

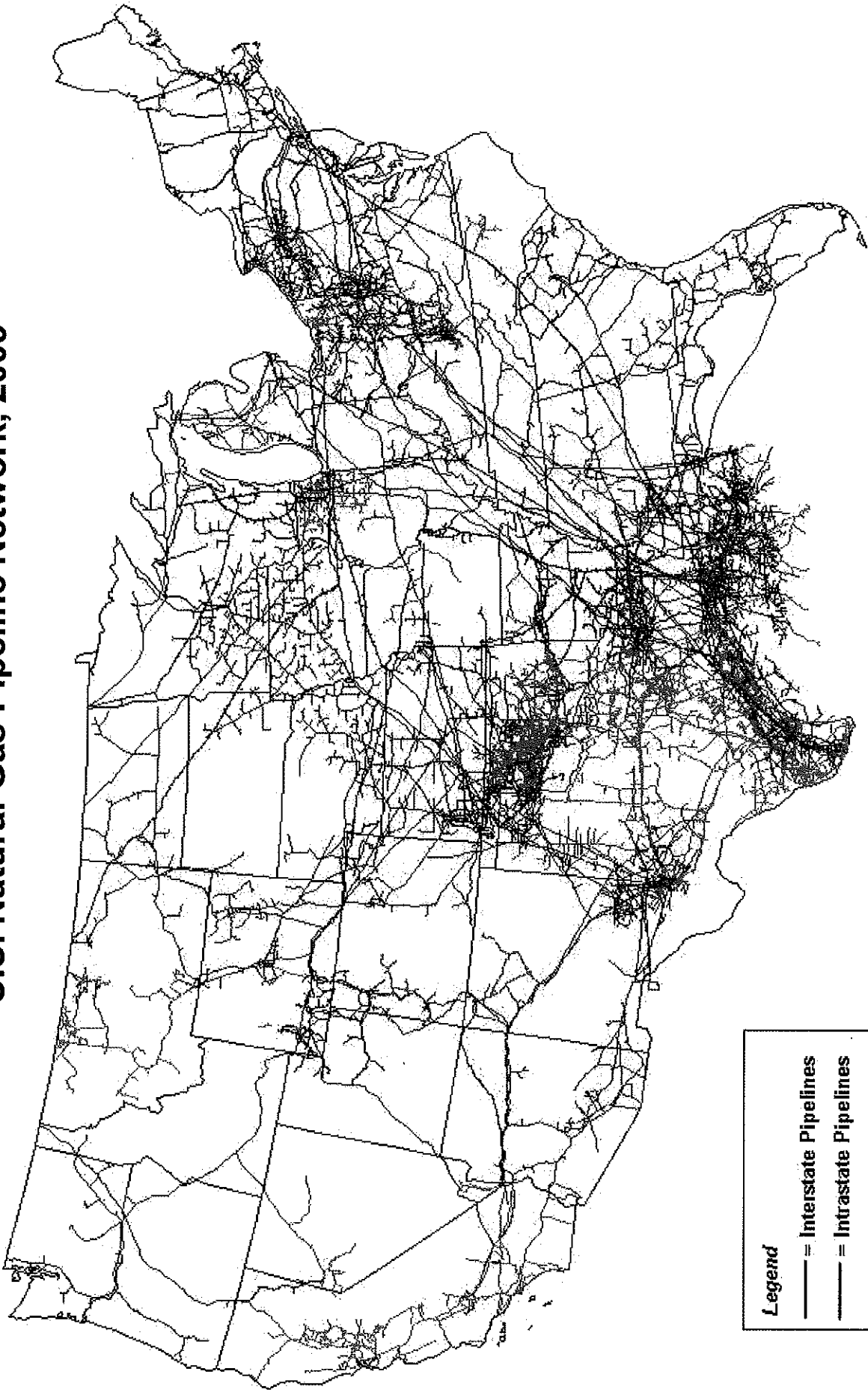
# Pipelines and Underground Storage

House Energy and Environment Committee

January 18, 2013

Presented by:  
Ron Gaches  
Gaches Braden and Associates

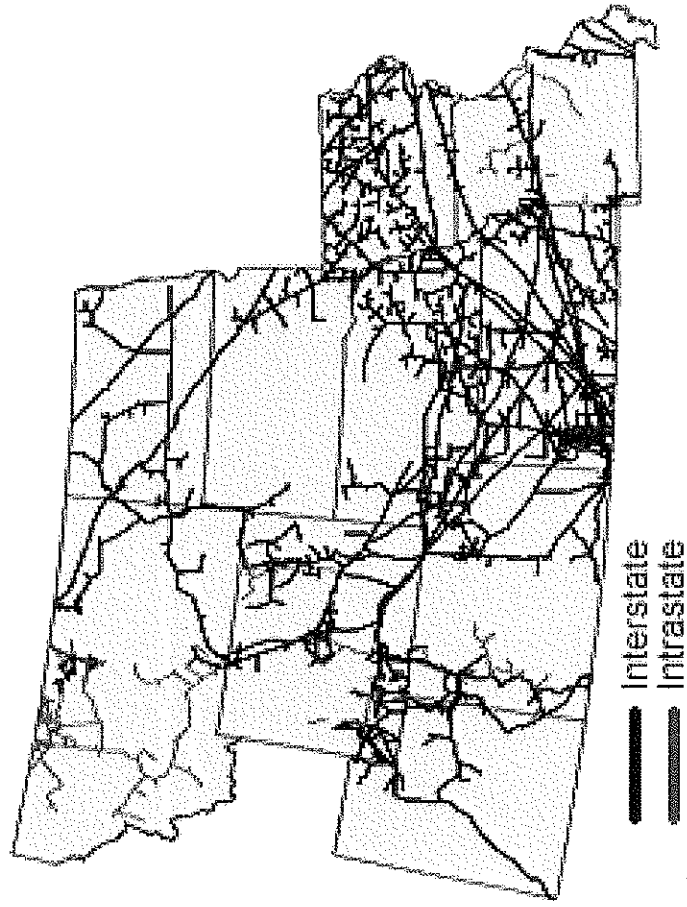
# U.S. Natural Gas Pipeline Network, 2009



