



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Low Incline
Sale WO-341-2023-W00995-01

District: West Oregon

Date: September 20, 2022

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,375,871.84	\$9,666.54	\$2,385,538.38
		Project Work:	(\$69,517.00)
		Advertised Value:	\$2,316,021.38



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Sale WO-341-2023-W00995-01

District: West Oregon

Date: September 20, 2022

Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	22	0	97
Alder (Red)	16	0	96

Volume by Grade	2S	3S & 4S 6"-11"	Camprun	Total
Douglas - Fir	2,727	1,009	0	3,736
Alder (Red)	0	0	39	39
Total	2,727	1,009	39	3,775

Comments: Pond Values Used: Local Pond Values, July, 2022

Other Conifers Stumpage Price = Pond Value minus Logging Cost:
 $\$147.94/\text{MBF} = \$502.00/\text{MBF} - \$354.06/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$760.94/\text{MBF} = \$1265/\text{MBF} - (\$354.06/\text{MBF} + \$150/\text{MBF}(\text{Extra Haul Cost}))$

Bigleaf maple and Other Hardwoods Stumpage Price = Hardwood Pulp price using a conversion factor of 10 MBF/ton: $=\$60.00/\text{MBF}$

PULP (Conifer and Hardwood Price) = $\$6/\text{TON}$

Other Costs (with Profit & Risk to be added):
Intermediate Support/Tail Trees: 4 supports @ $\$100/\text{support} = \400
TOTAL Other Costs (with Profit & Risk to be added) = $\$400$

Other Costs (No Profit & Risk added):
Equipment Cleaning (Invasive Species): $\$2,000$
Non-Project Roads and Landings: 5 stations @ $\$138/\text{station} = \690
Waterbar and Block Dirt Roads: 5 Stations @ $17.56/\text{Sta.} = \$88$
Landing Slash Piling and sorting out firewood: 8 Landings @ $\$200/\text{Landing} = \$1,600$
TOTAL Other Costs (No Profit & Risk added) = $\$4,378$

SLASH DISPOSAL

Move-In: $\$1,325$
Machine Wash: $\$300$
Project Work: 55 hrs @ $\$170/\text{hr} = \$9,520$
TOTAL Slash Disposal = $\$11,145$

ROAD MAINTENANCE

Move-in: (Grader and Roller) $\$1,750$
Final Road Maintenance: $\$12,313$
Final Road Maintenance with fuel adjustment: $\$13,544$
Total Road Maintenance: $\$13,544/3,775 \text{ MBF} = \$3.59/\text{MBF}$

FUEL ALLOWANCE INCREASE: Adjustments have been made to costs to account for significant rise in fuel costs.



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Logging Conditions

Combination#: 1 Douglas - Fir 44.00%
 Alder (Red) 44.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Harvester Head Delimbing
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 7 **bd. ft / load:** 4200
cost / mbf: \$266.73
machines: Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 56.00%
 Alder (Red) 56.00%

Logging System: Shovel **Process:** Harvester Head Delimbing
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 8 **bd. ft / load:** 4200
cost / mbf: \$159.05
machines: Forwarder
Harvester



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Low Incline Sale WO-341-2023-W00995-01

District: West Oregon

Date: September 20, 2022

Logging Costs

Operating Seasons: 2.00	Profit Risk: 12%
Project Costs: \$69,517.00	Other Costs (P/R): \$400.00
Slash Disposal: \$11,145.00	Other Costs: \$4,378.00

Miles of Road

Road Maintenance: \$3.59

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
Alder (Red)	\$0.00	2.0	3.8



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Low Incline Sale WO-341-2023-W00995-01

District: West Oregon

Date: September 20, 2022

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$206.43	\$3.70	\$2.33	\$98.10	\$0.11	\$37.28	\$2.95	\$2.00	\$1.16	\$354.06
Alder (Red)									
\$206.43	\$3.73	\$2.33	\$164.21	\$0.11	\$45.22	\$2.95	\$2.00	\$1.16	\$428.14

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$990.00	\$635.94	\$0.00
Alder (Red)	\$0.00	\$676.00	\$247.86	\$0.00



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Timber Sale Appraisal
Low Incline
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District: West Oregon

Date: September 20, 2022

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,736	\$635.94	\$2,375,871.84
Alder (Red)	39	\$247.86	\$9,666.54

Gross Timber Sale Value

Recovery: \$2,385,538.38

Prepared By: David Bailey

Phone: 541-929-3266

SUMMARY OF ALL PROJECT COSTS

Sale Name: Low Incline

Date: September 2022

Time: 16:07

Project #1 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
1 to 2	72.0 sta	\$11,467
2 to 3	10.2 sta	\$7,098
2 to 4	13.9 sta	\$9,100
5 to 6	9.3 sta	\$8,475
2 to 7	42.9 sta	\$1,835
Fuel Cost Increase (10%)		\$3,798
Totals	148.3 sta	\$41,773

Project #2 - Brushing

	<u>Length</u>	<u>Cost</u>
Brushing	0.63 mi	\$484
Fuel Cost Increase (10%)		\$48
Totals		\$532

Project #3 - Stockpile Rock

750 cy stockpile	\$19,676
Fuel Cost Increase (10%)	\$1,968
Totals	\$21,644

Project #4 - Move in

	<u>Cost</u>
Excavator, C325 or equiv.	\$1,450
Dozer, D-6 or equiv.	\$875
Grader, Cat 14-G or equiv.	\$875
Vibratory roller	\$875
Road Brusher	\$778
Fuel Cost Increase (10%)	\$485
Totals	\$5,338

GRAND TOTAL \$69,287.00

SUMMARY OF CONSTRUCTION COST

SALE	Low Incline	Project #1	LENGTH	improve	72.0
ROAD	1 to 2	Cline Creek Road, Miller Creek R	September 2022		

IMPROVEMENT

16:07

Clean ditch (with road grader)	72.0 sta	@	\$15.40 /sta	=	\$1,109
Scatter ditch material	72.0 sta	@	\$20.00 /sta	=	\$1,440
Construct Landings at (Stations 41+50, 62+40)	2 ldg	@	\$438.00 /each	=	\$876
Construct turnout (Sta. 48+56)	1 turnout	@	\$50.00 /each	=	\$50

TOTAL IMPROVEMENT =

SURFACING

		<u>Size</u>		<u>Rate</u>	
Spot rock (Pt. 2)	10 CY	1½" - 0"	@	\$28.33 /CY	= \$283
Turnout Rock (Sta. 48+56)	20 CY	Jaw-Run	@	\$25.97 /CY	= \$519
Landing Rock (Sta. 41+50, 62+40)	60 CY	Jaw-Run	@	\$25.97 /CY	= \$1,558
Shape Surface (with road grader)	72.0 sta		@	\$20.63 /sta	= \$1,485
Compact surface (w/ vibratory roller)	72.0 sta		@	\$16.00 /sta	= \$1,152

TOTAL SURFACING =

SPECIAL PROJECTS

		<u>Size</u>		<u>Rate</u>	
Culvert (18" x 30') (Stations 58+84, 67+10)	60 ft		@	\$13.75 /ft	= \$825
Install culvert/dissipator	4 hrs		@	\$145.00 /hr	= \$580
Bedding and backfill rock	40 CY	1½" - 0"	@	\$28.33 /CY	= \$1,133
Bedding Compaction	2 hrs		@	\$57.00 /hr	= \$114
Dissipator rock	10 CY	Pit-Run	@	\$24.28 /CY	= \$243
Culvert disposal	2 culverts		@	\$50.00 /culvert	= \$100

TOTAL SPECIAL PROJECTS COST =

Compiled by:
Date:

Jim Stuart
Sep 22, 2022

GRAND TOTAL =====>

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Low Incline 2 to 3	Project #1 September 2022	LENGTH	improve	10.2 sta
IMPROVEMENT		16:07			
Sod & Brush Debris removal	10.2 sta	@	\$15.40 /sta	=	\$157
Compact subgrade (with vibratory roller)	10.2 sta	@	\$16.00 /sta	=	\$163
Re-construct Landing (w/ C325)	2 hrs	@	\$145.00 /hr	=	\$290
TOTAL IMPROVEMENT =					\$610
SURFACING		<u>Size</u>	<u>Rate</u>		
Surface rock - 3" lift	170 CY	1½" - 0"	@	\$28.33 /CY	= \$4,816
Landing rock (Pt. 3)	50 CY	Jaw-Run	@	\$25.97 /CY	= \$1,299
Shape Surface (with road grader)	10.2 sta		@	\$20.63 /sta	= \$210
Compact surface (w/ vibratory roller)	10.2 sta		@	\$16.00 /sta	= \$163
TOTAL SURFACING =					\$6,488
Compiled by:	Jim Stuart				
Date:	Sep 22, 2022				
GRAND TOTAL =====>					\$7,098

SUMMARY OF CONSTRUCTION COST

SALE Low Incline Project #1 LENGTH improve 13.9 sta
ROAD 2 to 4 September 2022

16:07

IMPROVEMENT

Sod & Brush Debris removal	13.9 sta	@	\$15.40 /sta	=	\$214
Compact subgrade (with vibratory roller)	13.9 sta	@	\$16.00 /sta	=	\$222
Re-open Landing (with road grader)	0.5 hrs	@	\$114.00 /hr	=	\$57

TOTAL IMPROVEMENT = \$493

SURFACING

		<u>Size</u>		<u>Rate</u>		
Surface rock - 3" lift	240 CY	1½" - 0"	@	\$28.33 /CY	=	\$6,799
Landing rock (Pt. 4)	50 CY	Jaw-Run	@	\$25.97 /CY	=	\$1,299
Shape Surface (with road grader)	13.9 sta		@	\$20.63 /sta	=	\$287
Compact surface (w/ vibratory roller)	13.9 sta		@	\$16.00 /sta	=	\$222

TOTAL SURFACING = \$8,607

Compiled by: Jim Stuart
Date: Sep 22, 2022

GRAND TOTAL =====> \$9,100

SUMMARY OF CONSTRUCTION COST

SALE	Low Incline	Project #1	LENGTH	improve	9.3
ROAD	5 to 6	September 2022			

IMPROVEMENT

16:07

Sod & Brush Debris removal	9.3 sta	@	\$15.40 /sta	=	\$143
Compact subgrade	9.3 sta	@	\$16.00 /sta	=	\$149
(with vibratory roller)					
Construct turnaround (30'x30')	350 cy	@	\$2.50 /cy	=	\$875.00
and endhaul material(expanded 30%)					
Compact fill material	350 cy	@	\$0.80 /cy	=	\$280.00
Re-Construct Landing (Pt.6)	2 hours	@	\$145.00 /hr	=	\$290.00

