



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Beaver Ridge Sale 341-07-21

District: Tillamook

Date: 11/6/06

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$475,499.60	\$422,965.20	\$898,464.80
		Project Work	(\$159,115.00)
		Advertised Value	\$739,349.80



Timber Sale Appraisal Timber Description Beaver Ridge Sale 341-07-21

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Portions of Sections 21, 27, 28, 29, 32, 33 and 34, T3N, R9W, W.M., Tillamook County, Oregon.

Date: 11/6/06

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	18	0	95
Western Hemlock / Fir	15	0	95
Red Cedar	12	0	95
Alder (Red)	14	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)	Total
2S	305	597	0	0	902
3S	1,103	1,965	0	0	3,068
4S	296	507	10	0	813
Camprun	0	0	0	1,505	1,505
Total	1,704	3,069	10	1,505	6,288

Comments: Pond Values Used: 3rd Quarter Calendar Year 2006.

HAULING

Hauling costs adjusted to make equivalent to \$700 daily truck cost.

$\$700 - \% \text{ Profit \& Risk } (\$700 / 1.20) = \$583 \text{ Daily Truck Cost.}$

Hauling Cost Calculation Douglas-fir:

$\$583 \text{ Daily Truck Cost} / (2 \text{ trips per day} \times 4 \text{ MBF per load}) = \$72.88/\text{MBF Hauling Cost.}$

Hauling Cost Calculation Western Hemlock:

$\$583 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 3.8 \text{ MBF per load}) = \$51.14/\text{MBF Hauling Cost.}$

Hauling Cost Calculation Western Red Cedar:

$\$583 \text{ Daily Truck Cost} / (2 \text{ trips per day} \times 3.4 \text{ MBF per load}) = \$85.74/\text{MBF Hauling Cost.}$

Hauling Cost Calculation Red Alder:

$\$583 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 3.2 \text{ MBF per load}) = \$60.73/\text{MBF Hauling Cost.}$

OTHER COSTS (Profit and Risk to be added):

Brand and Paint: $\$2/\text{MBF} \times 6288 \text{ MBF} = \$12,576$

Snag creation by topping at 40': $110 \text{ snags} \times \$40/\text{snag} = \$4,400$

Down wood creation: $\$10/\text{tree} \times 40 \text{ trees} = \400

Extra rigging costs in Areas 1 and 2: $\$5/\text{MBF} \times 2149 \text{ MBF} = \$10,745$

Tractor Swing

Area 1: $11 \text{ acres} \times 11\text{MBF}/\text{acre} \times \$15/\text{MBF} = \$1,815$

Area 3: $9 \text{ acres} \times 22 \text{ MBF}/\text{acre} \times \$70/\text{MBF} = \$13,860$

TOTAL OTHER COSTS + (P/R/ to be added): $\$43,796$

ADDITIONAL COSTS (Profit and Risk Included):

Slash piling and sorting Areas 1, 2 and 4: $\$2.50/\text{acre} \times 255 \text{ acres} = \638

Helicopter landing clearing: $4 \text{ hr w/excavator} \times \$120/\text{hr} = \$480$

Move from Areas 1-5 to Area 6: $\text{Lowboy } 6 \text{ hrs} \times 100/\text{hr} = \600

Road vacating in Areas 1 and 6: $\$3,699$

Non-Project Roads - (Seeding included):

Non-Project Road #1: $4 \text{ Stations} \times \$150.00 + \$5.15 \text{ rocking}/\text{cu.yd} \times 280 \text{ cu.yds} = \$2,042$

Non-Project Road #2: $2 \text{ Stations} \times \$150.00 + \$5.15 \text{ rocking}/\text{cu.yd} \times 140 \text{ cu.yds} = \$1,021$

TOTAL ADDITIONAL COSTS (P/R included): $\$8,480$

ROAD MAINTENANCE

Areas 1, 2, 3, 4 and 5

Interim Grading - 4 times

Maintenance $\$250/\text{Mile} \times 4.9 \text{ miles} \times 4 \text{ gradings} / 6288 \text{ MBF} = \0.78

Final Grading

Maintenance $\$500/\text{Mile} \times 4.9 \text{ miles} \times 1 \text{ grading} / 6288 \text{ MBF} = \0.39

Compaction - From Foss Road to Peterson/ Toberson Road Junction

$(150 \text{ stations} \times \$18/\text{station}) + \$111 \text{ move-in} / 6288 \text{ MBF} = \0.45

Maintenance rock (Purchased from Mohler Sand and Gravel - "blue rock")

$(\$15.00/\text{yard} \times 4.9\text{miles} \times 10 \text{ cy}/\text{MMBF}/\text{mile} \times 5.4\text{MMBF}) / 6288 \text{ MBF} = \0.63

Area 6

Green Diamond License Agreement Road

Grading -1 time

Maintenance $\$500/\text{Mile} \times 4.7 \text{ miles} \times 1 \text{ grading} / 6288 \text{ MBF} = \0.37

Maintenance rock (Purchased from Mohler Sand and Gravel)
(\$10.15/yard x 4.7miles x 10 cy/MMBF/mile x 0.9 MMBF)/6288 MBF = \$0.07

Replacement rock (Purchased from Mohler Sand and Gravel)
\$10.15/yd x 25 cy / 6288 = \$ 0.04
TOTAL ROAD MAINTENANCE COST: \$ 2.73/ MBF



Timber Sale Appraisal

Logging Conditions

Beaver Ridge

Sale 341-07-21

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	63.17%	
	Western Hemlock / Fir	36.28%	
	Red Cedar	90.00%	
	Alder (Red)	89.39%	
Yarding Distance:	Long (1,500 ft)		Downhill Yarding: No
Logging System:	Cable: Large Tower >=70		Process: Stroke Delimber
Tree Size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
Loads/Day:	6		Bd. Ft./Load: 3,200
Cost/MBF:	\$180.31		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Large)		
Combination#: 2	Douglas - Fir	13.91%	
	Western Hemlock / Fir	40.45%	
	Alder (Red)	8.84%	
Yarding Distance:	Long (1,500 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Stroke Delimber
Tree Size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	4		Bd. Ft./Load: 3,500
Cost/MBF:	\$260.53		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 3	Douglas - Fir	15.14%	
	Western Hemlock / Fir	8.80%	
Yarding Distance:	Long (1,500 ft)		Downhill Yarding: No
Logging System:	Cable: Large Tower >=70		Process: Manual Delimiting
Tree Size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	5		Bd. Ft./Load: 3,500
Cost/MBF:	\$184.75		
Machines:			
	Log Loader (A)		
	Tower Yarder (Large)		
Combination#: 4	Douglas - Fir	7.78%	
	Western Hemlock / Fir	14.47%	
	Red Cedar	10.00%	
	Alder (Red)	1.77%	

Yarding Distance:	Short (400 ft)	Downhill Yarding:	Yes
Logging System:	Shovel	Process:	Manual Delimiting
Tree Size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	7	Bd. Ft./Load:	3,500
Cost/MBF:	\$94.75		
Machines:	Shovel Logger		



Timber Sale Appraisal

Logging Costs

Beaver Ridge

Sale 341-07-21

"STEWARDSHIP IN FORESTRY"

Date: 11/6/06

Operating Seasons: 2.0

Profit & Risk: 20%

Project Costs: \$159,115

Other Costs (P/R): \$43,796

Slash Disposal: \$0

Other Costs: \$8,480

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Road Maintenance: \$2.73

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$72.88	2.0	4.0
Western Hemlock / Fir	\$51.14	3.0	3.8
Red Cedar	\$85.74	2.0	3.4
Alder (Red)	\$60.73	3.0	3.2



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Beaver Ridge Sale 341-07-21

Costs	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
Logging	185.49	200.77	171.75	185.88
Road Maintenance	2.87	2.87	2.87	2.87
Fire Protection	0.86	0.86	0.86	0.86
Hauling	76.72	53.83	90.25	63.93
Other (P/R appl.)	6.97	6.97	6.97	6.97
Profit & Risk	54.58	53.06	54.54	52.10
Slash Disposal	0.00	0.00	0.00	0.00
Scaling	2.00	2.00	2.00	0.00
Other	1.35	1.35	1.35	1.35
Total	330.84	321.71	330.59	313.96

Amortization	0.00	0.00	0.00	0.00
Pond Value	519.69	369.61	1,000.00	595.00
Stumpage	188.85	47.90	669.41	281.04
Amortized	0.00	0.00	0.00	0.00



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Amortized

	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
MBF	0.00	0.00	0.00	0.00
Value	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
MBF	1,704.00	3,069.00	10.00	1,505.00
Value	188.85	47.90	669.41	281.04
Total	321,800.40	147,005.10	6,694.10	422,965.20

Gross Timber Sale Value

Recovery \$898,464.80

Prepared by: David Wells

Date: 11/6/06

District: Tillamook

Phone: (503) 842-2545



PROJECT SUMMARY SHEET

Sale: Beaver Ridge

CONSTRUCTION

Point	A to B	17+90	stations =	\$24,770.56
Point	C to D	6+55	stations =	\$9,649.31
Point	E to F	7+20	stations =	\$4,474.33
Point	G to H	18+10	stations =	\$17,833.04
Point	I to J	5+20	stations =	\$5,611.82
Point	K to L	2+65	stations =	\$6,562.72
SUBTOTAL CONSTRUCTION				\$68,901.78

IMPROVEMENT

Point	O to P	2+50	stations =	\$13,404.52
Point	M to N	88+40	stations =	\$45,780.53
SUBTOTAL IMPROVEMENT				\$59,185.05

RECONSTRUCTION

Point	E to F	5+35	stations =	\$3,324.68
Point	G to H	17+00	stations =	\$16,749.27
SUBTOTAL IMPROVEMENT				\$20,073.95

SPECIAL PROJECTS

Brush	4.93	miles of road		\$2,958.00
SUBTOTAL SPECIAL PROJECTS				\$2,958.00

MOVE IN: Harvest Area #1	\$3,151.52
MOVE IN: Harvest Area #6	\$2,015.52
MOVE IN: Foley Creek Road	\$1,590.68
MOVE IN: Post Canyon Road	\$1,238.91

GRAND TOTAL **\$159,115.41**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>		Road:	<u>Brushing</u>								
Construction -	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">0+00</td> <td style="padding: 0 5px;">stations</td> </tr> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">0.00</td> <td style="padding: 0 5px;">miles</td> </tr> </table>	0+00	stations	0.00	miles		Improvement -	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">0+00</td> <td style="padding: 0 5px;">stations</td> </tr> <tr> <td style="border-top: 1px solid black; border-bottom: 1px solid black;">4.93</td> <td style="padding: 0 5px;">miles</td> </tr> </table>	0+00	stations	4.93	miles
0+00	stations											
0.00	miles											
0+00	stations											
4.93	miles											
SPECIAL PROJECTS												
Brushing of Peterson Creek Road (Hwy to Point "A")	3.90	miles @	\$600.00	per mile = \$2,340.00								
Brushing of Toberson Road (Peterson Creek Rd. Junc. To Landing past Pt. "E")	0.93	miles @	\$600.00	per mile = \$558.00								
Brushing of Peterson Creek Spur (Peterson Creek Road to Point "C")	0.10	miles @	\$600.00	per mile = \$60.00								
			TOTAL SPECIAL PROJECTS	\$2,958.00								
			GRAND TOTAL	\$2,958.00								

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>					Road:	<u>A to B</u>
Construction -	<u>17+90</u> stations <u>0.34</u> miles					Improvement -	<u>0+00</u> stations <u>0.00</u> miles
CLEARING AND GRUBBING - Endhaul		1.100	acres @			\$1,500.00	per acre = <u>\$1,650.00</u>
							TOTAL CLEARING AND GRUBBING
							\$3,257.20
EXCAVATION - Common		2282	cy. @			\$1.40	per c.y. = \$3,194.80
Rippable		1113	cy. @			\$3.20	per c.y. = \$3,561.60
Landing (Sta. 17+90)		1	@			\$285.00	each = <u>\$285.00</u>
							TOTAL EXCAVATION
							\$7,041.40
ENDHAUL - Waste to Waste Area	0+00	to	17+90			1552	cy. @ \$1.30 per c.y. = \$2,017.60
Spread & Compact Waste						1552	cy. @ \$0.25 per c.y. = \$388.00
Spread & Compact Fill						1843	cy. @ \$0.45 per c.y. = <u>\$829.35</u>
							TOTAL ENDHAUL
							\$3,235.88
ROCK							
0+00 to 13+05		292	cy. of	Crushed	@	\$15.58	per c.y. = \$4,549.36
0+00 to 17+90		953	cy. of	Pit-Run	@	\$5.08	per c.y. = \$4,841.24
Landing Sta. 17+90		45	cy. of	Pit-Run	@	\$5.15	per c.y. = <u>\$231.75</u>
							TOTAL ROCK
							\$9,622.35
SPECIAL PROJECTS							
Construct waste areas -		2.00	hours @			\$145.00	per hour \$290.00
Construct ditchouts (Sta. 2+60, 5+35, & 14+50)-		3.00	@			\$60.00	each \$180.00
Grade and shape road -		17.90	stations @			\$15.50	per station \$277.45
Roll subgrade w/ vibratory roller prior to rocking -		17.90	stations @			\$13.20	per station \$236.28
Remove large stumps -			lump sum @			\$520.00	\$520.00
Grass seed and fertilize -		0.50	acres @			\$220.00	per acre \$110.00
							TOTAL SPECIAL PROJECTS
							\$1,613.73
							GRAND TOTAL
							\$24,770.56

