



Timber Sale Appraisal
Scratchit View
Sale 341-12-47

"STEWARDSHIP IN FORESTRY"

District: Astoria

Date: March 05, 2012

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$999,630.62	\$356,634.16	\$1,356,264.78
Project Work:			\$(143,505.00)
Advertised Value:			\$1,212,759.78



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timber description

Location: Portions of Sections 14, 15, 22, and 23, T4N, R8W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	23	0	97
Western Hemlock / Fir	18	0	96
Sitka Spruce	14	0	95
Alder (Red)	16	0	95
Maple	14	0	94

Volume by Grade	2S	3S	4S	Camprur	SM	Total
Douglas - Fir	1,996	435	45	0	10	2,486
Western Hemlock / Fir	488	353	43	0	0	884
Sitka Spruce	5	2	45	0	0	52
Alder (Red)	0	0	0	1,077	0	1,077
Maple	0	0	0	46	0	46
Total	2,489	790	133	1,123	10	4,545



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comments: Pond Values Used: 4th Quarter Calendar Year 2011.

Expected Log Markets: Warrenton, OR; Tillamook, OR; Garibaldi, OR; Forest Grove, OR; Mist, OR; Aberdeen, WA., Longview, WA, Morton, WA.

Western redcedar Stumpage Price = Pond Value minus Logging Cost
 $\$614.85/\text{MBF} = \$800.00/\text{MBF} - \$185.15/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$740 daily truck cost.

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

Branding and Painting: $\$1/\text{MBF} \times 4,545 \text{ MBF} = \$4,545$

Slash & Landing Piling (includes Move-In and Pile Materials) = \$5,265 (see attached appraisal)

Close Dirt Spur in Area 1. 2 hrs @ \$120/hr = \$240

Machine Washing for Invasive Weed Control = \$4,000

TOTAL Other Costs (with Profit & Risk to be added) = \$14,050

Other Costs (No Profit & Risk added):

Vacate Temporary Stream Crossing: 2hrs @ \$120/hr = \$240

TOTAL Other Costs (No Profit & Risk added) = \$240



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logging conditions

combination#: 1

Douglas - Fir	27.27%
Western Hemlock / Fir	24.18%
Sitka Spruce	46.42%
Alder (Red)	54.12%
Maple	33.96%

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: 9.0 **bd. ft / load:** 4,000
cost / mbf: \$92.89

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

combination#: 2

Douglas - Fir	11.14%
Western Hemlock / Fir	9.87%
Sitka Spruce	18.96%
Alder (Red)	22.11%
Maple	13.87%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Manual Felling/Delimbing
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 8.0 **bd. ft / load:** 4,200
cost / mbf: \$74.54

machines: Shovel Logger

combination#: 3

Douglas - Fir	40.03%
Western Hemlock / Fir	42.87%
Sitka Spruce	22.50%
Alder (Red)	15.45%
Maple	33.91%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Manual Delimbing
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 6.0 **bd. ft / load:** 4,500
cost / mbf: \$128.15

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

combination#: 4

Douglas - Fir	21.55%
Western Hemlock / Fir	23.08%
Sitka Spruce	12.12%
Alder (Red)	8.32%
Maple	18.26%



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yarding distance:	Medium (800 ft)	downhill yarding:	No
logging system:	Track Skidder	Process:	Manual Delimbing
tree size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF		
loads / day:	4.0	bd. ft / load:	4,400
cost / mbf:	\$79.46		
machines:	Feller Buncher w/ Delimber		



"STEWARDSHIP IN FORESTRY"

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logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$143,505.00	Other Costs (P/R):	\$14,050.00
Slash Disposal:	\$0.00	Other Costs:	\$240.00

Miles of Road

Road Maintenance: \$5.17

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	5.0
Western Hemlock / Fir	\$0.00	2.0	5.0
Sitka Spruce	\$0.00	2.0	3.5
Alder (Red)	\$0.00	2.0	2.8
Maple	\$0.00	2.0	2.8



"STEWARDSHIP IN FORESTRY"

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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									
\$102.07	\$5.33	\$1.93	\$44.19	\$3.09	\$23.49	\$0.00	\$5.00	\$0.05	\$185.15
Western Hemlock / Fir									
\$103.09	\$5.38	\$1.93	\$66.92	\$3.09	\$27.06	\$0.00	\$5.00	\$0.05	\$212.52
Sitka Spruce									
\$95.72	\$5.43	\$1.93	\$96.53	\$3.09	\$30.40	\$0.00	\$5.00	\$0.05	\$238.15
Alder (Red)									
\$93.16	\$5.43	\$1.93	\$120.66	\$3.09	\$33.64	\$0.00	\$5.00	\$0.05	\$262.96
Maple									
\$99.85	\$5.48	\$1.93	\$121.80	\$3.09	\$34.82	\$0.00	\$5.00	\$0.05	\$272.02

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$509.08	\$323.93	\$0.00
Western Hemlock / Fir	\$0.00	\$423.04	\$210.52	\$0.00
Sitka Spruce	\$0.00	\$396.63	\$158.48	\$0.00
Alder (Red)	\$0.00	\$585.00	\$322.04	\$0.00
Maple	\$0.00	\$485.00	\$212.98	\$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
Maple	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,486	\$323.93	\$805,289.98
Western Hemlock / Fir	884	\$210.52	\$186,099.68
Sitka Spruce	52	\$158.48	\$8,240.96
Alder (Red)	1,077	\$322.04	\$346,837.08
Maple	46	\$212.98	\$9,797.08

Gross Timber Sale Value

Recovery: \$1,356,264.78

Prepared by: Tillotson/ Morey

Phone: 503-325-5451

Site Prep Appraisal

Sale Number: 341-12-47
Sale Name: Scratchit View
Date: 12/31/2011

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	4.5
Hemlock/Spruce	C	2.0	6.0
Hemlock	D	2.0	6.0
Conifer/Hardwood	E	1.5	4.5

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area
					\$110.00	\$0.00
2	MC	E	16	24	\$110.00	\$2,640.00
Sub Total =						\$2,640.00
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
		\$220.00	\$0.00	FALSE	\$5.00	\$0.00
2	6	\$220.00	\$1,320.00	72	\$5.00	\$360.00
*Cost includes separating firewood						
Sub Total =						\$1,680.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance				
\$945.00	1	\$945.00	Sub Total =			
Grand Total =						\$5,265.00

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Scratchit View
 Date: 06-Jan-12
 By: J. Morey FL

MBF: 4,545
 \$\$/MBF: \$5.17

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	Production Rates			
Progressive Operations 1 Entry	Grader 14G	\$675	1	10	\$93	\$1,605	Production Rates	Miles/day	Distance(miles)	Days
	Dump Truck 12CY	\$141	1	8	\$73	\$725	Grader	2.5	2.5	1.0
	FE Loader C966	\$675	1	4	\$77	\$983				
Final Road Maintenance	Grader 14G	\$675	1	73	\$93	\$7,464	Production Rates	Miles/day	Distance(miles)	Days
	Dump Truck 12CY x 2	\$141	2	16	\$73	\$1,450	Grader	1.5	7.3	4.9
	FE Loader C966	\$675	1	8	\$77	\$1,291	Vibratory Roller*	1.5	7.3	4.9
	Vibratory Roller*	\$675	1	50	\$72	\$4,275				
	Water Truck 2,600 gallon	\$165	1	35	\$83	\$3,070				
	Backhoe-small	\$279	1	24	\$72	\$2,007				
	Labor			16	\$38	\$608	Final Road maintenance on Cougar Mountain Road and side spur roads			
Total							\$23,478			

*Final Road Maintenance Only

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Scratchit View

ROAD CONSTRUCTION/RECONSTRUCTI

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 1	1A-1B (dirt)	8.50	\$4,169
	1A-1B, 1C-1D, 1E-1F, 1G-1H	28.1	
	2A-2B, 2C-2D, 2E-2F	53.7	\$73,935
	TOTALS	1.71 miles	90.30 Stations
			\$78,104

ROAD IMPROVEMENT

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 2	I1 to I2	95.77	\$20,014
	TOTALS	1.81 miles	95.77 Stations
			\$20,014

SPECIAL PROJECTS

	<u>Description</u>	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 3	Quarry Development and Rock Screening			\$38,585
	Project Road Maintenance (0.1 miles)			\$93
	TOTALS		0.1 miles	\$38,678

MOVE IN:

	<u>Equipment</u>	<u>Cost</u>
	Excavator (C312/C315) @ \$699	\$699
	Excavator (C330)	\$1,220
	D-8 Cat	\$1,220
	D-6 Cat	\$675
	Front End Loader (C966)	\$675
	Large Grader (14G) @ \$675	\$675
	10-12 yd dump truck (X 5 @ \$141 each)	\$705
	Water Truck (2,500 gallons) @ \$165)	\$165
	Vibratory Roller @ \$675	\$675
	* Screening Plant & equipment in project costs	
	TOTAL	\$6,709

GRAND TOTAL **\$143,505**

Compiled By: Holloran/ Morey

Date: 01/18/2012

\$4.169

SUMMARY OF NEW CONSTRUCTION COSTS

SALE NAME: **Scratchit View**

ROAD: 1C-1D(22.5), 1E-1F(2.75), 1G-1H(2.85), 2A-2B(33.8), 2C-2D(17.4),
2E-2F(2.5)

NEW CONSTRUCTION: 81.80 STATIONS

1.55 MILES

IMPROVEMENT: STATIONS

MILES

POINTS:

CLEARING & GRUBBING

	Method	Acres/amount	/	x	Rate	=	Cost
1C-1D,	Scatter outside of RW - New Roads - \$/ac.	2.60		x	\$1,161.00	=	\$3,018.60
1E-1F, 1G-1H				x		=	
				x		=	
2A to 2B	Scatter outside of RW - New Roads - \$/ac.	3.09		x	\$1,161.00	=	\$3,587.49
2C-2D				x		=	

SUB TOTAL FOR CLEARING & GRUBBING

\$6,606

EXCAVATION

	Material	Cy/amount	/	x	Rate	=	Cost
1C-1D,	Dirft dirt up to 200 ft.	28.1	sta.	x	\$165.00	=	\$4,636.50
1E-1F, 1G-1H							
2A-2B, 2C-2D	Drifting dirt up to 200 ft. (15.8+17.4+2.5)	53.7	sta.	x	\$165.00	=	\$8,860.50
2E-2F							
2A-2B	Cut slope rounding (8+00-9+50, 12+50-15+00, 17.7-18.2)	4.5	sta.	x	\$37.00	=	\$166.50
2A-2B	Side Cast pullback (60' + 60') 330 Excavator	4.0	hrs	x	\$144.00	=	\$576.00
2A-2B	End Haul	1100.0	yds.	x	\$3.50	=	\$3,850.00
	(12+00 to 15+00 = 700yds & 17+75 to 19+00 = 400yds)						
	side cast pull back material Dump Truck	2.0	hrs	x	\$73.00	=	\$146.00
2A-2B	Fill compaction (25+50 & 28+50)	880.0	yds.	x	\$0.60	=	\$528.00
Waste Area	Fill compaction of waste material	250.0	yds.	x	\$0.30	=	\$75.00
	Landing Construction	10.0	ldg.	x	\$338.00	=	\$3,380.00
				x		=	
All spurs	Large old growth stump removal 330 Excavator	15.0	hrs	x	\$144.00	=	\$2,160.00
				x		=	
				x		=	
				x		=	

SUB TOTAL FOR EXCAVATION

\$24,379

CULVERT MATERIALS AND INSTALLATION

	Location	Dia/type	Lineal ft.	Rate	Cost	Seg.	Location	Dia/type	Lineal ft.	Rate	Cost
1C-1D	5+30	18" CPP	30	\$17.64	\$529.20						
	10+50	18" CPP	30	\$17.64	\$529.20						
	14+90	18" CPP	40	\$17.64	\$705.60						
	20+50	18" CPP	30	\$17.64	\$529.20						
1G-1H	1+40	18" CPP	30	\$17.64	\$529.20						
2A-2B	5+85	18" CPP	30	\$17.64	\$529.20						
	13+65	18" CPP	30	\$17.64	\$529.20						
	20+00	18" CPP	40	\$17.64	\$705.60						
2C-2D	0+25	18" CPP	30	\$17.64	\$529.20						

\$5,115.60

	Description	Quantity	Rate	Cost
Other/miscellaneous:	Fiberglass Culvert Markers	9	\$18.00	\$162.00
Culvert stakes & markers:				

\$162.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION

\$5,277.60

Costed by: Holloran/ Morey

Date: 01/18/2012

Subtotal of Clearing, Exc., Culv.

