Oil and Gas News Briefs Compiled by Larry Persily February 17, 2022

Dated Brent, a key oil benchmark, breaks past \$100 a barrel

(Bloomberg; Feb. 16) - Forget the futures market, the world's most important oil price just smashed through \$100 a barrel with every sign it is going to push higher. Dated Brent, the price of cargoes bought and sold in the North Sea, reached \$100.80 a barrel on Feb. 16 for the first time since 2014, according to S&P Global Platts, which publishes the marker. Dated Brent reflects a price more immediate than futures markets. It shows how traders are willing to pay up to secure actual barrels for delivery to refineries.

The surge through \$100 for Dated Brent matters because the daily price assessment is at the center of a web of complex oil derivatives and also sets a baseline against which millions of barrels are transacted daily. It also shows that the rally in futures prices — they passed \$96 at one point on Feb. 16 — is in part being driven by what's happening in the real world. The oil market globally is roaring because of demand that's exceeding what some organizations, including the International Energy Agency, had anticipated.

That surge in consumption has compounded the fact that nations in the OPEC+ producer alliance are not managing to pump as much crude as they had said they would, cutting into supply and driving up prices.

Shale drillers want to boost oil output, but short of sand for fracking

(Reuters; Feb. 15) - With crude prices at their highest levels in years, U.S. oil drillers are trying to boost output but their efforts have been hit by a shortage of sand for fracking operations. Oil output is expected to hit records in parts of Texas and New Mexico, the heart of U.S. shale activity. Sand supplies are so tight that it is slowing the pace of work for some drillers, and higher costs for sand are cutting into the bottom line for others.

"We're running less than the number of (fracking) stages we could pump in a day because we've run out of sand every day," said Michael Oestmann, CEO of private equity-backed Tall City Exploration, which operates in the Permian Basin, the largest U.S. shale region. "Ultimately it will slow everyone down if it doesn't resolve itself." Once overbuilt and oversupplied, sand markets have been turned upside down. Consultancy Rystad estimates that spot prices are between \$50 and \$70 a ton — a leap from prices in early teens at the start of the pandemic and sharply above last year's \$20 to \$25.

Rystad Researcher Artem Abramov called current prices for frack sand "unheard of in the industry's modern history." Tight supplies will probably push sand prices even

higher, Abramov said. The sand market is so tight, Oestmann said, because fewer people have been working in the mines and there has been a shortage of truck drivers. He said his company is looking to bring sand in by rail, a sourcing method that fell out of fashion following the advent of local mines a few years ago. Much of the sand being railed in is coming from Wisconsin, according to Rystad.

Analyst expects oil prices to keep rising until demand pulls back

(Barron's; Feb. 14) - By one measure, oil prices could rise to \$150 a barrel this year, which would be the highest price ever recorded. And while the Russia-Ukraine standoff is part of the reason for oil's recent spike, there is more to it. RBC Capital Markets explained one scenario where oil prices could jump to record levels. It has more to do with demand than supply. For now, analyst Michael Tran sees very little pressure on the supply side to restrain prices. Oil supplies are growing at a relatively slow rate, in part because OPEC has been unwilling — and potentially unable — to boost production.

If Russia invades Ukraine, supply could be reduced again, because countries might impose sanctions on Russian oil and reduce the amount of global supply available. Demand, however, is growing much faster and showing little sign of slowing down, even though oil prices are rising. A "release valve" for prices will have to come on the demand side, Tran predicts. At a certain point, people or companies will change their behavior based on prices, perhaps deciding not to travel or reducing car trips.

"We could be early, but the major cornerstone of our thesis over the next year, or longer, assuming the macro economy holds, is that the oil cycle will price higher until it finds demand destruction," Tran wrote. He doesn't think that will happen for a while. RBC isn't projecting \$150 oil or even trying to accurately predict the moment oil peaks. But if current trends hold, Tran thinks oil can "touch or flirt with \$115 per barrel or higher" this summer.

