



ARCHIVES

Newsletter of the Petroleum History Society

March 2018; Volume XXIX, Number 3

P.H.S. Annual Meeting and Awards Ceremony – Wednesday, March 28, 2018

Veteran Oilman Reflects on the National Energy Program

*Our Keynote Address by **Robert (Bob) G. Brawn, Leader and Entrepreneur***

Bob Brawn was President of the Independent Petroleum Association of Canada (I.P.A.C.) and President of Turbo Resources when the Liberal government in Ottawa announced the National Energy Program in October 1980. During his address to the Annual Meeting Bob will review his career and set the stage for his reflections on how the N.E.P. affected the independent producers in Canada. He had a frontline seat on energy policy at the time, watching as Ottawa and Alberta battled for control over natural resource development and revenue. He will explain how the N.E.P. affected Turbo Resources and, looking back almost forty years, will provide wise perspective on the role of oil policy, a topic that is much in the news today and as important as ever.

Please see page 4 for a condensed version of Bob Brawn's biography.

TIME: 4:00 p.m. – please see page 2 for detailed schedule

PLACE: Calgary Petroleum Club, 319 – 5th Avenue S.W. – McMurray Room.

COST: Members and guests (most welcome) – \$20.00.

DRESS: Business dress casual, ties not required.

Please RSVP if you wish to attend to: Micky Gulless at 403-283-9268 or micky@petroleumhistory.ca by noon, Monday, March 26, 2018.

The Bull Wheel



Call for contributions and speakers: The Petroleum History Society values your input. If you have an article that you'd like to see in *Archives* or if you have a talk that you'd like to give, please get a hold of us. Contact President Clint Tippett at the address indicated on page 3.

Free Student Memberships Available: The Petroleum History Society offers free membership to full-time students until the end of the year in which they graduate. They will receive the same benefits as regular members – *Archives* newsletters and invitations to our events. Membership applications are available at: www.petroleumhistory.ca/about/index.htm#join.

Annual Awards for 2017: The Annual Meeting is the venue for the presentation of our annual slate of awards, specifically: Book of the Year, Article of the Year, Multimedia, Preservation and Lifetime Achievement. Please come out and meet our new batch of award winners and hear their perspectives on their accomplishments.

Petroleum History Society Elections: These elections will take place during the Annual Meeting. A slate of candidates will be presented but there is always the opportunity to add your name ahead of time (please contact us) or to volunteer on the spot.

Petroleum History Society Financials: A website link to the P.H.S. financials for 2017 will be made available to our members. A few copies will be available at the Annual Meeting on March 28, or you can request a copy from Micky Gulless at 403-283-9268.

Next Luncheon: May 2, 2018. Kevin Taft on “Oil’s Deep State” in Alberta.

Annual Meeting Agenda See below. Please be reminded that a \$20.00 charge has been established to help us defray the cost of the meeting at the Petroleum Club including snacks.

The agenda for the P.H.S. Annual Meeting on March 28 will be:

- 4:00 p.m. Meeting commences
- 4:05 p.m. President’s Report
- 4:20 p.m. Treasurer’s Report, related business and election of auditors.
- 4:30 p.m. Election of P.H.S. Officers and Board for the 2018-2019 term
- 4:45 p.m. 2017 P.H.S. Awards
- 5:15 p.m. Keynote Speaker: Bob Brawn on “Reflections on the National Energy Program”.
- 5:45 p.m. Questions, Answers and Discussion
- 6:00 p.m. Mix and Mingle with snacks and cash bar – please stay and join us.

Turner Valley Pride: One would think that with the high profile of the petroleum industry in Alberta that there would be lots of streets and establishments named in its celebration. Think again. A review of Alberta maps reveals only a few such instances – Edmonton’s Derrick Golf and Winter Club, Derrick Hotel and Derrick Motors. Drayton Valley has the Derrick Mall and Black Gold Inn. Edson has the Black Gold Inn and Fort McMurray, the Oil Sands Hotel. Red Deer has Petrolia Drive. Calgary has a few that are more like accidental connections, for example Mayland Heights (Albert Mayland was a diversified businessman who included the oil industry and Turner Valley in his activities). Okotoks has Lineham Ave. named after an early oil pioneer. Black Diamond has a thing for “oilfields” with Oilfields Regional Arena, Oilfields Curling Club and Oilfields General Hospital. The only town that really does the industry justice is Turner Valley. Monikers there honour companies (Imperial Dr., Royalite Way, Decalta Rd., Okalta Rd.) and oil people (Dingman Cl., McLeod Cr., Herron Pt.). There is also a set of first names that might be connected – Archibald Way, Edward Ave., Edgar Ave., John St., Robert St., Raymond St., George St. and Hubert St.. Does anyone out there know their backgrounds?

