



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Rimrock Thin Sale 341-03-24

District: Tillamook

Date: 10/3/02

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$316,703.79	\$0.00	\$316,703.79
		Project Work	(\$5,646.00)
		Advertised Value	\$311,057.79



Timber Sale Appraisal Timber Description Rimrock Thin Sale 341-03-24

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Sections 33, 34 and 35, T1S, R7W and Sections 2, 3, and 4, T2S, R7W, WM, Tillamook County, Oregon

Date: 10/3/02

Stand Stocking: 20%

Species	Avg. DBH	Amortized %	Recovery %
Douglas - Fir	11	0	95
Western Hemlock / Fir	13	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Total
2S	263	10	273
3S	1,423	56	1,479
4S	71	3	74
Total	1,757	69	1,826

Comments: Pond Values Used: 3rd Quarter 2002

Road Maintenance: Total = \$5.93/MBF

Grading: 9.1 miles x 2 gradings x \$500/mile / 1,826MBF = \$4.98/MBF

Surfacing: \$4/cy x 1.9MMBF x 9.1 miles x 25cy/mile / 1,826MBF = \$0.95

Other Cost (plus profit and risk): Total = \$3,652

Brand and Paint: \$2.00/MBF X 1,826MBF = \$3,652

Other Cost (profit and risk included): Total = \$27,941

Non-project roads:

Spur 1 - 1250 feet, Spur 2 - 3100 feet, Spur 3 - 500 feet, Spur 4 - 1150 feet

Machine work: 60 Stations x \$120 per station = \$7,200

Pit-run rock allowed for spurs: 2988 cu yds X \$5.73/cu yd = \$17,121

Clear slash from OHV Trails: 7550 ft @ \$0.40/ft = \$3,020

Block OHV Trails: 8 locations x \$75/location = \$600

Alder pond value of \$475/MBF was obtained from Northwest Hardwood in June 2002.

Alder stumpage: \$475/MBF - \$236.89/MBF logging cost = \$238.11/MBF



Timber Sale Appraisal

Logging Conditions

Rimrock Thin

Sale 341-03-24

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 59.99%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** No

Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Delimiting

Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

Loads/Day: 4 **Bd. Ft./Load:** 3,500

Cost/MBF: \$236.90

Machines:

- Log Loader (A)
- Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 40.01%

Western Hemlock / Fir 100.00%

Yarding Distance: Short (400 ft) **Downhill Yarding:** Yes

Logging System: Track Skidder **Process:** Feller Buncher

Tree Size: Small / Thinning 9in (70 Bft/tree), 20+ logs/MBF

Loads/Day: 8 **Bd. Ft./Load:** 3,500

Cost/MBF: \$125.67

Machines:

- Feller Buncher w/ Delimber
- Log Loader (B)
- Stroke Delimber (B)
- Track Skidder



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs

Rimrock Thin

Sale 341-03-24

Date: 10/3/02

Operating Seasons: 2.0

Profit & Risk: 20%

Project Costs: \$5,646

Other Costs (P/R): \$3,652

Slash Disposal: \$0

Other Costs: \$27,941

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Road Maintenance: \$5.93

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.5
Western Hemlock / Fir	\$0.00	3.0	3.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Rimrock Thin Sale 341-03-24

Costs	Douglas - Fir	Western Hemlock / Fir
Logging	192.40	125.67
Road Maintenance	6.24	6.24
Fire Protection	2.97	2.97
Hauling	69.16	46.11
Other (P/R appl.)	2.00	2.00
Profit & Risk	54.55	36.60
Slash Disposal	0.00	0.00
Scaling	2.00	2.00
Other	15.30	15.30
Total	344.62	236.89

Amortization	0.00	0.00
Pond Value	520.57	346.45
Stumpage	175.95	109.56
Amortized	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Rimrock Thin Sale 341-03-24

Amortized

	Douglas - Fir	Western Hemlock / Fir
MBF	0.00	0.00
Value	0.00	0.00
Total	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir
MBF	1,757.00	69.00
Value	175.95	109.56
Total	309,144.15	7,559.64

