Formerly GAS PROCESSORS REPORT



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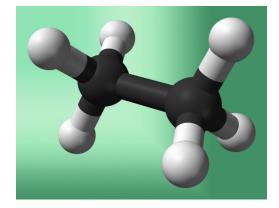
#### **FEATURE**

#### The Ethane Prize

Royal Dutch Shell Plc fraced half of the Marcellus wet-gas conundrum at press time, announcing it will build a 60,000- to 80,000-barrel-a-day ethane cracker. And, no big transportation deal is necessary: It will build it right there in Appalachia, in the midst of hundreds, and soon to be thousands, of 1,400-plus Btu wells.

The estimated \$1 billion plant's site has not been selected, but West Virginia and Pennsylvania are both lobbying for the jobs. West Virginia Gov. Earl Ray Tomblin has been working on getting the ethane industry in his home state, creating the "Marcellus to Manufacturing" task force whose members include Triana's Henry Harmon, Northeast Natural's Michael John, Caiman's Jack Lafield and NiSource's Jim Crews.

Range Resources Corp., which pioneered the Marcellus play in 2007, got to work on finding a market for the gas liquids at about



the same time. It estimates the wet-gas window of its 1.1 million acres could hold nearly a half-billion barrels. If the ethane is stripped out, the figure would double to some 900 million.

"And, then, if we can get better about where we land (our wells) and how we drill and complete, really, you're approaching 1 billion barrels," says Jeff Ventura, Range president and chief operating officer.

(continued on page 4)

#### **INSIDE LOOK AT PROCESSING**

## AGPA, Wood Mac Study: Alaska LNG Export Project Makes Economic Sense

A recent study completed by Wood Mackenzie on behalf of the Alaska Gasline Port Authority (AGPA) stated that the economics for a proposed pipeline from the North Slope of Alaska to a liquefaction facility in Valdez, Alaska, are sound compared with other LNG projects around the world. The assessment was based on higher oil prices, which could make LNG more attractive to foreign markets.

"With oil prices hovering today around \$100 per barrel and expected to remain at or around that level for an extended period of time, the Alaskan LNG export opportunity appears today to make economic sense. Typical Asian oil-indexed LNG pricing delivers product to regasification terminals at over \$15 per million Btu (/MMBtu). On the other hand, Lower-48 and Canadian natural gas, if exported as LNG, could potentially be delivered to Asia at or around a cost of \$10/MMBtu, subject to various assumptions and costs," the report stated.

According to Wood Mackenzie, LNG shipped from Alaska would be priced below \$10/MMBtu compared with most competing LNG projects in North America and Australia, which the company estimated at having prices to Asia of between \$10-12/MMBtu. This is partially due to the ability of Alaskan projects to utilize existing assets that are producing gas for re-injection. By

(continued on page 5)



#### Crosstex Q2 2011 Earnings Up For 10th Straight Quarter

Crosstex Energy LP continued it strategy of seeking to maximize growth from its current businesses through step-out growth opportunities in Q2 2010. The strategy helped the company improve its EBITDA (earnings before interest, taxes, depreciation and amortization) for the 10th consecutive quarter as it rose to \$55.4 million, up 23% from the same quarter last year.

These growth opportunities are designed to focus on acquisitions that will serve as an area for growth, including infrastructure in emerging shale plays. The company's strategy also includes utilizing existing NGL/crude infrastructure to provide services in new regions.

Crosstex Energy's recent announcement in the quarter that it was its investment in Howard Energy Partners, which helped the company gain entry into the Eagle Ford shale, is another growth opportunity for the company.

"Crosstex is working closely with Howard Energy to develop new projects in the Eagle Ford ... Howard's assets are well-positioned and will serve as a platform for growth in the Eagle Ford. Large producers operate more than 900,000 acres in the vicinity of Howard's assets. Most of the base business is fee-based revenue and it has just executed a very large new central delivery point contract with a major producer," Barry Davis, president and chief executive of Crosstex, said during a recent conference call to discuss quarterly earnings.

In addition to staking a minority interest in Howard, Crosstex also formed a 50/50 joint venture with Apache Corp. on an \$85 million natural gas processing project that Crosstex will operate in the Permian basin.

The project, located in Glasscock County, will include a cryogenic process-

ing plant with a capacity of 50 million cubic feet per day (MMcf/d) that is expected to be operational in Q2 2012. In addition, Crosstex purchased the Mesquite rail terminal and idle fractionation facilities in Midland County that are connected to the Chevron Texas NGL pipeline.

"Initially, we will refurbish the facility and expand and modify it so that we can receive about 7,500 barrels per day of NGLs by pipeline and deliver NGLs and other products by pipeline to Mont Belvieu and by rail to our Eunice fractionator in south central Louisiana for fractionation and sales. The Mesquite Terminal should be completed and in operation in the fourth quarter of this year. This facility will provide much needed NGL takeaway from the Permian basin, which is constrained until additional NGL pipeline capacity is built out of the area," Davis said.

He added that these facilities can be expanded to handle up to 12,000 barrels of NGLs, adding that the company will seek to add facilities to handle crude and condensates that will be shipped by truck to markets in Louisiana and the Gulf Coast. Crosstex is also planning to move purity products to regional demand centers via existing products pipelines near the terminal.

"Together, these two transactions [the Apache JV and the Mesquite Terminal acquisition] create a significant footprint for Crosstex in a new production area of the Permian basin. Like in the Eagle Ford shale, producers are very active in the Permian basin because of the rich gas and crude in the play. The recent development activity has overrun the midstream infrastructure, so we expect to see additional opportunities to grow in this new area. This is exactly the type of investment opportunity that we

have been targeting — entry into a new geographic area that is very active and will create additional growth opportunities for us," Davis said.

The third-largest project that Crosstex announced in the quarter was the \$180 million to \$220 million Cajun Sibon NGL pipeline extension and the Eunice fractionator expansion, which will provide additional access to Louisiana markets.

The 440-mile Cajun Sibon pipeline will add 130 miles of 12-inch pipe that will originate from interconnections to Mont Belvieu supply pipelines and provide connectivity for NGLs from the Permian basin, Mid-Continent, Barnett, Eagle Ford and Rocky Mountain areas to the company's fractionation facilities in southern Louisiana. Once the extension is complete, the pipeline system will have an initial capacity of 70,000 barrels per day.

