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Midstream Pulse

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Select Stories

Pipelines & Projects | Western sanctions 250 MMcf/d North Loving processing plant

Pipelines & Projects | MDU launches more than 300 MMcf/d in pipeline expansions

Pipelines & Projects | Oneok's MB-5 startup boosts frac capacity to nearly 900 Mbbl/d

Pipelines & Projects | Caliche holds open season for 14 Bcf of new storage in Beaumont

Finance | UGI's AmeriGas prices \$500MM in 2028 notes to repay 2024 notes

LNG | Cheniere secures 0.4 mtpa of offtake for Sabine Pass expansion

Downstream | Marathon brings online Phase 1 of Martinez biodiesel refinery

Downstream | Southern Rock choses Cushing for 250,000 bbl/d green refinery

Section Index	PG.
Pipelines & Projects	3
Finance	6
LNG	8
Downstream	8
A&D	9
Recurring Tables & Graphs	PG.
Reculting Tables & Graphs	PG.
Pipeline Construction Projects	5
Pipeline Construction Projects Midstream & Downstream Earnings	5
Pipeline Construction Projects Midstream & Downstream Earnings for 1Q23	5

Marathon Petroleum finishes Galveston Bay refinery expansion

Marathon Petroleum completed the South Texas Asset Repositioning project at its Galveston Bay refinery during Q1. The project, which took four years to complete, added 40,000 bbl/d of incremental crude capacity and 17,000 bbl/d of resid processing capacity, bringing the refinery to 593,000 bbl/d. Startup activities were underway as of early May, and utilization was expected to increase throughout Q2. The company elected to upgrade

the refinery's resid hydrocracker unit rather than expand its cokers, which delivered better conversion and increased liquids volumes vield.

Project overshadowed by a fire at plant that killed a worker May 15.

"If you look at a comparison between a coker

and the RHU unit, if you put 100 bbl of liquid into the coker, you get about 80 bbl of liquid out and the rest is coke that's lower valued," refining EVP Timothy Aydt said on a Q1 earnings call. "If you put that same 100 in the RHU unit, you get 107 bbl of liquids out. So obviously that 27 bbl is about a 34% increase in liquids, which are higher valued. So that's why we made that decision." **Read more...**

Cash-crunched CorEnergy sells two gas systems for \$175MM

St. Louis-based utility Spire Inc. entered into a definitive agreement to buy the MoGas and Omega pipeline systems from Kansas City, Missouri-based CorEnergy Infrastructure Trust Inc. for \$175 million cash, subject to final working capital adjustments. The systems

consist of 263 miles of gas pipelines, primarily in Missouri. The transaction gives CorEnergy cash to pay down debt while strengthening Spire's position in its home state.

CorEnergy to use net proceeds to pay off term loan and revolver upon closing.

"These businesses fit well with our existing natural gas midstream businesses and enhance our ability to serve customers in Missouri," Spire EVP and COO Steve Lindsey said. MoGas interconnects with Spire's STL pipeline and other regional pipelines to deliver gas to Spire Missouri's growing customer base in St. Charles, Franklin and western St. Louis counties. Omega owns and operates a 75-mile gas distribution system within Fort Leonard Wood in south-central Missouri and is interconnected with the MoGas system.

CorEnergy, which announced in March that it had retained an advisor to help it sell the systems, intends to use the net proceeds to repay all its bank debt. **Read more...**

Overview of MoGas & Omega Pipeline Systems

MoGas and Omega pipeline systems transport and deliver natural gas to LDCs and end-users

MoGas is a 263-mile FERC-regulated natural gas pipeline near St. Louis, MO serving investment grade customers

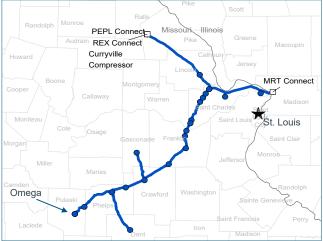
 94% of revenue is tied to long-term take-or-pay transportation contracts

Omega is a natural gas distribution system serving a strategically important US military base with growing demand

 In third 10-year contract with 5 years remaining

Recent Enhancements:

- Benefitted from new interconnects under long-term customer agreements
- Propane-air plant at Fort Leonard Wood created significant cost savings to customer



