

Monitor

Oil & Gas

VOLUME
309

DRONE ATTACK TARGETS SAUDI ARABIA

LEADERS BLAME IRAN FOR DRONE ATTACK

World leaders say Iran sponsored Yemen-based rebels' attack on Saudi Arabian oil facilities; Iran denies charge

U.S. RIG COUNT DROPS TO MAY 2017 LEVELS

The weekly U.S. drilling rig count falls below 900 for the first time since May 2017, in line with decreasing oil prices

SERVICE RIG COUNT FALLS IN MOST REGIONS

The latest service rig count decreases in most major oil- and gas-production regions on a year-over-year basis

In This Issue

MONITOR OIL & GAS
GREATAMERICAN.COM
OCTOBER 2019
800-45-GREAT

VOLUME
309

03	Overview	09	Drilled But Uncompleted Wells
04	Rig Counts	10	Monitor Information Experience
05	Texas Drilling Activity	12	Appraisal & Valuation Team
08	Well Service Rigs	13	About Great American Group



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.

Overview

Oil prices spiked immediately following a drone missile attack on the Abqaiq oil-processing facility and Khurais oil field in Saudi Arabia in mid-September 2019. Saudi Arabia, the U.S., and various European countries blamed Iran for the attacks, which were allegedly conducted by Iran-backed Houthi rebels. Iran, meanwhile, denied responsibility. Despite the attack impacting over half of Saudi Arabia's oil production and 5% of worldwide oil supplies, West Texas Intermediate Crude ("WTI") prices quickly stabilized below \$60 per barrel. Such pricing levels are more than 20% below peak prices in 2018, which illustrates the impact the high level of U.S. oil production has on the world oil market.

The U.S. continues to lead the world in oil production, helping alleviate concerns about the oil market, which once centered around the Middle East. In August 2019, monthly U.S. oil production reached a record high of 12,375 thousand barrels per day, more than double America's production level from a decade ago. The increase in oil production in the U.S. has come despite a continued decline in rig counts. The total oil rig count decreased by 10% during the third quarter of 2019, representing a decline of 80 active rigs. Capital budgets for U.S. exploration and production companies continue to be scrutinized by management and investors, with a heightened focus on returns driving spending lower and efficiency higher. Given the total capital spending year-to-date versus original budgets, expectations are for rig counts and overall activity levels to remain subdued through the remainder of the year.

Drilled but uncompleted wells ("DUCs") in the U.S. have tapered off over the past few months, but they remain at elevated levels, over 10% above this time last year. These wells provide operators an opportunity to bring new production online relatively quickly and inexpensively.

In addition, ongoing oil-production cuts implemented by Organization of the Petroleum Exporting Countries ("OPEC"), Russia, and various non-OPEC oil producers, collectively known as OPEC+, are likely to prop up U.S. oil producers. Some analysts say OPEC and its allies may have to consider further production cuts to keep oil prices near \$60 per barrel. OPEC has a meeting scheduled for December 2019, where the group may consider further cuts to support oil prices.

Another factor in world oil prices is the ongoing trade dispute between the world's two largest economies, the U.S. and China, which has involved the U.S. placing tariffs on certain Chinese goods, alleging unfair trade practices by the Chinese government, and China placing retaliatory tariffs on U.S. goods. As demand for oil is tied to economic growth, oil prices have tended to fall slightly amid contentious rhetoric between the countries' leaders and rise when it appears the U.S. and China are nearing a trade deal. Regardless of the actions of OPEC+ and the ebb and flow of the world economy, the U.S. is expected to continue to produce high levels of oil and increase its market share.

U.S. natural gas prices, meanwhile, dipped for the fifth consecutive month in August 2019, despite solid demand. This trend is due to rapidly increasing production, along with an export bottleneck. Industry players hope planned liquified natural gas ("LNG") export terminals and pipelines will help boost natural gas prices. Nonetheless, the U.S.'s exports of LNG, which represents a compressed form of gas that can be shipped by trucks, as well as vessels to overseas locations, have skyrocketed in recent years. For instance, in July 2019, the U.S. shipped 156.9 million cubic feet of LNG, while in July 2016 the country shipped only 15.7 million cubic feet of LNG, according to the U.S. Energy Information Administration ("EIA"). South Korea, Mexico, and Japan were the top destinations for U.S. LNG in July 2019. The EIA noted that natural gas deliveries to U.S. facilities that produce LNG for export set a monthly record in July 2019.

