PETROLEUM HISTORY SOCIETY

OIL SANDS ORAL HISTORY PROJECT

TRANSCRIPT

GEORGE SKULSKY BEGAN WORK AT GREAT CANADIAN OIL SANDS (GCOS)/SUNCOR IN DEC. 1966 HE IS ONE OF THE FIRST "300 HIRES." THIS GROUP WAS CHARGED WITH THE START-UP AND GIVEN INTENSIVE TRAINING TO WORK ON THE PROJECT, UPGRADER, POWERHOUSE, EXTRACTION AND THE MINE. ASSIGNED TO EXTRACTION HE WORKED HIS WAY UP BECOMING SUPERINTENDENT OF EXTRACTION OPERATIONS AND HELD THAT POSITION UNTIL HIS RETIREMENT IN 1996. HE THEN WORKED AS A OIL SANDS CONSULTANT FOR THE SHELL/ BHP/ALBIAN MUSKEG RIVER MINE PILOT PLANT, CANADIAN NATURAL RESOURCES LTD (CNRL) DURING DESIGN AND THE "TOTAL" JOSLYN CREEK OIL SANDS PROJECT.

DATE AND PLACE OF BIRTH: August 14th, 1938 in Calgary, Alberta

Date and Place of Interview: 9 am, May 31st, 2012, the residence of interviewer Adriana Davies at 14312 – 90A Avenue, Edmonton, AB T5R 4X6

Address of Interviewee:

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Sponsors of The Oil Sands Oral History Project include the Alberta Historical Resources Foundation, Athabasca Oil Sands Corp., Canadian Natural Resources Limited, Canadian Oil Sands Limited, Connacher Oil and Gas Limited, Imperial Oil Limited, MEG Energy Corp., Nexen Inc., Suncor Energy and Syncrude Canada.

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Consent form signed: Yes Initials of Interviewer: AD

Last name of subject: SKULSKY

DISK 1:

GS: I haven't done one of these for a while.

AD: My name is Adriana Davies, and I'm a researcher/interviewer on the Petroleum History Society Oil Sands Oral History Project. Today I'm interviewing George Skulsky and it is now 9:30 am and the interview is taking place in Adriana Davies's residence in Edmonton. So George, can you tell me when and where you were born and also then just give me a summary biography and we'll, of course, deal with specifics of your biography as the interview proceeds. But it's just a capsule biography.

GS: Okay. Well, again, my name is George Skulsky. I was born and raised in Calgary. I was born in the General Hospital in Calgary—the one Ralph blew up—on August the 14th, 1938. And I went to school in Calgary in a very small schoolhouse in northeast Calgary, which was called Belfast, which was over by the airport. And we lived there for 10 or 11 years, and during that period my father worked for Imperial Oil. I went to school in several locations. My parents moved and owned a home right across the street from the McDougall Centre, downtown Calgary. So I rolled across the street to school. We later moved to the North Hill and I went to St. George's School in Calgary. About that time, my father and mother had decided to leave Calgary, so my father quit Imperial Oil at that time, and they decided to venture out and go into business. So they purchased a hotel about 80 miles east of Edmonton here in a little town, a little village called Ranfurley, Alberta. So I continued going to school in Ranfurley and finished high school in Innisfree, Alberta, which is 10 miles further east on Highway 16.

So during that period of time, when I lived in Ranfurley it was a completely different way of life. It was a small village in rural Alberta. So, needless to say, a little city boy moving into a country school, I wouldn't say I was bullied, but I had to fight my way into that school. And, anyway, during that period, because of my ancestry, my ancestors came to Canada in 1897 and 1900 and they all settled in the Star-Etna area north of Lamont. I come from a Ukrainian background, and I married a Ukrainian girl, so during the summer months in Ranfurley, my Mother and Dad would take me out

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to my Grandfather's farm. So I literally learned how to farm, and believe it or not I learned how to talk Ukrainian from my grandparents because my parents did not speak English. So when I graduated from school….

Excuse me, I'm just going to go back. During Grade 11 of one year, in 1956, I went to Edmonton to stay at a friend's place during summer holidays, and we ran across this group of people looking for work on Jasper Avenue near the Macdonald Hotel. And it happened to be the Chamber of Mines. And there was a group of people lined up to go fill up an application for employment, and we were looking for a summer job. So believe it or not we went there and filled out our applications, and by the time we caught a bus back to Beverley the phone was ringing and they called us back. Well the two friends I went with didn't want to go to Uranium City, Saskatchewan, but I took it upon myself to go, as a young fellow. I had to lie about my age. But anyway, I spent that summer, in 1956, working for Gunnar Mines in Uranium City, Saskatchewan.

When I finished up there in the fall, I flew back to Ranfurley, or to Edmonton, and went back to school. When I graduated out of school in 1957, '58, I went to Calgary, back to Calgary, because all of my Father's brothers and sisters lived in Calgary, and Calgary was still like home. I got a job with Strong Lamb and Nelson in Calgary in legal surveying. So I worked there for not that long. We actually surveyed … I was on a surveying crew that surveyed the Chinook Shopping Centre, south of Calgary on the McLeod Trail, when there was nothing but grass there. We also did a subdivision north of 1514 – 22nd Avenue northwest, which is below the North Hill and there was nothing there but grass as far as you could see up that North Hill. So that following winter I acquired a job with Century Geophysical, which was oil exploration. So I spent that whole winter northeast of Calgary, around Sundre & Westward HO, all the way into the foothills into the park boundaries, surveying with a seismic crew, cutting cutlines, and as that job neared an end, I became a loader for the explosives truck. So I was involved in loading and in seismic activity until that job shut down in the spring.

Following that, I came back to Edmonton and I acquired a job with Premier Steel Mills right here in Edmonton. I worked there and went from one end of that plant as a trainee all the way through the steel mill, which is still here today in Edmonton. It's under a different name, and we were actually … Premier Steel in those days had two 20-ton electric arc furnaces, and they were literally melting scrap to produce their products. So we were manufacturing basically a massive amount of Rebar for the construction industry. Angle iron, I-beams, square I-beams, small I-beams, square bar, round bar. We were making grader blades, but we were also making sucker rods for the oil industry and grinding balls for the oil industry and mining industry. And I was involved in all of those jobs all the way through that mill. So in the very end, if you stayed there long enough, and I stayed there for about four years, you got a pretty good wage, and the harder you worked you got a good bonus for

it. So there was no slackers on that job, because if you slacked anywhere in a production line you were out, because the boys got rid of you. Cause they produced to get a bonus plus their wages. So following that, I never quit a job in my entire career. I always found a job before I left a job.

So from that job, I went to Reed Roller Bit, here in Edmonton. And Reed Roller Bit is from Houston, Texas, and they built a fairly large plant on 75th Street and Argyll Road. And because I had had vast and various reheat and metallurgy experience from Premier Steel, they hired me as their head heat-treater. With Reed Roller Bit, I became their head heat-treater. They flew me to Rockford, Illinois, trained me on all aspects of different heat treating for different products. And here in Edmonton with the plant completed, I had probably one of the best jobs in my life. I wore white coveralls and had these fully automated furnaces that were preloaded for me and all I would do is control them. And they were a 24-hour operation, and I did the controlling in these parts for the drill bits and they would have to go through a metallurgy treatment and heat treat at various stages to completion. So that was my experience with Reed Roller Bit. And I had met a couple of fellows in those days who were Reed bit salesmen. And at that time, people were talking about the oil sands. Anyway, from there I went to the Alberta Research Council.

AD: [cat meowing] The cat. He's not a happy …

GS: He's not happy. You locked him up. You might let him walk around here. Following my employment at Reed Roller Bit, I went to the Alberta Research Council, and at that time they were running a pilot project here in Edmonton, east Edmonton plant by the Camsell [Charles Camsell Hospital]. And that's where I met two fellows from the FTU, the Field Test Unit, from Fort McMurray, who had been working for Bechtel and GCOS at Tar Island. They had started work at the Alberta Research Council on this pilot project. And this pilot project, briefly explained, was a new chemical process that we were going to develop for the Peace River Oil Sands in Hines Creek, Alberta. And a lot of Albertans do not realize, but we have a massive iron ore deposit in the Hines Creek-Peace River area. It's a unique deposit, and we were going to develop a process to produce it. And it was called Peace River Mining and Smelting, and it was paid for by the Canadian Defence Research Board and the Alberta Research Council. So in the very end—I won't go into the process—but it was a chemical process to produce pure spongy iron powder out of the Hines Creek iron ore deposit.

But in order to run the pilot process, we actually had to start it by dissolving scrap iron with hydrochloric acid to get ferrous chloride. And that was the object of dissolving the Hines Creek ore with HCl and producing ferrous chloride. 'Cause ferrous chloride was the first part of the process where you would reduce it through a process and end up with pure spongy iron powder. And we did that quite successfully, but it didn't work very well on the ore. It worked very well on scrap iron. So

much so that that it was a patented process, and we actually had an extrusion plant there where we would extrude different types of materials: angle iron, round bar, square bar, and the tensile strength of that pure spongy iron powder mixed with other alloys had better tensile qualities than anything coming out of the smelter like Peace River, like Premier Steel. So Peace River Mining decided to build their plant, a new plant, in Hamilton at that time, and at that time, GCOS was going to hire their first start up and operations people. And the two fellows that were there, that I was working with during the period we were running this test facility in Edmonton, got really involved about the oil sands. So they asked me. They said, "You better go down to GCOS's office in Edmonton," which I did, and they hired me on the spot [he was hired in December 1966]. So I quickly got employed but I didn't report for work until the 20th of December [actually January]1967, which was a few days later that winter. And I proceeded to Fort McMurray in the winter time without my wife, and we had just purchased a house here in Edmonton and lived in it for three weeks. But anyway, that's another story.

So I went to Fort McMurray, and the GCOS plant was in the final stages of construction. The camp at that facility at that time had 25 hundred men. And it was a real experience to drive from Edmonton to Fort McMurray and then 18 miles north of Fort McMurray into this huge camp facility and to report there for employment. Little did I realize, after being there for a few days that the entire camp of Bechtel personnel and contractors, but mostly Bechtel trades people and engineers, had all come from a hydro project in Quebec. So very few people realized that the first GCOS plant built here in Fort McMurray was actually built mostly by French people from Quebec; all trades people. And it was amazing. So in 1967, I was being hired in the first 300 employees that were hired to basically start up and commission the plant. Out of those 300 people, you have to realize that they were split into five groups. There were one or two women that got hired into administration to manage 300 people. So that was the first, the first, administration people that were Great Canadian Oil Sands. I'll mention Jane Phillips's name, because Jane, she was one of the first ladies hired at GCOS. So Jane and I come from a long way back. Anyway, the 300 people were split into five groups: administration, mining, extraction, the power house, and the upgrader. And there was actually another one called off-site services.

Now this was the whole new organization. It had nothing to do with Bechtel. So the first administration building at that time and the manager at the plant at that time was Bob McClements directly from Suncor, from Sun Oil in the United States. And he met every one of us personally. They had several training rooms in the administration facility where we gathered as different groups, and he spoke to us. And they had probably 15 very professional Sun Oil engineers, who indoctrinated the whole group from start to finish. And this took weeks, not days. So from that point on we actually broke up into different classrooms and trained. We physically trained for six

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months. And basically, and I have some certificates to show ya after, but for operations people, especially in the extraction plant, because it was a totally new different facility, we were trained really engineering one and two from the ground up. We were trained to read process flow diagrams. We were introduced to all different types of equipment. We were involved in many, many safety programs: fire training - everything imaginable that you would train a person to operate a big, brand new plant. And after about six months, through indoctrinating each employee that they hired, they handpicked so many people to work in extraction, people in the powerhouse, and people with a little bit of refinery experience, they obviously went to the refinery.

And miners, there was a lot of farm people from Alberta that knew how to drive tractors. They became miners. They had equipment from Mannix. They trained operators, and during this period the plant was completing construction, so the bucket wheels were starting to be constructed. The first one wasn't yet complete. But there was another one being built right after the first one. The mine conveyors were being laid out, and we were told under very strict conditions that we could not go into the plant areas until Bechtel had finalized some portions of the plant. Then they allowed certain groups to go to where they would be working in that plant. So after some more time, more weeks went by, all the extraction plant people were given the go ahead to leave the administration building to go to the extraction plant. The same happened to the powerhouse. That happened fairly quickly, because the power house was the first unit to be completed. And at the time we came there, they were starting it up on steam, warming it up, and they very quickly started to produce their own electricity. So those guys went into that power-house facility and continued to learn how to run it. Then we went into extraction and continued training. The people in the upgrader did the same, but it took quite a while, because it took the upgrader and the final part of the extraction[plant] was not completed yet, so it took a long time.

After another couple of months of training in the extraction plant, as Bechtel turned over parts of the plant, we accepted on behalf of GCOS. It was like you selling me a new car. Once I knew how to drive it, I would sign the papers, and Bechtel would say, "Here's your car. It's yours. I don't have anything more to do with it. You do with it what you want." So we really accepted piece by piece of equipment, as it was turned over to us, on behalf of GCOS. And slowly, slowly we started to operate the plant. The plant was the most modern plant ever designed for the oil sands. It was so overdesigned, most of the equipment in the new plant was never utilized in an oil sands environment. And that was very critical to understand. A lot of people don't understand what happened in those days.

