

District: Astoria Date: September 06, 2012

cost summary

| | Conifer | Hardwood | Total |
|----------------------------|--------------|-------------------|---------------|
| Gross Timber Sale Value | \$417,806.06 | \$14,409.42 | \$432,215.48 |
| | | Project Work: | \$(36,377.00) |
| | | Advertised Value: | \$395,838.48 |

9/6/12



District: Astoria Date: September 06, 2012

timber description

Location: Portions of Sections 1, 12, and 13, T7N, R6W, W.M., Clatsop County, Oregon.

Stand Stocking: 40%

| SpecieName | AvgDBH | Amortization (%) | Recovery (%) |
|-----------------------|--------|------------------|--------------|
| Douglas - Fir | 15 | 0 | 96 |
| Western Hemlock / Fir | 13 | 0 | 95 |
| Alder (Red) | 9 | 0 | 98 |

| Volume by Grade | 2S | 3S | 4S | Camprun | Total |
|-----------------------|-----|-----|-----|---------|-------|
| Douglas - Fir | 527 | 405 | 79 | 0 | 1,011 |
| Western Hemlock / Fir | 390 | 416 | 119 | 0 | 925 |
| Alder (Red) | 0 | 0 | 0 | 61 | 61 |
| Total | 917 | 821 | 198 | 61 | 1,997 |



"STEWARDSHIP IN FORESTRY"

District: Astoria Date: September 06, 2012

comments: Pond Values Used: 2nd Quarter Calendar Year 2012.

Expected Log Markets: Warrenton, OR; Tillamook, OR; Clatskanine, OR; Mist, OR; Longview, WA.

Sitka Spruce Stumpage Price = Pond Value minus Logging Cost \$126.71/MBF = \$405/MBF - \$278.29/MBF

Western redcedar Stumpage Price = Pond Value minus Logging Cost \$671.71/MBF = \$950/MBF - \$278.29/MBF

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

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

Other Costs (with Profit & Risk to be added):
Additional Logging Costs:
Branding and Painting: \$1 per MBF x 1,997 MBF = \$1,997
Scarification in Patch Cuts (Area 2)w/log loader = 6 hrs x \$90.00/hr = \$540.00
TOTAL Other Costs (with Profit & Risk to be added) = \$2,537

Other Costs (No Profit & Risk added): Open old spurs(existing):

6 hours w/315 excavator @ \$94/hour = \$564

6 hours with 14G Grader @ \$93/hour = \$558

4 hours to close @ \$94/hour = \$376 Machine Washing Invasive Weeds = \$3,000

TOTAL Other Costs (No Profit & Risk added) = \$4,498



District: Astoria Date: September 06, 2012

logging conditions

No

combination#: 1 Douglas - Fir 79.00%

Western Hemlock / Fir 79.00% Alder (Red) 79.00%

yarding distance: Medium (800 ft)

Adder (Red)

79.00%

downhill yarding:

logging system: Track Skidder Process: Harvester Head Delimbing

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF loads / day: 8.0 bd. ft / load: 3,800

cost / mbf: \$136.67

machines: Forwarder

Harvester

combination#: 2 Douglas - Fir 21.00% Western Hemlock / Fir 21.00%

Alder (Red) 21.00% 21.00%

yarding distance: Medium (800 ft) downhill yarding: No logging system: Cable: Small Tower <=40 Process: Manual Delimbing

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF loads / day: 4.0 bd. ft / load: 3,900

cost / mbf: \$173.14

machines: Log Loader (A)

Tower Yarder (Small)



District: Astoria Date: September 06, 2012

logging costs

Operating Seasons: 2.00 Profit Risk: 14.00%

Project Costs: \$36,377.00 **Other Costs (P/R):** \$2,537.00

Slash Disposal: \$0.00 Other Costs: \$4,498.00

Miles of Road

Road Maintenance: \$11.13

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

Hauling Costs

| Species | \$/MBF | Trips/Day | MBF / Load |
|-----------------------|--------|-----------|------------|
| Douglas - Fir | \$0.00 | 3.0 | 4.0 |
| Western Hemlock / Fir | \$0.00 | 2.0 | 3.8 |
| Alder (Red) | \$0.00 | 2.0 | 3.0 |



District: Astoria Date: September 06, 2012

logging costs breakdown

| Logging | Road Maint | Fire Protect | Hauling | Other P/R appl | Profit & Risk | Slash Disposal | Scaling | Other | Total |
|-----------------------|---------------|-----------------|----------|-------------------|------------------|-------------------|---------|--------|----------|
| Douglas - Fir | | | | | | | | | |
| \$144.33 | \$11.58 | \$4.39 | \$59.30 | \$1.27 | \$30.92 | \$0.00 | \$5.00 | \$2.25 | \$259.04 |
| Western Hemlock / Fir | | Fir | | | | | | | |
| \$144.33 | \$11.69 | \$4.39 | \$94.53 | \$1.27 | \$35.87 | \$0.00 | \$5.00 | \$2.25 | \$299.33 |
| Alder (Red) | | | | | | | | | |
| \$144.33 | \$11.35 | \$4.39 | \$116.32 | \$1.27 | \$38.87 | \$0.00 | \$5.00 | \$2.25 | \$323.78 |

| Specie | Amortization | Pond Value | Stumpage | Amortized |
|-----------------------|--------------|------------|----------|-----------|
| Douglas - Fir | \$0.00 | \$529.25 | \$270.21 | \$0.00 |
| Western Hemlock / Fir | \$0.00 | \$455.68 | \$156.35 | \$0.00 |
| Alder (Red) | \$0.00 | \$560.00 | \$236.22 | \$0.00 |



"STEWARDSHIP IN FORESTRY"

District: Astoria Date: September 06, 2012

summary

Amortized

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

Unamortized

| Specie | MBF | Value | Total |
|-----------------------|-------|----------|--------------|
| Douglas - Fir | 1,011 | \$270.21 | \$273,182.31 |
| Western Hemlock / Fir | 925 | \$156.35 | \$144,623.75 |
| Alder (Red) | 61 | \$236.22 | \$14,409.42 |

Gross Timber Sale Value

Recovery: \$432,215.48

Prepared by: Edward Holloran Phone: 503-325-5451

SUMMARY OF ALL PROJECT COSTS

| SALE NAME | Thin To Win | | | |
|---------------|---|--------------------------|--|-------------|
| ROAD CONS | TRUCTION: | | | |
| Project No. 1 | Road segment 4A-4B | Length/Sta 1.50 | <u>Cost</u> \$3,361.00 | |
| | | | | |
| | TOTALS | 1.50 | | \$3,361.00 |
| ROAD IMPRO | OVEMENT: | 0.03 Mile | es | |
| | Road segment 11-12, 13-14 15-16, 17-18 | <u>Length/Sta</u> 176 | <u>Cost</u> \$21,610.00 | |
| | TOTALS | 176.00 3.33 Mile | | \$21,610.00 |
| SPECIAL PRO | DJECTS: | 3.33 Wille | 5 | |
| | Project Road Mainte | | <u>Cost</u> \$6,195.00 | WO 405 00 |
| MOVE IN | TOTAL | , | | \$6,195.00 |
| MOVE IN: | Equipm Dump Trucks (12cy 2) Dump Trucks (20cy 2) F E Loader (C966) Grader (14G) Vibratory Roller Water Truck (2,500 g Excavator (C330) Excavator (C315) | x 4) x 3) | Cost \$564.00 \$498.00 \$675.00 \$675.00 \$165.00 \$1,220.00 \$699.00 | |
| | TOTAL | | 18-38-3 | \$5,171.00 |
| GRAND TOTA | L | 2000 | | \$36,337.00 |
| Compiled By: | B Rodgers | FL | Date: _ | 05/24/2012 |

SUMMARY OF CONSTRUCTION COSTS

| SALE NAME: | Thin To Win | Thin To Win | | | NEW C | ONSTRUCTION: _ MPROVEMENT: _ | 1.50 | STATIONS | 0.03 | |
|-------------|------------------|---------------------|------|--|----------|--|------------|----------|-------|------|
| ROAD: | 4A to 4B | | | | i | MPROVEMENT: | | STATIONS | | MILE |
| POINTS: | | | | | | | | | | |
| CLEARING & | GRUBBING | | | | | | | | | |
| | Method | | | Acres/amount | X | Rate | = | Cost | | |
| 4A to 4B | Scattering | | | 0.14 | Х | \$1,161.00 | = | \$162.54 | | |
| | | | | | X | | = | | | |
| | | | | | X | | = | | | |
| | | | | | Х | | = | | | |
| | | | | | | | | | | |
| SUB TOTAL F | FOR CLEARING 8 | & GRUBBING | | | | | | | \$163 | |
| | | | * | | | | | | | |
| EXCAVATION | | | | 1 1 | | | | i | | |
| | Material | | | Cy/amount | X | Rate | = | Cost | | |
| 4A to 4E | Balanced Const | | | 1.50 | х | \$106.00 | = | \$159.00 | | |
| | Landing Constru | uction \$\$/landing | 9 | 1.00 | x | \$338.00 | = | \$338.00 | | |
| | | | | | Х | | = | | | |
| | | | | | X | | = | | | |
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| SUB TOTAL F | OR EXCAVATIO | N | | | | | | | \$497 | |
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| CULVERT MA | TERIALS AND IN | ISTALLATION | | | | | | | | |
| Location | Dia/type | Lineal ft. | Rate | Cost | Location | Dia/type | Lineal ft. | Rate | Cost | |
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| | | | | Description | | Quantity | Rate | Cost | | |
| | Other/miscellane | eous: | | | | | | | | |
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| | | - | | | | | | | | |
| | Culvert stakes & | markers: | | | | | | | | |
| | Culvert stakes & | markers: | | | | | | | | |
| | Culvert stakes & | _ | | | | | | | | |

| SURFACING | Subgrade prep: | | Description | | | | | Stations/ amount | x | Rate/ sta/amt | Cost | |
|-----------------------|--------------------|----------------|------------------|---------------|-------------|-------------|-----------|---------------------|---------------|------------------|---------------------------------------|---------|
| | 4A to 4B | Grade, Shape a | | | | | | 1.50 | X | \$21.55 | \$32.33 | |
| | 4A 10 4B | Subgrade Com | | | | | | 1.50 | x | \$17.52 | \$26.28 | |
| | | Cabgrado Com | Jackey | | | | | | | <u> </u> | · · · · · · · · · · · · · · · · · · · | |
| ROAD SEGMENT | 4A to 4B | | | POINT TO | POINT | Sta. to S | ita. | | | | | |
| | | | Depth of | 4A to | 4B | 0+00 to 1 | +50 | TOTAL | Rate/ | Cost | | |
| Application | Rock Size and Type | Location | Rock (inches) | Volume per | | Numbe of | er | VOLUME (CY) | Sta./ amt. | Just | | |
| Base Rock | 6"-0" | 0+00 -1+50 | 10 | station | 63 | stations | 1.50 | 95 | \$13.52 | \$1,278 | | |
| Junctions | 1 1/2"-0" | 0+00 | N/A | junction | 22 | junctions | 1 | 22 | \$4.68 | \$103 | | |
| Landings | 6"-0" | 1+50 | N/A | Landing | 66 | Landings | 1 | 66 | \$13.52 | \$892 | | |
| Total Rock for Road S | | | 4A to 4B | | | | | 183 | | | \$2,273 | |
| | | Processing: | | Description | | | | | No.sta | Rate/sta | Cost \$0 | |
| | | | | | 6"-0"pr | | 1 1/2"-0" | | Total | <u> </u> | | |
| | SUB TOTAL FO | R SURFACING | | | 161 | | 22 | | 183 | 183 | | \$2,33 |
| | SPECIAL PROJ | ECTS | | | | | | | | | , , , , , , , , , , , , , , , , , , , | |
| | | | | | escription | | | | Cost | • | | |
| | | | - | Develop Pit F | Run (\$2.30 |) x 161) | | | \$370 | - | | |
| | SUB TOTAL FO | D SDECIAL DRI | TIECTS | | | | | • | | • | | \$37 |
| | 30D TOTAL FO | I OI LOIAL FIN | 302010 | | | | | 11/4/14/14 | Subtotal o | f Surfacing & S | Spec. Proj. | \$2,70 |
| | | | | | | | | | | al of Clearing, | | \$66 |
| | GRAND TOTAL | | | | | | | | | | | \$3,361 |
| | Compiled By: | Bryce Rodgers | | | | | | | Date: | 05/24/2012 | | |

SUMMARY OF CONSTRUCTION COSTS

| ALE NAME: OAD: OINTS: | Thin To Win 11-12(101), 13-14(24), 15-16(26), 17-18(25) | | | | NEW CO | ONSTRUCTION: _ MPROVEMENT: _ | 176.00 | STATIONS | 3.33 MIL |
|-----------------------------|---|--------------------------|--------------|--------------|-------------|---------------------------------|---------------|---------------------|---|
| LEARING & | GRUBBING | | | | | | | | |
| | Method | | | Acres/amount | x | Rate | = | Cost | |
| | | | | | X | | = | | |
| | | | | | x | | = | | |
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| UB TOTAL F | OR CLEARING | & GRUBBING | i | | | | | | |
| XCAVATION | | | | t | | | | | |
| | Material | | | Cy/amount | X | Rate | = | Cost | |
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| JB TOTAL F | OR EXCAVATION | N | | | · · · · · · | | | | |
| JLVERT MA Location | TERIALS AND II Dia/type | NSTALLATIO Lineal ft. | N Rate | Cost | Location | Dia/type | Lineal ft. | Rate | Cost |
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| | | | | Description | | Quantity | Rate | Cost | |
| | Other/miscellan | eous: | | | | - | | | |
| | | | 0.1 | | | ļ | M10.00 | #100.00 | |
| | Culvert stakes & | k markers: | Culvert Mark | ers | | 7 | \$18.00 | \$126.00 | |
| | | | | | | | | | |
| | | | DIOTALL (*** | | | | | | 6100 |
| R LOTAL E | OR CULVERT M | A I ERIALS & | INSTALLATIO | N | | | 0 | (| \$126 |
| | | | | | | | Subtotal of C | learing, Exc.,Culv. | \$126 |

