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Pulpwood Operations

at

Murray

Victoria County, Cape Breton

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The small communities of St. Ann's, Goose Cove, and North River offer a spectacular view of St. Ann's Bay. Allowing the eye to follow the shoreline of St. Ann's harbour to North River (formerly Petit Pierre's Arm), one can see, lying in the shadows of Smith's Mountain, the remains of a concrete structure that stirs the imagination. (See Appendix 1 Photos 1, 2, & 3)

What purpose could this building have served? Was it an old hotel, a ski lodge, or perhaps a monastery to be used by wayward Cape Bretoners in the ancient art of making "shine"? None of the above. On preliminary investigation, some of the long time residents of the area recall this property as being the site of large scale lumber operations.

The dawn of the twentieth century smiled on the fortunes of these Victoria County residents. It ushered in an age of industrial prosperity that had not been matched before or since. At this time there were two enterprises that offered large scale employment to the communities. The first was the Victoria County Gypsum Company, Mining and Manufacturing; the second was the North River Lumber Company. Both of these ventures were American owned and operated. The Gypsum Company operated from 1904 until submarine activity during World War 1 presented a hazard to navigation and forced suspension of operations. The North River Lumber Company whose remains still intrigue visitors to the area will be the subject of this paper. (See Appendix 1)

This lumber operation was one of the largest employers in the northern area of Cape Breton Island. Little remains today of an industry that boasted a large rossing mill (a mill to remove bark), shipping pier, a large warehouse, a boiler house, a power house, a boarding house complete with jail, huge horse barn, logging booms, a school house, a minister, a doctor with a two storey office and home, and a guest house for visiting dignitaries. All of this was built at Murray. In order to tell the stories of the lumber operation and the community, it is necessary to go back beyond the turn of the Century to 1898.

In 1898, the Crown Lands report for the province of Nova Scotia stated that negotiations were under way looking to a lease of the property which encompassed a large part of the Cape Breton Highlands.⁽¹⁾ These negotiations culminated in the so-called Big Lease in Cape Breton. This lease was first granted in March, 1899, by the Liberal government of Premier George H. Murray to D.F. Emery, C.L. Sanborn and R.B. Blodgett of Boston, Massachusetts with Frank J.D. Barnjum being the manager. The lease covered a total area of 510,000 acres; 359,000 acres in Victoria County and 151,000 acres in Inverness County.

Conditions of the lease included that the lease be in effect for thirty years, a rental fee of \$6000.00 a year be paid by the lessee, the lessee to spend within two years a certain amount of

1. The Big Lease in Cape Breton. The information contained in this paper pertaining to the Lease of Crown Lands in 1899 and subsequent revisions to the lease are taken from this document except as otherwise noted.

money in each of the two counties and to erect pulp mills; the lessee was not to export unmanufactured wood from these lands. The lease was made under and by virtue of Chapter 3, Acts of 1899, which was consolidated in the Crown lands Act, Chapter 24, R.S. 1900. The lessees were also granted riparian rights (the right to conduct river drives) under the terms of the lease.

For various reasons, many changes and revisions were made to the original lease over the ensuing fourteen years. Shortly after the lease had been granted, it was found that the term was too short to ensure a sufficient permanency for the large amount of capital investment required by the lessees. By virtue of an Order in Council passed June 1, 1899, a new lease was entered into enlarging the term to ninety-nine years; the original lease being cancelled.

After operations had been started, it was found that owing to the physical characteristics of the lands covered by the lease some of the terms would have to be modified if the venture was to prove successful. By Order in Council of the 7th of February, 1900, the times for the expenditure of the required sum and the erection of the mills were increased to three and five years respectively.

On July 22, 1901, a further increase of two years was allowed for expenditures. Also, wood cut and shaved (peeled) was to be considered as manufactured wood.

On February 15, 1904, another Order in Council relieved the lessees from building a pulp mill because there was insufficient

water power to operate such a mill.

In 1913, because of a question of legality when the term of the lease was raised from thirty to ninety-nine years (June 1, 1899), the 1899 lease was surrendered and a new lease was issued. This lease set the terms at twenty years with provision for renewal. The new lease was confirmed by Chapter 84 of the Crown Lands Act⁽²⁾ of 1915. (See Appendix 2, Conditions of Lease, 1915)

The granting of such a large lease of Crown Lands was at the time and remained so for many years a very contentious political issue. Charges of patronage and kickbacks flourished. Frank J.D. Barnjum continued as manager of the lease and for all practical purposes, the owner. There appears to have been a very close relationship between Barnjum and Premier Murray. It is interesting to note that the area of Barnjum's operations, formerly known as Smith's Mountain Road was, after improvements made by the provincial government, changed to Murray Road in Honour of Premier Murray. In fact, the entire area of operations came to be called Murray.

The headquarters of the company were established at North River, and as a result, this particular section of the district came to be known as 'Murray.' It was named in honour of Hon. George H. Murray, then premier of Nova Scotia, and who, if we can give credence to what was common talk at the time, - was well taken care of in a financial way⁽³⁾ by the promoters of the North River Lumber Company.

2. Ibid., p. 4

3. Alexander D. MacLean, "History of Victoria County," p. 131.

2225009

In Forests of Nova Scotia by Ralph S. Johnson, the point is made years later. "The century" (19th) ended, however, in a series of political indiscretions concerning woodlands and transportation that would eventually mean the loss of millions of dollars to Nova Scotia taxpayers."⁽⁴⁾

The issue of the Crown Land grants heated up during the provincial election campaigns of 1906, 1911, and 1916. On Wednesday, June 6, 1906, the Sydney Daily Post carried this headline over the editorial "Crown Lands Thrown Away." Under this by-line, the editor referred to the lease and Premier Murray's role:

The interests of the public were safeguarded by the provision in the contract that no unmanufactured wood was to be exported from the province.

This was the contract made by Parliament, and no power save Parliament had the authority to alter it.

The government of Mr. George Murray has undertaken to sweep away the conditions of the contract as ratified by Parliament by various Orders-in-Council absolutely illegal.⁽⁵⁾

The Conservatives alleged that the lease was granted and the terms changed because of political work done for the Liberals by F.J.D. Barnjum.

The outcry of the Conservatives over the granting of the "Big Lease" by the Liberals remained a plank in the Tory platform in subsequent years. However, it didn't seem to affect the Liberal

4. Ralph S. Johnson, Forests of Nova Scotia, p. 87

5. Sydney Daily Post, 6 June 1906.

campaigns as Premier Murray remained in power from 1896 - 1923. The Tories for their part, failed to nominate a candidate in Victoria County in 1906, the Liberal candidates winning by acclamation. In 1911, the Liberal candidates were again elected in Inverness and Victoria Counties.

The Orders-in-Council that changed the terms of the "Big Lease" did seem to favour the lessee at every turn. "Although the terms of the "Big Lease" have been altered several times, always in favour of the company, and three successive organizations have operated under the lease, the pulp mill has not been a financial success."⁽⁶⁾

The most interesting figure to emerge from all of the controversy surrounding the "Big Lease" was Frank J.D. Barnjum, the original manager of the North River Lumber Company. (Appendix 4, Photo 1). Mr. Barnjum's origins remain in shadow. In Forests of Nova Scotia, Ralph Johnson states that Barnjum was originally from Annapolis Royal. In conversation with A.J. and Jessie Morrison, North River, they express the belief that Barnjum was born in New Brunswick and lived most of his early life in the United States.⁽⁷⁾ Alexander D. MacLean writes that Barnjum was an American, born and bred.

The Registry of Deeds in Baddeck shows that Barnjum's private land holdings on Cape Breton Island, exclusive from the "Big

6. Henry Harrison Russel, "Cape Breton Island, The Land and The People," p. 276.

7. A.J. and Jessie Morrison, Interview, 30 January 1988.

2225011'

Lease," were extensive. The transactions bearing Barnjum's name were many and the addresses he gave as place of residence were varied. Some of these addresses included North River; Englishtown; St. Ann's; Baddeck; Portland, Maine; etc. Feelings regarding Barnjum were also varied.

While his name does not appear in the original lease, F.J.D. Barnjum, named as manager for the lessees, was hovering behind the scenes. In the end he reaped a handsome profit when he sold the lease to Hugh Chisholm, President of the Oxford Paper Company.

George Hamm, a bookkeeper at Murray recalls Barnjum:

Barnjum was pure and simple a promoter, looking around for something to promote. And he played with a thing for quite a long time. He had a sawmill there (Murray) and he shipped some pulpwood in the summer. He was the one that formed the North River Lumber Company: The first mill burnt. Sometimes these accidents happen. A lot, they happen with a little push and they happen accidentally. In those days, 2-3 cents on a dollar and you could discharge bankrupt. I don't think there was too much made there anyhow, until Barnjum sold to the Oxford Paper Company. He sold for a million and a half.

Barnjum made an impact on Cape Breton Island, particularly Victoria County. Some of the acquisitions he acquired included deeds to part of Smith's Mountain (1901), acreage in North River and Englishtown (1902), and also the deed to Kidston Island (1919) in Baddeck Bay.

8. Johnson, op. cit., p. 118.

9. Cape Breton's Magazine, Number Seven, p. 56.

2225012

After selling out his interests in Murray, Barnjum next turns up near Milton in Queens County, Nova Scotia.

In 1919, F.J.D. Barnjum, largely financed by F.S. Mosely and Company of Boston, bought out the mills and woodlands held by MacLeod Pulp Company Limited... Over the next few years profits steadily declined, until the mills were operating at a loss. Barnjum decided to build a newsprint mill and gave the project a great deal of publicity. Elected a member of the Legislative Assembly in the provincial election of 1925, he promised to resign if he did not have the (10) paper mill built. It was not built and he resigned.

It is ironic to note that after all of the controversy over the lease of 1899 and the accusations that he was accepting patronage plums from the Liberal government of Premier George Murray, F.J.D. Barnjum was elected as a Conservative member of the legislature.

Barnjum retired a millionaire from business life around 1926, but he didn't remain idle for long. Barnjum shifted gears and renewed a cause that he had first started in 1920 - that cause being forest conservation.

He maintained an outcry of 'Save the forests,' 'Spare the trees', and 'Preserve our natural heritage.' He travelled across the continent many times, preaching to Canadians and Americans, urging governments to adopt policies of conservation and reforestation of cutover and burnt lands. He sent hundreds of letters to the newspapers. Scores of businessmen and writers were on his mailing list. Advertising space in newspapers and magazines was bought at full rates and filled by high priced copywriters. Starting in 1920 substantial cash

10. Johnson, op. cit., pp. 137 - 138.

prizes for essays were offered once a year. (11)

Barnjum had awarded one such prize to Otto Shierbeck who was to become chief forester for the Department of Lands and Forests. For the best treatise on the spruce budworm, Shierbeck received \$5000.

It has been conservatively estimated that Barnjum spent over \$50,000 a year from 1920 to 1933 striving to awaken public conscience. He spent over \$250,000 buying forests in Canada which were to be public domain forever. Barnjum set up the Barnjum Forest Foundation to administer the woodlands which were to be protected and uncut forever. After his death in 1933, Barnjum's heirs sold these woodlands to lumbermen and pulp and paper manufacturers. He had made no provisions to transfer these holdings to a public trust. The Bowater Mersey Paper company acquired all the Barnjum Forest Foundation lands in Nova Scotia. (12) The irony that the very people that Barnjum was trying to protect, the forest from, should acquire it all. There is a happy ending though for some of these holdings. Eighty-nine acres near Liverpool was turned into Pine Grove Park and Kidston Island, Baddeck was turned over to the Village Commissioners of Baddeck for the sum of \$1.00 on August 21, 1962.

