

Enterprise's Balancing Act Leads To Strong Results

Company's diverse asset base provides a solid growth model.

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

The midstream continues to move along strongly even as commodity prices struggle this year. Although natural gas liquids (NGL) and crude oil producers have begun to feel the effects of lower prices caused by increased production, midstream operators with fee-based assets continue to benefit from this situation.

Case in point: Mike Creel, chief executive of Enterprise Products Partners LP, said during an October 31 conference call to discuss third quarter earnings that the company reported record natural gas liquids (NGL) and crude oil transportation volumes, record NGL fractionation volumes, along with record liquefied petroleum gas (LPG) export volumes in the thirdquarter. Much of this growth was due to increased production out of the Eagle Ford, higher crude volumes on the Seaway Pipeline and increased propane loadings at the company's export facility along the Gulf Coast.

"We continue to deliver. Our results continue to show the strength of having a balanced portfolio that includes natural gas, NGLs, crude oil, refined products, petrochemicals and includes the benefits of our growing exposure to global markets," A.J. "Jim" Teague, the company's chief operating officer, said during the conference call.



Diversity=Profitability | Having a well-adjusted asset base has maintained a strong balance sheet, according to Enterprise Product Partners officials.

He noted that while the company typically faces pricing or margin pressure from one part of its operations, having balanced operations allows Enterprise to "prosper in an industry that is anything but business as usual."

This helped increase Enterprise's gross operating margin in the quarter from \$1.1 billion in third-quarter 2012 to \$1.2 billion in this year's quarter. The company's pipeline and storage operations posted an 18%

Continued on
Page 13

HIGHLIGHTS FROM TODAY'S EDITION



FRANK NIETO

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

Commodity Prices Drop

Gas and NGL prices were down this week as temperatures rose.

PAGE 3

Growth Segment

Phillips 66 aims to grow through the midstream.

PAGE 6



Northern Exposure

Enbridge announced two big pipeline projects in Canada.

PAGE 10

Hold Up

Necessary retrofits and upgrades to tank cars could push back the expansion of crude by rail.

PAGE 7

Reversal of Fortune

The U.S. has grown from a net importer to a net exporter of NGLs.

PAGE 12

NGL PRICES & FRAC SPREAD | Week in Review

NGL Prices Fail To Heat Up As Temperatures Rise

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

Natural gas prices nosedived this week as temperatures were much warmer than normal in the Northeast and other parts of the country, which greatly reduced heating demand. The Conway price was down 8% to \$3.32 per million Btu (MMBtu) and the Mont Belvieu price fell 7% to \$3.30 per MMBtu. These were their lowest levels since mid-August when cooling demand had begun to trail off.

Lower feedstock prices offered support to natural gas liquid (NGL) frac spread margins, but a concurrent downturn in NGL prices saw margins remain largely flat. The biggest gains in margins were for ethane, which improved 29% at Mont Belvieu and 45% at

CURRENT FRAC SPREAD (CENTS/GAL)				
November 11, 2013	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	19.90		24.65	
Shrink	22.01		21.88	
Margin	-2.11	45.41%	2.77	29.12%
Propane	117.16		116.90	
Shrink	30.41		30.23	
Margin	86.75	7.68%	86.67	4.17%
Normal Butane	140.84		141.60	
Shrink	34.43		34.22	
Margin	106.41	-2.01%	107.38	-2.13%
Isobutane	142.58		146.96	
Shrink	33.07		32.87	
Margin	109.51	-5.15%	114.09	-1.49%
Pentane+	196.02		207.08	
Shrink	36.82		36.60	
Margin	159.20	-0.41%	170.48	1.35%
NGL \$/Bbl	41.71	-0.81%	43.12	-0.80%
Shrink	12.13		12.05	
Margin	29.58	2.36%	31.06	1.60%
Gas (\$/mmBtu)	3.32	-7.78%	3.30	-6.52%
Gross Bbl Margin (in cents/gal)	68.29	2.86%	72.05	1.82%
Gross Bbl Margin (in cents/gal)				
Ethane	1.10	-0.50%	1.36	-3.52%
Propane	4.07	3.19%	4.06	1.18%
Normal Butane	1.52	-3.49%	1.53	-3.23%
Isobutane	0.89	-5.78%	0.91	-2.66%
Pentane+	2.53	-1.88%	2.67	-0.14%
Total Barrel Value in \$/mmbtu	10.10	-0.37%	10.53	-0.77%
Margin	6.78	3.71%	7.23	2.09%

