



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Just In Beaver  
Sale WO-341-2021-W00697-01

District: West Oregon

Date: October 29, 2020

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**Cost Summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$739,200.00	\$13,508.37	\$752,708.37
		<b>Project Work:</b>	(\$57,447.00)
		<b>Advertised Value:</b>	\$695,261.37



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**Timber Description**

**Location:** Portions of Sections 4 & 5 of T10S, R8W W.M. Polk County, Oregon

**Stand Stocking: 40%**

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	97
Alder (Red)	14	0	95

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	Camprun	Total
Douglas - Fir	1,088	292	20	0	1,400
Alder (Red)	0	0	0	81	81
<b>Total</b>	1,088	292	20	81	1,481

**Comments:** Pond Values Used: Local Pond Values, September, 2020

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:  
 $\$257/\text{MBF} = \$547/\text{MBF} - \$290/\text{MBF}$

Maple and Other Hardwoods Stumpage Price =  
 $\$19.29/\text{MBF} = \$2.50/\text{ton} \times (27 \text{ TONS}/3.5 \text{ MBF})$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:  
 $\$460/\text{MBF} = \$900/\text{MBF} - \$290/\text{MBF} - \$150/\text{MBF}$  (Extra Haul Cost)

PULP (Conifer and Hardwood Price) =  $\$2.50/\text{TON}$

Other Costs (with Profit & Risk to be added):  
Artificial Guyline Anchors (Deadmen):  $4 \times \$480 = \$1,920$   
Intermediate Supports:  $4 \times \$100 = \$400$

TOTAL Other Costs (with Profit & Risk to be added):  $\$2,320$

Other Costs (No Profit & Risk added):  
Equipment Cleaning (Invasive Species):  $\$2,000$   
Landing Slash Piling and sorting out firewood:  $6 \text{ Landings} @ \$180/\text{Landing} = \$1,080$

TOTAL Other Costs (No Profit & Risk added) =  $\$3,080$

#### ROAD MAINTENANCE

Move-in:(Grader)  $\$875$   
Move-in:(Vibratory roller)  $\$875$   
Final Road Maintenance:  $\$8,839$

TOTAL Road Maintenance:  $\$10,589/1,481 \text{ MBF} = \$7.15/\text{MBF}$

#### SLASH DISPOSAL

In Unit:  $7 \text{ hrs} @ \$150/\text{hr} = \$1,050$

TOTAL Slash Disposal =  $\$1,050$



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**Logging Conditions**

**Combination#: 1**                      Douglas - Fir                      46.00%  
    Alder (Red)                      46.00%

**Logging System:** Cable: Medium Tower >40 - <70                      **Process:** Manual Falling/Delimiting

**yarding distance:** Medium (800 ft)                      **downhill yarding:** No

**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

**loads / day:** 10                      **bd. ft / load:** 4800

**cost / mbf:** \$137.50

**machines:** Log Loader (A)  
                          Tower Yarder (Medium)

**Combination#: 2**                      Douglas - Fir                      46.00%  
    Alder (Red)                      46.00%

**Logging System:** Cable: Medium Tower >40 - <70                      **Process:** Manual Falling/Delimiting

**yarding distance:** Medium (800 ft)                      **downhill yarding:** No

**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

**loads / day:** 7                      **bd. ft / load:** 4200

**cost / mbf:** \$224.49

**machines:** Log Loader (A)  
                          Tower Yarder (Medium)

**Combination#: 3**                      Douglas - Fir                      8.00%  
    Alder (Red)                      8.00%

**Logging System:** Shovel                      **Process:** Manual Falling/Delimiting

**yarding distance:** Short (400 ft)                      **downhill yarding:** No

**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

**loads / day:** 12                      **bd. ft / load:** 4800

**cost / mbf:** \$68.36

**machines:** Shovel Logger



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**Logging Costs**

<b>Operating Seasons:</b> 2.00	<b>Profit Risk:</b> 10%
<b>Project Costs:</b> \$57,447.00	<b>Other Costs (P/R):</b> \$2,320.00
<b>Slash Disposal:</b> \$1,050.00	<b>Other Costs:</b> \$3,080.00

**Miles of Road**

**Road Maintenance:** \$7.15

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

**Hauling Costs**

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.5
Alder (Red)	\$0.00	2.0	3.5



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**Logging Costs Breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
<b>Douglas - Fir</b>									
\$171.98	\$7.36	\$5.93	\$72.48	\$1.57	\$25.93	\$0.71	\$2.00	\$2.08	\$290.04
<b>Alder (Red)</b>									
\$171.98	\$7.51	\$5.93	\$142.50	\$1.57	\$32.95	\$0.71	\$2.00	\$2.08	\$367.23

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$818.04	\$528.00	\$0.00
Alder (Red)	\$0.00	\$534.00	\$166.77	\$0.00



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**Summary**

**Amortized**

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	1,400	\$528.00	\$739,200.00
Alder (Red)	81	\$166.77	\$13,508.37

**Gross Timber Sale Value**

Recovery: \$752,708.37

Prepared By: Zane Sandborg

Phone: 541-929-9163

## SUMMARY OF ALL PROJECT COSTS

Sale Name: Just In Beaver

Date: October 2020

Time: 14:49

### Project #1 - Road Improvement

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
Pt. 1 to Pt. 2	105.8 sta	\$2,798
Pt. 2 to Pt. 3	26.7 sta	\$28,089
Pt. 4 to Pt. 5	4.9 sta	\$414
Pt. 6 to Pt. 7	10.3 sta	\$15,116
<hr/>		
<b>TOTALS</b>	147.7 sta	\$46,417

### Project #2 - Test Drilling

Cost  
\$5,690

### Project #3 - Move in

	<u>Cost</u>
Dozer, D-7 or equiv.	\$905
Grader, Cat 14-G or equiv.	\$875
Vibratory roller	\$875
Exploratory Drill	\$875
Excavator, C325 or equiv. (X2)	\$1,810
<hr/>	
<b>TOTALS</b>	\$5,340

**GRAND TOTAL**

**\$57,447**

Compiled by Zane Sandborg

Date 10/30/2020



**SUMMARY OF CONSTRUCTION COST**

SALE Just In Beaver Project # 1 LENGTH improve 105.8 sta  
 ROAD Pt. 1 to Pt. 2 (Surfaced)

**EXCAVATION** (With D7 dozer or equivalent)

			<u>Rate</u>			
Construct Landing (Sta. 89+95)	1 Ldg	@	\$438.00	/Ldg	=	\$438
End Haul	100 CY	@	\$4.50	/CY	=	\$450
(Sta. 64+42 to Sta. 75+10)						
Waste material compacting	100 CY	@	\$0.45	/CY	=	\$45

TOTAL EXCAVATION = \$933

**SURFACING**

			<u>Size</u>		<u>Rate</u>		
Spot rock	40 CY	@	1½"-0"	/CY	=	\$1,164	
Landing rock	20 CY	@	Jaw-Run	/CY	=	\$548	
Shape surface	5 sta	@		/sta	=	\$103	
(with road grader)							

TOTAL SURFACING COST = \$1,815

**SPECIAL PROJECTS**

Clean out culvert inlets	2 culvert	@	\$25.00	/ea	=	\$50
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TOTAL SPECIAL PROJECTS = \$50

Compiled by: Zane Sandborg  
 Date: Oct 30, 2020

**GRAND TOTAL =====> \$2,798**

**SUMMARY OF CONSTRUCTION COST**

SALE Just In Beaver Project # 1 LENGTH improve 26.7 sta  
 ROAD Pt. 2 to Pt. 3 (Surfaced/Unsurfaced)

**EXCAVATION**

(With C325 excavator or equivalent)

Construct Landing (Pt. 3)	1 Ldg	@	\$438.00	/Ldg	=	\$438
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TOTAL EXCAVATION = \$438

**IMPROVEMENT**

Remove sod	15.8 sta	@	\$15.40	/sta	=	\$243
Reopen road (w/ grader)	10.9 sta	@	\$15.40	/sta	=	\$168
Daylight road (w/ excavator)	1 hr	@	\$114.00	/hr	=	\$114
Reestablish ditch	21.9 sta	@	\$44.00	/sta	=	\$964
Debris end haul	21.9 sta	@	\$20.00	/sta	=	\$438
Shape subgrade	10.9 sta	@	\$20.63	/sta	=	\$225
(with road grader)						
Compact subgrade	10.9 sta	@	\$16.00	/sta	=	\$174
(with vibratory roller)						

TOTAL IMPROVEMENT = \$2,326

**SURFACING**

Landing rock	50 CY	Jaw-Run	@	\$27.42	/CY	=	\$1,371
Turnout rock	20 CY	Jaw-Run	@	\$27.42	/CY	=	\$548
Surface rock - 2" lift	170 CY	1½"-0"	@	\$29.11	/CY	=	\$4,949
(Sta. 0+00 to Sta. 15+80)							
Surface rock - 6" lift	360 CY	3"-0"	@	\$28.77	/CY	=	\$10,357
(Sta. 15+80 to Pt. 3)							
Shape surface	26.7 sta	@	\$20.63	/sta	=	\$551	
(with road grader)							
Compact surface	26.7 sta	@	\$16.00	/sta	=	\$427	
(with vibratory roller)							

TOTAL SURFACING COST = \$18,203

**SPECIAL PROJECTS**

Culverts							
18"x30' (sta.10+43)	30 ft	@	\$13.75	/ft	=	\$413	
18"x35' (sta.15+80)	35 ft	@	\$13.75	/ft	=	\$481	
18"x30' (sta.17+87)	30 ft	@	\$13.75	/ft	=	\$413	
24"x30' (sta.19+22)	30 ft	@	\$21.45	/ft	=	\$644	
18"x30' (sta. 19+72)	30 ft	@	\$13.75	/ft	=	\$413	
Culvert removal	1 hr	@	\$114.00	/hr	=	\$114	
Install Culverts	5 hrs	@	\$114.00	/hr	=	\$570	
Culvert disposal	1 culvert	@	\$100.00	/ea	=	\$100	
Install dissipators	2 hrs	@	\$114.00	/hr	=	\$228	
Culvert bedding rock	90 CY	1½"-0"	@	\$29.11	/CY	=	\$2,620
Dissipater rock	20 CY	Pit-Run	@	\$26.50	/ea.	=	\$530
Bedding compaction	8 hrs	@	\$57.00	/hr	=	\$456	
Site dewatering	1.5 hrs	@	\$12.00	/hr	=	\$18	
Mulching	6 straw bales	@	\$12.00	/ea	=	\$72	
Clean out culvert inlets	2 culverts	@	\$25.00	/ea	=	\$50	

TOTAL SPECIAL PROJECT = \$7,122

Compiled by: Zane Sandborg  
 Date: Oct 30, 2020

**GRAND TOTAL =====> \$28,089**

**SUMMARY OF CONSTRUCTION COST**

SALE Just In Beaver Project # 1 LENGTH improve 4.9 sta  
 ROAD Pt. 4 to Pt. 5 (Surfaced)

**IMPROVEMENT**

Re-open road (Sta. 0+00 to Sta. 0+50) 0.5 sta @ \$15.40 /sta = \$8  
 (with road grader)

TOTAL IMPROVEMENT = \$8

**SURFACING**

Surface rock	10 CY	Size Jaw-Run	@	Rate \$27.42	/CY	=	\$274
Shape surface (with road grader)	0.5 sta		@	Rate \$20.63	/sta	=	\$10
Compact surface (with vibratory roller)	0.5 sta		@	Rate \$16.00	/sta	=	\$8

TOTAL SURFACING COST = \$292

**SPECIAL PROJECTS**

Vacate road				Rate			
Restore streambed (Sta. 3+70)	0.5 hrs		@	\$114.00	/hr	=	\$57
Block road (Sta. 0+50)	0.5 hrs		@	\$114.00	/hr	=	\$57

TOTAL SPECIAL PROJECTS COST = \$114

Compiled by:  
Date:

Zane Sandborg  
Oct 30, 2020

**GRAND TOTAL =====> \$414**

**SUMMARY OF CONSTRUCTION COST**

SALE Just In Beaver  
ROAD Pt. 6 to Pt. 7 (Unsurfaced)

Project # 1 LENGTH improve

10.3 sta

**IMPROVEMENT**

			<u>Rate</u>		
Re-open road (with dozer)	10.3 sta	@	\$36.67 /sta	=	\$378
Shape subgrade (with road grader)	10.3 sta	@	\$20.63 /sta	=	\$212
Compact subgrade (with vibratory roller)	10.3 sta	@	\$16.00 /sta	=	\$165

TOTAL IMPROVEMENT = \$755

**SURFACING**

		<u>Size</u>		<u>Rate</u>		
Surface rock (8" lift)	450 CY	Jaw-Run	@	\$27.42 /CY	=	\$12,339
Landing rock (Pt. 6, Sta. 6+97, Pt. 7)	60 CY	Jaw-Run	@	\$27.42 /CY	=	\$1,645
Shape surface (with road grader)	10.3 sta		@	\$20.63 /sta	=	\$212
Compact surface (with vibratory roller)	10.3 sta		@	\$16.00 /sta	=	\$165

TOTAL SURFACING COST= \$14,361

Compiled by:  
Date:

Zane Sandborg  
Oct 30, 2020

**GRAND TOTAL =====> \$15,116**

**SUMMARY OF PROJECT COST**

SALE     Just In Beaver             Project #     2

**EXPLORATORY DRILLING**

			<u>Rate</u>			
Excavator	10 hrs.	@	\$145.00 /hr	=		\$1,450
Drill rig	16 hrs.	@	\$265.00 /hr	=		\$4,240

TOTAL EXPLORATORY DRILLING =     \$5,690

Compiled by:             Zane Sandborg  
Date:                     Oct 30, 2020

**GRAND TOTAL =====>     \$5,690**



### Rock Haul Cost Computation

SALE NAME: Just In Beaver                      DATE: Oct 30, 2020  
ROAD NAME: Beaver Creek Rd.                      CLASS: Medium  
ROCK SOURCE: Hardrock                      10 CY truck  
Route: Hwy 20, Eddyville-Blodgett Hgwy., Logsdan Rd., Beaver  
(47 miles RT)

TIME Computation:

Road speed time factors:

1.	55 MPH	6.0	MRT	6.5	minutes
2.	50 MPH		MRT	0.0	minutes
3.	45 MPH		MRT	0.0	minutes
4.	40 MPH	32.0	MRT	48.0	minutes
5.	35 MPH		MRT	0.0	minutes
6.	30 MPH		MRT	0.0	minutes
7.	25 MPH		MRT	0.0	minutes
8.	20 MPH	7.0	MRT	21.0	minutes
9.	15 MPH		MRT	0.0	minutes
10.	10 MPH	2.0	MRT	12.0	minutes
11.	05 MPH		MRT	0.0	minutes

Dump or spread time per RT 0.50 minutes  
Total hauling cycle time for this setting  
(100% efficiency) 88.00 minutes

Operator efficiency correction                      0.85                      103.53 minutes  
Job efficiency correction                      0.90                      115.03 minutes

Truck capacity (CY)                      10.00                      11.50 min/CY  
Loading time, delay time per CY                      0.25 min/CY  
TIME (minutes) per cubic yard                      11.75 min/CY

COST per CY computation  
Cost of truck and operator per hour \$90.00 /hr.  
Cost of truck and operator per minute                      \$1.50 /min  
\$17.63 /CY

Water truck, Grader & Roller                      \$1.50 /CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$11.48	\$29.11	\$30.61
3 - 0"	\$11.14	\$28.77	\$30.27
Jaw-Run	\$9.79	\$27.42	\$28.92
Pit-Run	\$8.87	\$26.50	\$28.00
Rip-Rap	\$24.98	\$42.61	

Note: Pit costs June 1, 2019 Hardrock Rock Quarry

# TIMBER CRUISE REPORT

## **Just In Beaver (WO-341-2021-W00697-01) FY 2021**

1. **Sale Area Location:** Portions of Sections 4 & 5, T10S, R8W, W.M., Polk County, Oregon.

2. **Fund Distribution:**

a. **Fund**                      BOF 66%  
   CSL 34%

3. **Sale Acreage by Area:**

Unit	Treatment	Gross Acres	Stream Buffers	Existing Roads	Slope Buffer (No Harvest)	Net Sale Acres	Acreage Comp. Method
1	Modified Clearcut	53	11	3	5	34	GIS
2	Modified Clearcut	15	2	1	-	12	GIS
<b>Total</b>		68	13	4	5	46	

4. **Cruisers and Cruise Dates:** This sale was cruised by Zane Sandborg, David Bailey, Cody Valencia and Aaron McEwen in June, 2020.

5. **Cruise Method and Computation:** The sale consists of two modified clearcut units that were stratified into two strata with both units having acreage in each strata. The strata were cruised using variable radius plot sampling on a 3 x 3 grid. Strata 1 was cruised using a Basal Area Factor of 20 and strata 2 was cruised using a Basal Area Factor of 40.

6. Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury Super ACE cruise program to determine stand statistics and net board foot volume. Additional volume was removed to account for hidden defect and breakage.

Digital ortho photos, Lidar data, and GPS data were used to map the boundaries for the sale, and ArcMap GIS was used to determine gross and net acreage.

7. **Measurement Standards:** Tree heights were measured to the nearest foot, to a top diameter of 6 inches inside bark or to 40% of form factor. Diameters at breast height (DBH) were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. Form factors were measured or estimated on every tree. Most trees were graded in 40 foot log segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.

8. **Timber Description:** Strata 1 is 21 acres of approximately 45 year old red alder with a moderate Douglas-fir component and small amounts of Western hemlock and big-leaf maple. Strata 2 consists of 25 acres of approximately 85 year old Douglas-fir with small amounts of red alder and Western hemlock. The average Douglas-fir to be removed in all units is approximately 19.0 inches DBH. The average volume per acre to be harvested (net) in Units 1 and 2 is approximately 32 MBF. Conifer trees other than Douglas-fir are reserved from cutting, unless present in Landings or between R/W tags.



9. Statistical Analysis and Stand Summary: (See attached “Statistics”).

Strata	Target CV	Target SE	Actual CV	Actual SE
1	50%	13%	49.1%	11.9%
2	40%	9%	27.6%	5.9%

Note: Statistics shown are for conifer and hardwood trees combined. Percentages are for net board foot volume.

10. Total Volume (MBF) by Species and Grade: (See attached volume report “Species, Sort Grade – Board Foot Volumes - Project”).

Unit	Species	Gross Cruise Volume	Cruised D & B	Cruised D & B (MBF)	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
1	DF	830	<1%	(4)	2%	(17)	809
	RA	77	1%	(1)	1%	(1)	75
2	DF	606	<1%	(3)	2%	(12)	591
	RA	6	1%	(<1)	1%	(<1)	6
<b>Total</b>		<b>1519</b>	<b>1%</b>	<b>(8)</b>	<b>2%</b>	<b>(30)</b>	<b>1481</b>

Unit	Species	Ave. DBH	Tot. Net Vol.	2-Saw	3-Saw	4-Saw	Camp-run
1	Douglas-fir	18	Grade %	76%	21%	3%	-
			809	615	170	24	-
	Red alder	14	Grade %	-	-	-	100%
			75	-	-	-	75
2	Douglas-fir	22	Grade %	80%	18%	2%	-
			591	472	106	12	-
	Red alder	15	Grade %	-	-	-	100%
			6	-	-	-	6
	<b>Total All Areas</b>		Grade %	73%	19%	3%	5%
		1481	1088	276	36	81	

Attachments: (All Units)

- Cruise Design
- Cruise Maps
- Statistics
- Stand Table Summary
- Species, Sort Grade – Board Foot Volume
- Log Stock Table – MBF
- Tree Segment Volumes

Prepared by: Zane Sandborg

Date: 10/14/2020

Unit Forester:   
Evelyn Hukari

Date: 10/29/2020

**CRUISE DESIGN  
WEST OREGON DISTRICT**

**Sale Name:** Just In Beaver **Strata** 2

**Harvest Type:** MC Net BF  
**Approx. Cruise Acres:** 26 **Estimated CV%** 40 /Acre **SE% Objective** 9 /Acre Net BF

**Planned Sale Volume:** 1.786 MMBF **Estimated Sale Unit Value/Acre:** \$ 16,200

- A. Cruise Goals:** (a) Grade minimum 40 conifer and 0 hardwood trees:  
 (b) Sample 23 cruise plots (11 grade: 12 count); (c) Other goals  Determine log grades for sale value.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers. All cedar and Western hemlock are reserve species.