Barnjum's influence, although felt on mainland Nova Scotia and actually throughout Canada and the United States had its

11. Ibid., p. 176 - 177.

12. Ibid., p. 177.

2225014

significant beginnings with the North River Lumber Company.

The reasons for establishing a lumber operation at North River at the beginning of the twentieth century were purely of an economic nature.

1. The attractive terms of the "Big Lease" of 1899.
2. The virgin timber (never harvested) was very suitable for pulp production.
3. Continuing in the tradition of utilizing the waters of Cape Breton, this location had a two-fold advantage.
 - (a) logs could be floated down North River in the spring thaw when water levels were high.
 - (b) vessels could easily be loaded in St. Ann's Harbour for export to the United States market.
4. The demand for newsprint paper was increasing rapidly, thus driving up prices.
5. In New England, where most of the American paper mills were situated at that time, the spruce-fir forests were being depleted. Anticipating a shortage of wood supply, manufacturers turned to Canada to augment their supply.⁽¹³⁾
6. Removal of tariffs by the Canadian and United States governments on paper products.⁽¹⁴⁾

The operation of the North River Lumber Company got underway in 1902 with Frank J.D. Barnjum as manager. It included a small mill of wood construction for slashing and hand rossing. Five camps operated in the woods. It is estimated that approximately 15,000 cords of choice pulpwood was produced between 1902 and

13. Ibid., p. 141.

14. Windsor Kelly, Interview, 30 January 1988.

2225015

1907. Found to be unprofitable, the operation ceased and the mill abandoned. This wooden structure burned in 1908. (15)

Evidence of construction was noted by C.W. Vernon.

The North River Lumber Company are now busily engaged in installing large mills for the preparation of pulp and wood, which will greatly help in developing this section of the island. (16)

After 1907, there doesn't seem to have been any active lumber operation at Murray. However, it would appear that Barnjum somehow obtained sole control of the lease and operations in the period between 1907 and 1917, when he sold the enterprise.

Barnjum was still managing these lands in 1915 when construction of a new rossing mill was started and completed in 1916, with a shipping pier, at an approximate cost of \$125,000. It was designed for hand rossers with a capacity of 80 cords per ten-hour day. (17) (See Appendix 3)

This building was a concrete structure and it was built to last. The walls were poured 20 inches thick with all of the cement being hand mixed. The remains of this building are on site at Murray today. (Appendix 1 Photo 3)

"On January 2, 1917, the lease, mill and other properties were taken over by the Cape Breton Pulp and Paper Company Limited." It is rumored that F.J.D. Barnjum sold this operation to Mr. Hugh Chisholm, president of Oxford Paper Company, for the

15. "Oxford Paper Company, Cape Breton Division," p. 1.

16. C.W. Vernon, Cape Breton, Canada, p. 299.

17. Oxford, op. cit., p. 1.

2225016

sum of one and one half million dollars, realizing a profit of one million dollars.⁽¹⁸⁾ John P. MacGregor managed this operation.

In the three years that Cape Breton Pulp and Paper Company operated, approximately 63,000 cords of pulp were cut from 6,743 acres of land. (See Appendix 4 - wages and number of employees)

On April 10, 1920, the Cape Breton Pulp and Paper Company was absorbed by the Oxford Paper Company with head offices in New York. Local residents believe that Mr. Hugh Chisholm reaped a handsome profit when he sold the leases and mill to Oxford, his own company.

In the Forests of Nova Scotia, Johnson states that Chisholm made a still greater profit when he in turn sold the lease to Oxford. This refers to his profit being greater than Barnjum's which is estimated at one million dollars.

From 1917 to 1931 inclusive, the watersheds of the East, Middle and West branches of North River and Timber Brook were developed. Eighteen dams were built and extensive river improvements were made.⁽¹⁹⁾ These steps were undertaken for one purpose. Since Oxford held the riparian rights, the quickest and most economical way to get the pulpwood to the mill was by driving it down North River to Murray. Thirty-one wood camps were constructed and operated. The last camp, Camp 31, was built in

18. Duncan Morrison, Interview, 14 October 1987

19. Oxford, op. cit., p. 1

2225017

1931. Only one river drive took place from this camp. (20)

At Murray itself, many improvements were made. A four hundred foot long warehouse was built on the wharf, a school, a double cottage for visiting dignitaries, a large horse barn (two storey) was constructed, a sewage system was installed.

Substantial tote roads to all camps were built. Telephone lines were built from Murray to all camps and to St. Ann's, Englishtown, and to Frizzleton, where Oxford owned and operated a large farm. This farm was managed at one time by a Mr. Jackson. (See Appendix 5)

In 1917, the mill originally built for hand rossing, was remodelled with a barking drum installed. This drum had a capacity of 250 cords per ten hour day. (21) The barking drum was approximately sixty feet long and ten feet in diameter. The interior of the drum consisted of many ribs. As it was rotating, water was introduced into the drum. The pulpwood was fed into the drum and the combination of the water action and the pounding of the wood against the ribs would remove the bark. A paddle within the drum would remove the peeled bark for disposal. The power required to rotate the barking drum was electric, supplied by a coal/wood fired, steam-powered generator.

"Extensive conveyor systems were built for bark disposal,

20. Leonard Harvey, Interview, 24 March 1988.

21. Oxford, op. cit., p. 2.

2225018

storage of wood and loading."⁽²²⁾ These conveyor systems were also powered electrically as was most of the equipment at Oxford. Leonard Harvey explained this system. It actually consisted of several conveyors. (See Appendix 6 & 7) One extended from the holding boom to the rossing mill and on to the barking drum after passing through a slasher saw, electrically powered which cut the four foot pulp into two foot lengths. A second conveyor was used for bark disposal, removing the bark from the mill to a disposal site. Another extended from the rossing mill to the shipping pier. If a boat was waiting to be loaded at the pier, the conveyor would move the pulpwood out onto the pier where it was loaded directly into holds of the boat through chutes.

They loaded the wood on chutes like you load coal. They never stowed the wood in the boats; they just run it. When it came to the deckload they boarded the stanchions right up almost solid and the wood just poured right in. They use to trim it just like coal.⁽²³⁾

Another conveyor was used to take the pulpwood from the mill to a stockpile if no boat was available for loading. Through this network of conveyors, it was possible to load directly from the stockpile to the pier whenever a boat did become available. Leonard Harvey can remember there being at times two or three boats waiting at anchor to come into the pier for a load of pulpwood.

In 1920, the holding booms and piers in the North River

22. Ibid.

23. Cape Breton's Magazine, op. cit., p. 6

2225019

holding area were replaced by more substantial fixtures. The reason for this was explained by A.J. Morrison. In May of 1920, the original holding boom broke with several thousand cords of wood behind it. About one half of the wood was never recovered and some of it was found as far away as Newfoundland. The cause of the breakage was attributed to a freshet (flood caused by heavy rains or melted snow). Since the boom was essential to the industry, the Oxford Paper Company replaced it immediately. The William I. Bishop Company was contracted for the replacement at a cost to Oxford of \$125,000, a considerable amount in 1920.

This boom was constructed to last, being much wider than the original and equipped with electric lights at each cribwork. (See Appendix 8) Indeed all of the buildings owned by Oxford at Murray were lighted with electricity. In comparison, the communities of North River and St. Ann's didn't have electricity until 1946, a quarter of a century later.

Jessie Morrison remembers walking across the boom as being one of the highlight of her week-ends.

A large two storey barn was constructed for the stabling of the approximate one hundred and twenty horses used at the Oxford operation. The horses occupied the ground floor while the second was used for feed storage. Chutes from the top floor to the stables below were used for feeding. Several blacksmiths were employed for the care of horses and equipment. The horses at

2225020

Oxford were very well-tended since horse-pulled sleds were the main method of getting the wood to the landings.

The boarding house (see appendix 3) normally accomodated about ninety men. It was ably run by Sarah MacDonald. The meals were plain, but good. (24)

Sarah MacDonald's daughter, Margaret Hamm, remembers her days at the boarding house.

We never cooked anything fancy, just meat, fish, potatoes and vegetables - the staple foods. We couldn't make many sweets for 20 cents a meal.

Sarah also remembers 1920, the year that the boom broke, when the normal ninety boarders swelled to one hundred and fifty for a three week period. The staff had to stay up to make lunches for the crews who worked around the clock. "There was no such thing as regular working shifts. You worked until you dropped."

Catherine Carmichael (see Appendix 9) cousin of Margaret Hamm, also remembers the boarding house. Catherine was a young girl at the time and found part-time work at the boarding house. She would work after hours, cleaning up, washing dishes and setting tables. For this she would receive the princely sum of fifty cents per day. (25)

Catherine's father, Red Murdoch MacDonald, owned and operated one of the three stores at Murray. (See Appendix 9) In his store, Red Murdoch carried basics such as underwear, socks, work

24. Ann Leadbetter et al, "Discover North River Bridge." p. 64.

25. Catherine Carmichael, Interview, 14 October 1987.

clothes, shoes, tobacco and soap. At that time, both the millworkers and the woodworkers were paid by cheque. Red Murdoch would charge fifteen cents for each cheque cashed whether a purchase was made or not. Red Murdoch was also a postmaster at Oxford and Margaret MacLeod was postmistress.

The community of Murray was very much self-sufficient. The Oxford Paper Company employed a full-time doctor, Dr. Donald R. MacDonald. He apparently came from Shediac, N.B. and had an office in Murray.

As mentioned earlier, the boarding house also boasted a jail. This jail, as remembered by Duncan Morrison, only ever had one occupant. The way Duncan tells it was that smoking was prohibited at the Oxford Mill. The men would sneak up to the boarding house to have a puff. One of these men decided to lay on the bunk in the cell. Meanwhile, a foreman from the mill crept into the jail area and snapped the lock on the jail cell, before realizing that he didn't have a key to open it. The luckless fellow ended up staying in the cell overnight until one of the policemen came into work the next morning.

There were three uniformed policemen at Murray. There was a Mr. MacDonald (Halifax), Bill Parker, and R.C. Soy (Londonderry, N.S.). There isn't a record of the incidence of crime at Murray, but Catherine Carmichael remembers that her father's store was broken into on several occasions. She especially remembers one such occasion. Her father was closing up for the evening. He

noticed two men crouching behind a bank outside of the store. Red Murdock cleaned out his safe and took off running with these two in hot pursuit. He couldn't recognize the men. Murdoch made it to the doctor's house from where they called the police, but on arrival, the police couldn't find the would-be robbers.

The Oxford Paper Company built a school at Murray and it officially opened on January 16, 1928. A minister, the Reverend MacKay was a resident of the community although Murray did not have a church - the nearest being at North River.

Oxford had built well. A.J. Morrison describes one of the buildings which was a double cottage for visiting dignitaries. The building was set up as two separate complete living units with an adjoining indoor bathroom.

A septic system was installed for all of the company buildings. Water was piped down from a cistern part way up Smith's Mountain. This was simply called the pipeline and Catherine Carmichael remembers it as a short cut through the woods.

Production at the Oxford Paper Company ranged from a high of 57,332 cords of pulpwood in its first year of operation (1920) to a low of 7,133 cords in its last year (1931), all cut by the Oxford woodsmen. In the last five years of operation they purchased wood from outside contractors.⁽²⁶⁾ All of the pulpwood produced was taken by boat from Murray to Portland, Maine from

26. Oxford, op. cit., p. 1

where it was taken by rail to Rumford, Maine for processing.

