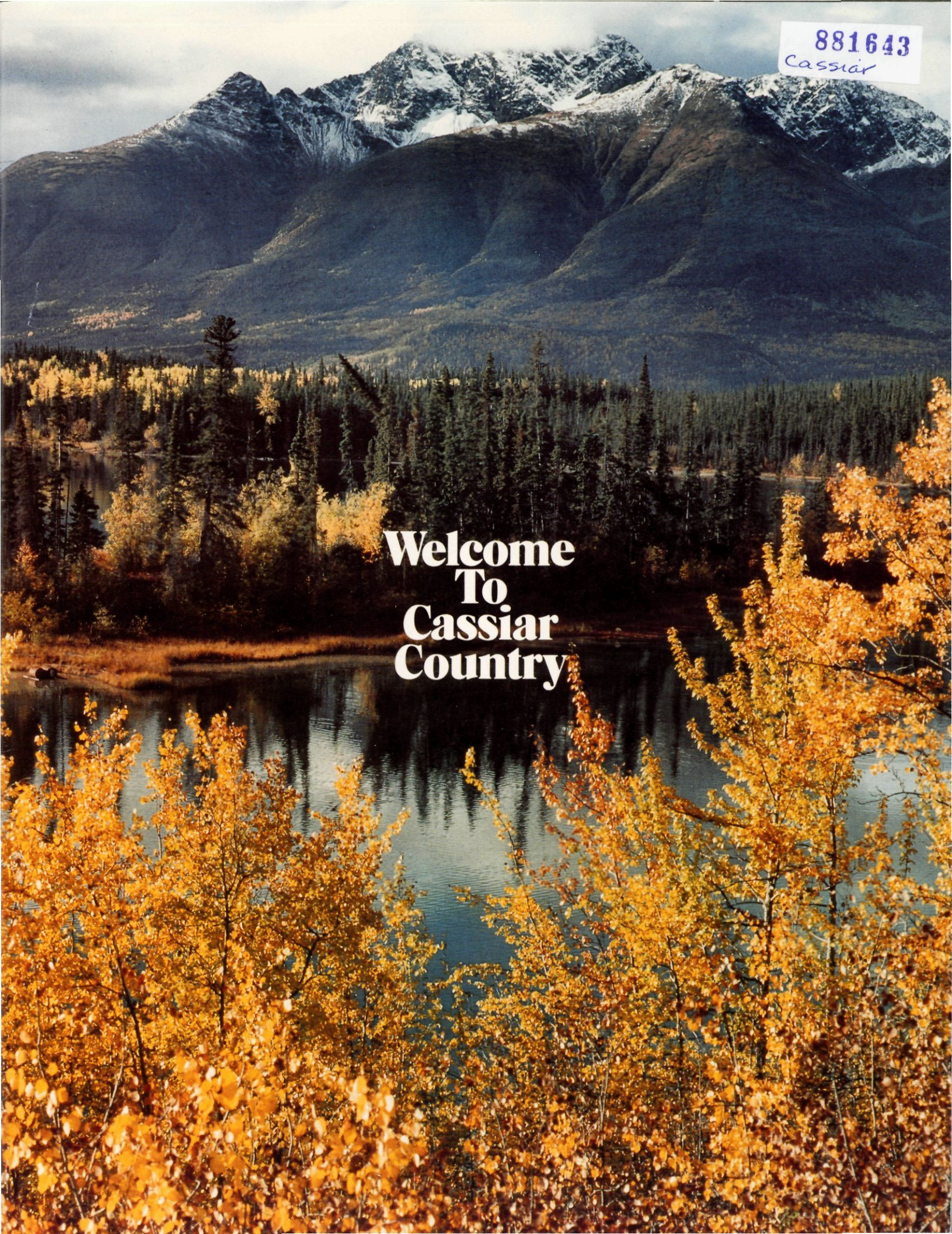


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Cassiar

**Welcome
To
Cassiar
Country**





In the northwestern corner of British Columbia there is a region known as Cassiar Country — a magnificent mountain domain that sweeps across the northern reaches of British Columbia from Dease River in the east to the Pacific Ocean in the west.

Throughout the eighteen seventies and eighties, thousands of miners moiled for gold in the Cassiars, along its lakes, rivers and creeks. And they panned out millions in gold, including a 72 ounce solid gold nugget, the largest ever recorded in British Columbia.

