



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NORTHWEST REGIONAL OFFICE

Re: CID NO. 273460

Act 223 Section 208 Determination  
Corydon Township, McKean County

Dear [REDACTED]

The Department has investigated, in response to your August 13, 2010 and August 27, 2010 complaints regarding the possible contamination of your water supply by nearby oil and gas activities.

After reviewing the results of your spring water analysis, the Department has concluded that recent oil and gas activity, related to the drilling and completion of U.S. Energy Development Corporations' [REDACTED] well, caused your water supply (spring) to become contaminated.

The August 13, 2010 complaint was in regards to a gray/milky appearance to your drinking water. Sampling conducted by the Department of your spring water on August 17, 2010 revealed concentrations of Chlorides, Total Dissolved Solids and Specific Conductivity that were in excess of drinking water standards. The concentrations of these elements, along with Calcium and Sodium, were also appreciably higher than what was documented by a pre-drill sample collected by U.S. Energy on February 9, 2009. Elevated levels of these parameters are indicative of an infiltration of drill cuttings and/or cement into the shallow ground water that supplies your spring.

On August 27, 2010, the Department was contacted in regards to a salty taste and odor to your drinking water. After reviewing the results of sampling conducted by the Department on August 27, 2010, concentrations of Chlorides, Total Dissolved Solids and Specific Conductivity were again in excess of drinking water standards. The concentrations of these elements, along with Calcium and Sodium, were also again appreciably higher than what was documented by a pre-drill sample collected by U.S. Energy on February 9, 2009. Elevated levels of these parameters are indicative of a dilute brine solution and suggest a surface discharge of frac water into the shallow ground water that supplies your spring.

Subsequent sampling conducted by the Department between August 30, 2010 and October 5, 2010 showed a gradual improvement in the quality of your spring water. U.S. Energy Development Corporation has provided for the installation of a water filtration system at your home, which has been completed.

Enclosed are the complete water sample analysis results and a fact sheet to help you interpret the report. If you have any questions, or if any future issues arise, please contact Brian Ayers at 814.723.3273.

Sincerely,



S. Craig Lobins  
Regional Oil & Gas Manager  
Oil and Gas Management

Enclosures

cc: NWRO  
WDO

SCL:rm:br