Patrick Burns and the Oil Industry: Pat Burns was easily one of the most prominent businessmen in the Calgary region in the 1910’s through 1930’s. This coincided with the first two Turner Valley discoveries (1914 and 1924) and so it is natural to ask what degree of involvement he had with our industry. This was addressed by Grant MacEwan in his book *“Pat Burns – Cattle King”* (p. 125-126) as follows: *“Meanwhile, Turner Valley oil brought Calgary people to a feverish pitch of excitement. The historic strike came just in time to offer resuscitation for a city sinking into a slump following its fabulous real estate boom of 1911 and 1912. The strike on May 14, 1914, bringing Dingman #1 into production, signaled the first major oil find in Canada [some will beg to differ] – and in the empire. It was enough to make Calgarians forget their troubles and, in some cases, their normal sleeping and dining hours. People of all professions became instant oilmen, either creating companies or lining up in long queues to buy shares. Burns did not rush in with the oil-intoxicated mob but did become involved in his own good time, buying sagaciously, extensively and profitably. It had long been a conviction that oil would be found in the mountains or foothills region and, as some old share certificates show, he bought 550 shares of Rocky Mountain Development Company in 1903, then bought 4000 more in 1905. But that company, incorporated in 1901 and capitalized at \$500,000, was a really pioneer effort and did not enjoy much of the luck that was to come later. Like most investors in oils, Burns profited by some of his purchases and lost by others. An inventory of his oil shares in 1929 showed total holdings of about 400,000 shares worth some half a million dollars, in at least thirty companies. He did well enough in his oil investments but like any other investor of his time, he left plenty of share certificates in his files which had no other value than as relics of Canadian history.”*

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Bob Brawn – A Brief Biography



Born in Calgary in 1936, Bob has spent most of his life in Calgary as a community leader and entrepreneur in the energy industry. In 1958, Bob graduated from the University of Alberta with a B.Sc. in Chemical Engineering, married Carole and started his professional career with Mobil Oil before moving on to International Drilling Fluids. In 1965, Bob purchased an oil recycling refinery in Edmonton, launching SL Refineries – later to become Turbo Resources. As President and C.E.O., Bob grew Turbo Resources from \$1 million in sales to over \$500 million in 12 years. After Turbo, Bob led and grew a number of successful companies including Merland Exploration, Bankeno Mines, OMV Canada, Grande Cache Coal and Acclaim Energy Trust.

He has served as president of many companies, and also as a leader of the Calgary Economic Development Authority and the Calgary Winter Festival Foundation. He has served as a director of the Calgary Olympic Organizing Committee, president of the Calgary Chamber of Commerce and director and chairman of the Van Horne Institute. He has been a member of the Alberta Economic Development Authority and a director of ATB Financial.

The political world has not been immune from Bob's leadership and advice, as he has accepted appointed roles to a number of provincial committees. These include chair of the Alberta Economic Development Authority and the Alberta Competitiveness Council. He has been a member of the Premier's Council for Economic Strategy and Honorary Colonel of the 746 Calgary Communications Squadron.

Currently, Bob presides over a private investment company, and serves as director for a number of private and public companies.

PETROLEUM INDUSTRY ORAL HISTORY PROJECT

1984 INTERVIEW OF ARNE NIELSEN BY NADINE MACKENZIE

In the interest of providing some historical background to the nascent Pembina Oil Field film project described in January's issue, we are reproducing here a slightly-edited section of this interesting interview from the Glenbow concerning Arne Nielsen's early years in the oil patch and, in particular, his recollections of how the discovery of oil was made in the Cardium Formation of the now-giant Pembina Field in west-central Alberta. (NM = Nadine; AN = Arne).

After some interview preliminaries, Arne continues: I worked for three summers with the Geological Survey of Canada as a student geologist. Two of them were in the badlands along the Coppermine River in the Northwest Territories and the third summer was also with the Geological Survey and it was in the foothills north of Jasper near what is now the town of Grande Cache. There was no town there then of course, it was all virgin country. My fourth summer's work, in between university sessions, was with Imperial Oil and I was a well site geologist in what was then the developing Leduc Oil Field. As you know Leduc was discovered in 1947. My last summer's work was in 1949, so it was two years after and Leduc was still expanding and I was doing well site geology for Imperial there.



