









AB	LE	OF	C	ON	JTI	EN	TS	
				2-02				

가 걸었다. 영화는 귀에서 수밖에 관계적 것에 있는 것은 것이 것 같아요. 아이들 것은 것은 것은 것은 것이 같아요. 아이는 책에 가는 것이 것 같아요. 가지 않는 것이 것 같아요. 가지 않는	
The Mines of Babine Lake	
Granby comes to Copper Island	2
Noranda comes to the Babine	6
Granisle Copper begins production	1
The Newman Project	12
The first miners arrive	14
The Village is born	15
A Bubbler System?	17
Construction, Construction	18
The Bell Division starts up	
34,000 year old bones	22
A complex situation	
The Village expands	
Corporate Takeovers	
SPEC watches	
The AIB Strike	3
TRA Intervenes	32
A Turnaround	33
The ups and downs of the 1980's	35
The Critical Industries Commissioner	
Everything Changes	40
2018년 1월 2019년 1월 201 1월 2019년 1월 2	

MINES OF BABINE THF IAKE

embers of the Lake Babine Indian Band have lived on the Lake for centuries. They established a settlement in the north where the Lake branches into two arms, a place called Natalkuz where IT the Ravens gather. Now known as Old Fort this village is largely deserted except in summer when the native peoples return to fish for the famous Fulton River Salmon. Long before the beginning of the 20th century, the native peoples had moved to other locations at the headwaters of the lake, to a place now called Fort Babine, and to the south, near Topley Landing.

Some 46 miles south of Topley Landing, on the lake shore, was a building known as Donald's Cabin, now Donald's Landing. The ravens visited each of these locations along the lake, but until the prospectors and the loggers arrived, all the rest was wilderness.

It was early in the twentieth century when prospectors first ventured into the northern Babine. According to the British Columbia Ministry of Mines annual report prepared by Newton Emmons in 1913, the northern portion of the lake was visited by Charles Newman and H.J. McDonald. They hiked in from Burns Lake to Donald's Cabin and then travelled the lake by boat.

The two prospectors did some work on Silver Island, about six miles from Donald's Cabin. Then they travelled north to visit other islands in the lake and staked claims on Copper Island and on an unnamed peninsula to the northwest of Copper Island. These three locations were destined to become operating mines.

MORRISON LAKE

FORT BABIN

here were three mines on Babine Lake. Prospectors searched for them for half a century and their development opened a new part of British Columbia to the miners who followed, to their families, and to others who came afterward.

The first mine was small and unsuccessful. It was located on an Island at the south end of the lake in the mid-1920s. The other two mines were developed much later, in the north, and were much larger. With the start-up of the second mine, a village was born. It appeared in the wilderness in 1966 and grew from 300 people the first year to nearly 2,000 when the third mine got underway early in the 1970s. The second mine opened officially on June 12, 1967 and its neighbour, the third and largest mine closed on June 12, 1992. Many people fondly remember those 25 years, the mines that brought them to Babine Lake, and the frontier community, named "Granisle", that was built on a hillside with a magnificient view.

Babine Lake is approximately 110 miles long and lies in central British Columbia between the cities of Prince Rupert and Prince George. Granisle is 30 miles north of Highway 16 at Topley.

The people who came to the community and worked there were mining and trades people who earned a living and built a community while they contributed to the wealth of the companies that employed them, to the wealth of British Columbia and the whole of Canada. It was a time and a way of life which is fading from the fabric of the country and so it is important to remember how it was.

The people prospered in good times and then were faced with poor times, with mine closures and reopenings and finally, the last closure on June 12, 1992. The village is much smaller now, but it's still there. Some people who found it refuse to leave.

BABINELAK DONALD'S LANDING HIGHWAY 16 TOPLET

Newman and McDonald dreamed of finding a real bonanza and returned to the sites for a number of years, driving adits and digging trenches. McDonald built a cabin on Copper Island and then turned his attentions to the development of a small mine on Silver Island. In Vancouver he found financial backing and construction began in the latter part of the 1920s, but it is doubtful that much ore was produced before the market crash of 1929 brought with it the failure of the small venture.

3

The events of 1929 also delayed development on Copper Island. The claims there lay idle until 1927 when Douglas Lay persuaded Cominco Limited to take an option on them. Under the direction of Hank Giegerich, Cominco drilled several long holes on Copper Island, but in 1929 work here was also discontinued and the properties again reverted to Newman and McDonald. It is doubtful that either of them visited Babine Lake again.

Through the 1930s, only the ravens kept watch.

By 1940 E. F. Campbell & Associates of West Vancouver is reported as owner of the Newman Group claims. Campbell had been involved with McDonald in the development of the mine on Silver Island and some time after the Cominco option expired, he acquired all of the Newman and McDonald claims.

In 1943, a small company was formed by Francis Wright to take another look at Copper Island. He hired Dr. Victor Dolmage to re-examine and log the 1700 feet of core drilled earlier by Cominco.

A letter dated November 23, 1943, addressed to Noranda Mines Ltd. in Toronto suggests, "You might be interested in our Babine Lake copper, lead and zinc property. All the sampling done so far indicates fairly clearly that there is a large body of ore which will carry 0.8 percent copper and 50 cents to \$1.00 per ton in combined gold and silver." Dr. Dolmage's report was attached, but it failed to attract financing from Noranda or any other company.

Wartime Metals Corporation was the next company to take an option on the Newman claims in 1945. Bert Nesbitt was sent to Babine Lake in the summer of that year and it is probable he visited both Copper Island and the Peninsula. His report, filed in Ottawa, estimated a potential 50 million tons of ore grading .5 per cent copper. At the time the report was simply filed for future reference, but it contained information that would eventually entice Noranda to Babine Lake.

It was, however, another ten years before world market conditions, advancing technology and a favourable political climate combined to create an environment that would encourage two large Canadian mining companies to follow in the footsteps of MacDonald and Newman.

GRANBY COMES TO COPPER ISLAND

he Granby Mining Company was established in 1899 by H.C.S. Miner of Granby, Quebec and Jay P. Graves of Spokane Washington. The company took its name from Miner's home town and in the early part of the century was the largest mining company in British Columbia.

Granby's first venture was the Phoenix Mine and Smelter near Grand Forks, which became one of the largest in the world. This was followed by the Anyox mine and smelter near the B.C./Alaska border and the Copper Mountain Mine and Concentrator near Princeton. Granby also operated the Cassidy Coal Mine near Nanaimo on Vancouver Island.

Most of these operations closed during the early 1930s and the company faced liquidation in 1934, but managed to survive with some properties intact.

Two of these original mines were in fact reopened, Copper Mountain in 1937 and Phoenix in 1956, as a low grade open-pit copper mine. The company had a long history in British Columbia and considerable expertise in both underground and open-pit mining.

In 1955, Larry Postle, President of Granby Mining, was encouraged by the outlook for the copper futures market and began a search for new copper properties.

Mel O'Brien of Cominco told Postle about Dolmage's work with the core from Copper Island and Granby's chief geologist, Keith Fahrni, was soon on his way to Babine Lake.

Fahrni didn't take long to confirm that the Island was well named. There was copper everywhere. He secured the ground in the north-east of the Island, as well as the original Newman-McDonald claims, and began a drilling program based on a 200 foot grid. Before freeze-up additional claims had been staked and eight drill holes had been put down.

On the Island, in addition to the ravens, Fahrni met a Burns Lake prospector, Paddy Harrison, who was also staking claims around the area originally worked by McDonald and Newman.

Granby's exploration crew were convinced they had a mine. But Granby needed financing and no one would look at a property which had only been drilled on a 200 foot grid. By the end of the following summer, Fahrni's crew had drilled 49 holes on a 100 foot grid pattern and a remarkable continuity of values in copper had been demonstrated extending far beyond the limits of previous drilling.

Keith Fahrni

The development of a new mine was delayed by low copper prices and financing problems but by 1959 Granisle Copper Ltd. had been formed as a subsidiary of Granby Mining and an additional 30 holes were drilled. The name "Granisle" was a combination of the words "Granby" and "Island".

Although Keith Fahrni never actually lived on Babine Lake, during one summer he made a total of 13 return trips from Vancouver to Copper Island. It was an exciting time for the Granby geologists who were convinced from the beginning that the project would go forward.

Harvey Parliament was in charge of the Granisle feasibility study. He was very conservative in his assessment of the property and admitted that copper grade was generally 10 percent higher than his projections. Granby was recovering from an unsuccessful mining venture on Vancouver Island and Parliament was determined there would be no mistakes this time.

5

Harvey Parliament

Dr. Archie Bell

"The big advantage for the Granisle ore body was the stripping ratio," said Parliament. "It was almost zero, and as a result the ore body was not expensive to develop. That was the key, but it still took time to put the financing together."

Bob Matthew, manager of Granby's Phoenix mine, did two different pit layouts for the new mine. Then Granby contracted Hewlett & Associates, a company in Tucson Arizona, to develop a computerized pit design which turned out to be very similar to the ones Matthew had produced. Simon Handelsman worked on the design in Tucson and was hired by Granby to work on pit development at the site.

Mill testing followed the feasibility study and was completed by Granby staff in April 1964 based on a copper price of 28.5 cents U.S. The decision to go ahead was made the following February.

Meanwhile, Granby consolidated its mineral rights on Copper Island by purchasing the claims staked by the old prospector from Burns Lake. This paved the way for construction of the mine and processing facilities. It had been ten years since Keith Fahrni first met the ravens on Copper Island.

NORANDA COMES TO THE BABINE

hile Granby moved to develop the Granisle Copper Mine, Noranda Mines Limited geologists also found their way to Babine Lake and began an examination of the "Newman Peninsula" which had been almost untouched since Bert Nesbitt's visit.

6

In the Spring of 1962, Dr. Archibald Macdonald Bell was General Manager of Noranda Exploration Company Limited and was aggressively seeking new mines across Canada. He

had established regional exploration offices across the continent and directed a \$10 million a year exploration program in Canada, the United States and other countries.

