Timber Sale Appraisal
Blazing Saddles

Sale FG-341-2016-04-

District: Forest Grove **Date: July 20, 2015**

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,273,730.35	$0.00	$1,273,730.35
		Project Work:	($422,680.00)
		Advertised Value:	$851,050.35

Timber Sale Appraisal
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Sale FG-341-2016-04-

District: Forest Grove **Date: July 20, 2015**

Timber Description

Location: Portions of Sections 14, 23, and 24, T1N, R6W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	20	0	98
Western Hemlock / Fir	16	0	98
Noble Fir	21	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	2,136	1,287	170	3,593
Western Hemlock / Fir	19	64	11	94
Noble Fir	139	34	5	178
Total	2,294	1,385	186	3,865

Comments: Pond Values Used: 2nd Quarter Calendar Year 2015.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
$1,048.29/MBF = $1,275/MBF - $226.71/MBF

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:
$369.23/MBF = $595/MBF - $225.77/MBF

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $3.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to $780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: 3,865 MBF x $2/MBF = $7,730
TOTAL Other Costs (with Profit & Risk to be added) = $7,730

Other Costs (No Profit & Risk added):
Snag Creation: 74 Snags @ $40 each = $2,960
Block/Waterbar Roads/Skid Trails: 20 hrs x $150/hour = $3,000
Pile Landing Slash/Sort Firewood: 15 hrs x $150/hour = $2,250
Slash Treatment: 20 acres x $150/acre = $3,000
Equipment Cleaning: 4 x $1,000/Piece = $4,000
TOTAL Other Costs (No Profit & Risk added) = $15,210

ROAD MAINTENANCE
Move-in: $4,000
General Road Maintenance: 9.9 miles x $1,200/mile = $11,880
TOTAL Road Maintenance = $15,880/3,865 MBF = $4.11/MBF

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Sale FG-341-2016-04-

District: Forest Grove **Date: July 20, 2015**

Logging Conditions

Combination#: 1

Douglas - Fir	60.91%
Western Hemlock / Fir	49.00%
Noble Fir	77.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 7 **bd. ft / load:** 4600

cost / mbf: $186.34

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	39.09%
Western Hemlock / Fir	51.00%
Noble Fir	23.00%

Logging System: Shovel **Process:** Stroke Delimber

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 8 **bd. ft / load:** 4600

cost / mbf: $86.19

machines: Stroke Delimber (B)

Timber Sale Appraisal
Blazing Saddles

Sale FG-341-2016-04-

District: Forest Grove **Date: July 20, 2015**

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	10%
Project Costs:	$422,680.00	**Other Costs (P/R):**	$7,730.00
Slash Disposal:	$0.00	**Other Costs:**	$15,210.00

Miles of Road

Road Maintenance: $4.11

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	$0.00	4.0	4.7
Western Hemlock / Fir	$0.00	4.0	3.8
Noble Fir	$0.00	4.0	4.3

Timber Sale Appraisal
Blazing Saddles

Sale FG-341-2016-04-

District: Forest Grove **Date: July 20, 2015**

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$147.19	$4.19	$2.27	$42.32	$2.00	$19.80	$0.00	$5.00	$3.94	$226.71
Western Hemlock / Fir									
$135.26	$4.19	$2.27	$52.35	$2.00	$19.61	$0.00	$5.00	$3.94	$224.62
Noble Fir									
$163.31	$4.19	$2.27	$46.26	$2.00	$21.80	$0.00	$5.00	$3.94	$248.77

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$565.10	$338.39	$0.00
Western Hemlock / Fir	$0.00	$437.98	$213.36	$0.00
Noble Fir	$0.00	$461.35	$212.58	$0.00

Timber Sale Appraisal
Blazing Saddles

Sale FG-341-2016-04-

District: Forest Grove **Date: July 20, 2015**

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00
Noble Fir	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,593	$338.39	$1,215,835.27
Western Hemlock / Fir	94	$213.36	$20,055.84
Noble Fir	178	$212.58	$37,839.24

Gross Timber Sale Value

Recovery: $1,273,730.35

Prepared By: Joe Koch **Phone:** 503-359-7460

TIMBER SALE SUMMARY
Blazing Saddles
Contract No. 341-16-04

1. **Location:** Portions of Sections 14, 23, & 24, T1N, R6W, W.M., Tillamook County, Oregon.

2. **Type of Sale:** This timber sale is 117 acres of Modified Clearcut and one acre of right of Way. The timber will be sold on a recovery basis at a sealed bid auction.

3. **Revenue Distribution:** 100% BOF, 100% Tillamook County, Tax Code 9-2.

4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.

5. **Cruise**: The Timber Sale was cruised by ODF Cruisers in April, 2015. For more information see Cruise Report.

6. **Timber Description:** Area 1 consists of a medium to well stocked 60 year old stand of Douglas-fir, with a small component of noble fir and patches of western hemlock. The south half of Area 1 was partial cut in 2000. Area 2 is also a 60 year old stand with a small component of noble fir. In Area 1 all noble fir and western hemlock between 8" and 14" DBH are reserved. The following table summarizes volumes for Douglas-fir only.

Sale Area	Net Acres	Average Diameter	Net MBF Per Acre (D-fir)
Area 1	74	19"	27
Area 2	43	21"	37
Area 3 R/W	1	20"	11

7. **Topography and Logging Method:** Slopes within the sale areas generally range from 10% to 75% with some steeper pitches. Area 1 has a north aspect and Area 2 is variable in aspect. The following table summarizes average and maximum cable corridor or estimated tractor skid trail length, and harvest method by percent for each sale area.

	Area 1 (MC)			Area 2 (MC)		
	Ave	Max	%	Ave	Max	%
Tractor	500	650	51	500	650	23
Cable	600	1475	49	480	1100	77

8. **Access:** All access to the Timber Sale Areas is on surfaced all-weather roads. From Forest Grove, travel 7 miles west on Highway 8 to its intersection with Highway 6.

Proceed west onto Highway 6 for approximately 10 miles, then turn left onto Beaverdam Road. Follow Beaverdam Road for approximately 8.5 miles,then turn left onto Seven Cedars Road. Continue on Seven Cedars Road for approximately 0.5 miles to the timber sale area.

9. Projects:

Project No. 1: Road Construction and Improvement	$66,158.84
Project No. 2: Surfacing	$203,810.25
Project No. 3: Crush 2,500 CY 1-1/2” Stockpile	$44,428.00
Project No. 4: Grass Seed, Fertilize, and Mulch	$1,552.44
Project No. 5: Bridge Installation	$95,177.15
Project No. 6: Road Vacating	$5,114.93
Move in and equipment cleaning:	$6,437.50
Total Credit for all Projects (rounded)	$422,680.00

PROJECT COST SUMMARY SHEET

Timber Sale: Blazing Saddles

Sale Number: 341-16-04

PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT

CONSTRUCTION

Road Segment	Length	Cost
A to B	14+20	$10,857.37
C to D	15+25	$5,484.60
E to F	23+40	$6,327.26
	52+85	stations
	1.00	miles

SUBTOTAL CONSTRUCTION $22,669.23

IMPROVEMENTS

Road Segment	Length	Cost
G to H	108+85	$12,055.31
H to I	23+35	$2,870.32
H to J	44+60	$22,814.44
K to C	4+90	$176.40
L to M	6+40	$2,340.40
N to E	55+35	$3,232.60
	243+45	stations
	4.61	miles