Midstream Pulse

Activity Index –

Company	Headline	Category	PG.
AltaGas	AltaGas eyes new VLGC charter, LPG export terminal	Pipelines & Projects	6
AmeriGas Finance	UGI's AmeriGas prices \$500MM in 2028 notes to repay 2024 notes	Finance	6
AmeriGas Partners	UGI's AmeriGas prices \$500MM in 2028 notes to repay 2024 notes	Finance	6
Antero Midstream	Antero Midstream rakes in the profits on longer laterals	Finance	6
Caliche Development Partners II	Caliche in open season for 14 Bcf of new storage in Beaumont	Pipelines & Projects	4
Cheniere Energy	Cheniere secures 0.4 mtpa of offtake for Sabine Pass expansion	LNG	8
CorEnergy Infrastructure Trust	Cash-crunched CorEnergy sells two gas systems for \$175MM	A&D	1
Crimson Midstream Holdings	Cash-crunched CorEnergy sells two gas systems for \$175MM	A&D	1
Equitrans Midstream	MVP picks up key U.S. Forest Service permit for 3.5-mile segment	Pipelines & Projects	4
GCM Grosvenor	Caliche in open season for 14 Bcf of new storage in Beaumont	Pipelines & Projects	4
Gibson Energy	Gibson greenlights 870,000 bbl of new tankage in Edmonton	Pipelines & Projects	3
KazMundayGaz	Sinopec and KazMunayGaz set framework for polyethylene project	Downstream	9
Knife River Corp.	MDU launches over 300 MMcf/d in pipeline expansions	Pipelines & Projects	3
Korea Southern Power	Cheniere secures 0.4 mtpa of offtake for Sabine Pass expansion	LNG	8
Marathon Petroleum	Marathon Petroleum finishes Galveston Bay refinery expansion	Downstream	1
Marathon Petroleum	Marathon brings online Phase 1 of Martinez biodiesel refinery	Downstream	8
MDU Construction Services Group	MDU launches over 300 MMcf/d in pipeline expansions	Pipelines & Projects	3
MDU Resources	MDU launches over 300 MMcf/d in pipeline expansions	Pipelines & Projects	3
Oneok	Oneok's MB-5 startup boosts frac capacity to nearly 900 Mbbl/d	Pipelines & Projects	4
Orion Infrastructure Capital	Caliche in open season for 14 Bcf of new storage in Beaumont	Pipelines & Projects	4
Royal Vopak	AltaGas eyes new VLGC charter, LPG export terminal	Pipelines & Projects	6
Sinopec	Sinopec and KazMunayGaz set framework for polyethylene project	Downstream	9
Southern California Edison	AltaGas eyes new VLGC charter, LPG export terminal	Pipelines & Projects	6
Southern Co.	Caliche in open season for 14 Bcf of new storage in Beaumont	Pipelines & Projects	4
Southern Rock Energy Partners	Southern Rock chooses Cushing for 250,000 bbl/d green refinery	Downstream	10
Spire	Cash-crunched CorEnergy sells two gas systems for \$175MM	A&D	1
UGI Corp.	UGI's AmeriGas prices \$500MM in 2028 notes to repay 2024 notes	Finance	6
WBI Energy	MDU launches over 300 MMcf/d in pipeline expansions	Pipelines & Projects	3
Western Midstream Partners	Western sanctions 250 MMcf/d North Loving processing plant	Pipelines & Projects	3



Pipelines & Projects

Gibson greenlights 870,000 bbl of new tankage in Edmonton

Canadian liquids infrastructure operator Gibson Energy has sanctioned construction of two tanks at its Edmonton terminal. The new tanks, expected in service in late 2024, will add 870,000 bbl of storage underpinned by a 15-year take-or-pay and stable fee-based contract with Cenovus Energy.

"Gibson is very pleased with the sanction of two new tanks at our Edmonton terminal, which will further increase our high-quality, long-term infrastructure revenues and drive continued distributable cash flow per share growth," CEO Steve Spaulding said. "With this sanction, we currently have three tanks under construction at our Edmonton terminal, representing 1.3 MMbbl of storage. Combined with other smaller projects that have materialized across our asset base, we now have line of sight to reaching up to C\$150 million in growth capital in 2023 and will also carry additional capital commitments into 2024."

As a result of the Edmonton storage expansion and several other small growth projects, Gibson is increasing its 2023 capex. It now plans to spend up to C\$150 million this year compared to prior guidance of C\$100-125 million.

