Timber Sale Appraisal
Salmonberry Bends
Sale FG-341-2017-27-

District: Forest Grove

Date: November 28, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,457,852.50	$22,689.56	$1,480,542.06
		Project Work:	($42,110.00)
		Advertised Value:	$1,438,432.06

Timber Sale Appraisal
Salmonberry Bends
Sale FG-341-2017-27-

District: Forest Grove **Date: November 28, 2016**

Timber Description

Location: Portions of Sections 19 and 20, T3N, R6W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	98
Alder (Red)	15	0	95

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	2,642	1,102	131	0	3,875
Alder (Red)	0	0	0	68	68
Total	2,642	1,102	131	68	3,943

Comments: Pond Values Used: 3rd Quarter Calendar Year 2016.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:
$216.55/MBF = $450/MBF - $233.45/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
$916.55/MBF = $1,150/MBF - $233.45/MBF

SCALING COST ALLOWANCE = $5.00/MBF

BRANDING AND PAINTING COST ALLOWANCE = $2.00/MBF

FUEL COST ALLOWANCE = $3.00/MBF

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

Other Costs (with Profit & Risk to be added):
None.

Other Costs (No Profit & Risk added):
Pile Landing Slash: 20 hrs @ $150/hr = $3,000
Equipment Cleaning: 1 pieces @ $1,000/piece = $1,000
Snag creation: 117 snags @ $40/tree = $4,680
TOTAL Other Costs (No Profit & Risk added) = $8,680

Road Maintenance
Move in: $2,000
Road Maintenance: 10 miles @ $1,200/mile = $12,000
TOTAL Road Maintenance: $14,000/3,943 MBF = $3.55/MBF

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District: Forest Grove **Date: November 28, 2016**

Logging Conditions

Combination#: 1

Douglas - Fir	97.00%
Alder (Red)	97.00%

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: 10 **bd. ft / load:** 4100

cost / mbf: $146.34

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

Combination#: 2

Douglas - Fir	3.00%
Alder (Red)	3.00%

Logging System: Track Skidder **Process:** Stroke Delimber

yarding distance: Short (400 ft) **downhill yarding:** No

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

loads / day: 12 **bd. ft / load:** 4100

cost / mbf: $64.47

machines: Stroke Delimber (B)

Timber Sale Appraisal
Salmonberry Bends
Sale FG-341-2017-27-

District: Forest Grove **Date: November 28, 2016**

Logging Costs

Operating Seasons:	1.00	**Profit Risk:**	10%
Project Costs:	$42,110.00	**Other Costs (P/R):**	$0.00
Slash Disposal:	$0.00	**Other Costs:**	$8,680.00

Miles of Road **Road Maintenance:** $3.55

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	4.8
Alder (Red)	$0.00	2.0	3.8

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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
$143.88	$3.62	$1.11	$55.25	$0.00	$20.39	$0.00	$7.00	$2.20	$233.45
Alder (Red)									
$143.88	$3.73	$1.11	$107.76	$0.00	$25.65	$0.00	$7.00	$2.20	$291.33

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$609.67	$376.22	$0.00
Alder (Red)	$0.00	$625.00	$333.67	$0.00

Timber Sale Appraisal
Salmonberry Bends
Sale FG-341-2017-27-

District: Forest Grove **Date: November 28, 2016**

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,875	$376.22	$1,457,852.50
Alder (Red)	68	$333.67	$22,689.56

Gross Timber Sale Value

Recovery: $1,480,542.06

Prepared By: Eric Foucht **Phone:** 503-359-7473

TIMBER SALE SUMMARY
Salmonberry Bends
Contract No. 341-17-27

1. **Location:** Portions of Sections 19 & 20, T3N, R6W, W.M., Tillamook County, Oregon.

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

3. **Revenue Distribution:** 100% BOF, Tillamook County, (Tax Code 56-1.)

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

5. **Cruise**: The Timber Sale was cruised by ODF Cruisers in October of 2016. For more information see Cruise Report.

6. **Timber Description:** The Timber Sale Area consists of well stocked 64 year old Douglas-fir stand with minor amounts of western hemlock, true firs, and red alder. The stand has an average of 204 ft^2 of basal area (all species), an average Douglas-fir DBH of 21 inches, with an average bole length of 121 feet. The estimated average net Douglas-fir volume of approximately 33.8 MBF per acre.

