



STEWARDSHIP IN FORESTRY

Timber Sale Appraisal
Front Nine
Sale FG-341-2024-W00943-01

District: Forest Grove

Date: May 25, 2023

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$3,349,787.97	\$0.00	\$3,349,787.97
		Project Work:	(\$207,855.00)
		Advertised Value:	\$3,141,932.97



"STEWARDSHIP IN FORESTRY"

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Front Nine
Sale FG-341-2024-W00943-01

District: Forest Grove

Date: May 25, 2023

Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	23	0	98
Western Hemlock / Fir	27	0	98

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	Total
Douglas - Fir	5,887	1,405	0	7,292
Western Hemlock / Fir	171	30	12	213
Total	6,058	1,435	12	7,505

Comments: LOCAL POND VALUES, APRIL 2023

WESTERN REDCEDAR AND OTHER CEDARS:

STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST

\$814.85 = \$1,146 - \$331.15

RED ALDER AND OTHER HARDWOODS:

STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST

\$177.85 = \$509 - \$331.15

BRANDING AND PAINTING ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$5.00/GAL

HAULING COST ALLOWANCE = \$1,250/DAY

OTHER COSTS (WITH PROFIT & RISK ADDED): N/A

OTHER COSTS (NO PROFIT & RISK ADDED):

EQUIPMENT CLEANING: 3 PIECES @ \$1,000/PIECE = \$3,000

MACHINE TIME TO BLOCK/WATERBAR ROADS AND SKID TRAILS:

30 HOURS X \$150/HOUR = \$4,500

MACHINE TIME TO PILE LANDING SLASH:

10 HOURS X \$150/HOUR = \$1,500

TOTAL OTHER COSTS (NO P&R) = \$9,000

SLASH TREATMENT: 35 ACRES X \$250/ACRE = \$8,750

ROAD MAINTENANCE (INCLUDES SPOT ROCKING, GRADING, & ROLLING):

MOVE IN: \$2,729.79

GENERAL ROAD MAINT: 11.96 miles X \$2,153.94 = \$25,761.12

TOTAL ROAD MAINTENANCE: \$28,490.91 / 7,505 MBF = \$3.80/MBF



Timber Sale Appraisal
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Logging Conditions

Combination#: 1 Douglas - Fir 53.67%
Western Hemlock / Fir 23.96%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Harvester Head Delimbing
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 12 **bd. ft / load:** 4600
cost / mbf: \$144.53
machines: Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 46.33%
Western Hemlock / Fir 76.04%

Logging System: Shovel **Process:** Harvester Head Delimbing
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 16 **bd. ft / load:** 4600
cost / mbf: \$135.87
machines: Forwarder
Harvester



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Logging Costs

Operating Seasons: 2.00	Profit Risk: 15%
Project Costs: \$207,855.00	Other Costs (P/R): \$0.00
Slash Disposal: \$8,750.00	Other Costs: \$9,000.00

Miles of Road

Road Maintenance: \$3.80

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
Western Hemlock / Fir	\$0.00	2.0	4.0



Timber Sale Appraisal
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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$140.52	\$3.88	\$1.17	\$138.59	\$0.00	\$42.62	\$1.17	\$2.00	\$1.20	\$331.15
Western Hemlock / Fir									
\$137.94	\$3.88	\$1.17	\$159.38	\$0.00	\$45.36	\$1.17	\$2.00	\$1.20	\$352.10

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$784.90	\$453.75	\$0.00
Western Hemlock / Fir	\$0.00	\$544.79	\$192.69	\$0.00



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Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	7,292	\$453.75	\$3,308,745.00
Western Hemlock / Fir	213	\$192.69	\$41,042.97

Gross Timber Sale Value

Recovery: \$3,349,787.97

Prepared By: MARK SAVAGE

Phone: 503-359-7437

TIMBER SALE SUMMARY
Front Nine
#FG-341-2024-W00943-01

1. **Location:** Portions of Sections 19, 20, 29 and 30, T3N, R6W, W.M., Tillamook County, Oregon.
2. **Type of Sale:** The Timber Sale Area is 155 acres, comprised of three Modified Clearcut Units and one Right-of-Way Timber Unit. Unit 1 is 46 acres, Unit 2 is 31 acres, Unit 3 is 77 acres, and Unit 4 is 1 acre. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF; 100% Tillamook County (5601).
4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS Pro software.
5. **Cruise:** The Timber Sale was cruised by ODF Cruisers in May of 2023. For more information, see Cruise Report.
6. **Timber Description:** The Timber Sale Area consists of a well-stocked, thinned 62-81 year-old stand of Douglas-fir with minor components of western hemlock, noble fir, and red alder. This timber stand has an average of 240 ft² of basal area, an average Douglas-fir DBH of 23 inches. The estimated average net Douglas-fir volume is approximately 47.2 MBF per acre.
7. **Topography and Logging Method:** Slopes within the Timber Sale Area range from 5% to 80% with variable aspects. Unit 1 is 74% cable-based yarding and 26% ground-based yarding. Unit 2 is 100% ground-based yarding. Unit 3 is 63% cable-based yarding and 37% ground-based yarding. Unit 4 is 100% ground-based yarding. The average cable road length is 500 feet and the maximum is approximately 1,110 feet. The average horizontal skid trail length is 300 feet and the maximum is approximately 500 feet.
8. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 47 through Banks then merge onto Highway 26 west-bound and continue for approximately 20 miles. Between the 31 and the 32 mile markers, turn left onto the Salmonberry Road and continue for approximately 6.5 miles to access the eastern portion of Unit 1. Continue on Salmonberry Road for an additional 0.6 miles to access the eastern portion of Unit 2. Continue on Salmonberry Road for an additional 0.2 miles to access the northern portion of Unit 4. Continue on Salmonberry Road for an additional 0.4 miles to access the southern portion of Unit 3.
9. **Projects:**

Project No. 1: Rocked Road Construction	\$7,157.79
Project No. 2: Road Improvement	\$191,067.25
Project No. 3: Road Vacating	\$9,629.96

Total Credit for all Projects

\$207,855.00

PROJECT COST SUMMARY SHEET

Timber Sale: Front Nine
Sale Number: FG-341-2024-W00943-01

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

Road Segment	Length	Cost
L to M	7+35	\$6,275.16
	7+35 stations 0.14 miles	
Total Rock =	702 cy	Jaw-run
		Move-in = \$231.92
		TOTAL PROJECT COST = \$6,507.08
		10% FUEL ADJUSTMENT = \$7,157.79

PROJECT NO. 2: ROAD IMPROVEMENT

Road Segment	Length	Cost
A to B	462+70	\$19,148.00
B to C	46+10	\$8,891.27
D to E	105+30	\$67,899.40
F to G	19+55	\$17,154.77
H to I	58+20	\$48,259.24
J to K	6+20	\$4,636.24
Point N	-	\$1,517.80
	698+05 stations 13.22 miles	
Total Rock =	649 cy	1½" - 0
	9,787 cy	Jaw-run
	72 cy	Large Riprap
		Move-in = \$6,190.77
		TOTAL PROJECT COST = \$173,697.49
		10% FUEL ADJUSTMENT = \$191,067.25

PROJECT NO. 3: ROAD VACATING

Road Segment	Length	Cost
V1 to V2	3+57	\$1,600.00
V3 to V4	31+65	\$4,519.75
V5 to V6	1+25	\$1,176.00
V7 to V8	7+95	\$1,146.75
	44+42 stations 0.84 miles	
		Move-in = \$312.02
		TOTAL PROJECT COST = \$8,754.52
		10% FUEL ADJUSTMENT = \$9,629.96

TOTAL CREDITS = \$188,959.09
TOTAL CREDITS WITH 10% FUEL ADJUSTMENT = \$207,855.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: A to B

Sale Number: FG-341-2024-W00943-01
Improvement: 462+70 stations
8.76 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Construct roadside landing	3	ea @	\$165.00	per ea =	\$495.00
Construct tank trap	3	ea @	\$55.00	per ea =	\$165.00
Construct waterbar	16	ea @	\$27.50	per ea =	\$440.00
Grade, ditch, & roll	462.70	sta @	\$36.00	per sta =	\$16,657.20

TOTAL IMPROVEMENT COSTS = \$17,757.20

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Roadside landing	Jaw-run	\$1.60	\$2.06	\$1.22	285	\$1,390.80
				Subtotal =	285	\$1,390.80

Totals

All Rock =	285
Jaw-run	285

TOTAL ROCK COSTS = \$1,390.80

TOTAL PROJECT COST = \$19,148.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: B to C

Sale Number: FG-341-2024-W00943-01
Improvement: 46+10 stations
0.87 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.53	ac @	\$1,078.00	per acre =	\$571.34
Construct settling pond	3	ea @	\$25.00	per ea =	\$75.00
Improve roadside landing	1	ea @	\$82.50	per ea =	\$82.50
Grade, ditch, & roll	46.10	sta @	\$36.00	per sta =	\$1,659.60

TOTAL IMPROVEMENT COSTS = \$2,388.44

CULVERTS

Culverts and Bands					
18" Diameter	100	lf @	\$20.00	per lf =	\$2,000.00
24" Diameter	50	lf @	\$29.00	per lf =	\$1,450.00
Markers & Stakes					
Culvert markers	8	ea @	\$10.00	per ea =	\$80.00
Additional Culvert Cost					
Culvert at 46+10, repair inlet	0.5	hrs @	\$175.00	per hr =	\$87.50

