

PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Harold Acheson

INTERVIEWER: Nadine Mackenzie

DATE: May 1983

NM: [starts in mid sentence]. . . May 1983. I am at the residence of Mr. & Mrs. Harold Acheson, situated at 435 - 49th Ave., Calgary S.W. First Harold, I want to thank you for having accepted to participate in our oral history project relating to the development of the petroleum industry in western Canada. How many years did you spend in the oil patch?

HA: August 12th this year, it will be 45 years.

NM: Quite a long time.

HA: Yes, seems like it.

NM: Where were you born and what did your family do?

HA: I was born in Johannesburg, South Africa. My father was an inspector of schools. He had left New Brunswick in 1900 and went to South Africa, where he worked until 1925 when he retired and brought his family back to Canada.

NM: And where did you live in Canada?

HA: When we came back we lived in Toronto. I went to school in the University of Toronto schools and then later to the University of Toronto.

NM: Were you the only one in the family who chose to go into oil?

HA: Yes, the rest of my family seemed to be interested in English. I became a mathematician which was quite unusual.

NM: And then you went to university?

HA: I graduated and my major was mathematics and physics. Then I took post graduate work in geophysics and got my MA in geophysics in 1938.

NM: What was the subject of your MA?

HA: We just took geophysics. We took lectures from Dr. Gilchrist and other professors in the physics department. We took a little bit of geology, not very much in those days. Then for 6 weeks we were up at the Ottawa Observatory and we learned how to use the instruments that were then used, the torsion balance and the seismographs, which are used for worldwide earthquakes, but not for geophysics as we know it today in exploration. However we learned from that type of thing what we would expect to be running into when we graduated. Dr. Gilchrist was a very interesting, fine man, he was a Scotsman. He was very human and very exacting. He was dean of the men's residence so he was interested in his students. He didn't actually suffer carelessness. He was very vocal about people who didn't do their work but if you did work he was very good to you and he helped you a lot. Three of us graduated in geophysics, Arthur Roy Clark and Maurice Innis and myself. I think as far as I know, we were the first course of 3 or 4 people in geophysics in Canada. There were others that 1 or 2 people would take

geophysics and graduate in it, but we were the first organized course I think.

#037 NM: Quite an achievement.

HA: Maurice Innis is now dead, he was in the Ottawa Observatory in charge of gravity meter. Roy Clar also is dead, so I am the only survivor of the three. Dr. Gilchrist was a very innovative scientist. He was a full professor of physics and a very respected man but he did all kinds of new things. He organized a course in engineering physics and he was very keen on geophysics when geophysics was hardly known in Canada. He had great faith that someday geophysics would be used as the routine in the oil industry. Of course, he imbued us with this faith. But at that time it didn't seem likely that our faith was going to be anything but faith because when we graduated there weren't any jobs at all. It looked as if we had started too early but eventually all of us found jobs and did quite well. My job, the way I found it was, I had just about given up after 2 months of looking. Asking people if they needed a geophysicist and they didn't know what a geophysicist was.

NM: Were you looking in the east?

HA: In Toronto. So one day I was having lunch with a friend in one of the restaurants. I think for 35 cents we got a full lunch with dessert. This friend, I was telling him I was very discouraged and thought I would have to try some other work. He said that he was very sorry and so on but as we were sitting there talking a man came in and sat down beside us, asked us if he could and we said yes. So after we got through our lunch he hadn't said a word and he said, I'm from South America in the oil company, why don't you go over and see Jimmy Wheeler of Imperial Oil. So I went over to see Jimmy Wheeler and he was very kind and got out magazines for me and told me where to write. I wrote many letters to Houston particularly, and they wrote back and said, you've got very good qualifications, you have just the education we need but we have many people in Texas who can do the same thing. So then I finally went back to Jimmy Wheeler and he said, how did you make out and I said, not very well, you wouldn't have a job would you and he said, yes, I think I might. So that's how I got my job in geophysics. August 12th, 1938.

NM: Very good. And how long did you keep this first job?

HA: I was working for a subsidiary of Esso and I worked in Columbia for 5 years. I was a bachelor and then I came up to Canada, it was during the war and I asked to be transferred to western Canada. The only way I could do that was to resign from the company, then I had to go through the army and if the army would let me work in western Canada then I could work with Imperial Oil out here. So I did that and the thing was processed through the army and I got back a notice saying that I was deferred until further notice as long as I was an explorer for Imperial Oil. So it wasn't very long after that that I met my wife, Helen, and we were married on Valentine's Day in 1944. Helen and I had a wonderful life and we had 2 children, Jim who's 35 years old now teaching university in Christchurch, at the University of Canterbury where he lectures in English and Jean, who is a social worker, she is 34 or so, at L'Arche over here near the Creche, the Roman Catholic Institute run by Jean Vanier. Helen and I had many, many years of happiness, 31 years, and she became ill with cancer and died. More recently I have married Olive and she and I have been married 6 years now.

#090 NM: Going back to your career, you were working in Toronto first?

HA: No, I got my job in Toronto.

NM: Where did they send you?

HA: They sent me to Houston to learn how to operate a gravity meter. After 2 months they sent me to Columbia, South America.

NM: What is a gravity meter?

HA: A gravity meter is an instrument for measuring the pull of gravity with a weight. As you go across the surface of the earth the pull of gravity changes and you're able to map the variation in this pull of gravity. It's just like a balance, only you're always weighing the same piece of material. Due to the changes in the earth's pull this seems to weigh less as you go one place than it does in another and you can map the variation of gravity. The variation of gravity can be related to a structure beneath the surface. I'm speaking very generally. This way you can learn how deep basins are, how much sediment there may be in basins, what the maximum depth of certain structures are so that you can tell a driller that he won't have to drill more than so many feet. It's used as a reconnaissance method to outline the important features in a basin, which then people come back to with a seismograph and detail and find out in detail what is going on down there.

NM: When you were trained to use a gravity meter, was it a new thing?

HA: Yes, it was absolutely new, well, it wasn't new in the United States but it was new in Canada. We'd never heard of one.

NM: So you must have been one of the pioneers.

HA: So yes, in a way. There had been gravity meters for a few years but they'd been torsion balances before that. The gravity meters were used in the United States to outline salt domes because the salt is very much lighter than the surrounding rock and the gravity meter picked up the fact that there was some light rock in the area and this was related to a salt dome which they found had oil around them sometimes and they drilled the salt domes for that reason.

NM: Do they still use that?

HA: Oh yes, they use it quite a lot.

NM: Have they improved it over the years?

HA: Yes, it's been improved. The first gravity meter I had, had 2 balances and you had to balance them both at the same time. Often, on swampy ground this was a terrible job. Then they improved it and made it a one balance instrument. But they had to be kept within 100th of a degree centigrade so that the measurements would mean anything. And sometimes in the tropics the heat mechanism would fail and things got very complicated. Now they have a warden??? gravity meter that's much less sensitive to heat, much easier to use and it's very easy now compared to what it was.

#127 NM: Tell me about the beginning of your career?

HA: I started out from Houston, where I was trained to operate this gravity meter. Bob Rumble and I were trained together. Finally Bob went off to Ecuador and I went off to Columbia. I was an assistant gravity meter man. There was a party chief and myself and I was sent

out in the jungle. He stayed back and did the computing in the office. For 2 years I walked through the jungle trails, kicking the snakes aside and all that sort of thing and travelled quite a lot in Columbia. Up and down the Magdalena River and also out in the Yannas, which are the plains to the east of the Andes. After 2 years the man that was in charge of the party left and I was sent back in charge of the party. Then I wrote reports and did the gravity interpretation. After a year we were sent off to the Yannas, which are the plains to the east of the Andes, and did a great deal of reconnaissance work in the wild plains there. After that I came back to Canada on leave and. . . well, this was 2 contracts that I'd been in South America. After that I came back to Canada and asked them to send me to western Canada. I hadn't been long in western Canada than a friend of mine, Don McGregor, came back on leave and came down to see me. I went to his house and met his sister. It was New Year's Eve when his sister and I, Helen and I, had the first date, we were engaged on the 25th of January and married on the 14th of February and it was a very, very, very happy marriage. Then we had a honeymoon in Banff and then in the Empress Hotel, came back and I was home 2 weeks when they decided to send me to Norman Wells for a month. When I got to Norman Wells the job that we had was to find a coral reef with a gravity meter. This was a truly pioneering adventure because nobody had ever looked for a coral reef with a gravity meter. So we went to Norman Wells and we had a crew there, Dan Buskirk??? was the operator and Floyd McGill was the computer. After about a month's work it looked as if we could indeed, find the reef with a gravity meter if they had all the knowledge that they had of the oil field. But whether we could find a reef other places, where there was no such knowledge was difficult to tell. But anyway, Imperial was very excited about it and they said, oh you better stay longer. So I had to stay 6 months. Then when I came out they said, we better get another gravity meter, this one was so good. So I was sent down to Tulsa, with my wife, I took her, it was on my holiday's actually and we met a man called Volney??? Acheson, who was no kin and he fixed up another gravity meter. We were given a telegram to say we should go to Toronto to show the people in Toronto what the gravity meter was like. So the people in Carter gave us one lower berth, for my wife and I and the gravity meter and we travelled that way from Tulsa up to Toronto. After the people in Toronto were satisfied with the gravity meter and all the rest of it, they gave us a bedroom to come out to Calgary. When we got to Calgary there wasn't much time till I had to go up north to Norman Wells. So my wife went up to Edmonton with me and saw me off. We had a lady with her children on the plane, Betty Fulton and others and when we got to Fort St. John they suddenly said, when we land the plane you'll all have to go in for a rest and we'll tell you when we want you to come again. So I left the gravity meter which I'd been treating with great care, I'd had a seat belt around it and went in to Fort St. John. After about an hour they said, we're all right, you can go now. So we went back but it was another plane and they'd taken the gravity meter and put it on its side. I was afraid that the thing would be ruined. What had happened was, as we landed in Fort St. John one of the engines had caught fire and they had to wait for another plane but they hadn't told us all this. So when we got to Fort Simpson that night I took the gravity meter apart and looked at it and as far as I could tell it was okay. But we'd nursed this all the way from Tulsa to Toronto

to Calgary to Edmonton to have this happen before we got there. When we were in Fort Simpson we saw some of these Japanese balloons that had come over and they were lying around. As I remember we also had a lady from New York who was going to fly up to Norman Wells and write an article on Norman Wells. She had to stop in Fort Simpson and the personnel man was on the plane and he said, you'll just love Fort Simpson. There's nothing there. So we stayed overnight at Fort Simpson and then we got up to Norman Wells. I got the gravity meter out and showed it to everybody and it seemed to be working perfectly so everything was fine. We stayed there most of the winter. No, it was February when I went up and we stayed the rest of the spring up there. But by this time I had asked them to get me a house at Norman Wells and they said, no, I couldn't because I was a temporary employee, but this was temporary getting to be permanent. So I told them that I needed a house for my family and I would work for 6 months for them, if they didn't have a house at the end of 6 months we'd have to do something else. So at the end of 6 months the directors came up and were interviewing everybody and they said, would you like to go to Ecuador. So I went down to Ecuador.

#220 NM: And how were the conditions of living in Norman Wells?

HA: They were wonderful. Everything was. . . people were so friendly and so helpful. But the weather was sometimes cold. One day the steam line froze. The people were very, very cooperative and would help each other, it was a fine camp.

NM: How many people were living there?

HA: This was when it was the Canol project and there were 600 American troops up there. I happened to know the major because he lived in the same bachelor quarters in Columbia before the war. There were about 600 and there were about, I suppose, I don't know, about 100 geologists and geophysicists. . . you know, about 100 oil people up there. We were the only geophysicists. No we weren't either, there was Marvin Romberg and he had a seismograph party too. So there were 2 parties, gravity and seismic.

NM: And what else happened, you never any encounter with the bears coming or anything like that?

HA: Lots of things happened. I was in charge of 2 parties so I didn't normally have to go out in the bush. But one day, a man hurt his back so I had to go in the bush. It turned out that it was a very bad time for me because I had a terrible cold. And I had to go and get into a canoe and do all the things that you do with a canoe, get out in the water and push it when you had to and I got terribly wet and everything. At the end of one day my cold had gone, I had no more cold.

NM: A good way to get rid of a cold.

HA: Yes. So one day, going down that river, the Carcagou??? River it was, I came to a sandbank that looked very nice to stand on, and stepped out in my rubber boots. I held on to the canoe. And it was quicksand. I had to get out of my rubber boots and into the canoe and then take the rubber boots out. It was okay because I had the canoe with me. Another time the same man had trouble with his back and I had to try and do his field work for him on the Ramparts River. It was very, very late in the season, it was around August and the season ends about September 15th for summer work. We went down and went

through Ramparts Rapids and then came back up through the Ramparts Rapids to an island where we had our provisions and all our equipment. We had to go across the river to the mouth of the Ramparts River, the big rapids were in the Mackenzie River. So we went across or at least we went to the island and had to stay overnight. In the middle of the night, there was a kicker, a canoe with an outboard motor, coming up the river, we could hear it. We wondered who would be crazy enough to go through the rapids at night. Just about a few minutes later it drew in to shore and out stepped a mounted policeman. He had a telegram and he said, is your name Acheson and I said, yes and he said, I have a telegram for you. The telegram said, come back to Calgary, there's a new man joined the company and we want you to meet him. So the fellows that were there said, they'd never seen anybody so happy and mad at the same time because I was trying to get this work done and yet, going back to Calgary, I'd see my wife and family. So the next day we went down through these rapids again, this is the third time, and I was put ashore at Fort Good Hope where an airplane was to come to meet me to take me back to Norman Wells. Well, the airplane didn't come for 3 or 4 days and I was waiting on the shore of the river. There was a Hudson Bay post there and the manager of the Hudson Bay was very good to me, let me sleep there and so on, but it wasn't very happy to have to wait that long. Then the plane finally came and Sam McCrae was the pilot. He was feeling playful that day so he thought he'd do some stall turns and all the rest of it on the way back and all I wanted to do was to get back to Norman Wells. Finally we made it but on the way back we saw a great big column of smoke about 1,000' high. I asked him what that was and it happened that the tank holding oil at Norman Wells, they had been emptying it but the valve at the top to let the air in had frozen so there was no air coming in. So when they extracted the oil there was a vacuum and the whole tank collapsed. So in order to save the oil they'd bulldozed a great big lake and put the oil and in and the ducks coming up would try to swim in it and they'd get oil in their feathers and lots of ducks died. Finally it was such a nuisance that they just put a match to it and the thing went up in smoke and that was the end of that.

NM: And for how many hours or days?

HA: Oh days. But you could see it all over the Arctic.

#308 NM: Tell me about the planes in this time?

HA: The planes were, they used to have a Beaver, which was a one engine plane, very much of a workhorse. Being in the office, I sometimes would have to go out with them to get provisions to the field crews who were a long way away in some desolate part of the river. The pilot would fly down the gorge, below the level of the cliffs and turn and twist through the river. One day we were dumping off this food and when I turned around he said, now it's time for a cigarette. Apparently he had been coming down toward some trees and just managed to miss them. So that was the sort of thing they did. Quite often the men up there went on quite adventurous trips. They'd be sent out on the river, sent out to a lake at the top of a river with a lot of provisions and a couple of canoes and they had to make their way back home you see. One man, Bill Hancock, got up there and lost all his provisions from the canoe except a case of butter. He lived on butter for 4 or 5 weeks.

Another fellow, Fred Hamilton, who has since died, got up one part of the river and left his canoe, he thought it was high enough but the river rose and took his canoe away. He had to swim across the river, ice cold river, to get his canoe and he made it and got back home all right.