Rig Counts

U.S. RIG COUNT - SEPTEMBER 27, 2019

	Current Week	Weekly Change	Prior Week	12-Month Change	12 Months Prior
Location					
Land	835	(7)	842	(194)	1029
Inland Waters	1	0	1	(4)	5
Offshore	24	(1)	25	4	20
Total	860	(8)	868	(194)	1054
Type					
Oil	713	(6)	719	(150)	863
Gas	146	(2)	148	(43)	189
Miscellaneous	1	0	1	(1)	2
Total	860	(8)	868	(194)	1054
Directional	57	(4)	61	(12)	69
Horizontal	752	(4)	756	(170)	922
Vertical	51	0	51	(12)	63
Total	860	(8)	868	(194)	1054
State					
Alaska	8	0	8	2	6
California	15	0	15	2	13
Colorado	25	(1)	26	(8)	33
Louisiana	56	(1)	57	(6)	62
New Mexico	109	0	109	12	97
North Dakota	53	0	53	0	53
Ohio	11	0	11	(7)	18
Oklahoma	66	0	66	(75)	141
Pennsylvania	36	0	36	(8)	44
Texas	418	(5)	423	(111)	529
Utah	3	0	3	(3)	(6)
West Virginia	16	0	16	3	(13)
Wyoming	34	(1)	35	5	29

	Current Week	Weekly Change	Prior Week	12-Month Change	12 Months Prior
Major Basins					
Ardmore Woodford	2	0	2	(1)	3
Arkoma Woodford	3	0	3	(4)	7
Barnett	4	0	4	2	2
Cana Woodford	38	2	36	(29)	67
DJ-Niobrara	22	(1)	23	(6)	28
Eagle Ford	62	(1)	63	(17)	79
Granite Wash	2	(1)	3	(11)	13
Haynesville	50	0	50	0	13
Marcellus	50	0	50	(5)	55
Mississippian	2	0	2	(2)	4
Permian	414	(3)	417	(72)	486
Utica	12	0	12	(8)	20
Williston	53	0	53	0	53

Source: Baker Hughes

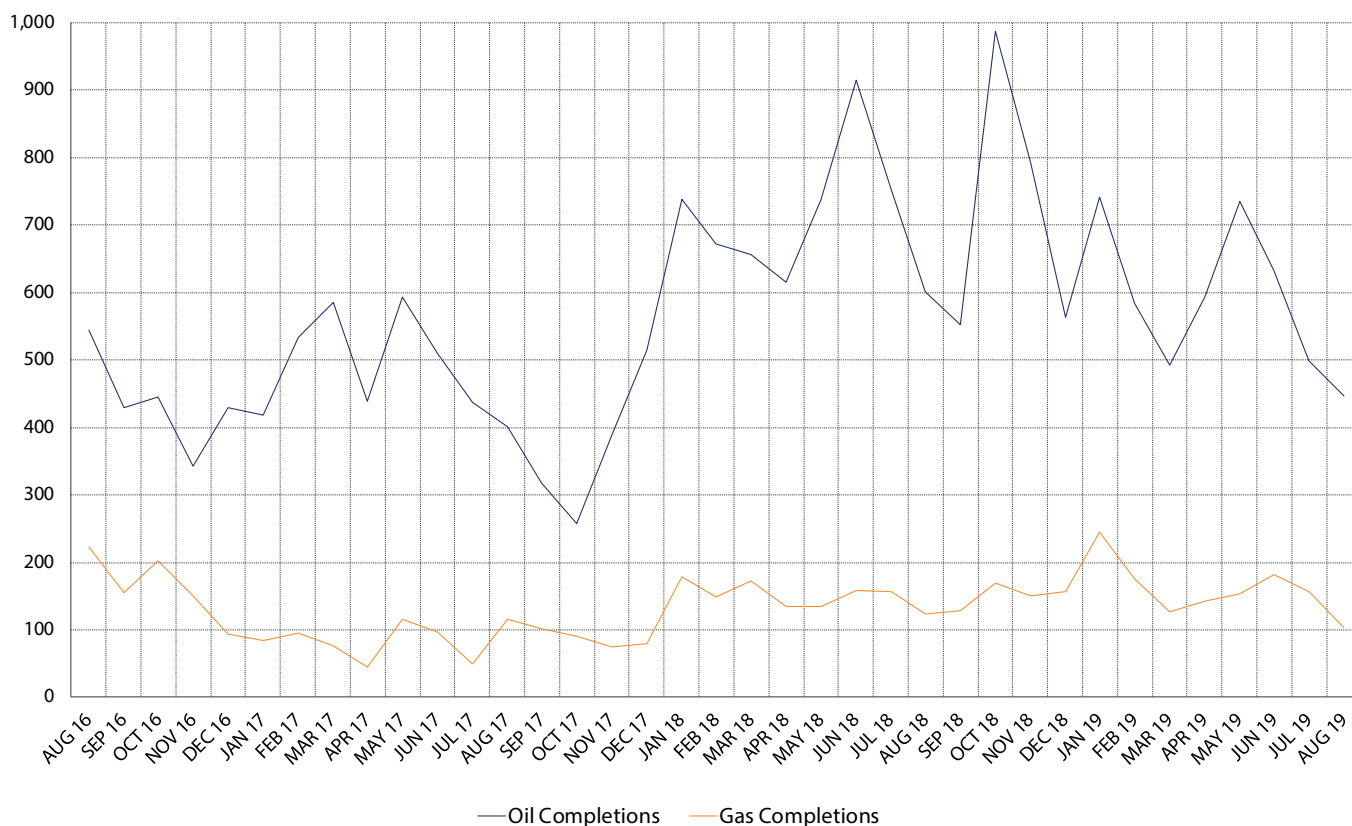
The U.S. drilling rig count for the week of September 27, 2019 totaled 860 rigs, registering its sixth straight decrease. The figure represents decreases of eight and 194 units versus the prior week and year, respectively. The rig count fell to 898 rigs for the week of September 6, 2019, which represents the first time since May 2017 that the rig count was below 900. The rig count has been falling throughout much of 2019 as oil prices have reeled back from the relatively high prices seen throughout most of 2018, when WTI prices largely ranged from \$65 to \$70 per barrel.