TOTAL IMPROVEMENT =

SURFACING

Surface rock - 3" lift	160 CY	1½" - 0"	@	\$28.33 /CY	=	\$4,533
Turnaround rock (Sta. 5+84)	20 CY	3" - 0"	@	\$26.98 /CY	=	\$540
Landing rock (Pt. 6)	50 CY	Jaw-run	@	\$25.97 /CY	=	\$1,299
Shape Surface	9.3 sta	@	\$20.63 /sta	=	\$192	
(with road grader)						
Compact surface	9.3 sta	@	\$16.00 /sta	=	\$149	
(w/ vibratory roller)						

TOTAL SURFACING =

SPECIAL PROJECTS

		<u>Size</u>		<u>Rate</u>		
Clean inlet/outlet of culvert	1 culvert		@	\$25.00 /culvert	=	\$25
(Sta 1+34)						

TOTAL SPECIAL PROJECTS COST =

Compiled by:
Date:

Jim Stuart
Sep 22, 2022

GRAND TOTAL =====>

SUMMARY OF CONSTRUCTION COST

SALE	Low Incline	Project #2	LENGTH	improve	42.9 sta
ROAD	2 to 7		September 2022		

16:07

SPECIAL PROJECTS

		<u>Size</u>	<u>Rate</u>		
Culvert (18" x 30') (Sta. 16+36)	30 ft		@ \$13.75 /ft	=	\$413
Install culvert/dissipator	2 hrs		@ \$145.00 /hr	=	\$290
Bedding and backfill rock	20 CY	1½" - 0"	@ \$28.33 /CY	=	\$567
Bedding Compaction	1 hrs		@ \$57.00 /hr	=	\$57
Dissipator rock	10 CY	Pit-Run	@ \$24.28 /CY	=	\$243
Culvert disposal	1 culverts		@ \$50.00 /culvert	=	\$50
Clean inlet/outlet of culvert (Sta. 2+20, 13+97, 28+45)	3 culverts		@ \$25.00 /culvert	=	\$75
Repair culvert inlet (Sta. 2+20)	2 hrs		@ \$45.00 /hr	=	\$90
Culvert Disposal	1 culvert		@ \$50.00 /culvert	=	\$50

TOTAL SPECIAL PROJECTS COST =

Compiled by:
Date:

Jim Stuart
Sep 22, 2022

GRAND TOTAL =====>

ROADSIDE BRUSHING COSTS

Project # 2

Date: Sep 22, 2022
September 2022

Road Segment	Road Name	Length (Feet)	Miles	Brush Density	Cost / Mile	Total Cost
2 to 3	Miller Creek Spurs	1,016	0.19	Medium	16:07	\$0
2 to 4	Miller Creek Spurs	1,387	0.26	Medium	\$1,100.00	\$286
5 to 6	Miller Creek Spurs	928	0.18	Medium	\$1,100.00	\$198
Totals		3,331	0.63			\$484

Total Cost **\$484**

SUMMARY OF PROJECT COST

SALE Low Incline
ROAD Miller Creek Road (Pt. 2 to 7)

September 2022

Project # 3 - Rock Stockpile

		16:07				
		Size		Rate		
STOCKPILING						
Clear stockpile site	0.20 ac		@	\$1,337.00 /ac	=	\$267
Stockpile pad rock	40 cy	Jaw-Run	@	\$21.29 /cy	=	\$852
Compact pad	1 hr		@	\$94.00 /hr	=	\$94
Stockpile rock (w/ 18 cy truck)	750 cy	1½"-0"	@	\$23.65 /cy	=	\$17,738
Create stockpile (w/ excavator)	5 hr		@	\$145.00 /hr	=	\$725
TOTAL ROCK COST =						\$19,676

Compiled by: Jim Stuart
Date: Sep 22, 2022

GRAND TOTAL =====> \$19,676

SUMMARY OF MAINTENANCE COST

SALE

Low Incline

Final log haul Maintenance Cost Estimate

(Costed in appraisal, not in p September 2022

Move-in

Grader
Roller

\$	875
\$	875

16:07

Road Segment	Length	Cost/Sta	Cost	Mileage
1 to 2	72.0	\$36.63	\$2,637	1.36
2 to 3	10.2	\$20.63	\$210	0.19
2 to 4	13.9	\$20.63	\$287	0.26
2 to 7	42.9	\$36.63	\$1,571	0.81
5 to 6	9.3	\$20.63	\$192	0.18
Total	148.3		\$4,897	2.81

Maintenance Rock:

	Volume	Cost/CY	Cost
1½"-0"	200	\$ 28.33	\$5,666.00

Grand Total

\$ 12,313.00

TS Volume

3,775 MBF

$$\text{Cost} / \text{MBF} =$$

\$3.26

NOTES:

Rock Haul Cost Computation

SALE NAME:	Roger Miller Combo	DATE:	Sep 22, 2022
ROAD NAME:	Miller Cr. Road		SeptemMedium
ROCK SOURCE:	Richard Rock Quarry		10 (cy) truck
Route:	Hwy 20 Cline Cr to Miller Cr. Road		16:07

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH	31.2	MRT	37.4 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	7.6	MRT	22.8 minutes
9.	15 MPH	5.4	MRT	21.6 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT		0.50 minutes
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Total hauling cycle time for this setting (100% efficiency)		82.30 minutes
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Operator efficiency correction	0.85	96.82 minutes
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Job efficiency correction	0.90	107.58 minutes
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Truck capacity (cy)	10.00	10.76 min/cy
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Loading time, delay time per (cy)		0.25 min/cy
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TIME (minutes) per cubic yard		11.01 min/cy
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COST per CY computation

Cost of truck and operator per hour	\$90.00 /hr.
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Cost of truck and operator per minute	\$1.50 /min
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Cost per CY	\$16.52 /cy
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Spread and compact	Water truck, Grader & Roller	\$1.50 /cy
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Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½" - 0"	\$ 11.81	\$ 28.33	\$ 29.83
3" - 0"	\$ 10.46	\$ 26.98	\$ 28.48
Jaw-Run	\$ 9.45	\$ 25.97	\$ 27.47
Pit-Run	\$ 7.76	\$ 24.28	\$ 25.78
Rip-Rap	\$ 27.00	\$ 43.52	\$ 45.02

Rock Haul Cost Computation

SALE NAME:	Roger Miller Combo	DATE:	Sep 22, 2022
ROAD NAME:	Miller Cr. Road		SeptemMedium
ROCK SOURCE:	Richard Rock Quarry		(18 cy)Truck and Trailer
Route:	Hwy 20 Cline Cr to Miller Cr. Road		16:07

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0 minutes
2.	50 MPH	31.2	MRT	37.4 minutes
3.	45 MPH		MRT	0.0 minutes
4.	40 MPH		MRT	0.0 minutes
5.	35 MPH		MRT	0.0 minutes
6.	30 MPH		MRT	0.0 minutes
7.	25 MPH		MRT	0.0 minutes
8.	20 MPH	7.6	MRT	22.8 minutes
9.	15 MPH	5.4	MRT	21.6 minutes
10.	10 MPH		MRT	0.0 minutes
11.	05 MPH		MRT	0.0 minutes

Dump or spread time per RT	0.50 minutes
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Total hauling cycle time for this setting (100% efficiency)	82.30 minutes
--	---------------

Operator efficiency correction	0.85	96.82 minutes
Job efficiency correction	0.90	107.58 minutes

Truck capacity (cy)	18.00	5.98 min/cy
Loading time, delay time per cy		0.25 min/cy
TIME (minutes) per cubic yard		6.23 min/cy

COST per cy computation

Cost of truck and operator per hour	\$114.00 /hr.
Cost of truck and operator per minute	\$1.90 /min

Cost per cy	\$11.84 /cy
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Spread and compact	Water truck, Grader & Roller	\$1.50 /cy
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Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½" - 0"	\$ 11.81	\$ 23.65	\$ 25.15
3" - 0"	\$ 10.46	\$ 22.30	\$ 23.80
Jaw-Run	\$ 9.45	\$ 21.29	\$ 22.79
Pit-Run	\$ 7.76	\$ 19.60	\$ 21.10
Rip-Rap	\$ 27.00	\$ 38.84	\$ 40.34

TIMBER CRUISE REPORT

Low Incline (WO-341-2023-W00995-01) FY 2023

1. **Sale Area Location:** Portions of Sections 17 & 20, T11S, R8W, W.M., Lincoln County, Oregon.

2. **Fund Distribution:**

a. **Fund** BOF 100%

3. **Sale Acreage by Area:**

Unit	Treatment	Gross Acres	Stream Buffers	Existing Roads	Net Sale Acres	Acreage Comp. Method
1	Modified Clearcut	113	12	5	96	GIS

4. **Cruisers and Cruise Dates:** The sale was cruised by David Bailey in July 2022.

5. **Cruise Method and Computation:** The sale consists of one modified clearcut that was cruised using variable radius plot sampling. The Sale was cruised on a 5 x 5 chain grid, using a 33.61 BAF. A total of 33 plots were taken with 21 measure plots and 12 count plots.

Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury SuperACE cruise program to determine stand statistics and net board foot volume. Additional volume was removed to account for hidden defect and breakage and for interior Wildlife Trees.

Digital ortho photos, Lidar data, and GPS data were used to map the boundaries for the sale, and ArcMap GIS was used to determine gross and net acreage.

6. **Measurement Standards:** Tree heights were measured to the nearest foot, to a top diameter of 6 inches inside bark or to 40% of form factor. Diameters at breast height (DBH) were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. Form factors were measured or estimated on every tree. Most trees were graded in 40 foot log segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.

7. **Timber Description:** Timber in Unit 1 includes 96 net acres of 61 year-old Douglas-fir. The average Douglas-fir to be removed is approximately 22 inches DBH, with an average height of 107 feet to a merchantable top. The average volume per acre to be harvested (net) is approximately 39.3 MBF. Conifer trees other than Douglas-fir are reserved on all Units.

8. **Statistical Analysis and Stand Summary:** (See attached "Statistics").

Unit	Target CV	Target SE	Actual CV	Actual SE
1	45%	9%	31.3%	5.4%

Note: Percentages are for net board foot volume.

9. **Total Volume (MBF) by Species and Grade:** (See attached volume report “Species, Sort Grade – Board Foot Volumes - Project”).

