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ONEOK Takes Aim At Bakken Infrastructure

Since 2009, ONEOK has invested nearly $1.5 billion in the Bakken

BY **JENNIFER POSTEL** | ASSISTANT EDITOR, MIDSTREAM BUSINESS

It has been known for some time that many of the prolific plays throughout the U.S. are in need of immediate infrastructure attention, especially in the bountiful Bakken, where a surge in production has caused more than its fair share of challenges.

ONEOK, the largest publicly traded master limited partnership, is one of the most active participants in the Bakken shale and, at September's Barclays CEO Energy/Power Conference in New York City, its president, Terry Spencer, addressed the company's present and future infrastructure plans for the booming play.

"We are active in a number of prolific shale plays across the U.S. and in particular the Bakken shale in the Williston Basin," Spencer said. "It has provided us [ONEOK] with a number of opportunities to develop both natural gas and NGL-related infrastructure, as well as crude oil."

After its 2005 acquisition of Koch Industries' natural gas businesses, ONEOK now owns one of the largest natural gas liquids (NGL) systems in the country that, according to Spencer, continues

to grow. In addition, much of that growth, he noted, is due to ONEOK's presence in the Bakken.

"When we talk about growth at ONEOK Partners we've got to highlight development that's occurring in the Bakken shale," Spencer said. "When our projects that we've announced in the Bakken are completed, we will have invested in our gathering and processing segment almost $1.5 billion…"

Spencer explained that this $1.5 billion investment is just a small portion of the $6 billion in investments ONEOK has planned through 2015, which does not include another $2 billion in unannounced projects that,

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HIGHLIGHTS FROM TODAY'S EDITION

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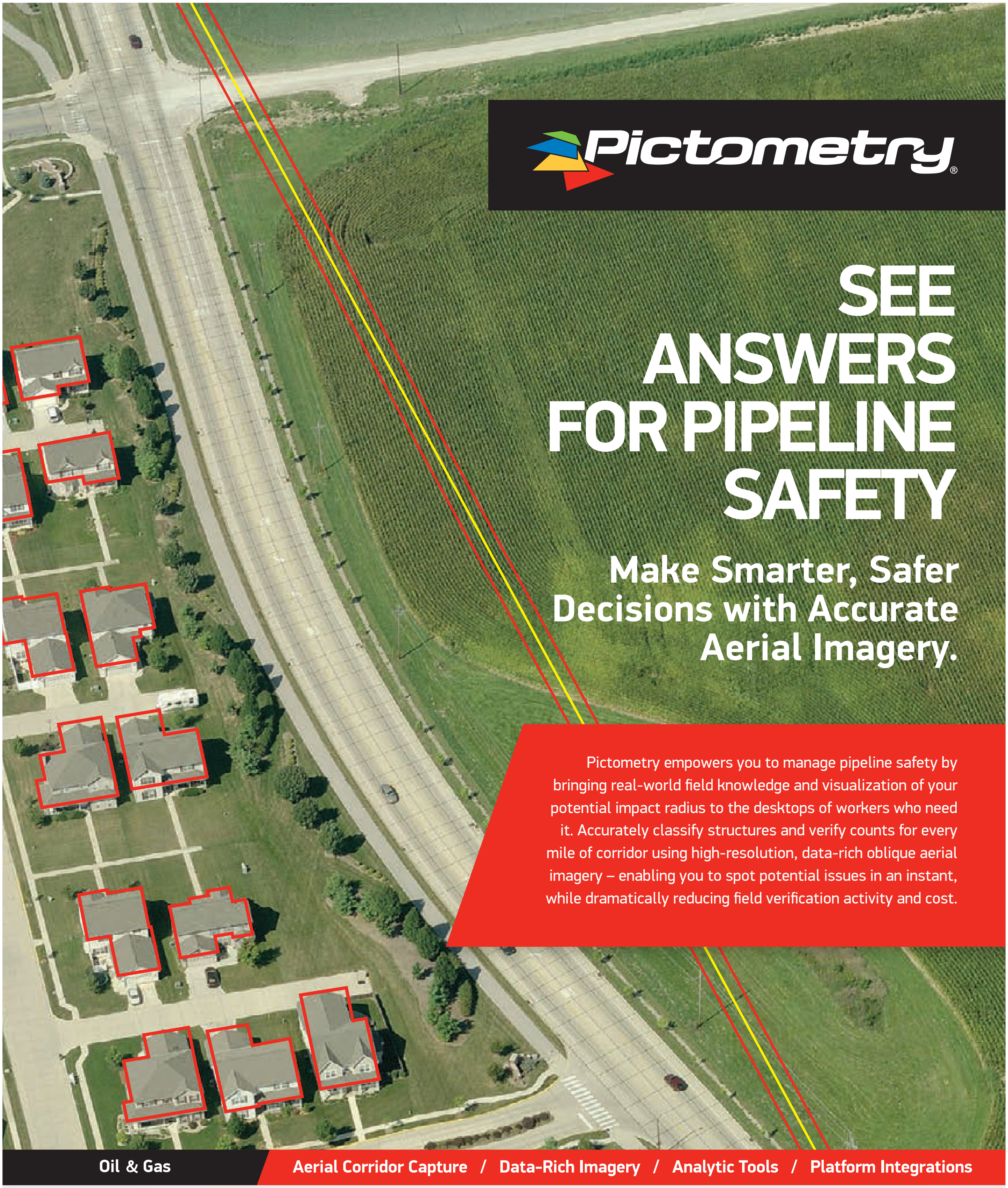

