

United States Department of Agriculture

FOREST SERVICE  
NORTH PACIFIC DISTRICT

ADDRESS REPLY TO  
DISTRICT FORESTER  
AND REFER TO

POST OFFICE BUILDING  
PORTLAND, OREGON

S R-6  
Timber Surveys, Wallowa  
Chesnimnus Project

January 21, 1931.

Forest Supervisor,  
Wallowa, Oregon.

Dear Sir:

Referring to Mr. Carter's letter of September 20, 1930, copy of which was sent to you:

As soon as you get your more important forest problems worked out I should be glad to have you have it in mind to make a management plan for this working circle.

From present indications the resumption of cutting within it is rather problematical, but I believe that a study of the possibilities of the working circle and the preparation of a management plan would be of value nevertheless.

Very truly yours,

*Fred Ames*

FRED AMES,

Assistant Regional Forester.

COPY FOR FORESTER

S  
Timber Surveys, R-6, Wallowa  
Chesnimnus Project

September 20, 1930

Regional Forester,

Portland, Oregon

Dear Sir:

Reference is made to your letter of April 14 enclosing timber survey report together with cost statement in this case:

The report appears very complete and I have no fault to find with the cost figures.

Since the bulk of this unit had been covered by intensive survey, I am wondering if it will not now be possible to prepare a management plan for the Joseph Circle without awaiting completion of the survey of the township and a fraction to the south. In reviewing the policy statement for the Wallowa it is noticed that on page 7 the statement is made "A more intensive study of this working circle and the preparation of a management plan would be justified and is recommended." While it is true the indications are that activities will be more or less suspended in the immediate future, it would seem that this lull would offer an excellent opportunity for the local force to whip this plan into shape. The timber survey report, together with the data already on hand for the Swamp Creek-Davis Creek Region cut over under sales to the Eastern Oregon Lumber Company, would seem to furnish sufficient basic data for this purpose.

Very truly yours,

*E. E. Carter,*

E. E. Carter,  
Assistant Forester

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE  
NORTH PACIFIC DISTRICT

POST OFFICE BUILDING  
PORTLAND, OREGON

ADDRESS REPLY TO  
DISTRICT FORESTER  
AND REFER TO

S  
Timber Surveys-Wallowa, D-6,  
Chesnimnus Project

April 14, 1930

The Forester,

Washington, D. C.

Dear Sir:

I am enclosing, herewith, a copy of the Descriptive Report of the above project, together with a copy of the Cost Report. Due to the closing down of the mill at Enterprise, it will not be necessary to complete the cruising of the remainder of the Chesnimnus watershed for several years.

Very truly yours,

C. J. Buck, District Forester.

By *E Kavaunagh* Acting.

Enclosure.

S  
Timber Surveys, D-6, Wallowa  
Chesnimnus Project

Portland, Oregon  
March 20, 1930

C O S T R E P O R T

CHESNIMNUS TIMBER SURVEY PROJECT<sup>1</sup>

1928

-

Wallowa National Forest

March 20, 1930.

Fred A. Matz,  
Chief of Party

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<sup>1</sup> This document was transcribed from a photocopy of the original, which is located in the Supervisor's Office Silviculture Library Archives. To the greatest extent possible, this version is an exact duplicate of the original text.

## COST REPORT

### Chesnimnus Timber Survey Project

1928.

#### I. Acreage and Mileage

1. Total gross area mapped - *	79,155 acres.	
2. Net National Forest area cruised –		
	(5% basis –	8,715 acres
	(10% basis	<u>69,400 acres</u>
	Total	78,115 acres
3. Number of miles of transit base line -	89.	
4. Number of miles of compass base line –	119.	
5. Number of miles of strip cruising lines –	934.	
6. Total volume cruised, M. feet B. M. –	619,566.	

#### II. Expenses

1. Cost of subsistence supplies -	\$ 982.83
2. Cost of cook's wages - -	366.66
3. Cost of truck operation, hauling, etc. -	153.18
4. Travel expenses -	56.65
5. Equipment, and miscellaneous -	<u>22.07</u>
6. Total, all expenses -	\$1,581.39
7. Average daily expense per man -	\$1.327.

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\*Some additional acreage carried in tabulations in Descriptive Report because of land exchange cruises, etc.

III. Field Work

1.	Total cost of salaries	-\$3,833.87.		
2.	Average size of crew	- 11 men		
3.	Average individual monthly salary	- \$96.48.		
4.	Transit control	(Man days - 73 (Salary - (Expense (Prorated)	\$347.63 <u>96.84</u>	
		Cost		\$444.47
5.	Compass control	(Man days - 219 (Salary - (Expense (Prorated)	\$526.80 <u>290.53</u>	
		Cost		\$817.33
6.	Strip cruising	(Man days - 512½ (Salary - (Expense (Prorated)	\$1,347.44 <u>679.91</u>	
		Cost		\$2,027.35
7.	Camp computing and compilations	(Man days - 53½ (Salary - (Expense (Prorated)	\$260.87 <u>71.00</u>	
		Cost		\$331.87
8.	Supervision In field	(Man days - 59 ½ (Salary (Expense (Prorated)	\$408.88 <u>78.94</u>	
		Cost		\$487.82
9.	Travel, moving to and establishing camp, and chores	(Man days - 70 (Salary (Expense (prorated)	\$280.63 <u>92.86</u>	
		Cost		\$373.49
10.	Sundays, holidays, rain, & leave	(Man days - 204 ½ (Salary (Expense (prorated)	\$661.62 <u>271.31</u>	
		Cost		<u>\$932.93</u>
11.	Total cost of field work	(Man days - 1192 (Salary (Expense (prorated)	\$3,833.87 <u>1,581.39</u>	
		Total Cost		\$5,415.26

IV. Headquarters Office Work

1.	Computations	(Man days - 163 (Salary - (Expense -	\$1,045.06 <u>0</u>	
		Cost		\$1,045.06
2.	Map making drafting, and printing	(Man days - 95 (Salary - (Expense	\$645.33 <u>51.00</u>	
		Cost		\$698.33
3.	Type maps	(Man days - 30 ½ (Salary - (Expense -	\$260.36 <u>1.00</u>	
		Cost		\$261.36
4.	Written reports	(Man days - 13		

	(Salary -	Cost	<u>\$121.73</u>	\$121.73
5. Total cost head- quarters office work	(Man days - 30 ½			
	(Salary -		\$2,074.48	
	(Expense		<u>52.00</u>	
		Total Cost		\$2,126.48

V. Summarized Cost of Project

1. Totals for field and office	(Man days - 1493 ½			
	(Salary -		\$5,908.35	
	(Expense -		<u>1,633.39</u>	
		Total Cost		\$7,541.74
2. Cost per acre for gross area mapped	\$ .0952			
3. Cost per acre for net National Forest area cruised				\$ .0965
4. Cost per M. feet cruised by all methods	\$ .0122			

Submitted March 20, 1930

*Fred A. Matz*  
Chief of Party

S R-6  
Timber Surveys- Wallowa  
Chesnimnus, Project

Portland, Oregon  
May 1, 1929

DESCRIPTIVE REPORT  
CHESNIMNUS TIMBER SURVEY PROJECT  
WALLOWA NATIONAL FOREST.  
1928.

Fred A. Matz,  
Chief of Timber Surveys.



S. R-6  
Timber Surveys – Wallowa  
Chesnimnus Project

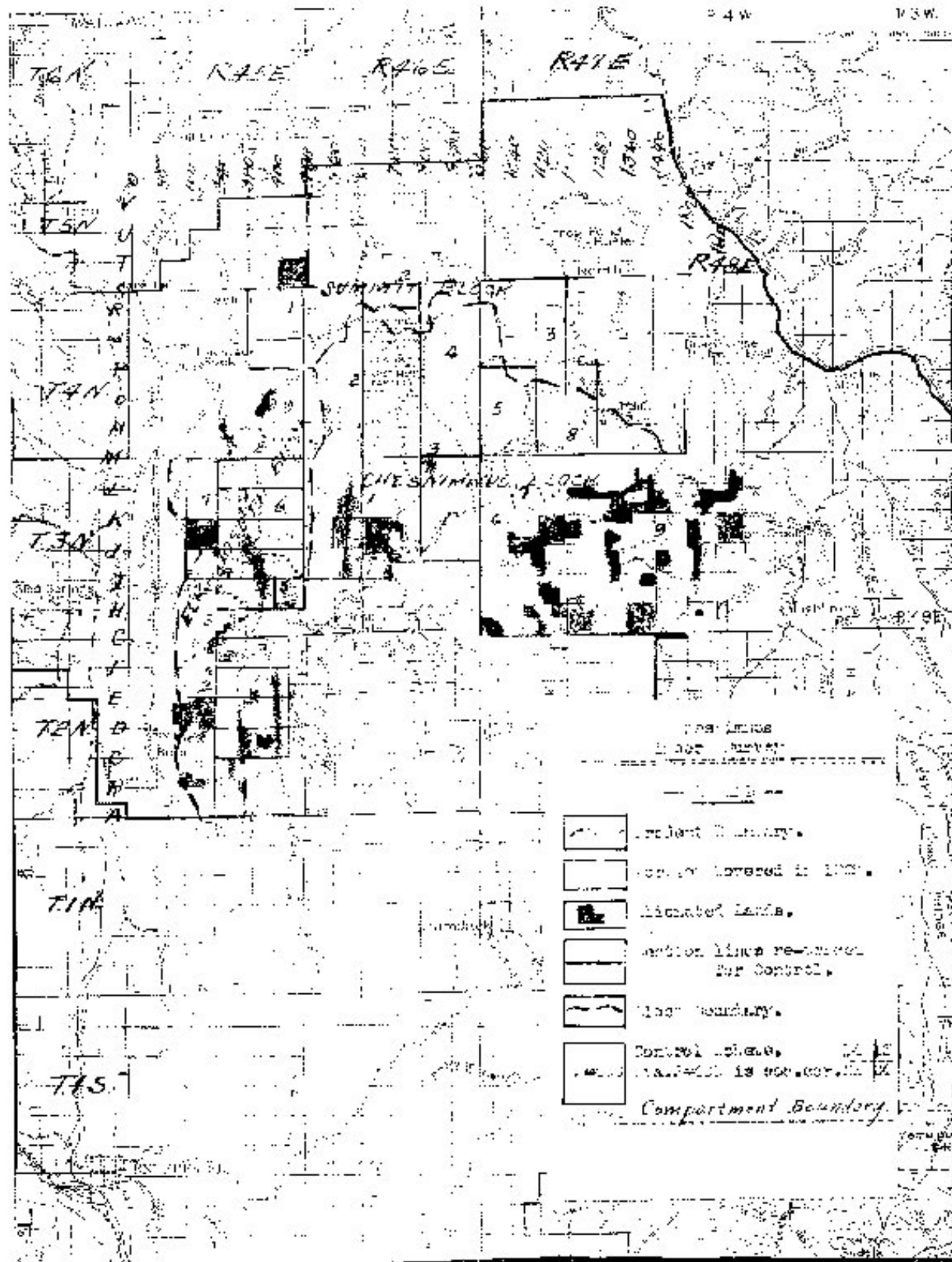
Portland, Oregon.  
May 1, 1929.

DESCRIPTIVE REPORT  
CHESNIMNUS TIMBER SURVEY PROJECT  
WALLOWA NATIONAL FOREST.  
1928.

Fred A. Matz,  
Chief of Timber Surveys.

## Table of Contents

I.	Introduction.....	8
	Maps .....	8
	History of the Project .....	8
	Personnel .....	9
	Location and Area .....	10
	Unit Divisions.....	10
	Chesnimnus Block .....	11
	Elk-Joseph Block. ....	11
	Summit Block .....	12
	Status and Ownership .....	12
II.	FIELD WORK AND COMPUTATIONS.....	13
	Control Methods .....	13
	Cruising Methods .....	13
	Check Cruises .....	14
	Office Computations.....	15
	Correction Factors for Defect and Breakage .....	16
III.	SILVICULTURAL DISCRPTION.....	17
	Forest Types .....	17
	Yellow Pine.....	17
	White Fir-Larch-Douglas Fir .....	20
	Lodgepole Pine Type .....	23
	Grass Type.....	23
	Site Classification .....	23
	Description of the Timber .....	23
	Western Yellow Pine.....	23
	Douglas Fir.....	23
	White Fir.....	23
	Western Larch.....	24
	Engelmann Spruce .....	24
	Reproduction .....	24
	Silvicultural Management .....	24
	Insect Damage and Diseases (Statement prepared by A. J. Jaenicke).....	24
	Growth and Yield Data .....	25
IV.	LOGGING DATA .....	25
V.	STATISTICAL SUMMARY .....	25



## Descriptive Report

### I. Introduction

#### Maps

The project area, its divisions into blocks and compartments, a key to the control scheme and various other data, in accordance with accompanying legend, are shown on a ¼-inch-to-the-mile scale map, which forms the frontispiece of this report.

Four-inch-to-the-mile scale township plats, showing the topography by contours and the forest type in accordance with the standard legend, have been prepared and are bound in the regulation folders. In addition to these plats, there are similar sized plats showing the timber estimates by forties, the boundaries of the blocks and compartments and convenient summaries of the acreage and timber estimates applicable to each.

#### History of the Project

The western boundary of the project is adjacent to the area logged on Swamp Creek by the East Oregon Lumber Company at Enterprise, Oregon. This company had planned on using some of the old railroad grades used in logging the Davis Creek timber as a main line and tap the timber in this project by way of the Joseph Creek, which is the principal drainage for the project, since Chesnimnus Creek and Crow Creek, by their junction, form Joseph Creek. It was with this plan in mind, and the fact that the timber could then be moved out in connection with their operations in the Sled Springs region, that the company made informal application for the timber in this project. However, since then this company has met with financial reverses and their operations were closed down early in the spring of 1928. It is understood that a new company has been formed, but as yet no public announcement of their plans has been made.

The Bowman-Hicks Lumber Co. of La Grande, Oregon, made field examinations to determine the logging possibilities in this project, and it is understood were favorably impressed with the proposition. In case this timber is advertised for sale, we have every reason to believe this company will be an interested bidder.

Should the mill at Enterprise resume operations, the timber they now control in the region between Sled Springs and Flora will carry the operation for a period of six or seven years. The timber in this project is most accessible to the main line at Enterprise, and is essential to keep up the milling plant there and consequently will be in demand when the present holdings of the company are cut out. Only a small portion of the area within the project boundaries is patented and such as is, is in small individually owned tracts which will not be an influence in marketing the Government timber.

The timber survey project was authorized in order that we might obtain the necessary information for the appraisal of the timber in case it were advertised pursuant to requests made, and for formulating plans for the management of the area. Consequently, fieldwork was started on June 15, 1928, and continued until September 30. About one-half of the crew of student field assistants left for their respective schools about September 15 and after that the remainder of the crew cleaned up some of the ragged edges of the townships in which work had started.

Four campsites were occupied by the party and are described as follows:

The first camp was, established on private land outside the Forest at the south edge of a meadow near the mouth of Elk Creek and from it all the southwest portion of the project was covered to a line crossing Joseph Creek about a mile below the junction of Crow Creek and Chesnimnus Creek. This camp was beside the road traveled by the Chico mail stage and mail was delivered twice each week. By the use of the auto truck it was possible to work out from camp a considerable distance along the road. A trail along Elk Creek and another over

the hill to Swamp Creek made accessible all the western portion of the project to the Swamp Creek divide. The second campsite was on patented land near the quarter section corner on the north of Section 3, 3-45. The road down Joseph Creek to this camp was almost impassable with auto truck and it was necessary to hire a four-horse team to move the camp equipment in and out from the main road. From this camp the work was connected to that done from the first camp and carried as far northward as it seemed at all practical to consider logging, because of the rough topography and scant timber stand. The work was carried to the east line of the township, which parallels the summit of the divide on the east side of Joseph Creek.

The third camp was at McCarty cabin where there is a small spring on private land in Section 15, 3-46. From this camp the work was connected with that done from the Joseph Creek side and was extended eastward to the east line of the above mentioned township and as far north as the south line of the Billy Meadows Experiment Pasture fence.

The fourth campsite was established at Poker Bill Spring in the E. ½ of Sec. 8, of 4-46. This camp site is about ¼ mile south of the main road, but is easily accessible with automobile. All the northward portion of the project was covered from this camp and as far eastward along the main road to Buckhorn springs as was practical to travel to.

The fifth and last camp for the season was at Yondell Ranger Station in the southeast portion of T. 4 N., R. 47 E. All the work in this township was done from this camp and connecting with the work done to the west of it. It would have been possible to have covered 6,000 to 8,000 acres additional from this camp to good advantage, but the men leaving for school and funds for the work running low, it was necessary to abandon the project. There remains about 25,000 acres to be covered in the southeast part of the project, which should be completed in order to give the information necessary for a detailed management plan for the area. In this uncovered portion there is a considerable acreage of private land which the Office of Lands desires be covered in a manner similar to the Government acreage. It is believed that this remainder of the project can be covered from one camp which may be located handy to the road in the southeast part of T. 3 N., R. 47 E. The creek water in this region is poor for camp use, but it is likely that permission may be obtained to camp at one of the abandoned farm homes where there is an improved spring or well.

### Personnel

The work was done under the supervision of Fred A. Matz, chief of timber surveys, assisted by H. C. Hulett, forest ranger. The Office of Engineering contributed the services of C. W. Gowan for the vertical control lines on the project. This work he completed on August 7, when he returned to Portland.

The field assistants comprising the crew were forestry students from various schools. Their names, school attended, period of service and rate of pay follows;

1. Anderson, Waldemar R., 3rd year University of Minnesota. Worked as estimator from June 15 to September 9, at rate of \$70 per month.
2. Christensen, Irving L., 3<sup>rd</sup> year, Iowa State College. Worked as estimator from June 15 to September 15 at rate of \$70 per month.
3. Hawkins, Trueman V., 2<sup>nd</sup> year Iowa State College. Worked on control layout and as estimator from June 15 to September 15 at rate of \$70 per month.
4. Howell, Edward M., 3<sup>rd</sup> year Iowa State College. Worked as estimator from June 15 to September 15 at the rate of \$70 per month.
5. Hutchinson, Robt. O., graduate Oregon Agricultural College. Worked as compass man from June 15 to September 25 at rate of \$90 per month. On September 26 he was transferred for similar duty to the Fremont Forest.
6. Manlove, W. B., 2<sup>nd</sup> year Oregon Agricultural College. Worked as compassman from June 14 to September 30, at rate of \$90 per month.
7. McPherson, Lester, 3<sup>rd</sup> year at O.A.C. Worked as compassman from June 15 to September 21 at the rate of \$80 per month.

8. Poust, Ashley A., 2<sup>nd</sup> year O.A. C. Worked as compassman and estimator from June 15 to September 25 at rate of \$80 per month. On September 26 he was transferred for similar duty to the Fremont Forest.
9. Swanson, Robt. L., 3<sup>rd</sup> year University of Minnesota. Worked on control surveys and as estimator from June 15 to September 9 at rate of \$70 per month.
10. Young, Earl A., 3<sup>rd</sup> year Washington State College. Worked as compassman and estimator from June 15 to September 16 at the rate of \$80 per month.

Mr. D. H. Tripp was, re-employed as camp cook and gave very satisfactory service throughout the season, he receiving compensation at the rate of \$ 110.00 per month.

Location and Area

Location. Chico Ranger Station is in the south central part of the project and is 24 miles northeast of Enterprise, Oregon, which is the nearest railroad point. Chico postoffice is at a farm house about 3 miles north of the Ranger Station and is the terminus of a mail route out of Enterprise. Mail is carried over this route twice each week, both ways. During the summer months mail service is by automobile, but during the greater part of the year it is by team and wagon or horseback. In addition to the road from Chico via Crow Creek there is another road traversing the east and north portions of the project and another running south from Billy Meadows Ranger Station. All these roads are in passable condition with automobile during the summer months, but are in poor condition during the rainy season. The Government has done regular maintenance on most of the roads in the project and as a result, these portions of the roads are in very much better condition than are those portions between the forest boundary and the highways.