TOTAL CULVERT COSTS = \$3,617.50

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	\$2.01	\$12.77	\$0.50	96	\$1,466.88
Subtotal =					96	\$1,466.88
Surfacing rock						
Spot rock	Jaw-run	\$1.60	\$0.90	\$1.22	250	\$930.00
Roadside landing	Jaw-run	\$1.60	\$0.90	\$1.22	60	\$223.20
Subtotal =					310	\$1,153.20

Totals

All Rock =	406
1½" - 0	96
Jaw-run	310

TOTAL ROCK COSTS = \$2,620.08

EROSION CONTROL

Grass seed & fertilizer	0.53	ac @	\$425.00	per ac =	\$225.25
Straw mulch bale	4	ea @	\$10.00	per ea =	\$40.00

TOTAL EROSION CONTROL COSTS = \$265.25

TOTAL PROJECT COST = \$8,891.27

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: D to E

Sale Number: FG-341-2024-W00943-01
Improvement: 105+30 stations
1.99 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	1.21	ac @	\$1,078.00	per acre =	\$1,304.38
Clean culvert inlet & outlet, scatter waste	12	ea @	\$25.00	per ea =	\$300.00
Bank Slough End-haul					
Excavate & load	100	cy @	\$1.64	per cy =	\$164.00
Haul	130	cy @	\$1.00	per cy =	\$130.00
Compact waste area	130	cy @	\$0.30	per cy =	\$39.00
Improve turnout	3	ea @	\$33.00	per ea =	\$99.00
Approach to landing	0.5	sta @	\$690.00	per sta =	\$345.00
Construct roadside landing	1	ea @	\$165.00	per ea =	\$165.00
Improve landing	2	ea @	\$157.00	per ea =	\$314.00
Grade, ditch, & roll	105.30	sta @	\$36.00	per sta =	\$3,790.80

TOTAL IMPROVEMENT COSTS = \$6,651.18

CULVERTS

Culverts and Bands					
18" Diameter	30	lf @	\$20.00	per lf =	\$600.00
Markers & Stakes					
Culvert markers	5	ea @	\$10.00	per ea =	\$50.00
Additional Culvert Cost					
Culvert at 89+60, repair inlet	0.5	hrs @	\$175.00	per hr =	\$87.50

TOTAL CULVERT COSTS = \$737.50

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	\$2.01	\$9.35	\$0.50	24	\$284.64
				Subtotal =	24	\$284.64
Surfacing rock						
Surfacing rock	Jaw-run	\$6.97	\$3.00	\$1.22	4,422	\$49,482.18
Junction	Jaw-run	\$6.97	\$3.00	\$1.22	144	\$1,611.36
Turnout	Jaw-run	\$6.97	\$3.00	\$1.22	57	\$637.83
Traction rock	1½" - 0	\$2.01	\$9.35	\$0.50	337	\$3,996.82
Approach to landing	Jaw-run	\$6.97	\$3.00	\$1.22	21	\$234.99
Roadside landing	Jaw-run	\$6.97	\$3.00	\$1.22	95	\$1,063.05
Landing	Jaw-run	\$6.97	\$3.00	\$1.22	240	\$2,685.60
				Subtotal =	5,316	\$59,711.83

Totals	All Rock =	5,340
	1½" - 0	361
	Jaw-run	4,979

TOTAL ROCK COSTS = \$59,996.47

EROSION CONTROL

Grass seed & fertilizer	1.21	ac @	\$425.00	per ac =	\$514.25
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TOTAL EROSION CONTROL COSTS = \$514.25

TOTAL PROJECT COST = \$67,899.40

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: F to G

Sale Number: FG-341-2024-W00943-01
Improvement: 19+55 stations
0.37 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Roadside brushing	0.37	mi @	\$1,550.00	per mi =	\$573.50
Clean culvert inlet & outlet, scatter waste	4	ea @	\$25.00	per ea =	\$100.00
Cutslope layback					
Excavate & load	238	cy @	\$1.64	per cy =	\$390.32
Haul	309	cy @	\$0.59	per cy =	\$182.31
Shape and compact waste material	309	cy @	\$0.30	per cy =	\$92.70
Construct turnaround	1	ea @	\$82.50	per ea =	\$82.50
Construct roadside landing	2	ea @	\$165.00	per ea =	\$330.00
Excavate, place and & compact fill	250	cy @	\$4.54	per cy =	\$1,135.00
Improve landing	1	ea @	\$110.00	per ea =	\$110.00
Grade, ditch, & roll	19.55	sta @	\$36.00	per sta =	\$703.80

TOTAL IMPROVEMENT COSTS = \$3,700.13

CULVERTS

Culverts and Bands					
18" Diameter	30	lf @	\$20.00	per lf =	\$600.00
Markers & Stakes					
Culvert markers	4	ea @	\$10.00	per ea =	\$40.00

TOTAL CULVERT COSTS = \$640.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	\$2.01	\$9.59	\$0.50	24	\$290.40
				Subtotal =	24	\$290.40
Surfacing rock						
Surfacing rock	Jaw-run	\$6.97	\$3.20	\$1.22	821	\$9,351.19
Turnaround	Jaw-run	\$6.97	\$3.20	\$1.22	20	\$227.80
Roadside landing	Jaw-run	\$6.97	\$3.20	\$1.22	190	\$2,164.10
Landing	Jaw-run	\$6.97	\$3.20	\$1.22	60	\$683.40
				Subtotal =	1,091	\$12,426.49

Totals	All Rock =	1,115
	1½" - 0	24
	Jaw-run	1,091

TOTAL ROCK COSTS = \$12,716.89

EROSION CONTROL

Grass seed & fertilizer	0.23	ac @	\$425.00	per ac =	\$97.75
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TOTAL EROSION CONTROL COSTS = \$97.75

TOTAL PROJECT COST = \$17,154.77

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: H to I

Sale Number: FG-341-2024-W00943-01
Improvement: 58+20 stations
1.10 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.67	ac @	\$1,078.00	per acre =	\$722.26
Roadside brushing	1.10	mi @	\$1,550.00	per mi =	\$1,705.00
Clean culvert inlet & outlet, scatter waste	3	ea @	\$25.00	per ea =	\$75.00
Improve turnout	3	ea @	\$33.00	per ea =	\$99.00
Improve turnaround	1	ea @	\$41.25	per ea =	\$41.25
Construct roadside landing	1	ea @	\$165.00	per ea =	\$165.00
Improve roadside landing	1	ea @	\$82.50	per ea =	\$82.50
Improve landing	1	ea @	\$110.00	per ea =	\$110.00
Grade, ditch, & roll	58.20	sta @	\$36.00	per sta =	\$2,095.20

TOTAL IMPROVEMENT COSTS = \$5,095.21

CULVERTS

Culverts and Bands					
18" Diameter	120	lf @	\$20.00	per lf =	\$2,400.00
24" Diameter	120	lf @	\$29.00	per lf =	\$3,480.00
Markers & Stakes					
Culvert markers	10	ea @	\$10.00	per ea =	\$100.00

TOTAL CULVERT COSTS = \$5,980.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	\$2.01	\$9.29	\$0.50	168	\$1,982.40
Subtotal =					168	\$1,982.40
Surfacing rock						
Surfacing rock	Jaw-run	\$6.97	\$4.25	\$1.22	2,444	\$30,403.36
Junction	Jaw-run	\$6.97	\$4.25	\$1.22	72	\$895.68
Turnout	Jaw-run	\$6.97	\$4.25	\$1.22	57	\$709.08
Turnaround	Jaw-run	\$6.97	\$4.25	\$1.22	14	\$174.16
Construct roadside landing	Jaw-run	\$6.97	\$4.25	\$1.22	95	\$1,181.80
Roadside landing	Jaw-run	\$6.97	\$4.25	\$1.22	60	\$746.40
Landing	Jaw-run	\$6.97	\$4.25	\$1.22	60	\$746.40
Subtotal =					2,802	\$34,856.88

Totals

All Rock =	2,970
1½" - 0	168
Jaw-run	2,802

TOTAL ROCK COSTS = \$36,839.28

EROSION CONTROL

Grass seed & fertilizer	0.67	ac @	\$425.00	per ac =	\$284.75
Straw mulch bale	6	ea @	\$10.00	per ea =	\$60.00

TOTAL EROSION CONTROL COSTS = \$344.75

TOTAL PROJECT COST = \$48,259.24

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
 Road Segment: J to K

Sale Number: FG-341-2024-W00943-01
 Improvement: 6+20 stations
0.12 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.08	ac @	\$1,078.00	per acre =	\$86.24
Roadside brushing	0.12	mi @	\$1,550.00	per mi =	\$186.00
Improve landing	1	ea @	\$110.00	per ea =	\$110.00
Grade, ditch, & roll	6.20	sta @	\$36.00	per sta =	\$223.20

TOTAL IMPROVEMENT COSTS = \$605.44

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Surfacing rock	Jaw-run	\$6.97	\$4.30	\$1.22	260	\$3,247.40
Landing	Jaw-run	\$6.97	\$4.30	\$1.22	60	\$749.40
Subtotal =					320	\$3,996.80

Totals

All Rock =	320
Jaw-run	320

TOTAL ROCK COSTS = \$3,996.80

EROSION CONTROL

Grass seed & fertilizer	0.08	ac @	\$425.00	per ac =	\$34.00
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TOTAL EROSION CONTROL COSTS = \$34.00

TOTAL PROJECT COST = \$4,636.24

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: L to M

Sale Number: FG-341-2024-W00943-01
Construction: 7+35 stations
0.14 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	0.85	ac @	\$1,078.00	per ac =	\$916.30
Balanced road construction	3.80	sta @	\$110.00	per sta =	\$418.00
Drift	3.55	sta @	\$180.00	per sta =	\$639.00
Turnaround	1	ea @	\$82.50	per ea =	\$82.50
Landing	1	ea @	\$314.00	per ea =	\$314.00
Grade, ditch, & roll	7.35	sta @	\$36.00	per sta =	\$264.60

