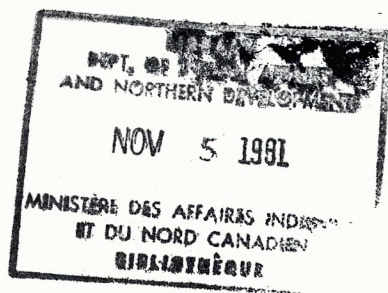


PME EVALUATION OF
THE BEARSKIN LAKE FORESTRY OPERATIONS
BEARSKIN LAKE, ONTARIO
(INDIAN-ESKIMO AFFAIRS)

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CONFIDENTIAL



PME EVALUATION OF
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BEARSKIN LAKE, ONTARIO
(INDIAN-ESKIMO AFFAIRS)

Program Management Evaluators:

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PME No. 3(J)-1972
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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 Bearskin Lake, Ontario.
2. The Bearskin Lake settlement is located approximately 265 miles northeast of Sioux Lookout (see Appendix "A"). The settlement has a population of about 255 and occupies an area of 20 square miles, of which some 12 square miles are forested. The present sawmill is located on the edge of the settlement. It was brought here about six years ago from the Big Trout Reserve. It was not in new condition at that time, but it was re-conditioned and set up on its present location.
3. The mill has cut from time to time, with the last cut taking place in the summer of 1971, when a cut of 20,000 f.b.m. was reported. The last cut was reported to be poor, and this resulted in extremely rough spruce lumber, random in width and length. Since that time the mill has been allowed to deter-

iorate to the stage where it is completely unserviceable and in poor condition.

1.2 Scope

1. The purpose of this evaluation was to analyze and assess the existing logging and milling project at Bearskin Lake 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 Bearskin Lake settlement is administered by the Sioux Lookout District and this forestry project was evaluated in conjunction with all other mills located in the Sioux Lookout District. The Team made a detailed visit to Bearskin Lake on August 23, 1972. During this visit the Team was accompanied by a staff member from the Regional Office and the Development Officer located at Big Trout Lake. Information concerning the wood supply was obtained from the Ministry of Natural Resources at Sioux Lookout, and Thunder Bay, Ontario.
3. A standard format prepared by the Laurentian Institute, consisting of a questionnaire and model, has been prepared for the Bearskin Lake 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 and at the Sioux Lookout District Offices.

1.3 Acknowledgement

1. The PME Team wishes to acknowledge the assistance provided to it by the Toronto Regional Office, the Sioux Lookout 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. The area within a 60 mile radius of the settlement has not been surveyed in detail, however, the area is known to contain stands of black and white spruce, averaging 13 cords per acre in cutting stands. The last cut made by the Band was about two miles from the settlement, along the shoreline of Bearskin Lake. Local surveys indicate that there is sufficient timber along the shore of the Lake to satisfy the settlement's need for lumber for at least the next five years. The timber in this area is not

committed, and no commitments are expected in the next few years. The Band has not been charged a stumpage fee in the past, and this arrangement is expected to continue as long as the Band cuts for its own use. In the past the logging has been conducted in the winter months, and the logs towed to the mill site in the spring of the year.

2.2 Organization and Management

1. The mill is owned by the Department and in the past it has been financed through the District. The mill has been in this area for several years and there is a good supply of experienced labour.
2. Management in the area is inexperienced in other than small business enterprises. Production and cost control records from past cuts are not available and performance is difficult to evaluate. However, it is considered adequate to operate a small mill, capable of supplying the needs of the settlement, provided advice and assistance can be made available as required.

2.3 Facilities

1. The sawmill is located on the shore of Bearskin Lake on a cleared site about two acres in size. The mill was moved here six years ago from Big Trout Lake. It has been permitted to

deteriorate to the extent that it is no longer operable. The roof has fallen, the machinery is rusted and broken, and the power plant damaged (see Appendix "C").

2. The damage to the mill is extensive so that considerable work and funds would be required to place the existing mill in operating condition. Before the mill at Bearskin Lake is re-activated, the purchase and set up cost of a new, or a re-conditioned mill, should be compared to the cost required to repair the existing mill.

2.4 Markets

1. Current plans indicate that an average of four new homes will be constructed in the settlement each year for the next few years, indicating a future market for 30,000 f.b.m. per year for housing. Last year, three new homes were constructed in the settlement, as well as a new school and a new store. The mill at Bearskin was able to supply only 18,591 f.b.m. of the total lumber requirement, and this lumber was of poor quality. It was sold to the Department for \$225.00 per M. The balance of the lumber was brought in at cost ranging up to \$450.00 per M f.b.m.

