



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Buena Vista
Sale 341-13-19

District: Astoria

Date: June 13, 2012

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,997,726.18	\$267,117.60	\$2,264,843.78
		Project Work:	\$(300,573.00)
		Advertised Value:	\$1,964,270.78



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timber description

Location: Portions of Sections 4, 5, and 8, T6N, R6W, and portions of Section 33, T7N, R6W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	97
Western Hemlock / Fir	14	0	97
Sitka Spruce	15	0	97
Alder (Red)	16	0	96

Volume by Grade	2S	3S	4S	Camprur	Total
Douglas - Fir	4,963	1,104	137	0	6,204
Western Hemlock / Fir	98	25	17	0	140
Sitka Spruce	0	18	0	0	18
Alder (Red)	0	0	0	816	816
Total	5,061	1,147	154	816	7,178



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comments: Pond Values Used: 1st Quarter Calendar Year 2012.

Expected Log Markets: Mist, OR; Clatskanie, OR; Tillamook, OR;
Forest Grove, OR.

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost
 $\$737.83/\text{MBF} = \$945/\text{MBF} - \$207.17/\text{MBF}$

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):

100% Branding and Painting: $\$1/\text{MBF} \times 7,178 \text{ MBF} = \$7,178$

Log Loader Slash & Landing Piling (includes Move-In and Pile
Materials): = \$12,168 (see attached appraisal)

Machine washing for noxious weed compliance = \$2,000

Additional Logging Cost for log bumping in Area 3: $\$10/\text{MBF} \times 416$
MBF = \$4,160

TOTAL Other Costs (with Profit & Risk to be added) = \$25,506

Other Costs (No Profit & Risk added):

Snag Creation: 67 snags $\times \$40.00/\text{snag} = \$2,680$

TOTAL Other Costs (No Profit & Risk added) = \$2,680



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logging conditions

combination#: 1

Douglas - Fir	41.00%
Western Hemlock / Fir	41.00%
Sitka Spruce	41.00%
Alder (Red)	41.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Manual Felling/Delimbing
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 8.0 **bd. ft / load:** 4,000
cost / mbf: \$108.13

machines: Log Loader (A)
Tower Yarder (Medium)

combination#: 2

Douglas - Fir	59.00%
Western Hemlock / Fir	59.00%
Sitka Spruce	59.00%
Alder (Red)	59.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Manual Felling/Delimbing
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 10.0 **bd. ft / load:** 4,000
cost / mbf: \$62.62

machines: Shovel Logger



"STEWARDSHIP IN FORESTRY"

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logging costs

Operating Seasons:	2.00	Profit Risk:	14.00%
Project Costs:	\$300,573.00	Other Costs (P/R):	\$25,506.00
Slash Disposal:	\$0.00	Other Costs:	\$2,680.00

Miles of Road

Road Maintenance: \$2.79

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	4.0
Western Hemlock / Fir	\$0.00	2.0	4.0
Sitka Spruce	\$0.00	2.0	4.0
Alder (Red)	\$0.00	2.0	3.5



"STEWARDSHIP IN FORESTRY"

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Buena Vista
Sale 341-13-19

District: Astoria

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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$81.28	\$2.87	\$1.22	\$88.10	\$3.55	\$24.78	\$0.00	\$5.00	\$0.37	\$207.17
Western Hemlock / Fir									
\$81.28	\$2.87	\$1.22	\$88.10	\$3.55	\$24.78	\$0.00	\$5.00	\$0.37	\$207.17
Sitka Spruce									
\$81.28	\$2.87	\$1.22	\$88.10	\$3.55	\$24.78	\$0.00	\$5.00	\$0.37	\$207.17
Alder (Red)									
\$81.28	\$2.90	\$1.22	\$101.65	\$3.55	\$26.68	\$0.00	\$5.00	\$0.37	\$222.65

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$523.78	\$316.61	\$0.00
Western Hemlock / Fir	\$0.00	\$422.79	\$215.62	\$0.00
Sitka Spruce	\$0.00	\$390.00	\$182.83	\$0.00
Alder (Red)	\$0.00	\$550.00	\$327.35	\$0.00



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summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	6,204	\$316.61	\$1,964,248.44
Western Hemlock / Fir	140	\$215.62	\$30,186.80
Sitka Spruce	18	\$182.83	\$3,290.94
Alder (Red)	816	\$327.35	\$267,117.60

Gross Timber Sale Value

Recovery: \$2,264,843.78

Prepared by: Derek Bangs

Phone: 503-325-5451

Site Prep Appraisal

Sale Number: 341-13-19
Sale Name: Buena Vista
Date: 04/11/2012

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre
Doug-fir	A	1.0	3.0
Hemlock/Fir	B	1.5	4.0
Hemlock/Spruce	C	2.0	6.0
Hemlock	D	2.0	6.0
Conifer/Hardwood	E	1.5	3.0

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area
1	MC	A	58	58	\$110.00	\$6,380.00
2	MC	E	3	4.5	\$110.00	\$495.00
3	MC	E	3	4.5	\$110.00	\$495.00

Sub Total = \$7,370.00

Sale Area	Number of Landings to be Piled	Cost/Landing Pile*	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area
1	5	\$263.00	\$1,315.00	174	\$5.00	\$870.00
2	3	\$263.00	\$789.00	9	\$5.00	\$45.00
3	3	\$263.00	\$789.00	9	\$5.00	\$45.00

*Cost includes separating firewood

Sub Total = \$3,853.00

Move-In Allowance	Number of Move-In's	Total Move-In Allowance
\$945.00	1	\$945.00

Sub Total = \$945.00

Grand Total = \$12,168.00

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Buena Vista

NEW CONSTRUCTION:

Project No. 1

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Dirt Roads	1A-1B and 3A to 3B	10.10	\$8,358
TOTALS	0.19 miles	10.10	\$8,358

ROAD IMPROVEMENT:

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
	I1-I2, I2-I3, I4-I5, I6-I7, I8-I9, I10-I11, I12-I13, I14-I15, & I16-I17.	342.10	\$73,635
TOTALS	6.48 miles	342.10	\$73,635

SPECIAL PROJECTS:

Project No. 2	<u>Quarry Development and Rock Screening</u>	<u>\$175,618</u>
Project No. 3	<u>Roadside Brushing</u>	<u>\$31,887</u>
	<u>Project Work Road Maintenance</u>	<u>\$3,300</u>

MOVE IN:

	<u>Equipment</u>	<u>Cost</u>
	Dozer (D8)	\$1,220
	Dump Trucks (12 cy x 6)	\$846
	F E Loader (C966)	\$675
	Grader (14G)	\$675
	Rubber Tire Skidder (C518)	\$622
	Vibratory Roller	\$675
	Water Truck (2,500 gallon)	\$165
	Backhoe (C 580)	\$279
	Excavator (C330)	\$1,220
	Brusher x 2	\$1,398
	*Mobilization costs for Quarry work added to Project No. 2 costs	
TOTAL		\$7,775

GRAND TOTAL **\$300,573**

Compiled By: D.Bangs FL

Date: 04/11/2012

Project No. 1 Road Improvement

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Buena Vista

ROAD: 11-12 (199+40), 12-13 (63+00), 14-15 (2+70), 16 to 17 (7+70),

POINTS: 18 to 19 (6+20), 110 to 111 (1+70), 112 to 113 (5+60), 114 to 115 (9+80), 116 to 117 (46+00)

NEW CONSTRUCTION: STATIONS 0.00 MILES

IMPROVEMENT: 342.10 STATIONS 6.48 MILES

CLEARING & GRUBBING					
Method	Qty/amount	x	Rate	=	Cost
Clear road prism/ditches/culverts (C-580 - hrs.)	1.70	x	\$72.00	=	\$122.40
(110-111)					
SUB TOTAL FOR CLEARING & GRUBBING					\$122

EXCAVATION					
Material	Cy/hours/amount	x	Rate	=	Cost
14 to 15, 16 to 17, 18 to 19, 112 to 113, 116 to 117					
Remove and scatter sod from road surface	52.20	x	\$144.00	=	\$7,516.80
SUB TOTAL FOR EXCAVATION					\$7,517

CULVERT MATERIALS AND INSTALLATION					
Location	Dia/type	Lineal ft.	Rate	Cost	
12 to 13					
10+90	18"CPP	50	\$17.64	\$882.00	
22+70	18"CPP	40	\$17.64	\$705.60	
SPECIAL PROJECTS					
Description			Quantity	Rate	Cost
Replace Missing Culvert Markers			3	\$18.00	\$54.00
Add markers to new culverts			2	\$18.00	\$36.00
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION					\$1,678
Subtotal of Clearing, Exc., Culv.					\$9,317

Project No. 1 New Road Construction

SUMMARY OF CONSTRUCTION COSTS

SALE NAME:
ROADS:

Buena Vista
1A-1B (6+80), 3A to 3B, (3+30), 1C, 2A, 2B, 3C, 3D

NEW CONSTRUCTION:
IMPROVEMENT:

10.10 STATIONS
STATIONS

0.19 MILES
MILES

CLEARING & GRUBBING		Method	Acres/amount		Rate	=	Cost
		Scatter Outside of R/W	1.0	x	\$1,161.00	=	\$1,161.00
SUB TOTAL FOR CLEARING & GRUBBING							\$1,161

EXCAVATION		1A-1B					
Sta. 6+80	Balanced Construction Field Design \$/sta.		6.80	x	\$106.00	=	\$720.80
	Landing Construction		1.00	x	\$338.00	=	\$338.00
		3A-3B					
Sta. 3+30	Common (Drift Earth up to 200') \$\$/sta.		3.30	x	\$165.00	=	\$544.50
	Landing Construction		1.00	x	\$338.00	=	\$338.00
		1C, 2A, 2B, 3C, 3D					
	Landing Construction		5	x	\$338.00	=	\$1,690.00
	Sidecast Pullback \$/sta. (3D)		1	x	\$484.00	=	\$484.00
	Haul excess excavation to waste area \$/cy		300.00	x	\$3.50	=	\$1,050.00
	(2B and 3D)						
SUB TOTAL FOR EXCAVATION							\$5,165
Other/miscellaneous:							

Other/miscellaneous:		Description	Quantity	Rate	Cost
		Labor 2 hrs. @\$38.00 hr. for waste area	2	\$38.00	\$76.00
		Grass seed mix 10lbs X \$1.40/lb	10	\$1.40	\$14.00
		Straw bales @\$10.00 ea. X 15 bales for waste area	15	\$10.00	\$150.00

SUB TOTAL FOR OTHER	\$240
Grand Total:	\$6,566

Project No. 1 Road Improvement

SUMMARY OF CONSTRUCTION COSTS

SALE NAME:

Buena Vista

NEW CONSTRUCTION:

0.00 STATIONS

0.00 MILES

ROAD:

11-12 (199+40)	12-13 (63+00)	14-15 (2+70)	16 to 17 (7+70)
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IMPROVEMENT:

42.10 STATIONS

$$\frac{6.38 \text{ MILES}}{6.48 \text{ MILES}}$$

SURFACING									
Subgrade prep:			Description		Stations/ amount	x	Rate/ sta./amt	Cost	
Grade, Shape and Ditch Subgrade Compaction I1 to I2 (199+40), I6 to I7 (7+70), I8 to I9 (6+20), I10 to I11 (1+70), I12 to I13 (5+60), I14 to I15 (9+80)					342.10	x	\$7,372.26	\$7,372.26	
					230.40	x	\$17.52	\$4,036.61	
ROAD SEGMENT I1 to I2									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta. 0+00 to 199+40	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				Volume (CY) per	Number of				
Subgrade Leveling	3/4"-0" Crushed	I1 to I2	N/A	N/A	N/A	N/A	176	\$5.05	\$889
Subgrade Reinforcement	1 1/2"-0" Crushed	137+70 to 143+70	N/A	N/A	N/A	N/A	66	\$5.05	\$333
Surfacing Rock	3/4"-0" Crushed	I1 to I2	3	station	24	stations	4,786	\$5.05	\$24,167
Curve Widening	3/4"-0" Crushed	I1 to I2	3	N/A	N/A	N/A	55	\$5.05	\$278
Turnouts	3/4"-0" Crushed	I1 to I2	3	TO	22	TO's	550	\$5.05	\$2,778
Junctions	3/4"-0" Crushed	I1 & I2	3	Junction	22	Junctions	15	\$5.05	\$1,667
Total Rock for Road Segment:				I1 to I2			330	\$5.05	\$1,667
							5,963		\$30,111
ROAD SEGMENT I2 to I3									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta. 0+00 to 63+00	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				Volume (CY) per	Number of				
Subgrade Leveling	4"-0" Crushed	I2 to I3	N/A	N/A	N/A	N/A	99	\$5.05	\$500
Surfacing Rock	3/4"-0" Crushed	10+90, 29+70	N/A	N/A	N/A	stations	22	\$5.05	\$111
Culvert Bedding/Backfill	3/4"-0" Crushed	10+90, 29+70	N/A	Culvert	44	Culvert	88	\$5.05	\$444
Fill Replacement	6"-0" Pit Run	29+70	N/A	station	N/A	station	11	\$6.04	\$66
Dissipator	24"-6" Rip Rap	10+90	N/A	Dissipator	10	Dissipator	1	\$6.04	\$60
Total Rock for Road Segment:				I2 to I3			230		\$1,182
ROAD SEGMENT I4 to I5									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta. 0+00 to 2+70	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				Volume (CY) per	Number of				
Landing	6"-0" Pit-run	2+70	N/A	landing	30	landings	1	\$6.04	\$181
ROAD SEGMENT I6 to I7									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta. 0+00 to 7+70	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				Volume (CY) per	Number of				
Surfacing Rock	1 1/2"-0" Crushed	I6 to I7	3	station	19	stations	146	\$5.05	\$739
Landing	6"-0" Pit-run	7+70	N/A	landing	30	landings	1	\$6.04	\$181
Total Rock for Road Segment:				I6 to I7			176		\$920
ROAD SEGMENT I8 to I9									
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta. 0+00 to 6+20	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				Volume (CY) per	Number of				
Surfacing Rock	1 1/2"-0" Crushed	I8 to I9	3	station	19	stations	118	\$5.05	\$595
Subgrade Leveling	4"-0" Crushed	I8 to I9	N/A	N/A	N/A	stations	22	\$5.05	\$111
Landing	6"-0" Pit-run	6+20	N/A	landing	30	landings	1	\$6.04	\$181
Total Rock for Road Segment:				I8 to I9			170		\$887

CRUSHED ROCK COST

SALE NAME: Buena Vista
PROJECT: Project No. 1
QUARRY: Northrup

MATERIAL: Crushed

DATE: 04/11/2012
BY: D.Bangs

[illegible]

ROCK HAUL:

Truck type: D20 No. trucks:
 Delay min.: 8 Efficiency: 85%

Ave haul:	\$3.82	/cy
Load:	\$0.45	/cy
Spread:	\$0.78	/cy

Truck type:	<u>D12</u>	No. trucks:	<u>6</u>
Delay min.:	<u>6</u>	Efficiency:	<u>85%</u>

Truck type: D10 No. trucks:
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 918

CRUSHED ROCK HAUL COSTS 6,978 cy @ \$5.05 /cy

MATERIAL: Pit Run/Rip Rap

DATE: 04/11/2012
BY: D.Bangs

ROCK HAUL:

Ave haul:	\$4.47	/cy
Load:	\$0.56	/cy
Spread:	\$1.01	/cy

Production: cy/day = 783

PIT RUN ROCK HAUL COSTS

441 cy @ \$6.04 /cy

SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. <u>2</u>	Timber Sale Name: <u>Buena Vista</u>
Quarry: <u>Northrup</u>	Swell: _____
Location: <u>SE 1/4, SE 1/4, Section 17, T6N, R6W</u>	Shrink: <u>16%</u>
County: <u>Clatsop</u>	
By: <u>d.mellison</u>	Loading Hopper: <u>No</u>
Date: <u>03/19/12</u>	

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
3/4"-0"	5%	CR	2,500	6,007	8,907
1-1/2"-0"	5%	CR		546	546
4"-0"	3%	CR	7,500	425	9,125
6"-0"		PR		431	431
24"-6"		RR		10	10
36"		RR			
TOTAL CUBIC YARDS OF ROCK:			10,000	7,419	19,019

1) MOBILIZATION & SET UP:

EQUIPMENT	QUANTITY	RATE	COST	EQUIPMENT	QUANTITY	RATE	COST
Dump Trucks		\$141		Off Highway Dump Truck		\$515	
Screening Plants	1	\$515	\$515	Screening Plant		\$515	
D8 Cat	1	\$1,220	\$1,220	Loading Hopper		\$515	
D6 Cat	1	\$675	\$675	Loader	1	\$699	\$699
Drill & Compressor	1	\$1,180	\$1,180				
Powder	1	\$327	\$327	3 Stage Crusher	1	\$2,694	\$2,694
Dump Trucks		\$141					
Excavator	1	\$1,220	\$1,220	Excavator		\$1,220	

SUB TOTAL FOR MOBILIZATION

\$8,531

EQUIPMENT SET UP	TIMES	RATE	COST
3 Stage Crusher	1	\$3,205	\$3,205
Screening Plants	1	\$273	\$273
Loading Hopper		\$273	
Original Calibration	1	\$507	\$507

SUB TOTAL FOR SET UP COSTS

\$3,985

TOTAL MOBILIZATION & SET UP COSTS

\$12,516

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST
Clear, Grub, Pile, and Burn	0.162	acres	\$2,345	\$380
Load and haul to burn area	4	hours	\$217	\$868
Move-in Fire Truck for the burning of the Clearing Debris	1.0	ea	\$141	\$141

TOTAL CLEARING & GRUBBING COSTS

\$1,389

8) STOCKPILING

STOCKPILE SITE PREPARATION

Equipment	Hours	Rate	Total
Dozer		\$105.00	
Compactor		\$72.00	
Grader	2	\$93.00	\$186.00
Excavator		\$144.00	

Rock for Floor (CY)	\$/CY Haul	Total

\$186.00

SUB TOTAL

\$186

HAUL & STOCKPILE

STOCKPILE LOCATION

	SIZE	# of TRUCKS	CU. YDS.	RATE	COST
1. Cow Creek	3/4"-0"	6	2,900	\$4.14	\$12,006
2.					
3. Cow Creek	4"-0"	7	8,700	\$3.49	\$30,335
4.					
5.					
6.					

