ENVERUS

Upstream Pulse

December 1, 2021 Volume 1, No. 16

Select Stories in This Issue:

EOG's Dorado results meeting or exceeding type curve | Gulf Coast

Civitas plans for 52 completions in Q4 after DJ mega-merger | Rockies

Devon-Dow STACK wells deliver 2.7

Mboe/d for \$8MM each | Mid-Continent

Shell finishes all Ida repairs, ramping up to full GOM output | Gulf of Mexico

Conoco pencils in Narwhal for 2022, readies GMT-2 for startup | West Coast & Alaska

NuVista accelerates capex into Q4, increases 2022 guidance | Canada

GeoPark unveils 2022 plan, forecasting 5-10% production growth | International

CNOOC brings online 46,000 bo/d Lufeng complex off China | International

Gulf Coast Eastern	3 3 4
Eastern	
	4
Rockies	
Permian	5
Mid-Continent	6
Gulf of Mexico	7
Multi-Region	8
West Coast & Alaska	8
Canada	16
International	18
Recurring Tables & Graphs	PG.
Top Producing Companies	9
U.S. Upstream Industry Overview	10
Regional Data	11

Coterra's operated Lone Rock pilot outperforming offsets

An Anadarko Basin pilot completed this summer by Cimarex Energy is yielding positive results for Coterra Energy, the company formed by Cimarex's \$9.3 billion merger with Cabot Oil & Gas. The five-well Carel/Elder development in the Lone Rock

area of Canadian County, Oklahoma, was fracked in late July and early August with 3,162 lb/ft of proppant and 78 bbl/ft of fluid across effective laterals of about 10,000 ft targeting the Woodford. Flow tests in

5-well Woodford development averaged 1,733 boe/d (48% oil) IP24s with top rate of 2,323 boe/d.

September yielded initial 24-hour rates averaging 1,733 boe/d (48% oil), or 173 boe/d per 1,000 ft, with a top rate of 2,323 boe/d (45% oil), or 234 boe/d per 1,000 ft, for the Elder 2H-2623X well.

The pilot is outperforming offset development in the Lone Rock area by more than 20% at 75 days. Oil rates improved from the test rates, with the oil cut coming in at 74% at 75 days, according to a Nov. 4 Coterra presentation. The company credits relaxed spacing and improved completions for the uplift. *Read more...*

Diamondback's Midland Basin efficiencies drive capex cut

For the second consecutive quarter, Diamondback Energy has lowered its 2021 capex guidance, driven primarily by efficiency gains in the Midland Basin. The company anticipates spending \$1.49-1.53 billion this year, down 10% compared to the original

April guidance and down 4% from revised guidance in August.

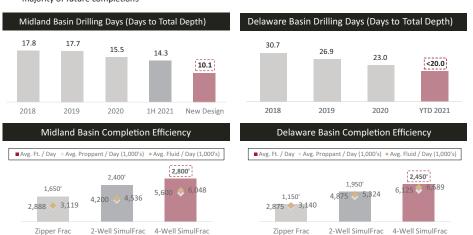
"Although we are seeing pricing pressure in many areas of our business, particularly with consumables and labor, we have been able to

Added 15-20 wells to 2021 drill plan; Midland Basin spud-to-TD times down nearly 30% YTD.

offset these inflationary items through efficiency gains, both in design and execution," CEO Travis Stice said on a Nov. 2 earnings call. The company has lowered spud-to-TD times by nearly 30% this year, with 2-mile laterals in the Midland Basin taking 10 days to drill. On the completion side, the transition from traditional zipper frack design to simulfrac operations has reduced completion times by nearly 70% in the Midland. **Read more...**

Diamondback's Continued Best-in-Class Operational Performance

- Step-change in drilling efficiencies due to QEP integration and synergies; drilling times down >30% in Midland Basin using latest design
- Step-change in completion efficiency due to full incorporation of Simul-Frac technology; expected to be used on majority of future completions



