



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Outland
Sale 341-09-42

District: Astoria

Date: March 19, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$482,948.18	\$35,200.11	\$518,148.29
		Project Work:	\$(205,774.00)
		Advertised Value:	\$312,374.29



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timber description

Location: Portions of Section 2, T7N, R7W, and portions of Section 21, T8N, R7W, W.M., Clatsop County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	16	0	98
Western Hemlock / Fir	16	0	95
Sitka Spruce	15	0	95
Alder (Red)	14	0	95

Volume by Grade	2S	3S	4S	Camprur	Total
Douglas - Fir	392	205	52	0	649
Western Hemlock / Fir	2,332	1,398	239	0	3,969
Sitka Spruce	83	26	16	0	125
Alder (Red)	0	0	0	121	121
Total	2,807	1,629	307	121	4,864



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comments: Pond Values Used: 4th Quarter Calendar Year 2008.

Log Markets: Mist, Clatskanie, Rainier

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$627.45/\text{MBF} = \$870/\text{MBF} - \$242.55/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE

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

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

100% Brand and Paint: $\$1.00/\text{MBF} \times 4,864 \text{ MBF} = \$4,864$

Loggers Choice Spurs: 5 sta @ $\$106/\text{sta} = \530

TOTAL Other Costs (with Profit & Risk to be added) = $\$5,394$

Other Costs (No Profit & Risk added):

Slash piling in Areas 1,2, and 3: $80.9 \times \$120 = \$9,708$

Move in Excavator for slash piling: $\$945 \times 2 = \$1,890$

Pile slash at MC cable landings: $\$120/\text{landing} \times 3 \text{ landings} = \360

Road Use Fee = $\$8,493$

TOTAL Other Costs (No Profit & Risk added) = $\$20,451$



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logging conditions

combination#: 1
 Douglas - Fir 37.00%
 Western Hemlock / Fir 37.00%
 Sitka Spruce 37.00%
 Alder (Red) 37.00%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Manual Falling/Delimiting
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 5.0 **bd. ft / load:** 3,200
cost / mbf: \$89.91
machines: Feller Buncher w/ Delimber

combination#: 2
 Douglas - Fir 63.00%
 Western Hemlock / Fir 63.00%
 Sitka Spruce 63.00%
 Alder (Red) 63.00%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Manual Falling/Delimiting
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 8.0 **bd. ft / load:** 3,200
cost / mbf: \$135.16
machines: Log Loader (A)
 Tower Yarder (Medium)



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logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$205,774.00	Other Costs (P/R):	\$5,394.00
Slash Disposal:	\$0.00	Other Costs:	\$20,451.00

Miles of Road

Road Maintenance: \$1.61

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	4.0
Western Hemlock / Fir	\$0.00	2.0	4.0
Sitka Spruce	\$0.00	2.0	3.8
Alder (Red)	\$0.00	1.0	3.8



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Local Pond Values

Date	Specie	Grade	Value
3/19/09	Douglas - Fir	2S	\$475.00
3/19/09	Douglas - Fir	3S	\$410.00
3/19/09	Douglas - Fir	4S	\$385.00
3/19/09	Western Hemlock / Fir	2S	\$330.00
3/19/09	Western Hemlock / Fir	3S	\$315.00
3/19/09	Western Hemlock / Fir	4S	\$300.00
3/19/09	Sitka Spruce	2S	\$335.00
3/19/09	Sitka Spruce	3S	\$320.00
3/19/09	Sitka Spruce	4S	\$305.00
3/19/09	Alder (Red)	Camprun	\$635.00



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$118.42	\$1.64	\$1.80	\$51.73	\$1.11	\$26.20	\$0.00	\$5.00	\$4.20	\$210.10
Western Hemlock / Fir									
\$118.42	\$1.69	\$1.80	\$79.89	\$1.11	\$30.44	\$0.00	\$5.00	\$4.20	\$242.55
Sitka Spruce									
\$118.42	\$1.69	\$1.80	\$84.09	\$1.11	\$31.07	\$0.00	\$5.00	\$4.20	\$247.38
Alder (Red)									
\$118.42	\$1.69	\$1.80	\$168.19	\$1.11	\$43.68	\$0.00	\$5.00	\$4.20	\$344.09

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$447.26	\$237.16	\$0.00
Western Hemlock / Fir	\$0.00	\$322.91	\$80.36	\$0.00
Sitka Spruce	\$0.00	\$328.04	\$80.66	\$0.00
Alder (Red)	\$0.00	\$635.00	\$290.91	\$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	649	\$237.16	\$153,916.84
Western Hemlock / Fir	3,969	\$80.36	\$318,948.84
Sitka Spruce	125	\$80.66	\$10,082.50
Alder (Red)	121	\$290.91	\$35,200.11

Gross Timber Sale Value

Recovery: \$518,148.29

Prepared by: Bryce Rodgers

Phone: 503-325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Outland

NEW CONSTRUCTION:

Project No.	Road segment	Length/Sta	Cost
Project No. 1	A to B, 3A to 3B, 3C to 3D	41.14	\$40,079
TOTALS	0.78 miles	41.14 Stations	\$40,079

ROAD IMPROVEMENT:

Project No.	Road segment	Length/Sta	Cost
Project No. 2	I1 to I2, I3 to I4, I5 to I6	46.20	\$140,587
TOTALS	0.88 miles	46.20 Stations	\$140,587

Description	Cost
Project Road Maintenance	\$13,019
TOTALS	7.2 miles
	\$13,019

MOVE IN:

Equipment	Cost
D-8 Dozer x2 @ \$1,220	\$2,440
10cy Dump Trucks (3 @ \$141 each)	\$423
20cy Highway Dump w/ pup trailer (3 @ \$166)	\$498
Front End Loader - Medium (966) x3	\$2,025
Grader (14G) x2	\$1,350
Vibratory Roller x2	\$1,350
Water Truck (2,500 gal.)	\$165
Excavator - Small (315) x2	\$1,398
Excavator (C330) x2	\$2,440
TOTAL	\$12,089

GRAND TOTAL **\$205,774**

Compiled By: Bryce Rodgers

Date: 08/18/2008

SURFACING		Stations/amount	x	Rate/sta/amt	Cost
Subgrade prep:	Description				
	Grade, Shape and Ditch 16'	24.26	x	\$21.55	\$522.80
	Grade and Shape 14' Outslope	15.8		\$15.93	\$251.69
	Subgrade Compaction	40.06	x	\$17.52	\$701.85

ROAD SEGMENT	A to B			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt	Cost
	Application	Rock Size and Type	Location	Depth of Rock (inches)	A to B Volume (CY) per	12+33 - 24+97	Number of			
Base Rock	4"-0" crushed	12+33 - 23+89	9	station	49	stations	11.56	566	\$4.64	\$2,628
Turnouts	4"-0" crushed	12+33 - 23+89	9	turnout	22	turnouts	3	66	\$4.64	\$306
Curve Widening	4"-0" crushed	12+33 - 23+89	9	curve	4	curves	3	12	\$4.64	\$56
Junction Rock	4"-0" crushed	12+33 - 23+89	9	junction	10	junctions	1	10	\$4.64	\$46
Surface Rock	3/4"-0" crushed	12+33 - 23+89	4	stations	22	stations	12	254	\$4.64	\$1,180
Turnouts	3/4"-0" crushed	12+33 - 23+89	4	turnout	10	turnouts	3	30	\$4.64	\$139
Curve Widening	3/4"-0" crushed	12+33 - 23+89	4	curve	2	curves	3	6	\$4.64	\$28
Junction Rock	3/4"-0" crushed	12+33 - 23+89	4	junction	5	junctions	1	5	\$4.64	\$23
Total Rock for Road Segment: A to B								950		