SUB TOTAL

\$42,342

TOTAL STOCKPILING COSTS

\$42,528

9) MISCELLANEOUS COSTS

DESCRIPTION	COST
Load, Haul, and Spread the reject material at the waste area.	\$1,724
\$2.31 /CY 746 CY	
Waterbar access road and equipment access trail, and slope quarry floor to drain:	
D8 Tractor 3 hrs. \$147 /hr	\$441

TOTAL MISCELLANEOUS COSTS

\$2,165

10) GRAND TOTAL:

\$175,618

\$/Cubic Yard

\$9.45

Footnotes:

Date: 03/15/12

ROAD SEGMENT	SEGMENT NAME	SEG. LENGTH	COST		ROAD SEGMENT	SEGMENT NAME	SEG. LENGTH	COST
B1	Sarjarvie Ridge	3.175	\$3,016		B51		0.165	\$140
B2		0.122	\$104		B52	(does not exist)	0	\$0
B3		0.192	\$298		I1 to I3	Bovine Mainline	4.969	\$3,727
B4		0.066	\$50		B53		0.118	\$101
B5		0.198	\$149		B54		0.240	\$204
B6	Gilmore Road	1.004	\$853		B55		0.477	\$358
B7		0.284	\$241		I4 to I5		0.051	\$43
B8		0.481	\$409		I6 to I7		0.146	\$161
B9		0.096	\$72		I8 to I9		0.117	\$129
B10		0.466	\$513		B56		0.522	\$705
B11		0.262	\$288		B57		0.044	\$59
B12		0.294	\$323		I10 to I11		0.076	\$65
B13		0.032	\$35		I12 to I13		0.105	\$116
B14		0.371	\$408		I14 to I15		0.186	\$158
B15		0.129	\$142		B58		0.104	\$114
B16	(does not exist)	0	\$0		B59		0.015	\$11
B17		0.423	\$360		B60		0.598	\$449
B18		0.239	\$203		B61		0.216	\$184
B19		0.959	\$1,055		B62		0.020	\$17
B20		0.109	\$104		B63		0.071	\$60
B21		0.408	\$551		B64		0.089	\$76
B22		0.170	\$145		B65		0.214	\$235
B23		0.165	\$182		B66		0.066	\$73
B24		0.984	\$935		B67		0.053	\$80
B25		1.043	\$887		B68		0.266	\$399
B26		0.328	\$279		B69		0.080	\$120
B27		0.246	\$209		I16 to I17		0.870	\$1,175
B28		0.484	\$653		B70		0.362	\$489
B29	Sarajarvie Creek Rd	3.235	\$2,426		B71		0.036	\$27
B30		0.190	\$162		B72		0.049	\$37
B31		0.177	\$150		B73		0.792	\$594
B32		0.649	\$487		B74		0.090	\$135
B33		0.082	\$41		B75		0.342	\$462
B34		1.201	\$901		B76		0.025	\$34
B35		0.562	\$281		B77		0.041	\$55
B36		0.046	\$23		B78		0.745	\$1,006
B37		0.390	\$293		B79		0.077	\$104
B38		0.093	\$47		B80		0.138	\$117
B39	XOVER	0.295	\$148		B81		0.066	\$56
B40		0.394	\$335		B82		0.162	\$243
B41		0.147	\$125		B83		0.023	\$20
B42		0.030	\$15		B84		0.040	\$44
B43		0.708	\$354		B85		0.024	\$20
B44		0.042	\$46					
B45		0.024	\$12		TOTAL		35.153	\$31,887
B46		0.036	\$34					
B47		0.098	\$132					
B48		0.677	\$575					
B49		0.133	\$126					
B50		0.324	\$308					

Road Maintenance after completion of Projects

Sale: Buena Vista
Date: 11-Apr-12
By: D.Bangs *PZ*
 (Foster Mainline and Northrup Creek Road)

Type	Equipment/Rationale	Move in Rate	Hours	Rate	Cost
Post- Project Road Maintenance	Grader 14G (onsite)		10	\$93	\$930
	Dump Truck 12CY (2 trucks, onsite)		4	\$73	\$292
	FE Loader C966 (onsite)		4	\$77	\$308
	Vibratory Roller (onsite)		10	\$94	\$940
	Water Truck 2500 gallon (onsite)		10	\$83	\$830
Total					\$3,300

Production Rates	Miles/day	Distance(miles)	Days
Grader	1.5	1.5	1.0

Road Maintenance Cost Summary

Sale: Buena Vista
 Date: 11-Apr-12
 By: D.Bangs

MBF: 7.178
 \$\$/MBF: \$2.79

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	Production Rates			
Progressive Operations 1st Entry	Grader 14G	\$675	1	20	\$90	\$2,475	Production Rates	Miles/day	Distance(miles)	Days
	Dump Truck 10CY x 2	\$282	2	8	\$73	\$1,450	Grader	2.5	3.5	1.4
	FE Loader C966	\$675	1	8	\$74	\$1,267				
Final Road Maintenance	Grader 14G	\$675	1	40	\$90	\$4,275	Production Rates	Miles/day	Distance(miles)	Days
	Dump Truck 10CY x 3	\$423	3	8	\$73	\$2,175	Grader	1.5	5.9	3.9
	FE Loader C966	\$675	1	8	\$74	\$1,267	Vibratory Roller*	1.5	5.9	3.9
	Vibratory Roller	\$675	1	40	\$72	\$3,555				
	Water Truck 2,500 gallon	\$165	1	40	\$78	\$3,285				
	Labor	\$0	1	8	\$38	\$304				
Total										\$20,053

*Final Road Maintenance Only

**Buena Vista
TIMBER CRUISE REPORT
FY 2012**

1. Sale Area Location: Areas 1 through 4 are located in portions of Sections 4, 5, and 8, T6N, R6W, and portions of Section 33, T7N, R6W, W.M. Clatsop County, OR.

2. **Fund Distribution:** BOF 100%
Tax Code 8-01 (85.5%)
30-05 (14.5%)

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Existing R/W	GTRA	New R/W	Stream Buffer	Net Acres	Survey Method
1	Modified Clearcut	87.0	0.5	0.0	0.5	8.0	78.0	GIS
2	Modified Clearcut	67.0	9.0	0.0	0.0	2.0	56.0	GIS
3	Modified Clearcut	36.0	0.5	4.0	0.5	8.0	23.0	GIS
4	Right-of-Way	1.0	0.0	0.0	0.0	0.0	1.0	GIS
TOTALS		191.0	10.0	4.0	1.0	18.0	158.0	

4. **Cruisers and Cruise Dates:**

All areas were cruised by Jasen McCoy, Derek Bangs, Kevin Berry, Ty Williams, and Dave Rygell on 3/23/2012 and 3/27/2012.

5. **Cruise Method and Computation:**

Areas 1 and 2 are modified clearcut units and were variable plot cruised using a 40 BAF. These plots are located on a 3 chain by 11 chain grid, with every third plot measured and graded. A total of 43 plots were sampled, with 16 measured and graded plots, and 27 count plots.

Area 3 is a modified clearcut unit and was variable plot cruised using a 40 BAF. The plots are located on a 2 chain by 4 chain grid, with every third plot measured and graded. A total of 32 plots were sampled, with 11 measured and graded plots, and 21 count plots.

Area 4 (Right-of-Way) is one acre of in-sale right-of-way Cruise volume from Areas 1 and 2 was applied to this acre.

All cruisers used Corvallis MicroTechnology (CMT) data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

AREA	CRUISE	TRACT	TYPE	ACRES
1 and 2	VISTA	AREA12	TAKE	134
3	VISTA	AREA 3	TAKE	23
4	VISTA	AREA 5	R/W	1

6. **Timber Description:**

Areas 1 and 2 are modified clearcut units, approximately 60 to 70 year-old, consisting of Douglas-fir, with scattered red alder and a minor component of western hemlock. The average Douglas-fir tree size to be harvested is 22 inches DBH, with an average height of 98 feet to a merchantable top (6 inch d.i.b.). The average red alder tree size is 15 inches DBH and 59 feet to a merchantable top (6 inch d.i.b.). The average volume per acre to be harvested (net) is 46.0 MBF.

