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Interview with
MARVIN GEARHART
August 17, 1982

Place of Interview: Fort Worth, Texas

Interviewer: Dr. Floyd Jenkins

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(Signature)

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Business Oral History Collection

Marvin Gearhart

Interviewer: Dr. Floyd Jenkins

Place of Interview: Fort Worth, Texas

Date: August 17, 1982

Dr. Jenkins: This is Floyd Jenkins recording for the Business Archives Project, North Texas State University in Denton, Texas. Today is August 17, 1982. I am talking to Marvin Gearhart who is chairman of the board, president and CEO of Gearhart Industries, Inc., of Fort Worth, Texas.

Dr. Jenkins: Let's start this by getting you to go back and give us some idea of your family background, whatever knowledge you have of Mother and Dad and even Grandma and Grandpa; where they came from, what kind of work they did, what kind of life they led and kind of lead us up to when you were born, and then we will kind of take off from there.

Mr. Gearhart: Okay. My name being Gearhart you would expect that it is a German name. The original Gearhart family came to Pennsylvania, then they went down to Kentucky area.

Dr. Jenkins: Came from Germany.

Mr. Gearhart: Yes, this was three generations ago.

Dr. Jenkins: Do you have any idea when?

Mr. Gearhart: From near Hamburg, it would be before the Civil War.

Jenkins: Ah, they left Germany before the . . .

Gearhart: Before the Civil War, yes. Because I had a great grandfather that fought in the Civil War on the Union side. He was wounded three times, as a matter of fact.

Jenkins: Do you have any names?

Gearhart: Of my great grandfather?

Jenkins: Yes.

Gearhart: His name was Bill, or William.

Jenkins: Was he the one who came over?

Gearhart: No, it was his parents that came over.

Jenkins: Do you know their names?

Gearhart: No, I don't.

Jenkins: Okay. Start with Bill then.

Gearhart: The reason I know about his being wounded is because of information from the Army Department of Records. They report that, in the Battle of Gettysburg, he had his leg shot below the knee and nearly lost it, etc. It is very interesting to get those old documents and read about things that happened back during the Civil War. But anyway, he came to Kansas and settled in southeastern Kansas after the Civil War. This was where my dad was born in 1898.

Jenkins: And his name?

Gearhart: His name was Charles, Charlie. Then I was born on Friday, May 13, 1927.

Jenkins: What kind of life did your parents live?

Gearhart: When my dad's family first came there they were farmers. Then when the oil business started in southeastern Kansas . . . they had some very shallow oil wells.

Jenkins: About when was that?

Gearhart: About the time I was born, I guess, he was working on a drill rig, '27, and farmed parttime on the side. So he would farm a little acreage, have a few milk cows and raise some sheep and pigs, things like that, plus work at the drilling rig. Of course, back in those days people worked 12-hour shifts. They didn't work 8 hours like we do now.

Jenkins: How many days?

Gearhart: Seven days a week until the well would get drilled, and then he would be off a day or two. But anyway, in the late '30s he quit farming completely. He worked fulltime in the oil fields, but we still had a few milk cows and about 20 acres. He always had a big garden and raised his own vegetables.

Jenkins: Did you get to do some of that?

Gearhart: Yes, I got plenty of milking cows. Yes, I grew up on the farm.

Jenkins: On the farm.

Gearhart: Yes, that's right.

Jenkins: Did you hire out?

Gearhart: Yes, we would work out in addition to doing our own.

Jenkins: What did you do?

- Gearhart: Up there it seems like bailing hay and alfalfa, shucking corn and helping thresh when you threshed the wheat and oats.
- Jenkins: Hoe corn?
- Gearhart: Yes, a little bit. But primarily my first job growing up, I guess, was milking cows for a neighbor. He had about 20 milk cows, and I worked for him for 10¢ a day, a nickel in the morning and a nickel in the evening.
- Jenkins: How old do you think you were?
- Gearhart: I was around 8 when I was milking cows for him. From the time I was 8 until I was about 12 or 13, I milked for him for about 4 or 5 years.
- Jenkins: What did you do with the dime?
- Gearhart: I saved it. My mother's name was Hudson, which is more or less an English name. Her great grandad was a doctor. My granddad was always called "Doc," although he wasn't a doctor. Her folks were farmers, too, and lived right next-door to the Gearhart's, right across the pasture so-to-speak. My dad and my mother went to school with each other, grew up together and got married in 1919. They were married, I believe, 58 years when he passed away three years ago. She is still living. She lives in a duplex now, up in Erie. We had to move her in from the farm after he passed away, because she couldn't take care of the place.
- Jenkins: Spent a lifetime on the farm?
- Gearhart: That's right. They talked about moving to the city, etc.,

but I figured that once he ever left that farm he wouldn't be happy. I thought he was better off just to stay there.

Jenkins: Did he continue to do something on the farm?

Gearhart: Oh, yes, he continued. He always had his sheep right up until the last. That was his enjoyment to go out and feed the sheep and feed the chickens and look after the animals. They were like friends with him, you know. I have one brother, no sisters. My brother went to teaching school after he got out of public school. I worked with my dad there around the rig. When I was a small boy, I built a small drilling rig to drill water wells. Just for fun, you see. So I got it in my blood. When I went to school, I took petroleum engineering and an option in mechanical engineering.

Jenkins: Where did you go?

Gearhart: Kansas State.

Jenkins: Let's go back to public schooling, what it was like, and reminisce a little bit about what schooling was like, the kinds of activities you got involved in, etc.

Gearhart: I went to a country school that had approximately two in the first grade. At times, as families moved into and out of the community, there would be as many as five or six in class and as few as two. It was one to eight grades, you see, and the total would be probably around 25 to 30 in all classes. The same teacher taught all of the classes. The first grade readers would read, then the second grade,

and then the third grade. They all met together in the same building, yes. In the beginning there were two rooms. When I was in the first grade, they had grades one through four on one side and grades five through eight on the other side with two teachers. Then when classes got a little smaller, they cut the wall out between them and made it into a one-room school under one teacher. From the time I was in the fourth grade on, it was only a one-teacher school.

Jenkins: What was happening to the town that caused this?

Gearhart: The people were moving away from the area. That school no longer exists now that they have all of the schools consolidated and students are bussed. But that was District No. 6.

Jenkins: Was this the result of the Depression that the town was dying?

Gearhart: I suppose that was one of the reasons the farmers were leaving the area, yes. That was back in the '30s when the Grapes of Wrath was written and everybody was moving to California. On the front of the school building district had been abbreviated to, "Dist." and the number was abbreviated, No. 6--"Dist. No. 6." One of our favorite stories about a new family that moved into the neighborhood. The kids were sent to school, but their girl, who should have been in the 6th grade, went back home. Their mother asked her, "Why didn't you stay at school?" And she said, "There was a sign up there that said, 'Dist. No. 6.'" That is supposed to be a true story.

Jenkins: What kind of heating and lighting did you have?

Gearhart: We had wood stoves for heating. We didn't go at night and did our work during the daytime, so we didn't have lighting. Just windows, I guess. I can't remember, but we had kerosene lamps for night events when we had P.T.A. meetings, etc.

Jenkins: Was the schoolhouse kind of a gathering place, something like church or so?

Gearhart: Yes, it was right down the road from the church. School and church affairs were the main social life of the community. It was a big deal when we would go into Erie, about 6 miles, to see the movies. Of course, no television, and we were just getting radios. A different world back then.

Jenkins: Yes. How big was the community?

Gearhart: In that little area, there were probably 50 or 60 families total, all of them farmers.

Jenkins: When you weren't going to town to go to the movies, what did you do?

Gearhart: Oh, we would engage in outdoor things like fishing, hunting, and we always had dogs. We would do things like hunt rabbits, possums and set traps, etc. So, really, an outdoor type of life, you see.

Jenkins: Were there community gatherings, much?

Gearhart: Quite a few, but mostly they had something to do with the school or with the church. Once a year they have an annual

old soldiers' reunion. It has been going on for over 100 years. 121st, I think, last week.

Jenkins: They are still having it?

Gearhart: Oh, they still have it, yes. I went up for a reunion last week and took a student from China who is here training with me. He thought that was very interesting to see. At the reunion, they have these pots of navy beans. Each pot will hold about 100 pounds of beans, and they cook up from 1,200 to 1,400 pounds of beans. People come from 15 to 20 miles around. They get into the bean line, take a bucket of beans, and have their picnic spread out on the lawn there. They usually have a carnival and some things like a baby contest. Babies 0 to 1 and 1 to 2 are judged and give a first prize for each one. There is also a horse shoe pitching contest.

Jenkins: You do go, then?

Gearhart: Yes. I went up to visit my mother and went.

Jenkins: Well, they have beans, what kind of bread? Do they make cornbread?

Gearhart: Well, yes, they have cornbread that you can buy. They give you white bread if you want it, but you have to furnish everything else. And coffee. They give you coffee, beans and bread.

Jenkins: That's great. I guess it started off as a Civil War reunion.

Gearhart: Right.

Jenkins: And it is still alive.

Gearhart: It is still going, that's right.

Jenkins: Was it pretty well attended?

