Timber Sale Appraisal
Sam Hill

Sale FG-341-2016-57-

District: Forest Grove **Date: June 03, 2015**

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,524,158.80	$17,306.62	$1,541,465.42
		Project Work:	($222,100.00)
		Advertised Value:	$1,319,365.42

Timber Sale Appraisal
Sam Hill

Sale FG-341-2016-57-

District: Forest Grove **Date: June 03, 2015**

Timber Description

Location: Portions of Sections 19, 20, 29, and 30, T3N, R6W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	98
Alder (Red)	13	0	98

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	2,553	1,707	194	0	4,454
Alder (Red)	0	0	0	58	58
Total	2,553	1,707	194	58	4,512

Comments: Pond Values Used: 1st Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:
$227.50/MBF = $460/MBF - $232.50/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
$927.50/MBF = $1,160/MBF - $232.50/MBF

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $3.00/Gallon

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

Other Costs (with Profit & Risk to be added):
Brand and Paint: 4,512 MBF x $2/MBF = $9,024
TOTAL Other Costs (with Profit & Risk to be added) = $9,024

Other Costs (No Profit & Risk added):
Block/Waterbar Roads, & Skid Trails: 20 hrs x $150/hour =$3,000
Pile Landing Slash and Sort Firewood: 20 hrs x $150/hour = $3,000
Equipment Cleaning: 3 x $1,000/Piece = $3,000
Slash Treatment: 15 acres @ $150/acre = $2,250
TOTAL Other Costs (No Profit & Risk added) = $11,250

ROAD MAINTENANCE
Move-in: $4,000
General Road Maintenance: 10.4 miles x $1,200/mile = $12,480
TOTAL Road Maintenance: $16,480/4,512 MBF = $3.65/MBF

Timber Sale Appraisal
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Sale FG-341-2016-57-

District: Forest Grove **Date: June 03, 2015**

Logging Conditions

Combination#: 1

Douglas - Fir	59.41%
Alder (Red)	95.00%

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

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

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

loads / day: 10 **bd. ft / load:** 4600

cost / mbf: $130.44

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

Combination#: 2

Douglas - Fir	40.59%
Alder (Red)	5.00%

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: 10 **bd. ft / load:** 3800

cost / mbf: $83.47

machines: Stroke Delimber (B)

Timber Sale Appraisal
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Sale FG-341-2016-57-

District: Forest Grove **Date: June 03, 2015**

Logging Costs

Operating Seasons:	1.00	**Profit Risk:**	10%
Project Costs:	$222,100.00	**Other Costs (P/R):**	$9,024.00
Slash Disposal:	$0.00	**Other Costs:**	$11,250.00

Miles of Road **Road Maintenance:** $3.65

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	2.0	4.6
Alder (Red)	$0.00	2.0	3.0

Timber Sale Appraisal
Sam Hill

Sale FG-341-2016-57-

District: Forest Grove **Date: June 03, 2015**

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$111.38	$3.72	$0.97	$86.48	$2.00	$20.46	$0.00	$5.00	$2.49	$232.50
Alder (Red)									
$128.09	$3.72	$0.97	$132.60	$2.00	$26.74	$0.00	$5.00	$2.49	$301.61

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$574.70	$342.20	$0.00
Alder (Red)	$0.00	$600.00	$298.39	$0.00

Timber Sale Appraisal
Sam Hill

Sale FG-341-2016-57-

District: Forest Grove **Date: June 03, 2015**

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	4,454	$342.20	$1,524,158.80
Alder (Red)	58	$298.39	$17,306.62

Gross Timber Sale Value

Recovery: $1,541,465.42

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

TIMBER SALE SUMMARY
SAM HILL
Contract No. 341-16-57

1. **Location:** Portions of Sections 19, 20, 29, & 30, T3N, R6W, W.M., Tillamook County, Oregon.

2. **Type of Sale:** This timber sale is 116 acres of Modified Clearcut in two sale areas. 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 July of 2014. For more information see Cruise Report.

6. **Timber Description:** The Timber Sale Area consists of well stocked 60 to 63 year old Douglas-fir stands with minor amounts of western hemlock, noble fir, and hardwoods. The average Douglas-fir DBH is 19 inches in Area 1 and 20 inches in Area 2. The estimated average net Douglas-fir harvest volume in Area 1 is 37.4 MBF per acre and 46.8 MBF per acre in Area 2.

7. **Topography and Logging Method:** Slopes within the sale areas range from 25% to 55% and are variable in aspect. Area 1 is 51% ground-based yarding, and 49% cable-based yarding. Area 2 is 5% ground-based yarding. As shown in the Logging Plan, the average horizontal cable corridor length in Area 1 is approximately 700 feet and the maximum is approximately 1794 feet. The average horizontal tractor skid trail length is approximately 400 feet and the maximum is approximately 750 feet. In Area 2, the average horizontal cable corridor length is approximately 400 feet and the maximum is approximately 700 feet. The average horizontal tractor skid trail length is approximately 100 feet and the maximum is approximately 300 feet.

8. **Access:** All access 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 6 ¼ miles to the east side of Area 2.

9. **Projects:**

Project No. 1: Road Construction	$7,714.18
Project No. 2: Road Improvement	$108,785.32
Project No. 3: Surfacing	$31,717.07
Project No. 4: Install Open Bottom Arch Culvert	$60,078.79
Project No. 5: Grass Seed, Fertilize & Mulch	$2,619.43
Move in and equipment cleaning	$11,180.08
Total Credit for all Projects (rounded)	$222,100

PROJECT COST SUMMARY SHEET

Timber Sale: Sam Hill

Sale Number: 341-16-57

PROJECT NO. 1: ROAD CONSTRUCTION

Road Segment	Length		Cost
A to B	17+30		$6,604.46
I to J	2+95		$1,109.73
	20+25	stations	
	0.38	miles	

TOTAL PROJECT NO. 1 COST = $7,714.18

PROJECT NO. 2: IMPROVEMENT

Road Segment	Length		Cost
C to D	457+00		$72,846.61
E to F	97+20		$11,478.07
Point G	2+00		$24,460.64
	556+20	stations	
	10.53	miles	

