



- M E M O R A N D U M -

Date: October 5, 2010
To: City of Fort Worth
From: Eastern Research Group, Inc. (ERG)
Re: Natural Gas Air Quality Study Biweekly Update #3: September 13 – September 26

Activity Summary: Between September 13 and September 26, ERG and its subcontractors continued with field activities for the Natural Gas Air Quality Study. Both ambient air monitoring and point source emissions testing continued during this period, in accordance with specifications in the approved project plans. Additional details on ambient air monitoring and point source emission testing field activities follow.

Ambient Air Monitoring: Ambient air monitoring continued at six monitoring stations from September 13 through September 26. In addition, we identified an appropriate location for the seventh ambient air monitoring station: downwind from some well completion activity at a pad that had just completed fracturing and was beginning flowback operations. The seventh monitoring station became fully operational on September 15, and the first sample at this station was collected at this site on September 16.

Over this 2 week period, air samples were scheduled to be collected on September 13, 16, 19, 22, and 25. We had tremendous success in sample collection, as all samples on these dates were collected as scheduled. The table below summarizes sample collection statistics from September 4 through September 25.

Monitoring Site	Number of Samples Collected	Number of Samples Scheduled	Collection Percentage
1	8	8	100%
2	6	8	75%
3	4	4	100%
4	16	16	100%
5	15	16	94%
6	7	8	88%
7	6	8	75%
Total	62	68	91%

(Note: Most sites had eight scheduled sampling dates since September 4. Monitoring sites 4 and 5 had twice as many scheduled samples, because two different types of air samples are collected at these locations. Monitoring site 3 had only four scheduled samples, because this station was installed on September 15.)



Close-up view of Timer and Flow Regulator

Point Source Emissions Testing: The emissions testing of point sources continued from September 13 through September 26. This testing is being conducted at well pads, compressor stations, and other sites with natural gas processing activity. At each point source tested, field crews used an “infrared camera” (IR camera) to determine which sources have the highest emissions. In addition to using the IR camera, toxic vapor analyzers (TVAs) and HiFlow samplers are used to measure the rate that pollutants are released to the air.

During the week of September 13, the ERG team’s field surveyors visited 38 well pads that contained more than 75 wells. The following week, 44 well pads were visited and these well pads contained over 115 wells. Across these 82 well pad locations, 30 air samples were collected in canisters and then sent to the laboratory for analysis.

Through September 26, the point source team has visited 117 sites representing 185 wells, and 36 canister samples have been collected. These samples will be used to estimate emission rates for volatile organic compounds (VOCs) and individual toxic chemicals (like benzene).



Field surveyor operating a Toxic Vapor Analyzer at a well pad