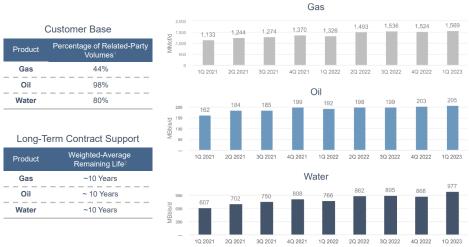
Western sanctions 250 MMcf/d North Loving processing plant

Western Midstream Partners will build a greenfield 250 MMcf/d cryogenic processing plant in Loving County, Texas, the Houston-based company announced May 22. Expected in service in 4Q24, the North Loving plant is underpinned by a recently amended agreement with Occidental Petroleum—which owns 50.6% of Western's stock—to provide up to 300 MMcf/d of additional firm processing capacity. The amendment also extended the gas gathering contract by three years to 2035. Combined with the under-construction, 300 MMcf/d Mentone Train III plant, which will come online in 4Q23, North Loving will bring Western's West Texas complex processing capacity to 2.09 Bcf/d by YE24.

"Over the past year, our commercial team has generated substantial value for WES by executing multiple, long-term agreements that provide up to 950 MMcf/d of firm processing commitments," CEO Michael Ure said. "While we have already realized some benefit from these agreements, the vast majority of the volumes are expected over the coming years, and the decision to sanction an additional plant greatly enhances our ability to accommodate our producer customers and generate incremental value for our stakeholders."

Concurrent with sanctioning North Loving, Western increased its 2023 capex by \$125 million at midpoint to \$700-800 million while reducing free cash flow guidance by \$125 million at midpoint to \$1.0-1.1 billion. Adjusted EBITDA guidance is unchanged at \$2.05-2.15 billion.

Western's Expansive Delaware Multi-Product Infrastructure



- Percentage of production from Occidental as of year-end 2022.
- 2) Weighted-average remaining contract life by volume as of year-end 2022 proforma Occidental amendments announced on May 3, 2023.

Source | Western Midstream Partners 05/04/23 presentation via Enverus docFinder

MDU launches over 300 MMcf/d in pipeline expansions

MDU Resources' natural gas pipeline subsidiary WBI Energy is beginning construction on three gas pipeline expansion projects in Q2 that will add more than 300 MMcf/d of capacity later in 2023. One such project, the Wahpeton expansion in eastern North Dakota, includes the installation of 60 miles of 12-inch natural gas line that will boost capacity by 20.6 MMcf/d at a cost estimated at \$75 million when the project was sanctioned in July 2021.

New strategic review launched for MDU's construction services unit.

The Wahpeton expansion was issued a final environmental impact statement from FERC on April 7, with the agency finding that the project would not have significant environmental impacts. While the company did not name the other projects, it said the three will support gas demand for industrial customers, local distribution companies and electric power generation while reducing flaring in the Bakken.

In February, WBI increased contracted volume commitments on its North Bakken Expansion, helping the company's Q1 transportation volumes achieve 17% YOY growth to a quarterly record of 129.7 MMDth/d. Brought online in February 2022, the North Bakken Expansion is a 100-mile line that added 250 MMcf/d of capacity and has the option to be expanded to 625 MMcf/d through additional compression.

WBI is also getting a new president—Rob L. Johnson, who is being promoted from commercial EVP. Current WBI president and CEO Trevor J. Hastings will move over to MDU's construction materials subsidiary Knife River Corp. as COO when that unit is separated from the parent company and publicly listed on the NYSE. The decision to separate Knife River followed a strategic review of the business. A new strategic review has been launched for MDU's construction services subsidiary, MDU Construction Services Group Inc.

Pipelines & Projects

MVP picks up key U.S. Forest Service permit for 3.5-mile segment

The U.S. Forest Service issued a record of decision May 15 for Equitrans Midstream's Mountain Valley Pipeline, permitting the project to cross Jefferson National Forest in Monroe County, West Virginia, and Giles and Montgomery counties, Virginia. The next step on the federal regulatory front would be for the Bureau of Land Management to issue the right-of-way for this 3.5-mile segment of the 303-mile, 2 Bcf/d gas pipeline. The U.S. Army Corps of Engineers must also approve the discharge of dredged and/or fill material into U.S. waters and work in and under navigable waters in association with the construction work.

"The agency's decision is a notable step forward in completing this critical infrastructure project, and we expect the Bureau of Land Management to soon issue the project's right-of-way permit," Equitrans communications VP Natalie Cox said. U.S. Sen. Joe Manchin of West Virginia, a supporter of MVP, praised the Forest Service decision, adding, "I will keep pushing the administration and all involved to finally complete the last 20 miles of this vital pipeline."

MVP also requires a new Clean Water Act Section 401 certification from the West Virginia Department of Environmental Protection, after the previous certification was vacated by the 4th U.S. Circuit Court of Appeals on April 3. The state agency is working to address deficiencies identified by the court, and Equitrans still believes construction could be completed by year's end.

