

PTAC

**PETROLEUM
TECHNOLOGY
ALLIANCE
CANADA**

**An Association to
Promote Collaboration on
Technology Development
in the Conventional
Oil and Gas Industry**

Message from the Board of Directors

1996 has been an exciting inaugural year for PTAC. The seeds of concern within the conventional oil and gas industry to provide improved focus on the research and technology development dollars being spent, and to provide a vehicle for increased collaboration on research and technology development, have grown roots.

Since April 1996, PTAC has progressed from being a conceptual model, that many industry players thought made a lot of sense, to an operating reality with numerous achievements to its credit. PTAC made considerable progress during 1996 in creating the mechanisms and tools that will lead to the launching of additional collaborative research and technology development projects in the future.

Outlook for 1997

The main area of focus this year is the effective functioning of PTAC's Technical Subcommittees. They are currently establishing objectives for the year, including identifying needs, initiating collaborative projects to satisfy the needs, and ensuring projects are reviewed and communicated to members for collaborative participation.

PTAC will be working with other organizations to ensure there is improved communication and less redundancy of effort while maintaining focus on technology development for the conventional oil and gas industry.

We look forward to an increasing number of projects being undertaken in 1997 which will have significant benefit to all participants.

Eric Lloyd
President, PTAC

Larry Bell
Chairman, PTAC

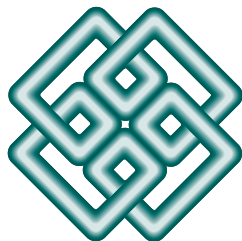
65 PTAC Member Organizations

As of March 31, 1997

Dr. George Adler
Alberta Energy Company Ltd.
Alberta Research Council
Alberta Sulphur Research Ltd.
Amoco Canada Petroleum Company Ltd.
Wayne Burnside
CS Resources Limited
Canadian Fracmaster Ltd.
Canadian Occidental Petroleum Ltd.
Centre for Engineering Research Inc.
Chevron Canada Resources
Computalog Ltd.
Crestar Energy Inc.
Ed Cunningham
Roland J. DuBerger
Foothills Diamond Coring Ltd.
Gascan Resources Ltd.
Brad Gaulin
Government of Alberta
Ben Gray
Gris Gun Manufacturing Inc.
Gulf Canada Resources Ltd.
Husky Oil Operations Ltd.
IPSCO Inc.
Allen F. Kiernan
KPMG High Technology Practice Group
Lloyd Energy Inc.
Bob Lockert
Maple Leaf Fishing Tool Corporation
Roy Mathew
R.G. (Rob) McGuffin
Pat McLellan
Natural Resources Canada (CANMET)
New Paradigm Engineering Ltd.
Norcen Energy Resources Ltd.
Nova Gas Transmission Ltd.
NOWSCO Well Service Ltd.
Numac Energy Inc.
Ogilvie & Company Ltd.
Omnicon Consultants Inc.
PanCanadian Petroleum Limited
Pembina Corporation
Petro-Canada Resources
Petroleum Recovery Institute
Poco Petroleum Ltd.
PrimeWest Energy Inc.
Prudential Steel Ltd.
Ken Putt
Quazar Geosciences Group Inc.
Rigel Oil & Gas Ltd.
Duncan Robertson
Ryan Energy Technologies Inc.
Saskatchewan Research Council
Schlumberger
Secure Oil Tools Ltd.
Suncor Inc. - Resources Group
TIPM Laboratory
Talisman Energy Inc.
Tempo Energy Technology Inc.
Terra Nova Industries
Murray B. Todd
University of Calgary
Vik International Inc.
Wascana Energy Inc.
Dale W. Wong

Founding Supporter:
Canadian Business Networks Coalition
(CBNC)

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Achievements

1996 has been an exciting inaugural year for PTAC

Incorporation

PTAC formally incorporated on October 7, 1996, under part 9 of the Companies Act as a not for profit company.

Financial Viability Achieved

PTAC secured sufficient commitments to meet our projected annual budget of \$270,000 for 3 years including:

- Membership financial commitments from new members totaling \$229,700 per year for 3 years
- In kind office space and administrative support from the Alberta Department of Energy (ADOE) totaling \$100,000 over 3 years
- Financial support from the Canadian Business Networks Coalition (CBNC) totaling \$45,000

Membership

PTAC signed up a total of 54 members in 1996, including:

- 20 Producers/Transporters
- 15 Service and Supply Companies
- 7 Research Providers and Learning Institutions
- 12 Individuals

R&D Proposal Sessions

PTAC initiated R&D proposal sessions in December 1996. This provides members with the opportunity to outline specific new R&D projects to interested companies. PTAC ensures the project summary receives wide distribution to members and oil and gas companies. Sessions are typically run at PTAC's offices, over lunch, with the goal of informing potential participants of benefits and project deliverables. Intellectual property is protected through the signing of confidential disclosure agreements by all participants, where required.

Response to these sessions has been very encouraging, and PTAC expects these to become a regular featured activity.

Technology Development Policy Committee

PTAC created this committee with representation from various stakeholder groups to:

- Initiate and coordinate the Technical Subcommittee processes
- Identify broad business needs and how technology improvements could address those needs
- Encourage Technology Transfer
- Identify bodies of knowledge that should be advanced, and establish ways to deal with each of them

First R&D Project Launched

PTAC assisted the University of Calgary with the launch of the R&D project, "Water Content and Physical Properties of Acid Gases." The Alberta Department of Energy (ADOE) awarded a "one-time" grant of \$100,000 in support of this work as a result of PTAC's efforts. PTAC has also been instrumental in expanding industry participation in this project.