7. **Volume Summary**

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	2,696	1,124	134	0	3,954
	Hidden D&B (2%)	(54)	(22)	(3)	()	(79)
	NET TOTAL	2,642	1,102	131	0	3,875
	% of Total	69	28	3	0	
SPECIES		**2 SAW**	**3 SAW**	**4 SAW**	**CR**	**TOTAL**
Red Alder	Cruise Volume	0	0	0	69	69
	Hidden D&B (2%)	()	()	()	(1)	(1)
	NET TOTAL	0	0	0	68	68
	% of Total	0	0	0	100	

8. **Topography and Logging Method:** Slopes within the sale areas range from 10% to 70%, and average around 60%. The aspect is generally north. The timber sale is 3% ground-based yarding and 97% cable yarding. The average cable corridor length is 730 feet and the maximum length is 1800 feet. The average horizontal skid trail length is approximately 400 feet and the maximum length is approximately 800 feet.

9. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 47 through Banks then merge onto Highway 26 westbound and continue for approximately 20 miles. Between the 31 and the 32 mile markers, turn south onto the Salmonberry Road and continue for approximately 8.6 miles to the North Fork Salmonberry Road. Turn right at the junction and proceed .4 miles to the southwest corner of the Timber Sale Area.

10. Projects:

Project No. 1: Road Improvement	$30,137.28
Project No. 2: Road Surfacing	$4,590.06
Project No. 3: Grass Seed, Fertilize, and Mulch	$351.50
Project No. 4: Rock Quarry Test Drilling	$2,840.88
Move in and equipment cleaning:	$4,190.28
Total Credit for all Projects	$42,110.00

PROJECT COST SUMMARY SHEET

Timber Sale: Salmonberry Bends

Sale Number: 341-17-27

PROJECT NO. 1: ROAD IMPROVEMENT

Road Segment	Length	Cost
A to B	336+43	$29,351.48
C to D	15+80	$785.80
	352+23 stations	
	6.67 miles	

TOTAL PROJECT NO. 1 COST = $30,137.28

PROJECT NO. 2: SURFACING

Road Segment	Rock Amount	Rock Type	Cost
A to B	192 cy	1 1/2" - 0	$1,608.96
A to B	870 cy	Jaw Run	$2,731.80
C to D	90 cy	1 1/2" - 0	$249.30
Total	1152 cy		
	282 cy	1 1/2" - 0	
	870 cy	Jaw Run	

TOTAL PROJECT NO. 2 COST = $4,590.06

PROJECT NO. 3 GRASS SEED, FERTILIZE, & MULCH

TOTAL PROJECT NO. 3 COST = $351.50

PROJECT NO. 4 ROCK QUARRY TEST DRILLING

TOTAL PROJECT NO. 4 COST = $2,840.88

MOVE-IN & EQUIPMENT CLEANING

Grader	$754.44
Loader (Med. & Large)	$761.03
Roller (smooth/grid) & Compactor	$458.58
Excavator (Large) - Equipment Cleaning	$1,917.17
Dump Trucks (10cy +)	$299.06

TOTAL MOVE-IN & EQUIPMENT CLEANING COST = $4,190.28

TOTAL CREDITS $42,110.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Salmonberry Bends Sale Number: 341-17-27

Road Segment: A to B Improvement: 336+43 stations

6.37 miles

PROJECT NO. 1

EXCAVATION						
Clean culvert inlet & outlet	62	ea @	$25.00	per ea =	$1,550.00	
End-haul				per ea =		
Excavate & load unsuitable fill material	200	cy @	$1.64	per ea =	$328.00	
Haul	200	cy @	$3.20	per ea =	$640.00	
Compact waste area	200	cy @	$0.30	per ea =	$60.00	
Clearing & grubbing (scatter)	0.50	ac @	$1,078.00	per acre =	$539.00	
Construct roadside landing	5	ea @	$157.00	per ea =	$785.00	
Construct roadside landing	2	ea @	$628.00	per ea =	$1,256.00	
Construct roadside landing	2	ea @	$66.00	per ea =	$132.00	
Grade & roll	336.43	sta @	$36.00	per sta =	$12,111.48	
				TOTAL EXCAVATION COSTS =		$17,401.48

