HHA# 00109
Interviewee: Leland Culligan
Interviewer: Dr. Robert Carriker
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Transcriber: Lauren Penney

[Transcriber's note: The majority of the interviewer's backchanneling and "uhs" and "ums" have not been transcribed for the purposes of readability.]

Ethnographic preface:

Mr. Leland Culligan was born in Birmingham, Alabama; his father was the vice-president of a coal company. He received his bachelor's degree in geology from Birmingham Southern College. After serving in the Marine Corps during World War Two, he went to the University of Colorado where he received his master's degree in geology in 1847. He then went to work for the California Company (since became Chevron, Texaco) as a development geologist in Mississippi. He spent five years in development work, moving every six months to a year. He moved into the exploration department in Shreveport, and then was transferred to Jackson, Mississippi, where he stayed 11 and a half years. He moved to Lafayette in 1965, where he went back to doing development work. The interview seems to end abruptly when Mr. Culligan asks to change the subject and that the recorder be turned off.

TRANSCRIPTION

Interviewer initials: [RC]

Interviewee initials: [LC]

RC: 'Kay, it is July the seventh, 2003. This is Bob Carriker and we're in the home of Mister Leland Culligan. And he is the person I'll be interviewing today. We're here in Lafayette. So just to begin, um, are, where are you from?

LC: Birmingham, Alabama.

RC: Really?

LC: I went to college at Birmingham Southern with a degree in geology. Then I went to the uni-, after the war, I went to the University of Colorado for master's degree in geology. Went to work for what was then called the California Company. Referred to as CalCo. And it's now Chevron, Texaco. Background. I worked in north Louisiana, south Louisiana, Mississippi, Oklahoma, Utah. I've been here in Lafayette since 1965.

RC: Oh my.

LC: My boss man said that uh, "We put our personnel where we spend our money. And we're spendin' money in south Louisiana, so that's where we need our manpower." And I've been here for years.

RC: Yeah. Well, so what ma-, why did you choose geology as a major?

LC: That's really a difficult thing. I wanted to be into something that actually contributed to the welfare of people. And resources is one of 'em, so I went to work in resources.

RC: It's a good reason. Did your family background lead you into that field? What did your, your father do?

LC: He was vice-president of a coal company in the Warrior Basin in Alabama.

RC: Okay. So that probably had a direct impact then.

LC: I think so. Certainly.

RC: And so how old were you when you went into the war?

LC: I'd finished college, so I was 21, 22 when I went in service.

RC: And, and where did they send you?

LC: Uh, I was in the Marine Corps and went to the central Pacific. Invasion in [Iniwita?], Guam, and Okinawa. And I'm very pleased that the atomic bomb ended the war.

RC: I understand. I underst-, a lot of people feel that way, especially those people who were, who were there, who had it on the line.

LC: [Now it's billed up against your?] [Inaudible]. Very pleased when it came to a conclusion.

RC: Yeah. That happened probably suddenly. I mean, you didn't think that it would ha-, end as fast as it did.

LC: [Inaudible, overlapping speech]. And we were on Guam at the time and the regiment was sent to China to accept the surrender of the Japanese troops that were in China. What I call the current phase of tourist goin' to China, I did not wish to participate. I'd already been there. [Both chuckle]

RC: Well China would be an interesting place to go visit actually.

LC: It is for some people. It sure is.

RC: Yeah. Yeah. So you, you came back and then went to Colorado?

LC: That's right. Under the GI Bill. Which I think was a wonderful thing that the Congress did.

RC: Uh hm. [Slight pause] It was important for people who had, who had served their country.

LC: A lot [Inaudible, overlapping speech] the economy of the whole country, the people, it sure did.

RC: So why did you, you're from Alabama, why did you choose to go to school in Colorado? [Slight pause]

LC: They were on the quarter system and they started on March the first. I got out of the service in February and I knew I wanted to go to school. That was one of the possibilities and the other was the University of Alaska. So I went to Colorado.

RC: [Chuckling] Okay. It's a little closer to home anyway, right. So where was it in Colorado again?

LC: Boulder.

RC: Boulder.

LC: It's the university campus at Boulder.

RC: A little bit different than Alabama.

LC: But lovely.

RC: Yeah.

LC: We liked it.

RC: So you finished up there and, and what was your, it was your master's degree at that point?

LC: Master's in geology.

RC: Master's in geology. And then you started lookin', so what, what year was that that you finished up with the master's degree?

