PETROLEUM INDUSTRY ORAL HISTORY PROJECT
TRANSCRIPT

INTERVIEWEE: Lloyd Stafford

INTERVIEWER: Betty Cooper

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BC: This is Betty Cooper. I'm interviewing Mr. D. Lloyd Stafford at 527 - 49th Ave. S.W. in Calgary and it's July 20th, 1982. Mr. Stafford, before we get into your career in the oil business I'd like to go right back and get a little background on you, where you were born, your family, some of that. In fact, I think we'll find that your oil career started about the time you were born. Would you tell me where you were born and when?

LS: I was born in Lacombe, Alberta.

BC: And the date?

LS: July 8th, 1905.

BC: Your family has been involved with oil for 4 generations, counting your son I believe. When did you move from Lacombe?

LS: We actually moved from Lacombe in 1905 and we went to Waterton Lakes out at Pincher Creek.

BC: Why did you move down there?

LS: My father was working in the drilling business there before 1905, in 1903 when he came west. We homesteaded in Lacombe and we lived in Lacombe out on, oh, what's the name of that lake there, west of Lacombe.

BC: Not Gull?

LS: Gull Lake. I was born there in a cabin on the edge of Gull Lake where they homesteaded.

BC: Your grandfather I believe, also was in the oil business, was he not? Where was that?

LS: Yes, he was out in the Waterton Lakes with my dad. He came from, they both came from Ontario, in Chatham.

BC: Had they been involved in oil in Ontario?

LS: Yes. My father worked several years in the Ontario oilfields. When they came west, they came west with some of the drilling equipment that they brought from Ontario to put into this Waterton Lakes area.

BC: Your grandfather actually came out to work in the Waterton Lakes area?

LS: Yes. He's shown in that picture there, he and my dad, and myself in the bathtub.

BC: Right. We'll go through your album in a minute Mr. Stafford. I'd like to just sort of set the family down. There's yourself, and were you an only child?

LS: No, I was one of seven. I was the second oldest, I had a sister older than me. She has passed away.

BC: And the rest of the family?

LS: The rest of the family, there's just the one passed away, one sister, Winnie. The rest are all living here in Alberta and British Columbia.

#042 BC: And their names are?

LS: Would you like the names of them?
BC: Yes, I'd just like to get it all down, thank you.
LS: My second sister is Mrs. Lloyd McCallum and they're living here in Calgary. May was the oldest one. Then I have a brother, Bert, who still lives in Pincher Creek. The next sister, Winnie, she has passed away. Maude, she's a widow living in Lethbridge. Katey is the youngest sister and she lives in Victoria.
BC: Was your brother also involved in oil, he's down in Pincher Creek now, or did he go farming?
LS: No, he went farming. He farmed the old farm that we had for several years. Then he left the farming and worked for the municipal district down there so he's retired.
BC: Maybe we could look at the book that you have there, your photo album, which has some very interesting pictures in it. Perhaps going through them, I know that some of them were taken when you were just a baby, or before indeed, you were born but I think it would be very interesting to just put them on the record and it'll show the involvement of your family. The first picture that I think you showed me was one with your father and Kootenay Brown. Or perhaps not, we can start right here with the cabin. Where was that cabin, it's a log cabin and that's where you lived?
LS: This was the Western Oil camp in 1906. This camp was just at the foot of the Cameron Falls in Waterton Lakes. In the picture here there's a man by the name of Pedro and this is my mother and this is my oldest sister, May. This is my father and this is his father. They have a porcupine there. This man is Bill Aldridge??? and there's an Aldridge now in Cardston that's quite interested in a lot of this old time stuff and this is his father.
BC: And here is a tent. Now you had a cabin and you also had tents for living in?
LS: This is a picture of Winnie Shannon. They ran a halfway house in the Twin Butte area. Her father was instrumental in working in these areas at that time.

#082 BC: This shows a picture of a very early oil well, 1903. Where would that be, it's in the Waterton Lakes, whereabouts was that well drilling?
LS: This was drilling on the shore of Waterton Lakes, where the chalets and building are, and the town of Waterton Lakes is today.
BC: Was it successful?
LS: No. I remember for many years after there was just a big piece of casing stuck up out of the ground here when the well had been abandoned.
BC: Now this well here, in the next picture, it says the first oil well in Alberta to produce 50 barrels per day, drilled in 1905. Whereabouts was that?
LS: This was drilled up on the Akamina??? Highway.
BC: That would be near Pincher Creek?
LS: In the Waterton Lakes area. There's a new cairn that they put up there that marks this location.
BC: What was the name of the oil company that your father and your grandfather worked with?
LS: That would be in this folder here. Rocky Mountain Developments.
BC: And was Kootenay Brown involved in the Rocky Mountain Development Co. too?

LS: No. In a way he was more or less involved in the park, the operations, as a ranger in the park area there. This is the same oil camp, Western Oil camp on Pass Creek. Pass Creek was up where this rig was here I guess. That's my oldest sister May and this is our grandfather which is my dad's father and I'm in the bathtub.
BC: So you got in the oil business very early.
LS: 1906 so I guess I got in the oil business very early.
BC: You're certainly right out into the oil patch.
LS: This is the same picture as this other rig again, that's back there on the shores of Waterton Lakes. This is where the chalets are today. This was taken about 1903, the same as the other one.
BC: And here is a group. . .
LS: This is a group in here of Major James, of the RCMP, I guess you'd call him RCMP in those days, and this is the original Kootenay Brown and this is a fellow by the name of Wimmit???. I don't know too much of him, he was in there with the rangers I think, more or less connected with Kootenay Brown. This picture was taken on the shores of Waterton Lakes where the first hotel was built. It's my dad, George Stafford and Dave Plumberton that worked out there.

#126 BC: They're taking time off from oil drilling to plant potatoes.
LS: Planting potatoes.
BC: Was that homesteaded property there or was it park by that time?
LS: I don't know as it was. . .it was actually in the park but I don't think it was set up as a park then until a little later on. This picture here is the camp and they had a couple of little cub bears chained up. This man, Pedro appeared in that picture back there.
BC: Yes, right. So this is really now, we're getting into more the family pictures I guess.
LS: This is more of the family pictures, this is my dad and mother and this is the Major James that we talked about back in one of the further pictures.
BC: Right. How long were you in the Waterton Lakes area, how long did you live there?
LS: I don't think. . .
Wife?: 1926.
LS: NO, we didn't live in Waterton Lakes, we moved back into Pincher Creek. I'd say probably about 1907 or '08.
BC: Why did you leave, did your father move the drilling to another place?
LS: The drilling in those days went back and forward. Like, the financing was small and sometimes they'd shut down until they'd get a bit more money. Then it was more or less operated from Pincher Creek for the office staff and office work.
BC: So you went to school in Pincher Creek then?
LS: I went to school in Pincher Creek.
BC: How far in school did you go in Pincher Creek, did you do all your schooling there?
LS: Yes, I only went to grade 12.
BC: And you went to the high school right in Pincher Creek?
LS: Yes.
BC: And when did you graduate, do you remember when you graduated from high school? It

would be about 1920 I guess.

LS: About 1919 or '20, yes, 1920 I'd say.

BC: Then you went right into the oil business did you, yourself or not?

LS: No, we were farming there and I stayed on the farm till . . .well, we had 2 drilling machines, water well drilling machines they called them in those days. They were East Stone spreading??? machines, we called them and my dad drilled a lot of water wells around Cardston, Pincher Creek and all through those areas.

BC: So his drilling company was drilling water wells as well as doing some oil exploration?

LS: Yes, that's right.

BC: And did you work on those wells?

LS: I used to, when I was out of school I used to go out with him a lot on those rigs.

BC: What was the drilling rig in those days like, that you used?

LS: It was more or less of a small mast, it's a 2 legged. . . they called the spreading machines, they just spread them up and down, cable tool style. It was really a replica of the Ontario days ???.

#176 BC: And what would be at the bottom of this pole that went up and down, would it just be pounding into the earth?

LS: Yes. In those days they were all run on cable, the ones that came from Ontario were what they called pole ??? rigs, they drilled with hard wood poles. They were put together a lot like the rotary system of today only they just pounded them up and down, they just turned them by hand a little bit to keep the pole round.

BC: How far could you go down, how deep a water well would you drill with one of those?

LS: They could drill those wells down with the one machine they had, the bigger machine, 15, 16 hundred feet. But there was no need, the water was all shallower than that. In fact there was some pole ??? rigs run in Waterton Lakes out there.

BC: In looking for oil?

LS: In looking for oil.

BC: How deep would they go in Waterton Lakes looking?

LS: That production they had in Waterton Lakes that was ??? was around, between 1,000 and 1,200'.

BC: So you really started your drilling career drilling water wells?

LS: Right.

BC: Then when did you move off the farm and go into the oil patch permanently?

LS: I left the farm and I worked around Pincher Creek in . . . 1923 we were up around Nanton weren't we, working on farms. That was the year, June 22nd, that we decided to go to Turner Valley.

BC: June 22nd, 1923?

LS: Right. No, 1926.

BC: 1926. What made you decide to go to Turner Valley?

LS: I'd always had a kind of feeling that I wanted to work in the oil industry. Turner Valley started their boom then.

BC: This was the second boom wasn't it?

LS: This was the second, 1914 was the discovery well. We decided to go to Turner Valley and we worked on the cable tool rigs. There was Lloyd McCallum, that was my brother-in-law and myself, we went at the same time. We started firing boilers, we were both steam engineers.
BC: Had you studied to be steam engineers or in those days, could you just be one?
LS: You could just be one but you had to have a certain amount of experience and training for it and those were the days when we were running the old steam engines for farming.

#221 BC: Right. So that you had lots of experience?
LS: We had steam engines.
BC: Was your father still in the oil drilling business at this time?
LS: Yes.
Wife: No.
LS: Well, yes he was, he worked in the Peace River country in 1923, he drilled a well, which there is a picture of.
BC: But you didn't go with your father's outfit, you started out on your own?
LS: No, no. So we started in Turner Valley. . .
BC: And who did you work for?
LS: We worked for Clarence Snyder, Snyder Brothers were contracting then and we worked for them. Our first job was on the old Vulcan well.
BC: Whereabouts was that in Turner Valley?
LS: It was in the north end in those days. I don't know that I couldn't tell you just the markings of the land. The Spooner and the Vulcan were together.
BC: Tell me about drilling that one, do you remember it? Your first one up there?
LS: The first one we worked on was the Vulcan well. The Vulcan well was drilling, had been drilling, it Was near completion and we just worked on it a short time and went to the new Black Diamond, which was up the river. We fired the boilers there and then I was set up as tool dresser.
BC: And what does a tool dresser, just to get it on the record, what was a tool dresser in those days?
LS: The one that, he's assistant to the driller. You dress the bits out, they're all done up in the forge and hammered out on the end and shaped out for, to keep the sides of the hole out to. . .
BC: So how long did you work in that, as the assistant?
LS: That particular well we shut down for funds so we went back over and they started the Spooner #1 well. We went to work on that. I was dressing tools and I was using my steam engine certificates for the boiler. The boy that was working on the boiler was getting experience so he could write his. . .but I was covering him.
BC: So you were doing 2 jobs?
LS: I was really responsible for the two.
BC: What was it like working in Turner Valley in those days? Where did you live?
LS: We had a camp. That was in 1926 and '27, we had the camp and there was a camp between the 2 companies there, the Vulcan and the Spooner. I decided when the. . .

BC: Were you in houses or tents?
LS: No, we had a camp, we stayed in bunkhouses. It was there that we started building up for ourselves. I was married in 1928 and we built a little house right on the lease and my sister and her husband already had one up there. So there was just the small community started up there, some of the boys that were married and starting out in life.
BC: You had a little settlement there.
LS: Little settlement, community of our own.

#291 BC: That would be right on the lease of the Spooner well would it be?
LS: Yes, it was. From then on we started moving along, as we moved from one place to another, we moved the little cabin along with it.
BC: How would you move the cabin, would you just roll it, how would you move it?
LS: We just put them up on ??? wagons, pulled them with the caterpillar tractors. These wagons were a big flat wagon for hauling heavy equipment. We'd just jack up the cabin and back in under it and set them down on the wagon and take off.
BC: The first mobile trailers.
LS: Right. We probably lived there on the Spooner lease till 1933 before we moved it the first time. By that time we had drilled the Spooner #1, Spooner #2 and Vulcan #2. They were all successful.
BC: That would be most encouraging.
LS: Yes.
BC: How deep did you drill?
LS: Those wells were around 7,000, 7,500.
BC: And what kind of drilling equipment were you using?
LS: Those were drilled with cable tools and finished in the limestone with diamond drill. That was more or less coming back to the rotary type.
BC: This really preceded the real rotary drill though, did it not?
LS: Yes.
BC: But you used diamond drills when you got down into the hard stuff?
LS: That's right, in the producing zone. Pressures were quite high. Although the old Vulcan well had been drilled with a cable tool then to the limestone, well, the tools were lost in the hole different times and fished out. Finally ended up leaving them in, the gas got too. .
BC: So what would happen, you'd just have to get new tools and drill around it?
LS: No, they just left them in there, produced ???.
BC: That was quite a feat wasn't it, having to fish out anything that was left in there.
LS: Yes.
BC: Can you remember any experience where you had to do that?
LS: Yes. In fact, after we were drilling the hole done??? with cable tools it was a common occurrence for them to blow up in the hole and get stuck in there till we had more modern equipment and more modern ways of . . .

#346 BC: How would you try to get them out, can you think of a particular well where you

were having this problem of trying to dig them out?

LS: Sometimes we'd have to cut the line off a little, the drilling line. Sometimes we could fish the drilling line and the tools out with a spear. That's what we . . .it would wrap up in the line and you'd get the whole works out then sometimes you'd have to . . .well, we called it in those days, sput around the top and make a connection with a socket and fishing tools on top to jar them out.

BC: What does sput around the top mean, to the non-oil patch person?

LS: ??? we called washing over. You just had a tool about half round and the tool just drilled around and around it till you got down far enough to get the hole big enough to. . .

BC: To them clamp it and pull it out.

LS: Clamp it on the. . .

BC: How big would the hole be that you were drilling with that equipment?

LS: The production strings that were put in the hole, casings were probably 6 5/8 casings so your hole would be about 6 1/4". The next size down on that would be about 4 1/4.

BC: So that's a pretty small hole to try and fish something out of.

LS: Yes. The cable tool system was, you started with a large hole. . .

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Tape 1 Side 2

LS: . . .business was just what you could get and that was. . .it was like the other system, it wasn't the best of cement, it was probably just construction cement. And we didn't have cement shots or anything, we just sort of mixed it in a tub on the floor and we poured it down the inside and then picked the pipe up and set it down, that was again, from the bottom. So cement jobs were very poor and ??? very high.

BC: Did this cause problems?

LS: Not so much in the cable tool days because it seemed like the bottom was always cemented. If you cut a hole in the pipe from the line wearing up and down or something, then you had a problem if there was anything cased off behind this thing, like water. Then they had packers and one thing and another to put on the bottom of pipe and pack it in and drive pipe into it.

BC: Was the cable drilling much slower than the rotary drilling that came after?

LS: It was very slow in those days. You would probably complete a well in 12-16 months.

BC: And how deep would that well be?

LS: Those wells would run around 7,000-7,500.

BC: And what would you do with a rotary drill, how long would it take to do the same drilling?

LS: The rotaries didn't come in until 1929 or so when the first rotaries came in. But we used to be able to drill with cable tools when the cable tools were boosted up to where good time was made, you could drill a well in probably 6 months before they started with rotaries. Then they ran combination deals for awhile, drill to about 3,500-3,600 with the cable tools, set casing and then put the rotary in, drill down to the limestone and either put back cable tools or go to diamond drilling or something for the limestone.

BC: So it was quite a combination, it was quite an art to drilling the well.
LS: It was one of those combination deals. There were not too many combination men in the first days, we more or less started them like that. Then when we went to the straight rotaries, we were able to run both ways. Like I say, sometimes they'd drill those wells then with cable tools, well, we could go back and run the cable tools in them.
BC: You'd have been pretty busy then, because you were one of the few people that knew the variety of ways to drill.
LS: Well, we used to do a lot of changing around, we'll put it that way, from the cable tools to . . .
BC: Did you in all this time Mr. Stafford, did you have, was it your own drilling company or were you working for a company?
LS: No, we were working for a company.
BC: And what was the name of some of the companies you worked with?
LS: New Breck??? Diamonds, Vulcan Oils, Spooner Oils and then on up, like United Oils.
BC: Now you and your brother-in-law Lloyd McCallum, you worked as a team throughout this time?
LS: There was times when we were a team yes, in the cable tool drilling. The working hours in those days was 12 hours, so 2 shifts with 2 crews. Then when they changed over to 3, it relieved the labour situation considerable.

#048 BC: Working 12 hours must have been pretty arduous out in the oil patch.
LS: It was but in those days, you had to work to live so. . .
BC: You're talking now about the early Depression years, in the early 30's.
LS: So you didn't say too much about the hours, labour and so on. Till things began to pick up a bit.
BC: You worked in Turner Valley before the Depression, and then, as the Depression hit. Could you talk a little about that time and the changes that came into the oil patch. Like prior to '29 it was, I presume, pretty active?
LS: There was a lot of, I don't know just how many but there were quite a few cable tool rigs running before the Depression really hit. Then of course, there was just another series of times when finances got low. In those days we probably only got half of our pay.
BC: This was after '29?
LS: No, before '29. For a lot of time there we got half pay and half out of production, if we got any production. So if we didn't get any production we didn't get the balance of our wages. Then if they were drilling them on a royalty basis so they gave us royalties for part of our pay, why, we got paid after the well was on production or if the finances were straight enough well then they'd take back our royalties, bought it back for a certain price. We made you might say, a fair living. In fact, in the rough times, if we hadn't had a little royalty coming in and one thing and another, we'd have found it very hard, or very tight living in what we called the 30's.
BC: Was this the general practice, for people who were working on the drilling crews, they would get half wages and then the rest was deferred until production, or just people at a certain level?

LS: Most of the people that were working on the wells.
BC: Can you remember what your salary was, or your wages were, was it an hourly wage?
LS: Would you get that book up there please, on the shelf. No, it was just so much I made per shift. Our wages as drillers on the cable tools were around the $12 mark.
BC: $12 a shift.
LS: Yes.
BC: Sort of a dollar an hour.
LS: Yes, you could say $1 an hour. Those were . . .
BC: This is an account book is it? 1931. You can see here, now this is the account of the drilling company?
LS: No.
BC: This is your own personal accounts?
LS: This is our own personal account of the way we got paid from some of these different companies. These were some of the outfits then, that we were working for, ??? Richfield and then contractors Snyder and Head, and then the wages came in and the royalty. . .
BC: So once a year you were paid the royalty would you?
LS: No, you could be paid that, mostly paid it once a month, after the royalties were in.