Those who worked with him described Dr. Bell as a gentleman, a sportsman, and a brilliant geologist. He loved his work and the outdoors. He joined Noranda in 1934 at Gaspe Copper in Quebec having received an M.A. with honours in geology from the University of Toronto and a PhD. from the University of Wisconsin.

In the early 1960s there was a shortage of copper and Noranda's smelter in Quebec needed a new supply. Dr. Bell's mandate was to find new copper either for Noranda or for joint development with the Japanese who were in competition with Noranda to purchase North American copper supplies.

Dr. Bell and Bern Brynelsen, who set up the Noranda exploration office in Vancouver, undertook to interest the Japanese in joint venture projects in British Columbia. {Japanese money helped to develop Granby's, Granisle Copper Ltd., but in the end did not play a part in the development of the Newman Property.}

Dr. Bell decided to introduce a second exploration group in British Columbia which would concentrate on the northern half of the province and he hired David Lowrie, who was with Texas Gulf at the time, to put it together. Dr. Bell hoped the Japanese would be interested in funding further exploration in an area where rapid rail and sea transportation to Japan was available.

In Toronto, Noranda was preparing to move to larger offices. Dr. Bell was cleaning out his desk and in the back of a drawer found some notes he had made in Ottawa a number of years earlier. They were notes on Bert Nesbitt's examination of the Newman Claims on Babine Lake. Nesbitt had taken a small bulldozer to the site and carried out some trenching where he exposed a light coloured porphyry bedrock. Dr. Bell had more than a hunch that the porphyry was an important find and he knew that Granby was already busy in the area so he moved quickly to stake claims for Noranda.

He tried to contact Lowrie who was in the field and failing to reach him, asked Morris Menzies who was working with Bern Brynelsen in Vancouver, to send a Noranda field man to stake claims on Newman Peninsula. George Burdett visited the Newman Peninsula in July 1962, took rock samples from an old adit and staked Newman Group claims #1 to #11 over the adits made by Newman and McDonald.

Dr. Bell explained his interest to David Lowrie who had by this time established an office under the name, Norpex, on Broadway in Vancouver. Roy Woolverton was transferred from Noranda's exploration office to

Norpex and Ivor Saunders and Gavin Dirom were hired to work with Lowrie in northern B.C. In August, Lowrie called them in from other projects to set up camp at Newman Peninsula.

By August 11, Dave Lowrie, Gavin Dirom and two student geologists were on the Lake. They ventured up The Babine in heavy rain and set up camp near the old Newman workings. Neither Lowrie nor Dirom was impressed with the extent or style of mineralization they saw but agreed the showings

She of byings the first camp on Newman Peninsula

should be mapped and one or two electromagnetic survey test lines could be run if time and personnel permitted. It was decided the main function of the camp would be to sample creeks in the area. This was done from a rented boat and on the Newman Peninsula intermittent prospecting, trenching and mapping of the Burdett claims was completed by Dirom and student geologists, Brian Good,(later a mines inspector in Smithers,) and Jim Booth. A lack of any outcrop inland from the lake prohibited the crew from finding encouraging information.

By August 19, Roy Woolverton moved to Topley Landing with a reconnaissance helicopter used for silt sampling and to provide support to the crews that were now involved on the Babine and at nearby Morrison Lake.

The Dirom crew was scheduled to move to another location, but Woolverton radioed that the helicopter had broken down. The crew on the Newman Peninsula was stranded and Dirom decided to complete the electromagnetic testing which had been discussed earlier with Lowrie. They began along the hill above the shore line where Newman and McDonald first drove their adits. Just to the north was a weathered, slightly reddish, bluff which seemed a likely spot to begin.

Almost immediately an anomalous reading was obtained and the survey was extended inland until by September 6, some 33,000 line feet of electromagnetic surveying and 33,000 line feet of magnetometer surveying were completed. Three additional claims, Newman 12 to 14 were staked on September 5 to cover the eastern extent of the ground included in the surveying. These new claims covered a significant portion of what was now known as the Newman deposit.

The equipment used, "The Crone: shootback method", was developed for Noranda by Duncan Crone in 1957 and quickly came into common use. It was easy to operate, light weight and more accurate than other electromagnetic surveying methods because its coil orientation and repeat reading technique reduced errors caused by rough country. Without it, the Bell ore body might never have been found. Much of the peninsula was covered to a considerable depth with glacial till which effectively prevented the migration of metal ions to the surface and made soil sampling inconclusive.

Mother Nature had done her best to keep the Newman deposit hidden, but by September 27, 1962, Gavin Dirom had some interesting news. He wrote: "The direct correspondence of magnetometer and electromagnetic anomalies is exceedingly interesting and suggests that the anomalous results did not arise from a conductive overburden but rather from a conductor or conductors beneath the overburden."

The interpretation of these survey results contributed to a decision to collect additional soil samples. This sampling, carried out by David Lowrie and Roy Woolverton, late in September, produced an anomalous reading taken in seepage inland and above the old Newman workings. The sample contained five times the amount of copper found elsewhere in the area.

This promising combination of results brought grins to the faces of everyone at Norpex. They had a mine for Archie.

Lowrie's assessment of the Newman property late in 1962 sounded much more conservative than he felt: "on the basis of quite inadequte data, the copper content of the soils, coupled with the magnetic and E.M. anomalies indicates a situation where further work is necessary."

This was a remarkably successful summer for Norpex. While Gavin Dirom worked on the Newman Peninsula, Ivor Saunders and his helper were sampling creeks draining into Morrison Lake. Two of the samples taken in 1962 contained anomalous amounts of copper but it was late in the season and the Norpex group was forced to wait until the following summer before they could confirm the discovery of the Morrison ore body.

In the Spring of 1963 Dave Lowrie established an office in Smithers as a base of operations to carry on property work and regional exploration in the Babine Lake area. Lowrie, Woolverton, Saunders and Dirom were joined by four student geologists.

In May, the entire Norpex crew set up camp at the Newman site as soon as the lake was ice free and immediately sought out the anomalous creek on Morrison Lake. Woolverton and Saunders found copper mineralization in the freshly scoured creek bed below a breached beaver dam.

Woolverton, Saunders and Lowrie staked the initial Morrison claims for Noranda, named "Ellen" for Roy's wife and "Alva" for Ivor's wife. Surface mineralization and initial results at Morrison were impressive and for some time Dr. Bell was undecided as to whether Morrison or Newman should be developed first.

A detailed geological, geochemical and geophysical study of the Newman property was undertaken in the summer of 1963. Three holes were drilled in July spotted on magnetic and electromagnetic anomalies. These locations were selected, after considerable discussion, by Archie Bell, Lowrie, Woolverton, and Dirom, and would include the sites selected later for placement of the mine, mill and pit. The first hole intersected strong pyrite mineralization in what was later recognized as the pyrite halo associated with the orebody. The remaining two holes intersected oxidized sediments and feldspar porphyry which contained erratic but significant copper grades ranging up to .82 percent copper. Hole #4, drilled early in 1964 intersected .95 percent copper over its initial 70 metre length. These four holes were the discovery holes and set the stage for development of the mine.

By the end of the season when Lowrie made a detailed report to Dr. Bell he suggested: " Because the property is covered by some 20 to 30 feet of overburden, the most economical method to sample the underlying rock is to drill a series of short 50 to 60 foot holes. These holes will be carefully logged and sampled. The casings will be left in so that they can be deepened at some later date after an area of interest has been outlined by the short hole drilling program."

During 1964 an extensive exploration program was completed on the Newman Property. Dave Lowrie left Noranda to return to a former employer and the Norpex offices became a part of the Western Division of Noranda Exploration.

Woolverton stayed in Smithers to supervise exploration in northern B. C. and Don Cochrane, Carl Millar and George Camsell were hired over the next few years to manage the Newman project.

Gavin Dirom required surgery in the winter of 1963-64 and worked only part time until 1965 when he returned to university to complete post graduate work. He returned to the Babine in 1967 when he became manager of the Exploration office in Smithers.

In the next few years a number of people worked on the Newman property.

Dave Carson made his first visit to Babine Lake in about 1964 and became interested in alteration zones in the Babine area. Carson had been hired by Dr. Bell in 1955 and had worked closely with him. In the years following the discoveries he provided help on property examinations and completed detailed geological mapping of the Morrison deposit in addition to work at Newman. Carson never forgot the ravens and the "Babine Queen", a plywood inboard boat used on Babine Lake until it sank in about 1970.

Dave Fountain advised Archie Bell on geophysics, and in the field were C. C. Sheng, Dan Pegg and his dog Major, Bill McGee who logged the Newman core in 1966 and Bob Bankiner. Between 1968 and 1970 Dave Jewett, Walter Nelson and Gordon Ford all worked on the property.

Essential to the success of the project were people with specialized skills like Tom Walker in geophysics and Jim Knauer in geochemistry who worked when required on the project during the ten years from discovery to production. According to a number of people, Sylvia Cromb was another essential team player as expeditor in the Smithers office from 1967 to 1972. She followed Bill Young who filled the same position from 1964 to 1966.

At a later date, referring to the Newman property, Dr. Bell wrote: "In the Babine area, there are three known porphyry mineralizations. Granisle is the southerly occurrence, Newman is five miles to the north and a deposit at Morrison Lake, also found by Noranda, is 14 miles north of this again.....The main ore at Newman is at the western nose of the porphyry. The dimensions of the stock are 1500 feet by 3000 feet. The best mineralization is in a vertical pipe of highly fractured rock, 500 feet in diameter that extends to a depth of at least 2500 feet. The ore in this pipe grades about .7 percent copper while a perimeter area for some 400 feet outside of this is of lower grade.

At one time the Morrison deposit looked more promising than Newman Peninsula, but the copper grade was found to be slightly lower. It remains undeveloped, although considerable additional exploration work has taken place.

