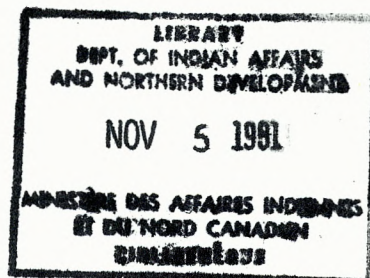


PME EVALUATION OF
THE FORT HOPE FORESTRY OPERATIONS
FORT HOPE, ONTARIO
(INDIAN-ESKIMO AFFAIRS)

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FORT HOPE, ONTARIO
(INDIAN-ESKIMO AFFAIRS)

Program Management Evaluators:

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I. INTRODUCTION

1.1 Background

1. One of the objectives of the Forestry Program is to facilitate Indian endeavours to establish, own and operate viable primary extraction enterprises. In order to identify the effectiveness and efficiency of these enterprises, the Director of the Indian-Eskimo Economic Development Branch requested Program Management Evaluation to undertake the evaluation of certain of these forestry operations, including the one located at Fort Hope, Ontario.
2. The Indians located at Fort Hope Reserve are of the Fort Hope Band. Fort Hope Ontario is approximately 135 miles north northwest of Geraldton, Ontario, and is situated on Lake Eabamit, a lake of the Albany River system (see Appendix "A"). The Fort Hope Reserve has a population of approximately 565 people. The settlement is completely isolated except by service from float or ski equipped aircraft and by a winter road over which a cat train brings in supplies from Pickle Lake, Ontario, during the winter months.
3. The mill is departmental owned and financed through the Economic Development Budget of the Nakina District.

1.2 Scope

1. The purpose of this evaluation was to analyze and assess the existing logging and milling project at Fort Hope in order to establish its efficiency and effectiveness as a basis for future policy planning and decision making. The emphasis has, therefore, been placed on determining the economic viability of the operation and isolating the significant variables restricting maximum output at minimum cost, rather than attempting to optimize output.
2. The Fort Hope Reserve is administered by the Nakina District and this forestry project was evaluated in conjunction with other mills located in the Nakina District. The Team made a detailed visit to Fort Hope on September 20, 1972. During this visit the Team was accompanied by the Departmental Development Officer of the Nakina District Offices. Discussions were held with members of the Band who were engaged in the actual lumbering operations and with the person who had been managing the sawmill and conducting the training course since the new mill went into operation. Information concerning the wood supply was obtained from Ministry of Natural Resources, Sioux Lookout, Ontario District Offices.
3. A standard format prepared by the Laurentian Institute, consisting of a questionnaire and model, has been prepared for the Fort Hope lumbering operation and is attached as Appendix "B" to this report. Some minor modifications have been made to the

format due to the lack of certain statistics and the accounting methods carried out at the site of the operations.

1.3 Acknowledgement

1. The PME Team wishes to acknowledge the assistance provided to it by the Toronto Regional Office, the Nakina District, the Thunder Bay Regional Offices of the Ontario Ministry of Natural Resources, and the Sioux Lookout District Office of the Ontario Ministry of Natural Resources.

II. DISCUSSION

2.1 Wood Supply

1. An estimate of the total forested area of the Fort Hope Reserve within a 15 mile radius of the mill was obtained from the Ontario Ministry of Natural Resources, Sioux Lookout District, based on an average square mile of area for that particular type of terrain. An average square mile of area consists of 60% productive forest, 10% non-productive land, and 30% water. Of the 60% productive forest, white and black spruce comprise 60% of the forested land, varying from young trees through immature to mature trees. Fifteen per cent of the forest consists of jack pine and another 15-20% is covered with white and black poplar. The remainder consists of small stands of

birch and fir. Of all of the above species, 98% of the trees cut by the Indians is mature spruce; the other 2% is mature jack pine. All timber is on Crown land but no attempt has been made by the Ontario Ministry of Natural Resources to collect stumpage fees. For all intents and purposes the timber is free to the Indians for their use, and the Province has no plans at present to change this situation.

2. Logging is conducted during May to September rather than during the winter months. The forestry operation is equipped with a Tree Farmer which permits the Indians to haul logs from reasonable distances in the bush. Therefore, the Band is not restricted to cutting its timber only along the water's edge. However, a decision was made this year to move from an area two miles distance from the mill to one that is 15 miles away. This may require re-evaluating the method of booming logs to the mill.
3. Good stands of timber, sufficient to satisfy the needs of the settlement for the next five years, are available within economic distances of the mill.

2.2 Organization and Management

1. Prior to 1969 a small portable sawmill had been operating at Fort Hope for a number of years, but with the rise in the cost of labour plus the inefficiency of a predominantly manual operated sawmill, the price of producing lumber in the quantities

required by the Fort Hope Band became prohibitive. The Economic Development Branch agreed to support the updating and modernization of the sawmill and the Canada Manpower Department and the Ontario Department of Labour agreed to finance the conducting of training courses for the Indians in modern sawmill operations. The mill was purchased and installed by the summer of 1970. The first training course was conducted by Confederation College of Thunder Bay, Ontario, and 15 Indians were trained. The contract for training was repeated for the year 1971-72 and an additional 10 men were trained.

2. There were several factors to support the modernization of the Ft. Hope sawmill. The Band itself is consolidating its people into the Ft. Hope settlement from the surrounding country by the building of a large school. This in itself is creating a heavy demand for additional housing at the settlement. There are also several very promising mineral deposits on the Reserve and nearby which could come into operation at any time. Within a very few years the road from Pickle Lake to Nakina and Geraldton will be completed and will open up the Ft. Hope area to outside markets. A road into or near the Ft. Hope settlement would undoubtedly influence the viability of mining in that area. Attached as Appendix "C" are photographs of the Ft. Hope Sawmill.

