

# Timber Sale Appraisal Lost Overlook

Sale AT-341-2019-28-

District: Astoria Date: December 19, 2018

## **Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$281,684.72	\$182,576.88	\$464,261.60
		Project Work:	(\$48,696.00)
		Advertised Value:	\$415,565.60



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District: Astoria Date: December 19, 2018

### **Timber Description**

Location: Section 30, T4N, R8W and section 36, T4N, R9W, WM, Clatsop County, Oregon

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	97
Western Hemlock / Fir	19	0	98
Sitka Spruce	35	0	95
Red Cedar	1	0	95
Alder (Red)	15	0	96

Volume by Grade	28	3S & 4S 6"- 11"	(12"+) 2S	Camprun	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	10	20	0	0	0	0	0	0	30
Western Hemlock / Fir	715	253	0	0	0	0	0	0	968
Sitka Spruce	0	8	117	0	0	0	0	0	125
Red Cedar	0	0	0	1	0	0	0	0	1
Alder (Red)	0	0	0	0	95	204	163	255	717
Total	725	281	117	1	95	204	163	255	1,841

**Comments:** Pond Values Used: Local Pond Values, August 2018.

Expected Log Markets: Mist, Willamina, Banks, North Plains, Clatskanie, Tillamook, Garibaldi, Forest Grove, Warrenton, Elma, WA, Longview, WA, Vancouver, WA and Chehalis, WA.

Bigleaf maple and other hardwoods stumpage = pond value - logging cost. \$210.43/mbf = \$510/mbf - \$299.57/mbf

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

Slash and Landing Piling (Includes move-in and pile materials) = \$2,390

Machine Washing for Invasive Weed Compliance = \$1,000

Ditch Filters:

20 bales of straw @ \$10.00/bale = \$200 8 hours of labor @ \$40/hr = \$320

TOTAL Other Costs (with Profit & Risk to be added): \$3,910

Other Costs (No Profit & Risk added): None.

**ROAD MAINTENANCE** 

(See attached Road Maintenance Cost Summary Sheet)
TOTAL Road Maintenance: \$13,188/1,841 MBF = \$7.17/MBF



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District: Astoria Date: December 19, 2018

## **Logging Conditions**

Combination#: 1 Douglas - Fir 100.00%

 Western Hemlock / Fir
 100.00%

 Sitka Spruce
 100.00%

 Red Cedar
 100.00%

 Alder (Red)
 100.00%

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

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

loads / day: 9 bd. ft / load: 4400

cost / mbf: \$171.72

machines: Log Loader (A)

Tower Yarder (Large)



# Timber Sale Appraisal Lost Overlook

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District: Astoria Date: December 19, 2018

# **Logging Costs**

Operating Seasons: 2.00 Profit Risk: 10%

Project Costs: \$48,696.00 Other Costs (P/R): \$3,910.00

Slash Disposal: \$0.00 Other Costs: \$0.00

#### Miles of Road

Road Maintenance:

\$7.17

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	4.2
Western Hemlock / Fir	\$0.00	2.0	4.0
Sitka Spruce	\$0.00	1.0	5.2
Red Cedar	\$0.00	1.0	4.8
Alder (Red)	\$0.00	3.0	3.5



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# **Logging Costs Breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - I	Fir								
\$171.72	\$7.39	\$4.77	\$77.66	\$2.12	\$26.37	\$0.00	\$2.00	\$0.00	\$292.03
Western H	emlock /	/ Fir							
\$171.72	\$7.31	\$4.77	\$121.12	\$2.12	\$30.70	\$0.00	\$2.00	\$0.00	\$339.74
Sitka Spru	ce								
\$171.72	\$7.53	\$4.77	\$191.82	\$2.12	\$37.80	\$0.00	\$2.00	\$0.00	\$417.76
Red Cedar									
\$171.72	\$7.53	\$4.77	\$207.82	\$2.12	\$39.40	\$0.00	\$2.00	\$0.00	\$435.36
Alder (Red	)								
\$171.72	\$7.46	\$4.77	\$94.10	\$2.12	\$28.02	\$0.00	\$2.00	\$0.00	\$310.19

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$683.33	\$391.30	\$0.00
Western Hemlock / Fir	\$0.00	\$609.55	\$269.81	\$0.00
Sitka Spruce	\$0.00	\$481.40	\$63.64	\$0.00
Red Cedar	\$0.00	\$1,250.00	\$814.64	\$0.00
Alder (Red)	\$0.00	\$564.83	\$254.64	\$0.00



# Timber Sale Appraisal Lost Overlook Sale AT-341-2019-28-

District: Astoria Date: December 19, 2018

## **Summary**

#### Amortized

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

#### Unamortized

Specie	MBF	Value	Total
Douglas - Fir	30	\$391.30	\$11,739.00
Western Hemlock / Fir	968	\$269.81	\$261,176.08
Sitka Spruce	125	\$63.64	\$7,955.00
Red Cedar	1	\$814.64	\$814.64
Alder (Red)	717	\$254.64	\$182,576.88

#### **Gross Timber Sale Value**

**Recovery:** \$464,261.60

Prepared By: Ella Salkeld Phone: 503-325-5451

Site	Prep	Ap	prais	al
0		, ,P	p. 4.4	·ч.

Sale Number: 341-19-26 Sale Name: Lost Overlook Date: 05/25/2018

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre	
Doug-fir	А	0.5	2.0	
Hemlock/Fir	В	1.5	4.5	
Hemlock/Spruce	С	2.0	6.0	
Hemlock	D	2.0	6.0	
Conifer/Hardwood	Е	1.5	4.5	
Whole Tree Yarding	F	0.25	0.5	

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour C325	Total Cost/Area	
1	MC	А	0	0	\$129.00	\$0.00	
					In-unit Piling	Sub Total =	\$0.00
Sale Area	Number of Landings to be Piled	Cost/Landing Pile	Total Cost/Area	Number of In- Unit Piles	Material Cost/Pile	Total Cost/Area	
1	5	\$220.00	\$1,100.00	0	\$5.00	\$0.00	
					Materials	Sub Total =	\$0.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance			Landing Piling	Sub Total =	\$1,100.00
\$1,290.00	1	\$1,290.00			Move-In	Sub Total =	\$1,290.00
						Grand Total =	\$2,390.00

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

 Sale:
 Lost Overlook
 MBF:
 1,841

 Date:
 May 25,2018
 \$\$/MBF:
 \$7.16

Bryce Rodgers

_		Move-in	l			
Туре	Equipment/Rationale	Rate	Times	Hours	Rate	Cost
	Grader 14G	\$778	1	8	\$100	\$1,578
Interim						
Operations						
	Grader 14G	\$778	1	33	\$100	\$4,078
	Dump Truck 12CY	\$163	1	8	\$79	\$795
Final	FE Loader C966	\$778	1	2	\$83	\$944
Road	Vibratory Roller	\$778	1	33	\$77	\$3,319
Maintenance	Water Truck 2,500 gallon	\$190	1	15	\$89	\$1,525
	Small 4 x 4 (C 580) Backhoe	\$321	1	4	\$77	\$629
	Labor			8	\$40	\$320
					·	
Total						

#### Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	3.0	3.00	1.0	8

#### Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	1.5	6.2	4.1	33
Vibratory Roller	1.5	6.2	4.1	33

F	Process and compact: All crushed rock roads	
	Fry Creek 1.5	
-	Sweethome Creek .3	
	North Fork 4	
	Unnamed Spur .4	
	Grade & Process Total = 6.2	

#### SUMMARY OF ALL PROJECT COSTS

SALE NAME:	Lost Overlook			
ROAD CONST	TRUCTION:	I and the second		
	Dood cogmont	l anath/Sta	Cont	
Project No. 1	Road segment 1A -1B, 1C-1D	<u>Length/Sta</u> 21.75	<u>Cost</u>	
,				
			\$37,214	
	TOTALO			<b>^</b>
	TOTALS			\$37,214
ROAD VACAT	ſING:			
	Road segment	<u>Length/Sta</u>	<u>Cost</u>	
Project No. 2	V1 - V2, V3	<u> </u>	\$3,287	
	Project Road Maintenance		\$522.00	
	TOTALS			\$3,809
	101/120			Ψο,σσσ
	TOTAL			
MOVE IN:		Familian	0 1	
	Dozer (D8)	Equipment	<u>Cost</u> \$1,406.00	
	Excavator (C330)		\$1,406.00	
	Excavator (C315) Skidder (C518)		\$805.00 \$717.00	
	Dump Trucks (12cy x 5		\$815.00	
	Front End Loader (C96	5)	\$778.00	
	Grader (14G)		\$778.00	
	Vibratory Roller		\$778.00	
	Water Truck (2,500 gal	on)	\$190.00	
	TOTAL			\$7,673.00
				7. 10. 0.00
GRAND TOTA	<b>AL</b>			\$48,696
				•
Compiled By:		Kraig Kirkpatriuck FL	Date: 0	5/09/2018

# SUMMARY OF CONSTRUCTION COSTS

SALE NAME ROAD:	SALE NAME: Lost Overlook ROAD: 1A -1B, 1C - 1D				NEW CO	NEW CONSTRUCTION: IMPROVEMENT:		STATIONS STATIONS	0.00 MILES 0.00 MILES	ILES ILES
POINTS:  CLEARING &  1A-1B  0+00-2+75  2+75-19+75	CLEARING & GRUBBING  Nethod  1A-1B  0+00-2+75  2+75-19+75  Scatter outside of R/W, \$/ac	f R/W, \$/ac		Acres/amount	××	Rate \$ 1,337	11 11	Cost \$2,139.20		
SUB TOTAL	SUB TOTAL FOR CLEARING &	& GRUBBING	<u> </u>						\$2,139	
EXCAVATION	N Material			Cy/amount	×	Rate	"	Cost		
1A-1B	Comm	y.		1,885	× × >	\$1.90	11 1	\$3,581.50		
4+90 - / +20		tion \$/cy		2,000	< × >	\$0.70	. 11 11	\$1,400.00		
, ,	Fill Armor placement w/330, \$/hr	nent w/330,	\$/hr	- &	< × >	\$155	1 11 11	\$1,240.00		
<u> </u>	Balanced Construction, \$/sta Landing Construction, \$/ldg	uction, \$/sta :tion, \$/ldg		1.00	< × ×	\$122.00	1 11 11	\$122.00		
					× × ×		11 11			
					< ×		II .			
SUB TOTAL	SUB TOTAL FOR EXCAVATION	z							\$15,122	
CULVERT M	ON N	STALLATI				-	_	-		
Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost	
4+20	18"CPP	40	\$19.53	\$781.20					\$0.00	
8+90	18"CPP	30	\$19.53	\$585.90					\$0.00	
				\$0.00					00.08	
				\$0.00					\$0.00	
				\$0.00					\$0.00	
				\$0.00					\$0.00	
				\$0.00					\$0.00	
	Other/miscellaneous:	ons:		Description		Quantity	Rate	Cost		
	Culvert stakes &	markers:	6' X 2 1/2" w	1/2" white fiber glass posts	oosts	2	\$20.00	\$40.00		
SUB TOTAL	SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION	ATERIALS	& INSTALLA	NOIL					\$1,407	
							Subtotal of C	Subtotal of Clearing, Exc., Culv.	\$18,668	