Things are different now. On historic McDame Creek, near what was once the old McDame Trading Post, stands the town of Cassiar, a thriving mining community in a spectacular scenic setting close by the British Columbia-Yukon border. And

just north of the town is the only asbestos mine in western Canada — the producer of some of the finest asbestos fibre in the world.

The booklet is about Cassiar town and its mine. It reveals something of the community's character, what the people do who live and work in Cassiar. It provides a glimpse of the surrounding country with its majestic mountains, lakes, rivers and valleys. And it tells the Cassiar story, the mining, milling and marketing of asbestos.

In the Cassiars there are immense undeveloped natural resources, and scenic beauty beyond compare. Glimpses of these riches are spread across the pages of this booklet which is presented to you with the compliments of Cassiar Asbestos Corporation, an active and productive resident of British Columbia's Cassiar region since 1951.



The Cassiar Story



Early prospectors had seen the asbestos as far back as the early eighteenth century and the Indians knew of it before that. In fact, it was the Indians who told the gold seekers about the “wooly hill” to the north, and the birds that built their nests of white fluff that could withstand the heat of fire.

Looking north, the prospectors could clearly see a prominent green band of serpentine rock slanting across the rugged face of McDame mountain, but it would be years before anyone would do anything about it. Antone Money was the first. When he prospected the Cassiar region in 1923 he noticed that where the schist and serpentine rock met there were veinlets of asbestos. He peeled a few fibres from the green rock and examined them, later writing, “Although transportation seemed far away from this isolated corner of wilderness, this could be an important discovery.”

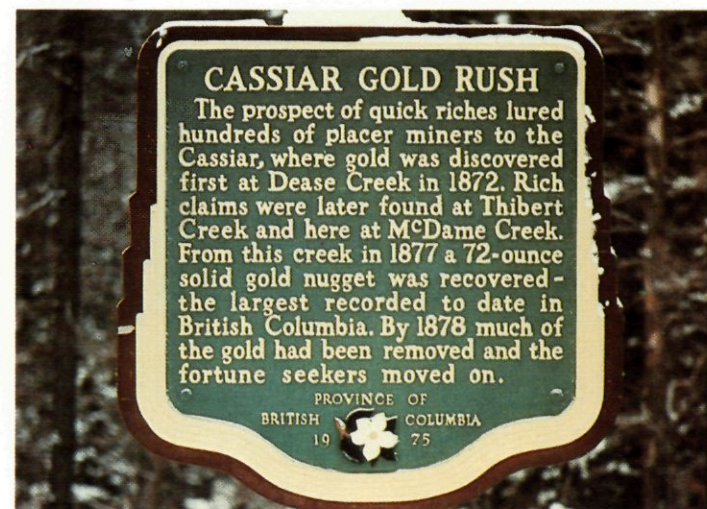


In 1951 Dr. William Smitheringale, a prominent Canadian geologist, was asked by Fred M. Connell, president of Conwest Exploration Company, to examine McDame mountain and make recommendations with respect to its possible development as a mine. During those early days trails and roads were bulldozed through the mire. Mining machinery was brought in and the tedious job of scraping the talus fibre from the surface began in earnest.

By the summer of 1952 a tent town to accommodate Cassiar's two hundred and fifty pioneer miners and construction men had been erected. One year later the company's first production mill was placed in operation, milling ore at its rated capacity of 500 tons per day. Since those early times the capacity of the mill has progressively increased. It now processes more than 4,000 tons of ore per day, producing an average of 415 tons of asbestos every twenty-four hours.

Currently, Cassiar Asbestos Corporation Limited has an annual production of more than one hundred and eight thousand tons of fibre which is regarded as among the best obtainable anywhere in the world.

Despite Money's expressed optimism, twenty-eight years would pass before Richard Victor Sittler and three partners, Hiram Nelson, and the two Kirk brothers, Ronald and Robert, climbed McDame mountain in 1950 and staked it. This was the event that generated interest in the McDame mountain asbestos deposit, leading to the formation of Cassiar Asbestos Corporation in 1951 by Conwest Exploration Company of Toronto. This was the start of 20th century life and industry in the Cassiar region — Antone Money's "isolated corner of wilderness."



Asbestos: The Wonder Mineral

Like all minerals, asbestos is a product of nature. Its qualities are unique in that it will neither burn nor decay. About 95 percent of the commercial asbestos mined in the world is called Chrysotile the type mined at Cassiar. It accounts for 97 percent of all the asbestos used in Canada and the United States.

