



Timber Sale Appraisal  
Phone Murphy  
Sale 341-08-82

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: April 23, 2008

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**cost summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$158,706.90	\$30,784.80	\$189,491.70
		<b>Project Work:</b>	\$(35,900.00)
		<b>Advertised Value:</b>	\$153,591.70



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**timber description**

**Location:** Portions of Sections 11, 12, 13 ,14 and 24, T2S, R7W, W.M., Tillamook County, Oregon.

**Stand Stocking:** 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	1	0	95
Alder (Red)	1	0	90

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	318	1,029	523	1,870
Alder (Red)	8	59	53	120
Total	326	1,088	576	1,990



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comments: Pond Values Used: 1st Quarter Calendar Year 2008.

Western redcedar Stumpage Price = Pond Value minus Logging Cost  
 $\$756.90/\text{MBF} = \$1,050/\text{MBF} - \$293.10/\text{MBF}$

Pulp Price  
 $\$5/\text{MBF} = \$25/\text{MBF} - \$20/\text{MBF}$  Trask Public Safety Road Fee

Western Hemlock Stumpage Price = Pond Value minus Logging Cost  
 $\$50.00/\text{MBF} = \$350/\text{MBF} - \$300/\text{MBF}$

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

Other Costs (Profit and Risk to be added):  
Brand and Paint:  $\$2/\text{MBF} \times 1,990 \text{ MBF} = \$3,980$   
TOTAL Other Costs (Profit and Risk to be added) = \$3,980

Other Costs (No Profit and Risk added):  
Surfacing non-project road junctions: 1 stations x 50 yards pit  
run/ sta x  $\$6.50/\text{yard} = \$325$   
Non-Project Road #1 3 Stations x  $\$100.00 = \$300$   
Tank Traps  $\$75 \times 3 \text{ blocks} = \$225$   
OHV ATV filter:  $\$75 \times 5 \text{ blocks} = \$375$   
OHV trail clearing: 73 stations x  $\$40/\text{sta} = \$3,212$   
Trask Public Safety Road Fee:  $\$20/\text{MBF} \times 1990 \text{ MBF} = 39,800$   
TOTAL Other Costs (No Profit & Risk added) = \$44,237

ROAD MAINTENANCE:  
Surfacing:  $(\$20/\text{cy}/\text{mile} \times \$5/\text{cy} \times 1.8 \text{ MMBF} \times 9 \text{ miles})/1990 \text{ MBF} =$   
 $\$0.81$   
Grading Final Maintenance:  $\$500/\text{mile} \times 9 \text{ miles} \times 1 \text{ grading}/1990$   
 $\text{MBF} = \$2.26$   
Compaction:  $264 \text{ Stations} \times \$18/\text{Sta} + \$319 \text{ move-in} = \$5,071/1,990$   
 $\text{MBF} = \$2.55$   
TOTAL ROAD MAINTENANCE COST: \$5.62/MBF



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### logging conditions

**combination#: 1**                    Douglas - Fir                    20.00%  
    Alder (Red)                    20.00%

**yarding distance:** Medium (800 ft)                    **downhill yarding:** No  
**logging system:** Cable: Small Tower <=40                    **Process:** Stroke Delimber  
**tree size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF  
**loads / day:** 5.0                    **bd. ft / load:** 4,100  
**cost / mbf:** \$138.26

**machines:** Log Loader (A)  
 Stroke Delimber (A)  
 Tower Yarder (Small)

**combination#: 2**                    Douglas - Fir                    50.00%  
    Alder (Red)                    50.00%

**yarding distance:** Short (400 ft)                    **downhill yarding:** No  
**logging system:** Track Skidder                    **Process:** Feller Buncher  
**tree size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF  
**loads / day:** 10.0                    **bd. ft / load:** 3,700  
**cost / mbf:** \$95.10

**machines:** Log Loader (B)  
 Stroke Delimber (B)  
 Feller Buncher w/ Delimber  
 Track Skidder

**combination#: 3**                    Douglas - Fir                    30.00%  
    Alder (Red)                    30.00%

**yarding distance:** Medium (800 ft)                    **downhill yarding:** No  
**logging system:** Cable: Small Tower <=40                    **Process:** Stroke Delimber  
**tree size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF  
**loads / day:** 5.0                    **bd. ft / load:** 3,700  
**cost / mbf:** \$153.20

**machines:** Log Loader (A)  
 Stroke Delimber (A)  
 Tower Yarder (Small)



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**logging costs**

<b>Operating Seasons:</b>	1.00	<b>Profit Risk:</b>	20.00%
<b>Project Costs:</b>	\$35,900.00	<b>Other Costs (P/R):</b>	\$3,980.00
<b>Slash Disposal:</b>	\$0.00	<b>Other Costs:</b>	\$44,237.00

**Miles of Road**

Road Maintenance: \$5.62

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	2.0	3.3
Alder (Red)	\$0.00	3.0	3.0

**Local Pond Values**

Date	Specie	Grade	Value
4/23/08	Alder (Red)	2S	\$750.00
4/23/08	Alder (Red)	3S	\$650.00
4/23/08	Alder (Red)	4S	\$350.00



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**logging costs breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$121.16	\$5.90	\$2.20	\$92.80	\$2.00	\$44.81	\$0.00	\$2.00	\$22.23	\$293.10
<b>Alder (Red)</b>									
\$121.16	\$6.18	\$2.20	\$71.29	\$2.00	\$40.57	\$0.00	\$2.00	\$22.23	\$267.63

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$377.97	\$84.87	\$0.00
Alder (Red)	\$0.00	\$524.17	\$256.54	\$0.00



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**summary**

**Amortized**

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

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	1,870	\$84.87	\$158,706.90
Alder (Red)	120	\$256.54	\$30,784.80

**Gross Timber Sale Value**

Recovery: \$189,491.70

Prepared by: David Luttrell

Phone: 503-815-7025



**PROJECT SUMMARY SHEET**

Sale: Phone Murphy

**CONSTRUCTION**

Point	A to B	17+00	stations =	\$11,059.60
Point	E to F	3+50	stations =	\$1,614.60
<b>SUBTOTAL CONSTRUCTION</b>				<b>\$12,674.20</b>

**IMPROVEMENT**

Point	C to D	53+00	stations =	\$10,524.00
Point	G to H	9+00	stations =	\$2,128.20
Point	I to J	15+10	stations =	\$3,156.84
<b>SUBTOTAL IMPROVEMENT</b>				<b>\$15,809.04</b>

**SPECIAL PROJECTS**

Area	Area K			\$4,542.00
<b>SUBTOTAL SPECIAL PROJECTS</b>				<b>\$4,542.00</b>

**MOVE IN** **\$2,874.76**

**GRAND TOTAL** **\$35,900.00**



## SUMMARY OF CONSTRUCTION COST

Sale: **Phone Murphy**

Road: **A to B**

<u>Construction -</u>	17+00	stations	<u>Improvement -</u>	0+00	stations	<u>Reconstruction -</u>	0+00	stations
	0.32	miles		0.00	miles		0.00	miles

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

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist. To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>	=		
0+00		17+00	40%		Outslope	\$243		\$4,131.00	
								<b>TOTAL</b>	<b>\$4,131.00</b>

<b>ROCK</b>									
0+00	to	17+00	840	cy. of	Jaw Run	@	\$6.50 per c.y.=	\$5,460.00	
								<b>TOTAL ROCK</b>	<b>\$5,460.00</b>

**SPECIAL PROJECTS**

Grade and shape road -	17.00	stations @	\$15.50	per station	\$263.50
Proof-Roll subgrade prior to rocking	17.00	stations @	\$4.70	per station	\$79.90
Roll subgrade w/ vibratory roller prior to rocking -	17.00	stations @	\$13.20	per station	\$224.40
Remove large stumps -	1.00	lump sum @	\$390.00		\$390.00
Grass seed and fertilize -	0.62	acres @	\$220.00	per acre	\$136.40
Mulching -	0.624	acres @	\$600.00	per acre	\$374.40
					<b>TOTAL SPECIAL PROJECTS</b>
					<b>\$1,468.60</b>

**GRAND TOTAL** **\$11,059.60**

## SUMMARY OF CONSTRUCTION COST

Sale: **Phone Murphy**

Road: **C to D**

Construction -	0+00	stations	Improvement -	53+00	stations	Reconstruction -	0+00	stations
	0.00	miles		1.00	miles		0.00	miles

**IMPROVEMENT: CLEARING AND GRUBBING -**

Roadside Brushing	0.00	miles @	\$0.00	per mile =	\$0.00	
Scattering	1.950	acres @	\$980.00	per acre =	\$1,911.00	
<b>TOTAL CLEARING AND GRUBBING</b>						<b>\$1,911.00</b>

**IMPROVEMENT: EXCAVATION -**

Road Earthwork	53.00	sta. @	\$20.00	per sta. =	\$1,060.00	
<b>TOTAL EXCAVATION</b>						<b>\$1,060.00</b>

**ROCK**

0+00 to 53+00	640	cy. of	Crushed	@	\$7.79	per c.y.=	\$4,985.60	
<b>TOTAL ROCK</b>								<b>\$4,985.60</b>

**SPECIAL PROJECTS**

Grade and shape road -	53.00	stations @	\$15.50	per station	\$821.50	
Proof-Roll subgrade prior to rocking	53.00	stations @	\$4.70	per station	\$249.10	
Roll subgrade w/ vibratory roller prior to rocking -	53.00	stations @	\$13.20	per station	\$699.60	
Grass seed and fertilize -	0.97	acres @	\$220.00	per acre	\$213.40	
Mulching -	0.973	acres @	\$600.00	per acre	\$583.80	
<b>TOTAL SPECIAL PROJECTS</b>						<b>\$2,567.40</b>

