



Timber Sale Appraisal
Odin's Blade
Sale TL-341-2018-60-

District: Tillamook

Date: July 26, 2017

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$3,452,511.93	\$217,013.80	\$3,669,525.73
		Project Work:	\$0.00
		Advertised Value:	\$3,669,525.73



Timber Sale Appraisal Odin's Blade Sale TL-341-2018-60-

District: Tillamook

Date: July 26, 2017

Timber Description

Location: Portions of Sections 4 and 5, T1N, R7W, and portions of Sections 20, 21, 28, 29, 30, 31, 32, and 33, T2N, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	17	0	95
Western Hemlock / Fir	18	0	95
Alder (Red)	14	0	90

Volume by Grade	2S	3S	4S	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	5,152	4,089	1,412	0	0	0	0	10,653
Western Hemlock / Fir	90	97	16	0	0	0	0	203
Alder (Red)	0	0	0	185	117	90	302	694
Total	5,242	4,186	1,428	185	117	90	302	11,550

Comments: Pond Values Used: Adjusted Local Pond Values, May 2017.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$1,099/\text{MBF} = \$1,435/\text{MBF} - \$336/\text{MBF}$

Pulp (Conifer and Hardwood) Price = $\$25/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

BRANDING AND PAINTING COST ALLOWANCE = $\$2.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE

Hauling costs equivalent to $\$780$ daily truck cost.

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

Snag Creation Areas 1, 2, 4 and 6: 582 snags at $\$10/\text{tree} = \$5,820$

TOTAL Other Costs (with Profit & Risk to be added) = $\$5,820$

Other Costs (No Profit & Risk added):

Machine Cleaning: $\$1,000/\text{machine} \times 3 = \$3,000$

Heliport Construction: 8 hours machine time @ $\$140/\text{hour} = \$1,120$

Slash Piling and Sorting (Cable Ground): $\$5/\text{acre} \times 368 \text{ acres} = \$1,840$

Block Unsurfaced Roads (Three Non-Project roads) with Tank Traps: 3 each x $\$50$ each = $\$150$

Non-Project Road #1 Construction: 8.6 stations x $\$250/\text{station} = \$2,150$

Non-Project Road #2 Construction: 20.5 stations x $\$250/\text{station} = \$5,125$

Non-Project Road #3 Construction: 10 stations x $\$250/\text{station} = \$2,500$

Approach Rock (pit run) Spurs: 100 cy/spur x $\$6/\text{cy} \times 3 \text{ spurs} = \$1,800$

Ditch Cleaning and Bank Sluff Removal:

Mobilization: two times— dump truck w/tilt bed & small excavator: $\$890 \times 2 = \$1,780$

Small Excavator (Cat 312 or equivalent): 40 hrs. @ $\$95/\text{hr} = \$3,800$

Dump Truck: 40 hrs. @ $\$70/\text{hr} = \$2,800$

TOTAL Other Costs (No Profit & Risk added) = $\$26,065$

ROAD MAINTENANCE:

Spot rocking:

North Fork Wilson, West Fork Wilson, Diamond Mill, and Elk Wallow Roads: $20\text{cy}/\text{mmbf}/\text{mile} \times 11.6 \text{ MMBF} \times \$12.00/\text{cy} \times 11.4 \text{ miles} / 11550\text{MBF} = \$2.75/\text{MBF}$

Grading

Interim

Area 2 Haul: West Fork Wilson, North Fork Wilson 3.8 miles x 1 time x $750/\text{mile} = \$2,850$

Areas 1, 3, 4, 5, and 6 haul: Elk Wallow, Diamond Mill, North Fork Wilson 7.6 miles x 3 times x $\$750/\text{mile} = \$17,100$

Interim grading $\$/\text{MBF} = \$2,850 + \$17,100 / 11,550 \text{ MBF} = \$1.72/\text{MBF}$

Final

North Fork Wilson, West Fork Wilson, Diamond Mill, and Elk Wallow Roads

Final Maintenance Grading: $\$1,500 \times 11.4 \text{ miles} / 11,550 \text{ MBF} = \$1.48/\text{MBF}$

Final Maintenance Compaction (Diamond Mill Rd.): $\$950/\text{mile} \times 2.5 \text{ miles} / 11550 \text{ MBF} = \$0.21/\text{MBF}$

Total Road Maintenance: $\$6.16/\text{MBF}$



Timber Sale Appraisal
Odin's Blade
Sale TL-341-2018-60-

District: Tillamook

Date: July 26, 2017

Logging Conditions

Combination#: 1 Douglas - Fir 19.95%
 Western Hemlock / Fir 24.67%
 Alder (Red) 32.64%

Logging System: Cable: Large Tower >=70 **Process:** Stroke Delimber

yarding distance: Long (1,500 ft) **downhill yarding:** No

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

loads / day: 6.5 **bd. ft / load:** 3500

cost / mbf: \$272.53

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Large)

Combination#: 2 Douglas - Fir 38.45%
 Western Hemlock / Fir 38.46%
 Alder (Red) 44.01%

Logging System: Cable: Large Tower >=70 **Process:** Stroke Delimber

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

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

loads / day: 8 **bd. ft / load:** 3500

cost / mbf: \$221.43

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Large)

Combination#: 3 Douglas - Fir 22.05%
 Western Hemlock / Fir 33.74%
 Alder (Red) 22.47%

Logging System: Cable: Small Tower <=40 **Process:** Stroke Delimber

yarding distance: Short (400 ft) **downhill yarding:** No

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

loads / day: 10 **bd. ft / load:** 3500

cost / mbf: \$160.00

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)

Combination#: 4 Douglas - Fir 19.55%
 Western Hemlock / Fir 3.13%
 Alder (Red) 0.88%

Logging System: Shovel **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: 13 **bd. ft / load:** 3500

cost / mbf: \$117.45

machines: Forwarder
Harvester



Timber Sale Appraisal
Odin's Blade
Sale TL-341-2018-60-

District: Tillamook

Date: July 26, 2017

Logging Costs

Operating Seasons: 2.00	Profit Risk: 10%
Project Costs: \$0.00	Other Costs (P/R): \$5,820.00
Slash Disposal: \$0.00	Other Costs: \$26,065.00

Miles of Road

Road Maintenance: \$6.16

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	3.0
Western Hemlock / Fir	\$0.00	3.0	3.6
Alder (Red)	\$0.00	3.0	3.2



Timber Sale Appraisal
Odin's Blade
Sale TL-341-2018-60-

District: Tillamook

Date: July 26, 2017

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
\$197.75	\$6.47	\$0.76	\$91.00	\$0.50	\$29.65	\$0.00	\$7.00	\$2.26	\$335.39
Western Hemlock / Fir									
\$210.06	\$6.47	\$0.76	\$75.83	\$0.50	\$29.36	\$0.00	\$7.00	\$2.26	\$332.24
Alder (Red)									
\$223.39	\$6.78	\$0.76	\$89.38	\$0.50	\$32.08	\$0.00	\$7.00	\$2.26	\$362.15

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$654.87	\$319.48	\$0.00
Western Hemlock / Fir	\$0.00	\$574.07	\$241.83	\$0.00
Alder (Red)	\$0.00	\$674.85	\$312.70	\$0.00



Timber Sale Appraisal
Odin's Blade
Sale TL-341-2018-60-

District: Tillamook

Date: July 26, 2017

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	10,653	\$319.48	\$3,403,420.44
Western Hemlock / Fir	203	\$241.83	\$49,091.49
Alder (Red)	694	\$312.70	\$217,013.80

Gross Timber Sale Value

Recovery: \$3,669,525.73

Prepared By: Harold Stevens

Phone: 503-815-7044



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Odin's Blade

1. Type of Sale

Regeneration harvest, Recovery

2. Legal Description

Sections 4 and 5, T1N, R7W, Sections 20 - 21, 28 - 33, T2N, R7W, W.M., Tillamook County, Oregon.

