



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Tin Tank Sale 341-06-44

District: Tillamook

Date: 2/24/06

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,937,197.86	\$64,180.20	\$2,001,378.06
		Project Work	(\$477,043.00)
		Advertised Value	\$1,524,335.06



Timber Sale Appraisal

Timber Description

Tin Tank

Sale 341-06-44

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Portions of Sections 2, 3, 4, 9, 10, 11, 13, 14, 15, 23 and 24, T2N, R8W, W.M., Tillamook County, Oregon.

Date: 2/24/06

Stand Stocking: 20%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	13	0	95
Western Hemlock / Fir	12	0	95
Alder (Red)	12	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
2S	372	94	0	466
3S	5,596	820	0	6,416
4S	2,406	466	0	2,872
Camprun	0	0	245	245
Total	8,374	1,380	245	9,999

Comments: Pond Values Used: 4th Quarter Calendar Year 2005.

Cedar Stumpage = \$825 (Pond Value) - \$280 (Logging Costs) = \$545

ADDITIONAL COSTS (Profit and Risk to be added)

Brand and Paint - \$2/MBF x 9,999MBF = \$19,998

Slash piling and sorting: 263 acres retention and modified
clearcut cable harvest; 1 hour/ 50 acres x \$110/hour = \$ 579

Tractor Swing:

Non-Project Road 6: 83 MBF x \$ 27.78/MBF = \$ 2,306

Non-project Road 5: 150 MBF x \$ 8.69/MBF = \$ 1,304

Truck Assist:

Portion of E to F 722 MBF x \$ 20/MBF = \$ 14,440

TOTAL OTHER COSTS + (P/R) = \$38,627

ADDITIONAL COSTS (Profit and Risk Included)

Hauling:

DF [\$700/day-(\$460/day x 1.15%)] / 6.6MBF/day = \$26 MBF x 8374MBF = \$217,724

WH [\$700/day-(\$460/day x 1.15%)] / 9.6MBF/day = \$18 MBF x 1380MBF = \$ 24,840

RA [\$700/day-(\$460/day x 1.15%)] / 9.3MBF/day = \$18 MBF x 245MBF = \$ 4,410

Non-Project Roads - (Seeding included)

Road 1: 4.4 Stations x \$120/ Station = \$528

Road 2: 7.8 Stations x \$180/Station = \$1,404

Road 3: 6.0 Stations x \$100/ Station = \$600

Road 4: 4.0 Stations x \$150/Station = \$600

Road 5: 2.3 Stations x \$180/ Station = \$414

Road 6: 5.5 Stations x \$150/Station = \$825

Rock for Non-project Roads - Pit Run Rock

Road numbers 1, 3 = 10.4 stations x 50 c.y./station x \$7/c.y = \$3,640

Rock for Landings adjacent to rock roads - Pit Run Rock

22 Landings x 20 c.y./landing x \$7/c.y. = \$3,080

TOTAL OTHER COSTS = \$258,065

ROAD MAINTENANCE

Grading - 4 times

Maintenance \$500/Mile x 10 miles x 4 gradings / (9,999) = \$2.00

Maintenance Rock - approximately 15cu. yds./MMBF/Mile

15 cu. yds. x 10 miles x \$7.00/yard x 10 / (9,999) = \$1.05

Vibratory Roller

\$17.75/sta. x 52.8 sta./mile x 10 miles / (9,999) = \$0.94

TOTAL MAINTENANCE COST = \$3.99



Timber Sale Appraisal

Logging Conditions

Tin Tank

Sale 341-06-44

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	38.66%	
	Western Hemlock / Fir	21.39%	
	Alder (Red)	13.34%	
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:	4		Bd. Ft./Load: 3,400
Cost/MBF:	\$275.35		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Large)		
Combination#: 2	Douglas - Fir	45.33%	
	Western Hemlock / Fir	52.72%	
	Alder (Red)	64.01%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Stroke Delimber
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	4		Bd. Ft./Load: 3,300
Cost/MBF:	\$248.68		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 3	Douglas - Fir	10.31%	
	Western Hemlock / Fir	21.73%	
	Alder (Red)	20.42%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: Yes
Logging System:	Track Skidder		Process: Manual Falling/Delimiting
Tree Size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	10		Bd. Ft./Load: 3,400
Cost/MBF:	\$96.04		
Machines:			
	Log Loader (B)		
	Track Skidder		
Combination#: 4	Douglas - Fir	5.70%	
	Western Hemlock / Fir	4.16%	
	Alder (Red)	2.23%	

Yarding Distance: Long (1,500 ft)

Logging System: Cable: Medium Tower >40 - <70

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

Loads/Day: 3

Cost/MBF: \$325.16

Machines:

Log Loader (A)

Tower Yarder (Medium)

Downhill Yarding: Yes

Process: Manual Delimiting

Bd. Ft./Load: 3,400



Timber Sale Appraisal

Logging Costs

Tin Tank

Sale 341-06-44

"STEWARDSHIP IN FORESTRY"

Date: 2/24/06

Operating Seasons: 2.0

Profit & Risk: 10%

Project Costs: \$477,043

Other Costs (P/R): \$38,627

Slash Disposal: \$0

Other Costs: \$258,065

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

Road Maintenance: \$3.99

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.3
Western Hemlock / Fir	\$0.00	3.0	3.2
Alder (Red)	\$0.00	3.0	3.1



Timber Sale Appraisal Logging Costs Breakdown Tin Tank Sale 341-06-44

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	247.61	224.39	222.77
Road Maintenance	4.20	4.20	4.20
Fire Protection	0.54	0.54	0.54
Hauling	69.16	46.11	46.11
Other (P/R appl.)	3.86	3.86	3.86
Profit & Risk	32.54	27.91	27.75
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	25.81	25.81	25.81
Total	385.72	334.82	333.04

Amortization	0.00	0.00	0.00
Pond Value	606.91	396.38	595.00
Stumpage	221.19	61.56	261.96
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Tin Tank Sale 341-06-44

Amortized

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

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
MBF	8,374.00	1,380.00	245.00
Value	221.19	61.56	261.96
Total	1,852,245.06	84,952.80	64,180.20

Gross Timber Sale Value

Recovery \$2,001,378.06

Prepared by: Jacob Phillips

Date: 2/24/06

District: Tillamook

Phone: (503) 815-7043

PROJECT SUMMARY SHEET

Sale: Tin Tank Date: Feb. 22 2006

Construction -

Point	A to B	41+25	stations =	\$27,768.98
Point	G to H	3+70	stations =	\$3,381.80
Point	I to J	3+25	stations =	\$1,571.45
Point	E to Z	2+80	stations =	\$2,432.40
Point	AA to BB	1+50	stations =	\$1,623.76
Point	CC to DD	1+00	stations =	\$1,178.40
			SUB TOTAL	\$37,956.79

Improvement -

Point	A to B	227+75	stations =	\$223,192.52
Point	C to D	32+90	stations =	\$31,451.86
Point	E to F	29+95	stations =	\$32,403.17
Point	M to N	11+80	stations =	\$6,926.95
			SUB TOTAL	\$293,974.50

Reconstruction

Point	K to L	16+05	stations =	\$11,155.53
Point	O to P	43+90	stations =	\$34,203.19
Point	O to Q	6+15	stations =	\$3,794.88
Point	R to S	35+00	stations =	\$21,577.00
Point	T to U	6+90	stations =	\$4,074.65
Point	V to W	4+55	stations =	\$2,078.92
Point	X to Y	5+50	stations =	\$2,425.12
Point	EE to FF	5+30	stations =	\$3,973.00
Point	GG to HH	5+50	stations =	\$8,155.62
			SUB TOTAL	\$91,437.91

Special Projects -

FRENCH DRAIN @ Pt. II:		
12 Cubic Yards, Drain Rock @ \$20.40/c.y.		\$244.80
34 Square Yards Nonwoven Fabric @ \$1.40/c.y.		\$47.60
20 Feet of 10" Factory Perforated Polyethylene Drain Pipe		\$150.00
CRUSHED ROCK STOCKPILE		
115' x 89' x 20'H		\$49,257.33
	SUB TOTAL	\$49,699.73

Road Work Move - In -

SUB TOTAL \$3,974.30

GRAND TOTAL **\$477,043.23**

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank

Road: Points A - B

Construction - 41+25 stations
0.78 miles

Improvement - 227+75 stations
4.31 miles

CLEARING AND GRUBBING -

Scattering 10.50 acres @ \$980.00 per acre = \$10,290.00
TOTAL CLEARING AND GRUBBING \$10,290.00

EXCAVATION -

Crawler Tractor 18 hr.s @ \$145.00 per hr. = \$2,610.00
Excavator 7 hr.s @ \$145.00 per hr. = \$1,015.00
12 CY Dump Truck 6 hr.s @ \$70.00 per hr. = \$420.00
115.45 sta. @ \$60.00 per sta. = \$6,927.00

TURNOUTS:

Excavator 10.00 hr.s @ \$140.00 per hr. = \$1,400.00

END HAUL:

Common 5077 cys. @ \$4.00 per c.y. = \$20,308.00
Rippable Rock 1346 cys. @ \$5.13 per c.y. = \$6,904.98
Drill & Shoot 505 cys. @ \$7.52 per c.y. = \$3,797.60
Pull Ditch 116.60 sta. @ \$16.00 per sta. = \$1,865.60

NEW CONSTRUCTION

Excavate & Fill 3233 cys. @ \$2.73 per c.y. = \$8,826.09
Sidecast 2796 cys. @ \$1.28 per c.y. = \$3,578.88
TOTAL EXCAVATION \$57,653.15

CULVERT MATERIALS -

Culverts

754 LF of 18"	\$12,818.00	0 LF of 24"	\$0.00
20 LF of 30"	\$660.00	0 LF of 36"	\$0.00
36 LF of 42"	\$1,800.00	0 LF of 60"	\$0.00
	<u>\$15,278.00</u>		<u>\$0.00</u>

Half Rounds

150 LF of 21"	\$2,520.00	0 LF of 30"	\$0.00
	<u>\$2,520.00</u>		<u>\$0.00</u>

Culvert Stakes

30 1/2 round stakes @	\$8.00 per stake=	\$240.00
24 marker stakes @	\$6.00 per stake=	<u>\$144.00</u>

TOTAL CULVERT MATERIALS \$18,182.00

SURFACING-0+00 to 167+30

6" Depth 4,684 cy. of	@	\$17.56 per c.y.=	\$82,251.04
CrvWiden 197 cy. of	@	\$17.56 per c.y.=	\$3,459.32
22Trnouts 220 cy. of	@	\$17.56 per c.y.=	<u>\$3,863.20</u>
		TOTAL SURFACING	\$89,573.56

SURFACING-167+30 to 216+15

9" Depth 2,149 cy. of	Pit Run @	\$8.39 per c.y.=	\$18,030.11
CrvWiden 133 cy. of	Pit Run @	\$8.39 per c.y.=	\$1,115.87
7Trnouts 105 cy. of	Pit Run @	\$8.39 per c.y.=	<u>\$880.95</u>
		TOTAL SURFACING	\$20,026.93

SURFACING-167+30 to 216+15

3" Depth 684 cy. of	Crshd Rock @	\$17.56 per c.y.=	\$12,011.04
CrvWiden 47 cy. of	Crshd Rock @	\$17.56 per c.y.=	\$825.32
7Trnouts 35 cy. of	Crshd Rock @	\$17.56 per c.y.=	<u>\$614.60</u>
		TOTAL SURFACING	\$13,450.96

SURFACING- 216+15 to 251+00

5" Depth 802 cy. of	Crshd Rock @	\$17.56 per c.y.=	\$14,083.12
CrvWiden 34 cy. of	Crshd Rock @	\$17.56 per c.y.=	\$597.04
5Trnouts 40 cy. of	Crshd Rock @	\$17.56 per c.y.=	<u>\$702.40</u>
		TOTAL MISCELLANEOUS	\$15,382.56