#099 BC: So it looks like you were doing not too badly in those days?
LS: Like this you see, when I worked for Model Oil.
BC: Model Oil, right. You got $6 a day and $6 production.
LS: So these were the wages per day.
BC: And it looked like in the month of September you worked 30 days. You didn't have any days off.
LS: No, there was no days off then and you were glad to keep working.
BC: Did you ever have trouble during those days Mr. Stafford, in keeping working or were you pretty steadily employed.
LS: We were pretty steadily employed but we did everything. Like if there was no drilling we backed up and did pipeline work or production work, like watching the separator or producing oil out of the well, one or the other. So we tried to keep busy most all times, so we went from this one to that one, around. Of course, that was the general trend in those days. Maybe somebody would run out of money and they'd have to wait awhile before they'd get some more money, somebody else could go ahead and do a month's work.
BC: Your experience before, your years of experience would put you really, at the top of the list of experienced people so you would probably get hired more quickly than others?
LS: That seemed to be the trend yes. Whenever there was anybody idle and somebody wanted to do something, then they'd up the crews and you'd work for . . .
BC: And you'd usually get first call would you?
LS: As a rule we did, yes.
BC: I remember someone saying to me that during the Depression days and perhaps you could verify this, that because of the tight times, the people who were very skilled, as you mentioned you were doing just about anything, the roustabouts, a lot of those were former drillers. Am I correct in that?

LS: Yes. That's right. And there would be times when one rig was running and there would probably be tool pushers and drillers and the crews would be all made up from the top to. . it seemed like they tried to keep working and . . .

BC: But they would all be top people, so that you would have someone who had been a driller, was quite happy to just move the pipe about.

LS: That's right. We worked for one another.

BC: Can you recall some of the people that you worked with in those days, some of your fellow workers? Perhaps we could make a note of that and maybe we could go back. Give you a chance to kind of look up some names, some of the people who were active in Turner Valley in the time you were.

LS: Yes, we could do that. In fact, I have some pictures here that we can get sorted out that will show where we all worked together.

BC: Great, that would be splendid, so that we can have an idea of who was there. I'll make a note of that and we'll go back and do that, perhaps another day. Because I think it is, most of those people will be somewhere in the oil patch, probably still today, or until very recently like yourself.

LS: Yes, there are some of them. A lot of them have passed away. But we could name quite a few of them.

BC: One gentleman was telling me, when I was talking to him, that when you go round to the drilling rigs today, out on the North Sea, you'll often find old Turner Valley drillers, who only come in at very special times to help out when it gets very tight, at very crucial points. Because you're all so experienced. Have you done any of that sort of work?

LS: I never went offshore but I have done a lot of that work. though.

#160 BC: Perhaps you might be able to think of some of the people who have, I think it would be most interesting. Because the background that you got in Turner Valley, if it hadn't been for the Turner Valley experience you wouldn't have had the expertise after Leduc, or during Leduc. When you were in Turner Valley, how long did you work in the Turner Valley field.

LS: We were in Turner Valley about 22 years.

BC: That would be up until what time then?

LS: 21 year, 1947.

BC: So you were there during the war years too?

LS: Yes.

BC: We've mentioned a bit about the Depression years, can you think of any other things about the Depression years in Turner Valley that we should perhaps talk about? Work did continue there all the time didn't it, to a small degree?

LS: In what we call the Dirty 30's, there was a time when we only had one rig running, it was the old HiLo Oils. That was in the . . .

BC: And were you working on that rig?

LS: I happened to be drilling on that particular rig.

BC: So you'd be one of the very fortunate ones that had a job.

LS: I don't know just how to put it. There was Lloyd McCallum and a guy by the name of Jim

Dobey and there was a drill by the name of Gregor worked pretty steady on that well. But we were taking production from the lower sand that we'd drilled through, the Home sand we called it. We were getting enough production out of that that we'd shut one shift of drilling down and swab the production out of the well. That carried the financing for most of the drilling of the well, till we run casing in to the lower sands to . . .

#200 BC: Was this an unusual practice?

LS: It was an unusual practice yes. It had been an old well that they had tried to drill before. We called it the No Jack well because when we were going to take over it, the finances were hard to get and the people that were financing it were trying to sell a few royalties in it and pick up a few dollars to keep suppliers along. We had to do a lot of juggling with supplies and casing and one thing and another. We cut a lot of casing that was in the hole. Like I say, the cable tool always had a lot of old casing in it and this was a time when we were talking about funnelling the pipe. We'd cut a string of casing off and salvage as much of the string as we could and then funnel it out inside and drill inside until we run another string of it. Most of that casing would be sold or something to keep the finances going to completion. We finally completed the hole. It made quite a bit of production, royalties paid off. It was one of the first holes I guess, that came in under the Conservation Board, when the Conservation Board first started. Things weren't just tight enough to stand the pressures so they had to produce what was coming from the well a little bit more than usual after the Conservation Board took over.

BC: I'd like to talk a bit about the Conservation Board and the reason that they were established and what changes it made in the oil? Could you comment on that?

LS: In the earlier days, up until that time there was no Conservation. That came in about 1932. So they were producing those wells full capacity to try and get as much money out of them as they could, to finance further drilling or. . . Which accounts for all the burn up that they talk about, or the loss of gas that was burnt up in the Turner Valley days, in the early days. Because the gas-oil ratio was very high in most of those wells and the Conservation Board, that was cutting down to conserve gas and save most of the byproducts and stuff that came up. The talk is now about, we've got lots of gas but there's talk about burning up the gas and the waste in those early days was tremendous. Science and one thing and another have brought out a lot of byproducts that were destroyed.

#253 BC: They just burned everything off didn't they?

LS: Everything was burned off.

BC: And that would affect the production of the well itself, of course. So what difference did it make when this came in as far as your part of the business was concerned, as a driller? What things did you have to do, what precautions did you have to take which perhaps, had not been taken before?

LS: It improved conditions and the operations of the drilling of the well. Like cement jobs to withstand hole pressures and shut in wells that weren't cemented properly. The old ways of doing things had to be improved, different methods used to control those pressures.

BC: So it would set up quite a lot of development then, in better cement making etc.?

LS: That's right, better cement jobs, and we had better methods of cementing.
BC: Such as, what would you do that was different?
LS: Cement trucks and better grades of cement and so on and so forth. It did away with the old ways of cementing by hand, which wasn't . . . The first trucks that come in were I think, Haliburton. So then he brought it the first truck, an old steam truck. That was about 1933 or '34 before we were able to quit cementing by hand as we called it. Mixing batches on the floor, mixing them on the surface and pump down, through the pipe and up the outside. So you got up to cover different ???, and something solid to hold the pressures. When the Conservation Board started, then the well was produced on different pressure. So much gas was let loose for the amount of oil that was coming.

#294 BC: So certainly, as a driller, there was a continuous continuing education, that you had to keep improving your skills.
LS: Well, they used to say in those days, if you wanted to learn you could be learning all the time and there was nothing, no matter how much you knew, there was always something new coming up.
BC: When you look at those times was there anyone in particular that you learned quite a lot from, that was working in the oil patch at that time?
LS: I guess you were coming up with your experience, where you were always trying, looking for something new and you'd try something different. And if it worked well, it was to your benefit. It was probably just like the oil industry today, there's always something new you could learn and if you're inclined that way and practice it that way, you'll go ahead instead of backwards.
BC: Were there any drillers, some of the old time drillers that you were able to learn, or people that came up from the States, like Haliburton, do you recall any of those people that perhaps brought new ideas?
LS: Of course, they were bringing their new ideas and you followed them and learned them right along with them.
BC: You don't remember any of the people that were with, like for instance, Haliburton?
LS: Haliburton came up, the first cement jobs we did were done with Haliburton people. George Haliburton. He was killed on a well we drilled, I would say about 1934. His truck went backwards, over the hill. He was one of the first cementers that I remember, came up and brought up an old stream truck.

#338 BC: Did you work with Mr. Pettinger at all?
LS: Pettinger was with Haliburton when we were up on the wild well at Atlantic. Pettinger learned his cementing here in Canada after Haliburton came up, he was a Haliburton employee.
BC: But he was in Turner Valley also, did you work at all with Mr. Pettinger?
LS: Oh, I worked a lot with Pettinger, yes.
BC: What do you recall about him?
LS: I don't know what you'd say. Now there was an improved way of cementing and he was coming along with them. Whenever we called out a cement truck or had a cement truck

come out he could have been an operator on it.

BC: Do you recall any incidents with him, any particular incidents? Or any incidents when you were trying to cement wells which kind of stood out in your mind through the years, out of the routine?

LS: There was lots of times when we had something go wrong with a cement job, where we probably plugged the bottom of the pipe. Or something was dropped in to cause it, like a brush or a brushing that you dredge the pipe with, somebody maybe dropped something in the pipe and you'd have to pull it back out if you caught it before you did the cement job. If you didn't you probably put the cement in and it would be plugged off and the odd string you would have to go in and drill out. And you'd try to drill it out before the cement got set very hard but after a few hours that's pretty well a drilling problem. You drill it and circulate it out.

End of tape.

Tape 2 Side 1

BC: Mr. Stafford, I wonder, as we start this tape, if we could talk about blow-outs when you were drilling with cable tools in Turner Valley? Tell me about them.

LS: When we were drilling in the production zones we were drilling under pressure. When we'd start to pull out of the hole, to change a bit or something, we had to start releasing the pressure, so by the time we got up to the top or the blow out preventors, we'd have the top part of the pressure released and it would just be the normal pressures coming out of the well. Then we had to, what we'd say, blow them out. We'd hang the weight of the tools on the heads and unclamp it, then we'd walk out of the derrick, turn off the lights and everything and pump the head out and blow up to the derrick. Then we had to go in and shut the valve off, to take the gas out of the derrick, it would be blowing straight up through the derrick. Then we would change our tools, put on a new drilling bit and open it up again, right up through the derrick and put the tools back in the hole till we got the head down and clamped in. You might say it was a blow out every time you turned the head loose. At night the sparks we would find, they'd look like fireworks going on, but it didn't catch fire. The mixture was probably not right to set it off. But it would give you quite a thrill.

BC: Quite a shock I would think too. Was it not very dangerous around there at that time?

LS: Oh yes. Very dangerous on account of the gas. We were drilling H2S gas, somebody could get gassed if they got into it. And the fire hazard, it would be quite an explosion. You'd stay back far enough from it so you could handle the controls outside the derrick.

BC: Were there many people killed in any of these blow-outs?

LS: No, very few. There was very few bad accidents from it, it was just routine that they had to go through to get changed over.

BC: Were you ever gassed?

LS: Yes, I was gassed lots of times, many times. And we used to get blinded from it, especially going off shift and trying to go home, times your eyes would be so blurred, your sight would be so bad that you'd have to stop at the side of the road and sit there and

wait, maybe a few hours till it cleared up a little bit. Then you'd go home and start doctoring up your eyes, ??? poultice of tea leaves or sometimes potato peelings and stuff that would draw the inflammation out of your eyes.

#039 BC: What was the inflammation caused from?
LS: The H2S gas.
BC: Have you suffered long term effects from this at all, have others?
LS: No, I can't say that I've suffered any effects from the results of being gassed and living as long as we lived in the Turner Valley area where the H2S gas was always around.
BC: It's amazing isn't it?
LS: Yes it is. And our families were raised right in it, in the 18-20 years of age. And we have no complaints of any ill effects on our side.
BC: One of the wells that I wanted to talk about is the Model well #1, which you were working on in 1932. Could you tell me about that?
LS: Model was drilled with the cable tool equipment and completed with cable tools. I'm not just sure of the months or the time that it took to complete it but it was one of those wells where wages were pretty well paid in full as we went along. Up until the last part of it, when finances were probably a little bit difficult, then as I say, the half and half deal worked on it.
BC: It would take quite a few months though, with cable tools to drill.
LS: Yes, there were times . . .well, I guess we could pick out the times that the well was completed in. Could we shut it off?
BC: Sure. All right, if you could just tell me a little about it? This well brought in the first crude oil did it not?
LS: It came in as a gas well and started turning to this coloured naphtha. Within a short time it was pretty well turned to straight crude. They talk about it being the first crude well, it was on the west slope and as the wells were drilled to the west they turned it complete, straight to crude oil.

#081 BC: This would be quite an exciting discovery then, wouldn't it?
LS: Well yes, but it didn't cause that much excitement in those days, because we didn't know about the crude oil part of it. We were still working for that probably to happen from the geological standpoint. So it gave the Model the advantage of the start of crude oil coming from down dip.
BC: Was this in the south end of the Turner Valley field?
LS: No, it was pretty well in the centre of the length of the field.
BC: Once the crude started coming, did this cause another flurry of drilling activity?
LS: No, it didn't cause too much activity in the drilling until 1936, when the other well, crude well, come in to the south.
BC: Which well was that?
LS: That would be Turner Valley Royalties in 1936, a straight crude well.
BC: And you mentioned Brown, this was R. A. Brown Sr.
LS: Right.

BC: You worked with him or knew him quite well from the oil days?
LS: Yes, I worked a lot in the earlier days with R. A. Brown Sr. Like the old United, which the Brown family controlled, later controlled Home Oil.
BC: And what years would those be that you were working with them?
LS: That would be in '29 and '30, they had old United up above where we lived there.
BC: Tell me about Mr. Brown, what do you remember about him? And his relationship with your work, did you see much of him?
LS: He was interested in a lot of those wells when they were drilling them on a royalty basis. He was the street railway, he worked for the city, he was in charge of all the operations of the old streetcars in the trolley days. Then he became interested in a lot of those Turner Valley wells when they were being drilled on a royalty basis. A lot of the financing was done through him, in wells like the old United and I think he had some interest in other wells later on, like the Turner Valley Royalties, when it was started and finances were low. They'd start up and spend the money that they had and then shut down for awhile and gather up a few more royalties.
BC: Mr. Stafford, before we talk about some of the people that you were working with in those early days, these were your, well, not learning days but certainly development days in the oil patch, I think we should clarify exactly what your role was in the oil patch. Because in those days you weren't attached to any one company. What would you classify yourself as, an independent oil worker?
LS: Yes, in a sense of the word. It was the start of our interest in the oil drilling business. We worked wherever we could find a job and the job was as good for as long as it lasted or as long as the money lasted. And money was hard to get and most of the time we were working for part of cash and part in royalties. That meant that if we got any production in the wells that royalty gave us an interest which would pay off the balance of our wages.

#141 BC: What years are we talking about here?
LS: We're talking about the ones from the time we started, say from about, we started around 1926 and that went on for probably 3 or 4 years time before companies began to build themselves up big enough and had enough production to carry themselves.
BC: Did you always work with your brother-in-law, did the two of you go together to get jobs?
LS: Yes. We both went to the oilfield at the same time, from the same place. But there was a lot of times that we weren't working together on the same well because there wasn't enough employment for one company to maybe take on 2 or 3 fellows. So the opening that one or the other could take, we worked at.
BC: So what would you do, would you go to Imperial and say, hey, I'm available now? How did one get a job in those days?
LS: No, we worked mostly for independents, smaller independents in those years.
BC: Such as?
LS: Such as the Spooner, Vulcan Oils. Our first job was on what they called, ??? Oils, but we only worked there for probably 4 or 5 months and they ran out of money. So the well would be suspended and shut down until they could get it up, or somebody else would

take it over and finance them for awhile and do a little more drilling. Sometimes we'd go back and sometimes we wouldn't be on the same ones. Our main wells in the earliest part was, like I say, Model Oils and United and Vulcan, Spooner, wells in that. . .

BC: These were all oil companies? Who owned these companies?

LS: They were owned by individuals, promoters that decided to. . .

BC: Some of these owners were?

LS: There was a group of promoters. The Spooners were a group of businessmen from around the Vulcan area. The Beckers, the Browns from Calgary.

BC: Did you talk with any of these people, like, in the course of getting the job would you talk to the Spooners themselves or was Spooner just a name of an oil company?

LS: Spooner was the name of an oil company and . . .

BC: Who was the manager?

LS: You'd take Spooner Oils , Spooner would be the president, just the same as a company is today but they had somebody doing their drilling for them, which would be people like the Snyder's. There were 2 brothers, George and Clarence.

#187 BC: Did they do a lot of drilling in Turner Valley, the Snyder's?

LS: They did quite a lot of drilling in those early days themselves, when they were drillers. Then as time went on they were more or less supervising the jobs for these companies and eventually, they started taking contracts on some of those wells.

BC: And that's where you came in?

LS: We were working for them, regardless of whether they were supervising or contracting ???, they were our superiors, I guess you would call them our bosses.

BC: Do you remember the Snyder's at all?

LS: Quite well, yes. I was raised with them.

BC: What do you remember about them?

LS: They were out of Pincher Creek, I knew them first in Pincher Creek, then they branched out. They were like, in my father's class, they were all more or less together and working. I think the Snyder's probably, both of them came from the States in the first place and Dad was from the Ontario area. Then they were just interested in different jobs, different things that were going on in those years and the acquaintance was made. Their families were all living together before the branched out, when these oilfields began to break open.

BC: The fact that you had been brought up on the oil patch really, you were sort of an oil brat you might say, when you were little. Did you find that this made a difference when you went in to get a job, did you know them. . .?

LS: Well, yes, it gives you a little bit of a background, in coming from those families. The work that they were doing at the time was more or less inclined to the drilling business.

BC: What did the Snyder's look like, were they tall, short?

LS: No, they were both short. Clarence was quite stout, quite heavy and his brother George was quite slim. They were probably about 5'6", 5'7" in height.

BC: Tell me, Mr. Stafford, why you didn't go with your father drilling, he obviously was still in the oil patch, and yet you went out independently?

LS: Things in their days was better for them and as we were branching out there wasn't that much of it being done. It was the start of Turner Valley that let us in and of course, they were getting old enough that. . . and families to raise, they had turned to different areas that Dad farmed when I left for the oil fields, he was farming in Pincher Creek.

#236 BC: So he'd got out of the oil business temporarily?
LS: Well, he'd gone out, no I couldn't say he'd gone out of the oil business altogether because he did go out, there was different wells drilled around through the country. Like I know times when he worked right at Pincher Creek, before the 20's, the Northwest Co., which was Imperial Oil, he worked for the Northwest Co. at Pincher Creek, in the southern part where those gas wells are now that Shell operates. At that time the Gulf Oil Co., they set up those gas plants in their later years, well, he used to go out and work on some of those early exploration wells.
BC: But it wasn't steady enough employment for you to be around?
LS: I guess, probably I was too young. I was around them with him a little bit but I wasn't working on them, those were my school days.
BC: Going back into Turner Valley then, you worked as an independent oilfield worker really. Until what date, when did you go in with a company, actually join a company permanently?
LS: I never did till after I was in the supervision part of it.
BC: And that was what year did you go into the supervisory part of it?
LS: That's when we formed Devon Drilling Co. I was supervising before that. When you say supervising, you see, it led up to, what promotions when things were good and the boom was on and one thing and another and men were required with experience you were quite in the gold, everybody had a job for you or would plan to get people that had experience in that line.
BC: This would be in that mid 30's Turner Valley flurry?
LS: In the mid 30's, yes. And that was when the old cable tool days were coming up. The further you went the more promotions you got, well the higher you got. So there would come a time then when you could probably be a supervisor of drilling a well or a tool pusher. Tool pushers worked through, strictly supervision.

#279 BC: And when did you form Devon Drilling?
LS: We formed Devon Drilling in 1948.
BC: So there's quite a space in there, in the valley isn't there?
LS: I was supervising drilling companies before.
BC: Before you ever went in to Devon?
LS: That's right.
BC: When did you move out of Turner Valley?
LS: 1947.
BC: And why did you move out of the valley?
LS: The valley was fading away and newer fields, the Leduc field had just started up. They were promoting the Leduc field then so you could say Turner Valley was getting pretty

well drilled up.

BC: You moved into the Leduc field right away then, did you?