\$36,262

SURFACING				Stations/		Rate/	Cost			
Subgrade prep:		Stations	Description	amount	x	sta/amt				
1A-1B, 1C-1D, 1E-1F, 1G-1H, 2A-2B		82+00	Grade, Shape, and Ditch 16'	81.80	x	\$21.55	\$1,762.79			
2C-2D, 2E-2F					x					
1A-1B, 1C-1D, 1E-1F, 1G-1H, 2A-2B		82+00	Subgrade Compaction 16'	81.80	x	\$17.52	\$1,433.14			
2C-2D, 2E-2F					x					
1A-1B		8+50	Grade and Shape only (dirt 14 ft. outsloped)	8.50	x	\$15.93	\$135.41			
				\$3,331						
ROAD SEGMENT			1A-1B	POINT TO POINT		Sta. to Sta.				
				1A-1B		0+00 to 8+50				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 0+50	12	station	75	stations	0.50	\$4.27	\$160	
Total Rock for Road Segment:				1A-1B			38		\$160	
ROAD SEGMENT			1C-1D	POINT TO POINT		Sta. to Sta.				
				1C-1D		0+00 to 22+50				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 22+50	12	station	75	stations	22.50	\$4.27	\$7,206	
Junction Rock	6'-0" pit run	1C, 1E, 1G	12	junction	40	junctions	3.00	\$4.27	\$512	
Turnouts	6'-0" pit run	15+90	12	turnout	56	turnouts	1.00	\$4.27	\$239	
Landing Rock	6'-0" pit run	6+00, 22+50	N/A	landing	50	landings	2.00	\$4.27	\$427	
Total Rock for Road Segment:							1964		\$8,384	
ROAD SEGMENT			1E-1F	POINT TO POINT		Sta. to Sta.				
				1E-1F		0+00 to 2+75				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 2+75	12	station	75	stations	2.75	\$4.27	\$881	
Landing Rock	6'-0" pit run	2+75	N/A	landing	50	landings	1.00	\$4.27	\$214	
Total Rock for Road Segment:							256		\$1,094	
ROAD SEGMENT			1G-1H	POINT TO POINT		Sta. to Sta.				
				1G-1H		0+00 to 2+85				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 2+85	12	station	75	stations	2.85	\$4.27	\$913	
Landing Rock	6'-0" pit run	2+85	N/A	landing	50	landings	1.00	\$4.27	\$214	
Total Rock for Road Segment:							264		\$1,126	
ROAD SEGMENT			2A-2B	POINT TO POINT		Sta. to Sta.				
				2A-2B		0+00 to 33+80				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 33+80	12	station	75	stations	33.80	\$4.27	\$10,824	
Junction Rock	6'-0" pit run	2A, 2C, 2E	12	junction	40	junctions	3.00	\$4.27	\$512	
Turnouts	6'-0" pit run	7+20, 15+30, 23+00	12	turnout	56	turnouts	3.00	\$4.27	\$717	
Turnarounds	6'-0" pit run	18+80, 23+65	12	turnaround	44	turnarounds	2.00	\$4.27	\$376	
Dissipater Rock	24"-6" Riprap	13+65, 20+00	N/A	culvert	11	culverts	2.00	\$5.44	\$120	
Landing Rock	6'-0" pit run	31+50, 33+80	N/A	landing	80	landings	2.00	\$4.27	\$683	
Total Rock for Road Segment:							3093		\$13,233	
ROAD SEGMENT			2C-2D	POINT TO POINT		Sta. to Sta.				
				2C-2D		0+00 to 17+40				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 17+40	12	station	75	stations	17.40	\$4.27	\$5,572	
Landing Rock	6'-0" pit run	3+20, 16+00, 17+40	N/A	landing	80	landings	3.00	\$4.27	\$1,025	
Total Rock for Road Segment:							1545		\$6,597	
ROAD SEGMENT			2E-2F	POINT TO POINT		Sta. to Sta.				
				2E-2F		0+00 to 2+50				
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6'-0" pit run	0+00 to 2+50	12	station	75	stations	2.50	\$4.27	\$801	
Landing Rock	6'-0" pit run	2+50	N/A	landing	80	landings	1.00	\$4.27	\$342	
Total Rock for Road Segment:							268		\$1,142	
Processing:										
Description				Gradation	# Lifts	No. sta	Rate/sta	Cost		
1A-1B (0+00-0+50), 1C-1D, 1E-1F, 1G-1H, 2A-2B, 2C-2D, 2E-2F								\$0		
Pit run Rock process and compaction - D8 cat				6'-0" pit run	1	\$82.00	\$29.40	\$2,411		
								\$0		
SUB TOTAL FOR SURFACING				Reclaimed	24"-6" rr	6'-0"pr	4'-0"	1 1/2"-0"	3/4"-0	Total
					22	7,405			7,427	\$37,479
SPECIAL PROJECTS										
Description				cy/amount	Cost	per amount =	Cost			
Development of pit-run (6'-0") in Quarry development and screening							\$0.00			
Grass Seed approx. 0.2 acre				20	\$1.40	lb.	\$28.00			
Mulch (straw)				12	\$10.00	bale	\$120.00			
Labor Grass Seed & Spread Mulch				1.2	\$38.00	hours	\$45.60			
SUB TOTAL FOR SPECIAL PROJECTS				\$194						
				\$37,673						
				\$36,262						
GRAND TOTAL				\$73,935						

Compiled By: Holloran/ Morey

Date: 01/18/2012

MILES

1.81 MILES

\$432

\$1,839

\$936

\$3,207

SURFACING		Stations/amount	x	Rate/ sta/amt	Cost
Subgrade prep:	Description				
	Grade, Shape and Ditch 16'	95.77	x	\$21.55	\$2,063.84
	Subgrade Compaction	95.77	x	\$17.52	\$1,677.89
	Load and haul ditch waste material	62.41	x	\$19.89	\$1,241.33

ROAD SEGMENT I1 to I2				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I1 to I2 Volume (CY) per		0+00 to 95+77 Number of				
Base Rock	4"-0" crushed	56+45-59+20	8	station	12	stations	2.75	33	\$2.18	\$72
Triangle Junction	4"-0" crushed	0+61	8	junction	66	junctions	1	66	\$2.18	\$144
Culvert Fill	4"-0" crushed	58+16	n/a	culvert	n/a	culverts	1	5	\$2.18	\$11
Turnouts	4"-0" crushed	52+87,72+50								
		75+49, 95+77	8	turnout	n/a	turnouts	4	77	\$2.18	\$168
Move road into hill	4"-0" crushed	52+87 - 59+20	8	station	n/a	stations	6.33	10	\$2.18	\$22
Move road into hill	4"-0" crushed	77+50 - 79+28	8	station	n/a	stations	1.78	33	\$2.18	\$72
Lowboy turnaround	4"-0" crushed	82+30	8	turnaround	20	turnarounds	1	20	\$2.18	\$44
Leveling Rock	4"-0" crushed		n/a	load	11	loads	10	110	\$2.18	\$240
Surface Rock	3/4"-0" crushed	0+00 -51+08	3	station	19	stations	51.08	971	\$2.18	\$2,116
Surface Rock	3/4"-0" crushed	51+08 - 74+00	4	station	25	stations	22.92	573	\$2.18	\$1,249
Triangle junction	3/4"-0" crushed	0+61	4	junction	33	junctions	1	33	\$2.18	\$72
Culvert bedding/backfill	3/4"-0" crushed	58+16	n/a	culvert	33	culverts	1	33	\$2.18	\$72
Turnouts	3/4"-0" crushed		3	turnout	8	turnouts	7	56	\$2.18	\$122
Turnouts	3/4"-0" crushed		4	turnout	11	turnouts	5	55	\$2.18	\$120
Curve widening	3/4"-0" crushed		3	curve	n/a	curves	11	120	\$2.18	\$262
Curve widening	3/4"-0" crushed		4	curve	n/a	curves	4	54	\$2.18	\$118
Leveling Rock	3/4"-0" crushed		n/a	load	11	loads	10	110	\$2.18	\$240
Junctions	3/4"-0" crushed		3	junction	n/a	junctions	3	70	\$2.18	\$153
Lowboy turnaround	1 1/2"-0" crushed	82+30	4	turnaround	40	turnarounds	1	40	\$2.18	\$87
Surface Rock	1 1/2"-0" crushed	74+00 - 95+77	4	station	25	stations	21.77	544	\$2.18	\$1,186
Turnouts	1 1/2"-0" crushed		4	turnout	11	turnouts	3	33	\$2.18	\$72
Curve widening	1 1/2"-0" crushed			curve	n/a	curves	4	45	\$2.18	\$98
								0		\$0
Total Rock for Road Segment: I1 to I2								3,091		\$6,738

* Includes triangle junction	Processing:	Description	# Lifts	Gradation	No.sta*	Rate/sta	Cost
		Water, Process & Compact:	2	4"-0"	4	\$49.02	\$392
		Water, Process & Compact:	1	3/4"-0"	95.77	\$49.02	\$4,695

SUB TOTAL FOR SURFACING		4"-0"	1 1/2"-0"	3/4"-0"	Total	
		354	662	2,075	3,091	\$16,808

SPECIAL PROJECTS		Description	Cost
SUB TOTAL FOR SPECIAL PROJECTS			\$0

Subtotal of Surfacing & Spec. Proj. \$16,808
Subtotal of Clearing, Exc.,Culv. \$3,207

GRAND TOTAL	\$20,014
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CRUSHED ROCK COST