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Light NGL Prices Increase Despite Crude Downturn

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

Despite a downturn in crude oil prices, natural gas liquids (NGLs) prices showed improvements at both Mont Belvieu and Conway the first week of October as the markets rebalanced after taking a downturn the prior week.

The biggest improvement was for Conway ethane, which rose 15% following the announcement by the Energy Information Administration (EIA) that ethane inventories decreased by 1.3 million barrels (bbls.) in September. The bad news is that Conway E-P mix remains distressed at a price of just 18¢ per gallon (/gal) and a negative frac spread margin.

Further, the market will be impacted because Aux Sable's fractionator at Conway was taken offline from October 1 through October 4 due to maintenance on the Alliance pipeline. This should tighten E-P mix in the Midcontinent as the facility extracts 50,000 bbls. per day.

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CURRENT FRAC SPREAD (CENTS/GAL)

October 5, 2012	Conway	Change from Start of Week	Mont Belvieu	Start of Week
Ethane	18.12		30.32	
Shrink	20.42		20.55	
Margin	-2.30	11.01%	9.77	-7.88%
Propane	77.70		91.38	
Shrink	28.21		28.40	
Margin	49.49	-0.12%	62.98	3.03%
Normal Butane	130.90		144.20	
Shrink	31.94		32.15	
Margin	98.96	-7.53%	112.05	-4.70%
Iso-Butane	167.50		171.84	
Shrink	30.68		30.88	
Margin	136.82	1.10%	140.96	-1.93%
Pentane+	195.20		198.10	
Shrink	34.16		34.38	
Margin	161.04	-1.28%	163.72	-2.69%
NGL $/Bbl	36.82	1.87%	41.15	0.65%
Shrink	11.25		11.32	
Margin	25.56	-1.75%	29.82	-1.89%
Gas ($/mmBtu)	3.08	11.19%	3.10	8.01%
Gross Bbl Margin (in cents/gal)	57.49	-1.75%	68.30	-1.66%
NGL Value in $/mmBtu				
Ethane	1.00	14.83%	1.67	2.33%
Propane	2.70	3.71%	3.17	4.53%
Normal Butane	1.41	-3.57%	1.56	-2.13%
Iso-Butane	1.04	2.80%	1.07	-0.28%
Pentane+	2.52	0.70%	2.55	-0.98%
Total Barrel Valuein $/mmbtu	8.67	2.59%	10.02	1.14%
Margin	5.59	-1.60%	6.92	-1.66%

NGL PRICES

Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
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
Sept. 5 - 11 '12	31.04	95.04	155.78	171.54	215.74	$43.49
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
Sept. 28 - Oct. 4, '11	86.51	150.38	181.38	217.18	221.38	$61.56
Conway, Group 140	**Eth**	**Pro**	**Norm**	**Iso**	**Pen+**	**NGL Bbl**
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
Sept. 5 - 11 '12	18.54	84.98	141.40	197.58	210.73	$40.16
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
Sept. 28 - Oct. 4, '11	40.58	142.44	155.33	202.67	185.63	$49.77

(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

NGL PRICES & FRAC SPREAD | Week in Review

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Mont Belvieu ethane prices experienced a less dramatic uptick as they rose 2% to 30¢/gal, their highest level in nearly a month. However, the margin fell 8% due to an 8% natural gas price spike to $3.10 per million Btu (/MMBtu) at the hub.

Conway gas prices also experienced a larger than normal increase of 11% to $3.08/MMBtu due to the EIA reporting smaller than normal inventory increases as well as forecasts for colder than normal weather in parts of the country, which may jump start heating demand earlier than anticipated.

Propane prices also increased at both hubs because of the expected increase in heating demand. The Mont Belvieu price rose 5% to 91¢/gal, the highest price at the hub in three weeks. This increase helped to push the frac spread margin at the hub up 3% from the previous week. The Conway price increased 4% to 78¢/gal, which was the hub's second lowest price in five weeks and resulted in a slight decrease in the frac spread margin.

