



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Two Lous
Sale 341-13-40

District: Forest Grove

Date: February 04, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,727,117.34	\$0.00	\$1,727,117.34
		Project Work:	\$(36,280.00)
		Advertised Value:	\$1,690,837.34



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timber description

Location: Portions of Sections 19 and 20, T3N, R5W, W.M., Washington County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	23	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	3,379	840	123	4,342
Total	3,379	840	123	4,342



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District: Forest Grove

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comments: Pond Values Used: 4th Quarter Calendar Year 2012.

Western Hemlock and Other Conifers Stumpage Price = Pond Value
minus Logging Cost:
 $\$280.96/\text{MBF} = \$435/\text{MBF} - \$154.04/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost:
 $\$830.96/\text{MBF} = \$985/\text{MBF} - \$154.04/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost:
 $\$405.96/\text{MBF} = \$560/\text{MBF} - \$154.04/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: 4,342 MBF @ \$1/MBF = \$4,342
Construct Operator Spurs: 5 sta. x \$200/sta. = \$1,000
Total Other Costs (with Profit & Risk to be added) = \$5,342

Other Costs (No Profit & Risk added):
Machine time to block/waterbar roads, and skid trails:
10 Hours @ \$150/Hr. = \$1,500
Slash Treatment:
20 acres x \$150/ac. = \$3,000
Equipment Cleaning: 4 x \$1,000/Piece = \$4,000
Machine time to pile landing slash and sort firewood:
15 hrs x \$150/hr = \$2,250
TOTAL Other Costs (No Profit & Risk added) = \$10,750

ROAD MAINTENANCE
Move-in: \$2,000
General Road Maintenance: 7 miles x \$1,000/mile = \$7,000
TOTAL: \$9,000 / 4,342 MBF = \$2.07/MBF



"STEWARDSHIP IN FORESTRY"

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District: Forest Grove

Date: February 04, 2013

logging conditions

combination#: 1	Douglas - Fir	88.03%
yarding distance:	Medium (800 ft)	downhill yarding: No
logging system:	Shovel	Process: Stroke Delimber
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	6.0	bd. ft / load: 5,000
cost / mbf:	\$47.94	
machines:	Stroke Delimber (B)	

combination#: 2	Douglas - Fir	11.97%
yarding distance:	Medium (800 ft)	downhill yarding: No
logging system:	Cable: Medium Tower >40 - <70	Process: Stroke Delimber
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	6.0	bd. ft / load: 5,000
cost / mbf:	\$111.47	
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Medium)	



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Two Lous Sale 341-13-40

District: Forest Grove

Date: February 04, 2013

logging costs

Operating Seasons:	2.00	Profit Risk:	10.00%
Project Costs:	\$36,280.00	Other Costs (P/R):	\$5,342.00
Slash Disposal:	\$0.00	Other Costs:	\$10,750.00

Miles of Road

Road Maintenance: \$2.07

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	5.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Two Lous
Sale 341-13-40

District: Forest Grove

Date: February 04, 2013

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$55.55	\$2.11	\$2.02	\$72.33	\$1.23	\$13.32	\$0.00	\$5.00	\$2.48	\$154.04

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$551.81	\$397.77	\$0.00



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Two Lous
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District: Forest Grove

Date: February 04, 2013

summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	4,342	\$397.77	\$1,727,117.34

Gross Timber Sale Value

Recovery: \$1,727,117.34

Prepared by: Joe Koch

Phone: 503-359-7460

TIMBER SALE SUMMARY

Two Lous

Contract No. 341-13-40

1. **Legal Description:** Portions of Sections 19 and 20, T3N, R5W, W.M., Washington County, Oregon.
2. **Type of Sale:** 80 acres of Modified Clearcut (MC) and 1 acre of Right of Way. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF; 100% Washington County.
4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
5. **Cruise Data:** The Timber Sale was cruised by ODF foresters in November 2012. For more information see Cruise Report.
6. **Timber Description:** Timber Sale Area is comprised of two well stocked, 74 year old stands of Douglas-fir with minor amounts of western hemlock, western redcedar, and hardwoods. For Areas 1 and 2 (MC) the average volume per acre is approximately 55 MBF and for Area 3 (R/W) it is 10 MBF. The average 'take' tree DBH is approximately 23 inches.
7. **Topography and Logging Method:** Slopes within the sale vary in aspect and range from 5% to 60%. The sale area is 88% ground-based yarding and 12% cable-based yarding.
8. **Access:** From the Forest Grove office proceed west on Gales Creek Road for approximately 8.5 miles. Turn left, continue west on Highway 6 for approximately 3.5 miles. Turn right onto Timber road and continue north for approximately 6 miles. Turn left onto Cochran Road and continue west for approximately 3 miles. Turn right onto Wheeler road and continue north for approximately 3.5 miles. Turn right onto South Lousignont Road and continue for approximately 2 miles to Area 2 of the Timber Sale Area. Continue down South Lousignont for approximately 1 more mile to Area 1 of the Timber Sale Area.

9. **Projects:**

Project No. 1: 0.58 miles of road construction and improvement	\$16,454.43
Project No. 2: Road surfacing	\$13,715.01
Project No. 3: Grass seed, fertilize, mulch	\$284.03
Move in and equipment cleaning	\$5,826.08

Project Total (rounded): \$36,280.00

10. Other Costs:

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

Brand and Paint: 4,342 MBF @\$1/MBF = \$4,342

Construct Operator Spurs: 5 sta. x \$200/sta. = \$1,000

Total Other Costs (with Profit & Risk to be added) = \$5,342

Other Costs (No Profit & Risk added):

Machine time to block/waterbar roads, and skid trails: 10 Hours @ \$150/Hr. = \$1,500

Slash Treatment: 20 acres x \$150/ac. = \$3,000

Equipment Cleaning: 4 x \$1,000/Piece = \$4,000

Machine time to pile landing slash and sort firewood: 15 hrs x \$150/hr = \$2,250

TOTAL Other Costs (No Profit & Risk added) = \$10,750

ROAD MAINTENANCE

Move-in: \$2,000

General Road Maintenance: 7 miles x \$1,000/mile = \$7,000

TOTAL: \$9,000 / 4,342 MBF = \$2.07/MBF

PROJECT COST SUMMARY SHEET

Timber Sale: Two Lous

Sale Number: 341-13-40

PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT

CONSTRUCTION

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
C to D	20+00	\$15,463.77
	20+00 stations	
	0.38 miles	

SUBTOTAL CONSTRUCTION \$15,463.77

IMPROVEMENTS

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	10+65	\$990.66
	10+65 stations	
	0.20 miles	

SUBTOTAL IMPROVEMENTS \$990.66

TOTAL PROJECT NO. 1 COST = \$16,454.43

PROJECT NO. 2: SURFACING

<u>Road Segment</u>	<u>Amount</u>	<u>Type</u>	<u>Cost</u>
A to B	460 cy	3" - 0	\$2,387.40
C to D	55 cy	1 1/2" - 0	\$474.65
C to D	1,282 cy	3" - 0	\$9,903.66
C to D	50 cy	6"-0	\$431.50
C to D	60 cy	24" - 12"	\$517.80
Total	55 cy	1 1/2" - 0	
	1,742 cy	3" - 0	
	50 cy	6"-0	
	60 cy	24" - 12"	

TOTAL PROJECT NO. 2 COST = \$13,715.01

PROJECT NO. 3: GRASS SEED, FERTILIZE, & MULCH

Grass seed and fertilize areas of disturbed soil.	\$284.03
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TOTAL PROJECT NO. 3 COST = \$284.03

MOVE IN & EQUIPMENT CLEANING \$5,826.08

TOTAL ALL PROJECTS \$36,279.54

TOTAL CREDITS \$36,280.00

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Two Lous	Timber Sale No.:	341-13-40
Road Segment:	A to B	Improvement:	10+65 stations 0.20 miles

PROJECT NO. 1

EXCAVATION

Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00	
Grade, Ditch, and Roll	10.65	sta @	\$28.70	per sta =	\$305.66	
					TOTAL EXCAVATION COSTS=	\$380.66

CULVERTS - MATERIALS & INSTALLATION

Culverts

30	LF of 18"	\$600.00
		<u>\$600.00</u>

Culvert Markers

1	markers	\$10.00
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TOTAL CULVERT COSTS = \$610.00

PROJECT NO. 1 TOTAL COST = \$990.66

PROJECT NO. 2:

SURFACING

	6	" deep =	31 cy/sta			
A to B	330	cy of	3" - 0	@	\$5.19 per cy =	\$1,712.70
Turnouts (1)	10	cy of	3" - 0	@	\$5.19 per cy =	\$51.90
Turnaround (1)	10	cy of	3" - 0	@	\$5.19 per cy =	\$51.90
Junctions (1)	20	cy of	3" - 0	@	\$5.19 per cy =	\$103.80
Landing (1)	90	cy of	3" - 0	@	\$5.19 per cy =	\$467.10
Total =	460					
	460	cy of	3" - 0		\$5.19 per cy =	\$2,387.40

PROJECT NO. 2 TOTAL COST = \$2,387.40

TOTAL COST = \$3,378.06

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Lous
Road Segment: C to D

Timber Sale No.: 341-13-40
Construction: 20+00 stations
0.38 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	2.30	acres @	\$980.00	per acre =	\$2,249.77
Balanced Road Construction	19.00	sta @	\$90.00	per sta =	\$1,710.00
Drift	1.00	sta @	\$150.00	per sta =	\$150.00
Fill Construction					\$1,500.00
Construct Turnouts (2)	2	ea @	\$60.00	per ea =	\$120.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	20.00	sta @	\$28.70	per sta =	\$574.00
Bio-Bags	10.00	ea @	\$5.00	per ea =	\$50.00
TOTAL EXCAVATION COSTS=					\$6,713.77

CULVERTS - MATERIALS & INSTALLATION

Culverts					
90	LF of 18"	\$1,800.00	70	LF of 24"	\$3,500.00
68	LF of 36"	\$3,400.00			
Culvert Markers					
5 markers		\$50.00			
TOTAL CULVERT COSTS =					\$8,750.00

PROJECT NO. 1 TOTAL COST = \$15,463.77

PROJECT NO. 2:

SURFACING

	10	" deep =	53 cy/sta			
C to D	1,060	cy of	3" - 0	@	\$7.73 per cy =	\$8,188.67
Turnouts (2)	36	cy of	3" - 0	@	\$7.73 per cy =	\$278.11
Turnaround (1)	16	cy of	3" - 0	@	\$7.73 per cy =	\$123.60
Junction (1)	20	cy of	3" - 0	@	\$7.73 per cy =	\$154.50
Landing (1)	150	cy of	3" - 0	@	\$7.73 per cy =	\$1,158.77
Spot Rock	15	cy of	1 1/2" - 0	@	\$8.63 per cy =	\$129.45
Culvert Bedding	40	cy of	1 1/2" - 0	@	\$8.63 per cy =	\$345.20
Subgrade Reinfocerner	50	cy of	6" - 0	@	\$8.63 per cy =	\$431.50
Riprap	40	cy of	24" - 12"	@	\$8.63 per cy =	\$345.20
Fill Armor	20	cy of	24" - 12"	@	\$8.63 per cy =	\$172.60
Total =						
	55	cy of	1 1/2" - 0		\$8.63 per cy =	\$474.65
	1282	cy of	3" - 0		\$7.73 per cy =	\$9,903.66
	50	cy of	6" - 0		\$8.63 per cy =	\$431.50
	60	cy of	24" - 12"		\$8.63 per cy =	\$517.80

PROJECT NO. 2 TOTAL COST = \$11,327.61

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	1.15	acres @	\$220.00	per acre =	\$252.53
Mulch	7.00	bales @	\$4.50	per bale =	\$31.50

PROJECT NO. 3 TOTAL COST = \$284.03

TOTAL COST = \$27,075.41

Move-In & Equipment Cleaning

Timber Sale: Two Lous
Sale Number: 341-13-40

LOWBOY HAUL (One-way)		
DIST. (mi)	ROAD	AVE SPEED (mph)
4.0	Main Lines	7
2.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Equipment Cleaning	Base Cost	Woods Cost	Within				Within				Total Cost
					Pilot Cars	Area Move	Begin Mileage	End Mileage	Total Miles	Area Cost	Total Cost		
1	Graders		\$300.00	\$218.58			0.0	0.0	0.0	0.0	\$0.00	\$518.58	
1	Loader (Med. & Large)		\$414.39	\$300.15	1		0.0	0.0	0.0	0.0	\$0.00	\$714.54	
1	Rollers (smooth/grid) & Compactors		\$308.59	\$178.25			0.0	0.0	0.0	0.0	\$0.00	\$486.84	
1	Excavators (Large)	\$1,000	\$466.14	\$348.95	1		0.0	0.0	0.0	0.0	\$0.00	\$1,815.09	
1	Tractor (D8)	\$1,000	\$473.80	\$320.03	2		0.0	0.0	0.0	0.0	\$0.00	\$1,793.83	
2	Dump Truck (10 cy +)		\$233.34	\$120.00			0.0	0.0	0.0	0.0	\$0.00	\$353.34	
1	Water Truck (1500 Gal)		\$95.00	\$48.86			0.0	0.0	0.0	0.0	\$0.00	\$143.86	
TOTAL MOVE-IN COSTS:												\$5,826.08	

