



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Toto  
Sale AT-341-2025-W01059-01

District: Astoria

Date: March 16, 2025

Cost Summary

|                         | Conifer        | Hardwood          | Total          |
|-------------------------|----------------|-------------------|----------------|
| Gross Timber Sale Value | \$1,824,259.49 | \$85,036.70       | \$1,909,296.19 |
|                         |                | Project Work:     | (\$101,312.00) |
|                         |                | Advertised Value: | \$1,807,984.19 |



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Toto Sale AT-341-2025-W01059-01

District: Astoria

Date: March 16, 2025

## Timber Description

Location:

Stand Stocking: 80%

| Specie Name           | AvgDBH | Amortization (%) | Recovery (%) |
|-----------------------|--------|------------------|--------------|
| Douglas - Fir         | 27     | 0                | 97           |
| Western Hemlock / Fir | 18     | 0                | 97           |
| Sitka Spruce          | 26     | 0                | 97           |
| Alder (Red)           | 18     | 0                | 97           |

| Volume by Grade       | 2S    | 3S & 4S 6"-11" | 8" - 9" | 10" - 11" | 12"+ | 6" - 7" | Total |
|-----------------------|-------|----------------|---------|-----------|------|---------|-------|
| Douglas - Fir         | 2,513 | 336            | 0       | 0         | 0    | 0       | 2,849 |
| Western Hemlock / Fir | 417   | 106            | 0       | 0         | 0    | 0       | 523   |
| Sitka Spruce          | 85    | 13             | 0       | 0         | 0    | 0       | 98    |
| Alder (Red)           | 0     | 0              | 46      | 98        | 156  | 55      | 355   |
| <b>Total</b>          | 3,015 | 455            | 46      | 98        | 156  | 55      | 3,825 |

**Comments:** Pond Values Used: Local Pond Values, February, 2025.

Expected Log Markets: Tillamook, Warrenton, Forest Grove, Mist, Eugene, Chehalis, WA, Longview, WA, and Vancouver, WA.

**PRICING:**

Western Red Cedar and other Cedars stumpage = pond value - (Douglas-fir) logging cost.  
\$941.10/MBF = \$1,200/MBF - \$258.90/MBF

Other Costs (with Profit & Risk to be added):

Machine Washing for Invasive Weed Compliance = \$2,000

Ditch Filters:

6 bales of straw @ \$12/bale = \$72

2 hours of labor @ \$45/hr = \$90

TOTAL Other Costs (with Profit & Risk to be added):\$2,162.00

Other Costs (No Profit & Risk added):

None.

**ROAD MAINTENANCE**

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: \$12,133/3,825 MBF = \$3.17/MBF

Slash Piling

(See attached site prep appraisal sheet)

Total: \$7,005.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Toto  
Sale AT-341-2025-W01059-01

District: Astoria

Date: March 16, 2025

---

**Logging Conditions**

**Combination#: 1**

|                       |        |
|-----------------------|--------|
| Douglas - Fir         | 42.00% |
| Western Hemlock / Fir | 42.00% |
| Sitka Spruce          | 42.00% |
| Alder (Red)           | 42.00% |

**Logging System:** Shovel **Process:** Feller Buncher

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

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

**loads / day:** 18 **bd. ft / load:** 5000

**cost / mbf:** \$111.11

**machines:** Feller Buncher w/ Delimber

---

**Combination#: 2**

|                       |        |
|-----------------------|--------|
| Douglas - Fir         | 58.00% |
| Western Hemlock / Fir | 58.00% |
| Sitka Spruce          | 58.00% |
| Alder (Red)           | 58.00% |

**Logging System:** Cable: Small Tower <=40 **Process:** Manual Falling/Delimbing

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

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

**loads / day:** 10 **bd. ft / load:** 4900

**cost / mbf:** \$151.67

**machines:** Log Loader (A)  
Tower Yarder (Small)

---



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Toto Sale AT-341-2025-W01059-01

**District: Astoria**

**Date: March 16, 2025**

## Logging Costs

**Operating Seasons:** 3.00

**Profit Risk:** 12%

**Project Costs:** \$101,312.00

**Other Costs (P/R):** \$2,162.00

**Slash Disposal:** \$7,005.00

**Other Costs:** \$0.00

**Miles of Road**

**Road Maintenance:** \$3.17

| Dirt | Rock<br>(Contractor) | Rock<br>(State) | Paved |
|------|----------------------|-----------------|-------|
| 0.0  | 0.0                  | 0.0             | 0.0   |

## Hauling Costs

| Species               | \$ / MBF | Trips/Day | MBF / Load |
|-----------------------|----------|-----------|------------|
| Douglas - Fir         | \$0.00   | 3.0       | 5.0        |
| Western Hemlock / Fir | \$0.00   | 3.0       | 5.0        |
| Sitka Spruce          | \$0.00   | 2.0       | 4.5        |
| Alder (Red)           | \$0.00   | 2.0       | 4.0        |



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Toto Sale AT-341-2025-W01059-01

District: Astoria

Date: March 16, 2025

## Logging Costs Breakdown

| Logging                      | Road Maint | Fire Protect | Hauling  | Other P/R appl | Profit & Risk | Slash Disposal | Brand & Paint | Other  | Total    |
|------------------------------|------------|--------------|----------|----------------|---------------|----------------|---------------|--------|----------|
| <b>Douglas - Fir</b>         |            |              |          |                |               |                |               |        |          |
| \$134.63                     | \$3.27     | \$3.44       | \$85.83  | \$0.57         | \$27.33       | \$1.83         | \$2.00        | \$0.00 | \$258.90 |
| <b>Western Hemlock / Fir</b> |            |              |          |                |               |                |               |        |          |
| \$134.63                     | \$3.27     | \$3.44       | \$85.83  | \$0.57         | \$27.33       | \$1.83         | \$2.00        | \$0.00 | \$258.90 |
| <b>Sitka Spruce</b>          |            |              |          |                |               |                |               |        |          |
| \$134.63                     | \$3.27     | \$3.44       | \$143.06 | \$0.57         | \$34.20       | \$1.83         | \$2.00        | \$0.00 | \$323.00 |
| <b>Alder (Red)</b>           |            |              |          |                |               |                |               |        |          |
| \$134.63                     | \$3.27     | \$3.44       | \$160.94 | \$0.57         | \$36.34       | \$1.83         | \$2.00        | \$0.00 | \$343.02 |

| Specie                | Amortization | Pond Value | Stumpage | Amortized |
|-----------------------|--------------|------------|----------|-----------|
| Douglas - Fir         | \$0.00       | \$830.57   | \$571.67 | \$0.00    |
| Western Hemlock / Fir | \$0.00       | \$594.80   | \$335.90 | \$0.00    |
| Sitka Spruce          | \$0.00       | \$526.02   | \$203.02 | \$0.00    |
| Alder (Red)           | \$0.00       | \$582.56   | \$239.54 | \$0.00    |



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Toto  
Sale AT-341-2025-W01059-01

District: Astoria

Date: March 16, 2025

**Summary**

**Amortized**

| Specie                | MBF | Value  | Total  |
|-----------------------|-----|--------|--------|
| Douglas - Fir         | 0   | \$0.00 | \$0.00 |
| Western Hemlock / Fir | 0   | \$0.00 | \$0.00 |
| Sitka Spruce          | 0   | \$0.00 | \$0.00 |
| Alder (Red)           | 0   | \$0.00 | \$0.00 |

**Unamortized**

| Specie                | MBF   | Value    | Total          |
|-----------------------|-------|----------|----------------|
| Douglas - Fir         | 2,849 | \$571.67 | \$1,628,687.83 |
| Western Hemlock / Fir | 523   | \$335.90 | \$175,675.70   |
| Sitka Spruce          | 98    | \$203.02 | \$19,895.96    |
| Alder (Red)           | 355   | \$239.54 | \$85,036.70    |

**Gross Timber Sale Value**

**Recovery:** \$1,909,296.19

**Prepared By:** Michele Huffman

**Phone:** 503-325-5451

### Road Maintenance Cost Summary (Interim and Post Harvest)

**Sale:** Toto  
**Date:** March 17, 2025  
**By:** Michele Huffman

**MBF:** 3,825  
**\$/MBF:** \$3.17

| Type                     | Equipment/Rationale      | Move-in Rate | Times | Hours | Rate  | Cost            |
|--------------------------|--------------------------|--------------|-------|-------|-------|-----------------|
| Interim Road Maintenance | Grader 14G               | \$972        | 1     | 8     | \$126 | \$1,980         |
|                          | Grader 14G               | \$972        | 1     | 16    | \$126 | \$2,988         |
| Final Road Maintenance   | Dump Truck 12CY          | \$205        | 1     | 8     | \$99  | \$997           |
|                          | Rubber tired backhoe     | \$401        | 1     | 4     | \$97  | \$789           |
|                          | Vibratory Roller         | \$972        | 1     | 16    | \$97  | \$2,524         |
|                          | Water Truck 2,500 gallon | \$238        | 1     | 8     | \$113 | \$1,142         |
|                          | C315 Excavator           | \$1,005      | 1     | 4     | \$127 | \$1,513         |
|                          | Labor                    |              |       | 4     | \$50  | \$200           |
| <b>Total</b>             |                          |              |       |       |       | <b>\$12,133</b> |

