

PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: George Furnival

INTERVIEWER: Nadine Mackenzie

DATE: July 1984

NM: This is Nadine Mackenzie speaking. I am interviewing Mr. George Furnival. Mr Furnival, thank you for having accepted to participate in our project. Can you tell me when and where were you born?

GF: Do you want the year? I won't repeat it. I was born in Winnipeg.

NM: What did your parents do?

GF: My parents were. . .my father was in the furniture business. He was 3rd generation Canadian and was born just outside of Kingston and his father was born there also, in Ontario. His father came west and brought him to Winnipeg and he lived in a tent on the sight of the Royal Alexandra Hotel, right near the CPR station. The Royal Alexandra Hotel is torn down now, but he was 9 years of age when he came to Winnipeg in 1874. I was born in Winnipeg and went to public school, both public schools are torn down now. I also attended Calvin Technical High School, which still stands, then I went to the University of Manitoba, taking my first year at what was then Wesley College because of my very close friend, Jerry Ridell, whose father at that time was principal of Wesley College. Jerry Ridell had a very distinguished but sadly short career. He was one time Canada's permanent delegate to the United Nations. Graduating from the University of Manitoba in 1929 I had become involved in the mining industry. My first real position was as an assayer for Cominco in the Red Lake district of northwestern Ontario. That was in 1928, when Dr. R. C. Wallace was head of the Geology Department at the University of Manitoba. Dr. R. C. Wallace later, continued to become Canada's foremost educationist, being appointed to Head of the University of Alberta and subsequently Chancellor of Queens University in Kingston, Ontario.

#051 NM: Can I ask you, why did you choose to study geology?

GF: I believe Dr. R. C. Wallace influenced me to a very large extent. He was a man, a very articulate Scot, a man who exerted a great deal of influence on people, though he was reserved. He was instrumental in my obtaining the position with Cominco. Then having spent a summer in the northern Ontario bush, I was fascinated, not only by the country, but by the very competitive nature of the mining industry. I went back to Manitoba and finished my course in geology. Having had some underground experience with Cominco in Red Lake, I found a deficiency in that I did not have as much engineering as would be desired. So I returned to Manitoba and took a year in Civil Engineering and then since, this brought us into the middle of the Depression, after my next season's work I returned

to Manitoba to take additional graduate courses. In fact, I took all of the graduate courses offered by the University of Manitoba including advanced paleontology and stratigraphy, courses that I never dreamed that I would have any use for in the hard rock mining industry I had decided to follow as a career. I was working summers at that time with the Nippising??? Mining Company from Cobalt, Ontario. We obtained a contract for 100 flying hours with Western Canada Airways and set out to explore the area around Pickerel Lake, Crow River, in which gold had been discovered in 1928. After two years with the Nippising Mining Company, two summers, I returned to school at Queens University, where I was offered an assistantship and completed my Masters degree in hard rock geology under Dr. E. L. Bruce, who was then considered the foremost professor teaching pre-Cambrian hard rock geology. I then went off, in February, 1931, to work at Great Bear Lake for the Geological Survey of Canada under Dr. Kidd. We did a great deal of reconnaissance mapping during the winter months when very few maps were available in that area to use as base maps. I then proceeded to Massachusetts Institute of Technology where I was offered a scholarship in the Department of Geology and studied Economic Geology and minored in Mining Engineering. At that time, Dr. Waldemar Lingren??? was still head of the Department of Geology and Spencer Hutchinson was head of the Mining Engineering Department. Both these men were most impressive and were giants in their respective disciplines. Spencer Hutchinson at one time, worked as Dr. Lingren's assistant and also worked very closely with John Hayes Hammond, who was the outstanding Mining Engineer in the United States at that time. Spencer Hutchinson was very insistent that people understand, in evaluating mining properties that just as large mistakes could be made by people being too conservative in their estimates in the value of a property as being too optimistic. He relates a story of John Hayes Hammond telling a young Mining Engineer that came to work for him when he was consulting, he told the young engineer, I don't care how many duds you bring me but god help you if you ever pass up a mine. Which of course, is pretty good advice to any young engineer starting out in a career. I learned a great deal from these two men and I also learned that much is to be learned in attending universities abroad and having the opportunity of listening to people who have traveled world wide, have worked world wide in their particular disciplines. By this time I had been working up at Great Bear Lake during the summers and did a Ph.D. thesis on uranium and silver deposit at Great Bear Lake. There are many stories, of course, that could be told about the mining rush at that time into Great Bear Lake, as could be told about Pickerel Lake, Crow River and Red Lake, however I'm sure you haven't got time to listen to such stories. So we'll go on to the period after I had completed my Ph.D. at MIT, when I joined the O'Brien Mining Company, having spent a summer with the Ontario Department of Mines, mapping the geology west of Kirkland Lake into the Natachewan??? area of Ontario. Field work with the O'Brien organization took me into most of the then active mining camps in Canada, excluding the Cordillan??? region and eventually we undertook the development of Kline Lake Gold Mines, where at my request I was appointed Assistant Mine Superintendent, as I much desired to obtain operating experience. When in 1939, the mine changed hands, I moved on to the Geological survey in Ottawa, where I worked in northern Saskatchewan