LS: Not long after the discovery well. Imperial had the discovery well there. Before I went up there I'd been operator for National Petroleums for. . . and they had the National Drilling Co. and another rig in ???.

BC: And where were you drilling?

LS: That was mostly in Turner Valley and out in the prairie in the Brooks area.

BC: Were you successful in any discovery?

LS: Yes. National Petroleums was quite a producing outfit in Turner Valley. Their #1 well was one of the best producers, best oil producers without bringing up too much gas. So they were given quite a lead.

BC: What part of the valley was that in?

LS: In the central part pretty well. In fact, I think the old National Petroleums #1 well is still producing.

BC: That's quite a long history of a producing well isn't it?

LS: That would go back to probably about 1937, '38 when we completed the National Drilling #1. ??? the days they had bought a rig which led out to the National Drilling Co. I operated their drilling company for them in the war days, I operated for them under War Time Oils. I was in charge of the drilling.

#328 BC: What was it like working during the war in the oil industry in Turner Valley?

LS: In my case it was, I guess, probably along the lines of being in the Army because I had a card from the selective service and I could hire men. If I wanted someone that I wanted out of the Army or needed help from some of the boys in the Army I could apply for them and pick them out.

BC: Were you that short of oilfield helpers?

LS: Yes, there were a lot of the boys you see, were taken into the Army or had joined up in the Army. So when they used this War Time Oils I was trying to gather up all the production that they could gather up. Edge wells and anything that might make a little oil well they were ???.

BC: How would you get the names of the people that you might want, were they men you knew?

LS: That was the same as the boys that were working with us, were working on those rigs. ??? had to join the Army and then we were short of men on the rigs or one thing or another, they'd give them a little leave of absence or . . .

BC: Or postpone their recruitment.

LS: Or postpone their time till it was more convenient.

BC: Because of the great need for oil for the war effort, what kinds of things were you trying to do as far as recovery and drilling in Turner Valley? In order to get quick production did you have to sacrifice long term production of a well at all?

LS: No, they produced wells with pretty well everything that they could produce from them in those days.

BC: Well, you know how if you limit the production of a well sometimes you can have it

produce for a longer period than if you just grab what you have first?

LS: That's where the Conservation Board comes into the picture. When they were trying to save the gas, you see, Turner Valley was badly burned up, gas was really used up in the early days in order to get enough oil out of it to pay for the drilling of wells. . .

End of tape.

Tape 2 Side 2

BC: . . .in which perhaps they would have to let more oil come up even though it meant you wouldn't get as much up in order to get it quickly up there for the war effort?

LS: They more or less conserved the production rates to conserve the gas. So that gas could be used for other purposes. . . as long as you could use it up or had sale for it or transportation for it we could produce more oil.

BC: What was it like trying to get equipment during the war years?

LS: Of course, sometimes it was a little hard to get, field products and one thing and another. There were times we went around to lots of older wells that probably weren't producing that much and they were more or less abandoned and the ??? and the casing and stuff was pulled from them and used for . . .

BC: Was there much of that done in Turner Valley?

LS: Yes, there was quite a lot of it.

BC: What about your own, the drilling rigs themselves, if they broke down what would you do?

LS: Well, if you couldn't manufacture parts for them, or make parts in the machine shop you'd have to wait till such time as factories could put out something for you.

BC: What kind of drilling rigs were you using by that time?

LS: They were mostly all rotaries.

BC: When did the switch over come, from the cable drilling to the rotary in Turner Valley?

LS: In the early 30's, right around 1936 we began to gather momentum in the change over.

BC: As a driller who had cut your teeth on the cable, what did you think of the rotary drill when it first came in?

LS: We thought it was kind of a muddy deal. Of course there was lots to commend about cable tools then, and the rotaries then, they came from a jar head to a swivel neck as we called it. Of course, the rotary drillers, they began to think they were superior to the old cable tool drillers but they had to run the combination deal in between you see. When we were talking about getting equipment, with regards to casing and one thing and another, cable tool had pretty near all the casing, different sizes that you could get into it. And the cable tool was abandoned when there was lots of casing to be used for it.

BC: And rotary didn't have. . .?

LS: And rotaries they cut down on the casing problems.

BC: Did you find it difficult to adapt to this new method of drilling?

LS: No, because the knowledge that you had from the cable tools of drilling was a big benefit to you.

BC: So you weren't one of those that said, cable or nothing?

LS: No. I was willing to change and go ahead. That was our theory when we started in the oil industry, if you can't think of new problems and bring up something new and try to improve what you're doing. . .

#039 BC: Did you find that there were a lot of the people that were, the older cable tool drillers, did they find it difficult to adjust to the new drills?

LS: There were a lot of the old cable toolers that never did adjust to the rotary drilling. The older ones, well they were, you might say, getting to the age where they weren't active enough to handle the progress on them.

BC: So they weren't going to bother?

LS: That's right.

BC: What about your father, was he still drilling at that time, was he still working in the oil patch at that time, the mid 30's?

LS: Yes. He never quit till about 1938, '39 I guess.

BC: Did he switch into the rotary drill?

LS: No. He was too old for the rotary drill.

BC: What was the most difficult thing in switching from cable tool drilling, to the rotary? What was the most difficult thing to master?

LS: You had all the experience, you handled casing, pipe and tools and equipment and machinery, which you just improved with the machinery and equipment. There didn't seem to be any problem to change over.

BC: Why did some people find it difficult then, what was it that was different about the rotary drilling from cable that was so difficult for them to switch?

LS: I guess it's like a Model T Ford and coming up to a big Cadillac or something, everything is much faster and more equipment and more people working on the rigs.

BC: So there were more people kind of taking responsibility for jobs instead of the driller having all the say, type of thing.

LS: Well, the driller had to have so many helpers so I guess probably you'd call it that way. And he had to train them and they had to do everything just about right or problems would arise, accidents and. . .

BC: What were the biggest problems in those early days, as you were adjusting from one to another?

LS: Some of us didn't seem to have those problems. We had been just coming up for the change and the improvements, you just worked into them. But if you take somebody that was green, that hadn't done any oilfield work at all, then it was more or less a little education to get them started, to get them properly trained.

BC: They used to say that you could tell a person who had been around the rigs a good long time because they always had part of a finger missing.

LS: I guess you could see lots of that too. I guess probably just the same as it is now. If you're more inclined to those things, then, if you don't watch it pretty close it happens.

BC: When the rotary came in was there more chance of accidents than the cable which was a slower process?

LS: Yes, there was so much more equipment and one thing and another to handle. If you

weren't mechanically inclined I guess you'd call it, to take over. I guess it's just like everything else, sometimes you have to. . . a man can stay on the job for years and years and years with no advancement. Maybe his ability just isn't good enough or he just doesn't want to force himself to go ahead, change to something new.

#088 BC: Some people enjoy, many people, that's why they go ahead is because they enjoy the challenge of new change. Were you excited by the idea of the rotary drill?

LS: I can't say I was excited about it but I still wanted to go ahead and I was always looking for an opening for to change to get in a higher position.

BC: So you then, moved into the rotary drill and would be working with rotary drills all through the war?

LS: Right.

BC: What company did you work for, mostly with the War Time Drilling, throughout most of the war?

LS: They called it War Time Oils, just took over and the rigs. . .like I had National Drilling Co. and Major Oil Drillers. That included 2 rigs.

BC: And War Time Drilling, was that a government umbrella company?

LS: A government umbrella company and there was a representative of the government, more or less looking after the leases and one thing and another and we looked after the drilling. That's when we were more or less, you could call it contract drilling, although the supervising was done by . . .

BC: And that would be, the whole of Turner Valley would be under this government umbrella company?

LS: No, not all of Turner Valley but most permanent drilling companies and companies that had some outside leases that probably just couldn't finance them that well or the production didn't look big enough to them for them to. . .

BC: The government would take over and produce.

LS: Yes.

BC: How much, do you remember how much the production increased in Turner Valley to meet the war time demands? With all your efforts, was it a big jump?

LS: No, I wouldn't say there was such a big jump in it. They were just regulated by the Conservation Board as to what they could take away from it, without being too wasteful and pick up everything that could be picked up.

BC: There were some marginal wells so that they then produced from?

LS: These were marginal wells that they were drilling then, you see, that they could produce from to up the production.

BC: Do you think that that effort, that out of the war came really, lengthened the life of Turner Valley's space in the oil patch?

LS: No, I don't think so. I think the life of Turner Valley was just the Conservation Board, more or less set up and was operated on a steady basis, it just gave it longer life, there's no doubt about it.

BC: Let's move in to the post war era and Leduc. Where were you when Leduc blew in, when the first Leduc discovery well blew in?

LS: I was in Turner Valley.
BC: Do you remember hearing about it, and your reaction?
LS: Oh yes.
BC: Tell me about it?
LS: It was just one of those things which started a boom for the Leduc field. Everybody wanted to get in on the play, leasing was going on.

#134 BC: Where were you when you heard about it?
LS: I was in Turner Valley.
BC: Were you out in the field or was it. . .?
LS: No, that part of it didn't bother us like it would bother the public. If a well was coming in, going to blow in or something, we had an idea that it was going to blow in anyway or we'd know if they were trying to bring it in, the well was completed. It wasn't just a matter of saying that to the people that are drilling the well, because it was pretty well all controlled that way. The formations and the ???, geologists and one thing and another, had given the impression that it was an oil well. And of course, then you take ??? to bring it in and control it. They don't blow in themselves, it has to be brought in by compressors or the process of bailing out the mud and the fluid out of it or, if you've lost circulation, mud gets away and it blows out itself.

#150 BC: How long after the first Leduc well came in before you had moved out of Turner Valley and up into the Leduc area?
LS: The Leduc well came in, the discovery well with Imperial came in about the early part of '46 and we went, then people began to move in and started drilling other wells.
BC: Where were you, you moved up there in '46?
LS: No, I went up in '47.
BC: And your family stayed in Turner Valley did they?
LS: No, we moved into Calgary.
BC: And where were you drilling when you went up there and who were you drilling for and with?
LS: I was field superintendent for General Petroleums and the rig that I had and operated in Turner Valley for Major Oil Drillers was the rig that was on Atlantic #3. We had drilled Atlantic #1 with it and we moved it on to #3 and we had a General Petroleums rig which was the rig off #2 well.
BC: Now Atlantic #3 was a pretty historic well wasn't it?
LS: Right.
BC: Can you tell me about Atlantic #3 and your part in this whole episode?
LS: I was really supervising the drilling of Atlantic 2 and Atlantic 3. At least I was in the camp out in the area there. We drilled #1, #1 was producing and #2 had been producing and #3 we were drilling in the production zone but they hadn't run casing in it and they lost circulation. They debated, or tried to get the circulation back.
BC: Why had they not put casing in, was it not at that stage?
LS: What was that?

BC: You said that it was running without casing, you were drilling without casing.
LS: That's right. They hadn't got to the casing points yet. They usually drilled in, there was different methods of drilling wells, by drilling right into the formations, setting casing down into the producing zone and then perforating the casing. But they hadn't run the casing when they lost circulation, they hadn't drilled all the, you could call it the ??? or the oil zone, the D-3 formation.
BC: For people that would not understand what loss of circulation means, could you just explain that in layman's terms?
LS: On a rotary rig it's all controlled by circulation of mud and fluid. That's pumped down through the drill pipe, clears the bit, cleans the bit, comes up the outside and brings up the cuttings and one thing and another. If the mud gets too heavy and lost, what we call a lost circulation zone, it's like a big sponge, it's all full of small holes. Those are, well, they're actually [pea stones]???, but the pressures, the mud hydrostatic pressure is greater against those zones than what's in the zone and the mud then, won't return to the top of the hole. So it just balances your pressures on the outside of the drill pipe and in the drill pipe and that lets the oil zone or the ??? come back in it.

#203 BC: So when you'd lost circulation what did that signify to you, trouble?
LS: It's lots of trouble. You start trying to get the circulation back.
BC: And what did you try to do?
LS: We mixed lots of lost circulation zone and fluid and stuff and pumped water and mud. You have to try to plug it and get the circulation to return to the surface.
BC: And were you unable to do this?
LS: We were unable to get the circulation back. Of course, when you've lost circulation, you can't circulate, you stop drilling. Until one thing or the other happens. But in this case, why, they thought that the well hadn't blown out, but they thought they could drill it what we call dry, without circulation.
BC: Whose decision would that be?
LS: That was made by the engineers that were in charge of the drilling.
BC: And who were the engineers on Atlantic 3?
LS: Clarence Matthews, Dave Gray, and Lyle Caspell??? represented Atlantic.
BC: So that would have been their decision?
LS: It was their decision, yes, to drill it dry, what they call dry.
BC: Is that a dangerous decision to make?
LS: That is a dangerous one to make.
BC: Is it normally a dangerous one?
LS: Not always. But if you don't get circulation back you don't have power enough to keep the production down.
BC: So what happened then?
LS: They started drilling it dry and it blew in.
BC: And what does blow in mean?
LS: That's the blow out. The oil and gas comes to the surface and blows everything out, the rest of the fluids and the hole is wide open to the air.

BC: Where were the people on the rig at the time that this blew in?
LS: They were getting out of the way as fast as they could.

#244 BC: Could you hear it?
LS: Oh yes.
BC: Can you describe what it's like?
LS: I wasn't right at the well bore head ??? I was just going down to the camp. It just blows in with a big roar, gas and oil and mud, blew the equipment, the kelly bushings and everything right out through the side of the rig. It was a wonder somebody wasn't hurt or killed.
BC: There wasn't anyone hurt or killed?
LS: No.
BC: Do you hear it in enough time to run for cover?
LS: It usually gives you a little start, so you know it's coming, then it comes with a bang, just the balancing pressure.
BC: Did you hear the bang as it came flying out, blowing everything ahead of it?
LS: Oh yes.
BC: Then what did you do?
LS: I just went up and took a look at it.
BC: What did you see when you went up to take a look, what was happening?
LS: Oil and gas Was blowing out about 60-70 feet over the top of the derrick.
BC: That's on top of the derrick, how far up was that going then?
LS: About 160'. Then the wind hooked it off to the direction of the wind.
BC: What did you all do at that point?
LS: Of course, everyone was pretty well excited. The first thing they did, they cut the steam boilers off because they were fired with gas and fire. They thought, they're going to catch fire but as soon as I got up there we turned on the fire again and ??? them up because the wind was blowing the oil and gas away from the rig. Then I went in to . . .
BC: Why was it important to start them up again?
LS: One thing was, ??? but the tools, the kelly hose and everything was right down close to the floor and the flow from the well would soon cut the flow line off, the kelly hose and the mud line off to the well. So I went in and I pulled the kelly hose up into the top of the derrick so the pressure would be if we could save it because we had to pump mud and stuff back into it to try to kill it.

#290 BC: You were successful were you, in getting it up there?
LS: Oh yes. I shouldn't have done it but I did.
BC: Then what happened next?
LS: We started mixing mud. In lost circulation ??? mud to try to kill it. We mixed mud for about 36 hours.
BC: And it was blowing all this time?
LS: It was blowing all this time, all that oil. We estimated it was producing around 12-14 thousand barrels of oil.

BC: Where was all this oil, it was blowing away from the derrick but where in the world was it going?
LS: It was spreading over the country.
BC: Wasn't this a concern too?
LS: Yes it was.
BC: What would you have to do to contain it?
LS: Fluid always runs to the lowest level I guess, so we just had to get a bunch of dozers out, one thing and another and start building a dyke around.
BC: How far away from the well would you be putting this dyke?
LS: There's a big, what they call a sump that's always there, where you're dumping your spare mud and all that kind of stuff there. You just have to go out around it as far as you could get, keep away from the gas and then the stuff that was blowing high in the air but the stuff that was falling over was falling in closer to what we call the sump.
BC: So you had all these dozers making a dyke around to have a lake of oil really?
LS: That's right. As we could gather them up, we put everything to work ???. Then we started mixing mud. We were able to mix mud in the rig, on the pits those days, they're like a big tank sunk in the ground. So we mixed mud for about 36 hours till we figured it was heavy enough to control the gas flow. Then the question was to try to pump it down, to cut off the gas. We went in just at the pumps and the biggest pumps, as soon as we started it, it only ran just a few minutes and then it quit. The mud was too thick and it quit going. The smaller pump there, which I was operating one of them and Cody Spencer, the drilling superintendent of General Petroleums, he was operating the other one. When it quit he looked at me and said, what do we do now. I said, I don't know anything else to do but if this one keeps running just let it run. If we spoil the job well, we've spoiled it. If we haven't, if it does us any good. . . So it began to cut down a bit, the oil flow, it died down a bit. So then we decided to go back into the derrick and put the control head in, which in those days was pretty poor. You might say, it didn't amount to anything. ??? sort of slips on the drill pipe. There was 3 of us went in, I took the brake, there was a man by the name of Conolton???, he was a big husky fellow. In fact, he was a big wrestler in his days. Spencer was to help me, or to stand over me so that if I lost the brake, he was to help me up. So we went to put the head in and the first time we had to throw it around the pipe and clamp it, it was just like a big rubber bowl and it set in it. The first time we threw it around we lost it, it didn't clamp. So I looked at the other boy that was in there with me and I said, get hold of the handle, we'll pull it back. We reached in and pulled it back up again and snapped it shut. So then, once we had it around the drill pipe we let it back down on the. . .and shoved the packer into the casing, the bowl part of it.

End of tape.

Tape 3 Side 1

LS: So ??? down and all the oil and the ??? and stuff dropping off ???, you didn't know whether it was going to knock you out or lump??? you under. That's why Spencer was standing under a kind of a ??? beam that came across from the draw works. Of course, the

brakes they were all oiled up but we got it down and shut off the flow ???. It was only a few minutes afterwards till it started to come out of the side of the casing and the little well. So everybody got real excited again but in a few minutes there was a lot of shale and mud blew up and ???. So that ended the blow out part of it in the air. So then we ???. That was sometime around the 1st of February. We worked from then on, starting putting in well circulation, everything that we could put in. We put in wheat and feathers and oats and ??? seed and straw and everything that pretty near you could think of.

BC: This is to try to do what?

LS: Just shut off, to pump it back and kill the flow because there was no casing in the well and it could come up anyplace you see, from the formation.

BC: Where did you get all this material to put down?

LS: The mud people that handled mud and lost circulation materials. And then they put in shavings and stuff like that, they hauled them from anyplace that they could be picked up.

BC: What a time. This was certainly new in your experience, something of this magnitude, I guess.

LS: Well, yes. It was one of the bigger jobs you might say. We had lots of blow-outs before that but we were always able to do something with them, control them.

BC: But this one just wasn't about to be controlled.