Heavy NGLs price were a mixed bag this week due to Conway prices largely experiencing increases due to the market rebalancing from heavy price drops the previous week while Mont Belvieu prices were down across the board.

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / October 4, 2012	
Gas Hub Name	Current Price
Carthage, TX	3.16
Katy Hub, TX	3.20
Waha Hub, TX	3.18
Henry Hub, LA	3.23
Perryville, LA	3.22
Houston Ship Channel	3.20
Agua Dulce, TX	1.88
Opal Hub, Wyo.	3.22
Blance Hub, NM	3.18
Cheyenne Hub, Wyo.	3.19
Chicago Hub	3.43
Ellisburg NE Hub	3.30
New York Hub	3.48
AECO, Alberta	2.88

Source: Bloomberg

Crude prices fell below $90/bbl. this week due to growing concerns that global demand will decrease because of economic downturns in China and Europe. In addition to lower crude prices, butane prices took a downturn at both hubs because of decreased demand, as ethane is the more preferred ethylene feedstock. The EIA reported that butane extraction was down in September, which also resulted in a downturn in prices. The Mont Belvieu price fell 2% to $1.44/gal, the lowest it has been since the week of August 8, when it was $1.42/gal. The Conway price tumbled 4% to $1.31/gal, which was also the lowest it has been since the week of August 8, when it was $1.22/gal.

RESIN PRICES – MARKET UPDATE – OCTOBER 5, 2012					
TOTAL OFFERS: 16,932,240 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
HDPE - Blow Mold	4,597,360	0.62	0.73	0.625	0.665
PP Homopolymer - Inj	2,689,760	0.61	0.73	0.62	0.66
PP Copolymer - Inj	2,620,380	0.645	0.715	0.635	0.675
LLDPE - Film	2,352,668	0.65	0.72	0.64	0.68
LDPE - Film	1,865,220	0.695	0.77	0.69	0.73
LDPE - Inj	853,196	0.69	0.72	0.685	0.725
HDPE - Inj	657,196	0.64	0.7	0.635	0.675
HIPS	506,000	1.04	1.06	0.98	1.03
GPPS	380,000	0.93	0.93	0.87	0.92
HMWPE - Film	220,460	0.74	0.74	0.66	0.7
LLDPE - Inj	190,000	0.69	0.69	0.655	0.695

Source: Plastics Exchange – www.theplasticsexchange.com

The theoretical NGL bbl. price was up at both hubs due to the improvements shown by the lighter liquids – ethane and propane – that make up more of the bbl. The Mont Belvieu bbl. increased 1% to $41.15/bbl. with a 2% downturn in margin to $29.82/bbl. The Conway theoretical bbl. was up 2% to $36.82/bbl. with a 2% drop in margin to $25.56/bbl.

The most profitable NGL to make at both hubs remained C_{5+} at $1.64/gal at Mont Belvieu and $1.61/gal at Conway. This was followed, in order, by isobutane at $1.41/gal at Mont Belvieu and $1.37/gal at Conway; butane at $1.12/gal at Mont Belvieu and 99¢/gal at Conway; propane at 63¢/gal at Mont Belvieu and 50¢/gal at Conway; and ethane at 10¢/gal at Mont Belvieu and negative 2¢/gal at Conway.

Natural gas in storage for the week of September 28 rose 77 billion cubic feet to 3.653 trillion cubic feet (Tcf) from 3.576 Tcf the previous week according to the EIA's weekly storage report. This was 8% greater than the 3.381 Tcf reported last year at the same time and the 3.372 Tcf five-year average.

The National Weather Service's forecast for this week is calling for colder than normal temperatures in the Northeast, Mid-Atlantic and much of the Midwest, which may begin the heating season earlier than anticipated. The forecast also indicates that cooling demand will be higher than normal in the Gulf Coast and Pacific Northwest due to warmer than normal temperatures.

Margins Down Across The Board In September

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

It appeared that Conway E-P mix prices had turned the corner as summer came to close, but this is not the case as the product remains very much in flux as prices failed to retain their gains and the margin once again fell negative.

According to our frac spread calculations, the price tumbled 177% to negative 2¢ per gallon (/gal) due to further cracking, processing and fractionation capacity outages. Several fractionators were taken down for scheduled maintenance along the Gulf Coast while there were impacts from Hurricane Isaac that resulted in Targa Resource's Venice and Yscloskey natural gas processing plants operating at reduced capacity as they dealt with flooding.