TOTAL CONSTRUCTION COSTS = \$2,634.40

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	Jaw-run	\$1.60	\$2.06	\$1.22	478	\$2,332.64
Junction	Jaw-run	\$1.60	\$2.06	\$1.22	24	\$117.12
Turnaround	Jaw-run	\$1.60	\$2.06	\$1.22	20	\$97.60
Landing	Jaw-run	\$1.60	\$2.06	\$1.22	180	\$878.40
Subtotal =					702	\$3,425.76

Totals

All Rock =	702
Jaw-run	702

TOTAL ROCK COSTS = \$3,425.76

EROSION CONTROL

Grass seed & fertilizer	0.43	ac @	\$500.00	per ac =	\$215.00
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TOTAL EROSION CONTROL COSTS = \$215.00

TOTAL PROJECT COST = \$6,275.16

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine
Road Segment: Point N

Sale Number: FG-341-2024-W00943-01

PROJECT NO. 2: ROAD IMPROVEMENT

Additional Culvert Cost
Trim culvert outlet 1 hrs @ \$175.00 per hr = \$175.00
TOTAL CULVERT COSTS = \$175.00

ROCK

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Energy dissipator	Large Riprap	\$3.87	\$13.18	\$1.60	72	\$1,342.80
				Subtotal =	72	\$1,342.80
Totals				All Rock =	72	
				Large Riprap	72	

TOTAL ROCK COSTS = \$1,342.80

TOTAL PROJECT COST = \$1,517.80

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Timber Sale:
Road Segment:	V1 to V2

Sale Number: FG-341-2024-W00943-01

Vacating: 3+57 stations
0.07 miles

PROJECT NO. 3: ROAD VACATING

Construct tank trap	1	ea @	\$55.00	per ea =	\$55.00
Construct waterbar	3	ea @	\$27.50	per ea =	\$82.50
Rip rocked road surface	3.57	sta @	\$50.00	per sta =	\$178.50
Stream channel development	250	cy @	\$3.28	per sta =	\$820.00
Rip & narrow landing	1	ea @	\$150.00	per ea =	\$150.00
Remove existing culverts	1	ea @	\$150.00	per ea =	\$150.00
Grass seed & fertilizer	0.16	ac @	\$425.00	per ac =	\$68.00
Mulch	0.16	ac @	\$600.00	per ac =	\$96.00

TOTAL PROJECT COST = \$1,600.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: _____ Timber Sale: _____
Road Segment: V3 to V4

Sale Number: FG-341-2024-W00943-01
Vacating: 31+65 stations
0.60 miles

PROJECT NO. 3: ROAD VACATING

Construct tank trap	1	ea @	\$55.00	per ea =	\$55.00
Construct waterbar	16	ea @	\$27.50	per ea =	\$440.00
Rip rocked road surface	31.65	sta @	\$50.00	per sta =	\$1,582.50
Stream channel development	200	cy @	\$3.28	per sta =	\$656.00
Construct ditchout	1	ea @	\$150.00	per ea =	\$150.00
Remove existing culverts	1	ea @	\$150.00	per ea =	\$150.00
Grass seed & fertilizer	1.45	ac @	\$425.00	per ac =	\$616.25
Mulch	1.45	ac @	\$600.00	per ac =	\$870.00

TOTAL PROJECT COST = \$4,519.75

SUMMARY OF CONSTRUCTION COST

Timber Sale: _____ Timber Sale: _____ Sale Number: FG-341-2024-W00943-01
Road Segment: V5 to V6 Vacating: 1+25 stations
0.02 miles

PROJECT NO. 3: ROAD VACATING

Rip rocked road surface	1.25	sta @	\$50.00	per sta =	\$62.50
Stream channel development	275	cy @	\$3.28	per sta =	\$902.00
Remove existing puncheon	1	ea @	\$150.00	per ea =	\$150.00
Grass seed & fertilizer	0.06	ac @	\$425.00	per ac =	\$25.50
Mulch	0.06	ac @	\$600.00	per ac =	\$36.00

TOTAL PROJECT COST = \$1,176.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: _____ Timber Sale: _____ Sale Number: FG-341-2024-W00943-01
Road Segment: V7 to V8 Vacating: 7+95 stations
0.15 miles

PROJECT NO. 3: ROAD VACATING

Construct tank trap	1	ea @	\$55.00	per ea =	\$55.00
Construct waterbar	6	ea @	\$27.50	per ea =	\$165.00
Rip rocked road surface	7.95	sta @	\$50.00	per sta =	\$397.50
Rip & narrow landing	1	ea @	\$150.00	per ea =	\$150.00
Grass seed & fertilizer	0.37	ac @	\$425.00	per ac =	\$157.25
Mulch	0.37	ac @	\$600.00	per ac =	\$222.00
TOTAL PROJECT COST =					<u><u>\$1,146.75</u></u>

SUMMARY OF CONSTRUCTION COST

Timber Sale: Front Nine

Sale Number: FG-341-2024-W00943-01

PROJECT No. 1, 2 & 3 MOVE-IN, WITHIN AREA MOVE, & CLEANING COSTS

<u>Equipment</u>	<u>Total</u>
Brush Cutter	\$618.89
Grader	\$1,036.40
Roller (smooth/grid) & Compactor	\$618.89
Excavator (Large) - Equipment Cleaning	\$2,036.40
Dozer (Large) - Equipment Cleaning	\$2,080.98
Dump Truck (10cy +)	\$172.65
Water Truck (2,500 Gal)	\$170.50
<u>TOTAL MOVE-IN COSTS =</u>	<u>\$6,734.71</u>

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Front Nine
Sale Number: FG-341-2024-W00943-01
Quarry Name: Salmonback

Jaw-run: 9,192 cy (truck measure)
Riprap: 72 cy (truck measure)
Total truck yardage: 9,264 cy
Total in place yardage: 7,501 cy
Oversize - Pile: 5%
Swell: 130%
Compaction: 116%

Move-in & Other Base Cost

Quarry development & overburden removal	\$1,444.44
Equipment cleaning & move in excavator	\$2,036.40
Equipment cleaning & move in dozer	\$2,002.30
Move in & setup drill	\$623.52
Move in loader	\$904.07
Move in & setup crusher	\$1,002.30
Move in Dump Trucks	\$504.00
Clean up quarry	\$500.00
Subtotal =	<u>\$9,017.03</u>
Per CY =	<u>\$0.97/cy</u>

Jaw-run Base Cost

Drill & shoot	<u>\$2.80</u>	/ cy x	<u>7,443</u>	cy =	\$20,840.40
Oversize - Pile	<u>\$0.80</u>	/ cy x	<u>484</u>	cy =	\$387.20
Load crusher	<u>\$0.80</u>	/ cy x	<u>9,191</u>	cy =	\$7,352.80
Crush (Jaw-run)	<u>\$2.10</u>	/ cy x	<u>9,191</u>	cy =	\$19,301.10
Load dump truck	<u>\$0.80</u>	/ cy x	<u>9,191</u>	cy =	\$7,352.80
Subtotal =					<u>\$55,234.30</u>
Per CY =					<u>\$6.00/cy</u>

Riprap Base Cost

Rip rock	<u>\$2.10</u>	/ cy x	<u>72</u>	cy =	\$151.20
Load dump truck	<u>\$0.80</u>	/ cy x	<u>72</u>	cy =	\$57.60
Subtotal =					<u>\$208.80</u>
Per CY =					<u>\$2.90/cy</u>

Jaw-run Base Cost = \$6.97/cy
Riprap Base Cost = \$3.87/cy

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Front Nine
Sale Number: FG-341-2024-W00943-01
Stockpile Name: Camp 9

Jaw-run: 1,297 cy (truck measure)
Total truck yardage: 1,297 cy

<u>Move-in</u>					
	Move in loader				\$918.61
	Move in Dump Trucks				\$125.07
				Subtotal =	\$1,043.68
				Per CY =	\$0.80/cy
<u>Jaw-run Base Cost</u>					
	Load dump truck	\$0.80	/ cy x	<u>1,297</u>	cy =
					\$1,037.60
				Subtotal =	\$1,037.60
				Per CY =	\$0.80

Jaw-Run Cost = \$1.60/cy

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Front Nine
Sale Number: FG-341-2024-W00943-01
Stockpile Name: Rock Creek Ridge

1 1/2" - 0: 649 cy (truck measure)
Total truck yardage: 649 cy

<u>Move-in</u>					
Move in loader					\$686.44
Move in Dump Trucks					\$100.32
				Subtotal =	\$786.76
				Per CY =	\$1.21/cy
<u>1 1/2"-0 Base Cost</u>					
Load dump truck	\$0.80	/ cy x	649	cy =	\$519.20
				Subtotal =	\$519.20
				Per CY =	\$0.80

1 1/2"-0 Cost = \$2.01/cy

CRUISE REPORT
Front Nine
#FG-341-2024-W00943-01

1. LOCATION:

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

2. CRUISE DESIGN:

The timber cruise was designed using an estimated coefficient of variation (CV) of 52%, average stand diameter of 14 inches, sampling error (SE) of 9% and a minimum of 100 grade trees.

3. SAMPLING METHOD:

The Timber Sale Area was cruised in May of 2023 with 33 variable radius grade plots using a 40 BAF prism. Plots were laid out as follows: Unit 1 & Unit 2 = 6 chain x 5 chain grid, and Unit 3 = 6 chain x 6 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS:

198 trees were measured and graded producing a standard error of 5.6% on the Douglas-fir Basal Area and 5.7% on the Douglas-fir Net Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following the Official Log Scaling and Grading Rules as adopted by the NW Log Rules Advisory Group. 40 foot segments were favored.