LC: I've got '47 in mind. [Slight pause]

RC: I understand s-, I mean, as far as the dates go, no one is more sympathetic to someone who can't pin down exact days in their life than I am, because I can't remember from year to year exactly, you know, when things happened. But '47 gives a general idea. It's good. Uh, and so then you started looking for work immediately or did work come looking for you?

LC: The uh, California Company had an office in Denver and the people that did the hiring uh, went to visit that office frequently. My college professor was Warren Thompson that had worked for CalCo in the summer. And he recommended me and I went down for an interview and was accepted.

RC: Okay. Was it hard to find work in the field in those days?

LC: No sir. No, this was after the war. They were hirin', lookin' for personnel. And CalCo was a small outfit that was attempting to grow and needed personnel. I suppose that some of the other larger companies that had sufficient staff.

RC: Yeah. So what was, what was that first job? [Slight pause]

LC: The company referred to it as a development geologist. That is the ones that look after the drillin' wells in the field. Map the field uh, make recommendations for development wells. So it was bein' as close to the actual production of hydrocarbons as you could be.

RC: I guess so. And, and where, where was that? Where were you working?

LC: Brookhaven, Mississippi, that's where I started.

RC: Where's Brookhaven?

LC: It's on the Illinois Central Railroad that goes to Chicago. North of Hammond.

RC: Okay.

LC: It's on Highway 55 I think, which is north-south, the interstate.

RC: Right.

LC: Mississippi.

RC: is it, is it north of Jackson or-

LC: South of Jackson.

RC: South of Jackson. Okay. I'm originally from Washington State myself, so I'm still getting uh, familiar with the places, yeah, the geographic places here in the South. Uh, and how long, how long did you stay there in Mississippi?

LC: Oh we stayed there about nine months and then went to Natchez. That's over on the Mississippi River. We stayed there six or so months, then went to Utah.

RC: Oh. And where in Utah?

LC: Near a town called Escalante [Note: pronounced it "Escalant"]. It's in south central Utah.

RC: Is that, is it Escalante?

LC: Yes.

RC: Okay.

LC: The company was drilling a well there and I was doin' the geological well site supervision. I was there about a year.

RC: So that was about 1949?

LC: Yes.

RC: Um, and so you're still a developmental?

LC: Yes, I spent five years in development geology.

RC: Okay. Well te-, I, I wanna ask you about southern Utah because that's one of my favorite places.

LC: It's wonderful. It's wonderful.

RC: I mean the, the land there is just incredible. Like nothing I've ever seen.

LC: The uh, company furnished us a jeep, "us" meaning the engineer in charge, for bad weather. And we did have some bad weather. But I also used the jeep to go down to a place called Hole in the Rock.

RC: Yeah. I know that. I know that place. I've never been able to get there because you still need a jeep to get there.

LC: [Chuckles] Well, I made that trip. And uh, I also used it, the jeep, to go fishin' in some mountain lakes that were not accessible for most people. And enjoyed the rainbow trout that was there. The fishin' has not been as good since as it-

RC: Oh I'll bet not.

LC: In Utah.

RC: I'll bet not.

LC: Most enjoyable.

RC: You know that, that region around Escalante is still one of the most, considered one of the most remote sections of the, the, you know, the lower 48 states today. So in 1949, 1950, it was even more remote.

LC: That is correct.

RC: Were they s-, I, one town around there I've heard was getting mail delivered by mule up until the, either the late '60s or the early '70s.

LC: I don't know. Uh, the railroad came down to a place called Richfield. And the postman picked up mail and brought it over the mountain so to speak. And then uh, the… you're familiar with the area, it was ranchin' and the people ran their cattle on the desert land in the winter. And they put 'em into the forest land in the summer. And the big man on campus was the forest service man 'cause he designated how many cattle could graze the forest land. And that was dependent on snowfall. And it was all documented as to what, how many cows the forest land would support. So uh, it was one of the sources of employment [the forest?] with fire breaks, roads, and so forth into the national forests that were out there.

RC: Yeah, you're livin' pretty close to the earth out there.

LC: Yes. The ranchers, I think, were pretty self-subsistent. And they [Chuckles] they had their chickens and their cows. They raised the pig [Inaudible] had their own milk and butter. And the people with the oil business that came in there that were used to the grocery store, uh, there wasn't much of a grocery store there. My wife and I purchased a refrigerator that had a freeze on top. And we went grocery shoppin' once a month in Richfield. [RC chuckles] It took a lot of planning.

RC: I bet it did. [Chuckles] So what sort of a place did they put you in?