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>		Road: <u>C to D</u>
Construction -	<u>6+55</u> stations <u>0.12</u> miles		Improvement - <u>0+00</u> stations <u>0.00</u> miles
CLEARING AND GRUBBING -			
Endhaul	0.57 acres @	\$1,500.00 per acre =	<u>\$855.00</u>
		TOTAL CLEARING AND GRUBBING	\$855.00
EXCAVATION -			
Common	1925 cy. @	\$1.40 per c.y. =	\$2,695.00
Landing (Sta. 6+55)	1 @	\$285.00 each =	<u>\$285.00</u>
		TOTAL EXCAVATION	\$2,980.00
ENDHAUL -			
Waste to Waste Area	0+00 to 6+55	495 cy. @	\$1.04 per c.y. = \$514.80
Spread & Compact Waste		495 cy. @	\$0.25 per c.y. = \$123.75
Spread & Compact Fill		1430 cy. @	\$0.45 per c.y. = <u>\$643.50</u>
		TOTAL ENDHAUL	\$1,282.05
CULVERTS - MATERIALS & INSTALLATION			
	<u>Culverts</u>		
	34 LF of 18"	\$578.00	
			0 LF of 24" \$0.00
	<u>Culvert Stakes & Markers</u>		
	0 stakes	\$0.00	
	2 markers	<u>\$16.00</u>	
		\$16.00	TOTAL CULVERTS \$594.00
ROCK			
1+25 to 5+35	86 cy. of	Crushed @	\$14.89 per c.y. = \$1,280.54
0+00 to 6+55	324 cy. of	Pit-Run @	\$5.14 per c.y. = \$1,665.36
Junction (Sta. 0+00)	20 cy. of	Pit-Run @	\$4.96 per c.y. = \$99.20
Landing (Sta. 6+55)	25 cy. of	Pit-Run @	<u>\$127.00</u>
		TOTAL ROCK	\$3,172.10
SPECIAL PROJECTS			
Construct waste areas -	1.00 hours @	\$145.00 per hour	\$145.00
Construct ditchout (Sta. 3+20) -	1.00 @	\$60.00 each	\$60.00
Grade and shape road -	6.55 stations @	\$14.00 per station	\$91.70
Roll subgrade w/ vibratory roller prior to rocking -	6.55 stations @	\$13.20 per station	\$86.46
Remove large stumps -	lump sum @	\$260.00	\$260.00
Grass seed and fertilize -	0.15 acres @	\$220.00 per acre	\$33.00
Mulching -	0.150 acres @	\$600.00 per acre	<u>\$90.00</u>
		TOTAL SPECIAL PROJECTS	\$766.16
GRAND TOTAL			\$9,649.31

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>				Road:	<u>E to F</u>			
Construction -	7+20 stations				Reconstruction -	5+35 stations			
	0.14 miles					0.10 miles			
CLEARING AND GRUBBING -									
Scattering			0.720	acres @	\$980.00	per acre =	\$705.60		
							TOTAL CLEARING AND GRUBBING		\$705.60
EXCAVATION -									
Road Earthwork: (Sta. 0+00 - 7+20 & 10+00 - 12+55)			5.35	sta. @	\$90.00	per sta. =	\$481.50		
Road Earthwork: (Sta. 7+20 - 10+00)			2.80	sta. @	\$140.00	per sta. =	\$392.00		
Construct Turnaround (Sta. 12+00)			1	@	\$75.00	each =	\$75.00		
							TOTAL EXCAVATION		\$948.50
Spread & Compact Fill			2	hrs. @	\$220.00	per hour =	\$440.00		
							TOTAL ENDHAUL		\$440.00
CULVERTS - MATERIALS & INSTALLATION									
	<u>Culverts</u>								
	0	LF of 18"	\$0.00				0	LF of 24"	\$0.00
	<u>Culvert Stakes & Markers</u>								
	0	stakes	\$0.00						
	1	markers	\$8.00						
			\$8.00				TOTAL CULVERTS		\$8.00
ROCK									
7+20 to	10+00	59	cy. of	Crushed	@	\$15.42	per c.y. =	\$909.78	
Junction (Sta. 0+00)		5	cy. of	Crushed	@	\$15.17	per c.y. =	\$75.85	
0+00 to	12+55	639	cy. of	Pit-Run	@	\$6.08	per c.y. =	\$3,885.12	
Junction (Sta. 0+00)		20	cy. of	Pit-Run	@	\$5.85	per c.y. =	\$117.00	
								TOTAL ROCK	\$4,987.75
SPECIAL PROJECTS									
Grade and shape road -			12.55	stations @	\$14.00	per station	\$175.70		
Roll subgrade w/ vibratory roller prior to rocking -			12.55	stations @	\$13.20	per station	\$165.66		
Remove large stumps -				lump sum @	\$130.00		\$130.00		
Grass seed and fertilize -			0.29	acres @	\$220.00	per acre	\$63.80		
Mulching -			0.290	acres @	\$600.00	per acre	\$174.00		
							TOTAL SPECIAL PROJECTS		\$709.16
GRAND TOTAL								\$7,799.01	

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>		Road:	<u>G to H</u>
Construction -	<u>18+10</u> stations <u>0.34</u> miles		Reconstruction -	<u>17+00</u> stations <u>0.32</u> miles
CLEARING AND GRUBBING -				
Scattering		1.670 acres @	\$980.00 per acre =	\$1,636.60
Endhaul		0.41 acres @	\$1,500.00 per acre =	\$615.00
			TOTAL CLEARING AND GRUBBING	\$2,251.60
EXCAVATION -				
Road Earthwork (Sta. 0+00 - 9+55)		9.55 sta. @	\$90.00 per sta. =	\$859.50
Road Earthwork (Sta. 15+50 - 35+10)		19.60 sta. @	\$140.00 per sta. =	\$2,744.00
Common (Sta. 9+55 - 15+50)		2177 cy. @	\$1.40 per c.y. =	\$3,047.80
Construct Landing (Sta. 35+10)		1 @	\$285.00 each =	\$285.00
Construct Turnouts (15+50 & 19+40)		2 @	\$60.00 each =	\$120.00
Construct Turnaround (Sta. 33+10)		1 @	\$75.00 each =	\$75.00
Construct Loaded Truck Turnaround (Sta. 27+40)		3 hours @	\$145.00 per hour =	\$435.00
			TOTAL EXCAVATION	\$7,566.30
ENDHAUL -				
Spread & Compact Fills		3 cy. @	\$0.93 per c.y. =	\$2.79
			TOTAL ENDHAUL	\$2.79
CULVERTS - MATERIALS & INSTALLATION				
	<u>Culverts</u>			
	44	LF of 18"	\$748.00	
			0	LF of 24" \$0.00
	<u>Culvert Stakes & Markers</u>			
	0	stakes	\$0.00	
	1	markers	\$8.00	
			<u>\$8.00</u>	
			TOTAL CULVERTS	\$756.00
ROCK				
0+00 to 35+10	1,776	cy. of	Pit-Run @	\$10.15 per c.y. = \$18,026.40
Landing (Sta. 35+10)	25	cy. of	Pit-Run @	\$10.15 per c.y. = \$253.75
Junctions (Sta. 0+00, 9+55, & 24+85)	60	cy. of	Pit-Run @	\$10.09 per c.y. = \$605.40
Loaded Truck TA (Sta. 27+40)	235	cy. of	Pit-Run @	\$10.09 per c.y. = \$2,371.15
				<u>\$2,371.15</u>
			TOTAL ROCK	\$21,256.70
SPECIAL PROJECTS				
Construct ditchouts (Sta. 1+10, 1+90, 4+50, 6+15, 7+25, & 15+00)-	6.00	@	\$60.00 each	\$360.00
Grade and shape road -	35.10	stations @	\$14.00 per station	\$491.40
Roll subgrade w/ vibratory roller prior to rocking -	35.10	stations @	\$13.20 per station	\$463.32
Remove large stumps -		lump sum @	\$1,040.00	\$1,040.00
Grass seed and fertilize -	0.81	acres @	\$220.00 per acre	\$178.20
Mulching -	0.360	acres @	\$600.00 per acre	\$216.00
			TOTAL SPECIAL PROJECTS	\$2,748.92
GRAND TOTAL				\$34,582.31

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>					Road: <u>I to J</u>
Construction -	<u>5+20</u> stations <u>0.10</u> miles					<u>0+00</u> stations <u>0.00</u> miles
CLEARING AND GRUBBING - Scattering			0.300 acres @	\$980.00 per acre =		<u>\$294.00</u>
					TOTAL CLEARING AND GRUBBING	
						\$294.00
EXCAVATION - Road Earthwork Construct Landing (Sta. 5+20)			5.20 sta. @ 1 @	\$140.00 per sta. = \$285.00 each =		<u>\$728.00</u> <u>\$285.00</u>
					TOTAL EXCAVATION	
						\$1,013.00
Spread & Compact Fills			2 hrs. @	\$220.00 per hour =		<u>\$440.00</u>
					TOTAL ENDHAUL	
						\$440.00
ROCK 0+00 to Landing (Sta. 5+20)	5+20	253 cy. of 70 cy. of	Pit-Run Pit-Run	@ @	\$10.26 per c.y.= \$10.16 per c.y.=	<u>\$2,595.78</u> <u>\$711.20</u>
						TOTAL ROCK
						\$3,306.98
SPECIAL PROJECTS						
Grade and shape road -			5.20 stations @	\$14.00 per station		\$72.80
Roll subgrade w/ vibratory roller prior to rocking -			5.20 stations @	\$13.20 per station		\$68.64
Remove large stumps -			lump sum @	\$390.00		\$390.00
Grass seed and fertilize -			0.12 acres @	\$220.00 per acre		\$26.40
					TOTAL SPECIAL PROJECTS	
						\$557.84
GRAND TOTAL						\$5,611.82

SUMMARY OF CONSTRUCTION COST

Sale: <u>Beaver Ridge</u>	Road: <u>K to L</u>
Construction -	Improvement -
<u>2+65</u> stations <u>0.05</u> miles	<u>0+00</u> stations <u>0.00</u> miles
CLEARING AND GRUBBING - Scattering	0.260 acres @ \$980.00 per acre = \$254.80 TOTAL CLEARING AND GRUBBING
	\$254.80
EXCAVATION - Road Earthwork Construct a Landing	2.65 sta. @ \$140.00 per sta. = \$371.00 1 @ \$285.00 each = \$285.00 TOTAL EXCAVATION
	\$656.00
ENDHAUL - Fill from G to H Widening (Sta. 9+55 - 15+50) Spread & compact Fill Material	2102 cy. @ \$1.12 per c.y. = \$2,354.24 2102 cy. @ \$0.45 per c.y. = \$945.90 TOTAL ENDHAUL
	\$3,300.14
ROCK 0+00 to 2+65 Landing (Sta. 2+65)	130 cy. of Pit-Run @ \$10.09 per c.y. = \$1,311.70 70 cy. of Pit-Run @ \$9.98 per c.y. = \$698.60 TOTAL ROCK
	\$2,010.30
SPECIAL PROJECTS Grade and shape road - Roll subgrade w/ vibratory roller prior to rocking - Remove large stumps - Grass seed and fertilize - Mulching -	2.65 stations @ \$14.00 per station = \$37.10 2.65 stations @ \$13.20 per station = \$34.98 lump sum @ \$130.00 = \$130.00 0.17 acres @ \$220.00 per acre = \$37.40 0.170 acres @ \$600.00 per acre = \$102.00 TOTAL SPECIAL PROJECTS
	\$341.48
GRAND TOTAL	
	\$6,562.72

