



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Mutt Peak Sale 341-04-69

District: Tillamook

Date: 2/3/04

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,029,721.84	\$31,192.84	\$1,060,914.68
		Project Work	(\$215,020.00)
		Advertised Value	\$845,894.68



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Timber Description Mutt Peak Sale 341-04-69

District: Tillamook

Location: Portions of sections 7, 17, 18, 19, 20, T1N, R8W, and section 24, T1N, R9W, W.M., Tillamook County, Oregon

Date: 2/3/04

Stand Stocking: 40%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	12	0	95
Western Hemlock / Fir	12	0	95
Alder (Red)	14	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
2S	255	0	0	255
3S	2,620	261	0	2,881
4S	1,661	109	0	1,770
Camprun	0	0	101	101
Total	4,536	370	101	5,007

Comments: Pond Values Used: 4th Quarter 2003.

See attached additional cost sheet for "Other" cost.

Cedar Stumpage = \$1,000 (WRC 3S pond value) - \$279.88 (D-fir logging costs) = \$720.12.



Timber Sale Appraisal

Logging Conditions

Mutt Peak

Sale 341-04-69

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 89.15%
 Western Hemlock / Fir 74.53%
 Alder (Red) 70.00%

Yarding Distance: Medium (800 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: 5 **Bd. Ft./Load:** 3,300
Cost/MBF: \$156.25

Machines:

Log Loader (A)
Tower Yarder (Small)

Combination#: 2 Douglas - Fir 10.85%
 Western Hemlock / Fir 25.47%
 Alder (Red) 30.00%

Yarding Distance: Short (400 ft) **Downhill Yarding:** Yes
Logging System: Wheel Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 7 **Bd. Ft./Load:** 3,300
Cost/MBF: \$129.90

Machines:
Log Loader (B)
Tire Skidder



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs

Mutt Peak

Sale 341-04-69

Date: 2/3/04

Operating Seasons: 1.6

Profit & Risk: 20%

Project Costs: \$215,020

Other Costs (P/R): \$11,014

Slash Disposal: \$0

Other Costs: \$15,525

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

Road Maintenance: \$3.19

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.3
Western Hemlock / Fir	\$0.00	3.0	3.3
Alder (Red)	\$0.00	3.0	3.2



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Mutt Peak Sale 341-04-69

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	153.39	149.54	148.34
Road Maintenance	3.36	3.36	3.36
Fire Protection	0.87	0.87	0.87
Hauling	69.16	46.11	46.11
Other (P/R appl.)	2.20	2.20	2.20
Profit & Risk	45.80	40.42	40.18
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	3.10	3.10	3.10
Total	279.88	247.60	246.16

Amortization	0.00	0.00	0.00
Pond Value	500.77	322.64	555.00
Stumpage	220.89	75.04	308.84
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Mutt Peak Sale 341-04-69

Amortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
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	Alder (Red)
MBF	4,536.00	370.00	101.00
Value	220.89	75.04	308.84
Total	1,001,957.04	27,764.80	31,192.84

Gross Timber Sale Value

Recovery \$1,060,914.68

Prepared by: Kirk Ausland

Date: 2/3/04

District: Tillamook

Phone: (503) 842-2545



**Timber Sale Appraisal
Additional Cost Worksheet
Mutt Peak
Sale 341-04-069**

"STEWARDSHIP IN FORESTRY"

Cable Yarding Vol. (MBF):	4390
Ground Yarding Vol. (MBF):	617
Total Sale Volume:	5007

ADDITIONAL COSTS - PROFIT & RISK TO BE ADDED						
Yarding & Loading:		Cost / MBF		Volume (MBF)		
Brand & Paint:		\$ 2	x	5007	=	\$10,014
Intermediate supports		Cost / Each \$ 100	x	10	=	\$1,000
OTHER COSTS TOTAL						\$11,014
ADDITIONAL COSTS - PROFIT & RISK INCLUDED						
Non-Project Roads (See Logging Plan in Cruise Report)						
Non-Proj. Rd. 1	13	Stations	x	\$ 200	=	\$2,600
Non-Proj. Rd. 2	14	Stations	x	\$ 130	=	\$1,820
Non-Proj. Rd. 3	5	Stations	x	\$ 180	=	\$900
Non-Proj. Rd. 4	3	Stations	x	\$ 130	=	\$390
Non-Proj. Rd. 5	9	Stations	x	\$ 180	=	\$1,620
Non-Proj. Rd. 6	26	Stations	x	\$130	=	\$3,380
Non-Proj. Rd. 7	18	Stations	x	\$ 130	=	\$2,340
Non-Proj. Rd. 8	9	Stations	x	\$ 65	=	\$585
Swing Rd. "A"	3	Stations	x	\$ 130		\$390
Totals	97					\$14,025
Approach Rock: Pit-Run	6	Stations	x	50	x	\$/cy 5
OTHER COSTS TOTAL						\$15,525
ROAD MAINTENANCE						
		\$/Cu.Yd	MMBF	Miles	cu.yds/mile	\$/MBF
Surfacing	Pit-Run	\$5.00	5.0	1.5	25	\$0.19
	Crushed	\$4.00	5.0	10	25	\$1.00
		\$/Mile	MMBF	Miles		
Grading (two times)		\$ 500	5.0	10		\$2.00
TOTAL ROAD MAINTENANCE COST / MBF:						\$3.19

