



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Coal Ridge Sale 341-04-57

District: Tillamook

Date: 10/8/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$266,161.90	\$0.00	\$266,161.90
		Project Work	(\$16,817.00)
		Advertised Value	\$249,344.90



Timber Sale Appraisal Timber Description Coal Ridge Sale 341-04-57

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Portions of Sections 1, 2, and 12, T3N, R10W, W.M., Tillamook County, Oregon.

Date: 10/8/03

Stand Stocking: 20%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	13	0	95
Western Hemlock / Fir	12	0	95
Sitka Spruce	10	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Total
2S	62	0	0	62
3S	1,073	76	78	1,227
4S	419	0	0	419
Total	1,554	76	78	1,708

Comments: Pond Values Used: 3rd Quarter 2003

Hardwood Pond Value: \$520
Logging Costs: \$222.76
Hardwood Stumpage: \$297.24

Additional Costs (Profit & Risk to be added)
Brand & Paint: $\$2.00/\text{MBF} \times 1,708 \text{ MBF} = \$3,416$

Additional Costs with Profit & Risk

Non-Project Roads (Seeding included):
Road 1 - 5 Stations $\times \$65 = \325
Road 2 - 10 Stations $\times \$65 = \650

Total Other Costs w/ Profit & Risk = \$975

Road Maintenance:
 $\$500/\text{mile} \times 3.5 \text{ miles} \times 1 \text{ grading} = \$1,750$
 $40\text{cy}/\text{mile} \times 3.5 \text{ miles} \times \$12.00/\text{cubic yard} = \$1,680$

Total Road Maintenance = $\$3,430/1,708 \text{ MBF} = \$2.01/\text{MBF}$



Timber Sale Appraisal Logging Conditions Coal Ridge Sale 341-04-57

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	50.00%	
	Western Hemlock / Fir	59.21%	
	Sitka Spruce	100.00%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: Yes
Logging System:	Wheel Skidder		Process: Feller Buncher
Tree Size:	Small / Thinning 9in (70 Bft/tree), 20+ logs/MBF		
Loads/Day:	8		Bd. Ft./Load: 3,200
Cost/MBF:	\$131.02		
Machines:	Feller Buncher w/ Delimber Log Loader (B) Stroke Delimber (B) Tire Skidder		
Combination#: 2	Douglas - Fir	50.00%	
	Western Hemlock / Fir	40.79%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: No
Logging System:	Cable: Small Tower <=40		Process: Manual Delimiting
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	4		Bd. Ft./Load: 3,200
Cost/MBF:	\$201.41		
Machines:	Log Loader (A) Tower Yarder (Small)		



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs

Coal Ridge

Sale 341-04-57

Date: 10/8/03

Operating Seasons: 1.6

Profit & Risk: 15%

Project Costs: \$16,817

Other Costs (P/R): \$3,416

Slash Disposal: \$0

Other Costs: \$975

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

Road Maintenance: \$2.01

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.2
Western Hemlock / Fir	\$0.00	3.0	3.0
Sitka Spruce	\$0.00	3.0	3.0



Timber Sale Appraisal Logging Costs Breakdown Coal Ridge Sale 341-04-57

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce
Logging	166.22	159.73	131.02
Road Maintenance	2.12	2.12	2.12
Fire Protection	2.54	2.54	2.54
Hauling	69.16	53.79	53.79
Other (P/R appl.)	2.00	2.00	2.00
Profit & Risk	36.31	33.03	28.72
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	0.57	0.57	0.57
Total	280.92	255.78	222.76

Amortization	0.00	0.00	0.00
Pond Value	443.91	310.00	335.00
Stumpage	162.99	54.22	112.24
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Coal Ridge Sale 341-04-57

Amortized

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

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce
MBF	1,554.00	76.00	78.00
Value	162.99	54.22	112.24
Total	253,286.46	4,120.72	8,754.72

Gross Timber Sale Value

Recovery \$266,161.90

Prepared by: Neal Bond

Date: 10/8/03

District: Tillamook

Phone: (503) 842-2545

PROJECT SUMMARY SHEET

Sale: Coal Ridge Date: Sep. 05 2003

Improvement -

Point	A - B	2+00	stations =	\$15,141.38
Point			stations =	\$0.00
Point			stations =	\$0.00
			SUB TOTAL	\$15,141.38

