ENVERUS

Upstream Pulse

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Special Table: Top Private E&Ps by Production - PG. 13

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North American E&P | Matador to make a U-turn to drive capital efficiency

North American Deals & Finance | Callon doubles down on Delaware as it bows out of Eagle Ford

North American Deals & Finance | Crescent taking the wheel from partner Mesquite for \$600MM

North American Deals & Finance | FireBird II takes flight with \$500MM and new wingman Quantum

North American Deals & Finance | Pioneer's Sheffield out, bolt-ons and acreage trades still in

International | Exxon & partners sanction \$12.7B, 250 Mbo/d Uaru off Guyana

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Appalachian E&Ps see opportunities for savings later this year

Natural gas prices have been trending downward since last August, with Henry Hub spot dropping from over \$9/MMBtu to around \$2/MMBtu. Enverus Intelligence® | Research's most recent monthly Macro Forecaster report of predicts continued weakness, with Nymex gas averaging around \$2.50 this summer and remaining in the \$2.50-\$3.00 range until winter 2024-2025. These price levels will inevitably drive a reduction of activity in gasfocused plays. However, some public companies operating in the Appalachian Basin see a silver lining, predicting that softening demand for oilfield services and materials will drive cost reductions in the back half of this year.

"Year-to-date in 2023, we have seen the price of rigs and pumping crews start to show signs of receding slightly," Range Resources COO Dennis Degner told investors April 25, echoing comments he made on the company's previous earnings call amid announcements from U.S. operators that they were slowing their drilling programs to maintenance level. "Next-generation pumping crews continue to be in high demand, but the availability of traditional spot crews and drilling rigs has increased." **Read more...**

Total exits oil sands in C\$5.5B blockbuster sale to Suncor

Suncor Energy is acquiring TotalEnergies EP Canada Ltd. and all its operations for C\$5.5 billion cash (\$4 billion), with contingent payments over five years of up to C\$600 million based on WCS benchmark pricing and certain production targets. CEO Rich Kruger said the transaction represents a major step in securing long-term bitumen supply to Suncor's

Base Plant upgraders at a competitive supply cost. He added that the deal also introduces flexibility and optionality into the company's long-range capital plan.

Sale determined to be simpler and comparable in value to proposed spinoff.

The core assets of French supermajor TotalEnergies' Canadian subsidiary are its non-operated 31.23% stake in Suncor's Fort Hills oil sands mine and 50% WI in the Surmont steam-assisted gravity drainage project, which is operated by ConocoPhillips (50% WI). The U.S. E&P firm will have right of first refusal on the Surmont stake. Suncor said the deal also includes associated logistics commitments and C\$10.5 billion of tax pools. Total also has midstream, lubricants and marketing businesses in Canada, although they do not appear to be included in the deal. **Read more...**

Deal Secures Long-Term Bitumen Supply for Base Plant

- Further step in proactively addressing long-term bitumen supply strategy
- With two acquisitions at Fort Hills totaling 46% plus 50% of Surmont, 163 kbpd of bitumen production capacity acquired at ~\$38,000/bpd to partially replace 260 kbpd of Base Mine bitumen production
- Fort Hills and Surmont immediately add low-risk, high-quality bitumen production
 - Fort Hills PFT volumes and bitumen production from Firebag and MacKay River can keep Base Plant upgraders full post end of mine life in mid-2030s



Source | Suncor 04/27/23 presentation via Enverus docFinder

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North American E&P

Eastern Regional Data (03/31/23-04/27/23)

Overview by State/Region	Permits	Δ	Spuds	Δ	Rigs	Δ	Operators	Δ
Illinois	-	-	-	-	3	-	-	-
Indiana	-	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-
Michigan	2	(1)	3	1	2	-	2	-
New York	2	2	-	-	-	-	1	1
Ohio	1	(19)	6	V (9)	12	v (1)	1	▼ (4)
Pennsylvania	70	(55)	39	(11)	28	 5	13	v (1)
Tennessee	-	(14)	-	-	-	-	-	V (2)
West Virginia	15	-	17	5	12	-	3	-

