PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Bill Fisher

INTERVIEWER: David Finch

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DF: Today is the 27th day of November in the year 2003 and we are with Mr. Bill Fisher of 2603- 34th Ave. N.W. in Calgary at his home. My name is David Finch. Could you start by telling us when and where you were born?

BF: Yes, I was born in Toronto July 23rd, 1930 to an Irishman and an English lady, who had met in Canada while they were visiting.

DF: What were their names?

BF: Bud Fisher and Maisie, a good old fashioned name.

DF: Tell us about your education?

BF: Went to what they call a vocational or technical school in high school and went to the University of Toronto. Started out in math and physics which I found a highly theoretical course and transferred over to mechanical engineering where I graduated. Worked most of the time because my father had passed away when I was 15. He'd been sick for 3 years so all of the family, and owed a lot when we got out.

DF: Oh really. What kind of jobs did you have in that period?

BF: Before I graduated? I worked at a butcher shop first and I worked for the railroad as a cook during the war, picking up Vets who'd been injured from Halifax. I was on a special plane picking up prisoners-of-war. Exciting for a young guy who lied about my age to get the job because you had to have a card in those days. I was 15, I think you had to be 16. My dad had been sick for several years, 3 or 4 years, so we all just kind of did our thing. Tried the Navy for a bit, whatever you could to earn money, cleaned school desks after Christmas for the public school board, cleaned out some of the old boilers, whatever I could do to get some money. Got approval to work into the school year in engineering and catch up, because my debts were getting pretty high.

DF: What did your father die of if you don't mind me asking?

BF: He died, his kidneys went. He was gassed at Ypres in the First World War as a Canadian soldier and it was quite common, it seemed to weaken their systems and the doctor. . .I mean medicine in those days was nothing like it is today, thought his system had been weakened and eventually his kidneys just went, one at a time. He was 51. That seems young now.

DF: It does doesn't it. So why did you choose the engineering route?

BF: I always was a practical person, I liked to fix things. But I did well in high school, I had first class honours in all the math and physics. Didn't know what to do until a friend said, why don't you try maths and physics, engineering physics actually. I tried that and found a bunch of boy geniuses in there. Some of them you couldn't read their writing, but boy, they were clever, clever. I had to work too hard. And then we had a person come, my best

friend was in mechanical engineering, to talk to mechanical engineers and he told them all these physicists he had working for him because they were too narrow. So I changed. Lazy.

DF: So when you came out of U. of T. your degree was what?

BF: In mechanical engineering.

DF: Right. And what was your first job?

BF: My first job with Shell was. . .

DF: Hired right out of U. of T. by Shell?

BF: Hired right out, yes. I worked the summers actually, the last 2 summers up at a paper mill, Kapuskasing Power and Paper and was going to go back up there when a friend told me, you'll become an alcoholic. Everything in that north country was drinking and a lot of the guys succumb to it. So then it was a choice of going with Imperial Oil down in the refinery, I didn't like to, I went down there, it was smelly. I decided I'd go out west instead with Shell. The first job I had was they shoved me out in a gas plant, sour gas plant.

DF: Did they hire you at U. of T.?

BF: Yes.

DF: They had a hiring program where they had people come in?

BF: Yes. Actually I went with my friend who was going to be interviewed and I was waiting for him. The guy said, I've got a blank, would you like to come in. I was actually going to go back up north or go with Esso. So life. . .just like yourself, life changes. And I loved the west, still do.

DF: So what gas plant did they throw you into?

BF: Jumping Pound, it was the only one there. They'd just had a winter where the front of the boilers had frozen. It was built California style and the gauge glasses on the boilers had frozen. We used to get -30, -40 in those days, with a wind. Actually my first job was to serve coke at the opening of the sulphur plant, first sulphur plant. They didn't know what to do with me so I served Coke to all the visitors that came in.

DF: You were what, 21, 22?

BF: Yes, in that range. So I spent my first years out at Jumping Pound. From there to, they gave me a car which in those days was fantastic. I didn't have a driver's license, nobody asked you. But I learned, I had learned to drive a bit in an old jalopy that I had 25% of in high school. So I was to survey all the grounds prior to levelling and gravelling. While I was there, have you time for a story. . .?

DF: Yes.

BF: I came back into the office to report to the head engineer, an Englishman who had been kicked out of Mexico when they nationalized. A girl grabbed me from Shell Employees Group and said, I understand you've got about 30 engineers and geologists working out there, which they did, cleaning up and building a line, keeping busy, supposed to get their hands dirty. I said, yes, she said, well, we've got a dance coming, can you go out and see how many would be interested because you're the only guy with a car. So I went out there and 20 some guys decided they wanted to come. So she lined up 20 some girls, most of the girls in Calgary in those days had come in from the country. So we set up a dance.

Some of the guys married those girls, a couple of them they found out in east Calgary wondering where they were. Anyway, those were the. . . everybody got along well, people rented houses, anyway, that was the early days of Jumping Pound. It was rough.

DF: What was it like to deal with the sour gas?

BF: Risky. You had to be careful. I've been knocked out by sour gas, once.

DF: Tell us about that incident, how did that happen?

BF: Testing the pressure, between, we used to plug off our heat exchangers quite rapidly in those days, we didn't have special metals. We had diethylolamine???, monoethylolamine??? in those days. Di was a big improvement, it came later. The fitting in which I screwed in the pressure gauge came loose, corrosion, whatever. I stayed there, shut the valve off above it and started towards the control room and that's the last I remember. They had me out in the grass giving me oxygen. I guess I got enough of it, I could see the control room, it was 30-40 feet away, fortuitously, a guy working on the other end of that building saw me go down. He ran down and grabbed me and hauled me out or I wouldn't be here today. I got a bit of pneumonia, which was quite common in those days if you got a good shot of it. But that gave me the world of respect and we learned a lot in Jumping Pound because there wasn't experience with sour gas. We got a lot of people coming to us from Gulf for instance, when they built their plant in Pincher Creek. Their superintendent and engineer came up for an hour's talk and he ended up all day, people just didn't know. The major construction firms were U.S. oriented, they did not have sour gas either.

DF: Or the cold.

BF: Or the cold, right. And the superintendent at that time was a southern gentleman who had been a maintenance superintendent in one of our plants in west Texas. Fortuitously, although normally a practical man like that, an engineer, in those days, wouldn't have a lot of conversation, we spent a lot of time together. Because he needed help so we all helped each other. There was no unions, everybody there, after spending some time with the sour gas, relied on each other and tried to make sure that things worked. It was a real learning experience. The operations foreman had 11 children so he had to go home because they would all sit there and wait for him. That was Clarence McGonnagall. The maintenance foreman was Curly Rowan, who was a character in himself, he only had about 6 or 7, one kidney, a real character. And the contract foreman had 13 kids. Every time Clarence had a child they had one. Finally Clarence had twins, he had twins. That was just some of the side. One of the big jobs I had as an engineer was to design, at Jumping Pound at that time, moving the loading platform, there was actually kind of a. . . we loaded up the liquids that we knocked out in front of the plant, condensate, into rail cars. My job was to move that over to where they'd built the new track. And I had it all designed, cost estimated, I got out there and our contract maintenance foreman was already in the process of moving it, with an old beat up truck. I had arranged for a crane to come out and the truck was sitting there with the front up in the air. I went over and I asked him what they heck he thought he was doing. Before I could say that he said, Fisher, don't stand there with your mouth hanging out, get on the front of the truck and try to weigh this thing down. We finished it that day, ahead of time and under budget.

First time in my life as an engineer I was ahead of time and under budget, and maybe the last time. Anyway, that's the way things happened in those days. It wasn't that it was unsafe, they did it with what they had basically.

DF: Basically you were creating everything on the job weren't you?

BF: We were learning a lot on the job, did a lot of experimentation on different material, different. . .and as you said, trying different amines and glycols and anti-foam agents. Mostly different materials, very important.

DF: Okay. Just to set this in context, the only other facility in western Canada that was processing sour gas, but not for sulphur, but the only other gas processing plant was Turner Valley. Can you compare your plant with the Turner Valley plant?

