

Weekly E&P Update



April 18, 2023 Vol. 15

Natural Gas Update

By Steve Hendrickson President of Ralph E. Davis Associates

We last looked at natural gas trends in our first edition of the year, so it seemed a good time for an update. If you've been keeping track, US natural gas prices have been weak this winter. At the beginning of the year, we were already experiencing some price softening, but the outlook was pretty good and futures prices were over \$4 before the end of the year.





The remainder of the winter turned out to be mild across much of the country, particularly the regions that typically have high winter demand. As a result, the EIA reports that consumption in the Midwest and Northeast was approximately 20-25% lower in January and February of this year compared to the same months in 2018.

And while demand was lower than normal, production continued to climb. January's production was estimated to be a record 101.4 bcf/d.

Exports of natural gas, especially LNG, are a bright spot for the natural gas industry. The Freeport LNG facility has resumed operation following a fire that shut it down last year. LNG export volumes <u>reached a record high of 14.9 bcf/d</u> on April 16. Surprisingly, that exceeds the EIA's recent export projections shown below.

Table Of Contents

This Week in Oil & Gas

US Commodity Prices

Industry Headlines

Recent Transactions

Rig Activity by US Region

Deal Value by US Region

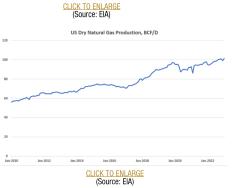
Total US Rig Count by US Region

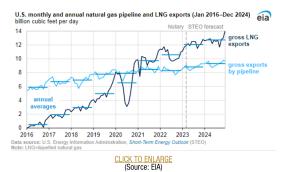
US Daily Crude & Dry Natural Gas Production

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 April 17, 2023 Close (\$/bbl)

Period	Current	WoW Change	Last Week	1 Yr Ago
2023	\$79.50	\$1.13	\$78.37	\$91.47
2024	\$74.31	\$1.38	\$72.93	\$82.28
2025	\$69.68	\$1.45	\$68.23	\$75.73
2026	\$65.99	\$1.39	\$64.60	\$71.09
2027	\$62.82	\$1.28	\$61.54	\$68.11

NYMEX HH NATURAL GAS FUTURES as of April 17, 2023 Close (\$/MMBtu)

Period	Current	WoW Change	Last Week	1 Yr Ago
2023	\$2.79	\$0.07	\$2.72	\$5.45
2024	\$3.56	\$0.03	\$3.53	\$4.30
2025	\$4.17	(\$0.00)	\$4.17	\$4.10
2026	\$4.26	\$0.01	\$4.25	\$4.16
2027	\$4.22	(\$0.01)	\$4.23	\$4.20

WoW Change

%Change

Last Week

INDUSTRY METRICS—QUICK SNAPSHOT

	<u>ourrone</u>	<u>Luot 11001t</u>	mon onungo	<u> 7001141190</u>
Crude Oil Near-Month Price (\$/bbl)	\$82.40	\$80.50	\$1.90	2%
Natural Gas Near-Month Price (\$/MMBtu)	\$2.02	\$2.02	(\$0.00)	(0.2%)
Weekly Upstream-Deal Transaction Value (\$MM)	\$143.10	\$5,106.00	(\$4,962.90)	(97%)
Weekly Number of Upstream-Deal Transactions	4	3	1	33%
Current Total US Rig Count	748	751	(3)	(0.4%)
US Field Crude Oil Production (MMbbl/day)	12.3	12.2	0.1	0.8%
US Field Dry Natural Gas Production (Bcf/day)	105.3	105.0	0.3	0.3%
Commercial Crude Oil Stocks-Excluding SPR (MMbbl)	471	470	0.6	0.1%
Natural Gas Stocks-Working Gas Underground Storage (Bcf)	1,855	1,830	25	1%
Total Drilled But Uncompleted Wells (DUC-Last Month)	4,773	4,773	0	-

