



**PETROLEUM  
HISTORY  
SOCIETY**

**ARCHIVES**

*Newsletter of the Petroleum History Society*

*November 2001; Volume XII, Number 8*

**NOTICE**

**“Lunch and Learn” Meeting and Annual Awards Presentations**

**12:00 Noon, Thursday, November 15, 2001**

**Dick Shaw – Author**

**on**

**Petroleum History and Petroleum Fiction – What’s the Connection?**

How can fiction lead to fact? Dick’s response is that this can be accomplished by basing fiction on history. In this presentation he will review some aspects of petroleum-related history which point to the issues raised in his novels – the issues that we are facing today. These include the economic and security consequences of a lack of energy self-sufficiency and the implications of wars in Israel/Palestine on the reliability of imported oil supplies from the Middle East. Historical facts will be outlined as a basis for questions concerning current energy policies within North America. Questions and answers to follow.

*Dick Shaw is an industry veteran having spent twenty-five years with Shell Canada including secondment to two megaprojects of the 1973-1982 energy crisis era – Canadian Arctic Gas and the Alsands tar sands mining initiative. He retired as Vice-President of Development and has remained active in the industry. He has authored and published one work of non-fiction as well as three volumes of fiction including Loving Enemy, The Oil Noose and The Worm Turns. Dick is bringing a few copies that will be available for purchase.*

**TIME:** 12:00 noon (receipts at the door), November 15, 2001.

**PLACE:** Palliser Hotel (133 - 9<sup>th</sup> Avenue S.E.) – Corral Room (but check marquee on arrival).

**COST:** \$20 Members and \$22 Guests (most welcomed).

**R.S.V.P. Clint Tippett (691-4274) by noon, Tuesday, November 13, 2001**

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***If you missed the talk...***

**Experience with  
Blowout Recovery Operations**

Wednesday, October 24, 2001

by Mike Miller

**... catch a condensed version of Mike’s presentation on page 3**

## THE PETROLEUM HISTORY SOCIETY

### *Calendar of Events*

**Next Director's Meeting:** November 7, 2001 at the Glenbow Museum.

**Future Luncheons:** At the suggestion of member John Andrichuk, we have arranged to have John Downing speak to us at noon on **Wednesday, December 12**, about **Arthur W. Nauss** – a prominent industry player and contemporary/business partner of Ted Link. The remainder of the 2001-2002 luncheon schedule has not yet been established, although a number of possible speakers have been identified. If you have something that you've been working on and would like to present, please contact one of the Board members and we'd be very happy to fit you in.

**Petroleum History Society Awards:** The following individuals and groups will be recognized for their achievements at the November 15 luncheon:

**Book of the Year:** Fred Stenson for his book "The Last Stack: Entrepreneurism and the Environment", published by Joe Lukacs and CETAC West, concerning Western Research Ltd.

**Article of the Year:** Erin Steuter and Geoff Martin for "The Myth of Competitive Challenge: The Irving Oil Refinery Strike, 1994-96, and the Canadian Petroleum Industry" published in Studies in Political Economy 63.

**Preservation:** The Arctic Institute of North America (based at the University of Calgary, in recognition of their work in preserving the engineering design and operational experience related to petroleum exploration and production drilling in the Mackenzie Delta and Beaufort Sea.

**Lifetime Achievement:** Gordon Jaremko, editor of Oilweek and author.

**Multimedia:** Historic Sites and Cultural facilities Branch of Cultural Facilities and Historical Resources Division of Alberta Community Development (to be abbreviated for engraving!!), for their excellent presentations and tours at the Turner Valley Town Hall and Gas Plant.

**Canadian Petroleum Hall of Fame Nominations:** Any ideas for next year?

**Society E-Mail Address:** All members with e-mail service who have not already done so, please send in your address to Micky Gulless, Past President, Membership Committee at her address "micky@fuzzylogic.ca". Currently P.H.S. has e-mail addresses for 33 members. If you would prefer to receive Archives by E-mail ONLY, please let us know.