Subgrade Compaction   Point 16"   State to State   Location   Chrode, Shape and Ditch 16"   State to State   Location   Chrode, Shape and Ditch 16"   State to State   Location   Chrode, Shape   Chrode, C	Circle, Shape and Ditch 167   Circle Shape and Dispth of Ci	SURFACING	Subgrade prep:		Description					Stations/ amount	×	Rate/ sta/amt	Cost	
Ato 18         National Popular To Point To P	A to 18         A to 18		-	Grade, Shape and	Ditch 16'					20.75	×	\$24.83	\$515.22	
A to 1B         A to 1B         POINT TO POINT         Sta. to Sta.         TOTAL         Rate/sta.         Cost           nd Type         Location         (inches)         1A to 1B         0+00 to 19+75         TOTAL         State/sta.         Cost           nd Type         Location         (inches)         station         15         2 stations         19.75         396         \$4.27         \$4.21           "crushed of 0+0-0.19-75         8         station         12         TAS         2         44         \$4.27         \$582           "crushed of 4+90/10-49-15-0         2         station         12         TAS         2         150         \$4.27         \$582           "crushed of 4+90/10-49-15-0         2         stations of pit-un         12         15         44.27         \$10         \$10         \$10           "crushed of 4+90/10-49-75         12         stations of pit-un         14-75-19-75         12         stations of pit-un         14-75-19-75         \$10	A to 1B         A to 1B         POINT TO POINT         Sta. to Sta.         TOTAL         Rate/sta.         Cost           nd Type         Location         (inches)         1A to 1B         0+00 to 19+75         TOTAL         State         CCV)           per of Type         Location         (inches)         station         50         stations         19.75         98         \$4.27         \$4.217           procushed of 0+00-19-75         8         station         50         stations         10         22         TOS         4 49.10 10+30,19+30         \$4.27         \$4.27         \$188           procushed of 0+00-30,13+9         8         170         22         TOS         4 49         \$4.27         \$5.82           op-trum of 1+70,18+30         17         22         TOS         10         22         10         \$2.2         \$10.01         \$1.50         \$1.50           op-trum of 1+70,18+30         1A         classing and part of to 140         1         dec 34.27         \$2.82         \$1.00         \$1.50           op-trum of 14-70         1A         22         TOS         22         150         \$1.00         \$1.50         \$1.50           op-trum of 14-70         1A         1A         1A<			Subgrade Compact	ion					20.75	×	\$20.19	\$418.94	
A to 1B         A to 1B         POINT TO POINT         Sta. to Sta.         TOTAL         Rate/sta.         Cost           cock Size         Rock of Size         Location (Inches)         TA to 1B         0+00 to 19+75         988         74.27         \$4.217           "crushed of 19475         8         station         50         stations of pit-un         12.75         988         \$4.27         \$4.217           "crushed of 19475         8         station         10         22         TOS         3         44         \$4.27         \$4.217           "crushed of 19475         8         station         12         2         44         \$4.27         \$5.826           "crushed of 19476         12         station         12         15         98.27         \$5.826           "crushed of 19476         12         station         12         156         \$4.27         \$5.826           O'Dill-un         17-15-16+75         12         station         75         station         75         \$1.001         \$8.336         \$11.311           O'Dill-un         17-15-16+75         12         station         15         16         \$4.27         \$2.02         \$1.001         \$8.336           O'Dil	A to 1B         A to 1B         PoliNT TO PoliNT         Sta. to Sta.         TOTAL         Rate/sta.         Cost           cock Size         Location         (inches)         1A to 1B         0+00 to 19+75         TOTAL         State         Coy           P)* crushed         0+00-16+75         8         19.75         98         84.27         \$4.217           P)* crushed         0+00-16+75         8         12         14.27         34.27         \$5282           P)* crushed         1+00 16+70         8         17         22         170         2         46         \$4.27         \$582           P)* crushed         1+00 16+30         8         12         14.01         8         4.27         \$582           P)* crushed         14+70         8         17         22         170         2         150         \$10.01         \$150           P)* crushed         16+70         2         stations         2         150         \$10.01         \$150           P)* crushed         16+70         2         stations         2         150         \$10.01         \$150           P)* crushed         16+70         NA         Landing         8         Landings         8<												·	
cock Size         Location (inches)         1A to 1B (location) (inches)         O+00 to 19+75 (location) (inches)         Total (location) (inches)         Station (location) (inches)         Total (location) (inches)         Station (location) (inches)         Total (location) (inches)         Total (location) (inches)         Station (location) (inches)         Total (location) (inches)         Station (location) (inches)         Total (location) (inches) (location) (inches)         Total (location) (inches) (location) (inches)         Total (location) (inches) (locat	cock Size         Location of Total Brown (inches)         1A to 1B begath of Crushed (inches) <td>ROAD SEGMENT</td> <td>1A to 1B</td> <td></td> <td></td> <td>POINT TO</td> <td>POINT</td> <td>Sta. to</td> <td>Sta.</td> <td></td> <td></td> <td></td> <td></td> <td></td>	ROAD SEGMENT	1A to 1B			POINT TO	POINT	Sta. to	Sta.					
ock Size         Rock Inches)         Volume (CY)         Number         VOLUME         Stations of Part (CY)         Stations of Part (CY)         Number of Part (CY)         OCD (CY)         At 27 (CY)         Station of Part (CY)         Station of Part (CY)         Station of Part (CY)         12.75 (CY)         3 66         \$4.27 (CY)         \$4.217 (CY)	cock Size         Rock Figure         Nolume (CY)         Number         VOLUME         Station (CY)         Number (CY)         OCH (CY)         Attain		1 Bit		Depth of	1A to 1	B	0+00 to	19+75	TOTAL	Rate/	ţ		
Contabled   Con	of Type         Location         (inches)         per         of         (CV)         amt.         44         54,27         54,217         54,217         54,217         54,217         54,217         54,217         5188         54,277         54,217         5188         54,277         54,217         5188         54,277         5188         54,277         5188         52,277         5188         52,277         5188         52,277         5188         52,277         5188         52,277         5188         52,277         5188         52,277         5188         52,277         52,277         51,502         52,277		Rock Size		Rock	Volume	(cy)	Num	oer.	VOLUME	Sta./	is S		
Pictushed   0+00-19+75   8   station   50   stations   19.75   988   \$4.27   \$4.217   \$1.25	9° Crushed         0+00-19+75         8         station         50         stations         19,75         988         \$4,27         \$4,217         \$188           9° Crushed         1+140,18+30         TA         2         TAS         2         44         \$4,27         \$188           9° Crushed         1+10,18+30         1         1         2         170s         3         66         \$4.27         \$282           1° Crushed         16+70         2         station         15         stations         2         150 off         \$1,502           0° pit-run         17+75-19+75         1/A         dissipator         1         2         2         \$10.01         \$1,502           0° pit-run         19+75         N/A         Landing         88         Landing         1         480         \$8.39         \$3.356           1° prit-run         19+75         N/A         Landing         88         Landing         1         1940         \$8.39         \$3.356           1° cripap         8+25         N/A         IC to1D         0+00 to 1+00         VOLVME         \$1,001         \$81         \$1,001         \$1,004         \$1,004         \$1,004         \$1,004         \$1,004	Application	and Type	Location	(inches)	per		of		ર્ટ)	amt.			
O'r Crushed         11+10,18+30         TA         22         TA's         2         44         \$4.27         \$188           7° crushed         4+90,16+30,15+9         8         TO         22         TO's         3         66         \$4.27         \$282           1-0" crushed         4+90,14+50         2         station         75         stations         2         150         \$10.01         \$1.502           0" pit-run         4+75-19+75         NA         dissipator         71         dissipator         2         2         \$10.01         \$1.502           0" pit-run         4+75-19+75         NA         Landing         88         10.01         \$1.502           0" pit-run         4+20,7+00         NA         Landing         88         \$10.01         \$3.36           1-0" riprap         8+25         NA         Landing         Number         VOLUME         \$3.36         \$3.36           1-0" riprap         1-0 beth of 1-0 to 10         1-0 to 10 +00         No.sta         10.75         \$10.01         \$81.13.14           0" pit-run         2+00         12         stations         1         75         \$10.01         \$81.33.6           10 perh of 10 to 10         10+	Total For Surface   11+10,18+30	Base Rock	4"-0" crushed	0+00-19+75	8	station	50	stations	19.75	988	\$4.27	\$4,217		
1	10	Turnarounds	4"-0" crushed	11+10,18+30		TA	22	TA's	2	44	\$4.27	\$188		
O-0-8+00, 12+50   O-0-8+00,	0+00-8+00, 12+50   2   station   13   stations   12   156   \$4.27   \$866   2     0 <sup>1</sup> pit-run   17+75-19+75   12   station   75   stations   12   150   \$10.01   \$1.502     0 <sup>2</sup> pit-run   17+75-19+75   12   station   14   14   15   15   15   15   15     0 <sup>2</sup> pit-run   19+75   14   18   14   14   14   15   14   14   14   14	Turnouts	4"-0" crushed	4+90,10+30,15+9	8	OT	22	s,OT	က	99	\$4.27	\$282		
1-1-   1-1-	1-1-   1-1-													
O' pit-run         17+75-19+75         12         station         75         stations         2         150         \$10.01         \$1,502           O' pit-run         4+20,7+00         NA         Landing         88         Landings         1         488         \$10.01         \$220           O' pit-run         19+75         NA         Landing         88         Landings         1         400         \$8.39         \$3,36           1-6" riprap         8+25         NA         Ifl         400         \$8.39         \$3,36           1-6" riprap         8+25         NA         Ifl         400         \$8.39         \$3,36           1-6" riprap         8+25         NA         Ifl         400         \$8.39         \$3,356           1-6" riprap         8+25         NA         Ifl         400         \$8.39         \$3,356           1-60 Location         10 Lot D         0+00 to 1+00         0+00 to 1+00         10 Cost         \$10.01         \$10.01           10" pit-run         2+00         Namber         16" Stations         16" Stations         \$10.01         \$10.01         \$10.01           10" pit-run         2+00         Nater, Process & Compact Base Rock (4"-0"):         116" Sta	O' pit-run         17+75-19+75         12         station station         75         stations spiral         2         150         \$1.502         \$1.502           O' pit-run         4+20,7+00         N/A         classipator o' pit-run         14         dissipator o' pit-run         2         \$10.01         \$1.502           O' pit-run         8+25         N/A         fill door         400         \$8.39         \$3,356           Cto1D         At to 1B         1 to 1B         1 to 1D         0+00 to 1+00         \$8.39         \$3,356           Cto1D         Popitr of cock Size         Popitr of color ock Size         Volume (CY)         Number och 0+00-2+00         TOTAL stations och 0+00-2+00         \$12         stations och 0+00-2+00         \$12         stations och 0+00-2+00         \$12         stations och 0+00-2+00         \$1	Traction Rock	1 1/2"-0" crushed		7	station	13	stations	12	156	\$4.27	\$666		
O" pit-run         4+20,7+00         N/A         dissipator         11         dissipator         2         22         \$10.01         \$220           O" pit-run         19+75         N/A         Landing         88         Landings         1         88         \$10.01         \$881           -6" riprap         8+25         N/A         Landing         88         Landings         1         400         \$8.39         \$3.366           cto1D         1A to 1B         Ato 1B         1         1         400         \$8.39         \$3.366         \$11,311           cto1D         Ato 1B         Popth of 1C to 1D         0+00 to 1+00         100 to 1	O" pit-run         4+20,7+00         N/A         dissipator dissipator and problemated as a compact Base Rock (4"-0"):         1 dissipator and problemated as a compact Base Rock (112"-0"):         2 display and problemated as a compact Base Rock (112"-0"):         4+20,7+00         N/A         Location Location and problemated and	Subgrade Reinforceme			12	station	75	stations	2	150	\$10.01	\$1,502		
O" pit-run         19+75         N/A         Landing         88         Landings         1         88         \$10.01         \$881         \$10.01         \$881         \$10.01         \$883         \$10.01         \$883         \$10.01         \$883         \$10.01         \$8131         \$11.311         \$10.01         \$1	O' pit-run         19+75         N/A         Landing         88         Landings         1         88         \$10.01         \$881         \$10.01         \$881         \$10.01         \$881         \$10.01         \$881         \$10.01         \$881         \$10.01         \$881         \$11.311         \$10.01         \$10	Dissipator		4+20,7+00	N/A	dissipator	=	dissipator	7	22	\$10.01	\$220		
-6" riprap         8+25         N/A         fill         400         \$8.39         \$3,356         \$11,311           C to1D         C to1D         POINT TO POINT         Sta. to Sta.         To AL         Rate/         Rate/         Cost         \$11,311           C to1D         Depth of Cation         Inches)         Processing:         Processing:         Processing:         Processing:         Station of Cation         To All (Inches)         Processing:         Process & Compact Base Rock (4"-0"):         All (1/2"-0"):         All (1/	-6" riprap         8+25         N/A         fill         400         fills         1         400         \$8.39         \$3,356         \$11,311           C to1D         C to1D         Point of Size         Sta. to Sta.         Sta. to Sta.         And To Alberto Size	Landings	6"-0" pit-run	19+75	N/A	Landing	88	Landings	-	88	\$10.01	\$881		
C to1D         POINT TO POINT         Sta. to Sta.         1,914         \$11,311           C to1D         Depth of Rock         I C to1D         O+00 to 1+00         TOTAL         Rate/Sta.         Cost         Sta.I         Cost         Sta.I         Cost         Sta.I	C to1D         Sta. to Sta.         1,914         \$\$11,311           C to1D         Depth of Inches)         TC to1D         0+00 to 1+00         TOTAL         Rate/Sta.         Cost         Sta., sta.         Cost         Sta., sta., sta.         Sta.,	Fill Armor	24"-6" riprap	8+25	N/A	IIII	400	fills	τ-	400	\$8.39	\$3,356		
C to1D         Depth of Rock Size         POINT TO POINT TO POINT Poll of 1 C to 1D O +0.0 to 1+0.0 Poll ME Sta. I Cost         Sta. to Sta. OLUME Sta. I Cost         TOTAL Sta. I Cost         Cost Sta. I Cost Sta. I Cost I I I I I I I I I I I I I I I I I I I	C to1D         Depth of Rock Size         POINT TO POINT TO POINT TO POINT TO Sta., ock Size         Sta., for to 10 to 1400 to 1400 to 1400 to 1400 amt.         TOTAL         Rate/ Sta., station (inches)         Poeth of Location (inches)         To to 10 to 1400 amt.         Total Funches         Poeth of Location (inches)         Total Funches         Poeth of Location (inches)         Total Funches         Tota	Total Rock for Road Se	egment:		1A to 1B					1,914			\$11,311	
ock Size         Boeth of Rock Nolume (CY)         1C to1D         0+00 to 1+00         TOTAL Sta./ (CY)         Rate/ Sta./ amt.         Cost         COLUME Sta./ amt.         Cost         Sta./ amt.         COLUME Sta./ amt.         COCY)         amt. amt.         STORIAL         \$75         \$10.01         \$75         \$70.01         \$75         \$70.01         \$70.02         \$70.07         \$70.07         \$70.02         \$70.02	ock Size         Boeth of Rock Nolume (CY)         1C to1D Number (CY)         Number (CY)         TOTAL Stations (Inches)         TOTAL FOR SURFACING         TOTAL FOR SURFACING         TOTAL FOR SURFACING         TOTAL FOR Surface of For Surface (AT)         TOTAL FOR SURFACING         TOTAL FOR Surface (AT)         TOTAL FOR Surface (AT)         TOTAL FOR Surface (AT)         TOTAL FOR Surface (AT)         TOTAL FOR SURFACING         TOTAL FOR SURFACE FOR SURFACENCE FOR SURFACE FOR SU	ROAD SEGMENT	1C to1D			POINT TO	POINT	Sta. to	Sta.					
cock Size         Rock Nolume (CY)         Number of Decision         NOLUME (CY)         Sta./ amt. amt. amt. amt. amt. amt. amt. amt.	cock Size         Rock   Docation   Cock Size         Volume   CY)   Docation   COCk   COCk   Docation   Docat				Depth of	1C to1	Ω	0+00 to	1+00	TOTAL	Rate/	+000		
nd Type         Location         (inches)         per         of         (CY)         amt.         apr.	nd Type         Location         (inches)         per         of         (CY)         amt.         amt.         amt.         amt.         amt.         amt.         amt.         amt.         per         per         per         stations         12         stations         12         stations         13         stations         stations <t< td=""><td></td><td>Rock Size</td><td></td><td>Rock</td><td>Volume (</td><td>(cx)</td><td>Numk</td><td>)er</td><td>VOLUME</td><td>Sta./</td><td>รี้</td><td></td><td></td></t<>		Rock Size		Rock	Volume (	(cx)	Numk	)er	VOLUME	Sta./	รี้		
O" pit-run         0+00-2+00         12         station         75         stations         1         75         \$10.01         \$751           O" pit-run         2+00         N/A         Landing         88         Landings         1         88         \$10.01         \$881           Processing:         Description         Nater, Process & Compact Base Rock (4"-0"):         19.75         \$56.48         \$1,11           Water, Process & Compact Base Rock (11/2"-0"):         4"-0"         13         \$56.48         \$13           TOTAL FOR SURFACING         400         423         1,098         156         2,077         2,077	O" pit-run         0+00-2+00         12         station         75         stations         1         75         \$10.01         \$751           O" pit-run         2+00         N/A         Landing         88         Landings         1         88         \$10.01         \$881           A processing:         Description         Nater, Process & Compact Base Rock (4"-0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (11/2"-0"):         4"-0"         11/2"-0"):         43         \$56.48         \$734.24           TOTAL FOR SURFACING         423         1,098         156         2,077         2,077	Аррисацоп	and Type	Location	(inches)	per		of		(CY)	amt.			
O" pit-run         2+00         N/A         Landing         88         Landings         1         88         \$10.01         \$881           Processing:         Description         Description         No.sta         Rate/sta         Cost           Water, Process & Compact Base Rock (41-0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (11/2"-0"):         13         \$56.48         \$734.24           TOTAL FOR SURFACING         400         423         1,098         156         2,077         2,077         2,077	O" pit-run         2+00         NJ/A         Landing         88         Landings         1         88         \$10.01         \$881           TOTAL FOR SURFACING         1C to1D         1C to1D         163         No.sta         \$10.52         \$1,632           Water, Process & Compact Base Rock (4"-0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (11/2"-0"):         13         \$56.48         \$734.24           TOTAL FOR SURFACING         400         423         1,098         156         2,077         2,077	Base Rock	6"-0" pit-run	0+00-2+00	12	station	75	stations	-	22	\$10.01	\$751		
1C to1D	1C to1D	Landings	6"-0" pit-run	2+00	N/A	Landing	88	Landings	1	88	\$10.01	\$881		
Description         No.sta         Rate/sta         Cost           Water, Process & Compact Base Rock (1 1/2"-0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (1 1/2"-0"):         13         \$56.48         \$734.24           Au:-0" rt.shed         crushed         crushed         crushed         crushed         2,077         2,077	Description         No.sta         Rate/sta         Cost           Water, Process & Compact Base Rock (1 1/2"-0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (1 1/2"-0"):         13         \$56.48         \$734.24           Au-6" r         4"-6" rushed         rushed         rushed         rushed         2,077           400         423         1,098         156         2,077         2,077	Total Rock for Road Se	egment:		1C to1D					163			\$1,632	
Water, Process & Compact Base Rock (4"-0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (1 1/2"-0"):         13         \$56.48         \$734.24           24"-6" rr 6"-0" pr 4"-0" rushed 403         4"-0" rushed crushed crushed 403         70077         2,077	Water, Process & Compact Base Rock (4".0"):         19.75         \$56.48         \$1,115.48           Water, Process & Compact Base Rock (1 1/2".0"):         13         \$56.48         \$734.24           24"-6" rr   6"-0"pr   400         423         1,098         156         2,077         2,077			Processing		Description					No.sta	Rate/sta	Cost	
Water, Process & Compact Base Rock (1 1/2"-0"):         13         \$56.48         \$734.24           24"-6" rr 6"-0" pr 4"-0" rushed 400         423         1,098         156         2,077         2,077         2,077	Water, Process & Compact Base Rock (1 1/2"-0"):         13         \$56.48         \$734.24           24"-6" rr   6"-0"pr   400   423   1,098   156   2,077         1,098   156   2,077   2,077         2,077   2,077   2,077				Water Pro	cess & Comr	pact Base	Rock (4"-0")			19.75	\$56.48	\$1,115.48	
24"-6" rr         6"-0"pr         4".0"         1 1/2".0"         Total         Total           400         423         1,098         156         2,077         2,077	24"-6" rr       6"-0"pr       4".0"       1 1/2".0"         400       423       1,098       156       2,077       2,077				Water, Pro	cess & Comp	oact Base	Rock (1 1/2	0"):		13	\$56.48	\$734.24	
24"-6" rr         6"-0"pr         crushed         crushed         crushed         2,077         2,077	24"-6" rr         6"-0"pr         crushed         crushed         Total         7,077         2,077				Delice			4"-0"	1 1/2"-0"					
400 423 1,098 156 2,077 2,077	400 423 1,098 156 2,077 2,077				2000		6"-0"pr	crushed	crushed		Total			
			SUB TOTAL FOR	R SURFACING		400	423	1,098	156		2,077	2,077		\$15,727