Source: Diamondback Energy 11/01/21 presentation via Enverus docFinder

Company	Primary Activity	Location	PG
Aker BP	Completes Ærfugl project, delivers record Q3 revenue	North Sea	1
Callon Petroleum	Sees strong productivity from new Primexx wells	Delaware Basin	
Civitas Resources	Plans for 52 completions in Q4 after DJ mega-merger	DJ Basin	
CNOOC	Brings online 46,000 bo/d Lufeng complex off China	China	2
CNX Resources	Holds firm on strategy amid view of an unpredictable market	Appalachia	
Comstock Resources	Drills a pair of 3-mile Haynesville laterals on one pad	Haynesville	
ConocoPhillips	Produced 95,000 boe/d from the Bakken in Q3	Bakken	
ConocoPhillips	Pencils in Narwhal for 2022, readies GMT-2 for startup	Alaska	
ConocoPhillips	Submits plan for Tommeliten A tieback to Ekofisk	North Sea	1
Coterra Energy	Operated Lone Rock pilot outperforming offsets	Oklahoma	
Devon Energy	Devon-Dow STACK wells deliver 2.7 Mboe/d for \$8MM each	Anadarko Basin	
Diamondback Energy	Midland Basin efficiencies drive capex cut	Midland Basin	
Ecopetrol	Reports 50,000 boe/d production from Oxy-operated Permian JV	Permian Basin	
EOG Resources	Dorado results meeting or exceeding type curve	South Texas	
EOG Resources	And Peak deliver uncommonly oily Mowry wells in the PRB	Powder River Basin	
ExxonMobil	Comes up emptyhanded again on Stabroek's neighbor Canje	Guyana	2
GeoPark	Unveils 2022 plan, forecasting 5-10% production growth	Latin America	1
_ukoil	Finds 250 MMbo in place in first Block 12 probe off Mexico	Mexico	1
Magnolia Oil & Gas	Upsizes Giddings pads & laterals, maintains productivity	East Texas	
Marathon Oil	Q3 Bakken production flat sequentially at 107,000 boe/d	Bakken	
Murphy Oil	Silverback exploration well was plugged and abandoned	Gulf of Mexico	
NNPC	Getting \$1B from Afrexim for oil & gas exploration	Nigeria	2
Novatek	Subsidiary brings online Kharbeyskoye pilot	Russia	2
NuVista Energy	Accelerates capex into Q4, increases 2022 guidance	Canada	1
Obsidian Energy	Brings planned wells forward, upgrades 2021 guidance	Canada	1
Ovintiv	Finding ways to lower costs across its portfolio	Multi-Region	
Peak Powder River Resources	And EOG deliver uncommonly oily Mowry wells in the PRB	Powder River Basin	
Petrobras	Sees promising signs in Curação exploration well	Brazil	2
PetroRio	Adds Tubarão Martelo output with recompletion	Brazil	1
Peyto Exploration & Development	Grows by 45 MMcfe/d, expects 600 MMcfe/d by YE21	Canada	1
Pipestone Energy	Forecasts 40% YOY output growth in 2022 at midpoint	Canada	1
Ring Energy	Completed and brought online 4 wells in Phase III program	Permian Basin	
SandRidge Energy	Reactivates more than 100 wells, exploring CCUS	Mid-Continent	
Santos	And Beach greenlight 1.7 mtpa Moomba CCS project	Australia	2
Shell	Finishes all Ida repairs, ramping up to full GOM output	Gulf of Mexico	
Talos Energy	Commenced platform rig program at its Pompano facility	Gulf of Mexico	
TotalEnergies	Sapakara South appraisal flows restricted 4,800 bo/d	Suriname	1
TotalEnergies	Set to invest \$2B in developing Libya's Waha oil fields	Libya	1
/intage Energy	Gets 200% boost to Vali reserves, flow tests Odin probe	Australia	2
Whitecap Resources	Beats Q3 production guidance on lower capex	Canada	1
Whiting Petroleum	Drilled 10 operated wells & turned 17 wells to sales in Bakken in Q3	Bakken	

ENVERUS INTELLIGENCE LIVE FEED

Follow these stories as they develop, as well as other stories across the entire energy value chain, by accessing our Live Feed service as part of the Enverus Intelligence bundle.

CLICK HERE

ABOUT THIS REPORT

Upstream Pulse is published every three weeks by **Enverus** and covers the U.S. E&P sector, including discoveries, drilling and completion activity, well results, development plans, regulatory updates and licensing.

All dollar amounts in this report are in U.S. dollars unless otherwise stated.