SUBTOTAL IMPROVEMENTS $43,489.47

TOTAL PROJECT NO. 1 COST = $66,158.70

PROJECT NO. 2: SURFACING

Road Segment	Amount	Type	Cost
A to B	20 cy	3" - 0	$414.00
C to D	1,235 cy	3" - 0	$21,723.65
E to F	1,787 cy	3" - 0	$32,398.31
G to H	4,191 cy	1 1/2" - 0	$70,991.73
H to I	1,292 cy	3" - 0	$21,821.88
H to I	52 cy	1 1/2" - 0	$852.24
H to J	2,570 cy	3" - 0	$45,077.80
H to J	120 cy	1 1/2" - 0	$1,831.20
L to M	72 cy	1 1/2" - 0	$1,140.48
N to E	144 cy	3" - 0	$2,494.08
N to E	72 cy	1 1/2" - 0	$1,213.44
O to P	140 cy	1 1/2" - 0	$1,547.16
O to P	150 cy	3" - 0	$1,652.78
O to P	50 cy	36"-24"	$651.50
Total	4,647 cy	1 1/2" - 0	
	7,198 cy	3" - 0	
	50 cy	36" - 24"	

TOTAL PROJECT NO. 2 COST = $203,810.25

PROJECT NO. 3: CRUSH & BUILD 1½"-0 STOCKPILE

2,000 CY 1½"-0 Stockpile $44,428.00

TOTAL PROJECT NO. 3 COST = $44,428.00

PROJECT NO. 4: GRASS SEED, FERTILIZE, & MULCH

TOTAL PROJECT NO. 4 COST = $1,552.44

PROJECT NO. 5: CONSTRUCT ROAD & BRIDGE BETWEEN O & P

TOTAL PROJECT NO. 5 COST = $95,177.15

PROJECT NO. 6: ROAD VACATING

TOTAL PROJECT NO. 6 COST = $5,114.93

MOVE IN & EQUIPMENT CLEANING

Graders	$977.91
Rollers	$598.78
Excavator - Equipment Cleaning	$1,977.91
Tractor - Equipment Cleaning	$2,020.08
Dump Trucks (10 cy +)	$862.82

TOTAL MOVE IN & EQUIPMENT CLEANING COST = $6,437.50

TOTAL ALL PROJECTS $422,678.96

TOTAL CREDITS $422,680.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **A to B** Construction : 14+20 stations
0.27 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.65	acres @	$580.80	per acre =	$378.67	
Balanced Road Construction	8.40	sta @	$110.00	per sta =	$924.00	
Drift	5.80	sta @	$180.00	per sta =	$1,044.00	
Construct Turnouts (1)	2	ea. @	$66.00	per each =	$132.00	
Construct Turnaround (1)	1	ea. @	$82.50	per each =	$82.50	
Install Log Stringer Bridge					$7,000.00	
Improve Landing	1	ea. @	$175.00	per each =	$175.00	
Grade, Ditch, and Roll	3.20	sta @	$36.00	per sta =	$115.20	
Grade and Roll (Outslope)	11.00	sta @	$15.40	per sta =	$396.00	
				TOTAL EXCAVATION COSTS=		**$10,247.37**

CULVERTS - MATERIALS & INSTALLATION

Culverts

30 LF of 18" $600.00

Culvert Markers

1 markers $10.00

TOTAL CULVERT COSTS = **$610.00**

PROJECT NO. 1 TOTAL COST = $10,857.37

PROJECT NO. 2:

Abutments & Surfacing @ Bridge	20	cy of	1 1/2" - 0 @	$20.70	per cy =	$414.00
Total =	20					
	20	cy of	1 1/2" - 0	$20.70	per cy =	$414.00

PROJECT NO. 2 TOTAL COST = $414.00

PROJECT NO. 6:

Construct Tank Traps	1	ea. @	$55.00	per each =	$55.00	
Rip Road Surface	14.20	sta @	$50.00	per sta =	$710.00	
Rip and Narrow Landing	1	ea. @	$150.00	per each =	$150.00	
Remove Existing Culverts	1	ea. @	$150.00	per each =	$150.00	
Remove Log Stringer Bridge	1	ea. @	$1,400.00	per each =	$1,400.00	
Grass seed and fertilize areas of disturbed soil.					$269.47	
Mulch					$380.46	
Excavator Move-in & Equipment Cleaning					$2,000.00	

PROJECT NO. 6 TOTAL COST = $5,114.93

TOTAL COST = **$16,386.30**

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **C to D** Construction : 15+25 stations
0.29 miles

PROJECT NO. 1

EXCAVATION						
Clearing and Grubbing (Scatter)	1.40	acres @	$1,078.00	per acre =	$1,509.60	
Balanced Road Construction	15.25	sta @	$110.00	per sta =	$1,677.50	
Construct Turnouts (2)	2	ea. @	$66.00	per ea. =	$132.00	
Construct Turnaround (1)	1	ea. @	$82.50	per ea. =	$82.50	
Landing	1	ea. @	$314.00	per ea. =	$314.00	
Grade, Ditch, and Roll	15.25	sta @	$36.00	per sta =	$549.00	
				TOTAL EXCAVATION COSTS=		**$4,264.60**

CULVERTS - MATERIALS & INSTALLATION

Culverts
60 LF of 18" $1,200.00

Culvert Markers
2 markers $20.00

TOTAL CULVERT COSTS = **$1,220.00**

PROJECT NO. 1 TOTAL COST = $5,484.60

PROJECT NO. 2:

SURFACING	12	" deep =	65 cy/sta				
C to D	991	cy of	3" - 0	@	$17.59	per cy =	$17,431.69
Turnouts (2)	44	cy of	3" - 0	@	$17.59	per cy =	$773.96
Turnaround	20	cy of	3" - 0	@	$17.59	per cy =	$351.80
Landing	180	cy of	3" - 0	@	$17.59	per cy =	$3,166.20
Total =	1,235						
	1,235	cy of	3" - 0		$17.59	per cy =	$21,723.65

PROJECT NO. 2 TOTAL COST = $21,723.65

PROJECT NO. 4:

Grass seed and fertilize areas of disturbed soil.	0.70	acres @	$425.00	per acre =	$297.58	

PROJECT NO. 4 TOTAL COST = $297.58

TOTAL COST = $27,505.82

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **E to F** Construction : 23+40 stations
0.44 miles

PROJECT NO. 1

EXCAVATION						
Clearing and Grubbing (Scatter)	2.15	acres @	$1,078.00	per acre =	$2,316.36	
Balanced Road Construction	23.40	sta @	$110.00	per sta =	$2,574.00	
Construct Turnouts (3)	3	ea. @	$66.00	per ea. =	$198.00	
Construct Turnaround (1)	1	ea. @	$82.50	per ea. =	$82.50	
Landing	1	ea. @	$314.00	per ea. =	$314.00	
Grade, Ditch, and Roll	23.40	sta @	$36.00	per sta =	$842.40	
				PROJECT NO. 1 TOTAL COST =		**$6,327.26**

PROJECT NO. 2:

SURFACING	12	" deep = 65 cy/sta				
E to F	1,521	cy of	3" - 0	@	$18.13	per cy = $27,575.73
Turnouts (3)	66	cy of	3" - 0	@	$18.13	per cy = $1,196.58
Turnaround	20	cy of	3" - 0	@	$18.13	per cy = $362.60
Landing	180	cy of	3" - 0	@	$18.13	per cy = $3,263.40
Total =	1,787					
	1,787	cy of	3" - 0		$18.13	per cy = $32,398.31
					PROJECT NO. 2 TOTAL COST =	**$32,398.31**

PROJECT NO. 4:

Grass seed and fertilize areas of disturbe	1.07	acres @	$425.00	per acre =	$456.61
				PROJECT NO. 4 TOTAL COST =	**$456.61**