\$4,407

ROAD SEGMENT	3A to 3B			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt	Cost
	Application	Rock Size and Type	Location	Depth of Rock (inches)	3A to 3B Volume (CY) per	0+00 - 26+00	Number of			
Base Rock	4"-0" crushed	0+00-26+00	9	station	49	stations	26.00	1,274	\$9.57	\$12,192
Junctions	4"-0" crushed	0+00	N/A	junction	20	junctions	1	20	\$9.57	\$191
Turnouts	4"-0" crushed	6+30, 12+60, 18+50, 23+30	N/A	turnout	10	turnouts	4	40	\$9.57	\$383
Turnarounds	4"-0" crushed	18+50, 23+30	N/A	turnaround	10	turnarounds	2	20	\$9.57	\$191
Traction Rock	3/4"-0" crushed	0+00-5+00, 12+00 18+00	2	station	11	stations	12	132	\$9.57	\$1,263
Landings	6"-0" pit-run	9+00, 26+00	N/A	Landing	60	Landings	2	120	\$9.65	\$1,158
Total Rock for Road Segment: 3A to 3B								1,606		

\$15,379

ROAD SEGMENT	3C to 3B			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt	Cost
	Application	Rock Size and Type	Location	Depth of Rock (inches)	3C to 3B Volume (CY) per	0+00 - 2+50	Number of			
Base Rock	4"-0" crushed	0+00-2+50	9	station	49	stations	2.50	123	\$9.57	\$1,172
Junctions	4"-0" crushed	0+00	N/A	junction	20	junctions	1	20	\$9.57	\$191
Traction Rock	3/4"-0" crushed	0+00-2+50	N/A	station	11	stations	3	28	\$9.57	\$263
Landing	6"-0" pit-run	2+50	N/A	Landing	60	Landings	1	60	\$9.65	\$579
Total Rock for Road Segment: 3C to 3B								230		

\$2,206

Processing	Description	amount	x	sta/amt	Cost
	Water, Process & Compact: (4"-0" Crushed 1 lift)	41.14	x	\$49.02	\$2,016.68
	(3/4"-0" Crushed 1 lift)	15.00	x	\$49.02	\$735.30

6"-0"pr	4"-0"	3/4"-0"	Total
180	2,151	455	2,786

\$26,220

SPECIAL PROJECTS	Description	Cost

SUB TOTAL FOR SPECIAL PROJECTS \$0

Subtotal of Surfacing & Spec. Proj. \$26,220
Subtotal of Clearing, Exc., Culv. \$13,859

GRAND TOTAL \$40,079

Compiled By: d.mellison Date: 07/31/08

SURFACING		Subgrade prep:	Description	Stations/amount	x	Rate/ sta/amt	Cost
(11 to 12), (13 to 14), (15 to 16)			Grade, Shape and Ditch 16'	21.20	x	\$21.55	\$456.86
(11 to 12), (13 to 14), (15 to 16)			Subgrade Compaction	21.20	x	\$17.52	\$371.42
(15 to 16)			Scatter ditch waste material	12.33	x	\$10.78	\$132.92
(17 to 18)			Grade, Shape and Ditch 16'	25.00	x	\$21.55	\$538.75
(17 to 18)			Subgrade Compaction	25.00	x	\$17.52	\$438.00

ROAD SEGMENT			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
I1 to I2			I1 to I2		0+00 - 3+94				
Application	Rock Size and Type	Location	Depth of Rock (Inches)	Volume (CY) per	Number of				
Base Rock	4"-0" crushed		9"	station 49	stations 3.94		193	\$4.64	\$896
Curve Widening	4"-0" crushed		9"	curves 20	curves 2		40	\$4.64	\$186
Turnouts	4"-0" crushed		9"	station 22	turnouts 1.5		33	\$4.64	\$153
Box culvert select b.fill	4"-0" crushed						371	\$4.64	\$1,721
Box culvert cobble	4"-0" crushed						20	\$4.64	\$93
Fill widening	4"-0" crushed		9"				10	\$4.64	\$46
Box culvert footings	3/4"-0" crushed						20	\$4.64	\$93
Box Culvert deck surface	3/4"-0" crushed						62	\$4.64	\$288
Surface Rock	3/4"-0" crushed		4"	station 22	stations 3.94		87	\$4.64	\$402
Turnouts	3/4"-0" crushed		4"	turnout 10	turnouts 1.5		15	\$4.64	\$70
Curve Widening	3/4"-0" crushed		4"	curves 9	curves 2		18	\$4.64	\$84
Bedding/Backfill	3/4"-0" crushed			culvert 15	culverts 2		30	\$4.64	\$139
Fill widening	3/4"-0" crushed		4"				5	\$4.64	\$23
Box culvert fill armor	24"-6" riprap						287	\$5.81	\$1,667
Box culvert channel r.rap	24"-6" riprap						50	\$5.81	\$291
Dissipators	24"-6" riprap	sta. 3+54		dissipator 12	dissipators 1		12	\$5.81	\$70
Total Rock for Road Segment:							1,253		

\$4,170

ROAD SEGMENT			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
I3 to I4			I3 to I4		0+00 - 4+93				
Application	Rock Size and Type	Location	Depth of Rock (Inches)	Volume (CY) per	Number of				
Base Rock	4"-0" crushed		9"	station 49	stations 4.81		236	\$4.64	\$1,094
Curve Widening	4"-0" crushed		9"	curve 49	curves 1		49	\$4.64	\$227
Fill widening	4"-0" crushed		9"				10	\$4.64	\$46
Box culvert select b.fill	4"-0" crushed						205	\$4.64	\$951
Box culvert footings	3/4"-0" crushed						20	\$4.64	\$93
Box Culvert deck surface	3/4"-0" crushed						40	\$4.64	\$186
Surface Rock	3/4"-0" crushed		4"	station 22	stations 4.81		106	\$4.64	\$491
Curve Widening	3/4"-0" crushed		4"	curve 22	curves 1		22	\$4.64	\$102
Curv Bedding/Backfill	3/4"-0" crushed			culvert 12	culverts 2		24	\$4.64	\$111
Fill widening	3/4"-0" crushed						5	\$4.64	\$23
Box culvert fill armor	24"-6" riprap						108	\$5.81	\$627
Box culvert channel r.rap	24"-6" riprap						96	\$5.81	\$558
Dissipators	24"-6" riprap		N/A	dissipator 12	dissipators 2		24	\$5.81	\$139
Total Rock for Road Segment:							945		

