
BILL CARY, FORMER GCOS/SUNCOR ENVIRONMENT MANAGER

Date and place of birth (if available): March 9, 1922 in Edmonton, Alberta

Date and place of interview: June 10, 2011 in Canmore, Alberta at Mr. Cary's residence

Name of interviewer: Robert (Bob) Bott

Name of videographer:

Full names (spelled out) of all others present: N/A

Consent form signed: Yes No

Initials of Interviewer: BB

Last name of subject: CARY

BB: First Bill, if you could give me just sort of the three minute biography, where you're from, where you went to school, how you ended up at Suncor or GCOS.

CARY: My father was in the bank, Bank of Montreal and he travelled a lot, he was moving around Alberta and I was born in Edmonton and I grew up in Viking, Alberta, that's where I did my high school anyway and started university, just during war actually, and had one year in and then joined up for four years into the Royal Canadian Navy, came back and finished at the university in chemical engineering in 1948 and joined Alcan in Quebec and in Jamaica and then I was with Chemcell in Edmonton for awhile and then I was with another company down east, Ecstall Mining and Timmins, and eventually in, I think it was in 1973, '72 probably, I was looking for a job and this, a friend of mine was the head of engineering at GCOS in those days and he hired me to essentially, in few words to solve the tailings problem [laughs], at least they had found out by this time, they'd been running by this time for about four years, they'd found out that they'd had a tailings problem, they didn't even realize they had it until then so, so I came up, established a house with my family in '72 in Fort McMurray and, I guess, the reason I was hired mainly was because I had some inorganic experience, inorganic chemistry experience where most of their people were organic, petroleum engineers and that kind of thing or else they were straight mining engineers out in the mine.

Anyway, the whole objective to my job was to first of all, define the problem in ways which it could be understood by the general populace and the scientific community so we could find a solution for it and so I worked for 2-3 years at that and mainly trying to define problem and to find the solution somewhere in the world and at one point I had a correspondence going with about, oh it might have been up to 100, organizations, people, etc, etc, trying to search the world for a solution, and of course I didn't find it, but had lots of interesting trips to Florida, to their phosphate mines down there and they had a similar problem and also to the China Clay Pits in Cornwall, in England, they had a similar problem, so I enjoyed the trips anyway [laughs], but their problems were different enough that it was, just could not apply it directly, there was no easy solution. And this



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became evident after a couple of years and with the permission of, oh and I should also mention, that during this time I had a lot of help from these scientific research people with Sunoil, Sunoil was the owner of GCOS in those days and they had a couple of PHD's who helped me a great deal, so anyway we decided after a couple years that we should bring in a scientific team from McGill University, there was a world renowned, not a tailings man, but a clay man, a clay expert at McGill, I've forgotten his name sorry but, and brought him in and his team. So I spent some time in Montreal and also with him, again defining the problem and I guess, at this point, I should define what the problem was eh.

BB: If we could just go back to a couple of little things, oh when were you born?

CARY: Born? March 9, 1922.

BB: And Chemcell, how do you spell that?

CARY: C-H-E-M-C-E-L-L.

BB: C-E-L-L, all one word.

CARY: Yeah.

BB: And the mining company was N-E, Nextol or?

CARY: Ecstall Mining at Timmins, Ontario.

BB: How do you spell that?

CARY: E-C-S-T-A-L-L.

BB: E-C-S-T-A-L-L.

CARY: A-L-L. Yeah, they were mining lead and zinc, they still are for that matter.

BB: Oh and you said University, was that U of A?

CARY: Yeah, U of A, yeah.

BB: Oh and you mentioned your family...

CARY: Well I have four children, two of them had left home by the time I went to Fort McMurray, but they... come to think of it I guess, just a minute, I moved up there with no children, they had all, they were all either going to University or they had jobs on their own and were married, so since that time I've lost one child, my oldest has died but my three children are now in Calgary.

BB: Oh yeah.

