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John T. Humphreys

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Today is August 25th. I'm in El Paso at the home of John T. Humphreys to talk with Mr. Humphreys about his experience as a mining engineer in Mexico and elsewhere in Latin America. Mr. Humphreys, could you tell us how you got started in the mining business?

Yes, I was born and educated in high school in Bismarck, North Dakota. North Dakota is not a mining state, except for coal, and none of my family were miners and I didn't know any miners. But when I was ready to go to school, why, at the college, I wasn't exactly sure what I wanted to do, but I'd read something about some of the mining magazines and so on and I thought, "Well, that's a good way to travel around the world." So I decided to be a mining engineer and I graduated with a Bachelor of Science and Mining and Metallurgy in 1939.

And I worked for a while in... . Well, we, my partner and I, he was a year behind me, Bob Plunkett was his name, and he and I borrowed my dad's car. And we had a little bit of money and so we took off for Montana looking for a job. And this was kind of bad because Butte was shut down, Homestake was shut down, and those were really the big mining areas around in that country. And so there were a lot of miners that were miners, not school kids, (chuckles) looking for jobs, but we finally managed one after a couple of months of
sleeping out and shaking the snow off our blanket when we got up in the morning.

And so we got into this place and we talked for a while and it just happened that the owner was there. There was a foreman, but this fellow was the owner. And he asked us something about what we'd been doing. We told him. Foreman was talking to us and he says, "Well, what do you think if we give these fellows..." the going wage for a miner at that time was $4.50 a day. So he says, "Well, we'll give you two dollars and a quarter apiece and between the two of you, why, maybe you can make up for one miner." So first job he gave us, I don't think he really had a place for us, was single-jacking in a little, oh, just a little adit, that little exploration adit, just about, oh, two or three hundred yards from the mine shaft. And single-jacking, why, you take about a five-pound mallet and...a very short hask on it about, oh, six inches long and you have a hole in the end of that. And you tie a rawhide thong through that, wrap it around your wrist so you don't have to hang that way. It just kind of flops in your hand a little bit and you guide it. And we were drilling holes up and we had about a four-foot piece of steel with a bit on the end of it. There weren't any tungsten carbide bits in those days. It might have helped a lot. The bit was forged in the blacksmith shop. You put the hole and by the time you got it started, why, you were moving along and you'd pull the steel out a little bit to let the cuttings out and then jam it up with your left hand and swing this mallet with your right hand. That was pretty hard work, but I guess
we only lasted about, I don't know, maybe three or four days. I don't remember. And I think they just wanted to know whether we wanted to work or we'd quit.

So they put us in the mine with another miner. He was a younger fellow. He was actually a graduate of Montana School of Mines, too, and he didn't have a job either, but he'd been working as a miner for awhile. And we worked with him for quite a little while, drilling and blasting and timbering and mucking it out with a car that we pushed to the dump. And this was a shaft mine so we were down about, oh, I went down, I guess, we were down about five hundred, six hundred feet. And so we worked at that for a little while.

And then one day, why, they'd been talking. We heard them talk about plumbing the shaft. And plumb the shaft, that means you have to carry your directional lines from one level to the next level. And you hang two wires in the shaft. You measure down very carefully to get the difference in elevation. You measure these two wires and when you hang them, why, you hang them on a spad that you've already tied in with your transit with your surveying instrument. And one of those wires then is going to be your takeoff point and the other wire hangs for your direction. So we carried the survey down to the next level where before that it had just been by Brunton compass. And after we did that, why, they had a mining engineer, or an engineer, anyway, that came in and did their surveying once every two or three weeks. But anyhow, he came a little while later and he checked it all out and everything and we talked to him. And he said, "Well, no." He
said, "I think they've done a good job." So they put us on as miners at four-fifty a day instead of two and a quarter. (laughter)

We lived in a...we ate in a mess shack. A woman cooked and everything was family. Everybody got in there and they put big plates of food on the table and just kept them full and we just kept emptying them. And we lived in a bunk house. I don't remember how many. I suppose there were about six bunks to a room. And we were on the afternoon shift. I think we went in about nine o'clock and we got out about five o'clock in the morning. And this was Montana in the high regions and along in July and August, I guess. And the sunrise was just coming up then and it was just beautiful. They asked me if we didn't want to go on the day shift and I said, "No. I'd rather get on this shift (chuckles) and see that sunrise." And we had enough time during the cool of the morning to sleep.

So, anyhow, while I was there, why, I got a telegram from my school asking me if I wanted to take a job in Honduras and to contact them if I did. So I went down into town and we got a telephone and I called and said, "Yes, I'll take the job and where's Honduras?" (laughter) And I suppose I really had an idea where it was, but... . So this job, I didn't know what it was and, I guess, the school didn't either, but it was a graduate of the school. He didn't graduate in engineering, but he had made a lot of money in construction in New Orleans and he was tied up with some people that supposedly had a prospect in Honduras. And this was right out in the bush.
Well, we flew in a little charter plane. He had a little route that he went by. It was a little single-engine, four-place plane. And he landed in this...just an open field. And I got off and looked around and everything and there wasn't anybody there. I hadn't seen the village or anything. So I said, "Well, look. Do you ever come back here?" "Well," he said, "this isn't a regular stop, but I will come back in about two days. I make a regular trip around here. I'll be back in two days." He said, "If you haven't been picked up, why, stand in the middle and wave something at me. I'll buzz the field and take you back to the coast to Tela."

Well, I guess I sat there on my one little bag. That's all I brought. And I was going to buy everything else once I got down there. So I sat there for, I guess, maybe about ten minutes. Pretty soon this guy with a- old marine-campaign hat on came riding up...a big black mustache and some burros, donkeys. And he said, "Well...". He was the guy who was going to take me out there. So we went out to this little place, Corralitos.

M: Corralitos?
H: Corralitos. C-O-R-R-A-L-I-T-O-S. And we lived in a little adobe shack and they had another adobe shack for the cook. And that was it. We were the mining company, the two of us. He didn't speak any Spanish and I didn't speak any Spanish coming from North Dakota. But I had a grammar, so I began studying this, studying this, and pretty soon I could sit down with my grammar and write out a sentence. And I learned pretty good pronunciation simply by learning the alphabet:
And you learn that. And I still say it to this day, if you learn that you can learn Spanish. You can learn to read Spanish. You won't know what you're saying, but... So I learned to do that and that helped a little bit.