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>		Road: <u>M to N</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles		Improvement - <u>88+40</u> stations <u>1.67</u> miles
CLEARING AND GRUBBING - Roadside Brushing	1.67 miles @		\$600.00 per mile = <u>\$1,002.00</u> TOTAL CLEARING AND GRUBBING \$1,002.00
EXCAVATION & END-HAUL - Ditchline excavation and end-haul Excavate 3' wide ditchline (Sta. 87+50 - 88+40)	10.00 Hours @ 2.0 Hrs. @		\$75.00 per Hour = <u>\$750.00</u> \$75.00 per Hour = <u>\$150.00</u> TOTAL EXCAVATION \$900.00
ENDHAUL - Ditchline Material (Sta. 87+50 - 88+40) Ditchline Material (Sta. 0+00 - 87+50) Spread & Compact Waste	2 Hrs. @ 10 Hrs. @ 2 Hrs. @		\$70.00 per Hour = <u>\$140.00</u> \$70.00 per Hour = <u>\$700.00</u> \$95.00 per Hour = <u>\$190.00</u> TOTAL ENDHAUL \$1,030.00
CULVERTS - MATERIALS & INSTALLATION			
	<u>Culverts</u>		
	54 LF of 18" <u>\$918.00</u>		0 LF of 24" <u>\$0.00</u>
	<u>Culvert Stakes & Markers</u>		
	0 stakes <u>\$0.00</u> 1 markers <u>\$8.00</u> <u>\$8.00</u>		TOTAL CULVERTS \$926.00
ROCK 0+00 to 88+40 Widening Cap Rock (Sta. 86+50 - 88+40) Widening Base Rock (Sta. 86+50 - 88+40)	2,897 cy. of 25 cy. of 40 cy. of	Crushed Crushed Pit-Run	@ \$12.10 per c.y.= <u>\$35,053.70</u> @ \$14.49 per c.y.= <u>\$362.25</u> @ \$9.04 per c.y.= <u>\$361.60</u> TOTAL ROCK \$35,777.55
SPECIAL PROJECTS			
Construct waste areas -	1.00 hours @		\$95.00 per hour <u>\$95.00</u>
Construct Leadoff Ditch (Sta. 88+40) -	1.00 @		\$60.00 each <u>\$60.00</u>
Grade and shape road -	88.40 stations @		\$15.50 per station <u>\$1,370.20</u>
Construct/Install rubber water diverter (Sta. 87+30) -	1.00 @		\$360.00 each <u>\$360.00</u>
Roll subgrade w/ vibratory roller prior to rocking -	88.40 stations @		\$13.20 per station <u>\$1,166.88</u>
Remove culverts from state lands	1.00 @		\$222.90 total <u>\$222.90</u>
Grass seed and fertilize -	3.50 acres @		\$220.00 per acre <u>\$770.00</u>
Mulching -	3.50 acres @		\$600.00 per acre <u>\$2,100.00</u>
			TOTAL SPECIAL PROJECTS \$6,144.98
			GRAND TOTAL \$45,780.53

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Beaver Ridge</u>				Road:	<u>O to P</u>			
Construction -	0+00		stations		Improvement -	2+50		stations	
	0.00		miles			0.05		miles	
EXCAVATION & END-HAUL -									
Excavate Large Fill				1555	cy. @	\$1.40	per c.y. =	\$2,177.00	
Construct Benches (Excavator)				3.0	Hrs. @	\$145.00	per Hour =	\$435.00	
Pullback				334	cy. @	\$1.40	per c.y. =	\$467.60	
								TOTAL EXCAVATION	\$3,079.60
ENDHAUL -									
Large Fill Material				290	CY @	\$1.05	per c.y. =	\$304.50	
Compact Waste Area				624	CY @	\$0.25	per c.y. =	\$156.00	
Pullback	1+00	to	2+50	334	CY @	\$1.05	per c.y. =	\$350.70	
Compact Fill Material				1680	CY @	\$0.45	per c.y. =	\$756.00	
								TOTAL ENDHAUL	\$1,877.82
CULVERTS - MATERIALS & INSTALLATION									
<u>Culverts</u>									
	0		LF of 42"	\$0.00				58	LF of 48"
								2	Bands
								1:1	Bevel
									\$3,437.38
<u>Culvert Installation:</u>									
	4		Laborer Hours @ \$30/Hr	\$120.00					
	2		Excavator Hrs. @ \$145/Hr	\$290.00					
				\$410.00					
<u>Culvert Stakes & Markers</u>									
	0		stakes	\$0.00					
	1		markers	\$8.00					
				\$8.00					
								TOTAL CULVERTS	\$3,855.38
ROCK									
0+00 to	1+00		127	cy. of	Pit-Run	@	\$5.61	per c.y. =	\$712.47
Culvert Bedding/Backfill			30	cy. of	Crushed	@	\$14.45	per c.y. =	\$433.50
Culvert Backfill			200	cy. of	Pit-Run	@	\$5.14	per c.y. =	\$1,028.00
Inlet Armor			100	cy. of	Riprap	@	\$8.95	per c.y. =	\$895.00
Outlet Armor/Dissipater			125	cy. of	Riprap	@	\$8.95	per c.y. =	\$1,118.75
									TOTAL ROCK
									\$4,187.72
SPECIAL PROJECTS									
Construct waste areas -				1.00	hours @	\$95.00	per hour	\$95.00	
Grade and shape road -				1.00	stations @	\$15.50	per station	\$15.50	
Roll subgrade w/ vibratory roller prior to rocking -				1.00	stations @	\$13.20	per station	\$13.20	
Remove culverts from state lands				1.00	@	\$222.90	total	\$222.90	
Grass seed and fertilize -				0.07	acres @	\$220.00	per acre	\$15.40	
Mulching -				0.070	acres @	\$600.00	per acre	\$42.00	
								TOTAL SPECIAL PROJECTS	\$404.00
GRAND TOTAL									\$13,404.52

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Mohler Blue Pit	Location:	S 1/2 Sec. 33, T3N, R9W, W.M.
Sale:	Beaver Ridge	Road:	3409 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	3409 c.y.
Drill Pct.:	0%	In Place Total:	2435 c.y.

Purchased 1-1/2"-0" Crushed Rock:	\$8.60	/cu.yd.	x	3409	cu.yds.	=	\$29,317.40
Move in Trucks				3		@	\$136.58
						=	\$409.74
							TOTAL PRODUCTION COSTS \$29,727.14
Base Cost=	\$8.72			Per Cu.Yd.			

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B: 0+00 - 13+05	4.41	2.45	8.72	15.58	292	4,549.36
C to D: 1+25 - 5+35	3.72	2.45	8.72	14.89	86	1,280.54
E to F: 7+20 - 10+00	4.25	2.45	8.72	15.42	59	909.78
E to F: Junction (0+00)	4.00	2.45	8.72	15.17	5	75.85
				Total C.Y.	3409	Sub Total 42,618.73
TOTAL ROCKING COSTS						\$42,618.73

ROCK DEVELOPMENT COST SUMMARY

Pit:	Mohler Brown Pit	Location:	NW 1/4 Sec.14 & NE 1/4 Sec. 15, T3N, R10W, W.M.
Sale:	Beaver Ridge	Pit-Run:	2659 c.y.
Swell:	1.40	Crushed:	2922 c.y.
Shrinkage	1.16	Total Truck Loads:	5581 c.y.
Drill Pct.:	0%	In Place Total:	3986 c.y.

Purchased Pit-Run	\$5.00	/cu.yd.	x	2659	cu.yds.	=	\$13,295.00
Purchased 1-1/2"-0" Crushed:	\$8.60	/cu.yd.	x	2922	cu.yds.	=	\$25,129.20
Move in Trucks	3		@	\$136.58		=	\$409.74
TOTAL PRODUCTION COSTS							\$13,704.74
Base Cost Pit-Run =	\$5.07			Per Cu.Yd.			
Base Cost Crushed =	\$8.67			Per Cu.Yd.			

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST		
G to H: (0+00 - 35+10)	\$3.98	\$1.10	\$5.07	\$10.15	1776	\$18,026.40		
G to H: Loaded Truck T.A. (27+40)	\$3.92	\$1.10	\$5.07	\$10.09	235	\$2,371.15		
G to H: Junctions (0+00, 9+55, & 24+85)	\$3.92	\$1.10	\$5.07	\$10.09	60	\$605.40		
G to H: Landing	\$3.98	\$1.10	\$5.07	\$10.15	25	\$253.75		
I to J: (0+00 - 5+20)	\$4.09	\$1.10	\$5.07	\$10.26	253	\$2,595.78		
I to J: Landing	\$3.99	\$1.10	\$5.07	\$10.16	70	\$711.20		
K to L: (0+00 - 2+65)	\$3.92	\$1.10	\$5.07	\$10.09	130	\$1,311.70		
K to L: Landing	\$3.81	\$1.10	\$5.07	\$9.98	70	\$698.60		
M to N: Widening Base Rock (86+50 - 88+40)	\$3.37	\$0.60	\$5.07	\$9.04	40	\$361.60		
M to N: Widening Cap Rock (86+50 - 88+40)	\$3.37	\$2.45	\$8.67	\$14.49	25	\$362.25		
M to N: (0+00 - 88+40)	\$3.24	\$2.45	\$8.67	\$14.36	2897	\$41,600.92		
					Total C.Y.	5581	Sub Total	\$68,898.75

TOTAL ROCKING COSTS	\$68,898.75
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ROCK DEVELOPMENT COST SUMMARY

Pit:	Pit-Run Pit	Location:	NE 1/4, Sec. 33, T3N, R9W, W.M.
Sale:	Beaver Ridge	Road:	2166 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	2166 c.y.
Drill Pct.:	0%	In Place Total:	1547 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.	\$943.08
Rip Rock	\$1.90 /cu.yd. x 1547 cu.yds. = \$2,939.30
Load Dump Truck:	\$0.70 /cu.yd. x 2166 cu.yds. = \$1,516.20
Subtotal	\$5,398.58

Move in Excavator (Within Area Move: 0.34 Miles @ \$44.80/Mile)	=	\$15.23
Move in Trucks (Within Area Move: 2 Trucks/ 0.34 Miles @ \$??/Mile/Truck)	=	\$1.94
Subtotal		\$17.17

TOTAL PRODUCTION COSTS \$5,415.75

Base Cost= \$2.50 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B: 0+00 - 17+90	\$1.48	\$1.10	\$2.50	\$5.08	953	\$4,841.24
A to B: Landing	\$1.55	\$1.10	\$2.50	\$5.15	45	\$231.75
C to D: 0+00 - 6+55	\$1.54	\$1.10	\$2.50	\$5.14	324	\$1,665.36
C to D: Junction (0+00)	\$1.36	\$1.10	\$2.50	\$4.96	20	\$99.20
C to D: Landing	\$1.48	\$1.10	\$2.50	\$5.08	25	\$127.00
E to F: 0+00 - 12+55	\$2.48	\$1.10	\$2.50	\$6.08	639	\$3,885.12
E to F: Junction (0+00)	\$2.25	\$1.10	\$2.50	\$5.85	20	\$117.00
				Total C.Y.	2166	Sub Total \$11,530.87

TOTAL ROCKING COSTS \$11,530.87

ROCK DEVELOPMENT COST SUMMARY

Pit:	Post Canyon Pit-Run Pit	Location:	NW 1/4, Sec. 18, T2N, R8W, W.M.
Sale:	Beaver Ridge	Road:	327 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	327 c.y.
Drill Pct.:	0%	In Place Total:	234 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.	\$310.04
Rip Rock	\$1.90 /cu.yd. x 234 cu.yds. = \$444.60
Load Dump Truck:	\$0.70 /cu.yd. x 327 cu.yds. = \$228.90
Subtotal	\$983.54

Move in Excavator (Within Area Move: 0.45 Miles @ \$44.80/Mile)	= \$20.16
Move in Trucks (Within Area Move: 2 Trucks/ 0.45 Miles @ \$2.85/Mile/Truck)	= \$2.57
Subtotal	\$22.73

Base Cost= <u> \$3.08 </u> Per Cu.Yd.	TOTAL PRODUCTION COSTS <u> \$1,006.27 </u>
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Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
O to P: Fill Material	\$1.31	\$0.75	\$3.08	\$5.14	200	\$1,028.00
O to P: Surfacing	\$1.43	\$1.10	\$3.08	\$5.61	127	\$712.47
				Total C.Y.	327	Sub Total
						\$1,740.47

TOTAL ROCKING COSTS	\$1,740.47
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ROCK DEVELOPMENT COST SUMMARY

Site:	5-way stockpile site	Location:	NW 1/4, Sec. 18, T2N, R8W, W.M.
Sale:	Beaver Ridge	Road:	30 c.y.
Swell:	0.00	Stockpile:	c.y.
Shrinkage	0.00	Total Truck Loads:	30 c.y.
Drill Pct.:	0%	In Place Total:	c.y.