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
Oct. 30 - Nov. 5, '13	24.65	116.90	141.60	146.96	207.08	\$43.12
Oct. 23 - 29, '13	25.55	115.54	146.32	150.98	207.36	\$43.47
Oct. 16 - 22, '13	25.68	115.88	153.38	155.76	215.22	\$44.56
Oct. 9 - 15, '13	25.44	113.38	150.08	152.68	212.88	\$43.81
October '13	25.45	113.69	147.90	151.30	209.99	\$43.50
September '13	24.91	110.95	135.38	136.84	218.42	\$42.63
3rd Qtr '13	24.87	102.65	132.06	134.86	215.56	\$41.21
2nd Qtr '13	27.12	91.38	124.01	127.46	204.12	\$38.82
1st Qtr '13	25.68	86.42	157.72	166.41	222.63	\$42.07
4th Qtr '12	26.59	88.74	162.76	181.71	215.67	\$42.69
Oct. 31 - Nov. 6, '12	28.86	97.30	162.30	189.72	224.58	\$44.85
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
Oct. 30 - Nov. 5, '13	19.90	117.16	140.84	142.58	196.02	\$41.71
Oct. 23 - 29, '13	20.00	113.54	145.93	151.32	199.78	\$42.05
Oct. 16 - 22, '13	20.87	111.50	153.16	164.22	209.44	\$43.33
Oct. 9 - 15, '13	22.50	109.56	150.68	156.20	204.62	\$42.69
October '13	21.12	110.53	147.71	154.40	201.90	\$42.19
September '13	20.59	108.24	132.50	137.44	209.98	\$41.14
3rd Qtr '13	20.80	99.22	129.23	142.77	209.94	\$40.07
2nd Qtr '13	20.71	85.37	116.50	123.91	204.86	\$36.89
1st Qtr '13	23.94	81.81	153.43	160.39	222.63	\$41.11
4th Qtr '12	18.45	79.24	164.46	174.39	209.16	\$39.94
Oct. 31 - Nov. 6, '12	17.92	84.30	159.60	175.83	213.60	\$40.54

(Above) Data provided by Bloomberg. 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.

Conway. However, the Conway margin remained negative and the Mont Belvieu margin was only hypothetically positive as ethane prices fell at both hubs.

Interestingly, ethane prices fell this week despite inventory levels also decreasing as cracking capacity is at its highest levels for the year with only Williams' Geismar cracker down at this time. While demand has increased, there is still an overhang. In such cases, ethane will trend closer to natural gas because gas provides the backbone for its price structure. Consequently, the downturn in gas prices pulled ethane down with it. This is likely to continue until the storage overhang is worked off.

According to Barclays Capital's *Gas and Power Kaleidoscope* for November 4, mild weather forecasts will pressure near-term gas

NGL PRICES & FRAC SPREAD | Week in Review

demand, despite a very cold stretch in October. “Bearish sentiment is magnified by the recent trajectory of production. Not only has natural gas production recovered completely from disruptions and maintenances recently, but it has hit record levels. This supports our projects of continued production growth in the longer term.”

Despite this bearish outlook, the investment firm doesn't anticipate gas prices falling below the \$3.50 per MMBtu level for any sustained period since that will spur power generation demand and help support prices.

One product that has successfully worked off much of its overhang this year has been propane, which posted the strongest gains of any NGL for the week. Propane margins had the second-largest gains for the week rising 8% at Conway and 4% at Mont Belvieu following solid price gains this week. The Conway price increased 3% to \$1.17 per gallon at Conway, its highest price since it was \$1.18 per gallon the week of December 21, 2011. The Mont Belvieu price improved 1% to \$1.17 per gallon, which was the highest it has been since the week of August 28 when it was \$1.18 per gallon. Propane has benefited from increased liquefied petroleum gas (LPG) export capacity along with strong crop-drying demand.

Heavy NGL prices had the largest downturns this week following

the same trajectory as crude prices. The largest decrease was for isobutane, which tumbled 6% to \$1.43 per gallon at Conway. This was the lowest price at the hub since it was \$1.36 per gallon the week of September 18. It was also the first time in two months that the Mont Belvieu price outpaced it following a 3% drop at that hub to \$1.47 per gallon. The Conway market has been rebalancing the last few weeks as isomerization capacity has come back online at the hub.

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / November 7, 2013	
Gas Hub Name	Current Price
Carthage, TX	3.48
Katy Hub, TX	3.50
Waha Hub, TX	3.46
Henry Hub, LA	3.57
Perryville, LA	3.52
Houston Ship Channel	3.50
Agua Dulce, TX	N/A
Opal Hub, Wyo.	3.44
Blance Hub, NM	3.46
Cheyenne Hub, Wyo.	3.45
Chicago Hub	3.74
Ellisburg NE Hub	3.12
New York Hub	3.53
AECO, Alberta	3.22

Source: Bloomberg

RESIN PRICES – MARKET UPDATE – NOVEMBER 8, 2013					
TOTAL OFFERS: 17,418,54 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
LLDPE - Film	4,838,556	0.66	0.795	0.67	0.71
LDPE - Film	3,586,900	0.75	0.795	0.74	0.78
HDPE - Inj	3,188,760	0.655	0.815	0.69	0.73
LDPE - Inj	2,304,048	0.7	0.79	0.71	0.75
HDPE - Blow Mold	1,725,472	0.65	0.73	0.68	0.72
HMWPE - Film	1,675,496	0.76	0.77	0.72	0.76
PP Homopolymer - Inj	1,346,828	0.73	0.79	0.73	0.77
PP Copolymer - Inj	1,317,196	0.75	0.86	0.74	0.78
LLDPE - Inj	570,000	0.71	0.72	0.68	0.72
GPPS	190,000	0.91	0.91	0.87	0.92
HIPS	190,000	1.03	1.03	0.99	1.04

Source: Plastics Exchange – www.theplasticsexchange.com

The theoretical NGL barrel (bbl.) price fell 1% at both hubs with the Conway price down to \$41.71 per bbl. with a 2% gain in margin to \$29.58 per bbl. and the Mont Belvieu price down to \$43.12 per bbl. with a 2% gain in margin to \$31.06 per bbl.

The most profitable NGL to make at both hubs was C₅₊ at \$1.59 per gallon at Conway and \$1.71 per gallon at Mont Belvieu. This was followed, in order, by isobutane at \$1.10 per gallon at Conway and \$1.14 per gallon at Mont Belvieu; butane at \$1.06 per gallon at Conway and \$1.07 per gallon at Mont Belvieu; propane at 87 cents per gallon at Conway and Mont Belvieu; and ethane at negative 2 cents per gallon at Conway and 3 cents per gallon at Mont Belvieu.