The portion of the project completed is, situated in the following townships:

- T. 2 N., R. 45 E., W. M.
- T. 3 N., R. 45 E., W. M.
- T. 3 N., R. 46 E., W. M.
- T. 4 N., R. 45 E., W. M. (Un-surveyed)
- T. 4 N., R. 46 E., W. M. "
- T. 4 N., R. 47 E., W. M. "
- T. 5 N., R. 45 E., W. M.
- T. 5 N., R. 46 E., W. M.

This portion remaining to be done included all of T. 3 N., R. 47 E., W.M. and parts of T. 3 N., R. 48 E., W. M., and T. 4 N., R. 48 E., W. M.

Area. The block boundaries are indicated on the map forming the frontispiece of this report. The Government acreage covered in each is as follows:

Chesnimnus Block		37,183.91 acres
Elk-Joseph	"	27,802.08 acres
Summit	"	<u>16,731.24 acres</u>
Total Government		81,717.23 acres

Intermingled with the Government lands are 9,586.37 acres in private ownership, of which 560 acres were mapped and cruised and 480 acres mapped only.

The acreage remaining to be covered is between 25,000 and 30,000 acres.

Unit Divisions

The project area is entirely within the Joseph Creek Working Circle, the subdivisions of which are shown graphically on the map sheet forming the frontispiece of this report. Three blocks are represented in the project and are briefly described as follows:

Chesnimnus Block It is in this block that the remaining 30,000 acres are to be cruised. Within the boundaries of the area covered in this report there are 37,183 acres of Government lands and 2,681.92 acres under private ownership. The uncovered portion comprises the heart of this block and contains some of the best timber, as well as the best logging chance in the region. As the name implies, this block comprises the area in Chesnimnus Creek drainage, which is locally referred to as the Upper Chesnimnus country. A small mill, having a capacity of from 5 M to 10 M daily, is located on patented land in Sec. 23 of T. 3 N., R. 47 E. The operator was at the time the party was in the field, obtaining his timber supply from a small sale area on Government land just east of the mill site. There are also the remnants of an old mill site about one half mile down the creek from the present setting. It is not likely that a mill of such limited capacity can seriously nick the logging change as a whole, but it is felt the better policy to give no encouragement to sales of this kind or to permit the present operator to increase his mill capacity.

As will be seen by reference to the map, there are a number of roads in this block, on some of which maintenance work is done each year by the Government. The road running north from the mill site to Summit spring is suitable only for lightly loaded cars on account of some steep hills and very rocky, badly rutted sections. Much work is needed on this road in order to put it in even fair condition. Likewise, the old road near the summit along the west boundary of the block, for the portion south of Red Hill Lookout Station, is in almost impassable condition.

There are no striking topographic features in the block. The roughest portions from a logging standpoint are found in the vicinity of the big bend where Devils Run flows into the Chesnimnus. Here the slopes are quite steep and the creek beds narrow, though it will be possible to establish a good railroad grade along the main drainage. After getting away from the creek a distance of half a mile or such a matter, the topography is much more gentle and the ridge summits are well rounded so that the construction of railroad grades will be comparatively easy. Logging conditions will justify the use of horses, tractors, and skidders, but it is not practical to log with high wheels.

Billy Meadows Experiment Pasture is located in the north central part of this block. It consists of an area of four square miles surrounded by a high fence constructed of wire and poles and was originally used by the State of Oregon to confine a herd of elk which were imported from Montana. Because of the heavy expense involved in maintaining a keeper for the care of the animals, the project was abandoned and the elk were permitted to roam at large with others that were native to the region. The house and grounds used by the gamekeeper were acquired by the Forest Service are now known as Billy Meadows Ranger Station. Buckhorn Springs, at the extreme eastern point of the project is a well-known observation point from which to view the Snake River and Imnaha River canyons. Good trails lead from Buckhorn to the river, although they are very steep, since there is a difference in elevations of 4,000 feet or more, which occurs in the short distance of only about four miles by horizontal measure. Several sheepmen winter their stock in the lower Imnaha River region, and it is their custom to transport considerable quantities of grain by truck to Buckhorn springs, then pack it with pack animals to the lower country. Red Hill Lookout Station, which is on the Joseph Creek divide at the west side of this block, is accessible by a good wagon road via Billy Meadows. The Station consists of a good cabin and lookout tower from which it is possible to view nearly all the area in this block.

Eight compartment subdivisions of this block are represented in the portion covered. Three of these compartments are complete, while the remainder cannot be completed until the entire project is finished. The completed compartments are Numbers 1, 2 and 3, the total area of which is 19,878 acres having 58% of mature yellow pine type. The largest of these three compartments is No. 1, which has a total acreage of 7,674 acres, of which 65% is mature yellow pine type, Compartment No. 2 has 50% mature yellow pine type and is in the lead with 33% white fir-larch-Douglas fir type. Compartment No. 3 has 58% of its area in mature yellow pine type, and is in this respect an average representation for the three.

Elk-Joseph Block. A total acreage of 27,802 acres, which comprises all the loggable area in this block, was covered. There is not so much fir-larch type in this block as in the preceding, but there is a considerable larger proportion of open grass type which represents 40% of the area. The mature yellow pine type represents 53% of the area, with only a small percentage of the younger age classes additional.

As the name implies, this block is, situated in Elk Creek and Joseph Creek drainages. It also includes Crow Creek drainage. The best of the logging chance in this block is in Elk Creek and on the low divide between it and Crow Creek. There are a few good patches of timber along Crow Creek, but the best of it is in private ownership. Below the junction of Crow Creek and Chesnimnus Creek the stream is known as Joseph Creek.

There is a narrow valley along this stream and a few settlers have small farms along it. The logging chance immediately adjacent to the creek on either side is poor, because the slopes are very steep with considerable rock outcroppings and the timber stand is very scattered. The farther one goes down the creek the steeper the slopes become and the poorer the prospects of logging it. Cougar Creek, which flows into Joseph Creek along the north line of the area covered, has some very good timber, but the topography is rough and broken. Compartment No. 6 comprises the drainage of Sumac Creek, a small tributary flowing into Joseph Creek near Chico post office. The lower portion of this compartment is a poor logging change and it is necessary to go to the upper slopes to find a stand to justify logging. Considering the timber on the divided at the north and east boundaries of this watershed, this chance ranks next in choice to Elk Creek watershed. With the exceptions of compartments No. 1, No. 2 and No. 3, which are at the south end, this block offers nothing especially desirable from a logging standpoint, because of the rough, steep slopes and the scant timber stand. An area of about 2,000 acres on the low, flat divide between compartments No. 1 and No. 2 is adaptable for logging with high wheels, while over all remainder it will be necessary to do skidding with machinery or horses.

For the block as a whole the percentage of mature yellow pine acreage is 52.5% and grass is 36.6%. Compartment No. 3 is rated as having the greatest proportion of mature yellow pine type, it being 68% and grass 29%. Compartment No. 2 leads the preceding a little if we consider the pine type of all age classes in the proportion of 75% for compartment No. 2 and 70% for compartment No. 3.

Summit Block Into this block has been placed all the loggable area over the main summit on the north and east boundaries of the project. The timber in this block will be taken out by way of Chesnimnus block and the area covered in the project represents all that it is felt justifiable to consider logging in the near future. It has been separated from the Chesnimnus Block primarily because to log any portions of it, it will be necessary to extend logging roads to the summit from the Chesnimnus side, whereas the Chesnimnus timber might all be made accessible by building the roads to within a quarter or half a mile of this summit and skidding the logs the remaining distance. Once the summit is attained with a main-line spur, it will be possible to extend secondary spur lines along the summits of the smaller ridges and by means of skidders draw the timber up the slopes to the tracks.

There is a tract of from 600 to 1,000 acres of good pine timber at the extreme west end of this block, on Table Mountain, which was not covered in this project, because of a deep saddle in the main ridge at the head of the westernmost branch of West Peavine Creek. While it may be possible to get this timber in the distant future by means of an incline and a heavy adverse grade, it is not a feasible proposition at present.

Two small areas of yellow pine timber occur along the Cold Spring road in T. 5 N., R. 47 E., which are not included in the project covered. The volume of timber in these tracts is not great and would not justify the construction of a railroad spur to reach them. It would however be practical to operate trucks along the road and haul the logs to railroad spurs, which will most likely be built to the main summit at the south end of the block.

No distinct boundary is established for the lower limits of this block, since that is dependent entirely upon the kind of skidding machinery used to pull the timber up the slopes. It is believed practical to log all the yellow pine timber included in the estimate for this block, but it is quite likely that much of the volume of inferior species will be left because its low market value will not justify the expense for logging it.

The timber in this block is short although it attains a fair diameter size. Only 37% of the area covered in this block is mature yellow pine type, whereas the white-fir-larch-Douglas fir type mature is 46% and grass type is 15%.

### Status and Ownership

All the ranges in Twps. 2 & 3N., and T. 5 N., R. 45 E., have been surveyed by the G.L O. The remainder of the project area covered is unsurveyed. In T. 4 N., R. 45 E. are a couple of homestead entries which border on to the area cruised and portions of them in sections 23, 26 and 34 are included in the acreage summary of alienated land. Other than these, all the patented land acreage listed is in the surveyed townships. There is no large company holdings in the region and other than three sections to which patent was given to the State, all patents were acquired under the Homestead and the Timber and Stone Acts.

Of the entire area covered in the project, only 1,040 acres of patented lands were mapped. Following is a summary of the ownership by townships:



Township and Range	Government Land Acres	Alienated Land Acres
T.2 N., R. 45 E., W. M.	8,707.08	3,778.95
T.3 N., R. 45 E., W. M.	12,780.90	2,331.50
T.3 N., R. 46 E., W. M.	11,873.01	2,681.92
T.4 N., R. 45 E., W. M.	7,630.00	154.00
T.4 N., R. 46 E., W. M.	21,948.00	640.00
T.4 N., R. 47 E., W. M.	14,443.00	--
T.5 N., R. 45 E., W. M.	864.00	640.00
T.5 N., R. 46 E., W. M.	3,471.24	--
Totals	81,717.24	9,586.37

The amount of each ownership segregated by blocks and compartments will be found in the tables of "Acreage Summary of Forest Types" at the back of this report.

## II. FIELD WORK AND COMPUTATIONS

### Field Work

Control Methods. Special instructions for the survey and mapping of the area were issued by the Office of Engineering and all field work in connection with the horizontal and vertical control was in accordance therewith.

In the surveyed portions of the project, base lines for the control were established by retracing with chain and compass many of the lines established by the G. L. O. surveys. The locations of the lines retraced are shown on the map forming the frontispiece of this report. During the early part of the season it was customary to so lay out the control lines that a checking point was established for each mile of strip surveys. Toward the close of the season these control ones were spaced 2 miles apart. Likewise, in the unsurveyed townships the control lines were established in parallel form 2 miles apart. These lines, too, were established with compass and chain running in north and south directions through T. 4 North. Since the lines in the unsurveyed portions were less than six miles in length and "ties" were made to corners on the first standard parallel north, it is felt that these surveys are just as good as was done in the surveyed portions.

Elevations were carried along the main roads and trails, and a few of the compass lines by means of transit with stadia or direct levels: however, on most of the compass control lines the elevations were established by means of adjusted Paulin altimeter readings. The closed circuits established by the transit control furnished the starting and checking points for this altimeter control and it was usually possible to keep the length of these lines so that distances of 3 or 4 miles were not exceeded.

The strip surveys were run with a Forest Service standard compass used for alignment, and the distances along these strips were obtained by pacing. The elevations of points along the readings, which were adjusted to take care of any discrepancies discovered when checking in on the control lines.

Cruising Methods. The strip method of cruising, with 2-man crews, was employed throughout the project. The width of strip was one chain and in areas of merchantable timber two strips were run through each forty, making a 10% cruise. In the white fir-larch-Douglas fir and non-timbered types, it was the custom to run only a 5% cruise.

The acreage of Government land covered by each of these two percentages of cruise is as follows:

10%= 73,002 acres  
5%= 8,715 acres  
Total 81,717 acres

All the yellow pine trees were classified as being mature or immature and trees 12 inches or more d. b .h. were tallied by number of logs in height and by two inches diameter classes. Species other than yellow pine were tallied separately by diameter classes only.

Poles were tallied separately for each species, by number, and in two size classes as 4" to 7" and 8" to 11" diameters. Snags were tallies in four diameter classes, keeping the yellow pine species separate from the inferior species.

Check Cruises. Check cruising was done on about 5% of the area covered by each estimator, and was confined to the better portions of the timbered areas. Comparative results of the check cruises, based on the gross volume, are as follows:

1. Original cruise by Waldemar R. Anderson; check cruise by Fred A. Matz, in S½ Sec. 34 of 4-46.

Species	Original Cruise		Check Cruise		Difference		
	No. of trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	Per cent
Y. Mat.	333	20,899	305	22,415	+28	-1,516	-6.7%
Y. Immat.	76	1,671	68	2,089	+8	- 418	-20.0%
D.F.	203	8,274	167	7,584	+36	+ 690	+9.0%
W. L.	69	3,145	48	2,471	+21	+ 674	+27.0%
Total	681	33,989	588	34,559	+93	-570	-1.6%

2. Original cruise by Irving L. Christensen; check cruise by Fred A. Matz, in N½ of N½ of Sec. 4, 3-46.

Species	Original Cruise		Check Cruise		Difference		
	No. of Trees	Volume Dec. C	No. of Trees	Volume Dec. C	No. of trees	Volume Dec. C.	Per cent
Y. Mat.	237	20,386	230	15,829	+ 7	+ 4,557	+28 %
Y. Immat.	121	2,337	51	1,420	+ 70	+ 917	+64.0%
D. F.	201	8,336	197	8,396	+ 4	-60	-0.7%
W. L.	75	1,924	51	3,290	+ 24	1,366	-41.5%
E. S.	10	1,860	14	2,364	- 4	504	21.3%
Total	644	34,843	543	31,299	+101	+ 3,544	+11.3%

3. Original cruise by E. M. Howell; check cruise by Fred A Matz, in S½ of S½ Sec. 2 and N½ of N½ Sec. 11, 3-46.

Species	Original Cruise		Check Cruise		Difference		
	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	Per cent
Y. Mat.	237	16,048	247	19,146	-10	-3,098	-16.1%
Y. Immat.	58	1,427	52	1,228	+6	+199	+16.2%
D.F.	166	4,422	155	4,974	+11	-552	-11.0%
W.L.	24	2,574	28	2,775	-4	-201	-7.2%
E.S.	44	817	39	706	+5	+111	+15.7%
Total	529	25,288	521	28,829	+8	-3,541	-12.2%

4. Original cruise by A. E. Young; check cruise by Fred A. Matz, in N½ of N½ Sec. 35 of 4-46.

Species	Original Cruise		Check Cruise		Difference		
	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	Per cent
Y. Mat.	144	12,561	135	11,269	+9	+1,292	+11.4%
Y .Immat.	31	708	40	695	-9	+13	+1.8%
D.F.	69	2,642	64	2,565	+5	+77	+3.0%
W.L.	19	511	16	549	+3	-38	-6.9%
Total	263	16,422	255	15,078	+8	+1,344	+8.9%

5. Summary for all above cruises.

Species	Original Cruise		Check Cruise		Difference		
	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	No. of Trees	Volume Dec. C.	Per cent
Y. Mat.	951	69,894	917	68,659	+34	+1,235	+1.8%
Y.Immat.	286	6,143	211	5,432	+75	+711	+13.0%
D.F.	639	23,674	583	23,519	+56	+155	+0.6%
W.L.	187	8,154	143	9,085	+44	-931	-10.2%
E.S.	44	817	39	706	+5	+111	+15.7%
W.F.	10	1,860	14	2,364	-4	-504	-21.3%
Total	2,117	110,542	1,907	109,765	+210	+777	+0.7%

T. V. Hawkins and R. L. Swanson spent about 3 weeks at estimating toward the end of the season, but no check cruises were obtained on ground covered by them. However, they had been given careful supervision at regular intervals throughout the time they were on strip surveys and it is felt that they did good work and comparable to the work done by other estimators.

Office Computations. Very little of the computations for timber volume was done in the field by members of the party. On two rainy days the crew worked at compiling volumes for timber for which tables were available and the computations for volumes on the check cruises were also made in the field, otherwise it was all done in the District Office.

Height measurements were taken for all the principal species, other than western yellow pine, on the project and volume tables for average heights for trees were made, based on the Wallowa volume table for Douglas fir and western larch by Hanzlik, Donaldson and Christensen, November, 1926. Lodgepole pine was based on the Ochoco volume table, and the Engelmann spruce table was based on the Colorado-Utah table for Engelmann spruce.

For western yellow pine the Blue Mountain table was used for mature age class and the Second Growth Western Yellow Pine table by Hanzlik in 1928, was used for immature age class.

The volume for the several species by two-inch diameter breast height sizes are as follows:

TABLE NO.1  
VOLUME TABLE USED

D. B. H.	Feet, Board Measure			
	Western Larch And Douglas Fir	Engelmann Spruce	Lodgepole pine	White Fir
12	70	50	100	Same volumes as for Douglas fir used to 26 inches Diameter only
14	90	100	160	
16	170	160	220	
18	260	240	280	
20	400	340	350	
22	520	460		
24	700	620		
26	870	860		
28	1,100	1,130		
30	1,270	1,410		
32	1,560			
34	1,750			
36	1,950			
38	2,300			
40	2,560			
42	2,800			
44	3,100			
46	3,500			
48	4,000			
50	4,500			

Correction Factors for Defect and Breakage

These two factors were combined and expressed in one number on the tally sheets; as for instance, 15% indicating that a total allowance of 15% is made for both factors taken together. The variances in amount of this deduction are caused more by conditions estimated to affect the breakage rather than because of changeable defect in the timber. The range of the correction factors for the breakage and defect combined in the different species follows:

Western yellow pine, mature	5% to 7½%
Western yellow pine, immature	None
Douglas fir	5% to 25%
Western Larch	5% to 25%
White fir	5% to 25% and volumes were not computed for trees more than 26 inches in diameter.
White pine	5% to 10%
Lodgepole pine	5% to 10%

### III. SILVICULTURAL DISCRPTION

#### Forest Types

#### Yellow Pine

Throughout all of the mature age class of this type there is a fair springling of trees of all age classes, which is highly desirable for cutting under the selection system. Inferior species are usually found in mixture with the pine in this type and areas of pure stand of pine are of extremely limited acreage. Much of the acreage classified in this work as yellow pine, will after cutting revert to white fir-larch-Douglas fir type, because of the present stand of species common to that type and because a greater proportionate number of those trees will be left.

For that portion of the area covered, 50% falls in the mature yellow pine type. There is in addition about  $\frac{3}{4}$  of 1% in the large pole class and about  $\frac{1}{3}$  of 1% in each the immature and the sapling age classes.

The average per acre stand throughout the mature age class (150 years plus), was obtained from a selection of the tally sheets applicable to the type for all parts of the project. The acreage represented by these estimate sheets is about one-fourth of the entire area covered in the type. Because of similarity in composition of stand in Chesnimnus and Elk-Joseph blocks these two have been considered as one in determining the sample acre stand under table No. 2. This data for Summit Block is found under Table No. 3.

Since the immature age class of yellow pine type (Y-3) is so small, no attempt is made to determine a sample acre classification for it.