NM: Quite an adventure.

HA: A lot of them were quite scary. One of them had his canoe jackknife and break, two of them together and they had to get out of there as best they could.

NM: So how did you enjoy Norman Wells?

HA: Very much, I liked it very much. There were fine people up there, there was Ted Link and Paul Lambright and Mr. Walker Taylor. They're all dead now but they were all fine chaps and easy to get along with if you did your work properly.

NM: The end of the tape now.

Tape 1 Side 2

HA: [in mid sentence] and what he meant by chess was chess. He had taken the oath of poverty so he'd invite me into his Quonset hut and even though he'd taken the oath of poverty he had a lot of stuff there, a very nice chess board and we used to have quite a bit of fun. One day I had to go out and get 8' of copper tubing for the gravity meter crew. In order to get 8' of copper tubing, it was during the war, you had to make all kinds of requisitions and things. So I went to the man at the warehouse and asked for it and he said, haven't got it. I said, we must have it and he looked again and he found it. But you'll have to have 12 copies of a memorandum, one for the major of the army and the rest were going to Washington and Ottawa for this stupid 8' of copper tubing. I think the reason that they were so strict about it was, there were some bootleggers up there on the islands across from Norman Wells who were making whiskey and they thought maybe we were trying to do the same thing. But anyway, it took a long time to get this copper tubing together and I got a little bit bored. So we had coffee at the coffee break and somebody said, I wish somebody could tell fortunes so I said, I can. So I got the tea leaves and told this one he was going to get a raise in pay and this one he was going to get a parcel and so on and so forth and I forgot about it. About 2 weeks later a man came to me and he said, you know, you were marvellous, I got a raise in pay. Then I worked in the laboratory with Frito ??? who was the chemist up there. Frito had lots of ideas all the time and was a very interesting man to talk to. One day I was working in the lab and a young chap was sent in to help me and he helped me for awhile then he went off on a field trip. The party was going down the Mackenzie towards Raider Island and when they got to Raider Island something went wrong with one of the boats so the party chief had to come back. There were 4 young chaps there, Keith Pringle and some other chaps in dentistry and they decided they would go out in the canoes and see what they could see of the river around the island. And they managed to go up to a log and started to pull at it and they tipped the canoe over. The other 2 that were on shore had never been in a canoe in their lives and they got out in a canoe and tried to save them. Cam Ainsworth was one and Keith Pringle the other. They had Cam Ainsworth in the end of the canoe and Keith Pringle in the other

end and they started to paddle back and they weren't very expert and the water was very cold. Cam Ainsworth survived and I think he's a dentist now in Calgary but Keith Pringle dropped off and was found dead later.

#033 NM: Can you tell me about your earlier experience in Alberta?

HA: Yes, when I first came to Alberta in 1943 I was sent out to Coldspur, which is north of Nordegg with a field party and had to camp under canvas after just coming back from the tropics. It was rather cold, it was about 20 above zero. We had quite an interesting experience out there, we went out at Halloween, had a little office in a town called Stirco???. The material for our office was in a little van and the kids came and took the van down a valley somewhere. The next thing I saw was the teacher coming with them, had one of them by the ear and brought the van up again. We lived in a hotel there where there were a bunch of miners. One of the miners was Taddy and he was an old Irishman. He said to me, what nationality are you, and I said, I'm a Canadian. He said, are you an Indian then, I'm a white man, I was born in Ireland. He used to come to my room at night, at 6:00 and ask me if I had some beer. If I had any I wouldn't give it to him and he said, what would your dear old Irish mother think of you now. But we got through this work in Coldspur and came back to Calgary and I had a letter waiting from the head office in Toronto which said to ignore the gravity meter, it only confused the issue. This was from one of the directors. So I wrote back and said, please, we've just done 2 months work, my report will be out fairly soon, if you would wait it would be to your advantage. Well, they wouldn't wait. But anyway, I wrote the report and condemned the area. They went ahead and drilled and it was no good so that made Christians of them. We had a lovely time in Calgary actually. Whenever I had a chance to be with my wife we had fun, we'd go out to parties and dances and that sort of thing. But there wasn't much time because I was off on a field job most of the time. When I came back to Calgary, this was before I got married actually, I came back in January and I was married in February, I went to the York Hotel and suddenly I got delirious, I had the flu. From the change in weather I guess. They called in the doctor, who was Dr. Upton, he's since passed away. I remember him saying you have the flu but you won't die, it's only the people that get up and get relapses that die. So he gave me some sulfa diazine and the next day my temperature was normal but I didn't eat very well. It was around Christmas time and I thought I'd go down and have Christmas dinner in the York Hotel, which was the second best hotel in Calgary at that time. When they put the dinner in front of me I couldn't eat a bite of it, nothing. I was fairly glad to get feeling well again. But when I was sick the rest of the crew put all the provisions, the hams and all the things we'd been using at Coldspur in the Central Parks Service Station. I wasn't up to know what was going on so they stayed there for 2 or 3 weeks. Then there was a notice in the paper to say, the Mounties had found them and wanted to know where I was. First thing I knew the manager had called me in and said, isn't this interesting. So we managed to get the stuff out and it had been kept quite cold and was perfectly okay.

NM: Going back to Norman Wells, which year did you leave?

HA: I was at Norman Wells from May 3rd, 1943 to late September of '43, maybe later. Then I

went back to Norman Wells in February 1944 and stayed till July 1944. Then I went to Ecuador.

#084 NM: Was it at this time that the project Canol ???

HA: Yes. The Canol project was still going when I was there but they had brought up a battalion of troops to guard Norman Wells from. . .instead of bringing them from a cold climate they brought them from Mississippi and they were all Negroes and they were just freezing to death. But the Canol was usually on the other side of the river and Norman Wells was on the east side, Canol was on the west side. One time during break-up I had to go across to see what was going on on the other side of the river but the ice was broken up. There's ice 30' high when it's breaking up, you can't get across in a boat or a car or anything. In the winter you go by car, in the summer you go by boat but the only way we could go was by airplane, a little wee tiny airplane. So I went out to the airport but there was no pilot. So finally, the CP Air plane came along and they let the pilot out. He was a young chap who was a pilot in the Air Force. He'd never seen the plane before either. So we all got into this plane, myself and a Catholic priest and 2 roughnecks. He started it up going down the runway and the first thing he knew he was into a mud pit so they had a tractor come and pull us out. Then he got going and got off and it was only 8 minutes until we got down the other side. But at that time, when he was up in the air he said to the co-pilot there's something wrong with this plane, it won't respond. So the co-pilot was being very nice and the Catholic priest was crossing himself, the 2 roughnecks were looking pretty sick. So we got to the other side and the plane came down and somehow or other he misjudge and knocked all the lights out along the runway and we ended up in the mud pit. So he said to me, this is a pretty bad introduction to Norman Wells for me. We hiked about a kilometre through the mud back to the airport and started in again. Things like that happened all the time.

NM: So much money was spent on the Canol project.

HA: Yes. There was a lot of waste too because it was the wastage of war and if they found that a machine didn't work they just abandoned it. Not a machine but a Johnson motor for the canoes, if that didn't work they just dumped it. Years later, Imperial sent a man up there to see what they could do with all these millions of dollars worth of stuff. They finally just dug a hole and buried it all.

NM: Were there refineries there?

HA: Yes, there's a refinery and an oil field there. But that's still going. And they had the Canol pipeline from Norman Wells to Whitehorse. They said that the way they made that pipeline, they made a road first. The generals from the American Army would come up and say, start going in a tractor and the man would go a little way and come to a cliff so he'd come back. So, oh, go another way. They wouldn't have anything to do with surveying it, so this was a trial and error and they finally got it out there, Canol Highway. Lots and lots of gravel piled into this permafrost and it sank down and they finally got a roadbed out of. They had bridges and so on. I think they're all gone now. So that was the way they did it. They had the capacity to send about 20,000 barrels a day I think, through to Whitehorse. Because they were afraid that the Japanese would come across.