Exploration activity and logging operations had now begun to change the Babine area. A gravel logging road ran from Topley on Highway 16 for 20 odd miles to Topley Landing. Tugs with log booms in tow plied the Lake and a barge provided transportation from Topley Landing for the eight mile trip to Copper Island where the Granisle Copper Ltd. mine was being built.

GRANISLE COPPER BEGINS PRODUCTION

November 1966.

ilborn Engineering reviewed the Granisle Copper Ltd. feasibility study in the Fall of 1964 and confirmed the recommendations of the Granby engineers. The mine was financed by the sale of Common stock and by a \$3 million loan from a Canadian Bank, a \$7.5 million loan from four Japanese companies of the Sumitomo and Mitsubishi groups and a \$1 million loan from Granby. A contract was also signed with the Japanese to take the mine's entire output for ten years. The \$10 million plant was in operation by

Wright Engineers designed and built the \$10 million plant which was in operation by November 1966 processing 5000 tons of ore per day.

Ore reserves at Granisle were calculated at

22,700,000 tons grading .533 percent copper and containing small but significant values in recoverable gold and silver.

When the mine opened, veteran Vancouver business reporter, Bob Shaw, wrote: "Granisle Copper Ltd. is British Columbia's newest producing mine and is the latest demonstration of the effectiveness of modern mining methods in making a profit on low grade ore..... The price of copper that Granisle is receiving is 44.8 cents U.S. per pound. The minor precious metal values give

35 cents per ton of ore."

Harvey Parliament said of the Granisle property, "Granisle would have been a routine operation except that it was on an island and the ore grade was so low."

However, the ore grade during the first year actually averaged 0.73 percent. During the first four years the grade was 0.61 per cent dropping to 0.51 after that. In the first two years of operation, Granisle Copper Ltd. recovered its initial investment.

THE NEWMAN PROJECT

he first feasibility for the Newman property was prepared by John Hall, Vice-President Mine Projects for Noranda Mines Limited in October 1966. This study called for a 6,000 tons per day concentrator and crushing plant. Wright Engineers was also asked to produce a cost estimate for a 10,000 tons per day plant based on these estimates. This work, however, was terminated when the Federal Government released the Carter Report in February 1967. The report recommended the removal of various incentives to the mining industry.

12

However, in 1969 the feasibility was reviewed by John Hall and Jim Kraft, Project Engineer for Noranda Exploration. A revised feasibility was prepared containing detailed information from others who had become familiar with the property: Dr. Bell, Gavin Dirom, Lyall Ames, Noranda's General Superintendent of Mills and Bruce Wallace, General Mill Engineer.

While Wright Engineering completed cost estimates, Hewlett & Associates, the consultants in Tucson, Arizona provided a computer evaluation of ore reserves and pit designs.

The 1969 study listed ore reserves of 46,000,000 tons and a grade of .50 per cent copper. The optimum pit design suggested in the report would have a total depth of 800 feet and would involve the removal of 23,000,000 tons of waste rock and 6,000,000 tons of overburden. At 10,000 tons per day, the operation would have a life of at least 13 years. Capital cost was estimated at \$30,780,000. The copper price now stood at \$.43. and this would provide a rate of return on capital investment of 11 percent.

The conclusions and recommendations section of the '69 Newman feasibility



contains a note of caution. It states: The future tax structure will have the greatest bearing on a production decision. The low tenor of the ore dictates that any acceptable profit is dependent on an above average cash flow during the early production years.

The report adds: "A change in the average metal price forecast will also have a major effect on the estimated rate of return. A decrease or increase of one cent per pound of copper will alter the return to 10 percent or 12 percent respectively."

The third mine on Babine Lake did not have two of the advantages which initially made the Granisle Mine so profitable, a three year tax free period or a zero stripping ratio.

With the completion of this Noranda feasibility study, Larry Postle, President of Granby Mining Corp. made his first offer to purchase the Newman Property in exchange for shares in Granby. The offer was declined.

Although it was premature, Noranda had first announced development of a third mine on Babine Lake on February 10, 1967. A Vancouver Province story that day stated: "Noranda Mines Ltd. will spend \$30 million to bring its Babine Lake copper property into production within two years.....Milling rate at Noranda's Newman property will be 10,000 tons daily, highest of any Noranda copper mine in Canada."

The story also stated, "The Babine property will be the first wholly-owned copper mine in B.C. to be operated by Noranda."

David Lowrie called it the only economic mineral deposit found and staked for Noranda by its employees in its entirety. He felt there was a great sense of achievement for the small group responsible for the find.

It was Ozzie Hinds, who succeeded Archie Bell as head of Noranda's Exploration Division, who moved to have the name of the Newman Property changed. And so it became the Bell Copper Division, a tribute to Dr. Bell and his exploration crews. He retired from Noranda in 1972 the same year the Bell Mine began production.

THE FIRST MINERS ARRIVE

xploration work on the Newman peninsula was still expanding the parameters of the ore body when the Granisle Mine began production. The original staff included: Angus J. McDougall, manager, a man who had been born at Anyox; Boyd Hardwicke, mine superintendent; Dal Russell, mill superintendent and W.H. (Bill) Miller, plant superintendent. Harry Ischiedel was chief accountant and Elmer Henning and Danny Mathews were also part of the original staff.

These men were the early arrivals. They saw the wolves on the ice in winter and gained a certain respect for the ravens.

"Those birds were smart," said Bill Miller, "They got to know the mining routine. When the whistle blew, they all flew away and didn't return until after the blast."

The mine initially employed 125 people and the official opening of Granisle Copper Ltd. took place on June 12, 1967.

The following day Vancouver Sun Business Editor, Bill Fletcher wrote: "A lone bull moose grazes contentedly on the shore of this beautiful lake while high above him powerful rock-moving equipment roars into the slope of Copper Island in a \$1 million monthly operation.

"This is B. C.'s newest producing copper mine, Granisle, some 500 air miles north of Vancouver, financed by Japanese, United States and Canadian capital, which went into production last November and was formally opened on Monday."

During the construction of the Granisle Mine, men and supplies were barged to Copper Island, or McDonald Island as it was frequently called, from Topley Landing. It became a tedious trip and the decision was made to build a new community for employees, closer to the mine.

THE VILLAGE IS BORN

hortly after he arrived at Babine Lake, Bill Miller wrote: "There are many rewards, despite the problems, from developing a mine and community in a remote location. The knowledge and close friendship of the pioneers in this northern area are unique."

15

The first people who came to Granisle were miners and their families. They were men from other mining communities, some from remote regions, men familiar with the challenge of taking rock from the ground, crushing it, combining it with chemicals to separate out the desirable elements and then shipping the concentrate to the four corners of the earth. Open-pit mining relies on economies of scale. It's big, noisy and financially a high risk industry. The work produces a special breed who wrench wealth from the rock and have a pioneer spirit that has built the mines and mining communities which dot the landscape of Canada.

Clearing for the Granisle townsite began in the fall of 1965, construction followed in the Spring and by October 1966 the first families were moving in. They faced a frontier existence in a land where winter snows piled high. In Spring, moose could get stranded on the thawing ice, and it was not always possible to rescue them.

> The B. C. government made life easier by extending the logging road from Topley Landing into the new community.

In Winter, snow often piled high in the Village.

the state that the the the

"Granisle" was finally ready for occupancy. People soon moved in and so did the ravens. In the beginning the community consisted of 25 bungalows with two or three bedrooms and 20 apartment units. In addition there was a ten-unit trailer court and single camp accommodation for 80 with dining facilities.

16

The community was planned to accommodate expansion and an additional 50 lots for single family dwellings were laid out, along with a commercial area and recreation section.

From the beginning there was a four-room school in Granisle with a library and gymnasium and schooling was provided for children in grades one to eight.

Tom Cloke organized a School Board and became its first Chairman. High school students boarded in Burns Lake until the community grew larger. When he retired, Tom stayed in Granisle to enjoy life for as long as possible in a community he helped to build.

The early residents began to work on recreational facilities. During the first Winter a skating club was formed and in the Spring a marina group organized.

By the end of the first year the population stood at 300 people. Already the attractions of the area were evident. There were winter sports, hunting in fall and great fishing. Summers were hot with long hours of daylight.

One mine manager who arrived at a later date commented on the unique life style offered by the community. "It's the only place I ever knew where you could go to work in winter by snow-mobile and in summer by powerboat."

A BUBBLER SYSTEM?

arious means of transportation from the new community, across the lake to the Granisle mine were studied. A tugboat was ideal in summer, but useless in winter. As soon as thick winter ice formed on the lake, vehicles could travel across it, but freeze up and spring thaw remained difficult and winter temperatures could vary greatly so that safety on the ice was a concern.

A decision was taken by Harvey Parliament to construct a bubbler system that would maintain an ice free channel from the shoreline to the Island on a year round basis. The idea of building the bubbler originated with Lesley Smith, a Vancouver consultant who was familiar with the system commonly used in Sweden.

The original Granisle Mine Bubbler was designed to cross an open body of water over a mile wide with a depth of as much as 365 feet. Compressed air fed to a pipe line was expelled through holes in the pipe. Rising to the surface these bubbles took with them the warmer water from the depths of the lake and thus maintained an ice free channel throughout the winter when ice on the lake was often two feet thick.

The ferry crossing ran from the Landing in the community to the south-west tip of Sterrett Island. From here the route to the Granisle mine was by road and causeway to McDonald Island where the mine and concentrator were located. The tug and barge had one very regular passenger. He was lame and probably quite old but the big black raven known as "Peg-Leg" rode the barge every day.

Later, when the Noranda bubbler was added, he also regularly took the trip to Newman Peninsula. He became so well known that he eventually became the

star of a mining industry film about open pit mines.

Final design of the first bubbler system was prepared in 1965 and it was installed during the Fall of the same year. The system was later rebuilt on a shorter route.

The start of mining on MacDonald Island provided Granisle Copper with additional information about the ore body. A lower cut-off grade outlined additional reserves and in 1971 a decision was made to expand mine capacity to 13,000 tons per day. Unfortunately, this expansion took place at the same time Noranda began to develop the Newman Property. Both facilities and people were taxed to the limit for the next two years.