TOTAL COST = $39,182.19

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **G to H (Beaverdam Road)** Improvement : 108+85 stations
2.06 miles

PROJECT NO. 1

EXCAVATION							
Endhaul (17+20 to 18+00)							
Excavate & Load	63	cy @	$1.35	per cy =	$84.78		
Haul	63	cy @	$0.49	per cy =	$30.77		
Compact Waste Area	63	cy @	$0.30	per cy =	$18.84		
Clean/Construct Ditch and Waste Locally	101.05	sta @	$60.00	per sta =	$6,063.00		
Grade, Ditch and Roll	101.05	sta @	$36.00	per sta =	$3,637.80		
Grade and Roll (Outslope)	7.80	sta @	$15.40	per sta =	$120.12		
				TOTAL EXCAVATION COSTS=			**$9,955.31**

CULVERTS - MATERIALS & INSTALLATION

Culverts
100 LF of 18" $2,000.00

Culvert Markers
10 markers $100.00

TOTAL CULVERT COSTS = **$2,100.00**

PROJECT NO. 1 TOTAL COST = $12,055.31

PROJECT NO. 2:

SURFACING	6	" deep =	36 cy/sta				
G to H	3,919	cy of	1 1/2" - 0	@	$16.95	per cy =	$66,427.05
Turnouts (16)	176	cy of	1 1/2" - 0	@	$16.95	per cy =	$2,983.20
Junction (Pt. G & H)	60	cy of	1 1/2" - 0	@	$16.95	per cy =	$1,017.00
Culvert Bedding/Backfill	36	cy of	1 1/2" - 0	@	$15.68	per cy =	$564.48
Total =	4,191						
	4,155	cy of	1 1/2" - 0		$16.95	per cy =	$70,427.25
	36	cy of	1 1/2" - 0		$15.68	per cy =	$564.48

PROJECT NO. 2 TOTAL COST = $70,991.73

PROJECT NO. 4:

Grass seed and fertilize areas of disturbed soil.	0.10 acres @	$425.00	per acre =	$42.50	
Mulch	4 bales @	$8.00	per bale =	$32.00	
			PROJECT NO. 3 TOTAL COST =		**$74.50**

TOTAL COST = $83,121.54

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **H to I (Seven Cedars Road)** Improvement : 23+35 stations
0.44 miles

PROJECT NO. 1

EXCAVATION							
Clearing and Grubbing (Scatter)	4.00	hrs @	$175.00	per hr =	$700.00		
Clean/Construct Ditch and Waste Locally	15.20	sta @	$60.00	per sta =	$912.00		
Grade and Ditch	23.35	sta @	$19.20	per sta =	$448.32		
				TOTAL EXCAVATION COSTS=		**$2,060.32**	

CULVERTS - MATERIALS & INSTALLATION

Culverts
40 LF of 18" $800.00

Culvert Markers
1 markers $10.00

TOTAL CULVERT COSTS = **$810.00**

PROJECT NO. 1 TOTAL COST = $2,870.32

PROJECT NO. 2:

SURFACING	10	" deep =	53 cy/sta				
H to I	1,238	cy of	3" - 0	@	$16.89	per cy =	$20,909.82
Turnouts (3)	54	cy of	3" - 0	@	$16.89	per cy =	$912.06
Junction (Pt. H & N)	40	cy of	1 1/2" - 0	@	$16.89	per cy =	$675.60
Culvert Bedding/Backfill	12	cy of	1 1/2" - 0	@	$14.72	per cy =	$176.64
Total =	1,344						
	40	cy of	1 1/2" - 0		$16.89	per cy =	$675.60
	12	cy of	1 1/2" - 0		$14.72	per cy =	$176.64
	1,292	cy of	3" - 0		$16.89	per cy =	$21,821.88

PROJECT NO. 2 TOTAL COST = $22,674.12

TOTAL COST = $25,544.44

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **H to J (Upper Saddle Mtn. Road)** Improvement : 44+60 stations
0.84 miles

PROJECT NO. 1

EXCAVATION						
Clearing and Grubbing (Scatter)	4.00	hrs @	$175.00	per hr =	$700.00	
Road Widening (36+00 to 36+50)	0.50	sta @	$110.00	per sta =	$55.00	
Endhaul (Culvert No. 11, 25+20 to 28+90 & 36+00 to 36+50)						
Excavate & Load	826	cy @	$1.35	per cy =	$1,115.51	
Endhaul	862	cy @	$0.57	per cy =	$491.36	
Place Fill	218	cy @	$2.40	per cy =	$524.16	
Compact Fill	218	cy @	$0.50	per cy =	$109.20	
Compact Waste Area	862	cy @	$0.30	per cy =	$258.61	
Improve 50' x 50' Landing	1	ea. @	$165.00	per ea. =	$165.00	
Clean/Construct Ditch and Waste Locally (0+00 to 28+90 & 37+75 to 44+60)	36.75	sta @	$60.00	per cy =	$2,205.00	
Clean/Construct Ditch and Endhaul (28+90 to 37+75)	8.85	sta @	$100.00	per cy =	$885.00	
Grade, Ditch, and Roll	44.60	sta @	$36.00	per sta =	$1,605.60	
				TOTAL EXCAVATION COSTS=		**$8,114.44**

CULVERTS - MATERIALS & INSTALLATION

Culverts

140	LF of 18"	$2,800.00	
60	LF of 24"	$1,740.00	
60	LF of 36"	$3,000.00	
50	LF of 60"	$6,700.00	

Culvert Markers

11	markers	$110.00	

Additional Culvert Installation Cost

2	Hrs. @	$175.00	per hr. =	$ 350.00

TOTAL CULVERT COSTS = **$14,700.00**

PROJECT NO. 1 TOTAL COST = $22,814.44

PROJECT NO. 2:

SURFACING	10	" deep =	53 cy/sta				
H to J	2,364	cy of	3" - 0	@	$17.54	per cy =	$41,464.56
Turnouts (7)	126	cy of	3" - 0	@	$17.54	per cy =	$2,210.04
Landing (39+75)	80	cy of	3" - 0	@	$17.54	per cy =	$1,403.20
Culvert Bedding/Backfill	120	cy of	1 1/2" - 0	@	$15.26	per cy =	$1,831.20
Total =	2,690						
	120	cy of	1 1/2" - 0		$15.26	per cy =	$1,831.20
	2,570	cy of	3" - 0		$17.54	per cy =	$45,077.80

PROJECT NO. 2 TOTAL COST = $46,909.00

PROJECT NO. 4:

Grass seed and fertilize areas of disturbed soil.	0.50	acres @	$425.00	per acre =	$212.50	
Mulch	20	bales @	$8.00	per bale =	$160.00	
				PROJECT NO. 4 TOTAL COST =		**$372.50**

TOTAL COST = $70,095.94

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **K to C** Improvement : 4+90 stations
0.09 miles

PROJECT NO. 1

EXCAVATION

Grade, Ditch, and Roll	4.90	sta @	$36.00	per sta =	$176.40

TOTAL EXCAVATION COSTS= **$176.40**

PROJECT NO. 1 TOTAL COST = $176.40

TOTAL COST = $176.40

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **L to M** Improvement : 6+40 stations
0.12 miles

PROJECT NO. 1

EXCAVATION

Grade, Ditch, and Roll			6.40	sta @	$36.00	per sta =	$230.40
						TOTAL EXCAVATION COSTS=	**$230.40**

CULVERTS - MATERIALS & INSTALLATION

Culverts

104 LF of 18" $2,080.00

Culvert Markers

3 markers $30.00

TOTAL CULVERT COSTS = **$2,110.00**

PROJECT NO. 1 TOTAL COST = $2,340.40

PROJECT NO. 2:

Culvert Bedding/Backfill	36	cy of	1 1/2" - 0	@	$15.48	per cy =	$557.28
Surfacing over culverts	36	cy of	1 1/2" - 0	@	$16.20	per cy =	$583.20
Total =	72						
	36	cy of	1 1/2" - 0		$15.48	per cy =	$557.28
	36	cy of	1 1/2" - 0		$16.20	per cy =	$583.20

PROJECT NO. 2 TOTAL COST = $1,140.48

TOTAL COST = $3,480.88

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **N to E** Improvement: 55+35 stations
1.05 miles

PROJECT NO. 1

EXCAVATION

Grade, Ditch, and Roll	55.35	sta @	$36.00	per sta =	$1,992.60	
				TOTAL EXCAVATION COSTS=		**$1,992.60**

CULVERTS - MATERIALS & INSTALLATION

Culverts

60 LF of 18" $1,200.00

Culvert Markers

4 markers $40.00

TOTAL CULVERT COSTS = **$1,240.00**

PROJECT NO. 1 TOTAL COST = $3,232.60

PROJECT NO. 2:

SURFACING	4	" deep =	20 cy/sta				
Culvert Bedding/Backfill	24	cy of	1 1/2" - 0	@	$15.92	per cy =	$382.08
Surfacing over culverts	24	cy of	3" - 0	@	$17.32	per cy =	$415.68
Spot Rock	120	cy of	3" - 0	@	$17.32	per cy =	$2,078.40
Spot Rock	48	cy of	1 1/2" - 0	@	$17.32	per cy =	$831.36
Total =	216						
	144	cy of	3" - 0		$17.32	per cy =	$2,494.08
	24	cy of	1 1/2" - 0		$15.92	per cy =	$382.08
	48	cy of	1 1/2" - 0		$17.32	per cy =	$831.36

PROJECT NO. 2 TOTAL COST = $3,707.52

TOTAL COST = $6,940.12

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **O to P** Construction : 4+50 stations
0.09 miles

PROJECT NO. 5

Bridge Installation					
50' Bridge, Sills, Sheet Pile Back Walls (including freight)					$59,400.00
Dewatering					$5,000.00
Sills Installation					
Excavator	8	hrs @	$175.00	per hr =	$1,400.00
Laborers	24	hrs @	$40.00	per hr =	$960.00
Jumping Jack Compactor	1	day @	$350.00	per day =	$350.00
Set Bridge					
Crane	8	hrs @	$350.00	per hr =	$2,800.00
Laborers	16	hrs @	$40.00	per hr =	$640.00
Road Construction (O to P)					
Clearing and Grubbing (Endhaul Stumps)	0.41	acres @	$904.82	per acre =	$370.98
Balanced Road Construction	4.50	sta @	$110.00	per sta =	$495.00
Grade, Ditch, and Roll	4.50	sta @	$36.00	per sta =	$162.00
Mobilization					
Crane					$3,305.26
Grader - move from Timber Sale Area					$78.38
Roller - move from Timber Sale Area					$93.50
Excavator (Large)					$1,652.63
Excavator (Large) - move from Timber Sale Area					$700.00
Tractor (D8) - move from Timber Sale Area					$700.00
Dump Trucks (10 cy +) - move from Timber Sale Area					$123.75
Water Truck (2500 Gal) - move from Timber Sale Area					$41.25
Licensed Engineer					$4,000.00

CULVERTS - MATERIALS & INSTALLATION

Culverts
24 LF of 18" $480.00
Culvert Markers
1 markers $10.00

SUBTOTAL =	**$82,762.74**
Profit and Risk 15% =	**$12,414.41**
PROJECT NO. 5 TOTAL COST =	**$95,177.15**

PROJECT NO. 2:

SURFACING	6	" deep =	31 cy/sta					
	4	" deep =	20 cy/sta					
Bridge								
Sill Footings	10	cy of	3" - 0	@	$11.13	per cy =	$111.30	
Sill Footings	2	cy of	1 1/2" - 0	@	$11.13	per cy =	$22.26	
Bridge Surfacing	48	cy of	1 1/2" - 0	@	$11.05	per cy =	$530.40	
Riprap	50	cy of	36" - 24"	@	$13.03	per cy =	$651.50	
Base Rock (6" deep)	140	cy of	3" - 0	@	$11.05	per cy =	$1,541.48	
Surfacing Rock (4" deep)	90	cy of	1 1/2" - 0	@	$11.05	per cy =	$994.50	
Total =	340							
	2	cy of	1 1/2" - 0		$11.13	per cy =	$22.26	
	138	cy of	1 1/2" - 0		$11.05	per cy =	$1,524.90	
	10	cy of	3" - 0		$11.13	per cy =	$111.30	
	140	cy of	3" - 0		$11.05	per cy =	$1,541.48	
	50	cy of	36" - 24"		$13.03	per cy =	$651.50	
						PROJECT NO. 2 TOTAL COST =		**$3,851.44**

PROJECT NO. 4:

Grass seed & Mulch @ Bridge Site	0.10	acres @	$950.00	per acre =	$95.00	
Grass seed, Fertilize, & Mulch @ Waste Area	0.25	acres @	$1,025.00	per acre =	$256.25	
				PROJECT NO. 4 TOTAL COST =		**$351.25**

TOTAL COST = $99,379.84

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Blazing Saddles** Timber Sale No. : 341-16-04

Road Segment: **1 1/2" - 0 Stockpile**

PROJECT NO. 3: 1 1/2" - 0 Stockpile

2,000cy Stockpile	2,320 (Truck Measure)	cy of	1 1/2" - 0 @	$19.15	per cy =	$44,428.00
Total =	2,320					

PROJECT NO. 3 TOTAL COST = $44,428.00

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Timber Sale: Blazing Saddles

Sale Number: 341-16-04

Pit Name: Seven Cedars Pit

Swell:	130%	1-1/2"-0 (trk measure)	4,647 cy
Shrinkage:	116%	3"-0 (trk measure)	7,198 cy
Drill Pct.:	85%	1 1/2"-0 Stockpile (stockpile measure)	2,000 cy
Screening Loss:	15%	Total Truck Yardage:	14,165 cy
		Total In Place Yardage:	10,896 cy

Reject Material Stockpile Site Development & Pit Development						$1,400.00
Drill & Shoot:	$2.80	/cy x	12,819	cy	=	$35,891.95
Load Crusher:	$0.80	/cy x	16,664	cy	=	$13,331.29
Screen Rock	$2.90	/cy x	16,664	cy	=	$48,325.94
Crushing (1-1/2" - 0):	$3.30	/cy x	4,647	cy	=	$15,335.10
Crushing (3" - 0):	$3.30	/cy x	7,198	cy	=	$23,751.75
Crushing (Stockpile):	$3.30	/cy x	2,320	cy	=	$7,656.00
Waste Reject:	$0.52	/cy x	2,500	cy	=	$1,299.80
Load Dump Truck:	$0.80	/cy x	16,664	cy	=	$13,331.29
Build and Shape Stockpile:	$1.10	/cy x	2,320	cy	=	$2,552.00
					Subtotal	$167,075.13

Equipment Cleaning					$2,000.00
Move in Crusher (Stage 3)					$3,286.00
Set up Crusher					$3,327.00
Move in and set up Drill and Compressor					$671.83
Move in Screening Plant					$465.00
Move in Excavator					$1,091.76
Move in D-8					$1,133.93
Move in Loader					$945.06
Clean Up Pit					$875.00
Gradation Tests ($65/2000 cy)	$71.50	cy/2000cy x	8	tests	$572.00
Change Gradation					$275.00
				Subtotal	$14,642.58

ROCK DEVELOPMENT COST = $12.83/cy **TOTAL PRODUCTION COST** $181,717.71

CRUISE REPORT
Blazing Saddles
341-16-04

1. LOCATION: Portions of Sections 14, 23, & 24, T1N, R6W, W.M., Tillamook County, Oregon.

2. CRUISE DESIGN:
The cruise design assumed a Coefficient of Variation of 55%, an average stand diameter of 18 inches, a desired sampling error of 11% and a minimum sample size of 100 grade trees. Pre-cruise plots indicated that approximately 5 trees per plot could be realized with a 40 BAF prism.