Oil rigs make up the vast majority of the drilling rig count. In the September 27, 2019 count, oil rigs totaled 713 units versus 146 units for natural gas. The count for oil rigs is down six and 150 units versus the prior week and year, respectively, while the count for natural gas rigs is down two and 43 units versus the prior week and year, respectively.

Texas Drilling Activity

Texas oil and gas completions have decreased in recent months. Oil completions fell to 446 in August 2019, the lowest level since November 2017, while gas completions dropped to 103, the lowest figure since December 2017. Oil and gas completion trends have largely mirrored each other; however, oil completions are experiencing steeper highs and lows.

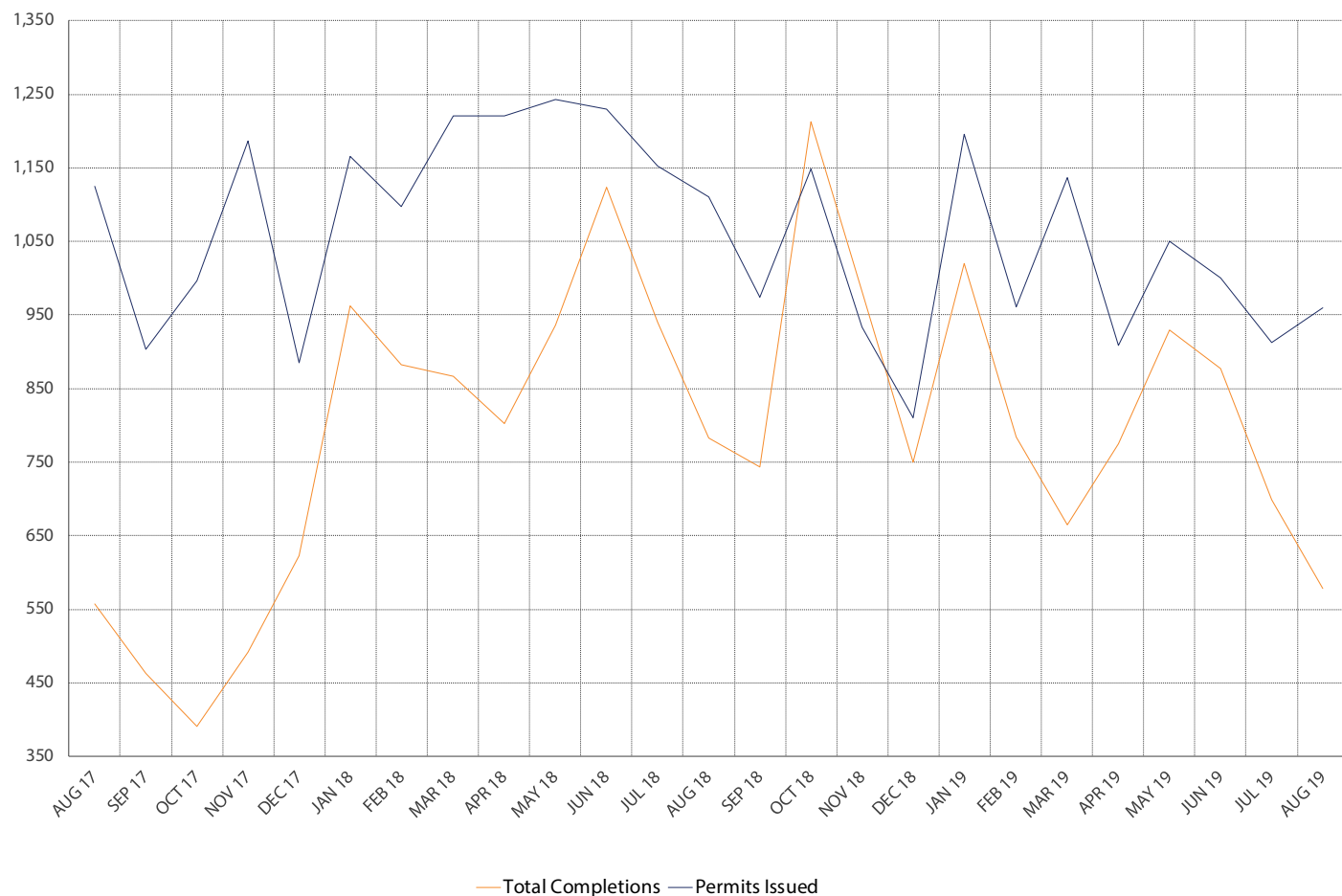
1 Texas - Oil versus Gas Completions August 2016 to August 2019