Going back very briefly—I'm very familiar because of my interest in the oil sands—I toured the Fitzsimmons, the Abasands, Bitumont, all the pilot sites around Fort McMurray during this period that we were living there. We actually lived in camp for six months. So I flew my wife up to Fort McMurray on April Fool's Day, April the 1st, 1967. And I picked her up at the airport, and I drove her through Waterways, and she broke down and cried, because we were really in a remote place. But we … very quickly at that time GCOS had purchased a couple of hundred brand new trailers. The furniture and everything in each of these trailers was covered in paper. And we were all assigned different units. So one by one, we moved out of camp, and brought our families to Fort McMurray. There were already some first few homes being built in Fort McMurray. At that time, in the spring of 1968, the fall of '67 being built on Alberta Drive. Our home was finished by Athabasca Realty, which was a subsidiary of GCOS, on 47 Fitzgerald, right across from where the hospital is today. And when I went there … because of my involvement in surveying I went to Athabasca Realty and they said, "Well, if you want a lot go out there and pick it out." So I went out there with a fellow and we walked through a cutline and I picked a corner lot. And low and behold in the fall of '68 we had a brand new home.

Anyway, going back to the plant, the plant again I'll say was very, very sophisticated and overdesigned, because they tried to put in the latest types of equipment that might work in the process. So I was there for the initial startup. We actually ran the plant from one end to the other on water. And it's quite easy to pump water. We also ran into commissioning difficulties on water because you have to really start and stop everything and prove it out. And you always run into some snags, but they get corrected and then you go to the next step, and the next step, and the next step. So we gradually got through where we would get our river water. We used river water initially to start the plant because we didn't have a pond and a pond recycle system to recycle our water. So we started the plant up on river water, and we ran it on river water for a long time because different parts of the plant weren't completed enough for us to test the first oil sands into the plant. So during this period final extraction was still under construction but we had finished, and ran on water, one process line in the extraction plant in July of 1967. And we ran a separate line out the back door of the extraction plant into a little pond, a little pit because the final extraction plant wasn't ready. So we ran the first stage separation of bitumen in the hot water process at that time and pumped a little bit of bitumen into this pond.

Well it was a real big day, because we actually produced a little bit of bitumen. So here you had all the Sun Oil engineers and anybody from all over the plant would come over and look at this little pit of bitumen [laughter]. Well, little did we realize—it took a couple of months after—before we ever ran that again because we couldn't just keep putting it on the ground. So we continued to run on water. We developed the final tailings systems to pump the sand back out into the first pond. A lot

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of people today do not know that the first pond area, which was very huge, at Suncor, at GCOS, was actually a valley—a valley that was taken out by the glaciers a million years ago or eroded by the Athabasca River over a million years. So it was a big empty valley, and the river ran through the bottom of it, and it ran around a little island at the bottom, called Tar Island, where the original pilot plant was.

So what the engineering people did, they decided to build a dyke around the valley, along the river, including Tar Island, because they removed the old pilot plant, and at that time, they were building … Mannix, Mannix Construction was building the dyke very quickly at that time using the latest type of excavating equipment. And the fact that the bottom of a dyke has to be so wide because if you're going to build it 350 feet high you're going to have to start very wide and taper it up to the top. So that big valley, and the initial dyke building was going very slow, because they were moving a lot of dirt, overburden, to build the base of the dyke. So they worked for two to three months and only raised that dyke a couple of feet, which is nothing. But anyway, we had a huge barge facility, a pond recycle barge all built sitting down in this empty valley waiting for water to pump back to the plant because we hadn't started pumping water into it. So as I said, we ran that plant for almost two years on river water until we got enough water into the bottom of this big valley and our first pond barge that was there started to float. And it had to float in 20 feet of water. And we started that up, and we started to recycle water back to the plant and discontinued using massive amounts of river water. So that was the objective. So we got to that point, and then in September 1967, when they picked a day that was going to be the official opening of the extraction plant, everybody flew to Fort McMurray. Premier Manning, Howard J. Pew, Bob McClements was there. A lot of dignitaries, and I don't remember a lot of them, but I did shake hands with Premier Manning at that time. And I knew Howard J. Pew. And there was specific people assigned at that time that worked in the FTU plant, the Field Test Unit, was the Tar Island pilot plant. There were a few Canadian engineers that were involved with the Sun Oil engineers at that time.

Well at that time, they decided to have Glen Andrews to be the manager of the extraction plant. Bob Thompson to be the manager of final extraction, so extraction was composed of two plants. The first plant was to produce the bitumen and to pump the sand away. The bitumen went to final extraction where it was diluted with naphtha from the refinery into diluted bitumen. But diluted bitumen from extraction contains up to 20 percent BS and W, bottoms, sand, and water. And you cannot put that type of material through a refinery. It just can't hack it. So final extraction at Suncor, at GCOS in those days, involved Bird centrifuges and Westfalia centrifuges. I won't go into the operation of them, but … and a filter system. So once you removed the B, S, and W, bottom, sand, and water, with two types of centrifuges and a filter system, you try and get your final product—your diluted bitumen—down to less than .05 percent, less than half of 1 percent, or less. A refinery

can handle that, because it's a normal petroleum industry, even from commercial wells, can accept that. So on the official opening day, well let me just step back a minute.

Just before that opening day, we discovered by putting a little more than just a little bit of oil sand into the plant. Because when we produced that first stuff into the little pit, it was a pittance, it was nothing. It was like you put a little bit of tea in a cup and drank it. Not 50 cups of sugar. Anyway, to make a long story short, the actual day that the plant was commissioned, the plant really wasn't running. And we ran the extraction plant that day with all the dignitaries. They came into the main control room. I was acting control room operator on A shift that day. And I personally took Howard J. Pew, and he could hardly walk. He had a cane. And I went and grabbed his other hand and took him over to the control room panel. And I said, "Howard, you have to push these two buttons to officially start the oil sand into one of our processors." So he did. He pushed those two buttons, officially opening up the first oil sands to the GCOS plant. And then everybody, and all the dignitaries and all the photographers went out to these apron feeders, under the ore bin, to see this ore coming off, out of the mine, into the bin, onto a conveyor. They wanted to watch the oil sand going up a conveyor into one process line. And the little bit of oil sand that was coming out, we ran into a problem [laughter]. The miners were so excited about filling the ore bin, and the ore bin was a 25,000-ton ore bin, they filled that ore bin right to the top before we started. So the four cones on the bottom of that ore bin were brand new. They weren't worn out or shiny, so all that oil sand stuck to the cones, the walls of the ore bin. So all we get is a little bit of oil sand coming out onto this conveyor, and it looked like if you poured a can of cornflakes [laughter]. It was just like cornflakes coming through. So very little oil sand came through that day and went into the single process line.

But that actually worked, and we did have oil every once in a while on our separation cell we would raise the level and get a little oil coming off. And they had a thousand photographers there and people standing around saying, "Look at the bitumen." Well, that was the first official day. But in reality, after that day was over, and incidentally that day we had a huge area in the bubble [tent] at that time where they held the official ceremony. They let everybody, every operations and commissioning people from all areas of the plant, in stages, go to that bubble and shake hands with all the dignitaries and have a little bite to eat and go back to the plant. It was a very cold September day, but it was a great time.

Now I have Premier Manning's official outlook for the tar sands for 1962, his speech that he made. That was prior to 1967, but his plans for the oil sands. But anyway, the real truth of the matter is the initial plant that I was involved in almost nothing worked, right from the very, very beginning. We had to start and stop that plant and modify and debottleneck every little thing right from the very beginning of that plant. You have to understand that the plant runs on water. And you have your H

and V systems to maintain the plant. But then you have the processes in the plant. The processes didn't work. It was either because the equipment wasn't designed to do what it was capable of. Pipes were too big. Pipes were too small. Pumps were the wrong type for the application they were supposed to do. Systems failed. We flooded the plant, many times. We had thousands of horrendous problems to overcome before we finally got to where we could take one process line and produce 500 tons an hour, on one process line continuously. We'd do it for an hour and then something would happen. We'd fix it, and we'd do it for two or three hours. Something else would happen. So you have to remember that one process line in the beginning of the plant going through that final extraction plant, the centrifuges and to clean up the oil. But the extraction plant had to pump that sand back out into that man-made pond, safely, and with enough horsepower to pump sand, because you can't pump sand from here across the street unless you know what you're doing.

So in the early days, we started at very low tonnage, because that's the only thing we could do. And each process line was designed to run 15 hundred tons an hour. And that was our maximum limit for one line. So it was a great day, about a year and a half later, that we achieved 15 hundred tons an hour on one process line for 24 hours, or even longer. And the times we ran it longer, that was another record or a historical moment. But we had so many materials that couldn't stand the erosion and corrosion caused by the sand. So all along the way, we had to … You know, pipes were wearing out from the sand, from erosion and corrosion and abrasion. You can imagine 14-inch pipelines out to the dyke wearing as thin as newspaper very quickly, because it was the wrong type of alloy or material. So we ended up testing rubber-lined pipe, electrically hardened pipe. All different … wooden type.

We tested every type of pipe known to man, which they're still testing today. The first time they filled that ore bin, they broke all the teeth off the bucket wheels and all those teeth came into the plant. These huge teeth from the bucket wheels rolling around in our conditioning drums, sounding like a million church bells. So they had a metallurgical problem with the bucket wheels right off the bat. So believe it or not, the first year we were in production, Sun Oil said, "Hey, we got to make artificial snow. We got to cover this oil sand with enough snow that it's not going to freeze." So believe it or not, I was involved in those days. We had a massive amount of compressors and a water line ran out to the mine, and these guys are making snow. I've got pictures of it. 1967. Winter of '67, '68. And that was a failure.

But anyway, they gradually, very quickly, developed better teeth for the bucket wheels. But the main part of this started up in the commissioning of the original plant. I didn't mention our largest, biggest problem. The powerhouse was very unreliable. So we had hundreds of power failures. But in the winter of 1967, when it was 45 below, I was there with my crew and the powerhouse had three main boilers. They were 800 thousand pound boilers, 800 thousand pound capacity, three of them.

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Normally they'd run two through two turbo generators, and the original powerhouse at GCOS was designed to produce 75 megawatts of power. That was enough power to run the whole plant. The plant was totally designed to run on its own. The cokers from the upgrader made its own coke, so the coke was like coal. It was ground up and used as fuel in the powerhouse, blown like flour through jets into these boilers. And the boilers were made by Foster Wheeler, huge company, What people didn't realize was that coke from bitumen with all the asphaltines in it has an extremely high BTU value and sulphur value. Well extremely high BTU value burned the super heating tubes in these boilers pretty quick. So that winter, when it was 45 below, in the middle of the night, they were running all three boilers. One was on standby, just going. Well, they blew the tubes in one boiler. The second boiler tried to pick up the load, as well they brought the third one online. Well, we had a little flicker in our lights in extraction. And you can imagine a plant in the middle of nowhere that has no power line to anywhere else, no gas line. You're just dependent on your own utilities. The lights flicker, and the other power comes on. The other boiler picks up the load. Well, we ran like that for about five or 10 minutes. And then the lights flickered again. Well the second big boiler tubes blew, and the last one picked up the whole load and those tubes blew. So we literally froze that whole plant up. Cold. The emergency lights we had in those days lasted for 20 minutes. Everybody in extraction was given a flashlight, and thank God we had these flashlights. But the whole plant, as fast, as good as all the people were, we drained everything from the extraction plant. And we saved the extraction plant, but the refinery they could not drain it and save it fast enough. It froze up. So the whole plant was completely shut down for six months.

So a lot of people that got hired at that time, and people that came with that first 300 group, they came from all walks of life, all types of religions from all across Canada. There werea lot of people from Alberta, mostly farm boys; some people from the Maritimes. But when that plant shut down and froze up, people got scared. They left on their own, because they thought that plant was going to be down forever. So we had attrition right away. So they had to rehire people very quickly and start retraining them. Well, we had crews down in the upgrader chipping ice and maintaining what we had. We had three small little package boilers down by the administration that were supplying steam and power for the camp, of 25 hundred people. So a few of the engineers jerry-rigged those small boilers to produce enough emergency power to have lights in each area of the plant. Minimum lighting and very little emergency power. And when those big boilers went down … The plant was designed and actually had two big standby generators. But would you believe they were both shut down at the time the three main boilers blew? So when they were supposed to kick on, there was nothing.

So anyway, we got through that huge freeze up and slowly, slowly we started to restart the plant. And from that time on we went through, and I'm not being facetious, it took us five years to

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debottleneck that plant, and many places we had not enough horsepower to do the job that whatever, whether you're turning a conveyor or running a pump or the wrong pump. The original extraction plant had rubber-lined Allen Sherman Hoff pumps. They. Well, they were great for pumping sand, but bitumen has qualities in it that the hydrocarbons that you produce out of the oil sands attacks rubber over time. So we would run real great with these pumps initially, but the rubber liners would tear out of them. And they were doing that so fast, we couldn't get new ones fast enough to maintain the plant operation. So we started to convert these pumps into iron pumps that come from Australia or Germany. We were trying everything to keep going. So pumping sand out to the dyke became a nightmare. We didn't have the right pumps, rubber pumps, and enough horsepower to pump sand out to the pond. So we ended up, we had four tailings lines to pump out to the dyke to the pond. We sanded those up solid, from one end to the other the following winter, and they froze. Bechtel had every cherry picker on site out there breaking those pipes every 200 feet and trying to shake the sand out of them. But they froze. So we had to truck in new lines and start all over again. And then little did we realize when we were starting the plant and you're pumping sand.