Unit	Species	Gross Cruise Volume	Cruised D & B	Cruised D & B (MBF)	Hidden D & B	Hidden D & B (MBF)	Interior Wildlife Trees	Net Sale Volume
1	DF	3795	.4%	(15)	1%	(38)	(6)	3736
1	RA	40	--	--	1%	(1)		39
Total	--	3835	--	(15)	--	(39)	(6)	3775

Unit	Ave. DBH	Species	Net Vol.	2-Saw	3-Saw	4-Saw	Camp Run
1	22	DF	Grade%	73%	24%	3%	--
			3736	2727	897	112	--
1	16	RA	Grade%	0%	0%	0%	100%
			39	--	--	--	39
Total all Units			Grade %	72%	24%	2%	1%
			3775	2727	897	112	39

Attachments: Cruise Design
Cruise Maps
Species, Sort Grade – Board Foot Volumes
Statistics
Stand Table Summary
Log Stock Table – MBF

Prepared by: David Bailey

Date: 9/21/22

Unit Forester: Evelyn Hukari
Evelyn Hukari

Date: 9/21/2022

CRUISE DESIGN WEST OREGON DISTRICT

Sale Name: Low Incline

Harvest Type: MCC

Approx. Cruise Acres: 96 **Estimated CV%** 45 **Net BF** 9 **SE% Objective** 9 **Net BF** 9 /Acre

Planned Sale Volume: 3.325 MMBF **Estimated Sale Area Value/Acre:** \$ 18,375

- A. Cruise Goals:** (a) Grade minimum 75 conifer and 10 hardwood trees:
(b) Sample 32 cruise plots (16 grade: 16 count); (c) Other goals X Determine log grades for sale value.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers.

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

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

- 1. Plot Cruises:** BAF 33.61 Full point
Cruise Line Direction(s) 90/270
Cruise Line Spacing 5/330 (chains) (feet)
Cruise Plot Spacing 5/330 (chains) (feet)
Grade/Count Ratio 1:1

C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 7", 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 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

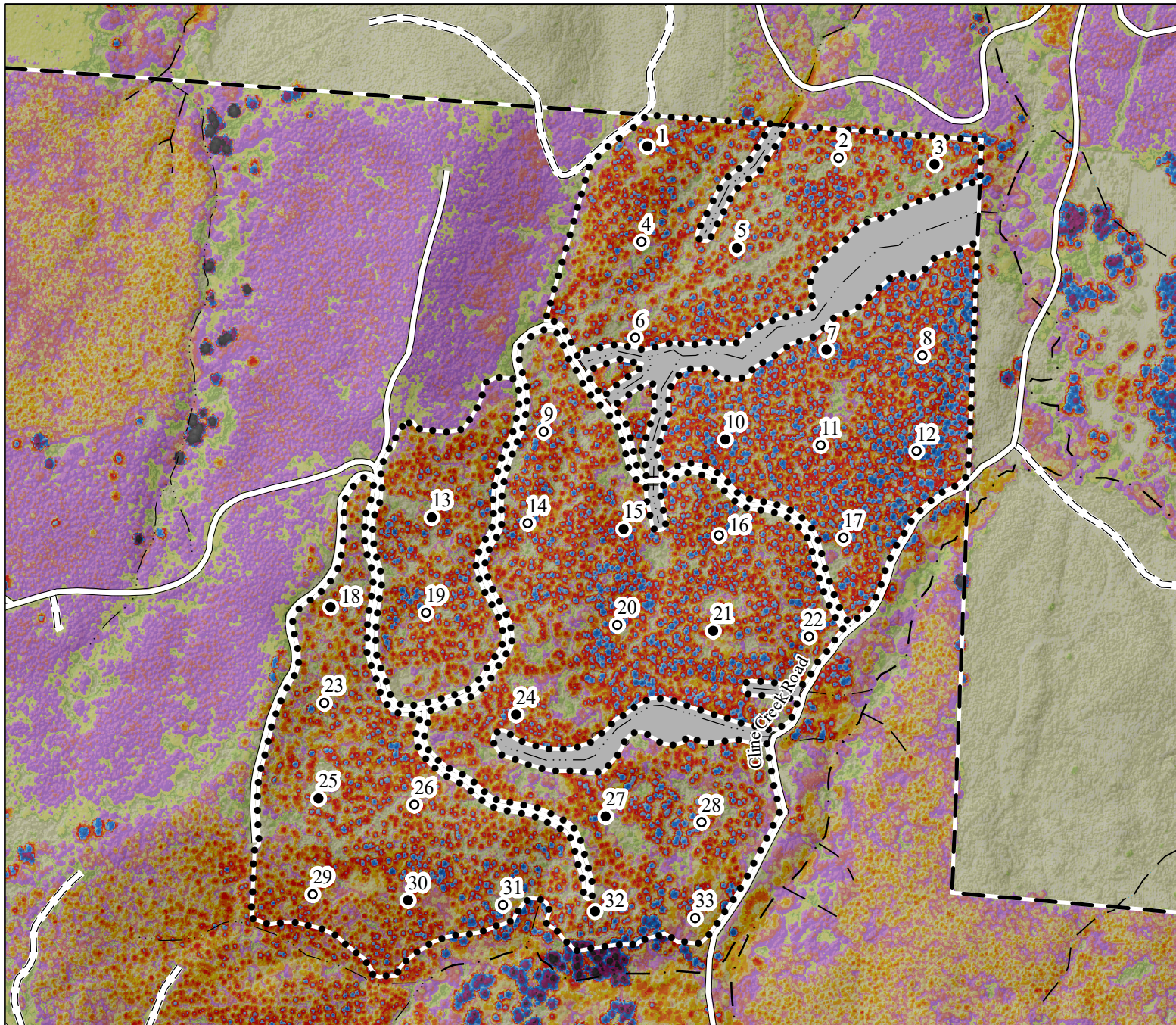
hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
B. Sort: Use code "1" (Domestic).
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull;
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 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 points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave.
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- 9. Cruising Equipment:** Relaskop, Rangefinder or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description, and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: David Bailey

Approved by: _____

Date: _____



Legend

- ODF Managed Lands
- Timber Sale Boundary
- Roads
 - Surfaced Road
 - = = Unsurfaced Road
- Streams
 - - Fish
 - Nonfish
 - Unknown
- Stream Buffer Posted
- Cruise Plot
 - Measure
 - Count

CRUISE MAP

OF TIMBER SALE CONTRACT NO. WO-341-2020-W00995-01
 LOW INCLINE
 PORTIONS OF SECTIONS 17 & 20, T11S, R08W, W.M.,
 LINCOLN COUNTY, OREGON

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

Scale

1:6,000



Unit 1 (MC)
 Spacing 5 X 5 Chains (330' X 330')
 Bearing 90 X 270
 BAF 33.61



Date: 08/10/2022

Species, Sort Grade - Board Foot Volumes (Project)

T11S R08W S17 Ty00MC 96.00

Project: LI

Page 1

Acres 96.00

Date 8/8/2022

Time 10:44:50AM

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
									Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF		OG2M		73	.4	29,128	29,018	2,786		0	62	38				100	40	15	357	1.88	81.2
DF		OG3M		24	.4	9,677	9,636	925		96	4			1	7	92	38	9	109	0.72	88.3
DF		OG4M		2		839	839	81		100			23	61	8	8	23	6	30	0.36	28.1
DF		PW3M		1		29	29	3		100						100	36	7	60	0.59	.5
DF		Totals		99	.4	39,673	39,522	3,794		26	46	28	0	2	2	96	37	11	200	1.20	198.1
BM		OGK		100		86	86	8		100						100	40	10	150	1.06	.6
BM		Totals		0		86	86	8		100						100	40	10	150	1.06	.6
RA		OGK		100		414	414	40		100						100	40	9	116	0.85	3.6
RA		Totals		1		414	414	40		100						100	40	9	116	0.85	3.6
Totals					0.4	40,174	40,023	3,842		27	46	27	0	2	2	96	37	11	198	1.20	202.2

TC TSTATS				STATISTICS				PAGE 1			
				PROJECT LI		DATE		8/8/2022			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
11S	08W	17	LI	00MC	96.00	33	184	S	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
PLOTS		TREES									
TOTAL		33		184		5.6					
CRUISE		21		107		5.1		7,132			
DBH COUNT								1.5			
REFOREST											
COUNT		12		70		5.8					
BLANKS											
100 %											
STAND SUMMARY											
SAMPLE		TREES		AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
TREES		/ACRE		DBH	LEN	DBN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR		103		70.2	21.8	107	38.9	181.3	39,673	39,522	8,765
R ALDER		3		3.6	16.2	49	1.3	5.1	414	414	121
BL MAPLE		1		.6	18.0	52	0.2	1.0	86	86	24
TOTAL		107		74.3	21.5	103	40.4	187.4	40,174	40,023	8,910
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL: 68.1 %		COEFF		SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.	
SD: 1.0		VAR.%		S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		47.3		4.7	640	671	702				
R ALDER		25.0		17.3	99	120	141				
BL MAPLE											
TOTAL		50.4		4.9	619	651	683	102	25	11	
CL: 68.1 %		COEFF		SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD: 1.0		VAR.%		S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		40.7		4.0	140	146	152				
R ALDER		20.5		14.2	30	35	40				
BL MAPLE											
TOTAL		43.6		4.2	136	142	148	76	19	8	
CL: 68.1 %		COEFF		TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0		VAR.%		S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		37.6		6.5	66	70	75				
R ALDER		373.4		64.9	1	4	6				
BL MAPLE		574.5		99.9	0	1	1				
TOTAL		30.4		5.3	70	74	78	37	9	4	
CL: 68.1 %		COEFF		BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0		VAR.%		S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		34.0		5.9	171	181	192				
R ALDER		373.4		64.9	2	5	8				
BL MAPLE		574.5		99.9	0	1	2				
TOTAL		28.0		4.9	178	187	197	31	8	3	
CL: 68.1 %		COEFF		NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0		VAR.%		S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		34.0		5.9	37,181	39,522	41,862				
R ALDER		373.4		64.9	145	414	684				
BL MAPLE		574.5		99.9	0	86	173				
TOTAL		31.4		5.5	37,838	40,023	42,208	39	10	4	
CL: 68.1 %		COEFF		NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0		VAR.%		S.E.%	LOW	AVG	HIGH	5	10	15	
DOUG FIR		33.9		5.9	8,248	8,765	9,282				
R ALDER		373.4		64.9	42	121	199				
BL MAPLE		574.5		99.9	0	24	49				

TC TSTATS				STATISTICS				PAGE	2
				PROJECT	LI			DATE	8/8/2022
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08W	17	LI	00MC	96.00	33	184	S	W
CL:	68.1%	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.	INF. POP.	
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL		30.5	5.3	8,437	8,910	9,383	37	9	4