But, anyhow, he absconded after about three months of this. He was quite a jack-of-all-trades. So, meanwhile, we had built ourselves a house. Part of it was rested on some rocks and the rest of it went out kind of over a stream. And there was another rock out there and we put in some big timbers. And that's where I lived. We moved in there, but I don't know, we didn't get along and, I guess, he was getting tired of the place anyhow. So, anyhow, he left. And I managed to go to a town. Oh, I rode a horse, I guess, for about three hours to get there. And I sent a telegram to Tegucigalpa to notify my boss, or the guy that had hired me, in New Orleans. And I got word back to stay there, that I was his only contact and so I stayed there. Didn't have anybody. Didn't have any clothes. And there was a cook there when we got there. Her name was Lola. And she was about four-by-four, about four feet high and about four feet wide. And she was a wonderful cook with what she had.

And there was a little old village, I wouldn't call it a village, with a few houses around about a mile away on a horse. And I'd go over there and we'd get a bunch of people to follow me and we'd go fishing. I know this isn't very sportsman-like, but I was looking for food and so I'd take a half a stick of dynamite and stand up on a rock—this was a
beautiful mountain stream running there—throw the half a stick in there and it'd go off and I'd dive in. And I usually managed to get a couple of big fish with my hands, but the rest of them would string out along down stream and they'd pick up all the pieces that came down. And the thing was loaded with fish. And I'd only do this about twice and everybody was happy. I had some fish and they had some fish. And they'd take me back to this little place and I'd sit down there in the chief's hut, I guess. These weren't even adobe. They were thatched. And they'd cook the fish and everybody would talk and pass me things to eat and things to drink. And I didn't do very much drinking of the stuff they gave me, but I ate the fish. And that's the way I lived. There was another fellow, don Pancho, and he used to send me milk and, oh, potatoes and all that over there...no charge. Didn't cost me anything.

Well, finally, the owner up in New Orleans got hold of... McNichols was his name, an old hard rock miner that had gone to Honduras and married a Honduran and was living there and he'd hire himself out in various places as a consultant. So he came out and looked the place over and so on. And we cleaned up all the gold in the mill and, I think, we had about three little balls of amalgam like that [shows dimensions] when we got done. Amalgam is what you get when you put mercury in with free gold. And you put in a shammy and squeeze it out and you have this little ball, not hard, but fairly durable. I didn't see anymore of that.

But we went in to town and I got a...well, he put me in
M: Well, did you work then for a larger mine in Honduras?

H: There was another mining man that was staying there and he said, "Well, I have to go up and talk to some people up here. You want to come along?" I said, "Sure." He said, "This is Rosario Mine, New York and Honduras Rosario Mining Company." So we went up to their office and I sat outside and he went into an inner office. And I sat in the outer office. And pretty soon he came out with a little older fellow and he started talking to me and asked me about what I was going down... . He introduced himself as K. H. Mathison and turned out he was the general manager of the mine. He just happened to be in town that day. So, finally, he said, "Well, what are you going to do?" "Well," I said, "I'm waiting for some money so I can get back. The owner is supposed to send me some money down, but I don't have it here." And he said, "Well, what are you living on?" "Well," I said, "everybody seems to trust me, so (chuckles) I'll pay my bills when I get a job." And I said, "As far as that goes, I've got to send money out to this place where I was, this Corralitos, and pay all of
these people...pay the cook and pay everybody that gave me food and everything else." And he said, "Well, I'll give you a job as a junior engineer if you want to give us a try." And I said, "Yeah, I'll give you a try."

I had been planning on going back. I had a scholarship to Texas A & M for advanced geology. I'd stay the fifth year to get my geological. I got a B.A. in geology and I was going to continue, maybe, in geology. I thought that might be a good idea. And so anyhow, I went to work to work for him and, well, I stayed there for about two and a half years. I started as a junior engineer and then they moved me into the mine as a shift boss. And shift boss, why, you have a certain territory and you watch the people and you go through and see all the working places and guide them and so on. And I worked there for about two and a half years.

Meanwhile, Mr.Mathison's daughter and family had come down to visit. I was just more interested with the family. There were three others: two smaller boys and a smaller girl. And this one girl, she was in (chuckles)...I guess she was just finishing high school. And so anyhow, she was a real nice-looking blonde girl and we got acquainted. And we used to bowl together and go to the movies together. And so she came back the next year on vacation. And finally it ended up I asked her to marry me and she accepted. And so being this time, I was twenty-four years old and very proud, and so I quit my job. I wasn't going to work for my father-in-law. (chuckles)

And I went to Nicaragua. And I'd been in Nicaragua for
awhile. I tried to do just about...well, right just before I left Honduras, why, war was declared. And I went into the consul and tried to enlist and..."No, we want you to stay here and maintain the general economy of the country." And I knew I was going to.... Meanwhile, I thought, "Well, I've got to work somewhere. I've quit here." So I had a job lined up in Nicaragua, but I flew down to Panama meanwhile and tried to enlist there and they wouldn't take me either.

So I went back to Nicaragua and I was there just about two or three months when my fiancé got down. She started down with her mother. They lived in Colorado Springs and they just used to visit. But they flew down and hopped here and there. And this is during the war and so the mother only got as far as Mexico City. So, anyhow, they managed to get Margaret a ticket to Tegucigalpa and she got down there and her dad picked her up and so on. And I had come back. I'd gotten a couple of weeks off from my job to get married. I told them that when I started. And so I went back there and got married with an Episcopal bishop from Belize. That was at that time British Honduras. And...

M: So you were married in Tegucigalpa?

H: I was married by the mayor in Tegucigalpa in the morning and I was married in the afternoon out at my father-in-law's house. He had a big house at the mine, manager's house. We were married out there in the afternoon. And we went back to Nicaragua and I stayed at the place where I had been, but I didn't like it there. And we moved over- that was on the east coast- we moved over into the jungle. And it was an AS&R
mine. Bonanza was the name of it.

M: AS&R would be American Smelting and Refining?

H: Yeah. American Smelting and Refining. And they gave me a job there. And I was there as an assistant engineer, oh, I guess for about three months and the chief engineer left. And so I was chief engineer since there was (chuckles) only two other fellows and they didn't know as much as I did. So I was chief engineer. And I learned a lot there. I met some great people. Swede Nelson was one of them who, afterwards, became American Smelting and Refining chief engineer, chief mining man for the Western Hemisphere, very well-known man, and he was my superintendent at that time when I was engineer. He left before I did.

And I'd been writing and writing and, finally, I managed to get some place to write to to try to get an appointment for midshipman's school. And they told me, "Well, this will take four or five or six months, but we have to get you in here so you'll be available." They didn't think much of this Nicaragua business.

M: Before you go on to some of those stories a little bit later, what were the mining commissions like in Honduras and in Nicaragua?

