PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Eric Atkinson

INTERVIEWER: Jim Wood

DATE: May 18, 1983

Jim: Today is Wednesday, May 18, 1983. My name is Jim Wood and I'm speaking with Eric Atkinson at his home in southwest Calgary. Eric, first of all I'd just like to thank you for participating in the Petroleum Industry Oral History project and I wonder if we could start out this evening and just talk a little bit about where and when you were born and perhaps a little bit about your family.

Eric: Well, certainly. I was born in Sheffield, Yorkshire, England and I was brought up there and educated there. I was born in 1923, so the war broke out when I was just finishing high school and so I was thinking at the time of going into the steel industry. The universities switched to a 2 ½ year course and I was going to take metallurgy and I decided at the time when the war broke out that to go to university at the time during the was I wouldn't have too good a degree, so that there was an opportunity to go to work as a chemist in the steel work so I went to work in the steel works until I was old enough to join the forces. And when I was eighteen I joined the Royal Air Force and applied for training as a pilot and so I was sent over to Canada to do the flight part on the Empire Flying Training Scheme and that was in 1943. And I was sent here, well first we went up to Bowden, which is now the bad boys place up there. Well the federal government has taken it over as a criminal institution. But originally it was #32 SFTS, Elementary Flying Training School and I was up there for awhile and then I came down here to Calgary and finished up my flying training here. And so this was when I got my first experience of Canada and I liked the west, very much so, the people that I met and I thought it would be nice to come back out again. So that when I went back and after the war I applied to go into university and I thought at the time that I would like to possibly try and take up Chemical Engineering or something like that. And I went to university and when I got there most of the courses were full. I was able to get in taking chemistry and mathematics and the Dean said, well, physics is full, you can't get in. So he said, I'll tell you what, the geology school is open and there are a few places there if you'd like to go down and talk to the prof there. So I went down to see Professor Shotten and we got along very well and after talking to him I realized how much more valuable geology would be in Western Canada because I knew of Turner Valley at the time I was out here. So I thought well, this would be a good opportunity. So I decided to take chemistry and geology as a major. After one year in taking geology I was firmly convinced that's what I'd like to do so I graduated as a geologist in 1950.

#039 Jim: Did you fly over Turner Valley?

Eric: Yes, oh yes. When I was at Calgary here, we used to use Turner Valley, during the war they were flaring the gas to get maximum oil production out of it and you could see

Turner Valley at night when we were night flying, you could see Turner Valley from down near Medicine Hat you know. And if you were out on a cross country you know, doing night navigation, well we used to line up on Turner Valley to get home.

#043 Jim: So your interest in geology was primarily a function of an opening in the university?

Eric: Yes, initially. I hadn't thought about it prior to that time. As I say I thought chemistry might be the best opportunity. When I was thinking about coming to Calgary and I thought well, gosh the only places for university graduates are probably in accounting and I didn't tend towards that.

#050 Jim: What was the university again?

Eric: The University of Sheffield.

Jim: When you were in university there did you take summer field work or were there. . . .?

Eric: Yes, oh yes. Actually it was a very good school and the prof as I say, I got along with him very well, his name was Professor Shotten, a very fine geologist. He'd been in the army during the war. He had been at Birmingham, he'd been prof at Birmingham, but he came up to Sheffield and took over after the war. But he had been in the Western Dessert with the 8th Army. There job was finding water supplies for the army through the dessert, this sort of thing. So we got along really well and he was a fascinating person and a very fine geologist too. We had field parties out, every Easter, we used to go for a month, see the terms are different in England. You have a month at Easter and then you work from Easter, you don't finish university until the end of June, you see, so you have a longer year that way. But we used to go to the special areas in Britain to study the various geology, we did the whole of the Yorkshire coast, which is largely Mesozoic, cretaceous, the White Cliffs of Dover, there's White Cliffs at Yorkshire too that are actually more impressive than the ones at Dover. The Jurassic succession all up through there where you get all the North Sea oil production today in the North Sea.

#066 Jim: Was there any inkling of that at that time?

Eric: No, there had been a little on shore just south of Yorkshire. Well there had been a couple of wells drilled in Yorkshire but down in Nottingham at [Eekring ???] there was some little oil production there but it was quite small. And another thing the prof did, when he knew I was coming out to Canada and I said, well I thought I'd see if I couldn't get in the oil business here and then of course, in '47 Leduc was discovered and that increased my interest in going to work in the oil business.

#073 Jim: So that was news in England at the time?

Eric: Yes, oh yes. When they discovered Leduc and then the big Atlantic blow out in the Leduc field and all that, that hit the headlines you see, and we got to know about that. And so at the time there wasn't a specific course in oil and gas traps in geology at the school. It was straight geology, and he laid on a term course for me. Fortunately we had very small classes, there were only about ten to a class, and so when we had a class very often it

would turn into almost like a seminar or somebody like that, one of the senior lecturers. It was very good. And so he laid on a full term in oil and gas exploration just for me. And I guess four of the other fellows took it as an option as well. The other four, they ended up going out with Anglo-Iranian which became B.P., they went out to the Iranian oil fields.

#083 Jim: Do you remember who they were by name?

Eric: No, off hand I couldn't say. There was one fellow, he went to Africa. This was normally what you did when you took geology in England. If you were going to work in the geological profession, you usually went overseas somewhere, either the Middle East or Africa or someplace like that.

#087 Jim: So you were actually prepared then, or you did have training that was relevant more specifically than to the Western Canadian situation rather than. . .?

Eric: That's right and we had a very good course in carbonate geology which eventually turned out good facts as far as I was concerned because the emphasis was on the Devonian Reefs when I came back to Calgary in 1950. So this was one of the first things that Glen Bowles, who interviewed me for working for Hudson Bay, one of the first things he asked me, he said, do you know anything about carbonates. And I said, oh yes, I did a full year on carbonates, and I was able to show him the university calendar, what we'd covered and so on and so he was quite impressed. And this is one of the things I think, that influenced him to hire me.

#099 Jim: Let's talk about that then and after you graduated in 1950, right. And then I take it you came over on the ship?

Eric: Yes, I took the Empress of France, the CPR boat to Montreal and I arrived in Quebec City, July 3, 1950. And then we got on the C. P. R. and took the train west to Calgary.

Jim: And you knew no one?

Eric: Oh yes. Well part of the reason. . , when I was here during the war, I met quite a few people and there was a Scottish friend of mine, we went to one house and we met my wife's family and my wife there and they invited us down to the farm at Okotoks and so I met my wife at that time and we corresponded and afterwards it was university and so on through the war.

#110 Jim: So you had sort of two reasons for coming back?

Eric: Yes, that's right. And so eventually I came back in '50 and Evelyn was working at the Alberta Wheat Pool at that time. So I knew the [Forkles ???] they were a pioneer family at Okotoks you see, and so it wasn't as though I didn't know anyone. And also the lady that I was introduced to the family, Mrs. Maclean, who was an old Scottish lady, she was still here and so it wasn't all together a strange place to come to. And Calgary was a pretty nice city in 1950. It was called a cow town but it was a very nice city.

#120 Jim: How was it different then other than I know there's been a lot of building, but was it nice in a different way than it is now?

Eric: Yes, well it wasn't quite so hurried as it is now. I mean Calgary now, is a big city with the freeways and all that sort of thing. And it was much more a small town, you might say. Downtown was the downtown, it was the centre of the city. Just after we got married there, I was married in 1951 and if we wanted to meet any of Evelyn's relatives from the farms, they were pretty well all farmers around Okotoks, Dewinton and so on, we'd go to the Eatons on a Thursday. Most of them used to come in on a Thursday and they'd go and have lunch at Eatons. You could always see Uncle Ed there wandering around or aunt Emma or somebody or meet just about the whole family down at Eatons. And you got to know people a little more easily. The people with the typical western friendliness, they weren't in such a hurry. They had time to stop and talk. It was a feature of the time then I think.

#136 Jim: So you had a new wife and a fresh degree and you needed a job. So maybe you could talk a little bit about how that went?

Eric: Well, as soon as I arrived, I had to get a job. I didn't have a lot of money of course, just the little I'd saved in the Forces and one thing and another and managed to hang on to through university. But there wasn't much available. I had written, as a matter of fact, I must have wrote twenty-five letters. Evelyn got me the list of oil companies out of the phone book and I wrote to them all and several of them, quite a few actually wrote back and said, well they'd be willing to interview me and see me if I came, but they weren't encouraging me particularly. With the names that I had I set off and went round on foot and just pounded the pavement there for a couple of weeks. I think I saw just about every oil company in town, large and small. Very often you'd meet someone, and this was another thing, the community was quite close knit, the oil community in those days too. And you'd go in and see somebody, like I went in to see Jack Webb, you've probably heard of him, a real pioneer in the oil business and the geological fraternity. And awfully nice gentleman, he really was and he was working with Anglo-Canadian at the time and he said he didn't have a job, they were quite small but he said, I'll tell you what, I'll phone up and give you some names to go and see. He said go and see, Com Haig and a few more people and he said, go over to Imperial and see Doug Lair and so he sort of extended himself, you got to know people that way. And most places I was pretty well received. Jobs were pretty well filled up you see, I came here in July and of course the Canadian graduates had been out since April and filled up most of the jobs that were available. And there had been a pretty fair graduating class in Edmonton, Calgary wasn't operating then, but Edmonton had had a pretty fair number of graduates. So there weren't too many jobs for inexperienced geologists like myself. But I did, as I say, I went into Hudson Bay Oil and Gas, I'd written to Hudson Bay and Glen Bowles said, well come in and see me. And so I went in and saw him and Glen Bowles, he was a California gentleman and a very nice person, just a small operation that Continental Oil had started with Hudson Bay Oil and Gas here in Calgary. And he interviewed me and so after about an hour, he seemed quite interested, he said they really needed another person and he wanted somebody with a bit of carbonate experience so he made me an offer. And I had another interview with Doug Lair at Imperial that morning. Well I went over to see him

and Imperial at that time, they couldn't hire directly in Calgary here, they had to get permission from Toronto. And so he said he'd like to hire me too, but he'd have to get permission from Toronto. So I thought a bird in the hand is worth two in the bush, I don't know what's going to happen here and Bowles had shown, they were a small operation and they were going to have to get after it and there would be opportunities if they were successful so I thought well I might as well give them a whirl. And so I joined Hudson, Bay Oil and Gas.

