

# Shale development - Using imagery and DEMS to improve operation efficiency



Fig.  
complexity  
of shale  
development

*Earth Observation Support to improve operational flows and planning*

**User:** Energy Company

**Need:** Shale development introduces a new level of operational complexity with respect to field operations for oil and gas operators. Long lead times reduce flexibility in operations. Delays in executing on the ground negatively impact the drilling schedule and cost operators real money.

**Initiative:** objective was to use a combination of high resolution aerial imagery and digital elevation models to reduce costs and increase efficiency in surface operations. In addition, the geospatial data we provided was used to improve production in lateral wells due to increased accuracy in leasehold and well placements (xyz).

**Results:** improve some of the technical challenges in the shale operations by using high resolution Imagery and Elevation Models in operational workflows and planning for well pad locations and pipeline routing to increase the operational efficiency and production, while reducing operating costs and environmental impact. **Drilling benefits:** Ensure drilling has all information necessary to pick preliminary locations from the office, making the decision faster and making better use of drilling and field personnel time **Facilities benefits:** Reduce field visits to determine location of existing infrastructure

**Service provider:** Spatial Energy

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**EARSC**

European Association  
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