B | RILEY Advisory Services

JANUARY 2022

Monitor
Oil & Gas

VOLUME 350

OIL DEMAND AT PRE-PANDEMIC LEVELS

IMPROVING MARKET BOOSTS VALUES
Inventory values strengthen as energy sector improves and demand nearly reaches pre-pandemic levels

USED EQUIPMENT REMAINS IDLED
Demand for new equipment shows signs of recovery, but values remain challenged for older assets

U.S. ON TRACK TO LEAD NATURAL GAS EXPORTS
New projects set to be completed in 2022 expected to make U.S. top exporter of liquefied natural gas

In This Issue

MONITOR OIL & GAS
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JANUARY 2022
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VOLUME
350

B. RILEY Advisory Services

Deals are a moving target. A constantly shifting mix of people, numbers and timing. We're here to simplify this process for you. Our experts are dedicated to tracking down and flushing out the values you need even on the most complex deals, so you can leverage our hard-won knowledge to close the deal.

Trend Tracker - Inventory

	Trends (Since Publication of Prior Monitor in August 2021)
NOLVs	Increasing ▲
Sales Trends	Increasing ▲
Gross Margin	Consistent ▬
Inventory	Decreasing ▼

- **NOLVs:** NOLVs increased due to higher demand and improving market conditions in the energy sector as well as increased overall economic activity as travel and general restrictions related to COVID-19 eased throughout 2021. Companies have also lowered inventory levels and reduced excess and obsolete inventory, which, coupled with higher sales activity, has led to lower weeks of supply and inventory mix improvements.

- **Sales Trends:** Though still below pre-pandemic levels, sales increased throughout 2021 as market conditions improved, oil prices stabilized, oilfield activity increased, and the rig count grew modestly, which resulted in increased drilling, completion, and production activities and related spending.

- **Gross Margin:** Gross margins remained largely unchanged as higher material and freight costs in the current inflationary environment effectively offset sales price increases and profitability improvements.

- **Inventory:** Inventory has decreased as companies continue to focus on improving working capital by maintaining lower inventory levels that better reflect the current level of industry demand and activity. Many companies have also reduced excess and obsolete inventory through sales, disposals, write-downs, and reserves. Supply constraints and shipping delays have also negatively impacted the level of inventory carried by companies.

Trend Tracker - Machinery & Equipment

	Trends (Since Publication of Prior Monitor in August 2021)
Used Pricing	Decreasing ▼
Used Trade Movement	Decreasing ▼
OEM Pricing	Decreasing ▼
Technological Advancement	Consistent ▬
Auction Activity	Consistent ▬

- **Used Pricing/Movement:** Overall, there continues to be a surplus of used equipment in the market as corporations remain focused on free cash flow and capital discipline even as oil prices have improved to multi-year highs. Market pricing for used equipment is becoming bifurcated, with newer, higher-technology assets maintaining value compared to older, more standard offerings. This is especially true for assets that help companies reduce emissions and lower their carbon footprints.

- **OEM Pricing:** The pandemic, coupled with the continued relatively low demand for new equipment, have negatively affected OEM pricing. However, prices have started to stabilize or improve along with the overall market recovery, but increased prices of raw materials, supply chain disruptions, and other economic factors have negatively impacted OEM margins. New equipment demand lies primarily in technologically advanced assets such as dual-fuel and electric fleets.

- **Technological Advancement:** Newer, cleaner technology and cost-efficient solutions continue to draw demand for activities. Advanced software applications and real-time data analysis are major drivers in oilfield technology.

- **Auction Activity:** Auction activity was moderate throughout the last half of 2021, with a continued trend of older vintage and surplus assets being offered. Much of the auction activity yielded low returns, signaling again that the oversupply of idle equipment plagues the secondary marketplace.

Overview

After months of uncertainty, the oil and gas industry finds itself on favorable footing, with oil and natural gas demand and prices returning to pre-pandemic levels.

Despite a recent wave of infections related to the Omicron variant of the novel coronavirus that causes COVID-19, the economy continues to steadily recover as public policy has been more accommodating in the face of new infections due to the wide availability of vaccines, which experts say spare people from the most severe effects of the virus. This is in contrast to the earlier rounds of outbreaks, when governments issued shutdown orders. The economic recovery has spurred demand for oil as commuters return to highways and air travel approaches normal levels. However, inflation and high prices at the pump remain a challenge for consumers.

