



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Huckleberry Hound Sale 341-04-21

District: Klamath/Lake

Date: 8/11/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$56,660.16	\$0.00	\$56,660.16
		Project Work	(\$37,718.00)
		Advertised Value	\$18,942.16



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Timber Description Huckleberry Hound Sale 341-04-21

District: Klamath/Lake

Location: Portions of Sections 30,31, &32, R7.5E., T32S., W.M., Klamath County, OR341

Date: 8/11/03

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
White Fir	11	0	97
Ponderosa Pine	13	0	97
Lodgepole Pine	11	0	95

Volume by Grade	White Fir	Ponderosa Pine	Lodgepole Pine	Total
Camprun	0	0	998	998
CR 8" - 14"	6	53	0	59
CR 14" - 22"	6	13	0	19
Total	12	66	998	1,076

Comments: Pond Values Used: 2nd Quarter 2003
 Other costs (plus P&R):
 Dust Abatement: \$6,569.00
 Brand & Paint: \$2,800.00



Timber Sale Appraisal

Logging Conditions

Huckleberry Hound

Sale 341-04-21

"STEWARDSHIP IN FORESTRY"

Combination#: 1

White Fir	100.00%
Ponderosa Pine	65.00%
Lodgepole Pine	100.00%

Yarding Distance: Short (400 ft) **Downhill Yarding:** Yes
Logging System: Wheel Skidder **Process:** Feller Buncher
Tree Size: Small / Thinning 9in (70 Bft/tree), 20+ logs/MBF
Loads/Day: 10 **Bd. Ft./Load:** 3,250
Cost/MBF: \$103.21

Machines:
Feller Buncher w/ Delimber
Log Loader (B)
Stroke Delimber (B)
Tire Skidder

Combination#: 2

Ponderosa Pine	35.00%
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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: 6 **Bd. Ft./Load:** 3,500
Cost/MBF: \$142.89

Machines:
Log Loader (B)
Tire Skidder



Timber Sale Appraisal Logging Costs Huckleberry Hound Sale 341-04-21

"STEWARDSHIP IN FORESTRY"

Date: 8/11/03

Operating Seasons: 1.0

Profit & Risk: 12%

Project Costs: \$37,718

Other Costs (P/R): \$9,369

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: \$0.88

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
White Fir	\$0.00	2.0	3.5
Ponderosa Pine	\$0.00	2.0	3.5
Lodgepole Pine	\$0.00	2.0	3.2

Local Pond Values

Date	Species	Grade	Value
8/11/03	White Fir	CR 8" - 14"	\$295.00
8/11/03	White Fir	CR 14" - 22"	\$300.00
8/11/03	Ponderosa Pine	CR 8" - 14"	\$255.00
8/11/03	Ponderosa Pine	CR 14" - 22"	\$425.00
8/11/03	Lodgepole Pine	Camprun	\$260.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Huckleberry Hound Sale 341-04-21

Costs	White Fir	Ponderosa Pine	Lodgepole Pine
Logging	103.21	117.10	103.21
Road Maintenance	0.91	0.91	0.93
Fire Protection	2.52	2.52	2.52
Hauling	67.73	67.73	69.16
Other (P/R appl.)	8.71	8.71	8.71
Profit & Risk	21.97	23.64	22.14
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	0.00	0.00	0.00
Total	207.05	222.61	208.67

Amortization	0.00	0.00	0.00
Pond Value	297.50	288.48	260.00
Stumpage	90.45	65.87	51.33
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Huckleberry Hound Sale 341-04-21

Amortized

	White Fir	Ponderosa Pine	Lodgepole Pine
MBF	0.00	0.00	0.00
Value	0.00	0.00	0.00
Total	0.00	0.00	0.00

Unamortized

	White Fir	Ponderosa Pine	Lodgepole Pine
MBF	12.00	66.00	998.00
Value	90.45	65.87	51.33
Total	1,085.40	4,347.42	51,227.34

Gross Timber Sale Value

Recovery \$56,660.16

Prepared by: Ed Scheick

Date: 8/11/03

District: Klamath/Lake

Phone: (541) 883-5681

Summary of Project Work

Project #1: Road construction and improvement	\$20,363.00
Project #2: Fell, skid, pile submerch.	\$17,214.00
Project #3: Road closures	\$141.00
TOTAL	\$37,718.00

Huckleberry Hound

341-04-21

Additional Costs Sheet



"STEWARDSHIP IN FORESTRY"

