



Timber Sale Appraisal
North Morris
Sale 341-10-60

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: December 14, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$424,862.79	\$57,166.20	\$482,028.99
		Project Work:	\$(112,970.00)
		Advertised Value:	\$369,058.99



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District: Tillamook

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timber description

Location: Portions of Sections 27, 28, and 33, T2N, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95
Alder (Red)	12	0	90

Volume by Grade	10' - 11'	12'+	2S	3S	4S	6"	8" - 9"	Total
Douglas - Fir	0	0	561	2,696	912	0	0	4,169
Alder (Red)	74	41	0	0	0	239	66	420
Total	74	41	561	2,696	912	239	66	4,589



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comments: COMMENTS ARE BEING REVISED

Pond Values Used: 3rd Quarter Calendar Year 2009.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$520/\text{MBF} = \$740/\text{MBF} - \$220/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE

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

Other Costs (with Profit & Risk to be added):

Brand and Paint: $\$2/\text{MBF} \times 4,589 \text{ MBF} = \$9,178$

TOTAL Other Costs (with Profit and Risk to be added) = $\$9,178$

Other Costs (No Profit & Risk added):

Slash Piling and Sorting: $\$2.40$ acre of Modified Clear-Cut harvest
 $\times 144$ acres = $\$346$

Tank trap installation on un-surfaced road and road vacating: $2 \times$
 $\$75 = \150

Tractor swing total of 7 acres: $197 \text{ MBF} \times \$43 = \$8,471$

OHV Filter Construction: $\$75$ each filter location $\times 7$ filters =
 $\$525$

OHV Dip Installation: $\$125$ each dip on trail $\times 16$ dips = $\$2,000$

TOTAL Other Costs (No Profit & Risk added) = $\$11,492$

ROAD MAINTENANCE

Road Maintenance: North Fork and in unit Roads

Interim Grading: $\$250/\text{mile} \times 3.9$ miles $\times 3$ times / $4,589 \text{ MBF} =$
 $\$0.64/\text{MBF}$

Final Grading: $\$500/\text{mile} \times 3.9$ miles / $4,589 \text{ MBF} = \$0.42/\text{MBF}$

Spot rocking: $(200 \text{ cy crushed} \times \$11/\text{cy}) / 4,589 \text{ MBF} = \0.48

Compaction North Fork Road (120 stations $\times \$18/\text{station}$) + ($\111
move in) / $4,589 \text{ MBF} = \$0.49$

TOTAL ROAD MAINTENANCE COST: $\$2.03/\text{MBF}$



"STEWARDSHIP IN FORESTRY"

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logging conditions

combination#: 1 Douglas - Fir 87.06%

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: 8.0 **bd. ft / load:** 3,750
cost / mbf: \$127.56

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Large)

combination#: 2 Douglas - Fir 9.67%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 9.8 **bd. ft / load:** 3,800
cost / mbf: \$38.46

machines: Stroke Delimber (B)

combination#: 3 Douglas - Fir 3.26%

yarding distance: Long (1,500 ft) **downhill yarding:** No
logging system: Cable: Large Tower >=70 **Process:** Stroke Delimber
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 4.0 **bd. ft / load:** 3,700
cost / mbf: \$258.56

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Large)

combination#: 4 Alder (Red) 100.00%

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: 6.0 **bd. ft / load:** 3,950
cost / mbf: \$160.96

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Large)



"STEWARDSHIP IN FORESTRY"

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District: Tillamook

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logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$112,970.00	Other Costs (P/R):	\$9,178.00
Slash Disposal:	\$0.00	Other Costs:	\$11,492.00

Miles of Road

Road Maintenance: \$2.03

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	3.8
Alder (Red)	\$0.00	3.0	3.2

Local Pond Values

Date	Specie	Grade	Value
10/23/09	Douglas - Fir	Camprun	\$0.00
10/23/09	Western Hemlock / Fir	Camprun	\$0.00
10/23/09	Alder (Red)	Camprun	\$0.00



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"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: December 14, 2009

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$123.21	\$2.13	\$1.91	\$56.06	\$2.00	\$27.80	\$0.00	\$5.00	\$2.50	\$220.61
Alder (Red)									
\$160.96	\$2.23	\$1.91	\$69.75	\$2.00	\$35.53	\$0.00	\$5.00	\$2.50	\$279.88

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$322.52	\$101.91	\$0.00
Alder (Red)	\$0.00	\$415.99	\$136.11	\$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	4,169	\$101.91	\$424,862.79
Alder (Red)	420	\$136.11	\$57,166.20

Gross Timber Sale Value

Recovery: \$482,028.99

Prepared by: David Wells

Phone: 503-842-2545



PROJECT SUMMARY SHEET

Sale: North Morris

CONSTRUCTION

Point	A to B	5+30	stations =	\$6,082.73
Point	E to F	4+35	stations =	\$1,427.36
Point	G to H	13+10	stations =	\$4,318.57
SUBTOTAL CONSTRUCTION				\$11,828.66