TOTAL PROJECT NO. 2 COST = $108,785.32

PROJECT NO. 3: SURFACING

Road Segment	Amount	Type	Cost
A to B	1,369 cy	Pit-run	$13,470.96
C to D	432 cy	1 1/2" - 0	$3,309.12
C to D	50 cy	24" - 12"	$402.00
C to D	672 cy	Crusher Reject	$4,663.68
E to F	24 cy	1 1/2" - 0	$145.20
E to F	24 cy	Crusher Reject	$127.92
E to F	20 cy	Pit-run	$118.60
Point G	130 cy	1 1/2" - 0	$722.80
Point G	60 cy	24" - 12"	$356.40
Point G	48 cy	Crusher Reject	$232.32
Point H	311 cy	1 1/2" - 0	$1,996.71
Point H	144 cy	3" - 0	$960.48
Point H	216 cy	24" - 12"	$1,283.04
I to J	392 cy	Pit-run	$3,927.84
Total	3,892 cy		
	744 cy	Crusher Reject	
	897 cy	1 1/2" - 0	
	144 cy	3" - 0	
	1,781 cy	Pit-run	
	326 cy	24" - 12"	

TOTAL PROJECT NO. 3 COST = $31,717.07

PROJECT NO. 4: TYPE F OPEN BOTTOM ARCH CULVERT

Installation of Open Bottom Arch Culvert at Point H

TOTAL PROJECT NO. 4 COST = $60,078.79

PROJECT NO. 5: GRASS SEED, FERTILIZE, & MULCH

TOTAL PROJECT NO. 5 COST = $2,619.43

MOVE IN & EQUIPMENT CLEANING

Graders	$953.99
Rollers	$623.78
Excavators (3) - Equipment Cleaning	$5,987.10
Backhoe	$497.58
Tractor - Equipment Cleaning	$1,947.31
Dump Trucks	$517.69
Loader to Camp 5 Stockpiles	$652.63

TOTAL MOVE IN & EQUIPMENT CLEANING COST = $11,180.08

TOTAL ALL PROJECTS $222,094.87

TOTAL CREDITS $222,100.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sam Hill** Timber Sale No. : 341-16-57

Road Segment: **A to B** Construction : 17+30 stations

0.33 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	1.99	acres @	$1,078.00	per acre =	$2,140.66	
Balanced Road Construction	11.30	sta @	$110.00	per sta =	$1,243.00	
Balanced Road Construction (drift)	6.00	sta @	$180.00	per sta =	$1,080.00	
Full Bench Endhaul Construction (0+00 to 1+00)						
Excavate & Load	150	cy @	$1.28	per cy =	$192.00	
Haul	150	cy @	$1.50	per cy =	$225.00	
Compact Waste Area	150	cy @	$0.30	per cy =	$45.00	
Construct Turnouts (2)	2	ea @	$66.00	per ea =	$132.00	
Landing	1	ea @	$314.00	per ea =	$314.00	
Grade, Ditch, and Roll	17.30	sta @	$36.00	per sta =	$622.80	
				TOTAL EXCAVATION COSTS=		**$5,994.46**

CULVERTS - MATERIALS & INSTALLATION

Culverts

30 LF of 18" $600.00

Culvert Markers

1 markers $10.00

TOTAL CULVERT COSTS = **$610.00**

PROJECT NO. 1 TOTAL COST = $6,604.46

PROJECT NO. 3:

SURFACING

	12	" deep =	65 cy/sta				
A to B	1,125	cy of	Pit-run	@	$9.84	per cy =	$11,070.00
Turnouts (2)	44	cy of	Pit-run	@	$9.84	per cy =	$432.96
Junction	20	cy of	Pit-run	@	$9.84	per cy =	$196.80
Landing (1)	180	cy of	Pit-run	@	$9.84	per cy =	$1,771.20
Total =	1369						

PROJECT NO. 3 TOTAL COST = $13,470.96

PROJECT NO. 5:

Grass seed and fertilize areas of disturbed soil.	0.99 acres @	$425.00	per acre =	$421.98	
Mulch	6.00 bales @	$8.00	per bale =	$48.00	
				PROJECT NO. 5 TOTAL COST =	**$469.98**

TOTAL COST = $20,545.39

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sam Hill** Timber Sale No. : 341-16-57

Road Segment: **C to D** Improvement : 457+00 stations

8.66 miles

PROJECT NO. 2

EXCAVATION

Clean/Construct Ditch and Waste Locally	374.00	sta @	$60.00	per sta =	$22,440.00	
Install Settling Ponds	2	ea @	$15.00	per ea =	$30.00	
Grade, Ditch, and Roll	457.00	sta @	$36.00	per sta =	$16,452.00	
Grade and Roll (Outslope)	5.55	sta @	$31.10	per sta =	$172.61	
				TOTAL EXCAVATION COSTS=		**$39,094.61**

CULVERTS - MATERIALS & INSTALLATION

Culverts

930	LF of 18"	$18,600.00	36	LF of 24"	$1,044.00
186	LF of 30"	$7,254.00	46	LF of 36"	$2,300.00
44	LF of 42"	$2,684.00			

Culvert Markers

37 markers $370.00

Additional Culvert Cost

Excavate Existing Culvert & Backfill	2	ea @	$150.00	per ea =	$300.00	
Excavate Existing Culvert & Reinstall	3	ea @	$400.00	per ea =	$1,200.00	
				TOTAL CULVERT COSTS =		**$33,752.00**

PROJECT NO. 2 TOTAL COST = $72,846.61

PROJECT NO. 3:

SURFACING

	8	" deep =	42 cy/sta					
Surfacing Over Culverts	432	cy of	1 1/2" - 0	@	$7.66	per cy =	$3,309.12	
Energy Dissipator	50	cy of	24" - 12"	@	$8.04	per cy =	$402.00	
Culvert Bedding/Backfill	552	cy of	Crusher Reject	@	$6.94	per cy =	$3,830.88	
Trench Backfill	120	cy of	Crusher Reject	@	$6.94	per cy =	$832.80	
Total =	1154							