Additionally, three ethane crackers in the Gulf were either operating at reduced capacity or taken down for maintenance. The DuPont cracker was expected to come back online this week. While Flint Hills Resources' Port Arthur cracker is in the midst of a 30- to 45-day turnaround. At the same time, Exxon Mobil's Baton Rouge cracker and Shell's Norco cracker were operating at reduced rates during this time.

These capacity constraints also saw the price of Mont Belvieu ethane fall in September, which resulted in a 33% in the margin to 10¢/gal. This margin walks the fine line between profitability and unprofitability once other costs, such as transportation, are factored in.

Although Conway E-P mix was the only NGL to experience negative margins in September, every NGL at both hubs experienced a decrease in margin from the previous month as NGL prices moved downward and natural gas prices improved in anticipation of the heating season.

The smallest drop in margin was for Mont Belvieu isobutane, which decreased 2% from the previous month. The price was supported by increased demand for the product from refiners switching from summer-grade gasoline to winter-grade gasoline. The Conway margin had a significant drop of 20%; however, for much of the month the Conway price was significantly higher as ONEOK's isomerzation unit in the region was down for much of the month. Since this is the lone unit in the region, it had a significant impact on prices.

The most profitable NGL to make at both hubs in September was C_{5+} at $1.59/gal at Conway and $1.63/gal at Mont Belvieu. This was followed, in order, by isobutane at $1.38/gal at Conway and $1.41/gal at Mont Belvieu; butane at 98¢/gal at Conway and $1.10/gal at Mont Belvieu; propane at 49¢/gal at Conway and 62¢/gal at Mont Belvieu; and ethane at negative 2¢/gal at Conway and 9¢/gal at Mont Belvieu.

SEPTEMBER, 2012 MONTHLY FRAC SPREAD (CENTS/GAL)

September, 2012	Conway	Change from Start of Month	Mont Belvieu	Start of Month
Ethane	17.27		29.22	
Shrink	19.43		19.82	
Margin	-2.16	-176.99%	9.40	-32.58%
Propane	75.53		89.23	
Shrink	26.84		27.39	
Margin	48.69	-14.72%	61.84	-8.35%
Normal Butane	128.57		141.43	
Shrink	30.38		31.01	
Margin	98.19	-13.18%	110.42	-12.61%
Iso-Butane	167.50		170.33	
Shrink	29.18		29.78	
Margin	138.32	-19.49%	140.55	-1.45%
Pentane+	191.00		196.03	
Shrink	32.49		33.16	
Margin	158.51	-9.80%	162.87	-11.63%
NGL $/Bbl	36.01	-9.80%	40.40	-7.18%
Shrink	10.70		10.92	
Margin	25.31	-15.50%	29.47	-11.18%
Gas ($/mmBtu)	2.93	7.33%	2.99	5.65%
Gross Bbl Margin (in cents/gal)	56.94	-15.81%	67.47	-11.10%
NGL Value in $/mmBtu				
Ethane	0.95	-17.37%	1.61	-10.64%
Propane	2.62	-8.00%	3.10	-4.46%
Normal Butane	1.39	-9.07%	1.53	-9.17%
Iso-Butane	1.04	-15.83%	1.06	-0.28%
Pentane+	2.46	-7.28%	2.53	-9.12%
Total Barrel Valuein $/mmbtu	8.47	-10.15%	9.82	-7.07%
Margin	5.54	-17.27%	6.83	-11.72%

(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

Eagle Rock Acquires Processing Plants, Gathering System In Texas Panhandle

Eagle Rock Energy Partners LP closed on the previously-announced acquisition of BP America Production Co.'s Sunray and Hemphill processing plants and associated 2,500 mile gathering system serving the liquids-rich Texas Panhandle for $227.5 million.

Under the terms of the purchase agreement, which was announced in early August, Eagle Rock and BP have entered into a 20-year, fixed-fee gas gathering and processing agreement under which Eagle Rock will gather and process BP's natural gas production from the existing connected wells.

Furthermore, BP has committed itself and its farmees to Eagle Rock, under the same agreement, all future natural gas production from new wells drilled within an initial two-year period from closing, subject to mutually-agreed extensions, and within a two-mile radius of the partnership's resulting gathering system servicing the BP dedicated wells.

BP Panhandle System gathering volumes in the first half of 2012 averaged approximately 180 MMcf per day, and the partnership expects to continue to grow its overall throughput from the Texas Panhandle area based on the drilling programs from BP and third-party producers active in the area.

Eagle Rock plans to integrate the BP Panhandle System with its existing system in the area, resulting in approximately 6,463 miles of combined gathering pipelines. It will serve over 5,000 wells and have over 480 MMcf per day of combined processing capacity serving the Texas Panhandle, with an additional 60 MMcf per day of capacity expected to come on-line in the first half of 2013 following the completion of Eagle Rock's previously announced Wheeler Plant.