#### Interim Operations Road Maintenance

| Production Rates | Miles/day | Distance (miles) | Days | Hours |
|------------------|-----------|------------------|------|-------|
| Grader           | 2.5       | 2.5              | 1.0  | 8     |

#### Final Road Maintenance

| Production Rates | Miles/day | Distance (miles) | Days | Hours |
|------------------|-----------|------------------|------|-------|
| Grader           | 1.5       | 3.0              | 2.0  | 16    |
| Vibratory Roller | 1.5       | 3.0              | 2.0  | 16    |

Process and compact: All crushed rock roads

Osweg Creek Road 2.4 Miles

Unnamed Spurs 0.6 Miles

Grade & Process Total = 3.0 Miles

## Site Prep Appraisal

**Sale Number:** AT-341-2025-W01059-01

**Sale Name:** Toto

**Date:** 03/16/2025

| Vegetation Type/Zone | Vegetation Type/Zone Code | Production Rate (hr/ac) | Estimated Piles/Acre | Landing Production Rate (hrs/30 acres) |
|----------------------|---------------------------|-------------------------|----------------------|----------------------------------------|
| Doug-fir             | A                         | 0.5                     | 0.5                  | 6                                      |
| Hemlock/Fir          | B                         | 1.3                     | 4.5                  | 8                                      |
| Hemlock/Spruce       | C                         | 1.8                     | 6.0                  | 10                                     |
| Hemlock              | D                         | 1.8                     | 6.0                  | 8                                      |
| Conifer/Hardwood     | E                         | 1.0                     | 2.0                  | 8                                      |
| Whole Tree Yarding   | F                         | 0.5                     | 0.5                  | 12                                     |

| Sale Area                          | Harvest Type                                     | Veg Type/Zone           | Ground Based Yarding Acres                  | Estimated Piling Hours/Area | Cost/Hour          | Total Cost/Area |            |
|------------------------------------|--------------------------------------------------|-------------------------|---------------------------------------------|-----------------------------|--------------------|-----------------|------------|
| 1                                  | MC                                               | A                       | 18                                          | 9                           | \$145.00           | \$1,305.00      |            |
| 2                                  | MC                                               | A                       | 20                                          | 10                          | \$145.00           | \$1,450.00      |            |
|                                    |                                                  |                         |                                             |                             | In-unit Piling     | Sub Total =     | \$2,755.00 |
| Sale Area                          | Number of Landings to be Piled                   | # cable acres per area  | Total Cost/Area                             | Number of In-Unit Piles     | Material Cost/Pile | Total Cost/Area |            |
| 1                                  | 3                                                | 32                      | \$928.00                                    | 12                          | \$5.00             | \$60.00         |            |
| 2                                  | 5                                                | 21                      | \$609.00                                    | 15                          | \$5.00             | \$75.00         |            |
| *Cost includes separating firewood |                                                  |                         |                                             |                             | Materials          | Sub Total =     | \$135.00   |
| Move-In Allowance                  | Additional Move-In allowance Number of Move-In's | Total Move-In Allowance |                                             |                             | Landing Piling     | Sub Total =     | \$1,537.00 |
| \$1,290.00                         | 1                                                | \$1,290.00              | Brush Piler                                 |                             |                    |                 |            |
|                                    |                                                  |                         |                                             |                             | Move-In            | Sub Total =     | \$1,290.00 |
| Slash Endhaul Dump Truck hrs       | Cost/Hour                                        | Total                   | Slash piling in Non-Stocked Area Loader hrs | Cost/Hour                   | Total              |                 |            |
| 0                                  | \$99.00                                          | \$0.00                  | 8                                           | \$161.00                    | \$1,288.00         |                 |            |
|                                    |                                                  |                         |                                             |                             |                    | Sub Total =     | \$1,288.00 |
|                                    |                                                  |                         |                                             |                             |                    | Grand Total =   | \$7,005.00 |

## SUMMARY OF ALL PROJECT COSTS

SALE NAME: Toto

**Project No. 1: ROAD CONSTRUCTION:**

| <u>Road segment</u> | <u>Length (Sta)</u> | <u>Length (Mile)</u> | <u>Cost</u> |
|---------------------|---------------------|----------------------|-------------|
| 2A to 2B, 2C to 2D  | 5.80                | 0.11                 | \$11,128.48 |
|                     |                     |                      |             |
|                     |                     |                      |             |
|                     |                     |                      |             |
| Road Maint.         |                     |                      | \$1,815.37  |
| Move-In             |                     |                      | \$1,053.03  |
| <b>TOTALS</b>       | 5.80                | 0.11                 | \$13,997    |

**Project No. 2: ROAD IMPROVEMENT:**

| <u>Road segment</u> | <u>Length (Sta)</u> | <u>Length (Mile)</u> | <u>Cost</u> |
|---------------------|---------------------|----------------------|-------------|
| I1 to I2            | 136.4               | 2.58                 |             |
| I3 to I4            | 12.50               | 0.24                 |             |
| I5 to I6            | 205.45              | 3.89                 | \$69,421.46 |
|                     |                     |                      |             |
| Road Maint.         |                     |                      | \$11,324.63 |
| Move-In             |                     |                      | \$6,568.97  |
| <b>TOTALS</b>       | 354.35              | 6.71                 | \$87,315    |

**SPECIAL PROJECTS** (Move-In and Road Maint. are included separately as needed, for each Special Project):

| <u>Description</u> | <u>Length/Vol.</u> | <u>Cost</u> |
|--------------------|--------------------|-------------|
|                    |                    |             |
|                    |                    |             |
|                    |                    |             |
|                    |                    |             |
| <b>TOTAL</b>       |                    |             |

**GRAND TOTAL** **\$101,312**

Compiled By: D. Farner

Date: 03/13/2025

# Move In and Maintenance Calculator for Construction and Improvement

SALE NAME: Toto

## Project No. 1: ROAD CONSTRUCTION:

| <u>Road segment</u> | <u>Length/Sta</u> | <u>Length/Mile</u> | <u>Cost</u> |
|---------------------|-------------------|--------------------|-------------|
| 2A to 2B, 2C to 2D  | 5.80              | 0.11               | \$11,128    |
|                     |                   |                    |             |
|                     |                   |                    |             |
|                     |                   |                    |             |
| <b>TOTALS</b>       | 5.80              | 0.11               | \$11,128    |

## Project No. 2: ROAD IMPROVEMENT:

| <u>Road segment</u> | <u>Length/Sta</u> | <u>Length/Mile</u> | <u>Cost</u> |
|---------------------|-------------------|--------------------|-------------|
| I1 to I2            | 136.40            | 2.58               |             |
| I3 to I4            | 12.50             | 0.24               |             |
| I5 to I6            | 205.45            | 3.89               | \$69,421.46 |
|                     |                   |                    |             |
| <b>TOTALS</b>       | 354.35            | 6.71               | \$69,421    |

## MOVE IN (Construction & Improvement Only)

| <u>Equipment</u>            | <u>Length/Mile</u> | <u>Cost</u> |
|-----------------------------|--------------------|-------------|
| Grader 14G                  |                    | \$972.00    |
| Vibratory Roller            |                    | \$972.00    |
| Excavator C330              |                    | \$1,755.00  |
| Front End Loader C966       |                    | \$972.00    |
| 10-12 yd dump truck (6)     |                    | \$1,230.00  |
| Excavator C315              |                    | \$1,005.00  |
| 20 yd dump truck w/ pup (2) |                    | \$478.00    |
| Water truck (2500 gal)      |                    | \$238.00    |
|                             |                    |             |
| <b>TOTAL</b>                |                    | \$7,622.00  |

## ROAD MAINTENANCE (Construction & Improvement Only)

|                              | <u>Length/Mile</u> | <u>Cost</u> |
|------------------------------|--------------------|-------------|
| Lost Lake Pit to August Fire |                    |             |
| August Fire to Quartz Cr.    |                    | \$13,140.00 |
|                              |                    |             |
| <b>TOTAL</b>                 |                    | \$13,140.00 |

# SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Toto ROAD: 2A to 2B (1.0), 2C to 2D (4.8) POINTS: NEW CONSTRUCTION: 5.80 STATIONS IMPROVEMENT: 354.35 STATIONS 0.11 MILES 6.71 MILES

| CLEARING & GRUBBING                 |              |   |          |          |
|-------------------------------------|--------------|---|----------|----------|
| Method                              | Acres/amount | X | Rate     | Cost     |
| 2A-2B, 2C-2D Scatter outside of RIW | 0.50         | X | \$ 1,669 | \$834.50 |
|                                     |              |   |          | \$0.00   |
| SUB TOTAL FOR CLEARING & GRUBBING   |              |   |          | \$835    |

| EXCAVATION                           |           |   |          |            |
|--------------------------------------|-----------|---|----------|------------|
| Material                             | Cy/amount | X | Rate     | Cost       |
| 2A-2B Balanced construction, \$/sta  | 1.0       | X | \$154.00 | \$154.00   |
| Landing construction, \$/ldg         | 1         | X | \$487.00 | \$487.00   |
| 2C-2D Drift earth up to 200', \$/sta | 4.80      | X | \$238.00 | \$1,142.40 |
| Landing construction, \$/ldg         | 1         | X | \$487.00 | \$487.00   |
|                                      |           | X |          | \$0.00     |
|                                      |           | X |          | \$0.00     |
| SUB TOTAL FOR EXCAVATION             |           |   |          | \$2,270    |

| CULVERT MATERIALS AND INSTALLATION             |          |            |      |          |          |          |
|------------------------------------------------|----------|------------|------|----------|----------|----------|
| Location                                       | Dia/type | Lineal ft. | Rate | Cost     | Location | Dia/type |
|                                                |          |            |      | \$0.00   |          |          |
|                                                |          |            |      | \$0.00   |          |          |
|                                                |          |            |      | \$0.00   |          |          |
| Description                                    |          |            |      |          |          |          |
| Other/miscellaneous:                           |          |            |      | Quantity | Rate     | Cost     |
| Culvert stakes & markers:                      |          |            |      |          |          | \$0.00   |
| SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION |          |            |      |          |          |          |
|                                                |          |            |      |          |          | \$0      |

Subtotal of Clearing, Exc., Culv.

\$3,105



**SUMMARY OF CONSTRUCTION COSTS**

SALE NAME: Toto  
 ROAD: 11 to 12, 13 to 14, 15 to 16  
 POINTS: \_\_\_\_\_

NEW CONSTRUCTION: 5.80 STATIONS  
 IMPROVEMENT: 354.35 STATIONS

0.11 MILES  
 6.71 MILES

| CLEARING & GRUBBING                          |              |      |      |
|----------------------------------------------|--------------|------|------|
| Method                                       | Acres/amount | Rate | Cost |
|                                              | x            | =    |      |
| <b>SUB TOTAL FOR CLEARING &amp; GRUBBING</b> |              |      |      |
|                                              |              |      | \$0  |

| EXCAVATION                                 |           |        |          |
|--------------------------------------------|-----------|--------|----------|
| Material                                   | Cy/amount | Rate   | Cost     |
| 11 to 12                                   |           |        |          |
| 7+60                                       |           |        |          |
| 22+90                                      |           |        |          |
| 13 to 14                                   |           |        |          |
| 3+85                                       |           |        |          |
| 15 to 16                                   |           |        |          |
| 60+65                                      |           |        |          |
| 165+40 to 167+00                           |           |        |          |
| End-haul excavation contaminated surfacing | 22.0      | \$4.99 | \$109.78 |
| End-haul excavation contaminated surfacing | 77.0      | \$4.99 | \$384.23 |
| End-haul excavate ditch material           | 33.0      | \$4.99 | \$164.67 |
| Compact waste material \$/cy               | 132.0     | \$0.50 | \$66.00  |
| <b>SUB TOTAL FOR EXCAVATION</b>            |           |        |          |
|                                            |           |        | \$1,106  |

| CULVERT MATERIALS AND INSTALLATION |          |            |            |
|------------------------------------|----------|------------|------------|
| Location                           | Dia/type | Lineal ft. | Rate       |
| 11 to 12                           |          |            |            |
| 22+90                              | 24 CPP   | 40         | \$41.98    |
|                                    |          |            | \$1,679.20 |

| Other/miscellaneous: 15 to 16                             |          |         |          |
|-----------------------------------------------------------|----------|---------|----------|
| Description                                               | Quantity | Rate    | Cost     |
| 6 1/2 oz woven x 16' wide road fabric \$/lf               | 160.00   | \$2.12  | \$339.20 |
| Labor \$/hr                                               | 1.00     | \$40.00 | \$40.00  |
| Straw bales \$/bale                                       | 6        | \$13.39 | \$80.34  |
| Seed \$/pound                                             | 1        | \$2.00  | \$2.00   |
| Mulching labor \$/hr                                      | 2        | \$40.00 | \$80.00  |
| Culvert stakes & markers:                                 | 1.00     | \$25.53 | \$25.53  |
| <b>SUB TOTAL FOR CULVERT MATERIALS &amp; INSTALLATION</b> |          |         |          |
|                                                           |          |         | \$2,246  |

Subtotal of Clearing, Exc., Culv.

\$3,352

[illegible]

## Projects Road Maintenance Cost Summary

**Sale:** Toto  
**Date:** 13-Mar-25  
**By:** D. Farner

| Type         | Equipment/Rationale      |  |  | Hours | Rate  | Cost            |
|--------------|--------------------------|--|--|-------|-------|-----------------|
| Project Work | Grader 14G               |  |  | 30    | \$126 | \$3,780         |
| Final Haul   | Dump Truck 12CY          |  |  | 15    | \$99  | \$1,485         |
| Road         | FE Loader C966           |  |  | 15    | \$105 | \$1,575         |
| Maintenance  | Vibratory Roller         |  |  | 30    | \$97  | \$2,910         |
|              | Water Truck 2,500 gallon |  |  | 30    | \$113 | \$3,390         |
| <b>Total</b> |                          |  |  |       |       | <b>\$13,140</b> |

### Production Rates

Grader

Vibratory Roller

| Miles/day | Distance(miles) | Days |
|-----------|-----------------|------|
| 1.5       | 5.33            | 3.6  |
| 1.5       | 5.33            | 3.6  |

|                                                   |               |                   |
|---------------------------------------------------|---------------|-------------------|
| <b>NOTE:</b> Lost Lake Quarry to August Fire Road | 2.78          | Miles             |
| August Fire Road to Quartz Cr.                    | 2.55          | Miles             |
|                                                   |               | Miles             |
|                                                   |               | Miles             |
|                                                   | <b>TOTAL=</b> | <b>5.33 Miles</b> |

## CRUSHED ROCK COST

|            |                       |
|------------|-----------------------|
| SALE NAME: | Toto                  |
| PROJECT:   | 1 and 2               |
| Stockpile: | Lost Quarry Stockpile |

MATERIAL: 1 1/2"-0", 4"-0", and P.R.

DATE: 03/14/2025  
BY: D. Farner

[illegible]

ROCK HAUL:

Truck type: D20 No. trucks: 2  
 Delay min.: 8 Efficiency: 85%

|           |        |     |
|-----------|--------|-----|
| Ave haul: | \$9.01 | /cy |
| Load:     | \$0.66 | /cy |
| Spread:   | \$1.20 | /cy |

|             |            |             |            |
|-------------|------------|-------------|------------|
| Truck type: | <u>D12</u> | No. trucks: | <u>6</u>   |
| Delay min.: | <u>6</u>   | Efficiency: | <u>85%</u> |

Truck type: D10 No. trucks:             
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 750

CRUSHED ROCK HAUL COSTS            3,466 cy @     \$10.87 /cy

**Toto  
TIMBER CRUISE REPORT  
FY 2025**

1. **Sale Area Location:** Portions of Sections 1, 2, & 11 of T4N, R7W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF 100% Tax Code: 8-01 (100%)
3. **Sale Acreage by Area:**

| Unit         | Harvest Type | Gross Acres | Non-Stocked Area | Stream Buffer Acres | Reserve Tree Area | Existing R/W Acres | New R/W      | Net Acres | Survey Method |
|--------------|--------------|-------------|------------------|---------------------|-------------------|--------------------|--------------|-----------|---------------|
| 1            | Clearcut     | 59          | -                | 6                   | 2                 | 1                  | -            | 50        | GIS           |
| 2            | Clearcut     | 56          | 3                | 9                   | 2                 | 1                  | <1           | 41        | GIS           |
| 3            | R/W          | <1          | -                | -                   | -                 | -                  | <1           | <1        | LxW           |
| <b>TOTAL</b> |              | <b>115</b>  | <b>3</b>         | <b>15</b>           | <b>4</b>          | <b>2</b>           | <b>&lt;1</b> | <b>91</b> |               |

**4. Cruisers and Cruise Dates:** Avery Petersen, Justin Bush, Kevin Berry, and Michele Huffman (03/12/2025)

**5. Cruise Method and Computation:**

Unit 1 and Unit 2: Unit 1 and Unit 2 were variable plot cruised with a 40 BAF for conifers and hardwoods. A total of 63 plots were sampled on a 5.5 by 3 chain spacing with a count to grade ratio of 2:1, resulting in 21 grade plots and 42 count plots. One count plot was dropped due to a change in the timber sale boundary location. Plot numbers differ from those in the statistics due to a minor species being graded on a count plot.

Unit 3 (R/W) consists of less than one acre of timber similar to U12 and less than one acre that is non-stocked.