IMPROVEMENT

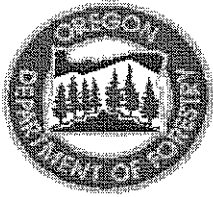
Point	I to J	2+00	stations =	\$5,431.64
Point	K to L	5+00	stations =	\$9,738.02
SUBTOTAL IMPROVEMENT				\$15,169.66

RECONSTRUCTION

Point	A to B	81+90	stations =	\$77,536.55
Point	C to D	11+00	stations =	\$1,832.70
Point	E to F	3+30	stations =	\$718.35
Point	M to N	6+00	stations =	\$1,596.40
SUBTOTAL RECONSTRUCTION				\$81,684.00

MOVE IN **\$4,287.68**

GRAND TOTAL **\$112,970.00**



"STEWARDSHIP IN FORESTRY"

North Morris

Volume Summary

Area 1-Modified Clearcut				
56 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Total D&B	Net Vol MBF
Douglas-fir	31.3	1755	5%	1660
Alder	2.3	127	17.7%	105
TOTAL	33.6	1882		1765

Areas 2-Modified Clearcut				
104 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Total D&B	Net Vol MBF
Douglas-fir	24.2	2513	5.5%	2373
Alder	3.6	375	15.9%	315
TOTAL	27.8	2888		2688

Areas 3-Partial Cut				
11 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Total D&B	Net Vol MBF
Douglas-fir	13.0	143	5.4%	136
TOTAL	13.0	143		136

TOTAL SALE VOLUME			171 acres	
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)		
Douglas-fir	4411	4169		
Red Alder	502	420		
TOTAL	4913	4589		

Log Stock Table - MBF
Project: NRTHMRRS

T02N R07W S28 TMC

T02N R07W S28 TMC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
02N 07W 28 AREA 1 MC 56.00 12 84 1
 Date **10/7/2009**
 Time **10:45:08AM**

S Spp	So T	Gr rt	Log de 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	25	13	5.0	12	.7						12							
DF	DO	2M	32	88	5.0	83	5.0					31	17	17	18					
DF	DO	2M	36	57	6.5	53	3.2					53								
DF	DO	2M	40	81	5.0	77	4.7					36	20	21						
DF	DO	3M	26	12	5.0	11	.7					11								
DF	DO	3M	32	513	5.1	487	29.3			34	203	151	90	9						
DF	DO	3M	33	2	5.0	2	.1			2										
DF	DO	3M	40	586	5.3	555	33.4			146	145	176	88							
DF	DO	4M	22	5	5.0	4	.3		4											
DF	DO	4M	23	2	5.0	2	.1		2											
DF	DO	4M	24	36	14.3	31	1.9		31											
DF	DO	4M	25	32	5.0	30	1.8		22	8										
DF	DO	4M	26	31	5.0	29	1.8		29											
DF	DO	4M	27	16	5.0	15	.9		15											
DF	DO	4M	29	19	5.0	18	1.1		18											
DF	DO	4M	30	8	5.0	8	.5		8											
DF	DO	4M	31	14	5.0	13	.8		13											
DF	DO	4M	32	20	5.0	19	1.1		19											
DF	DO	4M	33	12	5.0	11	.7		11											
DF	DO	4M	34	17	5.0	16	1.0		16											
DF	DO	4M	35	24	5.0	23	1.4		23											
DF	DO	4M	36	19	5.0	18	1.1		18											
DF	DO	4M	37	32	5.0	30	1.8		30											
DF	DO	4M	38	32	5.0	31	1.9		31											
DF	DO	4M	39	4	5.0	4	.2		4											
DF	DO	4M	40	77	5.0	73	4.4		33	40										
DF	DO	4M	41	5	5.0	5	.3		5											
DF	Totals			1,755	5.4	1,660	92.7		332	230	348	338	298	59	37	18				
RA	DO	UT	29	6	15.0	5	4.5			5										
RA	DO	CR	14	2	15.0	2	1.7			2										
RA	DO	CR	15	5	15.0	4	4.0				4									
RA	DO	CR	17	9	15.0	8	6.9					8								
RA	DO	CR	19	3	15.0	2	2.3			2										
RA	DO	CR	21	13	15.0	11	10.4			11										
RA	DO	CR	23	4	15.0	4	3.4			4										
RA	DO	CR	24	2	15.0	2	1.7			2										
RA	DO	CR	25	11	15.0	9	8.3			9										
RA	DO	CR	26	9	15.0	7	6.8				7									
RA	DO	CR	32	35	22.2	27	24.7				17		10							
RA	DO	CR	36	8	29.2	5	5.0			5										
RA	DO	CR	40	26	15.0	22	20.3			22										
RA	Totals			133	17.7	110	6.1			63	29	8	10							
DL	DO	2M	40	18		18	86.4												18	
DL	DO	3M	40	3		3	13.6				3									
DL	Totals			21		21	1.2				3								18	
Total All Species				1,909	6.2	1,791			332	293	380	346	308	59	37	36				