The combined system will strengthen Eagle Rock's position in the growing Granite Wash, Cleveland, Tonkawa and Hogshooter plays and provide increased flexibility and capacity in servicing its producer customers. Activity in the Texas Panhandle remains robust with approximately 14 active rigs in the area dedicated to the combined Eagle Rock and BP Panhandle systems and over 450 wells permitted over the past six months in the Texas Panhandle region.

ADDING INFRASTRUCTURE | Eagle Rock completed a $227.5 million deal for BP America's two processing plants and gathering system in the Texas Panhandle.

Eagle Rock said it expects the integration of the two systems to result in future cost savings and the ability to optimize its existing processing capacity.

The partnership between the two companies is a domestically focused, growth-oriented limited partnership to gather, compress, treat, process, transport and market natural gas. In addition, the partnership fractionates, transports and markets natural gas liquids.

Williams Breaks Ground On Colorado Processing Expansion

Williams broke ground on a $190 million expansion of its natural gas processing plant in Parachute, Colorado. The new cryogenic unit will increase production capacity from 6,000 bbls. per day of NGLs to 30,000 bbls. per day. Construction is expected to complete in the third quarter of 2014.

Boardwalk Pipeline Completes Acquisition Of PL Midstream LLC

Boardwalk Pipeline Partners LP announced that Boardwalk Acquisition Company LLC, a joint venture with an affiliate of its general partner, has completed the previously announced acquisition of PL Midstream LLC from

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PL Logistics LLC, a portfolio company of Lindsay Goldberg LLC, for approximately $625 million, subject to customary adjustments.

"Completing this acquisition strengthens our position as a diversified midstream energy company and further enhances our growth opportunities," Stan Horton, Boardwalk's president and chief executive, said in a release. "PL Midstream is a rapidly growing company with strategically-located assets, a strong management team, attractive and long-term contracts, and significant growth opportunities. We are delighted to have PL Midstream join the Boardwalk team."

PL Midstream provides salt-dome storage, pipeline transportation, fractionation and brine supply services for producers and consumers of petrochemicals, natural gas liquids (NGLs) and natural gas through two hubs in southern Louisiana, the Choctaw Hub in the Mississippi River Corridor and the Sulphur Hub in the Lake Charles area. These assets represent approximately 53.5 million barrels (bbl.) of salt dome storage capacity, including 11.2 billion cubic feet of working natural gas storage capacity; significant brine supply infrastructure; and more than 240 miles of pipeline transportation assets, including the most extensive ethylene distribution system in Louisiana.

Boardwalk Acquisition Company LLC funded this acquisition with proceeds from a $225 million, five-year bank loan and equity contributions from Boardwalk and an affiliate of its general partner, Boardwalk Pipelines Holding Corp., which is a wholly owned subsidiary of Loews Corp.

Caliber Midstream Partners Formation Announced

Triangle Petroleum and First Reserve Corp. announced the formation of Caliber Midstream Partners LP. This newly formed limited partnership will offer full service pipeline solutions to producers for oil, natural gas, flow back and produced water, and freshwater in the Williston Basin of North Dakota and Montana. Caliber Midstream will initially be capitalized with a total of $180 million of equity commitments, consisting of $150 million from First Serve Corp. and $30 million from Triangle Petroleum.

BP To Sell Malaysian Petrochemical Plant To Reliance

BP agreed to sell all of its interests in purified terephthalic acid (PTA) production in Malaysia to Reliance Global Holdings Pte. Ltd. of India. The agreement concerns BP's 100% equity in BP Chemicals (Malaysia) Sdn Bhd (BPCM), located at Kuantan on the east coast of Malaysia.

Reliance has agreed to purchase BP's interest in BPCM for $230 million in cash and both parties anticipate completing the transaction in 2012.

> "We will continue to concentrate our PTA strategy on deploying new technologies into high growth markets like China."
>
> - Nick Elmslie, chief executive, BP Petrochemicals

James Yim, head of BP's aromatics business in Asia, said in a news release, "this is an efficient plant with a good market position in the region. RECRON Malaysia, part of the Reliance Group, is already our largest customer in Malaysia and Reliance Industries is a significant feedstock supplier at Kuantan, so Reliance is a natural owner of this plant."

Nick Elmslie, chief executive of BP Petrochemicals said,, "BP has a major, global PTA business, with around one fifth of global PTA production capacity and a track record of leading technology. We will continue to concentrate our PTA strategy on deploying new technologies into high growth markets like China where we are in the middle of a considerable expansion program, and in OECD markets where our technology gives us an advantage and high utilization rates. We are also building new revenue streams by licensing our PTA and paraxylene technologies."