TC		PSTNDSUM		Stand Table Summary										Page		1	
														Date:		8/8/2022	
T11S R08W S17 Ty00MC 96.00					Project LI					Time:					10:44:51AM		
					Acres 96.00					Grown Year:							
S Spc	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net		Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre		Tons	Cunits	MBF	
DF		14	2	85	111	3.293	3.52	6.59	19.6	82.5	3.69	129	543	354	124	52	
DF		15	1	85	125	1.434	1.76	2.87	25.1	105.0	2.06	72	301	197	69	29	
DF		16	3	85	123	3.782	5.28	8.82	25.1	102.9	6.30	221	908	605	212	87	
DF		17	5	85	123	5.583	8.80	13.40	27.2	109.2	10.38	364	1,463	997	350	140	
DF		18	4	86	126	3.984	7.04	10.96	27.1	108.2	8.45	296	1,185	811	285	114	
DF		19	5	86	130	4.470	8.80	13.41	29.5	123.3	11.29	396	1,654	1,084	380	159	
DF		20	9	86	131	7.261	15.84	20.98	34.1	141.9	20.39	715	2,977	1,957	687	286	
DF		21	9	86	141	6.586	15.84	19.76	38.3	166.7	21.58	757	3,293	2,071	727	316	
DF		22	7	86	141	4.667	12.32	14.00	41.9	191.4	16.73	587	2,680	1,607	564	257	
DF		23	17	86	146	10.371	29.92	31.11	47.8	215.3	42.43	1,489	6,698	4,073	1,429	643	
DF		24	6	86	152	3.362	10.56	10.08	54.3	247.8	15.61	548	2,499	1,498	526	240	
DF		25	6	86	152	3.098	10.56	9.29	58.0	271.1	15.36	539	2,520	1,474	517	242	
DF		26	10	86	152	4.774	17.60	14.32	62.5	285.3	25.53	896	4,086	2,451	860	392	
DF		27	5	85	150	2.213	8.80	6.64	67.6	318.7	12.79	449	2,116	1,227	431	203	
DF		28	6	86	161	2.470	10.56	7.41	77.2	396.1	16.29	572	2,935	1,564	549	282	
DF		29	2	86	150	.767	3.52	2.30	77.8	381.7	5.11	179	879	490	172	84	
DF		30	3	86	153	1.076	5.28	3.23	84.1	417.8	7.74	271	1,348	743	261	129	
DF		31	2	85	160	.672	3.52	2.01	94.4	473.3	5.42	190	954	521	183	92	
DF		33	1	86	163	.296	1.76	.89	106.0	543.3	2.69	94	483	258	90	46	
DF		Totals	103	86	138	70.158	181.29	198.07	44.3	199.5	249.81	8,765	39,522	23,982	8,415	3,794	
RA		15	1	88	67	1.383	1.70	1.38	28.4	90.0	1.08	39	124	104	38	12	
RA		16	1	88	69	1.216	1.70	1.22	33.4	120.0	1.12	41	146	107	39	14	
RA		18	1	88	67	.961	1.70	.96	42.4	150.0	1.12	41	144	108	39	14	
RA		Totals	3	88	68	3.560	5.09	3.56	33.9	116.4	3.32	121	414	318	116	40	
BM		18	1	88	67	.576	1.02	.58	42.4	150.0	.65	24	86	62	23	8	
BM		Totals	1	88	67	.576	1.02	.58	42.4	150.0	.65	24	86	62	23	8	
Totals			107	86	134	74.294	187.40	202.21	44.1	197.9	253.77	8,910	40,023	24,362	8,554	3,842	

T11S R08W S17 Ty00MC 96.00

Project: LI
Acres 96.00Page 1
Date 8/8/2022
Time 10:44:50AM

Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		OG 2M	40	2,796		2,786	73.4					11	576	661	1164	374			
DF		OG 3M	22	2		2	.0			2									
DF		OG 3M	28	7		7	.2			5	2								
DF		OG 3M	32	30		30	.8			13	16								
DF		OG 3M	34	35		35	.9			22	13								
DF		OG 3M	36	37	1.9	36	1.0			33	3								
DF		OG 3M	38	130		130	3.4			24	65	30	11						
DF		OG 3M	40	689		686	18.1			82	168	406	30						
DF		OG 4M	14	10		10	.3			10									
DF		OG 4M	16	7		7	.2			7									
DF		OG 4M	18	1		1	.0			1									
DF		OG 4M	22	5		5	.1			5									
DF		OG 4M	24	23		23	.6			23									
DF		OG 4M	26	4		4	.1			4									
DF		OG 4M	28	11		11	.3			11									
DF		OG 4M	30	6		6	.2			6									
DF		OG 4M	34	6		6	.2			6									
DF		OG 4M	40	7		7	.2			7									
DF		PW 3M	36	3		3	.1			3									
DF		Totals		3,809		3,794	98.7			264	267	447	617	661	1164	374			
BM		OG K	40	8		8	100.0					8							
BM		Totals		8		8	.2					8							
RA		OG K	40	40		40	100.0			26		14							
RA		Totals		40		40	1.0			26		14							
Total		All Species		3,857		3,842	100.0			264	293	469	617	661	1164	374			

TC TREESEGR														TREE SEGMENT VOLUMES										Page	1
Project: LI																								Date	8/8/2022
TWP	RGE	SC	TRACT			TYPE		ACRES		PLOTS		TREES		CRUISED DATE		CuFt	BdFt								
11S	08W	17	LI			00MC		96.00		33		107		7/1/2022		S	W								
Tree		C		T		Bole Tot.		S		Dia		Dia		Gross		Net									
Plot	No.	PF	A	Spc	S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt	
0001	0001 B11	DF				3	21.8	4	86	G	107	138		1xx	37						125	125	565	563	
		Count																			125	125	565	563	
PLOT							BA = 100.83				T/A = 39.020										4,875	4,875	22,066	21,981	
0002	0001 B11	DF				1	16.0	4	86	G	87	122		113	40	2	.920	.522	16.02	11.03	41	41	180	170	
														213	40		.920	.522	11.03	7.09	19	19	70	70	
							BA = 33.61				T/A = 24.071										60	60	250	240	
	0002 B11	DF				1	23.0	4	87	4	107	136		112	40		.920	.522	22.91	16.35	81	81	400	400	
														213	40		.920	.522	16.35	11.62	41	41	180	180	
							BA = 33.61				T/A = 11.649			314	24		.920	.522	11.62	7.36	11	11	40	40	
																					133	133	620	620	
	0003 B11	DF				1	17.0	4	86	G	94	128		113	40	2	.920	.522	17.04	11.83	45	45	180	170	
														213	38		.920	.522	11.83	8.23	19	19	80	80	
							BA = 33.61				T/A = 21.323			314	14		.920	.522	8.23	6.30	4	4	20	20	
																					68	68	280	270	
PLOT							BA = 100.83				T/A = 57.043										4,429	4,429	19,211	18,757	
0003	0001 B11	DF				1	21.8	4	86	G	107	138		1xx	37						125	125	565	563	
		Count																			125	125	565	563	
							BA = 33.61				T/A = 13.007														
PLOT							BA = 33.61				T/A = 13.007										1,625	1,625	7,355	7,327	
0004	0001 B11	DF				1	18.0	4	87	G	99	131		112	40	1	.920	.522	17.92	12.72	47	47	200	190	
														213	40	1	.920	.522	12.72	8.77	23	23	90	90	
							BA = 33.61				T/A = 19.019			314	14		.920	.522	8.77	6.74	4	4	20	20	
																					74	74	310	300	
	0002 B11	DF				1	23.0	4	87	4	103	130		112	40		.920	.522	22.89	16.24	81	81	400	400	
														212	40		.920	.522	16.24	11.17	41	41	180	180	
							BA = 33.61				T/A = 11.649			313	22		.920	.522	11.17	6.94	9	9	30	30	
																					131	131	610	610	
	0004 B11	DF				1	19.0	4	86	4	107	136		112	40		.920	.522	19.06	13.35	58	58	240	240	
														213	38		.920	.522	13.35	9.72	26	26	110	110	
							BA = 33.61				T/A = 17.070			314	24		.920	.522	9.72	6.34	8	8	30	30	
																					91	91	380	380	
PLOT							BA = 100.83				T/A = 47.738										4,491	4,491	19,488	19,298	
0005	0001 B11	DF				5	21.8	4	86	G	107	138		1xx	37						125	125	565	563	
		Count																			125	125	565	563	
							BA = 168.05				T/A = 65.034														
PLOT							BA = 168.05				T/A = 65.034										8,125	8,125	36,776	36,635	
0006	0001 B11	DF				1	20.0	4	86	4	95	120		112	40		.920	.522	20.02	13.75	62	62	240	240	
														213	38	1	.920	.522	13.75	8.98	24	24	80	80	
							BA = 33.61				T/A = 15.406			314	14		.920	.522	8.98	6.33	4	4	20	20	
																					90	90	340	340	
	0002 B11	DF				1	16.0	4	85	G	89	126		113	40	1	.920	.522	16.15	10.97	39	39	150	150	
														213	32		.920	.522	10.97	8.16	14	14	70	70	
							BA = 33.61				T/A = 24.071			314	16		.920	.522	8.16	6.18	4	4	20	20	
																					58	58	240	240	
	0003 B11	DF				1	15.0	4	86	G	86	125		113	40		.920	.522	15.03	10.40	35	35	150	150	
														213	40	1	.920	.522	10.40	6.89	15	15	60	60	
							BA = 33.61				T/A = 27.388										50	50	210	210	
	0004 B11	DF				1	23.0	4	86	4	107	136		112	40		.920	.522	23.08	16.16	86	86	400	400	
														213	40		.920	.522	16.16	11.49	41	41	180	180	
							BA = 33.61				T/A = 11.649			314	24		.920	.522	11.49	7.28	11	11	40	40	
																					138	138	620	620	
	0005 B11	DF				1	27.0	4	85	4	110	139		112	40		.920	.522	27.30	18.84	115	115	530	530	
														212	40		.920	.522	18.84	13.67	54	54	240	240	
							BA = 33.61				T/A = 8.453			313	28		.920	.522	13.67	8.22	18	18	50	50	
																					186	186	820	820	
	0006 B11	DF				1	22.0	4	86	4	104	132		112	40		.920	.522	22.06	15.39	77	77	360	360	
														213	38		.920	.522	15.39	10.96	34	34	140	140	
							BA = 33.61				T/A = 12.732			314	24		.920	.522	10.96	6.76	9	9	30	30	
																					120	120	530	530	
	0007 B11	DF				1	21.0	4	86	4	105	133		112	40		.920	.522	21.06	14.71	69	69	290	290	