3. Although one of the objectives of the Indian Affairs Branch is to turn the mill over to the Band as a Band operated venture, this transfer of responsibilities has not, at the time of the PME Review, taken place. While the Indians themselves are becoming fairly proficient in the various sawmill operations, there is no one on the Reserve who has shown the leadership qualities essential to the management of a sawmill the size of that at Ft. Hope. It appears that until this situation develops, it will be necessary for the Department to continue to hire outside competent sawmill management to run the sawmill. Unlike most of the sawmills of Ontario reviewed by the PME Team, Ft. Hope is by far the largest and most up to date. Its productivity capacity is conservatively estimated at 150M f.b.m. per month, although its present actual production rate is only 60M f.b.m. per month.
4. Good management in this mill is absolutely essential if production costs are to be kept down. The size of this mill is such that unscheduled stoppages in production flow, either through breakdowns in equipment or poor scheduling of the various operations, would result in a comparatively large labour force being kept on the job with little or nothing to do. If such is the case, the cost of producing finished lumber at this mill would soon become prohibitive. The manager of the mill in addition to being fully competent in sawmill operations, must also have the full support of the Chief and Band Council in any decisions he has to make with respect to the mill operations and the hiring and firing of the labour force.

2.3 Facilities and Operations

1. The items of equipment listed as the sawmill inventory are included in Appendix "D" to this report. The items of plant and equipment with the estimated current value, including transportation, are listed below.

Sawmill (as per inventory Appendix "C")	
Current Value	\$25,000.00
Diesel Engine (Cummings 80 HP)	
Current Value	8,000.00
Wisconsin Motor (35 HP)	
Current Value	1,000.00
John Deere Motor (for resaw)	
Current Value	250.00
Scania Diesel (75 HP)	
Current Value	4,500.00
Preston Planer Mill (Model 146 - with blower pipes)	
Current Value	7,500.00
Tree Farmer (1964 model)	
Current Value	3,000.00
Spare Parts	
Current Value	500.00
Buildings	
Current Value	5,000.00
1 Truck Tandem - 8 ton model 18 International (used 10% of the time - current value \$18,000)	
.....	1,800.00
1 Caterpillar Tractor - Front end loader modified (used 20% of the time - current value \$36,000	
.....	7,200.00
Total Current Value	<u>\$63,750.00</u>

2. The sawmill is located on the shore of the Lake on a cleared area of about four acres in size and within the confines of the settlement proper. The mill is constructed so that the logs can be moved from the Lake to the saw carriage by means of a Jack Ladder. From this point until the lumber comes off the Green Chain, the operations are fully mechanized. The transfer of lumber from the Green Chain to the planing mill is by means of either truck or front end loader. Resaw takes place following the planing operation.
3. For the past few years logging has been conducted approximately two miles from the sawmill. This area has now been logged out and a new location was selected eight miles from the sawmill. It is anticipated as this area is comparatively small that a further move will be made to a more suitable area 15 miles from the sawmill.
4. Logs to date have been boomed from the original logging site to the mill by means of the freighter canoe and the outboard motor. Using this method and in conjunction with the Tree Farmer it has been possible to cut and haul logs to the mill for \$25.00 per M f.b.m. With the increase in distance (assuming the \$25.00 per M f.b.m. was a fair price), the cost of hauling the logs to the mill will increase. Exactly how much the increase will be cannot be determined at this point in time. However, it is suggested that a very close check be maintained over

this aspect of the operation during the 1973-74 season so that the data required to calculate a cost benefit analysis of some other alternative system(s) will be available.

5. The Development Officer and the Band are considering the possibility of purchasing a tug boat to replace the canoe and outboard motor system. While the PME Team cannot but agree that because of the longer distances to boom the logs, a tug boat will be more efficient than the canoe and outboard motor system; nevertheless, it must be pointed out that the fixed costs and maintenance of the addition of the tug boat will increase the cost of the lumber procurement operation by approximately \$1,750.00 per year or 21.4% with little or no saving in operating costs. Thus, instead of paying \$25.00 per M f.b.m. for logs delivered to the mill, the cost will be \$30.25 per M f.b.m. The above figures are based on the tug boat costing \$10,000 delivered to Ft. Hope, a 10% depreciation allowance, and 7.5% annual maintenance and repairs costs.
6. The Development Officer and the Band are examining the feasibility of the sawmill engaging in specialty milling operations to more fully utilize the capacity of the mill facilities. At present a considerable amount of plywood is being used in house construction particularly for exterior finishing. With the addition of a special set of blades for the planer and a small jig arrangement for the resaw, there is no reason why

10" shiplaps could not be produced by the mill. If shiplaps were used for the exterior of the houses instead of plywood, not only would the house be more attractive from the aesthetic point of view, but considerable savings would result in the cost of building the houses plus the additional increase in employment and productivity.

2.4 Finance

1. For the past few years the forestry operations have been financed through the Economic Development Branch. Up until the 1971 72 FY the lumber produced by the mill was charged to the various projects. During the 1972-73 FY the operations of the sawmill were turned over to the Band although the Department still retained the ownership of the sawmill. Lumber was, therefore, purchased from the Band at a cost of \$190.00 per M f.b.m. As a result, it is now necessary for the Department to budget for the project through the project or design authorization submission, and the Band submits an account for payment for the lumber charged against the project.
2. A break even chart based on 1971-72 production figures for 280 M f.b.m. finished lumber has been constructed and is included in this report as Appendix "E". A selling price of \$190.00 per M f.b.m. finished lumber was used in the construction of the chart.