Special Projects -

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

Move - In -

Grader, 1 Excavators, D8, 2 Dump Trucks, Water Truck	\$1,675.70
Skidder	\$0.00
	\$0.00
	\$0.00
	\$0.00
	\$0.00
	\$0.00
SUB TOTAL	\$1,675.70

GRAND TOTAL \$16,817.08

SUMMARY OF CONSTRUCTION COST

Sale: Coal Ridge Road: Points A - B

Construction - 0.00 stations miles Improvement - 2+00 stations miles
0.04 miles

CLEARING AND GRUBBING -

Side cast	0.00 acres @	\$540.00 per acre =	\$0.00	
Scattering	0.00 acres @	\$815.00 per acre =	\$0.00	
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				\$0.00

EXCAVATION -

Excavator	32 hr.s @	\$130.00 per hr. =	\$4,160.00	
Crawler Tractor	32 hr.s @	\$130.00 per hr. =	\$4,160.00	
Compaction:				
Skidder	10 hr.s @	\$60.00 per hr. =	\$600.00	
Haul Fill Material,				
End Haul Fill Logs:				
Dump Truck	12 hr.s @	\$60.00 per hr. =	\$720.00	
	0 hr.s @	\$0.00 per hr. =	\$0.00	
	0 cys. @	\$0.00 per c.y. =	\$0.00	
TOTAL EXCAVATION				\$9,640.00

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
	62 LF of 42"	\$2,560.60	0 LF of 48"	\$0.00
	0 LF of 54"	\$0.00	0 LF of 60"	\$0.00
		<u>\$2,560.60</u>		<u>\$0.00</u>
TOTAL CULVERT MATERIALS				\$2,560.60

SURFACING-

8" Depth	88 cy. of	Crushed @	\$5.36 per c.y.=	\$471.68
CrwWiden	10 cy. of	Crushed @	\$5.36 per c.y.=	\$53.60
TOTAL SURFACING				\$525.28

MISCELLANEOUS-

Energy Dissipator	30 cy. of	Riprap @	\$14.55 per c.y.=	\$436.50
Inlet	20 cy. of	Riprap @	\$14.55 per c.y.=	\$291.00
Armor Fill	140 cy. of	Pit Run @	\$7.19 per c.y.=	\$1,006.60
TOTAL MISCELLANEOUS				\$1,734.10

SPECIAL PROJECTS

Grass Seed, Fertilize & Mulch Disturbed Soil and Borrow Pit: .3 Acres				\$246.00
Grade Road				\$28.40
Hand Tam;ping Fill				\$157.00
Water Diversion Around Site				\$250.00
TOTAL SPECIAL PROJECTS				\$681.40

GRAND TOTAL \$15,141.38



**OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT**

COAL RIDGE

"STEWARDSHIP IN FORESTRY"

1. **Type of Sale:** Partial Cut and Clear-cut, Recovery
2. **Legal Description:** Portions of Sections 1, 2, and 12, T3N, R10W, 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		
Area	Sale	Net
1	209	162
2	9	8
Total	218	170

Sale acres: Area within the Timber Sale Boundary signs.

Net acres: *Used for calculating the advertised volume and accomplishment acres.*

Sale acres less; roads, stream buffers inside the sale boundary and non required acres (Non-required only in partial cut areas).

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

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

4. **Cruising Procedures:**

A. Cruise Method:

In Area 1, a total of 36 variable radius, full point plots were established on a grid pattern. Cruise lines were established approximately 850 feet apart with plots spaced 340 feet apart. On half of these plots sample trees were measured and graded. On the other plots only tree count by species was recorded. In Area 2, a total of 4 variable radius, full point plots were established on a grid pattern. All sample trees were measured and graded on these plots. Cruise lines were established 310 feet apart with plots spaced 290 feet apart.

Diameters were measured to the nearest inch and heights were measured to the nearest foot. Conifer trees less than 8 inches DBH were not recorded. A V-BAR (volume to basal area ratio) was calculated for each conifer species.

B. Plot size

A 20 BAF was used to select sample trees in Area 1 and Area 2. The point of observation

was at 4.5 feet.