CULVERTS - MATERIALS & INSTALLATION

Culverts

120	LF of 18"	$2,400.00
110	LF of 24"	$3,190.00
40	LF of 30"	$1,560.00
90	LF of 36"	$4,500.00

Culvert Markers

30	markers	$300.00

TOTAL CULVERT COSTS = $11,950.00

PROJECT NO. 1 TOTAL COST = $29,351.48

PROJECT NO. 2:

SURFACING		12 " deep =	20 cy/sta				
Roadside Landing	870	cy of	Jaw Run	@	$3.14	per cy =	$2,731.80
Culvert bedding/Backfill	192	cy of	1 1/2" - 0	@	$8.38	per cy =	$1,608.96
Rock Total =	1,062						
	192	cy of	1 1/2" - 0		$8.38	per cy =	$1,608.96
	870	cy of	Jaw Run		$3.14	per cy =	$2,731.80

PROJECT NO. 2 TOTAL COST = $4,340.76

PROJECT NO. 3:

Grass seed & fertilizer	0.30	acres	@	$425.00	per acre =	$127.50	
Mulch	28	bales	@	$8.00	per bale =	$224.00	

PROJECT NO. 3 TOTAL COST = $351.50

TOTAL COST = $34,043.74

SUMMARY OF CONSTRUCTION COST

Timber Sale: Salmonberry Bends Sale Number: 341-17-27

Road Segment: C to D Improvement: 15+80 stations

0.30 miles

PROJECT NO. 1

EXCAVATION						
Clean culvert inlet & outlet	2	ea @	$25.00	per ea =	$50.00	
Construct roadside landing	1	ea @	$157.00	per ea =	$157.00	
Grade & roll	15.80	sta @	$36.00	per sta =	$568.80	
				TOTAL EXCAVATION COSTS =		$775.80

CULVERTS - MATERIALS & INSTALLATION

Culvert Markers

1 markers $10.00

TOTAL CULVERT COSTS = $10.00

PROJECT NO. 1 TOTAL COST = $785.80

PROJECT NO. 2:

SURFACING			" deep =	20 cy/sta				
Roadside Landing		90	cy of	Jaw Run	@	$2.77	per cy =	$249.30
	Rock Total =	90						
		90	cy of	Jaw Run		$2.77	per cy =	$249.30

PROJECT NO. 2 TOTAL COST = $249.30

TOTAL COST = $1,035.10

SUMMARY OF CONSTRUCTION COST

Timber Sale: Salmonberry Bends Sale Number: 341-17-27

Road Segment: Project 4

PROJECT NO. 4						
Access road construction	5	hr @	$140.00	per hr =	$700.00	
Drill test holes with report.	10	hr @	$132.00	per hr =	$1,320.00	
Move-in equipment					$820.88	
				PROJECT NO. 4 TOTAL COST =		$2,840.88

CRUISE REPORT
Salmonberry Bends
341-17-27

1. LOCATION: Portions of Sections 19 & 20, T3N, R6W, W.M., Tillamook County, Oregon.

2. CRUISE DESIGN:
Pre-cruise evaluation indicated that the stand's average DBH is approximately 16 inches and its Coefficient of Variation is about 50%. For sales of this size and approximate value, ODF cruise standards require a Sampling Error of 9% at a 68% confidence level, and a minimum sample size of 100 graded trees. The cruise design chosen for this sale is a variable radius sample plot using a 40 BAF prism and employing a combination of count and measure plots at a ratio of 1 measured plot to 1 count plots.

3. SAMPLING METHOD:
The Timber Sale Area was cruised in October, 2016 with 19 variable radius grade plots and 19 variable radius count plots using a 40 BAF prism. Plots were laid out on a 4 chain x 4 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS
109 trees were measured and graded producing a cumulative Sampling Error of 4.2% on the Douglas-fir Basal Area and 3.9% on the Douglas-fir Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:
All sample trees were measured and graded following Columbia River Log Scale grade rules and favored 40 foot segments.