BF: Turner Valley was a specialty case of its own. Herb Bagnall ended up working for me who had been one of the first employees of the Conservation Board when they opened their offices at Turner Valley. So I heard all the stories from Herb. As a matter of fact, those four guys, three of them married the daughters of the guy who ran the drugstore in Turner Valley, way back there. I helped when Herb retired, getting a lot of this information. So Turner Valley was special, it was the first. A lot of stories that were so different, so much earlier. The only difference was the sour gas and that made the risk so high. Most of us didn't even understand the full extent of the risk until we got operating the plant and saw what happened. Before I started with Shell they'd had an explosion in the Jumping Pound plant, during the winter before I started. Harry Deyarmid, who was the specialist from the United States who was up here, Harry's comment was, because it had been built by a California company for California conditions; nobody was killed in it fortuitously, Harry's comment was, it's just too bad it wasn't bigger so that we would have had to start over again instead of trying to fix up this pile of crap. That's as polite I can put it.

DF: Too bad what wasn't bigger, the explosion?

BF: Yes. Just blow the plant to where they had to replace it completely. It's just like the house next door I was telling you about, it's sometimes cheaper to start from scratch. I think at that time it would have been. There were a lot of characters in those days too. In drilling, all of them, a lot of them were. . . and I don't know how to say it other than, BS baffles brains. There was a lot of that. And there was a lot on the other side, on the brain side that didn't have enough of the practical end so it was a real learning process too, between a lot of these practical people, a lot of them from the States who had been around a long time and young engineers and new people from Canada. And it was building the respect between each other until finally, most of the Americans ended up back in the States. Then we started going down there, which I did from '57 til '61. Into New York for two years for design. I think they expected me to come in with feathers in the back of my head. Canada was a long way off, they were mostly southern people and it was a different experience. Then from there, down to Houston for a couple of years building plants. So before I got Waterton I was building plants down in the southern States.

DF: But let's go back to your time at Jumping Pound. That was the first large scale sour gas plant in what, North America?

BF: Yes.

DF: Sweet gas is predominantly down in the States right?
BF: Yes.
DF: Okay, so what were the challenges of Jumping Pound?
BF: The challenges were, there was no one there to tell you, no one there with experience to tell you how to do things. Not how to do things, how to solve the problems you had. So you experimented with things, you tried different materials, you worked with ranchers and people who were your operating staff and maintenance staff and you made things work. A lot of it you had made for yourselves or had made for you somewhere to what the metallurgists at that time would say you should try. So there was a lot of experimentation, a lot of long hours. I don't know how to say it other than it was interesting and challenging for an engineer because there was no end to what you could do if you could put your mind to it and come up with a plan that would work, that you could afford, and then gain the confidence of the people who were going to put it in, maintain it and operate it. So that was the challenge at the time. And then, to try to keep the people back in the office happy who were counting on the revenue, who were mostly U.S. people who, oil was the most important thing, gas was a pain in the neck, sulphur was something they hoped would go away. In fact, the early years, sour gas wells were capped and in the States they were, they just didn't develop. Too many problems.
DF: So why the decision to develop Jumping Pound?
BF: One, it looked like it was about a trillion cubic feet of gas and Calgary, the city of Calgary, needed a gas supply that was close that could be dedicated to them. So a long term contract was signed with the gas company in Calgary, 10 cents a thousand cubic feet I think, was the initial price. Then there was the hope that sulphur markets would be developed. There were some liquids, there weren't a lot, it was fairly dry gas but it had some liquids that were of value. And Shell had not found the big oil fields that were being found. They had actually had land there and then pulled out and came back in. When the came back in most of their lands were predominantly gas type of fields. So Shell became the largest producer of gas through all this land it had in the foothills. Jumping Pound followed by Waterton, followed by a bunch of other fields. But those two made Shell one of the top gas producers. So engineers like myself who came out here expecting to work on the oil end ended up being put over on the gas part of it because that's where most of our work was.
DF: Just again, setting in context, Turner Valley and other sources of gas were well in decline by the time Jumping Pound was found, so that made Jumping Pound economic?
BF: Well, yes, the gas price we were offered because they needed the gas because Turner Valley was going down in production, plus Calgary was growing like mad. The demand for the gas and the price of 10 cents made it economic. And economic. . .there are a lot of things about economics but if you write off the investment you'd made before in wells that were just sitting there, then it was economic. If you tried to put in all the overhead and everything that went before, there was no way. So what you were trying to do was make some money on your most recent wells that you put in there and get a return on them. Calgary gave us a contract for all the gas we could produce. Jumping Pound turned out to be an awful lot bigger than we originally anticipated but that gas is still going to

Calgary.

DF: How much more sour was it than Turner Valley?

BF: Gee, Turner Valley wasn't all that sour. I've forgotten now what it really was, Jumping Pound was 4% hydrogen sulphide and 6% carbon dioxide. Carbon dioxide, the Americans had carbon dioxide in a lot of their fields, some of it was fairly high but not the hydrogen sulphide, that was the part. . . I've forgotten what Turner Valley had in theirs, do you remember?

DF: I don't remember off the top of my head either, no?

BF: No, but it was pretty small and there was no pressure on them to recover it until Jumping Pound started to and developed. We had two different sulphur plants out there so we were able to, from two different designers, contractors, then the Conservation Board started to put the pressure on people with sour gas to recover.

DF: Yes, because from '25, when Turner Valley built its first scrubbing plant, to '52 when it opened a sulphur plant, they were just venting it out of the top of a couple of towers, whereas your plant was designed from the get-go, to take off the sulphur and to do something with it.

BF: Yes.

DF: Now, what were the markets for sulphur in the 1950's?

BF: Most of the markets were the pulp mills, in B.C. and eastern Canada. There were some markets for people who made matches and things like that, in the petrochemical business. There was some markets in fertilizer, small, most of them were a long ways away from Alberta because the big sulphur producers at that time were the States and Mexico came in a little later I guess. But the Americans in Florida produced a lot of sulphur.

DF: How did you ship the sulphur?

BF: We poured a big block of it and then dynamited it, then used a bucket and put it on rail cars. Well, first it was on trucks, and it was hauled into Cochrane.

DF: So pulverized? How small did you break it down?

BF: Small enough that a bucket could get it into, first a big truck then finally we got a rail. . .

DF: But it didn't have to be made small, you just had to break it enough to move it?

BF: To move it.

DF: Tell us about dynamiting it?

BF: The first time I saw it dynamited, they got a guy in who was supposed to be a dynamiter and when he blew it up we had pieces of sulphur all over the plant, all over everywhere. It was quite a sight. He had some kind of paper as a dynamiter but I don't. . . he had been up north and certainly hadn't dynamited sulphur. I mean, this was the first. . .after that exposure we looked around a little more. They developed also, dynamite that was directional so that it would just then, lift the thing up and drop it. And then of course, through the years it went on to further improvements. Liquid sulphur and palletizing and all those good things. But the sulphur market was up and down like a yoyo. One time you'd have people prepared to pay whatever and then all of a sudden you were just pouring these huge blocks, waiting for the market to open up. As the U.S. production went down it opened up a lot of worldwide markets. I was involved in sulphur marketing for awhile but it just grew so big and it was a full time job travelling around the world. It

was very political, very political. Because there were other things traded with those companies, plus we had the Group Shell. That was their plus when we shipped sulphur, say, to Israel. The Group had a lot of contracts with large Arab groups for oil and oil development and there were some horrendous politics. Plus, when we tried to sell it to Great Britain, there was a group who bought all the sulphur for the British Isles. The sulphur producers in the States had a big lodge in one of the Bahama Islands, where they held all their meetings to conduct the negotiations over a few weeks while the families were there. So we finally had to use the Group who, at that time, had a lot of political people on their board to come down and get rid of some of the old boys and change the system to a bidding system. So opening up some of the sulphur markets was very political and involved exchanges of other things when the market grew, and to get into markets like the British. There were a lot of things in that marketing so we got a man to look after that, who actually worked through and international marketing arm. We did some of our own through our Shell, but the gas marketing where I ended up and I had that, grew so big that I just. . .that's where I ended up and that's where I retired.

