Timber Sale Appraisal
General Lee

Sale TL-341-2019-038-

District: Tillamook **Date: June 14, 2018**

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$3,271,685.82	$126,726.11	$3,398,411.93
		Project Work:	($306,500.00)
		Advertised Value:	$3,091,911.93

Timber Sale Appraisal
General Lee
Sale TL-341-2019-038-

"STEWARDSHIP IN FORESTRY"

District: Tillamook **Date: June 14, 2018**

Timber Description

Location: Portions of Sections 2, 11, and 12, T1N, R7W and Section 7, T1N, R6W, W.M., Tillamook County, Oregon

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	95
Alder (Red)	17	0	90
Maple	14	0	90

Volume by Grade	2S	3S & 4S 6"-11"	8" - 9"	10" - 11"	12"+	6" - 7"	Camprun	Total
Douglas - Fir	4,644	2,883	0	0	0	0	0	7,527
Alder (Red)	0	0	70	106	53	48	0	277
Maple	0	0	0	0	0	0	46	46
Total	4,644	2,883	70	106	53	48	46	7,850

Comments: Pond Values Used: June 2018
Region: Astoria, Forest Grove, and Tillamook

Western Red Cedar and Other Cedars Stumpage Price = Pond Value – Logging Cost
$1365/MBF - $410/MBF = $955/MBF
Hemlock and other conifer Stumpage Price = Pond Value – Logging Cost
$710/MBF - $410/MBF = $300/MBF

Pulp (Conifer and Hardwood) Price = $ 25/ MBF

BRAND AND PAINT ALLOWANCE = $2.00/ MBF
FUEL COST ALLOWANCE = $3.00/ Gallon
HAULING COST ALLOWANCE
Hauling cost equivalent to $780 daily truck cost

Other Costs with Profit and Risk to be added:
Snag creation: 144 snags x $10/ snag = $1,440

TOTAL Other Costs with profit and Risk to be added = $1,440

Other Costs with No Profit and Risk Added:
Machine Cleaning: $1000/machine x 2 machines x 2 seasons = $4,000
Slash piling and sorting (Cable Ground): $5/ac x 85 ac = $425
Heliport Construction: 6 hours machine loader time for slash moving @ $140/ hour = $ 840
Non-project Road 1: $100/ station x 4+50 stations = $450
Non-project Road 2: $380/ station x 9+75 stations = $3,705
Non-project Road 3: $500/ station x 3+00 stations = $1,500
Non-project Road 4: $100/ station x 3+75 stations = $375
Non-project Road 5: $100/ station x 1+75 stations = $175
Non-project Road 6: $100/ station x 5+00 stations = $500
Swing Road A and B Construction: $200/station x 3+50 = $700
Swing Roads A and B: 31 MBF/ ac x 3 ac x $30/MBF = $2,790
Road blocking $50/ block x 6 roads and 2 swing roads = $400

Ditch Cleaning and Bank Sluff Removal:
Mobilization: three times – dump truck w/ tilt bed & small excavator: $890 x 3 = $2,670
Medium excavator (Cat 320 or equivalent): 60 hours @ $135/ hour = $8,100
Dump truck: 60 hours @ $70/ hour = $4,200

TOTAL Other Costs no Profit and Risk added = $30,830

ROAD MAINTENANCE:
Portions of Ben Smith, East Ben Smith, C-Line, Lyda and South Fork Wilson Roads

Area 1 & 2 Spot Rocking: 20cy/MMBF/mile x 4.6 MMBF x $12/CY x 3.75mi / 4,644 MBF= $0.89/MBF
Area 3 Spot Rocking: 20cy/MMBF/mile x 3.2 MMBF x $6/CY x 6.65 mi / 3,289 MBF = $0.78/MBF
Interim Grading: $500/ mile x 10.4 miles x 3 times/ 7,850 MBF = $1.99/MBF
Final Maintenance Grading: $1,500 x 10.4 miles/7,850 MBF = $1.99/MBF
Final Maintenance Compaction: $950/mile x 5.0 miles/ 7,850 MBF = $ 0.61/ MBF
Total Road Maintenance: $6.26/ MBF

Timber Sale Appraisal
General Lee
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District: Tillamook

Date: June 14, 2018

Logging Conditions

Combination#: 1 Douglas - Fir 91.42%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 5 **bd. ft / load:** 4000
cost / mbf: $300.00
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2 Alder (Red) 80.31%
Maple 20.00%

Logging System: Cable: Small Tower <=40 **Process:** Stroke Delimber
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 6 **bd. ft / load:** 3200
cost / mbf: $291.67
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)

Combination#: 3 Douglas - Fir 2.85%
Maple 80.00%

Logging System: Shovel **Process:** Stroke Delimber
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 18 **bd. ft / load:** 3800
cost / mbf: $46.37
machines: Stroke Delimber (B)

Combination#: 4 Douglas - Fir 5.73%
Alder (Red) 19.69%

Logging System: Shovel **Process:** Stroke Delimber
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 9 **bd. ft / load:** 3800
cost / mbf: $92.75
machines: Stroke Delimber (B)

Timber Sale Appraisal
General Lee

Sale TL-341-2019-038-

District: Tillamook **Date: June 14, 2018**

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	12%
Project Costs:	$306,500.00	**Other Costs (P/R):**	$1,440.00
Slash Disposal:	$0.00	**Other Costs:**	$30,830.00

Miles of Road **Road Maintenance:** $6.26

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	3.0	3.8
Alder (Red)	$0.00	3.0	3.2
Maple	$0.00	2.0	3.0

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
General Lee
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District: Tillamook **Date: June 14, 2018**

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
$280.90	$6.57	$1.12	$71.84	$0.18	$43.27	$0.00	$2.00	$3.93	$409.81
Alder (Red)									
$252.50	$6.89	$1.12	$89.38	$0.18	$42.01	$0.00	$2.00	$3.93	$398.01
Maple									
$95.43	$6.89	$1.12	$143.00	$0.18	$29.59	$0.00	$2.00	$3.93	$282.14

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$844.47	$434.66	$0.00
Alder (Red)	$0.00	$819.16	$421.15	$0.00
Maple	$0.00	$501.00	$218.86	$0.00

Timber Sale Appraisal
General Lee

Sale TL-341-2019-038-

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: June 14, 2018

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Alder (Red)	0	$0.00	$0.00
Maple	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	7,527	$434.66	$3,271,685.82
Alder (Red)	277	$421.15	$116,658.55
Maple	46	$218.86	$10,067.56

Gross Timber Sale Value

Recovery: $3,398,411.93

Prepared By: Harold Stevens **Phone:** 503-842-2545

Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **General Lee**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
55.5	Pavement	30
8.9	Main Lines	7
5.6	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move ($/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Brush Cutter	$792.35		$4.00	0.00	0.00	0	$0.00	$792.35
1	Excavators (Med.)	$938.38		$35.50	0.00	0.00	4	$142.00	$1,080.38
1	Excavators (Large)	$1,185.49	1	$44.80	0.00	0.00	4	$179.20	$1,364.69
1	Tractors (D7)	$1,044.18	2	$11.30	0.00	0.00	4	$45.20	$1,089.38
1	Tractor (D8)	$1,119.08	2	$15.10	0.00	0.00	4	$60.40	$1,179.48
2	Dump Truck (10 cy +)	$554.68		$2.85	0.00	0.00	4	$22.80	$577.48
1	Dump Truck (Off Hiway)	$938.38	1	$4.75	0.00	0.00	4	$19.00	$957.38

TOTAL MOVE-IN COSTS:	$7,041.14

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Existing Stockpiles	Drift Crk:	NE 1/4, SE 1/4, Sec 21, T2N, R6W, WM
		Jordan Crk:	SW 1/4, SW 1/4, Sec 29, T1N, R7W, WM
Sale:	**General Lee**	Road:	5580 c.y.
Swell:		Stockpile:	c.y.
Shirinkage		Total Truck Loads:	5580 c.y.
Drill Pct.:	0%		