VOLUME SUMMARY
 (Shown in MBF)
Two Lous
341-13-40
December 2012

AREA 1 & 2: MC (80 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	3,448	848	124	4,420
	Hidden D&B (2%)	(69)	(17)	(2)	(88)
	NET TOTAL	3,379	831	122	4,332
	% of Total	78	19	3	

AREA 3: R/W (1 ACRE)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	0	9	1	10
	Hidden D&B (2%)	()	()	()	()
	NET TOTAL	0	9	1	10
	% of Total	0	90	10	

SALE TOTAL

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir		3,379	840	123	4,342

CRUISE REPORT

Two Lous

341-13-40

1. LEGAL DESCRIPTION:

Portions of Sections 19 and 20, T3N, R5W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

The volume estimate was obtained with a combination of SLI and ODF-cruised variable radius plots. The cruise design assumed a Coefficient of Variation CV% of 55%, an average stand diameter of 18 inches, a desired sampling error (SE%) of 10%.

3. SAMPLING METHOD:

A portion of Sale Area 1 was inventory cruised in March, 2004 with 7 plots using a 40 BAF prism; the results from this cruise were grown forward to November, 2012. The remaining portion of Area 1 and all of Area 2 were cruised in 2013 by ODF foresters using a 40 BAF prism. For this cruise, a total of 17 measure plots were evenly distributed throughout the sale areas. Plots falling on or near existing roads or no-harvest areas were offset 1 chain. Sale Area 1 had 9 plots laid out on a 5 chain by 10 chain grid. Sale Area 2 had 8 plots on a cruise line with 5 chains between plots.

An ocular assessment was used to estimate the amount of board feet in the Right-of-Way area (Area 3). The R/W area was estimated at 1 acre.

4. CRUISE RESULTS

144 trees were measured and graded producing a cumulative sampling error on the 'Take' tree basal area of 7.3% and 7.8% on the Board Foot Volume at a 68% confidence level.

5. TREE MEASUREMENT AND GRADING:

For Sale Areas 1 and 2, all sample trees were measured and graded.

a) Height Standards:

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) Diameter Standards:

Diameters were measured outside bark at breast height to the nearest inch.

c) Form Factors

were measured for each grade tree using a form point of 16 feet on all sale areas. It was estimated at 88% for the SLI plots.

6. DATA PROCESSING

a) Volumes and Statistics,

Cruise and grown forward volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software.

b) Deductions:

Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

7. CRUISERS:

The sale was cruised by SLI contract cruisers and ODF cruisers Mark Savage and Joe Koch.

