

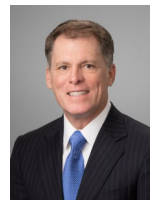
# Weekly E&P Update

March 18, 2025

Vol. 11

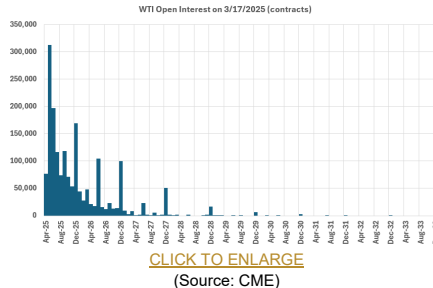
## **NYMEX WTI Futures: A Reliable Crystal Ball or Just Another Estimate?**

By Steve Hendrickson  
President of Ralph E. Davis Associates

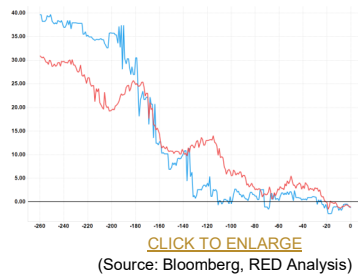


Recent turmoil in trade and fiscal policy have raised concerns about the direction of oil prices. Since the beginning of the year, WTI prices have softened, with the futures curve in slight backwardation: forward prices currently average about \$66 per barrel for the remainder of 2025, gradually declining to around \$62 per barrel by 2029. Given the uncertainty surrounding the market, let's consider how well NYMEX futures prices actually predict the future spot price of crude oil.

While NYMEX WTI futures are actively traded, liquidity is concentrated in the near-term contracts. Other than the June and December contracts, which start trading earlier, open interest for WTI contracts beyond one year is minimal. In fact, settlement prices for longer-dated contracts aren't directly established from market trades due to insufficient volume. Instead, CME relies on spread relationships to determine settlements for contracts more than six months from expiry. This raises an important question: how reliable are these futures prices as a predictor of where spot prices will ultimately land?

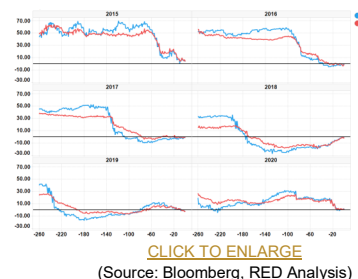


To assess this, we conducted an independent review using five years of trading data covering NYMEX WTI contracts from November 2016 through 2021. Our study compared each contract's settlement price over time to the spot price observed during its final month. Additionally, we examined an alternative forecasting method: assuming the spot price at any given time remains unchanged until the contract month.



We measured predictive accuracy using two key metrics: the average and median error, calculated as the difference between the predicted and actual spot price. As expected, the errors for both methods converge toward zero as contracts approach expiration. This is because, by definition, a contract's final settlement price aligns closely with the actual spot price observed during that month.

Over the five-year period, we found that the NYMEX futures price and the assumption of a constant spot price had similar predictive accuracy. The spot price assumption performed slightly better when considering median error, though the difference was not dramatic. In the year prior to expiration, both methods provided roughly the same level of accuracy. In the plots below, we show the median error plotted against the number of weeks prior to contract expiration for the two methods.



Grouping contracts by year highlighted another key finding: neither method could effectively anticipate large market shifts, such as OPEC policy changes or the price collapse triggered by the COVID-19 pandemic. While futures prices may incorporate market expectations, unexpected disruptions often lead to significant forecasting errors.

One possible explanation for the similarity between these two approaches lies in the mean-reverting nature of crude oil prices. Over time, oil prices tend to fluctuate around a fundamental equilibrium, and forward curves often reflect this tendency. Similarly, assuming a constant spot price implicitly assumes mean reversion since the observed spot prices ultimately define the market mean.

Ultimately, while NYMEX WTI futures provide a useful market-based gauge of expectations, their predictive power—especially beyond the near term—should be taken with caution. As history has shown, future crude oil prices remain susceptible to events that futures markets can't anticipate, and they may be no more accurate than assuming today's spot prices are held constant.

## **Table Of Contents**

[This Week in Oil & Gas](#)

[Commodity Futures](#)

[Industry Headlines](#)

[Recent Transactions](#)

[Rig Activity by US Region](#)

[Deal Value by US Region](#)

[Total US Rig Count by US Region](#)

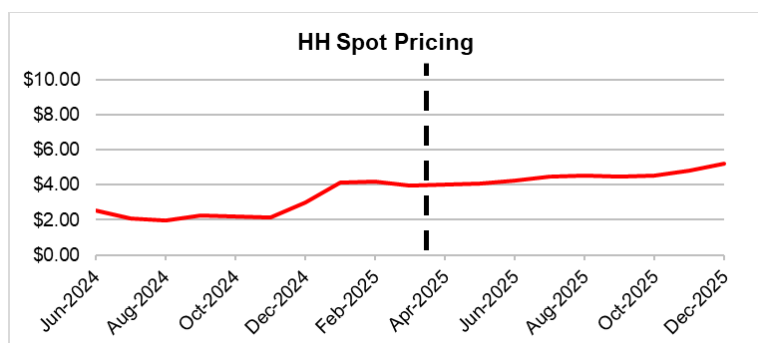
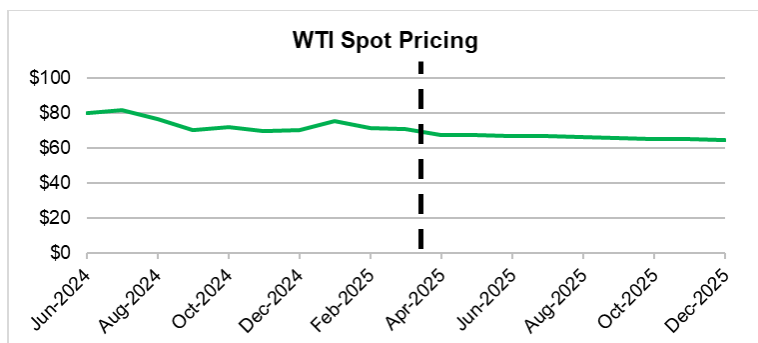
[US Daily Crude & Dry Natural Gas Production](#)