Technically, the term "asbestos" is the generic name given to a group of hydrated silicate minerals that can be separated into relatively soft silky fibres which have great tensile strength. In fact, the term "asbestos" can be said to apply to all minerals that can be separated from their parent rock in the form of fibre.

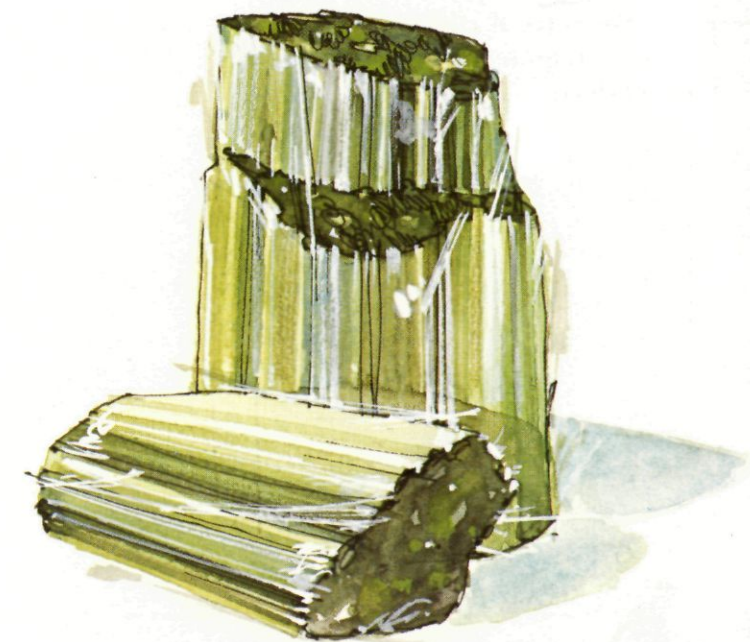
There are six major groups of asbestos which are classified under two headings — Serpentine and Amphibole. Cassiar Chrysotile is designated as white asbestos and is the lone member of the Serpentine class. The remaining five principal groups are recognized as members of the Amphibole class of asbestos, none of which are mined commercially in Canada.

The Greeks knew about asbestos four hundred years before the birth of Christ. They wove it into wicks for their temple lamps because it would not burn, thus providing an "everlasting light." Marco Polo was astounded when China's Emperor tossed a

piece of asbestos cloth into a fire and removed it unharmed. Ben Franklin acquired a purse made of asbestos cloth in 1725 which he described in a letter to a friend as a "purse of stone." In 1800 Prince Eugene, Viceroy of Italy, gave his lady a priceless necklace as a symbol of his love. As a mark of her own enduring affection, she presented the prince with a pair of asbestos gloves which she had woven for him with her own hands, thus attesting to the value of asbestos in the early part of the 19th century.

It was not until 1873 that science and industry began to seriously examine the unique properties of asbestos and apply its virtues to the service of mankind. Today, it is estimated that as many as 3,000 different products in use throughout the world contain a portion of asbestos.

Indeed, the uses of asbestos throughout the spectrum of human activity seem almost endless. It can be spun into thread and woven into cloth. Some grades can be made into paper. It can stand high temperatures and heavy pressures. It resists weather, corrosion, vermin and fungi. It insulates and filters, binds and fills. Its universal application has saved countless lives and has prevented billions of dollars of property damage. That is why asbestos is called "The Wonder Mineral".



Mining, Milling & Marketing



The mine is situated on top of McDame mountain, about nine hundred metres above the town. It is western Canada's only asbestos producing mine and since 1952 it has been a major contributor to British Columbia's growing economy.

Located in the valley below is the mill, and between it and the mine there stretches a five kilometre aerial tramline, an indispensable link in the continuous production of Cassiar fibre.

The asbestos outcrop at Cassiar was discovered on the western slope of McDame mountain. Subsequent exploratory work proved that the ore zone is large and shaped like a lentil or a big green onion. The geologists describe it as "massive lenticular ore body". It strikes in a northwesterly direction and dips approximately forty degrees to the east, extending below the main peak of McDame mountain which, before the stripping program began, had an elevation of almost 2,135 metres.