**Membership:** 61 individual, 6 sustaining and 27 lifetime for a total of 93. Please consult your mailing label for the status of your membership. Renewal invoices will be issued in January.

**Executive and Board of Directors:** President – Clint Tippett; Vice President – Bill McLellan; Treasurer – Doug Cass; Secretary – Peter Savage; Past President – Micky Gulless; and Directors – John Frey, Aubrey Kerr, Hugh Leiper, Neil Leeson, Peter McKenzie-Brown, Joyce Wright, Debbie Knall and Edith Wenzel. Jack Porter continues as an Honourary Director.

**Dynastic Chart Project:** The events of the last few months have reinforced the vigor with which acquisitions and mergers are being pursued, in particular by major American companies anxious to increase their share of the Canadian oil patch. Stay tuned. These developments are giving rise to an additional impetus for this project.

**Whoppers:** I have a lot of respect for the industry newspaper "Upstream" but even to best can sometimes lose their perspective. Two examples:

*February 9, 2001:* Newfoundland gas production is expected to be flowing at rates of between 0.5 and 1.0 trillion cubic feet per day, primarily to New England!! Boy, will they feel deflated. The U.S. consumes about 22 TCF per year so I would assume they mean 0.5 to 1.0 billion cubic feet. *February 23, 2001:* We are informed that Sir John A. Macdonald engineered a deal to encourage Canadian Pacific to build the railway by giving them full oil and gas rights to more than 430,000 square kilometers of western Canada (are there even that many km<sup>2</sup> in Western Canada?).

## **“Pembina – The largest Oil Field?” Part 2 (continued)**

There are seven potential pay zones in Pembina, three of which have proved of commercial value. The Cardium sands of Cretaceous age, at 5200, is the most important. Others are the Belly River sands at 4400 and the Mississippian at 6000.

### **The Towns**

Before the Oil Industry arrived in force, both Wildwood and Drayton Valley were tiny farm hamlets. Wildwood was the larger with a population of about 250, while Drayton Valley had only about 100 people. Being in the center of the field, Drayton Valley has become the center of oil activities. It isn't difficult to imagine the chaos that developed when several thousand oil men swarmed into a settlement that consisted of a general store, a post office, a filling station, and about two-dozen assorted houses.

Bill Martenson considered himself fortunate to be able to rent a wooden doghouse from a drilling company to use as a combination office and living quarters. Finding shelter for the truck is out of the question. There is no electricity, no water, no sewers, no gas.

### **City Planned**

Two or three years will bring an enormous change in Drayton Valley. The tiny hamlet will be replaced by a model city, construction of which has already begun under rigid plans and regulations drafted by Town Planners of the Alberta Government's Department of Municipal Affairs. The plans provide for a city of 2,000 population.

Water, gas, and sewer lines are now being laid, street construction has begun, and several modern buildings, including a large hotel, are being erected.

At Wildwood, Scott Sherriff rented a small two-room frame building which once served as the city courthouse and jail. He was able to rent a barn on a nearby mink ranch for the truck. Personally, he is comfortably fixed with a house trailer.

### **A Bright Future**

Although the oil boom has brought temporary confusion and inconvenience, the long-range benefits of oil will soon materialize in a vastly improved standard of living for both communities. The life of every person will be materially bettered in many ways by the miracle of oil.

Schlumberger people can take particular pride in the part they have played in this transformation, for if it hadn't been for the electric log, Socony may never have discovered there was oil in the Cardium sands.

*Reprinted with permission from “Sonde Off”, an employee publication of Schlumberger Well Surveying Corporation, October 1954. Thanks to Bill Martenson, a participant in this discovery and a previous speaker for the Petroleum History Society, for providing a copy of this article. Part 1 appeared in the previous issue. Thanks to Jocelyne Tippett for the transcription and to Steve Peach of Schlumberger for the permission.*

## **Pembina – the Largest Oil Field? (from 1954, Part 2)**

### **Weather is Critical**

Nowhere else are Schlumberger's activities so utterly dependent on the weather as in Canada. Contrary to many areas, activity is high in Canada during the winter, very slack in the spring, and unpredictable during summer.