CARY: Yeah.



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BB: Well defining the problem is probably the next step.

CARY: Yeah, alright, now see what I can remember.

BB: So we're talking about the affluent from the primary processing the hot water.

CARY: The extraction part of the process. Yeah.

BB: Yeah.

CARY: You mix... are you familiar with the...?

BB: Oh yeah, I've been up there a number of times.

CARY: Yeah okay well, after the separation of the bitumen from the sand, the sand and all whatever else is with it is pumped out to tailings pond and what they found was that over time, it layered into four definite layers, there was the sand which dropped to the bottom and then there was the clays, especially and this came up, well I'll talk about that later, then there was a clay layer and then there was a water layer, which could be recycled back to the plant and then on top of it all a little bit of bitumen, unrecovered bitumen, which of course could kill birds. Okay so the sand is easy to deal with, they learned how to deal with that.

BB: Was that removed or?

CARY: Well it was made into dykes.

BB: So those are the dykes by the river...

CARY: That's right, 75-80 foot high and they contain the tailings ponds.

BB: Right.

CARY: We were, there was a great deal of learning going on in that science too and how to do this but they did solve it, so anyway, the water layer was no problem. The bitumen layer could be skimmed, we knew that at that time but we never got around to that, but anyway, not while I was there. So it was this, so what we found was that this clay layer formed a material like yogurt about 15% solids, 85% water and we showed that it would not settle for, they were talking, 1,000 years.

BB: So it's a colloidal suspension?

CARY: That's right.

BB: Like milk or yogurt.

CARY: Yeah, I think it could, good parallel example is the bentonite in the clays of Alberta, are you familiar with that?

BB: Yeah.



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CARY: Bentonite will absorb ten times its own weight in water and you can't get that water out of there either and the electronic charges that are within this... just hold it open, what can you do? So, the really bad culprit was montmorillonite.

BB: How do you... can you spell that?

CARY: M-O-N-T-M-I-R-O...mirullinte, just the way you say it, mont-mir-ill, M-I-R-O-N-I-T-E, eh?

BB: Okay, I'll look it up.

CARY: Yeah, that's the culprit. This was determined by this McGill scientist.

BB: So the question was to do with this, could you, initially they just stored it and built more ponds.

CARY: Yeah, they just built more ponds, that's right, and I understand now that they've found a way to handle it, they separate this montmorillonite, this consolidated tailings, they call it, they separate it into a separate layer and my understanding that they have, Suncor anyway has found a solution, so the paper says, they apparently lay it out in thin layer and they've added some foo-foo juice that will consolidate it and dry it out.

BB: There's also a gypsum treatment that Suncor, I guess Syncrude was using for awhile.

CARY: Yeah, that's right, yeah, I see that one of the things about the whole process is that they've added caustic in the extraction solution and that apparently assists the montmorillonite in this mandate, if you don't have caustic, it won't be as bad. It's very complicated and very difficult to define and my memory isn't that good either so, I'm having problems with this.

BB: That's okay. The, you mentioned working with Sunoil, they were still 100% owners at that time?

CARY: I think they were 100% owners, yeah.

BB: When was it around, it was a little later than Ontario Government got involved...

CARY: Yeah, Ontario. Yeah and they formed a Canadian company.

BB: Were you still there, or...?

CARY: Yeah, yes, I was there then during that period.

BB: Yeah.

CARY: I can't remember what year it was.

BB: That's okay I can look it up.

CARY: Yeah.

BB: Trillium or something got involved.



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CARY: Trillium? I don't remember them.

BB: That was an Ontario Crown Corporation, I'm sorry.

CARY: Oh was it, oh okay.

BB: Anyway, I vaguely remember them.

CARY: Yeah.

BB: Now who were you, you mentioned the Chief Engineer brought you up?

CARY: His name was Walker and now I can't remember his first name, he was, he was a...I had known him previously, I can't remember where but I remember he hired me and I worked closely with him.