Prepared by: Joe Koch 11/26/2012
ODF Forester Date

Reviewed by: Eric Foucht
Date

TC PSTATS				PROJECT STATISTICS					PAGE		1	
Joe Koch				PROJECT		TWOLOUS			DATE		12/19/2012	
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt	
03N	05	19	001	00A1		80.00		24	144	S	W	
03N	05W	19	001	00A2								
				TREES		ESTIMATED		PERCENT				
				TOTAL		TOTAL		SAMPLE				
PLOTS				TREES		PER PLOT		TREES		TREES		
TOTAL			24	144	6.0							
CRUISE			24	144	6.0		6,847		2.1			
DBH COUNT												
REFOREST												
COUNT												
BLANKS												
100 %												
STAND SUMMARY												
SAMPLE			TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET	
TREES			/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC	
DOUG FIR			134	77.5	23.0	124	49	223.4	55,252	55,252	10,806	10,806
DOUG FIR-L			6	.9	43.0	155	2	9.5	3,049	3,049	531	531
WHEMLOCK-L			2	2.8	14.9	77	1	3.4	476	476	104	104
WR CEDAR-L			2	4.3	12.1	50		3.4	463	463	103	103
TOTAL			144	85.6	22.7	119		239.8	59,241	59,241	11,543	11,543
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL	68.1	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR			53.4	4.6	1,011	1,059	1,108					
DOUG FIR-L			19.6	8.7	3,012	3,300	3,588					
WHEMLOCK-L			112.7	105.5		295	606					
WR CEDAR-L			131.2	122.9		415	925					
TOTAL			64.5	5.4	1,072	1,133	1,194	166	42	18		
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR			58.3	12.2	68	77	87					
DOUG FIR-L			279.4	58.2	0	1	1					
WHEMLOCK-L			389.2	81.1	1	3	5					
WR CEDAR-L			489.9	102.1		4	9					
TOTAL			53.2	11.1	76	86	95	118	29	13		
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR			35.1	7.3	207	223	240					
DOUG FIR-L			267.8	55.8	4	10	15					
WHEMLOCK-L			338.8	70.6	1	3	6					
WR CEDAR-L			489.9	102.1		3	7					
TOTAL			31.2	6.5	224	240	255	41	10	5		
CL	68.1	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR			37.5	7.8	50,941	55,252	59,564					
DOUG FIR-L			267.6	55.8	1,349	3,049	4,749					
WHEMLOCK-L			374.2	78.0	105	476	848					
WR CEDAR-L			489.9	102.1		463	935					
TOTAL			34.0	7.1	55,047	59,241	63,434	48	12	5		
CL	68.1	COEFF	NET CUFT FT/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR			37.1	7.7	9,970	10,806	11,641					
DOUG FIR-L			271.3	56.5	231	531	831					
WHEMLOCK-L			366.8	76.4	25	104	183					
WR CEDAR-L			489.9	102.1		103	207					

TC PSTATS		<u>PROJECT STATISTICS</u>							PAGE	2
Joe Koch		PROJECT TWOLOUS							DATE	12/19/2012
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
03N	05	19	001	00A1	80.00	24	144	S	W	
03N	05W	19	001	00A2						
CL	68.1		COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL			33.5	7.0	10,738	11,543	12,348	47	12	5

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
Joe Koch																					
<div>T03N R05W S19 Ty00A155.00</div> <div>T03N R05W S19 Ty00A225.00</div>							Project:		TWOLOUS								Page		1		
							Acres		80.00								Date		12/19/2012		
																		Time		3:54:20PM	
			%				Total	Percent of Net Board Foot Volume								Average Log			Logs		
Spp	S	So Gr	Net	Bd. Ft. per Acre	Def%	Gross		Net	Net MBF	Log Scale Dia.				Log Length				Ln		Bd	CF/
										T	rt	ad	BdFt	Ft	Ft	Lf	4-5				
DF		CU																			
DF		2M	78			43,099	43,099	3,448				24	76	1	2	1	96	39	536	2.49	80.4
DF		3M	19			10,601	10,601	848			61	34	5	5	8	30	56	34	124	0.86	85.7
DF		4M	3			1,552	1,552	124			100			48	29	18	5	18	24	0.41	64.7
DF Totals			93			55,252	55,252	4,420			15	25	60	3	4	7	86	30	232	1.49	238.0
DF	L	CU																4		0.00	.1
DF	L	2M	83			2,542	2,542	203					100				100	40	1458	5.89	1.7
DF	L	3M	16			480	480	38				53	47	21		32	47	33	387	2.66	1.2
DF	L	4M	1			27	27	2			100			51	49			18	28	0.73	.9
DF Totals			5			3,049	3,049	244			1	8	91	4	0	5	91	31	748	4.15	4.1
WH	L	2M	54			260	260	21				100					100	40	400	1.90	.7
WH	L	3M	44			209	209	17			100				63	37		27	74	0.66	2.8
WH	L	4M	2			7	7	1			100			100				12	10	0.37	.7
WH Totals			1			476	476	38			45	55		1	28	16	55	27	115	0.93	4.1
RC	L	2M	56			259	259	21				100					100	40	600	2.97	.4
RC	L	3M	16			78	78	6			100						100	40	180	1.31	.4
RC	L	4M	28			125	125	10			100			7	93			23	29	0.28	4.3
RC Totals			1			463	463	37			44	56		2	25		73	26	89	0.76	5.2
Totals						59,241	59,241	4,739			14	24	61	3	4	7	86	30	236	1.51	251.4

