



"STAND FOR THE FOREST"

Timber Sale Appraisal Nehalem Breaks

Sale FG-341-2016-51-

District: Forest Grove

Date: January 07, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$3,007,480.02	\$5,762.68	\$3,013,242.70
		Project Work:	(\$101,092.13)
		Advertised Value:	\$2,912,150.57



"SUSTAINABLE FORESTRY"

Timber Sale Appraisal Nehalem Breaks

Sale FG-341-2016-51-

District: Forest Grove

Date: January 07, 2016

Timber Description

Location: Portions of Sections 23, 24, 25, and 26, T3N, R6W, W.M., Tillamook County, Oregon, and portions of Sections 30 and 31, T3N, R5W, W.M., Washington County, Oregon.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	20	0	98
Alder (Red)	16	0	95

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	6,297	1,687	239	0	8,223
Alder (Red)	0	0	0	14	14
Total	6,297	1,687	239	14	8,237

Comments: Pond Values Used: 4th Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:
 $\$188.32/\text{MBF} = \$430/\text{MBF} - \$241.68/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$908.32/\text{MBF} = \$1,150/\text{MBF} - \$241.68/\text{MBF}$

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: $8,237 \text{ MBF} \times \$2/\text{MBF} = \$16,474$
TOTAL Other Costs (with Profit & Risk to be added) = \$16,474

Other Costs (No Profit & Risk added):
Block/Waterbar Roads/Skid Trails: $15 \text{ hrs} \times \$150/\text{hour} = \$2,250$
Pile Landing Slash/Sort Firewood: $20 \text{ hrs} \times \$150/\text{hour} = \$3,000$
Equipment Cleaning: $3 \times \$1,000/\text{Piece} = \$3,000$
Slash Piling : $15 \text{ acres at } \$150/\text{acre} = \$2,250$
TOTAL Other Costs (No Profit & Risk added) = \$10,500

ROAD MAINTENANCE
Move-in: \$4,000
General Road Maintenance: $5.3 \text{ miles} \times \$1,200/\text{mile} = \$6,360$
TOTAL Road Maintenance: $\$10,360/8,237 \text{ MBF} = \$1.26/\text{MBF}$



Timber Sale Appraisal Nehalem Breaks

Sale FG-341-2016-51-

District: Forest Grove

Date: January 07, 2016

Logging Conditions

Combination#: 1 Douglas - Fir 72.63%
 Alder (Red) 45.50%

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: 9 **bd. ft / load:** 4600

cost / mbf: \$144.93

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

Combination#: 2 Douglas - Fir 27.37%
 Alder (Red) 54.50%

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

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

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

loads / day: 13 **bd. ft / load:** 4600

cost / mbf: \$53.04

machines: Stroke Delimber (B)



STRONGER FORESTRY

Timber Sale Appraisal Nehalem Breaks

Sale FG-341-2016-51-

District: Forest Grove

Date: January 07, 2016

Logging Costs

Operating Seasons: 1.00	Profit Risk: 10%
Project Costs: \$101,092.13	Other Costs (P/R): \$16,474.00
Slash Disposal: \$0.00	Other Costs: \$10,500.00

Miles of Road

Road Maintenance: \$1.26

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.4
Alder (Red)	\$0.00	2.0	3.8



STATE OF OREGON

Timber Sale Appraisal Nehalem Breaks

Sale FG-341-2016-51-

District: Forest Grove

Date: January 07, 2016

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$119.78	\$1.29	\$0.53	\$90.41	\$2.00	\$21.40	\$0.00	\$5.00	\$1.27	\$241.68
Alder (Red)									
\$94.85	\$1.32	\$0.53	\$107.76	\$2.00	\$20.65	\$0.00	\$5.00	\$1.27	\$233.38

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$607.42	\$365.74	\$0.00
Alder (Red)	\$0.00	\$645.00	\$411.62	\$0.00



Timber Sale Appraisal Nehalem Breaks

Sale FG-341-2016-51-

District: Forest Grove

Date: January 07, 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	8,223	\$365.74	\$3,007,480.02
Alder (Red)	14	\$411.62	\$5,762.68

Gross Timber Sale Value

Recovery: \$3,013,242.70

Prepared By: Eric Foucht

Phone: 503-359-7473

TIMBER SALE SUMMARY
NEHALEM BREAKS
Contract No. 341-16-51

1. **Location:** Portions of Sections 23, 24, 25, and 26, T3N, R6W, W.M., Tillamook County, Oregon, and Portions of Sections 30 and 31, T3N, R5W, W.M., Washington County, Oregon.
2. **Type of Sale:** 163 acres of Modified Clearcut in five sale areas, and 1 acre of right-of-way. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, 18% Washington County, 82% 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 September of 2015. For more information see Cruise Report.
6. **Timber Description:** The Timber Sale Area consists of five medium to well stocked stands of Douglas-fir that range in age from 58 to 87 years and two rights of way through 35 year-old plantations.

Sale Area	Net Acres	Average DBH	Trees/Acre	Net MBF/Acre
Area 1	65	18"	131	42.1
Area 2	44	23"	68	45.6
Area 3	26	22"	115	72.2
Area 4	23	21"	115	62.2
Area 5	4	21"	97	76.3

7. **Topography and Logging Method:**

Slopes within the sale areas range from 10% to 70% and are variable in aspect. The following table summarizes the estimated maximum and average horizontal cable corridor length, the estimated maximum and average tractor skid trail length, and the percent harvest method for each Sale Area.

Sale Area	Tractor			Cable		
	Average	Maximum	%	Average	Maximum	%
Area 1	320	540	9	550'	1,320'	91
Area 2	250	370	14	670'	1,400'	86
Area 3	N/A	N/A	0	500'	1,100'	100
Area 4	300	680	100	N/A	N/A	0
Area 5	250	400	100	N/A	N/A	0

8. **Access:** With the exception of Area 5, all access is on open, surfaced all-weather roads. The road to Area 5 is surfaced but is currently blocked. From Forest Grove, travel north on Highway 8 to its junction with Highway 6. Turn left and travel west approximately 3.5 miles to Timber Road. Turn right, and proceed north on Timber Road approximately 6.5 miles. Turn left onto Cochran Road. Continue west on Cochran Road for 2.7 miles to Wheeler Road. Turn right onto Wheeler Road and continue for 1.7 miles to the northeast corner of Area 3. Other Sale Areas are as shown on the Exhibit A Vicinity Map.

9. **Projects:**

Project No. 1: Road Construction and Improvement	\$26,283.11
Project No. 2: Road Surfacing	\$39,645.33
Project No. 3: Culvert Installation	\$27,458.73
Project No. 4: Grass Seed, Fertilize, & Mulch	\$1,251.78
Move in and equipment cleaning	\$6,453.18

PROJECT COST SUMMARY SHEET

Timber Sale: Nehalem Breaks
 Sale Number: 341-16-51

PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT

<u>CONSTRUCTION</u>	<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
	A to B	0+60	\$460.99
	C to D	10+50	\$3,644.89
	E to F	14+50	\$4,014.85
	G to H	8+00	\$3,032.42
	I to J	23+65	\$6,908.64
	K to L	2+10	\$664.51
	M to N	2+70	\$948.29
	T to U	2+60	\$756.63
		64+65 stations	
		1.22 miles	
		SUBTOTAL CONSTRUCTION =	\$20,431.23
<u>IMPROVEMENTS</u>	<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
	O to P	111+40	\$3,050.00
	Q to R	62+30	\$2,801.88
		173+70 stations	
		3.29 miles	
		SUBTOTAL IMPROVEMENTS =	\$5,851.88
		TOTAL PROJECT NO. 1 COST =	\$26,283.11

PROJECT NO. 2: SURFACING

<u>Road Segment</u>	<u>Rock Amount</u>	<u>Rock Type</u>	<u>Cost</u>
A to B	200 cy	Pit-run	\$1,476.00
C to D	759 cy	Pit-run	\$5,760.81
C to D	24 cy	1 1/2" - 0	\$126.48
E to F	971 cy	Pit-run	\$8,078.72
G to H	626 cy	Pit-run	\$4,538.50
G to H	24 cy	1 1/2" - 0	\$153.12
I to J	24 cy	1 1/2" - 0	\$140.88
I to J	1,491 cy	Pit-run	\$10,049.34
K to L	224 cy	Pit-run	\$2,555.84
M to N	256 cy	Pit-run	\$2,851.84
O to P	120 cy	Crusher Reject	\$806.40
O to P	48 cy	36" - 24"	\$375.36
Q to R	72 cy	Crusher Reject	\$424.80
Point S	100 cy	1 1/2" - 0	
Point S	84 cy	3" - 0	
Point S	48 cy	Select 6"	
Point S	24 cy	36" - 24"	
T to U	306 cy	Select 6"	\$2,307.24
Total	5,401 cy		
	4,527 cy	Pit-run	
	192 cy	Crusher Reject	
	172 cy	1 1/2" - 0	
	84 cy	3" - 0	
	48 cy	Select 6"	
	72 cy	36" - 24"	
		TOTAL PROJECT NO. 2 COST =	\$39,645.33

PROJECT NO. 3: TYPE F CULVERT @ Point S

TOTAL PROJECT NO. 3 COST = \$27,458.73

PROJECT NO. 4 GRASS SEED, FERTILIZE, & MULCH

TOTAL PROJECT NO. 4 COST = \$1,251.78

MOVE-IN & EQUIPMENT CLEANING

Grader	\$796.24
Roller (smooth/grid) & Compactor	\$483.51
Excavators - Equipment Cleaning	\$2,623.66
Dozer - Equipment Cleaning	\$1,799.02
Dump Truck (Off Highway)	\$750.75
TOTAL MOVE-IN & EQUIPMENT CLEANING COST =	\$6,453.18

TOTAL ALL PROJECTS \$101,092.13

TOTAL CREDITS \$101,100.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Nehalem Breaks
 Road Segment: A to B

Sale Number: 341-16-51
 Construction: 0+60 stations
0.01 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	0.06	ac @	\$1,078.00	per acre =	\$59.39
Balanced road construction	0.60	sta @	\$110.00	per sta =	\$66.00
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	0.60	sta @	\$36.00	per sta =	\$21.60
					TOTAL EXCAVATION COSTS =
					\$460.99

PROJECT NO. 1 TOTAL COST = \$460.99

PROJECT NO. 2:

SURFACING

		10 " deep =	53 cy/sta				
A to B	32	cy of	Pit-run	@	\$7.38	per cy =	\$236.16
Junction	18	cy of	Pit-run	@	\$7.38	per cy =	\$132.84
Landing	150	cy of	Pit-run	@	\$7.38	per cy =	\$1,107.00
Rock Total =	200						
	200	cy of	Pit-run		\$7.38	per cy =	\$1,476.00

PROJECT NO. 2 TOTAL COST = \$1,476.00

PROJECT NO. 4:

Grass seed & fertilizer	0.03	acres	@	\$425.00	per acre =	\$11.71
-------------------------	------	-------	---	----------	------------	---------

PROJECT NO. 4 TOTAL COST = \$11.71

TOTAL COST = \$1,948.70

SUMMARY OF CONSTRUCTION COST

Timber Sale: Nehalem Breaks
Road Segment: C to D

Sale Number: 341-16-51
Construction: 10+50 stations
0.20 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	0.96	ac @	\$1,078.00	per acre =	\$1,039.39
Balanced road construction	10.50	sta @	\$110.00	per sta =	\$1,155.00
Turnouts	1	ea @	\$66.00	per ea =	\$66.00
Turnarounds	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	10.50	sta @	\$36.00	per sta =	\$378.00
TOTAL EXCAVATION COSTS =					\$3,034.89

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 = \$3,644.89

PROJECT NO. 2:

SURFACING		10 " deep =		53 cy/sta	
C to D	557	cy of	Pit-run	@	\$7.59 per cy = \$4,227.63
Turnout	18	cy of	Pit-run	@	\$7.59 per cy = \$136.62
Turnaround	16	cy of	Pit-run	@	\$7.59 per cy = \$121.44
Junction	18	cy of	Pit-run	@	\$7.59 per cy = \$136.62
Landing	150	cy of	Pit-run	@	\$7.59 per cy = \$1,138.50
Culvert bedding/backfill	24	cy of	1 1/2" - 0	@	\$5.27 per cy = \$126.48
Rock Total =		783			
	24	cy of	1 1/2" - 0		\$5.27 per cy = \$126.48
	759	cy of	Pit-run		\$7.59 per cy = \$5,760.81
PROJECT NO. 2 TOTAL COST =					\$5,887.29

PROJECT NO. 4:

Grass seed & fertilizer	0.48	acres	@	\$425.00	per acre = \$204.89
PROJECT NO. 4 TOTAL COST =					\$204.89

TOTAL COST = \$9,737.07

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Nehalem Breaks	Sale Number:	341-16-51
Road Segment:	E to F	Construction:	14+50 stations 0.27 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	1.33	ac @	\$1,078.00	per acre =	\$1,435.35
Balanced road construction	14.50	sta @	\$110.00	per sta =	\$1,595.00
Turnouts	1	ea @	\$66.00	per ea =	\$66.00
Turnarounds	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	14.50	sta @	\$36.00	per sta =	\$522.00
TOTAL EXCAVATION COSTS =					\$4,014.85

PROJECT NO. 1 TOTAL COST = \$4,014.85

PROJECT NO. 2:

SURFACING

	10 " deep =	53 cy/sta				
E to F	769	cy of	Pit-run	@	\$8.32	per cy = \$6,398.08
Turnout	18	cy of	Pit-run	@	\$8.32	per cy = \$149.76
Turnaround	16	cy of	Pit-run	@	\$8.32	per cy = \$133.12
Junction	18	cy of	Pit-run	@	\$8.32	per cy = \$149.76
Landing	150	cy of	Pit-run	@	\$8.32	per cy = \$1,248.00
Rock Total =	971					
	971	cy of	Pit-run		\$8.32	per cy = \$8,078.72

PROJECT NO. 2 TOTAL COST = \$8,078.72

PROJECT NO. 4:

Grass seed & fertilizer	0.67	acres	@	\$425.00	per acre =	\$282.94
-------------------------	------	-------	---	----------	------------	----------

PROJECT NO. 4 TOTAL COST = \$282.94

TOTAL COST = \$12,376.52

SUMMARY OF CONSTRUCTION COST

Timber Sale: Nehalem Breaks
Road Segment: G to H

Sale Number: 341-16-51
Construction: 8+00 stations
0.15 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	0.73	ac @	\$1,078.00	per acre =	\$791.92
Balanced road construction	8.00	sta @	\$110.00	per sta =	\$880.00
Turnouts	1	ea @	\$66.00	per ea =	\$66.00
Turnarounds	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	8.00	sta @	\$36.00	per sta =	\$288.00

TOTAL EXCAVATION COSTS = \$2,422.42

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 = \$3,032.42

PROJECT NO. 2:

SURFACING

10 " deep = 53 cy/sta

G to H	424	cy of	Pit-run	@	\$7.25	per cy =	\$3,074.00
Turnout	18	cy of	Pit-run	@	\$7.25	per cy =	\$130.50
Turnaround	16	cy of	Pit-run	@	\$7.25	per cy =	\$116.00
Junction	18	cy of	Pit-run	@	\$7.25	per cy =	\$130.50
Landing	150	cy of	Pit-run	@	\$7.25	per cy =	\$1,087.50
Culvert bedding/backfill	24	cy of	1 1/2" - 0	@	\$6.38	per cy =	\$153.12
Rock Total =	650						
	24	cy of	1 1/2" - 0		\$6.38	per cy =	\$153.12
	626	cy of	Pit-run		\$7.25	per cy =	\$4,538.50

PROJECT NO. 2 TOTAL COST = \$4,691.62

PROJECT NO. 4:

Grass seed & fertilizer	0.37	acres	@	\$425.00	per acre =	\$156.11
-------------------------	------	-------	---	----------	------------	----------

PROJECT NO. 4 TOTAL COST = \$156.11

TOTAL COST = \$7,880.15

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Nehalem Breaks	Sale Number:	341-16-51
Road Segment:	I to J	Construction:	23+65 stations 0.45 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	2.17	ac @	\$1,078.00	per acre =	\$2,341.11
Balanced road construction	23.65	sta @	\$110.00	per sta =	\$2,601.50
Turnouts	3	ea @	\$66.00	per ea =	\$198.00
Turnarounds	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade & roll (outslope)	23.65	sta @	\$32.20	per sta =	\$761.53
TOTAL EXCAVATION COSTS =					\$6,298.64

CULVERTS - MATERIALS & INSTALLATION

Culverts			
30 LF of 18"	\$600.00		
Culvert Markers			
1 markers	\$10.00		
<u>TOTAL CULVERT COSTS =</u>			\$610.00

PROJECT NO. 1 TOTAL COST = \$6,908.64

PROJECT NO. 2:

SURFACING		10 " deep =	53 cy/sta			
I to J	1,253	cy of	Pit-run	@	\$6.74	per cy = \$8,445.22
Turnouts (3)	54	cy of	Pit-run	@	\$6.74	per cy = \$363.96
Turnaround	16	cy of	Pit-run	@	\$6.74	per cy = \$107.84
Junction	18	cy of	Pit-run	@	\$6.74	per cy = \$121.32
Landing	150	cy of	Pit-run	@	\$6.74	per cy = \$1,011.00
Culvert bedding/backfill	24	cy of	1 1/2" - 0	@	\$5.87	per cy = \$140.88
Rock Total =		1,515				
	24	cy of	1 1/2" - 0		\$5.87	per cy = \$140.88
	1,491	cy of	Pit-run		\$6.74	per cy = \$10,049.34
PROJECT NO. 2 TOTAL COST =					\$10,190.22	

PROJECT NO. 4:

Grass seed & fertilizer	1.09	acres	@	\$425.00	per acre =	\$461.49
PROJECT NO. 4 TOTAL COST =					\$461.49	