The price of oil has also been buoyed by tight supplies due to an under-investment in production efforts. The price of West Texas Intermediate ("WTI") crude oil, the U.S.'s benchmark grade of crude oil, began 2022 at $85 per barrel. In addition, the price of WTI averaged approximately $70 per barrel during the second half of 2021, which represents a marked improvement over 2020 when monthly oil prices sank, eventually bottoming out at nearly $16 per barrel, due to dwindling demand stemming from COVID-19 and related lockdown measures.

Natural gas prices were also strong in 2021, averaging $3.89 per million British thermal units ("MMBtu") at the Henry Hub in Louisiana. As of January 11, 2022, the price was $4.16 per MMBtu. In contrast, natural gas prices at the distribution hub averaged $2.03 per MMBtu in 2020. Winter weather will have a large impact on near-term natural gas prices given worldwide supply constraints and political issues.

Also affecting the market is a rapid growth in shipments of liquefied natural gas ("LNG"), which represents cooled compressed natural gas that is shipped to other countries via tankers. According to the U.S. Energy Information Administration ("EIA"), the U.S. has become the world's third-largest LNG exporter behind Australia and Qatar. Once new LNG liquefaction units (referred to as "trains") at Sabine Pass and Calcasieu Pass near the Gulf of Mexico are placed into service in 2022, the U.S. will lead the world in LNG capacity. Per the EIA, U.S. LNG exports averaged 9.8 billion cubic feet per day ("Bcf/d") in 2021. That figure is expected to grow to 11.5 Bcf/d in 2022 and 12.1 Bcf/d in 2023.

In an effort to balance global supply and demand, The Organization of the Petroleum Exporting Countries ("OPEC") and a group of other oil-producing countries led by Russia, collectively referred to as OPEC+, have agreed to put more oil on the market as demand ramps up, a reversal of course versus over a year ago when the group cut production as demand dropped due to the COVID-19 pandemic. The OPEC+ deal, reached in July 2021, stipulates that the group will increase oil production by 400,000 barrels per day each month through the end of 2022 subject to continued updates. However, the group fell short of that goal in November and December of 2021 as some countries (mainly in Africa) have had difficulty bringing barrels back online. In addition, doubt has been cast on Russia's ability to continue to increase supply as the country's production has plateaued in recent months. OPEC crude oil production averaged 26.4 million barrels per day in 2021, per preliminary figures. The group's production is expected to increase 1.9 million barrels per day on average during 2022 (resulting in a total production of approximately 3% below 2019 levels).

Overview

Total U.S. oil production has rebounded above 11 million barrels per day as previously curtailed production has been brought back and drilling and completion activity has restarted. However, production figures remain well below pre-pandemic levels. U.S. oil production is expected to steadily increase from current levels to average 12.1 million barrels per day by the fourth quarter of 2022, which is nearly 4% below pre-pandemic levels. The EIA expects U.S. oil production to reach 12.4 million barrels per day in 2023, which is approximately 1.5% below pre-pandemic levels and will require an increase in rig counts to reach.

U.S. drilling activity levels continue to improve even as operators remain focused on free cash flow and returning capital to shareholders.

The U.S. drilling rig count totaled 601 units for the week ended January 14, 2022, which represents increases of 13 and 228 units versus the prior week and year, respectively, as well as a 25% improvement versus the rig count average for 2021. Additionally, the frac spread count in mid-January 2022 was 10% higher than the average for 2021. U.S. drilling activity gains have been concentrated in Texas, the U.S.'s top oil-producing state; however, drilling expansion will need to occur in both onshore and offshore areas elsewhere for production to rise. Production growth in 2021 was driven largely by a drawdown of inventory of drilled but uncompleted wells ("DUCs").

Rig Counts

U.S. RIG COUNT - JANUARY 14, 2022

	Current Week	Weekly Change	Prior Week	12-Month Change	12 Months Prior
Location					
Land	581	11	570	227	354
Inland Waters	2	0	2	(1)	3
Offshore	18	2	16	2	16
Total	601	13	588	228	373
Type					
Oil	492	11	481	205	287
Gas	109	2	107	24	85
Miscellaneous	0	0	0	(1)	1
Total	601	13	588	228	373
Directional	35	2	33	13	22
Horizontal	541	9	532	209	332
Vertical	25	2	23	6	19
Total	601	13	588	228	373
State					
Alaska	6	1	5	3	3
California	8	0	8	1	7
Colorado	12	0	12	4	8
Louisiana	55	3	52	8	47
New Mexico	95	0	95	25	70
North Dakota	27	0	27	17	10
Ohio	11	0	11	7	4
Oklahoma	49	0	49	32	17
Pennsylvania	20	1	19	1	19
Texas	281	7	274	112	169
Utah	9	0	9	6	3
West Virginia	11	1	10	0	11
Wyoming	16	0	16	12	4

