

Sale KL-341-2015-86-

District: Klamath/Lake Date: March 30, 2015

## **Cost Summary**

|                            | Conifer      | Hardwood          | Total         |
|----------------------------|--------------|-------------------|---------------|
| Gross Timber<br>Sale Value | \$169,822.36 | \$0.00            | \$169,822.36  |
|                            |              | Project Work:     | (\$14,829.00) |
|                            |              | Advertised Value: | \$154,993.36  |



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## **Timber Description**

Location: Portions of Sections 7 and 18, T33S, R7 1/2 E, W.M., Klamath County, Oregon.

Stand Stocking: 40%

| Specie Name    | AvgDBH | Amortization (%) | Recovery (%) |
|----------------|--------|------------------|--------------|
| White Fir      | 16     | 0                | 95           |
| Sugar Pine     | 11     | 0                | 95           |
| Ponderosa Pine | 14     | 0                | 95           |
| Lodgepole Pine | 17     | 0                | 95           |

| Volume by Grade | CR 6" - 8" | CR 8" - 14" | CR 14" - 22" | CR 22"+ | Camprun | Total |
|-----------------|------------|-------------|--------------|---------|---------|-------|
| White Fir       | 156        | 358         | 140          | 42      | 0       | 696   |
| Sugar Pine      | 39         | 0           | 0            | 0       | 0       | 39    |
| Ponderosa Pine  | 71         | 104         | 0            | 0       | 0       | 175   |
| Lodgepole Pine  | 0          | 0           | 0            | 0       | 13      | 13    |
| Total           | 266        | 462         | 140          | 42      | 13      | 923   |

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

Log Markets: Klamath Falls and Medford.

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

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

Log Branding and Painting: \$648

Dust Abatement: \$4,394

TOTAL Other Costs (with Profit & Risk to be added): \$5,042

Other Costs (No Profit & Risk added):

None.



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## **Logging Conditions**

Combination#: 1 White Fir 70.00%

Sugar Pine 100.00% Ponderosa Pine 95.00% Lodgepole Pine 100.00%

Logging System: Wheel Skidder Process: Feller Buncher

yarding distance: Medium (800 ft) downhill yarding: Yes

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 10 bd. ft / load: 4200

cost / mbf: \$90.40

machines: Log Loader (B)

Stroke Delimber (B) Feller Buncher w/ Delimber

Tire Skidder

Combination#: 2 White Fir 30.00%

Ponderosa Pine 5.00%

Logging System: Track Skidder Process: Manual Falling/Delimbing

yarding distance: Medium (800 ft) downhill yarding: Yes

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 12 bd. ft / load: 4500

cost / mbf: \$81.68

machines: Log Loader (B)

Track Skidder



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Date: March 30, 2015 **District: Klamath/Lake** 

## **Logging Costs**

**Operating Seasons:** 1.00

Slash Disposal: \$0.00

Profit Risk: 12%

**Project Costs: \$14,829.00** 

Other Costs (P/R): \$5,042.00

Other Costs: \$0.00

Miles of Road

Road Maintenance: \$1.67

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

#### **Hauling Costs**

| Species        | \$/MBF | Trips/Day | MBF / Load |
|----------------|--------|-----------|------------|
| White Fir      | \$0.00 | 3.0       | 4.4        |
| Sugar Pine     | \$0.00 | 3.0       | 4.0        |
| Ponderosa Pine | \$0.00 | 3.0       | 4.2        |
| Lodgepole Pine | \$0.00 | 3.0       | 4.0        |

#### **Local Pond Values**

| Date       | Specie         | Grade        | Value    |
|------------|----------------|--------------|----------|
| 03/30/2015 | Lodgepole Pine | Camprun      | \$330.00 |
| 03/30/2015 | White Fir      | CR 6" - 8"   | \$370.00 |
| 03/30/2015 | Sugar Pine     | CR 6" - 8"   | \$285.00 |
| 03/30/2015 | Ponderosa Pine | CR 6" - 8"   | \$295.00 |
| 03/30/2015 | White Fir      | CR 8" - 14"  | \$395.00 |
| 03/30/2015 | Ponderosa Pine | CR 8" - 14"  | \$325.00 |
| 03/30/2015 | White Fir      | CR 14" - 22" | \$405.00 |
| 03/30/2015 | White Fir      | CR 22"+      | \$410.00 |



Sale KL-341-2015-86-

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## **Logging Costs Breakdown**

| Logging    | Road<br>Maint | Fire<br>Protect | Hauling | Other<br>P/R appl | Profit &<br>Risk | Slash<br>Disposal | Scaling | Other  | Total    |
|------------|---------------|-----------------|---------|-------------------|------------------|-------------------|---------|--------|----------|
| White Fir  |               |                 |         | -                 |                  |                   |         |        |          |
| \$87.78    | \$1.75        | \$4.75          | \$62.04 | \$5.46            | \$19.41          | \$0.00            | \$5.00  | \$0.00 | \$186.19 |
| Sugar Pine | е             |                 |         |                   |                  |                   |         |        |          |
| \$90.40    | \$1.75        | \$4.75          | \$68.25 | \$5.46            | \$20.47          | \$0.00            | \$5.00  | \$0.00 | \$196.08 |
| Ponderosa  | Pine          |                 |         |                   |                  |                   |         |        |          |
| \$89.96    | \$1.75        | \$4.75          | \$65.00 | \$5.46            | \$20.03          | \$0.00            | \$5.00  | \$0.00 | \$191.95 |
| Lodgepole  | Pine          |                 |         |                   |                  |                   |         |        |          |
| \$90.40    | \$1.75        | \$4.75          | \$68.25 | \$5.46            | \$20.47          | \$0.00            | \$5.00  | \$0.00 | \$196.08 |

