



pennsylvania

DEPARTMENT OF ENVIRONMENTAL
PROTECTION

February 2, 2016

CERTIFIED MAIL NO. [REDACTED]

[REDACTED]

Re: Water Supply Request for Investigation DEP Identifier 311304
Determination of Temporary Impact - 58 Pa. C.S §3218
Pulaski Township, Lawrence County

Dear [REDACTED]

The Department has completed its investigation of your water supply [REDACTED]. The Department has determined that the Water Supply was temporarily affected by oil and gas activities but has returned to background conditions. Please note that your water quality does not meet (*i.e.*, is worse than) the following health and/or aesthetic statewide standards.

Parameters	Unit	Statewide Standards or Recommended Levels	Your sample results that are above Statewide Standards, although have now returned to predrilling levels
Total Dissolved Solids	mg/l	500	1040
Chloride	mg/l	250	440
Methane	mg/l	7 mg/l (action level)	7.3 mg/l

You may consider exploring remedial actions regarding the levels of the above results. The Department's investigation into your complaint is set forth below.

Summary of Investigation

On April 15, 2015, you complained to the Department that your Water Supply had turned cloudy and had a milky appearance. On the dates of the Department's final two inspections, your water was clear with no noticeable color. Samples from the Water Supply were collected as shown in the following table, and submitted to the Pennsylvania-accredited laboratories for analysis and the Department's laboratory in Harrisburg for analysis.

Initial results of samples from the Water Supply showed that the Water Supply had levels of Chloride, Sodium, Total Dissolved Solids, and Methane which were above pre-drill levels. However, additional sampling results revealed that those levels returned to pre-drill levels or background conditions. The following table compares those results.

Parameter	Unit	Standards or Recommended Levels	Pre-Drill Analyses (Treated by chlorinator and aerator)* 4-29-14	Post-Drill Analyses (Treated by chlorinator and Aerator) 4-16-15	Post-Drill Analyses (Raw Water) 12-1-15
Chloride	mg/L	250	288	440.2	289
Sodium	mg/L	20	428	525	395
TDS	mg/L	500	1060	1364	1040
Methane	mg/L	7 (action level)	7.6	4.37 (9.53 on 5-19-15)	7.3

*The raw water was originally not accessible, and therefore a valid predrill was not taken. The predrill sample, and the April 16, 2015 DEP sample were both taken from water that was actually treated by the chlorinator and aerator.

Please see the attached documents, which include sampling results regarding the quality of the Water Supply, as well as information regarding interpreting those results, and important safety information regarding the methane in the Water Supply.

Based on our investigation, the Department has determined that the impacts on the Water Supply were temporary, and that the quality of the Water Supply has now returned to background conditions. Because the Water Supply has returned to background conditions, the Department does not plan to require further action regarding the Water Supply. The Department's analytical results are enclosed. Please contact Christine Miner at 814.332.6860 if you have any questions about the Water Supply.

Sincerely,



S. Craig Lobins, P.G.
Northwest District Oil and Gas Manager
District Oil and Gas Operations

Enclosures:

- Exhibit A
- Fact Sheet – Interpreting Water Supply Results
- Fact Sheet – Stray Gas
- Sample Results

cc:

