

EPA announces flights to look for methane in Permian Basin

August 3 2022, by MICHAEL BIESECKER and HELEN WIEFFERING



Patches of land housing oil pumpjacks dot the landscape of the Permian Basin in Midland, Texas, Monday, Oct. 11, 2021. Carbon Mapper, a partnership of university researchers and NASA's Jet Propulsion Laboratory, documented massive amounts of methane venting into the atmosphere from oil and gas operations across the Permian, a 250-mile-wide bone-dry expanse along the Texas-New Mexico border that a billion years ago was the bottom of a shallow sea. Credit: AP Photo/David Goldman

The Environmental Protection Agency says it will conduct helicopter overflights to look for methane "super emitters" in the nation's largest oil and gas producing region.

EPA's Region 6 headquarters in Dallas, Texas, issued a [news release](#) about a new enforcement effort in the Permian Basin on Monday, saying the flights would occur within the next two weeks.

The announcement came four days after The Associated Press published an [investigation](#) that showed 533 oil and gas facilities in the region are emitting excessive amounts of [methane](#) and named the companies most responsible. Colorless and odorless, methane is a potent greenhouse gas that traps 83 times more heat in the atmosphere over a 20 year period than an equivalent amount of carbon dioxide.

EPA spokesman Tim Carroll said the timing of the agency's announcement was not related to AP's story and that similar overflights had been conducted in years past. EPA officials made no mention of an upcoming enforcement sweep in the Permian when interviewed by AP last month.

EPA Region 6 Administrator Earthea Nance said the Permian Basin accounts for 40 percent of our nation's oil supply and for years has released dangerous quantities methane and [volatile organic compounds](#), contributing to climate change and [poor air quality](#).



A flare burns off methane and other hydrocarbons as oil pumpjacks operate in the Permian Basin in Midland, Texas, Tuesday, Oct. 12, 2021. Massive amounts of methane are venting into the atmosphere from oil and gas operations across the Permian Basin, new aerial surveys show. The emission endanger U.S. targets for curbing climate change. Credit: AP Photo/David Goldman

"The flyovers are vital to identifying which facilities are responsible for the bulk of these emissions and therefore where reductions are most urgently needed," Nance said, according to the agency's media release.

AP used 2021 data from the group [Carbon Mapper](#) to document massive amounts of methane venting into the atmosphere from oil and gas operations across the Permian, a 250-mile-wide bone-dry expanse along the Texas-New Mexico border that a billion years ago was the bottom of

a shallow sea.

A partnership of NASA's Jet Propulsion Laboratory and academic researchers, Carbon Mapper used an airplane carrying an [infrared spectrometer](#) to detect and quantify the unique chemical fingerprint of methane in the atmosphere. Hundreds of sites were shown persistently spewing the gas across multiple overflights.

Last October, AP journalists visited more than two dozen sites flagged as persistent methane super emitters by Carbon Mapper with a FLIR infrared camera and recorded video of large plumes of hydrocarbon gas containing methane escaping from pipeline compressors, tank batteries, flare stacks and other production infrastructure. The Carbon Mapper data and the AP's camera work show many of the worst emitters are steadily charging the Earth's atmosphere with this extra gas.

Carbon Mapper identified the spewing sites only by their GPS coordinates. The AP then took the coordinates of the 533 "super-emitting" sites and cross-referenced them with state drilling permits, air quality permits, pipeline maps, land records and other [public documents](#) to piece together the corporations most likely responsible.



Flares burn off methane and other hydrocarbons at an oil and gas facility in Lenorah, Texas, Friday, Oct. 15, 2021. Massive amounts of methane are venting into the atmosphere from oil and gas operations across the Permian Basin, new aerial surveys show. The emission endanger U.S. targets for curbing climate change. Credit: AP Photo/David Goldman

Just 10 companies owned at least 164 of those sites, according to an AP analysis of Carbon Mapper's data.

AP also compared the estimated rates at which the super emitting sites were observed gushing methane with the annual reports the companies are required to submit to EPA detailing their greenhouse gas emissions. AP found the EPA's database often fails to account for the true rate of emissions observed in the Permian.

The methane released by these companies will be disrupting the climate for decades, contributing to more heat waves, hurricanes, wildfires and floods. There's now nearly three times as much methane in the air than there was before industrial times. The year 2021 saw the worst single increase ever.

EPA recently enacted restrictions on how much methane can be released from new oil and gas facilities. But proposed regulations on the hundreds of thousands of older sites responsible for the bulk of emissions are still under review. What are restricted under current federal regulations are toxic air pollutants such as [hydrogen sulfide](#), [sulfur dioxide](#) and cancer-causing benzene that often accompany methane and are sometimes called "ridealong" gases.

EPA said this week it too would collect data from its airborne observations in the Permian and use the GPS locations to identify the facilities releasing excess emissions. The agency said it will initiate enforcement actions against the companies responsible that could include administrative enforcement actions and referrals to the Justice Department. EPA said companies found to be violating federal law could face significant financial penalties as well as future monitoring to verify corrective action was taken.

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