[Historical Production of US Shale Regions](#)

[Upcoming Events](#)

[About Us/Key Contacts](#)

## NYMEX FUTURE PRICING



## MONDAY'S MARKET CLOSE

### **NYMEX WTI CRUDE OIL FUTURES as of March 17, 2025 Close (\$/bbl)**

Period	Current	WoW Change	Last Week	1 Yr Ago
2025	\$66.17	\$1.68	\$64.49	\$73.97
2026	\$63.70	\$1.48	\$62.22	\$69.70
2027	\$62.81	\$1.31	\$61.50	\$67.00
2028	\$62.47	\$1.14	\$61.33	\$65.37
2029	\$62.26	\$0.99	\$61.27	\$64.64

### **NYMEX HH NATURAL GAS FUTURES as of March 17, 2025 Close (\$/MMBtu)**

Period	Current	WoW Change	Last Week	1 Yr Ago
2025	\$4.49	(\$0.37)	\$4.86	\$3.48
2026	\$4.44	(\$0.01)	\$4.45	\$3.80
2027	\$3.86	\$0.01	\$3.85	\$3.81
2028	\$3.62	(\$0.03)	\$3.65	\$3.76
2029	\$3.49	(\$0.01)	\$3.50	\$3.73

## INDUSTRY METRICS—QUICK SNAPSHOT

	Current	Last Week	WoW Change	%Change
Crude Oil Near-Month Price (\$/bbl)	\$67.35	\$67.11	\$0.24	0.4%
Natural Gas Near-Month Price (\$/MMBtu)	\$4.12	\$4.47	(\$0.34)	(8%)
Weekly Upstream-Deal Transaction Value (\$MM)	\$1,200.00	\$9.00	\$1,191.00	>1,000%
Weekly Number of Upstream-Deal Transactions	1	4	(3)	(75%)
Current Total US Rig Count	592	592	0	-
US Field Crude Oil Production (MMbbl/day)	13.6	13.5	0.1	0.5%
US Field Dry Natural Gas Production (Bcf/day)	110.7	111.5	(0.8)	(0.7%)
Commercial Crude Oil Stocks-Excluding SPR (MMbbl)	435	434	1	0.3%
Natural Gas Stocks-Working Gas Underground Storage (Bcf)	1,698	1,760	(62)	(4%)
All Basin Drilled But Uncompleted Wells (DUC-Last Quarter)	5,238	5,238	0	-

\*Source—Energy Information Administration (EIA), Bloomberg LP

\*Source—Baker Hughes North America Rotary Rig Count & Enverus M&A Database

## COMMODITY FUTURES - MONDAY'S MARKET CLOSE

	Current	1-Month Change	3-Month Change	6-Month Change	Year Ago Change
<b>WTI</b>					
Prompt	\$67.58	-4.27 [ -5.94% ]	-3.13 [ -4.43% ]	-2.51 [ -3.58% ]	-15.14 [ -18.30% ]
Bal25	\$66.17	-4.34 [ -6.15% ]	-2.89 [ -4.18% ]	-2.97 [ -4.29% ]	-13.95 [ -17.41% ]
Cal26	\$63.70	-3.37 [ -5.02% ]	-2.81 [ -4.22% ]	-3.24 [ -4.84% ]	-10.27 [ -13.88% ]
Cal27	\$62.81	-2.31 [ -3.54% ]	-2.01 [ -3.09% ]	-2.72 [ -4.15% ]	-6.89 [ -9.88% ]
Cal28	\$62.47	-1.47 [ -2.30% ]	-1.14 [ -1.79% ]	-2.24 [ -3.46% ]	-4.52 [ -6.75% ]
Cal29	\$62.26	-0.81 [ -1.29% ]	-0.40 [ -0.64% ]	-2.04 [ -3.17% ]	-3.11 [ -4.75% ]
<b>Brent</b>					
Prompt	\$71.07	-4.77 [ -6.29% ]	-2.84 [ -3.84% ]	-1.68 [ -2.31% ]	-15.82 [ -18.21% ]
Bal25	\$69.56	-4.56 [ -6.15% ]	-2.97 [ -4.09% ]	-2.89 [ -3.98% ]	-14.78 [ -17.52% ]
Cal26	\$67.37	-3.54 [ -4.99% ]	-3.01 [ -4.28% ]	-3.77 [ -5.29% ]	-11.42 [ -14.49% ]
Cal27	\$66.70	-2.52 [ -3.64% ]	-2.31 [ -3.35% ]	-3.36 [ -4.80% ]	-8.17 [ -10.92% ]
Cal28	\$66.73	-1.66 [ -2.43% ]	-1.46 [ -2.14% ]	-2.81 [ -4.04% ]	-5.65 [ -7.80% ]
Cal29	\$66.86	-1.05 [ -1.54% ]	-0.76 [ -1.12% ]	-2.39 [ -3.45% ]	-4.04 [ -5.70% ]
<b>Henry Hub</b>					
Prompt	\$4.02	+0.01 [ 0.27% ]	+0.80 [ 25.02% ]	+1.65 [ 69.32% ]	+2.32 [ 135.94% ]
Bal25	\$4.49	+0.21 [ 4.98% ]	+1.30 [ 40.92% ]	+1.80 [ 66.72% ]	+2.02 [ 81.87% ]
Cal26	\$4.44	+0.18 [ 4.25% ]	+0.67 [ 17.92% ]	+1.27 [ 39.90% ]	+0.96 [ 27.66% ]
Cal27	\$3.86	-0.02 [ -0.47% ]	+0.08 [ 2.12% ]	+0.33 [ 9.30% ]	+0.06 [ 1.69% ]
Cal28	\$3.62	-0.06 [ -1.58% ]	-0.04 [ -1.20% ]	+0.06 [ 1.80% ]	-0.19 [ -4.97% ]
Cal29	\$3.49	-0.08 [ -2.21% ]	-0.08 [ -2.20% ]	+0.02 [ 0.53% ]	-0.27 [ -7.21% ]
<b>Heating Oil</b>					
Prompt	\$2.20	+0.10 [ 4.53% ]	+0.21 [ 10.40% ]	+0.21 [ 10.82% ]	-0.58 [ -20.89% ]
Bal25	\$2.16	-0.11 [ -5.27% ]	+0.01 [ 0.29% ]	+0.12 [ 6.10% ]	-0.46 [ -18.36% ]
Cal26	\$2.14	-0.08 [ -4.01% ]	-0.01 [ -0.29% ]	-0.06 [ -2.91% ]	-0.30 [ -13.47% ]
Cal27	\$2.12	-0.08 [ -3.91% ]	-0.02 [ -0.88% ]	-0.05 [ -2.36% ]	-0.25 [ -11.51% ]
Cal28	\$2.10	-0.08 [ -3.90% ]	-0.02 [ -0.91% ]	-0.03 [ -1.47% ]	-0.21 [ -10.09% ]
<b>RBOB</b>					
Prompt	\$2.18	-0.24 [ -9.70% ]	-0.06 [ -2.66% ]	+0.11 [ 5.10% ]	-0.58 [ -20.96% ]
Bal25	\$2.06	-0.17 [ -7.17% ]	-0.07 [ -3.24% ]	+0.05 [ 2.36% ]	-0.55 [ -20.37% ]
Cal26	\$1.93	-0.10 [ -4.51% ]	-0.06 [ -2.90% ]	-0.01 [ -0.56% ]	-0.40 [ -15.73% ]
Cal27	\$1.90	-0.08 [ -3.56% ]	-0.05 [ -2.23% ]	-0.06 [ -2.68% ]	-0.30 [ -12.54% ]
Cal28	\$1.90	-0.07 [ -3.18% ]	-0.04 [ -2.02% ]	-0.05 [ -2.46% ]	-0.25 [ -10.84% ]

