OREGON DEPARTMENT OF FORESTRY

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Southern Steamer

Sale TL-341-2019-18-

District: Tillamook

Date: January 07, 2019

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$3,155,288.00	$444,877.92	$3,600,165.92
		Project Work:	($1,007,240.00)
		Advertised Value:	$2,592,925.92

Timber Description

Location: Portions of Sections 26, 33, 34, 35, and 36, T1N, R7W, W.M. Tillamook County, Oregon

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	95
Western Hemlock / Fir	15	0	95
Alder (Red)	14	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	7,582	3,161	0	0	0	0	0	10,743
Western Hemlock / Fir	182	107	0	0	0	0	0	289
Alder (Red)	0	0	398	327	410	395	0	1,530
Maple	0	0	0	0	0	0	156	156
Total	7,764	3,268	398	327	410	395	156	12,718

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

Western Red Cedar and Other Cedars Stumpage Price = Pond Value – Logging Cost
$1150/MBF - $380/MBF = $770/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 $950 daily truck cost

Other Costs with Profit and Risk to be added:
Snag creation: 515 snags x $10/ snag = $5,150
TOTAL Other Costs with profit and Risk to be added = $ 5,150

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 331 ac = $1,655
Heliport Construction: 6 hours machine loader time for slash moving @ $140/ hour = $ 840
Non-project Road 1: $300/ station x 12+30 stations = $3,690
Non-project Road 2: $150/ station x 6+90 stations = $1,035
Non-project Road 3: $200/ station x 11+20 stations = $2,240
Non-project Road 4: $200/ station x 9+00 stations = $1,800
Non-project Road 5: $150/ station x 16+50 stations = $2,475
Non-project Road 6: $200/ station x 2+10 stations = $420
Non-project Road 7: $150/ station x 9+50 stations = $1,425
Swing Roads A and B: 28 MBF/ ac x 9 ac x $30/MBF = $7,560
Road blocking $50/ block x 7 roads and 2 swing roads = $450

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 = $ 42,560

ROAD MAINTENANCE:
Portions of Jordan Creek, South Fork Jordan Creek and Phipps Creek Roads
Spot rocking: 20cy/MMBF/mile x 12.7 MMBF x $15/cy x 12.1 miles/ 12718 MBF = $ 3.62/ MBF
Interm Grading: $400/ mile x 12.1 miles x 6 times/ 12718 MBF = $2.28/ MBF
Final Maintenance Grading: $800 x 12.1 miles/12718MBF = $0.76 / MBF
Final Maintenance Compaction: $700/mile x 2.0 miles/ 12718 MBF = $ 0.11/ MBF
Total Road Maintenance: $6.77/ MBF

Logging Conditions

Combination#: 1

Douglas - Fir	78.92%
Western Hemlock / Fir	55.55%

Logging System: Cable: Medium Tower >40 - <70
Process: Harvester Head Delimbing
yarding distance: Medium (800 ft)
downhill yarding: No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 7
bd. ft / load: 3800
cost / mbf: $292.50
machines:
Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 2

Western Hemlock / Fir	44.45%

Logging System: Shovel
Process: Harvester Head Delimbing
yarding distance: Medium (800 ft)
downhill yarding: No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 14
bd. ft / load: 3800
cost / mbf: $100.45
machines:
Forwarder
Harvester

Combination#: 3

Alder (Red)	79.12%
Maple	100.00%

Logging System: Cable: Medium Tower >40 - <70
Process: Harvester Head Delimbing
yarding distance: Medium (800 ft)
downhill yarding: No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 8
bd. ft / load: 3800
cost / mbf: $255.93
machines:
Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 4

Douglas - Fir	21.08%
Alder (Red)	20.88%

Logging System: Shovel
Process: Harvester Head Delimbing
yarding distance: Medium (800 ft)
downhill yarding: No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 17
bd. ft / load: 3800
cost / mbf: $82.73
machines:
Forwarder
Harvester

Logging Costs

Operating Seasons: 2.00

Project Costs: $1,007,240.00

Slash Disposal: $0.00

Profit Risk: 12%

Other Costs (P/R): $5,150.00

Other Costs: $42,560.00

Miles of Road

Road Maintenance: $6.77

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	4.2
Western Hemlock / Fir	$0.00	3.0	4.0
Alder (Red)	$0.00	2.0	3.8
Maple	$0.00	2.0	3.4

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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
$248.28	$7.11	$0.69	$79.17	$0.40	$40.28	$0.00	$2.00	$3.35	$381.28
Western Hemlock / Fir									
$207.14	$7.11	$0.69	$83.13	$0.40	$35.82	$0.00	$2.00	$3.35	$339.64
Alder (Red)									
$219.77	$7.45	$0.69	$137.50	$0.40	$43.90	$0.00	$2.00	$3.35	$415.06
Maple									
$255.93	$7.45	$0.69	$153.68	$0.40	$50.18	$0.00	$2.00	$3.35	$473.68

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$670.00	$288.72	$0.00
Western Hemlock / Fir	$0.00	$525.00	$185.36	$0.00
Alder (Red)	$0.00	$703.86	$288.80	$0.00
Maple	$0.00	$493.00	$19.32	$0.00

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District: Tillamook

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Summary

Amortized

Specie	**MBF**	**Value**	**Total**
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / 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	10,743	$288.72	$3,101,718.96
Western Hemlock / Fir	289	$185.36	$53,569.04
Alder (Red)	1,530	$288.80	$441,864.00
Maple	156	$19.32	$3,013.92

Gross Timber Sale Value

Recovery: $3,600,165.92

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OREGON DEPARTMENT OF FORESTRY
“STEWARDSHIP IN FORESTRY”

PROJECT SUMMARY SHEET

Sale: Southern Steamer

CONSTRUCTION

Point	C to D	22+40	stations =	$37,168.77
Point	E to F	7+85	stations =	$28,973.72
Point	G to H	44+10	stations =	$164,624.05
Point	I to J	19+90	stations =	$115,434.65
Point	K to L	12+10	stations =	$49,091.95
Point	M to N	3+90	stations =	$22,427.65
Point	O to P	5+30	stations =	$13,504.38
			SUBTOTAL CONSTRUCTION	**$431,225.17**

IMPROVEMENT

Point	A to B	393+35	stations =	$265,123.72
Point	C to D	91+50	stations =	$100,270.10
Point	E to F	12+55	stations =	$4,424.03
Point	O to P	29+70	stations =	$35,384.22
Point	Q to R	3+40	stations =	$3,445.90
			SUBTOTAL IMPROVEMENT	**$408,647.97**

SPECIAL PROJECTS

Project 3 Brush 20.7 miles of road	$23,805.00
Project 4 Install 60' x 24' Bridge on A to B Sta. 119+00 (Includes All Bridge Parts, Sills, Site Prep., Move-In, & Engineering)	$119,414.50
Project 5 Pave Bridge Approach	$14,560.00
SUBTOTAL SPECIAL PROJECTS	**$157,779.50**

MOVE IN	**$9,587.36**
GRAND TOTAL	**$1,007,240.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **A to B**

Construction -	0+00	stations	Improvement -	393+35	stations	Reconstruction -	0+00	stations
	0.00	miles		7.45	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

All Widening & Ditching	1.000	acres @	$860.00	per acre =	$860.00	
Scattering	1.080	acres @	$1,275.00	per acre =	$1,377.00	
				TOTAL CLEARING AND GRUBBING		**$2,237.00**

IMPROVEMENT: EXCAVATION -

Road Ditching	72+40	to	88+00	15.60	sta. @	$70.00	per sta. =	$1,092.00	
Road Ditching	90+35	to	99+80	9.45	sta. @	$70.00	per sta. =	$661.50	
Widening	98+65	to	101+75	300	cy. @	$2.00	per c.y.=	$600.00	
Road Ditching	106+80	to	118+25	11.45	sta. @	$70.00	per sta. =	$801.50	
Widening	112+30	to	113+30	200	cy. @	$2.00	per c.y.=	$400.00	
Road Ditching	250+90	to	352+50	101.60	sta. @	$70.00	per sta. =	$7,112.00	
Road Ditching (End-Haul)	352+50	to	393+35	40.85	sta. @	$150.00	per sta. =	$6,127.50	
							TOTAL EXCAVATION		**$16,794.50**

IMPROVEMENT: ENDHAUL -

Widening	98+65	to	101+75	300	cy. @	$2.10	per c.y.=	$630.00	
Widening	112+30	to	113+30	200	cy. @	$1.71	per c.y.=	$342.00	
Spread & compact				900	cy. @	$0.25	per c.y.=	$225.00	
							TOTAL ENDHAUL		**$1,197.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts						
245	LF of 18"	$5,635.00	65	LF of 24"	$1,943.50	
			30	LF of 36"	$1,231.64	
		$5,635.00			$3,175.14	
Culvert Stakes & Markers						
11	markers	$88.00				
		$88.00			**TOTAL CULVERTS**	**$8,898.14**

ROCK

0+00 to	240+35	8,380	cy. of	Crushed	@	$18.75	per c.y.=	$157,125.00	
240+35 to	352+50	2,510	cy. of	Crushed	@	$20.15	per c.y.=	$50,576.50	
Spot Rocking	352+50 to 393+35	300	cy. of	Crushed	@	$22.64	per c.y.=	$6,792.00	
Culvert Backfill/Bedding	Culv. In Exhibit G	120	cy. of	Crushed	@	$17.87	per c.y.=	$2,144.40	
Energy Dissipator	Culv. In Exhibit G	65	cy. of	Riprap	@	$9.25	per c.y.=	$601.25	
Shoulder Rock	51+40 to 52+40	30	cy. of	Crushed	@	$17.08	per c.y.=	$512.40	
Bank Armor	119+00	20	cy. of	Riprap	@	$6.03	per c.y.=	$120.60	
Bedding for Sill Found.	119+00	30	cy. of	Crushed	@	$14.95	per c.y.=	$448.50	
Approach Base Rock	119+00	30	cy. of	Pit-Run	@	$15.05	per c.y.=	$451.50	
Bedding/Backfill	367+40	10	cy. of	Pit-Run	@	$8.94	per c.y.=	$89.40	
								TOTAL ROCK	**$218,861.55**

