



UPPER UWCHLAN TOWNSHIP

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ADMINISTRATION

Date: June 20, 2017

FOR IMMEDIATE RELEASE

INADVERTENT RETURN OF DRILLING MUD IN UPPER UWCHLAN TOWNSHIP

CHESTER SPRINGS, PA – Sunoco Pipeline has reported an inadvertent return (IR) at one of the construction sites of the Mariner East 2 pipeline in Upper Uwchlan Township. The return occurred on Township property southeast of Hickory Park.

The following is a statement from Sunoco:

"On Saturday June 17, 2017, Sunoco Pipeline identified an inadvertent return of drilling mud on Upper Uwchlan Township property, in an unnamed tributary of Marsh Creek southeast of Hickory Park. An estimated five gallons of mud entered the water and crews immediately set up containment at the site, including sandbags, in accordance with our permits from the Pennsylvania Department of Environmental Protection.

Sandbag containment for the drilling mud, composed of non-toxic bentonite clay and water, will remain in place at the inadvertent return locations and will be monitored throughout the duration of the construction. These sandbags help prevent sediment (in this case bentonite clay) from impacting waterways, while a pump is utilized to vacuum and recycle the drilling mud.

Proper notifications have been made to Pennsylvania DEP, Chester County Conservation District, Pennsylvania Fish and Boat Commission, and the U.S. Army Corps of Engineers, along with Upper Uwchlan Township. Sunoco Pipeline will continue to work in conjunction with these regulatory agencies and the township to monitor and minimize any impacts to the area.

The Mariner East 2 pipeline project utilizes Horizontal Directional Drilling as a construction method to minimize surface disturbance and reduce environmental impact during construction. Inadvertent returns occur when drilling mud, used to lubricate the drill underground, follows a fracture in the rock under the area and finds its way to the surface. The bentonite is approved for use by the DEP under safe drinking water

standards and is mixed with potable water to form the mud that helps facilitate the drilling process Please see the HDD fact sheet for more information.

Sunoco Pipeline continues to operate a 24-hour informational hotline at 855-430-4491. For more information on the Mariner East 2 construction project, visit www.marinerpipelinefacts.com."

Township personnel visited the site of the IR on Monday, June 19, and will continue to monitor this situation until construction and cleanup are completed at the site.

For more information about IRs, bentonite, and the HDD construction process, refer to the attached fact sheet provided by Sunoco. Residents and interested members of the public can sign up to receive information about pipeline work using Township website's Notify Me feature. All updates related to the Sunoco Mariner East 2 project will be archived at upperuwchlan-pa.gov/pipelines.

Upper Uwchlan Township is a Township of the Second class, population 11,500, located in central Chester County, PA. Visit us on the web at www.upperuwchlan-pa.gov. Like us on Facebook and Twitter @upperuwchlan.

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Horizontal Directional Drilling

What is Horizontal Directional Drilling?

Horizontal directional drilling (HDD) is a steerable, trenchless method of installing underground pipe in an arc along a prescribed bore path. This construction method is used to install pipelines underneath waterways, wetlands, culturally sensitive areas, congested neighborhoods and roads. The use of this method greatly minimizes surface disturbance and reduces environmental impact during construction.

Installation of a pipeline by HDD is generally accomplished in three stages. The first consists of directionally drilling a small-diameter pilot hole along a designed directional path. The second involves enlarging this pilot hole to a diameter suitable for installation of the pipeline. While the pilot hole is being drilled and enlarged to the appropriate diameter, skilled and trained pipeliners string, or lay out, the pipe to weld the pipe sections together. Once the hole is drilled to the appropriate size, the welded pipeline is installed by connecting to a swivel and pulling the pipe back through the enlarged hole.

Environmental Benefits of HDD

For Mariner East 2, the use of approximately 800 drills/bores well below the surface (20-180 feet) will reduce the total wetland area impacted by construction from 118 acres to 36. Less than half an acre of wetlands, the approximate size of an NHL hockey rink, will be permanently converted from its original state. This total is divided among 19 wetlands

over 12 counties. In addition, HDD allows the pipeline to bypass culturally sensitive areas and avoid traffic disruption, and it further protects the pipeline from third-party damage.

Inadvertent Returns

Horizontal directional drilling (HDD) is a safe, commonly used technology; however, there are challenges associated with this construction method because of varying geology along the project footprint.

When using HDD, there is the possibility of having what is commonly referred to as an inadvertent return. An inadvertent return occurs when drilling mud seeps to the surface due to geology and soil qualities that create pathways along the bore path for the mud to escape. In other words, there may be an existing crack in the bedrock where the water-bentonite mix can escape.

How Do We Respond to an Inadvertent Return?

In accordance with Pennsylvania Department of Environmental Protection (DEP) regulations, Sunoco Logistics is required to have response plans in place at all designated HDD locations to contain the drilling mud that flows to the surface in the event of an inadvertent return. Under this comprehensive plan, we will contain, remove and recycle any drilling mud that escapes during HDD activities, in close coordination with the DEP.