Putin's threats help boost oil prices, which aids U.S. shale industry

(CNBC; Feb. 16) - Russian President Vladimir Putin has long made it clear that he is no fan of U.S. shale drilling. But, if he invades Ukraine, he may unwillingly help bring back the American industry. Like other global producers, the U.S. industry was crushed by the pandemic in early 2020. Oil prices crashed, and prices for crude futures even turned negative for a brief time. A chastened U.S. industry reemerged, with executives more cautious than ever about throwing money down oil wells and angering shareholders.

The U.S. industry has been making a slow comeback, helped by rising oil prices, which are up more than 50% in the last year. Putin's threats against Ukraine have helped drive an already rising oil price well above \$90 per barrel to a seven-year high. "The last thing

they wanted to do was provide a price incentive for a rebound in U.S. oil and gas production," said Dan Yergin, vice chairman of IHS Markit. "They (Russia) now succeeded in driving up prices, which is strengthening U.S. oil and gas production."

Yergin said Putin has been a strong opponent of U.S. shale. As far back as 2013, the Russian president told a public forum in St. Petersburg that shale was a grave threat. Before the pandemic, the U.S. was the largest producer of both oil and gas. Yergin said the U.S. energy industry has regained its position of dominance, and is once more the top oil and gas producer. The U.S. is expected to boost production by 900,000 barrels a day this year, Yergin said. The industry currently produces about 11.6 million barrels a day and could be back to pre-pandemic levels of 13 million barrels a day by next year.

North Dakota's Bakken relabeled as mature field, not growth prospect

(Inforum; North Dakota; Feb. 14) - A consensus is forming among North Dakota's top oil industry operators: The formation that drove the state's fracking boom has entered its middle age. "The Bakken has been rebranded — whether we want it to be or not — as mature," Lynn Helms, director of the North Dakota Oil and Gas Division said Feb. 14, recounting a key takeaway from conversations with some of the state's biggest oil producers at a recent industry conference in Houston.

While many oil producers still view the Bakken as "a cash cow," Helms said they aren't reinvesting resources in the formation like they once did, focusing instead on the Permian Basin in Texas and New Mexico. Among the reasons driving the Bakken's shifting reputation, Helms cited a surge in attention among oil industry operators on their carbon footprints, as well as some concerns about the viability of industry technology that could be needed to sustain high output from North Dakota wells as they get older.

North Dakota's oil output dropped by about 2% in the month of December, and sits at 1.14 million barrels per day. Production has held around that number for the better part of the past year, as North Dakota has struggled to reach its pre-pandemic 2019 high of 1.52 million barrels. If the industry's approach to North Dakota holds, the state should see flat or slight production growth the next decade or so. After that, output would slowly trail off as the industry pumps from its existing inventory of wells, Helms said.

A goal to eradicate gas flaring is an "enormous" factor in the shifting mindset toward the Bakken, Helms said. With financiers increasingly factoring climate consequences into their investments, achieving a gas-capture level near 100% has become "goal number one" for many oil producers, Helms said. Oil producers in North Dakota captured 93% of their gas in December, clearing the state's regulatory standard but falling well below the average in the Permian, which has more infrastructure to capture and transport gas.

Report says European banks continue lending for oil and gas projects

(Reuters; Feb. 14) - European banks are providing billions of dollars of funding to expand oil and gas production, a Feb. 14 report showed, despite International Energy Agency guidance against new production in order to slow global warming. During 2021, 25 of the region's leading banks collectively provided \$55 billion to energy companies planning to expand oil and gas output, responsible investment nonprofit ShareAction said in the report. Although that was a fall from the \$106 billion in 2020 and \$83 billion in 2019, it was higher than the \$49 billion and \$50 billion in 2018 and 2017, respectively.

An IEA report in May said there should be no investment in new oil and gas fields in order to have a 50% chance of capping global warming at 1.5 degrees Celsius above the pre-industrial average. The financing comes despite 24 of the banks themselves pledging to decarbonize their loan portfolios, the report said, adding that HSBC, Barclays and BNP Paribas were among the biggest providers of financing in 2021.