3. Sale Acreage

Sale acreage was determined by GPS and orthophotographs along with GIS.

	<u>ACRES</u>	
	<u>Gross</u>	<u>Net</u>
Area 1 (Modified Clearcut)	124	90
Area 2 (Modified Clearcut)	145	103
Area 3 (Modified Clearcut)	120	111
Area 4 (Modified Clearcut)	79	61
Area 5 (Modified Clearcut)	98	70
Area 6 (Modified Clearcut)	62	37

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method

The timber sale areas were variable plot cruised. Plot and line spacing was 350' and 700' respectively on different azimuths for the units to provide the uniform coverage. All conifers 8" DBH and greater containing 20 board feet and all hardwoods 10" DBH and greater containing 30 board feet were recorded. Species, DBH (to the nearest inch), merchantable bole length (to the nearest foot), form factor, and defect were recorded for all trees. Merchantable heights were recorded to 6" and 7" outside bark for conifers and hardwoods, respectively.

B. Plot size

Plot size varied by Area and the BAF used is as follows; Areas 1 and 5 - 33.61 BAF, Area 2 - 27.78 BAF, Area 3 - 20.00 BAF and Areas 4 and 6 - 40 BAF.

Point of tree observation was 4.0'.

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Log lengths favored 40' lengths.

5. Computation Procedure

Plot data was entered into SuperAce for computation of basal area, advertised volume, volume summary, log stock table, and stand table for each species and type.

Net sale acreage was used for volume calculation. Net acreage is the gross acreage (the area within the posted sale boundary) minus the posted buffer areas and roads.

Cruise Statistics (Board Foot Volumes)			
Area	Number of Plots	SE (%)	CV (%)
1	31	6.3	35.0
2	21	12.3	54.9
3	18	7.4	30.4
4	26	8.2	41.1
5	34	8.8	51.6
6	11	8.7	27.5
Total	87	6.6	62.0

6. Hidden Defect and Breakage

A 1% reduction was applied to conifers and a 2% reduction to hardwood volumes for hidden defect and breakage.

7. Timber Description

The entire sale area was burned in the 1933 Tillamook Fire. Area 6 was burned again in the 1939 Saddle Mountain Fire. Areas 1 through 5 were burned again in the 1945 Salmonberry/Wilson River Fires. A mixture of seeding and planting of seedlings was completed to reforest all the burned areas. Initial planting began in 1956 and was completed in 1959 with interplants in portions of Areas 3 and 4 being completed 1972-1973. In 1977 the alder was sprayed to release the conifers, 55% of Area 4 and 100% of 5. Approximately 10-25% of Areas 1 and 2, all of Area 3, and 50% of Area 5 were commercially thinned from 2000-2002 with the Elk Wallow Commercial Thinning Sale.

Sale Area	Species	DBH	Merchantable Bole Height (feet)	Merchantable top (inches inside bark)
1	Douglas-fir	15.4	69	5
	Red alder	14.7	41	6
2	Douglas-fir	15.7	75	5
	Red alder	14.4	55	6
3	Douglas-fir	20.9	77	5
	Red alder	11.0	31	6
4	Douglas-fir	17.1	69	5
	Red alder	16.0	40	6
5	Douglas-fir	17.3	77	5
	Red alder	14.3	40	6
6	Douglas-fir	15.6	70	5
	Red alder	13.5	50	6

8. Cruiser Names/Dates

Cruised by contractors in 2014 and 2015. Areas 1, 4, and 5 were cruised again by ODF-Tillamook District personnel in 2017.

9. Revenue Distribution

FDF 100%

Tax Code: 8% 9-2, 92% 56

Deed Numbers: 35, 96, and 138

10. Attachments

Volume Summary

Stand Table

Log Stock Tables

Logging Plan

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir take

DL – Douglas-fir leave

WH – Western hemlock

SS – Sitka spruce

OC – Other conifer

RA – Red alder take

BM – Big leaf maple

TC PSTATS						PROJECT STATISTICS				PAGE	1	
						PROJECT	ODINSREA		DATE	6/21/2017		
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt	
001 02N	007 07W	05 32	722_AREA6 669_AREA5	SALE	THR	472.00		141	853	S	W	
				TREES		ESTIMATED TOTAL		PERCENT SAMPLE				
			PLOTS	TREES	PER PLOT		TREES	TREES				
TOTAL			141	853	6.0							
CRUISE			108	651	6.0		61,256		1.1			
DBH COUNT												
REFOREST												
COUNT			33	195	5.9							
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR			547	100.5	16.9	73	38.0	156.1	22,131	21,610	5,433	5,427
R ALDER			66	19.7	13.9	44	5.6	20.7	1,513	1,457	445	445
OTH CONF			2	.2	17.0	53	0.1	.3				
OTH CONF-1			7	2.1	11.9	89	0.5	1.6				
OTH CONF-2			14	4.4	12.5	61	1.1	3.8				
WHEMLOCK			7	1.6	17.6	76	0.6	2.6	415	403	97	97
BL MAPLE			4	.7	14.3	36	0.2	.8	13	13	6	6
DF-LEAVE			3	.4	18.5	74	0.2	.8	87	87	23	23
S SPRUCE			1	.2	15.0	33	0.1	.3				
TOTAL			651	129.8	16.3	68	46.4	187.1	24,159	23,570	6,004	5,998
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		65.6	2.8	301	310	318						
R ALDER		70.9	8.7	78	86	93						
OTH CONF												
OTH CONF-1												
OTH CONF-2												
WHEMLOCK		65.4	26.6	269	367	465						
BL MAPLE		122.5	70.0	6	20	34						
DF-LEAVE		29.0	20.0	168	210	252						
S SPRUCE												
TOTAL		76.0	3.0	266	274	282	230	58	26			
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		59.5	2.5	76	78	80						
R ALDER		65.5	8.1	24	26	29						
OTH CONF												
OTH CONF-1												
OTH CONF-2												
WHEMLOCK		65.2	26.5	62	85	107						
BL MAPLE		146.6	83.7	2	13	25						
DF-LEAVE		36.8	25.5	40	54	67						
S SPRUCE												
TOTAL		69.2	2.7	67	69	71	191	48	21			
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		73.3	6.2	94	100	107						
R ALDER		251.4	21.2	16	20	24						
OTH CONF		1187.4	99.9	0	0	0						
OTH CONF-1		760.0	63.9	1	2	3						