SALE NAME:	Scratchit View
PROJECT:	I1 to I2
QUARRY:	Cougar Mountain Stockpiles

MATERIAL: Crushed

DATE: 12/14/11
BY: d.mellison

		Cubic Yards								
Segment	Stations	Base	Running	Turnout	Leveling	Junction	Curves	Bedding	Total	
I1 to I2	28+71		545	24	55	99	75		798	
	67+06	101	1,543	197	165	110	144	33	2,293	
Grand Total		101	2,088	221	220	209	219	33	3,091	
Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
I1 to I2	28+71	798	50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	0.31
	67+06	2,293			0.56	0.60	0.05	0.05	0.05	1.31
TOTAL		3,091								AVERAGE HAUL 1.05
STA./NO.		CU. YD.			0.44	0.47	0.05	0.05	0.05	
CUBIC YARD WEIGHTED HAUL										
Average Round Trip Distance (miles)									2.10	

ROCK HAUL:

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

Ave haul:	\$1.45	/cy
Load:	\$0.28	/cy
Spread:	\$0.45	/cy

Truck type:	<u>D12</u>	No. trucks:	<u>4</u>
Delay min.:	<u>6</u>	Efficiency:	<u>85%</u>

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

Production: cy/day = 1,606

CRUSHED ROCK HAUL COSTS 3,091 cy @ **\$2.18 /cy**

PIT RUN ROCK COST

SALE NAME: Scratchit View
 PROJECT: #1
 QUARRY: Cougar Mountain

MATERIAL: Pit Run

DATE: 01/04/2012
 BY: Ed Holloran

Segment	Stations	Cubic Yards						Misc	Total
		Base	Landing	Turnout	Turnaround	Junction			
1A-1B	0.50	38							38
1C-1D	22.50	1,688	100	56		120			1,964
1E-1F	2.75	206	50						256
1G-1H	2.75	214	50						264
2A-2B	33.50	2,535	160	168		120			2,983
2C-2D	17.40	1,305	240						1,545
2E-2F	2.50	188	80						268
Grand Total	81.90	6,174	680	224		240			7,318

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
1A-1B	0.50	38			0.20	0.30	0.30	0.20	0.11	1.11
1C-1D	22.50	1,964			0.30	0.30	0.30	0.35	0.23	1.48
1E-1F	2.75	256			0.30	0.30	0.30	0.30	0.23	1.43
1G-1H	2.75	264			0.30	0.30	0.40	0.45	0.25	1.70
2A-2B	33.50	2,983			0.30	0.30	0.40	0.60	0.35	1.95
2C-2D	17.40	1,545			0.30	0.30	0.40	0.80	0.35	2.15
2E-2F	2.50	268			0.30	0.30	0.40	0.80	0.35	2.15
TOTAL	81.90	7,318								
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL					0.30	0.30	0.37	0.56	0.31	AVERAGE HAUL 1.84
Average Round Trip Distance (miles)										3.68

ROCK HAUL:

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

Ave haul: \$3.04 /cy
 Load: \$0.45 /cy
 Spread: \$0.78 /cy

Truck type: D12 No. trucks: 5
 Delay min.: 6 Efficiency: 85%

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

Production: cy/day = 960

PIT RUN ROCK HAUL COSTS

7,318 cy @ **\$4.27 /cy**

RIP RAP ROCK COST

SALE NAME:	Scratchit View
PROJECT:	#1
QUARRY:	Cougar Mountain

MATERIAL: Rip Rap

DATE: 01/04/2012
BY: Ed Holloran

		Cubic Yards							
Segment	Stations	Dissapator	Armor					Misc	Total
2A-2B	1.00	22							22
Grand Total	1.00	22							22

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
2A-2B	1.00	22			0.30	0.30	0.40	0.60	0.35	1.95
TOTAL	1.00	22								AVERAGE HAUL
	STA./NO.	CU. YD.			0.30	0.30	0.40	0.60	0.35	1.95
CUBIC YARD WEIGHTED HAUL										
Average Round Trip Distance (miles)									3.90	

ROCK HAUL:

Truck type:	D12	No. trucks:	
Delay min.:	6	Efficiency:	85%
Truck type:	D10	No. trucks:	2
Delay min.:	5	Efficiency:	85%

Ave haul: \$3.76 /cy
Load: \$1.68 /cy
Develop: _____ /cy

Production: cy/day = 310

RIP RAP ROCK HAUL COSTS

22 cy @ \$5.44 /cy

PIT RUN ROCK COST

SALE NAME: Scratchit View
 PROJECT: #3
 QUARRY: Cougar Mountain

MATERIAL: Reject

DATE: 01/18/2012
 BY: Holloran/ Morey

		Cubic Yards							
Segment	Stations	Base	Landing	Turnout	Turnaround	Junction	Waste	Misc	Total
Screening							2,927		2,927
Overburden						800			800
Grand Total						800			

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
Reject Screen	Quarry	2,927				0.10	0.13	0.05	0.06	0.34
Overburden	Quarry	800				0.10	0.13	0.05	0.06	0.34
TOTAL		3,727								
STA./NO.		CU. YD.								
CUBIC YARD WEIGHTED HAUL						0.10	0.13	0.05	0.06	AVERAGE HAUL 0.34
Average Round Trip Distance (miles)										0.68

ROCK HAUL:

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

Truck type: D12 No. trucks: 2
 Delay min.: 6 Efficiency: 85%

Ave haul: 1.047288 /cy
 Load: \$1.41 /cy
 Compaction /cy

Production: cy/day = 1,115

PIT RUN ROCK HAUL COSTS

cy @ **\$2.46 /cy**

SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. 3 Timber Sale Name: Scratchit View
 Quarry: Cougar Mountain Swell:
 Location: Cougar Mnt. NE 1/4,NW 1/4, Sec 14 T4N, R8W W. M. Shrink: 16%
 County: Clatsop
 By: Holloran/ Kirkpatrick/ Morey Loading Hopper: no
 Date: 01/18/12

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
6"-0"	40%	PR		7,405	7,405
24"-6"		RR		22	22
TOTAL CUBIC YARDS OF ROCK:				7,427	7,427

1) MOBILIZATION & SET UP:

EQUIPMENT	QUANTITY	RATE	COST	EQUIPMENT	QUANTITY	RATE	COST
Screening Plants	1	\$515	\$515				
				Loader	1	\$77	\$77
Excavator	1	\$144	\$144				

Note: Excavator and Loader was costed for mobilization elsewhere. Allowed 1 hour travel time.

SUB TOTAL FOR MOBILIZATION \$736

EQUIPMENT SET UP	TIMES	RATE	COST
Screening Plants	1	\$273	\$273

SUB TOTAL FOR SET UP COSTS \$273

TOTAL MOBILIZATION & SET UP COSTS \$1,009

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST
Pile and burn	0.1	acre	\$2,345	\$235
Move-in Fire Truck for the burning of the Clearing Debris	1	ea.	\$83	\$83

TOTAL CLEARING & GRUBBING COSTS \$318

3) EXCAVATION

MATERIAL DESCRIPTION	QUANTITY	UNIT	RATE	COST
Load and haul	800	bcy	\$2.46	\$1,968
Excavation (C330)	2	hrs.	\$144	\$288

TOTAL EXCAVATION COSTS \$2,256

4) DEVELOP ROCK

ROCK SUMMARY			METHOD	%	QUANTITY	RATE	COST
Type	Cu. yd. Vol.	Weight	Ripping	100%	10,389	\$1.44	\$14,960
crushed			Drill & shoot				
pit run	7,405	100%	Oversize red				
rip rap	22	0%	Other				
Total	7,427						
reject	2,962	39.9%					

Note: Unit ripping rate based on an C330 excavator producing 100 bcy/hour.

TOTAL ROCK DEVELOPMENT COSTS \$14,960

5) FEEDING & LOADING

DESCRIPTION	CU. YD. QUANTITY	COST CU. YD.	TOTAL COST
Dig & Feed Rock	10,389	\$0.64	\$6,649

Note: Loading rate based on \$102/hr * 8hrs/day / 1281 bcy/day = \$0.64/bcy

TOTAL FEEDING & LOADING COSTS \$6,649

6) ROCK SCREENING

ROCK SIZE	ROCK TYPE	CU. YD. QUANTITY	CRUSHER TYPE	HOURLY PRODUCTION	RATE CU. YD.	TOTAL COST
6"-0"	Pit-run	7,405	Screen	148	\$0.42	\$3,110

Note: Screening rate based on: \$500/day / 148 cy/hr * 8 hrs/day = \$0.423/cy

TOTAL ROCK CRUSHING COSTS \$3,110

7) MISCELLANEOUS COSTS

DESCRIPTION			COST
Reject Handling			
Load & haul to S.P. site	\$2.46	2,962	\$7,287
Compact reject	\$0.30	2927	\$878
Over Burden Handling			
Compact Over burden	\$0.30	800	\$240
Spread reject & over burden (C330)	2.5	\$144	\$360
Quarry maintenance			
Waterbar & block access road(C330):	1.5	\$144	\$216
Slope floor to drain (Cat 14G):	0.5	\$93	\$47
Waste Site Prep			
Move existing woody debris (C330)	2	\$144	\$288
Grass Seed & Mulch Approximately 1 acre			
Grass Seed (lbs.)	100	\$1.40	\$140
Straw Mulch (bales)	60	\$10	\$600
Labor Grass Seed & Mulch (hours)	6	\$38	\$228
TOTAL MISCELLANEOUS COSTS			\$10,283

9) GRAND TOTAL: **\$38,585**

\$/Cubic Yard \$5.21

Project Work Road Maintenance Cost Summary

Sale: Scratchit View
Date: January 18, 2012
By: Holloran/ Morey

Type	Equipment/Rationale	Hours	Rate	Cost	
Post-Projects Road	Grader 14G	1	\$93	\$93	
					Total \$93

Production Rates
 Grader - Processing
 Vibratory Roller

Miles/day	Distance(miles)	Days	Hours
1.5	0.1	0.1	0.5
1.5	0.1	0.1	0.5

Cougar Mountain Stockpile Spur Road. -0.1 mi.;
TOTAL MILES for MAINTENANCE = 0.1 miles.

**Scratchit View
FY 2012
TIMBER CRUISE REPORT**

1. **Sale Area Location:** Areas 1, 2, and 3 are located in portions of Sections 14, 15, 22, and 23 T4N, R8W; W.M., Clatsop County, Oregon.

All timber sale areas are posted with ODF "Timber Sale Boundary", signs and pink ribbon. Area 3 R/W is posted with ODF "Right-of-Way Boundary" signs.

- 2. Fund Distribution:**
- | | |
|------------------|-------------|
| Fund: | BOF (100%) |
| Tax Code: | 8-01 (100%) |

3. Sale Acreage by Area:

Area	Harvest Type	Gross Acres	New R/W Acres	Stream Buffer Acres	Existing R/W Acres	Net Acreage
1	PC	153	-7	-4	0	142
2	MC	63	-4	-8	0	51
3	R/W		11			11
TOTALS		216		-12	0	204

4. **Cruisers and Cruise Dates:** Area 1 was cruised by Jay Morey, Derek Bangs, Andrew Arvin, Ty Williams, and Ed Holloran. Area 2 was cruised by Jay Morey, Jon Long, and Bryce Rodgers. All areas were cruised in December 2011.