\$4,649

ROAD SEGMENT			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
I5 to I6			I5 to I6		0+00 - 12+33				
Application	Rock Size and Type	Location	Depth of Rock (Inches)	Volume (CY) per	Number of				
Leveling Rock	4"-0" crushed		9"				50	\$4.64	\$232
Junction Widening	4"-0" crushed		9"	station	stations		5	\$4.64	\$23
Old culverts removed	4"-0" crushed		N/A	culvert	culverts		15	\$4.64	\$70
Surface Rock	3/4"-0" crushed		4"	station 22	stations 12.33		271	\$4.64	\$1,259
Turnouts	3/4"-0" crushed		4"	turnout 10	turnouts 2		20	\$4.64	\$93
Junction Widening	3/4"-0" crushed		4"				3	\$4.64	\$14
Backfill Culvert	3/4"-0" crushed		N/A	junction	junctions		9	\$4.64	\$42
Total Rock for Road Segment:							373		

\$1,732

ROAD SEGMENT			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
I7 to I8			I7 to I8		0+00 - 25+00				
Application	Rock Size and Type	Location	Depth of Rock (Inches)	Volume (CY) per	Number of				
Surface Rock	1 1/2"-0" crushed		3	station 16	stations 25.00		400	\$5.06	\$2,024
Leveling Rock	4"-0" crushed	12+50	N/A	N/A 10	N/A 4		40	\$5.06	\$202
Turnouts	1 1/2"-0" crushed		3	TO 12	TOs 4		48	\$5.06	\$243
Total Rock for Road Segment:							488		

\$2,469

(11 to 12), (13 to 14), (15 to 16) (17 to 18)	Water, Process & Compact:	4"-0" (two lifts)	2	9.97	\$49.02	\$977			
	Water, Process & Compact:	3/4"-0" (one lift)	1	21.20	\$49.02	\$1,039			
	Water, Process & Compact:		1	25.00	\$49.02	\$1,226			
SUB TOTAL FOR SURFACING			24"-6"	4"-0"	1 1/2"-0"	3/4"-0"	Total		\$18,201
			577	1,277	448	757	3,059		

SPECIAL PROJECTS			
Description	cy/amount	rate	Cost
Seed & Mulch waste area	0.4	\$1,173	\$469.20
I1 to I2 (sta. 2+00 to 3+94) \$/ac.			
I3 to I4 (sta. 0+50 to 2+00) \$/ac.			
Big Noise Box Culvert (I1 - I2)			\$54,841.03
Rock Creek Box culvert (I3 - I4)			\$49,736.11
(17-18) Rock Purchase 1 1/2"0"	448	\$9.28	\$4,157.00
(17-18) Rock Purchase 4"-0"	40	\$8.93	\$357.00
SUB TOTAL FOR SPECIAL PROJECTS			\$109,580

Subtotal of Surfacing & Spec. Proj. \$127,761
Subtotal of Clearing, Exc., Culv. \$12,826

GRAND TOTAL \$140,587

Compiled By: d.mellison and b. rogers Date: 7/31/08

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Outland (A to B), (3A to 3B), (3C to 3B)
 ROAD: _____
 POINTS: _____

NEW CONSTRUCTION: 41.14 STATIONS 0.78 MILES
 IMPROVEMENT: _____ STATIONS _____ MILES

CLEARING & GRUBBING

Method	Acres/amount	x	Rate	=	Cost
Scattering (A to B)	1	x	\$1,161.00	=	\$1,161.00
Scattering (3C to 3B), (3C to 3D)	2.60	x	\$1,161.00	=	\$3,018.60

SUB TOTAL FOR CLEARING & GRUBBING **\$4,180**

EXCAVATION

Material	Cy/amount	x	Rate	=	Cost
Common Drift (A to B) \$\$/cy	852	x	\$1.60	=	\$1,363.20
Load/haul to fill (A to B) \$\$/cy	200	x	\$2.69	=	\$538.00
Embankment Compaction (A to B) \$\$/cy	670	x	\$0.60	=	\$402.00
Balance Construction(3A-3B) \$\$/sta	26		\$106.00		\$2,756.00
Balanced constructions(3C-3D) \$\$/sta	2.5		\$106.00		\$265.00
Landing Const. 9+00, Pt. 3B, Pt. 3D \$\$/dg	3.00	x	\$338.00	=	\$1,014.00

SUB TOTAL FOR EXCAVATION **\$6,338**

CULVERT MATERIALS AND INSTALLATION

(A to B)
 (A to B)
 (3A to 3B)
 (3A to 3B)
 (3A to 3B)

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
14+33	18 CPP	35	\$17.64	\$617.40					
21+08	18 CPP	35	\$17.64	\$617.40					
0+50	18 CPP	40	\$17.64	\$705.60					
3+50	18 CPP	30	\$17.64	\$529.20					
14+75	18 ACSP	30	\$26.04	\$781.20					

Other/miscellaneous:	Description	Quantity	Rate	Cost
Culvert stakes & markers:	Carsonite markers	5	\$18.00	\$90.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION **\$3,341**

Subtotal of Clearing, Exc., Culv. **\$13,859**

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Outland
 ROAD:
 POINTS: 11-12 (3+94), 13-14 (4+93), 15-16 (12+33), 17-18 (25+00)

NEW CONSTRUCTION: _____ STATIONS _____ MILES
 IMPROVEMENT: 46.20 STATIONS _____ MILES

Method	Acres/amount	x	Rate	=	Cost
(11-12) Scatter outside of right of way	0.40	x	\$1,161.00	=	\$464.40
(13-14) Scatter outside of right of way	0.50	x	\$1,161.00	=	\$580.50
(15-16) Clear for curve widening(C330)	0.50	x	\$144.00	=	\$72.00
SUB TOTAL FOR CLEARING & GRUBBING					\$1,117

Material	Cy/amount	x	Rate	=	Cost
(11-12) Endhaul (Load, haul, dump) \$/cy	292	x	\$1.58	=	\$461.36
(11-12) Dig with C330 (Hrs.) \$/hr	4	x	\$144	=	\$576.00
(11-12) Cutslope rounding \$/sta.	3.94	x	\$37	=	\$145.78
(11-12) Embankment Compaction \$/cy	112	x	\$0.60	=	\$67.20
(11-12) Waste material compaction \$/cy	291	x	\$0.30	=	\$87.30
(11-12) Borrow embankment material \$/cy	112	x	\$4.87	=	\$545.44
(13-14) Endhaul \$/cy	1,803	x	\$3.04	=	\$5,481.12
(13-14) Cutslope rounding [sta. 1+10 - 2+40, 3+25 - 3+75] \$/sta.	1,803	x	\$37	=	\$66.60
(13-14) Waste material compaction \$/cy	1,803	x	\$0.30	=	\$540.90
(15-16) Curve widening (C330) \$/sta.	0.50	x	\$144	=	\$72.00
(15-16) Remove old culverts (C330) \$/hr	1	x	\$144	=	\$144.00
(15-16) Dispose old culverts (Dump Trk) \$/hr	2	x	\$73	=	\$146.00
(15-16) Place fill over old culverts (C330) \$/hr	1	x	\$144	=	\$144.00
(15-16) Clean existing catch basins (C330) \$/hr	0.25	x	\$144	=	\$36.00
(15-16) Cut ditch across old road(C330) \$/hr	0.25	x	\$144	=	\$36.00
(17-18) Balance Construction(Large D8) \$/hr	3 hrs	x	\$147.00	=	\$441.00
SUB TOTAL FOR EXCAVATION					\$8,991