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt													
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W													
Tree	C	T	Bole Tot.	S			Dia	Dia	Gross	Net	Gross	Net											
Plot No.	PF	A	Spe	S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt
0006						BA = 33.61				T/A = 13.973			213	38		.920	.522	14.71	10.56	31	31	140	140
													314	24		.920	.522	10.56	6.65	9	9	30	30
PLOT						BA = 235.27				T/A = 113.672										109	109	460	460
																				10,381	10,381	44,096	44,096
0007	0001 B11	DF			6	21.8	4	86	G	107	138		1xx	37						125	125	565	563
		Count				BA = 201.66				T/A = 78.041										125	125	565	563
PLOT						BA = 201.66				T/A = 78.041										9,750	9,750	44,131	43,962
0008	0001 B11	DF			1	24.0	4	86	4	123	157		112	40		.920	.522	24.14	17.22	94	94	460	460
						BA = 33.61				T/A = 10.698			212	40		.920	.522	17.22	13.37	50	50	240	240
													313	40		.920	.522	13.37	7.60	24	24	70	70
																				168	168	770	770
	0002 B11	DF			1	21.0	4	86	4	117	149		112	40		.920	.522	21.11	14.96	69	69	290	290
						BA = 33.61				T/A = 13.973			213	40		.920	.522	14.96	11.30	35	35	180	180
													313	36		.920	.522	11.30	6.32	15	15	60	60
																				119	119	530	530
	0003 B11	DF			1	26.0	4	87	4	121	154		112	40		.920	.522	25.96	18.83	104	104	530	530
						BA = 33.61				T/A = 9.116			212	40		.920	.522	18.83	14.50	57	57	290	290
													313	40		.920	.522	14.50	7.93	27	27	70	70
																				187	187	890	890
	0004 B11	DF			1	27.0	4	86	4	120	153		112	40		.920	.522	27.15	19.30	119	119	600	600
						BA = 33.61				T/A = 8.453			212	40		.920	.522	19.30	14.80	61	61	290	290
													313	40		.920	.522	14.80	7.92	27	27	70	70
																				206	206	960	960
	0005 B11	DF			1	23.0	4	86	4	119	151		112	40		.920	.522	23.12	16.43	86	86	400	400
						BA = 33.61				T/A = 11.649			212	40		.920	.522	16.43	12.53	44	44	200	200
													313	38		.920	.522	12.53	6.92	19	19	60	60
																				148	148	660	660
	0006 B11	DF			1	28.0	4	87	4	120	153		112	40		.920	.522	27.95	20.25	123	123	700	700
						BA = 33.61				T/A = 7.860			212	40		.920	.522	20.25	15.52	68	68	360	360
													313	40		.920	.522	15.52	8.31	32	32	90	90
																				223	223	1150	1150
PLOT						BA = 201.66				T/A = 61.750										10,392	10,392	48,599	48,599
0009	0001 B11	DF			1	26.0	4	86	4	117	149		112	40	2	.920	.522	26.13	18.52	109	109	530	510
						BA = 33.61				T/A = 9.116			212	40	1	.920	.522	18.52	14.00	54	54	240	240
													313	36		.920	.522	14.00	7.82	21	21	60	60
																				184	184	830	810
	0002 B11	DF			1	29.0	4	86	4	121	154		112	40		.920	.522	29.16	20.76	135	135	700	700
						BA = 33.61				T/A = 7.327			212	40		.920	.522	20.76	15.98	68	68	360	360
													313	40		.920	.522	15.98	8.74	32	32	90	90
																				235	235	1150	1150
	0003 B11	DF			1	26.0	4	86	4	122	155		112	40		.920	.522	26.15	18.63	109	109	530	530
						BA = 33.61				T/A = 9.116			212	40		.920	.522	18.63	14.41	57	57	290	290
													313	40		.920	.522	14.41	8.03	28	28	90	90
																				194	194	910	910
	0004 B11	DF			1	17.0	4	86	G	91	123		113	40		.920	.522	17.03	11.76	45	45	180	180
						BA = 33.61				T/A = 21.323			213	40		.920	.522	11.76	7.68	19	19	70	70
																				63	63	250	250
PLOT						BA = 134.44				T/A = 46.882										6,521	6,521	29,619	29,436
0010	0001 B11	DF			6	21.8	4	86	G	107	138		1xx	37						125	125	565	563
		Count				BA = 201.66				T/A = 78.041										125	125	565	563
PLOT						BA = 201.66				T/A = 78.041										9,750	9,750	44,131	43,962
0011	0001 B11	DF			1	30.0	4	87	4	116	147		112	40	1	.920	.522	29.93	21.60	140	140	760	740
						BA = 33.61				T/A = 6.847			212	40	1	.920	.522	21.60	16.23	76	76	400	390
													313	34		.920	.522	16.23	9.36	31	31	100	100
																				247	247	1260	1230
	0002 B11	DF			1	30.0	4	87	4	120	153		112	40	1	.920	.522	29.94	21.70	140	140	760	740
						BA = 33.61				T/A = 6.847			212	40		.920	.522	21.70	16.63	76	76	400	400
													313	38		.920	.522	16.63	9.37	35	35	110	110
																				251	251	1270	1250
	0003 B11	DF			1	22.0	4	87	4	106	134		112	40		.920	.522	21.91	15.62	73	73	360	360

TREE SEGMENT VOLUMES

Project: LI

Page

3

Date _____

8/8/2022

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt													
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W													
Tree	C	T	Bole Tot.	S			Dia	Dia	Gross	Net	Gross	Net											
Plot No.	PF	A	Spe	S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt
0011						BA = 33.61				T/A = 12.732			213	40		.920	.522	15.62	11.01	38	38	180	180
													314	24		.920	.522	11.01	6.85	10	10	30	30
																				121	121	570	570
	0004	B11	DF		1	27.0	4	86	4	115	146		112	40		.920	.522	27.13	19.19	119	119	600	600
						BA = 33.61				T/A = 8.453			212	40		.920	.522	19.19	14.35	61	61	290	290
													313	34		.920	.522	14.35	8.11	24	24	70	70
																				204	204	960	960
	0005	B11	DF		1	23.0	4	86	4	118	150		112	40		.920	.522	23.12	16.41	86	86	400	400
						BA = 33.61				T/A = 11.649			212	40		.920	.522	16.41	12.46	44	44	200	200
													313	34		.920	.522	12.46	7.45	18	18	60	60
																				147	147	660	660
	0007	B11	DF		1	25.0	4	86	4	117	149		112	40		.920	.522	25.13	17.81	100	100	460	460
						BA = 33.61				T/A = 9.860			212	40		.920	.522	17.81	13.46	50	50	240	240
													313	34		.920	.522	13.46	7.91	20	20	60	60
																				170	170	760	760
PLOT						BA = 201.66				T/A = 56.388										10,057	10,057	47,877	47,534
0012	0001	B11	DF		1	20.0	4	86	4	104	132		112	40		.920	.522	20.06	13.99	62	62	240	240
						BA = 33.61				T/A = 15.406			213	38		.920	.522	13.99	9.96	26	26	110	110
													314	24		.920	.522	9.96	6.15	8	8	30	30
																				96	96	380	380
	0002	B11	DF		1	14.0	4	86	G	78	119		113	40		.920	.522	14.01	9.61	30	30	120	120
						BA = 33.61				T/A = 31.440			213	38		.920	.522	9.61	6.22	12	12	60	60
																				42	42	180	180
	0003	B11	DF		1	19.0	4	86	4	100	126		112	40		.920	.522	19.04	13.19	58	58	240	240
						BA = 33.61				T/A = 17.070			213	40		.920	.522	13.19	8.82	25	25	90	90
													314	16		.920	.522	8.82	6.19	4	4	20	20
																				88	88	350	350
	0005	B11	DF		1	21.0	4	86	4	114	145		112	40		.920	.522	21.10	14.91	69	69	290	290
						BA = 33.61				T/A = 13.973			213	40		.920	.522	14.91	11.08	35	35	180	180
													313	32		.920	.522	11.08	6.48	14	14	50	50
																				118	118	520	520
	0006	B11	DF		1	27.0	4	87	4	126	161		112	40		.920	.522	26.97	19.65	113	113	600	600
						BA = 33.61				T/A = 8.453			212	40		.920	.522	19.65	15.44	64	64	360	360
													313	40		.920	.522	15.44	9.22	33	33	120	120
																				210	210	1080	1080
	0008	B11	DF		1	28.0	4	86	4	129	165		112	40		.920	.522	28.19	20.21	129	129	700	700
						BA = 33.61				T/A = 7.860			212	40	1	.920	.522	20.21	16.05	72	72	400	390
													313	40		.920	.522	16.05	9.99	37	37	120	120
																				237	237	1220	1210
PLOT						BA = 201.66				T/A = 94.202										9,591	9,591	43,473	43,394
0013	0001	B11	DF		8	21.8	4	86	G	107	138		1xx	37						125	125	565	563
			Count			BA = 268.88				T/A = 104.055										125	125	565	563
PLOT						BA = 268.88				T/A = 104.055										13,000	13,000	58,841	58,616
0014	0001	B11	DF		1	17.0	4	86	G	87	118		113	40		.920	.522	17.01	11.65	45	45	180	180
						BA = 33.61				T/A = 21.323			213	40		.920	.522	11.65	7.18	19	19	70	70
																				63	63	250	250
	0002	B11	DF		1	23.0	4	86	4	117	149		112	40		.920	.522	23.12	16.39	86	86	400	400
						BA = 33.61				T/A = 11.649			212	40		.920	.522	16.39	12.38	44	44	200	200
													313	36		.920	.522	12.38	6.92	18	18	60	60
																				147	147	660	660
	0003	B11	DF		1	30.0	4	86	4	124	158		112	40		.920	.522	30.18	21.54	146	146	760	760
						BA = 33.61				T/A = 6.847			212	40		.920	.522	21.54	16.80	76	76	400	400
													313	40		.920	.522	16.80	9.71	37	37	120	120
																				259	259	1280	1280
	0004	B11	DF		1	24.0	4	86	4	122	155		112	40		.920	.522	24.14	17.20	94	94	460	460
						BA = 33.61				T/A = 10.698			212	40		.920	.522	17.20	13.30	50	50	240	240
													313	40		.920	.522	13.30	7.42	24	24	70	70
																				168	168	770	770
	0005	B11	DF		1	14.0	4	86	G	68	102		113	40		.920	.522	13.96	9.27	27	27	120	120
						BA = 33.61				T/A = 31.440			214	28		.920	.522	9.27	6.18	9	9	30	30
																				36	36	150	150
PLOT						BA = 168.05				T/A = 81.957										7,771	7,771	34,737	34,737