To obtain additional **Enverus** product details, visit **www.enverus.com/products**

To obtain additional listing info, contact us at 713-650-1212 or listingmgr@enverus.com with the listing code.

Contributing Writers: Erin Faulkner Matt Keillor Jeff Reed

Layout Manager. Jeff Reed

Copy Editor: Ronnie Turner

Data Operations: Sung Kim Twydell Taylor

Graphic Layout: David Rosilez

Editorial Director.

David Cohen

Head of Publishing: Dan Coy

© Copyright 2021 by Enverus

Any means of unauthorized reproduction is prohibited by federal law and imposes fines up to \$100,000 for violations.



Gulf Coast

EOG's Dorado results meeting or exceeding type curve

Despite natural gas prices being at multi-year highs, EOG Resources remains disciplined in its Dorado dry gas play in South Texas, reiterating its plans for 15 net completions this year. The first nine completions occurred in Q3, and six more are planned for Q4. According to recently available state data, eight of the wells target the Austin Chalk on the BFMT West pad, which lies 3 miles from the U.S.-Mexico border in Webb County. Laterals averaged 10,287 ft; further data is not yet available. However, on a Nov. 5 earnings call, COO Lloyd Helms said results so far meet or exceed the company's internal type curve expectations.

"And it's really a little bit early to be talking about what we're going to look like next year," Helms said. "But obviously, with the results we're seeing ... that certainly gives us an option to look at increasing activity there."

EOG is currently running one rig at Dorado, and exploration and production EVP Kenneth Boedeker told investors the company is "really moving rapidly up the learning curve." Dorado remains competitive with EOG's oil plays and has Henry Hub breakevens below the Haynesville and northeast Marcellus, at \$1.22/Mcfe for the Austin Chalk and \$1.24/Mcfe for the Eagle Ford. At \$3.50 Henry Hub, the company's Dorado Austin Chalk after-tax ROR is 175%; the gas benchmark's front-month contract is currently trading around \$5/Mcf.

Comstock drills a pair of 3-mile Haynesville laterals on one pad

During the three months leading to its Q3 earnings release on Nov. 2, Comstock Resources turned 15 new operated wells (82% WI) to sales on its Haynesville-Bossier acreage, with lateral lengths averaging 7,925 ft and IP rates of 22 MMcf/d. Included in that tally are two 15,000-ft laterals that were drilled into the Haynesville in September on the same pad, which Comstock believes is a first in the play. The 3-mile well pair is currently being completed and is expected online in December. The company is also drilling two 15,000-ft laterals in the Bossier that it expects to complete in 1Q22.

In the first nine months of 2021, Comstock drilled 55 wells (82% WI) with laterals averaging 8,504 ft and turned 68 (69% WI) to sales. Another 10 wells will be turned to sales in Q4. Comstock is currently running five rigs and three frack crews on its acreage.

Q3 D&C costs were flat sequentially but up 2% compared to 2020 at \$1,050/ft for laterals measuring over 8,000 ft. Drilling costs jumped 5% from Q2 to \$410/ft because of rising drill pipe prices and lower drilling efficiencies driven by shorter lateral lengths.

However, drilling costs are still down 10% versus 2020. Meanwhile, completion efficiencies drove Q3 costs down 3% sequentially at \$641/ft. In Q4 and into 2022, Comstock forecasts a 10% increase in service costs, which it plans to offset through efficiency gains by drilling longer laterals.



Magnolia upsizes Giddings pads & laterals, maintains productivity

Despite being in the early stages of development, Magnolia Oil & Gas is seeing strong repeatability and consistency from its Giddings field drilling program in East Texas. The company has generated operational efficiencies by increasing lateral lengths and the number of wells per pad. The 2021 program has averaged four wells per pad and laterals greater than 7,000 ft compared to a 2020 program with less than three wells per pad and average laterals around 6,000 ft. Drilling speeds at Giddings have improved 10% compared to 2020.

"Since we're still in the early stages of development in Giddings, these improvements should allow us to partially mitigate some of the materials in oilfield inflation into next year," CFO Christopher Stavros said on a Nov. 2 earnings call.

