HARTENERGY

MIDSTREAM Monitor

Oct. 15, 2012 | Volume 30 | Issue 36

Annual Midstream Rankings Released

Enterprise Top Processor, DCP Midstream Retains Spot As Top NGL Producer

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

In an effort to better reflect the logistics in the midstream industry and identify the real players in this sector, *Midstream Monitor* altered its reporting criteria for our annual rankings of the top natural gas processors and natural gas liquids (NGL) producers. In the past, we have based our rankings on first-party processing and production volumes. While this helped to rank the largest producer/midstream operators, we found that it wasn't an accurate record for the true midstream players.

To better reflect this field, we asked owners of processing plants and fractionators to submit their full processing and production totals at their facilities for 2011. While many of the names remain the same from past years, the figures have changed in many ways. In order to provide readers with a better understanding of these new rankings we have also included updated figures for 2010 as well.

From the start, you will notice that two majors, ExxonMobil and BP, are no longer ranked as the top gas processors, Enterprise Products Partners now holds this designation. ExxonMobil and BP dropped out of our rankings because of their lack of pure midstream infrastructure holdings.

Enterprise Products Partners experienced an 11% increase in its natural gas processing to 6.131 million cubic feet (MMcf) per day from its 2010 volumes of 5.5 MMcf per day. The 2011 processing volume was just ahead of DCP Midstream's processing volume of 6.079 MMcf per day.

Continued on Page 10

HIGHLIGHTS FROM TODAY'S EDITION

FRANK NIETO
Editor, *Midstream Monitor* & *MidstreamBusiness.com*
fnieto@hartenergy.com

NGL PRICES & FRAC

Ethane prices tumble

Ethane was down at both hubs, but the rest of the NGL barrel showed improvements. **PAGE 3**

PROCESSING TRENDS

ETP acquires Sunoco

The MLP completed the $2.6 billion acquisition in order to further diversify its assets. **PAGE 5**

PROCESSING TRENDS

Hope for North Slope?

A consortium of companies previously involved in separate North Slope pipeline projects have joined forces. **PAGE 5**

PIPELINES

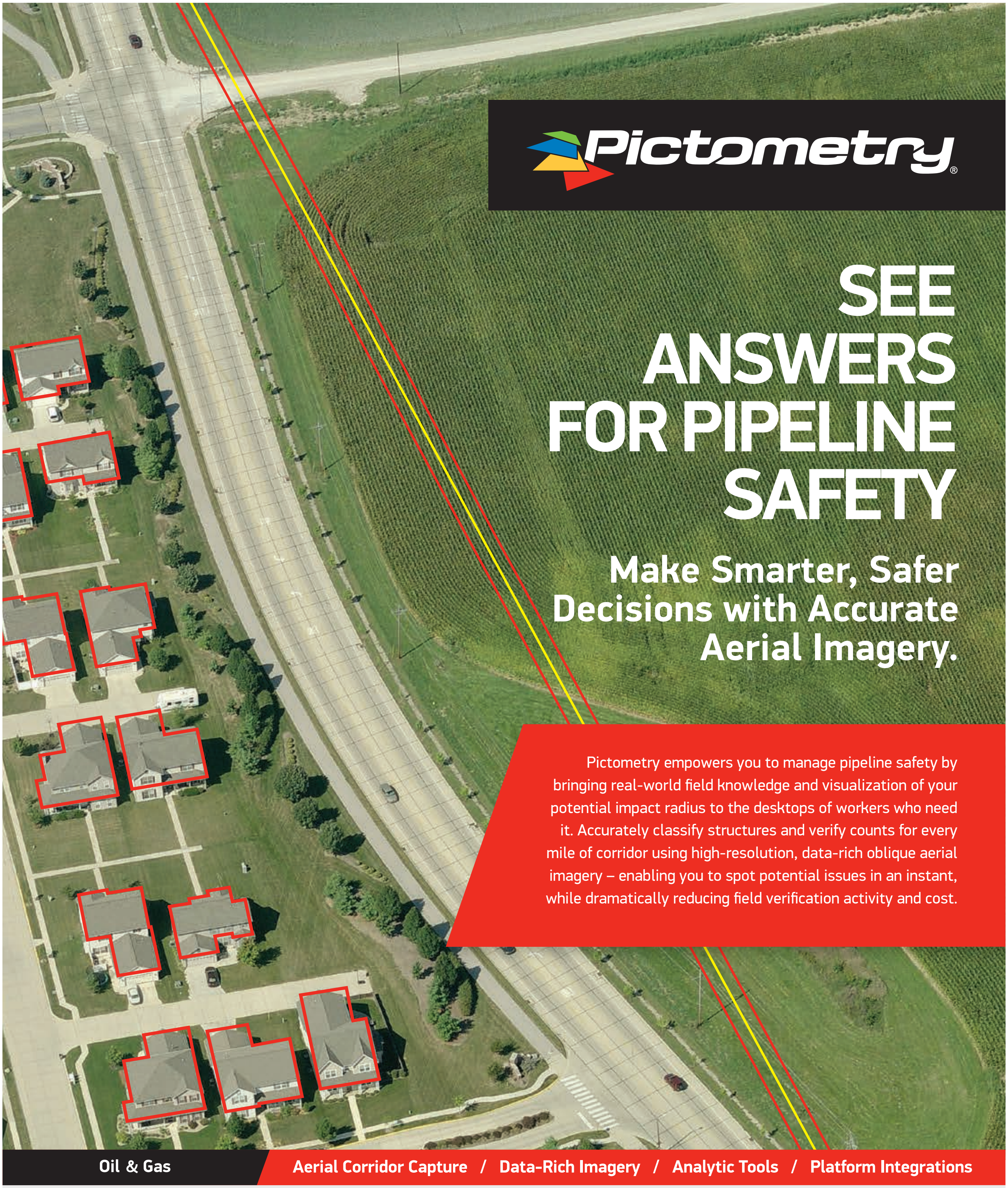
Rail demand to remain high in Bakken

Pipeline capacity will continue to be tight, giving increased importance to rail capacity. **PAGE 7**