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
11 - 12 (0+11)	18" CPP	40	\$17.64	\$705.60					
11 - 12 (3+54)	18" CPP	40	\$17.64	\$705.60					
13 - 14 (1+40)	18" CPP	35	\$17.64	\$617.40					
13 - 14 (4+57)	18" CPP	35	\$17.64	\$617.40					

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:	Carsonite marker (6' x 21/2")	4	\$18.00	\$72.00
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION				\$2,718

Subtotal of Clearing, Exc., Culv. **\$12,826**

PIT RUN ROCK COST

SALE NAME: Outland
 PROJECT: No.1
 QUARRY: Hunt Creek

MATERIAL: Pit Run

DATE: 08/14/2008
 BY: B. Rodgers

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	
3A to 3B	540.00	120	4.20	1.40	0.80	0.75	1.20	1.40	0.45	10.20
3C to 3D	541.25	60	4.20	1.40	0.80	0.70	1.20	1.40	0.55	10.25
TOTAL	1,081.25	180								
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL			4.20	1.40	0.80	0.73	1.20	1.40	0.48	AVERAGE HAUL 10.22
Average Round Trip Distance (miles)									20.43	

ROCK HAUL:

Truck type: D20 No. trucks: 3
 Delay min.: 8 Efficiency: 85%

Ave haul: \$7.41 /cy
 Load: \$0.78 /cy
 Spread: \$1.46 /cy

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

Truck type: D10 No. trucks: 3
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 541

PIT RUN ROCK HAUL COSTS 180 cy @ \$9.65 /cy

CRUSHED ROCK COST

SALE NAME: Outland
 PROJECT: No. 1
 QUARRY: Hunt Creek

MATERIAL: Crushed

DATE: 08/14/2008
 BY: B. Rodgers

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	
3A to 3B	540.00	1,486	4.2	1.4	0.8	0.75	1.20	1.40	0.45	10.20
3C to 3D	541.25	171	4.20	1.40	0.80	0.70	1.20	1.40	0.55	10.25
TOTAL	1,081.25	1,657								
STA./NO.		CU. YD.								
CUBIC YARD WEIGHTED HAUL			4.20	1.40	0.80	0.74	1.20	1.40	0.46	AVERAGE HAUL 10.21
Average Round Trip Distance (miles) 20.41										

ROCK HAUL:

Truck type: D20 No. trucks: 3
 Delay min.: 8 Efficiency: 85%

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

Truck type: D10 No. trucks: 3
 Delay min.: 5 Efficiency: 85%

Ave haul: \$7.35 /cy
 Load: \$0.78 /cy
 Spread: \$1.46 /cy

Production: cy/day = 545

CRUSHED ROCK HAUL COSTS 1,657 cy @ \$9.59 /cy

CRUSHED ROCK COST

SALE NAME: Outland
 PROJECT:
 QUARRY: Rock Creek

MATERIAL: Crushed

DATE: 07/15/2008
 BY: B Rodgers

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	
I7-I8	178.00	480			0.25	2.00	0.75	0.15	0.25	3.40
TOTAL	178.00	480								
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL					0.25	2.00	0.75	0.15	0.25	AVERAGE HAUL 3.40
									Average Round Trip Distance (miles)	6.80

ROCK HAUL:

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

Ave haul: \$3.83 /cy
 Load: \$0.45 /cy
 Spread: \$0.78 /cy

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

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

Production: cy/day = 915

CRUSHED ROCK HAUL COSTS 480 cy @ \$5.06 /cy

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Outland
 Date: August 21, 2008
 By: Bryce Rodgers

MBF: 4,864
 \$\$/MBF: \$1.61

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Interim Operations Entries (1)	Grader 14G	\$675	1	12	\$93	\$1,791
	Dump Truck 12CY	\$141	1	4	\$73	\$433
	FE Loader C966	\$675	1	2	\$77	\$829
Final Road Maintenance Haul Route	Grader 14G	\$675	1	8	\$93	\$1,419
	Dump Truck 12CY	\$141	1	4	\$73	\$433
	FE Loader C966	\$675	1	2	\$77	\$829
	Vibratory Roller	\$675	1	8	\$72	\$1,251
	Water Truck 2,500 gallon	\$165	1	8	\$83	\$829
Total						\$7,814

*Interim Maint: For haul route maint.

*Final Road Maint: Final process and roll on 3A to 3B, 3C to 3D only.

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance(miles)	Days	Hours
Grader	2.5	2.5	1.0	4.0

Final Road Maintenance

Production Rates	Miles/day	Distance(miles)	Days	Hours
Grader	1.5	0.5	0.4	3.5
Vibratory Roller	1.5	0.5	0.4	3.5

Projects Road Maintenance Cost Summary

Sale: Outland
 Date: August 18, 2008
 By: Bryce Rodgers

Type	Equipment/Rationale	Hours	Rate	Cost
Post-Projects Road	Grader 14G	48	\$93	\$4,464
	Dump Truck 12CY (2 trucks)	10	\$73	\$730
	FE Loader C966	5	\$77	\$385
	Vibratory Roller	48	\$72	\$3,456
	Water Truck 2500 gallon	48	\$83	\$3,984
				Total \$13,019

Interim Maintenance

Production Rates

Grader

Vibratory Roller

Miles/day	Distance(miles)	Days	Hours

Final Road Maintenance

Production Rates

Grader

Vibratory Roller

Miles/day	Distance(miles)	Days	Hours
1.5	7.2	4.8	48
1.5	7.2	4.8	48

***Maintenance calculations were determined as follows:**

Maintain from Hunt crk. Quarry to jct. of Highway 30.

Maintain from junction of Bigfoot rd./ Stockpile site to Bignoise Stockpile site and from the junction of East/West Bignoise to I1.

Total Miles: 7.2 miles.

TIMBER CRUISE REPORT

Outland FY 2009

1. Sale Area Location:

Areas 1, 2, & 3 are located in portions of Section 2, T7N, R7W and Section 21, T8N, R7W, Willamette Meridian, Clatsop County, Oregon.

2. Fund Distribution:

BOF = 100%

Tax Code = 1-02 = 85%

4-03 = 15%

3. Sale Acreage and Treatments by Area:

Area	Harvest Type	Gross Acres	New R/W	Old Salvage	Stream Buffers	Net Acres	Survey Method
1	MC	5	0	0	0	5	GIS
2	MC	11	0	0	0	11	GIS
3	MC	97	0	-1	-2	94	GIS
TOTAL		113	0	-1	-2	110	

4. Cruisers and Cruise Dates:

Areas 1, 2 and 3 were cruised by Bryce Rodgers, Kraig Kirkpatrick, Jay Morey and Ed Holloran on July 1, 2008.