SUMMARY OF CONSTRUCTION COST

Sale: _____ Road: Points A - B Continued _____

Construction - 41+25 stations
 0.78 miles

Improvement - 227+75 stations
 4.31 miles

SURFACING- 251+00 to 269+00	Crshd Rock				
4" Depth	342 cy. of	Crshd Rock	@	\$17.56 per c.y.=	\$6,005.52
CrvWiden	15 cy. of	Crshd Rock	@	\$17.56 per c.y.=	\$263.40
2Trmouts	12 cy. of	Crshd Rock	@	\$17.56 per c.y.=	\$210.72
				TOTAL MISCELLANEOUS	\$6,479.64

MISCELLANEOUS-

Rip Rap Source From Road Widening @ 111+75 @ 26+35

Fill Base	114 cy. of	Riprap	@	\$4.90 per c.y.=	\$558.60
Fill	541 cy. of	Pit Run	@	\$8.09 per c.y.=	\$4,376.69
Cvlt Beddir	20 cy. of	2"-0"Crshd	@	\$18.00 per c.y.=	\$360.00
				TOTAL MISCELLANEOUS	\$5,295.29

SPECIAL PROJECTS

Roll Surface Before Rocking: 269.00 Stations @ \$13.20/sta.	\$3,550.80
Grade Road: 269.00 Stations @ \$14.68/sta.	\$3,951.61
Ditchouts	\$250.00
Develop Waste Areas	\$500.00
Remove Old Culverts From State Land	\$355.00
Grass Seed, Fertilize and Mulch Disturbed Soil to 133+00 : 6 Acres @ \$820/ac.	\$4,920.00
Grass Seed and Fertilize Areas of Disturbed Soil 133+00 - Pt. B: 5 Acres @ \$220/ac.	\$1,100.00
TOTAL SPECIAL PROJECTS	\$14,627.41

GRAND TOTAL \$250,961.50

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank

Road: Points C - D

Construction - 0.00 stations
miles

Improvement - 32+90 stations
0.62 miles

EXCAVATION -

Crawler Tractor	3 hr.s @	\$145.00	per hr. =	\$435.00
Excavator	1 hr.s @	\$145.00	per hr. =	\$145.00
Dump Truck	1 hr.s @	\$70.00	per hr. =	\$70.00
	32.90 sta. @	\$40.00	per sta. =	\$1,316.00
Turnouts	4 TO @	\$60.00	per TO =	\$240.00

END HAUL 364 cys. @ \$4.56 per c.y. = \$1,659.84

TOTAL EXCAVATION \$3,865.84

SURFACING-

12" Depth	1,974 cy. of	Pit Run @	\$10.87 per c.y.=	\$21,457.38
CrvWiden	65 cy. of	Pit Run @	\$10.87 per c.y.=	\$706.55
4Trnouts	80 cy. of	Pit Run @	\$10.87 per c.y.=	\$869.60
SmTurnrnc	32 cy. of	Pit Run @	\$10.87 per c.y.=	\$347.84

TOTAL SURFACING \$23,381.37

MISCELLANEOUS-

Leveling R 320 cy. of Pit Run @ \$10.87 per c.y. = \$3,478.40

TOTAL MISCELLANEOUS \$3,478.40

SPECIAL PROJECTS

Grade Road: 32+90 Stations @ \$14.50/sta. \$411.25

Grass Seed & Fertilize Areas of Distrubed Soil: .75 Acres @ \$220/ac. \$165.00

Ditchouts \$150.00

TOTAL SPECIAL PROJECTS \$726.25

GRAND TOTAL \$31,451.86

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank

Road: Points E - Z

Construction - 2+80 stations
0.05 miles

Improvement - 0.00 stations
0.00 miles

CLEARING AND GRUBBING -

Scattering 0.25 acres @ \$980.00 per acre = \$245.00
TOTAL CLEARING AND GRUBBING \$245.00

EXCAVATION -

2.80 sta. @ \$140.00 per sta. = \$392.00
1 TA @ \$75.00 per sta. = \$75.00
TOTAL EXCAVATION \$392.00

SURFACING-

12" Depth 168 cy. of Pit Run @ \$8.22 per c.y. = \$1,380.96
CrvWiden 10 cy. of Pit Run @ \$8.22 per c.y. = \$82.20
SmTurnrnc 32 cy. of Pit Run @ \$8.22 per c.y. = \$263.04
TOTAL SURFACING \$1,726.20

SPECIAL PROJECTS

Grade Road: \$14/sta. \$39.20
Grass Seed & Fertilize Areas of Disturbed Soil \$30.00
TOTAL SPECIAL PROJECTS \$69.20

GRAND TOTAL \$2,432.40

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: G to H

Construction - $\frac{3+70}{0.07}$ stations miles Improvement - $\frac{\quad}{0.00}$ stations miles

CLEARING AND GRUBBING -
 Scattering 0.30 acres @ \$980.00 per acre = \$294.00
 TOTAL CLEARING AND GRUBBING \$294.00

EXCAVATION -
 3.70 sta. @ \$90.00 per sta. = \$333.00
 1.00 TA @ \$75.00 per TA = \$75.00
 TOTAL EXCAVATION \$408.00

SURFACING-
 12" Depth 222 cy. of Pit Run @ \$9.82 per c.y. = \$2,180.04
 CrvWiden 10 cy. of Pit Run @ \$9.82 per c.y. = \$98.20
 SmTurnrnd 32 cy. of Pit Run @ \$9.82 per c.y. = \$314.24
 TOTAL SURFACING \$2,592.48

SPECIAL PROJECTS
Grade Road: \$14/sta. \$51.80
Grass Seed & Fertilize Areas of Disturbed Soil: \$220/ac. X .16 Acres \$35.52
 TOTAL SPECIAL PROJECTS \$87.32

GRAND TOTAL \$3,381.80

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points M - N

Construction - 0.00 stations miles Improvement - 11+80 stations miles
0.00 miles 0.22 miles

CLEARING AND GRUBBING -

Scattering 0.80 acres @ \$980.00 per acre = \$784.00
TOTAL CLEARING AND GRUBBING \$784.00

EXCAVATION -

11.80 sta. @ \$65.00 per sta. = \$767.00
 2 TO @ \$60.00 per sta. = \$120.00
 1 TA @ \$75.00 per sta. = \$75.00
TOTAL EXCAVATION \$767.00

SURFACING-

12" Depth	708	cy. of	Pit Run	@	\$6.15 per c.y.=	\$4,354.20
CrvWiden	25	cy. of	Pit Run	@	\$6.15 per c.y.=	\$153.75
2Trnouts	40	cy. of	Pit Run	@	\$6.15 per c.y.=	\$246.00
SmTurnrnd	32	cy. of	Pit Run	@	\$6.15 per c.y.=	<u>\$196.80</u>
TOTAL SURFACING						\$4,950.75

SPECIAL PROJECTS

Grade Road: 11+80 Stations @ \$14/sta.	\$165.20
Grass Seed & Fertilize Areas of Disturbed Soil: .5 Acres @ \$220/ac.	\$110.00
Remove 2 Old Growth Stumps	<u>\$150.00</u>
TOTAL SPECIAL PROJECTS	
\$425.20	

GRAND TOTAL \$6,926.95

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points O - P

Reconstruction - 43+90 stations Improvement - stations
0.83 miles 0.00 miles

CLEARING AND GRUBBING -

Scattering 2.02 acres @ \$980.00 per acre = \$1,979.60
 TOTAL CLEARING AND GRUBBING \$1,979.60

EXCAVATION -

0 hr.s @ \$0.00 per hr. = \$0.00
 ROAD EARTHWORK:
 0+00 to 2+05 2.05 sta. @ \$423.00 per sta. = \$867.15
 2.05 to 43+90 41.85 sta. @ \$90.00 per sta. = \$3,766.50
 Repair Fill Slope
 9+35 to 19+54 70 cys. @ \$3.65 per c.y. = \$255.50
 Use local material for fill. TOTAL EXCAVATION \$4,889.15

CULVERT MATERIALS -

Culverts
 64 LF of 18" \$1,088.00 0 LF of 24" \$0.00
\$1,088.00 \$0.00
 Half Rounds
 40 LF of 21" \$711.20 0 LF of 30" \$0.00
\$711.20 \$0.00
 Culvert Stakes
 4 1/2 round stakes @ \$8.00 per stake = \$32.00
 2 marker stakes @ \$8.00 per stake = \$16.00
 TOTAL CULVERT MATERIALS \$1,847.20

SURFACING-

0+00 to 43+90 3,044 cy. of Pit Run @ \$7.59 per c.y. = \$23,103.96
 TOTAL SURFACING \$23,103.96

SPECIAL PROJECTS

Construct waste area, turnouts and ditchouts: 3 Hours @ \$145/hr. \$435.00
Geotextile fabric & installation: 417 Sq. Yd.s @ \$0.95/sq. yd. \$396.15
Grade & shape road - ditch - 2.05 Stations @ \$15.50/sta. \$30.55
Grade & shape road - outslope 41.85 Stations @ \$14/sta. \$585.90
Roll Subgrade: 43.90 Stations @ \$13.20/sta \$579.48
Grass Seed & Fertilize Areas of Disturbed Soil: 1.51 Acres @ \$220/ac. \$332.20
Mulch: .04 Acres @ \$600/ac. \$24.00
 TOTAL SPECIAL PROJECTS \$2,383.28

GRAND TOTAL \$34,203.19

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points O - Q

Reconstruction - 6+15 stations Improvement - stations
0.12 miles 0.00 miles

CLEARING AND GRUBBING -

Side cast	0.00 acres @	\$540.00 per acre =	\$0.00
Scattering	0.28 acres @	\$980.00 per acre =	\$274.40
Piling	0.00 acres @	\$905.00 per acre =	\$0.00
Endhaul	0.00 acres @	\$1,500.00 per acre =	\$0.00
TOTAL CLEARING AND GRUBBING			\$274.40

EXCAVATION -

Road			
Earthwork	6.15 sta. @	\$140.00 per sta. =	\$861.00
TOTAL EXCAVATION			\$861.00

SURFACING-

306 cy. of	Pit-Run	@	\$8.03 per c.y. =	\$2,457.18
TOTAL SURFACING				\$2,457.18

SPECIAL PROJECTS

Construct Turnaround & Ditchouts: .5 Hours @ \$140/hr.	\$70.00	
Grade & Shape Outsloped Road: 6.15 Stations @ \$14/sta.	\$86.10	
Grass Seed & Fertilize Areas of Distrubed Soil: .21 Acres @ \$220/ac.	\$46.20	
TOTAL SPECIAL PROJECTS		\$202.30

GRAND TOTAL \$3,794.88

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points R - S

Reconstruction - 35+00 stations Improvement - stations
0.66 miles 0.00 miles

CLEARING AND GRUBBING -

Scattering 1.68 acres @ \$980.00 per acre = \$1,646.40
TOTAL CLEARING AND GRUBBING \$1,646.40

EXCAVATION -

Road Earthwork 29.00 sta. @ \$90.00 per sta. = \$2,610.00
 Road Earthwork 6.00 sta. @ \$200.00 per sta. = \$1,200.00
 Pullback 148 cys. @ \$1.40 per c.y. = \$207.20
 Widening 94 cys. @ \$1.40 per c.y. = \$131.60

ENDHAUL-

Waste Area @ 16+50
 Pullback 7+20 to 8+65 148 cys. @ \$1.83 per c.y. = \$270.84
 Road Widening
 6+90 to 7+95 94 cys. @ \$1.85 per c.y. = \$173.90
 Spread & Compact 242 cys. @ \$0.25 per c.y. = \$60.50
TOTAL EXCAVATION \$4,654.04

SURFACING-

0+00 - 35+00 2,346 cy. of Pit Run @ \$5.56 per c.y. = \$13,043.76
TOTAL SURFACING \$13,043.76

MISCELLANEOUS-

Leveling Rock
 21+15 - 35+00 120 cy. of Pit Run @ \$5.56 per c.y. = \$667.20
TOTAL MISCELLANEOUS \$667.20

SPECIAL PROJECTS

Construct Waste Area, Turnouts, Turnaround & Ditchouts: 3 Hours @ \$140/hr. \$420.00
Grade & Shape Road: 35 Stations @ \$14/sta. \$490.00
Roll Subgrade: \$13.20/sta. 35 Stations \$462.00
Grass Seed & Fertilize Areas of Disturbed Soil: .88 Acres @\$220/ac. \$193.60
TOTAL SPECIAL PROJECTS \$1,565.60

