



**Texas  
Independent  
Producers and  
Royalty Owners  
Association**

## WHITE HOUSE REPORT CONFIRMS SHALE DEVELOPMENT HELPS AMERICANS SAVE BIG ON HOUSEHOLD COSTS

A new Fall report issued by the White House Council of Economic Advisers (CEA) reinforces the powerful impact domestic shale development is having on household expenditures for American families.

Thanks to increasing production of oil and natural gas in the United States, Americans are seeing direct savings on their energy bills, the CEA outlines in its analysis released last month, projecting U.S. consumers are saving a combined total of \$203 billion each year. “Nearly 80 percent of the total savings stem from a substantially lower price for natural gas, of which more than half comes from lower electricity prices. Oil accounts for the other roughly 20 percent of the savings, most of which are transportation sector savings on fuel costs,” explains the CEA. “Because low-income households spend a larger share of their income on energy bills, lower energy prices disproportionately benefit them: shale-driven savings represent 6.8 percent of income for the poorest fifth of households compared to 1.3 percent for the richest fifth of households. These consumer savings are in addition to economic benefits linked to greater employment in the sector.”

Over the past 12 years, from 2007 to 2019, advancing technologies and innovation in hydraulic fracturing and shale production has supported a 19-fold increase for oil output and eight-fold increase in extraction productivity for natural gas, according to the CEA, which in turn has contributed to a drop in the wholesale price of electricity. Along with production gains and leading economic support, the shale revolution also has led to a decrease of energy-related GHG emissions by 527 million metric tons per year from 2005 to 2017.

To read the complete CEA report, titled “The Value of U.S. Energy Innovation and Policies Supporting the Shale Revolution,” please visit: <https://bit.ly/2O0sGch>.

***“By lowering energy prices, we estimate that the shale revolution saves U.S. consumers \$203 billion annually, or \$2,500 for a family of four.”***

White House Council of Economic Advisers

## EPA ISSUES UPDATED REGULATORY AGENDA

The U.S. Environmental Protection Agency (EPA) on Wednesday, November 20<sup>th</sup> released an update on its planned regulatory activities for the next year, which will involve as many as 56 deregulatory measures.

Among the priority actions cited by the EPA in its *Fall 2019 Unified Agenda of Regulatory and Deregulatory Actions and Regulatory Plan* is the reconsideration of emission standards for new, reconstructed, and modified sources for the oil and natural gas sector. Under planned rulemakings, the EPA will adopt amendments to address key policy issues relating to the 2016 oil and gas air regulation, such as oversight of greenhouse gases.

This coming year, the EPA also will adopt a revised definition of “waters of the United States” (WOTUS) as part of the executive agency's two-step plan to repeal and replace the government's 2015 WOTUS policy. On February 14, 2019, the EPA and the U.S. Department of Army published in the Federal Register an updated WOTUS definition, and accepted public comment on the proposal through April 15, 2019. The agencies anticipate finalizing a revised definition of federal waters upon conclusion of the review of all public comments.

The EPA also is working to update federal regulations on water quality certification under the Clean Water Act, Section 401, in accordance with Executive Order 13868, “Promoting Energy Infrastructure and Economic Growth” issued by President Donald Trump in April 2019. Regulatory changes are intended to improve the efficiency of the CWA section 401 certification processes and increase regulatory certainty.

“EPA’s Fall Regulatory Agenda and Annual Regulatory Plan continue to advance the agency’s core mission of protecting human health and the environment through regulatory reform and modernization,” said EPA Administrator Andrew Wheeler. “Under President Trump, EPA has finalized 47 deregulatory actions, saving Americans nearly \$5 billion in regulatory costs. By creating a climate of regulatory certainty, we’re able to breathe new life into local economies around the country.”

To access EPA’s *Fall 2019 Unified Agenda of Regulatory and Deregulatory Actions and Regulatory Plan*, please visit: <https://bit.ly/2D6VObU>.