TABLE NO. 2  
SAMPLE ACRE IN MATURE YP TYPE (Y-4)  
ELK, JOSEPH AND CHESNIMNUS BLOCKS

D. B. H. Inches	Y – Mature		Y-Immature		LP		D.		W.F		W.L.		Total	
	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M	No. of Trees	Vol. ft. B.M.	No of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No of Trees	Vol. ft. B M.
4-7			6.095		.309		4.810		.489		.583		12.286	
8-11			2.222		.171		2.875		.274		.443		5.985	
12	.443	21.00	.923	31.60	.023	2.30	1,165	81.50	.105	7.40	.201	14.00	2.860	157.80
14	.427	40.30	.683	43.80	.009	1.4	.673	60.5	.064	5.8	.159	13.8	2.015	165.6
16	.613	92.7	.633	80.0	.002	0.5	.558	82.2	.047	6.5	.151	21.1	2.004	283.0
18	.714	161.3	.593	94.0			.458	123.7	.040	10.8	.106	28.7	1.911	418.5
20	.955	304.7	.431	100.7			.397	162.9	.018	8.0	.061	24.9	1.863	601.2
22	1.112	483.4	.336	111.5			.335	184.0	.014	7.7	.083	45.3	1.880	831.9
24	1.675	1,001.1	.315	142.2			.321	221.9	.013	9.0	.077	53.0	2.401	1,430.2
26	1.196	965.6	.171	98.3			.264	227.2	.011	9.3	.061	52.1	1.703	1,352.5
28	.933	1,046.4	.109	74.5			.208	210.0			.045	45.9	1.295	1,376.8
30	.880	1,047.2	.061	42.6			.126	148.2			.035	42.2	1.102	1,280.2
32	.677	984.2	.057	57.6			.088	118.4			.025	33.6	.847	1,193.8
34	.538	1,082.2	.043	49.0			.091	141.9			.027	42.2	.699	1,315.3
36	.437	916.2	.008	9.8			.553	96.6			.011	19.0	1.009	1,041.6
38	.274	663.6	.006	9.6			.357	69.3			.007	12.6	.644	755.1
40	.163	447.5	.002	3.4			.184	39.4			.013	27.8	.362	518.1
42	.103	206.9					.005	12.7			.004	10.1	.112	229.7
44	.050	168.5					.009	21.7			.001	2.7	.060	193.0
46	.035	131.5					.005	14.6					.040	146.1
48	.017	70.0					.001	3.1					.018	73.1
50	.011	49.5					.002	6.7					.013	56.2
52	.005	25.7											.005	25.7
54	.001	5.5											.001	5.5
Total	11.259	9,918.1	.371	948.6	.034	4.2	5.800	2,026.	.313	64.5	1.067	489.0	22.844	13,450.9

TABLE NO. 3  
SAMPLE ACRE IN MATURE YP TYPE (Y-4)  
SUMMIT BLOCK

Average Number of Trees and Stand per Acre by Diameter Classes

D. B. H	Y-mature		Y-immature		LP		DF		WF		WL		TOTAL	
	No. of Trees	Vol. Ft. B.M.	No. of Trees	Vol. Ft. B.M.	No. of Trees	Vol. Ft. B.M.	No. of Trees	Vol. Ft. B.M.	No. of Trees	Vol. Ft. B.M.	No. of Trees	Vol. Ft. B. M.	No. Of trees	Vol. Ft. B.M.
4-7			3.175		1.545		5.930		1.747		.679		13.076	
8-11			2.425		.610		5.765		1.955		.926		11.681	
12	.259	11.7	1.573	85.4	.070	7.1	2.825	197.5	.726	50.8	.598	41.8	6.051	394.3
14	.302	26.4	.820	57.4			1.371	123.3	.222	20.0	.293	26.4	3.008	253.5
16	.433	57.5	.668	74.1			1.396	195.1	.246	34.4	.281	39.4	3.024	400.5
18	.633	134.0	.668	111.0			.773	208.7	.117	31.6	.222	60.1	2.413	545.4
20	1.089	348.0	.492	121.4			.914	374.5	.141	57.6	.176	72.0	2.812	973.5
22	1.056	443.0	.387	118.6			.668	367.1	.105	58.0	.105	58.0	2.321	1,044.7
24	1.418	817.9	.257	95.3			.503	347.4	.129	88.9	.070	48.5	2.377	1,398.0
26	1.266	937.4	.082	36.7			.434	372.6	.011	10.1	.059	50.4	1.852	1,407.2
28	1.172	1,058.6	.046	28.1			.152	153.8			.070	71.0	1.440	1,311.5
30	.784	907.8	.035	24.1			.070	82.9			.023	27.6	.912	1,042.4
32	.679	981.1	.011	6.1			.129	173.9			.023	31.6	.842	1,192.7
34	.469	833.0					.047	73.1			.011	18.0	.527	924.1
36	.340	685.9					.011	20.5					.351	706.4
38	.293	667.8					.035	68.2					.328	736.0
40	.141	288.8					.011	25.1					.152	313.9
42	.059	152.3											.059	152.3
44	.035	105.4											.035	105.4
46	.035	118.7											.035	118.7
48	.011	49.6											.011	49.6
50	.023	99.3											.023	99.3
Total	10.497	8,724.2	5.039	758.2	.070	7.1	9.339	2,783.7	1.697	351.4	1.931	544.8	28.573	13,169.4

### White Fir-Larch-Douglas Fir

About 21% of the total area covered is in the mature age class of this type. There is in addition only a faint trace of each of the other two age classes. It is found usually on the north slopes or in cool sites along the bottoms of draws and stream beds and in favorable sites on ridge summits such as saddles or in flats at the heads of ravines. It is composed of a mixture of practically all the species common to the Blue Mountains region and Douglas fir is the tree most commonly found in all parts of the project. Both the Douglas fir and western larch species find their greatest growth in this type along the stream beds where the soil is deep and there is good drainage. In this type there is also a considerable volume of white fir. As is usual for this species, the larger trees are affected with conk rot and only the smaller trees are considered as merchantable. When computing the volumes for trees of this species, no trees more than 26 inches d. b. h. were considered merchantable and they are carried into the timber summaries, by numbers, under the heading "Diseased Trees."

Sample acre compilations for this type have been prepared in manner similar to the preceding and are given in tables No. 4 and No. 5, which follow:



TABLE NO. 4  
SAMPLE ACRE IN MATURE W. FIR-LARCH-D. FIR TYPE (FL-3)  
SUMMIT BLOCK

Average Number of Trees and Stand per Acre by Diameter Classes

D.B.H inches	Y-Mature		Y-Immature		LP		DF		WF		WL		ES		Total	
	No of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. ft. B.M.	No. of trees	Vol. ft. B.M.
4-7			.266		7.715		6.355		12.620		.918		6.380		34.254	
8-11			.234		4.885		6.724		10.675		1.748		3.526		27.792	
12	.097	4.4	.081	3.2	.668	66.9	3.250	227.3	4.865	340.7	1.096	76.7	.975	48.8	11.032	768.0
14	.016	1.6	.056	3.9	.081	12.9	1.778	160.3	2.203	198.7	.733	66.0	.242	24.2	5.109	467.6
16	.024	2.6	.032	4.4	.024	5.3	1.698	238.0	1.983	277.5	.507	71.1	.250	40.0	4.518	638.9
18	.016	2.7	.040	7.0	.008	2.3	1.143	308.9	1.256	339.4	.435	117.5	.169	40.6	3.067	818.4
20	.040	10.3	.016	3.5			1.255	508.8	1.410	578.2	.330	135.5	.032	11.0	3.083	1,247.6
22	.089	34.4	.016	4.2			.878	483.1	.676	372.3	.242	133.0	.016	7.4	1.917	1,034.4
24	.097	56.6					.814	561.6	.684	472.6	.93	133.4	.008	5.0	1.796	1,229.2
26	.089	66.4					.459	395.0	.314	270.3	.161	138.6			1.023	870.3
28	.081	73.3	.008	4.3			.234	236.0			.064	65.1			.387	379.4
30	.016	18.9					.121	142.6			.040	47.5			.177	209.0
32	.016	24.2					.089	119.7			.024	32.6			.129	176.5
34							.113	176.0			.040	62.9			.153	238.9
36							.032	56.4			.024	42.3			.056	98.7
38							.032	62.5			.008	15.6			.040	78.1
40	.008	24.7					.008	17.3			.008	17.2			.024	59.2
42	.008	23.4													.008	23.4
44							.008	20.2							.008	20.2
46							.016	43.5							.016	43.5
48							.016	46.7							.016	46.7
Total	.597	344.0	.249	31.0	.781	87.4	11.944	3,803.9	13.391	2,849.7	3.905	1,155.0	1.692	177.0	32.559	8,448.0

TABLE NO. 5.  
 SAMPLE ACRE IN MATURE W. FIR-LARCH-D. FIR TYPE (FL-3)  
 ELK – JOSEPH AND CHESNIMNUS BLOCKS  
 Average Number of Trees and Stand per Acre by Diameter Classes

D.B.H. Inches	Y-Mature		Y-Immature		LP		DF		WF		WL		ES		Total	
	No. of Trees	Vol. ft. B.M.	No. of Trees	Vol. Ft. B.M	No. of Trees	Vo. ft. B.M	No. of Trees	Vol. ft. B.M	No. of Trees	Vol. ft. B.M	No. of Trees	Vol. ft. B.M	No. of Trees	Vol. ft. B.M	No. of Trees	Vol. ft. B.M
4-7			.498		6.455		11.910		8.890		1.310		2.624		31.687	
8-11			.357		3.660		8.395		8.040		2.165		1.887		24.504	
12	.031	1.6	.166	6.1	.588	58.9	3.950	276.5	3.255	213.5	1.310	92.0	.922	46.6	10.222	695.2
14	.035	3.6	.156	11.2	.076	12.1	2.316	209.7	1.541	132.2	1.007	91.0	.292	29.2	5.423	495.0
16	.061	9.7	.161	19.7	.040	8.9	2.080	291.0	1.122	157.1	.862	120.5	.231	23.2	4.557	630.1
18	.061	13.5	.121	20.5	.005	1.4	1.469	396.8	.744	201.1	.755	142.7	.206	49.5	3.361	825.5
20	.061	22.0	.081	19.2	.005		1.247	511.7	.649	266.2	.473	194.0	.074	29.0	2.590	1,042.1
22	.096	44.5	.040	14.6			1.047	577.3	.452	249.1	.281	155.0	.055	25.5	1.971	1,066.0
24	.156	85.7	.050	25.5			.801	552.1	.317	218.8	.287	197.9	.025	15.6	1.636	1,095.6
26	.136	104.9	.005	3.5			.578	497.7	.276	238.0	.222	190.4	.010	8.7	1.227	1,043.2
28	.076	98.9					.312	315.1			.156	157.6	.005	5.7	.549	547.3
30	.091	108.2					.231	273.2			.106	124.7	.005	7.1	.433	513.2
32	.070	106.0	.010	7.0			.181	244.6			.096	129.1	.005	8.8	.362	495.5
34	.076	136.1					.076	117.8			.101	157.0	.005	10.6	.258	421.5
36	.045	68.3					.065	114.5			.065	114.5	.005	12.6	.180	339.9
38							.020	39.0			.045	87.9			.065	126.9
40	.010	26.2					.040	86.2			.050	107.7			.100	220.1
42							.005	11.8			.015	35.3			.020	47.1
44	.005	16.2					.005	12.6			.010	25.2			.020	54.0
46	.005	17.6													.005	17.6
48	.005	21.4									.015	43.8			.020	65.2
50											.021	62.4			.021	62.4
Total	1.020	884.4	.790	127.3	.714	81.3	14.423	4,527.6	8.356	1,682.0	5.877	2,222.7	1.840	272.1	33.020	9,803.4

### Lodgepole Pine Type

About an equal acreage of each of the two age classes in this type occurs on the project and each is less than one per cent of the acreage covered. Because of the small size of the lodgepole pine trees found in the region, this type does not permit the inclusion of any considerable amount of other species and it therefore practically pure. This type is not considered of commercial importance at the present time, because of the small diameter sizes of the trees in it not justifying logging operations. In much of the area classified as mature age class the trees attain diameter sizes of only 6 to 8 inches d. b. h. when they die, probably from insect depredations. The largest and best specimens of lodgepole pine trees are usually found where they grow in mixture with other species in the yellow pine or in the white fir-larch-Douglas fir types.

### Grass Type

The acreage classified as of this type represents 26 per cent of the total acreage covered in this project. It is found chiefly on the dry sites such as ridge summits and southerly exposures where the soil is shallow. In most of this type there is a goodly mixture of weeds along with the bunchgrass. This type includes practically all the non-timbered types in the project although there is a very small acreage of brush, sagebrush and barren types as will be seen in the tables of acreage summaries by types at the back of this report, Tables Nos. 6 to 8 inclusive.

### Site Classification

The site classification ranges from III to VI, with the bulk of the acreage falling in site IV. The best sites are found on areas where the soil is deep and well drained at the lower elevations and the poorest site is, found on the dry ridge tops or rocky slopes where the soil is shallow. The percentage of the acreage in each site is indicated for each compartment in the summary at the bottom of each township estimate plat.

### Description of the Timber

#### Western Yellow Pine

The yellow pine logs will average five logs per M. The average volume of pine trees found in the White fir-larch-Douglas fir type or in forests of mixed composition is usually larger than when found in the more pure stands of yellow pine. The trees there are usually taller and in many cases attain a larger diameter growth. The quality of the pine compares favorably with that being cut in the region and should yield 20% to 22% No. 2 logs and better.

#### Douglas Fir

While there are a small number of large trees of this species, on the whole, it runs smaller in size than the yellow pine and it is estimated that there will be required from 7 to 8 logs for each M. feet B. M. There is never more than one clear log in the butt of a tree and they are of comparatively small number. The trees are usually quite limby and suitable only for cutting into rough lumber of lower grades. The best trees are found in the white fir-larch-Douglas fir type and in portions of the Y.P. type where the soil and drainage are good. This tree is pretty well distributed, but in varying density, in all the timbered types throughout the project and will no doubt be taken out whenever logging is done.

#### White Fir

Occasionally individual trees of this species were found, which were larger than the Douglas fir, but they are worthless for lumber because of conk and heart rot. Practically all of the large trees are defective, because of conk, heart rot and shake and for this reason all trees 28" or more d. b. h. were classified as culls and no volumes for these sizes were computed. They are, however, carried in the summaries at the back of this report as

diseased trees. The lumber from the smaller trees will equal in quality that of the Douglas fir, and should make excellent box lumber.

### Western Larch

This timber runs a little better in quality than does the Douglas fir. It attains its greatest diameter growth along the bottom of the water courses, but there it is usually shaky, making it necessary to cull out the larger clear portion of the bole. The younger trees are quite free from defect and grow tall and straight. It will produce good grade common lumber and small timbers.

### Engelmann Spruce

The small amount of this timber found is confined to the bottoms of draws where there is an almost constant flow of water. In a few instances trees as large as 26" to 28" d. b. h. were found, but usually they are of smaller sizes. The trees are of medium height and with only a small amount of clear material. The trees are usually thrifty and free from defect.

### Reproduction

Reproduction in the yellow pine type varies from one-third to fully stocked, with by far the greater portion in the former. Small areas in the poorer sites where the soil is stony and shallow are classified as having no reproduction. Even in most of the yellow pine type there is a mixture of inferior species in the reproduction, comparable to the timber composition. In some portions of the project now classified as yellow pine mature there is a much higher percentage of reproduction from the inferior species than from yellow pine, which, after logging, will tend to change the type accordingly.

### Silvicultural Management

Cutting under the selection method should be done in all the yellow pine type and in all portions of the white fir-larch-Douglas fir type where horse logging will permit it. Over most of the pine, type there is a sprinkling of trees of different age classes and it is, therefore, apparent that suitable trees for leaving will be found to insure a future crop after cutting. On some of the steep slopes, especially in Summit Block where there must be up-hill skidding, logging will undoubtedly be done by means of power-driven machinery and it will be more difficult there to manage under the selection system.

It is not likely that any of the present roads in the project will ever be converted into main highways and it will not be necessary to make provisions for scenic strips or special thinnings.

### Insect Damage and Diseases (Statement prepared by A. J. Jaenicke)

Although the western pine beetle (*Dendroctonus brevicomis*) is prevalent in the yellow pine timber in all three blocks of this project, the infestations by this insect were in a decidedly quiescent or normal status in 1928. There is no evidence of recent destructive outbreaks of the western pine beetle. At least no epidemics have occurred during the past ten years.

During the ten-year period, 1919-1928, inclusive, the pine beetle loss in yellow pine has amounted to about 10,000 M. board feet. Although no total timber estimates are yet available as a basis for computation, this yellow pine killing probably amounts to less than three per cent of the yellow pine stand for the entire ten-year period. Compared with the beetle damage in much of the yellow pine timber of central and southern Oregon, the yellow pine in these three blocks has suffered but very little from insect depredations.

The western pine beetle prefers the over-mature yellow pine. Especially is this true when the beetle infestations are fairly inactive and not destructive. For this reason, the pine beetle attacks during the past decade have been largely confirmed to scattered veterans.

The western larch has suffered quite seriously from a flat-headed borer and the white fir has occasionally been killed by a small bark-beetle. There are only small areas of lodgepole in these three blocks and consequently the mountain pine beetle (*D. monticolae*) is only of minor importance. Douglas fir is continually subject to killing by the Douglas fir bark beetle (*D. pseudotsugae*) just as in other parts of eastern Oregon.

Mistletoe is fairly prevalent in all three blocks, but nowhere is it sufficiently bad to constitute an important marking problem in the event of timber-sale activity.

#### Growth and Yield Data

All yellow pine trees 12 inches d. b. h. and over were tallied in two age classes as mature or immature. All other species were tallied as of one age class. Trees of pole sizes of all species were, tallied in two diameter classes, namely, 4" – 7" and 8" – 11" d. b. h. The compilation of the number of these poles is, shown in the statistical tabulations at the back of this report.

### IV. LOGGING DATA

The topography over most of the pine area is rolling and in some places quite steep. The best logging ground is found on the broad divide between Crow Creek and Elk Creek. Some of the slopes into Peavine Creek in Chesnimnus Block are also easy logging chances. The uncovered portion of the project, in T. 3 N., Ranges 47 E. and 48 E. offers some of the best logging chances in the region. The project in general is adaptable to horses and tractor logging, but on the steep, rougher portions, skidders will be needed to handle the logging proposition to best advantage.

The location of a tap line into the project has been the subject of much discussion for several years. Officials of the East Oregon Lumber Co. were of the opinion that the area could best be logged by a main-line railroad from Enterprise to the mouth of Swamp Creek, then on up Joseph Creek into the Chesnimnus region. This plan would permit a down-grade haul of all the logs to the mouth of Davis Creek and a long haul on adverse grade along Davis Creek. It is the opinion of the writer that the tract can be tapped to best advantage by way of the head of Swamp Creek and over the divide into the head of Elk Creek. The advantages of this route are principally that this is a much shorter haul; that timber is reached as soon as Elk Creek watershed is entered and while there will be an adverse grade to haul logs along Elk Creek, such haul is not impossible and is considerably shorter than via Davis Creek. This route would also necessitate an upgrade haul for the timber in Sumac Creek and Cougar Creek watersheds. An easy grade may be maintained along Joseph Creek so that this adverse grade is not a serious handicap.

No quality strips were run on the project; although a notation concerning the quality of the pine timber appears on the back of each tally sheet. It is estimated that the yellow pine timber will yield between 20% and 22% of No. 2 logs and better for the project, while in some portions it is 25% or better. The inferior species have only a very small amount of clear and are suitable only for rougher grades of lumber.

### V. STATISTICAL SUMMARY

#### Acreage

Acreage of forest types for the Government lands and the total acreage of private lands are summarize by sections, compartments and blocks in tables No. 6 to No. 8 inclusive, which follow. The tables are numbered so that the information for each block is summarized in one table.

#### Timber

Tables No. 9 to No. 11 inclusive, have summarized data pertaining to the timber stand by species and the number of snags and defective white fir trees for the subdivisions as outlined in the preceding tables.

