

TURKMENISTAN (TKM_S_081)

Through MARS, UNEP's International Methane Emissions Observatory (IMEO) turns satellite data into methane action. MARS is the only public global satellite-based system alerting governments and companies of extreme methane emissions. Using 30+ satellite instruments, combined with expert analysis and AI models, MARS detects major emission events and enables rapid response.



LAST UPDATED
15 April 2026



SOURCE ID
TKM_S_081



COUNTRY
Turkmenistan



COORDINATES
37.88863°, 63.25126°



SECTOR
Oil & Gas



SOURCE TYPE
Well



TOTAL NUMBER OF PLUMES DETECTED
8



DATE OF FIRST DETECTION
11 October 2024



DATE OF REPORTED MITIGATION
10 November 2024



ESTIMATED TOTAL VOLUME OF
EMISSIONS

3,500 tonnes



SAME CLIMATE IMPACT AS

~67,000 cars

DRIVEN FOR A YEAR

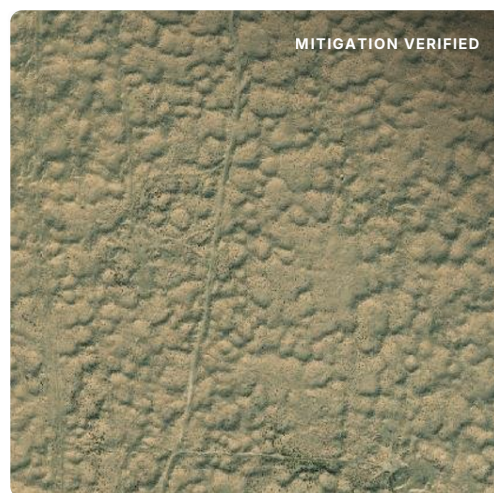
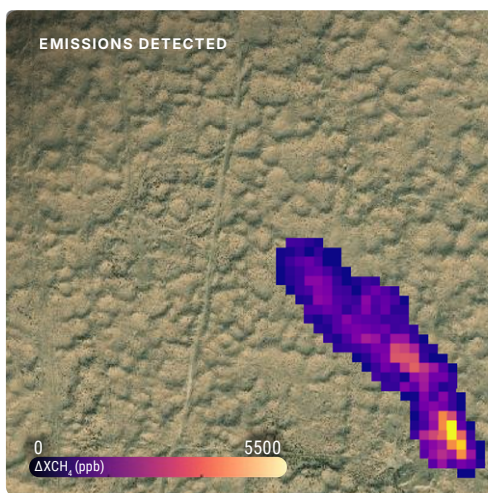


DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions resulted from a well leak caused by an integrity issue. The operator repaired the affected system, stopping the emissions.

The image shows a plume detected by ESA's Sentinel-2 in Turkmenistan, on 11 October 2024. No further emissions have been detected at the location since 10 November 2024.



In implementing MARS, UNEP collaborates with various institutional partners, including the World Bank, International Energy Agency, the Climate and Clean Air Coalition, Universitat Politècnica de València, the Netherlands Institute for Space Research, the Committee on Earth Observation Satellites and the Copernicus Atmosphere Monitoring Service.

Based on satellite data used by MARS, it is not possible to confirm the presence of minimal methane emissions at a given location. Rather, this data can confirm the absence of emissions at levels higher than a given satellite's detection limit, which varies based on the technology, ground conditions and the weather.