TC PSTATS			PROJECT STATISTICS						PAGE	2
			PROJECT			ODINSREA			DATE	6/21/2017
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
001 02N	007 07W	05 32	722_AREA6 669_AREA5	SALE	THR	472.00	141	853	S	W
CL	68.1		COEFF	TREES/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
OTH CONF-2			383.2	32.2	3	4	6			
WHEMLOCK			495.2	41.7	1	2	2			
BL MAPLE			770.1	64.8	0	1	1			
DF-LEAVE			687.3	57.8	0	0	1			
S SPRUCE			1187.4	99.9	0	0	0			
TOTAL			61.7	5.2	123	130	137	152	38	17
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			59.3	5.0	148	156	164			
R ALDER			236.1	19.9	17	21	25			
OTH CONF			1187.4	99.9	0	0	1			
OTH CONF-1			701.0	59.0	1	2	3			
OTH CONF-2			375.8	31.6	3	4	5			
WHEMLOCK			495.2	41.7	2	3	4			
BL MAPLE			720.5	60.6	0	1	1			
DF-LEAVE			680.7	57.3	0	1	1			
S SPRUCE			1187.4	99.9	0	0	1			
TOTAL			47.8	4.0	180	187	195	91	23	10
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			62.9	5.3	20,466	21,610	22,754			
R ALDER			271.9	22.9	1,124	1,457	1,791			
OTH CONF										
OTH CONF-1										
OTH CONF-2										
WHEMLOCK			550.1	46.3	216	403	589			
BL MAPLE			935.3	78.7	3	13	22			
DF-LEAVE			699.8	58.9	36	87	139			
S SPRUCE										
TOTAL			56.2	4.7	22,455	23,570	24,686	126	32	14
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			61.1	5.1	5,148	5,427	5,706			
R ALDER			267.1	22.5	345	445	544			
OTH CONF										
OTH CONF-1										
OTH CONF-2										
WHEMLOCK			522.7	44.0	55	97	140			
BL MAPLE			849.6	71.5	2	6	11			
DF-LEAVE			717.5	60.4	9	23	36			
S SPRUCE										
TOTAL			52.9	4.5	5,731	5,998	6,265	112	28	12

FI		TLOGSTVB		Log Stock Table - MBF																																			
				Project:				ODINSREA																															
T02N R07W S29 TSALE										T02N R07W S29 TSAL																													
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page		2																					
02N		07W		29		122_AREA1		SALE		90.00		31		82		Date		6/21/2017																					
																Time		9:09:43AM																					
S		So Gr		Log		Gross		%		Net		%		Net Volume by Scaling Diameter in Inches																									
Spp		T		rt de		Len		MBF		Def		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+	
RA				Totals		219		3.2		212		9.3						129		34		12		12		25													
WH		CO		3		40		55		5.0		52		82.6								52																	
WH		CO		4		34		11				11		17.4		11																							
WH				Totals		66		4.2		64		2.8		11						52																			
BM		H		4		28		4				4		100.0				4																					
BM				Totals		4				4		.2						4																					
Total All Species						2,347		2.6		2,285		100.0		232		402		383		387		358		241		211		70											

FI		TSTNDSUM															Stand Table Summary																	
																	Project			ODINSREA														
T02N R07W S29 TSALE																	T02N R07W S29 TSALE																	
Twp		Rge		Sec		Tract					Type		Acres		Plots		Sample Trees		Page:		1													
02N		07W		29		122_AREA1					SALE		90.00		31		82		Date:		06/21/2017													
																					Time:			9:09:43AM										
S T Spc		Sample DBH Trees		Av FF Ht 16' Tot		Trees/ BA/ Logs Acre Acre Acre		Average Log Net Net Cu.Ft. Bd.Ft.		Tons/ Cu.Ft. Acres		Net Cu.Ft. Acres		Net Bd.Ft. Acres		T o t a l s																		
																Tons	Cunits	MBF																
DF		9		84 92		5.275 2.33 5.27		11.6 40.0		1.74 61 211		156 55 19																						
DF		10		87 74		12.817 6.99 17.09		8.7 37.5		4.22 148 641		379 133 58																						
DF		11		87 81		14.123 9.32 28.25		9.2 42.5		7.37 259 1,200		663 233 108																						
DF		12		88 81		14.835 11.65 26.70		12.2 50.0		9.27 325 1,335		834 293 120																						
DF		13		85 80		10.112 9.32 20.22		13.0 50.0		7.49 263 1,011		674 237 91																						
DF		14		86 88		8.719 9.32 17.44		16.5 57.5		8.23 288 1,003		741 259 90																						
DF		15		87 100		7.595 9.32 15.19		20.5 81.3		8.91 312 1,234		802 281 111																						
DF		16		88 98		8.344 11.65 16.69		24.0 99.0		11.42 401 1,652		1,028 361 149																						
DF		17		88 109		10.348 16.31 22.17		27.5 107.3		17.36 609 2,380		1,562 548 214																						
DF		18		86 118		6.593 11.65 15.82		29.2 113.3		13.18 463 1,793		1,186 416 161																						
DF		19		87 112		4.734 9.32 10.65		32.6 128.9		9.88 347 1,373		889 312 124																						
DF		20		89 109		4.272 9.32 8.54		39.7 152.5		9.66 339 1,303		869 305 117																						
DF		21		86 114		1.938 4.66 4.84		38.2 158.0		5.28 185 765		475 167 69																						
DF		22		89 112		2.648 6.99 7.94		33.4 151.1		7.56 266 1,200		680 239 108																						
DF		23		84 123		2.423 6.99 7.27		40.2 167.8		8.33 292 1,220		749 263 110																						
DF		24		86 128		1.483 4.66 4.45		45.2 168.3		5.72 201 749		515 181 67																						
DF		25		88 127		1.367 4.66 3.42		58.4 230.0		5.70 200 786		513 180 71																						
DF		26		90 128		.632 2.33 1.90		53.4 190.0		2.88 101 360		259 91 32																						
DF		28		85 131		1.090 4.66 3.27		63.4 273.3		5.91 207 894		532 187 80																						
DF		29		90 126		.508 2.33 1.52		72.7 363.3		3.16 111 554		284 100 50																						
DF		32		90 147		.417 2.33 1.25		96.8 496.7		3.45 121 622		311 109 56																						
DF		Totals		87 94		120.275 156.12 239.92		22.9 92.9		156.69 5,498 22,287		14,102 4,948 2,006																						
RA		11		86 56		7.940 5.24 7.94		12.2 40.0		2.66 97 318		240 87 29																						
RA		12		88 59		3.336 2.62 6.67		8.6 35.0		1.58 58 234		142 52 21																						
RA		13		83 68		14.213 13.10 14.21		23.1 62.0		9.03 328 881		813 295 79																						
RA		15		87 68		2.135 2.62 4.27		15.3 50.0		1.79 65 214		161 59 19																						
RA		17		81 75		3.325 5.24 6.65		20.5 60.0		3.74 136 399		337 123 36																						
RA		22		90 70		.993 2.62 1.99		38.3 155.0		2.09 76 308		188 68 28																						
RA		Totals		85 65		31.941 31.44 41.73		18.2 56.4		20.90 760 2,352		1,881 684 212																						
WH		18		91 92		3.068 5.42 6.14		31.5 115.0		6.18 193 706		557 174 64																						
WH		Totals		91 92		3.068 5.42 6.14		31.5 115.0		6.18 193 706		557 174 64																						
BM		11		83 50		1.643 1.08 1.64		12.0 30.0		.52 20 49		47 18 4																						
BM		Totals		83 50		1.643 1.08 1.64		12.0 30.0		0.52 20 49		47 18 4																						
Totals				86 88		156.926 194.07 289.42		22.4 87.7		184.29 6471 25,394		16,586 5,824 2,285																						