This two year project will provide industry participants with the necessary information to design and operate acid gas reinjection systems both safely and economically. It is expected that the results of the R&D will permit certain acid gas reinjection systems that fall within a specified region of phase behaviour, to be constructed and operated without dehydration. This project is expected to clearly define that region resulting in significant capital or operating cost savings for participants. The results of this R&D will be kept confidential to funding participants during the project and for a two year period after completion of the final project report.

Internet Website

PTAC formally launched its website on December 2, 1996. The website contains both public and member only sections. The public may view all our informational material including R&D Proposals, the R&D Project Index, and our Events Calendar.

Members have access to over 70 moderated technical forums and an extensive support library containing the following selections:

- R&D Taxation
- Confidential Disclosure Agreement
- Project Agreement Documents
- Intellectual Property Protection
- Index of R&D Projects
- Why Invest in R&D?
- R&D Project Evaluation Software
- R&D Proposals
- R&D Project Development & Documentation Process
- Effective Meeting Facilitation
- Funding Sources for R&D

Technical Subcommittees

PTAC launched five of the eight technical subcommittees including:

- Production and Processing of Natural Gas
- Well Completion, Stimulation and Workover
- Geoscience
- Reservoir Recovery
- Basic Research

The process of working together to identify R&D needs and potential solutions has begun, and is considered critical to the success of PTAC. PTAC expects significant progress with the launch of the Drilling, Oil Production and Oil and Gas Transportation Technical Subcommittees in early 1997. There are also plans for numerous workshops and activities as the year unfolds.

Technical Subcommittee Chairpersons

Production and Processing of Natural Gas

Edward Wichert of Gascan Resources Ltd. At (403) 264-8382

Drilling

Pat McLellan of Advanced Geotechnology Ltd. at (403) 264-8433

Oil Production

David Bohun of Wascana Energy Inc. at (403) 260-4997

Well Completion, Stimulation and Workover

Mark Hornett of Poco Petroleum Ltd. at (403) 260-8369

Graham Wilde of Nowasco at (403) 531-6757

Oil and Gas Transportation

Bob Coote of Nova Gas Transmission Ltd. at (403) 290-7854

Reservoir Recovery

Bruce Slevinsky of Petro-Canada Resources at (403) 296-4582

Geoscience

Rich Couillard of Numac Energy Inc. At (403) 260-9417

Basic Research

Duncan Robertson of The Robertson Group at (403) 251-0459

Association Working Relationships

PTAC established working relationships with the Petroleum Services Association of Canada (PSAC), Society of Petroleum Engineers (SPE), Canadian Energy Pipeline Association (CEPA), and The Petroleum Society of Canadian Institute Of Mining, Metallurgy & Petroleum (CIM). Cooperation occurs in a number of areas such as distribution of information and joint participation in technical activities.

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PTAC Board Members

As of March 31, 1997

Larry Bell, Chairman, PTAC
Crestar Energy Inc.

Eric Lloyd, President, PTAC
Petroleum Technology Alliance Canada

Soheil Asgarpour
Gulf Canada Resources Ltd.

Céline Bélanger
Alberta Energy and Utilities Board

George Besserer
PanCanadian Petroleum Limited

Joanne Butler
Amoco Canada Petroleum Company Ltd.

Mike Ekelund
Alberta Department of Energy

Denis Gaudet
Canadian Fracmaster Ltd.

Patrick Jamieson
Centre for Engineering Research Inc.

Al Kiernan
PrimeWest Energy Inc.

Bruce Peachey
New Paradigm Engineering Ltd.

Graeme Phipps
Canadian Occidental Petroleum Ltd.

Ken Putt
Petroleum Recovery Institute

Bill Svrcek
University of Calgary

Murray Todd
Todd Resources

Ron Turner
Nova Gas Transmission Ltd.

For further information please contact –

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Phone: (403) 297-8776
Fax: (403) 297-8954
E-Mail: merlinga@cadvision.com

Auditors' Report to the Directors

We have audited the financial statements of PTAC Petroleum Technology Alliance Canada for the period from commencement of operations on April 19, 1996 to December 31, 1996 and have reported thereon without reservation under date of February 14, 1997. The accompanying summarized balance sheet and summarized statements of revenues, expenses and surplus have been prepared from the audited financial statements.

In our opinion, the accompanying summarized balance sheet and statements of revenues, expenses and surplus fairly summarize the information as to the financial position of PTAC Petroleum Technology Alliance Canada and the results of its operations contained in the audited financial statements.

(Signed) KPMG
Chartered Accountants
Calgary, Canada
February 14, 1997

Summarized Balance Sheet

As at December 31, 1996

Assets	
Cash	\$ 21,175
Marketable securities	101,414
Accounts receivable	32,100
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Capital assets	154,689
	24,453
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	\$179,142
Liabilities and Surplus	
Accounts payable and accrued liabilities	\$ 21,614
Deferred revenue	30,000
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	51,614
Surplus	127,528
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	\$179,142

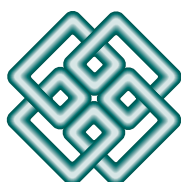
Summarized Statements of Revenues, Expenses and Surplus

For the period from commencement of operations on April 19, 1996 to December 31, 1996

Revenues	
Membership	\$207,606
Other	72,897
	<hr/>
	280,503
Expenses	
Operating	152,975
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Excess of revenues over expenses	\$127,528

being surplus at December 31, 1996

The complete audited financial statements of PTAC for the period from commencement of operations on April 19, 1996 to December 31, 1996 are available from PTAC offices upon request.



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