Texas Drilling Activity

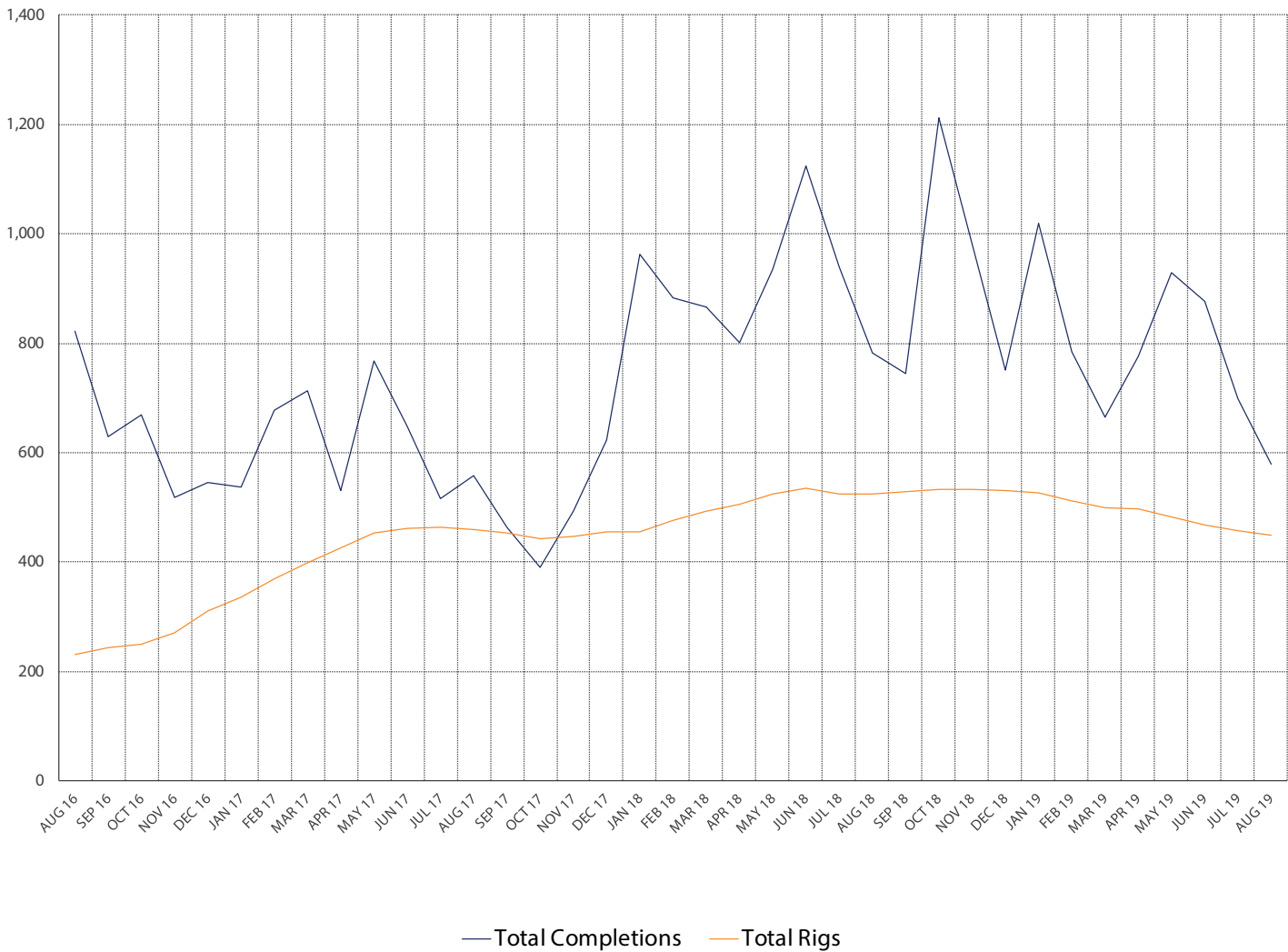
Total Texas completions and issued permits generally follow the same trend line; however, in August 2019, the two deviated from each other. During that month, permits rose, while total completions fell to December 2017 levels.