Current

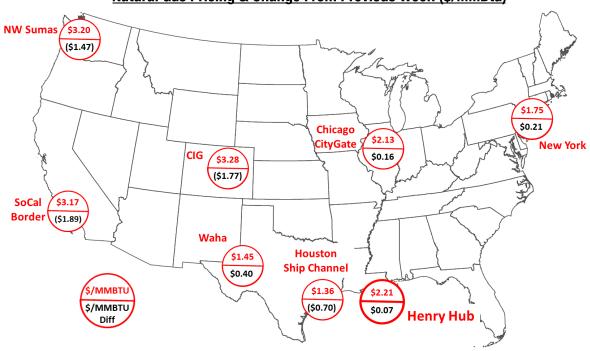
^{*}Source—Energy Information Administration, United States (EIA)
*Source—Baker Hughes North America Rotary Rig Count & PLS M&A Database

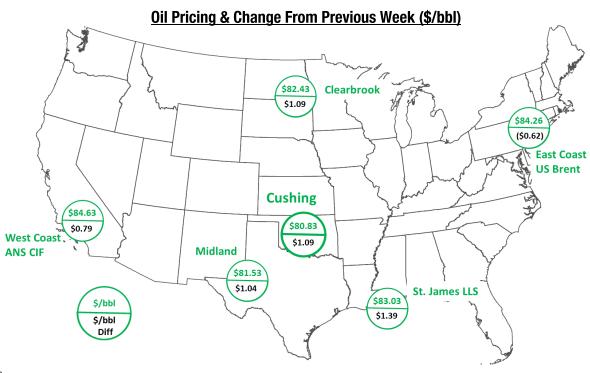




US COMMODITY PRICES CONTINUED

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









SELECTED INDUSTRY HEADLINES

5 Trends Driving The Oil And Gas Industry in 2023

The end of a year and the start of a new one is usually a time fraught with forecasts about the trends that will shape the year for a particular industry. Oil and natural gas is no exception: December and January abound in forecasts, predictions, and outlooks for the new year.

Colder-Trending Forecasts 'Rewriting The April Narrative' As Natural Gas Futures Gain Early

Bolstered by a stronger late-season heating demand outlook following colder weather model trends over the weekend break, natural gas futures surged higher in early trading recently.

Will ChatGPT Affect Oil And Gas Jobs?

There is absolutely no question that ChatGPT, and artificial intelligence, generally speaking, as it evolves, will affect oil and gas jobs.

Easing Oil, Energy Prices Offer Salve to Consumers Hurt By Inflation (LOGIN CREDENTIALS REQUIRED)

In the face of persistent inflation that has vexed central bankers around the world, there's one area where price pressures have eased: energy.

Turkey To Begin Production At "Biggest" Natural Gas Field In Black Sea

Turkey will start natural gas production from the biggest field in the Black Sea on Thursday, giving President Recep Tayyip Erdogan an opportunity to slash consumer energy prices less than a month ahead of elections.

<u>Oil Rises, Logs Weekly Gains After IEA Predicts Record Demand</u> (LOGIN CREDENTIALS REQUIRED)

Oil prices were up recently and secured a fourth straight week of gains after the West's energy watchdog said global demand will hit a record high this year on the back of a recovery in Chinese consumption.

Russia Is Losing On The Battlefield And Energy Markets While U.S. LNG Producers Are Winning

Russia is not just losing on the battlefield, it's also getting its butt kicked in the energy marketplace. The United States is the primary champion, eating into Russian oil and natural gas sales — markets it won't get back.

Exxon Deal Hunt Signals Possible Shale M&A Wave

Exxon Mobil Corp.'s hunt for a blockbuster deal in U.S. shale could kick off a bonanza of deal-making in the oil patch as drillers look to put large war chests of cash to work.

Upstream Oil And Gas Fids Will Likely Increase In 2023

In a statement sent to Rigzone recently, Wood Mackenzie outlined that, according to new analysis from the company, upstream oil and gas financial investment decisions (FID) will likely increase this year.

China's March Crude Oil Imports Surge 22.5% From Year Earlier (LOGIN CREDENTIALS REQUIRED)

China's crude oil imports in March surged 22.5% from a year earlier to the highest since June 2020, data showed recently, as refiners stepped up runs to capture fuel export demand and in anticipation of a domestic economic recovery.

Saudi Arabia, U.A.E. Scoop Up Russian Oil Products At Steep Discounts

As Russia scours the globe for buyers of its energy products, it is finding eager trade partners in an unlikely place: The oil-rich petrostates of the Persian Gulf.

The Texas Legislature Must Act To Protect The State's Potential CCUS Prize (LOGIN CREDENTIALS REQUIRED)

Recent studies have pointed out that Texas and Louisiana are the two states whose geology presents the biggest potential opportunity to become home to the storage of an enormous volume of captured CO2.