\*Source—Bloomberg LP

## **SELECTED INDUSTRY HEADLINES**

### **US Energy Dominance Council to Cut Oil Industry Costs by Finding Redundancies: Burgum**

The US National Energy Dominance Council will be able to reduce oil industry costs by first prioritizing major energy projects and then weeding out regulatory redundancies and overreach, US Interior Secretary Doug Burgum said March 12.

### **USA Crude Oil Inventories Rise 1.4MM Barrels WoW**

U.S. commercial crude oil inventories, excluding those in the Strategic Petroleum Reserve (SPR), increased by 1.4 million barrels from the week ending February 28 to the week ending March 7, the U.S. Energy Information Administration (EIA) highlighted in its latest weekly petroleum status report.

### **Oil Prices Tick Up On US Attack On Houthis, China Economic Hopes**

Oil prices rose slightly on Monday after the United States vowed to keep attacking Yemen's Houthis until the Iran-aligned group ends its assaults on shipping, while Chinese economic data buoyed hopes for higher demand.

### **USA EIA Raises WTI Oil Price Forecast**

The U.S. Energy Information Administration raised its West Texas Intermediate spot price forecasts for 2025 and 2026 in its latest short term energy outlook, which was released last week.

### **Wildcatter Harold Hamm Says Shale Needs \$80 Oil for Costly Fields**

Harold Hamm, the billionaire wildcatter and a major donor to President Donald Trump, has challenged a claim from the new US energy secretary that domestic oil companies could increase production even at prices as low as \$50 a barrel.

### **AI, LNG Demand to Keep US Natgas Use at Record Highs But Bottlenecks Threaten**

U.S. natural gas use is set to continue hitting record highs due to soaring liquefied natural gas demand and power consumption from data centers, executives said at a conference this week, while also warning a lack of infrastructure could hurt the industry.

### **U.S. Natural Gas Lifted By Above-Estimate Storage Draw (LOGIN REQUIRED)**

U.S. natural gas futures shake off early losses after the EIA reports a bigger-than-expected 62 Bcf reduction in storage for that widened the deficit as the winter withdrawal season enters its final weeks.

### **Trade War in Focus as Natural Gas Futures Rally Defies Fundamentals (LOGIN REQUIRED)**

Natural gas futures surged for a second straight session on Tuesday despite bearish weather and production signals, as tariff and geopolitical tensions rattled markets and drove continued short covering.

### **Natural Gas Pipeline Project Completions Increase Takeaway Capacity in Producing Regions**

Natural gas pipeline projects completed in 2024 increased takeaway capacity by approximately 6.5 billion cubic feet per day in the U.S. natural gas-producing Appalachia, Haynesville, Permian, and Eagle Ford regions

### **CERAWeek 2025: Maximizing U.S. Natural Gas Abundance**

Regulatory reform, building needed infrastructure and continuing to reduce emissions dominated a panel discussion of the next U.S. natural gas growth cycle at the CERAWeek energy conference in Houston.

### **Navigating the Shift: Hydrocarbon Strategies in a Changing Energy Landscape**

Industry leaders believe oil and gas will continue to play a pivotal role in the energy mix in the lengthening energy transition timeline.

## **SELECTED RECENT TRANSACTIONS**

### **Citadel Buys Haynesville E&P Paloma Natural Gas for \$1.2B**

Hedge fund giant Citadel has acquired Haynesville Shale E&P Paloma Natural Gas for \$1.2 billion, Hart Energy has learned.