Life in the lumber camps of Oxford was not easy. In all, thirty-one camps were in existence during the Oxford Paper Company operation. These camps were typically built of logs with board roofs. The openings between the logs were chinked (stuffed) with moss. Each bunkhouse was separate from the cook camp, where the cook and cookee slept (each camp had one of each). The foreman and scalers occupied a separate small office shack usually built of boards. In the bunkhouse, men slept in pairs in a four-foot wide "breach loading bunk" (i.e., a bunk entered from its foot end). The bunks were set up along the sides of the bunkhouse and made of rough boards with loose straw thrown in and they were separated by rough board partitions about a foot high. These were doubledeck bunks. At the foot of the lower bunk was a board known as the deacon seat.

Each man was issued a pair of blankets. For a pillow, spare clothes were used. The bunkhouse was heated by a large cylindrical woodstove in the centre of the floor.

There wasn't any indoor plumbing for these brave men in the camps. Their toilets (privies) were located downstream from their water source and in most cases consisted of only three walls and a floor built of small logs. The open side faced away from the prevailing winds. These contraptions offered little comfort or protection. Standard equipment in these privies was the dual-duty catalogue, usually from Sears.

The day in the camp would usually begin for the lumbermen at 5:30 a.m., when they would be awakened by the cook or cookee, who were usually up at 4:00 a.m. This would allow the men one half hour to be up, washed, and dressed for breakfast at 6:00 a.m. Their dress would usually consist of heavy woolen underwear under their working clothes in summer and winter. In winter, the underwear served to fend off the cold; in summer, it combatted insect attacks.

The camps each had their own strict code of conduct which was enforced by the camp foreman. Liquor, card playing and music were outlawed the evening before a workday. Bedtime was at 9:00 p.m. and was announced by the camp foreman ten minutes before the hour. At 9:00 p.m., there wasn't a sound.

Although the camp foreman was the enforcer, the cook was the real boss. At meal time cleanliness and silence were necessities. "If they did talk at the tables, the foreman either stopped them or I walked out".⁽²⁷⁾ Each man had his regular place at the dining table where he always ate. Each place was set with a plate, mugs, knife, fork, and spoon. Food was placed on the table in containers and each man helped himself. When finished eating, he took his utensils to the cook's table, scraped his plate into a slop pail, stacked his plate and put his utensils into large dishpans. He then left the cookhouse with not a word to anyone.

Breakfast usually consisted of oatmeal and beans with hot

27. Cape Breton's Magazine, op. cit., p. 4.

biscuits, donuts and tea. After breakfast, it was off to the woods for the ten hour work day. This was the routine six days a week. Sundays were off-days. If the men were working within a half mile of camp, they would return for lunch. If beyond this distance, the cookee would deliver utensils and lunch, which usually was cold meats and sweets, to the work site.

All of this and they were paid as well.

In Forest and Stream, Angus J. MacDonald tells of his experience in the lumber camps. In May of 1921, he and three friends went to work for the Oxford Paper Company. They arrived in North River and stayed the night at Christie's (Christie Effie's farmhouse - not a boarding house - people just stayed there). The next morning they walked into Camp 19 on the west branch of North River, a distance of twenty miles. Approximately seventy men were working in that camp. They went to work the next day along with R.H. MacKinnon. The company provided a horse, as well as saws and axes. (The company also provided a saw filer whose only job was to keep the crosscut saws sharp). They worked as a team - two chopped, two on the 'landing' sawing the trees in four foot lengths using crosscut saws, the choppers, - Murdock and Malcolm also used saws and axes. John A. was the teamster, hauling the trees out to the landing full length. "R.H. and myself were on the landing, sawing and piling up the wood. We cut an average of seven cords per day at \$3.00 per cord, \$1.00 was deducted for board. This gave us an average of \$21.00 divided by

five minus \$1.00 board."(28)

This works out to a net income of \$3.20 per man per day, \$19.20 for a six day week. Angus and his friends worked until July 2 of that same year and then returned on board the S.S. Aspy to Sydney.

Angus' story was common in the Oxford lumber camps. This was a labour intensive industry and the labour was hard. There was quite a turnover of manpower and Duncan Morrison recalls that not all of the woodcutters were from Cape Breton. He knew many men from New Brunswick who came to Oxford because the pay was better there than in their home province. Catherine Carmichael remembers French-speaking woodsmen from Quebec. These men enjoyed violin music and would teach the young girls to dance at the boarding house.

Life was definitely hard in the lumber camps. Angus J. MacDonald never forgot the insects. "We had to anoint ourselves with fly dope, made of pine-tar, margarine and kerosene, it was impossible to live in that country without it."(29)

Angus also returned to North River in the fall of 1921. However, the price for a cord of wood had decreased to \$2.50. He quit and returned home.

Not all of the feelings about the lumber camps ran in the same vein as Angus'. John J. Gillis reminisces about the camps.

28. Angus J. MacDonald, From Forest and Stream, p. 10.

29. Ibid.

If I was to have my life to live over, I'd go there again. There was all kinds of entertainment. They played cards, they sang, danced, they had violin, bagpipes - there was all kinds of it.⁽³⁰⁾

Johnny Murphy, a cutter and scaler for Oxford, shares the feelings of Angus MacDonald as he expressed in an interview for Cape Breton's Magazine.

Great time? Great time all right. I loaded sleds there 9 feet on the level ... I was getting 48 dollars a month and board.... You'd be digging the wood back out of the snow because it was cut in the summer.... I enjoyed it all right. I used to wish to see fire start one end of Cape Breton and burn her flat to the other end.

The cutters would cut from late spring to late fall. A cleared area near the cutting site was called the yard. The full tree was hauled by horses to the yard where it was limbed and cut in four foot lengths. In sap peeling time (June to August) some of the wood was peeled for which the cutters would be paid extra. The wood was then left until snow was on the ground, which made for easier hauling to the landing, (a site along the river or stream) in preparation for the spring river drive.

These hauls from the yards to the landing also required preparations. In the fall the camp foreman would mark the haul road by blazing a line of trees from the yards to the landing. He would try to avoid steep grades, swamps or any other obstacles. When the road was marked, the swampers and cutters would clear any

30. Cape Breton's Magazine op. cit., p. 5.

small trees or underbrush from the path. When the ground was covered with several inches of snow, light loads were hauled in order to pack the snow hard. In order to facilitate the movement of the loads, (See Appendix 10 - Photo 1) the route was sprinkled with water and left to freeze. Once all of the wood was in place at the landing (See Appendix 10 - Photo 2), all that was awaited was the spring thaw and the break-up of ice on North River.

By late March or early April, the river drive would begin. All of the earlier preparations - the construction of splash dams and sheer dams, the cutting and hauling to the landings - would come into play. In an interview which appeared in Cape Breton's Magazine, Malcolm MacLeod states:

For the driving, you piled them alongside the brooks maybe 20, 25 feet high, 3 or 4 tiers on each side, maybe more than that -- and then you know they had splash dams on it, just for to back up the water; and they used to fill the brook up with wood and open the dam and splash that out; then close the dam up again and fill the brook up again -- be getting it into the main river. (31)

The river drives didn't always run so smoothly. Duncan Morrison remembers using dynamite to loosen up the piles of pulpwood that had lain at the landings all winter. The river drives would last approximately three weeks.

The pulpwood followed the course of North River to holding booms strung across near the mouth of the river. From the river

31. Ibid., p. 7

It would be loaded on the conveyor for processing at the mill. Before entering the barking drum, the four foot sticks would pass through the "slasher saw" (a circular saw) which would cut them in two foot lengths. Keeping this saw sharp was a full-time job for the millwrights, one of whom was Jack MacIntosh. (See Appendix 7) After passing through the saw, the pulpwood was fed into the barking drum for bark removal. As related earlier, the peeled pulp was then either delivered on the conveyor system to waiting boats or taken by another conveyor for stockpiling.

Some of the pulp boats would arrive with supplies for Murray. These were stored in the warehouse or a root cellar at Kenny MacDonald's farm, along with produce from Frizzleton farm.

These supplies were hauled to the camps as needed by horse and wagon. After Oxford obtained a four wheel drive truck with solid rubber tires, Leonard Harvey remembers the supplies being hauled to Camp 9 via this vehicle.

In Cape Breton's Magazine, George Hamm recalls the wages paid by Oxford. The millworkers were paid on the average \$2.50 for a ten hour day; tote team drivers - \$40.00-\$45.00 per month; cook - \$90.00 per month; foreman - \$100.00 per month; and blacksmiths - \$85.00 per month.

An integral and important part of the lumber camps was the wangan.

The wangan box is where they kept the tobacco, shoelaces, boots and sox, and underwear and stuff like that. Come up from the depot. Scaler had to keep track of that and sell.

And then that came off your pay at the end of (32)
the month. Something like the company store.

Yes, the woodworkers would buy necessities from the wangan
box and this deduction would appear on their pay slips each
month. (Appendix 11)

The success of the lumber operations at Murray, North River
is difficult to determine. In the period of operations of the
three successive companies that conducted business at Murray
between 1899 and 1931, few records are available to assess the
overall success or failure. It is only estimated that in
~~Barnjum's time (North River Lumber Company, 1899-1917)~~ 15,000
cords of pulpwood were cut for the American market. There isn't a
record of wages paid or profits made, and unfortunately, those
with first hand knowledge have passed on.

The Cape Breton Pulp and Paper Company (1917-1920, John P.
MacGregor, manager) and the Oxford Paper Company (1920-1931,
Gordon S. Harvey, manager) cut 324,904 cords of pulpwood
encompassing 35,884 acres of land for the parent company in
Rumford, Maine. The numbers working in the lumber camps varied
from a high of 885 in 1920 to a low of 84 in 1931. The mill
employed 136 in 1920 and only 39 in 1931. The total wages paid
out over this 14 year period were \$3,639,146 while capital
expenditures amounted to \$626,163.72. (33)

32. Ibid. pp. 2-3

33. Oxford, op. cit., pp. 3-5

From 1917 - 1931, Cape Breton Pulp and Paper and Oxford Paper Company spent over \$4,000,000 on Cape Breton Island, a substantial amount in any economy. The Oxford brought several innovations to the St. Ann's area. According to Windsor Kelly's report of 1971, it would not have been uncommon for residents to see motorcycles travelling the roads from Neil's Harbour to Northeast Margaree via Baddeck. Between 1920 and 1925, these motorcycle riders maintained a regular fire patrol of the public highways. Mr. Kelly also notes that in 1927, in the midst of a spruce budworm infestation, experimental airplane dusting was carried out. The pilot of this airplane was Charlie Bath. The chemicals used in the spray were calcium arsenate and lead arsenate.

Vivian Fownes and Leonard Harvey, children of Gordon Harvey, remember this airplane being loaded with forty-five gallon drums of chemical at the wharf in Murray.⁽³⁴⁾

In the years that Oxford operated, residents can remember several accidents that occurred in the woods operations and the mills; but only one fatality. As A.J. Morrison recalls, a man by the name of MacLeod was working on one of the dams at North River. Apparently he lost his footing and tumbled twenty-five feet to the rocks below. He didn't die immediately. His fellow workers managed to transport him to the wharf at Murray where he was placed on one of the company boats (the Lorraine) for the emergency trip to the hospital in North Sydney. Unfortunately,

34. Vivian Fownes, Interview, 8 November 1987.

Mr. MacLeod passed away before they reached their destination.