NEWS & TRENDS

New technology aims to lower NGV cost

Gas Technology Institute introduced new storage materials designed to lower cost. **PAGE 8**



Integrations

esri Autodesk®

888-444-2575 www.pictometry.com/pipeline

NGL PRICES & FRAC SPREAD | Week in Review

Ethane Prices Fall At Both Hubs

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

Natural gas liquids (NGL) prices improved for the most part the week of October 3 at Conway and Mont Belvieu with ethane being the notable exception by falling in value at both hubs.

The Mont Belvieu price tumbled 2% to 30¢ per gallon (/gal), which is about the same level at which it's been trading for the past four weeks. The Conway price continues to be extremely susceptible to any movements in the market as it was down 9% due to the recent downturn in ethylene prices. The price of 17¢/gal was the hub's second-highest price in the past five weeks.

CURRENT FRAC SPREAD (CENTS/GAL)

October 15, 2012	Conway	Change from Start of Week	Mont Belvieu	Start of Week
Ethane	16.52		29.70	
Shrink	20.75		20.55	
Margin	-4.23	-83.96%	9.15	-6.35%
Propane	83.00		95.66	
Shrink	28.67		28.40	
Margin	54.33	9.78%	67.26	6.80%
Normal Butane	142.20		145.02	
Shrink	32.46		32.15	
Margin	109.74	10.89%	112.87	0.73%
Iso-Butane	174.94		171.70	
Shrink	31.17		30.88	
Margin	143.77	5.07%	140.82	-0.10%
Pentane+	196.02		199.25	
Shrink	34.71		34.38	
Margin	161.31	0.16%	164.87	0.70%
NGL $/Bbl	38.03	3.30%	41.68	1.29%
Shrink	11.43		11.32	
Margin	26.59	4.03%	30.36	1.78%
Gas ($/mmBtu)	3.13	1.62%	3.10	0.00%
Gross Bbl Margin (in cents/gal)	60.00	4.37%	69.68	2.02%
NGL Value in $/mmBtu				
Ethane	0.91	-8.83%	1.64	-2.04%
Propane	2.88	6.82%	3.32	4.68%
Normal Butane	1.54	8.63%	1.57	0.57%
Iso-Butane	1.09	4.44%	1.07	-0.08%
Pentane+	2.53	0.42%	2.57	0.58%
Total Barrel Valuein $/mmbtu	8.94	3.17%	10.16	1.37%
Margin	5.81	4.02%	7.06	1.98%

NGL PRICES

Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
Oct. 3 - 9 '12	29.70	95.66	145.02	171.70	199.25	$41.68
Sept. 26 - Oct. 2 '12	30.32	91.38	144.20	171.84	198.10	$41.15
Sept. 19 - 25 '12	29.63	87.42	147.34	172.32	200.07	$40.88
Sept. 12- 18 '12	29.74	90.98	156.52	177.36	211.78	$42.73
September '12	30.06	90.96	151.48	173.05	208.33	$42.17
August '12	33.52	89.68	145.60	162.29	209.65	$42.04
2nd Qtr '12	37.00	97.80	160.76	175.08	207.57	$44.54
1st Qtr '12	53.93	125.90	192.36	204.32	238.95	$55.05
4th Qtr '11	84.49	144.13	188.16	227.18	224.44	$61.34
3rd Qtr '11	76.03	153.87	188.27	208.52	237.59	$61.59
Oct. 5 - 11, '11	79.82	144.80	177.54	205.00	222.52	$59.42
Conway, Group 140	**Eth**	**Pro**	**Norm**	**Iso**	**Pen+**	**NGL Bbl**
Oct. 3 - 9 '12	16.52	83.00	142.20	174.94	196.02	$38.03
Sept. 26 - Oct. 2 '12	18.12	77.70	130.90	167.50	195.20	$36.82
Sept. 19 - 25 '12	15.78	74.92	135.74	162.93	193.85	$36.14
Sept. 12- 18 '12	14.68	79.76	142.94	193.90	208.72	$38.75
September '12	16.72	79.32	138.29	181.99	202.61	$38.06
August '12	18.77	74.27	130.46	169.74	201.94	$37.01
2nd Qtr '12	11.18	72.63	135.80	161.38	203.31	$35.72
1st Qtr '12	26.93	103.34	168.65	184.75	227.16	$45.92
4th Qtr '11	34.29	129.43	160.82	204.27	196.08	$48.23
3rd Qtr '11	46.69	143.07	166.30	199.68	210.98	$53.06
Oct. 5 - 11, '11	39.62	139.18	153.00	191.50	186.70	$48.88

(Above) Data Provided by Intercontinental Exchange. Individual product prices in cents per gallon. NGL barrel in $/42 gallons | Source: Frank Nieto

(Left) Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation. Source: Frank Nieto

Ethane margins were further hurt by the continued relative strength of natural gas prices. Increased heating demand caused by colder-than-normal October temperatures in parts of the country resulted in the Conway price rising 2% to \$3.13 per million Btu (/MMBtu) while the Mont Belvieu price remained flat at \$3.10/MMBtu. This resulted in the Conway ethane margin to fall further into unprofitable

Continued on Page 4

NGL PRICES & FRAC SPREAD | Week in Review

Continued from Page 3

status and pushed the Mont Belvieu margin down 6% to a margin that is on the cusp of turning unprofitable. Ethane was the lone NGL to experience a decrease in frac spread margins this week.

