



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Four Aces
Sale 341-10-86

District: Tillamook

Date: April 20, 2010

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$224,601.09	\$11,666.76	\$236,267.85
		Project Work:	\$(35,240.00)
		Advertised Value:	\$201,027.85



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timber description

Location: Portions of Section 4, T3N, R9W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95
Western Hemlock / Fir	15	0	85
Alder (Red)	12	0	90

Volume by Grade	2S	3S	4S	Camprur	Total
Douglas - Fir	12	26	11	0	49
Western Hemlock / Fir	634	844	132	0	1,610
Alder (Red)	0	0	0	43	43
Total	646	870	143	43	1,702



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comments: Pond Values Used: 1st Quarter Calendar Year 2010.

Western Red Cedar & Other Cedars Stumpage Price = Pond Value minus
Logging Cost
 $\$585/\text{MBF} = \$820/\text{MBF} - \$235/\text{MBF}$

Pulp (Conifer & Hardwood) Price = \$ 59.56/MBF
(See attached Pulp Appraisal sheet)

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

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

Brand and Paint: $\$1/\text{MBF} \times 1,702 \text{ MBF} = \$1,702$

TOTAL Other Costs (with Profit and Risk to be added) = \$1,702

Other Costs (No Profit & Risk added):

Non-project Roads:

1,748 feet x \$250/Station = \$4,370

400 feet x \$250/Station = \$1,000

Tank trap installation on un-surfaced road and road vacating: $2 \times \$75 = \$150 + \$600 = \750

Road vacating shall include water-bars and slashing of all dirt roads. Tank traps where dirt roads meet rocky roads.

TOTAL Other Costs (No Profit & Risk added) = \$5,370

ROAD MAINTENANCE:

Final Grading: $\$500/\text{mile} \times 2.3 \text{ miles} / 1702 \text{ MBF} = \$.68/\text{MBF}$

Spot rocking: $(\$15.00/\text{cy} \times 2.3 \text{ miles} \times 10\text{cy}/\text{MMBF}/\text{mile} \times 1.7\text{MMBF}) / 1702 \text{ MBF} = \$.34$

Compaction (120 stations x \$18/station) + 111 move-in) / 1702 MBF = \$1.33/MBF

Final Grading and Compaction includes all roads on haul route.

TOTAL ROAD MAINTENANCE COST: \$2.35/MBF



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logging conditions

combination#: 1 Douglas - Fir 100.00%
 Western Hemlock / Fir 100.00%
 Alder (Red) 100.00%

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

logging system: Wheel Skidder **Process:** Manual Falling/Delimiting

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 7.0 **bd. ft / load:** 4,000

cost / mbf: \$113.42

machines: Log Loader (B)
Tire Skidder



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logging costs

Operating Seasons:	1.00	Profit Risk:	15.00%
Project Costs:	\$35,240.00	Other Costs (P/R):	\$5,370.00
Slash Disposal:	\$0.00	Other Costs:	\$1,702.00

Miles of Road

Road Maintenance: \$2.35

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	3.0
Western Hemlock / Fir	\$0.00	3.0	3.0
Alder (Red)	\$0.00	3.0	2.5



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District: Tillamook

Date: April 20, 2010

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$113.42	\$2.47	\$2.58	\$71.01	\$3.16	\$28.90	\$0.00	\$5.00	\$1.00	\$227.54
Western Hemlock / Fir									
\$113.42	\$2.70	\$2.58	\$77.77	\$3.16	\$29.94	\$0.00	\$5.00	\$1.00	\$235.57
Alder (Red)									
\$113.42	\$2.59	\$2.58	\$89.28	\$3.16	\$31.65	\$0.00	\$5.00	\$1.00	\$248.68

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$442.55	\$215.01	\$0.00
Western Hemlock / Fir	\$0.00	\$368.53	\$132.96	\$0.00
Alder (Red)	\$0.00	\$520.00	\$271.32	\$0.00



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summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	49	\$215.01	\$10,535.49
Western Hemlock / Fir	1,610	\$132.96	\$214,065.60
Alder (Red)	43	\$271.32	\$11,666.76