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

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

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

5. DATA PROCESSING

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

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

6. Cruisers: The sale was cruised by ODF cruisers (Names).

Prepared by: _____
ODF Forester Date

Reviewed by: _____
Eric Foucht Date

TC PSTATS

PROJECT STATISTICS

PROJECT SBENDS

DATE 10/20/2016

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	05	19	00A1	00MC	117.00	40	204	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	40	204	5.1		
CRUISE	21	109	5.2	10,239	1.1
DBH COUNT					
REFOREST					
COUNT	19	90	4.7		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	98	79.6	21.0	121	41.9	192.0	34,358	33,792	8,111	8,094
R ALDER	7	6.1	14.5	77	1.8	7.0	662	589	190	175
WHEMLOCK	3	1.6	21.5	119	0.9	4.0	720	714	165	165
NOB FIR	1	.3	27.0	141	0.2	1.0	224	224	49	49
TOTAL	*109*	*87.5*	*20.7*	*118*	*44.9*	*204.0*	*35,964*	*35,319*	*8,516*	*8,483*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	55.3	5.6	507	537	566			
R ALDER	47.3	19.2	81	100	119			
WHEMLOCK	41.4	28.7	345	483	622			
NOB FIR								
TOTAL	*59.7*	*5.7*	*481*	*510*	*539*	*142*	*36*	*16*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - CF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	52.0	5.2	121	127	134			
R ALDER	37.1	15.1	25	30	34			
WHEMLOCK	33.6	23.2	85	110	136			
NOB FIR								
TOTAL	*56.0*	*5.4*	*115*	*121*	*128*	*125*	*31*	*14*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	43.0	6.8	74	80	85			
R ALDER	632.5	99.9	0	6	12			
WHEMLOCK	369.8	58.4	1	2	3			
NOB FIR	632.5	99.9	0	0	1			
TOTAL	*47.7*	*7.5*	*81*	*88*	*94*	*91*	*23*	*10*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	26.8	4.2	184	192	200			
R ALDER	632.5	99.9	0	7	14			
WHEMLOCK	378.9	59.9	2	4	6			
NOB FIR	632.5	99.9	0	1	2			
TOTAL	*23.4*	*3.7*	*196*	*204*	*212*	*22*	*5*	*2*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	NET BF/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	24.7	3.9	32,471	33,792	35,112			
R ALDER	632.5	99.9	1	589	1,178			
WHEMLOCK	367.7	58.1	299	714	1,129			
NOB FIR	632.5	99.9	0	224	447			

TC PSTATS

PROJECT STATISTICS

PROJECT SBENDS

DATE 10/20/2016

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	05	19	00A1	00MC	117.00	40	204	S	W

CL 68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL	*17.0*	*2.7*	*34,370*	*35,319*	*36,268*	*12*	*3*	*1*

CL 68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	24.9	3.9	7,775	8,094	8,413			
R ALDER	632.5	99.9	0	175	350			
WHEMLOCK	368.5	58.2	69	165	261			
NOB FIR	632.5	99.9	0	49	98			
TOTAL	*18.1*	*2.9*	*8,241*	*8,483*	*8,726*	*13*	*3*	*1*

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T03N R05W S19 Ty00MC 117.00

Project: SBENDS
Acres 117.00

Page 1
Date 10/20/2016
Time 2:29:10PM

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF			CU		100.0	83											9	13		0.00	4.5
DF			2M	68	1.7	23,443	23,039	2,696			61	39	1	4	3	93	39	15	329	1.92	69.9
DF			3M	28	.8	9,686	9,605	1,124		100			1	0	6	93	39	8	108	0.72	89.3
DF			4M	4		1,147	1,147	134		100			41	59			20	6	24	0.37	47.3
DF	**Totals**			96	1.6	34,358	33,792	3,954		32	42	27	2	5	4	90	34	10	160	1.12	211.1
RA			CU		100.0	64											4	8		0.00	5.3
RA			R	100	1.4	598	589	69		100			6	35		59	32	8	68	0.64	8.7
RA	**Totals**			2	11.0	662	589	69		100			6	35		59	21	8	42	0.59	13.9
WH			CU														4	20		0.00	1.0
WH			2M	72		516	516	60			63	37				100	40	15	326	1.71	1.6
WH			3M	24	3.3	183	176	21		100						100	39	8	111	0.80	1.6
WH			4M	4		22	22	3		100			16	84			21	6	23	0.37	1.0
WH	**Totals**			2	.8	720	714	84		28	45	27	1	3		97	29	12	140	1.10	5.1
NF			2M	94		211	211	25			29	71				100	40	16	420	2.21	.5
NF			3M	6		13	13	1		100					100		34	6	50	0.56	.3
NF	**Totals**			1		224	224	26		6	27	67			6	94	38	13	297	1.72	.8
Totals					1.8	35,964	35,319	4,132		33	41	26	2	5	4	89	33	10	153	1.10	230.9

