



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

December 5, 2014

CERTIFIED MAIL NO. [REDACTED]

[REDACTED]
[REDACTED]

Re: Complaint ID 306873, [REDACTED]
58 Pa C.S. § 3218 Determination
[REDACTED]

Dear [REDACTED]

The Department of Environmental Protection (Department) has investigated your complaint that gas well drilling activities may have affected your home water supply located at [REDACTED]. Specifically, on August 19, 2014, you complained that "residue" in your water supply is affecting the domestic use of your water supply.

A third-party hired by WPX Energy Appalachia, LLC ("WPX") collected samples from your water supply on these dates: 5/26/11, 10/4/12, 3/13/13, 12/13/13, 12/27/13, 1/10/14, 1/24/14, 2/7/14, 2/19/14, 3/14/14, 4/30/14, and 7/23/14.

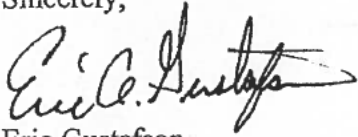
The Department compared a May 26, 2011 "pre-drill" survey test of your water supply with the October 2012, March 2013, December 2013, and the January, February, March, April, July, and August 2014 samples results. The comparison showed that barium, calcium, chloride, hardness, iron, magnesium, manganese, potassium, specific conductance, total dissolved solids, and total suspended solids were present in your water supply in concentrations above those reported in the "pre-drill" survey.

Through further investigation, the Department has determined that nearby oil and gas related operations are responsible for these impacts to your water supply. Based on these impacts, and in consideration of your complaint that the quality of the water from your water supply changed during the time of those impacts, the Department has determined that the impacts caused by nearby oil and gas operations affected the quality of your water supply resulting in pollution of your water supply. Accordingly, the attached Order requires WPX to provide your household with temporary water and to permanently restore or replace your water supply.

December 5, 2014

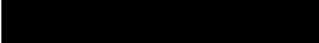
Enclosed are copies of the analytical test results and a fact sheet regarding interpreting the results. If you have any questions about this determination, or if you would like to discuss further, please contact Jeffrey Dewey, Environmental Protection Compliance Specialist, at 412.442.4012 or via e-mail at jdewey@pa.gov. The Department will keep you apprised of future developments, which may include actions to permanently restore your private water supply.

Sincerely,



Eric Gustafson
Environmental Program Manager
District Oil and Gas Operations

Enclosures:
Laboratory Analytical Results
"How to Interpret A Water Analysis Report"

cc: Kareen Milcic
April Weiland
Jeffrey Dewey
Samantha Foulk


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN THE MATTER OF:

WPX Energy Appalachia, LLC	:	2012 Oil and Gas Act
6000 Town Center Boulevard	:	Affected Water Supply
Suite 300	:	Donegal Township,
Canonsburg, PA 15317-5838	:	Westmoreland County

ORDER

NOW, this 5th day of December, 2014, the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") has made and determined the following FINDINGS and enters the following ORDER:

A. The Department is the agency with the duty and authority to implement, administer, and enforce the Oil and Gas Act, Act of February 14, 2012, P.L. 87, No. 13, 58 Pa. C.S. §§ 3201-3274 ("2012 Oil and Gas Act"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, *as amended*, 71 P.S. § 510-17 ("Administrative Code"); and, the rules and regulations promulgated thereunder.

WPX Energy Appalachia, LLC

B. WPX Energy Appalachia, LLC ("WPX") is a Delaware limited liability company engaged in various oil and gas well activities in Pennsylvania. WPX's business address is 6000 Town Center Boulevard, Suite 300, Canonsburg, PA 15317-5838.

C. WPX is the "well operator" as that term is defined in Section 3203 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3203, of the Gas Well, as defined herein.

The Gas Well Site

D. On June 6, 2011, the Department issued Well Permit No. [REDACTED] to WPX authorizing WPX to drill and operate the [REDACTED] gas well ("Gas Well") in [REDACTED]

[REDACTED] The Gas Well is an unconventional well as that term is defined in Section 3203 of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3203. The Gas Well is located on a well pad [REDACTED] that includes a temporary drilling and flowback fluids pit ("Impoundment").

E. WPX commenced drilling the Gas Well on October 19, 2011, and completed drilling on November 11, 2011. WPX completed stimulation of the Gas Well on May 29, 2012.

F. On September 12, 2012, the Department sampled the fluids in the Impoundment. The results from that sampling are included in the table of Paragraph K, herein.