5. Cruise Method and Computations:

The three sale areas were combined into one cruise for statistical purposes. The cruise was designed for a variable plot cruise using a 40 Basal Area Factor (BAF). 70 plots were sampled with 25 cruise plots 45 count plots (3:1 ratio) on a 4 x 3 chain grid. The data was downloaded to the Atterbury SUPER A.C.E. program and computations were made at the Astoria District Office. See the attached Cruise Design for more details on cruise methods.

AREA
1,2&3

CRUISE
Outland

CRUISE TYPE
T008R007 S21 Tract A1

6. Timber Description:

Areas 1,2, and 3- These stands are about 60 to 75 years old, and are dominated by hemlock, with some Douglas-fir, true fir and small pockets of alder. Some windthrow is evident along the southern property lines in areas 2 and 3.

7. **Statistical Analysis and Stand Summary:** (See also "Statistical Summary-Type Reports", attached.) Evaluated on Net BF/Acre.

Area	Target CV %	Target SE %	Actual CV %	Actual SE %
1,2,3	45	8	40.1	4.8

The statistics for Areas 1,2,3 are "Take" and "Leave" stands combined based on Net BF/ACRE.

8. **Volumes by Species and Sale Areas:** (See the Species, Sort, Grade, and the Log Stock Table attached.) Volumes do not include "in-growth". The majority of defect and breakage was culled during the cruise. The total net MBF volumes by species and grade are as follows:

Species	DBH	Net. Vol.	Spec. Mill	2 Saw	3 Saw	4 Saw	Camp Run	% D & B	Sale%
W. Hemlock	16"	3,545		2,014	1,317	214		1.4	73
Douglas-fir	16"	649		392	205	52		2.2	13
Noble Fir	19"	424		318	81	25		0	9
Red Alder	14"	121					121	0.5	2
Sitka Spruce	15"	125		83	26	16		1.3	3
Totals		4,864							100

9. **Approvals:**

Prepared by: Bryce Rodgers

Date: August 05, 2008

Approved by: *John Tullis*

Date: 10/30/08

10. **Attachments:**

Species, Sort & Grade (Volume) Reports: 1 page.

Statistical Reports: 4 pages.

Log Stock Table-MBF (cut): 3 pages.

Cruise Designs and Maps: 4 pages.

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)								Page 1									
		Project: OUTLAND								Date	8/22/2008								
										Time	8:09:39AM								
T008 R007 S21 TTAKE										T008 R007 S21 TTAKE									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
008	007	21	A1	TAKE	110.00	70	191	1	W										
Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/Lf	
H	DO	CU		00.0	2,452			4	64	32	2	1	12	84	11		0.00	45.0	
H	DO	2S	56	1.9	18,661	18,313	2,014								38	300	1.83	61.0	
H	DO	3S	37	1.0	12,096	11,971	1,317	95	5		3	1	39	57	35	89	0.72	133.8	
H	DO	4S	7		1,944	1,944	214	11	89		55	34		11	20	26	0.43	74.6	
H	Totals		73	8.3	35,154	32,228	3,545	1	43	38	18	6	3	22	69	29	103	0.91	314.4
D	DO	CU		00.0	500										15		0.00	11.0	
D	DO	2S	60	2.1	3,640	3,562	392	3	79	19	3		17	80	37	280	1.83	12.7	
D	DO	3S	32	2.9	1,923	1,866	205	100			5	5	28	63	35	99	0.90	18.8	
D	DO	4S	8		473	473	52	4	96		71	29			17	24	0.46	19.5	
D	Totals		13	9.7	6,535	5,901	649	0	41	47	11	9	4	19	68	26	95	0.99	62.1
NF	DO	CU		00.0	441										8		0.00	2.3	
NF	DO	2S	75		2,889	2,889	318	2	54	44			23	77	37	356	2.09	8.1	
NF	DO	3S	19		738	738	81	100			5	23	45	26	32	92	0.87	8.0	
NF	DO	4S	6		224	224	25	100			83	17			18	24	0.42	9.2	
NF	Totals		9	10.3	4,292	3,851	424	27	40	33	6	6	26	62	27	140	1.25	27.6	
A	DO	CU		00.0	43										17		0.00	2.4	
A	DO	CR	100	.4	1,102	1,097	121	84	9	6	16	45	15	24	25	64	0.79	17.2	
A	Totals		2	4.2	1,145	1,097	121	84	9	6	16	45	15	24	24	56	0.72	19.5	
S	DO	2S	66	2.0	768	753	83		72	28				100	40	263	1.69	2.9	
S	DO	3S	21		239	239	26	100						100	40	75	0.50	3.2	
S	DO	4S	13		147	147	16	100			52	48			21	25	0.50	5.8	
S	Totals		3	1.3	1,154	1,139	125	34	47	19	7	6		87	31	96	0.87	11.8	
Type Totals				8.4	48,280	44,217	4,864	1	42	39	18	7	4	21	68	28	102	0.93	435.5

TC PSTATS		PROJECT STATISTICS							PAGE	1
		PROJECT OUTLAND							DATE	8/22/2008
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
008	007	21	A1	0001	110.00	70	592	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		70	592	8.5						
CRUISE		36	221	6.1	25,353	.9				
DBH COUNT										
REFOREST										
COUNT		34	299	8.8						
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
WHEMLOCK	121	154.7	16.0	61		215.6	35,154	32,228	8,788	8,207
DOUG FIR	26	33.9	16.1	49		48.0	6,535	5,901	1,720	1,604
NOB FIR	15	12.0	19.1	64	6	24.0	4,292	3,851	993	924
SNAG	19	5.4	24.8	30		18.3				
R ALDER	23	12.3	14.0	41		13.1	1,145	1,097	358	342
S SPRUCE	6	6.5	15.0	59		8.0	1,154	1,139	317	317
CEDLEAV	5	3.2	12.7	27		2.9	180	180	62	62
HEMLEAV	2	1.1	21.3	88		2.9	583	551	136	129
NFIRLEAV	2	.4	34.5	110	0	2.3	567	471	109	93
DOUGLEAV	2	.9	21.2	78		2.3	283	283	86	86
TOTAL	221	230.5	16.4	57		337.3	49,893	45,703	12,569	11,765
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	
WHEMLOCK		73.6	8.8	141	155	168				
DOUG FIR		177.1	21.2	27	34	41				
NOB FIR		228.5	27.3	9	12	15				
SNAG		223.7	26.7	4	5	7				
R ALDER		302.7	36.1	8	12	17				
S SPRUCE		293.7	35.1	4	7	9				
CEDLEAV		499.1	59.6	1	3	5				
HEMLEAV		599.3	71.6	0	1	2				
NFIRLEAV		506.1	60.4	0	0	1				
DOUGLEAV		587.3	70.1	0	1	2				
TOTAL		43.1	5.1	219	230	242	74	19	8	
CL	68.1	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		59.2	7.1	200	216	231				
DOUG FIR		164.0	19.6	39	48	57				
NOB FIR		209.3	25.0	18	24	30				
SNAG		196.0	23.4	14	18	23				
R ALDER		282.5	33.7	9	13	18				
S SPRUCE		277.1	33.1	5	8	11				
CEDLEAV		495.5	59.2	1	3	5				
HEMLEAV		599.3	71.6	1	3	5				
NFIRLEAV		506.1	60.4	1	2	4				
DOUGLEAV		587.3	70.1	1	2	4				
TOTAL		24.8	3.0	327	337	347	24	6	3	
CL	68.1	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		63.4	7.6	29,787	32,228	34,669				

