PETROLEUM HISTORY SOCIETY

ARCHIVES

Newsletter of the Petroleum History Society — *January, 1988; Volume II, Number 1*

Luncheon series continues to inspire

Grant MacEwan presentation packs a punch

The Grand Old Man of Alberta history, Grant MacEwan, spoke at the November 18th luncheon meeting of the Petroleum History Society. He was entertaining, informative and moving as he ranged over the history of petroleum in western Canada.

In his talk about the early years of oil and gas, he recounted the chequered and charmed life of "Kootenai" Brown. Members and visitors who attended will remember for a very long time some of the humorous and vivid anecdotes about Brown. Dr. MacEwan also spoke of the contributions of John Ware and Archibald Dingman to Alberta's nascent petroleum industry.

At the conclusion of his talk, Dr. MacEwan described eloquently his commitment to helping save the environment from destruction by blind economic and social forces. Few people walked away unmoved.

Petroleum History Society
Luncheon Presentation:

Max Foran*
on
Chevron in Southern Alberta Before Leduc

Time: 12 noon
Date: Wednesday, January 20, 1988
Place: Palliser Hotel, Calgary
Cost:
Society Members and employees of corporate member companies: $15.00
Non-Members: $17.00

RSVP: Jennifer Thiedemann 269-6721

*See biography of Max Foran, page 5.

Editorial

Looking into the Year Ahead

With this the first newsletter of 1988, it is appropriate that we reflect for a moment on the events of the past year and the plans for the next one.

At a special meeting of the Society Board of Directors in May, it was decided that the immediate objective of the Petroleum History Society is to create an active organization which will increase awareness within Alberta of the history of Canada's petroleum industry. To advance this objective, an aggressive membership drive was undertaken with the assistance of the Canadian Petroleum Association, a program of regularly scheduled luncheon meetings with guest speakers was initiated, and the quarterly publication of this newsletter commenced.

These activities were extremely successful. Membership in the Society has grown markedly, and now includes two sustaining institutional members, 13 regular institutional members, 25 sustaining individual members and 42 regular individual members at year-end. The two luncheon meetings held in 1987, with guest speakers Larry Clausen and Grant MacEwan, were quite successful, and the Society newsletter, "Archives", has been very well received. As well, Dr. David Breen addressed the Society's Annual General Meeting in March.

These activities will continue in the new year, with regular newsletters, luncheon meetings and another membership initiative, this time with the assistance of the Petroleum Resources Communication Foundation. As well, plans are underway to reestablish a Petroleum Industry Oral History Project early in 1988.

In retrospect, 1987 was a significant year for the Petroleum History Society. With the expanded membership and planned activities, 1988 should even be better.

W.R.S. McLellan,
President, Petroleum History Society

Oil industry to trace history at museum

A $700,000 temporary exhibit tracing the history and development of the oil and natural gas industry will open (in 1988) at the Royal B.C. Museum.

The exhibit, **Rocks, Rigs and Roughnecks,** will be on view for a year starting next fall and will include a full-scale reproduction of a cable tool rig, various models depicting everything from how oil is formed to a typical drilling site; a 1905 Oldsmobile and a display of the evolution of natural gas as a modern multi-purpose fuel.

Thirteen companies organized by the Canadian Petroleum Association and the Independent Petroleum Association of Canada will share the exhibit's cost.

"Just as businesses of all descriptions came together in the early 1970s to support the Modern History Galleries, the oil and natural gas companies have come forward now, as a team, to assist us", said Friends of the Provincial Museum development officer Greg Evans.

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The Publisher

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Submissions on historical topics related to Canada's petroleum industry are welcome. For information on membership or society activities, contact society president W.R. McLellan (403) 290-2840.

Labrador Shelf: The Early Years

By Aubrey Kerr

Two kinds of windows, sea floor spreading, airborne magnetometers, icebergs and mineral ownership disputes. These combined with geological constraints to dictate the destiny of a play that started in 1957 and ground to a half in 1983. The score: five gas/condensate discoveries (all abandoned) and 31 dry holes.

The potential fairway extends 900 miles under the Labrador Sea with a jump shift to neighboring Greenland. At the height of the boom (1980-81), over 150 million acres were under permit. This equates to 250,000 square miles, an expanse 1,000 miles long and 250 miles wide.