The Eunice fractionator's capacity will increase from 15,000 barrels per day (b/d) to 55,000 b/d, which will increase

#### **KEY NORTH AMERICAN HUB PRICES** 2:30 PM CST / AUGUST 18, 2011 Gas Hub Name **Current Price** Carthage,TX 3.68 Katy Hub, TX 3.91 Waha Hub, TX 3.94 Henry Hub, LA 3.97 Perryville, LA 3.91 **Houston Ship Channel** 3.90 Agua Dulce TX 4.67 Opal Hub, Wyo. 3.80 Blance Hub, NM 3.87 Cheyenne Hub, Wyo. 3.82 Chicago Hub 4.03 Ellisburg NE Hub 4.38 New York Hub 4.16 AECO, Alberta 3.74

Source: Bloomberg

MIDSTREAM Monitor

Crosstex's interconnected fractionation capacity in Louisiana to 97,000 b/d.

"A significant milestone for this product was our execution of a long-term ethane sales agreement with Williams Olefins, a subsidiary of the Williams Companies, which provides us a secure market for the key product in the project. On the supply side, we have equity supply from our Texas gas plants and commitments for raw make supply from a select group of NGL suppliers, and we are negotiating additional long-term commitments for the system expansion," Davis said.

All told, the company has spent \$79 million in growth capital in the first half of 2011 and anticipates spending an ad-

ditional \$50 million in the second half of the year. "We are extremely excited that we have the strong relationships, the financial flexibility and the right people to pursue these ventures while continuing to look at additional business opportunities." he added.

- Frank Nieto

#### W&T Offshore Acquires 64.3% Interest In Yellowhammer Processing Plant

W&T Offshore Inc. (NYSE: WTI) closed its acquisition of Shell Offshore's 64.3% interest in the Fairway Field along with a 64.3% interest in the associated Yellowhammer gas processing plant, with an effective date of Sept. 1, 2010. This acquisition was part of a larger transaction between Shell and W&T for three Gulf of Mexico deepwater producing fields known as Tahoe, SE Tahoe and Droshky. As of the close date, the adjusted purchase price paid for the Fairway Field and Yellowhammer gas plant, as adjusted on the preliminary closing statement,

was approximately \$36.7 million, subject to further post-effective date adjustments and assumption of asset retirement obligations associated with these properties.

The Fairway Field is located in the shallow state waters south of Mobile Bay, Ala., and the Yellowhammer plant is located onshore in Alabama about 17 miles northwest of the Fairway Field. Current production, net to interest in the Fairway Field, is approximately 19.5 MMcf of natural gas per day and 1,200 barrels of natural gas liquids per day, or approximately 26.9 MMcfe per day, which was

not included in previously provided production guidance. W&T's internal estimates of proved reserves associated with the acquired property as of June 30 are 39.4 billion cubic feet of natural gas and 2.5 million barrels of natural gas liquids, or 54.5 Bcfe. These reserves were based on SEC reserves definitions and pricing as of June 30, 2011.

Tracy W. Krohn, chairman and chief executive Officer, said, "This completes our acquisition from Shell, and it serves to increase the borrowing base of our revolving bank credit facility by \$50 million."

## Judge Overturns Morgantown, WV Fracing Ban

A judge in West Virginia's Monongalia County Circuit Court struck down the city of Morgantown's ban on hydraulic fracturing within city limits and one mile outside the municipality.

Judge Susan B. Tucker stated that city officials had exceeded their authority by seeking to bypass the ruling of the state's Department of Environmental Protection (WVDEP), which approved Northeast Natural Energy's drilling permits along the Monongahela River.

The Morgantown City Council banned the practice in June 2011 following the WVDEP's approval of Northeast Natural Energy's drilling permits in March 2011, citing that it had the authority to override the state's approval because of its home-rule authority as it cited fracing to be a public nuisance.

"It is clear that the city has an interest in the control of its land within its municipal borders. Yet, in light of the state's interest in oil and gas development and operations throughout the state, and the all-inclusive authority given to the WVDEP to regulate these operations, it is necessary for this court to examine the city's ban against the state's regulatory scheme to determine if the city's ordinance encroaches upon the state's all-encompassing authority regarding the production and development of oil and gas resources ... The provisions clearly indicate that this area of law is exclusively in the hands of the WVDEP. No exception is carved out for any locality or municipality. In fact, throughout the regulation it is explicit that all authority lies solely within the hands of the director [of the WVDEP]," Tucker said in her ruling.

"This court is mindful that the environmental issues regarding the fracing process are foremost in the public's concern. However, it is also apparent to this court that the environmental issues are being addressed by our state government, as indicated by Gov. Tomblin's July 5, 2011, executive order to the director of the WVDEP, requesting that the WVDEP take the necessary steps to protect our safety and our environment," Tucker further stated.

The City Council has yet to decide whether to appeal the decision.

- Frank Nieto



## The Ethane Prize... (continued from page 1)

The ethane-to-market opportunity is not yet fully monetized, however. Range and fellow Marcellus wet-gas producers are expected to be making more than 120,000 barrels of ethane a day in a few years. Shell would use roughly half of that.

The other half may go to petrochemical plants on the Gulf Coast, via competing proposals by El Paso Corp., which contemplates converting an existing pipeline, and by MarkWest Energy Partners LP, which would ship off the Atlantic coast. The former could carry 60,000 barrels of ethane a day as is and several hundred thousand if modified; the latter, 50,000.

Another proposal is also by MarkWest and partner Sunoco Logistics Partners LP. It is to convert an existing Sunoco pipe to take ethane from Pennsylvania to petrochemical plants in Sarnia, Ontario, carrying 65,000 barrels a day.

The prize to both Marcellus producers and end users is great. If stripped, the ethane can fetch \$8 per million Btu on the market, for example, compared with \$5 for just dry gas. Meanwhile, ethane is

turned into ethylene, which is made into polyethylene or plastic. To the end user, ethane is some 46% the price of crude oil, on a Btu basis, so it's cheaper to make plastic from ethane itself than from ethane derived from cracking crude oil.

"If you look at Asia and naphtha...they have become clearly the lowest-margin, highest-cost jurisdiction, with Europe being a close second," says Andrew Liveris, The Dow Chemical Co. chairman, president and chief executive. Dow, whi ch is the world's largest plastics manufacturer, is already increasing its ethanecracking capacity on the Gulf Coast as it is assured of new gas-liquids supply from the Midcontinent and South Texas' Eagle Ford plays. "But we're not stopping there," Liveris says. A firm-purchase arrangement with Range that is in the works "will give us access to the liquids from the Marcellus."

John Pinkerton, Range chairman and CEO, explains, "You have a global economy that's using naphtha. You have this huge push of 'How do I get off naphtha and get to ethane?"

Range will also get 12% greater recovery of the propane that's in its wet gas, upon extracting the ethane. "So it's a plus, plus, plus and the story continues to get better...," Pinkerton says. In the liquids-rich window of Range's leasehold, it appears that the smallest-completion-type well—that is, eight frac stages on a 2,500-foot lateral—will make 5 billion cubic feet equivalent (Bcfe) of which 3.6 billion cubic feet (Bcf) is dry gas or methane and 239,000 barrels are gas liquids. With a 3,500-foot lateral and 12 frac stages: 6.7 Bcfe or 4.1 Bcf of methane and 425,000 barrels of liquids.