LS: Well, I wouldn't say that, no. Because we had it controlled then. That went on for possibly 2 or 3 months it went on till. . . but in about a month before it came up through the ground and when it came up through the ground it came up quite a little ways from the rig, through a shot hole that had been drilled by a seismic outfit. But we were operating from another location to the west of it, and had the boilers and steam and everything all set up with pumps and were pumping all that stuff over to the bad well. But it seemed like the more stuff we pumped into it, the more came up through the ground. Then it kind of, it tapered off and closed in right up around the rig, in to the rig and was just boiling up in the cellar around the casing. So then they decided to . . .well, they brought the boys up from the States, Red Adair and his crew, it wasn't Red Adair then because Red was one of the helpers to his father-in-law McKinley that was the chief. They tried for several days to blow off the pressure and one thing and another and we turned around and froze it off with dry ice on the well head and took the old head that was on off, and put on an up-to-date hydro blow-out preventors. They tried to go in then ???, they were going to shoot the pipe off in the bottom of the hole, the drill collars and then they could pump a lost circulation down on top of them and probably we could have got a seal. But they run down with some measuring lines and they got the measuring line stuck on one of the plugs that was poking out on the bottom and they couldn't get loose from that. So then they decided to run a knife, a cutter, down over the line and cut it off and it only dropped down to half way down the hole, about 2,200 and it plugged there and got stuck. Then they dropped another one and they cut the line off but they cut it off at the 2,200' level. So after several days of fishing and trying to get it loose they couldn't get it loose and they decided to perforate the pipe there, shoot some holes in it so you could pump out to the outside of it. So they brought the bullet gun in and the bullets didn't all fire so we had to retrieve it again and bring it up to the surface, take it out of the hole and

??? some of the bullets hadn't fired. We don't know why they didn't or what the reason was but they wouldn't have fired if we had brought them out of the hole. However they got that straightened up and then they went to the pump in the lost circulations zone again. They pumped in a tremendous amount of cement and lost circulation but none of it done any good, it just kept coming back up, coming back up and making a big crater around the rig. By that time they were taking production out of the drill pipe and the rest of the oil was running ½ mile down the field and they had a big reservoir built there with pumps and they were pumping it out and hauling it away.

#076 BC: So they weren't losing it, it was just they weren't controlling it but it was all coming out and they were utilizing quite a lot?

LS: That's right.

BC: How many barrels a day was it was coming out?

LS: We were handling around 14,000 barrels, we were pumping to Nisku, or hauling to Nisku with trucks and pumping the rest of it back into the adjoining wells, Atlantic 1 and 2. But that was more or less cycling it because it was probably just going over to ??? and coming back up again. But it was just a matter of delaying the handling part of it I guess.

BC: So how did they finally get it under control?

LS: We drilled 2 directional drilled wells. One 700' to the south and another 700' to the west. They operated at different intervals. If the wind changed and blew the gas and stuff it was shut down and the other one would keep going. In normal conditions they both kept running. The first well to get down into the formation they figured they had to run casing in it but they were too crowded, the casing wouldn't go down so it lost the hole at about 3,500'. But the one on the west side, it kept on going and they were successful to get the casing in. So once we got the casing down and they were pretty well on target they were able to acidize it and break in to the old well bore.

BC: Who was doing this now, would this be something Red Adair would do or McKinley?

LS: No. Red Adair never came back, they turned it over to Imperial. Imperial operated it, that's when Tip Moroney and Charlie Visser and them came into the picture, and we started drilling those directional wells.

BC: How long was Red Adair and his father-in-law up there, McKinley?

LS: They were there for a couple of weeks.

BC: But they weren't able to do anything really?

LS: They weren't able to do anything without drilling these directional wells into it. Everything they tried kind of backfired on them. Like ??? to get the pressure relieved and in order to get the pressure relieved you couldn't blow the well because there was too much oil coming out of it. As soon as you let it in the air it just blew all over the country.

BC: It was they who suggested the wells to drill the other wells was it?

LS: More or less, yes.

BC: So how long was this rampage going on before it actually came under control?

LS: It was about . . .it took a couple of months. From the time we started, we started in the early part of May and it was sometime in September before ??? and the rig fell in. About the time they were ready on the relief well to pump down through the relief well is when

the derrick and everything fell into the crater and disappeared into the ground.

#120 BC: That was a sad moment I'm sure.

LS: It was. I wasn't there then. I had left before they finished it.

BC: Because that would be quite a lot of money going down that crater.

LS: Well, as far as the rig was concerned, it wasn't near as much as the land with the damage and stuff. The price of rigs weren't quite as high in those days as they are now. but once the relief well was in they were able to pump lost circulation to the bottom and plug it off. It took a lot of different methods and one thing and another but they had the opening to put it through.

BC: Then what happened when they finally got it under control?

LS: It ended up being completely dead, it had produced its life. According to the Conservation Board, they wouldn't take anymore out of that well bore. So they plugged up the main hole and the relief wells.

BC: Would the company then be able to drill somewhere close by so that they could get any more of the oil that would be down there?

LS: They had the #1 well and their #2 well drilled and ??? on the spacing, why. . .

BC: It would be from the same field.

LS: Yes. They had mechanical problems with the one relief well which they could have probably produced a little more out of. But the well that actually produced it's enough oil that they didn't have to shut it in for a long time before. . .

BC: About how many barrels would they have produced out of there, 14,000 a day and how many days was it on the rampage?

LS: Well, we say 14,000 a day, just average it back from the 14,000 and say, we put from 2-3 thousand barrels back in to the ground again when it was coming through. But just roughly, production that was marketed to the. . . they closed in the whole field, all the other wells were closed in so there was no production, only what was coming out of that and they would have a pretty fair check on it. But what the figures are right now, they've gone out of my mind.

BC: There must have been quite a tremendous effort as far as preventing fire was concerned?

LS: They closed off the whole area there and it was the airplanes and stuff like that weren't allowed to fly over it at all. I always say, if it was going to catch fire it should have caught fire right on the start because one of the boys when we were working on it, and you probably read this story because it's been in most all these magazines that covered this, where the boy went in to the little outhouse and he decided to have a smoke. This was when all the gas and stuff was coming up through the ground. All at once there was an explosion and the place was on fire. He was blown out the door in the area. I wasn't too far away at the time and there was, oh, 3 or 4 fellows standing there. We all grabbed what we had, fire extinguishers and one thing and another and ran over to it. We were able to put out the little fire that Was running all the way around by pouring on loose mud and bags of mud and stuff that they'd opened up. We kept it confined till we got some steam line hooked up to a foam fire extinguisher to pump into it. So we were able to put the fire out. But just over the bank was all this big sump full of oil.

#175 BC: Weren't you fortunate.
LS: It was an exciting time.
BC: I'll say. I bet that fellow left the oil patch in a hurry.
LS: Well we had an ambulance and a nurse and a doctor there so that they were just called over and we loaded him up and into the hospital. I talked to the fellow since, he was always a little nervous about it, doesn't want to say very much about it because he knew what he was doing at the time. They weren't supposed to have any matches, cigarettes or anything on the lease at all, they were supposed to be searched by the Commissionaires before they went on the lease.
BC: They obviously didn't get him. It was that stringent was it, that you had Commissionaires around and the whole place cordoned off?
LS: Oh yes. We had Commissionaires at all road allowances around the whole quarter section. People were turned away, turned around.
BC: This must have been a very expensive undertaking.
LS: It would be but a well producing that amount of oil, you know, that's a lot of income too. So it was more or less paying its way.
BC: That was Atlantic 3 but Imperial got involved. Could you explain how that came about?
LS: Atlantic you might say, was another small company, although they branched out. But just taking Atlantic as a company, they didn't have equipment or stuff to handle it or crews and men to. And Imperial was going to get the oil anyway so . . .
BC: It was going to be sold to them was it?
LS: They were pretty well the people then.
BC: Who asked them to come and help fight it?
LS: That was the Conservation Board.
BC: This would be part of their role would it be, to . . .
LS: That's part of their. . .you see, the Conservation Board take over and then they turned it over to be operated by Imperial.
BC: There were quite a number of people besides yourself, Mr. Stafford, who were involved in Atlantic 3. I don't think we actually said the date, I think we should get that on and then some of the people that were there with you, some of your recollections. What was the exact date of Atlantic 3, do you remember?
LS: I'd have to check it out again, check the exact dates out.
BC: Can you give an approximation of what you remember?
LS: Around the first part of February.
BC: Can you think of some of the people that were there at the time with you, some of your coworkers?
LS: The crews that were on the rig, there was . . .shut that off for a minute.

#220 BC: Okay, if we could just talk about some of the people.
LS: Bill Murray was the driller and they had a derrick man by the name of Poach and then another fellow by the name of Powell and Covey. Covey incidentally, was the boy who got into the trouble with the fire afterwards.
BC: Is he still around the oil patch?

LS: I haven't heard anything of him for several years now, I think probably he branched off into something else.
BC: He'd find it a little hard getting a job for awhile.
LS: Not exactly. Things like that are soon forgot about. It was an accident, he did something that was probably a real lesson to him, something that he would never do again I'd say. There was a fireman there, Freddie Kincaid. He was a fellow that was blown up and killed in a gas explosion when the hotel blew up in Leduc.
BC: Shortly after.
LS: So it's kind of a coincidence when somebody is on something like that, knows about gas and all the rest of it. Which is no fault of his, he was staying in the hotel. So that's all the crew that was in there at the time. Of course, they gather around, came from all over. I think everybody probably in the camp, we had a camp just down at the bottom and everybody got up to come up and see what was going on. In the meantime, when you're busy doing something that is real important you don't pay too much attention.
BC: I'm sure you didn't. What of some of the other people, you were the main people that were there right at the time?
LS: Right.
BC: Now you mentioned the name of someone who was the driller?
LS: Bill Murray.
BC: Bill Murray, yes. Do you recall anything about him from that time or subsequently or previously?
LS: Bill was a single man, he was fairly well along in years and he had problems which were probably a lot with his drinking and one thing and another but he was a real good well man. A lot of people would say, in those days, one of the best anyway. He's passed away. He lived kind of a dull life for the experience that he had, one thing and another. And most of the other boys, they were just regular oil people. I think they're mostly all . . .

#275 BC: Were they all a general drilling. . . what company were you with at that time?
LS: That was General Petroleums.
BC: General Petroleums, I'm sorry.
LS: They were contracting you see, the drilling of the Atlantic well . . .
BC: Yes, now when first Red Adair and his father-in-law came in, did you have much to do with them, were you working with them too?
LS: Oh yes.
BC: Can you tell me your impressions of them, was this the first time you'd worked with them?
LS: Yes, that was the first time that I ever worked with Adair and the crew.
BC: What was the first thing they did when they got there?
LS: I guess you'd say they flew into Edmonton and got set up in the hotel in there and then they came out and looked the situation over and went back in and held a little consultation and decided on what the first part of the attack might be.
BC: What was the first part of the attack?
LS: They thought they could probably bleed off the pressure by hooking the well head u to the

drill pipe and ??? some pipe up the derrick so they could blow it up in the air and blow down the pressure to where maybe they could kill it a little bit easier or be able to get something down.

BC: Did they try that?

LS: Yes, they tried it but there was too much oil and the oil, like I say, when it was up in the air the spray went all over the country and blew so far that it had to be abandoned. There was no way that you could let it blow like that.

BC: So then what did they decide to do?

LS: That's when we changed the blow-out equipment and tried to go in and plug the bottom of the drill pipe and break it apart or shoot it apart and ??? the drill collars.

BC: And that didn't work either?

LS: That's when they fouled up with the shooting line.

BC: Now it seems to me, I was talking to a Mr. Paul Moseson, who you became a partner in one of his companies, and he talked about having to get a road bed into the well. Do you remember that?

LS: It Was so wet and the ground was, I guess you'd call it kind of muskeggy in the area there. And there was so much rain and wet in the spring of the year.

BC: And was there oil all around the rig too?

LS: No, not then, no. So we made plank roads in from the main roads so we could travel in and out and get equipment in and out and over to the well.

BC: How would you do these plank roads, how would you make a plank road?

LS: The ground was just levelled off with a caterpillar tractors as much as possible, then the planks were just laid down.

BC: Just one plank?

LS: No, we'd criss cross them and bevelled??? them up because it was some pretty heavy equipment going in and out.

BC: How big would those planks have to be?

LS: We got all the 3" that we could pick up, probably mostly over the province and anything that would work from 2-3", 12" wide.

BC: That would take quite a few board feet of lumber.

LS: It would take a lot of lumber, yes.

BC: How long would the roads be?

LS: It would be about 720' from the one road into the well head and then the wells that we used to operate from would be another 700' or so, back the other direction.

BC: How wide would these roads be?

LS: Wide enough for a car to travel on, we made them about 12'. Of course, there would be a little space in, we'd lay the boards in you know, about 4 or 5' wide on one side ??? into the centre, leave a little space down the centre.

BC: Let the mud ooze between.

End of tape.

Tape 3 Side 2

BC: When Imperial came in to help get this well under control, who were some of the people that came in with them that you recall, that you worked closely with?

LS: The production end of it was pretty well all Imperial hands from the production department. Campbell Ayerd??? was more or less in charge of the gathering of the production.

BC: Did you work very closely with him?

LS: I Was what you might call general roustabout, I was here, there and all over around, anything that might happen I was more or less. . .

BC: You were sort of over all supervising really.

LS: If something happened that required some quick attention or something, like a dyke broke loose or something then they would all be after me. Outside of that I was more or less just romping around and trying to keep everything under control.

BC: Can you remember much about him and his background?

LS: Campbell was an old Turner Valley man. He more or less handled Turner Valley until the big well in Leduc came in. He transferred then up into the Edmonton and then, ended up in the Devon area I guess. That's when the town of Devon was more or less building up.

BC: Did you know him down in Turner Valley?

LS: Yes, we knew Campbell Ayerd quite well. In fact, in those days you knew pretty near everybody that Was in the valley, amongst the old timers.

BC: What can you remember about him, any anecdotes about Mr. Ayerd at all?

LS: Campbell was always very active in sports, anything at all in the valley, he was quite interested in the community and always had a little do around the golf course and the clubhouse. They had the clubhouse in those days, golf club, of which most everybody down there was members of it. If it wasn't for the golf it was for entertainment. And very good times were had.

#039 BC: So he actually moved out of the valley before you did?

LS: Just about the same time I think, probably because when the discovery well came in in Leduc was about Imperial's first movement of transfers from the valley. Which would be just shortly before we left.

BC: Who else was on this production crew that you remember that we should make note of?

LS: There were a lot of boys and a lot of names could be mentioned. Just to say without kind of reviewing a few of them it's kind of hard to. . .

BC: Tip Moroney was part of the Imperial . . .

LS: Tip Moroney was the manager for Imperial or Royalite in Turner Valley for a long time before he moved into the Calgary office.

BC: And he was up at the discovery too, was he not?

LS: Yes, Tip was in charge of Imperial's operations then I think, when the discovery well was drilled.

BC: Was he anywhere near Atlantic 3, was he involved there at all?

LS: Not until they took over on the blow-out part of it.

BC: How long after you people had been trying to fill it with whatever, to close it off, did Imperial come in?

LS: Around the middle of May, I'd say probably offhand about the 17th or so.
BC: Why did they finally come into it?
LS: It was a pretty big operation for Atlantic, in fact it was too big for them. Imperial was probably the only company at that time that could take over or handle an operation that big.
BC: This would be to handle getting the blow-out shut in, or getting the production, these 14,000 barrels?
LS: It was getting the production, taking care of the production you see. The refinery service and one thing and another because you can't say it was. . . it was good oil but it hadn't gone through a cleaning process or a settling process or anything so it was something that took quite a lot of handling and it was a pretty big operation.
BC: Who would make that decision, to have Imperial take over that side?
LS: It was made between the Atlantic officials and the Alberta government, Conservation Board.
BC: This was part of the Conservation Board's duties, was to come in when there was problems like this?
LS: Yes, they had the power to handle those things. Everything was pretty well in the Conservation Board's hands then.
BC: This field of oil, it became a field of oil then wouldn't it, I mean a pool of oil on top of the land that they were really getting their production out of, right?
LS: That's right, yes.
BC: How big and how deep would this pool be?
LS: It wasn't any deeper than what we made it. You know what I mean, the rig sump was the main pool.
BC: And how big would that be?
LS: It came up, we used to make them about 150 x 175 or 200 feet.

#082 BC: And how deep?
LS: 6, 8 feet, depending on the depth of the well. But you had to keep building it up and braking off here and there where a stream of oil would start to run away, until it got settled down. Because when it came up it covered an area of possibly 80 acres on the corner of a quarter section. It was fortunate it was downhill and down below the, across the main road, to where they built a big pit and had the pumps on to keep it pumped out and filled up. So most of it was drainage from the well, because it backed up pretty well to the well bore after it blew for a few days.
BC: That was a pretty big lake of oil wasn't it?
LS: Well, the lake wouldn't be that big. You see, from the one sump or where the oil was coming up, where it came up pretty well around the well bore, you were able to control it then with a trench or a ditch down through the corner of the 40 acres, to catch the other sump. . .
BC: Sorry. Was this the largest blow-out that there had been up to that time in western Canadian oil patch?
LS: Yes, I'd say it was the largest. The story was that it was the one that made oil history for

Alberta. It went worldwide.

BC: It was so big that it made the national headlines and international headlines.

LS: Right. It could have been quite a disaster had it caught fire.

BC: It's amazing it didn't catch fire.

LS: Hard to understand sometimes why it didn't. It was just one of those things. It's like we say when we go back to the old cable tool days, when those wells were blowing, some of those wells that we were completing or get completing with those high gas flows. But there was lots of rocks and one thing and another coming out of them and you wondered why they didn't catch fire. It had to be some kind of a spark that was natural, the right mixture.

BC: What do you think the petroleum industry learned from Atlantic 3?

LS: More control and more casing jobs, deeper casing jobs, more casing and different formations case off and cement it. And better blow-out prevention. In those days there was very little blow-out prevention. It took something like that for to make you realize that there was something big and some big disaster could happen ??? before. Rules and regulations were pretty open.

#125 BC: The rules changed drastically after this time?

LS: Yes, they did. Considerable with regards to strings of casing, cement jobs and protection throughout. But even with all the good equipment, it's only as good as the operators that are operating it I guess. The time of the year, weather conditions and everything has much to with those controls.

BC: Did this Atlantic 3 cause any changes to be made on safety regulations around the well head at all?

LS: Yes, it did. There were a lot of new regulations brought out after that.

BC: Can you think of any of them?

LS: Well, with regards to fire equipment and things that had to be on the job for control. Gas masks and equipment, protection to keep people from getting gassed and so on and so forth. First Aid people, you know, formed the companies to take care of accidents and fires. Fire fighting was quite a problem after they turned to rotary rigs. In the old days, the old cable tool rigs, we used to build the fire equipment into the rig because we had steam boilers and everything, so it wasn't near as dangerous then as it has been since they've had the rotaries. Because the rotaries came in, there wasn't too many regulations when they started at that time. I guess probably they weren't thought of. That goes along with the improvements and better equipment and better rigs and more experience in handling of these high pressures.

BC: When you look at some of the early pictures, such as you have of your father and grandfather and early pictures of yourself, standing near a rig you never see a hard hat. When did you get your first hard hat?

LS: That happened somewhere around when the ???, about '36, '37, when they began to get safety conscious. I'm sure that you see a lot of pictures, I look at them myself and I wonder, what happened. At that time when you see, even myself, wearing a little old toque or peaked cap. It didn't seem like there was as many accidents though, in those

days, from not having the hard hats as there was after they had them.

BC: Do you think that having the hat made people a little careless?

LS: Well, I think probably this is like, when the cat's away the mice will play. Some of the boys would be, you know, tossing things around a little bit just to see how good the hard hats were.

#171 BC: What did you learn yourself, Mr. Stafford, from Atlantic 3, as a driller?

LS: My thoughts on Atlantic 3, even before it ever blew out, were different than what we did when we had the blow-out.

BC: What were your thoughts?

