



"STAND FOR THE FOREST"

Timber Sale Appraisal Wildwood Combo

Sale WO-341-2016-55-

District: West Oregon

Date: June 01, 2015

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$115,955.50	\$0.00	\$115,955.50
		Project Work:	(\$21,914.00)
		Advertised Value:	\$94,041.50



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District: West Oregon

Date: June 01, 2015

Timber Description

Location: Portions of Sections 9 and 10, T10S, R7W, W.M., Benton County, Oregon.

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	95

Volume by Grade	3S	4S	Total
Douglas - Fir	620	155	775
Total	620	155	775

Comments: Pond Values Used: 1st Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Douglas-fir bid price.

Western redcedar and Other Cedars Stumpage Price = Douglas-fir bid price.

Red Alder and Other Hardwoods Stumpage Price = Douglas-fir bid price.

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

LOG HAUL:

Costed to Philomath.

HAULING COST ALLOWANCE:

Hauling costs equivalent to \$780 daily truck cost.

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

Intermediate Supports/Tail Trees: 5 trees @ \$100/tree = \$500

Branding & Painting: 775 MBF @ \$1/MBF = \$775

TOTAL Other Costs (with Profit & Risk to be added) = \$1,275

Other Costs (No Profit & Risk added):

Invasive Species Equipment Cleaning = \$2,000

Firewood Sorting: 7 Landings @ \$100/Landing = \$700

Logger's Choice Road/Landing = \$1,000

TOTAL Other Costs (No Profit & Risk added) = \$3,700

SLASH DISPOSAL

Move-in: \$750

Project Work: 20 hours @ \$150/hour = \$3,000

TOTAL Slash Disposal = \$3,750



Timber Sale Appraisal Wildwood Combo

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District: West Oregon

Date: June 01, 2015

Logging Conditions

Combination#: 1 Douglas - Fir 64.47%

Logging System: Cable: Small Tower <=40 **Process:** Harvester Head Delimbing

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

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 8 **bd. ft / load:** 3500

cost / mbf: \$263.59

machines: Log Loader (A)
Forwarder
Harvester
Tower Yarder (Small)

Combination#: 2 Douglas - Fir 12.30%

Logging System: Shovel **Process:** Harvester Head Delimbing

yarding distance: Short (400 ft) **downhill yarding:** No

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 13 **bd. ft / load:** 3500

cost / mbf: \$117.45

machines: Forwarder
Harvester

Combination#: 3 Douglas - Fir 3.95%

Logging System: Cable: Small Tower <=40 **Process:** Harvester Head Delimbing

yarding distance: Short (400 ft) **downhill yarding:** No

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

loads / day: 5 **bd. ft / load:** 3500

cost / mbf: \$421.74

machines: Log Loader (A)
Forwarder
Harvester
Tower Yarder (Small)

Combination#: 4 Douglas - Fir 19.28%

Logging System: Track Skidder **Process:** Harvester Head Delimbing

yarding distance: Short (400 ft) **downhill yarding:** No

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

loads / day: 8 **bd. ft / load:** 3500

cost / mbf: \$190.86

machines: Forwarder
Harvester



STRONGER FORESTRY

Timber Sale Appraisal Wildwood Combo

Sale WO-341-2016-55-

District: West Oregon

Date: June 01, 2015

Logging Costs

Operating Seasons: 2.00	Profit Risk: 12%
Project Costs: \$21,914.00	Other Costs (P/R): \$1,275.00
Slash Disposal: \$3,750.00	Other Costs: \$3,700.00

Miles of Road

Road Maintenance: \$10.64

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	3.5



"STRENGTH IN FORESTRY"

Timber Sale Appraisal Wildwood Combo

Sale WO-341-2016-55-

District: West Oregon

Date: June 01, 2015

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$237.83	\$11.17	\$11.32	\$78.00	\$1.65	\$40.80	\$4.84	\$5.00	\$4.77	\$395.38

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$545.00	\$149.62	\$0.00



"SUSTAINABLE FORESTRY"

Timber Sale Appraisal Wildwood Combo

Sale WO-341-2016-55-

District: West Oregon

Date: June 01, 2015

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	775	\$149.62	\$115,955.50

Gross Timber Sale Value

Recovery: \$115,955.50

Prepared By: Joe Goldsby

Phone: 541-929-3266

SUMMARY OF ALL PROJECT COSTS

Sale Name: Wildwood Combo

Date: May 2015

Time: 14:00

Project #1 - New Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
B8 to B9	2.0 sta	\$475