PROJECT SUMMARY SHEET

Sale: Mutt Peak

CONSTRUCTION

Point	A to B	0+00	stations =	\$0.00
SUBTOTAL CONSTRUCTION				\$0.00

IMPROVEMENT

Point	A to B	225+40	stations =	\$147,090.36
Point	C to D	71+50	stations =	\$63,009.58
SUBTOTAL IMPROVEMENT				\$210,099.93

SPECIAL PROJECTS

Remove Culverts from State Lands				\$904.23
SUBTOTAL SPECIAL PROJECTS				\$904.23

MOVE IN

\$4,016.36

GRAND TOTAL

\$215,020.52

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Mutt Peak</u>		Road:	<u>A to B</u>	
Construction -	<u>0+00</u> stations		Improvement -	<u>225+40</u> stations	
	<u>0.00</u> miles			<u>4.27</u> miles	
CLEARING AND GRUBBING -					
Roadside Brushing		4.27 miles @	\$1,000.00 per mile =		\$4,270.00
Side cast areas		0.526 acres @	\$815.00 per acre =		\$428.46
Widening areas		0.200 acres @	\$815.00 per acre =		\$163.00
Scattering		0.000 acres @	\$815.00 per acre =		\$0.00
Piling		0.000 acres @	\$905.00 per acre =		\$0.00
Endhaul		0.000 acres @	\$1,500.00 per acre =		\$0.00
				TOTAL CLEARING AND GRUBBING	\$4,861.46
EXCAVATION -					
Road Earthwork		225.40 sta. @	\$50.00 per sta. =		\$11,270.00
Pullback		1881 cy. @	\$1.40 per c.y.=		\$2,633.40
Widening: Solid		1554 cy. @	\$7.50 per c.y.=		\$11,655.00
Widening: Ripplable Rock		144 cy. @	\$3.20 per c.y.=		\$460.80
Berm Removal		913 cy. @	\$1.15 per c.y.=		\$1,049.95
Drill and Shoot Catch Basins and Culvert Trench		50 cy. @	\$4.90 per c.y.=		\$245.00
Excavate for Free Draining Fill		2 Hours @	\$130.00 per Hour =		\$260.00
Widening: Common		90 cy. @	\$1.40 per c.y.=		\$126.00
				TOTAL EXCAVATION	\$27,700.15
ENDHAUL -					
Waste Area #1	0+00 to 77+90	2097 cy. @	\$0.86 per c.y.=		\$1,803.42
Waste Area #2	77+90 to 100+50	655 cy. @	\$1.10 per c.y.=		\$720.50
Waste Area #3	100+50 to 164+45	1762 cy. @	\$0.99 per c.y.=		\$1,744.38
Waste Area #4	164+45 to 199+00	102 cy. @	\$1.65 per c.y.=		\$166.30
Waste Area #5	199+00 to 215+80	24 cy. @	\$1.15 per c.y.=		\$27.60
Spread & compact		4640 cy. @	\$0.20 per c.y.=		\$928.00
				TOTAL ENDHAUL	\$5,392.20
CULVERTS - MATERIALS & INSTALLATION					
Culverts					
	1074 LF of 18"	\$15,841.50	254 LF of 24"	\$4,508.50	
	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	0 LF of 72"	\$0.00	
		\$15,841.50			\$4,508.50
Half Rounds					
	420 LF of 21"	\$4,788.00	30 LF of 30"	\$435.00	
	0 LF of 36"	\$0.00	0 LF of 42"	\$0.00	
		\$4,788.00			\$435.00
Culvert Stakes & Markers					
	96 stakes	\$768.00			
	50 markers	\$400.00			
		\$1,168.00			
				TOTAL CULVERTS	\$26,741.00
SURFACING-					
A to B: 0+65 to 89+25	1,075 cy. of	Crushed @	\$3.58 per c.y.=		\$3,848.57
A to B: 145+00 to 148+50	42 cy. of	Crushed @	\$4.52 per c.y.=		\$189.84
A to B: 153+05 to 157+70	65 cy. of	Crushed @	\$4.59 per c.y.=		\$298.45
Culvert Backfill	53+10, 59+90, 60+70, 79+85, 125+70, 151	160 cy. of	Crushed @	\$3.38 per c.y.=	\$540.81
A to B: Spot Rock	0+00	10 cy. of	Crushed @	\$33.37 per c.y.=	\$333.70
Drain Rock	53+10	60 cy. of	Crushed @	(\$15.95/CY delivered to site: quote from Coastwide)	\$957.00
Slope Stabilization	166+20	80 cy. of	Riprap @	\$5.09 per c.y.=	\$407.20
Fill/Energy Dissipator	0+00 to 66+60	90 cy. of	Riprap @	\$4.41 per c.y.=	\$396.90
Fill/Energy Dissipator	66+60 to 225+40	35 cy. of	Riprap @	\$4.67 per c.y.=	\$163.45
A to B: 0+65 to 84+80	4,082 cy. of	Pit-Run @	\$4.98 per c.y.=		\$20,343.61
A to B: Stations 84+80 to 225+40	6,976 cy. of	Pit-Run @	\$4.82 per c.y.=		\$33,623.64
A to B: Base Rock	0+65 - 84+80	45 cy. of	Pit-Run @	\$4.58 per c.y.=	\$206.27
A to B: Base Rock	84+80 - 225+40	40 cy. of	Pit-Run @	\$4.42 per c.y.=	\$176.80
				TOTAL SURFACING	\$61,140.24
SPECIAL PROJECTS					
Construct 3' wide x 2' deep ditchline	2.00 hours @		\$130.00 per hour		\$260.00
Construct Road Dip (Sta. 73+40)	1.00 Dip @		\$150.00		\$150.00
Construct waste areas -	8.00 hours @		\$130.00 per hour		\$1,040.00
Construct ditchouts -	10.00 @		\$45.00 each		\$450.00
Rip Road to Remove large cobbles and boulders	19.70 stations @		\$60.00 per station		\$1,182.00
Blast Cobbles and Boulders in subgrade	19.70 stations @		\$300.00 per station		\$5,910.00
Grade and shape road (Ditched)-	210.50 stations @		\$17.40 per station		\$3,669.66
Grade and shape road (Outsloped)-	14.50 stations @		\$13.70 per station		\$198.65
Construct Sediment Catch Basins -	2.00 @		\$100.00 each		\$200.00
Drill and Shoot Ditchlines	110.00 CYS @		\$4.90 per CY		\$539.00
Roll subgrade w/ vibratory roller prior to rocking -	225.40 stations @		\$11.00 per station		\$2,479.40
Remove buried culverts from subgrade (2)	2.00 hours @		\$130.00 per hour		\$260.00
Non-woven Fabric for Free Draining Fill (includes installation)	100 Sq. Yd. @		\$0.95 per sq. yd.		\$95.00
Grass seed and fertilize -	5.88 acres @		\$220.00 per acre		\$1,293.60
Mulching -	5.880 acres @		\$600.00 per acre		\$3,528.00
				TOTAL SPECIAL PROJECTS	\$21,255.31
GRAND TOTAL					\$147,090.36