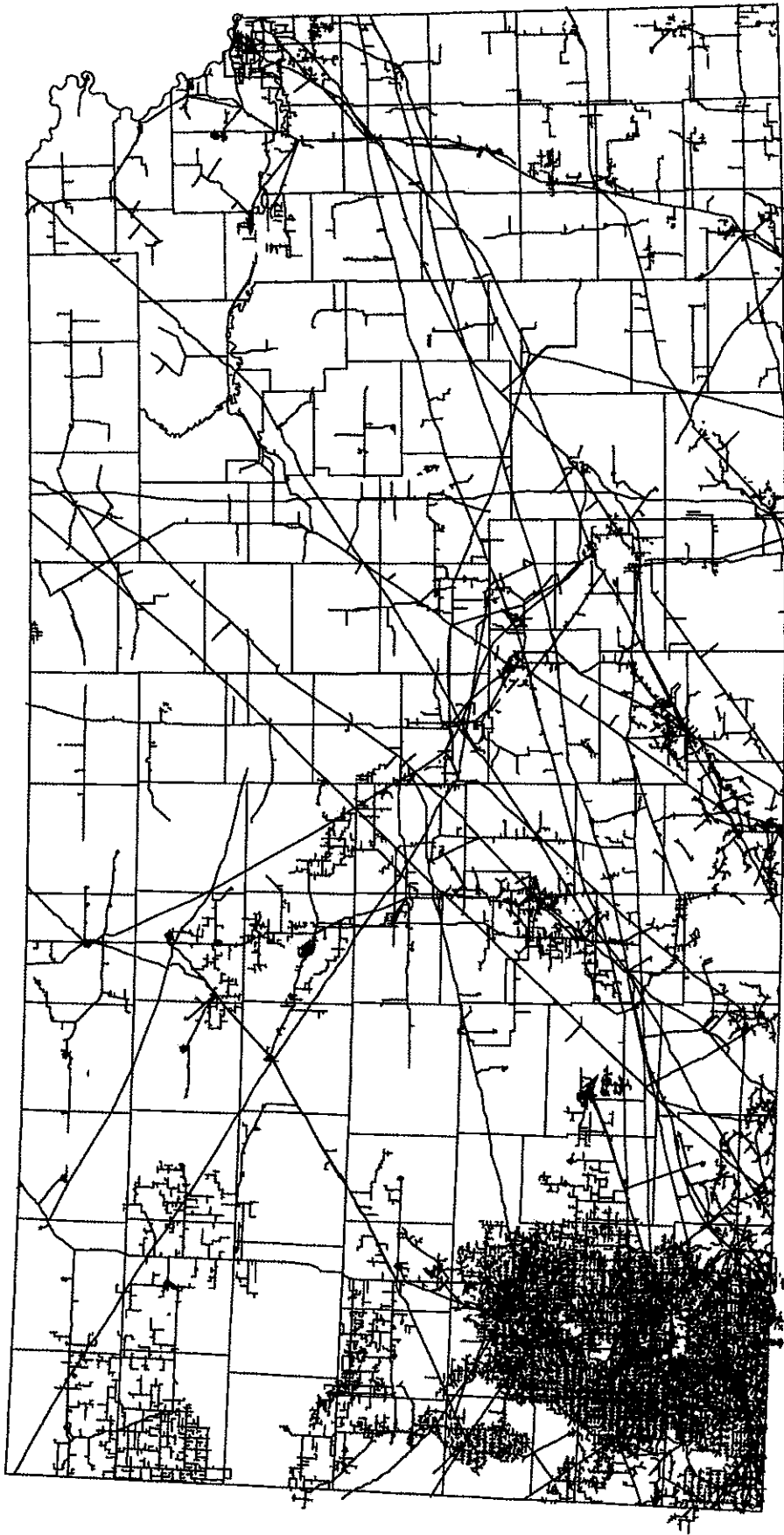
**Legend**  
—— = Interstate Pipelines  
—— = Intrastate Pipelines

Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System

# Central Region Natural Gas Pipeline Network

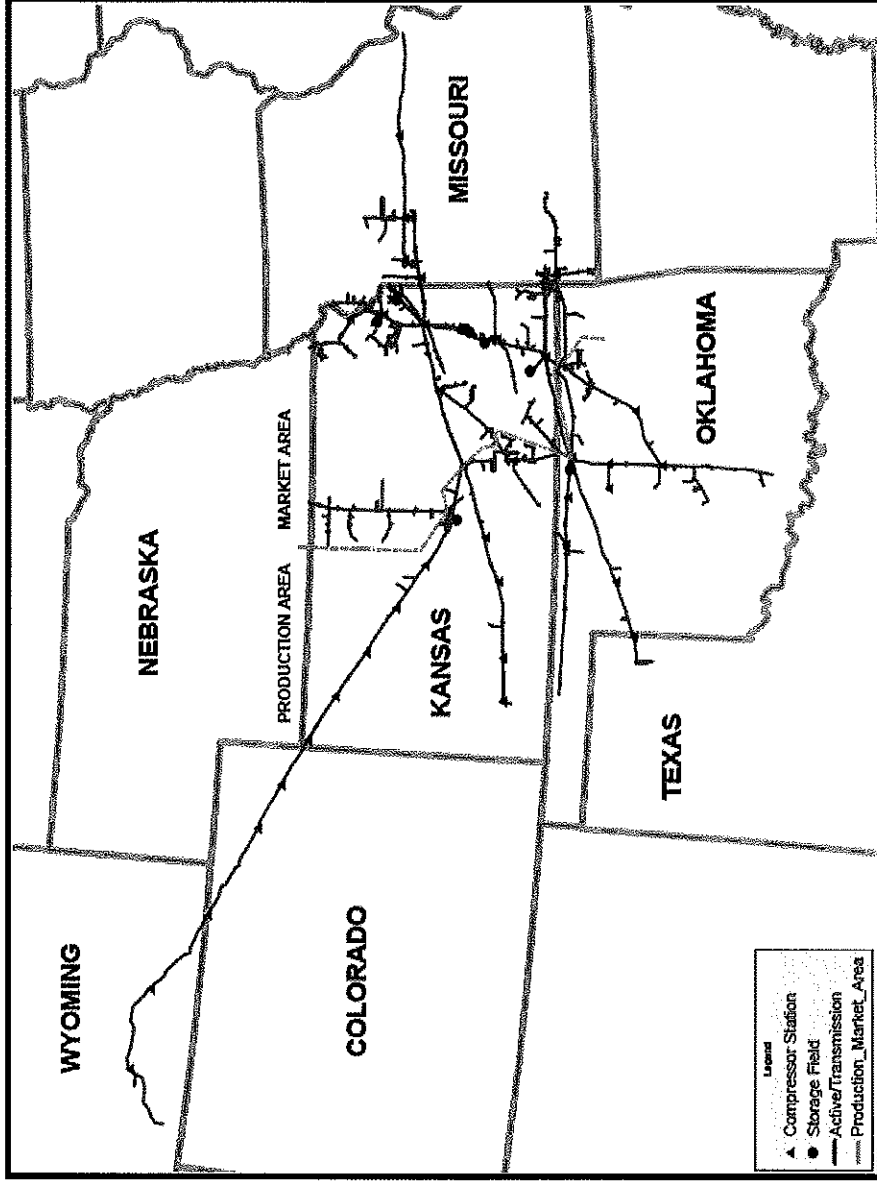


# Natural Gas Pipelines in Kansas



# Southern Star Pipeline System

- System Capacity: 2.4 Bcf/d
- Storage Working Gas Capacity: 46.7 Bcf
- Supply: Mid-Continent, Rocky Mountain Region, San Juan Basin, Permian Basin
- Pipeline Interconnects: 23
- Operating Locations: CO, KS, MO, NE, OK, TX, WY
- Compressor Stations: 40
- Miles of Pipeline: 5,862.69
- Major Markets
  - Kansas City, Topeka, Wichita & Lawrence, KS
  - Kansas City, Springfield, Joplin, St. Joe & St. Louis, Mo.