Gearhart: Yes, they have pretty good attendance. They had a rodeo in connection with it this year. Usually the class reunions are held to coincide with that date. Every five years my class has a reunion. That is normally what all of the classes do now, set it in what they call the reunion week, the Old Settlers' Reunion.

Jenkins: The school was one through eight, you say.

Gearhart: Yes, through the grade school, District No. 6.

Jenkins: At recess time?

Gearhart: Oh, you would go outside and play basketball and softball, depending on the time of year.

Jenkins: Let's get you on into high school. Tell us something about what it was like, what you got involved in.

Gearhart: In the 9th grade, I went into Erie to high school.

Jenkins: Oh, you had to go into the big city.

Gearhart: Yes, I had to go 6 miles to the big city.

Jenkins: How did you get there?

Gearhart: At that time they didn't have the busses so you used your own transportation. This was just pre-World War II, and we kind of carpooled. Then after the start of the war, we didn't have enough gas. We had gas rationing, etc., so

I hitchhiked quite a bit. I would go down to the corner and stand and catch a ride in to Erie.

Jenkins: Were you continuing to work on the farm?

Gearhart: Yes. In my sophomore year I hitchhiked. In my junior year, I bought an old Model A Ford and drove back and forth in that Ford and took some of the other kids with me.

Jenkins: Did you get involved in anything besides going to class?

Gearhart: Oh, yes. I played basketball and football in high school. We didn't have a track team. And the main activities there would be their socials. I think they had them once a month or so.

Jenkins: Did they have any clubs of any kind that you got involved in?

Gearhart: I always belonged to 4-H. I can't remember whether they met once a month, but something like that.

Jenkins: Did they have a Future Farmer's group there?

Gearhart: They did, but not in Erie. They had one in Chanute, which was a little farther away. But in Erie, 4-H was all we had back then. I graduated in 1944 from high school. At that time, the military had a college training program. I enlisted in that, and I went up to Kansas University for the first semester. That was a pre-engineering curriculum. We were out of cycle there, so they sent us to the University of Wyoming. We went one semester there, and we were out of cycle. So they sent us to Michigan State at Lansing and we went two semesters there. The war ended, and the program was stopped. Then I went to Wichita Falls, Texas, for

a month and then on to California for the remainder of my service career. When I got out of the military, I had two years' credit for that time I spent in the Army training.

Jenkins: You were getting what kind of training, primarily?

Gearhart: Pre-engineering. Then I went to Kansas State to finish.

Jenkins: Is that in Manhattan?

Gearhart: Yes.

Jenkins: What did you get involved in there besides going to school?

Gearhart: At Kansas State?

Jenkins: Yes.

Gearhart: I got married when I got out of the service and went back to school. I had two paper routes and I delivered what they called the Manhattan Mercury Chronicle. I didn't have a car then, so I bought a bike and delivered those two paper routes to make a little extra money while I was in college. I made about \$125 a month delivering those two paper routes.

Jenkins: How much of your time did that take?

Gearhart: It took about 2 hours a day.

Jenkins: That was good wages.

Gearhart: Yes, they were excellent wages. But other than the studying and delivering papers, I wasn't involved. I didn't belong to any fraternity or what-have-you. But, of course, being married I had my home life.

Jenkins: And you got through there when?

Gearhart: I finished there in 1949. That was when I came to Texas to go to work in the oil fields. I came with a company called Welex.

Jenkins: Okay, just pick us up right out of college then and kind of follow your career along until you get into this.

Gearhart: I was a trainee field engineer for Welex for the first 9 months at Wichita Falls.

Jenkins: What did you do?

Gearhart: They were a wireline service company. After World War II ended, the method of perforating oil wells was to use a bullet gun. And, of course, there had been this bazooka gun using a "shaped charge", developed during World War II. Welex decided to try to adapt that to oil well perforating, which they did. At the time I came to work for them in 1949, they had five wireline trucks that were doing "shaped charge" or jet perforating. As I said, I came to work as a trainee there at Wichita Falls, Texas. And 9 months later they had about 11 trucks and were wanting to start a maintenance program. So they moved me to Fort Worth in 1950 to do a monthly maintenance on these trucks. They were adding trucks and expanding, and for about two years I was in charge of maintenance for the trucks. At the time I got out of that, they had about 35 trucks. Then they wanted to get into logging. They made a deal with a company

called Well Surveys in Tulsa to buy some radioactive logging instrumentation. I was sent up there to train in logging to use that new equipment and bring it back and put it into service. Some of the people I had been working with had left the company, including the sales manager, about that time to go with a company that Dresser Industries owned that made drilling rock bits. The three-cone patents that Hughes held for 17 years were expiring, and Dresser was going to go into this three-cone bit business. The sales manager from Welex went over there to head it up and lured me away by doubling my salary. I had gone to work for Welex for \$250 a month as a trainee.

Jenkins: In what year?

Gearhart: In 1949. And I was up to about \$500 or \$525 by 1952 when the Dresser Company came along and was willing to pay me about \$1,000 a month. I didn't see any way that it could be a mistake for me to make a change. So I jumped the fence, so to speak, and worked there until 1955, at which time we started this company. While I was with the Dresser Company I was spending a lot of time in Canada introducing some of their new bits and field testing them. Because of events there, we started this company. They had a field called Pembina where there were a lot of rigs, concentration of rigs, and it was fairly soft drilling. We had designed this special long-toothed bit to dig faster up there. I

was spending a lot of time up there. They had problems with the gas zones channeling up and filtering into water wells and blowing out high pressure gas sands, because they weren't cementing the wells back to surface. So the Canadian Conservation Board passed a law that you either had to run a temperature log to show where the top of the cement was after you cemented a well and show whether it was above these high pressure gas sands, or circulate cement back to the surface. Well, I saw this as a good opportunity for somebody to go into the wireline temperature logging business in Canada. So on one of my trips back home I talked to some people about putting together a truck to go up there and run temperature logs. It was very expensive to circulate cement back to the surface, and there wasn't any company specializing in what they called temperature surveys and locating the cement top. It looked like we were going to get together a deal to do that when the Conservation Board decided they had enough information and records that they weren't going to require that any more. They were going to let that law expire in 6 months. I was very disappointed, because I could see that it would have been a tremendous opportunity. I was talking with Harold Owen about what I had planned to do, and he said, "You know, I have been wanting to start a business of my own, too. Maybe we should put our money together and get a

wireline truck and start in business down here." So two months later we decided that was a good idea and that we would build our own wireline logging unit, which we set out to do in January of 1955. The first year we had approximately 10 employees building this one truck, renting little portable loggers and going out and logging shallow water wells and oil wells for people. They had a boom going at Corsicana at that time, a town-lot boom, where we would do quite a bit of work. Of course, growing up in Kansas, I knew the people up there that needed wells logged. So we built us a special little unit to log wells in southeastern Kansas and left it up there at my dad's house on the farm and taught him to run logs on wells. By this time, he had retired from drilling, but he knew a little bit about the oil field. So our main base of operations was in southeastern Kansas with that one logging unit and one down here working at Corsicana. There was a boom in Oil City, Louisiana, and one in Magnolia, Arkansas. We added units for there, and we moved into Healdton, Oklahoma. So at the end of 1958, when the rig count was kind of at an all time high and getting ready to start down, we had about 10 or 11 units out in the field operating. With the rig count declining, it was a lot more competitive and people were more concerned about cost. The price of oil then was around \$2.50 a barrel. It appeared that since so many people were

interested in saving money, the thing to do was to sell them equipment so they could do their own work. There weren't any independent companies established other than us. It was just major companies and ourselves. So we formed a company called GO Perforator Supply, which manufactured and sold equipment to others. And by 1960 or 1961, it appeared there was a lot more money in manufacturing equipment and selling it than in going out to do the service. During the early '60s, we primarily concentrated on manufacturing equipment and selling it. But by the end of the '60s, it was obvious that the new big plays would be in offshore drilling and in the foreign markets where the small independent couldn't compete. The majors had that tied up. The only way that we could be competitive in these more lucrative areas would be to build a strong service company. So at that time we started going out to these people we had built equipment for and sold it to and saying, "We would like to put this all back together in a service company." A lot of times in order to make sales when we were selling equipment, we would take an interest in the companies, kind of a franchise sort of arrangement, if they wanted to use our name. We had companies like Go Services in Abilene, Texas, Go Jet in Oklahoma and Go Western in California. We had five companies with 'Go' in their name, and we owned about 25% to 40% of these companies. On the Gulf Coast

it was Go, Incorporated. We started putting these companies back together in '69, into what we called the Go Company. So in 1972, just prior to the OPEC oil embargo in '73, the rig count had reached an all time low of less than 1,000 rigs; and our total business volume that year was \$17,000,000. But from scratch, it was around \$52,000 that first year, the growth to \$17,000,000 looked pretty good. And part of that business was not oil well logging. We had gotten into some other lines, such as equipment that strung cables on power lines. That was our Pengo line of equipment. We felt that this was a product that could be built in our vehicle fabrication. It would be complementary to what we were doing, utilizing our people and equipment in a little different field. So we had sales in the Pengo Company and other things that we had gotten into of about 4 to 5 million, but our oil field service was \$12,000,000. When the OPEC oil embargo hit in 1973 we were deluged with orders for equipment and a need to expand our own services. By 1976 and 1977 we just had more business to take care of than we could do. I was wanting to concentrate just directly on the wireline and get rid of the other activities that we had gotten into, because they didn't have near the opportunities. We really had a major policy disagreement about the opportunities in wireline as compared to the other places. The directors felt that the solution was to

spin it off, let everything that was non-wireline be set up as Pengo and everything that was wireline kept as Gearhart Industries. Actually we kept the name Gearhart-Owen for a couple of years even after the spinoff. We had anticipated that Pengo would only do the non-wireline things. In fact, in the spin-off, they agreed they wouldn't go into wireline work for three years. Well, unfortunately, the day after they moved down the street and started, they decided they did want to do wireline outside of the U.S. where it didn't violate the agreement. So they started competing immediately in foreign markets. And after about a year or two of that, I could see that they were going to compete in the United States as soon as the agreement expired. So we decided we had better drop the name Owen out of Gearhart-Owen, since he was going to be a competitor. So we changed the name to Gearhart Industries, Inc., in 1980.