#129 NM: And nothing happened?

HA: Nothing happened, no.

NM: And then you went to Ecuador?

HA: Ecuador, yes.

NM: And how long did you stay in Ecuador?

HA: One year. When I got there with my wife I had told her that it would be a terrible place, there would be bugs and rats and mice and everything, tried to condition her to the situation. And when we got there it was just about as bad as I'd said. We were put up in the Hotel Metropolitano, which is a very fine hotel. The very first night I was there, Walter Link and Gus Beck came along and said, well, we're going to close down after a year. So I'd come and there was just going to be a year's work. I stayed in Alberta till around Christmas time but I had to be there before the end of the year for income tax purposes because if I worked an extra day I would have to pay all Canadian income tax. So when we got there they talked to us and told us all about Ecuador. But it was the cricket season when swarms of crickets come in from across the Guyas River, where they live in the mud cracks. When the Guyas River floods the mud cracks are filled up so the crickets fly up in the air and go towards the lights in ????. There were thousands and thousands of them and they'd go beep, beep. They'd come up through the drains and start eating your clothes. In the morning in front of the shops it would be just like snow, they'd shovel off dead crickets on to the sidewalks. There was a street called ????, which means the 9th of October. My wife was a little bit upset about the crickets, she didn't like bugs like that and these people, Gus Beck and Walter Link said, they're not nearly as bad as on the 9th of October, meaning the street. My wife was not sure what happened on the 9th of October.

NM: What was your post in Ecuador, what were you doing?

HA: I was in charge of gravity work.

NM: Was there a lot of oil in Ecuador?

HA: No, just 2 little oil fields out the coast at Santa Elena. It was in a lovely part of Ecuador where there was a nice beach and everything. In those places, there were 2 English oil companies and the children that grew up in Ecuador had English accents, very British accents.

NM: What were people doing with the oil in Ecuador?

HA: Well, the kerosene, I know they sold us so we could use it in the kerosene stove. The oil I guess, was being used locally to run cars and so on, but there wasn't very much to export. One of the oil fields was on a cliff by the sea and every now and then they would dig up cannonballs that had been shot by Drake. It was interesting. ??? sandstone. But I was out there doing work for the other company, for the English company, helping them, on loan from International Petroleum Co. and I found them very interesting people.

#175 NM: You were working for Imperial Oil in Ecuador?

HA: Well, it was International Petroleum, which was a subsidiary of Imperial Oil. But they allowed me to go to this other company. They asked for me and I went out and worked for 2 or 3 weeks with them. It was interesting.

NM: And after 1 year in Ecuador where did you go?

HA: Columbia. There were some quite interesting things happened in Ecuador before we went to Columbia. They had a bull fight which I went to against my better judgement and would never go to another. It was a terrible thing. And then one day they had a bullfight and they had a circus. So they got the lion from the circus to go and fight the bull, which was awful. Then they had a football game one time between Quito??? and Guayaqueel??? and they held it at Ambata, which was halfway in between. One of the referees got mad at a player, no, I guess it wasn't a referee but somebody ran off from the side and shot the player. He wasn't killed but they made a great fuss about it and they put him on a train and brought him down to Guayaqueel. Then the police and fire department took one side and the army took the other side. There was going to be an awful fuss but they managed to quieten it down.

NM: You could speak Spanish though?

HA: Yes.

NM: So you never had any problem with the language?

HA: At that time I didn't speak as well but after several years I was able to speak pretty fluently.

NM: How many persons were in your party?

HA: When I was in the field, I was in the office in Ecuador but when I was in the field in Columbia there would be 10 people in the party. Of course, I couldn't speak Spanish when I first went down there so the cook said to me, if we're every going to get along I'm going to teach you Spanish. He was a little guy called Medarda Dominguez. After supper every night, I would buy these little comic books and children's books in Spanish and then I would read them to him and if I didn't. . .

NM: This is the end of the first interview with Harold Acheson.

Tape 2 Side 1

NM: This is Nadine Mackenzie speaking. Today is Wednesday, May 11th, 1983. This is the second interview with Harold Acheson. Harold, in 1946 you were in Ecuador, can you talk about your work there?

HA: Yes, we went down to Ecuador actually the last few days of 1945 in order to escape paying income tax for all of 1946 in Canada. Actually, they were taking money off at the source in Canada for my income tax and they forgot to take off the last month. So when I got to Ecuador the income tax department wrote down and wanted the income tax that hadn't been paid. So I wrote them a very nice letter and sent them a cheque, but I got so friendly with them that they wrote back and wanted to know if I knew another man called Acheson who also owed them some income tax. But I told them I'd never heard of this man so that was the end of the correspondence. When we got to the Hotel Metropolitano in Guayaqueel and the first people I met were Walter Link and Gus Beck. They informed me that they were only going to be working another year in Ecuador and then they were going to close up. So with that we settled into our hotel and I started to work. meanwhile my wife and I looked for an apartment where we could live. The work was very much of

the type that I had been doing. I was supervising and interpreting gravity work, which was mainly being carried on in the norther part of Ecuador at that time, in a place called Esmeraldas, which means emeralds. It was not very nice country, it was jungle. Esmeraldas was not a very good town, it was more of a slum. A fellow that was working under me at that time was Frank Ruskie, who was a gravity meter and asked to go out in the Rio Osteyones area, Rio Osteyones mean oyster river, on a survey so that we could evaluate the area and see whether there was any possibility of drilling for oil. Frank got sick briefly and I had to go out and take his place in the field. So I flew up to Quito from Guayaqueel and the change in elevation was 9,000'. I got there about half past 4 in the afternoon and I had to go and check in with the police before 5:00. So I ran up 3 flights of stairs and then I realized I was at 9,000' and it was pretty hard on me. Anyway, I got the police satisfied, went to live that night at the company guesthouse, run by Frank and Edith Dosler???. Frank Dosler came from Edmonton, latitude 54 north, and Edith Dosler came from Tierra del Fuego, which is 54 degrees south and they met on the equator and got married.

#041 NM: Very romantic.

HA: And both of them were redheads. Then I went down from Quito to Esmeraldas, which was at the mouth of the Rio Esmeraldas, had to cross the river and go to a guesthouse there which was run by a man called Pias but his nickname was Pyrex. Pias had got a canoe or a motor boat for me to ride in. We were going out at night, out to sea, to go up to the Rio Osteyones and it was quite rough. All we had was a kerosene lantern. When we got out there we found we had 26 cases of dynamite on the boat. So we crossed our fingers and nothing happened. The next morning I woke up and we were way out at sea, we couldn't see the land and there were swells. Finally we came to the mouth of the Rio Osteyones. We had to go into this river and it's quite tricky to get from the open sea into a river, especially with 26 cases of dynamite on.

NM: Why was the dynamite on?