2. The future annual requirement for lumber in the settlement is estimated at 40,000 f.b.m. of which 10-15,000 f.b.m. could be satisfied by rough lumber. The value of good rough lumber is estimated at \$360.00 per M f.o.b. Bearskin Lake, based on selling prices at Pickle Lake, plus transportation charges.

2.5 Finance

1. The mill has been owned and financed by the Department. The mill has not operated this year and cost and production records were not available from past years. It was, therefore, not possible to construct a break even chart. Through discussions with District staff and operating personnel, a total cost figure of \$250.00 per M was calculated as an approximate average cost for the last cut made by the mill. The quality and standard of this lumber was considered to be low, and it was purchased by the Department at \$225.00 per M; indicating a loss on operations for that year.
2. However, a market of 10-15,000 f.b.m. per year, and a very high selling price for lumber should provide the base for a small viable forestry operation, provided it has good management. A small sawmill such as the type now in operation at Muskrat Dam should be able to meet the rough lumber needs of this community.

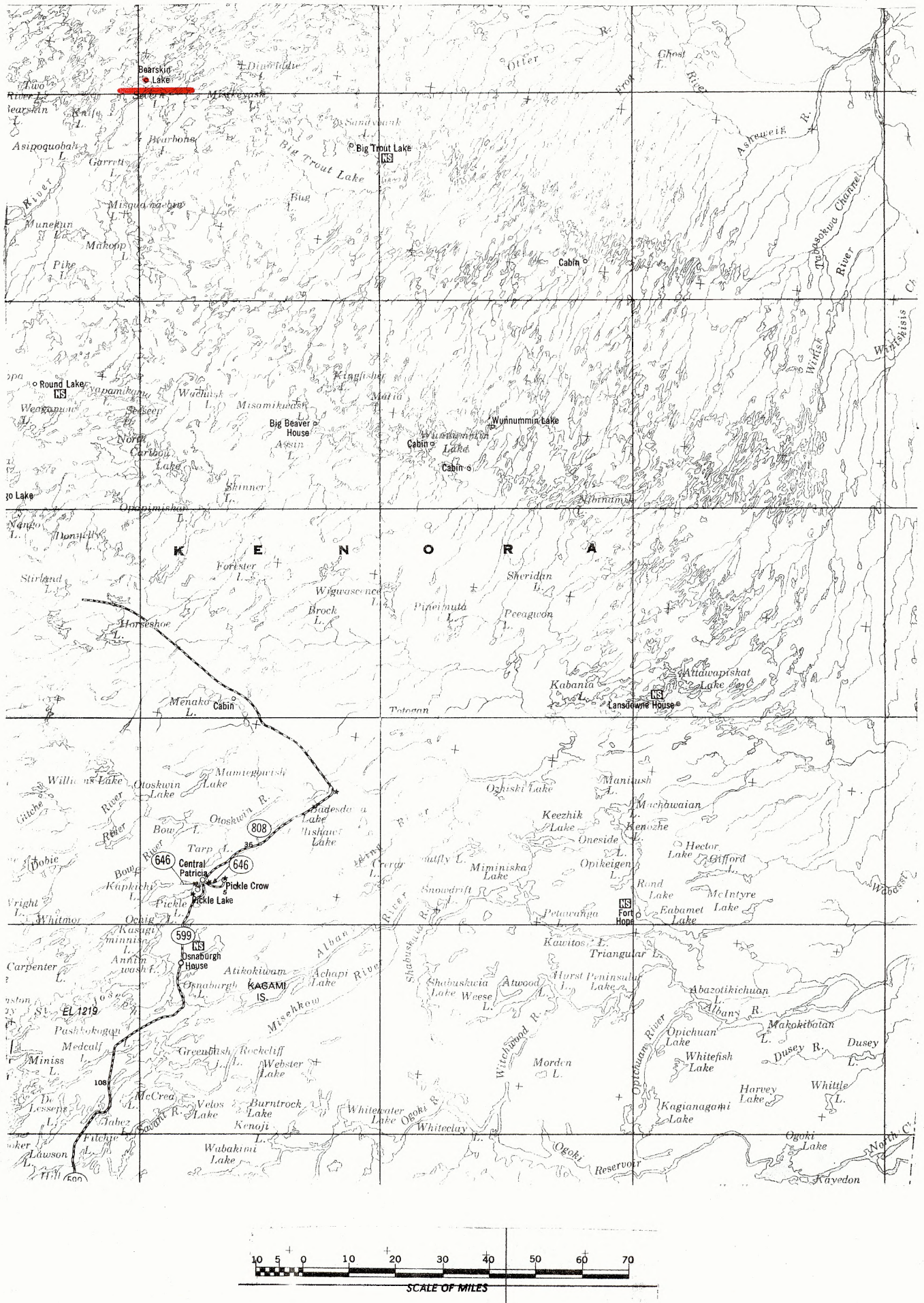
III. CONCLUSIONS

1. It is concluded that:

- (a) there is sufficient timber in the immediate area of Bearskin Lake to satisfy the needs of the forestry operations for the next five years. This timber has not been committed and the Band should not encounter problems in securing its needs on an annual basis;
- (b) there is an adequate supply of local trained labour. Local management is inexperienced and will require assistance on a part time basis;
- (c) the plant is non-operational and extensive repairs will be required to place it in serviceable condition. A new Bell type portable mill may be cheaper to install and capable of meeting the communities needs for rough lumber;
- (d) an annual market in the settlement for 10-15,000 f.b.m. of rough lumber is forecast for the next five years. The selling price of lumber f.o.b. Bearskin Lake will continue to be high for the next five years and, therefore, help defray high production costs.

IV. RECOMMENDATIONS

1. On the premise that the Band desires to own and operate a small sawmill at Bearskin Lake, it is recommended that:
 - (a) a sawmill capable of producing 10-15,000 f.b.m. of rough lumber per year be set up at Bearskin Lake;
 - (b) the mill be turned over to the Band, and one year's operating expenses be financed through the District;
 - (c) the Department and individuals purchase their requirements of rough lumber from the Band on a cash basis and at prices mutually satisfactory;
 - (d) that the District provide technical and managerial advice to the Band, on request, and on a part time basis.



BEARSKIN LAKE, 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

I. WOOD SUPPLY (POTENTIAL)

1. On-Reserve

(a) Total forested area 12 Sq. Miles

