

Cassiar Asbestos Mine Sensational Discovery

40-Year Reserve of High-Grade Ore Estimated; 500-Ton Mill Installed

One of the most sensational mineral discoveries of recent years is located in northern British Columbia near the Yukon border and today is producing some of the highest-grade asbestos fibre in the world.

With more than 40 years of ore in sight, Cassiar Asbestos Corporation plans completion this year of a 500-ton-a-day milling unit and installation next year of an aerial tramway 14,900 feet in length and capable of handling up to 100 tons an hour.

Exact location of Cassiar Asbestos is at McDame Creek, 70 miles south of Watson Lake airport and the Alaska Highway; latitude 59-17 north, longitude 129-15 west.

Although the area has been prospected as early as 1870—mainly for placer gold—it was not until 1949 that asbestos surface showings drew attention of the mining world.

EARLY ACCESS

Early access to the region was from Wrangell, Alaska, via the Stikine River to Telegraph Creek, then by trail or road to the head or south end of Dease Lake. From this point, barge or river boats were used along Dease Lake and on the Dease River, past McDame Post to Lower Post at the junction of the Dease and Liard Rivers.

The Liard flows into the Mackenzie River. This route was followed by early Indian and white traders and later by trappers and prospectors.

Construction of the Alaska Highway, east-west through the northern fringe of the area in 1942-43, and location of the Watson Lake airport a year earlier, afforded means of access to the general area that were amenable to modern forms of transport and travel.

Following the Second World War, a group of four men financed prospecting in the Northwest Territories and northern B.C. They were V. A. Sittler, R. L. Kirk and H. H. Nelson, mechanics at the Army maintenance camp at Fort Nelson, B.C., and R. W. Kirk, a trapper.

In 1949, Sittler became aware of the asbestos showing in the McDame Lake area and the following year staked a group of seven claims. Later, the same year, Conwest Exploration Company acquired an option on these claims and staked others.

LIKE SADDLE

The property now consists of 40 claims.

The rocks underlying the claims are mainly sedimentary, consisting of lower argillites and shales overlain by limestone, which in turn is overlain by quartzite. Intruding the sediments along the valley floor is a porphyritic granite and basic rock. This latter rock now altered to serpentine, contains many veins of cross-fibre chrysotile asbestos, and takes the form of a dike, varying in width from 200 to 600 feet.

Striking in a northeast direction across the mountain top, the main asbestos showing occurs at an elevation of about 6,000 feet. Fibre-bearing outcrops occur over a length of 3,000 feet.

Overlying this dike, on both sides, is a saddle-like mantle of asbestos talus—the result of frost action which penetrated the asbestos seams and freed the fibre from the rock. It varies in depth from one to 10 feet and has spilled over on the sides of the hill to create an area containing a conservative estimate of 280,000 tons.

All the evidence available suggests that this material truly represents the underlying deposit, both as to grade and quality.

Cassiar Asbestos Corporation Limited was formed on May 17, 1951, and took over the claims from Conwest. The same year a road was completed into the deposit from Lower Post.

Tests of the deposits showed the fibre to be of a non-ferrous variety, not found elsewhere on the North American continent except in small quantities in Arizona. South Africa has been the only major producer.

Non-ferrous asbestos is regarded as a highly strategic material.

Test milling and spinning of samples indicated a grade of 7 1/2 per cent 3K fibre, plus an undetermined amount of 4K fibre. The indicated tonnage at this stage was 5,892,000 tons of 3K per ton ore.

PRODUCTION

In view of the substantial ore reserves and excellent results from tests, plans were made to put the company on a production rate of 500 tons a day by fall of 1954. Additional equipment was installed immediately to permit milling of asbestos talus at 225 tons a day.

By the end of the 1953 mining year, 73,257 tons of ore had been stockpiled at the mill. New estimates indicated 7,032,625 tons of reserve ore, grading approximately \$38.75 a ton.

Meanwhile, the stockpiled ore is being marketed to customers around the world. Sacked in 100-pound bags, the fibre is trucked in company vehicles to Whitehorse, a distance of 350 miles along the Alaska Highway. From there it is shipped by rail to Skagway via the White Pass and Yukon route, thence by Canadian Pacific Steamships to Vancouver, the l.o.b. point of sale.

CONSTRUCTION

A heavy construction program was undertaken recently at the Cassiar millsite, including a new dryer and dryer building, crushing plant, mill extension and a 40,000-ton dry rock storage building. A new machine shop was erected and diesel electrical installation increased to 950 horsepower.

The company townsite was started with five 30-man bunkhouses, a recreation hall and school, a 30-man staff house, five three-bedroom houses, five two-bedroom houses, a steam plant and laundry, a new cookhouse and a curling rink.

NEW ROAD

Cassiar Asbestos credits the "co-operation and far-sighted policies" of the provincial government as having "contributed largely to the comparatively rapid development of this ore deposit."