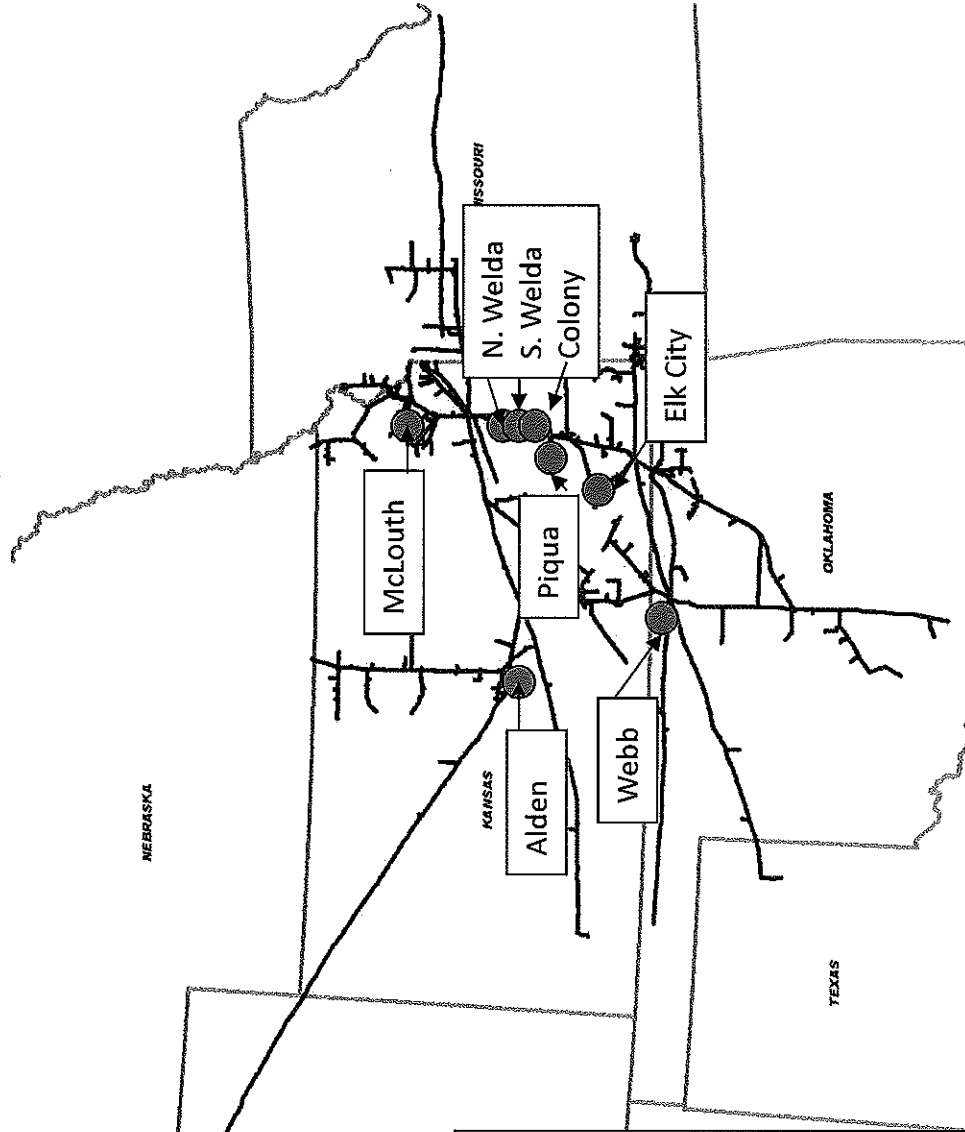
# **Southern Star - Kansas Footprint**

- **Assets in 67 Kansas counties.**
- **Kansas Assets GBV = \$717.6M NBV = \$378.5M at January 1, 2012.**
- **Property Taxes Paid in Kansas = \$11.4M in 2012.**
- **Number of Employees in Kansas = 181.**
- **Payroll of Kansas Employees = \$12.8M.**
- **Annual Payroll Taxes in Kansas = \$0.55M.**

# Southern Star Pipeline System

	<u>Bcf</u>
2010 Total Transportation Receipts	343.8
2010 Kansas Production Transported	105.2
Kansas Percentage	31%
2010 Total Transportation Deliveries	338.2
2010 Deliveries in Kansas	145.8
Kansas Percentage	43%

# Southern Star Gas Storage Fields



- Strategically Located to meet winter Peak Demand
- 8 Storage Fields (7 in KS)
- 46.7 Bcf Storage Capacity (34.2 Bcf in KS)
- 1.258 Bcf/d Deliverability (1.055 Bcf/d in KS)