SPECIAL PROJECTS					
	Description	Cy/Amount	Rate	Cost	
	pit-run development	423	\$2.60	\$2.60 \$1,099.80	
	riprap development	400	\$4.30	\$1,720.00	
SUB TOTAL FOR SPECIAL PROJECTS					\$2,820
		Subtotal of	Surfacing	& Spec. Proj.	\$18,546
		Subtotal	of Clearin	Subtotal of Clearing, Exc., Culv.	\$18,668
INTOT GIVE GO					£37 21A
GRAND IOIAL					+17,100

Date: 05/09/2018

Compiled By: Kraig Kirkpatrick

#### **Lost Overlook**

# Project No.2 Road Vacating

Location/Description	C330 Excavator	Truck w/Trailer	Labor	Seeding	Straw Mulch	Total
V1 to V2 0+00-29+00		2 hrs	5 hrs	50 lb.	6 bales	
Sidecast Pullback (3 sta.)	7 hrs					
Establish stream channels	2 hrs					
Waterbars (24)	3 hrs					
V3		hrs	3 hrs	50 lb.	6 bales	
Establish stream channel	4 hrs					
	í					
Total	16 hrs	2 hr	8 hrs	100 lb	12 Bales	
Rate	\$155 /hr	\$99 /hr	\$40 /hr	\$1.60 /lb	\$10.73 /Bale	
Cost	\$2,480	\$198	\$320	\$160	\$129	\$3,28

Prepared by: Kraig Kirkpatrick

Date:

05/09/2018

#### **Projects Road Maintenance Cost Summary**

Sale:

Date:

By:

Lost Overlook 25-May-18 Kraig Kirkpatrick

Type	Equipment/Rationale		Hours	Rate	Cost	
Project Work	Grader 14G		4	\$100	\$400	
Final Haul	Dump Truck 12CY		1	\$79	\$79	
Road	FE Loader C966		0.5	\$86	\$43	
Maintenance					\$0	
					\$0	
		:				
Total						\$522

Production Rates Grader Vibratory Roller

Miles/day	Distance(miles)	Days
1.5	0.00	0.0
1.5	0.00	0.0

NOTE: Spot Grade and spot rock: Fry Creek Road and Rector Loolout Road	Miles
	Miles
	Miles
	Miles
TOTAL= 0.00	Miles

#### CRUSHED ROCK COST

SALE NAME: PROJECT: Stockpile:		Lost Overloo No.1 Sweethome				MATERIAL: 1 1/2"-0" and 4"0"							05/09 Kraig Ki	0/2018 irkpatrick		
Road	- · · ·	Cubic						NE W	AY H	AUL IN	MIL	.ES				Total
Segment	Stations	Yards	50	MPH	30	MPH	25	MPH	20	MPH	15	MPH	10	MPH	5 MPH	Haul
1A-1B	19.75	1,254									(	).85	0.	75	0.10	1.70
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#### ROCK HAUL:

TOTAL 19.75 1,254
STA./NO. CU. YD.
CUBIC YARD WEIGHTED HAUL

Truck type:	D20	No. trucks:			
Delay min.	8	Efficiency:	85%	Ave haul: \$3.01	/cy
				Load: \$0.48	/cy
Truck type:	D12	No. trucks:	5	Spread: \$0.78	/cy
Delay min.:	6	Efficiency:	85%		
Truck type:	D10	No. trucks:		Production: cy/day = 1	,050
Delay min.:	5	Efficiency:	85%		

CRUSHED ROCK HAUL COSTS 1,254 cy @ \$4.27 /cy

0.85

Average Round Trip Distance (miles)

0.75

0.10

3.40

AVERAGE HAUL

1.70

#### PIT RUN ROCK COST

SALE NAME:	Lost Overlook			DATE:	05/09/2018
PROJECT:	No.1	MATERIAL:	Pit Run	BY:	Kraig Kirkpatrick
QUARRY:	Rector Ridge			_	

Road	T T	Cubic	1			ONE W	AY HAUL IN	MILES			Total
Segment	Stations	Yards	50 ME	HI 30	мрн			15 MPH	10 MPH	5 MPH	Haul
1A-1B	19.75	260	00 1111	11 00	1411 11	20 111111	1.00	3.00	1.40	0.10	5.50
1C-1D	2.00	163	<del></del>	-			1.00	3.00	1.40	0.10	5.50
10 10	2.00	100					1.00	3.00	1.40	0.10	1 5.50
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DTAL	21.75	423	1								AVERA
7 1 / VL	STA./NO.	CILVD	1						1		HAUL
IBIC VAPO	WEIGHTED	HAIII					1.0	3.0	1.4	0.1	5.50
DIO LAKD	WEIGHTED	IIAUL	L				1.0	nd Trip Dista	1.4	0.1	J 5.50

#### ROCK HAUL:

Truck type:	D20	No. trucks:			
Delay min.:	8	Efficiency:	85%	Ave haul: \$7.01	/cy
				Load: \$1.08	/cy
Truck type:	D12	No. trucks:	5	Spread: \$1.92	/cy
Delay min.:	6	Efficiency:	85%		
Truck type:	D10	_ No. trucks: _		Production: cy/day =	450
Delay min.:	5	Efficiency:	85%		

PIT RUN ROCK HAUL COSTS 423 cy @ \$10.01 /cy

#### RIP RAP ROCK COST

SALE NAME: PROJECT:		ost Overlo	ok		.//∆⊤⊏	DIAI ·	г	Rip Rap			DA	TE: _	   	05/09.	/2018
QUARRY:	·	Rector Ridg	16	. r	vi/\ I ⊏	KIAL.	٢	ль ияр	-			ВΥ: <u>-</u>	Kra	iig Kii	kpatrick
Q0/11(1(1)		rector reag	<i>j</i> C	•											
Road	T 0. 11	Cubic				10	VE W	AY HAUL IN	N MILE	ES					Total
Segment	Stations	Yards	50 MPH	30	MPH	25	MPH	20 MPH	15	MPH	10 N	IPH	5	МРН	Haul
1A-1B	19.75	400						1.00	3.	00	1.40		0.1		5.50
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TOTAL	19.75	400	]							ļ					AVERAGE
	STA./NO.														HAUL
CUBIC YARD	WEIGHTED	HAUL						1.0		.0	1.4		0.		5.50
							A	verage Rou	nd Tri	o Dista	nce (mi	es)	11.0	00	
ROCK HAUL:															
NOUN HAUL.															
	Truck type:	D12	No. trucks:	_											
	Delay min.:		Efficiency:	85				۸۷۰	haul:	ф7 <i>і</i>	01 /-	.,			
	Delay IIIIII	J	Linciency.	00	/0				naui: ad:	\$7.0 \$1.3					
	Truck type:	D10	No. trucks:						ad: elop:	φ1					
	Delay min.:		Efficiency:	85	%			Dev	eiop.		/c	У			
	11min	3	_molerioy.	00	, 0										
								Production	n: cv/d	ay =	450				
									,						

RIP RAP ROCK HAUL COSTS 400 cy @ \$8.39 /cy

#### Lost Overlook FY 2019 TIMBER CRUISE REPORT

**1.** Sale Area Location: Area 1 are located in portions of Section 30, T4N, R8W, W.M., Clatsop County, Oregon and in portions of Section 36, T4N, R9W, W.M., Clatsop County, Oregon

2. Fund Distribution: Fund:

BOF

100%

Tax Code:

8-01 100%

CSL 0%

3. Sale Acreage by Area:

Area	Treatment	Gross Acres	Stream Buffer Acres	New R/W Acres	Existing RW Acres	Net Acreage	Survey Method
1	Modified Clearcut	97	20	0	0	77	GIS
2	R/W	1	N/A	N/A	N/A	1	Length x Width
Т	OTALS	98	20	0	0	78	

- **4. Cruisers and Cruise Dates:** Area 1 was cruised by Bryce Rodgers, John Choate, Cody Valencia, Ella Salkeld, Matt Dimick, and Kellen Salseina on May 3, 2018.
- **5.** Cruise Method and Computation: Area 1 is a modified clearcut unit. A variable plot cruise with a 40 BAF was used for this Area. The plots were located on a 4 chain by 3 chain grid, with a count/grade plot ratio of 2:1. A total of 65 plots were sampled.