The prospective buyers are impressed with the figures, Pinkerton says. "This is going to be a lot of ethane...At the end of the day, we'll get gas-plus for the ethane, which is something that we never thought would happen two years ago.

"We were hoping it would, but, now, it's clearly going to happen...It will have a big impact on our realizations and our margins and, obviously,...the rate of return."

- Nissa Darbonne

## El Paso E&P Spinoff To Be Listed On NASDAQ

El Paso Corp. (NYSE: EP) announced that the spinoff of its E&P business will be named EP Energy Corp., and it will be listed on the NASDAQ stock exchange under the ticker symbol EPE.

"We're excited about the creation of two outstanding publicly traded companies through the spinoff of our E&P business," said Doug Foshee, chairman, president and chief executive of El Paso Corp. "We are also excited about the new name for our E&P company -- EP Energy. The new name leverages the equity we have built in the El Paso brand, and it

speaks directly to what our E&P business does so well: finding and producing oil and natural gas."

Brent Smolik, who will become president and chief executive of EP Energy, said, "While our name will change, many things will not, including the fundamental pillars of our E&P strategy. We have more than 10 years of drilling inventory that we expect will deliver significant growth in oil and condensate revenues. We will continue to focus on maintaining a significant drilling inventory of repeatable programs, being a leader in

safe and responsible energy development and driving high-end performance across our operations."

"El Paso Corp. and EP Energy will move forward with two outstanding boards," added Foshee. "By populating each board from the existing El Paso board, we take advantage of a history of good governance, we ensure each board has seasoned, knowledgeable members and we maintain continuity for our shareholders."



#### Williams Affirms Proposal To Acquire Southern Union Co.

Williams (NYSE: WMB) affirmed its strong interest in acquiring Southern Union Co. (NYSE: SUG) for \$44 per share in cash. Williams conveyed its proposal via a letter to the special committee of Southern Union's board of directors.

Williams stated that its all-cash proposal represents value certainty of \$44 per share to Southern Union shareholders. The Williams proposal represents a premium of 4% over the implied value of the agreement with Energy Transfer Equity L.P. (NYSE: ETE) of \$42.32 based on the closing price of Energy Transfer units on Aug. 16, 2011, assuming Southern Union shareholders elect the maximum cash percentage under that agreement. Williams' proposal also represents a material premium to the implied value of

the Energy Transfer deal based on any recent average trading price of Energy Transfer units, including one-week, one-month, three-month, six-month and one-year averages.

"Forty-four dollars a share, cash, for every shareholder is a superior offer for Southern Union's shareholders," said Alan Armstrong, president and chief executive. "Southern Union's current agreement with Energy Transfer includes illiquid partnership units whose value will be exposed to equity markets in the months until closing and beyond.

"Williams' due diligence is complete. We have reviewed Southern Union's recent 10-Q and we have evaluated the market conditions and environment. We are ready and excited to move forward

quickly to sign a definitive merger agreement and combine Southern Union with Williams," he said.

"Southern Union is an excellent strategic fit with Williams. We are confident that Williams' acquisition of Southern Union will immediately increase our cash flows, support our commitment to high-dividend payouts and drive long-term growth. It also allows us to maintain our financial flexibility and commitment to investment-grade credit," Armstrong said.

The Williams proposal is not subject to any financing conditions. Williams has delivered bank financing commitments to finance the all-cash purchase price to be signed concurrent with signing the merger agreement.

#### AGPA, Wood Mac Study... (continued from page 1)

comparison, Australian projects costs are increasing,

"Taking all into account – basis, shipping, capital requirements – Alaska LNG export facilities can deliver LNG to Asia less expensively than U.S. Lower 48 or Canada and competitively vis-à-vis traditional Australian LNG sources."

Even with crude prices dropping into the \$84-89 per barrel (/bbl) range the past few weeks, the study reported that such a project would still remain economical. "The numbers generally 'work' for Alaska LNG exports when the global oil price is north of \$75/bbl oil and Asian firm contract pricing reflects a 13% (+) oil indexation," according to the report.

The study estimates that Alaskan LNG exports could generate between \$220 billion to \$419 billion for the state of Alaska based on the assumption that the proj-

ect's start-up would be in 2021 and have a shelf life of 30 years with 12.5% royalties. The report's worst-case scenario estimates that the total income for the state would be \$75 billion over a 30-year lifespan.

"The economics for LNG from Valdez are superior to the comparable projects," AGPA General Counsel Bill Walker said. "This independent, objective analysis proves what Alaskans need to know:

While oil has historically been the driver of state revenues, it is our natural gas that can propel Alaska into economic prosperity and provide low-cost energy for our

| RESIN PRICES – MARKET UPDATE – AUGUST 19, 2011 |           |      |      |          |       |
|--|-----------|------|------|----------|-------|
| TOTAL OFFERS: 12,671,512 lbs                   |           | SPOT |      | CONTRACT |       |
| Resin  | Total lbs | Low  | High | Bid      | Offer |
| HDPE - Inj                                     | 2,465,956 | 0.69 | 0.73 | 0.65     | 0.69  |
| HDPE - Blow Mold                               | 2,025,036 | 0.65 | 0.74 | 0.63     | 0.67  |
| PP Homopolymer - Inj                           | 1,955,656 | 0.85 | 0.96 | 0.84     | 0.88  |
| PP Copolymer - Inj                             | 1,596,092 | 0.79 | 1.00 | 0.86     | 0.90  |
| LLDPE - Film                                   | 1,566,300 | 0.64 | 0.79 | 0.66     | 0.70  |
| LDPE - Film                                    | 707,012   | 0.73 | 0.89 | 0.74     | 0.78  |
| LDPE - Inj                                     | 615,000   | 0.76 | 0.77 | 0.71     | 0.75  |
| LLDPE - Inj                                    | 512,276   | 0.65 | 0.77 | 0.69     | 0.73  |
| HMWPE - Film                                   | 468,184   | 0.68 | 0.74 | 0.67     | 0.71  |
| GPPS   | 380,000   | 0.91 | 0.91 | 0.84     | 0.89  |
| HIPS   | 380,000   | 0.99 | 0.99 | 0.92     | 0.97  |

Source: Plastics Exchange - www.theplasticsexchange.com

homes and businesses throughout the state, not just the population centers."