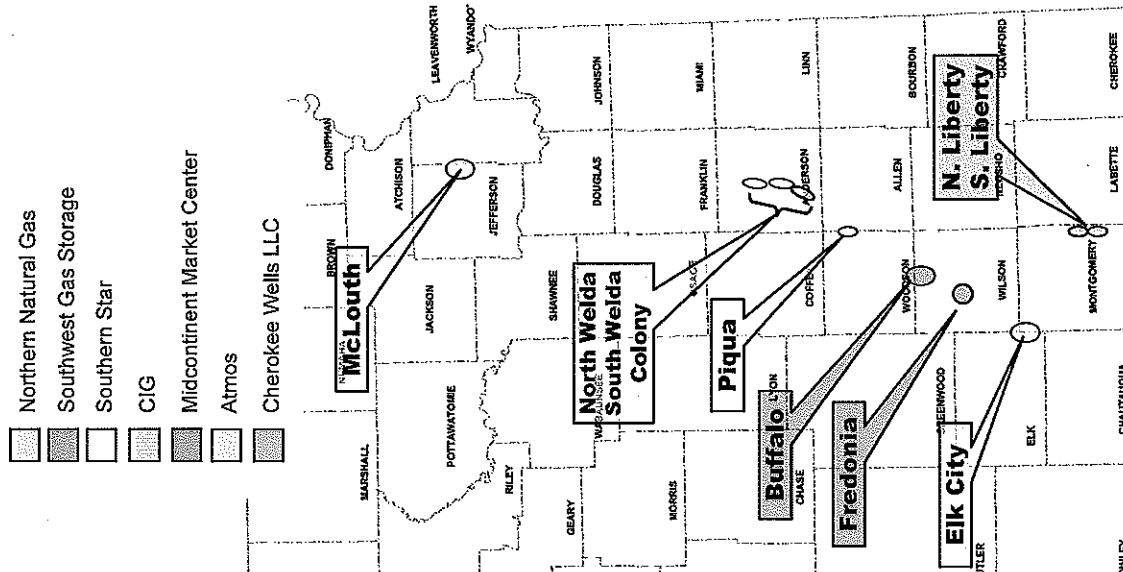


# RESERVOIR STORAGE FIELDS IN THE STATE OF KANSAS

Approximate Locations

Fields Sorted by Working Gas Capacity

YEAR	STATE	Company Name	Field Name	Reservoir Name	County Name	Working Gas (Mcf)	Field Capacity (Mcf)	Max Deliverability (Mcf)
2009	KS	Northern Natural Gas Company	Cunningham	Viola Simpson	Montgomery	40916000	62000000	720000
2009	KS	Southwest Gas Storage Company	Borchers	North Morrow	Wheate	28372187	62453413	350000
2009	KS	Northern Natural Gas Company	Lyons	Arbuckle	Rice	8000000	24000000	130000
2009	KS	Southern Star Central Gas Pipeline	Elk City	Elk/Chautaugus/A	Anderson	7800000	30700000	229000
2009	KS	Southern Star Central Gas Pipeline	South Weida	Colony	Anderson	6700000	18300000	156000
2009	KS	Colorado Interstate Gas Company	Boehm	Morrow/g/And Keyes	Morton	5229000	12729000	124321
2009	KS	Southern Star Central Gas Pipeline	North Weida	Colony	Anderson	4600000	12700000	149000
2009	KS	Southern Star Central Gas Pipeline	North Weida	Colony	Anderson	4400000	13300000	107000
2009	KS	Southern Star Central Gas Pipeline	Alden	Misener	Rice	4200000	14700000	134000
2009	KS	Atmos Energy Corporation	Liberty/North	Squirrel	Montgomery	2850000	4850000	25000
2009	KS	Southern Star Central Gas Pipeline	McMouth	McMouth	Jefferson/Leaven	2200000	14100000	224000
2009	KS	Mid Continent Market Center	Brehm	Simpson	Pratt	1969000	3884670	35000
2009	KS	Mid Continent Market Center	Konold	Langdon Sand	Pratt	690000	995000	10000
2009	KS	Atmos Energy Corporation	Liberty South	Colony	Montgomery	367000	667000	500
2009	KS	Southern Star Central Gas Pipeline	Piqua	Colony	Woodson/Allen	300000	3200000	16000
2009	KS	Cherokee Wells Lc	Buffalo	Buffalo	Wilson	180000	360000	3000
2009	KS	Cherokee Wells Lc	Fredonia	Fredonia	Wilson	160000	360000	3000



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## Our History

[Core Values & Beliefs](#)
[Board of Directors](#)
[Executive Officers](#)

## Our History

Williams traces its roots to 1908 with two brothers' construction projects in Fort Smith, Ark. Within a few years Miller and David Williams were building cross-country natural gas and petroleum pipelines. By the time the brothers relocated to Tulsa in 1919, they had a reputation for doing a job on time and on budget.

For more than 60 years, the company did business as Williams Brothers. We adopted The Williams Companies, Inc. name in the 1970s, reflecting our diverse businesses. That remains our legal name today, even though we began going by the simplified name "Williams" in 1997.

In 1966, Williams paid \$287 million for the country's largest petroleum products pipeline (known as Great Lakes Pipe Line Company). The new company laid the cornerstone for the modern-era Williams.

The company began assembling its nationwide system of interstate natural gas pipelines in 1982 with the purchase of Northwest Energy Company.

Williams purchased Transco Energy Company in 1995, expanding our natural gas transportation system to the East Coast. This acquisition established Williams as one of the largest-volume transporters of natural gas in the United States.

Williams' ingenuity provided the foundation for modern-day telecom networks when it ran fiber-optic cable through decommissioned pipelines. In fact, the company built two coast-to-coast telecom networks. The first one became the fourth-largest U.S. long distance network and was sold to LDDS in 1995. The second, a 33,000-mile network, was spun off as a separate company in 2001.

In 2001, the acquisition of Barrett Resources added significant natural gas reserves and increased Williams' exploration and production profile.

More recent additions to our energy profile include expanding our presence in the Marcellus Shale basin in the northeast. Williams has had a pipeline presence in the area for more than 50 years, making the area a perfect example of both our deeply-rooted history and opportunity-rich future.

On Dec. 1, 2011, Williams' board of directors approved the spinoff of Williams' exploration and production business, WPX Energy, Inc.

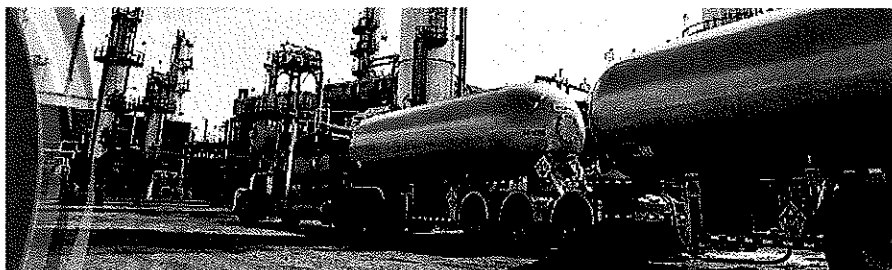

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**Natural Gas Liquids**

- [Mid-Continent Fractionation & Storage](#)
- [Overland Pass Pipeline](#)
- [Natural Gas Transportation](#)
- [Gathering and Processing](#)

**Natural Gas Liquids**

**Overland Pass Pipeline**

Overland Pass Pipeline includes a 760-mile natural gas liquids (NGL) pipeline from Opal, Wyo., to the Mid-Continent NGL market center in Conway, Kan., along with 150- and 125-mile extensions into the Piceance and Denver-Julesberg Basins in Colorado, respectively. Overland Pass Pipeline Company is a joint venture between Williams Partners and ONEOK Partners.

**Mid-continent Fractionation & Storage (Conway, Kan.)**

Today, more than 21 million barrels of storage for ethane, propane, butane, natural gasoline and naphtha can be found at Williams' Conway facilities known as Mid-continent Fractionation & Storage. This underground storage meets the needs of customers by providing rail, truck and high-volume product movements from three distinct facilities – Conway Underground East, Conway West and Mitchell.

Along with a 100,000-plus barrel per day fractionator, these caverns make Conway a vital hub for a major portion of hydrocarbons moving through the Midwest.

**Fractionation Services**

Williams operates a 107,000-barrel-per-day fractionator near McPherson, Kan. This fractionator receives mixed natural gas liquids from the gathering areas in west Texas, western Oklahoma, Colorado and Kansas. The purity products are then transported to the Midwest and the Texas Gulf Coast.

Williams operates a 42,000-barrel-per-day fractionator located near Paradis, La., that receives mixed NGLs from the Discovery pipeline, which services deepwater exploration and production in the central Gulf Coast. Williams also owns a 30 percent interest in the 60,000-barrel-per-day fractionator located near Baton Rouge, La.

Williams owns the only olefinic fractionator in Western Canada located in Redwater, Alberta, near Edmonton. The facility fractionates a natural gas liquids and olefins mixture transported by our Boreal Pipeline from our liquids extraction plant in Fort McMurray. On a yearly basis, the facility produces approximately 2 million barrels of propane, 150 million pounds of polymer grade propylene, 727,000 barrels of normal butane, 672,000 barrels of alky-feed and 250,000 barrels of olefinic condensate.

