



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Luebke Thin Sale 341-03-14

District: Tillamook

Date: 6/28/02

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$147,500.01	\$0.00	\$147,500.01
		Project Work	(\$27,175.00)
		Advertised Value	\$120,325.01



Timber Sale Appraisal Timber Description Luebke Thin Sale 341-03-14

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Secs. 15&16, T1NR7W
Tillamook County

Date: 6/28/02

Stand Stocking: 20%

Species	Avg. DBH	Amortized %	Recovery %
Douglas - Fir	14	0	95

Volume by Grade	Douglas - Fir	Total
2S	77	77
3S	540	540
4S	154	154
Total	771	771

Comments: Pond Values Used: 2nd Quarter 2002

Additional costs - P&R to be applied:

Brand&paint - \$2/771mbf = \$1,542

Road Maintenance:

Grading - \$500/mile x 5 miles x 1 = \$2,500/771mbf = \$3.24

Surfacing - \$5/cy x 0.8mbf x 5 miles x 50cy = \$1000/771mbf = \$1.30

Total: \$4.54

Hardwood pond value of \$450 was obtained from Northwest Hardwoods in April 2002



Timber Sale Appraisal Logging Conditions Luebke Thin Sale 341-03-14

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 75.00%
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 25.00%
Yarding Distance: Short (400 ft) **Downhill Yarding:** No
Logging System: Track Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 8 **Bd. Ft./Load:** 3,500
Cost/MBF: \$116.62
Machines:
Log Loader (B)
Track Skidder



**Timber Sale Appraisal
Logging Costs
Luebke Thin
Sale 341-03-14**

"STEWARDSHIP IN FORESTRY"

Date: 6/28/02

Operating Seasons: 1.0

Profit & Risk: 15%

Project Costs: \$27,175

Other Costs (P/R): \$1,542

Slash Disposal: \$0

Other Costs: \$0

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

Road Maintenance: \$4.54

Hauling Costs

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



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Luebke Thin Sale 341-03-14

Costs	Douglas - Fir
Logging	206.83
Road Maintenance	4.78
Fire Protection	3.51
Hauling	46.11
Other (P/R appl.)	2.00
Profit & Risk	39.48
Slash Disposal	0.00
Scaling	2.00
Other	0.00
Total	304.71

Amortization	0.00
Pond Value	496.02
Stumpage	191.31
Amortized	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Luebke Thin Sale 341-03-14

Amortized

	Douglas - Fir
MBF	0.00
Value	0.00
Total	0.00

Unamortized

	Douglas - Fir
MBF	771.00
Value	191.31
Total	147,500.01

Gross Timber Sale Value

Recovery \$147,500.01

Prepared by: Steve Langer

Date: 6/28/02

District: Tillamook

Phone: (503) 842-2545

PROJECT SUMMARY SHEET

Sale: Luebke Thin Date: Sep. 20 2001

Construction -

Point	stations =	\$0.00
Point	stations =	\$0.00
Point	stations =	\$0.00
Point	stations =	\$0.00
Point	stations =	\$0.00
SUB TOTAL		\$0.00

Improvement -

Point	A - B	stations = 54+85	\$26,264.95
Point		stations =	\$0.00
Point		stations =	\$0.00
Point		stations =	\$0.00
Point		stations =	\$0.00
SUB TOTAL			\$26,264.95

Special Projects -

_____	\$0.00	
_____	\$0.00	
_____	\$0.00	
_____	\$0.00	
SUB TOTAL		\$0.00

Move - In -

Grader	\$145.76	
Tractor	\$540.93	
Roller	\$223.42	
_____	\$0.00	
SUB TOTAL		\$910.11

GRAND TOTAL \$27,175.06

SUMMARY OF CONSTRUCTION COST

Sale: Luebke Thin

Road: Points A - B

Construction - stations
0.00 miles

Improvement - 54+85 stations
1.04 miles

CLEARING AND GRUBBING -

Side cast	0.00 acres @	\$540.00 per acre =	\$0.00	
Scattering	2.10 acres @	\$815.00 per acre =	\$1,711.50	
Piling	0.00 acres @	\$905.00 per acre =	\$0.00	
Endhaul	0.00 acres @	\$1,500.00 per acre =	\$0.00	
TOTAL CLEARING AND GRUBBING				\$1,711.50