H: Well, it was very primitive, but they were clean and everything. The miners lived in what they called Murder's Row. It was, oh, five rooms in a row and five rooms right underneath it and one bathroom on the end on each hall. And there was a bed in there and a sink and that's all. And you went down to the bathroom. And all of these rooms opened up
on to this corridor. Rosario was sitting on a mountainside about, oh, I suppose, about a thirty-five degree angle. And so you'd dig a little bench in on the uphill side and then the bottom hillside would be a long wooden post. And I was on the top row on this balcony out there. And every morning you could go out and look over the clouds that were all below you. We were about five thousand feet, beautiful sunrise. And in that way it was a beautiful country. The Hondurans were wonderful people, absolutely wonderful people. The miners were good. The miners were hard-working. The only problem was they'd work until they got enough money together to go out and plant their crops and beans. And so it was kind of touch and go when people were moving in and out all the time. So...

M: Were the mines reasonably mechanized for that period?

H: No. Rosario was not. We had a main haulage level that had big locomotives and pulled, oh, I suppose, a ten-ton car on the main haulage. And we had six levels and had eighteen levels above that going up the side of the mountain. This was the lowest level that was an adit...came out behind the shaft.

M: The main haulage level?

H: Main haulage. And that went right to the mill and they had some big rockers that dumped these cars. And this thing came out of there and it came out awful fast. I mean, there were two of them, but we had signals so that they would run. And you went in to a mine a certain distance and then it branched off into a Y. And that's the way it was hauled. But everything up above that was hand-tramming, except for one level where they had some mules for awhile. But the mules
were gone. I don't even think they had the mules when I got there, but they left shortly afterwards, anyway, so that was it. But we had air and had rock drills and everything. The silver mine...very rich. We had some stopes that would go oh, a kilo and a half of silver to the ton. And we could just see it in there. I mean, it was just beautiful silver, ruby silver and other kinds, but a lot of free silver in it, too. And...

M: What about the mine in Nicaragua?

H: Well, that was a gold mine and that was a little more mechanized than Rosario was. It was a new mine. In fact, Mr. Mathison, who was by now then my father-in-law, who had actually found the mine and put it into production. But Rosario didn't think that he could swing it, so they sold sixty-six percent of it to AS&R. They kept that a third interest for a long time, but it was a wealthy mine. And we had several mines in there. This was jungle. Ten months I was there it rained 240 inches. And it was real jungle.

As an engineer, they had... . They knew of a supposed property off here in the jungle somewhere and so I just took the map placement of that and we had to cut a pass through there. First pass we cut was...well, they were sure it was there. They had old maps and everything and we went through. I was guiding...we called the machete man because they cut the machete and just get enough open, so I could get a site and so on. And I started out with boots that came up to my knee, but pretty soon I thought, "Well, hip boots are going to do me better here," because sometimes we were just slogging through
the water. Just water all the time. We went through. We finally ended up...we had ax men come behind and they'd cut about fifty feet, all the trees on each side, to let air in, sunlight in. We got to this place and we stopped one night I couldn't see anything. We just...time to quit, so we quit.

Next morning we went back in with the...I usually had two or three machete men up ahead of me. And I don't think they'd cut for five minutes when they started to hit something. They said, "We've got something here." We went in and here was one of the...it looked like an old western locomotive. What do they call it? Punky and Atlas Railroad Company? Now, that was sitting on the rail. The rails were still there, but the ties had rotted out and were bent over (demonstrates angle of ties) like this. And, anyhow, we found the mine and that was all I had to do.

But, meanwhile, I was getting more and more edgy about...I didn't like the idea not being in service. I got back here and nobody could understand that or believe it, but it's a fact, so, anyhow, I quit there. I was there about ten months and I quit and we went back. And we stopped along the way here and there, but we got to Colorado Springs. And I had a telegram from this Swede Nelson. He was working in a potash mine in Florida and he wanted me to go down there. He said, "This is government work and we need you." But I said, "No."

So I went on up to Bismarck. Well, finally I got up to Bismarck and I still hadn't heard anything from my midshipman school appointment. And I talked to the Rotary Club and the Kiwana's Club and the Lion's Club. And my folks had been
there all their lives in this small town capital. Well, I guess it was about six, seven thousand people. Talked in the high schools. So pretty soon I told them, well, I was going into the navy. And so after about two months of this, why, I didn't even want to show my nose downtown. (chuckles) People would see me and, "Well, what are you doing? Aren't you in the navy yet?" So I went down to Minneapolis and enlisted.

M: Well, these talks that you were giving to the civic clubs, were they in regard to some of your experiences in Honduras?

H: Yeah, they were interested in mining and explaining how you mined. So I was in the Navy for a couple of years. And I was finally in Notre Dame in midshipman school when my appointment came through (chuckles) for midshipman. I mean, I was in North Island. We were flying torpedo bombers and I was a radar man, not radio, radar, when my appointment came through. So I went to Notre Dame, but I'd only been there about a month- no, less than that, I guess, two or three weeks- when the war was over. So they asked me if I wanted to continue and put in two years in the navy or did I want to get out. Well, I had a newborn son about six months before that, so I wanted to get out and I told them. And I was discharged. So we went back and I went back to my old job in New York and Honduras Rosario Mining Company.

End of Tape One, Side A

Beginning of Tape One, Side B

H: And so she was there with me for, oh, about a month. And then it was time to leave so we crow-hopped all the way up through
Africa. We stopped every place. We stopped in Victoria Falls and we stopped in the Copper Belt. Had a friend there in the Copper Belt, he'd worked under me in the mine. He was an English boy. And we jumped up to Nairobi and then we went to Italy and finally got back to London. I spent a couple, three days there talking to them and so on and then we get home.

M: Well, what do you remember about the living conditions for families, for example, at San Francisco del Oro?

H: Well, they were great. When I moved in there, I did, I must say, I moved into one of the bigger houses as mine superintendent. But all the houses were nice.

M: Now, there was a compound there at the mine.

H: There was a colony we called them. There were two colonies. This was San Antonio Colony and then there was San Luis Colony. They always used to say that was for the Mexican staff, but it wasn't. It was simply a matter of where your position in the hierarchy was. But we had, like I said, we had two hundred, but I wouldn't say they were all there. We had about thirty families in the one camp and probably about forty or fifty in the other one. And then we had some other houses besides that for the lower ones. And then there were, oh, punch board operators and stenographers and so on that didn't all get a house. When I got back from South Africa I was made general manager. That was about the size of it. And I was general manager until I retired in 1984.