The "open pit" method of mining was selected as the best approach. The pit began in 1953 as a combination side-hill and mountain-top excavation. Over the years it has been progressively deepened to its present stage of development. Current production requirements call for mining some 1,300,000 tons of ore annually to produce more than 100,000 tons of asbestos fibre. To accommodate the "phase mining plan" some 6,000,000 cubic yards of waste rock are removed each year.

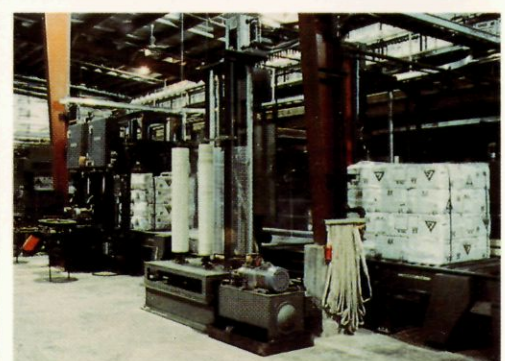
The Mine operates on a twenty-four hour per day basis, seven days a week. It is accessible from the townsite by a 9.6 km road which climbs up the western slope of McDame mountain through a series of seven switchbacks to the lower bench of the pit.

The Tramline is 4,700 metres long from the loading station at the mine to the unloading station at the mill. And is capable of delivering 300 tons of ore per hour. It loads and unloads automatically and has 142 buckets, each of which is capable of handling two tons.

While resisting the gravity pull of some 140 tons of ore dropping 650 metres in five kilometres, the tramline's two induction motors exert a braking influence and, in the process, regenerate some 400 kilowatts of electrical power.

The Milling Process is based on the fact that asbestos fibre "fluffs up" as it is repeatedly crushed and screened and becomes lighter in weight than the Serpentine rock from which it was separated. As it passes from one horizontally gyrating screen to the next, the fluffed up fibre tends to "float" on the surface of the crushed rock. When separated rock and fibre reach the end of the screens the rock falls away by gravity for further crushing, while the fibre is vacuumed off. The fibre is then carried by air ducts to cyclone collectors, and from there to a series of gyrating screens where it is cleaned. After cleaning, the fibre is separated into different fibre lengths and transported to storage bins where it is collected by grade and made ready for bagging.

The bags are automatically filled with 45.5 kg of compressed fibre and transported by conveyor to a machine where the bags are sealed. Finally they are stacked on pallets in lots of twenty and automatically strapped and shrink-wrapped for shipment by truck and barge to Vancouver. From there Cassiar asbestos is shipped to the markets of the world.

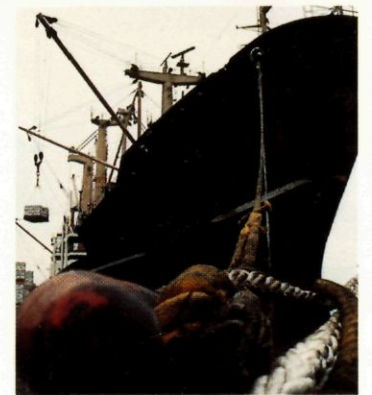




Day in and day out asbestos rolls out of Cassiar in what appears to be an automatic operation. Of course this is not so. The asbestos must be sold before it can be shipped.

Marketing asbestos is a highly competitive business, a situation well known to Cassiar's Marketing Division which keeps abreast of world wide asbestos trade and production. It also stays in close touch with current activities in environmental control and manufacturing machinery, as well as the latest methods of fibre packaging and transportation. Its primary function is to maintain an ongoing relationship with Cassiar's customers, thus providing an effective response to their changing needs.

Throughout the year Cassiar's Marketing representatives, who are often accompanied by Cassiar's technical personnel, call on customers located in more than forty-five countries throughout the western world.