Area 3 is a modified clearcut unit, approximately 60 to 70 year-old, consisting of Douglas-fir and red alder, with a minor component of western hemlock. The average Douglas-fir tree size to be harvested is 20 inches DBH, with an average height of 75 feet to a merchantable top (6 inch d.i.b.). The average red alder tree size

is 16 inches DBH and 54 feet to a merchantable top (6 inch d.i.b.). The average volume per acre to be harvested (net) is 41.6 MBF.

Area 4 R/W is one acre located within Areas 1 and 3. Volume includes all trees located with the right-of-way boundary. The average net volume per acre to be harvested in this area is 46.0 MBF.

7. Statistical Analysis and Stand Summary

Statistics for Stand B.F. volumes

Area	Estimated CV	Target SE%	Actual CV	Actual SE%
1 and 2	45%	10%	40.6%	6.2%
3	60%	13%	37.6%	6.6%

8. Volumes by Species and Log Grade:

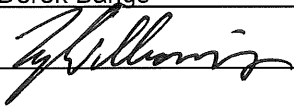
Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	Camp Run	% D & B	% Sale
Douglas-fir	21"	6,204	4,963	1,104	137		3%	86%
Hemlock/True-fir	14"	140	98	25	17		10%	2%
Sitka Spruce	15"	18		18			<1%	<1%
Red Alder/other hardwoods	16"	816				816	7%	11%
TOTALS		7,178	5,061	1,147	154	816		

9. Approvals:

Prepared by: Derek Bangs

Date: 4-5-12

Unit Forester Approval: 

Date: 4/23/12

10. Attachments:

Cruise Designs and Maps - 6 pages
Volume Reports - 4 pages
Statistics Reports - 3 pages
Log Stock Tables -3 pages
Stand Table Summary – 2 pages

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Buena Vista **Area(s)** 1 and 2

Harvest Type: (MC) "Modified Clearcut"

Approx. Cruise Acres: 134 **Estimated CV%** 45% Net BF **SE% Objective** 10 Net BF

Planned Sale Volume : 5,628 MBF **Estimated Sale Area Value/Acre:** \$12,600/Ac
(Sale Areas 1 & 2) (42 MBF/Ac.)

- A. Cruise Goals:** (a) Grade minimum 75 conifer and 25 Alder:
(b) Sample 44 cruise plots (15 grade/ 29 count); (c) Other goals (Determine
"automark" thinning standards; X Determine log grades for sale value; X
Determine snag and leave tree species and sizes.

B. Cruise Design:

- 1. Plot Cruises:** BAF 40 (Full point; Half point) (circle one)
Cruise Line Direction(s) Area 1: AZ= 90° (West/East)
Area 2: AZ= 360° (North/South)
Cruise Line Spacing 11 (chains)
Cruise Plot Spacing 3 (chains)
Grade/Count Ratio 1/2

Cedar and marked wildlife trees are leave trees and are recorded as such. Record snags as SN and estimate heights and diameters. Grade alder as camprun (30 net BF minimum). If plot lands in buffer or road then offset at least one chain and continue.

C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.
6. **Species, Sort, and Grade Codes:**
- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)
- B. Sort: Use code "1" (Domestic).
- C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camprun; 0 = Cull
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
9. **Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Derek Bangs
Approved by: 
Date: 02/13/12

Cruise Map

OF TIMBER SALE CONTRACT NO. 341-12-53
BUENA VISTA
PORTIONS OF SECTION 33, T7N, R6W, AND
SECTIONS 4, 5, AND 8, T6N, R6W, W.M.,
CLATSOP COUNTY, OREGON
Approximate Scale: 1"=1,000'



Area 1 (MC) - 78 Acres
Area 2 (MC) - 56 Acres
Area 3 (MC) - 24 Acres
Total Sale Acres =161

Legend

- Existing Surfaced Road
- Vacated Road
- Type F Stream
- Nonfish
- Unknown
- New_Road_Construction
- GTRA
- Buffer_Zone
- Gross_Sale_Area
- Stream_Buff_25

0 375 750 1,500 2,250 Feet

Line 8

Line 7

Line 6

Line 5

Line 4

Line 3

Line 2

Line 1

DB 06

DB 05

DB 04

DB 03

DB 07

DB 08

DB 09

DB 10

DB 02

DB 01

KB 16

KB 17

KB 18

KB 19

JM 14

JM 13

JM 12

JM 11

JM 10

JM 09

JM 01

JM 02

JM 03

JM 04

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JM 07

JM 08

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KB 11

KB 10

KB 09

KB 08

KB 13

KB 14

KB 15

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Buena Vista **Area(s)** 3

Harvest Type: (MC) "Modified Clearcut"

Approx. Cruise Acres: 24 **Estimated CV%** 60% Net BF **SE% Objective** 13 Net BF

Planned Sale Volume : 1,386 MBF **Estimated Sale Area Value/Acre:** \$12,600/Ac
(Sale Area 3) (42 MBF/Ac.)

A. Cruise Goals: (a) Grade minimum 50 conifer and 15 Alder:
(b) Sample 32 cruise plots (11 grade/ 21 count); (c) Other goals (____ Determine
"automark" thinning standards; X Determine log grades for sale value; X
Determine snag and leave tree species and sizes.

B. Cruise Design:

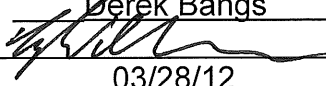
1. Plot Cruises: BAF 40 (Full point; Half point) (circle one)
Cruise Line Direction(s) Area 3: AZ= 90° (West/East)
Cruise Line Spacing 4 (chains)
Cruise Plot Spacing 2 (chains)
Grade/Count Ratio 1/2

Cedar and marked wildlife trees are leave trees and are recorded as such. Record snags as SN and estimate heights and diameters. Grade alder as camprun (30 net BF minimum). If plot lands in buffer or road then offset at least one chain and continue.

C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.
6. **Species, Sort, and Grade Codes:**
- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)
- B. Sort: Use code "1" (Domestic).
- C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camprun; 0 = Cull
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
9. **Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

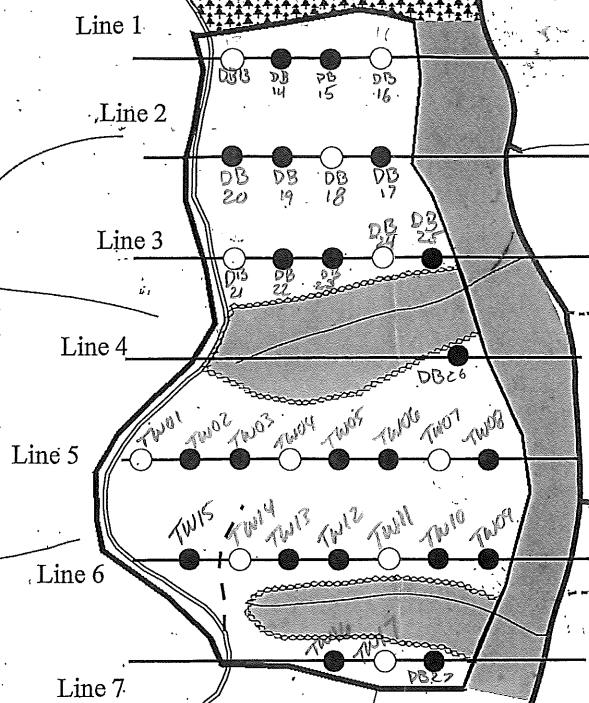
Cruise Design by: Derek Bangs
Approved by: 
Date: 03/28/12

Cruise Map

OF TIMBER SALE CONTRACT NO. 341-12-53
BUENA VISTA
PORTIONS OF SECTION 33, T7N, R6W, AND
SECTIONS 4, 5, AND 8, T6N, R6W, W.M.,
CLATSOP COUNTY, OREGON

Approximate Scale: 1"= 500'

Area 1 (MC) - 78 Acres
Area 2 (MC) - 56 Acres
Area 3 (MC) - 24 Acres
Total Sale Acres =161



Legend

- Existing Surfaced Road
- Vacated Road
- Type F Stream
- Nonfish
- Unknown
- New Road Construction
- GTRA
- Buffer_Zone
- Gross_Sale_Area
- Stream_Buff_25