SUMMARY OF CONSTRUCTION COST

Sale:

Mutt Peak

Road: C to D

Construction - 0+00 stations
0.00 miles

Improvement - 71+50 stations
1.35 miles

CLEARING AND GRUBBING -

Roadside Brushing	1.35	miles @	\$1,300.00	per mile =	\$1,755.00
Side cast areas	0.301	acres @	\$815.00	per acre =	\$245.10
Widening areas	0.150	acres @	\$815.00	per acre =	\$122.25
Scattering	0.000	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					\$2,122.35

EXCAVATION -

Road Earthwork	71.50	sta. @	\$65.00	per sta. =	\$4,647.50
Pullback	1194	cy. @	\$1.40	per c.y. =	\$1,671.60
Widening: Ripplable	557	cy. @	\$2.25	per c.y. =	\$1,253.25
Widening: Solid	73	cy. @	\$4.90	per c.y. =	\$357.70
Slope Stabilization Prep.	1	Hour @	\$130.00	per Hour =	\$130.00
TOTAL EXCAVATION					\$8,060.05

ENDHAUL -

Pullback	5+90	to	8+75	575	cy. @	\$1.28	per c.y. =	\$736.00	
Pullback	13+85	to	15+25	187	cy. @	\$1.14	per c.y. =	\$213.18	
Pullback	21+15	to	22+55	312	cy. @	\$1.01	per c.y. =	\$315.12	
Pullback	23+25	to	24+15	120	cy. @	\$1.02	per c.y. =	\$122.40	
Pullback	33+00	to	34+25	223	cy. @	\$1.00	per c.y. =	\$223.00	
Pullback	37+50	to	38+50	178	cy. @	\$1.05	per c.y. =	\$186.90	
Pullback	41+95	to	42+50	123	cy. @	\$1.12	per c.y. =	\$137.76	
Widening	13+85	to	17+10	312	cy. @	\$1.02	per c.y. =	\$318.24	
Widening	21+15	to	22+10	178	cy. @	\$1.00	per c.y. =	\$178.00	
Widening	37+50	to	39+10	140	cy. @	\$1.04	per c.y. =	\$145.60	
Log Fill Removal (Sta. 3+85 - 25+50)			2 Trucks:	8	Hours @	\$57.00	per Hr./truck=	\$912.00	
Log Fill Removal (Sta. 35+35 - 57+30)			2 Trucks:	5	Hours @	\$57.00	per Hr./truck=	\$570.00	
Ditchline Construction Material (Sta. 40+90 - 41+95 & 56+50 - 57+30)				1	Hours @	\$57.00	per Hr./truck=	\$57.00	
Spread & compact				2348	cy. @	\$0.20	per c.y. =	\$469.60	
TOTAL ENDHAUL									\$4,584.80

CULVERTS - MATERIALS & INSTALLATION

Culverts									
142	LF of 18"	\$2,094.50	346	LF of 24"	\$6,141.50				
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	0	LF of 72"	\$0.00				
		<u>\$2,094.50</u>			<u>\$6,141.50</u>				
Half Rounds									
10	LF of 21"	\$114.00	0	LF of 30"	\$0.00				
0	LF of 36"	\$0.00	0	LF of 42"	\$0.00				
		<u>\$114.00</u>			<u>\$0.00</u>				
Culvert Stakes & Markers									
2 stakes		\$16.00							
14 markers		\$112.00							
		<u>\$128.00</u>							
TOTAL CULVERTS									\$8,478.00