BB: Now it was a pretty small operation then, I mean by today's standards.

CARY: Oh yeah, if we made 35,000 barrels a day, which was the design capacity, that was a great day. Celebration if you made it, because you sure as hell were going to drop down the next day because there was problems you wouldn't believe, unbelievable problems. They were solving problems every day, there was a new one every day and you never knew what was going to hit you. And I had a great deal of admiration for the gung-ho attitude of the people who were running that place, they were amazing.

BB: Now were your offices right by the upgrader?

CARY: Yeah, yeah right.

BB: So you were also there for the various fires and excitements?

CARY: Fires, I can remember some fun yeah.

BB: And did you sort of work alone or did you have a team?

CARY: I was alone in the initial hiring and as I say, I searched the world and I had lots of assistance from the Sunoil people and then, it must've been about two years I did that and the environmental craze started, they formed the Department of Environment, the Alberta Environment Department. So the company needed a coordinator for handling all the permits that were being asked for, there was a permit for air, a permit for water, a permit for this and permit for that and so I was made the coordinator to handle all that and we had to handle the tailings problems over to the engineering department that I was telling you about, he's since passed away so I can't remember his first name. Anyway, he took over and they hired this McGill... McGill scientist, so I had no, after about two or three, two years, I had no direct responsibility for the tailings and I got into the environmental game.

BB: So what, did that get into...well that would have been what, air, water...



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CARY: That's right.

BB:...reclamation, uh...

CARY: Well, I... mainly filling out forms and keeping up with the new ideas that were coming out of Edmonton in this department, so I did that for a couple years and then they decided that what was needed was a department, Environmental Affairs. So they made me manager of Environmental Affairs and I hired a small crew to help me, there was a, I had an army, navy and an air force, I called them.

BB: [laughs].

CARY: I had an air man, and a water man, and a land man. And I formed this little department and we had our own set of little offices and we reported, not to the engineering department but to a vice president in Calgary, completely separate reporting, that was so that we'd be independent and we could criticize the operators if we wished.

BB: So about what year would this be?

CARY: Probably about '77 or so I think, somewhere around there. Anyway, I was manager for about five years until I retired.

BB: The...now, in those days as I recall, SO₂ was kind of the big culprit.

CARY: That was the big culprit, you're quite right.

BB: Acid rain and it was something measurable.

CARY: Yeah, that's right. Yeah, that was the big thing that we spent money on was to determine how to, whether it was doing any harm, first of all and second of all, how we could possibly curtail it. And there was a lot of concentration on flares in those days, cause we were flaring a lot, you remember all the flaring that was going on in Alberta, well same thing was happening up there and we go into court cases where we charged with flaring and we shouldn't have been and this kind of thing. I've got some interesting court cases. [laughs].

BB: Do you remember any of the critics or who was, was this mainly the government bringing them or... yeah.

CARY: Yeah. Well there was some interesting involved with all of these. Let's go to the air first, we had the SO₂ problem, the plant, the way the plant was run was we burned coke produced from the bitumen, we burned coke in the boilers in order to produce steam and the trouble was the coke had 4% sulphur and so we had, I think there was 100 tonnes of sulphur going up the stack every day, something like that and the big question was, well how much harm is it doing? I hired a expert on, what's the growth on trees?

BB: Lichen.



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CARY: Lichen. Yeah, lichen expert and he did continuing work and the last I heard he still hadn't proved that there was any harm done, but of course it was still being measured, in fact you could smell it Fort McMurray occasionally which was 10 miles away, so, or more than that, I guess 20 miles away, so.

BB: And there was also the trees, do you remember Alan Legge, he was working on trees at that time.

CARY: Yeah, that's right, yeah. We could see, we could find no effect on trees and no effect on the... even on the lichen which were supposed to be the highest sensitive material, sensitive organisms.

BB: There was also the issue with the fugitive emissions, the one H₂S would get, what was...