<u>Area 2 R/W</u> Right-of-way volume was calculated by multiplying the R/W acreage and the average volume per acre from the plots in Area 1.

Cruisers used Allegro 2 data collectors that were downloaded to the Atterbury <u>Super A.C.E.</u> program at the Astoria 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_	PROJECT	TRACT	<u>CRUISE TYPE</u>
1	LO	A1	00MC, TAKE
2	LO	TK	R/W

**Timber Description:** Area 1 is an approximately 65 year old stand of western hemlock, red alder with some Sitka Spruce and Douglas fir. The average hemlock take tree size is 19 inches in DBH, with an average merchantable tree height of 46 feet. The average red alder take tree size for harvest is 15 inches DBH, with an average merchantable tree height of 47 feet. The average take Sitka Spruce tree size 35 inches DBH, with an average merchantable tree height of 72 feet. The average take Douglas-fir tree size is 14 inches DBH, with an average merchantable tree height of 51 feet. The average volume per acre to be harvested (net) is approximately 24 MBF. All trees were cruised to a merchantable top of 6 inch DIB or 40% fp.

<u>Area 2 R/W</u> is similar to the timber description mentioned above in the timber sale area 1. The average volume 24 MBF/Acre (net).

Cedar is a reserved species.

6. Statistical Analysis: (See also "Statistics Reports," attached.)

Area	Target CV	Target SE%	Actual CV	Actual SE%
1	70	11	50.5	6.3

7. Take Volumes by Species and Log Grades for All Sale Areas by MBF: (See "Species, Sort Grade-Board Feet Volumes (Project)", "Statistics (Project)", and the "Stand Table Summary" attached). Volumes do not include "in-growth." The majority of defect and breakage was taken out during the cruise.

#### Conifer

Species	DBH	Net Vol. MBF	2 Saw	3Saw	4 Saw	% D&B	% Sale
Western Hemlock/fir	19	968	715	171	82	2.5	53
Sitka Spruce	35	125	117	6	2	-	7
Douglas-fir	14	30	10	13	7	-	1
Cedar	41	1	1	0	0	-	<1

<sup>\*</sup>Approximately 68% of the Sitka Spruce is greater than 20" scale diameter.

#### Hardwoods

Species	DBH	Net Vol. MBF	12"+	10-12"	8-10"	6-8"	% D&B	% Sale
Red Alder	15	717	163	204	95	255	0.4	39

TOTAL NET VOLUME	1,841 MBF
	1 .

8.	Prepared by:	1.	Cody Valencia	Date:	5/25/2018
10.	Approved by:_	1	TILL	Date:	6/1/18
		_1			· /

11. Attachments Cruise Plan & Maps (3 pages)
Species, Sort, Grade Report (3 pages)
Statistics Reports (6 pages)
Stand Table Report (2 pages)
Log Stock Table Report MBF (3 pages)

#### **CRUISE DESIGN** ASTORIA DISTRICT

Sa	ile Name:Lost Overlook Area
На	arvest Type: (MC) Modified Clearcut
Αp	pprox. Cruise Acres: _77_ Estimated CV% _70_Net BF/Acre SE% Objective _11_ Net BF/Acre
Pla	anned Sale Volume: 2.3 MMBF Estimated Sale Area Value/Acre: \$11,600/Acre (29 MBF/Ac. @ \$400/Acre)
Α.	<u>Cruise Goals</u> : (a) Grade minimum <u>100</u> conifer and <u>20</u> hardwood trees  (b) Sample <u>60</u> cruise plots ( <u>20</u> grade/ <u>40</u> count); (c) Other goals ( <u>Determine "automark" thinning standards; <u>X</u> Determine log grades for sale value; <u>X</u> Determine snag and leave tree species and sizes.</u>
В.	Cruise Design:  1. Plot Cruises: BAF 40 (Full point) Cruise Line Directions: 156°/336° Cruise Line Spacing 4 (chains) 264 (Feet) Cruise Plot Spacing 3 (chains) 198 (Feet) Grade/Count Ratio 1:2
	Take plots as marked on cruise man. All cedar will be reserved. Record all spags as SN

ı ake piots as marked on cruise map. Ali cedar will be reserved. Record ali snags

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS.

All hardwood will be measured to a G, or as appropriate.

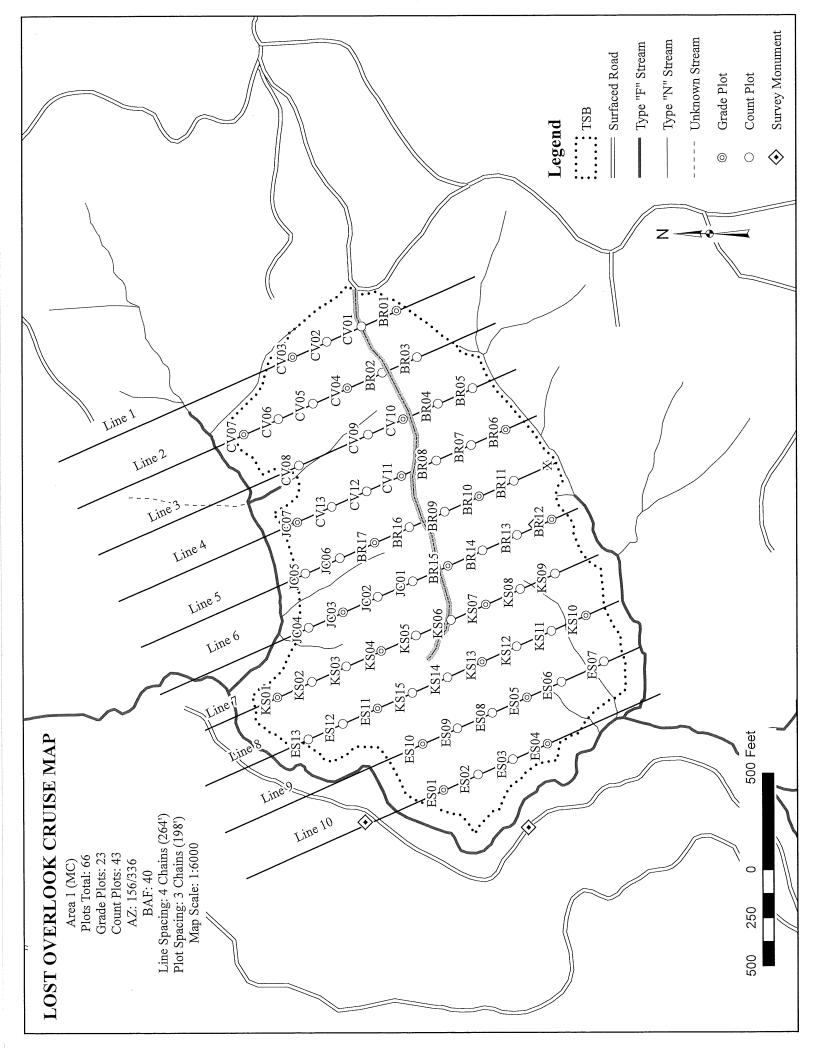
#### C. Tree Measurements:

- **1. Diameter:** Minimum DBH to cruise is <u>8"</u> for conifers and <u>8"</u> for hardwoods. Record dbh to nearest  $\frac{1}{2}$ " for trees <  $\frac{1}{6}$ ", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length: Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD): Minimum top outside bark is 7 for conifers and 7 for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for conifer 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. Hardwoods shall be recorded in 8' and 10' multiples.
- 6. Species, Sort, and Grade Codes:
- A. <u>Species</u>: 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 Hardwoods: <u>Alder Grades</u>: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill, or R = Camp Run; 0 = Cull. All Maple Camp Run = R
- **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 <u>blue/yellow</u> flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie <u>yellow</u> flagging above eye level near plot center and another <u>yellow</u> flagging around a sturdy wooden stake marking plot center. On each <u>yellow</u> flagging, write the plot identification number. Between plots, along the cruise line, tie <u>blue</u> flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in <u>yellow</u> paint. All trees on the plot may be marked this way, if the cruiser chooses.
- **9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back) 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: _ (2	myre	Rodow	<b>3</b>	
Approved by:	16	Tull	L. '		
Date:		1/30/20	18		
		/			•

X:\STATE\_FORESTS\\2019 FY Sales\Lost\_Overlook\Sale Prep\Cruise\LO\_Cruisedesign\_A1



TC	PSPCSTGR		Sı	pecies,	Sort G	rade -	Board	d Foo	ot Vo	olumo	es (P	roject	)							
	4N R08W S30 4N R08W S30			77.00 1.00		Proje Acres		LO	78.0	00							Page Date Time		1 31/20 :26:4	18
Spp	S So Gr Trt ad	% Net BdFt	Bd. Fi	t. per Acre	e Net	Tota		L	og Sca	Net Bo ale Dia. 12-16		oot Volu 12-20	Log L		36-99	Ln Ft	Avera Dia In	Bd	g CF/ Lf	Logs Per /Acre
A A A A	DOCU DO1S DO2S DO3S DO4S	22 29 13 36	1.5	2,092 2,653 1,214 3,269 9,228	2,092 2,613 1,214 3,269 9,188		163 204 95 255		66 100 100	85 16	15 18	3 9 19	25 14 50 21	11 8 16	64 76 25 59	<b></b>	10 13	238 165 70 44	0.00 1.70 1.29 0.85 0.52	6.3 8.8 15.9 17.3 74.5
S S S	DO2S DO3S DO4S	93 5 2	4	1,500 74 23	1,500 74 23		117 6 2		97 100	24	100 3	0 100 2	24	40	100 60	40 36 20 35	21 7 7	794 67 30	4.98 1.56 1.05	1.9 1.1 .8
H H H	DOCU DO2S DO3S DO4S	73 18 9	2.5 2.7 2.2	9,393 2,252 1,077	9,163 2,192 1,054		715 171 82		93 78	33 22	67 7	0 6 51	4 3 49	10 31	86 60	31		430 90	0.00 2.79 0.91 0.57	5.0 21.3 24.5 30.3
D D D	DO2S DO3S DO4S	32 44 24	2.5	124 173 90	12,409 124 173 90		968 10 13 7	0	100 100	0	100	34	7	40	74 100 60 66	30 40 34 23	17 8 6	463 87 30	2.32 0.72 0.44	.3 2.0 3.0
C C C	DO2S DO3S DO4S	65 32 3	2.8	387 5 3 0	5 3 0		0 0 0	0	100	18	100 82	5 67	33	47 14	53 82	35 32 20	16 8	717 447 37	6.51 3.78 1.42	.0 .0 .0
C	Totals	0	1.8	23,944	23,590	1,841	1 1 <del>,840</del>	0	40	23	91	7	13	35 10	70	30	16 9		1.07	.0