| Specie         | Amortization | Pond Value | Stumpage | Amortized |
|----------------|--------------|------------|----------|-----------|
| White Fir      | \$0.00       | \$392.31   | \$206.12 | \$0.00    |
| Sugar Pine     | \$0.00       | \$285.00   | \$88.92  | \$0.00    |
| Ponderosa Pine | \$0.00       | \$312.83   | \$120.88 | \$0.00    |
| Lodgepole Pine | \$0.00       | \$330.00   | \$133.92 | \$0.00    |

3/30/15 5



Sale KL-341-2015-86-

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## **Summary**

#### Amortized

| Specie         | MBF | Value  | Total  |
|----------------|-----|--------|--------|
| White Fir      | 0   | \$0.00 | \$0.00 |
| Sugar Pine     | 0   | \$0.00 | \$0.00 |
| Ponderosa Pine | 0   | \$0.00 | \$0.00 |
| Lodgepole Pine | 0   | \$0.00 | \$0.00 |

#### Unamortized

| Specie         | MBF | Value    | Total        |
|----------------|-----|----------|--------------|
| White Fir      | 696 | \$206.12 | \$143,459.52 |
| Sugar Pine     | 39  | \$88.92  | \$3,467.88   |
| Ponderosa Pine | 175 | \$120.88 | \$21,154.00  |
| Lodgepole Pine | 13  | \$133.92 | \$1,740.96   |

## **Gross Timber Sale Value**

**Recovery:** \$169,822.36

Prepared By: Ed Scheick Phone: 541-883-5681

3/30/15 6

# DRUMSTICK

341-15-86

## **Additional Costs**



#### Road Maintenance

Move in Cost (grader): \$400.00 Number of Miles to be Bladed: 5.4

Number of Bladings: 1

Miles/Hour for Equipment: 0.5

Cost/Hour (grader with operator): \$105.50

Total Grading Hours: 10.8

Grading Cost: \$1,139.40

Total Cost: \$1,539.40

Cost/Mbf: \$1.67

#### Dust Abatement (Profit & Risk to be added in Appraisal)

Asume: 4 Trucks per Day

3 Trips per Day

12 Loads per Day

18 Hauling Days

12 Days of Dust Abatement

4 Hours per Day

48 Total Hours

\$88.00 Cost per Hour

\$4,224.00 Dust Abatement Cost

\$170.00 Water Truck Move In

\$4,394.00 Total Cost

\$4.76 Cost/Mbf

#### Brand & Paint (Profit and Risk to be added in Appraisal)

18 Hauling Days

1.5 Hours/Day

\$24.00 Cost/Hour

\$648.00 Total Cost

\$0.70 Cost/Mbf

| Other Costs Summary (Profit and Risk to be added in Appraisal) |
|--|
|--|

\$4,394.00 Total cost for Dust Abatement \$4.76 per Mbf \$648.00 Total Cost for Log Branding \$0.70 per Mbf

\$5,042.00 Total Other Costs

\$5.46 per Mbf

# DRUMSTICK 341-15-86



## **Project Costs**

#### Project #1 Road Improvement

Move in Cost Dozer \$400.00

#### **Improvement**

| •                | Points | Distance (ft) | Feet/Hour | Hours | Cost/Hour | Cost       |
|------------------|--------|---------------|-----------|-------|-----------|------------|
| Open/Clear/Shape | A to B | 2270          | 1000      | 2.3   | 132.5     | \$304.75   |
| Open/Clear/Shape | C to D | 1420          | 1000      | 1.4   | 132.5     | \$185.50   |
| Open/Clear/Shape | D to E | 300           | 1000      | 0.3   | 132.5     | \$39.75    |
| Open/Clear/Shape | D to F | 550           | 1000      | 0.6   | 132.5     | \$79.50    |
| Open/Clear/Shape | F to G | 450           | 1000      | 0.5   | 132.5     | \$66.25    |
| Open/Clear/Shape | F to H | 970           | 1000      | 1.0   | 132.5     | \$132.50   |
| Open/Clear/Shape | I to J | 450           | 1000      | 0.5   | 132.5     | \$66.25    |
| Open/Clear/Shape | K to L | 2370          | 1000      | 2.4   | 132.5     | \$318.00   |
|                  | •      | 8780          | _         | 9.0   |           | \$1,192.50 |

#### Project #1 Summary

Move in \$400.00
Open/Clear Shape \$1,192.50
Project #1 Total \$1,592.50
per Mbf: \$1.73

#### Project #2 Felling, Skidding, and Piling of Submerchantable Trees

Total Sub-sawlog volume: 40 MBF

Fell and Skid/Mbf: \$50.00

Sort/Mbf: \$10.00

Total \$2,400.00

per Mbf: \$2.60

Landing Slash Piling

Number of Landings: 15

Shovel Time: .5 Hour/Landing Cost/Hour: \$125.00 Total Cost: \$937.50

Cat Time: .5 Hour/Landing Cost/Hour: \$132.50 Total Cost: \$993.75

**Total \$1,931.25** per MBF \$2.09

**Total Project #2 Cost: \$4331.25** (per MBF: \$4.69)

## **DRUMSTICK**

## 341-15-86

## **Project Costs**



#### Project #3 Spot Rocking on 19 & 20 Roads

| Snot | Rocking - | - Delivered |
|------|-----------|-------------|
| JUUL | NOCKING   | Denvereu    |