**GRAND TOTAL** **\$10,524.00**

## SUMMARY OF CONSTRUCTION COST

Sale: **Phone Murphy**

Road: **E to F**

Construction -	3+50	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.07	miles		0.00	miles		0.00	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	=		
0+00		3+50	30%		Outslope	\$191		\$668.50	
								<b>TOTAL</b>	<b>\$668.50</b>

<b>ROCK</b>									
0+00	to	1+50	80	cy. of	Jaw Run	@	\$5.79 per c.y.=	\$463.20	
								<b>TOTAL ROCK</b>	<b>\$463.20</b>

**SPECIAL PROJECTS**

Grade and shape road -	3.50	stations @	\$15.50	per station	\$54.25
Proof-Roll subgrade prior to rocking	3.50	stations @	\$4.70	per station	\$16.45
Roll subgrade w/ vibratory roller prior to rocking -	3.50	stations @	\$13.20	per station	\$46.20
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00
Grass seed and fertilize -	0.13	acres @	\$220.00	per acre	\$28.60
Mulching -	0.129	acres @	\$600.00	per acre	\$77.40
					<b>TOTAL SPECIAL PROJECTS</b>
					<b>\$482.90</b>

**GRAND TOTAL** **\$1,614.60**

## SUMMARY OF CONSTRUCTION COST

Sale: **Phone Murphy**

Road: **G to H**

<b>Construction -</b>	0+00	stations	<b>Improvement -</b>	9+00	stations	<b>Reconstruction -</b>	0+00	stations
	0.00	miles		0.17	miles		0.00	miles

**IMPROVEMENT: CLEARING AND GRUBBING -**

Scattering	0.330	acres @	\$980.00	per acre =	\$323.40	
<b>TOTAL CLEARING AND GRUBBING</b>					<b>\$323.40</b>	

**IMPROVEMENT: EXCAVATION -**

Road Earthwork	9.00	sta. @	\$75.00	per sta. =	\$675.00	
<b>TOTAL EXCAVATION</b>					<b>\$675.00</b>	

**ROCK**

0+00 to 2+00	100	cy. of	Jaw Run	@	\$5.58	per c.y.=	\$558.00
<b>TOTAL ROCK</b>							<b>\$558.00</b>

**SPECIAL PROJECTS**

Grade and shape road -	9.00	stations @	\$15.50	per station	\$139.50	
Proof-Roll subgrade prior to rocking	9.00	stations @	\$4.70	per station	\$42.30	
Roll subgrade w/ vibratory roller prior to rocking -	9.00	stations @	\$13.20	per station	\$118.80	
Grass seed and fertilize -	0.33	acres @	\$220.00	per acre	\$72.60	
Mulching -	0.331	acres @	\$600.00	per acre	\$198.60	
<b>TOTAL SPECIAL PROJECTS</b>					<b>\$571.80</b>	

<b>GRAND TOTAL</b>	<b>\$2,128.20</b>
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## SUMMARY OF CONSTRUCTION COST

Sale: **Phone Murphy**

Road: **I to J**

<b>Construction -</b>	0+00	stations	<b>Improvement -</b>	15+10	stations	<b>Reconstruction -</b>	0+00	stations
	0.00	miles		0.29	miles		0.00	miles

<b>IMPROVEMENT: CLEARING AND GRUBBING -</b>								
Scattering	0.550	acres @	\$980.00	per acre =	\$539.00			
						<b>TOTAL CLEARING AND GRUBBING</b>		<b>\$539.00</b>
<b>IMPROVEMENT: EXCAVATION -</b>								
Road Earthwork	15.10	sta. @	\$75.00	per sta. =	\$1,132.50			
						<b>TOTAL EXCAVATION</b>		<b>\$1,132.50</b>
<b>ROCK</b>								
0+00 to 2+00		100 cy. of	Jaw Run	@	\$5.27 per c.y.=	\$527.00		
						<b>TOTAL ROCK</b>		<b>\$527.00</b>
<b>SPECIAL PROJECTS</b>								
Grade and shape road -	15.10	stations @	\$15.50	per station	\$234.05			
Proof-Roll subgrade prior to rocking	15.10	stations @	\$4.70	per station	\$70.97			
Roll subgrade w/ vibratory roller prior to rocking -	15.10	stations @	\$13.20	per station	\$199.32			
Grass seed and fertilize -	0.55	acres @	\$220.00	per acre	\$121.00			
Mulching -	0.555	acres @	\$600.00	per acre	\$333.00			
						<b>TOTAL SPECIAL PROJECTS</b>		<b>\$958.34</b>
<b>GRAND TOTAL</b>								<b>\$3,156.84</b>