Log Stock Table - MBF
Project: NRTHMRRS

T02N R07W S33 TMC

T02N R07W S33 TMC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 02N 07W 33 AREA 2 MC 104.00 21 123 1
 Date 10/7/2009
 Time 10:47:50AM

Spp	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches										
										MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23
DF		DO	2M	32		271	5.8	255	10.8					61	82	92	19			
DF		DO	2M	36		22	5.0	21	.9						21					
DF		DO	2M	40		62	11.4	55	2.3						16	39				
DF		DO	3M	20		14	5.0	13	.6							13				
DF		DO	3M	32		809	5.2	767	32.3			147	160	273	158	29				
DF		DO	3M	36		53	5.0	50	2.1			14		18	18					
DF		DO	3M	37		3	5.0	3	.1			3								
DF		DO	3M	40		759	5.3	718	30.3			17	253	336	82	30				
DF		DO	4M	18		12	5.0	12	.5		12									
DF		DO	4M	20		19	5.0	18	.8		14			4						
DF		DO	4M	21		9	5.0	8	.3		8									
DF		DO	4M	22		1	5.0	1	.0		1									
DF		DO	4M	23		12	5.0	12	.5		12									
DF		DO	4M	24		41	5.0	39	1.6		39									
DF		DO	4M	25		27	5.0	26	1.1		26									
DF		DO	4M	26		12	5.0	12	.5		12									
DF		DO	4M	27		10	5.0	10	.4		10									
DF		DO	4M	28		15	5.0	14	.6		11	3								
DF		DO	4M	29		27	5.0	26	1.1		26									
DF		DO	4M	30		5	5.0	5	.2		5									
DF		DO	4M	32		63	10.7	56	2.4		15	26	15							
DF		DO	4M	33		11	5.0	11	.5		11									
DF		DO	4M	34		21	5.0	20	.8		20									
DF		DO	4M	35		30	5.0	28	1.2		28									
DF		DO	4M	36		16	5.0	15	.6		15									
DF		DO	4M	37		8	5.0	8	.3		8									
DF		DO	4M	38		6	5.0	6	.2		6									
DF		DO	4M	39		19	5.0	18	.8		15	3								
DF		DO	4M	40		145	5.0	138	5.8		68	70								
DF		DO	4M	41		9	5.0	9	.4		9									
DF		Totals				2,513	5.5	2,373	88.3		370	281	429	631	319	179	144	19		
RA		DO	CR	15		6	15.0	5	1.6			5								
RA		DO	CR	16		20	15.0	17	5.4						17					
RA		DO	CR	17		2	15.0	1	.5			1								
RA		DO	CR	21		20	15.0	17	5.4			17								
RA		DO	CR	23		3	15.0	3	.9			3								
RA		DO	CR	25		34	15.0	29	9.1			29								
RA		DO	CR	26		15	15.0	13	4.1			4	9							
RA		DO	CR	28		11	15.0	9	2.9			9								
RA		DO	CR	31		3	15.0	3	.9			3								
RA		DO	CR	32		97	18.4	79	25.0			29	13	37						
RA		DO	CR	35		4	15.0	4	1.1			4								
RA		DO	CR	36		33	15.0	28	9.0			28								
RA		DO	CR	37		5	15.0	4	1.2			4								
RA		DO	CR	40		122	15.0	104	32.9			45	16	29	14					
RA		Totals				375	15.9	315	11.7			180	37	66	14	17				
Total All Species					2,888	6.9	2,689			370	462	467	697	333	196	144	19			

Log Stock Table - MBF
Project: **NRTHMRRS**

T02N R07W S33 TPC

T02N R07W S33 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 02N 07W 33 AREA 3 PC 11.00 33 207 Date 10/7/2009
 Time 10:50:02AM