- 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:** Measured for each grade tree using a form point of 16 feet.

6. DATA PROCESSING:

- a) **Volumes and Statistics:** Cruise estimates and sampling statistics were derived from SuperAce 2008 cruise software.
- b) **Deductions:** The following percent volume deductions are by species to account for the hidden defect and breakage. For conifers two percent was deducted.

7. CRUISERS: The sale was cruised by ODF cruisers Shamus Smith and Colton Turner.

Prepared by: Mark Savage 5-22-2023

Reviewed by: Mark Savage 5-22-2023
Date

PROJECT STATISTICS						PAGE	1					
PROJECT						FRNTNINE	DATE	5/18/2023				
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt		
T3N	R6	19	00U3	00MC		154.00	33	204	S	W		
T3N	R6W	29	00U1	00MC								
T3N	R6W	29	00U2	00MC								
			TREES		ESTIMATED	PERCENT						
			PER PLOT		TOTAL	SAMPLE						
			PLOTS	TREES	TREES	TREES						
TOTAL			33	204	6.2							
CRUISE			33	204	6.2	14,015	1.5					
DBH COUNT												
REFOREST												
COUNT												
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
			TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR			193	83.6	22.7	121	49.2	234.5	48,340	48,175	10,520	10,520
DOUG FIR-S			6	5.5	15.5	40	1.8	7.2				
NOB FIR			2	.3	38.7	165	0.4	2.3	683	683	127	127
WHEMLOCK			3	1.6	20.2	115	0.8	3.7	729	729	165	165
TOTAL			204	91.0	22.3	116	52.4	247.6	49,752	49,587	10,812	10,812
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			68.2	4.9	812	854	896					
DOUG FIR-S												
NOB FIR			32.0	30.0	1,792	2,560	3,328					
WHEMLOCK			59.0	40.8	318	537	756					
TOTAL			73.0	5.1	798	841	884	213	53	24		
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			59.5	4.3	172	180	187					
DOUG FIR-S												
NOB FIR			29.8	27.9	341	473	604					
WHEMLOCK			53.9	37.3	75	120	165					
TOTAL			64.2	4.5	169	176	184	164	41	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			66.9	11.6	74	84	93					
DOUG FIR-S			351.9	61.2	2	6	9					
NOB FIR			410.4	71.4	0	0	0					
WHEMLOCK			345.0	60.0	1	2	3					
TOTAL			75.8	13.2	79	91	103	230	57	26		
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			32.2	5.6	221	234	248					
DOUG FIR-S			215.6	37.5	4	7	10					
NOB FIR			399.8	69.5	1	2	4					
WHEMLOCK			321.4	55.9	2	4	6					
TOTAL			29.4	5.1	235	248	260	35	9	4		
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			33.0	5.7	45,414	48,175	50,935					
DOUG FIR-S												
NOB FIR			399.8	69.5	208	683	1,158					

TC PSTATS				PROJECT STATISTICS				PAGE	2	
				PROJECT		FRNTNINE		DATE	5/18/2023	
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
T3N	R6	19	00U3	00MC	154.00	33	204	S	W	
T3N	R6W	29	00U1	00MC						
T3N	R6W	29	00U2	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
WHEMLOCK			325.9	56.7	316	729	1,143			
TOTAL			<i>30.6</i>	<i>5.3</i>	<i>46,951</i>	<i>49,587</i>	<i>52,223</i>	<i>37</i>	<i>9</i>	<i>4</i>
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			31.5	5.5	9,944	10,520	11,096			
DOUG FIR-S										
NOB FIR			399.9	69.5	39	127	215			
WHEMLOCK			323.6	56.3	72	165	258			
TOTAL			<i>28.9</i>	<i>5.0</i>	<i>10,267</i>	<i>10,812</i>	<i>11,356</i>	<i>33</i>	<i>8</i>	<i>4</i>

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
<div><div>TT3N RR6W S19 Ty00MC77.00</div><div>TT3N RR6W S29 Ty00MC46.00</div><div>TT3N RR6W S29 Ty00MC31.00</div></div>				Project:		FRNTNINE												Page		1	
				Acres		154.00												Date		5/18/2023	
																		Time		3:01:19PM	
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%GrossNet			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF			CU														21	12		0.00	1.8
DF			2M	80	.4	39,054	38,888	5,989			40	60	1	0		99	40	16	430	2.21	90.5
DF			3M	17		8,303	8,303	1,279		100			0	1	9	90	38	8	101	0.73	82.4
DF			4M	3		984	984	151		100			38	62			21	6	27	0.38	36.8
DF Totals				97	.3	48,340	48,175	7,419		19	32	49	1	2	1	95	36	11	228	1.39	211.4
DF	S		CU														18	8		0.00	6.1
DF Totals																	18	8		0.00	6.1
WH			2M	62		455	455	70			55	45				100	40	16	395	2.05	1.2
WH			3M	35		255	255	39		100						100	39	9	120	0.76	2.1
WH			4M	3		20	20	3		100			48	52			21	6	24	0.45	.8
WH Totals				1		729	729	112		38	35	28	1	1		97	36	10	179	1.13	4.1
NF			2M	99		678	678	104			10	90				100	40	20	804	3.71	.8
NF			4M	1		5	5	1		100			100				14	9	30	0.61	.2
NF Totals				1		683	683	105		1	10	90	1			99	36	19	673	3.50	1.0
Totals					0.3	49,752	49,587	7,636		19	32	49	1	2	1	95	35	11	223	1.37	222.6

TC		PSTNDSUM										Stand Table Summary										Page		1					
																						Date:		5/18/2023					
TT3N RR6W S19 Ty00MC					77.00					Project					FRNTNINE					Time:					3:01:21PM				
TT3N RR6W S29 Ty00MC					46.00																								
TT3N RR6W S29 Ty00MC					31.00					Acres					154.00					Grown Year:									
S Sp	T	Tot							Average Log		Net		Net		T o t a l s														
		DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF													
DF		9	1	86	58	2.604	1.15	2.60	7.1	30.0	.53	18	78	81	28	12													
DF		10	1	86	66	2.109	1.15	2.11	10.8	50.0	.65	23	105	100	35	16													
DF		12	1	87	89	1.592	1.25	3.18	10.9	45.0	.99	35	143	152	53	22													
DF		13	3	86	97	3.960	3.65	6.67	15.9	63.6	3.02	106	424	466	163	65													
DF		14	3	86	92	3.456	3.69	5.79	19.4	78.2	3.21	113	453	494	173	70													
DF		15	1	87	95	1.019	1.25	2.04	19.3	75.0	1.12	39	153	172	60	24													
DF		16	4	86	100	3.510	4.90	7.02	23.6	98.6	4.71	165	692	726	255	107													
DF		17	4	87	108	3.011	4.75	6.02	28.6	118.7	4.90	172	715	755	265	110													
DF		18	8	86	114	5.659	10.00	12.03	31.4	125.3	10.78	378	1,507	1,660	582	232													
DF		19	5	87	121	3.174	6.25	7.62	33.0	134.2	7.15	251	1,022	1,102	387	157													
DF		20	6	86	127	3.438	7.50	10.31	31.5	130.6	9.26	325	1,346	1,427	501	207													
DF		21	11	86	118	5.611	13.50	12.72	43.0	173.0	15.58	547	2,200	2,399	842	339													
DF		22	15	86	124	6.989	18.45	17.73	44.4	188.6	22.44	787	3,343	3,455	1,212	515													
DF		23	13	87	131	5.402	15.59	16.21	43.5	193.5	20.07	704	3,135	3,091	1,085	483													
DF		24	21	86	133	8.218	25.82	24.26	48.7	217.7	33.68	1,182	5,281	5,187	1,820	813													
DF		25	7	87	140	2.473	8.43	7.42	54.0	249.6	11.42	401	1,851	1,759	617	285													
DF		26	13	86	135	4.333	15.97	12.67	59.2	265.2	21.39	751	3,361	3,295	1,156	518													
DF		27	9	86	143	2.763	10.98	8.29	64.3	297.0	15.18	533	2,462	2,338	820	379													
DF		28	9	86	140	2.592	11.08	8.06	66.9	314.4	15.36	539	2,533	2,365	830	390													
DF		29	6	87	147	1.568	7.19	5.20	69.2	346.1	10.26	360	1,801	1,580	554	277													
DF		30	8	86	154	1.954	9.59	6.82	73.7	370.3	14.32	503	2,525	2,206	774	389													
DF		31	4	86	130	.903	4.73	2.48	84.0	402.4	5.94	209	999	915	321	154													
DF		32	12	86	150	2.573	14.37	7.92	92.5	464.0	20.89	733	3,677	3,217	1,129	566													
DF		33	4	86	151	.790	4.69	2.56	91.6	470.9	6.69	235	1,207	1,030	362	186													
DF		34	7	86	145	1.330	8.38	3.99	104.7	521.7	11.91	418	2,082	1,834	644	321													
DF		35	1	85	136	.172	1.15	.52	106.6	510.0	1.57	55	263	242	85	41													
DF		36	5	85	146	.840	5.94	2.68	110.2	554.2	8.43	296	1,487	1,298	455	229													
DF		37	2	85	145	.320	2.39	.96	115.5	610.0	3.16	111	586	487	171	90													
DF		38	3	85	138	.451	3.55	1.35	124.7	619.5	4.81	169	838	740	260	129													
DF		39	2	85	146	.288	2.39	.86	136.1	696.7	3.35	118	602	516	181	93													
DF		41	1	87	139	.130	1.19	.39	148.4	780.0	1.65	58	305	255	89	47													
DF		42	2	86	154	.244	2.35	.86	145.3	776.9	3.54	124	665	545	191	102													
DF		48	1	85	161	.095	1.19	.29	225.2	1170.0	1.83	64	334	282	99	51													
DF		Totals	193	86	121	83.569	234.48	209.63	50.2	229.8	299.81	10,520	48,175	46,171	16,200	7,419													
WH		16	1	87	107	.824	1.15	1.65	28.7	120.0	1.51	47	198	233	73	30													
WH		22	1	88	119	.474	1.25	1.42	38.6	166.7	1.76	55	237	270	84	36													
WH		26	1	87	130	.339	1.25	1.02	62.2	290.0	2.02	63	295	312	97	45													
WH		Totals	3	87	115	1.636	3.65	4.09	40.5	178.6	5.29	165	729	815	255	112													
NF		35	1	85	167	.172	1.15	.69	93.3	495.0	1.54	64	341	237	99	52													
NF		44	1	88	159	.109	1.15	.33	190.7	1046.7	1.50	62	342	230	96	53													
NF		Totals	2	86	164	.281	2.30	1.02	124.6	672.5	3.04	127	683	468	195	105													
DF S		8	1	78	40	3.295	1.15																						
DF S		17	1	70	33	.793	1.25																						
DF S		22	1	98	18	.453	1.19																						
DF S		25	1	74	36	.367	1.25																						
DF S		26	1	37	20	.324	1.19																						
DF S		27	1	89	119	.289	1.15																						
DF S		Totals	6	76	40	5.521	7.19																						
Totals		204	86	116		91.007	247.62	214.73	50.3	230.9	308.14	10,812	49,587	47,454	16,650	7,636													