## SUMMARY OF CONSTRUCTION COST

Sale:	<b><u>Phone Murphy</u></b>					Road:	<b><u>Area K</u></b>		
<b>ROCK</b>									
Pad Surface	0+00	246	cy. of	Crushed	@	\$8.20 per c.y.=		\$2,017.20	
Barrier Rock	0+00	180	cy. of	Riprap	@	\$10.82 per c.y.=		\$1,947.60	
								<b>TOTAL ROCK</b>	<b>\$3,964.80</b>
<b>SPECIAL PROJECTS</b>									
Grade and shape pad -		2220.00	Sq. Yards @			\$0.12 per Sq. Yard		\$266.40	
Proof-Roll subgrade prior to rocking		2220.00	Sq. Yards @			\$0.04 per Sq. Yard		\$88.80	
Roll subgrade w/ vibratory roller prior to rocking -		2220.00	Sq. Yards @			\$0.10 per Sq. Yard		\$222.00	
								<b>TOTAL SPECIAL PROJECTS</b>	<b>\$577.20</b>
								<b>GRAND TOTAL</b>	<b>\$4,542.00</b>

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	RipRap Toll	Location:	NW 1/4 Sec. 16, T2S, R7W, W.M.
Sale:	<b>Phone Murphy</b>	Road:	180 c.y.
Swell:	0.00	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	180 c.y.
Drill Pct.:	0%	In Place Total:	c.y.

Push Rock:	\$0.60	/cu.yd.	x	180	cu.yds.	=	\$108.00
Load Dump Truck:	\$0.70	/cu.yd.	x	180	cu.yds.	=	\$126.00

Subtotal \$234.00

Move in Excavator	1	@	\$582.06	=	\$582.06
Move in Trucks	2	@	\$100.84	=	\$201.68
Change Gradation					

Subtotal \$783.74

Base Cost=	\$5.65	Per Cu.Yd.		<b>TOTAL PRODUCTION COSTS</b>	<b>\$1,017.74</b>
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Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
Area K Barrier Rock (Riprap)	3.77	1.40	5.65	10.82	180	\$1,947.60
				Total C.Y.	180	Sub Total
						\$1,947.60

**TOTAL ROCKING COSTS** **\$1,947.60**

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Jaw_run_Pile	Location:	SW 1/4 Sec. 11, T2S, R7W, W.M.
Sale:	<b>Phone Murphy</b>	Road:	1120 c.y.
Swell:	0.00	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	1120 c.y.
Drill Pct.:	0%	In Place Total:	c.y.

Load Dump Truck: \$0.70 /cu.yd. x 1120 cu.yds. = \$784.00

Subtotal \$784.00

Move in Excavator 1 @ \$582.06 = \$582.06

Move in Trucks 2 @ \$100.84 = \$201.68

Change Gradation

Subtotal \$783.74

Base Cost= \$1.40 Per Cu.Yd.

TOTAL PRODUCTION COSTS \$1,567.74

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 1700 (Jaw Run)	2.65	2.45	1.40	6.50	840	\$5,460.00
E to F 0 150 (Jaw Run)	1.94	2.45	1.40	5.79	80	\$463.20
G to H 0 200 (Jaw Run)	1.73	2.45	1.40	5.58	100	\$558.00
I to J 0 200 (Jaw Run)	1.42	2.45	1.40	5.27	100	\$527.00
				Total C.Y.	1120	Sub Total
						\$7,008.20

TOTAL ROCKING COSTS \$7,008.20



## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed_Cruiser	Location:	SW 1/4 Sec. 1, T2S, R7W, W.M.
Sale:	<b>Phone Murphy</b>	Road:	886 c.y.
Swell:	0.00	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	886 c.y.
Drill Pct.:	0%	In Place Total:	c.y.

Load Dump Truck: \$0.70 /cu.yd. × 886 cu.yds. = \$620.20

Subtotal \$620.20

Move in Excavator 1 @ \$582.06 = \$582.06

Move in Trucks 2 @ \$100.84 = \$201.68

Subtotal \$783.74

Base Cost= \$1.58 Per Cu.Yd.

**TOTAL PRODUCTION COSTS \$1,403.94**

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
C to D 0 5300 (Crushed)	3.76	2.45	1.58	7.79	640	\$4,985.60
Area K Pad Surface (Crushed)	4.17	2.45	1.58	8.20	246	\$2,017.20
				Total C.Y.	886	Sub Total

**TOTAL ROCKING COSTS \$7,002.80**

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

Sale: **Phone Murphy**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
14.5	Pavement	30
6.0	Main Lines	7
3.0	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	Brush Cutter	\$371.07		\$4.00	0.00	1.50	1.5	\$6.00	\$377.07
1	Graders	\$414.86		\$3.65	0.00	1.50	1.5	\$5.48	\$420.34
1	Rollers (smooth/grid) & Compactors	\$325.07		\$5.00	0.00	1.50	1.5	\$7.50	\$332.57
1	Excavators (Large)	\$593.18	1	\$44.80	0.00	1.50	1.5	\$67.20	\$660.38
1	Tractor (D8)	\$552.03	2	\$15.10	0.00	1.50	1.5	\$22.65	\$574.68
3	Dump Truck (10 cy +)	\$378.36		\$2.85	0.00	1.50	1.5	\$12.83	\$391.19
1	Water Truck (2500 Gal)	\$118.53		\$2.85	0.00	0.00	0	\$0.00	\$118.53
<b>TOTAL MOVE-IN COSTS:</b>									<b>\$2,874.76</b>



# OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Phone Murphy

1. **Type of Sale**

Partial Cut, Alder, Conifer / Recovery

2. **Legal Description**

Portions of Sections 11, 12, 13, 14 and 24 T2S, R7W, W.M. Tillamook County, Oregon

3. **Sale Acreage**

	ACRES	
	<u>Sale</u>	<u>Net</u>
Partial Cut	298	228
<b>Total Acres</b>	298	228

Sale Acres

Area within the Timber Sale Boundary signs.