Natural gas storage levels rose 35 billion cubic feet to 3.814 trillion cubic feet (Tcf) the week of November 1 from 3.779 Tcf the week prior, according to the most recent data from the Energy Information Administration. This was 3% below the 3.926 Tcf posted last year at the same time and 2% greater than the five-year average of 3.757 Tcf.



IPS

Engineering / EPC

A PLH GROUP COMPANY

Engineering

Procurement

Project Management

Construction

Right-of-Way Services

Surveying

Mapping

Facilities Design

Tulsa, OK

7030 South Yale Avenue

Suite 800

Tulsa, OK 74136

918.746.4440 main

Canonsburg, PA

501 Corporate Drive

Suite 120

Canonsburg, PA 15317

724.749.4400 main

www.ips-epc.com

www.plhgroupinc.com



NEWS & TRENDS | Up To Date

Phillips 66 Looks To Grow Through Midstream, Petrochemicals

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

The North American refining industry had been showing signs of life in recent years, but is once again facing challenges. According to Phillips 66's Chairman and Chief Executive Greg Garland, market cracks declined by more than 20% in third-quarter 2013 compared to the second quarter. However, earnings in the segment broke even in the quarter.

During a conference call on October 30 to discuss the company's third-quarter earnings, he noted the biggest positive in the quarter was that operations ran smoother, which improved reliability and allowed its chemicals and midstream segments to make up the bulk of its earnings.

Garland noted that the company's recently created master limited partnership (MLP), Phillips 66 Partners, will be a focal point for growth moving forward. However, until it is large enough to develop projects on its own, they will incubate within Phillips 66 before being dropped down.

"Potential candidates for this approach would include the 100,000 barrel (bbl.) per-day natural gas liquids (NGL) fractionator at our Sweeny, Texas, complex along with the associated infrastructure. In addition, we're developing a liquefied petroleum gas (LPG) export terminal project at Freeport, Texas. The LPG export facility is expected to enable us to take advantage of the company's existing midstream transportation and storage infrastructure. Combining these two projects represents a \$2 billion to \$3 billion investment over the next two to three years. Once they're up and running at full capacity, we expect these projects to generate on the order of \$400 million to \$500 million of EBITDA annually," he said. The fractionator is expected to come online in 2015 while the LPG export terminal is expected to be completed in 2016.

The company anticipates being able to accelerate its midstream growth through a combination of the new MLP and refining free cash. Much of this interest will be focused on the petrochemical, heating and transportation markets.

"We've got a tremendous set of opportunities in the midstream space," Tim Taylor, the company's executive vice president, said during the call while highlighting the aforementioned fractionator and LPG terminal. He also noted that there are a number of smaller projects, such as pipeline connections that can be built onto the company's NGL and refining network that can be completed quickly.



New Course | The midstream is now the growth segment for Phillips 66 as the refining market continues to struggle, according to the company's Chief Executive Greg Garland.

(Courtesy: Phillips 66)

"We just continue to see a whole opportunity to develop that logistics infrastructure around the NGL export gas [business], and then around providing advantaged crude into the front end of our refineries," he continued.

Despite the recent formation of Phillips 66 Partners, Garland stated that the company was still very keen on continuing to work with DCP Midstream, its 50/50 joint venture with Spectra Energy. "It's been a great relationship ... We see lots of runway left at DCP. We want to continue to have an exposure to DCP and into the future. There's lots of

ways that we can create value at DCP"

As Phillips 66 looks to grow more of its own midstream holdings that fall outside of DCP Midstream, the company may consider some acquisitions outside of its current footprint if the right opportunity is presented, Taylor said.

"Ultimately you have to look at that [option]. One of the things that we're really blessed with is that we have a portfolio of great projects that touch the existing assets and infrastructure and are going to get the best returns and we'll move on those first. If you look around the midstream space today, things look a little expensive to us ... Our organic growth opportunities are large and [we] have a very synergistic relationship," he said.

ETP, Regency Energy Announce Second Fractionator In Service

Energy Transfer Partners LP (ETP) and Regency Energy Partners LP announced that Lone Star NGL LLC, a joint venture between the two, has placed in service the second natural gas liquids (NGL) fractionator at Lone Star's facility in Mont Belvieu, Texas. Lone Star Frac II is a 100,000 barrel (bbl.) per-day fractionator that brings Lone Star's total fractionation capacity at Mont Belvieu to 200,000 bbl. per day.

NEWS & TRENDS | Up To Date

Lone Star's Mont Belvieu fractionators receive NGLs from several sources, including Lone Star's West Texas NGL pipelines and ETP's Justice NGL Pipeline. Volumes transported on Lone Star's pipeline system and the ETP Justice pipeline continue to ramp up as shippers under long-term agreements with Lone Star and ETP increase their production from the Permian basin, Eagle Ford shale and other producing regions.

Tank-Car Upgrades Could Slow Crude Transport

BY **MICHELLE THOMPSON** | HART ENERGY

Pulling mass quantities of older tank cars off the tracks for retrofitting and upgrades may soon be required. And if that happens, it could ultimately slow the transport of crude by rail, according to a Union Tank Car Co. sales executive.

"It could happen," Don Flowers, Union Tank Car Co.'s western region sales vice president, said during Hart Energy's recent Crude In Motion conference.