2 Texas - Completions versus Permits August 2017 to August 2019



Texas Drilling Activity

3 Texas - Total Completions versus Rigs
August 2016 to August 2019



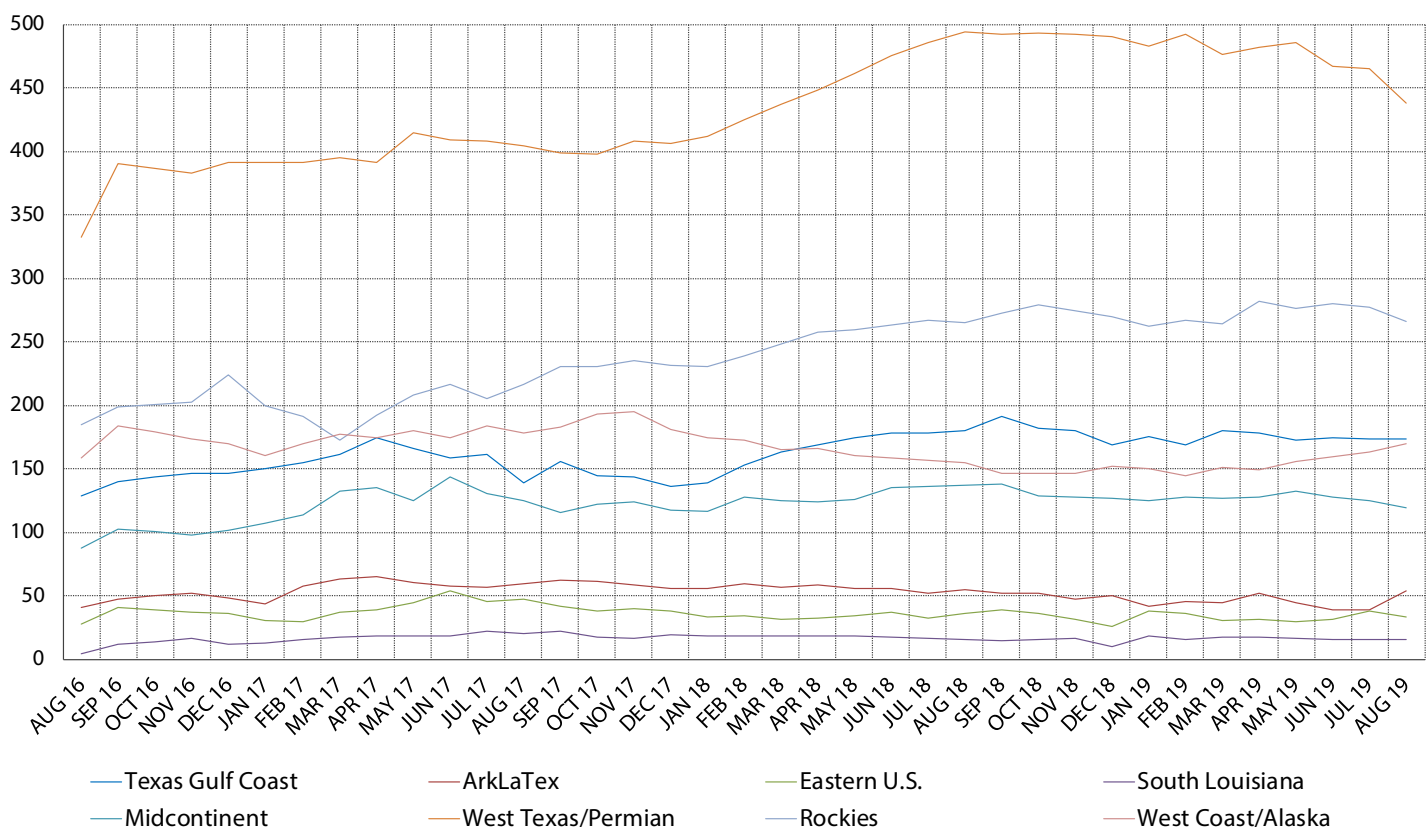
Well Service Rigs

Well service rig counts through August 2019 are shown by region below. The well service rig count for the majority of regions has decreased on a year-over-year basis, including the Permian Basin, which accounts for over half of all service rigs, as well as the ArkLaTex, Eastern U.S., Texas Gulf Coast, and Midcontinent regions.