### **Evolution Petroleum Announces Acquisition of Non-Operated Oil and Natural Gas Assets**

Evolution Petroleum Corporation announced that it has entered into a definitive agreement to acquire non-operated oil and natural gas assets in New Mexico, Texas, and Louisiana.

### **Ring Energy Bolts On Lime Rock's Central Basin Assets for \$100 Million**

Ring Energy Inc. is bolting on Lime Rock Resources IV LP's Central Basin Platform assets for \$100 million, the E&P announced Feb. 26.

### **Civitas Makes \$300 Million Midland Bolt-On, Plans to Sell D-J Assets**

Civitas Resources is buying Midland Basin locations in a \$300 million bolt-on acquisition from an undisclosed seller, deepening its Permian inventory by about a year.

### **Tokyo Gas Announces Sale of Eagle Ford Shale Gas Assets**

Tokyo Gas Co. has announced that its wholly-owned subsidiary, Tokyo Gas America, through its subsidiary TG Eagle Ford Resources LP, signed Heads of Agreement with Shizuoka Gas Co, to sell its Eagle Ford shale gas assets.

### **ConocoPhillips to Sell Interests in Ursa and Europa Fields to Shell for \$735 Million**

ConocoPhillips said on Friday it would sell its interests in the Ursa and Europa Fields to Shell for \$735 million, as part of the shale producer's plan to streamline its portfolio.

### **Occidental to Divest Some Upstream Assets for \$1.2 Billion**

Occidental Petroleum said that it had struck two deals in the current quarter to divest some upstream assets to undisclosed buyers for a total of \$1.2 billion, although its current-quarter production forecast fell short of expectations.

### **Diamondback Energy to Expand in Permian Basin With \$4.08 Billion Deal**

Diamondback Energy said on Tuesday it would buy certain units of EnCap Investments-backed energy producer Double Eagle for \$4.08 billion in cash and stock, expanding its presence in the oil-rich U.S. Permian basin.

### **Bayswater E&P to Sell DJ Basin Assets for \$603 Million**

Bayswater Exploration and Production, a Denver-based oil and natural gas development company, has entered into an agreement to sell assets in the Denver Julesburg Basin to Prairie Operating Company in a cash and stock transaction valued at approximately \$603 million.

### **ConocoPhillips Sells \$600 Million in Noncore Permian Basin Assets**

Following its \$22.5 billion deal to buy Marathon Oil, ConocoPhillips is targeting \$2 billion in asset sales—a goal a company executive said would largely be achieved this year.

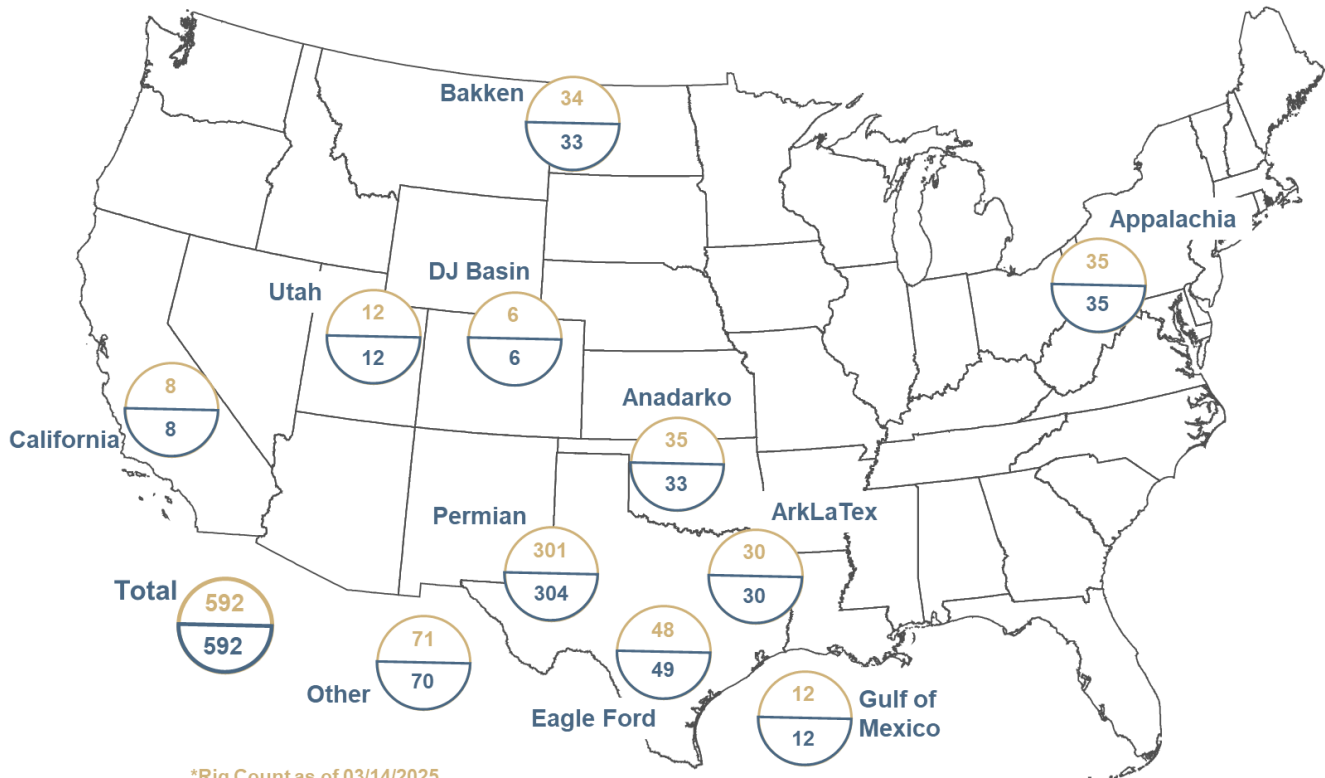
### **Viper Buys \$330 Million Midland Interests in Shadow of \$4.5 Billion Dropdown**

Viper Energy has entered into a definitive purchase agreement to buy mineral and royalty interests from Morita Ranches Minerals LLC in a cash-and-equity deal valued at about \$330 million.