SELECTED RECENT TRANSACTIONS

Kimbell Royalty Partners, LP Announces \$143.1 Million Midland Basin Mineral and Royalty Acquisition

Kimbell Royalty Partners, LP has entered into an agreement to acquire Midland Basin mineral and royalty assets in Texas from MB Minerals LP, a subsidiary of Sabalo Holdings LLC (backed by EnCap Investments).

Ovintiv To Acquire Leasehold Interest And Related Assets

Ovintiv Inc has entered into agreements to divest its Bakken assets in North Dakota to Grayson Mill Bakken LLC, an affiliate of Grayson Mill Energy LLC.

Ovintiv To Acquire \$4.2B Midland Basin Assets

Ovintiv Inc has entered into a definitive purchase agreement to acquire substantially all leasehold interest and related assets of Black Swan Oil & Gas LLC, PetroLegacy Energy II LLC, and Piedra Energy III LLC.

Phoenix Capital Group Has Acquired Over 560 Net Mineral Acres For A Purchase Price Exceeding \$6M

Phoenix Capital Group Holdings, LLC, doing business as Phoenix Capital Group, is excited to announce it has acquired more than 560 net mineral acres for a purchase price that exceeds \$6 million.

Wedgemount Resources To Acquire Additional Texas Permian Basin Oil And Gas Assets

Wedgemount Resources Corp., is pleased to announce that it has entered into a Purchase and Sale Agreement for the acquisition of additional oil and gas assets located in the prolific Permian Basin of west central Texas.

Principal Solar To Acquire Minerva-Rockdale Leases, Wells, And Assets

Principal Solar, Inc. recently announced that it has executed a Letter of Intent to purchase a controlling working interest in the leases and oil & gas wells along with all of the assets associated with the Minerva-Rockdale Oil Field from Winchester Oil & Gas LLC.

Carrier Energy Partners II Sells Eagle Ford Assets

Carrier Energy Partners II, LLC has closed on the sale of its oil and gas assets in the Eagle Ford Shale in South Texas for total cash consideration of \$145 million.

CPP Investments Partners With IKAV To Acquire Aera Energy

Canada Pension Plan Investment Board (CPP Investments) will partner with international asset management group IKAV to acquire California energy producer Aera Energy LLC.

Riley Permian Announces New Mexico Yeso Trend Acquisition

Riley Exploration Permian, Inc. recently announced that it has entered into a definitive purchase agreement to acquire oil and gas assets from Pecos Oil & Gas, LLC, an affiliate of Cibolo Energy Partners LLC, for cash consideration of \$330 million.

Baytex To Acquire Eagle Ford Operator Ranger Oil, Accelerates Shareholder Returns And Introduces A Dividend With Enhanced Free Cash

Baytex Energy Corp. recently announced that it has entered into a definitive agreement to acquire Ranger Oil Corporation, a pure play Eagle Ford company.

Diamondback Energy, Inc. Announces Fourth Quarter And Full Year 2022 Financial And Operating Results; Increases Base Dividend

Diamondback Energy, Inc. recently announced financial and operating results for the fourth quarter and full year ended December 31, 2022, which includes entering into definitive agreements to divest certain Midland and Delaware Basin assets in Texas.

Chesapeake Energy Corporation Announces Sale Of Second Eagle Ford Package For \$1.4 Billion

Chesapeake Energy Corporation recently announced that it has executed an agreement to sell a portion of its remaining Eagle Ford asset to INEOS Energy for \$1.4 billion.

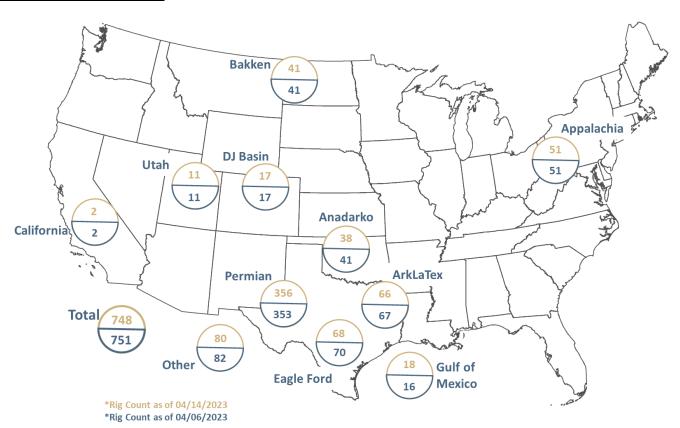
Verde Bio Holdings, Inc. Announces Acquisition Of Havnesville Shale Mineral And Royalty Interest