T T	TSPCSTG:	R			Species,	Sort G	rade - Boar :: LO	d Foo	t Vo	olum	ies (T	'ype)				I	Page Date Time	5,	1 /30/20 :37:19	
T04N Tw <sub>1</sub> 04N	_	ge	Sec	Tract A1		Type TAK			Plots 65	·	-	e Trees		C 1	uFt	BdF W	rt		S30 T	TAKE
Spp	_	Gr ad	% Net BdFt	Bd. Def%	Ft. per Ac Gross	re Net	Total Net MBF	Log	Scal	le Di		Log	Len	_	36-99	Av Ln l Ft l	Dia		CF/ Lf	Logs Per /Acre
Н Н Н	DO DO DO DO	CU 2S 3S 4S	73 18 9	2.5 2.7 2.2	9,393 2,252 1,077	9,163 2,192 1,054	706 169 81		93 78	33	67	0 6 51	4 3 49	10 31	86 60	31 38 35 20	16 8 7	90 35	0.00 2.79 0.91 0.57	5.0 21.3 24.5 30.3
A A A A	DO DO DO DO DO DO	CU 1S 2S 3S 4S	22 29 13 36	1.5	2,092 2,653 1,214 3,269	2,092 2,613 1,214 3,269	955 161 201 93 252	1	66 100	85 16	15 18	3 9 19	25 14 50 21	11 8 16	74 64 76 25 59	30 8 36 35 28 29	10 13 11 9	238 165 70	0.00 1.70 1.29 0.85 0.52	6.3 8.8 15.9 17.3 74.5
S S S	DO DO DO Totals	2S 3S 4S	93 5 2	.4	9,228 1,492 73 23 1,588	9,188 1,492 73 23 1,588	708 115 6 2 122	1	67 100 100 6	24	9 100 94	100	24	41	61 100 59	29 40 36 20 35	21 7 7	66	0.78 4.95 1.55 1.05	1.9 1.1 .8
D D D	DO DO DO <b>Totals</b>	2S 3S 4S	31 45 24		123 173 89 385	123 173 89 385	9 13 7 30	1	100 100 68		32	34		40	100 60 66 74	40 34 23 28	8 6	87	2.30 0.72 0.44 0.71	.3 2.0 3.0
Type	<b>Fotals</b>			1.5	23,924	23,570	1,815		40	23	37	7	13	10	70	30	9	111	1.07	212.8

T 3	ISPCSTG	R			Species,	Sort G Projec	rade - Boar t: LO	d Fo	oot V	olur	nes (T	Type)				Pag Dat Tin	e 5	1 5/30/20 7:58:4	
T04N Twj 04N			Sec	Tract TK		Type R/W			Plots		•	le Trees 20	8	C 1	uFt	T04N BdFt W	R08W	S30 T	R/W
			%					Per	cent N	let B	oard Fo	ot Vol	ıme			Avera	ige Log	<u> </u>	Ţ
Spp	s so T rt	Gr ad	Net BdFt	1	Ft. per Ac Gross	re Net	Total Net MBF	L. 4-5	og Sca 6-11			Log	Len 21-30	_	36-99	Ln Dia Ft In	Bd Ft	CF/ Lf	Logs Per /Acre
Н	DO	CU														31 12		0.00	5.0
Н	DO	2S	73	2.5	9,393	9,163	9			33	67	0	4	10	86	38 16	430	2.79	21.3
Н	DO	3S	18	2.7	2,252	2,192	2		93		7	6	3	31	60	35 8	90	0.91	24.5
Н	DO	4S	9	2.2	1,077	1,054	1		78	22		51	49			20 7	35	0.57	30.3
Н	Totals		49	2.5	12,723	12,409	12		23	26	51	6	7	13	74	30 10	153	1.39	81.1
A	DO	CU														8 10		0.00	6.3
A	DO	1S	22		2,092	2,092	2			85	15		25	11	64	36 13	238	1.70	8.8
A	DO	2S	29	1.5	2,653	2,613	3		66	16	18	3	14	8	76	35 11	165	1.29	15.9
Α	DO	3S	13		1,214	1,214	1		100			9	50	16	25	28 9	70	0.85	17.3
A	DO	4S	36		3,269	3,269	3		100			19	21		59	29 6	44	0.52	74.5
A	Totals		37	.4	9,228	9,188	9		67	24	9	9	24	7	61	29 8	75	0.78	122.7
S	DO	2S	90		2,176	2,176	2				100	3			97	37 26	1294	7.67	1.7
S	DO	3S	9		213	213	0		23		77			9	91	36 10		2.56	.8
S	DO	4S	1		15	15	0		100			100				20 7	30	1.05	.5
S	Totals		10		2,404	2,404	2		3		97	3		1	96	34 18	802	5.55	3.0
С	DO	2S	65	2.8	418	406	0				100			47	53	35 22	717	6.51	.6
C	DO	2S 3S	32	2.0	198	198	0			18	82	5		14	82	32 16		3.78	.4
C	DO	4S	3		17	17	0		100			67	33		~ <b>-</b>	20 8		1.42	.5
C	Totals		2	1.8	633	621	1		3	6	91	3	1	35	60	29 16	421	4.53	1.5
	,	20	17		220	220				8	92				100	40 19	<i>4</i> 12	225	A.
D D	DO DO	2S 3S	47 33		239 166	239 166	0		100	ð	92			40	100 60	34 8		3.35 0.72	1.9
D	DO		20		95	95	0	10	90			41		10	59	21 5		0.72	3.8
D	Totals		2		500	500	1	2	50	4	44	8		13	79	26 7	82	0.81	6.1
Type '	:			1 1	25,488	25,123	25	0	37	22	41	7	12	10	71	29 9	117	1.12	214.3
1 ype	Lotais			1.4	23,488	23,123	1 23	1	3/	22	41	1 /	12	10	/ 1	1 29 9	11/	1.12	214.3

TC PS	TATS					DJECT S ROJECT	TATI LO	STICS			PAGE DATE	1 5/31/2018
TWP	RGE	SC	TRACT	r	TYPE		AC	RES	PLOTS	TREES	CuFt	BdFt
04N 04N	08 08W	30 30	A1 TK		TAKE R/W			78.00	130	729	1	W
	0011					TREES		ESTIMATED TOTAL		PERCENT SAMPLE		
		I	PLOTS	TREES		PER PLOT		TREES		TREES		
TOT	AL		130	729		5.6						
	ISE I COUNT OREST		46	228		5.0		11,135		2.0		
COU BLA	INT NKS		84	501		6.0						
					STA	AND SUMM	IARY					
			AMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHI	EMLOCK		116	57.3	18.5	46	24.9	107.1	12,723	12,409	3,350	
	LDER		86	80.5	14.6	47	24.5	93.5	9,228	,	2,810	•
	RUCE		8	1.9	34.6	72	2.1	12.3	1,598		455	455
SNA	.G		4	.0	20.8	34	0.0	.1				
DOU	JG FIR		9	3.0	13.8	51	0.8	3.1	387		103	103
	CEDAR		5	.0	41.0	61	0.0	.1	8		3	
TOT	ral		228	142.8	16.7	47	53.0	216.2	23,944	23,590	6,720	6,720
CL SD:	68.1		COEFF VAR.%	S.E.%	-	SAMPL)	E TREE AVG	S - BF HIGH	ī	# OF TREES 5	REQ.	INF. POP.
	EMLOCK		120.6	11.2		478	538	598				
R Al	LDER		89.0	9.6		147	163	178				
S SP SNA	RUCE AG		126.7	47.8		1,423	2,726	4,029				
	JG FIR		143.7	50.7		200	407	613				
	CEDAR		26.4	13.1		744 <i>405</i>	856 <i>465</i>	968 <i>526</i>		1,524	381	169
	ΓAL CO. 1		195.4 COEFF	12.9		TREES/		320		# OF PLOTS		INF. POP.
CL SD:	68.1 1.0		VAR.%	S.E.%		LOW	AVG	HIGH		# OF 1 LOTS	10	15
	EMLOCK		156.3	13.7		49	57	65			10	
	LDER		169.0	14.8		69	81	92				
	PRUCE		334.9	29.4		1	2	2				
SNA			367.0	32.2		0	0	0				
	JG FIR		626.4	54.9 40.6		1 0	3 0	5 0				
	CEDAR <b>FAL</b>		463.2 121.5	40.6 10.7		128	143	158		590	147	66
CL			COEFF	10.7		BASAL				# OF PLOTS		INF. POP.
SD:			VAR.%	S.E.%		LOW	AVG	HIGH		5	10	15
WH	EMLOCK		153.8	13.5		93	107	122				
	LDER		163.8	14.4		80	94	107				
	PRUCE		333.0	29.2		9	12	16				
SNA	AG UG FIR		325.9 587.9	28.6 51.5		0 1	0	0 5				
	CEDAR		387.9 466.1	40.8		0	0	0				
	TAL		114.4	10.0		195	216	238		522	131	58
CL	68.1		COEFF		A	NET BF	/ACRE			# OF PLOTS	S REO.	INF. POP.
SD:			VAR,%	S.E.%		LOW	AVG	HIGH		5	10	13
	EMLOCK		165.2	14.5			12,409	14,205				
	LDER		169.5	14.9		7,823	9,188	10,553				
	DDIIOE		200.0	20.0		1 106						
S SI SNA	PRUCE		329.8	28.9		1,136	1,598	2,060				

TC PS	<b>FATS</b>				PROJECT PROJECT					PAGE DATE	<b>2</b> 5/31/2018
TWP	RGE	$\mathbf{SC}$	TRACT	TYP	E	A	CRES	PLOTS	TREES	CuFt	BdFt
04N 04N	08 08W	30 30	A1 TK	TAKI R/W	E		78.00	130	729	1	W
CL	68.1		COEFF		NET I	BF/ACRE			# OF PLOT	S REQ.	INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
DOU	G FIR		580.4	50.9	190	387	583				
WR (	CEDAR		458.9	40.2	5	8	11				
TOT	AL		120.3	10.5	21,103	23,590	26,076		578	144	64