(b) Total accessible forested area 12 Sq. Miles

(c) Forest distribution (acres)

Cover Type	Mature Acres	Immature Acres	Young Acres	Total
Softwood	<i>Not available by acreage</i>			60 %
Mixedwood	<i>distribution. Estimated</i>			25 %
Hardwood	<i>by average square mile.</i>			15 %
Total				100 %

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

Black Spruce	}	60 %
White Spruce		
Jack Pine		15 %
Balsam Fir		1 %
White Poplar		15 %
Black Poplar		3 %
White Birch		6 %

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

-- *Not available by age distribution, average net merchantable cords per acre is estimated at 10.*

(f)

	White & Black Spruce	Jack Pine	White Poplar
Age at Maturity	130	100	80
Height at Maturity	55-60	55	55
Mean Annual Increment, cu.ft./acre	<i>Approximately 15 cu.ft. per acre for softwood.</i>		

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

-- *None significant*

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

-- *No significant cut.*

(i) Estimate annual cut for next 5 years.

-- *NIL*

2. Off-Reserve (information based on the average square mile)
(within a 60 mile radius of the Reserve)

(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, from the Ontario Provincial Government on a short term lease.*

(c) Total forested area.

-- *60% of the total area is considered to be forested.*

(d) Total accessible forested area.

-- *Only that area of the forest that is accessible to the Reserve by water.*

(e) Forest distribution (acres)

Cover Type	Mature Acres	Immature Acres	Young Acres	Average Sq. Miles
Softwood	<i>Not available in detail by acreage distribution. Estimate is by average sq. mile.</i>			60 %
Mixedwood				25 %
Hardwood				15 %
<i>Total</i>				100 %

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

Black Spruce	}	60 %
White Spruce		15 %
Jack Pine		1 %
Balsam Fir		15 %
White Poplar		3 %
Black Poplar		6 %
White Birch		

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

-- *Not available by age distribution. The average merchantable cords per productive acre is estimated at 13.*

- (h)

	Black & White Spruce	Jack Pine	Poplar
Age at Maturity	130	100	80
Height at Maturity	55-60	55	55
Mean Annual Increment, cu.ft./acre	10-12	10-12	10-15

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

-- *None Recorded.*

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

-- *5 - 10,000 f.b.m.*

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

-- *10,000 f.b.m.*

II. FOREST MANAGEMENT (ON-RESERVE)

1. Inventories & Plans

	Completed		In Process	
	Yes	No	Yes	No
(a) Photo - reconnaissance	Yr. Completed	XX	Yr. to be Completed	XX
(b) Survey - with field work		XX		XX
(c) Management plans and/or recommendations		XX		XX
(d) Operating plans		XX		XX
(e) Sponsoring Agency		XX		XX

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						
Pruning						
Fertiliza- tion						
Other -- specify						

(b) Sponsoring Agency N/A

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).