#### Poles

The final tables in this report pertain to a summary of the number of poles by species and by 4" – 7" and 8" -11" diameter classes. These summaries comprise tables No. 12 to 14 inclusive, and pertain to the same subdivisions outlined in the acreage summary tables.

TABLE No. 6.  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
CHESNIMNUS BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W .Fir- Larch-DF			Lodge pole pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N.F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
<u>T. 3 N., R. 46 E., W. M.</u>															
<u>Compartment No.1.</u>															
3		256.00	45		1	1							156		459.00
4		380.00				48							217		645.00
5	120.00	340.00				66							118		524.00
6		321.00			1	21							62		405.39
7		360.00				42							82		484.00
8	520.00	62.00				24							34		120.00
9		381.00			3	8							248		640.00
10		430.00											152		582.00
15	60.00	2.00			1								37		40.00
16	120.00	240.00				38							162		440.00
17	480.00	104.00			1						3		52		160.00
18		495.08				28							96		619.08
19		396.08									1		182		578.08
20	320.00	201.00		2	2								114		320.00
21	98.00	43.00											83		126.00
Por Twp. Totals	1,718.00	4,011.55	45	2	9	276					4		1,795		6,142.55
<u>T. 4 No., R. 46 E, W.M (Unsurveyed)</u>															
27		30.00											10		40.00
28		66.00											4		70.00
31		33.00													38.00
32		255.00	9			169							71		504.00
33		421.00	4			42					3		170		640.00
34		138.00											102		240.00
Por. Twp. Totals		943.00	13			211	5				3		357		1,532.00
Comp.1. Totals	1,718.00	4,954.55	58	2	9	487	5				7		2,152		7,674.55
<u>T.4N., R.46 E., W. M. (Unsurveyed)</u>															
<u>Compartment No.2</u>															
4		18.00				18							4		40.00
5		38.00				46			10				2		96.00
7		43.00				32			3				22		100.00
8		154.00	6			188			10				42		400.00
9		143.00				139			90	14			78		464.00
15		94.00				117							72		283.00
16		87.00				354	3		97	1			98		640.00
17		301.00	30			242			13				54		640.00
18		307.00				141							44		492.00
19		301.00				139							14		454.00
20		476.00				119							45		640.00
21		367.00				185							88		640.00
22		276.00				196							94		566.00
27		105.00				11							44		160.00
28		355.00	42			73							100		570.00

Section Number	Alienated Land Acres	Yellow Pine				W .Fir- Larch-DF			Lodge pole pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N.F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
29		383.00	9		2	204							42		640.00
30		86.00				58							10		154.00
32		55.00				54							9		118.00
Compt. 2 Totals		3,589.00	87		2	2,316	3		223	15			862		7,097.00

TABLE NO. 6 (Cont'd)  
 ACREAGE SUMMARY OF FOREST TYPES  
 JOSEPH CREEK WORKING CIRCLE  
 CHESNIMNUS BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W. Fir-Larch- D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N. F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
<u>T. 3 N., R. 46 E., W. M</u>															
1	161.92	198.68		3	Compartment No. 3								126		327.68
2		252.68		2		35							192		481.68
3		135.00				27							51		186.00
10		23.00				5							35		58.00
11		455.00											178		640.00
12		207.00											209		440.00
14		109.00	97.00										234		336.00
15		100.00	224.00		6	6							204		440.00
16		80.00													
21		222.00	52.00											142	
22	112.00	51.00									1		20		52.00
23	13.00														
Por. Twp. Totals	797.92	1,655.36		11	6	91					1		1,391		3,155.36
<u>T. 4 N., R. 46 E., W.M (Unsurveyed)</u>															
22		10.00				4							6		20.00
23		22.00				4							14		40.00
26		197.00	1			10							84		292.00
27		257.00				65							118		440.00
34		277.00				46							77		400.00
35		464.00		4	12								154		634.00
36		91.00											35		126.00
Por. Twp. Totals		1,318.00	1	4	12	129							488		1,952.00
Comp't 3 Totals	797.92	2,973.36	1	15	18	220							1,879		5,107.36
<u>T. 3 N., R. 46 E., W.M</u>															
1		172.00			Compartment No.4 (Incomplete)								73		314.00
12		22.00				69							51		76.00
Por. Twp. Totals		194.00				72							124		390.00
<u>T.4 N., R. 46 E., W.M</u>															
1		15.00				20			3	1			9		48.00
2		66.00				41							35		142.00
11		132.00				253			72				47		504.00
12		77.00				376			18	12			157		640.00
13		299.00				274			16				48		637.00
14		432.00				66			90				51		640.00
15		60.00				217			30	1			45		367.00
22		13.00				18							23		64.00
23		333.00				212							53		600.00
24		283.00				108							48		440.00
25		182.00				69							77		328.00
26		169.00	6	3	2	94							74		348.00
35		3.00											3		6.00



Section Number	Alienated Land Acres	Yellow Pine				W. Fir-Larch- D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N. F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
36		291.00				80							75		446.00
Por.Twp. Totals		2,357.00	6	3	8	1,828			299	14			745		5,190.00

TABLE NO. 6 (Cont'd)  
 ACREAGE SUMMARY OF FOREST TYPES  
 JOSEPH CREEK WORKING CIRCLE  
 CHESNIMNUS BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W. Fir-Larch-D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N.F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
<u>T. 4 N., R. 47 E., W. M. (un-surveyed)</u>															
6		12.00	20			15							21		68.00
7		108.00	7			191							71		377.00
18		134.00				323			1				18		476.00
Por. Twp. Totals		254.00	27			529			1				110		921.00
Compt. 4 Totals		2,805.00	33	3	8	2,429			230	14			979		6,501.00
<u>T. 4 N., 46 E., W. M. (Un-surveyed)</u>															
<u>Compartment No. 5 (Incomplete)</u>															
13		1.00											2		3.00
24		141.00				34							25		200.00
25		169.00				86							57		312.00
36		30.00	3		1	30							4		68.00
Por. Twp. Totals		341.00	3		1	150							88		583.00
<u>T.4 N., R. 47 E., W. M. (Un-surveyed)</u>															
18		27.00				108							1		136.00
19		311.00				256							73		640.00
20		88.00				106							50		244.00
29		287.00				78							53		418.00
30		423.00				155							62		640.00
31		437.00	66		13	21							101		638.00
32		69.00				10							16		95.00
Por. Twp. Totals		1,642.00	66		13	734							356		2,811.00
Compt. 5 Totals		1,983.00	69		14	884							444		3,394.00
<u>T. 3 N., R. 46 E., W. M.</u>															
<u>Compartment No. 6 (Incomplete)</u>															
12		45.00				73							6		124.00
13		257.00				42							341		640.00
14	91.00	45.00											59		104.00
22	48.00	52.00		2		18					2		34		108.00
23	27.00	120.00				9							151		280.00
24		122.00				1							195		320.00
Compt. 6 Totals		166.00		2		143					2		786		1,576.00

TABLE NO. 6 (Cont'd)  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
CHESNIMNUS BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W.Fir-Larch-D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N. F. Acres	
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres						
<u>T.4 N., R. 47E. W.M. Un-surveyed</u>		<u>Compartment No. 7 Incomplete</u>														
31		34.00				53								15		102.00
32		63.00				25								10		98.00
Compt. 7 Totals		97.00				78								25		200.00
<u>T.4 N., R. 47 E. W. M Un-surveyed</u>		<u>Compartment No. 8 Incomplete</u>														
20						50								14		88.00
21		24.00				231								37		364.00
22		96.00				84					10			51		248.00
23		103.00				4								5		27.00
26		18.00 218.00				115								60		398.00
27		374.00				200								50		640.00
28		344.00				254								32		640.00
29		148.00				24			13		25			12		222.00
32		223.00				164								60		447.00
33		432.00				170								32		640.00
34		524.00				86					10			19		640.00
35		392.000			6	131					19			81		640.00
36		106.00	5	17	1	64			54		375			36		640.00
Compt. 8 totals		3,002.00	5	17	7	1,577			67		470			489		5,637.00

CHESNIMNUS BLOCK TOTALS

8Compt.	2,681.92	20,044.91	253	39	60	8,134	8		520	499	10		7,616		37,183.91
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TREES TABLE NO. 7  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
ELK-JOSEPH BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W. Fir--Larch--D.F.- Lodgepole Pine					Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N.F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FI-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	LP-p1 Acres					
<b>Compartement No. 1</b>															
T. 2 N., R. 45 E., W.M															
1	-	61.75		3										256	320.75
2	160.00	374.20												108	482.20
3	40.00	139.62												1	140.62
10	-	171.00			1	8								26	206.00
11	80.00	358.00			10	13								179	560.00
12	120.00	63.00												137	200.00
13	200.00	32.00			10	2								76	120.00
14	120.00	353.00			6									161	520.00
15	60.00	53.00												7	60.00
23	480.00	122.00				6								32	160.00
24	160.00	33.00												127	160.00
Compt. No. 1 Totals	1,420.00	1,760.57		30	29									1,110	2,929.57
<b>Compartement No. 2</b>															
T. 2 N., R. 45 E., W.M.															
3	160.70	269.32				4								28	301.32
4	160.74	288.59				27								55	380.59
8	-	88.00												12	100.00
9	40.00	410.00			12									178	600.00
10	-	305.00			9	2								118	434.00
15	20.00	404.00					18							78	500.00
16	640.00	-												-	
17	72.00	-												-	
20	65.00	39.00												13	52.00
21	120.00	344.00			128									48	520.00
22	160.00	376.00			18	4								82	480.00
27	200.00	212.00			101	2								125	440.00
28	120.00	268.00			112	37								66	520.00
29	40.00	64.00	3		19	17						6		52	165.00
32	-	16.00	-											11	27.00
33	200.00	203.00	6		71									50	330.00
34	280.00	22.00			82									256	360.00
Por. Twp. Totals	2,278.44	3,298.91	9	552	72	49						6	1,192	31	5,209.91
T. 3 N., R. 45 E. W. M.															
33		3.00						3							6.00
34	77.00	110.00			5		3							42	160.00
Por. Twp. Totals	77.00	113.00		5		3		3						42	166.00
Compt. No. 2 Totals	2,355.44	3,411.91	9	557	72	52		3				6	1,234	31	5,375.91

TABLE NO. 7 (Continued)  
 ACREAGE SUMMARY OF FOREST TYPES  
 JOSEPH CREEK WORKING CIRCLE  
 ELK-JOSEPH BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W. Fir-Larch-D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N. F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
<b>Compartment No. 3</b>															
T. 2 N., R. 45 E., W.M															
4	80.51														
5	-	425.60										76		501.60	
8		44.00										22		66.00	
Por. Twp. Totals	80.51	469.60										98		567.60	
<b>T. 3 N., R. 45 E., W. M.</b>															
21		7.00			2							26		35.00	
22		27.00										2		29.00	
27	40.00	226.00		1	55							178		460.00	
28		365.00	1		6							268		640.00	
29		179.00										63		242.00	
32		442.00										72		514.00	
33		444.00			9	14						167		634.00	
34	123.00	162.00										118		280.00	
Por. Twp. Totals	163.00	1,852.00	1	1	72	14						894		2,834.00	
Comp. No. 3 Totals	243.51	2,321.60	1	1	72	14						992		3,401.60	
<b>Compartment No. 4</b>															
<b>T. 3 N., R. 45 E., W.M.</b>															
16	76.00														
20	-	52.00				2						2		56.00	
21	-	331.00				32						182		545.00	
22	-	242.00			1							135		378.00	
23	150.00	38.00										42		80.00	
26	80.00	120.00										120		240.00	
27	-	91.00			1							48		140.00	
Compt. No. 4 Totals	306.00	874.00			2	34						529		1,439.00	
<b>Compartment No. 5</b>															
<b>T. 3 N., R. 45 E., W. M.</b>															
23	216.00	6.00		6	8							81		101.00	
24	-	22.00	5	9								210		246.00	
25	160.00	40.00										440		480.00	
26	200.00	70.00										50		120.00	
Compt. No. 5 Totals	576.00	138.00	5	15	8							781		947.00	
<b>Compartment No. 6.</b>															
<b>T.3 N., R. 45 E., W. M.</b>															
1		350.00			1							129		480.00	
2		194.00			2							56		252.00	
11		183.00			3							138		324.00	
12		289.00			1							350		640.00	
13		290.00										350		640.00	
14		78.00				4						238		320.00	
23		2.00				16						1		19.00	
24		148.00	3									243		394.00	
Por. Twp. Totals	-	1,534.00	3		7	20						1,505		3,069.00	

TABLE No. 7 (Continued)  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
ELK-JOSEPH BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W.Fir-Larch-D.F			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N.F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	Fl-1 Acres	Lp-2 Acres	Lp-1 Acres					
<b>T.3 N., R. 46 E., W. M.</b>															
6	-	78.00			10								36		124.00
7	-	145.10											53		198.10
18	-	41.00											22		63.00
19	-	-											106		106.00
Por. Twp. Totals	-	264.10			10								217		491.10
Compt. No.6.Totals	-	1,798.10	3		17	20							1,722		3,560.10
<b>T.3 N., R. 45 E., W. M</b>															
<b>Compartment No. 7</b>															
2	-	42.00			16								308		366.00
3	141.50	132.50				154					13		196		502.50
4	-	257.40				30	12	7					331		644.40
5	-	48.00						14					120		168.00
8	-	58.00	2		1								86		147.00
9	-	336.00											304		640.00
10	160.00	232.00	7			17							224		480.00
11	80.00	58.00			2								176		236.00
14	150.00	49.00											121		170.00
15	130.00	253.00			5	42							210		510.00
16	454.00														
21	-	48.00													60.00
22	20.00	151.00				18							12		220.00
23	74.00												51		
Por. Twp. Totals	1,209.50	1,664.90	9		24	261	12	21			13		2,139		4,143.90
<b>T. 4 N., R. 45 E., W. M (Unsurveyed)</b>															
34	100.00	20.00				24							230		274.00
35						2							95		97.00
Por. Twp. Totals	100.00	20.00				26							325		371.00
Compt. No 7 Totals	1,309.50	1,684.90	9		24	287	12	21			13	2,464			4,514.90
<b>T. 3 N., R. 45 E., W. M.</b>															
<b>Compartment No. 8</b>															
1		102.00			1								56		159.00
2		14.00											9		23.00
Por.Twp.Totals		116.00			1								65		182.00
<b>T. 3 N., R. 46 E., W.M.</b>															
6		90.00			8	14							6		118.00
<b>T. 4 N., R. 45 E. W. M. (Unsurveyed)</b>															
26						20									20.00
34													10		10.00
35		233.00				114							110		457.00
36		146.00				68							137		351.00
Por. Twp. Totals		379.00				202							257		838.00

TABLE NO. 7 (Cont'd)  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
ELK-JOSEPH BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W.Fir-Larch-D. F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N. F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL3 Acres	FL2 Acres	FL1 Acres	Lp-2 Acres	Lp-1 Acres					
<u>T. 4 N., R. 46 E., W.M (Unsurveyed)</u>															
31		125.00				70							64		259.00
32		7.00											1		8.00
Por. Twp. Totals		132.00				70							65		267.00
Compt. 8 Totals		717.00			9	286							393		1,405.00
<u>T. 4 N., R. 45 E., W.M. (Unsurveyed)</u>															
<b>Compartment No. 9 (Incomplete)</b>															
13		391.00				142							60		593.00
14		7.00				2							31		40.00
23	44.00	33.00				9							512		554.00
24	-	339.00			1	14							286		640.00
25	-	279.00	15			21	1						324		640.00
26	10.00	60.00	17			34							49		160.00
35	-	10.00				22							54		86.00
36	-	77.00				89							123		289.00
Por. Twp. Totals	54.00	1,196.00	32		1	333	1						1,439		3,002.00
<u>T. 4 N., R. 46 E., W. M (Unsurveyed)</u>															
18		64.00				28							14		106.00
19		127.00											90		218.00
30		322.00				32	25	6					133		518.00
31		181.00				99		1					94		375.00
32		6.00											4		10.00
Por. Twp. Totals		700.00			1	159	25	7					335		1,227.00
Compt. 9 Totals	54.00	1,896.00	32		2	492	26	7					1,774		4,229.00

ELK-JOSEPH BLOCK TOTALS

9 Compt's. Totals	6,264.45	14,602.03	59	603	235	1,185	38	31			13	6	10,999	31	27,802.08
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TABLE NO. 8  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
SUMMIT BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W. Fir-Larch-D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acre	Barren Acre	Total N. F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL3 Acres	FL2 Acres	FL1 Acres	Lp-2 Acres	Lp-1 Acres					
<u>T. 4 N., R. 45 E., W. M. (Unsurveyed)</u>		<b>Compartment No. 1</b>													
1		100.00				284								3	387.00
2		230.00				84	30							43	387.00
3		26.00				8	3							11	48.00
10		181.00				106								33	320.00
11		318.00				266								56	640.00
12		114.00				518			3	2				3	640.00
13		33.00				14									47.00
14		380.00	30			96								94	600.00
15		114.00			3	102								81	300.00
22		5.00												3	8.00
23		32.00												10	42.00
Por. Twp. Totals		1,533.00	30		3	1,478	33		3	2				337	3,419.00
<u>T.4 N., R. 46 E., W. M. (Unsurveyed)</u>															
5		201.00				94								14	309.00
6		241.00				133					4			42	420.00
7		161.00				401			10						572.00
8		83.00	29			102			1	2				23	240.00
18		44.00				30									74.00
Por. Twp. Totals		730.00	29			760			11	2	4			79	1,615.00
<u>T. 5 N., R. 45 E., W.M.</u>															
24		38.00				2		2						118	160.00
25		151.00			2	103								114	370.00
35		167.00				92								75	334.00
36	640.00														
Por. Twp. Totals		640.00			2	197		2						307	864.00
<u>T. 5 N., R. 46 E. W. M.</u>															
19		387.96				90								51	528.96
30		400.76			6	168								64	638.76
31		415.52				55					40			49	559.52
32		54.00				34								2	90.00
Por. Twp. Totals		1,258.24			6	347						40		166	1,817.24
Compt. 1 Totals		640.00	3,877.24	59	11	2,782	33	2	14	4	4	40	889	7,715.24	



TABLE NO. 8 (Cont'd)  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
SUMMIT BLOCK

Section Number	Alienated Land Acres	Yellow Pine			W.Fir-Larch-D.F.			Lodgepole pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N. F. Acres
		Y-4 Acres	Y3 Acres	Y2 Acres	Y1 Acres	FI-3 Acres	FI-2 Acres	FI-1 Acres	Lp-2 Acres					
<u>T. 4 N., R. 46 E., W. M. (Un-surveyed)</u>														
<b>Compartment No.2</b>														
1	-	57.00				172	5		32	5			92	363.00
2	-	40.00				156	1		1	38			70	306.00
3	-	208.00			2	91	3	3	17	10			98	432.00
4	-	177.00		2	7	155		14					29	304.00
5	-	3.00												3.00
9	-	71.00				68			7				30	176.00
10	-	211.00			6	335		2	8	10			68	640.00
11	-	88.00				14							34	136.00
Por. Twp. Totals	-	855.00		2	15	991	9	19	65	63			421	2,440.00
<u>T. 4 N., R 46 E., W. M.</u>														
32	-	14.00				6							24	44.00
33	-	60.00				63							7	130.00
36	-	2.00				49			1				14	66.00
Por. Twp. Totals	-	76.00				118			1				45	240.00
<b>Compt. 2 Totals</b>		931.00		2	15	1,109	9	19	66	63			466	2,680.00
<u>T. 4 N., R 46 E., W. M. (Unsurveyed)</u>														
<b>Compartment No.3</b>														
1	-	9.00				12							24	45.00
<u>T. 5 N., R. 46 E., W.M.</u>														
23	-	68.00				139							63	270.00
24	-	7.00				11							2	20.00
25	-	50.00				82							8	140.00
26	-	174.00				209		9					58	450.00
35	-	82.00				69							9	160.00
36	-	101.00				185			7	4			77	374.00
Por. Twp. Totals	-	482.00				695		9	7	4			217	1,414.00