M: Well, what do you remember in the 1950s as being found in some of the principal problems for production? Were there labor problems during those years?
M: The big thing was labor problems, but we went through a lot of things. I had had quite a... And when I was in Rosario we had a German master mechanic and he had some experience with tungsten carbide tipped. So we had a bunch of old drill steels that had been bought during or before the war because they were afraid they wouldn't get any more during the war and so on. And all of that stuff had to be carted out and sharpened and sent in again... just a terrific job. So anyhow, he wanted to talk about doing something with his tungsten carbide. So we set up a deal there and we could buy our tungsten carbide and he'd cut the place for it on the edge of the steel. He'd swage out the steel and put the carbide in. It was such a wonderful help for us there that when I went to Frisco I didn't do anything for awhile, but once I got to be—well, I guess, I didn't until I got to be General Superintendent, but I could, you know, more or less guide to what I wanted to do. Why, we'd been using Timkin, that's the screw on bits, and we had stopes on some of the lower levels that we couldn't get a hole in. We couldn't drill a six or seven-foot hole because these bits would wear down. And you'd put a new bit in and you'd have to always use the smaller one and a smaller one. By the time you got down to the size of the steel, why, we only had about three or four feet of hole. And so I managed to get it started on a.... Well, the first thing they did was a tungsten carbide bit. You pushed it on instead. And we lost so many of those. The miners stole them and the miners sold them to other companies and so on for ten percent of their price.
But about at that time, Atlas Copco was one company and Sweco was another Swedish company. They came into Mexico. They got some arrangements with the Mexican government whereby they could bring in Swedish steel and they could bring in this tungsten carbide. So they started making their own steel, putting the carbide in their own steel. And, of course, they did a much better job than we were able to do. We tried to switch over to those, but we had some heavy stopers and they would break this tungsten carbide. And it didn't seem to be going very well and I was getting a lot of pressure to get rid of the stuff.

So, finally, I had a chance. I talked to the general manager when I probably shouldn't have, but he called me and wanted to know what I was going to do. And so I said, "Well, I'd like to buy a bunch of lightweight Gardner Denver machines and keep this tungsten carbide." And I had it all laid out as a plan. I had already offered it once. And I said, "I can cannibalize all these old machines and we'll use the old ones for a little while. And the tungsten carbide...we'll cut down in steel consumption." And I told him about fifty percent more holes we had to dump by drilling one hundred percent more. But...

M: So that was one of the major technical improvements, then?
H: That was one of the major technical improvements. And it was a big improvement. Other than that, the main thing was they simply wouldn't work unless they had...a few of them might, in some special categories that weren't used to much, they'd make twenty-five percent bonus. But most of the people expected
fifty percent. And timber men and machine men and so on were...they had to have ninety or a hundred percent.

M: I mean, was that something that was practical from the amount of production that they had?

H: Oh, yes. Probably because once they got a contract they liked they'd do probably fifty percent more than you expected. And if they didn't have the contract they'd do thirty percent of what you expected, seventy percent less than you expected, and so we just had to have it. Often times somebody would suggest that maybe we were paying too much. But I said, "If we pay a hundred percent bonus and we just double the work, we're going to make a lot of money." He said, "No, you won't. You're paying out as much as the work you get." "But," I said, "if we don't have this we'll have to have probably five hundred, six hundred more men in here." And our overhead represented about sixty percent of the actual salary that we paid...vacations and all of these things off the job: hurt and sick and so on. So I said, "We'll still save sixty percent if we don't get any more than double production from double pay. Why," I said, "I'm always willing to pay double if I can get that much more."

M: So the miners had a base pay plus a bonus based on production.

H: Yeah, yeah. They had a minimum salary. They had a salary that was negotiated and most of these other things were not negotiated in a federal labor contract.

M: So why were there continual problems then with the laborers, particularly with Frisco, if they had a bonus system in place that would allow the laborers to make substantially more than
their base wage?

H: Well, there was always some that are hard to set up on that system. And the ones you didn't set up on the system, why, well, you just had to use discipline. These people were pretty undisciplined. They had a bad reputation there in Frisco when I got there. And I'd come from a place where we had difficulties, no doubt and...

M: What would be an example of some bad discipline that the miners had?

H: Well, part of it was they'd leave early on the job, things like that. That was the big thing. And they'd go out to lunch and they'd spend two hours in the lunch room instead of half an hour. So many, many things that we just had a problem with. And, also, the problem of safety. You couldn't even penalize a man for doing something that was incompletely unsafe. It was just a real problem. So you had to start right from the beginning. And I've always said that if you can get discipline in the little things, well, you get discipline in the big things.

They used to come up to the shaft. We'd gotten out in the morning. There'd be a big crowd in there pushing around and everything, so I had some lines drawn out there, lined everybody up. Anybody that didn't get in that line didn't work. And they got in the line and so on. A little bit of discipline, little bit of discipline, and pretty soon you had discipline all through the line.

M: In the [19]50s were most of the technical people, or at least the people that were in the main leadership positions, were
H: Yeah, most of the people in ASARCO. They called him a unit superintendent. He was the lead man in the places in Prieta and Santa Barbara and so on...Esmeralda. And not so much the mechanical people because they had good mechanical people. Usually they had a foreign electrical superintendent. And all of the unit superintendents and a good deal of the top supervision underground...the foreman, and that sort of thing. They were foreigners, too.

M: What about the Mexican nationals, the engineers? Did they have positions of responsibilities in the [19]50s?

H: Not much. I don't suppose they really did. There were some of them that did. There were some of them that were exceptional. And if you were able to pick and choose, why, you often got a very exceptional person, but you had to go through quite a few of them. I always found that too many of them that just.... Well, they had an old saying, "Well, I'm a mining engineer now, where's my office?" And they just expect it after going through four years of mining engineering school to be in an office. They didn't expect to be underground, I guess. And in an underground mine you're underground from the general manager on down. Maybe not the general manager very often, but you still go in there to look at it.

M: So one of the problems would have been that the education that the Mexican nationals had didn't emphasize more of the practical aspects of mining?

H: I don't think it did, no. I've heard people at the
conventions and so on. Some people were saying, "Oh, well, they get just as good an education," and so on. But these were more usually the academic types that were down here from the states that just didn't know anything about actually operating these people, but I did. I found gradually... .

Well, the man that took my place that I recommended is Luis Escudero. And he's a Mexican. He came in there when we were both about new at the same time. He was just a kid still in school when I was just starting there. And they put him in this, oh, kind of in the engineering office. He did measuring and that sort of thing. Then he came back later when I started to build the fluorspar plant. And he was in the pilot plant. He'd work with the ??? in the pilot plant and so on, so he was good. He was a really good metallurgist, so I put him in charge of the fluorspar plant first and then in charge of the regular concentrator. And that was one.