TC		PLOGSTVB		Log Stock Table - MBF																	
<div>TT3N RR6W S19 Ty00MC77.00</div> <div>TT3N RR6W S29 Ty00MC46.00</div> <div>TT3N RR6W S29 Ty00MC31.00</div>				Project:		FRNTNINE		Acres154.00										Page		1	
																		Date		5/18/2023	
																		Time		3:01:19PM	
Spp	ST	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	40+		
DF		2M	12	3		3	.0					3									
DF		2M	20	36		36	.5										36				
DF		2M	28	20		20	.3							20							
DF		2M	30	9		9	.1						9								
DF		2M	40	5,946		5,921	79.8					822	945	2343	1135	615		59			
DF		3M	16	1		1	.0					1									
DF		3M	20	1		1	.0				1										
DF		3M	22	2		2	.0					2									
DF		3M	28	2		2	.0				2										
DF		3M	30	13		13	.2				4	9									
DF		3M	32	32		32	.4			25	4	2									
DF		3M	34	77		77	1.0			66	9	2									
DF		3M	36	46		46	.6			37	9										
DF		3M	38	13		13	.2			11	2										
DF		3M	40	1,091		1,091	14.7			172	380	539									
DF		4M	12	4		4	.1			4											
DF		4M	14	12		12	.2			11	1										
DF		4M	16	21		21	.3			18	2										
DF		4M	18	11		11	.2			11											
DF		4M	20	9		9	.1			7	2										
DF		4M	22	9		9	.1			9											
DF		4M	24	14		14	.2			14											
DF		4M	26	36		36	.5			36											
DF		4M	28	6		6	.1			6											
DF		4M	30	28		28	.4			28											
DF		Totals		7,444		7,419	97.2			457	416	557	826	955	2363	1135	651		59		
WH		2M	40	70		70	62.4					13	26	31							
WH		3M	38	8		8	6.8			8											
WH		3M	40	32		32	28.1				9	23									
WH		4M	16	1		1	1.3			1											
WH		4M	28	2		2	1.4			2											
WH		Totals		112		112	1.5			11	9	23	13	26	31						
NF		2M	40	104		104	99.2					5	5	16		47		31			
NF		4M	14	1		1	.8				1										

TC		PLOGSTVB		Log Stock Table - MBF															
<div><div>TT3N RR6W S19 Ty00MC77.00</div><div>TT3N RR6W S29 Ty00MC46.00</div><div>TT3N RR6W S29 Ty00MC31.00</div></div>		Project:FRNTNINE										Page2							
		Acres154.00										Date5/18/2023							
												Time3:01:19PM							
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
NF		Totals		105		105	1.4			1		5	5	16		47		31	
Total		All Species		7,662		7,636	100.0			468	425	580	843	986	2410	1135	699	90	

TC PSTATS				PROJECT STATISTICS						PAGE 1	
				PROJECT		FRNTNINE		DATE		5/18/2023	
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt
T3N	R6	29	00U1	Unit 1 00MC		46.00		10	56	S	W
				TREES		ESTIMATED TOTAL		PERCENT SAMPLE			
PLOTS				TREES		PER PLOT		TREES		TREES	
TOTAL				10		56		5.6			
CRUISE				10		56		5.6		2,568	
DBH COUNT										2.2	
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				54		53.2		27.3		137	
DOUG FIR-S				2		2.6		23.8		19	
TOTAL				56		55.8		27.1		131	
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			
SD: 1.0				VAR.%				# OF TREES REQ.			
				S.E.%				INF. POP.			
				LOW				5			
				AVG				10			
				HIGH				15			
DOUG FIR				53.3				1,124			
DOUG FIR-S				7.2				1,212			
TOTAL				1,299							
DOUG FIR				57.6				133			
DOUG FIR-S				7.7				33			
TOTAL				108				15			
CL 68.1				COEFF				SAMPLE TREES - CF			
SD: 1.0				VAR.%				# OF TREES REQ.			
				S.E.%				INF. POP.			
				LOW				5			
				AVG				10			
				HIGH				15			
DOUG FIR				47.4				228			
DOUG FIR-S				6.4				244			
TOTAL				259							
DOUG FIR				52.0				108			
DOUG FIR-S				6.9				27			
TOTAL				12							
CL 68.1				COEFF				TREES/ACRE			
SD: 1.0				VAR.%				# OF PLOTS REQ.			
				S.E.%				INF. POP.			
				LOW				5			
				AVG				10			
				HIGH				15			
DOUG FIR				50.9				44			
DOUG FIR-S				17.0				53			
TOTAL				62							
DOUG FIR				214.4				1			
DOUG FIR-S				71.3				3			
TOTAL				4							
DOUG FIR				48.8				106			
DOUG FIR-S				16.3				26			
TOTAL				12							
CL 68.1				COEFF				BASAL AREA/ACRE			
SD: 1.0				VAR.%				# OF PLOTS REQ.			
				S.E.%				INF. POP.			
				LOW				5			
				AVG				10			
				HIGH				15			
DOUG FIR				41.1				186			
DOUG FIR-S				13.7				216			
TOTAL				246							
DOUG FIR				210.8				2			
DOUG FIR-S				70.2				8			
TOTAL				14							
DOUG FIR				37.8				63			
DOUG FIR-S				12.6				16			
TOTAL				7							
CL 68.1				COEFF				NET BF/ACRE			
SD: 1.0				VAR.%				# OF PLOTS REQ.			
				S.E.%				INF. POP.			
				LOW				5			
				AVG				10			
				HIGH				15			
DOUG FIR				43.1				43,784			
DOUG FIR-S				14.4				51,121			
TOTAL				58,457							
DOUG FIR				43.1				82			
DOUG FIR-S				14.4				21			
TOTAL				9							
CL 68.1				COEFF				NET CUFT FT/ACRE			
SD: 1.0				VAR.%				# OF PLOTS REQ.			
				S.E.%				INF. POP.			
				LOW				5			
				AVG				10			
				HIGH				15			
DOUG FIR				43.0				9,009			
DOUG FIR-S				14.3				10,512			
TOTAL				12,015							

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
<div>TT3N RR6W S29 Ty00MC46.00</div>				Project:				FRNTNINE				Page				1					
				Acres				46.00				Date				5/18/2023					
												Time				2:25:53PM					
Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent of Net Board Foot Volume								Average Log				Logs
									Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/	
					Def%	Gross	Net		Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35					
DF			CU														24	13		0.00	3.1
DF			2M	90	.4	46,493	46,321	2,131			24	76	2	0		98	39	17	505	2.49	91.6
DF			3M	9		4,509	4,509	207		100			1	2	19	79	37	8	92	0.78	49.2
DF			4M	1		291	291	13		100			20	80			24	6	29	0.45	9.9
DF Totals				100	.3	51,292	51,121	2,352		9	22	69	2	1	2	96	37	13	332	1.83	154.0
DF	S		CU														16	15		0.00	2.6
DF Totals																	16	15		0.00	2.6
Totals					0.3	51,292	51,121	2,352		9	22	69	2	1	2	96	37	13	327	1.82	156.6