ShareAction said it was calling on investors to demand the banks implement policies to restrict financing for oil and gas expansion and back climate-related shareholder resolutions in the upcoming season for annual general meetings. "Last year shareholders were instrumental in pushing banks to adopt or strengthen restrictions on coal finance," said Kelly Shields, Senior Officer for Banking Standards at ShareAction. "This year, they need to replicate that success with oil & gas expansion," Shields said.

Europe needs to diversify energy supplies, or pay the price to Russia

(Barron's commentary; Feb. 14) - As Europe's gas supply crisis stretches into its fifth month, politicians and pundits are calling for the European Union to diversify its gas supplies to protect against future disruptions. We've heard those calls for two decades. Following the Russian-Ukrainian gas crisis in the 2000s, EU policymakers passed a series of regulations designed to harden the country's gas markets against shortages. Clearly, those rules failed. Unless policymakers change direction, new rules will fail too.

Put simply, the EU's longstanding strategy focused on diversifying the routes by which gas is shipped to the continent, rather than diversifying gas suppliers. That left the entire continent vulnerable to one fundamental threat: Politically motivated manipulation by the continent's main supplier, Russia. The numbers on Europe's dependence on Russia speak for themselves. In 2005, an estimated 38% of the EU's gas imports came from Russia. By 2020, that rose to nearly 44% — LNG shipments added a few percent more.

A growing consensus among energy analysts holds that Russia bears most of the blame for today's EU gas shortages. Gazprom, the state-owned firm with a monopoly on pipeline exports of gas, began to trim shipments to the EU last summer. In the fall, the company emptied the gas storage facilities it owns in Western Europe. Gas exports from Russia have remained low all winter. The result has been persistent shortages,

sky-high prices for both gas and electricity, and a cash bonanza for Gazprom. So long as the EU is dependent on gas, it will be vulnerable to Russian machinations.

LNG buyers pay premium to get fixed-price quotes

(S&P Global Platts; Feb. 15) - Spot LNG buyers are paying hefty premiums when requesting fixed-price offers in view of the recent volatility in LNG and gas markets, market sources said. Several buy tenders that were concluded lately, including those of Thailand's PTT, Japex and South Korea's Komipo, were reportedly awarded with considerable premiums due to their requirement of fixed-price basis offers in the bids.

Sources said sellers would typically attach premiums to their fixed-price offers to buffer for slippage — the risk of market prices moving higher or lower than expected when the trade is executed from when the offer or bid is submitted. "Nobody wants to offer on fixed-price basis now, TTF (European gas benchmark) has a possibility of moving 20% intra-day, and fixed-price offers have a 15-minute validity," a European utility said.

Pakistan LNG's buy tender, issued in October 2021 seeking December 2021 to January 2022 deliveries, had a validity of 15 days. The tender did not receive any offers from sellers due to its long validity, according to sources. Nevertheless, many end-users in Asia still prefer to transact on a fixed-price basis, notwithstanding expectations of sellers requesting a premium. Sources said this was due to reasons including market volatility and expectations of prices going higher. In addition, many of the buyers do not have hedging capabilities or are not allowed to hedge to guard against price movements.

Canada's absence from LNG market 'a terrible mistake'

(Calgary Herald columnist; Feb. 14) - As the West prepares for the possibility that Russia will invade Ukraine this winter, maintaining natural gas supply to Europe is a key consideration. To that end, the Biden administration has been coordinating with Qatar and Australia to prepare additional liquified natural gas exports to get the continent through this season. Are you wondering why Canada, the world's fifth-largest producer of natural gas, is not being mentioned?

Due to a series of unfortunate market and political events, Canada has zero LNG export capacity. Every unit of natural gas exported by Canada goes to the United States via pipeline. That inability to participate in the global LNG market has proven to be a terrible economic, environmental and security mistake. Canada saw big growth in gas exports to the United States in the 1990s and 2000s. But the U.S. shale revolution in the 2010s meant that Canada's biggest, and only, customer needed much less of our product. That turned Canadian producers' eyes to LNG.