There was another one, Garza Aldape, he was in the engineering office and I moved him into the mine. And he wasn't a miner. He really wasn't directed in that direction, but I had some special jobs that we were doing, a terrible job. We had to leave ore in these stopes as we carried them up. We had narrow veins, but we carried them narrow, too. And this was pretty good grade ore, usually. Had a lot of sulfides, anyhow, and this stuff would just freeze in there. You couldn't budge it sometimes. And we had a system that... well, it was just starting. I don't think I initiated it, but I carried it on... . Because when I first got there we'd look up at a stope and the thing would be on empty as far as up you
could see. These stopes were two hundred feet, of course, but as far as you could see the stope was empty. And you'd get up on the top and you'd walk on some little stulls and planking because although there was much under you you never knew whether it was going to go up from under you. Well, that was just a terrible situation. And once you got in that situation, then you still had to blast and so on to get the thing moving. And the timber went in there and it was just no good.

So they sat in what they called a box stope. It worked like a cut and fill, except instead of pulling out all the ore through the chutes you carried up a cut and fill with stulls or box of some kind to pull the ore out of. But we'd carry the same box and we'd pull out enough ore so that we could get back in again to drill and blast and so on, just the overbreak in other words. And when we got done, why, of course, we had to get rid of this ore. We had to pull it out. The only way we could do it...we called rolling stopes. And we started at each one of these boxes. These boxes were seventeen meters apart. We started then and started taking off the timber and rolling with these bars, see. And they'd put holes in and put a little stick of dynamite in there to loosen the stuff up. They'd roll it in and pretty soon, why, you'd have a long rill from almost to the top of the scope almost all the way down and, you know, at two hundred feet, why.... And they weren't dangerous if they did things right. But if they didn't do things right, why, pretty soon they got scared. And, well, they got scared because it got dangerous because they didn't
do things right in the beginning. And we had an awful time with that. We didn't have enough supervision...hard to get into. It really was kind of a mess. It always was a mess, but we managed to begin to supervise them. And I took this fellow out of the engineering office, chief engineer, good engineer, and I told him, "I want you to sit in this stope. Do nothing else. I don't want you to see another stope. Sit there, learn how they do it, and I don't want you to double this production out here. These guys don't work." Well, he did. And I gave him another stope and pretty soon he had the category of assistant superintendent. Pretty soon I gave him his section. And when I moved out of the mine, why, I made him my superintendent and, well, he eventually ended up as chief executive of the company.

M: You're talking about Garza Aldape?

M: Garza Aldape, yeah. You know, they passed a law that you had to have as chief executive...top man in the company had to be a Mexican national. And...

M: That was after the Mexicanization?

H: Yeah, that was after Mexicanization.

M: What do you remember about some of those factors that led up to the Mexicanization within Frisco?

H: Well, I think it was Frisco and every other mining company. They made the tax laws prohibitive. You couldn't operate. They had what they called, as well as income taxes and all the rest, they had what they called a production tax. You were taxed on what you produced regardless of whether you made any money off it or not. And there were times when we would
actually have, after paying all of our taxes and the income tax and everything else, that they'd take the rest of it in production tax and we'd still owe money.

And after about a couple of years of this, why, the business of Mexicanization came in. Mexicanization was not nationalization. But you had to be, let me get that right, yeah, you had to be forty-nine percent Mexican. You didn't have to be forty-nine you had to be forty, I guess, forty percent Mexican national owned, supposedly.

M: Well, when does it get to be fifty-one percent nationally owned?

H: Well, that was afterwards. That took another step.

M: Oh, okay.

H: After you went fifty-one percent, well, then you got a bigger reduction in your taxes again. And then that fifty-one percent you still couldn't wangle it right, see, if you wanted to bring in somebody else from the states or something like that as a joint operation, new properties. I don't remember the percentage now that turned out to be practical. If you brought in somebody else as a property you might own forty-nine percent and Mexican interests owned fifty-one, but if it had to be sixty percent, why, then to get this added tax, well, then you couldn't bring anybody else in because that would increase the national proportion of the percentage.

M: So if the Mexican government had...

H: Listen, I'm wrong. That was on something else. I'm wrong about the...it went right to fifty-one percent. Yeah, went right to fifty-one percent. We had forty-nine. I guess I
always felt like we still had... . The man that took us over
that created the Mexicanization for us was Manuel Espinosa
Iglesias. Well, he was president of Banco
Comercio... Bancomer, later. And at one time he owned,
personally, between he and his family, seventy percent of the
stock in that company in that mine. And that mine was the
largest single mine in Mexico, so he was terrifically wealthy.
M: But, now, before the Mexicanization was Iglesias at all
involved with Frisco?
H: No, no. He came in and he took over all the fifty-one percent
of the stock and then he sold part of it, but he always kept
a big portion of it. This was something that he was
particularly interested in. He liked Frisco and he wanted to
be involved with Frisco and... it seemed that way, anyway.
M: Well, did he purchase, then, fifty-one percent of the interest
from Union Corporation?
H: That's right. He purchased it from Union Corporation and sold
off part of it again, but it was all through the Mexican Stock
Exchange and it was all Mexican national ownership.
M: But now, then, later the Union Corporation sold their
remaining forty-nine percent interest, didn't they?
H: Yeah.
M: Was that sold to Iglesias as well?
H: Yeah.
M: That was sold then. That was when it was the remaining
portion is when you really began... . A new property didn't
make any difference to us, but on new properties, why, you
could bring in, oh, foreign interest and still be able to
maintain some of what you were looking for.

M: Now, the other changes under the Mexicanization law did require that the chief executive officers and certain percentage of some of the high-ranking officials within a corporation were Mexican nationals. Is that true?

H: No.

M: No?

H: Just the top man.

M: Just the top.

H: Chief Executive Officer's the only one.

M: And the Board of Directors, I think, that would have to be...

H: No. The Board of Directors, no. Because I'm saying that I would have been Chief Executive. In the first place, I wouldn't have wanted it. To me, it was a political job. It had to be a political job because you had so much to do with the Mexican government in that position. And I just didn't feel that that's what I wanted or that's where I could really do a good job. I figured that I was a miner. Well, it was kind of about half-offered one time right after this. Gutiérrez Olivera, he was an accountant and he helped in this. He was a Price Waterhouse accountant and he helped in this Mexicanization and he was finally made director general, they called him. But the thing I was interested in was that I was made, they called me, a technical director and I had charge of all the mines. And he was chief executive, but he stayed on the administrative side, on the financial side and, oh, running the operation in Mexico City. So it worked out very well. We got along fine.
But eventually then, Frisco became a hundred percent Mexican owned?

Yes, but they didn't have to. They did it so they could bring in all of these other people, see?

So they could form joint ventures?

Form joint ventures and still maintain the fifty-one/forty-nine.