LS: My thoughts from then on have always been this, for more attention being paid to the blow-out prevention, the operations of all the blow-out preventors, the cleanliness of the rigs and one thing and another, to get the crews educated that you can't shut in a blow-our running away from it. But you must think of what you're doing when you try to shut it in.

BC: Before they got to where they were having this problem where it ended up with no circulation, you had already suggested that this wasn't the way they should be doing it?

LS: No, I can't say that. It's an efficient job with a blow-out preventor were always my thoughts, that those jobs are just about as bad as you make them. There should be lots of thought and study given to what you're going to do next, as to whether it's safe or you know. . .

BC: What the consequences could be.

LS: Consequences could be.

BC: Obviously Atlantic 3 proved you right.

LS: Well, on my thoughts and I think there's probably 1 or 2 other fellows will probably back it up and realize the same thing, that the first time they run the line in the hole with ???, it shouldn't have been done and a lot of thought should have been thought out before they did what they did afterward, to get rid of that line. My experience was lots of ??? experience, because of cable tools. My thoughts were at the time, that we should have went right back in with a shot and hooked on to that line and shot it off on the bottom [instead of]??? trying to cut it off. That's the way we used to get lines loose in the cable tool days. We had to go in and cut them off or bump them off, as time went on we got so we could knock them off by the drilling motion of the beam, we could break them off. That's one time when line experience would have been. . . the shooters that had it were there at the time but the difference was that they'd get the line all tangled up in the hole and couldn't get it out after they shot it out.

#218 BC: Why do you think that would happen?

LS: I didn't think that would happen because my experience was that I could take the lines out of the hole. My experience was before with lines.

BC: So really, one of the problems with Atlantic 3 perhaps, were people that didn't have quite as much experience as was necessary?

LS: Well, I wouldn't say that, no, because that's the kind of experience that an educated engineer out of school probably needed, maybe he could have had some of that

experience had he done something else but just come out of school experience. I think probably if they'd had a little experience in those kind of operations their thoughts would have been different.

BC: And afterwards, do you feel that they learned that from the problem that was created?

LS: That's something that would really be a little hard to say, whether it would happen or not. It's always the old story that after you've done the job and it came out all right, then you know, you definitely did the right thing.

BC: You must have been running day and night for several months up there?

LS: Well yes, but we had. . .

BC: I mean running around, not just running but running around, trying to get things. . .

LS: We were always on call. There was 2 of us there at the time, Tom Wark, I don't know whether you've heard of him or something.

BC: Yes.

LS: Tom was with me there and he was in the supervision part of it.

BC: Can you tell me something about Mr. Wark?

LS: Tom was an old Turner Valley boy. He'd had a lot of experience, not too much in the cable tool business but he'd gone through all the process of roughnecking and one thing and another and handling rigs so he was quite capable of doing the job.

BC: What was he like physically, what did he look like?

LS: He was a big may, a tremendous big man, probably stand about 6'5" or 6" and quite heavy set with it. Quite a jolly sort of a fellow, gruff and hard talking you know, I guess he probably talked like most oilmen in those days.

#268 BC: Can you recall any incidents, anecdotes or things that you and Tom shared during those rather trying days of Atlantic 3?

LS: When he was on shift and out there he'd probably run into a lot of those little old deals, whereby I wouldn't hear about only what we talked about or something you know, like the time with the fire. We'd be standing out at the road, that was the little fire. A little discussion would take place about what you'd do with things and one thing and another. Everybody had a suggestion of something and I suppose he'd make the odd remarks too. I guess you'd say it was a long time ago and all those little things are kind of forgotten and some of them stick right in your mind.

BC: What other incidents stick in your mind of that time on Atlantic 3? There must have been some very dramatic moments and some rather amusing things that happened. Can you think of any stories that you can share?

LS: Just as a story, I mention Jack Emsley. He was kind of a likeable young fellow, heck of a lot of experience, ambitious. But he played and he played hard, drove fast cars and everything, he was a driller. I had him on one of the relief wells to the west. Of course, in this fast drilling with rotaries, where you're drilling fast and pumps are running fast and hard, your drill was liable to change on you and instead of going down it was liable to start coming back up. This particular time there was a reporter, a photographer had got into the rig, you'll probably hear this story someplace. It was just about the time this was happening and he'd come along and this was a kelly part was coming out through the v-

door of the derrick, it bent right over and come down pretty close to the walk at the ground like. Then little Jack, he got on top of it and here was this photographer out there taking his picture. I came along and I took, I guess a pretty hard look at him and I said, Jack, I think probably you'd better go up and work for your dad for awhile. I think you're better off when you do something like that, you find out why you shouldn't do it.

#322 BC: I'll say. It could have been very serious?

LS: We, it could have been much more serious than it was because it was his fault that he'd let it get out there. He'd have shut off the pump or something. But it's just one of those things that happens and of course, like I say, he played hard and lots of fun and one thing and another, he just thought it would be a joke. That photographer just happened along at the right time to have his picture taken on that. It's something like I say, in the rotary drilling, new drill, drilling fast, one thing and another, it does, it plugs up with cuttings and one thing and another and it will start pumping you right back out.

BC: Can you think of any other incidents?

LS: I could think of a lot of probably a little different stories but right in my own mind I don't think maybe I should tell them.

BC: One's that are good for recording.

LS: Like I say, we were on the one relief well that we had got in first, and we were standing around the casing unit, ??? the casing ??? between Cody Spencer and myself, they'd tonged??? that pipe all up on a cat head with a rope in those days, that's where like I say, when the combination men came in we used to do that quite regularly. The cable tool men would go over and run the casing for the rotary boys which they didn't like. You had to be pretty fast and pretty handy with the ropes spinning along ???. We were putting in one joint of pipe there and Spencer, he was on the cat head and my boy, Howard was standing there holding the tongs too, helping this other tong man, and all at once the rope flipped and caught and the tongs took off and opened and caught the other boys hand in the tongs. Which was kind of a bad accident. He was kind of foreign, he talked kind of foreign and funny and he had his hand in there, howling and screaming, my hand, my hand, my hand, it was in the tongs.

End of tape.

Tape 4 Side 1

BC: As we start today Mr. Stafford, I thought what I'd like to do is move from, after Atlantic 3, you were with General Petroleum at that time, and then, not too long after, you were part of the group that formed the Devon Drilling Co. Could you tell me about why you left and how the Devon Drilling Was formed and who was in it?

LS: The group that had started to form Devon Drilling Co. went about as far as they could go and they didn't have anybody to operate for them, or the ones that operated with them, they couldn't go much further. So they came and interviewed me, or I was recommended.

BC: And the group that formed them up to that time, before you became a part of it, who was all involved in it at that stage?

LS: Paul Moseson and Henry Vellner, Alfred Neff, who was a partner with Henry in the General Motors garage business. Then there was 2 boys from out at Winfield, the Scogman brothers. And 2 Pearson brothers and then a fellow by the name of Johnson, Carl Johnson. They had all more or less been partners in the lumber business, more or less for several years there. I think that was how they got together that they'd like to get into the drilling business.

BC: Were most of them from Mr. Moseson's area of Wetaskiwin then?

LS: Yes, well, Mr. Moseson operated a sawmill out in the Winfield area where these other boys came from so it was more or less all associated in that particular area, although they 38weren't all in business together, they were associated in some way together.

BC: Were the people that later became part of Scurry, they weren't part of Devon, like Mr. Faulkner?

LS: No, at that time Faulkner was with Pacific. Scurry was formed by a fellow by, I think Nauss and Dr. Link and a group of geologists that . . .and it was later that Lorne Faulkner left, after they formed Ponder. Ponder was more or less Faulkner's company.

BC: Now what year would this be that you formed Devon Drilling?

LS: It was in '48.

BC: When you say they came to you, you were the one with the drilling knowledge of course.

LS: Yes.

BC: Then how. . .did they offer you so many shares to have you come in and head up the drilling crew or did they offer you an opportunity to buy in, how did you become involved?

LS: They offered me an opportunity to buy in with them on an equal basis.

#043 BC: How many drilling rigs did you have?

LS: There was just one to start with, we ended up with 3. The first one they had more or less arranged for one but they couldn't get operating and get going until the had someone to operate the. . . well, to really operate the whole deal for them, from the drilling standpoint. There were 1 or 2 people before, I forget their names but they just couldn't get set up and get going with their. . .

BC: What kind of a drilling rig was it, that first one, do you remember?

LS: We bought a brand new Emsco 500, and the Continental Supply Co. backed the whole deal.

BC: There were different people had different ideas as to which was the best drill, or drilling rig to buy, what was your favourites, this one that you bought?

LS: They were one of the top suppliers. There was National Supply, Oilwell Supply and Continental Supply.

BC: What would be different about this particular rig, vis a vis another one?

LS: It's like the automobile, everybody had a name for their rig and there was probably a difference. A Ford was a Ford, an Oilwell rig was an Oilwell rig.

BC: There wasn't that much difference though in the. . .?

LS: The principle of the deal was all the same practically. Different sizes and different names for what they produce, like Chevrolet and Ford. Chevrolet has a series of smaller rigs or

different sized rigs underneath them.

BC: But with cars, often there is a difference in the actual mechanics of how it is run, whereas with a drilling rig, were they pretty well, it didn't matter which one you bought, they'd all do the same job equally well?

LS: That's right, yes. There was not too much difference in them, only models and a few things different. But the operations were essentially all the same.

BC: Can you recall any stories or any background on Mr. Paul Moseson?

LS: When I knew or after I first knew him I found he was a big man and he had a heart just as big as him. He was always trying to do something bigger, or instead of looking after himself he was more or less trying to look after somebody else all the time. There was nothing he wouldn't do for anybody, if he thought he could help them. His own business probably suffered more than what his other partners suffered with their businesses.

#083 BC: Can you think of examples of when this would happen?

LS: This is what we were saying before, the partners in the company were more or less connected in some way with Mr. Moseson's good heartedness I guess, in helping them out in probably a branch of the same business or something like that for several years. He was quite interested in the Malmo??? district, a lot of his folks had farmed in there and raised families. So he more or less said he came from Malmo and he moved into Wetaskiwin. He started up a lumber yard and he run his sawmills on the outside and like, his other partners were more or less, he was the king and they were all the. . .

BC: The princes around.

LS: The princes around him. And everybody thought real well of him, he had a big name. He was a very good businessman.

BC: So that you would feel, going into the Devon Drilling with him heading it, it was a good company to go into?

LS: That's right. And of course, I was looking for advancement myself so it was just about the right time for a lot of contractors to be trying to get into the business of contracting.

BC: Do you remember how much it cost you to buy into Devon Drilling? If it's not too personal a question.

LS: Yes, I do remember but I had the chance of putting in as we went along. The more we expanded the more I could put into it. But I couldn't put into any more than I could handle myself.

BC: Like, would you have to put down, say, $5,000 to be a partner or was it that much?

LS: You took an interest for a certain amount. I wouldn't say it was a closed company and what shares we held were valued as time went on. It took in the neighbourhood of $5 or 6 thousand to . . .

BC: To get in, to make the first step.

LS: To get started and set up the company.

BC: What was your first drilling contract and who with?

LS: Our first drilling contract was for the Tower Petroleums out at Killam, east of Wetaskiwin.

BC: How successful were you?

LS: It was a successful drilling job but a dry hole.
BC: Successful for you, not so much for Tower. Who was involved in Tower?
LS: Wilder Ripley was more or less the promoter.
BC: Did you ever talk with him, did you ever meet with him?
LS: Oh yes.
BC: Can you recall anything about Mr. Ripley?
LS: He seemed to be quite active and he was in a position probably, to do quite a lot of promoting. He had been in the seismic business so I guess he thought he would like to promote a drilling company.

#127 BC: Did you just drill the one well for Tower?
LS: No, we moved right from that one over to Sedgewick and we drilled a well there for them which turned out to be a dry hole too.
BC: Then what was your third job?
LS: Of course, we were always looking for work. We had a chance to go into the Redwater field when it broke open, the discovery well there. So we moved over into Redwater.
BC: Who were you working for then?
LS: We drilled one for . . .I think our first well was . . .I just forget on that now. We had a chance to go with Imperial on their discovery but we couldn't get relief from the Tower Petroleums. Finally, they didn't come up with another well so we went into the Redwater field with. . .Pacific Petroleums.
BC: How would you go about getting a job to drill for a company, did you do any of that?
LS: Yes, I was interested in selling the company. We had to go out and bid on the job then, same as anybody else would. It was on a footage basis so we had to consult the different companies that had something to drill and we'd bid on the job and if we were successful . .
BC: How would you find out about them though, and where would you put your bids? Were the ads put in the paper or how did you find out?
LS: No, we just . . .as oil companies were formed and wanted to drill, you just went around and inquired with them, see if you could get some of their work, some of the drilling. Sometimes if rigs were scarce or something, they would call you and make you an offer that they had some wells to drill if you'd like to bid on it. It was all contracting, well, it was strictly a bidding job.
BC: With you being the drilling supervisor, today, the drilling supervisor wouldn't be involved in that sort of thing as much would them?
LS: You could get too big so when you were working up, working into something, you were building a company so you weren't that fussy about trying to do . . . you can't say that you weren't qualified for it but it got so that somebody wanted to be a salesman and sell nothing but drill rigs well. . .
BC: Did you ever get that big in Devon?
LS: I was mostly the general manager for all of the years we had Devon, until we began to break up. It was my job to go and interview somebody on a contact, make an offer. . .
BC: Doesn't most of the business take place in the Petroleum Club or the 400 Club or in the

offices?

LS: In those days there was no Petroleum Club.

#175 BC: What passed for the Petroleum Club?

LS: Take them out to dinner to a top restaurant or something.

BC: Like to the Palliser Hotel?

LS: The Palliser Hotel was quite a place in the earlier days for entertainment.

BC: Because this would be, they always say that more business is conducted over dinner and cocktails than ever there is in the office. Was it the same back then?

LS: Well, yes, in a smaller way. With the expense accounts and so on and so forth, they were just coming in, just starting and were fairly small, wages were small.

BC: When you'd been with Devon, or when Devon had been established for a short time, then the next thing that came along was Scurry and Ponder. Were you involved with both of those?

LS: Not that much, I bought stock in Scurry, treasury stock when they started, but that was more or less the start of a company, where treasury stock was put out at a price and if you can afford to buy it, and some of the partners that had started of course, took up probably as much as they could take.

BC: And who were the people, you mentioned Ted Link was one?

LS: Ted Link and Art Nauss.

BC: Could you tell me about some of these people, your impressions of Mr. Link for instance?

LS: Link was an old time geologist and I'd known of Link for a lot of years before this began to happen. He was an Imperial Oil geologist and I knew him in our Turner Valley days when we were rattling around Turner Valley.

BC: What do you remember about him in Turner Valley?

LS: I just remember Dr. Link and of course, we used to meet at ???, just more or less carried on a normal like, nothing special. I suppose you could say it was just like today, only it's a little bit faster way of knowing people and knowing these old timers. We lots of times had to go to those people to get a little bit of advice as to what we were doing in our own drilling operations. They would get the samples but it we were looking for a marker or a total depth or something like that, sometimes we'd have to go down to Imperial or Royalite offices or someplace to get that information.

#220 BC: They were very generous in sharing the information and their knowledge then?

LS: In those days, there weren't too many geologist doing that. Most all these smaller companies were trying to build themselves up, they couldn't afford to, wouldn't have a special geologist, maybe somebody in that organization or from some of those organizations where they set them up in their acreages.

BC: Would you have to pay for this information?

LS: I imagine they would, yes.

BC: So Mr. Link would be like a consultant, although he was working for Imperial?

LS: Well, he'd be working for Imperial but I wouldn't say that he probably acted as a consultant. That is, in a big way in those days, because it was . . .if somebody wanted a little information, probably he gave away a lot of valuable information that probably

didn't get, when it comes to whether they were specially paid for or something, it would be maybe in stock or leases or something like that.

BC: What about Mr. Lloyd Faulkner?

LS: He was with Imperial for quite a few years I guess, and then he went with Pacific. We were mixed up with them in a way, because we bought a rig from Pacific, or Pacific had bought in a rig after we had started. They didn't have work for it or didn't figured they'd do their own drilling for it ??? supply company, we bought it for Devon Drilling Co.

BC: What did Mr. Faulkner look like?

LS: He was quite a tall man, quite slender. He was always a little bit on the grey side when I knew him, quite active.

BC: I understand that he really enjoyed horse racing, things like that, did you ever come across that side of his nature?

LS: That's where the name, Ponder came from. When he was with Pacific before Ponder was formed they had a racehorse and the name was Ponder so they thought that would be a good name for the oil company when they started.

BC: But he'd already started Scurry, he was in the beginning of Scurry, right?

LS: That's right. He was mixed up then, with those other fellows.

BC: Then they also formed Ponder.

LS: It was after that that they formed Ponder.

#265 BC: Why was Ponder formed, can you recall?

LS: It was like all the other little companies, they just got together and formed a little company. They thought there was a lot of money to be made and leases had to be drilled so companies were coming up.

BC: Was it better to be in 2 or 3 little ones than 1 big one?

LS: There wouldn't be too much exploration if they didn't have the little ones. It was the little ones that actually did the exploration and then the larger companies, more or less as they do nowadays, there were amalgamations and they were picked up and they were more or less absorbed into the bigger companies.

BC: But like, for one person to have Scurry, and then to form Ponder. Because they were the same people who were the major stockholders in both, right?

LS: Partly yes.

BC: So what would be the advantage of that, there was obviously an advantage or they wouldn't have done it?

LS: I guess you could say that's what it's all about. As things progress and there was kind of a boom on, a chance, everybody wants to advance and they do something for themselves, instead of just being tied up in one spot.

BC: But like Lloyd Faulkner and Ted Link, they'd already made Scurry, they'd already formed that, right? They were part owners, along with Mr. Moseson, of Scurry Oil, right?

LS: A group had got together and they had a bunch of acreage and bought up a bunch of acreage, enough to make a company out of.

BC: Right.

End of tape.

Tape 4 Side 2

LS: . . . in further for me to get and so the, I don't know, it just makes you feel like your progress is getting better all the time, instead of going behind, so they give you a bit of a lift.

BC: Did you find that when it was your own company like that, or you were a part owner of the company, that it made a difference as to the length of time you worked each day or could or could not work or this sort of thing?

LS: Yes, it did. It wasn't like working for somebody else, you were working for yourself so your time was, you were always available and you tried to keep in touch with everything, you might say 24 hrs. of the day or all day. The phone might ring and wake you up in the night or something or you were trying to do as many jobs as you did because, even though you were supervising, drilling supervision, supervise the drilling of it, the boys from the rig or the tool pusher would call you or want some advice or something, which you'd be responsible for. So it was nothing to be called through the night or anyplace you might be to be interrupted.

BC: Did you find this an enjoyable role to play?

LS: Yes, well, it was quite interesting. There was always something to do and always something to keep your mind occupied, looking ahead to find ways of improving things or something that you might have to think of improving.

BC: Did you ever with that you could just go back and be the drilling supervisor rather than having to supervise others? Is there a point that this happens do you think?

LS: Yes, there is. That applies to where you go, probably just sit in an office all day long or something, maybe you sit in the office for the duration of the time the office should be open which would be 8 hours or something like that. It seems like that, it's something you get quite tired of, probably your mind would sooner be occupied with the outside operations, with what was going on outside. So it does make quite a difference at times. I guess especially if you'd come up through the ranks of the school of experience.

BC: Did you find this a difficult adjustment to make?