G. On or before September 19, 2012, flowback fluid leaked from the Impoundment into the ground ("Release").

Water Supply

H. Two individuals, [REDACTED] (the "Complainant") reside at [REDACTED]. A private water well ("Water Well") serves as the water supply at the Complainant's residence for all domestic purposes ("Water Supply"). The Complainant described the Water Well as sixty-five (65) feet deep. The Water Well is a "water supply" as that term is defined by section 78.1 of the rules and regulations, 25 Pa Code § 78.1. The Water Well is 430 feet from the Impoundment and 1100 feet from the Gas Well. The Water Well is referred to herein as the "Water Supply."

I. WPX conducted a pre-drilling survey of the Water Supply on May 26, 2011 ("Pre-Drilling Survey").

Water Supply Pollution Investigation

J. On August 19, 2014, the Complainant notified the Department that the quality of the Water Supply changed and that the Water Supply was no longer adequate for domestic uses, specifically identifying residue in the water.

K. Following the August 19, 2014, complaint, the Department initiated an investigation. The Department and WPX each collected samples of the Water Supply for laboratory analyses to test for gas-well-related contaminants ("Post-Release Samples"). Several of those sampling results are set forth in this table including the most current results and the results referenced in Paragraph F, above:

Contaminant or Parameter	Unit	DEP Impoundment Fluid Sample Result 9/12/2012	WPX Pre-Drill Survey 5/26/11	WPX Post-Release Sample Result 12/13/13	WPX Post-Release Sample Result 02/19/14	WPX Post-Release Sample Result 7/25/14	DEP Sample Result 8/26/2014
Chloride	mg/L	8574	82.10	389	345	333	354.0
Barium	mg/L	169	0.34	0.946	0.900	0.909	0.84
Calcium	mg/L	1110	50.71	157	148	150	143.0
Hardness	mg/L	3185	181	548	515	not-sampled	500
Iron	mg/L	0.311	0.279	0.543	0.515	0.356	1.90
Magnesium	mg/L	99.60	13.15	37.90	35.400	35.4	34.50
Manganese	mg/L	0.608	0.093	0.401	0.328	0.374	0.33
Potassium	mg/L	272	1.344	2.540	2.390	2.45	2.146
TDS	mg/L	16,198	304	155	886	1390	914
TSS	mg/L	not-sampled	ND	ND	ND	ND	8
Spec. Conductance	umhos/cm	24200.00	554	281.50	1374	1179.3	1260.00

L. The levels of the following gas-well-related contaminants and parameters in the Post-Release Samples were above the levels in the Pre-Drilling Survey: chloride, barium, calcium, hardness, iron, magnesium, manganese, potassium, specific conductance, TSS and TDS. These impacts correlate to changes in the Water Supply affecting domestic usage identified by Complainant. As a result, the water supply is polluted because its quality is not comparable to its pre-drill quality. 58 Pa. C.S. § 3218(a).

M. The Water Supply was and continues to be polluted from WPX's gas well drilling, alteration, or operation activities at the [REDACTED] Site, and is not comparable to the quality of the water supply before it was affected.

Responsibility for Pollution

N. WPX is responsible for the pollution of the Water Supply under Section 3218(a) of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3218(a), as the result of drilling, alteration or operation of an oil and gas well.

O. Section 3218(a) of the 2012 Oil and Gas Act, 58 Pa. C.S. §3218(a), and 25 Pa. Code § 78.51(d), set forth the criteria for adequate reliability, cost, maintenance, control, quality, and quantity of the restored or replaced water supply.

P. As of the date of this Order, WPX has not restored or replaced the Water Supply with an alternative source of water that is adequate for the purposes served by the Water Supply in violation of Section 3218(a) of the 2012 Oil and Gas Act, 58 Pa.C.S. § 3218(a), and 25 Pa. Code §78.51(a).

Q. The pollution of the Water Supply from the drilling of the Gas Well and WPX's failure to restore or replace the affected Water Supply with an alternate source of water adequate for the purposes served by the Water Supply constitute a public nuisance and unlawful conduct pursuant to Sections 3252 and 3259(2) of the 2012 Oil and Gas Act, 58 Pa. C.S. §§ 3252 and 3259(2).