#190 Jim: What kind of a contract or an employment arrangement was made at that time and what kind of a salary were you offered?

Eric: It was strictly, you were hired on, you could be fired with two weeks notice. There was no contract or anything, you were just offered a job and if you turned out all right. He did say, well I'll have to put you on temporary for three months, see how you work out.

Jim: Probation.

Eric: Right. And the salary was $180 a month. He asked me what salary I wanted and I said, well I don't know, I have no idea what the salaries are in Canada, I'll just have to leave it up to you to give me a working wage. That was, oh I guess, the ranges were probably from around $175 up to about, maybe some of the highest paying companies you might have been able to get $250. That was about the range at the time. Sun Oil and Stanman ???, which was Amoco today, they were American companies, they were noted for high paying salaries so you might have been able to get up to the $250 range at that time with them. So anyway I was hired on at the $180 and I was the 30th employee at Hudson Bay Oil and Gas, we had just a very small staff all on one floor just above. . , well it was just adjacent to the Wave Coffee Shop. It was 5th Street and 8th Avenue and we were on the second floor. There was actually a fur company underneath the office at that time. It was quite a small operation but the thing that impressed me about it was that everyone was very friendly, they were not stuffy like they were in England. I did work as a chemist until I went into the Air Force and you had distinct ranks in the steel company and you knew your place. You were a junior chemist and then there were the senior chemists and so on, you didn't get to talk to the boss very much, the chief chemist. But in this type of operation here, well I'll always remember, when they had hired me on and I'd accepted the job, Bowles said, well you've got to meet everybody first thing. The first thing he does is he takes me down and he said, this is Mr. R. C. Brown, the General Manager and Mr. Brown came over and he said, my name's Brownie and he shook my hand. Well you never find that in England. Gosh that was really something. It took quite a while for me to get used to it because he was that type of person, he didn't like to be called Mr. Brown, he liked to be called Brownie.

#229 Jim: Who were you responsible to or directly under?

Eric: I was hired and Mr. Bowles was Chief Geologist at that time. So I was hired by him and he was the senior Chief Geologist and I was put under the wing of Ted Williams, Dr. Ted Williams, he's on that list that you have I think.

Jim: That's right.

Eric: He was sort of Senior Geologist with Hudson Bay and there was also George Fong who is presently with Dome and is the Beaufort District Manager for geology. And so sort of come full circle. George was assigned to sort of start me off training me in actual exploration. He'd been with Hudson Bay about a year, he'd joined them in '49.

#245 Jim: I wonder if you could just talk about your first few weeks at Hudson Bay Oil and Gas. Do you recall what that was like and how you actually started being a professional geologist in effect?

Eric: Well as I recall the first thing they said, well you've got to learn how to run samples because we're drilling wells and you've got to be able to recognize rocks in chips. This is real important so George was assigned to show me how to run samples, that is look at the drill cuttings of the well, which is sampled every ten feet and determine the rock from the samples and learn to describe them and so on. And so this was the first assignment that I had for the first few weeks there and then I think it was about the first couple of weeks, I caught on how to recognize samples. And then Ted and Mr. Bowles said, well we've got to look at the. . . , the thing was not too much was known of the stratigraphy of the Devonian where they reefs occurred and it was still pretty new geology. They were still talking about the D1, D2, and D3 and so on, they didn't have regular formation names. So every wildcat well needed to be looked at to see how it fitted in. We had the mechanical logs of the well, but the whole idea was that we had to try and see if we couldn't find something in the rocks that didn't show up so clearly on the logs that would give us a clue perhaps, to how close we were to a reef. Because all these wells were supposed to be drilled on reef anomalies that had been sort of, outlined by seismic. The problem was that there were more dry holes, even thought these seismic anomalies were supposed to be reached, there were more dry holes than there were reefs found. So the thought was maybe, perhaps, the geology can tell us how close we are to reefs. We decided well, we should look at a green shale which was surrounding the reefs and the cooking lake or the platform, the overlying [niscue ???] and so on, see if there was any clue. And so this was what George Fong and I were assigned to do and so we set about looking at a selected bunch of wells and cores. Then it entailed the cores that are taken out in drilling operations too. You get a little more rock than you do in a chip and you can see a little more. So this was, I would say about the first three to six months work. It was very good training actually because you really did get to look at the rocks. Today unfortunately a lot of the young fellows they come into an oil company and they don't get much chance to look at the samples and they tend to get overwhelmed by the mechanical logs which are quite sophisticated and so on. And they start interpreting the rocks from the mechanical logs rather than actually looking at the rocks themselves. And so I always think it's good experience if a young geologist today could get that which we had. From then on we started mapping. All the data they were collecting, we started mapping so it went on from there.

#305 Jim: Let's keep in the time frame here, about the early 1950's and I'm just curious about two things that I read about the other day in the history of Hudson Bay. One of

which, Hudson Bay Oil and Gas in 1948 had some wells in the Lloydminster area. And I found that curious, were geologist aware that it was a heavy oil deposit then or . . .?

Eric: Yes. In the, I think it was in the '30's and '40's, wells were drilled up there and they did find the heavy oil. And Husky had drilled some up there and Imperial. And so wells had been drilled in that heavy oil area at that time but in the early '50's, in 1950 the big push was to find light gravity crude, low sulphur crude particularly, because that was where the price was. I'm not sure on the exact price but it was around $2 and say Leduc and Redwater crude faced a premium price say of around $2.20, $2.25. And that was for 35-40 gravity oil, which is the lighter oil which was easily refined into gasoline. And the heavy oil was in more disfavour. The price for that dropped down to just about $1 a barrel and at $1 a barrel the economics of finding that kind of stuff, it wasn't worth it really. And so we could have gone up there in the Lloydminster area and Viking-Kinsella, Hudson Bay had land, the Hudson Bay Company land through there and we could have gone looking for that stuff but the yield on the wells too, the producability was low. If you get, at Lloydminster, if you get a 50 barrel a day well, you're doing pretty well, and it's sticky stuff, you got to pump it and messy to handle and so on. And so at 1950, $1 or $1.50 a barrel you're doing very well if you got that kind of money for it and of course, it was just marginally profitable. Whereas at $2.25 it was much easier. Another thing of course, the wells flowed, the reef wells, they could flow 2,000 - 3,000 barrels a day.

End of side.

Tape 1 Side 2

Started in mid-sentence

Eric: . . . has been largely office work and mapping the sub-surface and that type of oil exploration and in the early days we sat wells and things like this. We did field work in sitting on wells. We used to have field parties out but I didn't . . ., I was only out on one for a short time but most of the other, that was done by another group of geologists.

Jim: Within the company?

Eric: Within the company. And we used to have field parties out every summer, you know in all the foothills all the way up to the McKenzie there in the mountains doing stratigraphy and structural work. But my work, my forte has always been the sub-surface geological interpretation and this is what I concentrated on, running the samples cores and mapping with the results and integrating this with the seismic work to try and delineate and outline oil fields and come up with trends. Because at that time not too much was known as I say, about the sub-surface and you drill a well out, say 50 or 100 miles west of the 5th meridian and it would be really a wild, wild cat. And you never knew what you were going to get in there and then the question was to tie it into the wells in the known areas.

#018 Jim: How did that work then, you were relying on data generated from the field and with that date, that would allow the exploration crews and drilling crews to get a better

idea of where to look. What were the factors that determined at that time in your company, where they were going to drill before you got your information on these wild cat wells and so forth?

Eric: Well, the other companies had drilled wells, dry holes and so we would get the data from other companies wells and look at it and then we would interpret the data there, develop our ideas and we'd say, well we think there's a reef trend going this way. And we should acquire land along this trend and do some seismic and see if we can pick up the reefs. This is the type of approach we used to do, then there was instances of where you'd hear about somebody making a discovery and you'd say, gosh that fits in with a trend here. And they were holding the data fairly tight but you'd say well, on spec, let's pick up some acreage along this trend here and this type of thing too. But what we used to do was to try and develop our models and ideas of where the reefs trends were going and pick up land along those trends. Reefs were the big thing. If there was other trends that came along, Mr. Bowles, he tended to downgrade easy or we'd just say, well, one reef at 5,000 barrels a day is worth all these wells here. You can have twenty wells at ten barrels a day and you've still only got two hundred barrels a day. So this was his approach, he used to say, let's concentrate on the reefs.

#038 Jim: This other information you were getting from the other companies, were they companies in association with Hudson Bay Oil and Gas?

Eric: No not necessarily, in competition. The Energy Conservation Board had a ruling that you could hold a well tight, the information was held tight for a year and after that the information was released. So you could go and look at the samples at the Energy Conservation Board which was the Alberta Conservation Board at that time. And then if we drilled a well say, and we keep it tight and then you could exchange the information on your well for somebody else's. They'd have one that was tight and you'd say well, we'll let you have our sample, look at our samples if we can look at yours and we'd switch logs. And so there was degree of interchangeability on your activity and this was the type of activity that went on.

#047 Jim: You must have kept track of what other companies were doing and where they were drilling. It seems to me that you would be in a position to perhaps recommend that a scout go out to a particular location.

Eric: Oh yes, this was the sort of thing. . , we had scouts you know, and actually I would say that's how really, Sturgeon Lake was discovered. We were pretty interested in the [Armarada ???] operation up there and our scout happened to be up and found out that they had got oil and he said, they had a certain depth and we said, from the depth, it's got to be the reef.

Jim: What year was that?

Eric: I think that was about '52, '53, somewhere in there. So we got this information and we brought it to Mr. Bowles and he said, well, let's see what we can do. And there was a block of acreage nearby held by Guthrie Drilling under Liberal Petroleums and we were

able to, our chief landman, Arch Crews at the time, he went over and saw Guthrie and got the acreage commitment from him. And subsequently actually we did seismic on the land and we discovered the south Sturgeon Lake field. That was one of the, you might say, big points in the history of Hudson Bay Oil and Gas was South Sturgeon because it provided us with a large reserve of oil and the cash flow and well, the incentive to keep going. Because when I first started I'll always remember Bowles telling me, he said, this operation of ours, we're going to go looking for oil and if we don't find much the operation might fold up in a year or two. He said, Continental would likely wind it down because as he said, he was in operation with the Hudson Bay Company and Continental Oil but Continental was putting up all the exploration funds at the time and they were going to give it a fair crack. And as often happens you go into an area and explore it and you decide after a certain amount of exploration that it's no good and so you pull out. And this happens with countries, you know, internationally as well. And there's no guarantee, well at that time, this was the approach the American companies were taking here. Nobody was still quite sure when they first started, how much oil was going to be found. It looked like Leduc and Redwater were setting off maybe a trend but after awhile you begin to wonder if maybe that was all it was. And Imperial had, well, Redwater was well tied up with Imperial and they had a large chunk of Leduc but Leduc, there were more independents and other companies able to get in on it.