However, Barclays Capital stated that gas prices have increased too much and too soon this year and are due to decline. "Although we do believe that November marks the reset of the market, as storage anxieties disappear in the withdrawal season, the escalation in prices has come too quickly and prices have been overextended beyond underlying fundamentals, in our view," the investment firm said in the October 9 edition of its *Gas and Power Kaleidoscope.*

The NGL that posted the largest price gain was Conway butane, as it improved 9% from the previous week to $1.42/gal. This was its highest price in a month as it rebounded from the 4% price drop from last week. The Mont Belvieu price improved by 1% to $1.45/gal as it remained flat for the most part.

KEY NORTH AMERICAN HUB PRICES

2:30 PM CST / October 11, 2012

Gas Hub Name	Current Price
Carthage, TX	3.24
Katy Hub, TX	3.31
Waha Hub, TX	3.31
Henry Hub, LA	3.38
Perryville, LA	3.27
Houston Ship Channel	3.29
Agua Dulce, TX	1.88
Opal Hub, Wyo.	3.47
Blance Hub, NM	3.33
Cheyenne Hub, Wyo.	3.31
Chicago Hub	3.50
Ellisburg NE Hub	3.30
New York Hub	3.46
AECO, Alberta	3.18

Source: Bloomberg

Propane experienced the second-largest price improvement as export demand increased along with heating demand. The Mont Belvieu price rose 5% to 96¢/gal, its largest price since the week of May 9 when it was $1.01/gal. The Conway price rose 7% to 83¢/gal, its highest price since it was 85¢/gal the week of September 5.

The Conway isobutane price surpassed the Mont Belvieu price for the first time in two weeks. It again seems to indicate that there may be limited capacity at ONEOK's Conway isomerization unit as demand in the region doesn't seem to indicate it would cause a 4% price increase.

RESIN PRICES – MARKET UPDATE – OCTOBER 15, 2012

TOTAL OFFERS: 19,413,116 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Homopolymer - Inj	4,278,736	0.64	0.73	0.62	0.66
LLDPE - Film	3,755,336	0.67	0.72	0.64	0.68
HDPE - Blow Mold	3,573,268	0.675	0.73	0.615	0.655
LDPE - Film	2,484,600	0.69	0.74	0.67	0.71
LDPE - Inj	1,969,128	0.64	0.72	0.68	0.72
HDPE - Inj	1,318,576	0.64	0.69	0.625	0.665
HIPS	674,000	0.98	1.06	0.98	1.03
PP Copolymer - Inj	524,920	0.67	0.71	0.635	0.675
GPPS	380,000	0.93	0.93	0.87	0.92
HMWPE - Film	264,552	0.71	0.71	0.65	0.69
LLDPE - Inj	190,000	0.69	0.69	0.65	0.69

Source: Plastics Exchange – www.theplasticsexchange.com

Whatever the reason for this price increase, it helped to push the theoretical NGL barrel price up 3% at Conway to $38.03 per barrel (/bbl.) with a 4% improvement in margin to $26.59/bbl. The Mont Belvieu bbl. price improved 1% to $41.68/bbl. with a 2% gain in margin to $30.36/bbl.

The most profitable NGL to make at both hubs remained C_{5+} at $1.61/gal at Conway and $1.65/gal at Mont Belvieu. This was followed, in order, by isobutane at $1.44/gal at Conway and $1.41/gal at Mont Belvieu; butane at $1.10/gal at Conway and $1.13/gal at Mont Belvieu; propane at 54¢/gal at Conway and 67¢/gal at Mont Belvieu; and ethane at negative 4¢/gal at Conway and 9¢/gal at Mont Belvieu.

Natural gas in storage for the week of October 5 rose 72 billion cubic feet to 3.725 trillion cubic feet (Tcf) from 3.653 Tcf the previous week, according to the Energy Information Administration. This was 7% above the 3.489 Tcf reported last year at the same time and 8% above the five-year average of 3.456 Tcf.

Heating demand is expected to decrease this week according to the National Weather Service's forecast, which anticipates warmer than normal temperatures in the Northeast, Gulf Coast and Southwest. The rest of the country is expected to experience normal fall temperatures.

Consortium Eyeing Project To Export North Slope LNG To Asia

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR AND MIDSTREAMBUSINESS.COM

A consortium of oil majors – ExxonMobil, BP and ConocoPhillips – along with TransCanada submitted an update to Alaskan Governor Sean Parnell on their proposed project to transport liquefied natural gas (LNG) from the North Slope of Alaska to Asian markets.

The companies informed Parnell that the project would cost more than $65 billion and would have liquefaction capacity between 15 million and 18 million tons per year through three LNG trains with between 3-3.5 billion cubic feet (Bcf) per day of natural gas being transported 800 miles through a pipeline.

This project is a merger of two competing projects dating back to 2009, which were designed to transport natural gas from the North Slope of Alaska to the Lower 48 states. At the time, these projects saw BP and ConocoPhillips working on the Denali Pipeline Project and ExxonMobil and TransCanada working on the Alaska Pipeline Project.