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt															
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W															
Tree	Plot	No.	PF	A	Spe	S	C	T	Bole Tot.	S	Dia	Dia	Gross	Net	Gross	Net									
Plot	No.	PF	A	Spe	S	C	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Bult	Top	CuFt	CuFt	BdFt	BdFt
0015	0001B11	DF	9	21.8	4	86	G	107	138	1xx	37											125	125	565	563
		Count						BA = 302.49				T/A = 117.061										125	125	565	563
PLOT								BA = 302.49				T/A = 117.061										14,625	14,625	66,197	65,943
0016	0001B11	DF	1	26.0	4	86	4	116	147			112	40	1	.920	.522	26.13	18.50	109	109	530	520			
								BA = 33.61				T/A = 9.116										54	54	240	240
												212	40		.920	.522	18.50	13.91	54	54	240	240			
												313	36		.920	.522	13.91	7.60	21	21	60	60			
																						184	184	830	820
	0002B11	DF	1	26.0	4	86	4	117	149			112	40		.920	.522	26.13	18.52	109	109	530	530			
								BA = 33.61				T/A = 9.116										54	54	240	240
												212	40		.920	.522	18.52	14.00	54	54	240	240			
												313	36		.920	.522	14.00	7.82	21	21	60	60			
																						184	184	830	830
	0003B11	DF	1	22.0	4	87	4	110	139			112	40		.920	.522	21.92	15.71	73	73	360	360			
								BA = 33.61				T/A = 12.732										38	38	180	180
												213	40		.920	.522	15.71	11.40	38	38	180	180			
												314	28		.920	.522	11.40	6.86	12	12	30	30			
																						122	122	570	570
	0004B11	DF	1	23.0	4	85	4	108	137			112	40		.920	.522	23.25	16.00	82	82	360	360			
								BA = 33.61				T/A = 11.649										38	38	180	180
												213	40	1	.920	.522	16.00	11.45	38	38	180	180			
												314	26		.920	.522	11.45	7.00	11	11	30	30			
																						131	131	570	570
	0005B11	DF	1	22.0	4	86	4	116	147			112	40	1	.920	.522	22.11	15.65	77	77	360	350			
								BA = 33.61				T/A = 12.732										38	38	180	180
												213	40		.920	.522	15.65	11.77	38	38	180	180			
												313	36		.920	.522	11.77	6.43	15	15	60	60			
																						130	130	600	590
	0006B11	DF	1	21.0	4	86	4	112	142			112	40		.920	.522	21.09	14.87	69	69	290	290			
								BA = 33.61				T/A = 13.973										32	32	150	150
												213	40		.920	.522	14.87	10.92	32	32	150	150			
												314	30		.920	.522	10.92	6.47	11	11	40	40			
																						113	113	480	480
PLOT								BA = 201.66				T/A = 69.318										9,684	9,684	43,376	43,157
0017	0001B11	DF	1	28.0	4	87	4	126	161			112	40		.920	.522	27.97	20.38	123	123	700	700			
								BA = 33.61				T/A = 7.860										72	72	400	400
												212	40		.920	.522	20.38	16.02	72	72	400	400			
												313	40		.920	.522	16.02	9.56	37	37	120	120			
																						231	231	1220	1220
	0002B11	DF	1	23.0	4	86	4	123	157			112	40		.920	.522	23.14	16.50	86	86	400	400			
								BA = 33.61				T/A = 11.649										44	44	200	200
												212	40		.920	.522	16.50	12.81	44	44	200	200			
												313	40		.920	.522	12.81	7.28	21	21	70	70			
																						150	150	670	670
	0003B11	DF	1	18.0	4	86	G	103	137			112	40		.920	.522	18.06	12.67	51	51	200	200			
								BA = 33.61				T/A = 19.019										23	23	110	110
												213	38		.920	.522	12.67	9.29	23	23	110	110			
												314	22		.920	.522	9.29	6.44	7	7	30	30			
																						81	81	340	340
	0004B11	DF	1	23.0	4	87	4	119	151			112	40		.920	.522	22.95	16.62	81	81	400	400			
								BA = 33.61				T/A = 11.649										44	44	200	200
												212	40		.920	.522	16.62	12.68	44	44	200	200			
												313	38		.920	.522	12.68	7.00	20	20	70	70			
																						144	144	670	670
	0005B11	DF	1	21.0	4	86	4	113	143			112	40		.920	.522	21.09	14.89	69	69	290	290			
								BA = 33.61				T/A = 13.973										35	35	180	180
												213	40		.920	.522	14.89	11.01	35	35	180	180			
												313	32		.920	.522	11.01	6.30	14	14	50	50			
																						118	118	520	520
	0006B11	DF	1	25.0	4	87	4	127	162			112	40		.920	.522	24.98	18.22	98	98	530	530			
								BA = 33.61				T/A = 9.860										57	57	290	290
												212	40		.920	.522	18.22	14.37	57	57	290	290			
												313	40		.920	.522	14.37	8.70	28	28	90	90			
																						183	183	910	910
PLOT								BA = 201.66				T/A = 74.010										10,252	10,252	47,904	47,904
0018	0001B11	DF	5	21.8	4	86	G	107	138	1xx	37											125	125	565	563
		Count						BA = 168.05				T/A = 65.034										125	125	565	563
	0002B11	BM	1	18.0	4	89	H	52	67	11K	40				.953	.555	17.92	10.81	42	42	150	150			
								BA = 33.61				T/A = 19.019										42	42	150	150
PLOT								BA = 201.66				T/A = 84.053										8,932	8,932	39,629	39,488
0019	0001B11	DF	1	33.0	4	86	4	128	163			112	40	1	.920	.522	33.21	23.79	176	176	940	920			
								BA = 33.61				T/A = 5.659										93	93	530	530
												212	40		.920	.522	23.79	18.83	93	93	530	530			

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W

Tree	C	T	Bole Tot.	S	Dia	Dia	Gross	Net	Gross	Net													
Plot No.	PF	A	Spc	S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt

0019													313	40		.920	.522	18.83	11.57	49	49	180	180
	0002	B11	DF	1	24.0	4	86	4	110	139			112	40	1	.920	.522	24.09	16.94	91	91	400	390
					BA = 33.61				T/A = 10.698				212	40		.920	.522	16.94	12.29	44	44	200	200
													313	28		.920	.522	12.29	7.39	15	15	50	50
																				149	149	650	640
	0003	B11	DF	1	26.0	4	86	4	117	149			112	40	2	.920	.522	26.13	18.52	109	109	530	510
					BA = 33.61				T/A = 9.116				212	40		.920	.522	18.52	14.00	54	54	240	240
													313	38		.920	.522	14.00	7.40	23	23	70	70
																				185	185	840	820
	0004	B11	DF	1	22.0	4	86	4	114	145			112	40	1	.920	.522	22.10	15.62	77	77	360	350
					BA = 33.61				T/A = 12.732				213	40		.920	.522	15.62	11.61	38	38	180	180
													313	32		.920	.522	11.61	6.79	14	14	50	50
																				129	129	590	580
PLOT					BA = 134.44				T/A = 38.205											6,726	6,726	31,460	30,930

0020	0001	B11	DF	1	26.0	4	86	4	123	157			112	40		.920	.522	26.15	18.65	109	109	530	530
					BA = 33.61				T/A = 9.116				212	40		.920	.522	18.65	14.48	57	57	290	290
													313	40		.920	.522	14.48	8.23	28	28	90	90
																				194	194	910	910
	0002	B11	DF	1	21.0	4	85	4	110	139			112	40	1	.920	.522	21.24	14.65	69	69	290	280
					BA = 33.61				T/A = 13.973				213	40		.920	.522	14.65	10.63	32	32	150	150
													314	28		.920	.522	10.63	6.39	10	10	30	30
																				112	112	470	460
	0003	B11	DF	1	23.0	4	86	4	119	151			112	40		.920	.522	23.12	16.43	86	86	400	400
					BA = 33.61				T/A = 11.649				212	40		.920	.522	16.43	12.53	44	44	200	200
													313	38		.920	.522	12.53	6.92	19	19	60	60
																				148	148	660	660
	0004	B11	DF	1	20.0	4	86	4	108	137			112	40		.920	.522	20.07	14.08	65	65	290	290
					BA = 33.61				T/A = 15.406				213	40		.920	.522	14.08	10.08	32	32	150	150
													314	26		.920	.522	10.08	6.16	10	10	30	30
																				107	107	470	470
	0005	B11	DF	1	21.0	4	87	4	117	149			112	40	1	.920	.522	20.95	15.14	68	68	360	350
					BA = 33.61				T/A = 13.973				213	40		.920	.522	15.14	11.44	38	38	180	180
													313	36	1	.920	.522	11.44	6.39	15	15	60	50
																				121	121	600	580
	0006	B11	DF	1	19.0	4	86	G	101	131			112	40	1	.920	.522	19.05	13.28	58	58	240	240
					BA = 33.61				T/A = 17.070				213	38		.920	.522	13.28	9.43	26	26	110	110
													314	22		.920	.522	9.43	6.11	7	7	30	30
																				91	91	380	380
	0007	B11	DF	1	25.0	4	86	4	116	147			112	40	1	.920	.522	25.12	17.79	100	100	460	450
					BA = 33.61				T/A = 9.860				213	40		.920	.522	17.79	13.37	50	50	240	240
													313	34		.920	.522	13.37	7.71	20	20	60	60
																				170	170	760	750
PLOT					BA = 235.27				T/A = 91.047											11,627	11,627	52,156	51,638