	Current Week	Weekly Change	Prior Week	12-Month Change	12 Months Prior
Major Basins					
Ardmore Woodford	1	0	1	1	0
Arkoma Woodford	2	0	2	2	0
Cana Woodford	26	0	26	16	10
DJ-Niobrara	12	0	12	5	7
Eagle Ford	50	6	44	22	28
Granite Wash	4	0	4	4	0
Haynesville	52	3	49	8	44
Marcellus	31	2	29	1	30
Permian	293	1	292	104	189
Utica	11	0	11	7	4
Williston	27	0	27	17	10

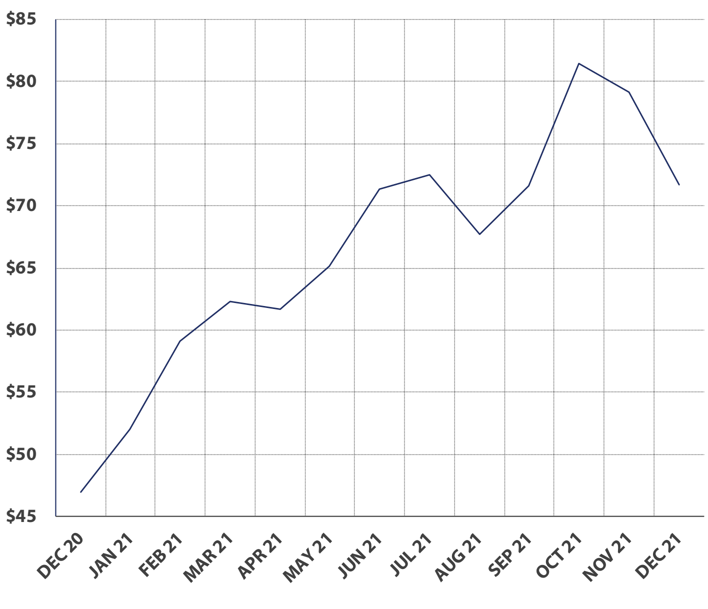
Source: Baker Hughes

The U.S. drilling rig count for the week of January 14, 2022 totaled 601 rigs, which represents increases of 13 and 228 units versus the prior week and year, respectively. Oil rigs have grown over the past several months to make up a larger share of the overall rig count. In the January 14, 2022 count, oil rigs totaled 492 units versus 109 units for natural gas. The count for oil rigs increased 11 and 205 units versus the prior week and year, respectively, while the count for natural gas rigs increased two and 24 units versus the prior week and year, respectively.

The rig count has increased significantly since a pandemic-induced record low count of 244 rigs during the week of August 14, 2020. Though on the rise, the overall count remains below pre-pandemic levels. The rig count averaged 804 units in 2019 and stood at 793 units for the week ended March 6, 2020, just before the pandemic was declared.