Load Dump Truck: \$0.70 /cu.yd. x 30 cu.yds. = \$21.00
Subtotal \$21.00

Move in Excavator (Within Area Move: 6 Miles @ \$44.80/Mile) = \$268.80
 Move in Trucks (Within Area Move: 2 Trucks/ 6 Miles @ \$2.85/Mile/Truck) = \$34.20
Subtotal \$303.00

TOTAL PRODUCTION COSTS \$324.00

Base Cost= \$10.80 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
O to P; Culvert Bedding/Backfill	\$3.20	\$0.45	\$10.80	\$14.45	30	\$433.50
				Total C.Y.	30	Sub Total \$433.50

TOTAL ROCKING COSTS \$433.50

ROCK DEVELOPMENT COST SUMMARY

Pit:	Upper Miami Pit	Location:	SE 1/4, Sec. 11, T2N, R9W, W.M.
Sale:	Beaver Ridge	Road:	225 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	225 c.y.
Drill Pct.:	0%	In Place Total:	161 c.y.

Load Dump Truck: \$1.40 /cu.yd. x 225 cu.yds. = \$315.00
Subtotal \$315.00

Move in Excavator (Within Area Move: 1.1 Miles @ \$44.80/Mile) = \$49.28
 Move in Trucks (Within Area Move: 2 Trucks/ 1.1 Miles @ \$2.85/Mile/Truck) = \$6.27
Subtotal \$55.55

TOTAL PRODUCTION COSTS \$370.55

Base Cost= \$1.65 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Placement Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
O to P: Inlet Armor	\$5.90	\$1.40	\$1.65	\$8.95	100	\$895.00
O to P: Outlet Armor/Dissipater	\$5.90	\$1.40	\$1.65	\$8.95	125	\$1,118.75
				Total C.Y.	225	Sub Total \$2,013.75

TOTAL ROCKING COSTS \$2,013.75

Move-In Calculations: Peterson Creek Side

Sale: Beaver Ridge

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
58.6	Highway	30
0.0	Main Lines	7
3.1	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00		\$46.00	0.00	0.00	0	\$0.00	\$0.00
0	Brush Cutter	\$0.00		\$4.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$187.85		\$3.65	0.00	0.00	0	\$0.00	\$187.85
0	Loader (Small)	\$0.00	1	\$3.55	0.00	0.00	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$0.00	1	\$9.00	0.00	0.00	0	\$0.00	\$0.00
2	Rollers (smooth/grid) & Compactors	\$852.07		\$5.00	0.00	0.00	0	\$0.00	\$852.07
0	Excavators (Small)	\$0.00		\$22.00	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0.00	0.00	0	\$0.00	\$0.00
1	Excavators (Large)	\$761.25	1	\$44.80	0.00	0.00	0	\$0.00	\$761.25
0	Tired Backhoes/Skidders	\$0.00		\$3.00	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D6)	\$0.00	2	\$7.10	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D7)	\$0.00	2	\$11.30	0.00	0.00	0	\$0.00	\$0.00
1	Tractor (D8)	\$741.71	2	\$15.10	0.00	0.00	0	\$0.00	\$741.71
2	Dump Truck (10 cy +)	\$335.47		\$2.85	0.00	0.00	0	\$0.00	\$335.47
0	Dump Truck (Off Hiway)	\$0.00	1	\$4.75	0.00	0.00	0	\$0.00	\$0.00
2	Water Truck (1500 Gal)	\$273.17		\$2.85	0.00	0.00	0	\$0.00	\$273.17
0	Water Truck (2500 Gal)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,489.00							

TOTAL MOVE-IN COSTS:	\$3,151.52
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Move-In Calculations: Camp Four Side

Sale: Beaver Ridge

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
6.4	Highway	30
9.1	Main Lines	7
1.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00		\$46.00	0.00	0.00	0	\$0.00	\$0.00
0	Brush Cutter	\$0.00		\$4.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$63.39		\$3.65	0.00	0.00	0	\$0.00	\$63.39
0	Loader (Small)	\$0.00	1	\$3.55	0.00	0.00	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$0.00	1	\$9.00	0.00	0.00	0	\$0.00	\$0.00
2	Rollers (smooth/grid) & Compactors	\$613.79		\$5.00	0.00	0.00	0	\$0.00	\$613.79
0	Excavators (Small)	\$0.00		\$22.00	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0.00	0.00	0	\$0.00	\$0.00
1	Excavators (Large)	\$474.90	1	\$44.80	0.00	0.00	0	\$0.00	\$474.90
0	Tired Backhoes/Skidders	\$0.00		\$3.00	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D6)	\$0.00	2	\$7.10	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D7)	\$0.00	2	\$11.30	0.00	0.00	0	\$0.00	\$0.00
1	Tractor (D8)	\$442.76	2	\$15.10	0.00	0.00	0	\$0.00	\$442.76
2	Dump Truck (10 cy +)	\$231.87		\$2.85	0.00	0.00	0	\$0.00	\$231.87
0	Dump Truck (Off Hiway)	\$0.00	1	\$4.75	0.00	0.00	0	\$0.00	\$0.00
2	Water Truck (1500 Gal)	\$188.81		\$2.85	0.00	0.00	0	\$0.00	\$188.81
0	Water Truck (2500 Gal)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,489.00							

TOTAL MOVE-IN COSTS:	\$2,015.52
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Move-In Calculations: Foley Creek Road

Sale: Beaver Ridge

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
26.0	Highway	30
0.0	Main Lines	7
0.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00		\$46.00	0.00	0.00	0	\$0.00	\$0.00
0	Brush Cutter	\$0.00		\$4.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$63.27		\$3.65	0.00	0.00	0	\$0.00	\$63.27
0	Loader (Small)	\$0.00	1	\$3.55	0.00	0.00	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$0.00	1	\$9.00	0.00	0.00	0	\$0.00	\$0.00
2	Rollers (smooth/grid) & Compactors	\$359.57		\$5.00	0.00	0.00	0	\$0.00	\$359.57
0	Excavators (Small)	\$0.00		\$22.00	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Large)	\$0.00	1	\$44.80	0.00	0.00	0	\$0.00	\$0.00
1	Tired Backhoes/Skidlers	\$179.78		\$3.00	0.00	0.00	0	\$0.00	\$179.78
1	Tractors (D6)	\$245.49	2	\$7.10	0.00	0.00	0	\$0.00	\$245.49
0	Tractors (D7)	\$0.00	2	\$11.30	0.00	0.00	0	\$0.00	\$0.00
0	Tractor (D8)	\$0.00	2	\$15.10	0.00	0.00	0	\$0.00	\$0.00
0	Dump Truck (10 cy +)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
3	Dump Truck (Off Hlway)	\$643.77	1	\$4.75	0.00	0.00	0	\$0.00	\$643.77
2	Water Truck (1500 Gal)	\$98.80		\$2.85	0.00	0.00	0	\$0.00	\$98.80
0	Water Truck (2500 Gal)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,489.00							
TOTAL MOVE-IN COSTS:								\$1,590.68	

Move-In Calculations: Post Canyon

Sale: Beaver Ridge

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
0.0	Highway	30
0.0	Main Lines	7
6.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00		\$46.00	0.00	0.00	0	\$0.00	\$0.00
0	Brush Cutter	\$0.00		\$4.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$87.60		\$3.65	0.00	0.00	4.43	\$16.17	\$103.77
0	Loader (Small)	\$0.00	1	\$3.55	0.00	0.00	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$0.00	1	\$9.00	0.00	0.00	0	\$0.00	\$0.00
2	Rollers (smooth/grid) & Compactors	\$356.50		\$5.00	0.00	0.00	4.43	\$44.30	\$400.80
0	Excavators (Small)	\$0.00		\$22.00	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0.00	0.00	0	\$0.00	\$0.00
1	Excavators (Large)	\$0.00	1	\$44.80	0.00	0.00	4.43	\$198.46	\$198.46
0	Tired Backhoes/Skidders	\$0.00		\$3.00	0.00	0.00	0	\$0.00	\$0.00
1	Tractors (D6)	\$381.47	2	\$7.10	0.00	0.00	4.43	\$31.45	\$412.92
0	Tractors (D7)	\$0.00	2	\$11.30	0.00	0.00	0	\$0.00	\$0.00
0	Tractor (D8)	\$0.00	2	\$15.10	0.00	0.00	0	\$0.00	\$0.00
2	Dump Truck (10 cy +)	\$0.00		\$2.85	0.00	4.43	4.43	\$25.25	\$25.25
0	Dump Truck (Off Hiway)	\$0.00	1	\$4.75	0.00	0.00	0	\$0.00	\$0.00
2	Water Truck (1500 Gal)	\$97.71		\$2.85	0.00	0.00	0	\$0.00	\$97.71
0	Water Truck (2500 Gal)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,489.00							
TOTAL MOVE-IN COSTS:								\$1,238.91	

	TOTAL MOVE-IN COSTS:	\$1,238.91
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OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Beaver Ridge*

1. Type of Sale

Regeneration Harvest (Modified Clearcut); Partial Cut: Conifer – recovery, hardwood - cash.

2. Legal Description

Portions of Sections 21, 27, 28, 29, 32, 33 and 34 T 3N, R 9 W, W.M. Tillamook County, Oregon

3. Sale Acreage

The sale boundaries were plotted on a digital ortho photograph and the acreage was calculated with GIS.

ACRES		
	<u>Sale</u>	<u>Net</u>
Area 1 (Modified Clearcut)	121	98
Area 2 (Modified Clearcut)	113	102
Area 3 (Partial Cut)	65	52
Area 4 (Modified Clearcut)	63	55
Area 5 (Partial Cut)	67	66
Area 6 (Partial Cut)	50	44
Total	479	417

Sale Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Clearcut - Sale acres, less green tree retention, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut – Sale acres less areas of low stocking, hardwoods, roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method

A total of 112 variable radius plots were taken across the sale area. All plots in all areas were spaced on a square grid pattern.

Area	Grid Pattern	# Plots
1	450 x 450	22
2	450 x 450	21
3	400 x 400	12
4	350 x 350	20
5	400 x 400	17
6	300 x 300	20

All conifers 8 inches and greater and all hardwoods 10 inches DBH and greater were recorded on all plots. Species were recorded on all trees and they were graded and measured for merchantable height, diameter and form factor.

B. Plot size

A basal area factor of 40 was used for conifers and 20 for hardwoods in Areas 1, 2, 3, 4 and 5. A BAF of 40 was used for all trees in Area 6. The point of observation was at 4.5 feet.

C. Grading System

All trees were graded according to the Columbia River Log Scaling and Grading Rules. Tree heights were recorded to a 7 inch top outside bark for hemlock, Sitka spruce and cedar; six inch outside bark for Douglas-fir; nine inch top outside bark for hardwoods; or three tenths (0.3) of DBH for all species, whichever was greater. Log lengths all favored 40 feet. Height and diameter measurement standards were to the nearest foot or inch respectively. All diameters were taken at a height of 4.5 feet. Conifers less than 20 board feet and hardwoods less than 30 board feet were not recorded.

5. Computation Procedure

Plot data was entered into the SuperAce program for computation of basal area, stand tables, board foot volumes and grades for each species. This data was then entered into the Volume Summary Worksheet to compute the sale volumes.

Statistics for the cruise were computed using Atterbury Consultants, Inc. SuperAce 98 program. The cruise for similar types were combined. The coefficient of variation and standard error are as follows: Areas 1 and 2: 62.9 and 9.6; Area 3: 60.8 and 18.3; Area 4: 66 and 15.1; Area 5: 64.1 and 16; and Area 6: 51.7 and 11.8.

6. Hidden Defect and Breakage

Hidden defect and breakage was adjusted to match the conditions of the operating areas; on Areas 1, 2 and 3 a 10% for conifer and 15% for hardwoods was applied due to steep broken ground; on Areas 4, 5 and 6 a 5% deduction for conifer and 10% on hardwoods was applied to account for defect and breakage.

7. Timber Description

Areas 1-5 were burned in the 1933 Tillamook Fire and Areas 1-4 were burned in the 1945 Wilson River Fire. All of the areas naturally regenerated. The west edge of Area 2 and the north edge of Areas 4 and 5 were thinned about 5 and 10 years ago respectively.

Areas 1 and 2: Good quality naturally regenerated alder and conifer 55 years old. The timber on both of these areas is basically the same but were divided into 2 areas to maintain a clearcut harvest size of less than 120 acres each.

Area 3: Predominately a dense hemlock stand with Douglas-fir and alder. 55 years old.

Area 4: An almost equal Douglas-fir/ hemlock stand with alder and cedar patches and openings. 55 years old.