SURFACING-

Culvert Backfill	6+45, 8+75, 18+25, 22+95, 25+50, 35+35, 41+45, &	260	cy. of	Crushed	@	\$4.66	per c.y. =	\$1,211.62	
Fill/Energy Dissipator	15, 8+75, 18+25, 19+45, 22+95, 25+50, 35+35, 41+45!	200	cy. of	Riprap	@	\$5.67	per c.y. =	\$1,134.50	
Slope Stabilization	23+80 to 24+20	50	cy. of	Riprap	@	\$5.19	per c.y. =	\$259.63	
0+00 to	71+50	5,141	cy. of	Pit-Run	@	\$4.77	per c.y. =	\$24,495.38	
TOTAL SURFACING									\$27,101.13

SPECIAL PROJECTS

Construct waste areas -		2.00	hours @	\$130.00	per hour	\$260.00	
Construct ditchlines (Sta. 40+90 - 41+95 & 56+50 - 57+30) -		3.00	@	\$130.00	each	\$390.00	
Remove log fills @ Sta. 3+85, 8+75, 22+95, 25+50, 35+35, 41+45, & 57+30		40.00	hours @	\$130.00	per hour	\$5,200.00	
Grade and Shape road (outsloped)-		71.50	stations @	\$13.70	per station	\$979.55	
Construct Road Dips -		14.00	@	\$150.00	each	\$2,100.00	
Roll subgrade w/ vibratory roller prior to rocking -		71.50	stations @	\$11.00	per station	\$786.50	
Remove large boulders and cobbles from subgrade -		4.00	hours @	\$130.00	per hour	\$520.00	
Grass seed and fertilize -		2.96	acres @	\$220.00	per acre	\$651.20	
Mulching -		2.960	acres @	\$600.00	per acre	\$1,776.00	
TOTAL SPECIAL PROJECTS							\$12,663.25

GRAND TOTAL **\$63,009.58**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	<u>Stockpile Site</u>	Location:	<u>SE 1/4 of Sec. 23, T1N, R9W, W.M.</u>
Sale:	<u>Mutt Peak</u>	Road:	<u>1602 c.y.</u>
Swell:	<u>1.40</u>	Stockpile:	<u>c.y.</u>
Shrinkage	<u>1.16</u>	Total Truck Loads:	<u>1602 c.y.</u>
Drill Pct.:	<u>0%</u>	In Place Total:	<u>1144 c.y.</u>

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.					\$0.00
Drill & Shoot:	<u>\$2.10</u> /cu.yd.	x	<u>0</u> cu.yds.	=	\$0.00
Rip Rock	<u>\$1.75</u> /cu.yd.	x	<u>0</u> cu.yds.	=	\$0.00
Load Dump Truck:	<u>\$0.60</u> /cu.yd.	x	<u>1602</u> cu.yds.	=	\$961.20

Subtotal \$961.20

Move in Loader	1	@	\$372.17	=	\$372.17
Move in Trucks	(Within area: 5.2 Miles @ \$2.85/truck/mile)			=	\$44.46
				Subtotal	<u>\$416.63</u>

TOTAL PRODUCTION COSTS \$1,377.83

Base Cost= \$0.86 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 to B: 0+65 to 89+25	1.42	1.30	0.86	3.58	1075	3,848.57	
A to B: 145+00 to 148+50	2.36	1.30	0.86	4.52	42	189.84	
A to B: 153+05 to 157+70	2.43	1.30	0.86	4.59	55	252.45	
A to B: Culvert Bedding	1.92	0.60	0.86	3.38	160	540.81	
A to B: Spot Rock	1.21	1.30	0.86	3.37	10	33.70	
C to D Culvert Backfill	3.20	0.60	0.86	4.66	260	1,211.62	
				Total C.Y.	1602	Sub Total	6,077.00

TOTAL ROCKING COSTS 6,077.00

ROCK DEVELOPMENT COST SUMMARY

Pit:	Pit Run Ridge	Location:	SE1/4 of Sec. 24, T1N, R9W, W.M.
Sale:	Mutt Peak	Road:	4127 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	4127 c.y.
Drill Pct.:	0%	In Place Total:	2948 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$1,479.05

Drill & Shoot:	\$2.10 /cu.yd.	x	0 cu.yds.	=	\$0.00
Rip Rock	\$1.75 /cu.yd.	x	2948 cu.yds.	=	\$5,158.75
Load Dump Truck:	\$0.60 /cu.yd.	x	4127 cu.yds.	=	\$2,476.20

Subtotal \$9,114.00

Move in Loader	(Within Area: 3.39 Miles @ \$9.00/Mile)	=	\$30.51
Move in Excavator	(Within Area: 3.71 Miles @ \$44.80/Mile)	=	\$166.21
Move in Trucks	(Within Area: 3.71 Miles @ \$2.85/Truck/Mile)	=	\$31.72
		Subtotal	\$228.44

Base Cost= \$2.26 Per Cu.Yd.