As natural gas production exploded in the U.S. from unconventional resources, the economics for a North Slope pipeline were deemed too high. However, it seems that the main hindrance to developing the North Slope – it's distance from the Lower 48 – might now work in its favor to export LNG to Asian markets as Alaska has an easier transportation route to Asia than other markets. Additionally, Alaska housed the first LNG export terminal from the United States. ConocoPhillips' Kenai LNG terminal began operations more than 40 years ago.

The companies highlighted the synergies that their experience and capabilities would provide to the project's development. "Our companies bring together specific expertise in Arctic operations, pipeline design and construction, and in LNG plant design and operation. Since our joint work began at the end of March, we have built upon more than $700 million in past work by our collective companies...As a result, our work on an LNG development project has been advanced to a new level of understanding," the companies said in a letter.

The consortium noted that this combined work has resulted in plans for a "megaproject of unprecedented scale and challenge" that will use up to 1.7 million tons of steel, a peak construction workforce of 15,000 and a permanent workforce of more than 1,000 in Alaska.

NEW LIFE | Four companies that were previously involved in separate projects designed to bring North Slope gas to market have teamed up on a project to potentially liquefy these volumes and ship to Asia as LNG.

Although there appears to be some traction being gained in bringing North Slope production to market, it is important to note that we've been in this situation many times over the past 40 years with different projects and there remain a great deal of logistical and regulatory challenges.

In addition to the significant costs, this proposed project still requires approval from the Department of Energy to export LNG as well as state approval for the construction.

ETP, Sunoco Complete Merger

BUSINESS WIRE

Energy Transfer Partners LP and Sunoco Inc. completed the previously announced merger of a wholly owned subsidiary of ETP, with and into Sunoco, with Sunoco surviving the merger as a subsidiary of ETP.

Under the terms of the merger agreement, Sunoco shareholders were able to receive, for each Sunoco common share they owned, a combination of $25.00 in cash and 0.5245 of an ETP common unit. In lieu of receiving this standard mix of consideration, Sunoco shareholders, for each Sunoco common share they owned could make an election to receive $50.00 in cash or 1.0490 ETP common units, with such cash consideration and unit consideration subject to proration in accordance with the merger agreement. Because the cash consideration was oversubscribed, all holders making a cash election will have their cash consideration prorated and a portion of it will be

Continued on Page 6

Continued from Page 5

substituted with ETP common units in accordance with the terms of the merger agreement.

The total consideration to be paid in cash will be approximately $2.6 billion and the total consideration to be paid in equity will be approximately 54,971,724 ETP common units.

Effective with the opening of the market on October 5, Sunoco ceased to be a publicly traded company and its common stock discontinued trading on the NYSE.

As a result of the merger and the above transactions, ETP and Equity Transfer Equity own an indirect 40% and 60% equity interest, respectively, in both Sunoco and Southern Union, while ETP owns the general partner interests, incentive distribution rights and a 32.4% limited partner interest in Sunoco Logistics Partners LP.

Westlake To Convert Calvert City Ethylene Feedstock To Ethane

Westlake Chemical Corporation announced that it is converting the feedstock for its Calvert City, Kentucky, ethylene plant from propane to ethane along with increasing ethylene capacity from 450 million pounds per year to 630 million pounds per year. This expansion and feedstock conversion will enhance Westlake's vinyl chain integration and leverage low cost ethane being developed in the Marcellus shale area.

In addition, Westlake announced an expansion of the existing PVC plant in Calvert City, Kentucky, that will add approximately 200 million pounds per year of capacity to the existing 1,100 million pounds of annual capacity. This expansion allows Westlake to take advantage of the increased ethylene production at the site and to provide additional PVC resin to meet the growing demands of our global customers.

The construction costs for these projects are estimated to range between $210 to $240 million. The ethylene expansion and feedstock conversion project is targeted for start-up in the second quarter of 2014 and the PVC expansion is projected to start up in late 2014. These projects are expected to create approximately 300 construction jobs.

The Kentucky Economic Development Finance Authority has preliminarily approved tax incentives up to $10 million, with an additional $7 million pending approval through the Kentucky Reinvestment Act (KRA), for these new projects and other work currently in progress at the site. "This is an outstanding step forward for Westlake and a tremendous boost for the economy of Calvert City and the surrounding area," said Kentucky Gov. Steve Beshear in a release. "Kentucky has built a partnership with Westlake and we're thrilled to see this multi-million dollar investment in the Commonwealth."

Westlake Chemical Corporation's President and chief executive Albert Chao stated in a release, "These announced projects demonstrate our commitment to our overall integration strategy and to leveraging our access to low cost feedstock. It further confirms the importance of the Calvert City operations and our commitment to building a strong and successful site. We again extend our appreciation to Gov. Beshear and his administration, along with our supplier partners, for their continued support of our future in Kentucky and helping us to remain competitive at the site."

ArcLight Capital Announces Acquisition Of Blackwater Midstream

ArcLight Capital Partners LLC closed on the previously announced acquisition of Blackwater Midstream Corp., a company that specializes in the development and management of third party petroleum, chemical and agricultural bulk liquid storage terminals, with operations in Louisiana, Maryland and Georgia.