TC PSTATS				PROJECT STATISTICS				PAGE	2	
				PROJECT OUTLAND				DATE	8/22/2008	
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
008	007	21	A1	0001	110.00	70	592	1	W	
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		165.3	19.7	4,737	5,901	7,066				
NOB FIR		210.6	25.2	2,882	3,851	4,820				
SNAG										
R ALDER		306.2	36.6	696	1,097	1,498				
S SPRUCE		296.3	35.4	736	1,139	1,542				
CEDLEAV		527.5	63.0	67	180	294				
HEMLEAV		599.3	71.6	157	551	945				
NFIRLEAV		506.1	60.4	186	471	756				
DOUGLEAV		587.3	70.1	85	283	482				
TOTAL		<i>40.1</i>	<i>4.8</i>	<i>43,514</i>	<i>45,703</i>	<i>47,891</i>	<i>64</i>	<i>16</i>	<i>7</i>	

TC PSTATS		PROJECT STATISTICS							PAGE	1
		PROJECT OUTLAND							DATE	8/22/2008
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
008	007	21	A1	LEAV	110.00	70	68	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		70	68	1.0						
CRUISE		33	46	1.4	1,851	2.5				
DBH COUNT										
REFOREST										
COUNT		11	21	1.9						
BLANKS		26								
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
SNAG	19	5.4	24.8	30		18.3				
HEMLEAV	16	5.8	18.9	69		11.4	1,669	1,488	450	407
DOUGLEAV	3	1.6	18.4	68		2.9	352	352	102	102
CEDLEAV	5	3.2	12.7	27		2.9	180	180	62	62
NFIRLEAV	2	.4	34.5	110	0	2.3	567	471	109	93
SPRUCELV	1	.4	23.0	100		1.1	273	273	63	63
TOTAL	46	16.8	20.6	50		38.9	3,042	2,765	786	727
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	
SNAG	223.7	26.7		4	5	7				
HEMLEAV	206.0	24.6		4	6	7				
DOUGLEAV	480.9	57.4		1	2	2				
CEDLEAV	499.1	59.6		1	3	5				
NFIRLEAV	506.1	60.4		0	0	1				
SPRUCELV	587.3	70.1		0	0	1				
TOTAL	131.1	15.7		14	17	19	686	172	76	
CL	68.1	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
SNAG	196.0	23.4		14	18	23				
HEMLEAV	198.9	23.8		9	11	14				
DOUGLEAV	495.5	59.2		1	3	5				
CEDLEAV	495.5	59.2		1	3	5				
NFIRLEAV	506.1	60.4		1	2	4				
SPRUCELV	587.3	70.1		0	1	2				
TOTAL	114.9	13.7		34	39	44	527	132	59	
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										
HEMLEAV	226.3	27.0		1,086	1,488	1,890				
DOUGLEAV	496.0	59.2		144	352	561				
CEDLEAV	527.5	63.0		67	180	294				
NFIRLEAV	506.1	60.4		186	471	756				
SPRUCELV	587.3	70.1		82	273	465				
TOTAL	184.0	22.0		2,158	2,765	3,373	1,352	338	150	

PROJECT STATISTICS
PROJECT OUTLAND

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
008	007	21	A1	TAKE	110.00	70	541	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	70	541	7.7		
CRUISE	32	191	6.0	24,131	.8
DBH COUNT					
REFOREST					
COUNT	38	318	8.4		
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
WHEMLOCK	121	154.7	16.0	61		215.6	35,154	32,228	8,788	8,207
DOUG FIR	26	33.9	16.1	49		48.0	6,535	5,901	1,720	1,604
NOB FIR	15	12.0	19.1	64	6	24.0	4,292	3,851	993	924
R ALDER	23	12.3	14.0	41		13.1	1,145	1,097	358	342
S SPRUCE	6	6.5	15.0	59		8.0	1,154	1,139	317	317
TOTAL	191	219.4	16.1	58		308.8	48,280	44,217	12,176	11,394

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
WHEMLOCK		73.6	8.8	141	155	168			
DOUG FIR		177.1	21.2	27	34	41			
NOB FIR		228.5	27.3	9	12	15			
R ALDER		302.7	36.1	8	12	17			
S SPRUCE		293.7	35.1	4	7	9			
TOTAL		48.2	5.8	207	219	232	93	23	10

CL	68.1	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK		59.2	7.1	200	216	231			
DOUG FIR		164.0	19.6	39	48	57			
NOB FIR		209.3	25.0	18	24	30			
R ALDER		282.5	33.7	9	13	18			
S SPRUCE		277.1	33.1	5	8	11			
TOTAL		32.5	3.9	297	309	321	42	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
WHEMLOCK		63.4	7.6	29,787	32,228	34,669			
DOUG FIR		165.3	19.7	4,737	5,901	7,066			
NOB FIR		210.6	25.2	2,882	3,851	4,820			
R ALDER		306.2	36.6	696	1,097	1,498			
S SPRUCE		296.3	35.4	736	1,139	1,542			
TOTAL		41.9	5.0	42,003	44,217	46,431	70	18	8

Log Stock Table - MBF
Project: OUTLAND

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Twp Rge Sec Tract Type Acres Plots Sample Trees Page
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 Date 10/28/2008
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S Spp	So T	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+
H	DO	CU	6		100	100.0														
H	DO	CU	10		28	100.0														
H	DO	CU	11		10	100.0														
H	DO	CU	12		25	100.0														
H	DO	CU	16		44	100.0														
H	DO	CU	25		10	100.0														
H	DO	CU	29		7	100.0														
H	DO	CU	40		21	100.0														
H	DO	CU	50		25	100.0														
H	DO	2S	16		28		28	.8							28					
H	DO	2S	20		18		18	.5						18						
H	DO	2S	24		14	6.7	13	.4					13							
H	DO	2S	28		14	10.0	12	.3						12						
H	DO	2S	32		253	2.2	247	7.0				24	82		111	30				
H	DO	2S	36		23		23	.6							23					
H	DO	2S	40		1,704	1.8	1,674	47.2				51	452	504	441	168	57			
H	DO	3S	14		9		9	.3					9							
H	DO	3S	16		26		26	.7				13	13							
H	DO	3S	18		5		5	.1				5								
H	DO	3S	19		2		2	.1					2							
H	DO	3S	20		3		3	.1				3								
H	DO	3S	24		3		3	.1				3								
H	DO	3S	30		6		6	.2				6								
H	DO	3S	32		509	1.4	502	14.2				153	177	172						
H	DO	3S	34		16		16	.4				13	3							
H	DO	3S	36		6		6	.2				6								
H	DO	3S	38		4		4	.1				4								
H	DO	3S	40		740	.9	734	20.7				172	276	233	54					
H	DO	4S	12		6		6	.2				3	1	2						
H	DO	4S	14		27		27	.8				11	16							
H	DO	4S	16		44		44	1.2				42	2							
H	DO	4S	18		18		18	.5				16		2						
H	DO	4S	20		23		23	.7				20	3							
H	DO	4S	22		3		3	.1				3								
H	DO	4S	24		43		43	1.2				35	8							
H	DO	4S	26		12		12	.3				12								
H	DO	4S	28		11		11	.3				11								
H	DO	4S	30		4		4	.1				4								
H	DO	4S	40		23		23	.6				23								
H	Totals					3,867	8.3	3,545	72.9			23	511	488	517	613	534	602	199	57
D	DO	CU	6		2	100.0														
D	DO	CU	12		10	100.0														
D	DO	CU	15		12	100.0														
D	DO	CU	16		23	100.0														
D	DO	CU	17		9	100.0														
D	DO	2S	12		13		13	1.9										13		
D	DO	2S	32		67		67	10.3				11		56						
D	DO	2S	40		321	2.7	312	48.1					122	54	103	33				
D	DO	3S	16		10		10	1.6				10								
D	DO	3S	28		3		3	.5				3								