#### Rock Spreading (Grader)

| 3/4 -      | Rock Size                | 9                   | <b>Total Grader Hours</b> |
|------------|--------------------------|---------------------|---------------------------|
| 290        | Cubic Yards              | \$105.50            | Cost per Hour             |
| 1.5        | Tons per Cubic Yard      | \$949.50            | Total                     |
| 435        | Tons                     |                     |                           |
| \$15.25    | cost per ton (delivered) | 9                   | Total Water Truck Hours   |
| \$6,633.75 | Total                    | \$88.00             | Cost per Hour             |
| \$7.19     | per Mbf                  | \$792.00            | <br>Total                 |
|            |                          | \$1 7 <i>4</i> 1 50 | Total Rock Spreading      |

| \$1,741.50 | Total Rock Spreading |
|------------|----------------------|
| \$1.89     | per MBF              |

#### Project #3 Summary

Total cost Rock \$6,633.75
Total cost Spreading \$1,741.50

Total \$8,375.25

per MBF \$9.07

#### Project #4 Road Closures

Number of Closure Points: 4 (Points A,C, I, & K)

1 Hour/Point (Travel Included) Cost per hour (Cat): \$132.50

**Total Cost: \$530.00** (per MBF: \$.57)

#### Cost Summary All Projects

\$1,592.50 Project No. 1 Road Improvement

\$4,331.25 Project No. 2 Felling, Skidding, and Piling of Submerchantable Material

\$8,375.25 Project No. 3 Spot Rocking on 19 & 20 Roads

\$530.00 Project No. 4 Road Closures

\$14,829.00 Total Project Cost

\$16.07 per mbf

# **Summary of Project Work**

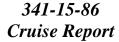


## Drumstick 341-15-86

| Project # 1: Road Improvement                   | \$1,592.50 |
|---|------------|
| Project # 2: Fell, Skid, & Pile Submerchantable | \$4,331.25 |
| Project # 3: Spot rocking 19 & 20 roads         | \$8,375.25 |
| Project # 4: Road Closures                      | \$530.00   |

Total: \$14,829.00

## **DRUMSTICK**





**SALE NAME:** Drumstick

#### **LEGAL DESCRIPTION:**

T33S, R7½E, Portions of Sections 7 and 18, W.M., Klamath County, Oregon.

#### **BOUNDARY LINES:**

Unit boundaries are posted with "Timber Sale Boundary" signs, marked with fluorescent orange paint and fluorescent orange flagging.

#### **FUND**:

100% BOF

#### **ACREAGE**:

The timber sale consists of 1 area, stand 220, total 256 acres.

Mapping was accomplished using a handheld Global Positioning System unit with the data run on the district Geographical Information System Program.

#### **TREATMENT:**

Entire sale area is a single tree selection cut with cut trees marked with blue paint for trees 5.0 inches dbh and larger. All trees less than 5.0 inches dbh are reserved from cutting in sale area.

#### **CRUISE METHOD:**

Variable plot cruise with a ratio of 1 count plot for every measure plot. Fixed plot cruise for all submerchantable material (5.0" to 9.0") dbh.

#### **BASAL AREA FACTOR:**

| Area   | BAF    | Type Acreage |  |  |  |  |
|--------|--------|--------------|--|--|--|--|
| Area I | 10 BAF | 256 acres    |  |  |  |  |

#### **PLOT DESIGNATION:**

Plot centers were established at every plot with blue flag wire stakes with the corresponding plot number. Blue and white candy stripe flagging was attached to the nearest available tree branch.

#### **SAMPLE SIZE CALCULATIONS:**

| AREA   | CV% | <b>DESIRED SE</b> % | ACRES |
|--------|-----|---------------------|-------|
| Area I | 60  | 13                  | 256   |

Number of Plots = 
$$\frac{T^2C^2}{A^2}$$

C = Coefficient of Variation in Percent (Taken from inventory data)

**T** = Number of Standard Errors

**A** = Desired Sampling Error for a sale of this size and value

Area I 
$$N = \frac{(1)^2(60)^2}{(13)^2} = 21 \text{ plots}$$
 Took 23 plots

Measurements and Grading:

- DBH and Height were measured on all "in" trees for measure plots.
- Ratio of 1 count plot for every measure plot
- Pulp volume and sawlog volume cruised.
- See attached species and grade tables for minimum requirements.
- All trees were graded using the segment system.
- Separate fixed plot cruise for all submerchantable material (5"to 9" dbh)

#### TREE HEIGHT:

All trees were measured to a fixed diameter outside bark. This height is usually taken as high up the bole as possible, where the cruiser can clearly see the bole, and the taper remains constant (usually 6 or 8 inches). The log segments are broken out and graded accordingly.

#### **MINIMUM D.B.H:**

9.0" dbh for sawlog volume. 5.0" dbh for submerchantable material.

#### **DIAMETER STANDARDS:**

1" diameter class

#### BTR:

Standard ratios were used. See attached species tables.