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

**B. Cruise Design:**

- 1. Plot Cruises:** BAF 40 Full point  
 Cruise Line Direction(s) 90°/180°  
 Cruise Line Spacing 3/198 (chains) (feet)  
 Cruise Plot Spacing 3/198 (chains) (feet)  
 Grade/Count Ratio 1:1


**C. Tree Measurements:**

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.  
 Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 7", 7" for hardwoods or 40% of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
- 5. Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for



hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

6. **Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)  
B. Sort: Use code "1" (Domestic).  
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ;  
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave.  
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
9. **Cruising Equipment:** Relaskop, Rangefinder or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Zane Sandborg  
Approved by:   
Date: 5/25/2020

**CRUISE DESIGN  
WEST OREGON DISTRICT**

**Sale Name:** Just In Beaver Strata 1

**Harvest Type:** MC

**Approx. Cruise Acres:** 21 **Estimated CV%** 50 /Acre **SE% Objective** 13 /Acre

**Planned Sale Volume:** 1.786 MMBF **Estimated Sale Unit Value/Acre:** \$ 1,530

- A. Cruise Goals:** (a) Grade minimum 0 conifer and 30 hardwood trees:  
(b) Sample 18 cruise plots (10 grade: 8 count); (c) Other goals  Determine log grades for sale value.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers. All cedar and Western hemlock are reserve species.

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

**B. Cruise Design:**

- 1. Plot Cruises:** BAF 20 Full point  
Cruise Line Direction(s) 90°/180°  
Cruise Line Spacing 3/198 (chains) (feet)  
Cruise Plot Spacing 3/198 (chains) (feet)  
Grade/Count Ratio 1:1

**C. Tree Measurements:**

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.  
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 7", 7" for hardwoods or 40% of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
- 5. Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for

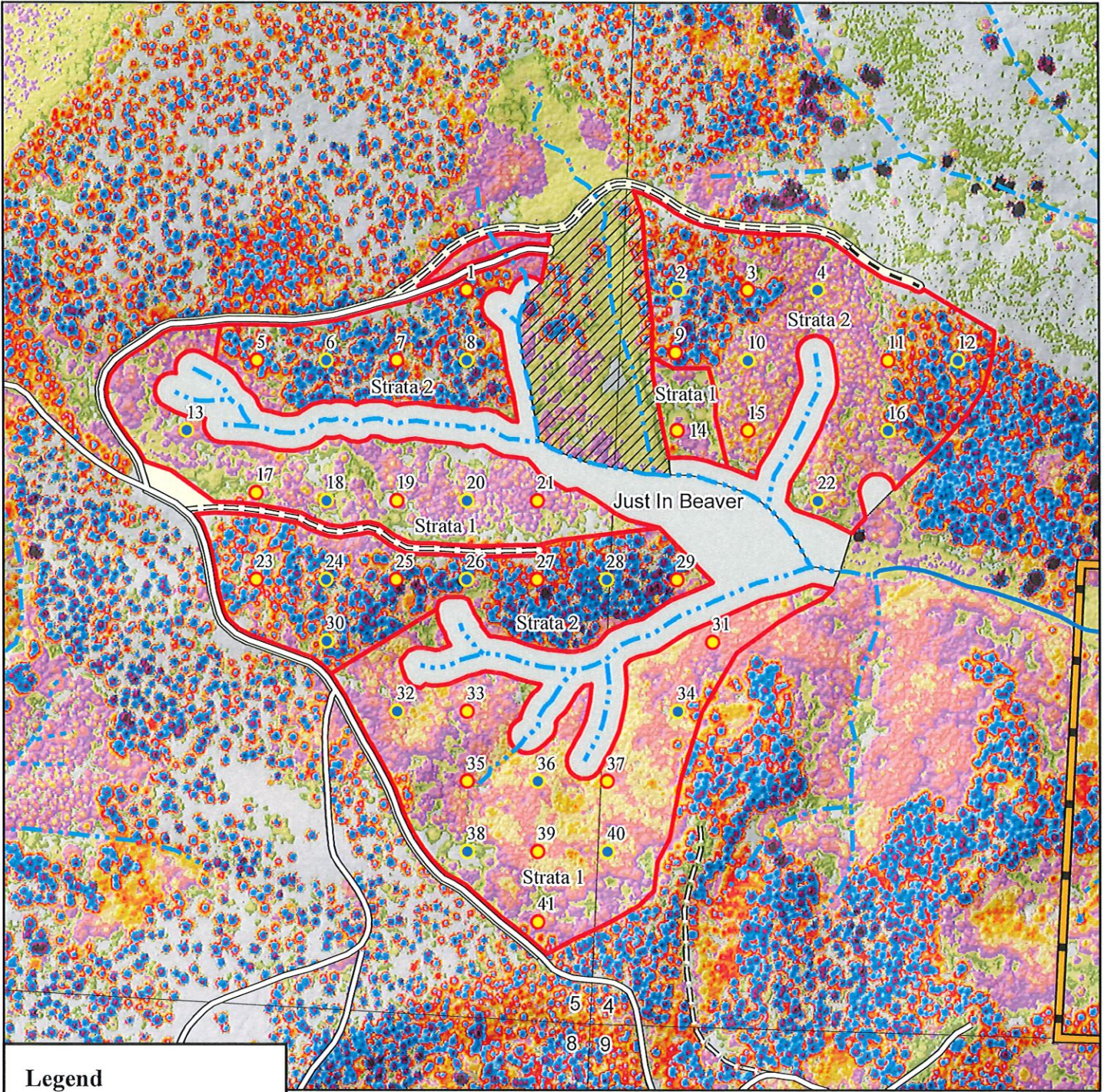


hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)  
B. Sort: Use code "1" (Domestic).  
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ;  
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
- 8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave. ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- 9. Cruising Equipment:** Relaskop, Rangefinder or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Zane Sandborg  
Approved by: Cody Valeri  
Date: 5/25/2020





**Legend**

- count
- measure
- New Road Construction
- Fish
- - - Nonfish
- · - · Unknown
- Roads**
- ==== Surfaced Road
- == Dirt road
- Strata
- Road Buffers
- Slope Buffers
- Stream Buffers
- Sections\_WO