For more information about regulatory reform efforts underway at the EPA, please see: <https://bit.ly/2qxYexr>.

## PRESIDENT'S MESSAGE

TIPRO Members,

Considering that member communication and industry education are primary pillars of our organization, I'm pleased to share that soon hitting your mailbox will be the new 'Winter' issue of our association's *Upstream Texas* publication. Inside this new *Upstream Texas*, read about new strategies being deployed by Texas oil and gas producers to enhance the industry's environmental record. Our reputation is constantly under attack, but what many public citizens may not realize are the proactive measures pursued by energy companies today to lessen their environmental footprint. See our feature story in this new *Upstream* magazine to understand how TIPRO members are taking action to reduce air emissions, reduce waste and adopt environmentally-friendly practices during drilling operations.

In this issue of TIPRO's magazine, also read about trends relating to well spacing and discover how Texas companies are testing boundaries to gain new understanding of the best approach for spacing wells in unconventional shale formations. Our partners with Enverus, formerly Drillinginfo, provide TIPRO with insights on well spacing optimization for horizontal wells and review how some operators are testing new concepts with well spacing to try to improve oil and gas recovery rates.

In our Winter *Upstream* magazine, we are also excited to feature profiles of U.S. Congressman Henry Cuellar (TX-28), Texas Commission on Environmental Quality Commissioner Emily Lindley and dedicated TIPRO member and president of Texegy, Michael Pedrotti. Take some time and learn about each of their impressive backgrounds and read how these legislative, regulatory and industry leaders view priority issues for the Texas oil and gas sector. Click here to access the digital issue of *Upstream*: <https://bit.ly/2s80dcp>.

Through our organization's communication outreach, industry publications, programs and advocacy efforts, we hope to help you and your business keep tabs on Texas oil and gas policies, industry trends, economic conditions and other relevant news. Our *Upstream Texas* magazine is just one part of our larger communications portfolio shared with members to keep you informed. We also are happy to provide members of TIPRO with our biweekly *TIPRO Target* publication, access to the association's 'Week-in-Review' email update, and complimentary subscriptions to other leading industry sources like the *American Oil & Gas Reporter* magazine and the *E&P* magazine offered by our partners at Hart Energy. These resources are a valuable benefit exclusive to members of TIPRO, delivering leading intelligence to keep members advised of noteworthy oil and gas updates, association news and other policy issues relevant for independents and royalty owners.

Kind regards,  
Ed Longanecker



**Ed Longanecker**

## APACHE CORPORATION HONORED FOR ENVIRONMENTAL CONSERVATION

Apache Corporation, a member of the Texas Independent Producers & Royalty Owners Association (TIPRO), recently received recognition by the Texan for Nature organization for the company's leading conservation and sustainability efforts. Texan for Nature is a Texas-led conservation non-profit group founded by former First Lady Laura Bush, which for the first year ever worked with the business community to identify and celebrate Texas companies adopting important initiatives helping the environment. Apache was honored as part of the 2019 Texan by Nature 20, an official ranking of 20 companies with Texas operations that have made a demonstrative commitment to conservation.

"TIPRO congratulates member company Apache Corporation for being among the Texan by Nature (TxN 20) honorees. Apache Corporation's leadership on many conservation efforts, including implementing dark skies friendly lighting, reducing emissions, water conservation and habitat restoration is worthy of recognition and praise," commented Ed Longanecker, president of TIPRO.

Finalists for the Texan by Nature 20 were selected by an esteemed, cross-industry selection committee made up of public officials and private sector leaders. Honorees were picked based upon a stated dedication to conservation, demonstrated commitment to conservation via investment and volunteerism, measurement and reporting of spending and impact on conservation efforts, and employee engagement.