End of tape.

Tape 1 Side 2

DF: We like to hear these stories. What else can you tell us, any operational stories about Jumping Pound? Obviously we want to hear about your whole career but the parts here in Canada, especially those early days, because like you say, everything was new, everything was being invented as you went along, manufactured as necessary, any other stories from Jumping Pound?

BF: The first sulphur plant we had was Fluor Sulphur Plant and one of my first jobs was to come up with lab testing procedures, for the lab, primarily for the sulphur plant, although it involved other parts. Our sulphur plant lab was right beside the sulphur plant. Every now and then there would be a tremendous crash. What it was, the sulphur plant was . . .it converted most of the hydrogen sulphide to sulphur so that the exhaust gas met all the government limits. But the sulphur droplets, in the cold weather, would build up on the top of the stack, which wasn't very high in those days and these stalactites would build up and then they would let loose. They'd come down and they would hit this building underneath it, which was reinforced. The lab was just over from it and man, Fred Coronet-Ching, he was our lab man and he broke out in hives because when these things would crash down he just became a nervous wreck.

DF: This was just condensation?

BF: This was sulphur condensate.

DF: On the outside of the tower?

BF: On the outside of the tower. Would gradually build up and then crash down. These were very early days.

DF: Down on to a tin roof.

BF: Onto a tin roof. I was a mechanical engineer but in those days it didn't matter. That was a chemical engineering job and most chemical engineers wouldn't know anything about it

anyway because it was sour gas and sulphur. So I had to develop a lot of this with Fred. Fred ended up leaving us and becoming a teacher at SAIT, a very good one and his hives disappeared. So that was one of the problems we had. We covered up the front of our boilers so that we didn't have any more freezing of them.

DF: Was that just because they were exposed to the elements?

BF: Yes. The front had been covered before but the heating system was so bad and the building design was so bad that that first winter they had frozen the gauge glasses on the boilers. Curly Rowan, who was our maintenance foreman, we had a lot of fun with Curly, he was a character, he just died this past year. A character out in the Jumping Pound area. Everybody knew about Curly, he had wiry, kinky red hair and those eyes that were always moving. When we had safety showers he would do his darnedest to get new people under those safety showers. He was the maintenance foreman, this was Curly, he was a character. But one of the big things he would always do with engineers, we had a chief engineer in those days who wanted everybody to look like an engineer. So when you went out there you always had a little hat and a pencil. You never went out there without something to write on and a nice little book of some kind to write in. Curly would wait inside the first building when he saw a new engineer coming, he'd wait for him. When the guy came through the door Curly would have a broken pencil in his hand and he would throw it down on the ground and say, those darned pencils, don't make them the way. . . and of course, here was a young engineer with a pencil and a pad. So he'd say, can I borrow your pencil and Curly would snap the pencil, drop it on the ground and as the guy went down to look at it he'd knock his helmet off. When he went down to pick up the helmet he'd boot him in the rear-end. Curly did that to more people. And then he'd laugh and laugh. We pulled one on Curly one time, because he was always stealing cigarettes and they finally got him one that blew up of course, and he chased everybody all over the plant, he was so mad. Most guys like that can't take it on the way back. So there was a lot of fun too but we spent a lot of hours out there cleaning all the junk out of the plant. Engineers, everybody got involved to turn the plant around and try to get it back on stream as quickly as possible. We would get a lot of people, I think we had about 300 geologists come out one day and our superintendent, the one I was telling you about, the southern gentleman, he at the last minute panicked and came into my office and said. . . if you could call it an office, it was just a little wee room, anyway he said, Bill there's some people coming, look after them. I said, when, he said, they'll be here pretty quick. 15 minutes later these buses came in and 300 geologists spread themselves out and with a speaker. I said, what did you plan to tell them, he said, I was going to do it off my head. I'd been in Jumping Pound for a couple of years but I mean, this 1995 or 6, I said, what do I . . . he said, I don't know Bill, look after it. So out you go and what do you talk about to 300 geologists, about a sour gas plant, which they really weren't interested in. I didn't understand the geology out there in those days. So what did we tell them about, we had problems with beaver dams and our water supply and I told them how, after a year, we finally managed to get rid of the beaver dams, which would be built upstream of our pumphouse all the time and cut off our water supply. Today you wouldn't talk about that.

DF: How did you get rid of it?

BF: Finally, with the help of the local rancher, talking to him about our problem and he said, I'll fix it for you. He got a permit from the government, wounded one bad enough it could get back in and it died in there. Then beaver will not go back. We had eight, ten, a huge dam and they would keep building it up again. One of the other stories, Bill Roman, my right arm for a lot of the construction years, Bill was a wild man, as a driver he used to drive our safety man wild. Bill had a car out there, he was on one of the construction jobs, he did a lot of the later expansions at Jumping Pound. There was a fire at the barn of a farm right across the Jumping Pound Creek, and the only way to get to the plant was across the bridge and then down at the bridge was the entry into this farm. So Bill had his car out there and the phone rang and the rancher wanted some help as quickly as possible. So Curly Rowan, all the guys happened to be there, the operators couldn't go so all the staff people, operations foremen jumped into the car and Bill jumped in. They thought he was going to go around by the bridge, well, we had a road that went down to the pumphouse and stopped beside the pumphouse. Bill went down there and went off the end of the road, landed in the middle of Jumping Pound Creek, it was about a 5' bank, and the springs caught up and bounced off; the bank was actually lower on the other side; it kind of bounced off that bank, went through all the shrubbery, it was just a whole mass of shrubbery and over to the side of the barn. He jumped out and said, come on, let's go. He looked back and there was just, according to Bill, arms and legs in all different directions. They wrote the car off. That's a true story. And they all came back and told this, they couldn't believe it. They were all shouting stop before he went off the bank but Bill, he said, you want to get . . .he said, get there as quickly as you can and when you said that to Bill that's what he did. He actually ran our safety man off the road. It was gravel road in those days and Bill, he was just a very fast, very quick reactions, very fast driver and he went by and he stirred up so much gravel and smoke that the safety man, who was driving fairly slow went off the road, but he couldn't see who it was. He threatened Bill Roman that if he ever caught him but it was too late. I guess what I'm saying, there were a lot of characters in those days. We didn't have the training that we got later, which was so important later. But a lot of those people from Jumping Pound ceded into Waterton and the other plants and brought that experience with them, and trained a lot of people. Again, I don't know how many stories you want. We had, Bill Roman, Bill was the engineer, the guy who did all the practical stuff, before Bill we always had a construction manager and then contractors, so a guy named Scotty McKinnon. What would you call a McKinnon other than Scotty anyway. Scotty had come up through the plant, really bright guy, non-trained, very practical, a very practical guy. The two of them both were rather rotund. There were all kinds of names for the two of them but they did a lot of the expansion out there. Scotty was just an unbelievable character, I'll just say the one story. They finally had a bit between them who would lose weight the fastest. So Scotty had his wife hide his false teeth so that he couldn't find them so he couldn't eat anything and all he could do was drink. He had his wife promise she would not bring them back until he had beat Bill Roman. Bill claimed it was unfair and never paid the debt. Those were stories, and yet we put horrendous hours in. Because if something was wrong we just stayed there. The only story where I wasn't involved in that I can think of is, just before I got there there were

