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September 24, 2020

Kevin Rowsey
Source Water & UIC Section Drinking Water & Source Water Protection Branch
U.S. Environmental Protection Agency
Underground Injection Control Program
Office of Water, Office of Ground Water and Drinking Water
1200 Pennsylvania Avenue, NW (Mailcode 4606M)
Washington, DC 20460

Dear Mr. Rowsey,

RE: Windfall Oil & Gas Zelman #1 Injection Well Public Comment

At the public hearing, it was requested that we submit our comments in a written summary format by September 24, 2020. Below are the comments that I provided for the public hearing.

Please incorporate the original EPA public hearing as 300 individuals attended and gave valuable testimony that varied on the issues facing this injection well site. Also, please incorporate the Environmental Hearing Board Docket, Exhibits, and the Decision by Judge Bernard A. Labuskes, Jr. for Case Number: 2018034, Appellant #1: DARLENE MARSHALL found at https://ehb.courtapps.com/public/document_shower_pub.php?docketNumber=2018034. The Environmental Hearing Board may be able to provide the transcript from the three days of the hearing that would prove very valuable. My prior written comments provided a condensed 83 page summary.

EPA has the job of protecting our water supply and cleaning up any contamination of water supplies. EPA depends on the public to provide comment on the local area and realizes that they will be working along with the residents if anything happens to the water supplies.

There will be no way to restore the water supply once it becomes contaminated. Please avoid repeating history of the first Pennsylvania injection well in Erie and the current incident in Ohio as noted by The Columbus Dispatch on September 5, 2020 by Beth Burger that injection well fluid migrated five miles away and this story repeats the history of Pennsylvania's first injection well.

As a librarian, I have tried to review all points of view and provide the details that still need addressed. My most concerning information comes from the past industry practices recorded and stories from grandfathers working on these old gas well sites that were relayed to their children and grandchildren of improper practices performed on wells in this area. Even as

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recently as this past Labor Day, I met a young man who told stories of the unsafe practices of his grandfather working for Fairman Drilling and the improper practices known to be done in this area.

Many old gas wells drilled at the same depth as the injection well reach the same zone as where the injection fluid and the old gas wells were done before the EPA enacted the Safe Drinking Water Act at a time when it was known that things weren't done correctly. Waste traveling five miles away and coming above ground impacts the public water supply for the entire DuBois and surrounding area with these old gas wells providing short circuits or conduits to water supplies. It is vital to avoid short circuits acting as conduits from old gas wells and this area already has over six (6) old known gas wells at the edge of the ¼ mile drilled to the same depth as the injection zone that provide short circuits with plugging records already showing issues and improper plugging. The Carlson well records show a partial plugging was done as the casing wasn't able to be removed. Other abandoned wells are in unknown locations throughout the area including the vicinity of the public water supplies for DuBois.

The original permit was figured for five (5) years and now it is proposed for ten (10) years and that is illogical as the public has no details to figure (calculate) the ten (10) years. Yet we know injection fluid will intersect with the faults in less than two (2) years and that means it will intersect in less than two (2) years with old gas wells improperly plugged, old gas wells with partial plugs with known issues that go through the coal mines, and still active old gas wells. For example, the Ginter gas well known to affect two of our neighbor's water supplies as early as the 1970's before the EPA enacted and put in place the Federal Safeguards Program in 1974. Based on Mr. Harry Wise's (DEP) testimony it was stated the injection fluid will intersect with the faults in less than two (2) years at the case before the Environmental Hearing Board in October 2019. These old deep gas wells have no monitoring plan in place.

Still we have no known way to restore water supplies in this area after all these years of research, even now grants haven't been able to be applied for to bring water. Windfall has spent no time working with the local township or County Commissioners to assist in finding options as the community researched all the options. Windfall's original water testing started this research as they stated, "not to worry if anything happened, water would be provided." No one-half (1/2) mile evacuation plan was provided for the chemicals listed that needed evacuation plans on the Pennsylvania Right-to-Know lists and a better Emergency Plan is still needed. Windfall just recently completed the one (1) mile map after all these years. If residents have to wait this many years to get a required document from the original application, just imagine how they feel not having protection measures put in place for emergencies and water supplies.

Personally, I have resided with my brother and lived off a water buffalo after he lost his water supply due to seismic testing for natural gas. So I know what it is like to haul water, conserve water, and manage without a regular water supply. Our township supervisors on their own have looked at planning for these issues as the emergency management officials for our area and this should have been planning done by the company.

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Mr. Fisher followed my testimony with important points on the injectate issues and the fault system around the well causing seismic activity. The draft permit had questioned the faults in the area and Mr. Fisher provided the background in 1971 of the mapping of the Oriskany formation data showing the faults reach up from the basement and were mapped into the Oriskany. Mr. Fisher explained the two faults that show evidence of existing in the ¼ mile Area of Review with one to the North East at 600 feet and the second one to the South East at 1,280 feet. The difference in the gas production shows the faults exist as you can NOT claim faults do NOT cause gas trap. Assume faults exist and then you need to know what kind of faults they are – sealing or non-sealing. The important factors are (1) pressure and (2) location. The change in pressure could change the nature of the faults and injecting brine changes pressure. Concern over time that brine migrates and makes the faults transmissive and induces seismicity that is known to happen. Reports submitted in Ohio show lateral flow and this is an issue. Mr. Fisher pointed out his concern is that this injection well is located in the wrong place. The faults if non-transmissive increase pressure and it is easy to quantify the pressure as much as possible. A well near a fault is a mirror image as if another well. How the faults impact the injection well is basic stuff and due diligence must be done and should have been done already.

Mr. Baird presented all concerns are still valid and relevant. Injected fluid surfacing miles from injection sites. The permitted area is a geologic refresh zone. Mr. Baird logged water tests for eight years at least and took a base line average before and after site work was completed on the injection well. Daily TDS (Total Dissolved Solids) testing of water shows injection well property has been disturbed. The TDS went up by 18.06 parts per million compared prior to July 20 (November 2019 to July 10, 2020) average versus after July 20, 2020. An operator error or catastrophe will cause degradation of water even if no further development takes place. The injection well is on a hill above the community and the injection well site is a refresh zone as the logs show. Mr. Baird cited his rights under the Constitution Article 27 and the toxic injection well site is an infringement on our values that should be based on morale, safe, and right. No man may poison his fellow man for profit.

Sincerely,



Darlene Marshall