In 1931, the operations of Oxford Paper Company were suspended. The reasons for its closure could be any one or a combination of the following:

- (1) A dockworker strike at Portland, Maine in 1931 prevented Oxford from landing their product.
- (2) A lack of market combined with increasing freight rates.
- (3) Astronomical expenses outweighed profit at Murray.
- (4) The stock market crash of 1929.
- (5) In 1930, Bill 151 was introduced in the Nova Scotia Legislature. It was to regulate the export of pulpwood from any forest holding of more than 1,000 acres. Export of Crown land pulpwood was to be prohibited and it was after Oxford closed. (35)

Perhaps the owners of Oxford Paper Company saw the handwriting on the wall and realized that it was only a matter of time before they would either have to pay heavy duties on their export or be prevented from exporting altogether.

What did the operation at Murray mean to its residents and to those of the surrounding communities? Some saw it as the last stop on the road to hell - others retain fond memories and are wistful for the return of those days.

The Oxford brought prosperity. Not much money was made, but almost everyone was working. The

35. Johnson, op. cit., pp. 157-158

1920's saw a bustling, prosperous North River community. We reached a peak of prosperity - one that has never been matched to date. (36)

Duncan Morrison says that the Oxford went into the pulpwood business in a big way; and as a result the people of the area were continually employed, some at exceptionally high wages.

In his "History of Victoria County," Alexander D. MacLean expresses his viewpoint that a severe blow was struck to the people of North River. It had meant to them "an established industry and a steady pay-roll."

Several small local industries came to be as a result of Oxford. There were sales of beef and pork for some of the local farmers to the boats that plied the rum from Murray to Maine.

Smelt fishing, always a popular pastime, became a commercial enterprise when a mill foreman from New Brunswick introduced the art of trap-fishing. Leadbetter et al. state that hundreds of barrels of smelts were shipped to Boston fishmarkets.

Jessie Morrison especially remembers the small kindnesses shown by Oxford over the years. Each year a Christmas party was organized by Oxford. This party was held in the boarding house with skits and plays being performed, and each school child was given a 1/2 pound box of chocolates by the Company. The management also supplied sports equipment such as bats and balls for the youth of the area.

36. Leadbetter, op. cit., pg. 62.

Leonard Harvey has never forgotten the boats owned by Oxford. The Lorraine and the Pioneer were power boats used to tow booms. The third was simply called the boom boat and was quite adept at jumping logs. Norman Carmichael remembers that the Lorraine was used to tow Alexander Graham Bell's houseboat to North River.⁽³⁷⁾ The remains of the Lorraine can still be seen on the shore at Murray. (Appendix 12)

Norman Carmichael also remembers when professional boxer Mickey "Bulldog" Walker came to Oxford Paper Company to train for a fight in New York. Unfortunately, the Cape Breton environment didn't help Mickey as he lost his bout to Pete Latzo in 1925.

Perhaps the greatest legacy left to the residents of North River - St. Ann's by Oxford and its predecessors, were the memories - memories that fade, but are never fully extinguished.

37. Norman Carmichael, Interview, 14 October 1987.

After the closure of Oxford Paper Company, Cape Breton Division in 1931, the buildings, mill and leases remained idle for several years. Gordon S. Harvey continued to look after the Oxford interests and was paid for doing so until the time of his death.

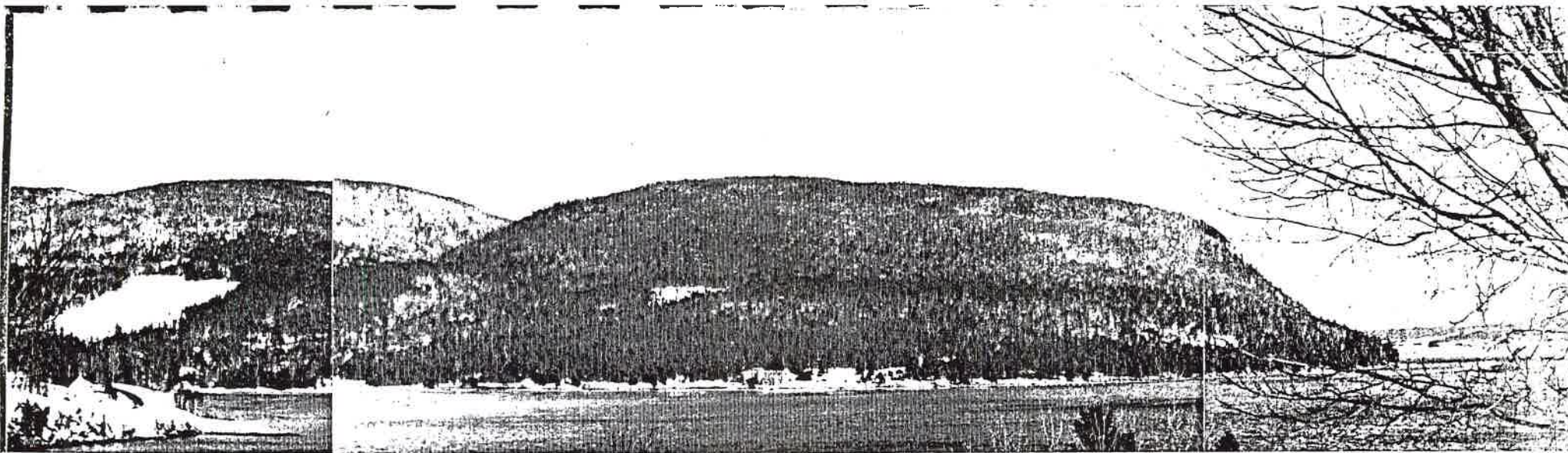
In 1936, the federal government expropriated 178,000 acres of the Oxford lease for the development of the Cape Breton Highlands National Park.

In 1952 the Mariana Timber Company obtained stumpage rights from Oxford Paper Company and in three years (1953-1956) produced 28,000 cords of high quality pulpwood for export.

In 1958 Leonard Harvey was contracted to remove the stack of the mill at Murray for which he was paid \$1300.00.

In 1960 the Nova Scotia government, at considerable cost, terminated the remaining portions of the Oxford lease and they were leased to Nova Scotia Pulp Limited. Local residents estimate that this buy-back cost the taxpayers of Nova Scotia \$4,000,000.

The Oxford Paper Company had left its mark not only on the island of Cape Breton, but on the entire province of Nova Scotia.



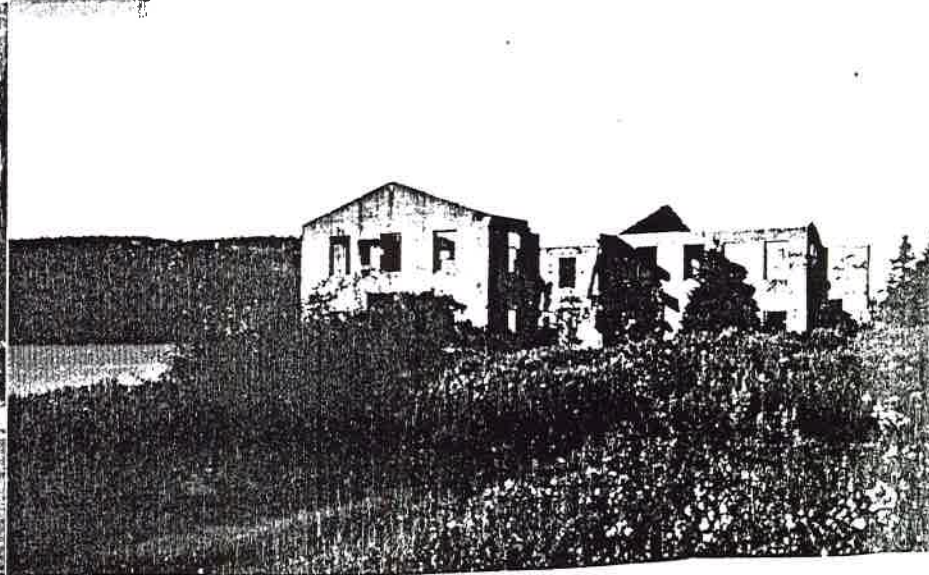
Appendix 1 Photo 1

A view of Murray from Goose Cove. The remains of the Oxford rossing mill are in center at shoreline. Smith's Mountain rises above and behind mill. Mouth of North River is at far left.



Appendix 1 Photo 2

A clearer view of the remains of the rossing mill from Goose Cove.



Appendix 1 Photo 3

A close-up view of the concrete structure built in 1915 by F.J.D. Barnjum that housed the rossing mill.

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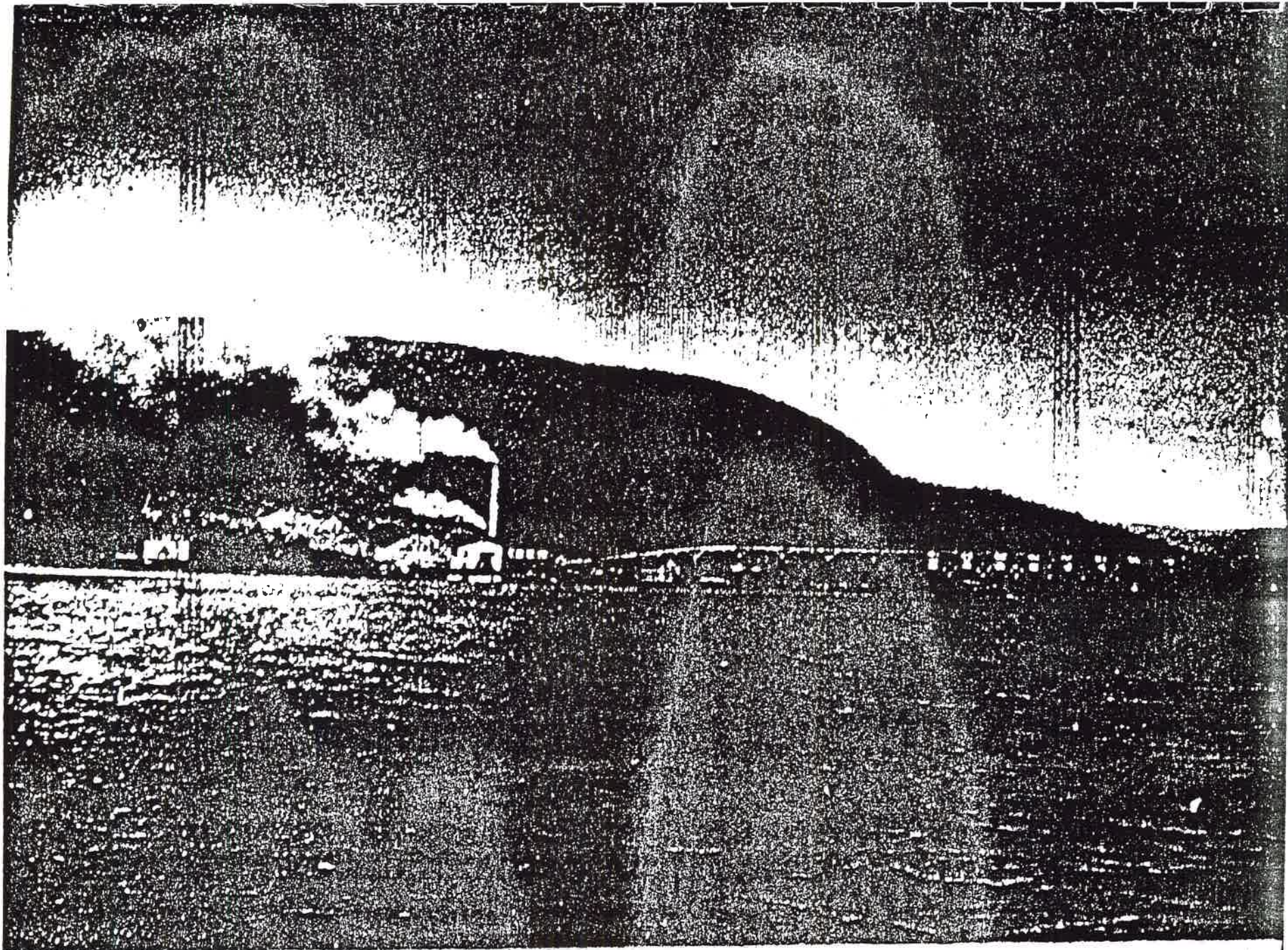
Appendix 2

This excerpt from The Big Lease in Cape Breton is re-typed for clarity. The lease of 1899 was surrendered on June 19, 1913 and a new lease was issued. Some conditions of that lease were as follows.