Road Maintenance

Move-in cost (grader):	\$	241.00
Number of Bladings		1
Number of Miles to be Bladed		4.8
Miles / Hour for equipment		0.5
Cost / Hour:	\$	73.25
Total Grading Hours:		9.6
Grading Cost:	\$	703.20
Total Cost:	\$	944.20
Cost / MBF	\$	0.88

Dust Abatement (Profit & Risk Included)

PP	66,000	BF	6%	Average Load	3500	BF	19	# of Loads
WF	12,000	BF	1%	Average Load	3300	BF	4	# of Loads
LP	998,000	BF	93%	Average Load	3200	BF	312	# of Loads
Total:	1,076,000	BF					Total Loads	334.4

Assume:

6	Trucks/Day
2	Trips / Day
12	Loads Per Day

28	Hauling Days
4	Hours / Day
\$ 57.24	Cost / Hour
112	Total Hours
\$ 158.00	Move-In for Water Truck
\$ 6,410.88	Dust Abatement Cost
\$ 6,568.88	Total Cost
\$ 6.10	Cost / MBF

Knot Bumper

28	Hauling Days
10	Hours / Day
\$ 10.00	Cost / Hour
\$ 2,800.00	Total Cost
\$ 2.60	Cost / MBF

Project #2 Fell, Skid, & Pile Submerchantable Material

358.00	Total Subsawlog Volume MBF
\$ 38.55	Fell & Skid / MBF
\$ 6.45	Sort / MBF
\$ 45.00	Total / MBF
\$ 16,110.00	Total Cost

Landing Cleanup (included with Project # 2)

5	Number of Landings			
	Shovel Time:	2	Hours / Landing	\$ 75.00 Cost / Hour \$ 750.00
	Cat Time:	1	Hours / Landing	\$ 70.74 Cost / Hour \$ 353.70
				Total Cost: \$ 1,103.70

Project #3 Road Closures

Road Blocking

2	Number of Closure Points (C & E)	
1	Hours / Point (include travel)	
	Cost / Hour (Shovel)	
70.74	Cost / Hour (Cat)	
2	Total Road Blocking Hours	
\$ 141.48	Total Cost	

Cost Summary

\$ 20,362.81	Project # 1 ~ Road Construction and Improvement	\$ 944.20	Road Maintenance
\$ 17,213.70	Project # 2 ~ Fell, Skid, & Pile Submerchantable Material	\$ 6,568.88	Dust Abatement
		\$ 2,800.00	Knot Bumping & Branding
\$ 141.48	Project #3 ~ Road Closures		
\$ 37,717.99	Total Cost	\$ 10,313.08	Total Cost

3 Road Shaping & Surfacing ~ Project 1

Rock Surfacing ~ Delivered

1 1/2 -	Rock Size
0.75	Length (Miles)
3960	Length (feet)
14	Width (feet)
4	Depth (inches)
18,480.0	Cubic Feet
684.4	Cubic Yards
\$ 16.88	Cost / Yard
1.3	Expansion Factor
889.8	Cubic Yards (Loose)
1.35	Tons/Cubic Yard
1201.2	Tons
50	No. of Belly Dump Loads
\$ 12.50	Price / Ton
\$ 15,015.00	Total Price

Rock Spreading (Grader)

Number of Bladings	3
Number of Miles to be Bladed (Point H to I)	0.75
Miles / Hour for equipment	0.25
Cost / Hour:	\$ 73.25
Total Grading Hours:	9
Grading Cost:	\$ 659.25

Construct / Improve Lead Off Ditch (Grader)

No. of Ditches	0
Hours / Ditch	1
Total Hours	0
Cost / Hour	\$ 73.25
Total \$	-

Pull Ditches / Shape Road

Feet / Hour	500
Total Feet (From Point G to I)	7920
Total Hours	16
Cost / Hour	\$ 73.25
Total \$	1,160.28

Water Truck to work with Grader

Number of Hours	20
Cost / Hour	\$ 57.24
Total \$	1,144.80

Road Shaping & Surfacing Cost Summary

Rock Surfacing	\$ 15,015.00
Rock Spreading	\$ 659.25
Ditch Construction	\$ -
Pull Ditches	\$ 1,160.28
Water Truck	\$ 1,144.80
Total Cost	\$ 17,979.33

Huckleberry Hound

341-04-21

Project # 1 (Continued) Road Improvement Summary

Move-in cost Cat \$ 370.00



"STEWARDSHIP IN FORESTRY"