LC: It was in a motel that had a livin' room, kitchen-type area, and a bedroom and bathroom area. Very comfortable. Heated with propane so we were very enjoyable. [Inaudible].

RC: Did you ever get that jeep stuck?

LC: No.

RC: [Chuckling] No?

LC: No. Wasn't any help if you did. [Laughs] You didn't put it into places you couldn't get out. [RC chuckles] It was radio-equipped. So uh, we were never out of touch with the drillin' rig.

RC: And do-, they do a lot of uranium in that area, too.

LC: That came along later. Yes. And I understand the road across the mountain, it was a dirt road then, is now paved. Uranium business was sufficient enough for the state to pave that road.

RC: So, so how long were you there in Utah about?

LC: Oh about 14 months.

RC: Fourteen months. And then where did, where did they send you?

LC: New Orleans. That's quite a contrast.

RC: [Laughing] I'll say. What, were you lookin' to get out of Utah or was this just the nature of the business that they ke-

LC: Well the well was completed and was a dry hole, so there wasn't any other reason to be there. And, so I say the company just like the business is an accordion. It absorbs people in various jobs and expands and goes somewhere else to do things. So I got my tour of duty in New Orleans taken care of.

RC: And so about how long w-, would you be in New Orleans then?

LC: About a year.

RC: About a year there too. And, and you, the same job?

LC: I was still in development geology. Uh, I was on the staff of the chief development geologist there. And got to know the management of the company very well in New Orleans. Uh, then as I was only there about a year, I think it was uh, an interesting interlude. I went to… they were just providing housing in New Orleans following the war in 1950 and it was a tremendously large apartment complex called [Park/Port?] Chester. And they were one, two, and three bedroom apartments. And I went into one of those that was brand new. And what I'm leading up to is it went from brand new to 30 years later it was a slum, it was a problem area in New Orleans, and it was torn down.

RC: In just 30 years?

LC: In 30 years. I went from upscale livin' to, to poverty type deal. [Slight pause]

RC: Well New Orleans is a, I mean, you know, a big city like that with a lot of urban problems I guess-

LC: Yes it is.

RC: Uh, so, so the work that you're doin' there in development, did that pertain to offshore oil now or-

LC: No.

RC: It's still on?

LC: I was basically interested in the Oklahoma holdin's of the company. And I was sent to Ardmore, Oklahoma.

RC: Okay. So was this a good company to be workin' for? Did you like the company?

LC: Excellent. Very, very pleased. [Pause]

RC: So you're in New Orleans for another year and then to Oklahoma. Ardmore you said?

LC: Yes. I was there a year. The company was drilin' a lot of wells in southern Oklahoma and I did the geologic supervision of those. All the way out to, to the Texas line. All across southern Oklahoma.

RC: So in, with this job w-, did that require you to go out to the wells more often or was it more of an office job where you were doing calculations?

LC: My feelin' was that uh, you spent more time in the automobile. We put about 3,000 miles a month on the cars. Uh, there wasn't much time for the office or the [well?]. [Both laugh] We were goin' from well to well. It was uh, no, we were stretched pretty thin.

RC: Yeah. And did you have a partner that you worked with?

LC: Uh, there was, I'm gonna estimate at least four development geologists there at that time. We were scattered pretty thin.

RC: You were? Okay. So you were workin' there for another year and then, and then what happens?

LC: Went to Shreveport in uh, in the exploration department.

RC: So is, is that a change then for you?

LC: Yes uh, it was and it wasn't. Uh, the company was drillin' some wells in southern Arkansas and uh, I was the most experienced well-site person in the company there in Shreveport, so I made sure that the company's interests were well looked after for these exploratory wells as opposed to the development wells.

RC: Okay. W-, what's the difference?

LC: Well development well is one that's drilled in a field that's already been discovered. An exploratory well is lookin' for a new field. So uh, you wanted to be careful that you evaluated all the hydrocarbon shows that are [cooked?] in the well.

RC: Explain that to me. What, what do you mean by evaluating the, what did you say? The hydrocarbon?

LC: Shows.

RC: Shoals?

LC: S-H-O-W-S. You get stainin' in the sands, in the limes and, and you need to determine if that's potentially productive or not. And we call them shows. Uh-

RC: So, so would that require you to take a sample then?

LC: Yes. Uh, you checked it with fluorescent light, you also sampled it by, you even tasted it.

RC: Really?

LC: Yeah.

RC: So, now, let me get this straight. So you, you would take a sample of what? The?

LC: Well let's say sand.