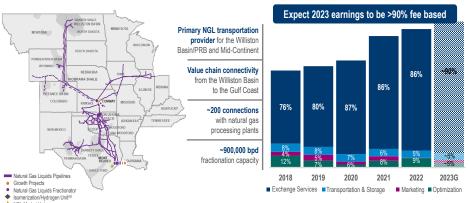
Oneok's MB-5 startup boosts frac capacity to nearly 900 Mbbl/d

Oneok completed and brought online its fifth NGL fractionator in Mont Belvieu, Texas, in April, increasing the company's systemwide fractionation capacity to nearly 900,000 bbl/d. The new 125,000 bbl/d MB-5 fractionator will accommodate growing NGL volumes and reduce Oneok's third-party fractionation needs. The MB-6 fractionator, also with 125,000 bbl/d capacity, is under construction and on track to enter service in 1Q25. Expected to cost \$550 million, MB-6 is benefiting from efficient transition of the construction resources that were used for MB-5, Oneok said.

CFO Walt Hulse said on a Q1 earnings call that Oneok incurred \$46 million of third-party fractionation costs during the quarter, which the company expects "to remain around this level with the potential to decrease through the remainder of the year as our MB-5 fractionator ramps up." He added, "We ended the first quarter with a higher inventory of unfractionated NGLs, primarily due to the timing of the MB-5 fractionator being placed in service, and expect to recognize approximately \$12 million over the second and third quarters as that inventory is fractionated and sold."

One of the Largest Integrated NGL Service Providers

Provides fee-based gathering, fractionation, transportation, marketing and storage services linking key NGL market centers



(a) ONEOK's 10,000 byd isomerization unit in Conway, Kansas, is used to convert normal butane to iso-butane when market conditions are favorable. The facility uses a steam reformation process to create hydrogen from methane, then combines hydrogen with normal butane to create iso-butane.

Caliche in open season for 14 Bcf of new storage in Beaumont

Caliche Development Partners launched a non-binding open season May 16 for firm natural gas storage services at a proposed expansion of its Golden Triangle Storage facility in Beaumont, Texas. The company is considering adding two gas storage caverns as well as new connections to four pipeline projects that have been proposed or are under construction: WhiteWater Midstream's Blackfin, Venture Global LNG's CP Express, Sempra Energy's Port Arthur Pipeline Texas Connector and Targa Resources' Apex. Currently, GTS can be accessed by a twin pipeline header connecting to seven major systems: Texas Eastern Transmission, Florida Gas Transmission, Houston Gas Pipeline, Kinder Morgan Texas, Golden Pass Pipeline, Natgasoline and DCP.

Considering new connections to four proposed or underconstruction pipelines.

During the open season, which will run through June 16, prospective customers can bid for up to 14 Bcf-8 Bcf in cavern three and 6 Bcf in cavern four-of firm storage capacity on a multi-year basis. Bids for between 0.5 Bcf and a full cavern of capacity will be evaluated. Injection and withdrawal rights will be limited to 600 MMcf/d per expansion cavern, totaling 1.2 Bcf/d for both expansion caverns. Bids for capacity must have at least a five-year term, and greater consideration will be given to bids with longer terms, up to 20 years. These new commitments would support gas injections into storage starting in April 2026 and April 2027.

Caliche formed a partnership with Orion Infrastructure Capital and GCM Grosvenor in November to acquire GTS and Central Valley Gas Storage in California from utility holding company Southern Co. for \$186 million. The first iteration of Caliche was backed by Energy Spectrum Capital and owned storage under the historical Spindletop field, also in Beaumont.