### **Elk Range Acquires Permian, Eagle Ford Minerals and Royalties**

Elk Range Royalties LP is acquiring Newton Financial Corp., Concord Oil Co. and Mission Oil Co., which together own mineral and royalty interests across the Permian Basin and Eagle Ford Shale, Dallas-based Elk said Jan. 29.

## RIG ACTIVITY BY US REGION

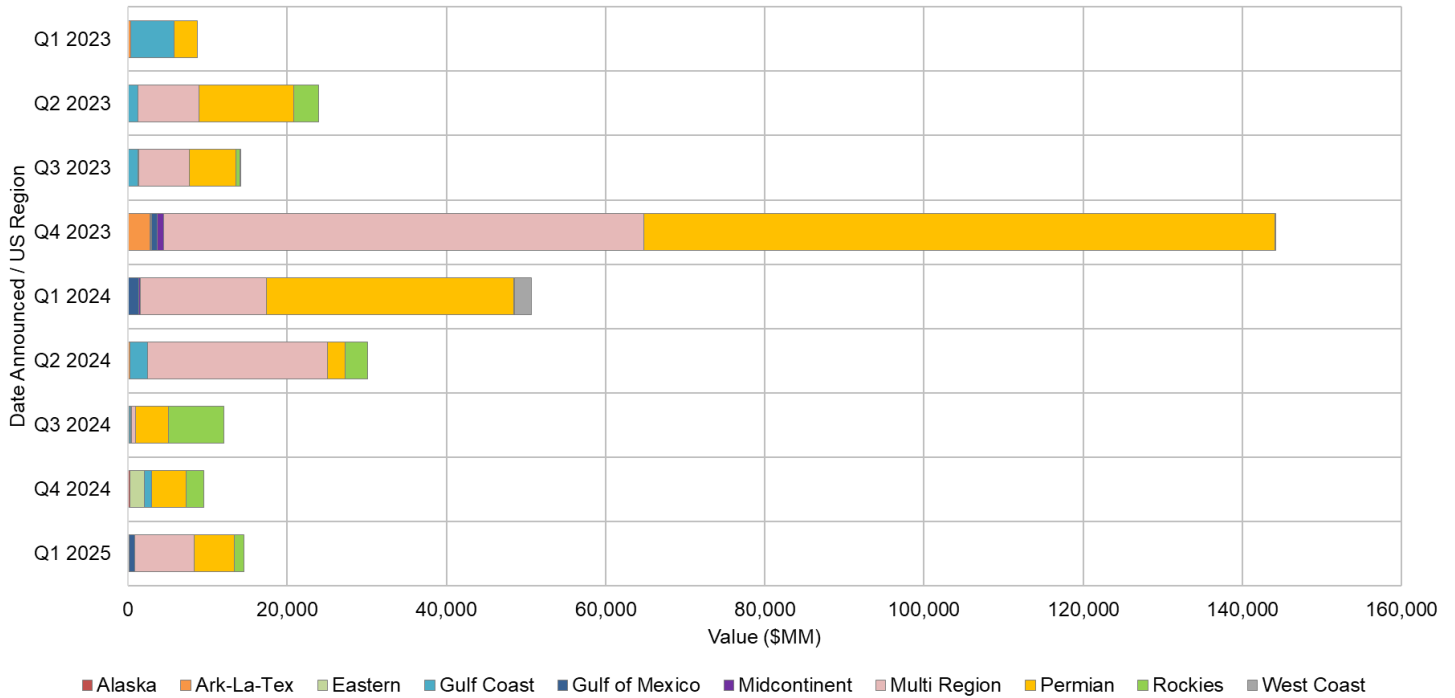


\*Rig Count as of 03/14/2025  
 \*Rig Count as of 03/07/2025

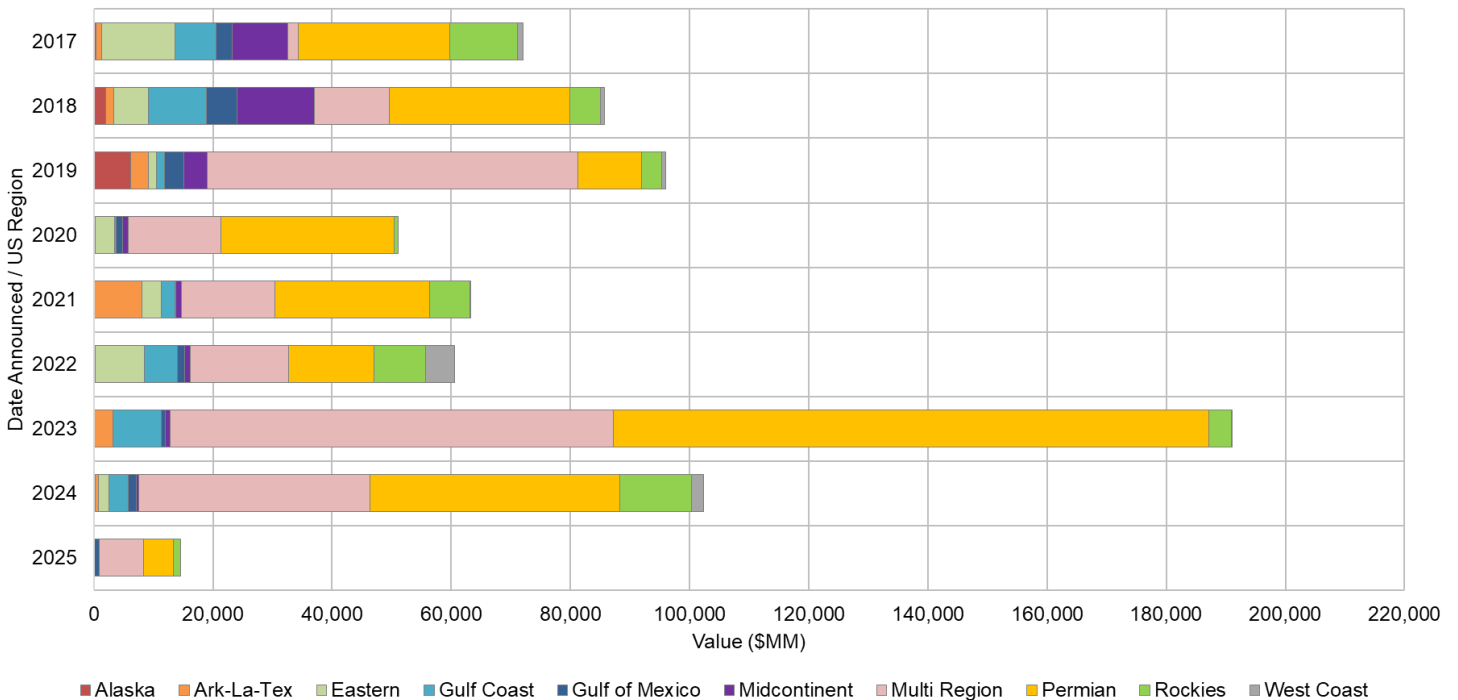
	Week Ending 03/14/2025			Week Ending 03/07/2025		Week Ending 03/15/2024
U.S. Rig Breakouts	Count	+/-	Count	+/-	Count	