1957: the International Geophysical year: airborne magnetometer surveys over the Labrador Sea detected anomalies. Dr. Peter Hood's 1963 and 1966 flights for the Geological Survey of Canada with more sophisticated instruments resulted in a most significant pronouncement: "preliminary depth determinations...indicate sediments in the area".[1] The Survey once again was acting as pathfinder for Canada's mineral wealth.

Another earth scientist, world-class geophysicist J. Tuzo Wilson, was refining his theory on plate tectonics: egg shells (the crust) sliding over and under each other floating on "the white" (the plastic mantle) with the yolk (molten core) in the centre.

Paleomagnetics, sea-floor spreading, mid-oceanic ridges and volcanoes were shown to be interrelated and in Wilson's own words, "made it difficult not to accept" his theory.

"I am not sure when I met Jack McMillan (then with Tenneco) but it is probable that he first came to my office in 1966". So spoke Peter Hood.[2]

Quoting Jack Browning,[3] then Canadian head of operations, Tenneco:

"Jack McMillan was working on plate tectonic models in 1966 and chose the Labrador Shelf as his prime example of trailing plate margins. From his model he predicted down-to-the-basin faulting, the compaction over the basement anomalies which would result in structural traps, the age of the sedimentation as Middle to Late Cretaceous and Tertiary and the rough calculation that the thickness of sediments would be sufficient to provide petroleum accumulating conditions. From the source of the sediments, the pre-Cambrian of Labrador, he determined that a mixture of quartz sandstones and shales plus the climatic condition at that time, should provide both source and reservoiring in the offshore. This piece of deductive reasoning was, I believe, one of the first, utilizing...models of trailing plate margins in the world".

Tenneco, a large U.S. gas transmission company, among others had started to look at (frontier) offshore areas, mindful of the need to supplement gas supplies for its eastern U.S. markets. Hood's anomalies were verified by Tenneco using Geoterrex air-borne magnetometer. Still needing more proof, they ordered sea floor dredging which sure enough scraped up Tertiary sediments.

The company then filed on 34 million acres of permits with the Federal Department of Energy, Mines and Resources. And why the 34 million acres? "It was all that was considered by Tenneco to be within the drilling and production depth limits of the day". (Jack Browning).

Denny Duff recalls poring over German charts with Browning in Ottawa to ensure accuracy of water depth when selecting the permits (during World War II, Nazis established their own weather station on Labrador).

Duff's company (Total Eastcan) and Amerada (directly out of New York, no Calgary input) each took one-third from Tenneco. Carl Youngren, then with King Resources, remembers his employer being very interested, but missing out by days on filing.

With excellent foresight, the companies double permitted with Newfoundland authorities. However, this would be of not avail when that province later abrogated the documents claiming they and they alone had sovereignty over the offshore.

Denny Duff, who became exploration manager for the Labrador Group (initially Tenneco, Amerada, Total Eastcan, Gulf, Suncor, AGIP), would have to

present identical material at two meetings, one in Ottawa, the other in St. John's to try to achieve equity (but not equanimity!).

The Labrador Group's first test was drilled in 1971 on the Leif structure (also double permitted). It lay the groundwork through analyses of Eocene sediments which indicated favourable (mature) conditions for the presence of petroleum. This first "window" or "kitchen" provided the impetus for a full scale drilling campaign.

The second "window", the drilling season (July-September) was now the chief logistical concern. Narrow and restricted at best, it had to "close" temporarily due to icebergs. Calving grounds were just a few hundred miles to the northeast on Greenland's coast making for an abundant supply.

What would now become one of the most hazardous, unpredictable and stormy (both off and on shore) campaigns anywhere, got underway in 1973. But the telling of that tale will have to await another occasion.

FOOTNOTES

1. Geological Survey of Canada Paper 66-58.
2. Personal communication 1987 07 20.
3. Personal communication 1987 05 08.

Aubrey Kerr is currently re-writing articles published in the ***Journal of Canadian Petroleum Technology****. They will be brought together in* ***Corridors of Time****, to be published later in 1988. Kerr is also author of* ***Atlantic #3: 1948****, a book about Canada's most famous blowout.*

The First Exploratory Drilling in the Western Canadian Sedimentary Basin

In 1873, only fifteen years after the first commercial wells in Petrolia, Ontario and Titusville, Pennsylvania, experienced drillers moved their equipment to Canada's North West. Between 1873 and 1875 they drilled six bore holes over a distance of approximately 450 miles in the western sedimentary basin. This was an extraordinary accomplishment at a time when no rail lines existed. Heavy drilling equipment, including an engine and steam boiler, were moved on wagons by oxen over prairie and parkland terrain.

