

WAYNE D. MONNERY
240 Hawkwood Drive N.W.
Calgary, Alberta, Canada T3G 3M9
(403) 804-3266

CONSULTING ENGINEERING

Consulting Process Engineer for various clients in Canada and Kazakhstan, performing process simulation and equipment sizing/evaluation in troubleshooting, de-bottlenecking and capacity studies on natural gas plants (sweetening, sulphur recovery, dehydration, shallow cut refrigeration, deep cut cryogenic, fractionation). Recommended and implemented solutions.

Provided simulations and process engineering for Steam Assisted Gravity Drainage (SAGD) projects for Encana and Cenovus.

Performed detailed petroleum characterization analysis of Athabasca bitumen and process simulations for fluid coker scrubber and atmospheric crude tower for Syncrude Canada Limited.

Comparison of sour gas sweetening computer program AMSIM to TSWEET and plant data. Performed MDEA study for confirming sweetening absorber and regenerator column efficiencies and physical properties.

RESEARCH

1987 – 1988 University of Calgary, Calgary, Alberta, Canada:
Researched hydrocarbon liquid (pure component) viscosity prediction by corresponding states method, thermodynamics and process simulation (M.Sc.)

1991 – 1998 University of Calgary, Calgary, Alberta, Canada:
Researched viscosity prediction by statistical mechanics for various compounds (Ph.D.)
Project manager for research project on the kinetics of the modified Claus process reaction furnace and consultant to Shell Canada Ltd. on BTX destruction in sulphur plant reaction furnace.

1997 – 1998 Project manager for Water Content and Physical Properties of Acid Gas Mixtures for Compression and Re-injection Research Project (University of Calgary, Calgary, Alberta, Canada).

1998 – 1999 Project management and analysis for Improved Liquid Separation for Flaring Research Project for Environment Canada/CAPP (University of Calgary, Calgary, Alberta, Canada)

2001 – 2006 Researched innovative new method for natural gas H₂S removal and worked to commercialize the process as entrepreneur (Xergy).

20012 – 2014 Modelling thermodynamic and physical properties; specifically simplified model for phase equilibrium constants.

TEACHING

1997-98, 2003-04, 2005-06, 2008-09, 2009-10, 2013-16 Acted as advisor/mentor for ENCH 511/531 Chemical Process Design I/II; also done lectures each year on Practical Thermodynamics and 2/3 Phase Separator Design 1997 – 2009, Schulich School of Engineering, University of Calgary, Calgary, Alberta, Canada

1997, 2003, 2006, 2013-2016 Lectured ENCH 607 & 609 Natural Gas Processing Technology, Schulich School of Engineering, University of Calgary, Calgary, Alberta, Canada

2004 – 2008, 2014-2016 Taught Gas Processing Short Course at the University of Calgary, Faculty of Continuing Education, Calgary, Alberta, Canada

1999 – 2015 Adjunct Associate Professor, Schulich School of Engineering, University of Calgary, Calgary, Alberta, Canada

1998 Instructed Computer Aided Process Design for Gas Processing at Universidad Industrial de Santander, Colombia, SA for Ecopetrol.

1998, 1999 Instructed Pre-Treating section of Fundamentals of Base Load LNG, Fundamentals of Gas Processing – Technology and Economics for IGT, Chicago, USA.

1999 Instructed Gas Production Engineering at Universidad Nacional Ingenieria, Lima, Peru, SA for Petro Peru.

2001 Instructed Design of Production Facilities at UNACAR, Ciudad del Carmen, Mexico for Pemex.

PUBLICATIONS

See attached list

WORK EXPERIENCE

2003 – present	University of Calgary, Department of Chemical & Petroleum Engineering Adjunct Associate Professor
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1995 - present	CHEM-PET Process Technology Ltd. Process Engineer (President and Director, Principal)
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1991 - 98	UNIVERSITY OF CALGARY Research Engineer/Ph.D.
1990 - 91	SNC LAVALIN INCORPORATED Process Engineer
1989 - 90	GIBSON PETROLEUM COMPANY LIMITED Operations Engineer (temporary)
1988 - 89	COLT ENGINEERING CORPORATION Process Engineer

EDUCATION

1995 Ph.D., Chemical & Petroleum Engineering, University of Calgary, Alberta, Canada

1988 M.Sc., Chemical & Petroleum Engineering, University of Calgary, Alberta, Canada

1986 B.Sc., Chemical & Petroleum Engineering, University of Calgary, Alberta, Canada

PROFESSIONAL AFFILIATIONS

Registered professional engineer with Association of Professional Engineers and Geoscientists of Alberta (APEGA), Canada.