#### **FORM FACTOR:**

Form factor was measured or estimated at 16' for each tree. Each tree was assigned its own FF.

#### **FORM POINT:**

All trees were sighted at D.B.H.

#### **VOLUME COMPUTATION:**

All cruise data was input and run at the district on Atterbury's Super Ace program.

**CRUISERS:** Ed Scheick, Todd Clement, Sara Stack.

#### **FINAL CRUISE RESULTS:**

| AREA   | CV% | SE%  | ACRES |
|--------|-----|------|-------|
| Area I | 63  | 13.4 | 256   |

#### **TIMBER DESCRIPTION**

#### **SAWLOG VOLUME:**

This volume was obtained from the variable plot cruise. All material graded camprun. See grade table for minimum standards.

| SPECIES        | AVE. DBH | GROSS VOL (MBF) | NET VOL (MBF) |
|----------------|----------|-----------------|---------------|
| White Fir      | 15.9     | 700             | 696           |
| Ponderosa Pine | 13.6     | 178             | 175           |
| Sugar Pine     | 10.9     | 39              | 39            |
| Lodgepole Pine | 17.4     | 13              | 13            |

**TOTAL NET SAWLOG VOLUME: 923 MBF** 

#### **GREEN PULP VOLUME:**

This volume was obtained from the fixed plot cruise (5.0" - 9.0" DBH) and trees from the variable plot cruise (greater than 9.0" DBH) that did not meet sawlog standards. All material was graded green pulp, see grade table for minimum standards.

| SPECIES        | VOLUME |
|----------------|--------|
| Ponderosa Pine | 34     |
| Sugar Pine     | 6      |

TOTAL GREEN PULP VOLUME: 40 MBF

TblSortGrade

## **Sort/Grade Table**

**Table Name:** SUNPASS **Date:** 12/22/2014

| Sort | Grd | Abr | Desc    | Fbr |   | Max<br>Dia | Max B<br>Butt | Min I<br>Len |    | Defect | Min<br>Vol | Vol<br>Type | Min<br>Rings | Knot S<br>Size | Knot<br>Freq | Str S | Mi<br>Sap Ag |   | Lbs | Lbs<br>Type | Cords | Cords<br>Type |
|------|-----|-----|---------|-----|---|------------|---------------|--------------|----|--------|------------|-------------|--------------|----------------|--------------|-------|--------------|---|-----|-------------|-------|---------------|
|      | 0   | CU  | CULL    | G   | 1 | 0          | 0             | 1            | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |
|      | 1   | CR  | CAMPRU  | G   | 6 | 0          | 0             | 10           | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |
|      | 7   | GP  | GRNPULP | G   | 3 | 0          | 0             | 10           | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |
|      | 8   | DP  | DEADPUL | G   | 3 | 0          | 0             | 10           | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |
|      | 9   | UT  | UTILITY | G   | 8 | 0          | 0             | 12           | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |
| 0    |     | CU  | CULL    | G   | 1 | 0          | 0             | 1            | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |
| 1    |     | CR  | CAMPRU  | G   | 1 | 0          | 0             | 1            | 99 | 0      | 0          | M           | 0            | 0              | 0            |       |              | 0 | 0   |             | 0     |               |

## **Species Table Report**

TblSpecies Date: 12/22/2014

Page: 1

Table Name: SUNPASS

| Code | Abrv | Description | Bark<br>Ratio | ASubo<br>Const | Form<br>Factor | Wood<br>Type | Comp-<br>onent | Yield Table | Min<br>Log<br>Dia | Min<br>Log<br>Len | Max<br>Log<br>Len | Log<br>Trim | Max<br>Tree<br>Dia | Max<br>Tree<br>Hgt. | BdFt<br>Rule | CuFt<br>Rule | Weight    |
|------|------|-------------|---------------|----------------|----------------|--------------|----------------|-------------|-------------------|-------------------|-------------------|-------------|--------------------|---------------------|--------------|--------------|-----------|
| Couc | ADIV | Description | Katio         | Collst         | ractor         | Турс         | oncii          | Ticiu Tabic | Dia               | Lan               | LCII              | 111111      | Dia                | IIgt.               | Kuit         | Ruit         | - vveignt |
| 1    | PP   | PPINE       | .87           | PP             | .85            | P            | C              | PPEQUA100   | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 4800      |
| 2    | WF   | WHITE F     | .94           | NF             | .87            | W            | C              | DFEQUA050   | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 5000      |
| 3    | LP   | LP PINE     | .96           | DF             | .9             | P            | C              | LPEQUA100   | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 4800      |
| 4    | DF   | DOUG-FIR    | .92           | DF             | .87            | D            | C              | DFEQUA050   | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 5700      |
| 5    | SP   | SUG PINE    | .87           | PP             | .84            | P            | C              | PPEQUA100   | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 4800      |
| 6    | IC   | INC CED     | .90           | SS             | .80            | C            | C              | DFEQUA050   | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 4500      |
| 7    | RF   | SH FIR      | 924           | DF             | 89             | V.           | С              | DFFOLIA050  | 3                 | 9                 | 20                | 1.0         | 99                 | 200                 | E            | 1            | 5000      |