3. SAMPLING METHOD:
The two Sale Areas were cruised in April 2015 with 31 variable radius grade plots using a 40 BAF prism (19 plots in Area 1 and 12 plots in Area 2). Plots were laid out on a 5 chain x 5 chain grid for both Sale Areas. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS
Area 1: 97 trees were measured and graded producing a cumulative Basal Area sampling error of 10.1% and 10.6% on the Board Foot Volume.
Area 2: 68 trees were measured and graded producing a cumulative Basal Area sampling error of 10.5% and 12.8 % on the Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following Columbia River Log Scale grade rules and favoring 40 foot segments.

a) **Height Standards:**
Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

c) **Form Factors** were measured for each grade tree using a form point of 16 feet.

5. DATA PROCESSING

a) **Volumes and Statistics**, Cruise volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software.

b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

6. Cruisers: The sale was cruised by ODF cruisers.

Prepared by: Joe Koch 4/7/2015
ODF Forester Date

Reviewed by: _____
Eric Foucht Date

TC PSTATS

PROJECT STATISTICS

PROJECT BLAZIFIN

DATE 6/23/2015

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
01N	06	24	A1	MC	117.00	31	165	S	W
01N	06W	24	A2	MC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	31	165	5.3		
CRUISE	31	165	5.3	12,278	1.3
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
DOUG FIR	151	91.3	19.8	103	43.7	194.5	31,149	31,095	7,385	7,385
NOB FIR	6	2.9	21.4	114	1.6	7.4	1,560	1,560	330	330
NOB FIR-L	1	.5	23.0	118	0.3	1.3	263	185	57	57
WHEMLOCK-L	3	6.5	10.6	85	1.2	4.0	514	514	115	115
WHEMLOCK-T	4	3.7	16.2	99	1.3	5.3	809	809	200	200
TOTAL	*165*	*104.9*	*19.3*	*102*	*48.4*	*212.5*	*34,295*	*34,162*	*8,088*	*8,088*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**SAMPLE TREES - BF** LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	63.1	5.1	436	460	484			
NOB FIR	56.3	25.1	476	635	794			
NOB FIR-L								
WHEMLOCK-L	12.5	8.6	73	80	87			
WHEMLOCK-T	45.3	25.9	180	243	305			
TOTAL	*64.7*	*5.0*	*431*	*454*	*477*	*167*	*42*	*19*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**SAMPLE TREES - CF** LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	54.7	4.4	101	106	111			
NOB FIR	48.8	21.7	103	131	160			
NOB FIR-L								
WHEMLOCK-L	20.2	14.0	16	18	21			
WHEMLOCK-T	42.7	24.4	45	60	74			
TOTAL	*56.1*	*4.4*	*100*	*104*	*109*	*126*	*31*	*14*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**TREES/ACRE** LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	50.8	9.1	83	91	100			
NOB FIR	300.7	54.0	1	3	5			
NOB FIR-L	556.8	99.9	0	0	1			
WHEMLOCK-L	556.8	99.9	0	6	13			
WHEMLOCK-T	421.7	75.7	1	4	7			
TOTAL	*61.6*	*11.1*	*93*	*105*	*117*	*151*	*38*	*17*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**BASAL AREA/ACRE** LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	32.6	5.8	183	194	206			
NOB FIR	310.6	55.7	3	7	11			
NOB FIR-L	556.8	99.9	0	1	3			
WHEMLOCK-L	556.8	99.9	0	4	8			
WHEMLOCK-T	435.7	78.2	1	5	9			
TOTAL	*39.2*	*7.0*	*198*	*212*	*227*	*61*	*15*	*7*

PROJECT STATISTICS

PROJECT BLAZIFIN

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
01N	06	24	A1	MC	117.00	31	165	S	W
01N	06W	24	A2	MC					

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	38.0	6.8	28,976	31,095	33,213			
NOB FIR	319.1	57.3	667	1,560	2,453			
NOB FIR-L	556.8	99.9	0	185	369			
WHEMLOCK-L	556.8	99.9	0	514	1,027			
WHEMLOCK-T	434.0	77.9	179	809	1,438			
TOTAL	*45.7*	*8.2*	*31,362*	*34,162*	*36,962*	*83*	*21*	*9*

CL 68.1 SD: 1.0

NET CUFT FT/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	34.9	6.3	6,923	7,385	7,847			
NOB FIR	315.9	56.7	143	330	517			
NOB FIR-L	556.8	99.9	0	57	115			
WHEMLOCK-L	556.8	99.9	0	115	230			
WHEMLOCK-T	437.5	78.5	43	200	357			
TOTAL	*42.3*	*7.6*	*7,474*	*8,088*	*8,702*	*72*	*18*	*8*

TC TSTATS

STATISTICS

PROJECT BLAZIFIN

DATE 6/23/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
01N	06W	24	A1	MC	74.00	19	97	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	19	97	5.1		
CRUISE	19	97	5.1	8,320	1.2
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
DOUG FIR	89	95.6	19.0	99	43.0	187.4	27,511	27,424	6,767	6,767
WHEMLOCK-L	3	10.2	10.6	85	1.9	6.3	812	812	182	182
WHEMLOCK-T	4	5.9	16.2	99	2.1	8.4	1,279	1,279	316	316
NOB FIR-L	1	.7	23.0	118	0.4	2.1	416	292	91	91
TOTAL	*97*	*112.4*	*18.2*	*98*	*47.8*	*204.2*	*30,018*	*29,807*	*7,356*	*7,356*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	60.6	6.4	356	380	405			
WHEMLOCK-L	12.5	8.6	73	80	87			
WHEMLOCK-T	45.3	25.9	180	243	305			
NOB FIR-L								
TOTAL	*62.7*	*6.4*	*342*	*366*	*389*	*157*	*39*	*17*

CL: 68.1 %	COEFF		SAMPLE TREES - CF			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	54.2	5.7	87	92	97			
WHEMLOCK-L	20.2	14.0	16	18	21			
WHEMLOCK-T	42.7	24.4	45	60	74			
NOB FIR-L								
TOTAL	*56.5*	*5.7*	*84*	*89*	*94*	*128*	*32*	*14*

CL: 68.1 %	COEFF		TREES/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	50.8	12.0	84	96	107			
WHEMLOCK-L	435.9	102.7		10	21			
WHEMLOCK-T	327.5	77.2	1	6	10			
NOB FIR-L	435.9	102.7		1	1			
TOTAL	*65.3*	*15.4*	*95*	*112*	*130*	*180*	*45*	*20*

CL: 68.1 %	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	32.7	7.7	173	187	202			
WHEMLOCK-L	435.9	102.7		6	13			
WHEMLOCK-T	338.8	79.8	2	8	15			
NOB FIR-L	435.9	102.7		2	4			
TOTAL	*42.8*	*10.1*	*184*	*204*	*225*	*77*	*19*	*9*