TOTALS

2.0 sta

\$475

Project #2 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to A1	362.7 sta	\$12,741
A2 to A3	15.7 sta	\$2,016
A4 to A5	3.0 sta	\$194
B to B1	84.5 sta	\$2,709
B2 to B3	8.9 sta	\$204
B4 to B5	6.1 sta	\$545
B6 to B7	5.8 sta	\$57

TOTALS

486.7 sta

\$18,466

Project #3 - Post Harvest Activities

Landing patch rock and turnaround rock

\$2,018

Move in

Crawler tractor, D-7 or equiv.
Grader, Cat 14-G or equiv.

<u>Cost</u>	<u>On-site move</u>
\$547	\$68
\$340	

TOTAL

\$955

GRAND TOTAL

\$21,914

Compiled by C.Humcke

Date 05/26/2015

SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH improve	362.7 sta
ROAD	A to A1	surfaced, ditch		

IMPROVEMENT

Shape surface (with road grader)	251.5 sta.	@	\$13.75 /sta	=	\$3,458
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TOTAL IMPROVEMENT	\$3,458
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SURFACING

		Size	Cost/yd		
Patch rock (sta. 13+70)	18 cy of	1½-0"	\$19.10	=	\$344
Patch rock (sta. 18+70)	18 cy of	1½-0"	\$19.10	=	\$344
Turnaround rock (sta. 205+50 to 206+50)	63 cy of	1½-0"	\$19.10	=	\$1,203
Spot rock (sta. 0+00 to 206+00)	387 cy of	1½-0"	\$19.10	=	\$7,392

TOTAL ROCK COST =	\$9,283
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Compiled by:	C.Humcke
Date:	May 26, 2015

GRAND TOTAL =====>	\$12,741
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SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH improve	15.7 sta
ROAD	A2 to A3	surfaced, no ditch		

IMPROVEMENT

Shape surface (with road grader)	15.7 sta.	@	\$9.90 /sta	=	\$155
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TOTAL IMPROVEMENT	\$155
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EXCAVATION

Reopen Landings (with road grader - sta. 7+10 & Pt A3)	1.0 hrs.	@	\$90.75 /hr	=	\$91
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TOTAL EXCAVATION =	\$91
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SURFACING

			Size	Cost/yd		
Spot rock	27	cy of	1 1/2-0"	\$19.10	=	\$516
Landing rock (sta. 7+10)	36	cy of	jaw-run	\$17.41	=	\$627
Landing rock (Pt. A3)	36	cy of	jaw-run	\$17.41	=	\$627

TOTAL ROCK COST =	\$1,770
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Compiled by:	C.Humcke
Date:	May 26, 2015

GRAND TOTAL =====>	\$2,016
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SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH	improve	3.0 sta
ROAD	A4 to A5	surfaced, no ditch			

IMPROVEMENT

Shape surface & landing (with road grader)	3.0 sta.	@	\$9.90 /sta	=	\$30
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TOTAL IMPROVEMENT	\$30
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SPECIAL PROJECTS

Hand brush R/W	3.0 hrs.	@	\$54.78 /hr	=	\$164
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TOTAL SPECIAL PROJECTS COST =	\$164
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Compiled by:	C.Humcke
Date:	May 26, 2015

GRAND TOTAL =====>	\$194
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SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH improve	84.5 sta
ROAD	B to B1	surfaced, ditch		

IMPROVEMENT

Shape surface (with road grader)	84.5 sta.	@	\$13.75 /sta	=	\$1,162
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TOTAL IMPROVEMENT	\$1,162
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SURFACING

Spot rock (50 CY/mi)	81 cy of	Size 1½-0"	Cost/yd \$19.10	=	\$1,547
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TOTAL ROCK COST =	\$1,547
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Compiled by:	C.Humcke
Date:	May 26, 2015

GRAND TOTAL =====>	\$2,709
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SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH improve	8.9 sta
ROAD	B2 to B3	unsurfaced, no ditch		

IMPROVEMENT

Shape surface	1.5 hrs.	@	\$135.80 /hr	=	\$204
const. water bars & tank trap with Dozer					