two fellows who ran the plant basically. They were over checking the meter room, this was right after they started up again, after the explosion, checking the meter room. It was on the weekend and Ed had his dog with him and something happened in the pipes in that little meter house and Doug, who was the maintenance guy, was about 6'4", Ed Roberts was about 5' and this great big dog. They tell me the order they came out of that building was Ed Roberts first, the little guy, the dog was second and big Doug was third, at the end. But apparently, whatever it was, the pipe didn't let go but they shut it all in and they found cracks. What happened, in those days, they had welding, they called bread and butter welds. Welding was not as sophisticated as it was in these days and some of the welders, the poorer ones would just keep putting more and more weld around. You'd end up with these great big thick welds. When we got x-raying some of them later, we found that some of the welds, right where the pipe snapped, didn't actually melt into the pipe so that there was, what was holding it was all the weld that did. And then the outside would burn in and you'd have these little pockets. So some of the construction in the early days was. . . as a matter of fact, one of those welds, I think this was later and there's a picture in the book I gave you between Bob Naden and myself, he was plant superintendent. . . Bob ended up being vice-president of our refining and marketing downstream in the end but at that time Bob was plant superintendent. I got a call at night, I was the head engineer in town at that time, can't even remember what my title was, we had so many different ones in those days and they changed depending on who your boss was. Bob called me, it was about 11:00 at night and he said, we have gas blowing out from under one of our wells on the sweet gas line. I said, well, thank goodness, you shut the plant down. And it was a cold night, just a heck of a snowstorm and Bob said, we called the gas company to tell them and they said, we have to have the gas, that if there's anything in the world to do to stay on, I mean, today we wouldn't even consider it, and they've got alternate supplies. But they can't get additional gas on from anywhere else until the morning and they're pleading with us to keep it on till 8:00. He said, I told them I would talk with you, I said, thanks a heck of a lot, what do you want me to do. He said, I want your advice. I said, it must have been like that for 15 years, since the plant was put in, it was one of the original pipes with those big bread and butter welds. So I said, if you want to, have you got fans. He said, yes, we've got fans blowing that gas outside and we've got the door open, we've got it sectioned off but he was really nervous about it. I said, look, the only way we could ever let that go is if we get a guy with an x-ray machine, x-ray that weld and see how bad it really is. I won't agree with you not shutting it down until we x-ray it. 11:00 on, I think it was a Saturday night, a big storm out so I started phoning all these x-ray people. I found that there was one guy that had got welding flash in one eye, he was in waiting to get into the hospital. He said, I can talk to the guy to see whether he will come out but it's really going to cost you. I said, look, money's not a problem right now, I'll meet him out, I think it was out on the edge of town going to the plant, I'll meet him there and leave my car there and we'll go out. Well, we drove out with this fellow, in the snow with one eye, he had a big patch over his other eye, the hairiest drive I think I've ever had, even worse than driving with Bill Roman as a passenger. We got out there and the guys were all standing around there, the operators, they weren't afraid of it anymore because they knew it was

being blown outside, they had explosion detectors, all this kind of stuff. And of course, no spark, there was nothing, they'd taken anything that could cause a spark away from it. So this fellow came out, he was scared to death of the gas and the guys were afraid of his x-ray machine. They were all afraid that they would lose their potency. I couldn't understand when he came out with this big radiation belt, they all backed off. They were all afraid that it would affect their potency. Anyway, we got up and we x-rayed it and found there was just a little patch and I did all those engineering calculations that said, based on what he did, there's probably a 3 or 4 safety factor. Because the weld was so thick around it and the weld was actually all good except for this little spot where the gas was blowing out and the plant was shut down. But in those days, again, that would never happen today, but the choice was freezing off Calgary. They had other supplies but we were the main supply of gas. I don't think anybody. . . I haven't talked about that, even in the Jumping Pound thing I didn't talk about that one because people would say, you were all crazy and I guess we were. I think that's enough stories about Jumping Pound, you can go on and on about it.

DF: Well take us then, to the next stage of your career, you went down to the States. What did you do there?

BF: I spent a couple of years, about a year and a half or three quarters, in New York, in our design office. Helping the design of plants that were being built in the United States. Since I was a mechanical engineer it was a new thing for me on the process end of it. From there to . . .one story on New York. My boss was, they used to call them Okies, from Oklahoma. He was the old style boss, I went down there with nice slacks and jackets, I didn't wear suits, I don't even know whether I owned one. My second day there he would come in at the start of the work day and stand behind you, watch what you were doing. It was very strange. This was his way of letting you know he was boss and he knew what you were doing and he laid a comment on me that, you know, in New York we wear suits. I was so upset about that that I went down to Sammy Klein's, it was a place in downtown New York that had racks, 100 blue suits, 100 brown suits, 100 green suits, only three colours, take your choice. All made of synthetic materials, ties 5/$1 kind of thing, everything was just. . .so I went down there and got three suits, half a dozen shirts, half a dozen ties. The next day I went in with my blue suit and he said, my, my, that's much better. And I had bought those things for. . .I got them for the price of my one jacket and slacks that I'd paid for up in Canada. And the dollars were about equal in those days. I wore that suit in New York, I was stubborn, I wore those three suits, the blue one in particular. When I got to Houston, I was transferred to Houston, it was a lot warmer down there as you know, that suit had a shine to it, the whole suit shone. I had worn it so much and it was synthetic material. I was sitting in the office, we had a lawyer there in our office in the gas contracting part and he came over and he said, boy you can always tell those New York types, they wear those silk suits. I thought that was so funny, I went home and I told my wife about it and she was furious. She said, wait till they find out what it really is, because they're going to. So she forced me to get rid of it. So we put it in a bag and put it beside the garbage out there and the next day my wife saw, the coloured

people would go through and pick out, and he had this blue suit and he was out there brushing it off, here was this suit. And I really felt good about that because I took the other two which I kind of kept in there and I asked the guy if he wanted them so he got three suits. All because John Jordan, who was our head boss in New York . . John was a real character and I learned a lot of in New York and then was sent from there . . .I was sent to New York for one year. I got there and he said, it's going to be two years. Before I left he said, it will be three years. Before the two years I was sent to Houston for six months, I got down there, my new boss, Joe Golasinski said, you didn't believe six months anyway. And that's the way it happened in those days. Finally after, without getting into some Houston stories, after over a year I took my wife out to look at a home. I'd had these all scouted out and I'd been offered a really good job to stay there. I took her out and it was in an oak forest, just a nice home, in those days homes were a lot cheaper than now but it was a beautiful home and I took her out and I showed it to her. She didn't say a word the whole time we were there. When we started to drive back she said, okay, you better tell me now, what's going on. I said, well, I have this job offer to stay down here, it's a great promotion and she said, are you asking me or are you telling me. At that time she was pregnant with our first child. I said, gosh, wouldn't you like the home, I mean, we had looked at homes, this is the home you wanted. She said, not the place I want to be, I want to go home. So I said, no. Before that I phoned back to Calgary and in the interim, when I left Shell Oil ran the exploration production department in Calgary, while I was away Shell Canada took it over. I was still working for Shell Oil. I phoned back and talked to the boss up here and he said, let me do some checking. He said, you know, you don't show up in Shell Canada up here, when they transferred over they must have forgot that you were down there. But he said, it just so happens that we're going to be building Waterton, we've negotiated a contract with Alberta and Southern to deliver the gas down to California, which was a new era. Because up to that time it was either Trans Canada or the utilities. So he said, I want you back for that. This was about a year and three months or so. So I had a bunch of projects I was doing down there. Anyway, sure enough, after our daughter was. . .well, we waited until our daughter was about three months old, came back to Calgary to work on Waterton. I was here a very short time, they sent me back to New York on the design. Then from New York out to San Francisco because the low temperature flash process, which you were talking about, is a rough hydrogen sulphide remover, it was designed by Shell Development Research and our New York office wouldn't touch it with a 10' pole. They design everything but that and they said, you're on your own with that. Our head design man tried to talk to the doctor, they all had doctor degrees, out there, and he said, I don't understand him Bill, you go out there and talk to him. I went out there and process wise, and they all had doctor's degrees, it was amazing, and they got talking to me about the process and the calculations and they were beyond me. So I phoned back to New York and said, I can't do that, I'm not even really a chemical engineer and he said, well, we taught you all we know. So we ended up with this process which worked as a process but mechanically, practically, was one of the worst nightmares I've ever run into. Trying to make it work without the gas getting out. I had mentioned the Bechtel thing to you before, Bechtel fortuitously, who was the

contractor, later on, their offices were in San Francisco so I was able to get some of their people over with our research people. They'd just shake their head. Brilliant people, just brilliant. The reason, I guess it's safe to go through this now, the reason we ended up with the LTF, low temperature flash process, we wanted to go with Ralph M. Parsons, who was the sulphur plant expert. Our design office in New York called the top Parsons people into New York and said, okay, we want to go with you but we're not going with you unless you tell us what the process is.