Gross Timber Sale Value

Recovery: \$236,267.85

Prepared by: Nick Stumpf

Phone: 503-842-2545

Pulp Appraisal

Sale Name	Four Aces
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Species	Hemlock	Douglas-fir	Alder
Stems Per/ac.	131	6	8
Acres	75	75	75
Total Stems	9825	450	600
BF/Stem, Conversion	10	10	10
Total MBF Per/Species	98	5	6
Pond Value Per/MBF	\$300	\$260	\$ 320.00
Logging + Hauling Costs	\$225.00	\$225.00	\$ 225.00
Stumpage	\$75.00	\$35.00	\$ 95.00
Tons Per/MBF, Conversion	10	10	10
Price Per/Ton	\$7.50	\$3.50	\$ 9.50
Total Tons Per/Species	983	45	60
Total Value	\$7,368.75	\$157.50	\$ 570.00
Less P/R 20%	\$5,895.00	\$126.00	\$ 456.00

	Total Price	Price/Ton	Price/MBF
Total Price	\$8,096.25	\$7.44	\$74.45
Total Less P/R 20%	\$6,477.00	\$5.96	\$59.56

Contract Price	\$59.56
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"STEWARDSHIP IN FORESTRY"

Sale Name

Volume Summary

Modified Clear Cut							
75 acres							
SPECIES					Volume MBF	D & B	Net Vol MBF
Hemlock					1920	15%	1610
Douglas-fir					52	5%	49
Red Alder					50	10%	43
TOTAL					2022		1702

TOTAL SALE VOLUME			75 acres
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)	
Hemlock	1920	1610	
Douglas-fir	52	49	
Red Alder	50	43	
TOTAL	2022	1702	

SUMMARY OF CONSTRUCTION COST

Sale: **4 Acres**

Road: **A to B**

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	54+30	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		1.03	miles		0.00	miles

IMPROVEMENT: EXCAVATION -
Ditchline Cleanout

54.30	sta. @	\$20.00	per sta. =	\$1,086.00	
				TOTAL EXCAVATION	\$1,086.00

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	120	LF of 18"	\$2,100.00		
<u>Culvert Stakes & Markers</u>		4 markers	\$32.00		
			\$32.00		
				TOTAL CULVERTS	\$2,132.00

ROCK

0+00 to	54+30	1,220	cy. of	1 1/2"-0"	@	\$7.78	per c.y. =	\$9,491.60
Culvert Backfill		40	cy. of	1 1/2"-0"	@	\$6.37	per c.y. =	\$254.80
				TOTAL ROCK				\$9,746.40

SPECIAL PROJECTS

Grade and shape road -	54.30	stations @	\$15.50	per station	\$841.65
Roll subgrade w/ vibratory roller prior to rocking -	54.30	stations @	\$13.20	per station	\$716.76
Remove culverts from state lands	4.00	@	\$335.00	total	\$335.00
Grass seed and fertilize -	0.20	acres @	\$220.00	per acre	\$44.00
				TOTAL SPECIAL PROJECTS	\$1,937.41

GRAND TOTAL **\$14,901.81**

SUMMARY OF CONSTRUCTION COST

Sale: **4 Acres** Road: **C to D**

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	16+00	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		0.30	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.100	acres @	\$660.00	per acre =	\$66.00
Scattering	0.600	acres @	\$980.00	per acre =	\$588.00
TOTAL CLEARING AND GRUBBING					\$654.00

IMPROVEMENT:

Drainage Improvements	16.00	sta. @	\$20.00	per sta. =	\$320.00
Widening	399	cy. @	\$1.40	per c.y. =	\$558.60
TOTAL EXCAVATION					\$878.60

IMPROVEMENT: ENDHAUL -

Widening	6+25	to	7+25	290	cy. @	\$1.40	per c.y. =	\$406.00
Widening	8+00	to	8+50	109	cy. @	\$2.50	per c.y. =	\$272.50
Spread & compact				399	cy. @	\$0.25	per c.y. =	\$99.75
TOTAL ENDHAUL								\$778.25

ROCK

9+00 to 10+00	40	cy. of	4"-0"	@	\$7.66	per c.y. =	\$306.40	
9+80 to 10+80	40	cy. of	4"-0"	@	\$7.66	per c.y. =	\$306.40	
11+70 to 12+70	40	cy. of	4"-0"	@	\$7.66	per c.y. =	\$306.40	
Spot Rock	100	cy. of	4"-0"	@	\$7.66	per c.y. =	\$766.00	
TOTAL ROCK								\$1,685.20

