

Weekly E&P Update



February 13, 2024

Vol. 7

Insights From The NAPE Floor

By Steve Hendrickson President of Ralph E. Davis Associates



Last week marked the 31st annual North American Prospect Expo (NAPE) Summit in Houston, hosted by the American Association of Professional Landmen, the Independent Petroleum Association of America, the Society of Exploration Geophysicists, and the American Association of Petroleum Geologists. The Summit, which had 8,200 attendees and 460 exhibitors this year, has come a long way since the first one I attended in the Westin Galleria in the early 1990s. I always make it a point to walk the floor to pick up on the new trends and changes from prior years - here's my informal assessment of what stood out to me this year.

Hubs - This is a concept the Summit introduced a few years ago to provide a walk-up venue for brief presentations by industry players that delve into emerging topics. The concept was expanded this year to include separate hubs for minerals and non-operated interests, renewable energy, and bitcoin mining. The presentations were interesting, well-attended, and easy to come and go.

Minerals and Non-op Marches On - This part of the energy business continues to grow, and each year, I see companies I haven't seen before. In addition to minerals buyers, non-operated interest investors continue to grow, as do the number of firms and new technologies to support the space.

Bitcoin Mining - This was a hot topic a few years ago, which I perhaps mistakenly thought had lost its luster. I was surprised, however, by the number of companies that had booths, the various niches they're pursuing, and the scale of support companies that have emerged. There's more going on here than I realized, so I'll go deeper into this in a future newsletter.

Carbon Storage - There were quite several landowners and lease owners touting their carbon storage concepts and projects. Although these projects often require deep pockets, I noted some smaller players pitching their ideas.

Well Plugging - Following the incentives to plug wells in the Inflation Reduction Act and the emergence of voluntary carbon credit markets, several new companies and organizations have formed to address idle and orphaned wells. The number of booths was greater than I've noticed in prior Summits.

Conventional Prospects - One of the great things about NAPE is seeing deals from small shops to multinational companies. There are still a lot of conventional exploration prospects available across multiple basins, although many appeared to be small targets or deep ones.

Fewer Unconventional Deals - The maturation and consolidation of the unconventional plays are reflected in what I perceived were fewer unconventional deals being marketed. It will be interesting to watch how this evolves as companies merge, digest their portfolios, and bring "non-core" assets to the market.

Overall, the Summit was very well done, and it was great seeing familiar faces and making some new connections. See you next year!

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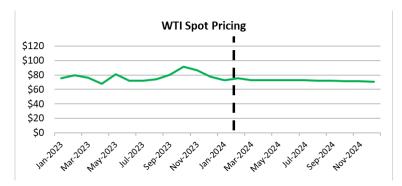
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NYMEX FUTURE PRICING





MONDAY'S MARKET CLOSE

NYMEX WTI CRUDE OIL FUTURES as of February 12, 2024 Close (\$/bbl)

Period	Current	WoW Change	Last Week	1 Yr Ago
2024	\$75.63	\$3.46	\$72.17	\$72.92
2025	\$71.28	\$2.51	\$68.77	\$68.59
2026	\$67.87	\$1.95	\$65.92	\$65.05
2027	\$65.82	\$1.59	\$64.23	\$61.97
2028	\$64.82	\$1.37	\$63.44	\$59.24

NYMEX HH NATURAL GAS FUTURES as of February 12, 2024 Close (\$\text{\$/MMBtu}\$)

Period	Current	WoW Change	Last Week	1 Yr Ago
2024	\$2.34	(\$0.19)	\$2.53	\$3.61
2025	\$3.43	\$0.00	\$3.43	\$3.86
2026	\$3.76	\$0.00	\$3.76	\$3.97
2027	\$3.74	(\$0.04)	\$3.78	\$3.99
2028	\$3.71	(\$0.05)	\$3.76	\$4.05

INDUSTRY METRICS—QUICK SNAPSHOT	<u>Current</u>	<u>Last Week</u>	WoW Change	%Change
Crude Oil Near-Month Price (\$/bbl)	\$76.60	\$72.76	\$3.84	5%
Natural Gas Near-Month Price (\$/MMBtu)	\$1.81	\$2.07	(\$0.18)	(9%)
Weekly Upstream-Deal Transaction Value (\$MM)	\$2,178.90	\$175.85	\$2,003.05	1,139%
Weekly Number of Upstream-Deal Transactions	4	5	(1)	(20%)
Current Total US Rig Count	623	619	4	0.6%
US Field Crude Oil Production (MMbbl/day)	13.3	13.0	0.3	2%
US Field Dry Natural Gas Production (Bcf/day)	110.2	109.3	0.9	0.8%
Commercial Crude Oil Stocks-Excluding SPR (MMbbl)	427	422	5	1%
Natural Gas Stocks-Working Gas Underground Storage (Bcf)	2,584	2,659	(75)	(3%)
Total Drilled But Uncompleted Wells (DUC-Last Month)	4,374	4,374	0	-