Pit Development & Cleanup							$0.00
Load Dump Truck:	$0.70	/cu.yd.	x	5580	cu.yds.	=	$3,906.00
						Subtotal	$3,906.00
Move in Roller and Compactor	1	@	$671.60	=			$671.60
Move in Grader	1	@	$249.30	=			$249.30
Move in Loader	2	@	$876.28	=			$1,752.56
Move in Trucks	4	@	$223.52	=			$894.08
Move in Water Truck	1	@	$262.74	=			$262.74
Change Gradation							
						Subtotal	$3,830.28
						TOTAL PRODUCTION COSTS	$7,736.28

Base Cost= $1.39 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
A to B 0 5340 (Drift Creek)	8.67	2.45	1.39	12.51	1210		$15,137.10
A to B 5340 9840 (Drift Creek)	9.37	2.45	1.39	13.21	1580		$20,871.80
A to B 9840 20640 (Jordan Creek)	8.15	2.45	1.39	11.99	2420		$29,015.80
A to B Culvert Bedding/Backfill (A to B Stockpile)	3.58	1.40	1.39	6.37	60		$382.20
A to B Junction Rock (Drift Creek)	8.20	2.45	1.39	12.04	20		$240.80
C to D 0 600 (Jordan Creek)	9.64	2.45	1.39	13.48	110		$1,482.80
C to D 1260 2260 (Jordan Creek)	10.28	2.45	1.39	14.12	180		$2,541.60
				Total C.Y.	5580	Sub Total	$69,672.10

TOTAL ROCKING COSTS	$69,672.10

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

C-D Spur: SW 1/4, NW 1/4, Sec. 12, T1N, R7W, WM
Archers: SE 1/4, NE 1/4, Sec. 21, T1N, R7W, WM
Port. Mills: SE 1/4, NW 1/4, Sec. 22, T1N, R7W, WM

Pit:	Spur Rock Pit(s)		
Sale:	**General Lee**	Road:	5240 c.y.
Swell:	1.40	Stockpile:	c.y.
Shirinkage	1.16	Total Truck Loads:	5240 c.y.
Drill Pct.:	60%	In Place Total:	3743 c.y.

Pit Development & Cleanup, including Clearing and grubbing of Waste Area. Place overburden/reject material in Waste Area, spread and compact.							$9,035.27
Drill & Shoot:	$2.50	/cu.yd.	x	2246	cu.yds.	=	$5,615.00
Rip Rock:	$1.90	/cu.yd.	x	1497	cu.yds.	=	$2,844.30
Load Crusher:	$0.70	/cu.yd.	x	5240	cu.yds.	=	$3,668.00
Crush Rock:	$2.35	/cu.yd.	x	5240	cu.yds.	=	$12,314.00
Load Dump Truck:	$0.70	/cu.yd.	x	5240	cu.yds.	=	$3,668.00
Screen Existing Reject in Archers Pit:	$1.50	/cu.yd.	x	1500	cu.yds.	=	$2,250.00
						Subtotal	$39,394.57

Move In/Set-up Jaw	1	@	$1,876.00	=	$1,876.00
Move In and set up Drill and Compressor	1	@	$671.60	=	$671.60
Move in Roller and Compactor	2	@	$671.60	=	$1,343.20
Move in Grader	1	@	$249.30	=	$249.30
Move in D-8	2	@	$1,033.98	=	$2,067.96
Move in Loader	1	@	$876.28	=	$876.28
Move in Excavator	2	@	$1,142.94	=	$2,285.88
Move in Trucks	4	@	$223.52	=	$894.08
Move in Water Truck	1	@	$262.74	=	$262.74
				Subtotal	$10,527.04

TOTAL PRODUCTION COSTS $49,921.61

Base Cost= $9.53 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
A to B Curve Widen Over Outlet (Riprap)	8.52	1.40	6.48	16.40	80		$1,312.00
A to B Curve Widen Over Outlet (Jaw-Run)	8.52	2.45	9.53	20.50	40		$820.00
A to B Energy Dissipator (Riprap)	7.97	1.40	6.48	15.85	40		$634.00
A to B Leveling (Jaw-Run)	8.10	1.10	9.53	18.73	450		$8,428.50
C to D 0 2900 (Jaw-Run)	7.53	2.45	9.53	19.51	1590		$31,020.90
C to D Landing Rock (Jaw-Run)	7.68	2.45	9.53	19.66	120		$2,359.20
C to D Junction Rock (Jaw-Run)	7.36	2.45	9.53	19.34	20		$386.80
C to D Energy Dissipator (Riprap)	7.66	1.40	6.48	15.54	20		$310.80
E to F 0 930 (Jaw-Run)	9.82	2.45	9.53	21.80	520		$11,336.00
E to F Junction Rock (Jaw-Run)	9.73	2.45	9.53	21.71	20		$434.20
E to F Energy Dissipator (Riprap)	9.80	1.40	6.48	17.68	10		$176.80
G to H 0 640 (Jaw-Run)	9.94	2.45	9.53	21.92	380		$8,329.60
G to H Landing Rock (Jaw-Run)	10.00	2.45	9.53	21.98	60		$1,318.80
G to H Junction Rock (Jaw-Run)	9.89	2.45	9.53	21.87	20		$437.40
G to H Energy Dissipator (Riprap)	9.93	1.40	6.48	17.81	10		$178.10
I to J 0 2380 (Jaw-Run)	6.64	2.45	9.53	18.62	1300		$24,206.00
I to J Landing Rock (Jaw-Run)	6.84	2.45	9.53	18.82	60		$1,129.20
I to J Junction Rock (Jaw-Run)	6.44	2.45	9.53	18.42	20		$368.40
I to J Energy Dissipator (Riprap)	6.54	1.40	6.48	14.42	40		$576.80
K to L 0 100 (Jaw-Run)	6.53	2.45	9.53	18.51	60		$1,110.60
K to L Junction Rock (Jaw-Run)	6.52	2.45	9.53	18.50	20		$370.00
M to N 0 420 (Jaw-Run)	6.18	2.45	9.53	18.16	260		$4,721.60
M to N Landing Rock (Jaw-Run)	6.22	2.45	9.53	18.20	60		$1,092.00
M to N Junction Rock (Jaw-Run)	6.15	2.45	9.53	18.13	20		$362.60
O to P Energy Dissipator (Riprap)	5.85	1.40	6.48	13.73	20		$274.60
				Total C.Y.	5240	Sub Total	$101,694.90

TOTAL ROCKING COSTS $101,694.90

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Stockpile Clean-Up	Location:	SW 1/4, NW 1/4, Sec 18, T1N, R6W, WM
Sale:	**General Lee**	Road:	520 c.y.
Swell:		Stockpile:	c.y.
Shirinkage		Total Truck Loads:	520 c.y.
Drill Pct.:	0%		

Reshape/Vacate Stockpile Pad. $1,160.00
Pile any unused crushed rock near road & away from slope break above stream channel.

Push Rock:	$0.60	/cu.yd.	x	520	cu.yds. =	$312.00
Load Dump Truck:	$0.70	/cu.yd.	x	520	cu.yds. =	$364.00
					Subtotal	$1,836.00

Move in Roller and Compactor	1	@	$671.60	=	$671.60
Move in Grader	1	@	$249.30	=	$249.30
Move in Loader	1	@	$876.28	=	$876.28
Move in Trucks	2	@	$223.52	=	$447.04
				Subtotal	$2,244.22

TOTAL PRODUCTION COSTS $4,080.22

Base Cost= $7.85 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
O to P Culvert Bedding/Backfill (SP Clean Up)	3.38	1.40	7.85	12.63	20		$252.60
O to P Spot Rock (SP Clean Up)	3.72	2.45	7.85	14.02	500		$7,010.00
				Total C.Y.	520	Sub Total	$7,262.60

TOTAL ROCKING COSTS $7,262.60

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **A to B**

Construction -	0+00	stations	Improvement -	240+80	stations	Reconstruction -	0+00	stations
	0.00	miles		4.56	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.014	acres @	$1,500.00	per acre =	$21.00	
Widening	0.186	acres @	$1,500.00	per acre =	$279.00	
Scattering	1.110	acres @	$980.00	per acre =	$1,087.80	
				TOTAL CLEARING AND GRUBBING		**$1,387.80**