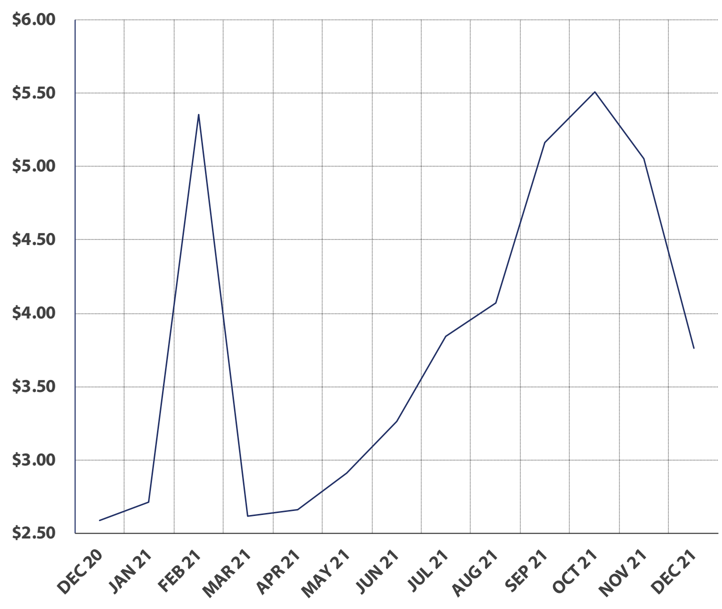
Oil and Natural Gas Prices

1 Average Monthly WTI Crude Oil Prices Dec. 2020 to Dec. 2021 ($ Per Barrel)



Source: EIA

2 Average Monthly Henry Hub Natural Gas Prices Dec. 2020 to Dec. 2021 ($ Per MMBtu)



Source: EIA

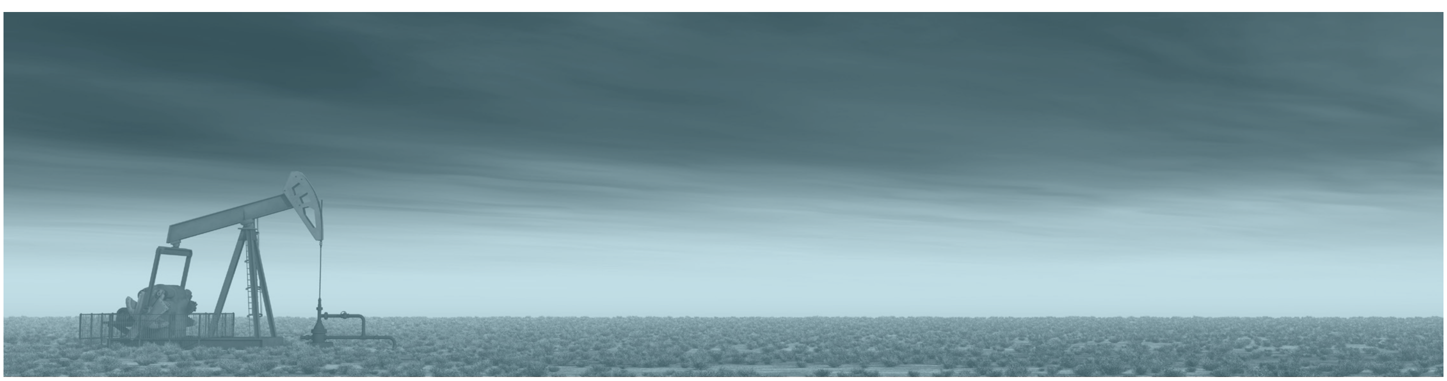
Texas Drilling Activity

The number of drilling rigs and completions in Texas dropped drastically in 2020 due to COVID-19. The number of active rigs steadily improved during 2021 off of exceptionally low levels during the height of the pandemic, supported by higher oil prices. Completions showed an increasing trend through 2021 as operators drew down their DUC inventory.