Log Stock Table - MBF
Project: OUTLAND

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Twp 008 Rge 007 Sec 21 Tract A1 Type TAKE Acres 110.00 Plots 70 Sample Trees 191
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Spp	T	S	So	Gr	Log	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	3S		30	7		7	1.1				7								
D		DO	3S		32	57		57	8.7				8	19	30						
D		DO	3S		36	17		17	2.6				13	4							
D		DO	3S		40	118	5.2	112	17.2				10	50	52						
D		DO	4S		12	17		17	2.6				2	15							
D		DO	4S		16	8		8	1.3		2		6								
D		DO	4S		18	6		6	1.0				6								
D		DO	4S		20	5		5	.8				5								
D		DO	4S		22	2		2	.4					2							
D		DO	4S		24	9		9	1.4				9								
D		DO	4S		30	4		4	.6				4								
D		Totals				719	9.7	649	13.3		2	64	100	102	122	110	103	46			
NF		DO	CU		6	27	100.0														
NF		DO	CU		10	21	100.0														
NF		DO	2S		32	74		74	17.6				8	16	30		20				
NF		DO	2S		40	243		243	57.5				8		118	66	52				
NF		DO	3S		16	4		4	1.0				4								
NF		DO	3S		28	7		7	1.7					3	4						
NF		DO	3S		30	12		12	2.8				4		8						
NF		DO	3S		32	37		37	8.6					10	27						
NF		DO	3S		40	21		21	5.0				4	17							
NF		DO	4S		12	3		3	.6				1	1							
NF		DO	4S		16	8		8	1.9				8								
NF		DO	4S		18	3		3	.8				2	1							
NF		DO	4S		20	6		6	1.5				5	2							
NF		DO	4S		22	4		4	1.0				4								
NF		Totals				472	10.3	424	8.7			28	35	51	24	148	66	72			
A		DO	CU		3	1	100.0														
A		DO	CU		20	4	100.0														
A		DO	CR		10	2		2	1.9					2							
A		DO	CR		12	1		1	.6				1								
A		DO	CR		16	9		9	7.9				1	4	4						
A		DO	CR		20	7		7	6.1				7								
A		DO	CR		23	1		1	.8				1								
A		DO	CR		24	2	25.0	2	1.3				2								
A		DO	CR		30	52		52	43.0				13	9	30						
A		DO	CR		32	18		18	14.7				6		12						
A		DO	CR		40	29		29	23.8				3		11	7	8				
A		Totals				126	4.2	121	2.5			33	15	54	4	7	8				
S		DO	2S		40	84	2.0	83	66.1					43	16	23					
S		DO	3S		40	26		26	21.0				19	7							
S		DO	4S		16	7		7	5.5				5	2							
S		DO	4S		20	1		1	1.2				1								
S		DO	4S		26	2		2	1.8				2								
S		DO	4S		28	6		6	4.5				6								
S		Totals				127	1.3	125	2.6			34	9	43	16	23					

TC TLOGSTVB

Log Stock Table - MBF
Project: OUTLAND

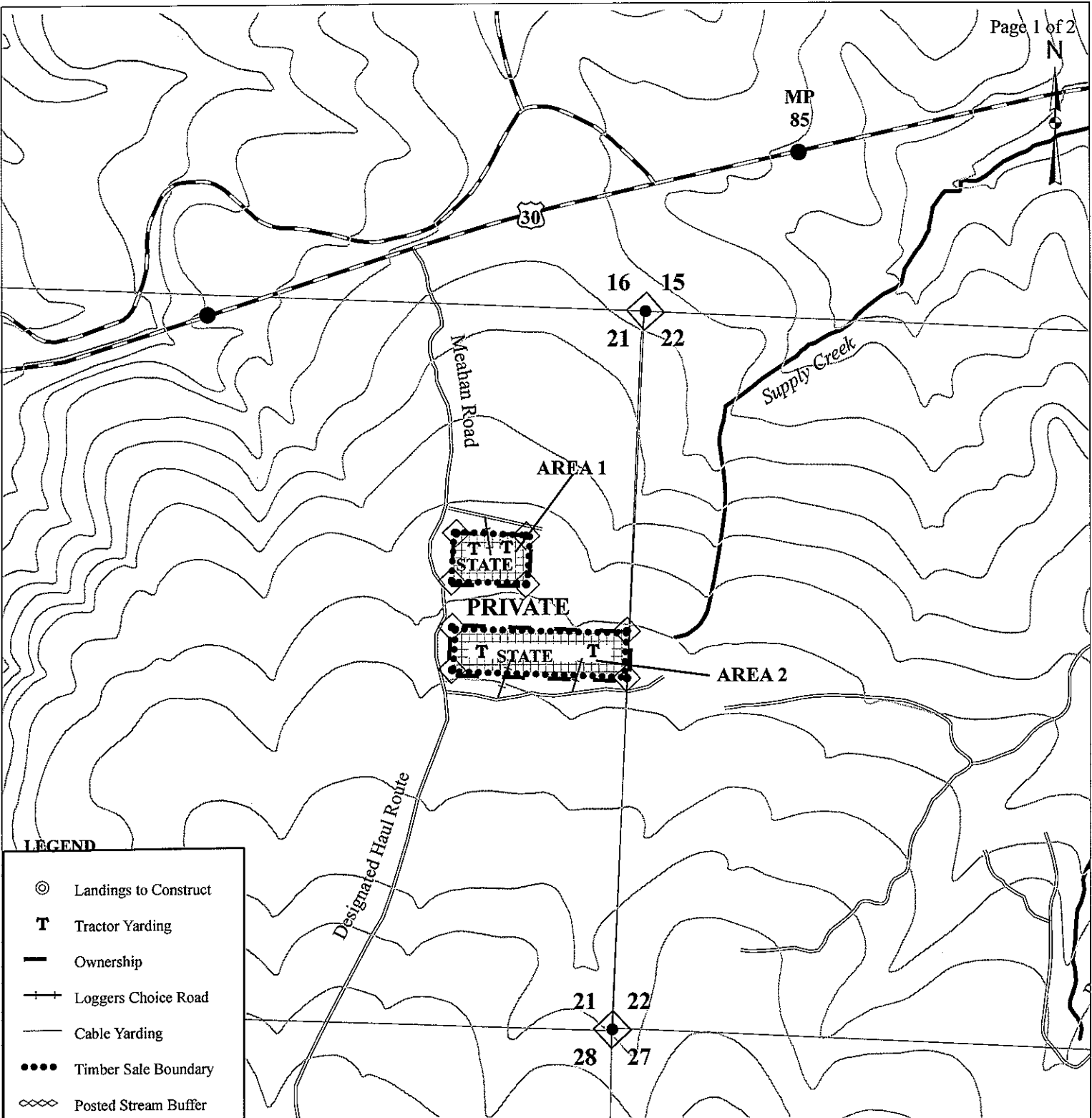
T008 R007 S21 TTAKE

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Twp Rge Sec Tract Type Acres Plots Sample Trees
008 007 21 A1 TAKE 110.00 70 191