- 5. Cruise Method and Computation:** Cruises used Corvallis MicroTechnology (CMT) and Juniper Allegro 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 1 (Partial Cut), was variable plot cruised with a 40 BAF for conifers and 27.8 BAF for hardwoods. 39 plots were sampled on a cruise grid of 4 chains by 10 chains, with a count/cruise ratio of 1:1.

Area 2 (Modified Clear Cut), was variable plot cruised with a 40 BAF for conifers and hardwoods. 53 plots were sampled on a cruise grid of 2 chains by 5 chains, with a count/cruise ratio of 2:1.

Area 3 R/W. was calculated applying road R/W acreage using cruise per acre volumes for total harvest in Areas 1 and 2.

<u>AREAS</u>	<u>PROJECT</u>	<u>TRACT</u>	<u>CRUISE TYPE</u>
1	SCRVIEW	A1, A1TAKE, A1LEAVE	00PC
2	SCRVIEW	A2, A2TAKE	00MC
3R/W	SCRVIEW	R/WINSALE	00PC
3R/W	SCRVIEW	R/WINSALEA2	00MC

6. Timber Description:

Area 1 (Partial Cut) – These stands are approximately 70 to 110 years old, consisting of Douglas-fir dominant mixed conifer stands with patches of hardwoods. These stands average 22 inches in DBH, with an average height of 65 feet to a merchantable top (6" D.I.B. or 40% of the diameter at 16 feet). The take volume averages 18 inches in DBH with an average merchantable height of 63 feet. This stand will be harvested to an SDI of approximately 35, with a basal area target of 180 ft², while retaining approximately 64 trees per acre. The average (net) volume to be harvested is 17 MBF/acre.

Area 2 (Modified Clearcut) – These stands are approximately 60-65 years old, consisting of Red alder dominated mixed conifer stands. The average “take” volume per acre is 32 MBF, tree size is 17 inches DBH and 54 feet to a merchantable top (6” D.I.B. or 40% of the diameter at 16 feet).

Area 3 R/W – The R/W is the same type timber as Areas 1 and 2. The average volume to remove from Area 3 is 46 MBF per acre. There are 7 acres of in-sale R/W total within Area 1. There are 4 acres of in-sale R/W total within Area 2. The small portion of R/W outside the sale between Areas 1 and 2 was accounted for in the 7 acres of in-sale R/W cruise type for Area 2.

7. Statistical Analysis: (See also “Statistics Reports,” attached.)

Area	Target CV	Target SE%	Actual CV	Actual SE%
1	70	13	44.3	7.1
2	70	11	52.7	7.2

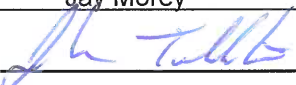
The statistics for all areas are “Take” and “Leave” stands combined.

8. Take Volumes by Species and Log Grades for All Sale Areas by MBF: (See “Species, Sort Grade-Board Feet Volumes (Project)” and the “Stand Table Summary” attached, of the thinning and regeneration harvest areas combined.) Volumes do not include “ingrowth.” The majority of defect and breakage was culled out during the cruise.

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	Special Mill	Camp Run	% D & B	% Sale
Douglas-fir	22.9	2,486	1,996	435	45	10	-	3.6	55
Hemlock	18.0	884	488	353	43		-	3.4	19
Spruce	14.2	52	5	2	44		-	1.5	1
Alder	15.5	1,077					1,077	3.6	24
Maple	14.3	46					46	21.5	1
TOTAL		4,545						3.8	100

9. Prepared by: Jay Morey

Date: January 13, 2012

10. Approved by: 

Date: 2-6-12

11, Attachments: Cruise Plans & Maps (3 pages)
Species, Sort, Grade Reports (4 pages)
Statistics Reports (6 pages)
Stand Table Summary Reports (4 pages)
Take - Log Stock Table Reports (4 pages)

CRUISE DESIGN ASTORIA DISTRICT

Sale Name: Scratchit View **Area(s)** 1

Harvest Type: (PC) "Automark Thinning"

Approx. Cruise Acres: 149 **Estimated CV%** 70 Net BF/Acre **SE% Objective** 13 Net BF/Acre

Planned Sale Volume : 2,040 MBF **Estimated Sale Area Value/Acre:** \$3,500/Ac
(Area 1) (15 MBF/Ac.)

A. Cruise Goals: (a) Grade minimum 100 conifer and 30 hardwood trees
(b) Sample 39 cruise plots (1 grade/ 1 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 40.0 (Conifer) 27.8 (Hardwoods) (Full point; Half point) (circle one)
Cruise Line Direction(s) (East/ West)
Cruise Line Spacing 10 (chains)
Cruise Plot Spacing 4 (chains)
Grade/Count Ratio 1/1

Basal Area leave target is 180 sq. ft. Cruiser needs to select 4.5 leave trees per plot. Cruise all take and leave trees. All conifer less than 10" DBH and all cedar greater than 8" will be reserved and will count towards the leave tree basal area. Record all snags as SNL. Grade all alder as CampRun. Leave 20 sq. ft. of alder basal area per plot greater than 12" DBH where available. All trees greater than 45" DBH are leave trees.

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:

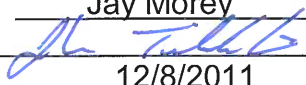
- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)
- B. Sort: 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 = Camp Run; 0 = Cull
Hardwoods: R = CampRun

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: Jay Morey
Approved by: 
Date: 12/8/2011

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Scratchit View **Area** 2

Harvest Type: (CC) Clearcut

Approx. Cruise Acres: 55 **Estimated CV%** 70 Net BF/Acre **SE% Objective** 11 Net BF/Acre

Planned Sale Volume : 2,400 MBF **Estimated Sale Area Value/Acre:** \$8,100/Ac
(36 MBF/Ac.)

A. Cruise Goals: (a) Grade minimum 70 conifer and 30 hardwood trees:
(b) Sample 55 cruise plots (1 grade/ 1 count); (c) Other goals (X Determine volume and quality; Determine pole density for sale value

B. Cruise Design:

1. Plot Cruises: BAF 40.0 (Full point; Half point) (circle one)
Cruise Line Direction(s) (142° / 322°)
Cruise Line Spacing 5 (chains)
Cruise Plot Spacing 2 (chains)
Grade/Count Ratio 1/2

If a cruise plot ends up near a buffer adjust where feasible by ½ chain. If plot falls clearly inside a buffer, and major adjustment is necessary, drop the plot. Take plots as marked on map. All cedar are leave trees. Record all snags as SNL. Grade all hardwoods as CampRun.

C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 8" for hardwoods.
Record dbh to nearest ½" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24".
- 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 merchantable 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 = Camp Run; 0 = Cull
Hardwoods: R = CampRun

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: Jay Morey Approved by:  Date: 12/8/11

Scratchit View Master Plot Map

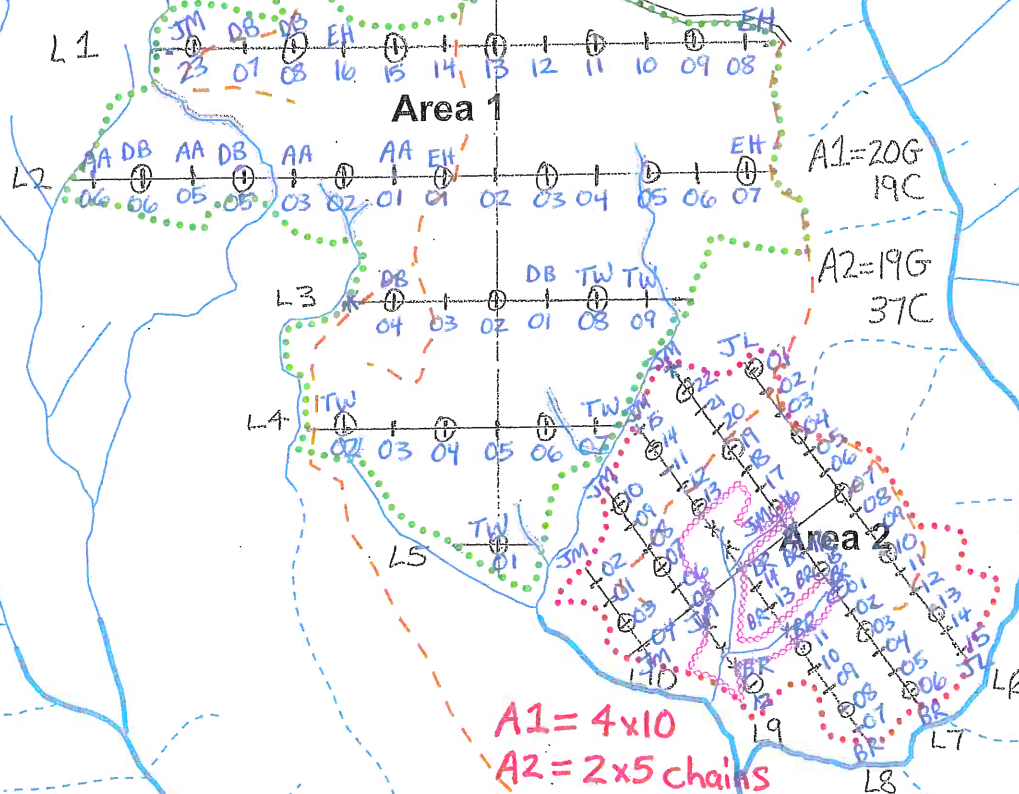
Portions of Sections 14, 15, 22, and 23,
T4N, R8W, W.M., Clatsop County, Oregon

Area 1 PC = 149 Ac.
Area 2 MC = 55 Ac.