TOTAL COST = \$17,560.35

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Nehalem Breaks	Sale Number:	341-16-51
Road Segment:	K to L	Construction:	2+10 stations 0.04 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	0.14	ac @	\$1,078.00	per acre =	\$155.91
Balanced road construction	2.10	sta @	\$110.00	per sta =	\$231.00
Landing	1	ea @	\$220.00	per ea =	\$220.00
Grade, ditch, & roll	1.60	sta @	\$36.00	per sta =	\$57.60
					TOTAL EXCAVATION COSTS = \$664.51

PROJECT NO. 1 TOTAL COST = \$664.51

PROJECT NO. 2:

SURFACING

		10 " deep =	53 cy/sta			
K to L	111	cy of	Pit-run	@	\$11.41	per cy = \$1,266.51
Junction	18	cy of	Pit-run	@	\$11.41	per cy = \$205.38
Landing	95	cy of	Pit-run	@	\$11.41	per cy = \$1,083.95
Rock Total =	224					
	224	cy of	Pit-run		\$11.41	per cy = \$2,555.84
					PROJECT NO. 2 TOTAL COST = \$2,555.84	

PROJECT NO. 4:

Grass seed & fertilizer	0.07	acres	@	\$425.00	per acre = \$30.73
					PROJECT NO. 4 TOTAL COST = \$30.73

TOTAL COST = \$3,251.08

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Nehalem Breaks	Sale Number:	341-16-51
Road Segment:	M to N	Construction:	2+70 stations 0.05 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	0.31	ac @	\$1,078.00	per acre =	\$334.09
Balanced road construction	2.70	sta @	\$110.00	per sta =	\$297.00
Landing	1	ea @	\$220.00	per ea =	\$220.00
Grade, ditch, & roll	2.70	sta @	\$36.00	per sta =	\$97.20
					TOTAL EXCAVATION COSTS = \$948.29

PROJECT NO. 1 TOTAL COST = \$948.29

PROJECT NO. 2:

SURFACING

		10 " deep =	53 cy/sta			
M to N	143	cy of	Pit-run	@	\$11.14	per cy = \$1,593.02
Junction	18	cy of	Pit-run	@	\$11.14	per cy = \$200.52
Landing	95	cy of	Pit-run	@	\$11.14	per cy = \$1,058.30
Rock Total =	256					
	256	cy of	Pit-run		\$11.14	per cy = \$2,851.84
					PROJECT NO. 2 TOTAL COST = \$2,851.84	

PROJECT NO. 4:

Grass seed & fertilizer	0.15	acres	@	\$425.00	per acre = \$65.86
					PROJECT NO. 4 TOTAL COST = \$65.86

TOTAL COST = \$3,865.99

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Nehalem Breaks</u>	Sale Number:	<u>341-16-51</u>
Road Segment:	<u>O to P (Voltaire Road)</u>	Improvement:	<u>111+40</u> stations
			<u>2.11</u> miles

PROJECT NO. 1

CULVERTS - MATERIALS & INSTALLATION

Culverts		
	150 LF of 18"	\$3,000.00
Culvert Markers		
	5 markers	\$50.00

TOTAL CULVERT COSTS = \$3,050.00

PROJECT NO. 1 TOTAL COST = \$3,050.00

PROJECT NO. 2:

SURFACING

Culvert bedding/backfill	120	cy of	Crusher Reject	@	\$6.72	per cy =	\$806.40
Riprap	48	cy of	36" - 24"	@	\$7.82	per cy =	\$375.36
Rock Total =	168						
	120	cy of	Crusher Reject		\$6.72	per cy =	\$806.40
	48	cy of	36" - 24"		\$7.82	per cy =	\$375.36

PROJECT NO. 2 TOTAL COST = \$1,181.76

TOTAL COST = \$4,231.76

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>Nehalem Breaks</u>	Sale Number:	<u>341-16-51</u>
Road Segment:	<u>Q to R (Fire Road 1)</u>	Improvement:	<u>62+30</u> stations
			<u>1.18</u> miles

PROJECT NO. 1

EXCAVATION

Endhaul

Excavate & load	364	cy @	\$1.64	per cy =	\$596.96
Haul	364	cy @	\$0.73	per cy =	\$265.72
Compact waste area	364	cy @	\$0.30	per cy =	\$109.20

TOTAL EXCAVATION COSTS = \$971.88

CULVERTS - MATERIALS & INSTALLATION

Culverts

90 LF of 18" \$1,800.00

Culvert Markers

3 markers \$30.00

TOTAL CULVERT COSTS = \$1,830.00

PROJECT NO. 1 TOTAL COST = \$2,801.88

PROJECT NO. 2:

SURFACING

Culvert bedding/backfill	<u>72</u>	cy of	Crusher Reject	@	\$5.90	per cy =	\$424.80
Rock Total =	<u>72</u>						
	72	cy of	Crusher Reject		\$5.90	per cy =	\$424.80

PROJECT NO. 2 TOTAL COST = \$424.80

TOTAL COST = \$3,226.68

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Nehalem Breaks	Sale Number:	341-16-51
Road Segment:	Point S	Culvert No. 12	

PROJECT NO. 3

CULVERTS - MATERIALS & INSTALLATION

FILL EXCAVATION

Salvage existing road surfacing	84.00	cy @	\$1.62	per cy =	\$136.08
Excavate existing culvert and fill	1,323	cy @	\$0.65	per cy =	\$859.63
Endhaul unsuitable fill material	331	cy @	\$0.63	per cy =	\$208.29
Stage material locally	992	cy @	\$0.30	per cy =	\$297.56
Haul fill material to staging area	496	cy @	\$0.38	per cy =	\$188.46
Installation and materials 117" x 79" Culvert					\$14,859.40
Load material @ staged material	496	cy @	\$0.80	per cy =	\$396.75
Haul fill material from staging area	496	cy @	\$0.38	per cy =	\$188.46
Load & Haul additional fill material	478	cy @	\$8.52	per cy =	\$4,070.54
Place fill and rock	974	cy @	\$2.40	per cy =	\$2,336.88
Compact fill	974	cy @	\$0.50	per cy =	\$486.85
Compact Waste Area	331	cy @	\$0.30	per cy =	\$99.19
Pump culvert installation	2	day @	\$150.00	per day =	\$300.00
Grade, Ditch, and Roll	3.00	sta @	\$36.00	per sta =	\$108.00
Base Rock	84	cy of 3" - 0	@	\$10.33	per cy = \$867.72
Surfacing Rock	40	cy of 1 1/2" - 0	@	\$10.83	per cy = \$433.20
Culvert Bedding	60	cy of 1 1/2" - 0	@	\$10.11	per cy = \$606.60
Plunge Pool Fill	24	cy of Select 6"	@	\$10.33	per cy = \$247.92
Fill Armor	24	cy of 36" - 24	@	\$11.21	per cy = \$269.04
Seeding Rock	24	cy of Select 6"	@	\$10.33	per cy = \$247.92
Rock Total =	256				
	100	cy of 1 1/2" - 0			
	84	cy of 3" - 0			
	48	cy of Select 6"			
	24	cy of 36" - 24			
Grass seed & fertilizer	0.25	acres	@	\$425.00	per acre = \$106.25
Mulch	18	bales	@	\$8.00	per bale = \$144.00

PROJECT NO. 3 TOTAL COST = \$27,458.73

TOTAL COST = \$27,458.73

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Nehalem Breaks	Sale Number:	341-16-51
Road Segment:	T to U	Construction:	2+60 stations 0.05 miles

PROJECT NO. 1

EXCAVATION

Clearing & grubbing (scatter)	0.18	ac @	\$1,078.00	per acre =	\$193.03
Balanced road construction	2.60	sta @	\$110.00	per sta =	\$286.00
Landing	1	ea @	\$220.00	per ea =	\$220.00
Grade, ditch, & roll	1.60	sta @	\$36.00	per sta =	\$57.60
					TOTAL EXCAVATION COSTS = \$756.63

PROJECT NO. 1 TOTAL COST = \$756.63

PROJECT NO. 2:

SURFACING

	10 " deep =	53 cy/sta			
T to U	138	cy of	Pit-run	@	\$7.54 per cy = \$1,040.52
Junction	18	cy of	Pit-run	@	\$7.54 per cy = \$135.72
Landing	150	cy of	Pit-run	@	\$7.54 per cy = \$1,131.00
Rock Total =	306				
	306	cy of	Pit-run		\$7.54 per cy = \$2,307.24
					PROJECT NO. 2 TOTAL COST = \$2,307.24

PROJECT NO. 4:

Grass seed & fertilizer	0.09	acres	@	\$425.00	per acre = \$38.05
					PROJECT NO. 4 TOTAL COST = \$38.05

TOTAL COST = \$3,101.92

ROCK PIT DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale:	Nehalem Breaks
Sale Number:	341-16-51
Pit Name:	Fire Road 1 Pit

Pit-run:	4,527 cy	(truck measure)
Total truck yardage:	4,527 cy	
Total in place yardage:	3,482 cy	

Swell:	130%
Shrinkage:	116%

Pit development, including clearing & grubbing of waste area, place overburden in waste area, spread & compact.