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 10/20/2016

T03N R05W S19 Ty00MC 117.00

Project SBENDS
Acres 117.00

Time: 2:29:11PM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		13	1	84	108	2.126	1.96	4.25	16.3	60.0	1.97	69	255	230	81	30
DF		14	4	86	102	7.331	7.84	14.66	18.4	73.8	7.67	269	1,081	898	315	127
DF		16	5	84	114	7.016	9.80	14.03	26.4	109.0	10.57	371	1,529	1,237	434	179
DF		17	5	86	113	6.215	9.80	13.67	27.3	111.8	10.63	373	1,529	1,244	436	179
DF		18	6	87	116	6.652	11.76	15.52	29.8	117.9	13.18	463	1,829	1,542	541	214
DF		19	6	86	119	5.970	11.76	14.93	31.9	124.0	13.56	476	1,851	1,586	557	217
DF		20	7	87	123	6.286	13.71	17.96	32.4	132.5	16.60	583	2,380	1,943	682	278
DF		21	11	86	121	8.960	21.55	25.25	35.5	145.5	25.52	895	3,674	2,986	1,048	430
DF		22	8	85	121	5.937	15.67	17.07	38.3	157.8	18.65	654	2,694	2,182	766	315
DF		23	6	85	123	4.074	11.76	12.22	40.4	170.0	14.08	494	2,078	1,647	578	243
DF		24	7	87	133	4.365	13.71	13.10	48.7	214.3	18.18	638	2,806	2,127	746	328
DF		25	6	83	139	3.448	11.76	9.77	55.8	238.8	15.76	545	2,333	1,844	638	273
DF		26	4	86	127	2.126	7.84	6.38	52.0	231.7	9.46	332	1,477	1,107	388	173
DF		27	5	81	130	2.464	9.80	7.39	58.5	232.0	12.32	432	1,715	1,442	506	201
DF		28	6	83	136	2.749	11.76	8.71	59.4	266.3	15.01	517	2,318	1,756	605	271
DF		29	2	82	146	.854	3.92	2.56	72.2	303.3	5.27	185	777	617	216	91
DF		30	2	83	138	.798	3.92	2.39	74.3	336.7	5.07	178	806	593	208	94
DF		31	2	83	134	.748	3.92	2.24	81.4	363.3	5.20	183	815	609	214	95
DF		32	1	87	131	.351	1.96	1.05	85.2	393.3	2.55	90	414	299	105	48
DF		33	1	78	130	.330	1.96	.99	86.4	363.3	2.44	86	360	285	100	42
DF		34	1	79	123	.311	1.96	.93	86.6	343.3	2.30	81	320	269	94	37
DF		36	1	80	149	.277	1.96	.83	111.6	496.7	2.64	93	413	309	109	48
DF		40	1	69	151	.225	1.96	.67	131.5	500.0	2.52	89	337	295	104	39
DF		Totals	98	85	121	79.612	192.00	206.59	39.2	163.6	231.18	8,094	33,792	27,048	9,470	3,954
WH		20	2	88	120	1.222	2.67	3.06	36.4	152.0	3.56	111	464	416	130	54
WH		26	1	88	116	.362	1.33	1.08	49.6	230.0	1.72	54	250	202	63	29
WH		Totals	3	88	119	1.584	4.00	4.14	39.9	172.4	5.28	165	714	618	193	84
RA		13	2	84	70	2.170	2.00	3.25	16.0	53.3	1.43	52	174	167	61	20
RA		14	1	83	60	.935	1.00	.94	25.4	70.0	.65	24	65	76	28	8
RA		15	1	82	88	.815	1.00	1.63	18.6	70.0	.83	30	114	97	35	13
RA		16	3	80	87	2.149	3.00	2.86	24.1	82.5	2.31	69	236	271	81	28
RA		Totals	7	82	77	6.069	7.00	8.68	20.1	67.9	5.23	175	589	612	205	69
NF		27	1	85	141	.252	1.00	.75	65.2	296.7	1.18	49	224	138	58	26
NF		Totals	1	85	141	.252	1.00	.75	65.2	296.7	1.18	49	224	138	58	26
Totals			109	85	118	87.516	204.00	220.17	38.5	160.4	242.87	8,483	35,319	28,415	9,926	4,132