All current staff of BPCM is expected to transfer to the new owners under equivalent terms and conditions. BP's acetic acid manufacturing and marketing business in Malaysia is unaffected by this sale.

Range Anchors Mariner East Project, Announces New Ethane Sales Contract

BUSINESS WIRE

Range Resources Corp. announced that one of its subsidiaries has signed a 15-year agreement with Sunoco Logistics Partners LP to become the anchor shipper on the Mariner East Project subject to final approval by the Federal Energy Regulatory Commission (FERC). The Mariner East Project is a pipeline, processing and export project that will interconnect the natural gas liquids (NGL) resources in southwest Pennsylvania to Sunoco's existing infrastructure and international port at its Marcus Hook facility near Philadelphia.

The Mariner East Project is subscribed to transport 65,000 barrels (bbl.) of ethane and propane from the MarkWest Energy Partners LP processing facilities at Houston, Pennsylvania, located outside of Pittsburgh, to Sunoco's Marcus Hook terminal and dock facilities near Philadelphia. Once transported to the Marcus Hook facilities, the ethane and propane will be fractionated into purity ethane and propane for delivery and sale to domestic and international customers. The Mariner East Project is expected to commence pipeline deliveries of propane in the second half of 2014. Ethane deliveries are forecasted to start in the first half of 2015 after additional ethane facilities are constructed at Marcus Hook. In the interim, MarkWest is transporting on behalf of Range a portion of its propane sourced from their Houston processing and fractionation complex to the Marcus Hook facilities by rail for sales to domestic and international customers.

Range, as the anchor shipper under the agreements, would have firm transportation of 40,000 bbl. per day (20,000 bbl. of ethane and 20,000 bbl. of propane). Under the agreements, Range would have access to a very significant pro rata share of the 1 million bbl. of propane storage at the facility and could utilize its full capacity commitment for propane deliveries until the ethane facilities are in place. In addition to Marcus Hook's truck and rail off-loading facilities, potential exists for Range to deliver propane to Mid-Atlantic customers should Sunoco decide to deliver propane through its northeast pipeline system and expand its existing terminal assets.

Range also announced that its subsidiary has executed a 15-year ethane sales agreement with INEOS Europe AG for delivery at Sunoco's Marcus Hook dock facilities. The agreement is effective upon approval from FERC on the Mariner East Project. INEOS is a global manufacturer of petrochemicals, specialty chemicals and oil products and currently plans to utilize its own ship fleet to take delivery of the ethane at the Marcus Hook dock facilities. Contracted sales volumes will start at 10,000 bbl. per day in the first half of 2015 and increase over time to 20,000 bbl. per day.

PostRock Energy Sells Pipeline Subsidiary

SOLD | PostRock Energy expects to lower its debt to just over $100 million through the sale of its pipeline subsidiary to an undisclosed buyer.

PostRock Energy Corp. sold its pipeline subsidiary, PostRock KPC Pipeline LLC to an undisclosed buyer for $53.5 million in cash.

About $500,000 of the sale price will be placed in escrow pending cleanup of a former KPC site. In addition, KPC may receive additional payments of $1 million a year for the next four years if its former

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pipeline subsidiary reports EBITDA exceeds pre-defined targets. The sale is also subject to an adjustment for working capital. After about $2 million in estimated transaction costs, PostRock will record a loss on the sale of about $6 million.

Net proceeds from the sale will be used to repay PostRock's credit facility. Its borrowing base has been reduced to $120 million. PostRock's next borrowing base redetermination will be based on its reserves on June 30 and become effective Oct. 31.

After applying the sales proceeds, PostRock's debt totaled $104.3 million.

KPC is a 1,120-mile interstate pipeline, which transports natural gas from northern Oklahoma and western Kansas to Wichita and Kansas City.

PVR Commences Operation Of Pipeline Serving Marcellus Shale Producers

PVR Partners LP completed construction and begun full commercial operation of its newest natural gas trunkline serving Marcellus Shale producers in north and central Pennsylvania. The 30-mile long, 24-inch diameter, 750 MMcf per day capacity pipeline extends from northern Wyoming County southward to a new interconnection in Luzerne County with Transco's interstate pipeline system.

Commonly referred to as the "Wyoming Pipeline," the project was one of the assets under development by Chief Gathering LLC and acquired by PVR in May 2012. Funds required for the completion of the project were included in the financing executed at the time of the Chief Gathering acquisition.

PVR currently has agreements with five producers for firm and interruptible service on the Wyoming Pipeline, and anticipates entering agreements with additional producers. Consistent with PVR's other business in the Marcellus, all of the Wyoming pipeline producer agreements are entirely fee based and have no direct commodity price risk.