#081 Jim: How big was. . ., had Hudson Bay Oil and Gas grown much by 1952, 53 or. . . .

Eric: I was the 30th employee at the Hudson Bay in 1950 and we didn't take on too many staff until 1953. And we were drilling down at Sundre, we were looking for a reef and like often happens in the oil business if you go in deep you find something shallow and they found the Sundre Mississippian Field at a shallower depth. They didn't think too much of it on the first well but after they had produced it for a few months, the production says, well this well is standing up pretty good. It was only 30 gravity oil but it was making good money, so they said let's drill an offset. And of course that was a better well than the original well and so they started stepping out and developing and the we found Sturgeon Lake and then they had to start having production staff and accounting staff, which we didn't have much of. The accounting department for instance, was Fred Sellers and two girls, oh yes, and Harry Castle. I think there were four in the accounting department. And in 1953 they really started adding staff. As a matter of fact I think I've got a telephone page from that time and it shows how much the staff had increased.

#098 Jim: Do you want to have a look at that real quick and we can just pause here for a second? This was in, I'm looking at a list here of 1954?

Eric: Right, December 1st, 1954.

Jim: That's about as many people in treasury in '54 as you had in total in 1950.

Eric: Right. You see and then production from '52 we went from eighteen people and then there's all these. [Some talk back and forth as they counted numbers and looked at pages, not very legible]. So we went from eighteen to seventy.

#113 Jim: I want to talk about that in a second but. . . I guess Sturgeon Lake you mentioned or the Sturgeon Field. What's the proper designation?

Eric: The South Sturgeon Lake Field.

Jim: The South Sturgeon Lake Field. What was the reaction inside the company when you and the other people finally recognized what you had there, and what the implications were?

Eric: Oh, terrific tribulation. I'll always remember when we heard we got oil, gosh, running up and down the office, that was a real big discovery, and it really flowed oil, the discovery well. And everybody was excited as anything, Brownie and Bowles and that, they were really excited about the whole thing. They knew they'd got a big discovery. And of course, it made them feel a lot happier about their jobs too you see, because they would have probably gone back to the States. Continental Oil had just been a steady operation, Mr. Bowles came up from California which was a small operation, a small division and Mr. Brown, I think he was in production, Mr. Brown is in that book if you'll remember. He started at the bottom, he never had any formal education, he learned it all on the way up, a tremendous person. And he probably figured he would have gone back to just a normal small production job in Denver where he came from. So there was terrific jubilations, always a lot of excitement. That's one thing about the oil business, I'm very glad I went into it, I find it fascinating, even today I find it very interesting. I think it'll be a tremendous hobby, even when I'm retired, I don't know whether I'll really be retired. I'll probably go up to the university and take courses and go as a consultant and all these other things. Because I do find it fascinating business, it really is, and Canada's been good to me and a lot of other immigrant peoples and I appreciate it. I do like it here. I've been here thirty-three years now and I consider myself a Canadian, a Western Canadian just like anybody else. And if I had to do it over again, I might do a few things different but I'd still want to be here and I still think this is the best place in the world to live, personally. It's just my opinion, I'm quite opinionated about it you might say. And I'll tell anybody about it any time, I'll point out the benefits.

#146 Jim: Hudson Bay then, in their production department went from eighteen to a staff of seventy. I know Hudson Bay Oil and Gas has gone through a number of changes, well certainly since you've joined the company. That was seemingly the first big change for the company. How did that affect the operation of the company from your point of view as an employee?

Eric: Well the very fact of size, we went from a small operation in which you knew everybody, I was the 30th employee, as I said he took me around and introduced me to everyone. And I knew everybody and that's a very nice feeling. You come into the office in the morning, you say hi to everybody and you know them all. You really get to know them, you can have a company party and everybody there with their wives and so you get to know everybody. When you suddenly go, as we did there, '53 was a very big hiring year and '54 and add all these people, and we've done this several times in the history and gosh, you know, suddenly you've got to expand to more than one floor. You end up, you've got no space in your office or some people in another office. You end up with production people in the districts, you know in Edmonton, and so you don't know them. You don't know

everybody and this is the biggest loss I find, in a company as it grows. It's nice to see it grow and you realize they're providing jobs and all these jobs were provided. And that's another nice feeling but as far as the operation of the company goes, you're not as close. You're becoming a big company and a big company is like I think, big government, it's very difficult to maintain communications and so on. The personal approach, you tend to lose it because as money comes in and the company starts expanding you have to start organizing it so that you can set objectives and so on. Where is the company going to go from here because now you've got an income. That's another thing, in the early days, the explorations are all important, you've got to find that cash. Once you've found the oil, found the cash, and they're going to say, oh we've got cash here, let's use it to do this. And there are a number of people start wanting to use it for diversifying the company and using it for other things other than finding oil and gas. And of course, this has been a mistake in many companies, it's been a very traumatic experience, even the majors like Mobil Oil in the States went and bought Sears Roebuck and things and forgot almost about being an oil company, where they started and what they knew they were doing. This is all a matter of philosophy and history of big companies and growth you know. I always think outfits like AT&T, and the Bell System are good examples. They knew what they were doing and what their business was and they didn't try to diversify too much. They were in electronics, communication and so on and they stuck with it. That's what they knew, what they knew how to do. And some of the oil companies got badly burned that way. Suddenly they had great gobs of cash coming in from the oil business and they get an Accountant come in, a Business Manager and he's been through university full of bright ideas, he hasn't been through the business realm. And he says, well we should diversify into that and they make all sorts of projections and the company gets into it, they don't really know much about it and they're suddenly out of their league. That's a matter of opinion, you know, I suppose.

#196 Jim: Well, we'll talk about, I know Hudson Bay Oil and Gas was pursuing a marketing venture at one point. We'll talk about that perhaps in a few minutes. One of the interesting things with your company is the almost unique land situation they had relative to the Hudson Bay Company. I wonder if you could just talk a little bit about that and the nature of that Imperial Oil's involvement in leasing that land and in general the effect of having that amount of land available to the company.

Eric: Well, when the company was put together with Marlin and the Hudson Bay Company, Marlin became Continental Oil after the took it over, the banks Morgan interest took it over and Marlin went out of it. But the big thing that interested Marlin when he first came up was the fact that the Hudson Bay Company had, practically through Western Canada, a section and three-quarters in every township which amounts to a tremendous amount of land. And it was this checkerboard right through the Western Canada basin. So Conoco recognized this as a very big asset.

#214 Jim: When was this?

Eric: During the Depression, the Hudson Bay Oil and Gas became dormant for awhile because

of the lack of money, Continental was in poor shape and the Bay was too and they had to just put it on the shelf. They didn't have the money to continue exploring. They hadn't found anything very big, they found a little gas up at Viking and things like that. So that was put on the shelf and it wasn't until '46 when the Morgan interest decided to reactivate, really to get Continental moving and they brought in Leonard MacCullum from Exxon, Esso, in New York, I think he was Production Vice-President and they decided to get Conoco moving again and they decided he was the man to do it. And they brought him in and he brought with him. . ., and the funny thing, MacCullum was a geologist too originally. He developed into a very fine business leader. If you want to read a little about his history, he's in a book, The Greatest Gamblers by Ruth Sheldon Knowles, it's in most libraries, I know there's a copy, there should be a copy in the Dome library. It was in the Hudson Bay library. It tells about, he was one of the four modern oil explorers and so on. So he brought Ira Cram from Pure Oil who was a well known explorationist and they decided to reactivate Hudson's Bay. And they got looking at it and realized that the pattern of land was a good spread but they wanted large blocks to explore. The thing was they had a land base to start with all over. They had a section and three quarters in every township as I said, so they figured that if lightning struck in one particular area where they didn't have a large block, they'd have a small area of land. So it gave them, Continental and the Hudson's Bay, this became our philosophy, that we had a good scattering of land but if you're going to get a large oil field you've got to have a large block of land. So it would allow us to go after the larger blocks of land and it freed our thinking from having to acquire small parcels of land all over the place which some companies is like, I think it's Canadian Superior Oil. They saw the Hudson's Bay land set up and they thought it was a good idea and they actually, they went out trying to get a section or two sections in every township. And they went out deliberately doing that, just buying a couple of sections, to build a land base just the same so they would have that scattering. So as I say, this freed Hudson's Bay to explore on it's own for large blocks and of course, in the '30's, Hudson Bay Oil and Gas had made a lease arrangement with Imperial Oil to explore on these 8's and 26's. And there was this agreement that went through until 1951 actually and it was supposed to terminate at that time but I guess there were some legal ramifications about the agreement, exactly how tidy it was. Imperial figured they should have earned, by spending certain amount of money on certain lands, they should earn in a lot more of them. Hudson Bay took the opposite tack, said they should only earn in where they'd worked. But they said they'd actually done seismic in other areas so it was a difficult decision and it was resolved. I understand R. C. Brown, he was able to come to an agreement with Imperial Oil whereby they would continue exploring on a certain amount of land. It was much reduced over what they originally what they wanted to do and they had to spend, I don't know, something like ten million dollars or so on these and they had to continue drilling on these 8's and 26's. Which again sort of, released us from having to worry about them and we could concentrate on acquiring more land which is the basis of an oil company. You've got to have the acreage to drill on. And this is often the case where some companies have come in late, they never do really develop a land picture.

#292 Jim: Did anything productive result out of Imperial's involvement on those lands?