SPECIAL PROJECTS

Grade and shape road -	393.35	stations @	$22.00	each	$8,653.70	
Roll subgrade w/ vibratory roller prior to rocking -	393.35	stations @	$17.50	per station	$6,883.63	
Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Remove culverts from state lands	8.00	@	$700.00	total	$700.00	
Grass seed and fertilize -	1.81	acres @	$220.00	per acre	$398.20	
Mulching -	0.400	acres @	$600.00	per acre	$240.00	
				TOTAL SPECIAL PROJECTS		**$17,135.53**

GRAND TOTAL **$265,123.72**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **C to D**

Construction -	22+40	stations	Improvement -	91+50	stations	Reconstruction -	0+00	stations
	0.42	miles		1.73	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
91+50		93+50	40%		Outslope	$450	=	$900.00	
93+50		94+70	Through Cut	0.2	Outslope	$2,850	=	$3,420.00	
94+70		95+40	Fill		Outslope	$1,100	=	$770.00	
95+40		97+25	60%	0.4	Outslope	$2,150	=	$3,977.50	
97+25		101+10	40%		Outslope	$350	=	$1,347.50	
101+10		101+75	Fill		Outslope	$1,100	=	$715.00	
101+75		113+30	35%		Outslope	$300	=	$3,465.00	
113+30		113+90	Land. Const		Outslope	$900	=	$540.00	
								TOTAL	**$15,135.00**

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	2.520	acres @	$1,275.00	per acre =	$3,213.00	
					TOTAL CLEARING AND GRUBBING	**$3,213.00**

IMPROVEMENT: EXCAVATION -

Road Ditching	2+50	to	8+00	5.50	sta. @	$60.00	per sta. =	$330.00	
Road Widening	4+00	to	6+00	300	cy. @	$2.00	per c.y.=	$600.00	
Road Ditching	12+50	to	29+70	17.20	sta. @	$60.00	per sta. =	$1,032.00	
Road Widening	32+00	to	34+90	420	cy. @	$2.00	per c.y.=	$840.00	
Road Ditching	37+00	to	44+60	7.60	sta. @	$60.00	per sta. =	$456.00	
Road Ditching	61+00	to	64+50	3.50	sta. @	$80.00	per sta. =	$280.00	
Road Widening & Pullback	64+80	to	65+80	150	cy. @	$2.00	per c.y.=	$300.00	
Road Ditching	67+80	to	86+70	18.90	sta. @	$80.00	per sta. =	$1,512.00	
								TOTAL EXCAVATION	**$5,350.00**

IMPROVEMENT: ENDHAUL -

Road Widening	4+00	to	6+00	300	cy. @	$1.65	per c.y.=	$495.00	
Road Widening	32+00	to	34+90	420	cy. @	$1.78	per c.y.=	$747.60	
Road Widening & Pullback	64+80	to	65+80	150	cy. @	$1.62	per c.y.=	$243.00	
Spread & compact				870	cy. @	$0.25	per c.y.=	$217.50	
								TOTAL ENDHAUL	**$1,703.10**

CULVERTS - MATERIALS & INSTALLATION

Culverts							
270	LF of 18"	$6,210.00	130	LF of 24"	$3,887.00		
180	LF of 30"	$6,588.00	60	LF of 36"	$2,414.82		
		$12,798.00			$6,301.82		
Culvert Stakes & Markers							
17	markers	$136.00					
		$136.00				**TOTAL CULVERTS**	**$19,235.82**

ROCK

0+00 to	91+50	3,200	cy. of	Crushed	@	$16.74	per c.y.=	$53,568.00	
91+50 to	113+90	1,180	cy. of	Crushed	@	$17.98	per c.y.=	$21,216.40	
Culvert Backfill/Bedding	Culv. In Exhibit G	210	cy. of	Crushed	@	$15.41	per c.y.=	$3,236.10	
Landing Rock	113+60	100	cy. of	Crushed	@	$18.23	per c.y.=	$1,823.00	
Fill Armor	95+15 & 101+45	200	cy. of	Riprap	@	$7.51	per c.y.=	$1,502.00	
Junction Rock	0+00	40	cy. of	Crushed	@	$16.00	per c.y.=	$640.00	
Leveling/Base Rock	In Rd. Widens.	200	cy. of	Pit-Run	@	$8.51	per c.y.=	$1,702.00	
Energy Dissipator	Culv. In Exhibit G	140	cy. of	Riprap	@	$6.79	per c.y.=	$950.60	
Bridge Shoulder Rock	1+50 & 46+50	80	cy. of	Crushed	@	$16.04	per c.y.=	$1,283.20	
								TOTAL ROCK	**$85,921.30**

SPECIAL PROJECTS

Maintain rolling dip @ sta. 50+00 -	1.00	hours @	$175.00	per hour	$175.00	
Remove and Sweep Bridge Surface @ 1+50 & 46+50 -	4.00	hours @	$50.00	per hour	$200.00	
Construct waste areas -	3.00	hours @	$130.00	per hour	$390.00	
Grade and shape road -	113.90	stations @	$22.00	per station	$2,505.80	
Roll subgrade w/ vibratory roller prior to rocking -	113.90	stations @	$17.50	per station	$1,993.25	
Remove culverts from state lands	7.00	@	$660.40	total	$660.40	
Grass seed and fertilize -	2.71	acres @	$220.00	per acre	$596.20	
Mulching -	0.600	acres @	$600.00	per acre	$360.00	
					TOTAL SPECIAL PROJECTS	**$6,880.65**

GRAND TOTAL **$137,438.87**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **E to F**

Construction -	7+85	stations	Improvement -	12+55	stations	Reconstruction -	0+00	stations
	0.15	miles		0.24	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
12+55		14+30	40%			$243	=	$425.25	
14+30		19+70	85%	0.4		$4,422	=	$23,878.80	
19+70		20+40	Land Const.	0.5		$4,500	=	$3,150.00	
								TOTAL	**$27,454.05**

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.580	acres @	$1,275.00	per acre =	$739.50	
					TOTAL CLEARING AND GRUBBING	**$739.50**

IMPROVEMENT: EXCAVATION -

Road Earthwork	12.55	sta. @	$100.00	per sta. =	$1,255.00	
					TOTAL EXCAVATION	**$1,255.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
30	LF of 18"	$690.00		
		$690.00		
Culvert Stakes & Markers				
1	markers	$8.00		
		$8.00	**TOTAL CULVERTS**	**$698.00**

ROCK

Culvert Backfill/Bedding	0+00	10	cy. of	Crushed	@	$15.92	per c.y.=	$159.20	
Spot Rock	0+00 to 12+55	100	cy. of	Crushed	@	$17.40	per c.y.=	$1,740.00	
								TOTAL ROCK	**$1,899.20**

SPECIAL PROJECTS

Construct waste areas -	3.00	hours @	$130.00	per hour	$390.00	
Grade and shape road -	20.40	stations @	$22.00	per station	$448.80	
Roll subgrade w/ vibratory roller prior to rocking -	20.40	stations @	$17.50	per station	$357.00	
Grass seed -	0.71	acres @	$220.00	per acre	$156.20	
					TOTAL SPECIAL PROJECTS	**$1,352.00**

GRAND TOTAL **$33,397.75**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **G to H**

Construction -	44+10	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.84	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 or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		6+00	80%	0.1	Outslope	$2,300	=	$13,800.00	
6+00		8+80	Through Cut	0.2	Outslope	$3,100	=	$8,680.00	
8+80		14+85	45%		Outslope	$450	=	$2,722.50	
14+85		15+85	Fill / X-ing		Outslope	$1,400	=	$1,400.00	
15+85		21+00	60%	0.3	Outslope	$1,000	=	$5,150.00	
21+00		25+50	75%	0.5	Outslope	$3,300	=	$14,850.00	
25+50		32+70	90%	0.6	Outslope	$5,430	=	$39,096.00	
32+70		35+00	20%		Outslope	$280	=	$644.00	
35+00		36+30	60%	0.6	Outslope	$3,000	=	$3,900.00	
36+30		41+40	80%	0.8	Outslope	$4,175	=	$21,292.50	
41+40		43+50	30%		Outslope	$191	=	$401.10	
43+50		44+10	Land. Const.	1	Outslope	$4,000	=	$2,400.00	
								TOTAL	**$114,336.10**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
50	LF of 30"	$1,830.00		
		$1,830.00		
Culvert Stakes & Markers				
1	markers	$8.00		
		$8.00	**TOTAL CULVERTS**	**$1,838.00**

ROCK

0+00 to	44+10	2,320	cy. of	Crushed	@	$18.32	per c.y.=	$42,502.40	
Culvert Backfill/Bedding	15+20	20	cy. of	Crushed	@	$16.80	per c.y.=	$336.00	
Landing Rock	43+50	100	cy. of	Crushed	@	$18.87	per c.y.=	$1,887.00	
Energy Dissipator	15+20	10	cy. of	Riprap	@	$8.18	per c.y.=	$81.80	
								TOTAL ROCK	**$44,807.20**

SPECIAL PROJECTS

Construct waste areas -	8.00	hours @	$130.00	per hour	$1,040.00	
Grade and shape road -	44.10	stations @	$22.00	per station	$970.20	
Roll subgrade w/ vibratory roller prior to rocking -	44.10	stations @	$17.50	per station	$771.75	
Grass seed and fertilize -	3.64	acres @	$220.00	per acre	$800.80	
Mulching -	0.100	acres @	$600.00	per acre	$60.00	
					TOTAL SPECIAL PROJECTS	**$3,642.75**

GRAND TOTAL **$164,624.05**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **I to J**

Construction -	19+90	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.38	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 or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		2+20	Through Cut	0.1	Outslope	$2,800	=	$6,160.00	
2+20		5+40	Fill		Outslope	$1,100	=	$3,520.00	
5+40		9+65	75%	0.15	Outslope	$3,000	=	$12,750.00	
9+65		11+45	90%	0.2	Outslope	$5,000	=	$9,000.00	
11+45		17+30	100%	0.5	Outslope	$7,500	=	$43,875.00	
17+30		19+30	85%	0.5	Outslope	$4,750	=	$9,500.00	
19+30		19+90	Land. Const.	0.6	Outslope	$9,000	=	$5,400.00	
								TOTAL	**$90,205.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
	50	LF of 24"	$1,495.00	
			$1,495.00	
Culvert Stakes & Markers				
1 markers	$8.00			
	$8.00		**TOTAL CULVERTS**	**$1,503.00**