1 inch = 1,000 feet

1,000 0 1,000 2,000 Feet

- Count Plot
⊖ Grade Plot
X Dropped Plot



- LEGEND**
- Scratchit_View_New_Construction
 - Scratchit_View_Streams_Clip
 - <all other values>
 - Fishpres
 - Fish
 - Nonfish
 - Unknown
 - Unposted_Stream_Buffer
 - Posted_Stream_Buffer
 - Scratchit_View_Boundary_Shape
 - harvtype
 - MC
 - PC
 - Ownership
 - Paved
 - Surfaced
 - Unsurfaced

TC		Species, Sort Grade - Board Foot Volumes (Project)																		
T04N R08W S13 Ty00PC THRU T04N R08W S23 Ty00MC		Project: SCRVIEW												Page 1						
		Acres 204.00												Date 1/13/2012						
														Time 9:51:28AM						
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			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	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
D			CU																0.00	1.6
D			DOCU		100.0	317											11		0.00	3.6
D			DO2S	80	1.1	9,886	9,781	1,996		0	46	54	0	0	23	76	37	392	2.38	24.9
D			DO3S	17	1.2	2,159	2,132	435		87	11	1	3	8	39	50	33	93	0.86	22.9
D			DO4S	2	4.1	226	217	45	11	89			67	16	17		20	28	0.51	7.7
D			DOSM	1		48	48	10				100	39	61			22	1003	8.03	.0
D Totals				55	3.6	12,635	12,177	2,486	0	17	39	44	2	2	25	70	31	200	1.56	60.8
A			DOCU		100.0	159											5		0.00	3.0
A			DOCR	100	.7	5,318	5,281	1,077		68	28	4	7	35	21	36	29	83	0.85	63.5
A Totals				24	3.6	5,477	5,281	1,077		68	28	4	7	35	21	36	28	79	0.84	66.5
S			DOCU		100.0	4											6		0.00	.0
S			DO2S	9		24	24	5			7	93		7		93	37	847	4.31	.0
S			DO3S	5		12	12	2		100					100		33	98	1.03	.1
S			DO4S	86		218	218	45	41	59			15	43	42		24	36	0.63	6.1
S Totals				1	1.5	258	254	52	35	55	1	9	13	37	41	9	24	41	0.67	6.2
H			DOCU		100.0	113											14		0.00	1.7
H			DO2S	55	.6	2,405	2,390	488			57	43			37	63	35	299	1.95	8.0
H			DO3S	40	1.3	1,754	1,732	353		89	11		1	3	42	54	35	103	0.87	16.8
H			DO4S	5	.4	210	209	43		100			58	42			19	26	0.50	8.1
H Totals				19	3.4	4,482	4,332	884		41	36	24	3	3	37	56	30	125	1.08	34.6
M			DOCU		100.0	47											10		0.00	1.0
M			DOCR	100	5.9	239	225	46		100			43	42	14		22	43	0.75	5.2
M Totals				1	21.5	287	225	46		100			43	42	14		20	36	0.69	6.2
C			DO4S	100		1	1	0		100				100			24	30	0.83	.0
C Totals				0		1	1	0		100				100			24	30	0.83	.0
Totals					3.8	23,140	22,270	4,545	1	35	35	30	4	11	27	58	29	128	1.15	174.4

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page		1	
				Project: SCRVIEW												Date		12/21/2011	
																Time		1:46:47PM	
T04N R08W S13 T00PC												T04N R08W S13 T00PC							
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
04N	08W	13	A1TAKE	00PC	142.00	39	63	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/	

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page		1	
				Project: SCRVIEW												Date		1/13/2012	
																Time		9:52:46AM	
T04N R08W S23 T00MC												T04N R08W S23 T00MC							
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
04N	08W	23	A2TAKE	00MC	51.00	53	117	1	W										
			%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs
								Log Scale Dia.				Log Length				Ln	Bd	CF/	
Spp	So	Gr	Net	Def%	Gross	Net	Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	Ft	Lf	Per /Acre
A	DO	CU		100.0	448											5		0.00	4.7
A	DO	CR	100	.5	14,527	14,454	737	67	28	5		6	39	19	35	29	93	0.94	154.7
A Totals			45	3.5	14,975	14,454	737	67	28	5		6	39	19	35	29	91	0.94	159.4
D		CU																0.00	6.1
D	DO	CU		100.0	218											14		0.00	6.6
D	DO	2S	83	1.7	10,122	9,953	508	1	46	52			1	20	79	38	364	2.27	27.4
D	DO	3S	14	3.5	1,785	1,724	88	100				2	10	37	52	34	88	0.81	19.5
D	DO	4S	3		272	272	14	100				87	13			18	25	0.51	11.0
D Totals			38	3.6	12,397	11,949	610 609	18	39	44		2	3	22	73	28	169	1.50	70.5
H	DO	CU		100.0	170											15		0.00	5.3
H	DO	2S	62	.7	2,890	2,870	146		62	38				18	82	38	379	2.21	7.6
H	DO	3S	32	5.4	1,513	1,431	73	100				2	15	65	18	31	88	0.91	16.3
H	DO	4S	6		256	256	13	100				75	25			18	24	0.52	10.7
H Totals			14	5.6	4,828	4,557	232	37	39	24		5	6	32	57	27	114	1.13	39.9
M	DO	CU		100.0	107											14		0.00	2.1
M	DO	CR	100	4.7	389	371	19	100				35	65			22	37	0.73	9.9
M Totals			1	25.3	496	371	19	100				35	65			21	31	0.64	12.0
S	DO	4S	100		453	453	23	100				27		73		24	42	0.63	10.9
S Totals			1		453	453	23	100				27		73		24	42	0.63	10.9
Type Totals				4.1	33,150	31,784	1,621	45	33	22		5	21	23	52	28	109	1.08	292.7

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																
T04N R08W S13 Ty00PC7.00 T04N R08W S23 Ty00MC4.00				Project: SCRVIEW Acres11.00										Page1 Date1/13/2012 Time9:53:55AM						
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		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			CU																0.00	2.2
D			DOCU		100.0	959											11		0.00	5.3
D			DO2S	84	1.6	26,981	26,547	292		1	25	74	0	1	15	84	37	526	2.98	50.5
D			DO3S	12	2.2	3,626	3,547	39		71	13	16	5	10	34	51	33	111	0.99	32.0
D			DO4S	1	2.2	335	327	4	6	94			73	18	9		19	28	0.51	11.8
D			DOSM	3		888	888	10				100	39	61			22	1003	8.03	.9
D Totals				68	4.5	32,788	31,309	345344	0	10	23	67	3	4	17	77	31	305	2.13	102.7
A			DOCU		100.0	224											5		0.00	4.3
A			DOCR	100	.6	7,657	7,609	84		70	27	3	7	34	23	37	29	85	0.88	89.0
A Totals				16	3.5	7,881	7,609	84		70	27	3	7	34	23	37	28	82	0.87	93.3
H			DOCU		100.0	376											16		0.00	2.4
H			DO2S	60	.7	3,810	3,782	42			49	51			23	77	37	350	2.16	10.8
H			DO3S	34	1.4	2,113	2,084	23		89	11		2	3	46	48	34	101	0.91	20.6
H			DO4S	6	4.6	359	342	4		100			60	40			19	26	0.54	13.0
H Totals				13	6.7	6,657	6,209	6968		35	34	31	4	3	30	63	29	132	1.18	46.9
S			DOCU		100.0	71											6		0.00	.2
S			DO2S	45		448	448	5			7	93		7		93	37	847	4.31	.5
S			DO3S	22		224	224	2		100					100		33	98	1.03	2.3
S			DO4S	33		323	323	4	13	87			14	32	54		25	40	0.63	8.0
S Totals				2	6.6	1,066	995	11	4	51	3	42	5	14	40	42	27	90	0.97	11.0
M			DOCU		100.0	55											11		0.00	1.2
M			DOCR	100	5.7	259	244	3		100			41	47	12		22	42	0.75	5.8
M Totals				1	22.3	314	244	3		100			41	47	12		20	35	0.68	7.0
C			DO4S	100		14	14	0		100				100			24	30	0.83	.5
C Totals				0		14	14	0		100				100			24	30	0.83	.5
Totals					4.8	48,720	46,379	512510	0	24	25	51	4	9	20	67	29	177	1.46	261.3

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	SCRVIEW			DATE	12/21/2011	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
04N	08W	13	A1	00PC	142.00	39	355	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		39	355	9.1						
CRUISE		22	187	8.5	18,162		1.0			
DBH COUNT										
REFOREST										
COUNT		17	155	9.1						
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
DOUGLEAV		67	22.3	33.0	104	132.3	32,404	30,774	6,540	6,354
DOUG FIR		27	20.7	23.4	86	61.5	11,159	10,777	2,655	2,596
SNAG		25	13.3	23.8	44	41.0	138	138	55	40
WHEMLOCK		12	14.4	18.1	73	25.6	4,190	4,105	1,082	1,070
HEMLEAV		12	11.2	19.6	50	23.6	3,518	3,062	874	794
R ALDER		18	19.7	13.4	46	19.2	1,879	1,806	587	573
ALDRLEAV		15	12.7	16.0	55	17.8	2,036	1,983	607	600
SPRUCELV		4	4.9	17.5	43	8.2	1,039	954	265	251
SNAG		1	.3	55.0	40	5.1				
S SPRUCE		1	4.2	15.0	24	5.1	125	125	63	63
BL MAPLE		4	3.5	13.7	22	3.6	210	171	61	56
CEDLEAV		1	.7	16.0	25	1.0	22	22	15	15
TOTAL		187	127.9	22.2	65	344.2	56,719	53,918	12,803	12,412
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		65.9	10.5	20	22	25				
DOUG FIR		139.8	22.4	16	21	25				
SNAG		166.7	26.7	10	13	17				
WHEMLOCK		151.7	24.3	11	14	18				
HEMLEAV		164.3	26.3	8	11	14				
R ALDER		245.2	39.3	12	20	27				
ALDRLEAV		151.6	24.3	10	13	16				
SPRUCELV		242.5	38.8	3	5	7				
SNAG		511.8	81.9	0	0	1				
S SPRUCE		407.3	65.2	1	4	7				
BL MAPLE		511.8	81.9	1	3	6				
CEDLEAV		624.5	100.0	0	1	1				
TOTAL		61.4	9.8	115	128	140	151	38	17	
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		51.5	8.2	121	132	143				
DOUG FIR		137.4	22.0	48	62	75				
SNAG		149.2	23.9	31	41	51				
WHEMLOCK		140.8	22.6	20	26	31				
HEMLEAV		144.1	23.1	18	24	29				
R ALDER		217.7	34.9	13	19	26				
ALDRLEAV		145.3	23.3	14	18	22				
SPRUCELV		228.6	36.6	5	8	11				
SNAG		511.8	81.9	1	5	9				
S SPRUCE		407.3	65.2	2	5	8				
BL MAPLE		511.8	81.9	1	4	6				
CEDLEAV		624.5	100.0	0	1	2				

TC TSTATS				STATISTICS				PAGE	2
				PROJECT		SCRVIEW		DATE	12/21/2011
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	08W	13	A1	00PC	142.00	39	355	1	W
CL: 68.1 %	COEFF		BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
TOTAL	33.2	5.3	326	344	363		44	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
DOUGLEAV	55.5	8.9	28,040	30,774	33,507				
DOUG FIR	140.9	22.6	8,345	10,777	13,209				
SNAG	398.6	63.8	50	138	225				
WHEMLOCK	146.2	23.4	3,144	4,105	5,067				
HEMLEAV	160.8	25.8	2,274	3,062	3,851				
R ALDER	205.5	32.9	1,211	1,806	2,400				
ALDRLEAV	142.1	22.7	1,532	1,983	2,434				
SPRUCELV	260.3	41.7	556	954	1,351				
SNAG									
S SPRUCE	407.3	65.2	44	125	207				
BL MAPLE	511.8	81.9	31	171	312				
CEDLEAV	624.5	100.0	0	22	44				
TOTAL	44.3	7.1	50,097	53,918	57,739		78	20	9