				\$0.00
Rip rock	\$2.10	/ cy x	3,482 cy =	\$7,312.85
Push rock	\$0.80	/ cy x	4,527 cy =	\$3,621.60
Load dump truck	\$0.80	/ cy x	4,527 cy =	\$3,621.60
			Subtotal:	\$14,556.05

Equipment cleaning & move in excavator	\$1,870.66	
Equipment cleaning & move in dozer	\$1,858.87	
Move in loader	\$775.86	
Clean up pit	\$875.00	
	Subtotal:	\$5,380.39

TOTAL PRODUCTION COST =	\$19,936.44
-------------------------	-------------

ROCK DEVELOPMENT COST =	\$4.40/cy
-------------------------	-----------

**CRUISE REPORT
NEHALEM BREAKS
341-16-51**

1. LOCATION: Portions of Sections 23, 24, 25, and 26, T3N, R6W, W.M., Tillamook County, Oregon, and Portions of Sections 30 and 31, T3N, R5W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

The cruise design assumed a Coefficient of Variation (CV%) of 70%, an average stand diameter of 19 inches, a desired sampling error of 9% at a 68% Confidence Level, and a minimum sample size of 100 grade trees. Pre-cruise reconnaissance indicated that approximately 6 trees per plot could be realized with a 40 BAF prism.

3. SAMPLING METHOD:

The Timber Sale Area was cruised in September of 2015 with 65 variable radius grade plots using a 40 BAF prism. Plots were laid out on a 5 chain x 4 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS

372 trees were measured and graded producing a cumulative sampling error of 5.6% on the Basal Area and 7% on the Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

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

a) **Height Standards:**

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

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

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

5. DATA PROCESSING

a) **Volumes and Statistics,** 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 Joe Koch and Mark Savage.

Prepared by:

ODF Forester

Date

Reviewed by:

Eric Foucht

Date

TC PSTATS		PROJECT STATISTICS								PAGE	1	
		PROJECT NBFIN								DATE	10/16/2015	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt		
03N	05	30	00A4	00MC	THR	162.00	60	372	S	W		
03N	06W	25	00A3	00MC								
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			60	372	6.2							
CRUISE			60	372	6.2	17,920	2.1					
DBH COUNT												
REFOREST												
COUNT												
BLANKS												
100 %												
STAND SUMMARY												
SAMPLE TREES			TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
DOUG FIR-L			5	.4	42.8	146	0.5	3.5	937	937	177	177
DOUG FIR-T			362	108.5	20.3	117	54.3	244.6	52,122	51,576	11,149	11,149
R ALDER-T			2	1.0	16.0	76	0.4	1.4	91	88	29	29
WHEMLOCK-L			2	.4	24.8	124	0.2	1.2	227	218	53	53
NOB FIR-L			1	.4	18.0	82	0.2	.6	62	62	19	19
TOTAL			372	110.6	20.4	117	55.6	251.4	53,438	52,881	11,428	11,428
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL	68.1	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR-L			8.0	4.0	2,536	2,642	2,748					
DOUG FIR-T			69.8	3.7	783	813	842					
R ALDER-T			67.6	63.3	42	115	188					
WHEMLOCK-L			25.1	23.5	474	620	766					
NOB FIR-L												
TOTAL			72.5	3.8	799	831	862	210	52	23		
CL	68.1	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR-L			5.2	2.6	488	501	514					
DOUG FIR-T			62.3	3.3	165	171	177					
R ALDER-T			62.5	58.5	15	37	58					
WHEMLOCK-L			18.1	16.9	125	151	177					
NOB FIR-L												
TOTAL			64.5	3.3	168	174	180	166	42	18		
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR-L			466.8	60.2	0	0	1					
DOUG FIR-T			75.8	9.8	98	109	119					
R ALDER-T			610.0	78.7	0	1	2					
WHEMLOCK-L			550.1	71.0	0	0	1					
NOB FIR-L			774.6	99.9	0	0	1					
TOTAL			73.8	9.5	100	111	121	217	54	24		
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR-L			465.6	60.1	1	4	6					
DOUG FIR-T			44.9	5.8	230	245	259					
R ALDER-T			549.1	70.8	0	1	2					
WHEMLOCK-L			543.1	70.0	0	1	2					
NOB FIR-L			774.6	99.9	0	1	1					
TOTAL			43.7	5.6	237	251	266	76	19	8		

PROJECT STATISTICS

PROJECT NBFIN

DATE 10/16/2015

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
03N	05	30	00A4		00MC	THR	162.00	60	372	S	W
03N	06W	25	00A3		00MC						
CL	68.1		COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR-L			472.3	60.9	366	937	1,508				
DOUG FIR-T			55.9	7.2	47,857	51,576	55,295				
R ALDER-T			543.4	70.1	26	88	150				
WHEMLOCK-L			543.2	70.1	65	218	370				
NOB FIR-L			774.6	99.9	0	62	123				
TOTAL			54.6	7.0	49,159	52,881	56,602	119	30	13	
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-L			467.9	60.3	70	177	284				
DOUG FIR-T			51.3	6.6	10,411	11,149	11,886				
R ALDER-T			544.8	70.3	9	29	49				
WHEMLOCK-L			543.3	70.1	16	53	91				
NOB FIR-L			774.6	99.9	0	19	39				
TOTAL			50.0	6.5	10,690	11,428	12,165	100	25	11	

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1					
				Project: NBFIN										Date		10/16/2015					
														Time		9:51:44AM					
T03N R06W S23 T00MC										T03N R06W S23 T00MC											
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt			
03N		06W		23		00A1		00MC		65.00		25		149		S		W			
S So Gr Spp T rt ad				% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf				
DF	T	2M		71	2.1	30,622	29,977	1,948	42 58				0 0 99				40 16	412 2.19	72.8		
DF	T	3M		24	.1	10,351	10,336	672	100				0 17 82				38 8	88 0.61	117.5		
DF	T	4M		5		1,800	1,800	117	100				36 64				22 6	27 0.33	66.9		
DF T Totals				97	1.5	42,774	42,113	2,737	29 30 42				2 3 5 91				34 10	164 1.08	257.1		
DF	L	2M		95		1,177	1,177	76	3 97				100				40 23	1022 4.82	1.2		
DF	L	3M		5		53	53	3	100				40 60				36 11	161 1.53	.3		
DF L Totals				3		1,229	1,229	80	4 3 93				2 98				39 21	832 4.15	1.5		
NF	L	3M		88		136	136	9	100				100				40 10	150 1.16	.9		
NF	L	4M		12		18	18	1	100				100				20 6	20 0.37	.9		
NF L Totals				0		154	154	10	100				12 88				30 8	85 0.89	1.8		
Type Totals					1.5	44,157	43,496	2,827	28 29 43				2 3 4 91				34 10	167 1.10	260.4		

Log Stock Table - MBF

Project: NBFIN

T03N R06W S23 T00MC

T03N R06W S23 T00M

Twp Rge Sec Tract Type Acres Plots Sample Trees
 03N 06W 23 00A1 00MC 65.00 25 149

Page 1
 Date 10/16/2015
 Time 9:51:44AM

Spp	S	So	Gr	Log	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
DF	L		2M	40	76		76	2.7					2			25	33	16	
DF	L		3M	32	1		1	.0					1						
DF	L		3M	40	2		2	.1					2						
DF	T		2M	24	9		9	.3							9				
DF	T		2M	34	11	12.3	9	.3					3		7				
DF	T		2M	40	1,971	2.1	1,930	68.5					365		235	648	556	127	
DF	T		3M	28	2		2	.1				2							
DF	T		3M	30	1		1	.0			1								
DF	T		3M	32	19		19	.7			18	1							
DF	T		3M	34	97		97	3.4			55	42							
DF	T		3M	36	18		18	.6			14	4							
DF	T		3M	38	20		20	.7			20								
DF	T		3M	40	516	.2	515	18.3			129	186	200						
DF	T		4M	12	5		5	.2			4	0	1						
DF	T		4M	14	6		6	.2			6								
DF	T		4M	16	20		20	.7			20	0							
DF	T		4M	18	8		8	.3			6	1							
DF	T		4M	20	4		4	.1			4								
DF	T		4M	22	4		4	.1			3	1							
DF	T		4M	24	3		3	.1			2	1							
DF	T		4M	26	22		22	.8			22								
DF	T		4M	28	13		13	.5			13								
DF	T		4M	30	32		32	1.1			32								
DF			Totals		2,860	1.5	2,817	99.6			349	239	204	370	242	657	581	160	16
NF	L		3M	40	9		9	88.2					9						
NF	L		4M	20	1		1	11.8			1								
NF			Totals		10		10	.4			1		9						
Total All Species					2,870	1.5	2,827	100.0			351	239	213	370	242	657	581	160	16