SPECIAL PROJECTS

Grade organic matter off road	16.00	stations @	\$15.50	per station	\$248.00
Grass seed and fertilize -	0.10	acres @	\$220.00	per acre	\$22.00
Mulching -	0.050	acres @	\$600.00	per acre	\$30.00
TOTAL SPECIAL PROJECTS					\$300.00

GRAND TOTAL **\$4,296.05**

SUMMARY OF CONSTRUCTION COST

Sale: **4 Acres**

Road: **E to F**

Construction -	2+10	stations	Improvement -	0+00	stations	Reconstruction -	9+90	stations
	0.04	miles		0.00	miles		0.19	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
7+40		9+50	40%		Outslope/Ditch	\$243	=	\$510.30	
								TOTAL	\$510.30

RECONSTRUCTION: CLEARING AND GRUBBING -
Scattering

0.690	acres @	\$980.00	per acre =	\$676.20	
				TOTAL CLEARING AND GRUBBING	\$676.20

RECONSTRUCTION: EXCAVATION -
Road Earthwork

9.90	sta. @	\$75.00	per sta. =	\$742.50	
				TOTAL EXCAVATION	\$742.50

CULVERTS - MATERIALS & INSTALLATION

Culverts

	46	LF of 30"	\$1,656.00		40	LF of 24"	\$1,080.00
			\$1,656.00				

	2	markers	\$16.00				
			\$16.00				

TOTAL CULVERTS **\$2,752.00**

ROCK

5+20	to	6+20	40	cy. of	4"-0"	@	\$7.90	per c.y. =	\$316.00
9+00	to	10+00	40	cy. of	4"-0"	@	\$7.90	per c.y. =	\$316.00
									TOTAL ROCK \$632.00

SPECIAL PROJECTS

Grade and shape road -	12.00	stations @	\$15.50	per station	\$186.00	
Remove logs & rebuild fill @ 5+70	6.00	hours @	\$130.00	per hour	\$780.00	
Remove large stumps -	1.00	lump sum @	\$130.00		\$130.00	
Grass seed and fertilize -	0.10	acres @	\$220.00	per acre	\$22.00	
Mulching -	1.000	acres @	\$600.00	per acre	\$600.00	
	5					
					TOTAL SPECIAL PROJECTS	\$1,718.00

GRAND TOTAL **\$7,031.00**

ROAD VACATING COST

Sale: 4 Acres

Roads: C to D & E to F

Segment C to D

Remove fill and culverts at stations 9+50, 10+30 and 12+00 and waterbar and block road	10.00	hours @	\$130.00	per hour	\$1,300.00
Culvert Removal From State Land					\$295.40

Segment E to F

Remove fill and culverts at stations 5+70 & 9+50 and waterbar and block road	6.00	hours @	\$130.00	per hour	\$780.00
Deliver Culverts to Tillamook District Office					\$100.00
Grass Seeding	0.50	acres @	\$220.00	per acre	\$110.00
Mulching -	0.300	acres @	\$600.00	per acre	\$180.00
Move in Excavator -					\$765.35

GRAND TOTAL **\$3,530.75**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Stockpiles Crushed Location: Hansen Road
 Sale: 4 Aces 1560 c.y.

Load Dump Truck: \$0.70 /cu.yd. x 1560 cu.yds. = \$1,092.00
 Subtotal \$1,092.00

Move in Roller and Compactor 1 @ \$471.12 = \$471.12
 Move in Grader 1 @ \$172.52 = \$172.52
 Move in Loader 1 @ \$537.41 = \$537.41
 Move in Trucks 4 @ \$152.54 = \$610.15
 Move in Water Truck 1 @ \$179.30 = \$179.30
 Subtotal \$1,970.51

Base Cost= \$1.96 Per Cu.Yd. **TOTAL PRODUCTION COSTS \$3,062.51**

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B 0 5430 (1 1/2"-0")	3.37	2.45	1.96	7.78	1220	\$9,491.60
A to B Culvert Backfill (1 1/2"-0")	3.71	0.70	1.96	6.37	40	\$254.80
C to D 900 1000 (4"-0")	4.60	1.10	1.96	7.65	40	\$306.40
C to D 980 1080 (4"-0")	4.60	1.10	1.96	7.65	40	\$306.40
C to D 1170 1270 (4"-0")	4.60	1.10	1.96	7.65	40	\$306.40
C to D Spot Rock (4"-0")	4.60	1.10	1.96	7.65	100	\$766.00
E to F 520 620 (4"-0")	4.84	1.10	1.96	7.90	40	\$316.00
E to F 900 1000 (4"-0")	4.84	1.10	1.96	7.90	40	\$316.00
				Total C.Y.	1560	Sub Total \$12,063.60
TOTAL ROCKING COSTS						\$12,063.60

Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **4 Aces**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
52.0	Pavement	30
4.6	Main Lines	7
2.0	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
1	Excavators (Large)	\$765.35	1	\$44.80	0.00	1.00	1	\$44.80	\$810.15
1	Tractor (D8)	\$742.83	2	\$15.10	0.00	1.00	1	\$15.10	\$757.93
1	Dump Truck (10 cy +)	\$196.56		\$2.85	0.00	1.00	1	\$2.85	\$199.41
1	Water Truck (2500 Gal)	\$179.30		\$2.85	0.00	1.00	1	\$2.85	\$182.15
TOTAL MOVE-IN COSTS:									\$1,949.64



PROJECT SUMMARY SHEET

Sale: 4 Acres

CONSTRUCTION

Point	E to F	2+10	stations =	<u>\$1,403.15</u>
SUBTOTAL CONSTRUCTION				\$1,403.15

IMPROVEMENT

Point	A to B	54+30	stations =	\$14,901.81
Point	C to D	16+00	stations =	<u>\$4,296.05</u>
SUBTOTAL IMPROVEMENT				\$19,197.86

RECONSTRUCTION

Point	E to F	9+90	stations =	<u>\$5,627.85</u>
SUBTOTAL RECONSTRUCTION				\$9,158.60

SPECIAL PROJECTS

Vacate Segment C to D and E to F upon Completion of Logging				<u>\$3,530.75</u>
SUBTOTAL SPECIAL PROJECTS				\$3,530.75