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	ATS		1 1694		ST. PROJEC	ATIST	ICS LO			PAGE DATE 5	1 /31/2018
TWP	RGE	SECT	TRACT		TYPE	ACI		PLOTS	TREES	CuFt	BdFt
04N	08W		A1		TAKE		77.00	65	351	1	W
				,	ΓREES		ESTIMATED TOTAL		PERCENT SAMPLE		
		PLOTS	TREES	)	PER PLOT		TREES	7	TREES		
ТОТА	L	65	351		5,4						
REFO	COUNT REST	23	108		4.7		10,989		1.0		
COUN BLAN 100 %	IKS	42	243		5.8						
				STA	ND SUMN	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
WHE	MLOCK	58	57.3	18.5	46	24.9	107.1	12,723	12,409	3,350	3,350
R ALI	DER	43	80.5	14.6	47	24.5	93.5	9,228	9,188	2,810	2,810
S SPR	UCE	3	1.9	34.5	72	2.1	12.3	1,588	1,588	453	453
DOUG	3 FIR	4	3.0	13.8	51	0.8	3.1	385	385	103	103
TOTA	<b>AL</b>	108	3 142.7	16.7	47	52.9	216.0	23,924	23,570	6,716	6,716
CON			OF THE SAMPI IT OF 100 THE		WILL BE	WITHIN	THE SAMP	LE ERROR	-		
	····										
CL:	68.1 %	COE				E TREES		7	# OF TREE	-	INF. POP.
SD:	1.0	VAR	% S.E.%	L	OW	AVG	HIGH	7	# OF TREE 5	S REQ. 10	INF. POP.
SD; WHE	1.0 MLOCK	VAR 121.	% S.E.% 1 15.9	L	OW 452	AVG 538	HIGH 623	7		-	
SD: WHEI	1.0 MLOCK DER	VAR 121. 89.	S.E.% 1 15.9 5 13.6	L	452 140	538 163	HIGH 623 185	7		-	
SD; WHE	1.0 MLOCK DER RUCE	VAR 121.	S.E.% 1 15.9 5 13.6 7 21.9	L	OW 452	AVG 538	HIGH 623	7		-	
SD: WHE R ALI S SPR	1.0 MLOCK DER RUCE G FIR	VAR 121. 89. 31.	S.E.% 1 15.9 5 13.6 7 21.9 0 73.2	L	452 140 687	538 163 880	623 185 1,073	7		-	
SD: WHE R ALI S SPR DOUG TOTA	1.0 MLOCK DER RUCE G FIR	VAR 121. 89. 31.	.% S.E.%  1 15.9  5 13.6  7 21.9  0 73.2  5 13.1	L	452 140 687 62 336	AVG 538 163 880 230 387	HIGH 623 185 1,073 398		744	186	15
SD: WHE R ALI S SPR DOUG TOTA	1.0 MLOCK DER RUCE G FIR	VAR 121. 89. 31. 128. 136.5	.% S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF		452 140 687 62	AVG 538 163 880 230 387	HIGH 623 185 1,073 398		5	186	15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD:	1.0 MLOCK DER RUCE G FIR AL	VAR 121. 89.: 31.' 128. 136.: COE	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF % S.E.%		452 140 687 62 336	538 163 880 230 387	HIGH 623 185 1,073 398 437		5 744 # OF PLOT	10 186 S REO.	83 INF. POP.
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI	1.0 MLOCK DER LUCE G FIR AL 68.1 % 1.0 MLOCK DER	VAR 121. 89.: 31.: 128.: 136.: COE VAR 87.: 99.	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF		452 140 687 62 336 TREES/ DW 51 71	AVG 538 163 880 230 387 ACRE AVG 57 81	HIGH 623 185 1,073 398 437  HIGH 64 90		5 744 # OF PLOT	10 186 S REO.	83 INF. POP.
SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE	VAR 121. 89.: 128.: 136.: COE VAR 87.: 99. 229.:	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4		452 140 687 62 336 TREES/ DW 51 71	AVG 538 163 880 230 387 ACRE AVG 57 81 2	HIGH 623 185 1,073 398 437  HIGH 64 90 2		5 744 # OF PLOT	10 186 S REO.	83 INF. POP.
SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR	VAR 121. 89.: 31.' 128.! 136.5 COE VAR 87. 99. 229.: 444.	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4 8 55.1		140 687 62 336 TREES/ DW 51 71 1	AVG  538  163  880  230  387  ACRE  AVG  57  81  2  3	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5		5 744 # OF PLOT 5	186 PS REO. 10	83 INF. POP. 15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL	VAR 121. 89. 31. 128. 136.5 COE VAR 87. 99. 229. 444. 52.0	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF % S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4		452 140 687 62 336 TREES/ DW 51 71 1 1 134	AVG 538 163 880 230 387 ACRE AVG 57 81 2 3 143	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152	i	5 744 # OF PLOT 5	186 PS REO. 10	83 INF. POP. 15
SD: WHEI R ALL S SPR DOUG TOTA CL: SD: WHEI R ALL S SPR DOUG TOTA CL:	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL 68.1 %	VAR 121. 89.: 31.' 128.' 136.' COE VAR 87.' 99. 229. 444. 52.( COE	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  -% S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL	AVG 538 163 880 230 387 ACRE AVG 57 81 2 3 143 AREA/A	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE	i	5  744  # OF PLOT 5	186 S REO. 10 27 S REO.	15 83 INF. POP. 15
SD: WHEI R ALL S SPR DOUG TOTA CL: SD: WHEI R ALL S SPR DOUG TOTA CL: SD:	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0	VAR 121. 89.: 128.: 136.: 136.: COE VAR 87.: 99. 229. 444. 52.0 COE	S.E.%  S.E.%  1	L	50W 452 140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL	AVG 538 163 880 230 387 ACRE AVG 57 81 2 3 143 AREA/A AVG	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE HIGH	i	5 744 # OF PLOT 5	186 PS REO. 10	83 INF. POP. 15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK	VAR 121. 89.: 128.: 136.: 136.: COE VAR 87.: 99. 229.: 444. 52.0 COE VAR	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF % S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  L.% S.E.% 4 10.6	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96	AVG 538 163 880 230 387  ACRE AVG 57 81 2 3 143  AREA/A AVG 107	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE HIGH 118	i	5  744  # OF PLOT 5	186 S REO. 10 27 S REO.	83 INF. POP. 15  12 INF. POP.
SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER	VAR 121. 89.: 31.: 128.: 136.: COE VAR 87.: 99. 229.: 444. 52.: COE VAR 85.: 94.	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  C.% S.E.% 4 10.6 5 11.7	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83	AVG 538 163 880 230 387  ACRE AVG 57 81 2 3 143  AREA/A AVG 107 94	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE HIGH 118 104	i	5  744  # OF PLOT 5	186 S REO. 10 27 S REO.	83 INF. POP. 15  12 INF. POP.
SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE S SPR	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE GRUCE	VAR 121. 89.: 31.' 128.' 136.5 COE VAR 87. 99. 229. 444. 52.0 COE VAR 85. 94.	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  C.% S.E.% 4 10.6 5 11.7 3 28.4	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96	AVG 538 163 880 230 387  ACRE AVG 57 81 2 3 143  AREA/A AVG 107 94 12	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE HIGH 118 104 16	i	5  744  # OF PLOT 5	186 S REO. 10 27 S REO.	83 INF. POP. 15  12 INF. POP.
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI	1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL 68.1 % 1.0 MLOCK DER RUCE G FIR AL 68.1 %	VAR 121. 89.: 31.: 128.: 136.: COE VAR 87.: 99. 229.: 444. 52.: COE VAR 85.: 94.	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.%  7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  S.E.%  4 10.6 5 11.7 3 28.4 0 51.8	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83 9	AVG 538 163 880 230 387  ACRE AVG 57 81 2 3 143  AREA/A AVG 107 94	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE HIGH 118 104	i	5  744  # OF PLOT 5	186 S REO. 10 27 S REO.	15 83 INF. POP. 15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA TOTA	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL	VAR 121. 89.: 31.' 128.' 136.5 COE VAR 87. 99. 229.: 444. 52.0 COE VAR 85. 94. 229. 418.	S.E.%  1	L	50W 452 140 687 62 336 TREES/ 51 71 1 1 134 BASAL 50W 96 83 9 1 205	AVG  538  163  880  230  387  ACRE  AVG  57  81  2  3  143  AREA/A  AVG  107  94  12  3  216	HIGH 623 185 1,073 398 437  HIGH 64 90 2 5 152  CRE HIGH 118 104 16 5	-	5  744  # OF PLOT 5  108  # OF PLOT 5	186 S REO. 10  27 S REO. 10	15 83 INF. POP. 15 12 INF. POP. 15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S CL: CL: CL: CL: CL: CCL: CCL: CCL: CCL:	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 68.1 %	VAR 121. 89.: 31.' 128.' 136.5 COE VAR 87.' 99. 229. 444. 52.0 COE VAR 85. 94. 229. 418. 42.5	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF % S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF % S.E.% 4 10.6 5 11.7 3 28.4 0 51.8 9 5.3	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83 9 1 205	AVG 538 163 880 230 387 ACRE AVG 57 81 2 3 143 AREA/A AVG 107 94 12 3 216	HIGH  623  185  1,073  398  437  HIGH  64  90  2  5  152  CRE  HIGH  118  104  16  5  227	-	5  744  # OF PLOT 5  108  # OF PLOT 5	186 PS REQ. 10 27 PS REQ. 10 18	15 83 INF. POP. 15 12 INF. POP. 15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD:	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0	VAR 121. 89.: 31.' 128.' 136.' COE VAR 87.' 99. 229. 444. 52.( COE VAR 85. 94. 229. 418. 42.9	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.%  7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  L.% S.E.% 4 10.6 5 11.7 3 28.4 0 51.8 9 5.3  FFF  L.% S.E.%	L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83 9 1 205 NET BE	AVG  538  163  880  230  387  ACRE  AVG  57  81  2  3  143  AREA/A  AVG  107  94  12  3  216  F/ACRE  AVG	HIGH  623  185  1,073  398  437  HIGH  64  90  2  5  152  CRE  HIGH  118  104  16  5  227  HIGH	-	5  744 # OF PLOT 5  108 # OF PLOT 5	186 S REO. 10  27 S REO. 10	15 83 INF. POP. 15 12 INF. POP. 15
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD:	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK	VAR 121. 89.: 136.5 136.5 COE VAR 87.: 99. 229. 444. 52.0 COE VAR 85. 94. 229. 418. 42.5 COE	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  C.% S.E.% 4 10.6 5 11.7 3 28.4 0 51.8 9 5.3  FF  C.% S.E.% 7 11.9	L L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83 9 1 205 NET BE	AVG 538 163 880 230 387 ACRE AVG 57 81 2 3 143 AREA/A AVG 107 94 12 3 216	HIGH  623  185  1,073  398  437  HIGH  64  90  2  5  152  CRE  HIGH  118  104  16  5  227	-	5  744  # OF PLOT 5  108  # OF PLOT 5	186 PS REQ. 10 27 PS REQ. 10 18	15  83  INF. POP. 15  INF. POP. 8  INF. POP.
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPR DOUG TOTA CL: SD:	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK	VAR 121. 89.: 31.: 128.: 136.: 136.: COE VAR 87.: 99. 229.: 444. 52.0 COE VAR 85. 94. 229. 418. 42.5 COE VAR	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  S.E.% 4 10.6 5 11.7 3 28.4 0 51.8 9 5.3  FF  C.% S.E.% 7 11.9 6 12.3	L L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83 9 1 205 NET BE	AVG  538  163  880  230  387  ACRE  AVG  57  81  2  3  143  AREA/A  AVG  107  94  12  3  216  F/ACRE  AVG  12,409	HIGH  623  185  1,073  398  437  HIGH  64  90  2  5  152  CRE  HIGH  118  104  16  5  227  HIGH  13,881	-	5  744  # OF PLOT 5  108  # OF PLOT 5	186 PS REQ. 10 27 PS REQ. 10 18	15  83  INF. POP. 15  INF. POP. 8  INF. POP.
SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHEI R ALI S SPR DOUG TOTA CL: SD: WHE R ALI S SPF DOUG TOTA CL: S SPF DOUG TOTA CL: S SPF DOUG TOTA CL: S SPF DOUG S SPF DOUG S SPF S	1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL  68.1 % 1.0 MLOCK DER RUCE G FIR AL	VAR 121. 89.: 31.' 128.' 136.5 COE VAR 87. 99. 229. 444. 52.0 COE VAR 85. 94. 229. 418. 42.5 COE VAR 95.	S.E.%  1 15.9 5 13.6 7 21.9 0 73.2 5 13.1  FF  S.E.% 7 10.9 1 12.3 4 28.4 8 55.1 0 6.4  FF  S.E.% 4 10.6 5 11.7 3 28.4 0 51.8 9 5.3  FF  C.% S.E.% 7 11.9 6 12.3 2 28.3	L L	140 687 62 336 TREES/ DW 51 71 1 1 134 BASAL DW 96 83 9 1 205 NET BE DW 0,936 8,055	AVG  538  163  880  230  387  ACRE  AVG  57  81  2  3  143  AREA/A  AVG  107  94  12  3  216  P/ACRE  AVG  12,409  9,188	HIGH  623  185  1,073  398  437  HIGH  64  90  2  5  152  CRE  HIGH  118  104  16  5  227  HIGH  13,881  10,322	-	5  744  # OF PLOT 5  108  # OF PLOT 5	186 PS REQ. 10 27 PS REQ. 10 18	15  83  INF. POP. 15  12  INF. POP. 15