0 375 750 1,500 2,250 Feet

TC		PSPCSTGR Species, Sort Grade - Board Foot Volumes (Project)																		
T06N R06W S05 TyROW1.00 T06N R06W S05 TyTAKE134.00 T07N R06W S33 TyTAKE23.00		Project: VISTA										Page 1								
		Acres 158.00										Date 4/5/2012								
												Time 8:34:36AM								
S Spp	So Gr T rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre		
							Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf			
			Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
D	DOCU		100.0	857										9		0.00	12.0			
D	DO2S	80	1.1	31,764	31,411	4,963		5	52	43		2	4	8	87	38	353	1.99	88.9	
D	DO3S	17	.1	6,998	6,988	1,104			92	8		1	5	33	61	35	97	0.79	71.9	
D	DO4S	3		869	869	137			100			40	38	22		23	30	0.47	29.2	
D Totals		86	3.0	40,487	39,268	6,204			22	43	34		2	5	12	80	33	194	1.35	202.2
A	DOCU		100.0	361												11		0.00	4.1	
A	DOCR	100		4,927	4,927	778			68	31	2		7	26	25	42	30	88	0.85	56.0
A Totals		11	6.8	5,287	4,927	778			68	31	2		7	26	25	42	28	82	0.83	60.0
S	DO3S	100		117	117	18			100				17		83	31	90	0.79	1.3	
S Totals		0		117	117	18			100				17		83	31	90	0.79	1.3	
M	DOCR	100		235	235	37			69	31			17	31	53	27	56	0.62	4.2	
M Totals		1		235	235	37			69	31			17	31	53	27	56	0.62	4.2	
H	DOCU		100.0	87												40		0.00	.1	
H	DO2S	69	.5	623	620	98				47	53				100	32	376	2.32	1.7	
H	DO3S	18	4.1	164	157	25			100			4	0	34	62	35	94	0.83	1.7	
H	DO4S	13		110	110	17			100			54		46		20	28	0.36	4.0	
H Totals		2	9.9	984	887	140			30	33	37		7	0	81	11	26	119	1.02	7.4
Totals			3.6	47,110	45,433	7,178			28	41	31		3	7	15	74	32	165	1.23	275.1

T		Species, Sort Grade - Board Foot Volumes (Type)										Page		1					
TSPCSTGR		Project: VISTA										Date		4/5/2012					
												Time		8:35:52AM					
T06N R06W S05 TTAKE										T06N R06W S05 TTAKE									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
06N	06W	05	AREA12	TAKE	134.00	43	90	1	W										
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
D	DO	CU		100.0	835											6		0.00	12.0
D	DO	2S	80	1.1	33,061	32,685	4,380	5	53	42		2	4	6	89	38	354	1.98	92.3
D	DO	3S	18	.2	7,274	7,263	973	91	9			1	5	31	63	35	97	0.79	74.9
D	DO	4S	2		760	760	102	100				43	32	25		22	29	0.47	26.1
D Totals			88	2.9	41,930	40,708	5,455	22	44	34		2	5	11	83	33	198	1.37	205.4
A	DO	CU		100.0	422											11		0.00	4.7
A	DO	CR	100		4,284	4,284	574	68	32			9	32	23	36	29	82	0.81	52.0
A Totals			9	9.0	4,706	4,284	574	68	32			9	32	23	36	27	76	0.78	56.7
H	DO	2S	84		696	696	93		44	56				100		32	384	2.34	1.8
H	DO	3S	7	11.4	69	61	8	100						100		32	67	0.81	.9
H	DO	4S	9		70	70	9	100				100				16	20	0.31	3.5
H Totals			2	.9	835	827	111	16	37	47		8		92		23	133	1.23	6.2
M	DO	CR	100		130	130	17	35	65			35	65			20	64	1.05	2.0
M Totals			0		130	130	17	35	65			35	65			20	64	1.05	2.0
S	DO	3S	100		136	136	18	100					17	83		31	90	0.79	1.5
S Totals			0		136	136	18	100					17	83		31	90	0.79	1.5
Type Totals					3.5	47,737	46,085	6,175	27	43	31	3	7	13	76	31	169	1.26	271.9

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page 1						
		Project: VISTA												Date 4/5/2012						
														Time 8:34:57AM						
T07N R06W S33 TTAKE												T07N R06W S33 TTAKE								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt											
07N	06W	33	AREA3	TAKE	23.00	32	71	1	W											
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
			Log Scale Dia.					Log Length				Ln	Bd	CF/ Lf						
D DO CU				00.0	983											26		0.00		12.0
D DO 2S			77	.9	24,149	23,931	550		5	47	48	1	5	22	71	37	347	2.06		69.0
D DO 3S			18		5,377	5,377	124	100				0	8	51	41	34	99	0.82		54.3
D DO 4S			5		1,508	1,508	35	100				31	57	12		23	32	0.47		47.5
D Totals			74	3.8	32,017	30,816	709		26	37	37	3	8	27	62	32	169	1.25		182.8
A DO CR			100		8,700	8,700	200		65	29	6	1	7	32	61	33	110	0.97		79.4
A Totals			21		8,700	8,700	200		65	29	6	1	7	32	61	33	110	0.97		79.4
H DO CU				00.0	601											40		0.00		.7
H DO 2S			14	10.7	200	179	4			100				100		32	250	2.09		.7
H DO 3S			58		714	714	16	100				6			94	37	117	0.85		6.1
H DO 4S			28		344	344	8	100						100		33	50	0.42		6.9
H Totals			3	33.5	1,859	1,237	28		86	14		3		42	54	35	86	0.67		14.4
M DO CR			100		852	852	20		100					100		32	50	0.44		17.0
M Totals			2		852	852	20		100					100		32	50	0.44		17.0
Type Totals				4.2	43,429	41,605	957		37	34	29	2	8	30	61	32	142	1.09		293.7

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page 1						
Project: VISTA										Date 4/5/2012								
										Time 8:56:51AM								
T06N R06W S05 TROW										T06N R06W S05 TROW								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt									
06N	06W	05	AREA12	ROW	1.00	43	91	1	W									
S So Gr Spp T rt ad		% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
							Log Scale Dia.				Log Length				Ln	Bd	CF/	
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	Ft	Lf	
D	DO	CU		00.0	835										6		0.00	12.0
D	DO	2S	80	1.1	33,061	32,685	33	5	53	42	2	4	6	89	38	354	1.98	92.3
D	DO	3S	18	.2	7,274	7,263	7	91	9		1	5	31	63	35	97	0.79	74.9
D	DO	4S	2		760	760	1	100			43	32	25		22	29	0.47	26.1
D Totals		88	2.9	41,930	40,708	41	22	44	34		2	5	11	83	33	198	1.37	205.4
A	DO	CU		00.0	422										11		0.00	4.7
A	DO	CR	100		4,284	4,284	4	68	32		9	32	23	36	29	82	0.81	52.0
A Totals		9	9.0	4,706	4,284	4	68	32			9	32	23	36	27	76	0.78	56.7
H	DO	2S	68		626	626	1		44	56			100		32	384	2.34	1.6
H	DO	3S	25	3.0	232	225	0	100				15	85		29	73	0.74	3.1
H	DO	4S	7		63	63	0	100			100				16	20	0.31	3.2
H Totals		2	.8	922	915	1	32	30	38		7	4	89		24	116	1.06	7.9
M	DO	CR	100		130	130	0	35	65		35	65			20	64	1.05	2.0
M Totals		0		130	130	0	35	65			35	65			20	64	1.05	2.0
S	DO	3S	100		136	136	0	100				17	83		31	90	0.79	1.5
S Totals		0		136	136	0	100					17	83		31	90	0.79	1.5
Type Totals				3.5	47,824	46,173	46	27	42	31	3	7	13	76	31	169	1.25	273.6

TC PSTATS		PROJECT STATISTICS						PAGE	1		
		PROJECT		VISTA				DATE	4/5/2012		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	06	05	AREA12	ROW	158.00	118	705	1	W		
06N	06W	05	AREA12	TAKE							
07N	06W	33	AREA3	TAKE							
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			118	705	6.0						
CRUISE			43	250	5.8	18,095	1.4				
DBH COUNT											
REFOREST											
COUNT			75	435	5.8						
BLANKS											
100 %											
STAND SUMMARY											
SAMPLE TREES			TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR			191	73.1	21.4	94	181.9	40,487	39,268	9,136	8,973
R ALDER			42	31.3	15.6	58	41.7	5,287	4,927	1,465	1,399
WHEMLOCK			10	5.3	14.0	39	5.6	984	887	217	200
BL MAPLE			5	4.2	13.2	28	4.0	235	235	71	71
S SPRUCE			2	.6	15.0	64	.8	117	117	32	32
TOTAL			250	114.5	19.4	79	234.1	47,110	45,433	10,921	10,675
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		59.2	4.3	667	697	727					
R ALDER		66.3	10.2	174	193	213					
WHEMLOCK		119.5	39.8	304	504	704					
BL MAPLE		79.1	39.3	52	86	120					
S SPRUCE				180	180	180					
TOTAL		73.6	4.7	561	588	615	217	54	24		
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		132.0	12.1	64	73	82					
R ALDER		242.2	22.3	24	31	38					
WHEMLOCK		445.6	41.0	3	5	7					
BL MAPLE		364.3	33.5	3	4	6					
S SPRUCE		1078.2	99.2	0	1	1					
TOTAL		111.5	10.3	103	115	126	497	124	55		
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		130.5	12.0	160	182	204					
R ALDER		233.0	21.4	33	42	51					
WHEMLOCK		409.8	37.7	4	6	8					
BL MAPLE		398.7	36.7	3	4	5					
S SPRUCE		1078.2	99.2	0	1	2					
TOTAL		111.9	10.3	210	234	258	500	125	56		
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		133.0	12.2	34,464	39,268	44,072					
R ALDER		238.6	21.9	3,845	4,927	6,008					
WHEMLOCK		531.6	48.9	453	887	1,321					
BL MAPLE		368.2	33.9	156	235	315					
S SPRUCE		1078.2	99.2	1	117	232					
TOTAL		120.2	11.1	40,410	45,433	50,456	577	144	64		