Community Life



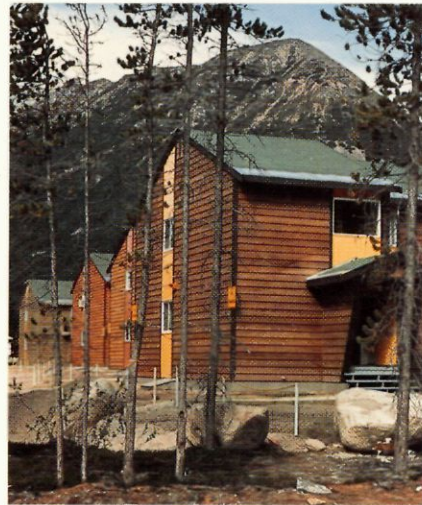
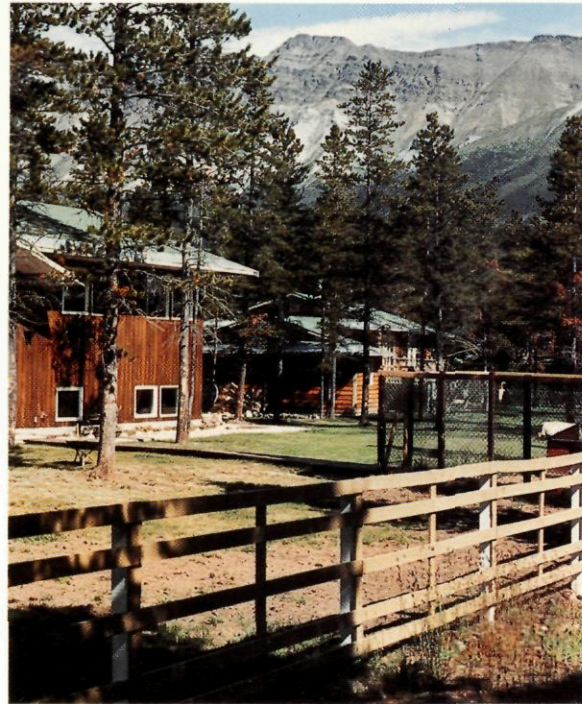
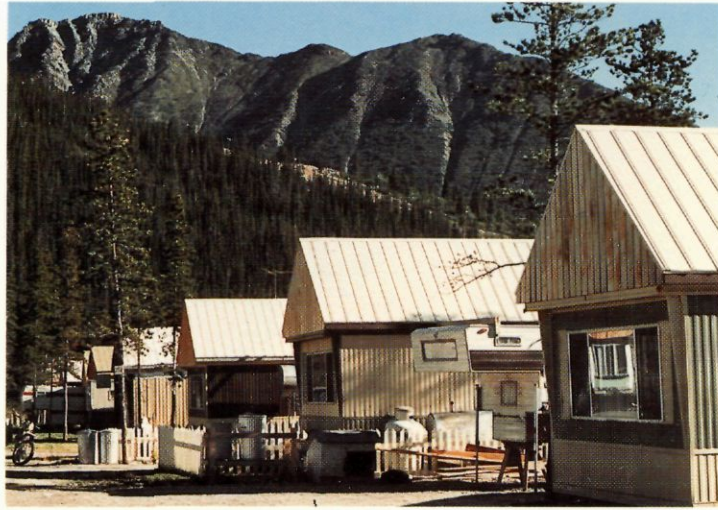
Cassiar should no longer be regarded as a frontier town. After existing for over a quarter of a century its roots go deep and its institutions are well established.

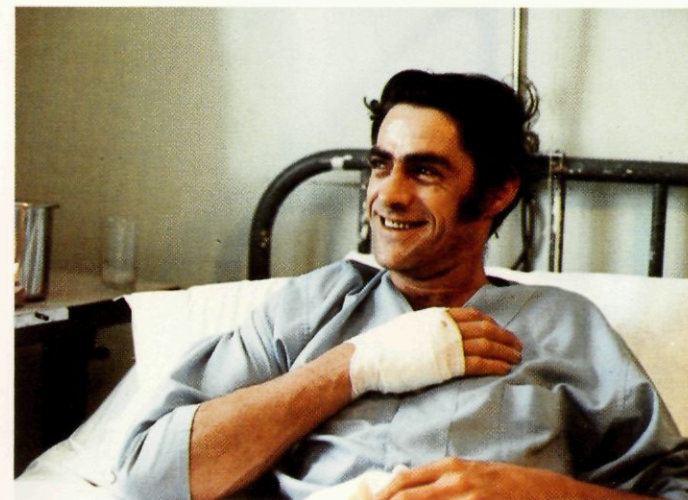
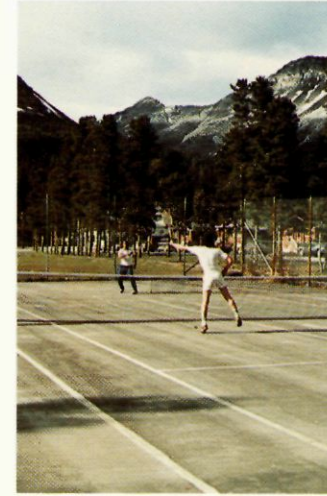
While Cassiar started as a tent town something new has been added every year for the comfort enjoyment of its citizens — many of them being the projects of imaginative Cassiar citizens who saw a need and filled it, or saw a wrong and made it right. Indeed, while the company provides the buildings, it is the people who make the town. They are the ones who give it character, fill it with activities and make it hum.