PROJECT NO. 3 TOTAL COST = $8,374.80

PROJECT NO. 5:

Grass seed and fertilize areas of disturbed soil.	0.20 acres @	$425.00	per acre =	$85.00	
Bio Bags	30 ea @	$5.00	per ea =	$150.00	
Mulch	76 bales @	$8.00	per bale =	$608.00	
					$843.00

PROJECT NO. 5 TOTAL COST = $843.00

TOTAL COST = $82,064.41

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sam Hill** Timber Sale No. : 341-16-57

Road Segment: **E to F** Improvement : 97+20 stations

1.84 miles

PROJECT NO. 2

EXCAVATION

Clean ditch and Endhaul Waste Material	97.20	sta @	$100.00	per sta =	$9,720.00	
Endhaul (52+80 to 55+00)						
Excavate & Load	201	cy @	$1.28	per cy =	$256.67	
Haul	201	cy @	$1.10	per cy =	$221.10	
Compact Waste Area	201	cy @	$0.30	per cy =	$60.30	
				TOTAL EXCAVATION COSTS=		$10,258.07

CULVERTS - MATERIALS & INSTALLATION

Culverts

60 LF of 18" $1,200.00

Culvert Markers

2 markers $20.00

TOTAL CULVERT COSTS = $1,220.00

PROJECT NO. 2 TOTAL COST = $11,478.07

PROJECT NO. 3:

SURFACING

	8	" deep =	42 cy/sta				
Surfacing over Culverts	24	cy of	1 1/2" - 0	@	$6.05	per cy =	$145.20
Spot Rock	20	cy of	Pit-run	@	$5.93	per cy =	$118.60
Culvert Bedding/Backfill	24	cy of	Crusher Reject	@	$5.33	per cy =	$127.92
Total =	68						

PROJECT NO. 3 TOTAL COST = $391.72

PROJECT NO. 5:

Grass seed and fertilize areas of disturbed soil.	0.60 acres @	$425.00	per acre =	$255.00	
Mulch	8.00 bales @	$8.00	per bale =	$64.00	
			PROJECT NO. 5 TOTAL COST =		**$319.00**

TOTAL COST = $12,188.79

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sam Hill** Timber Sale No. : 341-16-57

Road Segment: **Point G** Construction : 2+00 stations

0.04 miles

PROJECT NO. 2

FILL EXCAVATION						
Excavate existing culvert and fill	2,320	cy @	$1.37	per cy =	$3,178.40	
Endhaul unsuitable fill material	603	cy @	$1.53	per cy =	$922.90	
Stage material locally	483	cy @	$0.30	per cy =	$144.77	
Haul fill material to staging area	1,930	cy @	$1.53	per cy =	$2,953.27	
Shape staged material	1,930	cy @	$0.30	per cy =	$579.07	
Load material @ staged material	1,930	cy @	$0.80	per cy =	$1,544.19	
Haul fill material from staging area	1,930	cy @	$0.00	per cy =	$0.00	
Excavate additional fill material locally	603	sta @	$1.76	per sta =	$1,061.63	
Place fill and rock	3,016	cy @	$2.40	per cy =	$7,238.40	
Compact fill	3,016	cy @	$0.50	per cy =	$1,508.00	
Compact Waste Area	603	cy @	$0.30	per cy =	$180.96	
Pump culvert installation	1	day @	$150.00	per hr =	$150.00	
Grade, Ditch, and Roll	2.00	sta @	$36.00	per sta =	$72.00	
				TOTAL EXCAVATION COSTS=		**$19,533.59**

CULVERTS - MATERIALS

Culverts

85 LF of 48" $4,927.05

TOTAL CULVERT COSTS = **$4,927.05**

PROJECT NO. 2 TOTAL COST = $24,460.64

PROJECT NO. 3:

SURFACING	12	" deep =	65 cy/sta				
Surfacing	130	cy of	1 1/2" - 0	@	$5.56	per cy =	$722.80
Culvert Bedding	48	cy of	Crusher Reject	@	$4.84	per cy =	$232.32
Energy Dissipator	24	cy of	24" - 12"	@	$5.94	per cy =	$142.56
Fill Armor	36	cy of	24" - 12"	@	$5.94	per cy =	$213.84
Total =	238						

PROJECT NO. 3 TOTAL COST = $1,311.52

PROJECT NO. 5:

Grass seed and fertilize areas of disturbed soil.	0.60 acres @	$425.00	per acre =	$255.00	
Mulch	32 bales @	$8.00	per bale =	$256.00	
				PROJECT NO. 5 TOTAL COST =	**$511.00**

TOTAL COST = $26,283.16

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sam Hill** Timber Sale No. : 341-16-57

Road Segment: **Point H** Improvement : 2+00 stations

0.04 miles

PROJECT NO. 4

Salvage existing road surfacing	110	cy @	$1.78	per cy =	$195.80	
Excavate existing culvert and fill	1,840	cy @	$1.28	per cy =	$2,355.20	
Endhaul unsuitable fill material	478	cy @	$1.18	per cy =	$564.51	
Stage material locally	383	cy @	$0.30	per cy =	$114.82	
Haul suitable fill material to staging area	1,531	cy @	$1.18	per cy =	$1,806.44	
Shape staged material	1,531	cy @	$0.30	per cy =	$459.26	
Load material @ staged material	1,531	cy @	$0.80	per cy =	$1,224.70	
Haul fill material from staging area	1,531	cy @	$1.18	per cy =	$1,806.44	
Dewatering System					$3,540.00	
Channel Establishment - endhaul	60	cy @	$1.18	per cy =	$70.80	
Geotextile - Materials & Installation					$580.00	
Precast Footings - Construction & Delivery					$8,320.00	
Footing Installation					$3,060.00	
Open Bottom Pipe Arch Culvert - Materials & Installation					$24,035.00	
Place suitable excavated fill material	1,637	cy @	$2.40	per cy =	$3,928.80	
Compact fill	1,781	cy @	$0.50	per cy =	$890.50	
Compact Waste Area	538	cy @	$0.30	per cy =	$161.52	
Remove culvert from State land	5	hrs @	$95.00	per hr =	$475.00	
Grade, Ditch, and Roll	2.00	sta @	$45.00	per sta =	$90.00	
Engineering Fees					$6,400.00	