RC: Okay. And how would you get the sample? You would drill down?

LC: Yes, it would be, come up in the cuttings. And uh, you could uh, you observed it with a binocular microscope. And you had solvents that you could put on it. One of the strongest tools you had was fluorescence. The hydrocarbons have fluorescence to 'em and when you put a solvent on it uh, fluorescent becomes available. If you had a, somethin' called a spot plate you may have done some chemistry type of thing [where the, in the?] indentations in a ceramic deal. And you put a sample in there and add a solvent to it, check it out for fluorescence.

RC: And if you saw the fluoresce then what would that mean?

LC: Well that confirmed the presence of hydrocarbons. So then your next job is tryin' to determine if this was economic value. 'Course what we generally refer to as shows are bein' [Inaudible, audio goes in and out] exploration people. All that means is there's at least hydrocarbons in the area. They may have been migratin' through that area. It's part of the information the explorationst likes to know about.

RC: So where's the tasting come in?

LC: You can taste hydrocarbons. [RC chuckles] It's uh, pretty powerful tool.

RC: Is that right?

LC: Yeah.

RC: Is that an official tool or is just something you learn on the job?

LC: It's somethin' you're taught to use very quickly in tryin' to evaluate wells. Yeah.

RC: Well, well tell me about that? I mean, you just, how do you taste it, how do you go about tastin' it?

LC: Well these samples could be the size of your fingernail, small fingernail. You just put it on the tip of your tongue, get a, get a taste.

RC: Yeah. And wha-, what was the taste that you were lookin' for? Can you describe it?

LC: No. I'm just gonna say it was a hydrocarbon taste. [Both laugh]

RC: I guess you knew from experience.

LC: That's right.

RC: And how important was that test in relation to the other tests that you would be doin' on this, the more scientific tests?

LC: Not as significant, but a confirmation. All these things add up to aid in your determination of the significance of the show that you occurred in the formation.

RC: So, so you're up there in Shreveport and then it's time n-, during this time, are you requesting to be transferred or-

LC: No. No. The uh, the company shut down the Shreveport office and moved it to Jackson, Mississippi. So I went to Jackson.

RC: So you're back with Jacks-, or you were back to Mississippi.

LC: Right. I lived in Jackson for 11 and a half years. We had what was called a lower cretaceous formation. Were producing hydrocarbons in Mississippi, the company was actively exploring those accumulations there.

RC: Okay. [Pause] So Jackson for 11 and a half years, so that puts us… what, roughly nineteen-, well, did you go from Jackson-

LC: To Lafayette.

RC: Lafayette. And what year did you come to Lafayette?

LC: January the first, 1965.

RC: You remember the exact date?

LC: Well, the first of January was an easy date to remember.

RC: And this is still with the same company?

LC: Yes. I stayed with Chevron 39 years, 'til retirement.

RC: Okay. When, when did uh, the California Company become Chevron?

LC: I don't remember the date.

RC: But was it Chevron when you came to Lafayette or did that happen later?

LC: I don't remember.

RC: Okay. Okay. And so during the time period that you were in Mississippi uh, did your job title, did your, did the work you do change?

LC: Well we were doin' subsurface mappin', lookin' for anomalies that could be associated with structures. Runnin' seis. And uh, I spent two years on a, on a seis crew. Uh, we used the term bird-dogging, we were the company representative on the seis crew. And it was during that period of time that… there were individual records made for each shot point. Then we a technological change was when you started makin' record sections. That is you, you hooked all of the individual records together and uh, made a display of maybe is six feet long. And it gave you a better understanding of the structure that was being observed by the seis. Pardon me, let me get a drink of water.

RC: Sure, no problem.

LC: You want any?

RC: Um, yeah, I think I would. Let me stop.

[RECORDING STOPPED AND RESTARTED]

RC: So, so the work you're doin' out of Jackson then, is that still considered exploration?

LC: Yes.

RC: Okay. So it's, it's not really the, it's not development anymore-

LC: That's correct.

RC: But essentially it's the same, is the same type of work that you're doin'?

LC: I think it's a matter of scale. You, in exploration sometimes you're, you're workin' a county or a whole basin. As opposed to workin' on an individual field.

RC: Uh, and, yeah, that makes, that makes sense. N-, and, and with exploration, I mean there must be different levels of exploration. I mean, has, has somebody said, has somebody narrowed it down for you to say this is the general area in which you should look. Or are you just lookin' wherever, wherever you decide you think you should look?

LC: The uh, one of the significant things are oil seeps on the surface of the ground. Uh, that's been true the world over. You go where there's oil.