Frank Nieto



#### **NEWS & TRENDS**

#### Pivotal LNG To Acquire Alabama Facility

Pivotal LNG, a subsidiary of AGL Resources Inc. (NYSE: AGL), signed an agreement with the utilities board of the city of Trussville, Ala., for the purchase of an approximately 60,000 gallon per day liquefied natural gas facility.

As a part of AGL Resources' growth strategy, Pivotal LNG has embarked on a new business venture selling liquefied natural gas (LNG) in the wholesale market to buyers who then deliver the LNG to end-users such as trucking fleet operators. This value chain will provide endusers with a lower cost, environmentally

clean and abundant American fuel as a substitute for diesel, according to AGL Resources.

"This is an exciting time in the natural gas industry," said John W. Somerhalder II, AGL Resources' chairman, president and chief executive. "We are seeing a trend toward more companies interested in fueling trucks, fleet or heavy-duty vehicles and other large-horsepower engines with natural gas. The addition of the Trussville LNG facility aligns with the needs of our new wholesale business venture under Pivotal LNG."

"Pivotal LNG's new business initiative complements AGL Resources' existing businesses," said David Schultz, vice president, Pivotal LNG. "Our company is another key component of AGL Resources' strategy to expand the use of natural gas in the alternative fuel market through the use of affordable, clean-burning, abundant and domestic natural gas."

AGL Resources has been in the business of operating utility LNG facilities for more than 30 years.

#### **EOG Resources Offers Oklahoma Mississippi Lime Assets**

EOG Resources Inc. has retained Meagher Energy Advisors to sell certain Oklahoma vertical Mississippi lime wells and midstream assets.

The package includes an 86.4% average working interest (68.5% net revenue interest) in 3,314 gross acres (2,896 net)

in Woods County. The acreage features 10 operated wells producing from the Mississippi lime formation. Also, the package includes a 100% owned gasgathering system.

Projected gross production for September is 14.2 barrels of oil and 426,000

cubic feet of gas (11.5 barrels and 274,000 cubic feet net) with projected net cash flow of \$36,167.

The bid due date is Sept. 7, and the effective date is Sept. 1. Contact Jacque Semple, 918-481-5900, ext. 221, or jsemple@meagheradvisors.com.

## **Select Energy Acquires EXCO Water Resources LLC**

Select Energy Services LLC has acquired EXCO Water Resources LLC, an industrial pipeline used to deliver water for hydraulic fracturing operations in the Haynesville shale, from EXCO Resources. Terms were undisclosed.

"The acquisition of the EXCO pipeline represents a significant investment by Select Energy Services to ensure that the pipeline continues to be environmentally safe for use in industry operations. It serves as a great opportunity for Select and the operators in the region to become

less dependent on the use of local ground or surface water necessary for fracturing operations and demonstrates our company's commitment to protecting the environments in which we operate," said John Schmitz, chief executive of Select.

The pipeline was originally part of a creative beneficial reuse project established by EXCO and International Paper, and permitted by the Louisiana Department of Environmental Quality. EXCO developed the 12-mile underground pipeline to transport process water from an

International Paper mill in Louisiana to EXCO's Holly Field in Desoto Parrish, La.

The process water is suitable for hydraulic fracturing operations and thereby creates a unique opportunity for the recycling and reuse of treated water that would otherwise be discharged into the Red River. Now in full operation, the line is providing a reliable source of frac water to EXCO, and with this acquisition Select intends to market water from the line to other operators in the region.

## Noble Energy To Solicit Proposals For LNG Export Facility

Noble Energy officials stated they will begin seeking proposals from contractors to build an LNG facility in various locations in the eastern Mediterranean region that would allow the company to export gas from the Leviathon, Tamar, Dalit and Noa gas fields in the region, according to a report in *Upstream*.

"We're actually looking at a couple of different areas. We want to keep all options open at this point," Dave Stover, COO of Noble Energy, said to *Upstream*.

MIDSTREAM Monitor

The proposed facility would cost an estimated \$5 billion depending on the results of early wells in the fields.

An LNG export facility is becoming increasingly important to Noble Energy's business strategy as the company has been extremely active in the Mediterranean.

Most recently, the company discovered the Leviathan offshore field in January. The field is believed to be Israel's second-largest natural gas field with potential of up 450 billion cubic meters in reserves.

This follows the 2009 discovery of the Tamar gas field, which has the potential

for up to 8.4 trillion cubic feet of natural gas. The company anticipates production out of Tamar to begin in 2013 with Leviathan production beginning in 2017.

- Frank Nieto

#### Buccaneer Energy, ENSTAR Sign Alaska Gas Sale Contract

Buccaneer Energy Ltd. has executed a gas sales contract with Alaska Pipeline Co. and ENSTAR Natural Gas Co., both of which are wholly owned subsidiaries of SEMCO Energy Inc. and regulated in the state of Alaska.. ENSTAR is the largest gas utility in Alaska, supplying approximately 100% of residential and 95% of the commercial users in South Central Alaska.

The gas sales contract was lodged with the Regulatory Commission of Alaska for approval on Aug. 12, 2011. Approval of the contract is expected to allow gas sales to commence once pipeline and facilities construction is completed, which is expected in December 2011.

The annual weighted average price under the gas contract is \$6.03 per thousand cubic feet (Mcf). ENSTAR will be responsible for transportation costs after the receipt point and absorb the current \$0.21/Mcf pipeline tariff, thus giving Buccaneer a gross floor price of \$6.24/Mcf.

The pricing of the gas sales contract is split seasonally. The summer season (March-November) is priced at a floor of \$5.96/Mcf, including the pipeline tariff. The winter season (December-February) is priced at a floor of \$7.06/Mcf, including the pipeline tariff.

A price ceiling of \$10/Mcf applies to both seasons' pricing. Price changes between the floor and ceiling are based on NYMEX Gas Futures. Floors and ceilings prices are adjusted quarterly for inflation starting in 2012.

ENSTAR's commitment to acquire gas at contract rates commences when the Cook Inlet natural gas storage facility (CINGSA) is completed, which is on track for April 1, 2012.

Prior to the commencement of contract sales, Buccaneer expects to sell gas on a non-firm basis in a daily auction to supply gas for peaking demand requirements in the December 2011-March 2012 period. In the 2010/2011 peaking months, the average daily additional demand was

~ 5 million cubic feet per day with the average price paid of ~\$9.00/Mcf.

As part of the contract, Buccaneer has committed to spudding the second well at Kenai Loop by Nov. 1, 2011, and a third by Nov. 1, 2013. Buccaneer is currently on track to spud its second well at Kenai Loop this quarter and anticipates drilling a third well in April/May 2012.