PROJECT NO. 4 TOTAL COST = $60,078.79

PROJECT NO. 3:

SURFACING ($/cy includes loading, hauling, placing/processing, and compaction)

Surfacing	227	cy of	1 1/2" - 0	@	$8.13	per cy =	$1,845.51
Bedding for Footings	84	cy of	1 1/2" - 0	@	$1.80	per cy =	$151.20
Bedding for Footings	108	cy of	24" - 12"	@	$5.94	per cy =	$641.52
Backfill Rock	144	cy of	3" - 0	@	$6.67	per cy =	$960.48
Streambed Retention Material	36	cy of	24" - 12"	@	$5.94	per cy =	$213.84
Fill Armor	72	cy of	24" - 12"	@	$5.94	per cy =	$427.68
Total =	671						
	84	cy of	1 1/2" - 0		$1.80	per cy =	$151.20
	227	cy of	1 1/2" - 0		$8.13	per cy =	$1,845.51
	144	cy of	3" - 0		$6.67	per cy =	$960.48
	216	cy of	24" - 12"		$5.94	per cy =	$1,283.04

PROJECT NO. 3 TOTAL COST = $4,240.23

PROJECT NO. 5:

Grass seed and fertilize areas of disturbed soil.	0.50	acres @	$425.00	per acre =	$212.50
Mulch	24	bales @	$8.00	per bale =	$192.00

PROJECT NO. 5 TOTAL COST = $404.50

TOTAL COST = $64,723.52

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sam Hill** Timber Sale No. : 341-16-57

Road Segment: **I to J** Construction : 2+95 stations

0.06 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.34	acres @	$1,078.00	per acre =	$365.03	
Balanced Road Construction	2.95	sta @	$110.00	per sta =	$324.50	
Landing	1	ea @	$314.00	per ea =	$314.00	
Grade, Ditch, and Roll	2.95	sta @	$36.00	per sta =	$106.20	

PROJECT NO. 1 TOTAL COST = $1,109.73

PROJECT NO. 3:

SURFACING 12 " deep = 65 cy/sta

I to J	192	cy of	Pit-run	@	$10.02	per cy =	$1,923.84
Junction	20	cy of	Pit-run	@	$10.02	per cy =	$200.40
Landing (1)	180	cy of	Pit-run	@	$10.02	per cy =	$1,803.60
Total =	392						

PROJECT NO. 3 TOTAL COST = $3,927.84

PROJECT NO. 5:

Grass seed and fertilize areas of disturbed soil.	0.17	acres @	$425.00	per acre =	$71.96	

PROJECT NO. 5 TOTAL COST = $71.96

TOTAL COST = $5,109.52

CRUISE REPORT
SAM HILL
341-16-57

1. LOCATION: Portions of Sections 19, 20, 29 & 30, T3N, R6W, W.M., Tillamook County, Oregon.

2. CRUISE DESIGN:
The cruise design assumed a Coefficient of Variation (CV%) of 50%, an average stand diameter of 16 inches, a desired sampling error (SE%) of 10% and a minimum sample size of 100 grade trees. Pre-cruise plots indicated that 6 or 7 trees per plot could be realized with a 40 BAF prism.

3. SAMPLING METHOD:
The Sale Area was cruised in July of 2014 with 17 variable radius grade plots and 17 variable radius count plots using a 40 BAF prism. 23 total plots were taken in Area 1 and 11 total plots were taken in Area 2. Plots were laid out on a 6 chain x 6 chain grid in Area 1 and a 4 chain x 4 chain grid in Area 2. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS
219 trees were counted of which106 trees were measured and graded. This produced a cumulative Sampling Error of 6.8% on the Douglas-fir basal area and 6.3% on the Douglas-fir Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

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

a) **Height Standards:**
Total tree heights were measured to the nearest foot. Bole heights were calculated to a 6 inch (DIB) top or 25% of DBH, whichever was greater.

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 and grown forward volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software.

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

6. Cruisers: The sale was cruised by ODF cruisers Mark Savage and Joe Koch.

Prepared by: Joe Koch
ODF Forester Date

Reviewed by: _____
Eric Foucht Date

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SAMHILL

Page 1
Date 8/13/2014
Time 2:51:24PM

T03N R06W S20 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
03N	06W	20	00A1	00MC	94.00	25	77	S	W

T03N R06W S20 T00MC

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF			CU														4	20		0.00	3.6
DF			2M	55	1.5	21,029	20,720	1,948			68	32				100	40	15	335	1.95	61.8
DF			3M	40	1.8	15,358	15,074	1,417		90	5	5	1	0	12	87	38	8	104	0.72	145.5
DF			4M	5		1,607	1,607	151		100			46	42	9	4	18	6	21	0.36	77.4
DF	**Totals**			100	1.6	37,994	37,401	3,516		41	40	20	2	2	5	91	33	9	130	0.99	288.4
Type Totals					1.6	37,994	37,401	3,516		41	40	20	2	2	5	91	33	9	130	0.99	288.4

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SAMHILL

Date 8/13/2014

Time 3:00:33PM

T03N R06W S20 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
03N	06W	20	00A2	00MC	22.00	9	29	S	W

T03N R06W S20 T00MC

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF			CU															6		0.00	2.1
DF			2M	63	1.7	30,405	29,881	657			26	74				100	40	17	476	2.47	62.8
DF			3M	32	.2	14,775	14,741	324		78	22			1	10	88	37	9	118	0.75	125.2
DF			4M	5		2,131	2,131	47		100			38	20	34	8	20	6	27	0.40	79.5
DF	**Totals**			92	1.2	47,312	46,754	1,029		29	24	47	2	1	5	92	32	10	173	1.18	269.6
RA			CR	100		2,314	2,314	51		100					100		34	7	60	0.67	38.6
RA	**Totals**			5		2,314	2,314	51		100					100		34	7	60	0.67	38.6
NF			2M	91		1,024	1,024	23				100				100	40	21	770	3.78	1.3
NF			4M	9		93	93	2	21		79			100			24	9	70	0.86	1.3
NF	**Totals**			2		1,118	1,118	25	2		7	92		8		92	32	15	420	2.70	2.7
BM			CR	100	5.6	406	384	8		100			18			82	29	9	85	1.14	4.5
BM	**Totals**			1	5.6	406	384	8		100			18			82	29	9	85	1.14	4.5
Type Totals					1.1	51,150	50,569	1,113	0	32	22	46	2	1	9	88	33	10	160	1.13	315.3