LS: No. They're not that difficult, it's just the feeling that you have, for the outside. I'd probably say a little hard to explain but most people if they're in it, they're looking for a little bit more of the background coming up.

BC: How long were you involved with Devon Drilling?

LS: I operated Devon Drilling for about 9 years.

BC: In that time you became part of the Ponder Oil did you?

LS: Not exactly. Ponder Oils was formed before Ponder, then when they started the Ponder, in building up Ponder they looked at having more power in Ponder. Which if they owned the drilling company or had the drilling company, it would put that much more backing in Ponder. So they decided to sell Devon Drilling Co. to Ponder. But that was on a stock basis for the rest of us, Ponder stock was issued to take over the Devon Drilling Co.

#050 BC: At that time there were some people who were shareholders in Devon, who also were shareholders in Ponder, such as Mr. Moseson.
LS: Right.
BC: Were you also in both?
LS: Yes. I had escrow stock or . . .
BC: And who else would have stock in both of the management level?
LS: After we put Devon Drilling Co. all the partners of Devon had stock in Ponder because we had taken stock for our interest in Devon Drilling Co.
BC: Was there any opposition to this change in status, from the Devon to the Ponder?
LS: Not at the time, they pretty well all agreed.
BC: But it didn't become, it wasn't a happy marriage in some ways.
LS: No, not exactly. I think it was just like. . .well, I don't know just how to put it. It's the same thing as we're going through now with, in those days it was just another boom and when the boom peaked things rolled downhill. That was the time when the Ponder stock, instead of going up and one thing and another went down and kept going down. That lessened our interest in Devon Drilling Co. and Ponder at the time.
BC: So what happened to those 2 companies?
LS: Ponder finally amalgamated with Amerax???. Amerax was taken over by Ponder.
BC: Amerax was taken over by Ponder or vice versa.
LS: Ponder was taken over by Amerax.
BC: And who were the leading lights in Amerax?
LS: That's when I was losing interest in those companies and at the present time I don't know just what the. . .
BC: Was Mr. Moseson still with you at that time, was he still with Ponder at that time?
LS: Right, yes.
BC: How did you feel, you people, this was a bigger company kind of swallowing you up?
LS: Some of us thought we'd like to have a little out of it ourselves and the top part of the company then, was more or less squeezing you.
BC: Who were the top people in Ponder by that time?
LS: Moseson and Faulkner, then there was somebody else had come into the company then, I forget his name. I had left Ponder then and our secretary-treasurer, Alfred Neff had left. They'd had a meeting and we'd both decided it was time to clear out on our stock, or try get rid of our stock. I don't want this on there.
BC: Do you want me to stop it? [tape stopped] Now, if we could just get this straight as to who went where with whom. Devon went to . . .?
LS: Devon Drilling went to Ponder on a stock deal. Our interests then for Devon Drilling Co. were in Ponder stock. Then Ponder finally, the stock was struggled??? down till it went to Amerax, and the drilling company went with it. So it left Ponder kind of on the outside.

#100 BC: Nothing left if you haven't got a drilling company.
LS: They had nothing left you see. The production had traded and the drilling company was traded.

BC: So it was a skeleton.
LS: Right.
BC: What about Scurry now? It enters in this picture somewhere too.
LS: Scurry Was taken over by Rainbow, that's where Scurry Rainbow comes in. Now the offices and the particulars on Rainbow, I just can't remember them all now.
BC: Somewhere in there was Murphy of Murphy Oil. Could you tie that in as to where he was?
LS: No, I can't just tie in the Murphy, only through Murphy Oil. Murphy Oils went . . .or the interests of Ponder and stuff, went to Murphy Oils and the drilling company. That was the time that drilling companies. . .well, drilling contractors and oil companies, which Murphy was an oil company and drilling rigs and one thing and another, like, it's still in contracting ways, didn't just agree on having their own contractor drilling for other people, for other oil companies. Because information then could be traded or vice versa. So the drilling company was broke up and it went back to Continental Supplies through a deal of Murphy's where they traded drilling rigs back in to production equipment.
BC: So without the drilling, that was like cutting off one arm wouldn't it?
LS: That's right. That's all the drilling company had was drilling and drilling contractors. So the rigs went out again, or they were taken over by. . . that name has slipped.
BC: It'll come back. So when all this happen and the drilling rigs were sold, where did that put you Mr. Stafford?
LS: I had left the drilling company when it went to Ponder.
BC: Why did you leave?
LS: That's another reason that ??? the stock juggling and one thing and another, why. . .
BC: You were sort of one of those ended up looking out from the outside looking in a bit.
LS: That's right, yes.
BC: Where did you go then, from there at the time that Ponder had the big takeover, where did you go to?
LS: I left Wetaskiwin, we were living in Wetaskiwin at the time because we were operating from there. We moved back into Calgary and I just started working again.
BC: Who did you start working for?
LS: I went with the Cantex Drilling Co. for . . . I was going to operate. . . the partners in Cantex were changing over and I went with them for awhile to straighten up. I was ready to operate for Cantex, that is to take over the drilling company, which happened not too long afterwards.

#147 BC: And where were you drilling?
LS: Cantex had. . . I've never went drilling since myself. I've never drilled since we formed. . .
BC: Since you formed Devon.
LS: . . .up for General Petroleums. I was supervising drilling, ??? be a supervisor. . .
BC: Where were you supervising then?
LS: . . . in 1947.
BC: Where were you supervising then?

LS: I supervised for the National Petroleums from about 1935 to ‘47.
BC: No, I mean when you went with Cantex, who were they working for?
LS: They were in the contracting business and they were operating about 12 rigs.
BC: That was a pretty big contractor then.
LS: I was field superintendent for . . .
BC: Who headed up Cantex?
LS: It came from the States, the Bass brothers. Harry Bass and sons I guess you’d call it.
BC: What area was Cantex involved in?
LS: They were all over. British Columbia, Alberta, Manitoba, Saskatchewan.
BC: If they had a dozen rigs and you were supervising, you must have had to go and do an awful lot of travelling.
LS: I did a lot of travelling, yes.
BC: This would be in the early 50's.
LS: ‘56, ‘57.
BC: How easy was it to get around quickly in ‘56, ‘57?
LS: We did quite a little flying to areas and travelled by car.
BC: Did you have any interesting experiences, trying to get from one drill to another?
LS: Yes, there was lots of problems and bad weather.
BC: For instance, tell me of a trip, a typical one?
LS: There were so many of those kind of trips. You started out, maybe you left Calgary and went up into the Fort Nelson country or places like that in the car and the snowstorm come along. Sometimes you’d get part ways, sometimes you’d get stranded, have to wait a day or two and travel out, travel all night.
BC: What emergency things did you take in your car whenever you were travelling in those days?
LS: Most of the time we packed quite a fair sized emergency kit and took sleeping bags. Everything, extra gasoline and those heaters, stoves, that you might be able to use.
BC: Did you have any kind of walkie-talkie type of thing in case you got. . .?
LS: We always had the mobile phones in the cars.

#193 BC: Did you use it very often?
LS: We used to use them all the time for any communication along the road, where we’d call in from someplace. If you were within range, if you wanted to call a supply house or anything, or call the office, your range was set up so you could use them just the same as the telephone system.
BC: What were the roads like at that time, had they started to improve?
LS: Yes, they were improving roads all the time but bush roads or travel in the bush was just a road cut out in the winter time, just trails.
BC: What did you travel in then?
LS: In the car.
BC: What kind of car would you take?
LS: Sometimes we’d have. . .we usually drove our, it was an area where we’d drive the ordinary automobile, our cars, we travelled it all the time. And we’d get probably in so far

or something and then we'd have to take over with 4 wheel drive or a snowmobile or something. We adapted to the time of the year, if you couldn't get to the rig with one. So lots of times you'd park your car someplace and take over with a 4 wheel drive and go on in, maybe to the locations which would be several miles in.

BC: So when you went out on these, we'd have to say inspection tours, how many days or weeks were you out before you ever got home?

LS: That depended on what you had to do on the supervisor job. Maybe it was a fishing job, maybe it lasts for a couple of days and maybe it lasts for a couple of weeks. If it lasted too long you'd have to have somebody come and relieve you.

BC: Rather a nomadic existence for a family man.

LS: It spoiled your home life.

BC: This would be very difficult I would think.

LS: It was a difficult time, especially in the early days because you were on the go all the time. As time went on then things were better organized you probably had service men that you could call out, you could trust. Like, you maybe went out on a fishing job and you had fishermen you called out, a service company to do the fishing for you. You were more or less just supervising and helping with him and you could go away and leave them probably if you felt safe or they were capable of doing the job themselves.

BC: How many miles do you think you would travel in a year, from rig to rig to rig?

LS: I've travelled as high as 160-170 thousand miles.

#242 BC: That's a lot of driving isn't it? And where was your family living at that time?

LS: We lived most of the time, when we were with Devon Drilling Co. we lived in Wetaskiwin. Before we went to Wetaskiwin we here lived in Calgary, then when we went to Wetaskiwin we lived there all the time then we came back to Calgary and we lived in this same house here for the last 27 years.

BC: And how much of that time, say in a typical month, how much time would you and others who were working in this same kind of position, how many days or weeks would you be home in a month?

LS: In later years we had relief, maybe there was 2 or 3 of us doing the same. . .

BC: Now when you first went to Cantex?

LS: When I first went to Cantex, the tool pushers were on the rigs, one thing and another, and I spent probably the first 6 months or with Cantex, just travelling around from rig to rig taking inventory, making inventories and we were in and out of different areas.

BC: How long were you with Cantex did you say?

LS: I went to work with Home from Cantex. Or at least, I might say, the deal with Cantex didn't go through. I had a problem, I had an operation on my hand and I wasn't well so I took time off. I had the operation and when I was recovering from it I was out trying to work and get around and I got crippled up from it and I decided to take time off, sick leave.

BC: What happened to your hand, was it a drilling accident?

LS: It's what they call a ??? contraction and my hand all drew up like that.

BC: Is that from the drilling, was it work related?

LS: No, it could have been caused from a burn or something just started it one time but it's something that can be hereditary.

#287 BC: So then, after you recovered the use of your hand properly then, where did you go, you weren't with Cantex so where did you go from there, this was when you went to Home Oil?

LS: This was another case of where Cantex had decided then, they wanted to get out. Or the operators of Cantex wanted to get out at the time. I was going to take over the Cantex Drilling Co. and we couldn't agree on just the takeover or the time to takeover. And they decided, they kept operating a little longer and a little longer then I wasn't happy with the operations that way. I was either going to take over or else I wasn't operating for them.

BC: So you gave them an ultimatum and then left.

LS: I decided to take the time off, when it came time. I took 3 months leave of absence or something and when it came time to go back again I decided that I didn't want it that way.

BC: What position did you fill at Home Oil?

LS: I was drilling supervisor.

BC: The same position then, you just moved, only a bigger operation again.

LS: No, I wouldn't say it was bigger because Home was an production operating company. So you were more or less looking after their drilling but their drilling was all contracted. So you don't have that much to do with the drilling rigs, you look after the . . .

End of tape.

Tape 5 Side 1

LS: . . .big operation. That was after the Swan Hills that Home had the first discovery well there in the Swan Hills.

BC: Yes, just before we get into what you were doing with Home, if I could just go back because we didn't have the machine going. When you went to Home, there was someone that was really instrumental in you going there, could you just tell us how you got into Home Oil? And then we'll go into the Swan Hills.

LS: You might say I was looking for a job and when Home started up their big operations in the Swan Hills is when. . . I didn't know whether I wanted to go back into contracting or whether I wanted to just . . . This had come up because I could have went back into contracting again because that's what I was working on with Cantex. When that didn't materialize I was available then for something else.

BC: Who invited you into Home Oil? Who hired you or interested them in you?

LS: The drilling superintendent, who was with Home Oil then, was Howard Wycoff???. I knew a few of the officials at Home Oil so there was nothing, that is it wasn't just walking into someplace where you weren't known at all.

BC: No. Tell me about Mr. Wycoff?

LS: He was from the States, he was an American. He'd come up here to work for another oil company and that had played out, it didn't last too long. So one of the. . . he Was more or less in charge of all their outside operations, a man by the name of Gillespie, apparently hired Wycoff as a drilling superintendent when they were setting up for their first big run.

BC: Was that Mr. Bart Gillespie?
LS: Bart Gillespie, yes.
BC: He'd been with BA Oil at one time.
LS: At one time I think he was, yes. And in the setting up of Home, he worked over into Home some way, he was there when I . . .
BC: Did you ever work with him, did you know Mr. Gillespie well?
LS: I knew him just as. . .because it was long afterwards when he'd left Home, had changed over again. But Howard Wycoff had come in then to take over the drilling operations.
BC: Tell me about Mr. Wycoff?
LS: He was a drilling engineer and he had had some practical drilling experience himself. Through some of the drilling contractors and one thing and another had come up from the States. I guess he was pretty highly recommended from the job. As I got acquainted with him and I guess probably knowing what I knew about oil operations, one thing and another, I thought he was a very good man. I'd have to say he was probably one of the best field engineers or engineers for the operations that I'd worked with.

#044 BC: In what way did you find that he was so superior?
LS: You find fellows that are more or less, a little outstanding in what they do, in their operations and one thing and another. Probably myself, people like that are more or less always in demand and if somebody knows something about their background and their experience they have no problems much in going ahead or getting jobs.
BC: Who else was in Home Oil when you went in that you can remember any incidents about?
LS: There was quite a few of the boys, they were old operators with Home. There was in their drilling department was run by Gordon Webster. Gordon Webster operated for Home for quite a few years in the latter part of Turner Valley. Somebody like Jack Hamilton, Jack Hamilton was, he had operated in Turner Valley for a long time for Home, production man. Of course, a lot of those fellows have changed or disappeared at about the time that . . . as things come up well. . .easy to put it I guess you don't hold the same job all the. . .
BC: You certainly don't today.
LS: In most cases.
BC: Shortly after you went to Home was when you became involved in Swan Hills.
LS: Yes, they had the first discovery in Swan Hills and that's when Home began to put a drilling department together.
BC: With the Swan Hills, this was a big discovery of course, wasn't it?
LS: Yes.
BC: Did you know Mr. Hans Suter?
LS: I knew of him, yes.
BC: You didn't know him though. You were involved with the discovery well at Swan Hills?
LS: No, this was after they had the discovery well when they started the. . .
BC: Tell me what was special about Swan Hills? From a drilling standpoint?
LS: I just don't see what you're. . .

BC: Like, was it similar to, like the strata, was it similar to, like Leduc or Redwater? Was there something there that. . .?

LS: All those fields are similar ??? the elevation, the higher formations. You drill in any of these oil fields you're always looking for that big reef they call it, when you first started like Leduc. You find those same formations but probably laying in a different depth and different slant.

BC: Was it more difficult to drill there than say, in Redwater?

LS: Yes, it's more in the foothills, ??? problems and drilling problems that they don't have out in the flat country.

#088 BC: How successful were the drilling operations that you were involved with?

LS: They were all very good. You had your problems that you had to overcome with regards to fishing jobs and one thing and another. But with improved conditions and one thing and another it was updated from, you might say, Turner Valley days. Turner Valley days was a foothills area. All the foothills areas, they're problem areas with regards to drilling. You get out in the flat country, the prairie country where elevations are different and the lie and dips and the faults are not. . .

BC: Was there any particular problems in drilling in Swan Hills for you?

LS: No, I can't say there were any different problems. The problems we had, we had to overcome. There was lots of problems in running casing and one thing and another which we had to overcome, even after they drilled the hole, before we ran the casing it probably had to be reamed out or more or less, drug back on to directional drilling programs.

BC: How long did you stay with Home?

LS: I was at Home till I retired.

BC: Did you, how many years was that then altogether?

LS: I retired in 1970.

BC: did you consult afterwards?

LS: Yes, I consulted, did a little consulting for Home. And I went down in the States for what used to be National Petroleums at one time, for a couple of jobs. I was down there twice for short jobs which concerned permeators??? in the production area.

BC: Do you still consult at all?

LS: No.

BC: You really finally did retire you mean?

LS: Finally retired, yes.

BC: You look as if you should be able to go back and work tomorrow, for another 20 years.

LS: Well, thanks. I sometimes think I wouldn't mind. The last job I did consulting, when I got out there, why, they kept me out there a little too long for holiday season. And I began to feel the effects of the time.

BC: You thought maybe you were back well sitting or something.

LS: That's right, I had been out there for 22 days I think it was.

BC: Is that right? Which is a long time in these days.

LS: The fact was it was holiday season and I was more or less relieving some of them on holidays.

BC: Could we go over some of the people that you have been involved with during your long and distinguished career in the oil patch. You mentioned a couple that I will just go back over perhaps, Mr. Jack Hamilton, I don't know if you said very much about him but that name keeps popping up. He was a buddy for a number of years was he not, I mean he was in the same patches that you were?

LS: Jack was more or less production. When they first brought in their production in Turner Valley Jack was moved in.

#135 BC: For Home at the time?

LS: For Home. Well, there were smaller companies that came up that through Home's amalgamations and one thing and another made up Home Oil. Valley Oil Operators and small companies like that. Jack more or less worked in through all those production companies, lived in Turner Valley. So when they formed Home Jack was considered one of the senior men in production. So he was given a job in Calgary.

BC: Do you remember much about him as a person?

LS: He was always quite a steady boy, we were friends, Jack and I were friends for all those years. Jack was quite a hockey player on our little Turner Valley organization and sports days. Of course my boy was too so we were together quite a lot in Turner Valley through the clubs.

BC: It seems that the clubs in those days, the Turner Valley clubs, they were really the hub around which everybody spun eh?

LS: That's right. You know, for entertainment or anything, what they called the golf club at the time, we'd play golf or entertainment. Like the clubs they have nowadays, it was all built up from the early days and just kept coming up.

BC: You mentioned Gordon Webster.

LS: Gordon Webster operated for them in Turner Valley. He operated their drilling department, he was more or less the drilling production engineer. He met with a bad accident in Turner Valley when they were acidizing or bringing in a well and he had his legs, both blown off, cut off with a swinging pipe around.

BC: Completely cut off?

LS: Yes.

BC: Did he live through it?

LS: Yes, he did, he did very well but he was, for a long, long time getting over it. They kept cutting his legs off and cutting off more till they were both above the knee. One is pretty well up to the hip. He finally got over it and ???. they always kept Gordon around, he Was a good man, he was always in one of the top jobs in Home.

BC: He was fairly high up when this happened was he?

LS: He was an engineer looking after their operations in Turner Valley.

#177 BC: I think it's amazing how many years you were around the drills and you don't have any, really, you never had any bad injuries?

LS: Well, I have to say, I did very well. My back problem now is from an injury.

BC: Oh, is that right.

LS: That I got back in 1934. We were bringing in a gas well. That's when I was talking about these cable tools and your blow-outs and one thing and another. I had just went on shift this particular day and we were drilling along and just popped into a production zone. The tools were stuck in the hole, at the time we picked up, got them loose, we were trying to get out of the hole with no blow-out prevention. The well was blowing all the time. Then it was blowing the tools with enough gas to carry the tools and the line that the tools were coming out with were flopping all over the derrick. I had picked up a big piece of pipe to kind of guide the line and keep it in what we called the line shaft and I slipped and fell and pulled all the muscles in my hip joint.

BC: You're lucky it wasn't worse than that?