Area 5: A good quality conifer stand with more Douglas-fir than hemlock which is 55 years old.

Area 6: A 65 year old good quality hemlock stand.

8. Cruiser Names/Dates

Phillips, Winslow, Klumph, Wells/ May 2006

9. Revenue Distribution

FDF: 100%

Tax Code: 56-1

Deed Number: 35

10. Attachments

Volume by grade

Stand Table (partial cut)

Volume Summaries

Logging Plan

T03N R09W S28 TCON T03N R09W S28 TCON
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 03N 09W 28 AREA_1_2 CON 1.00 43 282 S W

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
RA	DO	CR	100	.9	6,531	6,472	6	93	7			8	15	15	62	31	81	0.80	80.0
RA	Totals		35	.9	6,531	6,472	6	93	7			8	15	15	62	31	81	0.80	80.0
WH	DO	2M	7		214	214	0		100					100		40	264	1.59	.8
WH	DO	3M	65	1.3	1,973	1,947	2	62	38				5	7	89	38	113	0.83	17.3
WH	DO	4M	28	1.0	820	812	1	100				11	34	20	34	28	39	0.45	20.8
WH	Totals		16	1.1	3,007	2,973	3	68	32			3	12	10	74	32	77	0.68	38.8
DF	DO	2M	13	4.4	407	389	0		100					100		40	231	1.57	1.7
DF	DO	3M	69	3.0	1,979	1,919	2	2	81	17			6		94	38	107	0.84	18.0
DF	DO	4M	18		478	478	0	67	20	13		11	54	13	22	27	35	0.37	13.6
DF	Totals		15	2.7	2,863	2,785	3	13	59	28		2	13	2	82	33	84	0.73	33.3
DL	DO	2M	64	1.7	2,620	2,576	3		40	60			8	5	87	38	433	2.51	5.9
DL	DO	3M	31	3.6	1,287	1,241	1	1	39	41	19	4	3	8	84	37	189	1.28	6.6
DL	DO	4M	5	4.2	175	168	0	12	46	42		20	58	14	8	23	58	0.83	2.9
DL	Totals		22	2.4	4,082	3,984	4	1	14	39	46	2	8	6	83	34	258	1.74	15.4
WL	DO	2M	63	4.7	1,376	1,312	1		44	56				100		40	470	2.69	2.8
WL	DO	3M	33	5.0	718	683	1		38	62		1	17		82	34	161	1.26	4.2
WL	DO	4M	4		71	71	0		100			39	34		26	22	32	0.59	2.2
WL	Totals		11	4.6	2,165	2,065	2		16	48	36	2	7		91	33	224	1.68	9.2
SS	DO	4M	100		44	44	0		100					100		27	100	1.59	.4
SS	Totals		0		44	44	0		100					100		27	100	1.59	.4
Type Totals				2.0	18,692	18,323	18	2	58	26	14	4	12	9	75	32	103	0.90	177.2

T03N R09W S28 TCON
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt T03N R09W S28 TCON
 03N 09W 28 AREA_3 CON 1.00 12 100 S BdFt W

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
WH		DO	2M	34		6,347	6,347	6			57	43			100	40	391	1.94	16.2	
WH		DO	3M	54	2.9	10,158	9,868	10		55	42	4		1	6	93	39	139	0.86	71.1
WH		DO	4M	12		2,212	2,212	2	100				8	18	22	52	29	46	0.39	48.1
WH		Totals		37	1.5	18,717	18,427	18		41	42	17	1	2	6	91	36	136	0.86	135.4
WL		DO	2M	61	1.3	7,425	7,331	7			6	94			7	93	40	614	2.86	11.9
WL		DO	3M	37	1.3	4,544	4,487	4		26	50	24	1	10	2	88	37	216	1.33	20.8
WL		DO	4M	2		197	197	0	100				50	50			18	39	0.63	5.1
WL		Totals		24	1.2	12,166	12,015	12		11	23	66	1	4	5	89	36	318	1.82	37.8
DL		DO	SM	9		1,027	1,027	1				100			100	40	646	3.08	1.6	
DL		DO	2M	35	.2	3,747	3,740	4			20	80			12	88	39	638	3.08	5.9
DL		DO	3M	49	2.6	5,364	5,223	5		18	35	47	1	11	2	86	36	258	1.60	20.3
DL		DO	4M	1		116	116	0	100				28	72			20	28	0.39	4.1
DL		PU	3M	6		550	550	1				100			100	40	1370	6.14	.4	
DL		Totals		21	1.4	10,804	10,656	11		10	24	66	1	6	5	88	35	331	1.96	32.2
RA		DO	CR	100		3,002	3,002	3		81	19		13	35	3	49	27	82	0.87	36.7
RA		Totals		6		3,002	3,002	3		81	19		13	35	3	49	27	82	0.87	36.7
DF		DO	2M	49		1,775	1,775	2			50	50			100	40	412	2.19	4.3	
DF		DO	3M	44		1,573	1,573	2		62	38				100	40	146	0.91	10.8	
DF		DO	4M	7		227	227	0	42	58			79	21			19	25	0.35	9.1
DF		Totals		7		3,575	3,575	4	3	31	41	25	5	1	94	32	148	1.06	24.1	
RC		DO	3M	78		817	817	1		100					100	40	101	1.24	8.1	
RC		DO	4M	22		230	230	0		100				22	78	32	54	0.74	4.3	
RC		Totals		2		1,047	1,047	1		100				5	95	37	85	1.09	12.3	
OH		DO	CR	100		862	862	1		52	48			21	19	60	34	127	1.19	6.8
OH		Totals		2		862	862	1		52	48			21	19	60	34	127	1.19	6.8
Type Totals					1.2	50,172	49,583	50	0	30	31	38	2	6	5	87	34	174	1.16	285.5

T03N R09W S28 TCON
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt T03N R09W S28 TCON
 03N 09W 28 AREA_4 CON 1.00 20 177 S BdFt W

Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
WH	DO	2M	21	2.0	2,722	2,667	3		78	22				100	40	314	1.92	8.5		
WH	DO	3M	68	.3	8,243	8,221	8		66	34			2	1	97	39	118	0.76	69.7	
WH	DO	4M	11		1,263	1,263	1	100					10	41	39	10	26	36	0.37	34.9
WH	Totals		33	.6	12,229	12,151	12		55	40	5		2	4	5	89	35	107	0.77	113.1
DF	DO	SM	1		233	233	0			100				100	40	460	2.78	.5		
DF	DO	2M	46	1.3	5,604	5,531	6		69	31			2	98	40	325	1.93	17.0		
DF	DO	3M	45	2.3	5,645	5,515	6	81	16	4			1	99	40	133	0.89	41.5		
DF	DO	4M	8	.5	947	943	1	50	50				17	36	12	35	28	35	0.39	27.0
DF	Totals		33	1.7	12,429	12,223	12	4	40	38	17		1	3	2	94	36	142	1.01	86.0
RA	DO	4M	1		55	55	0		100					100	40	90	1.06	.6		
RA	DO	CR	99	1.5	5,471	5,387	5		92	8			9	20	12	59	31	77	0.84	69.6
RA	Totals		15	1.5	5,525	5,442	5		92	8			9	19	12	59	31	77	0.84	70.2
DL	DO	SM	5		260	260	0			100				100	40	940	5.18	.3		
DL	DO	2M	74	1.9	3,349	3,287	3		8	92			5	8	87	39	621	3.38	5.3	
DL	DO	3M	16	10.9	777	692	1	43	46	11			23	77	36	170	1.35	4.1		
DL	DO	4M	5		222	222	0	73	27				38	34	27	21	26	0.37	8.5	
DL	Totals		12	3.2	4,609	4,462	4	4	8	13	75		2	9	7	81	30	247	1.88	18.1
WL	DO	2M	75	7.8	1,760	1,623	2			100				100	40	615	3.61	2.6		
WL	DO	3M	24	1.6	531	523	1	14	86				4	4	18	74	34	173	1.37	3.0
WL	DO	4M	1		16	16	0	100					100				19	40	0.71	.4
WL	Totals		6	6.3	2,307	2,162	2	4	21	75			2	1	4	93	36	356	2.44	6.1
RC	DO	3M	45	19.3	167	134	0		14	86			14		86	30	355	6.09	.4	
RC	DO	4M	55		161	161	0	68	32				100			19	20	0.32	8.0	
RC	Totals		1	9.8	328	295	0	37	18	6	39		61		39	19	35	0.72	8.4	
Type Totals				1.8	37,426	36,735	37	2	47	30	21		3	6	5	85	34	122	0.95	302.0

T03N R09W S28 TCON T03N R09W S28 TCON
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 03N 09W 28 AREA_5 CON 1.00 17 135 S W

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
RA		DO CR	100	2.8	5,587	5,429	5		75	25			11	19	6	64	29	91	1.05	59.5
RA	Totals		15	2.8	5,587	5,429	5		75	25			11	19	6	64	29	91	1.05	59.5
DL		DO 2M	52	2.7	6,258	6,087	6			30	70		1		3	96	39	475	2.77	12.8
DL		DO 3M	44	5.3	5,409	5,123	5	0	45	38	17			10	5	84	37	164	1.06	31.3
DL		DO 4M	4		427	427	0	66	34				12	20	38	30	31	42	0.45	10.3
DL	Totals		33	3.8	12,094	11,636	12	3	21	32	44		1	5	5	88	36	214	1.40	54.4
WL		DO 2M	51	1.8	5,152	5,060	5			33	67			10		90	39	439	2.25	11.5
WL		DO 3M	42	3.9	4,202	4,037	4	0	50	41	9			8	5	87	38	147	0.96	27.5
WL		DO 4M	7	2.8	695	676	1	1	99				22	15	7	56	26	43	0.51	15.7
WL	Totals		28	2.8	10,049	9,772	10	0	27	34	38		2	10	3	86	35	178	1.16	54.8
DF		DO 2M	24		1,011	1,011	1			100					100		40	322	2.09	3.1
DF		DO 3M	66	1.3	2,681	2,645	3		91	9					3	97	40	112	0.70	23.7
DF		DO 4M	10		400	400	0	62	38				18	66		16	24	30	0.38	13.2
DF	Totals		12	.9	4,092	4,056	4	6	63	31			2	7	2	90	35	101	0.75	40.0
WH		DO 2M	6	5.6	318	300	0			100					100		40	340	1.93	.9
WH		DO 3M	77	.7	3,317	3,294	3		80	20					100		40	124	0.71	26.6
WH		DO 4M	17		725	725	1		100				14	29	39	18	27	44	0.44	16.7
WH	Totals		12	.9	4,359	4,319	4		78	22			2	5	6	86	35	98	0.66	44.2
Type Totals				2.7	36,182	35,213	35	2	43	30	25		3	9	4	84	34	139	1.04	252.8

T03N R09W S21 TCON T03N R09W S21 TCON
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 03N 09W 21 AREA_6 CON 1.00 20 165 S W

Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
WL	DO	2M	23	.3	4,627	4,613	5		61	39				100	40	382	2.04	12.1	
WL	DO	3M	67	7.1	14,030	13,041	13	34	48	19	1	2	4	93	39	179	1.17	73.1	
WL	DO	4M	10	6.9	1,966	1,831	2	85	8	7	11	17	28	44	27	50	0.57	36.3	
WL	Totals		40	5.5	20,624	19,485	19	31	47	22	2	3	5	90	36	160	1.13	121.4	
WH	DO	2M	12		2,238	2,238	2		86	14				100	40	344	1.80	6.5	
WH	DO	3M	70	.7	12,784	12,694	13	84	16					100	40	109	0.66	116.5	
WH	DO	4M	18	.7	3,273	3,249	3	100			23	33	30	14	25	34	0.32	96.5	
WH	Totals		37	.6	18,294	18,181	18	76	22	2	4	6	5	85	34	83	0.58	219.6	
DL	DO	2M	58	.4	3,927	3,911	4		44	56			7	93	39	438	2.38	8.9	
DL	DO	3M	39	.8	2,671	2,650	3	36	44	20	1	11	7	81	37	196	1.25	13.5	
DL	DO	4M	3		171	171	0	100			36	64			19	34	0.53	5.1	
DL	Totals		14	.5	6,769	6,733	7	17	43	40	1	6	7	86	35	245	1.60	27.5	
DF	DO	3M	85	2.6	2,905	2,830	3	76	24					100	40	128	0.80	22.1	
DF	DO	4M	15	6.9	520	484	0	71	29		13	11	63	13	29	35	0.36	13.7	
DF	Totals		7	3.3	3,425	3,313	3	10	69	21	2	2	9	87	36	93	0.66	35.8	
SS	DO	3M	75		1,002	1,002	1	53	47			18		82	37	167	1.32	6.0	
SS	DO	4M	25		320	320	0	100				17		83	35	51	0.40	6.2	
SS	Totals		3		1,322	1,322	1	64	36			18		82	36	108	0.86	12.2	
RA	DO	CR	100		141	141	0	100				100			30	60	0.64	2.3	
RA	Totals		0		141	141	0	100				100			30	60	0.64	2.3	
Type Totals				2.8	50,576	49,176	49	1	49	35	15	3	5	6	87	34	117	0.83	418.9