3 Texas - Total Completions versus Rigs
December 2018 to December 2021

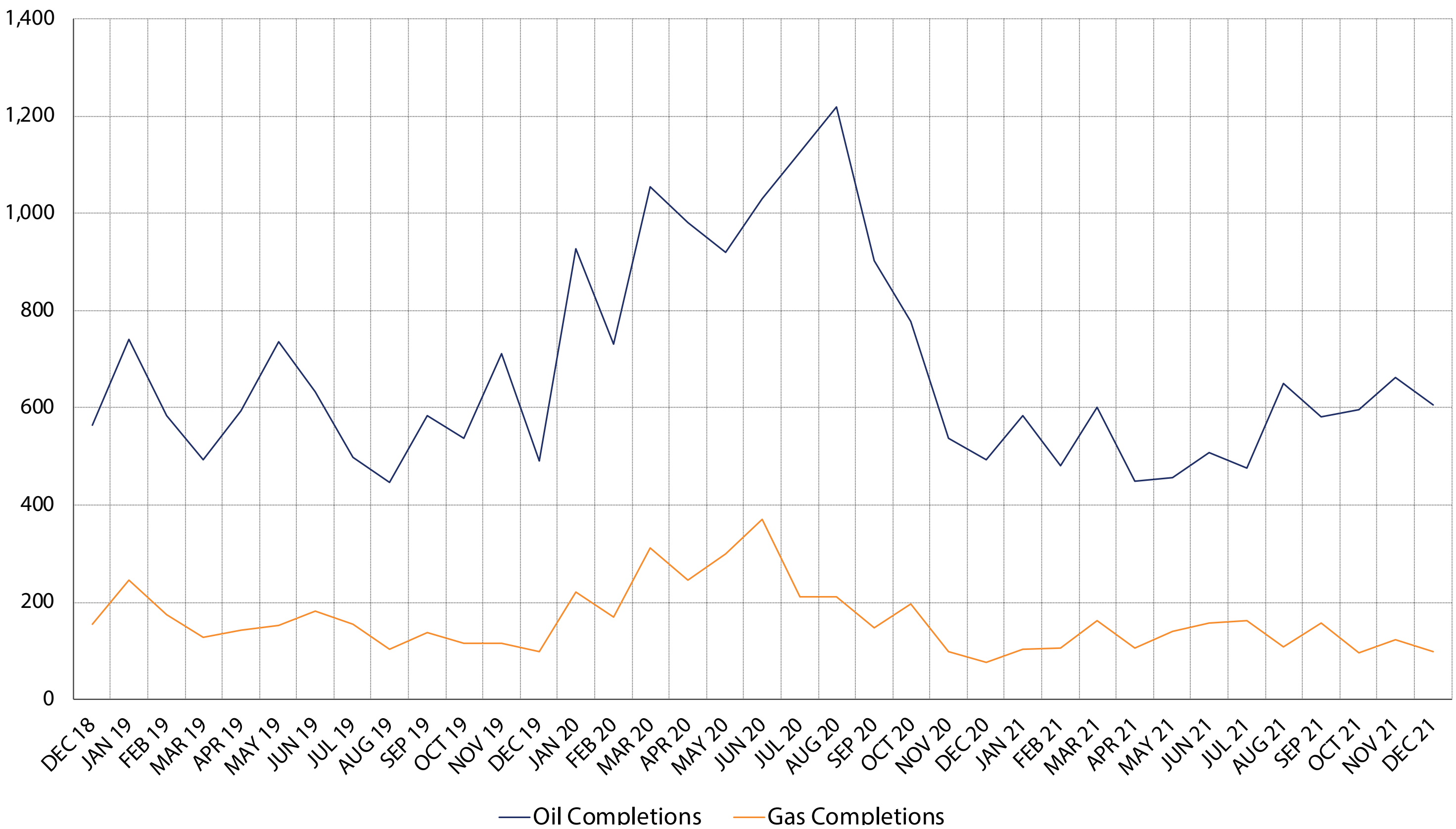
Source: Railroad Commission of Texas

Note: (1) Includes new drill, re-enter, and re-completions



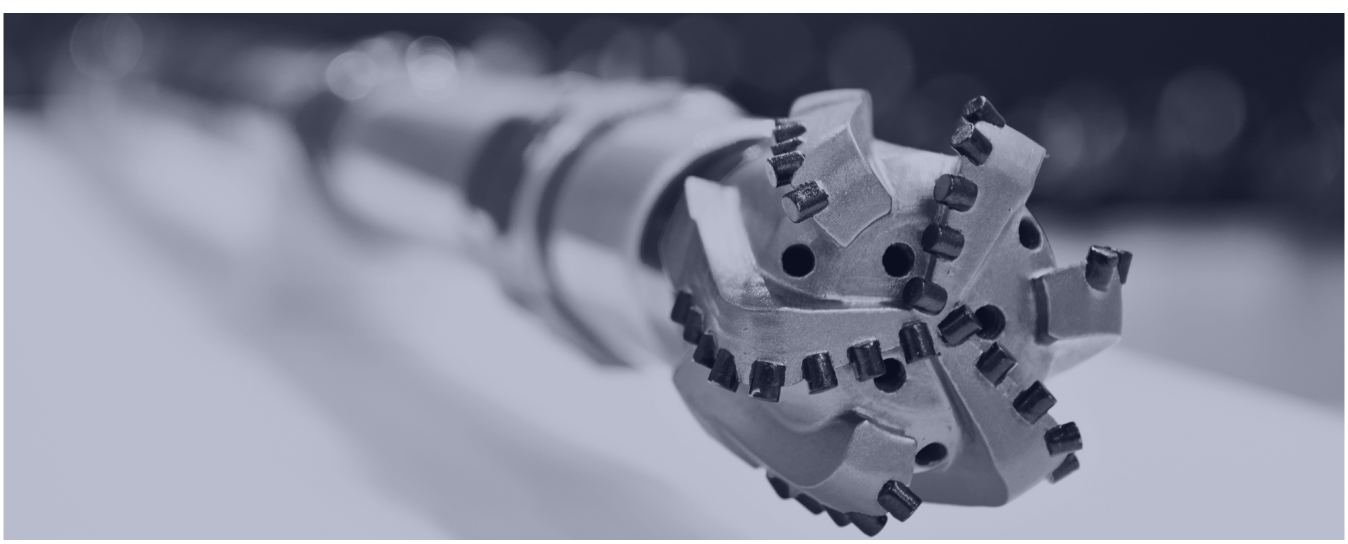
Texas Completion Activity

4 Texas - Oil versus Gas Completions[1]
December 2018 to December 2021