EXCAVATION -

Excavator	6 hr.s @	\$115.00 per hr. =	\$690.00	
Cat	8 hr.s @	\$130.00 per hr. =	\$1,040.00	
	19.05 sta. @	\$65.00 per sta. =	\$1,238.25	
	0 cys. @	\$0.00 per c.y. =	\$0.00	
	0 cys. @	\$0.00 per c.y. =	\$0.00	
	0 cys. @	\$0.00 per c.y. =	\$0.00	
TOTAL EXCAVATION				\$2,968.25

CULVERT MATERIALS -

Culverts					
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00
0	LF of 30"	\$0.00	0	LF of 36"	\$0.00
0	LF of 42"	\$0.00	0	LF of 48"	\$0.00
0	LF of 54"	\$0.00	0	LF of 60"	\$0.00
		<u>\$0.00</u>			<u>\$0.00</u>
Half Rounds					
0	LF of 21"	\$0.00	0	LF of 30"	\$0.00
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00
0	LF of 48"	\$0.00	0	LF of 54"	\$0.00
0	LF of 60"	\$0.00	0	LF of 66"	\$0.00
		<u>\$0.00</u>			<u>\$0.00</u>
Culvert Stakes					
0	1/2 round stakes @	\$8.00 per stake=	\$0.00		
0	marker stakes @	\$6.00 per stake=	\$0.00		
TOTAL CULVERT MATERIALS				\$0.00	

SURFACING-

Spot Rock to					
Sta. 31+80	330	cy. of	Pit Run	@	\$9.99 per c.y.= \$3,297.55
12" Depth	1,544	cy. of	Pit Run	@	\$9.99 per c.y.= \$15,428.53
CrvWiden	50	cy. of	Pit Run	@	\$9.99 per c.y.= \$499.63
3Trmouts	66	cy. of	Pit Run	@	\$9.99 per c.y.= \$659.51
SmTumrnd	22	cy. of	Pit Run	@	\$9.99 per c.y.= \$219.84
TOTAL SURFACING					\$20,105.06

SPECIAL PROJECTS

<u>Grade Road: 54+85 Stations @ \$9.85/sta.</u>	<u>\$534.79</u>	
<u>Roll Subgrade: 54+85 Stations @ \$11/sta.</u>	<u>\$603.35</u>	
<u>Seed & Fertilize Areas of Disturbed Soil: 1.9 Acres @ \$180/ac.</u>	<u>\$342.00</u>	
	<u>\$0.00</u>	
TOTAL SPECIAL PROJECTS		\$1,480.14

GRAND TOTAL **\$26,264.95**

PIT RUN PIT DEVELOPMENT AND STRIPPING COST SUMMARY

SALE: LUEBKE THIN

Location: SW NW Sec18 1N 8W

Pit: Archers/Jordan
 Rock: PIT RUN
 Swell: 1.30
 Shrinkage: 1.16
 Drill Pct.: 100%

Road: 2012 c.y.
 Stockpile Size: c.y.
 Total Truck Loads: 2012 c.y.
 In Place Total: 1548 c.y.

Pit Development: \$2,437.47
 Drill & Shoot: \$1.90 /cu.yd. x 1548 cu.yds. = \$2,940.62
 Strip Rock: \$1.50 /cu.yd. x 0 cu.yds. = \$0.00
 Push Rock: \$0.60 /cu.yd. x 2012 cu.yds. = \$1,207.20
 Load Dump Truck: \$0.70 /cu.yd. x 2012 cu.yds. = \$1,408.40
Sub Total \$7,993.69

Move In:
 Drill & Compressor \$223.72
 Excavator \$329.22
 Water Truck \$71.05
 5 Dump Trucks \$1,306.66
Sub Total \$1,930.65

Base Cost: \$4.93 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A - B	\$4.51	\$0.55	\$4.93	\$9.99	2012	\$20,105.06
	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0.00
	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0.00
Total C.Y.					2012	Sub Total \$20,105.06