TC		PSTNDSUM		Stand Table Summary										Page		1	
Joe Koch												Date:		12/19/2012			
<div>T03N R05W S19 Ty00A155.00</div> <div>T03N R05W S19 Ty00A225.00</div>				Project		TWOLOUS				Time:		3:54:22PM					
				Acres		80.00				Grown Year:							
S SpC	T	Tot			Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Net Bd.Ft. Acre	T o t a l s				
		Sample DBH	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre		Tons	Cunits	MBF		
DF		9	1	88	84	3.537	1.56	3.54	8.7	50.0	.88	31	177	70	25	14	
DF		10	3	87	85	8.594	4.69	11.46	9.9	47.5	3.24	114	544	259	91	44	
DF		11	1	88	91	2.368	1.56	4.74	8.4	40.0	1.13	40	189	90	32	15	
DF		12	2	88	88	4.377	3.44	8.75	10.7	40.0	2.66	93	350	213	75	28	
DF		14	1	88	110	1.608	1.72	3.22	18.7	85.0	1.72	60	273	137	48	22	
DF		16	1	87	106	1.231	1.72	3.69	16.5	66.7	1.74	61	246	139	49	20	
DF		17	1	89	121	1.090	1.72	3.27	22.0	96.7	2.06	72	316	164	58	25	
DF		18	2	89	109	1.945	3.44	4.86	27.6	120.0	3.83	134	584	306	108	47	
DF		19	2	89	127	1.666	3.28	5.00	24.4	110.8	3.48	122	554	279	98	44	
DF		20	5	89	122	3.939	8.59	11.82	31.5	142.0	10.59	372	1,678	847	297	134	
DF		21	4	90	142	2.858	6.88	10.00	33.1	162.9	9.44	331	1,629	756	265	130	
DF		22	6	89	136	3.788	10.00	11.36	41.9	199.8	13.58	477	2,271	1,087	381	182	
DF		23	3	89	122	1.679	4.84	5.04	42.7	198.8	6.12	215	1,001	490	172	80	
DF		24	8	88	121	4.228	13.28	12.14	47.2	222.1	16.32	573	2,696	1,305	458	216	
DF		25	12	89	143	5.867	20.00	21.54	47.1	234.6	28.91	1,014	5,053	2,313	811	404	
DF		26	12	89	146	5.509	20.31	20.72	50.3	255.3	29.68	1,041	5,291	2,375	833	423	
DF		27	9	89	145	3.694	14.69	13.99	53.4	279.0	21.29	747	3,903	1,703	598	312	
DF		28	14	89	143	5.481	23.44	20.02	60.0	311.7	34.25	1,202	6,242	2,740	961	499	
DF		29	10	89	145	3.645	16.72	14.58	59.8	313.6	24.86	872	4,571	1,989	698	366	
DF		30	5	89	141	1.687	8.28	6.75	61.2	326.5	11.77	413	2,203	941	330	176	
DF		31	7	88	143	2.206	11.56	8.23	71.7	377.9	16.82	590	3,110	1,345	472	249	
DF		32	5	89	147	1.483	8.28	5.93	74.3	396.6	12.57	441	2,352	1,005	353	188	
DF		33	5	89	149	1.368	8.13	5.47	76.9	422.4	11.99	421	2,311	959	337	185	
DF		34	4	89	148	1.090	6.88	4.36	85.8	479.4	10.67	374	2,091	854	300	167	
DF		35	5	89	146	1.239	8.28	4.96	88.7	493.8	12.54	440	2,448	1,003	352	196	
DF		36	1	89	149	.243	1.72	.97	95.2	535.0	2.64	93	520	211	74	42	
DF		38	4	89	153	.853	6.72	3.63	100.7	579.6	10.42	365	2,104	833	292	168	
DF		39	1	90	154	.207	1.72	.83	117.1	655.0	2.77	97	543	221	78	43	
DF		Totals	134	89	124	77.482	223.44	230.87	46.8	239.3	307.96	10,806	55,252	24,637	8,644	4,420	
DF L		40	2	90	152	.358	3.13	1.43	122.2	688.7	4.99	175	987	399	140	79	
DF L		41	1	89	157	.170	1.56	.68	131.1	730.0	2.55	89	498	204	72	40	
DF L		44	2	90	161	.296	3.13	1.33	131.8	776.7	5.00	175	1,034	400	140	83	
DF L		51	1	90	145	.121	1.72	.48	187.7	1095.0	2.59	91	531	207	73	42	
DF L		Totals	6	90	155	.946	9.53	3.93	135.1	775.8	15.13	531	3,049	1,210	425	244	
WH L		12	1	89	69	2.188	1.72	2.19	14.3	60.0	1.00	31	131	80	25	11	
WH L		22	1	93	104	.651	1.72	1.95	37.2	176.7	2.32	73	345	186	58	28	
WH L		Totals	2	90	77	2.839	3.44	4.14	25.1	115.0	3.33	104	476	266	83	38	
RC L		9	1	88	43	3.890	1.72	3.89	6.5	30.0	.60	25	117	48	20	9	
RC L		27	1	87	114	.432	1.72	1.30	59.4	266.7	1.81	77	346	145	62	28	
RC L		Totals	2	88	50	4.323	3.44	5.19	19.8	89.2	2.41	103	463	193	82	37	
Totals			144	89	119	85.589	239.84	244.13	47.3	242.7	328.82	11,543	59,241	26,306	9,234	4,739	

