



Pennsylvania
Department of
Environmental Protection

April 21, 2026

Certified Mail: [REDACTED]

Electronic Mail: [REDACTED]

[REDACTED]

Re: Request for Investigation 302235
NFG Knox Compressor Station Methane Gas in Water Supply– Positive Determination
Knox Township, Jefferson County

Dear [REDACTED]

The Pennsylvania Department of Environmental Protection (“Department”) has investigated the natural gas in the water supply at the address listed in Exhibit A (“Water Supply”), in response to a complaint received on January 14, 2014. The Department’s investigation determined that the Water Supply is being affected by oil and gas activities, including but not limited to the drilling, alteration, or operation of an oil or gas well and/or an associated gathering line, pipeline, or transmission line. The case information is summarized below.

CASE INFORMATION:

Date of Complaint	Nature of Complaint (odor, taste, quantity, use, color)	Pollution
January 14, 2014	Gas found in water supply	Dissolved and free natural gas in water supply

INVESTIGATION SUMMARY:

On January 14, 2014, Seneca Resources Corporation (“Seneca”) reported to the Department that they were alerted by National Fuel Gas (“NFG”) that gas was venting from the Water Supply at the NFG Knox Compressor Station. NFG initially measured 90% free gas by volume in the headspace of the Water Supply. The Water Supply was vented and NFG employees reported that visible gas levels appeared to drop within 24 hours of venting the water well.

Results from gas samples collected from the Water Supply and a nearby gas well indicate that the stray gas found in the Water Supply shares similarities with the production gas from the gas well indicating that a gas well and/or an associated pipeline may be contributing to the stray gas in the Water Supply. Based on discussions with NFG Knox Compressor Station employees throughout the investigation, NFG is confident that the compressor station is not the source of the stray gas migrating into the Water Supply.

Oil and gas well completion reports and registrations indicate that gas well drilling in the area started in 1916 with the latest well drilled in 2009. Wells range in depth from 2,791 to 3,340 feet and production is primarily from the Upper Devonian sands. Seventeen gas wells are located within 2,500 feet of the Water Supply. Twelve of the wells were owned by Seneca at the start of the investigation but the majority of the wells were transferred to Diversified Energy Corporation ("Diversified") during the investigation. Three wells are owned by Allegheny Natural Resources Corporation ("Allegheny"), and one well is owned by Eagle Resources Corporation ("Eagle").

During the investigation, oil and gas wells within the area were inspected on multiple occasions. The initial inspections of oil and gas wells revealed a total of four abandoned gas wells. Three of the wells were plugged by Seneca during the first year of the investigation, which did not eliminate the gas from the Water Supply. One gas well remains abandoned, and the Department is working to bring this well into compliance.

In 2018, gas well inspections discovered combustible gas in the shallow soil surrounding the Fee Knox Station #1 38125 gas well, API 37-065-25959-00-00 ("Fee Knox #1") and in 2024 inspections discovered combustible gas in the shallow soil surrounding the Ida Allshouse 3492 gas well, API 37-065-20945-00-00 ("Allshouse 3492"). The Allshouse 3492 is the closest gas well to the Water Supply.

Diversified now owns and operates all active gas wells within 2,000 feet of the Water Supply, which includes the Fee Knox #1. The Fee Knox #1 was placed in violation and after several discussions with the Department, Diversified agreed to conduct a pressure build up test (PBUT) on the well and collect soil gas for isotopic analysis. Soil gas levels surrounding the well were initially up to 12% gas by volume; however, levels eventually dropped below one percent gas by volume. Separately, samples were collected by the Department and by Moody and Associates ("Moody") on behalf of Diversified and submitted to Isotech Laboratories Inc. for gas composition and isotopic analysis of methane, ethane, and propane. The Soil gas samples contained only a sufficient amount of methane for isotopic analysis. Isotopic results indicate that the soil gas was microbial and not related to the gas well. Moody conducted the PBUT on the Fee Knox #1 and communicated that the test indicated that the gas well was not experiencing a casing or cement failure.

Diversified also owns the Allshouse 3492, that was placed in violation for gas in the shallow soil surrounding the well and well abandonment in 2024. Diversified elected to plug the gas well. Plugging of the Allshouse 3492 commenced on September 24, 2024, and on October 2, 2024, during the plugging of the gas well, Department staff and independently NFG staff at the Knox compressor station, noted a significant drop in the gas venting from the Water Supply. During a

site visit on October 2, 2024, 18% lel combustible gas (0.9% gas by volume) was detected in the Water Supply vent and no bubbling, fumes, or gas odors were observed in or around the Water Supply. A Department inspection report indicates that the 4-inch production casing and 6 ¼ - inch surface casing pulled from the Allshouse 3492 during plugging activities had several holes at a reported depth of roughly 80 feet.

The plugging of the Allshouse 3492 was completed on October 10, 2024, and the gas detected in the Water Supply continued to be significantly reduced; however, the gas levels detected in the Water Supply have rebounded since the plugging but have not reached those experienced in the months prior to the plugging of the well. In addition, dissolved and free gas samples collected from the Water Supply after the plugging of the Allshouse 3492 indicate that the stray gas impacting the Water Supply may have been terminated or interrupted since the plugging of the gas well.

Based on water and gas sample results, observations of the Water Supply, site visits, gas well inspections, and review of geologic mapping and publications, the Department has determined that the Water Supply is being impacted by oil and gas activities. There are indications that the Allshouse 3492 may have contributed to the stray gas impacting the Water Supply. There continues to be low levels of dissolved gas (< 7 mg/l) and free gas detected in the Water Supply. It is recommended that the Water Supply remain vented, and that NFG staff be vigilant of any changes that occur with the Water Supply and report those changes to the Department. Continued monitoring of the water supply and additional water and gas sample analysis are warranted. The Department will continue to work toward permanently resolving the complaint.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board ("Board") pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at www.ehb.pa.gov or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

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TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions, please contact Aaron O'Hara by phone at 814.308.3118 or by email at aaohara@pa.gov.

Sincerely,

Scott M. Dudzic

Scott M. Dudzic
Northwest District Oil and Gas Manager
District Oil and Gas Operations

Enclosures:

Exhibit A

c: Joe Lichtinger (elec. w/encl.)
Dave Adams (elec. w/encl.)
Adam Hartle (elec. w/encl.)
Johnathan Frederick (elec. w/encl.)
Jennifer McDonough, OCC (elec. w/encl.)
Aaron O'Hara (elec. w/encl.)

Exhibit A