TOTAL IMPROVEMENT	\$204
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Compiled by:	C.Humcke	GRAND TOTAL =====>	\$204
Date:	May 26, 2015		

SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH	improve	6.1 sta
ROAD	B4 to B5	unsurfaced, no ditch			

IMPROVEMENT

Re-open road & Landing (With D7 dozer or equivalent)	3.5 hrs.	@	\$135.80 /hr.	=	\$475
Shape subgrade (with road grader)	6.1 sta.	@	\$11.55 /sta	=	\$70

TOTAL IMPROVEMENT	\$545
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Compiled by:	C.Humcke
Date:	May 26, 2015

GRAND TOTAL =====>	\$545
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SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 2	LENGTH	improve	5.8 sta
ROAD	B6 to B7	surfaced, no ditch			

IMPROVEMENT

Shape surface & landing (with road grader)	5.8 sta.	@	\$9.90 /sta	=	\$57
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TOTAL IMPROVEMENT	\$57
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Compiled by:	C.Humcke
Date:	May 26, 2015

GRAND TOTAL =====>	\$57
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SUMMARY OF CONSTRUCTION COST

SALE	Wildwood Combo	Project # 1	LENGTH	const	2.0 sta
ROAD	B8 to B9	unsurfaced, no ditch			

EXCAVATION

With D7 dozer or equivalent

Construct road & landing	3.5 hrs.	@	\$135.80 /hr.	=	\$475
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TOTAL EXCAVATION = \$475

Compiled by:

C.Humcke

Date:

May 26, 2015

GRAND TOTAL =====>

\$475

SUMMARY OF CONSTRUCTION COST

SALE Wildwood Combo - Project #3 Post Harvest
ROAD

SURFACING

		Size	Cost/CY		
Landing patch rock (2) (A2 to A3)	18 cy of	1½-0"	\$19.10	=	\$ 344
Landing patch rock (6) (B to B1)	54 cy of	1½-0"	\$19.10	=	\$ 1,031
Turnaround rock Pt. (A3)	27 cy of	3-0"	\$18.76	=	\$ 507

TOTAL SURFACING COST = \$1,882

MISCELLANEOUS PROJECTS

Tank trap (2) at Pt. B4 & B8 (with dozer)	1 hr.	@	\$135.80 /hr. =	\$136
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TOTAL MISCELLANEOUS PROJECTS = \$136

Compiled by:
Date:

C. Humcke
May 26, 2015

GRAND TOTAL =====>

\$2,018

SUMMARY OF MAINTENANCE COST

SALE

Wildwood Combo

- Final Maintenance Cost Estimate

(Costed in appraisal, not in project costs)

Grading

Move-in

\$ 340

Road Segment	Length	Cost/Sta	Cost	Mileage
A to A1	362.7	\$13.75	\$4,987.13	6.87
A2 to A3	15.7	\$9.90	\$155.43	0.30
B to B1	84.5	\$13.75	\$1,161.88	1.60
B6 to B7	5.8	\$9.90	\$57.42	0.11
Total	468.7		\$6,361.86	8.88

Maintenance Rock:

1½'-0"	Volume	Cost/CY	Cost
	81	\$19.10	\$1,547.10

Grand Total

\$ 8,248.96

TS Volume

775 MBF

Cost / MBF =

\$10.64

NOTES:

Rock Haul Cost Computation

SALE NAME: Wildwood Combo DATE: May 26, 2015
ROAD NAME: Tamewood Rd CLASS: Medium
ROCK SOURCE: Wild Rose 9 CY truck
Route: Hwy 223, Upper Lukiamute Rd, Bonner Ridge Rd.

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH	9.2	MRT	11.0 minutes
3.	45 MPH	11.8	MRT	15.7 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	5.6	MRT	16.8 minutes
9.	15 MPH	1.0	MRT	4.0 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT 0.50 minutes

Total hauling cycle time for this setting
(100% efficiency) 48.00 minutes

Operator efficiency correction 0.85 56.47 minutes

Job efficiency correction 0.90 62.74 minutes

Truck capacity (CY) 9.00 6.97 min/CY

Loading time, delay time per CY 0.25 min/CY

TIME (minutes) per cubic yard 7.22 min/CY

COST per CY computation

Cost of truck and operator per hour \$68.88 /hr.