End of tape.

Tape 2 Side 1

BF: So Parsons sent their top people in and I was there with my boss who, just incidentally, was an alcoholic, caused me all kinds of grief in New York and later on but a very, very clever guy. Anyway, Parsons refused to tell the Shell New York design people because they said, if we tell you, you'll know and you'll be able to do it yourself, so we're not going to tell you. And it was dyamine, I mean it was DEA, which our Shell people kept saying, well, it's got to be DEA or something like that and Parsons would not tell them. Finally our Shell people in New York said, if you don't tell us then you're off the list and they took them off the bid list. The company that we in Calgary wanted to go with. We had a Parsons sulphur plant out at Jumping Pound, they were the experts in the sulphur field. It's still a big company. So that's when Bechtel got shoved on the list by our Toronto office actually. There was Fluor and some other companies but not many because it was a huge plant and the percent sulphur coming into that plant was very high, like 15-20%. And the low temperature flash plant not only knocked out the hydrogen sulphide, it knocked out a lot of hydrocarbons. They were fed directly into the sulphur boilers, creating all kinds of hydrocarbon-sulphur products. This was a new a technology. Bechtel promised that they would hire one of the top Parsons design engineers, who I knew. I knew most of them because we'd been working with Parsons, not only up here but talking to them, plus there was a design group in Calgary that did a lot of work for Parsons and I knew them very well from the Gas Association and others. I actually felt it was probably DEA myself and that was then, they were telling me, that's the way you've got to go, this local group who I knew and trusted. But I just couldn't do anything. So anyway, this expert that Bechtel was supposed to hire, Bechtel's a huge organization as you know and they do a lot of worldwide work. So I set up the meeting down there. Before I did, while my boss was sober I got him to sign a letter that said, Bill Fisher has all the authority on this project up to $90 million. Their bid was something below. I said, but I need someone . . . here was this massive project, which today, you know, if they were used on a refinery job that day they would have 15 people come. I finally, John said, well, have a good trip, I said, who are you sending with me, he said, nobody. I said, I've got to have at least one, he said, who, I said, Bill Roman. Take him. John, you had to get him in the morning before he got to the Pete Club. Anyway, he gave me this letter and we went down, had our first meeting with Bechtel and Steve Bechtel Jr. was there, there were about 20 of them because they expected that many from us. We went into the room and there were

just two of us. We came in and Steve Bechtel came over and we introduced ourselves and he said, where are all the other people. I was just project manager, I didn't even have a vice-president title, nothing, which they expected because they had a man there who was to entertain us, that was his job. We were to be entertained for a few weeks and sent home. You know, they were going to do the work and then all these people that we had were supposed to come. So I laid the letter out from John and said, that's your authority. They said, who's going to sign all this stuff and I said, I am, and Bill. I had a little letter I wrote for Bill saying he could sign anything that he felt, and I used the words, in order to expedite this project, all those nice words. They said, there's no way on this size a job, we're going to have 100 people working on this thing. We said, you will not be held up, we want an office for us, big enough for the two of us and a table big enough for you to lay your drawings out on and a couple of phones and a girl to do some typing and that's it. And we want it in your office so that we're there. And it worked. But we brought people down from, as soon as they started to hire some of the operators we brought them down early in the project. We got a couple of guys that were going to be on our maintenance inspection group and we brought them down there and they built a big model of Waterton so they could look in at all the valves and pumps. And it worked out. It started up except for the LTF. The low temperature flash plant, the problem, an experimental marvel, a practical disaster. Low temperature plants have minimum number of valves. We had valves everywhere because of leakage. They had built plants for low temperature nitrogen, all those kind of things, they'd never built one for liquid hydrogen sulphide. Liquid hydrogen sulphide, it's a fantastic thing, it get through almost anything.

DF: Why?

BF: I don't know. And the other problem we had with all the valves, the low temperature flash took the temperature down, way down, and took out carbon dioxide and hydrogen sulphide. The temperature was designed primarily for hydrogen sulphide but that took most of the CO2 out and what was left was cleaned up in an amine plant of the gas that went to sale. So what happened, when we took it down, everything, all these bolted joints, and they were all insulated underneath, they were all coming and giving and we had leaks all over the place.

DF: So they were shrinking and contracting and moving all over?

BF: Yes, moving, yes. And it was all special stainless steels and things. We ended up having to get the bolts and nuts specially designed, replace them all and then we set up a torquing schedule. They had to be torqued to just the right. . .and we finally got all that done and it took us a long time. We had so many joints which shouldn't have been there. The process incidentally, worked like a darn, we could have left them out but we didn't have any say in the design. The other problem was of course, when they had their drawing they showed a horizontal heater and the specs they gave us called for a vertical heater. So we had all kinds of other problems with them. But the vessels were all special steel and they were, I'm just using an example, they would be 21'.23". We got calls from the fabricators saying, if you made it 22' we can save a cut and save a bunch of money, or if you'd make it 1' less we don't have to cut a whole steel plate and we can save you a potful. We had to. . .I mean, and theoretically. . .and we're used to factors of safety of 3 or 4. So it was a new

world. I ended up getting to know quite a few Shell Development people who I still don't understand what they're saying but they were brilliant people. A couple of them came up to the plant. Time for a story?

DF: Oh yes.

BF: Not only did we have to build the plant, we got orders from the Shell Group to build a guest house. I said, I don't have time to build a guest house, to my boss, in one of his more lucid moments. I won't get into the stories about John and his alcoholism because that's a whole different thing. But John said, I have a nephew or something that graduated from SAIT, I'll have him design it. I said, John, whatever, as long as I don't have to get involved. One thing I did get involved in, we had done a water survey for water wells all through that country and finally decided the only place we could get water was from the creek. So we designed a dam and I love fishing and stuff so I decided we would stock it. Then when we found that out we found we were into the government, we had to build a park for public access and then we had to do all this safety and it ended up, I had one of my technologists spend a lot of time on it but that was me. But the guest house was something else. So this young guy came up with a plan and John said, take a look at it. I brought it home and my wife looked at it and said, you don't have any closet space there, where are you going to put your. . . there's no place to put the linens, there's nothing there. Then they had shingles on and we've got winds there. All our doors faced east.

DF: Had to.

BF: Yes. I still remember Brad Anderson, one of our operators who used to wrestle bulls down at the Calgary Stampede, was walking between buildings and a cardboard box hit him and just flattened him. And Brad was about 220, big tough guy. So that was the first problem, the first wind we had all the shingles were gone. The second problem we had was he had the roof overlap the walls. And of course, facing west, with ??? and gusting winds would lift the roof up, gradually lift it from the nails and the flies would get up there and die and there would be tons of flies in the kitchen and bedroom on that side. We had problems, he designed the septic system without checking the soil which down there, it was all gravel below but up there it was all clay. This metallurgist specialist with a doctor, I still remember hearing a big scream and I came out of the bedroom and here he was, coming out of the bathroom trying to pull his pants up and there was a trail on the floor. There was nowhere for the water to go. We had an argument in there, we had this huge plant up top that was $20 million, whatever it was, up there, in those days and that was without all the periphery stuff and we had Carsky, our president, all those people down to look at it plus some other guests. We showed them around the plant, 10 minutes, got to the guest house. We had two major arguments down there, one, we had left the old plow out there from the guy who used to own the place. That was another story. They were arguing whether the plow should be there or not and finally I said, look, it belongs to the farmer, he's going to take it anyway, I haven't arranged to buy that. It was an old beat up antique thing but they liked the antique. Then they got arguing over whether the nails should be driven into the walls and puttied or not. The point I'm trying to make, it's something they understood. They all had homes, they all understood the problems of the

guest house. They didn't understand all those big massive pipes up there, and no sound hardly, because it was all high pressure gas. Actually, unless you were in the compressor room it was quite quiet. We had it all colour coded. My wife and Bill's wife picked out the colours for the colour coding. We gave them a choice and the operators were, oh, bunch of fairies, you know, basically. Do you know, they painted them over in one building and within six months they'd gone back and colour coded them again.