Gross Timber Sale Value

Recovery \$316,703.79

Prepared by: Bob Gustavson

Date: 10/3/02

District: Tillamook

Phone: (503) 842-2545

PROJECT SUMMARY SHEET

Sale: Rimrock Thin

CONSTRUCTION

Point	stations =	<u>\$0.00</u>
	SUBTOTAL CONSTRUCTION	\$0.00

IMPROVEMENT

Point	stations =	<u>\$0.00</u>
	SUBTOTAL IMPROVEMENT	\$0.00

SPECIAL PROJECTS

<u>Road Vacating Segment A to B (64+40 Stations)</u>	\$5,092.00
<u>Remove Culverts From State Land</u>	\$201.51
SUBTOTAL SPECIAL PROJECTS	\$5,293.51

MOVE IN	\$352.49
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GRAND TOTAL	\$5,646.00
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PROJECT WORK COST SUMMARY

Sale: Rimrock Thin

Road: Rimrock Road - Segment A to B

Road Vacating 64+40 stations
1.22 miles

CLEARING AND GRUBBING -

Side cast & road access 1.40 acres @ \$540.00 per acre = \$756.00
TOTAL CLEARING AND GRUBBING **\$756.00**

EXCAVATION -

Sidecast Pullback 22 hrs. @ \$130.00 per hr. = \$2,860.00

Fill Removal 5 hrs. @ \$130.00 per hr. = \$650.00
3+70, 8+20 & 38+30 TOTAL EXCAVATION **\$3,510.00**

SPECIAL PROJECTS

Seed, Fertilize and Mulch - .7 acres @ \$1180/acre \$826.00
TOTAL SPECIAL PROJECTS **\$826.00**

GRAND TOTAL

\$5,092.00



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

RIMROCK THIN

1. **Type of Sale:** Thinning – Recovery
2. **Legal Description:** Portions of Sections 33, 34 and 35 of T1S, R7W and Sections 2, 3 and 4 of T2S, R7W, W.M., Tillamook County, Oregon.
3. **Sale Acreage:** The sale boundary was plotted on a digital orthophotograph and the acreage was calculated with GIS.

	ACRES		
	<u>Sale</u>	<u>Total</u>	<u>Net</u>
Sale Area (Partial Cut)	407	258	258

Sale Acres

Area within the Timber Sale Boundary signs

Total acres

For accomplishment reporting

Clearcut harvest - Sale acres; plus green tree retention acres outside the sale boundary; less roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut - Sale acres less areas of low stocking, hardwoods, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Net acres

Used for calculating the advertised volume.

Clearcut - Sale acres, less green tree retention, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut - Same as total acres

4. **Cruising Procedures:**
 - A. **Cruising Method:** Fifty-eight variable radius full point plots were established in representative portions of the stands on the sale area to develop a stand table for conifer volume computations. Residual and surplus trees were designated to calculate a residual basal area of 120 square feet per acre.
 - B. **Plot Size:** A basal area factor of 20 was used. The point of conifer tree observation was at 4.5 feet.
 - C. **Diameter Standards:** All conifer diameters were measured at a height of 4.5 feet to the nearest 1". Diameters under 9" were not recorded.

- D. **Grading System:** Thirty-one conifer trees representative of take trees were measured for VBAR and grade during the cruise. Assignment of grades is similar to results from previous cruises in similar size timber.
- E. **Defect and Breakage:** A 5% defect and breakage reduction was applied to the conifer volume.
- F. **Cruiser Names / Dates:** Bob Gustavson and Steve Langer. January and February 2002.
5. **Computation Procedures:** Basal area and density information was calculated by District personnel from plot data taken. The residual basal area for the sale is to be within the range of 120 square feet to 140 square feet per acre. For computation purposes the sale volume was calculated using a residual basal area of 120 square feet. V-BAR (Volume-Basal Area Ratio) and grade for the take trees was computed using SuperAce and collected tree data (see attached Volume Computation Summary).
6. **Timber Description:** This area was burned in the 1933 and 1939 Tillamook Fires. The sale contains Douglas-fir stands 31-43 years of age with scattered clumps of hemlock. Hardwoods are present in draws and along abandoned roads. Portions of the sale area were precommercially thinned (PCT'd) in 1986 to 180 trees per acre. The non-thinning acres are areas of smaller conifer, hardwood or areas with less than the required residual basal area. The current average and expected stand characteristics for thinning areas are shown in the attached stand table.
7. **Revenue Distribution:**
100% FDF
Tax Code: 9-1 (35%), 9-2 (65%)
Deed No. 161, 169
91% Rehabilitation Obligated
8. **Appendices:**
- Volume Summary
- Stand Table
- Logging Plan/Thinning Acres