Cost of truck and operator per minute \$1.15 /min

Cost per CY \$8.30 /CY

Spread and compact Water truck, Grader & Roller \$1.50 /CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$10.80	\$19.10	\$20.60
3 - 0"	\$10.46	\$18.76	\$20.26
Jaw Run	\$9.11	\$17.41	\$18.91
Pit-Run	\$8.10	\$16.40	\$17.90

TIMBER CRUISE REPORT

1. **Sale Area Location:** Portions of Sections 9 & 10, T10S, R7W, W.M., Benton County, Oregon.

2. **Fund Distribution:**

- a. **Fund** BOF 100%
- b. **Tax Code**

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Acreage Adjustment	Net Sale Acres	Acreage Comp. Method	Closure
1	Modified Clearcut	14	Cruise	13	Ortho photo & GIS	n/a
2	Modified Clearcut	42	Cruise	41	Ortho photo & GIS	n/a
3	Partial Cut	37	Cruise	31	Ortho photo & GIS	n/a

4. **Cruisers and Cruise Dates:** Sale Areas 1, 2 and 3 were cruised by Dan Borg in the Spring of 2015.

5. **Cruise Method and Computation:** The sale consists of two modified clearcut and one partial cut area that were cruised using variable plot sampling. All areas were cruised using a 20 BAF. Plots were randomly located throughout the areas with 7 plots in Area 1, 16 plots in Area 2, and 19 plots in Area 3. In the modified clearcut areas, all trees on each plot were measured for DBH and height to a six inch top. In the partial cut area, trees contributing to excess basal area on each plot (above the residual basal area target of 130 ft²/acre) were measured for DBH and height to a six inch top. Data from measured trees was entered into a variable plot density management worksheet to determine removal volumes. Standard grade, defect, and breakage percentages were applied to the resulting volumes.

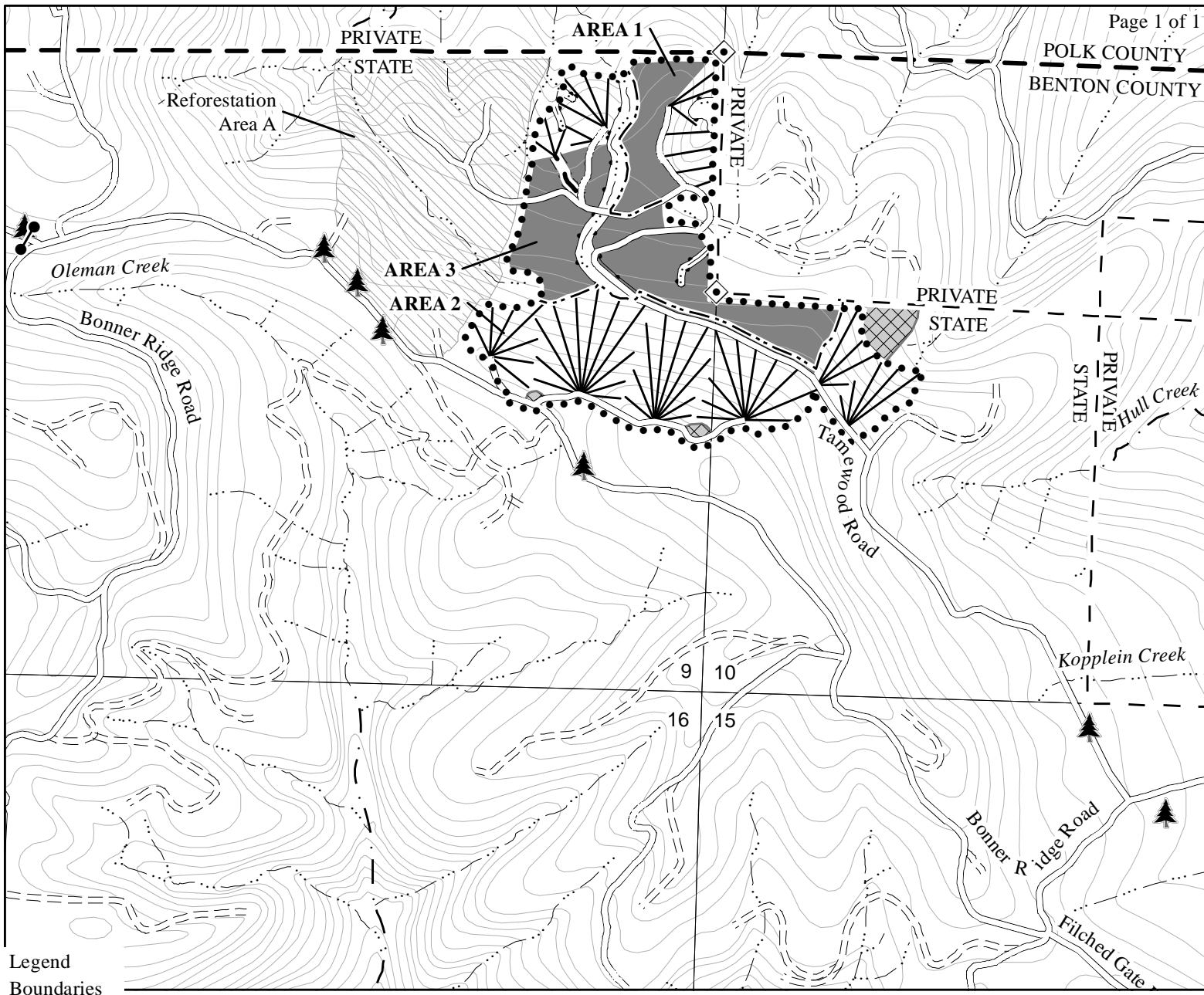
Stereo photos, digital ortho photos, and LiDar data were used to map the boundaries for the sale, and ArcMap 10.2 was used to determine gross and net acreage.