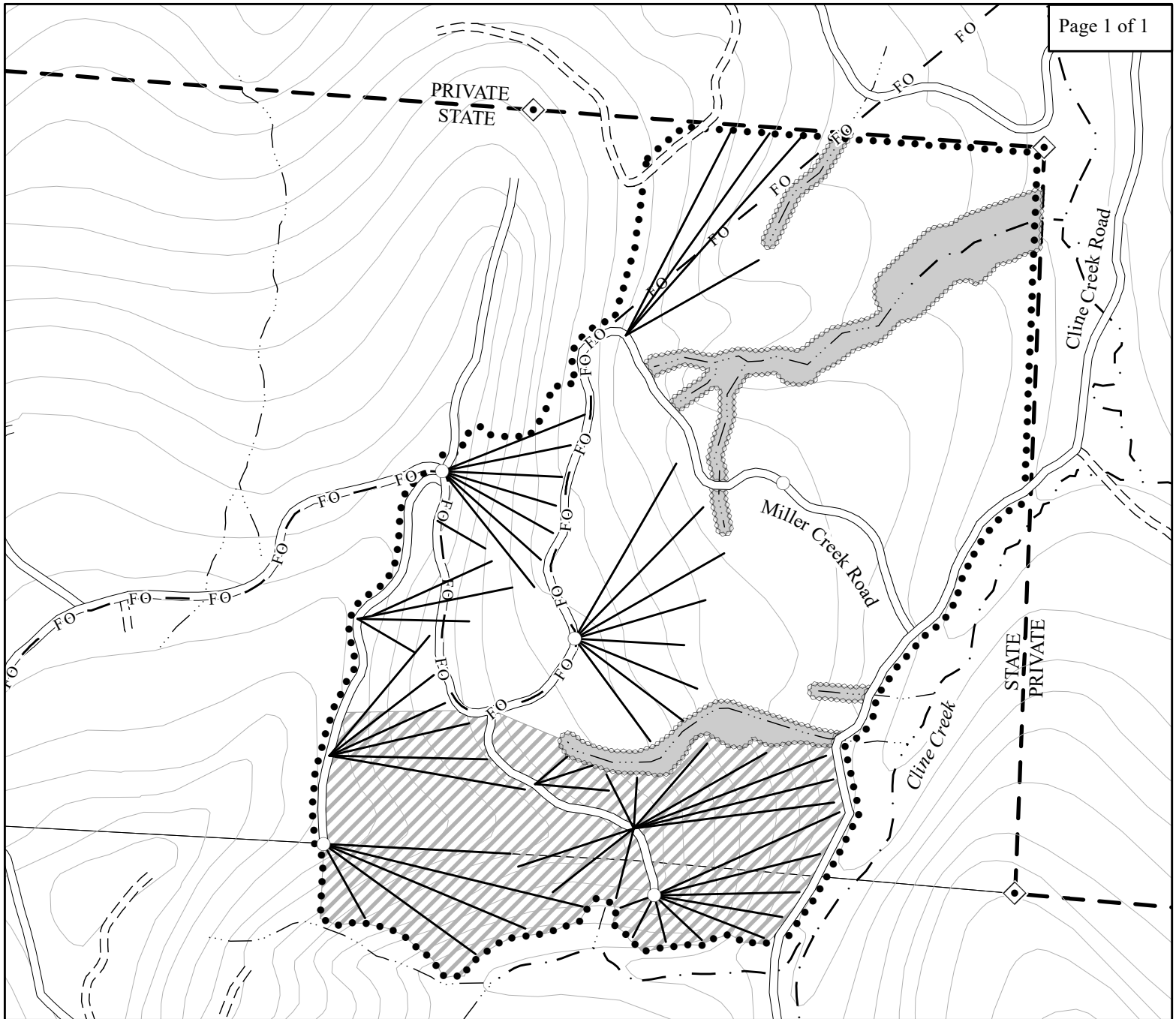
0021	0001	B11	DF	2	21.8	4	86	G	107	138			1xx	37						125	125	565	563
			Count		BA = 67.22				T/A = 26.014											125	125	565	563
	0002	B11	RA	1	18.0	4	89	H	52	67			11K	40		.953	.555	17.92	10.81	42	42	150	150
					BA = 33.61				T/A = 19.019											42	42	150	150
	0003	B11	RA	1	16.0	4	89	H	50	69			11K	40		.953	.555	15.95	9.75	33	33	120	120
					BA = 33.61				T/A = 24.071											33	33	120	120
	0004	B11	RA	1	15.0	4	89	H	47	67			11K	40		.953	.555	14.93	8.97	28	28	90	90
					BA = 33.61				T/A = 27.388											28	28	90	90
PLOT					BA = 168.05				T/A = 96.492											5,637	5,637	22,917	22,860

0022	0001	B11	DF	1	25.0	4	87	4	125	159			112	40		.920	.522	24.97	18.18	98	98	530	530
					BA = 33.61				T/A = 9.860				212	40		.920	.522	18.18	14.23	57	57	290	290
													313	40		.920	.522	14.23	8.36	28	28	90	90
																				183	183	910	910
	0002	B11	DF	1	19.0	4	87	G	108	140			112	40		.920	.522	18.94	13.57	54	54	240	240
					BA = 33.61				T/A = 17.070				213	40		.920	.522	13.57	9.87	27	27	120	120
													314	24		.920	.522	9.87	6.59	8	8	30	30

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt														
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W														
Tree			C	T	Bole Tot.	S	Dia	Dia	Gross	Net	Gross	Net												
Plot	No.	PF	A	Sp	S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt
0022	0003	B11	DF	1	20.0	4	87	4	112	142	112	40		.920	.522	19.94	14.32	61	61	290	290	390	390	
					BA = 33.61					T/A = 15.406	213	40		.920	.522	14.32	10.53	32	32	150	150			
											314	30		.920	.522	10.53	6.24	11	11	40	40			
																					104	104	480	480
	0004	B11	DF	1	25.0	4	87	4	120	153	112	40		.920	.522	24.95	18.08	98	98	530	530			
					BA = 33.61					T/A = 9.860	212	40		.920	.522	18.08	13.86	54	54	240	240			
											313	40		.920	.522	13.86	7.42	24	24	70	70			
																					176	176	840	840
	0005	B11	DF	1	23.0	4	86	4	121	154	112	40		.920	.522	23.13	16.46	86	86	400	400			
					BA = 33.61					T/A = 11.649	212	40		.920	.522	16.46	12.68	44	44	200	200			
											313	40		.920	.522	12.68	6.93	20	20	60	60			
																					149	149	660	660
	0006	B11	DF	1	31.0	4	85	4	127	162	112	40	1	.920	.522	31.42	22.07	158	158	840	840			
					BA = 33.61					T/A = 6.412	212	40		.920	.522	22.07	17.41	84	84	460	460			
											313	40		.920	.522	17.41	10.54	42	42	150	150			
																					284	284	1450	1420
	0007	B11	DF	1	23.0	4	87	4	120	153	112	40		.920	.522	22.96	16.64	81	81	400	400			
					BA = 33.61					T/A = 11.649	212	40		.920	.522	16.64	12.75	44	44	200	200			
											313	40		.920	.522	12.75	6.83	20	20	60	60			
																					144	144	660	660
	0008	B11	DF	1	22.0	4	86	4	116	147	112	40		.920	.522	22.11	15.65	77	77	360	360			
					BA = 33.61					T/A = 12.732	213	40	1	.920	.522	15.65	11.77	38	38	180	180			
											314	34		.920	.522	11.77	6.79	15	15	50	50			
																					130	130	590	590
PLOT					BA = 268.88					T/A = 94.637											13,545	13,545	63,493	63,300
0023	0001	B11	DF	1	28.0	4	86	4	123	157	112	40		.920	.522	28.16	20.09	129	129	700	700			
					BA = 33.61					T/A = 7.860	212	40		.920	.522	20.09	15.60	68	68	360	360			
											313	40		.920	.522	15.60	8.86	32	32	90	90			
																					229	229	1150	1150
	0002	B11	DF	1	24.0	4	87	4	125	159	112	40		.920	.522	23.97	17.45	89	89	460	460			
					BA = 33.61					T/A = 10.698	212	40		.920	.522	17.45	13.66	50	50	240	240			
											313	40		.920	.522	13.66	8.03	25	25	90	90			
																					165	165	790	790
	0003	B11	DF	1	24.0	4	86	4	121	154	112	40		.920	.522	24.13	17.18	94	94	460	460			
					BA = 33.61					T/A = 10.698	212	40		.920	.522	17.18	13.23	50	50	240	240			
											313	40		.920	.522	13.23	7.23	24	24	70	70			
																					168	168	770	770
PLOT					BA = 100.83					T/A = 29.257											5,358	5,358	25,729	25,729
0024	0001	B11	DF	7	21.8	4	86	G	107	138	1xx	37						125	125	565	563			
		Count			BA = 235.27					T/A = 91.048								125	125	565	563			
PLOT					BA = 235.27					T/A = 91.048											11,375	11,375	51,486	51,289
0025	0001	B11	DF	5	21.8	4	86	G	107	138	1xx	37						125	125	565	563			
		Count			BA = 168.05					T/A = 65.034								125	125	565	563			
PLOT					BA = 168.05					T/A = 65.034											8,125	8,125	36,776	36,635
0026	0001	B11	DF	1	20.0	4	86	4	110	139	112	40		.920	.522	20.08	14.12	65	65	290	290			
					BA = 33.61					T/A = 15.406	213	40		.920	.522	14.12	10.25	32	32	150	150			
											314	28		.920	.522	10.25	6.16	10	10	30	30			
																					108	108	470	470
	0002	B11	DF	1	23.0	4	86	4	115	146	112	40		.920	.522	23.11	16.35	86	86	400	400			
					BA = 33.61					T/A = 11.649	212	40		.920	.522	16.35	12.22	44	44	200	200			
											313	34		.920	.522	12.22	6.91	17	17	50	50			
																					146	146	650	650
	0003	B11	DF	1	23.0	4	86	4	112	142	112	40		.920	.522	23.10	16.28	86	86	400	400			
					BA = 33.61					T/A = 11.649	213	38		.920	.522	16.28	12.22	41	41	190	190			
											314	34		.920	.522	12.22	6.70	17	17	50	50			
																					144	144	640	640
	0004	B11	DF	1	23.0	4	86	4	115	146	112	40		.920	.522	23.11	16.35	86	86	400	400			
					BA = 33.61					T/A = 11.649	212	40		.920	.522	16.35	12.22	44	44	200	200			
											313	34		.920	.522	12.22	6.91	17	17	50	50			
																					146	146	650	650

