



August 3, 2018

CERTIFIED MAIL NO. [REDACTED]

Re: Water Supply Request for Investigation ID: 335088
[REDACTED]

58 Pa. C.S. § 3218 Determination
Liberty Township, Tioga County

Dear [REDACTED]

The Department of Environmental Protection (Department) is investigating the possible degradation of your water supply well located at the above referenced address ("Water Supply"), in response to a complaint received on June 08, 2018, that recent gas well drilling activities may have affected your Water Supply well. The Department's investigation to this point, prompted by information you provided, indicates that oil and gas activities are presumed to be the cause of the pollution of your water supply.

Summary of Investigation

On June 08, 2018, it was reported to the Department that methane gas had been detected in the Water Supply. On June 25, 2018, the Department collected samples from your Water Supply. Samples were collected as shown in the enclosed table, and submitted to the Department's laboratory in Harrisburg for analysis. The analytical results are enclosed as well.

The June 25, 2018, sample results showed that arsenic, manganese, and total coliform bacteria exceeded the applicable water quality standards. Arsenic was detected at 0.0106 mg/l, which exceeded the Maximum Contaminant Level (MCL) of 0.01 mg/l. Manganese was detected at 0.238 mg/l, which exceeds the MCL of 0.05 mg/L. Total coliform bacteria was detected at 4/100 mL, which exceeded the MCL of the presence of total coliform bacteria. Dissolved methane was detected at 31.4 mg/L, which exceeded the DEP unofficial action level of 7 mg/L.

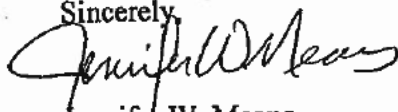
Additionally, the sample results collected by the Department on June 25, 2018 showed microbiological contaminants. Iron-related bacteria was detected at 9,000 CFU/mL, sulfate-reducing bacteria was detected at 325 CFU/mL, and slime-forming bacteria was detected at 440,000 CFU/mL. Enclosed are documents that may assist in understanding disinfection and associated information regarding private water wells.

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Because drilling activities occurred at a gas well within two thousand five hundred feet (2,500') of your Water Supply, and the pollution occurred and was reported within one year after completion of those activities, under Section 3218 of the Oil & Gas Act (58 Pa C.S. §3218), the gas well operator is presumed to be responsible for the degradation of your Water Supply.

It is the Department's understanding that you are currently being provided alternate water. The Department is continuing to investigate and work to permanently resolve this issue. Should you have any questions concerning this matter, please feel free to contact Caleb Woolever, Geologic Specialist, at 570.327.0546.

Sincerely,



Jennifer W. Means
Environmental Program Manager
Eastern District Oil and Gas Operations

Enclosures:

Fact Sheet – Interpreting Water Supply Results
Fact Sheet – Disinfection of Home Wells and Springs
Results Table

cc: Stephanie Wharton (email)
Matthew Nuss (email)
Ben Bahner (email)
Sharon Steinbacher (email)
Complaint File #: 335088