GRAND TOTAL \$21,577.00

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points T - U

Reconstruction - 6+90 stations Improvement - stations
0.13 miles 0.00 miles

CLEARING AND GRUBBING -
 Scattering 0.32 acres @ \$980.00 per acre = \$313.60
 TOTAL CLEARING AND GRUBBING \$313.60

EXCAVATION -
 Road
 Earthwork 6.90 sta. @ \$90.00 per sta. = \$621.00
 TOTAL EXCAVATION \$621.00

SURFACING-
 0+00 to
 6+90 355 cy. of Pit Run @ \$8.03 per c.y. = \$2,850.65
 TOTAL SURFACING \$2,850.65

SPECIAL PROJECTS
Construct Turnout, Turnaround and Ditchouts: 1 Hour @ \$140/hr. \$140.00
Grade & Shape Road: 6.90 Stations @ \$14/sta. \$96.60
Grass Seed & Fertilize Areas of Disturbed Soil: .24 Acres @ \$220/ac. \$52.80
 TOTAL SPECIAL PROJECTS \$289.40

GRAND TOTAL \$4,074.65

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points V - W

Reconstruction - $\frac{4+55}{0.09}$ stations miles Improvement - $\frac{\quad}{0.00}$ stations miles

CLEARING AND GRUBBING -
Scattering 0.21 acres @ \$980.00 per acre = \$205.80
TOTAL CLEARING AND GRUBBING \$205.80

EXCAVATION -
Road Earthwork 4.55 sta. @ \$90.00 per sta. = \$409.50
TOTAL EXCAVATION \$409.50

SURFACING-
0+00 to 4+55 232 cy. of Pit-Run @ \$5.46 per c.y. = \$1,266.72
TOTAL SURFACING \$1,266.72

SPECIAL PROJECTS
Construct Turnaround & Ditchouts: .7 Hours @ \$140/hr. \$98.00
Grade & Shape Road: 4+55 Stations @ \$14.90/sta. \$63.70
Grass Seed & Fertilize Areas of Disturbed Soil: .16 Acres @ \$220/ac. \$35.20
TOTAL SPECIAL PROJECTS \$196.90

GRAND TOTAL \$2,078.92

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points X - Y

Reconstruction - 5+50 stations
0.10 miles Improvement - 0.00 stations
miles

CLEARING AND GRUBBING -

Scattering 0.25 acres @ \$980.00 per acre = \$245.00
TOTAL CLEARING AND GRUBBING \$245.00

EXCAVATION -

Road
Earthwork 5.50 sta. @ \$90.00 per sta. = \$495.00
TOTAL EXCAVATION \$495.00
0.00

SURFACING-

0+00 to
5+50 276 cy. of Pit-Run @ \$5.32 per c.y. = \$1,468.32
TOTAL SURFACING \$1,468.32

SPECIAL PROJECTS

Construct Turnarounds and Ditchouts: .7 Hours @ \$140/hr. \$98.00
Grade & Shape Road: 5.50 Stations @ \$14/sta. \$77.00
Grass seed & Fertilize Areas of Distrubed Soil: .19 Acres @ \$220/sta. \$41.80
TOTAL SPECIAL PROJECTS \$216.80

GRAND TOTAL \$2,425.12

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: Points AA - BB

Construction - 1+50 stations Improvement - stations
0.03 miles miles

CLEARING AND GRUBBING -
 Scattering 0.10 acres @ \$980.00 per acre = \$98.00
TOTAL CLEARING AND GRUBBING \$98.00

EXCAVATION - BORROW & FILL:
 Turnaround 226 cys. @ \$3.08 per c.y. = \$696.08
 1 TA @ \$75.00 per TA = \$75.00
TOTAL EXCAVATION \$696.08

SURFACING-
 12" Depth 90 cy. of Pit Run @ \$6.18 per c.y. = \$556.20
 CrvWiden 4 cy. of Pit Run @ \$6.18 per c.y. = \$24.72
 Trnouts cy. of Pit Run @ \$6.18 per c.y. = \$0.00
 SmTurnrnd 32 cy. of Pit Run @ \$6.18 per c.y. = \$197.76
TOTAL SURFACING \$778.68

SPECIAL PROJECTS
Grade Road: 1+50 Stations @ \$14/sta. \$21.00
Seed & Fertilize Areas of Disturbed Soil \$30.00
TOTAL SPECIAL PROJECTS \$51.00

GRAND TOTAL \$1,623.76

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank Road: CC - DD

Construction - 1+00 stations Improvement - stations
0.02 miles miles

CLEARING AND GRUBBING -

Scattering 0.10 acres @ \$980.00 per acre = \$98.00
TOTAL CLEARING AND GRUBBING \$98.00

EXCAVATION -

Turnaround 1.00 sta. @ \$90.00 per sta. = \$90.00
1.00 TA @ \$75.00 per TA = \$75.00
TOTAL EXCAVATION \$75.00

SURFACING-

12" Depth 60 cy. of Pit Run @ \$10.45 per c.y. = \$627.00
SmTurnrnd 32 cy. of Pit Run @ \$10.45 per c.y. = \$334.40
TOTAL SURFACING \$961.40

SPECIAL PROJECTS

Grade Road \$14.00
Grass Seed & Fertilize Areas of Disturbe Soil \$30.00
TOTAL SPECIAL PROJECTS \$44.00

GRAND TOTAL \$1,178.40

SUMMARY OF CONSTRUCTION COST

Sale: Tin Tank

Road: Points EE - FF

Reconstruction - 5+30 stations
0.10 miles

Improvement - stations
0.00 miles

CLEARING AND GRUBBING -

Scattering 0.40 acres @ \$980.00 per acre = \$392.00
TOTAL CLEARING AND GRUBBING \$392.00

EXCAVATION -

5.30 sta. @ \$50.00 per sta. = \$265.00
TOTAL EXCAVATION \$265.00

SURFACING-

12" Depth	318	cy. of	Pit Run	@	\$8.64 per c.y.=	\$2,747.52	
1Trnouts	20	cy. of	Pit Run	@	\$8.64 per c.y.=	\$172.80	
SmTurnrnc	32	cy. of	Pit Run	@	\$8.64 per c.y.=	<u>\$276.48</u>	
						TOTAL SURFACING	\$3,196.80

SPECIAL PROJECTS

Grade Road: 5+30 Stations @ \$14/sta.	\$74.20	
Grass Seed & Fertilize Areas of Disturbed Soil: .2 Acres @ \$220/ac.	<u>\$45.00</u>	
TOTAL SPECIAL PROJECTS	\$119.20	

GRAND TOTAL \$3,973.00

SUMMARY OF CONSTRUCTION COST

Sale: <u>Tin Tank</u>	Road: <u>Points GG - HH</u>
Reconstruction - <u>5+50</u> stations <u>0.10</u> miles	Improvement - <u> </u> stations <u>0.00</u> miles
CLEARING AND GRUBBING -	
Scattering 0.40 acres @ \$980.00 per acre = <u>\$392.00</u>	
TOTAL CLEARING AND GRUBBING	\$392.00
EXCAVATION -	
Fill 723 cys. @ \$2.23 per c.y. = \$1,612.29	
End Haul	
Drill & Shoot 250 cys. @ \$8.03 per c.y. = \$2,007.50	
Rip Rock 450 cys. @ \$5.38 per c.y. = \$2,421.00	
Common 363 cys. @ \$4.41 per c.y. = <u>\$1,600.83</u>	
TOTAL EXCAVATION	\$7,641.62
SPECIAL PROJECTS	
Grade Road: 5+50 Stations @ \$14/sta.	\$77.00
Grass Seed & Fertilize Areas of Disturbed Soil: .2 Acres @ \$220/Acres	<u>\$45.00</u>
TOTAL SPECIAL PROJECTS	\$122.00
GRAND TOTAL	\$8,155.62

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

SALE: TIN TANK

Pit:	<u>Jetty Pit</u>	Location:	<u>S 1/2 SE 1/4 Sec 34 T3N R8W</u>
Rock:	<u>2"-0" Crushed</u>	Road:	<u>7091 c.y.</u>
Swell:	<u>1.40</u>	Stockpile Size:	<u>4911 c.y.</u>
Shrinkage:	<u>1.16</u>	Total Truck Loads:	<u>12788 c.y.</u>
Drill Pct.:	<u>100%</u>	In Place Total:	<u>9134 c.y.</u>

Pit Development:					\$8,230.00
Drill & Shoot:	\$2.50 /cu.yd.	x	5722		\$14,305.00
Drill & Shoot: Lifters	\$4.60 /cu.yd.	x	5561 cu.yds.	=	\$25,580.60
Push Rock:	\$0.70 /cu.yd.	x	12788 cu.yds.	=	\$8,951.60
Push Rock:	\$0.70 /cu.yd.	x	7457 cu.yds.	=	\$5,219.90
Load Crusher:	\$0.70 /cu.yd.	x	12788 cu.yds.	=	\$8,951.60
Crushing:	\$2.80 /cu.yd.	x	12788 cu.yds.	=	\$35,806.40
Load Dump Truck:	\$0.70 /cu.yd.	x	12788 cu.yds.	=	\$8,951.60
Oversize Reduction:	\$4.50 /cu.yd.	x	0 cu.yds.	=	\$0.00
			Sub Total		\$115,996.70

MOVE-IN		
Drill & Compressor		\$496.00
Crawler Tractor		\$963.00
1 Loader		\$670.00
3 Dump Trucks		\$362.40
2-Stage Rock Crusher		\$1,138.50
Crusher Setup		\$1,726.00
	TOTAL PIT MOVE-IN	\$5,355.90

Base Cost: \$9.49 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 - B	\$5.62	\$2.45	\$9.49	\$17.56	7091	\$124,517.96
			Total C.Y.		7091	Sub Total \$124,517.96

Stockpile	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu.Yds.	ROCK COST
	\$0.75	\$0.30	\$9.49	\$10.54	4911	\$51,761.94
			Total C.Y.		4911	Sub Total \$51,761.94

TOTAL ROCKING COSTS = \$176,279.90

PIT RUN PIT DEVELOPMENT AND STRIPPING COST SUMMARY
SALE: TIN TANK

Pit:	<u>NO NAME</u>	Location:	<u>NW1/4 NW1/4 S25 T2N R8W</u>
Rock:	<u>PIT RUN</u>	Road:	<u>4700 c.y.</u>
Swell:	<u>1.30</u>	Miscellaneous:	<u>320 c.y.</u>
Shrinkage:	<u>1.16</u>	Total Truck Loads:	<u>5020 c.y.</u>
Drill Pct.:	<u>50%</u>	In Place Total:	<u>3862 c.y.</u>

Pit Development:							
Drill & Shoot:	<u>\$1.90</u>	<u>/cu.yd.</u>	x	<u>1931</u>	<u>cu.yds.</u>	=	<u>\$3,668.46</u>
Strip Rock:	<u>\$1.50</u>	<u>/cu.yd.</u>	x	<u>1,931</u>	<u>cu.yds.</u>	=	<u>\$2,896.15</u>
Push Rock:	<u>\$0.60</u>	<u>/cu.yd.</u>	x	<u>5020</u>	<u>cu.yds.</u>	=	<u>\$3,012.00</u>
Load Dump Truck:	<u>\$0.70</u>	<u>/cu.yd.</u>	x	<u>5020</u>	<u>cu.yds.</u>	=	<u>\$3,514.00</u>
				Sub Total			\$14,690.62

Base Cost: \$2.93 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
C - D	\$6.84	\$1.10	\$2.93	\$10.87	2,151	\$23,373.66
E - F	\$4.24	\$1.10	\$2.93	\$8.27	1,969	\$16,283.63
E - Z	\$4.19	\$1.10	\$2.93	\$8.22	210	\$1,726.01
EE - FF	\$4.61	\$1.10	\$2.93	\$8.64	370	\$3,195.47
				Total C.Y.	4,700	Sub Total \$44,578.77