"STEWARDSHIP IN FORESTRY"

Rimrock Thin

Volume Summary

258 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	76	94	7.2	1849	5%	1757
Hemlock	3	94	0.3	73	5%	69
TOTAL				1922		1826

TOTAL SALE VOLUME			
SPECIES	MBF	D&B	Net Vol. (MBF)
Douglas-fir	1849	5%	1757
Hemlock	73	5%	69
TOTAL	1922		1826

RimrockThin

Expected BA - 120

DBH	Total Tk trs/acre	Total Lv trs/acre	Douglas-fir Tk tr/acre	Douglas-fir Lv tr/acre	Hemlock Tk tr/acre	Hemlock Lv tr/acre
8"	0.0	0.0	0.0	0.0	0.0	0.0
9"	26.2	1.6	25.4	1.6	0.8	0.0
10"	35.1	13.4	35.1	12.1	0.0	1.3
11"	19.1	7.8	18.6	7.8	0.5	0.0
12"	25.6	31.8	25.1	30.5	0.4	1.3
13"	0.0	0.0	0.0	0.0	0.0	0.0
14"	10.5	27.2	9.2	26.5	1.3	0.7
15"	0.0	0.0	0.0	0.0	0.0	0.0
16"	1.4	15.9	1.0	15.0	0.5	0.97
18"	0.2	4.7	0.2	4.2	0.0	0.6
20"	0.5	3.1	0.5	2.8	0.0	0.3
22"	0.6	2.1	0.6	1.8	0.0	0.0
24"	0.0	0.9	0.0	0.8	0.0	0.1
26"	0.0	1.2	0.0	1.1	0.0	0.1
28"	0.0	0.3	0.0	0.3	0.0	0.0
30"	0.0	0.3	0.0	0.3	0.0	0.0
32"	0.0	0.0	0.0	0.0	0.0	0.0
34"	0.0	0.1	0.0	0.1	0.0	0.0
Total	119.1	110.4	115.5	104.8	3.6	5.3