Jenkins: Now these spin-offs became separate?

Gearhart: Separate companies, yes. The shareholders got 1 share of stock in the new company called Pengo for each two that they owned. So the assets were split. We had about 60 to 70 million in assets, and 20 to 25 were non-wireline. It was spun into that, and the balance was kept in Gearhart Industries.

Jenkins: No legal connection between them?

Gearhart: No legal connection. The shareholders still had the same thing they had before, and now they had shares in two different companies.

Jenkins: But the two companies were totally separate?

Gearhart: The two companies were totally separate. Both of them were listed on the New York exchange, but with different directors and different officers. Each had their own. On day one, they all had the same shareholders. But immediately, the people that wanted their money invested in just wireline could sell their stock in Pengo and buy wireline or vice versa. So I would say today the shareholders are completely different, because Pengo went out and started buying other companies and other businesses to go along with their philosophy of doing all the things in the oil field, and we concentrated just on wireline.

Jenkins: You say they are located near you.

Gearhart: Yes, just down the street a quarter of a mile.

Jenkins: Oh, I see. And it is Pengo.

Gearhart: Yes, Pengo, and it is the old company that was spun-off from here. Harold Owen is president of it. So since '78, we have grown from a total business volume of about \$75,000,000 to where this last year we ran \$344,000,000 just by concentrating on wireline. The manufacturing part, where we sell equipment to national oil companies in India and overseas, was about \$50,000,000. Last year

\$290,000,000 was for service. Of course, we had expected or planned to do about \$440,000,000 this year. We were geared to that kind of growth when the rig count started down. It looks like right now we will be doing good to hit \$350,000,000, which would still be a \$10,000,000 growth over last year, but not near the growth that we had been getting ready for.

Jenkins: But the industry as a whole . . .

Gearhart: Oh, yes, you see the rig count is down from about 4,600 rigs at the beginning of the year to 2,600 last week.

Jenkins: So you feel that you are getting your share.

Gearhart: Yes. That is the U.S. rig count. Where we are expanding and growing is overseas, because it has been more stable. Our Australian, Venezuelan, and other foreign business has grown quite a bit. In South America this year we should run around \$75,000,000. Last year our business down there was about \$49,000,000; so we will have about a \$26,000,000 growth which takes up some of the slack for the dropoff up here.

Jenkins: Okay, now that you have given us an overall view of it, I will go back and start bearing down and getting some specifics.

Gearhart: Okay.

Jenkins: Let's go back to that beginning and focus on how many people were involved in starting the thing and the principals

involved in creating the first business where you were one of the partners.

Gearhart: Okay. There were only two people, Harold Owen and myself, and the lawyer who incorporated the company, Tom Law. He was and still is one of our directors.

Jenkins: Yes, but you did incorporate?

Gearhart: Yes, we did incorporate from the day one.

Jenkins: But just two of you?

Gearhart: Yes, just two of us.

Jenkins: Let's get some idea then of how your number of employees grew over the years. You started off with two.

Gearhart: That's right. By the end of the year we had about 11 or 12. Somewhere 10 to 12, I am sure. But what we did was hire some machinists and parttime people, people that worked at the Quartermaster Depot as electronic technicians, etc. And they would come in after their day shift and work in the late afternoons and evenings to help build these trucks that we were working on. Dale Lamb, whom you met a while ago, is now executive vice president here, was working at the Quartermaster Depot. He first started coming down and helping us build trucks on a part-time basis.

Jenkins: Just kind of part-timing, then.

Gearhart: Right. He is a finance major in accounting.

Jenkins: Was he one of the very first then?

Gearhart: One of the first 11. He came, I think, in the second year

we were in business.

Jenkins: Now where was that business started?

Gearhart: That was over on Seminary, 554 Seminary Drive.

Jenkins: Tell us a little bit about how you financed that, how you got started, what kind of physical facility you had and how it outgrew itself.

Gearhart: Okay. Actually it was a machine shop with a welding machine and a lathe that Harold's father, "Sie Owen," owned. He would do gas tank repair for filling stations. We rented space in that shop at \$100 a month, which included use of this lathe and welding machine. So our first truck was a truck that we were going to put side pockets on, weld up a body ourselves and put on it. And we started off, we incorporated at 10,000 shares at \$1 a share, \$10,000. Each of us took 30%. Each put in \$3,000, and we sold the other 4,000 shares to friends and relatives. Of course, the \$10,000 wasn't enough to get us going and finish that first truck. Although we were going out and leasing units from a company called Well Reconnaissance and doing jobs which gave us a good revenue, we still needed more money to finish our truck. So we sold some more shares. I don't even remember now at what price they sold, but probably around \$1.50 to \$2.00 a share. After we had been going about a year, we sold another 4 or 5 thousand shares to relatives and insiders and got some additional money. And

by the end of that first year, we had run \$53,000 in total sales. We made a profit and had to pay income tax the first year, and have been profitable every year from the day we started the business.

Jenkins: Did you intend to say how much profit you made that year?

Gearhart: I don't recall the figure. I think it was around \$3,000 in taxes that we had to pay. \$2,500 to \$3,000. The second year, we doubled the business to about \$104,000 and again made a profit and had taxes to pay. Our growth there for the first few years was doubling every year, but when you are small like that it is easy to double. In our last five years, our growth margin has been more like 40%. I think you mentioned 30%, but it had been like 40% in sales. I think 30-some-percent in earnings growth. So anyway, back at the first there when we were just getting started, we used parttime employees. We didn't have too many fulltime employees. It was the second and third year before we began to hire people fulltime.

Jenkins: What were you and Owen personally doing?

Gearhart: Okay. He was more or less looking after the manufacturing or building this truck and making shape charges that we used to perforate wells, and I was taking them to the field to shoot them. I would go down and do these logging jobs in Corsicana and shoot the guns, etc. It was kind of a split deal on manufacturing and operations. But then

after a year or so, it got to be where everybody had to be able to go out and do jobs. His brother came to work for us. He could do both, you know, so we were all interchangeable in our jobs. The guy that had the most sleep would go do the jobs the next time.

Jenkins: What kind of daily and weekly hours were you personally putting in?

Gearhart: I don't remember. It varied. It was just virtually all of the time. You would go home, eat your dinner at night, come back after dinner, and work until 10 or 11 o'clock. Sometimes we would be getting ready to do a job up in Kansas and drive all night long to get to Kansas. Two would go so that you could take turn about, you see, one driving and one sleeping. But we didn't do that all of the time. We spent an awful lot of hours in the first three to four years.

Jenkins: Was it pretty much a seven-day-a-week job?

Gearhart: Mostly a seven-day-a-week back then.

Jenkins: Let's get you to outgrow that facility in terms of . . .

Gearhart: We outgrew it the first year.

Jenkins: Oh, did you?

Gearhart: But we didn't have the money to do anything different. My mother-in-law loaned me \$6,000, and we came out here and bought 4 acres at \$1,500 an acre.

Jenkins: What year?

Gearhart: '56. And in '57 we built this first little shop, which

was like 100 x 120.

Jenkins: Were you one of the first out here?

Gearhart: Yes. Yes, there wasn't anything out here then.

Jenkins: So you broke the ice.

Gearhart: Yes, that's right. After we got that first building, we continued to add to it and built on every year.

Jenkins: Let's try to locate this place.

Gearhart: The original building?

Jenkins: In terms of geography.

Gearhart: Okay. We are $8\frac{1}{2}$ miles south of the downtown mix-master. We are on I-35 South toward Waco and the Everman turnoff where you turn to Everman. We tell people it is just beyond Mrs. Baird's Bakery and Miller's Brewery.

Jenkins: You say going to Everman. Is there a community?

Gearhart: Yes, the city of Everman is to the east one mile. It is a good sized little community.

Jenkins: I am not familiar with that at all. I will have to go down there and see it. So you bought here in '56.

Gearhart: Yes, we bought 4 acres.

Jenkins: And then when did you build?

Gearhart: In '57 we moved out here.

Jenkins: How big were you just as you were moving?

Gearhart: When we moved from there to out here, we were probably up to 20 to 24 employees.

Jenkins: And your sales volume?

Gearhart: About \$125,000. Probably \$10,000 to \$11,000 per month by then.

Jenkins: Highlight over the years. You said the first year was something like \$52,000, and your latest year . . .