TC TSTNDSUM

Stand Table Summary

Project **SAMHILL**

T03N R06W S20 T00MC

T03N R06W S20 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	06W	20	00A1	00MC	94.00	25	77

Date: **08/13/201**

Time: **2:51:24PM**

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.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		10	2	86	76	11.887	6.48	11.89	12.4	60.0	4.22	148	713	396	139	67
DF		11	2	86	83	9.824	6.48	19.65	8.2	35.0	4.59	161	688	431	151	65
DF		13	4	87	96	14.067	12.97	28.13	14.4	57.5	11.53	405	1,618	1,084	380	152
DF		15	2	87	99	5.283	6.48	5.28	19.3	70.0	2.90	102	370	273	96	35
DF		16	2	87	103	4.643	6.48	9.29	24.2	102.5	6.41	225	952	602	211	89
DF		17	7	87	106	14.396	22.69	30.85	26.9	110.0	23.63	829	3,393	2,221	779	319
DF		18	4	87	107	7.337	12.97	18.34	26.8	104.0	14.03	492	1,908	1,318	463	179
DF		19	7	86	106	11.524	22.69	26.34	32.3	119.4	24.23	850	3,145	2,278	799	296
DF		20	5	86	110	7.429	16.21	22.29	28.7	111.3	18.22	639	2,481	1,712	601	233
DF		21	9	85	106	12.129	29.17	28.30	38.0	138.6	30.61	1,074	3,922	2,877	1,010	369
DF		22	3	84	113	3.684	9.72	9.82	39.2	153.7	10.96	385	1,510	1,031	362	142
DF		23	4	83	102	4.494	12.97	7.86	48.1	182.9	10.78	378	1,438	1,013	356	135
DF		24	6	85	116	6.191	19.45	17.54	44.9	184.7	22.45	788	3,240	2,111	741	305
DF		25	5	85	118	4.755	16.21	14.26	46.6	190.7	18.94	664	2,720	1,780	625	256
DF		26	3	86	110	2.638	9.72	7.03	54.5	221.2	10.92	383	1,556	1,026	360	146
DF		27	3	85	119	3.005	11.95	9.02	60.8	316.8	15.63	548	2,856	1,469	515	268
DF		28	5	82	116	3.790	16.21	11.37	58.4	230.7	18.92	664	2,623	1,778	624	247
DF		29	1	88	134	.707	3.24	2.12	74.9	346.7	4.52	159	735	425	149	69
DF		30	1	86	114	.660	3.24	1.98	66.5	280.0	3.75	132	555	353	124	52
DF		32	1	81	125	.580	3.24	1.74	80.5	343.3	3.99	140	598	375	132	56
DF		33	1	75	107	.546	3.24	1.64	75.1	233.3	3.50	123	382	329	116	36
DF		Totals	77	86	102	129.569	251.82	284.75	32.6	131.3	264.73	9,289	37,401	24,885	8,731	3,516
Totals			77	86	102	129.569	251.82	284.75	32.6	131.3	264.73	9289	37,401	24,885	8,731	3,516

TC TSTNDSUM

Stand Table Summary

Project **SAMHILL**

T03N R06W S20 T00MC

T03N R06W S20 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	06W	20	00A2	00MC	22.00	9	29

Page: 1
Date: 08/13/201
Time: 3:00:33PM

Spc	ST	DBH	Sample Trees	FF 16'	Av Ht Tot	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		10	1	86	76	16.611	9.06	16.61	12.1	60.0	5.74	201	997	126	44	22
DF		11	1	86	88	13.728	9.06	27.46	8.7	35.0	6.81	239	961	150	53	21
DF		15	1	88	102	7.383	9.06	14.77	22.3	100.0	9.37	329	1,477	206	72	32
DF		16	3	89	113	19.466	27.18	51.91	20.6	92.5	30.48	1,069	4,802	670	235	106
DF		19	1	89	117	4.601	9.06	13.80	27.1	110.0	10.65	374	1,518	234	82	33
DF		20	1	90	124	4.153	9.06	12.46	32.1	143.3	11.41	400	1,786	251	88	39
DF		22	2	87	132	6.864	18.12	20.59	39.8	183.3	23.37	820	3,775	514	180	83
DF		24	1	92	142	2.884	9.06	8.65	55.8	276.7	13.77	483	2,394	303	106	53
DF		25	3	86	129	7.973	27.18	23.92	51.4	223.3	35.03	1,229	5,342	771	270	118
DF		26	3	89	143	7.372	27.18	27.03	51.3	249.1	39.51	1,386	6,733	869	305	148
DF		28	2	86	114	4.237	18.12	10.59	68.7	280.0	20.75	728	2,966	456	160	65
DF		29	2	80	141	3.950	18.12	13.83	61.4	258.6	24.18	849	3,575	532	187	79
DF		30	1	84	148	1.846	9.06	7.38	62.4	290.0	13.12	460	2,141	289	101	47
DF		33	1	84	130	1.525	9.06	4.58	90.6	416.7	11.81	414	1,907	260	91	42
DF		35	1	83	146	1.356	9.06	5.42	84.6	420.0	13.08	459	2,278	288	101	50
DF		36	1	81	143	1.282	9.06	3.85	113.7	516.7	12.46	437	1,987	274	96	44
DF		38	1	81	143	1.150	9.06	4.60	94.9	460.0	12.44	437	2,117	274	96	47
DF		Totals	26	87	112	106.381	235.56	267.44	38.6	174.8	293.98	10,315	46,754	6,468	2,269	1,029
RA		13	1	74	66	38.574	35.56	38.57	22.7	60.0	24.10	876	2,314	530	193	51
RA		Totals	1	74	66	38.574	35.56	38.57	22.7	60.0	24.10	876	2,314	530	193	51
NF		35	1	82	143	.665	4.44	2.66	85.7	420.0	5.47	228	1,118	120	50	25
NF		Totals	1	82	143	.665	4.44	2.66	85.7	420.0	5.47	228	1,118	120	50	25
BM		19	1	72	84	2.257	4.44	4.51	33.2	85.0	3.97	150	384	87	33	8
BM		Totals	1	72	84	2.257	4.44	4.51	33.2	85.0	3.97	150	384	87	33	8
Totals			29	83	100	147.877	280.00	313.19	36.9	161.5	327.52	11569	50,569	7,205	2,545	1,113