Source: Railroad Commission of Texas

Note: (1) Includes new drill, re-enter, and re-completions

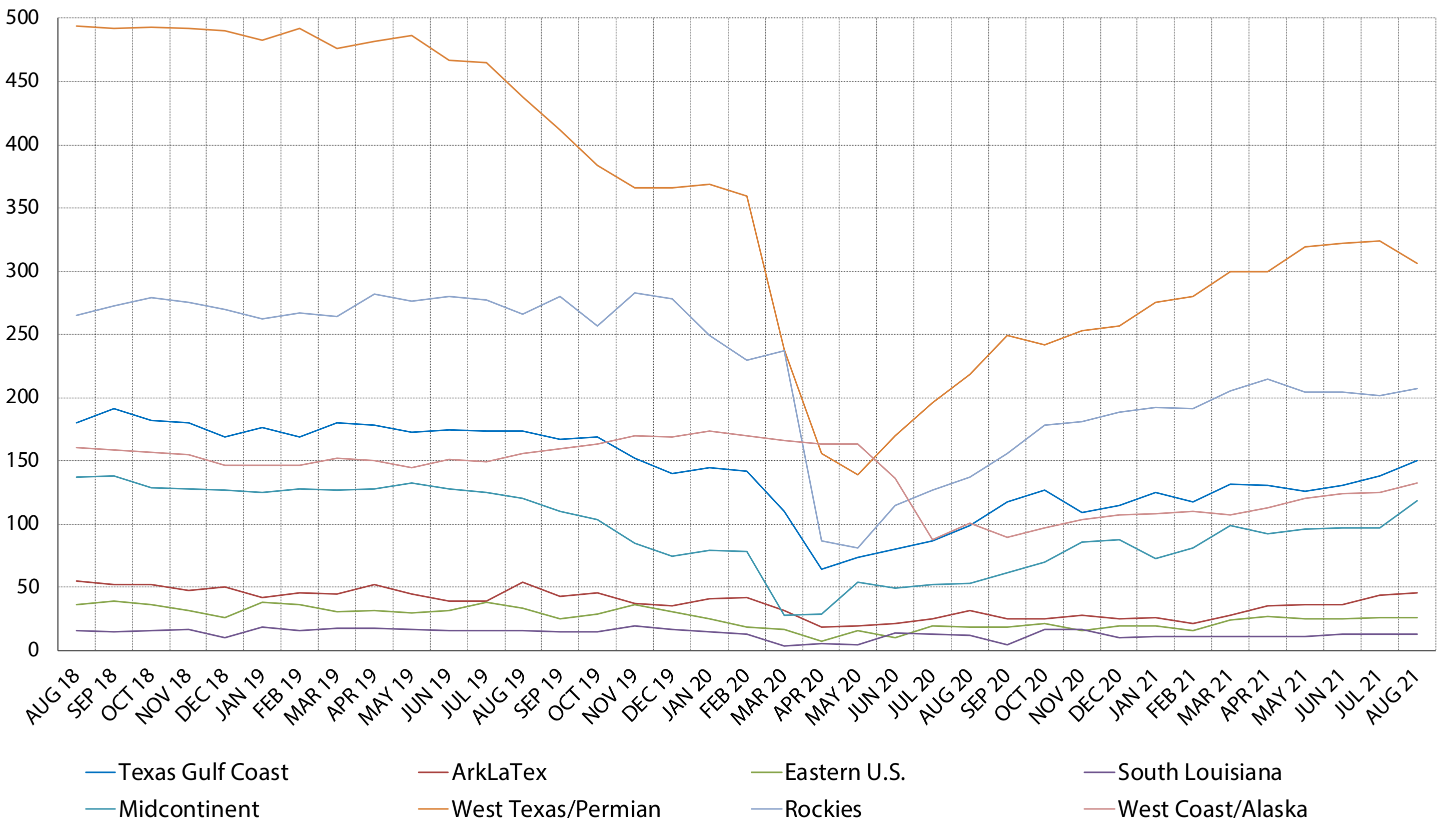


Well Service Rigs

Active well service rigs totaled 993 rigs in August 2021, the highest total since February 2020, the month before the COVID-19 pandemic was declared. The count has increased on a monthly basis since April 2020.

