg; Feb. 2) - Iran's tight gas market is reverberating across the Middle East, as a drop in its gas exports forces key customers Iraq and Turkey to seek other supplies and curb their own electricity output. Iraq has 6 gigawatts of power capacity — about a third of its total, according to the International Energy Agency — sitting idle after Iran cut gas exports due to cold weather, Electricity Minister Adel Kareem said on Feb. 2.

Reduced flows have also hit Turkey, causing the country's worst energy crunch in decades and prompting it to slash power supplies to industrial users. Iran has cited technical failures as the reason for recently cutting exports to Turkey. In response, Turkey has sought to tap the spot market for liquefied natural gas cargoes and the government has asked for more pipeline imports from Azerbaijan. Iraq doesn't have the infrastructure to support pipeline imports, so the electricity minister said he'd look to LNG giant Qatar for supplies to help cover futures shortfalls.

LNG tanker orders flow into South Korea

(Nikkei Asia; Feb. 4) - South Korea's top shipbuilders have received an influx of orders for liquefied natural gas tankers recently as European countries seek long-term alternative LNG sources amid escalating tensions with Russia, the region's top gas supplier. Daewoo Shipbuilding & Marine Engineering said Feb. 3 it has received orders from Europe totaling 1.84 trilling won (\$1.5 billion). The orders include two LNG carriers for a Greek marine shipper, along with six container ships for another client.

Last year saw global orders for 83 LNG carriers, according to British market intelligence company Clarkson Research. Daewoo won contracts for 15 that year. This year, Daewoo has already secured five LNG ship orders. Korea Shipbuilding & Offshore Engineering — which counts Hyundai Heavy Industries as a group member — and Samsung Heavy Industries won orders for 32 and 22 LNG carriers, respectively, in 2021, according to Clarkson Research. This indicates that South Korea's three largest shipbuilders won 83% of orders last year.

Ship orders by value in South Korea jumped more than two-fold from 2020 to \$43.9 billion in 2021, according to government data. The number represents a 93% increase from 2019 and the highest in eight years. LNG vessels were the driving force behind the boom. The looming energy crisis in Europe has led to a surge in demand for the ships.

Exxon looks to sign more long-term LNG supply deals with India

(Reuters; Feb. 4) - ExxonMobil is looking at signing more long-term gas sales deals with India as rising spot prices have added to the appeal of longer duration contracts. "We're certainly happy to work with our friends and partners in India to sign the kind of long-term contracts that allow a large part of the energy demand to be de-risked from a price perspective," said Monte Dobson, CEO, ExxonMobil Gas (India).

At present, Exxon has a long-term contract to annually supply 1.5 million tonnes of liquefied natural gas to Indian firm Petronet LNG. India is the world's fourth-biggest importer of gas. Demand for the fuel in India is set to grow as Prime Minster Narendra Modi has set a target to raise the share of gas in the country's energy mix to 15% by 2030 from the current 6.2%. Companies are investing billions of dollars to build pipelines and gas import terminals to meet the rising demand in India.