CONSTRUCTION, CONSTRUCTION

he newspaper article of 1967 which announced the start of construction on the Newman Property was a little premature. Construction did not begin until 1970 and instead of \$30 million the mine eventually cost \$44.5 million. There were a number of unforeseeable complications.

18

Noranda's project development team was occupied on another property and did not become available until 1970. Considerable time was also lost assessing the Morrison property which initially looked more promising than Newman. This shortened the tax free period available to Bell for capital cost recovery.

Another delay was caused by a six-month, province-wide, construction industry strike which began as the mine was nearing completion. Crews had already been hired for the mine and they were anxious to begin their new jobs. The construction strike was frustrating and extremely expensive for Noranda.

However, the miners were determined to do as much as possible while they waited for settlement of the strike. They began by removing every available ton of waste rock from the benches while they waited for completion of the mill that would process the ore. The pit looked like a jigsaw puzzle before the mill was finally completed six months later.

Construction workers for the Bell Mine were housed at the site, some eight miles to the northeast of the village and across the lake on the peninsula. As mine employees were hired they began to move to the community. At the Granisle Mine, the \$9 million (eventually \$14 million) expansion project filled all the single camp accommodation in town to capacity. Everything was bursting at the seams.

On June 28, 1971, the Village of Granisle was incorporated. It was identified as British Columbia's newest town. One article about the community stated: "the townsite provides homes, recreation, social life and commercial facilities for 170 employees of Granisle Copper, 80 of whom are married. It has been built in a wilderness that offers a new and exciting outdoor life to people who live there. The town will grow from about 450 people to 1,500 by 1973. This growth will result from the expansion of the Granisle mine and the start-up of Noranda's Bell Copper Division."

Granisle's first Village Council was appointed by the B.C. Department of Municipal Affairs. Milo McGarry held discussions with the Government and an agreement was reached to appoint a five-man Council, all to be Granisle property owners. The Council would consist of two Noranda nominees and two Granisle nominees and would include Milo who was at that time Industrial Relations Manager for Granby. He owned no property in Granisle and so Granby sold him a lot for the sum of one dollar and he was appointed Mayor by the government.

This first Council was composed of Granisle appointees, Lorne Denison and Frank Donecz while Noranda appointed Mine Manager, Bill Allan and Superintendent, Ron Broom. Lorne Denison later became the first elected mayor in the new Village of Granisle.

THE BELL DIVISION STARTS UP

ill Allan was first manager of the Bell Mine and it was his first assignment as a mine manager. He had spent three years as Mine Superintendent, working on the development of the Brenda Mine in the Okanagan region, familiarizing himself with open-pit operations.

In April 1970, John Hall, Noranda's Vice-President Mines, accompanied by Bill Allan, Frank Koch, who would build the mine and Gavin Dirom visited the Newman Peninsula. It was Allan's first trip to the site and the beginning of a long association he would have with the mine and the people of Granisle.

The team working with Bill Allan during the construction phase included: Frank Koch, who was in charge of many of Noranda's development projects over this period, Bruce Wallace, whose specialty was mill development and Jim Kraft, in charge of pit design.

"Frank Koch and Bruce Wallace finalized the design and built the plant, and Jim Kraft gave us an outstanding pit design", Allan commented.

Jim Kraft called it the Hewlett design as it was based on the computer work done in Tucson which generated trends for low grade and high grade ore bodies.

When Frank Koch first visited the property in 1969, he recalls taking a float plane from Smithers in very bad weather and "bouncing" all the way. According to other passengers, Frank turned green, but survived the trip and completed the reconnaissance of the property that he had come to make.

"We couldn't have done it much before 1969", said Koch, "That was when the



economics came together and we could finance the project by selling copper forward." The selling forward price was \$.58 for five years. All the concentrate from the Bell Mine went to the Horne Smelter in Quebec, to Canadian Copper Refineries in Montreal and then on to Germany. This agreement financed construction of the mine and provided some stability in the early years, but was a discouraging factor for employees towards the end of the five year period when they saw the Granisle Mine making larger profits while Bell people struggled at a lower than market price until the five year period finally ended.

"Logistics was the key to the Bell Project because everything had to be barged in," Koch commented, "supplies from all across the country. We often had trucks backed up waiting and the barges were running on a half-hour schedule.

"I remember we had a lot of trouble with the construction unions. It was a multi-union job, all with different contracts. The unions were pushing for double time for overtime."

Another problem during construction was the lack of gravel in the area for roads and concrete. The only gravel was in the Fulton River and that was being developed as a spawning ground for salmon, so the gravel came from the beach areas of the Lake.

Some of the men who worked with Frank Koch to build the Mine were: Lyall Ames, Ron Broom, Tom Rowan, Bill Hoogsma, Endel Jaakson, Jim Cahoon, Dave Carmichael, Jack Bellefontaine, Jim Austin, Al Ozal and Kurt Rosger.

In later years, Dave Carmichael took his turn as Mayor of Granisle.

Bill Allan recalled, "Our barge crossing was sometimes an annoyance for the construction crews and later for our employees. It was longer than the Granisle crossing and it was also eight miles down a gravel road from the community."

Dick Coleman, vice-president of metallurgy and milling for Noranda when the Bell Mine was built, recalls it was a very conservative design with a standard flow sheet. "Bruce Wallace did the work, designed the mill and, in later years, the flotation replacement and additional regrinding equipment."

Coleman added, "Tailings disposal was always a concern at that mine. We built the dam with waste rock from the pit and possibly we shouldn't have done that because of the slight acid generation from the pyrite. Today we are more knowledgeable, more environmentally aware, and would make different decisions."

Bill Allan recalls that Kurt Rosger was the first person he hired. They had known each other earlier at Noranda's Gaspe Mining Division in Murdochville, Quebec.

"Kurt put the road up the west side of the lake from the town to our dock area and also hired a contractor to remove the soil and overburden from the pit area and plant site," said Allan. "He could do anything with a bulldozer and that included landscaping for some of the home sites in the town."

One of the contractors hired by Rosger came into conflict with the ravens of Babine Lake. The

Hamblin Brothers, all five of them had been hired to do some excavating. One of the bulldozers broke down and upon examination, the brothers discovered the "O" rings needed replacing. One of them drove over night to Prince George and returned the following morning with the rings. As replacement work began, the noon luncheon whistle blew, and the brothers carefully put the rings in a paper bag, put the bag on the seat of the dozer and then placed a heavy weight on top of the bag. When they returned from lunch, the weight had been moved, the bag was broken open and all the rings were gone. The ravens had been hard at work.

34,000 YEAR OLD BONES

oon after the contractor had begun to remove the overburden from what was to be the Bell pit, Dave Carson was on one of his regular visits to the area. He met Archie Bell, Bern Brynelsen and Gavin Dirom and together they headed for the pit. As they arrived, the construction people were excitedly talking about some enormous elephant bones exposed by the earth moving equipment. Bill Allan had roped off the area where a tusk was found. The University of B. C., the Department of Mines and the Geological Survey of Canada were all contacted but seemed uncertain as to the proper course of action. Carson phoned Howard Tipper who was with the Geological Survey of Canada and was in Smithers, just a short distance away. Tipper with a crew of his people, plus the Noranda exploration crew from Smithers headed for the property. They teamed up with Bill Allan's employees to retrieve the bones.

The Canadian Journal of Earth Sciences in 1974 contained an article prepared jointly by Howard Tipper, C. R. Harington from the National Museums of Canada and R. J. Mott, of the Geological Survey of Canada in Ottawa. The article said in part:

"In June 1971, during stripping operations at Noranda's Bell copper mine on Babine Lake, the bones and tusks of a mammoth were uncovered. The Geological Survey of Canada was notified, and Tipper, who was working in the Smithers area, spent two days at the site excavating fossils. The bones exposed were concentrated in a small area about 100 ft. (30.5 M) square.

An introduction to the same article states: ..."The bones of a partially articulate mammoth skeleton lay in silty pond deposits in a bedrock depression and were overlain by a thin layer of gravel and a thick layer of glacial till. Although no molar teeth were found, limb proportions show that the specimen was a large mammoth like the Columbian mammoth.....the animal sank in sticky pond deposits and



died there. Paleobotanical evidence indicates that during this part of the Olympia Interglaciation, the vegetation near Babine Lake was similar to present shrub tundra just beyond the treeline in northern Canada."

Reporting on "The Babine Lake Mystery" as described by Dr. Harington when he addressed the American Association for the Advancement of Science in Washington, D. C., The Province newspaper in Vancouver carried a story in January 1973 which stated: "The 11-foot high mammoth wandered into the area roughly 34,000 years ago and sank struggling into an ancient peat bog."

People from the University of B. C., the Department of Mines and the Geological Survey were all involved in retrieving the bones. A 15-man crew had come to Newman Peninsula to collect them and the shipment to Ottawa weighed 800 pounds. Some of the bones were later replicated by the Archeological Society Museum in Ottawa and can now be seen at the local Museum in Granisle.



A COMPLEX SITUATION

ohn Keenan, was Noranda's Regional Supervisor of Industrial Relations, as the Bell Mine became a reality and his problems were countless.

"First of all we had to cut trees on the site for Bulkley Valley Forest Industries", said Keenan. "I can also remember going with Bill Allan, Tom Rowan and Frank Koch to eyeball the property before we got the road in or built the construction camp. We had to locate a site for the barge landing. When we walked the survey line in the bay across from Bear Island the bush was full of devil's club. It was a painful experience to say the least."

The decision was taken to supply housing for Noranda employees in the new community of Granisle. However, because Granisle Copper Ltd. owned the townsite, purchase of land for Noranda housing had to be negotiated with Bob Matthew and John Jewett, President and Vice-President of Granby.

Both companies realized the community could be a more attractive place for employees if it was a little larger, but it would be nearly two years before the community's growing pains subsided. Instant accommodation was required, but was impossible to obtain. Even using prefabricated housing, it took a considerable length of time to produce the number of houses required and deliver them to the new community. The harsh winter compounded the problem.