TC TSTATS				ST. PROJEC	ATISTI	ICS .o				1 /31/2018
TWP RGE	SECT 7	TRACT		TYPE	ACF		PLOTS	TREES	CuFt	BdFt
04N 08W		<b>\1</b>		00MC		77.00	65	378	1	W
				TREES		STIMATED OTAL		ERCENT AMPLE		
	PLOTS	TREES		PER PLOT		TREES	T	REES		
TOTAL	65	378		5.8						
CRUISE DBH COUNT REFOREST	23	120		5.2		11,313		1.1		
COUNT BLANKS 100 %	42	258		6.1						
			STA	ND SUMN	IARY					
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	58	57.3	18.5	46	24.9	107.1	12,723	12,409	3,350	3,350
R ALDER	43	80.5	14.6	47	24.5	93.5	9,228	9,188	2,810	2,810
S SPRUCE	3	1.9	34.5	72	2.1	12.3	1,588	1,588	453	453
SNAG	4	3.4	20.8	34	1.8	8.0				
CEDLEAV	5	.7	41.0	61	1.1	6.8	633	621	197	197
DOUG FIR	4	3.0	13.8	51	0.8	3.1	395	395	106	106
SPRUCELV	2	.0	77.1	95	0.1	1.2	308	308	61	61
DOUGLEAV	1	.1	45.0	82	0.1	.6	101	101	24	24
THO MILE	120	11/0	170	17	561					7,000
		146.9 F THE SAMPI T OF 100 THE		47 E WILL BE	56.4 WITHIN	232.6 THE SAMP	24,975 PLE ERROR	24,610	7,000	
CL: 68.1 %	CE LIMITS O TIMES OU'	OF THE SAMPI T OF 100 THE	LE VOLUME	E WILL BE	WITHIN E TREES	THE SAMP	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0	CE LIMITS OUT TIMES OUT COEF	F THE SAMPI T OF 100 THE FF % S.E.%	LE VOLUME	E WILL BE	WITHIN	THE SAMP	LE ERROR			INF. POP.
CL: 68.1 %	CE LIMITS OUT TIMES OUT COEF	F THE SAMPI T OF 100 THE FF % S.E.% 15.9	LE VOLUME	E WILL BE  SAMPL OW	WITHIN E TREES AVG	THE SAMP S - BF HIGH	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE	CE LIMITS OUTIMES OUTI	F THE SAMPI T OF 100 THE FF % S.E.% 15.9 13.6	LE VOLUME	SAMPL OW 452	WITHIN E TREES AVG 538	THE SAMP  6 - BF  HIGH  623	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK  R ALDER  S SPRUCE  SNAG	CE LIMITS OF TIMES OUT COEFF VAR. 121.1 89.5	F THE SAMPI T OF 100 THE S.E.% 15.9 13.6 21.9	LE VOLUME	SAMPL OW 452 140	WITHIN E TREES AVG 538 163	THE SAMP  8 - BF  HIGH  623  185	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE	CE LIMITS OF TIMES OUT COEFFICIENT VAR. 121.1 89.5 31.7	F THE SAMPI T OF 100 THE S.E.% 15.9 13.6 21.9	LE VOLUME	SAMPL OW 452 140 687	E TREES  AVG  538  163  880	THE SAMP  6 - BF  HIGH  623  185  1,073	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK  R ALDER  S SPRUCE  SNAG  CEDLEAV  DOUG FIR  SPRUCELV	CE LIMITS OF TIMES OUT COEFFICIENT VAR 121.1 89.5 31.7	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9	LE VOLUME	SAMPLOW  452 140 687	E TREES  AVG  538  163  880  856	THE SAMP  6 - BF  HIGH  623  185  1,073	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK  R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR	CE LIMITS OF TIMES OUT COEFFICIENT VAR 121.1 89.5 31.7 26.4 125.9	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7	LE VOLUME	SAMPL OW 452 140 687 744 65	E TREES  AVG  538  163  880  856  233	THE SAMP  6 - BF HIGH 623 185 1,073 968 400	LE ERROR	OF TREES	REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK  R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV	CE LIMITS OF TIMES OUT COEFFICIENT OF TIMES OUT COEFFICIENT OF THE PROPERTY OF	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7	LE VOLUME	SAMPL OW 452 140 687 744 65 7,133	E TREES AVG 538 163 880 856 233 8,265 537	THE SAMP 6 - BF HIGH 623 185 1,073 968 400 9,397	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1 68.1 68.1 SD: 1.0 WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0	COEF LIMITS OF TIMES OUT COEF VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COEF VAR.	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  S.E.%	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641 HIGH	LE ERROR	OF TREES 5	REO. 10	INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK	COEF LIMITS OF TIMES OUT COEF VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COEF VAR. 87.3	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  S.E.%  7 10.9	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641 HIGH 64	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1 % SD: 1.0 WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0 WHEMLOCK R ALDER	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 COER VAR. 87.7 99.1	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  .%  S.E.%  7  10.9  12.3	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES COW 51 71	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81	THE SAMP 6 - BF HIGH 623 185 1,073 968 400 9,397 641 HIGH 64 90	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1 % SD: 1.0 WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0 WHEMLOCK R ALDER S SPRUCE	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.7 99.1 229.4	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  .%  S.E.%  7  10.9  12.3  4  28.4	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641 HIGH 64	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 COER VAR. 87.7 99.1	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9 12.3 4 28.4 5 31.1	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES COW 51 71	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE	CE LIMITS OF TIMES OUT COEFFICIENT COEFFIC	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9  12.3  4 28.4  5 31.1  6 39.8  8 55.1	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2	ETREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.1 99.1 229.4 250.6 321.6 444.8 806.2	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9  1 12.3  4 28.4  5 31.1  0 39.8  3 55.1  9 99.9	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0	LE ERROR	# OF TREES 5 1,826 # OF PLOTS	457 3 REO.	INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV DOUGLEAV	COEH VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COEH VAR. 87.7 99.3 229.6 250.6 321.6 806.6	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  8 S.E.%  7 10.9  1 12.3  4 28.4  6 31.1  10 39.8  8 55.1  2 99.9  2 99.9	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0	**E TREES AVG	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#REO. 10  #57  BREO. 10	20 INF. POP.
CONFIDENC 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.7 99.1 229.4 250.6 321.6 806.3 50.2	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  96  S.E.%  7  10.9  1 2.3  4 28.4  6 31.1  9 39.8  8 55.1  9 99.9  2 99.9  2 6.2	LE VOLUME L	SAMPL SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0 0 147	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#REO. 10 457 S REO. 10	20. INF. POP. 1
CONFIDENCE 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUGLEAV TOTAL  CL: 68.1 %  CEDLEAV DOUGLEAV CEDLEAV	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.1 99.1 229.4 250.6 321.6 444.8 806.3 806.3 50.2 COER COER COER COER COER COER COER COER	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9  12.3  4 28.4  5 31.1  6 39.8  8 55.1  9 99.9  9 6.2  FF	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL	ETREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0 0 147	THE SAMP  6 - BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#FREO. 10 457 GREO. 10 25 SREO. 10	INF. POP.  1 INF. POP.
CONFIDENCE 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUGLEAV TOTAL  CL: 68.1 % SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SPRUCELV DOUGLEAV TOTAL	COELIMITS OF TIMES OUT COEFFICIENT COEFFIC	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9  12.3  4 28.4  5 31.1  10 39.8  8 55.1  2 99.9  2 6.2  FF  .% S.E.%	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0 0 147 AREA/A AVG	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156  CCRE HIGH	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#REO. 10 457 S REO. 10	INF. POP.  1 INF. POP.
CONFIDENCE 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.1 99.1 229.4 250.6 321.6 444.8 806.5 50.2 COER VAR. 85.4 85.4 85.4 85.4 85.4 85.4 85.4 85.	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9  1 12.3  4 28.4  5 31.1  0 39.8  3 55.1  2 99.9  2 6.2  FF  .% S.E.%  4 10.6	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL OW 96	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0 0 147 AREA/A AVG 107	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156 CCRE HIGH 118	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#FREO. 10 457 GREO. 10 25 SREO. 10	20. INF. POP. 1 INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.7 99.1 229.4 250.6 321.6 444.8 806.3 806.3 50.2 COER VAR. 85.9 94.	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  % S.E.%  7 10.9  1 2.3  4 28.4  5 31.1  0 39.8  3 55.1  2 99.9  2 6.2  FF  .% S.E.%  4 10.6  5 11.7	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0 0 147 AREA/A AVG 107 94	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156  CCRE HIGH 118 104	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#FREO. 10 457 GREO. 10 25 SREO. 10	200 INF. POP. 1 INF. POP.
CONFIDENCE 68.1  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUG FIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SPRUCELV CEDLEAV	COER LIMITS OF TIMES OUT COER VAR. 121.1 89.5 31.7 26.4 125.9 14.6 213.8 COER VAR. 87.1 99.1 229.4 250.6 321.6 444.8 806.5 50.2 COER VAR. 85.4 85.4 85.4 85.4 85.4 85.4 85.4 85.	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  8 S.E.%  7 10.9  1 12.3  4 28.4  6 31.1  0 39.8  3 55.1  2 99.9  2 6.2  FF  -% S.E.%  4 10.6  5 11.7  3 28.4	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL COW 96 83	E TREES AVG 538 163 880 856 233 8,265 537 ACRE AVG 57 81 2 3 1 3 0 0 147 AREA/A AVG 107	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156 CCRE HIGH 118	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#FREO. 10 457 GREO. 10 25 SREO. 10	INF. POP.  1 INF. POP.
CONFIDENCE 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUGFIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG SPRUCELV SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG	COEI LIMITS OF TIMES OUT COEI VAR. 121.1 89.5 31.7 26.4 125.5 14.6 213.8 COEI VAR. 87.7 99.3 229.6 250.6 321.6 444.8 806.3 806.3 50.2 COE VAR. 85.6 94. 229.6	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  8 S.E.%  12.3  4 28.4  5 31.1  2 99.9  2 6.2  FF  2 99.9  3 6.2  FF  3 S.E.%  4 10.6  5 11.7  3 28.4  1 27.3	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL COW 96 83 9	E TREES AVG 538 163 880 856 233 8,265  537 ACRE AVG 57 81 2 3 1 3 0 0 147 AREA/A AVG 107 94 12	THE SAMP 6-BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156  CCRE HIGH 118 104 16	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#FREO. 10 457 GREO. 10 25 SREO. 10	
CONFIDENCE 68.1 %  SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUGFIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG CEDLEAV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGFIR SPRUCELV DOUGLEAV TOTAL  CL: 68.1 % SD: 1.0  WHEMLOCK R ALDER S SPRUCE SNAG SPRUCELV DOUGLEAV TOTAL	COEI LIMITS OF TIMES OUT COEI VAR. 121.1 89.5 31.7 26.4 125.5 14.6 213.8 COEI VAR. 87.7 99.3 229.4 250.6 321.0 444.8 806.3 50.2 COE VAR. 85.4 94. 229.2 220.	F THE SAMPI T OF 100 THE  S.E.%  15.9  13.6  21.9  13.1  71.9  13.7  19.5  FF  8 S.E.%  10.9  1 12.3  1 28.4  1 39.8  3 55.1  2 99.9  2 6.2  FF  8 S.E.%  4 10.6  5 11.7  3 28.4  1 27.3  1 40.0	LE VOLUME L	SAMPL OW 452 140 687 744 65 7,133 432 TREES OW 51 71 1 2 0 1 0 0 138 BASAL COW 96 83 9 6	E TREES AVG 538 163 880 856 233 8,265  537 ACRE AVG 57 81 2 3 1 3 0 0 147 AREA/A AVG 107 94 12 8	THE SAMP  6 - BF HIGH 623 185 1,073 968 400 9,397 641  HIGH 64 90 2 4 1 5 0 0 156  CCRE HIGH 118 104 16 10	LE ERROR	# OF TREES 5  1,826 # OF PLOTS 5	#FREO. 10 457 GREO. 10 25 SREO. 10	20. INF. POP. 1 INF. POP.

TC TSTATS				STATIS JECT	TICS LO			PAGE DATE	2 5/31/2018
TWP RGE	SECT TRA	CT	TYP	E A	CRES	PLOTS	TREES	CuFt	BdFt
04N 08W	30 A1		00M	<u>C</u>	77.00	65	378	11	W
CL: 68.1%	COEFF	BASA	AL AREA/	ACRE		# OF PLC	TS REQ.	INF. POP.	
SD: 1.0	VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
DOUGLEAV	806.2	99.9	0	1	1				
TOTAL	39.3	4.9	221	233	244		62	15	7
CL: 68.1 %	COEFF		NET	BF/ACRE		7	# OF PLOTS	REO.	INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15
WHEMLOCK	95.7、	11.9	10,936	12,409	13,881				
R ALDER	99.6	12.3	8,055	9,188	10,322				
S SPRUCE	228.2	28.3	1,139	1,588	2,037				
SNAG					•				
CEDLEAV	317.9	39.4	376	621	866				
DOUG FIR	412.2	51.1	193	395	597				
SPRUCELV	806.2	99.9	0	308	616				
DOUGLEAV	806.2	99.9	0	101	202				
TOTAL	48.7	6.0	23,124	24,610	26,096		95	24	11

TC TSTA	ATS				ST PROJEC	ATIST	TICS			PAGE DATE 5	1/31/2018
TWP	RGE	SECT TR	ACT		TYPE		RES	PLOTS	TREES	CuFt	BdFt
						AC.	1.00	65	378	1	W
04N	08W	30 TK			R/W TREES		ESTIMATED FOTAL	]	PERCENT SAMPLE	i i	VV
		PLOTS	TREES		TREES PER PLOT		TREES		TREES		
TOTA	т	65	378		5.8		TREES				
CRUIS DBH ( REFO	SE COUNT REST	23	120		5.2		146		82.0		
COUN BLAN 100 %	IKS	42	258		6.1						
				STA	ND SUMI	MARY					
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHE	MLOCK	58	57.3	18.5	46	24.9	107.1	12,723	12,409	3,350	3,350
R ALI		43	80.5	14.6	47	24.5	93.5	9,228	-	2,810	2,810
S SPR		5	1.4	41.9	74	2.1	13.5	2,404	2,404	567	567
SNAC		4	3.4	20.8	34	1.8	8.0	(22	601	197	107
	EDAR	5 5	.7 2.9	41.0 15.3	61 52	1.1 0.9	6.8 3.7	633 500			
DOUG TOTA		3 120	2.9 146.3	13.3 17.1	32 46	56.3	232.6	25,488		7,054	7,054
		E LIMITS OF TIMES OUT COEFF								E DEO	INTE DOD
SD:	1.0	VAR.%	S.E.%	T	SAMPL OW	E TREE: AVG	S - BF HIGH		# OF TREE 5	.S REQ. 10	INF. POP.
	MLOCK	121.1	15.9		452	538	623			10	13
R ALI	DER	89.5	13.6		140	163	185				
S SPR SNAC	3	106.8	53.1		1,799	3,834	5,869				
DOU	CEDAR GEIR	26.4 136.8	13.1 68.0		744 175	856 548	968 921				
TOTA		213.8	19.5		432	537	641		1,826	457	203
	68.1 %	COEFF			TREES				# OF PLOT	S REO	INF. POP.
	1.0	VAR.%	S.E.%	I	OW	AVG	HIGH		5	10	15
	MLOCK	87.7	10.9		51	57	64				
R AL		99.1	12.3		71	81	90				
S SPF SNAC	RUCE	224.1 250.6	27.8 31.1		1 2	1 3	2 4				
	CEDAR	321.0	39.8		0	1	1				
	G FIR	443.3	54.9		1	3	5				
TOT	AL	50.4	6.2		137	146	155		101	25	11
CL:	68.1 %	COEFF				AREA/A			# OF PLOT		INF. POP.
	1.0	VAR.%		I	LOW	AVG	HIGH		5	10	15
WHE R AL	MLOCK	85.4 94.5	10.6 11.7		96 83	107 94	118 104				
	RUCE	217.1	26.9		10	14	17				
SNA		220.1	27.3		6	8	10				
	CEDAR	323.1	40.0		4	7	9				
DOU TOT	G FIR	369.5 <i>39.3</i>	45.8 <i>4.9</i>		2 221	4 233	5 244		62	15	7
	68.1 %	COEFF		1		F/ACRE	nich		# OF PLOT		INF. POP.
	1.0 EMLOCK	VAR.% 95.7	S.E.% 11.9		LOW 10,936	AVG 12,409	HIGH 13,881		<u> </u>	10	13
1	DER	99.6	12.3		8,055	9,188	10,322				
S SPI	RUCE	221.6	27.5		1,744	2,404	3,064				
SNA	G										