TC TSTNDSUM

Stand Table Summary

Project **BEAVS**

T03N R09W S28 TCON

T03N R09W S28 TCON

Twp Rge Sec Tract
03N 09W 28 AREA_3

Type Acres Plots Sample Trees
CON 1.00 12 100

Page: 1
Date: 09/14/201
Time: 12:50:51PM

TAKE HEMLOCK

LEAVE HEMLOCK

LEAVE DF

TAKE DF

Spc	S T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Totals			
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Cunits	MBF
WH		9	1	88	76	7.066	3.33	7.07	13.1	70.0	2.97	93	495	3	1	0
WH		10	1	83	80	6.112	3.33	6.11	15.8	70.0	3.10	97	428	3	1	0
WH		11	1	89	61	5.338	3.33	5.34	13.0	50.0	2.22	69	267	2	1	0
WH		12	1	89	132	4.316	3.33	8.63	14.9	70.0	4.11	128	604	4	1	1
WH		13	2	88	41	7.528	6.67	7.53	14.6	44.4	3.51	110	334	4	1	0
WH		14	3	88	101	9.415	10.00	18.83	19.1	78.2	11.54	360	1,473	12	4	1
WH		15	1	89	127	2.680	3.33	5.36	28.1	125.0	4.83	151	670	5	2	1
WH		16	2	88	134	4.690	6.67	9.38	32.0	143.0	9.61	300	1,342	10	3	1
WH		17	1	87	145	2.066	3.33	6.20	26.6	116.7	5.27	165	723	5	2	1
WH		18	3	89	118	5.617	10.00	13.10	33.7	141.5	14.12	441	1,854	14	4	2
WH		19	1	92	131	1.767	3.33	5.30	29.1	133.3	4.94	154	707	5	2	1
WH		20	3	88	129	4.524	10.00	10.53	43.9	194.2	14.80	462	2,045	15	5	2
WH		21	2	90	139	2.772	6.67	8.32	41.6	201.7	11.08	346	1,677	11	3	2
WH		23	3	88	137	3.497	10.00	9.35	50.1	218.9	14.99	469	2,046	15	5	2
WH		24	3	89	134	3.202	10.00	9.60	53.1	254.3	16.33	510	2,442	16	5	2
WH		25	1	89	134	.994	3.33	2.98	56.0	270.0	5.34	167	805	5	2	1
WH		26	1	89	110	.904	3.33	1.81	77.6	285.0	4.49	140	515	4	1	1
WH		Totals	30	88	103	72.486	100.00	135.43	30.7	136.1	133.23	4,163	18,427	133	42	18
WL		17	1	89	75	2.191	3.33	4.38	22.4	85.0	3.14	98	373	3	1	0
WL		23	2	89	128	2.362	6.67	5.92	53.5	247.9	10.13	317	1,468	10	3	1
WL		25	4	87	142	3.904	13.33	10.74	62.1	294.7	21.34	667	3,166	21	7	3
WL		26	2	89	117	1.815	6.67	4.54	65.3	293.8	9.49	297	1,334	9	3	1
WL		28	2	88	139	1.543	6.67	4.63	73.8	373.1	10.93	341	1,727	11	3	2
WL		30	1	89	124	.675	3.33	2.02	79.6	343.3	5.15	161	695	5	2	1
WL		31	1	89	131	.653	3.33	1.96	75.6	393.3	4.74	148	770	5	1	1
WL		33	1	89	111	.568	3.33	1.14	122.8	590.0	4.46	139	670	4	1	1
WL		34	1	88	122	.516	3.33	1.55	98.9	506.7	4.91	153	785	5	2	1
WL		36	1	87	154	.472	3.33	.94	137.6	1090.0	4.15	130	1,028	4	1	1
WL		Totals	16	88	124	14.699	53.33	37.83	64.8	317.6	78.44	2,451	12,015	78	25	12
DL		19	1	86	127	1.641	3.33	4.92	29.2	90.0	3.94	144	443	4	1	0
DL		20	1	85	140	1.528	3.33	4.58	32.1	130.0	4.05	147	596	4	1	1
DL		26	1	88	116	.925	3.33	2.78	44.9	220.0	3.43	125	611	3	1	1
DL		27	1	86	166	.864	3.33	2.59	68.5	350.0	4.88	177	907	5	2	1
DL		29	1	85	139	.727	3.33	2.18	73.3	350.0	4.40	160	763	4	2	1
DL		30	1	85	155	.698	3.33	2.09	83.9	423.3	4.83	176	886	5	2	1
DL		31	2	86	143	1.289	6.67	3.87	83.6	406.9	8.89	323	1,573	9	3	2
DL		33	1	86	163	.579	3.33	1.74	103.7	550.0	4.95	180	955	5	2	1
DL		34	2	86	140	1.080	6.67	3.24	92.0	469.7	8.19	298	1,521	8	3	2
DL		35	2	86	138	1.006	6.67	3.02	104.1	518.6	8.65	314	1,566	9	3	2
DL		39	1	86	136	.402	3.33	1.21	131.5	693.3	4.36	159	836	4	2	1
DL		Totals	14	86	140	10.737	46.67	32.21	68.4	330.8	60.56	2,202	10,656	61	22	11
DF		14	1	87	83	3.031	3.33	6.06	15.1	55.0	2.61	92	333	3	1	0
DF		19	1	86	125	1.711	3.33	5.13	27.9	116.7	4.07	143	599	4	1	1
DF		21	1	85	122	1.426	3.33	4.28	33.2	143.3	4.05	142	613	4	1	1
DF		23	1	85	139	1.176	3.33	3.53	44.9	206.7	4.51	158	729	5	2	1
DF		25	1	85	126	.962	3.33	2.89	50.7	220.0	4.17	146	635	4	1	1
DF		29	1	85	132	.747	3.33	2.24	65.4	296.7	4.18	147	665	4	1	1
DF		Totals	6	86	113	9.053	20.00	24.13	34.3	148.1	23.61	828	3,575	24	8	4
RA		10	1	87	26	2.937	1.67	2.94	7.2	30.0	.58	21	88	1	0	0

TC		TSTNDSUM											Stand Table Summary			
Project													BEAVS			
T03N R09W S28 TCON										T03N R09W S28 TCON						
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees			Page:	2				
03N	09W	28	AREA_3		CON	1.00	12	100			Date:	09/14/201				
											Time:	12:50:51PM				
Spc	S T	Sample		Av	Trees/	BA/	Logs	Average Log		Net	Net	Net	Totals			
		DBH	Trees	FF				Ht	Acres				Acres	Acres	Net	Net
RA		11	2	82	47	5.156	3.33	5.16	9.0	34.7	1.28	46	179	1	0	0
RA		12	1	80	52	2.195	1.67	2.19	14.2	50.0	.86	31	110	1	0	0
RA		13	1	80	33	1.865	1.67	1.87	12.1	40.0	.62	23	75	1	0	0
RA		14	1	79	44	1.652	1.67	1.65	17.0	40.0	.77	28	66	1	0	0
RA		15	4	80	76	5.512	6.67	5.51	31.8	101.5	4.81	175	559	5	2	1
RA		16	2	79	92	2.448	3.33	3.67	26.4	90.0	2.67	97	330	3	1	0
RA		17	3	80	98	3.112	5.00	5.17	33.2	118.2	4.72	171	611	5	2	1
RA		18	3	80	83	2.813	5.00	4.63	31.5	106.9	4.01	146	495	4	1	0
RA		19	1	80	52	.874	1.67	.87	39.0	110.0	.94	34	96	1	0	0
RA		20	2	79	94	1.545	3.33	3.09	34.5	127.2	2.93	107	393	3	1	0
RA		Totals	21	81	64	30.108	35.00	36.75	23.9	81.7	24.18	879	3,002	24	9	3
RC		13	1	70	108	3.508	3.33	3.51	29.9	70.0	2.46	105	246	2	1	0
RC		14	1	69	64	2.989	3.33	2.99	29.5	60.0	2.07	88	179	2	1	0
RC		19	1	70	70	1.786	3.33	1.79	55.1	90.0	2.31	98	161	2	1	0
RC		20	1	69	70	1.528	3.33	1.53	61.6	120.0	2.21	94	183	2	1	0
RC		22	1	70	96	1.263	3.33	2.53	46.0	110.0	2.73	116	278	3	1	0
RC		Totals	5	70	83	11.073	16.67	12.34	40.7	84.9	11.79	502	1,047	12	5	1
OH		12	1	80	72	2.020	1.67	2.02	22.2	80.0	1.24	45	162	1	0	0
OH		17	1	79	84	1.070	1.67	1.07	42.4	150.0	1.25	45	160	1	0	0
OH		20	1	80	57	.787	1.67	.79	50.6	90.0	1.10	40	71	1	0	0
OH		22	1	79	70	.631	1.67	1.26	37.1	125.0	1.29	47	158	1	0	0
OH		23	1	80	66	.568	1.67	.57	73.1	220.0	1.14	42	125	1	0	0
OH		24	1	80	90	.549	1.67	1.10	54.4	170.0	1.64	60	187	2	1	0
OH		Totals	6	80	73	5.625	10.00	6.80	40.9	126.7	7.65	278	862	8	3	1
BM		13	1	80	34	1.895	1.67									
BM		25	1	80	21	.489	1.67									
BM		Totals	2	80	31	2.384	3.33									
Totals		100	85	97		156.165	285.00	285.48	39.6	173.7	339.46	11304	49,583	339	113	50

