

R. YVONNE SCHERZ

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Licensed Petroleum Engineer

Accomplished and versatile in all aspects of Petroleum Engineering. Proven expertise in engineering and geologic principles, and business processes relating to petroleum asset development, and acquisition and divestiture.

- **Society of Petroleum Engineers Southwestern North America Region Award (2021) for Reservoir Description and Dynamics**
- Authored four SPE Conference papers on fracture driven interactions.
- As Reservoir Engineering Manager, led redevelopment strategy of Permian tight oil (dolomite) asset resulting in a 500% increase of Proved Reserves to 15 MMBO and upside 3P reserves of 40 MMBO.
- **As Technical Manager, led teams in A&D evaluations of unconventional gas, and tight oil assets resulting in bids ranging from \$250MM to over \$1B.**
- Technical evaluation of CBM asset in Black Warrior Basin resulted in Company **strategy direction**, reassignment of Capex and recommendation of eventual divestiture.
- **Technical, economic and risk analysis in CO2 flood development** in the Permian NW Shelf resulted in savings of 20% Capex and added 1MMBO in reserves.
- **Fracture Driven Interaction work** resulted in risking revisions of well locations to preserve infill well EUR.

AREAS OF EXPERTISE

Reservoir Characterization | SME in Fracture Driven Interactions
Qualified Reserves Evaluator for SEC and Canada | Economic Evaluations
| Integrated Field Studies | Production Operations | Completions | Business Development | LNG | EOR
| GOM Shelf and Deepwater | Unconventional Reservoirs (CBM, Shale Gas, and Tight Oil) | Multilingual
Managerial Expertise | Talent Management | Market Trends | Competitive Analysis

PROFESSIONAL EXPERIENCE

D Braxton and Associates, Houston, TX 06/2021 – Present
Senior Reservoir Engineering Advisor/Consultant

- Collaborating with client on pressure sensor surveillance for FDIs.

Endeavor Energy Resources, Midland, TX 10/2017- 06/2021

Senior Staff Reservoir Engineer, Unconventional Horizontal Development in the Midland Basin

As the technical lead, set up data acquisition program and analysis tools. By incorporating data analysis and geology, determine optimal landing zones and spacing. As an SME in Fracture Driven Interactions (FDI), authored four SPE technical papers on the subject and presented at multiple conferences and industry panels.

- Lead for data acquisition program with downhole pressure gauges, PVT and DFIT.
- Prepare Reservoir annual budget for data gathering and software.
- Identify key reservoir performance drivers with public, and in-house data using data analytics.
- Integrate RTA results and public data in Spotfire for quick AOI assessments.
- Collaborative efforts result in doubling production year over year.
- FDI assessment work has led to changes in risking infill well locations.
- Established pressure surveillance guidelines to assess FDIs in real-time.
- Application of FDI mitigation resulted in maximizing first-order infill well recovery to within 5% of the typewell curve vs. the industry 30% discount. This work preserves PDP reserves of 100 to 250 MBO per infill well.

- By mapping RTA-based well performance, we proved trends in one AOI were tied to geology, not completion size, resulting in completions cost savings.
- Use Enersight to optimize drilling and completion schedule and run “what if” scenarios for management.
- Mentor less experienced reservoir engineers in RTA, DFITs, and best reservoir engineering practices.