Because Cassiar is an unincorporated community, the company provides all of the normal municipal services at no cost to company employees. Subject to a classification program, it is possible for employees to purchase vacated houses and trailers. It is also possible for them to install a trailer on a serviced lot.

Both original and new single persons quarters range in quality from good to excellent. The company's continuous maintenance and upgrading program is designed to sustain the high standards that have been established for Cassiar's single personnel accommodation.

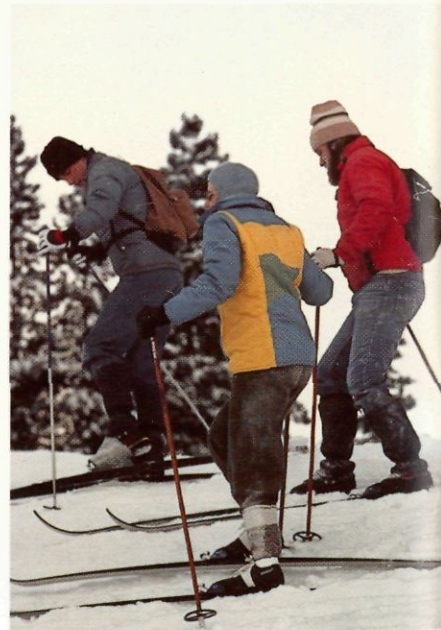
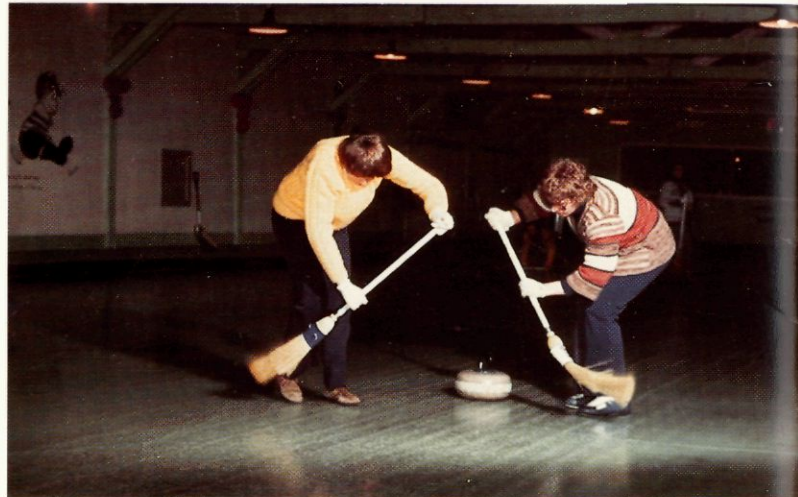
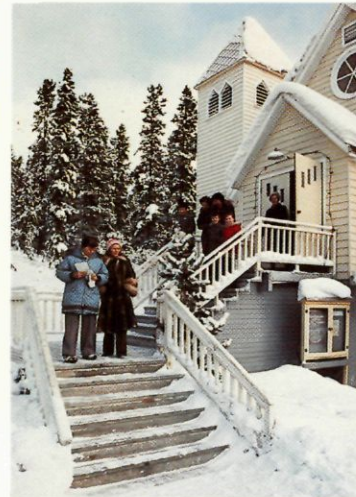




Cassiar offers its citizens many attractive features. Its scenery is among the finest in the world. In the summer there is fishing, boating, hiking, camping and a wide variety of other summer sports and activities. In winter, there is skating, snowmobiling, curling, skiing and a lively winter social life.

Because of its well equipped hospital with its resident doctors, dentist and nursing staff, Cassiar is regarded as the medical centre of the Cassiar area. In addition, Cassiar has churches, two family stores, a library, post office, theatre, arts and craft centre, a recreation centre, helicopter pad, and cable television, provide the basic elements for the progressive development of Cassiar's family and community life.