Net acres

*Used for calculating the advertised volume.*

Sale acres, less green tree retention, roads, utility, right-of-way, and less riparian areas inside the sale boundary.

4. **Cruising Procedures**

**A. Cruise Method**

A total of 64 variable radius plots were taken on the sale area, spaced on a square grid of 400' x 400'. All plots were full plots. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 9 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were graded and measured for merchantable height, diameter, and form factor.

**B. Plot size**

A basal area factor of 40 was used for the Timber Sale Area. The point of observation is 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 top 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. Height and diameter measurement standards were to the nearest foot or inch respectively. All diameters were taken at a height of 4.5 feet on the uphill side.

### **5. Computation Procedure**

Plot data was entered into SuperAce for computation of basal area, stand tables, and volume for each species and type. This data was then entered into the Volume Summary table to compute sale volumes. The standard error for the cruise was 10.4% and the coefficient of variation was 58.0% based on 17 mbf per acre.

### **6. Hidden Defect and Breakage**

No deduction was applied to the conifer volume or Red Alder volumes to account for hidden defect and breakage.

### **7. Timber Description**

The Sale areas burned in the 1933 Tillamook and the 1939 Salmonberry Fires. The portion of the sale area west of Murphy grade road burned in the 1951 Elkhorn fire. Aerial and hand seeding of Douglas-fir occurred between 1951 and 1960. Portions of both areas were planted in 1969. Approximately half the stand has been unmanaged since initial planting; the majority of the sale area west of Murphy Grade was commercially thinned in 1992. The sale is stocked predominantly with Douglas-fir, some scattered hemlock and trace amount of noble fir and cedar. There are some patches of alder located near the draws and in a few isolated pockets. The average stand age is about 48 years old

### **8. Cruiser Names/Dates**

Luttrell/Wells/Stumpf/Yau/Allen, October 2007

### **9. Revenue Distribution**

FDF: 100%

Tax Code: 9-1

Deed Numbers: 169, 248

10. **Attachments**

Volume Summary Table  
Super Ace Stand Tables  
Logging Plan Exhibit  
Log Stock Tables

11. **Stand and Log Stock Tables Species Key**

DL – Douglas-fir leave  
DF – Douglas-fir take  
NL – Noble fir leave  
RL – Red alder leave  
RA – Red alder take  
RC – Western red cedar reserved  
SL – Sitka spruce leave  
WL – Western hemlock leave



"STEWARDSHIP IN FORESTRY"

## Phone Murphy

### Volume Summary

Harvest Type - PC				
228 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Hidden D&B	Net Vol MBF
Douglas-fir	8.2	1870	0%	1870
Hemlock	0.0	0	0%	0
Spruce		0	0%	0
Noble Fir		0	0%	0
Alder	0.5	120	0%	120
<b>TOTAL</b>	<b>8.7</b>	<b>1990</b>		<b>1990</b>

TOTAL SALE VOLUME			228 acres	
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)		
Douglas-fir	1870	1870		
Hemlock	0	0		
Spruce	0	0		
Noble Fir	0	0		
Red Alder	120	120		
<b>TOTAL</b>	<b>1990</b>	<b>1990</b>		