Gearhart: \$344,000,000.

Jenkins: Kind of spot us in between there, if you will, to the extent that you are willing just to give us an idea of how fast, kind of rate of growth that you had.

Gearhart: As I said earlier, it doubled nearly every year up until 1972 when we had reached \$17,000,000. Now after we reached 10 or 11 million, we weren't any longer doubling; the growth was a smaller percentage. But in '73, after the oil embargo, is when we picked up a higher growth rate again. I have some figures on that if you want them.

Jenkins: Okay. You are going to give us some of these figures that will be in the N.T.S.U. Archives. If you will, just verbally highlight some of those years to give us an idea.

Gearhart: Going back to 1973 after the OPEC oil embargo. In 1974 we ran about \$27,000,000; in 1975 \$35,000,000; in '76 we went to \$46,000,000; '77 \$55,000,000; '78, \$80,000,000. That is when we had the spinoff. The following year it was \$109,000,000, but that is just the wireline part, as it no longer includes the other activities. In 1980, \$149,000,000; in '81 \$239,000,000; and last year, \$344,000,000.

Jenkins: To what extent, taking inflation into account, to what extent is this real growth and to what extent might it be inflation?

Gearhart: It is probably about 20% real growth and the balance inflation.

Jenkins: Is this in any way a seasonal business?

Gearhart: I don't think so, but on the other hand, historically our last quarter has always been the strongest. Of course, back years ago I think there was a lot of tax-spending drilling deals at the end of the year. But somehow or other it seems like, even though there is not tax spending now, that time of the year is more favorable to end up the year strong for us. We are not on a calendar year. Our fiscal year ends January 31, and so our last quarter is November, December, January. Historically it has just been a strong quarter for us, but normally I would say it is not seasonal. We are very sensitive to weather. For example, when you have a lot of rains like we have had recently in Oklahoma and West Texas and floods, etc., it just virtually shuts everything down. Because they can't move rigs and they don't drill wells, you don't do anything.

Jenkins: You were telling me as we were touring the plant that most of the things you make yourself, but you do sell some to others.

Gearhart: Yes.

Jenkins: Give us some idea of what that setup is.

Gearhart: Okay. We do not do any manufacturing of products other than wireline related products. And we do offer some of the non-proprietary items for sale to others. For example, the trucks. We will either furnish a chassis or they can bring their own chassis in; a Ford, Chevrolet, International Harvester, or what-have-you, and we will put the body on it, the draw works in it that holds the cable that lowers and raises the logging tools which we use to run the logs in the wells. We will add the electronics of a non-proprietary type, what I call the analogue type. We do not sell our computer equipment or digital equipment. It has higher technology and a lot of software development-- a lot of things that we consider proprietary. It is very difficult to figure out how you would price something like that, so we keep it exclusively for our service company. We do sell the truck, draw-works and standard analogue type logging instrumentation to the industry which this past year amounted to about \$50,000,000 in sales and equipment. Where we are not going to enter a service market, such as Turkey right now, we will sell them our digital equipment and train them in how to operate that equipment. Right now we have seven guys here from Turkey that have been here for six months learning how to operate these two digital units.

Jenkins: To what extent does this equipment change over a few years?

Gearhart: The biggest changes right now are in the computers and the components, the new hybrid circuits, the hybrid chips, the high temperature electronics and everything going digital. We used to do everything analogue. With the computer revolution, everybody is going digital; and you have to write new software programs and do a lot of work along that line to utilize that equipment.

Jenkins: The developments that you make in equipment, to what extent does this replace what is already in the market and to what extent is it simply improvements on and additions to that?

Gearhart: We are constantly working on new tools to replace older tools. Some of the logs that we are working on right now, like dialectic logs, etc., weren't even in the field three or four years ago. So I would say 90% of our revenue right now, or the bulk of it, is from logs that have been in existence for 5 years at least, maybe 10% on newer logs.

Jenkins: Because of what looks like very rapid development in this kind of equipment, is there a considerable amount of variety among what people are using out there? Is there some antiquated equipment still being used in the field?

Gearhart: Yes, there is; and yet on a lot of wells that antiquated equipment may be all that you need.

Jenkins: Oh, I see.

Gearhart: When you get into wireline remedial work, sometimes just to re-perforate a zone, etc., it doesn't take much of a

log or instrument to measure your depth correlation. You can run a gamma ray and see 'this zone is the new zone that we want to perforate.' But if you want to measure how much oil might be in that zone, then you have to run a lot more sophisticated logs and can get into some real expensive equipment. When I say a sophisticated log, I am talking about things like neutron generators that will bombard the formation through the pipe, activate the formation, and you can tell by what they call the thermal die-away time how much oil and how much water is there. So if you run that kind of a log, it gets very expensive. It takes some very sophisticated equipment. And even though you run that log and find some oils there, you maybe could have gone down with just a gamma ray and say, "Well, here is a sand body, and I will just shoot some holes and see what I get." So there are a lot of people that rely on the old unsophisticated logs and will just shoot some holes. If they don't get oil they will just cement them up and go try another zone. But if they would like to measure and get some indication of whether there is oil there or not, then that is a more expensive process.

Jenkins: How much does it improve your chances of hitting, by using this equipment?

Gearhart: More sophisticated: Well, theoretically you know for sure.

Jenkins: Oh, really?

Gearhart: Oh, yes. You know that there is oil or there is not oil there. The thing that you never know though is how much pressure. Even though there can be oil in the formation and you can determine that you have got oil, you don't know whether there is reservoir pressure that is going to push it out or not until you perforate it and open it up. And even after you have perforated, you may still have to go in there and fracture or treat that formation to get it to where the oil will flow. What we call well completions have gotten to be highly technical. You go back to an old zone that they have drilled through because they didn't think there was any oil and perforate it, fracture it, treat it with acid, and maybe it will make a good well.

Jenkins: I have got a little place up in the country where there have been a lot of wells closed, and now they are beginning to drill some more. When they go into an area like that do they re-drill or do they often simply open up what is already there?

Gearhart: They do both. I would say there are three things going on right now. First of all they go back with new seismic equipment. They re-shoot old areas, because their computers, filtering of data, and techniques are so much better now. They get such higher resolution; they can tell for sure whether they have got a good structure down there or not. So you find that they are doing a

lot of re-shooting new seismic data in old fields. If they don't go in and get the new seismic data, they may go in and just drill wells "by your hat." There are a lot of people that are creekologists. They think that oil follows creek beds. They pick a nice bend in the creek or river and say, "I am going to drill a well there." Strictly unsophisticated. Then other people will know. "Well, there are oil wells here and here." They think there are trends and they will drill based on that kind of speculation. Then there are other wells that were drilled, that had a show on the oil pit, the mud pit, but yet it didn't make a well. So they think, "I am going to re-enter that old well and try to find where that oil came from." So you do have re-entries to some extent.

Jenkins: What about witching?

Gearhart: Oh, and there are witching people.

Jenkins: Do you know some of them?

Gearhart: Yes.

Jenkins: Do they have a pretty good record?

Gearhart: Well, according to them they do. I had a witcher in here, in fact, today. His witcher has a little oil bottle. He puts different types of oil and different gravity of oil that goes on the end of this rod, and he holds it in his hand. He will go walk, and this rod will bend down when he goes over oil deposits.

Jenkins: What was he wanting of you?

Gearhart: He was just talking to me about some other business. But he had a well that he witched last week that he was talking about that he thinks is going to make a well.

Jenkins: He wasn't trying to interest you in his business.

Gearhart: No, no.

Jenkins: I have read so many stories of water and oil witching.

Gearhart: Yes.

Jenkins: So design of new equipment is one of the major things that you are about, is it?

Gearhart: Yes.

Jenkins: This in itself is a highly competitive aspect of the thing?

Gearhart: Yes.

Jenkins: Trying to stay ahead and convince your customers that you are ahead?

Gearhart: Mainly in the design equipment we are trying to improve reliability. And the way that we intend to improve this reliability is by what we call modal analysis. It is the same system that they used to verify that the space ship Columbia wouldn't shake to pieces on takeoff, etc. So we take our logging instrumentation, the cabinets, the tools, and we shake them to see what vibration we get at different frequencies and analyze what we are going to have to do to make the structures withstand the vibration and the rough abuse they get going from the shop to the field location. You drive across some real rough roads, and that is the

worst environment you can have hauling the equipment back and forth.

Jenkins: You were saying that a high percentage of damage comes from simply hauling these.

Gearhart: That's right. You have equipment all checked out and working fine at the shop. You drive 50 or 100 miles out to the location. You drive across some rough roads, and when you get there, something is broken due to the transportation of the equipment. Or on a ship, the barges will be loading, they will be lifting it with cranes and unloading it. When they drop it on the deck, it will hit so hard that a transformer pulls some wires loose or something like that, you see.

Jenkins: You then check the equipment before you ship it, but then you must check it again on the site before you use it.

Gearhart: Yes. When you say before you ship it, I mean every job is a different field location. So before you leave the shop, you check to see that your equipment is working properly. And you drive up on site and, of course, you are going to put it into operation then. You are not just checking to see if it works; you are getting ready to use it. So you hook it up, turn it on, and it doesn't work.

Jenkins: That is the check.

Gearhart: Yes, that is the check if something has broken since you left.