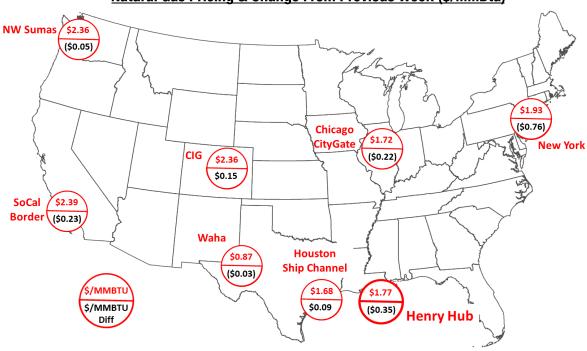
^{*}Source—Energy Information Administration, United States (EIA) *Source—Baker Hughes North America Rotary Rig Count & PLS M&A Database

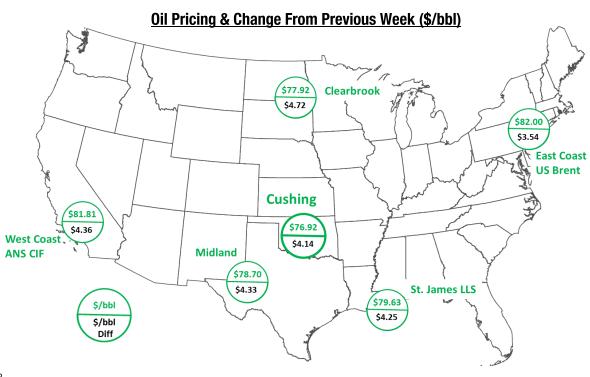




US COMMODITY PRICES CONTINUED

Natural Gas Pricing & Change From Previous Week (\$/MMBtu)









SELECTED INDUSTRY HEADLINES

<u>US Oil Output From Top Shale Regions to Rise in March—EIA</u>

U.S. oil output from top shale-producing regions will rise in March to its highest in four months, the U.S. Energy Information Administration (EIA) said recently in its monthly Drilling Productivity Report.

Permian Oil Output to Hit Fresh Record This Year, Pipeline Owner Plains Says

Oil output from the prolific Permian Basin of West Texas and New Mexico is poised to rise to fresh record this year as drilling gets more efficient, according to a major US pipeline operator.

North American Rig Count Up 4 As US Natural Gas Drillers Add Rigs

US drilling activity increased by 4 units to 623 rotary rigs working this week, down from 761 the same period a year ago, officials at Baker Hughes Inc. reported recently.

Colorado Legislators Push Bill to End Oil Well Drilling by 2030

Oil and gas leaders see the measure as an effort to kill a multibillion-dollar Colorado industry outright.

Oil Prices Near Flat as Demand Worries Offset Middle East Risk

Oil prices were little changed on Tuesday for a second straight day as uncertainty about the pace of potential U.S. interest rate cuts and the impact on fuel demand offset worries about Middle East tensions that could disrupt supply.

Oil Shows Minimal Change on Mixed Geopolitical Signs

Oil was little changed as traders weighed increasing military activity in the Middle East against diplomatic efforts to alleviate the conflict.

US EIA Trims Gas Production Forecast, Despite January Consumption Surge

The US Energy Information Administration lowered Feb. 7 by 1.71 Bcf/d to 113.08 Bcf/d its natural gas marketed production estimate for the US in the first quarter of 2024, despite record-breaking consumption in January.

What is The Outlook For The Natural Gas Spot Price in 2024 and 2025?

In 2022 and 2023, increases in natural gas supply (domestic natural gas production and imports) exceeded the increases in natural gas demand (domestic consumption and exports).

Global Natural Gas Prices Continue Freefall Amid Spiraling Demand, Warm Weather (LOGIN CREDENTIALS REQUIRED)

Warm weather across the Northern Hemisphere continues to drag down global natural gas prices as demand remains weak and supplies are healthy.

Will Halt To New LNG Exports Ease U.S. Natural Gas Price Spikes?

The recent pause on new permits for LNG export projects has divided America in the latest controversy surrounding the Biden Administration's energy policies.