In contrast, the Rocky Mountain and West Coast/Alaska regions saw increases on a year-over-year basis, while the count for the South Louisiana region remained flat.

4

Well Service Rigs
August 2016 to August 2019



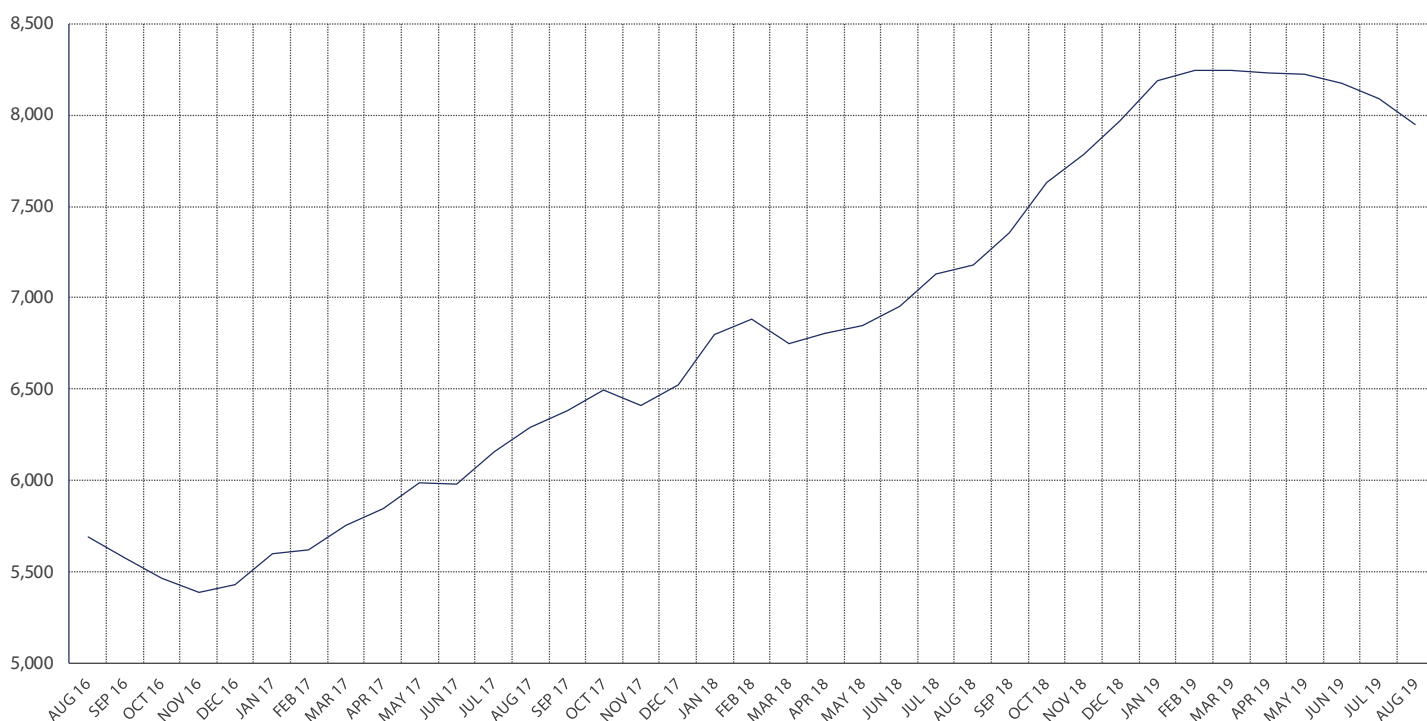
Drilled But Uncompleted Wells

The number of DUC wells, which are wells that have been drilled but have not been through the initial step of the completion process, have decreased in recent months in the U.S., particularly in July and August.

