

Supplementary Materials: The following are available online at www.mdpi.com/xxx/s1, Figure S1: Weighted kappa statistics assessing agreement between quartiles of exposure for the four WA metrics and quartiles of 90-day average mean pollutant concentrations, Pennsylvania unconventional gas wells, 2011-2015, Figure S2: Weighted kappa statistics assessing agreement between quartiles of exposure for the four WA metrics and quartiles of 180-day average mean pollutant concentrations, Pennsylvania unconventional gas wells, 2011-2015.

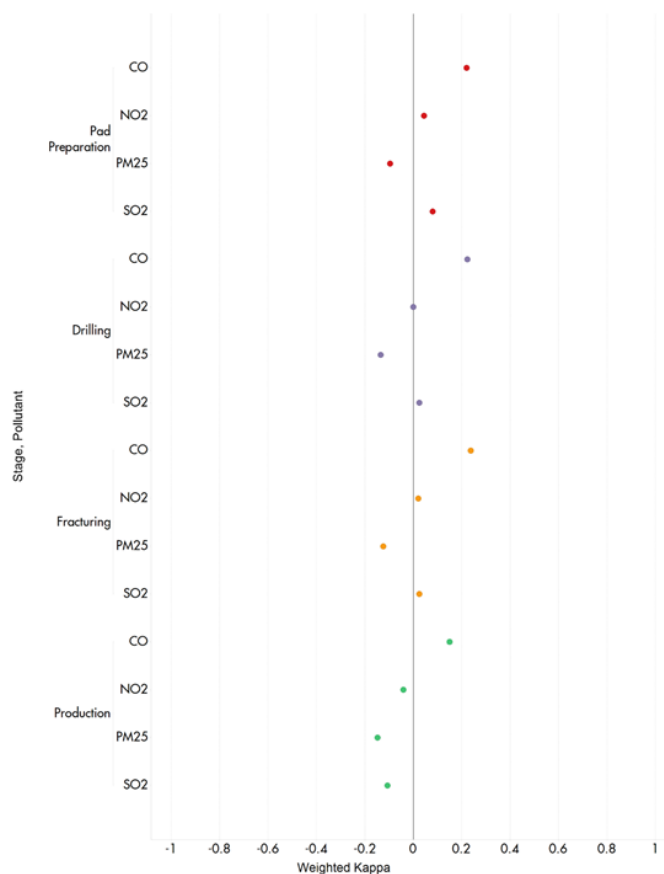


Figure S1. Weighted kappa statistics assessing agreement between quartiles of exposure for the four well activity metrics and quartiles of 90-day average mean pollutant concentrations, Pennsylvania unconventional gas wells, 2011–2015.

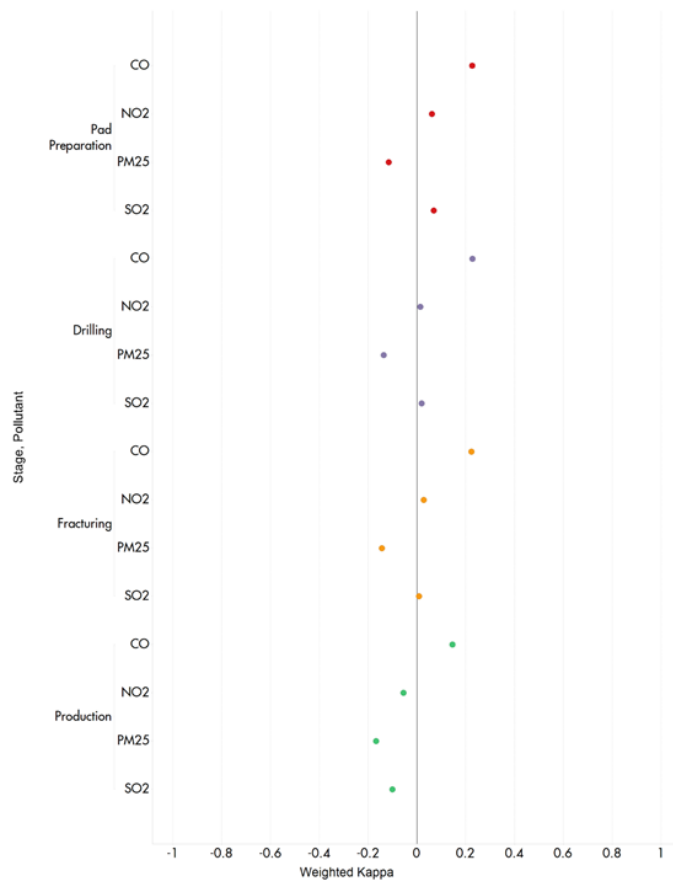


Figure S2. Weighted kappa statistics assessing agreement between quartiles of exposure for the four well activity metrics and quartiles of 180-day average mean pollutant concentrations, Pennsylvania unconventional gas wells, 2011–2015.