TC PLOGSTVB

Log Stock Table - MBF

T03N R05W S19 Ty00MC 117.00

Project: SBENDS
Acres 117.00

Date 10/20/2016
Time 2:29:09PM

Spp	S T	So Grt	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3 4-5	6-7 8-9	10-11 12-13	14-15 16-19	20-23 24-29	30-39 40+
DF			CU	15	7	100.0								
DF			CU	31	3	100.0								
DF			2M	18	21		21	.5					21	
DF			2M	22	20		20	.5					20	
DF			2M	23	24	13.6	20	.5					20	
DF			2M	28	39		39	1.0				39		
DF			2M	30	24	9.6	22	.6					22	
DF			2M	32	76	1.5	74	1.9			21	27 27		
DF			2M	40	2,538	1.6	2,498	63.2			591	850 808	249	
DF			3M	20	7	14.3	6	.1			6			
DF			3M	26	2		2	.1		2				
DF			3M	32	58		58	1.5		19 27	13			
DF			3M	34	14		14	.3		14				
DF			3M	36	31		31	.8		28 3				
DF			3M	40	1,022		1,013	25.6		151 380	482			
DF			4M	12	7		7	.2		7				
DF			4M	14	12		12	.3		12				
DF			4M	16	16		16	.4		16				
DF			4M	18	12		12	.3		11 1				
DF			4M	20	7		7	.2		7				
DF			4M	22	5		5	.1		4 2				
DF			4M	24	20		20	.5		20				
DF			4M	26	14		14	.3		14				
DF			4M	28	23		23	.6		23				
DF			4M	30	17		17	.4		17				
DF		Totals			4,020	1.6	3,954	95.7		344 414	500 612	876 875	332	
RA			CU	18	8	100.0								
RA			R	18	4		4	5.5		4				
RA			R	22	3		3	4.9		3				
RA			R	26	11		11	16.6		4 8				
RA			R	30	10	9.1	10	13.8			10			
RA			R	38	8		8	11.1		8				
RA			R	40	33		33	48.1		21	13			
RA		Totals			77	11.0	69	1.7		39 8	22			
WH			2M	40	60		60	72.2			17	21 22		