HA: It was for the seismic crew that was out there. So that night I stayed in a little house, sort of a pincione, run by an Ecuadorean woman. It was kind of amusing because she had several children, one of the was named Santiago and she's scream at him Santiago. And I got upstairs and was going to bed and there was a man walking up and down in front of that house, screaming at the top of his lungs in Spanish that somebody had insulted him and there would be a bloodbath for this. I didn't know what was going on, I'd just got there. It turned out that he was angry at the owner of the house for doing something but nothing happened untoward, at least while I was there. The next day I was met by one of the men on the crew and we started off to go into the jungle. It was fairly thick jungle, it wasn't as heavy as in Columbia but it was heavier than the woods out at Banff. We had no way to go towards this camp except up dry, steep stream beds. Of course, there were snakes and everything but we managed to get up to the camp. The man had a portable shower there, made of a canvas bag that you had a shower attached to. So you were able to get a shower and feel spruced up a little bit. Then the next day we started out to do work and it was very, very hilly, up hill and down hill, very slow. So I came across a

banana tree growing wild in the jungle with bananas on it and I ate a banana. I immediately got sick. I've heard since from people that know about it that the bananas growing wild sometimes have bugs in them in the end and this made for a bad meal. The work out there was very physically tiring, going up and down the hills, but we were able to measure the values that we needed. After I'd got through I went back to Esmeraldas and back finally, through Quito to Guayaqueel to home. After I'd got there we were able to get a very nice apartment and we lived in the same apartment with several company people. Abe and Ruth Martinez and Charles and Ann Stanforth. And we still call on them quite often now. Abe and Ruth are down in the San Francisco area and Charles and Mrs. Stanforth are living out in Victoria and we saw them when we were out there just a few months ago. When I was in Ecuador I was in one office next to Keith Huff who did very well in Esso production and was in the New York office and is now a consultant of considerable stature. Next to him was Jack Armstrong who was president of Imperial Oil and is now retired and several other fellows that probably have not come to Canada, they've been sent over the States and so on. I was there a few months working on this Esmeraldas area when a request came in from the English oil company in Santa Elena to go out there and do some interpretation for them of some gravity work that they had had done. This was quite nice because we actually were going to a summer resort and we enjoyed that. We were sort of sent out there under the auspices of the company scout who's name was George Dean. George was 54 years old and had just been married to the company nurse. So he and Bev were more or less on their honeymoon and this was going to be a very special time for them. So they sent out a wire to the hotel saying that they wanted the bridal suite and another room for my wife and myself. When we got out there they took a look at us and since my wife and I were young, they gave us the bridal suite.

#111 NM: And the other got the ordinary room.

HA: Yes, which was very ordinary. But George was too proud to say anything. So we got the good suite.

NM: Did you give it back?

HA: We didn't realize what was going on, they hadn't told us. But he only stayed a day or two and I went out and met a geologist called Pat Spenz???, who was named after the famous mariner, Sir Patrick Spenz. Pat took us where we should go and showed us all the thing that we needed to know about the concession and so on. A man called Mr. Howells had come over from Trinidad Leaseholds and was very anxious to superintend the work and know what was going on. So he would come in at 4:00 every afternoon, when we were quitting and spend about 2 or 3 hours asking about the maps and so on. Then we were working in Ecuador oil fields and there was another English company called Anglo-Ecuadorian. So we went down there too and worked on their work and spent a couple of weeks very happily assisting these people. And we were given good treatment because we were the visitors and they thought we must be very smart. Experts are always people from out of town. So we had a nice time there. Then we went back to Guayaqueel, not very much later they decided to stop the operation and send some of us to Peru and some of us to Columbia. I'd been told I was going to Lima and as my wife was pregnant

and about to have a child I was sitting down writing to the Anglo-American Hospital in Lima when a man came in and said, I wouldn't write there if I were you, you're going to Columbia. Nobody had bothered to tell me. So the next day sure enough, somebody told me, well, they'd changed their minds they want to send you to Columbia. So we had sold all our furniture because we understood it was a better thing to do to buy furniture in Lima. Then they told us about Columbia, they said, oh you mustn't sell your furniture because it's very expensive in Columbia. So we'd sold it and we had to turn around and buy second hand furniture, anything we could get and have it sent to Columbia. It went by boat of course, and we went by air. So the furniture didn't arrive for months. We had one good piece of furniture, it was a rosewood table, and when it arrived in Columbia it had red paint all over it.

#146 NM: Why?

HA: Numbers and all that sort of stuff. So we had to pack up rather quickly so we packed all we could and put it on the airplane. It turned out there was \$39 excess baggage. I got to Columbia I put in an expense account and it came back that, we don't pay excess baggage. So I was a little bit alarmed and went to my boss and he went up to argue with them. It was a management regulation and they weren't going to change it for love nor money. So they said, well, we would have paid it if he'd sent it overland. So my boss who was the chief of exploration said to me, find out how much it would cost to send it overland and it cost \$250, so he said, put in an expense account for it, but I didn't, I got the \$39. When I got to Columbia we moved into a very small apartment which was very unsuitable and in a very short time my wife had a baby, my eldest son Jim who is now 35 in New Zealand. We had all kinds of . . . we were very busy trying to keep everything in order, take care of a new baby and so on. But my wife was quite new to the country and she didn't realize some of the things these people do to you. One day a little boy came to the door and he said, I'm in crisis. My wife said, what's wrong and he said, I want to sell you a dozen rose bushes so she said, all right, how much do they cost and he said, 20 pesos. So she gave him 20 pesos and he said he's come back but he never came back. So we learned, that sort of thing happened down there quite a bit. I had a Ford car that was just come down from the States, it was a nice blue car and it was just exactly the same car as my boss Gus Beck had. So I drove it downtown to the square in front of the Granada Hotel where we parked and went to work. But before I got the chance to go to work a young man came up to me and said, would you like somebody to wash your car and take care of it. I said, no thank you and he said, if you don't hire me I can't guarantee what might happen to your car. So I became annoyed and called a policeman and the policeman bawled him out and I went to work happily and came back and found one of the rims in front of the car where the headlights are, was missing. So I learned and I hired this young man and we got to be good friends and one day he said to me, you know, if you wanted me to I could get you back that rim that you lost. There's a car down there just the same. I said, that's my boss's car.

NM: ???

HA: They used to take these things and take them to the fence, a shop up in Carrera ??? and he

would sell them back to you. One day my wife was in the car and she went up to this man and said, do you have any of these things and he said, no, but I'm expecting a consignment right away, I'll get you one. But I don't think we ever did anything about it. Dr. Cam Sproule who was down there at the same time was a good friend of mine, he's passed away now. He used to get very annoyed about this business of the fence and so on, he got quite upset about it. So I was doing interpretive work, I was the chief interpreter at that time. It was very pleasant work, in the office, I didn't go out in the field at all. I worked with geologists trying to put together reports that would tell them where to drill for oil, what land to keep and what land to dispose of and that sort of thing. There were many interesting things that happened. On the other side of the ledger I remember going home one night from the work and I was very tired and I was carrying a lot of books. I got a taxi and said, just take me as far as \$2 will take me because that's all the money I have. So he took me home and it was much more than \$2 and I said, I told you I only had \$2 and he said, yes but I could see the senor was tired and I decided to take him anyway.

#216 NM: That was nice.

HA: Very nice, yes.

NM: And how long did you stay there?

HA: This was '47 we went to Bogota and we stayed till the beginning of '48. Then after 3 months in Canada on leave we went back, January, February, March. Around April 9th was Easter that year and there had been a great many Easter celebrations and everybody looked very holy and very much at ease. About 2 days later there was the worst revolution in Bogota that there had been in ages. I was walking down to work one afternoon, we had 2 hours for lunch and I was walking down to work from about 3 miles out and a man called Cavanagh picked me up. Everything seemed normal, we went upstairs and just as we got in the door Pedro Moreno came running along, he was one of the big shots in the company and said, this is the end. We said, what had happened, the leader of the Liberal party had been shot to death as he came out of his law office. So just about that time, it had been arranged pretty well, mobs of people would form and say, kill him, the man that killed the. . .and there would be 20 or 30 people running down, ready to kill this man and they did kill him and quartered him and all the rest of it. But we were foreigners, North Americans, in the city when this was going on. Then pretty soon they set fire to some buildings, they would get bottles of gasoline with a rag in them and set fire to them and throw them in the buildings. They also overturned streetcars and set them on fire, burned cars. This had got to be a mob of thousands of people by this time. Then they all decided that it would be a good idea to have a drink so they went into all these little liquor stores and men who had never drunk in their lives, anything but beer and ???, were downing a whole 25 ounces of champagne. Then they decided that they would loot and they would go in and take all kinds of things from the stores, toilets, anything, just to get something for nothing. So word came down from upstairs in our office to stay in the office. I had no car and I would have to walk 3 miles through these screaming people. Then a heavy rain came and put out most of the fires, then the word came that we should go home. So 3 of