TC		TSTNDSUM															Stand Table Summary																			
																	Project										NBFIN									
T03N R06W S23 T00MC																	T03N R06W S23 T00MC																			
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1																
03N		06W		23		00A1		00MC			65.00		25		149			Date:		10/16/20																
																	Time:		9:51:43AM																	
Spc	S	T	Sample		FF	Ht	Av	Tot	Trees/	BA/	Logs	Average Log		Tons/	Cu.Ft.	Net	Bd.Ft.	Totals																		
			DBH	Trees								16'	Net					Net	Acre	Cunits	MBF															
DF	T		9	7	87	70			25.352	11.20	25.35	8.3	40.0	5.97	209	1,014	388	136	66																	
DF	T		10	3	87	74			8.801	4.80	8.80	11.5	53.3	2.88	101	469	187	66	31																	
DF	T		11	5	87	80			12.122	8.00	14.55	13.1	55.0	5.44	191	800	354	124	52																	
DF	T		12	4	86	79			8.149	6.40	12.22	13.0	50.0	4.53	159	611	294	103	40																	
DF	T		13	5	87	80			8.679	8.00	15.62	13.7	52.2	6.09	214	816	396	139	53																	
DF	T		14	4	87	93			5.987	6.40	11.97	16.5	67.5	5.64	198	808	366	129	53																	
DF	T		15	5	85	101			6.519	8.00	13.04	20.7	84.0	7.70	270	1,095	501	176	71																	
DF	T		16	3	86	107			3.438	4.80	6.88	25.4	103.3	4.97	174	710	323	113	46																	
DF	T		17	1	89	128			1.015	1.60	3.05	23.4	103.3	2.03	71	315	132	46	20																	
DF	T		18	6	86	111			5.432	9.60	12.68	29.0	112.9	10.46	367	1,431	680	239	93																	
DF	T		19	9	86	115			7.314	14.40	17.88	31.7	121.8	16.14	566	2,178	1,049	368	142																	
DF	T		20	6	85	121			4.400	9.60	12.47	31.6	126.5	11.22	394	1,577	729	256	102																	
DF	T		21	6	88	128			3.991	9.60	11.31	36.7	156.5	11.84	415	1,769	769	270	115																	
DF	T		22	2	86	143			1.212	3.20	3.64	43.1	196.7	4.46	157	715	290	102	46																	
DF	T		23	8	87	142			4.436	12.80	13.31	46.4	209.6	17.60	617	2,789	1,144	401	181																	
DF	T		24	5	86	128			2.546	8.00	7.13	50.1	218.6	10.19	358	1,558	662	232	101																	
DF	T		25	5	86	138			2.347	8.00	7.04	53.4	228.0	10.72	376	1,605	697	245	104																	
DF	T		26	9	84	137			3.906	14.40	11.72	57.3	250.0	19.12	671	2,929	1,243	436	190																	
DF	T		27	2	85	127			.805	3.20	2.41	58.6	250.0	4.03	141	604	262	92	39																	
DF	T		28	6	87	143			2.245	9.60	7.11	66.7	321.1	13.52	474	2,282	879	308	148																	
DF	T		29	9	85	139			3.139	14.40	9.42	72.3	334.1	19.41	681	3,146	1,262	443	205																	
DF	T		30	5	85	150			1.630	8.00	5.22	77.1	364.4	11.45	402	1,900	744	261	124																	
DF	T		31	8	85	141			2.442	12.80	7.63	81.5	380.8	17.74	622	2,906	1,153	405	189																	
DF	T		32	4	84	140			1.146	6.40	3.44	87.7	378.3	8.59	302	1,301	559	196	85																	
DF	T		33	4	83	149			1.078	6.40	3.23	98.3	467.5	9.05	318	1,511	588	206	98																	
DF	T		34	3	85	146			.761	4.80	2.54	94.9	455.0	6.86	241	1,155	446	156	75																	
DF	T		35	3	82	145			.718	4.80	2.16	107.1	484.4	6.58	231	1,044	428	150	68																	
DF	T		36	4	81	145			.905	6.40	2.72	111.6	491.7	8.64	303	1,335	561	197	87																	
DF	T		37	1	83	159			.214	1.60	.64	128.7	646.7	2.36	83	416	153	54	27																	
DF	T		38	2	85	148			.406	3.20	1.22	133.7	683.3	4.65	163	833	302	106	54																	
DF	T		39	1	87	165			.193	1.60	.77	115.3	632.5	2.54	89	488	165	58	32																	
DF			Totals	145	86	100			131.329	232.00	257.14	37.2	163.8	272.41	9,558	42,113	17,706	6,213	2,737																	
DF	L		41	1	84	154			.175	1.60	.52	154.6	800.0	2.31	81	419	150	53	27																	
DF	L		42	1	83	157			.166	1.60	.50	165.7	853.3	2.36	83	426	153	54	28																	
DF	L		44	1	83	139			.152	1.60	.45	168.2	846.7	2.18	76	385	142	50	25																	
DF			Totals	3	83	150			.492	4.80	1.48	162.6	832.4	6.84	240	1,229	445	156	80																	
NF	L		18	1	83	82			.905	1.60	1.81	26.8	85.0	1.17	49	154	76	32	10																	
NF			Totals	1	83	82			.905	1.60	1.81	26.8	85.0	1.17	49	154	76	32	10																	
Totals			149	86	100				132.727	238.40	260.43	37.8	167.0	280.42	9847	43,496	18,227	6,400	2,827																	

T TSPCSTGR														Species, Sort Grade - Board Foot Volumes (Type)														Page 1			
Project: NBFIN														Date 10/16/2015				Time 9:53:22AM													
T03N R06W S24 T00MC														T03N R06W S24 T00MC																	
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees				CuFt		BdFt											
03N		06W		24		00A2		00MC		44.00		18		94				S		W											
S So Gr Spp T rt ad				% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre										
									Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf														
DF	T		2M	80	1.9	37,391	36,686	1,614				37	63			1	99	40	16	436	2.20	84.2									
DF	T		3M	18	.6	8,253	8,203	361		100						5	95	39	8	106	0.72	77.5									
DF	T		4M	2	2.9	726	705	31		100				48	52			19	6	23	0.35	30.9									
DF	T	Totals		98	1.7	46,370	45,594	2,006		20	30	51		1	1	2	97	36	11	237	1.40	192.6									
WH	L		2M	78	5.2	663	629	28				55	45	14		86		33	16	333	2.32	1.9									
WH	L		3M	19		149	149	7		100						100		40	8	112	0.81	1.3									
WH	L		4M	3		23	23	1		100					100			24	6	30	0.37	.8									
WH	L	Totals		2	4.1	835	801	35		21	43	36		11	3	86		34	11	201	1.46	4.0									
RA	T		CU															6	7		0.00	.9									
RA	T		R	100	5.6	166	157	7		24	76			100				19	12	85	1.40	1.8									
RA	T	Totals		0	5.6	166	157	7		24	76			100				15	10	57	1.21	2.8									
Type Totals					1.7	47,372	46,552	2,048		20	30	50		1	1	2	96	36	11	234	1.40	199.3									

Log Stock Table - MBF

Project: NBFIN

T03N R06W S24 T00MC

T03N R06W S24 T00M

Twp Rge Sec Tract
03N 06W 24 00A2Type Acres Plots Sample Trees
00MC 44.00 18 94Page 1
Date 10/16/2015
Time 9:53:22AM

S So Gr Log					Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
Spp	T	rt	de	Len	MBF	Def	MBF	Spe	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	T		2M	34	14		14	.7								14				
DF	T		2M	40	1,632	1.9	1,601	79.8						237	240	602	384	137		
DF	T		3M	32	6		6	.3			6									
DF	T		3M	34	13		13	.7			9	4								
DF	T		3M	36	11		11	.6			11									
DF	T		3M	38	6		6	.3			6									
DF	T		3M	40	326	.7	324	16.1			39	124	160							
DF	T		4M	12	4		4	.2			4									
DF	T		4M	14	3		3	.1			3	0								
DF	T		4M	16	4		4	.2			3	1								
DF	T		4M	18	3		3	.2			3	0								
DF	T		4M	20	0		0	.0			0									
DF	T		4M	22	4	23.7	3	.1			3									
DF	T		4M	26	7		7	.3			7									
DF	T		4M	28	4		4	.2			4									
DF	T		4M	30	3		3	.2			3									
DF			Totals		2,040	1.7	2,006	97.9			102	130	160	237	240	616	384	137		
WH	L		2M	18	4		4	11.2							4					
WH	L		2M	40	25	6.0	24	67.3							11	13				
WH	L		3M	40	7		7	18.6			1		5							
WH	L		4M	24	1		1	2.9			1									
WH			Totals		37	4.1	35	1.7			2		5		15	13				
RA	T		CU	6																
RA	T		R	18	2		2	23.5				2								
RA	T		R	20	6	7.1	5	76.5							5					
RA			Totals		7	5.6	7	.3				2			5					
Total All Species					2,084	1.7	2,048	100.0			104	132	165	237	261	629	384	137		

