



December 27, 2017

**1<sup>st</sup> Class Mail and Hand Delivery**

[REDACTED]

Re: Water Supply Request for Investigation 327599  
58 Pa.C.S. § 3218 Determination  
Jackson Township, Susquehanna County

Dear [REDACTED]

The Department has completed its investigation of your water supply located at the above referenced address (“Water Supply”) in response to a complaint received on June 18, 2017, regarding cloudy water. On June 22, 2017 and October 11, 2017, the Department collected samples from your home Water Supply. The samples were submitted to the Department’s laboratory in Harrisburg for analysis. The analytical results for these samples have been remitted to you under separate cover. [REDACTED]

The Department determined on June 26, 2017 that your water supply was presumed to have been impacted by oil and gas activity pursuant to Section 3218 of the 2012 Oil and Gas Act. Section 3218 of the 2012 Oil and Gas Act allows an oil and gas operator the opportunity to rebut this presumption. The Department’s investigation, including the review of a technical report submitted in rebuttal to the Department’s Notice of Presumption Letter, leads the Department to conclude at this time that the Water Supply was temporarily affected by oil and gas activities including but not limited to the drilling, alteration, or operation of an oil or gas well, but the Water Supply has since returned to background conditions. The information upon which this determination is based is summarized below.

The disturbance to your Water Supply was found to be coincident with the drilling of the Boman 3H gas well (Permit #: 115-22215). Drilling can disturb nearby water supply wells through ground vibration, causing excess turbidity. Additionally, during the drilling of the Boman 3H, a large amount of water was returned to the surface, indicating that the drilling disturbed a productive aquifer, which may also supply your well. Disturbing the aquifer may also increase turbidity. Increased turbidity is associated with an increase in total metals such as iron, manganese, and aluminum, as ions of these compounds can “stick” to fine particles. In the Department’s experience, disturbances of this type are short-lived in nature and typically return to normal in weeks to months once the gas well is cased off from the aquifer.

The sample collected on October 11, 2017, shows that turbidity, concentrations of iron, manganese, and aluminum have all decreased below their applicable Maximum Contaminant Levels (MCLs) and Secondary Maximum Contaminant Levels (SMCLs), and are now consistent with predrill conditions.

Water testing also indicated the presence of total coliform, iron related bacteria and slime forming Bacteria in the Water Supply. Bacterial contamination is generally not associated with drilling, but can occur when surface water or other material enters the well. Bacterial contamination may also be introduced when new plumbing is installed without the system being sanitized. Among other recommended practices, the Water Supply should be equipped with a vented sanitary cap free of holes or other openings through which water or other material can enter the Water Supply, and the area around the wellhead should be kept free of animals. Fact sheets on best management practices for private water wells and well disinfection procedures are included.

Based on the Department's investigation, the Department has determined that the impacts on your Water Supply were temporary, and that the Water Supply is returning to background conditions. The Department does not plan to require further action regarding this matter.


Please contact Andrea Mullen, P.G. at 570.974.2607 or [andmullen@pa.gov](mailto:andmullen@pa.gov) if you have any questions about the Department's determination regarding the Water Supply.

Sincerely,



FOR

Jennifer Means  
Environmental Group Manager  
Eastern Oil and Gas District



cc: Jennifer Means (email)  
Michael O'Donnell (email)  
Briana Cunningham (email)  
Sharon Steinbacher (email)  
Complaint File #: 327599