Jenkins: How often does that happen?

Gearhart: It happens maybe 20% of the time, and that is too high. Maybe it only takes a minute to fix it or maybe it is not fixable at all, depending on the extent of the damage.

Jenkins: So a lot of it might be fixed on the spot.

Gearhart: Sure. Maybe it is something that is obvious that you can repair right then. But about 80% of the time when you have equipment failure, it has been due to transportation. It is not the environment that you encounter in the well, but hauling it around.

Jenkins: Now the people who take the rig out are all capable of doing what, there?

Gearhart: It depends on the amount of experience. We have about four or five categories. A senior field engineer and a general field engineer can repair equipment; they can run logs and do about everything. About all the trainee engineers know to do is just turn the equipment on and make it operate. They know a little bit about the interpretation. Their abilities improve as they gain experience, and go through more classes on the different phases or repair. They have to do this and take tests.

Jenkins: You don't have just a truck driver, then?

Gearhart: No, that's right. But out of all of our engineers, we only have about a dozen that are what we call general field engineers who can do everything.

Jenkins: So a lot of the times they can repair things.

- Gearhart: Yes. Also, we have technicians available to go out there and help. Computer card memories are something that you just don't repair in the field. You have to have another card. You unplug one and put another one in. But we have diagnostic checks that tell us, 'well, the computer memory is out,' so usually we can pinpoint it.
- Jenkins: Give us just an overall idea of what your quality control approach is.
- Gearhart: We have quality circles where people try to monitor the quality themselves. But in addition, we have about 100 people out of the 1,600 employees here--about one out of six--that are inspectors checking quality, not just tolerances of things but workmanship and the complete quality.
- Jenkins: You do, then, have the thing that they call today 'quality circles.'
- Gearhart: Yes, we do.
- Jenkins: Hit that briefly if you will.
- Gearhart: We haven't had them that long. I guess we have had them maybe six months. I think it is a favorable plan, although I have some apprehension about the effect it will have on supervisors and middle management. There isn't any substitute for a good supervisor; there just isn't any substitute. And that is what it takes to see that you get good quality work and that people are working, etc. Quality

circles can make some valuable suggestions sometimes. But if you have got a good supervisor, you have got everything under control.

Jenkins: We just came from over at that equipment room where they were using a vibrating simulator hooked up to a computer.

Gearhart: Right. That is for that modal analysis. What you do is put the equipment on the table, strap it on, and have transducers hooked up to the cabinet at different points on different components. And as you vibrate it, those transducers give you a movement or measurement that is recorded on a tape. Then you can picture this structure on an oscilloscope and see how much movement you are getting of the structure at different frequencies. So by visually looking at the movement, you know what you don't want. You know how to go in and stiffen up the structure or change the brackets to eliminate that vibration.

Jenkins: What are some of the other high-quality control types of equipment that you have?

Gearhart: Really that is in design and that is not quality control. In addition, we environmentally check under pressure and temperature. We have pressure chambers. We have temperature chambers that bring the tools up to high temperatures. If a tool is going to be rated to 300° Fahrenheit, we will probably check it at 350° or 360° so we have some margin of error. And right now in the hybrid circuit facility

everything that we buy is rated. It is supposed to be rated at 200^oC or 400^oF. We try to build electronics that will take that temperature. But the quality control is not just temperature ratings and pressure ratings and all that; it is the workmanship that goes into the product, how it is put together, etc.

Jenkins: And is that considerably dependent upon the quality of the workman?

Gearhart: Oh, yes.

Jenkins: A great deal of the quality control is simply the trust you have to have in the workmen.

Gearhart: Yes.

Jenkins: I noticed lots of safety signs, etc. Do you have a specific safety program?

Gearhart: Oh, yes, we have a safety program. Each department that doesn't have a lost-time accident for 60 days receives a free barbeque dinner. We have it catered. The guy comes out with his truck, and he has barbeque and beans and salad, etc. Most of the departments get a free dinner every 60 days.

Jenkins: Do you have safety training?

Gearhart: Yes.

Jenkins: Everyone goes through it in some measure?

Gearhart: Here in the plant not everybody has gone through it, but supervisors have. And there are at least two to three

people in each department that have gone through it.
Part of the program for our field engineers includes a safety course and a safe-driving course.

Jenkins: I noticed also that you have a great deal of security around.

Gearhart: Not near as much as we are going to have.

Jenkins: Is that right?

Gearhart: That's right.

Jenkins: Why is that?

Gearhart: So much of our information is proprietary, and we just have to take great pains to protect the proprietary items. You just can't let everybody wander through your building and see what you are doing and how you are doing it and ask some employee that doesn't know, "Where do you buy this and where do you buy that?"

Jenkins: This is all purely your own institutional security.

Gearhart: That's right.

Jenkins: No government.

Gearhart: That's right, just our own.

Jenkins: I don't know to what extent we covered some of this. But while we went through where they were making the chips, is that what you call them?

Gearhart: Yes, hybrid chips, electronic chips.

Jenkins: Mention again how long you have been in that and how you got into it and why.

Gearhart: We have had that facility in operation about 18 months, but

we started into it roughly 3 years ago. If you go to commercial suppliers and say, "I need a component that will operate to 400^o Fahrenheit," usually he will laugh. He has never heard of that. Commercial requirements for television sets and appliances you use around the home just wouldn't require high temperature ratings. So when you talk to them about something special, that is new to them. They say, "Oh, we are not in that business." In order to get components rated at high temperatures, we decided that we just had to get our own equipment and build it ourself. So we set out to do just that. When you start talking to suppliers about laser trimmers and their ovens and their sealing packages, etc., they will tell you, "Well, you know, we know of such and such a guy that is good at this or such and such company in certain areas have certain people." So you run ads in the paper and try to find the people with the expertise to get you in that business. But it takes time to build the organization.

Jenkins: We don't worry about covering things twice. It is not covering them once is what we worry about. To be sure that we covered these things, kind of take me on the tour again, will you?

Gearhart: Okay. Here at our Fort Worth plant we have, of course, the administration in this main building where I showed you our new computer, our IBM 3081, that has 16 megabites of core memory, immediate access. In addition, we have

the disc that feeds other information into the computer and we have reel storage for permanent storage data. We try to do all of our manufacturing inventory control, accounts receivable, accounts payable, payroll, everything on this computer. When you get up to \$400,000,000 annual volume, it takes a lot of computer to do it. From the administration building we have basically four areas of manufacturing. First out here is the machine shop where we do the machining of items like cable heads, housings for the logging tools, measuring heads and all of the equipment to go with the unit to make a complete wireline unit. The next unit over is vehicle fabrication where we put together the hoist that lowers the cable in and out of the well, the hydraulic drive for it, and the body that houses this equipment. And it goes from that station to electronics where they will install the cabinets, the wiring, the computer, the panels and the various things that do the electrical job. In addition, we have explosives manufacturing where we make shaped charges and power charges for the plug setting tools. So overall we have machine shop, vehicle fabrication, electronics and explosives. And these are the four main divisions of manufacturing, plus the administration.

Jenkins: You were saying that before the explosives were spun off . . .

Gearhart: No, we still have explosives now for shaped charges. The part you asked about was black powder, which had to do with military contracts. We are strictly a wireline service company and manufacturing company of our products. We do no work for the military or other work outside of our product line.

Jenkins: Now.

Gearhart: Now. But before . . .

Jenkins: But when you did have the black powder, in your literature somewhere, you were the only black powder manufacturer in the United States.

Gearhart: That's right. DuPont had that plant. They put it up for sale, the government did, and we acquired it from them thinking that it might be useful back at that time in some of our business. And that was one of the things that we spun-off to Pengo.

Jenkins: Okay. Have you finished the tour?

Gearhart: Well, no. We have one other site down there for a training facility where we take the new engineers. We have test wells, we have lecture rooms and what we call simulators. They can listen to a lecture, then go into a simulator where they will take logging tools off of the racks, screw on the cable head and run into those shallow test wells that we have, go through the process of running a log, and make the print like they were in the field.

Jenkins: In the training, these are largely your technical people.

Gearhart: The engineers and technical people, yes.

Jenkins: How much time do you spend training someone down there?

Gearhart: An engineer right out of school will take approximately three months' training, about a month in the field and two months here. And then he goes into the first stage of going out and being a junior engineer. Then he will come back after three months for advanced training. Periodically, depending on what expertise the guy has or what specialty he has, he will come back in for additional training sessions of a week or three weeks to learn about the more technical parts of equipment.

Jenkins: You apparently constantly have a class going on.

Gearhart: That's right. Usually it is classes, plural. We will have a group of engineers, a group of production logging people, a group of case hole people. We will usually have about three different categories of people and some advanced course.

Jenkins: Do any of those trainees wash out?

Gearhart: About 25%, probably, from the day you start.

Jenkins: You are running an awful lot of those through there constantly. Do you lose many of them to other companies, or are you just growing that fast?

Gearhart: Oh, yes. Once they finish our complete school, once they are qualified engineers, normally they have a ready marketable trade. Independents and other people offer

them a premium to hire them away from us, because we may spend as much as \$25,000 or \$30,000 in getting them to that stage. But if they see that they have a good opportunity here to continue to grow and that they are going to learn more, that is the best hold we have on them.