Oil	487	1	486	(23)	510	
Gas	100	(1)	101	(16)	116	
Not Specified	5	0	5	2	3	
Directional	50	1	49	(4)	54	
Horizontal	530	(1)	531	(32)	562	
Vertical	12	0	12	(1)	13	
Land (Inc Others)	576	0	576	(29)	605	
Inland Waters	2	0	2	2	0	
Offshore	14	0	14	(10)	24	
<b>US Total</b>	<b>592</b>	<b>0</b>	<b>592</b>	<b>(37)</b>	<b>629</b>	

\*Source—Baker Hughes North America Rotary Rig Count

## DEAL VALUE BY US REGION (BY QUARTER)

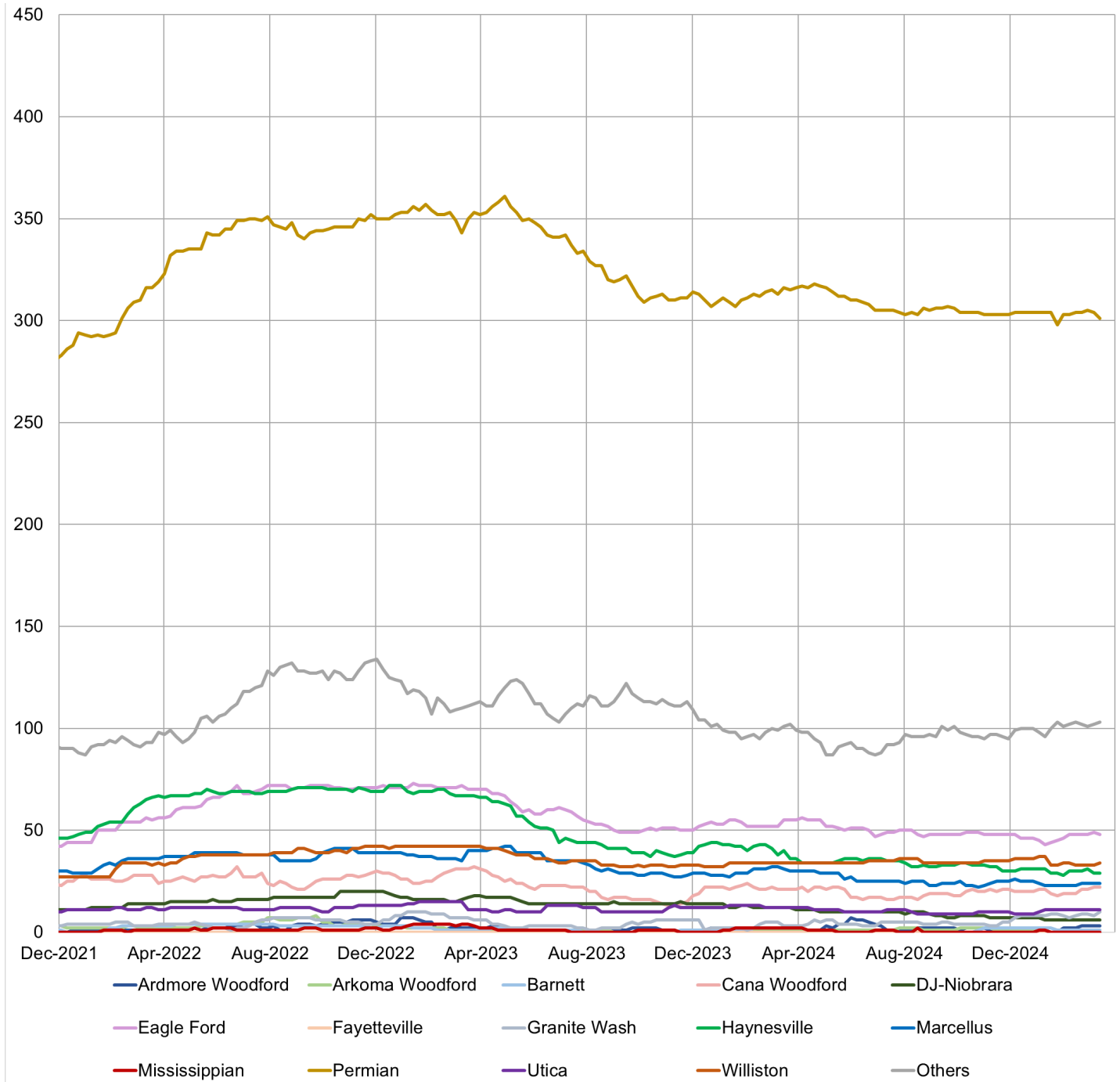


## DEAL VALUE BY US REGION (BY YEAR)



\*Source—Enverus M&A Data- (Charts exclude terminated deals)