During Q3, Magnolia's production grew 4% sequentially to 67,400 boe/d (46% oil). Giddings production averaged 36,800 boe/d (48% oil), an 80% YOY increase and up 2% versus Q2. The company's assets in and around Karnes County had a 6% sequential increase to 30,600 boe/d (58% oil). Magnolia has two rigs running and intends to maintain that level of activity through year's end. One rig will continue to drill multi-well development pads at Giddings, while a second will drill a mix of wells in both the Giddings and Karnes areas.

Eastern -

CNX holds firm on strategy amid view of an unpredictable market

Driven by development plan optimization and cycle time compression, CNX Resources raised this year's production guidance 4.5% at midpoint to 570-589 Bcfe, equating to 1.56-1.59 Bcfe/d, from a previous projection of 540-570 Bcfe. The higher output will, in turn, move adjusted EBITDAX up to \$1.150-1.175 billion, more than 16% higher than original guidance. The Appalachian pureplay also said it would spend \$460-470 million this year, an increase of \$5 million at midpoint. During Q3, CNX produced 1.67 Bcfe/d, up 10% sequentially and up 33% YOY. It drilled six wells, fracked eight and turned eight to sales during the quarter, with laterals averaging 12,329 ft.

Bracing for about \$400MM in hedging losses during Q4.

CEO Nicholas Deluliis told analysts on CNX's Q3 earnings call that the current one-rig, one-frack crew operating plan is working well for the company, when asked if he'd increase D&C because of the strong commodity price environment. While he said the rates of return for incremental activity on a risk-adjusted basis were above the company's thresholds, Deluliis said the same drivers may move the company to reduce its share count instead.

"We like where we're at with sort of this effective one-rig, one-frack-crew array, and that's generating a substantial amount of free cash flow, where we've got a pretty good game board of allocation opportunities." he said. "I think we stay within that one rig, one frack crew operating plan for the foreseeable future."

The company is bracing for about \$400 million in hedging losses during Q4. It has more than 90% of its natural gas production hedged and recorded \$1.5 billion on derivative losses in Q3, but CFO Donald Rush defended the hedging strategy: "We fundamentally believe that natural gas prices are impossible to consistently predict. You might guess right every once in a while, but not each and every year for decades. So, we believe in the long run, you will catch any gas price upside in the forward markets ... and will still protect the downside."



Rockies

EOG & Peak deliver uncommonly oily Mowry wells in the PRB

When it comes to horizontal oil exploitation in the Powder River Basin, upstream operators have a lot of choices. In the last 10 years, the most commonly drilled targets have all been characterized by strong oil cuts, averaging 65-93%. The most popular formation, the Turner, has 90-day rates that average 68% oil; runner-up the Parkman yields 92%; the Niobrara 65%; the Frontier 77%; the Shannon 93%; the Sussex 77%; and the Teapot 92%.

Also commonly mentioned by current operators as a high-potential PRB target, the Mowry falls eighth on the list of most drilled formations over the past decade, with its low ranking likely driven by oil cuts averaging just 46%. However, the most recent completion data from the state of Wyoming included Mowry wells with strong oil cuts delivered during

Q3 by EOG Resources and Peak Powder River Resources. These two companies also happen to be the most active Mowry operators of the last decade, with EOG having racked up 25 completions in the zone and Peak five.

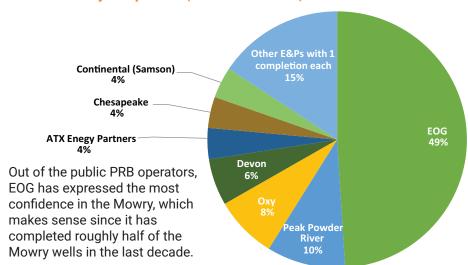
90-day Mowry oil cuts average 46%, but recent EOG & Peak wells delivered 70-90% oil in IP24s.

In Campbell County, EOG completed three wells on the Broadhead #805 pad. The Broadhead #805-12H was completed with a 9,867-ft effective lateral and produced an initial 24-hour rate of 1,273 boe/d (76% oil), or 129 boe/d per 1,000 ft, on a 1-inch choke at 799 psi FCP. While the other two wells delivered lower total rates, oil cuts were about 90%. The 14H delivered an IP24 of 801 boe/d (89% oil), or 82 boe/d per 1,000 ft, and the 15H flowed 543 boe/d (90% oil), or 57 boe/d per 1,000 ft.