LS: Well, it's given me a lot of trouble over the years but I've learned to live with it. It's just one of those things that happen at times. You're trying to do something, you don't know what you're going to do but you're going to do everything you can. If you make the wrong move well, you're in trouble. But I guess we made the right move even though I did get crippled up a bit.

BC: Looking back over the years that you worked in the oil patch, what would you think of as the most exciting time you had?

LS: I think when you think back and you look at a lot of things that have happened, or that do happen and you get ??? on them, I guess you're quite fortunate. I was on the job when they put in the. . .I used to be on the job when we were using that nitroglycerine. We were shooting a well for Northwest Co. then, that was eventually Royalite. There was just the shooter and I and the rest of the cable tool crew that was on the job. This, his name was Charlie Stalnacher, he used to come out of Shelby, Montana, come up to do those jobs. So he was putting in a shot of the nitroglycerine one day and they used what they called the solidified, it was like a jelly to start with. Then they poured in the real glycerine on top of that again. We were making up the shots and I was sitting there holding the can, we put it in cans and then lowered it down into the well before it was shot. I was kind of watching for the can to fill up and it didn't seem to be filling up at the time. So I was kind of looking and I said, something is wrong, this can is not filling up. That took his attention away from the nitro just to see what was wrong, looked down on the floor and here the nitro was running out of the bottom of the can and I was standing in it. In those days we wore hobnailed boots to keep us from slipping, we called them hobnailed, they had nails in the bottom.

#239 BC: Oh sure, like they use for logging out at the coast.

LS: He looked at me and he just kind of grinned and he said, don't move. I didn't move.

BC: All it would need is the rub of that nail and you would have been. . .

LS: So he got some desensitiser and . . .

BC: What would he do to do that?

LS: Came back, poured it on us and wiped it up and then I had to sit there on the floor until he wiped the bottom of my shoes off. Nothing happened but it was real exciting for a few minutes.

BC: I'll bet it was, did you have any other interesting experiences or near misses like that,

during your years? I'm sure you've had so many, you can hardly decide, this one or that one.

LS: The time they put the big shot, they shot those wells in Turner Valley. . . well, it was actually just the one. They were shooting them all the time but actually, the one well they decided to put the big shot in, 5,000 points of nitroglycerin. When I was on the job then I was hired from National Petroleums then to ??? Associates when they put that shot in. I was actually running it in, I was running the equipment myself. The nitro was all run in with tubing, we filled the tubing and it was run in through marbles. The tubing was filled with agates and then the nitro was run into the tubing till the tubing Was full and then we'd let it down the hole and put another joint of tubing in. We had just finished filling, and we had quite a string of it then, we just finished filling one stand and put another stand in to pick up the tubing ??? run it down the hole. I just picked it up and I happened to look up and the elevator that held the top of the tubing was half open. Just half of it had caught underneath the collar and was holding it up there. We'd picked it up enough that the ??? on the floor had pulled the slips up from it. I looked up and I seen that and I didn't say a thing, I just kind of froze there and looked down at the boys on the floor. And I said, put those slips back in easy like eh. They set the slips back in around the pipe and ???. No reason why it didn't that we could explain but it just didn't slip out of those elevators.

BC: You had someone looking after you.

LS: If it had started down the hole it would probably have been kind of a disaster on the surface.

End of tape.

Tape 5 Side 2

BC: . . . Swan Hills and then from there, where did you go?

LS: The Swan Hills operation were still going strong. After the first ??? they branched out like, and wells were drilled probably out on the flats here, like Brooks and down in the Medicine Hat country, and Redwater ways. So some of us, we would be from one place to the other. And the northern part, like Carstairs and all those gas wells were drilled then. So you were here there and all over you might say, through Alberta and B.C. when drilling was at its best.

BC: A great deal of travelling.

LS: We drilled a few wells in the Territories, beyond the border, in the Liard and Slave Lake country.

BC: Can you remember any of the people, or perhaps we'll do this when we go over the ones, some of the people that you worked with in these areas. But from there, you seemed to travel for Home, your position changed or your responsibilities were enlarged because you didn't just spend your time in the Alberta oil patch.

LS: With Home, you were probably taken, maybe it was your experience or the people that they wanted to send someplace that your experience qualified for the job. Because we all went, the fellows that went with Home, like Ed Radke and Bill Warnick and Rod Derosey and those people, we were more or less stabilized with Home. Jobs that come out on the outside, we were more or less spread out on them, if you were qualified. In my case I was

qualified for, I did a little bit of everything. I even, you might say, the drilling and production and putting wells on production and everything from one end to the other. So I guess probably I was given those jobs for what experience I'd had to be able to take care of them.

BC: So you went all over Alberta and you would be working in Saskatchewan at times?

LS: At times I was working in Saskatchewan and times . . .

BC: What part of Saskatchewan?

LS: I was around Estevan and some up in the Saskatoon area, there were a couple of little fields drilled up in that northern part there. You might say, pretty well over the province really.

BC: You went back east too?

LS: Yes, Home was doing a little drilling in the Ontario field and I went . . .

#040 BC: Whereabouts in Ontario?

LS: We were around Sarnia.

BC: So they were still looking to get more production out of there. Were you successful there?

LS: They got a little small production. There's a lot of those little fields had been producing for a good many years. As far as updating those fields or those productions, it was more or less, edge wells I guess.

BC: You also went over to England, this would be North Sea drilling were you involved in?

LS: Not on the offshore stuff. Our drilling was all on land then. But Home had drilled, through British Petroleums, with British rigs, 3 or 4 wells over in there before I was over. But when I went over they had to get ???, England didn't have equipment for rigs so our equipment then was brought in from Germany and the crews came from Germany, they were all German boys.

BC: And you supervised them?

LS: I supervised the drilling.

BC: Do you speak German?

LS: No.

BC: Was that a problem?

LS: Their drilling superintendents spoke very good English. Most of the boys, the average boys on the rig they knew a few words. But with sign language and what you could go through, you get along very good with them. I found them very good fellows, they were all, most of the drilling crew were all young fellows that probably were raised after the war or about the time the war was ending and one thing and another. And although the English boys took kind of a dim view of them being over there, they got along very well. But the English boys wouldn't work much on the rigs.

BC: Were they afraid of the rigs?

LS: I don't know whether they were afraid of them or . . . roughnecking was always classed as kind of a rough job and I think a lot of them figured, it's probably just a little bit too rough for them. After they'd work for a few days they'd disappear, they wouldn't come back. So they didn't keep too many jobs open for them but there was always a chance. But the first driller we had over there, I was all by myself I was in charge of the whole

thing and I would report back to Calgary all the time. That distance was pretty hard to do on the spur of the moment, sometimes your communications were a long ways apart, you had to make decisions on your own. So I guess, probably the decisions that I could make and was capable of making was a lot of my reason for being over in England.

BC: Yes, because really, you have to have that answer, yes, no, we will, we won't.

LS: That's right.

BC: Because it's a very competitive field. Were they successful in their drilling?

LS: Yes, quite successful. That's when we, the first well or two that I was on over there wasn't successful but the second one we went on was the big gas well that they got on land. That led out to, we completed it and drilled another one. They were all in the low??? lands there but the second one Was successful too.

#084 BC: That would be very exciting.

LS: That was the time that R. A. Brown Sr. came over and had the big do, after we completed the first big producer.

BC: What big do did he have?

LS: He came over and it's like the story in the book, ??? bringing in out of the well and more or less introducing a big deal to the English people I guess. And that's when they formed the. . . or made some of the English dignitaries on the board of directors of Home Oil Canada.

BC: Why did they do that?

LS: It was for foreign operations I guess. Operating, instead of operating Home Oil Co. of Canada, they were Home Oil of Canada in England. They had a little office set up there.

BC: How long were you over there?

LS: I made 3 trips to England. The first time I was over I spent 6 weeks on that well. Then they hadn't completed it, I was relieved from here. Then I had to go back to relieve again in a couple of months or so.

BC: Were your family able to go over with you?

LS: Then we brought on the first trip I made over, why ??? was with me, of course the rest of our family then was. . . our family was grown up so we didn't have to worry about

BC: Didn't have to worry about youngsters in and out of school.

LS: So our second trip over we completed the big gas well. It was a tremendous well and that's when Mr. Brown came over and had his little do, a party flew out from London in a helicopter and we had a big tent set up. There was a lot of the dignitaries there from around London. They had their pictures taken and we opened the well up for them and it was a tremendous gas well. Then the little speech that he gave, I was standing up there with the drilling rig and he looked at me when he was talking about the well. He said, you, you old goat, what does this remind you of. Well, I couldn't say anything else but the big gas wells we'd had in Turner Valley. So I just said, Turner Valley days. That was actually the start of their production. From then on they built a gas plant over there. I don't think it's operating now, I think it's probably drilled out. But the day he was there and went back to London I was drilling on the second well. We were running a test that day. While we were blowing the well there, when I phoned them in London to give them

the results of the test I was able to stick the telephone receiver out the window, close to where the gas was burning and the roar of the gas they could hear on the telephone in London.

#129 BC: What did you do when you came back from London then?

LS: I just went on the same as I was doing before. There were times when I'd be sitting in the office for weeks at a time and other times when I'd go out and look at a job and . . .

BC: You really had to be a trouble shooter, if anyone was having problems you'd go out and fix them up.

LS: That's right, yes. So that's what I say, the difference between the inside work and the outside work, well, I kind of enjoyed the outside work more than I did sitting in the office, making up files and tearing old ones apart and so on and so forth.

BC: Can you think of any other particular instances in that time that we should record? I know you've given me a number but I'm always asking for more.

LS: After that job over in England, then they sent an office staff and a crew and that was when Ed Radke went over and set up. He set up the first Home Oil of Canada set up there with office staff. They drilled an offshore well from there on, I forget what the number of it was, it was a couple of wells from there. But I never did any of the offshore work at all.

BC: Was it because you didn't have the opportunity to do or the differences?

LS: No, I never was too fussy about it and just the way things were working out at the time, the other had come up.

BC: What is the biggest difference do you think, between offshore and onshore drilling, from your standpoint?

LS: It's all the same principle only you're sitting out there on a platform on the water and the waves are there bouncing around pretty fast. If you're on a floating barge well. . .

BC: But you have a lot of pipe before it gets into anything don't you, that's kind of affected by the water.

LS: It's like what we would call, setting conductor pipe here. You have to have a pipe set down into the formation under the water to keep the water shut off from it.

BC: So setting up to drill would be a little more complex too then?

LS: No, I can't say it's any more complex, it's a little different equipment used but it's just the same as you'd set up here but with bigger pipe and then you work inside of it.

#170 BC: You've seen a great difference in the equipment. . .

LS: It's the depth that . . .of course, you're sitting out there on a platform and the legs are sitting out there on the bottom, it's quite a little different than a rock compared to a platform. Those platforms are quite large. There's been the odd disaster with them, where they break an anchor or upset or fall over and they have to be moved off on a storm and find their way back to the floating type.

BC: Did you ever think when you were working in Turner Valley those many years ago, that the time would come when they would be drilling in the water like that?

LS: I hadn't given it too much thought in those days because there wasn't any much thought towards it. We were acquiring more production, looking for more oil and running out on

the other, that geology and one thing and another led out to reefs underneath the water and reefs in the ocean. ???

BC: When you first started, you really learned the drilling on the job. Do they still have to do it that way, to learn to be a driller?

LS: No, because they can teach it now in the drilling contractors school. In fact, they have a rig set up in Edmonton and some of the older drillers were running it and training men to go out on the jobs. Of course, that's only just to give them a knowledge or what happens, you know, on the surface. The underground operations have pretty well got to be figured out or guessed. Like I used to say in the old days, we used to guess, it was a guessing job and you better guess about right. If you made a mistake in it you either made things, most times, worse instead of better. It's like anything, driving a car or anything, you have to learn what come up or what happens at the time. You're always thinking.

#210 BC: Yes, anticipating.

LS: Anticipating something that you figure out, you might think you're going to have an accident and all of a sudden something happens, you were able to steer around it or get stopped and get around it and the same thing applies to underneath operations. But it's something you can't see so you have to get your knowledge of learning it through feel. Like, I can sometimes imagine how you go around someplace and you can shut your eyes and think like you might be blind. The way you go around, you kind of feel your way, you have an idea, a little knowledge when you touch something. I often wonder, if it isn't the same thing underneath the ground, you're always feeling for something and there's something that gives you indications from the feel of your pipe or the bounce of your pipe or the feel of a line or something gives you those operations. You're always trying to figure out something different, you didn't have the tools like they have nowadays because they all originated from something that probably you'd made up yourself or you'd thought of yourself where you had to . . .before they manufactured something from, or somebody invented something to take the place of what you used to do in the old blacksmith shop on the forge or something.

BC: Well, it certainly has been very exciting for you in the drilling, to see the variety and the change, because coming from the old cable tool to all the varieties of what you can do now, it certainly seems much longer a span of time for all those things to have taken place, wouldn't you say?

LS: Now they have instruments and things to do all those things that you had to do by hand and guess where you were at or how your tools run or how they performed in the hole you know, with regards to friction and turn, whether your hole was crooked. You had nothing to make surveys on. In fact, I drilled myself, on the first directional drill hole there was here in Canada.

BC: Where was this?

LS: In Turner Valley.

BC: That must have been quite an exciting experience for you?

LS: One of the Nedger??? wells when the Eastman Co. came up. That was their first drilling experiences up here in Canada. So it was quite interesting, to get all the knowledge that

now they're doing these days with spotting a hole or putting a hole or something, ??? that far underground where you want it to, where you can tell where it's at from instruments and readings.

BC: I think what I'd like to do it to stop today here, and then when I come back next time we will start and we will go through some of your people. And that will I think, recall some particular incidents as you go through. It's been awfully good today and thank you.

Tape 6 Side 1

BC: Mr. Stafford, before we go into the part of your career that you spent with Home, I wonder if you would just clarify 1 or 2 things for me regarding Cantex. It seems to me that time when you went into Cantex and when you went out of Devon, there was a lot of people moving in and out and companies merging and separating and smaller companies being formed. Could you talk about that in relationship to your particular situation with Devon, in which you were a shareholder and then when you went into Cantex.

LS: The summer after I'd left Devon, I'd sold out of Devon and come back, there was a chance for Cantex to change over. Times were a little rough in the contracting business and I guess, it's probably like I was myself, get into something a little better or set up a retirement deal.

BC: Who was in Cantex at the time when you had the chance to go in there?

LS: Dick Harris was part owner and manager of Cantex Drilling. It originated out of Harry Bass Oil Associates from Harry Bass and Sons from Tulsa. Mr. Harris wanted to get out and he had made me an offer to take over, come into Cantex and I could take over the operations of Cantex, which would have just been like an amalgamation of somebody else coming and . . .

BC: And you'd have been. . .

LS: . . .it out.

BC: So what happened.

LS: So I went with them and we started inventorying, taking an inventory of all the assets and equipment and stuff that was here in Canada. That took a considerable amount of time, in the meantime I was in there as a drilling field superintendent.

BC: Were their assets quite extensive?

LS: Well, they had about 12 drilling rigs and they also had quite a little production that they had kept drilling into. That didn't mean any of the production probably, it was set up in a different thing and it was called Harry Bass Oil. Harry Bass Oils took over the production part of it and left the drilling and the drilling equipment as a secondary set-up of Cantex Drilling. It went on for, I was with them for probably 2 years. Things began to pick up a little bit and when things began to pick up a little bit, well, Mr. Harris couldn't agree with Bass & Associates for a price for getting out and he thought he would hang on to the contracting part of it awhile longer. In the meantime, I'd had an operation on my hand and it was quite serious and I was pretty well crippled up, I couldn't drive or anything for several months. I had somebody driving for me and helping me out on a lot of trips going on. I'd had a little too much and my health was beginning to fail me so I thought I'd better take a little time off and get straightened up. So I took 3 months leave of absence.

When it came time to go back I said, if I went back it was either to take over all the operations or relieve me of the field superintendent's job because I wasn't about to carry on that way, it was more than I could handle. So I kind of backed off on it. In the meantime, I decided I should be doing something and I thought, probably I'd just take a drilling supervisor job with some other place or something that would be a little bit more easier to handle than. . . And I went to work with Home. But not long after I'd gone to work with Home I used to get the vibrations from Mr. Harris again, that he was still ready to do something with his interest in the company but I couldn't make up my mind to take it on.

#065 BC: By that time you had other interests?
LS: I had other interests and it seemed to be working out better for me.
BC: When you would go into a situation like that as you did, Mr. Stafford, the idea was that you would have an option to buy so many shares within a certain length of time I'm presuming, is that what it was.
LS: Yes, or take a working interest in the company.
BC: But during the 2 years that you were there, that was always on the back burner, it was always on hold.
LS: That's right. It wasn't just coming up that fast. Things seemed to be breaking a little better for the drilling contractors and carrying on with the same set-up. They even went and made arrangements with supply companies whereby we could update the drilling rigs and equipment and had lots of backing from companies like National Supply and Continental Supply Co. to carry the updating for you.
BC: In retrospect, if you were looking at it again, would you, when you had the second opportunity, do you think you'd have yes, taken it over that second time.
LS: Yes. Under the conditions that were going on then. You can always look back and see where things were tough but there's always going to be some improvements or some updating coming up from it that would have paid off till the next break up or the next boom.
BC: We've got some pictures that I want to look at but I think before we do that, I think I'd like to go through, because these are to do with the Model well, and I think we'll go back and talk about that and I think we'll go on to your Home Oil work. Because you had some rather interesting things you did with Home Oil too. You really got around the oil patch. When you went to Home Oil what was your position?
LS: I was actually a drilling field, what do you call them?
BC: Superintendent?
LS: Field superintendent.
BC: Whom did you work with at Home and what date do you think it would be when you went there, about '57?
LS: About '58.
BC: Who did you report to?
LS: I reported to Howard Wycoff, drilling superintendent.
BC: Did you have much to do with Mr. Wycoff?

LS: All my work was more or less under him or with him.
BC: Can you remember anything in particular about him, or any incidents?
LS: I guess you remember lots of incidents. That was when we first started our big boom in the Swan Hills area, after the discovery well and we took about 5 rigs into the Swan Hills all at one time to set up. And started the, that was the first drilling of the Swan Hills area.

#106 BC: You took them all at one time, that would have been quite a feat.
LS: Yes, it was. Of course, there was no roads in those days, it was just trails. Just the building road in, so we had a lot of road that you couldn't take anything over without dragging through with caterpillars tractors.
BC: Where did you take them from, where did you start them?
LS: Fort Assiniboine, which is about the end of the well travelled road. That's why they were all put in one bunch and sent in together, so that one could help the other and the amount of tractors and caterpillars that it took to get them in, why. . .
BC: Can you remember how many vehicles were involved?
LS: That's something that could be figured out I guess, because it takes so many big trucks to haul 1 rig in. There would probably be 35-40 trucks in one of those, so if you multiply them by 5 rigs or so you'd get 150 or. . .
BC: Was that usual, to move that many rigs at one time?
LS: Well, ??? to get in to what they wanted to do at the time, till they had roads and stuff to get in, it seemed like in their financing and one thing and another they had to start so many well and. . .
BC: But did the companies usually do this sort of thing, take in so many rigs at once?
LS: Different companies, probably one company might only want to take in 1 rig if they only had 1 well to drill or to prove up some of their acreage. It seemed like in Home's case, they controlled most of the acreage and they had the discovery well so they wanted to step out, to mark out what acreage they might want to keep or . . .
BC: Bringing 5 rigs in must have caused a bit of a stir among the press and among the scouts for other companies, looking to see where you were going to ??? those wells.
LS: Most of the scouting would be done after the rigs were in there to see what kind of production they might get and what might come out of the drilling of a well here and there, to checker board the leasing programs.
BC: Had you ever moved that many rigs at one time before?
LS: No.
BC: Were there any sort of special arrangements you had to make?
LS: Yes, you made practically all the arrangements, with all the rigs and stuff going in, we kind of grouped up together and kept together so that you could have equipment along the trails, with regards to the tractors and one thing and another, to get them over the bad spots. So you had to all come pretty well together and scout as much of it so you wouldn't be losing too much time.