Jenkins: So you really are doing a lot of training for the industry.

Gearhart: That is the way it turns out, yes.

Jenkins: But you must be growing pretty fast to use that many.

Gearhart: Yes, we have had a good growth domestically. Right now our main growth is in international markets. Probably in the next couple of years it will continue to be that way.

Jenkins: Let's move into that distribution area.

Gearhart: Okay.

Jenkins: Sketch that for us again and how that, maybe, has kind of grown in steps to be international.

Gearhart: Last year our domestic service company earned about \$190,000,000, and we had about \$50,000,000 manufacturing. That roughly brings you up to \$240,000,000. And then the balance, \$105,000,000, overseas, international.

Jenkins: Now all of your manufacturing is on this location?

Gearhart: And Alvarado. We do have explosives and a machine shop down there, yes.

Jenkins: How about your, what would you call it, your distribution points?

Gearhart: Now we have 82 field service centers. And we have about half a dozen supply bases where people can come buy supplies

from us.

Jenkins: Generally where are those located?

Gearhart: In Odessa and Longview, and Victoria, Texas; Lafayette, Louisiana; Casper, Wyoming; Cambridge, Ohio; and Oklahoma City, Oklahoma; that's it.

Jenkins: International?

Gearhart: No, we don't have any international. We tried one in Vienna, but it didn't work out.

Jenkins: In choosing those locations, how did you go about deciding Victoria, for instance?

Gearhart: Well, we had a customer based down there, and they were depending on the freight line service. We decided, "Hey, we are giving good enough service here. We could improve our service by setting up a base." And basically it is how good are your freight lines or your truck lines to the area that makes you decide that.

Jenkins: Kind of give us an idea of the growth of number of employees from when the two of you started until the present.

Gearhart: Okay. Today we have roughly 1,600 employees here in manufacturing and 3,600 field service employees for a total of 5,200. We were up to about 5,700 earlier in the year, but we have had to reduce our force by about 500 since this big slow down thing. At the time of the spinoff, the total number of employees was around 1,400. So we have grown from 1,400 to 5,200 in the last 3½ to 4 years.

Jenkins: Have you ever had much of a problem laying off people?

Gearhart: No, this is the first time in the history of the company that we had to lay off people. This year.

Jenkins: So it has been steady growth.

Gearhart: Yes, it has been steady growth up until this March.

Jenkins: And you were saying that you still have with you some of the people who started . . .

Gearhart: Of the original employees? Oh, yes.

Jenkins: You told us how you financed the very beginning of this, through the selling of stock. Have you had reason to do any other kind of financing as you grew?

Gearhart: Yes. We sold stock at different times since that very first year, too. Our first listing on the American Stock Exchange was 1963, when we sold about \$3,000,000 worth of stock to the public. Since, we have had some convertible debenture issues. We sold Euro-dollar bond offering. We sold additional stock when we went on the New York Stock Exchange here in 1976. And we did a private placement with an insurance company last year of \$35,000,000, convertible. So the total equity of the company is \$182,000,000. We also use borrowed money. We have total borrowings right now in the neighborhood of \$100,000,000.

Jenkins: What is that principally used for?

Gearhart: Working capital, and roughly \$50,000,000 of that is short term, and the balance is long term.

Jenkins: As you do your building expansions, is that one of the major reasons for financing?

Gearhart: Yes, capital expansion and paying taxes.

Jenkins: Let's look at organizational structure and how it has changed and developed since the two of you started. Did you have an organizational structure when there were two of you?

Gearhart: It was divided more or less in operations and manufacturing, and I usually looked after field operations and Harold looked after manufacturing. We are talking about history here, and we are talking about the company today. And really, when you pass about \$100,000,000 you no longer can operate as a small proprietary type company. When you get listed on the New York Exchange and have 4,000 or so shareholders, you have to file annual reports; so it is a completely different kind of company today, let's say, than back about 10 years ago even. It is hard to say, where did what transitions take place, etc. And I picture as we go from where we are now. My goals have always been to build this into about a billion dollar company, which I felt we could do in another 2 years, and then I would have achieved all of the goals that I wanted here. Then I could buy me that camper and find that place down there near Austin that we talked about. No, I am kidding about that. But my main goal here was to try to become a major competitor to Schlumberger. They completely dominate this business we are in. They have 65% of the wireline market. Their nearest competitor is Dresser, who has

about 10%. We are third with about 8%. It was my goal that we get at least 15% of the market in the next two or three years, at which time we would be a billion dollar company.

Jenkins: How old is Schlumberger?

Gearhart: Schlumberger started in 1927. But in order to become a billion dollar type company, or even to grow from where we are, you have to get more into things like I showed you; the computerized operations, your materials planning controls. And you don't do things in the same way you do as a smaller company.

Jenkins: Kind of describe the organization structure.

Gearhart: Right now there is myself and there is the vice president, Joe Keyes, who looks after primarily the domestic and international field operations. Next there is Bill Smith, a senior vice president in development and product quality control; Earl Johns, you met, is a senior vice president in charge of research. We have a financial senior vice president, Wayne Banks. We have two other senior vice presidents: Jack Burgen is in charge of international operations; and Max Mosely, who is in charge of measurement while drilling. Those are senior vice presidents. We have a vice president of administration. You met him this morning, Roland Gillett. Comptroller-vice-president, Joe Payne; and a manufacturing VP, Don Lauderdale. We have an

attorney, an in-house legal counsel, that is looking after primarily the international, Dean Carswell. He is a vice president also. Then in the field we have three vice presidents in field services: Glenn Campbell, Don Wigley, and Bobby Nation. There is one other VP, Jimmy Wester, who is kind of a coordinator of all of the field service activities.

Jenkins: Did this evolve, or did somebody consult with you and help you to draw one up. How did this come about?

Gearhart: It is a changing thing; it is a dynamic thing. Actually about 7 of those VPs have been made VPs in the last year. And the ones that are senior VPs used to all be regular vice presidents. We just promoted four of them to senior vice presidents.

Jenkins: Have most of these people been with you?

Gearhart: Yes, most of them have been here quite a while.

Jenkins: You usually promote from within.

Gearhart: Yes, that is what we like to do, yes.

Jenkins: To what extent, if any, is this like a family company?

Gearhart: I don't think it is.

Jenkins: Are you about the only Gearhart working here?

Gearhart: I have a son that is an engineer here. He is in a research development section on the calibration of logs.

Jenkins: And the size of the organization and the number of stockholders, this is hardly in any way a family company.

Gearhart: No, it isn't. Like I say, we are listed on the New York Exchange. We have, right at the moment, in the neighborhood of 3,500 shareholders. The institutions did own the biggest blocks of stock. They at one time held about 45%. But I think probably in the last couple of months they have been reducing their holdings. Our largest single shareholder now is the General Electric Company. They own around 14% of our stock. It is their intent to get up to 20%. Because once they get 20%, they can do equity accounting and take our earnings, our portion, into their earnings. We just made this connection with G.E. in March. What we hope to do there is utilize their research and development to help us. They have one of the strongest research laboratories in the United States. Last year they spent 1.7 billion dollars on research. They spent about \$260,000,000 just on pure research at Schenectady, New York, alone.

Jenkins: To what extent do you feel that the large stockholders . . . I don't know how you call them, whether they are institutional or corporate, to what extent do you feel that they have an influence on how the Gearhart Industries is run?

Gearhart: No, not any. You might call them investment funds instead of institutional investors. I think they go by both names. But Steinrow-Farnom, there are a couple that did have about 5%, you see. And like I say, the total ownership by institutional investors like that was in the 45% neighborhood before G.E. started buying. Now G.E., that is just

a corporate investment. I don't call them an institutional investor. They have a purpose, a plan, behind what they are doing, and we are in sync with that, you see.

Jenkins: So they are a great aid.

Gearhart: We hope; we expect them to be. One of the projects we have going right now is a satellite communication of well logs. They have had an experimental program with NASA for a few years using different frequencies in the commercial satellites. And we are getting geared to try three units out in the Gulf of Mexico where we will be able to send log data back to home base by satellite.

Jenkins: We were talking at one time about the competition in this business. What is the competition?

Gearhart: Schlumberger is the biggest competition. They have about 65% or 66% of the total market. Dresser Industries, a company called Dresser Atlas owned by them, is second within the neighborhood of 10% to 11% of the market. We are third with the neighborhood of 8% to 8½% of the total market. Then you drop down to McCullough, which is N. L. Industries, Welex division of Halliburton, and the independents for the balance.

Jenkins: Let me ask you about independents. To what extent are they a share of the market? Are there lots of strong independents?

Gearhart: You see, I have been addressing the total market, the worldwide market. If you break it into foreign market and

domestic market, probably it is about 50-50, with the foreign market being roughly 2 billion dollars and the domestic market being 2 billion dollars. And, of course, Schlumberger dominates that foreign market. They have it nearly all to themselves. So that is where they pick up that big percentage. Now when you come to the U.S. market, the domestic market, independents I would say have 30% to 35%, maybe, of that market now.

Jenkins: Now when you speak of an independent, what is the picture of that?

Gearhart: It is the people that have just one, two, three, four units, you see, and they just operate in a local area. But some of the large independents might have 15 or 20 trucks and operate in two or three areas. But by and large, an independent is the guy that has three or four trucks operating out of one or two places.