Data was collected on Allegro 2 data collectors and downloaded to the Atterbury SuperACE 2008 program for computing. See the attached Cruise Designs for more details on the cruise method. The cruise calculations were processed in the Astoria District office.

| UNIT(s)     | CRUISE | TRACT | TYPE | ACRES |
|-------------|--------|-------|------|-------|
| Units 1 & 2 | TOTO   | U12   | 00MC | 91    |

**6. Timber Description:**

Unit 1 and Unit 2 are modified clearcuts with an average age of 71 years. The stands consist of Douglas-fir, western hemlock, and red alder, with minor components of Sitka spruce and grand fir. The average take Douglas-fir is approximately 27 inches DBH and 90 feet to a merchantable top. The average take western hemlock is approximately 18 inches DBH and 60 feet to a merchantable top. The average take red alder is approximately 18 inches DBH and 63 feet to a merchantable top. The average take Sitka spruce is approximately 26 inches DBH and 82 feet to a merchantable top. The only measured take grand fir is approximately 29 inches DBH and 124 feet to a merchantable top. Average net volume to be harvested per acre is 42 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

**7. Statistical Analysis and Stand Summary:**

Statistics for Stand B.F. volumes

| Type | Estimated CV | Target SE% | Actual CV | Actual SE% |
|------|--------------|------------|-----------|------------|
| U12  | 50.0%        | 9%         | 33.7%     | 4.1%       |

**8. Volumes by Species and Log Grade:**

Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

**Conifer**

| Species         | DBH | Net Vol.     | 2 Saw        | 3 Saw      | 4 Saw     | % D & B | % Sale |
|-----------------|-----|--------------|--------------|------------|-----------|---------|--------|
| Douglas-fir     | 27" | 2,849        | 2,513        | 296        | 40        | 1%      | 74%    |
| Western hemlock | 18" | 489          | 386          | 81         | 22        | 0.6%    | 13%    |
| Sitka spruce    | 26" | 98           | 85           | 7          | 6         | -       | 3%     |
| Grand fir       | 29" | 34           | 31           | 3          | -         | -       | <1%    |
| <b>TOTALS</b>   | --  | <b>3,470</b> | <b>3,015</b> | <b>387</b> | <b>68</b> | --      | --     |

**Hardwood**

| Species       | DBH | Net Vol.   | 12"+       | 10"-11"   | 8"-9"     | 6"-7"     | % D & B | % Sale |
|---------------|-----|------------|------------|-----------|-----------|-----------|---------|--------|
| Red alder     | 18" | 355        | 156        | 98        | 46        | 55        | 0.6%    | 9%     |
| <b>TOTALS</b> | --  | <b>355</b> | <b>156</b> | <b>98</b> | <b>46</b> | <b>55</b> | --      | --     |

|                     |                  |
|---------------------|------------------|
| <b>TOTAL VOLUME</b> | <b>3,825 MBF</b> |
|---------------------|------------------|

**9. Approvals:**

Prepared by: Michele Huffman Date: 03/14/2025  
Unit Forester Approval: John Tillotson Date: 3/25/2025

- 10. Attachments:** Cruise Design and Maps (3 pages)  
Volume Report (1 page)  
Statistics Report (2 pages)  
Log Stock Table (3 pages)  
Stand Table Summary (2 pages)

**CRUISE DESIGN  
ASTORIA DISTRICT**

**Sale Name:** Toto

**Units** U1 & 2

**Harvest Type:** Modified Clearcut

**Approx. Cruise Acres:** 91 **Estimated CV%** 50 Net BF/Acre **SE% Objective** 9% Net BF/Acre

**Planned Sale Volume:** 4,075 MBF **Estimated Sale Area Value/Acre:** \$24,876/Acre

**A. Cruise Goals:** (a) Grade minimum 80 conifer trees.  
(b) Sample 64 plots (21 grade/ 43 count); (c) Other goals (        Determine "automark" thinning standards; X Determine log grades for sale value;        Determine snag and leave tree species and sizes.

**B. Cruise Design:**

**1. Plot Cruises:** BAF: 40.0

Cruise Line Direction: U1: 45°/225°

U2: 148°/328°

Cruise Line Spacing 5.5 (chains) 363 (Feet)

Cruise Plot Spacing 3 (chains) 198 (Feet)

Grade/Count Ratio 1:2

Take plots as marked on cruise map.

Grade minor species (true fir, spruce, cedar, maple, etc.) on count plots if encountered.

DO NOT: record any 22' log lengths, or any 12', 24', or 32' log lengths for hardwoods.

DO NOT: record snags < 15" DBH or record snag measurements on count plots.

**C. Tree Measurements:**

**1. Diameter:** Minimum DBH to cruise is 8" for conifers and 8" for hardwoods.

Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

**2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.

**3. Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 20" dbh and 40% of dob @ FP for conifer trees > 20" dbh.

**4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

**5. Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for

hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree. Hardwoods shall be recorded in 8' and 10' multiples.

**6. Species, Sort, and Grade Codes:**

- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); GF (Grand fir); SF (Silver fir); A (Red alder); M (Bigleaf maple); SN (Snag). For "leave trees", add an "L" to the species code (such as DL, HL, CL, etc.).
- B. Sort: Use code "1" (Domestic).
- C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull  
Hardwoods: Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill, or R = Camp Run; 0 = Cull.  
All Maple Camp Run = R

- **Oversize Spruce 2 saw or better- measure bole height to 27" outside bark. Record separately.**  
**Bars = : 4"at 66', 3"at 50', and 2"at 33'.**

Grade oversized 3-SAW (DIB  $\geq$  12", knots  $> 2\frac{1}{2}$ " inside scaling cylinder affecting  $> 50\%$  of log)

7. **Deductions**: Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees  $> 100$  feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures: Plot Type Cruises**: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
9. **Cruising Equipment**: Relaskop, Rangefinder, Logger's Tape (with dbh on back), Compass, Allegro II Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint, Permanent Marker.
10. **Attachments**: A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Michele Huffman  
Approved by: John Tillotson  
Date: 3/12/2025

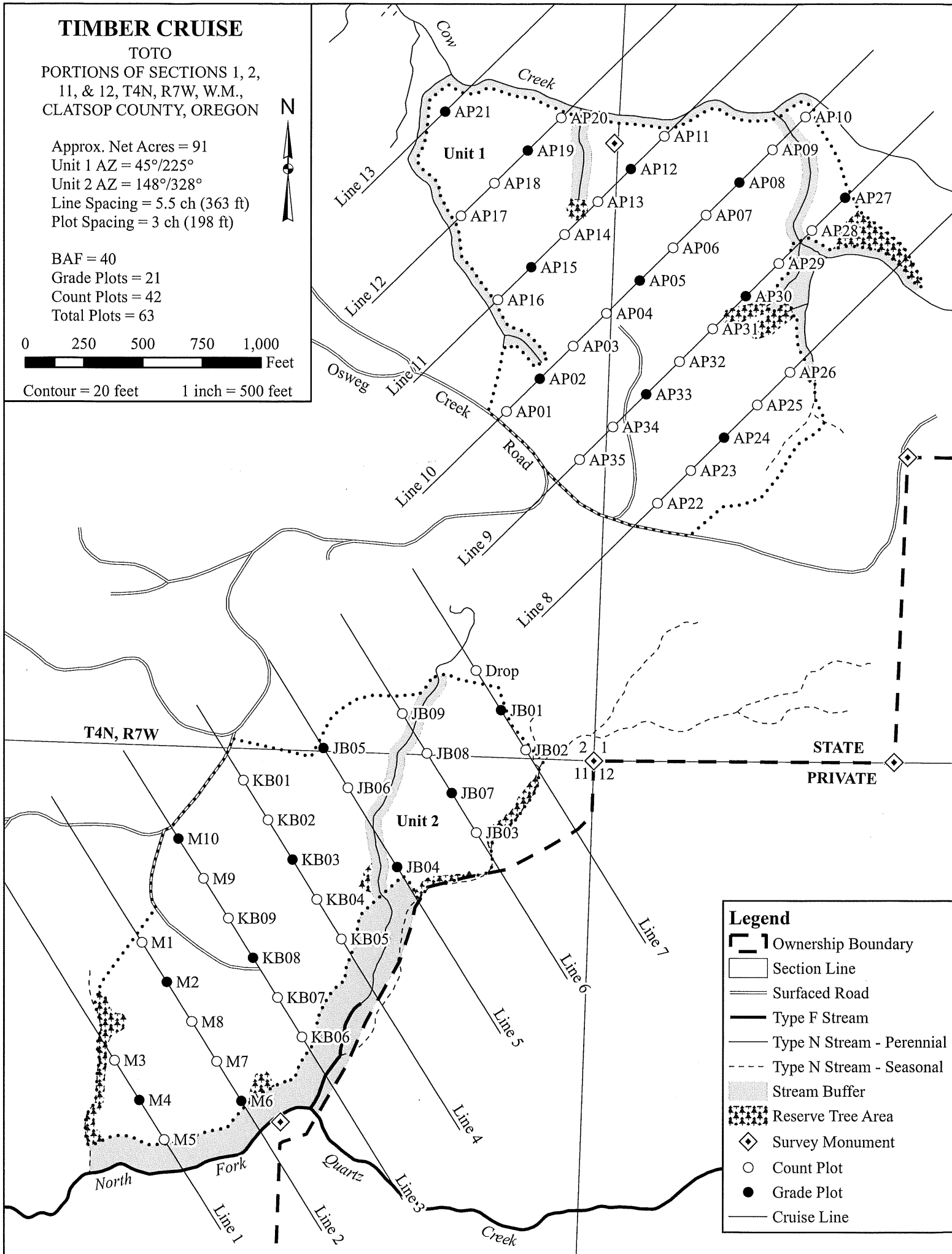
# TIMBER CRUISE

TOTO  
PORTIONS OF SECTIONS 1, 2,  
11, & 12, T4N, R7W, W.M.,  
CLATSOP COUNTY, OREGON

Approx. Net Acres = 91  
Unit 1 AZ = 45°/225°  
Unit 2 AZ = 148°/328°  
Line Spacing = 5.5 ch (363 ft)  
Plot Spacing = 3 ch (198 ft)