The count for every region has increased over the past year. The West Texas/Permian Basin region continues to lead the count, tallying 306 well service rigs in August 2021. The Rocky Mountain region had the second-highest total of 207 rigs for the period. Active well service rigs are defined as service rigs that are crewed and worked daily during a given month.

5 Active Well Service Rigs
August 2018 to August 2021



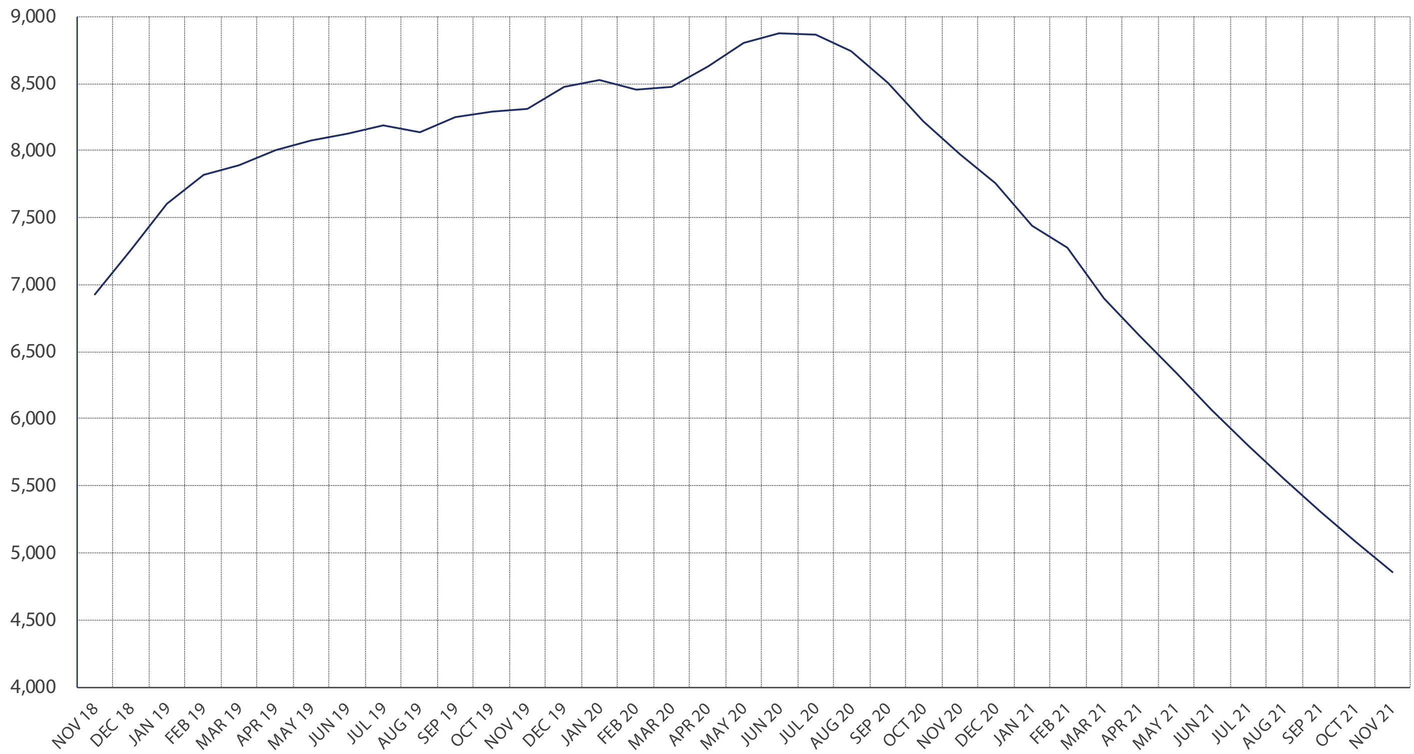
Source: Energy Workforce & Technology Council

Drilled But Uncompleted Wells

The level of DUCs in the U.S. declined significantly over the past year as producers relied on drawing down their DUC inventory as opposed to drilling new wells. The level of DUCs decreased approximately 45% from July 2020 to November 2021.

Experts note the drawdown has been so significant that operators will have to resort to drilling operations to significantly increase oil production. DUCs enable companies to bring production online quickly, which allows them to take advantage of rising market prices.