Jenkins: Do those come and go much, or are they pretty stable?

Gearhart: They stay in business pretty much, yes. They have usually a simpler line of tools, perform less services and at a considerably less price.

Jenkins: Let's get into this area that we call employee relations.

Gearhart: Okay.

Jenkins: Do you think you have a particular management philosophy toward employee relations?

Gearhart: Yes, I think we are very people oriented, or I try to be.

We have a personnel manager here that looks after the manufacturing personnel relations. We have a wireline personnel manager for the field service locations, and we have three personnel people in the field. Ben Byrd, the guy that looks after personnel relations here, has four or five fulltime people working under him in personnel relations. And ordinarily when you have plenty of work and the business is expanding, we have had excellent personnel relations and good morale. Right now with the cutbacks and layoffs, I think our morale is pretty low. People are worried about how much slower the thing is going to get.

Jenkins: You were saying that this is the first . . .

Gearhart: Yes, this is the first time we have ever had any layoffs in the history of the company.

Jenkins: And you can feel it as you walk through the plant?

Gearhart: Well, I feel it myself. Even when you are thinking about doing it you just really hate to see the people that need jobs to support their families without a job.

Jenkins: I noticed as you walked through the plant you seem to know most everybody.

Gearhart: I know a good number, but there are an awfully lot that I don't know, too, you see.

Jenkins: Do you feel that you are close enough that you can pick up feelings like that?

Gearhart: Not really, not anymore, no.

Jenkins: It is just too big.

Gearhart: Yes, too big. But you can sense by the lack of activity as you go around how it must affect people.

Jenkins: As you collect managerial personnel, in general, what are you looking for?

Gearhart: The first thing is competency or somebody that is capable, and they have got to know their business. The second thing that I like most about people is enthusiasm, which we don't always find. You like to find somebody that has a lot of enthusiasm and is competent.

Jenkins: How do you measure that?

Gearhart: Oh, just by ear, by talking with them.

Jenkins: Do you still talk to all the prospects?

Gearhart: No, the selection of people for supervisory jobs is in personnel, the VPs and the lower supervisors.

Jenkins: You were telling me about some tests that you give.

Gearhart: That is for the field trainees, for the engineers. It is a psychological profile. We try to determine if they have the characteristics of people that are likely to stay with the work. We hate to train somebody and then lose them immediately because they say, "Oh, this is not the kind of work I like." And we have an ideal profile of the people that do stay with this work and like it. And we try to get profiles that match that.

Jenkins: Now you told us about the technical training.

Gearhart: Yes.

Jenkins: Do you have other kinds of training programs for other employees?

Gearhart: Yes. We have sales programs and Dale Carnegie type courses, manager programs.

Jenkins: Brought in?

Gearhart: Yes.

Jenkins: Do you send many people out for any kind of training?

Gearhart: Not a lot, not big numbers, but we do send some out.

Jenkins: For what kinds of things?

Gearhart: Supervisory training and managerial training.

Jenkins: Where would you send those?

Gearhart: There are various schools. We have had cases, like the guy that went with us at lunch, Jack Burgen. He went to Harvard Business Management, an advanced business management program for 3 months. We have had two guys go there. We have had a number of people go to Xerox schools, sales schools. But most of the supervisory schools we have had instructors brought in here, and we give them locally.

Jenkins: You said you looked for people with enthusiasm, how do you keep that going? What kind of motivational attitudes or approaches do you have?

Gearhart: I don't think that you can induce a lot of enthusiasm. People have it or they don't. And it breeds on itself; and if you have an enthusiastic person in a group, it tends to grow within the group, to develop.

Jenkins: Do you suppose that the kind of business that you are in, the fact that it is pretty dynamic, do you suppose this has much to do with it?

Gearhart: Yes, I think that helps.

Jenkins: You have a full range of employees here, is that right?

Gearhart: Yes.

Jenkins: How about unions, are you involved in those?

Gearhart: No, right at the moment we don't have a union. At various times the unions have come in and tried to organize us; but in the past, they never have gotten very large a share of the people to get interested.

Jenkins: You have never had union penetration.

Gearhart: No.

Jenkins: How do you account for that?

Gearhart: I think they realize the benefits they have are as good or better than the people that have unions. We are in, I would say, the higher part of the bracket of salaries and days off, holidays, health care and dental care, retirement plan. Most of the people that we had to lay off, etc., were asked to fill in a sheet when they left. They were very complimentary even though they were being laid off. "The best place they ever worked," and, "Sure appreciated the benefit package," and things like that.

Jenkins: What unions are you susceptible to?

Gearhart: The trade unions, AFL, CIO, United Auto Workers, etc.

Jenkins: Is it usual for them to be in this kind of business? Are

you an exception?

Gearhart: Dresser is unionized over the area in Dallas. Miller's Brewery here is unionized, right down the street.

Jenkins: I am talking about the kind of business that you do, is it ordinarily unionized?

Gearhart: I don't believe it is.

Jenkins: What kinds of advertising, public relations, do you have?

Gearhart: We have a series of ads that run roughly in 20 different magazines. We spent about \$400,000 on advertising last year in ads. We do spot radio, TV ads on occasion, but not very often.

Jenkins: You direct it very specialized, then.

Gearhart: Mostly it is the advertising in magazines. The trade shows are a big expense and a big part of our advertising, too. The annual meeting of the Society of Petroleum Engineers, the Exploration Geophysicists, the Well Log Analysts. There are half a dozen or so shows. The Offshore Technology Conference each year in Houston, which we spend a large sum of money to make an exhibit and have people to go there. So trade shows are a big cost of our advertising.

Jenkins: Do you usually go to those?

Gearhart: Yes. Back to your question on government regulations. Of course, anybody that drives a truck comes under the Department of Transportation regulations, DOT. We also have the different federal laws on the number of hours worked,

how you pay your people overtime, the basis of paying and all of that. We have to adhere to all of that.

Jenkins: But those are the ones that do apply.

Gearhart: Yes.

Jenkins: Have you had many brushes with OSHA?

Gearhart: Yes.

Jenkins: What has been your experience with OSHA?

Gearhart: Actually once we got out of that black powder business, etc., we haven't had too much out of OSHA. Back when we had that and we had this plant down at Cleburne, we had two explosions that killed people. And, of course, OSHA is all over you when something like that happens. That is one of the big reasons I wanted to get out of that business, you know. It was really detrimental to our cost of insurance and just the general growth of the company to have to give time and attention to matters like that.

Jenkins: But this operation isn't much susceptible.

Gearhart: No.

Jenkins: How about your rigs when they are out in the field, are they in any oil drilling danger if they are on a site?

Gearhart: Not particularly. Actually, there was a floater that went down off of Newfoundland in Canadian waters. I am trying to think whether it was Otasco or who owned that rig, but there was a well servicing crew out there. Five

or six Schlumberger people drowned when that thing went down. So, of course, an offshore rig is a hazard. There are always hazards in riding out there in helicopters and back. But the biggest loss we have had this year is the loss of three engineers in the last couple of months from drownings--all in separate accidents, which is unbelievable. On land. Whitewater, boating, fishing, floating and things like that. Unreal.

Jenkins: Not job related?

Gearhart: No, not job related. Entertainment. Went out on a Sunday weekend and drowned.

Jenkins: But job related you haven't had any.

Gearhart: No.

Jenkins: What about EEOC, have you had many problems?

Gearhart: They are always on our back. We try to keep the right records and have the right hiring practices, but you never seem to satisfy them.

Jenkins: Do you have any particular comments you would like to make about government regulations in general?

Gearhart: No. We do our best, and that is about all that you can do.

Jenkins: Okay, let's kind of look to the future. Your present role in the company is as we described it. You are chairman of the board, president, and chief executive officer. Do you have a typical day at all?

Gearhart: No. If I had a typical day it would be mostly talking with customers, talking with our own people. Mostly it is

talking with people. Paperwork is a good part of my job, but I am not too good at paperwork. It takes me longer to do it than it would most people, possibly. There is always a day or two preparation getting ready for directors' meetings. We meet six times a year, every two months. And then the day of the directors' meeting you are tied up most of that day with the directors and going over the budgets and plans. We have a weekly management meeting on Mondays. Normally it is a couple of hours long where each department VP or supervisor kind of goes over what is happening in his department. So that is typical; it varies from day to day.

Jenkins: Do you have pretty much a five-day job now?

Gearhart: Yes, it is pretty much a five-day week now, right.

Jenkins: How about the future, what do you hope for the future for the company?

Gearhart: I would like to see us really become competitive with the number one guy, Schlumberger. I would like to see us gain 20% to 25% of the market. I would like to see us be recognized as the company that can do as good a job as they do and be in all of the markets they are in, rather than them having all of the markets to themselves in some of these foreign countries.

Jenkins: Do you see that as a geographical expansion of locations?

Gearhart: Yes, that's right.

Jenkins: Obviously to me, and I think to anyone looking around,

this is a very successful company. How do you account for the company's success, which is considerably tied to your success, I would say?

