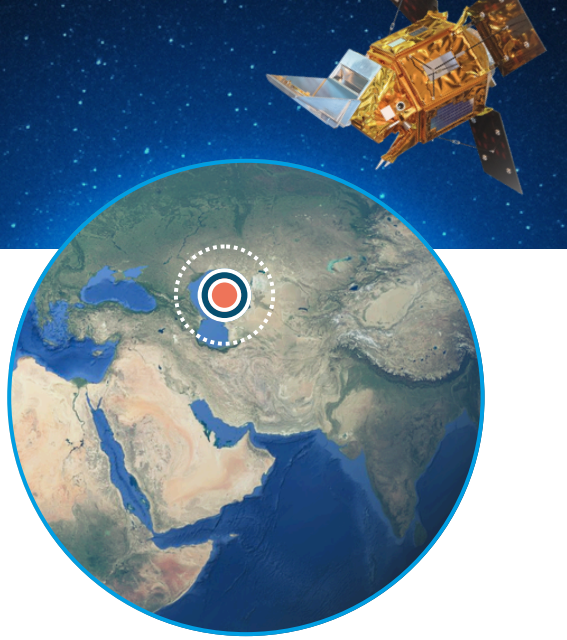
METHANE ALERT AND RESPONSE SYSTEM (MARS)
CONFIRMED MITIGATION ACTION

KAZAKHSTAN (KAZ_S_136)



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
KAZ_S_136

COUNTRY
Kazakhstan

COORDINATES
43.39767°, 52.49505°

SECTOR
Oil & Gas

SOURCE TYPE
Pipeline

TOTAL NUMBER OF PLUMES DETECTED
3

DATE OF FIRST DETECTION
29 September 2025

DATE OF REPORTED MITIGATION
26 November 2025

ESTIMATED TOTAL VOLUME OF EMISSIONS

1,200 tonnes

SAME CLIMATE IMPACT AS

~23,000 cars

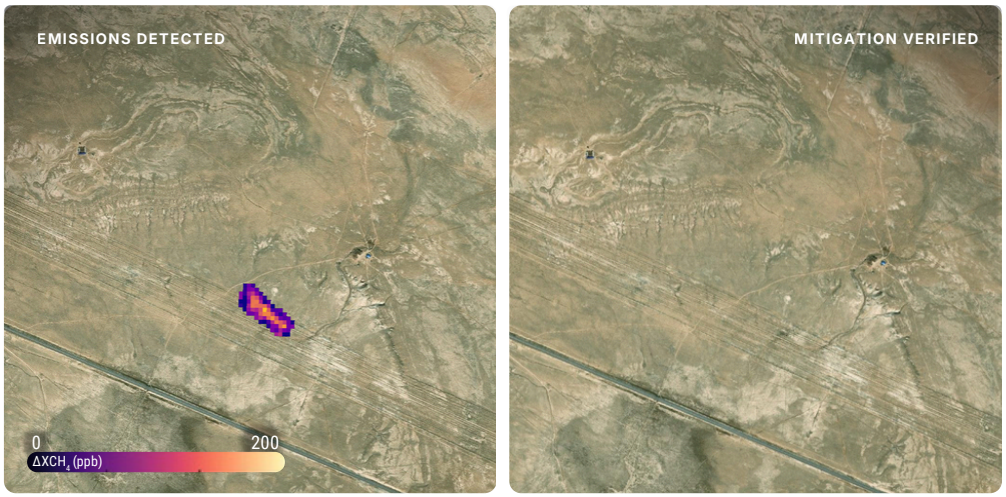
DRIVEN FOR A YEAR

* AS OF 21 MAY 2026, IMEO OBSERVED SUBSEQUENT METHANE EMISSIONS AT THIS LOCATION. THROUGH MARS, IMEO CONTINUES TO ENGAGE STAKEHOLDERS TO SUPPORT SUSTAINED MITIGATION.

DETECTION & ACTION

THE CAUSE AND THE SOLUTION

The emissions were caused by a leak in a gas pipeline. The operator transferred the gas flow from the affected pipeline to another pipeline, stopping the emissions.



The image shows a plume detected by DLR's EnMAP in Kazakhstan on 29 October 2025. No further emissions have been detected at the location since 12 March 2026.

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.

UN environment programme | International Methane Emissions Observatory

United Nations Environment Programme | International Methane Emissions Observatory
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