"This is another major milestone for Buccaneer. This gas contract represents the first such contract executed by EN-STAR to supply their reserve capacity in the new CINGSA facility. Importantly, it provides Buccaneer with cash-flow certainty in the near term, which will underpin the development of the Kenai Loop field. South Central Alaska suffers from a shortage of gas. The problem is only expected to deteriorate over the next 2 to 3 years. Buccaneer looks forward to playing a major role in alleviating part of this shortfall," Dean Gallegos, director of company, said.

## China To Issue Loan To Support Ghana Gas Infrastructure Development

The Ghana National Gas Co., which was formed last month, announced it will borrow \$800 million from the China Development Bank to develop its natural gas infrastructure to support the development of its Jubilee field, according to a Reuters report.

The loan, which needs to be approved by Ghana's parliament, will fund the construction of both a natural gas processing plant in Bonwire and a pipeline that will connect production from the offshore gas field to the plant. It is anticipated that the infrastructure will take up to 20

months to complete with an in-service target date occurring by the end of 2012 or early 2013.



#### NNPC To Reduce Share Of Brass LNG Project

NNPC, Nigeria's state-owned oil company, announced plans to reduce its share of the Brass LNG project from 49% to 30% to secure more financing for the project, which has faced multiple delays throughout its history. The company has offered a 4% interest to LNG Japan, 3% to Itochu and a 2% to Sahara Energy of Nigeria and Sempra Energy.

The project is of significant interest to Japan because of the country's growing need for alternative fuel sources due to the Fukushima Daiichi nuclear plant meltdown and destruction of energy infrastructure related to this past spring's earthquake and tsunami.

In addition to the potential interest in the project acquired by Japanese companies, a Japanese consortium led by Japan Bank for International Cooperation authorized a loan of \$2 billion to NNPC for the company to fund its portion of the Brass LNG projects. Estimated costs of the project have ranged from \$8.5 billion to \$15 billion.

#### **PIPELINES & TECHNOLOGY**

#### Enterprise Continues To Investigate Cause Of Mid-America Pipeline Leak

Enterprise Products Partners LP is continuing to investigate the cause of a leak from the Mid-America pipeline in Burt County, Neb., that released up to 3,300 barrels of NGLs into the Missouri River during the weekend of Aug. 12-14. The company shut down a 10-mile

section of pipeline between Decatur, Nebraska and Onawa, Iowa, to help with clean-up efforts.

Thus far, no volumes have been recovered most likely because of evaporation and the swift currents of the river. While the pipeline is situated at a depth of 20 feet below the riverbed, the river has been spilling over its riverbank for months, leaving sections of the pipe at more shallow depths susceptible to swifter currents.

#### TransCanada Launches Open Season For Keystone Pipeline

TransCanada Corp. (TSX, NYSE: TRP) launched a binding open season to obtain firm commitments from interested parties for the Keystone Pipeline System to transport crude oil from Hardisty, Alberta, to Houston.

The proposed Keystone Houston Lateral would involve an expansion of capacity and construction of an approximate 80 kilometer (48 mile) pipeline extension from the proposed Keystone XL system to the Houston refining center. The proposed facilities would double the U.S. Gulf Coast refining market capacity accessible from the Keystone Pipeline System to more than 4 million barrels per day by providing access to the key refining market in the Houston area.

"The extension of the Keystone Pipeline System would provide direct access to the Houston refining market and further enhance the connection of a secure, growing and reliable supply of Canadian crude oil and domestic U.S. crude oil from the Williston basin and Cushing through

Keystone Marketlink with the largest refining market in North America," said Russ Girling, TransCanada president and chief executive. "The addition of a Houston lateral would increase the markets accessible from the Keystone Pipeline System and provide additional flexibility to our shippers."

Following the completion of the open season, which closes at midnight (Mountain time) on Oct. 17, 2011, and subject to receipt of sufficient contractual commitments from shippers, TransCanada intends to proceed with the necessary Canadian regulatory applications for approvals to construct and operate the facilities required for the capacity expansion and provide transportation services from Hardisty to Houston. The Keystone Houston Lateral and capacity expansion are included in the original scope of the Keystone XL U.S. Presidential Permit application process, which is expected to conclude by the end of 2011. Subject to the receipt of the Keystone XL Presidential Permit, transportation service to Houston on the Keystone Pipeline System is expected to begin in 2014.

Keystone XL is a proposed 1,700 mile pipeline that would expand the existing Keystone system and deliver crude oil to refineries in the U.S. Midwest and the Gulf Coast. Keystone would increase U.S. energy security by providing Americans with a stable, secure supply of U.S. domestic and Canadian oil vs. continuing to import unstable, higher priced crude from the Middle East and Venezuela. Keystone would create 20,000 American jobs during construction, inject \$20 billion into the U.S. economy and pay more than \$5 billion in property taxes during the lifetime of the project.

Parties are invited to visit www. transcanada.com/houstonlateral.html or contact oil\_pipelines@transcanada.com, Ed Scheibelhut at 403-920-2746 or David Diakow at 403-920-6019 for more information.



#### Magnum Hunter Closes \$150M Credit Facility For Eureka Hunter Pipeline

Magnum Hunter Resources Corp. (NYSE: MHR) (NYSE Amex: MHR-PRC) (NYSE Amex: MHR-PRD) announced that the company's wholly-owned subsidiary, Eureka Hunter Pipeline LLC, has closed a new credit facility totaling \$150 million. The Eureka Hunter Finance Facility is composed of two tranches: a revolvingcredit facility in the aggregate principal amount of up to \$100 million secured by a first lien on the assets of Eureka Hunter Pipeline ("revolver") with an initial committed amount of \$25 million; and a \$50 million term loan secured by a second lien on such assets ("term loan"). All of the term loan must be drawn before any of the revolver is drawn and \$31 million of the term loan has been drawn. Both the revolver and the term loan are "non-recourse" to the parent company, Magnum Hunter.

The proceeds from the revolver and the term loan will be used to finance capital expenditures for the construction of the Eureka Hunter Pipeline system located in northern West Virginia and Ohio. Advances under the term loan will be limited to 60% of the project's "total capital," including equity and debt

invested. As of Aug. 15, 2011, Magnum Hunter has invested approximately \$52 million of equity capital in the Eureka Hunter Pipeline project.

In addition, Magnum Hunter has received \$21 million of net proceeds from the term loan closing to repay existing indebtedness. As of Aug. 16, 2011, Magnum Hunter had total liquidity, including cash and availability under its credit facilities and the term loan of approximately \$75 million, of which \$55 million is available to fund its upstream capital program focused on the company's high-growth resource plays.

