# Basin Wide EOS Model

Barnett Shale

whitson

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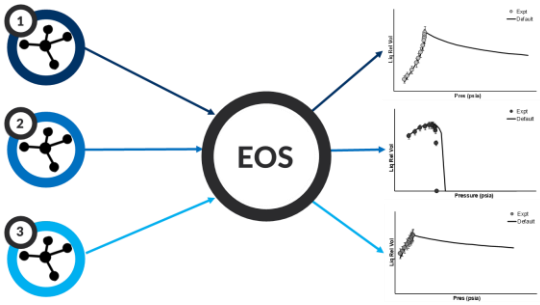
## Joint Industry Project for the Barnett Shale

This JIP is designed to develop a field-wide EOS model for the **Barnett Shale** and to facilitate associated PVT report data sharing between participating companies.

Industry participants will contribute with a participation fee and PVT laboratory reports. The resulting EOS model(s) will provide a means to generate key PVT data for individual wells based on readily-available data such as reservoir temperature, separator gas composition (gravity), crude API gravity, and producing gas-oil ratio. The EOS model(s) can also be used for advanced PVT applications such as black-oil PVT tables needed for reserve calculations, numerical simulation of well performance, and lumped-EOS models that can be used in compositional reservoir simulation of gas-based EOR processes.

The technology of developing a single, common EOS model for multiple reservoirs and basins has been developed and used by **whitson,** for the past 30 years around the world, including Montney, DJ Basin, Powder River, Bakken and Anadarko basin with great success. This is achieved by including a wide range of fluid samples with measured PVT data (low-GOR to high-GOR) from a basin, multiple reservoirs and groups of formations.

Each sample is described by the same EOS model, where each sample's unique composition is all that is required to predict accurately the laboratory PVT data with the common EOS model. A global EOS model regression typically includes 25-100 samples with lab PVT studies and many thousands of PVT data.




The JIP is planned to operate from Q3 2025 – Q1 2026. The basic JIP participation fee is **40,000 USD** together with the contribution of 3 samples with complete PVT reports. If more than 3 samples are provided, a per-sample fee of 3,000 USD/sample will be charged. Additional company-specific services can be provided upon request.

**Four major deliverables are provided by the JIP to all participants.**

1. **A basin-wide EOS model, and/or formation-specific EOS models for the Barnett Shale.**

2. **Detailed Individual Sample Analysis**
   - Comparison plots of lab experimental data versus EOS predictions
   - Sample compositions in EOS format

3. **Presentations & Reports**
   - JIP Technical Presentations & Documentation

4. **Data Sharing**
   - The provided PVT reports will be shared among the participating companies.

**Project Staff**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**Confidentiality & Other Remarks**

- The only information shared with all participating companies is the final field-wide EOS model that match the comprehensive data included in EOS model building, and the provided PVT reports.
- No data or results from this study will be published in any form.
- The participant provided PVT reports should contain, at minimum, a CCE experiment with a depletion test (DLE or CVD).

## ABOUT US

We support energy companies, oil services companies, investors and government organizations with expertise and expansive analysis within PVT, gas condensate reservoirs and gas-based EOR. Our coverage ranges from R&D based industry studies to detailed due diligence, transaction or court case projects.

We help our clients find best possible answers to complex questions and assist them in the successful decision-making on technical challenges. We do this through a continuous, transparent dialog with our clients - before, during and after our engagement.

The company was founded by Dr. Curtis Hays Whitson in 1988 and is a Norwegian corporation located in Trondheim, Norway, with local presence in USA, Middle East, India and Indonesia.

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