



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Howell Ridge No. 3 Sale 341-03-95

District: Coos

Date: 4/3/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,079,528.10	\$0.00	\$2,079,528.10
		Project Work	(\$44,517.26)
		Advertised Value	\$2,035,010.84



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Timber Description Howell Ridge No. 3 Sale 341-03-95

District: Coos

Location: Portions of Sections 28,29 & 33;T23S, R10W,W.M.,Coos County, Oregon

Date: 4/3/03

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	26	0	95
Western Hemlock / Fir	17	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Total
3P	332	0	332
SM	647	0	647
2S	2,257	0	2,257
3S	571	0	571
4S	139	0	139
Camprun	0	512	512
Total	3,946	512	4,458

Comments: Pond Values Used: 1st Quarter 2003



Timber Sale Appraisal Logging Conditions Howell Ridge No. 3 Sale 341-03-95

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 100.00%
 Western Hemlock / Fir 100.00%

Yarding Distance: Short (400 ft) **Downhill Yarding:** No
Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Delimiting
Tree Size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
Loads/Day: 15 **Bd. Ft./Load:** 4,500
Cost/MBF: \$49.13

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



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Howell Ridge No. 3 Sale 341-03-95

Date: 4/3/03

Operating Seasons: 1.0

Profit & Risk: 12%

Project Costs: \$44,517

Other Costs (P/R): \$15,778

Slash Disposal: \$0

Other Costs: \$0

Road Maintenance: \$0.00

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
1.9	0.0	0.0	0.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	4.5
Western Hemlock / Fir	\$0.00	3.0	3.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Howell Ridge No. 3 Sale 341-03-95

Costs	Douglas - Fir	Western Hemlock / Fir
Logging	49.13	49.13
Road Maintenance	0.60	0.60
Fire Protection	0.61	0.61
Hauling	35.89	46.11
Other (P/R appl.)	3.54	3.54
Profit & Risk	10.77	12.00
Slash Disposal	0.00	0.00
Scaling	2.00	2.00
Other	0.00	0.00
Total	102.54	113.99

Amortization	0.00	0.00
Pond Value	595.67	375.00
Stumpage	493.13	261.01
Amortized	0.00	0.00



Timber Sale Appraisal Summary Howell Ridge No. 3 Sale 341-03-95

"STEWARDSHIP IN FORESTRY"

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	3,946.00	512.00
Value	493.13	261.01
Total	1,945,890.98	133,637.12

Gross Timber Sale Value

Recovery \$2,079,528.10

Prepared by: Robert Fields

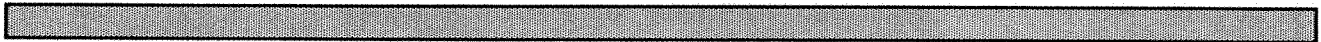
Date: 4/3/03

District: Coos

Phone: (541) 267-1755

Additional "Other Cost" with additional profit and risk to be added:

	<u>Quantity</u>	<u>Units</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Felling				
Directional Felling	572	MBF	\$ 2.00	\$ 1,144.00
Yarding and Loading				
Rig tail trees	25	tree	\$ 100.00	\$ 2,500.00
Artificial support (Dozers) for Tail trees	50	anchor	\$ 50.00	\$ 2,500.00
Loader time for firewood stacking	9	Hours	\$ 75.00	\$ 675.00
Brand and Paint Logs	4459	MBF	\$ 1.00	\$ 4,459.00
Snag Creation				
Tree Topping	40	trees	\$ 100.00	\$ 4,000.00
Miscellaneous Costs				
Additional Fire Equipment	0.5	Seasons	\$ 1,000.00	\$ 500.00
Total additional "Other Cost" with additional profit and risk to be added				\$ 15,778.00



**SUMMARY OF CONSTRUCTION COST
Howell Ridge No. 3**

Project 1: Road and Landing Improvement

Points:	Length:	Type:
A to B	2763'	14' w/ditch
B to C	5838'	14' no ditch
C to D	1200'	14' no ditch

Excavation

Cat time for all improvements	20	hrs at	\$95.00	per hr	\$1,900.00
Excavator time for improvements	20	hrs at	\$110.00	per hr	\$2,200.00