Sand is strange stuff. If you have coarse sand, like crushed glass, it's very hard to pump. If you have high fines in your tar sand or low-grade oil sand—that's what its called, low-grade oil sand—all low-grade stuff contains the finest of clays. Very difficult to separate the bitumen out of the oil in that low-grade stuff, and that's usually anything less than 7 percent. So you could put a lot of low-grade stuff through the plant. You could pump it for 10 miles, because it floats. It remains in suspension. But coarse sand doesn't. So the only way you can pump coarse sand any distances, you had to pump it at 70 percent to 80 percent solids with very little water. And you have to maintain a lot of horsepower and a lot of multi-stage pumps. Suncor today and Syncrude and CNRL and Shell, they pump 15 miles, but they have different stages of pumps but the right pumps to do the job.

So eventually after five years, we got down to where we were starting to produce steady. And unbeknown to a lot of people when we first started the plant initially, it was in the lowest grade oil sand you could find. A lot of people were not happy about that, because we would run for three days before we'd get any bitumen off of one separation cell. This created a lot of politics between the administration of GCOS, the operations people in extraction, and the miners who were digging it and where they were digging it. So strategies changed over time while we debottlenecked the plant, made the powerhouse very reliable, and it never did get reliable for all the years I was there, and that was a long time. And when we froze that plant up, GCOS made a decision with Sun Oil to very rapidly build a natural gas line from Red Earth, Alberta, to the powerhouse at GCOS as a spare fuel system other than that high coke that we were burning. So that put reliability into the power house and most important the refinery, because you don't start and stop a refinery. You're in trouble, and we started

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and stopped the refinery in the extraction plant, I'm not being facetious, within the first five years, a couple of hundred times. When the lights go out, that's it. Three hours later you start all over and start de-sanding and start it up again. So that's what we basically all went through, plus all attrition that I talked about. So we were continuously training operators at the lower end of the spectrum and training them to the point where they could become control room operators. A control room operator at Suncor was a top of the line job, but he was the most important operator, because he operated the plant. And as I said, we had the latest, greatest equipment at that time. And a lot of that had to be calibrated properly. Some of the stuff didn't work in oil sands. We had to find different means of controlling things. It was very, very difficult.

They brought in young engineers from Alberta to work in the plants after. There weren't too many engineering people there, other than a few key people. But a lot of Sun Oil engineers from the United States, some of which were involved in the initial design and the field test unit, and I can go through those names after, because I do have them here. Like some of the very key people that were involved in the early days with Canadian Bechtel and GCOS in those days were Innes and Williams. Now when you talk about Dr. Clark in the oil sands, from the University of Alberta, well there was a Thomas P. Clark with GCOS in the early days. No relation to Dr. Clark from the U of A. Dr. Clark from the U of A ceased working for the University of Alberta, and I cannot give you the year but he started to consult with GCOS and specifically with Sun Oil's best engineer, Harold Erskine. So Harold Erskine and Dr. Clark worked together in the very early days in a lab in Toronto. Great Canadian Oil Sands had an office there. I have pictures of Dr. Clark with Harold Erskine in this lab. And then soon after that Dr. Clark did visit the Tar Island pilot plant several times in Fort McMurray. And then Dr. Clark disappeared and he got ill after that. Anyway, Harold Erskine was a key man for Sun Oil out of the United States, and he had key engineers: Fred Bailey, Ernie Dobson, Harold Erskine, were two very key fellows. They were key decision makers during the field test unit trials, and during the construction of the plant, and all designed efficiencies to be cleared up after 10 years. They came here; they were here all the time. And Harold got to be a very good friend of mine. He stayed at my place when he came to Fort McMurray because he didn't want to stay in camp. And so Glen Andrews was a Canadian. He was managing the extraction plant. Bob Thompson was also Canadian. He managed the final extraction plant. And they stayed for quite a few years. Other people that I met I won't go into their names now because that was with different project.

AD: I'm going to ask you a question. Because this story of the operational difficulties and getting the plant—the various components of the plant—up to speed and producing. It isn't a well-known story. And I've heard, of course, of the litigation that ultimately took place around that. Can you talk a bit about that?

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GS: Well, there were several litigations that took place because this was the first commercial oil sands plant, and unbeknownst to us people that were hired to start up and commission this plant, there was a lot of politics involved. Sun Oil invested almost $300 million to build this plant through Howard J. Pew. Sun Oil was a private oil company. So when those boilers blew up in the fall of 1967 in the winter, you can imagine the lawsuits that occurred against Foster Wheeler for those boilers. They were not designed properly to burn coke. The conveyor belts were a problem. The conveyor belts were a terrible problem. Like nobody ever thought that those conveyors would run at 45 below. They would run good in Africa in an iron mine some place where it's 80 above day and night. So there was a lot of different problems and you have to understand that when I tell you that nothing really worked in the beginning, it's very, very true. So it was really trying for us for five years.

People don't understand the difficulties we went through to get that plant running, even though Bechtel and Sun Oil bought the latest, greatest control room equipment, the best instrumentation. They put everything into it. They had magnetic flow meters. We had 35 nuclear densometers in the main extraction plant alone. In those days, nobody in this country knew what a nuclear densometer was. As a matter of fact, we didn't even get them licensed in Canada 'til years later, 'til the Canadian Defence Research Board found out we had all these nuclear densometers, they got real excited, so they produced some rules and we had to register them. A lot of them didn't work, but oddly enough, some of them did in a rare location. Like how could we tell the level in an 18,000 ton ore bin. We had these massive nuclear resources that would shoot a beam through the ore bin, and when it was empty they'd get a lighter reading. When it was full, it was less. So we could measure the level of the ore bin. Well, that didn't work. We did the same for measuring the density of water. We had a mixing tee at the front end of the extraction plant where we'd bring clear river water in from the river and over here we'd have pond water coming from that pond. So we had a nuclear densometer on the water going out so you could measure the density of that water, whether it was half river water or half pond water, because we didn't want to get the density too high because it affects your recovery. So we had all kinds of things like that. But there were a lot of litigations, some that we'll never know about. Some that came out. But if it wasn't for Sun Oil's tenacity and money that they put in and the backing.

I was there that night when the head Bechtel engineer came out of camp into our extraction plant and the only thing that was working was the phone. And he came into our control room, and he grabbed the phone, and he made a call to San Francisco to the key head Bechtel office, and he talked to somebody, and he said, "I'm not going to begin to tell you what the situation is here, but you better send the very best here, and quick, starting now." And they did. They brought everybody in imaginable to work on that plant for six months, to rebuild it after we froze it up.

AD: Now part of the litigation was against Bechtel, wasn't it?

GS: Oh yes.

AD: And do you remember who the legal council was and what the outcome was and when?

GS: No. The litigation couldn't have been that bad, because Bechtel remained around for a long time after. You have to remember that soon after, in 1978, well, prior to 1978, Bechtel still had engineers around the plant. And they were working on specific problems. But they fully designed the Syncrude plant.

AD: Well, that was going to be my next question. Syncrude benefited from all of the teething problems.

GS: Well, I can show you. I've got papers here, and P and IDs. I've got a full set of prints of the Syncrude plant right here. Syncrude purchased a technology package from GCOS.

AD: Okay.

GS: During Syncrude's field tests' unit that was running here in Edmonton, in east Edmonton, they had engineers in our plant two years in advance assigned to each crew 24-hours-a-day, monitoring our operations. We ran Syncrude's process by modifying one of our lines. And this was all through Bechtel and Syncrude engineers, prior to the construction of their plant. A lot of people don't know that. Now we had people going for two years, day and night, and these guys were in every part of that plant. They monitored everything. They logged everything. We gave them records off of our processing equipment; like they'd take all these records for their own analysis. So Bechtel was around and Bechtel eventually in Canada became Bantrel but still Bechtel today still is doing work worldwide as Bechtel International, but Bechtel's name is starting to float around again in the oil and construction industry in Canada, again today. They're a huge, very big, massive corporation or corporoxity [laughter].

AD: Now, you know, the general public and the media have got used to the oil sands companies making massive profits, but this is a recent phenomenon. In terms of your experience, when did Suncor become profitable, or even modestly profitable, and then, of course, post-1993 things changed dramatically and if you want to talk about that?

GS: Well, we didn't see money until 1983. You know, we were … if you look at Manning's strategy, I can show you, he let the oil sands industry start to develop under a few conditions. They could not produce oil, too much oil that would affect the conventional oil industry in Alberta, and at a certain price. And that held the price down and made it very difficult for a plant. We were starting up, and it

was costing hundreds of millions of dollars to modify and debottleneck. And Sun Oil was throwing water, money, down a well. You couldn't hear it splash. This went on for years. They came so close. People do not realize how close GCOS came to shutting the plant down totally. When we started to produce after five years we ran into a key problem. Five years. It was a bad time to begin with, but Mannix could not build the dyke fast enough. And we topped that valley up, as low as it was; we were filling the pond up with sand and water faster than Mannix and every contractor in the country could build a dyke. So we were at a crossroads of shutting the plant down because of all kinds of other problems, and politics, and lawsuits. But the main thing was, were we going to dump tailings into the river. We couldn't do that.

So low and behold, at that time, and I told you this before in my brief interview with you, they hired a couple of people from Holland. One fellow's name was Klaus Felding, and he passed away a few years ago, unfortunately. He lived in Sherwood Park. And he came onto the scene and developed using wide-pad tracks on Caterpillars to squeeze water out of sand. He said, "You gotta use the sand that you're pumping back to build the dyke." So that's what he started doing. He started to build sections on top of the dyke. And he would fill one section, and he would let the water run into the pond. And while we're putting tailings into these little dyked areas, he's using a couple of Cats, running back and forth here, and they would squeeze all the water out into the pond, and they'd just move on. And they'd do three feet at a time. The faster we could produce in the plant, the quicker he could build the dyke. So that saved the plant. They were so close, they actually had a strategy, and I had it once and I lost it. If I go through my files … They had decided to shut the plant down. It was just a question of when. Bob McClements, Sun Oil, and the government, they had arranged that they were going to shut it down, because it wasn't paying. They were losing so much money. And I was there. I know.

AD: Now you have this brief period of profitability that you've said, and now we get into 1986, and the industrial action, the strike. Do you want to talk about that, and its impact on the plant?

GS: Well, we had several strikes. We had a strike in the early days. I have a lot of records here. I was involved in the organizing of the first association for the employees. And we were called the Great Canadian [Oil Sands] Employees Bargaining Association (GCOSEBA), ya, Employees Bargaining Association. And we had a two-day strike over a bus ticket in 1969. And then we had the strike that you're talking about. It was kind of a managed strike because the Union became quite powerful. The Union created a lot of grievances. Some of the members within the association were OCAW union members. So …

AD: And which union is that?

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GS: The Oil Chemical and Atomic Workers union, which is now changed. But it's still worldwide. So we had so many grievances, that it became a real strike. A strike vote was held. They had a very strong president. His name was Don Marchand. And he was a very tough organizer, and he drove the company into almost a lock-out strike. So I was involved in management in those days. So would you believe a couple of weeks before this strike, we had to form a contingency plan in each area of that plant? In the mine, in the refinery, in the powerhouse, in extraction. Would you believe we organized the administration people, even the secretaries, and could you believe at that time there were probably 25,000 people in Fort McMurray and Bechtel had almost all left? The camp was empty. There were lots of rooms. So we made everybody stay in camp. We started a contingency plan, so I ended up with a bare-bones crew in extraction, and we quickly trained them. Within a week, we walked people around and trained them how to operate pumps, to take samples in the plants. Secretaries, guys that never touched a thing in their life, and when the lockout occurred, we had these people partially trained to take over the plant, because it was running. We didn't shut it down. We brought the plant down on water, during the period the strike occurred. So we ran the plant. Would you believe we ran the plant for 100 days. Everybody lived in camp. Nobody went to town for quite a while, until … I have a lot of pictures of 50 RCMP police at the gates, arresting strikers. I have a lot of those pictures. It was a real, mean, bad strike. Should never, neverhave occurred, because GCOS in those days, and Suncor, were paying employees good wages, good benefits, but it was all these grievances that occurred. And some of them were, were reasonable grievances. So there was loggerheads.

AD: Who was the management person that was really the adversary of the union president Marchand? Who was …?

GS: Um …

AD: I'm sure it will come back.

GS: It will come back.

AD: Do you think the personalities had something to do with this conflict?

GS: Oh, it did.

AD: Was it Mike Supple who was in charge at that point. I think that's what I've heard.

GS: Yes, I have documents. I'm just thinking about it now. There's so many … we had changes in VPs. We had a lot of changes in VPs, and Mike Supple met with the government and told the government that we were going to lock them out. I even have that document. He sent it around to

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all us management people that were running the plant, because we created our own paper and communicated in each area. It was quite an operation because everybody ate in camp, slept in camp, and operated the plant 24 hours a day. We had to create three crews. No, in the end we actually created two crews and worked 12-hour shifts. And it was 100 days we stayed in camp. 100 days.

AD: And eventually the negotiations were successful, and a new collective agreement was established.

GS: Ya, I have a copy of the first agreement that was every signed with GCOS, and that agreement that was signed after. But mysteriously, Don Marchand left, after that.