1. American Campus Communities
2. Apache Corporation
3. Austin Convention Center
4. Cactus Feeders
5. CEMEX
6. Cirrus Logic
7. Comerica Bank
8. Darling Ingredients
9. Dell Technologies
10. DFW Airport
11. Farmer Brothers
12. Harvest Seasonal Kitchen
13. H-E-B
14. King Land & Water
15. NRG Energy
16. Parkland Health & Hospital System
17. Phillips 66
18. Southwest Airlines
19. Texas Health Resources
20. Union Pacific

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## TIPRO Calendar of Events

<p><b>DECEMBER 11, 2019</b> HOUSTON — IPAA/TIPRO Leaders in Industry Luncheon, 11:30 a.m. Houston Petroleum Club. For info, call: (202) 857-4733.</p>	<p><b>JANUARY 8, 2020</b> HOUSTON — IPAA/TIPRO Leaders in Industry Luncheon, 11:30 a.m. Houston Petroleum Club. For info, call: (202) 857-4733.</p>	<p><b>FEBRUARY 6-7 2020</b> HOUSTON — 2020 NAPE Expo, George R. Brown Convention Center. For info, call: (817) 847-7700.</p>	<p><b>FEBRUARY 12, 2020</b> HOUSTON — IPAA/TIPRO Leaders in Industry Luncheon, 11:30 a.m. Houston Petroleum Club. For info, call: (202) 857-4733.</p>
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## BEG ANNOUNCES SOFTWARE UPDATES FOR TexNet EARTHQUAKE CATALOG

On Monday, November 11, 2019, a software update was implemented for seismological software used by The University of Texas at Austin's Bureau of Economic Geology (BEG) to improve data acquisition, processing, distribution and interactive analysis supporting the TexNet earthquake catalog. A software bug had been detected that was impacting ML (local magnitude) values shown in the catalog, altering the ML amplitude calculation by causing a scaling by a factor of two for the zero-to-peak amplitudes in the ground motion. After fixing the software code, the BEG says that ML magnitudes shown on the catalog for most events decreased by approximately 0.3 (or  $\log_{10}(2)$ ), though, in a few cases, this value is higher or lower.



"We are working with the software vendor to identify the reason for the discrepancy, and we will make adjustments where appropriate. We are confident in other aspects of the software and TexNet operations," said BEG representatives.

The BEG does acknowledge that this has led to some confusion and are working to address the issue as quickly as possible. Going forward, any changes to the workflow and processes that define earthquake characteristics on the TexNet catalog will be made only after externally peer-reviewed papers have been published and there have been discussions with the Technical Advisory Committee, reports the BEG. In those cases, The University of Texas' Bureau of Economic Geology will then notify the public of any changes one month in advance through the "Important Information" link on their website: <http://www.beg.utexas.edu/texnet/catalog>.

The state-of-the-art TexNet seismic network and earthquake catalog was launched in 2016 to keep Texas citizens informed of earthquake activity occurring in the Lone Star State and support research to understand the causes of earthquakes in Texas. The TexNet catalog, a continuously updated dynamic mapping webpage, collects data from monitoring stations located around the state and provides the public access to information on recorded earthquakes or seismic events. The map and data include events recorded since January 1, 2017, when data collection began.

## GOVERNOR ABBOTT SETS SPECIAL RUNOFF ELECTION FOR HD 28, HD 100 AND HD 148

The governor of Texas, Greg Abbott, proclaimed special runoff elections will be held in Texas this coming January to fill three open seats in the Texas House of Representatives. On Tuesday, January 28, 2020, voters in Fort Bend County, Dallas County and Harris County will hit the polls to select state leaders for House Districts 28, 100 and 148.

A special election to fill each of the vacancies was held on November 5, though none of the candidates for each of the respective races received a majority of the votes cast, forcing the need for a runoff in each of the House districts.