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt															
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W															
Tree	C	T	Bole Tot.	S	Dia	Dia	Gross	Net	Gross	Net															
Plot No.	PF	A	Spc S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt			
PLOT		BA = 134.44				T/A = 50.352				6,734				6,734				29,840				29,840			
0027	0001 B11	DF	6	21.8	4	86	G	107	138	1xx		37					125	125	565	563					
	Count			BA = 201.66		T/A = 78.041										125	125	565	563						
	0002 B11	RA	1	16.2	4	89	H	49	68	1xx		40					34	34	116	116					
	Count			BA = 33.61		T/A = 23.493										34	34	116	116						
PLOT		BA = 235.27				T/A = 101.534				10,546				10,546				46,866				46,698			
0028	0001 B11	DF	1	26.0	4	86	4	126	161	112	40	.920	.522	26.16	18.71	109	109	530	530						
				BA = 33.61		T/A = 9.116		212	40	.920	.522	18.71	14.70	57	57	290	290								
								313	40	.920	.522	14.70	8.78	28	28	90	90								
												194	194	910	910										
	0002 B11	DF	1	28.0	4	86	4	129	165	112	40	.920	.522	28.19	20.21	129	129	700	700						
				BA = 33.61		T/A = 7.860		212	40	.920	.522	20.21	16.05	72	72	400	400								
								313	40	.920	.522	16.05	9.99	37	37	120	120								
												237	237	1220	1220										
	0003 B11	DF	1	23.0	4	86	4	117	149	112	40	.920	.522	23.12	16.39	86	86	400	400						
				BA = 33.61		T/A = 11.649		212	40	.920	.522	16.39	12.38	44	44	200	200								
								313	36	.920	.522	12.38	6.92	18	18	60	60								
												147	147	660	660										
	0004 B11	DF	1	28.0	4	86	4	127	162	112	40	.920	.522	28.18	20.17	129	129	700	700						
				BA = 33.61		T/A = 7.860		212	40	.920	.522	20.17	15.91	68	68	360	360								
								313	40	.920	.522	15.91	9.64	33	33	120	120								
												231	231	1180	1180										
PLOT		BA = 134.44				T/A = 36.485				7,162				7,162				34,848				34,848			
0029	0001 B11	DF	1	20.0	4	86	4	104	132	112	40	.920	.522	20.06	13.99	62	62	240	240						
				BA = 33.61		T/A = 15.406		213	38	.920	.522	13.99	9.96	26	26	110	110								
								314	24	.920	.522	9.96	6.15	8	8	30	30								
												96	96	380	380										
	0002 B11	DF	1	29.0	4	86	4	115	146	112	40	.920	.522	29.14	20.61	135	135	700	700						
				BA = 33.61		T/A = 7.327		212	40	.920	.522	20.61	15.41	68	68	360	360								
								313	36	.920	.522	15.41	8.23	28	28	80	80								
												232	232	1140	1140										
	0003 B11	DF	1	20.0	4	86	4	105	133	112	40	.920	.522	20.06	14.01	65	65	290	290						
				BA = 33.61		T/A = 15.406		213	38	.920	.522	14.01	10.06	31	31	140	140								
								314	24	.920	.522	10.06	6.33	9	9	30	30								
												105	105	460	460										
	0004 B11	DF	1	21.0	4	86	4	100	126	112	40	.920	.522	21.04	14.58	69	69	290	290						
				BA = 33.61		T/A = 13.973		213	40	.920	.522	14.58	9.75	30	30	120	120								
								314	18	.920	.522	9.75	6.45	6	6	20	20								
												105	105	430	430										
	0005 B11	DF	1	25.0	4	86	4	110	139	112	40	.920	.522	25.10	17.65	100	100	460	460						
				BA = 33.61		T/A = 9.860		212	40	.920	.522	17.65	12.81	47	47	200	200								
								313	28	.920	.522	12.81	7.70	15	15	50	50								
												162	162	710	710										
	0006 B11	DF	1	20.0	4	86	4	98	124	112	40	.920	.522	20.03	13.83	62	62	240	240						
				BA = 33.61		T/A = 15.406		213	40	.920	.522	13.83	9.05	27	27	120	120								
								314	16	.920	.522	9.05	6.14	5	5	20	20								
												94	94	380	380										
	0007 B11	DF	1	18.0	4	86	G	87	115	113	40	.920	.522	18.00	12.26	47	47	200	190						
				BA = 33.61		T/A = 19.019		214	40	.920	.522	12.26	7.28	21	21	70	70								
												68	68	270	260										
PLOT		BA = 235.27				T/A = 96.397				10,605				10,605				45,292				45,102			
0030	0001 B11	DF	6	21.8	4	86	G	107	138	1xx		37					125	125	565	563					
	Count			BA = 201.66		T/A = 78.041										125	125	565	563						
	0002 B11	RA	1	16.2	4	89	H	49	68	1xx		40					34	34	116	116					
	Count			BA = 33.61		T/A = 23.493										34	34	116	116						
PLOT		BA = 235.27				T/A = 101.534				10,546				10,546				46,866				46,698			
0031	0001 B11	DF	1	17.0	4	86	G	86	116	113	40	.920	.522	17.00	11.62	45	45	180	180						
				BA = 33.61		T/A = 21.323		213	40	.920	.522	11.62	7.05	19	19	70	70								

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CRUISED DATE	CuFt	BdFt														
11S	08W	17	LI	00MC	96.00	33	107	7/1/2022	S	W														
Tree			C	T	Bole Tot.	S	Dia			Gross	Net	Gross	Net											
Plot	No.	PF	A	Spe	S	T	DBH	FF	FF	D	Hgt	Hg	PRDVT	SG	Len	FIFI	Bark	Ao	Butt	Top	CuFt	CuFt	BdFt	BdFt
0031	0002	B11	DF		1	31.0	4	86	4	123	157		112	40			.920	.522	31.18	22.24	158	158	840	840
						BA = 33.61				T/A = 6.412			212	40			.920	.522	22.24	17.27	84	84	460	460
													313	40			.920	.522	17.27	9.81	40	40	120	120
																					282	282	1420	1420
	0003	B11	DF		1	16.0	4	86	G	86	120		113	40			.920	.522	16.01	11.01	41	41	180	180
						BA = 33.61				T/A = 24.071			213	40			.920	.522	11.01	6.97	17	17	60	60
																					58	58	240	240
	0004	B11	DF		1	24.0	4	86	4	117	149		112	40			.920	.522	24.12	17.10	94	94	460	460
						BA = 33.61				T/A = 10.698			212	40			.920	.522	17.10	12.92	47	47	200	200
													313	34			.920	.522	12.92	7.60	18	18	60	60
																					159	159	720	720
	0005	B11	DF		1	17.0	4	86	G	95	129		113	40			.920	.522	17.04	11.85	45	45	180	180
						BA = 33.61				T/A = 21.323			213	40			.920	.522	11.85	8.09	20	20	90	90
													314	14			.920	.522	8.09	6.16	4	4	20	20
																					69	69	290	290
	0006	B11	DF		1	26.0	4	86	4	116	147		112	40			.920	.522	26.13	18.50	109	109	530	530
						BA = 33.61				T/A = 9.116			212	40			.920	.522	18.50	13.91	54	54	240	240
													343	36			.920	.522	13.91	7.60	21	21	60	60
																					184	184	830	830
	0007	B11	DF		1	22.0	4	86	4	112	142		112	40			.920	.522	22.09	15.57	77	77	360	360
						BA = 33.61				T/A = 12.732			213	40			.920	.522	15.57	11.45	38	38	180	180
													313	32			.920	.522	11.45	6.41	14	14	50	50
																					129	129	590	590
PLOT						BA = 235.27				T/A = 105.675											11,052	11,052	49,178	49,178
0032	0001	B11	DF		6	21.8	4	86	G	107	138		1xx	37							125	125	565	563
			Count			BA = 201.66				T/A = 78.041											125	125	565	563
PLOT						BA = 201.66				T/A = 78.041											9,750	9,750	44,131	43,962
0033	0001	B11	DF		1	27.0	4	86	4	120	153		112	40			.920	.522	27.15	19.30	119	119	600	600
						BA = 33.61				T/A = 8.453			212	40			.920	.522	19.30	14.80	61	61	290	290
													313	40			.920	.522	14.80	7.92	27	27	70	70
																					206	206	960	960
	0002	B11	DF		1	26.0	4	86	4	117	149		112	40			.920	.522	26.13	18.52	109	109	530	530
						BA = 33.61				T/A = 9.116			212	40			.920	.522	18.52	14.00	54	54	240	240
													313	36			.920	.522	14.00	7.82	21	21	60	60
																					184	184	830	830
	0003	B11	DF		1	23.0	4	86	4	116	147		112	40			.920	.522	23.11	16.37	86	86	400	400
						BA = 33.61				T/A = 11.649			212	40			.920	.522	16.37	12.30	44	44	200	200
													313	36			.920	.522	12.30	6.73	18	18	60	60
																					147	147	660	660
	0004	B11	DF		1	19.0	4	86	G	92	119		112	40			.920	.522	19.01	13.04	58	58	240	240
						BA = 33.61				T/A = 17.070			213	32			.920	.522	13.04	9.32	22	22	90	90
													314	16			.920	.522	9.32	6.62	5	5	20	20
																					85	85	350	350
	0005	B11	DF		1	20.0	4	86	I	85	121		112	40			.920	.522	20.02	13.77	62	62	240	240
						BA = 33.61				T/A = 15.406			213	40			.920	.522	13.77	8.77	25	25	90	90
																					87	87	330	330
	0006	B11	DF		1	21.0	4	86	4	115	146		112	40			.920	.522	21.10	14.92	69	69	290	290
						BA = 33.61				T/A = 13.973			213	40			.920	.522	14.92	11.16	35	35	180	180
													313	34			.920	.522	11.16	6.31	15	15	50	50
																					119	119	520	520
	0007	B11	DF		1	18.0	4	86	G	90	119		112	40			.920	.522	18.01	12.35	51	51	200	200
						BA = 33.61				T/A = 19.019			213	34			.920	.522	12.35	8.56	19	19	70	70
													314	14			.920	.522	8.56	6.27	4	4	20	20
																					74	74	290	290
PLOT						BA = 235.27				T/A = 94.686											10,998	10,998	47,210	47,210
TYPE						BA = 187.40				T/A = 74.294											8,910	8,910	40,174	40,023



Legend

- Ownership
- Timber Sale Boundary
- Streams**
 - Type F Stream
 - Type N Stream
 - Stream Buffer Posted
- Roads**
 - Surfaced Road
 - Unsurfaced Road
- Fiber Optic Line
- Cable Corridor
- Felling Restriction Area
- Landing
- Land Survey Monument

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. WO-341-2023-W00995-01
 LOW INCLINE
 PORTIONS OF SECTIONS 17 & 20, T11S, R08W, W.M.,
 LINCOLN COUNTY, OREGON

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Scale

1:6,000



	NET CABLE	NET TRACTOR
AREA ACRES	ACRES	ACRES
1 (MC)	42	54
TOTAL	42	54



Date: 09/21/2022