ROCK

0+00 to	19+90	1,060	cy. of	Crushed	@	$18.33	per c.y.=	$19,429.80	
Culvert Backfill/Bedding	10+95	10	cy. of	Crushed	@	$17.01	per c.y.=	$170.10	
Landing Rock	19+30	100	cy. of	Crushed	@	$18.56	per c.y.=	$1,856.00	
Energy Dissipator	10+95	10	cy. of	Riprap	@	$8.39	per c.y.=	$83.90	
								TOTAL ROCK	**$21,539.80**

SPECIAL PROJECTS

Construct waste areas -	8.00	hours @	$130.00	per hour	$1,040.00	
Grade and shape road -	19.90	stations @	$22.00	per station	$437.80	
Roll subgrade w/ vibratory roller prior to rocking -	19.90	stations @	$17.50	per station	$348.25	
Grass seed and fertilize -	1.64	acres @	$220.00	per acre	$360.80	
					TOTAL SPECIAL PROJECTS	**$2,186.85**

GRAND TOTAL **$115,434.65**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **K to L**

Construction -	12+10	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.23	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 or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		3+00	55%		Outslope	$800	=	$2,400.00	
3+00		9+80	75%	0.8	Outslope	$3,410	=	$23,188.00	
9+80		10+40	Land. Const.	0.8	Outslope	$4,000	=	$2,400.00	
10+40		12+10	70%	0.9	Outslope	$3,200	=	$5,440.00	
								TOTAL	**$33,428.00**

ROCK

0+00	to	12+10	680	cy. of	Crushed	@	$18.96	per c.y.=	$12,892.80	
Landing Rock		9+80	100	cy. of	Crushed	@	$19.10	per c.y.=	$1,910.00	
									TOTAL ROCK	**$14,802.80**

SPECIAL PROJECTS

Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Grade and shape road -	12.10	stations @	$22.00	per station	$266.20	
Roll subgrade w/ vibratory roller prior to rocking -	12.10	stations @	$17.50	per station	$211.75	
Grass seed and fertilize -	0.56	acres @	$220.00	per acre	$123.20	
					TOTAL SPECIAL PROJECTS	**$861.15**

GRAND TOTAL **$49,091.95**

SUMMARY OF CONSTRUCTION COST

Sale:	**Southern Steamer**	Road:	**M to N**

Construction -	3+90	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.07	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 or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+80	65%	0.7	Outslope	$2,338	=	$4,208.40	
1+80		2+65	Throughcut	0.7	Outslope	$9,500	=	$8,075.00	
2+65		3+90	80%	0.7	Outslope	$4,500	=	$5,625.00	
								TOTAL	**$17,908.40**

ROCK

0+00	to	3+90	220	cy. of	Crushed	@	$18.48	per c.y.=	$4,065.60	
									TOTAL ROCK	**$4,065.60**

SPECIAL PROJECTS

Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Grade and shape road -	3.90	stations @	$22.00	per station	$85.80	
Roll subgrade w/ vibratory roller prior to rocking -	3.90	stations @	$17.50	per station	$68.25	
Grass seed and fertilize -	0.18	acres @	$220.00	per acre	$39.60	
					TOTAL SPECIAL PROJECTS	**$453.65**

GRAND TOTAL	**$22,427.65**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **O to P**

Construction -	5+30	stations	Improvement -	29+70	stations	Reconstruction -	0+00	stations
	0.10	miles		0.56	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			
29+70		32+60	70%	0.1	Outslope	$2,352	=	$6,820.80	
32+60		34+40	55%		Outslope	$689	=	$1,240.20	
34+40		35+00	Land Const.		Outslope	$1,000	=	$600.00	
								TOTAL	**$8,661.00**

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	1.700	acres @	$1,500.00	per acre =	$2,550.00	
					TOTAL CLEARING AND GRUBBING	**$2,550.00**

IMPROVEMENT: EXCAVATION -

Road Earthwork	0+00	to	9+00	9.00	sta. @	$100.00	per sta. =	$900.00	
Widening	9+00	to	13+40	100	cy. @	$2.00	per c.y.=	$200.00	
Road Earthwork	13+40	to	17+00	3.60	sta. @	$100.00	per sta. =	$360.00	
Widening & Pullback	17+00	to	18+40	400	cy. @	$2.00	per c.y.=	$800.00	
Road Earthwork	18+40	to	22+30	3.90	sta. @	$120.00	per sta. =	$468.00	
Widening	22+30	to	27+05	300	cy. @	$2.00	per c.y.=	$600.00	
Road Earthwork	27+05	to	29+70	2.65	sta. @	$100.00	per sta. =	$265.00	
								TOTAL EXCAVATION	**$3,593.00**

IMPROVEMENT: ENDHAUL -

Widening	9+00	to	13+40	100	cy. @	$1.99	per c.y.=	$199.00	
Widening & Pullback	17+00	to	18+40	400	cy. @	$2.28	per c.y.=	$912.00	
Widening	22+30	to	27+05	300	cy. @	$2.63	per c.y.=	$789.00	
Spread & compact				800	cy. @	$0.25	per c.y.=	$200.00	
								TOTAL ENDHAUL	**$2,100.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts

70	LF of 24"	$2,093.00	
		$2,093.00	

Culvert Stakes & Markers

2 markers	$16.00		
	$16.00	**TOTAL CULVERTS**	**$2,109.00**

ROCK

0+00 to	35+00	2,540	cy. of	Pit-run	@	$9.57	per c.y.=	$24,307.80	
Culvert Backfill/Bedding	Culv. In Exhibit G	40	cy. of	Crushed	@	$14.77	per c.y.=	$590.80	
Landing Rock	7+50 & 35+00	240	cy. of	Pit-Run	@	$9.64	per c.y.=	$2,313.60	
Energy Dissipator	Culv. In Exhibit G	10	cy. of	Riprap	@	$7.28	per c.y.=	$72.80	
								TOTAL ROCK	**$27,285.00**

SPECIAL PROJECTS

Construct Landing @ 7+50	2.50	hours @	$175.00	per hour	$437.50	
Construct waste areas -	3.00	hours @	$130.00	per hour	$390.00	
Grade and shape road -	35.00	stations @	$22.00	per station	$770.00	
Roll subgrade w/ vibratory roller prior to rocking -	35.00	stations @	$17.50	per station	$612.50	
Grass seed and fertilize -	1.73	acres @	$220.00	per acre	$380.60	
					TOTAL SPECIAL PROJECTS	**$2,590.60**

GRAND TOTAL **$48,888.60**

SUMMARY OF CONSTRUCTION COST

Sale: **Southern Steamer** Road: **Q to R**

Construction -	0+00	stations	Improvement -	3+40	stations	Reconstruction -	0+00	stations
	0.00	miles		0.06	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.160	acres @	$1,500.00	per acre =	$240.00	
				TOTAL CLEARING AND GRUBBING		**$240.00**

IMPROVEMENT: EXCAVATION -

Widening	0+00	to	1+00	200	cy. @	$2.00	per c.y.=	$400.00	
Widening	1+00	to	2+50	100	cy. @	$2.00	per c.y.=	$200.00	
Road Earthwork	2+50	to	3+40	0.90	sta @	$150.00	per sta.=	$135.00	
							TOTAL EXCAVATION		**$735.00**

IMPROVEMENT: ENDHAUL -

Widening	0+00	to	1+00	200	cy. @	$2.54	per c.y.=	$508.00	
Widening	1+00	to	2+50	100	cy. @	$2.54	per c.y.=	$254.00	
Spread & compact				300	cy. @	$0.25	per c.y.=	$75.00	
							TOTAL ENDHAUL		**$837.00**

ROCK

0+00	to	1+50	140	cy. of	Pit-run	@	$10.46	per c.y.=	$1,464.40	
								TOTAL ROCK		**$1,464.40**

SPECIAL PROJECTS

Grade and shape road -	3.40	stations @	$22.00	per station	$74.80	
Roll subgrade w/ vibratory roller prior to rocking -	3.40	stations @	$17.50	per station	$59.50	
Grass seed and fertilize -	0.16	acres @	$220.00	per acre	$35.20	
				TOTAL SPECIAL PROJECTS		**$169.50**

GRAND TOTAL	**$3,445.90**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	NE 1/4 Sec. 32, T1N, R7W, W.M.	
Sale:	**Southern Steamer**		Road:	21615 c.y.
Swell:	1.40			
Shirinkage	1.16		Total Truck Loads:	21615 c.y.
Drill Pct.:	20%		In Place Total:	15439 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.							$15,000.00
Drill & Shoot:	$3.25	/cu.yd.	x	3088	cu.yds.	=	$10,036.00
Rip Rock:	$3.00	/cu.yd.	x	12351	cu.yds.	=	$37,053.00
Push Rock:	$1.00	/cu.yd.	x	21615	cu.yds.	=	$21,615.00
Load Crusher:	$1.00	/cu.yd.	x	21615	cu.yds.	=	$21,615.00
Crush Rock 2"-0":	$4.25	/cu.yd.	x	14960	cu.yds.	=	$63,580.00
Crush Rock 3"-0" (Jaw-run):	$2.50	/cu.yd.	x	6655	cu.yds.	=	$16,637.50
Load Dump Truck:	$1.00	/cu.yd.	x	21615	cu.yds.	=	$21,615.00
Screen & Reject:	$1.60	/cu.yd.	x	21615	cu.yds.	=	$34,584.00
Haul Reject Material	$2.00	/cu.yd.	x	3242	cu.yds.	=	$6,484.00
						Subtotal	$248,219.50