TABLE No.8 (Cont'd)  
ACREAGE SUMMARY OF FOREST TYPES  
JOSEPH CREEK WORKING CIRCLE  
SUMMIT BLOCK

Section Number	Alienated Land Acres	Yellow Pine				W. Fir-Larch-D.F.			Lodgepole Pine		Brush Acres	Sage Brush Acres	Grass Acres	Barren Acres	Total N.F. Acres
		Y-4 Acres	Y-3 Acres	Y-2 Acres	Y-1 Acres	FL-3 Acres	FL-2 Acres	FL-1 Acres	Lp-2 Acres	Lp-1 Acres					
T. 4 N., R. 47 E., W. M. (Unsurveyed)															
3		14.00				69							108		191.00
4		162.00				102							128		392.00
5		90.00	7			53							35		185.00
6		4.00				80							83		167.00
7		37.00				66							30		133.00
9		227.00				120							68		415.00
10		31.00				80							129		240.00
15		71.00				201							88		360.00
16		76.00				440			70				24		610.00
17		107.00				456			12				25		600.00
18		7.00				19							2		28.00
20		20.00				255							33		308.00
21		20.00				256									276.00
22		4.00				341			14	12			21		392.00
23		24.00			2	89							18		133.00
Por. Twp. Totals		894.00	7		2	2,627			96	12			792		4,430.00
Comp't. 3 Totals		1,385.00	7		2	3,334		9	103	16			1,033		5,889.00
T. 4 N., R. 47 E., W. M. (Unsurveyed) <span style="float: right;"><u>Compartment No. 4</u></span>															
25		32.00				107				44			42		225.00
26		6.00				136				52			28		222.00
Comp't. 4 Totals		38.00				243				96			70		447.00

SUMMIT BLOCK TOTALS

4 Compartments	640.00	6,231.24	66	2	28	7,468	42	30	183	179	4	40	2,458		16,731.24
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PROJECT TOTALS

3 Blocks	9,586.37	40,878.23	378	644	323	16,787	88	61	703	678	27	46	21,073	31	81,717.23
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**TABLE NO. 9**  
**JOSEPH CREEK WORKING CIRCLE**  
**CHESNIMNUS BLOCK**  
**Timber Summary By Sections**

Section Number	Acreage N. F. Acres	M. Feet B. M. for Species										No. of Diseased Trees	Number of Snags All Species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12-20"	22-30"	32-40"	42" +	Total
		Mature	Immature	Total													
<b>Compartment No. 1</b>																	
T. 3 N. R. 46 E., W. M																	
3	459.00	1,807	538	2,345		645		112			3,102		246	185	81	30	542
4	645.00	2,468	915	3,383		2,016	15	365			5,779		448	223	19	12	702
5	524.00	3,391	536	3,927		696	27	151			4,819		269	272	130	10	681
6	405.39	3,966	406	4,372		674	35	201			5,282		202	170	79	22	470
7	484.00	4,070	222	4,292		634	4	163			5,093		249	326	91	11	677
8	120.00	549	128	677		194	26	53			965		45	37	10		92
9	640.00	3,198	618	3,816		986		147			4,949		421	267	62		750
10	582.00	3,480	1,047	4,527		506		51			5,084		293	260	50		623
15	40.00	97	6	103							103						
16	440.00	2,480		2,480		221		107			2,808						
17	160.00	1,372	118	1,490		86					1,586		31	31	18		80
18	619.08	5,409	118	5,527		615	8	179			6,329		340				340
19	578.08	3,666	110	3,776		385		190			4,351		432	175	59	28	694
20	320.00	2,602	80	2,682		90		35			2,807		120	105	37		262
21	126.00	435	30	465							465		10	22	10		42
Portion Twp. Totals	6,142.55	38,990	4,872	43,862		7,748	115	1,764	33		53,522		3,106	2,075	643	133	5,955
<b>T. 4 N. R. 46 E., W. M. (Unsurveyed)</b>																	
27	40.00	282	25	307		58	1	3			369		23	30	2		55
28	70.00	490	54	544		49		2			595		90	40	5		135
31	38.00	531	13	544		100	32	23			701	18	23	23	8		54
32	504.00	3,264	335	3,599		911	162	468			5,181	31	605	289	49		943
33	640.00	4,257	229	4,486		1,399	99	183			6,205		562	284	121	31	998
34	240.00	1,176	72	1,248		226		83			1,557		137	78	38	12	265
Portion Twp. Totals	1,532.00	10,000	728	10,728		2,743	294	762	81		14,608	49	1,440	744	223	43	2,450
Comp't No. 1 Totals	7,674.55	48,990	5,600	54,590		10,491	409	2,526	114		68,130	49	4,546	2,817	866	176	8,405
<b>T. 4 N., R. 46 E., W. M. (Unsurveyed)</b>																	
<b>Compartment No. 2.</b>																	
4	40.00	93	7	100		144	36	16	8		304	25	265	51			316
5	96.00	239	2	241	6	253	166	81	2		749	19	120	68			288
7	100.00	303	65	368	3	386	128	86	24		995	21	124	51			175
8	400.00	933	296	1,229	34	1,059	672	342	31		3,367	63	940	351	39		1,330
9	464.00	1,146	262	1,408	70	1,083	333	613	39		3,546	62	686	479	154	27	1,346
15	283.00	1,037	162	1,199	19	783	141	551	72		2,765	24	496	222	53		771
16	640.00	726	111	837	78	1,788	488	863	120		4,174	54	1,905	409	136		2,449
17	640.00	3,027	428	3,455	35	2,648	1,756	400	76		8,370	559	1,524	808	39	21	2,392
18	492.00	2,428	415	2,843	25	1,400	375	722	31		5,396	104	1,200	532	24		1,756
19	454.00	3,326	301	3,627	7	1,332	228	576	23		5,793	85	646	465	39		1,150
20	640.00	4,223	371	4,594	16	1,501	751	303	32		7,197	215	993	582	160	9	1,744
21	640.00	1,994	248	2,242	3	989	373	179	18		3,799	45	905	355	42	9	1,311
22	566.00	1,637	218	1,855	12	1,031	124	746	36		3,804	50	539	273	47	12	871
27	160.00	474	26	500	5	266	4	179	8		962		191	116	56		363
28	570.00	2,404	345	2,749	5	817	24	120	24		3,739		456	219	17		692

Section Number	Acreage N. F. Acres	M. Feet B. M. for Species										No. of Diseased Trees	Number of Snags All Species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12-20"	22-30"	32-40"	42" +	Total
		Mature	Immature	Total													
29	640.00	3,151	537	3,688	4	1,515	229	585	167		6,188	10	957	390	107	50	1,504
30	154.00	972	112	1,084	7	363	27	176	6		1,663	11	394	53	21		468
32	118.00	713	126	839		376	25	138			1,378	2	490	139	11		640
Comp't No. 2 Totals	7,097.00	28,826	4,032	32,858	329	17,734	5,880	6,676	712		64,189	1,349	12,831	5,663	944	128	19,566

TABLE NO. 9 (CONT'D)  
 JOSEPH CREEK WORKING CIRCLE  
 CHESNIMNUS BLOCK  
 Timber Summary by Sections

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										No. Of Diseased Trees	Number of snags all species								
		Yellow pine			LP.	D	WF	WL	ES	W	Total		12-22"	22-30"	32-40"	42"-	Total				
		Mature	Immature	Total																	
<b>T. 3 N., R. 46 E., W. M.</b>																					
						<b>Compartment No. 3</b>															
1	327.68	1,575	130	1,705	104	284		26					2,015	8	84	110	44		238		
2	481.68	1,576	173	1,749		539	17	427	65				2,901		176	200	48			424	
3	186.00	1,238	234	1,472		566		48					2,086		117	119	18	8		262	
10	58.00	264	10	274				4					278		5	23	10			38	
11	640.00	3,818	365	4,183			1,273		337	109			5,902		167	290	26			483	
12	440.00	1,395	266	1,661			541		145				2,347		95	131	19			245	
14	336.00	885	84	969			166		21				1,156		71	104	20			195	
15	440.00	2,940	95	3,035			23						3,058		102	124	39	10		275	
21	194.00	450	24	474			1						475		9	23				32	
22	52.00	427	15	442		20						462					10	10			
Portion Twp. Totals	3,155.36	14,568	1,396	15,964	104	3,413	17	1,008	174			20,680	8	826	1,124	24	28	2,202			
<b>T. 4 N., R. 46 E., W.M. (Unsurveyed)</b>																					
22	20.00	91	1	92		40	22	2				156		7	5			12			
23	40.00	193	23	216	1	76	7	21				321		9	37			46			
26	292.00	1,808	146	1,954	5	620	24	126				2,729	8	264	137	9		410			
27	440.00	1,810	136	1,946	14	857	132	178	23			3,150	16	703	463	88		1,254			
34	400.00	2,590	142	2,732	7	1,077	45	307	53			4,221	10	466	323	74	18	881			
35	634.00	4,100	533	4,633		746		199				5,578		480	322	85		887			
36	126.00	1,164	162	1,326		205	5	45				1,579		179	68	13		260			
Portion Twp. Totals	1,952.00	11,756	1,143	12,899	27	3,621	233	878	76			17,734	34	2,108	1,355	269	18	3,750			
Comp't No. 3 Totals	5,107.36	26,324	2,539	28,863	131	7,034	250	1,886	250			38,414	42	2,934	2,479	93	46	5,952			
<b>T. 3 N., R. 46 E., W.M.</b>																					
						<b>Compartment No. 4 (Incomplete)</b>															
1	314.00	1,389	191	1,580		593	1	211	6			2,391		214	89	18		321			
12	76.00	301	31	332		175		34				541		44	24			68			
Portion Twp. Totals	390.00	1,690	222	1,912		768	1	245	6			2,932		258	113	18		389			
<b>T. 4 N., R. 46 E., W.M. (Unsurveyed)</b>																					
1	48.00	46	11	57	1	80		41				179		68		8		76			
2	142.00	668	4	672	1	381	27	117				1,198		386	65	8		459			
11	504.00	882	20	902	18	816	152	862	17			2,767	22	951	272	77	19	1,319			
12	640.00	964	63	1,027	25	1,663	191	617	43			3,566	39	1,128	300	23		1,451			
13	637.00	2,052	227	2,279	25	1,874	250	737	54			5,219	79	1,161	549	67	39	1,816			
14	640.00	3,927	217	4,144	25	1,085	55	479	1			5,789	26	941	517	76		1,534			
15	357.00	595	64	659	38	732	453	457	106	11		2,456	112	1,190	330	83	19	1,622			
22	54.00	272	20	292		87	69	17				465	15	111	76	2	9	198			
23	600.00	3,563	177	3,740	29	1,588	219	643	108			6,327	32	974	560	210	17	1,761			
24	440.00	2,996	117	3,113	31	1,416	91	490	28			5,169	10	887	565	115		1,567			
25	328.00	1,397	121	1,518	7	824	47	355	39			2,790		419	226	92		737			

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										No. Of Diseased Trees	Number of snags all species				
		Yellow pine			LP.	D	WF	WL	ES	W	Total		12-22"	22-30"	32-40"	42"-	Total
		Mature	Immature	Total													
26	348.00	1,485	166	1,651	26	897	132	454	32		3,192	31	445	214	50		709
35	6.00																
36	446.00	2,920	375	3,295		976	27	344	2		4,644		563	329	77	14	983
Portion Twp. Totals	5,190.00	21,767	1,582	23,349	226	12,419	1,713	5,613	430	11	43,761	366	9,224	4,003	888	117	14,232

TABLE NO. 9 (Cont'd)  
JOSEPH CREEK WORKING CIRCLE  
CHESNIMNUS BLOCK  
 Timber Summary by Sections

Section Number	Acreage N.F. Acres	M. feet B. M. for species										No of Diseased Trees	Number of Snags, All species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"-20"	22"-30"	32"-40"	42"-+	Total
		Mature	Immature	Total													
<b>T. 4 N., R. 47 E., W. M. (Unsurveyed)</b>																	
6	68.00	120	40	160		66	9	17			252	10	64	6		70	
7	377.00	848	95	943	16	845	270	104	2		2,180	44	495	118	18	641	
18	476.00	497	47	544	25	1,133	536	152	52		2,442	101	1,117	258	22	1,397	
Portion Twp. Totals	921.00	1,465	182	1,647	41	2,044	815	273	54		4,874	155	1,676	382	40	2,108	
Comp't No.4 Totals	6,501.00	23,232	1,764	24,966	267	14,463	2,528	5,886	484	11	48,635	521	10,900	4,385	928	16,340	
<b>T. 4 N., R. 46 E., W. M. (Unsurveyed)      <u>Compartment No.5 (Incomplete)</u></b>																	
13	3.00																
24	200.00	1,607	27	1,634	6	856	2	162	1		2,661	10	809	226	34	1,069	
25	312.00	2,050	98	2,148	13	1,021	110	363	23		3,678		426	347	55	828	
36	68.00	228	20	248		189		34	19		490		27	13		40	
Portion Twp. Totals	583.00	3,885	145	4,030	19	2,066	112	559	43		6,829	10	1,262	586	89	1,937	
<b>T. 4 N., R. 47 E., W. M. (Unsurveyed)</b>																	
18	136.00	67	12	79	6	322	124	52	9		594	7	382	107		489	
19	640.00	2,575	164	2,739	23	1,553	317	423	36		5,091	120	724	284	83	1,091	
20	244.00	979	116	1,095	4	1,146	272	115	2		2,634	160	270	160	16	446	
29	418.00	2,009	400	2,409	5	1,409	131	176	2		4,132	46	540	244	46	830	
30	640.00	3,700	325	4,025		1,010	235	385	109		5,764	46	877	346	117	1,340	
31	638.00	1,738	537	2,275	6	834	2	137	2		3,256		245	129	59	433	
32	95.00	539	28	567		356	3	67	10		1,003		67	64		141	
Portion Twp. Totals	2,811.00	11,607	1,582	13,189	46	6,630	1,084	1,355	170		22,474	379	3,105	1,334	321	4,770	
Comp't No. 5 totals	3,394.00	15,492	1,727	17,219	65	8,696	1,196	1,914	213		29,303	389	4,367	1,920	410	6,707	
<b>T. 3 N., R. 46 E., W. M.      <u>Compartment No.6 (Incomplete)</u></b>																	
12	124.00	339	113	452		574		353	1		1,380			91	60	170	
13	640.00	2,149	221	2,370		666	12	403			3,451	27	92	164	50	306	
14	104.00	209	3	212		120	3	33			350						
22	108.00	531	75	606		244		83			933		37	18	18	73	
23	280.00	1,629	130	1,759		160		215			2,134		97	118	21	246	
24	320.00	1,971	100	2,071		38		43			2,152		38	76	30	144	
Comp't 6 totals	1,576.00	6,828	642	7,470		1,784	15	1,130	1		10,400	27	264	467	179	939	

TABLE NO. 9 (Cont'd)  
JOSEPH CREEK WORKING CIRCLE –  
CHESNIMNUS BLOCK  
 Timber Summary by Sections

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										No. of Diseased Trees	Number of Snags All species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"-30"	22"-30"	32"-40"	42"+	Total
		Mature	Immature	Total													
<b>T. 4 N., R. 47 E., W. M. (Unsurveyed)</b>																	
										<b>Compartment No. 7. (Incomplete)</b>							
31	102.00	259	36	295	1	382	4	213			895		121	40	18	9	188
32	98.00	650	57	707	3	248	11	53			1,022		72	78	35		183
Comp't No. 7 Totals	200.00	909	93	1,002	4	630	15	266			1,917		193	118	51	9	371
<b>T. 4 N., R. 47 E., W. M (Unsurveyed)</b>																	
										<b>Compartment No. 8. (Incomplete)</b>							
20	88.00	376	18	394	4	545	27	9			979	6	101	26	17		144
21	364.00	776	190	966	43	1,560	231	566	37		3,403	89	494	228	30		761
22	248.00	626	41	667	8	933	202	220	9		2,039	28	335	243			578
23	27.00	121	2	123	1	103		31			258	15	11				11
26	398.00	1,066	29	1,095	8	1,585	139	393	5		3,225	74	455	200	37		692
27	640.00	2,542	193	2,735	15	2,594	198	413	85		6,040	246	1,456	634	124		2,214
28	640.00	2,279	590	2,869	17	2,219	335	773	135		6,348	123	1,052	563	78		1,693
29	222.00	1,334	371	1,705	12	372	53	96			2,238	1	89	143	19	10	261
32	447.00	1,911	159	2,070	13	1,253	57	591	19		4,003	20	690	343	114		1,147
33	640.00	2,606	284	2,890	12	1,961	50	302	28		5,243		572	403	76		1,051
34	640.00	3,752	230	3,982	7	1,963	93	482	2		6,529	8	825	856	169		1,850
35	640.00	4,030	135	4,165	7	2,381	171	675	3		7,402	72	385	825	116		1,326
36	640.00	916	86	1,002	25	579		233	22		1,861		54	57	22		133
Comp't 8 Totals	5,634.00	22,335	2,328	24,663	172	18,048	1,556	4,784	345		49,568	682	6,521	4,521	811	10	11,861

**CHESNIMNUS BLOCK TOTALS**

8 Compartments	37,183.91	172,396	18,725	191,661	968	78,880	11,849	25,068	2,119	11	310,556	3,059	42,554	22,370	4,682	535	70,141
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TABLE NO. 10  
JOSEPH CREEK WORKING CIRCLE  
ELK-JOSEPH BLOCK  
Timber Summary by Sections

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										No. of Diseased Trees	Number of Snags All Species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"-20"	22"-30"	32"-40"	42"+	Total
		Mature	Immature	Total													
<b>Compartment No. 1</b>																	
T. 2 N., R. 45 E., W.M.																	
1	320.75	981	77	1,058							1,058			22		22	
2	482.20	3,376	88	3,464		349		58	1		3,872		229	131	101	461	
3	140.62	669		669							669		10	20	10	40	
10	206.00	2,329	97	2,426		22		28			2,476		34	77	75	190	
11	560.00	4,543	62	4,605		93		66			4,764		146	191	88	435	
12	200.00	389	26	415		3					418						
13	120.00	344	121	465							465			30		30	
14	520.00	4,031	328	4,359				85			4,444		126	325	21	502	
15	60.00	146	21	167							167		15	40	40	95	
23	160.00	784	67	851		69		6			926		10	30		40	
24	160.00	185	51	236		29					265		10	10		20	
Comp't 1 Totals	2,929.57	17,777	938	18,715		565		243	1		19,524		580	876	355	44	1,835
<b>Compartment No. 2</b>																	
T. 2 N., R. 45 E., W.M.																	
3	301.32	3,399	77	3,476		143		34			3,653		19	9	9	9	46
4	380.59	3,100	263	3,363		686		383			4,432		83	152	60	10	305
8	100.00	1,097	44	1,141		124		77			1,342		145	107	69		321
9	600.00	3,983	519	4,502		835		467			5,804						
10	434.00	3,936	137	4,073							4,073		152	179	122	5	458
15	500.00	3,321	367	3,688		151		277			4,116		272	142	102		516
16																	
17																	
20	52.00	494	104	598							598		34		10		44
21	520.00	3,235	490	3,725		402		164			4,291		194	163	61	42	460
22	480.00	4,153	96	4,249		77		116			4,442		99	133	49		281
27	440.00	2,226	393	2,619		32		10			2,661		44	68	9		121
28	520.00	2,496	263	2,759		158		21	6		2,944		58	87	52		197
29	165.00	903	84	987							987		40	7	14		61
32	27.00	207	29	236							236						
33	330.00	1,501	340	1,841		41		18			1,900		9	40	9		58
34	360.00	41	203	244							244			39	9		48
Portion Twp. Totals	5,209.91	34,254	3,247	37,501		2,649	6	1,567			41,723		1,149	1,126	575	66	2,916
T. 3 N., R. 45 E., W.M.																	
33	6.00	16		16		12		1			29		3	1			4
34	160.00	1,459	27	1,486		47	30				1,563		38	48	9		95
Portion Twp. Totals	166.00	1,475	27	1,502		59	30	1			1,592		41	49	9		99
Comp't No. 2 Totals	5,378.91	35,729	3,274	39,003		2,708	36	1,568			43,315		1,190	1,175	584	66	3,015
<b>Compartment No. 3</b>																	
T. 2 N., R. 45 E., W. M.																	
4																	