DF: Why?

BF: You knew exactly what was in the line and you knew where they lines were going and when they were training people it was invaluable. And it looked attractive, when they painted the greys like Jumping Pound it was dull. Here is was bright and colourful. We had an architect, this is one thing you learn when you're building plants, the office administration area, we did not touch it. We hired an architect through Bechtel to design those. Because when you send back designs off offices and things, everybody's got ideas. That was the same with the guest house. So we had an architect and then when we got those we said, look, this guy, and it wasn't a big bunch of money compared to the rest of the plant but it was money well spent. He had brightly coloured colours on it and panels. It was really attractive. It was surprising. That part they really liked, it was in the buildings and yet they went back to it. So there were some really good ideas came out of it. Bechtel was a good contractor. Their people were really good. They had a guy, I can't remember his last name but he was 5'6" and his arms hung down to almost his ankles. A gorilla. Powerful man. About 60 but still. . .and he had built refineries all over the world, including in the Arab countries, where they had all kinds of stories of separating them. He had a picture of the hand cutting ceremony and all that kind of stuff that he loved to show to people to shock them I think it was. Walt was there and he was terrific. We had up to 1,500 people I think, working on that project at one time, trying to expedite it, from all over. And union guys who are hard to handle. They'd come up to give Walt a bad time, the union rep and there was no question, brains, but size mattered. Walt would just walk out there and if they were practical he'd give them all the time of day, but if they came up for a problem. One guy even challenged him and Walt said, well, I'm a little busy right now but if you give me an hour, where would you like to meet. That was the last we saw the guy. He was 60 but he was still a powerful man. But he was also smart, he knew how to . . . efficiency on those jobs. When you've got that many people. . .that's why in the tar sands they break them, big plants today they break them into smaller parts for efficiency. We got a new boss then, Reg Anderson. Reg had been the second-in-command at the Abadan refinery in Iran. It was one of the biggest in the world at that time. The top man had to be Iranian. So we got this guy because he was Canadian and he wanted his kids to go to a Canadian school. They had learned so many languages moving around with Reg that they were having problems. The psychiatrist said, get them to Canada, their own environment, in English. They've just got so many different languages and customs and things that they're having problems. They were bright kids. So we got this guy who was in a job that was multi-levels below where he'd been. But an interesting, interesting character. His wife had been a telegraph operator on a freighter and had time off down in the Phillippines and met Reg. She was a bigger character than Reg. But Reg came up and

he said, tell you what, we'll check the efficiency of the construction in Waterton. I said, what, how are you going to do that. Reg said, here's what we did overseas, if a guy was moving we counted him, if he wasn't moving we didn't count him. An average score is 50%, 60-70% is really good. That's just moving, it doesn't mean he's doing anything. Have you got time for this?

DF: Oh yes.

BF: Anyway, I get hold of the contractor and I said, hey, he's coming down and this is what he's going to do. Okay, we'll be ready for him. So we come out and we go through the plant and they've alerted their people. We come over to one of the biffies and the door's hanging out and this guy is sitting in there and he's reading a girlie magazine. So I mean, it's obvious 1,000 people have read it. So Reg looks in there and says, what are you doing. He said, I'm sitting in the can here. Reg said, no, no, what are you and he said, I operate one of the cherry pickers but there's no work for me right now and my boss told me to get lost. So we went back and we just hit 50%. So Reg said, you go talk to the contractor, I expect it to be better the next day. So I tell the contractor and he was just. . . gee, I talked to those guys so he went out and really got after them, his people, got after all these guys. So we go out and it's looking a lot better. We get over to the big incinerator tied to our sulphur stack and it's piled full of insulation and in the middle of this is this guy, same guy, lying down on the insulation with the same book, I swear he was on the same page. Reg looked at him and the guy said, hi. Reg was speechless so we went on but hey, we had about, it was between 65 and 75%, Reg was happy. So a lot of funny things happened. We had a guy on our inspection team which came from one of our refineries, Norm Selbstedt. He was a Canadian, born in Canada, who was in Germany with his parents when war was declared. Never saw his parents again. Ended up in the youth movement, German youth, in the army up in the front line. He said, they shot the first couple of guys who ran back from the line, you know, of their own, and said, now fight. He ended up, he left, he had been in the mechanized part of the German Army and had learned a lot. Smart guy and really helpful and he left Shell and took his family on a car down to the tip of South America and back. I never saw him again until they had this Jumping Pound opening. I'm out there with my wife and this guy comes over and grabs me and hugs me and I'm looking at him and saying who the heck are you and it turned out it was Norm Selbstedt. He was living down here in Cochrane. He ended up taking his family from there all through Europe, had quite a time. Came back, Shell wouldn't hire him again and I guess that's why I didn't see him. So some of these people who we worked with were quite interesting. Good people, they got them from all refineries everywhere. That plant started up well, we had great spirit among the guys down there. Pincher Creek itself, guys transfer from Montreal and their wives thought they were going to the end of the earth. Pincher Creek had a social life that almost wore them down. They loved it after they'd been there a year or two. Even a couple of them who were French-Canadian, most of them came from the Montreal refinery. Of course, there's a good sized French-Canadian community down there. It was a good spot. I spent most of my time in a motel, my wife and kids were here. But when we had time I'd take them down to Waterton for a week or two, otherwise I didn't see them. Until finally, after we'd gone

through the start-up, with all the LTF problems I came home with Bill Roman. We hadn't been home very much and this is a kind of final story for you if you've got time. I came home, saw Lil, got a change of clothes because I only had so much down there after a couple of weeks, and started down the stairs. My son, he was about 7 at the time, he was standing at the bottom of the stairs and he said, hi Dad, I said, hi Steve. He said, can I ask you a question. I said, sure. I can't speak like a 7 or 8 year old but. . . He said, do you have a good job Dad, I said, pardon me, he said, do you have a good job. I said, why are you asking that question. He said, well, is your job as good as Mr. Bailey's, Bill Bailey lives two doors down the street, geologist, his son plays with my son. I said, yes, I think it's as good as Bill, Bill was the head of some geological group for a company. He said, well, if your job is as good as Mr. Bailey's how come he spends a lot of time with Brian and you don't spend any time with me. Wow. That just stopped me dead. And my wife came around the corner and I said, you know, I'd like to hear the answer. I said, I don't have one but just a minute. I called Bill and I said, look, stay home for an hour or two and I tossed my son into the car and went out and get an ice cream cone. Things were kind of winding down. I think actually, we were through with the lawsuit but we still had a bunch of problems we were solving. So I went to my boss and I said, you know, I had an interesting talk with a very smart person the other day that's really affecting me and I don't know what to do. So I told him and I said, you know, the only answer I have is I'm either leaving Shell or I'm getting a different job. That ended up with me being shunted out of that into an operations capacity. Shell changed their set-up every two years because it didn't work. Every two years we changed people and it didn't work in two years so they changed it again. I'm exaggerating a bit but it's not far off. So in the new reorganization I was out of there and I ultimately ended up in natural gas marketing. But the more I thought about what he said, that was when we lost our little daughter and that's when I was ready to go. But that's what happens to your life, things like that really affect you. The scar is still there, as you can tell. But from there I went into marketing. Marketing was, in those days we had a contract with Alberta Southern and Trans Canada was your choice. We had one with the utilities who nobody wanted to sell anymore to because the price was too low. So we got looking at it and saying, why can't we market our gas ourselves, why do we have to market through one of those. So we, at that time, AGT, Alberta Gas Trunkline actually, AGTL, had become a common carrier basically. So what we started doing was making deals even if we sold it to one company, of delivering it from here and then we'd have our gas that we committed and then go a shorter route. So all kinds of opportunities opened up, the whole business started to change.

DF: About what time was this, what year?

