

## Tour the TCEQ's New Auto-GC Monitor in Floresville, Texas

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CO: We're at the Floresville air monitoring site today where we have an automated gas chromatograph, a nox instrument to measure oxides and nitrogen, and meteorological measurements. Our Auto GC system is used throughout the state and it's also been used extensively in Barnett Shale. Now this monitoring site was situated here to be in a general downwind direction of oil and gas activities in Eagle Fort Shale, and also to understand air quality that affects the San Antonio metropolitan area. In particular ozone formation. So this monitoring starts with the inlet sample, this inverted glass funnel made out of special glass. Borosilicate glass, allows us to draw in ambient air continuously. We also have a ten meter tower equipped on this site. It makes measurements of wind speed, wind direction, and outdoor temperature. This measurement is made every five minutes and reported to the TCQ every 15 minutes. Inside our monitoring station we have a variety of pieces of equipment that support the measurements that we're making. And we have support gases that operate the GC. Oxygen oxides measurements are made here with this analyzer. This system is commonly known as the Auto GC. It's constantly making measurements of carbon compounds that contain C<sub>2</sub> through C<sub>6</sub>, such as ethane or propane, measurements of C<sub>6</sub> through C<sub>12</sub>, such as benzene or toluene. The sample comes in from the manifold outside and is collected over a majority of an hour on this thing called a thermal desorber. These compounds are in very low concentrations in the atmosphere and once collected, then they're actually desorbed and pushed onto the machine called the Auto GC. This GC's equipped with two columns and two detectors. Each column and each detector is associated with a different weight of hydrocarbons. The lighter compounds are measured by one column and one detector. The heavier containing compounds such as benzene are measured and detected with the other column detector. And then the results are captured by the software, giving you an identification of the compound and concentration. Just as we found in the Barnett Shale, monitoring data provides evidence that overall shale play activity does not significantly impact air quality or pose a threat to human health. Neither of our Eagle Ford fix monitors, either this new one or our canister monitor at Laredo have ever shown any BOCs at levels of concern.

[2:28 end of video]