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										No. of Diseased Trees	Number of Snags All Species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"-20"	22"-30"	32"-40"	42"+	Total
		Mature	Immature	Total													
5	501.60	5,127	268	5,395		912		93			6,400		216	188	152	10	566
8	66.00	658	30	688		94					782						
Portion Twp. Totals	567.60	5,785	298	6,083		1,006		93			7,182		216	188	152	10	566

TABLE NO. 10 (Continued)  
JOSEPH CREEK WORKING CIRCLE  
ELK-JOSEPH BLOCK  
 Timber Survey by Sections

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										Number of Snags All Species					
		Yellow Pine			LP	D	WF	WL	ES	W	Total	No. of Diseased Trees	12"-20"	22"-30"	32"-40"	42"+	Total
		Mature	Immature	Total													
<b>T. 3 N., R. 45 E., W. M.</b>																	
21	35.00	48	20	68		3					71		19				19
22	29.00	178	55	233		8					241						
27	460.00	1,549	167	1,716		72		28			1,816		29	60	20	10	119
28	640.00	3,103	242	3,345		390	36	159			3,930		148	118	24	13	303
29	242.00	1,262	179	1,441		121					1,562		125	30	10		165
32	514.00	3,731	361	4,092		224		184			4,500		261	270	19		550
33	634.00	3,019	159	3,178		960		292			4,430		208	159		10	377
34	280.00	1,058	72	1,130		261		91			1,482		18	9	18		45
Portion Twp. Totals	2,834.00	13,948	1,255	15,203		2,039	36	745			18,032		808	646	91	33	1,578
Comp't No. 3 Totals	3,401.60	19,733	1,553	21,286		3,045	36	847			25,214		1,024	834	243	43	2,144
<b>T. 3 N., R. 45 E., W. M.</b>																	
<b>Compartment No. 4</b>																	
16																	
20	56.00	694	155	849		116		5			970		36	42			78
21	545.00	3,094	921	4,015		724	87	214			5,040	40	288	177	92	16	573
22	378.00	1,514	287	1,801		309	1	84			2,195	44	76	133	39	10	258
23	80.00	58	85	143		29					172						
26	240.00	314	285	599		95		44			738		28	38			66
27	140.00	533	198	731		88		42			861		50	80	10		140
Comp't No. 4 Totals	1,439.00	6,207	1,931	8,138		1,361	88	389			9,976	84	478	470	141	26	1,115
<b>T. 3 N., R. 45 E., W. M.</b>																	
<b>Compartment No. 5</b>																	
23	101.00	226	49	275		140		13			428						
24	246.00	251	77	328		1					329						
25	480.00	450	75	525							525		40	180	220	40	480
26	120.00	337	65	402		17					419			8			8
Comp't No. 5 Totals	947.00	1,264	266	1,530		158		13			1,701		40	180	228	40	488
<b>T. 3 N., R. 45 E., W. M.</b>																	
<b>Compartment No. 6</b>																	
1	480.00																
2	252.00	2,421	302	2,723		239		54			3,016		67	139	40		246
11	324.00	2,123	249	2,372		348		112			2,832		70	71	26	21	188
12	640.00	2,112	176	2,288		285	11	155			2,739	10	199	81	40		320
13	640.00	2,780	257	3,037		409		83			3,529		182	176	48		406
14	320.00	1,056	208	1,264		153		4			1,421		76	21	16		113
23	19.00																
24	394.00	1,741	345	2,086		523		135			2,744		76	75	20		171
Portion Twp. Totals	3,069.00	12,233	1,537	13,770		1,957	11	543			16,281	10	670	563	190	21	1,444

Section Number	Acreage N.F. Acres	M. Feet B. M. for Species										Number of Snags All Species						
		Yellow Pine			LP	D	WF	WL	ES	W	Total	No. of Diseased Trees	12"-20"	22"-30"	32"-40"	42"+	Total	
		Mature	Immature	Total														
T. 3 N., R. 46 E., W. M.																		
6	124.00	1,099	142	1,241		77			8			1,326		70	31	5		106
7	198.10	1,581	61	1,642		62			27			1,731		103	55	25		183
18	63.00	401	36	437		47						484		12	26	10		48
19	106.00																	
Portion Twp. Totals	491.10	3,081	239	3,320		186			35			3,541		185	112	40		337
Comp't No. 6 Totals	3,560.10	16,578	2,042	18,620		2,301	11	591				21,523	10	895	855	458	61	2,269

TABLE NO. 10 (CONT'D)  
JOSEPH CREEK WORKING CIRCLE  
ELK-JOSEPH BLOCK  
Timber Survey by Sections

Section Number	Acreage N. F. Acres	M. Feet B. M. for Species										No. of Diseased Trees	12"- 20"	22"- 30"	32"- 40"	42" +	Total
		Yellow Pine			LP	D	WF	WL	E S	W	Total						
		Mature	Immature	Total													
<u>Compartment No. 7</u>																	
T. 3 N., R. 45 E., W. M.																	
2	366.00	266	88	354		28					382		11	11			22
3	502.50	1,699	212	1,911		1,549		372			3,832		142	90	60	11	303
4	644.40	2,985	368	3,553		739	7	175			4,474		394	159	88		641
5	168.00	303	32	335		25		49			409			24			24
8	147.00	647	147	794		138		78			1,016		52	29			81
9	640.00	3,517	872	4,389		763	6	203			5,406	10	305	116	69	12	502
10	480.00	2,641	588	3,229		1,010	51	37			4,278		187	221	52	8	468
11	236.00	802	93	895			2				895		13	13			26
14	170.00	277	10	287		90					377						
15	510.00	2,416	566	2,982		1,054	6	435			4,477		182	141	52		375
16																	
21	60.00	270	52	322		100		33			455			25			25
22	220.00	1,111	194	1,305		521	2	81			1,909		72	56			128
23																	
Portion Twp. Totals	4,143.90	17,134	3,222	20,356		6,017	74	1,463			27,910	10	1,358	885	321	31	2,595
<u>T. 4 N., R. 45 E., W.M.</u>																	
34	274.00	169	101	270		335					605		26	21			47
35	97.00																
Portion Twp. Totals	371.00	169	101	270		335					605		26	21			47
Comp't No. 7 Totals	4,514.90	17,303	3,323	20,626		6,352	74	1463			28,515	10	1,384	906	321	31	2,642
<u>Compartment No. 8</u>																	
<u>T. 3 N., R. 45 E., W. M.</u>																	
1	159.00	3,653	233	3,886		348	218	183			4,635		361	175	56	9	601
2	23.00	54	46	100		4					104						
Portion Twp. Totals	182.00	3,707	279	3,986		352	218	183			4,739		361	175	56	9	601
<u>T. 3 N., R. 46 E., W. M.</u>																	
6	118.00	782	89	871		78	46	28	1		1,024		120	81			201
<u>T. 4 N., R. 45 E., W. M. (Unsurveyed)</u>																	
26	20.00	157	1	158		290		89			537		75	47	7		129
34	10.00																
35	457.00	2,200	127	2,327	1	780	23	292			3,423	12	359	167	27	11	564
36	351.00	1,631	40	1,671		419	40	240			2,370	10	265	51	9		325
Portion Twp. Totals	838.00	3,988	168	4,156	1	1,489	63	621			6,330	22	699	265	43	11	1,018
<u>T. 4 N., R. 46 E., W. M. (Unsurveyed)</u>																	
31	259.00	1,757	141	1,898		232	125	149	6		2,410	34	275	129	40	48	492
32	8.00	34	1	35		2		2			39			2			2
Portion Twp. Totals	267.00	1,791	142	1,933		234	125	151	6		2,449	34	275	131	40	48	494
Comp't No. 8 Totals	1,405.00	10,268	678	10,946	1	2,153	452	983	7		14,542	66	1,455	652	139	68	2,314

TABLE NO. 10 (CONT'D)  
 JOSEPH CREEK WORKING CIRCLE  
 ELK-JOSEPH BLOCK  
 Timber Survey by Sections

Section Number	Acreage N.F. Acres	M. Feet B. M for Species										No. of Diseased Trees	Number of Snags all species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"-20"	22"-30"	32"-40"	42"+	Total
		Mature	Immature	Total													
<u>T. 4 N., R. 45 E., W. M.(Unsurveyed)</u>		<b>Compartment No. 9 (Incomplete)</b>															
13	593.00	3,290	340	3,630	16	921	758	394	19		5,738	159	778	373	96		1,247
14	40.00																
23	554.00	410	7	417		88					505		6		24		30
24	640.00	3,107	39	3,146		440	167	113			3,866	12	341	146	100		587
25	640.00	2,717	124	2,841		481	2	203			3,527		263	61	27		357
26	160.00	928	84	1,012		421		59			1,492		38	57	11	6	110
35	86.00	91	2	93		80		21			194		35			4	35
36	289.00	793	35	828		366	90	108			1,392	13	284	66			350
Portion Twp. Totals	3,002.00	11,336	631	11,967	16	2,797	1,017	898	19		16,714	184	1,745	703	258	10	2,716
<u>T. 4 N., R. 46 E., W. M. (Unsurveyed)</u>																	
18	106.00	790	60	850	2	368	86	145	2		1,453	11	123	60	6		189
19	218.00	1,380	115	1,495		177		133			1,805		59	53			112
30	518.00	2,664	420	3,084		390	113	182			3,769	12	487	177	65		729
31	375.00	2,084	160	2,244		628	145	164			3,181	9	707	210	106	15	1,038
32	10.00	34	1	35		3		2			40			2			2
Portion Twp. Totals	1,227.00	6,952	756	7,708	2	1,566	344	626	2		10,248	32	1,376	502	177	15	2,070
Comp't No. 9 Totals	4,229.00	18,288	1,387	19,675	18	4,363	1,361	1,524	21		26,962	216	3,121	1,205	435	25	4,786
<b>ELK- JOSEPH BLOCK TOTALS</b>																	
9 Compartments	27,802.08	143,147	15,392	158,539	19	23,006	2,058	7,621	29		191,272	366	10,167	7,153	2,884	404	20,608

TABLE NO. 11 (Continued)  
 JOSEPH CREEK WORKING CIRCLE  
 SUMMIT BLOCK  
 Timber Summary by Sections

Section Number	Acreage N.F Acres	M. Feet B. M. for Species										No. of Diseased Trees	Number of Snags, All Species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"- 20"	22"- 30"	32"- 40"	42"+	Total
		Mature	Immature	Total													
<b>T. 5 N., R. 46 E. W.M.</b>																	
32	44.00	152.00	12	164		67		3			234		14	7		21	
33	130.00	604	26	630		74	1	30		735		63	58	20		161	
36	66.00				2	98	106	32	7	245		140	70			210	
Portion Twp. Totals	240.00	756	38	794	2	239	107	65	7	1,214		237	135	20		392	
Comp't No. 2 Totals	2,680.00	8,726	1,348	10,074	85	7,143	2,432	2,262	307	22,303	412	6,608	1,779	401	89	8,877	
<b>T. 4 N., R. 46 E., W. M. (Un-surveyed)</b>																	
<b>Compartment No. 3</b>																	
1	45.00	78	21	99	3	125	21	34		282	16	134	16	8		158	
<b>T. 5 N., R. 46 E., W. M.</b>																	
23	270.00	510	16	526		361	36	77		1,000		277	127	13		417	
24	20.00	146		146		59		8		213		15	5			20	
25	140.00	395	43	438		374	33	68		913		188	88	11		287	
26	450.00	1,840	183	2,023	20	2,555	241	567	6	5,412	186	1,307	611	62		1,980	
35	160.00	876	58	934	124	298	57	55		1,468		439	101	23	7	570	
36	374.00	610	75	685	12	979	64	249	18	2,027	33	706	108	19		833	
Portion Twp. Totals	1,414.00	4,377	375	4,752	156	4,626	451	1,024	24	11,033	219	2,932	1,040	128	7	4,107	
<b>T. 4 N., R. 47 E., W. M. (Unsurveyed)</b>																	
3	191.00	208	39	247		301	78	53	14	693	9	47	49	14		110	
4	392.00	1,199	212	1,411	1	1,166	356	227		3,161	172	232	321	107	15	675	
5	185.00	600	31	631		114		26		771		40	50			90	
6	167.00	30	3	33	12	408	161	68	2	684	16	307	127	12	5	451	
7	133.00	197	17	214	4	131	108	69	7	533		362	14	30	3	409	
9	415.00	743	112	855	10	906	222	124	15	2,132	28	344	500	39	9	892	
10	240.00	57	21	58	1	246	41	41	13	400		135	102	42		279	
15	360.00	588	59	647	22	793	217	169	7	1,855	16	356	129	16		501	
16	610.00	548	48	596	41	1,794	183	524	93	3,231	48	774	345			1,119	
17	600.00	365	113	478	64	1,134	704	216	86	2,682	120	876	277	28	9	1,190	
18	28.00	18		18		64	389	8		479	11	76	10			86	
20	308.00	240	8	248	14	1,408	694	143	44	2,551	237	475	267	74		816	
21	276.00	94	10	104	7	1,656	380	310	101	2,558	14	410	280	62		752	
22	392.00	70	22	92	11	873	424	390	64	1,854	183	456	203	19		678	
23	133.00	172	28	200	8	610	89	122	5	1,034	10	260	90	10		360	
Portion Twp. Totals	4,430.00	5,109	723	5,832	195	11,604	4,046	2,490	451	24,618	864	5,150	2,764	453	41	8,408	
Comp't No. 3 Totals	5,889.00	9,564	1,119	10,683	354	16,355	4,518	3,548	475	35,933	1,099	8,216	3,820	589	48	12,673	
<b>T. 4 N., R. 47 E., W. M (Unsurveyed)</b>																	
<b>Compartment No. 3</b>																	
25	225.00	154	11	165		191	172	185		713	52	810	157	35		1,002	
26	222.00	508	4	512	5	753	153	397		1,817	33	555	139	40		734	
Comp't No. 4 Totals	447.00	662	15	677	5	944	322	582		2,630	85	1,365	296	75		1,736	

TABLE No. 11  
 JOSEPH CREEK WORKING CIRCLE  
 SUMMIT BLOCK  
 TIMBER SUMMARY BY SECTIONS

Section number	Acreage N. F. Acres	M. feet B. M. for Species										No. of Diseased Trees	No. of Snags All Species				
		Yellow Pine			LP	D	WF	WL	ES	W	Total		12"-20"	22"-30"	32"-40"	42"+	Total
		Mature	Immature	Total													
<b>T. 4 N., 45 E., W. M. (Un-surveyed)</b>		<b>Compartment No. 1</b>															
1	387.00	788	38	826	2	733	208	282	35		2,086		817	354			1,171
2	387.00	1,848	120	1,968		644	338	82			3,032		828	320	22		1,170
3	48.00																
10	320.00	1,053	50	1,103		88	28	37			1,256		181	39	10		230
11	640.00	2,669	206	2,875	1	981	650	340	7		4,845	69	1,170	379	104		1,653
12	640.00	772	29	801	23	1,450	1,613	589	160		4,636	177	2,504	569	220	21	3,314
13	47.00	360	65	425		292	133	28	1		879	30	19				19
14	600.00	3,023	468	3,491		813	477	266	15		5,062	131	1,238	541	199	31	2,009
15	300.00	934	45	979		280	172	293	2		1,726		254	132	29	10	425
22	8.00																
23	42.00	167	6	173		10					183		24	18			42
Portion Twp. Totals	3,419.00	11,614	1,027	12,641	26	5,291	3,619	1,917	220		23,714	407	7,035	2,352	584	62	10,033
<b>T. 4 N., R. 46 E., W. (Un-surveyed)</b>																	
5	309.00	2,040	98	2,138	4	618	300	285	6		3,351	82	616	186			802
6	420.00	1,784	101	1,885	3	594	297	242	18		3,039	57	1,002	255	11		1,268
7	572.00	1,262	268	1,530	70	1,792	1,584	809	95		5,880	321	2,295	800	51		3,146
8	240.00	577	205	782	9	560	496	343	28		2,218	79	573	133	58		764
18	74.00	366	30	396	4	256	136	98	26		916	31	223	90			313
Portion Twp. Totals	1,615.00	6,029	702	6,731	90	3,820	2,813	1,777	173		15,404	570	4,790	1,464	120		6,293
<b>T. 5 N., R. 45 E., W. M.</b>																	
24	160.00	400.00	27	427		51	3	68			549		44	22		5	71
25	370.00	2,202	131	2,333		157	29	99			2,618		126	114	17	16	273
35	334.00	1,216	44	1,260		170	16	25			1,471		174	281	22		477
Portion Twp. Totals	864.00	3,818	202	4,020		378	48	192			4,638		344	417	39	21	821
<b>T. 5 N., R. 46 E., W. M. (Un-surveyed)</b>																	
19	528.96	3,481	75	3,556		962	189	488	11		5,206	49	663	533	138		1,334
30	368.76	2,508	148	2,656	2	679	238	304	62		3,941	27	1,329	426	76		1,831
31	559.52	1,976	164	2,140		829	277	100	2		3,348	39	736	347	113		1,196
32	90.00	369	47	416		246		59			721		124	14			138
Portion Twp. Totals	1,817.24	8,334	434	8,768	2	2,716	704	951	75		13,216	115	2,852	1,320	327		4,499
Comp't No. 1. Totals	7,715.24	29,795	2,365	32,160	118	12,205	7,184	4,837	468		56,972	1,092	14,940	5,553	1,070	83	21,646
<b>T. 4 N., R. 46 E., W. M. (Un-surveyed)</b>		<b>Compartment No. 2</b>															
1	363.00	481	65	546	19	1,122	256	464	33		2,440	45	1,328	124		7	1,459
2	306.00	549	203	752	6	932	308	331	58		2,387	20	494	76	18		588
3	432.00	2,359	331	2,290	8	1,059	323	302	15		4,397	99	1,409	269	40	41	1,759
4	384.00	1,613	238	1,851	6	1,205	617	467	14		4,160	140	1,367	338	189	32	1,926
5	3.00																
9	176.00	474	52	526	5	374	201	102	14		1,222	30	226	175	9		410
10	640.00	1,664	376	2,040	39	1,884	586	465	166		5,180	53	1,199	589	125	9	1,922
11	136.00	830	45	875		328	34	66			1,303	25	348	73			421
Portion Twp. Totals	2,440.00	7,970	1,310	9,280	83	6,904	2,352	2,197	300		21,089	412	6,371	1,644	381	89	8,485