| SURFACING | | | | | | | | Stations/ | | Rate/ | | | |
|------------------------|----------------|------------------|-------------|------------------|---------------|-------------------|-------------|-----------|-------------|-----------------|-------------|---------------------|--|
| | Subgrade prep: | | Description | | | | | amount | X | sta/amt | Cost | | |
| | | Grade, Shape a | | | 13-14, 15-16, | | | 176.00 | × | \$21.55 | \$3,792.80 | | |
| | | Scatter ditch wa | | | | | 8 (24.2) | 75.15 | × | \$10.78 | \$810.12 | | |
| | | Load & haul dito | h waste mat | erial 13-14 (6.: | 25) 17-18 (.8 | 3) | | 7.05 |] × | \$19.89 | \$140.22 | | |
| ROAD SEGMENT | l1 to l2 | | | POINT TO | POINT | Sta. to | Sta. | | | | | | |
| ROAD SLOWLIN | 11.1012 | T T | Depth of | I1 to | | 0+00 to 1 | | TOTAL | Rate/ | | | | |
| | Rock Size | | Rock | Volume | | Numl | | VOLUME | Sta./ | Cost | | | |
| Application | and Type | Location | (inches) | pei | | of | | (CY) | amt. | | | | |
| Base Rock | 1 1/2"-0" | | N/A | Load | 10 | loads | 101.00 | 1,010 | \$4.68 | \$4,727 | 1 | | |
| Surfacing | 1 1/2"-0" | 95+00 | 1,911 | Load | 10 | loads | 2.00 | 20 | | * | Cost in Spe | cial Projects | |
| Base Rock | 6"-0" Pit-run | 95+00 | | Load | 10 | loads | 5.00 | 50 | | * | Cost in Spe | cial Projects | |
| Barriers/Armor | 36"-12" Riprap | 95+00 | | Load | 10 | loads | 2.00 | 20 | | * | Cost in Spe | cial Projects | |
| Total Rock for Road Se | | | I1 to I2 | | | | | 1,100 | | | \$4,727 | - | |
| ROAD SEGMENT | 13 to 14 | | | POINT TO | POINT | Sta. to | Sta. | | | | | | |
| | | | Depth of | I3 to | 14 | 0+00 to | 24+00 | TOTAL | Rate/ | Cost | | | |
| | Rock Size | | Rock | Volume | (CY) | Numi | ber | VOLUME | Sta./ | Cost | | | |
| Application | and Type | Location | (inches) | pei | | of | | (CY) | amt. | | | | |
| Base Rock | 1 1/2"-0" | | N/A | Load | 10 | loads | 24.00 | 240 | \$4.68 | \$1,123 | | | |
| Total Rock for Road Se | egment: | | 13 to 14 | | | | | 240 | | | \$1,123 | | |
| ROAD SEGMENT | 15 to 16 | | | POINT TO | POINT | Sta. to | Sta. | | | | | | |
| | | | Depth of | I5 to | 16 | 0+00 to | 26+00 | TOTAL | Rate/ | Cost | | | |
| | Rock Size | | Rock | Volume | (CY) | Numl | ber | VOLUME | Sta./ | CUST | | | |
| Application | and Type | Location | (inches) | pei | - | of | | (CY) | amt. | | | | |
| Subgrade Leveling | 1 1/2"-0" | | N/A | Load | 10 | loads | 10.00 | 100 | \$4.68 | \$468 | | | |
| Total Rock for Road Se | egment: | | 15 to 16 | | | | | 100 | | | \$468 | | |
| ROAD SEGMENT | 17 to 18 | | | POINT TO | POINT | Sta. to | Sta. | | | | | | |
| | | | | Depth of | 17 to | 18 | 0+00 to | 25+00 | TOTAL | Rate/ | Cost | | |
| A U notion | Rock Size | | Rock | Volume | (CY) | Numl | ber | VOLUME | Sta./ | Oosi | | | |
| Application | and Type | Location | (inches) | pei | • | of | | (CY) | amt. | | | | |
| Base Rock | 1 1/2"-0" | | N/A | Load | 10 | loads | 25.00 | 250 | \$4.68 | \$1,170 | | | |
| Total Rock for Road Se | egment: | | 17 to 18 | | | | | 250 | | | \$1,170 | | |
| | | | | | | | | | | | | | |
| | | Processing: | | Description | | | | | No.sta | Rate/sta | Cost | | |
| | | | Water, Prod | cess & Comp | act: 11 | I-12, I3-14, I7-1 | 8 | | 150.00 | \$49.02 | \$7,353 | | |
| | | | | | | | | | | | | | |
| | | | | 36"-12" | 6"-0"pr | 4"-0" | 1 1/2"-0" | | Total | | L | | |
| | SUB TOTAL FO | R SURFACING | | 20 | 50 | 0 | 1,620 | | 1,690 | 1,690 | | \$19,584 | |
| | OUD TOTALT | AL COLLI MONTO | | | | | 1,0=0 | 1 | | | | | |
| | SPECIAL PROJ | IECTS | | | | | | | | | | | |
| | | | | D | escription | | | | Cost | | | | |
| | | | | | | (I1 to I2 Sta. | | | \$ 1,900.00 | | | | |
| | | | • | (8hrs. C330, | 8hrs. 10-1: | 2cy Dump Tru | ck, Seed ar | nd Mulch) | | | | | |
| | | | | *(Includes ro | ck haul, de | velopment) | | | | | | | |
| | | | • | | | | | | | | | | |
| | SUB TOTAL FO | R SPECIAL PRO | DJECTS | | | | | | Subtotal o | f Surfacing & | Spoo Broi | \$1,900 \$21,484 | |
| | | | | | | | | | | al of Clearing, | | \$126 | |
| | GRAND TOTAL | | | | | | | | | | | \$21,610 | |
| | | | | | | | | | | | | | |
| | Compiled By: | B. Rodgers | | | | | | | Date: | 05/24/2012 | - | | |
| | | | | | | | | | | | | | |

CRUSHED ROCK COST

| SALE NAME: | Thin To Win | | | DATE: | 05/24/2012 |
|------------|-----------------|-----------|---------|-------|------------|
| PROJECT: | No. 1 | MATERIAL: | Crushed | BY: | B. Rodgers |
| QUARRY: | Kerry Stockpile | | | | |

| | | | | | | | | | | - | |
|--------------|--|---------|--------|--------|--------|------------|--------|------|------------------------|---------|--|
| Road | Ctations | Cubic | | | | AY HAUL IN | | | | Total | |
| Segment | Stations | Yards | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | | 5 MPH | Haul | |
| 11 to 12 | 101.00 | 1,010 | | 2 | 1 | 0.50 | 0.25 | 0.25 | 0.16 | 4.16 | |
| 13 to 14 | 24.00 | 240 | | 2 | 2 | 0.75 | 0.25 | 0.18 | 0.15 | 5.33 | |
| 15 to 16 | 26.00 | 100 | | 2 | 2 | 0.75 | 0.25 | 0.20 | 0.15 | 5.35 | |
| 17 to 18 | 25.00 | 250 | | 3 | 2 | 1.00 | 0.30 | 0.18 | 0.15 | 6.63 | |
| 4A to 4B | 1.50 | 22 | | 3 | 2 | 1.00 | 0.40 | 0.20 | 0.18 | 6.78 | |
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| TOTAL | 177.50 | 1,622 | | | | | | ļ | | AVERAGE | |
| | STA./NO. | CU. YD. | | | | | | | | HAUL | |
| CUBIC YARD V | | | | 2.17 | 1.38 | 0.64 | 0.26 | 0.23 | 0.16 | 4.82 | |
| | Average Round Trip Distance (miles) 9.65 | | | | | | | | | | |

ROCK HAUL:

| Truck type: | D20 | No. trucks: | 3 | _ | |
|-------------|-----|-----------------|-----|----------------------|-------|
| Delay min.: | 8 | Efficiency: | 85% | Ave haul: \$3.51 | /cy |
| | | | | Load: \$0.45 | /cy |
| Truck type: | D12 | No. trucks: _ | 4 | Spread: \$0.73 | /cy |
| Delay min.: | 6 | Efficiency: | 85% | | |
| | | | | | |
| Truck type: | D10 | _ No. trucks: _ | | Production: cy/day = | 1,309 |
| Delay min.: | 5 | Efficiency: | 85% | | |

CRUSHED ROCK HAUL COSTS 1,622 cy @ \$4.68 /cy

PIT RUN ROCK COST

| SALE NAME: PROJECT: | - | Thin To Wir No. 1 | 1 | | | MATE | RIAL: | ; F | Pit Ru | ın | | | I | DATE: BY: | | | /2012 dgers | |
|------------------------|----------|----------------------|----|-----|----|------|-------|-----|--------|--------|----|-----|----|--------------|---|-----|----------------|--|
| QUARRY: | | Viewpoint | | | | | | | | | | | | • | | | | |
| Road | Stations | Cubic | | | | | _ | | | AUL IN | | | | | | | Total | |
| Segment | Otations | Yards | 50 | MPH | 30 | MPH | 25 | MPH | 20 | MPH | 15 | MPH | 10 | MPH | 5 | MPH | Haul | |
| 4A to 4B | 1.50 | 161 | | | | 6 | | 2 | 1 | .00 | 0. | .40 | 0. | .20 | 0 | .18 | 9.78 | |

| Road | Stations | Cubic | | | | AY HAUL IN | | | | Total |
|--|----------|---------|--------|--------|--------|-------------|---------------|-------------|-------|---------|
| Segment | | Yards | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | Haul |
| 4A to 4B | 1.50 | 161 | | 6 | 2 | 1.00 | 0.40 | 0.20 | 0.18 | 9.78 |
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| | | | | | | | | | | |
| TOTAL | 1.50 | 161 | | | | | | | | AVERAGE |
| | STA./NO. | CU. YD. | | | | | | | | HAUL |
| CUBIC YARD | | | | 6.00 | 2.00 | 1.00 | 0.40 | 0.20 | 0.18 | 9.78 |
| | | | - | | A | verage Rour | nd Trip Dista | nce (miles) | 19.56 | |

ROCK HAUL:

Truck type:___ D20 No. trucks: Delay min.: 8 Efficiency: 85% Ave haul: \$7.70 /cy Load: \$4.03 /cy Truck type:__ D12 No. trucks: Spread: \$1.79 /cy 85% Delay min.: Efficiency: Production: cy/day = Truck type:_ D10 No. trucks: 151 Delay min.: Efficiency: 85% 5

PIT RUN ROCK HAUL COSTS

161 cy @

\$13.52 /cy

Projects Road Maintenance Cost Summary

Sale:

Thin To Win

Date:

May 24, 2012

Ву:

Bryce Rodgers

| Туре | Equipment/Rationale | Hours | Rate | Cost | |
|-----------------------|---|----------------|----------------------|-------------------------------|-------|
| Post-Projects Road | Grader 14G Vibratory Roller Water Truck 2500 gallon | 30 30 15 | \$93 \$72 \$83 | \$2,790 \$2,160 \$1,245 | |
| | | | | | Total |

Final Road Maintenance

Production Rates Grader Vibratory Roller

| Miles/day | Distance(miles) | Days | Hours |
|-----------|-----------------|------|-------|
| 1.5 | 4.5 | 3.0 | 30 |
| 1.5 | 4.5 | 3.0 | 30 |

\$6,195

Maintain from Kerry Stockpile to Point I1. Maintain from Point I2 to Point I7.

Total Miles: 4.5 miles.

^{*}Maintenance calculations were determined as follows:

Road Maintenance Cost Summary (Interim and Post Harvest)

 Sale:
 Thin To Win
 MBF:
 1,997

 Date:
 June 18, 2012
 \$\$/MBF:
 \$11.13

By: Ed Holloran

| | | Move-in | 1 | | | |
|-------------|--------------------------|---------|-------|-------|------|---------|
| Туре | Equipment/Rationale | Rate | Times | Hours | Rate | Cost |
| | | | | | | |
| Interim | Grader 14G | \$675 | 1 | 8 | \$93 | \$1,419 |
| Road | Dump Truck 12CY | \$141 | 1 | 8 | \$73 | \$725 |
| Maintenance | FE Loader C966 | \$675 | 1 | 8 | \$77 | \$1,291 |
| | Grader 14G | \$675 | 1 | 66 | \$93 | \$6,813 |
| | Dump Truck 12CY | \$141 | 2 | 16 | \$73 | \$1,450 |
| Final | FE Loader C966 | \$675 | 1 | 8 | \$77 | \$1,291 |
| Road | Vibratory Roller | \$675 | 1 | 66 | \$72 | \$5,427 |
| Maintenance | Water Truck 2,500 gallon | \$165 | 1 | 33 | \$83 | \$2,904 |
| | Labor | | | 24 | \$38 | \$912 |
| | | | | | | |
| | | | | | | |
| Total | | | | | | |

Final Road Maintenance

| Production Rates | Miles/day | Distance (miles) | Days | Hours |
|------------------|-----------|------------------|------|-------|
| Process - Grader | 1.5 | 9.9 | 6.6 | 66.0 |
| Vibratory Roller | 1.5 | 9.9 | 6.6 | 66.0 |

Process and Compact: West Creek Ridge (4.5 miles), East Kerry (3.9 miles), In unit spurs (1.5 miles)

Total Miles = 9.9 miles

THIN TO WIN TIMBER CRUISE REPORT FY 2013

Sale Area Location: Areas 1, 2, 3, 4, 5, and 6 are located in portions of Sections 1, 12, and 13, T7N, R6W, W.M., Clatsop County, Oregon.

2. Fund Distribution:

BOF 100%

Tax Code

1-02 (30.9%), 30-05 (68.7%), AND 6J-01 (0.4%)

3. Sale Acreage by Area:

| Area | Treatment | Gross Acres | Patch Cuts | GTRA | Existing R/W | New R/W | Stream Buffer | Net Acres | Survey Method |
|--------|--------------|----------------|---------------|------|-----------------|------------|------------------|--------------|------------------|
| 1 | Partial Cut | 40 | 0 | 0 | 4.0 | 0 | 0.5 | 35.5 | GIS |
| 2 | Partial Cut | 109 | 3.2 | 0.1 | 6.0 | 0 | 0.2 | 99.5 | GIS |
| 3 | Partial Cut | 30 | 0 | 0 | 1.0 | 0 | 1.0 | 28.0 | GIS |
| 4 | Partial Cut | 30 | 0 | 0 | 0.7 | 0.3 | 0 | 29.0 | GIS |
| 5 | Partial Cut | 29 | 0 | 0 | 1.0 | 0 | 0 | 28.0 | GIS |
| 6 | Partial Cut | 10 | 0 | 0 | 1.0 | 0 | 0 | 9.0 | GIS |
| 7 | Patch cuts | 3.2 | 0 | 0 | 0 | 0 | 0 | 3.2 | GIS |
| 8 | Right-of-Way | 0.3 | 0 | 0 | 0 | 0 | 0 | 0.3 | GIS |
| TOTALS | | 251.5 | 3.2 | 0.1 | 13.7 | 0.3 | 1.7 | 232.5 | |

4. Cruisers and Cruise Dates: Areas 1, 3, 4, 5, and 6 were cruised by Justin Dalton, Jay Morey, Jason McCoy, Kevin Berry, Bryce Rodgers, and Ed Holloran. Area 2 was cruised by John Tillotson, Jay Morey, Bryce Rodgers, and Ed Holloran in May, 2012.

5. Cruise Method and Computation:

<u>Areas 1, 3, 4, 5, and 6 (partial cuts)</u> -- These sale areas were variable plot cruised using a 20 BAF. 46 plots were sampled on a cruise grid of 6 chains by 5 chains, with a count/cruise ratio of 1:1.

Area 2 (partial cut) – This area is a partial cut with 7 patch cuts scattered within it. The area was variable plot cruised using a 33.61 BAF. 25 plots were sampled on a cruise grid of 6 chains by 6 chains, with a count/cruise ratio of 1:1.

Area 7 (patch cuts) -- consists of 6 patch cuts within Area 2.

Area 8 R/W Right-of-way volume was calculated by multiplying the R/W acreage and the average volume per acre from the plots in Areas 1, 3, 4, 5, and 6. Right-of-way totals 0.3 acres

All cruisers used Corvallis Micro Technology (CMT) data collectors, and were downloaded to the Atterbury <u>Super A.C.E.</u> program in District for computing. See the attached <u>Cruise Design</u> for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

| AREA | CRUISE | TRACT | TYPE | <u>ACRES</u> |
|-------------------|--------------|-------|------|--------------|
| 1, 3, 4, 5, and 6 | T07N R06W 12 | 13456 | TAKE | 129.5 |
| 2 | T07N R06W 13 | 2 | TAKE | 99.5 |
| 7 (Area 2) | T07N R06W 13 | 7 | MCC | 3.2 |
| 8 R/W | T07N R06W | 9 | R/W | 0.3 |

6. Timber Description:

<u>Areas 1, 3, 4, 5, and 6 (partial cuts)</u> – These stands are first entry thinnings, approximately 30 to 70 years old, consisting of Douglas-fir, western hemlock, red alder, and noble fir. The average "take" volume per acre is 6 MBF, tree size is 12 inches DBH, and 37 feet to a merchantable top (6" D.I.B. or 40% of the diameter at 16 feet

<u>Area 2 (partial cut)</u> – These stands are approximately 75 years old that has been thinned previously, consisting of Douglas-fir, and western hemlock. The average "take" volume per acre is 11 MBF, tree size is 17 inches DBH, and 67 feet to a merchantable top (6" D.I.B. or 40% of the diameter at 16 feet

Area 7 (patch cuts) These patch cuts are within Area 2. The average "take" volume per acre is 39 MBF, tree size is 19 inches DBH, and 73 feet to a merchantable top (6" D.I.B. or 40% of the diameter at 16 feet).

<u>Area 8 R/W</u> is similar to the timber description mentioned above for Areas 1 and 2. The average volume (net) is 19 MBF/acre.