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT		VISTA		DATE	4/5/2012		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	06W	05	AREA12	TAKE	134.00	43	246	1	W		
			PLOTS	TREES	TREES	ESTIMATED TOTAL	PERCENT SAMPLE				
				PER PLOT		TREES	TREES				
TOTAL		43	246	5.7							
CRUISE		16	89	5.6		14,330		.6			
DBH COUNT											
REFOREST											
COUNT		27	147	5.4							
BLANKS											
100 %											
STAND SUMMARY											
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR		72	71.8	21.7	98		184.2	41,930	40,708	9,409	9,269
R ALDER		11	27.9	15.4	59		36.3	4,706	4,284	1,287	1,210
WHEMLOCK		3	4.4	13.9	34		4.7	835	827	176	176
BL MAPLE		2	2.0	15.8	21		2.8	130	130	43	43
S SPRUCE		1	.8	15.0	64		.9	136	136	37	37
TOTAL		89	106.9	19.8	84		228.8	47,737	46,085	10,953	10,736
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		58.8	6.9	677	727	777					
R ALDER		60.7	19.2	134	166	198					
WHEMLOCK		112.3	77.7	159	713	1,267					
BL MAPLE		96.8	90.6	9	95	181					
S SPRUCE											
TOTAL		71.4	7.6	589	637	685	203	51	23		
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		59.9	9.1	65	72	78					
R ALDER		178.3	27.2	20	28	35					
WHEMLOCK		363.0	55.3	2	4	7					
BL MAPLE		399.1	60.8	1	2	3					
S SPRUCE		655.7	99.9	0	1	2					
TOTAL		44.8	6.8	100	107	114	80	20	9		
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		53.9	8.2	169	184	199					
R ALDER		174.9	26.6	27	36	46					
WHEMLOCK		336.2	51.2	2	5	7					
BL MAPLE		369.5	56.3	1	3	4					
S SPRUCE		655.7	99.9	0	1	2					
TOTAL		36.5	5.6	216	229	242	53	13	6		
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		52.3	8.0	37,464	40,708	43,952					
R ALDER		179.7	27.4	3,111	4,284	5,456					
WHEMLOCK		398.6	60.7	325	827	1,329					
BL MAPLE		381.3	58.1	54	130	206					
S SPRUCE		655.7	99.9	0	136	273					
TOTAL		40.6	6.2	43,233	46,085	48,936	66	16	7		

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT VISTA				DATE	4/5/2012		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
07N	06W	33	AREA3	TAKE	23.00	32	212	1	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL			32	212	6.6						
CRUISE			11	71	6.5	3,657	1.9				
DBH COUNT											
REFOREST											
COUNT			21	141	6.7						
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			47	80.5	19.6	75	168.7	32,017	30,816	7,529	7,234
R ALDER			20	51.2	16.3	54	73.8	8,700	8,700	2,509	2,509
WHEMLOCK			3	10.3	14.2	52	11.3	1,859	1,237	456	337
BL MAPLE			1	17.0	11.0	33	11.3	852	852	239	239
TOTAL			71	159.0	17.5	62	265.0	43,429	41,605	10,733	10,318
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			59.0	8.6	552	604	656				
R ALDER			68.0	15.6	188	223	258				
WHEMLOCK			67.0	46.3	109	203	298				
BL MAPLE											
TOTAL			75.0	8.9	430	472	514	224	56	25	
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			79.9	14.1	69	80	92				
R ALDER			89.5	15.8	43	51	59				
WHEMLOCK			203.5	35.9	7	10	14				
BL MAPLE			206.6	36.5	11	17	23				
TOTAL			40.2	7.1	148	159	170	64	16	7	
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			63.6	11.2	150	169	188				
R ALDER			90.5	16.0	62	74	86				
WHEMLOCK			185.8	32.8	8	11	15				
BL MAPLE			206.6	36.5	7	11	15				
TOTAL			32.9	5.8	250	265	280	43	11	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			61.8	10.9	27,450	30,816	34,181				
R ALDER			93.0	16.4	7,271	8,700	10,130				
WHEMLOCK			192.7	34.0	816	1,237	1,658				
BL MAPLE			206.6	36.5	541	852	1,163				
TOTAL			37.6	6.6	38,839	41,605	44,372	57	14	6	

TC PLOGSTVB				Log Stock Table - MBF																
T06N R06W S05 TyROW1.00 T06N R06W S05 TyTAKE134.00 T07N R06W S33 TyTAKE23.00				Project: VISTA Acres158.00										Page 1 Date 4/5/2012 Time 9:18:39AM						
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+	
D		DO	CU	6	121	100.0														
D		DO	CU	10	2	100.0														
D		DO	CU	15	4	100.0														
D		DO	CU	40	9	100.0														
D		DO	2S	16	25		25	.4						25						
D		DO	2S	18	28		28	.5						28						
D		DO	2S	20	24	3.5	23	.4					16		7					
D		DO	2S	24	54		54	.9						36	9	8				
D		DO	2S	26	46		46	.7							46					
D		DO	2S	28	95		95	1.5						44		51				
D		DO	2S	30	11		11	.2							11					
D		DO	2S	32	366		365	5.9				90	170	32	62	12				
D		DO	2S	34	11		11	.2							11					
D		DO	2S	36	89		89	1.4						41		48				
D		DO	2S	40	4,254	1.3	4,201	67.7				138	481	1063	1678	668	174			
D		DO	2S	41	15		15	.2				15								
D		DO	3S	14	0		0	.0			0									
D		DO	3S	16	3		3	.1		3										
D		DO	3S	19	3		3	.1		3										
D		DO	3S	21	5		5	.1		5										
D		DO	3S	25	2		2	.0			2									
D		DO	3S	26	4		4	.1		4										
D		DO	3S	27	4		4	.1			2	2								
D		DO	3S	28	20		20	.3		8	5	7								
D		DO	3S	29	17		17	.3			17									
D		DO	3S	30	6		6	.1			6									
D		DO	3S	31	8		8	.1		7	1									
D		DO	3S	32	324		324	5.2		48	98	178								
D		DO	3S	33	7		7	.1		5		2								
D		DO	3S	34	9		9	.1			9									
D		DO	3S	35	19		19	.3		11	7									
D		DO	3S	36	34		34	.6		9		26								
D		DO	3S	37	29		29	.5		9	9	11								
D		DO	3S	38	27		27	.4		17		10								
D		DO	3S	39	2		2	.0			2									
D		DO	3S	40	574		573	9.2		114	144	253	30		32					
D		DO	3S	41	7		7	.1		7										

TC PLOGSTVB		Log Stock Table - MBF																	
T06N R06W S05 TyROW 1.00 T06N R06W S05 TyTAKE 134.00 T07N R06W S33 TyTAKE 23.00					Project: VISTA Acres 158.00					Page 2 Date 4/5/2012 Time 9:18:39AM									
Spp	S T	So Gr rt	Log de 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+
D		DO	4S	14	2		2	.0				2							
D		DO	4S	15	6		6	.1			6	0							
D		DO	4S	17	9		9	.1			5	4							
D		DO	4S	18	13		13	.2			13								
D		DO	4S	19	8		8	.1			8								
D		DO	4S	20	17		17	.3			13	4							
D		DO	4S	21	7		7	.1			5	2							
D		DO	4S	22	1		1	.0				1							
D		DO	4S	23	7		7	.1			7								
D		DO	4S	25	4		4	.1			4								
D		DO	4S	26	5		5	.1				5							
D		DO	4S	27	15		15	.2			15								
D		DO	4S	28	2		2	.0			2								
D		DO	4S	29	5		5	.1			5								
D		DO	4S	30	6		6	.1			6								
D		DO	4S	31	22		22	.3			22								
D		DO	4S	32	8		8	.1			8								
D		Totals			6,397	3.0	6,204	86.4			369	322	704	722	1136	1907	811	233	
A		DO	CU	4	8	100.0													
A		DO	CU	10	26	100.0													
A		DO	CU	16	23	100.0													
A		DO	CR	16	10		10	1.2			10								
A		DO	CR	18	8		8	1.1			8								
A		DO	CR	20	34		34	4.4					34						
A		DO	CR	21	5		5	.6			5								
A		DO	CR	22	51		51	6.6			6				45				
A		DO	CR	23	2		2	.3			2								
A		DO	CR	24	73		73	9.4			29		43						
A		DO	CR	26	53		53	6.8				30	23						
A		DO	CR	27	14		14	1.9			14								
A		DO	CR	30	2		2	.2				2							
A		DO	CR	32	194		194	24.9			15	43	71	64					
A		DO	CR	33	3		3	.3			3								
A		DO	CR	34	2		2	.2				2							
A		DO	CR	38	8		8	1.0					8						
A		DO	CR	40	320		320	41.1			37	106	68	65	12	33			