TC		PSTNDSUM										Stand Table Summary										Page		1					
																						Date:		5/18/2023					
TT3N RR6W S29 Ty00MC					46.00					Project					FRNTNINE					Time:					2:25:55PM				
										Acres					46.00					Grown Year:									
S SpC	T				Tot						Average Log			Net		Net		T o t a l s											
		DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF													
DF		14	1	84	59	3.742	4.00	3.74	22.4	60.0	2.38	84	225	110	38	10													
DF		17	1	86	102	2.538	4.00	5.08	27.8	115.0	4.03	141	584	185	65	27													
DF		21	1	86	139	1.663	4.00	4.99	37.4	150.0	5.32	187	748	245	86	34													
DF		23	3	89	151	4.159	12.00	12.48	49.1	231.1	17.47	613	2,884	804	282	133													
DF		24	6	86	140	7.639	24.00	22.92	50.1	227.8	32.75	1,149	5,220	1,507	529	240													
DF		25	4	87	143	4.694	16.00	14.08	54.0	255.8	21.69	761	3,602	998	350	166													
DF		26	5	87	135	5.424	20.00	15.19	62.6	285.7	27.09	950	4,340	1,246	437	200													
DF		27	3	87	146	3.018	12.00	9.05	65.1	308.9	16.80	589	2,797	773	271	129													
DF		28	3	87	153	2.806	12.00	9.35	66.7	328.0	17.77	624	3,068	818	287	141													
DF		29	2	87	156	1.744	8.00	5.23	80.4	411.7	11.99	421	2,154	552	194	99													
DF		30	2	88	169	1.630	8.00	6.52	70.2	373.8	13.05	458	2,436	600	211	112													
DF		31	3	86	133	2.289	12.00	6.11	87.4	423.7	15.21	534	2,587	700	246	119													
DF		32	6	86	152	4.297	24.00	12.89	95.4	479.4	35.06	1,230	6,181	1,613	566	284													
DF		33	2	85	136	1.347	8.00	4.04	87.6	433.3	10.09	354	1,751	464	163	81													
DF		34	3	86	146	1.903	12.00	5.71	105.3	520.0	17.14	601	2,969	788	277	137													
DF		36	2	86	152	1.132	8.00	3.40	122.5	643.3	11.85	416	2,184	545	191	100													
DF		37	2	85	145	1.071	8.00	3.21	115.5	610.0	10.58	371	1,961	487	171	90													
DF		39	2	85	146	.964	8.00	2.89	136.1	696.7	11.22	394	2,015	516	181	93													
DF		41	1	87	139	.436	4.00	1.31	148.4	780.0	5.54	194	1,021	255	89	47													
DF		42	1	86	167	.416	4.00	1.66	136.0	767.5	6.45	226	1,276	297	104	59													
DF		48	1	85	161	.318	4.00	.95	225.2	1170.0	6.13	215	1,117	282	99	51													
DF		Totals	54	86	137	53.232	216.00	150.81	69.7	339.0	299.60	10,512	51,121	13,782	4,836	2,352													
DF S		22	1	98	18	1.515	4.00																						
DF S		26	1	37	20	1.085	4.00																						
DF S		Totals	2	73	19	2.600	8.00																						
Totals		56	86	131		55.832	224.00	150.81	69.7	339.0	299.60	10,512	51,121	13,782	4,836	2,352													

TC		PLOGSTVB		Log Stock Table - MBF																	
TT3N RR6W S29 Ty00MC46.00				Project:		FRNTNINE										Page		1			
																Date		5/18/2023			
																Time		2:25:53PM			
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches													
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
DF		2M	12	3		3	.1					3									
DF		2M	20	36		36	1.5										36				
DF		2M	30	9		9	.4						9								
DF		2M	40	2,090		2,082	88.6					174	162	850	560	278	59				
DF		3M	16	1		1	.0					1									
DF		3M	28	2		2	.1			2											
DF		3M	30	2		2	.1			2											
DF		3M	32	16		16	.7			14		2									
DF		3M	34	23		23	1.0			14	9										
DF		3M	36	2		2	.1				2										
DF		3M	38	5		5	.2			3	2										
DF		3M	40	157		157	6.7			39	32	86									
DF		4M	12	1		1	.0			1											
DF		4M	14	1		1	.0			1											
DF		4M	18	1		1	.0			1											
DF		4M	24	3		3	.1			3											
DF		4M	26	2		2	.1			2											
DF		4M	28	4		4	.2			4											
DF		4M	30	2		2	.1			2											
DF		Totals		2,359		2,352	100.0			82	49	89	177	171	850	560	313	59			
Total		All Species		2,359		2,352	100.0			82	49	89	177	171	850	560	313	59			

TC PSTATS				PROJECT STATISTICS				PAGE	1	
				PROJECT	FRNTNINE	DATE				5/18/2023
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
T3N	R6	29	00U2	Unit 2	00MC	31.00	7	43	S	W
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL				7	43	6.1				
CRUISE				7	43	6.1	3,371	1.3		
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
SAMPLE				TREES	AVG	BOLE	REL	BASAL	GROSS	NET
TREES				/ACRE	DBH	LEN	DEN	AREA	BF/AC	CF/AC
DOUG FIR				38	85.4	21.6	112	46.7	217.1	48,335
DOUG FIR-S				2	17.8	10.8	46	3.5	11.4	48,085
NOB FIR				2	1.4	38.7	165	1.8	11.4	9,989
WHEMLOCK				1	4.1	16.0	107	1.4	5.7	629
TOTAL				43	108.7	20.4	101	54.5	245.7	235
										10,853
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		64.7	10.5	933	1,042	1,152				
DOUG FIR-S										
NOB FIR		32.0	30.0	1,792	2,560	3,328				
WHEMLOCK										
TOTAL		73.7	11.2	928	1,046	1,163	217	54	24	
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		59.6	9.7	190	210	230				
DOUG FIR-S										
NOB FIR		29.8	27.9	341	473	604				
WHEMLOCK										
TOTAL		68.0	10.4	187	209	231	185	46	21	
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		106.0	43.2	49	85	122				
DOUG FIR-S		240.6	97.9	0	18	35				
NOB FIR		176.7	71.9	0	1	2				
WHEMLOCK		264.6	107.7		4	8				
TOTAL		119.1	48.5	56	109	161	657	164	73	
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		31.7	12.9	189	217	245				
DOUG FIR-S		170.8	69.5	3	11	19				
NOB FIR		170.8	69.5	3	11	19				
WHEMLOCK		264.6	107.7		6	12				
TOTAL		23.8	9.7	222	246	270	26	7	3	
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		32.3	13.2	41,759	48,085	54,411				
DOUG FIR-S										
NOB FIR		170.8	69.5	1,035	3,393	5,750				
WHEMLOCK		264.6	107.7		982	2,040				

TC PSTATS				PROJECT STATISTICS				PAGE	2	
				PROJECT		FRNTNINE		DATE	5/18/2023	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
T3N	R6	29	00U2	00MC		31.00	7	43	S	W
CL	68.1	COEFF		NET BF/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
TOTAL		24.6	10.0	47,206	52,460	57,713		28	7	3
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		28.3	11.5	8,838	9,989	11,140				
DOUG FIR-S										
NOB FIR		170.8	69.5	192	629	1,066				
WHEMLOCK		264.6	107.7		235	488				
TOTAL		19.3	7.8	10,002	10,853	11,704		17	4	2

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
<div>TT3N RR6W S29 Ty00MC31.00</div>				Project:				FRNTNINE								Page1					
				Acres				31.00								Date5/18/2023					
																Time2:29:10PM					
Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
				Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
DF		2M	80	.6	38,799	38,549	1,195			28	72				100	40	18	530	2.56	72.8	
DF		3M	18		8,618	8,618	267		100					1	9	90	38	8	107	0.74	80.7
DF		4M	2		917	917	28		100			33	67				22	6	28	0.37	33.2
DF Totals			92	.5	48,335	48,085	1,491		20	23	58	1	1	2	96	36	12	258	1.48	186.6	
DF	S	CU														16	8		0.00	20.7	
DF Totals																16	8		0.00	20.7	
NF		2M	99		3,367	3,367	104			10	90				100	40	20	804	3.71	4.2	
NF		4M	1		26	26	1		100			100				14	9	30	0.61	.9	
NF Totals			6		3,393	3,393	105		1	10	90	1			99	36	19	673	3.50	5.0	
WH		3M	100		982	982	30		100						100	39	9	120	0.74	8.2	
WH Totals			2		982	982	30		100						100	39	9	120	0.74	8.2	
Totals				0.5	52,710	52,460	1,626		20	21	59	1	1	1	97	34	11	238	1.43	220.6	