PROJECT STATISTICS

PROJECT SAMHILL

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	06	20	00A1	00MC	116.00	34	219	S	W
03N	06W	20	00A2	00MC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	34	219	6.4		
CRUISE	17	106	6.2	15,433	.7
DBH COUNT					
REFOREST					
COUNT	17	108	6.4		
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	103	125.2	19.1	104	56.9	248.7	39,761	39,175	9,483	9,483
R ALDER	1	7.3	13.0	66	1.9	6.7	439	439	166	166
NOB FIR	1	.1	35.0	143	0.1	.8	212	212	43	43
BL MAPLE	1	.4	19.0	84	0.2	.8	77	73	28	28
TOTAL	*106*	*133.0*	*18.8*	*102*	*59.3*	*257.2*	*40,489*	*39,899*	*9,721*	*9,721*

CONFIDENCE LIMITS OF THE SAMPLE

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

SAMPLE TREES - BF

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	75.0	7.4	448	484	520			
R ALDER								
NOB FIR								
BL MAPLE								
TOTAL	*77.8*	*7.6*	*452*	*488*	*525*	*242*	*60*	*27*

SAMPLE TREES - CF

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	65.5	6.5	107	115	122			
R ALDER								
NOB FIR								
BL MAPLE								
TOTAL	*67.5*	*6.6*	*108*	*115*	*123*	*182*	*46*	*20*

TREES/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	50.3	8.6	114	125	136			
R ALDER	513.2	87.9	1	7	14			
NOB FIR	583.1	99.9	0	0	0			
BL MAPLE	583.1	99.9	0	0	1			
TOTAL	*45.2*	*7.7*	*123*	*133*	*143*	*82*	*20*	*9*

BASAL AREA/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	40.0	6.8	232	249	266			
R ALDER	513.2	87.9	1	7	13			
NOB FIR	583.1	99.9	0	1	2			
BL MAPLE	583.1	99.9	0	1	2			
TOTAL	*34.2*	*5.9*	*242*	*257*	*272*	*47*	*12*	*5*

NET BF/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	36.5	6.3	36,723	39,175	41,626			
R ALDER	513.2	87.9	53	439	825			
NOB FIR	583.1	99.9	0	212	424			
BL MAPLE	583.1	99.9	0	73	145			

TC PSTATS

PROJECT STATISTICS

PROJECT **SAMHILL**

DATE 8/13/2014

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	06	20	00A1	00MC	116.00	34	219	S	W
03N	06W	20	00A2	00MC					

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	*33.7*	*5.8*	*37,597*	*39,899*	*42,200*	*45*	*11*	*5*

CL 68.1	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	37.6	6.4	8,873	9,483	10,094			
R ALDER	513.2	87.9	20	166	312			
NOB FIR	583.1	99.9	0	43	86			
BL MAPLE	583.1	99.9	0	28	57			
TOTAL	*33.1*	*5.7*	*9,169*	*9,721*	*10,273*	*44*	*11*	*5*

TC TSTATS

STATISTICS

PROJECT SAMHILL

DATE 8/13/2014

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	06W	20	00A1	00MC	94.00	25	156	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	25	156	6.2		
CRUISE	12	77	6.4	12,179	.6
DBH COUNT					
REFOREST					
COUNT	13	79	6.1		
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	77	129.6	18.9	102	58.0	251.8	37,994	37,401	9,289	9,289
TOTAL	*77*	*129.6*	*18.9*	*102*	*58.0*	*251.8*	*37,994*	*37,401*	*9,289*	*9,289*

CONFIDENCE LIMITS OF THE SAMPLE

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

SAMPLE TREES - BF

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	67.5	7.7	368	398	429			
TOTAL	*67.5*	*7.7*	*368*	*398*	*429*	*182*	*45*	*20*

SAMPLE TREES - CF

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	58.2	6.6	92	99	105			
TOTAL	*58.2*	*6.6*	*92*	*99*	*105*	*135*	*34*	*15*

TREES/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	44.0	9.0	118	130	141			
TOTAL	*44.0*	*9.0*	*118*	*130*	*141*	*81*	*20*	*9*

BASAL AREA/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	32.6	6.6	235	252	269			
TOTAL	*32.6*	*6.6*	*235*	*252*	*269*	*44*	*11*	*5*

NET BF/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	31.4	6.4	35,005	37,401	39,797			
TOTAL	*31.4*	*6.4*	*35,005*	*37,401*	*39,797*	*41*	*10*	*5*

NET CUFT FT/ACRE

CL: 68.1 % SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	31.7	6.5	8,689	9,289	9,889			
TOTAL	*31.7*	*6.5*	*8,689*	*9,289*	*9,889*	*42*	*10*	*5*

TC TSTATS

STATISTICS

PROJECT SAMHILL

DATE 8/13/2014

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	06W	20	00A2	00MC	22.00	9	63	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	9	63	7.0		
CRUISE	5	29	5.8	3,253	.9
DBH COUNT					
REFOREST					
COUNT	4	29	7.3		
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	26	106.4	20.1	112	52.5	235.6	47,312	46,754	10,315	10,315
R ALDER	1	38.6	13.0	66	9.9	35.6	2,314	2,314	876	876
NOB FIR	1	.7	35.0	143	0.8	4.4	1,118	1,118	228	228
BL MAPLE	1	2.3	19.0	84	1.0	4.4	406	384	150	150
TOTAL	*29*	*147.9*	*18.6*	*100*	*64.9*	*280.0*	*51,150*	*50,569*	*11,569*	*11,569*