"Depending upon the timeframe in which cars are required to be retrofitted, the number of cars to be worked on in the available repair shop network could overwhelm the shops, causing cars to be out of service for extended periods of time," said Flowers. "That situation would reduce the number of cars available to carry on commerce."

Right now, there are an estimated 65,000 tank cars in crude oil service in North America. Of those, 18,000 have new safety enhancements.

Flowers said the industry could see new hazardous material rules through the federal Department of Transportation (DOT), which may require upgrades to some cars. While not all cars can be retrofitted, it will be costly to upgrade those that can. Flowers said it will cost \$17,000 a piece to add headshields to cars.

"Depending upon the final DOT rules for the car type, cars may need to be retrofitted, if feasible, to meet any new requirements," said Flowers. "Some cars may be removed from service if it is uneconomical to retrofit or repurposed for another commodity service that would not be subject to any new regulations."

Since a DOT ruling has not yet been finalized, it's not clear what safety enhancements will be required for tank cars.

"The cars being built today are equipped with additional safety features, such as thicker and stronger steel, headshields and top fit-

tings protection," said Flowers. "Other items mentioned in DOT's Announcement of Proposed Rulemaking also included thermal insulation and better protection of bottom outlet valve handles, just to name a few."

During the same panel, Genesee & Wyoming Railroad Service Inc.'s Ryan Fischer spoke about industry best practices.

Before beginning a rail project, he said companies should be prepared to engage in "fact-based dialogue with the public," which would include information on safety, jobs and infrastructure improvements.

"You have to make sure you're all on the same page and seeing eye-to-eye on the same issues," said Fischer, Genesee & Wyoming's assistant vice president of emerging markets. Any issues should be addressed at the project start, he said.

While some projects are completed on time and on budget, others can face challenges. The obstacles can emerge at various phases, from start-up and planning to construction, Fischer said. Companies should be prepared to face the possibility of cost overruns and delays, he said. Contingency plans can come in handy under such circumstances.

"There certainly are things that come up," he said. "Certainly, the planning process can take a lot longer than anticipated."

'Rail Is Here to Stay' In Tandem With Pipeline Investments

BY **NICOLE JOHNSON** | HART ENERGY

North Dakota rail export volumes grew from nearly zero in 2008 to a total of 700,000 barrels (bbl.), or roughly 75% of production, by summer 2013. However, when differentials between transportation of crude by rail vs. pipeline narrowed from \$10 per bbl. to \$2 per bbl. from May 2013 to September 2013, the railway transportation status quo came into question.

"Things were really chugging along and then the wheels fell off in the summer. People were posing questions: Is rail done? Are pipelines coming back?" said Steve Elliot, director of rail business development for Enbridge Pipelines Inc. Elliot recently spoke at Hart Energy's Crude in Motion conference. "My belief is that rail is here to stay."

Although a pipeline company by name, Enbridge has firm grounding in the crude-by-rail industry with three rail projects either recently completed or under way. The projects include the Berthold Rail in North Dakota, a second coal rail repurposing project in Eddystone,

NEWS & TRENDS | Up To Date

Pennsylvania, and a third project called the South Cheecham Rail in Alberta, Canada.

“We believe that pipe-rail [transportation] will offer the industry more flexibility and more overall transportation cost than what we see today,” Elliot said, adding that a multimode system in which rail “fills the gap between the pipelines” provides optionality.

Wide differentials have previously supported crude-by-rail as a means of transportation. As the market saw a Bakken Red River play differential above \$40 per bbl. at some points in 2012, this provided incentive for producers to look for alternative transportation to move barrels to premium markets, according to Elliot.

Looking ahead to 2014-2015, Enbridge thinks the incentive to move crude by rail will remain strong going to PADD I as well as the U.S. West Coast in PADD V. Yet, when the Sandpiper pipeline comes into service in 2016, differentials—although not likely to erode completely—will become tighter.

“On the heavy side there’s a strong incentive to deliver to the U.S. Gulf Coast, but these differentials are forecasted to collapse. By 2014, as the Seaway [pipeline] comes into service, these Eastern (U.S.) differentials will be below the marginal cost of transportation by rail, making it challenging for rail bbl. to get to used volumes,” Elliot told attendees.

“This is where we think the evolution of crude-by-rail comes into play. ... It all boils down to pipe-to-rail being, quite simply, cheaper.”

He estimated that the benefits of moving light crude barrels from the Bakken to PADD I via pipe-to-rail versus rail directly include an estimated savings of \$1 per bbl. along with a 60% increase in car-ton usage. Additionally, the benefits of moving heavy crude barrels from Canada to PADD III through a combination of pipeline and rail increase by virtue of a greater distance being covered.

“Railroads offer flexibility destination-wise that a pipe, once it’s in the ground, can’t offer. But I think what pipelines offer, particularly enhanced with rail facilities, is the ultimate flexibility not only for destinations but for ensuring the highest netback for producers,” Elliot said.

Encana Refocuses On Five Plays

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

In an effort to counterbalance low natural gas prices, Encana Corp. introduced a “bold” new vision and strategy. This strategy is centered on becoming the leading North America resource play company, according to Encana’s President and Chief Executive Doug Suttles.



At the top | The DJ basin is among five core plays that Encana will focus on under its new strategy. (Courtesy: Encana)

Suttles, who took over as the head of Encana in June, said that in order to achieve this goal the company would seek to balance its holdings between liquids and gas by focusing on five core plays: the Montney, the Duvernay, the DJ basin, San Juan basin, and the Tuscaloosa Marine shale. In addition, Encana is planning to spin-off its royalty interests in the Clearwater play in Canada in a initial public offering (IPO).