BAF = 40  
Grade Plots = 21  
Count Plots = 42  
Total Plots = 63

0 250 500 750 1,000 Feet  
Contour = 20 feet 1 inch = 500 feet



## Legend

- Ownership Boundary
- Section Line
- Surfaced Road
- Type F Stream
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Stream Buffer
- Reserve Tree Area
- Survey Monument
- Count Plot
- Grade Plot
- Cruise Line

| TC PSCSTGR                           |                       | Species, Sort Grade - Board Foot Volumes (Project) |                                  |        |        |                        |                                  |      |       |     |            |       |       |       |             |                                   |          |           |                      |
|--------------------------------------|-----------------------|----------------------------------------------------|----------------------------------|--------|--------|------------------------|----------------------------------|------|-------|-----|------------|-------|-------|-------|-------------|-----------------------------------|----------|-----------|----------------------|
| <div>T04N R07W S02 Ty00MC91.00</div> |                       |                                                    |                                  |        |        | Project: TOTO          |                                  |      |       |     |            |       |       |       |             | Page 1                            |          |           |                      |
|                                      |                       |                                                    |                                  |        |        | Acres 91.00            |                                  |      |       |     |            |       |       |       |             | Date 3/24/2025<br>Time 11:24:29AM |          |           |                      |
| Spp                                  | S<br>So Gr<br>T rt ad | %<br>Net<br>BdFt                                   | Bd. Ft. per Acre<br>Def%GrossNet |        |        | Total<br>Net MBF       | Percent of Net Board Foot Volume |      |       |     |            |       |       |       | Average Log |                                   |          |           | Logs<br>Per<br>/Acre |
|                                      |                       |                                                    |                                  |        |        |                        | Log Scale Dia.                   |      |       |     | Log Length |       |       |       | Ln<br>Ft    | Dia<br>In                         | Bd<br>Ft | CF/<br>Lf |                      |
|                                      |                       |                                                    |                                  |        |        |                        | 4-5                              | 6-11 | 12-16 | 17+ | 12-20      | 21-30 | 31-35 | 36-99 |             |                                   |          |           |                      |
| H                                    | DOCU                  |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       | 11          | 12                                |          | 0.00      | 2.6                  |
| H                                    | DO2S                  | 78                                                 | .6                               | 4,272  | 4,246  | 386                    |                                  | 3    | 28    | 69  |            |       | 6     | 94    | 39          | 17                                | 463      | 2.63      | 9.2                  |
| H                                    | DO3S                  | 17                                                 | .7                               | 895    | 889    | 81                     |                                  | 88   | 12    |     | 3          | 8     | 10    | 80    | 37          | 8                                 | 89       | 0.80      | 10.0                 |
| H                                    | DO4S                  | 5                                                  |                                  | 242    | 242    | 22                     |                                  | 100  |       |     | 100        |       |       |       | 18          | 6                                 | 21       | 0.41      | 11.3                 |
| H Totals                             |                       | 13                                                 | .6                               | 5,409  | 5,377  | 489                    |                                  | 21   | 24    | 55  | 5          | 1     | 7     | 87    | 29          | 10                                | 162      | 1.37      | 33.1                 |
|                                      |                       |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       |             |                                   |          |           |                      |
| D                                    | DOCU                  |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       | 12          | 28                                |          | 0.00      | 2.6                  |
| D                                    | DO2S                  | 88                                                 | 1.0                              | 27,909 | 27,621 | 2,513                  |                                  | 0    | 25    | 75  | 1          | 1     | 4     | 93    | 39          | 17                                | 515      | 2.88      | 53.6                 |
| D                                    | DO3S                  | 10                                                 | 1.0                              | 3,284  | 3,250  | 296                    |                                  | 82   | 10    | 8   | 13         | 16    | 8     | 62    | 33          | 9                                 | 107      | 0.97      | 30.5                 |
| D                                    | DO4S                  | 2                                                  |                                  | 439    | 439    | 40                     |                                  | 100  |       |     | 34         | 66    |       |       | 23          | 7                                 | 32       | 0.45      | 13.9                 |
| D Totals                             |                       | 74                                                 | 1.0                              | 31,633 | 31,310 | 2,849                  |                                  | 10   | 23    | 67  | 3          | 4     | 5     | 89    | 34          | 14                                | 311      | 2.07      | 100.6                |
|                                      |                       |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       |             |                                   |          |           |                      |
| S                                    | DOCU                  |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       | 9           | 21                                |          | 0.00      | .6                   |
| S                                    | DO2S                  | 86                                                 |                                  | 935    | 935    | 85                     |                                  | 1    | 53    | 46  | 1          |       |       | 99    | 37          | 15                                | 336      | 2.46      | 2.8                  |
| S                                    | DO3S                  | 8                                                  |                                  | 78     | 78     | 7                      |                                  | 100  |       |     |            |       | 100   |       | 32          | 11                                | 140      | 1.16      | .6                   |
| S                                    | DO4S                  | 6                                                  |                                  | 62     | 62     | 6                      |                                  | 100  |       |     | 49         | 51    |       |       | 21          | 7                                 | 34       | 0.63      | 1.8                  |
| S Totals                             |                       | 3                                                  |                                  | 1,075  | 1,075  | 98                     |                                  | 14   | 46    | 40  | 4          | 3     | 7     | 86    | 29          | 12                                | 189      | 1.81      | 5.7                  |
|                                      |                       |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       |             |                                   |          |           |                      |
| A                                    | DOCU                  |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       | 4           | 17                                |          | 0.00      | .5                   |
| A                                    | DO1S                  | 43                                                 | .8                               | 1,729  | 1,715  | 156                    |                                  |      | 82    | 18  | 8          |       |       | 92    | 38          | 14                                | 288      | 1.91      | 6.0                  |
| A                                    | DO2S                  | 28                                                 | 1.1                              | 1,091  | 1,079  | 98                     |                                  | 79   | 21    |     |            |       |       | 100   | 40          | 11                                | 183      | 1.28      | 5.9                  |
| A                                    | DO3S                  | 13                                                 |                                  | 507    | 507    | 46                     |                                  | 100  |       |     |            |       |       | 100   | 38          | 8                                 | 107      | 0.88      | 4.7                  |
| A                                    | DO4S                  | 16                                                 |                                  | 606    | 606    | 55                     |                                  | 100  |       |     | 27         | 5     |       | 68    | 27          | 7                                 | 43       | 0.64      | 14.2                 |
| A Totals                             |                       | 9                                                  | .6                               | 3,933  | 3,908  | 355 <del>356</del>     |                                  | 50   | 42    | 8   | 8          | 1     |       | 91    | 33          | 9                                 | 125      | 1.10      | 31.3                 |
|                                      |                       |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       |             |                                   |          |           |                      |
| GF                                   | DO2S                  | 91                                                 |                                  | 338    | 338    | 31                     |                                  |      |       | 100 |            |       |       | 100   | 40          | 19                                | 610      | 2.95      | .6                   |
| GF                                   | DO3S                  | 9                                                  |                                  | 33     | 33     | 3                      |                                  | 100  |       |     |            |       |       | 100   | 40          | 9                                 | 120      | 1.08      | .3                   |
| GF Totals                            |                       | 1                                                  |                                  | 371    | 371    | 34                     |                                  | 9    |       | 91  |            |       |       | 100   | 40          | 16                                | 447      | 2.32      | .8                   |
|                                      |                       |                                                    |                                  |        |        |                        |                                  |      |       |     |            |       |       |       |             |                                   |          |           |                      |
| Totals                               |                       |                                                    | 0.9                              | 42,421 | 42,040 | 3,825 <del>3,826</del> |                                  | 15   | 25    | 59  | 4          | 3     | 5     | 89    | 33          | 12                                | 245      | 1.77      | 171.5                |