**Stand Table Summary**

Project **BRIXD DW**

**T02S R007 S13 TPC**

**T02S R007 S13 TPC**

Twp Rge Sec Tract  
**02S 007 13 AREA120**

Type Acres Plots Sample Trees  
**PC 228.00**

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S Spc	T	Sample DBH	FF Trees	Av Ht 16' 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		8	1	82	60	1.790	.63	1.79	7.3	30.0	.36	13	54	82	30	12
DL		9	1	81	50	1.415	.63	1.41	6.3	30.0	.25	9	42	56	20	10
DL		11	1	80	56	.947	.63	.95	13.9	40.0	.36	13	38	83	30	9
DL		12	2	86	91	1.592	1.25	3.18	11.1	45.0	.98	35	143	222	81	33
DL		13	3	82	75	2.034	1.88	3.39	14.4	50.0	1.34	49	170	306	111	39
DL		14	2	83	84	1.169	1.25	1.75	21.1	73.3	1.02	37	129	232	84	29
DL		15	5	84	95	2.546	3.13	5.09	20.5	76.0	2.87	104	387	654	238	88
DL		16	5	84	89	2.238	3.13	4.48	22.4	81.0	2.76	100	363	630	229	83
DL		17	14	84	97	5.551	8.75	11.10	26.9	95.7	8.21	298	1,063	1,871	680	242
DL		18	16	83	103	5.659	10.00	12.38	29.1	107.4	9.91	360	1,330	2,260	822	303
DL		19	13	86	98	4.127	8.13	8.89	32.1	114.3	7.85	285	1,016	1,789	651	232
DL		20	12	84	98	3.438	7.50	6.88	38.8	132.5	7.33	267	911	1,672	608	208
DL		21	16	85	102	4.158	10.00	9.35	39.0	138.9	10.02	364	1,299	2,285	831	296
DL		22	10	86	102	2.368	6.25	5.21	44.6	163.6	6.38	232	852	1,455	529	194
DL		23	13	85	100	2.816	8.13	6.28	47.3	174.8	8.17	297	1,098	1,862	677	250
DL		24	11	84	97	2.188	6.88	4.38	54.1	196.8	6.51	237	861	1,484	540	196
DL		25	3	86	107	.550	1.88	1.28	55.0	215.7	1.94	71	277	443	161	63
DL		26	7	85	93	1.187	4.38	2.37	64.6	232.9	4.21	153	553	961	349	126
DL		27	2	87	106	.314	1.25	.79	61.3	262.0	1.32	48	206	302	110	47
DL		28	4	84	93	.585	2.50	1.17	73.2	255.0	2.35	86	298	537	195	68
DL		29	2	84	101	.273	1.25	.55	82.8	315.0	1.24	45	172	283	103	39
DL		30	2	84	105	.255	1.25	.51	92.9	360.0	1.30	47	183	297	108	42
DL		31	2	83	70	.238	1.25	.36	91.1	213.3	.90	33	76	205	74	17
DL		32	2	86	104	.224	1.25	.56	85.0	368.0	1.31	48	206	298	108	47
DL		33	1	88	116	.105	.63	.32	84.8	403.3	.74	27	127	168	61	29
DL		34	2	85	102	.198	1.25	.40	119.6	500.0	1.30	47	198	297	108	45
DL		35	1	85	98	.094	.63	.19	119.7	490.0	.62	22	92	140	51	21
DL		42	1	83	109	.065	.63	.13	186.4	830.0	.67	24	108	152	55	25
DL		45	1	80	91	.057	.63	.11	188.1	700.0	.59	21	79	134	49	18
DL		46	1	86	110	.054	.63	.16	151.6	756.7	.68	25	123	154	56	28
DL		52	1	77	90	.042	.63	.08	252.2	765.0	.59	21	65	134	49	15
DL	Totals	157	84	93		48.276	98.13	95.49	35.8	131.1	94.06	3,420	12,518	21,446	7,799	2,854
DF		8	3	84	36	5.371	1.88	5.37	3.9	20.0	.60	21	107	136	48	24
DF		9	6	85	63	8.488	3.75	9.90	7.2	32.9	2.02	71	325	462	162	74
DF		10	7	81	52	8.021	4.38	8.02	9.6	34.3	2.19	77	275	500	175	63
DF		11	7	85	78	6.629	4.38	10.42	10.5	43.6	3.10	109	455	708	248	104
DF		12	11	84	85	8.754	6.88	15.12	13.0	48.4	5.58	196	732	1,273	447	167
DF		13	7	86	84	4.746	4.38	8.14	14.8	59.2	3.42	120	481	780	274	110
DF		14	9	84	84	5.262	5.63	10.52	15.2	56.7	4.57	160	596	1,041	365	136
DF		15	13	84	95	6.621	8.13	13.75	19.8	74.8	7.76	272	1,029	1,770	621	235
DF		16	17	85	96	7.610	10.63	15.22	23.5	88.8	10.19	357	1,352	2,322	815	308
DF		17	5	86	96	1.983	3.13	4.36	24.7	95.5	3.07	108	416	701	246	95
DF		18	7	86	96	2.476	4.38	5.31	27.9	100.7	4.22	148	534	961	337	122
DF		19	4	87	102	1.270	2.50	2.54	35.3	125.0	2.56	90	317	583	204	72
DF		20	5	86	102	1.432	3.13	3.15	36.3	133.6	3.26	114	421	744	261	96
DF		21	5	85	94	1.299	3.13	2.60	41.8	143.0	3.09	109	372	706	248	85
DF		22	1	85	124	.237	.63	.71	36.8	143.3	.75	26	102	170	60	23
DF		23	1	80	107	.217	.63	.65	35.9	133.3	.66	23	87	151	53	20
DF		24	1	88	106	.199	.63	.40	60.3	245.0	.68	24	97	156	55	22
DF		30	2	85	108	.255	1.25	.64	78.8	330.0	1.43	50	210	326	114	48
DF		33	1	89	112	.105	.63	.32	81.1	390.0	.73	26	123	166	58	28
DF		34	1	85	141	.099	.63	.30	102.1	500.0	.87	30	149	197	69	34