AD: From what I've heard, the strikers did suffer. I mean, that …

GS: Oh, they did. Well, everybody suffered. The people who worked in the plant suffered, and the strikers suffered for what I thought was no reason at all. As you said, there was loggerheads and personalities involved to some degree, and that was not good.

AD: Now, having weathered this and got a new agreement, of course, the double whammy—the fire. Do you want to talk about the fire?

GS: Being the superintendent of the main extraction plant, it was my plant that burned down. I was in my car with my wife and two boys at Grassland, filling up with gas. And the only station you could hear in that area in those days was CBC. So low and behold this guy says there's a major fire in extraction at Suncor. And I looked over to my wife and said, "Well, dear. I know exactly where that fire is and what's going on." So as quickly as I drove from there to Fort McMurray, and they were waiting for me there when I got home. So that was a dastardly fire.

AD: What day was it?

GS: Phew. It's not a …

AD: It was winter. I know it was December of '86, I believe.

GS: No, it was in the fall.

AD: Was it in the fall?

GS: Ya.

AD: But it was just after the strike ended.

GS: No.

AD: I gather. No?

GS: No, it was a while after that. I had …

AD: Don't worry about the date. Just tell me what you did.

GS: Well, the first thing they did was they had a helicopter at security, and I had to go in the helicopter and fly over the plant and survey the situation. And then I went down to administration. Well, actually I walked around the plant while it was on fire. Took a look at it. And for a couple of years preceding that fire, I had issued a couple of letters to key people in the plant telling them that we were going to burn it down, because of this situation that was going on.

AD: What was the problem? Do you want to articulate that?

GS: Well, when the plant was running very smooth in those days, and we tried everything … I'll just step back for a minute. During the strike, for the last 30 days of the strike, the administration people were operations people running the plant. We ran the plant and established new production records for almost every day for 30 days prior to letting the people come back to run the plant. We did that with secretaries and people that shouldn't have run the plant, even the refinery. So in those days, we ran in to a problem every summer and winter—in the coldest period and hottest period—when you're running 12 thousand tons of oil sand on 72-inch conveyors, this thick, for a couple of miles out from the mine into the plant, this oil sand would stick to those belts. So somebody got the idea that if we spray diesel at the other end of these conveyors, with a little film of fine spray of diesel, the oil sand won't stick. Well, it worked. It worked perfect.

But over time you get two or three miles of conveyors running continuously, and a 72-inch wide belt, you'd had to have a fuel truck going there every eight hours filling a thousand gallon tank with diesel. So this diesel spray continuously on that belt, a small portion of that diesel is mixing with the oil sand that's being conveyed. And it goes into the plant. That was no problem. But all along that conveyor on the ground and all the way up to the top of the ore bin, outside the extraction plant, which was a couple of hundred feet up, you had this band of oil sand on the ground, because of little bits falling all the time. And they would clean it. That was a regular procedure. Under the conveyors there was always … The oil sand would stick so bad that we couldn't run. We'd have to shut the plant down for two or three hours while they cleaned the belts, so they'd eliminate the cleaning by adding diesel. We'd run for days. Then they'd clean it.

Well this diesel coated the north end of the extraction plant, all the way up to the ore bin, and the walls of the ore bin were all massive steel, but they were insulated with sheet metal and thick insulation all the way up. Well, the diesel, where the conveyors went through the walls into the ore bin, the diesel dripped down on the wall of the extraction plant on the north wall and the west wall of the extraction plant. The west wall at that point, below that conveyor was the mcc section, the motor control section - the electrical distribution centre for the whole plant. Like it was half a block long, with a roof on it. That roof was covered in diesel and oil sand. The wall was covered in diesel, and the existing ore bin wall was covered with diesel. So in those days … in the early days the conveyors, even early on, a lot of the rollers on those conveyors weren't designed to carry and be in the environment that we were at. So many of them would get red hot and catch fire. But they would shut down and change them. They had crews that would do that, operations crews. Well, they developed new types of rollers and some of them were developed with neoprene, plastic, a type of plastic. Well, they had some of these neoprene rollers right up near the top where the conveyor goes into the plant, where the more tension is, the load where it curves into the plant. Well, a couple of these rollers caught fire and it wasn't spotted for a while. Those conveyors are running 12 miles an hour, twelve to 15 miles and hour. And if you've got 15 thousand tons an hour going over them, I mean that's heaping.

So that neoprene got hotter and hotter and melted and started to drip and burn. So on the underside of that conveyor, it's going back. It's carrying fire. So that whole conveyor for a half a mile up into that ore bin is burning. And it started to burn down the wall of the extraction plant and right in that area where the conveyor went it was a cable raceway that contains all the electrical and control room instrumentation from the mine control room, which was located at the top, down the elevator shaft, right beside the MCC for distribution. So when that fire started and it propagated into the walls, down the extraction plant, all that conveyor was burning. It went into this cable raceway. It was just like a fuse on a stick of dynamite. Hundreds of electrical cables and they just went phew down the wall, and they went down this shaft into the MCC. And the MCC roof was covered with all this diesel, and the whole wall. So it all went up, and it was a big fire.

AD: And so when you arrived, you know, and went in the helicopter and saw the extent and then walked around the plant. You know, what were the strategies for putting out the fire?

GS: There was no strategy. I went to a meeting being held in the administration building with Mike Supple and all the managers of the whole plant and all the safety people and all the fire people were there, because they had the fire department from Fort McMurray there. The airport, small crews, they were all there. And well, when I first flew over it, and went down there, there was a problem. The plant was on fire, and the plant burned in such a way that everything overhead burnt but none of the major equipment in the plant burnt. The control room burnt.

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AD: That's amazing, isn't it?

GS: Yup. All the transformers, all the PCBs, everything burnt, but none of the equipment down below burnt. It was amazing. But the fire went right across the roof of that extraction plant, which was a block long, through the raceways, because the raceways were up in the ceilings, and down the wall of the plant, and almost got to final extraction, but it didn't. But the powerhouse was still running, and because we had a 36-inch steam line from the powerhouse to extraction, all the valves within the plant, because the guys abandoned it, all the valves failed to open on the steam lines to each process line. So all the steam that the powerhouse was producing, and the upgrader, because they both produce steam to extract, was blowing into the plant. So the plant was on fire with steam coming up out of it, and nobody knew how to shut it off.

So I said, "Look, let's go in. Give me two big guys, and we'll go inside the plant. There's a big valve. We'll go in and I'll show them where to shut it off, manually." So I have pictures here, where I dressed up in the latest, greatest German mine rescue gear—three of us—and we went into the plant and we shut that down and we came back. And then I went to this meeting and a government official was there already, and he stood up, and he said, "Who's in charge of that plant over there that's on fire?" And nobody in that room said anything. It was dead quiet. So I put up my hand, and I said, "I'm in charge." And everybody turned around and looked at me, and Mike Supple said, "Ya, well, George is in charge." He said, "Okay," he said, "I want you and you and everybody else involved in that plant in a separate meeting. Everybody else leave." So we had another meeting after that, and that was a government type of meeting. But after the fire was over…

AD: Did it burn itself out, or were the fire crews able to strategically dowse hot spots, etc.?

GS: It basically burned itself out. The electrical MCC room—they contained some of it near the end. That's all.

AD: Then you had to …

GS: I have … There was a massive litigation over that, and I'm one of the very few people the insurance companies that were involved in that, they spent a day and a half in my house in Fort McMurray, discussing this fire. So after it was all over, they sent me a beautiful great big folder, full of pictures as a memento. Nobody knows I have it, but I have it. But … One of the things that came out of this, and I recommended that they check it, and it was actually true. During the Falklands war, one of the British ships was blown up by an Argentine missile. And that British ship was made out of aluminium. Coincidently, we had had an expansion at GCOS. And ABM installed all the electrical going up these raceways, going up to the mine control room, with this new type of

cabling. And believe me, this cable was just like a fuse. And that was the same type of cabling that was blown up in that British destroyer during the Argentine Falklands war. So that ended up being a very big part of the litigation for the fire, because those cables that went all the way up to that mine control room along with the old stuff that wasn't supposed to burn, that really set it off.

AD: So that burned. Now, you know, that's another time when the plant could have closed.

GS: Well, there was so much involved, and we were doing so well at that time. It only took a couple of weeks—and I was involved in the meetings—and things kinda changed. They weren't telling us what we were going to do. They asked us what we thought they should do to get the plant running. So I told them, build a new MCC outside the plant, a new control room, all the equipment's there. So we did exactly that, and I suggested to them at that time, "We'll start one process line at a time and get it going as quickly as possible before winter, and then we'll bring the other ones on. We'll do all the electrical." 'Cause there was a lot of electrical. So we bought new air-cooled transformers. No more PCBs that went to heaven. And that's how we did it. We brought the plant back up one process line at a time. 'Cause the final extraction plant was okay. Everything else was okay. All the equipment down on the floor—all the pumps, the conditioning drums, the conveyors—nothing was touched. But it was a massive electrical instrumentation. And at that time we installed a new Honeywell MCC 2000 [control unit], latest, greatest stuff. And almost touch screen. And we eliminated the mine control room at that time, because with this new control room facility and new technology we did that. And right after that Suncor planned the Millennium Project, the bridge across the river. I was taken out of the plant and put on to a project where we converted …

We didn't talk about the bucket wheels and the horrendous accident that occurred. When they eliminated the bucket wheels, I was involved in the first truck-shovel crusher project.

AD: Do you want to talk about that and what that involved?

GS: Well, I have a lot of pictures of the bucket wheels, too, but that was one of the problems that we had with the plant that's being circumvented today. The bucket wheels came from Germany and in the Ruhr Valley where they mine millions of tons on coal with bucket wheels—the same strategy was used at Fort McMurray at GCOS. So we had three bucket wheels and we mined at three different levels, right down to the limestone. So those bucket wheels were designed to dig a hundred feet high and a couple of hundred feet wide, yards wide. The only problem is they'd have to dig, after the overburden was removed, they'd have to dig through an area a couple of miles long. The only problem in the oil sands is it's all different. The quality is different. So the bucket wheels had to dig everything - the low grade and the high grade. And the second bucket wheel down below had to

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do the same; the third one the same. That really affected production. And when oil prices started to go above $3 a barrel they were saying, “Boy, we’re doin’ so good. At the plant, we’re producing 75,000 barrels a day. Boy, this is great. We’re making … we’re starting to make money.” All of a sudden we’re not making oil. Everybody in the plant’s coming to extraction saying, “Why can’t you guys make oil.”

“Well, you guys out in the mine mining low-grade oil sand. We can’t get 85 thousand barrels a day. We’re only getting 35 thousand a day. No matter what we’re putting through, ’cause you have to dig this out.” Once they got three different levels, we did a little selective mining. We almost had a political revolution at the plant, because the mining engineers wouldn’t get along with the process engineers. Us guys in extraction would phone out from the mine and say, “Give us some richer ore.” Well, look what’s happening today. Truck/shovel is all selective mining. It’s all done in separate areas. They’ll dig an area where the ore is proper. They’ll not touch anything less than 7 percent because their costs per barrel go straight up. You’ll move 5 million tons to produce a million barrels of oil.

AD: So who were the people who initiated that shift to truck and shovel.

GS: Well, just the politics within the plant, plus the bucket wheels became a liability—very high maintenance—but strategically I can tell you that the bucket wheel were great machines. But for some reason, for a few years, they were not doing the maintenance that they were supposed to be doing. So the reliability got worse and worse and worse. And about the time that we were converting over, we had this horrendous accident, where this dyke boy got killed. That was very unfortunate during that period and allowed … You know, that was a dastardly event, and you know they phased all the bucket wheels out fairly quickly after that. Then they literally blew them up and took them away for scrap. But Syncrude used draglines and they phased those out because the truck/shovel became the norm because selective mining was the thing. But over and above the whole discussion, I’ll say one thing, that if you look at German technology and the bucket wheels versus USA American-made Caterpillar equipment, who did you think won the war? Plus now you see Komatsu and South Korean-Japanese equipment coming in. But the major key player in the oil sands is Caterpillar.

AD: It still is. So you know, clearly in terms of the ideas for the switch must have come from the senior management at the operational level, but of course it had to be endorsed by upper management and Parkinson was in charge at that time.

GS: No, the whole change occurred before she arrived, completely before. During, we had already converted to the first truck crusher operation, Dee Parkinson wasn't there at all, or Cliff Britch.

AD: So that would have been under Bert Lang, then.

GS: Oh ya.

AD: And he's the other Dutch …

GS: That's right.

AD: Fellow who came over. So that in terms of the innovation it's generated within. Would you say that that was true at that era?

GS: It was generated from within but sanctioned by Sun Oil.

AD: Okay.

GS: And you gotta remember in those days, the price of oil started to take off. And you don't have to be a financial wizard to figure out how to make money fast if you start to selectively mine versus keeping those bucket wheels and you have to mine through the bad stuff whether you like it or not.

AD: So that really was the beginning of the era of massive profits.