6 Drilled But Uncompleted Wells
November 2018 to November 2021



Source: EIA

Monitor Information

B. Riley Advisory Services' *Oil & Gas Monitor* relates information covering the oil and gas sectors, including industry trends and their relation to our valuation process. Due to the dynamic nature of the oil and gas industry, timely reporting is necessary to understand an ever-changing marketplace. B. Riley Advisory Services strives to contextualize important indicators in order to provide a more in-depth perspective of the market as a whole. B. Riley Advisory Services welcomes the opportunity to make our expertise available to you in every possible way. Should you need any further information or wish to discuss recovery ranges for a particular segment, please feel free to contact your B. Riley Advisory Services Business Development Officer.

The information contained herein is based on a composite of B. Riley Advisory Services' industry expertise, contact with industry personnel, liquidation and appraisal experience, and data compiled from a variety of respected sources believed to be reliable. B. Riley Advisory Services does not make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this issue. Neither B. Riley Advisory Services nor any of its representatives shall be liable for use of any of the information in this issue or any errors therein or omissions therefrom.

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- Pipeline equipment
- Compression equipment
- Rental tools
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- Wire line services
- Saltwater disposal wells
- Valves
- Tubular goods

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- Market-sizing and commercial due diligence
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- Complex financial modeling
- 100-day operating plans
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- Transaction Support ("arms and legs")

Experience

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- Intangibles, Goodwill and Other (ASC 350)
- Business Combinations (ASC 805)
- Derivatives & Hedging (ASC 815)
- Financial Instruments (ASC 825)
- Long-lived asset impairment (ASC 360)
- Stock Compensation (ASC 718)
- Property transferred for services (IRC 83 (b))
- Stock purchases treated as asset acquisitions (IRC 338)
- Compensation (IRC 409A)
- Transfer Pricing (IRC 482)

In addition, B. Riley Advisory Services maintains experts within the oil and gas industry, such as Jon Donnel, Dan Daitchman, and Taylour Bennett.

Jon Donnel, based in Houston, Texas, serves as Managing Director of Oilfield Services with B. Riley Advisory Services, specializing in oil and gas company appraisals and asset valuations. With over 20 years of experience across the energy sector value chain, Jon has held corporate roles for oilfield service and integrated oil and gas companies, as well as finance positions for an energy-focused investment bank and an accounting firm specializing in litigation support services. Prior to joining the firm, Jon was director of investor relations at Weatherford International, an integrated oilfield services provider with operations in over 80 countries, as well as a director of equity research at Scotia Howard Weil where he covered over 50 companies across the oilfield services and utility sectors. He previously held roles in downstream investment appraisals and upstream financial planning and budgeting with ConocoPhillips. Jon earned both his MBA and BA in Economics and Managerial Studies from Rice University.

Dan Daitchman is a Director with B. Riley Advisory Services. He has over 12 years of financial advisory and consulting experience helping clients resolve complex financial issues. He specializes in transaction and advisory services related to enterprises, derivatives, fractional equity interests, pre-deal diligence, and intangible assets. These services are used for strategic planning, transaction financing, financial statement reporting, capital raising, tax, litigation, bankruptcy, fairness opinions, solvency opinions, and merger and acquisition advisory. Prior to joining B. Riley Advisory Services, Dan spent four years as a financial analyst with Hilco Valuation Services and one year as an analyst in the Alternative Investment Products group at US Bancorp. Dan earned his BS in Finance and Real Estate from Marquette University and an MBA in Finance from DePaul University. He is also an Accredited Senior Appraiser with the American Society of Appraisers.

Taylour Bennett has valued more than $2 billion in assets and businesses, providing valuation, advisory, and litigation services to clients. Throughout his career, Taylour has specialized in valuing and providing services to firms within the energy complex. Taylour is actively involved in Young Professionals in Energy and is working toward his designation as an Accredited Senior Appraiser, and as a Chartered Financial Analyst. Prior to joining B. Riley Advisory Services, Taylour served as a finance intern at Chick-Fil-A. Taylour received his BA and MS in Finance from Texas Tech University.

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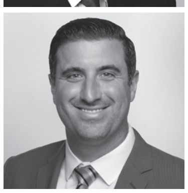

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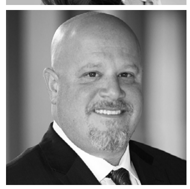

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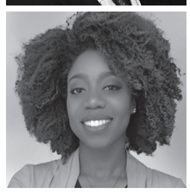

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RANK 2

B. Riley Financial ranked No. 2 on FORTUNE 100 Fastest Growing Companies 2021 list based on revenue growth rate, EPS growth rate, and three-year annualized total return for the period ended June 30, 2021. Fortune. © 2021 Fortune Media IP Limited All rights reserved.

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