| TC TLOGSTVB Log Stock Table - MBF |   |                    |          |  |              |           |              |     |             |                    |           |          |       |       |       |                              |       |       |     |
|-----------------------------------|---|--------------------|----------|--|--------------|-----------|--------------|-----|-------------|--------------------|-----------|----------|-------|-------|-------|------------------------------|-------|-------|-----|
|                                   | Project: DSTIK                          |                    |          |  |              |           |              |     |             |                    |           |          |       |       |       |                              |       |       |     |
| T033                              | T033 R007 S07 TVARI T033 R007 S07 TVARI |                    |          |  |              |           |              |     |             |                    |           |          |       |       |       |                              |       |       |     |
|                                   |   | ec Tract<br>07 220 |          |  | Type<br>VARI |           | Acres 256.00 |     | Plots<br>23 | Sample Trees<br>43 |           | 3        | I     |       |       | 1<br>12/22/2014<br>1:36:48PM |       |       |     |
| 5                                 | S So C                                  | Gr                 | Log      | Log Gross % Net % Net Volume by Scaling Diameter in Inches |              |           |              |     |             |                    |           |          |       |       |       |                              |       |       |     |
| Spp 7                             | rt o                                    | le                 | Len      | MBF  | Def          | MBF       | Spc          | 2-3 | 4-5         | 6-8                | 9-10      | 11-12    | 13-14 | 15-16 | 17-19 | 20-21                        | 22-29 | 30-39 | 40+ |
| WF                                | CR                                      | CR                 | 17       | 37   |              | 37        | 5.3          |     |             | 30                 | 4         | 3        |       |       |       |                              |       |       |     |
| WF<br>WF                          | CR<br>CR                                | CR                 | 26<br>34 | 59<br>604  | .7           | 59<br>600 | 8.5<br>86.2  |     |             | 43<br>83           | 16<br>101 | 175      | 59    | 88    | 52    |                              | 42    |       |     |
|                                   | CK                                      | Tota               |          |  | ./           |           |              |     |             |                    |           | 173      |       |       |       |                              |       |       |     |
| WF                                |   |                    |          | 700  |              | 696       | 74.1         |     |             | 156                | 122       | 1//      | 59    | 88    | 52    |                              | 42    |       |     |
| PP                                | CR                                      |                    | 17       | 25   | 7.5          | 24        | 12.3         |     |             | 11                 | 6         |          | 7     |       |       |                              |       |       |     |
| PP<br>PP                          | CR<br>CR                                | CR<br>CR           | 26<br>34 | 70<br>82   | 1.4          | 70<br>81  | 36.5<br>42.1 |     |             | 30<br>30           | 12<br>31  | 12<br>20 | 15    |       |       |                              |       |       |     |
| PP                                | CR                                      | GP                 | 17       | 4  |              | 4         | 2.1          |     | 4           |                    |           |          |       |       |       |                              |       |       |     |
| PP                                | CR                                      | GP                 |          | 6  |              | 6         | 3.2          |     |             | 6                  |           |          |       |       |       |                              |       |       |     |
| PP                                | CR                                      | GP                 | 19       | 7  |              | 7         | 3.8          |     | 7           |                    |           |          |       |       |       |                              |       |       |     |
| PP                                |   | Tota               | als      | 195  | 1.6          | 192       | 20.4         |     | 11          | 77                 | 49        | 32       | 22    |       |       |                              |       |       |     |
| SP                                | CR                                      | CR                 | 16       | 14   |              | 14        | 37.2         |     |             | 14                 |           |          |       |       |       |                              |       |       |     |
| SP                                | CR                                      | CR                 | 20       | 24   |              | 24        | 62.8         |     |             | 24                 |           |          |       |       |       |                              |       |       |     |
| SP                                |   | Tot                | als      | 39   |              | 39        | 4.1          |     |             | 39                 |           |          |       |       |       |                              |       |       |     |
| LP                                | CR                                      | CR                 | 17       | 1  |              | 1         | 10.5         |     |             | 1                  |           |          |       |       |       |                              |       |       |     |
| LP                                | CR                                      | CR                 | 34       | 12   | 5.6          | 11        | 89.5         |     |             |                    |           | 11       |       |       |       |                              |       |       |     |
| LP                                |   | Tot                | als      | 13   | 5.0          | 13        | 1.4          |     |             | 1                  |           | 11       |       |       |       |                              |       |       |     |
| Total A                           | ll Specie                               | s                  |          | 947  |              | 939       | 100.0        |     | 11          | 274                | 170       | 221      | 81    | 88    | 52    |                              | 42    |       |     |