<i>New Construction</i>						
	Points	Distance (feet)	Feet / Hour	Hours	Cost / Hour (Cat)	Cost
<i>Approach to 4 Rd</i>	A	100	100	1	70.74	\$ 70.74
<i>Clearing and Grubbing</i>	C to D	1600	400	4	70.74	\$ 282.96
<i>Clearing and Grubbing</i>	E to F	1700	340	5	70.74	\$ 353.70
	Total	3,400.00		10		\$ 707.40
<i>Grade and Shape</i>						
Grader	Total Feet	6550		Water Truck	Hours	5
	Feet / Hour	655			Cost / Hour	\$ 57.24
	Cost / Hour	\$ 73.25			Total Cost	\$ 286.20
	Total Hours	10.0				
	Total Cost	\$ 732.50				

<i>Road Improvement</i>						
	Points	Distance (feet)	Feet / Hour	Hours	Cost / Hour (Cat)	Cost
<i>Roadside Clearing</i>	A to B	3250	800	4.0625	\$ 70.74	\$ 287.38
		3,250.00		4		\$ 287.38

Total: \$ 2,383.48

Huckleberry Hound Cruise Report



SALE NAME: Huckleberry Hound

LEGAL DESCRIPTION: T32S. , R7.5E., Portions of Sections 30,31,32; W.M..

BOUNDARY LINES:

Unit boundary is posted with "Timber Sale Boundary" signs, marked with fluorescent orange paint and fluorescent orange flagging. Harvest exclusions (2) are posted with "Timber Sale Boundary" signs, marked with fluorescent orange paint and fluorescent orange flagging.

Required road construction is posted with orange "Right of Way Boundary" signs and yellow paint.

FUND: 100% B.O.F.

ACREAGE:

Sale Area:	138 acres
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Mapping was accomplished using a Global Positioning System MCV handheld unit, with the data run on the district Geographical Information System Program.

TREATMENT:

Sale area is a selection cut, leave tree marked with orange paint. Wildlife trees are designated with an orange "W".

CRUISE METHOD:

Variable plot cruise with all the plots being measure plots. Fixed plot cruise for all submerchantable material (5.0" to 8.0"), with all plots being measure plots. Measure and grade all trees.

BASAL AREA FACTOR: 10

Full point plots taken, 1/50th acre fixed plots for submerchantable material (5.0" to 8.0" DBH)

PLOT DESIGNATION:

Plot centers were established at every plot. Blue flagging with the corresponding plot number was attached to the plot center and to the nearest available branch.

SAMPLE SIZE CALCULATIONS:

	CV %	Desired SE %	Acres
Area I	70	15	138

$$\text{Number of Plots} = \frac{T^2 C^2}{A^2}$$

C = Coefficient of Variation in Percent (Taken from inventory data)

T = Number of Standard Errors

A = Desired Sampling Error for a sale of this size and value

$$\text{Number of Plots} = \frac{(1)^2(70)^2}{15^2} = 22 \text{ Plots (Took 29 plots)}$$

Measurements and Grading:

- DBH and Height were measured on all "in" trees in the plot.
- All plots were measure plots.
- Pulp volume and sawlog volume cruised.
- See attached species and grade tables for minimum requirements.
- All trees were graded using the segment system.
- Separate fixed plot cruise for all submerchantable material (5" to 8")

TREE HEIGHT:

All trees were measured to a fixed diameter outside bark. This height is usually taken as high up the bole as possible, where the cruiser can clearly see the bole, and the taper remains constant. (Usually 6 or 8 inches). The log segments are broken out and graded accordingly.

MINIMUM D.B.H.:

8.0" D.B.H. for sawlog volume. (Must have a minimum of 20 board feet.)

5.0" D.B.H. for pulp volume.

DIAMETER STANDARDS:

1" diameter class

BTR:

Standard ratios were used. See attached species tables.

FORM FACTOR:

Form factor was measured or estimated at 16' for each tree. Each tree was assigned its own FF.

FORM POINT:

All trees were sighted at D.B.H.

VOLUME COMPUTATION:

All cruise data was input and run at the district on Atterbury's Super Ace program.

CRUISERS: Ed Scheick, Jason Pettigrew, Craig Leech.

FINAL CRUISE RESULTS:

CV% = 39.3

SE% = 7.3

TIMBER DESCRIPTION

	Species	Average DBH	Gross Volume (MBF)	Net Volume (MBF)
Area I	Lodgepole Pine	11.2	1010	998
	Ponderosa Pine	12.7	68	66
	White Fir	10.6	12	12
				1076
Total MBF				1,076

(Volumes taken from Species, Sort Grade -Board Foot Volumes Report)

GREEN PULP VOLUME

This volume was obtained from the variable plot cruise (>8" DBH) and the fixed plot cruise (5.0"-8.0"). All material graded green pulp. See grade table for minimum standards.