FI	TLOGSTVB										Log Stock Table - MBF												
										Project: ODINSREA													
T02N R07W S29 TSALE										T02N R07W S29 TSAL													
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page		1					
02N		07W		29		595_AREA2		SALE		103.00		21		130		Date		6/21/2017					
										Time 8:59:21AM													
S Spp	So	Gr	Log	T	rt	de	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	CO	2	32					13		13	.6				13								
DF	CO	2	40					1,086	2.4	1,060	44.9				349	389	217	105					
DF	CO	3	28					2		2	.1			2									
DF	CO	3	30					17	1.7	16	.7			11	5								
DF	CO	3	32					96		96	4.0				48	48							
DF	CO	3	40					953	5.0	906	38.3			184	401	300	12	9					
DF	CO	4	16					20		20	.8		18	1									
DF	CO	4	17					2		2	.1		2										
DF	CO	4	18					9		9	.4		9										
DF	CO	4	20					15		15	.6		12	2	1								
DF	CO	4	22					23		23	1.0		19	3									
DF	CO	4	23					1		1	.1		1										
DF	CO	4	24					30	3.5	29	1.2		27		2								
DF	CO	4	26					13		13	.6		12	2									
DF	CO	4	30					21		21	.9		21										
DF	CO	4	32					5		5	.2		5										
DF	CO	4	34					17		17	.7		17										
DF	CO	4	36					39		39	1.7		39										
DF	CO	4	38					21		21	.9		21										
DF	CO	4	39					12		12	.5		12										
DF	CO	4	40					42		42	1.8		42										
DF	Totals							2,439	3.1	2,364	87.6		258	205	457	348	362	402	217	114			
WH	CO	2	20					16		16	12.1					16							
WH	CO	2	40					66		66	51.8				41	25							
WH	CO	3	32					15	22.2	12	9.0			12									
WH	CO	3	34					9		9	7.1				9								
WH	CO	3	40					21		21	16.1			10	10								
WH	CO	4	20					5		5	3.9		5										
WH	Totals							132	2.5	128	4.8		5	10	22	9	41	41					
RA	*	*	32					9		9	6.8			9									
RA	H	2	40					16	5.0	15	12.2				15								
RA	H	3	40					38	9.1	35	27.8				35								
RA	H	4	18					6	33.3	4	3.4			4									
RA	H	4	37					23	11.0	21	16.6			21									
RA	H	4	40					44	6.1	41	33.0				41								
RA	Totals							137	8.5	125	4.6			29	46	35	15						
OC	*	*	32					73		73	100.0			73									
OC	Totals							73		73	2.7			73									
SS	*	*	32					7		7	100.0			7									
SS	Totals							7		7	.2			7									
Total All Species								2,787	3.2	2,697	100.0		264	325	524	392	419	442	217	114			

Stand Table Summary																	
Project ODINSREA																	
T02N R07W S29 TSALE												T02N R07W S29 TSALE					
Twp	Rge	Sec	Tract	Type			Acres		Plots	Sample Trees			Page:	1			
02N	07W	29	595_AREA2	SALE			103.00		21	130			Date:	06/21/2017			
												Time:	8:59:21AM				
S Spc	T	Sample		FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s			
		DBH	Trees	16'	Tot				Net Cu.Ft.	Net Bd.Ft.		Cu.Ft. Acre	Bd.Ft. Acre		Tons	Cunits	MBF
DF		8		88	87	7.579	2.74	7.79	8.1	42.4	1.79	63	330	185	65	34	
DF		9		88	102	5.989	2.74	6.15	11.2	63.6	1.96	69	392	202	71	40	
DF		10		87	106	9.702	5.49	17.44	9.6	47.0	4.75	167	819	489	172	84	
DF		11		87	95	8.018	5.49	10.29	11.0	50.9	3.20	113	524	330	116	54	
DF		12		87	114	3.369	2.74	6.92	14.4	63.6	2.83	100	440	291	103	45	
DF		13		86	104	7.176	6.86	14.74	16.5	64.7	6.90	243	954	711	250	98	
DF		14		86	105	8.662	9.61	17.80	19.0	74.3	9.60	338	1,321	989	349	136	
DF		15		86	110	11.858	15.10	24.36	22.1	92.6	15.30	539	2,255	1,576	555	232	
DF		16		87	98	4.737	6.86	9.73	23.9	96.5	6.60	232	939	679	239	97	
DF		17		88	122	5.035	8.23	13.79	25.2	108.7	9.85	347	1,500	1,014	357	154	
DF		18		88	106	5.240	9.61	9.23	33.5	126.4	8.77	309	1,166	903	318	120	
DF		19		87	124	5.375	10.98	15.87	28.9	121.3	13.03	459	1,925	1,342	473	198	
DF		20		90	117	3.638	8.23	10.59	32.3	142.9	9.70	342	1,513	999	352	156	
DF		21		88	123	6.050	15.10	18.64	35.4	158.1	18.72	660	2,948	1,928	679	304	
DF		22		89	116	2.004	5.49	5.66	40.4	181.3	6.49	229	1,027	669	236	106	
DF		23		87	127	2.292	6.86	7.06	43.0	191.6	8.63	304	1,354	889	313	139	
DF		24		89	116	.421	1.37	1.30	43.6	190.9	1.61	57	248	166	58	26	
DF		25		88	125	1.164	4.12	3.59	50.7	235.7	5.16	182	846	532	187	87	
DF		26		88	130	.718	2.74	2.21	55.5	247.5	3.48	123	547	358	126	56	
DF		29		88	126	.309	1.37	.95	63.4	286.4	1.71	60	273	177	62	28	
DF		31		86	136	1.078	5.49	3.32	70.4	312.9	7.28	234	1,039	750	241	107	
DF		32		85	137	.505	2.74	1.56	83.9	378.3	3.70	131	588	382	134	61	
DF		Totals		87	108	100.919	139.98	209.00	25.4	109.8	151.07	5,301	22,950	15,560	5,460	2,364	
WH		13		92	73	1.410	1.37	2.91	13.4	49.6	1.24	39	144	128	40	15	
WH		18		92	111	2.206	4.11	5.31	31.3	145.0	5.32	166	770	548	171	79	
WH		21		95	117	.596	1.37	1.23	49.4	270.2	1.94	61	332	200	63	34	
WH		Totals		92	99	4.211	6.85	9.45	28.1	131.9	8.51	266	1,246	876	274	128	
RA		11		91	31	1.927	1.33	1.95	8.3	21.5	.44	16	42	46	17	4	
RA		13		78	93	1.379	1.33	1.40	12.1	53.7	.46	17	75	48	17	8	
RA		14		86	86	4.758	5.31	4.82	25.5	99.4	3.38	123	479	348	127	49	
RA		15		91	102	2.072	2.65	2.10	35.9	161.2	2.07	75	338	213	78	35	
RA		16		78	76	.911	1.33	.92	16.2	53.7	.41	15	50	42	15	5	
RA		18		88	92	.719	1.33	.73	52.4	204.2	1.05	38	149	108	39	15	
RA		21		83	69	.529	1.33	.53	54.9	157.2	.80	29	83	83	30	9	
RA		Totals		86	80	12.294	14.59	12.45	25.2	97.7	8.62	314	1,216	888	323	125	
OC		9		85	124	2.941	1.37	2.94	9.9	21.9	.73	29	64	75	30	7	
OC		10		85	83	4.765	2.74	4.76	12.2	27.0	1.45	58	129	150	60	13	
OC		11		86	99	3.938	2.74	3.94	14.8	32.7	1.45	58	129	150	60	13	
OC		12		85	101	6.618	5.48	6.62	17.6	38.9	2.91	116	258	299	120	27	
OC		13		85	97	1.410	1.37	1.41	20.6	45.7	.73	29	64	75	30	7	
OC		14		85	113	1.216	1.37	1.22	23.9	53.0	.73	29	64	75	30	7	
OC		Totals		85	100	20.888	15.06	20.89	15.3	33.9	8.00	320	708	824	329	73	
SS		15		83	41	1.059	1.37	1.06	27.5	60.8	.76	29	64	78	30	7	
SS		Totals		83	41	1.059	1.37	1.06	27.5	60.8	0.76	29	64	78	30	7	
Totals					87	104	139.371	177.85	252.84	24.6	103.6	176.96	6229	26,185	18,226	6,416	2,697