1. All Mines and Minerals, mineral paints and oils, gypsum and plaster and all rights and privileges necessary for working, mining and removal of same are reserved to the Crown.
2. That the Lease is not to interfere with or take away any rights acquired by settlers, squatters, lumbermen, fishermen or other persons.
3. That the Governor in Council may grant and convey in fee simple, and free from the operation of the Lease any part of the lands required by bona fide settlers or intending settlers; but no lot to exceed in extent 200 acres and not to exceed in all one-quarter of the lands in either County.
4. That the rights of fishermen, farmers or mill-owners or others in respect to the seashore or any lakes, rivers or streams shall not be affected or interfered with.
5. That no exclusive right or privilege to take fish or game shall have passed to the lessees.

6. That nothing in the Lease shall interfere with any rights or privileges exercised or enjoyed by settlers to take wood or timber for firewood or fencing or for the construction of boats or for any purpose necessary for the effectual prosecution of the farming or fishing industry.
7. That the lessees shall expend the sum of at least \$20,000.00 within two years in the erection of mills and machinery for the manufacture of wood products or pulp.
8. That no unmanufactured lumber shall be exported by the lessees from the Province of Nova Scotia, and that all wood or timber cut or taken from the lands shall be manufactured in the Province of Nova Scotia; provided that all wood cut and barked, rossed or hand-peeled, ready for being made into pulp shall be considered as manufactured lumber.

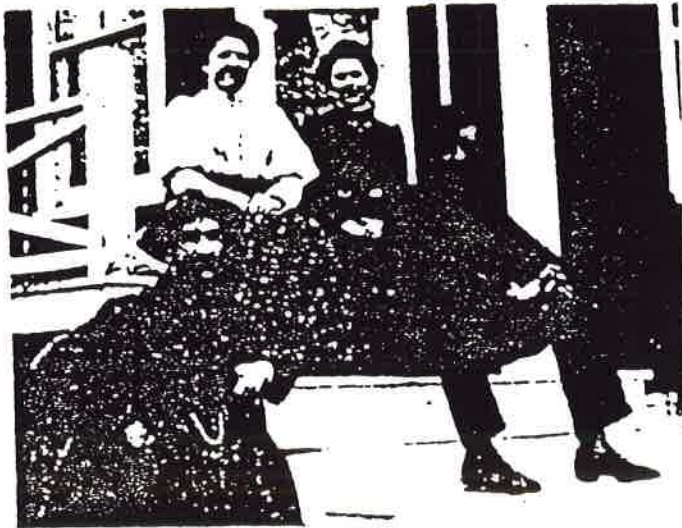
The Lease is for a period of twenty years, from the 19th day of June, 1913, with the privilege of further renewal, similar to the renewal conditions in the mining Leases of this Province.



6809922

view of Oxloft Paper Company, Cape Breton Division in operation. Probably taken from Goose Cove. Rossing mill is below smoking stack, shipping pier and conveyors at right and boarding house is to left of mill. Smith's Mountain is in background. Photo is from Beaton Institute.

2225040



Frank J. D. Barnjum (promoter), Bella Matheson (housekeeper), Sarah MacDonald (boarding house), John J. Matheson. Cape Breton's Magazine.

Appendix 4

Cape Breton Pulp and Paper Co. Ltd.

Year	Men Employed	Total Wages
1917	150	\$71,363.85
1918	286	\$127,943.20
1919	475	\$283,302.46

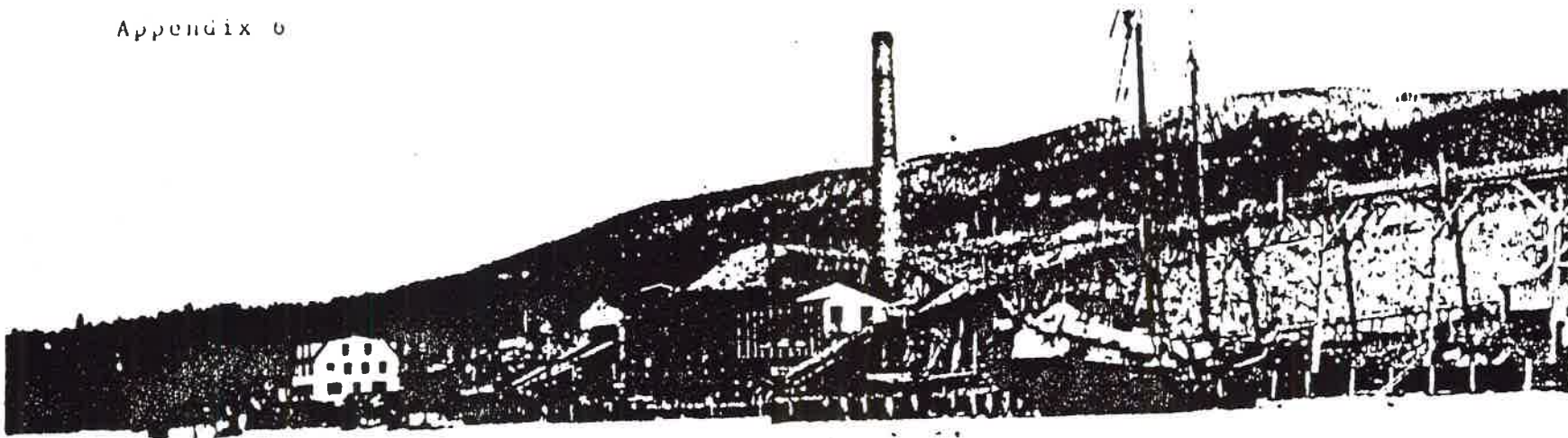
Excerpt from "Oxford Paper Company Company, Cape Breton Division," unpublished report, Beaton Institute.



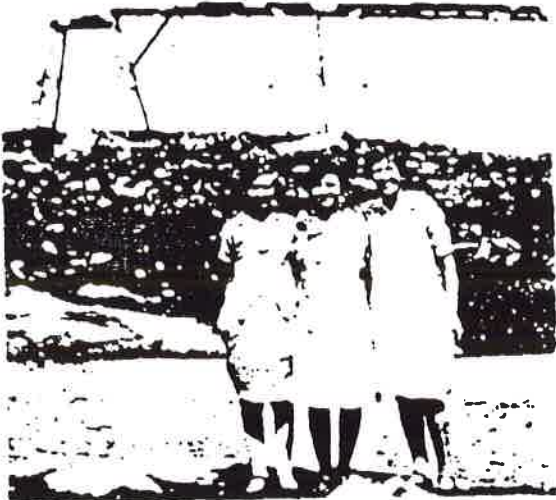
AT THE FIZZLETON FARM. MAY 23, 1926



Fizzleton Farm-owned and operated by Oxford Paper Company, Cape Breton Division.
Left to right- Jackson(manager), Bussel scaler), Saxon(supplies supervisor), MacLeod, Roger Burton, McDermid, Dave MacDonald, Fletcher, Roddie Morrison, Ross(in charge of farm), Mackenzie. Photo and names supplied by Duncan Morrison, North River.



Oxford Paper Company, Cape Breton Division. Note shipping pier at right with conveyor system and schooner in foreground. Boarding house is at left. It accommodated on the average 90 boarders. Photo- Cape Breton's Magazine.



Three of the girls from the boarding house. Notice the conveyor system in the background. Photo loaned by Catherine Carmichael, Goose Cove.



Appendix 7
 Catherine Carmichael in front, Jack MacIntosh (millwright) at left and Red Murdoch MacDonald at right. Note conveyor system and stockpile of pulpwood in background. Photo loaned by Catherine Carmichael, Goose Cove.

iew of the holding boom constructed by the William H. Bishop Company in 1920
Oxford Paper Company. Photo is from Beaton Institute.





Red Murdoch MacDonald (Catherine Carmichael's father) standing in front of his general store.

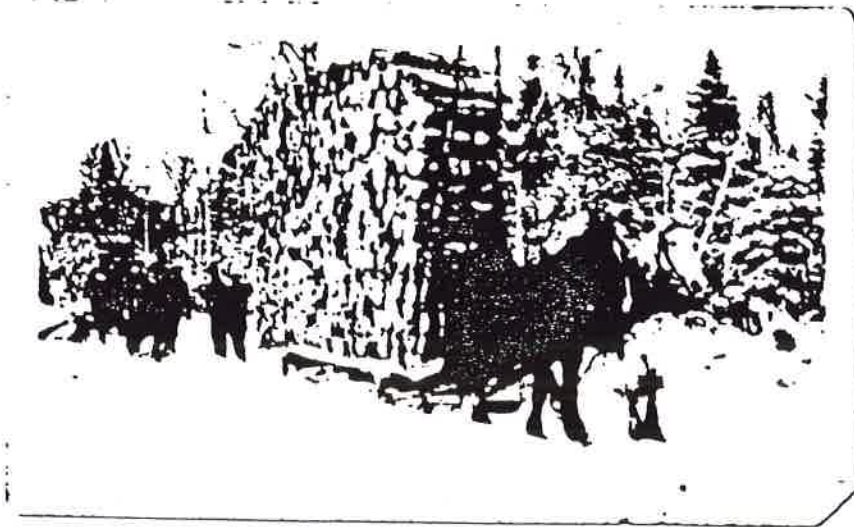


The little girl in photo is Catherine Carmichael. They are standing on the deck of a boat which is taking on a load of pulpwood at Murray, C.B.

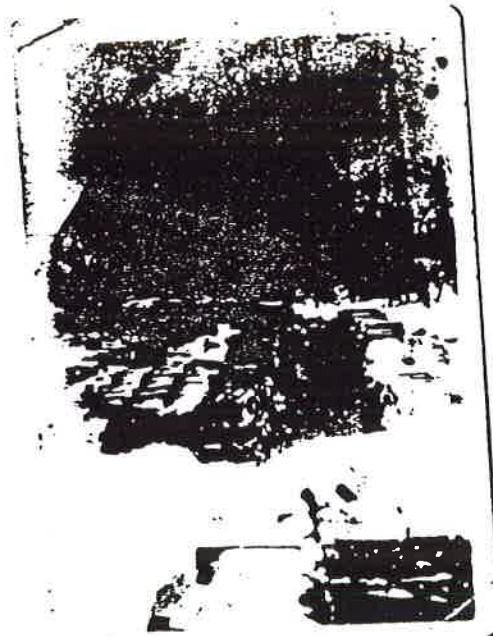


Red Murdoch MacDonald, Catherine Carmichael's father posing with the clerk in front of his General Store at Murray, C.B. Photo loaned by Catherine Carmichael, Goose Cove.

All photographs on this page were loaned by Catherine Carmichael, Goose Cove



A load of pulpwood being hauled from the yards to the landing in preparation for the river drive. This load is being hauled from Camp 16 and contained 8 $\frac{3}{4}$ cords of 4 foot wood.