TC TSTNDSUM

**Stand Table Summary**

Project **BRIXD DW**

**T02S R007 S13 TPC**

**T02S R007 S13 TPC**

Twp Rge Sec Tract  
**02S 007 13 AREA120**

Type Acres Plots Sample Trees  
**PC 228.00**

Page: 2  
 Date: 04/03/2006  
 Time: 10:07:11AM

S Spc	T	Sample DBH	FF Trees	Av Ht 16' Tot	Trees/ Acres	BA/ Acres	Logs Acres	Average Log		Net Tons/ Acres	Net Cu.Ft. Acres	Net Bd.Ft. Acres	Totals		
								Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	Totals	113	84	78	71.074	70.63	117.43	18.2	69.7	60.76	2,132	8,181	13,853	4,861	1,865
WL	13	3	86	83	2.034	1.88	3.39	16.1	62.0	1.74	54	210	398	124	48
WL	14	2	87	91	1.169	1.25	2.34	17.5	75.0	1.31	41	175	298	93	40
WL	15	1	88	83	.509	.63	1.02	17.4	80.0	.57	18	81	129	40	19
WL	16	2	88	79	.895	1.25	1.34	25.8	100.0	1.11	35	134	253	79	31
WL	17	2	85	100	.793	1.25	1.98	24.1	94.0	1.53	48	186	349	109	42
WL	18	1	86	77	.354	.63	.71	27.7	100.0	.63	20	71	143	45	16
WL	19	1	86	73	.317	.63	.63	30.1	100.0	.61	19	63	139	44	14
WL	20	1	88	84	.286	.63	.57	37.9	140.0	.69	22	80	158	49	18
WL	25	1	89	119	.183	.63	.55	51.2	243.3	.90	28	134	206	64	31
WL	29	1	89	75	.136	.63	.27	72.1	285.0	.63	20	78	143	45	18
WL	Totals	15	87	86	6.678	9.38	12.81	23.7	94.7	9.72	304	1,214	2,216	692	277
RA	9	1	79	58	1.415	.63	1.41	8.9	30.0	.35	13	42	79	29	10
RA	13	3	80	63	2.034	1.88	2.71	16.0	47.5	1.19	43	129	272	99	29
RA	14	3	80	48	1.754	1.88	1.75	21.4	50.0	1.03	37	88	235	85	20
RA	16	3	80	52	1.343	1.88	1.79	23.0	55.0	1.13	41	98	259	94	22
RA	17	1	82	42	.397	.63	.40	30.1	50.0	.33	12	20	75	27	5
RA	18	2	79	61	.707	1.25	1.41	23.5	65.0	.91	33	92	208	76	21
RA	19	1	79	84	.317	.63	.63	29.9	90.0	.52	19	57	119	43	13
RA	Totals	14	80	57	7.967	8.75	10.12	19.6	52.0	5.47	199	526	1,246	453	120
RL	16	3	79	52	1.343	1.88	1.79	21.8	50.0	1.25	39	90	284	89	20
RL	17	1	79	62	.397	.63	.40	38.5	90.0	.49	15	36	111	35	8
RL	18	2	79	74	.707	1.25	1.06	35.1	93.3	1.19	37	99	272	85	23
RL	19	2	79	51	.635	1.25	.63	39.6	90.0	.80	25	57	183	57	13
RL	21	3	80	57	.780	1.88	1.04	41.5	112.5	1.38	43	117	315	98	27
RL	22	1	80	29	.237	.63	.24	36.0	100.0	.27	9	24	62	19	5
RL	37	1	80	59	.084	.63	.17	95.3	315.0	.51	16	53	116	36	12
RL	Totals	13	79	56	4.182	8.13	5.33	34.6	89.1	5.89	184	475	1,344	420	108
OC	14	1	83	48	.585	.63									
OC	20	1	88	114	.286	.63									
OC	50	1	78	41	.046	.63									
OC	Totals	3	84	68	.917	1.88									
Totals		315	84	82	139.093	196.88	241.17	25.9	95.0	175.90	6239	22,914	40,106	14,225	5,224