Verde Bio Holdings, Inc. recently announced that it has entered into an agreement to acquire revenue producing mineral and royalty interests in the prolific Haynesville Shale of Northern Louisiana, held by a private seller for a purchase price of \$425,000 in cash.





RIG ACTIVITY BY US REGION



	04/14/2023		04/06/2023		04/15/2022
U.S. Rig Breakouts	Count	+/-	Count	+/-	Count
Oil	588	(2)	590	40	548
Gas	157	(1)	158	14	143
Not Specified	3	0	3	1	2
Directional	46	(5)	51	14	32
Horizontal	683	(3)	686	47	636
Vertical	19	5	14	(6)	25
Land (Inc Others)	727	(6)	733	47	680
Inland Waters	1	0	1	0	1
Offshore	20	3	17	8	12

Week Ending

Week Ending

Week Ending

*Source—Baker Hughes Weekly Rig Counts

Weekly E&P Update

(3)

748

751

55

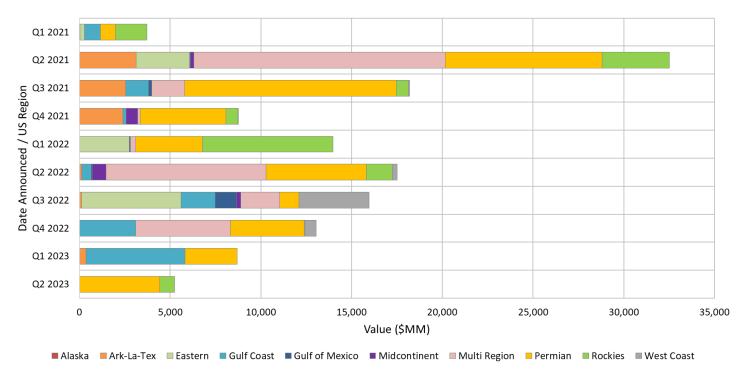
693

Offshore US Total

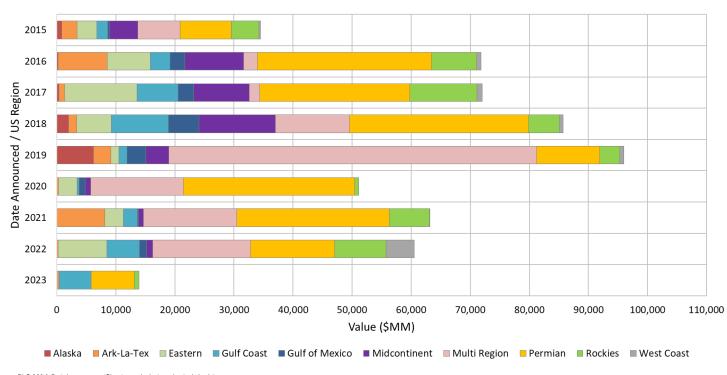




DEAL VALUE BY US REGION (BY QUARTER)



DEAL VALUE BY US REGION (BY YEAR)

