



The Role of Satellites in Methane Intensity Measurements

Brian Jones

K

Find the largest leaks, make the biggest impact.

Why measure Methane Intensity?

For Operations

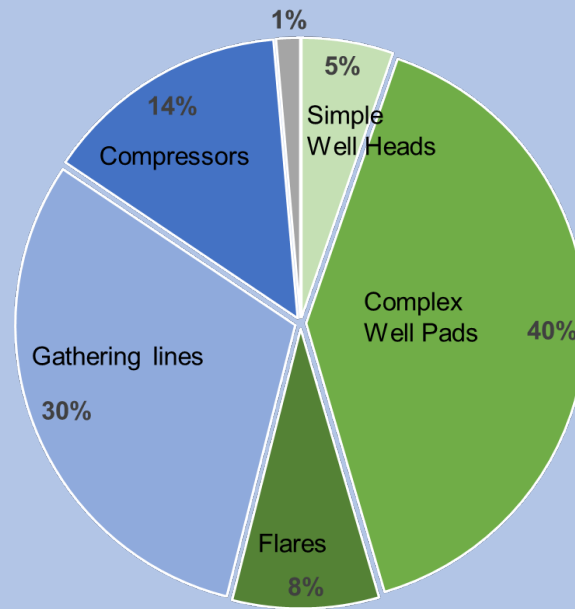
- Find and fix emissions as soon as possible
- Demonstrate and certify performance, for regulators and for stakeholders

For Science

- Critical inputs to models of climate change
- Regional, Continental, and Planet-wide data drive policy determinations



Leak distribution has a long tail

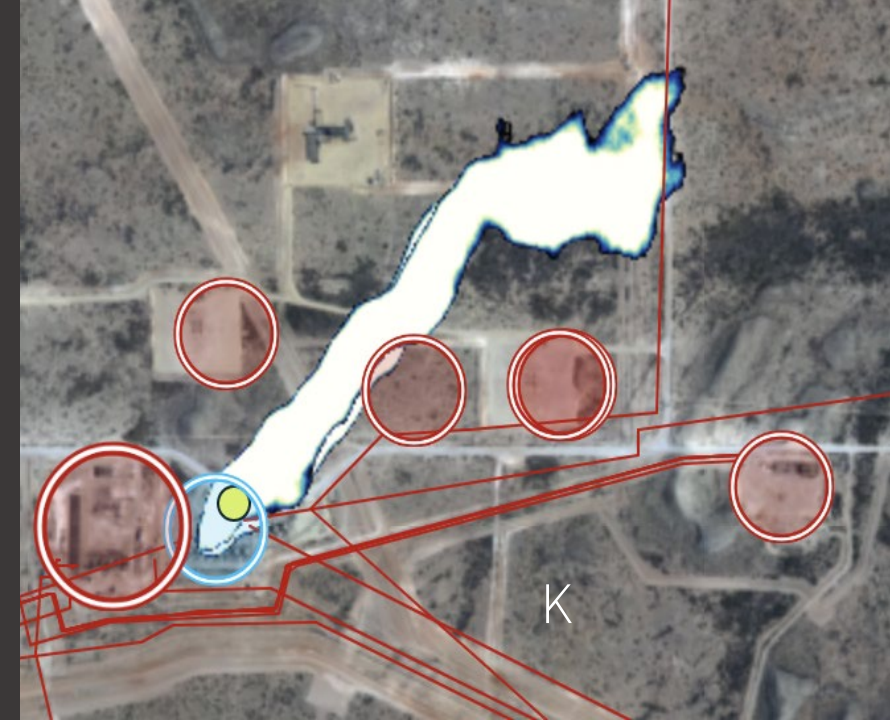


Emissions by volume, New Mexico Permian, 2019

Source attribution needs to be ~10m



Midstream is important



Practical Factors for Operations

Operational Customers are looking for a set of practical considerations:

- Complete systems, multiple times per year — every asset, every mile
- Rapid turnaround – report within a few days
- Excellent association – correctly identify the owner of the equipment
- Integration with Ops SOP
- Reporting for management





Current Requirements Sweet Spot

- Full area coverage, 100s to 1000s of square miles per customer
- Sensitivity of 45 Mcf/day (35 kg/hr) or lower
- Quarterly revisits
- 24-hour data turnaround
- Customized integration with customer's operational workflow