The company currently holds nearly 600,000 acres in the Montney and plans to spend between \$500 million to \$600 million of its capital program in the play in 2014. While the Montney is a more mature play, Suttles said that the Duvernay is another world-class play in Canada that is expected to really ramp up in late 2014 and grow rapidly thereafter. Encana has expanded its rig count in the DJ basin from four rigs to five rigs and is continuing to improve its efficiency. The company will also be ramping up its activity in the San Juan basin in 2014 with about \$350 million to \$450 million diverted towards it. The Tuscaloosa Marine shale is a very new play that the company holds 300,000 acres in the core part of the play. Next year Encana will spend between \$200 million to \$300 million will assessing the play and running between one and three rigs.

The Clearwater royalty interest comprises 5.2 million acres that is a legacy asset holding vast potential, according to Suttles. “Our intention is to transfer our fee title interest and associated royalty into an entity that we will separate from the company, run it independently and take it to the public markets by the middle of next year.”

The company is planning to divest non-core assets, specifically gas-focused operations and drilling permits, while also reducing expenses. “We had more gas options in the portfolio than we could reasonably

NEWS & TRENDS | Up To Date

develop. Our capital allocations process needed more discipline and focus [and] we needed to align the organization, both its structure and its scale, with our future business,” he said during a conference call to discuss the strategy.

Encana identified four key goals: 1) being active in both oil and gas along with assets that can increase in scale; 2) improve its use of market intelligence so that its allocation of capital follows commodity price movements; 3) cultivating its operational excellence to improve efficiencies; and 4) use a more disciplined, dynamic and responsive capital allocation plan.

“All of this links together around a strong balance sheet, which we actually think provides competitive advantage through time as it allows us to capture opportunities as they emerge,” he said. “Our focus on generating profitable growth, the core of our strategy, is about concentrating our capital on the most leveraging assets in our portfolio.”

As a result of this strategy, the company will be driving 75% of its capital in 2014 to these five core plays while also cutting its workforce by 20% and consolidating its operations in Calgary and Denver. In addition, Encana will also reset its dividend to 7 cents per share on a quarterly basis with a goal of growing on a compound annual rate of more than 10% over the next four years.

“We believed that we needed to get our cost structures and our efficiencies right ... We [also] needed to size our capital program and its distribution appropriately, focusing on the best quality opportunities we have in our portfolio and driving the oil and condensate and liquids-rich opportunities. [As part of this], the dividend must be sustainable through a volatile commodity price environment,” Suttles said.

Rangeland Bets On The Delaware Basin

BY **CHRISTINA ALTY** | ASSISTANT EDITOR, MIDSTREAM BUSINESS

Rangeland Energy has been a pioneer in the crude-by-rail phenomenon that is taking place in shale plays around the country. The company saw great success with its first rail hub, Colt, in the Bakken in 2011. At the time of completion, the hub was only one of four that was operating in North Dakota, according to Steve Broker of Rangeland Energy.

“It was a great experience, and we learned a lot of things in developing operations for the whole facility,” he said at Hart Energy’s Crude in Motion conference on October 30.

Rangeland sold Colt to Inergy Midstream in December 2012 and took the profit and experience from the Bakken and started thinking about the company’s next development.

“We looked for opportunities in other shale plays and settled on the Delaware basin in New Mexico as an opportunity to take a facility and support growth, drilling and production,” he added.

The result is the Rangeland Integrated Oil (RIO) System in Eddy County, New Mexico, near Lovington. The project, still under construction, will be composed of three parts: the RIO Hub, RIO state line Terminal and RIO Pipeline. It “maximizes customers’ flexibility to choose alternative markets as differentials shift,” Broker said.

The only part currently under construction is the hub terminal. According to Broker, the terminal will serve a variety of purposes with “optionality” being the key.

“We think there is a tremendous opportunity to support the fracturing industry in and around the Delaware basin,” Broker said. The RIO Hub will “create a premier facility for unloading, storing and delivering out unit train quantities of frac sand.”

Frac-sand storage will be only one component of the terminal, which will also have a tank farm, rail-car storage and crude-unloading capabilities. “The location will receive crude by truck, by pipe and also possibly by rail. It will be stored in tanks and then delivered to outbound pipes or the rail depending on the desires of the refiners or purchasers.”

The terminal will have a double loop track design and the capacity to accommodate two unit trains and move 100,000 barrels of crude oil per day by rail. There will also be a state-of-the-art system that can load each car to the manufacturing standards it was designed for. With each car using the maximum storage capacity, the number of cars and trips needed to the deliver over the long term will be reduced.

According to Broker, the Delaware basin is a stacked play with several producing zones, and production and research data suggest that it will produce for a number of years. Broker’s presentation indicated lateral lengths are increasing and that well spacing could be moving from 160 acres to 80 acres. If that were to happen, it would have a trickle-down effect that would positively influence the RIO project as a whole.

“The potential for the Delaware basin is huge,” he said. “It may not be in the headlines like the Bakken, the Eagle Ford or other shale plays, but we see potential for growing production spanning 10, 20 or perhaps the next 30 years,” he said.

NEWS & TRENDS | Up To Date

The long-term plan for the company is the other two phases of the project, one of which is the “12-inch crude oil pipeline that will connect the RIO Terminal to the crude oil supply hubs in Midland, Texas, and beyond to Colorado City,” according to the company’s website. The company will spend \$150 million for the New Mexico terminal and supporting infrastructure.