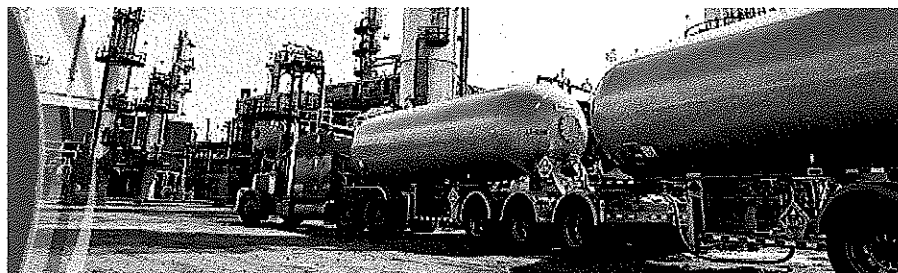


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## Natural Gas Liquids

### Mid-Continent Fractionation & Storage

Overland Pass Pipeline

Natural Gas Transportation

Gathering and Processing

## Mid-Continent Fractionation & Storage

### Conway East:

- Rail dock is capable of spotting 30 rail cars at once. The automated truck dock simultaneously can service four trucks – two loading and two unloading.
- Connects to eight pipelines

### Mitchell:

- 22 active caverns with flow rates of ethane propane mix at 5,000 barrels and propane at 3,000 barrels per hour
- Connected to Conway West with a 10-inch propane line, a 16-inch ethane/propane line and a 12-inch brine line

### Conway West:

- 54 active caverns, some with 20-inch casing, were designed to handle the high flow rates needed to service the Conway hub

### Conway Fractionator:

- Sits adjacent to Conway West and is jointly owned by Williams Partners, L.P., ConocoPhillips and ONEOK
- Operated by Williams
- Receives liquid demethanized mix from Oklahoma, Colorado, Texas, New Mexico and Wyoming
- Process separates the demethanized mix into its five components by thermal distillation: ethane/propane mix, propane, iso butane, normal butane and natural gasoline
- These purity products are either stored in an underground cavern or moved to one of the pipelines located in the area and transported to a petrochemical facility

### Store Product

Williams is one of the leading NGL storage providers in the United States. Customers use our storage to stage product. For more information on our storage policies, pricing and locations, view our most recent Storage Program Letter.

- [Storage Program Letter \(294KB\)](#)

### Product Specification Fact Sheets

Williams maintains NGL product quality standards to help ensure safety, integrity and operational efficiencies. See our detailed specification fact sheets below. The date in the lower right corner of each fact sheet indicates when the fact sheet was last updated.

- [Demethanized Mix \(129 KB\)](#)
- [Demethanized Mix Truck & Rail Unloading \(117 KB\)](#)
- [Ethane-Propane Mix \(63 KB\)](#)
- [iso-butane \(55 KB\)](#)

- Natural Gasoline (57 KB)
- Normal Butane, 95% (72 KB)
- Propane (63 KB)

**Load and Unload Product**

Williams provides the ability to efficiently load and unload certain products.

**Driver Loading Program**

Terminals on the Conway system are designed and equipped so drivers can load and unload motor carrier transports. Drivers must be trained at each terminal.

- Terminal Contact Information (163 KB)
- Conway Underground East Unloading Instructions (22 KB)
- Conway Underground East Loading Instructions (21 KB)
- Conway Underground East Driver Instructions for LPG Truck Loading Terminals (100 KB)
- Conway Underground East Driver Instructions for Natural Gasoline Truck Loading Terminals (99 KB)
- Conway Underground East Driver Instructions for Odorized Propane Truck Loading Terminals (127 KB)
- Conway Underground East Driver Instructions for Truck Unloading Terminals (100 KB)
- Conway Underground East Driver Safety Training Acknowledgement (28 KB)
- Odorization & Safety Information (152 KB)



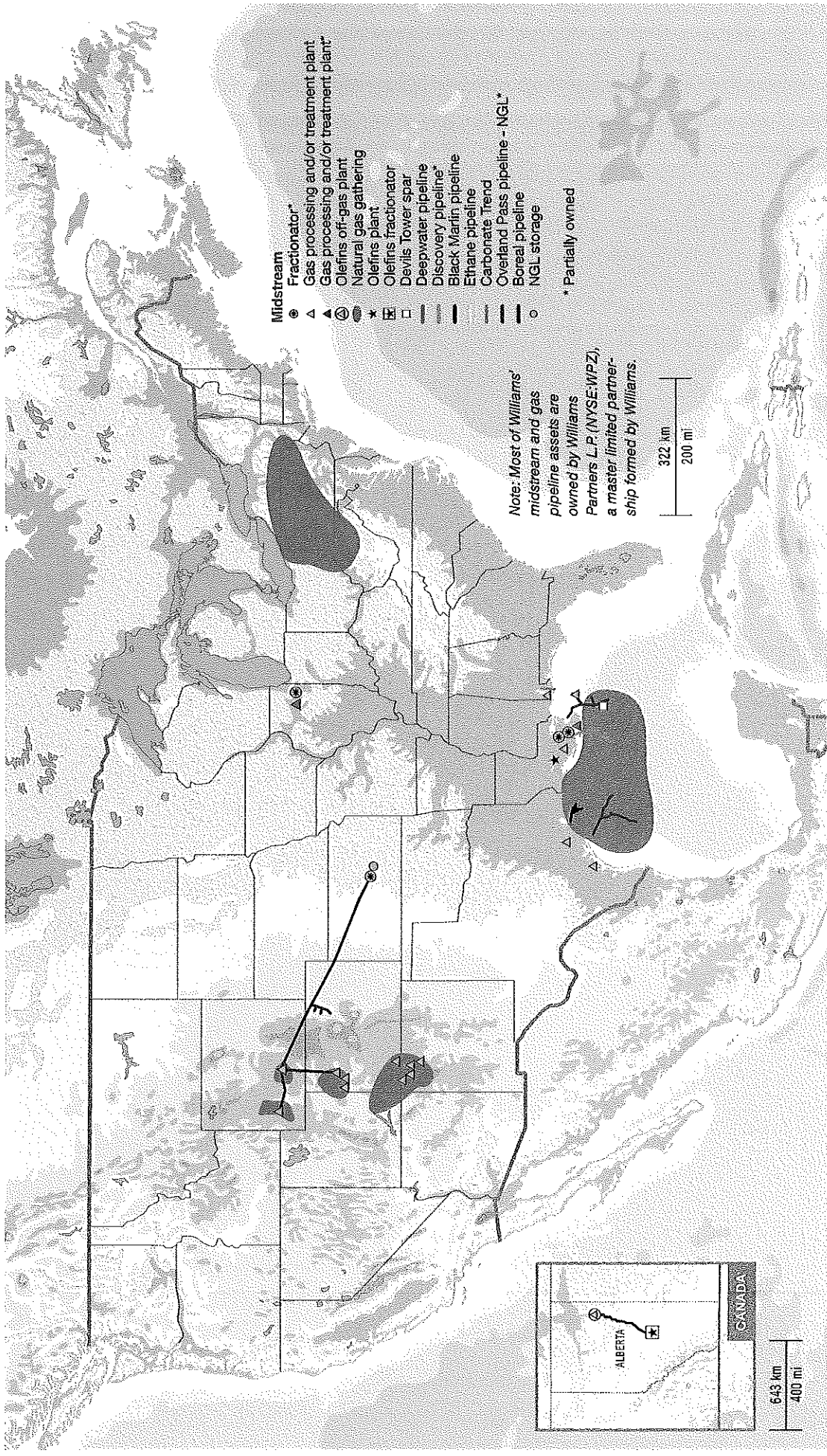
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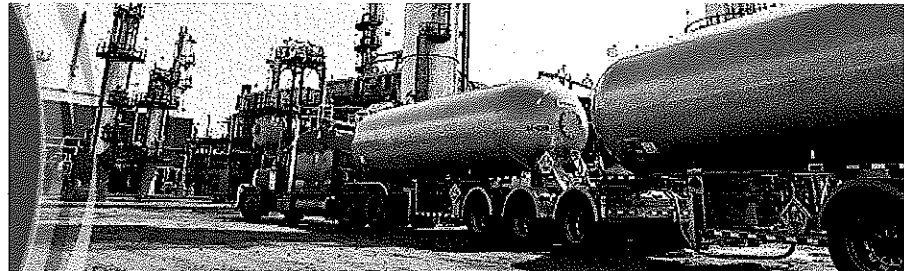
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# Williams Midstream Assets