In particular, the company cites the construction of a first-class road from the Alaska Highway to the mine, completion of which this fall will provide facilities for semi-trailer operations and elimination of load transfers at the Alaska Highway to larger and more economical trailer units.

Meanwhile another road, providing direct access to a Canadian seaport from Stewart to McDame Lake via Telegraph Creek, is under study by the government. Surveys were completed last year of the route, which makes use of an existing road between Telegraph Creek and Dease Lake.

But regardless of a new coast outlet, Cassiar believes it has a good future.

"With completion of the new mill and aerial tramway and further development of the townsite, Cassiar Asbestos will be well established as a new and profitable industry for northern B.C.," says J. D. Christian, company official.



WHITEHORSE CITY, right on the banks of the Yukon River, is the capital of the Yukon Territory and its distributing centre. Born out of the Klondike gold-rush days of '98, the community of miners and prospectors suddenly

swelled to a teeming city of 50,000 during World War II when it was headquarters for U.S. and Canadian army and air force contingents. Many of the buildings in the foreground were service accommodation.

Yukon City Poised on Threshold Of Major Development Program

"I tottered along the sidewalk, that was made of real cement; a skyscraper loomed above me where once I remembered a tent. . . I thought that I'd cross the Yukon over the big steel bridge; I heard the roar of the stamp mills upon the western ridge. . ."

So wrote Robert Service, bard of the Yukon, in 1906 when he described, "This is my dream of Whitehorse when 50 years have passed."

Today, not quite yet 50 years later, there are the sidewalks, and the rushing automobiles, but the "skyscrapers" are still limited to three storeys. Local citizenry, however, is optimistic: "The way things have been moving in the past few years, anything can happen in the next two."

Faint rumblings of smelters are growing louder with each new proposal to develop the 10,000,000 horsepower hydro potential nearby.

The Yukon River bridge, too, may not be too far off, according to Whitehorse Mayor George Armstrong, who says:

"Only feasible answer to make more land available is to expand across the river. We haven't got a single vacant lot for sale now."

Since becoming the capital of Yukon two years ago, Whitehorse has seen a minor realty boom. Although building costs are high—about \$2,500 a room—numerous new residences have been erected recently.

Although a new subdivision is being made available by the Canadian Army moving some quarters to upper Whitehorse, it is not expected to completely relieve the present housing demand of close to 7,000 people.

Whitehorse borders the east banks of the Yukon River and stretches to the limits of the narrow two-mile-long valley. Cut banks rise sharply to a 300-foot high plateau on which is located the airport and national defence living quarters.

Known as Upper Whitehorse, the area includes several modern settlements of air force and army married living quarters.

But while businessmen and mining officials hold that the Frohisher hydro project will awaken the Yukon to a boom that would make the 1898 gold-rush era seem like peanuts, the thought that Whitehorse itself may be wiped out by such a development doesn't worry them.

"It probably won't happen in our lifetime," they say.

The Frohisher plan to utilize the 10,000,000-horsepower hydro potential to its fullest includes damming of the Yukon River north of Whitehorse for the final development stage. Such a dam would make a lake out of the present city site.

Meanwhile, as surveys already are starting on their second year of exploring the watershed area, a \$2,000,000 federal government building is nearing completion.

And city voters are facing a by-law asking them to approve a \$1,000,000 loan from the Territorial government for installation of a water and sewer system.

Most of Whitehorse is still not served by such facilities. Outdoor privies are general and water for all purposes is bought by the barrel or by the bucket. Still, there is opposition to the million-dollar loan. Old-timers feel that privies are still good enough for the raw Yukon and water by the bucket can be tolerated for some years yet.

Majority of new city residents, however, heartily endorse the proposed systems which will give them up-to-date plumbing. One housewife explained:

"We get two deliveries of 45 gallons of water each week. There are four of us living in our house. In order that we can have a bath once a week, do the laundry and floors and still have enough left for drinking and cooking, we have to cut a lot of

corners," said Mrs. Robert Johnson.

"First I take a bath, then my husband uses the same water for his bath. We save that water for the laundry next day, then use it to wash the floors."

"Believe you me, I'm sure going to vote 'yes' on that by-law."

Whitehorse is going through a painful period all around. First, when the city became incorporated in 1952, businessmen and home-owners screamed about taxes. They went up from \$15 to \$1,500 a year for businesses, and from \$5 to \$100 a year for homes.

Now they are faced with another hike in taxes, or they'll have to remain satisfied with dusty gravelled streets, no sewers, no water system.

But high living costs and taxes does not seem to deter Yukon generosity and community spirit, says Mayor Armstrong.

"I don't think you can find anywhere on the continent where people will chip in for the common good like they do here," Mayor Armstrong cited the new hockey and curling rink which

was built in two months by volunteer labor, donated money and equipment.

The campaign began a week after the community arena burnt down one October night. The new rink is valued at \$100,000 and actual cash expenditure was only \$20,000.

