Chapman Hydrogen and Petroleum Engineering Ltd.

C.W. (CHARLIE) CHAPMAN, P. Eng. President



SUMMARY

Mr. Chapman is a professional engineer with greater than 50 years of broad experience in the oil and gas industry, including staff and management positions with major and minor producers and consulting firms. Since 1985 Mr. Chapman has been president of Chapman Hydrogen and Petroleum Engineering Ltd., overseeing all of the diversified professional services of the company, domestically and internationally.

Mr. Chapman is a founder and Co-Chairman of Chapman Petro Consulting incorporated in Kazakhstan, in which Chapman Petroleum Engineering Ltd. holds a 50% ownership.

Mr. Chapman served a three-year term on the Oil and Gas Committee (OGC) of the Canada - Newfoundland and Labrador Offshore Petroleum Board as part of a fiveparticipant committee, during which time the committee organized, coordinated and presided over a hearing and resolved an issue involving a major offshore project.

University of Alberta, Edmonton B.Sc. in Mechanical Engineering - 1971

PROFESSIONAL AFFILIATIONS

- Association of Professional Engineers and Geoscientists of Alberta (APEGA)
- The Australasian Institute of Mining and Metallurgy (APEGA equivalent)
- Society of Petroleum Evaluation Engineers (SPEE)

PROFESSIONAL HISTORY

- President Chapman Petroleum Engineering Ltd., 1985-present
- Manager of Evaluations Capital Engineering Ltd., 1983-1985
- Manager of Engineering Dynamar Energy Ltd.,
- Project Leader James A. Lewis Engineering Co. Ltd.,
- Canadian Division Engineer Champlin Petroleum Company (UPRI), 1978
- Project Engineer Murphy Oil Company, 1977-1978
- Engineer Sun Oil Company Limited (Suncor),
- Pipeline Gauger Gulf Alberta Pipeline Co., 1968-1970 (summer)

KEY PROJECT EXPERIENCE

Chapman Hydrogen and Petroleum Engineering Ltd.

- Thousands of Reserve and Economic evaluations in support of continuous disclosure obligations and new listings with securities regulators in most jurisdictions in
- Domestic and international exploration drilling prospect
- Analysis and assistance with numerous acquisitions. domestically and internationally, some of which were large offshore projects in Brazil and Angola.
- Expert witness functions including regulatory hearings, international arbitrations and litigations on Court of Queen's Bench.
- Presiding over major hearing on Canada-Newfoundland and Labrador OGC committee.
- Project management in the role of operator of oil and gas properties and coordination of drilling programs and technical assistance for an associated company which drills and operates wells for clients under an operating license covering western Canada.
- Established and provided services to significant new technology joint ventures, including the exploration for commercial hydrogen accumulations, and the implementation of high technology for application to
- Coordination of numerous Unitization projects.
- Reservoir engineering and production optimization
- Prepare and present instruction and guidance related to our Professional Practice Standards (COGEH and PRMS) in Brazil and Republic of Kazakhstan.
- Advisory role to Ministry of Infrastructure in Israel for resolution of an industry dispute.

Capital Engineering Ltd.

- Managed technical and administrative staff in preparation of reserve and economic evaluations.
- Reserve evaluation of Barbados National Oil Company for Petro-Canada International Assistance Corporation.

- Dynamar Energy Ltd.
 Evaluated all aspects of the implementation of enhanced recovery project and coordination of unitization - Wayne Rosedale Basal Quartz pool.
- Involved in operation of large blocks of MR/MH, 2WS wells, experienced state of art shallow gas technology.

James A. Lewis Engineering Ltd.

- Coordinated major client reserve and economic evaluations.
- Evaluation of gas potential underlying Lake Erie for Ontario Ministry of Natural Resources.
- Established and managed company branch office in Denver, Colorado.

Champlin Petroleum Company (UPRI)

- Responsible for all engineering functions in Canadian
- Contributed to multi disciplined staff effort in development of West Pembina deep rights.
- Coordinated and supervised the construction and startup of sour (DEA) gas plant.

Murphy Oil CompanyResponsible for all engineering activities for the company's oil properties.

Sun Oil Company Limited

- Senior reservoir engineering duties, enhanced recovery investigations and acquisition analyses.
- Production department reservoir éngineer, production performance and reservoir pressure monitoring for all operated properties.
- Field assignments (2 years)
 Ran 50 MMscf/d compressor facility
 - Coordinated cathodic protection corrosion mitigation programs.
 - Supervised service rig activity.
 - Exposure to Drilling Operations.