Enbridge To Develop \$1.4-B Norlite Diluent Pipeline

Enbridge Inc. will develop a new industry diluent pipeline with associated capital of up to \$1.4 billion, depending on scope, to meet the needs of multiple producers in the Athabasca oil sands region. The base 16-inch diameter scope for the project will be anchored by throughput commitments from the Fort Hills Partners for volumes for the proposed Fort Hills oil sands project and by Suncor Energy Oil Sands Limited Partnership for its proprietary oil sands production. The Norlite Pipeline remains subject to Suncor board approval, as well as customary regulatory approvals.

Enbridge anticipates securing additional long term commitments to the Norlite Pipeline in the near term which could result in an increase in scope to a 24-inch/20-inch system. This system would be capable of transporting 270,000 barrels (bbl.) per day of diluent from Edmonton into the oil sands region and has the potential to be further expanded with the addition of pump stations to an ultimate capacity of over 400,000 bbl. per day.

The pipeline will be constructed to Enbridge’s Cheecham Terminal with an extension to Suncor’s East Tank Farm, which is adjacent to Enbridge’s Athabasca Terminal, and a potential lateral line to a new Enbridge Norealis Terminal to serve the needs of shippers in the production area Northeast of Fort McMurray. The targeted in-service date is the second quarter of 2017. The Norlite system may access certain existing capacity on Keyera’s pipelines between Edmonton and Stonefell, thus avoiding the need to build new pipe in that corridor. In exchange for Enbridge’s right to access capacity on the existing Keyera pipelines, Keyera may elect to participate in the new pipeline infrastructure as a 30% non-operating owner.

Enbridge To Develop \$1.6B Wood Buffalo Extension Pipeline

Enbridge Inc. was selected by the Fort Hills partners as well as Suncor Energy Oil Sands Limited Partnership to develop a new \$1.6 billion pipeline to transport crude oil production under long-term transportation commitments to Enbridge’s mainline hub at Hardisty, Alberta. The Wood Buffalo Extension pipeline will transport volumes from the proposed Fort Hills oil sands project as well as growth from Suncor’s existing oil sands operations. The pipeline remains subject to Suncor board approval, as well as customary regulatory approvals.

Enbridge will transport as much as 490,000 barrels (bbl.) per day of diluted bitumen produced at the Fort Hills Partners’ project in northeastern Alberta and Suncor’s growing oil sands production in the Athabasca region. The pipeline will be an extension of the recently commissioned Wood Buffalo Pipeline and will be constructed from Enbridge’s Cheecham Terminal to its Battle River Terminal at Hardisty. It is targeted to come into service in the second quarter of 2017. Once the pipeline is completed, the proposed Fort Hills oil sands project will become the eleventh oil sands project to be connected to Enbridge’s infrastructure in the Athabasca region.

The project will include a 281-mile, 30-inch pipeline from Cheecham to the Battle River Terminal, and associated terminal upgrades. The initial term of the transportation agreement is 25 years, with the Fort Hills Partners and Suncor having the right to extend the agreement for successive five-year terms.

American Steel Pipe Announces \$55-Million Expansion

American Steel Pipe, a division of American Cast Iron Pipe Co., will expand its steel pipe operations, adding a processing facility to its North Mill. The facility will cost more than \$55 million to construct. American manufactures electric-resistance-welded (ERW) steel pipe in diameters from 10.75 to 20 inches in its South Mill, and 16 to 24 inches in its North Mill. American produces ERW pipe up to 84 feet in length for the oil and gas industries.

NEWS & TRENDS | Up To Date



Escalating | Increased demand for pipe has resulted in American Steel Pipe building a new processing facility. (Courtesy: American Steel Pipe)

The new, 150,000-square-foot facility, to be constructed by Brasfield & Gorrie, will house state-of-the-art testing equipment, including two hydrotesters, two ultrasonic testing machines and a new end facing system to bevel the ends of the pipe. The current processing facility will be decoupled from the North Mill and adjoined to the plant's South Mill, doubling its processing capacity.

The expansion is slated for completion in 2014. "Construction of the new facility will begin by the end of this year, and the new equipment is expected to arrive by the end of second quarter next year," said Joe Thomas, American senior engineering project manager in a release. "Our aim is to have the new facility online by this time next year."

Texas Express Pipeline Begins Operations

Enterprise Products Partners LP, Enbridge Energy Partners LP, Anadarko Petroleum Corp. and DCP Midstream Partners LP announced the start of service on the Texas Express natural gas liquids (NGL) pipeline from Skellytown, Texas, to the NGL fractionation and storage complex in Mont Belvieu, Texas. The Texas Express Pipeline, operated by Enterprise, gives producers in West and Central Texas, the Rocky Mountains, southern Oklahoma, the Midcontinent and the Denver-Julesburg basin much-needed takeaway capacity for growing NGL volumes and improved access to the largest NGL trading hub, located along the Gulf Coast.

NGL volumes from the Rockies, Permian basin and Midcontinent regions will be transported to the Texas Express mainline through Enterprise's Mid-America Pipeline system between the Conway hub and its Hobbs facility in Gaines County, Texas. NGL volumes from the Denver-Julesburg

basin will be transported to the Texas Express mainline by the Front Range Pipeline (owned by a joint venture comprised of Enterprise, Anadarko and DCP Midstream Partners, each with a one-third interest), which is under construction and expected to be in-service in first-quarter 2014.