Michael Suder, Blackwater's chief executive, said in a release, "We are extremely pleased to have finalized our merger and join the ArcLight group of portfolio companies. We are very fortunate to have their support, which is going to allow us to continue to grow our company and expand on the successful business plan that we have executed over the last four years. ArcLight's extensive knowledge of our industry and the resources that they will provide to Blackwater will be instrumental in allowing our seasoned management team to keep moving the company forward."

"We believe low, sustained natural gas prices and surging crude production will result in increased bulk storage needs to serve the domestic refining, petrochemical, chemical and agricultural industries. Blackwater's exceptional management team is poised to take advantage of the growth in downstream liquid bulk storage opportunities," Daniel Revers, managing partner and co-founder of ArcLight, said in a release.

Atlas Pipeline Announces West OK Expansion Online With Significant Volume

Atlas Pipeline Partners LP announced that a new, 200 million cubic feet (MMcf) per day, cryogenic processing plant on the partnership's WestOK gathering and processing system in northwest Oklahoma and southern Kansas, was transferred to operations on September 22, 2012. The new facility, referred to as the Waynoka II plant, is online and already operating at approximately 130 MMcf per day. This expansion brings the total nameplate processing capacity at the Waynoka location to 400 MMcf per day, and total nameplate processing capacity on the entire WestOK system increases from 258 MMcf per day to 458 MMcf per day, a 78% increase in nameplate processing capacity.

The WestOK system is currently gathering over 410 MMcf per day, including significant volumes from the partnership's producer customers operating in the Mississippi Lime formation. Both the Waynoka I and Waynoka II plants will be processing below full capacity and certain volumes will continue to bypass the partnership's processing facilities in order to adhere to the partnership's current natural gas liquids (NGL) allocation limit on the WestOK system. The Partnership has contracted for additional NGL takeaway, which is expected to be available in the first half of 2013 as additional NGL pipeline construction is completed.

"We are excited to have completed this expansion at WestOK, which along with our recent expansion at Velma, has increased our overall processing capacity by 260 MMcf per day, or 73% on these two systems. We will be very pleased with the incremental margin that the company will realize as volumes continue to increase and, for Waynoka II, when new NGL takeaway becomes available in the first half of 2013. Additionally, we are fully underway in the expansion of our other system, WestTX, and expect to have the Driver plant online in the first half of 2013 as well," Eugene Dubay, chief executive of the partnership, said in a release.

Rail To Remain Key Bakken Player

BY **PAUL HART** | EDITOR, MIDSTREAM BUSINESS

CPACITY CRUNCH | Pipeline constraints are expected to remain in the Bakken for the foreseeable future, which will ensure the continued usage of rail transportation out of the play.

Railroad transport will remain a crucial component to move Bakken shale crude oil to market in the foreseeable future, says Brian Freed, vice president-business development with Rangeland Energy LLC, based in Sugar Land, Texas.

"There are a lot of constraints to getting new pipeline capacity built so rail service will continue to be important in the foreseeable future," Freed told the October Hart Energy Executive Breakfast Club meeting in Houston.

Some new pipeline projects, such as ONEOK Partners' proposed Bakken Crude Express line to Cushing, Oklahoma, announced earlier this year, have good odds for completion and will add important capacity for Williston Basin producers in North Dakota and Montana. However, other potential projects, to serve such markets as the Pacific Northwest, California and the East Coast "are not likely" due to distance, terrain, and environmental and permitting concerns, he said.

The Bakken Express project would move as much as 200,000 barrels (bbl.) per day to the Cushing crude hub and also provide an outlet for oil produced in the rapidly developing Niobrara shale play in Colorado and Wyoming.

Continued on Page 8

Continued from Page 7

Freed says railroads, meanwhile, are putting new emphasis on the special needs of crude producers. "They're actively helping people identify origins and destinations and responding to scheduling concerns of crude producers, which are more time-critical than other commodities, such as coal," he said

Rangeland assists midstream refiners, marketers and producers with infrastructure to move refined product, crude oil and associated natural gas products to market. Its projects include a 720,000 bbl. capacity crude oil hub at Epping, North Dakota, with pipeline, rail and truck connections.

Marathon, Harvest Pipeline To Develop Truck-to-Barge Project On Ohio River

Marathon Petroleum Corp. and Harvest Pipeline Company signed a letter of intent agreeing to jointly develop infrastructure that will facilitate transportation of hydrocarbon liquids production from the Utica Shale in eastern Ohio and western Pennsylvania. The project will result in up to 24,000 barrels (bbl.) per day of truck unloading capacity and a terminal capable of loading up to 50,000 bbl. per day onto barges on the Ohio River at Wellsville, Ohio.

The proposed project includes modifications to MPC's existing Wellsville river terminal to accommodate the additional volume for loading onto barges, and a new truck rack to be built on property leased by Harvest Pipeline next to the MPC facility.

"With two of our refineries literally on top of the Utica shale formation, we are committed to positioning ourselves as the customer of choice for liquids production from the Utica," George Shaffner, MPC's senior vice president of Transportation and Logistics, said in a release. "This project with Harvest Pipeline Company will strengthen our competitive position, and will benefit MPC, Harvest, and our customers."

Shaffner added that the letter of intent with Harvest represents the second investment MPC is making toward accommodating Utica production, after its completion earlier this summer of a new truck rack capable of unloading 12,000 bbl. per day, expandable to 24,000 bbl. per day, at its Canton, Ohio, refinery.

The joint project is anticipated to be complete by year-end 2013.

New Pipeline Leak Technology Rolls Out

The Pacific Gas and Electric Company is committing more resources to natural gas pipeline safety, the company announced.