Well, was Union Corporation anxious to get rid of their minority holding after the Mexicanization?

I don't think so. It was still doing...well, by the time we got around to that it might not have been doing quite as well, but it was still doing very well. I don't think they were particularly. I think that there was some pressure brought on them by Manuel Espinosa Iglesias. He and the director general of the Union Corporation people in England had gotten to be friends and, I think, that Manuel just explained to him what this problem was and I think he just convinced him, that's all. He kept him on as a consultant afterwards. Although Union Corporation didn't have any direct authority after that, why, he would still come over for the- his name was McWilliams- and he would still come over for the board meetings and so on.

As technical director I was on the board of directors, so I know that there wasn't any... The only stipulation was that the top man...Fernie Roje had been top man in Peñoles for many years at that time. And we often times met here and there for dinner when we were in Mexico City and that sort of thing. I won't go in to some of the preamble, but he said,
"You know, that law was put in to run me out as chief executive because," he said, "I was the only chief executive at that time." They had seen it coming or something. He said, "I was the only chief executive at that time."

M: So he was a foreigner?

H: Yes, he was a foreigner. He was an American. He was a United States citizen. I think, originally, he was Germany, but he was a United States citizen. He was married in the United States.

M: Well, how did operations change? How did Frisco change after Mexicanization?

H: Not a bit. That's what I started to say. Manuel Espinosa Iglesias, he came up to the mine one time. And shortly after Mexicanization he brought up quite a bunch of people. And I wasn't general manager then at that time. And he brought up quite a few people and, I know, we had a big dinner for him. And I'm sure that he sat down at his right-hand man. He had him sit down with me because I was on the road to being general manager. He knew that. And he sat down with me and he did his best to find some anti-Mexican in me. And it didn't dawn on me until later. I'm naive that way I must say. I really am. I don't have that kind of a mind that works in that way, but I realized afterwards. In fact, there was some suggestion afterwards. And I told him, "No." I said, "I'm bringing along Garza Aldape and I'm bringing along Perea and I'm doing this and that." I said, "These are wonderful people. But," I said, "there's not enough of them." I said, "I can't go out and get a top man in the electrical
department. I can't go out and get a top man in construction just out of the blue. They're not interested because this is a mining company and a Mexican doesn't want to go in there because he can't get to the top, a good one." And I said, "The same thing can be said for the metallurgical department." I had already put in Radling. I'd made him mill superintendent and he was Mexican. And when he left, why, I put Escudero in. But at that time I had Radling. I named these people. I said, "These are wonderful people." And I said, "I mean it." [Yglesias said], "Yes, I know, but don't you always find that, oh, they're biased toward...here. They're biased in there." "Well," I said, "I suppose a lot of them are. I suppose there a lot of them in the states that are, too. There are a lot of them in any country. I believe it." I still do believe it. And I told him, "No, I don't think these people are. If they were I wouldn't have them in the positions that I've got them. And they're doing a good job and I have complete confidence in them."

And he'd always find something else. "Well, you know, in this thing here," he said, "I always find that, oh, they're more interested in partying and so on." I said, "I found them like that, too." I said, "I had this one guy, he was safety engineer and, oh, he was the greatest guitar player. And he'd sing and play the guitar at the parties and so on. And, oh, he was just a great guy, but he wasn't worth a dam (laughter) as safety engineer!" I said, "You find those people. I haven't worked very much in the states, but I imagine you find them anywhere." And I meant it and I still mean it. They're
great people. The only thing I must say and I...

End of Tape One, Side B

Beginning of Tape Two, Side A

M: This is August 25th. I'm talking with John Humphreys in El Paso. You were talking about some of the Mexicans you were working with after Mexicanization in Frisco.

H: Yes, I had said that I just thought those were wonderful people. And they were. And I made a lot of friends down there, good friends. And I hadn't said this before, but this is one thing I'm proud of. Even with dealing with the national union, federal union, the head of the union was in the category where he used to sit on the left-hand side of the president at certain things. And we had a situation once in a contract negotiation where they were trying awful hard to get me to let miners draw their retirement after they'd reached the retirement number of years and continue to work. And I didn't do it. And I refused to do it because I didn't think it was in the best interest of the people. Because that retirement, I knew, they were going to need that when they got off because they spent it and blew it and so on, but it got to a point where it was getting really difficult. But the last thing I had in my bag was that this was in fideicomiso. I don't quite know what you call that up here.

M: A trust of some sort. Isn't it more like a trust?

H: Yes, it's in a trust. And that trust, all the money that we
put into this we didn't have to pay income tax on because that money went in there strictly to pay retirements. And one of the laws of this fideicomiso was that you could not pay a portion of retirement or retirement unless the man actually retired and quit. And I told him that. Well, that stopped him for while, but just before the final negotiations, why, they were still pushing at it and pushing at it. I said, "Look, let's just quit. I'm not going to do it. If you're going to strike over that I'll take the strike, but that's it." So he went back to his boss again. And he came back to me and he said, "Well, will you promise that if you do get this through, and if you can get it through...so that they would allow you to pay that would you pay it?" And I said, "Yes, I'll promise." "Well," he said, "okay. We withdraw it." That was the negotiator. He was general secretary.

Well, they had special negotiators for various companies...the national union did. And he and I had trouble before. He was a timberman up there and he and I used to battle all the time when he was general secretary. But there's one thing I always had said about him is if he said he'd do something he did it. And I was kind of like that, too, and I appreciated it, but, anyhow, when I told him this, well, he said, "That's fine. The boss said he'll accept that." "Well," I said, "I'll write a letter. I'll have the lawyer make up a letter and show it to you and I'll sign that letter." He said, "That's not necessary. I trust you. You tell me to do something you will." "Well," I said, "your boss is not going to take that. He's the general secretary of the
federal union...all the mining and metallurgical people." He said, "If Mr. Humphreys tells me he'll do that, he'll do it." And I was very, very proud of that because he and I had fought for years, I mean, and we did fight. (chuckles) I've had him call me names sometimes. He never called it to my face, but when we'd be in negotiating I had an assistant general manager I called him. He was assistant to the general manager, not assistant manger, and he was a wonderful man in labor. César Reyes was his name. He died of cancer. And he went walking by this place. We'd be separated when were in the Ministro de Trabajo. And we'd be in different rooms, see, and he walked by this one time. The head of the union looked up and he saw him there and he said in a great, big, loud voice something very derogatory about us all in general that were fighting on that side. Then César came back and told me. And he said it so he'd hear it so I'd get back to him. So he was mad. There was no doubt about that. (chuckles) He was mad, but I still have his respect. And that was all I was interested in. (chuckles) I didn't care whether he liked me or not.