7. Statistical Analysis and Stand Summary: (See "Statistics" - Type Reports, attached)

Statistics for Stand Net B.F. /Acre volumes

| Area | Estimated CV | Target SE% | Actual CV | Actual SE% |
|-----------------|--------------|------------|-----------|------------|
| 1, 3, 4, 5, & 6 | 30% | 10% | 37.9% | 5.6% |
| 2 | 45% | 9% | 24.4% | 5.0% |

8. Volumes by Species and Log Grade: (See "Species, Sort, Grade" - Project Report, attached). Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

| Species | DBH | Net Vol. | 2 Saw | 3Saw | 4 Saw | Camp Run | % D & B | % Sale |
|------------------|-----|----------|-------|------|-------|----------|---------|--------|
| Douglas-fir | 15" | 1,011 | 527 | 405 | 79 | _ | 3.3 | 51 |
| Hemlock/True-fir | 13" | 925 | 390 | 416 | 119 | - | 11 | 46 |
| Alder | 9" | 61 | _ | - | - | 61 | 2 | 3 |
| TOTALS | | 1997 | 917 | 821 | 198 | 61 | | 100 |

9. Approvals:

Prepared by:_____

Ed Holloran

Date: May 23, 20

Unit Forester Approval;

Date: //

10. Attachments:

Cruise Designs and Maps – 8 pages

Volume Reports – 5 pages

Statistics Reports – 6 pages

Log Stock Tables – TAKE – 3 pages Stand Table Summary – TAKE – 2 pages

X:\Sunset Unit\2013 FY Sales\Thin To Win\Sale Prep\Cruise\Thin_To_Win_Cruise_Report.docx

| TC | PSPCSTGR | | Sı | pecies, S | Sort G | rade - Boar | d Fo | ot V | olum | es (P | roject | t) | | | | | | |
|------------------|--------------------------------------|----------------|-------------------|-----------------------|-----------------------|-------------------|------|----------------|--------------|--------|--------------|---------------|---------------|---------------|----------------------|----------------------|------------------------------|-----------------------------|
| | 07N R06W S1: THRU 07N R06W S1: | - | | | | Project: Acres | TT | W 232.5 | 50 | | | | | | 1 | Page Date Fime | 7/11/20 9:57:1 | 12 |
| | | % | | | | | Per | cent of | Net B | oard F | oot Volu | ıme | | | | Average | e Log | Logs |
| | S So Gr | Net | Bd. Ft | . per Acre | | Total | I | og Sca | ale Dia | | | Log L | ength | | Ln | Bd | CF/ | Per |
| Spp | T rt ad | BdFt | Def% | Gross | Net | Net MBF | | | 12-16 | | 12-20 | 21-30 | 31-35 | 36-99 | Ft | Ft | Lf | /Acre |
| H H H H | DOCU DO2S DO3S DO4S | 41 45 14 | 3.9 2.3 7.3 | 1,665 1,814 553 | 1,601 1,772 512 | 372 412 119 | 7 | 3 100 93 | 96 0 | 1 | 55 | 2 2 42 | 21 52 2 | 78 45 | 11 37 36 20 | 218 72 25 | 0.00 1.45 0.64 0.44 | 8.4 7.3 24.7 20.8 |
| Н | Totals | 45 | 3.7 | 4,032 | 3,885 | 903 | 1 | 59 | 40 | 0 | 7 | 7 | 33 | 53 | 27 | 63 | 0.69 | 61.2 |
| D D D D | DOCU DO2S DO3S DO4S | 52 40 8 | 1.9 2.1 1.4 | 2,312 1,778 346 | 2,268 1,741 341 | 527 405 79 | 6 | 17 99 94 | 74 1 0 | 9 | 2 2 68 | 10 5 29 | 7 27 3 | 80 65 0 | 6 36 36 19 | 224 82 24 | 0.00 1.55 0.66 0.40 | 2.5 10.1 21.3 14.1 |
| D | Totals | 51 | 1.9 | 4,436 | 4,351 | 1,011 | 0 | 56 | 39 | 5 | 7 | 10 | 15 | 68 | 29 | 91 | 0.84 | 48.0 |
| A | DOCR | 100 | | 260 | 260 | 61 | | 100 | | | 41 | 20 | | 38 | 23 | 34 | 0.40 | 7.7 |
| A | Totals | 3 | | 260 | 260 | 61 | | 100 | | | 41 | 20 | | 38 | 23 | 34 | 0.40 | 7.7 |
| NF NF NF | DOCU DO2S DO3S | 81 19 | 10.6 | 88 17 | 78 17 | 18 4 | | 100 | 81 | 19 | 19 | | 28 100 | 53 0 | 16 32 32 | 179 54 | 0.00 1.52 0.58 | .1 .4 .3 |
| NF | Totals | 1 | 8.8 | 105 | 96 | 22 | | 18 | 66 | 16 | 16 | | 41 | 43 | 30 | 109 | 1.03 | .9 |
| Tota | ıls | | 2.7 | 8,834 | 8,592 | 1,998 | 1 | 58 | 39 | 3 | 9 | 9 | 23 | 60 | 28 | 73 | 0.74 | 117.8 |

| Т | TSPCSTG | R | | 1 | Species, | Sort G Projec | rade - Boar t: TTV | | oot V | 'olun | nes (7 | Гуре) | | | | Γ | Page Date Sime | 7/11/20 7:22:3 | |
|-------------------|----------------------|----------------------|---------------------|--------------------|------------------------------|---------------------|-----------------------|----------|-----------------|--------|----------|----------------|---------------|-----------------|----------|----------------------|----------------------|--------------------------------------|-----------------------------|
| T07N Tw 07N | | ge | Sec | Tract 3456 | | Туре ТАН | | | Plot 46 | | • | le Tree 05 | s | C 1 | uFt | BdF W | `t | W S12 T | TAKE |
| Spp | s _{So} | Gr ad | % Net BdFt | Bd. Def% | Ft. per Ac | re Net | Total Net MBF | <u> </u> | og Sc | ale Di | ia. | Log 12-20 | g Ler | - | 36-99 | Av Ln Ft | Bd Ft | CF/ Lf | Logs Per /Acre |
| H H H | DO DO DO DO | CU 2S 3S 4S | 16 65 19 | 1.1 3.3 5.4 | 578 2,293 648 | 572 2,218 613 | 74 287 79 | 10 | 15 100 90 | 85 | | 64 | 10 33 8 | 33 52 3 | 57 48 | 13 35 36 19 | 198 72 24 | 0.00 1.43 0.61 0.41 | 11.4 2.9 30.9 25.8 |
| H D D D D | DO DO DO DO | CU 2S 3S 4S | 38 4 73 23 | 16.0 4.6 2.1 | 3,518 100 1,411 423 | 84 1,346 415 | 11 174 54 | 8 | 97 92 | 100 | | 100 6 65 | 5 30 | 40 5 | 50 | 7 17 35 19 | 81 70 24 | 0.55 0.00 1.43 0.60 0.40 | 3.6 1.0 19.4 17.0 |
| D | Totals | | 31 | 4.6 | 1,935 | 1,845 | 239 | 2 | 91 | 7 | | 23 | 10 | 30 | 36 | 25 | 45 | 0.54 | 41.0 |
| A A | DO Totals | CR | 100 | | 466 | 466 | 60 | | 100 | - | | 41 | 20 | | 38 | 23 | 34 | 0.40 | 13.8 |
| NF NF NF | DO DO DO | CU 2S 3S | 81 19 | 10.6 | 157 31 | 140 31 | 18 4 | | 100 | 81 | 19 16 | 19 | | 28 100 41 | 53 | 16 32 32 30 | 179 54 | 0.00 1.51 0.58 | .2 .8 .6 |
| Type | | | | 3.6 | 6,106 | 5,884 | 762 | 2 | 85 | 12 | 0 | 18 | 9 | 34 | 39 | 26 | 46 | 0.54 | 127.4 |

| Т | TSPCS | TGR | | | İ | Species | , Sort G Projec | rade - Boar t: TTV | | ot V | olun | nes (T | Гуре) | | | | I | Page Date Sime | 1 7/11/20 7:43:1 | |
|------------|--------|--------------------|----|-------------|-------------|--------------------|--------------------|-----------------------|-----------|--------|-----------------|--------|---------------|----------------|----------------|-------|-----------------|----------------------|------------------------|----------------------|
| T07] Tw | | W S1 Rge 06W | i | | Tract | | Type TAI | | | Plot | | Sampl | le Trec 24 | es | C 1 | uFt | T07 BdF W | | W S13 T | TAKE |
| | | | | % | | | | | Pero | cent N | let Bo | ard Fo | ot Vo | lume | | | Av | erage I | Log | Laga |
| Spp | S S | | | Net BdFt | Bd. Def% | Ft. per A Gross | cre Net | Total Net MBF | Lo 4-5 | | ale Di 12-10 | | 1 | g Len 21-30 | _ | 36-99 | Ln Ft | Bd Ft | CF/ Lf | Logs Per /Acre |
| D | D | Ю | CU | | | | | | | | | | | | | | 2 | | 0.00 | .9 |
| D | D | Ю | 2S | 65 | 1.6 | 4,595 | 4,523 | 450 | | 19 | 75 | 6 | | 11 | 6 | 83 | 38 | 227 | 1.51 | 19. |
| D | D | Ю | 3S | 31 | | 2,128 | 2,128 | 212 | | 100 | | | | 6 | 16 | 78 | 37 | 95 | 0.72 | 22. |
| D | D | Ю | 4S | 4 | | 225 | 225 | 22 | | 100 | | | 74 | 26 | | | 18 | 23 | 0.39 | 9. |
| D | Total | s | | 62 | 1.0 | 6,949 | 6,877 | 684 | | 47 | 49 | 4 | 2 | 10 | 9 | 79 | 33 | 130 | 1.02 | 53. |
| Н | D | Ю | CU | | | | | | | | | | | | aya is to acco | | 5 | | 0.00 | 4. |
| Н | | | 2S | 65 | 4.7 | 2,893 | 2,757 | 274 | | | 100 | | | | 16 | 84 | 38 | 222 | 1.44 | 12. |
| Н | D | Ю | 3S | 26 | | 1,090 | 1,090 | 108 | | 100 | | | | 8 | 55 | 37 | 34 | 71 | 0.70 | 15. |
| Н | D | Ю | 4S | 9 | 11.3 | 422 | 374 | 37 | | 100 | | | 37 | 63 | | | 20 | 27 | 0.50 | 14. |
| Н | Total | s | | 38 | 4.2 | 4,405 | 4,221 | 420 | | 35 | 65 | | 3 | 8 | 24 | 65 | 28 | 91 | 0.91 | 46. |
| Туре | Totals | | | | 2.3 | 11,354 | 11,098 | 1,104 | | 42 | 55 | 2 | 3 | 9 | 15 | 73 | 31 | 111 | 0.98 | 99. |

| Т | TSPCSTG | R | | | Species, | Sort G Projec | rade - Boar t: TTV | | ot V | olun | nes (T | Гуре) | | | | I | Page Date Sime | 7/11/20 8:03:0 | |
|-------------------|---------------|----------|-------------|-------------|--|------------------|-----------------------|-------|-----------------|-------|-------------|---------------|----------------|--------|-------|-----------------|----------------------|-------------------|--------------|
| T07N Tw 07N | | ge | | Tract | | Туре МС | | - | Plots 25 | | _ | le Tree 78 | S | C 1 | uFt | T07 BdF W | | W S13 T | MCC |
| | | | % | | | | | Perce | ent N | et Bo | oard Fo | ot Vol | ume | | | Av | erage I | Log | Logs |
| Spp | TC . | Gr ad | Net BdFt | Bd. Def% | Ft. per Ac Gross | ere Net | Total Net MBF | | g Sca 6-11 | | a. 6 17+ | Log 12-20 | g Len 21-30 | _ | 36-99 | Ln Ft | Bd Ft | CF/ Lf | Per /Acre |
| D | DO | CU | | | - mariante de la companya de la comp | | | | | | | | | | | 7 | | 0.00 | 4.5 |
| D | DO | 2S | 76 | 1.4 | 20,954 | 20,664 | 66 | | 6 | 65 | 29 | 1 | 5 | 16 | 78 | 37 | 287 | 1.86 | 72.0 |
| D | DO | 38 | 20 | .3 | 5,381 | 5,364 | 17 | 1 | 100 | | | 2 | 3 | . 25 | 70 | 36 | 92 | 0.75 | 58.3 |
| D | DO | 4S | 4 | | 896 | 896 | 3 | | 87 | 13 | | 70 | 30 | | | 18 | 30 | 0.53 | 29.5 |
| D | Totals | | 69 | 1.1 | 27,232 | 26,924 | 86 | | 27 | 51 | 22 | 4 | 6 | 17 | 74 | 33 | 164 | 1.28 | 164.3 |
| Н | DO | CU | | | | | | | 240004000.00000 | | | | | | | 5 | | 0.00 | 4.7 |
| Н | DO | 2S | 58 | 2.6 | 7,368 | 7,180 | 23 | | | 84 | 16 | | | 39 | 61 | 36 | 249 | 1.56 | 28.9 |
| Н | DO | 3S | 36 | .9 | 4,583 | 4,542 | 15 | 1 | 100 | | | | 2 | 42 | 56 | 35 | 85 | 0.73 | 53.1 |
| Н | DO | 4S | 6 | 6.6 | 705 | 658 | 2 |] 1 | 100 | | | 65 | 35 | | | 19 | 27 | 0.45 | 24.1 |
| Н | Totals | | 31 | 2.2 | 12,656 | 12,380 | 40 | | 42 | 49 | 9 | 3 | 3 | 38 | 56 | 31 | 112 | 0.95 | 110.8 |
| Type ' | Fotals | | | 1.5 | 39,888 | 39,304 | 126 | | 32 | 50 | 18 | 4 | 5 | 24 | 68 | 32 | 143 | 1.15 | 275.1 |

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| T 1 | SPCSTG | R | | | Species, | Sort G Projec | rade - Boar t: TTV | | oot V | olun | nes (T | Гуре) | | | | Ι | Page Date Sime | 7/11/20 9:49:0 | |
|--------------------|--------|----------|-------------|-------------|---------------------|------------------|-----------------------|----------|----------------|--------|-------------|-----------------|----------------|--------|-------|----------|----------------------|-------------------|-----------|
| T07N Twi 07N | • | ge | | Tract | | Type RW | | es 30 | Plot 46 | | | le Tree: 260 | s | C 1 | uFt | BdF W | řt | W S12 T | RW |
| | | | % | | | | | Per | cent N | let Bo | oard Fo | oot Vol | ume | | | Av | erage I | _og | Logs |
| Spp | _ | Gr ad | Net BdFt | Bd. Def% | Ft. per Ac Gross | re Net | Total Net MBF | L 4-5 | og Sca 6-11 | | a. 5 17+ | Log | g Len 21-30 | - | 36-99 | Ln Ft | Bd Ft | CF/ Lf | Per /Acre |
| Н | DO | CU | | | | | | | | | | | | | | 13 | | 0.00 | 15.1 |
| Н | DO | 2S | 28 | 1.1 | 2,873 | 2,840 | 1 | : | 6 | 87 | 7 | | 2 | 37 | 61 | 36 | 213 | 1.59 | 13.4 |
| Н | DO | 3S | 57 | 2.6 | 5,918 | 5,763 | 2 | | 99 | 1 | | | 0 | 64 | 36 | 35 | 79 | 0.68 | 73.1 |
| Н | DO | 4S | 15 | 6.0 | 1,520 | 1,429 | 0 | 8 | 92 | | | 57 | 35 | 7 | | 20 | 25 | 0.44 | 57.2 |
| H | Totals | | 54 | 2.7 | 10,311 | 10,032 | 3 | 1 | 72 | 25 | 2 | 8 | 6 | 48 | 38 | 28 | 63 | 0.69 | 158.7 |
| D | DO | CU | | | | | | | | | | | | | | 9 | | 0.00 | 6.3 |
| D | DO | 2S | 12 | 3.8 | 993 | 955 | 0 | | | 74 | 26 | 39 | 5 | 36 | 20 | 24 | 156 | 1.73 | 6.1 |
| D | DO | 3S | 71 | 5.2 | 5,512 | 5,225 | 2 | | 98 | 2 | | 2 | 2 | 59 | 37 | 34 | 83 | 0.74 | 63.1 |
| D | DO | 4S | 17 | 6.2 | 1,297 | 1,216 | 0 | 3 | 97 | | | 54 | 30 | 10 | 5 | 20 | 25 | 0.44 | 47.9 |
| D | Totals | | 40 | 5.2 | 7,802 | 7,396 | 2 | 1 | 85 | 11 | 3 | 16 | 7 | 48 | 30 | 27 | 60 | 0.69 | 123.5 |
| A | DO | CR | 100 | | 803 | 803 | 0 | | 100 | | | 31 | 15 | | 54 | 26 | 38 | 0.43 | 21.1 |
| A | Totals | | 4 | | 803 | 803 | 0 | | 100 | | | 31 | 15 | | 54 | 26 | 38 | 0.43 | 21.1 |
| NF | DO | CU | | | | | | | | | | | | | | 16 | | 0.00 | .2 |
| NF | DO | 2S | 82 | 5.4 | 310 | 293 | 0 | | | 91 | 9 | 9 | | 37 | 53 | 33 | 216 | 1.65 | 1.4 |
| NF | DO | 3S | 18 | | 64 | 64 | 0 | | 100 | | | | | 77 | 23 | 33 | 55 | 0.65 | 1.2 |
| NF | Totals | | 2 | 4.4 | 374 | 357 | 0 | | 18 | 75 | 8 | 8 | | 44 | 48 | 32 | 131 | 1.14 | 2.7 |
| Туре Т | `otals | | | 3,6 | 19,290 | 18,589 | 6 | 1 | 77 | 19 | 3 | 12 | 7 | 46 | 36 | 27 | 61 | 0.67 | 306.1 |