FI		TLOGSTVB		Log Stock Table - MBF																																			
				Project:				ODINSREA																															
T02N R07W S31 TSALE												T02N R07W S31 TSAL																											
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees				Page		2																			
02N		07W		31		667_AREA3		SALE		111.00		18		134				Date		6/21/2017																			
														Time		10:23:02AM																							
S		So Gr		Log		Gross		%		Net		%		Net Volume by Scaling Diameter in Inches																									
Spp		T		rt de		Len		MBF		Def		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+	
RA				Totals		8		25.0		6		.3				6																							
Total All Species						2,345		1.4		2,312		100.0		143		195		63		334		433		543		546		37		18									

FI		TSTNDSUM														Stand Table Summary													
Project														ODINSREA															
T02N R07W S31 TSALE														T02N R07W S31 TSALE															
Twp	Rge	Sec	Tract	Type				Acres		Plots	Sample Trees			Page:		1													
02N	07W	31	667_AREA3	SALE				111.00		18	138			Date:		06/20/2017													
														Time:		3:11:35PM													
S Spc	T	Sample		Av	FF 16'	Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s														
		DBH	Trees															Tons	Cunits	MBF									
DF		13		88	84	1.200	1.13	1.20	31.4	110.0	1.13	38	132			125	42	15											
DF		15		89	86	2.705	3.39	4.57	20.8	89.0	2.71	95	406			300	106	45											
DF		16		88	90	3.170	4.52	6.42	22.0	87.9	4.02	141	565			447	157	63											
DF		17		90	92	4.913	7.92	10.67	24.5	97.9	7.45	262	1,045			827	290	116											
DF		18		89	88	5.635	10.18	11.42	28.7	105.7	9.33	328	1,208			1,035	364	134											
DF		19		89	100	3.371	6.79	7.40	30.1	119.4	6.35	223	884			705	248	98											
DF		20		87	94	8.621	19.23	18.50	35.6	130.7	18.76	659	2,419			2,082	731	269											
DF		21		89	98	3.220	7.92	6.53	43.9	163.3	8.16	287	1,066			906	318	118											
DF		22		89	95	5.868	15.84	12.32	44.3	175.5	15.52	545	2,162			1,723	605	240											
DF		23		88	95	8.053	23.76	16.32	50.3	196.3	23.38	821	3,204			2,595	912	356											
DF		24		88	97	2.817	9.05	6.07	51.7	213.0	8.93	314	1,292			991	348	143											
DF		25		88	105	6.167	21.49	14.14	55.9	232.2	22.49	790	3,284			2,497	877	364											
DF		26		88	101	1.200	4.52	2.43	69.6	278.0	4.82	169	676			535	188	75											
DF		27		86	106	1.113	4.52	2.26	77.1	305.2	4.95	174	688			550	193	76											
DF		28		89	85	.259	1.13	.52	63.9	253.4	1.06	34	133			117	37	15											
DF		29		91	108	.241	1.13	.49	90.6	439.6	1.26	44	215			140	49	24											
DF		37		84	109	.148	1.13	.30	148.3	625.8	1.27	45	188			141	49	21											
DF		Totals		88	95	58.701	143.67	121.58	40.9	161.0	141.58	4,968	19,568			15,716	5,514	2,172											
OC		16		88	118	.779	1.13	.78	56.9	203.2	1.11	44	158			123	49	18											
OC		19		85	54	.552	1.13	.55	80.3	286.6	1.11	44	158			123	49	18											
OC		23		93	43	.754	2.26	.75	117.6	419.9	2.22	89	316			246	98	35											
OC		33		99	10	.195	1.13	.19	227.7	812.8	1.11	44	158			123	49	18											
OC		41		99	16	.125	1.13	.12	355.8	1270.0	1.11	44	158			123	49	18											
OC		Totals		90	66	2.404	6.78	2.40	110.6	395.0	6.65	266	949			738	295	105											
DL		17		85	95	.702	1.13	1.42	27.2	93.1	1.06	39	132			118	43	15											
DL		19		92	95	.562	1.13	1.14	37.4	144.8	1.17	43	165			130	47	18											
DL		20		90	84	.507	1.13	1.03	17.3	87.9	.49	18	90			54	20	10											
DL		Totals		89	92	1.771	3.39	3.59	27.6	108.0	2.73	99	388			303	110	43											
RA		10		80	70	2.002	1.12	2.02	13.0	52.2	.72	26	105			80	29	12											
RA		11		86	50	1.655	1.12	1.67	11.4	31.3	.52	19	52			58	21	6											
RA		Totals		83	61	3.657	2.25	3.68	12.3	42.7	1.24	45	157			138	50	17											
Totals				88	92	66.533	156.09	131.25	41.0	160.5	152.20	5378	21,062			16,894	5,970	2,338											

FI		TLOGSTVB		Log Stock Table - MBF																	
Project: ODINSREA																					
T02N R07W S32 TSALE														T02N R07W S32 TSAL							
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1												
02N	07W	32	483_AREA4	SALE	61.00	26	114	Date	6/21/2017												
										Time	10:38:39AM										
Spp	T	S	So	Gr	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
DF		CO	2		12		4		4	.2					4						
DF		CO	2		20		10		10	.7							10				
DF		CO	2		24		11		11	.7							11				
DF		CO	2		40		770	4.7	733	46.8					347		242	144			
DF		CO	3		16		6	16.7	5	.3					5						
DF		CO	3		18		9	12.5	7	.5					7						
DF		CO	3		31		1		1	.1			1								
DF		CO	3		32		72	1.6	70	4.5			15	30	25						
DF		CO	3		36		14		14	.9			14								
DF		CO	3		37		3		3	.2			3								
DF		CO	3		38		11		11	.7					11						
DF		CO	3		40		498	3.2	483	30.8			98	166	185		11	15	7		
DF		CO	4		12		1		1	.1		0	1								
DF		CO	4		14		4		4	.3		4									
DF		CO	4		15		5	11.3	4	.3		3	1								
DF		CO	4		16		9		9	.6		8	1								
DF		CO	4		17		1		1	.1		1									
DF		CO	4		18		10		10	.7		9		1							
DF		CO	4		19		2		2	.2		2									
DF		CO	4		20		7		7	.4		6	1								
DF		CO	4		21		1		1	.0		1									
DF		CO	4		22		3		3	.2		3									
DF		CO	4		25		2		2	.1		2									
DF		CO	4		26		21		21	1.3		20		1							
DF		CO	4		28		3		3	.2		3									
DF		CO	4		29		9		9	.6		9									
DF		CO	4		30		23	4.1	22	1.4		21	2								
DF		CO	4		31		7		7	.4		7									
DF		CO	4		32		12		12	.8		12									
DF		CO	4		33		5		5	.3		5									
DF		CO	4		34		12	4.1	12	.7		12									
DF		CO	4		35		3		3	.2		3									
DF		CO	4		36		5		5	.3		5									
DF		CO	4		38		18		18	1.1		18									
DF		CO	4		39		6		6	.4		6									
DF		CO	4		40		47		47	3.0		30	17								
DF		Totals					1,625	3.5	1,568	96.5		189	153	199	235	351	253	181	7		
RA		H	2		40		17	6.9	16	28.5							16				
RA		H	3		20		6		6	11.3					6						
RA		H	4		31		4		4	6.4			4								
RA		H	4		32		7		7	11.9			7								
RA		H	4		36		9		9	16.5			9								
RA		H	4		37		6	16.7	5	9.1			5								
RA		H	4		40		9		9	16.4				9							
RA		Totals					58	3.8	55	3.4			24	9	6		16				
BM		H	4		35		1		1	100.0			1								
BM		Totals					1		1	.1			1								
Total All Species							1,684	3.5	1,625	100.0		189	179	208	241	351	268	181	7		