TC PLOGSTVB		Log Stock Table - MBF																		
T06N R06W S05 TyROW 1.00				Project: VISTA														Page 3		
T06N R06W S05 TyTAKE 134.00				Acres 158.00														Date 4/5/2012		
T07N R06W S33 TyTAKE 23.00																		Time 9:18:39AM		
Spp	S T	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+
A		Totals			835	6.8	778	10.8			130	183	213	163	12	78				
S		DO	3S	22	3		3	16.7			3									
S		DO	3S	40	15		15	83.3					15							
S		Totals			18		18	.3			3		15							
M		DO	CR	19	6		6	16.5			6									
M		DO	CR	23	11		11	30.7						11						
M		DO	CR	32	20		20	52.8			20									
M		Totals			37		37	.5			26			11						
H		DO	CU	40	14	100.0														
H		DO	2S	32	98		98	69.9					14	4	28	20	32			
H		DO	3S	18	1		1	.7					1							
H		DO	3S	24	0		0	.0			0									
H		DO	3S	32	9	11.2	8	6.0			4		4							
H		DO	3S	40	15		15	11.0			4		11							
H		DO	4S	16	9		9	6.8			9									
H		DO	4S	33	8		8	5.6			8									
H		Totals			156	9.9	140	2.0			26		16	14	4	28	20	32		
Total		All Species			7,443	3.6	7,178	100.0			553	505	949	899	1163	2012	831	265		

TC		PSTNDSUM		Stand Table Summary										Page		1	
														Date:		4/5/2012	
T06N R06W S05 TyROW1.00 T06N R06W S05 TyTAKE134.00 T07N R06W S33 TyTAKE23.00				ProjectVISTA Acres158.00										Time:		9:18:01AM	
														Grown Year:			
S Spec	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	
D		9	1	90	56	1.183	.52	1.18	9.0	30.0		11	35		17	6	
D		10	1	86	84	.958	.52										
D		11	1	91	45	.792	.52	.79	13.0	40.0		10	32		16	5	
D		12	3	88	90	3.448	2.71	6.23	14.6	53.4		91	333		143	53	
D		14	5	88	81	4.578	4.89	7.11	21.7	72.1		154	512		244	81	
D		15	2	89	110	1.781	2.19	3.56	26.0	105.0		93	374		146	59	
D		16	5	89	110	2.688	3.75	5.75	26.3	100.8		151	580		239	92	
D		17	5	90	124	3.105	4.89	7.60	30.0	121.8		228	925		361	146	
D		18	7	90	112	4.006	7.08	9.55	31.1	118.5		297	1,131		469	179	
D		19	6	89	127	3.330	6.56	9.99	33.0	132.2		330	1,321		521	209	
D		20	18	90	121	8.494	18.53	23.24	36.7	151.4		853	3,519		1,348	556	
D		21	16	89	128	6.796	16.35	19.48	41.9	173.8		816	3,385		1,290	535	
D		22	19	87	134	6.354	16.77	18.86	44.5	191.1		839	3,604		1,326	569	
D		23	17	88	136	5.846	16.87	17.54	49.7	210.0		872	3,683		1,378	582	
D		24	12	91	135	3.448	10.83	11.04	52.3	238.7		577	2,635		912	416	
D		25	13	90	136	3.666	12.50	11.00	56.6	263.4		622	2,897		983	458	
D		26	12	87	135	3.248	11.97	9.74	62.7	262.3		611	2,555		965	404	
D		27	5	88	138	.944	3.75	2.70	71.2	338.9		192	915		304	145	
D		28	18	88	151	3.800	16.25	10.89	82.4	395.0		898	4,301		1,418	680	
D		29	6	88	143	1.430	6.56	4.29	83.7	396.7		359	1,701		567	269	
D		30	6	87	141	1.104	5.42	3.31	84.3	390.5		279	1,293		441	204	
D		31	2	87	137	.199	1.05	.60	85.3	415.0		51	248		81	39	
D		32	2	89	153	.391	2.19	1.17	106.7	536.7		125	630		198	100	
D		33	5	89	153	.824	4.89	2.47	107.2	544.3		265	1,345		419	213	
D		34	2	88	139	.347	2.19	1.04	112.7	556.7		117	579		185	91	
D		35	2	89	158	.327	2.19	.98	133.3	746.7		131	733		207	116	
D		Totals	191	89	122	73.089	181.94	190.12	47.2	206.5		8,973	39,268		14,177	6,204	
A		12	2	86	47	1.367	1.07	1.37	16.0	50.0		22	68		35	11	
A		13	6	87	75	9.172	8.45	18.34	15.3	53.3		281	978		444	155	
A		14	6	87	84	4.645	4.97	8.28	22.2	76.8		184	636		290	101	
A		15	6	86	67	5.467	6.71	8.20	25.1	78.8		206	646		326	102	
A		16	2	86	81	.769	1.07	1.54	25.8	90.0		40	138		63	22	
A		17	6	86	104	4.257	6.71	8.51	31.2	110.5		266	941		420	149	
A		18	3	86	96	1.898	3.35	3.49	36.3	142.6		127	498		200	79	
A		19	2	87	80	.545	1.07	1.09	35.0	120.0		38	131		60	21	
A		20	2	87	100	1.292	2.82	2.58	41.5	185.0		107	478		169	76	
A		21	1	86	76	.223	.54	.22	71.0	240.0		16	54		25	8	
A		22	1	86	103	.203	.54	.41	58.5	225.0		24	92		38	14	
A		23	2	84	35	.977	2.82	.98	26.0	30.0		25	29		40	5	
A		24	1	86	87	.171	.54	.34	62.5	230.0		21	79		34	12	
A		25	1	87	82	.157	.54	.31	63.5	225.0		20	71		32	11	
A		26	1	86	92	.146	.54	.29	76.5	300.0		22	87		35	14	
A		Totals	42	86	79	31.289	41.73	55.97	25.0	88.0		1,399	4,927		2,211	778	
H		9	2	82	20	2.996	1.32	3.00	5.0	20.0		15	60		24	9	
H		10	1	85	66	1.001	.55	1.00	14.0	50.0		14	50		22	8	
H		15	1	89	76	.007	.01	.01	20.0	75.0		0	1		0	0	
H		16	1	87	116	.391	.55	.78	33.5	125.0		26	98		41	15	
H		21	2	86	119	.550	1.32	1.65	41.0	176.7		68	292		107	46	
H		31	1	86	112	.104	.55	.21	42.5	155.0		9	32		14	5	
H		33	2	88	121	.223	1.32	.67	101.7	530.0		68	354		107	56	
H		Totals	10	84	52	5.273	5.62	7.32	27.3	121.2		200	887		316	140	

TC PSTNDSUM		Stand Table Summary								Page Date:		2 4/5/2012					
T06N R06W S05 TyROW 1.00 T06N R06W S05 TyTAKE 134.00 T07N R06W S33 TyTAKE 23.00					Project		VISTA		Time:		9:18:01AM						
					Acres		158.00		Grown Year:								
S Spec	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s			
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
M		11	1	86	51	2.481	1.64	2.48	14.0	50.0		35	124		55	20	
M		13	2	74	24	1.293	1.19	1.29	13.0	30.0		17	39		27	6	
M		22	2	87	35	.452	1.19	.45	44.0	160.0		20	72		31	11	
M		Totals		5	82	41	4.227	4.02	4.23	16.9	55.6		71	235		113	37
S		15	2	89	85	.648	.79	1.30	24.5	90.0		32	117		50	18	
S		Totals		2	89	85	.648	.79	1.30	24.5	90.0		32	117		50	18
Totals		250		88	104	114.525	234.11	258.93	41.2	175.5		10,675	45,433		16,867	7,178	