Although Noranda employees initially felt like second class citizens, because there was no housing for them, personnel from both companies were on good terms and shared sports and social activities in the village.

Noranda supplied camp accommodation on Newman Peninsula for all the unionized contruction crews who were hired by various contractors during mine construction.

Said Keenan, "All the Unions dealt through the contractors with Noranda. The workmen wanted improved access because of the relative isolation of the construction camp and they constantly complained about the food. Construction Labour Relations Association claimed the camp was not acceptable, and I spent a lot of my time smoothing things over. Every day there was a new problem.

"We had a couple of inadequate cooks and some really good ones. One arrived by float plane and it flipped over on landing. No one was hurt, but it wasn't a good introduction for a new employee. I remember Dennis Klee in particular. He catered the first Christmas Party in 1970. The ice sculptures and decorations as well as the food were outstanding.

Keenan added, "One of the blasts one day sent rocks through the bunk house roof and broke one of the toilets. Fortunately, no one was in the bunk house at the time."

One repair project in February was particularly difficult. The Noranda bubbler system, longer and more complicated than the Granby system, was suspended from submerged buoys and had two compressors, one at either end. The system began to break down and there weren't enough bubbles to keep the channel open. Candive from Vancouver was hired to check out the system, but the temperature was -40 C, and because of the depth at which they must work, the divers could stay down only 12 minutes at a time. They were operating out of open boats which kept icing up. Conditions were unbearable. Candive found oil in the pipe had plugged some of the nozzles and blown out others. It was a very long, difficult and dangerous repair job.

25

The earlier installation of the Granisle Mine bubbler had not been accomplished without its own problems. When divers were hired to begin laying that pipe, it was also mid winter. One day SOS signals were identified at the Mine coming from the tug in the middle of the lake. The divers had surfaced but the tug wouldn't start and the crew was marooned. A native boy organized the rescue from the ice.

THE VILLAGE EXPANDS

n mid-1970 Bill Allan purchased three lots in the community of Granisle and by September three houses had been built. He and his family occupied one, Ron Broom who was hired as Plant Superintendent, took the second, and Kurt Rosger occupied the third.

The expansion of the Village of Granisle to more than double its original size began on land to the South of the original community. Because housing was needed urgently, Engineered Homes provided modular housing delivered by truck from Vancouver. At the same time water and sewer systems were expanded to accommodate the sudden influx of people. The little community was growing fast.

Allan commented, "There were real housing shortages for quite a while and at the beginning, a logging road provided the only access to Highway 16."

One of the early arrivals at the Bell Mine was John Kalmet, who became Mine Superintendent in August 1971. He came from Noranda's Pamour property in Ontario. There was no family housing available in Granisle and Kalmet spent three months living in a bunk house. By late Fall, trailer accommodation became available and he, his wife and family lived in a trailer until additional housing was completed some 18 months later.

Kalmet commented,"The townsite construction crews made valiant efforts to complete the new housing, but the winter weather was against them. We were pretty cramped, but most of the families were young and didn't mind too much."

Kalmet left Granisle in 1974 to become Mine Superintendent at Noranda's Central Canada Potash operation in Saskatchewan, but returned to the Bell Division as Mine Manager in 1976 when Bill Allan left.

He recalls one time when the ravens deserted the Bell pit. It happened during construction of an addition to the tailings dam. A stand of trees was regularly used by the ravens for refuge when the blasting whistle blew, but this time, their refuge disappeared in the blast. It was some time before they returned.

Construction of the mine began in 1970 and was completed in 1972. Bell was designed to process 10,000 tons of ore a day, but



Gradually the lillage of Granisle expanded.

soon climbed to 12,000 and eventually to 17,000.

"It was a very good plant", said Allan, "It was half the size of the Brenda Mine in the Okanagan and operated at very competitive costs in an industry where economies of scale were essential."

As the new mining project neared completion it was announced that the Bell Mine represented a \$40 million investment and would employ 230 people.

About the same time, Roger Taylor, who replaced Boyd Hardwick as manager of the Granisle Mine announced completion of an expansion program which brought total investment there to \$24 million with a workforce of 180 people.

Gradually the Village of Granisle became a more inviting place to live. The road was paved from Highway 16 to the townsite. A commercial area began to take shape which included: a store, gas station, post office, library, RCMP post, doctors office and nursing service, an interdenominational church and recreation hall, curling rink and finally a hotel.

The 32-room hotel was built by a group of entrepreneurs, but it was too large for the community and seldom if ever full. The two companies cooperated to keep it in operation. In later years it was sold to a small group of townspeople interested in using it for tourist accommodation.

Doug Matheson came from the Brenda Mine to Bell as General Mine Foreman and he was partly responsible for developing the Community Centre Arena Complex. He wanted his children to have a place to skate and learn to play hockey. It is reported he wore out three snow blowers (not his own) clearing the outdoor rink before the arena was built.

John Hall found the Arena building in Prince George, sitting unwanted and unused. It was purchased for \$60,000, and the amount was repaid by employees at both mines through a payroll deduction of \$2.50 per employee per month. The amount contributed by employees was matched by the companies. The Lions Club secured grants to complete the inside of the arena for \$150,000. When completed it was turned over to the Village for payment of \$1.00 and when Matheson died a few years later it was named the Doug Matheson Memorial Arena.

"It was really a great place to live," commented Bill Allan. "My children spent six years there, learning about the outdoors. They all learned to skate there."

After startup The Bell Mine went through some difficult years.

Emile Brokx recalled some of his experiences after his arrival from the Gibraltar Mine in 1973. "The group of professionals at the Bell Mine were technically very competent and they impressed me," commented Brokx.

Emile and his family which included three children arrived in Granisle to find their moving van had been totally destroyed. An aeresol can had exploded in the van causing a fire which burned everything they owned. "I remember Barbara Allan was wonderful to us when we arrived," said Brokx.

Emile's impression of the early years at Bell can be summed up in one word "frustrating". As

a result of forward sales of copper the mine received lower than market prices for copper and therefore profits were low. There was no money for capital expenditures and it made operating the mine difficult.

In addition there was a high turnover of employees because both the Granisle Mine, where Mike Berthelsen was now manager, and the forest industry paid higher wages than Bell and the shortage of tradesmen was often critical.

Emile recalled one morning barge trip to the mine in the heavy fog which often covers Babine Lake. Everyone moved on board and dozed as the barge inched its way across the lake and the fog thickened. Finally, nearly an hour later, (crossing time was normally no longer than 30 minutes) the landing loomed out of the mist, but it was the dock they had left an hour earlier, not the landing on Newman Peninsula. Shortly after this, the tugs were equipped with radar.

Even with radar installed, the trip across the lake could be eerie. Peter Ogryzlo recalls his first trip. He was going for a job interview with John Kalmet and there was about six feet of snow in the village.

"When I got on the barge it seemed to be lost in this swirling snow. I don't recall another winter when there was so much snow."

Peter Ogryzlo was mine geologist from 1972 to 1977. His daughter Natasha spent her first seven years in Granisle and his wife Christine Ogryzlo began a free lance writing career there which led on to a position with the CBC in Prince Rupert and later in Regina, Saskatchewan.

Life in the frontier community was challenging and often rewarding. One winter, Emile Brokx, Peter Ogryzlo, Noel Kirby, John Kazakoff and Don Barker installed a tow on the ski hill. "Emile organized it" said Peter," He got this \$25,000 grant and we all pitched in to do the rest."

CORPORATE TAKEOVERS

hile these events were taking place in the Village, the Granby Mining Company was coping with a series of corporate takeovers.

Pacific Holding Corporation of California began to acquire shares of Granby on the open market in 1969. By April 1970, the U.S. firm had acquired 51 percent and elected a controlling group to the Board of Directors with P. R. Woolcott as the new Chairman. In mid 1971 there was another change in ownership when Zapata Norness Inc. of Houston, Texas purchased all the Granby shares owned by Pacific Holding Corporation. This brought the resignation of the Pacific Holdings group who were replaced by Zapata Norness people. W.H.Flynn Chairman and Chief Executive Officer of Zapata became Chairman of Granby and Granisle Copper, while Bob Matthew, who had been with the company for 15 years remained as President of both companies.

By December, Zapata Norness, The Granby Mining Company Limited and Granisle Copper Ltd. announced approval in principle of an amalgamation of Granby and Granisle with a Canadian Subsidiary of Zapata in a new company to be known as Zapata-Granby Limited. However, it would be some time before this amalgamation actually took place and when it did, the timing was all wrong.

SPEC WATCHES

s industrial activity escalated on Babine Lake, environmental activists in the region began to take notice.

One Vancouver Sun headline late in 1971 stated: "Copper Mine to fill Lake with Tailings Under Watchful Eye of SPEC Branch."

The story said in part: "watching the mines closely are environmentalists in the Bulkley Valley who want to make sure that Babine Lake, the food-rich rearing grounds for hundreds of thousands of valuable fish, is not polluted. — The Smithers SPEC Branch complains that the public is not adequately informed of the steps industries have taken in this north-central part of B.C. and throughout the province to protect the environment."

Environmental concern centered around removal of a small lake on Newman Peninsula to make way for tailings storage and dams on the Noranda property. In addition, a new rock dam being built by the Granisle Mine in the arm of Babine Lake in preparation for a tailings disposal basin was of considerable concern to the SPEC group. McDonald Island was too small to accommodate a tailings disposal area and the new dam was built in order to accommodate the tailings in a bay in the arm of the lake.

The interest from environmentalists prompted Granby to prepare a reclamation brochure which explained present and future plans for McDonald and Sterrett Islands which over time were to become one larger island.

The mines operated for a 25 year period without any significant effects to the lake or fishery and in fact by the late 1980s, so many salmon were returning to the Fulton River to spawn that they could not all be accommodated in the spawning channels and many of them spawned on the beaches of Babine lake, a phenomenon which continues to occur.