Spp	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches								
										MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15
DF		DO	2M	32	2	5.0	2	1.6					1	1				
DF		DO	2M	36	3	7.3	2	1.8					2					
DF		DO	3M	26	1	5.0	1	.6				1						
DF		DO	3M	32	49	5.1	47	34.5			10	16	16	5				
DF		DO	3M	36	1	5.0	1	.7			1							
DF		DO	3M	40	45	5.0	42	31.3			11	18	14					
DF		DO	4M	18	0	5.0	0	.3			0							
DF		DO	4M	20	1	5.0	1	.7			1							
DF		DO	4M	21	0	5.0	0	.2			0							
DF		DO	4M	22	0	5.0	0	.1			0							
DF		DO	4M	23	1	5.0	1	.4			1							
DF		DO	4M	24	5	10.2	4	3.1			4							
DF		DO	4M	25	3	5.0	3	2.1			2	1						
DF		DO	4M	26	2	5.0	2	1.4			2							
DF		DO	4M	27	1	5.0	1	1.0			1							
DF		DO	4M	28	0	5.0	0	.3			0							
DF		DO	4M	29	2	5.0	2	1.4			2							
DF		DO	4M	30	1	5.0	1	.4			1							
DF		DO	4M	31	1	5.0	1	.6			1							
DF		DO	4M	32	4	11.8	3	2.3			1	1						
DF		DO	4M	33	1	5.0	1	.9			1							
DF		DO	4M	34	2	5.0	2	1.4			2							
DF		DO	4M	35	3	5.0	2	1.8			2							
DF		DO	4M	36	2	5.0	2	1.2			2							
DF		DO	4M	37	3	5.0	3	1.9			3							
DF		DO	4M	38	2	5.0	2	1.6			2							
DF		DO	4M	39	0	5.0	0	.3			0							
DF		DO	4M	40	8	5.0	8	5.7			4	4						
DF		DO	4M	41	1	5.0	1	.4			1							
DF		Totals				143	5.4	136	43.6			34	27	35	30	9	1	
DL		DO	2M	25	1		1	.6						1				
DL		DO	2M	32	22	.7	22	14.6					6	6	8	3		
DL		DO	2M	36	3		3	1.9					1	1				
DL		DO	2M	40	11	2.5	11	7.2					3	3	4	1		
DL		DO	3M	20	1		1	.6							1			
DL		DO	3M	32	42	.2	42	27.4			2	10	14	12	3			
DL		DO	3M	33	0		0	.1			0							
DL		DO	3M	36	3		3	1.7					1	1				
DL		DO	3M	37	0		0	.1			0							
DL		DO	3M	40	48	.6	48	31.8			0	10	23	12	2			
DL		DO	4M	18	0		0	.3			0							
DL		DO	4M	20	0		0	.2					0					
DL		DO	4M	21	0		0	.2			0							
DL		DO	4M	22	0		0	.1			0							
DL		DO	4M	23	0		0	.3			0							
DL		DO	4M	24	1		1	.5			1							
DL		DO	4M	25	1		1	.8			1							
DL		DO	4M	26	1		1	.7			1							
DL		DO	4M	27	0		0	.3			0							
DL		DO	4M	28	1		1	.3			0	0						

Log Stock Table - MBF
Project: NRTHMRRS

T02N R07W S33 TPC

T02N R07W S33 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 02N 07W 33 AREA 3 PC 11.00 33 207 2
 Date 10/7/2009
 Time 10:50:02AM

S Spp	So T	Gr rt	Log de 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+			
DL	DO	4M	29	1		1	.8		1													
DL	DO	4M	30	0		0	.2		0													
DL	DO	4M	31	0		0	.1		0													
DL	DO	4M	32	2		2	1.4		1		1											
DL	DO	4M	33	0		0	.2		0													
DL	DO	4M	34	1		1	.4		1													
DL	DO	4M	35	1		1	.8		1													
DL	DO	4M	36	1		1	.4		1													
DL	DO	4M	37	0		0	.1		0													
DL	DO	4M	38	0		0	.3		0													
DL	DO	4M	39	1		1	.8		1		0											
DL	DO	4M	40	7		7	4.7		3		4											
DL	DO	4M	41	0		0	.3		0													
DL	Totals			153		152	48.8		16		8	20	39	36	16	13	4					
RL	DO	UT	23	0		0	1.8				0											
RL	DO	CR																				
RL	DO	CR	5																			
RL	DO	CR	7																			
RL	DO	CR	9																			
RL	DO	CR	10																			
RL	DO	CR	12	0		0	.5				0											
RL	DO	CR	13	1		1	3.3				1											
RL	DO	CR	14	0		0	.7				0											
RL	DO	CR	15	1		1	3.3				1											
RL	DO	CR	16	1		1	5.9				0			1								
RL	DO	CR	17	1		1	5.3				1		1									
RL	DO	CR	18	0		0	.7				0											
RL	DO	CR	19	1		1	2.4				1											
RL	DO	CR	20	1		1	2.9				1											
RL	DO	CR	25	3	6.3	3	10.7				3											
RL	DO	CR	26	1		1	5.7				1											
RL	DO	CR	27	1		1	5.5				1											
RL	DO	CR	30	0		0	1.4				0											
RL	DO	CR	32	6	4.9	6	26.0				4		2									
RL	DO	CR	38	1		1	4.1				1											
RL	DO	CR	40	5		5	19.8				1		2	1								
RL	Totals			24	2.0	24	7.6				16		5	1	1							
Total All Species				320	2.8	311			49		36	71	74	46	18	13	4					