TC TSTATS				STATISTICS				PAGE	1
				PROJECT	SCRVIEW	DATE 12/21/2011			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	08W	13	A1TAKE	00PC	142.00	39	124	1	W
				TREES	ESTIMATED	PERCENT			
				PER PLOT	TOTAL	SAMPLE			
					TREES	TREES			
PLOTS		TREES							
TOTAL		39		124					
CRUISE		17		62		3.6		8,859	
DBH COUNT								.7	
REFOREST									
COUNT		15		61		4.1			
BLANKS		7							
100 %									
STAND SUMMARY									
SAMPLE		TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS
TREES		/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC
DOUG FIR		27	20.7	23.4	86	61.5	11,159	10,777	2,655
WHEMLOCK		12	14.4	18.1	73	25.6	4,190	4,105	1,082
R ALDER		18	19.7	13.4	46	19.2	1,879	1,806	587
S SPRUCE		1	4.2	15.0	24	5.1	125	125	63
BL MAPLE		4	3.5	13.7	22	3.6	210	171	61
TOTAL		62	62.4	18.4	63	115.1	17,563	16,985	4,447
CONFIDENCE LIMITS OF THE SAMPLE									
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR									
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		139.8	22.4	16	21	25			
WHEMLOCK		151.7	24.3	11	14	18			
R ALDER		245.2	39.3	12	20	27			
S SPRUCE		407.3	65.2	1	4	7			
BL MAPLE		511.8	81.9	1	3	6			
TOTAL		96.5	15.4	53	62	72	372	93	41
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		137.4	22.0	48	62	75			
WHEMLOCK		140.8	22.6	20	26	31			
R ALDER		217.7	34.9	13	19	26			
S SPRUCE		407.3	65.2	2	5	8			
BL MAPLE		511.8	81.9	1	4	6			
TOTAL		84.8	13.6	99	115	131	287	72	32
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		140.9	22.6	8,345	10,777	13,209			
WHEMLOCK		146.2	23.4	3,144	4,105	5,067			
R ALDER		205.5	32.9	1,211	1,806	2,400			
S SPRUCE		407.3	65.2	44	125	207			
BL MAPLE		511.8	81.9	31	171	312			
TOTAL		92.8	14.9	14,460	16,985	19,510	345	86	38

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	SCRVIEW			DATE	12/21/2011	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
04N	08W	13	A1LEAVE	00PC	142.00	39	231	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
PLOTS		TREES		TREES		TREES				
TOTAL		39	231	5.9						
CRUISE		22	125	5.7		9,303	1.3			
DBH COUNT										
REFOREST										
COUNT		17	97	5.7						
BLANKS										
100 %										
STAND SUMMARY										
SDI										
SAMPLE		TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
TREES		/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUGLEAV		67	22.3	33.0	104	.2331	132.3	32,404	30,774	6,540
SNAG		25	13.3	23.8	44		41.0	138	138	55
HEMLEAV		12	11.2	19.6	50	.0507	23.6	3,518	3,062	874
ALDRLEAV		15	12.7	16.0	55	.0415	17.8	2,036	1,983	607
SPRUCELV		4	4.9	17.5	43	.0185	8.2	1,039	954	265
SNAG		1	.3	55.0	40		5.1			
CEDLEAV		1	.7	16.0	25	.0023	1.0	22	22	15
TOTAL		125	65.5	25.3	67		229.1	39,156	36,933	8,355
CONFIDENCE LIMITS OF THE SAMPLE										
= .3461 = 35%										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		65.9	10.5	20	22	25				
SNAG		166.7	26.7	10	13	17				
HEMLEAV		164.3	26.3	8	11	14				
ALDRLEAV		151.6	24.3	10	13	16				
SPRUCELV		242.5	38.8	3	5	7				
SNAG		511.8	81.9	0	0	1				
CEDLEAV		624.5	100.0	0	1	1				
TOTAL		53.0	8.5	60	66	71	112	28	12	
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		51.5	8.2	121	132	143				
SNAG		149.2	23.9	31	41	51				
HEMLEAV		144.1	23.1	18	24	29				
ALDRLEAV		145.3	23.3	14	18	22				
SPRUCELV		228.6	36.6	5	8	11				
SNAG		511.8	81.9	1	5	9				
CEDLEAV		624.5	100.0	0	1	2				
TOTAL		23.0	3.7	221	229	238	21	5	2	
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		55.5	8.9	28,040	30,774	33,507				
SNAG		398.6	63.8	50	138	225				
HEMLEAV		160.8	25.8	2,274	3,062	3,851				
ALDRLEAV		142.1	22.7	1,532	1,983	2,434				
SPRUCELV		260.3	41.7	556	954	1,351				
SNAG										
CEDLEAV		624.5	100.0	0	22	44				
TOTAL		37.2	6.0	34,733	36,933	39,132	55	14	6	

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT	SCRVIEW		DATE 1/13/2012			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
04N	08W	23	A2	00MC	51.00	53	359	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		53	359	6.8						
CRUISE		21	126	6.0	8,268	1.5				
DBH COUNT										
REFOREST										
COUNT		32	214	6.7						
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
R ALDER	59	84.8	16.7	56		128.3	14,975	14,454	4,354	4,282
DOUG FIR	31	31.3	20.8	66		74.0	12,397	11,949	3,045	2,990
WHEMLOCK	15	19.8	17.7	56		34.0	4,828	4,557	1,244	1,199
BL MAPLE	9	10.7	14.8	26		12.8	496	371	195	162
S SPRUCE	3	8.5	12.7	32		7.5	453	453	168	168
SNAG	3	4.1	17.4	47		6.8				
DOUGLEAV	2	1.1	27.9	87		4.5	877	841	204	204
CEDLEAV	3	1.3	18.0	39		2.3	157	129	60	52
HEMLEAV	1	.5	16.0	50		.8	76	76	22	22
TOTAL	126	162.1	17.5	54		270.9	34,260	32,829	9,292	9,079
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER	79.3	10.9	76	85	94					
DOUG FIR	128.8	17.7	26	31	37					
WHEMLOCK	161.2	22.1	15	20	24					
BL MAPLE	293.9	40.4	6	11	15					
S SPRUCE	235.8	32.4	6	9	11					
SNAG	226.3	31.1	3	4	5					
DOUGLEAV	412.3	56.6	0	1	2					
CEDLEAV	645.2	88.6	0	1	2					
HEMLEAV	728.0	100.0	0	1	1					
TOTAL	49.8	6.8	151	162	173	99	25	11		
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER	76.0	10.4	115	128	142					
DOUG FIR	119.2	16.4	62	74	86					
WHEMLOCK	162.3	22.3	26	34	42					
BL MAPLE	310.4	42.6	7	13	18					
S SPRUCE	233.7	32.1	5	8	10					
SNAG	223.2	30.7	5	7	9					
DOUGLEAV	412.2	56.6	2	5	7					
CEDLEAV	538.4	74.0	1	2	4					
HEMLEAV	728.0	100.0	0	1	2					
TOTAL	45.4	6.2	254	271	288	82	21	9		
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER	77.3	10.6	12,919	14,454	15,989					
DOUG FIR	119.0	16.3	9,996	11,949	13,902					
WHEMLOCK	167.3	23.0	3,510	4,557	5,604					
BL MAPLE	323.7	44.5	206	371	536					
S SPRUCE	242.9	33.4	302	453	604					

TC TSTATS				STATISTICS				PAGE	2
				PROJECT		SCRVIEW		DATE	1/13/2012
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	08W	23	A2	00MC	51.00	53	359	1	W
CL:	68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.	S.E. %	LOW	AVG	HIGH	5	10	15
SNAG									
DOUGLEAV		412.5	56.7	365	841	1,318			
CEDLEAV		535.5	73.6	34	129	223			
HEMLEAV		728.0	100.0	0	76	151			
TOTAL		52.7	7.2	30,453	32,829	35,205	111	28	12

TC PSTNDSUM		Stand Table Summary										Page	1		
												Date:	1/13/2012		
T04N R08W S13 Ty00PC THRU T04N R08W S23 Ty00MC					Project SCRVIEW					Time:		9:57:53AM			
					Acres 204.00					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	Totals		
	DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
D	9	2	84	17	1.456	.64									
D	12	2	86	66	.819	.64	.82	19.0	60.0		16	49		32	10
D	14	2	92	69	.602	.64	1.20	15.5	45.0		19	54		38	11
D	16	5	87	102	1.698	2.37	4.63	19.6	74.6		91	346		185	70
D	17	2	89	130	.090	.14	.27	26.5	103.3		7	28		15	6
D	18	2	86	96	.938	1.66	1.88	32.5	110.0		61	206		124	42
D	19	6	86	93	2.010	3.96	4.02	35.9	123.4		144	496		295	101
D	20	10	84	86	3.333	7.27	6.96	33.4	110.5		232	769		474	157
D	21	10	85	109	2.180	5.24	5.05	40.3	151.8		204	767		416	156
D	22	10	87	127	1.796	4.74	4.88	47.1	198.4		230	967		468	197
D	23	6	86	122	1.198	3.46	3.54	45.3	189.1		161	670		328	137
D	24	7	88	88	.959	3.01	1.94	54.1	204.5		105	397		214	81
D	25	3	83	129	.209	.71	.63	52.8	203.7		33	128		68	26
D	26	14	84	111	1.360	5.01	3.28	63.4	242.4		208	796		425	162
D	27	10	86	120	.932	3.70	2.38	70.3	283.2		167	673		341	137
D	28	9	87	134	.618	2.64	1.85	69.2	308.8		128	573		262	117
D	29	7	86	116	.873	4.00	2.33	75.5	326.9		176	761		358	155
D	30	10	86	136	.966	4.74	2.90	84.0	387.2		243	1,122		497	229
D	31	3	82	124	.136	.71	.41	77.6	338.7		32	138		65	28
D	32	5	87	118	.606	3.39	1.82	86.8	393.0		158	715		322	146
D	33	9	82	136	.447	2.65	1.33	74.8	342.8		99	455		203	93
D	34	4	87	141	.526	3.31	1.84	95.7	462.9		176	852		359	174
D	35	3	85	136	.032	.21	.10	101.8	510.0		10	49		20	10
D	36	1	89	125	.010	.07	.03	114.0	583.3		3	18		7	4
D	37	2	85	138	.019	.14	.06	114.5	558.3		7	32		13	6
D	38	6	85	148	.054	.42	.17	128.6	657.9		22	112		45	23
D	39	2	88	125	.200	1.66	.60	135.7	696.7		81	418		166	85
D	40	3	84	156	.024	.21	.08	144.0	723.0		12	59		24	12
D	41	1	78	140	.008	.07	.02	124.3	663.3		3	15		6	3
D	42	4	88	151	.029	.28	.10	152.4	808.6		16	83		32	17
D	43	6	81	153	.042	.42	.13	150.0	766.7		19	97		39	20
D	44	3	81	136	.020	.21	.06	145.3	718.9		9	43		18	9
D	45	2	86	131	.013	.14	.04	149.3	686.7		6	26		12	5
D	46	6	87	152	.037	.42	.10	200.9	1067.5		20	105		40	21
D	48	1	90	150	.006	.07	.02	240.0	1340.0		4	23		8	5
D	50	2	85	138	.010	.14	.03	232.8	1133.3		7	35		15	7
D	51	1	82	146	.005	.07	.01	249.0	1253.3		4	19		8	4
D	52	2	87	138	.010	.14	.03	207.3	1167.1		7	39		14	8
D	56	1	86	159	.004	.07	.01	325.0	1746.7		4	22		8	4
D	57	1	88	143	.004	.07	.02	238.8	1305.0		4	21		8	4
D	Totals	185	86	102	24.279	69.52	55.56	52.7	219.2		2,926	12,177		5,969	2,484
A	11	8	86	63	4.561	2.93	5.75	12.6	42.2		72	242		148	49
A	12	12	86	54	5.478	4.30	6.47	16.2	44.6		105	289		213	59
A	13	14	87	73	4.543	4.18	8.19	16.8	49.9		137	409		280	83
A	14	14	86	70	4.208	4.50	6.95	20.2	66.6		141	463		287	94
A	15	19	86	80	3.919	4.81	7.81	22.8	83.5		178	652		363	133
A	16	25	87	73	4.985	6.96	9.13	25.0	84.2		228	769		466	157
A	17	11	87	79	1.883	2.97	3.77	29.5	100.9		111	380		226	78
A	18	16	87	77	2.190	3.87	4.05	32.5	105.1		131	425		268	87
A	19	10	86	86	1.788	3.52	3.58	37.6	132.5		134	474		274	97
A	20	10	86	78	1.345	2.93	2.69	38.5	129.0		104	347		211	71
A	21	12	86	75	1.464	3.52	2.93	42.9	143.3		126	420		256	86
A	22	4	87	75	.445	1.17	.89	45.5	152.5		40	136		83	28