FERC Approves Construction Of Alliance Pipeline In North Dakota

CLEARED | Alliance Pipeline's Tioga Lateral Pipeline project in North Dakota received FERC approval.

With a green light from the FERC, Alliance Pipeline is moving ahead with construction preparations for its Tioga Lateral Pipeline project in North Dakota.

FERC issued its approval for Alliance's 79.3 mile, 12-inch diameter lateral pipeline to connect new natural gas production from the Williston Basin to the Alliance mainline in North Dakota. The natural gas will then be shipped onward to the Chicago market hub. The planned in-service timing for the new pipeline is summer 2013.

"We are very pleased to obtain regulatory approval for this pipeline, which will help address North Dakota's need for natural gas transportation infrastructure. Moving more Williston Basin gas to market will also help reduce flaring and provide direct environmental and economic benefits to North Dakotans," Mike McGonagill, senior vice president and chief operating officer for Alliance Pipeline, said in a release.

The pipeline has been certificated for 106,500 MMcf per day, and is underpinned by a contract with Hess Corporation for transport of 61,500 MMcf per day. The pipeline is expandable, based on shipper demand, and with the project now a go, Alliance will continue talks with interested parties.

Shipment of construction materials to approved locations along the pipeline route has begun and construction crews will soon be mobilized.

Canadian National Railway Testing LNG-Powered Trains

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

Despite having one of the largest amounts of natural gas in the world, North America has been slower to adopt natural gas-powered transportation than in other countries due to the logistical challenges that such conversions present. Although fleet vehicle usage of both compressed natural gas (CNG) and liquefied natural gas (LNG) engines have been gaining momentum, other modes of transportation still lag far behind.

However, as the price differential between diesel fuel and natural gas continues to widen, this possible conversion to natural gas will become more attractive to more sectors of the transportation industry that rely on diesel. We are already witnessing heavy- and light-duty fleet trucks and buses convert from diesel to CNG and LNG and now locomotive companies are once again exploring this option.

Canadian National Railway began testing two diesel-electric locomotives that were retrofitted to operate on LNG. The company reported in a release that testing has been taking place on a 300-mile stretch between Edmonton and Fort McMurray with fueling and maintenance in Edmonton.

The 3,000-horsepower engines were retrofitted with conversion kits supplied by Energy Conversions Inc. These engines utilize 90% LNG to fuel them with 10% diesel fuel used for ignition. According to the report, the LNG is being supplied by Encana Corp. Canadian National Railway estimated that these engines would reduce CO2 emissions by 30% and nitrogen oxide emissions by 70% over one locomotive duty cycle. The railway anticipates undertaking main line road tests in 2014.

This is not the first time that railway operators have tested LNG as a fueling option. In fact, such tests date back to the early 1980s. While these tests, which include multi-year studies of three different trains in 1983, 1992 and 1993 by Burlington Northern Railroad, reported that the safety of locomotives utilizing converted engines was strong and service times were reduced compared to diesel engines, North American train operators have never moved past testing due to the lack of liquefaction and LNG fueling stations along their railways as well as the cost of tender units that transport the LNG fuel with the train.

As more natural gas is produced in North America and LNG terminals continue to proliferate, the infrastructure issues associated with LNG-powered locomotives will begin to dissipate. At the same time, these locomotives may find their best area of service is within natural gas production regions. One of the more interesting aspects of the Canadian National Railway test is that it is being done in the oil sands region of Canada, which makes supplies more readily available.

Should LNG-powered locomotives advance past the testing stage, it is very likely that they will be a niche market for the foreseeable future, but operators that can overcome the logistical headwinds and cost of tenders could reap solid economic benefits from the conversion.

Enbridge To Expand Athabasca Terminal For Suncor

Enbridge Inc. entered into an agreement with Suncor Energy Oil Sands Limited Partnership to expand the existing infrastructure at the Enbridge Athabasca Terminal to accommodate the incremental bitumen volumes from Suncor's Firebag 3 and 4 developments. The approximately $150 million expansion is expected to be in-service in the second quarter 2013.

Enbridge will construct a new 350,000-bbl. tank as well as additional infrastructure including new booster pumps, meters and modifications to existing piping and manifolds. To meet Suncor's required in-service date, Enbridge began construction in July 2011.

Suncor has agreed to underpin Enbridge's investment in these facilities through a long-term Services Agreement, during which Enbridge recovers all operating costs, a return on equity and all of its invested capital.

PwC: Oil, Gas Information Security Not As Tight As Thought

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

VULNERABLE | Oil and gas companies stated that their IT safety programs were able to combat any cyber attacks, a PwC report contends this is increasingly not the case.