TOTAL PRODUCTION COSTS \$9,342.44

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B: 0+65 to 84+80	\$1.82	\$0.90	\$2.26	\$4.98	4082	\$20,343.61
A to B: Base Rock	\$1.72	\$0.60	\$2.26	\$4.58	45	\$206.27
				Total C.Y.	4127	Sub Total
						\$20,549.88

TOTAL ROCKING COSTS \$20,549.88

ROCK DEVELOPMENT COST SUMMARY

Pit:	Pit Run Saddle	Location:	Sta. 145+00 & 148+50 of A to B NE 1/4 of Sec. 19, T1N, R8W, W.M.
Sale:	Mutt Peak	Road:	7016 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	7016 c.y.
Drill Pct.:	25%	In Place Total:	5011 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.				\$2,801.38
Drill & Shoot:	\$2.10 /cu.yd.	x	1253 cu.yds.	= \$2,631.00
Rip Rock	\$1.75 /cu.yd.	x	3759 cu.yds.	= \$6,577.50
Load Dump Truck:	\$0.60 /cu.yd.	x	7016 cu.yds.	= \$4,209.60

Subtotal \$16,219.48

Move In and set up Drill and Compressor	(Within Area: 1.32 Miles @ \$46.00/Mile)	=	\$60.72
Move in Loader	(Within Area: 2.19 Miles @ \$9.00/Mile)	=	\$19.71
Move in Excavator	(Within Area: 2.19 Miles @ \$44.80/Mile)	=	\$98.11
Move in Trucks	(Within Area: 3 Trucks @ 2.19 Miles @ \$2.85/Truck/Mile)	=	\$18.72
		Subtotal	\$197.27

Base Cost= \$2.34 Per Cu.Yd. TOTAL PRODUCTION COSTS \$16,416.75

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B: Stations 84+80 to 225+40	\$1.58	\$0.90	\$2.34	\$4.82	6976	\$33,623.64
A to B: Base Rock	\$1.48	\$0.60	\$2.34	\$4.42	40	\$176.80
			Total C.Y.		7016	Sub Total \$33,800.43

TOTAL ROCKING COSTS \$33,800.43

ROCK DEVELOPMENT COST SUMMARY

Pit:	Pit Run Mutt Peak Road	Location:	Sta. 32+40, 35+70, & 70+00 of C to D Sec. 18, T1N, R8W, W.M.
Sale:	Mutt Peak	Road:	5141 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	5141 c.y.
Drill Pct.:	25%	In Place Total:	3672 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.	\$2,160.60
Drill & Shoot:	\$2.10 /cu.yd. x 918 cu.yds. = \$1,927.69
Rip Rock	\$1.75 /cu.yd. x 2754 cu.yds. = \$4,819.22
Load Dump Truck:	\$0.60 /cu.yd. x 5141 cu.yds. = \$3,084.30
Subtotal	\$11,991.81

Move In and set up Drill and Compressor (Within Area: 2.01 Miles @ \$46/Mile)	= \$92.46
Move in Loader (Within Area: 2.01 Miles @ \$9.00/Mile)	= \$18.09
Move in Excavator (Within Area: 2.01 Miles @ \$44.80/Mile)	= \$90.05
Move in Trucks (Within Area: 3 trucks, 2.01 Miles @ \$2.85/Truck/Mile)	= \$17.19
Subtotal	\$217.78

Base Cost= \$2.38 Per Cu.Yd.

TOTAL PRODUCTION COSTS \$12,209.59

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
C to D: 0+00 to 71+50	\$1.49	\$0.90	\$2.38	\$4.77	5141	\$24,495.38
				Total C.Y.	5141	Sub Total \$24,495.38

TOTAL ROCKING COSTS \$24,495.38

ROCK DEVELOPMENT COST SUMMARY

Pit:	48"-24" RipRap	Location:	Sta. 66+60 to 68+85 of A to B
Sale:	Mutt Peak		SE 1/4 of Sec. 24, T1N, R9W, W.M.
Swell:	1.40	Road:	135 c.y.
Shrinkage:	1.16	Stockpile:	c.y.
Drill Pct.:	0%	Total Truck Loads:	135 c.y.
		In Place Total:	96 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.				\$0.00
Drill & Shoot:	\$2.10 /cu.yd.	x	0 cu.yds.	= \$0.00
Rip Rock	\$1.75 /cu.yd.	x	0 cu.yds.	= \$0.00
Load Dump Truck:	\$1.40 /cu.yd.	x	135 cu.yds.	= \$189.00
			Subtotal	\$189.00

RipRap Base Cost= \$1.40 Per Cu.Yd.

TOTAL PRODUCTION COSTS \$189.00

Road Segment	Haul Cost /cu.yd.	Placement Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B: 0+00 to 66+60	\$1.61	\$1.40	\$1.40	\$4.41	90	\$396.90
A to B: 66+60 to 225+40	\$1.87	\$1.40	\$1.40	\$4.67	35	\$163.45
A to B: Sta. 166+20	\$2.29	\$1.40	\$1.40	\$5.09	10	\$50.90
				Total C.Y.	135	Sub Total
						\$611.25

TOTAL ROCKING COSTS \$611.25

ROCK DEVELOPMENT COST SUMMARY

Pit:	48"-24" RipRap	Location:	Sta. 35+70 of C to D SE 1/4 of Sec. 18, T1N, R8W, W.M.
Sale:	Mutt Peak	Road:	250 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	250 c.y.
Drill Pct.:	25%	In Place Total:	179 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.				\$0.00
Drill & Shoot:	\$2.10	/cu.yd. x	45 cu.yds. =	\$93.75
Rip Rock	\$1.75	/cu.yd. x	134 cu.yds. =	\$234.38
Load Dump Truck:	\$1.40	/cu.yd. x	250 cu.yds. =	\$350.00
			Subtotal	\$678.13