Eric: Oh yes. One of the leases was on the Leduc Field, I just forget how you figure it, I think there was forty acres, forty acre spacing, you can get sixteen wells to a section and I don't know whether that was a three-quarter section in the Leduc field but there was some instant production. And then I think there were other 8's and 26's in some other areas that were productive, on Viking trends and the [???] field for instance, got some cretaceous production. So we did eventually get a certain amount of production from those 8's and 26's. When you get into a large field, like the Lloydminster area there was a whole bunch of 8's and 26's in there and in the Viking field and so on. We did actually, [they only fit ???] somewhat but we used to use them the odd time with [Guadrilla ???] if we didn't have much acreage in the area, we'd sometimes go and say, well we've got an 8 and 26 here, we can go and drill on that and when they blow it in drilling reservations we could post extra lands around it and drill and so that if we got any production on the 8 we could acquire more lands round it and use them as this type of development. And so it was very useful, and there are many still producing. Actually they have some in Turner Valley. Imperial drilled, I think there was one at the south end and one at the north end, where they got some production at Turner Valley. In the Joffrey field too we had a section so we benefitted that was so they didn't necessarily have to go looking for it yourself, the oil field just crossed your land and you were just fortunate. So that did come about, but what made Hudson's Bay of course was the acquired lands, the newly acquired lands, the large blocks that we had.

#336 Jim: That includes Whitecourt and Brazeau and so forth.

End of tape.

Tape 2 Side 1

Jim: Okay this is side one of tape number two with Eric Atkinson and Eric, you mentioned as we stopped on the last segment there the success I guess, Hudson Bay Oil and Gas has had in the large blocks of large block land areas. And in reading the corporate history that's certainly true. You read Whitecourt and Brazeau and [Xana ???] and on and on and on. I wonder if you'd maybe just talk about, chronologically for a minute, the exploration and discovery in those areas and just a little bit about the work that went into making Hudson Bay Oil and Gas such a successful company during that period especially.

Eric: For instance, I mentioned the Sundre discovery earlier on. That block of land was acquired from, it was really Denver. One year in '47 there when the Leduc field was discovered, Richards and Cram and so on were looking for some acreages close as they could get to Leduc. The Sundre, Olds and Sundre, it was the Medicine River blocks were quiet at that time. And it wasn't as I say, until '52, '53 that we started finding oil on those blocks but they had been acquired quite a bit earlier. For instance the Whitecourt block, I was involved quite significantly in that. In '51 as I say, we were developing these trends

and Bowles had asked me what I thought about the trends, the reefs in the mountains, how they matched up with the plains reefs. And I drew a sketch map of my idea that the reefs in the mountains, we had them down in the Banff area and then we had them all the way up in the Jasper area and then north there, there were gaps in that. But my idea was that they probably had to come out into the plains and we had a suggestion of this and I said, at that time we had this option, Canadian Feena had this acreage and they didn't have I guess, the funds to explore them, there was a very large block, so they were looking around for partners in it and they'd approached Amoco and Hudson's Bay and I said, well I thought there was a very good chance of reef being on the block. And so we went in, Amoco and Hudson's Bay, I think it was about sixty million dollars each, Amoco and Hudson's Bay put up for a 42% interest each which left the remainder to Feena.

#034 Jim: When was this?

Eric: I think this was in '51. It was either '51 or early '52. And we drilled the Edson #1 well, well we'd farmed that out to, we had some acreage and we farmed it out to Atlantic Richfield, not Atlantic, it was Richfield Oil. And Richfield drilled down, it was supposed to be D3 test and it was a deep hole, I think it was about 12,000 feet which was pretty deep at that time. The Leduc wells were 5,000. They ran into difficulties and I think they spent well over $1,000,000 on the hole and Hudson Bay eventually put in some of their own money to drill it down and we got down into the Beaver Hill Lake. And I maintained, I said, well this is a good example, we're this close to a reef from what I'd seen in wells in the Leduc area. There were a few skeptics in the company but my idea was that we were adjacent to a reef from the cooking lake development in the well which was absent in wells further east. Eventually it was proven that it was. We had a well close by, quite a number of years later before we drilled again because the well cost so much money. I remember at the time old R. C. Brown said, gosh bills are still coming in on that thing and Continental wasn't very happy at spending a lot of one years budget on. . , because Richfield had put all their money I think and then Hudson's Bay put in quite a lot too. And I don't know, that well probably cost $2,000,000 which in about '51, '52 was a heck of a lot of money to spend on one well.

#052 Jim: That was Edson #1?

Eric: Yes. Anyway we were into the Whitecourt block then and of course, we did seismic over there and shortly afterwards we discovered Windfall and then into Pine Creek and then the whole block. And of course, that block was, you might say, a big base for corporate cash flow because just besides the reef, there was Mississippian Triassic, just about every formation someplace on the block produced. And we acquired along with this trend area, we also acquired the Cabob blocks with Union Oil which eventually became the south Cabob fields, which is one of the biggest Devonian gas fields, well I think it is about the biggest Devonian gas field in Western Canada. Another block of acreage was the Pembina blocks. We acquired those on farm out from Seaboard, again with the idea that there would be some reef in the area. And it was shortly after that Mobil drilled the

Pembina #1. Arnie Nielson got this company to drill for reef. But he had an idea there was some Cardium sand oil production possible but they had to drill. . . , nobody again would drill for ??? and so he got them to drill to the reef and so that's how the Cardium field was discovered at Pembina. And of course, Hudson Bay had a large block of acreage in the field you see, so we were off and running. And again later on with that, the interesting thing is that the Brazeau Dam, the government was building the Brazeau Dam and they ran through our block of acreage and so the surface rights, they came to us and said, look we'll have to exclude some. And so what we had done at that time, you get a large block of acreage and you drill at a certain time, after a certain amount of exploration, you have to give half back to the government. And we'd already gone to a checkerboard and handed a bunch back and so they came and said to us, well we want the area around the dam so you can take your choice of the lands that you surrendered. So Arch Crews, the Chief Landman and I, he come down and said, we've got to make a choice and what do you think of it and I said, well, there's a possibility of a Mississippian trend going through here. I said, why don't we take this. And so we were able to put a large block together from the lands we had surrendered and eventually we did find some gas in the Mississippian there and those are the Brazeau gas fields associated on that too. So as I say, it's very fascinating how some of these things develop. You develop your geological ideas and go after these things, trial kinds of areas. . ., the Tangent gas field and the Tangent acreage, that was picked up from Denver because it was close to Edmonton and it was the only large block they could get at the time and eventually they got gas production, some oil on it.

#090 Jim: Back to Edson #1, just real quick, I'm curious, you mentioned Leduc and they were 5-6 thousand feet. What was the motivation to go that deep, you mentioned 12,000 feet.

Eric: Well we knew going into the western basin, the further west as you go from Edmonton, the basin dips westerly. So the same formations at Edmonton, the dip is about 3/4 of a degree, well one degree almost, almost a hundred feet per mile, the dip of the Alberta Basin from Edmonton say, west to Jasper, under the foothills until you hit the mountain overthrust belt. And so you just take the same horizon and you project it down a hundred feet every mile and so when you get out to Edson it comes out to around 11,000 feet to get to the top of the reef.

#100 Jim: Oh, it makes sense.

Eric: At that time you see, we didn't have the drill bits. Things like the Nordegg which is a Jurassic [chirt ???] it was extremely difficult to drill. I think in the Edson #1, I don't know whether we spent a month or more drilling through the Nordegg which today doesn't bother them. They've got these new button bits and one thing and another and they just go through it, it's a bit slower but in a few days you're through it. Well time on a rig is what counts and out there, they wouldn't go on a footage basis I don't think, it was on a day rate basis and so the longer you're on the hole and we were on the hole. . . And another thing when we got down so far they twisted off and had to redrill it, you know,

they lost a part of the drill string down the hole, plugged the hole and they had to back up and redrill again from about 7,000 feet you see.

#111 Jim: Were most wells at that time, done on cost per foot as opposed to per day?

Eric: Well, when you got into a well drilled area like Leduc and the drillers would get to know the formations and the bits to use and they had a pretty fair idea how fast they could go and so on and how long it would take to drill, so you could work it out on a day rate basis and a per foot basis. And a per foot basis usually works out better because there's an incentive to drill as much as you can. So if it was on a day rate basis, well if you make one foot it doesn't matter and if you make a thousand feet, so what's the rush to get down.

#120 Jim: Throughout this time, we're still I guess, in the early to mid 1950's, Hudson's Bay had a pretty good reserve to gas I guess, and yet there was no market for it particularly. What was the corporate feeling about that and I assume you were going out and finding more gas and more gas. Was this something that was frustrating to you and worrying to you and the company?

Eric: Yes, well it was in a way. We knew there was a value to the gas, Bowles and Mr. Brown, they knew the value of the gas and they said eventually we'll get the market. But our concern particularly in the early days, our concern was to find oil which was saleable whereas the gas wasn't in the early '50's. Well it's almost like today's situation, it's slightly different. We had to find the amount of gas and we had to have the pipelines to get it out and this sort of thing. You had to have a big enough amount of gas to supply an Eastern Canadian market and even to export it to the States, you had to have a lot. But you've got to find it before you can sell it, and so you put money in the ground as it were and you don't know when you're going to start getting a return on it. And you can put a lot of money in the ground, not just in dry holes, in so called shut-in gas wells. And so the same situation applies today, most companies, I think are figuring, well you can't sell your gas so we don't want to find it. The thing to find today is to find oil. I mean the big push now is to find oil, you don't want gas, you stay away from your gas areas now unless you've got funds to just stick in the ground and there's not much of that today. It was in the early '50's you wanted to get a foreseeable return on your funds and like at Cessford, we developed a large reserve there at Cessford and other areas. The big thing at Windfall, there was an oil column that's only about thirty-five feet thick. We were able to produce it but there was a very large gas cap and at Pine Creek and all the others there's a tremendous amount of gas. What we did, that gas was really hardly saleable originally and so the thought was, well we'll use that gas from Pine Creek and repressure the reservoir out at Windfall, pump it in there and keep the pressure up so we can get the oil out. This was what was done for quite a few years. The gas was a problem to get rid of and it wasn't like, Hudson Bay, R. C. Brown was quite active in helping to get the Trans Canada pipeline built. I don't know too much of the details of that but I do know that he did an awful lot of work. He was going down to Ottawa and Toronto and one thing and another and down to the States in those days in a piston engine aircraft and they used to

fly fairly low and it was pretty rough flying you know. And we had a company aircraft, it wasn't a Second World War bomber but it was of a type, it was a Lougheed that had been used in the Second World War, a twin engine and it was drafty and cold when you were up high.

#164 Jim: That was your corporate jet.