FI		TSTNDSUM															Stand Table Summary																											
															Project															ODINSREA														
T02N R07W S32 TSALE																														T02N R07W S32 TSALE														
Twp		Rge		Sec		Tract				Type		Acres		Plots		Sample Trees		Page:		1																								
02N		07W		32		483_AREA4				SALE		61.00		26		114		Date:		06/21/2017																								
																		Time:		10:43:21AM																								
S Spc	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	Tons/ Acre	Net	Net	T o t a l s																											
		DBH	Trees	FF	Ht				Net	Net		Cu.Ft.	Bd.Ft.		Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF																									
DF		9		85	68	9.751	4.31	14.63	6.1	30.0	2.55	89	439	155	55	27																												
DF		10		86	79	11.847	6.46	15.80	10.6	45.0	4.79	168	711	292	103	43																												
DF		11		84	71	6.527	4.31	9.79	11.5	43.3	3.22	113	424	196	69	26																												
DF		12		85	92	10.969	8.62	19.20	13.2	51.4	7.23	254	987	441	155	60																												
DF		13		86	86	14.020	12.92	28.04	13.4	51.7	10.69	375	1,449	652	229	88																												
DF		14		87	94	4.030	4.31	8.06	17.7	72.5	4.06	143	584	248	87	36																												
DF		15		83	94	8.776	10.77	17.55	17.9	63.0	8.96	314	1,106	546	192	67																												
DF		16		87	98	9.255	12.92	18.51	23.4	85.0	12.40	434	1,573	756	265	96																												
DF		17		89	92	1.366	2.15	2.73	26.9	100.0	2.10	74	273	128	45	17																												
DF		18		87	100	10.969	19.38	25.60	26.6	100.0	19.40	681	2,560	1,183	415	156																												
DF		19		86	99	9.845	19.38	19.69	34.9	125.0	19.60	688	2,461	1,196	420	150																												
DF		20		87	90	6.911	15.08	13.82	36.2	118.6	14.28	501	1,639	871	306	100																												
DF		21		86	94	7.164	17.23	14.33	36.9	137.5	15.05	528	1,970	918	322	120																												
DF		22		84	97	8.975	23.69	18.77	43.4	147.8	23.18	814	2,774	1,414	496	169																												
DF		23		86	108	1.493	4.31	3.73	36.1	158.0	3.84	135	590	234	82	36																												
DF		24		82	109	4.114	12.92	10.28	46.4	159.3	13.58	477	1,639	829	291	100																												
DF		25		82	110	3.159	10.77	8.21	51.6	198.5	12.09	424	1,630	737	259	99																												
DF		26		86	100	2.337	8.62	4.09	57.8	205.7	6.74	236	841	411	144	51																												
DF		27		83	107	.542	2.15	1.08	73.4	300.0	2.27	80	325	138	49	20																												
DF		28		84	106	2.518	10.77	5.54	64.1	237.3	10.12	355	1,315	617	217	80																												
DF		29		88	110	.470	2.15	.94	70.1	295.0	1.88	66	277	114	40	17																												
DF		36		83	92	.305	2.15	.61	111.6	220.0	1.94	68	134	118	41	8																												
DF		Totals		85	91	135.343	215.38	261.00	26.9	98.5	199.96	7,016	25,701	12,197	4,280	1,568																												
RA		13		62	72	2.504	2.31	2.50	25.6	60.0	1.76	64	150	108	39	9																												
RA		14		64	60	2.159	2.31	2.16	25.5	50.0	1.51	55	108	92	34	7																												
RA		16		80	65	3.306	4.62	3.31	23.7	70.0	2.15	78	231	131	48	14																												
RA		17		77	44	2.928	4.62	2.93	19.3	55.0	1.55	56	161	95	34	10																												
RA		18		56	58	1.306	2.31																																					
RA		21		90	84	.959	2.31	.96	65.0	270.0	1.72	62	259	105	38	16																												
RA		Totals		72	62	13.161	18.46	11.86	26.7	76.7	8.70	316	910	531	193	55																												
BM		12		83	61	1.959	1.54																																					
BM		20		60	51	.705	1.54																																					
BM		24		94	97	.490	1.54	.49	41.6	50.0	.54	20	24	33	12	1																												
BM		Totals		80	64	3.154	4.62	.49	41.6	50.0	0.54	20	24	33	12	1																												
OC		11		86	109	4.662	3.08																																					
OC		Totals		86	109	4.662	3.08																																					
Totals				84	89	156.320	241.54	273.34	26.9	97.4	209.19	7353	26,635	12,761	4,485	1,625																												

FI TLOGSTVB				Log Stock Table - MBF																	
				Project: ODINSREA																	
T02N R07W S32 TSALE												T02N R07W S32 TSAL									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2												
02N	07W	32	669_AREA5	SALE	70.00	34	123	Date	6/21/2017												
								Time	11:26:31AM												
S Spp	So T	Gr rt	Log de 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+		
RA	H	4	36	7		7	6.2			7											
RA	H	4	38	3		3	2.5			3											
RA	H	4	40	47	3.0	46	42.1			32	14										
RA Totals				112	3.3	108	6.4			56	14	14	18	7							
OC	*	*	32	91		91	100.0			91											
OC Totals				91		91	5.4			91											
WH	CO	2	40	9		9	71.4									9					
WH	CO	3	16	3		3	21.4									3					
WH	CO	4	32	1	13.6	1	7.1				1										
WH Totals				13		13	.8				1					12					
Total All Species				1,733	2.2	1,696	100.0		137	251	230	315	249	273	197	44					