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Date 10/28/2008
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S Spp	So T	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
Total All Species				5,311	8.4	4,864	100.0		25	669	647	724	807	816	802	317	57	



LEGEND

- ⊙ Landings to Construct
- T** Tractor Yarding
- Ownership
- + Loggers Choice Road
- Cable Yarding
- Timber Sale Boundary
- ◇◇◇◇ Posted Stream Buffer
- Surfaced Roads
- Paved
- Rocked
- - New Road Construction
- Fish
- Nonfish
- ▨ 100' Top Attached
- ▨ Stream Buffer
- ◇ Survey Monument

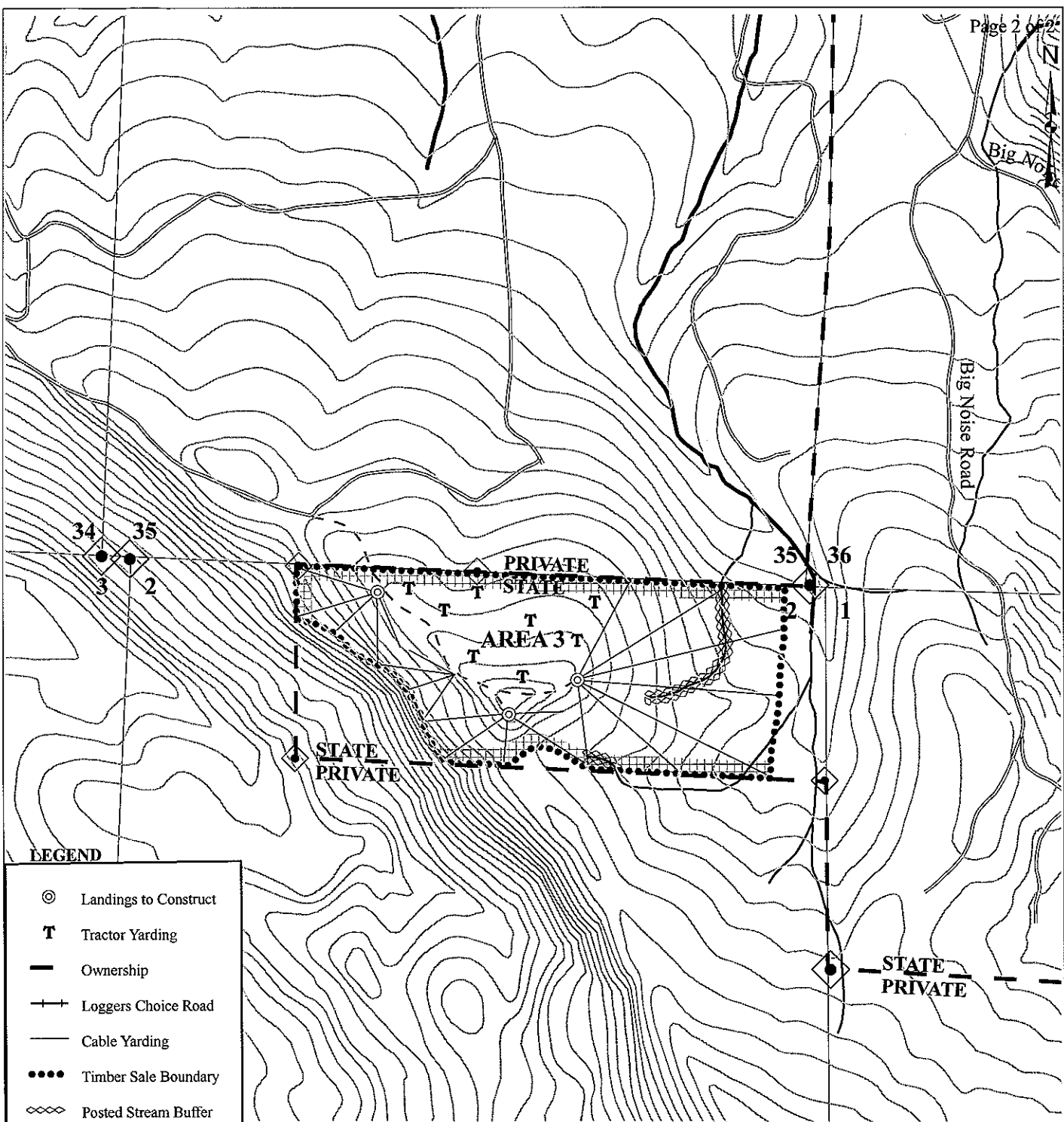
LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-09-42
 OUTLAND
 PORTIONS OF SECTION 2, T7N, R7W AND
 PORTIONS OF SECTION 21, T8N, R7W,
 W.M., CLATSOP COUNTY, OREGON.
 APPROXIMATE SCALE 1" = 1,000'
 1,000 500 0 1,000 Feet

APPROXIMATE ACREAGE

AREA	MC ACRES
1	5
2	11
3	94
TOTAL ALL AREAS 110	

LOGGING BREAKDOWN

AREA	TRACTOR	CABLE
1	100%	0%
2	100%	0%
3	27%	73%
TOTAL	37%	73%



- LEGEND**
- ⊙ Landings to Construct
 - T Tractor Yarding
 - Ownership
 - +— Loggers Choice Road
 - Cable Yarding
 - Timber Sale Boundary
 - ◇◇◇◇ Posted Stream Buffer
 - Surfaced Roads
 - Paved
 - Rocked
 - - - New Road Construction
 - Fish
 - Nonfish
 - ▣ 100' Top Attached
 - ▨ Streams Buffer
 - ◇ Survey Monument

LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-09-42
 OUTLAND

PORTIONS OF SECTION 2, T7N, R7W AND
 PORTIONS OF SECTION 21, T8N, R7W,
 W.M., CLATSOP COUNTY, OREGON.
 APPROXIMATE SCALE 1" = 1,000'



APPROXIMATE ACREAGE	
AREA	MCACRES
1	5
2	11
3	94
TOTAL ALL AREAS 110	

LOGGING BREAKDOWN		
AREA	TRACTOR	CABLE
1	100%	0%
2	100%	0%
3	27%	73%
TOTAL	37%	73%