TC		Stand Table Summary														
Project														NBFIN		
T03N R06W S24 T00MC														T03N R06W S24 T00MC		
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page:	1			
03N	06W	24	00A2	00MC			44.00	18	94			Date:	10/16/20			
														Time:	9:53:21AM	
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.		Net Bd.Ft.	Tons/ Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF
DF	T	14	4	87 93	8.315	8.89	16.63	16.8	66.3	7.95	279	1,102	350	123	48	
DF	T	15	1	88 100	1.811	2.22	3.62	21.7	90.0	2.24	79	326	99	35	14	
DF	T	16	3	87 115	4.775	6.67	11.14	23.1	100.0	7.35	258	1,114	323	113	49	
DF	T	17	2	86 102	2.820	4.44	5.64	28.1	117.5	4.51	158	663	198	70	29	
DF	T	18	2	87 121	2.515	4.44	6.29	28.2	114.0	5.06	178	717	223	78	32	
DF	T	19	3	86 122	3.386	6.67	9.03	31.0	125.0	7.99	280	1,129	351	123	50	
DF	T	20	6	88 141	6.112	13.33	18.33	35.1	159.4	18.36	644	2,923	808	283	129	
DF	T	21	2	86 127	1.848	4.44	5.54	34.7	146.7	5.48	192	813	241	85	36	
DF	T	22	6	88 141	5.051	13.33	15.15	42.9	193.9	18.55	651	2,938	816	286	129	
DF	T	23	3	86 145	2.311	6.67	7.70	42.9	191.0	9.42	330	1,471	414	145	65	
DF	T	24	7	88 152	4.951	15.56	14.85	53.5	247.6	22.64	795	3,678	996	350	162	
DF	T	25	3	86 139	1.956	6.67	5.87	55.2	243.3	9.22	324	1,428	406	142	63	
DF	T	26	6	87 151	3.616	13.33	12.05	56.7	274.0	19.49	684	3,303	858	301	145	
DF	T	27	6	86 146	3.353	13.33	10.62	61.9	281.6	18.73	657	2,990	824	289	132	
DF	T	28	8	86 157	4.158	17.78	12.99	71.5	348.4	26.47	929	4,527	1,165	409	199	
DF	T	29	7	86 155	3.391	15.56	10.17	79.4	392.9	23.03	808	3,997	1,013	356	176	
DF	T	30	2	89 162	.905	4.44	3.62	69.1	361.2	7.14	250	1,308	314	110	58	
DF	T	31	3	83 149	1.272	6.67	4.24	78.6	364.0	9.50	333	1,543	418	147	68	
DF	T	32	3	85 158	1.194	6.67	3.98	86.8	418.0	9.84	345	1,663	433	152	73	
DF	T	33	3	84 141	1.122	6.67	3.37	94.8	446.7	9.10	319	1,504	400	141	66	
DF	T	34	5	85 160	1.762	11.11	5.64	106.1	530.0	17.05	598	2,989	750	263	132	
DF	T	35	2	81 158	.665	4.44	2.00	112.4	523.3	6.40	224	1,044	281	99	46	
DF	T	36	1	82 154	.314	2.22	.94	116.2	563.3	3.12	110	531	137	48	23	
DF	T	37	1	85 169	.298	2.22	1.19	105.6	562.5	3.58	126	670	158	55	29	
DF	T	38	1	84 169	.282	2.22	1.13	107.3	555.0	3.45	121	626	152	53	28	
DF	T	39	1	84 163	.268	2.22	.80	145.6	743.3	3.34	117	597	147	51	26	
DF		Totals	91	87 134	68.451	202.22	192.55	50.8	236.8	279.00	9,790	45,594	12,276	4,307	2,006	
WH	L	23	1	83 129	.770	2.22	2.31	43.9	170.0	3.25	101	393	143	45	17	
WH	L	27	1	84 118	.559	2.22	1.68	56.8	243.3	3.05	95	408	134	42	18	
WH		Totals	2	83 124	1.329	4.44	3.99	49.3	200.8	6.29	197	801	277	87	35	
RA	T	21	1	73 61	.924	2.22	1.85	26.6	85.0	1.35	49	157	59	22	7	
RA		Totals	1	73 61	.924	2.22	1.85	26.6	85.0	1.35	49	157	59	22	7	
Totals			94	86 132	70.704	208.89	198.39	50.6	234.7	286.65	10035	46,552	12,612	4,416	2,048	

T		Species, Sort Grade - Board Foot Volumes (Type)												Page 1					
TSPCSTGR		Project: NBFIN												Date 10/16/2015					
														Time 9:55:36AM					
T03N R06W S25 T00MC												T03N R06W S25 T00MC							
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
03N	06W	25	00A3	00MC	26.00	8	62	S	W										
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre De®% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
								Log Scale Dia.				Log Length				Ln	Dia	Bd	
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft		
DF	T	CU													9	20		0.00	5.7
DF	T	2M	83	60,130	60,130	1,563			35	65	2		0	97	39	17	466	2.19	129.0
DF	T	3M	14	10,118	10,118	263		100			0		16	83	38	8	93	0.68	108.8
DF	T	4M	3	1,949	1,949	51		100			68	32			18	6	23	0.34	84.1
DF T Totals			96	72,197	72,197	1,877		17	29	54	4	1	2	93	33	11	220	1.34	327.6
DF	L	2M	94	2,615	2,615	68			100				100		40	27	1349	5.74	1.9
DF	L	3M	6	150	150	4		100					50	50	35	11	155	1.71	1.0
DF L Totals			4	2,766	2,766	72		5	95				3	97	38	22	951	4.52	2.9
Type Totals				74,962	74,962	1,949		16	28	56	4	1	2	93	33	11	227	1.37	330.5

TC TLOGSTVB

Log Stock Table - MBF

Project: NBFIN

T03N R06W S25 T00MC

T03N R06W S25 T00M

Twp Rge Sec Tract Type Acres Plots Sample Trees
 03N 06W 25 00A3 00MC 26.00 8 62

Page 1
 Date 10/16/2015
 Time 9:55:37AM

Spp	S	So	Gr	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
DF	L		2M	40	68		68	3.5								22		46	
DF	L		3M	34	2		2	.1				2							
DF	L		3M	36	2		2	.1				2							
DF	T		CU	3															
DF	T		CU	12															
DF	T		CU	16															
DF	T		2M	16	22		22	1.1						10			12		
DF	T		2M	20	14		14	.7									14		
DF	T		2M	32	4		4	.2				4							
DF	T		2M	40	1,523		1,523	78.1				209	271	339	441	262			
DF	T		3M	20	1		1	.0			1								
DF	T		3M	32	14		14	.7			2	12							
DF	T		3M	34	29		29	1.5			2	23	3						
DF	T		3M	36	7		7	.4			2	2	4						
DF	T		3M	38	3		3	.2			3								
DF	T		3M	40	209		209	10.7			78	36	95						
DF	T		4M	12	2		2	.1			1	1							
DF	T		4M	14	15		15	.8			14	2							
DF	T		4M	16	11		11	.6			9	2							
DF	T		4M	18	6		6	.3			4	2							
DF	T		4M	22	2		2	.1			1	1							
DF	T		4M	24	6		6	.3			5	1							
DF	T		4M	28	6		6	.3			6								
DF	T		4M	30	2		2	.1			2								
DF	Totals				1,949		1,949	100.0			130	82	106	213	271	350	463	289	46
Total All Species					1,949		1,949	100.0			130	82	106	213	271	350	463	289	46

TC TSTNDSUM					Stand Table Summary											
					Project		NBFIN									
T03N R06W S25 T00MC										T03N R06W S25 T00MC						
Twp	Rge	Sec	Tract		Type			Acres		Plots	Sample Trees			Page: 1		
03N	06W	25	00A3		00MC			26.00		8	62			Date: 10/16/20		
													Time: 9:55:36AM			
Spc	S	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	T	12	4	88	89	25.465	20.00	50.93	10.9	45.0	15.81	555	2,292	411	144	60
DF	T	13	1	87	89	5.424	5.00	10.85	13.8	55.0	4.27	150	597	111	39	16
DF	T	17	4	89	123	12.688	20.00	38.07	22.5	97.5	24.38	856	3,711	634	222	96
DF	T	18	3	89	123	8.488	15.00	25.46	24.6	103.3	17.86	627	2,631	464	163	68
DF	T	20	1	88	113	2.292	5.00	4.58	40.8	155.0	5.33	187	710	139	49	18
DF	T	21	9	89	131	18.709	45.00	51.97	38.4	179.2	56.95	1,998	9,313	1,481	520	242
DF	T	22	3	89	136	5.682	15.00	17.05	40.8	195.6	19.82	695	3,334	515	181	87
DF	T	23	1	90	152	1.733	5.00	5.20	50.4	240.0	7.47	262	1,248	194	68	32
DF	T	24	2	89	149	3.183	10.00	9.55	52.7	246.7	14.34	503	2,355	373	131	61
DF	T	25	2	89	134	2.934	10.00	8.80	53.4	253.3	13.39	470	2,229	348	122	58
DF	T	26	2	89	142	2.712	10.00	9.49	52.9	262.9	14.31	502	2,495	372	131	65
DF	T	27	2	90	147	2.515	10.00	7.55	67.8	333.3	14.58	512	2,515	379	133	65
DF	T	28	6	90	150	7.016	30.00	21.05	74.0	379.4	44.41	1,558	7,986	1,155	405	208
DF	T	30	1	89	146	1.019	5.00	3.06	86.2	436.7	7.51	263	1,334	195	68	35
DF	T	31	1	89	164	.954	5.00	3.82	76.0	417.5	8.26	290	1,593	215	75	41
DF	T	32	7	89	159	6.267	35.00	23.28	80.8	438.5	53.58	1,880	10,206	1,393	489	265
DF	T	34	7	89	159	5.551	35.00	20.62	94.0	527.3	55.23	1,938	10,872	1,436	504	283
DF	T	35	1	89	166	.748	5.00	2.99	96.3	545.0	8.21	288	1,631	214	75	42
DF	T	38	3	90	170	1.905	15.00	7.62	117.0	675.0	25.40	891	5,142	660	232	134
DF		Totals	60	89	125	115.285	300.00	321.92	44.8	224.3	411.12	14,425	72,197	10,689	3,751	1,877
DF	L	43	1	90	140	.496	5.00	1.49	167.3	923.3	7.09	249	1,373	184	65	36
DF	L	44	1	90	143	.474	5.00	1.42	179.1	980.0	7.25	254	1,392	189	66	36
DF		Totals	2	90	141	.969	10.00	2.91	173.1	951.0	14.34	503	2,766	373	131	72
Totals			62	89	125	116.254	310.00	324.83	46.0	230.8	425.47	14929	74,962	11,062	3,881	1,949