GS: Well, there's a bit of a fallacy to massive profits. Suncor, Syncrude, Shell, CNRL—all have the same system. If they put $20 billion into building a plant, just to build that plant, design, build it, purchase the equipment, train the people, and to pay that initial investment off, they work off of a profit sheet, plus they write off equipment. They pay taxes. But you gotta remember how many years down the road the government gives them a break saying, "Look, until you pay that initial investment off, you're not going to pay us very many royalties." They all do the same thing. I mean, this isn't a Mickey Mouse little project. This is a massive… This project when we went there in 1967, it was so massive in those days it would take your breath away. In 1967. Can you imagine Mulcair going to Fort McMurray yesterday. You know, he's talking Dutch disease. He's never been there. He hasn't got a clue. We had this massive situation since 1967. And you know how many "Atta boys" we've had since? Even Ralph Klein never had a clue about the oil sands. I don't think he did before he started losing his memory. I think he was the biggest boondoggle Alberta ever had. You know, we blew billions of dollars in this province. Nobody knows where it went. It sure didn't go back to the oil companies. I can tell you that. And sure, they're making money, but you take a look, just take a look at what Shell spent on their project, and the upgrader in Fort Saskatchewan. It'll take them another 20 years to pay for that stuff.

AD: Well, you know, the information that the media gets and then passes on to the public is selective …

GS: It's so misrepresented. You know when I read articles today and for years, it just makes me sick.

AD: Do you want to comment on the whole environmental criticism of the oil sands?

GS: Well, I can tell you when we started the plant up in 1967, with a green crew, well trained, and step by step debottlenecked it. Got it going. Not one person in that plant, all those years, even 'til today, nobody wants to harm the environment. Nobody deliberately is harming the environment. We've had all kinds of incidents, but everybody comes running into a control room saying, "Hey, got a little problem over here. Shut it down." So gradually we improved our process. We wrote our own standards. We started our own monitoring committee in Fort McMurray. I was involved in it. We have some of the most stringent environmental regulations anywhere in the world. And we developed those since 1967. I mean, gone are the days before that, and I'm aware of that, just reading history. All those pilot plants that were in the Fort McMurray area in the '20s and '30s. Cripes, Dr. Clark was up there. They were running their tailings into the Athabasca River in the '20s and '30s, even though oil was going into the river anyway. You know, I ran a boat. I had a beautiful jet boat. I ran the river for 25 years. I can tell you a lot of stories about the river and about the fish. I'd go to Fort McMurray and catch pickerel today, and cook them on the beach. And I'll eat them, and I'll betcha you would too.

AD: Well, I guess …

GS: People don't understand there's so many untruths and politics involved now because the oil sands started very large in '67 but to a lot of people it was a small project. But it was big in those days. And the boom never stopped in Fort McMurray. It slowed down a little bit. All the years I lived there, the boom was going continuously. But did Chrétien go there in the early days? No. All those guys didn't go. But when somebody goes there overnight and they see the ponds, they say, "Holy Christ, what have we got going on here?" Well, if they understood exactly what's going on, and didn't listen to all the untruths being published by the activists, and the activism today is unbelievable. I mean look at the students in Quebec, and our Greenpeace organization here; the Pembina Institute.

AD: I am going to just stop you there because he's got to replace the memory card, so think of the Pembina Institute and then we'll continue from there.

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AD: You were saying?

GS: Well, after I left Suncor.

AD: What year was that?

GS: I made a mistake in my life, actually '94,'95, not '96. I very quickly got involved consulting. So I became the first … The first company I got involved in was Solvex, and they hired me on the spot because I came out of the oil sands with all my experience. And I got involved with Solvex and their project to build a plant on Lease 5, or Lease 52, in the oil sands. Well, I got involved in their environmental impact assessment. I had to go to Fort McMurray with a large group of people, and we had to meet with the Aboriginal groups in Fort McMurray and Fort MacKay, Fort Chip, Fort Smith, and tell them about the project and what was being done. And we asked for their feedback, everything. So the Pembina Institute was involved with us - Rob MacIntosh and a few other guys. We rode together. We went to the meetings together. They were involved with us in a very positive aspect. They even approved the whole project with some of their input. It was great. And what's very disconcerting to me is how they turned around all of a sudden and are extremely negative. Continuously, continuously, they provide no positive things whatsoever to this massive industry that we have in Alberta. I'm just speechless to say, "Why are they doing this?" There's some very unforeseen forces working very hard in the background. Even today, in the University of Alberta and the University of Calgary, I went and sat in at some sessions. And when you hear professors speaking untruths about our oil sands, you can see where this thing is propagating.

AD: Well, of course, there's David Schindler.

GS: Dr. Schindler, ya.

AD: World-renowned hydrologist.

GS: Ya.

AD: The whole issue of environmental protection has been important for a very long time. I mean, Canada, I think in 1972 or '73, became a signatory to a UN convention on the environment, so that in terms of that period, of 1975 to 1980 when the environmental and social impact assessment was done for Syncrude. I mean, it was state of the art. It was being developed and those people wrote for me for the *Canadian Encyclopaedia*. You know, because I was Science and Technology Editor. So you know the record in Canada, certainly at that point, took these issues seriously. The companies took

those issues seriously. But of course, it was an untried technology. I mean, as you've talked about those issues, so that the standards really were being developed as things were happening on the plant site.

GS: What things are you specifically mentioning?

AD: Well, I mean, you talked about the tailings ponds and dykes. I mean, you were dealing with those issues as they occurred and that you were developing those standards.

GS: Well, we weren't putting anything into the river.

AD: No.

GS: We did, we had … I can't think of the year. It was in the early days. We had a synthetic crude pipeline bust, and we put 25 thousand barrels of synthetic crude into the Athabasca River. And I just happened to be fishing down river at the Firebag when this occurred, and that wave of oil went past us. We were standing on the shore in the morning, and it was amazing. This white foam came down the River. The river - the Athabasca River's very big. It travels between nine and 12 miles an hour. And people don't realize the amount of water that goes by in a second and the miniscule amount that's being taken out for the oil sands. But that's another question. But that synthetic crude went by us, Phoo, within an hour it's gone. So we got in our boats, 'cause we were going to Lake Athabasca fishing. And we got in our boats, and we got on the River, and by the time we got to the delta, that stuff had completely dissipated and disappeared. 'Cause it was a light synthetic crude. It was amazing. And there were seven of us in three boats, and on our way back we met Lorne Barclay, who worked for Catalytic in those days, with four or five boatloads of labourers, coming down River looking for the oil spill, to put booms across the River, when it was gone. Phoo, it just disappeared. It went into thin air. It evaporated. But anyway, that was an oil spill.

AD: The …

GS: But we never dumped anything directly into the river during startup of the plant. When we first built the dykes, systematically we used the sand to build the dykes so that we could keep in operation. Otherwise, we had to shut down. In the early days, because I'm an avid fisherman, I spent two occasions where I ran across fishery officers on the Athabasca River, mountain rapids, netting and tagging and weighing fish. I spent a whole day helping these guys, and they did this every year in the '60s and the '70s—federal government fishery people—so when Dr. Schindler tells you that nobody was doing any testing of the fish, and I saw abnormalities in those days when we weren't even running the plant. Fish, we were catching them and tagging them. Weighing them; documenting them. I was there on two different occasions. Thousands and thousands of fish. Now,

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I could almost consider myself a sample expert, because when you sample oil sands, whether it's the bitumen or the tailings or plain water, you really have to know what you're doing. Where you're sampling; how you're sampling; what time are you sampling; the duration of your sample; how you grab the sample to get a representative sample. And then if you do that five times and send it to five different labs and quantitatively get all those results and average them out, you might have something. Dr. Schindler never did that.

AD: The other thing is… the whole issue that the oil sands are naturally occurring. And the bitumen itself gets into…, it's on the banks of the river. Because the other issue that I'll get you to comment on is seepage from the tailings ponds.

GS: How did we deal with it?

AD: Ya. Did it occur?

GS: Well.

AD: And how did you deal with it?

GS: It started to occur later on because the very bottom of that dyke was built out of very heavy clays and overburden. I mean, that's a pretty heavy dyke on the bottom, the base. So all dykes have natural seepage, depending on the material that they're made from. So this Dutch fellow came up with a brilliant idea as we started to build the dyke up, 'cause in the early days, when the dyke was so wide, there was no seepage. I mean it was that wide, but as we started to go up you get seepage. So he came up with the brilliant idea … we were seeing some seepage, so the first thing he did was built a collection system all the way around the outside perimeter of the dyke. So it was a small collection system because it was very small seepage. Now he built the system by gravity flow, with plastic pipelines into the dykes set in. But how did he do this to get pure, clean water out of these dykes? Well, he got the brilliant idea to take the coke that we were producing in the upgrader and he built filters. He built them inside the dyke, put this coke inside the dyke, and these plastic pipes coming out, and he built a collection system all around the dyke. And … water would go into … we had three tanks. They were small tanks with automatic pumps, and those pumps would pump that water back into the … And it was clean. You could almost drink it. Coke's a natural filter.

AD: Ya, the charcoal filters [laughter].

GS: Ya, so we're pumping this clean water into the pond, just to make sure that that water could be detrimental. It might have some portion of hydrocarbon or whatever. You didn't want it to go to the

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river. So we pumped it back. And they did it … They're doing it today, and I think that whole system's because over time that dyke consolidates so hard that you don't get seepage. So most of that's gone now. So that's what we did, all the way up that pond 1 dyke he put coke filters in there. So that worked very well.

AD: Necessity …

GS: And then, actually, we did something different to reduce our water from the river. We pumped that dyke seepage back to our extraction plant and we reused it as seal water for our pumps.

AD: Now, you've talked about a whole range of different things. I'd like you to talk a bit about your interest in the history of, from the early days to the present, and the archival material that you've gathered. Can you talk a bit about that and why it interested you?

GS: Well, I just took such a great interest in the oil sands and being involved the way we were to start that plant up, it was so interesting and 'til today, the oils sands fascinate me. Every new process that comes out, and there's not too many processes that come out now. There's little variations of them. It still mystifies me and I'm just really excited about the oil sands. After all these years, it's a natural occurring thing for me, and most people that work for any length of time as operations people for the plants are the same. For people that fly from St. John's, Newfoundland, and work there as a pipefitter and a millwright, and they see smoke and ponds and go back and say, "Ah, it's a horrible place," it's a different perspective. But when you're involved like I was and a lot of operations people it's a special thing. And, believe it or not, the oil sands, it's a wonder of the world. It's really an oil field on the surface of the ground. People don't realize that Venezuela has larger oils sands' deposits than we do. They're a little different. They're also on the Island of Madagascar. There's a lot of oil sands' deposits in our Arctic, and the Antarctic, as well as in Siberia and Russia, all over the place.

AD: Tell me a bit about the kinds of materials that you've gathered over the years.

GS: Well, one of the fascinating things to me when we were running the plant was prehistoric wood. We'd get tons, hundreds of tons of prehistoric wood being mined 300 feet down in the oil sands. You can carve it with your knife. It's not prehistoric wood. It's actually wood preserved in oil. I've got a couple of pieces for you here today. I got called out into the mine by a supervisor one night. He said, "George, you gotta come down here." This is a couple of hundred feet down, near the limestone. And in the face of the oil sand, there's a seam as wide as that mirror of solid ice, down that deep. Clear ice. I walked over, broke some of this ice off, and that stuff's travelling into the plant. We're putting it through the plant, but you can't see it. Geez, I taste this, and it's got no taste to it. So would you believe, I took a bunch of this stuff in a pail, a sample pail, and we took it

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back to the plant, and we all had a toast to about 400-million-year-old ice [laughter]. Believe it or not.

Then, there was times when the plant would almost come to a halt, because we'd get iron pyrites. It looks like gold, and I mean a conveyor full of it. You could fill a one-gallon can, and you'd think you'd have pure gold. I mean it's just like gold. You couldn't lift a one-gallon can, and that's what we were putting through the plant. And it sanded up our tailings lines. And then you find prehistoric animals. Seashells, very small seashells. It was always so interesting, so fascinating, and it took hundreds of people, whether they were operations, engineers, technologists, with the best brains to come up with the best ideas, when we were in the worst trouble to get something done, to solve those problems. And we're doing that, and they're doing that today in the oil sands.

AD: You've mentioned during the interview, you know, Premier Manning's strategy and these various other documents, as well as photographs. Now I just want to let you know that, of course, the interview is going to reside in the Glenbow Archives. And they also have extensive holdings in different industries, from ranching forward, so that you should consider, if there is no one in the family that is interested in these materials and caring for them, that I'm certain that the Glenbow would be interested in your collection.

GS: Well, I will donate a lot of that material to the Glenbow for sure. My oldest son, he trained as a trainee in the upgrader after he was a graduate of the Peter Pond School in Fort McMurray. And he graduated from the U of A as a chemical engineer. And he worked at Suncor in the upgrader after he graduated, for five years. And he married a chemical engineer, who was from Fredericton, New Brunswick, and they stayed together in Fort McMurray for five years, and then she took him to Irving Oil in St. John, New Brunswick. So that's why we're going to New Brunswick to see our grandchildren. So my son David really knew a lot about the upgrader, because he trained there for three or four years every summer, and then he went for four years to university. So he's involved in the oil sands.

And my youngest son went in as a chemical engineer, and he worked at the plant for three or four summers. And he got out of engineering and went into teaching, and he's now teaching in Fort McMurray at the composite high school where he graduated from. And he's involved today in technical training to get students to go into the trades. They're formalizing new programs.

AD: It's interesting that the family has remained involved, but I think that in terms of the early history of GCOS and Suncor that you've told me about that this material needs to be preserved.