Eric: That was the corporate jet at that time and it was a long flight down to Toronto and Ottawa. And if you had to go commercially it was the same thing on the old North Stars. So he did a lot of running around and working on it, well the Hudson Bay put money into the Trans Canada pipelines and eventually they did very well out of it. But it was a real effort in the early days to get your gas to market. And so the big concentration and the big emphasis was on finding oil.

#171 Jim: I found that interesting a minute ago when you were talking about using the gas from one field to keep up the pressure in another. Was that a Hudson Bay innovation or was that common in those days.

Eric: No, it wasn't what you might say common but it had been used before, that's why they decided on it and the Pine Creek gas was very high in sulphur too. This was another thing, you had to strip the sulphur and sulphur in the early days was another surplus commodity that we couldn't get rid of. If you wanted to sell your gas you had to strip your sulphur out and we started building great mountains of sulphur around the countryside.

#179 Jim: What happened to that sulphur, was it eventually sold?

Eric: Oh yes. It was stockpiled and sold and we made a contract, I think it was with Jefferson Lake Sulphur at Whitecourt where they actually put in part of the plant I think, and operated the sulphur recovery system. And I think there was a standard price for awhile, I don't know, it was something like $6 a ton. And then there was a world shortage of sulphur and the prices went up, I know they did make some changes because we were selling it at $6 a ton and the price was around $22. I think Brownie managed to renegotiate a price up to about $11 but the price of sulphur has really fluctuated up and down. Right now I think it is coming back a little bit. For awhile actually, Alberta sulphur really controlled the world market I think, because we had such a surplus, you know, people would say, gosh go down there, give the stuff away, just get rid of it. Actually they did make money out of it finally. But it's a very volatile commodity as far as pricing goes. I don't understand it altogether, it's a world wide situation because a lot of the sulphur on the Gulf Coast is produced out of salt mines. It's the top of the salt domes on the Gulf Coast, this is where a lot of the sulphur was, you get a sulphur deposit in the top of these salt domes and they just pump down hot water and then pump the liquid sulphur back up. And this was being one of the major sources of sulphur for the world and then Alberta, all these gas plants, stripping all the sulphur out, suddenly it was on the world market and these people in Alberta were willing to sell it. I mean maybe they'd been selling it, they had almost a monopoly and they set the price at $22 a ton and just produced enough to sell it at $22 a ton and then suddenly the guys in Alberta here are saying, we'll sell you

some at $10. And they sort of broke the world cartel overnight. That's why Jefferson Lake Sulphur came up here.

#213 Jim: We're just talking about Hudson Bay Oil and Gas' land position in '55 through '60, in there. Okay.

Eric: As you get into the '60's there, well Banff Mobil discovered the Rainbow field and we didn't have too much acreage north there. I guess they were negotiating, we had a period where we hadn't made any major discoveries there, we'd had some success in the Virginia Hills which was close to Swan Hills. This was the middle Devonian Swan Hills reefs. The [Zama???] Rainbow area. . . ., after Swan Hills and Virginia Hills, there hadn't been too much develop and they were thinking of buying reserves and so Wayne Benner was president at that time, I guess they decided to buy Security Free Hole and Consolidated Micmac and we acquired the block of acreage at Zama from Micmac. And that eventually proved to be a very prolific middle Devonian Keg River reef. So this extended the Devonian reef further north and that I think was probably the last Devonian reefs until quite recently we got into the Pembina-Niscue reef trend, which we already have acreage in the area, in the Pembina area from the Seaboard and so this was along the trend and we actively explored there. They didn't look at buying other acreage but we also had some acreage in the area, a fairly good land position.

#246 Jim: Do you think this Zama Lake, Keg River trend as you talk about continues on up through the Northwest Territories through northeastern B.C. that corner.

Eric: Yes, well you do get them over in B.C. There is a slate point above the Keg River but also there are Keg River reefs in British Columbia. But in British Columbia, into the gas zone, all the reefs over there in the Devonian are gas prone. You're sort of deep enough into the basin that the Zama Keg River, well there are some gas fields but it is a big oil area up through there and so you do get the reefs extending into B.C. but they're gas prone. And there are reefs in the Territories too and they have had small oil shows but nothing that's given indications of being very big at the present time. I think there are reefs to be found up that way, just how big they're going to be that's another thing and it's going to take a lot of costly exploration.

#266 Jim: That's it, it's a logistical problem largely too. . . .

Eric: Yes, it has been. The exploration that has been carried out up there has been disappointing. It's expensive and it has been disappointing so just how much you can persuade companies to carry on up there and start out on a wildcat venture. It's going to be an expensive exploration venture that's for sure. You do have, up in Norman Wells, Imperial Oil is starting to develop it, that was found in, I think it was 1921 or '22. Way back you see, but there wasn't a market for it up there, the big problem was getting it to market. The only time they had a bit of a flurry was during the Second World War when the [Cannol ???] project for the Alaska Highway and supplies of oil up there. And it's only just now that the price of oil has come up sufficiently to warrant maybe building a pipeline down and tying it in and getting it out. Now there has been exploration for

similar fields to Norman Wells but that's the only one that's been found so far. There may be others up there and again as I say, it'll be expensive exploration. I'll say this much, if they get the pipeline from Norman Wells down to Xana then you've got a pipeline along the route and this may be sufficient incentive to start your exploration because you've got a pipeline to get it out. So these things do trigger certain projects you might say to be carried out, when you have a possibility of getting a return on your money. The whole thing about the frontier like the Beaufort and the Arctic Islands and the East Coast, they're terribly expensive and it's long term. You're looking way down the road to getting that stuff out there apart from the very limits of technology for getting it out. The Arctic Islands and the Beaufort, they've got to come up with right at the limits of technology. It is an extremely harsh environment and so you've got to have tremendous reserves to make it economically feasible. A field like Leduc in the Beaufort for instance, it almost becomes marginal. Most people don't realize this. A hundred million barrel down here in Central Alberta, gosh you'd be excited as heck to find something like that. A hundred million barrels in the Beaufort you wouldn't even think about it. It wouldn't pay to get it out. The cost differences are fantastic and the mobilization of that kind of capital. I was always against Hudson's Bay getting into situations like that. We developed from a very small company into a major oil company but we still didn't have the resources, I didn't feel and I think the company began to feel that way too, to go out 100% on your own into a place like the Beaufort. I said well, there are other place to go looking for oil. Because any thing you find you're going to be looking at ten years to get it out. Even today, I'm with Dome now, I can't see them getting any oil out of there in five years if they had the reserves to warrant it. There's that much lead time on the thing. And at that time, back in the '60's and '70's, my contention was that that stuff is way down the road and you need a whole bunch, a real consortium and we shouldn't be in for any more than 10%. This was the approach, that we get land and have a look at it and try and farm it out. And my contention was, if we're going to spend money like that, the reason you get into the frontier, the Western Canada basin becomes more explored, there's less chance of finding large oil fields and large reserves and it's more difficult to get hold of the land. So I suggested well, if we're going to do that, let's go foreign and in '71 I made that recommendation and it was accepted that this is what we would do. And Continental Oil agreed to let Hudson Bay get into the international field because the cost of finding oil would be a lot less than the Arctic Islands and the Beaufort.

End of tape.

Tape 2 Side 2

Blank

Tape 3 Side 1

Jim: All right, I wonder if you could talk a little bit about the relationship of Hudson Bay Oil and Gas with Continental Oils.

Eric: Yes, certainly. As I mentioned before, when I first started with Hudson Bay Oil and Gas, all the senior management people were Americans from Continental Oil. I would say that they people that they sent up were all good people, they were competent technically, not only that, nowadays you'd say they had good relationship skills. And not only that they seemed to be very nice people in themselves. The President, R. C. Brown, I'll always remember when I went in for the interview with Glen Bowles, the Exploration Manager, he was Chief Geologist at that time and I'll never forget that he interviewed me and then when he decided to offer me a job, he phoned me up and I went down to see him again. And he said, well I can offer you a job and I accepted at that time. I'd been very impressed with him personally, he came across very nice, as a very nice person, as well as a good technical man. And he said, well I'll tell you what, let's go down and meet a few people, we were all on one floor at that time and he said, we'll go down and see Brownie, who was R. C. Brown the General Manager. And I thought this a little strange just coming out of England where the relationships with the management personnel were always very formal and you didn't get to call them by their nickname unless you'd known them quite a long time and you were well up in the organization. But he took me straight down to the office, the door was open, old Bowles just walks in and said, Brownie you got a second, and Brownie said, sure Glen come in and he introduced me right there and then. And I'll always remember old R. C. Brown, he said look, that's my door, it's always open and my name is Brownie, that's what I like to be called and he said, any time you've got any problems that Glen here can't solve or you'd like to just talk to me, you just drop by and come in.

#032 Jim: Did you ever drop by and come in?

Eric: Well, you got to know him so well, it wasn't necessary to really drop into his office. Our office was just down the hall from his and when he went down to the washroom sometimes, on his way back, he'd drop in and chat. You get to know him and you could stop and talk to him and you'd talk about the organization and of course, this is the advantage of a small company and a small organization as it was at that time. You don't have, really, the problems that you get in a big organization, because the manager is right there and he's familiar with things. Nothing really develops because if you've got something, you say well say, I can't think of any particular instance right off the bat but say, we're all sitting on the south side and it's getting hot in here. We didn't have air conditioning and he'd say well, we'll see about getting some fans in. So it was solved

right there and then, you didn't have to go through personnel or all the rest of it. A minor irritant doesn't build up. He had a very good rapport with all the staff, he was excellent that way, he really was because he'd come up, he didn't have a degree or anything, R. C. Brown, he started out I think, as a stockroom clerk at 14 with Continental Oil and through his ability and night school classes and courses in the company he built his way up with the organization and they recognized his abilities. And another thing he had a tremendous knack for getting along with people and I think this served the company well in later years in negotiations on the Trans Canada Pipeline project and Hudson Bay getting in on it and he went down to Ottawa many times to help in the negotiations and he was very good at this. Whenever say, we might run into a problem, say on farm outs and that in exploration and so on you know, sometimes technical people on both sides tend to take a stand and they tend to become built in and they make take a dislike to the opposing geologist or geophysicist or land man or whatever. And you start building up a resentment there, and they're partners, you tend to forget, at least you think well, gosh, can't they see that this is the way the reef is or the agreement should be. We should drill here and all this and there's all kinds of arguments arise. And sometimes you take a stand, well, we want to drill here and the other partner says, well we want to drill over there. Then you usually end up with negotiations at the higher level and Brownie was very good at resolving all these kind of difficulties, he really was excellent. Even though he'd not had any formal education, he'd learned an awful lot along the way and in many ways, I always feel this, that just because you have a degree doesn't really mean too much because you can learn on the job. It does help maybe, in a technical sense to start at a certain level but an awful lot can be. . , it just takes longer if you learn it on the job. And Brownie, I just forget how many years he had in with Conoco, Hudson Bay and then he went back to Conoco later on and he helped them start up their international. I mean, Conoco went international in Libya and places like that, but Brownie developed their international arm in Britain. And actually I think a lot of ???, he was flying across the Atlantic like you wouldn't believe and I don't think there were jets when he first started out. So there was a lot of flying backwards and forwards. But he laid the groundwork for Conoco's growth in Europe, they went into marketing and refining and everything as well as exploration. And he had good relations with the British government people so that Conoco ended up with some of the most favourable leases and even today, Continental Oil has very good relationships with the European governments, well thought of. And I think a lot of that was the way it was built up by R. C. Brown. He was quite a remarkable man in many ways and he was well liked. I liked him and I think all the staff did, you never heard an unkind word about him. And that's rare, you know, you think of some captains of industry being really hard nosed individuals and this type of thing but Brownie wasn't that type at all and he did very well without it. I don't think he felt it was necessary and he used to do very well without it.