The transport routes and the ultimate sites of the bore holes were dictated by their proximity to existing Hudson's Bay posts and church mission settlements. Although only two of the six wells drilled were able to reach bedrock, they were significant advances considering the attendant problems. Apart from the logistics of transportation and "on the spot" repairs, the locations had to be near a supply of timber in order to build a sturdy derrick and walking beam and also near a source of water for the generation of steam.

The initiator of the 1873-75 drilling program was S.R.C. Selwyn, the second director of the Geological Survey in Canada. Selwyn was interested in the borings for evidence of coal, salt deposits, fresh water reservoirs or petroleum.

Selwyn's astute observation made in his report of 1873 is noteworthy in the context of subsequent discoveries of oil, gas and potash in the western sedimentary basin. He referred to the formations when he wrote:

> ...there seems but little doubt that Canada has her a salt and oil bearing region surpassing in extent and productive capacity any hitherto developed on the American continent.

Undoubtedly Selwyn was influenced by awareness of the exposures of the Athabaska "tar sands" and their conjectured extension beneath the subsurface.

Excerpted from a longer article by J. W. Porter

Biography

Australia's loss, Alberta's gain

Max Foran has become the authority on Calgary's history

Dr. Maxwell Foran was born in Australia and in 1963 came to Canada to teach with the Calgary Board of Education. He has an undergraduate degree in education and M.A. and Ph. D. degrees in history from the University of Calgary. Both of his theses dealt with the development of municipal government in Calgary and he was the first history student at the University to receive his doctorate in history from that institution.

Dr. Foran is the author of many articles on the history of civic government, urban growth and utilities in Calgary and western Canada. He has also written two books which represent the standard works on Calgary's history: **Calgary, An Illustrated History** (1978) and **Calgary, Canada's Frontier Metropolis** (1982). He is also co-editor of the recently released book of sketches of early Calgarians entitles **Citymakers** (1987).

A topic that is of interest to Dr. Foran is the history of Alberta artists, and his is the author of an article on A.C. Leighton in **Citymakers** as well as an upcoming biography of Roland Gissing.

Dr. Foran is also deeply interested in the history of oil and gas in Canada. The industry figures prominently in his histories of Calgary and he has written an article about Calgary entrepreneurs in arctic petroleum exploration for a collection entitled **The Making of the Modern West: Western Canada since 1945** (1984). He is also the author of a forthcoming commissioned history of Chevron Canada Resources Ltd.

Membership

NEW MEMBERS
October 23 to December 17, 1987

Institutional Members

Amoco Canada Petroleum Company Ltd.
Canterra Energy Ltd.
Ryerson Oil and Gas Limited
TransCanada PipeLines

Individual Members

Buchanan, Bob
Cameron, Scotty
Currie, John
Maier, Gerry
O'Brien, Sheila
Pierce, J.M.
Redman, Donald
Willsher, J.M.
Andrichuk, John
Brown, Esther
Brown, Evelyn
Brown, James
Clarke, Philip
Gray, Earle
Horn, Gordon
Horn, Peter
MacKay, T.J.
Pfeffer, Bev
Steeves, Gordon

Historically Speaking

Do you know any short stories or anecdotes you can share that will entertain our membership as well as illustrate some aspect of the early days in the petroleum industry? If so, you are invited to take a few moments, set pen to paper, and compose a 200-300 word article. The stories should relate a single event or situation, naming people and places wherever possible, and be generally light-hearted. Suitable stories will be published in future Society newsletters and in the **Reservoir**, the monthly newsletter of the Canadian Society of Petroleum Geologists.

Please send your compositions (as soon as you can and as many as you dare!) to the Petroleum History Society.

Know anyone else who thinks petroleum industry history is worth keeping?
Get him or her to send in the membership form on page six. We all win when history is saved.