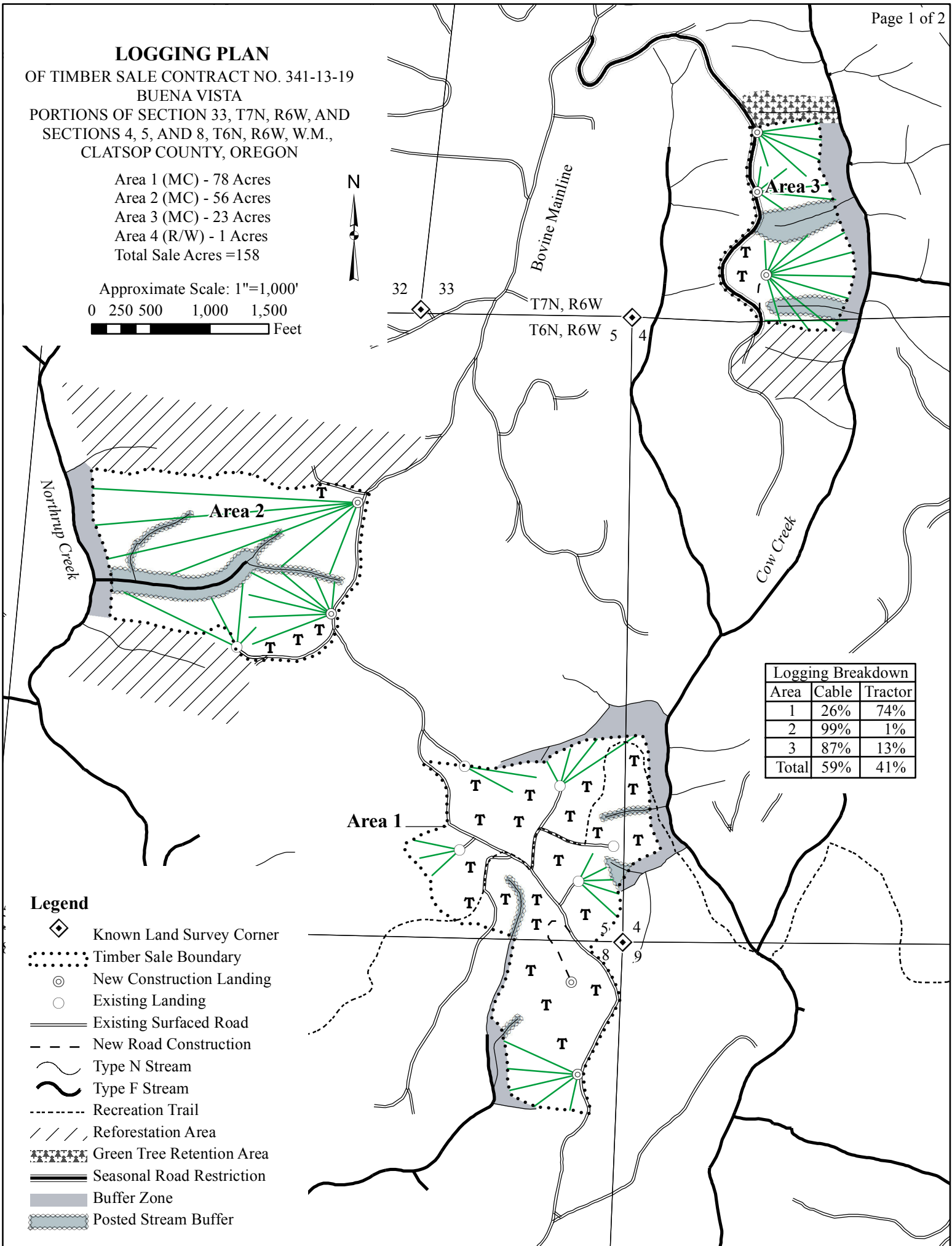
LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-13-19
 BUENA VISTA
 PORTIONS OF SECTION 33, T7N, R6W, AND
 SECTIONS 4, 5, AND 8, T6N, R6W, W.M.,
 CLATSOP COUNTY, OREGON

Area 1 (MC) - 78 Acres
 Area 2 (MC) - 56 Acres
 Area 3 (MC) - 23 Acres
 Area 4 (R/W) - 1 Acres
 Total Sale Acres = 158

Approximate Scale: 1"=1,000'

0 250 500 1,000 1,500
 Feet



Logging Breakdown		
Area	Cable	Tractor
1	26%	74%
2	99%	1%
3	87%	13%
Total	59%	41%

Legend

- Known Land Survey Corner
- Timber Sale Boundary
- New Construction Landing
- Existing Landing
- Existing Surfaced Road
- New Road Construction
- Type N Stream
- Type F Stream
- Recreation Trail
- Reforestation Area
- Green Tree Retention Area
- Seasonal Road Restriction
- Buffer Zone
- Posted Stream Buffer

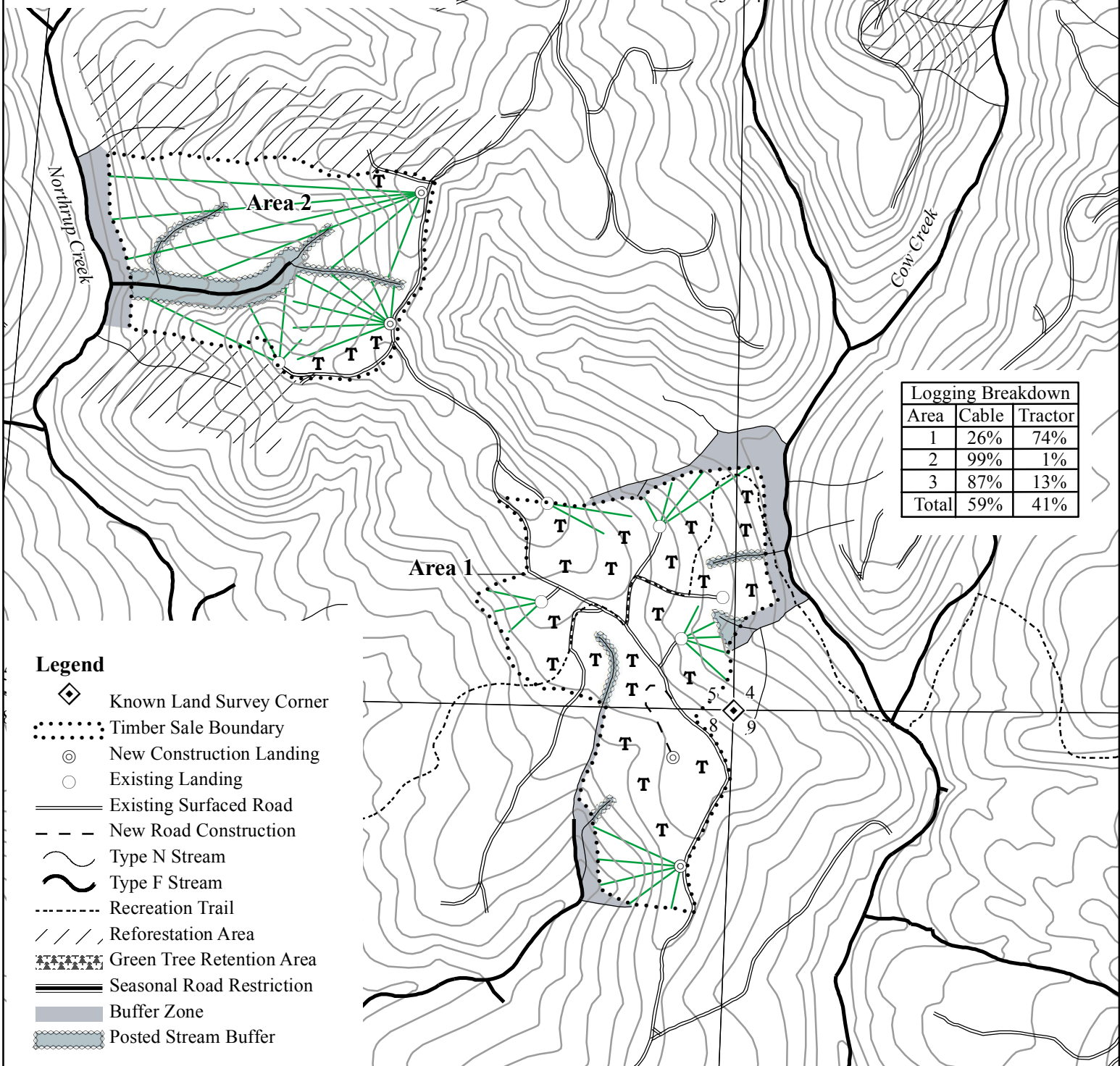
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 Feet

**Legend**

-  Known Land Survey Corner
-  Timber Sale Boundary
-  New Construction Landing
-  Existing Landing
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