| TC PSTATS                                                        |      |       | PROJECT STATISTICS |            |                   |                             |                            |                 | PAGE         | 1              |              |       |
|------------------------------------------------------------------|------|-------|--------------------|------------|-------------------|-----------------------------|----------------------------|-----------------|--------------|----------------|--------------|-------|
|                                                                  |      |       | PROJECT            | TOTO       |                   |                             | DATE                       |                 |              | 3/24/2025      |              |       |
| TWP                                                              | RGE  | SC    | TRACT              | TYPE       |                   | ACRES                       | PLOTS                      | TREES           | CuFt         | BdFt           |              |       |
| 04N                                                              | 07   | 02    | U12TAKE            | 00MC       |                   | 91.00                       | 63                         | 357             | 1            | W              |              |       |
|                                                                  |      |       | PLOTS              | TREES      | TREES<br>PER PLOT | ESTIMATED<br>TOTAL<br>TREES | PERCENT<br>SAMPLE<br>TREES |                 |              |                |              |       |
| TOTAL                                                            |      |       | 63                 | 357        | 5.7               |                             |                            |                 |              |                |              |       |
| CRUISE                                                           |      |       | 22                 | 118        | 5.4               | 7,097                       | 1.7                        |                 |              |                |              |       |
| DBH COUNT                                                        |      |       |                    |            |                   |                             |                            |                 |              |                |              |       |
| REFOREST                                                         |      |       |                    |            |                   |                             |                            |                 |              |                |              |       |
| COUNT                                                            |      |       | 41                 | 232        | 5.7               |                             |                            |                 |              |                |              |       |
| BLANKS                                                           |      |       |                    |            |                   |                             |                            |                 |              |                |              |       |
| 100 %                                                            |      |       |                    |            |                   |                             |                            |                 |              |                |              |       |
| STAND SUMMARY                                                    |      |       |                    |            |                   |                             |                            |                 |              |                |              |       |
| SAMPLE<br>TREES                                                  |      |       | TREES<br>/ACRE     | AVG<br>DBH | BOLE<br>LEN       | REL<br>DEN                  | BASAL<br>AREA              | GROSS<br>BF/AC  | NET<br>BF/AC | GROSS<br>CF/AC | NET<br>CF/AC |       |
| DOUG FIR                                                         |      |       | 75                 | 40.2       | 26.5              | 90                          | 29.9                       | 154.3           | 31,633       | 31,310         | 7,089        | 7,089 |
| WHEMLOCK                                                         |      |       | 19                 | 18.1       | 18.1              | 60                          | 7.6                        | 32.4            | 5,409        | 5,377          | 1,315        | 1,315 |
| R ALDER                                                          |      |       | 19                 | 17.4       | 18.1              | 63                          | 7.3                        | 31.1            | 3,933        | 3,908          | 1,135        | 1,135 |
| S SPRUCE                                                         |      |       | 4                  | 2.1        | 26.0              | 82                          | 1.5                        | 7.6             | 1,075        | 1,075          | 297          | 297   |
| GR FIR                                                           |      |       | 1                  | .3         | 29.0              | 124                         | 0.2                        | 1.3             | 371          | 371            | 77           | 77    |
| TOTAL                                                            |      |       | 118                | 78.0       | 23.1              | 77                          | 47.2                       | 226.7           | 42,421       | 42,040         | 9,913        | 9,913 |
| 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                                                         |      |       | 46.7               | 5.4        | 1,071             | 1,132                       | 1,193                      |                 |              |                |              |       |
| WHEMLOCK                                                         |      |       | 88.9               | 20.9       | 545               | 689                         | 834                        |                 |              |                |              |       |
| R ALDER                                                          |      |       | 50.4               | 11.9       | 235               | 266                         | 298                        |                 |              |                |              |       |
| S SPRUCE                                                         |      |       | 42.3               | 24.2       | 438               | 578                         | 717                        |                 |              |                |              |       |
| GR FIR                                                           |      |       |                    |            |                   |                             |                            |                 |              |                |              |       |
| TOTAL                                                            |      |       | 65.5               | 6.0        | 850               | 904                         | 959                        | 172             | 43           | 19             |              |       |
| 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                                                         |      |       | 65.9               | 8.3        | 37                | 40                          | 43                         |                 |              |                |              |       |
| WHEMLOCK                                                         |      |       | 168.6              | 21.2       | 14                | 18                          | 22                         |                 |              |                |              |       |
| R ALDER                                                          |      |       | 193.7              | 24.4       | 13                | 17                          | 22                         |                 |              |                |              |       |
| S SPRUCE                                                         |      |       | 340.8              | 42.9       | 1                 | 2                           | 3                          |                 |              |                |              |       |
| GR FIR                                                           |      |       | 556.7              | 70.1       | 0                 | 0                           | 0                          |                 |              |                |              |       |
| TOTAL                                                            |      |       | 55.3               | 7.0        | 73                | 78                          | 83                         | 122             | 30           | 14             |              |       |
| 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                                                         |      |       | 52.4               | 6.6        | 144               | 154                         | 164                        |                 |              |                |              |       |
| WHEMLOCK                                                         |      |       | 132.9              | 16.7       | 27                | 32                          | 38                         |                 |              |                |              |       |
| R ALDER                                                          |      |       | 193.8              | 24.4       | 24                | 31                          | 39                         |                 |              |                |              |       |
| S SPRUCE                                                         |      |       | 338.1              | 42.6       | 4                 | 8                           | 11                         |                 |              |                |              |       |
| GR FIR                                                           |      |       | 556.7              | 70.1       | 0                 | 1                           | 2                          |                 |              |                |              |       |
| TOTAL                                                            |      |       | 34.9               | 4.4        | 217               | 227                         | 237                        | 49              | 12           | 5              |              |       |
| 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                                                         |      |       | 52.3               | 6.6        | 29,248            | 31,310                      | 33,372                     |                 |              |                |              |       |
| WHEMLOCK                                                         |      |       | 137.0              | 17.2       | 4,450             | 5,377                       | 6,304                      |                 |              |                |              |       |
| R ALDER                                                          |      |       | 198.9              | 25.0       | 2,929             | 3,908                       | 4,886                      |                 |              |                |              |       |
| S SPRUCE                                                         |      |       | 348.1              | 43.8       | 604               | 1,075                       | 1,546                      |                 |              |                |              |       |
| GR FIR                                                           |      |       | 556.7              | 70.1       | 111               | 371                         | 631                        |                 |              |                |              |       |
| TOTAL                                                            |      |       | 35.1               | 4.4        | 40,184            | 42,040                      | 43,897                     | 49              | 12           | 5              |              |       |



| TC PLOGSTVB                |                | Log Stock Table - MBF |              |                              |            |          |                                          |     |     |     |       |       |       |       |       |                                             |       |     |  |
|----------------------------|----------------|-----------------------|--------------|------------------------------|------------|----------|------------------------------------------|-----|-----|-----|-------|-------|-------|-------|-------|---------------------------------------------|-------|-----|--|
| T04N R07W S02 Ty00MC 91.00 |                |                       |              | Project: TOTO<br>Acres 91.00 |            |          |                                          |     |     |     |       |       |       |       |       | Page 2<br>Date 3/24/2025<br>Time 11:23:30AM |       |     |  |
| S<br>T<br>Spp              | So Gr<br>rt de | Log<br>Len            | Gross<br>MBF | Def<br>%                     | Net<br>MBF | %<br>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+ |  |
| D                          | DO 4S          | 26                    | 15           |                              | 15         | .5       |                                          |     | 15  |     |       |       |       |       |       |                                             |       |     |  |
| D                          | DO 4S          | 30                    | 3            |                              | 3          | .1       |                                          |     | 3   |     |       |       |       |       |       |                                             |       |     |  |
| D                          | Totals         |                       | 2,879        | 1.0                          | 2,849      | 74.5     |                                          |     | 69  | 85  | 133   | 162   | 327   | 773   | 801   | 469                                         | 30    |     |  |
| S                          | DO 2S          | 16                    | 1            |                              | 1          | .8       |                                          |     | 1   |     |       |       |       |       |       |                                             |       |     |  |
| S                          | DO 2S          | 36                    | 18           |                              | 18         | 18.7     |                                          |     |     |     |       |       | 18    |       |       |                                             |       |     |  |
| S                          | DO 2S          | 40                    | 66           |                              | 66         | 67.5     |                                          |     |     |     | 27    |       | 39    |       |       |                                             |       |     |  |
| S                          | DO 3S          | 32                    | 7            |                              | 7          | 7.3      |                                          |     |     |     | 7     |       |       |       |       |                                             |       |     |  |
| S                          | DO 4S          | 16                    | 2            |                              | 2          | 1.6      |                                          |     | 2   |     |       |       |       |       |       |                                             |       |     |  |
| S                          | DO 4S          | 20                    | 1            |                              | 1          | 1.2      |                                          |     | 1   |     |       |       |       |       |       |                                             |       |     |  |
| S                          | DO 4S          | 26                    | 3            |                              | 3          | 2.9      |                                          |     | 3   |     |       |       |       |       |       |                                             |       |     |  |
| S                          | Totals         |                       | 98           |                              | 98         | 2.6      |                                          |     | 6   |     | 7     | 27    |       | 57    |       |                                             |       |     |  |
| A                          | DO 1S          | 20                    | 13           |                              | 13         | 3.6      |                                          |     |     |     |       |       |       | 13    |       |                                             |       |     |  |
| A                          | DO 1S          | 36                    | 13           |                              | 13         | 3.8      |                                          |     |     |     |       |       | 13    |       |       |                                             |       |     |  |
| A                          | DO 1S          | 38                    | 16           |                              | 16         | 4.5      |                                          |     |     |     | 16    |       |       |       |       |                                             |       |     |  |
| A                          | DO 1S          | 40                    | 115          | 1.1                          | 114        | 32.0     |                                          |     |     |     | 19    | 59    | 36    |       |       |                                             |       |     |  |
| A                          | DO 2S          | 38                    | 15           | 7.1                          | 14         | 3.9      |                                          |     |     |     | 14    |       |       |       |       |                                             |       |     |  |
| A                          | DO 2S          | 40                    | 84           |                              | 84         | 23.7     |                                          |     |     |     | 64    |       | 20    |       |       |                                             |       |     |  |
| A                          | DO 3S          | 36                    | 20           |                              | 20         | 5.7      |                                          |     | 3   |     | 17    |       |       |       |       |                                             |       |     |  |
| A                          | DO 3S          | 40                    | 26           |                              | 26         | 7.2      |                                          |     | 4   | 21  |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 12                    | 1            |                              | 1          | .3       |                                          |     | 1   |     |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 16                    | 6            |                              | 6          | 1.6      |                                          |     | 6   |     |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 18                    | 3            |                              | 3          | .9       |                                          |     | 3   |     |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 20                    | 5            |                              | 5          | 1.4      |                                          |     | 5   |     |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 28                    | 3            |                              | 3          | .7       |                                          |     | 3   |     |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 38                    | 12           |                              | 12         | 3.4      |                                          |     | 12  |     |       |       |       |       |       |                                             |       |     |  |
| A                          | DO 4S          | 40                    | 26           |                              | 26         | 7.2      |                                          |     | 26  |     |       |       |       |       |       |                                             |       |     |  |
| A                          | Totals         |                       | 358          |                              | 356        | 9.3      |                                          |     | 63  | 21  | 95    | 35    | 93    | 48    |       |                                             |       |     |  |
| GF                         | DO 2S          | 40                    | 31           |                              | 31         | 91.0     |                                          |     |     |     |       |       | 12    |       | 19    |                                             |       |     |  |
| GF                         | DO 3S          | 40                    | 3            |                              | 3          | 9.0      |                                          |     |     | 3   |       |       |       |       |       |                                             |       |     |  |
| GF                         | Totals         |                       | 34           |                              | 34         | .9       |                                          |     |     | 3   |       |       | 12    |       | 19    |                                             |       |     |  |
| Total                      | All Species    |                       | 3,860        |                              | 3,826      | 100.0    |                                          |     | 180 | 145 | 261   | 248   | 515   | 1017  | 907   | 492                                         | 61    |     |  |