Arne Nielsen

NM: And then you went for an M.A. in geology?

AN: It actually was an M.Sc. at the University of Alberta. I completed that in 1950 and went to work immediately upon graduation.

NM: Which company did you work for?

AN: I went to work with Mobil Oil Canada. In those days it was called Socony Vacuum Exploration Company. I started work there on May 1, 1950 right here in Calgary.

NM: Do you remember the people you worked with at the time?

AN: Oh yes, I do. The staff at the time was quite small, I would guess a total of less than fifty I believe. It was primarily an exploration staff, mostly geologists, geophysicists. I believe there were maybe three or four engineers and there were a few, a very limited number of accounting people, about three or four. That was Mobil at that time here in Canada because Mobil started also here in the late 1940's with a very small exploration office and they did not find their first oil here, commercial oil, until 1952. So at the time I joined them in 1950 they had no oil and we were simply doing geological work, surface work and we were drilling a very limited number of wells. So it was strictly an exploration group. But some of the people you asked me about, the person that hired me and the person that I came to know very well over the years was a gentleman by the name of Dr. Joseph Spivac. He had a Ph.D., a geologist, he himself came out of the Geological Survey of Canada and he hired me and was my mentor for many, many years. I worked for him in a variety of capacities over the years. He was a very fine geologist as well as a very fine person. Unfortunately Dr. Spivac passed on here not very many years ago, just a few days after he took retirement from Mobil Oil. Others certainly that I recall and that I worked closely with and still know, one is Don Axford. Don was already on staff there at Mobil, was one of their more active geologists. I got to know Don very soon, very quickly and Don and I have worked together at Mobil in various capacities for many, many years, in various assignments. And of course I still know Don. We both have left Mobil and of course, I'm getting back there again. Then there were others, there were two other very well-known geologists, both were doctors, a Dr. Willis Wright, who was a very eminent field geologist for Mobil and did an awful lot of surface geological work out through northeastern British Columbia and the Northwest Territories and I actually gave him his retirement plaque years later. Dr. Wright passed on just about two or three years ago, at the age of 75, after having been retired from Mobil for some ten years. Another eminent geologist, Dr. Goodman, was a very scientific type of geologist and did a lot of what you might call, geological research for Mobil back in the early days, the late 1940's and the early 1950's. Dr. Goodman has been retired many years now and is still living here in Calgary, in retirement. So those are some of the people that I would feel were the ones that others would know about as well as myself. The head man for Mobil here at the time was a Dr. Corbett. Of the group I've mentioned he is the only one that was an American. The others were all Canadians. Dr. Corbett also was a geologist, had been sent up here by Mobil to run the Calgary office. He left a couple of years later and there was a succession of people that followed him. Dr. Corbett lived to the ripe old age of I think, almost 90 and he died very recently really, down in New Jersey, he's been retired many, many years.

NM: Where was your office when you started working for Mobil Oil here in Calgary?

AN: Well, Mobil had two offices here in Calgary. The executives were located in the Lancaster Building, what is now the Lancaster Building. However the exploration fellows, who were doing

well site geology and logging wells and so on, were located in a garage on 9 Ave. W. It was just a one-story garage, it had no ventilation and it was all dark in there. You'd walk into your office in the morning and you had to have your lights on all day because there were no windows. During the summer months it was too hot and during the winter months it was too cold. We worked there, a bunch of us, and did our work from that office. It subsequently ... well, we left there eventually and I think it's only recently really, that it was demolished and they were going to build a building there but the building fell on evil days together with the economy. So it's just a vacant lot now. We left there though, in 1951 or 1952 and moved into what was then the first new office building in Calgary. It was called the Barron Building. Mobil took, I think we had three floors, Shell had three floors and Sun had three floors in this building. It was great for us to move into nice new offices, where I was above and sunshine and windows and everything else. Ultimately Mobil took over the entire building as the company expanded and the other companies moved out and moved into other buildings. Mobil was in the Barron Building, the name was changed to the Mobil Oil Building and Mobil was in that building until 1969, at which time, and I was still with them at the time, at that time I was President of the Canadian company and we moved into the Mobil Tower right across the corner here.