| TC PSTATS | | | | | OJECT PROJECT | STAT: TT | | | | PAGE DATE | 1 7/11/2012 |
|--|--------------|--|---|--------------|---|--|---|---------------------|--|---|--|
| TWP RGE | SC 7 | FRACT | | TYPE | | A | CRES | PLOTS | TREES | CuFt | BdFt |
| 07N 06 07N 06W | 12 1 13 7 | 3456 | | TAKE MCC | THR | | 232.50 | 142 | 847 | 1 | W |
| | | | | | TREES | | ESTIMATED TOTAL | | PERCENT SAMPLE | | |
| | PLO | OTS | TREES | | PER PLOT | 1 | TREES | | TREES | | • |
| TOTAL | | 142 | 847 | | 6.0 | | | | | | |
| CRUISE | | 72 | 467 | | 6.5 | | 17,287 | | 2.7 | | |
| DBH COUNT | | | | | | | | | | | |
| REFOREST | | | | | | | | | | | |
| COUNT | | 64 | 347 | | 5.4 | | | | | | |
| BLANKS | | 6 | | | | | | | | | |
| 100 % | | | | | | | | | | | |
| | | | | ST | CAND SUM | MARY | | | | | |
| | SAM | | TREES | AVG | BOLE | REL | BASAL | GROSS | NET | GROSS | NET |
| | TRI | EES | /ACRE | DBH | LEN | DEN | AREA | BF/AC | BF/AC | CF/AC | CF/AC |
| DOUG FIR | | 225 | 26.5 | 15.0 | | | 32.6 | 4,436 | | 1,182 | 1,182 |
| WHEMLOCK | | 213 | 39.8 | 13.2 | | | 37.7 | 4,032 | - | 1,133 | 1,133 |
| R ALDER | | 23 | 7.7 | 9.3 | | | 3.6 | 260 | | 72 | 72 |
| NOB FIR TOTAL | | 6 467 | .3 74.4 | 20.4 13.0 | | | 0 .7 <i>74.6</i> | 105 <i>8,834</i> | | 27 2,413 | 27 2,413 |
| CONFIDENCE 68 | | | | | UME WILL | BE WIT | HIN THE SAN | ∕IPLE ERR | .OR | | |
| | .1 TIN | | | | | BE WIT | | | OR # OF TREES | REQ. | INF. POP |
| CL 68.1 SD: 1.0 | .1 TIN | MES OU' COEFF VAR.% | T OF 100 T S.E.% | HE VOL | SAMPL LOW | E TREE | S - BF HIGH | | | REQ. 10 | |
| CL 68.1 SD: 1.0 DOUG FIR | .1 TIN | MES OU' COEFF VAR.% 131.4 | S.E.% 8.8 | HE VOL | SAMPL LOW 216 | E TREE AVG 236 | S - BF HIGH 257 | | # OF TREES | | |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK | .1 TIN | COEFF VAR.% 131.4 86.6 | S.E.% 8.8 5.9 | HE VOL | SAMPL LOW 216 141 | E TREE AVG 236 150 | S - BF HIGH 257 159 | | # OF TREES | | |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER | .1 TIN | COEFF VAR.% 131.4 86.6 28.4 | S.E.% 8.8 5.9 6.3 | HE VOL | SAMPL LOW 216 141 41 | AVG 236 150 44 | S - BF HIGH 257 159 47 | | # OF TREES | | |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 | S.E.% 8.8 5.9 6.3 12.9 | HE VOL | SAMPL LOW 216 141 41 286 | E TREE AVG 236 150 44 328 | S - BF HIGH 257 159 47 371 | | # OF TREES 5 | 10 | 1 |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 | S.E.% 8.8 5.9 6.3 | HE VOL | SAMPL LOW 216 141 41 286 178 | AVG 236 150 44 328 189 | S - BF HIGH 257 159 47 | | # OF TREES 5 | 10 | 7 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF | S.E.% 8.8 5.9 6.3 12.9 5.9 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES | AVG 236 150 44 328 189 | S - BF HIGH 257 159 47 371 200 | | # OF TREES 5 639 # OF PLOTS | 10 160 REO. | 1 7 INF. POP. |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% | S.E.% 8.8 5.9 6.3 12.9 5.9 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ | AVG 236 150 44 328 189 ACRE AVG | S - BF HIGH 257 159 47 371 200 HIGH | | # OF TREES 5 | 10 | 1 7 INF. POP. |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 | E TREE AVG 236 150 44 328 189 ACRE AVG 27 | S - BF HIGH 257 159 47 371 200 HIGH 31 | | # OF TREES 5 639 # OF PLOTS | 10 160 REO. | 1 7 INF. POP. |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 | E TREE AVG 236 150 44 328 189 ACRE AVG 27 40 | S - BF HIGH 257 159 47 371 200 HIGH | | # OF TREES 5 639 # OF PLOTS | 10 160 REO. | 1 7 INF. POP. |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 | AVG 236 150 44 328 189 ACRE AVG 27 40 8 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 | | # OF TREES 5 639 # OF PLOTS | 10 160 REO. | 1 7 INF. POP. |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 | S.E.% 8.8 5.9 6.3 12.9 5.9 8.E.% 16.5 15.6 42.1 58.5 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES LOW 22 34 4 0 | AVG 236 150 44 328 189 ACRE AVG 27 40 8 0 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 | | # OF TREES 5 639 # OF PLOTS 5 | 10 160 REO. 10 | 7 INF. POP. |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 | AVG 236 150 44 328 189 ACRE AVG 27 40 8 0 74 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 14 83 | | # OF TREES 5 639 # OF PLOTS 5 | 10 160 REO. 10 | 7 INF. POP. 1 |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 CK 68.1 | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL | ACRE AVG 27 40 8 0 74 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 14 83 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS | 10 160 REO. 10 | 7 INF. POP. 1 |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 CK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW | ACRE AVG 27 40 8 0 74 AVG | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH | | # OF TREES 5 639 # OF PLOTS 5 | 10 160 REO. 10 | 7 INF. POP. 1 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR OB FIR TOTAL | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 | ACRE AVG 27 40 8 0 74 AVG 33 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS | 10 160 REO. 10 | 7 INF. POP. 1 |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES LOW 22 34 4 0 66 BASAL LOW 27 32 | ACRE AVG 27 40 8 0 74 AVG | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 43 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS | 10 160 REO. 10 | 7 INF. POP. 1 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR HEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 | S.E.% 8.8 5.9 6.3 12.9 5.9 8.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 | AVG 328 AVG 27 40 8 0 74 AVG 33 38 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS | 10 160 REO. 10 | 7 INF. POP. 1 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES LOW 22 34 4 0 66 BASAL LOW 27 32 2 | AVG 328 150 44 328 189 ACRE AVG 27 40 8 0 74 ANG 33 38 4 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 43 5 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS | 10 160 REO. 10 | 7 INF. POP. 1 8 INF. POP. |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 679.9 | S.E.% 8.8 5.9 6.3 12.9 5.9 8.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 57.0 | HE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 32 2 0 | ACRE AVG 27 40 8 0 74 AVG 33 38 4 1 75 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 14 83 ACRE HIGH 38 43 5 1 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS 5 | 10 160 REO. 10 188 REO. 10 | 7 INF. POP. 1 8 INF. POP. 1 |
| CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1,0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 679.9 | S.E.% 8.8 5.9 6.3 12.9 5.9 8.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 57.0 | THE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 32 2 0 67 | ACRE AVG 27 40 8 0 74 AVG 33 38 4 1 75 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 14 83 ACRE HIGH 38 43 5 1 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS 5 | 10 160 REO. 10 188 REO. 10 | 7 INF. POP. 1 INF. POP. 7 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 679.9 126.9 | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 57.0 10.6 | THE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 32 2 0 67 NET BF | ACRE AVG 27 40 8 0 74 AVG 33 38 4 1 75 VACRE | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 43 5 1 83 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS 5 | 10 160 REO. 10 188 REO. 10 161 REQ. | 7 INF. POP. 1 INF. POP. 7 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 679.9 126.9 COEFF VAR.% | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 57.0 10.6 | THE VOL | SAMPL LOW 216 141 41 286 178 TREES LOW 22 34 4 0 66 BASAL LOW 27 32 2 0 67 NET BF | AVG 328 150 44 328 189 ACRE AVG 27 40 8 0 74 AVG 33 38 4 1 75 VACRE AVG | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 43 5 1 83 HIGH | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS 5 | 10 160 REO. 10 188 REO. 10 161 REQ. | 7 INF. POP. 1 INF. POP. 7 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 679.9 126.9 COEFF VAR.% | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 57.0 10.6 | THE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 32 2 0 67 NET BF LOW 3,483 | AVG 33 34 AVG 33 38 4 1 75 ACRE AVG 33 38 4 1 75 ACRE AVG 4351 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 11 83 ACRE HIGH 38 43 5 1 83 HIGH 5,218 4,505 362 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS 5 | 10 160 REO. 10 188 REO. 10 161 REQ. | 7 INF. POP. 1 INF. POP. 7 |
| CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR WHEMLOCK R ALDER NOB FIR TOTAL | .1 TIM | COEFF VAR.% 131.4 86.6 28.4 29.0 126.5 COEFF VAR.% 196.2 186.5 501.7 697.8 137.1 COEFF VAR.% 198.8 173.9 472.5 679.9 126.9 COEFF VAR.% | S.E.% 8.8 5.9 6.3 12.9 5.9 S.E.% 16.5 15.6 42.1 58.5 11.5 S.E.% 16.7 14.6 39.6 57.0 10.6 | THE VOL | SAMPL LOW 216 141 41 286 178 TREES/ LOW 22 34 4 0 66 BASAL LOW 27 32 2 0 67 NET BF LOW 3,483 3,265 | AVG 33 AVG 34 AVG 33 38 4 1 75 ACRE AVG 33 38 4 1 75 ACRE AVG 33 38 4 1 75 ACRE AVG 33 38 4 1 75 | S - BF HIGH 257 159 47 371 200 HIGH 31 46 1 83 ACRE HIGH 38 43 5 1 83 HIGH 5,218 4,505 | | # OF TREES 5 639 # OF PLOTS 5 751 # OF PLOTS 5 | 10 160 REO. 10 188 REO. 10 161 REQ. | 7 |

| TC TSTAT | S | | | | ST PROJE | CATIS' CT | FICS TTW | | | PAGE DATE 7 | 1 /11/2012 |
|--|-------|----------------|--------------------------|--------------|-------------|--------------|-----------------|---------------|-----------------|---------------------------------------|---------------|
| TWP R | RGE | SECT TE | RACT | | TYPE | | CRES | PLOTS | TREES | CuFt | BdFt |
| |)6W | | 456 | | 0PC1 | | 129.50 | 46 | 461 | 1 | W |
| anne de la contracta de la con | | | | | | | | | CONTRACTOR NO. | · · · · · · · · · · · · · · · · · · · | |
| | | | | | TREES | | ESTIMATED TOTAL | | ERCENT AMPLE | | |
| | | PLOTS | TREES | | PER PLOT | 7 | TREES | | REES | | |
| TOTAL | | 46 | 461 | | 10.0 | | | _ | | | |
| CRUISE | | 25 | 266 | | 10.6 | | 25,203 | | 1.1 | | |
| DBH CC | | | | | | | , | | | | |
| REFORE | EST | | | | | | | | | | |
| COUNT | | 21 | 172 | | 8.2 | | | | | | |
| BLANKS | S | | | | | | | | | | |
| 100 % | | | | | | | | | | | |
| | | | | STA | ND SUM | MARY | | | | | |
| | | SAMPLE | TREES | AVG | BOLE | REL | BASAL | GROSS | NET | GROSS | NET |
| | | TREES | /ACRE | DBH | LEN | DEN | AREA | BF/AC | BF/AC | CF/AC | CF/AC |
| HEMLE | AV | 74 | 48.8 | 15.3 | 54 | | 62.6 | 6,867 | 6,705 | 2,025 | 2,02 |
| DOUGLI | EAV | 76 | 44.2 | 15.6 | 53 | | 58.7 | 5,951 | 5,627 | 1,743 | 1,74 |
| WHEML | | 54 | 49.2 | 12.1 | 39 | | 39.6 | 3,518 | 3,402 | 1,024 | 1,02 |
| DOUG F | | 39 | 29.9 | 12.0 | 37 | | 23.5 | 1,935 | 1,845 | 556 | 55 |
| R ALDE | | 10 | 13.8 | 9.3 | 24 | | 6.5 | 466 | 466 | 128 | 12 |
| ALDRLE | EAV | 3 | 6.0 | 11.6 | 41 | | 4.3 | 358 | 358 | 121 | 12 |
| SNAG | | 4 | 1.2 | 16.2 | 39 | | 1.7 | 155 | 1.5.5 | 40 | |
| NFIRLE | | 2 2 | .6 | 20.4 | 72 | | 0 1.3 | 175 | 175 | 48 | 4: |
| NOB FIR | | 2 | .6 .4 | 20.4 19.7 | 83 41 | | 0 1.3 .9 | 188 120 | 171 114 | 48 28 | 4: |
| TOTAL | 1 V | 266 | .4 194.6 | 19.7 | 41 | | .9 200.4 | 120 19,576 | 18,863 | 5,722 | 5,722 |
| CL: 68 | 3.1 % | COEFF | | | SAMPL | E TREE | S - BF | # | OF TREES | REQ. | INF. POP |
| | .0 | VAR.% | S.E.% | L | OW | AVG | HIGH | | 5 | 10 | |
| HEMLEA | | 68.9 | 8.0 | | 160 | 174 | 188 | | | | |
| DOUGLE | | 224.4 | 25.7 | | 135 | 182 | 229 | | • | | |
| WHEML DOUG F | | 82.4 53.3 | 11.2 8.5 | | 88 69 | 99 76 | 110 82 | | | | |
| R ALDEI | | 28.4 | 10.0 | | 37 | 41 | 45 | | | | |
| ALDRLE | | .0 | .0 | | 60 | 60 | 60 | | | | |
| SNAG | | •• | | | - * | | •• | | | | |
| NFIRLE | ΑV | 54.1 | 50.6 | | 168 | 340 | 512 | | | | |
| NOB FIR | | 29.2 | 27.3 | | 229 | 315 | 401 | | | | |
| CEDLEA | V | 135.0 | 126.4 | | | 875 | 1,981 | | | | |
| TOTAL | | 175.6 | 10.8 | | 130 | 146 | 161 | | 1,231 | 308 | 1. |
| | 3.1 % | COEFF | | | TREES | | | # | OF PLOTS | REQ. | INF. POF |
| SD: 1 | | VAR.% | S.E.% | Le | OW | AVG | HIGH | | 5 | 10 | |
| HEMLEA | | 78.2 | 11.5 | | 43 | 49 | 54 | | | | |
| DOUGLE | | 82.7 | 12.2 | | 39 40 | 44 | 50 | | | | |
| WHEML DOUG F | | 120.9 132.0 | 17.8 19.4 | • | 40 24 | 49 30 | 58 36 | | | | |
| R ALDEI | | 276.5 | 19. 4 40.7 | | 8 | 30 14 | 36 19 | | | | |
| ALDRLE | | 410.4 | 60.5 | | 2 | 6 | 10 | | | | |
| SNAG | | 468.3 | 69.0 | | 0 | 1 | 2 | • | | | |
| NFIRLE/ | ΑV | 393.3 | 57.9 | | 0 | 1 | 1 | | | | |
| NOB FIR | | 393.3 | 57.9 | | 0 | 1 | 1 | | | | |
| CEDLEA | V | 588.2 | 86.7 | | 0 | 0 | 1 | | | | |
| TOTAL | | 40.5 | 6.0 | | 183 | 195 | 206 | | 66 | 16 | |
| CL: 68 | .1 % | COEFF | | | BASAL | AREA/A | CRE | # | OF PLOTS | REQ. | INF. POP |
| SD: 1 | .0 | VAR.% | S.E.% | Lo | OW | AVG | HIGH | | 5 | 10 | |
| HEMLEA | | 78.1 | 11.5 | | 55 | 63 | 70 | | | | |
| DOLIGI E | | 79.5 | 11.7 | | 52 | 50 | 66 | | | | |