TC		PSTNDSUM		Stand Table Summary										Page		2	
														Date:		1/13/2012	
T04N R08W S13 Ty00PC THRU T04N R08W S23 Ty00MC				Project		SCRVIEW						Time:		9:57:53AM			
				Acres		204.00						Grown Year:					
S Sp	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	
A		23	1	86	69	.013	.04	.03	48.5	160.0		1	4		3	1	
A		24	2	87	65	.187	.59	.37	43.5	190.0		16	71		33	14	
A		25	2	86	53	.172	.59	.17	82.0	180.0		14	31		29	6	
A		28	6	86	57	.412	1.76	.55	61.2	177.5		34	97		69	20	
A		34	2	87	75	.093	.59	.19	108.0	385.0		20	72		41	15	
A		Totals	168	86	70	37.685	49.23	63.50	25.1	83.2		1,593	5,281		3,250	1,077	
H		12	5	81	47	1.639	1.29	1.64	15.6	38.4		26	63		52	13	
H		13	1	89	32	.076	.07	.08	14.0	40.0		1	3		2	1	
H		14	2	80	86	.569	.61	1.14	18.0	60.0		20	68		42	14	
H		15	7	87	88	3.092	3.79	5.63	25.9	100.8		146	567		298	116	
H		16	5	88	108	2.262	3.16	5.64	26.5	99.7		150	562		305	115	
H		17	10	87	89	3.737	5.89	8.46	27.5	102.4		233	867		475	177	
H		18	4	84	62	1.763	3.12	2.64	34.0	90.0		90	238		183	49	
H		19	2	85	68	.309	.61	.62	31.5	100.0		19	62		40	13	
H		20	2	86	110	.279	.61	.84	35.7	136.7		30	114		61	23	
H		21	5	92	76	.535	1.29	1.10	40.9	149.7		45	165		92	34	
H		22	4	88	94	.284	.75	.59	53.7	206.4		32	123		65	25	
H		23	2	83	88	.211	.61	.42	57.0	210.0		24	89		49	18	
H		24	1	89	99	.022	.07	.04	70.5	275.0		3	12		6	3	
H		26	4	88	119	.461	1.70	1.34	66.5	293.7		89	395		182	81	
H		27	2	83	116	.153	.61	.46	50.7	213.3		23	98		47	20	
H		28	2	96	112	.142	.61	.43	73.3	393.3		31	168		64	34	
H		29	1	86	113	.015	.07	.05	72.3	316.7		3	15		7	3	
H		31	2	82	99	.297	1.56	.59	109.5	425.0		65	253		133	52	
H		32	4	86	114	.388	2.17	1.16	83.7	391.8		97	456		199	93	
H		35	1	80	121	.011	.07	.02	97.5	450.0		2	9		4	2	
H		37	1	83	103	.009	.07	.02	63.0	285.0		1	5		2	1	
H		Totals	67	86	86	16.256	28.71	32.92	34.4	131.6		1,132	4,332		2,309	884	
S		11	2	82	27	1.028	.68	1.03	10.0	20.0		10	21		21	4	
S		14	5	81	55	1.355	1.45	1.99	18.3	52.8		36	105		74	21	
S		15	2	91	27	2.983	3.66	2.98	15.0	30.0		45	90		91	18	
S		16	1	89	43	.066	.09	.07	27.0	60.0		2	4		4	1	
S		17	1	81	87	.058	.09	.12	29.0	95.0		3	11		7	2	
S		42	1	80	148	.010	.09	.03	158.0	846.7		5	24		9	5	
S		Totals	12	87	35	5.499	6.06	6.21	16.3	40.9		101	254		206	52	
M		10	2	86	18	.705	.38	.70	7.0	30.0		5	21		10	4	
M		11	2	87	22	.985	.65	.99	9.0	30.0		9	30		18	6	
M		12	2	87	37	.489	.38	.49	13.0	40.0		6	20		13	4	
M		14	4	86	37	.968	1.03	.97	15.9	46.3		15	45		31	9	
M		16	6	87	42	1.207	1.69	1.21	24.1	65.4		29	79		59	16	
M		17	2	86	22	.244	.38	.24	18.0	30.0		4	7		9	1	
M		18	6	87	29	.652	1.15	.43	27.0	40.0		12	17		24	4	
M		21	2	86	22	.160	.38	.16	26.0	40.0		4	6		8	1	
M		Totals	26	87	31	5.410	6.06	5.19	16.3	43.4		85	225		173	46	
C		16	1	79	32	.025	.04	.03	20.0	30.0		1	1		1	0	
C		Totals	1	79	32	.025	.04	.03	20.0	30.0		1	1		1	0	
Totals			459	86	77	89.154	159.62	163.42	35.7	136.3		5,837	22,270		11,908	4,543	

TC TSTNDSUM				Stand Table Summary										
Project SCRVIEW														
T04N R08W S13 T00PC										T04N R08W S13 T00PC				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	1			
04N	08W	13	A1LEAVE	00PC	142.00	39	126			Date:	12/21/20			
										Time:	1:52:49PM			
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s	
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.		Net Bd.Ft.	Cu.Ft. Acre		
DL		16	1	86	126	1.414	1.97	4.24	22.3	83.3	95	354	135	50
DL		17	2	88	130	2.506	3.95	7.52	26.5	103.3	199	777	283	110
DL		22	2	85	114	1.496	3.95	3.74	46.4	178.0	174	666	246	95
DL		23	2	85	103	1.369	3.95	2.74	57.5	215.0	157	589	224	84
DL		24	1	86	115	.629	1.97	1.89	46.0	183.3	87	346	123	49
DL		25	1	82	125	.579	1.97	1.74	50.7	206.7	88	359	125	51
DL		26	2	84	120	1.071	3.95	3.21	54.7	230.0	176	739	249	105
DL		27	1	86	133	.497	1.97	1.49	65.3	273.3	97	407	138	58
DL		28	1	85	128	.462	1.97	1.39	69.3	296.7	96	411	136	58
DL		30	2	86	131	.805	3.95	2.41	80.3	365.0	194	881	275	125
DL		31	1	82	125	.377	1.97	1.13	61.7	266.7	70	301	99	43
DL		32	1	86	146	.354	1.97	1.06	100.7	456.7	107	484	152	69
DL		33	5	86	133	1.662	9.87	4.65	105.9	475.7	493	2,214	700	314
DL		35	3	85	136	.887	5.92	2.66	101.8	510.0	271	1,357	384	193
DL		36	1	88	125	.279	1.97	.84	114.0	583.3	96	489	136	69
DL		37	2	85	137	.529	3.95	1.59	114.5	558.3	182	886	258	126
DL		38	6	85	148	1.504	11.85	4.76	128.6	657.9	613	3,134	870	445
DL		40	3	84	156	.679	5.92	2.26	144.0	723.0	326	1,636	463	232
DL		41	1	79	140	.215	1.97	.65	124.3	663.3	80	429	114	61
DL		42	4	88	151	.821	7.90	2.87	152.4	808.6	438	2,323	622	330
DL		43	6	81	153	1.175	11.85	3.52	150.0	766.7	529	2,702	751	384
DL		44	3	80	136	.561	5.92	1.68	145.3	718.9	245	1,210	347	172
DL		45	2	86	131	.358	3.95	1.07	149.3	686.7	160	737	227	105
DL		46	6	86	152	1.027	11.85	2.74	200.9	1067.5	550	2,923	781	415
DL		48	1	90	150	.157	1.97	.47	240.0	1340.0	113	632	161	90
DL		50	2	86	138	.290	3.95	.87	232.8	1133.3	202	985	287	140
DL		51	1	83	146	.139	1.97	.42	249.0	1253.3	104	523	148	74
DL		52	2	87	138	.268	3.95	.94	207.3	1167.1	194	1,094	276	155
DL		56	1	85	159	.115	1.97	.35	325.0	1746.7	113	605	160	86
DL		57	1	89	143	.111	1.97	.45	238.7	1305.0	106	582	151	83
DL		Totals	67	85	133	22.335	132.31	65.35	97.2	470.9	6,354	30,774	9,022	4,370
HL		12	1	59	20	2.503	1.97	2.50	9.0	10.0	23	25	32	4
HL		13	1	88	32	2.133	1.97	2.13	14.0	40.0	30	85	42	12
HL		15	1	89	24	1.602	1.97	1.60	16.0	40.0	26	64	36	9
HL		21	1	86	111	.817	1.97	2.45	37.3	146.7	92	360	130	51
HL		22	2	87	104	1.489	3.93	3.72	49.0	194.0	182	722	259	103
HL		24	1	89	99	.626	1.97	1.25	70.5	275.0	88	344	125	49
HL		26	2	85	100	1.066	3.93	2.13	80.0	300.0	171	640	242	91
HL		29	1	86	113	.429	1.97	1.29	72.3	316.7	93	407	132	58
HL		35	1	80	121	.294	1.97	.59	97.5	450.0	57	265	81	38
HL		37	1	83	103	.263	1.97	.53	63.0	285.0	33	150	47	21
HL		Totals	12	81	61	11.222	23.59	18.20	43.7	168.3	794	3,062	1,128	435
AL		13	2	86	59	2.681	2.37	3.97	16.0	46.8	64	186	90	26
AL		15	3	86	69	2.902	3.56	4.84	22.4	72.0	108	348	154	49
AL		16	3	87	74	2.551	3.56	5.10	24.3	83.3	124	425	176	60
AL		17	2	87	80	1.506	2.37	3.01	28.7	100.0	87	301	123	43
AL		18	4	87	85	2.687	4.75	5.37	33.0	110.0	177	591	252	84
AL		23	1	87	69	.411	1.19	.82	48.5	160.0	40	132	57	19
AL		Totals	15	87	73	12.739	17.81	23.12	26.0	85.8	600	1,983	852	282
SL		14	1	80	30	1.919	2.05	1.92	18.0	40.0	35	77	49	11