#091 Jim: Was George Fong, he was at the company when you were hired wasn't he?

Eric: Yes, well he was one of the geologists with Hudson Bay when I started. And there was a woman geologist, she had been working part time but she left, I think to have children or

something but she said she'd come back and help train me in sample running because she was excellent at running samples.

Jim: Do you remember her name at all?

Eric: Yes. It was Bert Battie. I think she married John Carr, he was with Home Oil and eventually went to Dome and finally retired from Dome. Anyway Bowles thought she was coming back but she couldn't so he said, well, George you help Eric here get started in the basics of petroleum geology. And so George, he was a very good teacher actually, as far as I was concerned. He was very thorough. I think he came from Olds, he was born in Olds, Alberta, it was either Olds or Carstairs, somewhere up that way.

#108 Jim: That name has an Oriental ring to it, was he. . .?

Eric: Yes he was of a Chinese extraction but Canadian born. There are quite a few actually in the oil industry here that are Chinese extraction but were actually born in either Calgary or in Canada anyway. A fellow I work with presently, George Chin, a good friend of mine, he was born in Toronto, and I've known George Chin, not quite as long as George Fong but since the late 50's anyway.

Jim: A long time.

Eric: Yes. And we've always gotten along. As I say, George Fong, he was very, very helpful. I always tell George I appreciated what he did to get me started in this business. We used to go out and look at every core that came up. In those days if there was a core taken which was available either through trading one of our wells for one of their wells or if it came off the tight hole list and was relevant to these Devonian studies, which we were concentrating at that time, looking for Devonian reefs, we did go out and look at it.

Jim: The actual core themselves?

Eric: Yes, the cores are taken from the well bore and you can do a lot more interpretation because you've got a good piece of the rock to look at. It's not as complete as in an outcrop, you can go to a mountain and see and you can trace beds along, but you can see the insitu ??? rock, whereas in samples you just get little chips. And so you have a lot of interpretation to do. And of course, the chips come up, they're circulated up by the mud and there is a delay, I mean the bit's down there and it depends how deep you are but at 5,000 feet it might take twenty minutes to half and hour for the sample to come to the surface. By that time the bit might have, it depends how fast you're drilling, if you're in some of these cretaceous shields, you can be drilling very, very fast, a foot a minute or less. So that you could be down in twenty minutes, the bit will be twenty feet below where the sample came from .

#139 Jim: And could be in a whole new stratigraphic profile.

Eric: Yes. So that you have to what we call, lag the sample. And so you have to figure out your lag time and say, well, you're down twenty feet here, so that we're twenty feet higher up, that sample came from twenty feet higher in the section, this sort of thing. And this you need to know when you get on the well. And sometimes samples were lagged, that is, they put down the depth on the bottle or on the package, they put down the actual depth it was recovered from. In other cases they put it at the bit point so you would be twenty feet

out. And when you're running samples, you had a mechanical log and you still do, you can adjust it, you can tell on some of them, it should be in a limestone, you're still getting shale, well you know the samples weren't lagged. All these little techniques and the big thing was interpreting the actual rocks and then converting them to cross sections and maps and interpreting where the possible reef trends were and so on.

#156 Jim: Were you using at that time, paleontologists at all?

Eric: No. Funnily enough, Hudson Bay never did hire paleontologists. Only the major companies like Shell, Imperial, Gulf.

Jim: Petro Canada, they had a. . . .

Eric: Well of course Petro Canada wasn't in existence at that time.

Jim: That's right. I was thinking more recently, I was into one of their research labs and they had a whole row of paleontologists.

Eric: And the majors did, Imperial did, like Colin [Crickmie ???], is he on your list?

Jim: Yes.

Eric: Well Colin, I ran core with him in the basement of the old Conservation Board building which was on 11th Avenue at the time. And I remember Colin was looking for brachiopods and so on. He was a brachiopod expert and he was looking for brachiopods and it was a pretty crummy place down in the basement we had.

Jim: You were looking at the. . .

Eric: We were looking at the rocks and then digging out the bugs you know. So from some of the work that he had done, he published some of it, you could tell roughly the range you were in. But a lot of them, the brachiopods were so wide ranging that it didn't give you an accurate interval, let's say they couldn't refine it to a narrow enough interval, particularly in the Devonian and Paleozoics. Nowadays within the Cretaceous and so on there's a lot of this palonology ??? which is the plant spores and formanifera ??? and all that.

#176 Jim: Microfossils.

Eric: Microfossils, which are quite useful, particularly if they are doing work like see, Petro Canada and Imperial and Gulf are working off the East Coast and the Arctic and you're in new section. And the Tertiary section, you might go through 5,000 feet of shale and you can't tell whether you're in the Tertiary or the Cretaceous sometimes. All the shales are the same because it was continuous deposition but the fossils, you know the micro fauna will tell you whereabouts you are and you can get a good breakdown.

#185 Jim: So when you started in the early '50's say, for example, paleontologists were employed in the industry?

Eric: Yes, oh very definitely. As I say, Shell, Imperial and Gulf and Texaco, they all had paleontologists. Continental Oil were never really big on paleontology actually. We had a relationship with Continental Oil whereby we could use their research facilities which were at Ponka City in Oklahoma, a little town just down the road from Bartlesville where Phillips was found. And the funniest little towns, well Ponka City, it's certainly no bigger than Red Deer.

Jim: They didn't have a Calgary class skyscraper office building down there did they.

Eric: Oh no, they were all low rise. See Marland was from Ponka City and if you go to Ponka City, there's a big statue of Marland, a founding father, he did an awful lot for the town. Conoco had, they still do have a refinery there and City Service had one too. There's a lot of small oil fields in northern Oklahoma there and when Conoco got bigger, as I say, they brought in MacCullum after the war there and Ira [Krem ???]. They wanted again, to develop it, to get into the big time and I think MacCullum's wife didn't care for Ponka City. She was a big town girl. They had been with Esso in New York and every place else and Houston. I think MacCullum, he was from Mississippi but he was with the Exxon organization in Houston for a long time. And so they first moved the headquarters to Houston and then to New York and to Stanford, Connecticut. Phillips still have their headquarters in Bartlesville and is it Gulf, is in Pennsylvania, is it Warrensville, these small towns, they still stayed with their roots sort of thing. But Continental they were going to shut the whole thing down. Their research centre was next to the refinery and they had their marketing arm there but all the rest of the functions of the company were outside Ponka City and it was very difficult to get there in the '50's. You used to have to go to Oklahoma City or Wichita, Kansas and drive about a hundred miles to Ponka City. It was way out in the boonies even for the Conoco people to get there, particularly when they moved to New York. I used to say, well it seems to me you'd be able to keep people better, they had a big turnover in the research centre there and I said, well Ponka City is right in the middle of the continent. If you want to go anyplace for a vacation you've got to go 1,000 miles to start with. So I said, I'd fold it up and move to, at least for a research centre it would be good to be in a university town, they could have gone to Tulsa, which I think Amoco did. Or go to Oklahoma City or something like that. Then at least you're on a major airline route. I guess they thought about it and the mayor said, your roots are here and if you close it down the town will fold up, which it would have done because in Ponka, I would say, 50 or 60% of the people worked for Continental Oil. That was an interesting thing about Continental, they were quite paternalistic that way. Whole families used to work for the company, you never knew who was who, you couldn't swear that the secretary's dad might be the refinery manager or something. And I remember there was a father, mother and son and daughter, all working for Continental in Ponka City in the various offices and refinery and all the rest of it. And this carried through the Conoco organization, there were quite a few people in the family throughout. They used to try and keep them separate so there wouldn't be any nepotism and so on. One of our geophysicists came up here, he was with Conoco in one division and his brother was a geophysicist in another division. Even here they didn't object to family members working in the company in Hudson's Bay, whereas Shell is totally the opposite. They were because I remember one of our secretary's came up there and she couldn't get any work with Shell because her cousin worked for Shell in the refinery in Montreal, so they wouldn't hire her here in Calgary as a secretary. She had to state on the employment form if she had any relatives working for Shell and it said they didn't like to do it because of the chance of nepotism, it was just a company policy. Well at Conoco it was the other way around. Sometimes they would say, oh your dad works here and you want to work in

this environment, well your dad's a good worker so it follows that the son or daughter would be. So they didn't object in Calgary.

#266 Jim: Conoco used to, I think you mentioned, send some of their new employees up, using Hudson Bay Oil and Gas in Calgary as sort of their farm team and in fact. . .

Eric: They did. For quite a long time. As I say, after Mr. Brown left, I'm not quite sure when he left now but I rather think it was in the early '60's. Then they sent a succession of Managers and Vice-Presidents from Continental Oil.

Jim: Oh at the corporate and higher management level. Okay so they weren't sending in. . .

Eric: Some of them came in at a lower level. We did have Senior Geophysicists that they sent up as a training ground for them. They'd probably be here two or three years and some of them, a lot of them got to stay and others would move on in the organization, go back to Conoco. At the senior level, for a long time of course, all our presidents came from Continental Oil and it wasn't until D. C. Jones, who was the first Canadian president of Hudson Bay Oil and Gas.