Move In/Set-up Crusher					$2,800.00
Move in Roller and Compactor	1	@	$785.45	=	$785.45
Move in Grader	1	@	$262.80	=	$262.80
Move in D-8	1	@	$1,258.03	=	$1,258.03
Move in Loader	1	@	$1,080.54	=	$1,080.54
Move in Excavator	1	@	$1,395.77	=	$1,395.77
Move in Trucks	6	@	$263.83	=	$1,582.98
Move in Water Truck	1	@	$310.11	=	$310.11
				Subtotal	$9,475.68

TOTAL PRODUCTION COSTS $257,695.18

Base Cost= $11.92 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 24035 (Crushed)	4.38	2.45	11.92	18.75	8380		$157,125.00
A to B 24035 35250 (Crushed)	5.78	2.45	11.92	20.15	2510		$50,576.50
A to B Spot Rocking (Crushed)	8.27	2.45	11.92	22.64	300		$6,792.00
A to B Culvert Backfill/Bedding (Crushed)	4.85	1.10	11.92	17.87	120		$2,144.40
A to B Energy Dissipator (Riprap)	4.85	1.40	3.00	9.25	65		$601.25
A to B Shoulder Rock (Crushed)	3.16	2.00	11.92	17.08	30		$512.40
A to B Bank Armor (Riprap)	1.63	1.40	3.00	6.03	20		$120.60
A to B Bedding for Sill Found. (Crushed)	1.63	1.40	11.92	14.95	30		$448.50
A to B Approach Base Rock (Pit-Run)	1.63	1.50	11.92	15.05	30		$451.50
C to D 0 9150 (Crushed)	2.37	2.45	11.92	16.74	3200		$53,568.00
C to D 9150 11390 (Crushed)	3.61	2.45	11.92	17.98	1180		$21,216.40
C to D Culvert Backfill/Bedding (Crushed)	2.39	1.10	11.92	15.41	210		$3,236.10
C to D Landing Rock (Crushed)	3.86	2.45	11.92	18.23	100		$1,823.00
C to D Fill Armor (Riprap)	3.11	1.40	3.00	7.51	200		$1,502.00
C to D Junction Rock (Crushed)	1.63	2.45	11.92	16.00	40		$640.00
C to D Leveling/Base Rock (Pit-Run)	3.11	1.40	4.00	8.51	200		$1,702.00
C to D Energy Dissipator (Riprap)	2.39	1.40	3.00	6.79	140		$950.60
C to D Bridge Shoulder Rock (Crushed)	2.12	2.00	11.92	16.04	80		$1,283.20
E to F Culvert Backfill/Bedding (Crushed)	2.90	1.10	11.92	15.92	10		$159.20
E to F Spot Rock (Crushed)	3.03	2.45	11.92	17.40	100		$1,740.00
G to H 0 4410 (Crushed)	3.95	2.45	11.92	18.32	2320		$42,502.40
G to H Culvert Backfill/Bedding (Crushed)	3.78	1.10	11.92	16.80	20		$336.00
G to H Landing Rock (Crushed)	4.50	2.45	11.92	18.87	100		$1,887.00
G to H Energy Dissipator (Riprap)	3.78	1.40	3.00	8.18	10		$81.80
I to J 0 1990 (Crushed)	3.96	2.45	11.92	18.33	1060		$19,429.80
I to J Culvert Backfill/Bedding (Crushed)	3.99	1.10	11.92	17.01	10		$170.10
I to J Landing Rock (Crushed)	4.19	2.45	11.92	18.56	100		$1,856.00
I to J Energy Dissipator (Riprap)	3.99	1.40	3.00	8.39	10		$83.90
K to L 0 1210 (Crushed)	4.59	2.45	11.92	18.96	680		$12,892.80
K to L Landing Rock (Crushed)	4.73	2.45	11.92	19.10	100		$1,910.00
M to N 0 390 (Crushed)	4.11	2.45	11.92	18.48	220		$4,065.60
O to P Culvert Backfill/Bedding (Crushed)	1.75	1.10	11.92	14.77	40		$590.80
				Total C.Y.	21615	Sub Total	$392,398.85

TOTAL ROCKING COSTS $392,398.85

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_run	Location:	NE1/4 Sec. 35, T1N, R7W, W.M.	
Sale:	**Southern Steamer**		Road:	2940 c.y.
Swell:	1.40			
Shirinkage	1.16		Total Truck Loads:	2940 c.y.
Drill Pct.:	0%		In Place Total:	2100 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.							$2,000.00
Rip Rock:	$3.00	/cu.yd.	x	2100	cu.yds.	=	$6,300.00
Push Rock:	$1.00	/cu.yd.	x	2940	cu.yds.	=	$2,940.00
Load Dump Truck:	$1.00	/cu.yd.	x	2940	cu.yds.	=	$2,940.00
						Subtotal	$14,180.00

Move in Roller and Compactor	1	@	$785.45	=	$785.45
Move in Grader	1	@	$262.80	=	$262.80
Move in D-8	1	@	$1,258.03	=	$1,258.03
Move in Excavator	1	@	$1,395.77	=	$1,395.77
Move in Trucks	2	@	$263.83	=	$527.66
				Subtotal	$4,229.71

TOTAL PRODUCTION COSTS $18,409.71

Base Cost= $6.26 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 Bedding/Backfill (Pit-Run)	1.68	1.00	6.26	8.94	10		$89.40
O to P 0 3500 (Pit-run)	1.81	1.50	6.26	9.57	2540		$24,307.80
O to P Landing Rock (Pit-Run)	1.88	1.50	6.26	9.64	240		$2,313.60
O to P Energy Dissipator (Riprap)	1.88	1.40	4.00	7.28	10		$72.80
Q to R 0 150 (Pit-run)	1.75	2.45	6.26	10.46	140		$1,464.40
				Total C.Y.	2940	Sub Total	$28,248.00

TOTAL ROCKING COSTS $28,248.00

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

Sale: **Southern Steamer**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
36.0	Pavement	30
16.0	Main Lines	7
8.0	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	Drill & Compressor	$1,003.06		$46.00	0.00	0.00	0	$0.00	$1,003.06
1	Excavators (Small)	$785.45		$22.00	0.00	8.00	8	$176.00	$961.45
1	Excavators (Large)	$1,423.37	1	$44.80	0.00	8.00	8	$358.40	$1,781.77
1	Tractors (D6)	$1,120.36	2	$7.10	0.00	8.00	8	$56.80	$1,177.16
1	Tractor (D8)	$1,313.23	2	$15.10	0.00	8.00	8	$120.80	$1,434.03
2	Dump Truck (10 cy +)	$792.61		$2.85	0.00	10.00	10	$57.00	$849.61
2	Dump Truck (Off Hiway)	$2,285.28	1	$4.75	0.00	10.00	10	$95.00	$2,380.28
					TOTAL MOVE-IN COSTS:				$9,587.36

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Southern Steamer

1. Type of Sale

Regeneration harvest, Recovery

2. Legal Description

Sections 26, 33, 34, 35, and 36, T1N, R7W, 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)	142	115
Area 2 (Modified clearcut)	133	102
Area 3 (Modified clearcut)	143	110
Area 4 (Modified clearcut)	100	78

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

All of the sale areas were cruised on a rectangular grid with 175’ between plots and 700’ between lines. On even numbered plots tree species and number were recorded and on odd numbered plots species, diameter, height, form factor, and sawmill grade were recorded.

The timber sale areas were cruised using variable plot sampling. All confers 8” DBH and greater containing 20 board feet and all hardwoods 10” DBH and greater containing 30 board feet were recorded on all plots. Heights were recorded to 6” and 7” outside bark for conifers and hardwoods respectively.

B. Plot size

A BAF of 27.78 was used on Area 1 and a BAF of 40 was used on Areas 2, 3, and 4. Point of tree observation was 4.5’.

C. Grading System

All species were graded using the Columbia River Log Scaling and Grading Bureau rules, favoring a 40' log.

5. Computation Procedure

Plot data was entered into SuperAce for computation of basal area, ingrowth, and volume. Log stock tables and stand tables were produced. Sale Area 1 was cruised in 2013, Area 3 in 2016, and Areas 2 and 4 in 2017. The stands were grown forward to August 2018. The net grow forward volume was used for the timber sale volume calculation.

Statistics – Net Board Feet/ Acre			
	# of Plots	SE%	CV%
Area 1	14	14.3	51.7
Area 2	35	11.0	65.2
Area 3	39	7.3	45.5
Area 4	29	10.6	56.2
Combined	117	5.8	62.7

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 four areas were burned in the 1933 Tillamook Burn and portions of other areas were subsequently burned in the 1939 Saddle Mountain and 1945 Wilson River fires. Area 2 and portions of the other three areas are naturally regenerated stands. Portions of Areas 1, 3, and 4 were planted or interplanted beginning with the 1960-61 season and ending in 1972-73 season. Portions of all areas were sprayed to control alder in the 1970s. In 1993 about 10% of Area 3 was commercially thinned with Phipps Thinning and in 2001 about 60% of Area 3 and 40% of Area 4 was thinned with the Phipp Wilson sale.

Sale Area - Species	DBH	Merchantable Bole Height	Merchantable Top
Area 1: Douglas-fir	16.8	62	5”
Area 1: Alder	14.8	36	6”
Area 1: Maple	12.9	47	6”
Area 2: Douglas-fir	19.3	84	5”
Area 2: Alder	14.7	48	6”

Area 2: Hemlock	10.5	19	5”
Area 3: Douglas-fir	22.0	90	5”
Area 3: Alder	14.2	50	6”
Area 3: Hemlock	15.5	46	5”
Area 4: Douglas-fir	20.0	83	5”
Area 4: Alder	12.6	33	6”
Area 4: Maple	17.0	24	6”

8. Cruiser /Dates

The timber sale was cruised in 2013, 2016, and 2017 by contract and District personnel.