This is where the countries diverge. In the U.S., LNG export capacity went full ahead, increasing from nothing in 2015 to 10.8 billion cubic feet per day at the end of 2020. The U.S. built seven LNG export facilities, with five more under construction. Of 24 proposed Canadian projects since 2011, only one is under construction, in Kitimat, B.C. The rest are in various stages of mothballing. Canada's decision to stay out of the LNG market may not have created the global energy crisis, but it exacerbated it. We might want to consider the unintended consequences of our climate and energy policies next time.

Louisiana LNG project buys gas supply from Repsol

(Reuters; Feb. 15) - Venture Global LNG has agreed to buy natural gas for its Plaquemines LNG export plant in Louisiana, expected to start up in 2024, from a unit of Spanish energy company Repsol. Venture Global said the Repsol contract is for 18.25 billion cubic feet per year and will last three years, according to the company's filing with the U.S. Department of Energy. At current prices, the gas would be worth about \$235 million. The volume represents about 10% of Repsol's U.S. gas production.

Venture Global started early site work on Plaquemines, about 20 miles south of New Orleans, in 2021. The company has said construction firm Zachry Group will work with engineering firm KBR to build the first phase. The venture, called KZJV, will install modular liquefaction trains at Plaquemines that are similar to the systems at Venture Global's Calcasieu Pass plant in Louisiana, which is loading its first cargo this week.

Plaquemines would produce up to 20 million tonnes per year of LNG. Analysts have said the plant would cost about \$8.9 billion and could start producing first LNG in 2024. In total, Venture Global has about 70 million tonnes per year of LNG export capacity in operation, construction or development in Louisiana, including Calcasieu Pass (starting operations), Plaquemines (starting construction), Delta (in development) and CP2 (in development). Venture Global has entered long-term agreements to sell LNG to units of several companies around the world, including Chinese and European buyers.

Germany may require energy companies to hold more gas in storage

(Bloomberg; Feb. 14) - Germany is planning to force energy firms to keep enough gas in storage to ensure security of supply in the winter as part of a package to be considered by parliament, according to people familiar with the matter. The plan — to be presented in spring — would put the onus on companies including energy giants Uniper, RWE and Gazprom to safeguard stockpiles in Europe's top gas consumer, said the sources, who asked not to be identified because the information is private.

Germany's Economy Ministry has commissioned consultants at the Institute of Energy Economics at the University of Cologne to hash out details of the proposal, the people

said. Europe is looking for ways to avoid another energy crisis next winter after utilities failed to stash away enough gas before the start of the heating season. Prices surged to records late last year as Russia limited supplies and demand rebounded at a time when inventories were at their lowest level in more than a decade.

Germany's Economy Ministry said it's closely monitoring gas reserves and that it's considering "precautionary mechanisms, including regulatory actions" to ensure gas supplies. German Economy Minister Robert Habeck had said his country was considering a plan to secure gas inventories, but a government-controlled reserve has now been ruled out, according to sources. The proposal now being developed could require energy companies to have a certain amount of gas in storage by a particular date, and force traders to top up storage facilities if volumes fall below a certain level.

Egypt emerges as gas exporter at the right time

(Al-Monitor; Feb. 16) - An LNG carrier departed from the plant in Damietta, Egypt, and set course for Rotterdam last month, the first such shipment ever to the Netherlands, which serves as a hub for LNG supply in northwest Europe. The cargo opened the door to a new market at a good time for Egypt's LNG exports. Last year, Egypt recorded a 10-year high in LNG sales, a flow that officials hope to maintain at least in the short term as the country moves to position itself as a regional hub and major player in the market.

Egypt's road to exports has not been easy. The country depended heavily on gas imports for much of the past decade. In 2016, it spent \$3 billion to import gas. The situation started to reverse rapidly in 2018 after the discovery of new major gas fields, the introduction of far-reaching reforms in the sector, and the arrival of extensive foreign direct investments in the industry that helped to restart Egypt's two LNG plants.

Exports from the Idku plant picked up last year after disruptions amid the coronavirus pandemic. The Damietta plant resumed production a year ago after an eight-year hiatus, benefiting from a jump in global LNG prices. Egypt's exports of natural and liquefied gas jumped during 2021 by 550% to reach \$3.9 billion, compared to \$600 million the year before, according to a statement from the Minister of Petroleum. In December, Egypt exported the equivalent of about 1.6 billion cubic feet per day of gas.