Miscellaneous	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu.Yds.	ROCK COST
C - D	\$6.84	\$0.75	\$2.93	\$10.52	320	\$3,365.25
				Total C.Y.	320	Sub Total \$3,365.25

TOTAL ROCKING COSTS = \$47,944.03

PIT RUN PIT DEVELOPMENT AND STRIPPING COST SUMMARY
SALE: TIN TANK

Pit:	<u>MN PITRUN</u>	Location:	<u>SW1/4 NE1/4 Sec9 T2N R8W</u>
Rock:	<u>PIT RUN</u>	Road:	<u>1587 c.y.</u>
Swell:	<u>1.30</u>	Miscellaneous:	<u>613 c.y.</u>
Shrinkage:	<u> </u>	Total Truck Loads:	<u>2200 c.y.</u>
Drill Pct.:	<u>0%</u>	In Place Total:	<u>1692 c.y.</u>

Pit Development:				\$1,000.00
Drill & Shoot:	<u>\$2.50 /cu.yd.</u>	x	<u>0 cu.yds.</u>	= \$0.00
Strip Rock:	<u>\$1.90 /cu.yd.</u>	x	<u>1,692 cu.yds.</u>	= \$3,214.80
Push Rock:	<u>\$0.70 /cu.yd.</u>	x	<u>2200 cu.yds.</u>	= \$1,540.00
Load Dump Truck:	<u>\$0.70 /cu.yd.</u>	x	<u>2200 cu.yds.</u>	= \$1,540.00
			<u>Sub Total</u>	<u>\$7,294.80</u>

Base Cost= \$3.32 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 - H	\$5.40	\$1.10	\$3.32	\$9.82	264	\$2,592.48	
I - J	\$7.95	\$1.10	\$3.32	\$12.37	60	\$742.20	
K - L	\$8.62	\$1.10	\$3.32	\$13.04	240	\$3,129.60	
M - N	\$1.73	\$1.10	\$3.32	\$6.15	805	\$4,950.75	
AA - BB	\$1.76	\$1.10	\$3.32	\$6.18	126	\$778.68	
CC - DD	\$6.03	\$1.10	\$3.32	\$10.45	92	\$961.40	
				<u>Total C.Y.</u>	<u>1587</u>	<u>Sub Total</u>	<u>\$13,155.11</u>

Miscellaneous	Haul Cost /cu.yd.	Place Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu.Yds.	ROCK COST	
A - B	\$4.22	\$0.55	\$3.32	\$8.09	541	\$4,376.69	
K - L	\$8.62	\$0.55	\$3.32	\$12.49	72	\$899.28	
				<u>Total C.Y.</u>	<u>613</u>	<u>Sub Total</u>	<u>\$5,275.97</u>

TOTAL ROCKING COSTS = \$18,431.08

PIT RUN PIT DEVELOPMENT AND STRIPPING COST SUMMARY
SALE: TIN TANK

Pit:	<u>O - P</u>	Location:	<u>SE1/4 SW1/4 Sec. 2 T2N R8W</u>
Rock:	<u>PIT RUN</u>	Road:	<u>3705 c.y.</u>
Swell:	<u>1.40</u>	Total Truck Loads:	<u>3705 c.y.</u>
Shrinkage:	<u>1.16</u>	In Place Total:	<u>2646 c.y.</u>
Drill Pct.:	<u>0%</u>		

Pit Development: Clearing & grubbing, access, end-haul & compaction c					\$2,525.59
overburden					
Strip Rock:	<u>\$1.90</u>	/cu.yd.	x	<u>2,684</u>	cu.yds. = \$5,099.60
Load Dump Truck:	<u>\$0.70</u>	/cu.yd.	x	<u>3705</u>	cu.yds. = \$2,593.50
				Sub Total	<u>\$10,218.69</u>

MOVE IN:		
Grader		\$279.64
Excavator		\$782.06
3 Dump Trucks		\$484.80
	Subtotal	<u>\$1,546.50</u>

Base Cost- \$3.18 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 - P	\$3.31	\$1.10	\$3.18	\$7.59	3044	\$23,103.96
O - Q	\$2.78	\$1.10	\$3.18	\$7.06	306	\$2,160.36
T - U	\$3.75	\$1.10	\$3.18	\$8.03	355	\$2,850.65
				Total C.Y.	3705	Sub Total \$28,114.97

TOTAL ROCKING COSTS = \$28,114.97

PIT RUN PIT DEVELOPMENT AND STRIPPING COST SUMMARY
SALE: TIN TANK

Pit:	<u>RS</u>	Location:	<u>NE1/4 SE1/4 SEC. 11 T2N R8W</u>
Rock:	<u>PIT RUN</u>	Road:	<u>2854 c.y.</u>
Swell:	<u>1.40</u>	Miscellaneous:	<u>120 c.y.</u>
Shrinkage:	<u>1.16</u>	Total Truck Loads:	<u>2974 c.y.</u>
Drill Pct.:	<u>0%</u>	In Place Total:	<u>2124 c.y.</u>

Pit Development: Clearing & Grubbing, access construction, end-hauling waste				\$1,923.32
Strip Rock:	<u>\$1.90</u>	/cu.yd.	x <u>2,124</u>	cu.yds. = \$4,035.60
Load Dump Truck:	<u>\$0.70</u>	/cu.yd.	x <u>2974</u>	cu.yds. = \$2,081.80
			<u>Sub Total</u>	<u>\$8,040.72</u>

Move-In Costs From OP Pit				
Grader				\$6.65
Excavator				\$59.58
3 Dump Trucks				\$11.37
			<u>Sub Total</u>	<u>\$77.60</u>

Base Cost: \$2.73 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
R - S	\$2.08	\$0.75	\$2.73	\$5.56	2346	\$13,043.76
V - W	\$1.98	\$0.75	\$2.73	\$5.46	232	\$1,266.72
X - Y	\$1.84	\$0.75	\$2.73	\$5.32	276	\$1,468.32
				<u>Total C.Y.</u>	<u>2854</u>	<u>Sub Total \$15,778.80</u>

MISC. Leveling Rock:	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds.	ROCK COST
R - S	\$0.80	\$0.90	\$2.73	\$4.43	120	\$531.60
				<u>Total C.Y.</u>	<u>120</u>	<u>Sub Total \$531.60</u>

TOTAL ROCKING COSTS = \$16,310.40



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Tin Tank

1. Type of Sale

Partial cut/ Retention cut/ Clearcut, Recovery

2. Legal Description

Sections 2, 3, 4, 9, 10, 11, 13, 14, 15, 23, and 24, T 2N, R 8 W, W.M. Tillamook County, Oregon

3. Sale Acreage

	ACRES	
	<u>Sale</u>	<u>Net</u>
Area 1 (Retention Cut)	52	39
Area 2 (Partial Cut)	52	39
Area 3 (Partial Cut)	457	171
Area 4 (Modified Clearcut)	49	47
Area 5 (Retention Cut)	218	216
Area 6 (Partial Cut)	200	138
<u>Area 7 (Partial Cut)</u>	<u>358</u>	<u>294</u>
Total	1386	944

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^s areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut - Same as total acres

4. Cruising Procedures

A. Cruise Method

A total of 172 variable radius plots were taken across the sale area. Plots were spaced on a square grid pattern in Areas 1, 2, 4, and 5; and Areas 3 and 6 were on a rectangular grid.

Area	Grid Pattern	# Plots
1	250 x 250	29
2	250 x 250	20
3	300 x 500	17
4	350 x 350	17
5	250 x 250	25
6	300 x 500	38
7	500 x 800	27

All conifers 8 inches DBH 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 in all sale areas. The point of observation was at 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 7 inch top outside bark for hemlock, Sitka spruce, and Noble fir; six inch top outside bark for Douglas-fir; nine inches 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 SuperAce for computation of basal area, stand tables, diameters, and volume to basal area ratio for each species and type. This data was then entered into the Volume Summary Worksheet to compute sale volumes.

6. Hidden Defect and Breakage

A 5% deduction was applied to conifer and 10% on hardwood volume to account for the defect and breakage.

7. Timber Description

The sale area burned in the 1933 Tillamook Fire and in the 1945 Wilson River/Salmonberry Fire. Areas 1, 2, and 7 were planted in 1960, Areas 3, 4, and 5 were planted in 1968 and Area 6 naturally regenerated. Portions of Areas 1, 3, 4, 5 and 7 were pre-commercially thinned.

Area 1: Very dense conifer stand of Douglas-fir. The timber is 40-45 years old. The Douglas-fir has moderate symptoms of Swiss needle cast and there is moderate bear damage.

Area 2: Predominately a conifer stand of Douglas-fir with scattered hemlock, spruce and alder. The timber is 40-45 years old. The Douglas-fir has low symptoms of Swiss needle cast and there is minimal bear damage.

Area 3: Conifer stand of predominately Douglas-fir with scattered hemlock, Noble fir, and spruce. The timber is 35-40 years old. The Douglas-fir has moderate to severe symptoms of Swiss needle cast and moderate bear damage.

Area 4: Predominately a conifer stand of Douglas-fir with scattered Noble fir and alder. The timber is approximately 35-40 years old. The Douglas-fir has moderate to severe symptoms of Swiss needle cast and severe bear damage.

Area 5: Predominately a conifer stand of Douglas-fir with patches of hemlock and Noble fir, and scattered spruce and alder. The timber is 35-40 years old. The Douglas-fir has low to moderate symptoms of Swiss needle cast and low to moderate bear damage.

Area 6: A mix stand of hemlock, Douglas-fir, Noble-fir and alder. The timber is 50 years old. The Douglas-fir has low symptoms of Swiss needle cast and minimal bear damage.

Area 7: A conifer stand of Douglas-fir. The timber is 40-45 years old. The Douglas-fir has moderate symptoms of Swiss needle cast and moderate bear damage.

8. **Cruiser Names/Dates**

Phillips/Wells/Zimmerlee/Hendricks, July, 2005.