IMPROVEMENT: EXCAVATION -

Pullback	59	cy. @	$1.40	per c.y.=	$82.60	
Widening	793	cy. @	$2.25	per c.y.=	$1,784.25	
				TOTAL EXCAVATION		**$1,866.85**

IMPROVEMENT: ENDHAUL -

Pullback	91+70	to	92+30	59	cy. @	$2.99	per c.y.=	$176.41	
Widening	134+00	to	136+50	36	cy. @	$3.15	per c.y.=	$113.40	
Widening	185+00	to	186+00	146	cy. @	$3.14	per c.y.=	$458.44	
Widening	187+10	to	188+50	203	cy. @	$3.23	per c.y.=	$655.69	
Widening	190+30	to	191+00	152	cy. @	$3.33	per c.y.=	$506.16	
Widening	193+10	to	193+80	169	cy. @	$3.44	per c.y.=	$581.36	
Widening	194+00	to	200+00	87	cy. @	$3.57	per c.y.=	$310.59	
Spread & compact				852	cy. @	$0.25	per c.y.=	$213.00	
							TOTAL ENDHAUL		**$3,015.05**

CULVERTS - MATERIALS & INSTALLATION

Culverts			
170	LF of 18"	$2,975.00	
50	LF of 30"	$1,800.00	
		$4,775.00	
Culvert Stakes & Markers			
0	stakes	$0.00	
7	markers	$56.00	
		$56.00	**TOTAL CULVERTS** **$4,831.00**

ROCK

0+00 to	53+40	1,210	cy. of	Drift Creek	@	$12.51	per c.y.=	$15,137.10	
53+40 to	98+40	1,580	cy. of	Drift Creek	@	$13.21	per c.y.=	$20,871.80	
98+40 to	206+40	2,420	cy. of	Jordan Creek	@	$11.99	per c.y.=	$29,015.80	
Culvert Bedding/Backfill	All Culverts	60	cy. of	A to B Stockpile	@	$6.37	per c.y.=	$382.20	
Curve Widen Over Outlet	96+40, 124+30	80	cy. of	Riprap	@	$16.40	per c.y.=	$1,312.00	
Fill Armor	92+00	100	cy. of	Large Riprap	@	$7.20	per c.y.=	$720.00	
Junction Rock	0+00	20	cy. of	Drift Creek	@	$12.04	per c.y.=	$240.80	
Curve Widen Over Outlet	96+40, 124+30	40	cy. of	Jaw-Run	@	$20.50	per c.y.=	$820.00	
Energy Dissipator	All Culverts	40	cy. of	Riprap	@	$15.85	per c.y.=	$634.00	
Leveling	66+60 - 181+50	450	cy. of	Jaw-Run	@	$18.73	per c.y.=	$8,428.50	
Rock Ditch Filters	92+20, 96+80	20	cy. of	Drain Rock	@	$31.12	per c.y.=	$622.40	
								TOTAL ROCK	**$78,184.60**

SPECIAL PROJECTS

Extra excavation & enhaul at culvert inlet at 116+00 -	1.00	hours @	$225.00	per hour	$225.00	
Excavate bench below at 92+00 to place riprap protection -	1.00	hours @	$145.00	per hour	$145.00	
Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Grade and shape road -	240.80	stations @	$15.50	per station	$3,732.40	
Pull ditch and endhaul -	50.00	stations @	$90.00	per station	$4,500.00	
Roll subgrade w/ vibratory roller prior to rocking -	240.80	stations @	$13.20	per station	$3,178.56	
Additional cost for pipe installation along buried power line -	1.00	lump sum @	$2,250.00		$2,250.00	
Remove culverts from state lands	1.00	@	$342.90	total	$342.90	
Grass seed and fertilize -	0.43	acres @	$220.00	per acre	$94.60	
Mulching -	0.220	acres @	$600.00	per acre	$132.00	
				TOTAL SPECIAL PROJECTS		**$14,860.46**

GRAND TOTAL **$104,145.76**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **C to D**

Construction -	12+00	stations	Improvement -	0+00	stations	Reconstruction -	17+00	stations
	0.23	miles		0.00	miles		0.32	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+50	35%		Ditch	$256	=	$384.00	
1+50		3+50	45%		Ditch	$367	=	$734.00	
20+50		27+50	25%		Ditch	$219	=	$1,533.00	
27+50		29+00	35%		Ditch	$256	=	$384.00	
								TOTAL	**$3,035.00**

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	1.640	acres @	$980.00	per acre =	$1,607.20	
					TOTAL CLEARING AND GRUBBING	**$1,607.20**

RECONSTRUCTION: EXCAVATION -

Road Earthwork	17.00	sta. @	$354.00	per sta. =	$6,018.00	
					TOTAL EXCAVATION	**$6,018.00**

RECONSTRUCTION: ENDHAUL -

Full Bench	1700	cy. @	$3.04	per c.y.=	$5,168.00	
Spread & compact	1700	cy. @	$0.25	per c.y.=	$425.00	
					TOTAL ENDHAUL	**$5,593.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
90	LF of 18"	$1,575.00		
		$1,575.00		
Culvert Stakes & Markers				
0	stakes	$0.00		
3	markers	$24.00		
		$24.00	**TOTAL CULVERTS**	**$1,599.00**

ROCK

0+00	to	29+00	1,590	cy. of	Jaw-Run	@	$19.51	per c.y.=	$31,020.90	
0+00	to	6+00	110	cy. of	Jordan Creek	@	$13.48	per c.y.=	$1,482.80	
12+60	to	22+60	180	cy. of	Jordan Creek	@	$14.12	per c.y.=	$2,541.60	
Landing Rock		12+30,Point D	120	cy. of	Jaw-Run	@	$19.66	per c.y.=	$2,359.20	
Junction Rock		0+00	20	cy. of	Jaw-Run	@	$19.34	per c.y.=	$386.80	
Energy Dissipator		All Culverts	20	cy. of	Riprap	@	$15.54	per c.y.=	$310.80	
									TOTAL ROCK	**$38,102.10**

SPECIAL PROJECTS

Construct turnarounds before landings -	2.00	@	$75.00	each	$150.00	
Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00	
Construct ditchouts -	4.00	@	$60.00	each	$240.00	
Grade and shape road -	29.00	stations @	$15.50	per station	$449.50	
Construct landing at 12+30 & Point D -	2.00	@	$250.00	each	$500.00	
Roll subgrade w/ vibratory roller prior to rocking -	29.00	stations @	$13.20	per station	$382.80	
Grass seed and fertilize -	1.39	acres @	$220.00	per acre	$305.80	
					TOTAL SPECIAL PROJECTS	**$2,158.10**

GRAND TOTAL **$58,112.40**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **E to F**

Construction -	29+70	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.56	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		3+00	20%		Ditch	$183	=	$549.00	
3+00		4+50	30%		Ditch	$256	=	$384.00	
4+50		5+50	40%		Ditch	$330	=	$330.00	
5+50		7+00	65%	0.1	Ditch	$2,847	=	$4,270.50	
7+00		8+00	50%		Ditch	$651	=	$651.00	
8+00		9+30	65%	0.2	Ditch	$2,951	=	$3,836.30	
9+30		11+30	30%		Outslope	$191	=	$382.00	
11+30		12+00	40%		Outslope	$243	=	$170.10	
12+00		20+00	50%		Outslope	$459	=	$3,672.00	
20+00		20+70	30%		Outslope	$191	=	$133.70	
20+70		22+00	50%		Outslope	$459	=	$596.70	
22+00		23+00	65%	0.4	Outslope	$2,135	=	$2,135.00	
23+00		23+70	40%		Outslope	$243	=	$170.10	
23+70		24+30	65%	0.5	Outslope	$2,204	=	$1,322.40	
24+30		25+00	30%		Outslope	$191	=	$133.70	
25+00		27+80	60%	0.6	Outslope	$1,793	=	$5,020.40	
27+80		29+70	40%		Outslope	$243	=	$461.70	
								TOTAL	**$24,218.60**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
60	LF of 18"	$1,050.00		
		$1,050.00		
Culvert Stakes & Markers				
0	stakes	$0.00		
2	markers	$16.00		
		$16.00	**TOTAL CULVERTS**	**$1,066.00**