us started home through this mob and we had our hats down over our eyes and were sort of walking along the edge of the road. We got to the first man's house and he had us in for a drink and then I walked home. At that time we had moved from our little apartment to a house about a block up the road. But another lady from the other apartment was named Margaret Lawrence. She had a daughter Jill, 16 years old and Jill was downtown working for the army. So she came running out and said, have you seen Jill. I said, no, but I want to go home and see my wife first and then I'll come back. So I went home and my wife Helen was quite upset because she didn't know what was going on, the radio was screaming, get out in the street and kill and all this sort of thing. These people had taken over the radio stations and these were just the peasants screaming. So I said I had to go back to see Mrs. Lawrence and I went back. Fortunately her brother, who was a ??? manager had come up and said, everything was all right, he had it under control, so I didn't have to do anymore. Then I went back home, I had a little boy 1 year old and my wife and I living in this house, right on the edge of town, in the middle of all this. The police had opened up their armouries and were giving guns to anybody who came along. There was no police protection, they'd all gone home. The army was not there, it was the Pan American conference and the army had gone out to a village outside of Bogota, the president was there too. This had all happened and caught them off guard. So the president, Mariano Aspina Perez, he was a very brave man, he said, better a dead president than a coward. So he came back and he got the army back. After about 2 days there was marshal law and there was peace. But in the meantime it was very tricky and the people around where we were living were talking about forming a patrol and all this sort of thing. But we didn't have any guns or anything and we were pretty well defenceless. When the army came back they had a soldier every few blocks with a gun and after curfew, 7:00 they would shoot at you. So it was very strict discipline. There were some very tragic things happen. A man went out in the car with his little boy driving and he went past a sentry post and the soldier shot at him and killed the little boy, things like that, terrible things happened.

#312 NM: And you could not leave.

HA: We couldn't leave, although the American Embassy put a plane at our disposal so that those who wanted to leave could leave. But we didn't leave. They let all the mental people out of the mental institution and all the people out of jail and they were wandering around the hills without food and we were the first. . .

NM: ???

HA: We were the first row of houses from down the hill. We could see them walking up there and we were wondering if they would get hungry if they wouldn't come down and start taking food from us and all the rest of it, and be dangerous. So there was a man from the government living 2 doors up and without telling us anything about it, he got a platoon of troops to come up and stand in front of the house and shoot volleys from their guns up into the air. We didn't know who they were because there were machine guns going off all over the place. So we went in the back room and just held our breath. And nothing happened and this scared the people away from this particular place. Then they said, if

you can put pails out to gather rainwater you better because the water in the aqueduct has been poisoned. This was not true but it was rumour. But they kept the lights on in Bogota which was a wonderful thing, they kept the city lighted up. After the worst part of this violence, they call it le violencia, after it was over we were told that we were not to pay excessive prices at the market. If we didn't find the prices right that we should call a policeman and he would make sure that we got the right price. During the revolution we'd been buying meat, we didn't have very good refrigeration, we'd been buying meat every day. Finally we had some stew from meat that was turned and it wasn't very good. In the meantime my little son had put a jar of ??? down the toilet and it wouldn't work. Fortunately we had another one downstairs.

NM: You must have had a hard time. At the end of the tape now.

Tape 2 Side 2

NM: [at the end of the question]???

HA: Yes. Came back to Calgary for holidays and to look for a new job because they had decided that they were going to give the concession back to the government, the ??? concession. And they had more people there than they needed so they were going to try and get all of us jobs all over the world. But we weren't going to be back in Columbia. So when I got to New York on my way back, they offered me a job in Iraq doing gravity work. It was about the time ??? was running around, screaming about . . . Iraq was pretty close to a revolution there.

NM: And you'd already had one in Bogota.

HA: So I figured that I would rather try and work in my own country. So when I was in New York I asked them if I could be trained in seismic work and the answer was, well, you've got holidays, why don't you go and take some of your holidays and ask them if they'll train you and don't take any money for it and they're pretty sure to do that. So when I came to Calgary I went to the Imperial Oil people and asked them if they would train me in seismograph on my holidays and I wouldn't charge them anything. So they didn't see any objection to that, it didn't cost them anything. So they said okay. When I looked around there were several jobs offered me in seismic work. One was in Socony and another one was in Texaco I think but I went back to the people in Imperial and I said, well, would they mind if, having trained me, I took a job with one of these other companies. Oh dear, that would be terrible, why don't you come and work for us. Well, the conditions of working for them was to go right back to the beginning and take a salary of \$360 a month, which was about half of what I'd been getting and they would train me and so on. And they wouldn't stand in my way because I had so much experience and they would help me as much as they could and so on. Well, the forgot about that after I got into the company. And I got no training whatsoever because they handed me a bunch of records and told me to go ahead and interpret them. I got a little bit of training, maybe 2 weeks. Anyway, I got handed some awful records that I don't think anybody ever interpreted, ???. Anyway, after awhile, we all moved up to Edmonton. Jack Armstrong, who was in the next office to me in Ecuador said that he wanted me to go up

and I worked up there for about a year. Then a problem came up in the field, they drilled a well on what they thought was a good structure and it turned out to be nothing. So they wanted to get an explanation of this and they decided that I might be able to give them the explanation. They drilled a lot of holes and made a lot of velocity measurements that I could use and I wrote a report, it was the first paper that I published, and explained to them exactly what had happened. It turned out that it fit with the wells that had been drilled and they had drilled in the wrong place and so they were very happy. This was sort of research work so they put me into research and I started working in velocity studies. Which I worked from 1952 right up to 1971 when I left Imperial.

#042 NM: All in Edmonton?

HA: No. I started in Edmonton, then they drove me down to Calgary to work in the lab they said, the lab is over here on 50th Ave. So we built a house here and as soon as we had it built they said, oh no, you're not going to be working at the lab you're working downtown. I went downtown and worked there till 1963, so that was about 10 years I worked downtown under Dr. Landis, who was the head of research.

NM: And how was Calgary at this time?

HA: Calgary, I was married in Calgary in 1943 and I lived here till 1945. At that time Calgary was a city of 80,000 people. Everybody knew everybody else.

NM: Like a little village.

HA: Yes. One day when I was first here I was walking down the street and my watch fell off, so I was walking back and forth in front of the stores, looking. Somebody came along and said, did you lose something and I looked up and it was a great big policeman. So I told him and he said, we'll try and find it because these people will take the watch and hand it in to the pawn shops and we check on the pawn shops. I said, the trouble is, I'm going to Edmonton the next day, then I'm going on to Norman Wells. Well, he took the particulars and he said, we'll try our best. When I got to Edmonton I found they had a notice in the Edmonton paper too, somebody had lost his watch. I went to Norman Wells and worked there for 6 or 8 months and came back and was walking along the street there and the same policeman came along and said, did you find your watch. So that shows you how like a village it was. Then we came back in 1950 and the highest building in Calgary was the Palliser Hotel and you could see it when you came in on the train, that was a landmark. And Knox Church down there at 6th and 4th was an enormous building, you could see it too. Now you can't. . . People would visit, you'd just get a notion to go visiting somebody and you'd go visit them without calling them up or anything and this was accepted as quite normal. But now I guess, it's more formal.

NM: Was the south of Calgary developed more than the north?

HA: When we came here in 1943 the end of the city limits was pretty well the Elbow River at Riverdale there. There were a few houses on the Riverdale side. When we came in 1950 to this avenue, 50th Ave. was city and across the way from here was Windsor Park, a village. Now of course, Calgary. . . and I used to play golf at the Canyon Meadows Golf Club and it used to be a 5 mile drive in the country, now it's built up solid. So there have been quite a few changes in the nature of Calgary. I think the people were extremely

friendly. I remember the thing that won my heart to the west didn't happen in Calgary but it happened about that time. I was out in Coldspur and I was running a gravity party, I was the party chief and there were 2 men under me. One day I was standing at Foothills Station, Foothills was just a little wee station, dressed up in a parka and a kid from across the tracks called out, hey mister, what are you doing. I said, I'm waiting for 2 men and he said, come on up and have dinner. He was only 12 years old so I didn't think he had much authority to ask me to dinner and I sort of made an excuse. Just then I looked down the road and there was a man coming up the road and he said, come on, have dinner. I said, the kid just asked me and he said, that's right, he's my boy. So I went up there. It turned out he was a widower and he and this little boy were living together. They gave me a lovely dinner, strangers.