TAKE ALDER

LEAVE ALDER

TC		Stand Table Summary														
Project													BEAVS			
T03N R09W S28 TCON											T03N R09W S28 TCON					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1		Date: 09/14/201					
03N	09W	28	AREA_5	CON	1.00	17	135	Time:	12:53:01PM							
Spc	S T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
DL		13	1	81	45	2.439	2.35	2.44	17.5	40.0	1.17	43	98	1	0	0
DL		15	1	80	64	2.024	2.35	2.02	14.7	40.0	.82	30	81	1	0	0
DL		17	2	82	120	3.113	4.71	6.23	28.1	104.9	4.81	175	653	5	2	1
DL		18	1	80	63	1.346	2.35	1.35	42.0	60.0	1.57	57	81	2	1	0
DL		19	1	81	136	1.158	2.35	3.47	29.4	106.7	2.81	102	371	3	1	0
DL		22	1	81	153	.883	2.35	2.65	36.4	150.0	2.66	96	397	3	1	0
DL		23	1	80	198	.816	2.35	2.45	53.1	236.7	3.58	130	579	4	1	1
DL		24	2	81	127	1.474	4.71	2.92	47.7	189.6	3.83	139	554	4	1	1
DL		25	1	80	115	.707	2.35	2.12	43.0	150.0	2.52	91	318	3	1	0
DL		26	4	79	160	2.538	9.41	8.89	52.3	206.4	12.78	465	1,835	13	5	2
DL		27	2	81	151	1.166	4.71	3.50	65.5	289.5	6.30	229	1,013	6	2	1
DL		28	1	78	155	.550	2.35	1.65	70.0	290.0	3.18	116	479	3	1	0
DL		29	4	82	163	2.031	9.41	6.61	73.8	344.8	13.42	488	2,278	13	5	2
DL		30	2	80	186	.965	4.71	3.86	67.9	338.9	7.21	262	1,308	7	3	1
DL		31	1	81	190	.464	2.35	1.86	69.7	345.0	3.56	129	640	4	1	1
DL		33	1	83	109	.401	2.35	1.20	75.7	343.3	2.50	91	413	3	1	0
DL		34	1	78	160	.384	2.35	1.15	104.1	466.7	3.31	120	538	3	1	1
DL		Totals	27	81	124	22.460	63.53	54.37	50.8	214.0	76.02	2,763	11,636	76	28	12
WL		12	1	85	41	2.806	2.35									
WL		14	1	85	59	1.116	1.18	1.12	25.9	100.0	.93	29	112	1	0	0
WL		15	4	84	84	7.620	9.41	11.40	24.8	83.3	9.09	282	949	9	3	1
WL		16	1	84	82	1.750	2.35	3.50	21.4	70.0	2.38	75	245	2	1	0
WL		17	1	84	150	1.441	2.35	4.32	28.1	113.3	3.88	121	490	4	1	0
WL		18	1	84	131	.666	1.18	1.33	27.3	115.0	1.17	36	153	1	0	0
WL		19	2	84	114	2.367	4.71	4.73	42.2	147.3	6.40	200	697	6	2	1
WL		21	1	81	118	.951	2.35	2.85	35.7	143.3	3.26	102	409	3	1	0
WL		22	2	86	147	1.824	4.71	6.37	39.6	185.3	8.08	252	1,181	8	3	1
WL		23	1	86	125	.808	2.35	2.43	44.0	190.0	3.41	107	461	3	1	0
WL		24	1	84	199	.749	2.35	3.00	40.6	217.5	3.89	122	652	4	1	1
WL		25	2	86	156	1.359	4.71	4.75	55.1	278.6	8.36	261	1,322	8	3	1
WL		27	2	83	148	1.184	4.71	3.55	62.5	305.8	7.10	222	1,086	7	2	1
WL		31	1	80	157	.449	2.35	1.35	93.3	413.3	4.02	126	557	4	1	1
WL		32	1	87	152	.432	2.35	2.16	57.7	344.0	3.99	125	743	4	1	1
WL		33	1	87	113	.406	2.35	1.22	87.7	400.0	3.42	107	487	3	1	0
WL		36	1	77	122	.337	2.35	.67	86.0	340.0	1.85	58	229	2	1	0
WL		Totals	24	84	106	26.265	54.12	54.75	40.6	178.5	71.23	2,224	9,772	71	22	10
RA		10	1	86	44	2.157	1.18	2.16	6.3	30.0	.38	14	65	0	0	0
RA		12	7	79	42	10.355	8.24	10.35	11.7	39.8	3.33	121	412	3	1	0
RA		13	2	79	50	2.553	2.35	2.55	16.4	45.0	1.14	42	115	1	0	0
RA		15	3	80	76	2.997	3.53	3.96	22.2	70.3	2.41	88	278	2	1	0
RA		16	7	80	91	5.975	8.24	9.40	27.2	92.4	7.03	256	869	7	3	1
RA		17	9	79	79	6.747	10.59	8.98	29.6	89.3	7.29	266	801	7	3	1
RA		18	4	80	81	2.651	4.71	4.67	29.5	96.3	3.78	138	449	4	1	0
RA		19	7	79	67	4.139	8.24	4.14	50.9	131.3	5.79	211	544	6	2	1
RA		20	5	79	73	2.691	5.88	3.76	44.7	131.2	4.63	168	494	5	2	0
RA		21	2	79	80	.969	2.35	1.94	33.9	97.4	1.80	66	189	2	1	0
RA		22	8	80	68	3.582	9.41	4.47	59.0	149.0	7.26	264	667	7	3	1
RA		23	2	80	79	.805	2.35	1.21	59.9	173.3	2.00	73	210	2	1	0
RA		25	1	79	62	.340	1.18	.34	89.0	190.0	.84	30	65	1	0	0
RA		26	2	79	68	.638	2.35	.96	69.6	173.3	1.83	67	166	2	1	0
RA		27	1	80	76	.296	1.18	.59	62.9	180.0	1.02	37	107	1	0	0

LEAVE DF

LEAVE HEMLOCK

TC		TSTNDSUM		Stand Table Summary												
Project														BEAVS		
T03N R09W S28 TCON											T03N R09W S28 TCON					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	2					
03N	09W	28	AREA_5	CON	1.00	17	135			Date:	09/14/201					
										Time:	12:53:01PM					
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
RA	Totals	61	80	67	46.894	71.76	59.48	30.9	91.3	50.53	1,839	5,429	51	18	5	
WH	11	1	86	106	3.565	2.35	3.57	18.5	70.0	2.12	66	250	2	1	0	
WH	12	1	85	138	3.262	2.35	6.52	14.2	65.0	2.96	93	424	3	1	0	
WH	14	3	85	105	6.545	7.06	13.03	19.5	76.7	8.13	253	999	8	3	1	
WH	16	2	84	137	3.523	4.71	8.80	24.3	102.0	6.83	214	898	7	2	1	
WH	17	2	88	98	2.952	4.71	5.83	29.0	132.2	5.41	169	772	5	2	1	
WH	19	1	85	145	1.260	2.35	3.78	31.2	130.0	3.78	118	492	4	1	0	
WH	22	1	86	136	.883	2.35	2.65	41.1	183.3	3.50	109	486	3	1	0	
WH	Totals	11	85	118	21.991	25.88	44.18	23.1	97.8	32.72	1,022	4,319	33	10	4	
DF	11	2	81	58	6.885	4.71	6.88	13.2	40.7	2.61	91	280	3	1	0	
DF	14	1	82	83	2.332	2.35	4.66	14.4	50.0	1.95	67	233	2	1	0	
DF	16	1	80	188	1.685	2.35	5.06	25.3	120.0	3.65	128	607	4	1	1	
DF	17	3	80	127	4.623	7.06	10.76	25.2	99.8	7.73	271	1,073	8	3	1	
DF	19	1	80	177	1.221	2.35	4.88	24.8	105.0	3.45	121	513	3	1	1	
DF	22	1	78	86	.908	2.35	1.82	40.8	115.0	2.10	74	209	2	1	0	
DF	23	1	84	108	.830	2.35	2.49	36.0	160.0	2.55	90	398	3	1	0	
DF	24	1	80	114	.737	2.35	1.47	62.1	225.0	2.61	92	331	3	1	0	
DF	26	1	80	136	.663	2.35	1.99	51.0	206.7	2.89	101	411	3	1	0	
DF	Totals	12	81	103	19.884	28.24	40.01	25.9	101.4	29.53	1,035	4,056	30	10	4	
Totals	135		82	97	137.493	243.53	252.79	35.1	139.3	260.03	8882	35,213	260	89	35	

TAKE HEMLOCK

TAKE DF

TC		Stand Table Summary														
TSTNDSUM		Project											BEAVS			
T03N R09W S21 TCON											T03N R09W S21 TCON					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees		Page:	1						
03N	09W	21	AREA_6	CON	1.00	20	165		Date:	09/14/200						
									Time:	12:54:51PM						
Spc	S T	Sample		Av	Trees/	BA/	Logs	Average Log		Net		Net		Totals		
		DBH	Trees	FF Ht				Net	Net	Tons/	Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF	
				16'	Acres	Acres	Acres	Cu.Ft.	Bd.Ft.	Acres	Acres	Acres				
WL		9	1	86	64	4.240	2.00	4.24	9.9	40.0	1.34	42	170	1	0	0
WL		11	2	87	105	5.848	4.00	8.72	13.7	53.5	3.83	120	467	4	1	0
WL		15	2	87	89	3.348	4.00	6.70	18.5	75.0	3.96	124	502	4	1	1
WL		16	3	87	100	4.352	6.00	8.70	25.6	102.9	7.12	223	896	7	2	1
WL		17	6	87	107	7.515	12.00	15.03	31.8	125.7	15.30	478	1,889	15	5	2
WL		18	5	87	104	5.698	10.00	11.40	34.2	129.0	12.47	390	1,470	12	4	1
WL		19	1	86	112	.984	2.00	1.97	40.8	155.0	2.57	80	305	3	1	0
WL		20	8	86	113	7.381	16.00	14.78	40.9	161.0	19.33	604	2,380	19	6	2
WL		21	2	87	117	1.688	4.00	4.19	40.9	174.3	5.48	171	731	5	2	1
WL		22	7	87	105	5.327	14.00	12.15	42.4	161.4	16.47	515	1,960	16	5	2
WL		23	4	86	110	2.816	8.00	6.36	52.1	195.4	10.60	331	1,242	11	3	1
WL		24	6	86	106	3.858	12.00	7.71	48.4	187.6	11.93	373	1,446	12	4	1
WL		25	5	86	117	2.972	10.00	6.54	58.9	272.9	12.32	385	1,784	12	4	2
WL		26	2	86	144	1.089	4.00	3.27	62.9	259.4	6.57	205	848	7	2	1
WL		27	2	86	113	1.007	4.00	2.50	59.0	259.4	4.73	148	649	5	1	1
WL		28	2	86	119	.926	4.00	1.39	102.0	399.9	4.55	142	557	5	1	1
WL		29	6	87	105	2.599	12.00	3.91	84.7	307.3	10.58	331	1,200	11	3	1
WL		31	3	86	98	1.170	6.00	1.57	96.0	365.0	4.83	151	574	5	2	1
WL		49	1	87	152	.154	2.00	.31	291.2	1350.0	2.87	90	416	3	1	0
WL		Totals	68	87	104	62.974	136.00	121.42	40.4	160.5	156.87	4,902	19,485	157	49	19
WH		9	5	86	62	22.919	10.00	22.92	8.8	41.5	6.49	203	951	6	2	1
WH		10	5	87	109	18.690	10.00	33.32	10.0	46.8	10.71	335	1,560	11	3	2
WH		11	8	86	84	24.238	16.00	33.07	13.2	52.4	14.00	437	1,733	14	4	2
WH		12	3	86	102	7.772	6.00	10.45	14.2	67.3	4.76	149	703	5	1	1
WH		13	8	86	96	17.830	16.00	30.97	16.7	65.1	16.55	517	2,015	17	5	2
WH		14	7	87	107	13.245	14.00	26.49	19.8	84.0	16.82	526	2,226	17	5	2
WH		15	3	86	117	4.874	6.00	9.75	24.4	104.8	7.62	238	1,022	8	2	1
WH		16	4	87	114	5.608	8.00	11.22	29.0	120.0	10.41	325	1,346	10	3	1
WH		17	4	87	124	5.142	8.00	11.52	29.5	124.6	10.87	340	1,436	11	3	1
WH		18	1	87	116	1.197	2.00	2.39	34.1	135.0	2.62	82	323	3	1	0
WH		19	3	86	115	3.091	6.00	6.18	41.1	160.1	8.13	254	990	8	3	1
WH		20	2	87	117	1.854	4.00	4.60	36.8	152.4	5.42	169	701	5	2	1
WH		21	4	87	125	3.336	8.00	10.01	36.7	166.3	11.75	367	1,664	12	4	2
WH		22	1	86	104	.737	2.00	1.47	53.6	215.0	2.53	79	317	3	1	0
WH		23	1	86	125	.718	2.00	2.15	43.7	193.3	3.01	94	416	3	1	0
WH		24	1	85	109	.637	2.00	1.27	63.9	220.0	2.60	81	280	3	1	0
WH		25	1	89	142	.606	2.00	1.82	56.8	273.3	3.30	103	497	3	1	0
WH		Totals	61	86	96	132.494	122.00	219.60	19.6	82.8	137.57	4,299	18,181	138	43	18
DL		21	1	86	115	.832	2.00	1.66	46.7	190.0	2.14	78	316	2	1	0
DL		22	1	86	118	.779	2.00	1.56	49.9	205.0	2.14	78	319	2	1	0
DL		23	2	86	125	1.363	4.00	4.09	42.6	184.9	4.79	174	756	5	2	1
DL		24	3	85	117	1.932	6.00	4.49	53.5	223.1	6.60	240	1,001	7	2	1
DL		25	2	86	127	1.197	4.00	3.59	46.1	211.6	4.55	166	760	5	2	1
DL		26	3	86	130	1.653	6.00	4.96	53.6	236.4	7.31	266	1,172	7	3	1
DL		27	3	86	127	1.521	6.00	3.54	66.2	292.6	6.45	235	1,037	6	2	1
DL		29	1	86	125	.430	2.00	1.29	70.5	323.3	2.50	91	417	3	1	0
DL		30	1	85	141	.407	2.00	1.22	78.3	400.0	2.63	96	489	3	1	0
DL		32	1	85	135	.370	2.00	1.11	84.8	420.0	2.59	94	466	3	1	0
DL		Totals	18	86	124	10.483	36.00	27.51	55.1	244.7	41.70	1,516	6,733	42	15	7
DF		13	1	85	106	2.204	2.00	4.41	15.1	60.0	1.90	67	264	2	1	0