TC TSTNDSUM		Stand Table Summary														
Project NRTHMRRS																
T02N R07W S28 TMC										T02N R07W S28 TMC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:								
02N	07W	28	AREA 1	MC	56.00	12	84	1	Date:	10/14/20		Time:		2:53:18PM		
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	16'				Tot	Net				Net	Tons	Cunits	MBF
DF		8	1	92	76	8.024	2.80	8.02	7.5	38.0	1.71	60	305	96	34	17
DF		9	7	88		44.379	19.61	76.08	7.5	39.6	16.34	573	3,011	915	321	169
DF		10	4	84	60	20.541	11.20	20.54	10.2	35.6	5.99	210	732	335	118	41
DF		11	6	86		25.464	16.81	50.93	11.9	49.9	17.33	608	2,540	970	340	142
DF		12	3	89	86	10.698	8.40	17.83	12.8	49.4	6.53	229	881	366	128	49
DF		13	7	85		21.270	19.61	42.54	15.0	59.7	18.22	639	2,540	1,020	358	142
DF		14	3	86		7.860	8.40	18.34	17.5	73.3	9.17	322	1,344	513	180	75
DF		15	6	86		13.694	16.81	29.67	19.7	78.2	16.66	585	2,320	933	327	130
DF		16	7	87		14.042	19.61	38.11	20.6	86.0	22.37	785	3,278	1,252	439	184
DF		17	7	86		12.438	19.61	31.98	24.0	94.5	21.91	769	3,022	1,227	431	169
DF		18	9	86		14.265	25.21	39.62	25.9	104.9	29.21	1,026	4,156	1,636	574	233
DF		19	5	86		7.113	14.00	18.49	30.5	116.9	16.05	563	2,162	899	315	121
DF		20	2	84		2.568	5.60	6.42	31.0	117.8	5.68	199	756	318	112	42
DF		21	1	84		1.164	2.80	3.49	34.1	145.7	3.39	119	509	190	67	28
DF		22	1	86		1.061	2.80	3.18	40.6	171.0	3.69	129	544	206	72	30
DF		23	2	88		1.941	5.60	5.82	41.3	177.3	6.86	241	1,033	384	135	58
DF		29	1	83		.611	2.80	1.83	62.1	281.8	3.24	114	516	182	64	29
DF		Totals	72	87		207.132	201.66	412.92	17.4	71.8	204.33	7,170	29,649	11,443	4,015	1,660
RA		8	1	84	52	8.024	2.80	8.02	5.7	25.5	1.26	46	205	71	26	11
RA		9	1	81	52	6.340	2.80	6.34	8.0	25.5	1.39	51	162	78	28	9
RA		11	1	85	77	4.244	2.80	4.24	17.1	51.0	2.00	73	216	112	41	12
RA		13	2	83	44	6.077	5.60	6.08	17.0	42.5	2.84	103	258	159	58	14
RA		14	3	80	69	7.860	8.40	13.10	14.3	37.4	5.15	187	490	288	105	27
RA		15	1	79	79	2.282	2.80	4.56	16.4	51.0	2.06	75	233	116	42	13
RA		16	1	80	71	2.006	2.80	4.01	15.6	46.8	1.72	63	188	96	35	11
RA		20	1	80	83	1.284	2.80	2.57	24.8	80.8	1.75	64	207	98	36	12
RA		Totals	11	82	61	38.117	30.81	48.93	13.5	40.0	18.18	661	1,959	1,018	370	110
DL		35	1	82		.419	2.80	.84	119.3	440.0	2.75	100	369	154	56	21
DL		Totals	1	82		.419	2.80	.84	119.3	440.0	2.75	100	369	154	56	21
Totals			84	86	99	245.668	235.27	462.68	17.1	69.1	225.26	7931	31,977	12,615	4,442	1,791