Total Excavation \$4,100.00

Grade Road Surface

Grader time for all spurs	5	hrs Grade @	\$75.00	per hour	\$375.00
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Total Grading \$375.00

Move-in

Equipment	Miles	Mileage Factor	Equipment Allowance	Total
Excavator	30	0.66	\$533.00	\$351.78
D7 Cat	30	0.66	\$387.00	\$255.42
Grader	30	0.66	\$241.00	\$159.06

Total Move-in \$766.26

Total Project 1 \$5,241.26

Project No. 2A: Rock Stockpile

Location: Skunk Creek (9000/9300 jct)
 Measured amount: 1000 cubic yards
 Delivered amount: 1200 cubic yards (20% expansion)
 Size: 1 1/2" - 0"

Cost per cubic yard at crusher:	\$7.00	per cu yd
Haul cost per cubic yard (2.9 hr. RT):	\$9.67	per cu yd
Piling and shaping cost per cubic yard:	\$0.53	per cu yd

Total cost per cubic yard:	\$17.20	per cu yd
Total cubic yards:	1200	cubic yards

Total Cost for Stockpile rock: \$20,640.00

**SUMMARY OF CONSTRUCTION COST
Howell Ridge No. 3**

Project No. 2B: Rock Stockpile

Location: Elk Creek (8000/9000 jct)
Measured amount: 1000 cubic yards
Delivered amount: 1200 cubic yards (20% expansion)
Size: 1 1/2" - 0"

Cost per cubic yard at crusher:	\$7.00	per cu yd
Haul cost per cubic yard (2.4 hr. RT):	\$8.00	per cu yd
Piling and shaping cost per cubic yard:	\$0.53	per cu yd

Total cost per cubic yard:	\$15.53	per cu yd
Total cubic yards:	1200	cubic yards

Total Cost for Stockpile rock: \$18,636.00

Total Project 2 \$39,276.00

Total Project Costs \$44,517.26

TIMBER SALE SUMMARY

Howell Ridge No. 3

1. **Type of sale:** Final harvest; Recovery, Sealed Bid.
2. **Boundary Lines:** Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red paint, and red flagging at locations shown on the Exhibit A.
3. **Revenue Distribution:** 100% CSL, 0% BOF.
4. **Sale Acreage:** The net harvested area is 71 acres. The acreage was determined using ArcView software by digitizing the boundary over an orthophoto image and then calculating the area using a measuring tool in an ArcView program extension.
5. **Volume by Species, Fund, and County:** See table on page 3.
6. **Grade by Percent:**

Species (by Area)	3 Peeler	Special Mill	2 Saw	3 Saw	4 Saw/Camp
Douglas-fir	9	17	57	14	3

7. **Cruise:** The sale area was variable plot cruised using the Big BAF cruise design, which consisted of 57 nested plots. Each plot consists of both a full 20 BAF count plot and a full 360 BAF measure plot. The 20 BAF count plot was used to tally the number of trees by species to determine stand basal area. The 360 BAF plot was used to obtain height, grade and defect. Forty-three Big BAF trees were cruised for diameter, height, grade and defect. Cruising was done by ODF Foresters and compiled using Superace and Excel, in November 2002. The combined sampling error for board foot volume was 7.86%.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV %	SE %
D4H	Total Height	Conifer: 16'	Recorded or estimated on all trees	30	8

B. Stand Summary:

Species (By Area)	D4H	Trees per Acre	Basal Area (ft ² /ac)	Net BF per acre
Douglas-fir	26	62	225	55.6
Hemlock	17	39	59	7.2

C. Green Tree Retention Summary: There is a total of 279 trees located in 3 GTR areas associated with this sale and are posted out of the sale area. The following volumes represent trees within each of the GTR areas.