TC		PSTNDSUM										Stand Table Summary										Page		1					
																						Date:		5/18/2023					
TT3N RR6W S29 Ty00MC					31.00					Project					FRNTNINE					Time:					2:29:12PM				
										Acres					31.00					Grown Year:									
S Sp	T				Tot						Average Log		Net		Net		T o t a l s												
		DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF													
DF		9	1	86	58	12.935	5.71	12.93	7.1	30.0	2.61	92	388	81	28	12													
DF		10	1	86	66	10.477	5.71	10.48	10.8	50.0	3.24	114	524	100	35	16													
DF		13	1	88	92	6.199	5.71	6.20	22.7	90.0	4.01	141	558	124	44	17													
DF		16	1	87	106	4.093	5.71	8.19	24.4	105.0	5.69	200	859	176	62	27													
DF		17	2	87	113	7.250	11.43	14.50	29.1	120.0	12.04	422	1,740	373	131	54													
DF		21	2	87	129	4.751	11.43	11.88	42.6	194.0	14.42	506	2,304	447	157	71													
DF		22	3	87	127	6.494	17.14	15.15	47.8	197.1	20.65	725	2,987	640	225	93													
DF		23	5	87	125	9.903	28.57	29.71	41.6	185.3	35.23	1,236	5,506	1,092	383	171													
DF		24	1	87	144	1.819	5.71	5.46	51.4	233.3	7.99	280	1,273	248	87	39													
DF		25	1	86	135	1.676	5.71	5.03	53.9	233.3	7.72	271	1,173	239	84	36													
DF		27	1	86	156	1.437	5.71	4.31	69.3	320.0	8.52	299	1,380	264	93	43													
DF		29	2	87	167	2.492	11.43	9.97	63.5	332.5	18.05	633	3,314	560	196	103													
DF		30	3	86	166	3.492	17.14	12.81	73.4	380.9	26.79	940	4,878	831	291	151													
DF		31	1	88	120	1.090	5.71	3.27	74.5	343.3	6.95	244	1,123	215	76	35													
DF		32	3	87	162	3.069	17.14	10.23	91.8	487.0	26.77	939	4,983	830	291	154													
DF		33	2	87	167	1.924	11.43	6.73	95.2	504.3	18.27	641	3,396	566	199	105													
DF		34	2	87	156	1.813	11.43	5.44	111.8	593.3	17.33	608	3,226	537	188	100													
DF		35	1	85	136	.855	5.71	2.57	106.6	510.0	7.79	273	1,309	242	85	41													
DF		36	2	85	152	1.617	11.43	5.66	102.7	517.1	16.56	581	2,926	513	180	91													
DF		38	2	85	144	1.451	11.43	4.35	129.3	650.0	16.04	563	2,830	497	174	88													
DF		42	1	85	141	.594	5.71	1.78	158.1	790.0	8.03	282	1,408	249	87	44													
DF		Totals	38	87	112	85.432	217.14	186.64	53.5	257.6	284.69	9,989	48,085	8,826	3,097	1,491													
NF		35	1	85	167	.855	5.71	3.42	93.3	495.0	7.66	319	1,693	237	99	52													
NF		44	1	88	159	.541	5.71	1.62	190.7	1046.7	7.43	310	1,699	230	96	53													
NF		Totals	2	86	164	1.396	11.43	5.04	124.6	672.5	15.09	629	3,393	468	195	105													
WH		16	1	87	107	4.093	5.71	8.19	28.7	120.0	7.52	235	982	233	73	30													
WH		Totals	1	87	107	4.093	5.71	8.19	28.7	120.0	7.52	235	982	233	73	30													
DF S		8	1	78	40	16.370	5.71																						
DF S		27	1	89	119	1.437	5.71																						
DF S		Totals	2	79	46	17.807	11.43																						
Totals		43	85	101	108.728	245.71	199.87	54.3	262.5	307.30	10,853	52,460	9,526	3,364	1,626														

TC		PLOGSTVB		Log Stock Table - MBF																
<div>TT3N RR6W S29 Ty00MC31.00</div>				Project: FRNTNINE										Page 1						
				Acres 31.00										Date 5/18/2023						
														Time 2:29:10PM						
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DF		2M	40	1,203		1,195	80.2					63		142	420	287	283			
DF		3M	30	2		2	.1				2									
DF		3M	32	5		5	.4			4	2									
DF		3M	34	19		19	1.2			16		2								
DF		3M	36	15		15	1.0			11	4									
DF		3M	40	226		226	15.2			23	53	151								
DF		4M	12	1		1	.0			1										
DF		4M	14	3		3	.2			2	1									
DF		4M	16	2		2	.2			2										
DF		4M	18	1		1	.1			1										
DF		4M	20	2		2	.2			1	1									
DF		4M	24	1		1	.1			1										
DF		4M	26	14		14	.9			14										
DF		4M	28	2		2	.1			2										
DF		4M	30	2		2	.1			2										
DF		Totals		1,498		1,491	91.7			80	62	153	63	142	420	287	283			
NF		2M	40	104		104	99.2					5		5	16		47		31	
NF		4M	14	1		1	.8				1									
NF		Totals		105		105	6.5				1		5	5	16		47		31	
WH		3M	38	8		8	25.0			8										
WH		3M	40	23		23	75.0					23								
WH		Totals		30		30	1.9			8		23								
Total		All Species		1,634		1,626	100.0			88	63	176	68	147	436	287	330		31	

TC PSTATS				PROJECT STATISTICS				PAGE	1		
				PROJECT	FRNT	NINE	DATE		5/18/2023		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
T3N	R6	19	00U3	Unit 3 00MC	77.00	16	105	S	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL			16	105	6.6						
CRUISE			16	105	6.6	8,076	1.3				
DBH COUNT											
REFOREST											
COUNT											
BLANKS											
100 %											
STAND SUMMARY											
SAMPLE			TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
TREES			/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR			101	100.9	21.4	119	54.6	252.5	46,579	46,451	10,738
DOUG FIR-S			2	2.3	19.9	34	1.1	5.0			
WHEMLOCK			2	1.6	23.8	124	1.0	5.0	1,063	1,063	236
TOTAL			105	104.9	21.4	117	56.7	262.5	47,642	47,514	10,974
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			55.8	5.6	558	591	624				
DOUG FIR-S											
WHEMLOCK			38.2	35.8	440	685	930				
TOTAL			57.6	5.6	549	582	614	132	33	15	
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			49.9	5.0	127	134	141				
DOUG FIR-S											
WHEMLOCK			33.1	31.0	104	151	198				
TOTAL			51.9	5.1	125	132	139	108	27	12	
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			45.0	11.6	89	101	113				
DOUG FIR-S			293.6	75.7	1	2	4				
WHEMLOCK			277.5	71.6	0	2	3				
TOTAL			45.7	11.8	93	105	117	89	22	10	
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			25.7	6.6	236	253	269				
DOUG FIR-S			273.3	70.5	1	5	9				
WHEMLOCK			273.3	70.5	1	5	9				
TOTAL			25.5	6.6	245	263	280	28	7	3	
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			26.5	6.8	43,279	46,451	49,623				
DOUG FIR-S											
WHEMLOCK			275.1	71.0	309	1,063	1,818				
TOTAL			24.7	6.4	44,493	47,514	50,536	26	6	3	
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			25.2	6.5	10,041	10,738	11,434				
DOUG FIR-S											

TC PSTATS							PROJECT STATISTICS		PAGE	2
							PROJECT	FRNTNINE	DATE	5/18/2023
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
T3N	R6	19	00U3	00MC		77.00	16	105	S	W
CL	68.1	COEFF		NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK			274.0	70.7	69	236	403			
TOTAL			23.2	6.0	10,317	10,974	11,631	23	6	3

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
<div>TT3N RR6W S19 Ty00MC77.00</div>				Project: FRNTNINE												Page 1					
				Acres 77.00												Date 5/18/2023					
																Time 2:39:07PM					
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
					Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF		CU		74	.4	34,713	34,584	2,663			57	43		1		99	18	11		0.00	1.7
DF		2M		22		10,442	10,442	804		100			0	1	6	93	40	15	357	1.94	96.9
DF		3M		4		1,424	1,424	110		100			42	58			39	8	101	0.71	102.9
DF		4M															21	6	26	0.37	54.2
DF Totals				98	.3	46,579	46,451	3,577		26	43	32	1	3	1	95	35	10	182	1.19	255.8
DF	S		CU														27	7		0.00	2.3
DF Totals																	27	7		0.00	2.3
WH		2M		85		911	911	70			55	45				100	40	16	395	2.05	2.3
WH		3M		11		114	114	9		100						100	40	9	120	0.83	.9
WH		4M		4		39	39	3		100			48	52			21	6	24	0.45	1.6
WH Totals				2		1,063	1,063	82		14	47	38	2	2		96	34	11	218	1.44	4.9
Totals					0.3	47,642	47,514	3,659		25	43	32	1	3	1	95	35	10	181	1.19	263.0

TC		PSTNDSUM		Stand Table Summary										Page		1	
														Date:		5/18/2023	
TT3N RR6W S19 Ty00MC				77.00		Project			FRNTNINE			Time:		2:39:08PM			
						Acres			77.00			Grown Year:					
S Sp	T	Tot			Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Net	T o t a l s				
		DBH	Sample Trees	FF 16'				Av Ht	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre		Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF
DF		12	1	87	89	3.183	2.50	6.37	10.9	45.0	1.98	69	286	152	53	22	
DF		13	2	85	99	5.424	5.00	10.85	14.3	57.5	4.44	156	624	342	120	48	
DF		14	2	87	108	4.677	5.00	9.35	18.7	82.5	5.00	175	772	385	135	59	
DF		15	1	87	95	2.037	2.50	4.07	19.3	75.0	2.24	78	306	172	60	24	
DF		16	3	86	98	5.371	7.50	10.74	23.3	96.7	7.13	250	1,038	549	193	80	
DF		17	1	87	103	1.586	2.50	3.17	28.3	120.0	2.56	90	381	197	69	29	
DF		18	8	86	114	11.318	20.00	24.05	31.4	125.3	21.55	756	3,013	1,660	582	232	
DF		19	5	87	121	6.349	12.50	15.24	33.0	134.2	14.31	502	2,044	1,102	387	157	
DF		20	6	86	127	6.875	15.00	20.63	31.5	130.6	18.53	650	2,693	1,427	501	207	
DF		21	8	86	113	8.315	20.00	17.67	44.0	171.2	22.18	778	3,025	1,708	599	233	
DF		22	12	86	123	11.364	30.00	29.36	43.7	186.8	36.56	1,283	5,483	2,815	988	422	
DF		23	5	86	124	4.332	12.50	13.00	41.9	179.3	15.52	545	2,331	1,195	419	179	
DF		24	14	86	130	11.141	35.00	32.63	47.9	212.4	44.58	1,564	6,931	3,433	1,204	534	
DF		25	2	86	138	1.467	5.00	4.40	54.1	245.0	6.78	238	1,078	522	183	83	
DF		26	8	86	134	5.424	20.00	16.27	57.4	253.8	26.61	934	4,129	2,049	719	318	
DF		27	5	86	139	3.144	12.50	9.43	62.9	286.0	16.90	593	2,697	1,302	457	208	
DF		28	6	86	134	3.508	15.00	10.52	67.0	307.2	20.10	705	3,233	1,547	543	249	
DF		29	2	86	122	1.090	5.00	3.27	65.3	300.0	6.08	213	981	468	164	76	
DF		30	3	85	134	1.528	7.50	4.58	77.0	355.6	10.06	353	1,630	775	272	125	
DF		32	3	86	135	1.343	7.50	4.03	87.6	411.1	10.06	353	1,656	775	272	128	
DF		34	2	84	133	.793	5.00	2.38	97.5	458.3	6.61	232	1,090	509	179	84	
DF		36	1	84	125	.354	2.50	1.06	102.8	463.3	3.11	109	492	239	84	38	
DF		38	1	84	128	.317	2.50	.95	116.2	563.3	3.15	111	536	243	85	41	
DF		Totals	101	86	119	100.942	252.50	254.03	42.3	182.9	306.02	10,738	46,451	23,564	8,268	3,577	
WH		22	1	88	119	.947	2.50	2.84	38.6	166.7	3.51	110	474	270	84	36	
WH		26	1	87	130	.678	2.50	2.03	62.2	290.0	4.05	127	590	312	97	45	
WH		Totals	2	88	124	1.625	5.00	4.88	48.4	218.1	7.56	236	1,063	582	182	82	
DF S		17	1	70	33	1.586	2.50										
DF S		25	1	74	36	.733	2.50										
DF S		Totals	2	71	34	2.319	5.00										
Totals			105	86	117	104.886	262.50	258.90	42.4	183.5	313.58	10,974	47,514	24,146	8,450	3,659	