TC		TSTNDSUM		Stand Table Summary											
Project										NRTHMRRS					
T02N R07W S33 TMC										T02N R07W S33 TMC					
Twp	Rge	Sec	Tract	Type	Acre	Plots	Sample Trees	Page:	1						
02N	07W	33	AREA 2	MC	104.00	21	123	Date:	10/14/20						
								Time:	2:56:57PM						
S SpC	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Net Bd.Ft.	Totals		
		DBH	Trees	16'				Tot	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre		Cu.Ft. Acre	Tons	Cunits
DF		9	3	89	10.868	4.80	14.49	6.4	35.6	2.64	93	516	275	96	54
DF		10	4	87	11.738	6.40	23.48	7.8	38.0	5.21	183	892	542	190	93
DF		11	10	88	24.251	16.00	46.08	10.3	44.5	13.54	475	2,050	1,408	494	213
DF		12	2	89	4.076	3.20	8.15	14.6	61.7	3.39	119	503	352	124	52
DF		13	11	87	19.100	17.61	36.46	15.1	57.0	15.66	550	2,078	1,629	571	216
DF		14	8	87	11.977	12.80	20.96	19.3	80.1	11.50	404	1,678	1,196	420	175
DF		15	12	87	15.650	19.21	33.91	20.2	81.1	19.52	685	2,751	2,030	712	286
DF		16	5	89	5.731	8.00	13.76	21.8	91.0	8.53	299	1,252	887	311	130
DF		17	10	87	10.154	16.00	24.37	24.7	98.2	17.15	602	2,392	1,783	626	249
DF		18	7	86	6.340	11.20	15.40	27.1	102.3	11.90	418	1,575	1,237	434	164
DF		19	8	87	6.503	12.80	17.07	29.1	115.8	14.16	497	1,977	1,472	517	206
DF		20	3	86	2.201	4.80	6.60	28.3	115.1	5.33	187	760	554	194	79
DF		21	5	85	3.327	8.00	7.98	31.1	125.9	7.08	248	1,005	737	258	105
DF		22	3	85	1.819	4.80	5.46	35.6	145.7	5.54	194	795	576	202	83
DF		23	3	83	1.664	4.80	4.99	36.3	139.3	5.16	181	696	537	188	72
DF		24	3	84	1.528	4.80	4.08	45.8	176.9	5.31	186	721	553	194	75
DF		25	1	82	.470	1.60	1.41	49.7	174.2	2.00	70	245	208	73	26
DF		26	2	86	.868	3.20	2.60	54.4	243.8	4.04	142	635	420	147	66
DF		29	1	85	.349	1.60	1.05	60.6	285.0	1.81	63	298	188	66	31
DF	Totals	101	87		138.614	161.65	288.29	19.4	79.2	159.46	5,595	22,820	16,584	5,819	2,373
RA		9	4	84	14.491	6.40	14.49	9.7	36.1	3.88	141	523	403	147	54
RA		10	2	85	5.869	3.20	8.80	9.9	36.8	2.41	88	324	250	91	34
RA		11	3	83	7.275	4.80	7.28	16.6	51.0	3.31	120	371	344	125	39
RA		12	4	84	8.151	6.40	12.23	11.9	36.8	3.99	145	450	415	151	47
RA		14	2	87	2.994	3.20	5.99	18.4	63.8	3.03	110	382	315	115	40
RA		16	2	85	2.293	3.20	4.59	21.4	70.1	2.69	98	322	280	102	33
RA		17	1	84	1.015	1.60	2.03	25.5	76.5	1.42	52	155	148	54	16
RA		19	3	83	2.439	4.80	4.88	27.5	77.9	3.69	134	380	384	140	40
RA		20	1	80	.734	1.60	1.47	26.2	85.0	1.06	38	125	110	40	13
RA	Totals	22	84	74	45.261	35.21	61.75	15.0	49.1	25.49	927	3,033	2,651	964	315
Totals		123	86	97	183.874	196.86	350.03	18.6	73.9	184.95	6522	25,853	19,234	6,783	2,689