While Egypt cannot be compared to major exporters, it has several factors in its favor to play a growing role in meeting Europe's needs. In addition to significant gas reserves, these include close ties with the European Union and a short shipping distance.

Bakken Shale reduces gas flaring to 6% of production

(S&P Global Platts; Feb. 14) - Bakken natural gas production continues to show upside as the rig count strikes its highest number in nearly two years, while flaring declines and takeaway capacity improves. Bakken gas production averaged 3 billion cubic feet per day during the final quarter of 2021, according to data released Feb. 14 by the North Dakota Department of Mineral Resources. Operators flared just under 6% of all gas produced during the quarter, the lowest percentage flared on record, due to additional gathering and processing capacity. The rate was as high as 36% in 2011.

S&P Global Platts Analytics forecast Bakken shale oil production to increase by 155,000 barrels per day in 2022, or around 10%, reaching nearly 1.4 million barrels per day by the end of the year. This will drive associated-gas production growth in the Bakken. Platts Analytics is forecasting Bakken dry gas production to increase more than 400 million cubic feet per day by late 2022. Increased Bakken gas could displace more Canadian supply into the Midwest.

College students see bitcoins where others see flared gas

(CNBC; Feb. 12) - Brent Whitehead and Matt Lohstroh were sophomores at Texas A&M University when they decided to get into the business of mining bitcoin on the oil fields of East Texas. The year was 2019, and the idea of oil and gas companies joining forces with bitcoin miners was considered avant-garde and a major taboo. But Whitehead, an engineer from a family with a long history in oil and gas, and Lohstroh, a finance major with a bitcoin obsession, ignored the skeptics and sunk all the cash they had earned in high school into Giga Energy Solutions, which mints bitcoin from stranded gas.

For years, oil and gas companies have struggled with the problem of what to do when they accidentally hit a gas formation while drilling for oil. Whereas oil can easily be trucked out to a remote destination, gas delivery requires a pipeline. If a drilling site is right next door to a pipeline, they chuck the gas in and take whatever cash the buyer on the other end is willing to pay that day. But if it's 20 miles from a line, drillers often burn it off, or flare it. To these two 23-year-olds, it was a problem with an obvious solution.

Giga places a shipping container full of thousands of bitcoin-mining computers at an oil well, then diverts the gas into generators to make electricity that is then used to power the miners. The process reduces carbon dioxide-equivalent emissions 63% compared to continued flaring, according to research from Denver-based Crusoe Energy Systems. "It's a new way to not only lower emissions but to monetize gas, Whitehead told CNBC on the sidelines of the North American Prospect Expo in Houston, a flagship event for the industry. He said they have signed deals with more than 20 oil and gas companies.

Shortage of fiberglass heating oil tanks a problem in Canada

(CBC News; Canada; Feb. 9) – Prince Edward Islanders with an oil tank due for replacement this year might find it hard to track down a new one in the Canadian maritime province. The province is sending out letters to homeowners warning that fiberglass heating oil tanks are in short supply, with COVID-related supply problems to blame. "The replacement fiberglass tanks are a little difficult to get and there may be a scarcity of them come on at the end of the year, so please book and order them now," advises Steven Townsend, the province's chief boiler inspector.

"We don't want you come November, desperately trying to find some oil tank that is not there," Townsend said. There's a shortage of staff and raw materials at the two factories in the Maritimes that manufacture fiberglass tanks. More than 1,300 single-bottom steel-wall tanks are due for replacement this year under rules introduced back in 2014.

When the rules changed, homeowners were told their tanks had to be replaced as early as 15 years from the date of manufacture. If they don't, fuel companies are not allowed to deliver after the spring of the year of expiration. Leaks from outdated tanks can cause environmental damage and liability issues for property owners. The Insurance Bureau of Canada has warned that homeowners could find themselves 100% responsible for cleanup costs if there's a leak — and the bill could be hundreds of thousands of dollars.