In Texas House District 28, Republican Gary Gates will face off against Democrat Eliz Markowitz in the special runoff election to fill the position formerly held by state Representative John Zerwas. Zerwas, who was chair of the powerful House budget-writing Appropriations Committee, retired from the Texas Legislature this past September to become the new executive vice chancellor for health affairs at The University of Texas System. District 28 covers Fulshear, a portion of Katy and a portion of Sugar Land.

Meanwhile, for the runoff election for House District 100, covering the city of Dallas, citizens will choose between Democrats Lorraine Birabil and James Armstrong. The seat previously was filled by former Representative Eric Johnson, who vacated the role earlier this year after becoming mayor of Dallas.

Finally, in House District 148, which includes parts of northern and western Houston, Democrat Anna Eastman and Republican Luis La Rotta will square off. Leading up to the initial November 5<sup>th</sup> special election, there were 15 candidates hoping to replace the recently retired state Representative Jessica Farrar, who stepped down from the lower chamber at the end of September after 25 years of service. Eastman and La Rotta edged out the other candidates to lead the race, and will compete for the position in January. Historically the district has been a safe seat for Democrats, though the upcoming runoff election will test that pattern in a hotly contested race in the Texas House.

The first day of in-person early voting for the special runoff elections is scheduled to begin on Tuesday, January 21.

## GOVERNOR'S OFFICE SEES MORE STAFFING SHAKE-UPS

Tommy Williams, trusted confidant and senior advisor to the governor, will retire at the end of the year, announced Texas Governor Greg Abbott earlier this month. Williams has worked with the governor since 2017, providing guidance on a variety of fiscal matters, including the pivotal school finance and property tax legislation enacted during the 86<sup>th</sup> Legislative Session. "I am grateful for the expertise and experience Tommy provided to the office of the governor, and appreciate his years of service to the people of Texas," commented Governor Abbott. "Tommy was an instrumental figure in the reforms we achieved to our school finance and property tax systems during the 86<sup>th</sup> Legislative Session, and his leadership and advocacy has ensured a brighter future for the Lone Star State." Before joining the Governor's Office, Williams was a legislative leader having served as a Texas state representative between 1997-2003 and then a state senator from 2003 until 2013. He also previously was the vice-chancellor for federal and state relations for the Texas A&M system.

Governor Abbott also announced in November that Sarah Hicks will become director of policy and budget for the office of the governor. Hicks has served as Abbott's budget director since she joined the office of the governor in 2017. She now adds responsibilities of leading policy initiatives and other related work in place of John Colyandro, the former policy director for the Abbott administration who left the role at the beginning of the month.

## U.S. SENATOR WANTS TO INSTATE NEW RULES PREVENTING ANY PRESIDENT FROM BANNING FRACKING

While several leading Democratic presidential candidates have suggested that they would instate a nationwide ban on hydraulic fracturing if elected commander-in-chief next year, one United States senator is hoping to enact new federal legislation preventing such efforts by any president. U.S. Senator Pat Toomey (R-PA) introduced a new resolution earlier this month solidifying that a United States president may not unilaterally impose a moratorium on hydraulic fracturing on state and private lands.

“Natural gas has been a game changer for our country and our commonwealth,” said Senator Toomey. “It is our top source for electricity generation, reduces the cost of home heating for tens of millions of Americans, supports our vast manufacturing sector, cuts CO2 emissions, and diminishes our reliance on foreign sources of energy. It's hard to overstate the benefits of natural gas.”

The senator continued, “But now the top Democratic presidential candidates are competing with each other over who can be more hostile to this tremendous source of economic growth and national security. If enacted, their policies would abruptly end new natural gas extraction, drive up the cost of energy, cost many tens of thousands of jobs in Pennsylvania, create big holes in state and local government budgets, and increase our dependence on foreign energy sources once again... I urge all of my colleagues to support this resolution.”

Domestic production on federal lands accounts for 24 percent of all U.S. oil production and 13 percent of all U.S. natural gas production, energy supplies which would be critically threatened if any future leader were to declare a fracking ban on federal lands.