MOVE IN				\$1,949.64
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GRAND TOTAL				\$35,240.00
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Stand Table Summary																	
TC		TSTNDSUM															
Project FOURACES																	
T03N R09W S04 T0200										T03N R09W S04 T0200							
Twp		Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page: 1				
03N		09W	04	1	0200			75.00	35	159			Date: 03/23/2011				
													Time: 9:21:43AM				
S Spe	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Net		Totals		
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF	
WH		8	4	91	84	15.372	5.37	15.37	7.1	45.0	3.48	109	692	261	82	52	
WH		9	3	91	69	9.109	4.02	9.11	6.9	30.0	2.01	63	273	151	47	20	
WH		10	1	91	85	2.459	1.34	2.46	14.2	70.0	1.12	35	172	84	26	13	
WH		11	5	91	91	10.163	6.71	18.29	11.4	51.1	6.68	209	935	501	157	70	
WH		12	6	90	99	10.248	8.05	20.50	13.1	58.3	8.62	269	1,196	647	202	90	
WH		13	7	91	89	10.187	9.39	18.92	15.6	73.8	9.47	296	1,397	710	222	105	
WH		14	9	91	102	11.293	12.07	22.59	18.2	81.1	13.28	411	1,832	996	309	137	
WH		15	8	90	108	8.745	10.73	17.49	22.9	101.3	12.82	401	1,771	962	301	133	
WH		16	19	91	114	18.254	25.49	36.51	27.2	118.7	31.82	994	4,333	2,386	746	325	
WH		17	8	91	110	6.779	10.73	14.38	29.7	122.3	13.66	427	1,759	1,025	320	132	
WH		18	10	89	115	7.591	13.41	17.46	31.7	130.0	17.72	554	2,270	1,329	415	170	
WH		19	7	91	114	4.769	9.39	10.22	36.3	150.0	11.88	371	1,533	891	278	115	
WH		20	8	90	114	4.919	10.73	11.07	39.3	165.6	13.91	435	1,832	1,043	326	137	
WH		21	7	91	119	3.904	9.39	10.04	39.6	176.1	12.72	397	1,768	954	298	133	
WH		22	4	91	112	2.033	5.37	5.08	43.2	189.0	7.02	219	960	526	164	72	
WH		23	4	88	109	1.860	5.37	3.72	53.7	205.0	6.39	200	762	480	150	57	
WH		24	3	88	112	1.281	4.02	2.56	61.4	243.3	5.03	157	623	377	118	47	
WH		25	5	90	99	1.968	6.71	3.54	56.0	247.8	6.34	198	878	476	149	66	
WH		26	1	89	124	.364	1.34	1.09	51.8	233.3	1.81	57	255	136	42	19	
WH	Totals		119	91	100	131.297	159.63	240.39	24.1	105.0	185.79	5,802	25,241	13,934	4,352	1,893	
SL		11	1	86	77	2.033	1.34										
SL		17	1	75	105	.851	1.34	1.70	21.7	70.0	.96	37	119	72	28	9	
SL		19	1	85	68	.681	1.34	.68	46.4	90.0	.82	32	61	62	24	5	
SL		28	1	79	87	.314	1.34	.63	52.8	195.0	.86	33	122	65	25	9	
SL		30	1	86	141	.273	1.34	.82	78.2	356.7	1.67	64	292	125	48	22	
SL		35	1	73	127	.201	1.34	.60	88.8	316.7	1.39	54	191	104	40	14	
SL		46	1	88	114	.116	1.34	.23	172.0	890.0	1.04	40	207	78	30	16	
SL		55	1	75	131	.081	1.34	.16	312.8	1165.0	1.32	51	189	99	38	14	
SL	Totals		8	83	90	4.550	10.73	4.83	64.2	244.9	8.06	310	1,182	605	233	89	
DF		9	1	87	44	3.036	1.34	3.04	6.3	30.0	.55	19	91	41	14	7	
DF		13	1	83	107	1.455	1.34	2.91	14.1	55.0	1.17	41	160	88	31	12	
DF		19	2	81	97	1.363	2.68	2.04	32.3	110.0	1.88	66	225	141	50	17	
DF		21	1	90	121	.558	1.34	1.12	45.9	180.0	1.46	51	201	109	38	15	
DF	Totals		5	85	76	6.412	6.71	9.11	19.5	74.3	5.06	177	677	379	133	51	
RA		10	1	87	88	2.459	1.34	2.46	14.8	60.0	1.00	36	148	75	27	11	
RA		11	2	79	75	4.065	2.68	4.07	16.6	50.0	1.86	68	203	139	51	15	
RA		12	1	93	36	1.708	1.34	1.71	11.0	50.0	.52	19	85	39	14	6	
RA		14	1	92	36	1.255	1.34	1.25	16.4	60.0	.56	21	75	42	15	6	
RA		18	1	83	81	.759	1.34	.76	48.5	170.0	1.01	37	129	76	28	10	
RA	Totals		6	85	67	10.247	8.05	10.25	17.6	62.5	4.96	180	641	372	135	48	
RC		16	1	69	69	.961	1.34	1.92	14.2	30.0	.64	27	58	48	21	4	
RC		26	1	76	91	.364	1.34	.73	58.7	170.0	1.00	43	124	75	32	9	
RC		29	1	78	89	.292	1.34	.58	61.5	175.0	.85	36	102	63	27	8	
RC		31	1	65	87	.256	1.34	.26	21.0	50.0	.16	5	13	12	4	1	
RC		32	1	60	88	.240	1.34	.48	37.3	105.0	.42	18	50	32	13	4	
RC		34	1	75	94	.213	1.34	.21	50.6	90.0	.25	11	19	19	8	1	
RC		36	1	80	32	.190	1.34										
RC	Totals		7	71	77	2.516	9.39	4.18	33.5	87.5	3.33	140	366	249	105	27	

TC TSTINDSUM

Stand Table Summary

Project **FOURACES**

T03N R09W S04 T0200

T03N R09W S04 T0200

Twp Rge Sec Tract
03N 09W 04 1

Type Acres Plots Sample Trees
0200 75.00 35 159

Page: **2**
 Date: **03/23/2011**
 Time: **9:21:43AM**

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
WL		28	1	90	122	.314	1.34	.94	61.6	300.0	1.86	58	282	139	44	21	
WL		40	1	93	17	.154	1.34										
WL		Totals		2	91	87	.467	2.68	.94	61.6	300.0	1.86	58	282	139	44	21
OC		40	1	98	17	.154	1.34										
OC		60	1	98	17	.068	1.34										
OC		Totals		2	98	17	.222	2.68									
Totals			149	90	96	155.711	199.87	269.70	24.7	105.3	209.05	6668	28,389	15,679	5,001	2,129	