CL: 68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	33.9	8.0	25,233	27,424	29,616			
WHEMLOCK-L	435.9	102.7		812	1,647			
WHEMLOCK-T	337.4	79.5	262	1,279	2,295			
NOB FIR-L	435.9	102.7		292	592			
TOTAL	*45.4*	*10.7*	*26,617*	*29,807*	*32,998*	*87*	*22*	*10*

STATISTICS

PROJECT BLAZIFIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
01N	06W	24	A1	MC	74.00	19	97	S	W

CL: 68.1%	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15

CL: 68.1%	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	32.3	7.6	6,252	6,767	7,282			
WHEMLOCK-L	435.9	102.7		182	369			
WHEMLOCK-T	340.2	80.2	63	316	570			
NOB FIR-L	435.9	102.7		91	184			
TOTAL	*44.0*	*10.4*	*6,594*	*7,356*	*8,118*	*82*	*20*	*9*

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BLAZIFIN

Page 1
Date 6/23/2015
Time 12:58:27PM

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
01N	06W	24	A1	MC	74.00	19	97	S	W

T01N R06W S24 TMC

T01N R06W S24 TMC

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF			CU														11	15		0.00	2.5
DF			2M	51	.3	14,102	14,053	1,040			72	28			2	98	40	15	346	1.96	40.6
DF			3M	43	.3	11,831	11,793	873		77	23			1	21	78	38	9	114	0.81	103.9
DF			4M	6		1,578	1,578	117		100			66	34			18	7	26	0.40	61.6
DF	**Totals**			92	.3	27,511	27,424	2,029		39	47	15	4	2	10	84	32	9	132	1.01	208.5
WH	T		2M	19		254	254	19			100					100	40	14	290	1.74	.9
WH	T		3M	69		880	880	65		100				9	8	83	37	9	122	0.81	7.2
WH	T		4M	12		145	145	11		100			12	88			24	6	32	0.36	4.6
WH	**T**	**Totals**		4		1,279	1,279	95		80	20		1	16	5	77	32	8	101	0.77	12.7
WH	L		3M	83		678	678	50		100					67	33	34	7	66	0.42	10.2
WH	L		4M	17		134	134	10		100			100				13	6	13	0.25	10.2
WH	**L**	**Totals**		3		812	812	60		100			17		56	27	24	7	40	0.37	20.5
NF	L		2M	72	27.5	292	212	16			100					100	40	16	290	2.02	.7
NF	L		3M	23	40.0	109	66	5		100						100	40	10	90	0.97	.7
NF	L		4M	5		15	15	1		100			100				12	7	20	0.41	.7
NF	**L**	**Totals**		1	29.8	416	292	22		27	73		5			95	31	11	133	1.35	2.2
Type Totals					.7	30,018	29,807	2,206		42	44	13	4	3	11	82	31	9	122	0.96	243.9

TC TSTNDSUM

Stand Table Summary

Project BLAZIFIN

T01N R06W S24 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	06W	24	A1	MC	74.00	19	97

T01N R06W S24 TMC

Page: 1
Date: 06/23/20
Time: 12:58:27PM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		12	3	87	83	8.042	6.32	10.72	15.2	60.0	4.64	163	643	343	121	48
DF		13	3	87	89	6.852	6.32	13.70	13.0	53.3	5.09	178	731	376	132	54
DF		14	5	84	87	9.847	10.53	15.75	19.6	67.5	8.78	308	1,063	650	228	79
DF		15	2	86	85	3.431	4.21	6.86	17.1	67.5	3.34	117	463	247	87	34
DF		16	8	85	92	12.062	16.84	22.62	23.0	88.7	14.85	521	2,005	1,099	386	148
DF		17	2	85	94	2.671	4.21	5.34	26.3	100.0	4.01	141	534	297	104	40
DF		18	6	87	104	7.148	12.63	14.30	32.2	127.5	13.13	461	1,823	972	341	135
DF		19	6	86	100	6.415	12.63	12.83	31.5	121.7	11.51	404	1,561	852	299	116
DF		20	8	85	101	7.720	16.84	17.37	34.1	125.6	16.86	592	2,181	1,248	438	161
DF		21	5	85	112	4.376	10.53	11.38	36.2	139.2	11.75	412	1,584	870	305	117
DF		22	10	86	110	7.975	21.05	22.33	36.5	153.9	23.23	815	3,437	1,719	603	254
DF		23	7	86	109	5.108	14.74	13.13	43.3	186.7	16.19	568	2,452	1,198	420	181
DF		24	11	86	112	7.371	23.16	20.10	46.0	193.3	26.37	925	3,887	1,952	685	288
DF		25	1	89	109	.618	2.11	1.85	45.4	206.7	2.40	84	383	177	62	28
DF		26	3	86	112	1.713	6.32	5.14	49.1	205.6	7.19	252	1,056	532	187	78
DF		27	1	87	135	.529	2.11	1.59	62.9	296.7	2.85	100	471	211	74	35
DF		28	3	85	124	1.477	6.32	4.43	62.3	274.4	7.86	276	1,216	582	204	90
DF		29	3	84	121	1.377	6.32	4.13	64.3	266.7	7.57	266	1,102	560	197	82
DF		30	1	89	116	.429	2.11	1.29	72.4	343.3	2.65	93	442	196	69	33
DF		31	1	82	123	.402	2.11	1.20	74.6	323.3	2.56	90	390	190	67	29
DF		Totals	89	86	99	95.563	187.37	206.08	32.8	133.1	192.86	6,767	27,424	14,272	5,008	2,029
WH	T	14	1	85	99	1.969	2.11	3.94	19.3	75.0	2.43	76	295	180	56	22
WH	T	15	1	88	96	1.716	2.11	3.43	22.6	95.0	2.48	78	326	184	57	24
WH	T	17	1	86	100	1.336	2.11	2.67	29.6	115.0	2.53	79	307	187	59	23
WH	T	21	1	86	104	.875	2.11	2.63	31.8	133.3	2.68	84	350	198	62	26
WH		Totals	4	86	99	5.896	8.42	12.67	25.0	100.9	10.12	316	1,279	749	234	95
WH	L	10	1	91	81	3.860	2.11	7.72	7.1	35.0	1.74	55	270	129	40	20
WH	L	11	2	89	88	6.380	4.21	12.76	10.0	42.5	4.08	128	542	302	94	40
WH		Totals	3	90	85	10.240	6.32	20.48	8.9	39.7	5.83	182	812	431	135	60
NF	L	23	1	86	118	.730	2.11	2.19	41.5	133.3	2.18	91	292	161	67	22
NF		Totals	1	86	118	.730	2.11	2.19	41.5	133.3	2.18	91	292	161	67	22
Totals			97	86	98	112.428	204.21	241.41	30.5	123.5	210.99	7356	29,807	15,613	5,444	2,206

TC TLOGSTVB

Log Stock Table - MBF

Project: BLAZIFIN

T01N R06W S24 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	06W	24	A1	MC	74.00	19	97