	Species	Average DBH	Net Volume (MBF)	Trees per Acre
Area I Fixed Plot	Lodgepole Pine	6.5	243	85
	Ponderosa Pine	6.6	14	7
	White Fir	6.5	12	5
Area I Variable Plot	Lodgepole Pine	9.4	74	2.5
	Ponderosa Pine	9.1	11	0.6
	White Fir	9.1	4	0.2
Total MBF				358

(Volumes taken from Species, Sort Grade -Board Foot Volumes Report)

TC TSTATS		STATISTICS					PAGE 1			
		PROJECT HUCKHOUN					DATE 4/4/2003			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES			
32S	7.5	31	VARIABLE	120	138.00	29	256			
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		29	256	8.8						
CRUISE		29	256	8.8	17,624	1.5				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
LP PINE	230	116.8	11.2	39		79.3	7,925	7,839	1,859	1,859
P PINE	22	8.6	12.7	37		7.6	575	560	146	146
WHITE F	4	2.2	10.6	25	0	1.4	116	116	27	27
TOTAL	256	127.7	11.3	39		88.3	8,617	8,515	2,032	2,032
SD:	1	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF TREES REQ.		INF. POP.	
LP PINE		100.5	6.3	75	80	86	5	10	15	
P PINE		510.6	31.9	6	9	12				
WHITE F		1301.1	81.3	0	2	3				
TOTAL		94.7	5.9	86	92	97	359	90	40	
SD:	1	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF TREES REQ.		INF. POP.	
LP PINE		86.0	5.4	18	19	20	5	10	15	
P PINE		450.7	28.2	2	2	3				
WHITE F		1223.9	76.5	0	0	1				
TOTAL		79.3	5.0	20	21	22	251	63	28	
SD:	1	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ.		INF. POP.	
LP PINE		48.6	9.0	106	117	127	5	10	15	
P PINE		147.6	27.4	6	9	11				
WHITE F		312.3	58.0	1	2	4				
TOTAL		45.3	8.4	117	128	138	82	20	9	
SD:	1	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ.		INF. POP.	
LP PINE		41.8	7.8	73	79	85	5	10	15	
P PINE		174.9	32.5	5	8	10				
WHITE F		319.8	59.4	1	1	2				
TOTAL		37.5	7.0	82	88	94	56	14	6	
SD:	1	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ.		INF. POP.	
LP PINE		44.3	8.2	7,194	7,839	8,485	5	10	15	
P PINE		194.0	36.0	358	560	761				
WHITE F		371.9	69.1	36	116	196				
TOTAL		39.3	7.3	7,894	8,515	9,136	62	15	7	
SD:	1	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ.		INF. POP.	
LP PINE		44.2	8.2	1,707	1,859	2,012	5	10	15	
P PINE		184.5	34.3	96	146	195				
WHITE F		349.7	64.9	10	27	45				
TOTAL		39.3	7.3	1,884	2,032	2,180	62	15	7	

STATISTICS
PROJECT HUCKHOUN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES
32S	7.5	31	VARIABLE	120	138.00	29	256

Species, Sort Grade - Board Foot Volumes (Type)

Project: HUCKHOUN

T32S R7.5 S31 T120

T32S R7.5 S31 T120

Twp Rge Sec Tract Type Acre Plots Sample Trees
 32S 7.5 31 VARIABLE 120 138.00 29 256

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
LP	CR	CR	93	1.2	7,321	7,235	998		89	10	1	15	22	33	30	24	89	0.86	81.4
LP	CR	GP	7		536	536	74	20	80			92	4		4	15	21	0.35	25.5
LP	Totals		92	1.1	7,857	7,771	1,072	1	89	9	1	21	21	31	28	22	73	0.77	106.9
PP	CR	CR	85	3.2	490	475	65		80	20		22	21	41	16	21	81	1.04	5.8
PP	CR	GP	15		82	82	11	37	63			100				14	14	0.24	6.1
PP	Totals		7	2.8	572	557	77	5	78	17		34	18	35	13	17	47	0.71	11.9
WF	CR	CR	74		86	86	12		46	54		31	15	54		17	58	0.77	1.5
WF	CR	GP	26		30	30	4	51	49			100				16	24	0.41	1.2
WF	Totals		1		116	116	16	13	47	40		49	11	40		16	42	0.61	2.7
Type Totals				1.2	8,545	8,444	1,165	2	87	10	1	22	21	31	26	22	69	0.76	121.5