T		Species, Sort Grade - Board Foot Volumes (Type)										Page		1							
		Project: NBFIN										Date		10/16/2015							
												Time		9:48:35AM							
T03N R05W S30 T00MC										T03N R05W S30 T00MC											
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt			
03N		05W		30		00A4		00MC		23.00		7		51		S		W			
S So Gr Spp T rt ad				% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf				
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
DF	T	2M		72	.8	45,631	45,245	1,041	53 47				100				40 15	363 1.90	124.8		
DF	T	3M		25	.2	15,519	15,496	356	100				8 92				39 8	103 0.65	150.6		
DF	T	4M		3	1.8	1,438	1,412	32	100				35	65			22 6	26 0.33	54.2		
DF	T	Totals		99	.7	62,588	62,153	1,430	27 39 34				1	1	2	96	36 10	189 1.14	329.6		
RA	T	R		100	321 321			7	100				100				14 8	20 0.48	16.0		
RA	T	Totals		1	321 321			7	100				100				14 8	20 0.48	16.0		
Type Totals					.7	62,909	62,474	1,437	28 38 34				1	1	2	95	35 10	181 1.13	345.6		

TC TLOGSTVB				Log Stock Table - MBF																
				Project: NBFIN																
T03N R05W S30 T00MC										T03N R05W S30 T00M										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
03N	05W	30	00A4	00MC	23.00	7	51	Date	10/16/2015											
								Time	9:48:36AM											
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+	
DF	T	2M	36	4		4	.3						4							
DF	T	2M	40	1,046	.8	1,037	72.5						274	187	385	149	41			
DF	T	3M	32	2		2	.2			2										
DF	T	3M	34	26		26	1.8			14	12									
DF	T	3M	36	19		19	1.3			19										
DF	T	3M	38	7		7	.5			7										
DF	T	3M	40	303	.2	303	21.2			33	138	131								
DF	T	4M	12	1		1	.1			1	1									
DF	T	4M	14	2		2	.1			1	0									
DF	T	4M	16	5		5	.4			5										
DF	T	4M	18	2		2	.1			2										
DF	T	4M	20	1		1	.1			1										
DF	T	4M	22	4		4	.3			4										
DF	T	4M	26	5		5	.4			5										
DF	T	4M	28	6		6	.4			6										
DF	T	4M	30	7	8.8	6	.4			6										
DF	Totals			1,440		1,430	99.5			107	151	131	278	187	385	149	41			
RA	T	R	11																	
RA	T	R	14	2		2	33.3				2									
RA	T	R	18	5		5	66.7				5									
RA	Totals			7		7	.5			7										
Total All Species				1,447		1,437	100.0			107	158	131	278	187	385	149	41			

TC		TSTNDSUM														Stand Table Summary													
														Project							NBFIN								
T03N R05W S30 T00MC														T03N R05W S30 T00MC															
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1									
03N		05W		30		00A4		00MC			23.00		7		51			Date:		10/16/20									
														Time:		9:48:35AM													
Spc	S T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals															
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF													
DF	T	12	1	91	125	7.276	5.71	14.55	15.0	75.0	6.22	218	1,091	143	50	25													
DF	T	14	1	89	111	5.345	5.71	10.69	19.1	85.0	5.81	204	909	134	47	21													
DF	T	16	3	88	126	12.278	17.14	32.74	22.1	100.0	20.58	722	3,274	473	166	75													
DF	T	17	3	88	137	10.876	17.14	29.00	26.7	116.2	22.06	774	3,371	507	178	78													
DF	T	18	6	87	139	19.402	34.29	58.21	26.8	115.0	44.41	1,558	6,694	1,021	358	154													
DF	T	19	2	87	142	5.804	11.43	17.41	30.6	130.0	15.17	532	2,264	349	122	52													
DF	T	20	2	86	128	5.238	11.43	13.10	38.0	156.0	14.18	498	2,043	326	114	47													
DF	T	21	2	88	157	4.751	11.43	14.25	42.1	198.3	17.10	600	2,827	393	138	65													
DF	T	22	4	86	144	8.659	22.86	25.98	42.0	189.2	31.08	1,090	4,914	715	251	113													
DF	T	23	1	85	141	1.981	5.71	5.94	46.8	210.0	7.93	278	1,248	182	64	29													
DF	T	24	2	86	151	3.638	11.43	10.91	52.5	238.3	16.33	573	2,601	376	132	60													
DF	T	25	2	86	147	3.353	11.43	10.06	56.1	253.3	16.07	564	2,548	370	130	59													
DF	T	26	5	84	144	7.749	28.57	24.80	55.9	248.7	39.53	1,387	6,168	909	319	142													
DF	T	27	2	84	154	2.874	11.43	10.06	58.6	274.3	16.79	589	2,759	386	135	63													
DF	T	28	4	83	153	5.345	22.86	17.37	65.1	295.4	32.26	1,132	5,132	742	260	118													
DF	T	29	3	84	154	3.737	17.14	11.21	77.3	365.6	24.71	867	4,099	568	199	94													
DF	T	30	2	83	160	2.328	11.43	8.15	72.5	354.3	16.84	591	2,887	387	136	66													
DF	T	31	1	86	152	1.090	5.71	3.27	91.1	443.3	8.49	298	1,450	195	69	33													
DF	T	32	1	83	155	1.023	5.71	3.07	96.4	456.7	8.43	296	1,402	194	68	32													
DF	T	34	1	82	164	.906	5.71	3.63	84.6	417.5	8.74	307	1,514	201	71	35													
DF	T	37	1	83	148	.765	5.71	2.30	121.7	600.0	7.97	279	1,378	183	64	32													
DF	T	38	1	83	163	.726	5.71	2.90	105.9	545.0	8.76	307	1,582	202	71	36													
DF		Totals		50	87	139	115.145	285.71	329.60	41.5	188.6	389.45	13,665	62,153	8,957	3,143	1,430												
RA	T	14	1	74	81	5.345	5.71	16.04	6.9	20.0	3.02	110	321	70	25	7													
RA		Totals		1	74	81	5.345	5.71	16.04	6.9	20.0	3.02	110	321	70	25	7												
Totals				51	86	137	120.491	291.43	345.63	39.9	180.8	392.47	13775	62,474	9,027	3,168	1,437												

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1					
				Project: NBFIN										Date		10/16/2015					
														Time		9:50:06AM					
T03N R05W S31 T00MC										T03N R05W S31 T00MC											
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt			
03N		05W		31		00A5		00MC		4.00		2		16		S		W			
S So Gr T rt ad Spp				% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf				
DF T 2M				84	.5	64,961	64,645	259	38 62				100				40 16	408 2.05	158.4		
DF T 3M				15		11,002	11,002	44	100				2 98				39 8	98 0.68	112.3		
DF T 4M				1		667	667	3	100				9 91				23 6	26 0.35	26.1		
DF T Totals				100	.4	76,629	76,313	305	15 33 52				0 1 99				38 12	257 1.43	296.8		
Type Totals					.4	76,629	76,313	305	15 33 52				0 1 99				38 12	257 1.43	296.8		

TC TLOGSTVB				Log Stock Table - MBF																
				Project: NBFIN																
T03N R05W S31 T00MC								T03N R05W S31 T00M												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
03N	05W	31	00A5	00MC	4.00	2	16	Date	10/16/2015											
								Time	9:50:06AM											
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+
DF	T		2M	40	260	.5	259	84.7					42		58	105	20	34		
DF	T		3M	30	1		1	.2				1								
DF	T		3M	36	6		6	1.8			6									
DF	T		3M	40	38		38	12.4			8	13	17							
DF	T		4M	12	0		0	.1			0									
DF	T		4M	26	2		2	.5			2									
DF	T		4M	28	1		1	.3			1									
DF		Totals			307		305	100.0			16	13	17	42	58	105	20	34		
Total All Species					307		305	100.0			16	13	17	42	58	105	20	34		