TC PLOGSTVB

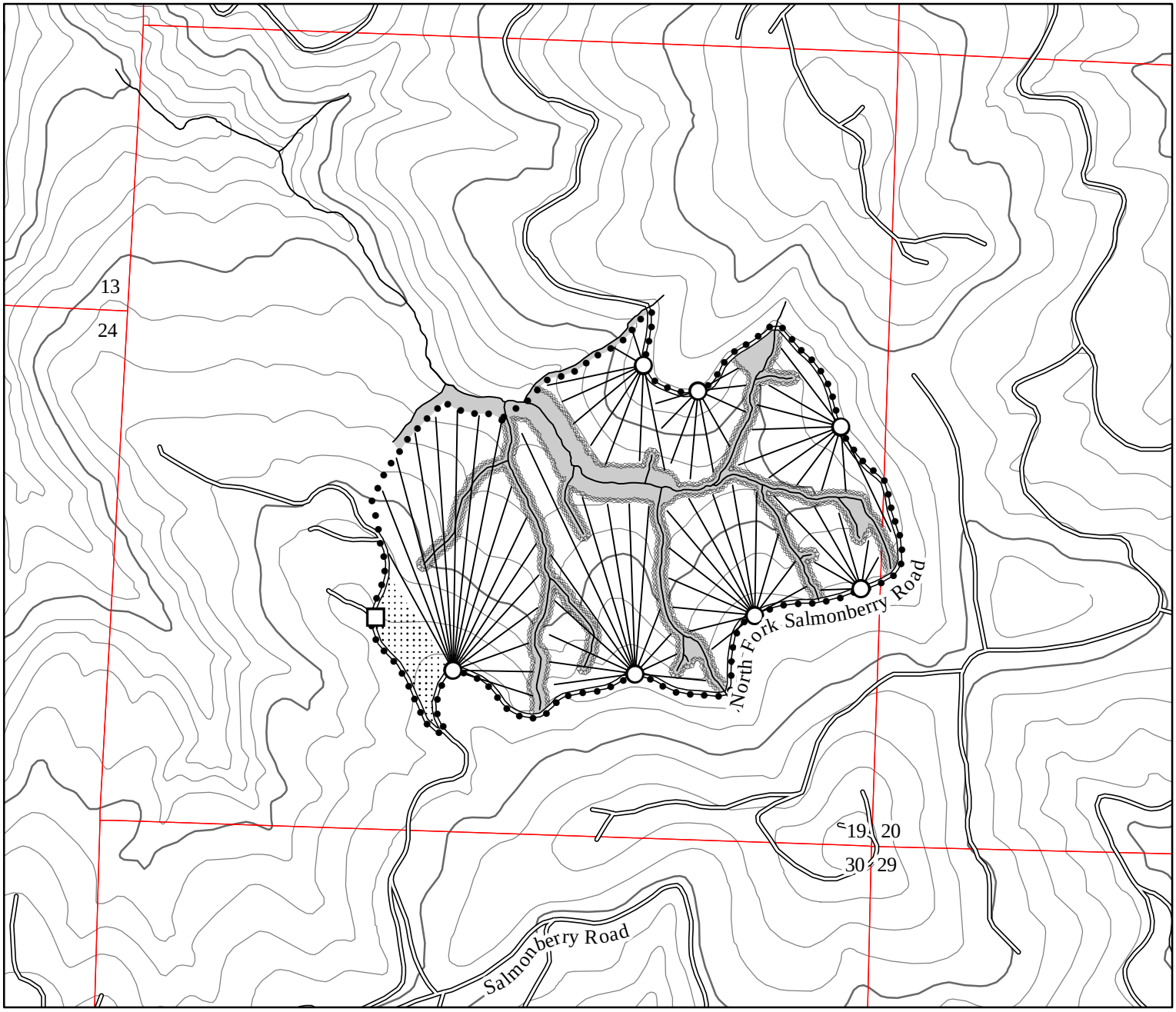
Log Stock Table - MBF

T03N R05W S19 Ty00MC 117.00

Project: SBENDS
Acres 117.00

Date 10/20/2016
Time 2:29:09PM

Spp	ST	So Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3 4-5	6-7 8-9	10-11 12-13	14-15 16-19	20-23 24-29	30-39 40+
WH		3M	38	4	16.7	4	4.3		4				
WH		3M	40	17		17	20.4			17			
WH		4M	12	0		0	.5		0				
WH		4M	26	2		2	2.6		2				
WH		Totals		84		84	2.0		6	17 17	21 22		
NF		2M	40	25		25	94.4			7	18		
NF		3M	34	1		1	5.6		1				
NF		Totals		26		26	.6		1	7	18		
Total		All Species		4,208	1.8	4,132	100.0		391 422	539 637	897 915	332	



LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-17-27
SALMONBERRY BENDS
PORTIONS OF SECTIONS 19, & 20, T3N, R6W
TILLAMOOK COUNTY, OREGON.

Forest Grove District GIS
September, 2016
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

Legend

- Timber Sale Boundary
- Roads
- Stream Buffer Boundary
- Stream Buffer
- Cable Landing
- Tractor Landing
- Cable Yarding Area
- Tractor Yarding Area
- ODF Ownership Boundary
- Section Line
- 400 Foot Contour Band
- 80 Foot Contour Band

N

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

0 500 1,000 2,000
Feet

APPROXIMATE NET ACRES

TRACTOR	CABLE
4	113