LEAVE HEMLOCK

TAKE HEMLOCK

LEAVE DF

TC TSTNDSUM

Stand Table Summary

Project **BEAVS**

T03N R09W S21 TCON

T03N R09W S21 TCON

Twp Rge Sec Tract
03N 09W 21 AREA_6

Type
CON

Acres
1.00

Plots
20

Sample Trees
165

Page: 2
Date: 09/14/2010
Time: 12:54:51PM

TAKE DF

S Spc	T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
DF		14	2	85	113	3.586	4.00	7.17	19.5	75.0	3.99	140	538	4	1	1	
DF		15	2	85	103	3.311	4.00	6.62	21.9	84.5	4.12	145	559	4	1	1	
DF		16	2	87	113	2.744	4.00	5.49	27.9	112.5	4.37	153	617	4	2	1	
DF		17	2	85	123	2.465	4.00	6.14	27.6	108.1	4.83	170	664	5	2	1	
DF		18	1	85	123	1.144	2.00	3.43	25.3	96.7	2.47	87	332	2	1	0	
DF		21	1	86	129	.848	2.00	2.54	33.4	133.3	2.42	85	339	2	1	0	
DF		Totals		11	85	113	16.301	22.00	35.81	23.6	92.5	24.11	846	3,313	24	8	3
SS		10	1	83	78	3.741	2.00	3.74	14.1	60.0	1.37	53	224	1	1	0	
SS		14	1	85	105	1.768	2.00	3.54	21.2	75.0	1.95	75	265	2	1	0	
SS		18	1	84	58	1.107	2.00	1.11	36.4	130.0	1.05	40	144	1	0	0	
SS		20	1	82	66	.899	2.00	.90	59.0	150.0	1.38	53	135	1	1	0	
SS		22	1	84	94	.758	2.00	1.52	49.1	170.0	1.93	74	258	2	1	0	
SS		23	1	84	101	.705	2.00	1.41	57.9	210.0	2.12	82	296	2	1	0	
SS		Totals		6	84	83	8.979	12.00	12.21	30.9	108.3	9.80	377	1,322	10	4	1
RA		13	1	80	62	2.347	2.00	2.35	19.1	60.0	1.23	45	141	1	0	0	
RA		Totals		1	80	62	2.347	2.00	2.35	19.1	60.0	1.23	45	141	1	0	0
Totals				165	86	100	233.578	330.00	418.90	28.6	117.4	371.28	11985	49,176	371	120	49



"STEWARDSHIP IN FORESTRY"

Beaver Ridge

Volume Summary

Areas 1 and 2					
200 acres					
SPECIES	Gross MBF/Acre	Net MBF/Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Hemlock	3.0	3.0	600	10%	540
Douglas-fir	2.9	2.8	560	10%	504
Alder	6.5	6.5	1300	15%	1105
TOTAL	12.4	12.3	2460		2149

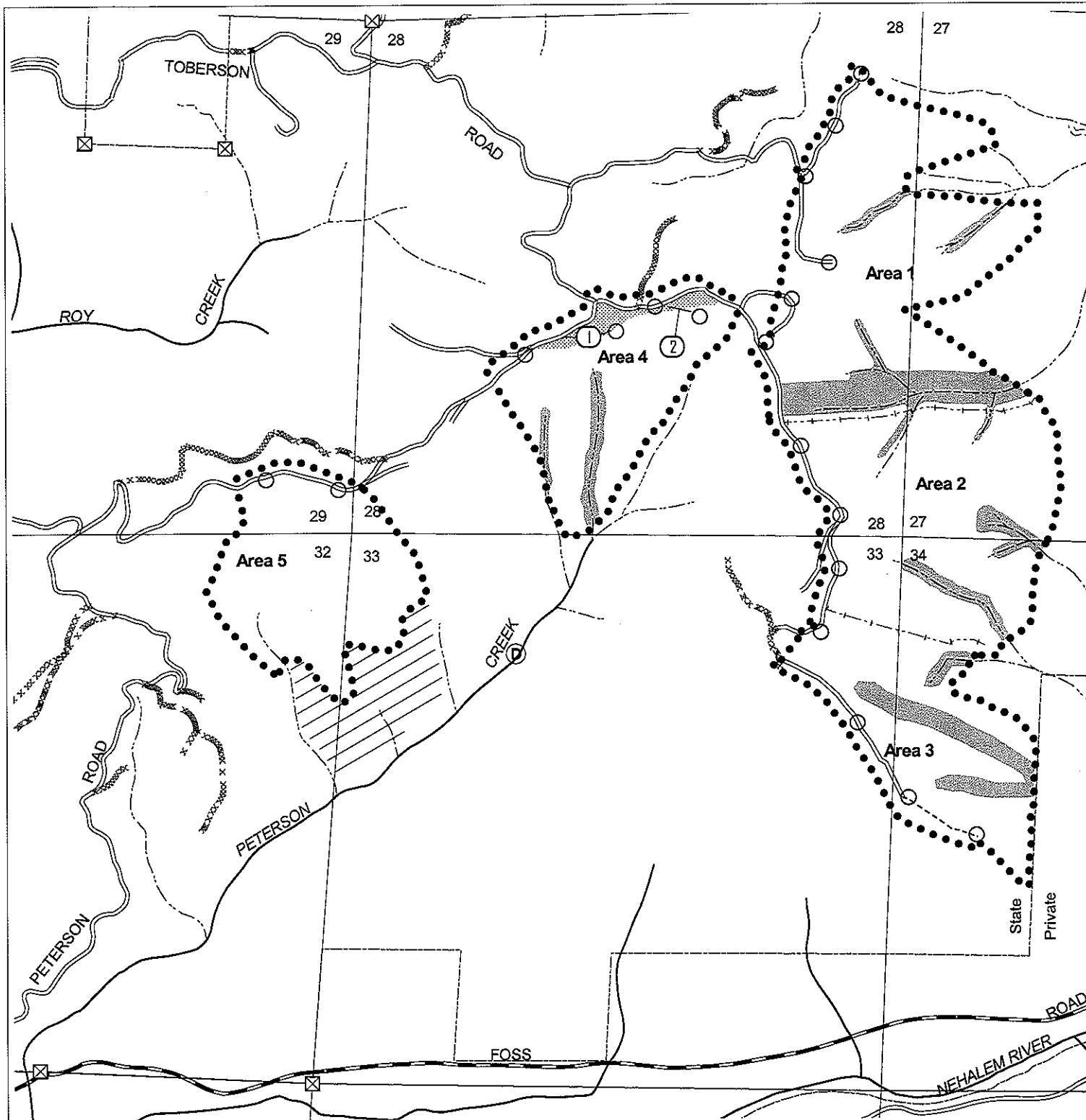
Area 3					
52 acres					
SPECIES	Gross MBF/Acre	Net MBF/Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Hemlock	18.7	18.4	957	10%	861
Douglas-fir	3.6	3.6	187	10%	168
Alder	3.0	3.0	156	15%	133
TOTAL	25.3	25.0	1300		1162

Area 4					
55 acres					
SPECIES	Gross MBF/Acre	Net MBF/Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Hemlock	12.2	12.2	671	5%	637
Douglas-fir	12.4	12.2	671	5%	637
Cedar	0.2	0.2	11	5%	10
Alder	5.5	5.4	297	10%	267
TOTAL	30.3	30.0	1650		1551

Area 5					
66 acres					
SPECIES	Gross MBF/Acre	Net MBF/Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Hemlock	4.4	4.3	284	5%	270
Douglas-fir	4.1	4.1	271	5%	257
TOTAL	8.5	8.4	555		527

Area 6					
44 acres					
SPECIES	Gross MBF/Acre	Net MBF/Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Hemlock	18.3	18.2	801	5%	761
Douglas-fir	3.4	3.3	145	5%	138
TOTAL	21.7	21.5	946		899

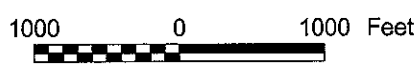
TOTAL SALE VOLUME			
SPECIES	MBF	% D&B	Net Vol (MBF)
Hemlock	3313	7.36%	3069
Douglas-fir	1834	7.09%	1704
Cedar	11	5%	10
Alder	1753	14.14%	1505
TOTAL	6911		6288



- Landing
- Ⓧ Domestic water supply intake
- Ⓜ Helicopter landing zone
- Ⓣ Truck turn-around
- ⓧ Survey corner
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Down Wood Area
- ▦ Buffer
- ▨ Non-required thinning
- - - Area boundary
- Sale boundary
- - - Ownership boundary
- Perennial Type-F stream
- - - Perennial Type-N stream
- Surfaced road
- - - Unsurfaced road
- State/Federal highway
- County road
- ② Non-project road
- - A - - Swing road
- - - Legacy road
- x x x Blocked road
- OHV trail
- - - Non-motorized trail
- T T Transmission line

LOGGING PLAN
 Timber Sale Contract No. 341-07-21
 Beaver Ridge
 Portions of Sections 21, 27, 28, 29,
 32, 33, and 34 T3N, R9W, W. M.
 Tillamook County, Oregon

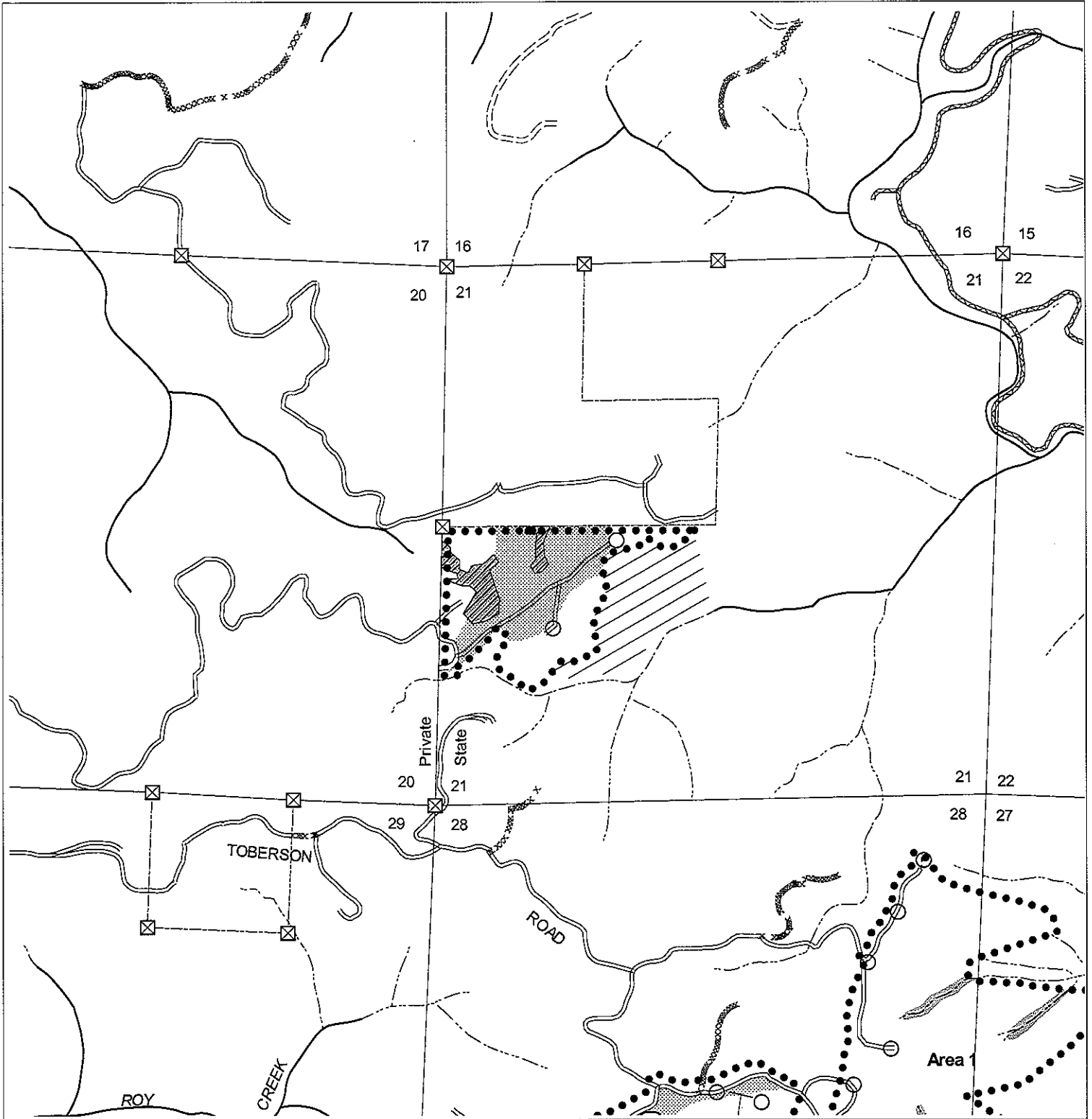
Area	Type of Operation	Acres Gross	Net
1	Modified Clearcut	121	98
2	Modified Clearcut	113	102
3	Partial Cut	65	52
4	Modified Clearcut	63	55
5	Partial Cut	67	66
6	Partial Cut	50	44
Total		479	417



Tillamook District GIS
8-29-2006

This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.





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- Ⓧ Domestic water supply intake
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