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Natural Gas Liquids

Mid-Continent Fractionation & Storage

**Overland Pass Pipeline**

Tariff

Announcements

Contact

Counties of Operation

Natural Gas Liquids Information

Product Specifications

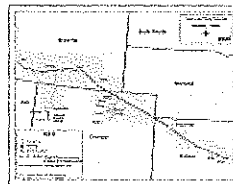
Safety

System Map

Natural Gas Transportation

Gathering and Processing

### Overland Pass Pipeline



[View map of Overland Pass Pipeline](#)

#### Overview

Overland Pass Pipeline Company is a joint venture that ONEOK Partners and Williams established in May 2006. The Overland Pass Pipeline includes a 760-mile natural gas liquids (NGL) pipeline from Opal, Wyo., to the Mid-Continent NGL market center in Conway, Kan., along with 150- and 125-mile extensions into the Piceance and Denver-Julesberg Basins in Colorado, respectively.

The Overland Pass Pipeline is designed to transport approximately 140,000 barrels per day of natural gas liquids with the ability to expand capacity to 255,000 barrels per day with additional pump facilities.

#### Ownership

Williams Partners L.P. (NYSE: WPZ) owns 50 percent of Overland Pass Pipeline Company, LLC and ONEOK Partners, L.P. (NYSE: OKS) owns the other 50 percent interest. As of April 1, 2011, Williams is the operator of record.

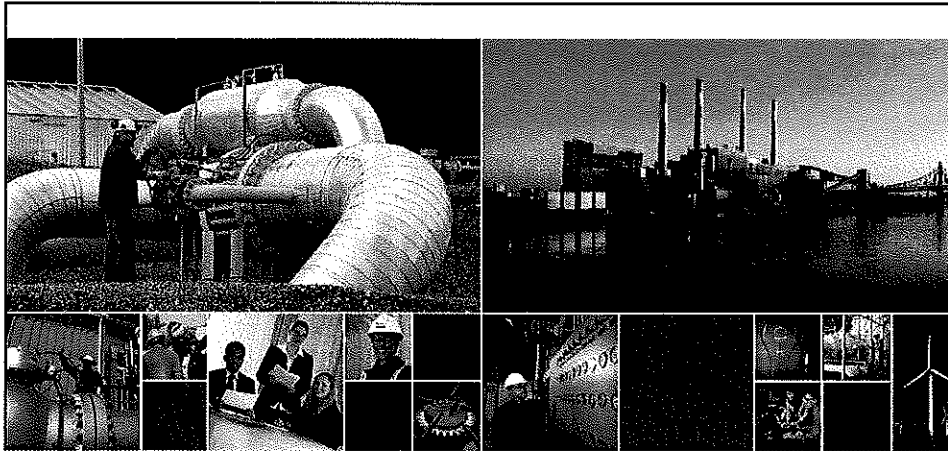


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## Keystone Pipeline System

**Name: Ron Gaches**

**Date: Friday, January 18, 2013**



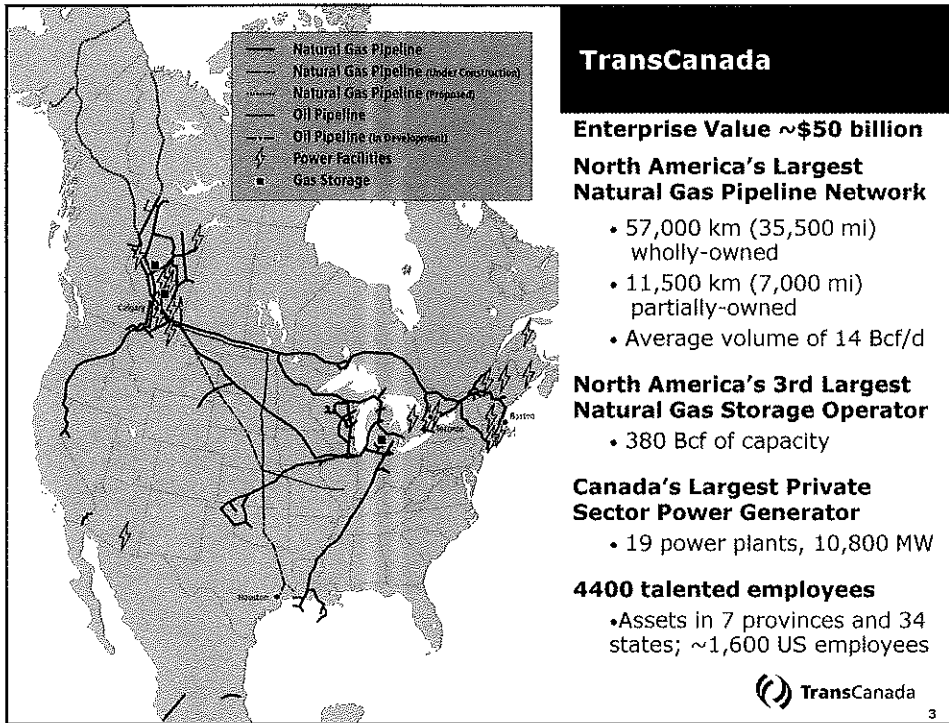
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## TransCanada

**Enterprise Value ~\$50 billion**

### North America's Largest Natural Gas Pipeline Network

- 57,000 km (35,500 mi) wholly-owned
- 11,500 km (7,000 mi) partially-owned
- Average volume of 14 Bcf/d

