

WILLIAM NICHOLS, P. Eng.
Senior Professional Petroleum Engineer
Midland, Texas

SERVICES: Unconventional Reservoir, Operations and Acquisition Engineering

HIGHLIGHTS OF QUALIFICATIONS

- Results focused, able to find ways to add value fast.
 - Thirty years of varied experience -- Reservoir, Operations and Acquisitions and Divestitures; Field & Office.
 - Excellent people skills as a result of supervisory and project management experience.
 - Innovative and cooperative team player.
 - High energy; enthusiastic and passionate about increasing production and reducing LOE and Capex.
 - Well organized, able to manage many projects at once.
 - Professional Engineer registered in Alberta.
 - BSc in Petroleum Engineering from the University of Alberta.
 - Accomplished project manager.
 - Comfortable in the field with pumpers and frac hands and presenting to senior management.
 - United States citizen.
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UNCONVENTIONAL EXPERIENCE

- Worked directly in the Bakken, Powder River, Montney, Cardium, Viking and the Oilsands.
 - Part of teams that drilled and completed more than 100 unconventional wells.
 - Re-fractured 12 wells to protect from frac hits and increase parent well productivity.
 - Evaluated for Capital Markets and Acquisition Clients: Permian Basin (Midland and Delaware), Eagleford, Marcellus, DJ Basin, Niobrara, Haynesville, Uinta, Utica, SCOOP/STACK, Green River and Barnett
 - Completed wells with ball drop, sliding sleeve and plug and perf systems.
 - Student of completion techniques: extreme limited entry, diverters, number of stages and clusters, water and sand intensity; to understand which techniques lead to the highest NPV & EUR for the owned acreage.
 - Attended courses, conferences and read many SPE papers to monitor the industry best practices to yield the most economic results for unconventional resource development.
 - Steam Assisted Gravity Drainage (SAGD) reservoir and production operations experience.
 - Special Core Analysis, Rate Transient Analysis, Reservoir Fluid Analysis expertise.
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RESERVOIR ENGINEERING SKILLS

- Economic Evaluation expert: Used most major software packages extensively; Aries, PEEP, PHDWin, Val Nav, PowerTools, POGO etc.
 - Decline Curve Analysis expert: assigned reserves based on Decline Curve Analysis to thousands of wells.
 - Reservoir Engineering Specialist: Fundamental understanding of recovery mechanisms and fluid flow.
 - Understanding of capital markets / finance - many capital markets clients,
 - Possess a broad understanding of the E&P business, unconventional reservoirs, recent notable market comps and market trends in the Permian Basin.
 - Proficient in volumetrics, recoveries, fluid behavior, simple analytical history matching, and flow regime identification.
 - EOR expert: waterflood, CO2 flood, polymer flood, SAGD, CSS and miscible flood experience.
 - Software: IHS Enerdeg, Fekete, OFM, MS Office Suite, Access, Rodstar, WEM, Eclipse, no Spotfire yet.
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OPERATIONS ENGINEERING SKILLS

- Artificial Lift expert: Rod pumps, Gas Lift, Plunger Lift, ESPs and PCPs.
 - Unconventional completion design, execution, analysis and optimization.
 - Identify workover candidates, write stimulation programs and coordinate with wellsite supervisors to execute workover procedures: fracing, acid/solvent jobs, artificial lift changes, etc.
 - Stimulated hundreds of wells with excellent results, orders of magnitude injection increases, large increases in oil and gas production.
 - Excellent at coordinating with field operations to develop LOE budgets and track and monitor LOE spending to ensure compliance with LOE budgets.
 - Produced and source water treatment and handling expertise. SAGD and tight oil EOR is all about water.
 - Enjoy being in the field, excellent rapport with field operations staff. Contagious enthusiasm.
 - Proficient at identifying bottlenecks and fixing them.
 - Promote a safety culture. Executed well service programs in safe and cost-effective manner, ensuring all operations were carried out in compliance with company's HSE procedures.
 - Software: IHS Enerdeq, Fekete, OFM, MS Office Suite, Rodstar, WEM-nodal analysis.
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ACCOMPLISHMENTS

PRODUCTION OPTIMIZATION

- Led a field based team that was responsible for 7000 BOPD and achieved a 25% increase in oil production -- this was accomplished while cutting LOE by 19%.
- Proven value-adding performer - added over 5 mmcf/d and 41.1 bcf for \$350,000 resulting in a net present value increase for the asset of over \$100 million through optimization.
- Tripled injection on a 45 year old waterflood through sifting through 100,000 pages of reports and conducting Special Core testing and a deep understanding of the rock fabric and field operations.
- Tripled production on a southern Alberta gas field through low cost optimization.
- Increased production 57% on a 40 year old oilfield increasing the value of the property by \$250 million. This was after changing the recovery mechanism from fireflood to waterflood.

RESERVOIR / EXPLOITATION

- Managed large areas in Alberta, B.C. and Saskatchewan to maximize profit and productivity.
- Drilled and completed over 1000 wells resulting in over 500 mmcf/d and 10,500+ bopd.
- Designed and implemented seven waterfloods.
- Added 10 million bbls proved reserves at \$1.80/bbl in three months by developing a plan for a 10 section waterflood and convincing a reserve company to book the reserves as proven.

ACQUISITIONS

- Involved in over \$21 billion of offers, resulting in over \$5.2 billion worth of deals.
 - Have also sold over \$1.9 billion of property. Involved in many corporate deals, resulting in a successful \$800 million hostile takeover and a \$730 million friendly US takeover.
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EMPLOYMENT HISTORY

January 1991 - present	Consultant , Clients include: ExxonMobil, Shell, BP, ConocoPhillips, Apache, Devon, Burlington, Pioneer, Encana, Suncor, Petro-Canada, Husky, Centrica, Taqa, Nexen, Canadian Occidental, Dorset, PrimeWest, Phillips, Highridge, Anderson, Paramount, Pengrowth, Obsidian/PennWest, Renaissance, Stampeder, NAL, Wascana, Zargon
Aug. 1989 - Dec. 1990	Encor Inc. , Calgary, Exploitation Engineer
Jan. 1988 - July 1989	Encor Inc. , Shaunavon Sask., Field Production Engineer
May 1985 - Dec. 1987	GLJ Petroleum Consultants , Reservoir and Economic Evaluations
1980 - 1985 (Summers, Xmas, and Spring Breaks)	Adeco, Arrowhead, Brelco, Nabors, Regent and S & T Drilling
Sept 1980 – April 1985	Drilling Rig Worker (Roughneck to Derrickman) (While in University) BSc in Petroleum Engineering from the University of Alberta