| TC PSTNDSUM                |        | Stand Table Summary |        |       |                |             |              |               |               |                  |                | Page 1         |           |        |       |
|----------------------------|--------|---------------------|--------|-------|----------------|-------------|--------------|---------------|---------------|------------------|----------------|----------------|-----------|--------|-------|
|                            |        |                     |        |       |                |             |              |               |               |                  |                | Date:          | 3/24/2025 |        |       |
| T04N R07W S02 Ty00MC 91.00 |        |                     |        |       | Project TOTO   |             |              |               |               | Time: 11:22:42AM |                |                |           |        |       |
|                            |        |                     |        |       | Acres 91.00    |             |              |               |               | Grown Year:      |                |                |           |        |       |
| S<br>Spec T                | Sample |                     | Tot    |       |                |             |              | Average Log   |               | Net Net          |                | Totals         |           |        |       |
|                            | DBH    | Trees               | FF 16' | Av Ht | Trees/<br>Acre | BA/<br>Acre | Logs<br>Acre | Net<br>Cu.Ft. | Net<br>Bd.Ft. | Tons/<br>Acre    | Cu.Ft.<br>Acre | Bd.Ft.<br>Acre | Tons      | Cunits | MBF   |
| D                          | 9      | 1                   | 85     | 54    | 4.656          | 2.06        | 4.66         | 9.0           | 30.0          |                  | 42             | 140            |           | 38     | 13    |
| D                          | 12     | 1                   | 86     | 72    | 2.619          | 2.06        | 2.62         | 19.0          | 60.0          |                  | 50             | 157            |           | 45     | 14    |
| D                          | 13     | 1                   | 85     | 100   | 2.232          | 2.06        | 4.46         | 16.5          | 55.0          |                  | 74             | 245            |           | 67     | 22    |
| D                          | 19     | 1                   | 88     | 93    | 1.045          | 2.06        | 2.09         | 37.0          | 125.0         |                  | 77             | 261            |           | 70     | 24    |
| D                          | 20     | 1                   | 85     | 140   | .943           | 2.06        | 2.83         | 39.3          | 156.7         |                  | 111            | 443            |           | 101    | 40    |
| D                          | 21     | 2                   | 85     | 133   | 1.711          | 4.11        | 5.13         | 39.8          | 153.3         |                  | 204            | 787            |           | 186    | 72    |
| D                          | 22     | 3                   | 85     | 109   | 2.338          | 6.17        | 5.45         | 48.0          | 171.4         |                  | 262            | 935            |           | 238    | 85    |
| D                          | 23     | 2                   | 86     | 124   | 1.426          | 4.11        | 3.56         | 55.0          | 212.0         |                  | 196            | 756            |           | 178    | 69    |
| D                          | 24     | 1                   | 89     | 158   | .655           | 2.06        | 1.96         | 60.0          | 263.3         |                  | 118            | 517            |           | 107    | 47    |
| D                          | 25     | 3                   | 85     | 134   | 1.810          | 6.17        | 5.43         | 58.0          | 237.8         |                  | 315            | 1,291          |           | 287    | 118   |
| D                          | 26     | 1                   | 85     | 130   | .558           | 2.06        | 1.67         | 61.7          | 256.7         |                  | 103            | 430            |           | 94     | 39    |
| D                          | 27     | 3                   | 86     | 126   | 1.552          | 6.17        | 4.14         | 71.9          | 300.0         |                  | 297            | 1,242          |           | 271    | 113   |
| D                          | 28     | 5                   | 85     | 138   | 2.405          | 10.29       | 7.22         | 72.5          | 298.7         |                  | 523            | 2,155          |           | 476    | 196   |
| D                          | 29     | 7                   | 86     | 145   | 3.139          | 14.40       | 9.42         | 81.7          | 372.4         |                  | 770            | 3,507          |           | 700    | 319   |
| D                          | 30     | 3                   | 85     | 128   | 1.257          | 6.17        | 3.35         | 88.0          | 386.2         |                  | 295            | 1,295          |           | 268    | 118   |
| D                          | 31     | 4                   | 85     | 143   | 1.570          | 8.23        | 4.71         | 91.9          | 421.7         |                  | 433            | 1,986          |           | 394    | 181   |
| D                          | 32     | 6                   | 87     | 137   | 2.210          | 12.34       | 6.63         | 96.3          | 462.2         |                  | 639            | 3,065          |           | 581    | 279   |
| D                          | 33     | 5                   | 86     | 137   | 1.732          | 10.29       | 4.85         | 105.6         | 498.6         |                  | 512            | 2,417          |           | 466    | 220   |
| D                          | 34     | 1                   | 81     | 130   | .326           | 2.06        | .98          | 99.0          | 416.7         |                  | 97             | 408            |           | 88     | 37    |
| D                          | 35     | 1                   | 85     | 158   | .308           | 2.06        | .31          | 213.0         | 1150.0        |                  | 66             | 354            |           | 60     | 32    |
| D                          | 36     | 3                   | 83     | 132   | .873           | 6.17        | 2.62         | 93.2          | 450.0         |                  | 244            | 1,179          |           | 222    | 107   |
| D                          | 37     | 8                   | 82     | 134   | 2.204          | 16.46       | 6.34         | 108.0         | 521.3         |                  | 685            | 3,303          |           | 623    | 301   |
| D                          | 38     | 2                   | 79     | 131   | .522           | 4.11        | 1.31         | 111.2         | 518.0         |                  | 145            | 677            |           | 132    | 62    |
| D                          | 39     | 1                   | 76     | 137   | .248           | 2.06        | .74          | 127.7         | 473.3         |                  | 95             | 352            |           | 86     | 32    |
| D                          | 40     | 2                   | 79     | 137   | .471           | 4.11        | 1.41         | 138.2         | 613.3         |                  | 195            | 867            |           | 178    | 79    |
| D                          | 41     | 1                   | 80     | 130   | .224           | 2.06        | .67          | 140.3         | 640.0         |                  | 94             | 431            |           | 86     | 39    |
| D                          | 42     | 1                   | 80     | 133   | .214           | 2.06        | .64          | 124.7         | 626.7         |                  | 80             | 402            |           | 73     | 37    |
| D                          | 43     | 3                   | 78     | 136   | .612           | 6.17        | 1.84         | 145.8         | 682.2         |                  | 268            | 1,252          |           | 244    | 114   |
| D                          | 46     | 1                   | 73     | 140   | .178           | 2.06        | .53          | 129.3         | 633.3         |                  | 69             | 339            |           | 63     | 31    |
| D                          | 57     | 1                   | 48     | 121   | .116           | 2.06        | .35          | 84.0          | 333.3         |                  | 29             | 116            |           | 27     | 11    |
| D                          | Totals | 75                  | 85     | 118   | 40.156         | 154.29      | 97.93        | 72.4          | 319.7         |                  | 7,089          | 31,310         |           | 6,451  | 2,849 |
| H                          | 9      | 1                   | 83     | 46    | 3.858          | 1.70        | 3.86         | 8.0           | 20.0          |                  | 31             | 77             |           | 28     | 7     |
| H                          | 12     | 2                   | 84     | 57    | 4.340          | 3.41        | 4.34         | 15.0          | 40.0          |                  | 65             | 174            |           | 59     | 16    |
| H                          | 13     | 2                   | 86     | 86    | 3.698          | 3.41        | 7.40         | 17.0          | 55.0          |                  | 126            | 407            |           | 114    | 37    |
| H                          | 20     | 1                   | 86     | 134   | .781           | 1.70        | .78          | 71.0          | 290.0         |                  | 55             | 227            |           | 50     | 21    |
| H                          | 21     | 2                   | 86     | 139   | 1.417          | 3.41        | 4.25         | 46.0          | 198.3         |                  | 196            | 843            |           | 178    | 77    |
| H                          | 25     | 1                   | 83     | 121   | .500           | 1.70        | 1.50         | 57.0          | 220.0         |                  | 85             | 330            |           | 78     | 30    |
| H                          | 26     | 2                   | 87     | 104   | .924           | 3.41        | 2.31         | 67.8          | 280.0         |                  | 157            | 647            |           | 143    | 59    |
| H                          | 27     | 1                   | 93     | 111   | .429           | 1.70        | 1.29         | 66.0          | 330.0         |                  | 85             | 424            |           | 77     | 39    |
| H                          | 28     | 1                   | 88     | 103   | .399           | 1.70        | .80          | 85.5          | 345.0         |                  | 68             | 275            |           | 62     | 25    |
| H                          | 29     | 2                   | 84     | 103   | .743           | 3.41        | 1.86         | 79.0          | 310.0         |                  | 147            | 576            |           | 134    | 52    |
| H                          | 34     | 2                   | 82     | 111   | .541           | 3.41        | 1.08         | 117.5         | 510.0         |                  | 127            | 551            |           | 116    | 50    |
| H                          | 37     | 1                   | 82     | 103   | .228           | 1.70        | .46          | 162.0         | 665.0         |                  | 74             | 304            |           | 67     | 28    |
| H                          | 39     | 1                   | 92     | 135   | .205           | 1.70        | .62          | 161.0         | 880.0         |                  | 99             | 542            |           | 90     | 49    |
| H                          | Totals | 19                  | 85     | 82    | 18.063         | 32.38       | 30.53        | 43.1          | 176.1         |                  | 1,315          | 5,377          |           | 1,197  | 489   |
| A                          | 14     | 2                   | 87     | 71    | 3.063          | 3.27        | 4.60         | 23.0          | 70.0          |                  | 106            | 322            |           | 96     | 29    |
| A                          | 15     | 1                   | 87     | 71    | 1.334          | 1.64        | 1.33         | 36.0          | 140.0         |                  | 48             | 187            |           | 44     | 17    |
| A                          | 16     | 4                   | 87     | 77    | 4.691          | 6.55        | 8.21         | 28.1          | 90.0          |                  | 231            | 739            |           | 210    | 67    |
| A                          | 17     | 1                   | 86     | 103   | 1.039          | 1.64        | 2.08         | 36.5          | 130.0         |                  | 76             | 270            |           | 69     | 25    |
| A                          | 18     | 2                   | 86     | 82    | 1.853          | 3.27        | 3.71         | 33.0          | 107.5         |                  | 122            | 398            |           | 111    | 36    |
| A                          | 19     | 1                   | 87     | 70    | .832           | 1.64        | 1.66         | 32.0          | 100.0         |                  | 53             | 166            |           | 48     | 15    |
| A                          | 21     | 2                   | 86     | 101   | 1.362          | 3.27        | 2.72         | 53.7          | 192.5         |                  | 146            | 524            |           | 133    | 48    |