There is limited data for EOG's more recent IP24s from the formation, but according to Enverus Prism data, the company has started production from six Mowry wells since the beginning of 2019 with initial rates averaging 1,046 boe/d (55% oil) from 8,762-ft laterals, or 119 boe/d per 1,000 ft. The time period was chosen to reflect the most recent generation of completion technology.

Also in Campbell County, Peak completed the Suchan Fed #1-15-10MH and Suchan Fed #2-15-10MH during Q3. The #2 well was completed with an 8,336-ft effective lateral and produced an IP24 of 1,167 boe/d (73% oil), or 140 boe/d per 1,000 ft, on a 40/64-inch choke at 2,200 psi FTP. Sporting a 9,086-ft lateral, the #1 well delivered 1,023 boe/d (70% oil), or 113 boe/d per 1,000 ft, on a 32/64-inch choke at 1,900 psi FTP. These are Peak's first Mowry completions on record since the end of 2018, when its Roush Fed 2-27-22MH flowed an IP24 of 1,440 boe/d (94% oil) from an 8,472-ft lateral, or 170 boe/d per 1,000 ft. Before the Roush well, Peak hadn't reported a Mowry completion since 2015.

Number of Mowry Completions (01/01/11-Present)



Source: Enverus Prism and state data

Civitas plans for 52 completions in Q4 after DJ mega-merger

Following the Nov. 1 closing of the Bonanza Creek Energy-Extraction Oil & Gas-Crestone Peak Resources mashup that created the DJ Basin's largest pureplay producer, resulting company Civitas Resources released Q4 production guidance of 148,000-154,000 boe/d (about 40% oil and 25% NGLs). The company expects to spend \$220-260 million in capex this quarter, including pro forma expenditures by its three predecessors prior to closing.

Activity accounted for in that capex estimate includes drilling of 42 wells (35 net), completion of 52 (46 net) and the turning to tales of 29 (23 net). The company is currently running three rigs, one each in Arapahoe, Broomfield and Weld counties, Colorado, according to Enverus Rig Analytics.

Q4 capex of \$220-260MM is down from Bonanza Creek, Extraction & Crestone Peak's Q3 \$390MM.

During Q3, Bonanza Creek, Extraction and Crestone spent a combined \$390 million in capex and produced 159,000 boe/d (40% oil, 25% NGLs), Civitas said. Breaking down their final reported guarter of operations, Bonanza Creek reported Q3 sales volumes of 43,745 boe/d (51% oil, 21% NGLs), down 3% sequentially but up 67% YOY. The company spent \$54.8 million on capex, completing 20 wells (16.5 net) and turning 11 (10.1 net) to sales, all of which had standard-length laterals.

Extraction reported Q3 net sales volumes of 74,000 boe/d (35% oil, 27% NGLs) compared to 70,757 boe/d (36% oil, 26% NGLs) in Q1; the company did not report Q2 or 3Q20 results because of the merger and its prior Chapter 11 bankruptcy, respectively. Extraction incurred \$10.1 million in Q3 capex and drilled two wells (1.8 net) and turned 17 (10.6 net) to sales. No wells were completed.

Crestone Peak was private, available state data shows that the company completed seven wells Q3. According to Enverus Rig Analytics, Crestone ran two rigs and spudded 14 wells during the quarter.



Permian

Callon sees strong productivity from new Primexx wells

Callon Petroleum closed on its acquisition of Delaware Basin player Primexx Energy on Oct. 1, with an effective date of July 1. In Q3, Primexx brought online 12 wells in July and another four wells were turned to sales in late August. Exhibiting strong productivity, peak oil rates exceeded 1,200 bo/d. More recently, Callon brought online a three-well pad using a conservative flowback strategy that was drilled and completed by Primexx. In the first 20 days, the trio is outperforming Callon's type curve for the area, despite not having yet reached peak production. The combined 19 wells target the Wolfcamp A and B. CEO Joe Gatto said

that longer term productivity has been strong with 180-day cumulative oil rates averaging 120,000 bo, with oil accounting for a 72% cut of total volumes.

Three initial projects on the Primexx acreage to average six wells apiece.

On its other assets in the Permian and Eagle Ford, Callon drilled 15 wells (90% WI) and placed 26 wells (91% WI) online in Q3. Of the wells brought online, 75% were on larger projects in the Permian. Notably, in the Delaware Basin, a four-well project targeting the Third Bone Spring and Lower Wolfcamp A came online in September and is exceeding production expectations.