Wood at the landing awaiting the spring drive.

photographs courtesy of Duncan Morrison, North River.

NAME	NO	CLASS	DAYS	RATE	COROS	RATE	TOTAL	DEDUCTIONS		NET	REMARKS	
								BOARD	WANGAN			
Total								148.55	128.88	19.67		
Robert J. Fisher	53	Seaper	7	55.00			38.50			38.50	37593	
D. W. McInnon	209		11	55.00			60.50		1.10	59.40	37590	
J. C. McHenry	763		10	55.00			55.00		7.80	47.20	37550	
John Young	305		11	50.00			55.00	1.75	1.35	51.90	37585	
Alexander Stebbin	114		16	75.0			120.00			120.00		
			17	75.0			127.50		1.00	126.50	37662	
George H. White		144.16 Cos.				.50	72.00	10.00	1.00	61.00	35910	
W. J. H. H. H.		150.60				.50	75.30	10.00	2.75	62.55	35911	
David H. H.		6		55.00			33.00		1.05	31.95	35912	
William J. H.		7		55.00			38.50			38.50		
		6.03				.75	4.52	1.50	1.85	2.67	35913	
John T. H.		7		55.00			38.50			38.50		
		11.47				.75	8.61	3.00	1.15	4.46	35914	
Alex J. H.		11		55.00			60.50			60.50		
		17.05				.75	12.79	2.50		10.29	35916	
Thomas H.		6		55.00			33.00			33.00	35917	
Tom L. H.		7		55.00			38.50			38.50		
		125.98				.50	62.99	9.00	1.95	52.04	35918	
Edward H.		150.60				.50	75.30	10.00	1.40	63.90	35919	
W. J. H.		7		55.00			38.50			38.50		
		17.32				.75	13.00	6.00	1.00	6.00	35920	
W. J. H.		150.60				.50	75.30	10.00	2.10	63.20	35921	
W. J. H.		150.60				.50	75.30	10.00	2.05	63.25	35924	
W. J. H.		5		55.00			27.50			27.50		
		6.65				.75	5.00	2.00	1.75	3.25	35925	
Francis H.		11		55.00			60.50			60.50		

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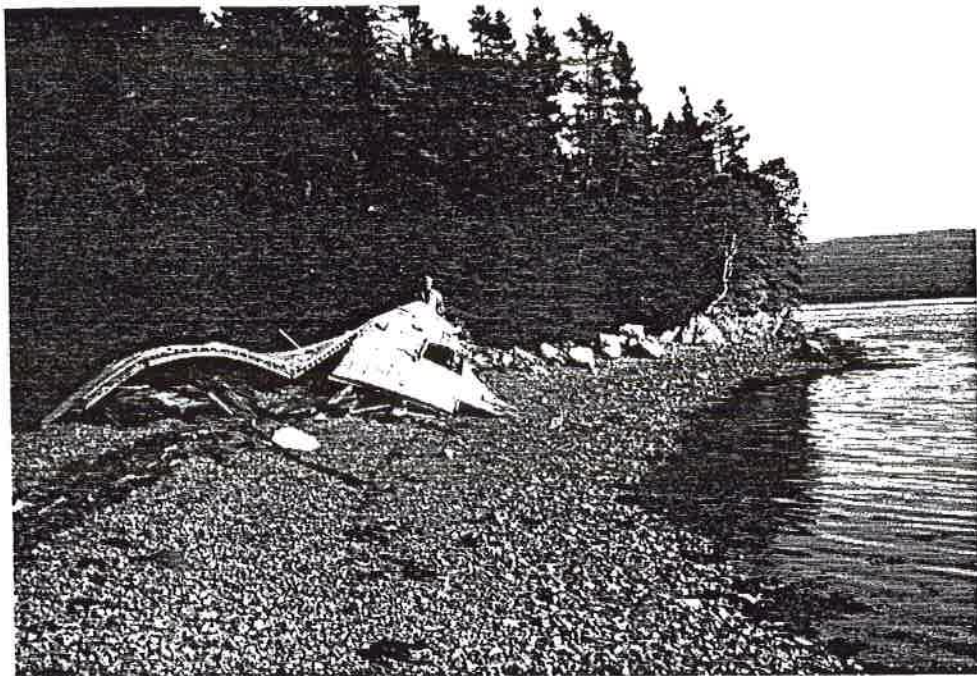
Clara Harris			55.00									
			3.77		.75	2.02	1.00	.60	10.14	35.37		
			55.00			10.10				0.00		
1111 1/2 St. S.E.			55.00			5.11						
100 St. S.W.			55.00			55.11	7.50	1.40		35.00		
			111.50		.50	15.15						
Clara E. Johnson			55.00			15.15						
			11.11		.75	6.71	2.50	.30	11.06	37.51		
James Herbert			55.00			15.65						
			57.25		.75	15.38	4.50	3.65	27.33	37.55		
Calvey H. H.			55.00			19.51		.00		35.71		
			14			19.51		1.00	11.71	35.71		
			150.40 Cds.		.50	75.40	10.35	5.00	12.30	35.71		
W. J. Jennings			55.00			15.00		1.15				
Alex Wilkie			55.00			15.00		4.27	11.74	35.71		
						14.00	1.05	3.50	10.15	35.67		
Vincent Whitney			55.00			14.00		1.50	11.50	35.00		
Michael Latorque			55.00			14.00	1.05		15.75	35.66		
John Jackson			55.00			14.00	1.05		15.75	35.66		
Phillip Jones			30.00			9.00			9.00	35.14		
Harold Jackson			55.00			22.20						
			1.15 Cds.			4.07	1.20		5.07	35.00		
			55.00			14.00		1.05	14.75	34.64		
Ralph Austin			55.00		.50	75.40	11.05	.00	65.45	35.72		
Anna Murphy			55.00			3.15						
Don A. Kerr			55.00		.75	4.01	1.00		6.16	37.54		
			5.35			14.00	1.05	4.75	9.00	35.58		
John Ginn	706		55.00			14.00		.40	14.40	35.32		
John Green	732		55.00			14.00		.10	14.40	35.32		
J. Michael			55.00			14.00			14.40	35.32		
Archie MacEachern			55.00		.75	4.23	2.05	.75	4.27	35.72		
			4.61			4.23						
William MacInnon			55.00		.75	4.23	2.00	.40	4.63	35.73		
			3.85			4.23			4.63	35.73		

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Ralph Addison		7	55.00			14.00						
Anna Murphy			150.00		.50	75.40	11.05		10	65.85	59.72	
Don A. Burr			111	55.00		5.15						
			55.00		.75	4.01	1.00			5.15	59.14	
John Tine	796		7	55.00		14.00	1.05	4.75		1.00	59.78	
John Brown	732		7	55.00		14.00				14.00	59.78	
F. "John"			7	55.00		14.00				14.00	59.78	
Archie MacEachern			2	55.00		4.23						
			4.6		.75	3.44	2.05	.75		4.27	59.72	
William Robinson			3	55.00		4.23						
			3.85		.75	2.91	2.05	2.05		4.69	59.73	
William Simpson			7	55.00		14.00	1.05			13.50	59.36	
Bert McDonald			3	45.00		6.33						
			27.2		.75	20.46	6.00	1.10		13.70	59.63-18.20	
Alex J. McDonald			2	55.00		4.23						
			2.10		.75	7.05						
			53.12		.50	26.6	6.00	7.50		24.54	38.04	
						2737.35	269.56	152.16	2519.61			

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Appendix 12



The remains of the Lorraine, one of the Oxford Paper Company's power boats. It was remembered by Norman Carmichael as the boat that towed Alexander Graham Bell's houseboat, the "Floating Palace" from Beinn Bhreagh to North River. Photo courtesy of Wanda Gorman.

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Morrison, Duncan: 14 October 1987; 30 January 1988.

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2225053

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Russell Lane, Boise Cascade, Rumford, Maine
Vivian Fownes, Baddeck
Leonard Harvey, Baddeck
Wanda Gorman, Goose Cove
Windsor Kelly, Baddeck
A.J. Morrison, North River
Duncan Morrison, North River
Jessie Morrison, North River
Murdoch Morrison, Goose Cove
Peter MacQuarrie, Dept. of Lands & Forests, Halifax
Mike Power, Crown Lands Office, Halifax
John Smith, Dept. of Lands & Forests, Halifax
Isabel Waterman, Sydney

*Copy of Michael J. Poirer
Prov. Crown Lands Record Office*

2225053

Oxford Paper Company, Cape Breton Division .

Report on Cape Breton Properties.

The Cape Breton Division of the Oxford Paper Company is comprised of properties located in Inverness and Victoria Counties, Nova Scotia, consisting of approximately 620,000 acres of forest land under lease from the Nova Scotia Government and small parcels of freehold land adjacent thereto.

The purpose of this report is to present the scope of operations carried on by the Oxford Paper Company since it acquired these properties on Jan. 2nd, 1917, until the present date and conditions prior to their acquisition, and made up under the following captions:

1. Resume and condition of property on Jan. 2nd, 1917 and previous
2. Oxford Operating Policy
3. Capital Expenditures
4. Employment
5. Taxes Paid
6. Forest Supervision and Protection
7. Insurance
8. Finished Wood Costs
9. Condition of Property at Cessation of Operation.

Resume and Condition of Property on Jan. 2nd, 1917 and Previous

On June 1st, 1899, the Province of Nova Scotia leased to parties, Emery, Sanborn and Blodgett of Massachusetts for a ninety-nine year term, forest land in the counties of Inverness and Victoria described as containing approximately 620,000 acres. These properties managed by F. J. D. Barnjum were operated in a small way during the years 1902 to 1907. During that period a small mill for slashing and rossing was built at Murray and five camps were operated in the woods, four on the East Branch and one on the Middle Branch of North River and one dam on the East Branch and one on the Middle Branch was also constructed. Lumbering operations during the above mentioned period were carried on at these camps and wood delivered to the mill at Murray in log lengths, choice lumber only being accepted. Local parties estimate probably 15,000 cords were cut during the period of these operations.

About the year 1907 these operations were found unprofitable and closed down, the mill was abandoned and afterwards burned. Two residences had been constructed at Murray during this period but from observations, development costs for this period could not have been very heavy. However, in the lessee's statement to the Province of Nova Scotia in 1913, they state as having spent one hundred and eighty-five thousand dollars in development costs. Probably fifty per cent of this amount must have been incurred for supervision and miscellaneous expenses.

*Copy of the letter of Oliver
from Crown Lands Board, Halifax*

Oxford Paper Company, Cape Breton Division.

Report on Cape Breton Properties.

The Cape Breton Division of the Oxford Paper Company is comprised of properties located in Inverness and Victoria Counties, Nova Scotia, consisting of approximately 620,000 acres of forest land under lease from the Nova Scotia Government and small parcels of freehold land adjacent thereto.

The purpose of this report is to present the scope of operations carried on by the Oxford Paper Company since it acquired these properties on Jan. 2nd, 1917, until the present date and conditions prior to their acquisition, and made up under the following captions:

1. Resume and condition of property on Jan. 2nd, 1917 and previous
2. Oxford Operating Policy
3. Capital Expenditures
4. Employment
5. Taxes Paid
6. Forest Supervision and Protection
7. Insurance
8. Finished Wood Costs
9. Condition of Property at Cessation of Operation.

