

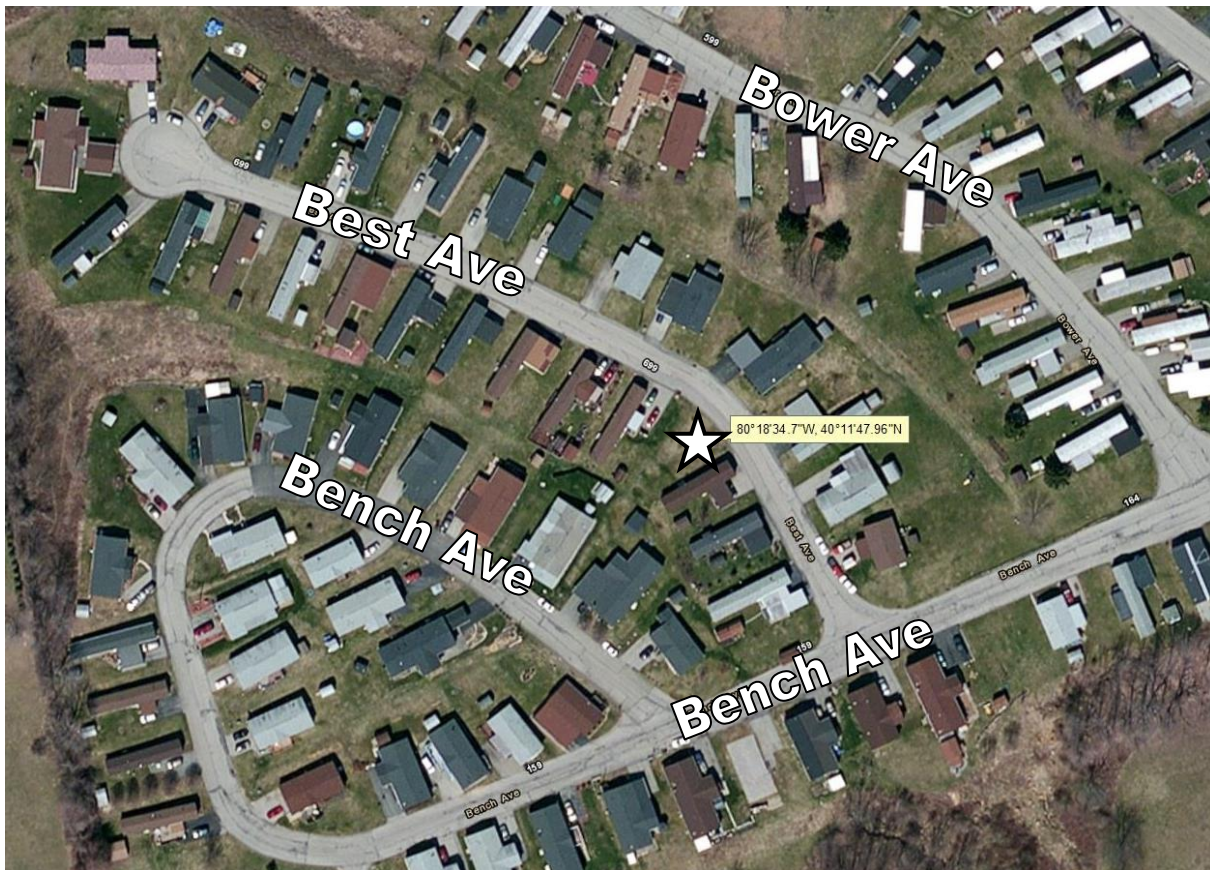
Emergency Well Plugging

John Barron #1-A
Canton Township, Washington County

Description: John Barron #1-A was drilled by Penn Energy Inc. in 1981 to a reported total depth of 5500 feet, likely targeting the Brallier Formation. In 1982, the well was stimulated with nitrogen. The well was likely not considered to be commercially viable and was abandoned.

Due to recent company activities in the area, Range Resources felt the need to locate the John Barron #1-A well and determine its status (active, abandoned or plugged). On October 6, 2016, Range determined the exact location of the well, which has been buried by soil for an unknown period of time. Gas checks performed by DEP found natural gas venting from the wellhead, as well as in the soil in a 40-50 foot radius around the well.

A plastic vent pipe was placed around the exposed top of the wellhead and the hole was backfilled to vent the gas above ground level for public safety. The vent pipe has reduced soil gas concentrations, however, the well needs to be plugged. Follow up visits to the site have found the gas levels in the soil have declined and the radius of stray gas in the soil has been reduced to about 20 feet.



Aerial view of the wellsite.

Purpose of Action: Well integrity is a primary concern with the John Barron #1-A well. The well is leaking gas from below the portion of wellhead that was exposed and vented. Shutting in a well, especially for a long period of time, may also cause gas volume and associated pressure to build up in the wellbore.

If allowed to vent, gas in the air surrounding the wellbore may accumulate in high enough concentrations to pose a threat to individuals, mowers, and others operating machinery as well as nearby traffic. Six homes are within 100 feet of the well; the closest is less than 30 feet away. The well is 15 feet from Best Avenue.

Process: Work on plugging this abandoned well is expected to begin in mid-February and will last approximately 14 days. Plugging activities will be conducted during daylight hours to minimize impact to the community. Traffic flow on Best Avenue will be limited due to the operations and DEP recommends that trips onto and off of Best Avenue be minimized during plugging activities.

1. The area surrounding the well will be cleared to provide room for a rig and support equipment and to allow safe venting/flaring of the well. (3-4 days)
2. Soil surrounding the wellhead must be removed and the wellhead evaluated for leaks. Because of the questionable integrity of the piping and valves, a hot-tap of the wellhead may be necessary to check gas pressure and blow down the well. Hot-tapping involves making a connection to existing piping without the interruption of emptying that section of the pipe, allowing for the installation of sensors and venting of gas in a safe manner. (4-5 days)
3. The well will be cemented to the surface. Soil will cover the plugged well. (3-6 days)
4. DEP will monitor concentrations of methane in the soil and air throughout the plugging process.

What happens next?

The DEP will host a public information session for local residents where DEP representatives and technical experts will be present to discuss activities and answer questions.

DEP Public Information Session

Thursday, February 2, 2017 from 5:00-8:00pm

Trinity North Elementary School Cafeteria, 225 Midland Drive, Washington, PA 15301

Community members will be notified when work is scheduled to begin and when all activities have been completed. Additional information regarding the status of the project will be distributed as necessary.

Who can I contact with questions or comments?

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