TC PLOGSTVB Joe Koch		Log Stock Table - MBF																	
T03N R05W S19 Ty00A1 55.00 T03N R05W S19 Ty00A2 25.00				Project: TWOLOUS Acres 80.00										Page 1 Date 12/19/2012 Time 3:54:20PM					
S T Spp	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		2M	16	33		33	.7							10		10	12		
DF		2M	18	14		14	.3									14			
DF		2M	22	24		24	.5							10	14				
DF		2M	24	16		16	.4										16		
DF		2M	26	27		27	.6							10	17				
DF		2M	32	21		21	.5									21			
DF		2M	40	3,314		3,314	75.0					81	536	1237	1010	448			
DF		3M	12	9		9	.2									9			
DF		3M	14	15		15	.3							15					
DF		3M	16	13		13	.3				2				10				
DF		3M	20	5		5	.1						5						
DF		3M	24	72		72	1.6				15	49	7						
DF		3M	32	258		258	5.8			60	62	89	21	26					
DF		3M	40	477		477	10.8			57	51	131	165	59	14				
DF		4M	12	21		21	.5			20	1								
DF		4M	16	39		39	.9			39									
DF		4M	24	36		36	.8			23	13								
DF		4M	32	23		23	.5			23									
DF		4M	40	6		6	.1			6									
DF		Totals		4,420		4,420	93.3			228	141	272	274	626	1296	1052	502	28	
DF	L	2M	40	203		203	83.4								25	64	113		
DF	L	3M	12	8		8	3.3										8		
DF	L	3M	32	12		12	5.0					5		8					
DF	L	3M	40	18		18	7.4					3		5	10				
DF	L	4M	12	0		0	.0			0									
DF	L	4M	16	1		1	.4			1	0								
DF	L	4M	24	1		1	.4			0	1								
DF		Totals		244		244	5.1			1	1	8		12	35	64	122		
WH	L	2M	40	21		21	54.7							21					
WH	L	3M	26	11		11	27.6			11									
WH	L	3M	32	6		6	16.4				6								
WH	L	4M	12	1		1	1.4			1									
WH		Totals		38		38	.8			1	11	6		21					
RC	L	2M	40	21		21	56.1							21					