# Just In Beaver Timber Cruise FY 2021

Portions of Sections 4 & 5 of T10S, R8W, W.M.  
Polk County, Oregon

Strata 1 BAF: 20  
Strata 2 BAF: 40  
Spacing: 3 X 3 Chains



1:5,000



Date: 06/01/2020



TC PSTATS		<b>PROJECT STATISTICS</b>							PAGE	1		
		PROJECT		JINB			DATE		7/21/2020			
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
10S	08	04	S1	00MC	21.00	18	87	1	W			
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			18	87	4.8							
CRUISE			10	50	5.0	2,098	2.4					
DBH COUNT												
REFOREST												
COUNT			8	37	4.6							
BLANKS												
100 %												
<b>STAND SUMMARY</b>												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
R ALDER			30	65.6	12.5	31	15.7	55.6	3,671	3,634	1,220	1,220
DF			11	21.2	14.5	53	6.4	24.4	3,105	3,066	843	843
WHEMLOCK			3	4.1	20.0	62	2.0	8.9	924	818	252	252
BL MAPLE			6	9.0	11.6	18	2.0	6.7	242	193	77	77
<b>TOTAL</b>			<b>50</b>	<b>99.9</b>	<b>13.2</b>	<b>35</b>	<b>26.3</b>	<b>95.6</b>	<b>7,942</b>	<b>7,712</b>	<b>2,392</b>	<b>2,392</b>
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.	INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
R ALDER		70.7	13.1	58	67	76						
DF		191.3	60.4	143	362	580						
WHEMLOCK		44.5	30.8	171	247	323						
BL MAPLE		65.7	29.3	18	25	32						
<b>TOTAL</b>		<b>247.4</b>	<b>35.0</b>	<b>90</b>	<b>138</b>	<b>186</b>	<b>2,443</b>	<b>611</b>	<b>271</b>			
CL	68.1	COEFF	SAMPLE TREES - CF				# OF TREES REQ.	INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
R ALDER		64.9	12.0	20	23	26						
DF		152.5	48.2	46	89	132						
WHEMLOCK		70.4	48.7	44	86	128						
BL MAPLE		70.8	31.5	7	10	13						
<b>TOTAL</b>		<b>178.2</b>	<b>25.2</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>1,268</b>	<b>317</b>	<b>141</b>			
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.	INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
R ALDER		96.4	23.4	50	66	81						
DF		190.3	46.1	11	21	31						
WHEMLOCK		228.0	55.2	2	4	6						
BL MAPLE		424.3	102.8		9	18						
<b>TOTAL</b>		<b>52.2</b>	<b>12.7</b>	<b>87</b>	<b>100</b>	<b>113</b>	<b>115</b>	<b>29</b>	<b>13</b>			
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.	INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
R ALDER		96.1	23.3	43	56	68						
DF		157.6	38.2	15	24	34						
WHEMLOCK		221.3	53.6	4	9	14						
BL MAPLE		424.3	102.8		7	14						
<b>TOTAL</b>		<b>39.7</b>	<b>9.6</b>	<b>86</b>	<b>96</b>	<b>105</b>	<b>67</b>	<b>17</b>	<b>7</b>			
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.	INF. POP.				
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
R ALDER		98.3	23.8	2,769	3,634	4,500						
DF		157.6	38.2	1,895	3,066	4,237						
WHEMLOCK		223.1	54.1	376	818	1,261						
BL MAPLE		424.3	102.8		193	391						

TC PSTATS		PROJECT STATISTICS							PAGE	2	
		PROJECT		JINB			DATE		7/21/2020		
TWP	RGE	SC	TRACT	TYPE	ACRES			PLOTS	TREES	CuFt	BdFt
10S	08	04	S1	00MC	21.00			18	87	1	W
CL	68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15		
<b>TOTAL</b>			50.8	12.3	6,762	7,712	8,662	109	27	12	
CL	68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER		97.1	23.5	933	1,220	1,507					
DF		154.4	37.4	527	843	1,158					
WHEMLOCK		221.8	53.7	117	252	388					
BL MAPLE		424.3	102.8		77	156					
<b>TOTAL</b>			43.4	10.5	2,140	2,392	2,644	80	20	9	



TC		PSTNDSUM		Stand Table Summary							Page		1			
T10S R08W S04 Ty00MC 21.00				Project			JINB		Date:		7/21/2020					
				Acres			21.00		Time:		3:06:04PM					
S		Tot		Average Log			Net		Net		T o t a l s					
Sp	T	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF
RA	10	4	87	35	13.581	7.41	13.58	9.3	30.0	126	407			26	9	
RA	11	8	87	50	22.448	14.81	22.45	13.1	43.7	295	982			62	21	
RA	12	4	86	54	9.431	7.41	9.43	17.2	50.0	163	472			34	10	
RA	13	2	86	69	4.018	3.70	6.03	17.0	53.3	102	321			22	7	
RA	14	1	87	38	1.732	1.85	1.73	19.0	40.0	33	69			7	1	
RA	15	6	86	56	9.054	11.11	10.56	24.3	64.3	257	679			54	14	
RA	16	1	87	53	1.326	1.85	1.33	30.0	70.0	40	93			8	2	
RA	17	1	87	54	1.175	1.85	1.17	35.0	70.0	41	82			9	2	
RA	18	1	86	66	1.048	1.85	2.10	27.0	85.0	57	178			12	4	
RA	19	1	87	90	.941	1.85	1.88	29.5	105.0	55	198			12	4	
RA	20	1	87	60	.849	1.85	1.70	30.5	90.0	52	153			11	3	
RA	Totals	30	87	50	65.604	55.56	71.96	16.9	50.5	1,220	3,634			256	76	
DF	9	1	88	76	5.030	2.22	5.03	13.0	60.0	65	302			14	6	
DF	10	1	87	74	4.074	2.22	4.07	15.0	60.0	61	244			13	5	
DF	14	1	85	98	2.079	2.22	4.16	20.0	70.0	83	291			17	6	
DF	15	2	88	84	3.622	4.44	7.24	20.5	70.0	148	507			31	11	
DF	16	3	87	91	4.775	6.67	9.55	24.5	85.0	234	812			49	17	
DF	24	2	80	77	1.415	4.44	2.83	48.5	122.5	137	347			29	7	
DF	42	1	85	141	.231	2.22	.69	164.0	813.3	114	564			24	12	
DF	Totals	11	87	83	21.225	24.44	33.58	25.1	91.3	843	3,066			177	64	
WH	15	1	85	89	2.414	2.96	4.83	21.0	80.0	101	386			21	8	
WH	22	1	83	67	1.122	2.96	2.24	30.5	105.0	68	236			14	5	
WH	32	1	87	79	.531	2.96	1.06	77.5	185.0	82	196			17	4	
WH	Totals	3	85	82	4.067	8.89	8.13	31.0	100.6	252	818			53	17	
BM	10	2	87	19	4.074	2.22	2.04	7.0	20.0	14	41			3	1	
BM	12	2	87	24	2.829	2.22	2.83	10.5	25.0	30	71			6	1	
BM	13	1	86	22	1.205	1.11	1.21	11.0	30.0	13	36			3	1	
BM	15	1	86	42	.905	1.11	.91	22.0	50.0	20	45			4	1	
BM	Totals	6	87	23	9.015	6.67	6.98	11.1	27.6	77	193			16	4	
Totals		50	87	56	99.911	95.56	120.65	19.8	63.9	2,392	7,712			502	162	

