

## **University of North Texas Health Science Center** *at Fort Worth*



Education, Research, Patient Care *and* Service

Tony Yeager, Mayor City of Westworth Village 311 Burton Hill Rd Westworth Village, TX 76114

28 July 30, 2009

Dear Mr. Yeager and City Council:

At the request of Ms. Deborah Rogers I reviewed a report issued by Wolf Eagle Environmental Engineers and Consultants, LLC. My understanding is that this was referred to me blindly in my role as Chair and Professor for the Department of Environmental and Occupational Health in the School of Public Health at the University of North Texas Health Science Center in Fort Worth. In fact I am new to this area having moved here last September where I was the Division Director for a similar program at the Saint Louis University School of Public Health in St. Louis, MO. As it turns out my expertise and experience is in exposure and risk assessment of humans from man-made and natural sources of environmental contaminants.

In my review of the report the most important aspect was the presence of compounds during the period when operational flaring of one gas well was occurring, versus below detection, or much reduced levels of the same compounds at a second sampling period a month later when no flaring was occurring. The compounds found range from those with acute primarily irritation issues, to oxygen deficiency potential (i.e. heavier than air and may accumulate low to the ground and in gulley's, displace oxygen, with potential asphyxiation), to chronic organ toxicity and known or suspect carcinogens. The levels during flaring exceeded in most cases the Texas Commission on Environmental Quality (TCEQ) effects screening levels, both long and short term, which are State levels of exposure to air toxins which can trigger adverse health effects. Also, although below the EPA Risk Reference Dose (Federal levels set to protect human health) for inhalation when using a resting child model, this suggests specific health concerns for children. And, this was with only one well operating. It is my understanding that up to 30 or more wells may be operational in this area and the cumulative effect of multiple operating wells on a continuous basis would most likely exceed these limits.

This is a residential community that also has open land with at least one farm based activity. Without further investigation I cannot speak directly to the impact on animals or the environment. While the measurements cannot be definitively said to have been due to the gas well, the association is very suggestive. But, I also understand that no prior studies have been done which could indicate if this is normal background or an anomaly. In my opinion with the potential for multiple well drilling and operations, this warrants additional evaluation. Additionally the risk potential for ground water contamination should be investigated.

Sincerely,

David A. Sterling, PhD., CIH

**Professor and Chair** 

cc: Deborah Rogers