and in the Cypress Hills of southwestern Saskatchewan. This was a two year stint and led to the publication of a memoir for the Geological Survey of Canada. At that time we had a director of the Geological Survey who believed in putting soft rock geologists into the pre-Cambrian and hard rock geologists into the soft rock areas of western Canada to broaden out their approach to geology.

#222 It was in 1942 when Mr. John O. Galloway, then Executive Vice-President for Standard Oil Company of California in Alberta commenced building a staff here. He came to Ottawa looking for geological talent and interviewed me and I believe I told you that he was . . . he evidently concluded that he had not sufficiently impressed me with the opportunities in Alberta. When I was leaving he told me I should discuss the matter of going to Alberta with my wife and give him a call in the morning. I talked to Marion and we decided that I'd had so much good experience in hard rock geology and mining that it would be very foolish to throw all that good experience away and go to Alberta, where only Turner Valley was producing at that time. So I said I'd tell my Galloway that I'd want a salary of about 4 x what I was getting, to go to Alberta. I called Mr. Galloway in the morning and told him that we couldn't possibly go to Alberta unless we received a salary of such and such, he replied, well, that's fine, when can you report.

#261 NM: So you were caught.

GF: I was taken aback and said I would have to consult my wife about that and let him know. I phoned Marion and said, well, if this man's that smart I think we ought to go out and work for him. So we went to Alberta and that's what brought me into the oil industry in 1942.

NM: You had various positions?

GF: yes. I came out as Senior Geologist the first year and then became Assistant to the Chief Geologist. Then Mr. Galloway decided I should be broadened out in the oil industry and felt I should have some production experience and he appointed me Field Superintendent for southern Alberta. At that time the only discoveries we had made were around the Taber, Foremost, Conrad, Princess areas. This was good experience but in 1946, when the excess profits tax was canceled in the United States, many of the American companies operating in Canada cut back on their exploration work. A number of us were invited to transfer to the United States, but we preferred the alternative of taking leave of absence and continuing to work in Canada. Some went back to universities to teach, whereas I accepted a position of Director of Mines for the Province of Manitoba. I spent two years as Director and undertook to write the first comprehensive petroleum legislation for the province, with the aid of a young lawyer from the Crown Attorney's division and proceeded to try to interest the oil companies to come to Manitoba to explore for petroleum. John Galloway was the only person that showed real interest. Imperial Oil were too busy in Alberta. Shell had looked at Manitoba and decided not to proceed with further exploration. At the time I was aware of the California Kemp??? #1 well in Montana and recognized that some 12,000' of Charles and Big Snowy sediments that were penetrated by that well were missing in the geological section in Manitoba. This great decrease in section took place in an updip direction, which suggested the

possibilities of many literal facees, unconformable relationships, in a generally favourable structural environment. The work of the California Standard Company, as it was then called, eventually led to the discovery of oil at Dailey, at Verdun and Roselee. By 1948 Leduc had been discovered in Alberta, followed by Redwater. Mr. Galloway asked me to return to Alberta to join the company again, but this time as head of their Land Lease and Legal Division. He asked me to organize a leasing group that could compete with the other oil companies in Alberta. This led me to hiring many lawyers, land clerks and other personnel, which formed a very efficient team under the direction of Louie LaBelle, who was my first hire. Louie continued to head up this organization and eventually became an executive of the company and a Director. Where do you want to go from there?