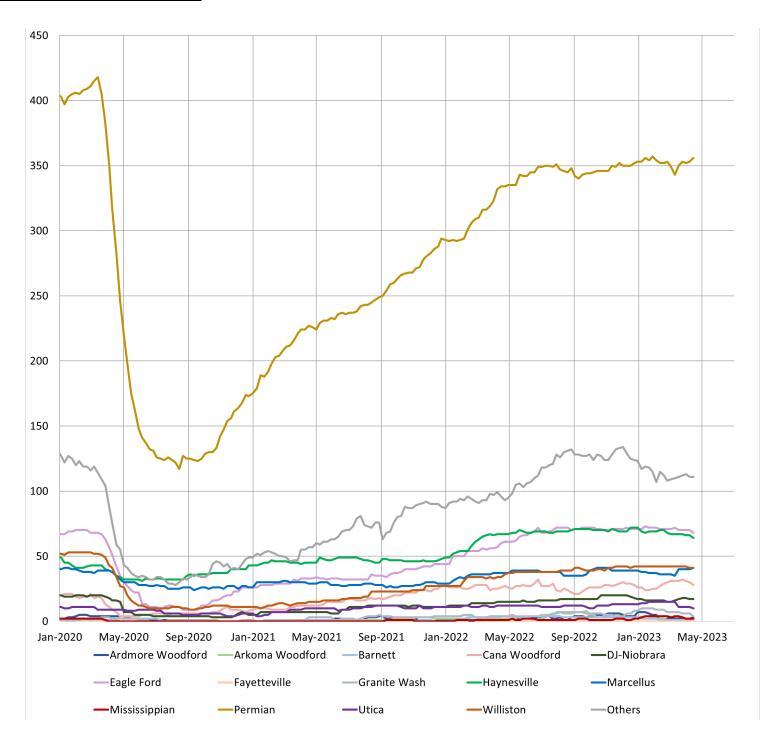


*Source—PLS M&A Database (Charts exclude terminated deals)





RIG ACTIVITY BY US REGION







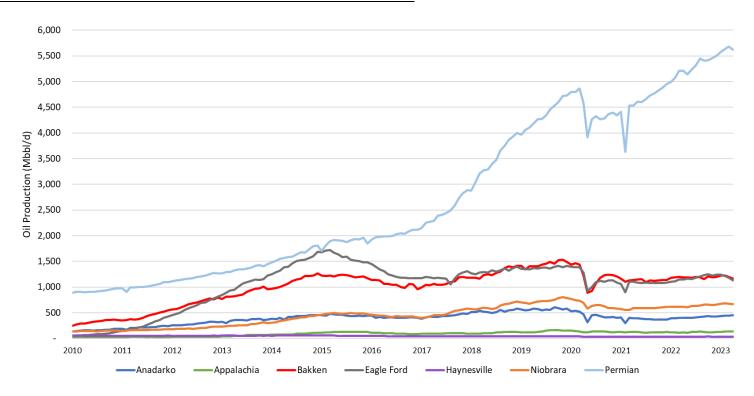
US DAILY CRUDE (MMbbl) & DRY NATURAL GAS PRODUCTION (MMcf)

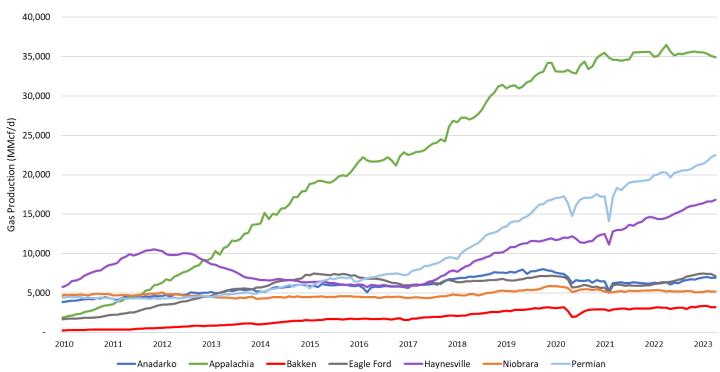






HISTORICAL PRODUCTION OF SELECTED US SHALE REGIONS









UPCOMING EVENTS

April	2023
-------	------

Small Steps Wine Classic	April 19	Houston, TX
2023 World Oilman's Poker Tournament	April 26-28	Las Vegas, NV
World Oilman's Tennis Tournament (WOTT)	April 26-29	Houston, TX
Houston Producers Forum/SPE Fourth Annual Crawfish Boil	April 27	Houston, TX
<u>May 2023</u>		
Offshore Technology Conference 2023	May 1-4	Houston, TX
Her Justice Annual Photography Auction + Benefit	May 9	New York, NY
Energy Valuation Conference	May 11	Houston, TX
North American Petroleum Accounting Conference	May 18-19	Dallas, TX
DUG Permian Basin & Eagle Ford Conference & Exhibition	May 22-24	Fort Worth, TX
<u>June 2023</u>		
Society Of Petroleum Evaluation Engineers (SPEE) Annual Meeting	June 17-20	Newport, RI
July 2023		
Banff Energy Summit	July 12-14	Banff, Alberta, Canada





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.



⊠ in