DOUGLEAV

79.5

11.7

52

59

66

| TC TSTATS | | | S PROJ | TATIS | TICS TTW | | | PAGE DATE | 2 7/11/2012 |
|------------|----------|-------|-----------|---------|-------------|-------|------------|--------------|----------------|
| TWP RGE | SECT TRA | .CT | TYPE | | CRES | PLOTS | TREES | CuFt | BdFt |
| 07N 06W | 12 134 | 56 | 0PC1 | | 129.50 | 46 | 461 | 1 | W |
| CL: 68.1% | COEFF | | BASA | L AREA/ | ACRE | | # OF PLC | OTS REO | INF. PC |
| SD: 1.0 | VAR. | S.E.% | LOW | AVG | HIGH | | 5 | 10 | 15 |
| WHEMLOCK | 115.5 | 17.0 | 33 | 40 | 46 | | | | |
| DOUG FIR | 124.8 | 18.4 | 19 | 23 | 28 | | | | |
| R ALDER | 259.0 | 38.2 | 4 | 7 | 9 | | | | |
| ALDRLEAV | 410.4 | 60.5 | 2 | 4 | 7 | | | | |
| SNAG | 407.6 | 60.0 | 1 | 2 | 3 | | | | |
| NFIRLEAV | 382.8 | 56.4 | 1 | 1 | 2 | | | | |
| NOB FIR | 382.8 | 56.4 | 1 | 1 | 2 | | | | |
| CEDLEAV | 474.2 | 69.9 | 0 | 1 | 1 | | | | |
| TOTAL | 29.3 | 4.3 | 192 | 200 | 209 | | 34 | 9 | • |
| CL: 68.1 % | COEFF | | NET B | F/ACRE | | | # OF PLOTS | REQ. | INF. POP. |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | | 5 | 10 | 1 |
| HEMLEAV | 84.6 | 12.5 | 5,869 | 6,705 | 7,541 | | | | |
| DOUGLEAV | 79.2 | 11.7 | 4,971 | 5,627 | 6,284 | | | | |
| WHEMLOCK | 138.5 | 20.4 | 2,708 | 3,402 | 4,097 | | | | |
| DOUG FIR | 128.6 | 18.9 | 1,495 | 1,845 | 2,194 | | | | |
| R ALDER | 255.9 | 37.7 | 290 | 466 | 641 | | | | |
| ALDRLEAV | 410.4 | 60.5 | 141 | 358 | 574 | | | | |
| SNAG | | | | | | | | | |
| NFIRLEAV | 384.6 | 56.7 | 76 | 175 | 274 | | | | |
| NOB FIR | 383.6 | 56.5 | 74 | 171 | 268 | i | | | |
| CEDLEAV | 597.9 | 88.1 | 14 | 114 | 214 | | | | |
| TOTAL | 37.9 | 5.6 | 17,809 | 18,863 | 19,916 | | <i>57</i> | 14 | |

| TC TSTATS | 5 | | | | ST PROJE | CATIST | TCS TTW | | | PAGE DATE 7 | 1 7/11/2012 |
|--|--|--|---|-------------|--|--|--|-------|-------------------------------------|--|---------------------------------------|
| TWP RO | GE | SECT TI | RACT | | TYPE | AC | RES | PLOTS | TREES | CuFt | BdFt |
| 07N 00 | 6W | 12 13 | 456 | | TAKE | | 129.50 | 46 | 163 | 1 | W |
| · · · · · · · · · · · · · · · · · · · | | A STATE OF THE STA | | | | I | ESTIMATED | P | PERCENT | | |
| | | | | | TREES | - | TOTAL | S | AMPLE | | |
| | | PLOTS | TREES | | PER PLOT | , | TREES | T | REES | | |
| TOTAL | | 46 | 163 | | 3.5 | | | | | | |
| CRUISE | | 25 | 105 | | 4.2 | | 12,107 | | .9 | | |
| DBH COU | UNT | | | | | | | | | | |
| REFORES | ST | | | | | | | | | | |
| COUNT | | 16 | 48 | | 3.0 | | | | | | |
| BLANKS | | 5 | | | | | | | | | |
| 100 % | | | | | | | | | | | |
| | | , | | STA | ND SUM | MARY | | | | 100 Television - 100 Te | |
| | | SAMPLE | TREES | AVG | BOLE | REL | BASAL | GROSS | NET | GROSS | NET |
| | | TREES | /ACRE | DBH | LEN | DEN | AREA | BF/AC | BF/AC | CF/AC | CF/AC |
| WHEMLO | OCK | 54 | 49.2 | 12.1 | 39 | ······································ | 39.6 | 3,518 | 3,402 | 1,024 | 1,024 |
| DOUG FII | R | 39 | 29.9 | 12.0 | 37 | | 23.5 | 1,935 | 1,845 | 556 | 556 |
| R ALDER | ? | 10 | 13.8 | 9.3 | 24 | | 6.5 | 466 | 466 | 128 | 128 |
| NOB FIR | | 2 | .6 | 20.4 | 83 | 0 | 1.3 | 188 | 171 | 48 | 48 |
| TOTAL | | 105 | 93.5 | 11.8 | 37 | | 70.9 | 6,106 | 5,884 | 1,756 | 1,756 |
| 6 | 68.1 | E LIMITS OF TIMES OUT | | | | | | | OFTRES | C DEO | INIE DOD |
| | 68.1 | | | VOLUME | | E TREES | | | OF TREES | S REQ. 10 | |
| CL: 68. | 68.1 .1 % 0 | COEFF VAR.% 82.4 | S.E.% 11.2 | VOLUME | SAMPL OW 88 | E TREES | 6 - BF HIGH 110 | | | | |
| CL: 68. SD: 1.0 WHEMLO | 68.1 .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 | S.E.% 11.2 8.5 | VOLUME | SAMPL OW 88 69 | E TREES AVG 99 76 | S - BF HIGH 110 82 | | | | INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER | 68.1 .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 | S.E.% 11.2 8.5 10.0 | VOLUME | SAMPL OW 88 69 37 | E TREES AVG 99 76 41 | S - BF HIGH 110 82 45 | | | | |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR | 68.1 .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 | S.E.% 11.2 8.5 10.0 27.3 | VOLUME | SAMPL OW 88 69 37 229 | E TREES AVG 99 76 41 315 | S - BF HIGH 110 82 45 401 | | 5 | 10 | 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL | 68.1 .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 | S.E.% 11.2 8.5 10.0 | VOLUME | SAMPL OW 88 69 37 | E TREES AVG 99 76 41 | S - BF HIGH 110 82 45 | # | 5 271 | 10 68 | 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. | 68.1 .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF | S.E.% 11.2 8.5 10.0 27.3 8.1 | VOLUME L | SAMPL OW 88 69 37 229 82 TREES | AVG 99 76 41 315 89 | S - BF HIGH 110 82 45 401 97 | # | 5 271 OF PLOTS | 68 S REQ. | 3 INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 | 68.1 .1 % 0 DCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% | S.E.% S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% | VOLUME L | SAMPL OW 88 69 37 229 82 TREES | AVG 99 76 41 315 89 ACRE AVG | S - BF HIGH 110 82 45 401 97 | # | 5 271 | 10 68 | 3 INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO | 68.1 .1 % 0 OCK R 8 | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 | VOLUME L | SAMPL OW 88 69 37 229 82 TREES OW 40 | AVG 99 76 41 315 89 ACRE AVG 49 | S - BF HIGH 110 82 45 401 97 HIGH | # | 5 271 OF PLOTS | 68 S REQ. | 3 INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR | 0 DCK R 0 DCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 | VOLUME L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 | E TREES AVG 99 76 41 315 89 ACRE AVG 49 30 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 | # | 5 271 OF PLOTS | 68 S REQ. | 3 INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER | 0 DCK R 0 DCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 | VOLUME L | SAMPL OW 88 69 37 229 82 TREES OW 40 | AVG 99 76 41 315 89 ACRE AVG 49 | S - BF HIGH 110 82 45 401 97 HIGH | # | 5 271 OF PLOTS | 68 S REQ. | |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIIR R ALDER NOB FIR | 0 DCK R 0 DCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 | VOLUME L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 | AVG 99 76 41 315 89 (ACRE AVG 49 30 14 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 | # | 5 271 OF PLOTS | 68 S REQ. | 3 INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER | 68.1 .1 % 0 OCK R 8 | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 | VOLUME L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 | AVG 99 76 41 315 89 ACRE AVG 49 30 14 1 93 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 | # | 5 271 6 OF PLOTS 5 | 68 S REQ. 10 | 3 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL | 68.1 .1 % 0 OCK R & .1 % 0 OCK | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 | L. | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 | AVG 99 76 41 315 89 ACRE AVG 49 30 14 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 | # | 5 271 F OF PLOTS 5 | 68 S REQ. 10 | 3 INF. POP. 1 |
| CL: 68. SD: 1.4 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.4 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. | 0 OCK R & O OCK | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 | L. | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL | AVG 99 76 41 315 89 ACRE AVG 49 30 14 1 93 AREA/A | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE | # | 5 271 OF PLOTS 5 197 OF PLOTS | 68 S REQ. 10 49 S REQ. | 3 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR OBLER NOB FIR TOTAL CL: 68. | 68.1 .1 % 0 OCK R & .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 | L. | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 | AVG AVG AVG AVG AVG AVG AVG AVG | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 | # | 5 271 OF PLOTS 5 197 OF PLOTS | 68 S REQ. 10 49 S REQ. | 3 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER | 68.1 .1 % 0 OCK R & .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 | L. | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 | AVG AVG 41 315 89 ACRE AVG 49 30 14 1 93 AREA/A AVG 40 23 7 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 | # | 5 271 OF PLOTS 5 197 OF PLOTS | 68 S REQ. 10 49 S REQ. | 3 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. | 68.1 .1 % 0 OCK R & .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 382.8 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 56.4 | L. | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 1 | AVG AVG 99 76 41 315 89 ACRE AVG 49 30 14 1 93 AREA/A AVG 40 23 7 1 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 | # | 5 271 OF PLOTS 5 197 OF PLOTS 5 | 68 S REQ. 10 49 S REQ. 10 | 3 INF. POP. 1 2 INF. POP. |
| CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. | 68.1 .1 % 0 OCK R & .1 % 0 OCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 | L. | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 | AVG AVG 41 315 89 ACRE AVG 49 30 14 1 93 AREA/A AVG 40 23 7 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 | # | 5 271 OF PLOTS 5 197 OF PLOTS | 68 S REQ. 10 49 S REQ. | 3 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. | 68.1 .1 % 0 OCK R & .1 % 0 OCK R & | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 382.8 62.3 COEFF | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 56.4 9.2 | L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 1 64 NET BE | AVG AVG 49 30 14 1 93 AREA/A AVG 40 23 7 1 7/ACRE | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 2 77 | # | 5 271 OF PLOTS 5 197 OF PLOTS 5 | 68 S REQ. 10 49 S REQ. 10 | 3 INF. POP. 1 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 CL: 68. SD: 1.0 CL: 68. | 0 OCK R & O OCK R & O OCK R & C OCK R & | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 382.8 62.3 COEFF VAR.% | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 56.4 9.2 S.E.% | L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 1 64 NET BE | AVG 49 30 14 1 93 AREA/A AVG 40 23 7 1 7/ACRE AVG | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 2 77 HIGH | # | 5 271 OF PLOTS 5 197 OF PLOTS 5 | 68 S REQ. 10 49 S REQ. 10 | 3 INF. POP. 1 INF. POP. |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. | 0 OCK R & O OCK R & O OCK R & C OCK | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 382.8 62.3 COEFF VAR.% 138.5 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 56.4 9.2 S.E.% 20.4 | L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 1 64 NET BEOW 2,708 | AVG 49 AVG 49 30 14 1 93 AREA/A AVG 40 23 7 1 7/ACRE AVG 3,402 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 2 77 HIGH 4,097 | # | 5 271 OF PLOTS 5 197 OF PLOTS 5 | 68 S REQ. 10 49 S REQ. 10 39 S REQ. | 3 INF. POP. 1 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLO DOUG FIR TOTAL CL: 68. | 0 OCK R & COCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 382.8 62.3 COEFF VAR.% 138.5 128.6 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 56.4 9.2 S.E.% 20.4 18.9 | L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 1 64 NET BEOW 2,708 1,495 | AVG 49 30 14 1 93 AREA/A AVG 40 23 7 1 7/ACRE AVG 3,402 1,845 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 2 77 HIGH 4,097 2,194 | # | 5 271 OF PLOTS 5 197 OF PLOTS 5 | 68 S REQ. 10 49 S REQ. 10 39 S REQ. | 33 INF. POP. 1 INF. POP. 1 |
| CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 WHEMLC DOUG FIR R ALDER NOB FIR TOTAL CL: 68. SD: 1.0 CL: 68. | 0 OCK R & COCK R | COEFF VAR.% 82.4 53.3 28.4 29.2 82.3 COEFF VAR.% 120.9 132.0 276.5 393.3 70.2 COEFF VAR.% 115.5 124.8 259.0 382.8 62.3 COEFF VAR.% 138.5 | S.E.% 11.2 8.5 10.0 27.3 8.1 S.E.% 17.8 19.4 40.7 57.9 10.3 S.E.% 17.0 18.4 38.2 56.4 9.2 S.E.% 20.4 | L | SAMPLOW 88 69 37 229 82 TREES OW 40 24 8 0 84 BASAL OW 33 19 4 1 64 NET BEOW 2,708 | AVG 49 30 14 1 93 AREA/A AVG 40 23 7 1 7/ACRE AVG 3,402 | S - BF HIGH 110 82 45 401 97 HIGH 58 36 19 1 103 CRE HIGH 46 28 9 2 77 HIGH 4,097 | # | 5 271 OF PLOTS 5 197 OF PLOTS 5 | 68 S REQ. 10 49 S REQ. 10 39 S REQ. | 33 INF. POP. 1 INF. POP. 1 |