TOTAL STAND

BA/acre	199
Lv BA/ac	120
Tk BA/ac	79
RD Total	56

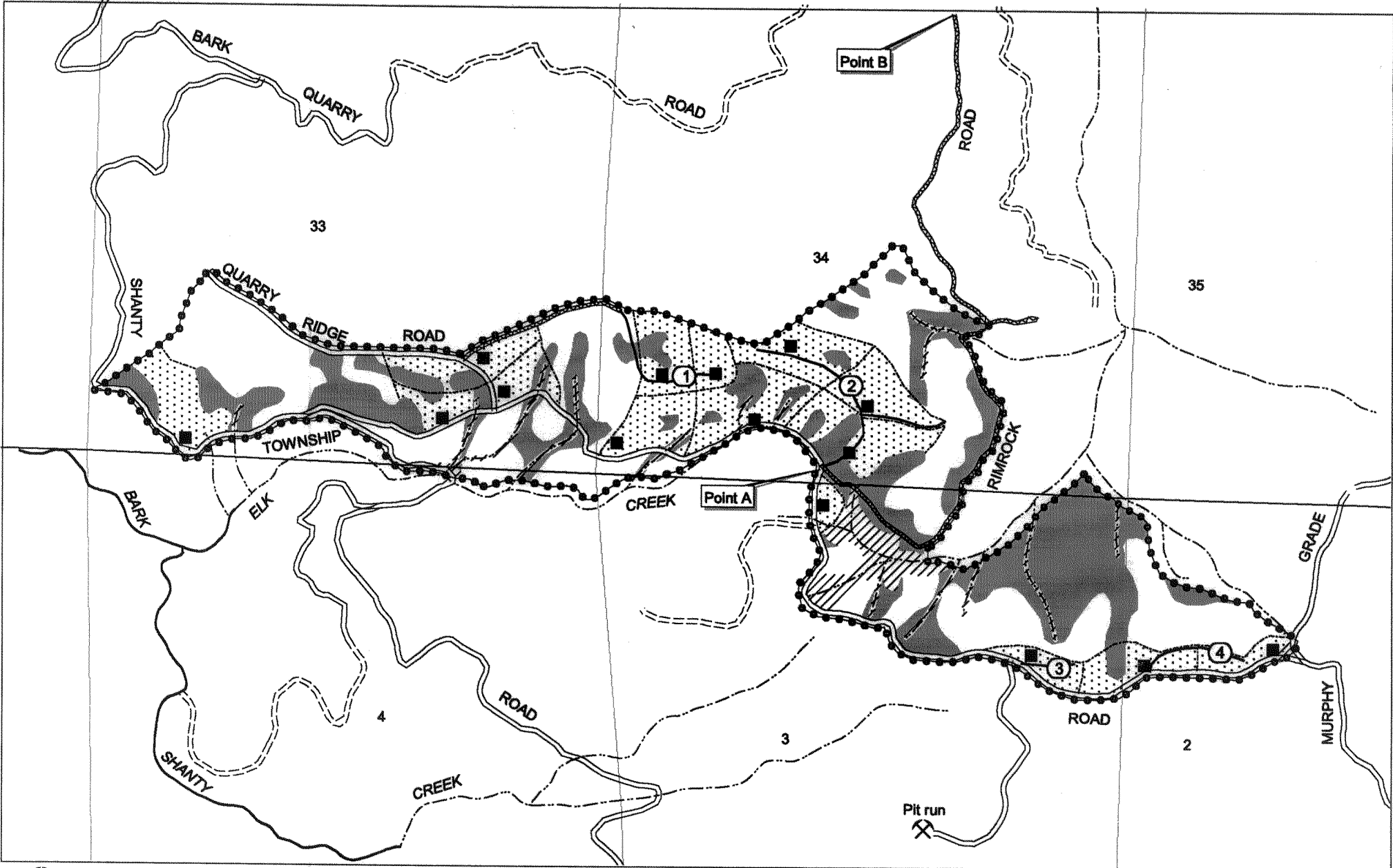
Current Ave Stand Diameter	12.6
Leave Stand - QM Diameter	14.1
Take trees - QM Diameter	11.0
Relative Density expected	32

Douglas-fir	BA	QMD
Total	189	12.6
Leave	114	14.1
Take	76	10.9

Hemlock	BA	QMD
Total	9	13.9
Leave	6	14.6
Take	3	12.7

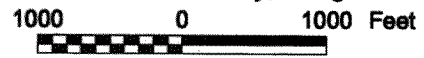
Douglas-fir	
Stand Density Index	53
SDI - Expected	30

Hemlock	
Stand Density Index	2
SDI - Expected	1



- | | | | |
|--|-----------------------|--|-------------------|
| | Rock source | | Area boundary |
| | Cable landing | | Sale boundary |
| | Tractor landing | | Type-F stream |
| | Cable yarding | | Type-N stream |
| | Ground yarding | | Unsurfaced road |
| | Buffer zone | | Surfaced road |
| | Non-required thinning | | State highway |
| | Setting boundary | | Abandoned road |
| | Swing road | | Road construction |
| | | | County road |
| | | | Non-project road |

LOGGING PLAN
 Timber Sale Contract No. 341-03-24
 Rimrock Thin
 Sections 33, 34, and 35, T1S, R7W,
 and Sections 2, 3, and 4, T2S, R7W, W.M.
 Tillamook County, Oregon



Sale	Acres
Net	407
	258

OREGON DEPARTMENT OF FORESTRY
WRITTEN PLAN

SALE NAME: **Rimrock Thin**

PROTECTED RESOURCE: **No High Risk Sites were identified on the sale areas. If active landslides and slumps; slopes steeper than 80%; headwalls or draws steeper than 70% are found that constitute a High Risk Site the following practices will apply.**

LOCATION: **Portions of Sections 33, 34 and 35, T1S, R7W, and Sections 2, 3 and 4, T2S, R7W, W.M., Tillamook County, Oregon.**

ACTIVITY: **Cable yarding across High Risk Sites.**

PROTECTION MEASURES:

YARDING:

- Logs will have at least one end suspended when yarding across high risk sites.
- Soil gouging will be limited to a depth of 1 foot (measured perpendicular to the slope) when across yarding through high risk sites.

PREPARED BY: **Bob Gustavson**
South Unit Forester
9/6/02