NM: You started with Mobil as a geologist?

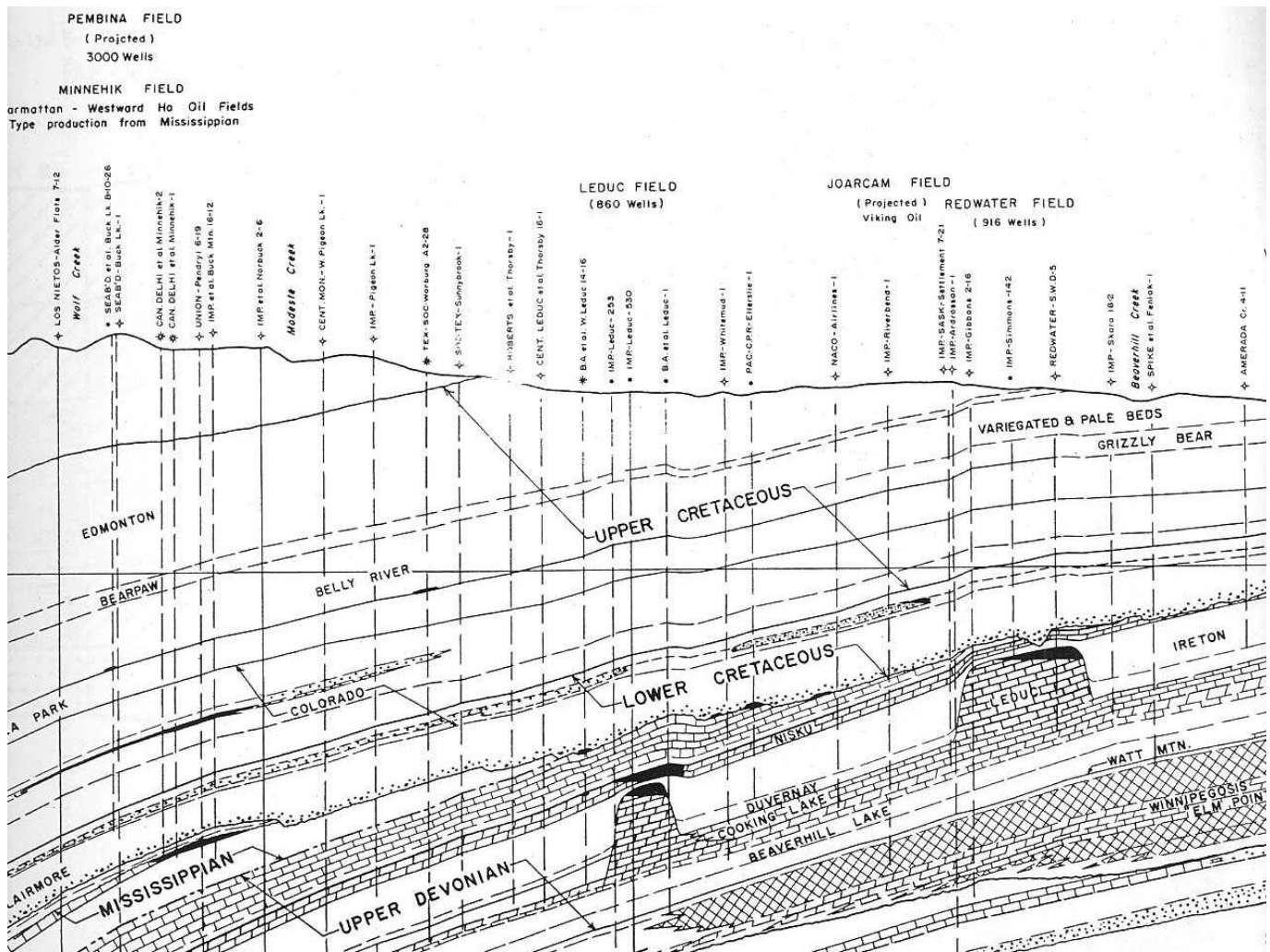
AN: Yes, I started out as a junior geologist.

NM: Can we talk about your career development, until you became President of Mobil.