C. Grading System:

Merchantable heights were measured to six inches diameter for conifer favoring 40 foot log lengths using Columbia River Official Log Scaling and Grading Bureau rules. Conifers with less than 20 board feet were not recorded.

5. **Computation Procedure:**

Plot data was entered into SuperAce for computation of basal area, V-BAR, stand tables and diameters. These data were entered into the Volume Summary Worksheet to compute sale volumes.

6. **Defect and Breakage:** A 5% reduction for defect and breakage was applied to the volume.

7. **Timber Description:**

Areas 1 and 2 were planted in 1969 and 1972. In Areas 1 and 2 the current stand condition is CSC. Area 1 is comprised of predominately Douglas-fir with patches of 30-35 year old natural hemlock. Area 2 is comprised of predominately Sitka spruce. Red alder is present in draws and on abandoned roads, skid trails, and landings on both areas. The Douglas-fir trees have severe symptoms of Swiss needle cast with less than 2 full years of needle retention. There are some hard snags created from wind and bear damage.

8. **Cruiser Names/Dates:**

Dave Wells, Neal Bond, and Jason Parke. July, 2003.

9. **Revenue Distribution:**

95% FDF

5% CSL

Tax Code: 95% = 56--1

5% = 56 -6

Deed Numbers: 35, 442

0% Rehabilitation Obligated.

10. **Attachments:**

Volume Summary

Stand Tables

Logging Plan



Coal Ridge

Volume Summary

Area 1 - BOF						
154 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	123	82	10.1	1555	5%	1477
Western Hemlock	5	87	0.4	62	5%	59
TOTAL				1617		1536

Area 1 - CSL						
8 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	124	82	10.2	82	5%	78
Western Hemlock	4	87	0.3	2	5%	2
TOTAL				84		80

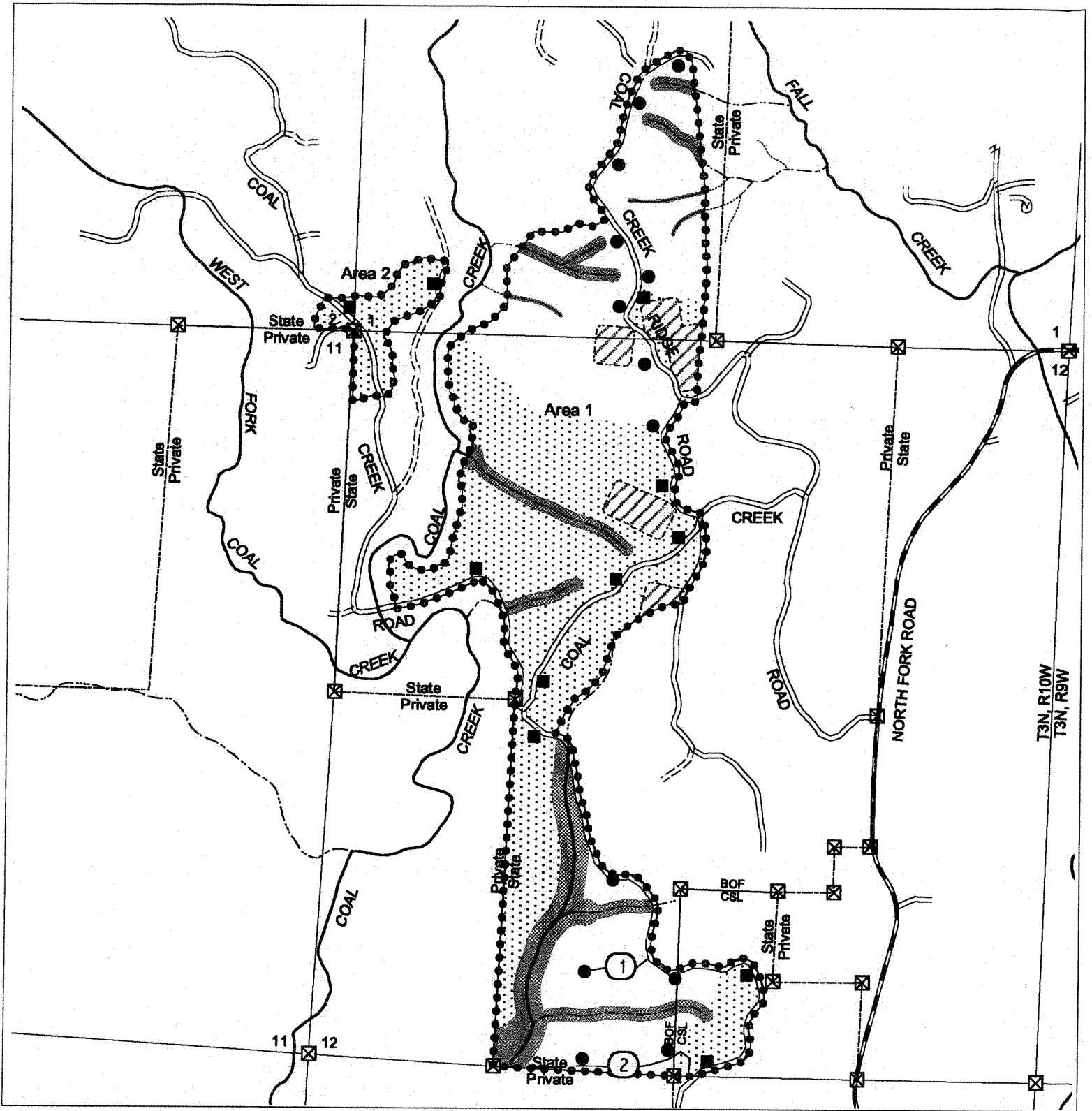
Area 2 - BOF						
8 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Western Hemlock	15	129	1.9	15	5%	14
Sitka Spruce	115	89	10.3	82	5%	78
TOTAL				97		92