GS: Ya, I've got … like I was involved with Shell in their first pilot plant, for the Muskeg River Mine, with their new parafinnic process. I ran their pilot plant for 14 months. I hired all the people, created the crews, and we ran their parafinnic process. And they got all the data to design their plant to what they've done today. And their process has been … I was involved in so many pilot plant projects, I've got some date here from almost every one.

AD: Can you just quickly name them so that we've captured them on the record in terms of your involvement.

GS: Well, I was involved with CNRL after Shell for three years in Calgary as a consultant to their engineers during the design of the CNRL plant, for three years in Calgary. I was involved with Total in the review of their Joslyn Lake design, in Calgary. I was involved with Solvex. While I was with GCOS and Suncor, I was involved in the Bitmin project, the Alsands project. We tested and ran equipment for the Alsands project. I don't know; we had at least seven or eight pilot projects over the years that I was personally involved in the treatment and formation of tailings ponds and sludge. I mean, the big process that they've discovered now, saying, "Well, we've got a new way of treating tailings." We did those tests 15 years ago, adding gypsum, consolidating sludge in tailings. Reforestation, I was involved in all that stuff. And there's, I can't even remember their names, many other - RTR project, the Synfuels project, he Esso down-hole bore project, involved with CNRL at Wolf Lake, at Cold Lake, with a pilot plant there trucking bitumen from Suncor and put through a pilot plant at Wolf Lake to get the field test unit data. I was involved with that with SNC during the design.

AD: How many would you say of your colleagues of the first 300 have gone on to consulting careers. I can't imagine very many of them.

GS: Quite … not quite a few. I'd say 10 percent of them, because you have to understand that when Syncrude started their plant we lost, oh we probably lost 25 guys. They were out of the upgrader and the powerhouse and extraction. So they were a little bit of groundwork for the Syncrude start-up. And when Shell started up, the same thing happened. You know when I was at the Shell pilot plant, who shows up there but Dr. Masliyah. Dr Masliyah was over at our plant at GCOS and Suncor in the early days. I got to know him personally. You know, Harold Erskine, all those guys, they showed up at different places. For the CNRL project, I sat in at many, many meetings, and who's there? Jacob. You know, Don Shearon, Dr. Dr. Settie, oil fines experts, tailings experts. I was very much involved with them no matter where I went.

AD: But it reminds me of, you know, of course, the 150th anniversary of the coming in of oil in Oil Springs, Ontario. I mean, it's now 152, or 53 years, but those Ontario hard drillers went all over the world. In a sense, with oil sands that is happening as well.

GS: Well, that was really the first oil discovery in North America, you're talking about. And then it was perpetrated right after that by production of coal oil by a fella from New Brunswick, because New Brunswick oil … you know, we had coal oil all over North America. And then the Americans discovered oil in Pennsylvania the year after. But it's amazing, but people don't understand that Esso started in Ontario. You know, and you can go on and on with different oil companies, but they all had their home in Canada, but most of them are vastly foreign owned now.

AD: Well, if you have nothing else to add, we'll shift the cameras and you can show me some of the stuff you've brought.

GS: Okay.

AD: Thanks so much.

[Tape paused.]

AD: When would that have been?

GS: Oh, '98? Here's the crew. Here's me right here. This is this pilot plant … [some background discussion].

AD: We'll start again don't worry.

Background voice: I'll let you know when I'm ready.

AD: Okay.

Background voice: One minute.

GS: I'm just going to …

AD: Yes, get yourself organized.

GS: We're not going to look at this.

AD: No, it's been published. I'd rather look at your archival materials.

AD: So why don't we start with this one, which is …

GS: Okay, this is seismic surveying in the …

AD: And you must have been about 18, 19?

GS: Ya, 19. Surveying west of Sundre, near the park boundary on a cutline. This is a picture of my Father who worked for Imperial Oil in the refinery.

AD: And what did he do?

GS: I don't know what he did in the refinery, but that was his ID card.

AD: So when did he start working for Imperial Oil.

GS: Oh in 1944, '44,'43?

AD: So early days. So you were second generation in the oil patch.

GS: Ya. So this is a picture of the pilot plant at Suncor, called Tar Island. I think you probably have a few pictures of this.

AD: So this was really … this was when you started working.

GS: I didn't work at this pilot plant. Harold Erskine, who was a key engineer for all of Suncor, when he passed away, his wife sent his records to me, so that's why I have …

AD: That's why you've got that. Okay.

GS: Now here's a great picture showing you how vast the oil sands are. When you look at this picture and see that bucket wheel way over there, and the amount of material it digs. Ninety feet high at one level, and then you see another one way over here at an upper level.

AD: Now would this have been in the era when …

GS: Well, this is in the '80s.

AD: so it's later. Because from what you've said, you started work in December of '66 with GCOS, is that correct?

GS: Yup.

AD: So you were there for that start-up year in 1967 when they were testing everything.

GS: Oh ya.

AD: Okay.

GS: Here's a picture of me and an engineer watching oil sands coming up a conveyor.

AD: So that again, it's very, very … That's early days.

GS: Yup. Wow, that's Solvex. This is another one of the mine.

AD: More early days. And so they worked on trenches and they were parallel.

GS: Three different levels.

AD: Ya.

GS: Now, this is jumping to Bitumount. The first time I went to Bitumount, it was the summer of 1967 and I just took these pictures walking through there. And later on when I was with Solvex, I took this picture myself. That's the Bitumount pilot plant, because I personally got a contract from the Alberta government, and approval from the historical branch to remove 200 tons of tar sand and truck it to Albuquerque, New Mexico, right from that location bordering the Bitumount pilot plant.

AD: Which is now a historic site. I'm going to have to get rid of the cat. Sorry.

GS: Bitumount. And while we were at Bitumount in that picture, there's a backhoe there, and here I am down at that backhoe, because believe it or not it's the only location in the tar sands where the ore is so rich. It's the richest oil sand in the whole area.

AD: Can you explain why you were digging that bitumen from the Bitumount site?

GS: Well, Solvex acquired the lease. It was right beside it.

AD: Right.

GS: So they wanted this ore trucked to Albuquerque and run through their pilot plant, so I've even got the application that I got approved by the Government of Alberta in my name to truck 200 tons of this … the richest oil sand in the whole deposit. It's the only place it's that rich. And that's what we trucked, and they're loading it.

There's a picture of the road north of Fort McMurray to the oil sands plant. This was the first road that was built. This was just a cutline in those days. And this was an old Rover.

AD: So that would have been 1967.

GS: Oh this is 1965.

AD: '65

GS: And these, we'll just bypass these. There's my own picture of oil sands [laughter].

AD: And that's your hand, I assume.

GS: That's my hand. Now don't show this picture, because nobody has it. I've never shown it to anybody. And I'm not going to give it to you either. Now, if you were 500 miles above Tar Island, and there wasn't a mark on the ground anywhere for 10 miles, that where the oil sands plants are today.

AD: Now who took that photograph and how old is it?

GS: It's taken during the war. It's an aerial photograph.

AD: Well, of course, they were doing … They were building airports. They were doing all sorts of work.

GS: And that's Tar Island.

AD: And that's Tar Island.

GS: This is one of Great Canadian Oil Sands in the early days, and you can see the dyke being very low to the ground, to the river.

Here's one of me in my jet boat going under the bridge at Fort McMurray, and you can see the oil sands in the background.

Here's a picture of the extraction plant under construction at GCOS. Extraction plant, under construction, 1964.

This is the application I got approved to remove the oil sand from the Bitumount site, after, when I was consulting.

AD: Oh, ya, David Capelazo, who was the preservation advisor and would have been responsible for the Bitumount site. I know him well.

GS: I had to go through some hoops.

AD: Well absolutely.

GS: Oh man, we had to gravel a special road through the site, and oh, and pack it.

AD: And it's still, of course, it's used for access to the site, so that was important in terms of giving access to the Historic Site.

GS: Wow, these are just some documents from the Muskeg River Mine. And this is a vessel that we

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were designing to remove solvent out of the bitumen we were producing. But these is just some documents.

Now Oslo, you haven't heard that name for a long time. It was involved with the Alberta Research Council and we were running some tests for them at Suncor, in the early days.

Here's some of Suncor's block-flow diagrams in the early days when we were doing test for them at GCOS.

Here's a P and ID of the CNRL plant. All colour coded. Now I was involved in the extraction facilities, in thickeners here, in the design of this plant. So I've had this on my garage wall for a few years.

AD: So it's the horizon …

GS: And this …

AD: facility.

GS: This is the whole CNRL plant site. This is their tailings pond, all their different ponds. Their camps, camp complex. Like they had three camp complexes. It was massive. They could keep 7,000 men there. Their own airstrip is over here.

Other six-lease operation. It's some other company we were doing tests for at Suncor.

And then somebody issued this about a strike. "Who calls a strike?" before the strike.

AD: So that's interesting. That's the Oil, Chemical, and Atomic Workers …

GS: OCAW.

AD: Yup, which succeeded the Fort MacMurray …

GS: Great Canadian Oil Sands Bargaining Association.

AD: Okay.

GS: So when the certification vote was held for a strike, this was the document.

AD: So let me look at this. So that was March 26, 1969.

GS: Ya.

AD: So that's one of the precursors to the big strike.

GS: Here's Rymer-Sullivan. This is OCAW's letter to the employees.

AD: So this was again for the '69 strike.

GS: Same strike.

AD: Okay, ya. So at that point you were a member of the union. You had not made that shift into management.

GS: Not at that time, no.

AD: Ya, so '69. So you received these as a union member.

GS: Here's some more …

AD: Okay, now what period is this? So again, '69.

GS: Yup.

Great Canadian Oil Sands, we had to write job descriptions. This Bob Benson, Great Canadian Oil Sands? He's still a director today. In Calgary.

AD: So that would have been a job description for what?

GS: For us.

AD: For yourselves.

GS: For supervisors at that time.

AD: So when is it dated?

GS: 1978.

AD: And what was your position. Do you want to just maybe read a couple of sentences.

GS: Okay. "Reporting to the operations supervisor." This was when I was a shift supervisor in the early days. "Is accountable for optimizing the production and recovery of bitumen from tar sand by effectively using operating personnel and equipment."

"Nature and scope. There are five supervisors reporting."

AD: So they developed … there's a whole generation of job descriptions developed at that time.

GS: Well, we had very basic job descriptions in the beginning. And then they got more technical, because we all got more technical and, if you can't measure anything, you don't know what's going on. So you made people accountable, you wrote job descriptions. You know, you have to get accountability.

AD: So performance appraisals, all of that personnel process, HR process.

GS: Ya.

Here's Bargaining Association Minutes. You know they're just … with management. Here's one with "Bargaining association requested that clean clothing be provided more frequently in some areas." Because in the early days, we didn't even have coveralls. Nobody even thought about it. So they created an administration department that purchased proper clothing and then all of a sudden we had to wear fire-retardant clothing, so you had to get Nomex. And you know one thing led to another, so here's management: "Mr. McClements asked the bargaining association representatives to meet with Greg Barnes and the area superintendents to determine which jobs need the extra clothing" [laughter].

AD: From what I've heard, McClements was really very proactive in terms of the bargaining.

GS: Oh, he gave the association everything. He actually came to us in the beginning, in a big room, and he said, "Fellas, you need to form your own organization. I recommend that you form an association to start out with, but we need to talk to you as a group, as an organization." So we formed the association, and within weeks he called a group of us in and said, "We're going to give you a dollar ten an hour wage increase, starting tomorrow. Do you want it?"

We said, "Sure." He did that about three times about every three months, in the early days. He ramped up the wages, because a lot of people were quitting their jobs. So he was very, very supportive of the employees. He used to go around every day at five o'clock in the morning. And he would appear in every control room at the plant and ask people how things were going and shake people's hands, and he did that every day for five years.

AD: And how long did he remain at GCOS/Suncor?

GS: I forget the year he left.

AD: But through those teething troubles, those early years …

GS: He was there all the time. And he lived right at the plant site. There was five homes right on site, on the riverbank. And there was an airstrip right beside the plant site. But there was five beautiful homes, and the five directors and their families, they lived there. The company bussed their kids to Fort McMurray to school.

AD: Very different to then the move to Calgary and consolidation in Calgary.

GS: That was … Well, that didn't happen for a long time.

Oh, this is my dad's picture again. This was when I was writing his story.

This is an aerial photograph of the plant under construction.

AD: And so the construction companies that were involved in this were … You've mentioned Caterpillar Equipment. You've mentioned Mannix and the Mannix family. Bechtel did the design and engineering.

GS: This is 1964, '65.

There's the extraction plant.

Here's the trailers we lived in in Fort McMurray in the spring of 1967, '68. Nobody could walk through there.

This is the hospital in Fort McMurray in 1967. The new hospital that was built right across the street from my house. Actually, my house is just half a block away from here. They demolished and built the new hospital.

This is a very good picture of the dyke, during construction. And you can see that water collection line, and they were putting grass, and starting to put grass and trees in at the lower portions.

There's another one of Bitumount.

Now, when the Alsands project was going to go, and it was a go and a big deal for a short amount of time, I flew up there with some guys and I took this from the air. They were cutting cutline roads to McLennan Lake where they had surveyed a village. They were going to build a town there. And overnight they cancelled this whole project. Boom, and it was gone.

Oh, this shouldn't be here. This is when I flew over the Arctic Circle.

AD: [Laughter] Pacific Western.

GS: Yup. Here's, I mentioned making snow? In 1967, these are trucks up on top of the oil sand trying to make snow here.