### North America's 3rd Largest Natural Gas Storage Operator

- 380 Bcf of capacity

### Canada's Largest Private Sector Power Generator

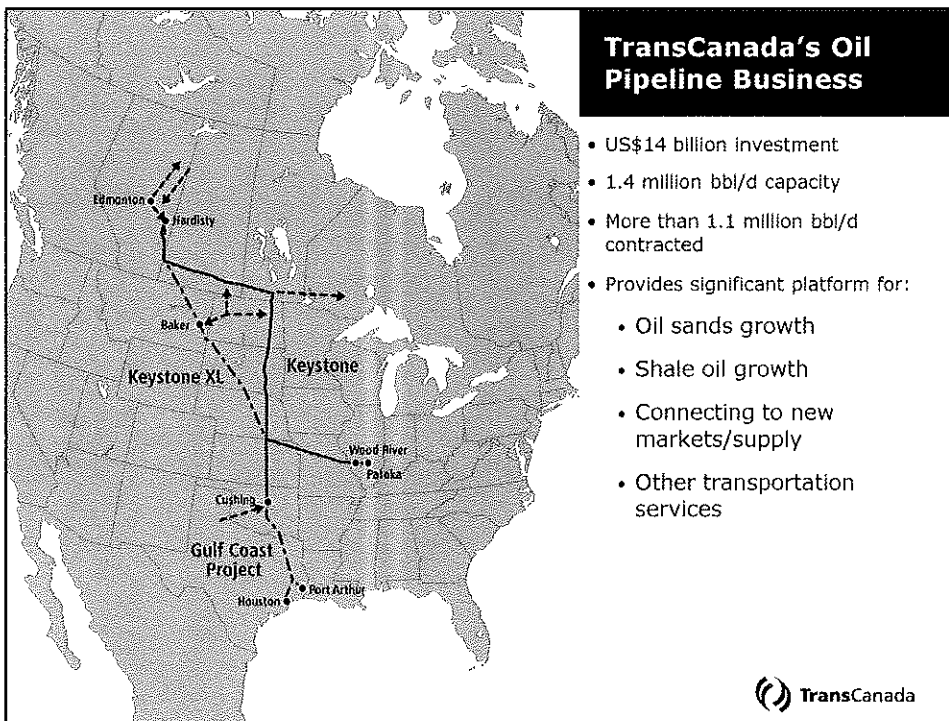
- 19 power plants, 10,800 MW

### 4400 talented employees

- Assets in 7 provinces and 34 states; ~1,600 US employees



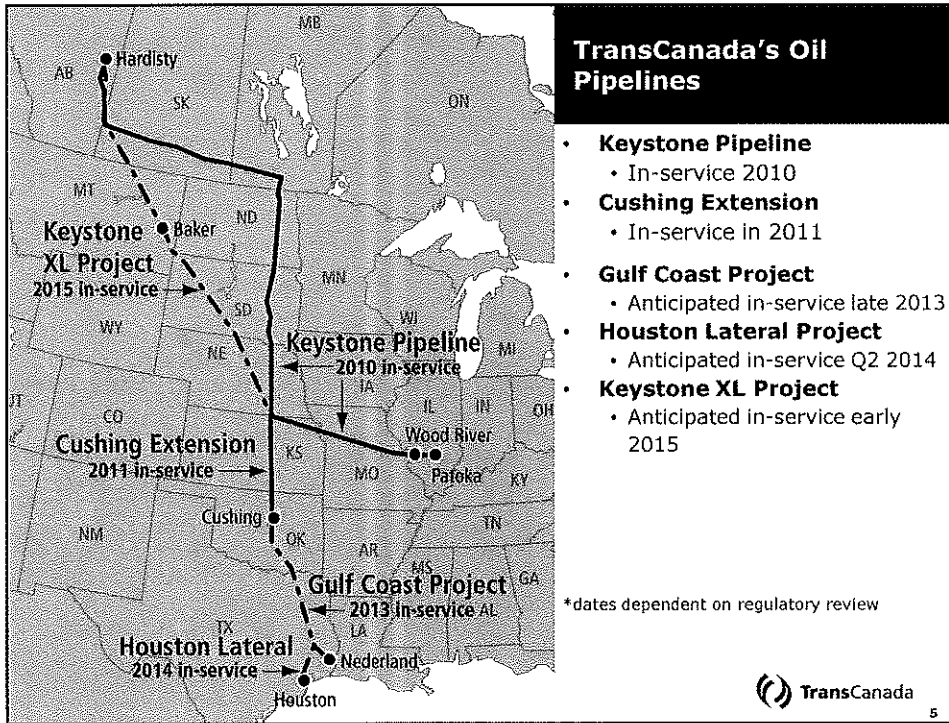
3



## TransCanada's Oil Pipeline Business

- US\$14 billion investment
- 1.4 million bbl/d capacity
- More than 1.1 million bbl/d contracted
- Provides significant platform for:
  - Oil sands growth
  - Shale oil growth
  - Connecting to new markets/supply
  - Other transportation services





### Keystone XL Regulatory History....

- **Sep 2008:** Applied for Presidential Permit
- **Nov 2008:** Environmental Report issued
- **Apr 2010:** Draft EIS issued
- **Apr 2011:** Supplemental EIS issued
- **Aug 2011:** Final EIS issued
  - Each concluded pipeline would have limited environmental impact
- **Sep/Oct 2011:** DOS held nine Public Comment Meetings on National Interest
- **Nov 1:** Governor of Nebraska calls a Special Session of the legislature

TransCanada 6

## Keystone XL Regulatory History....

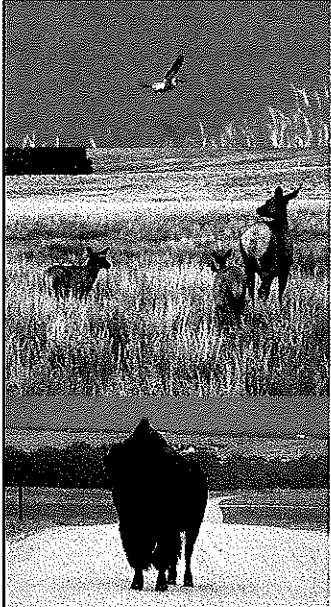


- **Nov 10:** DOS announces delay until Q1 2013 on a decision regarding the Presidential Permit.....
- **Nov 14:** TransCanada announces support of legislation in Nebraska to reroute the proposed pipeline
- **Dec 23:** Congress approves and President Obama signs a 60-day extension of the payroll tax credit that includes an amendment regarding Keystone
- **Dec 29:** NDEQ identifies Sandhills Regions



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## Keystone XL Regulatory History....

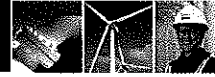


- **Jan 18, 2012:** DOS announced the Presidential Permit for Keystone XL was denied due to the insufficient time provided to fully assess the pipeline's impact
- **Jan 18:** TransCanada announces intentions to re-apply for the Presidential Permit for Keystone XL following DOS announcement
- **Jan 19:** NDEQ suspends its review due to DOS announcement; LB1161 amendment was introduced to enable NDEQ to continue its review
- **Feb 27:** TransCanada announces plan to reapply for a Presidential Permit for Keystone XL and the Gulf Coast Project will be built as a stand alone project



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## Keystone XL Regulatory History....



- **Apr 18:** LB1161 took effect; NDEQ able to re-commence review process
- **Apr 19:** Keystone submits proposed re-route corridors in Nebraska (Routing Report)
- **May 4:** TransCanada submits Presidential Permit application to DOS; that application to be supplemented with an alternative route in Nebraska as soon as that route is selected
- **May 9-17:** NDEQ holds Public Meetings to review proposed re-route corridor
- **May 24:** MOU between NDEQ / DOS
- **Jul 16:** NDEQ Feedback Report
- **Sep 5:** Keystone files Supplemental Environmental Report (SER)



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## Keystone XL Regulatory History....

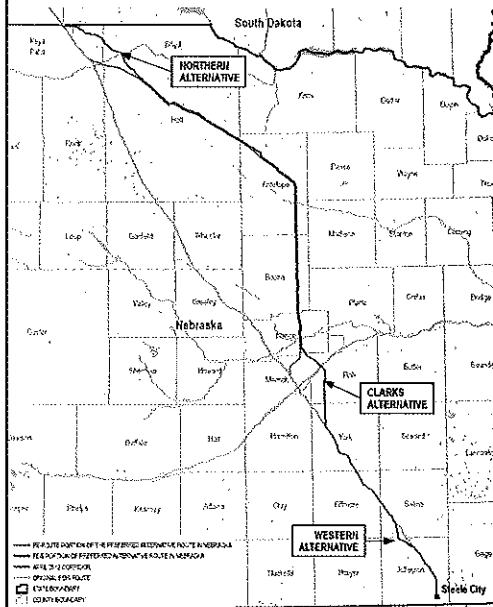


- **Oct 30** NDEQ releases report on new KXL route and says it addresses concerns
- **Dec 4** NDEQ will hold public comment meeting
- **Dec/Jan** Final NDEQ report to Governor supports the new KXL route. A decision by Nebraska Governor is expected soon
- Federal decision on the Presidential Permit expected middle of this year



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## Keystone XL Alternatives



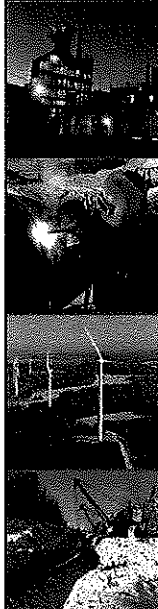
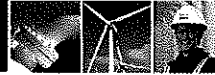
**Based on feedback report, other feedback, we developed our Preferred Alternative Route for inclusion in our SER:**

- Avoids Nebraska Sandhills
- Utilizes as much of the FEIS route as possible
- 3 Major route adjustments:
  - Northern Alternative
  - Clarks Alternative
  - Western Alternative



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## Keystone XL is vital for America...