9. **Revenue Distribution**

FDF: 100%

Tax Code: 56, 56-1

Deed Numbers: 15, 35

94% Rehabilitation Obligated

10. **Attachments**

Stand Table

Volume Summaries

Logging Plan

TC TSTNDSUM		Stand Table Summary														
Oregon Dept of Forestry		Project		TINTANK		Area 1										
T02N R08W S02 T0100										T02N R08W S02 T0100						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	1					
02N	08W	02	40BA/AC	0100	39.00	29	196			Date:	10/31/201					
										Time:	4:04:13PM					
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		8	4	89	60	15.235	5.52	15.23	6.1	30.0	2.63	92	457	103	36	18
DF		9	5	86	62	15.926	6.90	15.93	7.8	33.9	3.55	125	540	139	49	21
DF		10	9	87	72	23.056	12.41	25.49	10.8	43.8	7.86	276	1,116	307	108	44
DF		11	10	87	78	21.435	13.79	27.71	12.6	47.7	9.96	349	1,322	388	136	52
DF		12	19	86	81	33.444	26.21	61.50	11.3	43.2	19.83	696	2,658	773	271	104
DF		13	12	86	91	17.889	16.55	34.23	14.6	58.4	14.28	501	1,998	557	195	78
DF		14	19	86	82	24.695	26.21	44.18	17.0	62.1	21.36	750	2,742	833	292	107
DF		15	22	86	81	25.051	30.34	47.84	18.2	66.4	24.78	869	3,176	966	339	124
DF		16	12	86	91	12.141	16.55	23.24	23.2	89.4	15.37	539	2,077	599	210	81
DF		17	14	85	93	12.223	19.31	24.45	25.9	96.3	18.04	633	2,354	703	247	92
DF		18	8	86	89	6.320	11.03	13.46	26.3	91.6	10.09	354	1,233	393	138	48
DF		19	13	86	87	9.149	17.93	16.89	33.2	113.0	15.98	561	1,910	623	219	74
DF		20	8	85	91	5.048	11.03	10.75	33.9	107.8	10.40	365	1,158	405	142	45
DF		21	4	85	93	2.378	5.52	4.76	38.4	120.0	5.21	183	571	203	71	22
DF		23	1	84	75	.462	1.38	.92	44.2	115.0	1.16	41	106	45	16	4
DF		Totals	160	86	80	224.450	220.69	366.58	17.3	63.9	180.50	6,333	23,419	7,040	2,470	913
DL		15	2	87	78	2.219	2.76	4.44	17.3	65.1	2.11	77	289	82	30	11
DL		16	2	85	84	2.003	2.76	4.01	20.8	77.2	2.29	83	309	89	32	12
DL		17	1	87	89	.896	1.38	1.79	24.4	90.0	1.20	44	161	47	17	6
DL		18	4	86	93	3.063	5.52	6.13	30.5	107.5	5.14	187	658	200	73	26
DL		19	3	87	73	2.097	4.14	3.52	32.5	109.9	3.15	114	387	123	45	15
DL		20	2	87	93	1.323	2.76	2.65	35.7	117.6	2.60	94	311	101	37	12
DL		21	7	86	88	3.984	9.66	7.97	39.7	137.7	8.69	316	1,097	339	123	43
DL		22	4	85	88	2.096	5.52	4.73	38.1	123.7	4.96	180	585	193	70	23
DL		23	2	84	77	.969	2.76	1.94	42.0	107.5	2.24	81	208	87	32	8
DL		25	1	83	80	.392	1.38	.78	53.2	160.0	1.15	42	125	45	16	5
DL		27	1	85	94	.342	1.38	.68	72.6	250.0	1.37	50	171	53	19	7
DL		Totals	29	86	85	19.384	40.00	38.63	32.8	111.4	34.88	1,268	4,303	1,360	495	168
RA		12	3	79	69	5.280	4.14	5.28	20.2	69.8	2.93	107	368	114	42	14
RA		13	2	79	60	3.087	2.76	3.09	18.4	60.0	1.56	57	185	61	22	7
RA		14	2	80	98	2.456	2.76	3.69	22.0	73.3	2.23	81	271	87	32	11
RA		Totals	7	79	73	10.824	9.66	12.06	20.3	68.3	6.73	245	824	263	95	32
Totals			196	86	80	254.658	270.34	417.27	18.8	68.4	222.12	7847	28,546	8,662	3,060	1,113

Stand Table Summary											Page	1					
TC PSINDSUM											Date:	10/31/2005					
Oregon Dept of Forestry											Project		TINTANK	Area 2	Time:	4:10:09PM	
T02N R08W S02 Ty0200				39.00		Acres		39.00		Grown Year:							
S Spc T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals				
	DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF		
DL	12	2	86	81	5.641	4.21	8.51	12.4	49.8	2.90	106	424	113	41	17		
DL	13	1	79	72	2.284	2.11	2.28	22.4	60.0	1.40	51	137	55	20	5		
DL	14	1	80	63	2.027	2.11	2.03	25.3	60.0	1.41	51	122	55	20	5		
DL	15	3	88	73	5.199	6.32	8.73	18.7	68.2	4.48	163	595	175	64	23		
DL	16	7	85	80	10.644	14.74	19.85	20.8	72.0	11.39	413	1,428	444	161	56		
DL	17	5	86	76	6.775	10.53	13.55	21.6	76.0	8.04	292	1,030	314	114	40		
DL	18	5	86	88	6.066	10.53	12.13	25.6	93.8	8.56	311	1,138	334	121	44		
DL	19	2	85	81	2.153	4.21	3.18	35.9	108.7	3.14	114	346	122	45	13		
DL	20	2	88	97	1.911	4.21	3.82	36.7	134.8	3.86	140	515	151	55	20		
DL	21	1	82	79	.892	2.11	1.78	35.3	105.0	1.73	63	187	68	25	7		
DL	22	1	87	99	.769	2.11	1.54	47.4	175.0	2.01	73	269	78	28	11		
DL	25	2	83	129	1.271	4.21	2.54	64.5	264.3	4.51	164	672	176	64	26		
DL	27	1	83	91	.518	2.11	1.04	67.2	230.0	1.92	70	238	75	27	9		
DL	28	1	83	76	.492	2.11	.98	64.5	230.0	1.75	64	226	68	25	9		
DL	30	1	90	103	.441	2.11	.88	90.6	405.0	2.20	80	357	86	31	14		
DL	32	1	87	118	.372	2.11	1.12	78.8	396.7	2.42	88	443	94	34	17		
DL	33	1	85	112	.365	2.11	.73	111.8	480.0	2.25	82	351	88	32	14		
DL	Totals	37	85	82	47.821	77.89	84.70	27.4	100.1	63.96	2,325	8,479	2,495	907	331		
DF	8	2	92	85	11.211	4.21	11.21	7.8	40.0	2.48	87	448	97	34	17		
DF	9	2	89	83	8.831	4.21	13.20	7.4	36.8	2.80	98	486	109	38	19		
DF	10	3	88	69	12.226	6.32	12.23	10.9	49.7	3.79	133	608	148	52	24		
DF	11	5	87	62	16.377	10.53	19.51	11.3	38.3	6.30	221	747	246	86	29		
DF	12	4	86	69	10.753	8.42	10.75	17.4	55.3	5.34	187	595	208	73	23		
DF	13	6	83	62	13.927	12.63	16.14	15.8	48.6	7.28	255	784	284	99	31		
DF	15	4	85	87	7.121	8.42	12.43	20.9	74.3	7.39	259	924	288	101	36		
DF	16	8	86	81	12.539	16.84	21.95	21.4	75.2	13.40	470	1,651	523	183	64		
DF	17	1	86	100	1.418	2.11	2.84	25.6	95.0	2.07	72	269	81	28	11		
DF	18	1	88	105	1.205	2.11	2.41	32.4	120.0	2.22	78	289	87	30	11		
DF	31	2	83	81	.801	4.21	1.60	80.7	264.9	3.68	129	424	144	50	17		
DF	Totals	38	87	74	96.409	80.00	124.27	16.0	58.2	56.75	1,991	7,226	2,213	776	282		
RA	12	1	80	70	2.510	2.11	2.51	15.0	50.0	1.04	38	126	40	15	5		
RA	14	1	80	136	2.118	2.11	2.12	19.6	90.0	1.14	42	191	45	16	7		
RA	16	1	80	55	1.508	2.11	3.02	12.8	50.0	1.04	38	151	41	15	6		
RA	17	1	80	71	1.368	2.11	2.74	15.9	60.0	1.20	44	164	47	17	6		
RA	19	3	80	62	3.131	6.32	3.13	32.9	90.2	2.84	103	282	111	40	11		
RA	Totals	7	80	79	10.635	14.74	13.51	19.6	67.6	7.25	264	913	283	103	36		
WH	20	1	91	60	.975	2.11	1.95	26.1	120.0	1.63	51	234	64	20	9		
WH	Totals	1	91	60	.975	2.11	1.95	26.1	120.0	1.63	51	234	64	20	9		
OH	10	1	80	36	3.569	2.11											
OH	12	1	69	44	2.593	2.11	2.59	9.5	20.0	.68	25	52	27	10	2		
OH	13	1	86	79	2.215	2.11	2.22	10.8	40.0	.66	24	89	26	9	3		
OH	16	1	49	36	1.471	2.11											
OH	Totals	4	74	48	9.848	8.42	4.81	10.1	29.2	1.34	49	140	52	19	5		
SS	25	1	78	43	.643	2.11	.64	62.0	80.0	1.03	40	51	40	16	2		
SS	Totals	1	78	43	.643	2.11	.64	62.0	80.0	1.03	40	51	40	16	2		
Totals		88	85	75	166.331	185.26	229.88	20.5	74.1	131.97	4,719	17,045	5,147	1,841	665		

TC PSTNDSUM		Stand Table Summary											Page 1		
T02N R08W S02 Ty0300 171.00		Project TINTANK <i>Area 3</i>			Date: 11/16/2005		Time: 11:57:33AM		Acres 171.00			Grown Year:			
S Spec T	Sample DBH	Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	10	3	84	44	13.509	7.06	13.51	7.8	30.0	2.98	105	405	509	180	69
DF	11	2	84	46	7.333	4.71	7.33	10.7	34.9	2.24	78	256	382	134	44
DF	12	5	84	64	15.098	11.76	15.10	16.9	47.9	7.28	255	723	1,244	437	124
DF	13	6	84	61	15.350	14.12	17.75	16.9	48.9	8.54	300	867	1,461	513	148
DF	14	12	84	60	26.411	28.24	32.99	18.6	52.6	17.46	612	1,736	2,985	1,047	297
DF	15	7	84	61	13.644	16.47	15.46	23.1	58.8	10.15	357	910	1,736	610	156
DF	16	3	84	63	5.215	7.06	6.84	24.5	66.1	4.77	167	452	816	286	77
DF	20	1	78	83	1.037	2.35	2.07	35.7	95.0	2.12	74	197	362	126	34
DF	22	1	79	99	.908	2.35	1.82	46.0	150.0	2.38	83	272	407	143	47
DF	23	1	77	96	.795	2.35	1.59	50.1	150.0	2.27	80	238	388	136	41
DF	24	1	80	114	.768	2.35	1.54	56.2	185.0	2.46	86	284	421	148	49
DF	25	2	78	99	1.386	4.71	2.77	49.0	165.3	3.87	136	458	663	232	78
DF	Totals	44	84	60	101.453	103.53	118.77	19.7	57.2	66.52	2,335	6,799	11,376	3,993	1,163
DL	9	1	86	26	5.097	2.35	5.10	4.6	20.0	.65	24	102	111	40	17
DL	11	1	85	51	3.320	2.35	3.32	11.9	40.0	1.09	40	133	186	68	23
DL	14	3	85	51	6.421	7.06	6.42	20.4	46.9	3.59	131	301	615	223	51
DL	15	8	82	64	15.515	18.82	22.99	19.1	50.7	12.09	440	1,165	2,067	752	199
DL	16	2	86	53	3.435	4.71	3.44	27.9	50.2	2.63	96	172	450	164	29
DL	17	5	84	58	7.647	11.76	7.77	25.2	66.2	5.38	196	515	920	335	88
DL	18	3	84	73	4.043	7.06	6.75	28.5	86.1	5.30	192	582	906	329	99
DL	19	2	84	71	2.354	4.71	3.50	36.7	86.4	3.53	129	302	604	220	52
DL	20	1	86	66	1.135	2.35	2.27	25.5	90.0	1.59	58	204	272	99	35
DL	21	1	81	53	.978	2.35	.98	50.6	90.0	1.36	50	88	233	85	15
DL	22	1	79	81	.925	2.35	1.85	40.5	100.0	2.05	75	185	350	128	32
DL	24	1	80	99	.775	2.35	1.55	54.7	160.0	2.33	85	248	399	145	42
DL	25	1	75	97	.719	2.35	1.44	55.5	125.0	2.20	80	180	376	136	31
DL	26	1	81	100	.653	2.35	1.31	67.6	225.0	2.42	88	294	414	151	50
DL	29	1	87	126	.517	2.35	1.03	95.6	470.0	2.72	99	486	464	169	83
DL	Totals	32	84	60	53.531	75.29	69.71	25.5	71.1	48.93	1,780	4,956	8,368	3,043	847
WH	12	2	87	71	5.704	4.71	5.70	21.1	70.0	3.84	120	399	657	205	68
WH	13	1	82	35	2.592	2.35	2.59	12.3	30.0	1.02	32	78	174	54	13
WH	14	2	79	46	4.507	4.71	4.51	20.4	44.2	2.93	92	199	501	157	34
WH	19	3	85	55	3.626	7.06	4.78	33.8	84.1	5.17	162	402	885	276	69
WH	Totals	8	84	55	16.429	18.82	17.59	23.1	61.3	12.96	406	1,079	2,217	694	184
NF	17	1	80	45	1.441	2.35	1.44	28.9	60.0	1.00	42	86	171	71	15
NF	Totals	1	80	45	1.441	2.35	1.44	28.9	60.0	1.00	42	86	171	71	15
SS	15	1	67	24	2.052	2.35	2.05	12.6	30.0	.67	26	62	115	44	11
SS	Totals	1	67	24	2.052	2.35	2.05	12.6	30.0	.67	26	62	115	44	11
Totals		86	83	59	174.906	202.35	209.56	21.9	61.9	130.09	4,588	12,981	22,246	7,845	2,220