Senator Toomey's Senate Resolution 411 asserts that the president of the United States does not have the authority to impose any sort of ban against hydraulic fracturing activities, and reaffirms state primacy on the regulation of fracking on state and private lands. The chairman of the U.S. Senate Committee on Environment and Public Works, Senator John Barrasso (R-Wyoming), is also an original co-sponsor of this piece of legislation.

“We applaud Senator Toomey for recognizing the valuable lifeline provided to our nation by the oil and gas industry, and the crippling blow any type of fracking ban would pose to domestic output of oil and natural gas resources,” said Ed Longanecker, president of TIPRO. “We encourage our federal lawmakers to join Senator Toomey in taking proactive measures now to protect the ability to use hydraulic fracturing in the drilling process and vote to approve Senate Resolution 411.”



## TEXAS CONGRESSWOMAN PROPOSES TAX CREDIT TO ENCOURAGE EXPANDED USE OF LNG

Domestic production of natural gas continues to set new records, particularly in Texas where the state on average is producing 19.7 billion cubic feet of natural gas per day. In order to boost consumption of this abundant, clean-burning resource, U.S. Congresswoman Lizzie Fletcher (TX-07) recently called for the federal government to reinstate a lapsed tax credit provided for alternative fuel used as motor fuel, including compressed, liquefied, and renewable natural gas.

Congresswoman Fletcher introduced the *Alternative Fuel Tax Credit (AFTC) Extension Act of 2019* in the House of Representatives last Thursday, November 14, joined by bill co-sponsor Congressman Markwayne Mullin (OK-02). This resolution seeks to encourage investment and adoption of vehicles running on natural gas by offering U.S. drivers a 50 cent tax credit per gallon purchased of CNG, LNG or other renewable fuels through the year 2025. After that, the tax credit would be reduced to 25 cents per gallon through 2027.

“This tax credit encourages investments in cleaner fuel options for vehicle use. The *AFTC* incentivizes innovation of alternative fuels, like natural gas, which leads to lower costs and reduced greenhouse gas emissions through these cleaner-burning fuels,” said Congresswoman Fletcher. “I thank Congressman Mullin for joining me to introduce this legislation and I look forward to continuing our work on this important issue.”

The *AFTC* was last extended by Congress for the 2017 calendar year. Since then, industry advocates have been pressing federal lawmakers to reinstate the tax credit in order to encourage businesses and customers to continue to deploy cleaner alternative fuel technologies that utilize natural gas, and also grant certainty on tax policies for the natural gas sector.

“This legislation provides the added needed incentive for fleets of all sizes – public and private – to transition to clean natural gas transportation fuel,” said Dan Gage, president of natural gas vehicle advocacy group NGVAmerica. “Heavy-duty vehicles are the fastest growing vehicle segment and among the largest contributors of pollutant and greenhouse gas emissions in the transportation sector. Natural gas vehicles are zero emission equivalent and can be carbon-neutral – even negative – depending on the natural gas source. Representatives Fletcher and Mullin know that we can't have clean air without cleaner trucks. This legislation is a down payment on a clean air / carbon cutting future for today's kids and all future generations, and it invests in technology that is market-ready, proven, and affordable today.”

In February, Gage's NGVAmerica organization led efforts to encourage Congressional leaders to bring back the *AFTC*. In a letter sent to U.S. Senators Chuck Grassley and Ron Wyden, chairman and ranking member of the Senate Committee on Finance, respectively, and U.S. Representatives Richard Neal and Kevin Brady, chairman and ranking member of the House Committee on Ways and Means, NGVAmerica was joined by nearly 700 users, retailers, customers, fleet managers, utilities and producers of alternative transportation fuels in calling on Congress to support the *AFTC* reinstatement.