The applicable interest rate margin of the revolver ranges from LIBOR plus 2.25% to LIBOR plus 3.50%. The term loan accrues interest at a rate of 12.5% per annum; of which 2.75% is payable in cash or Magnum Hunter restricted common stock at the sole option of Magnum Hunter. The revolver and the term loan contain other terms and conditions customary for financings of this type. The revolver has a maturity of five years from date of closing, and the term loan has a maturity of seven years from date of closing. SunTrust Robinson Humphrey Inc.

served as the lead arranger and SunTrust Bank will serve as administrative agent for the revolver. PennantPark Investment Corp, is the lender for the term loan.

Ronald D. Ormand, executive vice president and chief financial officer of Magnum Hunter, commented, "The closing of the Eureka Hunter Finance Facility for the Eureka Hunter midstream assets completes one of our primary financial goals for fiscal year 2011. Eureka Hunter Pipeline now has its own primary source of financing, provided on a non-recourse basis to Magnum Hunter, and the capital necessary to complete construction and expand operations of the pipeline through fiscal year 2012. In addition, with the return of \$21 million in capital from the Eureka Hunter Finance Facility, Magnum Hunter has further increased its overall financial liquidity to in excess of \$75 million. The additional liquidity provides Magnum Hunter with the necessary capital to fund the company's capital expenditure plan through the end of fiscal year 2011 and into fiscal year 2012."

## **NGL PRICES**

#### **Ethane Prices Crash At Both Hubs**

Natural gas liquid (NGL) prices generally held firm the week of Aug. 10 -- outside of ethane, which experienced sizable decreases at both Mont Belvieu and Conway. The price fell 10% at Mont Belvieu and 13% at Conway, dropping to levels not experienced since the start of the year.

However, these decreases are not entirely unexpected as the product has been trading above 35% of WTI crude prices. According to En\*Vantage, to remain economically preferred to naphtha as an ethylene feedstock ethane prices need to trade below 35% of WTI crude prices.

The Mont Belvieu price dropped to 68¢ per gallon (/gal), which was the lowest price at the hub since it was 65¢/gal the week of March 9. At Conway the price fell to 41¢/gal, which was its low-

est price since the week of Feb. 2 when it was 40¢/gal.

While ethane suffered the largest price drop of any NGL at either hub this week, propane prices were the most volatile as heavy demand from exports combined with low inventory levels continue to support prices. The Mont Belvieu price rose slightly to \$1.52/gal while the Conway price improved 2% from the pre-



vious week to \$1.44/gal. Each hub's price represented an increase of more than 5¢/gal from prices at the start of the week.

Conway isobutane had the largest increase in price for the week of Aug. 10, as the price rose 4% to \$1.93/gal while the Mont Belvieu price fell 3% to \$2.01/gal. However, despite the price decrease, Mont Belvieu isobutane maintains a high value compared to WTI crude.

Butane prices dropped at both hubs with the Mont Belvieu price maintaining more strength as its demand as a petrochemical feedstock remained relatively high. The price at Mont Belvieu was down very slightly to \$1.82/gal from the previous week while the Conway price dropped 2% to \$1.56/gal. The Texas price was the lowest at the hub since it was \$1.81/gal the first week of June, while the Kansas price was the lowest at the hub since it was \$1.55/gal the week of Nov. 17, 2010.

Conway  $C_{5+}$  had the largest price increase of any NGL as it rose 5% to \$2.02/gal on the back of improved crude oil prices. Crude increases also helped to balance the Mont Belvieu price, which nonetheless fell 2% to \$2.23/gal from the previous week.

While it is possible that crude oil prices will further drop in the coming weeks, En\*Vantage reported that it anticipates the bottom was reached for WTI crude at about \$80 per barrel. This should have a positive impact on  $C_{5+}$  prices as it is likely that the NGL also reached its bottom in the current economic environment at the same time as crude. Should this be the case, it is possible that  $C_{5+}$  prices will rebound in the coming weeks.

- Frank Nieto

| NGL PRICES           |       |        |        |        |        |         |
|----------------------|-------|--------|--------|--------|--------|---------|
| Mont Belvieu         | Eth   | Pro    | Norm   | Iso    | Pen+   | NGL Bbl |
| Aug. 10 - 16 '11     | 67.92 | 151.60 | 182.42 | 201.00 | 223.26 | \$58.59 |
| Aug. 3 - 9 '11       | 76.06 | 150.98 | 182.72 | 207.23 | 227.25 | \$60.23 |
| July 27 - Aug. 2 '11 | 82.33 | 155.66 | 193.08 | 210.25 | 245.92 | \$63.64 |
| July 20- 26 '11      | 80.33 | 152.83 | 189.37 | 210.53 | 248.62 | \$62.99 |
| July '11             | 79.50 | 152.47 | 187.05 | 203.97 | 246.50 | \$62.38 |
| June '11             | 74.07 | 151.89 | 181.94 | 198.54 | 235.24 | \$60.30 |
| 2nd Qtr '11          | 75.14 | 149.59 | 186.75 | 202.07 | 248.23 | \$61.42 |
| 1st Qtr '11          | 63.74 | 137.32 | 175.07 | 186.15 | 228.46 | \$55.82 |
| 4th Qtr '10          | 59.07 | 126.07 | 162.01 | 168.24 | 198.89 | \$50.59 |
| 3rd Qtr '10          | 44.99 | 106.98 | 138.23 | 143.25 | 171.45 | \$42.37 |
| Aug. 11 - 17, '10    | 44.56 | 105.32 | 135.13 | 135.18 | 169.80 | \$41.62 |
| Conway, Group 140    | Eth   | Pro    | Norm   | Iso    | Pen+   | NGL Bbl |
| Aug. 10 - 16 '11     | 40.60 | 143.54 | 156.06 | 192.50 | 201.50 | \$50.75 |
| Aug. 3 - 9 '11       | 47.73 | 140.70 | 160.20 | 184.90 | 190.25 | \$50.83 |
| July 27 - Aug. 2 '11 | 55.52 | 143.92 | 168.84 | 196.00 | 222.23 | \$55.41 |
| July 20- 26 '11      | 55.70 | 143.33 | 169.80 | 199.64 | 226.52 | \$55.81 |
| July '11             | 55.57 | 143.17 | 169.35 | 193.79 | 227.52 | \$55.66 |
| June '11             | 51.43 | 141.46 | 164.86 | 183.38 | 223.52 | \$53.99 |
| 2nd Qtr '11          | 52.63 | 139.38 | 170.76 | 192.47 | 236.00 | \$55.34 |
| 1st Qtr '11          | 46.30 | 128.26 | 164.69 | 186.06 | 225.91 | \$51.80 |
| 4th Qtr '10          | 47.01 | 120.80 | 157.16 | 161.69 | 193.86 | \$47.80 |
| 3rd Qtr '10          | 31.16 | 101.46 | 132.39 | 141.93 | 163.91 | \$39.04 |
| Aug. 11 - 17, '10    | 28.15 | 100.76 | 129.64 | 135.93 | 162.25 | \$38.05 |

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

## **FRAC SPREAD**

## Natural Gas Storage Injections Remain Low Due To Large Cooling Demand

Frac spread margins for the week of Aug. 10 followed a similar pattern to NGL prices the same week as margins were largely a mixed bag, but primarily flat aside from ethane, which fell substantially at both hubs.