| TWP RGE   | C TSTATS   |              |          |          | ST<br>PROJEC | TATIST    |            |         |            | PAGE<br>DATE   | 1<br>12/22/2014 |           |
|---|--|--------------|----------|----------|--------------|-----------|------------|---------|------------|----------------|-----------------|-----------|
| Note  | WD DCE   | SECT TI      | DACT     |          |              |           |            | DI OTEG | TDEEG      |                |                 |           |
| PLOTIAL   123   80   3.5   7.7956    |  |              |          |          |              | AC.       |            |         |            | Curt           | BdFt            |           |
| TREIN   | <u> </u>   | <u>07 22</u> | <u> </u> |          | VARI         |           | 256.00     | 23      | 80         | 11             | Е               |           |
| TOTAL   |  |              |          |          | TREES        |           |            |         |            |                |                 |           |
| California  |  | PLOTS        | TREES    |          | PER PLOT     |           | TREES      |         | TREES      |                |                 |           |
| REFOREST  | TOTAL  | 23           | 80       |          | 3.5          |           |            |         |            |                |                 |           |
| COUNT   11   37   SAPP   SA |  | 11           | 43       |          | 3.9          |           | 7,956      |         | .5         |                |                 |           |
| SAMPLE    | REFOREST   |              |          |          |              |           |            |         |            |                |                 |           |
| SAMPLE   TREES  | COUNT  | 11           | 37       |          | 3.4          |           |            |         |            |                |                 |           |
| SAMPLE   TREES  | BLANKS   | 1            |          |          |              |           |            |         |            |                |                 |           |
| SAMPLE   TREES  | 100 %  |              |          |          |              |           |            |         |            |                |                 |           |
| Note  |  |              |          | STAN     | ND SUMMA     | ARY       |            |         |            |                |                 |           |
| PPINE   |  |              |          |          |              |           |            |         |            | GROSS<br>CF/AC | NET<br>CF/AC    |           |
| PPINE   | WHITE F  | 24           | 14.5     | 15.9     | 49           | 5.0       | 20.0       | 2,733   | 2,717      | 586            | 586             |           |
| Note   |  |              |          |          |              |           |            |         |            | 196            |                 |           |
| CONFIDENCE LIMITS OF THE SAMPLE   | SUG PINE   | 3            | 6.0      | 10.9     | 26           | 1.2       | 3.9        | 152     | 152        | 40             | 40              |           |
| CONFIDENCE LIMITS OF THE SAMPLE   |  | 1            | .3       |          | 54           |           |            | 53      | 50         | 12             | 12              |           |
| CL:   68.1   SOUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERRON.   COEFF   SAMPLE TREES SET   SOUT   | TOTAL  | 43           | 31.1     | 14.3     | 41           | 9.2       | 34.8       | 3,699   | 3,668      | 834            | 834             |           |
| Sign   1.0  |  |              |          | LUME WIL | L BE WITI    | HIN THE S | SAMPLE ERR | OR      |            |                |                 |           |
| Note  | CL: 68.1 %   | COEFF        |          |          | SAMPLE       | E TREES - | BF         |         | # OF TREES | REQ.           | INF. POP.       |           |
| PPINE   CL   Color   C                      | SD: 1.0  | VAR.%        | S.E.%    | LO       |              |           |            |         |            |                | 15              |           |
| Note   | WHITE F  | 118.2        | 24.7     |          | 219          | 291       | 363        |         |            |                |                 |           |
| TOTAL   | PPINE  | 70.3         | 18.8     |          | 75           | 93        | 110        |         |            |                |                 |           |
| TOTAL         138.3         21.1         159         244         765         19           CL:         68.1 %         COEFF         SAMPLTRES SCF         # OF TREES REQ.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         89.0         18.6         47         58         68         8         10           PPINE         57.9         15.5         20         24         27         20         24         27         20         24         27         20         24         27         20         24         27         20         24         27         20         24         27         20         24         27         20         20         24         27         20         20         24         27         20         20         24         27         20         <  | SUG PINE   | 21.7         | 15.0     |          | 23           | 27        | 31         |         |            |                |                 |           |
| SD:   1.0   |  | 138.3        | 21.1     |          | 159          | 201       | 244        |         | 765        | 191            | 85              |           |
| SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         89.0         18.6         47         58         68           PPINE         57.9         15.5         20         24         27           SUG PINE         39.4         27.3         5         7         9           LP PINE <td a="" construction="" of="" proper<="" properties="" rows="" td="" the=""><td>CL: 68.1 %</td><td>COEFF</td><td></td><td></td><td>SAMPLE</td><td>TREES -</td><td>CF</td><td></td><td># OF TREES</td><td>REO.</td><td>INF. POP.</td></td>   | <td>CL: 68.1 %</td> <td>COEFF</td> <td></td> <td></td> <td>SAMPLE</td> <td>TREES -</td> <td>CF</td> <td></td> <td># OF TREES</td> <td>REO.</td> <td>INF. POP.</td> | CL: 68.1 %   | COEFF    |          |              | SAMPLE    | TREES -    | CF      |            | # OF TREES     | REO.            | INF. POP. |
| WHITE F         89.0         18.6         47         58         68           PPINE         57.9         15.5         20         24         27           SUG PINE         39.4         27.3         5         7         9           LP PINE         TOTAL         102.6         15.6         35         42         49         421         105           CL:         68.1 %         COEFF         TREES/ACRE         # WOF PLOTS REQ.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         98.6         21.0         11         15         18         18         10         13         SUG PINE         126.0         26.9         8         10         13         10         10         11         43         10         13         10  | SD: 1.0  | VAR.%        | S.E.%    | LO       |              |           |            |         |            | =              | 15              |           |
| SUG PINE       39.4       27.3       5       7       9         LP PINE         TOTAL       102.6       15.6       35       42       49       421       105         CL: 68.1 %       COEFF       TREES/ACRE       # 0F PLOTS REQ.         SD: 1.0       VAR.%       S.E.%       LOW       AVG       HIGH       5       10         WHITE F       98.6       21.0       11       15       18       19   |  | 89.0         | 18.6     |          | 47           | 58        | 68         |         |            |                |                 |           |
| LP PINE           TOTAL         102.6         15.6         35         42         49         421         105           CL:         68.1 %         COEFF         TREE/ACRE         # OF PLOTS REO.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         98.6         21.0         11         15         18         PPINE         126.0         26.9         8         10         13         SUG PINE         229.7         49.0         3         6         9         171         43           TOTAL         63.9         13.6         27         31         35         171         43           CL:         68.1 %         COEFF         BASALAREA/ACRE         # OF PLOTS REO.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         86.6         18.5         16         20         24         24   |  | 57.9         | 15.5     |          |              |           |            |         |            |                |                 |           |
| TOTAL         102.6         15.6         35         42         49         421         105           CL:         68.1 %         COEFF         TREES/ACRE         # OF PLOTS REO.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         98.6         21.0         11         15         18         PPINE         126.0         26.9         8         10         13         SUG PINE         229.7         49.0         3         6         9         171         43           TOTAL         63.9         13.6         27         31         35         171         43           CL:         68.1 %         COEFF         BASAL REA/ACRE         # OF PLOTS REO.         10           WHITE F         86.6         18.5         16         20         24         24         24         24         24         24         24         24         24         24         24         24         24         24         24         24         24<   |  | 39.4         | 27.3     |          | 5            | 7         | 9          |         |            |                |                 |           |
| CL:         68.1 %         COEFF         TREES/ACRE         # OF PLOTS REO.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         98.6         21.0         11         15         18         18         11         13         13         13         13         13         14   |  | 100 6        | 15.0     |          | 25           | 42        | 40         |         | 42.1       | 105            |                 |           |
| SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         98.6         21.0         11         15         18           PPINE         126.0         26.9         8         10         13           SUG PINE         229.7         49.0         3         6         9           LP PINE         479.6         102.3         0         1           TOTAL         63.9         13.6         27         31         35         171         43           CL:         68.1 %         COEFF         BASALAREA/ACRE         # OF PLOTS REQ.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         86.6         18.5         16         20         24         PPINE         113.7         24.2         8         10         13         SUG PINE         227.8         48.6         2         4         6         LP PINE         479.6         102.3         0         1         155         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.         # OF PLOTS  |  |              | 15.6     |          | 35           | 42        | 49         |         | 421        | 105            | 47              |           |
| WHITE F       98.6       21.0       11       15       18         PPINE       126.0       26.9       8       10       13         SUG PINE       229.7       49.0       3       6       9         LP PINE       479.6       102.3       0       1         TOTAL       63.9       13.6       27       31       35       171       43         CL:       68.1 %       COEFF       BASAL AREA/ACRE       # OF PLOTS REQ.         SD:       1.0       VAR.%       S.E.%       LOW       AVG       HIGH       5       10         WHITE F       86.6       18.5       16       20       24         PPINE       113.7       24.2       8       10       13         SUG PINE       227.8       48.6       2       4       6         LP PINE       479.6       102.3       0       1         TOTAL       56.8       12.1       31       35       39       135       34         CL:       68.1 %       COEFF       NET BF/ACRE       # OF PLOTS REQ.   | CL: 68.1 %   | COEFF        |          |          | TREES/A      | ACRE      |            |         | # OF PLOTS | REQ.           | INF. POP.       |           |
| PPINE         126.0         26.9         8         10         13           SUG PINE         229.7         49.0         3         6         9           LP PINE         479.6         102.3         0         1           TOTAL         63.9         13.6         27         31         35         171         43           CL:         68.1 %         COEFF         BASAL AREA/ACRE         # OF PLOTS REQ.         **   |  |              |          | LO       |              |           |            |         | 5          | 10             | 15              |           |
| SUG PINE       229.7       49.0       3       6       9         LP PINE       479.6       102.3       0       1         TOTAL       63.9       13.6       27       31       35       171       43         CL:       68.1 %       COEFF       BASAL AREA/ACRE       # OF PLOTS REQ.         SD:       1.0       VAR.%       S.E.%       LOW       AVG       HIGH       5       10         WHITE F       86.6       18.5       16       20       24       24       24       24       24       24       29       24       36       30       13       35       30       135       34         SUG PINE       227.8       48.6       2       4       6       6       12.1       31       35       39       135       34         CL:       68.1 %       COEFF       NET BF/ACRE       # OF PLOTS REQ.  |  |              |          |          |              |           |            |         |            |                |                 |           |
| LP PINE       479.6       102.3       0       1         TOTAL       63.9       13.6       27       31       35       171       43         CL:       68.1 %       COEFF       BASAL AREA/ACRE       # OF PLOTS REQ.         SD:       1.0       VAR.%       S.E.%       LOW       AVG       HIGH       5       10         WHITE F       86.6       18.5       16       20       24       24       24       24       24       24       24       24       24       24       24       24       24       48.6       2       4       6       479.6       102.3       0       1       135       34         CL:       68.1 %       COEFF       NET BF/ACRE       # OF PLOTS REQ.       # OF PLOTS REQ.  |  |              |          |          |              |           |            |         |            |                |                 |           |
| TOTAL         63.9         13.6         27         31         35         171         43           CL:         68.1 %         COEFF         BASAL AREA/ACRE         # OF PLOTS REQ.           SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         86.6         18.5         16         20         24         PPINE         113.7         24.2         8         10         13         SUG PINE         227.8         48.6         2         4         6         6         LP PINE         479.6         102.3         0         1         135         34           TOTAL         56.8         12.1         31         35         39         135         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.  |  |              |          |          | 3            |           |            |         |            |                |                 |           |
| CL: 68.1 %         COEFF         BASAL AREA/ACRE         # OF PLOTS REQ.           SD: 1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         86.6         18.5         16         20         24           PPINE         113.7         24.2         8         10         13           SUG PINE         227.8         48.6         2         4         6           LP PINE         479.6         102.3         0         1           TOTAL         56.8         12.1         31         35         39         135         34           CL: 68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.   |  |              |          |          | 27           |           |            |         | 171        | 43             | 19              |           |
| SD:         1.0         VAR.%         S.E.%         LOW         AVG         HIGH         5         10           WHITE F         86.6         18.5         16         20         24           PPINE         113.7         24.2         8         10         13           SUG PINE         227.8         48.6         2         4         6           LP PINE         479.6         102.3         0         1           TOTAL         56.8         12.1         31         35         39         135         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.  |  |              |          |          |              |           |            |         |            |                |                 |           |
| WHITE F         86.6         18.5         16         20         24           PPINE         113.7         24.2         8         10         13           SUG PINE         227.8         48.6         2         4         6           LP PINE         479.6         102.3         0         1           TOTAL         56.8         12.1         31         35         39         135         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.  |  |              | S E 0%   | 1.0      |              |           |            |         |            |                | INF. POP.       |           |
| PPINE         113.7         24.2         8         10         13           SUG PINE         227.8         48.6         2         4         6           LP PINE         479.6         102.3         0         1           TOTAL         56.8         12.1         31         35         39         135         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.   |  |              |          | L        |              |           |            |         | J          | 10             | 13              |           |
| SUG PINE         227.8         48.6         2         4         6           LP PINE         479.6         102.3         0         1           TOTAL         56.8         12.1         31         35         39         135         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.  |  |              |          |          |              |           |            |         |            |                |                 |           |
| TOTAL         56.8         12.1         31         35         39         135         34           CL:         68.1 %         COEFF         NET BF/ACRE         # OF PLOTS REQ.  |  | 227.8        | 48.6     |          | 2            | 4         | 6          |         |            |                |                 |           |
| CL: 68.1 % COEFF NET BF/ACRE # OF PLOTS REQ.  |  | 479.6        | 102.3    |          |              | 0         | 1          |         |            |                |                 |           |
| of 12010 http://  | TOTAL  | 56.8         | 12.1     |          | 31           | 35        | 39         |         | 135        | 34             | 15              |           |
| CD. 10 VADO CEO LOW AND HOU   | CL: 68.1 %   | COEFF        |          |          | NET BF/      | ACRE      |            |         | # OF PLOTS | REQ.           | INF. POP.       |           |
|   | SD: 1.0  | VAR.%        | S.E.%    |          |              | AVG       | HIGH       |         | 5          | 10             | 15              |           |
| WHITE F 81.8 17.4 2,243 2,717 3,191   |  |              |          |          |              |           |            |         |            |                |                 |           |
| PPINE 112.0 23.9 570 749 928  |  |              |          |          |              |           |            |         |            |                |                 |           |
| SUG PINE 228.3 48.7 78 152 226  |  |              |          |          | 78           |           |            |         |            |                |                 |           |
| LP PINE 479.6 102.3 50 101 <b>TOTAL</b> 62.7 13.4 3,178 3,668 4,158 164 41  |  |              |          |          | 3 178        |           |            |         | 164        | 11             | 18              |           |