9. Revenue Distribution

FDF: 100%

Tax Code: 902 - 100%

Deed Number: 159

10. Attachments

Stand Tables

Volume Summary

Log Stock Tables

Logging Plan Map

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir
RA – Red alder
RC – Western red cedar
WH – Western hemlock
BM – Bigleaf maple

FI TSTNDSUM

Stand Table Summary

Project **SSTEAMER**

T01N R07W S34 TSALE

T01N R07W S34 TSALE

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
01N	**07W**	**34**	**319_AREA1**	**SALE**	115.00	14	101

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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		8		86	58	5.505	2.07	5.87	5.6	34.1	.94	33	200	108	38	23
DF		9		87	85	8.700	4.14	9.28	10.2	45.5	2.71	95	422	311	109	49
DF		13		85	76	16.679	16.56	28.90	15.2	56.9	12.53	439	1,643	1,440	505	189
DF		15		86	74	3.595	4.14	7.67	13.9	56.9	3.04	107	436	349	123	50
DF		16		86	82	6.264	8.28	11.69	20.4	73.1	6.80	239	855	782	274	98
DF		17		86	89	4.129	6.21	8.81	22.0	89.1	5.53	194	784	636	223	90
DF		18		86	87	3.658	6.21	7.80	25.7	100.5	5.72	201	784	658	231	90
DF		19		87	98	4.350	8.28	9.28	31.6	126.5	8.35	293	1,174	960	337	135
DF		20		87	111	3.904	8.28	9.37	34.2	137.7	9.14	321	1,290	1,051	369	148
DF		21		86	112	.881	2.07	1.88	42.8	170.6	2.29	80	320	264	92	37
DF		22		87	109	2.397	6.21	5.96	40.8	167.3	6.93	243	998	797	280	115
DF		23		86	101	2.184	6.21	4.66	49.5	183.9	6.58	231	856	756	265	98
DF		24		87	116	2.664	8.28	7.10	48.4	219.5	9.80	344	1,559	1,127	395	179
DF		26		86	115	2.255	8.28	6.01	47.8	218.3	8.19	287	1,313	942	331	151
DF		27		85	107	2.085	8.28	5.56	57.1	246.8	9.05	317	1,372	1,040	365	158
DF		28		86	122	.967	4.14	3.09	57.1	272.9	5.03	177	844	579	203	97
DF		29		86	110	.899	4.14	2.40	68.6	313.9	4.68	164	752	538	189	86
DF		31		87	109	.391	2.07	.83	99.9	477.6	2.38	83	399	273	96	46
DF		32		85	125	.733	4.14	2.35	79.6	390.4	5.32	187	916	612	215	105
DF		37		87	116	.272	2.07	.58	148.3	710.8	2.45	86	412	282	99	47
DF		Totals		86	88	72.512	120.03	139.08	29.6	124.6	117.45	4,121	17,329	13,507	4,739	1,993
RA		11		86	25	3.151	1.94	3.25	6.3	24.2	.56	20	79	65	23	9
RA		12		83	45	10.418	7.78	5.38	11.2	30.3	1.66	60	163	191	69	19
RA		13		85	49	4.377	3.89	4.52	16.9	48.4	2.10	76	219	241	88	25
RA		14		84	46	3.729	3.89	3.85	19.2	42.4	2.04	74	163	234	85	19
RA		15		82	50	3.216	3.89	1.66	29.2	84.7	1.33	48	141	153	56	16
RA		16		85	54	7.003	9.72	7.23	26.8	77.5	5.34	194	560	614	223	64
RA		17		87	70	1.231	1.94	1.27	40.1	145.3	1.40	51	185	161	59	21
RA		18		84	59	5.452	9.72	5.63	38.3	108.9	5.93	216	613	682	248	71
RA		19		84	54	5.836	11.67	7.03	36.5	100.3	7.06	257	705	812	295	81
RA		20		85	64	1.746	3.89	1.80	53.7	151.3	2.67	97	273	306	111	31
RA		21		82	48	1.576	3.89	.81	55.2	96.8	1.24	45	79	142	52	9
RA		23		82	52	1.302	3.89	1.34	37.8	181.6	1.40	51	244	161	59	28
RA		Totals		84	50	49.037	66.11	43.79	27.2	78.2	32.72	1,190	3,424	3,763	1,368	394
BM		12		85	76	5.209	3.89	5.38	18.7	72.6	2.66	101	391	306	116	45
BM		13		85	73	2.188	1.94	2.26	23.0	84.7	1.38	52	192	158	60	22
BM		15		85	76	1.608	1.94	1.61	26.2	88.3	1.12	42	142	129	49	16
BM		16		85	76	4.202	5.83	4.34	26.1	100.9	3.00	113	438	345	130	50
BM		Totals		85	76	13.207	13.61	13.59	22.7	85.5	8.16	308	1,162	938	354	134
OC		17		87	115	1.261	2.06	1.26	72.9	295.2	2.30	92	372	264	106	43
OC		28		87	103	.477	2.06	.48	192.4	779.4	2.30	92	372	264	106	43
OC		Totals		87	112	1.738	4.13	1.74	105.7	428.2	4.59	184	744	528	211	86
Totals				85	74	136.494	203.87	198.20	29.3	114.3	162.92	5803	22,659	18,736	6,673	2,606

FI TLOGSTVB

Log Stock Table - MBF

Project: **SSTEAMER**

T01N R07W S34 TSALE **T01N R07W S34 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
01N	07W	34	319_AREA1	SALE	115.00	14	101	Date	4/11/2018
								Time	9:46:55AM

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	58		58	2.9						46	12					
DF		CO	2	38	28		28	1.4								28				
DF		CO	2	40	1,017	.2	1,015	50.9						235	251	375	116	38		
DF		CO	3	26	6		6	.3					6							
DF		CO	3	29	4		4	.2			4									
DF		CO	3	32	123		123	6.2				80	43							
DF		CO	3	34	4		4	.2			4									
DF		CO	3	38	8		8	.4					8							
DF		CO	3	40	488	.9	484	24.3			64	218	201							
DF		CO	4	16	4		4	.2		2	2									
DF		CO	4	17	26		26	1.3		18	7	2								
DF		CO	4	18	5		5	.2			5									
DF		CO	4	19	9		9	.5		9										
DF		CO	4	20	15		15	.7		11	4									
DF		CO	4	21	8		8	.4		6		2								
DF		CO	4	22	4		4	.2		4										
DF		CO	4	23	2		2	.1		2										
DF		CO	4	24	14		14	.7		14										
DF		CO	4	26	33		33	1.7		33										
DF		CO	4	27	21		21	1.1		21										
DF		CO	4	29	14		14	.7		14										
DF		CO	4	32	9		9	.4		9										
DF		CO	4	33	12		12	.6		12										
DF		CO	4	36	4		4	.2		4										
DF		CO	4	39	30		30	1.5		30										
DF		CO	4	40	55		55	2.7		55										
DF		Totals			1,999		1,993	76.5		243	90	302	258	281	263	402	116	38		
RA		H	2	16	17		17	4.3								17				
RA		H	2	18	13		13	3.2						13						
RA		H	2	20	11		11	2.9						11						
RA		H	3	20	29	7.0	27	6.8					27							
RA		H	3	32	38	11.8	34	8.6					34							
RA		H	3	40	42	6.7	40	10.0					40							
RA		H	4	18	9		9	2.3			9									
RA		H	4	21	15	24.3	12	3.0			12									
RA		H	4	26	9		9	2.4			9									
RA		H	4	27	11		11	2.9			11									
RA		H	4	31	11		11	2.7			11									
RA		H	4	32	27	19.5	22	5.6			8	14								
RA		H	4	34	10		10	2.6			10									
RA		H	4	36	34		34	8.7				34								
RA		H	4	37	19	16.7	16	4.0			16									
RA		H	4	40	131	9.2	119	30.2			62	57								
RA		Totals			427	7.9	394	15.1			148	105	100	24		17				
BM		*	*	32	16		16	12.2			16									
BM		H	3	20	16		16	12.1					16							
BM		H	3	26	22	9.1	20	15.1					20							
BM		H	3	32	24	41.7	14	10.5					14							

FI TLOGSTVB

Log Stock Table - MBF

Project: SSTEAMER

T01N R07W S34 TSALE

T01N R07W S34 TSAL

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Date 4/11/2018
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Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	34	319_AREA1	SALE	115.00	14	101

	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
Spp	T	rt	de	Len	MBF	Def	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+
BM		H	4	40	67		67	50.1			67									
BM			Totals		146	8.3	134	5.1			83		50							
OC		*	*	32	86		86	100.0			86									
OC			Totals		86		86	3.3			86									
Total All Species					2,658	2.0	2,606	100.0		243	407	407	408	304	263	419	116	38		

FI TSTNDSUM

Stand Table Summary

Project **SSTEAMER**

T01N R07W S34 TSALE **T01N R07W S34 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	**07W**	**34**	**622_AREA2**	**SALE**	102.00	35	93