TC TST	ATS				STATIS JECT	TICS LO			PAGE DATE 5	2 5/31/2018
TWP 04N	RGE 08W	SECT TRA		TYP) R/W		CRES 1.00	PLOTS 65	TREES 378	CuFt 1	BdFt W
CL: SD:	68.1 % 1.0	COEFF VAR.	S.E.%	<b>NET</b> LOW	BF/ACRE AVG	HIGH		# OF PLO 5	TS REQ.	INF. POP.
WR C DOUG TOTA		317.9 361.7 49.4	39.4 44.8 <i>6.1</i>	376 276 23,585	621 500 25,123	866 724 <i>26,660</i>		97	24	11

TC PSTNDSUM		Stand Table Summary	Page 1 Date: 5/30/2018
T04N R08W S30 TyTAKE	77.00	Project LO	Time: 7:46:25AM
T04N R08W S30 TyR/W	1.00	Acres 78.00	Grown Year:

							120, 40		70.0	O .			1		İ
				Tot				Averag	e Log		Net	Net			
S		Sample	$\mathbf{FF}$	Av	Trees/	BA/	Logs	Net	Net	Tons/		Bd.Ft.		Totals	
Spc T	DBH			Ht	Acre	Acre		Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
Н	8	2	89	54	5.289	1.85	5.29	8.0	30.0		42	159		33	
Н	9	4	87	43	8.358	3.69	8.36	8.5	35.0		71	293		55	
Н	11	4	81	53	5.595	3.69	5.59	15.0	50.0		84	280		65	
Н	12	6	85	27	7.052	5.54	7.05	11.0	23.3		78	165		61	
Н	13	2	88	56	2.003	1.85	2.00	22.0	60.0		44	120		34	9
Н	14	2	83	46	1.727	1.85								<b>.</b> .	
H	17	4	85	34	2.342	3.69	1.17	17.0	60.0		20	70		16	
Н	18	6	85	68	3.134	5.54	5.22	32.6	96.0		170	501		133 344	
H	20	14	86	75	5.924	12.92	11.85	37.2 65.0	116.4 270.0		441 100	1,379 414		78	
Н	21 23	4 6	87 84	100 78	1.535 1.920	3.69 5.54	1.54 3.20	58.0	188.0		186	601		145	
H	23 24	6	87	101	1.763	5.54	4.11	51.9	200.0		213	823		166	
H H	25	6	86	94	1.625	5.54	2.71	62.6	206.0		170	558		132	
Н	26	6	85	84	1.502	5.54	2.00	69.5	262.5		139	526		109	
Н	27	6	83	74	1.393	5.54	2.79	65.7	221.7		183	618		143	
Н	28	8	84	74	1.727	7.38	2.59	80.7	273.3		209	708		163	
H	29	4	86		.805	3.69	1.61	92.8	360.0		149	580		116	
Н	30	10	84	96	1.880	9.23	4.14	91.2	355.5		377	1,471		294	115
Н	32	2	85	102	.331	1.85	.66	88.0	430.0		58	284		45	5 22
Н	34	2	85	111	.293	1.85	.88	100.3	466.7		88	410		69	32
Н	38	2	85	131	.234	1.85	.70	142.7	730.0		100	513		78	3 40
Н	39	4	84	112	.445	3.69	1.34	132.8	621.7		177	830		138	3 65
Н	41	2	85	131	.201	1.85	.60	144.0	696.7		87	421		68	
Н	50	2	83		.135	1.85	.41	219.7	976.7		89	397		70	
Н	51	2	82	94	.130	1.85	.26	283.5	1110.0		74	289		58	3 23
Н	Totals	116	85	61	57.343	107.08	76.07	44.0	163.1		3,350	12,409		2,613	3 968
Α	9	4	87	62	9.848	4.35	9.85	11.0	40.0		108	394		84	
A	10	6	87	97	11.965	6.53		12.8	50.0		203	798		159	
A	11	2	86		3.296	2.18		i	60.0		63	198		49	
A	12	6	87		8.309	6.53	13.85	1	46.0		188	637		14′	
Α	13	4	86		4.720	4.35	4.72	1	60.0		113	283		88	
Α	14	6	86		6.105	6.53	6.10	L	60.0		155	366		12:	
A	15	12	86		10.636	13.05		1	70.0	1	379	1,241		290	
A	16	8	86		6.232	8.70		1	85.7		284			22 27	
A	17	10	87		6.900		12.42	1	98.9			1,228		49	
A	18	4	87		2.462	4.35		1	55.0 110.0	1	63 78	135 243		6	
A	19 20	2 6	86 87		1.105 2.991	2.18 6.53		I.	131.7	1	235			184	
A	21	6	87		2.713	6.53			148.0		204			15:	
A	22	2	86		.824	2.18		1	135.0	1	73			5	
A A	24	4	86		1.385	4.35		1	185.0	1	147			11-	
A	27	2	82		.547	2.18		i i	245.0	1	84			6	
A	29	2	86		.474	2.18			285.0		75			5	
A	Totals	86	87	70	80.512	93.54	116.46	24.1	78.9		2,810	9,188		2,19	2 717
S	31	2	83	68	.779	4.08		1	280.0	1	134			10	
S	35	2	83		.611			1	505.0	4	168			13	
S	39	2	82		.492			1	535.0		150			11	
S	71	1		118	.001			1	2470.0	1	2				1 1
S	85	1	81	111	.001				3040.0		2				1 1
S	Totals		83		1.885	12.32		+	423.6	+	455			35	
D	11	2	88	82	1.165	.77	2.33	9.5	35.0		22	82		1	7 6

TC	PSTNDSU	JM				, )	Stand	Table	Summa	ry		_	Page Date:	5/30 <sub>/</sub>		}
		330 TyTA 330 TyR/V		77. 1.			Project Acres	et L	O 78.0	0			Time: Grown Yea		5:25A	M
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	M	BF
D	12	2	86	68	.979	.77	.99	18.8	59.4		19	59		1	15	5
D	16	2	85	72	.551	.77	1.10	19.5	60.0		21	66		1	17	5
D	23	2	91		.266	.77	.80	50.7	223.3		41	179		3	32	14
D	45	1	86	103	.001	.01	.00	214.0	905.0		0	2			0	0
D	Totals	9	87	80	2.962	3.08	5.22	19.7	74.0		103	387		{	30	30
C	38	1	83	99	.002	.02	.00	145.0	550.0		1	2			0	0
С	39	2	80	60	.004	.03	.01	103.0	312.5		1	3			1	0
С	42	1	82	74	.002	.02	.00	144.5	440.0		1	2			0	0
С	50	1	77	72	.001	.02	.00	198.0	525.0		1	1			0	0
С	Totals	5	81	73	.009	.09	.02	133.5	420.7		3	8			2	1
SN	16	1	88	17	.018	.03										
SN	18	1	89	74	.015	.03										
SN	30	2	88	35	.010	.05										
SN	Totals	4	88	40	.043	.10					,					
Totals		228	86	66	142.754	216.21	201.54	33.3	117.0		6,720	23,590		5,24	12	1,840

TC PLOGSTVB	Log Stock Table - MBF	
T04N R08W S30 TyTAKE 77.00 T04N R08W S30 TyR/W 1.00	Project: LO Acres 0.00	Page 1 Date 5/30/2018 Time 7:46:24AM

s	So Gr			Def	Net	%		1		ıme by			eter in l				1	
Ѕрр Т	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+
4	DO 1S	26	7		7	1.0						7						
A	DO 1S	30	33		33	4.6						14	19					
A	DO 18	34	18		18	2.6						18						
A	DO 18	40	105		105	14.6						37	43	25				
A	DO 28	14	5		5	.8					5							
A	DO 28	30	29	4.7	28	3.9					28							
A	DO 28	34	16		16	2.2					16							
A	DO 28	38	17		17	2.4					17							
A	DO 25	40	140	1.2	138	19.2					68	33		38				
A	DO 38	16	9		9	1.2				9								
A	DO 38	28	32		32	4.5				32								
A	DO 35	30	15		15	2.1				15				•				
A	DO 38	34	15		15	2.1				15								
A	DO 38	36	17		17	1					17							
A	DO 35	S 40	6		6	.9				6								
A	DO 45	S 14	6		6	.9			6									
A	DO 45	S 16	10		10	1.4			10									
A	DO 45	S 18	16		16	2.2			12	4								
A	DO 4	S 20	17		17	2.3			17									
A	DO 4	S 24	1		1	.2			1									
A	DO 4	S 26	9		9	1.2			9									
A	DO 4	S 28	14		14	1.9			14									
A	DO 4	S 30	31		31	4.3			31									
A	DO 4	S 36	25		25	3.5			25									
A	DO 4	S 38	3 4		4	1	1		4									
A	DO 4	S 40	122	,	122	17.0			122						-	*****		
A	Tot	als	720	)	717	39.0			251	81	151	109	62	62				
S	DO 2	S 12	2 0	)	C	.0										0		
S	DO 2	S 14	ı c	)	. C	0.							1			0		
S	DO 2	S 40	117	1	117	93.8								32	45	39		0
S	DO 3	S 32	2	2	2	1.8			2									
S	DO 3	S 30	5 0	)	(	.1												0
S	DO 3	S 40	3	3	3	2.7			3									
S	DO 4	S 20	) 2	2		1.5			2									
S	Tot	als	125	5	125	6.8			7					32	45	39		0

TC PLOGSTVB Log Stock Table - MBF Page 2 T04N R08W S30 TyTAKE 77.00 Project: LODate 5/30/2018 T04N R08W S30 TyR/W 1.00 Acres 0.00 Time 7:46:24AM

<del> </del>	s	So Gr	Loa	Gross	 Def	Nat	%		1	Not Val-	ıma L	Con!!	σ D:	10for ! 1	[nal	1 111116		40;24AIVI
Spp	T				%	Net MBF	Spc	2-3	4-5	6-7	<u>1me by</u> 8-9	10-11		14-15	16-19	20-23	24-29	30-39 40+
Н		DO 2S	14	1		1	.2			ļ					1			
Н		DO 2S	16	2		2	.2						2		_			
Н		DO 2S	24	2		2	.2						2					
Н		DO 2S	26	4		4	.4						4					
Н		DO 2S	28	22	9.4	20	2.0						2					17
Н		DO 2S	32	73	1.8	71	7.4						17	8	46			
Н		DO 2S	36	4		4	.4								4			
Н		DO 2S	38	15		15	1.6						15					
Н		DO 2S	40	610	2.4	595	61.5						70	74	181	139	93	38
Н		DO 3S	16	3		3	.3					3						
Н		DO 3S	20	7		7	.7					7						
Н		DO 3S	26	2		2	.2				2							
Н		DO 3S	28	4		4	.4				4							
Н		DO 3S	32	58	8.1	53	5.5			30	8	4				12		
Н		DO 3S	38	4		4	.4					4						
Н		DO 3S	40	98		98	10.2			33	11	54						
Н		DO 4S	12	4		4	.4			1	1	3						
Н		DO 4S	14	7		7	.7			7						1		
Н		DO 4S	16	19	9.8	17	1.7			10	1	5						
Н		DO 4S	18	1		1	.1			1								
Н		DO 4S	20	13		13	1.3			13								
Н		DO 4S	24	2		2	.2			2								
Н		DO 4S	26	15		15	1.6			15								
Н		DO 4S	28	6		6	.6			6								
Н		DO 4S	30	18		18	1.9								18			
Н		Total	S	992	2.5	968	52.6			117	27	80	113	82	250	151	93	56
D		DO 2S	40	10		10	32.1							0	10		0	
D		DO 3S	32	5		5	18.1			5								
D		DO 3S	36	4		4	14.2				4							
D		DO 3S	40	4		4	12.4			i e		4						
D	Ī	DO 4S	12	1		1	3.0			1								
D		DO 4S	16	1		1	2.9	0		1								
D		DO 4S	18	1		1	2.1				1							
D		DO 4S	40	5		5	15.2			5								
D		Total	S	30		30	1.6	0		12	5	4		0	10		0	

TC PL	OGST	VB						Log	Stock	Table	- MBI	₹'								
T04N T04N			•		77.00 1.00	1		Proje Acre		LO	0.	.00					Page Date Time	5/3	3 0/2018 46:24A	
5	So	Gr	Log	Gross	D	ef	Net	%			Net Volu	me by	Scaling	g Diam	eter in	Inches				
Spp 7			Len	ı	ģ	%	MBF	Spc	2-3	4-5	6-7	8-9	10-11		14-15	16-19	20-23	24-29	30-39	40
С	DC	2S	32		0	3.3	0	31.0									0			
C	DO	) 2S	40		0	2.3	0	34.4									0	0		
С	DO	) 3S	18		0		0	1.4						0						
С	DO	3S	32		0		0	4.4						0						
С	DO	) 3S	40		0		0	26.0									0			
С	DO	) 4S	18		0		0	1.8			0	0								
С	DO	) 4S	24		0		0	.9			0									
С		Total	3		1	1.8	1	.0			0	0		0			0	0		
Total	Al	l Speci	es	1,86	58	1.5	1,840	100.0	0		387	113	234	222	144	354	196	132	56	

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