T01N R06W S24 TMC

Date 6/23/2015

Time 12:58:28PM

Spp	S T	So Grt	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	30-39 40+
DF		CU		4										
DF		CU		10										
DF		CU		16										
DF		2M		32	20		20	1.0				20		
DF		2M		40	1,024	.4	1,020	50.3			222	347 380	70	
DF		3M		24	5		5	.3			5			
DF		3M		32	184	.4	184	9.1		22 62	99			
DF		3M		36	39		39	1.9		33 6				
DF		3M		40	647	.3	645	31.8		94 152	196 203			
DF		4M		12	15		15	.7		13 2				
DF		4M		16	32		32	1.6		32				
DF		4M		18	13		13	.7		13				
DF		4M		20	18		18	.9		18				
DF		4M		24	19		19	.9		15 4				
DF		4M		26	11		11	.6		11				
DF		4M		28	7		7	.3		7				
DF		4M		30	2		2	.1		2				
DF		Totals			2,036		2,029	92.0		260 227	300 425	347 400	70	
WH	L	3M		32	34		34	21.8		17 17				
WH	L	3M		40	17		17	10.7		17				
WH	L	4M		12	5		5	3.4		5				
WH	L	4M		16	5		5	3.1		5				
WH	T	2M		40	19		19	12.1				19		
WH	T	3M		24	6		6	3.8			6			
WH	T	3M		34	5		5	3.2		5				
WH	T	3M		40	54		54	35.1		17	37			
WH	T	4M		18	1		1	.8		1				
WH	T	4M		24	5		5	3.3		5				
WH	T	4M		26	4		4	2.8		4				
WH		Totals			155		155	7.0		59 34	43	19		
NF	L	2M		40	22	27.5	16	72.5				16		
NF	L	3M		40	8	40.0	5	22.5			5			
NF	L	4M		12	1		1	5.0		1				
NF		Totals			31	29.8	22	1.0		1	5	16		
Total All Species					2,221		2,206	100.0		320 261	348 425	366 416	70	

TC TSTATS

STATISTICS

PROJECT BLAZIFIN

DATE 6/23/2015

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
01N	06W	24	A2	MC	43.00	12	68	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	12	68	5.7		
CRUISE	12	68	5.7	3,958	1.7
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
DOUG FIR	62	84.0	21.2	110	44.9	206.7	37,411	37,411	8,449	8,449
NOB FIR	6	8.0	21.4	114	4.3	20.0	4,245	4,245	898	898
TOTAL	*68*	*92.0*	*21.2*	*110*	*49.2*	*226.7*	*41,656*	*41,656*	*9,348*	*9,348*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	57.2	7.3	533	574	616			
NOB FIR	56.3	25.1	476	635	794			
TOTAL	*56.7*	*6.9*	*540*	*580*	*620*	*128*	*32*	*14*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	50.1	6.4	118	126	134			
NOB FIR	48.8	21.7	103	131	160			
TOTAL	*49.6*	*6.0*	*119*	*126*	*134*	*98*	*25*	*11*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	48.9	14.7	72	84	96			
NOB FIR	174.0	52.4	4	8	12			
TOTAL	*43.4*	*13.1*	*80*	*92*	*104*	*82*	*20*	*9*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	33.9	10.2	186	207	228			
NOB FIR	180.9	54.5	9	20	31			
TOTAL	*34.8*	*10.5*	*203*	*227*	*250*	*53*	*13*	*6*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	39.3	11.8	32,987	37,411	41,835			
NOB FIR	186.9	56.3	1,856	4,245	6,633			
TOTAL	*43.3*	*13.0*	*36,226*	*41,656*	*47,085*	*82*	*20*	*9*

CL: 68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	37.4	11.3	7,497	8,449	9,402			
NOB FIR	184.6	55.6	399	898	1,398			
TOTAL	*40.0*	*12.1*	*8,221*	*9,348*	*10,475*	*70*	*17*	*8*

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: BLAZIFIN

Page 1
Date 6/23/2015
Time 12:58:27PM

T01N R06W S24 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
01N	06W	24	A2	MC	43.00	12	68	S	W

T01N R06W S24 TMC

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF			CU														6	12		0.00	8.7
DF			2M	69		26,178	26,178	1,126			44	56	2			98	39	16	381	1.99	68.7
DF			3M	27		9,952	9,952	428		76	24				17	83	38	9	117	0.83	84.9
DF			4M	4		1,281	1,281	55		100			60	40			18	6	22	0.41	59.3
DF	**Totals**			90		37,411	37,411	1,609		24	37	39	4	1	5	90	32	10	169	1.21	221.6
NF			2M	77		3,303	3,303	142			49	51				100	40	15	380	1.85	8.7
NF			3M	20		819	819	35		48	52				27	73	37	8	109	0.77	7.5
NF			4M	3		123	123	5		100			23	77			22	6	31	0.50	4.0
NF	**Totals**			10		4,245	4,245	183		12	48	40	1	2	5	92	35	11	210	1.26	20.2
Type Totals						41,656	41,656	1,791		22	38	39	3	1	5	90	32	10	172	1.21	241.8

TC TLOGSTVB

Log Stock Table - MBF

Project: BLAZIFIN

T01N R06W S24 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	06W	24	A2	MC	43.00	12	68

T01N R06W S24 TMC

Page 1
Date 6/23/2015
Time 12:58:28PM

Spp	S T	So Grade	Log 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	30-39	40+
DF		CU	3																
DF		CU	4																
DF		CU	6																
DF		CU	12																
DF		2M	20	28		28	1.7							11	16				
DF		2M	40	1,098		1,098	68.3						171	252	468	183	23		
DF		3M	32	74		74	4.6			17	40	18							
DF		3M	36	14		14	.9			8			6						
DF		3M	38	8		8	.5			8									
DF		3M	40	332		332	20.6			32	66	135	98						
DF		4M	12	11		11	.7			8	2								
DF		4M	14	1		1	.0			1									
DF		4M	16	3		3	.2			3									
DF		4M	18	6		6	.4			6									
DF		4M	20	13		13	.8			13									
DF		4M	24	5		5	.3			5									
DF		4M	26	13		13	.8			13									
DF		4M	30	3		3	.2			3									
DF		Totals		1,609		1,609	89.8			117	108	152	276	264	484	183	23		
NF		2M	40	142		142	77.8						35	34	48	25			
NF		3M	32	9		9	5.2			2		7							
NF		3M	38	5		5	3.0			5									
NF		3M	40	20		20	11.1			2			18						
NF		4M	16	1		1	.7			1									
NF		4M	24	3		3	1.6			3									
NF		4M	26	1		1	.6			1									
NF		Totals		183		183	10.2			15		7	53	34	48	25			
Total All Species				1,791		1,791	100.0			133	108	160	329	298	532	209	23		

TC TSTNDSUM

Stand Table Summary

Project BLAZIFIN

T01N R06W S24 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	06W	24	A2	MC	43.00	12	68