vvest virginia 16	,	17	_ 0	12		
New Permits by Formation		Last 4 Wk	Prev 4 Wk	Yr Ago	2 Yr Ago	Rigs
Marcellus		39	129	84	80	31
Utica Shale & Point Pleasa	nt	16	15	5	14	11
Bradford		13	2	4	-	-
Cooper		8	-	20	7	-
Clarendon & Glade		5	-	-	-	-
Others		9	28	38	45	15
Total		90	174	151	146	57
Top Counties by New Permits		Last 4 Wk	Prev 4 Wk	Yr Ago	2 Yr Ago	Rigs
Forest, PA		14	2	10	1	-
Susquehanna, PA		13	7	16	12	4
Greene, PA		12	18	9	6	3
Washington, PA		10	19	4	6	6
Warren, PA		7	-	15	10	-
Tyler, WV		6	6	1	6	1
Fayette, PA		6	2	-	7	-
Monongalia, WV		4	-	-	6	1
Westmoreland, PA		3	1	-	8	3
Wetzel, WV		3	5	-	1	2
Top Operators by New Permits		Last 4 Wk	Prev 4 Wk	Yr Ago	2 Yr Ago	Rigs
EQT Corp.		14	19	7	16	3
Coterra Energy		13	6	4	5	3
Range Resources		7	17	4	3	5
Antero Resources		7	12	7	7	3
John D Branch		7	-	-	-	-
Pennhills Resources		6	2	1	3	-
Greylock Energy		6	-	-	-	-
Southwestern Energy		5	5	23	8	5
Scorpio Energy		4	-	-	-	-
Curtis Oil		4	-	-	1	-
Top Completions by IP24 O	perator	r Cou	inty F	Reservoir L	ateral boe/c	Oil (%)

Top Completions by IP24	Operator	County	Reservoir	Lateral (ft)	boe/d	Oil (%)
Marbaker #26HC	Chesapeake	Susquehanna, PA	Marcellus	12,542	7,323	0%
Marbaker #25HC	Chesapeake	Susquehanna, PA	Marcellus	12,850	6,343	0%
Marbaker #124HC	Chesapeake	Susquehanna, PA	Marcellus	13,537	6,025	0%
Eisaman #7H	Apex Energy	Westmoreland, PA	Marcellus	12,950	2,682	0%
Eisaman #6H	Apex Energy	Westmoreland, PA	Marcellus	13,760	2,502	0%

Note | Operators in the top table and Rigs in all tables are based on active rigs as of the last date in the period covered. Source | Enverus Foundations, state data for Top Completions

Antero hones D&C efficiencies while leading on productivity

Antero Resources reached new heights of drilling and completion efficiency during Q1. The company set an internal record of 16 completion stages by a single crew in a 24-hour period and averaged 11 stages per day per crew during the quarter, up 22% from the 2022 average. It completed 1,323 stages in Q1, nearly one-third of the 4,209 stages planned for the year. Antero also said it drilled a world-record 12,340 ft in 24 hours. The Marcellus driller expects to carry forward these efficiency improvements, which have been accompanied by productivity gains.

Completed 1,323 stages in Q1, nearly one-third of 4,209 planned for 2023.

"Antero's average cumulative equivalent production per well is 20% greater than the peer average" since 2020, CEO Paul Rady said on an April 27 earnings call. "This is an important distinction for Antero. With many companies having already drilled their best acreage, our long core inventory life continues to deliver stronger results each year."

Antero also boasts the lowest decline rates in its peer group at 23% in the first year, 44% over three years and 56% over five years. The company noted that its base decline rate has continued to fall over its last three years of maintenance programs; 2023 marks Antero's fourth consecutive maintenance program, and 2024 will mark the fifth. Rady is optimistic that maintenance capital requirements will fall in 2024.

"We are beginning to see service costs roll over for rigs and completion crews," Rady said. "We're also seeing a decline in costs for raw materials such as tubulars, fuel and sand. The combination of cost deflation, drilling and completion efficiency gains, and a lower decline rate is expected to result in lower overall maintenance capital requirements in 2024."



Exploring the Future of Energy and Sustainability Through Civil Dialog and Critical Thinking

May 16-17, 2023 | Virtual

There is robust discussion in industry, government, academia and NGOs regarding the global energy future. One thing is certain, dialog is vital.

Moderated by Texas State Geologist Dr. Scott Tinker, host of the PBS talk show Energy Switch and founder of the Switch Energy Alliance, our panelists will discuss some of the most controversial topics in the global spotlight. The panel will engage in lively discourse around several critical energy and climate guestions.



Dr Scott Tinker
Chairman, Switch Energy Alliance

- · Do we need to engage in civil dialog and debate?
- · What are the merits of mitigating future climate change versus adapting?
- Should we advance energy technologies via the private sector or government mandates and incentives?
- · What is the role of oil and gas companies in decarbonization?
- Is there a need for human diversity to solve environmental and energy challenges?
- Is there such a thing as clean energy? Should nuclear play a role?
- · What will be required to significantly accelerate solar, wind and batteries?
- · Can these issues be addressed if all global citizens are not lifted up economically?