#090 NM: It was very friendly of them to do that.

HA: Then when I came back to Calgary after the work in Coldspur I was a bachelor and I had 4 or 5 invitations to Christmas dinner at homes, people I had hardly met.

NM: They felt sorry for you that you were going to be alone.

HA: Yes. Which I thought was very nice. Then you know, I would stop to catch the streetcar at Elbow Park there where the river is, where the river crosses 4th. Quite often I would get a ride downtown, people would come and give me a ride. I was very pleased always. Except one day a man picked me up and gave me a ride, he was an insurance agent. Next thing I knew he was calling on me to buy insurance. But it was fair enough, I can't . . . And you couldn't go to Banff, if you were hitchhiking you would always get a ride, things like that. Nowadays it's really dangerous.

NM: Absolutely. So you were working in Calgary and you stopped doing the gravity meter for good?

HA: In 1950 I stopped and went into seismograph and I've been in seismograph since that time, which is 33 years. But just in brief, I started in Columbia and worked there 4 years, then came up to Calgary, Norman Wells and worked there a couple of years, then I went down to Ecuador and worked there 1 year and then in Bogota for 4 years, all in gravity. Then I stopped doing gravity and the next 33 years I worked in seismic. Mainly, except for the very beginning, mainly in seismic research and the research was mainly on seismic velocities, which I have some knowledge of.

NM: And you stayed in Calgary from then?

HA: Well, once we came back from Edmonton we stayed in Calgary. The first 10 years of my life had more moves, we lived in 40 or 50 different houses. That was getting to be quite a lot of travelling, moving, and then the last 33 years I've lived in this house, I'm very fortunate.

#120 NM: How did you enjoy your work with seismic compared to the gravity meter?

HA: At first it was very difficult because when I graduated we didn't get much geology at all, we got a little bit of geology in my Master year. But it was nothing like the amount of knowledge we needed for the seismograph. I was put in with people who had graduated mainly in geology so they knew far more geology than I did. You need to know that to

appreciate seismic so I had a very hard time for awhile. But after a bit I took 2 courses in geology from the University of Washington by correspondence. After I'd got that studied I began to appreciate what I was doing and then from then on I learned from the geologists at work. Then it was fine. But the research work that I'm doing is very specialized work. I was taken down to Esso in Houston 6 times to give lectures to the students down there. I wrote a book on that, I've written 2 books that are in the library at Imperial Oil but are not published now.

NM: Were the books published in Canada or the States?

HA: One book was published by the Standard Oil Co. in the States and the other one was published in Canada by Imperial Oil and distributed throughout the organization.

NM: What were the titles of these books?

HA: One was Seismic Velocities and the other one is Lectures on Seismic Velocities. The second one was a textbook for this course I was giving. I wrote a great number of papers for internal use in the company, I guess I must have written 60 or 70.

NM: This is the end of the second interview with Harold Acheson.

Tape 3 Side 1

NM: This is Nadine Mackenzie speaking. Today is Friday, the 13th of May, 1983. This is the third interview with Harold Acheson. In 1953 you were working with Imperial Oil in Calgary, can you talk about it?

HA: I was sent down from Edmonton where we'd lived for 2 years and when I was told to come down I told my little boy and he began to cry and said, go back and tell them you won't go. Of course, you don't do that. So we came down to Calgary and we lived in a motel on the Macleod Trail, very near where we're living now for 3 or 4 months while they built our house. Jim, who had been promoted one year from grade 1 to grade 2, was sent to school here and he learned to multiply before he'd learned to add and he got very confused and began to cry when we sent him to school. But eventually we got him straightened around. I was sent downtown to Imperial Oil's main office, to work in the research department under Dr. Landis. In that department we had Colin Crickmay, who was the palaeontologist and George DeMille, who was doing geology and Jim Houston, who was doing gravity meter and I was coming down to do research in seismic velocities. So we all worked together on that second floor and were a very congenial group. I remember Colin Crickmay, the first day that I came into that department said to me, if all the stones are rolled about in the river why aren't they perfect spheres. I had to go home and think about this and I couldn't seem to get very far with it, until I asked my wife. She said, oh well, they didn't start off as perfect cubes, which is the right answer. Dr. Bob Landis was a very well respected geologist. He used to hold talks at coffee time and explain to us all about his adventures in South America and his ideas about geology and we found it very interesting. Jimmy Houston I knew from 1950, when I first met him in Calgary and he was a very able gravity meter man, who went on with Imperial until he came to within 2 months of retirement when he suddenly had a heart attack and died. Who else was there. . . I guess that was all that were there at that time. About that time we

were sent down to the basement every Tuesday night I think it was, to learn effective speaking.

#038 NM: Why?

HA: Well, there was Vern Taylor and everybody went down there and we were told how to speak effectively to groups. This became quite important in the next year because we all went down to a big meeting in Houston, Texas, of all the Standard Oil people. Jim Houston took his gravity and I took my seismic velocities and Carl Chapman went down there from the administration. We each had a chance to talk in front of a big audience and they were very pleased with my work and decided to ask me to stay down there and help them with a project they had. I had to stay for a few days. It turned out that I couldn't give them very much help but at any rate the talk made a fairly big impression and they asked that I write up this information as a book. This was in 1954, and I wrote this book, it took a long time, it took a year, and had it all ready and Dr. Landis said I should go down to the States and have the Houston people review it and the Tulsa people review it so that we would get some feedback. I went down and they were very nice to me to my face but they were very critical of the book when they wrote about it. However it got published through the New York office and has been around since, I think it got published in 1956. At that time I used the Univac computer to do a little bit of work and I think it was the first time I'd been in contact with these machine computers. That was 1956. Things went on, we did research work and so on, till 1959 when I was allowed to publish this paper. 1958 I was allowed to go to San Antonio and give this paper on this work, which was published in 1959 in the Society of Exploration Geophysicists. I didn't publish again till 1963 when they had a meeting in Calgary, maybe it was '62, the thing got published in '63. Then about that time I was sent to the lab and told that they didn't want to do any more work in seismic velocities, that I was to find a project for myself in the lab. I stayed at the lab till 1971, but actually, my chief love was seismic velocities and I found it a little difficult to work at something else that I didn't like as much.

NM: What is a seismic velocity?

HA: It's the speed at which sound travels through the earth, through the ground. When I was at the lab, about 1967, they decided to hold a school, discussing seismic velocities in Houston. So they asked me to go down and I went down and talked one day at this school, came home and then they asked me 4 or 5 times after that to go down and give a lecture. At this time I wrote the book, Lectures in Seismic Velocities and used it as a textbook. About 1971 the American people in Houston were planning to try to put everything in research under one head. They didn't have any use for myself and several other people that had been working in research so we were sort of bounced out of the company. I was given \$540 a month pension, plus \$11,400 which was about 7 months pay. That wasn't really good but I remember coming home to my wife, Helen and saying, can we live on that and she said, oh sure. I never felt prouder of my wife than that. Anyway, I was only a couple of weeks when I had a job with Pan Arctic at a higher salary. Then I went on in Pan Arctic. So that was more or less the history of my work from 1953 to 1972.

#094 NM: And how long did you stay with Pan Arctic?

HA: Nearly 10 years, from '72 to '81.

NM: And what was your work there?

HA: Doing the same thing. But it was very exciting because when I was in the lab I was working more or less in a vacuum, hoping for people to tell me what projects to work on from the field. In Pan Arctic I had the project right there. Whenever I made a decision or came to a conclusion it was worked on right away and you could tell whether it had been any good or not. So it was much more interesting.

NM: Looking back at your career, who was the most influential person in your career?