CARY: Yes, yes and that's where the court cases came up, a couple of them, I've got some...and they were small cases actually, they were interesting, they were held in Fort McMurray, with...at least the one I was involved with, the Judge was a retired RCMP Superintendant, a Magistrate, essentially, he wasn't even trained as a lawyer and...we...I remember one case, we hired a lawyer by the name of Thomas out Edmonton, I can't remember his first name, anyway, I found that I was subpoenaed as a witness for the prosecution and I don't remember exactly why, because I had seen the flare or something but we had this court case in this small court house in Fort McMurray and this high-flutin lawyer came from Calgary, er, Edmonton and I was introduced to him and he said, I need someone to handle my notes, would you do that? [laughs]!

BB: [laughs].

CARY: So here I was writing, just like you, I was writing notes for the defence while I was a witness for the prosecution! [laughs]!

BB: [laughs].

CARY: That's the type of court case it was! Anyway, we had some fun.

BB: Now, 1977 would have been when Syncrude opened down the road, so that would have, there'd be more issues and of course, more people in Fort McMurray and all the rest.

CARY: That's right, yeah. Oh yeah, for sure.

BB: So you were there actually for that whole first spurt of growth in McMurray, how did that change your, kind of, daily life and stuff?

CARY: Well I stayed out of it, out of the partying, there was huge parties going on, you...to survive, you had to be, you had to have a hobby, or else, if you get in on the party game, you never survive, you know, there was nothing but parties and drinking, so I developed a hobby, woodworking which... that was my first project, that clock right there.

BB: Oh beautiful!



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CARY: I'm still carrying on woodworking, I had a shop out in the back, I've made a lot of stuff over the years for the kids and stuff, so that got me started on that.

BB: So did you live right in town or...?

CARY: Yeah, right in town, yeah.

BB: Yeah.

CARY: And we... I had no children at home, so my wife and I lived a fairly quiet life. We curled and we've played bridge and we had our own friends there, I enjoyed it actually.

BB: Was it reasonably stimulating intellectually? Library or Keyano College or...?

CARY: Keyano College was just started and had a few concerts there and we...I don't recall a library?

BB: There probably was one somewhere.

CARY: Yeah, I didn't make much use of it, I guess, I was pretty busy anyway. One thing I did do was I bought a cottage out at the lake, closest to Fort McMurray, I've forgotten the name of the lake and I spent a lot of time out there and I got away from the telephone too.

BB: Now we were talking air...

CARY: Yeah, that was air, then there was...

BB: The water of course, I remember there, maybe, I think it was while you were still there, the environmentalists canoed up to the dike of the tailings pond and launched some protest or...

CARY: Oh yeah, they probably did, yeah.

BB: Maybe it was a little later.

CARY: I think that was later. Our biggest water problem was probably spillage into the river, purely by accident, mainly but very small amounts, which were protested by the Indians downstream, yeah, Fort McKay, mainly.

BB: Now did the tailings or these other spills, were there heavy metals involved or...?

CARY: Yes, yes there probably was, yeah.

BB: Yeah.

CARY: Yeah, there was a...in fact, we had visitors come and look at that to determine whether it was worthwhile extracting some of these precious metals, but it never was.

BB: They're still looking.



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CARY: Yeah, I wouldn't doubt it.

BB: There was one plant that never went ahead, was going to use solvents in their process...

CARY: Yeah, that's right.

BB: ...Solvex...

CARY: Yeah, I read about those things.

BB: ...and they were going to get a big part of their revenues from this metal recovery ...

CARY: Yeah right.

BB: but it...

CARY: Yeah, we had a lot of people looking at that, but I never got directly involved in that but heard about it.

BB: So...