M: Well, let's get back to some of the changes after the Mexicanization when Frisco was eventually one hundred percent Mexican owned.

H: Yeah.

M: The chief executive officer was a Mexican national.

H: Yeah.

M: And then eventually, there got to be fewer and fewer foreigners working with Frisco.

H: Yeah, but that was just through people leaving.
M: Through attrition?

H: Yeah, just strictly through attrition. I never fired anybody because of a nationality...never had to, never suggested to.

M: Then most of the Mexican nationals that took over positions of responsibility, were, again, most of these people that you had trained or developed within the organization?

H: We had trained and developed over a good many years. And those were the people that moved in.

M: And were you pleased with the quality of work that these people performed?

H: Very much, very much so. A mining superintendent, not Garza Aldalpe so much, but we had another guy, and Perea was his name. And he had come up through Cárdenas as a shift boss and then I brought him over as assistant superintendent and so on. I made him superintendent. And he was a good miner and he handled the men. He could get the work out of the men and you couldn't ask for anybody better. I never had a better mine superintendent.

M: Were overall mining conditions or overall economic conditions improved after Mexicanization? The tax situation, was that improved?

H: Oh, very much so. I wouldn't say it was improved so much that it was they really gave you a break, but it had gotten to a point where you couldn't operate before, so this was a wonderful change. It wasn't bad. The most onerous tax, of course, was this production tax. And they took that off right away after Mexicanization.

M: Well, the taxes then that were in effect, say, in the late
[19]50s before the Mexicanization, were these kind of intended to be punitive toward the mining companies?

H: Yes, no doubt about that. They were. They really wanted to force Mexicanization. And that's exactly what it was. They didn't confiscate it directly, but they did through taxation. And it wasn't a confiscation. It was just moving into... So many people, think of Mexicanization, they call it nationalization. And it wasn't, of course. Now, with ASARCO, IMMSA it became, it was a very different thing.

M: In what sense?

H: In respect to the men that had engineered to take over. Perea, he was a construction man, very wealthy, very much in the government and so on. And that company changed enormously, personnel and everything else.

M: But Frisco went very pleasantly on its way under the leadership of Espinosa Yglesias?

H: Very pleasantly, yeah. When I was general manager I was on the Board of Directors, McWilliam, who had been head man in-well, at that time he still was- in Union Corporation, U.K. they called it, United Kingdom, and Henry Hanson, who was, I think they called him, consultant. Afterwards he made president of the company. And he wasn't in operations but it was mostly... Oh, and the chief executive officer (inaudible)...the four of us would meet with Espinosa Yglesias just before the Board of Directors's meeting that he held in his bank downtown. And we had a Board of Director's meeting every two months and we'd go over everything that we had done or planning to do or anything like that. He was never really
interested so much in detail, but he'd want to know. And he'd usually ask McWilliams since he was a, you know, big stockholder indirectly through Union Corporation, U.K. about how we were going to declare dividends. And, of course, McWilliam always wanted more dividends and Manuel Espinosa Iglesias did not. He wanted to put it back in and put it back in.

And they usually made something. I'm sure Manuel got little bit more than what Union Corporation did, but that's all there was. And, like I said, he visited the mine that one time. He was never back again. When he was up there he said, "I'll never be back. I'll never be back as long as we're making money, but if we quit making money, well then, things are going to change. That's all." We never quit making money.

M: But then Espinosa Yglesias lost a good part of his ownership of Frisco after the banks had all...

H: Well, after the nationalization, that was a bank nationalization. And by this time, he had put Frisco in the name of Bancomer, his bank, and that was alright with him because he still had a.... Well, I guess he had to cut that down to forty percent ownership in Bancomer, but it was still enough so that he could control it. He made that part of Bancomer. And since he could control Bancomer, why, he controlled Frisco, too, insofar as he wanted to. And when the banks were nationalized, why, of course the whole thing was taken out of his hands. Supposedly, there was- well, I really don't know what the government did with the people who lost
the banks, but, of course, they didn't get anything of the value out of it. And I don't remember exactly how many years this took. I think it was about three years. Well, let's see. That bank nationalization was in 1976. I don't know. It could have been three or four years, I guess, and then the government decided that they would sell back to the original owners, or offer it back to them, at a stipulated price, all of the non-banking interests that had been owned by the bank and thus taken over by the government. And, of course, Frisco fell into that category.

So he bought it back. And he was still quite active then. I was just thinking how long it was before I had retired that this happened. And, I think, it was probably about four years. I retired in 1984. And I remember one of the Board of Directors' meetings, these meetings that we had ahead of time, and something came up about this original takeover and then sell back and so on. He said, "Yes, I bought it back because it was my bank. I wanted my bank back, but I must say what I bought was a shell." That's just the way he put it.

M: Well, by the time you retired in 1984 were you the last of the foreign people working with Frisco?

H: (chuckles) I can't think of anybody else. And I didn't notice it, you know, really didn't. They were all good friends. We were all working together. We had good relationships and, like I said, Escudero was in the metallurgy department. Perea was in the mine and the other people in the other departments were also Mexican, but I had a good
relationship with all of them.

M: But then would you say, then, from a point of view of just professionalism there really weren't any substantial changes in the changes that went on with Mexican nationals in positions of responsibility all through the company?

H: That's right. That's right, yeah.

M: Let me ask you some other questions kind of a little bit more recent changes in investment law in Mexico essentially allowing foreign investors to re-enter Mexico at whatever percentage they would like to. Conceivably, Frisco could end up in hands of foreigners again. What do you think of that? Is that something that's good for Mexican mining?

H: I don't see anything wrong with it. What I see is the big problem in Mexico right now is a lack of capital. There's something I started to say and I almost really cut it out maybe afterwards but, in general, the Mexican people have changed enormously over the last, oh, I don't know, maybe six years, maybe eight years or something like that and I attribute this to two things. I think- what the hell was his name- López Portillo was the one that came just before de la Madrid as president. He broke Mexico. Mexico had a debt before that, but it was completely manageable. By the time he was out and his administration...

People that are knowledgeable...one was a pilot that flew for don Manuel's charter aircraft company and he was a good friend of mine. And he used to fly a lot of the union officials of Pemex around in Manuel's plane for hire. I mean, they paid him and he'd hear these stories and so on. And
López Portillo had a couple of, I don't think, super tankers, but they were a couple of oil tankers, you know, big ones. And he backed those up to the docks in Pozo Rico or where ever it might be, and he'd load that up with oil and he'd send it off to France and he sold it in his tank. You talk about how can you steal three billion dollars. Well, that's how you steal. There's never been a thief like that before in the annals of history I don't think. And there never has been again. They've got an awful foofaraw now, you know.