HA: I think the most influential person in my career was Dr. Laughlin Gilchrist, who I studied under, in Toronto. He was a Master of Arts from, I'm not sure exactly where, Toronto maybe, but he took his PhD in Chicago. He was a very exacting man, he was very impatient if you didn't know something that you should know. But he was very keen on helping young men develop themselves and he would say to us, you've got to look after yourself, there's nobody looking after you. The reason I got into geophysics was because of Dr. Gilchrist. I had graduated in mathematics and physics in 1937. It was near the end of the Depression but there were no jobs. One day he mentioned that he was going to give a course in geophysics the next year. So I went to see him and said, do you think there will be any jobs at the end and he said, I don't know, you just have to go through and see, other fellows have been getting jobs. So then we got into this course and he was a workaholic. He'd have us up in his office till all hours of the day and night working at this stuff. Then he took us out in the field and we went on 2 field trips, one near Kenora, we were out in a place called Populace Lake where they'd found a nickle deposit that looked important. But they didn't know if they had enough ore to develop it. So we went off with magnetometers to see if we could extend their knowledge where their geological knowledge had left off. We lived in log cabins and had a cook, he used to cook great big pies and things for us, and give us a quarter of a pie each when we came home. Dr. Gilchrist had a cabin of his own. Well, when we'd come in at night he would sit down and tell us stories about the oil industry and about his experiences with prospectors. Then he would get around to talking about physics and science and I learned more physics in those evenings after work than I had in a year in university. He was very much concerned that each of us would do well and get a good job. He was a very good friend to all 3 of us. Unfortunately he, in my opinion, hasn't had the acclaim that he really deserves. He was a pioneer and pioneers often just lay the ground work and then other people come along afterwards and do good work and get all the acclaim. He was very much a big influence in my life, the reason I stayed in geophysics. I remember one time when I was about to start in geophysics I went to see Dr. Harris McPhedron???, went for an appointment. He said, who are you going to be working with next year and I said, Dr. Gilchrist and he said, oh, you're in good hands. He was very highly respected and that was a man that. . .

#145 NM: You met a lot of interesting people too, like Ted Link and Tip Maroney. Can you talk about Ted Link? He's the one who sent you to Norman Wells.

HA: Yes. Ted Link was. . . I met him up in Edmonton first and he impressed me as being a very able geologist. He had a tremendous reputation. He could write about things like Turner Valley in a very clear way, so that you could understand everything that he was writing about. He said, we're going to send you up to Norman Wells, this was when I'd come in from Coldspur, the first 2 months I'd come back from South America I was working in the Alberta foothills. On the way back to Calgary I met Dr. Link in Edmonton and he said, well, you might as well join the big adventure. I didn't see him very much after that because he was in Toronto office. He would send telegrams up there to tell us to keep working and so on. The next time I met him was in the Toronto office and I'd been down to Ecuador and come back. I'd met somebody in Columbia who talked about the people in Ecuador and he said, the goldarned limeys down in Ecuador, you don't have to pay them any money, you just give them a lot of prerequisites and so on. So I mentioned this to Dr. link and he kind of laughed about it. I think the next time I saw him was in Victoria when I was playing golf with my son and Ted Link had retired. We were playing on the Outlook Bay golf course and he came along behind us. He said to my son, I knew your father before he ever thought of you. That's the last I saw of him. My contact with him was rather meagre but I had a great deal of respect for him, as everybody did.

NM: What about Tip Maroney?

HA: Tip Maroney, I haven't seen much of until he retired and then he took me and Scove Murray to the Ranchman's Club on my birthday one time. He had all kinds of stories to tell. He was a chief engineer in Peru and he built a railway line 11 miles long. One of the directors came down and said, was that railway approved by the board of directors, I didn't hear anything about it in any meetings, was it approved. Tip Maroney said, yes, it was approved and he said, when was it approved and he said, when you hired me. So Tip was a very honest, very likeable man and a very able man. He's now down in Tulsa and he hasn't been too well lately but I hope he's improving.

#187 NM: What was your most exciting experience in the oil patch?

HA: There were a lot of exciting experiences, almost overturning in rapids. I remember one time at Norman Wells we were trying to do a ??? of the Ramparts River. We got the canoe across, almost to the other side and there was a 5' waterfall. The canoe went to the edge of the 5' waterfall and I was at the back. I knew it was shallow water at the back, just about 6" deep but the fellow in front didn't know that and he called out, it ain't good Doc. Those things were just little things but I guess the most exciting thing that ever happened was the revolution in Bogota. I think I mentioned things about that. The worst thing that happened was when they had a platoon of soldiers outside the house, firing into the air, to frighten the people up in the hills so they wouldn't come down to. . .

NM: And you had 2 young children with you at the time?

HA: One young child then. The other child was about to be born.

NM: Was she or he born during the revolution?

HA: No, after she was born. Then when my daughter was born it was a time of curfew. Curfew was 12:00 and I had to go down to the ??? where my wife was. Jean took a long time to

make up her mind to enter the world and it was 20 to 12 when she was born and I had to go out and get in my car and drive home, into a ramped garage, shut the doors and get into the house before 12:00 or they'd start shooting at me. That was exciting. A lot of little exciting things like that.

#214 NM: Can you talk about your achievements?

HA: I have written 3 papers for publication on seismic velocities, one in 1959, one in 1963 and one in 1982. These are a threesome of papers that deal with the same subject but in more advanced form as we got to know more about the subject. The last one was The Time Depths and Velocity Depth Relations in sedimentary Basins. I started off with a local problem in Canada, then I generalized it to the western Canada basin, then most recently I've talked about the subject related to sedimentary basins all over the world. Also I obtained, last year, a Meritorious Service Award from the Society of Exploration Geophysicists. Apart from that I think my achievements were to have a wonderful wife, Helen, who lived with me for 31 years and was a very great friend, somebody who was absolutely selfless. Even when she was in great pain for the last 6 months with cancer she was very brave and a great example to everybody and I miss her very, very much. And I have 2 children, Jim, who is now a senior lecturer at the University of Canterbury, in English and Jean, who is doing social work for L'Arche, which is a home for disadvantaged people run by the Catholic church. Then after Helen died I was ??? and lost for quite a long time but I met Olive and she has been a great wife and a help to me and brought me back to normal I hope. And she has 2 children, she has Barbara Rogers, she's a graduate geologist doing well. She had a hard time getting a job but she's got a job and she married David Clark and they are going to go up to the university where he will study some more while she works. Then we had Jim Rogers, who is a graduate biologist. He's got a big grant to go up to Edmonton and continue his work and he seems to be well on the way to getting married, his girlfriend is Karen, so everybody is pretty well organized.

NM: You worked for 10 years with Pan Arctic?

HA: Yes.

#263 NM: And then what happened, did you retire?

HA: I retired from Pan Arctic which was the second time I'd retired. They were extremely nice to me, they gave me a nice gift. When I married Olive they gave me a very beautiful Eskimo carving, it's a big high one. My experience with Pan Arctic was very, very good, very friendly and I've been back since I retired to do work for them and I like to go there all the time.

NM: And now you are keeping very active?

HA: Now I'm working with Bowden Exploration. I was working 3 days a week at one time. Now I'm working half days every day. It's still on seismic velocities but now it's foreign work in the near east and the far east. So this keeps me busy. When I'm not working at Pan Arctic I have lots to do. We have a little cottage in the country that I'm going to tonight, 3 acres and I also have a house in Calgary that I rent out to a young man. So I

have things to do there. I go to the university and take lectures. I have taken every course they have in English at the night and 4 courses in Spanish and 1 course in history, 1 course in computer science and 1 engineering course. Then 1 course in structural geology just recently from one of the professors up there. So I have a great deal to occupy my mind even though I don't work, but I do like working because I still have something to contribute I think, and would like to keep on doing that.

NM: Harold, thank you very much for all these interviews, I have really enjoyed listening to you. Thank you. This is the end of the third interview with Harold Acheson. This is Nadine Mackenzie speaking.