ROCK

0+00	to	9+30	520	cy. of	Jaw-Run	@	$21.80 per c.y.=	$11,336.00	
Junction Rock		0+00	20	cy. of	Jaw-Run	@	$21.71 per c.y.=	$434.20	
Energy Dissipator		All Culverts	10	cy. of	Riprap	@	$17.68 per c.y.=	$176.80	
								TOTAL ROCK	**$11,947.00**

SPECIAL PROJECTS

Construct landing -	1.00	@	$250.00		$250.00	
Construct waste areas -	1.50	hours @	$130.00	per hour	$195.00	
Grade and shape road -	29.70	stations @	$15.50	per station	$460.35	
Construct turnaround before landing -	1.00	@	$75.00		$75.00	
Roll subgrade w/ vibratory roller prior to rocking -	29.70	stations @	$13.20	per station	$392.04	
Grass seed and fertilize -	2.13	acres @	$220.00	per acre	$468.60	
					TOTAL SPECIAL PROJECTS	**$1,840.99**

GRAND TOTAL **$39,072.59**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **G to H**

Construction -	6+40	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.12	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+50	55%		Outslope	$689	=	$1,033.50	
1+50		2+20	45%		Outslope	$269	=	$188.30	
2+20		2+80	30%		Outslope	$191	=	$114.60	
2+80		3+50	50%		Outslope	$459	=	$321.30	
3+50		6+40	25%		Outslope	$165	=	$478.50	
								TOTAL	**$2,136.20**

CULVERTS - MATERIALS & INSTALLATION

Culverts

0	LF of 18"	$0.00	40	LF of 24"	$1,080.00	
		$0.00			$1,080.00	

Culvert Stakes & Markers

0	stakes	$0.00		
1	markers	$8.00		
		$8.00	**TOTAL CULVERTS**	**$1,088.00**

ROCK

0+00 to	6+40	380	cy. of	Jaw-Run	@	$21.92	per c.y.=	$8,329.60	
Landing Rock	Point H	60	cy. of	Jaw-Run	@	$21.98	per c.y.=	$1,318.80	
Junction Rock	0+00	20	cy. of	Jaw-Run	@	$21.87	per c.y.=	$437.40	
Energy Dissipator	2+50	10	cy. of	Riprap	@	$17.81	per c.y.=	$178.10	
								TOTAL ROCK	**$10,263.90**

SPECIAL PROJECTS

Construct landing -	1.00	@	$250.00		$250.00	
Construct turnaround before landing -	1.00	@	$75.00		$75.00	
Grade and shape road -	6.40	stations @	$14.00	per station	$89.60	
Roll subgrade w/ vibratory roller prior to rocking -	6.40	stations @	$13.20	per station	$84.48	
Grass seed and fertilize -	0.44	acres @	$220.00	per acre	$96.80	
Mulching -	0.206	acres @	$600.00	per acre	$123.60	
					TOTAL SPECIAL PROJECTS	**$719.48**

GRAND TOTAL **$14,207.58**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **I to J**

Construction -	23+80	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.45	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		2+50	25%		Ditch	$219	=	$547.50	
2+50		3+10	35%		Ditch	$256	=	$153.60	
3+10		6+10	25%		Ditch	$219	=	$657.00	
6+10		10+20	45%		Ditch	$367	=	$1,504.70	
10+20		13+00	35%		Ditch	$256	=	$716.80	
13+00		15+00	45%		Ditch	$367	=	$734.00	
15+00		18+00	55%		Ditch	$996	=	$2,988.00	
18+00		19+20	45%		Ditch	$367	=	$440.40	
19+20		20+80	65%	0.9	Ditch	$3,659	=	$5,854.40	
20+80		22+30	45%		Ditch	$367	=	$550.50	
22+30		22+90	30%		Ditch	$256	=	$153.60	
22+90		23+80	55%		Ditch	$996	=	$896.40	
								TOTAL	**$15,196.90**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
220	LF of 18"	$3,850.00		
		$3,850.00		
Culvert Stakes & Markers				
0	stakes	$0.00		
7	markers	$56.00		
		$56.00	**TOTAL CULVERTS**	**$3,906.00**

ROCK

0+00 to	23+80	1,300	cy. of	Jaw-Run	@	$18.62	per c.y.=	$24,206.00	
Landing Rock	Point J	60	cy. of	Jaw-Run	@	$18.82	per c.y.=	$1,129.20	
Junction Rock	0+00	20	cy. of	Jaw-Run	@	$18.42	per c.y.=	$368.40	
Energy Dissipator	All Culverts	40	cy. of	Riprap	@	$14.42	per c.y.=	$576.80	
								TOTAL ROCK	**$26,280.40**

SPECIAL PROJECTS

Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00	
Grade and shape road -	23.80	stations @	$15.50	per station	$368.90	
Construct landing -	1.00	@	$250.00		$250.00	
Construct turnaround before landing -	1.00	@	$75.00		$75.00	
Roll subgrade w/ vibratory roller prior to rocking -	23.80	stations @	$13.20	per station	$314.16	
Grass seed and fertilize -	1.72	acres @	$220.00	per acre	$378.40	
					TOTAL SPECIAL PROJECTS	**$1,516.46**

GRAND TOTAL **$46,899.76**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **K to L**

Construction -	0+00	stations	Improvement -	3+00	stations	Reconstruction -	0+00	stations
	0.00	miles		0.06	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.210	acres @	$980.00	per acre =	$205.80	
				TOTAL CLEARING AND GRUBBING		**$205.80**

ROCK

0+00	to	1+00	60	cy. of	Jaw-Run	@	$18.51	per c.y.=	$1,110.60	
Junction Rock		0+00	20	cy. of	Jaw-Run	@	$18.50	per c.y.=	$370.00	
									TOTAL ROCK	**$1,480.60**

SPECIAL PROJECTS

Improve landing at Point L -	1.00	hours @	$130.00	per hour	$130.00	
Construct ditchouts -	2.00	@	$60.00	each	$120.00	
Grade and shape road -	3.00	stations @	$15.50	per station	$46.50	
Roll subgrade w/ vibratory roller prior to rocking -	3.00	stations @	$13.20	per station	$39.60	
Grass seed and fertilize -	0.14	acres @	$220.00	per acre	$30.80	
				TOTAL SPECIAL PROJECTS		**$366.90**

GRAND TOTAL **$2,053.30**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **M to N**

Construction -	4+20	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.08	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		0+50	60%	0.2	Ditch	$2,317	=	$1,158.50	
0+50		1+20	35%		Ditch	$256	=	$179.20	
1+20		3+60	20%		Ditch	$183	=	$439.20	
3+60		4+20	35%		Ditch	$256	=	$153.60	
								TOTAL	**$1,930.50**

CULVERTS - MATERIALS & INSTALLATION

Culverts					
30	LF of 18"	$525.00			
		$525.00			
Culvert Stakes & Markers					
0	stakes	$0.00			
1	markers	$8.00			
		$8.00		**TOTAL CULVERTS**	**$533.00**

ROCK

0+00	to	4+20	260	cy. of	Jaw-Run	@	$18.16 per c.y.=	$4,721.60	
Landing Rock		Point N	60	cy. of	Jaw-Run	@	$18.20 per c.y.=	$1,092.00	
Junction Rock		0+00	20	cy. of	Jaw-Run	@	$18.13 per c.y.=	$362.60	
								TOTAL ROCK	**$6,176.20**

SPECIAL PROJECTS

Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00	
Grade and shape road -	4.20	stations @	$15.50	per station	$65.10	
Roll subgrade w/ vibratory roller prior to rocking -	4.20	stations @	$13.20	per station	$55.44	
Grass seed and fertilize -	0.35	acres @	$220.00	per acre	$77.00	
					TOTAL SPECIAL PROJECTS	**$327.54**