TC		Stand Table Summary														
Project													NRTHMRRS			
T02N R07W S33 TPC										T02N R07W S33 TPC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	1					
02N	07W	33	AREA 3	PC	11.00	33	207			Date:	10/07/20					
										Time:	10:36:56AM					
Spc	S 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
DL		11	3	87	90	4.630	3.06	9.26	9.4	45.0	2.40	87	417	26	10	5
DL		12	2	91	93	2.594	2.04	5.19	11.8	50.0	1.68	61	259	18	7	3
DL		13	6	89	96	6.630	6.11	13.26	14.6	60.0	5.34	194	796	59	21	9
DL		14	4	87		3.811	4.07	5.72	20.8	93.3	3.26	119	534	36	13	6
DL		15	6	88		4.980	6.11	10.79	21.8	92.3	6.46	235	996	71	26	11
DL		16	2	88		1.459	2.04	3.65	22.7	98.0	2.27	83	357	25	9	4
DL		17	11	87		7.108	11.20	17.45	24.8	102.2	11.89	432	1,783	131	48	20
DL		18	14	86		8.069	14.26	20.75	26.6	109.4	15.18	552	2,271	167	61	25
DL		19	11	87		5.690	11.20	14.48	30.0	122.9	11.96	435	1,779	132	48	20
DL		20	4	84		1.867	4.07	5.14	29.7	120.9	4.19	152	621	46	17	7
DL		21	5	86		2.117	5.09	5.50	32.3	140.8	4.89	178	775	54	20	9
DL		22	4	85		1.543	4.07	4.63	36.9	160.0	4.70	171	741	52	19	8
DL		23	5	85		1.765	5.09	5.29	38.3	162.7	5.57	203	861	61	22	9
DL		24	3	84		.973	3.06	2.59	45.8	186.2	3.26	119	483	36	13	5
DL		25	1	82		.299	1.02	.90	49.7	183.3	1.23	45	164	13	5	2
DL		26	2	86		.552	2.04	1.66	54.4	256.7	2.48	90	425	27	10	5
DL		29	2	85		.444	2.04	1.33	61.4	298.3	2.25	82	397	25	9	4
DL		35	1	82		.152	1.02	.30	119.3	440.0	1.00	36	134	11	4	1
DL		Totals	86	87		54.682	87.59	127.89	25.6	107.9	90.02	3,274	13,794	990	360	152
DF		8	1	91	76	2.918	1.02	2.92	7.5	38.0	.62	22	111	7	2	1
DF		9	10	88		23.054	10.18	36.89	7.3	38.6	7.62	267	1,424	84	29	16
DF		10	8	86	78	14.939	8.15	22.41	8.6	37.2	5.50	193	834	60	21	9
DF		11	13	87		20.063	13.24	38.58	11.3	47.5	12.42	436	1,833	137	48	20
DF		12	3	87		3.890	3.06	6.48	15.1	60.8	2.79	98	394	31	11	4
DF		13	12	85	98	13.259	12.22	25.41	15.3	58.7	11.06	388	1,491	122	43	16
DF		14	7	87		6.669	7.13	14.29	17.9	73.5	7.27	255	1,050	80	28	12
DF		15	12	85		9.959	12.22	21.58	19.2	76.4	11.78	413	1,648	130	45	18
DF		16	10	87		7.294	10.18	18.97	20.7	87.0	11.20	393	1,649	123	43	18
DF		17	6	87		3.877	6.11	9.69	23.8	95.6	6.56	230	927	72	25	10
DF		18	2	86		1.153	2.04	3.46	24.9	102.9	2.46	86	356	27	9	4
DF		19	2	86		1.035	2.04	3.10	27.6	114.0	2.45	86	354	27	9	4
DF		20	1	89		.467	1.02	1.40	27.8	120.3	1.11	39	169	12	4	2
DF		21	1	80		.423	1.02	.85	27.9	104.5	.67	24	88	7	3	1
DF		Totals	88	87		109.000	89.63	206.03	14.2	59.8	83.52	2,930	12,326	919	322	136
RL		8	1	83	52	2.918	1.02									
RL		9	5	83	63	11.527	5.09	2.31								
RL		10	2	84	86	3.735	2.04	5.60	4.6	16.7	.69	26	93	8	3	1
RL		11	4	84	77	6.173	4.07	6.17	12.2	45.0	2.08	76	278	23	8	3
RL		12	4	84	67	5.187	4.07	7.78	9.4	35.0	2.02	73	272	22	8	3
RL		13	2	83	45	2.210	2.04	2.21	17.2	55.0	1.04	38	122	11	4	1
RL		14	5	83	78	4.764	5.09	8.57	14.3	48.9	3.36	122	419	37	13	5
RL		15	1	80	79	.830	1.02	1.66	14.8	60.0	.68	25	100	7	3	1
RL		16	3	83	77	2.188	3.06	4.38	18.1	66.7	2.18	79	292	24	9	3
RL		17	1	84	85	.646	1.02	1.29	24.8	90.0	.88	32	116	10	4	1
RL		19	3	83	75	1.552	3.06	3.10	27.1	95.0	2.31	84	295	25	9	3
RL		20	2	79	77	.934	2.04	1.87	23.1	85.0	1.19	43	159	13	5	2
RL		Totals	33	83	70	42.663	33.61	44.95	13.3	47.7	16.43	598	2,145	181	66	24
Totals			207	86	98	206.345	210.83	378.86	18.0	74.6	189.97	6802	28,266	2,090	748	311



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *North Morris*

1. Type of Sale

Modified Clearcut/ Partial Cut, Recovery

2. Legal Description

Sections 27, 28, and 33, T2N, R7W, W.M. Tillamook County, Oregon

3. Sale Acreage

Sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 (Modified clearcut)	59	56
Area 2 (Modified clearcut)	113	104
Area 3 (Partial cut)	12	11

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. **Cruise Method**

All areas were cruised with plots spaced every 350' on lines 700' apart on a N72° E bearing. Trees were measured to the nearest foot in height and inch in diameter. Top cruise diameter was 5" for Douglas-fir and 6" for all other species or 25% of diameter breast height whichever was larger. Based on net board feet per acre the combined CV and SE for the Areas is 110% and 13.5% respectively.

B. **Plot size**

A 33.61 BAF was used on all of the areas. 4.5 feet was the point of tree observation

C. **Grading System**

Trees were graded using Columbia River Log Scaling and Grading rules, favoring 40' logs.

5. Computation Procedure

Plot data was entered into SuperAce for computation of stand information and volume. Area 3 volume was derived from plots in adjacent Areas and net take volume was determined by removing the leave tree volume.

6. Hidden Defect and Breakage

A 5% and 15% reduction for hidden defect and breakage was applied to conifers and hardwoods respectively due to damage from the December 2008 heavy snow event. The reduction is in addition to visual defect deducted during the cruise.

7. Timber Description

All sale areas burned in the 1933 and 1945 Tillamook fires. Most of the area was plated in 1959-60 with no other stand management has occurred. Alder was aerielly sprayed in the 1970's and resulting in short boles and multiple tops.

