

# **Modeling and Analysis of Flow Behavior in Multiwell Bounded Reservoirs**

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## 10 Second Summary

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- **Developed a new method to estimate the original oil/gas-in-place by analyzing production data from only one well.**
- **This method can also be used to estimate the permeability-thickness product in the drainage area for a particular well.**
- **These developments are based on an analytical solution for a multiwell model.**

# Why is this work important?

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- **Multowell Solution**
  - Accurate
  - Rigorous and robust
  - Very fast solution (can be run on a PC)
- **Multowell Analysis Approach**
  - Can be based on single-well decline type curve
  - "Total Material Balance Time" → system volume
  - Easy-to-apply
- **Validation**
  - Homogeneous reservoir case
  - Heterogeneous reservoir case
  - Field Cases (Arun Gas Field, Indonesia)