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: N/A
- protection _____
- regulation _____
- silviculture _____
- ii) Transportation:
- road development _____

iii) Markets:

product research _____

promotion advertising _____

iv) Other:

please elaborate _____

III. WOOD PROCUREMENT1. Questions

(a) Where is the wood being cut at the present time?

-- On-reserve _____ distance from point of sale*
 _____ miles.

-- Off-reserve XX distance from point of sale*
2 miles. (*The last cut was made in the spring of 1971*)

(b) If wood is extracted from off of the reserve, what arrangements regarding cutting rights have been made with the owners and who are the owners? What are the terms of the contract in respect of:

Stumpage fees _____ per annum

Tenure (length contract) _____ years

Date commenced _____ mo./yr.

Date to be terminated _____ mo./yr.

Renewable options - elaborate *The Reserve is permitted to cut on an as required basis for its own use.*

* If wood utilized on reserve, distance will be to mill site.

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

-- *Yes, December, February, March.*

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

-- *Approximately six men for two months.*

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

-- *Not for the small amount being cut.*

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

-- *NIL*

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

-- *N/A*

(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 | _____ <i>XX</i> |
| | - high | _____ |
| ii) | Low wages or rates | _____ <i>XX</i> |

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

Management:

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

Equipment:

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

Logging Chance:

- i) Terrain _____
- ii) Small Wood _____

iii) Bad environment - specify _____

iv) High transportation cost XX

v) Other - specify _____

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

-- 50,000 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?

-- *The small amount cut on an annual basis does not warrant additional capital cost at this time.*

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

-- N/A

IV. WOOD PROCESSING

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

-- On-reserve %

-- Off-reserve XX %
(Last cut of 20,000 f.b.m. made in 1971)

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

-- *Cut by the Band on Crown land. No stumpage fee has been charged.*

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

-- *Yes, approximately 5 men for one month in the summer.*

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

-- *One*

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

-- *The mill is in a poor state of repair, and incapable of operation in its present condition.*

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

-- *The cost to repair the existing mill would probably exceed the cost of replacement. The current mill should be written-off and any serviceable items salvaged.*

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

-- *A newer mill of the same size would enable better production.*

- (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 | _____ XX |

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

Management:

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

Equipment:

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

Sawing Chance:

- i) Large wood _____
- ii) Small wood _____
- iii) Bad environment - specify _____
- iv) Other Good size logs available.

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

-- *The most significant constraint is a non-serviceable mill, that must be replaced.*

(j) Is it feasible to eliminate these constraints?

-- *Yes*

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

-- *A suitable new mill could be purchased and installed for approx. \$2,500-3,000, that would be capable of cutting the Band's annual requirement of rough lumber.*

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

-- *No change if a small mill was set up.*

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

- *i) Provide a local source of lumber for the Reserve.*
- *ii) Train Indian people.*

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

-- N/A

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

-- NO

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

-- N/A

(e) Who are or would be competitors?

-- N/A

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

-- NO

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

-- *No funds to finance the operation*

(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>1973-75</u>
i)	<u>Local</u> (reserve or settlements)		
	houses	40,000	40,000 per year
	docks	}	
	fishing camps		
	other		
		40,000	40,000 per year
ii)	<u>Other Government Agencies</u>		
	education - schools		
	health and welfare		
	-- hospitals		
	other		
iii)	<u>Export</u> (off-reserve)		
	industry - mines		
	- mills		
	- tourists		
	consumer - briquettes,		
	decorations		

Total five year requirements - volume (f.b.m.) 400,000 f.b.m.

Total value of requirements (estimated) \$140,000.00

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

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

-- N/A

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

-- N/A

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: *BEAR SKIN LAKE, ONTARIO*
2. Agency: *SIOUX LOOKOUT DISTRICT*
3. Total Area: *20 SQUARE MILES*
4. Population: *254*
5. Number of Family Units: *35*
6. Number Children Per Family: *5*
7. Labour Force: *28*
8. Ethnic Origin: *CREE*
9. Net Income Per Family: *\$1,500-1,800 PER YEAR LESS WELFARE*
10. Net Welfare Income Per Family: *\$1,800 PER YEAR*
11. List the present area of employment: *GOVERNMENT EMPLOYMENT, TRAPPING,
HANDICRAFT*
12. List the potential areas of employment: *BAND EMPLOYMENT, FORESTRY*
13. What are the more significant problems of the Band: elaborate: *ISOLATION
SMALL SIZE
UNSKILLED*

BEARSKIN LAKE, ONTARIO
FORESTRY OPERATIONS



View of Sawmill from the Shore
of Bearskin Lake



View of Sawmill indicating
general condition of Mill



Damaged Power Plant with Sawmill
in Background



View of Mill from Power Plant