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					Av				Average Log			Net	Net	T o t a l s		
	S		Sample	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.			
Spc	T	DBH	Trees	16'	Tot	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
DF		8		84	45	9.143	3.27	9.35	4.3	20.9	1.16	41	196	118	41	20
DF		9		86	70	7.224	3.27	7.39	7.7	31.4	1.62	57	232	165	58	24
DF		10		83	90	5.851	3.27	5.99	12.1	52.3	2.07	73	313	211	74	32
DF		11		83	59	4.836	3.27	4.95	7.7	20.9	1.08	38	103	110	39	11
DF		12		89	98	4.063	3.27	8.31	14.0	62.8	3.33	117	522	339	119	53
DF		14		84	117	5.971	6.55	15.27	18.2	77.4	7.91	277	1,182	806	283	121
DF		15		89	114	2.601	3.27	7.98	16.3	73.2	3.70	130	584	377	132	60
DF		17		86	121	2.025	3.27	4.14	32.4	130.8	3.82	134	542	390	137	55
DF		18		85	128	5.418	9.82	14.78	30.0	124.2	12.62	443	1,836	1,287	452	187
DF		19		88	133	4.863	9.82	9.95	32.1	143.0	9.10	319	1,422	929	326	145
DF		20		89	141	2.926	6.55	10.47	30.2	140.5	9.00	316	1,471	918	322	150
DF		21		89	143	2.654	6.55	8.14	41.1	200.5	9.55	335	1,633	974	342	167
DF		22		85	133	2.418	6.55	7.42	41.5	190.0	8.78	308	1,410	895	314	144
DF		23		88	140	6.637	19.65	20.37	46.0	211.5	26.72	938	4,308	2,725	956	439
DF		24		85	151	5.079	16.37	16.63	50.3	231.4	23.84	837	3,848	2,432	853	392
DF		25		89	140	1.872	6.55	5.75	55.0	261.5	9.01	316	1,503	919	322	153
DF		26		86	134	3.462	13.10	10.62	55.3	259.8	16.73	587	2,760	1,707	599	282
DF		27		86	149	1.605	6.55	4.93	67.1	313.8	9.41	330	1,546	960	337	158
DF		28		84	148	.746	3.27	2.29	71.7	334.7	4.68	164	767	478	168	78
DF		29		87	152	3.479	16.37	12.10	70.6	366.7	24.35	854	4,437	2,483	871	453
DF		30		89	159	.650	3.27	2.00	91.8	491.6	5.22	183	981	532	187	100
DF		31		89	168	.609	3.27	1.87	98.0	502.1	5.22	183	938	532	187	96
DF		32		90	163	1.143	6.55	4.09	91.0	499.1	10.62	372	2,042	1,083	380	208
DF		33		88	153	1.612	9.82	4.95	101.9	533.5	14.37	504	2,639	1,466	514	269
DF		34		89	150	.506	3.27	1.55	109.8	568.3	4.86	171	883	496	174	90
DF		35		86	157	.478	3.27	1.47	115.5	578.8	4.83	169	848	492	173	87
DF		38		86	150	.405	3.27	1.24	130.3	669.5	4.62	162	832	471	165	85
DF		Totals		86	113	88.274	183.36	203.98	41.0	195.0	238.20	8,358	39,777	24,296	8,525	4,057
RA		11		81	52	11.847	8.21	11.98	11.3	35.0	3.73	136	420	381	138	43
RA		12		85	65	9.955	8.21	15.10	12.9	43.1	5.36	195	651	546	199	66
RA		13		85	72	4.241	4.10	6.43	13.3	50.3	2.35	85	324	240	87	33
RA		14		86	85	3.657	4.10	5.55	23.8	93.4	3.62	132	518	370	134	53
RA		15		90	85	3.186	4.10	6.44	20.5	83.5	3.63	132	538	370	135	55
RA		17		87	83	9.920	16.42	17.56	27.1	97.0	13.09	476	1,703	1,336	486	174
RA		18		88	87	5.530	10.26	10.07	34.1	126.9	9.43	343	1,278	962	350	130
RA		19		87	81	1.985	4.10	3.01	43.5	140.1	3.60	131	422	368	134	43
RA		20		84	65	.896	2.05	1.81	26.5	113.1	1.32	48	205	135	49	21
RA		27		89	111	.530	2.05	1.07	64.9	285.5	1.91	70	306	195	71	31
RA		Totals		85	72	51.747	63.61	79.03	22.1	80.5	48.05	1,747	6,363	4,902	1,782	649
OC		12		89	97	1.396	1.16	1.40	35.3	136.7	1.23	49	191	126	50	19
OC		15		87	77	.893	1.16	.89	55.2	213.7	1.23	49	191	126	50	19
OC		17		89	119	.695	1.16	.70	70.9	274.4	1.23	49	191	126	50	19
OC		Totals		88	96	2.985	3.48	2.98	49.6	191.9	3.70	148	573	377	151	58
RC		23		80	90	.423	1.17	.87	33.6	109.1	.69	29	95	70	30	10
RC		Totals		80	90	.423	1.17	.87	33.6	109.1	0.69	29	95	70	30	10
WH		9		83	42	2.490	1.16	2.55	4.1	21.8	.33	10	56	34	11	6
WH		13		80	50	1.193	1.16	1.22	12.8	21.8	.50	16	27	51	16	3
WH		Totals		82	45	3.683	2.32	3.77	6.9	21.8	0.84	26	82	85	27	8

Stand Table Summary

Project **SSTEAMER**

T01N R07W S34 TSALE **T01N R07W S34 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	34	622_AREA2	SALE	102.00	35	93

Page: 2
Date: 04/11/201
Time: 9:59:04AM

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
Totals				86	96	147.112	253.94	290.64	35.5	161.3	291.48	10309	46,891	29,731	10,515	4,783

FI TLOGSTVB

Log Stock Table - MBF

Project: SSTEAMER

T01N R07W S34 TSALE **T01N R07W S34 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	34	622_AREA2	SALE	102.00	35	93

Page 1
Date 4/11/2018
Time 9:55:29AM

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	16	51		51	1.3						16		35				
DF		CO	2	24	49		49	1.2								24	25			
DF		CO	2	30	42		42	1.0								42				
DF		CO	2	32	45		45	1.1								45				
DF		CO	2	40	2,853	1.1	2,821	69.5						442	413	1120	508	338		
DF		CO	3	30	9		9	.2			4		5							
DF		CO	3	32	48		48	1.2			32		16							
DF		CO	3	33	4		4	.1				4								
DF		CO	3	35	6		6	.1			6									
DF		CO	3	37	12		12	.3			6	6								
DF		CO	3	39	6		6	.2			6									
DF		CO	3	40	749	.3	747	18.4			76	248	405	18						
DF		CO	4	13	3		3	.1		3										
DF		CO	4	15	3		3	.1			2	1								
DF		CO	4	16	8		8	.2		7	2									
DF		CO	4	21	20		20	.5		20										
DF		CO	4	22	22		22	.5		11		11								
DF		CO	4	23	9		9	.2		6	3									
DF		CO	4	24	12		12	.3		10	3									
DF		CO	4	25	5		5	.1		5										
DF		CO	4	26	3		3	.1			3									
DF		CO	4	27	7		7	.2		4	3									
DF		CO	4	28	4		4	.1		4										
DF		CO	4	30	13		13	.3		13										
DF		CO	4	31	27		27	.7		27										
DF		CO	4	33	6		6	.1			6									
DF		CO	4	34	5		5	.1		5										
DF		CO	4	35	18		18	.4		13	6									
DF		CO	4	36	5		5	.1		5										
DF		CO	4	37	12		12	.3		12										
DF		CO	4	38	26		26	.7		26										
DF		CO	4	40	8		8	.2		8										
DF		Totals			4,091		4,057	84.8		177	156	270	426	476	413	1267	533	338		
RA		H	2	17	5		5	.7						5						
RA		H	2	40	132	.4	132	20.3						105		27				
RA		H	3	12	9		9	1.5					9							
RA		H	3	20	18		18	2.8							18					
RA		H	3	24	17		17	2.5						17						
RA		H	3	40	123	3.7	119	18.3					119							
RA		H	4	13	4		4	.5			4									
RA		H	4	14	17		17	2.5			3				14					
RA		H	4	17	6		6	.9			6									
RA		H	4	18	6		6	.9			6									
RA		H	4	20	7		7	1.0			7									
RA		H	4	21	8	15.7	7	1.0			7									
RA		H	4	22	10		10	1.5			10									
RA		H	4	24	15		15	2.3			15									
RA		H	4	25	5		5	.8			5									
RA		H	4	26	13		13	2.0			13									
RA		H	4	27	7		7	1.1			7									

FI TLOGSTVB

Log Stock Table - MBF

Project: SSTEAMER

T01N R07W S34 TSALE

T01N R07W S34 TSAL

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
01N	07W	34	622_AREA2	SALE	102.00	35	93

Page 2
Date 4/11/2018
Time 9:55:29AM

	S	**So**	**Gr**	**Log**	**Gross**	**%**	**Net**	**%**	**Net Volume by Scaling Diameter in Inches**											
Spp	**T**	**rt**	**de**	**Len**	**MBF**	**Def**	**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+
RA		H	4	28	4		4	.6			4									
RA		H	4	29	9		9	1.3				9								
RA		H	4	30	10		10	1.5			10									
RA		H	4	31	9		9	1.5			9									
RA		H	4	32	65	13.5	57	8.7			23	33								
RA		H	4	33	23	17.7	19	3.0			11	8								
RA		H	4	37	14		14	2.2			14									
RA		H	4	39	7		7	1.0			7									
RA		H	4	40	128	1.1	127	19.5			9	118								
RA			Totals		670	3.1	649	13.6			168	168	128	126	32	27				
OC		*	*	32	58		58	100.0			58									
OC			Totals		58		58	1.2			58									
RC		CO	2	16	8		8	80.0								8				
RC		CO	4	39	2		2	20.0		2										
RC			Totals		10		10	.2		2						8				
WH		CO	4	16	6		6	67.6		6										
WH		CO	4	23	3		3	32.4		3										
WH			Totals		8		8	.2		8										
Total All Species					4,837	1.1	4,783	100.0		188	383	438	554	603	445	1301	533	338		

FI TSTNDSUM

Stand Table Summary

Project **SSTEAMER**

T01N R07W S35 TSALE **T01N R07W S35 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
01N	**07W**	**35**	**619_AREA3**	**SALE**	110.00	39	85	