Temperatures plummet during winter to below zero, freezing the ground to a rock-hardness. It is then that most rigs are trucked to their locations and drilling proceeds speedily. Broad deep rivers become avenues of ice over which trucks and even derricks can pass easily. Temperatures of 30° below zero are common, with the mercury dropping to 60° or even 70° below on occasion. Intense cold, deep snow, and icy roads are hazards, but Canada's Schlumberger men have learned how to cope with them.

With the coming of spring, the frost erupts from the ground and the oil industry shuts down. Paved roads split asunder as "frost boils" burst through the pavement, shouldering up great mounds of earth and blocking traffic. Melting snow and ice turn the land into a swamp through which travel is impossible. In fact, government road bans are slapped on all vehicles during the spring thaw preventing travel over any public road. The purpose is to prevent severe damage to the roadbeds. During the thaw, Schlumberger trucks are often placed on railroad flat cars and carried as near as possible to the well. From the rail line teams of tractors drag the truck to the wellsite. As many as six tractors may be required to move a truck through the mud.

At one time in June, the Eastern Division had five of its eight trucks mired hopelessly in the field. One truck, drowned in mud halfway up the recorder cab door, couldn't be budged by six cats and remained bogged down for six weeks until the ground dried.

Many inaccessible wells are equipped with wildcat logging units. Crews fly in by helicopter.

One hundred and thirty cat tractors are presently working in the Pembina field alone, which may give an indication of the severity of the mud problem there. In Wildwood's territory, there are nine rigs. Only five of them are working. The remaining four have completed their wells, but can't be moved to new locations because of the mud. They are waiting for the freeze-up.

Summertime business fluctuates according to the amount of rain. Mr. Sherriff said that Wildwood might run anywhere from two to 22 jobs a month during summer, depending upon how much rain falls. Again, it is a problem of getting there: no problem if it is dry, impossible if it rains.

### **Territories**

Wildwood's territory includes everything west of the Pembina River. Because this is the frontline of the field extension, most of Wildwood's work is on wildcat step-outs.

Drayton Valley, on the other hand, surveys mostly field wells. Since there are no bridges or ferries over the two rivers, Drayton Valley's territory is restricted in the summer to the area between the rivers. During winter, when they can cross on the ice, they handle work on the east side of the Saskatchewan. There are 23 active rigs now working between the rivers, and the Location averages about 35 jobs a month, with 15 to 20 jobs given to other locations.

# **Presentation by Mike Miller of Safety Boss on “Blowout Recovery Operations”**

**October 24, 2001**

(summary notes by Clint Tippet)

This excellent supertime slide show presentation by Mike Miller highlighted many aspects of blowout control as well as a number of specific examples. Mike learned his trade working for his father in the oilfields around Drayton Valley where, after their firm was established in 1956, a considerable business existed for extinguishing oil battery fires caused by lightning strikes.

Blowout operations range from the mechanically simple to the highly complex with the safety aspects likewise being very variable. Many occur due to wellheads being damaged by mobile equipment on leases or through wear on the uppermost casing joints during drilling.

The Lodgepole blowout of 1982 featured prominently in Mike’s talk due to Safety Boss’s involvement in it. This spectacular event flowed at an estimated rate of 150 million cubic feet per day (mmcf/d) of 28% H<sub>2</sub>S sour gas with 20,000 barrels per day (bbl/d) of orange condensate. It was out of control for 68 days, 23 of which were in an unignited state. It took two lives, destroyed the Nabors 14E rig that had been drilling the test (in 9 minutes), burned 400 acres of forest and cost about \$20 million to control. Mike has estimated that the indirect costs to the industry have been on the order of \$1 billion because of the resulting much more stringent critical sour gas well procedures, equipment and emergency response planning which can amount to a quarter to a half million dollars for a deep test. Slides of drill string flying through the air were riveting.