GRAND TOTAL **$8,967.24**

SUMMARY OF CONSTRUCTION COST

Sale: **General Lee** Road: **O to P**

Construction -	0+00	stations	Improvement -	135+20	stations	Reconstruction -	0+00	stations
	0.00	miles		2.56	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.050	acres @	$1,500.00	per acre =	$75.00	
Widening	0.100	acres @	$1,500.00	per acre =	$150.00	
				TOTAL CLEARING AND GRUBBING		**$225.00**

IMPROVEMENT: EXCAVATION -

Pullback	252	cy. @	$1.40	per c.y.=	$352.80	
Widening	471	cy. @	$2.25	per c.y.=	$1,059.75	
				TOTAL EXCAVATION		**$1,412.55**

IMPROVEMENT: ENDHAUL -

Pullback	53+00	to	53+50	130	cy. @	$2.96	per c.y.=	$384.80	
Pullback	55+00	to	55+70	122	cy. @	$3.28	per c.y.=	$400.16	
Widening	40+70	to	40+90	20	cy. @	$2.95	per c.y.=	$59.00	
Widening	52+70	to	53+50	116	cy. @	$3.01	per c.y.=	$349.16	
Widening	54+70	to	56+90	48	cy. @	$3.34	per c.y.=	$160.32	
Widening	57+40	to	58+70	157	cy. @	$3.69	per c.y.=	$579.33	
Widening	59+80	to	60+40	52	cy. @	$3.99	per c.y.=	$207.48	
Widening	61+50	to	65+10	78	cy. @	$4.48	per c.y.=	$349.44	
Spread & compact				723	cy. @	$0.25	per c.y.=	$180.75	
							TOTAL ENDHAUL		**$2,670.44**

CULVERTS - MATERIALS & INSTALLATION

Culverts

70	LF of 18"	$1,225.00	
		$1,225.00	

Culvert Stakes & Markers

0	stakes	$0.00		
2	markers	$16.00		
		$16.00	**TOTAL CULVERTS**	**$1,241.00**

ROCK

Culvert Bedding/Backfill	35+00,126+50	20	cy. of	SP Clean Up	@	$12.63	per c.y.=	$252.60	
Spot Rock	0+00-135+20	500	cy. of	SP Clean Up	@	$14.02	per c.y.=	$7,010.00	
Energy Dissipator	35+00,99+00,126+50	20	cy. of	Riprap	@	$13.73	per c.y.=	$274.60	
Rock Ditch Filters	119+00, 120+00	10	cy. of	Drain Rock	@	$31.12	per c.y.=	$311.20	
							TOTAL ROCK		**$7,848.40**

SPECIAL PROJECTS

Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00	
Grade and shape road -	135.20	stations @	$15.50	per station	$2,095.60	
Pull ditch and endhaul -	35.00	stations @	$90.00	per station	$3,150.00	
Construct sediment catch basins -	2.00	@	$60.00	each	$120.00	
Roll subgrade w/ vibratory roller prior to rocking -	135.20	stations @	$13.20	per station	$1,784.64	
Grass seed and fertilize -	0.23	acres @	$220.00	per acre	$50.60	
Mulching -	0.120	acres @	$600.00	per acre	$72.00	
				TOTAL SPECIAL PROJECTS		**$7,402.84**

GRAND TOTAL **$20,800.23**

PROJECT SUMMARY SHEET

Sale: General Lee

CONSTRUCTION

Point	C to D	12+00	stations =	$20,356.05
Point	E to F	29+70	stations =	$39,072.59
Point	G to H	6+40	stations =	$14,207.58
Point	I to J	23+80	stations =	$46,899.76
Point	M to N	4+20	stations =	$8,967.24
			SUBTOTAL CONSTRUCTION	**$129,503.22**

IMPROVEMENT

Point	A to B	240+80	stations =	$104,145.76
Point	K to L	3+00	stations =	$2,053.30
Point	O to P	135+20	stations =	$20,800.23
			SUBTOTAL IMPROVEMENT	**$126,999.29**

RECONSTRUCTION

Point	C to D	17+00	stations =	$37,756.35
			SUBTOTAL RECONSTRUCTION	**$37,756.35**

SPECIAL PROJECTS

Brush	6.5	miles of road	$5,200.00
		SUBTOTAL SPECIAL PROJECTS	**$5,200.00**

MOVE IN **$7,041.14**

GRAND TOTAL **$306,500.00**

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
General Lee

"STEWARDSHIP IN FORESTRY"

1. Type of Sale
Regeneration harvest, Recovery

2. Legal Description
Sections 2, 11 & 12, T1N, R7W, and Section 7, T1N, R6W, W.M., Tillamook County, Oregon.

3. Sale Acreage
Sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	Gross	Net
Area 1 (Modified Clearcut)	106	72
Area 2 (Modified Clearcut)	102	85
Area 3 (Modified Clearcut)	121	107

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.
Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method
The timber sale areas were cruised using variable plot sampling. All three areas were contract cruised in 2016 with an additional cruise being completed in 2017 by ODF for the southern portion of Area 3. Plot and cruise line spacing for the contract cruise was 350' x 700'. Additional cruise completed by ODF has plot and line spacing of 175' x 700'. All conifers 8" DBH and greater containing 20 board feet and all hardwoods 10" DBH and greater containing 30 board feet were recorded on all plots. Species, DBH (to the nearest inch), merchantable bole length (to the nearest foot), form factor, and defect were recorded for all trees. Merchantable heights were recorded to 6" and 7" outside bark for conifers and hardwoods, respectively.

B. Plot size

Area	BAF
1	33.61
2	33.61
3 (north)	46.95
3 (south)	33.61

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Log lengths favored 40’ lengths.

5. Computation Procedure

Plot data was entered into SuperAce for computation of basal area, advertised volume, volume summary, log stock table, and stand table for each species and type. Cruise volumes were grown forward to 2018 from the cruise date.

Net sale acreage was used for volume calculation.

Cruise Statistics (Board Foot Volumes)			
Area	Number of Plots	SE (%)	CV (%)
1	26	8.4	42.1
2	23	7.9	37.3
3	38	6.3	38.6
Total	83	9.4	48.0

6. Hidden Defect and Breakage

A 1% reduction was applied to conifers and a 2% reduction to hardwood volumes for hidden defect and breakage.

7. Timber Description

All sale areas were burned in the 1933 Tillamook Fire. The southern portion of Area 2 and all of Area 3 were burned again in 1939’s Saddle Mountain Fire. All three areas were burned once again with the 1945 Wilson River/Salmonberry Fires. All sale areas have portions that were aerially seeded in the early 1950’s and planted in the mid-1960’s. However, most seeding dates are unknown for this sale.

Stand management consisted of commercial thinnings over most of the sale areas. Area 1 and over half of Area 3 were thinned with the Moore Thin sale in 1993. Area 2 and the remainder of Area 3 were thinned with the Lyda Power sale in 2000.

Sale Area	Species	DBH	Merchantable Bole Height (feet)	Merchantable top (inches inside bark)
1	Douglas-fir	22.4	87	5
	Red Alder	20.5	42	6
	Big Leaf Maple	14.3	49	6
2	Douglas-fir	17.0	84	5
	Red Alder	16.4	57	6
3	Douglas-fir	18.4	74	5
	Red Alder	15.0	57	6

Above date derived from Statistics (type) report using SuperAce 2008, developed by Atterbury consultants, Inc.

8. Cruiser /Dates

All areas were cruised by contractors in 2016. The south half of Area 3 was cruised again by ODF in 2017.