Stockpile	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
	\$0.00	\$0.55	\$0.00	\$0.55	0	\$0.00
Total C.Y.					0	Sub Total \$0.00

TOTAL ROCKING COSTS = **\$20,105.06**



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Luebke Thin

"STEWARDSHIP IN FORESTRY"

1. **Type of Sale:** Thinning/Clearcut – Recovery
2. **Legal Description:** Portions of Sections 15 and 16, T1N, R7W, W.M., Tillamook County, Oregon.
3. **Sale Acreage:** The sale boundaries were plotted on a digital orthophotograph and the acreage was calculated with GIS.

	ACRES		
	<u>Sale</u>	<u>Total</u>	<u>Net</u>
Area 1 (Partial Cut)	94	79	79
Area 2 (Clearcut)	20	20	16

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:** A total of 22 basal area plots within Area 1 and 10 basal area plots within Area 2 were measured in representative portions of the sale areas, to develop stand tables for the conifer volume computations.
 - 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 8" were not recorded.
 - D. **Grading System:** Conifers were not graded during the cruise. Assignment of grades was based on results from previous cruises in similar size timber.

5. **Computation Procedures:** Basal area and density information was calculated from plot data taken. On Area 1, the residual basal area for the sale is to be within the range of 120 to 140 square feet per acre. For computation purposes the sale volume was calculated using a residual basal area of 120 square feet. On Area 2, Douglas-fir volume calculation was based on removal of all the basal area. V-BAR (Volume-Basal Area Ratio) for the take trees was computed using information from measurements made from trees within the sale areas. (see attached Volume Computation Summary).
6. **Defect and Breakage:** A 5% reduction was applied to the cruise volumes for defect and breakage.
7. **Timber Description:** The sale areas were burned in the 1918 Cedar Butte Fire and the 1933, 1939 and 1945 Tillamook Fires. The majority of the timber on the sale area is the result of aerial seeding during 1950 and 1951. Area 1 - Thinning at this time is expected to reduce conifer competition to increase diameter growth and maintain or increase vigor of the residual stand while providing opportunities for future stand treatments. The current average and expected stand characteristics for the sale area are shown in the attached stand table.
Area 2 – Tree growth has slowed in this portion of the sale resulting from a combination of Swiss needle cast and a root disease. The area was thinned in 1994 and several openings were created from removal of root disease (*Phellinus weirii*) infected trees. Removal of all the Douglas-fir trees and replanting with conifer species resistant to root rot and SNC is planned.
8. **Cruiser Names / Dates:** Robert Shaver & Steve Langer. April, 2001.
9. **Revenue Distribution:**
100% FDF
Tax Code: 9-2
Deed No. 159
100% Rehabilitation Obligated
10. **Attachments:**
 - Stand Table
 - Volume Computation Summary
 - Logging Plan/Thinning Acres



"STEWARDSHIP IN FORESTRY"

Luebke Thin

Volume Summary

Area 1						
79 acres						
SPECIES	Basal Area per acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	71	102	7.2	569	5%	541
TOTAL			7.2	569		541

Area 2						
16 acres						
SPECIES	Basal Area per acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	148	102	15.1	242	5%	230
TOTAL			15.1	242		230

TOTAL SALE VOLUME			
SPECIES	MBF		Net Vol. (MBF)
Douglas-fir	811		771
TOTAL	811		771



"STEWARDSHIP IN FORESTRY"