GTR Area	Acres	Douglas Fir MBF	Hemlock MBF
1	0.5	30	3
2	1.3	78	9
3	1.5	90	11

- 8. Timber Description:** The majority of the sale area is composed of 145 year old second growth Douglas Fir of good to average quality, intermixed with small amounts of Western hemlock and scattered Western red cedar plus a few residual Old-growth Douglas Fir. Any Western red cedars are to be left uncut.
- 9. Topography:** The sale area is moderately steep (>50%) with some gentler bench areas in the central and eastern portions of the unit. The topographic map for this area does not reflect relief of smaller benches in great detail.
- 10. Logging Method:** The sale areas will be cable logged uphill with single-end suspension over the unit. Lift trees will be identified along the eastern boundary to facilitate suspension of payloads. Full suspension will be required as necessary to protect streams and RMAs. A motorized carriage may be needed to obtain the necessary suspension.
- 11. Access:** From Coos Bay, take Coos River Route past Allegany to the mouth of Marlow Creek (approximately 16 miles). Turn northeast (left) onto State Forest 1000 Road (Elk Ridge Road) take this road to State Forest 1820 Road (approximately 16 miles). Travel south on the 1820 approximately 0.6 mile to the sale area.
- 12. Projects:**
Project No. 1: Road Construction
Project No. 2A: Rock Stockpile
Project No. 2B: Rock Stockpile

NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)								Vol. per Acre
			By County and Fund								
Area	Spec		Coos			Douglas			Total Vols.		
		CSL	BOF	Total	CSL	BOF	Total				
I	D-fir		3946		3946			0	3946	55.6	
	Hem		512		512			0	512	7.2	
TOTALS			4458	0	4458	0	0	0	4458		

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 3946 MBF
 Hemlock 512 MBF
 RedCedar 0 MBF
 Hardwoods 0 MBF

Report by: R. Fields

Date: 3/28/2003

Unit For. Robert E Fields 03/28/03
Date

Asst. Dist. For. Greg Kreininger 3/28/2003
Date

**UTILITY VOLUME NOT SHOWN TO PROVIDE FOR RETENTION OF DOWN LOGS
 NO INGROWTH INCLUDED**

ACREAGE BY COUNTY (to nearest acre)

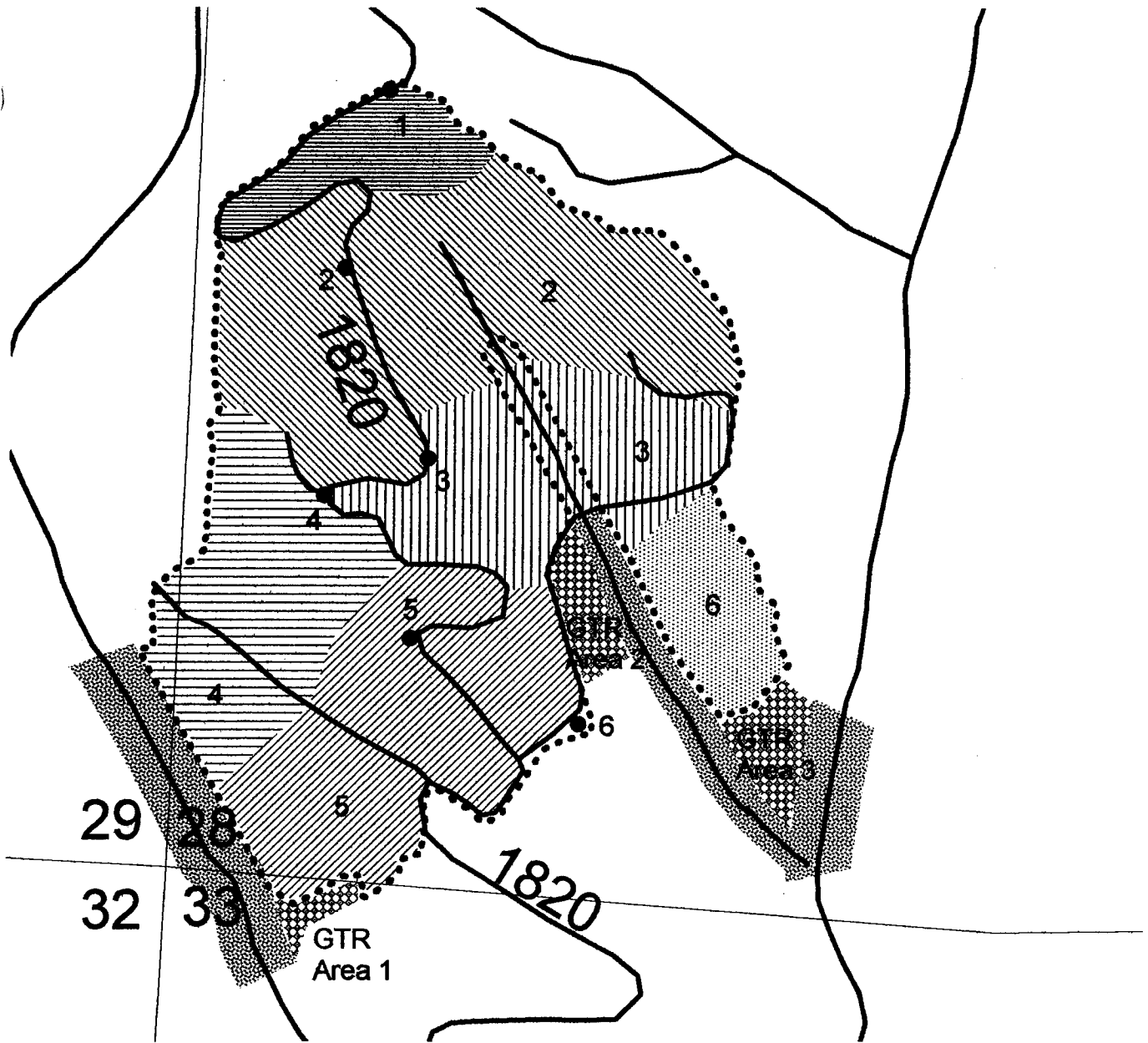
Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc		cc	pc		cc	pc		cc	pc		
I	71												71
SUM	71	0	0	0	0	0	0	0	0	0	0	0	71