9. Revenue Distribution

FDF 100%

Tax Code: 902 – 100%

Deed Numbers: 157, 159

10. Attachments

Volume Summary

Stand Table

Log Stock Tables

Logging Plan

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir take
RA – Red alder take
BM – Big leaf maple
OC – Other conifer

FI TLOGSTVB

Log Stock Table - MBF

Project: LEEGENER

T01N R07W S11 TSALE | **T01N R07W S11 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	11	A1_GROW	SALE	72.00	26	81

Page 1
Date 4/25/2018
Time 3:42:06PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
									Net Volume by Scaling Diameter in Inches											
DF		CO	2	16	18		18	.9							10	8				
DF		CO	2	20	34		34	1.6							19	15				
DF		CO	2	22	15		15	.7									15			
DF		CO	2	32	37		37	1.7						14	23					
DF		CO	2	36	23		23	1.1								23				
DF		CO	2	40	1,534	.5	1,527	70.7						222	333	647	296	29		
DF		CO	3	20	2		2	.1				2								
DF		CO	3	24	2		2	.1				2								
DF		CO	3	31	5		5	.2			5									
DF		CO	3	32	118		118	5.5			8	29	81							
DF		CO	3	33	2		2	.1				2								
DF		CO	3	34	3		3	.1			3									
DF		CO	3	35	3		3	.1					3							
DF		CO	3	38	3		3	.1			3									
DF		CO	3	39	6		6	.3			3	3								
DF		CO	3	40	274		274	12.7			47	64	162							
DF		CO	4	16	8		8	.4		6	3									
DF		CO	4	17	3		3	.1		2		1								
DF		CO	4	18	6		6	.3		2	4									
DF		CO	4	19	4		4	.2		2		1								
DF		CO	4	20	16		16	.7		11	5									
DF		CO	4	21	6		6	.3		2	3									
DF		CO	4	22	5		5	.2		2	2	1								
DF		CO	4	23	6		6	.3			3	3								
DF		CO	4	24	2		2	.1			2									
DF		CO	4	25	4		4	.2			4									
DF		CO	4	26	2		2	.1			2									
DF		CO	4	27	6		6	.3		4	2									
DF		CO	4	29	3		3	.1		3										
DF		CO	4	35	5		5	.2		5										
DF		CO	4	39	9		9	.4		9										
DF		CO	4	40	7		7	.3		7										
DF		Totals			2,167		2,160	96.7		54	98	108	246	235	386	694	311	29		
BM		H	3	40	17	5.6	16	33.4					16							
BM		H	4	14	2		2	4.6			2									
BM		H	4	40	30	3.6	29	61.9			21	9								
BM		Totals			49	4.1	47	2.1			23	9	16							
RA		H	3	30	17	9.1	16	58.0					16							
RA		H	4	40	13	11.1	11	42.0				11								
RA		Totals			30	10.0	27	1.2				11	16							
Total All Species					2,247		2,235	100.0		54	121	128	277	235	386	694	311	29		

FI TSTNDSUM

Stand Table Summary

Project LEEGENER

T01N R07W S11 TSALE **T01N R07W S11 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	11	A1_GROW	SALE	72.00	26	81

Page: 1
Date: 04/25/2018
Time: 3:42:05PM

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		79	67	5.612	4.59	5.72	19.6	53.0	3.19	112	303	230	81	22
DF		15		86	103	3.591	4.59	9.16	17.6	78.4	4.59	161	718	331	116	52
DF		16		86	95	3.156	4.59	6.44	24.8	98.0	4.56	160	631	328	115	45
DF		17		85	82	1.398	2.30	2.85	24.1	90.0	1.96	69	257	141	50	18
DF		18		87	111	2.494	4.59	6.36	28.1	112.3	5.10	179	714	367	129	51
DF		19		87	94	3.358	6.89	7.99	29.6	110.5	6.75	237	883	486	171	64
DF		20		86	112	3.030	6.89	7.21	37.4	145.3	7.68	270	1,048	553	194	75
DF		21		85	97	4.581	11.49	10.28	37.6	144.4	11.01	386	1,485	793	278	107
DF		22		86	114	5.009	13.78	14.48	38.8	167.6	16.00	561	2,426	1,152	404	175
DF		23		86	113	3.819	11.49	10.91	42.8	189.2	13.31	467	2,063	958	336	149
DF		25		86	115	4.910	16.08	14.31	46.0	205.0	18.76	658	2,933	1,351	474	211
DF		26		86	127	4.525	16.08	13.85	51.3	234.0	20.23	710	3,241	1,457	511	233
DF		27		86	130	2.988	11.49	9.15	57.0	258.5	14.85	521	2,364	1,069	375	170
DF		28		85	124	4.434	18.38	11.31	70.1	305.6	22.59	792	3,455	1,626	571	249
DF		29		86	119	1.031	4.59	3.15	61.8	287.8	5.55	195	908	400	140	65
DF		30		86	139	.961	4.59	2.94	75.1	360.1	6.30	221	1,059	453	159	76
DF		31		85	111	1.796	9.19	4.58	78.5	347.4	10.25	359	1,591	738	259	115
DF		32		85	121	1.261	6.89	3.86	77.5	363.7	8.52	299	1,404	614	215	101
DF		33		84	119	.789	4.59	2.01	94.5	413.1	5.42	190	831	390	137	60
DF		34		84	138	.742	4.59	2.27	97.2	466.1	6.29	221	1,058	453	159	76
DF		38		86	146	.295	2.30	.90	131.9	699.1	3.39	119	631	244	86	45
DF		Totals		85	108	59.780	170.01	149.74	46.0	200.4	196.31	6,888	30,004	14,134	4,959	2,160
BM		10		75	89	2.730	1.57	2.76	18.0	64.9	1.32	50	179	95	36	13
BM		14		85	74	2.786	3.14	4.22	20.6	61.3	2.31	87	259	166	63	19
BM		22		84	66	.619	1.57	.63	64.4	183.8	1.07	40	115	77	29	8
BM		23		83	61	.564	1.57	.57	69.3	183.8	1.05	40	105	75	28	8
BM		Totals		81	78	6.700	7.84	8.17	26.5	80.4	5.74	216	657	413	156	47
RA		21		78	45	1.991	4.57	2.01	46.5	108.1	2.57	94	217	185	67	16
RA		22		77	57	1.806	4.57	1.82	62.8	86.5	3.15	115	158	227	82	11
RA		Totals		78	51	3.797	9.15	3.83	54.3	97.8	5.72	208	375	412	150	27
Totals				84	102	70.277	187.00	161.75	45.2	191.9	207.77	7313	31,036	14,959	5,265	2,235

FI TLOGSTVB

Log Stock Table - MBF

Project: **LEEGENER**

T01N R07W S11 TSALE | **T01N R07W S11 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
01N	07W	11	A2_GROW	SALE	85.00	23	70	Date	4/25/2018
								Time	3:58:53PM

Spp	S T	So rt	Gr de	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		CO	2	32	23		23	1.0						11		11				
DF		CO	2	40	1,079	.8	1,070	49.4						515	261	226	68			
DF		CO	3	23	3		3	.1					3							
DF		CO	3	28	3		3	.1				3								
DF		CO	3	32	189		189	8.7			28	147	13							
DF		CO	3	35	4		4	.2			4									
DF		CO	3	38	4		4	.2			4									
DF		CO	3	40	668		668	30.9			117	198	353							
DF		CO	4	16	3		3	.1		3										
DF		CO	4	17	17		17	.8		17										
DF		CO	4	18	3		3	.1		3										
DF		CO	4	19	9		9	.4		9										
DF		CO	4	20	17		17	.8		16	2									
DF		CO	4	21	9		9	.4		9										
DF		CO	4	22	6		6	.3		6										
DF		CO	4	23	12		12	.6		12										
DF		CO	4	24	4		4	.2		4										
DF		CO	4	25	4		4	.2		4										
DF		CO	4	26	6		6	.3		6										
DF		CO	4	27	3		3	.2		3										
DF		CO	4	28	11		11	.5		11										
DF		CO	4	29	4		4	.2		4										
DF		CO	4	32	12		12	.6		12										
DF		CO	4	33	16		16	.8		16										
DF		CO	4	35	5		5	.2		5										
DF		CO	4	37	15		15	.7		15										
DF		CO	4	39	18		18	.8		18										
DF		CO	4	40	27		27	1.2		27										
DF			Totals		2,173		2,165	89.9		200	155	348	369	526	261	238	68			
RA		H	2	32	15	8.7	14	5.7							14					
RA		H	2	40	40		40	16.5						40						
RA		H	3	32	16		16	6.7					16							
RA		H	3	40	78	3.2	75	30.8					75							
RA		H	4	17	2		2	1.0			2									
RA		H	4	18	11		11	4.6			11									
RA		H	4	20	4		4	1.5			4									
RA		H	4	24	4		4	1.7			4									
RA		H	4	27	3		3	1.2			3									
RA		H	4	28	2		2	.8			2									
RA		H	4	29	4		4	1.4			4									
RA		H	4	32	19		19	7.6				19								
RA		H	4	37	12	16.7	10	4.2			10									
RA		H	4	40	41	2.7	40	16.2			10	30								
RA			Totals		251	2.8	244	10.1			50	49	92	40	14					
Total All Species					2,425		2,409	100.0		200	205	397	461	566	275	238	68			