TC TLOGSTVB

**Log Stock Table - MBF**  
**Project: BRIXD\_DW**

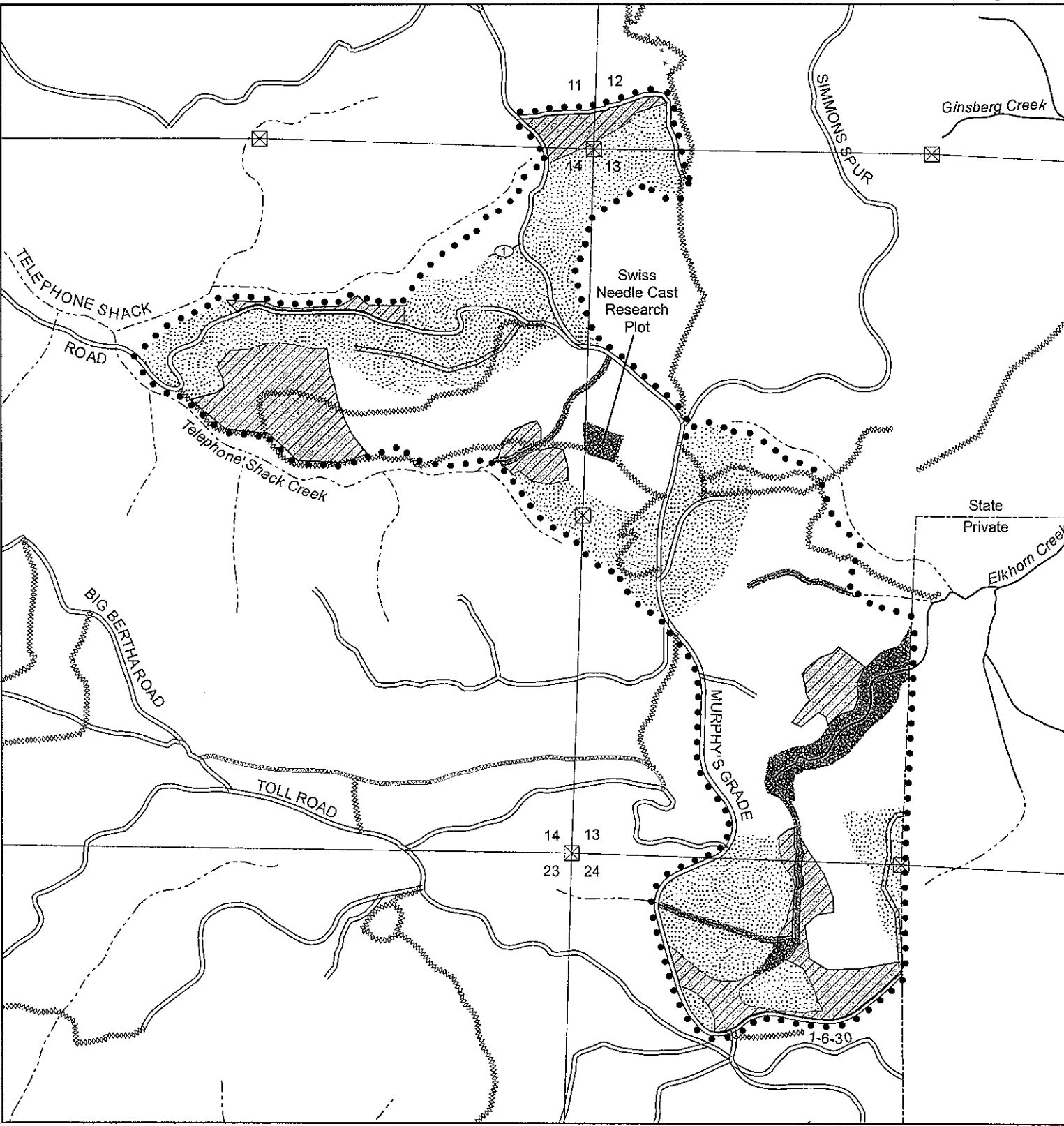
T02S R007 S13 TPC

T02S R007 S13 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees  
 02S 007 13 AREA120 PC 228.00

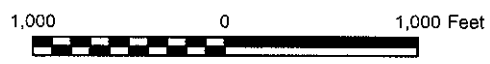
Page 3  
 Date 4/3/2008  
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SPP	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches										
										rt	de	Len	MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13
RA					Totals	126	4.4	120	2.3			68	25	18	9					
RL		DO	2M	21		5		5	5.0						5					
RL		DO	2M	32		12		12	10.8							12				
RL		DO	3M	25		9		9	8.0						9					
RL		DO	3M	32		19		19	17.2				9		9					
RL		DO	3M	38		14		14	12.6						14					
RL		DO	3M	40		28		28	26.1			6	8	15						
RL		DO	4M	14		1		1	1.1			1								
RL		DO	4M	16		2		2	1.9			2								
RL		DO	4M	20		0		0	.4			0								
RL		DO	4M	28		5		5	5.1		3	2								
RL		DO	4M	31		2		2	2.2			2								
RL		DO	4M	39		6		6	5.7			6								
RL		DO	4M	40		5	14.3	4	4.0			4								
RL					Totals	109		108	2.1		3	25	17	15	37			12		
Total All Species						5,246		5,224	100.0		598	674	710	1071	867	569	469	197	50	20



- Landing
- Ⓧ Domestic water supply intake
- Ⓜ Helicopter landing zone
- Ⓣ Truck turn-around
- Ⓧ Survey corner
- ▭ 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
- == Unsurfaced road
- == Surfaced road
- == State/Federal highway
- == County road
- Ⓣ Non-project road
- Ⓜ Swing road
- Ⓜ Legacy road
- ××× Blocked road
- ⋯ OHV trail
- ⋯ Non-motorized trail
- Ⓣ Transmission line

**LOGGING PLAN**  
 Timber Sale Contract No. 341-08-82  
 Phone Murphy  
 Portions of Sections 11, 12, 13, 14, and 24,  
 T2S, R7W, W.M.,  
 Tillamook County, Oregon



Tillamook District GIS  
 04/02/2008

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	Partial Cut	297	228