Date: 06/23/20
Time: 12:58:27PM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		14	2	87	79	6.236	6.67	12.47	14.3	50.0	5.10	179	624	219	77	27
DF		15	3	87	80	8.149	10.00	13.58	19.7	70.0	7.61	267	951	327	115	41
DF		17	3	87	95	6.344	10.00	12.69	25.5	100.0	9.22	323	1,269	396	139	55
DF		18	6	88	102	11.318	20.00	26.41	26.8	107.1	20.15	707	2,829	866	304	122
DF		19	4	87	115	6.772	13.33	15.24	33.9	136.7	14.72	516	2,082	633	222	90
DF		20	2	88	145	3.056	6.67	9.17	34.5	160.0	9.02	317	1,467	388	136	63
DF		21	9	88	107	12.473	30.00	34.65	33.2	136.8	32.82	1,152	4,740	1,411	495	204
DF		22	4	89	130	5.051	13.33	13.89	43.9	200.0	17.36	609	2,778	747	262	119
DF		24	3	88	122	3.183	10.00	9.55	45.8	210.0	12.46	437	2,005	536	188	86
DF		25	6	89	128	5.867	20.00	17.60	51.5	236.1	25.84	907	4,156	1,111	390	179
DF		26	2	87	131	1.808	6.67	5.42	53.6	255.0	8.29	291	1,383	357	125	59
DF		27	8	89	122	6.707	26.67	20.96	56.3	262.0	33.64	1,180	5,491	1,447	508	236
DF		28	3	88	134	2.339	10.00	7.02	68.7	331.1	13.73	482	2,323	590	207	100
DF		29	3	89	125	2.180	10.00	6.54	70.0	337.8	13.05	458	2,209	561	197	95
DF		30	3	89	126	2.037	10.00	6.11	75.8	375.6	13.19	463	2,295	567	199	99
DF		34	1	89	132	.529	3.33	1.59	101.8	510.0	4.60	161	809	198	69	35
DF		Totals	62	88	110	84.048	206.67	212.88	39.7	175.7	240.81	8,449	37,411	10,355	3,633	1,609
NF		17	1	90	106	2.115	3.33	4.23	31.1	130.0	3.16	132	550	136	57	24
NF		19	1	90	87	1.693	3.33	3.39	31.8	120.0	2.59	108	406	111	46	17
NF		21	1	91	111	1.386	3.33	4.16	34.2	166.7	3.41	142	693	147	61	30
NF		24	1	91	138	1.061	3.33	3.18	54.9	273.3	4.19	175	870	180	75	37
NF		26	1	91	127	.904	3.33	2.71	60.0	290.0	3.90	163	787	168	70	34
NF		27	1	90	143	.838	3.33	2.52	71.3	373.3	4.31	179	939	185	77	40
NF		Totals	6	90	113	7.997	20.00	20.18	44.5	210.3	21.56	898	4,245	927	386	183
Totals			68	88	110	92.045	226.67	233.06	40.1	178.7	262.37	9348	41,656	11,282	4,020	1,791

VOLUME SUMMARY
(Shown in MBF)
Blazing Saddles
341-16-04
June 2015

AREA 1 MC (74 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	1,040	873	117	2,030
	Hidden D&B (2%)	(21)	(17)	(2)	(41)
	NET TOTAL	1,019	856	115	1,989
	% of Total	51	43	6	
Western hemlock	Cruise Volume	19	65	11	95
	Hidden D&B (2%)	()	(1)	()	(2)
	NET TOTAL	19	64	11	93
	% of Total	20	69	12	

AREA 2 MC (43 ACRES)

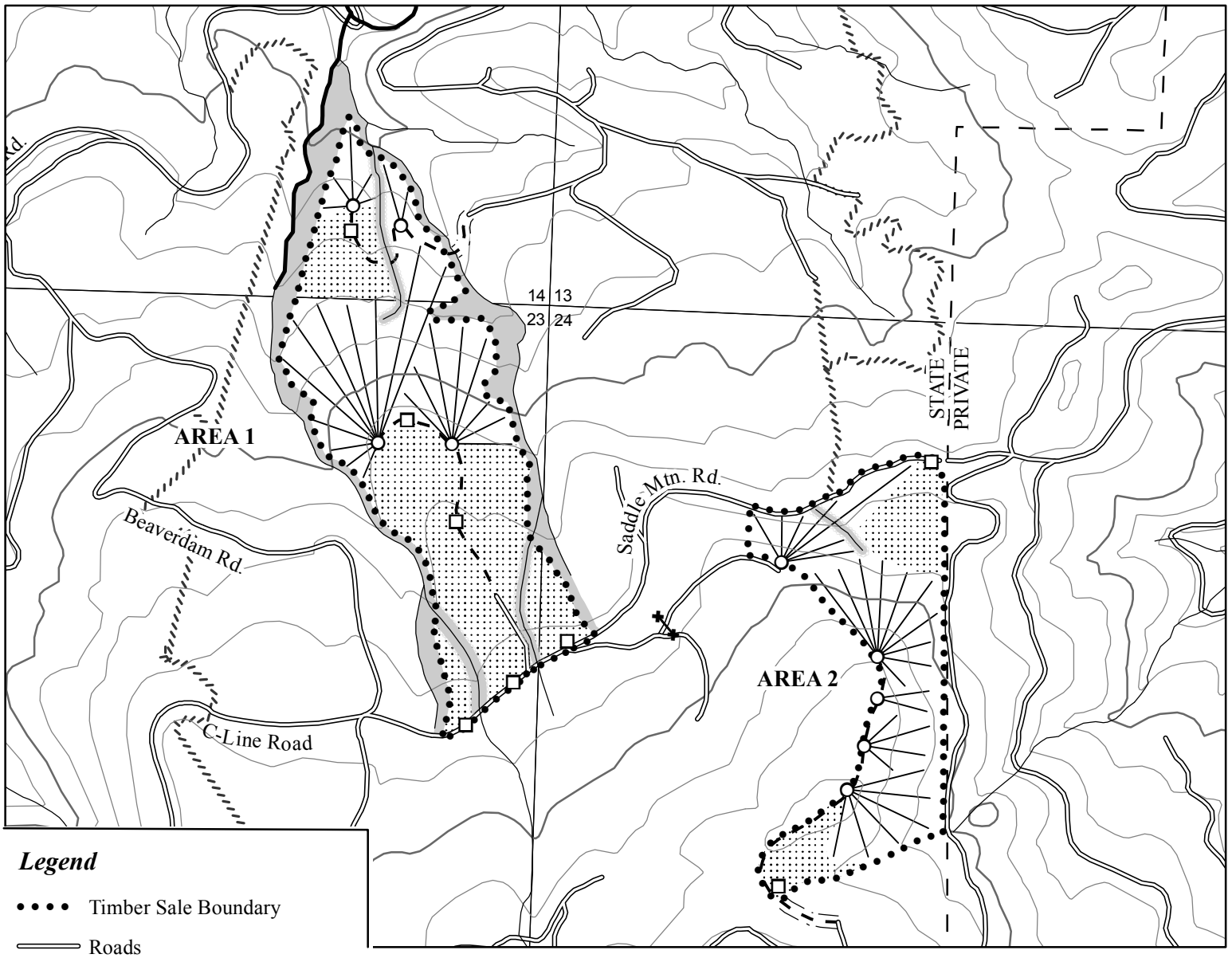
SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	1,126	428	55	1,609
	Hidden D&B (2%)	(23)	(9)	(1)	(32)
	NET TOTAL	1,103	419	54	1,577
	% of Total	70	27	3	
Noble fir	Cruise Volume	142	35	5	182
	Hidden D&B (2%)	(3)	(1)	()	(4)
	NET TOTAL	139	34	5	178
	% of Total	78	19	3	

AREA 3 R/W (1 ACRE)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	14	12	1	27
	Hidden D&B (2%)	()	()	()	(1)
	NET TOTAL	14	12	1	26
	% of Total	54	46	4	

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	2,136	1,287	170	3,593
Western hemlock	19	64	11	94
Noble fir	139	34	5	178
				3,865



LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-16-04
BLAZING SADDLES
PORTIONS OF SECTIONS 14, 23, & 24, T1N, R6W, W.M.
TILLAMOOK COUNTY, OREGON

Legend

- Timber Sale Boundary
- Roads
- New Road Construction
- Posted Right of Way
- Type F Stream
- Type N Stream
- Stream Buffer
- Posted Stream Buffer Boundary
- Cable Landing
- Tractor Landing
- Cable Yarding Area
- Tractor Yarding Area
- ODF Ownership Boundary
- Sections
- 400 Foot Contour Band
- 80 Foot Contour Band
- AREA 3 R/W
- Blockage

N

Forest Grove District GIS
June, 2015
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

1:12,000
1 inch = 1,000 feet

0 500 1,000 2,000
Feet

APPROXIMATE NET ACRES

	TRACTOR	CABLE
AREA 1	38	36
AREA 2	10	33
AREA 3 (R/W)	1	0
TOTAL	49	69