It says it will deploy six new leak detection devices in northern and central California. Called Picarro Surveyors, the vehicle-mounted tools are about 1,000 times more sensitive than traditional gas leak detection equipment, says PG&E. The devices are "capable of detecting leaks down to one part per billion in ambient air while reducing false positives from naturally occurring methane," according to a PG&E release. The company says it is the first in the world to use the technology.

> "...we expect to support the deployment with the hiring of more leak detection and remediation professionals."
>
> - Nick Stavropoulos, PG&E's executive vice president of gas operations

"We deployed the Picarro Surveyor prototypes nine months ago, and they've proven to be so powerful that we are committing to rolling out this innovative technology across our service area," said Nick Stavropoulos, PG&E's executive vice president of gas operations, in a public statement.

"And because the Picarro Surveyor will allow us to conduct more frequent and comprehensive surveys, we expect to support the deployment with the hiring of more leak detection and remediation professionals. We're making every effort to ensure that PG&E is the safest utility in the United States, and Picarro's technology is a cornerstone to making that happen."

PG&E and Picarro Inc. will kick off a multi-city road show to promote and demonstrate the new technology.

Spectra Announces Management Appointments

Spectra Energy Corp announced a number of senior management appointments that will be effective January 1, 2013.

The management appointments include the following:

Doug Bloom, who currently serves as president of Spectra Energy Transmission West (SET West), will become president of Canadian LNG. Bloom's will be integral in delivering on a multitude of liquefied natural gas (LNG) opportunities in western Canada, including the recently announced multi-billion dollar joint venture between Spectra Energy and BG Group plc to build a major pipeline to serve a new LNG facility on the west coast of Canada.

> "Spectra Energy has several billion dollars of projects in execution and more than 20 billion dollars in opportunities through the end of this decade."
>
> - Greg Ebel, president and chief executive, Spectra Energy Corp.

Mark Fiedorek will become president of SET West, leading the existing western Canadian businesses and continuing the growth of its pipeline and gathering and processing sectors. Fiedorek, who currently serves as group vice president of Southeast Transmission and Storage in the U.S., will remain a director of the midstream master limited partnership, DCP Midstream Partners LP.

Bill Yardley will become president of U.S. Transmission and Storage. Yardley currently leads the northeast U.S. commercial activities and will add the southeast commercial activities to his area of responsibility. Yardley will remain a director of Spectra Energy Partners LP.

"Spectra Energy has several billion dollars of projects in execution and more than 20 billion dollars in opportunities through the end of this decade. These senior leaders will help ensure that Spectra Energy is well positioned to develop and execute on the opportunities ahead," Greg Ebel, president and chief executive, Spectra Energy Corp., said in a release. "These management changes will allow the company to leverage across the enterprise the substantial experience these senior executives possess, as we continue to grow value for our investors and customers."

New NGV Storage Technologies To Lower Cost Of Light-Duty Vehicles

Gas Technology Institute, a research and development organization serving energy and environmental markets, was recently awarded two new cutting-edge research projects by the U.S. Department of Energy (DOE) through its Advanced Research Projects Agency-Energy (ARPA-E). The ARPA-E grants are very selective and designed to fund highly transformative technologies.

GTI will serve as lead research organization for projects focused on the development of new adsorbed natural gas (ANG) technologies for use in light-duty vehicles, for which it received $2.375 million in awards.

With natural gas prices at an all time low, compressed natural gas (CNG) technologies can take advantage of clean natural gas to displace higher-cost fuels. The economic and environmental benefits of natural gas vehicles (NGVs) are being increasingly recognized, but the first-cost entry into using them is preventing adoption that is more widespread. The development of innovative, low-cost natural gas storage technologies and methods to lower pressure in vehicle tanks will help overcome market barriers to increased NGV use.

The projects are part of DOE's new program, titled Methane Opportunities for Vehicular Energy (MOVE), which aims to engineer lightweight, affordable, natural gas tanks for passenger cars and develop natural gas compressors that can efficiently fuel a natural gas vehicle at home. Current NGV technology requires tanks that can withstand pressures up to 3600 psi, which represent added cost and weight for an NGV compared to gasoline and diesel vehicles.

VIEW THE FULL ARTICLE ONLINE

LEAD STORY | From The Front

Continued from Page 1

2011 TOP NATURAL GAS PROCESSORS

Rank	Company	2011 Gas Processed (MMcf/d)	2010 Gas Processed (MMcf/d)	2009 Gas Processed (MMcf/d)	Difference From 2010 to 2011
1	Enterprise Products Partners	6,131	5,500	5,300	11%
2	DCP Midstream	6,079	6,067	6,079	0%
3	Southern Union Company	4,080	4,210	3,920	-3%
4	Encana	3,333	3,184	2,840	5%
5	Targa Resources	2,162	2,268	2,139	-5%
6	Crosstex Energy Services	1,335	1,330	1,201	0%
7	Chevron	1,279	1,507	1,611	-15%
8	MarkWest Energy Partners	1,250	972	367	29%
9	Shell Oil Company	961	1,149	1,055	-16%
10	Devon Energy	968	864	966	12%

Source: Company data, submissions compiled by Frank Nieto, Editor, *Midstream Monitor* and *Midstreambusiness.com*

DCP Midstream maintained its ranking as the top NGL producer, which it has held for five consecutive years, following a 4% increase in production to 383,021 barrels (bbl.) per day in 2011. Enterprise came in second in these rankings after a 2% increase to 303,000 bbl. per day.