| TC TSTA | ATS      |           |     |       | PRO  | STATIS<br>JECT   | TICS<br>DSTIK |       |                 | PAGE<br>DATE | 2<br>12/22/2014 |
|---------|----------|-----------|-----|-------|------|------------------|---------------|-------|-----------------|--------------|-----------------|
| TWP     | RGE      | SECT      | TRA | CT    | TYPI | E A              | CRES          | PLOTS | TREES           | CuFt         | BdFt            |
| 033     | 007      | 07        | 220 |       | VAR  | I                | 256.00        | 23    | 80              | 1            | Е               |
| CL:     | 68.1 %   | 1 % COEFF |     |       | NET  | NET CUFT FT/ACRE |               |       | # OF PLOTS REQ. |              | INF. POP.       |
| SD:     | 1.0      | VA        | R.  | S.E.% | LOW  | AVG              | HIGH          |       | 5               | 10           | 15              |
| CL:     | 68.1 %   | COEFF     |     |       | NET  | CUFT FT/A        | CRE           |       | # OF PLOTS REQ. |              | INF. POP.       |
| SD:     | 1.0      | VA        | R.% | S.E.% | LOW  | AVG              | HIGH          |       | 5               | 10           | 15              |
| WHIT    | EF       | 8:        | 3.1 | 17.7  | 482  | 586              | 689           |       |                 |              |                 |
| PPINE   | E        | 11:       | 2.0 | 23.9  | 149  | 196              | 243           |       |                 |              |                 |
| SUG F   | PINE     | 22        | 8.5 | 48.7  | 20   | 40               | 59            |       |                 |              |                 |
| LP PI   | LP PINE  |           | 9.6 | 102.3 |      | 12               | 24            |       |                 |              |                 |
| TOTA    | <b>L</b> | 60        | 0.3 | 12.9  | 727  | 834              | 941           |       | 152             | 38           | 17              |