DUC wells enable operators to bring production online relatively rapidly should oil or gas prices rise. The Permian Basin accounts for nearly half of all DUC wells in the U.S., followed by the Eagle Ford and Anadarko regions.

5

Drilled But Uncompleted Wells
June 2016 to June 2019



Monitor Information

GA's *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. GA strives to contextualize important indicators in order to provide a more in-depth perspective of the market as a whole. GA 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 GA Business Development Officer.

The information contained herein is based on a composite of GA's industry expertise, contact with industry personnel, liquidation and appraisal experience, and data compiled from a variety of respected sources believed to be reliable. GA does not make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this issue. Neither GA 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.

Experience

GA has worked with and appraised a number of companies within the oil and gas industry. GA has built a quality team to deliver both tangible and intangible valuations across the oil and gas platform.

GA's extensive experience includes valuations across a broad range of assets, as well as a variety of services, including:

Machinery, equipment, and other inventory valuations

- Pressure pumping units
- Drilling and well service equipment
- Frac tank rental/manufacturing
- Well logging tools
- Pipeline equipment
- Compression equipment
- Rental tools
- Transportation assets
- Wire line services
- Saltwater disposal wells
- Valves
- Tubular goods

Transaction Advisory Services

- Fairness Opinions and Solvency Opinions
- Buy-side, Sell-side, and Merger advisory services
- Deal Screening and Target Identification
- Quality of Earnings analysis and reports
- Market-sizing and commercial due diligence
- Operational, financial, and technical due diligence
- Complex financial modeling
- 100-day operating plans
- Interim management (CEO/CFO/CRO/COO)
- Transaction Support ("arms and legs")

Experience

Valuation Services

- Fair Value Measurements & Disclosures (ASC 820)
- Intangibles, Goodwill and Other (ASC 350)
- Business Combinations (ASC 805)
- Derivatives & Hedging (ASC 815)
- Financial Instruments (ASC 825)
- 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)

Advisory Services

- Feasibility Studies for Energy Capital Investments
- Advanced Statistical Analysis for Project Evaluations
- PHDWin analytics for hedging, lending, and M&A deals
- PWERM analysis
- Commodity Curve Development
- Retail Electric and Gas Market Strategies
- Business Case Analysis
- Competitor Studies
- Market and Strategic Assessments
- Red Team Studies

In addition, GA maintains experts within the oil and gas industry, such as Tom McNulty and Jon Donnel.

Tom McNulty has 25 years of experience working across the entire commodity and energy value chain. As an advisor, and in his corporate career, Tom has valued more than \$49 billion in energy-related assets, businesses, and transactions. He has also advised on or executed \$11 billion in mergers and acquisitions principal investment deals, as well as executed or valued more than \$13 billion notional in derivative instruments. His expert litigation work has included shareholder disputes, business valuation, derivatives and hedging, and damages assessments. Tom earned a Bachelor's degree from Yale University and a Master's in Business Administration degree from Northwestern University. Tom is a Managing Director in GA's CAVS Group.

Jon Donnel brings nearly 20 years of experience in financial analysis, primarily related to the valuation of oil and gas companies and assets. 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 Great American, Jon was the Director of Investor Relations at Weatherford International, an integrated oilfield services provider with operations in over 80 countries. He previously worked as a Director of Equity Research at Scotia Howard Weil, where he covered over 50 companies across the oilfield services and utility sectors, and for ConocoPhillips, where he served in roles in downstream investment appraisal and upstream financial planning and budgeting. Jon earned both his Master's in Business Administration and Bachelor's degree in Economics and Managerial Studies from Rice University. Jon is the Managing Director of GA's Oilfield Services practice.