6. **Timber Description:** Timber in Areas 1 and 3 is 28 year-old planted Douglas-fir. Area 2 contains 28 to 34 year-old planted Douglas-fir. Red alder and bigleaf maple were detected in small amounts throughout all of the sale areas. These species are reserved from harvest in the partial cut area.

7. Total Volume (MBF) by Species and Grade:

Species	Gross Cruise Volume	D & B	D & B (MBF)	Net Sale Volume
Area 1				
Douglas-fir	172	7%	12	160
Area 2				
Douglas-fir	468	7%	33	435
Area 3				
Douglas-fir	194	7%	14	180
Total				
Douglas-fir	834	7%	59	775

Species	DBH	Net Vol.	2-Saw	3-Saw	4-Saw	% D & B
Area 1	Grade Percentages		--	80%	20%	
Douglas-fir	13.0	160	--	128	32	7%
Area 2	Grade Percentages		--	80%	20%	
Douglas-fir	11.7	435	--	348	87	7%
Area 3	Grade Percentages		--	80%	20%	
Douglas-fir	11.6	180	--	144	36	7%
Total	Grade Percentages		--	80%	20%	
Douglas-fir	11.9	775	--	620	155	7%



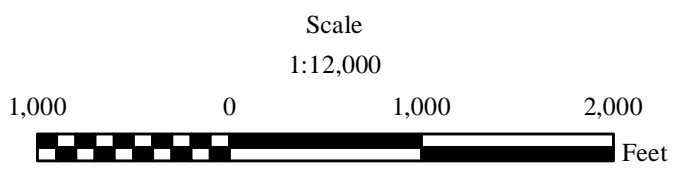
- Legend**
- Boundaries**
- Timber Sale Boundary
 - - - Area Boundary (Posted)
 - - State Forest Property Boundary
 - - County Line
 - - Right of Way (Posted)
- Roads**
- ==== Surfaced Road
 - == Unsurfaced Road
 - - New Construction
- Streams**
- - · Type F Stream
 - Type N Stream
 - - - Posted Stream Buffer
- Yarding Method**
- Tractor Yarding Area
 - ▨ Cable Corridors
 - ▩ Reforestation Area
- Other Features**
- Gates
 - ◆ Land Survey Monument
 - ▲ Parent Trees
 - ▩ Green Tree Retention Area

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-16-55
 WILDWOOD COMBO
 PORTIONS OF SECTIONS 9 & 10, T10S, R7W, W.M.,
 BENTON COUNTY, OREGON

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

AREA	NET ACRES	
	TRACTOR	CABLE
1 (MC)	7	6
2 (MC)	0	41
3 (PC)	26	5
TOTAL	33	52



Created By: Blake McKinley
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 Date: 05/21/2015