The Conway margin suffered the largest drop for the week as the frac spread was down 32% from the prior week while the Mont Belvieu margin followed it with a 16% drop from the previous week.

The only other margins to drop during the week were Conway butane, which

was down 3%, Mont Belvieu isobutane also with a 3% drop, and Mont Belvieu  $C_{5+}$ , which fell 2% from the previous week.

These decreases were largely due to natural gas liquid (NGL) price drops at the hubs as feedstock prices fell 2% at Conway and 1% at Mont Belvieu. Natural gas prices were below \$4 per million Btu at both hubs for the first time in months.

The decrease in natural gas prices combined with improved or stable NGL prices helped the rest of the frac spread margins improve this week with Conway  $C_{5+}$  having the largest gain at 8%. This was followed by Conway isobutane at 6%. The only margin to improve to 1% or greater at Mont Belvieu was propane, up 1% from the previous week.

The theoretical NGL barrel price dropped at both hubs, largely due to a heavy decrease in ethane prices, with the Conway price down slightly to \$50.75 per barrel (/bbl) with a margin improvement of 1% to \$36.32/bbl. The Mont Belvieu theoretical barrel price fell 3% to \$58.59/bbl with a 3% drop in margin to \$44.09/bbl.



The most profitable NGL to make at both hubs remained  $C_{5+}$  at \$1.58 per gallon (/gal) at Conway and \$1.79/gal at Mont Belvieu. This was followed, in order, by isobutane at \$1.53/gal at Conway and \$1.62/gal at Mont Belvieu; butane at \$1.15/gal at Conway and \$1.41/gal at Mont Belvieu; propane at \$1.07/gal at Conway and \$1.15/gal at Mont Belvieu; and ethane at 14¢/gal at Conway and 42¢/gal at Mont Belvieu.

Natural gas in storage for the week of Aug. 12, the most recent data available from the Energy Information Administration, increased by 50 billion cubic feet to 2.833 trillion cubic feet (Tcf) from 2.783 Tcf as injections continued to be hindered by strong cooling demand. This storage level was 6% below the 3.008 Tcf

figure recorded last year at the same time and 3% below the five-year average of 2.906 Tcf.

Cooling demand should level off next week as the National Weather Service's forecast for the week of Aug. 24 is calling for cooler than normal late August temperatures for the entire East Coast and parts of the Midwest and the Gulf Coast. The forecast includes warmer than normal temperatures for the other half of the country, including the entire West Coast and Mountain region along with parts of the Southwest.

- Frank Nieto

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

| Current Frac Spread (Cents/Gal)    |        |                              |        |         |  |  |
|------------------------------------|--------|------------------------------|--------|---------|--|--|
| August 19, 2011                    | Conway | Change from<br>Start of Week |        |         |  |  |
| Ethane                             | 40.60  |                              | 67.92  |         |  |  |
| Shrink                             | 26.19  |                              | 26.32  |         |  |  |
| Margin                             | 14.41  | -31.63%                      | 41.60  | -15.80% |  |  |
| Propane                            | 143.54 |                              | 151.60 |         |  |  |
| Shrink                             | 36.18  |                              | 36.37  |         |  |  |
| Margin                             | 107.36 | 3.35%                        | 115.23 | 0.94%   |  |  |
| Normal Butane                      | 156.06 |                              | 182.42 |         |  |  |
| Shrink                             | 40.96  |                              | 41.17  |         |  |  |
| Margin                             | 115.10 | -2.88%                       | 141.25 | 0.15%   |  |  |
| Iso-Butane                         | 192.50 |                              | 201.00 |         |  |  |
| Shrink                             | 39.34  |                              | 39.54  |         |  |  |
| Margin                             | 153.16 | 5.73%                        | 161.46 | -3.43%  |  |  |
| Pentane+                           | 201.50 |                              | 223.26 |         |  |  |
| Shrink                             | 43.81  |                              | 44.03  |         |  |  |
| Margin                             | 157.69 | 8.26%                        | 179.23 | -1.88%  |  |  |
| NGL \$/Bbl                         | 50.75  | -0.15%                       | 58.59  | -2.71%  |  |  |
| Shrink                             | 14.43  |                              | 14.50  |         |  |  |
| Margin                             | 36.32  | 0.49%                        | 44.09  | -3.19%  |  |  |
| Gas (\$/mmBtu)                     | 3.95   | -1.74%                       | 3.97   | -1.24%  |  |  |
| Gross Bbl Margin<br>(in cents/gal) | 84.34  | 0.63%                        | 103.29 | -3.12%  |  |  |
| NGL Value in \$/mmBtu              |        |                              |        |         |  |  |
| Ethane                             | 2.24   | -14.94%                      | 3.74   | -10.70% |  |  |
| Propane                            | 4.98   | 2.02%                        | 5.26   | 0.41%   |  |  |
| Normal Butane                      | 1.69   | -2.58%                       | 1.97   | -0.16%  |  |  |
| Iso-Butane                         | 1.20   | 4.11%                        | 1.25   | -3.01%  |  |  |
| Pentane+                           | 2.60   | 5.91%                        | 2.88   | -1.76%  |  |  |
| Total Barrel Value in \$/mmbtu     | 12.70  | -1.14%                       | 15.10  | -3.33%  |  |  |
| Margin                             | 8.75   | -0.86%                       | 11.13  | -4.05%  |  |  |

## July 2011 Frac Spread: Ethane Margins Show Strength Due To Record Cracking Levels

Frac spread margins for natural gas liquids (NGL) in the month of July were largely down compared to the previous month -- with the notable exception of ethane -- as the demand from the petrochemical industry remained high for ethane due to its strong economics.

Ethane cracking levels remained very high with plants operating at over 96% for much of July. While demand remained high for ethane, En\*Vantage stated that there were reports that several petrochemical companies sold ethane out of their stocks to stop prices from going higher.

"NGL prices remain extremely firm. We are not surprised by the strength in ethane prices as our balances indicate that ethane supplies are tightening in light of record cracking demand, En\*Vantage's Weekly Energy Report stated. "Overall, the rest of the NGL

barrel is maintaining very strong price relationships to crude, although there continues to be some concerns about the strong build we are seeing in propane stocks."

The weekly report stated that with ethane cracking at record levels, its prices for the month of July have been the strongest since September 2008.

