



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

**Date:** September 24, 2010  
**To:** City of Fort Worth  
**From:** Eastern Research Group, Inc. (ERG)  
**Re:** Natural Gas Air Quality Study Biweekly Update #2: August 30 – September 12

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**Activity Summary:** Between August 30 and September 12, ERG and its subcontractors launched field activities for the Natural Gas Air Quality Study. Both ambient air monitoring and point source emissions testing commenced, according to specifications in the approved project plans. Additional details on the two types of field activities follow.

**Ambient Air Monitoring:** During the first week of the program (August 30 through September 5), ERG set up six ambient air monitoring stations in Fort Worth, and identified candidate locations for a seventh station. At each station, 24-hour average air pollution samples are being collected and shipped to a laboratory for analysis.

The six stations were installed and fully operational by September 4, three days ahead of schedule. Air samples were scheduled to be collected from these sites on September 4, September 7, and September 10. A combination of equipment failure and human error resulted in some samples not being collected during these initial sampling dates, but these issues have been resolved and full data collection is anticipated for the remainder of the program. The table below summarizes sample collection statistics from September 4 through September 12.

Monitoring Site	Number of Samples Collected	Number of Samples Scheduled	Collection Percentage
1	3	3	100%
2	1	3	33%
3	NA	NA	NA
4	6	6	100%
5	5	6	83%
6	2	3	66%
7	1	3	33%
<b>Total</b>	<b>18</b>	<b>24</b>	<b>75%</b>



**Typical Ambient Air Monitoring Equipment Setup**

(Note: Most sites had three 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. Site 3 was not operational until September 15.)

**Point Source Emissions Testing:** The emissions testing of point sources began according to schedule on August 30. This testing is to consider well pads, compressor stations, and other sites with natural gas processing activity. At each point source tested, field crews use an “infrared camera” (IR camera) to determine which sources have the highest emissions. At these locations (and selected other locations), other methods are used to measure the rate that pollutants are released to the air.

Between August 30 and September 12, field surveyors from the ERG team visited 35 well pads that contained more than 70 wells. At every location, field surveyors used IR cameras to detect emissions, and additional measurements were made at selected locations based on the sampling methodology in the Final Point Source Test Plan. From these locations, 6 canister samples were taken and sent to the laboratory for analysis. These samples will be used to estimate emission rates for volatile organic compounds (VOCs) and individual toxic chemicals (like benzene).



**Field surveyor operating an IR camera  
at a well pad**