While DCP maintained its ranking in this category, ONEOK has vaulted to our third spot from the eighth spot last year. This was based solely on all volumes, whether first party or third party, being included in the count.

The rankings reflect the changes that began to occur in the midstream in 2011, namely the renewed focus on liquids over gas as liquids production has risen dramatically during the past three years. Looking at how our top-ranked midstream companies are planning capital expenditures it is safe to say this change will continue for at least the next few years.

The top NGL producer in our rankings, DCP Midstream, is increasingly moving toward projects focused on liquids-rich plays such as the Permian and D-J basins, the Eagle Ford and Midcontinent.

"Around 2010, we embarked on a strategy focused on our footprint as we expected producers would begin to move into liquids-rich drilling," Wouter van Kempen, president and chief operating officer at DCP Midstream, told *Midstream Monitor.*

"We're trying to unlock all of our key basins and make sure we have NGL solutions from these basins into Mont Belvieu," he continued. This approach has helped the company to increase NGL production at a current rate of more than 400,000 bbl. per day, van Kempen said.

As impressive as these figures are now, it is expected that they will continue to increase at a dramatic rate in the coming years as the company's processing volumes can experience an uptick of approximately 15% as more plants are added in these liquids-rich plays. This would translate to approximately 25% increased NGL production, according to van Kempen. We will have much more on DCP Midstream in next week's issue.

One company that is not listed, but is still present, is Energy Transfer Equity (ETE). The company serves as the general partner of Energy Transfer Partners (ETP), our eighth-ranked NGL producer, as well as the parent of our second-ranked gas processing company, Southern Union. In addition, ETE owns the general partner of Regency Energy Partners.

ETP experienced a 7% increase in NGL production to 54,925 bbl. per day. The company's planned capex for 2012 is between $1.8 billion and $2 billion, with between $700 million and $800 million on its midstream segment and between $1.1 billion and $1.2 billion for its NGL segment.

During ETP's second quarter earnings conference call in August, Martin Salinas, ETP's chief financial officer, said that approximately $690 million of this capital spending was related to its projects in the Eagle Ford as well as NGL pipeline and fractionation projects at its Lone Star joint venture with Regency. This joint venture is involved in NGL storage and pipeline transportation as well as processing and fractionating facilities in the Gulf Coast.

In October, ETP moved further into the liquids business by acquiring Sunoco in a $2.6 billion merger. The deal not only provides ETP with a further stake in the oily-side of the business, but also helps diversify the holdings of its general partner.

This aim for increased diversity in its holdings and operations started with the acquisition of Southern Union in March. The $9.4 billion merger gave ETE a combined network of approximately 45,000 miles of pipeline along with 2 billion cubic feet (Bcf) of natural gas processing capacity. Despite a 3% dip in processing volumes for 2011, the company anticipates this capacity will continue to grow as Southern Union is planning to spend between $50 million and $100 million of growth capex in the second half of 2012.

"[The merger] also complements our existing, supply-focused interstate operations with a largely regulated demand-side, market-centric set of operations," Salinas said during a conference call to discuss the merger earlier this year.

Continued on Page 11

LEAD STORY | From The Front

Continued from Page 10

"This provides a larger, more competitive interstate and midstream platform with significantly enhanced and expanded geographic diversity, not to mention the significant organic growth opportunities that we see in the strategic, geographic locations across the United States. In addition, strong commercial and operational synergies will be realized as we combine the existing natural gas and natural gas liquids operations…Needless to say we are, and will be, utilizing Southern Union's assets to maximize value wherever we can within the Energy Transfer family," he continued.

2011 TOP NGL PRODUCERS

Rank	Company	2011 NGL Produced (bbls. per day)	2010 NGL Produced (bbls. per day)	2009 NGL Produced (bbls. per day)	Difference From 2010 to 2011
1	DCP Midstream	383,021	368,931	358,000	4%
2	Enterprise Product Partners	303,000	272,000	210,661	2%
3	ONEOK Inc*	222,000	215,000	N/A	3%
4	Williams Companies	189,000	178,000	164,000	6%
5	Chevron	161,000	161,000	161,000	0%
6	Targa Resources	123,900	121,200	118,300	2%
7	Devon Energy	71,407	63,698	30,000	12%
8	Energy Transfer Partners	54,925	51,144	46,640	7%
9	MarkWest Energy Partners	54,300	47,400	48,059	15%
10	Southern Union	31,593	31,361	28,389	1%

Note: ONEOK Inc figures are estimated using various studies and published figures.
Source: Company data, submissions compiled by Frank Nieto, Editor, *Midstream Monitor* and *Midstreambusiness.com*

ONEOK is a very liquids-focused company that we have ranked as the second-largest NGL producer for 2011. However, our figure of 222,000 bbl. per day is an estimated total for the company. The company reported 537,000 bbl. per day of fractionated volumes in 2011, but this figure included some volumes from third-party facilities. Our estimates were established using various studies and published figures. We have been unable to obtain an official figure from ONEOK at press time, but we feel secure that the company's verified figures utilizing only their fully owned facilities would not affect their rankings based on our estimated totals.

We estimated that the company experienced a 3% gain in NGL production in 2011. The company has been increasing its focus on liquids-production over the past several years, especially production out of the Bakken. The company added the Garden Creek I processing plant in North Dakota in December 2011 and is currently constructing three other processing plants in the play.