Resume and Condition of Property on Jan. 2nd, 1917 and Previous

On June 1st, 1899, the Province of Nova Scotia leased to parties, Emery, Sanborn and Blodgett of Massachusetts for a ninety-nine year term, forest land in the counties of Inverness and Victoria described as containing approximately 620,000 acres. These properties managed by F. J. D. Barnjum were operated in a small way during the years 1902 to 1907. During that period a small mill for slashing and rossing was built at Murray and five camps were operated in the woods, four on the East Branch and one on the Middle Branch of North River and one dam on the East Branch and one on the Middle Branch was also constructed. Lumbering operations during the above mentioned period were carried on at these camps and wood delivered to the mill at Murray in log lengths, choice lumber only being accepted. Local parties

Resume and Condition of Property on Jan. 2nd, 1917 and Previous (Cont'd)

In 1915 Mr. Barnjum still managing the lease of these properties began the construction of a rossing mill which was completed in 1916 together with a shipping pier, the mill being designed for hand rossers with a capacity of 80 cords per ten hour day. This mill was constructed at an approximate cost of \$125,000.00.

On Jan. 2nd, 1917, the property and mill heretofore referred to, was taken over by the Cape Breton Pulp and Paper Company Ltd., affiliated with the Oxford Paper Company and later on April 10, 1920, was absorbed by the Oxford Paper Company.

Oxford Operating Policy

During the years 1917 to 1931 inclusive, the watersheds of the East, Middle, and West Branch of the North River and Timber Brook were developed. A total of thirty-one camps were erected and operated and eighteen dams were built, also extensive river improvements were made and sheer dams constructed.

Surveys were made of the Middle, Baddeck, North Barrasois, Indian and Margaree river watersheds. Detailed cruises were made on the ground and also reconnaissance work was done by aerial observation.

A number of dwelling houses were erected at Murray for employees; a large boarding house was constructed for the accommodation of mill employees; a set of buildings including three stables and a dwelling house were erected at North River Bridge for the woods department, also a dwelling house and three stables at Frizzleton for the West Branch operation. A large stable was erected at Murray; a blacksmith shop, garage and office building, also a warehouse about four hundred feet long on the wharf for storage purposes was constructed.

Tote roads were opened up in a very substantial way as those constructed to the depot Camp 9 at the time of the other operation were of poor construction and unsuitable for heavy hauling work.

Telephone lines were built from Murray to Frizzleton and to all the outlying camps. A line was also built from Murray to St. Ann's and one from Murray to Englishtown.

Practically all wood produced on these operations was cut on our own stumpage until 1926 at which time we began purchasing roughwood and in 1928 we began purchasing peeled wood. The roughwood was drummed through the mill along with our own wood but practically all peeled wood purchased was loaded direct over the side of the ship.

Quite a few properties were purchased abutting the North, Barrasois and Indian Rivers. These purchases were made for the purpose of controlling driving and booming rights.

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The Murray mill as originally built was intended for machine rossing, the capacity of which was limited to about eighty cords per day, this was later remodeled, a barking drum installed, with a capacity of two hundred and fifty cords per day, (ten hour day) extensive conveyor systems built for disposal of bark, storage of wood and loading. Electric motors installed to take care of increased production, the wood burning furnaces were changed over to coal burning so as to eliminate the burning of wood thereby making all wood available for pulpwood purposes, and an additional power unit installed. Extensive warehouses, stables and dwellings were erected. In 1917 boom piers and booms were put in place on the North River holding ground, but later were found to be inadequate to retain the wood operated yearly and in 1920 were replaced by a new boom of substantial construction, the old booms being used for mill pond booms, etc. Booms were also placed at the mouth of the Baddeck and Middle Rivers for convenience of producers of pulpwood which we purchased in that vicinity.

Cords cut yearly and acreage cut over.

<u>Year</u>	<u>Cords</u>			<u>Total</u>	<u>Total Cut over Area Acres</u>
	<u>Jackson Contract Rough</u>	<u>Rough</u>	<u>Peeled</u>		
1917-18		9196		9196)	
1918-19		24845		24845)	6743
1919-20	14806	14117		28923)	
1920-21	32048	25284		57332	1233
1921-22	18568			18568	2268
1923-24		45675		45675	4942
1924-25		30115		30115	3331
1925-26		13841	9534	23375	2665
1926-27		21905	14732	36637	4416
1927-28		11749	12164	23913	3336
1928-29			10035	10035	3245
1929-30		346	8811	9157	2000
1930-31		60	7073	7133	1705
	<u>65422</u>	<u>197133</u>	<u>62349</u>	<u>324904</u>	<u>35884</u>
		65422			
		<u>262555</u>			

The Murray mill as originally built was intended for machine roasting, the capacity of which was limited to about eighty cords per day, this was later remodeled, a barking drum installed, with a capacity of two hundred and fifty cords per day, (ten hour day) extensive conveyor systems built for disposal of bark, storage of wood and loading. Electric motors installed to take care of increased production, the wood burning furnaces were changed over to coal burning so as to eliminate the burning of wood thereby making all wood available for pulpwood purposes, and an additional power unit installed. Extensive warehouses, stables and dwellings were erected. In 1917 boom piers and booms were put in place on the North River holding ground, but later were found to be inadequate to retain the wood operated yearly and in 1920 were replaced by a new boom of substantial construction, the old booms being used for mill pond booms, etc. Booms were also placed at the mouth of the Baddeck and Middle Rivers for convenience of producers of pulpwood which we purchased in that vicinity.

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Employment - 1917 - 1931, inclusive.

The following tabulation shows number of men employed and total wages paid during period above mentioned:

Year	<u>Woods Operation</u>		<u>Mill</u>		<u>Combined</u>	<u>Total Average Men Employed</u>
	<u>Average Men Employed</u>	<u>Total Wages Paid</u>	<u>Average Men Employed</u>	<u>Total Wages Paid</u>	<u>Total Wages Paid</u>	
1917					71363.85	150
1918					127943.20	286
1919					283802.46	475
1920	885	527211.64	136	108839.34	636050.98	1021
1921	390	218705.01	101	99560.51	318265.52	491
1922	173	43402.19	68	71302.20	114704.39	241
1923	439	209571.86	48	29738.04	239309.90	487
1924	525	285010.84	101	91678.26	376689.10	626
1925	405	209245.67	95	86619.86	295865.53	500
1926	519	286962.28	83	78461.38	365423.66	602
1927	417	233940.29	94	89615.62	323555.91	511
1928	234	131439.77	66	67140.48	198580.25	300
1929	240	108240.61	41	38217.51	146458.12	281
1930	135	71230.57	40	33552.50	104783.07	175
1931	84	15825.84	39	20525.12	36350.96	123
		2340786.57		815250.82	3639146.90	

Note:

1. In 1920 we spent thru Bishop contract which was for building Main Boom, approximately \$50,000.00 in labor, not included in the above statement.
2. In addition to this statement there was approximately \$15,000 paid yearly to salaried employees that have been stationed in Cape Breton.
3. There is also additional amount spent in administrative salaries at the New York Office.

Average men employed per THOUSAND cords cut in woods operation

<u>Year</u>	<u>No. of Men per THOUSAND cords</u>		<u>Cords Cut (THOUSAND)</u>
1920	16	Roughwood	57.
1921	20	"	18.5
1922		No Cutting	
1923	10	Roughwood	45.6
1924	17	"	30.1
1925	18	Rough & Peeled	23.3
1926	14	" "	36.6
1927	17	" "	23.9
1928	24	Peeled	10.
1929	26	"	9.1
1930	20	"	7.1

Payments to the Workmens Compensation Board of Nova Scotia,
including payments made on Jackson Contracts, but not
including payments made by contractors producing purchased wood.

	<u>Paid to the Board</u>	<u>The Board paid on our account to Workmen</u>	
1917	1427.28	142.73	
1918	2558.86	1374.00	
1919	7095.06	2583.19	
1920	22427.58	10648.85	
1921	5867.51	4591.42	
1922	2656.81	664.26	
1923	6852.17	6282.30	
1924	13142.33	4041.45	
1925	10015.60	4433.58	
1926	12969.26	5924.26	
1927	11060.31	6219.44	
1928	6533.26	3362.92	
1929	7322.91	6326.31	
1930	6725.67	3266.04	
1931	3012.34	1731.80	
	<hr/>	<hr/>	
	119666.95	61592.55	
Balance to our Credit		<hr/>	119666.95
		58074.40	

During 1932 we received a rebate of \$1175.66 applying on year
1931 which would reduce our balance by that amount.

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Capital Expenditures**Dams**

Constructed on the Middle, East and West branch of North River, eighteen in all. \$ 32,527.20

Camps

Twenty-seven camps located on Timber Brook, East, Middle and West Branch of North River 45,178.31

River Improvement

This is mostly for abutments and sheer dams from North River tide-water to Depot Camps, also some small crib work built on each stream 18,987.90

Roads

This expenditure was made opening up tote road, Murray to Camp No. 9 on Middle Branch, thence to Camp 12 on West Branch, thence to Frizzleton, also tote roads connecting outlying camps with depots 56,097.06

Fire Tower

Cost of erecting steel tower $\frac{1}{2}$ mile back of Camp 9 on tote road to Camp 12. 684.26

Telephone Line Construction

Expenditure made for telephone line connecting Murray to Englishtown, approximately 7 miles, with submarine cable in Englishtown channel, also line connecting with St. Anns Rural line via North River Bridge to Baddeck and woods lines connecting Murray to Depot camps. Total mileage for woods lines 45 miles. 6,438.69 159,913.42

Rossing Mill and Machinery

Mill Building and additions 130,015.08
 Drum 29,980.54
 Additions to Mill Machinery since built 38,327.59 198,323.21
 This is the cost for the original mill and machinery including cost of additions since acquisition.

Capital Expenditures

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Fire Tower

Cost of erecting steel tower $\frac{3}{4}$ mile back of Camp 9 on tote road to Camp 12. 684.26

Telephone Line Construction

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Capital Expenditures. (Continued)

Murray Buildings, including Warehouses,
stables and Dwellings.

This covers the cost of all buildings
at Murray with the exception of Mill
Buildings.

\$ 59,304.16

Booms

Main Boom on North River holding
ground, miscellaneous pond and
towing booms

178,737.54

Floating Equipment

Scows, tow boats, etc.

19,619.89

Auto Truck and Equipment

F. W. D. Truck and trailer with
miscellaneous equipment.

10,265.50

267,927.09

Summary of Capital Expenditures:

Dams	\$ 32,527.20
Camps	45,178.31
River Improvement	18,987.90
Roads	56,097.06
Fire Tower	684.26
Telephone Line Construction	6,438.69
Rossing Mill and Machinery	198,323.21
Murray Buildings	59,304.16
Booms	178,737.54
Floating Equipment	19,619.89
Auto Truck and Equipment	<u>10,265.50</u>
	626,163.72

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Murray Buildings 59,304.16

Forest ProtectionFire
Pro-
tect-
ion

From 1917 to 1920 it was deemed unnecessary to maintain fire patrols of the property as we were employing a great number of men on development and regular operations which we considered sufficient protection, however, in 1920 due to increased automobile and tourist traffic and our developments having made the forest areas easier travelled, it was decided to maintain a regular fire patrol of the public highways skirting our properties. This was carried out and two motorcycles purchased and patrols maintained from Neil's Harbor to Eastern Harbor via Baddeck and North-East Margaree. This system was carried out until 1925 when a system of fire tower watchman was substituted and watchman placed at Wreck Cove, Camp 9, and Cape Rouge. Geodetic towers were made use of for this work at Wreck Cove and Cape Rouge and we constructed our own steel tower at Camp 9 at a cost of \$684.26. In 1929 the Nova Scotia Government, Department of Forests, took over this work for which we pay an annual fee of \$3,900.00 and in addition maintain a watchman at Cape Rouge and Camp 9. No serious fires have ever occurred on our properties, we did however have a small fire at Camp 12 and Camp 5 in 1920 and a considerable area of scrub growth was burned over in vicinity of Neil's Harbor in 1921. Both fires were quite easily handled and put out. From 1920 to 1931 inclusive, we spent \$16,887.13 in forest fire protection and in addition spent \$1,784.26 for fire towers and motorcycles for this work.