Mark your calendar for  
**TIPRO'S 74<sup>TH</sup>  
ANNUAL CONVENTION**

TIPRO'S 74<sup>th</sup> Annual Convention will bring together Texas producers, mineral owners, policymakers, industry experts and other oil and gas professionals to review evolving policies and other trends that will impact you in 2020 and beyond.

Presenters at TIPRO's Annual Meeting will highlight interim legislative work underway at the Texas capitol on key oil and gas issues, examine market conditions for the energy sector, and discuss strategies to maximize unconventional performance.

TIPRO's 2020 conference also will offer a special information hall, showcasing unique industry services and products. Contact TIPRO today for more information on how to participate.

*CONFERENCE DETAILS:*  
**March 23-24, 2020**

**Hilton Anatole Hotel  
Dallas, Texas**

*\*Agenda overview coming soon*

**Don't miss other exclusive networking opportunities at the TIPRO Annual Convention to connect with prominent oil and gas companies!**

Find other event information and learn about available sponsor packages by visiting

**[www.tipro.org](http://www.tipro.org)**

## FBI CONSULTS TEXAS ENERGY INDUSTRY ON EXISTING CYBERSECURITY THREATS

Leaders from Texas pipeline and oil and gas companies participated in a classified briefing involving the FBI and other federal partners earlier this month to gain insights on physical and cyber threats facing U.S. energy infrastructure today. The briefing was held Wednesday, November 6, 2019, at the FBI-Houston field office, and included representatives from the Federal Bureau of Investigation (FBI), National Counterintelligence and Security Center (NCSC), the U.S. Department of Energy (DOE), the Federal Energy Regulatory Commission (FERC), the Transportation Security Administration (TSA) and the U.S. Department of Homeland Security (DHS). The classified meeting focused on protecting pipelines, power lines, refineries and other facilities as the United States government hopes to prevent cases of espionage, hacking and overseas-led cyber attacks.

“World-class energy companies have made Houston their home, so it makes perfect sense for FBI Houston to host this critical briefing between our federal partners and private energy partners,” said FBI Houston’s Special Agent in Charge Perrye K. Turner. “By sharing threat information with our regional private sector partners and raising industry awareness, we can better protect the technology and innovation that makes the Houston region a world leader in the energy field from disruptive cyberattacks and cyber espionage.”

As recent as this past January, the director of National Intelligence publicly assessed that outside entities, including foreign adversaries in China, hold the ability to launch cyberattacks causing localized, temporary disruptive effects on critical infrastructure in the United States, including energy pipelines, lasting days to weeks. Case-in-point, as experienced in April of 2018, a sophisticated cyberattack against a shared data network forced four American natural-gas pipeline operators to temporarily shut down computer communications with customers, according to the FBI.

“The energy sector remains a key target of nation-state cyber intrusions, supply chain attacks, economic espionage efforts and other threats,” warned William Evanina, director of the National Counterintelligence and Security Center. “Through information exchanges like these, we’re working to raise awareness of the threats and partner with the industry to mitigate risks.”

“America’s oil and natural gas pipelines play an essential role in the economic security and energy independence of the nation. The Department of Energy will continue to work with our industry partners to share information and provide capability to better protect the United States,” stated DOE Assistant Secretary Karen S. Evans, head of the Energy Department’s office of Cybersecurity, Energy Security, and Emergency Response (CESER). The CESER office leads the Department of Energy’s emergency preparedness and coordinated response to disruptions to the energy sector, including physical and cyber-attacks, natural disasters, and man-made events.

The FBI points companies to the following online federal resources to learn more on how to protect information, assets, technologies and networks from cybersecurity threats:

- FBI Resources: <https://www.fbi.gov/about/partnerships/office-of-private-sector>;
- NCSC Resources: <https://www.dni.gov/index.php/ncsc-how-we-work/ncsc-know-the-risk-raise-your-shield/ncsc-awareness-materials>;
- NCSC Supply Chain Management: <https://www.dni.gov/index.php/ncsc-what-we-do/ncsc-supply-chain-threats>.