Whitehorse citizens are also building a new hospital, funds for which are being obtained by public subscription.

What the future holds for the major Yukon city born out of the fabulous gold-rush era and reborn during the Second World War when 50,000 persons swelled its limits, present-day citizens are doubtful. It forms a major topic of their daily conversation.

One thing, however, appears certain. Whether or not the Frohisher plan becomes a reality, Whitehorse is a growing distributing centre for the deep north. It is the terminal of a railroad to the coast at Skagway, a major air-route centre, and cross-roads for the Alaska, Dawson City and Mayo highways.

"That feature and the developing mines which we supply is reason enough to believe Whitehorse is due for long-term prosperity," sums up Mayor Armstrong.

Peace River Area Home of Record Big Game Trophies

Millions of acres of partly explored or totally unexplored country lying adjacent to the Peace River area of British Columbia offers some of the finest hunting and fishing in the world.

Notable among the hunting areas are such districts as the Cassiar and Prophet River which today are considered to hold most of the world record trophies in sheep, goat, grizzly bear and moose.

Jumping-off place for hunters entering these areas are Dawson Creek, Fort St. John and Fort Nelson. The latter is the main outfitting place for trips into the famed Nahanni or "Headless" Valley.

The larger lakes and streams hold whitefish, trout, jackfish and grayling. At present, the British Columbia Game Commission is engaged in a restocking program which should greatly improve sport-fishing.

Registered guides and outfitters are located in the Moberly Lake region, entered by the Hart Highway out of Prince George, and all along the Alaska Highway which has its beginning at Dawson Creek.

Pack-horses in any number are available throughout the area.

Besides big game, the area surrounding the Peace teems with such furbearing animals as coyote, fox, beaver, martin, weasel, mink, fisher, otter and muskrat, and is the greatest fur-producing area in the province.

While cyclic, there is usually a plentiful supply of prairie-chicken, ruffed and spruce grouse. Migratory birds, including the Canada goose and varieties of ducks, are of the best grain-fed quality.

Record Year for Mosquito Fight

This year may see a record campaign in the fight against mosquitoes.

U.S. government laboratories have developed a new organic phosphorus compound called EPN as a substitute for the well-known insect killer, DDT. First introduced in 1945, DDT has made malaria—caused by the bite of the female mosquito (anopheles quadrimaculatus)—a rare disease in this country. But in some areas mosquitoes are building an immunity to insecticide.

Local communities also are busy combatting the insect. More than 250 U.S. mosquito control districts are preparing to spend \$10,000,000 this year.

Brikon Formed To Explore Northern Ore

An extensive program of mineral exploration for 1954 has been planned by Brikon Explorations Ltd., a new company recently formed by Transcontinental Resources Ltd. of Vancouver and Toronto.

Also associated with Brikon are a number of eastern companies including Dome Mines, Timmins Corporation, Chemical Research Ltd., Saphire Petroleum, and Yellowknife Bear Mines.

Transcontinental, with offices in Whitehorse, also operates Yukon Exploration Ltd., a dredge and bulldozer operation at 60-mile creek near Dawson which produced close to half a million dollars worth of gold in 1953.

Also managed by Transcontinental are Noland Mines Ltd., a successful deep-lead placer mine at Atlin, and Polaris Taku gold mine at Taku. The Taku mill and plant are under rental to Consolidated Mining & Smelting Company.

Industrial Safety Responsibility Of Management

TORONTO—Accident prevention in industry should be left in the hands of management and not handed over to government, states J. Gerald Godsoe, first national vice-president of the Canadian Chamber of Commerce.

Mr. Godsoe cites Ontario's excellent record as evidence of how the employer had accepted the responsibility of accident prevention and had been permitted to discharge his obligation.

Mr. Godsoe referred to recent suggestions that a better job of accident prevention could be done if it were the responsibility of government instead of that of industry. Since the matter may be brought up in the legislature at a future session, the Ontario government had recently asked for the views of industry.

"Our governments now have more than enough to keep them busy," Mr. Godsoe said. "Safety cannot be legislated; it is management's responsibility and we can meet it."

Strong Kick Test For Lightning Rod

A strong kick is recommended to farmers as one way to test the ground rods of their lightning protection systems.

Frank Andrew, a University of Illinois rural electrification specialist, said the rods often

rust off a few inches below the ground. They may look solid, but they wouldn't do the job if they don't go down eight feet, he says.

"Give the ground rod a kick," Andrew advised. "If it's badly rusted it will break off." He added that the lightning protection system is only as good as the ground rods and recommended a 1/4-inch rod eight feet long.

Another point to check is the connection between the cable and the ground rod. He said cattle often rub on the cable and break the connection.

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Aluminum, asbestos, copper . . . these are the materials in the news today—Prince Rupert, Kitimat, Cassiar and Stewart . . . some of the fabulous names.

One of Canada's very first giant strides into northern territory was taken a little over 50 years ago. It was the fabulous Klondike gold-rush of 1898.

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