CONFIDENCE LIMITS OF THE SAMPLE

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

SAMPLE TREES - BF

CL: 68.1 % COEFF SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	64.8	13.0	643	738	834			
R ALDER								
NOB FIR								
BL MAPLE								
TOTAL	*70.6*	*13.3*	*631*	*728*	*825*	*206*	*51*	*23*

SAMPLE TREES - CF

CL: 68.1 % COEFF SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	61.4	12.3	142	162	182			
R ALDER								
NOB FIR								
BL MAPLE								
TOTAL	*65.6*	*12.4*	*140*	*160*	*180*	*178*	*44*	*20*

TREES/ACRE

CL: 68.1 % COEFF SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	37.7	13.3	92	106	121			
R ALDER	260.5	91.9	3	39	74			
NOB FIR	300.0	105.9		1	1			
BL MAPLE	300.0	105.9		2	5			
TOTAL	*41.6*	*14.7*	*126*	*148*	*170*	*78*	*19*	*9*

BASAL AREA/ACRE

CL: 68.1 % COEFF SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	47.6	16.8	196	236	275			
R ALDER	260.5	91.9	3	36	68			
NOB FIR	300.0	105.9		4	9			
BL MAPLE	300.0	105.9		4	9			
TOTAL	*24.7*	*8.7*	*256*	*280*	*304*	*27*	*7*	*3*

NET BF/ACRE

CL: 68.1 % COEFF SD: 1.0

	VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	51.0	18.0	38,335	46,754	55,172			
R ALDER	260.5	91.9	187	2,314	4,442			
NOB FIR	300.0	105.9		1,118	2,301			
BL MAPLE	300.0	105.9		384	790			
TOTAL	*41.0*	*14.5*	*43,254*	*50,569*	*57,885*	*75*	*19*	*8*

STATISTICS

PROJECT **SAMHILL**

DATE 8/13/2014

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
03N	**06W**	**20**	**00A2**	**00MC**	22.00	9	63	S	W

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

CL:	68.1 %	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR		50.8	17.9	8,465	10,315	12,166			
R ALDER		260.5	91.9	71	876	1,682			
NOB FIR		300.0	105.9		228	469			
BL MAPLE		300.0	105.9		150	308			
TOTAL		*34.4*	*12.1*	*10,165*	*11,569*	*12,974*	*53*	*13*	*6*

TC TLOGSTVB

Log Stock Table - MBF

Project: SAMHILL

T03N R06W S20 T00MC — **T03N R06W S20 T00M**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	06W	20	00A1	00MC	94.00	25	77

Page 1
Date 8/13/2014
Time 2:51:24PM

Spp	S T	So Grade	Log Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		CU	3																
DF		CU	4																
DF		2M	40	1,977	1.5	1,948	55.4						596	395	743	213			
DF		3M	20	10		10	.3					10							
DF		3M	21	4		4	.1			4									
DF		3M	31	8		8	.2				8								
DF		3M	32	52		52	1.5			39	14								
DF		3M	33	10		10	.3			10									
DF		3M	34	68		68	1.9			6	61								
DF		3M	35	28		28	.8			28									
DF		3M	36	20		20	.6			8	12								
DF		3M	37	21	9.1	19	.5				19								
DF		3M	38	121	1.6	119	3.4			77	24	18							
DF		3M	40	1,103	2.1	1,080	30.7			137	270	533	49	19		73			
DF		4M	12	31		31	.9			31									
DF		4M	13	4		4	.1			4									
DF		4M	14	6		6	.2			6									
DF		4M	15	7		7	.2			7									
DF		4M	16	10		10	.3			10									
DF		4M	17	4		4	.1			4									
DF		4M	18	3		3	.1			3									
DF		4M	19	2		2	.1			2									
DF		4M	20	2		2	.1			2									
DF		4M	23	10		10	.3			10									
DF		4M	24	13		13	.4			13									
DF		4M	25	2		2	.1			2									
DF		4M	26	17		17	.5			17									
DF		4M	27	2		2	.0			2									
DF		4M	30	20		20	.6			20									
DF		4M	34	3		3	.1			3									
DF		4M	35	10		10	.3			10									
DF		4M	39	6		6	.2			6									
DF		Totals		3,571	1.6	3,516	100.0			459	408	560	645	414	743	286			
Total All Species				3,571	1.6	3,516	100.0			459	408	560	645	414	743	286			

TC TLOGSTVB

Log Stock Table - MBF

Project: SAMHILL

T03N R06W S20 T00MC — **T03N R06W S20 T00M**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	06W	20	00A2	00MC	22.00	9	29

Page 1
Date 8/13/2014
Time 3:00:34PM

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+
DF		CU																	
DF		2M	40	669	1.7	657	63.9						34	136	343	57	88		
DF		3M	22	4		4	.4			1			3						
DF		3M	32	19		19	1.8			10	9								
DF		3M	34	15		15	1.4			11		4							
DF		3M	36	32		32	3.1			29	2								
DF		3M	38	30		30	2.9			22	8								
DF		3M	40	226	.3	225	21.9				11	145	40	29					
DF		4M	12	8		8	.8			8									
DF		4M	17	2		2	.2			2									
DF		4M	19	1		1	.1			1									
DF		4M	20	7		7	.7					7							
DF		4M	21	1		1	.1			1									
DF		4M	22	2		2	.2			2									
DF		4M	24	2		2	.2			2									
DF		4M	26	2		2	.2			2									
DF		4M	27	2		2	.2			2									
DF		4M	32	3		3	.3			3									
DF		4M	33	13		13	1.3			13									
DF		4M	37	4		4	.4			4									
DF		Totals		1,041	1.2	1,029	92.5			113	30	156	77	165	343	57	88		
RA		CR	34	51		51	100.0			51									
RA		Totals		51		51	4.6			51									
NF		2M	40	23		23	91.7								8		15		
NF		4M	23	2		2	6.5						2						
NF		4M	24	0		0	1.8	0											
NF		Totals		25		25	2.2	0					2		8		15		
BM		CR	18	1		1	17.6			1									
BM		CR	40	7	6.7	7	82.4					7							
BM		Totals		9	5.6	8	.8			1		7							
Total All Species				1,125	1.1	1,113	100.0	0		166	30	163	79	165	351	57	102		