BF: Gosh, you know. . .I would say it was in the 70's, late 70's. So we started to not only market our own gas, we started competing, even with Shell Oil in some of the U.S. markets. It became a very different business. Whereas before that, it was just more lawyers, it was contracts. . . The thing that also changed was some of the guys in the business before, I would meet with them and we would agree and then the lawyers would

draw it up. It changed where we would agree but you weren't sure what would come out of the lawyers and what would, even with Trans Canada, Fred Hulme was the guy we dealt with in Trans Canada Pipelines, was a lawyer but he was a guy we all trusted and his word was good. Which made a deal with Fred, that was it and it would be all drafted up and out it would come. If you were reasonable with Fred there were things other than price that were negotiable, other things maybe, little reserves that weren't economic that they'd take in and they'd become economic kind of. There were all kinds of deals you could work. But Fred, the day that a deal was made with Fred and his head office rejected it, Fred was gone. But that was the old style of doing business, your word was it. Yes, there had to be a contract, and yes, it had to be signed and executed but when you made an agreement that pretty well was it unless there were some excruciating circumstances. One of the stories I can tell you, one of the fellows from Esso, was always in our joint venture. . .my mind slips me. . . when he retired the vice-president from Canada Western Natural Gas, Don Weis, gave a talk at the retirement party. Don was in charge of all their gas purchasing, all that kind of thing. He told the story, he said, you know, when I first had been here a couple of years I was an ambitious guy, trying to make a name for myself and negotiated this contract and was kind of rough on Esso; because they had some pressure on Esso, I'm not sure what it was. Anyway he said, I got to work the next day and there was a little note from the Esso man saying, we still would like to have this but we're happy to keep it as it is but you should take a look at this part of the contract. He got a call back that day saying, you can have it, can we change that part of the contract. He had missed in the lines at the back something that would have allowed Esso basically, to get out of the contract with little or no reason. Some little legalize at the back end. But that's the way it was, you negotiated a hard deal but you didn't try to ruin a person. That wasn't what you were in business for, there was an agreement in industry that sure, you pushed each other. Even all the hearings, I was involved in all kinds of hearings in Ottawa, National Energy Board. I'd be cross-examined by a lawyer and you'd think he was after my soul but afterwards you'd go to the bar and you'd have a few drinks. There was a spirit in the industry, mostly, among the industry lawyers and the people working in the industry, not necessarily the civilian part of it, of the legal system and I don't want to get into that but there was this spirit of reasonableness, you're not there to hurt anybody, everybody's there to make a profit. They have to to be there and you want the competition. And you're not trying to make a fool of anybody. The guys that had been around a long time, there was a lot of it. And I was involved with the Canadian Petroleum Association, in the natural gas group. We had some of the top natural gas experts, from Esso and all that, were all part of that committee. We had a group that knew what was going on. What happened, the committee got quite large because a lot of companies were sending guys in there, they were getting trained actually, they were getting exposed to some of the best in the business. You would end up getting a lot of calls actually. I had to end up being careful or you would end up running a little university of your own because they would phone, oh, you know, about this thing at the meeting and then you end up in a training session basically. And that was good to a point. Where Herb Bagnall who, I told you, when we bought Canadian Oil, Herb ended up, because he

looked after the gas plants and a bunch of other things, working for me. Bad thing. Good man. No place to put him, a hierarchy in Shell that wasn't going to make room for him. Herb came and I said, look Herb, I should be working for you, I know it. But if you work for me I'll make it as good as I can make it and you don't have to be my friend but I think a lot of you and that's the way Herb and I were. I was the management, Herb was my right arm. But Herb was so knowledgeable, he'd be on the phone all day. Till I'd finally have to say, Herb, can we get a little of your time. But the industry was like that and Herb was like that. He was brought up in the early days like that from Turner Valley and there was a lot of that. That changed a lot. It changed, particularly when the industry had to start cost cutting and dropping people. Before that you were with a company, [Shell 50 tours]???, you know, we were all Shell people. Sure, we had a big life outside of Shell. Shell wasn't our social life or anything but we knew each other and we were actually still friends. The marketing business was really interesting. It grew and grew and grew. I ended up with 35 years with Shell and I didn't see any other challenge there. Had all kinds of offers for consulting, which I'd had for years, decided it was time for a change. So I went consulting. But the contacts I made. I left Shell in 1987 and I was involved in the Canadian Petroleum Association a lot in those later years and had some great contacts, just great people. Met, to me, some of the top people in the industry through that period and through our being witnesses for CPA or Shell on the National Energy Board hearings, out at the B.C. hearings. Some really great people. And you got to know them because you're in a hotel away from home for quite a while. Some just great people. And if there was anything I missed it was the people. I didn't miss the job. I missed the people. And I think that's true of a lot of people. The consulting I did, I got a call from one of our old geologists who said, we need a guy about 5'11" with freckles and all this type of stuff. So I went over for a couple of weeks and I ended up working for quite awhile and doing things that I knew about but really, you ended up, because you had grey hair and a lot of experience, that you knew more than they did in a lot of areas so you ended up covering the whole production scene. To a bunch of geologists, which is what happened. And made contacts for them, even got them out to B.C. where I knew that guy that ran the B.C. petroleum end of it. Put a couple of sessions on for them, what was going on there. It was a lot of fun except we go south. And I told them, I'm gone for 2-2 ½ months, I'm not around and I'm not taking anything with me. They were bought out while I was gone, which was a fortunate thing. Because the other thing I got into was arbitration work, gas price arbitration, both as an arbitrator and as a witness. And I loved it because I was dealing with industry wide things that had a big effect on the industry. We set price standards. What you found was a lot. . .and some of the arbitrators I was with were people from the National Energy Board that I'd known and from the Energy Resources Conservation Board, just great people. I was more the industry expert if you would, from the technical standpoint. You often got into cases where someone in the company said, this is what we want and he went right up through the company, got approval, then went out to arbitrate. Hired the lawyers through the lawyers fund and then went to get the experts. One of the companies, which is now one of the largest in Alberta, but at the time was Alberta Energy, because I'd been doing some of this I got called over to the meeting

and that's what had happened. They had set the target and . . . I was fortunate, I had a Shell pension so I didn't care whether I did it or not and I wasn't going to do it unless it felt right and I agreed with it. So I ended up telling him that you know, I would feel a lot more comfortable on the other side but because I've heard what you said and I know the other side real well and if they come to me I'm going to have to say no. But I'd feel real comfortable, I said, you're off base, your budget. . .I think they had a budget of something like $150,000, I said, $400,000 and I bet you they'll stimey you because you're so far off in what you're trying to get. And that's exactly, I'm not trying to be the master, I'd been around long enough. They were so far off but they'd sold it in their company. And one of the guys came back later and said, well, I guess we should have listened. And it got dragged on for years by the lawyers, they made lots of money and you've heard that story. They were happy to keep it going. It finally did get resolved. Another one where I got called, they said, we'll hold off the arbitration till you get back. Another major producer. But we want you to prepare. As an arbitrator you were supposed to be unbiased. These are three men arbitration things so it always ended up where, if you weren't the head arbitrator you were. . . you had to be unbiased, you ended up representing one part of the industry basically. So they sent me down and my phone was ringing, it drove me crazy. As soon as I got the stuff down south I read it and I immediately phoned them back and I said, settle. You're way off. And he said, but I've told him, I said, settle. I happened to know this guy's boss, his boss's boss, I knew the whole hierarchy in this company and I said, you know, I don't feel comfortable and when I witness I tell them what I think it should be, I don't tell them what you think it should be or they think it should be. Because I've got a reputation I tell them where I think it's going to be. And I can't support where you are. I can support something closer to where I maybe think it is because there is a grey zone. There's always a grey zone, I can go to the upper grey zone. But I said, boy, it's going to cost you more money to arbitrate than you're going to make off that contract. Oh no. . . So we rushed back 2 days before we were supposed to, they settled the day I got back.

DF: Oh no.