8. Cruiser Names/Dates

Contract cruised in 2007

9. Revenue Distribution

FDF 100%

Tax Code: 56

Deed Number: 35

10. Attachments

Volume Summary

Stand Table – Areas 1, 2, and 3

Log Stock Tables – Areas 1, 2, and 3

Logging Plan Map

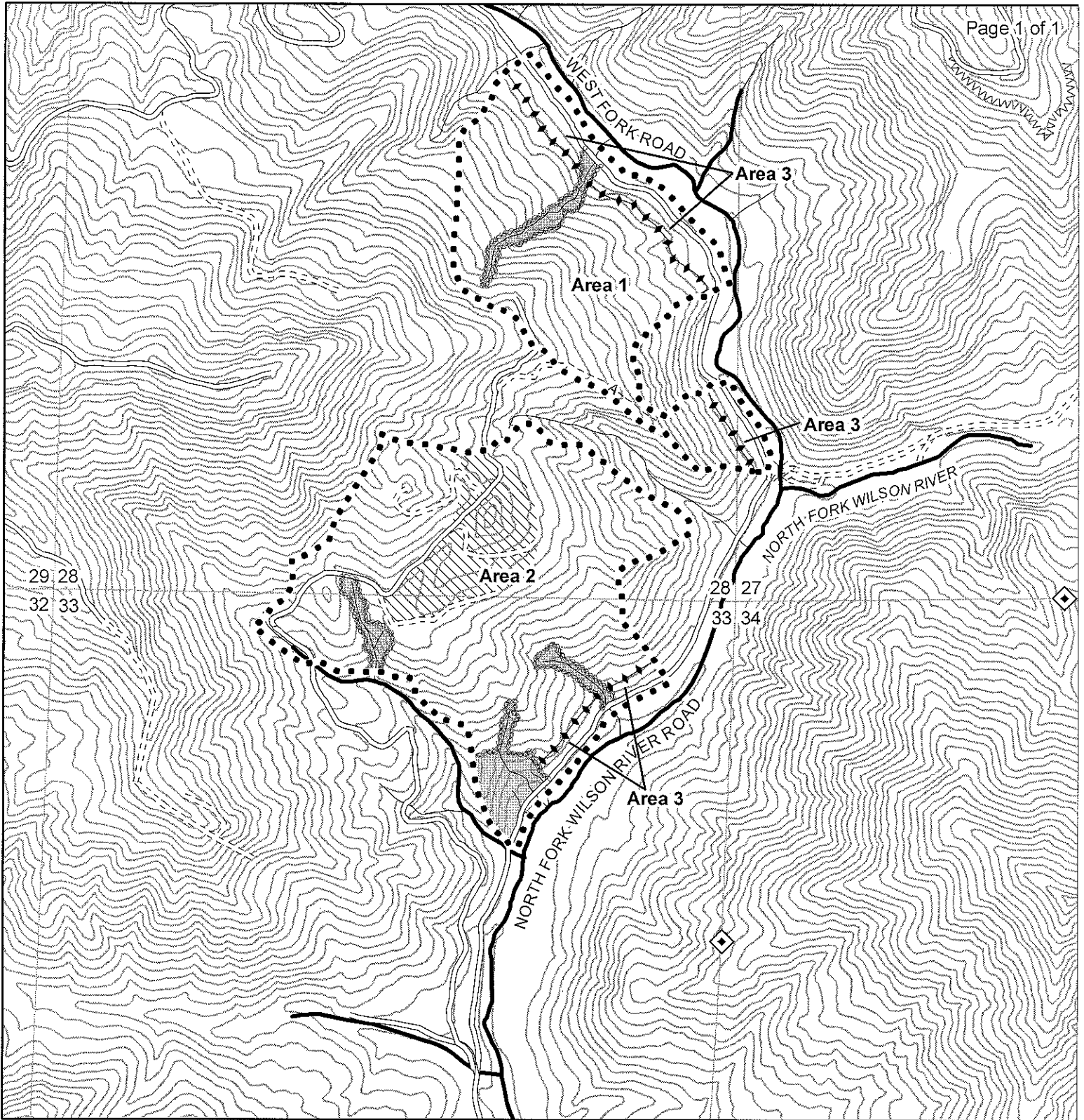
11. Stand and Log Stock Tables Species Key

DF – Douglas-fir take

DL – Douglas-fir leave

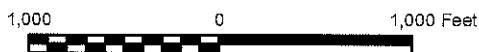
RA – Red alder take

RL – Red alder leave



LEGEND

- Sale boundary
- ◆◆◆◆ Area boundary
- Surfaced road
- - - - Unsurfaced road
- A-- Swing road
- wwwww Abandoned road
- Perennial Type-F stream
- Perennial Type-N stream
- ▨ Buffer
- Cable yarding
- ▨ Ground yarding
- ≡ Bridge
- ◆ Survey corner



LOGGING PLAN

Timber Sale Contract No. 341-10-60
 North Morris
 Portions of Sections 27, 28, and 33
 T2N, R7W, W.M.,
 Tillamook County, Oregon

Area	Type of Operation	Acres	
		Gross	Net
1	Modified Clearcut	59	56
2	Modified Clearcut	113	104
3	Partial Cut	12	11
Total		184	171

Tillamook District GIS
 10/27/2009

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