Echeverria came just before López Portillo. He really brought in the communistic element. And he built up the bureaucracy. And that, as much as anything else I suppose, has broken Mexico, too, is this enormous bureaucracy that he built up. And that was Echeverria. But López Portillo continued it. But López Portillo stole it directly. No doubt. De La Madrid was, oh, I don't know, kind of a nonentity.

But, of course, now they're after Salinas de Gortari and, I suppose, I don't think he's completely blameless for this thing that has happened because I think he was trying to get out with a good name so he could go on and be president of World Bank or something like that. I think that's what he was interested in. And he damaged Mexico terribly by doing it, but I don't think he stole like, well, I know he didn't steal, like López Portillo.

M: So then, in your opinion, one of the major problems facing the mining industry in Mexico is lack of capital?

H: Lack of capital. I think it is in all the industries now.
because it certainly isn't anything for these Mexican capitalists, industrialists, whatever you want to call them, to be proud of, but anytime there's a devaluation coming up the first people that run are those people, always. The bankers, when they owned their own banks and so on, they ran. The industrialists ran. The State National Bank...Vallina, he ran with I don't know how many millions of dollars and it wasn't even his...negotiable bonds that he was keeping in his bank, things like that.

A Mexican has a lot of pride, but I don't think it's national pride. I think you'd have to scratch awful deep before you find a patriot in Mexico, a real patriot, that really cares about his country enough to sacrifice something for it. I just don't think it exists. And I've got a very good notion of why...because he's been shafted so often that he just expects that and he doesn't trust anybody and he's suspicious of everybody. I think that was one of the big reasons why I got along so well as general manager in negotiating contracts and everything is because they trusted me. I built up trust. Took me a long time to do it, but I did it. I did it as a disciplinarian, too. But that's one thing that they just don't believe in. They don't believe in trust. I've had so many incidents that showed me that.

We were having a slowdown, tortugismo they call it there. That's worse than a strike because it's awful hard to break. Well, I broke it to a certain extent by calling in all my contractors and so on and saying, "Look, I know I can't pay you a lot because that's where the union is going to know how
much you're making." "But," I said, I'll carry books for you. You know we have them and I'll keep them. And I'll pay you just about wages so you won't be broke or something like that." And I said, "I'll keep all the rest of you. When this tortugismo is over with I'll pay you the whole thing." They believed me. And I was going to do it, obviously, and they accepted that.

But we were going to try to get this thing. We brought in labor inspectors, see, to try to get these contractors to come out and tell this labor inspector what they were doing because the union would lay them off. The union laid them off where I couldn't lay...I had a lot of problem in laying a man off. I could lay him off for a couple, three, or four days or something, but to lay him off for a couple of months... But the union could do that. And the union did that and that's why the union had more power than the administration did. And I wanted these guys to tell this labor inspector that so that he would go down and could tell Gómez Sada [?], the head of the union in Mexico City, that this was happening.

So I had them all, I guess, there were, I don't know, about twelve or fifteen of them, in my office and the labor inspector came in. And this fellow that I was telling you about, Chávez, that I'd had so much trouble with, but that I'd negotiated with a lot in Mexico City at the time. He was outside trying to get in. He said, "You can't bring these guys in." And I said, "Well, I brought them in." And I shut the door on his face. But the labor inspector said, "You can't be in here with me because I have to talk to these
people alone."

So I went out and a little while later, why, all these guys came out. And the labor inspector said, "I believe what you've told me about this what they were going to tell me, but not one of them would do it. Somebody would begin to say something and he'd look at everybody else and everybody else would be like this [demonstrates posture] instead of anyone backing him up and everything." And he said, "They don't trust each other. They won't say anything to me because they'll go out there. And you see these guys out here all waiting, these union people. They're all waiting for him to say who did it, who told. And they'll say who did it and he'll be laid off." So that's what I mean, that they don't trust anybody. They don't trust each other.

M: You think that's something that can be changed, maybe, with the influence of the foreigners?

H: I don't know. It hasn't been. (chuckles) The thirty-five or forty years that I was there it wasn't changed. They're like children like that. I was trying to change the tramming. They had run these little locomotives. They didn't make any money and they weren't working. Like I said, we had twenty levels or something like that. These locomotives ran on every single level. Some of them, they'd take them to the ore pass-the shaft, the hoist, and some we'd dump into ore passes. But they weren't making any money, so I decided I'm going to... We had departments for industrial engineering, so I got the industrial engineer and I said, "I want all of you and all of your engineers. I want an engineer on every motor. We'll
start on this level and we'll go seven level, eight levels, and so on..." where all the big tramming was. And I said, "I want an engineer on that motor and I want him on first thing in the morning. He goes down with the shift and I want him to come back up with the shift. And I don't want him to move from that motor." So we did that.

We had that riding on every motor. And he came up and he gave up a report, well, this and that and he only worked so many hours. They did this and that and so on and I started putting some pressure on him. And the head of the industrial engineering department, he'd been an assistant superintendent and he was a good man. He knew what I wanted, so he started putting the pressure on and pretty soon, why, the amount came up. He said, "Well, we're here to tell you. I'll tell them right now. You didn't work here." So he said, "Just as soon as you don't work, I'm going to write you out a ticket and you go out. We'll fight that because we've got somebody sitting right there that...you don't work."

Well, they had to work, but once they knew they had to work they did work. And they made money because I changed all the bonus program so they would work to make money. And I fixed it up so they'd make...I think I fixed it for forty percent because I figured, well, if they really start to make money they'll do better, too. And they saw them and I paid them. They moved down to the next level. They moved down to the next level. They went right through every level in the mine. By the time they got to the bottom level, why, the word had passed that everybody was beginning to work and they said,
"Can I go on this?" I said, "Sure." I had the motor men coming in there, a string of them every morning, "You put me down?" I said, "Sure, you're already down. All you motor men are down on it. You're all down in this incentive program." And they started to work. We used to work Sundays. We worked six days a week, but we used to have three shifts: two shifts on Sunday and three shifts every other time. We stopped all Sunday work and cut off all third shift and they still made fifty percent bonus. And they worked. That was because there wasn't anything than they hate more than being laughed at. "Pendejo!" You know how that goes. "Pendejo! They got you to work and they didn't pay you for it. Stupid!" And that's what they were afraid of. They were more afraid of that than they were of me. (chuckles) To me, that is another Mexican attribute that I don't know how you're going to break, another Mexican character.

M: Well, Mr. Humphreys, I appreciate you're time. I think we'll...

H: I'm enjoying talking about your notes. I don't even think about this, see, but I get talking and talking and pretty soon these things come back to me and...

M: Well, thanks very much for your time.

End of Interview