TOTAL SALE VOLUME SPECIES	Volume (MBF)			
	Gross	Net	BOF	CSL
Douglas-fir	1637	1555	1477	78
Western Hemlock	79	75	73	2
Sitka Spruce	82	78	78	0
TOTAL	1798	1708	1628	80

Area 1

TC PSTNDSUM		Stand Table Summary											Page 1		
T03N R10W S12 TyA		172.00		Project COALRDG				Time: 10:05:22AM		Date: 7/16/2003					
				Acres 172.00				Grown Year:							
S Spec T	Sample DBH	Trees	Tot		Trees/ Acres	BA/ Acres	Logs Acres	Average Log		Tons/ Acres	Net Cu.Ft. Acres	Net Bd.Ft. Acres	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DX	8	1	88	17	3.161	1.19	3.16	3.5	20.0	.37	11	63	64	19	11
DX	9	2	84	17	5.377	2.38									
DX	10	8	87	38	16.965	9.50	16.96	7.9	29.7	4.35	134	504	748	231	87
DX	11	14	86	51	25.021	16.63	25.02	12.1	44.2	9.66	302	1,107	1,662	520	190
DX	12	13	89	55	20.139	15.44	23.17	12.6	44.7	9.24	293	1,035	1,590	504	178
DX	13	6	84	69	8.022	7.13	13.32	12.4	40.9	5.17	166	545	890	285	94
DX	14	18	88	70	19.964	21.38	34.32	14.6	51.9	15.45	502	1,781	2,657	863	306
DX	15	10	89	70	9.788	11.88	16.66	16.7	59.2	8.47	278	987	1,457	477	170
DX	16	11	88	79	9.515	13.07	18.12	20.4	75.9	11.20	370	1,375	1,926	636	237
DX	17	12	87	85	9.110	14.25	18.94	23.3	85.5	13.27	442	1,619	2,282	760	279
DX	18	4	87	86	2.743	4.75	5.49	26.8	91.7	4.39	147	503	755	253	86
DX	19	2	89	84	1.207	2.38	2.41	31.1	107.5	2.23	75	259	383	129	45
DX	20	2	88	80	1.117	2.38	2.23	30.6	98.2	2.02	68	219	348	118	38
DX	21	1	88	77	.494	1.19	.99	35.1	105.0	1.02	35	104	175	60	18
DX	Totals	104	87	59	132.622	123.53	180.79	15.6	55.9	86.84	2,823	10,101	14,936	4,855	1,737
WH	10	1	90	86	1.893	1.03	3.79	10.0	35.0	1.23	38	133	212	65	23
WH	12	5	87	54	6.511	5.16	9.14	13.4	40.0	3.85	122	366	663	211	63
WH	14	2	89	95	1.961	2.07	3.92	21.7	84.6	2.62	85	332	451	146	57
WH	15	5	91	76	4.142	5.16	8.28	20.0	65.7	5.06	166	544	870	286	94
WH	16	5	90	84	3.644	5.16	7.29	25.2	90.7	5.56	184	661	956	316	114
WH	17	6	90	80	3.970	6.20	7.27	28.3	95.5	6.18	206	694	1,063	354	119
WH	18	5	89	83	2.963	5.16	5.93	31.4	110.9	5.56	186	657	957	320	113
WH	19	4	91	90	2.121	4.13	5.31	30.6	118.8	4.83	163	631	831	280	109
WH	20	9	90	87	4.258	9.29	9.44	37.1	131.6	10.34	351	1,243	1,779	603	214
WH	21	1	91	80	.433	1.03	.87	39.0	135.0	.99	34	117	171	58	20
WH	22	1	90	80	.391	1.03	.78	40.5	135.0	.93	32	106	159	55	18
WH	23	1	90	85	.374	1.03	.75	53.0	180.0	1.16	40	135	199	68	23