| TC TSTATS | | | | ST PROJE | CATIS' | TICS TTW | | | PAGE DATE 7 | 1/11/2012 |
|--|-------------------------------|--|------|-------------|----------|--------------------|---------------------------------------|--|----------------|------------|
| TWP RGE | SECT TR | RACT | | TYPE | A | CRES | PLOTS | TREES | CuFt | BdFt |
| 07N 06W | 13 2 | | | 0PC2 | | 99.50 | 25 | 178 | 1 | W |
| | | ************************************** | | TREES | | ESTIMATED TOTAL | | PERCENT SAMPLE | | |
| | PLOTS | TREES | | PER PLOT | | TREES | 7 | ΓREES | | |
| TOTAL | 25 | 178 | | 7.1 | | | | | | |
| CRUISE DBH COUNT REFOREST COUNT | 11 14 | 79 99 | | 7.2 7.1 | | 12,423 | | .6 | | |
| BLANKS 100 % | | | | | | | | | | |
| | | | STA | ND SUM | MARY | V NAME OF STREET | | and the second s | | |
| | SAMPLE | TREES | AVG | BOLE | REL | BASAL | GROSS | NET | GROSS | NET |
| | TREES | /ACRE | DBH | LEN | DEN | AREA | BF/AC | BF/AC | CF/AC | CF/AC |
| DOUGLEAV | 41 | 42.6 | 22.0 | 87 | - | 112.9 | 20,288 | 20,053 | 5,015 | 5,015 |
| HEMLEAV | 13 | 33.8 | 16.0 | 63 | | 47.1 | 8,224 | 8,130 | 2,014 | 2,014 |
| DOUG FIR | 15 | 20.8 | 18.9 | 88 | | 40.3 | 6,949 | 6,877 | 1,812 | 1,812 |
| WHEMLOCK | 9 | 26.7 | 15.2 | 51 | | 33.6 | 4,405 | 4,221 | 1,201 | 1,201 |
| SNAG | 1 | 1.0 | 32.0 | 12 | | 5.4 | | | | |
| TOTAL | 79 | 124.9 | 18.7 | 73 | | 239.3 | 39,867 | <i>39,281</i> | 10,043 | 10,043 |
| | E LIMITS OF TIMES OUT (COEFF | | | SAMPL | | | | OF TREES | DEO | INF. POP. |
| SD: 1.0 | VAR.% | S.E.% | ī | SAMPL OW | AVG | HIGH | † | FOR TREES | 10 | 11NF. POP. |
| DOUGLEAV | 37.2 | 5.8 | | 521 | 553 | 585 | | | 10 | 1.3 |
| HEMLEAV | 68.0 | 19.6 | | 278 | 346 | 414 | | | | |
| DOUG FIR | 36.7 | 9.8 | | 323 | 358 | 393 | | | | |
| WHEMLOCK | 57.8 | 20.4 | | 174 | 219 | 264 | | | | |
| SNAG | | | | | | | | | | |
| TOTAL | 52.5 | 5.9 | | 411 | 437 | 463 | | 110 | 27 | 12 |
| CL: 68.1 % | COEFF | | | TREES | ACRE | | # | OF PLOTS | REQ. | INF. POP. |
| SD: 1.0 | VAR.% | S.E.% | L | OW | AVG | HIGH | | 5 | 10 | 15 |
| DOUGLEAV | 48.9 | 10.0 | | 38 | 43 | 47 | | | | |
| HEMLEAV | 86.6 | 17.7 | | 28 | 34 | 40 | | | | |
| DOUG FIR | 120.1 | 24.5 | | 16 | 21 | 26 | | | | |
| WHEMLOCK | 97.3 | 19.9 | | 21 | 27 | 32 | | | | |
| SNAG | 233.9 | 47.7 | | 1 | 1 | 1 | | | | _ |
| TOTAL | 37.7 | 7.7 | | 115 | 125 | 134 | | 59 | 15 | 7 |
| CL: 68.1 % | COEFF | | | BASAL | | | # | OF PLOTS | REQ. | INF. POP. |
| SD: 1.0 | VAR.% | S.E.% | L | OW | AVG | HIGH | · · · · · · · · · · · · · · · · · · · | 5 | 10 | 15 |
| DOUGLEAV | 43.7 | 8.9 | | 103 | 113 | 123 | | | | |
| HEMLEAV | 92.2 | 18.8 | | 38 | 47 | 56 | | | | |
| DOUG FIR | 115.4 | 23.5 | | 31 | 40 | 50 | | | | |
| WHEMLOCK | 95.7 223.0 | 19.5 | | 27 | 34 | 40 | | | | |
| SNAG TOTA L | 233.9 | 47.7 5.0 | | 3 | 5 220 | 8 251 | | 25 | 4 | 3 |
| | 24.4 COEFF | 5.0 | | 227 | 239 | 251 | | 25 | 6 | |
| CL: 68.1 % | | | | NET BF | | | # | OF PLOTS | | INF. POP. |
| SD: 1.0 | VAR.% | S.E.% | | OW | AVG | HIGH | | 5 | 10 | 15 |
| DOUGLEAV | 44.6 | 9.1 | | | 20,053 | 21,875 | | | | |
| HEMLEAV | 109.4 | 22.3 | | 6,316 | 8,130 | 9,943 | | | | |
| DOUG FIR | 118.6 | 24.2 | | 5,214 | 6,877 | 8,539 | | | | |
| WHEMLOCK | 102.4 | 20.9 | | 3,340 | 4,221 | 5,103 | | | | |
| SNAG TOTAL | 24.4 | 5.0 | 3: | 7,328 | 39,281 | 41,233 | | 25 | 6 | 3 |

| TC TST | TATS | | | | ST PROJEC | ATIST | TICS TTW | | | PAGE DATE | 1 7/11/2012 |
|---|--|--|--|--------------------|---|---|---|----------------|--|---|--|
| TWP | RGE | SECT 7 | TRACT | | TYPE | AC | CRES | PLOTS | TREES | CuFt | BdFt |
| 07N | 06W | 13 2 | <u> </u> | | TAKE | Machine Company | 99.50 | 25 | 55 | 1 | W |
| | | | VI. 0.11/2 | | TREES | | ESTIMATED TOTAL | | PERCENT SAMPLE | **** | |
| | | PLOTS | TREES | F | PER PLOT | | TREES | Т | REES | | |
| TOTA | AL. | 25 | 55 | | 2.2 | | | | W-1/12 | | |
| CRUI DBH | ISE COUNT | 11 | 24 | | 2.2 | | 4,724 | | .5 | | |
| COUR BLAN | NKS | 13 1 | 31 | | 2.4 | | | | | | |
| 100 % | ó | | | STA N | ND SUMI | MADV | | | | erin. | 314.034 |
| | | CANTE | TDEEC | | | | DAGAI | CDOSS | NIDT | GROSS | S NET |
| | | SAMPLE TREES | TREES /ACRE | AVG DBH | BOLE LEN | REL DEN | BASAL AREA | GROSS BF/AC | NET BF/AC | CF/AC | |
| DOU | G FIR | 15 | 20.8 | 18.9 | 88 | | 40.3 | 6,949 | 6,877 | 1,812 | 1,812 |
| WILE | MLOCK | 9 | 26.7 | 15.2 | 51 | | 33.6 | 4,405 | 4,221 | 1,201 | 1,201 |
| WILL | | | | | | | | | | | |
| TOTA | AL | 24 E LIMITS O | 47.5 F THE SAMPI | <i>16.9</i> Æ | 67 | | 73.9 | 11,354 | 11,098 | 3,013 | 3,013 |
| CON | AL FIDENC 68.1 | E LIMITS O | F THE SAMPI T OF 100 THE | Æ | WILL BE | | THE SAMP | LE ERROR | | | |
| CON | AL FIDENCE 68.1 68.1 % | E LIMITS O | F THE SAMPI TOF 100 THE F | LE VOLUME | WILL BE | E TREE | N THE SAMP | LE ERROR | OF TREES | REQ. | INF. POP. |
| CL: SD: | 68.1 % 1.0 | E LIMITS O TIMES OUT COEF VAR. | F THE SAMPI T OF 100 THE F S.E.% | LE VOLUME | WILL BE SAMPL DW | E TREE AVG | I THE SAMP. S - BF HIGH | LE ERROR | | | INF. POP. |
| CL: SD: | FIDENCE 68.1 68.1 % 1.0 G FIR | E LIMITS O TIMES OUT COEF VAR. | F THE SAMPI F OF 100 THE F S.E.% 9.8 | LE VOLUME | WILL BE SAMPL DW 323 | E TREE AVG 358 | N THE SAMP | LE ERROR | OF TREES | REQ. | INF. POP. |
| CL: SD: | FIDENCE 68.1 68.1 % 1.0 G FIR MLOCK | E LIMITS O TIMES OUT COEF VAR. | F THE SAMPI T OF 100 THE F S.E.% | LE VOLUME | WILL BE SAMPL DW | E TREE AVG | N THE SAMP S - BF HIGH 393 | LE ERROR | OF TREES | REQ. | INF. POP. |
| CL: SD: DOUG WHE! | FIDENCE 68.1 68.1 % 1.0 G FIR MLOCK | E LIMITS OF TIMES OUT COEF VAR. 36.7 57.8 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 | LE VOLUME | SAMPL DW 323 174 | E TREE AVG 358 219 306 | N THE SAMP S - BF HIGH 393 264 | LE ERROR | FOF TREES | REQ. 10 | |
| CL: SD: DOUG WHE! | AL FIDENCE 68.1 68.1 68.1% 1.0 G FIR MLOCK AL | E LIMITS OF TIMES OUT COEF VAR. 36.7 57.8 47.1 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 | .E VOLUME LC | WILL BE SAMPL DW 323 174 276 | E TREE AVG 358 219 306 ACRE AVG | S - BF HIGH 393 264 336 HIGH | LE ERROR | OF TREES 5 | REQ. 10 | INF. POP. |
| CL: SD: DOUG WHE! TOTA | 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 | E LIMITS OF TIMES OUT COEF VAR. 9 COEF VAR. 9 120.1 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 | .E VOLUME LC | SAMPL DW 323 174 276 TREES/DW 16 | E TREE AVG 358 219 306 ACRE AVG 21 | N THE SAMP. S - BF HIGH 393 264 336 HIGH 26 | LE ERROR | OF TREES 5 93 FOF PLOTS | REO. 10 23 REO. | INF. POP. |
| CL: SD: DOUG WHE! TOTA CL: SD: DOUG WHE! | 68.1 % 1.0 G FIR MLOCK 48.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK | E LIMITS OF TIMES OUT COEF VAR. 936.7 57.8 47.1 COEF VAR. 120.1 97.3 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 | .E VOLUME LC | SAMPL DW 323 174 276 TREES/ DW 16 21 | E TREE AVG 358 219 306 ACRE AVG 21 27 | S - BF HIGH 393 264 336 HIGH 26 32 | LE ERROR | FOF TREES 5 93 FOF PLOTS 5 | REQ. 10 23 REQ. 10 | INF. POP. 10 INF. POP. 11 |
| CL: SD: DOUG | 68.1 % 1.0 G FIR MLOCK 48.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK | E LIMITS OF TIMES OUT COEF VAR. 9 COEF VAR. 9 120.1 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 | .E VOLUME LC | SAMPL DW 323 174 276 TREES/DW 16 | E TREE AVG 358 219 306 ACRE AVG 21 | N THE SAMP. S - BF HIGH 393 264 336 HIGH 26 | LE ERROR | OF TREES 5 93 FOF PLOTS | REO. 10 23 REO. | INF. POP. |
| CL: SD: DOUG | 68.1 % 1.0 G FIR MLOCK 48.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK | E LIMITS OF TIMES OUT COEF VAR. 936.7 57.8 47.1 COEF VAR. 120.1 97.3 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 | .E VOLUME LC | SAMPL DW 323 174 276 TREES/ DW 16 21 | E TREE AVG 358 219 306 ACRE AVG 21 27 47 | S - BF HIGH 393 264 336 HIGH 26 32 54 | LE ERROR | FOF TREES 5 93 FOF PLOTS 5 | REQ. 10 23 REQ. 10 | INF. POP. 10 INF. POP. 11 |
| CL: SD: DOUG | 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK AL | E LIMITS OF TIMES OUT COEF VAR. 47.1 COEF VAR. 120.1 97.3 69.4 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 | E VOLUME LC | WILL BE SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW | E TREE AVG 358 219 306 ACRE AVG 21 27 47 | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH | LE ERROR | 93 FOF PLOTS 5 | REQ. 10 23 REQ. 10 | INF. POP. 15 INF. POP. 15 |
| CL: SD: DOUG WHE! SD: DOUG WHE! TOTA | 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0. | E LIMITS O TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 115.4 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 F | E VOLUME LC | SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 | S - BF HIGH 393 264 336 HIGH 26 32 54 | LE ERROR | OF TREES 5 93 FOF PLOTS 5 201 FOF PLOTS | REQ. 10 23 REQ. 10 50 REQ. | INF. POP. 1: 10 INF. POP. 1: 22 INF. POP. |
| CL: SD: DOUG WHE! TOTA CL: SD: DOUG WHE! TOTA CL: SD: DOUG DOUG | 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0. | E LIMITS O TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 95.7 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 F % S.E.% 23.5 19.5 | E VOLUME LC | SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW 31 27 | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 34 | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH 50 40 | LE ERROR | OF TREES 5 93 FOF PLOTS 5 201 FOF PLOTS 5 | REQ. 10 23 REQ. 10 50 REQ. 10 | INF. POP. 1: 10 INF. POP. 1: 22 INF. POP. 1: |
| CL: SD: DOUG WHE! TOTA CL: SD: DOUG WHE! TOTA CL: SD: DOUG DOUG | 68.1 % 1.0 G FIR MLOCK AL | E LIMITS O TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 115.4 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 F | E VOLUME LC | SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW 31 | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH 50 | LE ERROR | OF TREES 5 93 FOF PLOTS 5 201 FOF PLOTS | REQ. 10 23 REQ. 10 50 REQ. | INF. POP. 1: 10 INF. POP. 1: 22 INF. POP. |
| CL: SD: DOUG WHE! TOTA CL: SD: DOUG WHE! TOTA CL: SD: TOTA | 68.1 % 1.0 G FIR MLOCK AL | E LIMITS OF TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 115.4 95.7 61.5 COEF | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 F % S.E.% 23.5 19.5 12.6 | E VOLUME LC | SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW 31 27 | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 34 74 | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH 50 40 83 | LE ERROR # | FOF TREES 5 93 FOF PLOTS 5 201 FOF PLOTS 5 158 FOF PLOTS | REQ. 10 23 REQ. 10 50 REQ. 10 39 REQ. | INF. POP. 1: 10 INF. POP. 1: 22 INF. POP. 1: 18 INF. POP. |
| CL: SD: DOUG WHEI TOTA CL: SD: DOUG WHEI TOTA CL: SD: CL: SD: CL: SD: CL: SD: CL: SD: | 68.1 % 1.0 G FIR MLOCK AL 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR | E LIMITS OF TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 115.4 95.7 61.5 COEF VAR. 1.5 C | F THE SAMPI F OF 100 THE F 8 S.E.% 9.8 20.4 9.8 F 8 S.E.% 24.5 19.9 14.2 F 8 S.E.% 23.5 19.5 12.6 F | LC LC | WILL BE SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW 31 27 65 NET BF | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 34 74 VACRE AVG | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH 50 40 83 HIGH | LE ERROR # | 93 FOF PLOTS 5 201 FOF PLOTS 5 | REQ. 10 23 REQ. 10 50 REQ. 10 39 | INF. POP. 1: 10 INF. POP. 1: 2: INF. POP. 1: 10 INF. POP. |
| CL: SD: DOUG WHEI TOTA | 68.1 % 1.0 G FIR MLOCK AL 68.1 % 1.0 G FIR | E LIMITS OF TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 115.4 95.7 61.5 COEF VAR. 118.6 | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 F % S.E.% 23.5 19.5 12.6 F | LC LC | WILL BE SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW 31 27 65 NET BF DW 5,214 | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 34 74 VACRE AVG 6,877 | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH 50 40 83 | LE ERROR # | FOF TREES 5 93 FOF PLOTS 5 201 FOF PLOTS 5 158 FOF PLOTS | REQ. 10 23 REQ. 10 50 REQ. 10 39 REQ. | INF. POP. 1: 10: INF. POP. 1: 2: INF. POP. 1: |
| CL: SD: DOUG WHEI TOTA | AL FIDENCE 68.1 68.1 % 1.0 G FIR MLOCK AL E LIMITS OF TIMES OUT COEF VAR. 36.7 57.8 47.1 COEF VAR. 120.1 97.3 69.4 COEF VAR. 115.4 95.7 61.5 COEF VAR. 1.5 C | F THE SAMPI F OF 100 THE F % S.E.% 9.8 20.4 9.8 F % S.E.% 24.5 19.9 14.2 F % S.E.% 23.5 19.5 12.6 F | LC LC | WILL BE SAMPL DW 323 174 276 TREES/ DW 16 21 41 BASAL DW 31 27 65 NET BF DW 5,214 8,340 | E TREE AVG 358 219 306 ACRE AVG 21 27 47 AREA/A AVG 40 34 74 VACRE AVG | S - BF HIGH 393 264 336 HIGH 26 32 54 ACRE HIGH 50 40 83 HIGH | LE ERROR # | FOF TREES 5 93 FOF PLOTS 5 201 FOF PLOTS 5 158 FOF PLOTS | REQ. 10 23 REQ. 10 50 REQ. 10 39 REQ. | INF. POP. 1: 10 INF. POP. 1: 2: INF. POP. 1: 10 INF. POP. |