The mines did not, however, operate without some environmental problems. There was occasional acid drainage into Hagan Arm of Babine Lake and some stressed vegetation resulted from the seepage. (This acid drainage is a continuing problem for many mining operations in British Columbia and across Canada.) In 1991, Noranda contributed to an acid rock drainage research project seeking solutions to this problem. A study of vegetation and metal levels in sediment showed some stressed vegetation near the mines and some change in aquatic species in the immediate area.

Acid rock drainage, has been carefully controlled since the closure of the mines.



THE AIB STRIKE

he year 1976 was a confrontational one in Canada. The Anti-Inflation Board was imposed upon industry and the union movement and neither of them enjoyed the experience.

31

At the time, members of the United Steelworkers of America at the Granisle Mine had the highest wages of any mine in British Columbia. The union at the Bell Mine since 1973 had been the Canadian Association of Industrial Mechanical and Allied Workers and their wages were lower. CAIMAW wanted parity with Granisle and went on strike to get it. Parity would have been contrary to the six percent maximum imposed by the Anti-Inflation Board and a six-month strike ensued.

The Union went on stike in February 1976 and stayed out until August. During the strike Granby made its second offer to purchase the Bell Mine.

In August, the Minister of Labour suggested a week of meetings in Victoria to resolve the impasse. After the week of meetings a settlement was reached. It was in excess of AIB guidelines and was neither recommended nor rejected by the union executive nor mine management. However, it did get miners from Bell back to work.

John Kalmet arrived as manager of the Bell Mine in March, shortly after the strike began and commended the staff for all the work they handled through that period. "Everybody pitched in and even the accountant Endel Jaakson served as a deckhand when needed," he said.

After the settlement in August, people were pleased to be back at work and expansion of the Bell mine was about to take place. The mood was upbeat.

This was the beginning of nearly two years of negotiation and talks between John Hall of Noranda and Roger Taylor, who was now president of Granby Mining, concerning the purchase of the Bell Mine by Granby . Jack Lawson replaced Roger as manager of Granisle.

By 1978 Noranda and Granby were getting down to serious negotiations. The sale appeared to be imminent and John Kalmet was transferred to Central Canada Potash in Saskatchewan while Murdy Taylor arrived as manager of the Bell Division until the sale became final.

FIRA INTERVENES

he purchase agreement was finally signed on July 12, 1978 for the purchase of all the assets comprising the Bell Copper Division, including the Morrison Lake Property by Granby Mining
Corporation. The proposal was agreed between William James, Executive Vice-President, Noranda and Roger Taylor, President, Granby Mining Corporation.

The base price was \$22 million and at the time of closing Granby agreed to pay to Noranda an additional \$1.5 million on the assumption that the plant capacity would be increased to 16,000 tons per day within 30 months of closing. For each 100 T.P.D. capacity above 16,000 Granby agreed to pay Noranda an additional \$150,000 to a maximum capacity of 17,000 T.P.D. within 30 months of the closing.

A statement at the bottom of Exhibit 3 of the agreement stated: The agreement is subject to approval by the Foreign Investment Review Agency by December 31, 1978.

As takeover plans proceeded, they called tentatively for all ore to be processed at the Bell Mine and a road was to be built between the two properties. Both mines and all the townspeople waited for the outcome of negotiations between the two companies. When agreement was reached they waited again for Foreign Investment Review Agency approval which never came.

An addendum filed with a copy of the original agreement states simply: The Purchase Agreement was submitted to the Foreign Investment Review Agency on October 4, 1978, and in spite of satisfying all demands, the Agency did not obtain Cabinet approval by the time the Purchase Agreement expired on March 15, 1979. (Because the FIRA failed to make a ruling by the end of December, the purchase agreement was extended into March).

It was politically unacceptable at this time in Canada to allow the sale of the assets of a Canadian owned company to a wholly owned American Company.

A story in the Northern Miner on October 12, 1978 more clearly explains the situation. The story written by Pamela Bottomley is primarily about the Granby Purchase of the Bell Copper Division and Morrison Lake property. However, towards the end she comments: "There have been a number of changes at Granby this year, although the purchase of the Bell Mine is perhaps the most important.

Several weeks ago, it was announced that parent company Zapata planned to combine all its Canadian interests, including Granby Mining, Granisle Copper and Zapata Canada under one company to be named Zapata Granby Corp."

A notation scrawled in the margin says: Disastrous timing — resulted in 100 percent U.S. ownership and eliminated minority shareholders. This infuriated the Foreign Investment Review Agency.

The community of Granisle remained in limbo, just as it had been for over two years.

A TURNAROUND

uring the summer of 1979, the price of copper improved substantially. It passed the \$1.00 mark and was still rising. Bill James, the Noranda Executive Vice-President who had been involved with the final stages of the Granby negotiations, now questioned the wisdom of selling the Bell Mine. He was, however, convinced that with one owner the mines could be more productive and more profitable, than they had been. He decided Noranda would purchase the Granisle Mine.

33

Negotiations began again, but this time, a Canadian company with its origins in Quebec and head office in Toronto wanted to purchase the Granisle Mine, once owned by a Canadian company, but now wholly U.S. owned.

Zapata Norness, still smarting from its run in with the Canadian government put all of its Canadian holdings on the block and Noranda purchased them all.

Gordon Montgomery who visited Noranda's head office at one point during the negotiations suggested to Bill James that if Noranda was acquiring some of the old Granby properties, a limit on reclamation expenditures should be written into the final contract. This was done for the old Phoenix property near Greenwood. The hills were laced with old tunnels and adits, many of them unsafe. Taking on responsibility for a 100 year old property could be financially draining.

In the end Noranda acquired the Canadian assets of Zapata Granby and the last vestages of the once mighty Granby Mining Corporation for \$32 million. This included the Granisle Mine and Community, the Phoenix property which had been closed in 1977, and a mine in South'West Africa which was subsequently sold by Noranda.

After the purchase was announced, Gordon Montgomery was asked by Bill James to become Regional Vice-President of Western Mining Operations for Noranda and moved to offices in Vancouver.

He headed immediately to the town of Granisle and began talking to groups of people in order to explain the details of the Noranda purchase and the implications for the two mining operations and the people of the community.

"It was difficult for the Granisle employees," said Montgomery. "They had been prepared for Zapata Granby to take over and now suddenly they felt less certain of the future and concerned about becoming second class citizens."

Gordon Harris, Mine Manager, at the Brenda Mine was selected to become General Manager of the Babine Division which included both the Bell and Granisle Mines. His objective was to amalgamate the two operations, to make them more efficient and more profitable.

The price of copper in the Spring of 1980 was \$1.25 and still going up. In the next six months the mines jointly made a total of \$10 million.

The Village of Granisle became a thriving community. Live entertainment appeared in the hotel and the pub did a thriving business.

"It made everyone feel the amalgamation was a great thing," commented Harris. "There were savings to be made as a limited amalgamation of the two operations took place. However, in some areas this was a complicated process."

The Labour Relations Board was approached with a request for a vote to establish one union and to consolidate the union agreements so that everyone would be working under the same contract. The vote was held, won by the United Steelworkers of America, possibly because there were at that time more employees at the Granisle Mine than there were at Bell. Then the two agreements were merged.

As the new union contract was being hammered out, staff parity was also established and this included an integration of salaries, past practices and people.

Gordon Harris worked with the Union while Gil Leathley, manager of the Granisle Mine at the time of the purchase, worked with Emile Brokx to integrate company practices. This was complicated by the fact that the philosophies of two different unions and two types of companies did not always mesh and in the end there were extra people.

. The possibility of processing all the ore at the Bell Mine as had been planned by the Granby people was studied, but there were complications. The Fisheries Department would not permit a causeway between the Island and Newman Peninsula, and the cost of building a bridge was prohibitive. Once again, there was no gravel for road building. So the idea was dropped and instead, a new screening plant was built for the Granisle Mine.

THE UPS AND DOWNS OF THE 1980s

s amalgamation of the two operations began in earnest, Harris appointed Gil Leathley as Mines Manager, while Emile Brokx became General Mill Superintendent, and Jim Cahoon was General Mine Superintendent. Together they began to integrate the operations, to trade equipment and combine jobs.

This process resulted in some unusual sights. One of them was a 420-ton shovel traveling from the Granisle Mine to the Bell Mine on a forest company barge.

About this time Maurice Ethier arrived in Granisle. He was hired by Gil Leathley in March 1980 to work at the Granisle Mine as General Maintenance Foreman. In May 1982 he became Plant Superintendent at the Bell Mine and was involved in dealing with the difficult times which followed.

Gordon Montgomery, Noranda's first Western Vice-President Mines left to go with another company on January 1, 1980 and was succeeded as Western Vice-President by Bill Allan who had originally built the Bell Mine. It was a difficult time to return.

Copper prices began to drop and by the end of 1980, the mines were only just breaking even. In 1981 they lost money and by mid 1982, Bill Allan made the difficult decision to close the two mines as losses continued to pile up. Bell reopened briefly in the fall for a period of about eight weeks, but closed again on October 31. Both mines lay idle and nearly all of the townspeople were left without work.

Gordon Harris commented, "If the price of copper had remained higher everything would have been fine. It was a great place to live and except for the shut downs it was a happy community. There were many, many excellent people in Granisle."

When Noranda purchased the Canadian holdings of Zapata-Granby in 1979, the two mines on Babine Lake had a total of 700 employees which operated under common management as the Babine Division until 1982 when low copper prices forced the closure of both for an indefinite period. During the good times, the emphasis had been on processing the ore and getting it to market. In 1982 total cost to produce a pound of copper had risen to \$1.36 Canadian. It was too high for the drastic economic changes which were now taking place.

The outlook for copper prices remained bleak for a long period and only 50 people, most of them working on a part-time schedule, were retained on the payroll to maintain the two plants on Babine Lake. With the exception of two brief periods, the mines were shut down from 1982 until the summer of 1985.

The population of the Village dwindled from over 1,500 to under 500 as people moved away to find alternative employment.