Exclusive: World's Largest Carbon Removal Plant is About to Open

The southern Arkansas plant owned by Graphyte aims to use carbon-rich sawdust and other woody waste from nearby paper mills to create biomass bricks that can be stored underground for centuries.

US Government Announces Intent to Fund Methane Reduction Projects

The U.S. Environmental Protection Agency (EPA) and the Department of Energy (DOE) released a notice of intent on Friday to help fund projects aimed at reducing methane emissions from the oil and gas sectors.





SELECTED RECENT TRANSACTIONS

Diamondback Agrees to \$26 Billion Deal to Buy Endeavor Energy in Growing Permian Push

Shale producer Diamondback Energy said on Monday it would buy the largest privately held oil and gas producer in the Permian Basin, Endeavor Energy Partners, in a cash-and-stock deal valued at about \$26 billion, including debt.

California Resources Corporation to Combine With Aera Energy

California Resources Corporation announced the signing of a definitive merger agreement to combine with Aera Energy, LLC in an all-stock transaction valued at approximately \$2.1 billion.

Vital Energy Closes Deal to Acquire Additional Interests in Permian Basin Assets

The \$78-million deal gives Vital Energy additional working interests in producing assets associated with the recent asset acquistion from Henry Energy LP, Moriah Henry Partners LLC, and Henry Resources LLC.

Silver Hill Energy Partners to Buy Liberty Resources' North Dakota Assets

Silver Hill Energy Partners said it would acquire Liberty Resources II's interests in oil and gas properties and all of Liberty Midstream Solutions in North Dakota for an undisclosed amount.

Permian Resources Unveils Two Bolt-on Acquisitions For \$175 Million

Permian Resources announced a series of deals consisting of two bolt-on acquisitions, an acreage swap, a sale of non-core assets and additional grassroots acquisitions.

W&T Offshore to Increase Oil and Gas Production With \$72 Million U.S. Gulf of Mexico Acquisitions

W&T Offshore, Inc. has completed the accretive acquisition of six fields in shallow waters of the U.S. Gulf of Mexico.

Talos Energy to Acquire QuarterNorth Energy For \$1.29 Billion

Oil and gas company Talos Energy, said it will acquire privately held QuarterNorth Energy in a \$1.29 billion cash-and-stock deal to bolster its presence in the Gulf of Mexico.

Prairie Operating Expands With \$94.5 Million Asset Acquisition

Prairie Operating Co., an oil and gas company, has announced a definitive agreement to acquire the assets of Nickel Road Operating LLC for a total consideration of \$94.5 million.

Chesapeake Energy Merges With Southwestern For \$7.4 Billion—Becomes Largest Natural Gas Producer In U.S.

Chesapeake Energy will merge with Southwestern Energy in an all-stock deal valued at \$7.4 billion, both companies announced Thursday, the latest transaction in the energy industry that would make Chesapeake the largest natural gas producer in the U.S.

U.S. Energy Corp. Announces Completion of Asset Divestitures and Provides Liquidity Update

U.S. Energy Corp, a growth-focused energy company engaged in the operation of high-quality producing oil and natural gas assets, today announced it had completed a series of non-core asset divestitures.

Evolution Petroleum Announces Acquisition of Non-operated Oil and Gas Assets

Evolution Petroleum Corporation announced that it has entered into definitive agreements to acquire non-operated oil and natural gas assets in the SCOOP and STACK plays in central Oklahoma for \$43.5 million in cash.

Trio Petroleum Announces an Option to Acquire a 20% Interest in the Asphalt Ridge Development Project in Utah

Trio Petroleum Corp, a California-based oil and gas company, announced that it has secured an option to acquire a 20% interest in a sweet, heavy-oil development project at Asphalt Ridge, located near the town of Vernal in Uinta County in northeastern Utah.

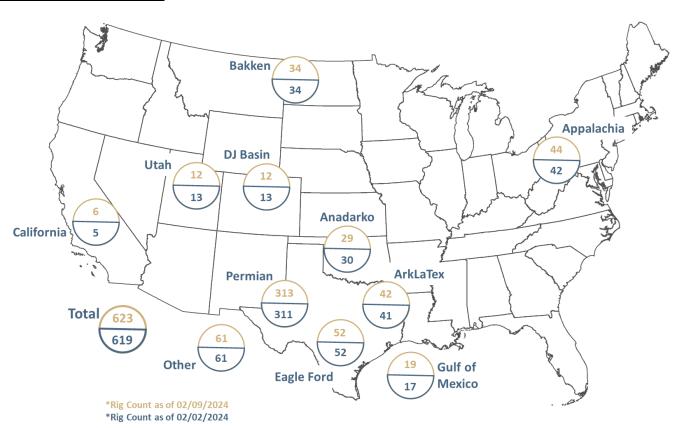
APA Corp to Buy Callon Petroleum in \$4.5 Billion All-Stock Deal

Callon Petroleum +6% pre-market recently after APA Corp. agreed to acquire the company in an all-stock deal valued at ~\$4.5B including debt, boosting its presence in the Permian Basin.





