

# Construction Update

## Southern Lights Pipeline Project

### Will, Grundy and LaSalle Counties, IL

October 23, 2009



## Hydrostatic Testing to Begin Soon



These photos feature portions of the hydrostatic testing process completed last year on Enbridge's Southern Access crude oil pipeline expansion program. The center photographs show the cleaning tool, called a "pig," that is run internally through the pipeline prior to testing it with water under pressure. This same process will begin soon on the Southern Lights route between Manhattan and Ransom, IL (near Streator).

As construction is completed on the Southern Lights Pipeline Project between Manhattan and Ransom, IL (near Streator), hydrostatic pressure testing will begin. The pipeline will be tested in two sections: east of the Kankakee River, and west of the Kankakee River. The river will be the source of water for both tests. To perform the hydrostatic pressure tests, pumps from the Kankakee River will fill these two pipeline segments with water. At the other ends (the Manhattan Terminal and at the pipe's interconnect with the northbound pipe near Ransom), large air compressors will be used during various steps of the testing process. While some preparatory procedures (discussed later in this article) are required, landowners and others near the pipeline will be notified before the actual pressure test and provided with additional information. This testing will follow government agency regulations.

Hydrostatic testing typically involves the following:

1. Air is used to propel a urethane cylinder, called a "pig," through the pipe to remove any dirt or other material that may have accumulated during construction. This cleaning process creates compressor noise at the beginning of the pipe section being tested, and a "whooshing" sound as the air is discharged at the other end of the pipe.
2. Water is pumped into the pipe segment being tested. To ensure all air is removed, a pig is pushed through the pipeline by water. The water is pressurized to

a level that the pipe is designed to withstand but above the maximum allowable pressure the pipeline will have during ongoing pipeline operations. This pressure test enables the detection and repair of any defects in the pipeline while under controlled test conditions and helps provide a substantial margin of safety once pipeline operations begin.

3. After the test, water is discharged from the pipeline at a pre-authorized location (in this case, the Kankakee River) following environmental permits.
4. Subsequent pigs are run to dry the inside of the pipe.
5. After the hydrostatic test, Enbridge inspects the pipeline with an internal inspection tool, called a "caliper," to detect irregularities in the pipe that may not have been found during construction. This tool has feeler gauges that measure the inside dimensions of the pipeline and record the location of any such irregularities. Depending on what is discovered, crews may need to excavate the pipe at the location of the suspected defect for further inspection and/or maintenance.

The entire testing process for each pipe section may take one to two weeks. The actual pressure test, however, typically can be completed in a 24-hour period. During the test, the pipe needs to be held under pressure for a sufficient length of time to properly test

(continued)

## Construction Progress

Southern Lights pipeline construction between Manhattan and Ransom, IL is scheduled for completion in 2009. This includes required hydrostatic pressure testing to ensure pipeline integrity. As the hydrostatic test approaches, landowners and others near the pipeline right-of-way will be advised and provided with additional information prior to testing in their area.

Pipeline installation is currently running ahead of schedule and will likely be completed in November. Enbridge is committed to restoring all of the right-of-way to the satisfaction of landowner agreements and environmental permitting requirements. Restoration is already well underway in areas where pipeline construction has been completed and will continue as weather conditions permit.



Land restoration following pipeline installation. Restoration activities will continue as weather conditions permit.

## Hydrostatic Testing to Begin Soon

**(continued)**

its integrity. For this reason and other circumstances, the pressure test may extend into or through the night. During the test, crews may be seen along the right-of-way with gauges and other equipment. No farm machinery should be used on or near the right-of-way during the pressure test. This will help prevent testing disruptions and protect landowner and tenant farmers in the vicinity of the pipeline in the unlikely event a leak occurs.

### Dear Landowners and Public Officials:

Construction of the Southern Lights Pipeline Project in Will, Grundy and eastern LaSalle counties is nearing completion. As a result, we will soon begin hydrostatic pressure testing the pipeline. Based on regulatory requirements, we cannot put petroleum into the pipeline and begin operations until we successfully complete this testing. This is one of many methods Enbridge employs to test the integrity of our pipeline system and its components before, during and after pipeline construction.

Landowners and others near the pipeline right-of-way will receive notice and additional information prior to the pressure test. During the test, water in the pipeline is placed under high pressure. If a leak occurs, you may see a release of water on the right-of-way, which could throw vegetation and soil. If this happens, please report it to the emergency number below.

The probability of a pipe failure is low. However, it is important to avoid the right-of-way and areas immediately adjacent to the right-

Hydrostatic testing is an important part of Enbridge's pipeline integrity program. Enbridge is committed to maintaining high standards of pipeline integrity as part of our comprehensive safety and environmental programs. These programs are designed to protect the landowners, tenants and communities near our pipeline route.

of-way during the timeframe in which the pressure testing is likely to occur.

We apologize that this process may cause residents some disruption due to the noise from our equipment and vehicles needed to conduct these tests, as well as some work that may take place on the right-of-way during evening hours. Landowners with questions are encouraged to contact their right-of-way agent or call our Sycamore right-of-way office at 888-527-2015. This number will also serve as the emergency number during the two pressure tests.

Thank you for your continued cooperation.

**Douglas B. Aller**

Manager

Lands and Right-of-Way (U.S.)

**The emergency number during the pressure tests will be: 888-527-2015.**