Midstream Pulse

Select Current Pipeline Construction Projects

Liquids Pipeline	Owners	Origin	Termination	Miles	Mbo/d	Cost	Startup	Notes
Texas Western Pipeline System	Enterprise Products Partners	Texas Gulf Coast	Grand Junction, CO	N/A	60	N/A	4Q23	Partial conversion of Mid- America Pipeline NGL system
Trans Mountain Expansion	Canadian government	Canada	West Coast	715	890	C\$30.9B	1Q24	Nearly 80% complete as of 03/13/23
Gas Pipeline	Owners	Origin	Termination	Miles	Bcf/d	Cost	Startup	Notes
Whistler Expansion	WhiteWater, MPLX, Stonepeak Infrastructure, West Texas Gas	Waha, TX	Agua Dulce, TX	450	0.5	N/A	3Q23	Expansion from 2.0 Bcf/d to 2.5 Bcf/d via added compression
Permian Highway Expansion	Kinder Morgan	N/A	N/A	N/A	0.55	N/A	4Q23	Completion delayed until 12/23 because of supply chain issues
GTN Xpress	TC Energy	British Columbia	Oregon	N/A	0.15	\$335MM	4Q23	Received final EIS in 11/22
Mountain Valley	Equitrans, NextEra, Con Edison, WGL, RGC	Wetzel Cty, WV	Chatham, VA	303	2	\$6.6B	2H23	Received favorable biological opinion from USFWS on 02/28/23
Line 40 Connection (Gator Express)	Venture Global	Louisiana	Louisiana	27	N/A	\$31MM	2023	Connecting Line 40 to facilities or Gator Express platform
Adelphia Gateway	New Jersey Resources	Chester, PA	Philadelphia area	50	0.25	\$143MM	2023	Construction continues at last two compressor stations
Rio Bravo	Enbridge	Agua Dulce, TX	Brownsville, TX	137	4.5	N/A	2023	To feed Rio Grande LNG
Northeast Supply Enhancement Project	Williams (Transco)	Pennsylvania	New York	37	0.4	\$927MM	2023	FERC granted two-year extension to 05/23 for construction
Texas Connector	Sempra	Texas	Texas	34	2	N/A	2023	Will serve Port Arthur LNG
Ohio Valley Connector	Equitrans	Wetzel County, WV	Clarington, Ohio	30	0.35	\$160MM	1H24	Expects to have all approvals by mid-2023, and construction will soon follow
Matterhorn	WhiteWater, EnLink, Devon, MPLX	Waha, TX	Katy, TX	490	2.5	N/A	3Q24	FID announced in late 05/22
Louisiana Connector	Sempra	St. Landry Parish, LA	Port Arthur, TX	131	2	\$1.3B	3Q24	Construction was expected to begin in 3Q22
Regional Energy Access	Williams	N/A	N/A	36	0.829	N/A	4Q24	Partial in-service of half of capacity expected in 4Q23
Louisiana Energy Gateway	Williams	Springridge, LA	Transco Compressor Station 45	N/A	2	N/A	4Q24	Permitting underway as of 05/15/23
Venice Extension	Enbridge (Texas Eastern Transmission)	N/A	Plaquemines Parish, LA	3	1.26	\$360MM	2024	Construction underway as of 03/01/23
Delta Express	Venture Global	Alto, LA	Plaquemines Parish, LA	285	N/A	N/A	2024	Will serve Delta LNG
ADCC	WhiteWater	Agua Dulce, TX	Corpus Christi, TX	43	1.7	N/A	2024	Pipeline from Whistler Pipeline in Agua Dulce to the Corpus Christi LNG terminal
CP Express Phase 1	Venture Global	Jasper County, TX	Cameron Parish, LA	91	2.2	N/A	2024	Draft EIS issued in 01/23; final EIS expected in 07/23
Evangeline Pass Expansion	Kinder Morgan (Tennessee Gas Pipeline)	Louisiana	Louisiana	13	Up to 2	\$678MM	3Q24- 3Q25	Kinder given notice to proceed by Venture Global in 01/23
Saguaro Connector	Oneok	Waha, TX	Mexico	155	2.8	N/A	2Q25	Submitted application for presidental permit; FID targeted in mid-2023
Southeast Gateway (Mexico)	TC Energy, CFE	Tuxpan, Veracruz	Dos Bocas, Tabasco	444	1.3	\$4.5B	Mid- 2025	Will transport gas from LNG terminal to refinery and power plants
Coastal GasLink	TC Energy, KKR, AIMCo	Dawson Creek, BC	Kitimat, BC	416	2.1	C\$14.5B	2025	87% complete as of 04/28/23
Alaska Nikiski LNG	Alaska Gasline Development	North Slope	Nikiski, AK	805	3.5	\$45MM	2025	Final SEIS released 01/11/23; record of decision was expected 03/30/23
Commonwealth Energy Connector	Williams (Transco)	Virginia	Virginia	6.35	0.105	\$118MM	2025	Increasing Transco deliveries to Virginia Natural Gas
Texas to Louisiana Pathway	Williams (Transco)	Texas	Louisiana	N/A	0.364	N/A	2025	Transco expansion to serve LNG demand on the Gulf Coast
CP Express Phase 2	Venture Global	Jasper County, TX	Cameron Parish, LA	91	2.2	N/A	2026	Final EIS expected in 07/23; adding capacity to Phase 1 through compression
Driftwood Line 200 and 300	Tellurian	Beauregard Parish, LA	Calcasieu Parish, LA	37	4.6	\$1.28B	YE26	Authorized by FERC in 04/23

Source | Enverus Intelligence



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