TC PSPCSTGR Species, Sort Grade - Board Foot Volumes (Project)

T10S R08W S04 Ty00MC 21.00	Project: <b>JINB</b> Acres <b>21.00</b>	Page <b>1</b> Date <b>7/21/2020</b> Time <b>3:06:03PM</b>
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S Spp	So Gr T rt ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
							Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF	DO 2M	22	699	699	15		50	50		5	95			38	15	373	2.78	1.9	
DF	DO 3M	69	1.8	2,154	2,115	44		92	8		4	96		39	8	99	0.66	21.4	
DF	DO 4M	9		252	252	5		100		45	55			20	6	24	0.42	10.3	
<b>DF Totals</b>		40	1.3	3,105	3,066	64		71	11	17	4	6	3	88	33	8	91	0.75	33.6
WH	DO 3M	98	11.2	903	802	17		55	45		22	33	22	22	28	10	106	1.12	7.6
WH	DO 4M	2	25.0	21	16	0		100			100			20	8	30	1.10	.5	
<b>WH Totals</b>		11	11.5	924	818	17		56	44		24	32	22	22	28	10	101	1.12	8.1
BM	DO CR	100	20.1	242	193	4		100			77	23			19	7	28	0.59	7.0
<b>BM Totals</b>		3	20.1	242	193	4		100			77	23			19	7	28	0.59	7.0
RA	DO CR	100	1.0	3,671	3,634	76		96	4		19	27	12	43	27	7	51	0.64	72.0
<b>RA Totals</b>		47	1.0	3,671	3,634	76		96	4		19	27	12	43	27	7	51	0.64	72.0
<b>Totals</b>			2.9	7,942	7,712	162		82	6	11	15	19	9	57	28	8	64	0.70	120.6



Log Stock Table - MBF

T10S R08W S04 Ty00MC 21.00

Project: JINB  
Acres 21.00

Page 2  
Date 7/21/2020  
Time 3:06:03PM

Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches														
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+			
RA		DO CR	40	12		12	15.6				2	7	4									
RA		Totals		77		76	47.1				51	15	7	3								
Total		All Species		167	2.9	162	100.0				76	35	22	10		8	4	7				

TC PSTATS		<b>PROJECT STATISTICS</b>							PAGE	1	
		PROJECT		JINB			DATE		7/9/2020		
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
10S	08	04	S2	00MC		25.00	23	146	1	W	
		PLOTS		TREES	TREES	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		23		146	6.3						
CRUISE		11		71	6.5	2,578	2.8				
DBH COUNT REFOREST COUNT		12		75	6.3						
BLANKS 100 %											
<b>STAND SUMMARY</b>											
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
DF	66	89.7	22.2	93	51.3	241.7	54,838	54,596	12,397	12,397	
R ALDER	1	4.3	15.0	36	1.3	5.2	255	255	111	111	
SNAG	2	7.2	9.4	67	1.1	3.5					
WHEMLOCK	1	1.9	13.0	44	0.5	1.7	113	113	40	40	
DF LEAVE	1	.1	59.0	192	0.2	1.7					
<b>TOTAL</b>	<b>71</b>	<b>103.1</b>	<b>21.2</b>	<b>88</b>	<b>55.1</b>	<b>253.9</b>	<b>55,206</b>	<b>54,964</b>	<b>12,547</b>	<b>12,547</b>	
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF		74.4	9.2	917	1,009	1,102					
R ALDER											
SNAG											
WHEMLOCK											
DF LEAVE											
<b>TOTAL</b>		<b>81.6</b>	<b>9.7</b>	<b>849</b>	<b>940</b>	<b>1,031</b>	<b>266</b>	<b>67</b>	<b>30</b>		
CL	68.1	COEFF	SAMPLE TREES - CF			# OF TREES REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF		63.8	7.8	199	216	233					
R ALDER											
SNAG											
WHEMLOCK											
DF LEAVE											
<b>TOTAL</b>		<b>71.0</b>	<b>8.4</b>	<b>185</b>	<b>202</b>	<b>219</b>	<b>202</b>	<b>50</b>	<b>22</b>		
CL	68.1	COEFF	TREES/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF		45.6	9.7	81	90	98					
R ALDER		264.0	56.2	2	4	7					
SNAG		357.2	76.1	2	7	13					
WHEMLOCK		479.6	102.2	2	2	4					
DF LEAVE		479.6	102.2	0	0	0					
<b>TOTAL</b>		<b>60.4</b>	<b>12.9</b>	<b>90</b>	<b>103</b>	<b>116</b>	<b>153</b>	<b>38</b>	<b>17</b>		
CL	68.1	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DF		25.2	5.4	229	242	255					
R ALDER		264.0	56.2	2	5	8					
SNAG		331.3	70.6	1	3	6					
WHEMLOCK		479.6	102.2	2	2	4					
DF LEAVE		479.6	102.2	2	2	4					
<b>TOTAL</b>		<b>25.4</b>	<b>5.4</b>	<b>240</b>	<b>254</b>	<b>268</b>	<b>27</b>	<b>7</b>	<b>3</b>		



TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
10S	08	04	S2	00MC	25.00	23	146	1	W
CL	68.1	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DF		28.1	6.0	51,327	54,596	57,865			
R ALDER		264.0	56.2	112	255	399			
SNAG									
WHEMLOCK		479.6	102.2		113	229			
DF LEAVE									
<b>TOTAL</b>		<b>27.6</b>	<b>5.9</b>	<b>51,728</b>	<b>54,964</b>	<b>58,200</b>	<b>32</b>	<b>8</b>	<b>4</b>
CL	68.1	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DF		26.7	5.7	11,691	12,397	13,103			
R ALDER		264.0	56.2	48	111	173			
SNAG									
WHEMLOCK		479.6	102.2		40	80			
DF LEAVE									
<b>TOTAL</b>		<b>25.9</b>	<b>5.5</b>	<b>11,856</b>	<b>12,547</b>	<b>13,238</b>	<b>28</b>	<b>7</b>	<b>3</b>