This picture. I took quite a few pictures that are in other photo albums today. But I took this picture. This is Bob Amonsen in the extraction control room. It was as long as your house.

Here's another very good picture of bucket wheels.

I was given a job in 1977 to write new extraction operation standards, and this was all the things that they had given me to do. I went on this project. 'Cause we had to establish our own standards and safety standards, operating standards, environmental standards. How much oil can you lose to tailings? One percent? Less than 1 percent? In the early days, we were putting probably 2 and a half to 3 percent to the pond, because we were just getting going, and surprisingly when a plant runs at very low rates, it's not too efficient. Sometimes it is, and sometimes when you run it at maximum rates … like if one process line takes 8,000 tons an hour, it probably has the best recovery.

Now in 1986, we created a contingency to run the plant during the strike. I was given a task of creating a contingency group.

AD: And so that's October the 24th, 1986. And, of course, extraction was your area, so it was for the extraction plant.

GS: Here's when I was made an area supervisor. That's the superintendent. Now, some of the things that they trained us for … We had people training us to weld, to do everything, but these are just some certificates.

AD: So that's your safety management update and implementation. So that's September 1990. Loss control management. So of course, and I've got other people talking about the whole training programs and accreditations.

GS: Yup it all ties in.

AD: It all ties in.

GS: Here's another picture of GCOS site when there was nothing there but equipment.

AD: So basically they just cleared way all of the scrub and …

GS: Well, ideally, that valley, where the plant is today, was cleared out by nature over hundreds of millions of years down to the limestone. So the fact that a lot of limestone was exposed in this area was the best place to build a stable plant, and not on the oil sand.

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AD: Okay.

GS: St. John's certificate. During my years in extraction, because when you get to certain levels you're involved in hiring employees and interviewing them.

This is a subpoena to a witness. This fellow threatened to kill me and my wife and family, because I didn't hire his brother.

AD: Wow, and what period was that? 22nd day of February 1987.

GS: Ya.

AD: Good Lord.

GS: Ooph, I was in the reserves when I was a young boy in Ranfurly. I forgot to mention that. This is my military record. You don't want to see it [laughter].

There's Shell Oil again.

Now a fella gave me this picture a long time ago, and this was taken in the '40s when the U.S. army was building barges in Fort McMurray and launching them in the river.

AD: There you go. Ya. Well, I read that there were over 40,000 American troops …

GS: I have their pictures right here.

AD: and the Corps of Engineers and other projects.

GS: I have pictures of all their camps and all their tents. I'll show them to you.

AD: Well, I'm interested in that. Ya.

GS: Now, this is the first truck-shovel caper at GSCOS. It was a small shovel.

AD: Yup, they put …

GS: Now, there's a picture of a bucket wheel.

AD: A bucket wheel. Wow.

GS: The bucket wheel's digging over here, transferring it onto a conveyor, dumping it. And this is a belt wagon. It conveys it further over onto the conveyors. Now, when they had the bucket wheel

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incident, the bucket wheel broke in half, right here, and this tail end fell down onto the operator's station that controls it.

AD: Tragic.

GS: Ya. Now, I've written a lot of letters to almost every environmental person we've had in Alberta. An MP and Premier. And it's sad to say that during the Klein era, some guys offered our expertise to discuss the oil sands, and to this day they don't talk to us.

AD: Well, of course, he was the Environment Minister …

GS: Here's an example.

AD: As you know.

GS: Ya, here's an example from Ralph Klein and Peter Trynchy.

AD: Oh yes, so 1994.

GS: So now, the guy with the federal government that just created this new whole monitoring program? I wrote to the federal government and to the minister. I didn't bring those letters.

AD: So you're continuing your … I see the Pat Black, of course, is cc'd here. Of course, she was Energy Minister at the time.

GS: Well, I was at a meeting with Pat Black at Fort McMurray and Ralph at the McKenzie Hotel, and I called Pat Black over. I said, "Come with me." And she came over, and I whispered in her ear. I said, "Pat, this whole Solvex project, it's the worst thing." I said, "It's the biggest caper you've every seen." And I said, "You better back the government out of this thing fast, real fast." And they did, and she didn't even write me back.

Here's my surveying picture again.

There's GCOS training.

AD: Right, yes, '79.

GS: Steam ticket.

Here's the Abasand, Albian Sand, Neil Camarta.

AD: Oh yes.

Oh, this is an interesting document because it's the "Certificate of Membership of the Sun (Canada) Employee Pension Plan."

GS: Ya [laughter].

AD: And it's September 1st, 1968, so it's very, very early.

GS: Ya. Now when I worked at Gunnar Mines in Uranium City, Saskatchewan, that was …

AD: So that was the summer work. Wow.

GS: This was the summer work.

This is what's left there today. There's still a lot of stuff there. And their open-pit mine is right there, and it's seeping into the Athabasca River.

AD: And, of course, I mean it's …

GS: It's very radioactive stuff.

AD: I mean, and, of course, that's the same with all industrial processes.

GS: Wow. And this is one I showed you. This is my uncle purchasing Bitumount …

AD: Oh, stock. Yes this, I mean there can't be that many of these. So the interest of the family in the oil sands goes back a long way.

GS: Well, my dad bought them too, but my mother said she didn't know what happened to them.

AD: But this stock certificate is signed 22nd day of March, 1936, so that's when he was trying to raise funds for expansion. He was trying to wheel and deal with the Government of Alberta, I mean, to get some kind of … well, the kind of royalty deals that, of course, stimulated the growth of the oil sands.

GS: We got a 10-year award and there's me. Ten years in 1977. Here's Manning's policy statement in 1962 on the oil sands.

AD: Wow.

GS: And the oil industry says they're happy with it.

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AD: Ya, his oil sands policy. Well, he was always having to balance … I mean, if Leduc Number 1 and the Redwater field, etc., hadn't come in, oil sands' development would have started much, much sooner.

GS: Well, I don't know about that. Because we didn't have quite a demand for oil at that time.

AD: True, true.

GS: And you know if GCOS would have shut down in 1972, we may not see very much oil sand development.

AD: You know, in terms of 1956 and the Suez Crisis, that really made investment more interesting. And also unrest in the Middle East and the implications.

GS: When they destroyed the old control room in extraction, after the fire, I took this plaque off the wall just for my own safekeeping. One of the control …

AD: So those are 21 pieces of equipment ranging from heat exchangers to drum pulps and separators, froth settler, separation tailings and the caustic tank. Fascinating.

GS: So I don't … I think this was issued in 1978. This was Suncor oil sands. They actually had a little …

AD: Bit of …

GS: Oil sand in it.

AD: You know, those iconic … And of course, I've been to the Yukon and I've seen the dredgers.

GS: The gold dredgers.

AD: Ya, I mean …

GS: Sitting in the muskeg.

AD: And they had travelled up from the California Gold Rush, then up to the Yukon and Alaska and then over to South Africa.

GS: Yup, all the way.

AD: You know, it's interesting the evolution of these pieces of heavy equipment.

GS: When I worked for Reed Rollerbit, in Edmonton, these were the types of bits we were making.

AD: And was it for the oil patch?

GS: Oh ya.

AD: Totally oil patch driven. Ya.

GS: And this is one of the heat-treating furnaces. Well, I'm jumping all over. Talk about forest fires. My house bordered across from the hospital but next to Highway 63 and this was the year the forest fire came right down to the highway, right bordering our houses. And there was water bombers here, and I came home and just snapped a picture out my backyard [laughter].

This probably on of the last times you'll see three tugboats all in Fort McMurray, for the last time on the river.

AD: Ya, the whole era of boat transportation, which was so important.

GS: Yup, that was a big era, right there.

AD: Ya, the building of the railway.

GS: There's Alsands plant that was never built. And a Bitumount pilot plant that was on the GCOS site that we were involved in.

Now everybody drills for oil down deep at Fort McMurray, like around here, but all they hit is rock.

Here's another one of Reed Rollerbit, and I'm standing right here. And here's one of the 12-inch bits right there on the ground.

Here's a nice picture of the camp at GCOS, when it was just being built. Now, when the extraction plant burnt, these are the suits we had to put on, and they actually had plastic for us to walk on all the way to the plant and back.

Hospital being constructed in Fort McMurray.

Here's the Bitumount Pilot Plant.

And the fellow that looked after the Bitumount Pilot Plant that historically had a lot of history behind it, with CanAmera and Sun Oil and Syncrude and Esso. Well a trapper lived there, and his name was Ernie Aiken. And he was there all the time. And we used to go there and go fishing and visit him.

AD: Was he a Fitzsimmons employee, wasn't he?

GS: Yup, yup.

AD: So he was the first caretaker of Bitumount.

GS: Yup, I knew him.

AD: There was a lot of vandalism done to the plant. I mean, it's very sad.

GS: Well, it just happened over so many years, and he tried to protect it.

Now, these pictures are taken of Franklin Avenue in Fort McMurray from my car.

AD: Very different from today, hey?

GS: Ya. There's another view of the extraction plant control room.

Here's me at the Shell Oil pilot plant at the Muskeg River Mine, Albian.

Here's a picture of a tank farm fire that we had at GCOS in the early days.

When I worked at Premier Steel on the smelting furnaces, that's a big smelting furnace.

The day that Isaid we were tagging fish and the fishery guys were on the river? Well, this is the boat they were using.

This is a fin fan fire in the upgrader at Suncor. It was a bad fire.

AD: What year was that? Do you remember?

GS: '74, '75. Bad fire. That shut … That was the hydrogen plant and unifiners.

That's the plant site again.

Here's 1300 and 1301 bucket wheels.

Here's testing, loading trucks with loaders.

You see, I blew that big picture up from this.

AD: So you took these yourself? Wow.

GS: Ya. That's a little different one of the Bitumount plant.

Anyway, we'll move on to the next surprise. Oh wait, what have I got in here?

No.

The start and remnants, about as far as they went, of the Solvex plant on Lease 5. I'm going to set this all off to the side. We'll have to put this … I'm just going to set this over there, so I can put this all in there.

AD: Okay.

GS: Piecemeal after.

Now, if you really want to get a look at a bit they used to make here …

Outside voice about batteries and stopping.

AD: So this was … Did you make this personally or did you …

GS: No, this is one that come off our production line. And we made these up to 33 inches in diameter here in Edmonton. And you have to heat treat all these cones and machine them. It's a very big production line process where you have maybe 40 machinists with different lathes that have to do all the work on these, and then before they weld them together I would heat treat all these bearing races so that they would be hardened to the right quality to last a long time with the roller and ball bearings that are inside each one.

AD: Do you think that you working on the making of the equipment gave you an edge when you actually went out to GCOS?

GS: Oh ya. All the things that I did prior to going there really helped me initially, because they hired me as a supervisor right away. And then when they trained us on top of what they knew all ready. They baseline trained everybody. I haven't got one here, but they gave us a Great Canadian Oil Sands slide ruler. And they taught everybody how to use the slide ruler and then they did basic math and physics and pumping course, so that we could understand and read P and IDs and read engineering documents. Everybody was trained the same.

AD: And so you'd been doing some land surveying and then you'd worked …

GS: Heat treating and metallurgy. All through Premier Steel, Reed Rollerbit, and in with that pilot plant with the Alberta Research Council in a chemical process. That was fantastic.

AD: So that really set you above the people who were really going to be, who were labourers in

effect.

GS: Well, I was …

AD: With your knowledge …

GS: Knowledge is power.

AD: You went into it at a management level.

GS: Now, you said that this was the orientation kit. The Great Canadian Oil Sands orientation kit. "The black sand": that's interesting. That was the terminology that was used. "Great Canadian Oil Sands Limited (GSCOS) is the first company in the world to have the vast storehouse of energy held in oils sands' deposits." So, I mean, you know, the whole use of the terminology of oil sands, which according to Mary Clark Sheppard, the biographer of her father, that it was a decision that was made early in the '50s. When they proved that oil could come out of the oil sands, then they decided that tar sands was a misnomer and that they were in effect oil sands. So that this terminology was used very early on, wasn't it?

And there's the oil sands' sample from the GCOS mine. It's really, really interesting stuff.

Oh, so you've got the complete process?

GS: Yup.

AD: I mean in terms of, you know, that orientation. And I quote again: "The process of converting the oil sands to synthetic crude oil begins long before the first grain of sands are even mined." So they talk about the drill-coring program and so on, so again that terminology was used early, because I mean the whole issue around dirty oil and tar sands, well tar is not a naturally occurring substance, so it was bituminous …

GS: There's a lot of untruths …

AD: Ya, ya, and so it's interesting …

GS: perpetrated.

AD: that the company used the terminology from the beginning. The *Oilsander* [laughter]: "Your tour of the Great Canadian Oil Sands Limited." So they do a tour of the geological profile and then all of these wonderful historic photographs, of which you've shot some yourself.

GS: These are different ones. And there's just a rough schematic view of what it's going to look like.

AD: And there's the control room there.

GS: That's the powerhouse control room, which was operating with engineers at this time. That's why they have pictures in there.

AD: So these are amazing archival materials that need to be preserved and end up somewhere where they are going to be preserved for posterity.

GS: Well, I'll give you this one, because it's never been opened.

AD: Okay.

GS: I actually opened this one with a knife last night, because it glued itself.

AD: So George, when I hand in all the interview materials and the videotaped interview and so on to Glenbow, I'll pass this on to Glenbow from you. Okay.

GS: Ya. Well, I'll give you that.