TC TLOGSTVB

Log Stock Table - MBF

Project: **FOURACES**

T03N R09W S04 T0200

T03N R09W S04 T0200

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
03N 09W 04 1 0200 75.00 35 159 2
 Date **3/23/2010**
 Time **9:20:40AM**

SPP	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spe	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+	
RC		DO	4M	16	1		1	2.0			1										
RC		DO	4M	20	1		1	3.2				1									
RC		Totals			30	9.2	27	1.3			7	2		3			15				
RA		DO	CR	20	6		6	13.3				6									
RA		DO	CR	24	6		6	11.8				6									
RA		DO	CR	30	6	25.0	5	9.5			5										
RA		DO	CR	40	32	1.8	31	65.4			22		10								
RA		Totals			50	4.2	48	2.3			26	12	10								
DF		DO	2M	40	12		12	23.9							12						
DF		DO	3M	36	9		9	17.2				9									
DF		DO	3M	40	20	7.7	18	36.0			3		15								
DF		DO	4M	26	8		8	16.5		7	2										
DF		DO	4M	32	3		3	6.5		3											
DF		Totals			52	2.9	51	2.4		10	4	9	15		12						
WL		DO	2M	36	21	3.3	20	96.7					5				15				
WL		DO	4M	16	1		1	3.3				1									
WL		Totals			22	3.2	21	1.0				1		5				15			
Total All Species					2,167	1.7	2,129	100.0		10	460	270	493	333	284	213	40	4	22		



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Four Aces*

1. Type of Sale

Regeneration harvest, Recovery

2. Legal Description

Section 4, T3N, R9W, 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>
Sale Area Clearcut	85	75

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**

A total of 35 variable radius plots were taken. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 10 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were measured for merchantable height, diameter, and form factor.

B. **Plot size**

A basal area factor of 40 was used. The point of observation was 4.5 feet.

C. **Grading System**

All trees were graded according to Columbia River Log Scaling and Grading Rules. Tree heights were recorded to a 6 inch top outside bark for all conifers and 7 inches outside bark for hardwoods; or three tenths (0.3) of DBH for all species, whichever was greater. Log lengths all favored 40 feet for all species. Heights and diameter measurement standards were to the nearest foot or inch respectively.

5. Computation Procedure

Plot data was entered into SuperAce for computation of basal area, stand tables, and volume for each species and type. Take and leave trees were determined from the plot data to meet prescription targets. For the combined cruise all areas the standard error was 9.9% and the coefficient of variation was 58% on board foot volumes.

6. Hidden Defect and Breakage

A hidden defect of 5% for Douglas-fir, 10% for Red Alder, and 15% for Hemlock was applied.

7. Timber Description

The location of this sale is on property acquired from Longview Fibre in a land exchange in 2006 so previous management and timing is unknown. The stand is composed of dense hemlock, Douglas-fir and pockets of alder. Scattered throughout the stand are larger diameter spruce and hemlock that have developed deep crowns with large limbs. The older spruce and hemlock are protected with a stand prescription with upper diameter limits as well as painting some with yellow "W's".