2.5 Markets

1. There are no outside markets for any lumber produced by the mill at the present time. Suitable finished lumber is used in house construction, schools, warehouses, etc., the remainder is used for the construction of docks, sheds, fences and boardwalks. At the time of evaluation there was an estimated 200 M f.b.m. of finished lumber undergoing seasoning. There were no logs at the mill site awaiting sawing.
2. An average of ten houses are being constructed each year at Ft. Hope Reserve, and the District expects this number to remain the same for the next five years. This would indicate a market of 100 M f.b.m. for house construction alone. In addition, there is an estimated 100 M f.b.m. of lumber required for other reserve needs. The total market for lumber in this area is, therefore, assessed at 200 M f.b.m. per year.
3. Approximately 250 M f.b.m. was cut during the 1969-70 FY at a cost of \$200.00 per M f.b.m. With the introduction of the new sawmill and planer in 1970, it was hoped that the costs would be reduced to \$125.00 per M f.b.m. Production targets were set for 500 M f.b.m. for 1970-71 in order to produce a stockpile of 150-200 M f.b.m. for seasoning purposes. The cost of producing this lumber was not used in this report because of the high degree of involvement of the training program in the production run. The production figures for the 1971-72 FY

were, therefore, considered more representative of actual product costs. During this period 280 M f.b.m. was produced at a cost of \$130.07 per M f.b.m. finished lumber. The Ft. Hope Band has been advised that a par stock of 250 M f.b.m. finished lumber is to be maintained at the mill until further notice.

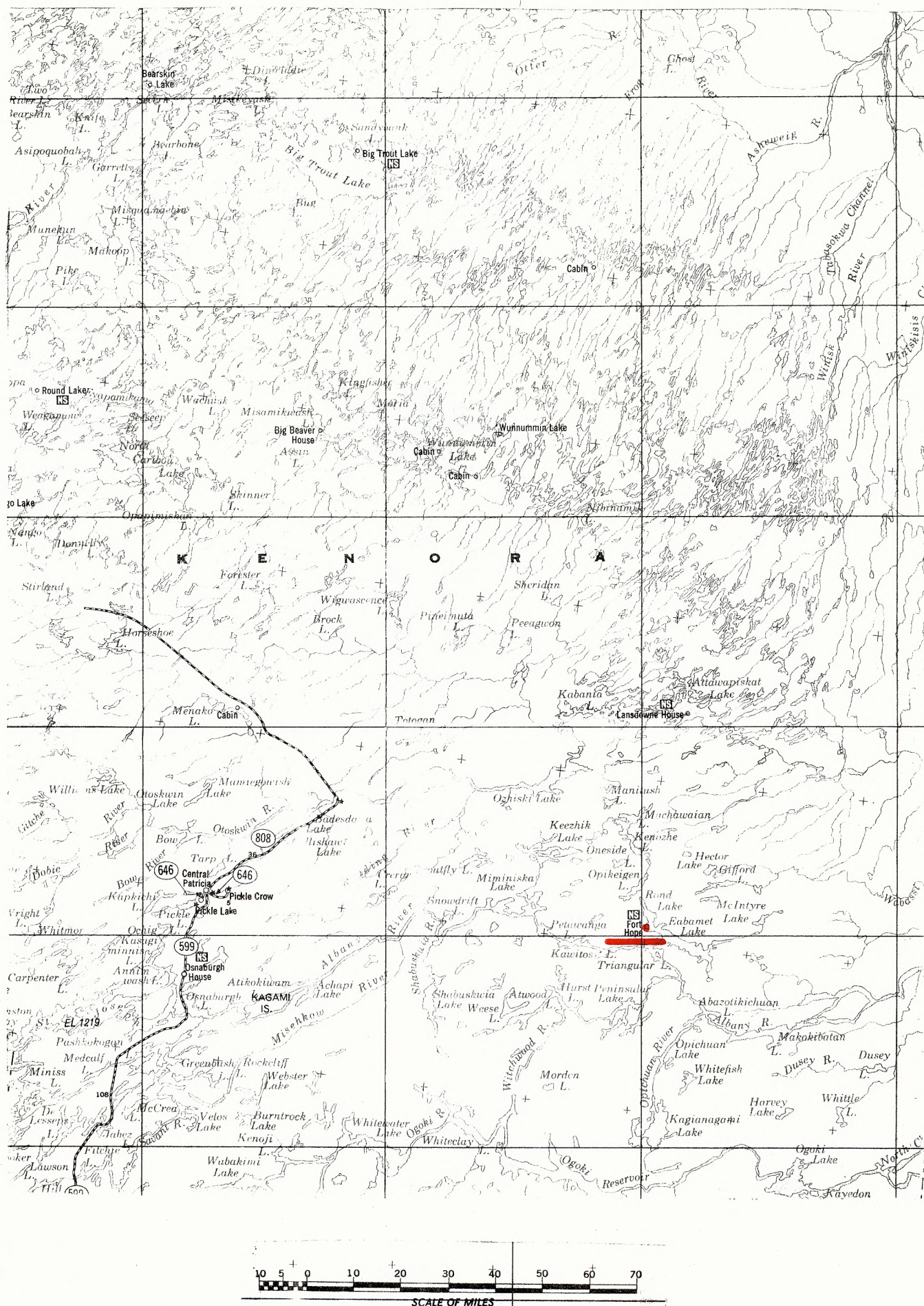
III. CONCLUSIONS

1. Forest surveys have not been conducted in the Ft. Hope area. However, personal observation by the PME Team indicates that there are sufficient stands of good mature white and black spruce within a 15 mile radius of the mill site to fill any known requirement of this settlement for the next five years.
2. There is an adequate supply of labour for all phases of the mill operation. It is classed as well trained and skilled in all phases of the forestry operation except for that of management. Local management is inexperienced in other than small enterprises. Although the Department, through the Training Officer engaged to teach all aspects of the sawmill operation, has been observing the various employees and others belonging to the Band, to date no one has come forward as suitable to manage the sawmill. Because of the high investment the Department has in the Ft. Hope sawmill, it will be necessary for the

Department to continue to bring in outside expertise to manage the sawmill until a good manager develops from the younger generation of the Band.