Jim: When was that, do you remember the year?

Eric: I can't say offhand.

Jim: It'll be in that history probably.

Eric: Yes, right, they would be. That would maybe be the early '70's. Because after Jones there was Stan Olson, he was an American from Montana and he came up as an engineer, I think it was in '51 and he became District Engineer and worked his way up and then eventually he became president after Jones. He was Executive Vice-President under Jones and when Jones retired he became President. Olson was one of the last people on the American payroll. Lots of these Americans that came up, they stayed on the Conoco payroll, largely I think, because of the pension and social security. Particularly if they were going to go back to the States to retire.

#313 Jim: Yes, they kept their citizenship and so forth.

Eric: Yes. Some of them though, they actually decided to come under Canadian payroll and take out Canadian citizenship. Anyway Olson, he retired, they used to have to go back to the States for about six months to a year before they retired. For the retirement residence I guess. He's out at Port Townsend in Washington, retired out there. Then after him Meyer and Haskin, who were Canadians. Jerry Meyer had come up from the production department under Olson as a District Engineer. And then I guess he impressed management a bit, some of the senior people and the first Production Vice-President was an American, Smoky Shafer. And Smoky went back to Conoco and Jerry said, well I'd like to move on up and so when Shafer went to open up the operation for Conoco in Australia, he went as a President in Australia he asked Jerry Meyer to go and so Jerry went with Conoco sort of a reverse training. And he went to Australia there as Vice-President of Production and they did training in Australia and then finally he went back into the States and then over to England and went to London as the Senior Vice-President in charge of the North Sea operations there for Continental Oil. And then when that was over, he came back to Calgary. Of course, we knew where he was going

you know, he came back as a Vice-President. We knew he wouldn't be long because we knew how old Olson was and so when Olson retire they promoted Meyer to President. They made a dual role, they made him Chairman and Haskin President. There were two Senior Vice-Presidents Jerry Meyer and Dick Haskin and they made him President and they were the last two executives, Chief Executives. . .

Tape ended.

Tape 4 Side 1

Jim: Okay, talking about the Whitecourt and [Kabob ???] blocks there.

Eric: Well, we picked up the Whitecourt blocks and eventually we picked up the Kabob, and they became money sources you might say, for the company. The big thing about acreage in places like Whitecourt is that you're drilling deep for the reefs. And you find accidentally, well not accidentally, fortuitously you might say, other zones higher up because if you get a reef there it forms a rigid block and you get draping over it and it affects the sedimentation at a later date. So very often over reef fields you get a whole series of shallower reservoirs. And with it being a large block of acreage there were other reservoirs in just about everything from the Leduc and the Niscue, and the Mississippian and the Triassic and the Cretaceous. The Triassic became quite a fair sized gas reservoir. And that wasn't envisaged particularly, we were looking for reefs, we knew there were other things there. Bowles always felt, and he was probably correct, that the reef was the big thing to go for. Those were the big fields that we knew about, the others were always small fields, they were nice to have, but they weren't going to make you real big. But if you find enough of the small ones, they sure add to the income. In the Kabob blocks for instance, which has the large Kabob gas field on them, it's a huge field, it was the biggest gas field in Canada and while we were drilling for that. . .

#027 Jim: Was that up until the discovery of the Deep Basin and that area or. . . .

Eric: Yes. And it's still a very large Devonian gas field. And when we were drilling for that we hit the Triassic, a little thin Triassic carbonate, there was seven feet in it and they tested it and we got oil on it. And Bowles says, hell, seven feet, and I think it was about 7,000 feet and he said, seven feet of pay at 7,000 feet, that's not going to make us a hell of a lot of money. And [Cub Fry ???] I guess, he said well we might as well complete it, we've got the pipe down there, we had to go down and drill the hole, so they completed it you see and started producing it. And a year later Cub Fry comes in and he says, you know that Triassic field, if we take that seven feet of pay and figure out the reserves, we've produced twice as much oil as is down there, so that thing's got to be connected to hell of a lot bigger thing than seven feet of pay. So we said, okay we'll drill an offset, so we drilled an offset well and we got twenty-five feet of pay. Now that was a real economic well. We'd hit the edge, you see the seven feet was just the edge, and we got up to twenty-five feet by golly, that was a real economic well and an oil well at that too. So we were off an running then, everybody starts getting really quite excited, so we drilled an offset and got some more wells and then we did get some, I think at about forty feet of pay and real good ones. And I also remember talking to one of the engineers, Jim

McGibbon, he went head of the oil sands projects eventually but he said, how much reserves do you think you've got there, he was looking after reserves at the time. I said I don't know, probably 25,000,000 barrels, he said, 25,000,000 barrels, I don't think so. And we were both wrong because I don't know what the size eventually the reserves were, but it was one of the nicest oil fields in Alberta, I think there was something like 100,000,000 barrels. It turned into a major field eventually. And I told Jim, I said, I'll bet you there's more than 25,000,000 barrels in there, there's got to be. It still proved a heck of a nice oil field, well not a little field, it's a good field.

#054 Jim: Well, that's pretty good, sure.

Eric: Yes. We used to figure 100,000,000 barrels in Western Canada was a major field. But that one sort of developed out of looking for deep Devonian reefs.

Jim: Right. Which were in there too, weren't they?

Eric: Yes. We found gas, we found the largest Devonian gas field in Western Canada in the Beaver Hill Lake field. But this one was an added bonus and this was the sort of thing that developed. Well, like going after the reefs in the Pembina area and they come up with a Cardium field, which was a giant field in the Cretaceous. Bowles wasn't very keen on us following that, well we didn't discover it, Mobil discovered it, but we had land nearby and he didn't think too much of that at all. Particularly because the porosity wasn't that good, you know, 14 or 15% and the permeability wasn't that good and he said, god I don't see how we're going to make much money on that kind of stuff. And he'd been used to the California giants, when you found a sand field you really knew you had an oil field. It blew over the top of the derry whereas most of the wells in Pembina wouldn't do that, you had to pump them. Some of them you could get to flow but they were few and far between. This experience sometimes colours the imagination and perception. There have been a lot of technical advances and knowledge gained just in the thirty odd years that I've been in the oil business. Like the latest seismic techniques, there's no doubt about it, no question, that they have improved several fold so that you can do a lot more with the seismic today than you could ten years ago. That's the sort of technical advance. Like in the Xana Rainbow area, it was difficult to see some of the reefs there but now with the new techniques, even though you're looking for the little pin point ones, not the half mile across big reefs, you can see them on seismic quite well. And even doing stratigraphic work with them and things that you couldn't do years gone by. And the processing techniques, processing these signals, the advances have been very great. Also the geological understanding and studies that have been made over the years on facees??? and depositional environments. We know more about it now than was known then. I was reading an article in the APG journal a couple of nights ago and when they found Norman Wells, they didn't realize at first that it was a Devonian reef so they didn't have much concept then and they had to send to Esso to get all the information. One of the geologist got the idea that the only explanation could be that it was a reef. So they got all the information they could find on reefs which wasn't a lot in those days, and all Darwin's work on reefs and they actually concluded that it had to be a reef. That was the only explanation because at first they thought it was a structural field but every time they

mapped it, it didn't map as a structure. And so they didn't know much about reefs. Now the amount of research that's been done on them, particularly because of the finding of the Devonian reefs in Alberta. The Western Canadian geologists know as much as anyone about paleo reefs because you study them in training. I went to Florida and Bahamas on the Conoco ship, we went to a research centre and spent three weeks there studying reefs and then out then out into the modern reefs and you do get a concept and you apply these in the sub-surface and they fit.

#103 Jim: Oh, that's interesting.

Eric: The old geological maxim that the present is the key to the past and if you can find the model, the analogy in the present, take it into the. . .

Jim: Extrapolate that.

Eric: It's amazing how far these processes go back. The processes of depositing sandstone in the pre-Cambrian three billion years ago haven't changed today in fact. So you can go and look at the Continental slopes and look at terbidites and things like this and you can recognize them in the modern era. And you can go into Norway, in the pre-Cambrian, or South Africa, billions of years ago, and you find the same type of thing. Because the processes in geology have just repeated. There have been slight changes I guess, I'm not quite sure about atmosphere and so on, when they first started off and the deposition of the ironstone bands in Quebec and that. But the depositional processes generally haven't changed that much. The reef forming organisms have been different throughout geological time. In the pre-Cambrian there were no hard shelled [culls ???] or anything, they were all soft bodied animals but they formed reefs in the pre-Cambrian. These big [algo ???] reefs. And you can see them up in the Territories, in the [Alocagin ???], Hoffman's written about them quite a bit and you can see them up there. The reef carbonate structures which were formed by algae several billion years ago. And then the animals change but the formation of the reef is a resistant framework in the shelf edge. The [Cretanids ???] that formed the Great Cretaceous reef along the Golden Lane of Mexico and had all the vast oil deposits there. ., well, present day Mexico, lower Cretaceous [Caprinian ???] reefs and those animals are all extinct but they formed the same type of resistant framework such as you get in the Bahamas or in the South Pacific.

#130 Jim: Yes, it's interesting. You mentioned your thirty years in the oil business and you obviously have a few more to go. In thinking back on this time, who can you say was maybe, perhaps the most influential person in your career. Is there somebody that you can single out in that thirty years or so.

Eric: I don't know whether I can say any particular individual. Several people influenced me I would say. As I mentioned earlier, old George Fong. He helped me a lot and got me going along and getting interested in this particular field and was very helpful. Also Ted Williams who was our supervisor, he was a good teacher. I always felt that Ted Williams should have been a teacher. He would have done quite well at it because he was thorough and he could explain ideas and concepts and stimulate the mind to thinking. I think he was quite an influence in the development in geology in the oil business. Because as I say

I've stayed in exploration. . . , well I've done all phases of oil geology from developments on but oil exploration geology is the most fascinating. It's the unknown and the most challenging. It's like a great detective game. I always figure that good petroleum geologists would make good detectives and vice versa, detectives would make good petroleum men because the thinking and philosophy is more or less the same. First of all you're looking for the evidence and then you take the evidence and use deductive thinking on it and then you carry that further and use inductive thinking to put the whole picture together. But as I say, George Fong was an initial influence and Ted was a continuing influence and just about. . . .