TC		PSTNDSUM		Stand Table Summary						Page		1				
										Date:		7/9/2020				
T10S R08W S04 Ty00MC 25.00				Project JINB						Time:		9:34:58AM				
				Acres 25.00						Grown Year:						
S Spec	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	9	1	83	56	8.291	3.66	8.29	11.0	30.0		91	249		23	6	
DF	14	3	85	92	10.279	10.99	20.56	18.8	61.7		387	1,268		97	32	
DF	15	1	84	93	2.985	3.66	5.97	23.5	75.0		140	448		35	11	
DF	16	3	86	114	7.870	10.99	15.74	21.5	80.0		338	1,259		85	31	
DF	17	2	87	121	4.647	7.33	11.62	29.4	112.0		342	1,301		85	33	
DF	18	2	87	136	4.145	7.33	12.44	30.7	115.0		381	1,430		95	36	
DF	19	2	82	83	3.720	7.33	7.44	33.0	95.0		246	707		61	18	
DF	20	2	87	123	3.358	7.33	8.39	40.6	154.0		341	1,293		85	32	
DF	21	3	87	148	4.568	10.99	13.71	44.6	185.6		611	2,543		153	64	
DF	22	3	85	146	4.162	10.99	13.87	43.2	176.0		599	2,442		150	61	
DF	23	2	84	134	2.539	7.33	7.62	48.3	193.3		368	1,473		92	37	
DF	24	5	88	142	5.829	18.31	17.49	56.7	244.0		992	4,267		248	107	
DF	25	4	87	150	4.298	14.65	12.89	63.1	272.5		813	3,514		203	88	
DF	26	2	83	146	1.987	7.33	5.96	62.8	246.7		375	1,470		94	37	
DF	27	6	86	149	5.527	21.98	17.50	70.1	318.9		1,227	5,582		307	140	
DF	28	3	87	149	2.570	10.99	7.71	68.4	326.7		528	2,518		132	63	
DF	30	2	87	139	1.492	7.33	4.48	85.8	393.3		384	1,761		96	44	
DF	31	4	86	158	2.795	14.65	9.08	95.2	460.0		864	4,179		216	104	
DF	32	1	86	163	.656	3.66	1.97	111.0	550.0		218	1,082		55	27	
DF	33	5	86	153	3.083	18.31	9.87	105.1	513.1		1,037	5,063		259	127	
DF	34	3	86	152	1.743	10.99	5.23	118.1	564.4		618	2,951		154	74	
DF	35	1	85	132	.548	3.66	1.64	110.7	506.7		182	833		46	21	
DF	36	1	85	154	.518	3.66	1.55	133.7	676.7		208	1,052		52	26	
DF	37	1	89	175	.491	3.66	1.96	118.5	655.0		233	1,285		58	32	
DF	38	1	89	183	.465	3.66	1.86	131.2	740.0		244	1,377		61	34	
DF	40	1	85	175	.420	3.66	1.68	133.7	712.5		225	1,196		56	30	
DF	44	2	86	151	.694	7.33	2.08	194.5	986.7		405	2,053		101	51	
DF	Totals	66	86	123	89.680	241.74	228.60	54.2	238.8		12,397	54,596		3,099	1,365	
RA	15	1	86	49	4.252	5.22	4.25	26.0	60.0		111	255		28	6	
RA	Totals	1	86	49	4.252	5.22	4.25	26.0	60.0		111	255		28	6	
WH	13	1	91	52	1.887	1.74	1.89	21.0	60.0		40	113		10	3	
WH	Totals	1	91	52	1.887	1.74	1.89	21.0	60.0		40	113		10	3	
DFL	59	1	87	192	.092	1.74										
DFL	Totals	1	87	192	.092	1.74										
SN	8	1	99	158	4.982	1.74										
SN	12	1	82	47	2.214	1.74										
SN	Totals	2	94	124	7.197	3.48										
Totals		71	86	119	103.107	253.91	234.74	53.5	234.1		12,547	54,964		3,137	1,374	

Species, Sort Grade - Board Foot Volumes (Project)

T10S R08W S04 Ty00MC 25.00	Project: <b>JINB</b> Acres: <b>25.00</b>	Page: <b>1</b> Date: <b>7/9/2020</b> Time: <b>9:34:58AM</b>
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S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
DF	DO	2M	79	.5	43,862	43,638	1,091			32	68	0			100	40	17	464	2.45	94.0	
DF	DO	3M	18	.2	9,700	9,681	242			93	7	1	3	6	90	38	9	114	0.89	84.9	
DF	DO	4M	3		1,276	1,276	32			100		43	57			21	6	26	0.40	49.7	
<b>DF</b>	<b>Totals</b>		99	.4	54,838	54,596	1,365			19	26	55	1	2	1	96	35	11	239	1.56	228.6
RA	DO	CR	100		255	255	6			100					100	36	7	60	0.72	4.3	
<b>RA</b>	<b>Totals</b>		0		255	255	6			100					100	36	7	60	0.72	4.3	
WH	DO	3M	100		113	113	3			100					100	38	6	60	0.55	1.9	
<b>WH</b>	<b>Totals</b>		0		113	113	3			100					100	38	6	60	0.55	1.9	
<b>Totals</b>				0.4	55,206	54,964	1,374			19	26	55	1	2	1	96	35	11	234	1.53	234.7



Log Stock Table - MBF

T10S R08W S04 Ty00MC 25.00

Project: JINB  
Acres 25.00

Page 1  
Date 7/9/2020  
Time 9:34:57AM

Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches														
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+			
DF		DO 2M	14	2		2	.1					2										
DF		DO 2M	20	1		1	.1					1										
DF		DO 2M	36	5		5	.4					3	2									
DF		DO 2M	38	2		2	.1					2										
DF		DO 2M	40	1,086		1,081	79.2					136	154	365	259	137					30	
DF		DO 3M	20	2		2	.1				1	1										
DF		DO 3M	26	1		1	.1				1											
DF		DO 3M	28	3		3	.2				1	2										
DF		DO 3M	30	3		3	.2				2	2										
DF		DO 3M	32	8		8	.6				5	3										
DF		DO 3M	34	7		7	.5				1	6										
DF		DO 3M	36	18		18	1.3				2	6	9									
DF		DO 3M	38	23		23	1.7				6	13	4									
DF		DO 3M	40	177		177	13.0				16	54	90				8	9				
DF		DO 4M	12	4		4	.3				2	1	1									
DF		DO 4M	14	2		2	.2				2											
DF		DO 4M	16	2		2	.1				2											
DF		DO 4M	18	3		3	.2				3											
DF		DO 4M	20	3		3	.2				2	1										
DF		DO 4M	24	5		5	.4				5											
DF		DO 4M	26	3		3	.3				3											
DF		DO 4M	28	8		8	.6				8											
DF		DO 4M	30	2		2	.1				2											
DF		Totals		1,371		1,365	99.3				61	88	108	144	157	365	267	145			30	
RA		DO CR	36	6		6	100.0				6											
RA		Totals		6		6	.5				6											
WH		DO 3M	38	3		3	100.0				3											
WH		Totals		3		3	.2				3											
Total		All Species		1,380		1,374	100.0				70	88	108	144	157	365	267	145			30	