3. The lumber currently being produced at Ft. Hope is good lumber. However, until the mill is able to produce specialty lumber (e.g. Shiplap, etc.), the Department will have to continue to import lumber from outside sources to make up for whatever cannot be produced at Ft. Hope.
4. An annual market of 200 M f.b.m. exists at Ft. Hope.
5. Because of the distance involved in the procurement of lumber, the acquisition of a tug boat to boom the lumber to the mill or other alternatives, should be considered at an early date.
6. The mill should be retained at its present level and continue to cut for Band use. However, this should not preclude the feasibility of utilizing the present equipment to produce specialty lumber for house and other construction, e.g. the production of shiplap for exterior house finishing to replace the present plywood. Small outlays in procurement costs to obtain such pieces of equipment as special planer blades could result in increased employment for the Band and increased production.
7. The Ft. Hope sawmill is considered to be a viable operation.

APPENDIX "A"



FORT HOPE, ONTARIO

QUESTIONNAIRE AND MODEL TO ASSESS ECONOMIC VIABILITY
OF DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT'S
OWNED AND/OR OPERATED FOREST ENTERPRISES

ECONOMIC VIABILITY OF DEPARTMENT OF INDIAN AFFAIRS
AND NORTHERN DEVELOPMENT'S OWNED
AND/OR OPERATED FOREST ENTERPRISES

Total Reserve Area -- 64,000 Acres

I. WOOD SUPPLY (POTENTIAL)

1. On-Reserve

(a) Total forested area 48,640 acres

(b) Total accessible forested area 48,640 acres

(c) Forest distribution (acres)

Cover Type	Mature Acres	Immature Acres	Young Acres	Total
Softwood	5,120	25,600	8,320 (stunted)	39,040
Mixedwood	1,280	5,120		6,400
Hardwood	1,920	1,280		3,200
Total	8,320	32,000	8,320	48,640

(d) Species composition -- percentage estimates from mill run if inventory not available.

Black Spruce	}	45 %
White Spruce		
Jack Pine		30 %
Balsam Fir		1 %
White Poplar		11 %
Black Poplar		3 %
White Birch		<u>10 %</u>
		<u>100 %</u>

- (e) Cords per acre: estimates using forest distribution table in (c).

<i>Cover Type</i>	<i>Mature Acres</i>	<i>Immature Acres</i>	<i>Young Acres</i>	<i>Of Productive Square Mile</i>
<i>Softwood</i>	<i>Not available by acreage distribution. Estimated only by average square mile of which only 50% is productive forest.</i>			<i>60%</i>
<i>Mixedwood</i>				<i>25%</i>
<i>Hardwood</i>				<i>15%</i>
<i>Total</i>				<i>100%</i>

- (f)

	<i>White & Black Spruce</i>	<i>Jack Pine</i>	<i>White Poplar</i>
<i>Age at Maturity</i>	<i>110</i>	<i>70</i>	<i>60</i>
<i>Height at Maturity</i>	<i>70</i>	<i>70</i>	<i>65</i>
<i>Mean Annual Increment, cu.ft./acre</i>	<i>30 cu.ft. per acre (softwoods)</i>		

- (g) Estimate in acres any significant losses due to fire, insects, blowdown, etc. and the year of occurrence.

-- *No records kept.*

- (h) Estimate annual cut in past 5 years.

-- *Return from Reserves too inaccurate for proper analysis*

(i) Estimate annual cut for next 5 years.

-- *As above*

2. Off-Reserve (information based on the average square mile)

(a) Ownership -- Crown ALL square miles
 -- Private NIL square miles
 -- Water 30%

(b) Is there a possibility of obtaining cutting rights, and if so, what would be the contractual basis?

-- *Yes - Ontario Provincial Government,
 Short Term Timber Lease*

(c) Total forested area.

-- *50% Productive, 20% Non-Productive (Muskeg, brush, rock, etc.)*

(d) Total accessible forested area.

-- *Only accessible to Reserve by water.*

(e) Forest distribution (acres)

Cover Type	Mature Acres	Immature Acres	Young Acres	Average Sq. Miles
Softwood	<i>Not available by acreage distribution. Estimated by average square mile of which 60% is productive.</i>			60%
Mixedwood				25%
Hardwood				15%

Note: Reserves cut only Mature Spruce

- (f) Species composition -- percentage estimates from mill run if inventory not available.

Black Spruce	}	45%
White Spruce		
Jack Pine		30%
Balsam Fir		1%
White Poplar		11%
Black Poplar		3%
White Birch		10%
		<u>100%</u>

- (g) Cords per acre: estimates using forest distribution table in (e).

<i>Cover Type</i>	<i>Mature Acres</i>	<i>Immature Acres</i>	<i>Young Acres</i>	<i>Average Net Merchant- able Cords Per Produc- tive Acre</i>
<i>Softwood</i>				18
<i>Mixedwood</i>				18
<i>Hardwood</i>				18
<i>Average</i>				18

- (h)

	<i>Black & White Spruce</i>	<i>Jack Pine</i>	<i>Poplar</i>
Age at Maturity	110	70	60
Height at Maturity	70	70	65
Mean Annual Incre- ment, cu.ft./acre	30 cu.ft. per acre (softwoods)		

- (i) Estimate in acres any significant losses due to fire, insects, blowdown, etc. and the year of occurrence.

-- *No records kept*

- (j) Estimate annual cut in past five years.

-- *Returns from Reserve too inaccurate for proper analysis ***

- (k) Estimate annual cut for next five years.