Consulting Reservoir Engineer, Houston, TX 09/2014 – 09/2017

- **Eagle Ford extension** exploratory well: analysis of well test for client by reviewing drilling and completion reports, and modeling fluid flow-back in Prosper. Recommended optimal tubing size for completion.
- **Williston Basin:** advised confidential client of prospective asset value.
- **Permian Central and Midland Basin stacked-pay asset valuation:** develop type curves, economics.
- Reservoir and economic evaluation of GOM Shelf asset for acquisition bid.
- Advisor to creditors on **Texas Haynesville and Cotton Valley (unconventional gas)** asset value.
- Team Technical Manager for A&D evaluation of **unconventional assets in Mexico** for Mexican client. Analog search, RTA, economic evaluation of over 100 wells.
- Perform Permian field analog analysis for client, Hunter Oil. Update type curves and economics for year-end reserves. Advise equity investors of technical and economic parameters employed in evaluation.
- **A&D evaluation in Piceanse Basin** for equity-backed confidential client. Transaction successfully executed.
- Update Reserves for Hillcrest Resources’ assets in **SE Texas and GOM Shelf**. Provide Year End Reserves Report in accordance with the Canadian Oil and Gas Evaluation Handbook (COGEH) and National Instrument 51-101 (NI-51-101) standards of disclosure.

Reservoir Engineering Advisor for A&D–Business Development, Centrica E&P (9/2014-8/2015)

- **Provide technical support in reserve and resource appraisal in connection with the acquisition of US unconventional gas assets by employing decline curve analysis, material balance, volumetric, and rate transient analysis. Partner with geologists to identify reservoir performance drivers, and develop typewell curves for target areas in Marcellus, Utica and Haynesville areas (\$250MM-\$1B asset bids).**
- **Determine PRMS-defined Proved, Probable and Possible reserves for unconventional reservoirs.**
- Use **Eagle Ford** liquids recovery to estimate potential **Utica** expansion. Mapped results enabled quick evaluations of targeted A&D areas.
- Perform **economic analysis** for development scheme (Aries).
- **Collaborate with multi-discipline team** members to ensure timely valuations to meet bid deadlines.

Hunter Oil Corp. (prior Enhanced Oil Resources Inc.), Houston, TX, 03/2013-08/2014 Manager, Reservoir Engineering

Evaluation of development options in **tight oil reservoir** in **Permian Basin** assets. Perform waterflood pattern-performance analysis using *Harmony* and use *CO2 Prophet* to history-match waterflood and forecast CO2 response. Advance project to conceptualization stage. Analyze full-cycle economics (PHDWin). Lead team of facilities engineers, completions engineers, and drilling engineers to determine project development costs and perform risk assessment.

- As result of efforts, a new development strategy added 12 MMBO in PUD reserves and 80 horizontal locations replaced the previous vertical infill development plan.
- Prepare Data Room for Divestiture of assets resulting in successful sale despite low oil prices.
- Make technical presentations to banking community and potential JV development partners to finance asset development.
- Conduct annual reserves appraisal and coordinate with third-party evaluator.

EP Energy (El Paso Corp.), Houston, TX, 08/2011-03/2013

Senior Staff Reservoir Engineer, Unconventional Resources Asset Team

Optimize production in New Albany Shale gas field, and CBM fields in Arkoma and Black Warrior Basin. Analyze production, recovery, and infill potential with Fekete’s Harmony software, and update type curves for new-drill

economic (Aries) assessments. Maintain an up-to-date **reserves database** in **Aries** and provide year-end **reserve review**.

- **CBM Analytical evaluation** became basis for infill decision and lease renewals resulting in strategy change.
- Assess emerging New Unconventional Resource plays, develop risked typewell curves and perform full cycle economics for potential entry. Present technical and project economics to Executive Management.
- Update new play (exploratory stage) economics for leased acreage as drill & complete costs evolve.
- Mentor production engineers by teaching engineering best practices in modeling well tests in Prosper.
- Prepare Data Room for divestiture of assets in areas of responsibility.