TC		PLOGSTVB																		Log Stock Table - MBF									
TT3N RR6W S19 Ty00MC		77.00		Project:		FRNTNINE		Acres		77.00		Page		1		Date		5/18/2023		Time		2:39:06PM							
Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches																					
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+										
DF		2M	28	20		20	.5								20														
DF		2M	40	2,653		2,643	73.9						585	642	1073	289	55												
DF		3M	20	1		1	.0				1																		
DF		3M	22	2		2	.1					2																	
DF		3M	30	9		9	.3					9																	
DF		3M	32	10		10	.3			8	2																		
DF		3M	34	36		36	1.0			36																			
DF		3M	36	28		28	.8			26	2																		
DF		3M	38	8		8	.2			8																			
DF		3M	40	709		709	19.8			111	295	303																	
DF		4M	12	3		3	.1			3																			
DF		4M	14	8		8	.2			8																			
DF		4M	16	18		18	.5			16	2																		
DF		4M	18	9		9	.3			9																			
DF		4M	20	7		7	.2			6	1																		
DF		4M	22	9		9	.3			9																			
DF		4M	24	10		10	.3			10																			
DF		4M	26	21		21	.6			21																			
DF		4M	30	25		25	.7			25																			
DF		Totals		3,587		3,577	97.8			295	304	314	585	642	1092	289	55												
WH		2M	40	70		70	85.6					13	26	31															
WH		3M	40	9		9	10.7			9																			
WH		4M	16	1		1	1.8			1																			
WH		4M	28	2		2	1.9			2																			
WH		Totals		82		82	2.2			3	9	13	26	31															
Total		All Species		3,668		3,659	100.0			298	313	314	598	668	1124	289	55												

VOLUME SUMMARY
(Shown in MBF)
Front Nine
FG-341-2023-W00943-01
May 2023

UNIT 1: Modified Clearcut (46 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	2,131	207	13	2,351
	Hidden D&B (2%)	(43)	(4)	(0)	(47)
	NET TOTAL	2,088	203	13	2,304
	% of Total	90	9	1	

UNIT 2: Modified Clearcut (31 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	1,195	267	28	1,490
	Hidden D&B (2%)	(24)	(5)	(1)	(30)
	NET TOTAL	1,171	262	27	1,460
	% of Total	80	18	2	
Noble-Fir	Cruise Volume	104	0	1	105
	Hidden D&B (2%)	(2)	(0)	(0)	(2)
	NET TOTAL	102	0	1	103
	% of Total	99	0	1	
Western Hemlock	Cruise Volume	0	30	0	30
	Hidden D&B (2%)	(0)	(1)	(0)	(1)
	NET TOTAL	0	29	0	29
	% of Total	0	100	0	

UNIT 3: Modified Clearcut (77 Acres)

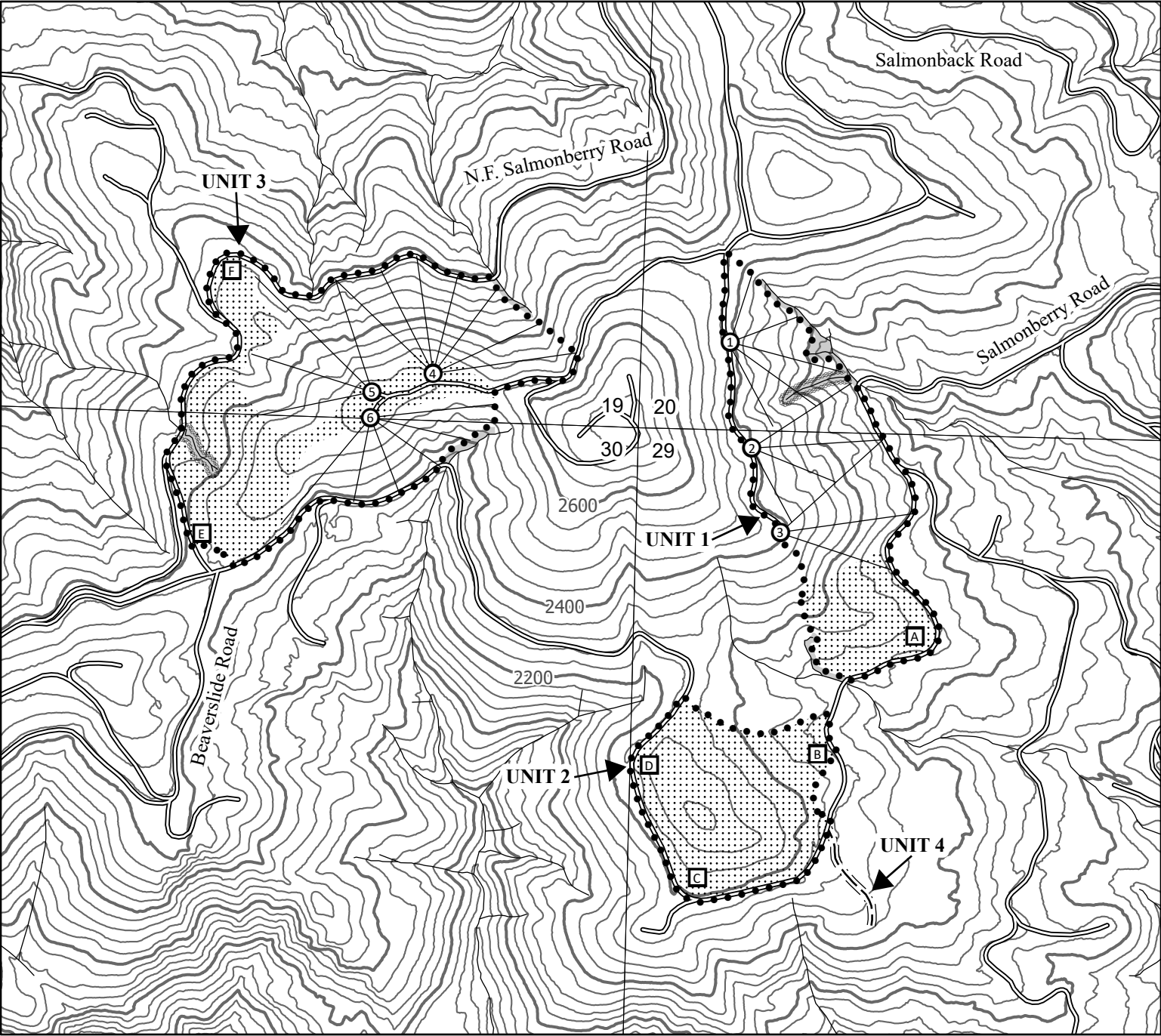
SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	2,663	804	110	3,577
	Hidden D&B (2%)	(53)	(16)	(2)	(71)
	NET TOTAL	2,610	788	108	3,506
	% of Total	75	22	3	
Western Hemlock	Cruise Volume	70	9	3	82
	Hidden D&B (2%)	(1)	(0)	(0)	(1)
	NET TOTAL	69	9	3	81
	% of Total	85	11	4	

UNIT 4: Right-of-Way (1 Acre)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	18	4	0	22
	Hidden D&B (2%)	(0)	(0)	(0)	(0)
	NET TOTAL	18	4	0	22
	% of Total	82	18	0	

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	5,887	1,257	148	7,292
Western Hemlock	69	38	3	110
Noble Fir	102	0	1	103
Total	6,058	1,295	152	7,505



Legend

- ● ● Timber Sale Boundary
- ▤ Stream Buffer Boundary
- ▤ Right-of-Way Boundary
- ▬ Surfaced Road
- - - New Road Construction
- ▤ Cable Yarding Area
- ▤ Tractor Yarding Area
- Cable Landing
- Tractor Landing
- ▬ Type-F Stream
- ▬ Type-N Stream
- ▤ Stream Buffer
- ▬ Section Line

LOGGING PLAN

FOR TIMBER SALE CONTRACT #FG-341-2024-W00943-01
FRONT NINE
PORTIONS OF SECTIONS 19, 20, 29, & 30 T3N, R6W, W.M.,
TILLAMOOK COUNTY, OREGON

Forest Grove District GIS
5/25/2023

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

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



	APROXIMATE NET ACRES	
	TRACTOR	CABLE
UNIT 1	12	34
UNIT 2	31	
UNIT 3	28	49
UNIT 4	1	
TOTAL	72	83