The Garden Creek II plant is scheduled to complete construction in the third quarter of 2014 while the Stateline processing plant's construction is expected to complete in the third quarter of 2013 with the Stateline II plant completing construction in the first half of 2013. Each of these four plants will have a processing capacity of 100 MMcf per day.

During a conference call to discuss the company's second quarter earnings, Pierce Norton, the company's executive vice president and chief operating officer, said that the company continues to evaluate its large backlog of gas and NGL-related infrastructure projects. These projects include processing plants and fractionation facilities. "Even with the recently announced projects totaling $1 billion [between now and 2014], this backlog still totals more than $2 billion."

Outside of the Bakken, the company is also enhancing its liquids focus by building a new 75,000 bbl. per day fractionator and a 40,000 bbl. per day ethane and propane splitter in Mont Belvieu.

While Enterprise Products Partners experienced growth in both its processing and NGL production figures in 2011, it saw the most growth from natural gas processing. The company continues to view the Eagle Ford as an area of growth for both processing and NGL production.

This September, the company started up its second 300 MMcf per day train at its Yoakum processing plant in Lavaca County, Texas. The company is on track to bring the plant's third train online in the first quarter of 2013, which will increase capacity to 900 MMcf per day and 111,000 bbl. per day of NGLs. Enterprise ultimately expects to offer approximately 2.4 Bcf per day of natural gas processing capacity for the region.

"Like the Eagle Ford Shale play itself, our Yoakum natural gas facility continues to exceed expectations and provide Enterprise with new growth opportunities," A.J. "Jim" Teague, executive vice president and chief operating officer of Enterprise's general partner, said. "Based on the operating results we've seen from the first train which began service in May 2012, we expect the second and third trains to perform above their original design capacity, giving us the confidence to pursue additional processing commitments for all three plants."

Similar to DCP Midstream, Enterprise has a diversified asset base that covers the full midstream sector. The company's assets include 25 gas processing plants and 20 fractionators.

Over the next two years these assets will increase as the company is targeting $7.6 billion worth of new projects with a primary focus on the Eagle Ford, Rockies,

Continued on Page 12

Continued from Page 11

Permian, Avalon shale, Bone Spring, Marcellus and Utica shales.

Williams experienced an 11% increase in NGL production in 2011 with much of this coming from its traditional operations center in the Rockies. However, the company will see much of its growth coming from the Northeast as it made a big splash in the Marcellus this year through the acquisition of Caiman Eastern Midstream from Caiman Energy for $2.5 billion.

The acquisition is in the wet gas portion of the play and includes the Fort Beeler cryogenic processing plant near Cameron, West Virginia as well as the Moundsville processing and fractionation plant in Marshall County, West Virginia.

"This acquisition continues to expand on Williams' footprint in the Marcellus allowing us to expand our NGL footprint. It's a great opportunity for us because we like scale," Frank Billings, vice president, Williams Partners, said at a March 20 news conference at Hart Energy's Marcellus Midstream conference in Pittsburgh, Pennsylvania.

He added that these holdings could help Williams achieve a similar stance in the Marcellus as it has in the Picenace. "We have large processing plants out west and we can bring that same operating capability to this play and help producers maximize their production through high reliability and over time lower costs because of our scale," he said. This scale could be increased in the coming years as the company seeks bolt-on acquisitions in the play.

In addition to providing Williams with a large holding in the Marcellus, the acquisition will also provide the company with an entry point into the Utica as Williams formed a joint venture with Caiman Energy and its private equity investors to develop midstream infrastructure in the play. Billings added that the midstream assets in the Marcellus might also be used to process gas from the Utica.

MarkWest Energy Partners is another major midstream player in the Marcellus as it is the largest processor in the play. This designation helped the company post the largest year-on-year gains in both of our rankings this year as it experienced a 29% increase in its processing volumes and a 15% increase in its NGL production totals.

Much of this growth was due to its Liberty segment in the liquids-rich portion of the Marcellus, according to Frank Semple, the company's chair, president and chief executive. The Liberty segment has 715 MMcf per day of processing capacity and 60,000 bbl. per day of fractionation capacity.

"We continue to focus on our announced organic growth projects, including the expansion of our Liberty segment and the completion of the first phase of our Utica projects," he said during the company's conference call to discuss second quarter 2012 earnings.

The company also expanded its holdings in the region through the $512 million acquisition of Keystone Midstream Services LLC from Stonehenge Energy Resources and subsidiaries of Rex Energy and Sumitomo. This agreement included two processing plants with a total capacity of 90 MMcf per day in Butler County, Pennsylvania.

MarkWest also formed a joint venture with The Energy and Minerals Group called MarkWest Utica EMG that is focused on developing gathering, transportation, processing fractionation, and marketing infrastructure in the Utica shale in eastern Ohio.

As more of the liquids-rich basins continue to be focused on and developed by producers, the midstream should continue to experience significant gains in processing and NGL production volumes in the coming years. It is entirely possible that the significant increases in NGL production from 2009 to 2011 will continue to grow in 2012 and beyond with processing volumes also increasing in the coming years.

Contact Information:

FRANK NIETO Editor
fnieto@hartenergy.com

Contributing Editors: Richard Mason, Mike Madere, Scott Weeden, Jennifer Postel, Michelle Thompson, Keefe Borden, Nissa Darbonne, Leslie Haines, Peggy Williams, Susan Klann, Paul Hart

ORDER TODAY!
Call: **1-212-608-9078** | Fax: **1-212-608-9357**

HARTENERGY
1616 S. Voss, Suite 1000 • Houston TX 77057-2627 • USA