In 1925 it became evident that budworm was attacking the forests in Cape Breton. The Nova Scotia Government investigated this matter and their chief forester O. Schierbeck reported on September 15th, 1925, conditions as he found them and the following excerpts from his report shows the areas effected, etc.

Bud-
worm
In-
vest-
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tion

"The budworm started three years ago in the southern part of the Island of Cape Breton, and has, carried by prevailing southwest wind approached Cape Breton's only remaining virgin forest, to within a few miles, terminating in a line from Mabou to Baddeck. As the remaining timber on the big lease represents at least a value of \$10,000,000 stringent preventative measures should be started at once.

As mentioned above the front line of the attack is from Mabou to Baddeck. The budworm does not seem to have penetrated to the Lake Ainslie and Margaree watersheds, nor the Middle River. This is explained by the following facts. All of the slopes on the north side of the Mabou River, around Lake Ainslie, and on both sides of the Middle River are solely wooded with hardwoods; and as the hills forming the watersheds between Lake Ainslie, Middle River and the Baddeck River are very steep and reach the height of a thousand feet, I am of the opinion that they will form a sufficient strong barrier to the further progress of the budworm.

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Forest Protection - (Continued)

The only ingress to the virgin balsam forest of the big lease is then along the Baddeck River watershed which is covered with coniferous forests. I feel confident that a cutting of the attacked area at the mouth of the Baddeck River and as far up the river as the above described small overwintering larvae can be found, will materially check the further progress of the attack. The trees should be cut in the fall and winter. The buds will thereby be prevented from opening up in the spring; and as overwintering larvae, the first days of their feeding, are only able to eat the tender spring shoots they will die of starvation. During the summer a close watch on the surrounding area should be kept, and all trees where larvae are in evidence cut down, the pulpwood utilized but the tops burned so that the larvae are killed.

Budworm
Invest-
igation.

I am not exaggerating or starting unnecessary alarm when I claim that the Budworm attack will completely annihilate the forest of the big lease if not checked. I, therefore, strongly urge that the above proposed preventative cutting should be undertaken at once.

The government should as its share of the work, thru its forest department, undertake the spreading of the parasitical wasps and bacteriae of the budworm thruout the forest, so that the plague might be brought to a speedy end.

In closing this report I want again to emphasize that the present budworm attack, if not terminated, will wipe out the entire coniferous forest of the island, thereby jeopardizing the entire coal industry of Cape Breton Island and absolutely put a stop to all future pulp and paper development through the destruction of all pit prop and pulpwood material."

This report by the Government was investigated by our research department and other officials. No cuttings were made but conditions were investigated each year until at the present time reports show that the attack has subsided to normal.

Practically no damage on our areas have been reported, the damaged area confining itself to the southern portion of Cape Breton Island, in vicinity of Whycomagh, Port Hawkesbury and St. Peter's.

Experimental areoplane dusting at Whycomagh was carried out by the Entomological Branch, Canada Department of Agriculture during June 1927, and detail reports are on file covering this work which was cooperated in by the Department of Forests of Nova Scotia.

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Forest Protection - (continued)

A report by A. H. MacAndrews, August 31st, 1928, reads in part as follows:

Budworm
Invest-
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"There has been a marked decrease in number of budworm larvae and a decided increase in the number of the parasites and a still further promising factor in the retardation in the spread of the budworm into new territory on the Island " and further " The reduction in the ranks of the budworm however can hardly be credited to the increase in parasites or lack of food. Some other important factor is concerned, as a heavy mortality has occurred somewhere along the line between the time of larval hatch last fall and pupation this July. Unfortunately, weather data is not available. A solution might be forth coming from that source."

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Transportation

Transportation costs from Murray to Portland ran from \$7.05 per cord in 1918 to a minimum of \$2.05 in 1926.

Various systems of carrying wood were used, that is, during some years the wood was carried by transportation companies at fixed rates per cord while during other years steamers were hired on time charter and operated by our own transportation department. From 1918 to 1922 cargoes were moved by rate per cord basis. In 1923 no wood was shipped and from 1924 until 1929 inclusive boats were hired on time charter and during 1930 and 1931 the flat rate basis was again reverted to. The cost of ocean freight between Murray and Portland for the various years was as follows:

<u>Year</u>	<u>Cord Basis Cost per Cord</u>	<u>Time Charter Basis Cost per cord</u>
1918	7.042	
1919	4.613	
1920	6.307	
1921	4.081	
1922	3.052	
1923	---	
1924		2.238
1925		2.204
1926		2.042
1927		2.482
1928		2.195
1929		2.567
1930	2.360	
1931	2.302	

Note: The cost on per cord basis includes usually about .05¢ per cord incidental expenses incurred by ourselves in addition to the regular contract rate.

From the writer's personal observations with a quantity of from 15,000 to 20,000 cords of wood to move, I consider the time charter basis the best method from an operating standpoint and it proved itself to be equally as cheap as the cord basis method.

Transportation

Transportation costs from Murray to Portland ran from \$7.05 per cord in 1918 to a minimum of \$2.05 in 1926.

Various systems of carrying wood were used, that is, during some years the wood was carried by transportation companies at fixed rates per cord while during other years steamers were hired on time charter and operated by our own transportation department. From 1918 to 1922 cargoes were moved by rate per cord basis. In 1923 no wood was shipped and from 1924 until 1929 inclusive boats were hired on time charter and during 1930 and 1931 the flat rate basis was again reverted to. The cost of ocean freight between Murray and Portland for the various years was as follows:

<u>Year</u>	<u>Cord Basis Cost per Cord</u>	<u>Time Charter Basis Cost per cord</u>
1918	7.042	
1919	4.613	
1920	6.307	
1921	4.081	
1922	3.052	
1923	---	
1924		2.238
1925		2.204
1926		2.042
1927		2.482
1928		2.195
1929		2.567
1930	2.360	
1931	2.302	

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Purchased Wood

During the earlier years of our operations we purchased a few cords of wood, but from 1919 to 1926 we adopted the policy of having plenty stumpage of our own and did not go in the open market here, however in 1926 this policy was changed and we began purchasing some wood, first rough and then all sap peeled, the effect of these purchases so far as costs are concerned resulted somewhat as follows:

	<u>Company Wood Cut Cost</u>	<u>Purchased Wood reduced costs to</u>	<u>Saving</u>
1927	11.443	11.197	.246
1928	11.131	10.947	.184
1929	16.181	13.760	2.423
1930	15.878	11.509	4.369
1931	17.026	11.705	5.311

During the time these purchases were being made and operations carried on we sold considerable equipment etc. which reduced our inventories considerably when we finally closed down.

Our purchased wood costs for the past few years was as follows:

	<u>1929</u>	<u>1930</u>	<u>1931</u>
Rough Cost (peeled)	8.442	8.561	8.646
Shrinkage	.4350	.078	.179
Loading	1.498	1.530	.955
Ocean Frt	2.567	2.360	2.302
Unloading	1.644	.829	.825
Rail Freight	<u>2.402</u>	<u>2.220</u>	<u>2.256</u>
	16.118	15.578	15.163

Loading

Until the season 1929 the loading of pulp wood was done thru the mill all wood being taken up the haul up, put in storage, except a small part which was sent direct to the steamers when they were loading, the wood was cut in 2' blocks and stanchions were used to secure the deck loads. In 1929 the wood was loaded with ships winches over the rail, but stanchions were still used, but in 1930 the practise of putting up the stanchions was discontinued. The usual season cost for stanchions and other ship protection was in vicinity of \$2500.00 to \$3000.00 and this amount was saved completely.

A comparison of the rates of loading per hour is shown hereunder, based on hours worked while loading.

	<u>Ships side</u>		<u>Thru Mill</u>
	<u>Murray</u>	<u>B.d¹Or Lakes</u>	<u>Murray</u>
1931	51	45	
1930	46	33	
1929	45		
1928	Only 3 cargoes loaded		39
1927			38
1926			40

The cost of loading over ships side was cheaper for us than thru the mill altho our cost figures do not show as such, this is on account of only a portion of the real loading costs being charged to loading when loading thru the mill, for instance no charge was made for power, handling and rehandling wood in the yard, upkeep of conveyors and capital depreciation for loading equipment. Our costs for loading ran from \$1.20 to .95¢ per ccrd, rate of pay \$2.50 per day and for .95¢ rate the labor rate was \$2.25 per day, but we have loaded for .55¢ per cord here at Murray under good conditions, for certain cargoes.

Change from Rough to Peeled Wood.

The effect of changeing from all rough to peeled and rough wood in 1925-26 and eventually to all sap peeled in 1928-29 was somewhat as follows:

In the woods operation on account of the peeled wood being lighter we were able to haul our wood longer distances without increasing our usual costs of shorter hauls, thereby reducing the capital

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In the woods operation on account of the peeled wood being lighter we were able to haul our wood longer distances without increasing our usual costs of shorter hauls, thereby reducing the capital expenditures for new camps and tractor equipment which would have been necessary to operate the same territories on rough wood basis. At the mill it relieved the necessity of replacing costly barking equipment which was practically worn out at the time, also the renewal of conveyors in the yards and our shipping facilities, and as the operation now stands had we spent the money necessary to put our mill in proper shape, our loss at this time would have been heavy.

As for the costs when combined with our purchased wood we seem to have been lowering them when really all comparative costs in the lumber business were increasing.

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Insurance

The average coverage of insurance carried at this division from 1927 to 1931 inclusive was \$295,000 with an average yearly cost of \$5900.00.

Condition of Property on Cessation of OperationMill

The expenses due to shutting down operations of this division were mostly incurred during 1931 and were charged to shut down expenses during that year and amounted to \$16,324.28. During 1932 there were similar expenses but amounted to very little and are being charged to Mill Office Expense.

In October 1931, Messrs. Beedy, Alden and the writer made a tour of inspection of the properties here, covering the mill and woods departments. At the mill all the machinery had been laid up, the electric motors had been previously shipped to the Nashwaak. The mill, at the time of writing consists mostly of the power house including boilers, main engine, a 150 H.P. auxiliary engine, 30 H.P. steam engine, 25 kilowatt D. C. light generator, an 85 kilowatt A.C. power generator, main shafting, pulleys and barking drum. The outside conveyors were in a dilapidated condition except the conveyor on the loading wharf which was in a fair state of repair. The main loading wharf was in fair repair and the buildings and warehouses in good repair.

The telephone lines through our property which had been kept up with yearly repairs will not be serviceable unless the usual repairs are made on it.

It was decided to leave the mill boom and the main boom across North River in the water until further arrangements.

All the purchased wood from our purchased wood territory was assembled and shipped during the shipping season 1931.

Woods

An inspection of the Woods Department found the camps and depot building in the usual state of repairs. All the materials, equipment and supplies of value had been removed to Murray. An inspection of the landings and rivers showed them to be clear of wood and a clean drive driven. A few sticks were found at Camp 31, this being due to flowage at the Lake during the hauling season which made it impossible to take the wood out of the ice.

Inspection and comparison of operations since this division began showed improvements in the methods of operating, stumps being cut lower during the latter years, although all operations showed that this regulation had been adhered to, 16" being the height approved in this province. The cuttings were also very clean cut and any wood left standing was practically worthless.

Feb. 6, 1933
G. Harvey.

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