Kinder Morgan CO2 Co., LP, Houston, TX, 4/2008-8/2011

Senior Reservoir Engineer for CO2 Development Group, Permian Basin

Coordinate development and optimization of CO2 flood assets. **Perform full cycle economics (Aries)** of complex development projects including risk analysis and decision tree evaluation (@Risk). Team business coordinator for budgeting and post appraisals including assessment of reserves. **Technical lead** for **PTA (Saphir)** and **IPM (Prosper, Gap, MBal)**. **Design and analyze well tests; utilize pressure transient analysis, and integrated nodal analysis to support pattern performance analysis.**

- **Set up Aries database** for Development Group.
- Utilize dimensionless curve-fit to estimate production volumes and remaining recoverable reserves.
- Work with multi-disciplinary team to establish **development** and **conformance strategy** for ongoing CO2 flood expansion. As a result, published comprehensive team study and development plan for each expansion.
- Present development project to company President for approval.
- Mentor junior engineers and summer interns in best engineering practices, appraise interns and recommend for hire.
- As a result of technical analysis, added **1 MMBO** to Prove Reserves (equal to **10%** of project) by proposing alternate drilling and completion program.
- Use of nodal analysis, PTA and dimensionless curves resulted in incorporating first horizontal well in development plan.
- **Design of multi-well pressure pulse test** to determine reservoir characteristics resulted in **savings of up to \$6 million** in remediation costs. Analysis of pressure and voidance volumes resulted in savings of **\$10 million** facilities investment.

D Braxton & Associates, Houston, TX, 2002-4/2008

Senior Reservoir Engineering Advisor/Consultant

For client, *Total E&P USA*, 2006-2008 evaluate **Deep Water Gulf of Mexico** gas field to optimize net present value. **Design and evaluate pressure transient tests**, use material balance and decline curve analysis to determine recoverable reserves. As a result, recommended remediation to restore **12 MMCF/D (100% increase)**. To mitigate risk, the project was organized into a four-phase plan, including slick line, wireline, coiled tubing, and workover rig work. Revise reservoir model for 14 reservoirs in field. Make technical presentation to US Management and Corporate Technical Experts.

For client, *The Carnrite Group*, **Technical Manager to advance mature waterflood field study** in **Cuyano Basin, Argentina** to visualization stage, and upgrade data and cost estimate to P80 certainty, at client's request. Execute full cycle economics. Conduct CO2 scoping study; supervise reservoir simulation consulting firm in Moscow, supervise static and dynamic model history match under primary and secondary recovery schemes. Report project status to client in peer review presentations.

Prior positions include:

- **Consultant; Reservoir and Project Engineer** for various clients in Jakarta, Indonesia, Kalimantan, Indonesia, and Southeast Texas. Conduct field studies, reserve estimates, depletion plans and prospect evaluation. Conduct NGL Project evaluation including market analysis, shipping alternatives and run project economics. LNG shipping simulation.

- **Mitchell Energy & Development Corp.**, The Woodlands, TX; **Senior Reservoir Engineer**; **North Texas Gas** Field Development, well AFEs and economics, well test design and evaluation. Support exploration team.
- **The Superior Oil Co.**, The Woodlands, TX **Reservoir Engineer** for **Mid-Continent**; reservoir field study.
- **Mobil Oil**, New Orleans, LA, **Reservoir & Exploitation Engineer**; **Gulf of Mexico Shelf**; Production surveillance, well stimulation, new well completions; Reserve forecast, well AFEs and economics.

EDUCATION

Tulane University, New Orleans, LA, Bachelor of Science in Mechanical Engineering

Tulane University, 28 credit hours completed to Master of Business Administration

COMPUTER AND SOFTWARE SKILLS

Microsoft Office: Word, Excel, PowerPoint, Access, Visio, Project

Economic Evaluation: OGRE, PHDWin and **Aries**

Risk Analysis: @Risk **Decision Analysis**, **Rose & Assoc.**

OFM and DSS (Production data analysis)

IPM (**Prosper Nodal Analysis**, GAP and MBAL integration)

Eclipse Modeling Software (working knowledge), PETRA

Kappa Ecrin: Saphir (**PTA**), Topaze (PA)

Scale-up (proprietary program for CO2 recovery forecast)

IHS's Harmony: **RTA**, **Decline-Plus**, CBM

Spotfire, **Enersight**

MEMBERSHIPS

The Petroleum Club of Houston

Society of Petroleum Engineers

Society of Evaluation Engineers (membership pending)