CARY: There's a story there about the water though, we, at one point, Suncor, I should say GCOS in those days, set up a water system for Fort McMurray, Fort McKay sorry and it consisted of a well and a pump and the tank and the pumping out to the various houses, anyway it didn't last long because the Indians were looking after it and they froze it, they left the door open and in -40, it freezes up, so we eventually ended up providing water by truck from the plant to their houses. Anyway, this went on and on and, there was something came up on the river, I'd forgotten what it was, I phoned my vice president in Calgary, I said, we've got to go talk to these people, so he says well go on up and talk to them and find out what the problems are. So anyway, I went up into this little community center in Fort McKay, and I phoned ahead and told them I was coming and they sat me down at the end of this table much like this and I looked up and there was a television camera looking right at me and I said, well what's that for? Oh he says, we have training exercise, training people in communications. So I accepted that and we talked about the problems and I can't remember what the problems were, anyway, that night, my image came on national TV, with a whole lot of words taken out of context and I heard about it from the president of the company. In fact, he told me that I did quite well, actually.

BB: Well that's good.

CARY: Yeah. So that's the type of dealings we had with the Indians. Another time we decided to, this is talking about Indians again, we decided to have a little seminar to explain to them what we were doing environmentally, air, land, water, whatever. So we held this meeting in Fort McMurray, I can't remember where, but anyway it doesn't matter and Ms. McDonald came, she was the Chief and a few of her cohorts and we took turns explaining our research projects and we were working on these things and while we were doing this, she was handing out peace money, what do you call it...uh...what's the money?



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BB: Treaty money.

CARY: Treaty money, yeah treaty money, she was handing out treaty money to everybody while we were talking and I lost a lot of respect for the Indians, I can tell you, that day.

BB: Did you have any that you worked with?

CARY: No, I never did. The company was hiring them, mainly in the mining area, driving trucks and stuff like that. Yeah. In fact, the company had a preference system going which the union objected to and went on strike about, at one point.

BB: I remember.

CARY: There as a land problem, or land... actually we had two guys looking after land, I still occasionally see one of them, Don Klyn his name is...

BB: K-L-Y-N?

CARY: K-L-Y-N, yeah.

BB: Y-N. That name sounds familiar.

CARY: I've forgotten what his friend's, or his sidekick was... but anyway they looked after the land and the main idea was to reclaim the land of course, including the tailings pond but of course the tailings pond was such a huge problem that they essentially stuck to reclaiming the mine site, especially the sand dykes and we had by this time, by the late '70's we were starting to get acres and acres and acres of land and, anyway, they, with consultation with the environment department, they demanded that we "green up" these tailings ponds, er, the tailings dykes, make them look green because the people would be happier, the visitors would be happier if they saw it all in green. So we found that we could mix muskeg into the top layer, the top layer of the sand we could use exotic grasses and it would grow like mad, great stuff!

BB: Was that the hydro-seeding that you used to see?

CARY: We used to use hydro-seeding, yeah, we used the helicopters actually for seeding.

BB: Oh wow.

CARY: Not so much hydro, you mean blowing it, we used that too.

BB: Where you mix the fertilizer, water and seed...

CARY: Yeah, that's right and you blow it out.

BB: Yeah.

CARY: Yeah, we'd use that in some and we had our own truck actually for that.



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BB: I think I was shown that on something...

CARY: I guess we fertilized with the helicopter, that was what we did, we fertilized with helicopters, there was that much area, and it was all a slope too of course, so it made it difficult for the trucks to...anyway, we had great success with this grass and then the environment department says, well you've got to put some trees onto these dykes, so we started planting trees and the way to do that was to dig out about a 1 foot diameter hole out of the grass, put a little sapling in the middle which we had imported from B.C. and hardened in a special building we had and we put in thousands of these things, dug them out, planted them, dug them out, planted them, we hired summer students, that kind of thing. Well we soon found that we were getting about 80-90% kill on these things and we found out that what was happening was that, voles, little weevils, little mice were living in the grass and they were coming out in to this little area and wringing these little saplings and killing them, so what to do. I contacted the environment department of the federal government and they sent out a **Dr. Radvany**, who was supposed to be a small animal expert, how can we control we things, he did a survey first of all, I don't know how he did but anyway, he determined that we had the largest vole population in the world, per acre, on a per acre basis, something like 400 voles per acre, we were a tremendous help to the vole population with all this grass.