Oil and gas executives are confident of their companies' ability to thwart information attacks; however, a recent PwC report found that companies are increasingly vulnerable to cyber attacks due to decreased budgets that have eroded security programs.

The report, *2013 Global State of Information Security Survey*, received responses from more than 9,300 chief executives, chief financial officers, chief information officers, chief information security officers, chief security officers, vice presidents and directors of information technology and security. The survey found that while 42% of oil and gas executives that responded to the survey reported that their organizations had proactive security measures in place, a majority are over-confident in their security programs.

Although 76% of respondents were confident in the security measures in place at their organization, the majority of these programs are not capable of handling third-party security breaches.

At a time when companies are pulling back their budgets on information security, security threats are adapting. "Those keeping score agree that the bad guys appear to be in the lead," the report said. However, most of those questioned anticipate security budgets to be increased in 2013. Compared to the previous year's survey, PwC found that the 16% more respondents had not made cuts to their security programs.

PwC found that one of the major obstacles that IT and security departments face is that security budgets are not being driven by security needs. While 17% of respondents reported that security incidents had increased in the past 12 months, security spending was down in many companies. In fact, the survey found that staff dedicated to security awareness and training was at their lowest levels within oil and gas companies in five years.

This training is especially important, as companies are incorporating new technologies faster than they can protect them. This is especially true for mobile, social media and cloud-computing technologies.

More and more of these budgets are being determined, in large part, by economic conditions. "Economic conditions weigh in at 39% [of the budget decision-making]. That's down from recent years, but still a risky way to set priorities," the report noted.

In addition, most responses indicated that the funding for these security programs were geared toward addressing known security issues rather than focusing on enterprise-level security programs. Only 47% of respondents indicated enterprise security programs were in place within their organizations. This is the same percentage of respondents who have programs in place to address advanced persistent threats.

More than one-third of respondents stated that security measures are not being implemented into the planning of major projects. Instead, responses indicated that these measures were being put in place either in the implementation phase or on an as-needed basis.

This cannot only lead to vulnerabilities, but also leave the security and information departments with less knowledge than required or desired to ensure the best protection. "You can't succeed in today's elevated threat environment if you don't know the players and you don't know the rules," Gary Loveland, principal at PwC, said.

Based on this survey's findings, PwC recommends organizations incorporate risk-assessment strategies while seeking to find solutions to identified risks. These risks should be identified through evaluations of their information, who wants it and what they might do to get it.

Additionally, PwC recommends that companies look at information security not just as a way to protect their data, but also as a way to add value to their business.

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he noted, will become known once project details and commitments are complete.

According to Spencer, who has been at the helm of the partnership since 2009, part of that $1.5 billion investment will be used to construct four new natural gas processing plants that will have a capacity of 100 million cubic feet (MMcf) per day. All of the four announced plant projects will be strategically located in or around the Bakken in North Dakota.

"These projects together will increase our processing capacity in the Bakken shale to approximately 500 MMcf per day," he said. "We're also investing in new well connect, system expansions and upgrades to our gathering and compression assets, which are associated with getting supplies to those processing facilities."

> "The unique thing about this particular pipeline is that it will focus on light sweet crude, which to many of those producers, is an advantage."
>
> - Terry Spencer, president, Barclays, CEO Energy/Power Conference

Within the Bakken, ONEOK is also planning "major NGL infrastructure investments." Spencer said that the production from the planned processing plants will back those investments, which include a 500-mile NGL pipeline in the play. That pipeline, which is already under construction, is expected to be in-service in 2013 and brings a unique twist to the market.

"One of the key points that I'd like to make about the Bakken and the Bakken NGL pipeline is that it will, for the first time, allow processing plants in the Bakken or in the Williston Basin to recover and transport ethane, which is currently not possible," he said.

ONEOK also has plans for the crude oil production, which – Spencer added – is expected to increase by 1 million barrels per day in the next five years. An already announced Bakken crude oil pipeline will span more than 1,300 miles and will bring light sweet crude to the Cushing hub.

"The unique thing about this particular pipeline is that it will focus on light sweet crude, which to many of those producers, is an advantage," he said. "That way they can ensure when their barrels get to Cushing, they have the same light sweet barrel, which is very important to them."

Outside of the Bakken, ONEOK has infrastructure plans for the bustling Midcontinent and Gulf Coast markets, which includes adjusting its Sterling distribution pipelines so they have the capability to transport NGL products, as well as improving on fractionation capacity with $1 billion investments in two new fractionators at Mont Belvieu.

As for the Bakken, "pipeline takeaway capacity is absolutely required for the area. We remain focused on creating value through our strategically located assets that connect supply with demand," he said. "We demonstrate our ability to grow and have identified additional opportunities to continue that trend."

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