Supported by long-term contracts, the 583-mile pipeline has an initial capacity of approximately 280,000 barrels (bbl.) per day and can be readily expanded to approximately 400,000 bbl. per day. By providing greater access to domestic NGLs, Texas Express will help ensure reliable supplies of natural gas-derived feedstocks which offer a cost advantage compared to crude oil-based derivatives.

In addition to the start of operations on the pipeline, service has also begun on two NGL gathering systems developed by Texas Express Gathering LLC, a second joint venture comprised of Enterprise (45% ownership), Enbridge Energy Partners (35% ownership) and Anadarko (20% ownership). Enbridge Energy Partners serves as operator of the two gathering systems, which link natural gas processing plants in the Anadarko/Granite Wash and Central Texas/Barnett shale production areas to the Texas Express Pipeline.

Crosstex Completes Phase I Construction Of Cajun-Sibon NGL Expansion

The Crosstex Energy companies completed construction of Phase I of the Cajun-Sibon natural gas liquids (NGL) expansion project. The project connects the company's Eunice fractionator in South Louisiana to Mt. Belvieu supply pipelines in East Texas. Pipeline operations were completed in the first week of October and commercial deliveries of NGL product to the Eunice, Riverside and Plaquemine fractionators began shortly thereafter. The Eunice fractionator began operations on November 6 at a rate of 15,000 barrels (bbl.) of NGL per day. The pipeline is currently delivering approximately 25,000 to 30,000 bbl. per day of product into various Louisiana delivery points and is expected to be moving its full volume of approximately 70,000 bbl. per day by the end of 2013.

The second phase of the expansion project is scheduled for completion in the second-half of 2014 and includes expanding the Cajun-Sibon pipeline capacity by an additional 50,000 bbl. per day to a total of 120,000 bbl. per day; the installation of a 100,000 bbl. per day fractionator adjacent to the Partnership's existing Plaquemine natural gas processing complex; the modification of the Riverside fractionator facility; and the construction of several natural gas and NGL pipelines to expand the Partnership's capabilities and market connectivity.

SNAPSHOT | Industry Insight

U.S. NGL Oversupply To Hit 1.5 MM Barrels Per Day By 2018

BY NICOLE JOHNSON | HART ENERGY

Utilization of shale gas resources in the U.S. has transformed the country from an importer to an exporter of natural gas liquids (NGLs) and their derivatives, while redirecting key NGL trade flows.

U.S. gas-processing capacity is set to soar 16 billion cubic feet (Bcf) per day to 90 Bcf per day by the end of 2015 given current and upcoming infrastructure investments in shale gas production. However, domestic demand won't be able to match the supply gains.

The increased processed gas volumes, coupled with a fractionation capacity seen doubling to 5.3 million barrels (bbl.) per day during the same time frame, has NGLs sitting pretty in the short-term.

In fact, gas processing will yield an NGL production overhang of 1.5 million bbl. per day from 2012-2018, after factoring in ethane rejection of roughly 500,000 bbl. per day, according to Kelly Van Hull, manager of energy analytics at RBN Energy.

Ethane rejection occurs when propane and/or butane pushes ethane out of the market as a competitive feedstock, thereby making propane and/or butane the preferred feedstock to crack over ethane by flexible olefin crackers; in short, a price ceiling for ethane. Ethane is typically rejected into either methane or propane pipeline streams. Conversely, ethane's price floor is estimated as the equivalent of the natural gas price after adding transportation and fractionation costs.

Starting in 2013, ethane rejection will exceed 200,000 bbl. per day, according to RBN Energy estimates, with the largest levels of ethane rejection originating in regions farthest from Mount Belvieu, Texas.

Speaking at the Platts Inaugural Petrochemical Seminar in Houston last month, Van Hull detailed changing NGL trade flows in the U.S., noting that most exports will be directed through PADD III (Petroleum Administration for Defense Districts). By 2018, PADD III will house the largest production capacity in the U.S.—at 2 million bbl. per day—followed by PADD II at 1 million bbl. per day, she said.

“In PADD I—in the Northeast—between now and 2018, we're looking at an incremental 700,000 bbl. per day of NGL production coming online, in PADD III 568,000 bbl. per day of incremental NGL production, in PADD II 561,000 bbl. per day—this includes the Williston basin and the Anadarko,” Van Hull said.

Although the Utica is technically within PADD II, Van Hull included it in PADD I for purposes of her analysis.



Redirection | The development of shale plays in North America has resulted in the U.S. moving from being a net importer to a net exporter of NGLs and their derivatives.

Allen, Texas will need to export 13 Bcf per day out-of-state to balance its market. The southeastern U.S. will be short material, and thus need to import product from Texas and the Northeast, Bentek's 2013-2018 forecast shows.

“The increase from the forecast period from 2018 shows another 7 Bcf per day coming on[line] in the Northeast; it will be about 18 Bcf per day in 2018. Texas is adding another 5 Bcf per day, but look at the Southeast, it's actually declining,” he said. “We don't have enough drilling activity in the Haynesville and Fayetteville [shale formations] to offset declines. We do expect that [decline] to reverse anytime the price signals a resumption in drilling activity, which we expect when prices hit the \$4-\$5 range. So the southeast becomes net not sufficient.”

Allen and Van Hull both agreed that Texas supply will exceed demand and prompt exports sales from outside the state via U.S. Gulf Coast to other global markets as well as to the southeast—where consumption is set to supersede supply.