RIG ACTIVITY BY US REGION



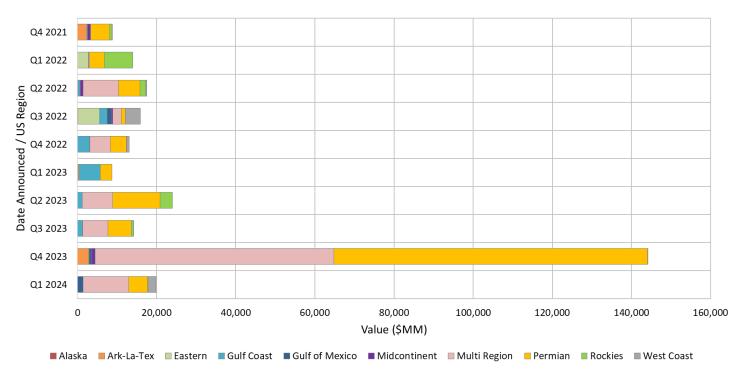
	Week Ending 02/09/2024		Week Ending 02/02/2024		Week Ending 02/10/2023
U.S. Rig Breakouts	Count	+/-	Count	+/-	Count
Oil	499	0	499	(110)	609
Gas	121	4	117	(29)	150
Not Specified	3	0	3	1	2
Directional	51	2	49	8	43
Horizontal	560	2	558	(140)	700
Vertical	12	0	12	(6)	18
Land (Inc Others)	602	2	600	(139)	741
Inland Waters	0	0	0	(2)	2
Offshore	21	2	19	3	18
US Total	623	4	619	(138)	761

*Source—Baker Hughes Weekly Rig Counts

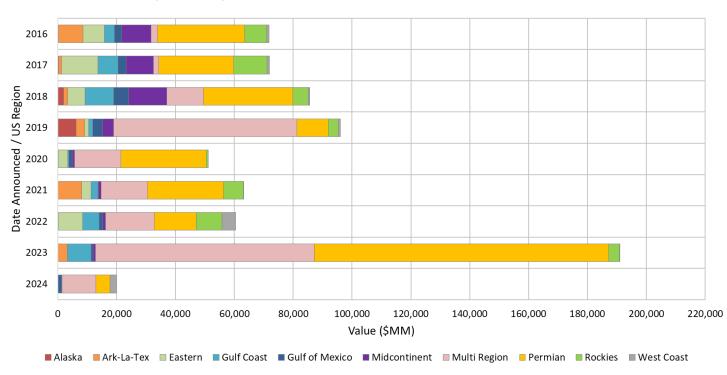




DEAL VALUE BY US REGION (BY QUARTER)



DEAL VALUE BY US REGION (BY YEAR)

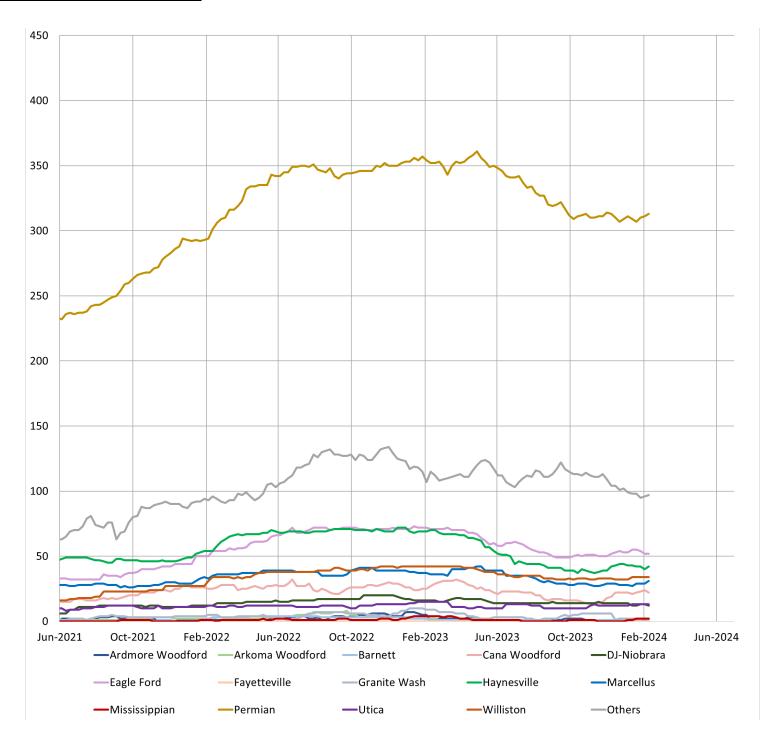


*Source—PLS M&A Database (Charts exclude terminated deals)