FI TSTNDSUM

Stand Table Summary

Project **LEEGENER**

T01N R07W S11 TSALE **T01N R07W S11 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	11	A2_GROW	SALE	85.00	23	70

Page: 1
Date: 04/25/201
Time: 3:58:52PM

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		10		88	88	5.023	2.86	10.27	7.7	42.5	2.25	79	436	191	67	37
DF		11		88	106	8.302	5.72	16.97	11.0	50.5	5.31	186	856	452	158	73
DF		12		87	98	6.976	5.72	14.26	12.2	53.1	4.97	174	757	422	148	64
DF		13		87	76	5.944	5.72	9.11	16.4	60.2	4.25	149	549	362	127	47
DF		14		88	112	2.563	2.86	5.24	20.1	85.0	3.00	105	445	255	89	38
DF		15		88	102	11.162	14.30	22.81	22.6	95.6	14.72	516	2,181	1,251	439	185
DF		16		88	113	7.848	11.44	18.04	24.0	102.7	12.32	432	1,853	1,047	368	158
DF		17		86	127	1.738	2.86	5.33	21.8	95.6	3.31	116	509	282	99	43
DF		18		88	120	12.402	22.88	36.44	26.1	110.4	27.11	951	4,023	2,304	808	342
DF		19		89	125	9.740	20.02	28.44	30.6	134.4	24.82	871	3,822	2,110	740	325
DF		20		88	127	7.534	17.16	21.81	35.1	155.6	21.83	766	3,395	1,856	651	289
DF		21		87	110	2.278	5.72	5.82	38.2	146.6	6.34	222	853	539	189	73
DF		22		89	133	2.076	5.72	6.36	42.6	200.1	7.73	271	1,273	657	230	108
DF		24		87	132	1.899	5.72	5.82	45.2	203.6	7.50	263	1,186	638	224	101
DF		25		87	145	.872	2.86	2.67	53.3	251.5	4.06	143	672	345	121	57
DF		28		88	109	.689	2.86	1.41	79.8	340.0	3.20	112	479	272	96	41
DF		29		85	113	1.281	5.72	3.27	68.6	301.8	6.40	225	988	544	191	84
DF		35		86	137	.435	2.86	1.33	102.5	499.4	3.89	137	665	331	116	57
DF		37		79	125	.388	2.86	1.19	100.4	439.2	3.40	119	522	289	101	44
DF	Totals			88	111	89.150	145.89	216.59	27.0	117.6	166.42	5,839	25,465	14,146	4,964	2,165
RA		13		81	78	4.455	4.33	6.75	15.2	57.7	2.83	103	390	240	87	33
RA		14		88	89	1.920	2.17	3.88	19.2	75.8	2.05	75	294	175	63	25
RA		16		80	76	4.411	6.50	7.43	25.7	82.3	5.26	191	612	447	163	52
RA		17		84	78	1.302	2.17	2.63	25.6	92.0	1.86	67	242	158	57	21
RA		18		82	72	3.485	6.50	5.87	33.4	101.8	5.39	196	598	458	167	51
RA		20		88	86	1.043	2.17	2.11	35.9	124.5	2.08	76	262	177	64	22
RA		21		87	88	.941	2.17	1.90	41.2	151.6	2.15	78	288	183	67	25
RA		24		80	75	.712	2.17	1.44	44.7	129.9	1.77	64	187	150	55	16
RA	Totals			83	78	18.269	28.15	32.02	26.6	89.7	23.39	851	2,874	1,988	723	244
Totals				87	105	107.420	174.04	248.61	26.9	114.0	189.81	6690	28,339	16,134	5,687	2,409

FI TLOGSTVB

Log Stock Table - MBF

Project: **LEEGENER**

T01N R07W S12 TSALE **T01N R07W S12 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
01N	07W	12	A3_GROW	SALE	107.00	31	117	Date	4/25/2018
								Time	4:08:35PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
									Net Volume by Scaling Diameter in Inches											
DF		CO	2	24	16		16	.5							16					
DF		CO	2	32	43		43	1.3						43						
DF		CO	2	40	1,993	1.5	1,963	59.9					8	594	896	437	28			
DF		CO	3	24	7		7	.2					7							
DF		CO	3	25	2		2	.1		2										
DF		CO	3	28	19		19	.6				4	15							
DF		CO	3	32	91	4.4	87	2.6				58	28							
DF		CO	3	38	4		4	.1		4										
DF		CO	3	40	839	1.7	825	25.2			180	263	382							
DF		CO	4	12	2		2	.1		2										
DF		CO	4	13	1		1	.0		1										
DF		CO	4	14	1		1	.0		1										
DF		CO	4	15	11		11	.3		5	3	3								
DF		CO	4	16	15		15	.5		9	2	4								
DF		CO	4	17	6		6	.2		4	2									
DF		CO	4	18	8		8	.2		8										
DF		CO	4	19	6		6	.2			5	2								
DF		CO	4	20	11		11	.3			5		7							
DF		CO	4	21	4		4	.1		2	2									
DF		CO	4	22	5		5	.2		5										
DF		CO	4	23	11		11	.3		5	6									
DF		CO	4	24	7		7	.2		7										
DF		CO	4	25	2		2	.1		2										
DF		CO	4	26	34		34	1.0		23			11							
DF		CO	4	27	8		8	.3		8										
DF		CO	4	28	12		12	.4		10	2									
DF		CO	4	29	16		16	.5		12	4									
DF		CO	4	30	7		7	.2		7										
DF		CO	4	31	5		5	.1		5										
DF		CO	4	32	9		9	.3		9										
DF		CO	4	34	9		9	.3		9										
DF		CO	4	35	16		16	.5		9	7									
DF		CO	4	36	12		12	.4		12										
DF		CO	4	37	14		14	.4		14										
DF		CO	4	38	17		17	.5		17										
DF		CO	4	39	5		5	.1		5										
DF		CO	4	40	60		60	1.8		25	36									
DF		Totals			3,326	1.4	3,278	99.7		220	252	334	458	638	912	437	28			
RA		H	4	40	13	11.1	11	100.0				11								
RA		Totals			13	11.1	11	.3				11								
Total All Species					3,338	1.5	3,289	100.0		220	252	345	458	638	912	437	28			

FI TSTNDSUM

Stand Table Summary

Project **LEEGENER**

T01N R07W S12 TSALE

T01N R07W S12 TSALE

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	12	A3_GROW	SALE	107.00	31	117