RipRap Base Cost= \$2.71 Per Cu.Yd.
TOTAL PRODUCTION COSTS \$678.13

Road Segment	Haul Cost /cu.yd.	Placement Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
C to D	\$1.56	\$1.40	\$2.71	\$5.67	200	\$1,134.50
C to D: Sta. 24+15	\$1.08	\$1.40	\$2.71	\$5.19	50	\$259.63
				Total C.Y.	250	Sub Total \$1,394.13

TOTAL ROCKING COSTS \$1,394.13

MOVE-IN CALCULATIONS

Sale: **Mutt Peak**

DISTANCE	ROADWAY	AVE SPEED (MPH)
13.6	Highway	37
5.2	Main Lines (Off Road)	15
6.4	Pulling Steep Grades	4

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Drill & Compressor	\$207.94		\$46.00	0.00	6.27	6.27	\$288.42	\$496.36
0	Brush Cutter	\$0.00		\$4.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$145.51		\$3.65	0.00	6.27	6.27	\$22.89	\$168.40
0	Loader (Small)	\$0.00	1	\$3.55	0.00	0.00	0	\$0.00	\$0.00
1	Loader (Med. & Large)	\$372.17	1	\$9.00	0.00	0.00	0	\$0.00	\$372.17
1	Rollers & Compactors	\$207.94		\$5.00	0.00	0.00	0	\$0.00	\$207.94
0	Excavators (Small)	\$0.00		\$22.00	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0.00	0.00	0	\$0.00	\$0.00
2	Excavators (Large)	\$877.40	1	\$44.80	0.00	4.27	4.27	\$382.59	\$1,260.00
1	Rubber Tired Backhoes/Skidders	\$207.94		\$3.00	0.00	6.27	6.27	\$18.81	\$226.75
0	Tractors (D6)	\$0.00	2	\$7.10	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D7)	\$0.00	2	\$11.30	0.00	0.00	0	\$0.00	\$0.00
2	Tractor (D8)	\$812.78	2	\$15.10	0.00	4.27	4.27	\$128.95	\$941.73
3	Dump Truck (10 cy +)	\$195.09		\$2.85	0.00	6.27	6.27	\$53.61	\$248.70
0	Dump Truck (Off Hiway)	\$0.00	1	\$4.75	0.00	0.00	0	\$0.00	\$0.00
0	Water Truck (1500 Gal)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
1	Water Truck (2500 Gal)	\$76.44		\$2.85	0.00	6.27	6.27	\$17.87	\$94.31
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,489.00							

TOTAL MOVE-IN COSTS:	\$4,016.36
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REMOVE CULVERTS FROM STATE LANDS COST SHEET

SALE: Mutt Peak

<u>Point to Point</u>	<u>Number of Culverts</u>
A to B	12
C to D	2
TOTAL CULVERTS	14

Load culverts @ 0.25 hrs/culvert =	3.50 hrs
Move Backhoe between culverts =	3.50 hrs
Subtotal loading time =	7.00 hrs
Driving and unloading time =	1.50 hrs
Total project time =	8.50 hrs

17.00 hours labor @ \$33.07/hour =	\$562.19
8.50 hours with Dump Truck @ \$24.46/hour =	\$207.91
8.50 hours with trailer @ \$5.00/hour =	\$42.50
7.00 hours with Backhoe @ \$13.09/hour =	\$91.63

Grand Total

\$904.23



M u t t P e a k CRUISE REPORT

1. **Type of Sale:** Partial Cut/Clearcut - Recovery

2. **Legal Description:** Portions of Sections 7, 17, 18, 19, 20, T1N, R8W, and section 24, T1N, R9W, W.M., Tillamook County, Oregon.

3. **Sale Acreage:** Sale acreage was determined by plotting posted boundaries in ArcView GIS.

	ACRES		
	<u>Sale</u>	<u>Total</u>	<u>Net</u>
Area 1: Clearcut	112	105	102
Area 2: Clearcut	81	76	69
Partial Cut	19	19	19
Area 3: Clearcut	93	95	87
Partial Cut	31	31	31
Total: Clearcut	286	276	258
Partial Cut	50	50	50

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, non-required acres, non-required 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, unstocked acres, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

Partial Cut - Same as total acres

4. Cruising Procedures:

- A. Cruise Method:** A total of 45, 46, and 46 variable radius full point plots were established in Areas 1, 2, and 3 respectively. Cruise lines were established on a 2 chain by 10 chain grid. The trees with a diameter of at least 7 inches were measured and graded on every fourth plot. The remaining plots were count plots where the tree count by species was recorded.
- B. Plot Size:** 40 BAF
- C. Point of observation:** 4.5 feet
- D. Grading System:** Columbia River Official Log Scaling and Grading Bureau rules.
- E. Diameter Standards:** 4.5 feet (DBH) to the nearest inch.
- F. Form Point:** 16 feet for conifers.
- G. Form Factor:** A form factor was recorded for all trees on measure plots. The average for Douglas-fir was 82 and the average form factor for western hemlock was 83.