Bentonite Clay

Bentonite is a naturally occurring, nontoxic clay. The directional drilling of pipelines involves using a nonhazardous drilling mud that consists of water and bentonite. Any additive used in the bentonite clay mix must comply with the **NSF/ANSI 60** standard for potable water.

Bentonite is common in a variety of household products that we use every day such as wine, sugar, honey, creams and lotions, baby powders and hand soaps. It can be used as a natural remedy for bee stings, an essential ingredient for food-grade face masks and a treatment for diaper rash.



For additional information follow @SXLupdates on Twitter

The Horizontal Directional Drilling

method to install pipelines involves three stages:

1. Pilot bore drilling

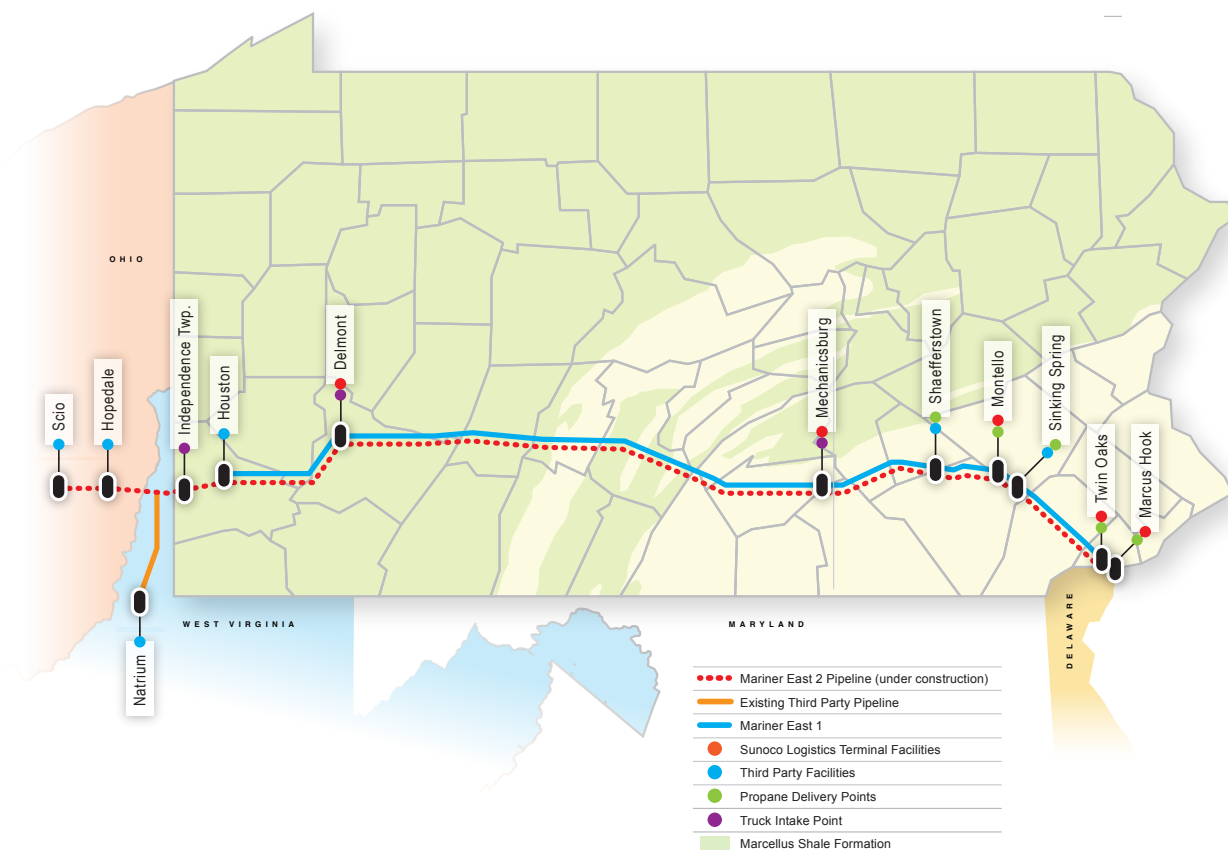
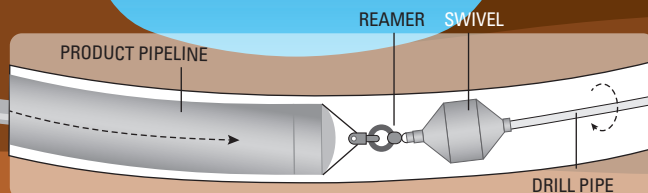
A computer-controlled drilling bit is steered along the planned route

2. Reaming

- A reamer replaces the drill bit, enlarging the bore hole diameter. During this stage, soil is removed hydraulically and mechanically. Water and bentonite or other additives are used during hydraulic excavation.

3. Pipeline installation

The prefabricated pipeline is pulled back from the exit point into the cleaned bore hole to the entry point, completing installation.



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