Granisle would never regain the bustling atmosphere of a thriving frontier community.

In January 1984, Gordon Harris returned to Peachland as Manager of the Brenda Mine. Gil Leathley had left for the Hemlo Mine in Ontario and Garth Lee was appointed Acting Manager of the closed operations. After reopening of the Bell Mine, Garth Lee continued his involvement with the Babine Division, taking on reclamation and disposal responsibilities for the Granisle Mine.

During this long shut down, the mine engineering department redesigned the Bell pit to give optimum return from existing mineral inventory. The staff at Babine sought savings wherever they could be found and recommendations ranged from simplification of the tailings system to early reclamation work on the mine site.

A successful appeal was launched in an effort to reduce property taxes on the closed operation. This resulted in a saving of \$514,000. per year.

Senior management undertook an assessment of their own past performance and began to familiarize themselves with an alternative management style, the concept of participatory management or employee involvement. The subject of flexible compensation was also discussed because it had been identified as a means of keeping a low grade mine viable during periods of low prices.

When the Bell mine had been closed for a year, there was a small glimmer of hope that copper prices might be rising again and Bill Allan moved to get approval for a pre-stripping program to expose new ore so that the Bell Mine would be ready to go into production as the price rose.

Ken Hughes, Noranda's Western Regional Industrial Relations Manager, worked out a new agreement with the Steelworkers Union which resulted in some significant changes to the contract. Non-productive practices in the agreement were removed in exchange for increasing wages to the industry standard.

The pre-stripping project began in the Fall of 1983 and continued to June, 1984. The objective was to strip three million tons of waste rock at an estimated cost of \$6.5 million. Eventual cost of the project was \$6,483,000 and the three million became four million tons of rock removed as a valuable contribution to the future viability of the mine. Then copper prices dropped again and the short lived employment was over for the 76 employees who had been recalled for the project and introduced to an experimental employee involvement program that worked.

An assessment of the project written by Maurice Ethier stated: "Employee involvement proved to be effective with positive impacts on costs and morale. Actual stripping costs were 26 percent below budget and substantially more than the originally planned three million tons was mined."

The men, women and children who remained in Granisle spent the summer getting ready for a tough winter. Every porch was piled high with fire wood, every cupboard was stocked with the products of summer and fall gardens and more people than usual took advantage of hunting season.

THE CRITICAL INDUSTRIES COMMISSIONER

ith both mining and forest industries suffering from poor world prices for their products, the Provincial Government began to feel the pinch and in May 1985 a Critical Industries Commissioner was appointed in the person of Art Phillips, former Mayor of Vancouver.

His mandate was to get some of the forest and mining plants back into operation, but first three criteria had to be satisfied. The company must contribute something up front, the union must offer concessions, and then, where warranted, the Commissioner had the authority to negotiate reduced taxes and/or reduced rates for the use of surplus power.

Noranda people went to work, in particular Bill Allan, John Kalmet who had recently been appointed General Mines Manager for the region, and Emile Brokx, Acting Manager at the Bell Mine. Emile prepared much of the background information needed for the presentation to the Criticial Industries Commission, but took a new assignment in May 1985 while negotiations were underway. He was replaced by Maurice Ethier.

This was a make or break situation. Either the mines would reopen or they would remain closed forever. One of them made it, but the other did not.

The introduction of the Critical Industries Legislation in March 1985 provided an opportunity for Noranda to recover its investment on Babine Lake and to prepare the operations for an orderly shutdown.

The Babine Division was now a shadow of its former self. Every possible opportunity for opening both mines was studied, but the Granisle Mine, older and with a lower grade of ore could not be justified. When the Bell Mine reopened, it was a totally different kind of operation.

In preparation for a possible reopening, suppliers and contractors were approached and new agreements signed at lower than previous rates.

Ken Hughes and Jon Gale, Noranda's Western I.R. specialists went into negotiations with the union again to secure a life-of-mine contract with still more flexible contract language. This was an important element since the operation was not expected to be profitable until the second year after start up. Fortunately, the United Steelworkers were receptive to exploring ways of bringing about a resumption of operations. The Union as its contribution to the reopening gave up a previously negotiated 5 percent wage increase and a COLA clause in return for improved severance provisions and a profit sharing agreement. Ten percent of all pre-tax profits were to be divided equally amongst all employees. In addition, a recall plan provided employees with retained rights they would not normally have received. A three year extension of the contract was subsequently ratified by a 90 percent majority of the 250 union employees who remained from the original 650 that existed in the Fall of 1982.

New contracts worked out with suppliers generally reflected changed economic conditions.

The Criticial Industries Commissioner considered that the expenditure of \$6.5 million on prestripping was a significant step towards making the mine viable and this was identified as the company's contribution to the reopening, along with start-up costs of about \$1 million. Art Phillips arranged to provide surplus hydro power at a discount and to make some reductions in property taxes. The gain to the two senior levels of government from renewed activitiy at the Bell Mine was some \$13.5 million per year.

Bell was the first mine in British Columbia to reach an agreement with the Commissioner and for the first time in three years, copper concentrate trucks were once again travelling the road to Babine Lake.

Men and women were called back to work in July 1985 and the Bell mill started operating late in August, after three years of shut-down and false starts.

The long shut down forced everyone to change their thinking and style of operation and eventually brought about a new working environment which was profitable for those who remained.

After 1985 a team spirit developed that had not been evidenced previously. This change did not just happen, major roles were played by several people. Bill Allan supported the concept of employee participation and the approach to the Critical Industries Commissioner, John Kalmet negotiated many of the details, Ken Hughes wanted to implement employee participation and profit sharing and saw the chance to change union contract wording in order to make the working environment more flexible. Maurice Ethier took on responsibility for making it all work at the site.

As reopening of the Bell mine became a reality, the core of management and supervisory personnel had shrunk to 36 and the mine reopened without a designated manager, mine superintendent nor personnel superintendent. These people did, however, have the advantage of ready access to experts in these areas from other Noranda operations, in particular, Herman Derbuch and John Keyes from Brenda Mines.

Recruitment of a workforce of 250 began immediately and in response to limited advertising, the company received 1,600 applications to fill 80 openings. Approximately 10 former employees had responded to the recall notice.

Although Bell pay rates were on the lower end of the industry scale, the cost and availability of good housing in Granisle proved to be a drawing card.

Management's strategy in staffing was to begin with a minimum and to add employees where the need was demonstrated. The workforce at startup was 230 of which 70 percent had worked previously at one of the Babine Division Mines.

After retraining, it took six weeks to prepare the mine for production, although pit operations began almost immediately.

Total start-up costs came in under budget at \$825,000 and no capital expenditures on equipment were required.

The introduction of a flat organization at the Bell Mine, a participative management style, and a flexible workplace resulted in productivity which often exceeded targets and was a 38% improvement over preclosure performance.

40

A loss had been expected for the first year, but instead the company registered a profit of \$1.5 million, followed by \$9 million profit the second year and \$20.4 million the third year.

39

Employees also benefitted. They each received \$716 from the profit sharing plan in 1986 and \$5,886 in 1987. In the third year each employee received over \$10,000 or nearly \$5.00 per hour worked.

On July 1, 1987 the Hydro discounts ceased after a total discount of \$3.7 million had been received. This was, however, only two-thirds of the anticipated hydro discount.

Some of the operational changes introduced included an Employee Relations Committee made up of representatives from employee groups within the mine. Many people took on increased responsibility and some performed two functions on a regular basis. Everyone wanted the mine to stay open.

A Profit Sharing Committee was also introduced along with quarterly town meetings, weekly newsletters, planning meetings and one-on-one discussion in order to encourage better two-way communication within the plant and the community. Greater participation in decision making was also realized.

With all the emphasis on reducing costs, the Health and Safety Committee became even more important than it had ever been previously. Changes could not be made at the expense of safety. This committee included: Wayne Barker, Frank Walsh, Don Kirschner, Mike Brunn, John Kazakoff, Ron Tessier, Eric Konigsmann, Dave Humes, Manfred Lengwenus, Arnold Laramie, Norm Beaupre, Conrad Kendrick, Sandra Busch, Glen Aasen and Dennis Jaycox.

EVERYTHING CHANGES

hen the Bell Mine reopened no plans were in place for the final disposition of the company's real estate in the Village of Granisle. In 1985 this consisted of many row houses, apartments, a medium sized hotel and 208 single family dwellings.

The Provincial Government was approached with regard to future plans for the community and the Department of Municipal Affairs was emphatic that the community should continue to exist.

Once the decision had been made to close the Granisle Mine and begin reclamation, a sale of some housing in the community began. Maurice Ethier enlisted the aid of Petra Carter, Sharon Tessier and Norm Aasen to take prospective buyers through the homes. Vancouver media took an interest in the fact that half the housing in the town was for sale at bargain prices and for a short period there was a booming real estate market in Granisle. About 62 homes were sold and calls came in from as far away as California and Europe. One house was donated to the RCMP so that a raffle could be held to raise money for bone marrow matching.

One report on the reopening of Bell stated: An important development at Bell is the positive attitude of employees who now seek opportunities to broaden their experience and are willing to work outside designated areas. The operation gains by improved efficiency and the employees increase their marketable skills in preparation for relocation after final closure.

After 1985, Maurice Ethier said, "People's ability to change and accept new conditions was remarkable. The mine had been a high cost, low productivity operation. It became lean, mean and highly productive."

Ethier was acting manager in the Fall of 1985 when a new Mine Manager was appointed to the Bell Mine named Walter Segsworth. Walter lived in Granisle only until August 1986, when he accepted a new assignment. When he left, Maurice was named Manager.

In 1986, Bill Allan moved on to Toronto as Vice-President Technical Services for Noranda Mines. The company had reorganized, cancelling its regionalization policy and substituting a product group concept. There was no longer a Western Regional Vice-President, but John Kalmet oversaw the operation of the Bell Mine and other properties, reporting to Alex Balogh, President, Noranda Copper and John Gordon, President, Mining Corporation for Noranda Minerals Inc.