#405 NM: What were you doing in 1951?

GF: I was Vice-President of Land and Legal for California Standard and a Director of the company. On Dec. 27th, the Chairman of the Board of Standard Oil of California, Mr. Gwin Fraules???, called our President, Mr. George Knox, to ascertain whether I could be made available to go to Trinidad and be there for a meeting on Dec. 31st, concerning the application of a concession from the Trinidadian government.

NM: This is the end of the tape.

Tape 1 Side 2

GF: I managed to arrive in Trinidad for the meeting at the appointed time but I left my good wife with 34 guests coming for New Year's Eve for a party at our home. I felt badly about this so I called her on New Year's day to find out how the party went and she said, oh it was the finest party we've ever had.

NM: So she did not miss you.

GF: Apparently I was not needed. I continued in Trinidad for several months, negotiating for the concession of the Gulf of Pirea??? and eventually succeeded in finalizing an agreement. At which time the Senior Mining official said to me, George, you've established a record, you obtained that concession in less than three months. Dominion Oil was registered as a subsidiary of the Standard Oil of California in Trinidad and we continued to operate for many years after that initial concession was obtained in the Gulf of Pirea.

NM: So did you stay in Trinidad or were you traveling. . . ?

GF: At this time I was still living in Calgary and commuting to Trinidad. Working for Mr. Knox, the President in Canada and working for Mr. Crandall???, the Vice-President of Exploration in San Francisco. In October 1955, I moved to San Francisco to become Vice-President and Exploration and Director of California Exploration Company in charge of exploration in the western hemisphere outside of Canada and the U.S.A. Staff??? work was also done in Australia, Indonesia, Arabia and Bahrain.

#052 NM: Did you travel a lot?

GF: Yes. I was 8 years in San Francisco and in October 1963 I moved to Perth, in western Australia as Chairman of the Board and Managing Director of West Australian Petroleum Propriety Ltd. which was a consortium of Standard Oil of California, Texaco, Shell and Adpo???, the Australian company. Our concession comprised some 368,000 square miles, of which 55,000 square miles were offshore. We were successful in finding oil at Barrow Island and oil and gas at Dongrif???. This led to quite a profitable operation. In 1970, because of the expiry of arrangements with the Australian government, I was offered a position back in San Francisco. However at that time, we didn't wish to return to San Francisco so I explored the alternatives and these were sufficiently attractive, I came back to Calgary. I left Standard Oil of California and went into the consulting business for a year. Then I was approached by BrassCan Ltd., who wished to organize a resource division of the company with headquarters in Calgary. I joined the initial organization as Vice-President, Operations and was responsible for organizing the three divisions in petroleum, mining and coal for that company. In 1975, we acquired controlling interest in Western Mines Ltd. I was appointed a Director and member of the management committee. And in July 1978, when Mr. Hugh Snyder resigned as President of Western Mines, I was asked to take over as President and Chief Executive Officer of Western Mines. I overlap a number of positions there because during that time I was also President of Coalition Mining Ltd., which at that time held the Sekunka??? coal deposits

in northeast British Columbia and had interest in coal operations in Australia. I returned to Australia to do a feasibility on the 5 coal mines in which BrassCan held interest. This was a temporary appointment. In 1982 I retired from Westmin Resources Ltd., which was the successor to BrassCan Resources Ltd. I should say, in '83 I was asked to become President of Lathwell Resources Ltd., the position I now hold.

#134 NM: Do you have any plans to retire one day?

GF: I don't know why. I think a person, as long as they're healthy and has no problems at home should continue to contribute.

NM: Mr. Furnival could you compare the training of the oil people in your time to what it is nowadays?