VOLUME SUMMARY

(Shown in MBF)

Sam Hill
341-16-57
May 2015

Area 1:
MC (94 ACRES)

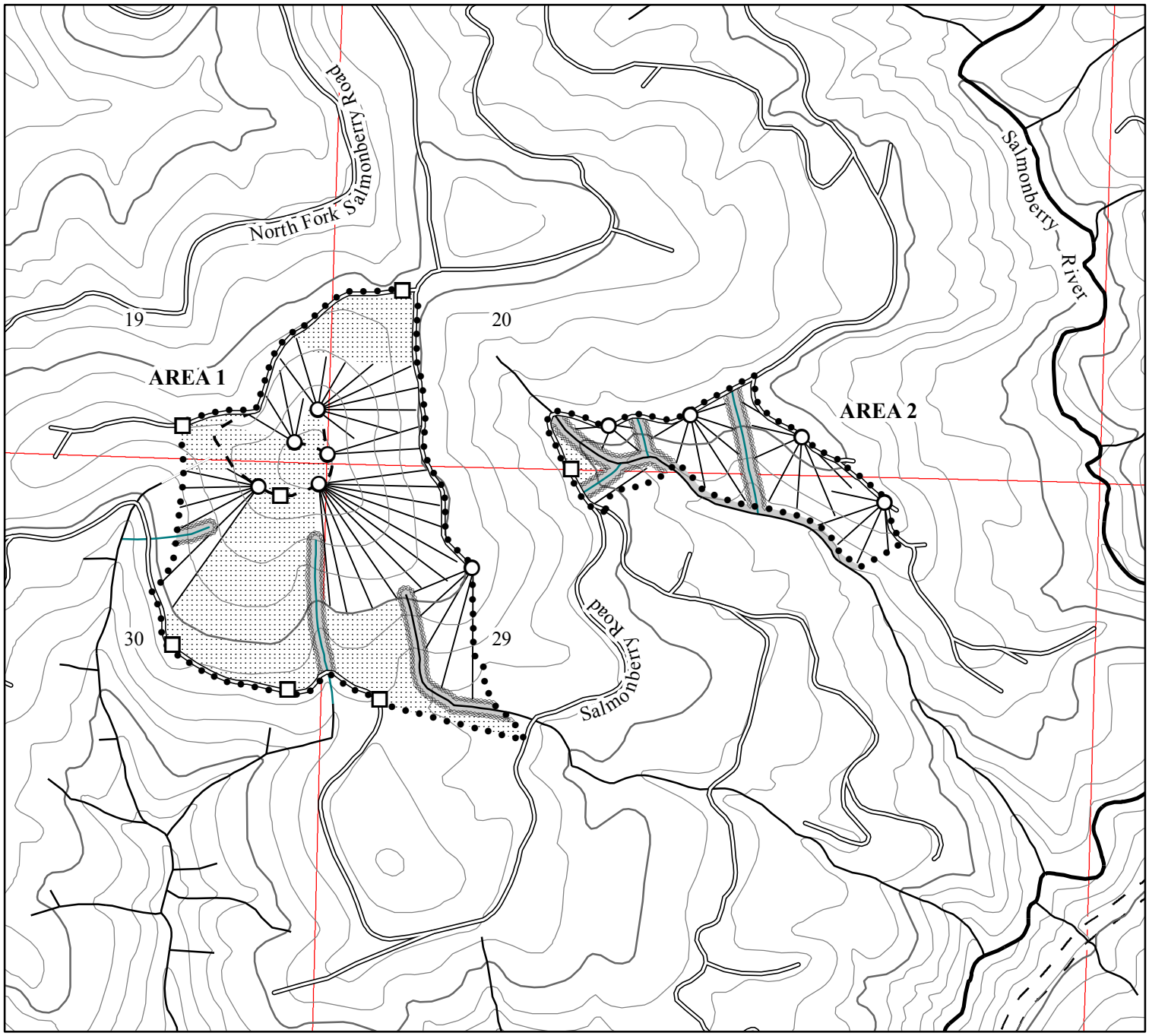
SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	1,948	1,417	151	0	3,516
	Hidden D&B (2%)	(39)	(28)	(3)	()	(70)
	NET TOTAL	1,909	1,389	148	0	3,446
	% of Total	55	40	4	0	

Area 2:
MC (22 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	657	324	47	0	1,028
	Hidden D&B (2%)	(13)	(6)	(1)	()	(21)
	NET TOTAL	644	318	46	0	1,007
	% of Total	64	32	5	0	
SPECIES		**2 SAW**	**3 SAW**	**4 SAW**	**CR**	**TOTAL**
Red Alder and other hardwoods	Cruise Volume	0	0	0	59	59
	Hidden D&B (2%)	()	()	()	(1)	(1)
	NET TOTAL	0	0	0	58	58
	% of Total	0	0	0	100	

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	2,553	1,707	194	0	4,454
Hardwoods	0	0	0	58	58



LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-16-57
SAM HILL
PORTIONS OF SECTIONS 19, 20, 29, & 30, T3N, R6W, W.M.
TILLAMOOK COUNTY, OREGON

Legend

- Timber Sale Boundary
- Roads
- New Road Construction
- Type F Stream
- Type N Stream
- Posted Stream Buffer Boundary
- Stream Buffer
- Cable Landing
- Tractor Landing
- Cable Yarding Area
- Tractor Yarding Area
- 400 Foot Contour Band
- 80 Foot Contour Band
- Section Lines

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

1:12,000
1 in = 1000 ft.

0 500 1,000 2,000 Feet

N

APPROXIMATE NET ACRES

	TRACTOR	CABLE
AREA 1	48	46
AREA 2	1	21
TOTAL	49	67