BB: Do you remember **Radvany's** spelling?

CARY: **R-A-D-V-A-N-Y-I**, I think it was.

BB: The internet, you can find anything once you have the spelling. [laughs]!

CARY: Something like that. And he had proposed things like **warfarin**, poison in other words, but that was knocked down because that would get into the, the birds would eat the animals and they'd suffer from the **warfarin** and we talked about importing coyotes, all kinds of wild ideas. Anyway, they...

BB: Do you think they really liked those exotic grasses?

CARY: Well they great shelter, a tremendous shelter for them and they like the roots to eat and they liked the trees especially, so, anyway we, I can't remember who had the idea, somebody said supposing the voles had to go a long way to get to these trees and then they might be attacked hawks or other birds, you see, while they're exposed out from under the grass, you see. So we did an experimental area where we planted grass in 10 foot strips, 10 feet of grass, 10 feet bare, long, long strips, then on the 10 feet bare part we plant a little sapling in the middle and we did that for a year...

BB: It's all going to get on the tape, but, it's okay.

CARY: [laughs].

BB: You're thumps, my poor transcriber will...

CARY: Oh sorry, oh that's okay. Anyway, we soon found out that this was the answer, that all we had to do was make sure we didn't grow grass and we could solve the vole problem or at least keep the trees separate from the grass and that solved it, just like that.



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BB: So was that on the mine sites or the dykes, or both?

CARY: The dykes, well mostly dykes, you know, the sand dykes, that was where it really paid off. On the mine site, you had overburden which was easy to grow stuff, no problem.

BB: So at that time they were stockpiling the overburden and then putting it back on.

CARY: Yeah.

BB: Yeah. Did they actually skim the top soil or just take the...

CARY: Well they took off the...there was a muskeg that had to be taken off first and then could be 20 feet deep in places, or it could be one feet, very, very, seemed variable, then there was something like 75 feet of overburden which was rock, clay and god knows what else, it was all ground up by the glaciers before you got down to the bitumen layer.

BB: Now did the Alberta Research Counsel or AOSTRA, any of those people work with you at all?

CARY: Oh yeah, I went to many AOSTRA meetings and I helped them out where I could, argued with them sometimes. You would know about them, I guess eh.

BB: Yeah, oh yeah, well Clem Bowman, I'm interviewing him later this month.

CARY: Oh you know Clem?

BB: Yeah, he's still quite active you know, he's...

CARY: Is he, good for him. He was a neighbour of mine in Edmonton you know, when I was Chemcell in Edmonton, he used to live down the street...

BB: No kidding.

CARY: ...and his kids used to play with my kids, I think they babysat actually, or something.

BB: He's in Sarnia now.

CARY: Is he? Really?

BB: Well I can send you his information, he's still got a consulting business.

CARY: Does he? Good for him.

BB: The...and let's see, in the 70's there was also AOSERP, the Alberta Oil Sands Environmental Research Program.

CARY: Yeah, that was...AOSTRA, was the one I was involved in.

BB: More applied...



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CARY: That's right.

BB: I forgot when they started, '79...anyway, somewhere in there.

CARY: That's right, yeah.

BB: You mentioned that you spent some time in Montreal, what was that like?

CARY: Oh I didn't spend much time there, just met the guy and that's about it...

BB: Oh just worked with them.

CARY: Yeah, just an office visit. I got a little reminder list, just here... [walks out of the room and comes back]. You know there's a couple... I was talking about land, I told you that we were learning how to consolidate the sand to make dykes and there was a great deal of concern about this, because we were building dykes well above the height of the river, right along side of the river actually, and I remember coming in one morning and the boss, and I looked at the dyke and about a quarter a mile of it had slumped inwards, into the tailings pond, not on the river side, on the tailings pond side and you could just see the big slump. So we were learning but I think they learned since how to handle that.