Oregon Department of Forestry  
**OPERATIONAL PERIODS and SEASONAL RESTRICTIONS**  
 West Oregon, NWOA  
 24533 ALSEA HWY, PHILOMATH, OR 97370  
 (541) 929-3266

**Sale Number**  
 WO-341-2021-W00697-01

Just in Beaver

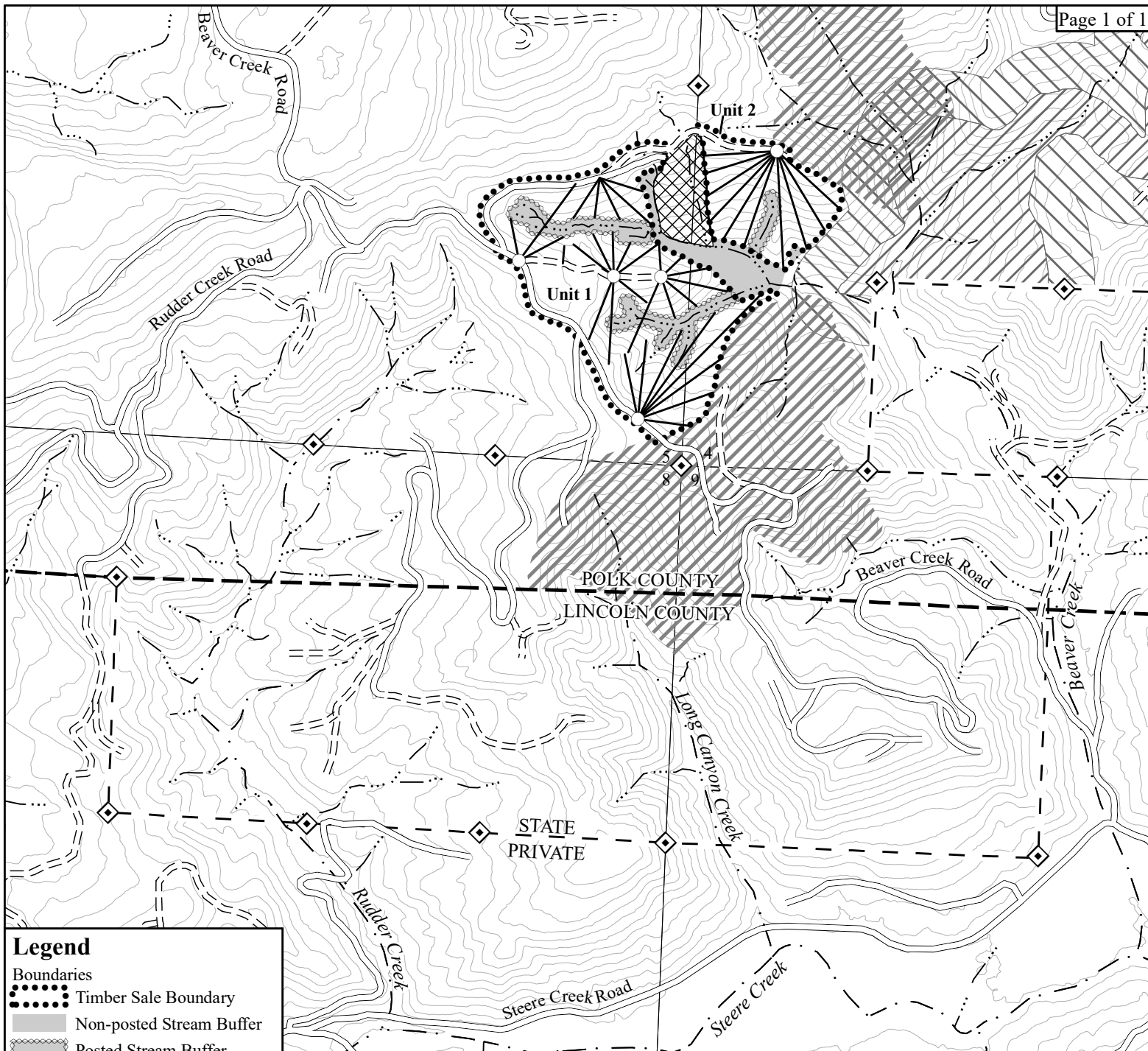
December 31, 2023

Harvesting	Comments	Units	Project	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Date	
				1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15		1
Ground yarding																													
Slash Treatment																													
Chainsaw use in or within 300' of seasonally restricted area	For tailholing in a MMMA																												

Hauling	Comments	Units	Project	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Date	
				1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15		
Log Hauling on Unsurfaced Roads																													

Project Work	Comments	Units	Project	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Date	
				1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15	1	15		
Activity in Live Streams																													
Non-project roads and landings																													
Landing and Road Construction or Improvement Operations																													
Project outside seasonally restricted area	Exploratory Drilling																												

Operation Allowed    
  Operation Restricted    
  Activity Restricted 2 hours before sunset and 2 hours after sunrise



**Legend**

**Boundaries**

- Timber Sale Boundary
- ▭ Non-posted Stream Buffer
- ▭ Posted Stream Buffer
- ▭ Slope Buffer
- ▭ Reforestation Area
- ▭ Marbled Murrelet Management Area
- ▭ Occupied Habitat
- ▭ Non-Habitat Buffer
- - - Ownership
- - - County Line

**Roads**

- ▬ Surfaced Road
- - - Unsurfaced Road

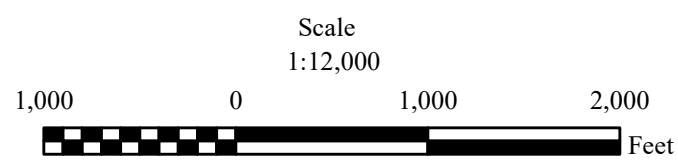
**Streams**

- - - Type F Stream
- · · - - Type N Stream
- ▬ Cable Corridor
- Landing
- ◇ Land Survey Monument

**LOGGING PLAN**  
 OF TIMBER SALE CONTRACT NO. WO-341-2021-W00697-01  
 JUST IN BEAVER  
 PORTIONS OF SECTIONS 4 & 5, T10S, R08W, W.M.,  
 POLK COUNTY, OREGON.

UNIT	NET ACRES	
	TRACTOR	CABLE
1 (MC)	4	30
2 (MC)	0	12
<b>TOTAL</b>	<b>4</b>	<b>42</b>

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Date: 11/02/2020