During the Granisle Community Reunion that was held in August 1989 for former residents and friends of Granisle, a ceremony took place at the Bell Pit, which was dedicated to Jim Kraft who designed the pit and to Kurt Rosger who mined it and had been an essential part of the Bell operation since the beginning. His untimely death was mourned by the whole community and some of his ashes were scattered in the pit and in Babine Lake, a place he had called home since he left Murdochville, Quebec in 1970. A commemorative plaque was cemented to a boulder at a viewpoint on the rim of the pit.

In memory of Kurt a blast was laid out in the shape of an "R" over 100 feet long on the pit floor. It was loaded, the whistle blew, the ravens flew away and the explosion erupted just the way he used to do it. Kurt's wife, Inga, was there for the ceremony and final good-bye to the man who had been an important part of the mine and the community from the beginning, the horticulturist from the Gaspe.

Maurice Ethier has wonderful memories of Granisle. "I went there because of Babine Lake, working at the mine was a bonus", he said.

" Christmas was special. Everyone turned out for the Christmas Party and Wayne Barker usually won the house decorating contest. There was always something for the family to do together. After the bank and some of the other services closed, things were more difficult, because everything you needed was somewhere else, but I never minded. It was a good excuse to go out of town for a mini weekend vacation," Ethier added.

"From 1988 onward, union/management energies were devoted to solving problems. There was a realistic approach and it was not at all confrontational," said Ken Hughes.

With the life of the mine coming to a close, John Kalmet and Maurice Ethier approached Gavin Dirom in September 1988 to do a review of the exploration potential of Bell and the surrounding area within a 20 mile radius. The review led to major exploration programs in the Babine area, additional drilling at Bell and Granisle, a review of the Morrison deposit and several property acquisitions.

Everyone at the mine was hoping for a miracle and so many people tried to make it happen: Ross McArthur, Ron Tessier, Gordon Stothart, Eric Konigsmann, Ross Gallinger, James Leung, Maggie Dittrick, Dave Humes, Jeff Stibbard, Peter Ogryzlo, Jill Pardoe, Tom Kraft, Bruce Graff and nearly everyone else at the site.

A major waste stripping program was capitalized in 1989. This lowered the cut-off ore grade and bought the mine an extended life to the Spring of 1992.

"In November 1991 we held our last bargaining session when the life expectancy of the mine ranged from three months to 18 months. Reality still prevailed on both sides. We reached an agreement in one and a half days that provided benefits, severance improvement and wage improvement in a spirit of cooperation," said Ken Hughes.

During the life of the two large Mines on Babine Lake average wages rose from \$3.00 per hour in 1971 to \$14.00 per hour in 1992.

The last mine manager on Babine Lake was Ross McArthur, whose father and grandfather before him were both involved in mining in British Columbia. He was originally a Granby man who had transferred from the Phoenix Mine to Granisle for four months in 1976. Then he went back to Phoenix, but was laid off when that mine closed permanently.

In May, 1978 McArthur took a job as surveyor and moved to the community on the shores of Babine Lake. He worked with a contractor until March 1980 when he became pit engineer. A job as Mine Engineer followed in 1981.

During 1983 and 1984 Ross participated in a lot of job sharing, engineering and planning for

the future when the mine would reopen. When it did reopen he stayed and became acting mine manager when Maurice Ethier moved on to a mine in Ontario in August 1991.

"Granisle was great from 85 to 89", he said. "After 1985 everything was different and the 240 employees were all doing a great job. Granisle's also a great place. With the pending closure, a lot of people have done a lot of dreaming there and it does have potential as a retirment community. It's incorporated, not a company town any more, but a community that can decide its own fate."

Ross's tenure was not without incident. Once there was a moose in the pit that closed ore hauling operations down for six hours.

There was a tailings spill in December 1989 that was much worse than it should have been because of the infamous Babine Lake fog. It obscured all of the tailings area so that no one could see what was happening. The ravens called out but no one paid much attention and it wasn't until the pump shack capsized and someone went to investigate that the true situation was discovered. Then the break in the dam had to be found in the fog before it could be repaired.

Toward the end, in August 1991, there was also a fire. It burned two conveyor galleries and "cost a million dollars to repair. Parts for the repair were found at the recently closed Brenda Mine and shipped immediately to Bell. The will to get the system back in operation brought out the team spirit which had been building since the 1985 reopening and a six-week repair job was completed in three.

In its final years, John Gordon, Executive Vice-President Mining Operations for Noranda Minerals Inc. had responsibility for what remained of the once impressive Babine Division.

In February 1989, when he visited the property for the first time, he admitted being disappointed in its appearance. Years of closure and lean operating had taken their toll. He said frankly "It was pretty terrible looking, and I was determined it would soon measure up.

"Between February and Spring of 1989 there was a big improvement, and by 1990 the new exploration project was underway in an attempt to extend the life of the mine and the community. The frustrating thing about Bell is that at the right price there is still ore to be mined, 140,000,000 tons of it, but it would cost \$30 million to remove the overburden, as well as another \$12 million for a new tailings area, and these upfront expenditures ruin the rate of return," said Gordon.

Between 1989 and 1991 about \$2 million was spent on increasing recovery and concentrate grade, trying to extend the life of the mine a little longer. Inevitably the end approached and the Bell Mine closed finally in June 1992.

During its 20 years of operation, the Bell Mine produced 658,605,000 lbs of Copper, 1,233,000 ozs of silver and 894,228 ozs of gold. The net return to Noranda was about \$42 million.

Buildings and equipment are gone from the Granisle Mine site, but Bell remains intact, with a

Wrong! (Tox)

group of 30 people providing care and maintenance, and property management, through 1994, just in case.

John Gordon said a copper price of \$1.20 to \$1.25 is the key.

The placement centre in the town of Granisle was a busy place through much of 1992. At closure in June there were 265 people registered for work, but by August the number was down to 40. As Fall approached many of the people who stayed for the summer, finally, regretfully, moved on, knowing there wouldn't be another place in their lives like Granisle or Babine Lake. Many of the people who remain are seniors who have chosen Granisle for their retirement years.

Two who moved on, Steve Nicholson and Conrad Kendrick, used their moving allowance and severance pay to enter the Marine Institute in Vancouver having served their apprenticeship on the tugs at Babine Lake.

Some of the miners found other jobs at Noranda operations, at Brunswick Mining and Smelting, the Hemlo gold mine or the Brenda Technology Centre.

Noranda extended leases on the houses for a year to July 1993, for the few who wanted to stay on longer or needed longer to find new employment.

John Gordon said of the people he knew at Bell, "They were good people who developed new technology and new methods. They were some of the first to move toward employee involvement and participation. They proved it worked before most other mines even knew what it was."

He added, "It's going to be hard to attract new people into mining, without new mines and a growing industry. Almost all Canadian mines are now downsizing or preparing for closure. The industry has changed radically, influenced by world conditions over which we have little control. We have to learn to live with it but mining in Canada will never be the same again. We won't be building communities like Granisle and the mines themselves will be different, highly automated and with fewer people."

Granisle could even find a life as a bedroom mining community, a place for miners and their families to live while the miners fly out to a job in a wilderness location and then fly back for a visit with the family.

The Village seems destined to become a more quiet place, perhaps a recreational community. Some of the houses were purchased by retirees or as summer places for people who live in Prince George or Vancouver . Three were bought by a German woman who was delighted to purchase something in the Canadian wilderness. Now she rents them to her friends.

The hotel, now owned and operated by local people, remains open year round for those who take the road north off Highway 16 at Topley and find their way to the shores of one of British Columbia's most beautiful lakes. Out there with a little boat and a fishing rod, you can imagine almost anything. If you look carefully, you can find ancient Indian writings on the rocks, pictures of the ravens.

Geologists will tell you there's another mine to be developed, but it now seems unlikely.

However, the Village of Granisle remains and so do some of the people who decided to stay. The church at Old Fort can still be seen when you're out on the Lake and the Fulton River salmon continue to crowd the spawning channels in the Fall. Some of the townspeople may try to rescue a moose when it gets stranded on the ice in the Spring, but mostly its a quiet little community which remains a favourite with the Ravens, a place where almost anything can happen and sometimes does.



SPECIAL THANKS

pecial thanks for assistance in the preparation of this short history goes firstly to John Gordon who originally commissioned the project, to John Hall who sat for the first interview and Ross McArthur who provided the final details. In between there were a host of other interviews and meetings, but special thanks should be given to John Kalmet, David Lowrie and Gavin Dirom for taking the project seriously, to Bill Allan and Emile Brokx for finding time to read it all and to the Granby people who opened their personal files to the author, Milo McGarry, and Roger Taylor in particular.

THE MINES OF BABINE LAKE

Written by Betty O'Keefe

he Mines of Babine Lake was written by Betty O'Keefe, who first drove the road north from Topley Landing in 1975 and from then until the Bell Mine closed in 1992 was a periodic visitor to the people, the Village, and the mines.

During most of that time, Ms. O'Keefe was Regional Supervisor of Public Relations for Noranda. She began her writing career as a reporter for The Province newspaper in Vancouver and became editor of a weekly newspaper before entering the public relations consulting field in 1967. She now has her own firm, O'Keefe Communications, in North Vancouver.

Ms. O'Keefe was born in Vancouver in 1930, and is the daughter of Ralph and Madeleine Hortin. Her father was also born in Vancouver in 1902. Ms. O'Keefe has four children and six grandchildren, all of whom continue to live in the Vancouver area.

Original photography: Aerial photo for cover by Grant Webb Ravens by Chris Ethier Archie Bell photo by Bern Brynelsen

Other photography From archival material provided by Ross McArthur, Gavin Dirom, Roger Taylor and Mylo McGarry. Copyright by Noranda Minerals Inc., July 1993

1

All rights reserved. No part of this publication may be reproduced or transmitted by any means including photocopying, recording or through any information storage and retrieval system, without permission in writing from Noranda Minerals Inc.