BB: How did you stabilize it, with clay or?

CARY: It was interesting, they would form... they were using bulldozers and the stuff was, the sand and clay and water was all pumped from the extraction plant up into sort of a little pond formed by the bulldozers and the sand would settle out and the bulldozer run backwards and forwards on this consolidating the sand and the water was taken back to the plant again. So it was a...imagine how hard it was on bulldozers, they were running in this sand all the time, you can imagine the wear and tear on those bulldozers.

BB: Oh incredibly abrasive stuff.

CARY: Oh yeah, really bad.

BB: Somebody once measured the amount of metal abraded off in those mining operations, amazing... millions of dollars a year in just steel.

CARY: They were doing a lot of research on the piping to pipe that stuff out there and they tried stainless steel, they tried hardened pipe, they tried cheap pipe, they tried expensive pipe, they tried linings and they finally came to the conclusion that the best thing to do was buy the cheapest pipe they could find and let it abrade, that was the best way to handle it.

BB: Yeah.

CARY: It was an expensive problem. Now going back, just stories, going back to water, one morning I got, this is after I became manager of Environmental Affairs, I got a phone call from an operator out in the mine and he said you wouldn't believe what I just saw, I said a bull



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elk with a huge antler of horns, he watched it walk into the tailings pond and try to swim across, and of course he didn't make it and he was just, he was almost weeping, you know it was sad. I didn't report that to the government. [laughs].

BB: How many ducks to one elk?

CARY: [laughs], yeah that's right! And...we talked about court cases Fort McKay and dyke failures...one of the first things that I did as part of, when I joined the company was to come up with some of those solutions myself to these tailings ponds and one of them suggested to me that we freeze dry it, it was so cold up in Fort McMurray according to head office Toronto in those days, Fort McMurray was so cold that surely you could just freeze dry this and they showed this but did some experiments in a freezer that when you froze dried this, the clay would separate from the water, well I did some experiments and some calculations that soon proved that, that was not going to work, it would work to a very small extent, but it wouldn't work to any extent of the matter. Oh there is what **montmorillinite** is, I'll spell it for you...

BB: Okay, let me try once more to make sure I got it. **M-O-N-T-M-O-R-I-L-L-I-N-I-T-E.**

CARY: **Montmorillinite.** Just the way you say it and I'm sure you can find lots of references to it or something.

BB: Well it's just that I try to give the person I transcribe these a list of all the difficult words, the names, so...otherwise they just do phonetics and then I have to go back and figure out what the words was.

CARY: Okay.

BB: So you retired in '82 and have you been just retired, did you just walk away or did you keep on consulting or...

CARY: No I did a small job through the MLA out of Fort McMurray, I got a...he put me on a consulting job with a government with AERT. Have you ever heard of AERT? Alberta Environmental Research Trust.

BB: Okay.

CARY: It's long gone since, it was a small off-shoot of the, I think of the National Energy Program, it was one of those off-shoots that came out of there. The whole idea was to give the populace of Alberta a chance to have their, do their own research on environmental problems, and this could be on birds or land or whatever. So the people of Alberta were invited to present proposals for doing environmental problems and we would, this little board that I was on, appointed to, would allocate the money for these little projects, some of them were fairly large, some of them were backed up by university professors for instance, they were student projects, that kind of thing, others were housewife who wanted to do something, it was a tremendous variety and I sat on that little board for about three years I think, I was the chairman, I got a little plaque to show it. That's all I did, actually.

BB: Were you still in McMurray or Edmonton then?



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CARY: No I was in Canmore here, I built this house in Canmore, at least I finished all the inside myself, my first year of retirement.

BB: Yeah, it's lovely.

CARY: Yeah.

BB: Well, why don't we quit here and can I take you to lunch? And if we...

CARY: You must meet some interesting people...

[END OF RECORDING]



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