GF: I would say that the training is much more comprehensive, the academic training is much more comprehensive and offers much more opportunity to specialize in various parts of the petroleum industry, both the engineering side as well as exploration, which involves geology and geophysics. I think that we still require good practical training outside of the classroom and most of the major oil companies provide such training in the first two years of a graduate's employment with one of the major oil companies. Standard of California or Chevron, Texaco, Shell, Imperial or Esso, all have their training programs for the new recruits. Sometimes these may be overdone as the recruits after 2 or 3 years become anxious to get out onto the job and become productive. That I think provides probably the best combination for high quality training of graduates from the recognized universities that offer comprehensive education in the industry.

NM: What about the Canadian training comparing to the foreign training?

GF: Canadian universities today offer training that I believe is on a par with what you can get anywhere, certainly in the western hemisphere. Also with the more mature development of the petroleum industry in Canada, there's plenty of opportunity for students to obtain on the job training while attending university, which is something that was lacking in the early days. So often it was necessary to visit oil fields in other parts of the world to actually view new techniques and new processes in operation.

#196 NM: You have been a witness to the ups and downs of the oil business, can you comment on that?

GF: I think it's true of all resource industries that they are cyclical. This is particularly true of the mining industry, due to the cyclical changes in supply and demand and therefore the prices for the metals that are being mined. Petroleum, for many years, coasted along at a more or less fixed price, based on the price for Arabian sour crude. It's only since OPEC that we've had a sudden change in the price of petroleum. This has caused quite a change in the petroleum industry and introduced more of a cyclical nature to the industry than had existed for many years. There were always times when the availability of petroleum became a matter of concern, usually shortages developed as a result of government policies. The industry, left to its own devices, always managed to meet such crises as occurred in the 20's and in 1958 and of course, during the war. I don't see that we will ever eliminate ups and downs in any phase of the resource industry, given the nature of

the politicians and government policies that the resource industry is subjected to from time to time to meet the demands, political or economic of our various governments. I believe the most satisfactory environment for the maximum efficient production of our resources would be one of minimum government intervention, taxes only on profits, with abolition of gross royalties that cause or result in a great deal of our resources being wasted by forcing companies to leave those resources in the ground. Have I covered your question?

#272 NM: Yes, fine. What do you think of the National Energy Program?

GF: I think that is the most unfortunate to have happened to Canada in recent years. At a time when the economy was slipping the petroleum industry was supporting the economy of the country and was the only bright spot in the whole economy of Canada. It's unfortunate that those in power perceived the petroleum industry as developing a power centre in Calgary that could challenge, financially and economically, the wishes of central Canada. The destruction of the oil industry in western Canada caused waves of repercussions right across Canada that were not contemplated by any of those who were instrumental in devising the National Energy Program. Politically it was uncalled for, since the main issue, namely the proposal to increase the price of gasoline 18 cents a gallon, would still have left the price of gasoline cheaper than a gallon of Coca-cola. As we have seen subsequent to the National Energy Program being implemented, the price of gasoline has continued to rise, far in excess of the 18 cents which was contemplated by the Conservative government at the time. However the loss of equipment and service companies, which resulted in the number of drilling rigs declining from 555 in 1980 to something like 230 in 1982-83, resulted in cancellation of supplies and services in centres all across Canada. For example, it's doubtful if any of the people who initiated the National Energy Program realized that 75% of all the heavy duty trucks made in Canada, principally in Ontario, were sold in western Canada, chiefly to the oil industry. When cancellations of orders for such trucks rolled in, I believe the people in Ontario, the manufacturers were shocked at the impact. It will be many years before Canada recovers from the effects of the National Energy Program. It was most unfortunate and most untimely, need I say more.

#380 NM: So how do you foresee the future of the oi business, here in Calgary for example and then in Canada? Is it going to improve or is it going to get worse?

GF: Well, you tell me who's going to win the election and then I'll tell you.

NM: Are you an optimist or a pessimist regarding the oil business?