**TABLE No. 12**  
**JOSEPH CREEK WORKING CIRCLE**  
**CHESNIMNUS BLOCK**  
**SUMMARY OF NUMBER OF POLES**

Section Number	YP Mature		YP Immature		YP Total		Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Englemann Spruce		Total All species		
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	
<b>T. 3 N., 46 E., W. M.</b>																			
	<b>Compartment No. 1.</b>																		
3			1,405	327	1,405	327			1,008	359			170	34				2,583	720
4	11	8	1,837		1,848	8			2,777	1,163	227	135	380	155				5,232	1,461
5	30	175	1,287	1,275	1,317	1,450			1,895	1,863	279	271	313	310	91	69		3,895	3,963
6	62	251	942	862	1,004	1,113			831	1,038	361	343	335	596		3		2,531	3,095
7	31	181	509	695	540	876			597	1,311	236	253	377	1,017				1,750	3,457
8			101	319	101	319			728	546	37	47	18	54	113	82		997	1,048
9	22	31	689	136	711	167			1,960	543			101	41				2,772	751
10	10		3,790	420	3,800	420			524	174			65	70				4,389	664
15			40		40													40	
17	14		434	151	448	151			56				13		40			557	151
18	93	308	630	316	723	624			923	1,199	237	119	66	144				1,949	2,086
19	49	174	795	252	844	426			634	496			37	9				1,515	931
20	17	19	717	142	734	161			218	126			20	10				972	297
21			120	215	120	215												120	215
Portion Twp. Totals	339	1,147	13,296	5,110	13,635	6,257			12,151	8,818	1,377	1,168	1,895	2,440	244	154		29,302	18,837
<b>T. 4 N., R. 46 E., W. M (Unsurveyed)</b>																			
27			132	81	132	81		2	127	133	102	57						361	273
28			290	201	290	201		10	129	217	25	8	31					475	436
31			290	67	290	67	44		441	28	320	251	93	84				1,144	430
32	10		3,816	829	3,826	829		11	5,267	1,787	3,353	1,206	814	66	172	256		13,476	4,155
33		220	1,520	1,481	1,520	1,701		33	2,414	1,842	841	742	418	411	28	42		5,221	4,771
34	10	70	334	226	344	296			125	230	9	21	8	26		10		486	583
Portion Twp. Totals	20	290	6,382	2,885	6,402	3,175	44	56	8,503	4,237	4,650	2,285	1,364	587	200	308		21,163	10,648
Comp't No. 1. Totals	359	1,437	19,678	7,995	20,037	9,432	44	56	20,654	13,055	6,027	3,453	3,259	3,027	444	462		50,465	29,485
<b>T. 4 N., 46 E., W. M (Unsurveyed)</b>																			
	<b>Compartment No. 2</b>																		
4				13		13		468	116	27	76	268	237	22		86		871	442
5	19	14	47	91	66	105		896	504	308	367	387	308	164	203	50	104	1,871	1,591
7			67	58	67	58		284	354	751	745	966	1,039	78	130	523	523	2,669	2,849
8	18	40	326	770	344	810		3,528	3,523	2,000	2,539	1,772	1,998	657	990	1,467	1,179	9,768	11,039
9	45	108	601	458	646	566		15,158	10,181	1,694	1,901	1,769	986	465	243	5,153	2,412	24,885	16,289
15		9	716	478	716	487		3,207	2,208	2,386	1,866	2,328	1,029	250	328	716	999	9,603	6,917
16	23	25	199	199	222	224		20,347	15,613	4,115	2,962	6,348	5,868	617	882	3,090	2,662	34,739	28,211
17	58	205	499	404	557	609		1,523	1,150	3,845	4,172	5,330	5,736	374	1,008	1,441	1,025	13,070	13,700
18	70	142	443	561	513	703		1,423	996	4,052	3,629	1,953	1,767	533	1,243	449	473	8,923	8,811
19	107	248	1,310	1,044	1,417	1,292		1,084	926	4,798	4,273	2,052	1,315	519	723	131	86	10,001	8,615
20	133	169	1,516	1,572	1,649	1,741		128	191	5,660	5,352	2,365	3,368	98	713	198	260	10,098	11,625
21	12	21	1,086	624	1,098	645		574	66	4,164	2,194	3,410	2,837	773	591	268	131	10,287	6,464
22	19	37	1,538	766	1,557	803		4,031	751	4,322	1,707	2,326	938	655	178	271	181	13,162	4,558
27			293	282	293	282		237	168	974	741	132	20		31	9	59	1,645	1,301
28			1,445	1,363	1,445	1,363		101	68	2,905	2,318	411	221	472	441	215	209	5,549	4,620
29		11	2,153	1,138	2,153	1,149		236	112	6,776	4,013	2,027	516	269	656	484	174	11,945	6,620
30		8	505	188	505	196		149	135	755	709	722	448	263	280	115	19	2,509	1,787
32			736	246	736	246				1,570	715	637	180	166	214			3,109	1,355
Compt. No. 2. Totals	504	1,037	13,480	10,255	13,984	11,292	53,374	37,062	51,102	40,279	35,203	28,811	6,37	8,854	14,666	10,496		174,704	136,794

TABLE NO. 12. (Cont'd)  
 JOSEPH CREEK WORKING CIRCLE  
 CHESNIMNUS BLOCK  
 SUMMARY OF NUMBER OF POLES

Section Number	YP Mature		YP Immature		YP Total		Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total All Species	
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"
<b>T.3 N., R. 46 E. W. M.</b>																		
<b>Compartment No. 3</b>																		
1	19	12	1,167	358	1,186	370			616	226			232	132			2,034	728
2	59	79	1,081	621	1,140	700	9		1,549	1,045			93	181	234	149	3,025	2,075
3		12	597	129	597	141			659	158			100	50			1,356	349
10			357	206	357	206											357	206
11	21	176	948	409	969	585			2,386	961			120	252	69	83	3,544	1,881
12		52	194	118	194	170			1,075	863			9				1,278	1,033
14	15	23	188	74	203	97			526	298			36	56			765	451
15	27	82	2,690	234	2,717	316			46								2,763	316
21		10	129	100	129	110											129	110
22			523	60	523	60			147	28							670	88
Portion Twp. Totals	141	446	7,874	2,309	8,015	2,755	9		7,004	3,579			590	671	303	232	15,921	7,237
<b>T. 4 N., R. 46 E. W. M. (Unsurveyed)</b>																		
22		6	92	6	92	12	42	12	87	42	249	129	24	12		2	494	209
23							8	34	25	93			8	42			41	169
26		10	723	418	723	428	239	50	1,112	846	332	261	392	186			2,798	1,771
27	8	55	800	363	808	418	541	205	1,701	1,410	1,461	916	347	284	112	132	4,970	3,365
34	30	73	1,889	938	1,919	1,011	166	123	1,692	2,108	705	244	363	744	80	116	4,925	4,346
35	21	109	2,599	1,164	2,620	1,273	1,494	1,116	89	31	528	372	10				4,741	2,792
36		38	834	399	834	437			1,040	582	15	5	308	104			2,197	1,128
Portion Twp. Totals	59	291	6,937	3,288	6,996	3,579	2,490	1,540	5,746	5,112	3,290	1,927	1,452	1,372	192	250	20,166	13,780
Comp't No. 3 Totals	200	737	14,811	5,597	15,011	6,334	2,499	1,540	12,760	8,691	3,290	1,927	2,042	2,043	495	482	36,087	21,017
<b>T. 3 N. R. 46 E., W. M.</b>																		
<b>Compartment No.4 (Incomplete)</b>																		
1	90	101	808	389	898	490			2,314	1,274	38	42	241	257	91	10	3,582	2,037
12	8	5	13	20	21	25			398	424			13	16			432	465
Por. Twp. Tables	98	106	821	409	919	515			2,712	1,698	38	42	254	273	91	10	4,014	2,538
<b>T. 4 N., R. 46 E., W. M. (Unsurveyed)</b>																		
1			27	15	27	15	159	71	171	152	35	26	59	63			451	327
2			56	139	56	139	758	250	575	698	264	113	119	81		11	1,772	1,292
11	69	46	514	316	583	362	12,128	5,383	2,190	1,107	2,620	1,348	390	509	454	475	18,365	9,184
12	12	55	616	312	628	367	10,336	3,887	3,837	2,750	2,921	1,412	459	716	793	649	18,974	9,781
13	143	155	842	812	985	967	4,532	3,105	4,192	4,425	2,584	1,801	391	593	774	579	13,458	11,470
14	84	297	621	734	705	1,031	3,631	3,191	2,934	2,168	1,259	917	241	422	62	24	8,732	7,753
15		7	88	169	80	176	4,870	3,548	2,475	2,606	6,266	4,592	300	134	2,144	1,637	16,143	12,693
22			68	40	68	40	135	12	168	113	343	402	48	69		9	762	645
23	110	206	701	1,069	811	1,275	2,149	2,555	5,080	5,296	1,696	3,447	287	518	648	840	10,671	13,931
24	174	211	815	927	989	1,138	1,135	1,280	3,594	3,783	1,065	890	224	371	223	257	7,230	7,719
25		70	1,019	505	1,019	575	472	230	1,057	816	804	348	355	118	378	143	4,085	2,230
26		35	827	452	827	487	498	435	1,890	1,207	1,318	458	386	337	362	127	5,281	3,051
35																		
36	30	162	1,506	945	1,526	1,107	7	7	2,098	1,652	687	232	596	253	464	59	5,388	3,310
Portion Twp. Totals	622	1,244	7,700	6,435	8,322	7,697	40,710	23,954	30,261	26,773	21,862	15,986	3,855	4,184	6,302	4,810	111,312	83,386

TABLE NO. 12. ( Cont'd)  
JOSEPH CREEK WORKING CIRCLE  
CHESNIMNUS BLOCK  
SUMMARY OF NUMBER OF POLES

Section Number	YP Mature		YP Immature		YP Total		Lodgepole Pine		Douglas Fir		White fir		Western Larch		Engelmann Spruce		Total All Species		
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	
<u>T. 4 N., R. 47 E., W. M. (Unsurveyed)</u>																			
6		9	46	28	46	37	63	9	42	91	27	9	9	18	54		241	164	
7			579	221	579	221	2,032	615	2,138	1,394	1,670	691	174	250	57	64	6,650	3,235	
18		24	449	168	449	192	3,105	2,157	2,691	2,266	2,835	2,301	318	387	974	923	10,372	8,226	
Portion Twp. Totals		33	1,074	417	1,074	450	5,200	2,781	4,871	3,751	4,532	3,001	501	655	1,085	987	17,263	11,625	
Comp't No. 4 Totals	720	1,383	9,595	7,261	10,315	8,644	45,910	26,735	37,844	32,222	26,432	19,029	4,610	5,112	7,478	5,807	132,589	97,549	
<u>T. 4 N. R. 46 E., W. M. (Unsurveyed)</u>																			
										<b><u>Compartment No. 5 (Incomplete)</u></b>									
13																			
24	77	66	430	240	507	306	496	394	1,271	1,347	746	373	169	126			3,189	2,546	
25		53	968	540	968	593	544	289	1,952	1,458	1,646	479	275	320	286	43	5,671	3,182	
36		3	121	58	121	61			378	489	34	12		23	138	34	671	619	
Portion Twp. Totals	77	122	1,519	838	1,596	960	1,040	683	3,601	3,294	2,246	864	444	469	424	77	9,531	6,347	
<u>T. 4 N., R. 47 E., W. M. (Unsurveyed)</u>																			
18	22	11	61	8	83	19	1,421	927	815	838	935	677	31	43	412	326	3,697	2,830	
19	28	128	589	677	617	805	883	807	3,511	3,721	4,206	3,572	152	94	423	177	9,792	9,176	
20		3	163	139	163	142	384	372	1,134	1,454	1,224	1,007	60	116	29		2,994	3,091	
29	47	37	1,147	1,072	1,194	1,109	377	130	2,592	2,329	1,115	885	326	480	19	9	5,623	4,942	
30	12	97	1,742	1,514	1,754	1,611	358	124	3,202	2,937	2,724	1,037	476	613	37	46	8,551	6,368	
31		191	2,166	1,668	2,166	1,857	20	7	2,129	1,759			230	426	10		4,555	4,049	
32		7	151	209	151	216			627	752	87	29	10				875	997	
Portion Twp Totals	109	474	6,019	5,285	6,128	5,759	3,443	2,367	14,010	13,790	10,291	7,207	1,285	1,772	930	558	36,087	31,453	
Comp't No.5. Totals	186	596	7,538	6,123	7,724	6,719	4,483	3,050	17,611	17,084	12,717	8,071	1,729	2,241	1,354	635	45,618	37,800	

**TABLE NO. 12 (Cont'd)**  
**JOSEPH CREEK WORKING CIRCLE**  
**CHESNIMNUS BLOCK**  
**SUMMARY OF NUMBER OF POLES**

Section Number	YP Mature		YP Immature		YP Total		Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total All species		
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	
<b>T. 3 N., R. 46 E. W. M.</b>							<b>Compartment No. 6 (Incomplete)</b>												
12		8	43	101	43	109	12		1,337	1,425			44	399	42	24	11,478	1,957	
13	21	102	824	227	845	329			1,276	044			155	190			2,276	1,363	
14		26	213	55	213	81			113	95			15	26			341	202	
22			143	156	143	156			1,544	362			53	44			1,740	562	
23		51	518	146	518	197			530	282			192	59			1,240	538	
24		20	2,362	571	2,362	591			59	11			9				2,430	602	
<b>Comp't No. 6 Totals</b>	<b>21</b>	<b>207</b>	<b>4,103</b>	<b>1,256</b>	<b>4,124</b>	<b>1,463</b>	<b>12</b>		<b>4,859</b>	<b>3,019</b>			<b>468</b>	<b>718</b>	<b>42</b>	<b>24</b>	<b>9,505</b>	<b>5,224</b>	
<b>T. 4 N., R. 47 E. W. M. (Unsurveyed)</b>							<b>Compartment No. 7 (Incomplete)</b>												
31		18	114	57	114	75	38	53	882	621	123	108	19	2	114		1,290	859	
32		9	312	124	312	133	136	124	494	314	44	37	50	118			1,036	726	
<b>Comp't No. 7 Totals</b>		<b>27</b>	<b>426</b>	<b>181</b>	<b>426</b>	<b>208</b>	<b>174</b>	<b>177</b>	<b>1,376</b>	<b>935</b>	<b>167</b>	<b>145</b>	<b>69</b>	<b>120</b>	<b>114</b>		<b>2,326</b>	<b>1,585</b>	
<b>T. 4 N., R. 47 E. W. M. (Unsurveyed)</b>							<b>Compartment No. 7 (Incomplete)</b>												
20		5	35	33	35	35	1,496	732	1,164	797	489	152	26	21	5		3,215	1,740	
21	28	76	92	57	120	135	2,875	1,577	1,668	2,325	789	786	223	490	176	102	5,851	5,413	
22		28	133	101	133	129	1,422	998	768	1,141	638	596	129	150	35	59	3,125	3,073	
25		21		11	32	32	66	81	26	101	15						127	154	
26			278	222	278	222	3,045	1,699	1,596	2,055	2,668	565	287	106	393	761	8,267	5,408	
27	138	272	286	554	424	826	1,210	890	3,152	4,017	1,330	1,416	221	564	101	150	6,438	7,863	
28	271	487	239	722	510	1,209	3,012	1,509	3,478	5,837	2,010	2,194	361	665	693	697	10,064	12,111	
29	7		614	538	621	538	3,810	2,482	459	557	354	188	121	156	11		5,365	3,932	
32		144	1,472	635	1,472	779	967	374	3,119	2,308	1,485	632	510	442	440	209	7,993	4,744	
33	10	219	2,468	1,896	2,478	2,115	1,508	451	6,584	4,993	745	555	158	122	534	511	12,007	8,727	
34		276	1,819	1,691	1,819	1,967	991	742	5,596	4,007	684	344	595	665	27	40	9,712	7,765	
35	118	249	913	1,108	1,031	1,357	1,420	810	4,767	5,258	1,190	1,406	107	289	69	86	8,584	9,206	
36			419	376	419	376	4,779	1,734	1,539	765	9		238	288		6	6,984	3,169	
<b>Comp't No.8. Totals</b>	<b>672</b>	<b>1,777</b>	<b>8,768</b>	<b>7,944</b>	<b>9,340</b>	<b>9,721</b>	<b>26,621</b>	<b>13,999</b>	<b>33,916</b>	<b>34,161</b>	<b>12,406</b>	<b>8,834</b>	<b>2,976</b>	<b>3,958</b>	<b>2,473</b>	<b>2,632</b>	<b>87,732</b>	<b>73,305</b>	

**CHESNIMNUS BLOCK TOTALS**

8 Compartments	2,562	7,201	78,399	46,612	80,961	53,813	133,177	82,619	180,122	149,466	96,242	70,270	21,528	26,073	27,066	20,538	539,026	402,759
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TABLE NO. 13  
 JOSEPH CREEK WORKING CIRCLE  
 ELK-JOSEPH BLOCK  
 SUMMARY OF NUMBER OF POLES

Section Number	Western Yellow Pine						Lodgepole Pine	Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total All species		
	Mature		Immature		Total			4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"												
<b>Compartment No. 1</b>																		
T. 2 N., R. 45 E., W. M.																		
1			555	217	555	217			22								577	217
2	22	62	1,057	480	1,079	470			396	132	21						1,496	602
3		10	240	30	240	40											240	40
10		79	974	331	974	410											974	410
11	59	78	940	519	999	597			30				13				1,029	610
12			426	205	426	205	10		250	112							686	317
13	280	190	1,530	250	1,810	440		19									1,810	440
14	33	111	5,591	840	5,624	951	19		10		11						5,653	981
15	20	10	482	179	502	189											502	189
23		10	834	334	834	344			71	31							905	375
24	1,140	460	70	60	1,210	520											1,210	520
Comp't No. 1 Totals	1,554	1,010	12,699	3,373	14,253	4,383	29	19	779	275	21	11		13			15,082	4,701
<b>Compartment No. 2</b>																		
T. 2 N., R. 45 E., W. M.																		
3			190	114	190	114											190	114
4	10	61	3,001	797	3,011	858			1,626	503			131	82			4,768	1,443
8	30	40	220	190	250	230			200	20			60	20			510	270
9	40	39	2,783	1,484	2,823	1,523	9		1,075	303			166	119			4,073	1,945
10	30	93	2,040	433	2,070	526			10								2,080	526
15	49	151	3,485	729	3,534	880	10	10	386	149			10	20			3,904	1,059
20		20	526	235	526	255											526	255
21		101	5,990	2,086	5,990	2,187	60		941	215			35	57			7,026	2,459
22		40	9,419	3,051	9,419	3,091	10	10	193	15							9,622	3,116
27		57	5,390	1,525	5,390	1,582			134	48			21	10			5,545	1,650
28			5,887	3,249	5,887	3,249	100	10	111	153			30				6,128	3,412
29			1,876	1,059	1,876	1,059			47	12							1,923	1,071
32			92	37	92	37											92	37
33		96	6,375	2,229	6,375	2,325			1,058	256			161	49			7,594	2,630
34			1,714	1,442	1,714	1,442											1,714	1,442
Portion Twp. Totals	159	698	48,988	18,660	49,147	19,358	189	40	5,781	1,674			614	357			55,731	21,429
T. 3 N., R. 45 E., W. M.																		
34		10	1,253	30	1,253	40			379				20				1,652	40
Portion Twp. Totals		10	1,253	30	1,253	40			379				20				1,652	40
Comp't No. 2 Totals	159	708	50,241	18,690	50,400	19,398	189	40	6,160	1,674			634	357			57,383	21,469
<b>Compartment No. 3</b>																		
T. 2 N., R. 45 E., W. M.																		
5	32	156	1,690	1,167	1,722	1,323											2,176	1,552
8	37	48	150	95	187	143			398	219			56	10			187	143
Portion Twp. Totals	69	204	1,840	1,262	1,909	1,466			398	219			56	10			2,363	1,695