## RIG ACTIVITY BY US REGION



\*Source—Baker Hughes North America Rotary Rig Count

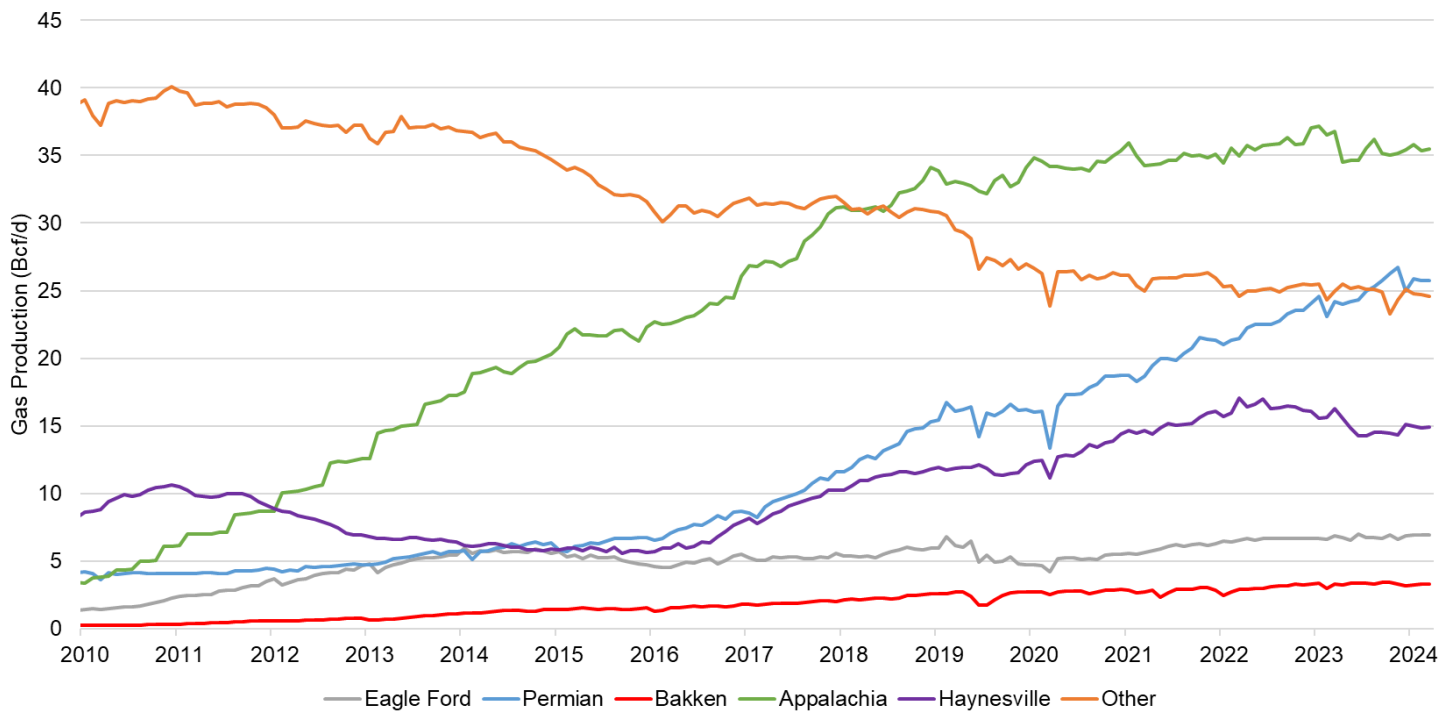
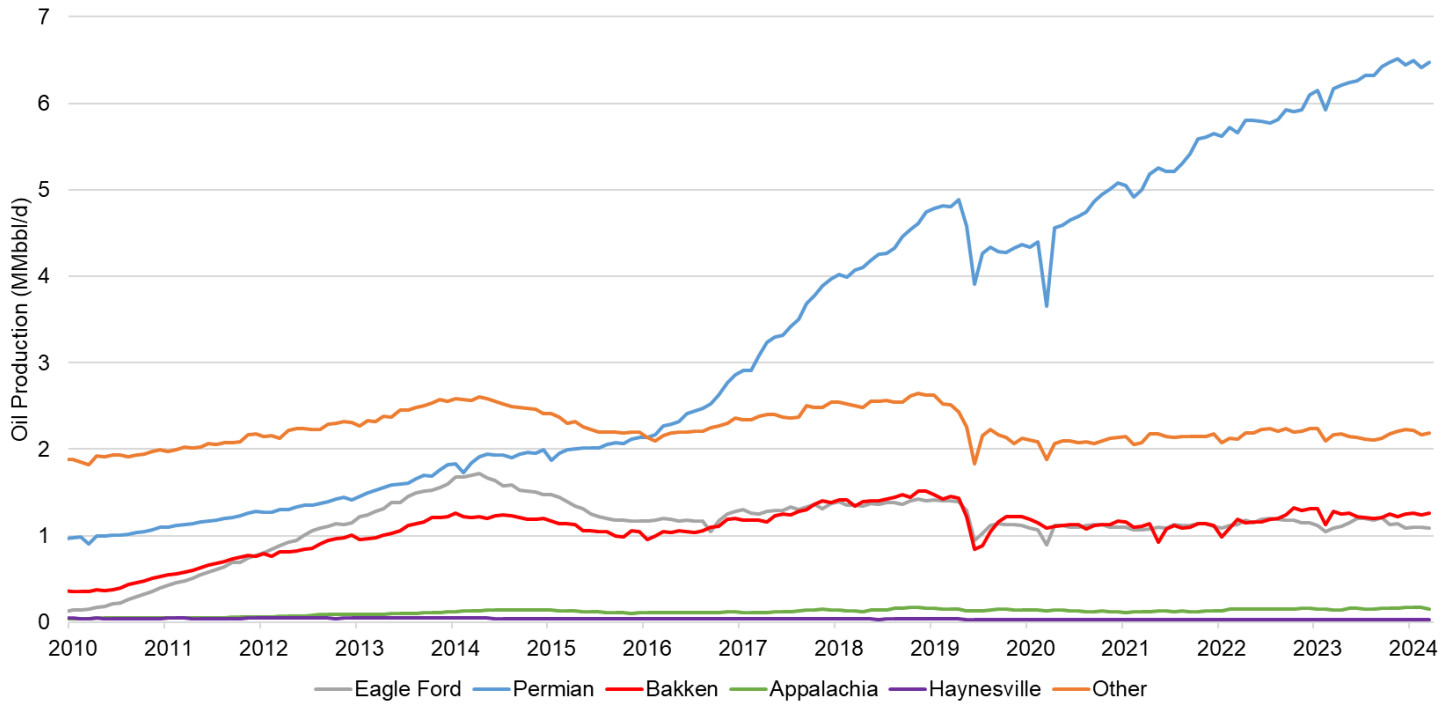