WH	Totals	45	89	78	32.663	46.47	62.77	25.6	89.5	48.31	1,606	5,618	8,310	2,762	966
HX	8	1	91	19	2.425	.78	2.43	4.0	20.0	.33	10	49	57	17	8
HX	14	2	91	59	1.436	1.57	2.16	17.6	46.7	1.17	38	101	201	66	17
HX	15	2	90	72	1.368	1.57	2.74	17.7	57.5	1.49	49	157	256	84	27
HX	17	1	90	84	.492	.78	1.48	18.7	70.0	.83	28	103	142	47	18
HX	Totals	6	91	47	5.722	4.71	8.80	14.1	46.6	3.82	124	410	657	213	70
RA	9	1	79	17	2.548	1.18									
RA	Totals	1	79	17	2.548	1.18									
Totals		156	88	61	173.554	175.88	252.36	18.0	63.9	138.97	4,552	16,129	23,903	7,830	2,774

Leave trees = 32.7 tpa
46.4 ft² ba

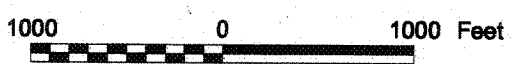


- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Block
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Buffer zone
- ▨ Reserved areas
- ⊞ Green tree retention area
- Setting boundary
- Sale boundary
- Ownership boundary
- Type-F stream
- Type-N stream
- Type-N seasonal stream
- ==== Surfaced road
- Unsurfaced road
- ==== State highway
- ==== County road
- ② Non-project road
- Swing road
- Abandoned road
- OHV trail

LOGGING PLAN
 Timber Sale Contract No. 341-04-57
 Coal Ridge
 Portions of sections 1, 2, and 12,
 T3N, R10W, W. M.
 Tillamook County, Oregon



Area	Type of Operation	Acres	
		Gross	Net
1-BOF	Clearcut	199	154
2-CSL	Clearcut	10	8
3-BOF	Partial Cut	9	8
Total		218	170





Oregon Department of Forestry

WRITTEN PLAN

SALE NAME: Coal Ridge

PROTECTED WATERS: Unnamed tributaries of Coal Creek, small Type F streams.

Definitions: Stream buffer: 100 feet horizontal distance from the stream bank of Type F.

LOCATION: Portions of Sections 1, 2, and 12, T3N, R10W, W.M., Tillamook County.

Activity: Cable lines and corridors across stream

Protection measures:

- Trees within the stream buffer are reserved from cutting, except as approved by ODF to facilitate logging operations. Trees felled within this zone will be left for down wood.
- Trees that enter Type F streams will be left for down wood.
- Cable corridors will be at least of 100 feet apart where they extend over or through the Type F stream and buffer.
- Logs will be fully suspended when yarding across Type F streams and logs will be at least one-end suspended when being yarded through the buffer.

Date: August 5, 2003

Prepared by: Neal Bond, Forester