TABLE NO. 13 (Cont'd)  
 JOSEPH CREEK WORKING CIRCLE  
 ELK-JOSEPH BLOCK  
 SUMMARY OF NUMBER OF POLES

Section Number	Western Yellow Pine						Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total All Species	
	Mature		Immature		Total		4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"
<b>T. 3 N., R. 45 E., W. M.</b>																		
21		4	12	4	12	8			40	6							52	14
22		3	479	86	479	89			132	25							611	114
27			2,934	699	2,934	699			30								2,964	699
28			5,480	951	5,480	951			533	287	629	33	310	151			6,952	1,422
29			1,051	186	1,051	186			102		28	19	10	19			1,191	224
32			6,131	999	6,131	999			352	86			111	61			6,567	1,146
33			6,759	1,300	6,759	1,300			2,374	270	110		237	177			9,480	1,747
34	9	18	1,339	169	1,348	187			128	48			10				1,486	235
Portion Twp. Totals	9	25	24,185	4,394	24,194	4,419			3,664	722	767	52	678	408			29,303	5,601
Comp't No. 3. Totals	18	229	26,025	5,656	26,103	5,885			4,062	941	767	52	734	416			31,666	7,296
<b>T. 3 N., R. 45 E. W. M.</b>																		
							<b>Compartment No. 4.</b>											
20		56	223	110	223	166			71	126							294	292
21		151	1,367	1,180	13,367	1,331			5,086	2,269	1,073	594	578	487			8,104	4,681
22		47	1,821	544	1,821	591		10	3,697	1,110	106	43	97	91			5,721	1,845
23			80		80				120	30							200	30
26			726	130	726	130			2,918	219			10				3,654	349
27			1,255	92	1,255	92			790	151			30				2,075	243
Comp't No. 4. Totals		254	5,472	2,056	5,472	2,310		10	12,682	3,905	1,179	637	715	578			20,048	7,440
<b>T. 3 N., R. 45 E., W. M.</b>																		
							<b>Compartment No. 5</b>											
23			668	388	668	386			1,000	60							1,668	448
24			520	122	520	122			7								527	122
25			826	149	826	149											826	149
26			477	9	477	9			36	38							513	47
Comp't No. 5 Totals			2,491	668	2,491	668			1,043	98							3,534	766
<b>T. 3 N., R. 46 E., W. M.</b>																		
							<b>Compartment No. 6.</b>											
1	29	108	226	207	255	315	18		516	353	404	147	307	182			1,500	997
2	10	18	270	456	280	474			221	97				31			501	602
11	232	142	1,068	172	1,300	314			880	12							2,180	326
12	15	54	119	205	134	259			861	607	228	191	318	221			1,541	1,278
13	39	103	86	57	125	160			1,022	421			203	122			1,350	703
14		39	28	9	28	48			40	80							68	128
24		21	1,213	214	1,213	235			2,887	579			234	229			4,334	1,043
Portion. Twp. Totals	325	485	3,010	1,320	3,335	1,805	18		6,427	2,149	632	338	1,062	785			11,474	5,077
<b>T. 3 N., R. 46 E., W. M.</b>																		
6		39	214	160	214	199			92	115			9				315	314
7	36	113	264	231	300	344			30	140			50				380	514
18	5	28	63		68	28			14	11							28	39
Portion. Twp. Totals	41	180	541	391	582	571			136	266			59	30			777	867
Comp't No. 6 Totals	366	665	3,551	1,711	3,917	2,376	18		6,563	2,415	632	338	1,121	815			12,251	5,944

TABLE NO. 13 (Cont'd)  
 JOSEPH CREEK WORKING CIRCLE  
 ELK-JOSEPH BLOCK  
 SUMMARY OF NUMBER OF POLES

Section Number	Western Yellow Pine						Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total All Species	
	Mature		Immature		Totals		4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"
<b>Compartment No. 7</b>																		
<u>T.3.N., 45 E., W. M.</u>																		
2	20	180	210	44	230	224											230	224
3			1,606	1,105	1,606	1,105		28	3,521	2,958			218	188			5,345	4,279
4	56	66	1,263	486	1,319	552			6,621	2,279	84	23	318	259			8,342	3,113
5			7		7												7	
8			387	87	387	87			239	174	97	155	19	39			742	455
9		79	1,033	777	1,033	856			1,853	1,010	203	132	519	711			3,608	2,709
10		155	544	301	544	456			2,602	2,002			103	87			3,249	2,545
11	40	140	580	47	620	187			56	13							676	200
14			12	8	12	8			101	361							113	369
15		106	1,169	562	1,169	668			4,464	2,073			632	259			6,265	3,000
21		13	405	324	405	337			236	189			19	12			660	538
22		52	442	258	442	310			3,581	1,246	39	10	256	34			4,318	1,600
Portion Twp. Totals	116	791	7,658	3,999	7,774	4,790		28	23,274	12,305	423	320	2,084	1,589			33,555	19,032
<u>T. 4. N. R. 45 E., W. M. (Unsurveyed)</u>																		
34			99	46	99	46			683	173							782	219
Portion Twp. Totals			99	46	99	46			683	173							782	219
Comp't No. 7. Totals	116	791	7,757	4,045	7,873	4,836		28	23,957	12,478	423	320	2,084	1,589			34,337	19,251
<b>Compartment No. 8</b>																		
<u>T.3.N., R. 46 E., W. M.</u>																		
1	21		51	125	72	125			561	325	355	113					989	563
2	20	180	233	20	253	200											253	200
Portion Twp. Totals	41	180	284	145	325	325			561	325	355	113					1,241	763
<u>T. 3 N., R. 46 E. W. M.</u>																		
6		46	390	226	390	272	9		339	478	165	131	70	161			973	1,042
<u>T. 4 N. R. 45 E. W.M. (Unsurveyed)</u>																		
26			5	5	5	5			1,152	380				5			1,157	390
35			1,098	367	1,098	367			5,834	1,442			911	117			7,843	1,926
36	10	20	1,015	225	1,025	245			2,591	1,085	1,085	198	1,457	638			6,131	2,166
Portion Twp. Totals	10	20	2,118	597	2,128	617			9,577	2,907	1,058	198	2,368	760			15,131	4,482
<u>T. 4 N., R. 46 E. W. M. (Unsurveyed)</u>																		
31		11	1,238	458	1,238	469			1,789	632	1,573	566	330	247	21		4,951	1,914
32			94	30	94	30			6	3			2	2			102	35
Portion Twp. Totals		11	1,332	488	1,332	499			1,795	635	1,573	566	332	249	21		5,053	1,949
Comp't No. 8 Totals	51	257	4,124	1,456	4,175	1,713	9		12,272	4,345	3,151	1,008	2,770	1,170	21		22,398	8,236

TABLE NO. 13 (Continued)  
JOSEPH CREEK WORKING CIRCLE  
ELK – JOSEPH BLOCK  
SUMMARY OF NUMBER OF POLES

Section Number	Western Yellow Pine						Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total All Species	
	Mature		Immature		Total		4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"												
T.4. N., R. 45 E., W. M. (Unsurveyed)																		
13	48	81	2,151	2,168	2,199	2,249	101	213	2,178	2,921	3,595	3,830	64	218	429	424	8,566	9,855
23	11	6	171	75	182	81			256	203							438	284
24	129	68	1,673	676	1,802	744			3,515	1,704	1,259	493	89	223			6,665	3,164
25		8	3,014	959	3,014	967			4,512	1,751	365	6	1,072	179			8,963	2,903
26		0	328	254	328	254			1,140	380							1,468	634
35			10	2	10	2			610	156			43				663	158
36	30	40	172	147	202	187			2,530	797	174	80	326	69			3,232	1,133
Portion Twp. Totals	218	203	7,519	4,281	7,737	4,484	101	213	14,741	7,912	5,393	4,409	1,594	689	429	424	29,995	18,131
T.4 N., R. 46 E., W. M. (Unsurveyed)																		
18			120	123	128	142	77	55	1,013	954	602	100	50	133	87	33	1,957	1,417
19	8	19	1,024	739	1,067	813			855	680	36	20	387	172			2,345	1,685
30	43	74	2,238	908	3,251	909			33				1,683	749	3,999	1,078	14,057	4,277
31	13	1	2,917	723	2,917	723			2,677	1,027	5,091	1,541	952	250			8,137	2,389
32			94	30	94	30			6	2	1,591	389	2	2			102	34
Portion Twp. Totals	64	94	7,393	2,523	7,457	2,617	77	55	4,584	2,663	7,320	2,050	3,074	1,306	4,086	1,111	26,598	9,802
Comp't No. 9 Totals	282	297	14,912	6,804	15,194	7,101	178	268	19,325	10,575	12,713	6,459	4,668	1,995	4,515	1,535	56,593	27,933

ELK – JOSEPH BLOCK TOTALS

9 Compartments	2,606	4,211	127,272	44,459	129,878	48,670	423	365	86,843	37,706	18,886	8,825	12,726	6,935	4,536	1,535	253,292	103,036
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**TABLE NO. 14**  
**JOSEPH CREEK WORKING CIRCLE**  
**SUMMIT BLOCK**  
**SUMMARY OF NUMBER OF POLES**

Section Number	Western Yellow Pine						Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total all Species			
	Mature		Immature		Total		4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"		
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"														
<b>T. 4 N., R. 45 E., W. M. (Unsurveyed)</b>																			<b>Compartment No. 1</b>	
1			251	123	251	123	1,986	407	2,376	1,790	3,248	1,839	652	401	827	726	9,340	5,286		
2			1,457	470	1,457	430	129	11	1,413	862	2,435	1,185	1,09	141	245	54	6,777	2,683		
11		22	2,365	556	2,365	578	230		2,304	2,506	4,384	3,219	8	450	626	227	10,346	6,980		
12		8	519	40	519	48	8,769	2,405	2,939	1,891	6,380	5,640	437	373	12,016	2,953	31,157	13,310		
13		16	121	149	121	165			80	351	578	400	534	26	44	835	986			
14	55	108	2,478	1,880	2,533	1,988	6	10	1,159	1,668	2,096	2,226	56	346	124	214	6,313	6,452		
15		8	311	178	311	186			1,476	781	1,128	745	395	130	70	70	3,284	1,921		
23	6	24	215	103	221	127			295	224			299				516	351		
Portion Twp. Totals	61	186	7,717	3,459	7,778	3,645	11,120	2,833	12,042	10,073	20,249	15,263	3,471	1,867	13,908	4,288	68,568	37,969		
<b>T. 4 N., R. 46 E., W. M. (Unsurveyed)</b>																				
5		14	678	751	678	765	264	61	939	1,180	1,881	1,254	218	296	84	10	4,064	3,566		
6	75	10	281	238	356	248	633	215	1,727	1,781	1,852	1,369	221	630	233	189	5,022	4,432		
7	26	55	221	366	247	421	2,148	2,116	2,858	3,060	4,726	6,613	319	742	2,977	2,144	13,275	15,096		
8	141	82	356	496	497	578	1,507	1,063	817	1,028	1,177	1,099	424	543	1,161	1,030	5,583	5,341		
18		9	69	61	69	70	200	108	604	724	459	493	94	66	236	180	1,662	1,641		
Portion Twp. Totals	242	170	1,605	1,912	1,847	2,082	4,752	3,563	6,945	7,773	10,095	10,828	1,276	2,277	4,691	3,553	29,606	30,076		
<b>T. 5 N., R. 45 E., W. M.</b>																				
24	11	11	72	158	83	169			44	58	5	38	27	29			159	294		
25	16	71	85	119	101	190			577	217	103	75	107	131			888	613		
35			247	185	247	185			488	296	27	87	186	75			948	643		
Portion Twp Totals	27	82	404	462	431	544			1,109	571	135	200	320	235			1,995	1,550		
<b>T. 5 N., R. 46 E., W. M.</b>																				
19	40	59	757	327	797	386			775	1,110	1,335	1,676	196	203	131	21	3,234	3,396		
30			412	243	412	243	750	298	1,376	1,338	2,187	1,489	515	532	190	82	5,430	3,982		
31			388	479	388	479	174	84	1,130	954	1,151	931	148	121	104	67	3,095	2,636		
32	40	23	223	200	263	223			690	622			154	42			1,107	887		
Portion Twp. Totals	80	82	1,780	1,249	1,860	1,331	924	382	3,971	4,024	4,673	4,096	1,013	898	425	170	12,866	10,901		
Comp't No. 1 Totals	410	520	11,506	7,082	11,916	7,602	16,796	6,778	24,067	22,441	35,152	30,387	6,080	5,277	19,024	8,011	113,035	80,496		
<b>T. 4 N., R. 46 E., W. M. (Unsurveyed)</b>																			<b>Compartment No. 2</b>	
1			149	208	149	208	6,036	2,292	1,852	1,521	1,252	1,527	194	849			10,358	6,722		
2		52	293	396	293	448	5,826	1,424	1,439	1,955	1,551	1,221	620	555	875	325	10,629	6,179		
3	12	47	1,862	1,319	1,874	1,366	6,659	2,146	2,730	2,722	1,858	1,178	683	631	371	136	14,175	8,179		
4	109	62	1,418	787	1,527	849	1,284	490	3,822	2,874	3,554	3,033	896	716	371	136	11,871	8,394		
9			612	88	612	88	1,610	1,345	948	771	1,886	1,729	436	250	788	432	6,452	5,040		
10	9		1,263	777	1,272	777	6,773	3,649	3,762	2,993	6,677	4,440	637	375	960	857	23,961	14,289		
11	24	10	189	187	210	197	171	86	344	498	197	184	31	87	4,840	2,055	953	1,052		
Portion Twp. Totals	154	171	5,783	3,762	5,937	3,933	28,359	11,432	14,897	13,334	16,975	13,312	3,497	3,463	8,734	4,381	78,399	49,855		
<b>T. 5 N., R. 46 E., W. M.</b>																				
32	7		74	40	81	40			59	92				7			140	139		
33		29	282	448	282	477			80	220	50	60		32			412	789		
36							1,687	365	119	80	579	533	99	88	484	332	2,968	1,398		
Portion Twp. Totals	7	29	356	488	363	517	1,687	365	258	392	629	693	99	127	484	332	3,520	2,326		
Comp't No. 2 Totals	161	200	6,139	4,250	6,300	4,450	30,046	11,797	15,155	13,726	17,604	13,905	3,596	3,590	9,218	4,713	81,919	52,181		

TABLE NO. 14 (Continued)

**JOSEPH CREEK WORKING CIRCLE  
SUMMIT BLOCK  
SUMMARY OF NUMBER OF POLES**

Section Number	Western Yellow Pine						Lodgepole Pine		Douglas Fir		White Fir		Western Larch		Engelmann Spruce		Total all Species							
	Mature		Immature		Total		4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"						
	4"-7"	8"-11"	4"-7"	8"-11"	4"-7"	8"-11"																		
T.4 N., R. 46 E., W. M. (Unsurveyed)							<b>Compartment No. 3</b>																	
1							156	80	255	399	119	132		8	8		538	61						
T. 5 N., R. 46 E., W. M.																								
23	13	49	120	75	133	124			553	786	803	420	15	42	60		1,564	1,37						
24			10	15	10	15			35	75							45	9						
25			92	216	92	216	8	45	713	1,291	241	173	147	155	10		1,201	1,89						
26	43	133	413	510	456	643	1,401	1,398	4,225	4,226	1,153	1,260	200	506	223	37	7,658	8,07						
35	50	47	102	288	152	335	982	141	541	1,089	418	114	19	120	38	57	2,150	1,85						
36	8	20	124	153	132	173	1,241	762	1,474	1,681	1,454	625	67	28	386	144	4,754	3,41						
Portion Twp. Totals							114	249	861	1,257	975	1,506	3,632	2,346	7,451	9,148	4,069	2,593	448	851	707	248	17,372	16,69
T. 4 N., R. 47 E. W. M. (Unsurveyed)																								
3		9	61	76	61	85	23	5	276	531	68	177		5	42	122	470	92						
4		8	213	206	213	214	81	70	1,413	2,185	1,156	1,199	243	177	336	302	3,442	4,14						
5		6	239	93	239	99			446	542			10				695	64						
6			65	17	65	17	2,827	468	658	417	1,128	492	119	116	470	90	5,267	4,60						
7			201	25	201	25	456	306	675	373	798	527	13	32			2,143	1,26						
9	10	88	801	721	811	809	816	764	3,374	4,021	2,054	1,510	37	316	240	167	7,332	7,58						
10		11	13	119	16	130	73	247	403	951	1,040	658	62	36	42	73	1,636	2,09						
15		20	294	126	294	146	2,334	3,965	2,487	2,309	3,276	2,359	204	660	139	372	8,734	9,81						
16		4	68	50	63	54	4,012	5,908	6,178	5,489	2,633	1,394	265	480	1,518	1,410	14,669	14,72						
17	19	9	265	224	284	233	2,790	3,632	2,758	2,957	4,145	3,626	158	611	1,792	1,769	11,927	12,82						
18			79	8	79	8		13	104	55	315	52					498	12						
20			30	2	30	2	1,168	1,242	1,355	1,428	2,924	2,832	76	218	195	122	5,748	5,84						
21			14		14		3,681	2,075	1,426	1,963	1,672	2,330	388	618	536	334	7,717	7,32						
22		20	20	52	20	72	3,474	1,920	2,472	3,462	1,561	1,980	1,406	3,030	238	631	9,161	11,09						
23	10		58	127	68	127	135	157	1,310	1,629	380	400	370	750	10	20	2,273	3,08						
Portion Twp. Totals							39	175	2,419	1,846	2,458	2,021	21,870	20,772	25,335	29,312	32,140	19,536	3,351	7,049	5,558	5,412	81,712	83,10
Comp't No. 3. Totals							153	424	3,280	3,103	3,433	3,527	25,658	23,198	33,131	37,859	27,328	22,261	3,799	7,908	6,273	5,660	99,622	100,41
T. 4 N., R. 47 E., W. M. (Unsurveyed)																								
25			9	25	9	25	36	26	416	372	425	429				127	886	97						
26			67		67		1,511	935	948	1,166	1,565	811	82	74	24		4,197	2,98						
Comp't No. 4. Totals									76	25	76	25	1,547	961	1,364	1,538	1,990	1,240	82	74	24	127	5,083	3,96

**SUMMIT BLOCK TOTALS**

4 Compartments	724	1,144	21,001	14,460	21,725	15,604	74,047	42,734	73,717	75,564	82,074	67,793	13,557	16,849	34,539	18,511	299,659	937,05
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*Note: The far right column was not completely visible in the photocopy that this was transcribed from.*

<b>PROJECT TOTALS</b> 3 Blocks	5,892	12,556	226,672	105,531	232,564	118,087	207,587	125,718	340,672	261,716	197,202	146,888	47,811	49,857	66,141	40,584	1,091,977	742,85
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## Conclusion

1. Based on the acreage of national forest timberland types in the project, we obtain the following averages:-
  - a. Per acre stand, all species, 10,234 ft. B.M.
  - b. Number of snags per acre, 2.2
  - c. Number of diseased trees per acre, 0.1
  - d. Number of small poles, 4"-7" class, per acre, 18
  - e. Number of large poles, 8"-11" class, per acre, 12.3
  
2. In the mature yellow pine type, the following averages apply:-
  - a. Stand per acre, all species, 13,310 ft. B. M.
  - b. Western yellow pine forms 76,5 % of the stand
  - c. Of the western yellow pine timber, 9.2 % is immature.
  - d. The average volume per tree, all species, is 518 ft. B. M.
  - e. The average volume of a mature western yellow pine tree is 857 ft. B. M.
  
3. In the white fir-larch-Douglas fir type (mature), the averages are as follows:-
  - a. Average volume per tree, all species, 278 ft. B. M.
  - b. " " " " , Mature YP, 760 ft. B. M.
  - c. Western yellow pine forms 7.6% of the stand.

A report pertaining to the cost of the work will be submitted under a separate cover.

*Fred A. Matz*

Fred A. Matz,  
Chief of Timber Surveys.

Approved. April 10, 1930.

M. Billings  
Forest Supervisor

Approved April 14, 1930

S. Kavcenagy  
District Forester