Gearhart: Well, number one, you have got to get the right people. The company is nothing but people. And we have got a lot of good people. Number two, I think this has been proven particularly in this recession downturn, you really need to be specialists or focus in on certain markets. You just can't be everything to everybody. We have defined a market, we are trying to get a piece of it, we are going after it, we are focusing our attention on it. We have got a bunch of good people. We are going about it in a scientific way, in a businesslike way. And if we do a good job, we will get our share of the market. If we do what we are trying to do, we will continue to grow. I tell a lot of people, it is like you see football teams that beat themselves; they fumble the ball, they throw interceptions and beat themselves. So I think that is the way with us. I don't worry about the competition as much as I do 'do we do a good job or do we fumble the ball and not train our people properly, not give them the right equipment to work with and lose because we didn't do it right,' you see. I don't worry about the other guy doing it better than us.

Jenkins: Does that differ much from, if I ask you the reasons for your own personal success?

Gearhart: No, I think it ties in exactly the same. I have focused on

this particular market, and it is a good market. We are getting our share. So that makes my success go along with the company's success.

Jenkins: I have got a question here, and I think I know the answer, but I want to ask you anyway.

Gearhart: Okay.

Jenkins: You have got, what did you say, 1,600 people or so?

Gearhart: Here, yes; 5,200 total.

Jenkins: A lot of people talk about the loneliness of leadership. Do you ever feel that?

Gearhart: Oh, yes. You are all by yourself in a lot of these things. Yes, there are a lot of problems that you just don't have anybody you can talk them over with.

Jenkins: That is in terms of decision making.

Gearhart: Right.

Jenkins: In terms of distance between you and those working for you?

Gearhart: When you start out as an employee with another company, you have different relationships with those people than you do once you become, say, a supervisor. So it was really a surprise to me back when I first started working. You would be good buddies, and have a bunch of guys that you were good buddies with. And then the first thing you know, if you have moved up and you have advanced into a supervisory position, you just can't be good buddies anymore. And you miss those relationships. Now right now, it is easier to build close friendships outside the company than it is

within the company.

Jenkins: Do you ever suspect that there is a lack of communication upward that you would like to have?

Gearhart: There is a lack of communication both ways, yes. Computers have brought that home to me more than anything. Our biggest failures in the past three or four years have been lack of developing a software program that we needed. And it is all because we don't communicate good: we don't define what we need, we don't set it out and then go after it, and consequently we don't get the job done. It is the same thing in management. If you don't define the problem, if you don't have good communications with people, then it gets fuzzy and nobody knows what they are supposed to do.

Jenkins: Do you feel, though, that part of the lack of communication is because you are at the top, and there are things that they don't want to tell you, that they are afraid to tell you?

Gearhart: That could be, but it works the other way, too. I am not good enough about writing things down and putting it into a memo and saying, "Look, here is the plan. This is what we want to do." And quite often you tell somebody what you want to do, and then it doesn't get done. You go back and check and see why, and they didn't understand that was what you wanted to do. So you see, the need for having made a memo or written it. I am weak on memos.

Jenkins: Over your lifetime, to what extent have you been involved

in your community, local, state and national?

Gearhart: Quite often. I started off my major civic involvement here with TCU and their football recruiting program in trying to talk athletes into coming here. I was president a few years back of the Frog Club, which is a booster society. Then I got on the TCU board of regents, trustee. So I go to all of those meetings. I got involved in the American Heart Association and was financial vice president in charge of fund raising here a couple of years. I worked, not in a real high position, as a division leader in the United Way. I have been quite involved in church work. I served as chairman of the board of the church for two years and on the executive committee six years. I am a trustee there now. That is the University Christian Church. I have been pretty much involved in other things like Nomads, which are oil related societies. Right now I serve on the National Ocean Industry Association financial committee. I would like to do more of that, but you just have a limited amount of time, you see.

Jenkins: What about hobbies? Do you have hobbies?

Gearhart: Yes. My main hobby is wind surfing.

Jenkins: That is a very short one, because that is a new one.

Gearhart: Yes, I have been doing that about 3 years. I really enjoy it more than any hobby I have ever had. Of course, I enjoy photography. I have an instrument license for flying. I enjoy flying. The hunting and fishing are

sports that I enjoy, but don't get to do too much of them.

Jenkins: If you have never hunted down in the Lost Maples area that would give you a good excuse.

Gearhart: That would be a good place to go, wouldn't it?

Jenkins: Have you been involved in other business ventures on the side?

Gearhart: Yes, I have another business venture right now.

Jenkins: What is that?

Gearhart: It is a company to make drop bits, drilling bits, and it is not in any way related to the wireline industry.

Jenkins: Is it your business?

Gearhart: Yes. It is a rather small company.

Jenkins: Where is it?

Gearhart: It is about a mile from here. It is privately owned. It is not a public company.

Jenkins: Who runs it?

Gearhart: A fellow by the name of Lloyd Garner. He is an engineer, and he has an idea on how to make a better drop bit. We have been making about 80 bits a month, I guess.

Jenkins: How old a company?

Gearhart: Lloyd has been in it about two years. I had started it about four years ago.

Jenkins: Oh, I see. And how many folks involved in that?

Gearhart: I guess we have about 35 there.

Jenkins: Coming right along too, then?

Gearhart: Yes.

Jenkins: Anything else that you have been involved in over the years that you can think of, businesswise or hobbywise or anything like that.

Gearhart: Oh, I have made some other investments, but, you know, they are just investments, not actively involved.

Jenkins: Do you vacation now?

Gearhart: Oh, yes. This summer I took the family, grandkids and all, to Alaska. We went to Seattle and got what they call the Marine Interpassage, the Marine Alaskan Highway. We were on a boat for about a week up to Skagway and back down to Juneau. Then we flew over to Glacier Bay and visited there. It was great.

Jenkins: Did you see the glaciers falling?

Gearhart: Yes. Calving, they call it. It is a great trip.

Jenkins: What about reading habits?

Gearhart: I read an awful lot.

Jenkins: What kinds of stuff?

Gearhart: Mostly the technical journals: Oil and Gas Journal, Petroleum Engineer, World of Oil, Business Week, Fortune, Forbes, Time, U.S. News.

Jenkins: Do you do any leisure reading?

Gearhart: I kind of call that leisure reading.

Jenkins: What kind of attitude do you have toward retirement?

Gearhart: Oh, I don't expect to retire, ever. I enjoy work too much to ever retire. I would like to maybe work half days or

parttime, but to me the ultimate is to travel and work at the same time.

Jenkins: Oh, yes. And you get a chance to do it.

Gearhart: Right.

Jenkins: What kinds of travel do you do related to work?

Gearhart: Well, I go to various places where they have oil drilling, to talk to them about the equipment needs, etc. Right now I am planning a trip to India. It is not one of my favorite places to visit.

Jenkins: And you go to conventions and all.

Gearhart: Right. Yes.

Jenkins: Okay, I am at that point where I think I have covered my outline, but this is your interview, and we want to be sure that if there is something in it that you want you get it in there. Is there anything that I should have asked you and didn't that you would like to speak to?

Gearhart: I think that in general the reason people succeed or the reason people get ahead is because other people want them to succeed or other people want them to get ahead. The reason you get certain advancements or honors or promotions or what-have-you, other people are involved in that selection. They decide that, "Well, here is a guy that we would like to see do this." I think in your personal relations, whether it is community or business or wherever, you have got to always keep that in mind. If somebody is

not your friend and they don't want you to get something, they can maybe keep you from getting it. You succeed because other people want you to. There may be exceptions to that rule. Some guy that doesn't have a friend in the world may be highly successful or lucky by going out and drilling an oil well and striking it rich. But they are the exceptions. If you make it by working in an organization with people, then you have got to work with people. The people that don't get along, they are going to find they don't get along not just this place, but when they go to a new company they won't get along there either. If they don't get along with their neighbors, it won't make any difference if they move. So, in general, I think success and getting along are matters of you have got to try and do it yourself. It is not just the other guy.

Jenkins: Your training and education has been primarily technical.

Gearhart: Right.

Jenkins: You are now running a business.

Gearhart: Yes.

Jenkins: Is there any advice, anything that you can tell others to do, anything that you wish you could have done and didn't to get you ready for this?

Gearhart: I think anytime you are puzzled, and you don't know the solution sometimes, you have to dig in and start finding out about it. Just like computers. I went along too long not trying to learn about programming and software,

etc. It was something that I didn't understand. I finally started digging into it, and I feel that that is going to help me solve the problems in that field. I am not sure yet. But anytime you get into new areas, I think you have just got to dig in. And I don't think a school can prepare you for all of the things that you are going to encounter. You have got to have that attitude that we don't know everything, but you are going to dig in and learn. It is a problem to you when you are faced with it. So I guess I would say, no, you never could be fully prepared for whatever you are going to get, and you have just got to have an open mind. You have got to learn to recognize what you don't know, and you have got to go out and learn about it when the need arises.

Jenkins: Learning to learn.

Gearhart: Exactly, learning to learn.

Jenkins: Okay, anything else that you would like to say?

Gearhart: I believe not, but after I read this tape I will probably want to change a whole lot of what I have said.

Jenkins: You will have that opportunity.

Gearhart: Okay.

Jenkins: But if at the moment you don't have anything else, we will close, and I thank you for a very interesting interview and tour of the plant.

Gearhart: Thank you, Floyd.