FI		Stand Table Summary														
Project																
ODINSREA																
T02N R07W S32 TSALE													T02N R07W S32 TSALE			
Twp	Rge	Sec	Tract	Type			Acres		Plots	Sample Trees			Page:	1		
02N	07W	32	669_AREA5	SALE			70.00		34	123			Date:	06/21/2017		
													Time:	11:26:24AM		
S Spc	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s		
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		9		86	68	6.377	2.94	6.55	8.7	36.8	1.63	57	241	114	40	17
DF		10		84	64	2.583	1.47	2.65	10.8	42.1	.82	29	112	57	20	8
DF		11		90	92	6.403	4.42	8.77	12.8	50.4	3.21	113	442	225	79	31
DF		12		88	95	3.587	2.94	7.37	12.6	55.3	2.64	92	407	185	65	28
DF		13		86	127	4.585	4.42	9.41	18.3	80.7	4.92	173	760	344	121	53
DF		14		88	104	5.271	5.89	12.18	16.3	68.4	5.66	199	832	396	139	58
DF		15		88	104	3.444	4.42	7.07	21.0	86.6	4.23	149	613	296	104	43
DF		16		86	109	9.080	13.25	18.65	26.3	107.3	13.99	491	2,000	979	344	140
DF		17		87	111	9.830	16.19	22.02	26.5	103.4	16.66	584	2,278	1,166	409	159
DF		18		87	114	5.580	10.31	13.10	31.3	120.0	11.69	410	1,572	818	287	110
DF		19		88	112	4.293	8.83	9.55	35.0	140.4	9.51	334	1,340	666	234	94
DF		20		89	121	3.228	7.36	8.62	36.2	151.0	8.89	312	1,301	622	218	91
DF		21		88	119	5.856	14.72	15.03	37.0	148.1	15.85	556	2,226	1,109	389	156
DF		22		87	131	3.202	8.83	8.77	43.0	184.3	10.74	377	1,616	752	264	113
DF		24		85	119	3.418	10.31	9.02	43.3	170.9	11.14	391	1,542	780	274	108
DF		25		88	112	1.794	5.89	5.06	44.4	198.7	6.40	225	1,006	448	157	70
DF		26		86	116	.826	2.94	1.70	55.9	255.2	2.70	95	433	189	66	30
DF		27		79	111	1.528	5.89	3.53	54.9	204.6	5.52	194	722	387	136	51
DF		28		90	116	.354	1.47	1.09	59.4	286.4	1.85	65	313	129	45	22
DF		29		88	118	.329	1.47	1.01	61.8	286.4	1.79	63	291	125	44	20
DF		30		85	117	.614	2.94	1.26	58.9	221.0	2.12	74	279	148	52	20
DF		33		87	116	.757	4.42	2.07	89.3	416.4	5.27	185	863	369	130	60
DF		Totals		87	106	82.938	141.34	174.48	29.6	121.4	147.23	5,166	21,188	10,306	3,616	1,483
RA		10		90	86	2.773	1.66	2.81	13.9	66.7	1.08	39	188	75	27	13
RA		12		82	36	2.292	1.66	2.32	7.7	22.2	.49	18	52	34	13	4
RA		13		84	70	7.704	6.65	3.90	15.5	50.1	1.66	60	195	116	42	14
RA		15		78	62	2.830	3.33	4.30	17.0	48.2	2.01	73	207	141	51	15
RA		16		86	57	1.233	1.66	2.50	12.7	55.6	.87	32	139	61	22	10
RA		17		80	89	1.083	1.66	2.20	25.6	78.5	1.55	56	172	109	39	12
RA		18		87	68	1.919	3.33	1.94	26.2	128.9	1.40	51	251	98	36	18
RA		19		77	71	1.712	3.33	1.73	30.9	67.3	1.47	54	117	103	37	8
RA		23		80	75	.573	1.66	1.16	38.3	117.7	1.22	45	137	86	31	10
RA		26		78	53	.444	1.66	.45	90.3	133.5	1.12	41	60	78	28	4
RA		28		80	23	.380	1.66	.39	49.4	77.9	.52	19	30	37	13	2
RA		Totals		83	67	22.944	28.28	23.70	20.6	65.3	13.40	487	1,547	938	341	108
OC		10		85	39	1.733	1.02	1.73	23.5	83.6	1.02	41	145	71	28	10
OC		15		85	66	1.179	1.36	1.18	46.0	163.9	1.36	54	193	95	38	14
OC		16		85	90	.770	1.02	.77	52.8	188.2	1.02	41	145	71	28	10
OC		17		86	18	.903	1.36	.90	60.1	214.1	1.36	54	193	95	38	14
OC		18		82	54	1.199	2.04	1.20	67.8	241.7	2.03	81	290	142	57	20
OC		21		76	22	.433	1.02	.43	93.8	334.6	1.02	41	145	71	28	10
OC		23		85	70	.477	1.36	.48	113.5	404.8	1.36	54	193	95	38	14
OC		Totals		84	51	6.695	9.19	6.70	54.7	194.9	9.15	366	1,305	640	256	91
WH		31		81	116	.193	1.02	.59	72.0	310.6	1.37	43	184	96	30	13
WH		Totals		81	116	.193	1.02	.59	72.0	310.6	1.37	43	184	96	30	13
Totals				86	95	112.770	179.83	205.47	29.5	117.9	171.14	6062	24,224	11,980	4,243	1,696

FI	TLOGSTVB			Log Stock Table - MBF																			
				Project: ODINSREA																			
T001 R007 S05 TSALE												T001 R007 S05 TSALE											
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees		Page		1											
001	007	05	722_AREA6		SALE	37.00	11	71		Date		6/20/2017											
												Time		2:07:27PM									
S Spp	T	So	Gr	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		CO	2	36		71		71	6.3					15		57							
DF		CO	2	40		352		352	31.1					18	199	31	104						
DF		CO	3	22		9		9	.8						9								
DF		CO	3	32		17		17	1.5				17										
DF		CO	3	36		55		55	4.9			8	18	29									
DF		CO	3	40		379		379	33.5			23	139	217									
DF		CO	4	12		2		2	.2		2												
DF		CO	4	13		2		2	.2		2												
DF		CO	4	14		1		1	.1		1												
DF		CO	4	15		7		7	.6		7												
DF		CO	4	17		1		1	.1		1												
DF		CO	4	18		3		3	.3		3												
DF		CO	4	20		34		34	3.0		2		23	9									
DF		CO	4	21		17		17	1.5		7		7	4									
DF		CO	4	22		25		25	2.2		12		9	4									
DF		CO	4	23		16		16	1.4		2		9		5								
DF		CO	4	24		25		25	2.2		17	8											
DF		CO	4	28		5		5	.5		5												
DF		CO	4	29		12		12	1.0		12												
DF		CO	4	30		3		3	.3		3												
DF		CO	4	33		26		26	2.3		26												
DF		CO	4	34		4		4	.3		4												
DF		CO	4	35		18		18	1.6		18												
DF		CO	4	36		5		5	.4		5												
DF		CO	4	37		5		5	.4		5												
DF		CO	4	38		27		27	2.4		27												
DF		CO	4	40		12		12	1.0		12												
DF		Totals				1,134		1,134	84.5		172	38	223	282	218	41	161						
RA		H	3	28		6		6	3.1				6										
RA		H	3	32		134		134	64.5			10	72	52									
RA		H	4	12		1		1	.5			1											
RA		H	4	13		3		3	1.2			3											
RA		H	4	14		6		6	2.8			6											
RA		H	4	16		6		6	3.1			6											
RA		H	4	19		2		2	1.0			2											
RA		H	4	20		14		14	6.5			7	7										
RA		H	4	21		5		5	2.4			5											
RA		H	4	24		3		3	1.6			3											
RA		H	4	25		3		3	1.4			3											
RA		H	4	29		8		8	3.8			8											
RA		H	4	31		5		5	2.3			5											
RA		H	4	33		12		12	5.9			12											
RA		Totals				208		208	15.5			71	85	52									
Total All Species						1,343		1,343	100.0		172	109	308	335	218	41	161						