TC TSTNDSUM				Stand Table Summary												
Project SCRVIEW																
T04N R08W S13 T00PC													T04N R08W S13 T00PC			
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page: 2								
04N	08W	13	A1LEAVE	00PC	142.00	39	126	Date: 12/21/20								
								Time: 1:52:49PM								
S Spc	T	Sample		Av		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'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
SL		16	1	88	43	1.469	2.05	1.47	27.0	60.0		40	88		56	13
SL		17	1	81	87	1.301	2.05	2.60	29.0	95.0		75	247		107	35
SL		42	1	80	148	.213	2.05	.64	158.0	846.7		101	542		144	77
SL		Totals	4	83	54	4.903	8.21	6.63	37.8	143.8		251	954		356	135
SN		11	1	87	22	2.487	1.64									
SN		15	2	84	70	2.674	3.28									
SN		16	1	85	80	1.175	1.64									
SN		17	1	79	17	1.041	1.64									
SN		18	1	81	20	.929	1.64									
SN		20	2	81	50	1.504	3.28									
SN		23	1	79	22	.569	1.64									
SN		26	1	86	120	.445	1.64									
SN		35	1	88	17	.246	1.64									
SN		38	2	79	42	.417	3.28	.42	96.0	330.0		40	138		57	20
SN		40	5	87	28	.940	8.21									
SN		42	1	88	34	.171	1.64									
SN		45	1	85	30	.149	1.64									
SN		46	1	79	19	.142	1.64									
SN		50	1	85	20	.120	1.64									
SN		54	1	88	17	.103	1.64									
SN		60	1	88	25	.084	1.64									
SN		64	1	85	68	.073	1.64									
SN		Totals	25	84	44	13.269	41.03	.42	96.0	330.0		40	138		57	20
CL		16	1	79	32	.735	1.03	.73	20.0	30.0		15	22		21	3
CL		Totals	1	79	32	.735	1.03	.73	20.0	30.0		15	22		21	3
SNL		55	1	88	47	.311	5.13									
SNL		Totals	1	88	47	.311	5.13									
Totals			125	84	83	65.513	229.09	114.44	70.4	322.7		8053	36,933		11,436	5,244

Log Stock Table - MBF

T04N R08W S13 Ty00PC
THRU
T04N R08W S23 Ty00MC

Project: SCRVIEW
Acres 204.00

Page 2
Date 1/13/2012
Time 9:59:32AM

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	20-21	22-29	30-39	40+					
D	DO	4S	16	11		11	.4			7	3													
D	DO	4S	18	10		10	.4			3	7													
D	DO	4S	19	0		0	.0			0														
D	DO	4S	20	1		1	.0			1														
D	DO	4S	23	0		0	.0			0														
D	DO	4S	24	5		5	.2			5														
D	DO	4S	28	2		2	.1			2														
D	DO	4S	32	10	20.0	8	.3			8														
D	DO	SM	17	3		3	.1																	3
D	DO	SM	20	1		1	.0												1					
D	DO	SM	24	6		6	.2												3			3		
D	Totals			2,578	3.6	2,484	54.7		5	151	60	215	357	314	726	178	430		41		8			
A	DO	CU	2	1	100.0																			
A	DO	CU	4	0	100.0																			
A	DO	CU	5	7	100.0																			
A	DO	CU	6	11	100.0																			
A	DO	CU	8	13	100.0																			
A	DO	CR	16	28	8.3	25	2.3			12	4		9											
A	DO	CR	17	2		2	.2			2														
A	DO	CR	18	0		0	.0			0														
A	DO	CR	19	3	14.3	2	.2					2												
A	DO	CR	20	50		50	4.6			40				9										
A	DO	CR	21	2		2	.2				2													
A	DO	CR	22	1		1	.1			0		1												
A	DO	CR	24	34		34	3.1			21	1					12								
A	DO	CR	26	7		7	.7			7														
A	DO	CR	28	6		6	.6			6														
A	DO	CR	30	332		332	30.8			63	67	153		36	13									
A	DO	CR	32	228		226	21.0			47	3	98	43	36										
A	DO	CR	36	18		18	1.7			10	9													
A	DO	CR	38	14		14	1.3			14														
A	DO	CR	40	360		358	33.2			45	42	88	140	30		14								
A	Totals			1,117	3.6	1,077	23.7			268	127	342	192	111	25	14								
S	DO	CU	6	1	100.0																			
S	DO	2S	30	0		0	.7					0												
S	DO	2S	40	5		5	8.8											5						

Log Stock Table - MBF

T04N R08W S13 Ty00PC
THRU
T04N R08W S23 Ty00MC

Project: SCRVIEW
Acres 204.00

Page 4
Date 1/13/2012
Time 9:59:32AM

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	20-21	22-29	30-39	40+
M		DO	CU	20	2	100.0														
M		DO	CR	16	11		11	23.9			4		7							
M		DO	CR	18	6		6	13.1			6									
M		DO	CR	20	3		3	6.1			1	1								
M		DO	CR	21	6		6	13.5				6								
M		DO	CR	24	9		9	18.9			7	2								
M		DO	CR	30	6	18.0	5	10.0			2	3								
M		DO	CR	32	9	22.2	7	14.5				7								
M		Totals			59	21.5	46	1.0			21	19	7							
C		DO	4S	24	0		0	100.0			0									
C		Totals			0		0	.0			0									
Total		All Species			4,721	3.8	4,543	100.0		23	564	264	768	763	514	834	237	527	41	8

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT NO. 341-12-47
SCRATCHIT VIEW
PORTIONS OF SECTIONS 14, 15, 22, AND 23,
T4N, R8W, W.M., CLATSOP COUNTY, OREGON

Approximate Net Acreage	MC Acres	PC Acres
Area 1 (PC) -		142
Area 2 (MC) -	51	
Area 3 R/W	11	
Total =	62	142
Total Sale Acreage = 204		

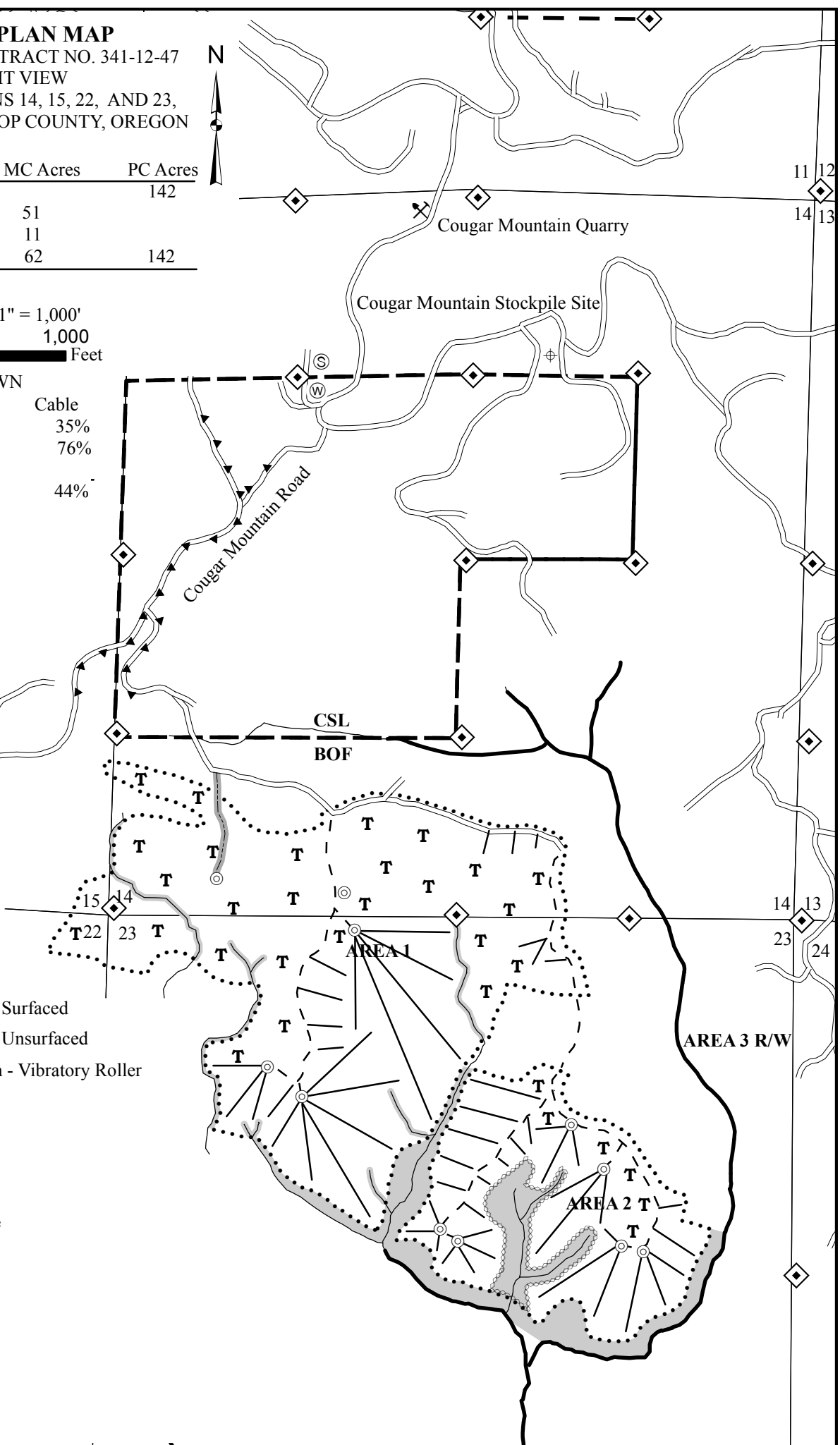
APPROXIMATE SCALE 1" = 1,000'
1,000 500 0 1,000 Feet

LOGGING BREAKDOWN

	Tractor	Cable
Area 1 (PC) -	65%	35%
Area 2 (MC) -	24%	76%
Area 3 R/W	100%	
Total =	56%	44%

LEGEND

- Ownership Boundary
- Timber Sale Boundary
- Rocked Road
- New Road Construction - Surfaced
- New Road Construction - Unsurfaced
- Seasonal Road Restriction - Vibratory Roller
- Landing to Construct
- Stockpile Site
- Quarry
- Waste Area
- Registered Water Use Site
- Known Survey Corner
- Fish Stream
- Nonfish Stream
- Posted Stream Buffer
- Nonposted Stream Buffer
- Tractor Logging
- Cable Logging



LOGGING PLAN MAP

OF TIMBER SALE CONTRACT NO. 341-12-47
SCRATCHIT VIEW
PORTIONS OF SECTIONS 14, 15, 22, AND 23,
T4N, R8W, W.M., CLATSOP COUNTY, OREGON

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APPROXIMATE SCALE 1" = 1,000'
1,000 500 0 1,000
Feet

LOGGING BREAKDOWN

	Tractor	Cable
Area 1 (PC) -	65%	35%
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Total =	56%	44%

LEGEND

- Ownership Boundary
- Timber Sale Boundary
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- Cable Logging