RC: Okay, that makes sense.

LC: And uh, the next thing is that… we have salt basins and we have salt domes that creates structures. And so you go to, if you wanna look for hydrocarbons in Mississippi you, you went to the, to the salt domes is one of the first things.

RC: Tha-, ex-, tell me why, why salt domes means oil?

LC: It just creates a structure, which is a, an anomaly that has a bulls-eye type closure or something on the flanks of the dome where the oil accumulates.

RC: Okay so when you say a "structure," you mean like, like a barrier?

LC: Okay.

RC: Is that what you mean?

LC: You can call it.

RC: Okay.

LC: They use the term "closure," you've got to have closure to trap the oil. So these domes helped to create that closure. There are shallow domes, deep, both in Mississippi, north Louisiana, south Louisiana, and offshore. One of the causative factors of the structure if the movement of salt. It's pretty, pretty important. The, the large surveying is, was gravity meter. And the salt domes are negative in the, in the gravity, so these original survey of gravity will end up giving you a, some minimums and you go to those minimums and to, to search for structures. That's one of the, the big, big picture tools used. CalCo was pretty strong on the gravity meter. We used it very effectively.

RC: And so there, you, you mentioned things that kind of pointed you in the right direction. The oil seeps and then salt and is, is there anything else?

LC: Well we did subsurface mapping, we called it. Uh, you find anomalies, an anomaly is something that's just different. And your geologist is well trained to, to look for anomalies that could mean structure, which could mean uh, an accumulation of hydrocarbons. So it's an anomaly search in the area. And you, you did your mapping. It helped point out those places that give you e-, these anomalies and then when you used the anomaly you, when you found it, then you would use the seismograph to determine if it was a structure or not.

RC: Okay. [Slight pause] Okay. So out of, from, from Jackson they sent you here to Lafayette.

LC: Right.

RC: And again to continue in exploration?

LC: No, in development.

RC: Now you're back to development.

LC: Yeah. Back to development.

RC: Now were you at all familiar with Lafayette before they sent you here?

LC: No. No. It was, it was one of their division offices. [In I come?].

RC: What's that?

LC: In I come.

RC: Oh, "In I come," [Chuckling] okay. And where, where was their office? Or in, where was the office that you worked out of?

LC: It was on Calico Boulevard. You know where that is?

RC: No. [Pause] I, I may know if you, if you orient me.

LC: Well you know where the hotel is there on Pinhook?

RC: Uh huh, yes, the Hilton?

LC: Yes.

RC: Yes.

LC: Well if you come this way there's a street that goes to the river. It's called Calico Boulevard.

RC: Oh okay.

LC: And we were the first office building.

RC: Okay, I roughly know where you're talkin' about. So you're on the river-

LC: No, we're up on the hill.

RC: Up on the hill.

LC: Uh, Exxon built their buildin' down by the river at the foot of Calico Boulevard.

RC: Okay. Is it, uh, it's a big, is it a large building? Was it a large building?

LC: No it's a two-story uh, buildin' that about a block long.

RC: Okay. Well I roughly know where, but it's not in the Oil Center.

LC: No. It would be on the fringes. You know where that Shell station is there on Pinhook?

RC: Yeah.

LC: David or [With accent on vowels] David?

RC: Yeah.

LC: You turn right there.

RC: Okay.

LC: And uh, in due course of time we uh, had a buildin' built that's now occupied by the police department. A three-story buildin' at the corner of what, University and Coolidge I think. And now they're located in a five-story buildin' down [Inaudible] and Johnston Street.

RC: Alright.

LC: Across from the mall.

RC: Okay. That orients me a little bit. Uh, so just, just so I, I'll understand, you know, the progression of things. Once you come to Lafayette you stay in Lafayette then? So no more movin' around then.

LC: That's right.

RC: Okay. And how'd you feel about that in, in retrospect? Did you like movin' around or you like?

LC: I enjoyed the work here, I enjoyed the town, very pleased to remain here having put time in New Orleans, it did not offer me any enticement at all.

RC: Uh hm. [Pause] So the, the development that you're doing out of Lafayette for, e-, CalCo or Chevron, um, was it exclusive to onshore wells or did it also include offshore wells?

LC: Onshore and offshore.

RC: Okay.

LC: [It sure did?]. Let's uh… let's change the subject a little bit.

RC: Fine.

LC: Let's uh [Hear papers rustling] turn off this thing and-

RC: Okay.

[END OF RECORDING]