## US DAILY CRUDE (MMbbl) & DRY NATURAL GAS PRODUCTION (MMcf)



\*Source—Energy Information Administration (EIA)

## HISTORICAL PRODUCTION OF SELECTED US SHALE REGIONS



\*Source—Energy Information Administration (EIA)



**UPCOMING EVENTS**

**March 2025**

<a href="#">SPE GCS - Mega Mergers Panel</a>	March 26	Houston, TX
<a href="#">U.S. Men's Clay Court Championship</a>	March 29 - April 6	Houston, TX

**April 2025**

<a href="#">Texas Bankruptcy Bench/Bar Conference</a>	April 2	Houston, TX
<a href="#">SPE GCS - New Ventures Panel</a>	April 16	Houston, TX
<a href="#">Quorum Qnections 25</a>	April 22-24	Las Vegas, NV
<a href="#">World Oilman's Poker Tournament</a>	April 23-25	Las Vegas, NV
<a href="#">Hunger Free Golf Classic</a>	April 25	Houston, TX
<a href="#">World Oilman's Tennis Tournament</a>	April 30—May 3	Houston, TX

\*Denotes an Opportune Sponsored Event

## **ABOUT RALPH E. DAVIS ASSOCIATES**

**Ralph E. Davis Associates LLC (RED)** is an industry-leading petroleum engineering and geosciences firm committed to satisfying the individual needs of clients. We accomplish this by holding ourselves to the highest standards of integrity and professionalism to deliver honest, direct and actionable insights to help clients achieve their strategic objectives. We distinguish ourselves by combining reservoir engineering, geoscience evaluation techniques and advanced data analytics with economic analyses to provide our clients with individual, customized solutions.

Banks, bondholders, private equity firms, financial institutions and law firms around the world trust in RED's diverse services and unrivaled upstream oil and gas expertise to deliver comprehensive solutions that help clients make informed decisions. We add value to every engagement by employing a team approach, leveraging Opportune LLP's experienced bench of experts in transactional due diligence, tax advisory, investment banking, restructuring and valuation.

We offer technical and economic analyses to deliver our clients a complete, independent, accurate and detailed assessment of the value of their assets. We apply a robust set of technical capabilities to assist our clients. Our capabilities include:

- Reservoir engineering and geosciences
- Economic forecasting and reporting
- Data analytics and geospatial analysis

## **KEY CONTACTS**



**Steve Hendrickson** is the President of Ralph E. Davis Associates, an Opportune LLP company. Steve has over 35 years of professional leadership experience in the energy industry with a proven track record of adding value through acquisitions, development and operations. Steve is a licensed professional engineer in the state of Texas, and holds an M.S. in Finance from the University of Houston and a B.S. in Chemical Engineering from The University of Texas at Austin. He recently served as a board member of the Society of Petroleum Evaluation Engineers (SPEE) and is a registered FINRA representative.



**John Beaird** is Vice President of Ralph E. Davis Associates, an Opportune LLP company. John has 39 years of oil and gas management, reservoir engineering, and petroleum economics evaluation experience. Recent relevant experience includes the Permian, Western Gulf, Tx-La-Miss Salt, Mid-Continent, Denver-Julesburg, Wind River, Williston Basin, and Appalachian Basins. John is a registered Petroleum Engineer in the State of Texas and holds a B.S. in Petroleum Engineering from Louisiana Tech University. He is also an active member of the Society of Petroleum Evaluation Engineers (SPEE).



David Edwards is a Petroleum Engineer at Ralph E. Davis Associates, an Opportune LLP company. David has over four years of reserves engineering experience in conventional and unconventional reservoirs. Before RED, David was a Petroleum Engineer at a lower middle market A&D advisory firm where he handled the technical processes for marketed assets. He began his career with an operator in Dallas, where he contributed to its engineering, operations, and A&D teams. David holds an M.B.A. from The University of Texas Permian Basin and a B.S. in Petroleum Engineering from The University of Oklahoma.