Appraisal & Valuation Team

CORPORATE ADVISORY & VALUATION SERVICES



Thomas J. McNulty
Managing Director, CAVS
(832) 472-3717
tmcnulty@greatamerican.com



Jon Donnel
Managing Director, Oilfield Services
(713) 403-3984
jdonnel@greatamerican.com

BUSINESS DEVELOPMENT



Bill Soncini
National Marketing Manager
Managing Director
Midwest Region
(773) 495-4534
bsoncini@greatamerican.com



Ryan Mulcunry
Managing Director
Northeast Region
(617) 692-8310
rmulcunry@greatamerican.com



Stephen Shelton
Managing Director
New York Region
(203) 524-3271
sshelton@greatamerican.com



Jennie Kim
Managing Director
Western Region
(818) 746-9370
jkim@greatamerican.com



David Seiden
Managing Director
Southeast/Southwest Regions
(404) 242-0683
dseiden@greatamerican.com



Akilah Moore
Business Development Associate
Midwest Region
(312) 777-7956
amoore@greatamerican.com

OPERATIONS

Chad P. Yutka, ASA
Managing Director
CAVS Group Head
(312) 909-6078
cyutka@greatamerican.com

Walt Cook
Senior Writer
(818) 746-9343
wacook@greatamerican.com

ASSET DISPOSITION TEAM

Adam Alexander
CEO, GA Global Partners
(818) 340-3134
aalexander@greatamerican.com

Jeff Tanenbaum
President, GA Global Partners
(818) 650-2283
jtanenbaum@gaglobl.com

Michael Petruski
Managing Director, GA Global Partners
(704) 516-1492
mpetruski@greatamerican.com

Scott Carpenter
President, GA Retail Solutions
(818) 746-9365
scarpenter@greatamerican.com



About Great American Group

Great American Group is a leading provider of asset disposition solutions and valuation and appraisal services to a wide range of retail, wholesale, and industrial clients, as well as lenders, capital providers, private equity investors, and professional services firms. In addition to the *Oil & Gas Monitor*, GA also provides clients with industry expertise in the form of monitors for the construction and transportation, chemicals and plastics, metals, food, paper and packaging, and building products sectors, among many others. For more information, please visit www.greatamerican.com.

Great American Group, LLC is a wholly-owned subsidiary of B. Riley Financial, Inc. (NASDAQ: RILY). B. Riley Financial provides collaborative financial services and solutions tailored to fit the capital raising and financial advisory needs of public and private companies and high net worth individuals.

The company operates through several wholly-owned subsidiaries, including Great American Group; B. Riley FBR, a full-service investment bank and institutional brokerage; GlassRatner, a specialty financial advisory services and consulting firm; B. Riley Wealth Management, B. Riley Asset Management and B. Riley Alternatives, which offer investment management to institutional and high net worth investors; Great American Capital Partners, which originates and underwrites senior secured loans for asset-rich companies; and B. Riley Principal Investments, which invests in or acquires companies and assets with attractive return profiles.

B. Riley Financial, Inc. is headquartered in Los Angeles with offices in major financial markets throughout the United States, Europe, and Australia. For more information on B. Riley Financial, Inc., please visit www.brileyfin.com.



GREAT AMERICAN GROUP

a B. Riley Financial company

MONITOR OIL & GAS
GREATAMERICAN.COM
JULY 2020
800-45-GREAT

VOLUME
309

LOS ANGELES (HQ)

21255 Burbank Boulevard
Suite 400
Woodland Hills, CA 91367
T 818.884.3737

NEW YORK

299 Park Avenue
21st Floor
New York, NY 10171
T 212.457.3300

ATLANTA

3445 Peachtree Road
Suite 1225
Atlanta, GA 30326
T 470.346.6800
T 770.551.8115

BOSTON

300 First Avenue
Suite 201
Needham, MA 02494
T 781.444.1400

CHICAGO

200 West Madison Street
Suite 2950
Chicago, IL 60606
T 312.368.8880
F 312.368.8883

DALLAS

17304 Preston Road
Suite 720
Dallas, TX 75252
T 972.996.5630

HOUSTON

4400 Post Oak Parkway
Suite 1400
Houston, TX 77027
T 713.226.4700

CHARLOTTE

15720 Brixham Hill Avenue
Suite 300
Charlotte, NC 28277
T 704.227.7161
F 704.227.7171

MILWAUKEE

10850 West Park Place
Suite 970
Milwaukee, WI 53224
T 414.831.2850

WILTON

73 Old Ridgefield Road
Suite 6
Wilton, CT 06897
T 203.663.5101

GERMANY

Prinzregentenstr 18
Fifth Floor
80538 Munchen,
Germany

AUSTRALIA

Level 29, Chifley Tower
2 Chifley Square
Sydney, NSW 2000
Australia