-- *As above*

** *Osnaburgh records show that 85,000 f.b.m. was cut in 1971.*

II. FOREST MANAGEMENT (ON-RESERVE)

1. Inventories & Plans

	<u>Completed</u>		<u>In Process</u>	
	Yes	No	Yes	No
(a) Photo - reconnaissance	Yr. Completed 1948 & 1968		Yr. to be Com- pleted	
(b) Survey - with field work		XX		
(c) Management plans and/or recom- mendations		XX		
(d) Operating plans		XX		
(e) Sponsoring Agency				

Fed. Govt. _____ Prov. Govt. _____ Band _____ Private _____

2. Silviculture -- past five years

(a)

Treatments	Acres Treated	Species Involved	Age Trees	Year Treated	Objectives of Treatment	Est. Cost Per Acre
Seeding						
Planting						
Cleaning						
Thinning				N I L		
Pruning						
Fertiliza- tion						
Other -- specify						

(b) Sponsoring Agency

Fed. Govt. _____ Prov. Govt. _____ Private _____ Band _____

(c) Are treatments required on the reserve at the present time?

-- N/A

(d) If so, what are the priorities?

-- N/A

(e) If so, what is the purpose of this treatment?

-- N/A

- (f) Are there any treatments schedules for the next five years?
If so, fill out table as in (a).

-- NO

Treatments	Acres Treated	Species Involved	Age Trees	Year Treated	Objectives of Treatment	Est. Cost Per Acre
Seeding						
Planting						
Cleaning						
Thinning						
Pruning						
Fertiliza- tion						
Other -- specify						

- (g) In your opinion, what sectors of a forest management plan should receive short term priority?

i) Growing Stock: (LAST PRIORITY)

protection _____

regulation _____

silviculture _____

ii) Transportation: (SECOND PRIORITY)

road development _____

- (c) Is the current operation conducted on a seasonal basis?

-- Yes -- $4\frac{1}{2}$ - 5 months -- May - October

- (d) What has been the average number of months in operation over the past ~~five~~ years?

Two

-- Five

- (e) Do you think that the operation could be improved by further mechanization or modernization?

Yes

- (f) If yes, what type of changes would you recommend?

-- The procurement of a steel hull tug boat for towing
log booms to mill; \$10,000 delivered to Ft. Hope

- (g) How would you expect this to affect employment and production?

-- No increase in employment or production, but increase in efficiency

- (h) What in your opinion are the most significant variables working against minimizing production costs on this operation?

Check below: --

Labour:

- i) Skill level - low
- medium XX
- high
- ii) Low wages or rates

- iii) Lack of motivation XX
- iv) Unavailable on a continuous basis
- v) Other - specify

Management:

- i) No or poor leadership FAIR
- ii) No incentives given to labour ... Confederation College
Thunder Bay
- iii) No training provided provided training
- iv) No cost control XX
- v) No production control XX
- vi) Other - specify

Equipment:

- i) Antiquated equipment thus high
maintenance costs and low pro-
ductivity XX
- ii) Non-integrated system XX

*Had been paid by the hour first
2 yrs of operation, now men paid
2½¢ per bd. ft. at the sawmill.*

Logging Chance:

- i) Terrain GOOD
- ii) Small Wood Large Logs
Average to 90 ft.

iii) Bad environment - specify _____

iv) High transportation cost _____

*Best trees are found near
water's edge with occasional
good trees $\frac{1}{2}$ to 1 mile
from water.*

v) Other - specify _____

(i) What is your estimate of the potential output per month if the two most significant constraints were eliminated?

-- *Been doing 60,000 bd. ft. per month - could do 150,000 f.b.m.*

(j) Is it feasible to eliminate these constraints?

-- *Yes - With outside management and full support of the Band*

(k) If so, what should be done and what would be the approximate cost?

-- *The procurement of a tug boat*

(l) Estimate how this would affect production, operating costs, and employment.

-- *Up to this year logging was done 2 miles from the mill. Logs were boomed across Lake. Men were paid by the hour. Receipt of logs at mill took a long time. Men changed to $2\frac{1}{2}$ ¢ per bd. ft. at mill. Speed of delivery of logs increased. Now logging will take place 15 miles from mill. Cutting and hauling rates will have to increase or compensated by procurement of tug boat.*

IV. WOOD PROCESSING

(a) Where is the wood being acquired for the mill at present?

-- On-reserve _____ %

-- Off-reserve 100 %

(b) If the wood is acquired off the reserve, from whom is it purchased and at what price?

- (c) Is the present operation conducted on a seasonal basis?
Specify months in operation.

-- Yes - End of May - August

- (d) What is the average number of months worked per annum?

-- Three

- (e) Do you think that the operation could be improved by further mechanization or modernization?

-- Yes - By the introduction of larger bull edger capable of cutting more lumber at one cut. This would require a more modern power unit to drive the mill. By the procurement of specialist equipment for cutting shiplap, moulding, etc.

- (f) If yes, what type of changes would you recommend?

- (g) How would you expect these changes to affect employment and production?

-- Increase employment by 18-24 man months
Increase production by at least 25%

- (h) What in your opinion are the most significant variables working against minimizing production costs on this operation?

Check below: --

Labour:

- i) Skill level - low
- medium XX
- high
- ii) Low wages or rates

- iii) Lack of motivation XX
- iv) Unavailable on a continuous basis ..
- v) Other

Management:

*Mill has been under specialist
management of Confederation College
Trainer hired by Band. His contract
terminated this fall. No one in the
Band qualified to manage the mill.
Must come from outside.*

- i) No or poor leadership
- ii) No incentives given to labour
- iii) No training provided Yes - Confederation
College
- iv) No cost control XX
- v) No production control XX
- vi) Other

Equipment:

- i) Antiquated equipment thus high
maintenance costs and frequent
downtime XX
- ii) Non-integrated system XX
- iii) Other XX

Sawing Chance:

- i) Large wood GOOD 6 Trees to the 1Mft.
- ii) Small wood _____
- iii) Bad environment - specify _____
- iv) Other _____

- (i) What is your estimate of the potential output per month if the two most significant constraints were eliminated?