Page: 1
Date: 04/11/201
Time: 10:10:46AM

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		11		88	92	3.308	2.23	6.75	9.0	41.6	1.73	61	280	190	67	31
DF		13		85	97	2.368	2.23	4.83	16.0	62.3	2.21	77	301	243	85	33
DF		14		86	106	2.042	2.23	4.17	18.9	83.1	2.24	79	346	247	87	38
DF		16		88	109	1.563	2.23	3.19	27.3	114.3	2.48	87	365	273	96	40
DF		17		87	110	1.385	2.23	2.83	29.6	124.7	2.39	84	352	263	92	39
DF		18		87	95	1.235	2.23	2.52	29.7	114.3	2.13	75	288	234	82	32
DF		19		86	102	3.326	6.69	6.79	35.9	124.7	6.95	244	846	765	268	93
DF		20		87	110	5.003	11.15	12.25	36.1	147.2	12.61	442	1,803	1,387	487	198
DF		21		87	109	5.445	13.37	12.96	39.8	159.6	14.70	516	2,068	1,617	567	228
DF		22		86	109	4.961	13.37	13.50	39.5	165.6	15.21	534	2,235	1,673	587	246
DF		23		86	113	4.539	13.37	12.35	43.7	186.4	15.39	540	2,302	1,693	594	253
DF		24		88	121	2.085	6.69	6.38	44.9	204.3	8.17	287	1,304	898	315	143
DF		25		86	123	3.842	13.37	11.11	51.7	227.4	16.36	574	2,525	1,800	632	278
DF		26		86	124	2.368	8.92	6.64	59.3	271.1	11.22	394	1,801	1,235	433	198
DF		27		86	120	2.196	8.92	6.72	57.7	265.0	11.04	387	1,781	1,215	426	196
DF		28		86	124	2.042	8.92	6.25	64.0	299.6	11.40	400	1,872	1,254	440	206
DF		29		87	130	1.904	8.92	5.83	70.9	352.4	11.77	413	2,053	1,295	454	226
DF		30		86	143	.889	4.46	2.72	80.5	401.8	6.25	219	1,094	687	241	120
DF		31		88	129	.416	2.23	1.27	81.9	405.2	2.98	104	517	327	115	57
DF		32		85	150	.391	2.23	1.20	94.4	464.1	3.22	113	555	354	124	61
DF		34		85	122	.346	2.23	1.06	93.3	439.9	2.82	99	466	310	109	51
DF		35		86	144	.327	2.23	1.00	113.1	568.0	3.22	113	568	355	124	62
DF		Totals		87	112	51.982	140.43	132.30	44.2	194.4	166.49	5,842	25,723	18,313	6,426	2,829
RA		13		84	75	19.324	18.50	19.52	24.1	74.0	12.94	470	1,445	1,423	518	159
RA		14		83	55	3.332	3.70	3.37	24.7	63.4	2.29	83	214	252	92	23
RA		15		84	77	2.903	3.70	2.93	34.3	116.3	2.77	101	341	304	111	38
RA		16		84	69	10.205	14.80	15.46	22.9	84.6	9.75	355	1,308	1,073	390	144
RA		Totals		84	72	35.764	40.70	41.27	24.4	80.1	27.75	1,009	3,307	3,052	1,110	364
WH		8		85	65	5.943	2.18	6.08	7.9	32.4	1.53	48	197	169	53	22
WH		10		60	51	3.803	2.18	3.89	11.6	32.4	1.44	45	126	159	50	14
WH		14		75	67	1.940	2.18	1.98	29.8	64.8	1.89	59	129	208	65	14
WH		15		70	110	1.690	2.18	3.46	24.2	64.8	2.68	84	224	295	92	25
WH		22		85	98	.862	2.18	1.76	49.0	178.2	2.77	86	314	304	95	35
WH		26		82	83	2.434	8.71	4.98	58.6	195.7	9.33	291	974	1,026	321	107
WH		29		83	98	.485	2.18	.99	87.3	324.0	2.77	87	321	305	95	35
WH		34		78	94	.349	2.18	1.07	57.5	277.2	1.97	62	297	217	68	33
WH		Totals		76	72	17.507	23.95	24.21	31.5	106.7	24.38	762	2,582	2,682	838	284
Totals				84	92	105.254	205.08	197.79	38.5	159.8	218.61	7613	31,612	24,048	8,374	3,477

FI TLOGSTVB

Log Stock Table - MBF

Project: **SSTEAMER**

T01N R07W S35 TSALE **T01N R07W S35 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
01N	07W	35	619_AREA3	SALE	110.00	39	85	Date	4/11/2018
								Time	10:08:51AM

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	77		77	2.7						77						
DF		CO	2	40	2,123	.5	2,111	74.6						283	611	789	390	38		
DF		CO	3	28	3		3	.1				3								
DF		CO	3	31	3		3	.1			3									
DF		CO	3	32	148	1.3	146	5.2			23	21	102							
DF		CO	3	33	7		7	.3				7								
DF		CO	3	35	4		4	.1				4								
DF		CO	3	36	5		5	.2				5								
DF		CO	3	40	347	.4	346	12.2			79	89	178							
DF		CO	4	15	2		2	.1		2										
DF		CO	4	16	9		9	.3		2	6	2								
DF		CO	4	17	6		6	.2		2	2	2								
DF		CO	4	18	2		2	.1			2									
DF		CO	4	19	4		4	.1			2	2								
DF		CO	4	20	14		14	.5		8	6									
DF		CO	4	21	10		10	.4		4	6									
DF		CO	4	22	9		9	.3		4	5									
DF		CO	4	23	17		17	.6		10	5	2								
DF		CO	4	25	8		8	.3		8										
DF		CO	4	27	5		5	.2			5									
DF		CO	4	34	15		15	.5		15										
DF		CO	4	36	5		5	.2		5										
DF		CO	4	39	4		4	.1		4										
DF		CO	4	40	17		17	.6		17										
DF			Totals		2,844		2,829	81.4		81	144	136	280	360	611	789	390	38		
RA		H	2	20	30		30	8.2						30						
RA		H	3	30	33	9.1	30	8.2					30							
RA		H	3	32	36	16.7	30	8.2					30							
RA		H	3	40	45	6.7	42	11.5					42							
RA		H	4	16	6		6	1.6			6									
RA		H	4	19	6		6	1.6			6									
RA		H	4	30	32		32	8.7				32								
RA		H	4	38	23		23	6.5			23									
RA		H	4	40	177	7.1	165	45.3			91	74								
RA			Totals		388	6.3	364	10.5			126	106	102	30						
WH		CO	2	16	17		17	6.0										17		
WH		CO	2	32	31		31	10.8							17	14				
WH		CO	2	40	138		138	48.8							73	65				
WH		CO	3	29	4		4	1.3			4									
WH		CO	3	39	4		4	1.5			4									
WH		CO	3	40	38		38	13.3			19	18								
WH		CO	4	17	2		2	.8			2									
WH		CO	4	19	2		2	.7				2								
WH		CO	4	20	2		2	.8			2									
WH		CO	4	24	14		14	4.9		14										
WH		CO	4	31	22		22	7.6		22										
WH		CO	4	32	6		6	2.2		6										
WH		CO	4	40	4		4	1.5		4										

FI TLOGSTVB

Log Stock Table - MBF

Project: SSTEAMER

T01N R07W S35 TSALE

T01N R07W S35 TSAL

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
01N	**07W**	**35**	**619_AREA3**	**SALE**	**110.00**	39	85

Page 2
Date 4/11/2018
Time 10:08:51AM

	S	**So**	**Gr**	**Log**	**Gross**	**%**	**Net**	**%**	**Net Volume by Scaling Diameter in Inches**											
Spp	**T**	**rt**	**de**	**Len**	**MBF**	**Def**	**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+
WH				Totals	284		284	8.2		46	32	21			90	79		17		
Total All Species					3,517	1.1	3,477	100.0		127	302	262	382	390	701	868	390	55		

FI TSTNDSUM

Stand Table Summary

Project **SSTEAMER**

T01N R07W S35 TSALE **T01N R07W S35 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	35	620_AREA4	SALE	78.00	29	75

Page: 1
Date: 04/11/2018
Time: 2:52:48PM

					Av				Average Log			Net	Net	Totals		
	S		Sample	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.			
Spc	T	DBH	Trees	16'	Tot	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
DF		11		84	78	3.817	2.58	3.91	17.5	62.7	1.94	68	245	152	53	19
DF		12		80	114	3.207	2.58	6.56	13.5	52.2	2.53	89	343	197	69	27
DF		13		83	92	2.733	2.58	5.59	16.0	62.7	2.56	90	351	200	70	27
DF		14		82	101	2.356	2.58	4.82	18.0	62.7	2.48	87	302	193	68	24
DF		15		85	84	6.185	7.73	12.66	18.0	69.7	6.48	227	882	505	177	69
DF		16		80	114	1.804	2.58	3.69	26.7	99.2	2.81	99	366	220	77	29
DF		17		81	107	4.892	7.73	11.65	23.9	87.2	7.94	278	1,016	619	217	79
DF		18		80	97	5.701	10.31	11.67	29.2	99.2	9.72	341	1,158	758	266	90
DF		19		86	105	5.117	10.31	10.47	36.0	135.8	10.75	377	1,422	839	294	111
DF		20		86	113	3.464	7.73	8.27	35.9	134.3	8.46	297	1,111	660	232	87
DF		21		84	112	4.219	10.31	10.81	36.2	132.7	11.15	391	1,434	869	305	112
DF		22		86	127	4.771	12.89	13.67	40.1	170.1	15.64	549	2,326	1,220	428	181
DF		23		84	120	5.238	15.47	14.29	43.4	176.3	17.70	621	2,520	1,380	484	197
DF		24		84	119	6.414	20.62	18.05	46.3	197.1	23.80	835	3,557	1,857	651	277
DF		25		85	122	2.956	10.31	9.07	48.0	209.8	12.42	436	1,904	969	340	148
DF		26		87	123	2.733	10.31	7.69	58.1	262.1	12.74	447	2,016	994	349	157
DF		27		87	131	2.534	10.31	7.78	57.2	266.4	12.67	445	2,072	989	347	162
DF		28		82	135	1.767	7.73	6.03	56.9	261.2	9.78	343	1,574	763	268	123
DF		29		84	164	.549	2.58	1.69	80.5	410.9	3.87	136	693	302	106	54
DF		Totals		84	110	70.455	157.24	168.38	36.6	150.2	175.44	6,156	25,292	13,684	4,801	1,973
RA		9		74	49	14.041	6.51	14.20	6.0	21.5	2.35	86	306	183	67	24
RA		11		70	65	4.700	3.26	4.75	15.6	43.1	2.06	74	205	160	58	16
RA		12		86	64	3.949	3.26	7.99	9.2	37.7	2.02	74	301	158	57	23
RA		14		86	69	2.901	3.26	5.87	12.5	48.5	2.02	73	285	157	57	22
RA		23		76	65	1.175	3.26	2.38	31.7	113.1	2.07	75	269	161	59	21
RA		24		73	85	1.075	3.26	2.17	49.6	123.9	2.96	108	269	231	84	21
RA		26		92	64	.910	3.26	1.84	44.1	183.2	2.23	81	337	174	63	26
RA		Totals		77	58	28.750	26.05	39.20	14.6	50.3	15.70	571	1,972	1,224	445	154
OC		11		88	82	3.017	2.10	3.02	26.2	89.9	1.97	79	271	154	62	21
OC		23		88	87	.754	2.10	.75	104.7	359.7	1.97	79	271	154	62	21
OC		Totals		88	83	3.772	4.21	3.77	41.9	143.9	3.95	158	543	308	123	42
BM		17		80	74	3.314	5.48	3.35	26.4	97.0	2.34	88	325	183	69	25
BM		Totals		80	74	3.314	5.48	3.35	26.4	97.0	2.34	88	325	183	69	25
RC		36		70	72	.202	1.42	.41	108.8	223.7	1.06	45	93	83	35	7
RC		Totals		70	72	.202	1.42	.41	108.8	223.7	1.06	45	93	83	35	7
Totals				82	94	106.493	194.40	215.11	32.6	131.2	198.48	7018	28,224	15,482	5,474	2,201