In Q4, Callon plans to run six rigs and 1.5 completion crews. Four rigs are in the Delaware, while one rig is in the Eagle Ford and another in the Midland Basin. The completion crews will operate in the Midland and Delaware. Callon is transitioning the Primexx assets to scaled co-development, with initial development in 2022 to average six wells each on three projects.

Diamondback's Midland Basin efficiencies drive cuts < From PG.1

Stice expects to retain the gains: "The efficiencies gained this year will be permanent, and while inflation may impact services prices next year, Diamondback will be more insulated than our peers given our control over the variable costs of well design, days to total depth on the drilling side and lateral feet completed per day on the completion side of the business."

Diamondback also adjusted its 2021 production guidance, increasing oil to 222,000-223,000 bo/d from 219,000-222,000 bo/d and overall volumes to 370,000-372,000 boe/d from 363,000-370,000 boe/d, after giving effect to the Oct. 21 divestment of Williston

Basin assets. The company produced 404,300 boe/d (59% oil) in Q3, including 374,300 boe/d (60% oil) from the Permian, exceeding its 363,000-370,000 boe/d guidance for the play.

Expects to drill 230-235 wells and complete 265-270 wells in 2021.

See Also...

spending guidance, makes

\$649MM in Q3

Diamondback adjusts

Q4 guidance has been set at 368,000-

375,000 boe/d, including 5,000 boe/d associated with the divested Bakken assets. Permian volumes during the quarter should range 363,000-370,000 boe/d, including 218,000-222,000 bo/d. Diamondback believes it can maintain Q4 Permian oil production through 2022 at Q4's expected capex run rate of \$435-475 million.

"The reason we are committed to keeping oil volumes flat in 2022 is that we believe our capital discipline, coupled with our plan to return 50% of anticipated free cash flow to shareholders, is the best near-term path to equity value creation," Stice said. Capex for 2022 would be in the ballpark of \$1.74-1.90 billion, and FCF at current strip prices could deliver more than \$3 billion next year. As of Nov. 2, strip pricing was \$76.65/bbl for WTI and \$4.50/MMBtu for Henry Hub.

During Q3, Diamondback drilled 58 wells and completed 73, mostly in the Midland Basin with the remainder in the Delaware Basin. The company now expects to drill 230-235 wells-up from prior guidance of 210-220—and complete 265-270 wells in 2021.

In its Occidental Petroleum-operated JV in the Permian, Ecopetrol reported Q3 production of more than 50,000 boe/d, which generated 24,400 boe/d before royalties and 18,900 boe/d net after royalties for the state-owned Columbian producer. The JV ran four rigs and drilled 22 wells during the guarter, bringing its total for the first nine months to 69. Two frack crews were active, and 16 wells were turned to sales, resulting in wells brought online YTD also reaching 69. The JV has a total of 91 wells on production.

During Q3, Ring Energy completed and brought online the four wells in its Phase III program, with the two 1-mile laterals on the Northwest Shelf and two 1.5-mile laterals on the Central Basin Platform exceeding production expectations. Because of the improvement in oil prices, Ring commenced a two-well Phase IV drilling program, with wells split between the NWS and CBP. The NWS well was place online in late October, and the CBP well will be brought online by year's end. In Q3, Ring also converted 10 downhole ESPs to rod pumps, bringing the total to 24 YTD.

Rockies -

Marathon Oil's Bakken production was flat sequentially at 107,000 boe/d (66% oil) in Q3. Sales volumes were 103,000 boe/d due to linefill of the Dakota Access Pipeline expansion. The company turned 27 operated wells to sales during the guarter, and another 25 will be brought online in Q4. Completed well costs in Q3 outperformed the \$410/ft target for 10,000ft laterals at \$390/ft.

ConocoPhillips produced 95,000 boe/d from the Bakken in Q3, which is flat compared to Q2. Volumes were up 27% YOY.

Whiting Petroleum drilled 10 operated wells (56% WI) and turned 17 wells (54% WI) to sales in the Williston Basin during Q3. Production was relatively flat at 92,100 boe/d.



Thank you! We hope you've enjoyed your sample of our Upstream Pulse report. Enverus is the trusted source for global oil and gas activity