Stand Table Summary

T02N R08W S02 Ty0400 47.00

Project TINTANK Area 4
Acres 47.00

Time: 8:31:48AM
Grown Year:

S Spc T	Sample DBH	Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	8	1	85	19	6.114	2.35	6.11	3.9	20.0	.68	24	122	32	11	6
DF	9	3	89	59	15.749	7.06	15.75	8.1	36.6	3.63	127	577	171	60	27
DF	10	5	88	55	21.982	11.76	21.98	9.8	36.0	6.16	216	792	290	102	37
DF	11	8	88	72	28.478	18.82	28.48	14.7	56.4	11.95	419	1,606	562	197	75
DF	12	7	88	70	21.720	16.47	27.62	14.2	52.4	11.19	393	1,448	526	184	68
DF	13	11	87	72	27.812	25.88	42.67	15.2	56.5	18.54	651	2,409	871	306	113
DF	14	13	87	74	28.922	30.59	53.31	14.9	53.3	22.71	797	2,842	1,068	375	134
DF	15	15	87	77	28.870	35.29	57.74	16.8	60.9	27.63	969	3,516	1,298	456	165
DF	16	11	87	75	18.893	25.88	32.62	21.6	74.1	20.06	704	2,417	943	331	114
DF	17	5	87	80	7.851	12.59	14.24	24.6	86.6	9.98	350	1,233	469	165	58
DF	18	4	85	81	5.361	9.41	8.13	32.1	117.4	7.44	261	955	350	123	45
DF	19	4	87	62	4.771	9.41	7.17	30.4	80.0	6.22	218	574	292	103	27
DF	20	1	87	71	1.057	2.35	2.11	29.9	100.0	1.80	63	211	85	30	10
DF	21	1	86	106	1.027	2.35	2.05	41.8	155.0	2.45	86	318	115	40	15
DF	Totals	89	87	70	218.608	210.24	320.01	16.5	59.4	150.43	5,278	19,020	7,070	2,481	894
DL	23	1	88	111	.845	2.35	1.69	54.4	225.0	2.53	92	380	119	43	18
DL	Totals	1	88	111	.845	2.35	1.69	54.4	225.0	2.53	92	380	119	43	18
NF	28	1	82	66	.542	2.35	1.08	54.1	180.0	1.41	59	195	66	28	9
NF	Totals	1	82	66	.542	2.35	1.08	54.1	180.0	1.41	59	195	66	28	9
RA	14	1	80	61	2.201	2.35	2.20	22.0	60.0	1.33	48	132	63	23	6
RA	Totals	1	80	61	2.201	2.35	2.20	22.0	60.0	1.33	48	132	63	23	6
Totals		92	87	70	222.196	217.30	324.99	16.9	60.7	155.70	5,477	19,727	7,318	2,574	927

TC PSTNDSUM		Stand Table Summary											Page	1	
T02N R08W S14 Ty0500 216.00		Project TINTANK Area 5											Date:	11/16/2005	
		Acres 216.00											Time:	1:33:35PM	
													Grown Year:		
S Spec T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	8	2	87	53	9.210	3.33	9.21	5.2	30.0	1.38	48	276	297	104	60
DF	9	3	87	60	12.124	5.00	12.12	7.4	33.5	2.57	90	406	556	195	88
DF	10	8	86	80	25.512	13.33	28.90	10.6	44.5	8.76	307	1,286	1,891	664	278
DF	11	5	87	87	12.802	8.33	22.88	10.3	41.9	6.71	235	960	1,449	508	207
DF	12	8	85	85	17.283	13.33	28.19	12.9	49.1	10.34	363	1,384	2,233	783	299
DF	13	7	84	77	12.455	11.67	17.86	17.3	58.8	8.81	309	1,051	1,903	668	227
DF	14	11	83	87	17.397	18.33	30.07	18.2	63.7	15.57	546	1,916	3,362	1,180	414
DF	15	11	83	90	14.941	18.33	29.90	19.3	71.8	16.41	576	2,146	3,544	1,244	464
DF	16	8	84	99	9.710	13.33	20.60	21.9	84.0	12.88	452	1,731	2,783	976	374
DF	17	5	81	93	5.394	8.33	10.79	24.8	87.3	7.64	268	942	1,649	579	203
DF	18	9	85	95	8.538	15.00	18.16	27.4	99.3	14.18	498	1,803	3,064	1,075	389
DF	19	3	85	103	2.567	5.00	5.13	32.5	121.8	4.75	167	624	1,026	360	135
DF	20	4	86	114	3.073	6.67	7.68	34.6	138.7	7.58	266	1,065	1,637	574	230
DF	21	2	86	94	1.426	3.33	2.85	40.6	142.4	3.30	116	406	713	250	88
DF	22	1	81	99	.631	1.67	.63	55.1	200.0	.99	35	126	214	75	27
DF	23	1	80	110	.598	1.67	1.20	52.9	180.0	1.80	63	215	390	137	47
DF	25	1	87	87	.509	1.67	1.02	53.4	205.0	1.55	54	209	335	117	45
DF	Totals	89	85	83	154.172	148.33	247.18	17.8	66.9	125.21	4,393	16,546	27,046	9,490	3,574
NL	23	2	85	111	1.202	3.33	3.01	40.7	174.0	2.94	122	523	634	264	113
NL	24	1	84	103	.517	1.67	1.03	58.6	215.0	1.46	61	223	315	131	48
NL	26	2	86	103	.890	3.33	2.22	54.7	222.0	2.91	121	493	629	262	106
NL	27	1	82	104	.410	1.67	.82	77.8	275.0	1.53	64	226	331	138	49
NL	30	1	85	100	.346	1.67	.69	88.7	345.0	1.48	61	239	319	133	52
NL	Totals	7	85	106	3.366	11.67	7.77	55.3	219.1	10.31	430	1,703	2,228	928	368
WL	11	1	74	86	2.436	1.67	2.44	19.6	60.0	1.53	48	146	331	103	32
WL	12	1	85	67	2.087	1.67	2.09	19.6	60.0	1.31	41	125	283	89	27
WL	14	1	84	68	1.474	1.67	1.47	28.0	80.0	1.34	41	118	289	89	25
WL	15	1	81	60	1.434	1.67	1.43	29.9	70.0	1.37	43	100	296	93	22
WL	16	2	88	80	2.315	3.33	3.48	28.7	109.8	3.19	100	382	690	216	83
WL	18	1	85	96	.912	1.67	1.82	33.4	125.0	1.95	61	228	421	132	49
WL	19	1	85	76	.893	1.67	1.79	28.1	100.0	1.61	50	179	347	108	39
WL	20	1	86	80	.756	1.67	1.51	35.3	115.0	1.71	53	174	369	115	38
WL	Totals	9	83	76	12.307	15.00	16.03	27.3	90.6	14.01	437	1,452	3,026	945	314
DL	23	2	83	113	1.151	3.33	2.90	46.0	189.5	3.66	133	549	791	288	119
DL	24	1	86	102	.539	1.67	1.08	56.1	215.0	1.66	60	232	359	131	50
DL	25	1	86	113	.501	1.67	1.50	43.7	190.0	1.81	66	285	390	142	62
DL	28	1	84	121	.390	1.67	1.17	59.3	253.3	1.91	69	296	412	150	64
DL	Totals	5	84	112	2.581	8.33	6.65	49.5	205.0	9.04	329	1,362	1,952	710	294
WH	9	3	82	34	11.320	5.00	7.55	5.7	24.9	1.37	43	188	295	92	41
WH	10	2	88	35	6.498	3.33	6.50	6.8	24.9	1.42	44	162	306	96	35
WH	12	1	85	86	1.987	1.67	3.97	11.7	45.0	1.48	46	179	321	100	39
WH	13	1	84	67	1.836	1.67	1.84	23.8	70.0	1.40	44	129	302	94	28
WH	14	1	85	72	1.494	1.67	1.49	28.4	90.0	1.36	42	134	293	92	29
WH	15	1	84	45	1.358	1.67	1.36	21.5	50.0	.93	29	68	202	63	15
WH	18	1	81	98	.998	1.67	2.00	30.9	110.0	1.97	62	220	426	133	47
WH	19	1	85	84	.855	1.67	1.71	31.4	105.0	1.72	54	180	372	116	39
WH	Totals	11	84	47	26.347	18.33	26.42	13.8	47.6	11.65	364	1,259	2,517	787	272
NF	18	1	84	105	.964	1.67	1.93	32.0	120.0	1.48	62	231	320	133	50
NF	21	1	84	109	.706	1.67	1.41	45.2	155.0	1.53	64	219	331	138	47

Stand Table Summary

T02N R08W S14 Ty0500 216.00

Project **TINTANK Area 5**
Acres **216.00**

Time: **1:33:35PM**
Grown Year:

S Spc T	Sample DBH	Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
NF	23	1	86	127	.583	1.67	1.75	41.0	180.0	1.72	72	315	372	155	68	
NF	Totals		3	85	112	2.253	5.00	5.09	38.7	150.3	4.73	197	765	1,022	426	165
RA	10	1	79	36	3.056	1.67										
RA	11	1	80	21	2.620	1.67										
RA	13	2	80	43	3.508	3.33	3.51	14.3	35.0	1.38	50	123	298	108	27	
RA	14	1	80	53	1.494	1.67	1.49	22.9	50.0	.94	34	75	203	74	16	
RA	Totals		5	80	37	10.678	8.33	5.00	16.9	39.5	2.32	84	197	501	182	43
SS	18	1	75	31	.986	1.67	.99	23.2	50.0	.59	23	49	128	49	11	
SS	Totals		1	75	31	.986	1.67	.99	23.2	50.0	.59	23	49	128	49	11
Totals		130	84	77	212.691	216.67	315.13	19.9	74.0	177.87	6,258	23,334	38,420	13,516	5,040	

Stand Table Summary

T02N R08W S02 Ty0600 138.00

Project **TINTANK Area 6**
Acres **138.00**

Time: **10:14:09AM**
Grown Year:

S Spc T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
WH	8	3	87	51	8.478	3.16	8.48	6.4	29.9	1.75	55	254	241	75	35
WH	9	7	88	81	17.324	7.37	17.32	11.2	58.6	6.20	194	1,016	856	268	140
WH	10	7	85	76	14.102	7.37	14.10	11.7	50.4	5.27	165	711	728	227	98
WH	11	9	87	92	14.353	9.47	18.97	13.6	57.4	8.25	258	1,088	1,138	356	150
WH	12	6	86	74	8.230	6.32	12.35	13.3	47.6	5.24	164	588	723	226	81
WH	13	7	86	89	8.030	7.37	14.98	15.0	58.3	7.20	225	873	993	310	121
WH	14	4	85	76	4.013	4.21	6.06	19.1	63.2	3.70	116	383	510	160	53
WH	15	3	87	93	2.578	3.16	5.16	21.2	83.7	3.50	109	432	483	151	60
WH	16	2	85	83	1.480	2.11	2.96	23.1	87.5	2.19	68	259	302	94	36
WH	17	2	85	53	1.346	2.11	1.35	32.2	80.5	1.39	43	108	192	60	15
WH	18	3	85	77	1.814	3.16	3.63	26.4	93.3	3.07	96	339	423	132	47
WH	19	3	86	88	1.582	3.16	3.16	33.3	114.9	3.37	105	363	465	145	50
WH	20	1	85	85	.497	1.05	.99	36.1	115.0	1.15	36	114	158	49	16
WH	23	3	85	86	1.108	3.16	2.22	47.7	166.8	3.38	106	370	467	146	51
WH	Totals	60	86	79	84.936	63.16	111.72	15.6	61.7	55.66	1,739	6,898	7,681	2,400	952
WL	8	1	81	36	3.016	1.05	3.02	4.6	20.0	.45	14	60	61	19	8
WL	10	1	86	54	1.892	1.05	1.89	10.4	30.0	.63	20	57	87	27	8
WL	11	3	84	94	5.007	3.16	6.72	12.7	50.6	2.74	86	340	378	118	47
WL	12	1	91	60	1.434	1.05	1.43	12.8	40.0	.59	18	57	81	25	8
WL	13	4	85	83	4.484	4.21	6.67	18.3	63.7	3.91	122	424	540	169	59
WL	14	1	86	76	.931	1.05	1.86	15.3	55.0	.91	28	102	126	39	14
WL	15	5	85	73	4.376	5.26	6.18	23.2	70.0	4.58	143	432	631	197	60
WL	16	3	83	65	2.273	3.16	2.27	32.8	97.6	2.38	74	222	329	103	31
WL	17	4	84	74	2.753	4.21	4.82	24.4	84.0	3.76	117	405	519	162	56
WL	18	5	84	69	3.014	5.26	5.40	26.4	93.0	4.56	143	502	630	197	69
WL	19	6	85	79	3.278	6.32	5.45	35.8	111.9	6.24	195	609	862	269	84
WL	20	2	85	84	.946	2.11	1.89	37.3	127.3	2.26	71	241	312	98	33
WL	21	2	84	86	.876	2.11	1.75	40.1	142.6	2.25	70	250	310	97	34
WL	22	2	84	94	.787	2.11	1.57	49.8	187.4	2.51	78	295	346	108	41
WL	23	1	82	87	.378	1.05	.76	49.0	165.0	1.19	37	125	164	51	17
WL	24	1	83	82	.324	1.05	.65	52.8	165.0	1.10	34	107	151	47	15
WL	25	3	85	90	.929	3.16	1.54	62.8	234.0	3.09	97	360	427	133	50
WL	27	3	85	96	.798	3.16	1.60	72.9	270.0	3.72	116	431	514	161	59
WL	31	1	84	89	.206	1.05	.41	65.5	235.0	.86	27	97	119	37	13
WL	Totals	49	84	75	37.702	51.58	55.88	26.7	91.6	47.72	1,491	5,118	6,586	2,058	706
DL	9	1	88	57	2.184	1.05	2.18	8.0	40.0	.48	17	87	66	24	12
DL	12	2	84	98	2.593	2.11	5.19	13.1	50.0	1.87	68	259	258	94	36
DL	15	2	84	73	1.730	2.11	2.55	22.5	73.2	1.58	57	187	218	79	26
DL	16	2	87	71	1.538	2.11	3.08	17.6	62.3	1.49	54	191	206	75	26
DL	19	2	85	88	1.082	2.11	2.16	32.4	112.2	1.93	70	243	266	97	34
DL	20	3	86	82	1.439	3.16	2.88	33.9	116.3	2.68	97	335	370	135	46
DL	21	2	87	98	.889	2.11	1.78	41.3	137.9	2.02	73	245	278	101	34
DL	23	1	85	104	.365	1.05	.73	56.1	215.0	1.13	41	157	155	56	22
DL	24	2	84	95	.676	2.11	1.35	52.3	190.2	1.95	71	257	268	98	35
DL	25	1	84	68	.322	1.05	.64	43.9	145.0	.78	28	93	107	39	13
DL	28	1	86	103	.239	1.05	.72	54.7	236.7	1.08	39	170	149	54	23
DL	Totals	19	86	81	13.056	20.00	23.26	26.5	95.6	16.97	617	2,225	2,342	852	307
NL	13	1	90	69	1.091	1.05	1.09	19.1	60.0	.50	21	65	69	29	9
NL	17	2	79	47	1.297	2.11	1.30	17.0	39.8	.53	22	52	73	30	7
NL	18	1	83	68	.616	1.05	1.23	18.1	70.0	.54	22	86	74	31	12
NL	19	1	84	75	.535	1.05	1.07	26.3	85.0	.67	28	91	93	39	13

Stand Table Summary

T02N R08W S02 Ty0600 138.00

Project **TINTANK Area 6**
Acres **138.00**

Time: **10:14:09AM**
Grown Year:

S Spec T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
NL	21	2	85	102	.888	2.11	1.78	41.8	140.0	1.78	74	249	246	102	34
NL	22	1	86	116	.399	1.05	1.20	35.9	166.7	1.03	43	199	142	59	28
NL	23	1	87	80	.359	1.05	.72	44.4	165.0	.76	32	118	106	44	16
NL	24	1	85	101	.347	1.05	.69	55.3	215.0	.92	38	149	127	53	21
NL	25	1	87	120	.314	1.05	.94	47.9	220.0	1.08	45	207	149	62	29
NL	26	1	86	105	.281	1.05	.56	62.0	240.0	.84	35	135	115	48	19
NL	27	2	88	108	.528	2.11	1.32	60.2	246.1	1.90	79	324	262	109	45
NL	28	3	84	90	.746	3.16	1.49	58.5	225.0	2.09	87	336	289	120	46
NL	Totals	17	85	82	7.398	17.89	13.38	39.4	150.3	12.65	527	2,011	1,745	727	278
DF	13	3	87	77	3.415	3.16	5.76	14.1	48.0	2.31	81	276	319	112	38
DF	17	3	87	87	2.005	3.16	4.01	24.8	95.2	2.84	100	382	391	137	53
DF	18	1	86	84	.623	1.05	1.25	25.6	90.0	.91	32	112	126	44	15
DF	20	1	86	98	.473	1.05	.95	41.1	150.0	1.11	39	142	153	54	20
DF	21	2	86	90	.889	2.11	1.78	39.4	140.2	2.00	70	249	276	97	34
DF	24	1	85	97	.330	1.05	.66	57.1	210.0	1.07	38	138	148	52	19
DF	31	1	84	61	.196	1.05	.20	129.4	360.0	.72	25	70	100	35	10
DF	Totals	12	87	83	7.930	12.63	14.59	26.4	93.9	10.96	385	1,370	1,513	531	189
RA	11	1	80	62	1.655	1.05	1.65	9.6	40.0	.44	16	66	60	22	9
RA	12	1	79	56	1.297	1.05	1.30	17.2	50.0	.61	22	65	84	31	9
RA	14	3	80	84	2.926	3.16	2.93	31.0	86.7	2.49	91	254	344	125	35
RA	16	2	80	72	1.527	2.11	2.28	23.8	73.4	1.49	54	167	206	75	23
RA	17	2	79	71	1.352	2.11	2.70	19.0	69.9	1.42	51	189	195	71	26
RA	20	3	80	66	1.453	3.16	2.41	33.4	94.0	2.22	81	227	306	111	31
RA	21	2	80	53	.876	2.11	.88	56.8	99.4	1.37	50	87	189	69	12
RA	Totals	14	80	69	11.085	14.74	14.15	25.8	74.5	10.04	365	1,055	1,385	504	146
NF	8	1	84	60	2.942	1.05	2.94	7.0	30.0	.50	21	88	69	29	12
NF	9	1	86	46	2.437	1.05	2.44	6.0	30.0	.35	15	73	48	20	10
NF	12	1	87	106	1.318	1.05	2.64	13.9	55.0	.88	37	145	122	51	20
NF	13	1	81	39	1.142	1.05	1.14	13.3	30.0	.36	15	34	50	21	5
NF	14	1	79	36	1.043	1.05	1.04	13.3	40.0	.33	14	42	46	19	6
NF	23	1	86	86	.378	1.05	.76	46.3	165.0	.84	35	125	116	48	17
NF	Totals	6	84	59	9.260	6.32	10.96	12.4	46.3	3.27	136	507	451	188	70
OH	11	1	70	36	1.485	1.05		13.6	40.0	.52	19	55	72	26	8
OH	12	1	79	52	1.386	1.05	1.39	13.0	40.0	.42	15	47	58	21	7
OH	13	1	84	41	1.178	1.05	1.18	13.0	40.0	.42	15	47	58	21	7
OH	16	1	82	33	.745	1.05									
OH	17	1	80	24	.668	1.05	.67	19.3	40.0	.35	13	27	49	18	4
OH	18	1	80	26	.596	1.05	.60	17.0	90.0	.28	10	54	38	14	7
OH	Totals	6	78	38	6.057	6.32	3.83	15.0	47.8	1.57	57	183	217	79	25
Totals		183	85	75	177.424	192.63	247.77	21.5	78.2	158.84	5,318	19,366	21,920	7,339	2,672

Stand Table Summary

T02N R08W S02 Ty0700 294.00

Project TINTANK Area 7
Acres 294.00

Time: 2:06:36PM
Grown Year:

S Spec T	Sample DBH	Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DL	9	2	87	75	6.861	2.96	6.86	9.1	44.9	1.71	62	308	504	183	91
DL	10	2	88	63	5.340	2.96	5.34	11.6	40.0	1.71	62	214	502	182	63
DL	12	2	80	77	3.620	2.96	5.45	13.6	46.7	2.04	74	254	599	218	75
DL	13	1	72	70	1.513	1.48	1.51	25.3	60.0	1.05	38	91	310	113	27
DL	14	4	84	78	5.690	5.93	10.01	16.3	56.9	4.49	163	570	1,320	480	167
DL	15	7	80	78	8.279	10.37	13.03	21.2	59.2	7.61	276	771	2,238	812	227
DL	16	6	83	82	6.241	8.89	10.42	23.6	71.3	6.73	246	744	1,979	722	219
DL	17	8	83	92	7.502	11.85	16.05	22.9	81.7	10.11	368	1,310	2,971	1,082	385
DL	18	5	79	88	4.213	7.41	7.57	27.6	86.7	5.74	209	656	1,688	614	193
DL	19	6	80	82	4.493	8.89	8.99	29.9	92.5	7.38	268	831	2,170	789	244
DL	20	5	84	109	3.403	7.41	6.81	39.7	137.2	7.42	270	934	2,181	794	275
DL	21	3	87	95	1.890	4.44	3.78	40.3	141.8	4.19	152	536	1,232	448	158
DL	22	3	84	110	1.654	4.44	3.31	46.0	176.0	4.18	152	582	1,229	448	171
DL	23	1	86	111	.513	1.48	1.54	37.0	166.7	1.57	57	257	460	167	75
DL	27	1	86	150	.364	1.48	1.09	68.2	323.3	2.05	75	354	603	219	104
DL	31	1	77	128	.284	1.48	.85	64.4	190.0	1.51	55	162	443	162	48
DL	32	1	75	130	.267	1.48	.53	102.1	415.0	1.50	55	222	441	160	65
DL	Totals	58	83	83	62.128	85.93	103.14	25.0	85.3	70.98	2,583	8,795	20,868	7,593	2,586
DF	8	3	87	65	12.628	4.44	12.63	6.4	30.0	2.30	81	379	676	237	111
DF	10	3	85	78	8.169	4.44	10.78	9.3	40.0	2.87	101	431	842	296	127
DF	11	4	83	75	8.875	5.93	13.17	11.2	40.0	4.20	148	527	1,234	435	155
DF	12	3	85	90	5.671	4.44	9.32	13.9	52.2	3.70	130	486	1,089	382	143
DF	13	9	83	74	14.257	13.33	20.57	16.1	48.3	9.44	331	995	2,775	972	292
DF	14	3	83	78	4.328	4.44	7.31	17.1	50.2	3.57	125	367	1,051	367	108
DF	15	1	84	82	1.274	1.48	2.55	16.2	50.0	1.19	41	127	349	121	37
DF	16	11	81	85	11.718	16.30	22.33	22.4	73.9	14.28	501	1,651	4,198	1,474	485
DF	17	2	81	83	1.960	2.96	3.92	22.1	74.6	2.47	87	293	725	254	86
DF	19	2	81	89	1.521	2.96	3.04	32.3	102.5	2.79	98	312	820	289	92
DF	20	1	82	101	.686	1.48	1.37	38.9	120.0	1.52	53	165	447	157	48
DF	21	1	86	116	.646	1.48	1.94	28.1	120.0	1.55	54	233	456	160	68
DF	Totals	43	84	78	71.735	63.70	108.94	16.1	54.8	49.87	1,750	5,964	14,662	5,145	1,754
WL	10	1	85	70	2.663	1.48	2.66	9.3	30.0	.79	25	80	232	73	23
WL	11	1	79	53	2.165	1.48	2.17	12.4	40.0	.86	27	87	253	79	25
WL	13	1	82	47	1.684	1.48	1.68	15.2	40.0	.82	26	67	241	75	20
WL	14	1	82	55	1.366	1.48	1.37	24.0	60.0	1.05	33	82	309	97	24
WL	16	1	82	59	1.010	1.48	1.01	33.3	70.0	1.08	34	71	316	99	21
WL	Totals	5	82	58	8.888	7.41	8.89	16.2	43.5	4.60	144	387	1,351	422	114
RA	13	1	79	32	1.632	1.48	1.63	12.1	40.0	.54	20	65	159	58	19
RA	15	1	80	94	1.176	1.48	2.35	16.3	60.0	1.05	38	141	310	113	41
RA	18	1	80	35	.829	1.48	.83	25.0	80.0	.58	21	66	171	61	20
RA	Totals	3	80	53	3.637	4.44	4.81	16.4	56.7	2.18	79	273	640	232	80
Totals		109	83	78	146.388	161.48	225.78	20.2	68.3	127.62	4,555	15,419	37,522	13,391	4,533