|                                 |        |                     |           |          |                                  |             |              |               |               |               |                |                                     |       |                |                |
|---------------------------------|--------|---------------------|-----------|----------|----------------------------------|-------------|--------------|---------------|---------------|---------------|----------------|-------------------------------------|-------|----------------|----------------|
| TC    PSTNDSUM                  |        | Stand Table Summary |           |          |                                  |             |              |               |               |               |                | Page<br>Date:                       |       | 2<br>3/24/2025 |                |
| T04N R07W S02 Ty00MC      91.00 |        |                     |           |          | Project      TOTO                |             |              |               |               | Time:         |                | 11:22:42AM                          |       |                |                |
|                                 |        |                     |           |          | Acres                      91.00 |             |              |               |               | Grown Year:   |                |                                     |       |                |                |
| S<br>Spec T                     |        |                     | Tot       |          |                                  |             |              | Average Log   |               | Net      Net  |                | Totals<br>Tons      Cunits      MBF |       |                |                |
|                                 | DBH    | Sample<br>Trees     | FF<br>16' | Av<br>Ht | Trees/<br>Acre                   | BA/<br>Acre | Logs<br>Acre | Net<br>Cu.Ft. | Net<br>Bd.Ft. | Tons/<br>Acre | Cu.Ft.<br>Acre |                                     |       |                | Bd.Ft.<br>Acre |
| A                               | 22     | 2                   | 87        | 95       | 1.241                            | 3.27        | 2.48         | 56.2          | 212.5         |               | 140            | 527                                 | 127   | 48             |                |
| A                               | 23     | 2                   | 86        | 82       | 1.135                            | 3.27        | 2.27         | 54.2          | 195.0         |               | 123            | 443                                 | 112   | 40             |                |
| A                               | 24     | 1                   | 87        | 52       | .521                             | 1.64        | 1.04         | 35.5          | 150.0         |               | 37             | 156                                 | 34    | 14             |                |
| A                               | 29     | 1                   | 87        | 70       | .357                             | 1.64        | .71          | 73.5          | 245.0         |               | 52             | 175                                 | 48    | 16             |                |
| A                               | Totals | 19                  | 87        | 80       | 17.428                           | 31.11       | 30.82        | 36.8          | 126.8         |               | 1,135          | 3,908                               | 1,033 | 356            |                |
| S                               | 21     | 1                   | 82        | 82       | .792                             | 1.90        | 1.58         | 46.5          | 140.0         |               | 74             | 222                                 | 67    | 20             |                |
| S                               | 25     | 1                   | 82        | 113      | .559                             | 1.90        | 1.68         | 40.3          | 176.7         |               | 68             | 296                                 | 62    | 27             |                |
| S                               | 28     | 1                   | 83        | 119      | .445                             | 1.90        | 1.34         | 73.3          | 290.0         |               | 98             | 388                                 | 89    | 35             |                |
| S                               | 36     | 1                   | 80        | 63       | .269                             | 1.90        | .54          | 107.5         | 315.0         |               | 58             | 170                                 | 53    | 15             |                |
| S                               | Totals | 4                   | 82        | 96       | 2.066                            | 7.62        | 5.14         | 57.9          | 209.4         |               | 297            | 1,075                               | 270   | 98             |                |
| GF                              | 29     | 1                   | 86        | 153      | .277                             | 1.27        | .83          | 93.0          | 446.7         |               | 77             | 371                                 | 70    | 34             |                |
| GF                              | Totals | 1                   | 86        | 153      | .277                             | 1.27        | .83          | 93.0          | 446.7         |               | 77             | 371                                 | 70    | 34             |                |
| Totals                          | 118    |                     | 85        | 100      | 77.989                           | 226.67      | 165.25       | 60.0          | 254.4         |               | 9,913          | 42,040                              | 9,021 | 3,826          |                |

# LOGGING PLAN MAP

OF TIMBER SALE CONTRACT

NO. AT-341-2025-W01059-01

TOTO

PORTIONS OF SECTIONS 1, 2, & 11

OF T4N, R7W, W.M.,

CLATSOP COUNTY, OREGON

| Unit         | Tractor | Cable | Acres |
|--------------|---------|-------|-------|
| Unit 1       | 36%     | 64%   | 50    |
| Unit 2       | 49%     | 51%   | 41    |
| Unit 3 (R/W) | 0%      | 0%    | <1    |
| Total        | 42%     | 58%   | 91    |



0 500 1,000 2,000

Feet

Contours = 20 feet 1 inch equals 1,000 feet

## Legend

- Ownership Boundary
- Timber Sale Boundary
- Paved Road
- Surfaced Road
- Unsurfaced Road
- New Road Construction - Surfaced
- Landing to be Constructed
- Existing Landing
- Ground Based Yarding
- Cable Based Yarding
- Type F Stream
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Non-Posted Stream Buffer
- Posted Stream Buffer
- Reserve Tree Area
- Non-Stocked Area
- Reforestation Area
- Controlled Felling Area
- Section Line
- Survey Monument