#150 BC: Did you stay with the rigs during that time, or were you in Calgary?
LS: No, we were out in the field.

BC: Can you think of any particular incidents during trying to move those 5 rigs where there weren't any roads? There must have been some.

LS: Well, if it piled up you more or less acted as a scout between the check points. If some of the rigs were sitting back and forth, some of the trucks had got stuck someplace where you didn't think they would you'd have to send somebody back or ahead with a caterpillar tractor or something to get them moving again.

BC: What kind of terrain were they moving over?

LS: It was pretty well just skid roads through the bush, where they just skidded off the trees and one thing and another, the trails that they had in there worked on for seismic.

BC: Home Oil were obviously anxious to drill. How long from when you left Assiniboine, to when you started drilling with the first rig, do you remember?

LS: The time that was on it was just what time it took to get in there. So if you got the rigs in to their locations, the locations would be made or bulldozed out in the bush, set up, it would probably be a matter of all those things was in there within about 2 days. They were all in on location and then the set up and rigging up would probably take a few days.

BC: That was pretty fast moving then, wasn't it?

LS: That's why everything was kind of put together and set up to make a move without too much trouble.

BC: How long were you in the Swan Hills area?

LS: We worked the Swan Hills there for, I suppose, well they're still drilling in the Swan Hills, they're still drilling edge wells in the Swan Hills. If you're looking at the time it took to drill one well or. . .

BC: No, the time that you actually spent up there? The time that you spent in at that point?

LS: I probably spent, we were in there for the better part of 2 years I guess. But we were inter-changing then. A relief comes in, we had a set up in there, so we stayed in there for maybe 2 weeks, 3 weeks at a time.

BC: Was this different than the way drilling rigs had been set up before that, and crews?

LS: No, I wouldn't say it was any different. It was just, they set up camp in there and a lot of the operations were right from the field and the Calgary office wasn't bothered, only for reports and stuff every morning.

#193 BC: Can you remember any of the other people who were involved with you besides Mr. Wycoff, in getting these rigs moved?

LS: Yes, there was Bill Warnick, Rod Derosey, Ed Radke.

BC: And what were their positions with Home?

LS: The same as, we were all about the same positions, we were all field superintendents or drilling foremen or whatever you want to call them.

BC: Can you remember anything about any of those gentlemen, Mr. Warnick for example? Can you think of any incidents at Swan Hills involving him or Mr. Radke?

LS: There are probably lots of incidents when we set up in there, getting back and forth. I don't know just what you would say, we were doing a similar job.

BC: You can't think of any particular incident that has stuck in your mind through the years?

LS: We all went on working for Home in the same position. I guess probably, you might say,

pretty well, till changes were made, there were some advancements made in some cases.

BC: But you can't think of any anecdotes of things that happened involving any of them?

LS: No, I don't think there's anything that I could talk about outstanding or anything like that. It was just more or less a routine operation.

BC: The drilling was routine too, you didn't have any problems with losing drills or anything like that?

LS: Oh yes, we always had the usual problems with a fishing job or getting stuck in the hole or something like that. If it was the rig you were looking after, your time in the field, it was your job to clear it up.

BC: Was it different drilling in Swan Hills than drilling in the Leduc area?

LS: It was a little different formation, the formations are different. Probably you have crooked hole problems and the usual foothills problems with drilling which you don't have in the flat areas.

#236 BC: What are the major foothills problems in drilling?

LS: You get the tools stuck in the hole or something, coming out or coming in, which is a ??? problem from crooked hole, where the pipe makes a ??? down through the well bore and just keeps rolling around. Rotary rigs usually, they turn to the right and they have a change of directions in the hole and every time a formation changes the direction of the bit, then you can get a ??? in the hole, which in a lot of cases, it sometimes depends on the size of the hole. We had a lot of casing problems, getting casing stuck in those ??? so we'd have to do something to remedy it, such as running reaming tools, ??? wipers as we called them to clear up the hole.

BC: Why would you not run into that in the Leduc area?

LS: Leduc's shallow wells and the formations more flat and you don't have the crooked hole problem.

BC: After Swan Hills, where did you go for Home after that?

LS: I was all over Alberta for Home.

BC: But you went out of Alberta too, didn't you go overseas?

LS: I went overseas, yes.

BC: Can you tell me about that?

LS: I think it was '66, they had drilled some wells over in England.

BC: Whereabouts? These were onshore wells?

LS: These were onshore wells, yes. The offshore, I didn't do any work on offshore at all. There wasn't any offshore wells drilled until after we'd drilled wells on land.

BC: Whereabouts were these on the land wells that you were drilling, where in England?

LS: They were up in what they called the Yorkshire moors, in Yorkton area I guess, about the central part of England. Of course, the Yorkshire moors are just hills according to the mountains here, what we call the lower lands. Covered in heather and this kind of a what we call a muskeggy country here. The ground's soft and wet. You have problems making locations. It's pretty well all done by hauling in rock and fill to make a pad for the drill on.

#283 BC: How different was it working there, than working in Alberta?

LS: There was quite a difference in the English operations, I guess probably because England hadn't done much of that, the English people just didn't like the operations. You were always doing some harm to the country, they didn't like the looks of a drilling rig or derrick standing up in the country over there. The environmentalists were quite put out with them.

BC: How did you deal with them?

LS: Like anyplace else you go, you couldn't just go in and tell them you were going to do this or you were going to do that, you had to kind of negotiate with them and talk a little bit and explain things to them and get them to understand your operations weren't that bad.

BC: And then they'd let you go ahead?

LS: Yes, they watch you pretty close to see what you did, what damage you did. You had a lot of restrictions to work under.

End of tape.

Tape 6 Side 2

LS: The people that you're operating with are close at hand people, like road builders and one thing and another. Any damages to roads or damages to trails or noise making problems, which a drilling rig running close to somebody's farm or buildings or something, they were pretty fussy about that. But the government part of it mostly handled it, we didn't have too much to do with it unless there was some little thing to be settled up quick on the spur of the moment. It was more or less taken care of by the heads of the company.

BC: Did you find oil, were you successful?

LS: We found gas. We didn't find any oil in our first discoveries over there. But see, the rigs, they had drilled some wells before there but the rigs weren't large enough to carry the stuff deep enough to handle what they got. When I went over there they had brought in rigs from Germany and we had German crews for the whole rigs. We had crews from the drilling superintendent right on down to the roughnecks.

BC: Tell me, how deep could they drill if they were not as large as the Canadian drills?

LS: The small rigs that they had over there, they weren't even down very deep. They were only under the 5,000' level.

BC: Have they since gone back and gone deeper?

LS: We wend deeper when we brought those others but I don't know what the . . .most of the drilling was done by outside contractors brought in from, like there were even some Canadian rigs got over there.

BC: Was the gas discovery large enough to be called a field and to supply gas to the midlands there?

LS: The wells we brought in over there were real large wells. They were the first discovery out of Scarborough, that's the one that's really, it was really the first big discovery I guess, that they had. That resulted in a gas plant being set up and built later on. Just what the status is on it now or how long those wells lasted. The day that. . .well, you can't say the day we brought in the big well over there, I was there at the time that Mr. Brown came over to put on his little story or little skit about the well. We had been

working on it then, bringing it in to production for quite some time.

BC: How long were you over in England?

LS: I made 3 trips to England. The first time I was over there I was over for about 6 weeks.

BC: Each time, and that would be over a period of how long, a couple of years?

LS: No, that's all pretty well in one year.

BC: There wasn't any suggestion that you might be moved over there for a certain tour?

LS: Yes, they did move a crew over there. I can't tell you just exactly the date or the time. It was shortly after we'd brought the well in when they started setting up the plant and moved into production. Then they did a little offshore work, a well or two.

#044 BC: That's while you were still over there?

LS: No. I came back, I was back here. The last trip I made over there, we just more or less finished up what we had on land. Then they sent a crew over there and I think they went on an offshore well.

BC: And you came back and what were you doing for Home then when you came back to Canada?

LS: I was doing the same thing as I was doing before.

BC: Back in the Swan Hills?

LS: No, I was here, there and all over, Betty. We drilled wells from one end of the province to the other. Home had acreage all over and I worked on wells, probably you could say, pretty well all over Alberta, myself and in to the Northwest Territories.

BC: As a driller, what would you think was the best hole that you drilled, as far as efficiency and ease and positive results?

LS: That's a little hard to say just which was . . .

BC: You can give me 2 or 3 if you can't think of one specific.

LS: There was a lot of wells drilled, a lot of them with no problems and some of them there were lots of problems. I guess probably one of the biggest and most interesting well would be an old Highwood Sarcee well, Highwood Sarcee 2, which we drilled completely with cable tools, completed and which was probably, you might say, one of the first wells that was all cable tool drilled.

BC: Whereabouts was that?

LS: That was the south end of Turner Valley. We had a well there, estimated at about 54 million.

BC: Looking back over your career which has extended through a number of booms and busts in the petroleum industry, and goes back so far indeed. As I say, you grew up teething on oil I think, can you think of any incident or incidents that you look on as the high points to you for their particular challenge or the people you met?

LS: I'd have to say I guess, in some of the olden days, every well we drilled was a high point. Or a little bit higher than the one you had drilled before.

BC: Why was that?

LS: Probably because you were always looking ahead for improvements and something different to handle what was going on. As far as the drilling of those wells goes, I hadn't done any drilling since about 19. . . , well, I haven't done any drilling since before 1947 and it's been all strictly supervision. I've been on so many different types of jobs and one

thing and another that I don't know which one I'd like to say was the most prominent one because they were all interesting.

#091 BC: What was the one that was the biggest challenge to you perhaps?
LS: I don't think I could say just which one, there were just too many of them.
BC: You enjoyed each one for its own.
LS: I enjoyed any of the work that was . . . I stayed in it all my life practically, in the drilling business.
BC: Let's look then, at some of these pictures here because this is a well that is a particular interest. This is the Bison Model and if you could just, looking at this, tell me who those people are and perhaps when this all happened?
LS: This pretty well all was our Devon Drilling Co. set up. Most of these pictures were taken for advertisements of the supply companies.
BC: Let's look at some and tell me, say, take that one that's right in front of you. Besides you in the picture, who else is in there, and where are you and what are you doing?
LS: This picture was taken on a well out at Sedgewick. I guess this picture, it happened that one day that we were coring or taking core samples of the well which are in the box here. This group that surrounds us, mostly supply people and the owners of the well, this was Wilder Ripley's company, Tower Petroleums.
BC: Is that Wilder Ripley there?
LS: That's Wilder Ripley.
BC: And who are the other people?
LS: We were all discussing the cores here. I guess then I might as well say myself here.
BC: Yes, you're the first one.
LS: The first one. And this is Paul Moseson.
BC: Yes, we've talked about him.
LS: He was the president of our drilling company. Alfred Neff here was our secretary-treasurer.
BC: Mr. Neff was the one that left Devon about the same time you did.
LS: That's right, yes.
BC: You haven't mentioned too much about Mr. Neff, what was he like?
LS: He was getting up in years, he was pretty well up to his 70's when he was in here as secretary-treasurer. He had been an accountant and he'd been with different companies in Wetaskiwin, General Motors and one thing and another.

#132 BC: Was he an oil man?
LS: No. He more or less came in to be a partner. He wanted to be a partner in something but like you say, secretary-treasure, that gave him an office job.
BC: And who is next there?
LS: This was Hanson, we called him Swede Hanson. He was at the time, the manager of Continental Supply Co.
BC: And they used to supply a lot of things to you?
LS: Before that he had the Turner Valley Supply Co. and they bought up a lot of second hand

equipment and run a supply company yard, which was taken over by the Continental Supply or give them the name and he was authorized to take care of the company as manager of it.

BC: And who is this last gentleman?

LS: This was Charlie Burgess. He was a salesman for the Turner Valley Supply and went on with Continental for a supply company.

BC: Now this next one that you have, this is the same well.

LS: This is the Bison.

BC: Could you tell me about it?

LS: This is the well that we were drilling. . .

BC: Oh I see ???

LS: This was the rig and that was . . .

BC: It doesn't have any name or number on it. What was the name and number of that particular well?

LS: Devon Drilling Co. rig #1, drilling for Tower Petroleums just north of the town of Sedgewick.

BC: Good.

LS: That's the same rig with. . .

BC: Right, Mr. Moseson and yourself.

LS: Moseson and myself, again on this Bison. That's the separate rig. The one I guess is enough is it?

BC: Yes, that's all right. I would like you to talk about the Bison Model.

LS: I had the date of that on . . .

BC: It's in a news clip somewhere. . . No. The date?

LS: November 25th, 1950 when we were starting this well for the Bison Model, which was I guess, it was just more of a change of name for the oil company, mostly Model, or Petroleum Model.

#075 BC: Who is the gentleman here that looks like he's starting things?

LS: That's the Lieutenant Governor, J. J. Bowlen. He was the one that wrote up this little sketch here about . . .and they had a kind of opening day on it and a lot of people were invited out or came out.

BC: Where is it, whereabouts is the well?

LS: It was just a short distance west of Edmonton.

BC: Was it usual for J. J. Bowlen to come out and start the drills going or was this a very special reason.

LS: This was a special reason. I guess probably in their advertising. The people who were doing the advertising, I guess they had invited and set up the deal for J. J. Bowlen to come out. In the meantime J. J. Bowlen and I were long time friends.

BC: Were you? Where did you meet Mr. Bowlen?

LS: I met him in Pincher Creek when I was a young fellow in Pincher Creek I used to do quite a little bit of work with him. He had a farm north of Pincher and we had a big steam engine. We used to do a lot of breaking of land, he had a horse ranch down at

Olverson??? and he used to bring up a lot of horses. I used to go down and we'd kind of ride the range down there and look the horses over. So there was kind of a friendship between my dad and myself and him. This was kind of an honour for me to be up here in the oil business or drilling these wells and this way that they set it up, he was to come out and he was to start the industry rolling. In this picture here he has his hand on the ??? here and we're starting the rig to rotate, sput in the well, and I'm standing here right behind him. This is my hand here. This is Alfred Neff.

BC: That's the gentleman that we mentioned who was one of the partners in Devon. And he left at about the same time you did, about, did he?

LS: Yes, he left just before I did. He was the one that kind of started me into the ??? business too.

#215 BC: Is that right. Particularly, he was the accountant you say?

LS: Right.

BC: When an accountant starts pulling out, that's a good sign often isn't it?

LS: Well, he was to the age where he thought he should be getting out. He'd just got married a short time before that and I guess he wanted to make a little home life. This is the same picture again, of shaking hands with J. J. Bowlen, coming in. Alfred Neff and Whitey Wilson, Whitey Wilson was an old time driller and he started a little contracting business too. Mostly well servicing. I can't get this fellow's name on the end of my tongue, where you can. . .the Bison part of it.

BC: Can you think, as we just wind up this interview, Mr. Stafford, of any areas that we have not touched that you would like to talk about or to flesh out perhaps?

LS: I don't. . .well, with the onshore drilling company, I don't know as there's anything more than just where we were going. We were doing very well, that was our first rig, and we bought the second rig in to play and we were quite successful with it and we bought the third one. It paid off very well, in fact we were what you would call quite a stable little drilling company at the time, progress was good till we decided to take it into the Ponder Oils. When they took it into the Ponder Oils, they took stock in Ponder of course, to boost Ponder and things began to die down a bit. Well, most of the original Devon Drilling Co. boys had sold out completely when it went to Ponder. Of course, they weren't the active part of anyway, the shareholders. So it just left, like myself and Alfred Neff and Moseson and when we sold out it just left Moseson holding Ponder interests for the drilling company.

BC: Looking back, which do you think was more interesting for you, working with a company that you had some personal stake in, or working, as you did also, work for other companies where you were hired to do a job?

LS: We had more interest in the companies that we were trying to set up. When you were with a company, working for a company like, your own salary basis, you knew that's as far as you were going with what you were doing. But I mean, if you got a promotion in the company or the company set you up a little higher or something like that, you got a little more salary but there was a challenge to the drilling part of it, to build something that was bigger and better all the time.

#276 BC: This was when you had your smaller company?

LS: Right. But you run into the same situations as we're running into nowadays, they weren't that big but they were the same things. It seemed like there was a cycle in there, every 10, 12, 14 years, that things would break down and companies were trying to refinance or build something and then sold out, amalgamations took place. When you look back, it's the same thing that is happening today.

BC: So the oil patch hasn't really changed?

LS: The oil patch hasn't really changed as far as our observations are of it, only it's just bigger and more complicated.

BC: What about your particular area of expertise, the drilling? How different is it today, than it was when you started?

LS: The change is tremendous. You might say, we had Model T Fords, today we have Cadillacs that are bigger. We can drive them better, so the improvements and the changes have been tremendous.

BC: What has that caused, by having better equipment, what has been the end result? More wells drilled, or drilled more quickly or what?

LS: Yes. Time wise, why the time has picked up tremendously. And modern tools, bits and one thing and another. When the rotaries first started you had nothing but the old spade bit that you turned around and it dug the ground, something similar today. But today, with the modern cone bits and the materials you have, you're not tripping them all the time. They stay in the hole, maybe they make hundreds of feet where the old bits, you were running in and out of the hole all the time to ??? them up and put a fresh one on. It's like a jackknife, ??? so long and you had better steam in it, well, it would probably last longer.

#321 BC: If you had your druthers, would you rather be starting to drill today with the new equipment, or are you happy that you were around in the early times?

LS: I'm kind of happy that I went through the whole cycle and seen most of it. Starting in today, some of them, you might say, I learned it the college way by reading the book. It doesn't just work out the way they seem to think it should, you need a little of that back education from practical experience to help it along.

BC: Well, certainly, you Turner Valley drillers are still in demand all over the world I understand.

LS: Yes, even right today, an old timer, if he can do anything he can be in demand. Not just as quiet as things are now but when things are booming. It got to where they didn't have men and they would take anything pretty near, if you had experience, to keep the operations going.

BC: Well, if we have a turn around you may come out of retirement yet then.

LS: I sometimes think I'd like to go out and look a job still. But I wouldn't want to have to do anything of it myself. I could tell somebody else how to do it or watch somebody else and give them my experience but I wouldn't want to just go out and say, I'll take hold of the brake and I'll do this and that. The older you get, like driving a car, that modern equipment has to be run. But probably some of the old timers have more. . . they may not

be quite as fast but they'll probably do a better job. Stay away from accidents and one thing and another.

BC: I'd like to thank you very much for spending all this time with me. You're been very cooperative and I do appreciate it and it will be of great use to people in our archives. Thank you.

LS: Well, I hope I've given you a fair bit of information that is correct to my knowledge.

BC: Thank you, you certainly have.