#163 Jim: Were both of these people there throughout your. . . .
Eric: No. George Fong, he left actually, after about eighteen months, he went to Home Oil.
Jim: That's right, yes.
Eric: Actually he developed a lot of the concepts for Home Oil. George was a good geologist, a fine explorationist and he became Exploration Manager at Home. He was over in England and got them started in the U.K. in the oil exploration over there and then came back here and then he left and went to Siebens as Exploration Manager and now of course, funnily enough, he's come full circle, he's now with Dome. Siebens was taken over and they asked him to stay on and so now he's the Frontier Manager and he's still continuing his exploration. And George is very good that way, he can get the best out of people, technical staff, by asking the right questions you might say. He's a good geologist, good thinker himself and he's technically competent and technical people always respect technically competent people and they want to work for technically competent people. The ideal is to have a technically competent person and a good manager both, it's not always easy to achieve that but I think George Fong has developed into that. He was technically competent and he is a good manager too. So that is a very nice combination. But as I say, George trained me for about eighteen months I think. He left in, well maybe nearly two years, I think he left in '52 and went to Home Oil. And then Ted, I worked under Ted for quite awhile and he was with Hudson's Bay until he retired. When I was no longer working for him, if I wanted something, you could always go bounce ideas off him. If you had an idea and you weren't sure what it sounded like, you were mulling over a problem and you could always go and say Ted, what about this here, and drop in and you'd hash it around and he was good to bounce ideas off because then he'd ask the right questions to formulate the concept and even if he couldn't specify something, he'd help clarify your thinking by this interchange of ideas. Glen H. Bowles, I always respected him, I always thought he was a very, very fine explorationist and not only that he was a real California gentleman. He was a very gentle person, again, not your hard nosed or anything else like that, totally different from that concept. He was born in California and he was a very gentle person in his approach himself but he had a fine mind and I always thought of Glen Bowles. He hired me and I suppose that had an effect but I respected his thinking because he could ask the right questions too. You couldn't fool him, he was pretty tenacious when he got an idea and he'd always follow through and he was willing to follow up. And if you got an idea you didn't have to get it all down. You'd say, well

I'd like to get it down a bit more and he'd say, well let's get it together and we can't afford to wait on this, if we're going to go after that land there, we've got to go now. And so I always respected him. When he retired to Hawaii, when we went over in '76, I phoned him up and went over, by that time he was in a Senior Citizens Retirement Home, a private home. He did very well in business, he had a good pension from Conoco, but also he used to invest in stocks and he was a pretty shrewd investor so he did very well. And this was a pretty fancy place and gosh he was real pleased to see me. We really had a very pleasant evening with him and his wife, we had known him a long time. And he just died this year. I was sad to see that because I would like to have gone over and seen him again. So he had an influence on me. I think that's one of the reasons I stayed on with Hudson's Bay at the time because other job offers tend to arise along the way. The odd time when I did think about it, I thought about it and I liked working for Bowles. That was one of the reason I stayed on for quite awhile there and then after you get so far other things arise too and so you stay on. Now, well, you're always looking for challenges any way. And it's a fascinating business. If I had to go over it again, I'd still go through the oil business again, I think it's fascinating, there isn't a better business to be in. It's constantly challenging, things are never standing still and you're always learning. This is it, you never stand still as a geologist if you want to develop and so you're constantly taking courses. I still take them today to keep up to day and try to be just a little bit ahead even. You get the very latest thinking, an idea that comes out and you pursue it and see how it fits in. And you're always looking for new ideas and new developments. It is a very stimulating business to be in, it's a fascinating business. Like archeology, if you're interested in archeology, really you might say geology and so on is just an extension of it in a way because they do have something in common because you're looking at ancient things and gathering the evidence and putting it together and deducting and making inductive reasoning, they're the same type of thing. I'm sure yourself, you'd find the exploration business quite interesting too.

End of side

Tape 4 Side 2

#055 Jim: Eric, I wonder if you could think back perhaps and reflect upon what might have been the highlight in your career. I maybe should have asked you these a couple of days ago and given you some time to think. I was going to and I forget to phone you.

Eric: One of them I must say, in the early days was when we found the Sturgeon Lake reef. You tend to think in big discoveries, this type of thing and the South Sturgeon discovery was really a very exciting time. And all the other discoveries from Sundre and Pine Creek and Windfall and things like that.

Jim: Was there one that was more personally rewarding?

Eric: Well that one was because we were small, we didn't know whether we were going to stay in business but when we got Sturgeon Lake we knew we were in business. And I was

pretty involved with the geology particularly. And also really when we made the discovery at Windfall because I'd been involved as I say, with the reef concept coming out under the Whitecourt area and going along and acquiring the block. It was a good satisfaction to know it finally turned out all right. It was as we had said. I think those are two key points. And then later, you think more about studies. I was ??? on Cuba and I found that was a very fascinating study. The geology is extremely difficult in Cuba, it's a very difficult area there. They've got subduction zones in ??? and the oil that they have discovered was occurring in igneous rocks, serpentenites???. My concept was what we should be looking at was reefs again only these were cretaceous reefs. And we went down there with the Chief Geologist International, we went to Cuba to have a look around.

#084 Jim: Do you remember who that was.

Eric: Steve Mills and he's gone with Lazmo now to England. And Steve and I went down, they accepted the report that I made and were ready to go ahead on it and I thought we could have done all right. The consortium wanted Hudson Bay to operate for them and I think we could have done a good job of operating. My ideas where the reefs were, were such that. . ., there is still oil to be found there and probably one or two big fields. It might be a long time before they get found under the Cuban and Russian set up. We weren't allowed to go and Conoco didn't want us to go, we were turned down when it was recommended to Continental Oil. Jerry Meyer, he recommended it but we were turned down because they felt that, you know, there was the American government involvement. They didn't want to really trade with the enemy.

#098 Jim: So this was post Castro then?

Eric: Yes. That was in 1980, I think I was down there.

Jim: Oh fairly recently, relatively.

Eric: So they didn't want to get involved so they put it on the back burner. I found that quite satisfying looking at it and I think I was thinking, well, this is where reef geology really comes into the fore. And the Western Canadian geologists know as much about reefs as anybody in any place in the world as far as I'm concerned. And actually here in Western Canada is some of the best stratigraphy and it's probably one of the best training grounds for geologists any place in the world. There's more knowledge available, so I felt that we could have done a good job there and probably found the oil.

#109 Jim: Did you actually get into Cuba on that?

Eric: Oh, yes.

Jim: Did you work, were there Cuban geologists that were. . .

Eric: Yes. They reviewed their geology with us and then they took us out to some outcrops and let us have a look around. And so we were able to have a look, and it's very complicated geology, god, it's structurally and stratigraphically quite complex. But fascinating. And Canada has a good relationship with Cuba because the Friesian ??? bulls, they shipped one down there and he became the sire for the Cuban cattle industry and they have a good cattle industry, both milk cows from the Friesian and also with the meat industry and

Canada has a pretty good relationship with them. So we could have got a pretty good ??? I'm pretty sure down there. This was a high point that after all the effort the work was accepted. This was in the latter part of my career. As I look back, it's the reef discoveries and so on that I was involved with particularly that really stand out when you look back at the present time. And the development of the company too, it was satisfying. I suppose that was a high point when the Hudson Bay Oil and Gas, we got our own President as a Canadian. When Conoco more or less go on our own and we just got our budget for the year and then we used to go ahead and operate and when we reached that stage, that was quite satisfying too. And you look back and figure, well, we started out with a very small group and a very problematic future and actually we built it up into. . ., well, one of the top Canadian oil companies, that's what it boiled down to when it was finally acquired by Dome. And the reason it was acquired, it was always a really attractive company.

#138 Jim: Well that's evidence. . .

Eric: There's a certain satisfaction in that, that you were instrumental in doing that. It wasn't as though you'd started with say, Shell, that was a major company here and even if you failed, well you could probably move on someplace else. This operation, when you first started out, if it had floundered, they would have just let the people go that were here. They might have taken a few of the Americans back but the Canadians would have been out on the street. So we were able to build it up into a really big oil company from practically nothing. It's quite a good success story. The other Canadian companies that have done well are more on the entrepreneurial line I think, whereas this was developed almost along a steady progression. Almost as though it was planned.

Jim: Evolution.

Eric: Yes, it evolved. It wasn't as though, sheer luck, you suddenly fell into it. They found a big reef discovery by accident and therefore the company was suddenly, okay, you're in business.

#155 Jim: Like Canadian Hunter for example.

Eric: Yes. It evolved almost as a planned, steady progression. They figure with good technical help, good planning, good organization and you can be successful and I think this is what it demonstrates to me anyway. I always liked to think that a lot of technical know-how went into it from all ends. We weren't just leaving things to chance. We were battling the odds but it was done more scientifically, it wasn't just like rolling the dice. You were reducing any odds there were and so in this context it's a little different from most other companies in Canada. Most of the other ones if you look at them, they are more entrepreneurial. There was quite a gambling element in there. Home Oil, well I don't know, they had production from Turner Valley and they had a cash base to work from but I don't think they had quite as an aggressive management style and controlled aggressive management style. Their big discovery was at Swan Hills, that's what made Home Oil. Just the one discovery. And they had been acquiring lands along the way and so on but it wasn't quite the . . ., well they certainly didn't, in my opinion anyway, have the strong management that we had. They may get it now that they've got Haskin, who came from

Hudson Bay Oil and Gas. I would imagine all his experience would be poured in and he'll turn it around and put a good management style in there. He's already started doing that, he's cleaned a bunch of them out and brought in other people, some of them Hudson Bay Oil and Gas, like Dave Powell, the Senior Vice-President of Exploration. He was head of International Exploration for Hudson Bay Oil and Gas. So he's turning things around, and he's a good man, Powell is. They have some good people there I know, in the technical end. Rick Young for instance, I think he's Chief Geologist over there. And he came from the Geological Survey but he worked for me at Hudson Bay Oil and Gas and I have a very high opinion of him. He went back to university to do advanced degrees and then went to the Survey, but he's a very fine geologist, a very good thinker, so they've got a good technical man there. And in Powell also, a good technical man for their exploration. The main thing now is to get the financial end turned around and get the organization set up where they control things. I'm sure that Haskin will do that in Home Oil. Because as B??? said, he's probably one of the best financial men in Canada. He's young too and also he's a very nice fellow.

#209 Jim: Okay Eric, I think that's pretty well it, so thank you very much.

End of tape.