Luebke Thin Area 1

Stand Table

DBH	Take Trees	Leave Trees	Number of Plots	Take Trees per Acre	Leave Trees per Acre	Trees per Acre
8"	0	0	22	0.0	0.0	0.0
9"	0	0	22	0.0	0.0	0.0
10"	15	2	22	25.2	3.4	28.6
11"	6	2	22	8.2	2.7	10.9
12"	8	9	22	9.5	10.6	20.1
13"	3	3	22	3.0	3.0	5.9
14"	10	11	22	8.6	9.5	18.1
15"	4	3	22	3.0	2.2	5.2
16"	15	26	22	9.5	16.5	26.1
17"	0	3	22	0.0	1.7	1.7
18"	13	33	22	6.5	16.5	23.0
19"	0	0	22	0.0	0.0	0.0
20"	4	12	22	1.6	4.9	6.5
21"	0	0	22	0.0	0.0	0.0
22"	0	13	22	0.0	4.7	4.7
24"	0	7	22	0.0	1.9	1.9
26"	0	4	22	0.0	0.9	0.9
28"	0	1	22	0.0	0.2	0.2
30"	0	1	22	0.0	0.2	0.2
32"	0	2	22	0.0	0.4	0.4
34"	0	0	22	0.0	0.0	0.0
36"	0	0	22	0.0	0.0	0.0
Total	78	132		75	79	155

Trees/plt	9.5	Trees/ac	155
Tk trs/plt	3.5	Tk trs/ac	75
Lv trs/plt	6.0	Lv trs/ac	79

BA(acre)	191	Current Stand - QM Diameter	15.1
BA(tree)	1.24	Leave Stand - QM Diameter	16.6
Lv BA/ac	120	Take trees - QM Diameter	13.2
Tk BA/ac	71		

Relative Density	49
Relative Den. - Leave	29



"STEWARDSHIP IN FORESTRY"

Luebke Thin Area 2

Stand Table

DBH	Take Trees	Leave Trees	Number of Plots	Take Trees per Acre	Leave Trees per Acre	Trees per Acre
8"	0	0	10	0.0	0.0	0.0
9"	0	0	10	0.0	0.0	0.0
10"	0	0	10	0.0	0.0	0.0
11"	0	0	10	0.0	0.0	0.0
12"	2	0	10	5.2	0.0	5.2
13"	2	0	10	4.3	0.0	4.3
14"	26	0	10	49.4	0.0	49.4
15"	3	0	10	4.9	0.0	4.9
16"	17	0	10	23.8	0.0	23.8
17"	0	0	10	0.0	0.0	0.0
18"	10	0	10	11.0	0.0	11.0
19"	0	0	10	0.0	0.0	0.0
20"	8	0	10	7.2	0.0	7.2
21"	0	0	10	0.0	0.0	0.0
22"	4	0	10	3.2	0.0	3.2
24"	0	0	10	0.0	0.0	0.0
26"	2	0	10	1.0	0.0	1.0
28"	0	0	10	0.0	0.0	0.0
30"	0	0	10	0.0	0.0	0.0
32"	0	0	10	0.0	0.0	0.0
34"	0	0	10	0.0	0.0	0.0
36"	0	0	10	0.0	0.0	0.0
Total	74	0		110	0	110

Trees/plt	7.4	Trees/ac	110
Tk trs/plt	7.4	Tk trs/ac	110
Lv trs/plt	0.0	Lv trs/ac	0

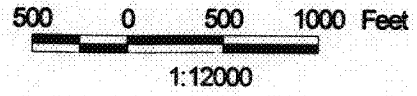
BA(acre)	148	Current Stand - QM Diameter	15.7
BA(tree)	1.35	Leave Stand - QM Diameter	#DIV/0!
Lv BA/ac	0	Take trees - QM Diameter	15.7
Tk BA/ac	148		

Relative Density	37
Relative Den. - Leave	#DIV/0!



- Cable landing
- Tractor landing
- ⋯ Timber Sale Boundary
- Setting boundary
- === Unsurfaced existing
- ==== Surfaced existing
- Paved
- Thinning not required
- Cable yarding
- Ground yarding

Logging Plan
Luebke Thin
Sections 15 and 16, T1N, R7W, W.M.
Tillamook County, Oregon



Area	Total	Thin	Clearcut
1	94	79	0
2	20	0	16

**OREGON DEPARTMENT OF FORESTRY
WRITTEN PLAN**

SALE NAME: Luebke 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 15 & 16, T1N, R7W, W.M., Tillamook County, Oregon.

ACTIVITY: Cable yarding across or adjacent to High Risk Sites.

PROTECTION MEASURES:

YARDING:

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

**PREPARED BY: Wayne Auble
 South Unit Forester
 March 11, 2002**