GF: Undoubtedly if the Conservatives win the election, the political environment for the oil industry will have greatly improved and we should then be able to attract the type of investment that we were able to attract years ago and which is so necessary for the future economic health of Canada. We need investment, foreign investment in this country. We've always needed it and we still need it. For us to reject foreign investment in Canada is simply cutting off our noses to spite our face. We can see the effects of that sort of policy in the present economic situation in Canada.

NM: What do you think of the nationalized company like Petro Canada?

GF: I couldn't see the need for it.

NM: Sorry, this is the end of the tape.

Tape 2 Side 1

GF: I couldn't see the need for Petro Canada at the time and still don't. The process of Canadianization of the petroleum industry was underway and was proceeding in a healthy fashion with the initiation and development of many small Canadian companies. Unfortunately the National Energy Program forced many of these new Canadian companies out of business and worked to oppose one of the stated objectives for the program and Petro Canada. There is little doubt but what Petro Canada paid far too high a price for its acquisitions and the taxpayers have had to foot the bill to offset the excessive cost of such acquisitions. The privileged position given Petro Canada, i.e., its right to back into new discoveries to the extent of 25%, is of course, a most unhealthy provision and must be eliminated. The purchase at excessive cost of retailing, marketing and refining divisions of various companies is a poor investment. As anyone in the oil industry knows, the rate of return from downstream activities of the oil industry has been traditionally very low. Most oil companies only enter into those activities if they find a need for them in order to market their production from their oil fields. I don't believe a country as small as Canada can afford an expensive operation such as Petro Canada. We will be facing another situation as we are facing now with Canadair and DeHavilland.

#063 NM: Who were the most influential persons in your career?

GF: From the point of view of getting me started and pointed in the direction that my career took, I would say that Dr. R. C. Wallace, the former head of the Department of Geology at the University of Manitoba had the greatest impact. Then Dr. E. L. Bruce, Louie Bruce, the head of the Department of Geology at Queens University in Ontario. And of course, subsequently, Dr. Lingren and Spencer Hutchinson, whom I admired greatly, left their mark on my development at that time. I should not of course, leave out my good wife, Marion, who joined me to live in a log cabin in northwestern Ontario, which had formerly been a core shack. She left a career of her own to come to live with me in the wilds of northern Ontario, knowing very little about geology or what a geologists did. I cannot but extend my utmost admiration to her and to the fortitude she displayed in putting up with the inconveniences of living in northern Ontario at that time.

NM: Always behind a very successful man there is a very supportive wife.

GF: That's for sure, I would certainly endorse that.

NM: Any other persons, influential persons?

GF: It's hard to pick out or segregate the impact of individuals later on in life, because there are many and the interactions are infinite.

#107 NM: What were the most exciting experiences for you?

GF: Well, I should say to start with, that I agree with Roy Chapman Andrews, the man who explored the Gobi Dessert in China, when asked a similar question, he replied, only people who make mistakes have experiences. So with that preface I'll enumerate a few. When flying out of Pickerel Lake, with Western Canada Airways, we undertook to make it an airborne geological map, which I believe was the first of its kind ever made in Canada and of which I still have a copy, under the direction of W. C. Martin, a very well known mining explorationist. We were, after scouting the area northeast of Pickerel Lake where no maps, topographic or geologic were available at that time, we undertook to explore certain areas by canoe and arranged to rendezvous at a certain lake with a plane load of supplies, mail etc. We decided, after the plane had arrived to fly down to Fort Hope to reconnoiter another area or Greenstone. However the pilot and one of our staff, apparently not paying sufficient attention to where they were going, flew directly east instead of southeast and we ended up at Lansdowne House, an outpost of the Hudson's Bay Company. In attempting to take off from the lake at Lansdowne House, which was located on Anawapascat Lake???, the plane, a Fottter??? Universal, blew a cylinder head. Fortunately nobody was injured and they sent out by two of their fastest Indians to take a message to Fort Hope to bring a new engine into our location. We managed to get out of there in about 6 days time. I think probably an interesting experience occurred when I was in charge of a join venture well, drilled by Standard Oil of California and Gulf jointly, at Key Salle??? in the Bahamas. The location for the well, an offshore well, was in 30' of water inside of a key located about halfway between Cuba and Marathon on the Florida Keys. We wanted to build an airstrip on an island to take a DC-3 to service this well, which had a projected depth of 12,000'. Unfortunately we discovered that Howard Hughes had a 99 year lease on this island and when contacted his people told us he didn't want any construction on the island or any disturbance of the island from its natural state period. After a great deal of negotiating, the head of the aviation division informed me that Mr. Hughes had a proposition to make but that he wanted to talk to the person who had the direct responsibility for the operation. Arrangements were made for me to call Mr. Hughes. I was told it was to be done from my home, there was to be no listening in, etc.