TC TSTNDSUM				Stand Table Summary													
				Project				NBFIN									
T03N R05W S31 T00MC										T03N R05W S31 T00MC							
Twp	Rge	Sec	Tract	Type				Acres		Plots	Sample Trees		Page: 1				
03N	05W	31	00A5	00MC				4.00		2	16		Date: 10/16/20				
															Time: 9:50:05AM		
Spc	S	DBH	Sample		FF	Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			Trees	16'						Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	T	17	1	87	145	12.688	20.00	38.07	25.5	116.7	27.65	970	4,441	111	39	18	
DF	T	19	1	89	152	10.158	20.00	30.47	34.1	166.7	29.63	1,040	5,079	119	42	20	
DF	T	22	2	88	141	15.153	40.00	45.46	41.4	195.0	53.59	1,880	8,864	214	75	35	
DF	T	23	1	90	159	6.932	20.00	20.80	52.7	256.7	31.23	1,096	5,338	125	44	21	
DF	T	24	2	88	154	12.732	40.00	38.20	54.1	255.0	58.88	2,066	9,740	236	83	39	
DF	T	25	2	86	159	11.734	40.00	41.07	51.4	237.1	60.19	2,112	9,739	241	84	39	
DF	T	26	1	85	146	5.424	20.00	16.27	61.4	276.7	28.49	1,000	4,502	114	40	18	
DF	T	27	1	86	155	5.030	20.00	15.09	69.3	326.7	29.82	1,046	4,929	119	42	20	
DF	T	28	2	87	151	9.354	40.00	28.06	72.3	345.0	57.83	2,029	9,682	231	81	39	
DF	T	36	1	84	148	2.829	20.00	8.49	114.9	543.3	27.80	975	4,612	111	39	18	
DF	T	38	1	81	138	2.539	20.00	7.62	123.6	583.3	26.83	941	4,444	107	38	18	
DF	T	39	1	77	165	2.411	20.00	7.23	140.9	683.3	29.04	1,019	4,942	116	41	20	
DF		Totals	16	87	150	96.986	320.00	296.82	54.5	257.1	460.98	16,175	76,313	1,844	647	305	
Totals			16	87	150	96.986	320.00	296.82	54.5	257.1	460.98	16175	76,313	1,844	647	305	

VOLUME SUMMARY

(volume in MBF)

NEHALEM BREAKS**341-16-51****October 2015****AREA 1: MC (65 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW		TOTAL
Douglas-fir	Cruise Volume	1,948	672	117		2,737
	Hidden D&B (2%)	(39)	(13)	(2)		(55)
	NET TOTAL	1,909	659	115		2,682
	% of Total	71	25	4		

AREA 2: MC (44 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	1,614	361	31		2,006
	Hidden D&B (2%)	(32)	(7)	(1)		(40)
	NET TOTAL	1,582	354	30		1,966
	% of Total	80	18	2		
Red Alder	Cruise Volume	0	0	0	7	7
	Hidden D&B (2%)	()	()	()	()	()
	NET TOTAL	0	0	0	7	7
	% of Total	0	0	0	100	

AREA 3: MC (26 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	1,563	263	51		1,877
	Hidden D&B (2%)	(31)	(5)	(1)		(38)
	NET TOTAL	1,532	258	50		1,839
	% of Total	83	14	3		

AREA 4: R/W (23 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	1,041	356	32		1,429
	Hidden D&B (2%)	(21)	(7)	(1)		(29)
	NET TOTAL	1,020	349	31		1,400
	% of Total	73	25	2		
Red Alder	Cruise Volume	0	0	0	7	7
	Hidden D&B (2%)	()	()	()	()	()
	NET TOTAL	0	0	0	7	7
	% of Total	0	0	0	100	

AREA 5: MC (4 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	259	44	3		306
	Hidden D&B (2%)	(5)	(1)	()		(6)
	NET TOTAL	254	43	3		300
	% of Total	85	14	1		

AREA 6 R/W: (1 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir	Cruise Volume	0	25	10		35
	Hidden D&B (2%)	()	(1)	()		(1)
	NET TOTAL	0	24	10		34
	% of Total	0	71	29		

SALE TOTAL

SPECIES		2 SAW	3 SAW	4 SAW	CR	TOTAL
Douglas-fir		6,297	1,687	239		8,223
Red Alder					14	14
Total						8,237

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-16-51

NEHALEM BREAKS

PORTIONS OF SECTIONS 23, 24, 25, & 26, T3N, R6W

TILLAMOOK COUNTY, OREGON,

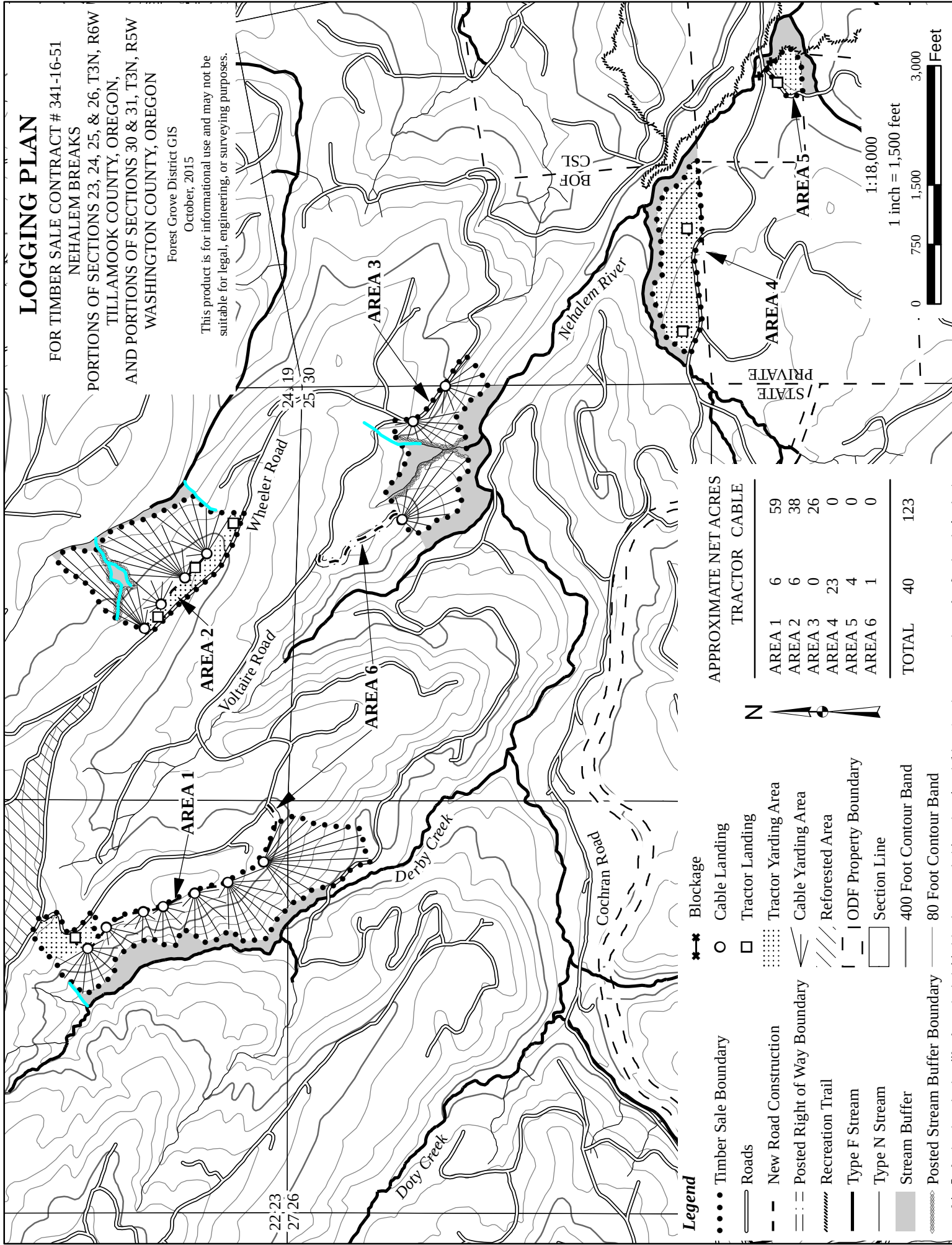
AND PORTIONS OF SECTIONS 30 & 31, T3N, R5W

WASHINGTON COUNTY, OREGON

Forest Grove District GIS

October, 2015

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



Legend

- Timber Sale Boundary
- Roads
- - - New Road Construction
- : - : Posted Right of Way Boundary
- ~~~~~ Recreation Trail
- Type F Stream
- Type N Stream
- Stream Buffer
- Posted Stream Buffer Boundary
- Blockage
- Cable Landing
- Tractor Landing
- Tractor Yarding Area
- Cable Yarding Area
- Reforested Area
- ODF Property Boundary
- Section Line
- 400 Foot Contour Band
- 80 Foot Contour Band



1:18,000

1 inch = 1,500 feet