End of tape

Tape 2 Side 2

BF: The reason I mention that is, in the industry there were a lot of people who had expectations of grandeur if you would. They expected a lot more of the system than they got and they had no idea, they felt arbitration, you go in there a few days and it's over. One of the arbitrations I was involved in went, by the time the lawyers, even though it's there so the lawyers, you know, our legal part is minimized, we were challenged on just about everything that happened, it ended up 3 or 4 weeks, no it was more than that, 4 ½ weeks before we were through in arbitration. You can imagine the costs. Just lawyers, I mean, there wasn't just one on each side. I can't remember the name of our arbitrator, but one of the best men I've ever seen would not take a lawyer. Both sides are saying, you've got to have a lawyer. This fellow said, and I admire him to this day, I've been running

hearings most of my life, I know how to run a hearing, I know how to run an arbitration, if you want to take this off into the courts you go but we're not going to have it. You know, the court system here, this was in arbitration. Gosh, the work for the guy, really top notch, there are huge amounts of money involved, huge amounts of money. I mean they're mind boggling if you let them get to you. But you had to look at it . . .I really enjoyed them, I'd almost pay to be an arbitrator. It was fun listening to all the experts and what they were saying and that was my business. And the pay was good too. The problem was that a lot of arbitrations didn't go, they settled them. And that was good. The problem I had was a lot were settled because I told them what I thought. Some of them I did a bunch of work on before they settled them and I guess I wasn't very smart because I didn't charge them for the. I didn't charge them for the hearing. But that soon changed. The contracts all became up to a certain point which was set by the U.S. market basically, and the contracts become more sophisticated and arbitration kind of disappeared. But there was a whole round of them going on at that time. It was a lot of fun. I consulted till 1990. By that time companies were in their second or third round of cutting people. At that time the industry was cutting back. It needed the first couple I think. I think Shell went from about 5 levels of management down to about 2 or 3, the bottom one was the working. . . It had to happen. But the cutting started in to good people. People who had been around a long time but weren't high on the. . . there was a lot of things like that. And when you got into consulting work, instead of some of it being to improve things, engineering challenge, money was always a big problem. The industry itself had lost a lot of its colour, lost a lot of its more interesting part of it. I found consulting that there was constant worry, more worry about the cost and how things were done, more worry from the people you were dealing with and it wasn't fun anymore. So I quit. I guess I should be honest. That was one of the reasons. The other reason was, the money I earned went on top of my pension, the government took half of it. I had an engineering office which. . .Lil and I travelled quite a bit and I was away a lot but that took a quarter of it and the other quarter I spent travelling around. So I finally figured, if it isn't fun, I don't need it. But I still miss the people. I missed the people, but I didn't miss, at the end, the politics and the loss of the fraternity, the brotherhood, all those good things that went with it. But I still have lunch with people from the industry. Some who are still there, some who retired a long time ago when I did. So I get to the Pete Club and a few places. I guess my last word is, I was there for the best years, to me, of the industry. They were fun years, we were growing, we were challenged, the attitude of the industry was good, the companies, they looked after their people. A lot of the problems today of people. . . were so much bigger in those days, there were men, women, no psychiatrists, you know, you did your job, you got paid, you didn't. Alcoholism was probably the worst thing we faced. The industry changed so much that I'm very thankful that I was there when I was and I'm very thankful that I left when I did.

DF: Any regrets?

BF: No, none.

DF: Any projects you wished you could have done? It sounds like you were plenty busy.

BF: No. I'm really thankful. Of course, ??? but I look around and I had a good life, good years

and have got a great wife, great kids. I enjoyed all my years really, in the industry. I had some good and bad but most of them were good.

DF: Tell us about your wife, what's her name?

BF: Lil. Lillian.

DF: How did you meet?

BF: We met in Shell actually. I had seen her around the offices but I was in engineering, I was out of town a lot. But I belonged to the bowling league and I actually, not trying to brag, trying to put it into perspective, I had the high bowling average and all that kind of stuff. I really enjoyed it and it was fun. Bowling against a team and this girl said, think you're a pretty good bowler huh, and I said, no, I enjoy it. I looked over, she was a very average bowler. We started talking, kibitzing, she said, I'll tell you what, there were three games, if you beat me in this last game I'll cook a meal for you. If I beat you you've got to take me out. I thought, gee, because I really didn't know her that well, she was an attractive girl, a Saskatchewan farm girl, I must have said something that I can't remember that caused that because I can't remember much about the night other than I lost. I think I barely made it over 100. So I ended up taking her out for a meal and a year later we were married. That was the best move I ever made. That was a most humiliating defeat but the best thing that ever happened to me.

DF: The Shell Waterton construction period, that went on for some months didn't it?

BF: Oh.

DF: A couple of years?

BF: Actually. . . the construction, we started to sell gas through the amine part of the plant, without the LTF, about a year after we broke ground. But the project started long before we broke ground because there's all the design and ordering of all long delivery materials. Some of the huge vessels and compressors had long term deliveries. It started up in 1961 was it, and I think we put some of the first gas through in '61, I think it was New Year's or something of '61. We had the whole plant running, probably a year and a half after that, up to capacity. The sulphur plant, most of the design, we didn't get our Parsons engineer, like I told you, we ended up with a guy named Joe Geik, who came from a small contractor who had been around one small sulphur plant. So I ended up, most of that design came from me, which came from a bunch of gas we'd done on Parsons and Fluor plants at Jumping Pound. Plus some theoretical work that Shell Development did for me on the type of mixes, which is one thing I did get from them to help me. The beauty of it, Joe was prepared to do anything almost, to make it work, because it was his reputation. The only thing we couldn't do was, instead of three big furnaces, we were afraid of the mechanical end of it so we had six, three pairs. But it did work. We ultimately scrapped the LTF plant and went to a Diethylolamine it wasn't DEA but it was Diethylolamine type and the LTF was shut down. One of the reasons was, the government kept increasing the pollution standards. Finally we just, when we were way up there, we finally had to get rid of it because of the carbon products that were going over put a limit on the top efficiency we could get. Then we ended up putting a special plant on the tail end designed by the crew that took the tail gases, very dilute, and did the final testing. But

that was done after. No, that was done while I was in marketing I guess.

DF: Because you have a sense of perspective on the sour gas industry in Alberta, what do you make of the concern over the years over the environmental end of things and how the industry has responded to that?

BF: I think the industry has responded well in general, some better than others. I think the pressure on them was also good. We would get new people on both sides and in the end, the educational process was good. But the pressure on the industry to create new clean-up processes was a good thing in spite of all the complaining we in the industry did. It actually gave the engineering design people the authority to go ahead and clean it up, which we probably might not have got from our financial people because it didn't make financial sense. So I think the combination was good. Industry has been very good at meeting that, particularly in the plants where the economics were good. And where the economics weren't good were usually quite small plants with very small volumes anyway. That's where the struggle always was. Shell, because of economics, and Esso, to a large extent, didn't get into the very small plants because the overheard was too high. So we were able to, in pretty well all of our plants, in fact, all that I know of, to clean up in the gas plants. I can't talk about the sour oil but a lot of that was done too. We didn't have a lot of oil, most was heavy oil in Saskatchewan. Some of the smaller plants with some of the smaller companies, I really don't know a lot about it but I know it was more difficult for them and more difficult for the government to force them to do it. Because they just didn't have the resources either. But even there, ultimately the government could get them or shut them down. All I'm saying, in industry we tried to anticipate it and be there when these changes were made. Sometimes in the very smaller areas I think the pressure would be done quite late and maybe Shell and the big companies tend to spend a lot more money on some of the refinements and liability maybe. Which is why we paid more for our plants than they did. And we did, we paid a premium for everything we did because of the standards we had.

DF: Good.

BF: Well, in the early days it wasn't good because some of them were not a safety thing, they were people putting in things to protect their butt. But we ended up doing a lot of those things for safety and environmental which were good. That's where I guess I'm trying to say . . . and the industry changed from arbitrary standards that we got from refineries to where they developed out here to meet our environmental and safety needs with sour gas, which are much tougher than some of the refineries had, just dealing with sour oil.

DF: Well, at this point I'd like to thank you very much on behalf of the Petroleum Industry Oral History Project for spending this time with us this afternoon. I've really enjoyed it as well. We'll end the formal part of the interview at this time. Thank you very much.

BF: Thank you.