RIG ACTIVITY BY US REGION







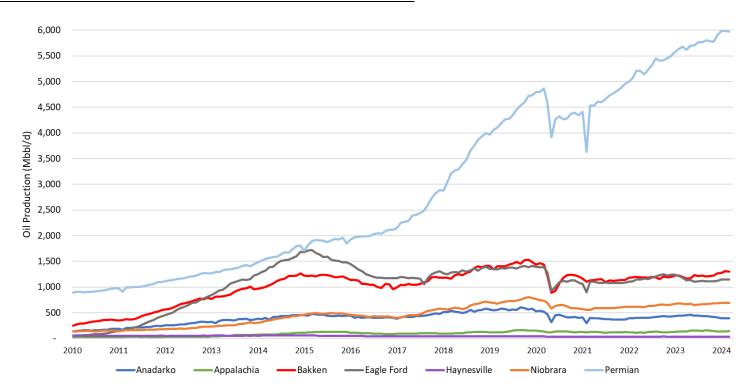
US DAILY CRUDE (MMbbl) & DRY NATURAL GAS PRODUCTION (MMcf)

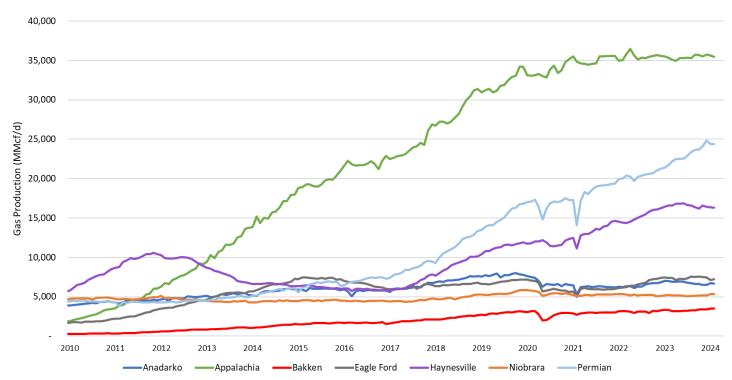






HISTORICAL PRODUCTION OF SELECTED US SHALE REGIONS









UPCOMING EVENTS

February	2024
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ODE Dustance Development ASD Comments and	F-h	Harratan TV
SPE Business Development A&D Symposium	February 28	Houston, TX
March 2024		
Big Energy! Gala 2024	March 2	Houston, TX
5th Circuit Bankruptcy Bench-Bar Conference	March 6-8	New Orleans, LA
<u>Tulsa Irish Festival</u>	March 8-10	Tulsa, OK
OneGoal Pathways of Promise Luncheon	March 20	Houston, TX
ROCC US Men's Clay Court Championship	March 30 - April 7	Houston, TX
April 2024		
World Oilman's Poker Tournament (WOPT)	April 3-5	Las Vegas, NV
The Leukemia & Lymphoma Society (LLS) Big Climb	April 6	Houston, TX
HBA & HPF Spring Social	April 11	Houston, TX
World Oilman's Mineral & Royalty Conference (MARC)	April 15-16	Houston, TX
Quorum Qnections Conference	April 23-25	Las Vegas, NV
World Oilman's Tennis Tournament (WOTT)	April 24-27	Houston, TX





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).



Yvonne Trujillo is a Senior Petroleum Engineer at Ralph E. Davis Associates, an Opportune LLP company. Yvonne has over 25 years experience in the oil and gas industry with extensive expertise in reserves engineering, SEC and PRMS/SPE reporting and economics and asset evaluation in conventional and unconventional reservoirs in the U.S. Lower 48. Yvonne earned a B.S. in Mechanical Engineering at Simon Bolivar University in Caracas, Venezuela and an M.S. in Petroleum Engineering at the University of Houston.



David Edwards is a Petroleum Engineer at Ralph E. Davis Associates, an Opportune LLP company. David has over three 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.