| | | 806W S13 | | | | | <u> </u> | [| | | | ~ | | | | | JI.JUANI |
|-------|--------|----------------|----|-----|----------|------------|---|---|-------------|-----|-----|-------|-----|-------|-------|-------------|-----------|
| Cnn | S T | So Gr rt de | | | Def % | Net MDE | Spc 2-3 4-5 6-7 8-9 10-11 12-13 14-15 16-19 20-23 24-29 30-39 40+ | | | | | | | | | | |
| ~ F F | | | | | 70 | | | | 4-5 | 6-7 | 8-9 | 10-11 | | 14-15 | 16-19 | 20-23 24-29 | 30-39 40+ |
| Н | | DO 2S | | | | 7 | l | | | | | | 7 | | | | |
| H | | DO 2S | | | | 76 | | | | | | 0 | 59 | 17 | | | |
| Н | | DO 2S | 40 | 303 | 4.9 | 289 | 31.9 | | | | | 11 | 168 | 57 | 53 | | |
| Н | | DO 3S | 28 | 0 | | 0 | .0 | | | 0 | | | | | | | |
| Н | | DO 3S | 30 | 9 | | 9 | 1.0 | | | 9 | | | | | | | |
| Н | | DO 3S | 32 | 206 | 4.4 | 197 | 21.8 | | | 37 | 51 | 109 | 0 | | | | |
| Н | | DO 3S | 34 | 19 | | 19 | 2.1 | | | 19 | | | | | | | |
| Н | | DO 3S | 36 | 30 | | 30 | 3.4 | | | 30 | 0 | | | | | | |
| Н | | DO 3S | 38 | 10 | | 10 | 1.1 | | | 10 | | | | | | | |
| Н | | DO 3S | 40 | 147 | | 146 | 16.2 | | | 131 | 1 | 15 | | | | | |
| Н | | DO 4S | 12 | 2 | | 2 | .2 | : | | 2 | | | | | | | |
| Н | | DO 4S | 14 | 0 | | 0 | .0 | | | 0 | | | | | | | |
| Н | | DO 4S | 16 | 46 | 6.0 | 43 | 4.7 | | 3 | 36 | 4 | | | | | | |
| Н | | DO 4S | 18 | 9 | | 9 | 1.0 | | 0 | 9 | | | | | | | |
| Н | | DO 4S | 20 | 12 | | 12 | 1.3 | | 5 | 6 | 0 | 0 | | | | | |
| Н | | DO 4S | 22 | 25 | 19.6 | 20 | 2.2 | | | 20 | | | | | | | |
| Н | | DO 4S | 24 | 11 | | 11 | 1.3 | | | 6 | 6 | | | | | | |
| Н | | DO 4S | 26 | 6 | | 6 | .7 | | | 6 | | | | | | | |
| Н | | DO 4S | 28 | 3 | | 3 | .4 | | | 3 | | | | | | | |
| Н | | DO 4S | 30 | 10 | | 10 | 1.1 | | | 10 | | | | | | | |
| Н | | DO 4S | 32 | 4 | 39.8 | 3 | .3 | | | 3 | | | | | | | |
| Н | | Total | S | 937 | 3.7 | 903 | 45.2 | | 8 | 337 | 62 | 135 | 235 | 73 | 53 | | |
| D | | DO 2S | 16 | 8 | 11.9 | 7 | .7 | | | | | | 7 | 0 | | | |
| D | | DO 2S | 18 | 0 | | 0 | .0 | | | | | | | | 0 | | |
| D | | DO 2S | 20 | 5 | 21.2 | 4 | .4 | | | | | | 0 | 4 | 0 | | |
| D | | DO 2S | 24 | 28 | 3.1 | 27 | 2.7 | | | | | | | | 27 | | |
| D | | DO 2S | 26 | 1 | | 1 | .1 | | | | | | | | 1 | | |
| D | | DO 2S | 30 | | | 27 | 2.6 | | | | | 26 | 0 | 1 | | | |
| D | | DO 2S | 32 | 38 | | 38 | 3.7 | | | | | | 31 | 4 | 2 | | |
| D | | DO 2S | 40 | 430 | 1.6 | 423 | 41.8 | | | | | 64 | 163 | 136 | 57 | 3 0 | 0 |
| D | | DO 3S | 16 | 0 | | 0 | .0 | | | | | 0 | | | | | |
| D | İ | DO 3S | 18 | 4 | | 4 | .4 | | | | | 4 | | | | | |
| D | | DO 3S | 20 | 6 | | 6 | .6 | | | | 0 | | | 6 | | | |
| D | | DO 3S | 24 | 0 | | 0 | .0 | | | 0 | | | | | | | |
| D | | DO 3S | 26 | 4 | | 4 | .4 | | | | 4 | | | | | | |
| D | | DO 3S | 28 | 4 | | 4 | .4 | | | | 4 | | | | | | |
| | | | | | | | | | | | | | | | | | |

TC PLOGSTVB

Log Stock Table - MBF

T07N R06W S12 TyTAKE THRU T07N R06W S13 TyMCC Project: TTW Acres

103.00

Page 2
Date 7/11/2012
Time 7:51:50AM

| | s | So Gr | I | [_0g | Gross | Def | Net | % | | ין | Net Vol | ume by | Scaling | Dian | neter in | Inches | | | | |
|-----|---|-------|-------|----------|-------|------|-------|------|-----|-----|---------|---------|---------|------|-------------|---|-------|-------|-------|-----|
| Spp | | | | | MBF | % | MBF | Spc | 2-3 | 4-5 | 6-7 | 8-9 | 10-11 | | | 16-19 | 20-23 | 24-29 | 30-39 | 40+ |
| D | | DO 3 | | 30 | 12 | | 12 | | | | | ******* | 12 | | 1090 | *************************************** | | | | |
| D | | DO 3 | S | 32 | 103 | 7.5 | 95 | 9.4 | | | 8 | 68 | 19 | 0 | | | | | | |
| D | | DO 3 | S | 34 | 14 | | 14 | 1.4 | | | 14 | | | | | | | | | |
| D | | DO 3 | S | 36 | 62 | 1.4 | 61 | 6.0 | | | 23 | 38 | | | | | | | | |
| D | | DO 3 | S | 40 | 204 | | 204 | 20.2 | | | 92 | 63 | 48 | | | | | | | |
| D | | DO 4 | S | 12 | 5 | | 5 | .5 | | | 4 | 2 | | | | | | | | |
| D | | DO 4 | | 14 | 1 | | 1 | .1 | | | 1 | 0 | | | | | | • | | |
| D | | DO 43 | | 16 | | 1.6 | 30 | | | 4 | 23 | 2 | | 0 | | | | | | |
| D | | DO 4 | S | 18 | 13 | | 13 | 1.3 | | | 13 | 0 | | | | | | | | |
| D | | DO 4 | S | 20 | 4 | | 4 | .4 | | | 4 | 0 | | | | | | | | |
| D | | DO 45 | S | 22 | 2 | | 2 | .2 | | | 2 | 0 | | | | | | | | |
| D | | DO 48 | S | 24 | 7 | | 7 | .7 | | | 7 | 0 | | | | | | | | |
| D | | DO 48 | S | 26 | 6 | | 6 | .6 | | | 6 | | | | | | | | | |
| D | | DO 45 | S | 28 | 4 | | 4 | .4 | | | 4 | | | | | | | | | |
| D | ĺ | DO 45 | S | 30 | 3 | | 3 | .3 | | | 3 | | | | | | | | | |
| D | | DO 48 | S | 32 | 3 | 20.2 | 3 | .3 | | | 3 | 0 | | | | | | | | |
| D | | DO 48 | S | 36 | 0 | | 0 | .0 | | | | | 0 | | | | | | | |
| D | | Tota | als | | 1,031 | 1.9 | 1,011 | 50.6 | | 4 | 208 | 182 | 174 | 202 | 151 | 88 | 3 | 0 | 0 | |
| Α | | DO C | R | 16 | 21 | | 21 | 35.0 | | | 21 | | | | | | | | | |
| A | | DO C | R | 20 | 4 | | 4 | 6.3 | | | 4 | | | | | | | | | |
| Α | | DO C | R | 24 | 5 | | . 5 | 7.7 | | | 5 | | | | | | | | | |
| A | | DO C | R | 30 | 8 | | 8 | 12.7 | | | 8 | | | | | | | | | |
| A | | DO C | R | 36 | 15 | | 15 | 25.4 | | | 15 | | | | | | | | | • |
| A | | DO C | R | 40 | 8 | | 8 | 12.8 | | | 8 | | | | | | | | | |
| Α | | Tota | ıls | | 61 | | 61 | 3.0 | | | 61 | | | | | | | | | |
| NF | | DO 25 | S | 16 | 6 | 38.1 | 4 | 15.7 | | | | | | | | 4 | | | | |
| NF | | DO 25 | | 32 | 5 | | 5 | 23.1 | | | | | | 5 | | | | | | |
| NF | | DO 28 | S | 40 | 10 | | 10 | 43.1 | | | | | | 10 | | 0 | | | | |
| NF | | DO 35 | S | 32 | 4 | | 4 | 18.0 | | | 4 | | | | | | | | | |
| NF | | DO 35 | S | 40 | 0 | | 0 | .0 | | | 0 | | | | | | | | | |
| NF | | Tota | ıls | | 24 | 8.8 | 22 | 1.1 | | | 4 | | | 15 | | 4 | | | | |
| С | | DO 25 | S | 32 | 0 | 6.6 | 0 | 79.3 | | | | | | | | | 0 | 0 | | |
| С | | DO 35 | 3 | 30 | 0 | | 0 | 12.5 | | | 0 | | | | | | | | | |
| С | | DO 35 | S | 32 | 0 | | 0 | 8.2 | | | | | | 0 | | | | | | |
| С | | Tota | ıls | | 0 | 5.3 | 0 | .0 | | | 0 | | | 0 | | | 0 | 0 | | |
| | | | | 二 | | | | | | | | | | | | | | | | |

| TC I | PLO | GSTVB | | | | | Log | Stock | Table | - MB | F | | | | | | | | |
|-------|--|----------|------|-------|-----|-------|-------|-------|-------|----------------------|--------|-------------------------------|--------|------------|--------|-------|-------|-------|-----|
| | T07N R06W S12 TyTAKE THRU T07N R06W S13 TyMCC Project: TTW Acres 103.00 | | | | | | | | | Page Date Time | | 3 1/2012 51:50 <i>A</i> | | | | | | | |
| | s | So Gr | Log | Gross | Def | Net | % | | 1 | let Volu | ıme by | Scaling | g Dian | neter in 1 | Inches | | | | ** |
| Spp | T | rt de | Len | MBF | % | MBF | Spc | 2-3 | 4-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-19 | 20-23 | 24-29 | 30-39 | 40+ |
| Total | | All Spec | eies | 2,054 | 2.7 | 1,998 | 100.0 | | 13 | 609 | 245 | 308 | 452 | 225 | 144 | 3 | 0 | 0 | |

| TC | PSTNDSUM | Stand Ta | ble Summary | Page Date: | 1 7/11/2012 |
|-----|----------------------------|----------|-------------|---------------|----------------|
| Т07 | 'N R06W S12 TyTAKE THRU | Project | TTW | Time: | 7:51:51AM |

TOTN R06W S13 TyMCC Acres 232.50 Grown Year:

| L | | | | | | | | l . | - | | | | | |
|--------|----------|-----------------|-----------|-----------|----------------|-------------|--------------|---------------|----------------|---------------|----------------|----------------|-------------|-------|
| S | | | *21*2 | Tot | 700 | TD 4 / | . | Averag Net | e Log Net | m , | Net | Net | Totals | |
| Spc T | DBH | Sample Trees | FF 16' | Av Ht | Trees/ Acre | BA/ Acre | Logs Acre | Cu.Ft. | Bd.Ft. | Tons/ Acre | Cu.Ft. Acre | Bd.Ft. Acre | Tons Cunits | MBF |
| D | 8 | 2 | 85 | 21 | .963 | .34 | .96 | 4.0 | 20.0 | | 4 | 19 | 9 | 4 |
| D | 9 | 8 | 88 | 38 | 3.044 | 1.34 | 3.04 | 7.3 | 32.5 | | 22 | 99 | 51 | 23 |
| D | 10 | 10 | 88 | 62 | 3.082 | 1.68 | 3.08 | 12.0 | 44.0 | | 37 | 136 | 86 | 32 |
| D | 11 | 12 | 85 | 70 | 2.606 | 1.72 | 2.61 | 16.2 | 54.1 | | 42 | 141 | 98 | 33 |
| D | 12 | 8 | 85 | 75 | 1.287 | 1.01 | 2.14 | 13.4 | 44.0 | | 29 | 94 | 67 | 22 |
| D | 13 | 21 | 88 | 69 | 1.472 | 1.36 | 1.84 | 19.2 | 63.8 | | 35 | 118 | 82 | 27 |
| D | 14 | 18 | 84 | 67 | 1.580 | 1.69 | 2.21 | 19.6 | 51.4 | | 43 | 114 | 101 | 26 |
| D | 15 | 19 | 85 | 71 | 1.649 | 2.02 | 3.02 | 18.8 | 59.1 | | 57 | 179 | 132 | 42 |
| D | 16 | 12 | 86 | 139 | .884 | 1.23 | 2.65 | 23.3 | 93.1 | | 62 | 246 | 143 | 57 |
| D | 17 | 24 | 86 | 109 | 3.473 | 5.47 | 8.45 | 26.2 | 95.7 | | 221 | 808 | 514 | 188 |
| D | 18 | 20 | 85 | 112 | 2.424 | 4.28 | 5.54 | 32.2 | 114.7 | | 179 | 636 | 415 | 148 |
| D | 19 | 12 | 89 | 121 | .627 | 1.23 | 1.27 | 42.9 | 167.8 | | 55 | 214 | 127 | 50 |
| D | 20 | 11 | 85 | 97 | .735 | 1.60 | 1.49 | 39.5 | 136.1 | | 59 | 203 | 137 | 47 |
| D | 21 | 10 | 86 | 114 | .728 | 1.75 | 1.87 | 38.8 | 149.4 | | 73 | 280 | 169 | 65 |
| D | 22 | 5 | 89 | 104 | .493 | 1.30 | 1.00 | 54.8 | 203.1 | | 55 | 203 | 127 | 47 |
| D | 23 | 6 | 86 | 120 | .850 | 2.45 | 2.54 | 44.4 | 177.1 | | 113 | 449 | 262 | 104 |
| D | 24 | 10 | 88 | 133 | .462 | 1.45 | 1.36 | 51.2 | 218.3 | | 70 | 298 | 162 | 69 |
| D | 25 | 4 | 86 | 126 | .044 | .15 | .13 | 53.2 | 225.0 | | 7 | 30 | 16 | 7 |
| D | 26 | 3 | 83 | 134 | .031 | .11 | .09 | 59.7 | 232.2 | | 5 | 21 | . 13 | 5 |
| D | 27 | 3 | 85 | 114 | .028 | .11 | .08 | 63.6 | 245.0 | | 5 | 19 | 11 | 4 |
| D | 28 | 2 | 86 | 121 | .018 | .08 | .05 | 66.2 | 293.3 | | 3 | 16 | 8 | 4 |
| D | 29 | 3 | 84 | 136 | .025 | .11 | .07 | 78.1 | 331.3 | | 5 | 22 | 12 | 5 |
| D | 30 | 1 | 80 | 131 | .008 | .04 | .02 | 75.7 | 300.0 | | 2 | 7 | 4 | 2 |
| D | 49 | 1 | 91 | 129 | .000 | .00 | .00 | 220.0 | 1223.3 | | 0 | 0 | 0 | 0 |
| D | Totals | 225 | 86 | 82 | 26.513 | 32.55 | 45.54 | 26.0 | 95.5 | | 1,182 | 4,351 | 2,748 | 1,011 |
| Н | 8 | 9 | 85 | 25 | 4.691 | 1.64 | 4.69 | 5.0 | 17.5 | | 23 | 82 | 55 | 19 |
| Н | 9 | 5 | 85 | 45 | 1.966 | .87 | 1.04 | 13.1 | 56.7 | | 14 | 59 | 32 | 14 |
| Н | 10 | 12 | 82 | 45 | 6.773 | 3.69 | 6.77 | 11.1 | 37.7 | | . 75 | 255 | 175 | 59 |
| Н | 11 | 26 | 87 | 65 | 6.886 | 4.50 | 8.13 | 12.9 | 43.2 | | 105 | 351 | 243 | 82 |
| Н | 12 | 11 | 83 | 51 | 3.666 | 2.88 | 4.19 | 14.1 | 40.0 | | 59 | 167 | 137 | 39 |
| Н | 13 | 16 | 86 | 60 | 1.838 | 1.69 | 2.29 | 19.5 | 60.0 | | 44 | 137 | 103 | 32 |
| Н | 14 | 19 | 85 | 62 | 2.332 | 2.46 | 3.08 | 18.6 | 52.5 | | 57 | 162 | 133 | 38 |
| Н | 15 | 18 | 84 | 84 | 1.382 | 1.70 | 2.76 | 21.9 | 76.9 | | 60 | 212 | 141 | 49 |
| Н | 16 | 22 | 87 | 85 | 3.304 | 4.59 | 6.31 | 26.8 | 96.8 | | 169 | 611 | 393 | 142 |
| Н | 17 | 22 | 88 | 92 | 3.168 | 4.99 | 6.08 | 32.6 | 117.4 | | 198 | 713 | 460 | 166 |
| Н | 18 | 7 | 91 | 115 | .116 | .20 | .32 | 32.2 | 134.2 | | 10 | 43 | 24 | 10 |
| Н | 19 | 8 | 91 | 92 | .866 | 1.70 | 1.73 | 40.0 | 145.1 | | 69 | 251 | 161 | 58 |
| Н | 20 | 13 | 87 | 94 | 1.530 | 3.34 | 3.08 | 42.2 | 144.7 | | 130 | 446 | 303 | 104 |
| Н | 21 | 11 | 87 | 95 | .343 | .83 | .69 | 39.1 | 140.1 | | 27 | 96 | 62 | 22 |
| H | 22 | 4 | 90 | 93 | .780 | 2.06 | 1.40 | 55.1 | 190.1 | | 77 | 267 | 180 | 62 |
| Н | 23 | 1 | 85 | 79 52 | .000 | .00 | .00 | 51.0 | 140.0 | | 0 | 0 | 0 | 0 |
| Н | 24 | 4 | 82 | 52 | .147 | .46 | .16 | 64.5 | 109.9 | | 11 | 18 | 24 | 4 |
| H | 25 | 1 | 89 | | .000 | .00 | .00 | 57.0 | 250.0 | | 0 | 0 | 0 | 0 |
| H H | 26 27 | 3 1 | 85 87 | 130 80 | .014 .000 | .05 .00 | .04 .00 | 68.4 72.0 | 315.0 245.0 | | 3 | 13 0 | 7 0 | 3 |
| Н | Totals | 213 | 85 | 61 | 39.803 | 37.66 | 52.76 | 21.5 | 73.6 | | 1,133 | 3,885 | 2,633 | 903 |
| A | 8 | 4 | 87 | 20 | 2.087 | .73 | 2.09 | 5.0 | 20.0 | | 10 | 42 | 2,033 | 10 |
| A | 9 | 8 | 86 | 35 | 3.299 | 1.46 | 3.30 | 7.5 | 30.0 | | 25 | 99 | 58 | 23 |
| A | 10 | 2 | 86 | 40 | .668 | .36 | .67 | 9.0 | 30.0 | | 6 | 20 | 14 | 5 |
| A | 11 | 8 | 87 | 63 | 1.659 | 1.10 | 1.66 | 18.3 | 60.0 | | 30 | 100 | 71 | 23 |
| A | 13 | 1 | 87 | 57 | .001 | .00 | .00 | 24.0 | 60.0 | | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| TC | PSTNDS | UM | | | | , | Stand | Table | Summa | ry | | | Page Date: | 2 7/11/20 | 12 |
|------------|----------|----------------------|-----------|-----------------|----------------|-------------|------------------|-------------------------|-------------------------|---------------|-----------------------|-----------------------|-------------------|---------------|----------|
| | THRU | S12 TyTA S13 TyMC | | | | | Project Acres | | 232.5 | 50 | | | Time: Grown Ye | 7:51:5 ar: | 1AM |
| S Spc T | DBH | Sample Trees | FF 16' | Tot Av Ht | Trees/ Acre | BA/ Acre | Logs Acre | Averag Net Cu.Ft. | ge Log Net Bd.Ft. | Tons/ Acre | Net Cu.Ft. Acre | Net Bd.Ft. Acre | Tons | Totals Cunits | MBF |
| A | Totals | 23 | 86 | 37 | 7.715 | 3.65 | 7.71 | 9.3 | 33.8 | | 72 | 260 | | 167 | 61 |
| NF NF | 18 24 | 3 | 91 82 | 91 121 | .207 .116 | .36 .36 | .41 .35 | 34.5 36.4 | 125.0 126.8 | i | 14 13 | 52 44 | | 33 29 | 12 10 |
| NF | Totals | 6 | 88 | 102 | .323 | .73 | .76 | 35.4 | 125.8 | | 27 | 96 | | 63 | 22 |
| C C | 15 37 | 1 | 76 87 | 46 135 | .000 .000 | .00 | .00 | 22.0 117.0 | 40.0 570.0 | | 0 | 0 0 | | 0 0 | 0 |
| С | Totals | 2 | 78 | 59 | .001 | .00 | .00. | 53.4 | 215.0 | | 0 | 0 | | 0 | 0 |
| Totals | | 469 | 86 | 66 | 74.354 | 74.59 | 106.78 | 22.6 | 80.5 | | 2,413 | 8,592 | | 5,611 | 1,998 |

Revised August, 2002

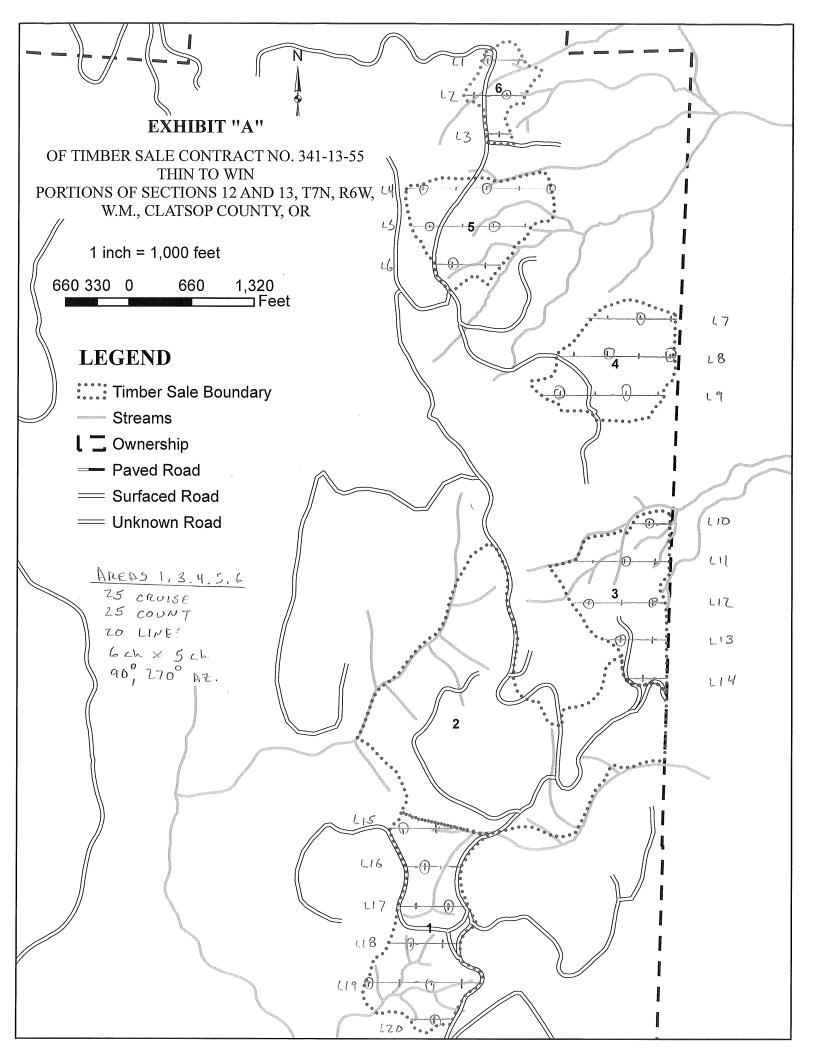
CRUISE DESIGN ASTORIA DISTRICT

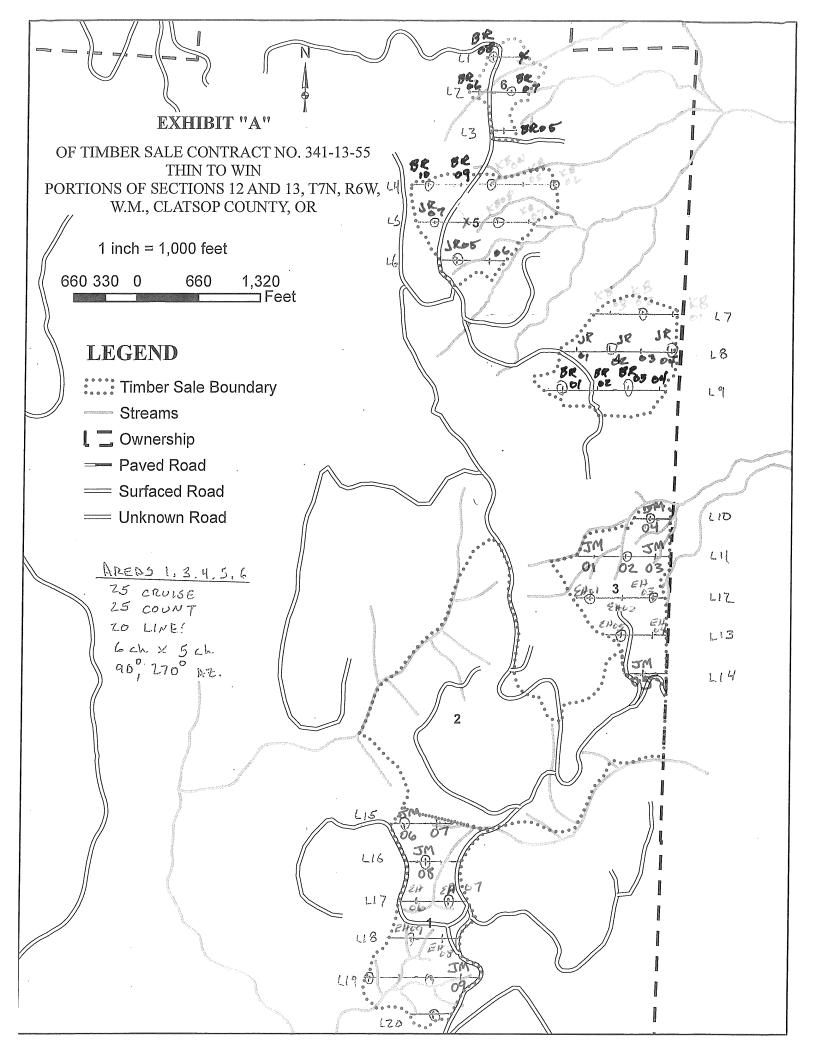
| Sa | ıle i | Name: Thin to win Area(s) Area(s) Area(s) Area(s) Area(s) Area(s) Area(s) Area(s) |
|-----|-------------------|--|
| | | est Type: CC PC CT "Automark Thinning" (circle one) Net BF or |
| Αŗ | pro | ox. Cruise Acres: 140 Estimated CV% 30 BA/Acre SE% Objective BA/Acre |
| Pla | ann | ed Sale Volume: 700 MMBF Estimated Sale Area Value/Acre: \$ / 400 |
| Α. | (b) sta tre | uise Goals: (a) Grade minimum conifer and hardwood trees: Sample cruise plots; (c) Other goals (Determine "automark" thinning and ards; Determine log grades for sale value; Determine snag and leave e species and sizes; Determine LWD (down wood) cubic feet and decay classes; Determine "diameter limit" harvest parameters;) sal Area leave target 30 sq. ft. Cruiser needs to select 6 or 7 leave trees per plot. |
| В. | 1. | Plot Cruises: BAF |
| C. | <u>Tro</u> | Diameter: Minimum DBH to cruise is $\underline{\mathcal{D}}$ " for conifers and $\underline{\mathcal{D}}$ " for hardwoods. Record dbh to nearest ½" 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 for conifer is $\underline{7}$ ", $\underline{7}$ " for hardwoods or $\underline{40}$ % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" 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.
- 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); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife 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; 9 = Utility
 Hardwoods: #2 Sawmill = 12" + scaling diameter; #3 Sawmill = 10 and 11"; #4
 Sawmill = 8 and 9"
 - **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 intervisible 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.

 ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- **9. Cruising Equipment:** Relaskop Rangefinder Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- **10.Attachments:** A. <u>Cruise Map</u> (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: /1,22075.00/ |
|---------------|------------------|
| Approved by: | 1 Toleho |
| Date: | 5/10/12 |
| | |





CRUISE DESIGN ASTORIA DISTRICT

| | | Name: Thin to win Area(s) 2 |
|-----|-------------------|--|
| На | rve | est Type: CC PC CT "Automark Thinning" (circle one) Ox. Cruise Acres: |
| | | |
| Pla | ann | red Sale Volume: 1200 MMBF Estimated Sale Area Value/Acre: \$ 3,900 |
| A. | (b) sta tre | wise Goals: (a) Grade minimum |
| D | | |
| Б. | 1. | Plot Cruises: BAF 33.61 (Full point; Half point) (circle one) Fixed Plot Size Plot Radius Cruise Line Direction(s) FAST WEST Cruise Line Spacing Chains) (feet) Cruise Plot Spacing Chains) (feet) Grade/Count Ratio ISI ITS (Sample Tree) Cruises: Measure-grade ratios: D-fir Hemlock Spruce True Fir Cedar Hardwood |
| C. | | Diameter: Minimum DBH to cruise is ② "for conifers and ③ "for hardwoods. Record dbh to nearest ½" 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 for conifer is $\underline{7}$ ", $\underline{7}$ " for hardwoods or $\underline{40}$ % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" 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 |

species on the cruise. Hardwood form factors are a Standard 87.

conifer species on the cruise area, and use these to calculate average FF for the

- **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.
- 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); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.) B. Sort: Use code "1" (Domestic).
 - C. <u>Grade</u>: 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; 9 = Utility Hardwoods: #2 Sawmill = 12" + scaling diameter; #3 Sawmill = 10 and 11"; #4 Sawmill = 8 and 9"
 - **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 intervisible 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.

 ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- **9. Cruising Equipment:** Relaskop Rangefinder Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- **10.Attachments:** A. <u>Cruise Map</u> (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: _ | 11,4075000 | |
|---------------|-------|------------|--|
| Approved by: | | 1 Tulialis | |
| Date: | | 5/10/12 | |
| , | | | |