5. Computation Procedure: The volumes and statistics for the timber cruised were computed using Atterbury Consultants, Inc. SUPER A.C.E. 98 program. The coefficient of variation for Areas 1, 2 and 3 was 41.1%, 51.5%, 38.4% respectively. The standard error for these areas was 6.1%, 7.6%, and 5.7% respectively.

6. Timber Description: The level of Swiss needle cast in the sale areas is severe. The sale areas were burned in the 1939 Saddle Mountain fire. The 2003 Stand Level Inventory cruise shows the current stand structure as UDS (Understory). Approximately 3% of the trees in all areas had recent and past bear damage. Down wood consists of scattered large old logs (36"+) from the salvage in decay class 3 and 4. Overall, understory vegetation is sparse and consists of sword fern, salmonberry, Oregon grape, vine maple, huckleberry and scattered bear grass. Dense pockets of huckleberry were observed in portions of Area 2.

7. Cruiser Names/Dates: Woodward/Ausland/Buch/Haren; August 2003.

8.Revenue Distribution

FDF: 100% Rehabilitation Obligated: 57%
Tax Codes: 96% 56, 4% 9-2
Deed Numbers: 161

Attachments

Volume Summary
Logging Plan



**Timber Sale Appraisal
Volume Summary
Mutt Peak
Sale 341-04-69**

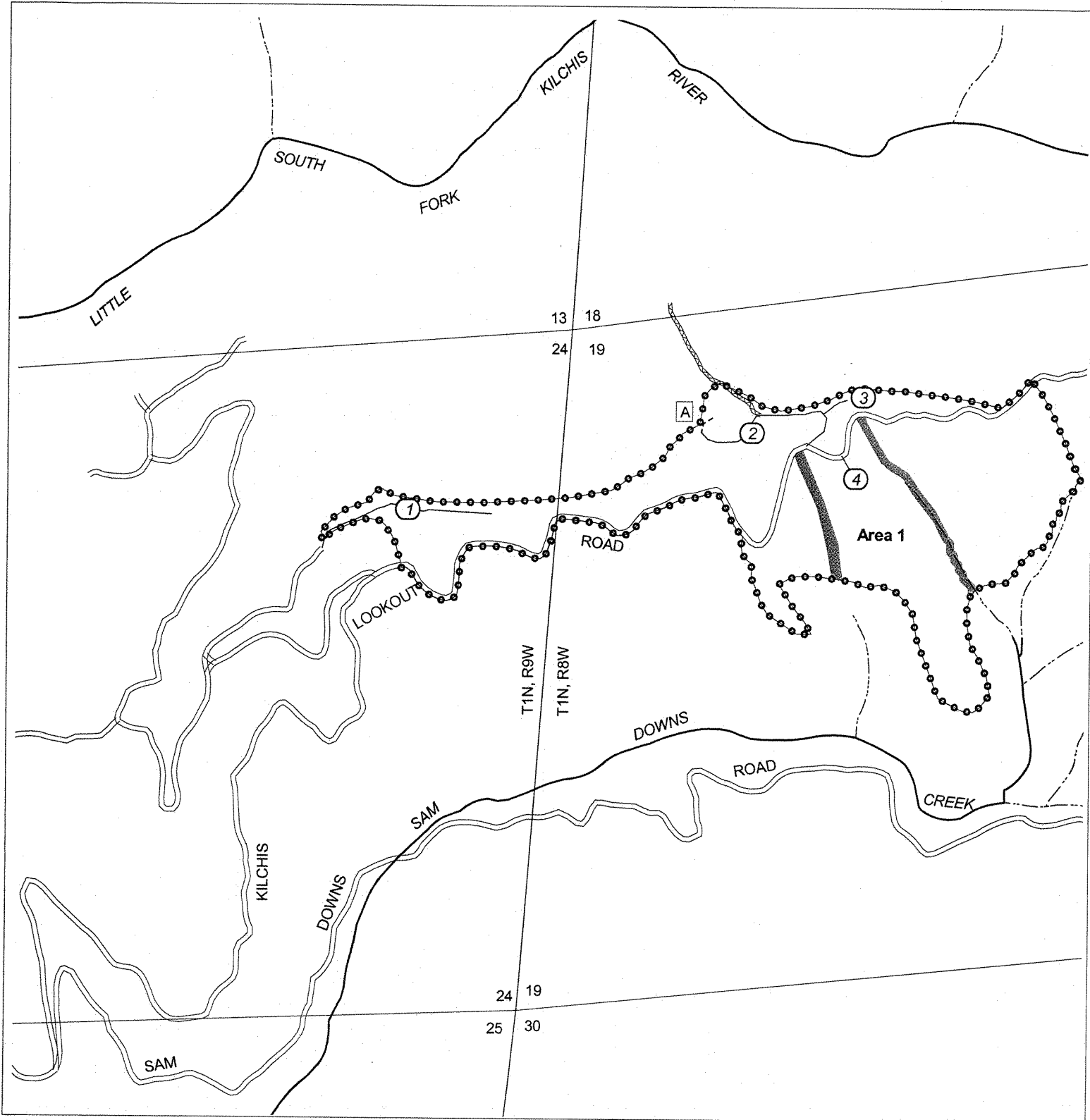
"STEWARDSHIP IN FORESTRY"

Area 1					
					102
SPECIES	Trees Per Ac.	Vol/Acre MBF	Gross MBF	D & B	Net Vol MBF
Douglas-fir	296	20.0	2040	5%	1938
TOTAL	296	20.0	2040		1938