Page: 1
Date: 04/25/2018
Time: 4:08:35PM

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		9		86	74	7.209	3.33	7.37	9.9	42.5	2.07	73	313	221	78	33
DF		10		87	78	2.920	1.66	2.98	13.3	63.8	1.13	40	190	121	42	20
DF		11		87	78	2.413	1.66	4.93	10.1	47.8	1.43	50	236	153	54	25
DF		12		89	78	4.055	3.33	8.29	10.7	47.8	2.53	89	396	271	95	42
DF		13		88	90	1.728	1.66	3.53	12.0	42.5	1.23	42	150	132	45	16
DF		14		87	90	11.610	12.96	23.73	17.8	72.5	12.04	422	1,720	1,288	452	184
DF		15		84	81	7.003	8.97	11.13	22.1	74.9	7.02	246	834	751	264	89
DF		16		88	98	6.155	8.97	12.58	25.0	103.9	8.96	314	1,307	959	336	140
DF		17		86	91	6.254	10.29	12.78	26.3	101.8	9.57	336	1,301	1,024	359	139
DF		18		87	99	7.739	14.28	15.82	29.8	119.1	13.44	472	1,884	1,438	505	202
DF		19		87	98	6.624	13.62	13.54	31.7	114.7	12.23	429	1,552	1,309	459	166
DF		20		87	96	9.188	20.93	19.52	38.1	140.0	21.21	744	2,733	2,270	797	292
DF		21		88	106	8.733	21.93	19.47	42.0	165.0	23.31	818	3,212	2,494	875	344
DF		22		88	111	13.262	36.55	32.52	42.9	175.4	39.74	1,394	5,705	4,252	1,492	610
DF		24		87	109	8.708	26.23	19.71	51.3	210.6	28.83	1,012	4,151	3,085	1,082	444
DF		25		88	112	1.215	3.99	3.21	48.9	210.1	4.47	157	674	478	168	72
DF		26		86	118	3.545	12.62	9.24	57.2	245.7	15.07	529	2,271	1,613	566	243
DF		27		86	132	.603	2.32	1.85	59.8	269.2	3.15	111	498	337	118	53
DF		28		89	114	.401	1.66	.82	77.0	350.6	1.80	63	287	192	67	31
DF		29		89	113	.372	1.66	.76	86.1	366.6	1.87	66	279	200	70	30
DF		30		87	123	.694	3.33	1.77	79.7	361.3	4.03	141	641	431	151	69
DF		31		80	105	.453	2.32	.93	95.1	329.4	2.51	88	305	268	94	33
DF		Totals		87	97	110.884	214.28	226.48	33.7	135.3	217.63	7,636	30,638	23,287	8,171	3,278
RA		15		78	77	1.186	1.54	1.20	36.7	86.6	1.21	44	104	129	47	11
RA		Totals		78	77	1.186	1.54	1.20	36.7	86.6	1.21	44	104	129	47	11
Totals				87	96	112.070	215.82	227.68	33.7	135.0	218.84	7680	30,742	23,416	8,218	3,289

"STEWARDSHIP IN FORESTRY"

General Lee

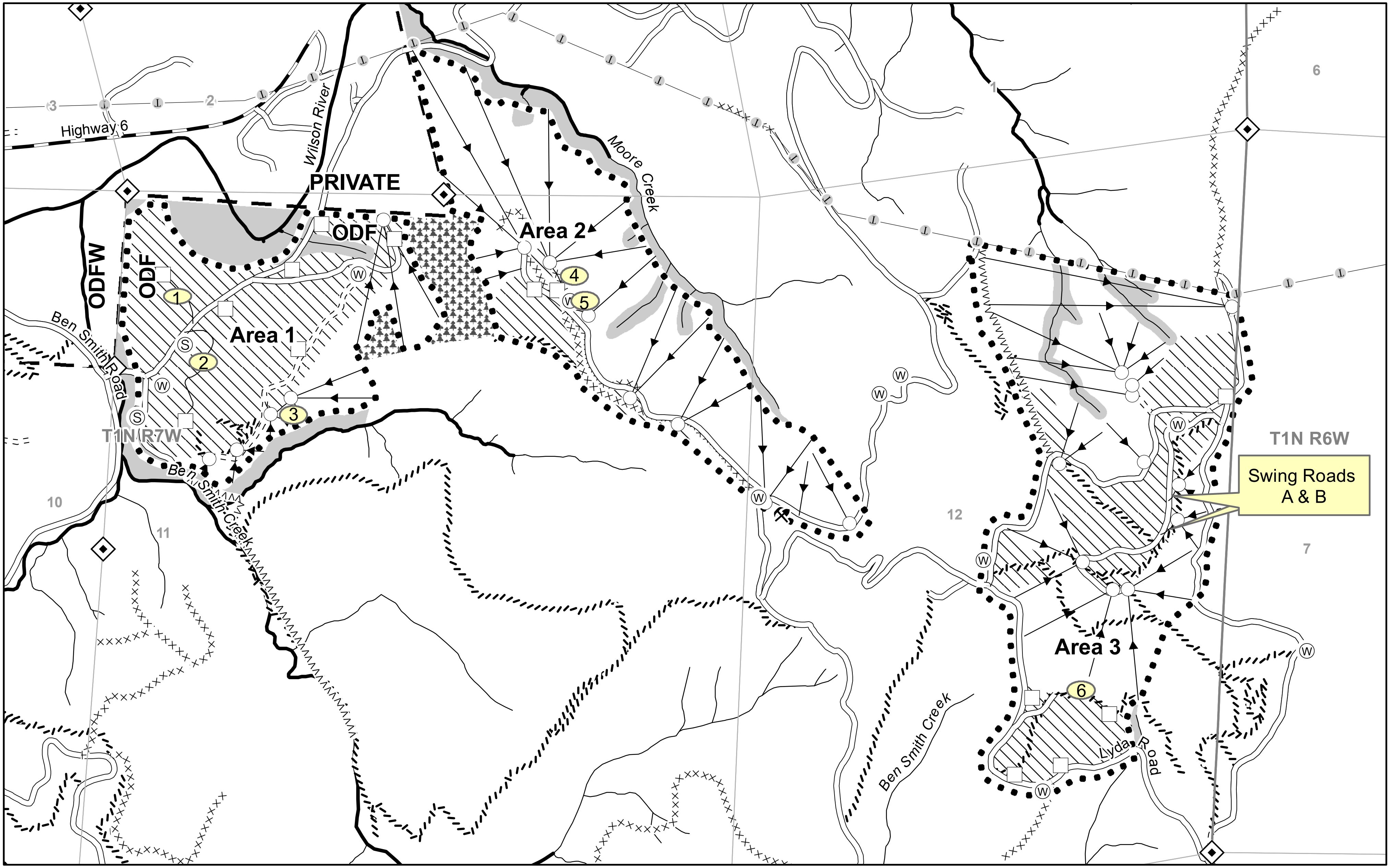
Volume Summary

Area 1-Modifed Clearcut				
		72 acres		
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	30.0	2160	1%	2138
Red alder	0.4	27	2%	26
Big leaf maple	0.7	47	2%	46
TOTAL	31.1	2234		2210

Area 2-Modifed Clearcut				
		85 acres		
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	25.5	2165	1%	2143
Red alder	2.9	244	2%	239
TOTAL	28.4	2409		2382

Area 3-Modifed Clearcut				
		107 acres		
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	30.6	3278	1%	3245
Red alder	0.1	11	2%	11
TOTAL	30.7	3289		3256

TOTAL SALE VOLUME	**264**	**acres**
SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	7603	7527
Red alder	282	277
Big leaf maple	47	46
TOTAL	7932	7850



	Rock source
Ⓢ	Stock pile
Ⓦ	Waste area
	Bridge
	Gate
	Survey corner
Ⓓ	Domestic water supply intake
Ⓣ	Truck turn-around
Ⓗ	Helicopter landing zone
Ⓒ	Cultural site
	Buffer
	Non-required thinning
	Cable yarding
	Ground yarding
	Helicopter yarding
	Downhill yarding
	Green tree retention area
	Restricted area
	Area boundary
	Sale boundary
	Ownership boundary
	Fish stream
	Non-fish stream
	Unsurfaced road
	Surfaced road
	Paved road
VVVVVVV	Abandoned road
--A--	Swing road
—②—	Non-project road
XXXXX	Blocked road
	OHV trail
	Non-motorized trail
Ⓣ—Ⓣ—	Transmission line
	Railroad
	Cable yarding
	Ground Landing
	Yarder Landing

LOGGING PLAN

Timber Sale Contract No. 341-19-38
GENERAL LEE
Portions of Sections 2, 11, & 12, T1N, R7W, &
Portions of Section 7, T1N, R6W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

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Area	Type of Operation	Acres Gross	Acres Net
1	Modified Clearcut	106	72
2	Modified Clearcut	102	85
3	Modified Clearcut	121	107
Total		329	264

Tillamook District GIS
6/13/2018
This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.