AN: Yes, I was a junior geologist for several years and mostly I, what we called, logged wells, that is examined the drill cuttings from wells and then tried to correlate these wells with adjoining wells and tried to build up a geological picture which might lead to well locations and ultimate drilling. I had one unique experience in those early days and that was that Mobil Oil drilled a wildcat well just a mile and a half from my home in Standard. Mobil had taken or made a farm-out deal with the Canadian Pacific Railway Company, who holds a great swath of land from Calgary on eastward. That was a result of them laying the railway, the government gave them this large land grant. Mobil made a farm-in deal with the CPR, who did not have their own oil company at that time like they now have, of course now they have PanCanadian, their own company. One of the first wells they drilled was just a mile and a half from my home and Dr. Spivac was then Chief Geologist of the company, he was nice enough to allow me to do the well site geology. So I was able to stay at home again, which I hadn't done for many years and did the well site work on this well. It was the first rig, drilling rig in that area, for many, many miles and it was a great attraction on Sunday for the local people. Particularly I was quite well known out there as a young kid, so they would all come on Sunday afternoons and I'd show them around the drilling rig. So it was very nice indeed. Unfortunately the well was dry. Although subsequently production was found not too far from there, that particular well was dry but it was a unique experience for me. Anyway, in 1953 Mobil decentralized out of Calgary and, for the first time, established offices in other parts of western Canada. They established offices, one in Edmonton and one in Swift Current in Saskatchewan and one in Regina, so there were three of them. I was named District Geologist of the Edmonton office and we started out there, I remember even the date, we opened the office there on January 26, 1953. There were two geologists, one draftsman and one secretary, four of us. However I was only in Edmonton there, during that time frame for two years but during that time we discovered the Pembina Field, which subsequently turned out to be one of the largest oil fields in Canada and still is.

NM: What is the story of the Pembina Field?

AN: Well, Mobil Oil or Socony took a farm-in from a company that has long since ceased to exist, called the Seaboard Oil Company that was subsequently purchased by Texaco. But it was a four township farm-in, very large farm-in, about 80 miles southwest of Edmonton and about 35 or 40 miles west of the Leduc Field. Our objective out there was to come up with a wildcat location and see if we could find the same kind of reefs that were being discovered in closer around Edmonton, which were proving so prolific. Fields like Leduc, Redwater, Golden Spike.



Regional cross-section drawn by Bill Gussow and others as a part of a major Canadian Society of Petroleum Geologists – Geological Association of Canada project completed in 1963 which synthesized the geological knowledge that had been gained to that time from the drilling activity in the Western Canada Sedimentary Basin. The very narrow black and speckled unit just above the name “Colorado” is the Cardium Formation. Note that it disappears to the right (east) forming a “pinch-out” stratigraphic trap, as described by Arne. The interval had been found in wells and outcrops off the west (left) end of the section and was not present at Leduc in the centre of the diagram. It must therefore have disappeared in-between. Hence buoyant oil could travel along that zone and accumulate in the sandstone and conglomerates of the Cardium Formation.

Interview continues: We did some geophysical work and did come up with a well location. A well was spudded there in late 1953. Actually, it wasn't, it was probably during the summer, the summer of 1953. Actually there were many, although in those days, everybody was looking for Devonian reefs and there were other objectives for this well, because there were a number of potential geological horizons. Even though at the time we drilled the well there were no wells nearby, it again was a very rank wildcat well but one of the objectives was the Cardium sandstone. The Cardium is a well-known outcrop, sandstone outcrop in the foothills west of Edmonton, in the general Hinton, Jasper area. The Cardium was postulated to extend eastward from the foothills at great depths and to pinch out somewhere southwest of Edmonton. It was our feeling in the Edmonton office there, the handful of us that were there, that there was a good chance that the Cardium sand could pinch out underneath this four township block that we farmed in from Seaboard. Now it was just a long shot because there was so little well control, you had to just guess at it really. But we considered it a possibility and we did plan to look out for the Cardium because you penetrate it on your way down to the Devonian. The Cardium is a Cretaceous sand which is higher in the section than the Devonian. As it turned out we did encounter the Cardium in the well and we did run a drill stem test of the Cardium and got some heavily oil-cut mud but nothing else. So we went on down to greater depths and ultimately ended up looking for the Devonian reef and not finding any reef. Now at that point in time we ran an electric log off the well and we discovered that we had only tested the very base of the Cardium and had in fact, missed the top of the sand, which looked a lot better on the electro-logs than the section we had tested. We persuaded the management here in Calgary to allow us to run casing. We had some difficulty because it was a thin sand and the casing was going to cost \$30,000. There was some reluctance on the part of management to spend \$30,000 to test what looked like a very thin sand. But I'd had a jar full of oil-cut mud standing on my desk for several months at this point in time and that was what we had retrieved on the first drill stem test. The oil had separated out from the mud and there was very nice light gravity oil in that sample. So we were convinced that there was more here than there appeared to be and we were successful, got some excellent help from Dr. Spivac here in Calgary with the management of the day, and we finally got the well tested and we had a flowing oil well. That was of course, a great event for us. People still didn't realize what we had - industry didn't. They thought it was just another small one or two-off Cretaceous field.