8. Cruiser Names/Dates

Contract Cruiser, 2008

9. Revenue Distribution

FDF 100%

Tax Code: 56-1

Deed Numbers: 591

10. Attachments

Volume Summaries

Log Stock Tables

Logging Plan

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir take

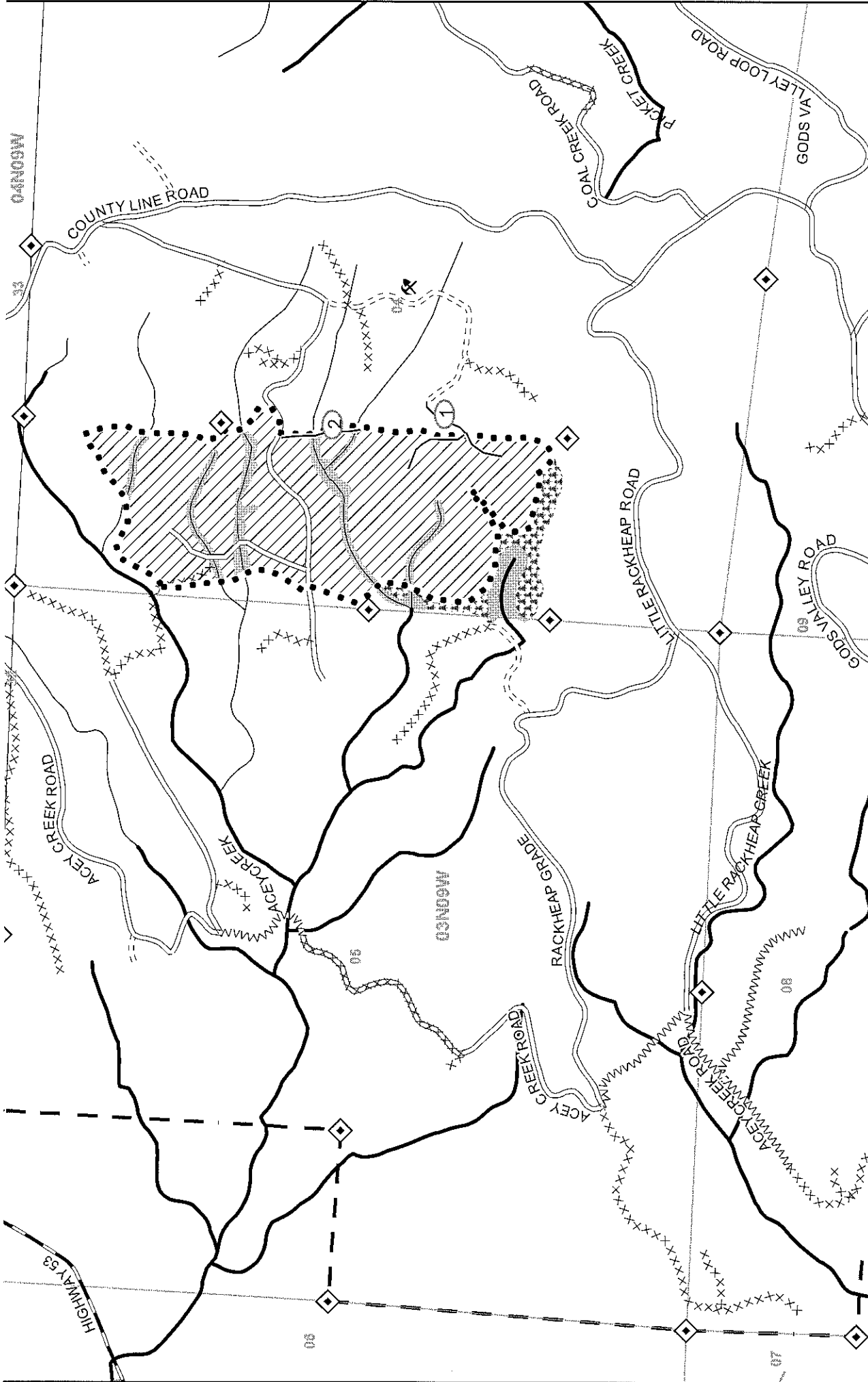
RA – Red alder

RC – Western red cedar

SL – Sitka spruce leave

WL – Western hemlock leave

WH – Western hemlock take



<ul style="list-style-type: none"> ⊗ Rock source ⊙ Stock pile ⊗ Waste area ⊗ Bridge ⊙ Gate ⊙ Survey corner ⊙ Domestic water supply intake ⊙ Truck turn-around ⊙ Helicopter landing zone 	<ul style="list-style-type: none"> ○ Landing ⊙ Buffer ⊙ Non-required thinning ⊙ Cable yarding ⊙ Ground yarding ⊙ Helicopter yarding ⊙ Downhill yarding ⊙ Green tree 	<ul style="list-style-type: none"> ⊙ Area boundary ⊙ Sale boundary ⊙ Ownership boundary ⊙ Perennial Type-F stream ⊙ Perennial Type-N stream ⊙ Unsurfaced road ⊙ Surfaced road ⊙ Paved road ⊙ Abandoned road 	<ul style="list-style-type: none"> ⊙ Swing road ⊙ Non-project road ⊙ Blocked road ⊙ Road construction ⊙ OHV trail ⊙ Non-motorized trail ⊙ Transmission line ⊙ Railroad
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LOGGING PLAN

Timber Sale Contract No. 341-10-86
Four Acres

Portions of Section 4
T3N, R9W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

Area Operation Acres
1 Modified Clearcut 94 75

Tillamook District GIS
03-23-2010

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