## PERMIAN SEES NATION’S GREATEST GROWTH IN PERSONAL INCOME



New data released in mid-November by the U.S. Commerce Department shows that salaries have grown faster in Texas, specifically cities located near the state’s oilfields, than anywhere else in the United States, even outpacing other lucrative areas of the country like New York, San Francisco or Boston. The cities of Midland and Odessa -- central to activity in the Permian Basin, the nation’s most prolific oil formation -- topped all 374 metro areas with the fastest growth of per capita personal income levels, experiencing gains of 17.4 percent and 14.6 percent respectively. Midland leads the country with the highest per capita personal income, with residents earning wages averaging \$122,247 in 2018, said the Commerce Department. By comparison, per capita personal income averaged \$56,527 in 2018 for Americans living in other primary metropolitan areas and \$41,552 for those in smaller towns.

With energy professionals relocating to the Permian to pursue careers in oil and gas, the population of Midland also has continued to expand in recent years. Midland’s metropolitan area saw growth of 4.4 percent in population counts, according the Commerce Department. This bucks a wider national trend, where populations in more than one in five metro areas shrank last year.

## HELPING THE COMMUNITY: PIONEER NATURAL RESOURCES DONATES EQUIPMENT TO MIDLAND FIRE MARSHALS

TIPRO member company Pioneer Natural Resources last week presented the Midland Fire Department with donated body armor to help protect local fire marshals and firefighters serving in the line of duty. The donation was funded by Pioneer’s Permian Donations Committee, reported the *Midland Reporter-Telegram* newspaper, made up of corporate employees that determine the best ways for the company to support the Permian community. As one of the city’s oldest law enforcement agencies, the committee determined that body armor for Midland fire marshals was long overdue and wanted to ensure the local Fire Marshals were as well protected as their peers, according to the Midland paper.

## TIPRO MEMBERS RECOGNIZED AS HOUSTON'S TOP WORKPLACES FOR 2019



The *Houston Chronicle* has named its top workplaces for 2019, and making the list are several member companies of the Texas Independent Producers & Royalty Owners Association (TIPRO)! Energy companies EOG Resources, Plains All American Pipeline, Apache Corporation, Cabot Oil & Gas Corporation, and ARM Energy -- all members of TIPRO -- each were recognized as the city of Houston's Top Workplaces for 2019 for their exceptional work environments and leading office culture.

As part of its Top Workplaces list, the *Houston Chronicle* recognized a total of 150 companies and organizations in the Houston area. Companies for the 'Top Workplaces' awards were broken into three categories - large, medium and small - and were selected based solely on surveys completed by their employees about the workplace. The annual list covers a range of business industries, including manufacturing, financial services, real estate, healthcare, education and other sectors. In all, 2,349 employers in Greater Houston were invited this year to take part in the process.

## NEW PARTNERSHIP ANNOUNCED BY BAKER HUGHES TO DELIVER AI SOLUTIONS FOR ENERGY INDUSTRY

A new alliance involving oilfield service provider Baker Hughes and tech giant Microsoft is hoping to help operators make drilling operations safer, cleaner and more efficient by relying on advanced artificial intelligence (AI) solutions. The strategic alliance, announced Tuesday, November 19, also involves C3.ai, a leading provider of AI software, and will offer energy customers a suite of enterprise-scale AI applications optimized to run on Microsoft's Azure platform available on the cloud. Using new cost-cutting technologies provided through the platform, businesses will be able to address challenges across the entire value chain, from inventory optimization and energy management to predictive maintenance and process and equipment reliability.

"For the energy industry, this is a time of significant transformation, and forward-thinking companies are exploring how to leverage technology to make their operations cleaner, safer and more efficient," said Judson Althoff, EVP of worldwide commercial business for Microsoft. "By bringing together the domain expertise of Baker Hughes and the AI strengths of C3.ai to run on Microsoft's Azure cloud platform, customers can achieve new levels of digital transformation while advancing their sustainability commitments."