-- *Now 60,000 f.b.m. - should be 180,000 f.b.m.*

- (j) Is it feasible to eliminate these constraints?

-- *Yes*

- (k) If so, what should be done and what would be the approximate cost?

-- *Problem is proper qualified management. Will have to bring in a manager at 1,200 - 1,500 per month.*

- (l) Estimate how this would affect production, operating costs, and employment.

-- *Triple production - operating costs would go down.*

- (m) What do you think or understand were the objectives of setting up the operation in the first place?

-- *Local lumber, Training, Potential of mining market.*

(n) Do you think these objectives are good or sound objectives?

-- Yes

(o) If no, what do you think the objectives should be?

(p) If yes, do you think that the objectives are being met?

-- Yes, but more potential here than is being utilized.

(q) Are there other opportunities which would employ as many or more people at the same level of capital investment? Please elaborate.

-- No - Trapping, Fishing, Guiding, Government work.

(r) Do you think that the current operation or investment represents the best opportunity in lieu of the benefits (monetary and social) received by the people involved?

-- Yes

(s) If answer to (r) is yes, what improvements could be made in the current operation? Please elaborate.

-- Bull Edger and New Power Unit. Specialist equipment for cutting shiplap, moulding, etc.

(t) If answer to (r) is no, what alternate investment would you recommend?

(b) To whom is this sold and at what price per 1,000 f.b.m.?

-- *H.B.C., Nursey Stat., Fisheries, Tourist Camps
\$190.00*

(c) Do you anticipate a potential (next five years) market off the reserve?

-- *Depends on whether mining opens up*

(d) If answer to (c) is yes, where and at what price per cord or M f.b.m.?

-- *\$195.00 to \$225.00 per M if settlement remains isolated,
otherwise lumber will have to be sold at or slightly above
the open market f.o.b. Thunder Bay.*

(e) Who are or would be competitors?

(f) Can the proposed operation compete without government subsidization?

-- *Yes, but would require loans from IA&ND to procure new
equipment.*

(g) If no, list main reasons why it cannot compete.

(h) Are there institutional constraints restricting sales off the reserve? If yes, please specify.

-- *NO*

(i) Do you think local industry would guarantee purchases of wood or timber on an annual or monthly basis?

-- *NO*

(j) What are the estimated requirements for wood?

		Volume (f.b.m.)	
		<u>1971-72</u>	<u>1972-7</u>
i)	<u>Local</u> (reserve or settlements)		
	houses	20,000	500,000
	docks	5,000	
	fishing camps		
	other (Band needs: recreation halls warehouses, etc.)	150,000	600,000
ii)	<u>Other Government Agencies</u>		
	education - schools	10,000	200,000
	health and welfare		50,000
	-- hospitals		
	other	10,000	25,000
iii)	<u>Export</u> (off-reserve)		
	industry - mines		
	- mills		
	- tourists	5,000	25,000
	consumer - briquettes, decorations		
		<u>200,000</u>	<u>1,400,000</u>
Total five year requirements - volume (f.b.m.)			1,400 M f.b.m.
Total value of requirements (estimated)			\$266,000.00

The following questions relate to marketing management.

(a) Has there been any attempt to market the product via advertising, promotion or other commercial media?

-- No, not yet.

(b) If yes, what are the approximate costs?

(c) In your opinion, has this promotion been effective?

GENERAL INFORMATION

The purpose of this section is to yield information on the physical and cultural setting within which the forestry operation exists.

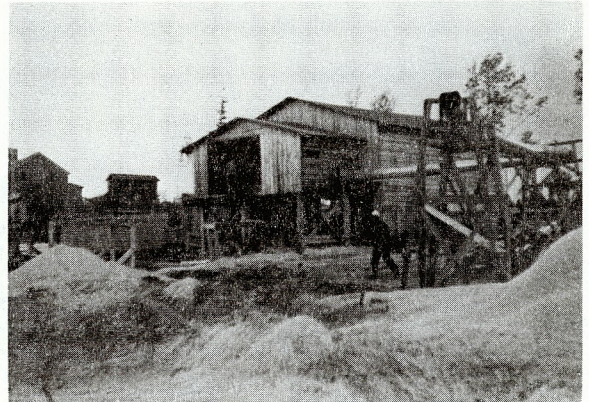
1. Area Name: *FORT HOPE*
2. Agency: *NAKINA DISTRICT*
3. Total Area: *64,000 ACRES*
4. Population: *565*
5. Number of Family Units: *86*
6. Number Children Per Family: *6*
7. Labour Force: *62*
8. Ethnic Origin: *OJIBWAY*
9. Net Income Per Family: *\$1,500*
10. Net Welfare Income Per Family: *\$2,500*
11. List the present area of employment: *LOGGING, SAWMILL, FISHING, TOURIST GUIDING*
12. List the potential areas of employment: *AS ABOVE*
13. What are the more significant problems of the Band: elaborate:

Isolation. Welfare is working against the objective of getting the men to work. If they are not working they get welfare so why work. The Band is lacking in strong leadership although Band is operating its own Band administration. Still a long way from taking over the management and operation of this mill at Fort Hope.