AD: Okay, so this is the Solvex corporation, 1995.

GS: They were going to make aluminum out of the sludge in the tailings ponds. And if that process would have worked, we'd have flooded the world market with so much aluminum that the Mafia would be here killing people [laughter].

AD: So you try different things.

GS: Now, I'm not going to give you this, but this was the standards book for Reed Rollerbit when I worked for them. And it explains the bits.

AD: But of course, in terms of early industrial history in this part of the world, I mean, this stuff is very valuable.

GS: See, and I picked this up somewhere. It was about the bucket wheels.

AD: So this was in German, the German bucket wheels?

GS: In German, ya.

AD: And I gather …

GS: Oh, there's another that goes … There's the bits, the types of bits they were making. And all for the commercial oil industry plus directional, horizontal SAGD drilling [steam assisted gravity drainage operations]. But bit technology has changed slightly, but it's still the same.

Now, this is something that Harold's wife sent me. This is a *Our Sun* magazine from 1966. It was issued to American employees.

AD: Now that's rare in Canada. So that's Harold Erskine who was one of the engineers …

GS: He was the head engineer.

AD: The head engineer in the building portion of GCOS.

GS: What was in that?

AD: So of course, it was Sunoco at the time. Oh, the …

GS: Here it is. Look at this article. This was in a Philadelphia paper.

AD: So again, this is an important *Our Sun* because it has "GCOS, the Half-way Mark," "Progress Along the Athabasca." So that's a key article.

GS: And you see it's very …

AD: It's very optimistic. It says, "Despite some problems and delays, progress is reported on schedule."

GS: Ya, still under construction. See, and this is addressed to Harold Erskine.

AD: Okay, so it went to him.

GS: See there's a picture of my hospital.

AD: Ya. "In two years, the population of Fort McMurray has more than doubled." Fascinating stuff. And so this is from …

GS: Harold's stuff.

AD: Ya, so it's an article in the, I guess it's the Philadelphia newspaper. I don't have the full masthead on here. So "The Petroleum Prices: Sun Spends Millions in Hunt." And there it is. This is incredibly significant. I mean, hereS it was reported back in the United States and we'll put it in there.

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GS: When I had to go to the government to go into the Bitumount site in the summertime, I had to put a presentation on. So this is one of my presentation sheets: the Bitumount area, old cutline routes—we didn't want to disturb too many trees, so that …

AD: Well, it's a Historic Site, of course. It was protected.

GS: Now, in 1972, somebody got the bright idea … These are the number 6 and 7 conveyors into the original plant, but they decided to mine from the far end of the lease, so they built number 5 conveyor. And this conveyor was built real quick and put into the same ore bin. And they were hauling into this conveyor with trucks from a different part quite a ways away. And this was kind of a failure. This thing kind of burnt in half one time.

AD: In terms of the fire in '86, was this the way it looked like at the time. Maybe …

GS: Ya. So.

AD: You can describe it?

GS: the fire started up here, where the conveyors enter the building, and on open conveyor, and the fire progressed backwards on the return of the conveyor and started to go around. So the whole conveyor, while it was in motion, was on fire.

AD: And then the wall and the roof of the extraction plant. Okay. It's very, it's very useful having that. Maybe just … treasure trove.

GS: So there's that 70-million-year-old wood.

AD: Okay. Well, you can see the graining can't you?

GS: Yup. And there's some real oil sand, if you want to keep some.

AD: The wood is very dry, as you've said. It isn't like it's …

GS: Well, this is dried out over years since I've had it.

AD: So would it have been sort of flakey?

GS: Oh, you could cut it with a knife. In big pieces. I'd get pieces like this, you know.

AD: Now, this is from the GCOS site. When did you gather this sample?

GS: Oh, this is …

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AD: It's just marked petroleum

GS: a few years ago. You could cut that.

AD: It's not overwhelming. I mean you can smell the petroleum, but it's not overwhelming.

GS: No, it's not overwhelming. It's money. You smell money [laughter]. Really, I'm just joking.

AD: So this is only … What percentage of your personal archives is this?

GS: 1 percent.

AD: 1 percent, so you've got masses of stuff.

GS: Now, this could be another surprise. Oh, this was Bitumount, taken … There's the old Bitumount site. We're trucking oil sand out of here, and we had to hire Aboriginal companies from Fort McKay to haul it.

AD: So that's important. And that's the stuff that went to Albuquerque.

GS: Now, this is a very ironic picture. When it rained in that area—you see this oil that is running down here?—well, this goes directly to the river. This was that way before we got there.

AD: So that, of course, this naturally occurs in the water because it's in the banks of the river. And that … And of course, I've seen photographs done by … well, some Fitzsimmons photographs, as well Carl Clark, and other … and survey, early survey photographs in the 1920s.

GS: You've got them?

AD: Yes.

GS: Here's my jet boat, squirrel, …

AD: Squirrel and jet boat [laughter]. Well, that's part of the life up there. Those who stayed fell in love with the life up there, right?

GS: The bucket wheel that's at the Interpretive Centre in Fort McMurray, this is it actually digging oil sand.

AD: Now, what number is it?

GS: 1303, I think. 1301, 1302, 1303? Skips my mind.

GCOS gave out stickers. For every year you were accident free, that's what you got.

AD: Were you ever involved yourself in any accidents?

GS: Ya, I had a very serious accident in 1970.

AD: What happened?

GS: I was on a conveyor outside this extraction plant over here, in the middle of the night, and we had a problem, and we had some catalytic labourers hosing with hot water up in this area. And I climbed up a vertical ladder to go up there and as I got to the top of the ladder, 35 feet up, the guy sprayed me with an inch and a half hot water hose right in my face. I doubled over backwards, and I fell inside this safety-hoop ladder, and I fell straight down backwards, head first, 35 feet. So I broke my arm. I've got pins in it, peeled the skin right back off my face with my helmet.

AD: So you were wearing a safety helmet?

GS: Oh ya.

AD: And that saved you, because you could have had, I mean, brain damage …

GS: Ya, that saved me.

AD: along with everything else.

GS: The hardhat liner peeled my skin back here.

AD: And were you burned?

GS: No. Maybe I was. I don't know, but I was flown to the hospital in Edmonton to put pins in my arm and put it all together.

AD: So how long were you off work?

GS: Oh, probably six to eight weeks. It was not nice.

The first bridge across the Athabasca that they recently took down. This is it under construction.

Now these pictures have been replicated many times.

There's one of the Peter Pond High School. The one my son graduated from. It's no longer there.

Ya, see that bucket wheel was called the Bucyrus series.

Here's the conditioning drums in the background in the main extraction plant. And here I am with that engineer again. I don't know who took these pictures.

Okay, this is the bucket wheels again, and there's just some information on it here, in German again.

AD: A different German company.

GS: Ya. Here's a picture of Harold Erskine, swanning the ladies at a party in Fort McMurray.

Here's a *Suncor Update*, 1995. That's a in-house paper.

I have a first cousin. He's an American. He's in the U.S. Air Force. And he was at the Newetok hydrogen bomb explosion, because he was a weatherman, and his name was Paul Sulky. And that was interesting.

Anyway, this is a piece of that wood that was …

AD: The petrified wood, preserved.

GS: Preserved in oil.

AD: 120 million years. So these were created as little souvenirs by the company, right?

GS: Frances Jean ran her store in Fort McMurray and she made all those, and then she eventually quit.

AD: Well, thank you so much for sharing this.

GS: I've got one more to go.

AD: Okay.

GS: And we'll go through this quick.

I think you've seen this.

AD: Oh ya. "Pioneers made oilsands dream come true." So Jane Morris, George Scott, Bert McKay, and Bob Burns. Ya, that's great. And that's June 6th, 2007.

GS: Suncor had Athabasca Realty as a developer, 1967. So they gave everybody this book, and they said, "We'll build you a home. We'll give you three thousand dollars for a down payment. We'll build you a home and as long as you maintain payments for 10 years then we'll give you the title." And that time they gave us 45 dollars a month f

I just want to show you … and then there's the housing policy.

That's the title of our house [laughter].

AD: So you got that.

GS: Actually, it's all our personal stuff.

AD: But that's significant, I mean, in terms of the attitude of the company toward its employees at that point. I mean, they knew that they needed to offer you incentives so that you would stay.

GS: Yup.

Oh, C.H. Synfuels. This was a plot operation. And where Horse Creek is in Fort McMurray? These guys were going to put a little dam across the creek, and they were going to build a pilot plant right beside Fort McMurray, and myself and quite a few other people went and shot this project down. And it never did go.

AD: So it did surface now. I'm just going to look at this. So this was December the 22nd, 1988, and it was C.H. Synfuels?

GS: Now these, these are just overheads that I had for Solvex. These are all pictures of what I had to do. I wasn't with them that long.

Now, Bitmin Resources, they had a plant on our site.

AD: On the Suncor site.

GS: So guys … from extraction, we were interfacing with them, because we were taking the bitumen from their little plant and bringing whatever their utilities, we looked after them.

Now, when Shell started their little pilot plant, this was one of their little brochures that they issued when I went to work for them.

Oh, this was the Solvex agreement.

An Oslo agreement for MSDS.

Here's a picture of the GCOS site in the early, early days, and you can see our tailings pond is very

low down to the river there.

Now, I had to go to the archives to get this, but these show the buildings that used to be at Bitumount and some of the old pilot plant here, because when we had to build a road through here. You can see my little pen go through there.

AD: So you were responsible for building that road …

GS: Road and …

AD: because from a Historic Sites perspective, they said that has given them access …

GS: I was there every day.

AD: otherwise they wouldn't have access to certain parts of the site.

GS: Then we had this company—I forget the name of it—they came into our site and they were going to do the gold mining. What was the name of them in Calgary? They sold shares.

AD: Oh, right.

So this is an article from the Institute of Sediment and Petroleum Geology, University of Calgary, I guess.

GS: Yup.

AD: Way Thang and J. Abercrombie. Bob McKay.

GS: Here's that TAC aluminum again.

Oh, this is the Total Joslyn Creek P and ID.

Ya, this project. You know that Total bought Joslyn Creek and Total is now in bed with Suncor to build the Voyageur refinery. So they're all in bed together. But this project was - we did a review for three weeks in Calgary. We did a complete review of this. Cancelled.

I gotta burn some of these.

AD: Well, you know, don't burn them. I mean, who knows down the road who may be interested in them, and I think that they need to be in an archive.

GS: Okay, this is the pilot plan that I ran at the Muskeg River Mine for Shell, a parafinnic pilot plant.

AD: Okay.

GS: Very secretive, in the days when we came out with this stuff.

AD: Ya.

GS: And this is the exact pilot plant for CNID that we ran at the Muskeg River mine. And it's designed by Bantrel.

AD: Oh, Bantrel. And I gather, I mean, it really is a step up in terms of the technology.

GS: Well, that's a whole other discussion.

AD: And, of course, I mean, this stuff is proprietary to the company, right? That you had as a consultant.

GS: Well, if you don't know what you're looking at …

AD: You wouldn't understand.

GS: No, you wouldn't understand.

Oh, this is another one of CNRL.

AD: Okay.

GS: The Aurora Mine at Syncrude.

Oh, I got this … where did I get this from? This is a historical document, this one here. 1948. This is drilling and sampling of all the oil sands in Fort McMurray.

AD: Oh, it's the Mines Branch.

GS: Yup. Canstar did all the work. It's a whole report.

AD: Now, of course, I mean, you realize that the terms of the significance. This was when Blair …

GS: Ya, Sidney Blair.

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AD: did his reports. And so it is. 1942 to 1947, so of course, he used this material as well as lots of Alberta-based material and the materials developed by Clark.

GS: Now, I never did go to work for these guys, but what were we doing? We did something for these guys here. This is the Surmount project, south of Fort McMurray.

AD: So really, this is a whole archives of material relating to the …

GS: These are P and IDs of plants 3. These are P and IDs from my old plant here.

Wow.

AD: So tell me what P and ID is an acronym for.

GS: Process flow diagram.

AD: Okay, process flow diagram.

GS: Well, when I say "and," it's an and.

AD: Okay, so it's P and D.

GS: Yup.

Instrumentation flow diagram.

AD: Okay.

GS: You have some that are strictly piping, some that are strictly instrumentation, strictly electric, so you have different phases involving … everything in your house would be a different …

Wow.

AD: So the guts of the plant layered.

GS: Everything. Wow.

Outside voice: I only have one more minute left of recording time. Mumbling … Good.

AD: Okay.

GS: "Present practice. Operate four lines when feed's available. Maximize production at all times. 84 average. 3.1 operated. 3.1 lines. 14 hundred tons an hour." And we'd achieved 40 million tons in 1984.

"What if? Operate three lines at 90 percent of the time, four lines at 10 percent of the time, and 100

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k a day." That's what if. Then, "Three to one lines at 126,640 tons a day equals 17 hundred tons an hour." Still 46 million tons.

This is trying to look at efficiencies and …

AD: maximize

GS: to …

AD: Ya, maximize production …

GS: And to make room for maintenance.

AD: Oh gosh.

GS: Because we started to run everything, and you're not shut down for maintenance.

AD: And which, that creates those problems.

GS: Scheduling.

AD: Now this looks interesting. It's Sun Oil Company, and it's a letter to Mr. Ed Innis. Sun Oil care of Bechtel in San Francisco.

GS: Yup. Innis was the head guy …

END of Recording.