Log Stock Table - MBF
Project: HUCKHOUN

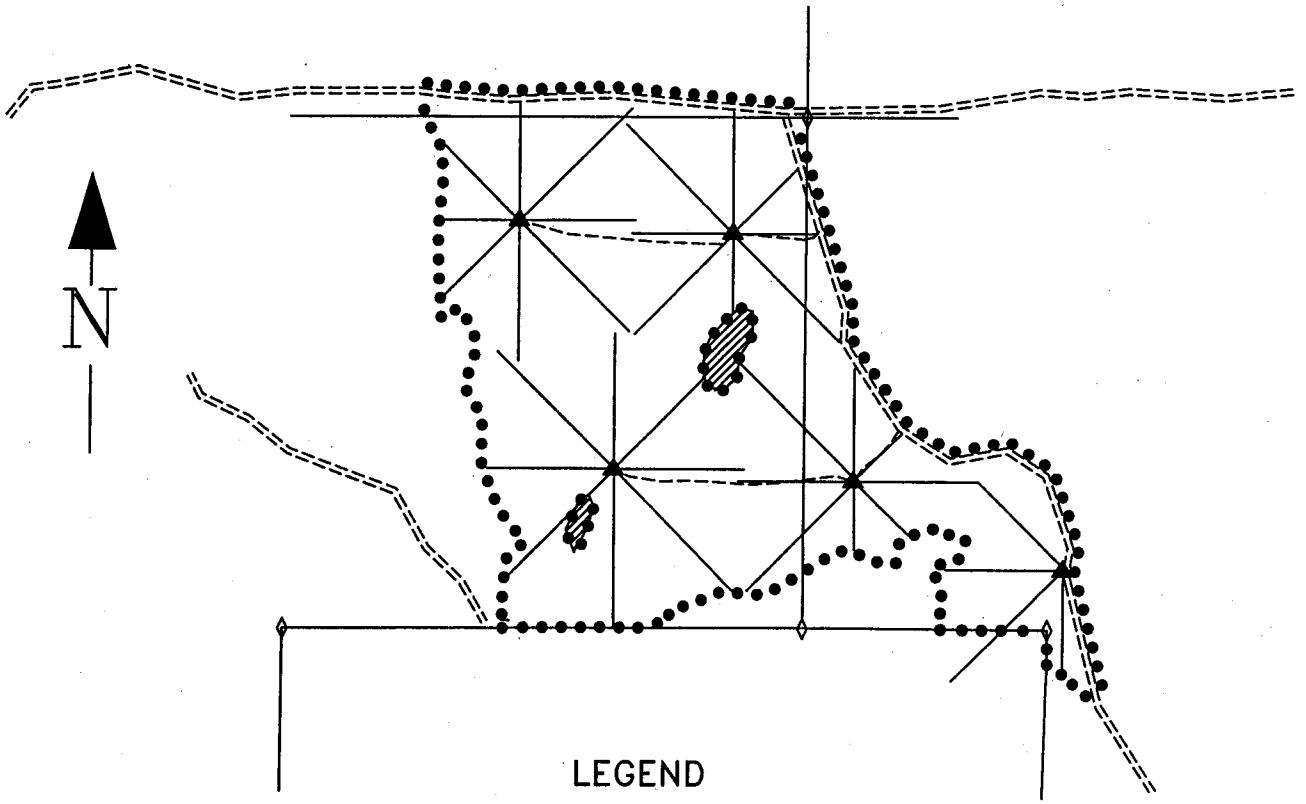
T32S R7.5 S31 T120

T32S R7.5 S31 T120

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2
32S	7.5	31	VARIABLE	120	138.00	29	256	Date	5/20/2003
								Time	9:53:41AM

S Spp	So T	Gr rt	Log de	Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches									
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
WF	CR	CR	30		2		2	11.1			2							
WF	CR	CR	34		6		6	40.3					6					
WF	CR	GP	14		2		2	12.6			2							
WF	CR	GP	17		2		2	13.2		2								
WF	Totals				16		16	1.4		2	5	2		6				
Total All Species					1,189	1.2	1,175	100.0	5	19	576	283	166	88	29	9		

LOGGING PLAN
 of Timber Sale Contract No.
 341-04-21
 Huckleberry Hound
 Portions of Sections 30, 31, & 32, T32S, R7.5E, W.M.
 Klamath County, Oregon
 Approximately 138 Acres



LEGEND

- TIMBER SALE BOUNDARY
- ← Section Line
- ◇ Known Land Survey Corner
- POINT Point for Project Work
- ==== Unsurfaced Existing Road
- Unsurfaced Road (Construction Required)
- Exclusion Area