Area 2					
					88 acres
SPECIES	Trees Per Ac.	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	138	12.7	1118	5%	1062
Hemlock	38	3.5	308	5%	303
Red Alder	16	1.2	106	5%	101
TOTAL	192	17.4	1532		1466

Area 3					
					118 acres
SPECIES	Trees Per Ac.	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	252	13.7	1617	5%	1536
Hemlock	8	0.6	71	5%	67
TOTAL	260	14.3	1688		1603

TOTAL SALE VOLUME			
			308 acres
SPECIES	MBF	MBF NET	
Douglas-fir	4775	4536	
Hemlock	379	370	
Red Alder	106	101	
TOTAL	5260	5007	

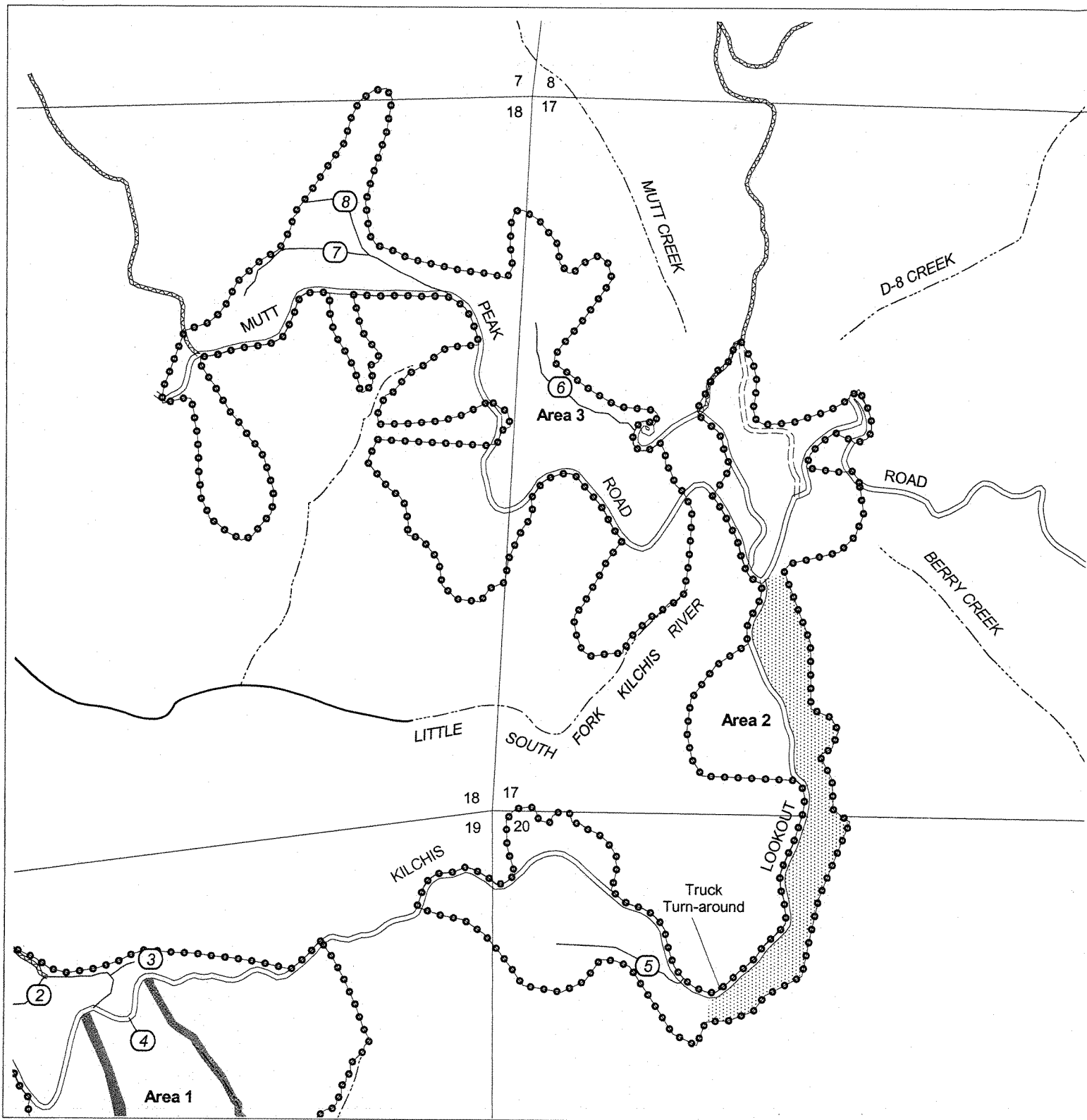


- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Block
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Buffer
- ▨ Non-required thinning
- ⊿ Green tree retention area
- Setting boundary
- Area boundary
- Sale boundary
- Ownership boundary
- Type-F stream
- Type-N stream
-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

LOGGING PLAN
 Timber Sale Contract No. 341-04-69
 Mutt Peak
 Portions of Sections 7, 17, 18, 19, and 20,
 T1N, R8W, and Section 24, T1N, R9W, W. M.
 Tillamook County, Oregon

Area	Sale	Acres	
		Net Partial	Net Clearcut
1	112		102
2	100	19	69
3	124	31	87
Total	336	50	258





- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Block
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