"STEWARDSHIP IN FORESTRY"

Tin Tank

Volume Summary

Area 1 - Retention Cut						
39 acres						
SPECIES	Basal Area		Vol/Acre	Volume	D & B	Net Vol
	Per Acre	V-BAR	MBF	MBF		
Douglas-fir	221	106	23.4	913	5%	867
Alder	10	85	0.9	35	10%	32
TOTAL				948		899

Area 2 - Partial Cut						
39 acres						
SPECIES	Basal Area		Vol/Acre	Volume	D & B	Net Vol
	Per Acre	V-BAR	MBF	MBF		
Douglas-fir	80	90	7.2	281	5%	267
Alder	15	62	0.9	35	10%	32
TOTAL				316		299

Area 3 - Partial Cut						
171 acres						
SPECIES	Basal Area		Vol/Acre	Volume	D & B	Net Vol
	Per Acre	V-BAR	MBF	MBF		
Douglas-fir	104	66	6.9	1180	5%	1121
TOTAL				1180		1121

Area 4 - Modified Clearcut						
47 acres						
SPECIES	Basal Area		Vol/Acre	Volume	D & B	Net Vol
	Per Acre	V-BAR	MBF	MBF		
Douglas-fir	210	91	19.1	898	5%	853
Alder	2	56	0.1	5	10%	5
TOTAL				903		858

Area 5 - Retention Cut						
216 acres						
SPECIES	Basal Area		Vol/Acre	Volume	D & B	Net Vol
	Per Acre	V-BAR	MBF	MBF		
Douglas-fir	148	112	16.6	3586	5%	3407
Hemlock	18	69	1.2	259	5%	246
Noble fir	5	153	0.8	173	5%	164
Alder	10	24	0.2	43	10%	39
TOTAL				4018		3856



"STEWARDSHIP IN FORESTRY"

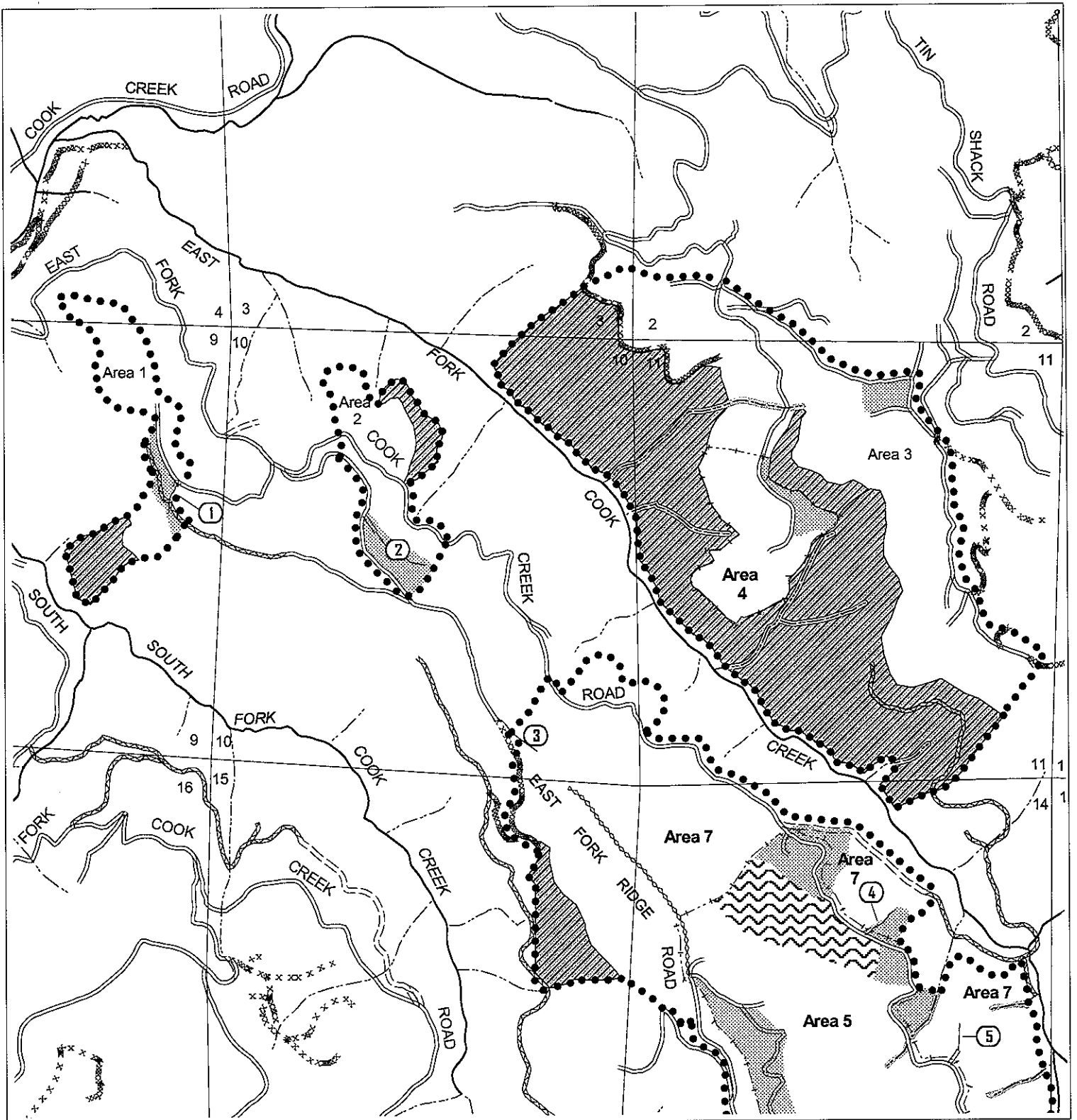
Tin Tank

Volume Summary

Area 6 - Partial Cut						
138 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	13	108	1.4	193	5%	183
Hemlock	63	109	6.9	952	5%	904
Noble fir	6	80	0.5	69	5%	66
Alder	15	72	1.1	152	10%	137
TOTAL				1366		1290

Area 7 - Partial Cut						
294 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	64	94	6.0	1764	5%	1676
TOTAL				1764		1676

TOTAL SALE VOLUME			944 acres
SPECIES	Gross (MBF)	Net Vol. (MBF)	
Douglas-fir	8815	8374	
Hemlock	1211	1150	
Noble fir	242	230	
Alder	270	245	
TOTAL	10538	9999	



LOGGING PLAN

Timber Sale Contract No. 341-06-44
 Tin Tank
 Portions of Sections 2, 3, 4, 9, 10,
 11, 13, 14, 15, 23 and 24,
 T2N, R8W, W. M.
 Tillamook County, Oregon

1000 0 1000 Feet



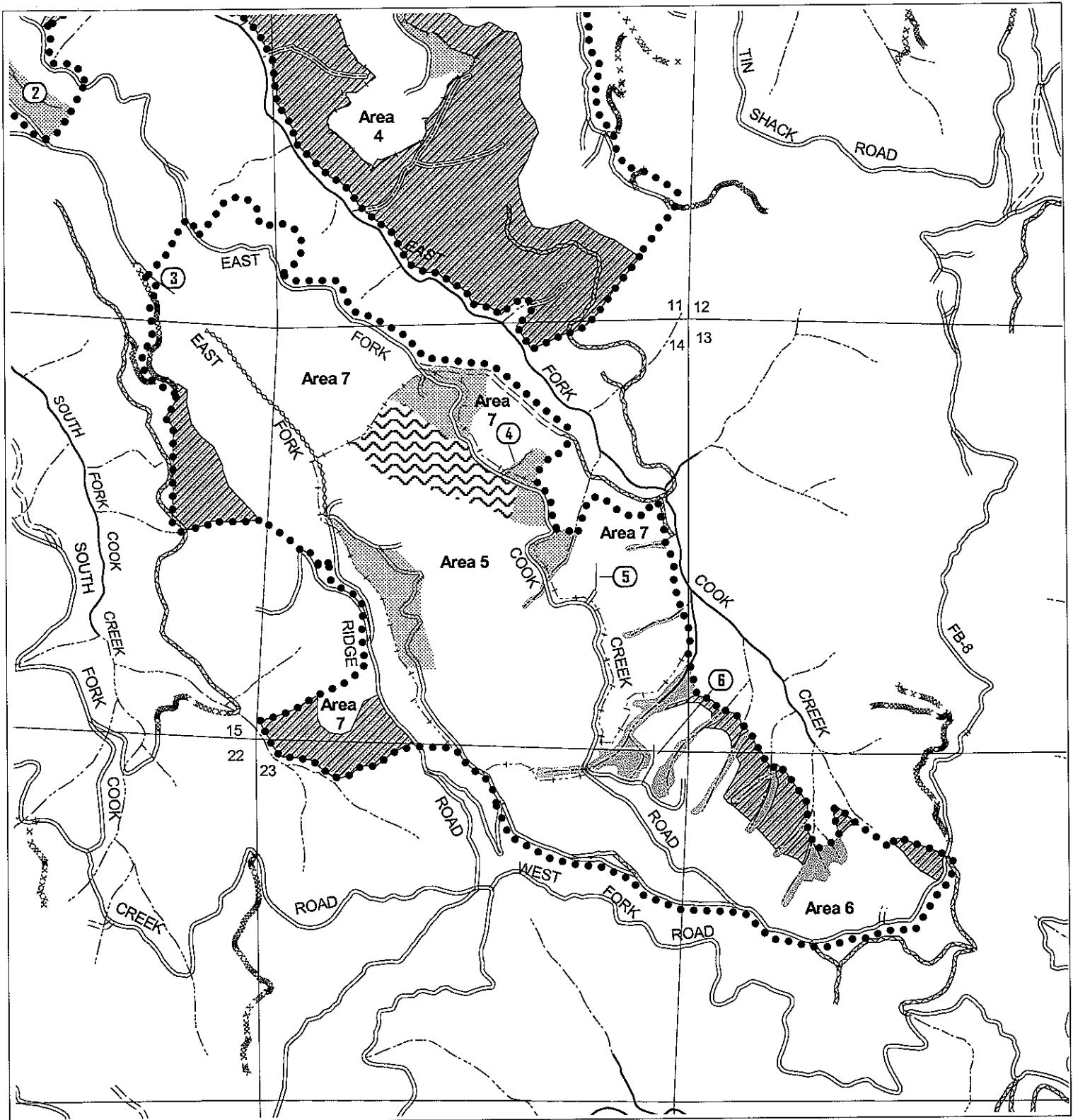
Tillamook District GIS
 12-19-2005

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

Area	Type of Operation	Acres	
		Gross	Net
1	Retention cut	52	39
2	Partial cut	52	39
3	Partial cut	457	171
4	Modified clearcut	49	47
5	Retention cut	218	216
6	Partial cut	200	138
7	Partial cut	358	294
Total		1386	944

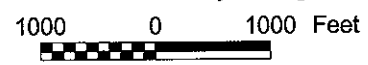


- Landing
- ⓓ Domestic water supply intake
- Ⓜ Helicopter landing zone
- Ⓣ Truck turn-around
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Downhill yarding
- ▦ Buffer
- ▨ Non-required thinning
- - - - Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- - - -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



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