Cassiar's Elementary and Secondary School offers courses from kindergarten to grade twelve. Its facilities include a gymnasium, a fully equipped industrial education shop, home economics and a resource centre.

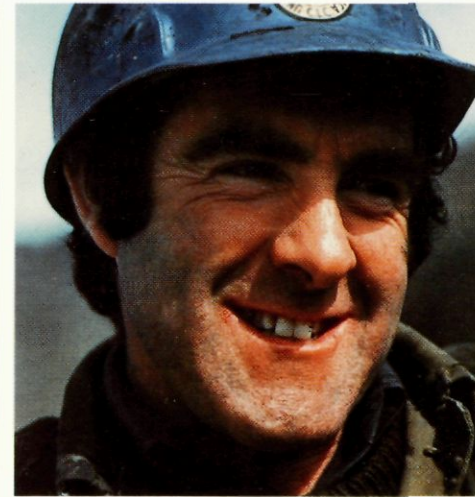


If you like a natural setting Cassiar is a good place to live. No one is saying its perfect. Few places are. But hundreds of families think Cassiar and the north offers a life of infinite variety, challenge and charm.

While being interviewed recently, dozens of Cassiar citizens spoke of their town. One said, "It's so nice to be able to walk out of your door, and know

people, and say hello to them and you're not strangers". Another said, "It's a beautiful country, just beautiful". A third observed, "If you fish, hunt, you got it. It's all close". Perhaps this one said it all, "It's friendly, ya, I like it here...yup...Cassiar's my town".

And so it is — to approximately two thousand people who call Cassiar "home".



Asbestos & The Working Environment

During recent years, much has been said and written about asbestos and its impact on the health of people in the mining, milling, and industrial application of asbestos.

Much of this comment has been generated by a sincere desire to draw attention to man's growing array of environmental problems as well as encourage remedial action. The asbestos industry itself has been a major commentator on practices related to the working environment and the health of people engaged in the production or application of asbestos fibre. Indeed, it is Cassiar Asbestos Corporation's firm policy to encourage responsible comment on any factor bearing on the health and safety of its employees, their dependents, or the public at large.

First you should know that Cassiar has established a good record in the field of health for both its employees and their resident dependents. This record is directly related to Cassiar's ongoing application of new environmental technology as it becomes known, as well as the personal care exercised by Cassiar's employees while they are on the job.

You should also know that asbestos has been labeled as a substance that may be injurious to health. *Under certain circumstances, this may be so* - in much the same manner as the excessive consumption of alcohol can be detrimental to health. Overeating can be detrimental to health. Incompetently handled equipment can be detrimental to health. Improperly controlled fresh clean water, medicine, airplanes even sunshine — the list is endless — can be a hazard to your health. And smoking can be a hazard to your health - not only to the smoker but anyone breathing the smoker's smoke. Any of these examples can seriously effect your physical well being. But normally — with the exception of smoking — none of them will harm anyone *if they are properly handled.*

Our job at Cassiar is to mine, mill, and transport asbestos **and handle it properly.** All of Cassiar's plans and production procedures are directed to this end. In addition, the quality of the air at the minesite, the mill, as well as the community itself is subject to ongoing tests to ensure that all government air standards are met and maintained.

The third factor to consider is your present standard of health. Before a person becomes involved in **any** dust-oriented occupation, he or she should undergo a physical examination — including a lung function test — to ensure that there are no medical conditions present that could be aggravated by dust **of any kind.** For example, it would not be wise for a person suffering from bronchitis, asthma, heart disease or rheumatoid arthritis to work in a mining and milling environment, even if the dust involved is only microscopic in nature.

Environmental and potential health problems are not unique to the asbestos industry or, for that matter, any walk of life. We only have to read the daily paper to grasp the fact that environmental problems do exist. Despite the fact that some past statements about asbestos, and the asbestos industry, have tended to leave confusion in their wake, it can be said, without fear of contradiction, that Cassiar's record in the area of industrial health and environmental control has been one of high achievement. This record does not apply to environment and health alone, but to all factors related to the protection of the work force through occupational safety measures.

The environmental control program at Cassiar's mine and mill is an active one involving government agencies, unions, and management, all working together to achieve and maintain a high level of occupational and environmental competence.

Cassiar's record is a good one. It is the intention of everyone involved to keep it good by the continuous application of the latest knowledge and techniques to our job — the safe mining and milling of asbestos.