Meet Our Panelists



Chris Wright
CEO and Chairman,
Liberty Energy



Julio Friedman
Chief Scientist, Carbon Direct
(formerly in the Obama DOE)





Upstream Pulse

North American E&P

Gas not as oversupplied as market indicates, Range says

Range Resources COO Dennis Degner has started to see a slight reduction in prices for rig and pumping crews as continued low natural gas prices cause some operators to reduce activity. Raw materials such as tubular goods and sand are also "showing signs of increased availability," Degner said on the company's April 25 earnings call. He added, "It is possible this could translate into slight one-off savings later this year with broader savings more likely to occur in 2024."

This gradual slowing in activity is a piece of the puzzle that Range believes will drive normalization in natural gas storage volumes during injection season and into winter. Most large operators in Appalachia are continuing maintenance programs—in Range's case to keep gathering infrastructure utilization high and drive capital and operational efficiency—

and well degradation is starting to negatively impact operators' production profiles. With lower activity and lower production, the impacts are "less of an oversupplied market potentially."

Seeing signs of a D&C pullback, increased availability of raw materials.

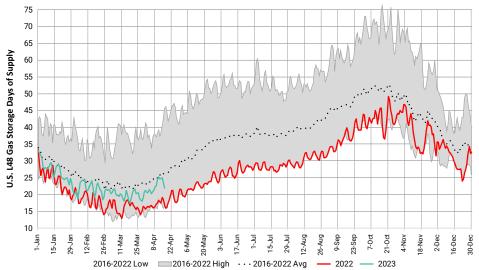
Continued strong demand would also support Degner's view. He suggested a potential storage range of 3.9-4.0 Tcf at the end of the injection season, adding, "coupled with demand that's been coming online over the past several years, both on the industrial side, LNG now with Freeport being back up to full capacity, not to mention the additional infrastructure that's going to be coming online in 2024, you start to get to a place of 42 days of supply at the end of injection season"—which is below the five-year average. Degner added that "there's reason to believe" the first train of Cheniere Energy's Golden Pass LNG could come online in mid-2024 and "start to play a significant role as we then roll into injection season for 2024."

Range ran an average of two top-hole rigs and three horizontal rigs in Q1 and plans to continue that level of activity through the end of Q2. Drilling activity will taper in H2. In contrast, the company is running one completion crew and will add a second in H2.

The company noted multiple efficiency achievements in Q1. It broke its internal record for daily lateral footage drilled on three separate days. Thirteen of the Q1 wells achieved drilling paces exceeding a mile a day in their lateral sections, up from just four wells in all of 2022. This increase helped lift Range's average daily lateral footage by 42%. In addition, the company drilled three laterals exceeding 18,000 ft in Q1, all ranking among its 10 longest.

On the completion side, Range averaged eight frac stages per day during Q1 and was up to nine stages per day going into Q2.

Lower 48 Storage Days of Suppy Remain in Line with Average



Source | Range Resources 04/24/23 presentation

Suncor's Terra Nova field could miss Q2 restart date

The Suncor Energy-operated Terra Nova oil field offshore Newfoundland and Labrador may miss the previous projection of a return to production in Q2. Project partner Cenovus Energy's offshore EVP Norrie Ramsay said during the company's Q1 earnings call April 26 that Suncor informed it that taking the FPSO back offshore had been delayed and some maintenance work was continuing but otherwise referred questions about when Terra Nova would resume production to Suncor. The operator reports its Q1 results May 8 and holds its annual general meeting May 9, when it may provide further updates on Terra Nova.

Cenovus said operator informed it that returning FPSO offshore was delayed.

In anticipation of the delay, Cenovus reduced its 2023 upstream production guidance from 800,000-840,000 boe/d to 790,000-810,000 boe/d, a 2.4% reduction at midpoint. It said the change included a 10,000 boe/d reduction from its Atlantic production range, reflecting the removal of Terra Nova volumes.

The Terra Nova FPSO returned to Canada in February after departing port in Spain in January, where it had been upgraded. Cenovus said in its Q1 earnings release that the vessel remains dockside in Newfoundland and Labrador, where it is undergoing further maintenance. At the time the FPSO returned to Canada, Suncor still projected that the field would come back online in Q2. However, the CBC reported earlier in April that Suncor was no longer providing a schedule for the restart. A spokesperson told the outlet the company was "evaluating any impacts to the schedule."

Terra Nova field was discovered in 1984 and began production in 2002. The field has been shut in since 2019 for a project to extend its producing life by 10 years and unlock an additional 70 MMbo of recoverable resources. The project was almost canceled entirely following the oil price crash in 2020 but was saved at the 11th hour by an agreement that restructured ownership.







including projects and operations, M&A activity, capital markets

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