cc- clearcut

pc- partial cut

BOF - Board of Forestry

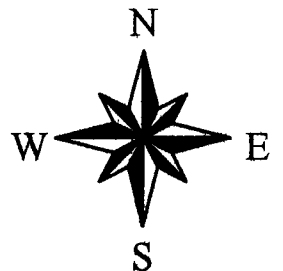
CSL - Common School Land



- Landings
- Section Lines
- ⋯ Sale Boundary
- Purchaser maintained roads.shp
- ~ Streams

- Logging Plan**
- ▨ Setting 1
 - ▧ Setting 2
 - ▩ Setting 3
 - Setting 4
 - Setting 5
 - ▬ Setting 6
 - ▣ Green Tree Retention
 - ▤ Stream Buffer

Howell Rdg. No. 3 Logging Plan



WRITTEN PLAN

SALE NAME: Howell Ridge No. 3

LOCATION: Portions of Sections 28, 29 and 33; T23S; R10W; Coos County, Oregon

LANDOWNER: Oregon Department of Forestry; 63612 Fifth Road, Coos Bay, Or.

CONTRACT PURCHASER: _____

NOTIFICATION NO: _____

SITUATION AND PROTECTED RESOURCE

The Howell Ridge No. 3 timber sale is located in the *Tyee Core Area*. Some slopes and headwalls within the sale area are in excess of 60% gradient and therefore could be potential high risk sites. The protected resource is an adjacent and downstream Type F streams.

LAYOUT

Landings have been provided to enable best possible deflection for suspension of logs while yarding the sale area.

FELLING AND BUCKING

1. Felling will be done during the dry season of the year between April 1 and October 15, annually, unless otherwise approved by STATE.
2. Trees shall be directionally felled parallel to or away from stream riparian management areas (RMA's) as feasible.
3. High stumps shall be left as needed to catch rolling logs and minimize their accumulation in stream channels.

YARDING

1. Operator will use a machine and logging system capable of fully suspending logs..
2. Yarding will be done during the dry season of the year between April 1 and October 15, annually, unless otherwise approved by STATE and compliance with "Winter and Wet Weather" requirements in Exhibit "F".
3. Operator will fully suspend logs when sufficient deflection is available as directed by STATE to protect identified high risk sites.

OPERATIONS PLAN. Purchaser shall attach a yarding plan indicating landing locations, machinery and procedures to be used obtain adequate suspension in the sale area and to minimize impacts during the felling process.

SLOPE PROTECTION. Purchaser shall establish or maintain plant species that will enhance slope stability in harvested areas where needed to minimize the risk of erosion.

O.D.F. REPRESENTATIVE

DATE: _____

PURCHASER REPRESENTATIVE

DATE: _____

OPERATOR REPRESENTATIVE (if listed on notification)

DATE: _____

APPROVED BY: _____
FOREST PRACTICES/UNIT FORESTER

DATE: _____