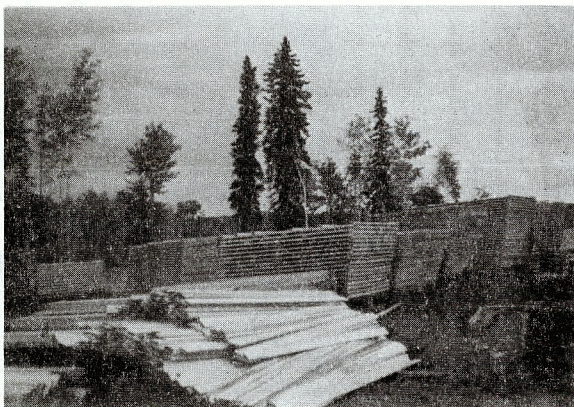
FORT HOPE, ONTARIO
SAWMILL



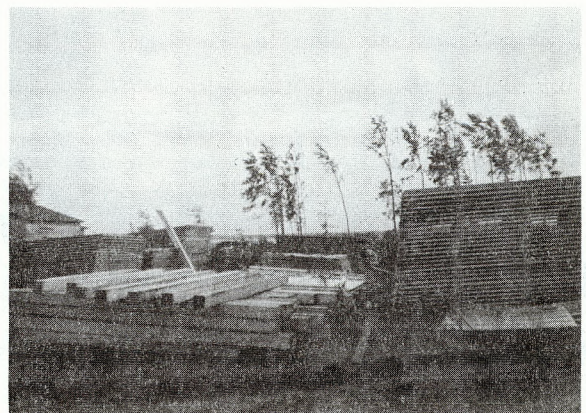
Sawmill with Jack Ladder on extreme right of building. Green Chain at left foreground.



Planer Mill
Resaw located in lower portion of building at this end.



Finished Lumber being Sized for
Seasoning



Lumber Stacked for Seasoning. Logs in
foreground are 6" X 6" X 14' to 16'.

INVENTORY LIST
FORT HOPE SAWMILL

1. Forano Headsaw }
2. Forano Log Carriage } -- used in new condition (Forano 2A).
3. Husk w/new friction including drum, saw mandrel (12) with 42" saw (Forano 3667 incl. all adapters to fit).
4. Forano Edger -- 3 saw with in and out feed tables.
5. Cut off Saw with 30" saw (bench) heavy duty.
6. H Duty log haul up (Jack Ladder) w/300' chain, drive, bearings and attachments.
7. Lumber Transfer 300' of chain incl. drive gears and miscellaneous equipment, flights and shafting.
8. One corner drive to accommodate take off complete w/gears shaft pulleys, bearings H Duty (Rex Chain).
9. Edger sawdust conveyor (Nesco) 90' chain.
10. Main Sawdust Conveyor 100' chain w/drive sprockets, shaft, etc.
11. 7 Section H Duty (Standard Conveyor Co.) roll conveyor (New Mathews).
12. 2 15/16 X 18' shaft w/key seat full length (new items)
13. 24" diam. 7 groove C Section V Belt sheave.
14. 14" diam. 7 groove C Section V Belt sheave.
15. 14" X 10" Face Crown Pulley.
16. 6" X 6" Face Crown Pulley.
17. 10" X 8" Face Crown Pulley.
18. SKF Bearings (Pillow Blocks) (Split).
19. 2 16/162 X 14' Shaft.
20. SKF Bearings for above.
21. 14" X 10" Face Crown Pulley.
22. 14" X 8" Face Crown Pulley.
23. 24" X 8" Face Crown Pulley.
24. 1 15/16 X 14' Shaft w/ Keyway full length.
25. SKF Bearings split for 1 15/16 shaft.
26. 14" X 8" Face Crown Pulley.
27. 1 15/16 X 10' w/2" Keyway one end 102 lbs.
28. 14" X 8" Face Crown Pulley.
29. 10" X 8" Face Crown Pulley.
30. SKF bearings for above.

31. 1 15/16" shaft w/hangars and bearings X 6' long (Nesco).
32. Pulley crowned w/8" face 12 or 16"-12" quoted.
33. 8' X 4' ply belting.
34. 6' X 4' ply belting.
35. 4' X 4' ply belting.
36. C Section V Belts - C - 128.
37. C Section V Belts - C - 144.
38. 1/2" electric drill.
39. 8 Ton Hydraulic jack.
40. 1 1/8" - 1 1/4" - 1 1/2" - 1 3/4" wood auger.
41. Grinder stand with 2 grinder wheels.

NOTE: All the Above -- Current Value (including Transportation) - \$25,000.00.

FORT HOPE FORESTRY OPERATIONS

Variable Costs to produce 280 M f.b.m. per year finished lumber.

Labour Costs

Wood Procurement	\$ 7,000.00
Sawing (Mill production rate of 6 M per day = 46.6 days) 6 men @ \$2.25 per hour X 8 X 46.6 (rounded to 47) ..	5,076.00
Planing (Mill production rate of 6 M per day = 47 days) 6 men @ \$2.25 per hour X 8 X 47	5,076.00
Foreman Manager \$1,200.00 per month for 5 months	6,000.00
Administrative Costs - 5 months @ \$25.00	<u>125.00</u>
Total Labour Costs	\$ 23,277.00

Operating Costs

1 Tree Farmer gas and oil 10 gals per day X 38 X \$1.30 ..	\$ 494.00
2 Chain Saws gas and oil 2 gals per day X 38 X \$1.30 ...	98.80
1 Canoe - gas and oil 5 gals per day X 38 X \$1.30	247.00
Sawmill - gas = 3 gals per hr. X \$1.30 X 47 X 8	1,466.40
oil = 1 gal per hr. X \$4.00 X 47	188.00
Planing Mill - gas = 2 gals per hr. X \$1.30 X 47 X 8 ...	977.60
oil = 2 qts. per day X \$2.00 X 47	94.00
Resaw - gas = 1.5 gals per hr. X 8 X \$1.30 X 5	78.00
oil = 2 qts per day X \$2.00 X 5	10.00
Tandum Truck - 2 gals gas per day X \$1.30 X 2	5.20
Cat 941 Loader - 5 gals gas per day X \$1.30 X 4	26.00
1 qt oil per day X \$1.00 X 4	<u>4.00</u>
Total Operating Expenses	\$ 3,689.00