TC PLOGSTVB
Joe Koch

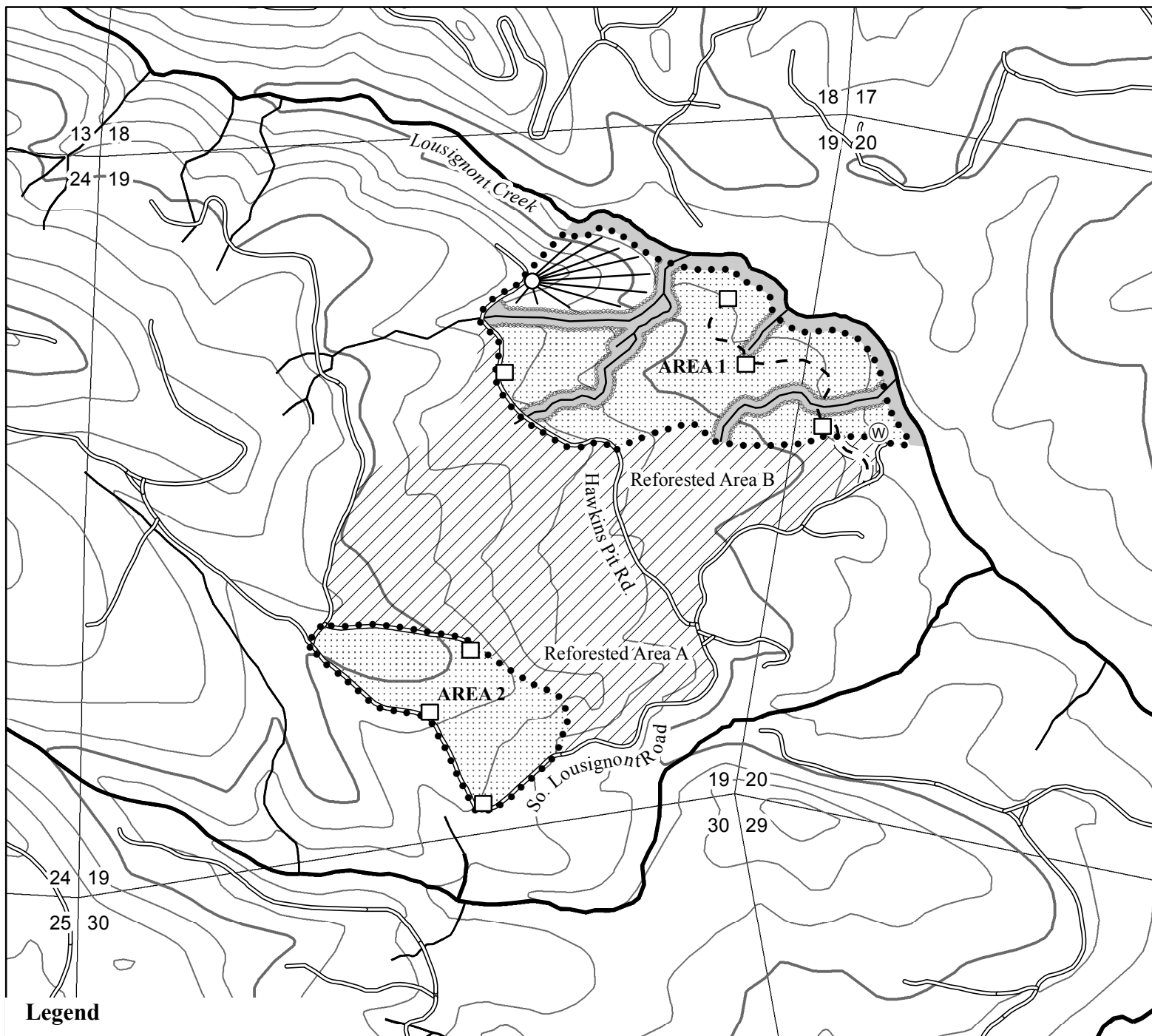
Log Stock Table - MBF

T03N R05W S19 Ty00A1	55.00
T03N R05W S19 Ty00A2	25.00

Project: TWOLOUS
Acres 80.00

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Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	Spc %	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RC	L	3M	40	6		6	16.8					6							
RC	L	4M	16	1		1	1.9			1									
RC	L	4M	24	9		9	25.2			9									
RC		Totals		37		37	.8			10		6		21					
Total		All Species		4,739		4,739	100.0			240	153	284	282	626	1350	1087	566	150	



Legend

- Timber Sale Boundary
- Roads
- - - New Construction
- Right of Way Boundary
- Type F Stream
- Type N Stream
- - - - - Posted Stream Buffer Boundary
- /// Reforestation Area
- Stream Buffer
- Tractor Yarding Area
- Type F Stream
- Type N Stream
- 200 Foot Contour Band
- 40 Foot Contour Band
- Sections
- Cable Yarding Area
- W Waste Area

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-13-40
TWO LOUS
PORTIONS OF SECTIONS 19 & 20, T3N, R5W, W.M.
WASHINGTON COUNTY, OREGON

Forest Grove District GIS

December, 2012

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

1:12,000

1 inch = 1,000 feet



APPROXIMATE NET ACRES

	CABLE	TRACTOR
AREA 1	10	45
AREA 2	0	25
AREA 3 (R/W)	0	1