Mike explained the various techniques for extinguishing burning wells. He critiqued the conventional approach of exploding a charge close to the flames to snuff them out because of the highly destructive nature of the resulting shrapnel, the need to shut down all operations and the likelihood that small pockets of flame will simply reignite the hydrocarbon stream. Current preference is given to dry chemical flows that can be delivered at rates of up to 100 kg per second with modern equipment. Among the other blowouts that Mike discussed were:

- Fort Nelson (Klua) well that flowed 250 mmcf/d with 45,000 bbl/d water.
- Canhunter’s Brassey well, also in N.E.B.C., where controlling a 27,000 bbl/d flow of extremely hot burning condensate was complicated by the topography and layout of the lease.
- An Iranian offshore well that flowed 160 mmcf/d with 15,000 bbl/d of oil. This was a tricky one because the well in question was one of a tightly spaced cluster of seven on the platform.
- The Actinia rig in the South China Sea that experienced a sub-sea blowout at rates approaching 500 mmcf/d. This event just about sank the anchored rig and luckily it killed itself. Mike’s photos of the boiling sea around the rig were spectacular to say the least.
- An unignited onshore Iranian well flowing 80,000 bbl/d at which one of the major problems was the need to construct a system of dikes and channels to drain the huge volume of oil which had accumulated (apparently the environmental aspects were not highly ranked).
- The King Christian blowout in the High Arctic Islands where the flow of gas and water lead to the formation of a giant ice cone (like a volcano) over the well and where control operations were complicated by both the low temperatures and the continuous darkness.
- Finally, no talk on blowouts would be complete without some discussion of the events in Kuwait in the aftermath of the early 1990’s Gulf war. Safety Boss was foremost in these operations and capped 180 wells that had been burning at rates up to 65,000 bbl/d. They used a fully mobile system including state-of-the-art magnesium lances and high-pressure water-garnet cutters. Total costs were on the order of \$2 billion.

Aubrey Kerr thanked Mike and presented him with a copy of his own blowout book “Atlantic #3”.

**APPLICATION FOR MEMBERSHIP and RENEWAL FORM:**

# PETROLEUM HISTORY SOCIETY

Individual Member: _____	Corporate or Institutional Member*: _____	
New Member: _____	Renewal: _____	
Name:  (If a corporation or institution, please give company name, plus name of representative.)		
Address:		
Postal Code: _____	Email address: _____	
Business phone: _____	Home phone: _____	Fax: _____
Individual Members - please indicate your company or institutional affiliation (if desired):		
<p><b>Note:</b> P.H.S. memberships are annual, with renewals due each January.                  For NEW members joining after June 30, first year membership will be extended to the end of the following year.                  See your address label on the P.H.S. Archives newsletter for your expiry date.</p>		
Individual members select your membership type:	_____ Individual Member (\$20 / year) _____ Sustaining Individual Member (\$50 / year) _____ Lifetime Senior (+65) Member (\$100 one time only)	
Corporate / Institutional members select your membership type:	_____ Institutional Member (\$100 / year) _____ Sustaining Institutional Member (over \$100 / year)	
Please enclose a cheque or money order (for the amount indicated above for your membership type) payable to <b>The Petroleum History Society</b> .		
Date: _____	Signature: _____	
Please mail fee and completed form to:	Membership Committee - Petroleum History Society c/o The Glenbow Archives Attention: Doug Cass 130 – 9 <sup>th</sup> Avenue SE Calgary, AB T2G 0P3	

\* All employees of a Corporate / Institutional member are eligible for Member rates at P.H.S. functions. We can also provide additional copies of our newsletter on request. And your company will be doing more to help preserve our colourful past, for which the Society is very grateful.