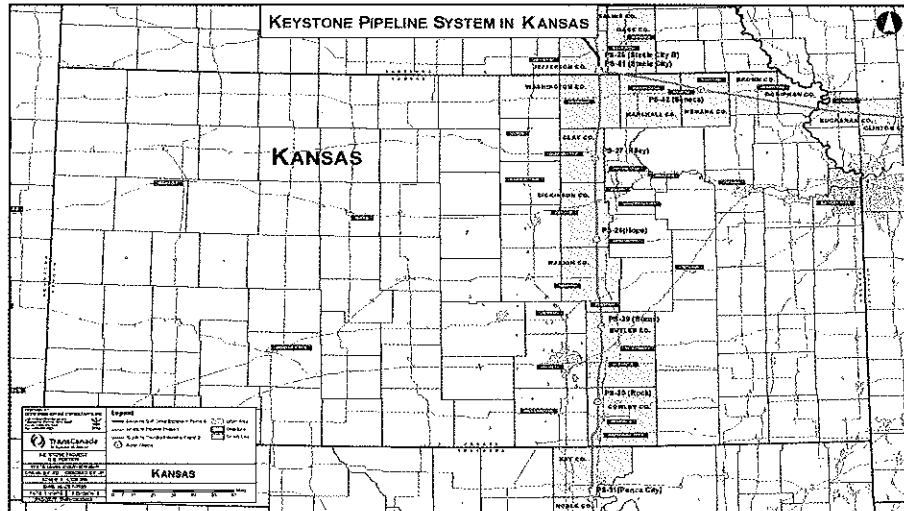


- It is a critical link between growing Canadian and U.S. crude oil supply and U.S. demand
- It will bring significant and lasting benefits to the U.S. in terms of jobs, economy and energy security
- The pipeline has received more regulatory review than any cross-border pipeline
- It will have the highest safety standards
- The pipeline will be built by American workers who will build and operate Keystone XL safely and efficiently



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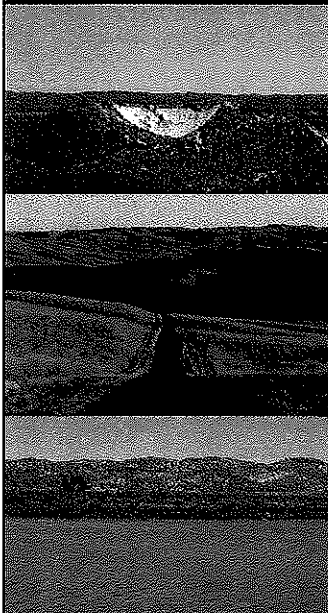
## Keystone Pipeline System in Kansas



TransCanada

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## Gulf Coast Project & Houston Lateral



### Gulf Coast Project

- Began Construction early August 2012
- US\$2.3 billion Project
- 36-inch pipeline
- Extends from Cushing, OK to the U.S. Gulf Coast
- Expected to have an initial capacity of up to 700,000 barrels per day (bbl/d) with an ultimate capacity of 830,000 bbl/d

### Houston Lateral

- Included in the US\$2.3 billion cost is US\$300 million for the Houston Lateral
- 76 kilometre (km) (47-mile) Houston Lateral pipeline that will transport crude oil to Houston refineries
- As of June 30, 2012, approximately US\$900 million has been invested in the project.

TransCanada

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## Gulf Coast Project is vital for America...



- The Gulf Coast Project will transport growing supplies of U.S. crude oil to meet refinery demand in Texas
- The Gulf Coast Project would reduce the United States' dependence on foreign crude and allow Americans to use more of the crude oil produced in their own country
- The Gulf Coast Project would be a positive step in creating approximately 4,000 construction jobs



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## Summary and Conclusions



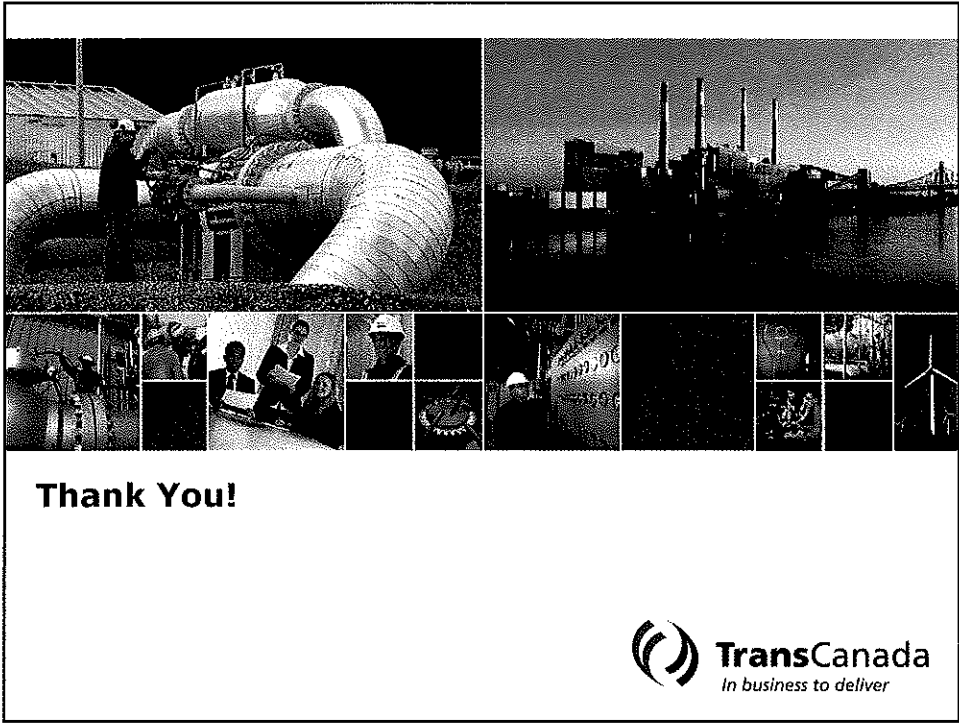
**Pipelines are the safest, most economical and efficient means of connecting growing Alberta oil supplies to North American markets**

**Regulatory approval process must be efficient, transparent and accountable to serve the public interest**

**Strong political and energy industry leadership is needed to address the issues, engage stakeholders, and enhance credibility**



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**Thank You!**