FI TLOGSTVB

Log Stock Table - MBF

Project: SSTEAMER

T01N R07W S35 TSALE

T01N R07W S35 TSAL

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees		
01N	07W	35	620_AREA4	SALE	78.00	29	75		

Page 1
Date 4/11/2018
Time 2:50:42PM

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	14	14		14	.7								14				
DF		CO	2	24	21		21	1.0									21			
DF		CO	2	27	13	11.1	12	.6								12				
DF		CO	2	28	26	2.0	25	1.3									25			
DF		CO	2	40	1,315	.8	1,305	66.1			7	9	126	270	401	460	32			
DF		CO	3	19	1		1	.1			1									
DF		CO	3	20	1		1	.1			1									
DF		CO	3	21	2		2	.1			2									
DF		CO	3	23	2		2	.1			2									
DF		CO	3	28	5		5	.2				5								
DF		CO	3	29	2		2	.1			2									
DF		CO	3	30	2		2	.1		2										
DF		CO	3	32	100	1.3	98	5.0		4	8	15	42	9		20				
DF		CO	3	37	6		6	.3			6									
DF		CO	3	38	5		5	.2		5										
DF		CO	3	40	345		345	17.5		11	89	158	87							
DF		CO	4	12	1		1	.0			1									
DF		CO	4	13	1		1	.1			1									
DF		CO	4	14	1		1	.0		1										
DF		CO	4	15	3		3	.1			3									
DF		CO	4	16	5		5	.3		4	1									
DF		CO	4	19	6		6	.3		5	1									
DF		CO	4	20	4		4	.2			4									
DF		CO	4	21	8		8	.4		6	2									
DF		CO	4	22	2		2	.1		2										
DF		CO	4	24	7		7	.4		5	2									
DF		CO	4	25	12		12	.6		10	2									
DF		CO	4	27	8		8	.4		8										
DF		CO	4	29	6		6	.3		6										
DF		CO	4	31	4		4	.2		4										
DF		CO	4	34	7		7	.4		7										
DF		CO	4	35	3		3	.1		3										
DF		CO	4	37	3		3	.1		3										
DF		CO	4	40	6		6	.3		6										
DF		CO	3	40	41		41	2.1				41								
DF			Totals		1,986		1,973	89.6		91	134	228	255	280	401	505	78			
RA		H	2	16	13		13	8.7				13								
RA		H	2	26	19		19	12.3							19					
RA		H	2	32	47		47	30.5				22				25				
RA		H	2	40	18		18	11.9						18						
RA		H	4	15	15		15	10.1			15									
RA		H	4	19	12		12	7.8			12									
RA		H	4	24	3		3	1.8			3									
RA		H	4	25	10		10	6.5			10									
RA		H	4	31	16		16	10.4			16									
RA			Totals		154		154	7.0			56	36		18	19	25				
OC		*	*	32	42		42	100.0			42									
OC			Totals		42		42	1.9			42									
BM		H	3	24	25		25	100.0					25							

FI TLOGSTVB

Log Stock Table - MBF

Project: SSTEAMER

T01N R07W S35 TSALE

T01N R07W S35 TSAL

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	35	620_AREA4	SALE	78.00	29	75

Page 2
Date 4/11/2018
Time 2:50:42PM

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+
BM		Totals			25		25	1.2					25							
RC		CO	3	40	7	5.0	7	92.7								7				
RC		CO	4	16	1		1	7.3				1								
RC		Totals			8	4.7	7	.3				1				7				
Total All Species					2,216		2,201	100.0		91	233	264	280	298	420	537	78			

OREGON DEPARTMENT OF FORESTRY

"STEWARDSHIP IN FORESTRY"

Southern Steamer

Volume Summary

Area 1-Modifed Clearcut

115 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	17.3	1993	1%	1973
Red alder	3.4	394	2%	386
Big leaf maple	1.2	134	2%	131
TOTAL	21.9	2521		2491

Area 2-Modifed Clearcut

102 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	39.8	4057	1%	4016
Red alder	6.4	649	2%	636
Hemlock	0.1	8	1%	8
TOTAL	46.2	4714		4660

Area 3-Modifed Clearcut

110 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	25.7	2829	1%	2801
Red alder	3.3	364	2%	357
Hemlock	2.6	284	1%	281
TOTAL	31.6	3477		3439

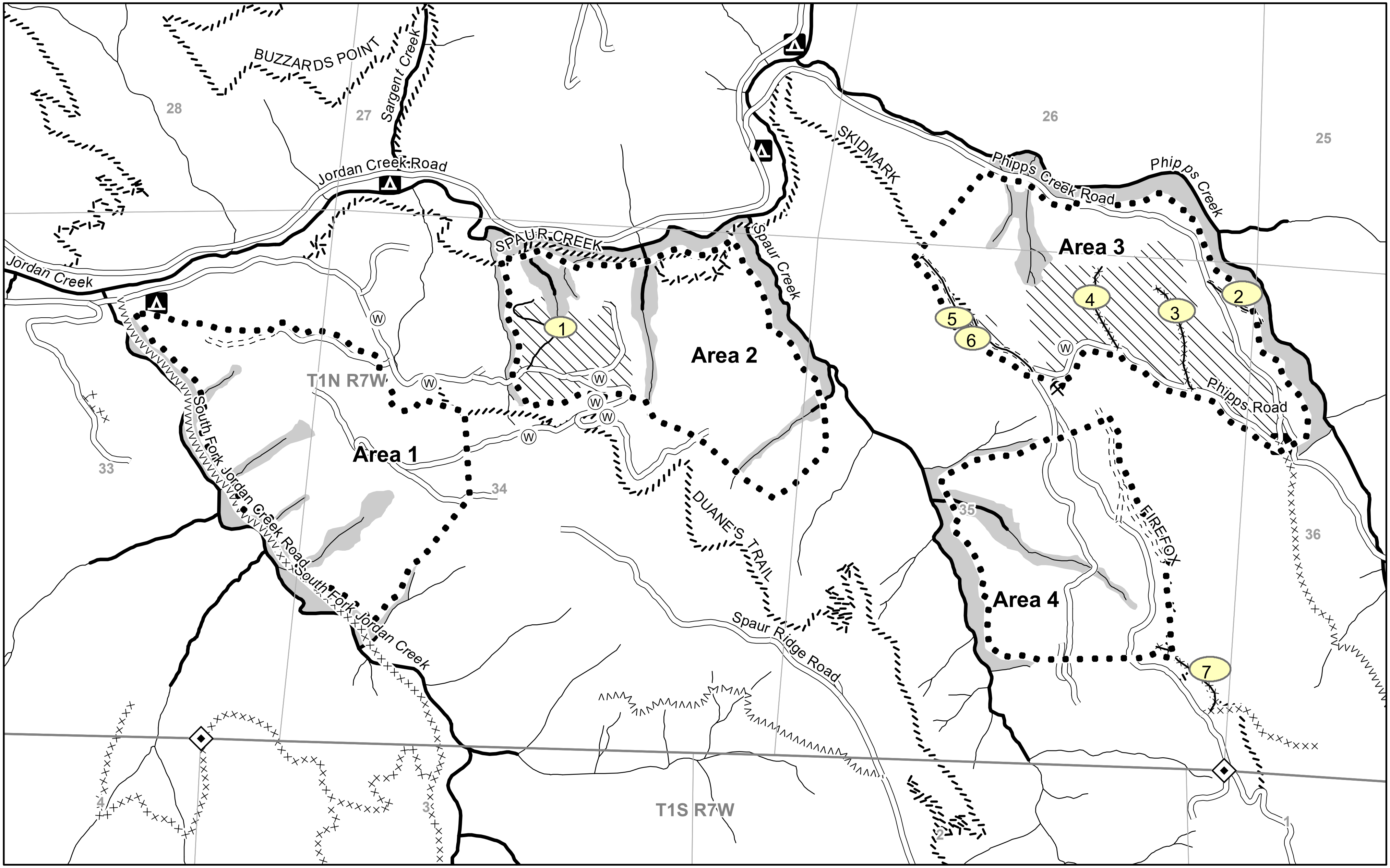
Area 4-Modifed Clearcut

78 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	25.3	1973	1%	1953
Red alder	2.0	154	2%	151
Big leaf maple	0.3	25	2%	25
TOTAL	27.6	2152		2129

TOTAL SALE VOLUME 405 acres

SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	10852	10743
Red alder	1561	1530
Hemlock	292	289
Big leaf maple	159	156
TOTAL	12864	12718



- ⚒ 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
- ××××× Blocked road
- OHV trail
- Non-motorized trail
- Ⓣ—Ⓣ Transmission line
- Railroad
- Cable yarding
- ☐ Ground Landing
- ○ Yarder Landing

LOGGING PLAN

Timber Sale Contract
No. TL-341-2019-W00643-01
SOUTHERN STEAMER
Portions of Sections 26, 33, 34, 35, & 36
T1N, R7W, W.M.,
Tillamook County, Oregon

N

1,000 0 1,000 Feet

1:15,840

Area	Type of Operation	Acres Gross	Acres Net
1	Modified Clearcut	142	115
2	Modified Clearcut	133	102
3	Modified Clearcut	143	110
4	Modified Clearcut	100	78
Total		518	405

Tillamook District GIS
4/25/2018

This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.