ORDER

NOW, THEREFORE, pursuant to Sections 3218(b) and 3253 of the 2012 Oil and Gas Act, 58 Pa. C.S. §§ 3218(b) and 3253, 25 Pa. Code § 78.51(c), and Section 1917-A of the Administrative Code, 71 P.S. § 510-17, the Department hereby ORDERS that:

1. Restore or Replace the Water Supply.

a. Temporary Drinking Water Supply. If the Complainant accepts temporary water, then within fifteen days of the notice of the Complainant's acceptance, WPX shall provide the Complainant with a temporary drinking water supply of adequate and reliable quantity and quality for the purposes served. WPX shall continue to provide temporary water until the Department notifies WPX, in writing, that the requirements of this Order have been satisfied. If the Complainant refuses temporary water, WPX shall immediately provide written documentation of that refusal to the Department.

b. Restoration/Replacement Plan. Within thirty (30) days of the date of this Order, WPX shall submit to the Department, in writing, a plan to permanently restore or replace the Water Supply ("Restoration/Replacement Plan") that, at a minimum, shall identify the:

- i. proposed corrective actions (e.g. treatment, drill new water supply well, hook into public water supply, and/or other corrective actions) to permanently restore or replace the Water Supply in compliance with Section 3218(a) of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3218(a), and 25 Pa. Code § 78.51(d);
- ii. proposed schedule to implement the corrective actions so that the Water Supply is restored or replaced within forty-five (45) days of receipt of the Department's written approval of the Restoration/Replacement Plan or of the modified Restoration/Replacement Plan;
- iii. the independent laboratory, certified by the Department, that WPX will use to analyze samples from the restored or replaced Water Supply;

- iv. proposed or executed agreements/contracts between WPX and the Complainant to provide for all plumbing, conveyance, pumping, or auxiliary facilities necessary for the use of the permanently restored or replaced Water Supply;
- v. proposed or executed contracts/agreements between WPX and the Complainant documenting how WPX will compensate on a permanent basis for any increased operating and maintenance costs for the replaced or restored Water Supply; and
- vi. plan for confirmatory samples of the restored and/or replaced Water Supply after WPX asserts that it has permanently restored or replaced the Water Supply, or after WPX asserts that the Water Supply is no longer affected. Such samples will be used to determine whether the Water Supply meets the standards set forth in Section 3218(a) of the 2012 Oil and Gas Act, 58 Pa. C.S. § 3218(a), and 25 Pa. Code § 78.51(d). The confirmatory sampling plan should provide for: split samples with the Department; that sampling would only take place Monday through Friday during Department working hours; and should specify that WPX will notify the Department at least three (3) working days before any scheduled sampling of the Water Supply.

2. Submission of Documents.

a. With regard to any document that WPX submits to the Department pursuant to Paragraph 1.b., above, WPX shall submit to the Department, in writing, additional information and/or correct deficiencies within ten (10) days of receipt of the Department's written request for additional information and/or notice of deficiencies.

b. Upon receipt of a complete document in compliance with the requirements Paragraph 1.a., above, or a revised document that addresses the Department's request(s) under Paragraph 2.a., above, the Department will approve or modify and approve the document in writing.

c. Upon receipt by WPX of the Department's written approval under this Order of a document or modified document, the approved document shall be incorporated herein and enforceable hereunder.

3. Implementation of Approved Plan(s).

a. WPX shall implement the Department-approved Restoration/Replacement Plan in accordance with the approved schedule therein.

b. In all cases, WPX shall complete the approved corrective actions to permanently restore or replace the Water Supply within forty-five (45) days of receipt of the Department's written approval of the Restoration/Replacement Plan.

4. In complying with this Order, WPX shall not cause pollution of any waters of the Commonwealth and shall not affect by pollution or diminution any other water supply.

5. All correspondence with the Department concerning this Order shall be addressed as follows:

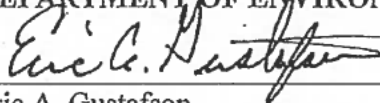
Jeffrey Dewey; Compliance Specialist
Oil and Gas Operations
Pennsylvania Department of Environmental Protection
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. §7514, and the Administrative Agency Law, 2 Pa.C.S.A. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, Pennsylvania 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the

Secretary to the Board at 717-787-3483. This Paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD. IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT 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 (717-787-3483) FOR MORE INFORMATION.

FOR THE COMMONWEALTH OF PENNSYLVANIA,
DEPARTMENT OF ENVIRONMENTAL PROTECTION:



Eric A. Gustafson
District Manager
District Oil and Gas Operations