NM: So there was no competition with other oil companies?

AN: Not really because it was on this four township block. There wasn't at the time, there was intense competition later on. After we drilled that well and completed it, we stepped out a long ways, about eleven miles to the northeast, drilled at another seismic anomaly that we determined with seismic. The Cardium sand was still there but it was too tight to produce, but it was oil-stained. So we were persuaded that we had found the stratigraphic trap that we had postulated before we even began drilling. We moved back half way between these two wildly scattered wells and drilled a third well and got another excellent oil well. So there was not much question but that we had ... now these two wells were some five miles apart, the original discovery and the second oil well. We were then satisfied that we had a large oil field. It was just a question of its quality. Then we really began an appraisal drilling program and lots of action started out in this area, which up to that point had been extremely slow.

The competitive situation developed to the west of this four township block where there were some large tracts of land which was still Crown acreage. The Crown put it up for sale and there was a competitive bidding arrangement such as there is today. We bid very heavily on it, or

what we considered to be very heavily at the time, something like \$7 million on the better of these tracts and we were outbid by both Texaco and Imperial Oil who bought the acreage. As it turned out Texaco's acquisition was excellent. They bought pretty well all production out there. It turned out most of Imperial's [acreage] was dry, they were just beyond the pinch-out edge. But they have since found something else on that acreage, other than the Cardium. But there was a lot of competition out there for years. Then of course, we had to give half of it back to the government. Under the system at that time, you could keep half and give half of it back and you checkerboarded your half so there were corridors around the portions you kept and the Crown resold those in competitive sales. So it became an extremely active area, many, many wells drilled and as it turned out, a very, very large oil field that extended, not only the four townships that we had farmed-in originally but over a lot of other acreage as well. And I might say, there still is a lot of drilling, now with Canadian Superior in 1984 we are actively drilling in the Pembina Field today, all these years later.

NM: Who was working with you at the time of the discovery of the Pembina Field?

AN: There were two geologists who were working with me. My number one assistant was a geologist by the name of Tony Mason, a very innovative and bright chap whom I had known at the University of Alberta. Tony subsequently left Mobil and has been for many years now, with Bow Valley Industries and he's still there. Another one was a chap called Fred Trollope who was the well site geologist on the discovery well. Fred has been with Mobil Oil all these years and is still working right over on the other tower. They were the two principal people. One engineer, a chap called Jim Wark (?). I would suggest if you haven't talked to Mr. Wark that you should. Jim Wark was the engineer sent up by Mobil to help complete the well. He had worked in the Middle East and had a lot of experience. Jim was older and we were just young guys. I worked very closely with Jim for some time in completing that discovery well and in going on to locate some of the others. I guess I'm supposed to be telling what happened to me.

NM: That's right.

AN: I was transferred from Edmonton to Regina and it was a lateral transfer, I became District Geologist for Mobil for eastern Saskatchewan. It was kind of a bitter move for me because of the fact that I had ... the Pembina Field was just growing by leaps and bounds and there was a lot of activity in Edmonton and I had been there at the start and I disliked going to Saskatchewan where things were going very slowly, particularly for Mobil. I had also just bought a brand new house in Edmonton, it was the first house I'd owned and I had it for three weeks and then I was moved to Regina. Regina was not considered to be exactly the most favourable spot to go to, it was generally regarded like going to Siberia. I'm sure the people over there wouldn't like to hear that. Mobil had made a very large farm-in in Saskatchewan from a company called Sohio involving some eleven million acres and they were trying to find oil on this acreage and were not being very successful so I was swapped out with the District Geologist who moved to Edmonton and I went over there. I was in Regina as District Geologist for about two years. In fact one of my children was born there so he's always saddled with having to say he was born in Regina. We were successful in finding a little bit of oil over there before I left which was of personal satisfaction to me.