#200 NM: Sounds like top secret.

GF: After calling and being transferred through about half a dozen secretaries and receptionists I finally talked to Howard Hughes. I found he was quick to grasp the essentials of the problem and of course, he had an excellent knowledge of operating aircraft. He asked me what our capital cost estimates were for the DC-3 strip and what our monthly operating costs would be. And then he proposed to establish a helicopter service between Marathon and Key Salle, equip it with the necessary Sikorsky F-57 helicopter, the largest of its kind at that time, and to service it, maintain it and supply all personnel at the same cost that the DC-3 strip and plane would have cost us on a monthly basis including the amortization of the DC-3 strip. The well was subsequently drilled to 18,789', the deepest offshore well at that time. We were more than 18 months drilling the well and Hughes supplied excellent service at the estimated cost so that everybody in

Standard of California and Gulf were quite satisfied with the arrangement. It was interesting to talk to Howard Hughes. . .

NM: You are one of the very few who ever talked to him.

GF: He was most polite and was quite sharp in understanding our problem and proposing a solution to it. I find it difficult to accept many of the things I read in the media about this man, who contributed so much to aviation.

#262 NM: What do you consider your achievements Mr. Furnival?

GF: Well, I guess jointly with my wife, a happy married life, raising four healthy bright children. But if you're talking about my career, my greatest pleasure has always been in the creation of something new and I've always considered as a person engaged in exploration, that I was in effect, creating new wealth. In finding a new deposit, whether it was of metals or of petroleum, to me it represented new wealth for the country in which it was found, since it provided work, employment, a source of new revenue for not only the local and federal governments, but for those who had taken the risk of investing their money and thereby providing the opportunity for them to repeat the success. This I think, is a vital factor in a country like Canada that is so rich in resources. Given good government without intervention, without bureaucracy, excepting such as may be needed to guarantee safe operations, a country such as Canada should be most prosperous. I don't know that you want me to get into details of where we've been successful. Usually of course, it's a team effort. No one man by himself is responsible for discoveries. It's a coordination of the efforts of a group of people working together that have proven to be more successful in exploration work.

NM: Can you comment on the contribution of Alberta to the development of the Canadian oil industry.

GF: Alberta is fortunate in having large scale oil and gas deposits and therefore providing the opportunity, given adequate investment, the right technical people and the right political environment, it naturally became the leader in petroleum production in Canada. In doing so it attracted the technical people and permitted development of local technical people, who with the proper backing of investors were able to fan out from Alberta into Saskatchewan, Manitoba, northern B.C. and other parts of Canada to explore and in many cases find petroleum under more difficult circumstances than prevailed in Alberta.

#370 NM: This is that last question, on the whole what do you think of the oil patch?

GF: I think the oil patch, as you term it, has been a very fortunate experience for the people of Alberta and Canada as a whole. The new wealth that has been created by the discovery of many oil and gas fields of Alberta has benefitted so many people in Alberta and Canada indirectly that it is impossible to express it in terms that are very meaningful. But what do you think Alberta would look like without the oil patch.

NM: Not much maybe.

GF: undoubtedly the wealth derived from the petroleum of Alberta has provided educational institutions, hospitals and all the things that make for a good life and are enjoyed by people everywhere and let us hope that it continues to prosper in the fashion that it has

11 George Furnival

July 1984

Tape 2 Side 1

before the National Energy Program.

NM: Mr. Furnival I have really enjoyed interviewing you, thank you very much.

GF: Thank you, it's been my pleasure.