"By the end of August, we expect ethane inventories to be at 18.7 million bar-



rels with days of supply at 19 days. If our forecast is correct this would indicate a reasonably tight ethane market," the report stated.

The ethane market tightened to such a degree that the Conway market showed the greatest growth in margin for the month with a 42% increase despite having limited demand or capacity in the region.

Propane margins continued to perform solidly for July, which is normally not a strong month for the product because of low inventory levels and high export demand from international markets. The margin at Conway improved 2% from last month while the Mont Belvieu decreased only 1%.

The most profitable NGL to make during the month at both hubs remained  $C_{5+}$  because of its close relationship to crude oil. The product's frac spread margin for the month

at Mont Belvieu was \$1.86 per gallon (/gal) while the Conway frac spread was \$1.74/gal. This was followed, in order, by isobutane at \$1.50/gal at Mont Belvieu and \$1.37/gal at Conway; butane at \$1.30/gal at Mont Belvieu and \$1.16/gal at Conway; propane at \$1.07/gal at Mont Belvieu and \$1.01/gal at Conway; and ethane at 45¢/gal at Mont Belvieu and 28¢/gal at Conway.

The theoretical NGL barrel price for July at Mont Belvieu fell 2% from June to \$59.55 per barrel (/bbl) with a margin drop of 1% to \$43.22/bbl. The Conway theoretical barrel price for the month fell less than 1% to \$54.20/bbl with the margin improving 1% to \$38.53/bbl primarily due to the large gain in ethane margin.

- Frank Nieto

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

| Current Frac Spread (Cents/Gal)    |                       |                               |                 |                   |  |  |  |
|------------------------------------|-----------------------|-------------------------------|-----------------|-------------------|--|--|--|
| July 2011                          | Conway                | Change from<br>Start of Month | Mont<br>Belvieu | Start of<br>Month |  |  |  |
| Ethane                             | 56.00                 |                               | 74.78           |                   |  |  |  |
| Shrink                             | 28.44                 |                               | 29.64           |                   |  |  |  |
| Margin                             | 27.56                 | 41.73%                        | 45.14           | 12.43%            |  |  |  |
| Propane                            | 140.65                |                               | 147.80          |                   |  |  |  |
| Shrink                             | 39.30                 |                               | 40.95           |                   |  |  |  |
| Margin                             | 101.35                | 2.32%                         | 106.85          | -0.50%            |  |  |  |
| Normal Butane                      | 160.50                |                               | 176.00          |                   |  |  |  |
| Shrink                             | 44.49                 |                               | 46.35           |                   |  |  |  |
| Margin                             | 116.01                | -3.14%                        | 129.65          | -3.82%            |  |  |  |
| Iso-Butane                         | 179.25                |                               | 194.85          |                   |  |  |  |
| Shrink                             | 42.73                 |                               | 44.52           |                   |  |  |  |
| Margin                             | 136.52                | -0.70%                        | 150.33          | -2.44%            |  |  |  |
| Pentane+                           | 222.00                |                               | 235.85          |                   |  |  |  |
| Shrink                             | 47.58                 |                               | 49.57           |                   |  |  |  |
| Margin                             | 174.42                | -6.76%                        | 186.28          | -5.52%            |  |  |  |
| NGL \$/Bbl                         | 54.20                 | -0.28%                        | 59.55           | -1.46%            |  |  |  |
| Shrink                             | 15.67                 |                               | 16.33           |                   |  |  |  |
| Margin                             | 38.53                 | 1.33%                         | 43.22           | -0.93%            |  |  |  |
| Gas (\$/mmBtu)                     | 4.29                  | -4.03%                        | 4.47            | -2.83%            |  |  |  |
| Gross Bbl Margin<br>(in cents/gal) | 88.69                 | 1.61%                         | 100.94          | -0.70%            |  |  |  |
|                                    | NGL Value in \$/mmBtu |                               |                 |                   |  |  |  |
| Ethane                             | 3.08                  | 14.10%                        | 4.12            | 5.85%             |  |  |  |
| Propane                            | 4.88                  | 0.46%                         | 5.13            | -1.16%            |  |  |  |
| Normal Butane                      | 1.73                  | -3.39%                        | 1.90            | -3.56%            |  |  |  |
| Iso-Butane                         | 1.12                  | -1.51%                        | 1.21            | -2.53%            |  |  |  |
| Pentane+                           | 2.86                  | -6.19%                        | 3.04            | -4.97%            |  |  |  |
| Total Barrel Value<br>in \$/mmbtu  | 13.68                 | 1.01%                         | 15.40           | -0.60%            |  |  |  |
| Margin                             | 9.39                  | 3.49%                         | 10.93           | 0.34%             |  |  |  |

## **SNAPSHOT**

## Southern Star Central Pipeline: Delivering Gas Into The Heartland For More Than 100 Years

The Southern Star Central Gas Pipeline has been in operation for more than 100 years, having gone into operation in 1904. It is owned by GE Energy Financial Services and Morgan Stanley Infrastructure Partners.

The natural gas pipeline stretches 5,725 miles with a capacity of 2.4 billion cubic feet per day (Bcf/d) with 40 com-

pressor stations and 43 Bcf of storage capacity through eight system storage fields, according to Hart Energy Mapping and Data Services.

The pipeline serves the Kansas, Oklahoma, Nebraska and Missouri markets with St. Louis, Wichita and Kansas City being its major markets. The system has an annual throughput of 301.8 Bcf, ac-

cording to the company's website, with its supplies generated from the Rockies and Mid-Continent.

According to Hart Energy Mapping and Data Services, Southern Star's largest transport customer is ONEOK's Kansas Gas Service with a dually contracted 514,000 dekatherms per day (Dth/d) of capacity; followed by Westar Energy

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with 206,000 Dth/d. The rest of the top 10 are Atmos Energy with 151,000 Dth/d; Southern Union's Missouri Gas Energy with 126,000 Dth/d; Empire District Electric with a dually contracted 155,000 Dth/d; City Utilities of Springfield, Mo., with 104,000 Dth/d; Oklahoma Natural Gas with 42,000 Dth/d; and Black Hills Utility Holdings with 35,000 Dth/d.

The top storage customers on the pipeline are ONEOK's Kansas Gas Service with 10.17 Bcf; Atmos Energy with 2.72 Bcf; Oklahoma Natural Gas with 92 MMcf; Empire District Gas with 79 MMcf; and City Utilities of Springfield, Mo., with 71 MMcf.

The top receipt point on Southern Star is BP America- Jayhawk, followed by Echo Springs Plant. Its top delivery point is Kansas City, Mo., followed by Springfield, Mo.

- Frank Nieto
  - Click here to download map and charts.

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