



# PLANET FOR PIPELINE OPERATIONS

## Environmental Monitoring & Risk Mitigation

THE MIDLAND BASIN • Texas, USA • Apr 10, 2016

Energy companies are challenged to reduce operating costs while improving environmental, social, and governance (ESG) metrics. For pipeline operators, this means monitoring environmental impacts, mitigating risks from ongoing operations, and being prepared to respond to incidents such as leaks and natural disasters. And all of this needs to be done in a cost effective way that complies with regulations and protects people, the environment, as well as the company’s assets and reputation.

Satellite imaging is helping energy and pipeline companies to mitigate risk by providing rapid insights into the status of their operations without the need for boots on the ground. The adoption of satellite imagery has a track record of increasing efficiency thereby reducing operating costs, while simultaneously minimizing environmental impacts and risks. Planet is at the forefront of this effort with our global, daily satellite imagery coupled with very high resolution tasked imagery helping pipeline operators be better stewards of the environment while also reducing operating costs.



### NEAR DAILY REVISIT

Never miss a change with daily data and insights.



### RAPID INTRADAY REVISIT

Continuously updated, spatially accurate, and analysis-ready data from around the world.



### GREATER ACCURACY

On-demand satellite tasking for high resolution imagery when and where you need it.



### ENHANCED INTEROPERABILITY

Quickly build solutions with modern APIs, cloud architectures, and GIS integrations.

## HOW PLANET HELPS PIPELINE OPERATORS

### REDUCE OPERATING COSTS

Empower remote workflows with satellite monitoring and automated analytics, reducing costs of field visits.

### MITIGATE RISKS

Monitor infrastructure to identify structures and encroachments and respond to incidents.

### ENVIRONMENTAL STEWARDSHIP

Ensure that environmental impacts are minimized and monitor remediation efforts.

## USE CASES



Pipeline construction project with cleared land and pipe laying underway in Val Verde County, Texas

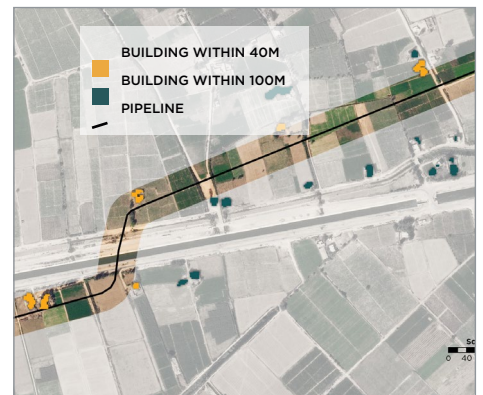
### Environmental Monitoring for Asset Development

- Conduct pre-construction environmental impact assessments to efficiently plan routes and minimize environmental impacts. Plan routes using the most up-to-date satellite imagery to minimize costly project delays.
- Remotely monitor the status of pipeline construction projects to keep project stakeholders informed with on-demand, high-resolution imagery. Save the time and cost of going into the field when you can quickly see what you need from your office.
- Track reclamation and restoration efforts by analyzing vegetation health to verify compliance with permits and environmental regulations.

### Risk Assessment and Mitigation

- Save time and money compared to traditional methods of manually inspecting costly aerial imagery or outdated imagery in GIS tools.
- Monitor right-of-ways for encroachment, disturbances, vegetation changes, and more with high-resolution satellite imagery.
- With Planet's upcoming hyperspectral satellites, measure methane leaks from operations to support leak detection & repair workflows, to mitigate environmental risks and impacts.

Dwelling units and other structures identified along pipeline right-of-way in Egypt. October 21, 2018



Keystone pipeline spill in Edinburg, North Dakota • Nov 2, 2019 and Nov 7, 2019

### Emergency & Natural Disaster Response

- Understand the possible risk to assets, such as vegetation encroachment or 3rd party changes.
- Assess damage to infrastructure or the environment after incidents occur and evaluate access to critical infrastructure.
- Efficiently direct response efforts or get a recent understanding of the environment where natural disasters or spills occur.

## GET IN TOUCH

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