

LATEST APPALACHIAN BASIN STUDIES CONFIRM FRACKING IS NOT A MAJOR THREAT TO GROUNDWATER

Recent peer-reviewed studies from Yale University, Penn State University, the University of Cincinnati and Duke University find water quality in the most heavily drilled Pennsylvania, Ohio and West Virginia counties has remained stable or even improved. These Appalachian Basin studies are just four of more than two dozen scientific reports confirming fracking is not a major threat to groundwater.



Yale University

Analyzed 8 monitoring wells located in a 25-km area in Susquehanna County, Pa., over a two-year period before, during and after 7 shale gas wells were developed.¹

“Collectively, our observations suggest that **[shale gas development] was an unlikely source of methane** in our valley wells.”



PennState

Analyzed 11,000 groundwater samples collected near 1,385 unconventional natural gas wells in Bradford County, Pa., and compared those to groundwater samples taken prior to 1990.²

“The most interesting thing we discovered was the groundwater chemistry in one of the areas most heavily developed for shale gas – an area with 1400 new gas wells – **does not appear to be getting worse with time, and may even be getting better.**”



University of CINCINNATI

Analyzed 180 groundwater samples from 5 core Ohio Utica shale counties taken before, during, and after development.³

“We found **no relationship** between CH₄ concentration or source in groundwater and proximity to active gas well sites.”

*Partially funded by the anti-fracking Deer Creek Foundation.



Duke UNIVERSITY

Analyzed water samples for 112 water wells in West Virginia, and compared those with baseline samples from an additional 20 water wells taken prior to shale development⁴

“Based on consistent evidence from comprehensive testing, **we found no indication of groundwater contamination** over the three-year course of our study.”

*Funded by the anti-fracking National Resources Defense Council (NRDC).

THE APPALACHIAN BASIN: OHIO, PENNSYLVANIA AND WEST VIRGINIA

“Shale gas production in the Appalachia region has increased rapidly since 2012, driving an overall increase in U.S. natural gas production.” – Energy Information Administration



15,000 +
shale wells



~24 BILLION
cubic feet of natural gas
produced every day



8 TRILLION+
cubic feet of natural
gas liquids (NGLs)
produced annually

¹ <http://www.pnas.org/content/early/2018/06/12/1720898115>

² <https://pubs.acs.org/doi/10.1021/acs.est.8b01123>

³ <https://link.springer.com/article/10>

⁴ <https://www.sciencedirect.com/science/article/pii/S0016703717302004>