Maintenance Costs (including repairs)

Sawmill	\$ 1,500.00
Planer	1,000.00
Tree Farmer	<u>580.00</u>
Total Maintenance and Repairs	\$ 3,080.00

Total Variable Costs = \$23,277.00 - \$3,689.00 - \$3,080.00 = \$ 30,046.00

Fixed Costs

Sawmill (as per total inventory) current value	\$ 25,000.00
Diesel Engine (Cummings - 80 hp)	8,000.00
Wisconsin Motor (35hp)	1,000.00
John Deere Motor for resaw	250.00
Scania Diesel (75hp)	4,500.00
Preston Planer Mill (Model 146 - with blower pipes)	7,500.00
Tree Farmer (1964 model)	3,000.00
Spare Parts	500.00
Buildings	5,000.00
1 Truck Tandem - 8 ton Model 18 International (used 10% of the time - current value \$18,000)	1,800.00
1 Caterpillar Tractor - Front End Loader (used 20% of the time - current value \$36,000)	<u>7,200.00</u>
Total Fixed Costs	\$ 63,750.00

Depreciate Plant and Equipment at 10% per year = \$6,375.00

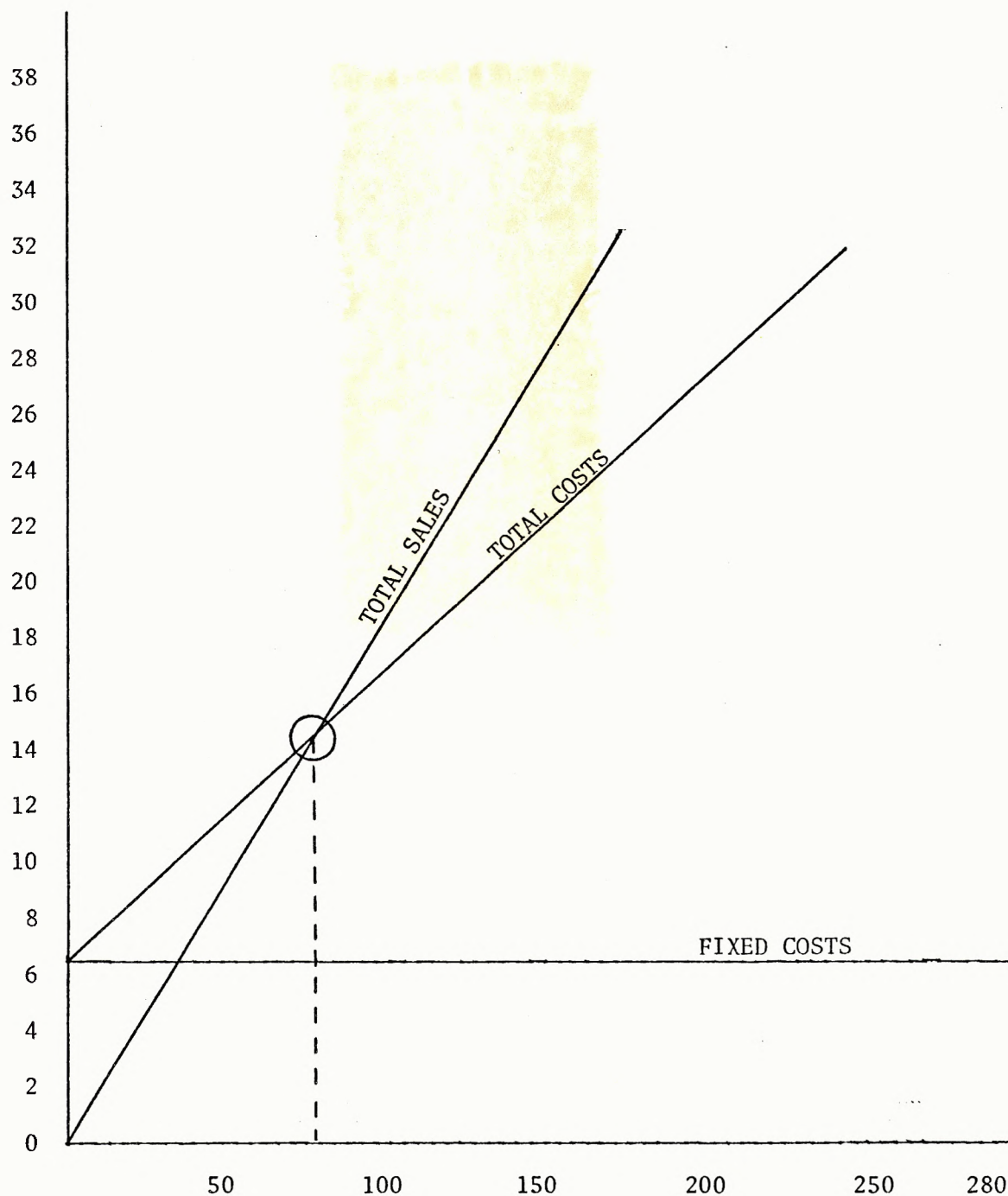
Therefore, total costs to produce 280,000 f.b.m. finished lumber
= \$23,277.00 - \$3,689.00 - \$3,080.00 - \$6,375.00 = \$ 36,421.00

Cost of Producing 1,000 f.b.m. finished lumber
= \$36,421.00 ÷ 280 = \$ 130.07

Selling Price of Finished Lumber = \$190.00 per M f.b.m.

FORT HOPE, ONTARIO
FORESTRY OPERATIONS
BREAK-EVEN CHART

COSTS
PER
\$ 000



PRODUCTION IN M f.b.m.