Baker Hughes Chairman and CEO Lorenzo Simonelli added that the new AI solutions will help make the oil patch more efficient, and safer, too. "With a singular offering that can accelerate digital transformation across the sector, energy businesses can now draw on the power of Microsoft's cloud, C3.ai's leading AI capabilities, and Baker Hughes's expertise in the energy industry," said Simonelli.

The initiative already has gained backing from major producers like Royal Dutch Shell, which has endorsed the AI platform utilizing new AI technologies to improve overall operations and reduce its environmental impact. Shell, an early adopter of the AI program, is using artificial intelligence to monitor its operations around the world to optimize flows of oil and natural gas as well as better predict when equipment needs repairs.

"We are witnessing a massive market shift as oil and gas businesses undergo enterprise-level digital transformation to improve efficiencies and increase safety, while simultaneously reducing environmental impact," said Thomas M. Siebel, CEO of C3.ai. "With Microsoft's global reach and horizontal cloud platform, Baker Hughes's technology domain expertise, and C3.ai's industrial AI capabilities, organizations can rapidly improve core business operations and better serve customers with AI-enabled products and services. This strategic alliance is a complete game-changer for the industry."

## TEXAS LEADS THE NATION IN JOB CREATION

Texas' unemployment rate remained steady last month at 3.4 percent, said the Texas Workforce Commission (TWC) on Friday, November 15<sup>th</sup> in the state's latest labor market update. This represents the fifth consecutive month of record low unemployment in the state starting in June 2019, according to the TWC. "This is yet another historic moment for Texas. For the past five months, our unemployment rate has remained at a record low," commented TWC Chairman Bryan Daniel. "It's no surprise that our innovative businesses, hardworking labor force and strong state leadership continue to yield economic results to highlight Texas as one of the best places to work in the country."

The Lone Star State continues to maintain unemployment rates lower than the national rate which held at 3.6 percent in October. The state of Texas also saw some of the largest job gains recorded in the country. Year-to-date, employers in Texas have added 297,100 jobs in 2019, notes the TWC.

"Thanks to the hard work of Texas businesses our state's vast economy continues to thrive with employers adding over 290,000 jobs in the last year," said TWC Commissioner Representing Employers Aaron Demerson. "By continuing to support local businesses, we can ensure our industries continue to flourish and set new records."

The Midland Metropolitan Statistical Area (MSA) recorded October's lowest unemployment rate among Texas MSAs with a non-seasonally adjusted rate of 2.1 percent, followed by the Amarillo MSA at 2.4.

The Texas oil and gas industry is currently experiencing contraction due to economic forces, causing a drop in total workforce count. The mining and logging sector, of which the oil and gas industry accounts largely for, shed 2,000 jobs in October, according to the TWC. Industry employment levels have seen a slowdown through much of the second half of 2019, and are projected to continue to remain down leading into 2020.

*With the season of thanks upon us...*

the Texas Independent Producers & Royalty Owners Association extends our gratitude to all members for your loyalty, support and participation in the organization throughout the year.

Because of your investment and involvement with the association, TIPRO continues to serve as the leading representation of the Texas oil and gas industry before regulatory entities and local, state and federal officials, and delivers members top industry intelligence.

TIPRO is also pleased to host exclusive industry events, bringing together members to confront top priorities facing the Texas oil & gas sector today. Association gatherings present unique access to state officials and other industry leaders, as well as offer opportunities to network and connect with other energy professionals.

*Happy Thanksgiving!*



## THE TIPRO TARGET



**Texas Independent  
Producers &  
Royalty Owners  
Association**

With nearly 3,000 members, TIPRO is the nation's largest statewide association representing both independent producers and royalty owners. Our members include small family-owned companies, the largest publicly traded independents and large and small mineral estates and trusts.

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