Traditional trade flow directed into the Northeast will soon shift outward as the region becomes long supply and pipelines from Canada, the Rockies and U.S. Gulf Coast are displaced or undergo reversals or transformations, the presenters said.

“The reason this [trade-flow change] is possible is because of the production gains in the Northeast region, where we have gone from about 2 Bcf per day to more than 12 Bcf per day just since 2009,” Allen said, noting that the Northeast was historically a “receiver of gas, not just in the winter but most of the time. The southeast was actually sending gas out; Texas was, of course, sending gas out.

“In PADD IV, we're seeing a little bit of incremental NGL production in the Rockies but not a lot,” she noted. Regarding PADD V, relatively little production currently exists—a trend that will continue into 2018 as that region is disconnected from the overall market, Van Hull said.

Co-presenter Rick Allen, director of oil and gas consulting services at Bentek, concurred with Van Hull. According to

[READ FULL ARTICLE ONLINE](#)

LEAD STORY | From The Front

Continued from **Page 1** gain in gross operating margin in the quarter based on a 158,000 barrel (bbl.) per day increase in transportation volumes out of the Eagle Ford shale.

While the Eagle Ford saw increases in activity and earnings in the quarter, the Rockies was down because there was reduced processing demand as drilling activity decreased in the region. Creel noted during the conference call that due to lower frac spread margins, from time to time ethane was rejected at some of the company's plants in the Rockies. This reduced the company's equity NGL production.

Once again, fee-based operations helped make up for this headwind. He said this was partially offset in the quarter by a \$30-million increase in gross operating margin from fee-based processing activities. These fee-based volumes rose to 4.7 billion cubic feet (Bcf) per day in the quarter from 4.5 Bcf per day in the previous year's quarter.

LPG volumes remain a big focus for Enterprise after it increased the refrigeration capacity at its export facility in March. According to Creel, this additional capacity is allowing the company to load an average of 7.5 million bbl. of propane per month at the terminal. The company also benefited from the addition of fractionation capacity at Mont Belvieu, which resulted in a 69% increase in gross operating margin after it added its sixth and seventh fractionators at the hub.

There should be more gains coming in these areas next year because the company is planning to bring \$4.5 billion in capital projects online in 2014 with the bulk of these projects scheduled for completion in first-quarter 2014. "In 2015 we will have another big year with \$3 billion of capital projects already slated to begin operations. All of these projects are in various stages of construction and are supported by customer commitments ranging from five to 15-year contracts," Creel said during the conference call.

The company's \$4 billion build-out in the Eagle Ford is virtually completed after having started about three years ago. "We started with a solid base of natural gas and NGL assets that supported conventional production in South Texas for literally decades. We moved to add key bridge projects, and those are projects that filled the available plant capacity we had. Then we built new assets supporting all of the commodities this play has to offer. The build-out included crude, natural gas and NGL pipelines along with related compres-



Continuing To Grow | According to Enterprise Chief Executive Mike Creel, the company will bring \$3 billion worth of projects online next year. (Courtesy: Enterprise Products Partners)

sion and pumping, 200,000 bbl. per day of fractionation at Mont Belvieu, and 1.1 billion cubic feet per day of processing capacity," Teague said. This build-out also followed the company's link-and-leverage strategy because the Eagle Ford assets feed and support assets in Mont Belvieu as well as new projects set to meet global demand.

The overabundance of ethane remains the largest headwind facing the midstream today and with that in mind, Enterprise is developing several projects that will seek to mitigate the negative impacts associated with the product currently.

A large part of this solution will come in the form of the expansion of the Aegis Pipeline, which is planned for completion in the second quarter of next year and will allow the company to deliver up to 425,000 bbl. per day of ethane to ethane crackers along the Gulf Coast. "Coupled with our South Texas ethane pipeline and anchored by our assets at Mont Belvieu and supplies from ATEX (Appalachia to Texas Express) Pipeline, Seminole Pipeline, our Hobbs fractionator and other assets in Louisiana and South Texas, we will be providing reliable supplies of ethane to petrochemical facilities through a header that stretches from Corpus Christi to the Mississippi corridor," Teague said. In all, Enterprise will have access to more than 600,000 bbl. per day of ethane to deliver along this corridor.

The ATEX Pipeline is expected to be in service in January with a capacity of approximately 70,000 bbl. per day. Once the project and related projects are online, Enterprise will have access to more than 600,000 bbl. per day of ethane to deliver along this corridor.

Contact Information:

FRANK NIETO Editor
fnieto@hartenergy.com

Contributing Editors: Richard Mason, Mike Madere, Scott Weeden, Michelle Thompson, Nissa Darbonne, Leslie Haines, Peggy Williams, Susan Klann, Darren Barbee, Paul Hart, Emily Moser, Chris Sheehan, Steve Toon, Velda Addison, Kristie Sotolongo, Rhonda Duey, Caroline Evans, Nicole Johnson, Christina Alty, Larry Prado

ORDER TODAY!

Call: 1-212-608-9078 | Fax: 1-212-608-9357

HART ENERGY

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

Copyright 2013. All rights reserved. Reproduction of this newsletter, in whole or in part, without prior written consent of Hart Energy is prohibited. Federal copyright law prohibits unauthorized reproduction by any means and imposes fines up to \$100,000 for violations. Permission to photocopy for internal or personal use is granted by Hart Energy provided that the appropriate fee is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Phone: 978-750-8400; Fax 978-646-8600; E-mail: info@copyright.com.