FI		TSTNDSUM												Stand Table Summary													
Project														ODINSREA													
T001 R007 S05 TSALE														T001 R007 S05 TSALE													
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page: 1											
001		007		05		722_AREA6		SALE		37.00		11		71		Date: 06/20/2017											
																Time: 2:00:32PM											
S Spc	T	Sample		FF	Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	Tons	Cunits	MBF											
		DBH	Trees	16'	Tot				Cu.Ft.	Bd.Ft.		Cu.Ft.	Bd.Ft.														
DF		8		75	61	9.816	3.70	10.05	7.2	31.4	2.06	72	316	76	27	12											
DF		9		78	70	8.148	3.70	8.34	9.8	41.9	2.32	81	349	86	30	13											
DF		10		80	100	6.600	3.70	13.51	6.6	31.4	2.54	89	425	94	33	16											
DF		12		81	72	13.750	11.09	18.77	15.1	47.1	8.07	283	884	298	105	33											
DF		14		83	94	20.271	22.17	48.39	14.4	56.2	19.83	696	2,718	734	257	101											
DF		15		85	109	23.467	29.56	51.05	21.5	87.5	31.34	1,100	4,465	1,160	407	165											
DF		16		87	103	20.562	29.56	47.37	23.0	93.7	31.06	1,090	4,440	1,149	403	164											
DF		17		88	102	9.135	14.78	21.04	25.6	101.2	15.36	539	2,130	568	199	79											
DF		18		89	109	12.178	22.17	35.31	24.8	102.8	24.95	876	3,631	923	324	134											
DF		19		89	112	9.242	18.48	28.38	26.0	110.4	21.03	738	3,132	778	273	116											
DF		20		92	110	1.736	3.70	5.33	27.3	122.2	4.14	145	651	153	54	24											
DF		21		86	114	2.979	7.39	7.63	36.1	177.7	7.84	275	1,356	290	102	50											
DF		22		87	108	4.079	11.09	12.53	35.7	152.3	12.75	447	1,908	472	166	71											
DF		23		92	106	1.248	3.70	3.83	37.0	181.5	4.04	142	695	149	52	26											
DF		24		91	108	2.282	7.39	7.01	42.7	197.2	8.52	299	1,382	315	111	51											
DF		25		89	111	2.156	7.39	6.62	47.5	223.8	8.95	314	1,482	331	116	55											
DF		26		92	110	.976	3.70	3.00	49.7	230.4	4.25	149	691	157	55	26											
DF		Totals		85	97	148.627	203.24	328.16	22.4	93.4	209.05	7,335	30,655	7,735	2,714	1,134											
RA		10		75	74	6.168	3.64	6.24	14.6	53.4	2.51	91	333	93	34	12											
RA		12		75	49	4.937	3.64	5.00	14.7	42.7	2.02	74	213	75	27	8											
RA		13		77	74	15.927	14.56	32.23	11.6	43.9	10.30	374	1,416	381	139	52											
RA		14		79	70	12.923	14.56	26.15	14.9	50.7	10.75	391	1,324	398	145	49											
RA		15		81	75	8.756	10.92	17.51	18.4	67.4	8.84	321	1,180	327	119	44											
RA		16		81	69	2.507	3.64	5.07	19.7	74.8	2.75	100	379	102	37	14											
RA		17		83	72	4.714	7.28	9.54	22.7	82.8	5.96	217	789	221	80	29											
RA		Totals		78	71	55.931	58.25	101.73	15.4	55.4	43.14	1,569	5,635	1,596	580	208											
Totals				83	90	204.557	261.48	429.89	20.7	84.4	252.19	8904	36,289	9,331	3,294	1,343											



"STEWARDSHIP IN FORESTRY"

Odins Blade

Volume Summary

Area 1-Modified Clearcut				
90 acres				
SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	22.3	2006	1%	1986
Western hemlock	0.7	64	1%	63
Alder	2.4	212	2%	208
TOTAL	25.4	2282		2257

Area 2-Modified Clearcut				
103 acres				
SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	23.0	2364	1%	2340
Western hemlock	1.2	128	1%	127
Alder	1.2	125	2%	123
TOTAL	25.4	2617		2590

Area 3-Modified Clearcut				
111 acres				
SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	19.9	2206	1%	2184
TOTAL	19.9	2206		2184

Area 4-Modified Clearcut				
61 acres				
SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	25.7	1568	1%	1552
Alder	0.9	55	2%	54
TOTAL	26.6	1623		1606

Area 5-Modified Clearcut				
70 acres				
SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	21.2	1483	1%	1468
Western hemlock	0.2	13	1%	13



"STEWARDSHIP IN FORESTRY"

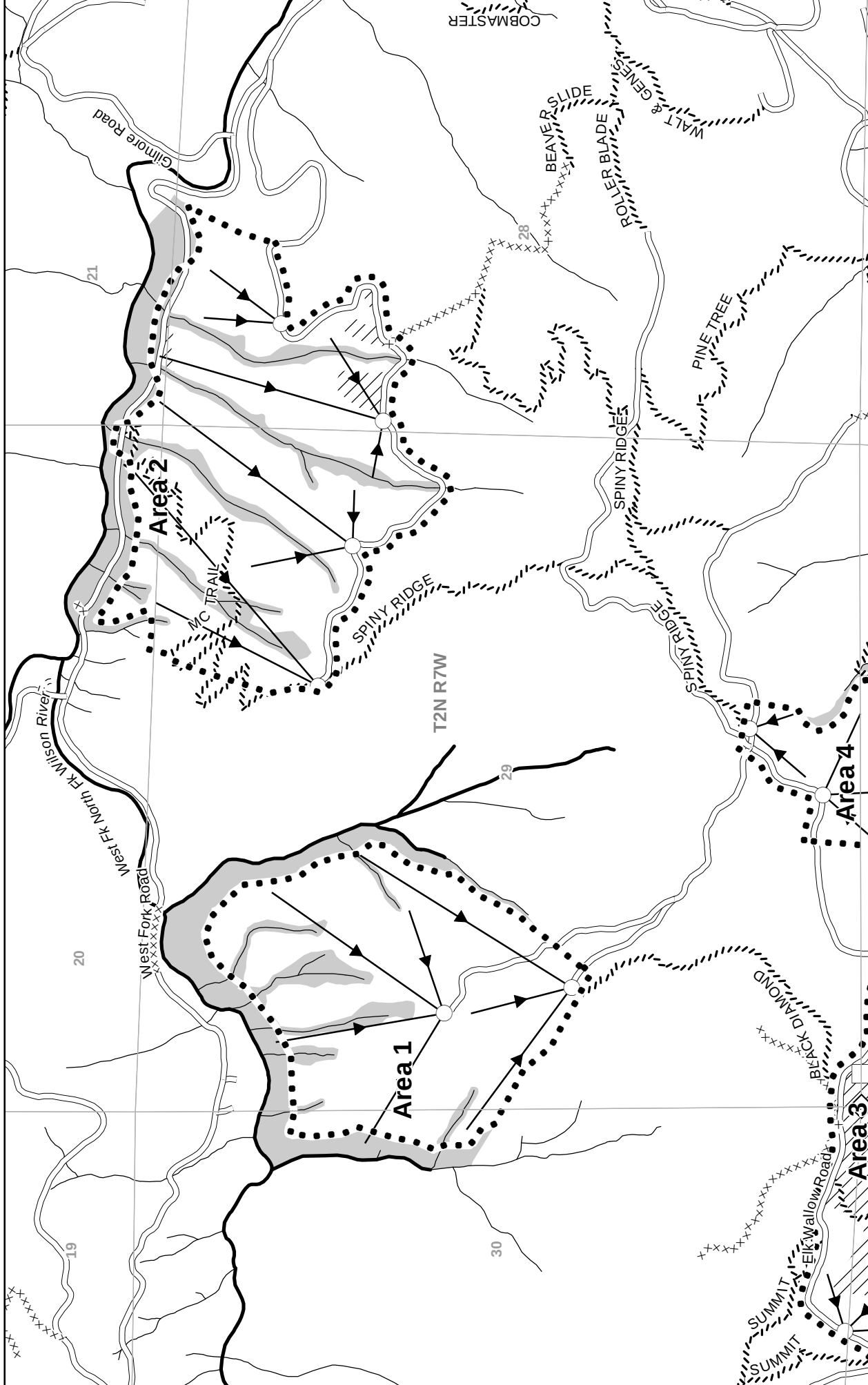
Odins Blade

Volume Summary

Alder	1.5	108	2%	106
TOTAL	22.9	1604		1587

Area 6-Modified Clearcut				
37 acres				
SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	30.6	1134	1%	1123
Alder	5.6	208	2%	204
TOTAL	36.3	1342		1327

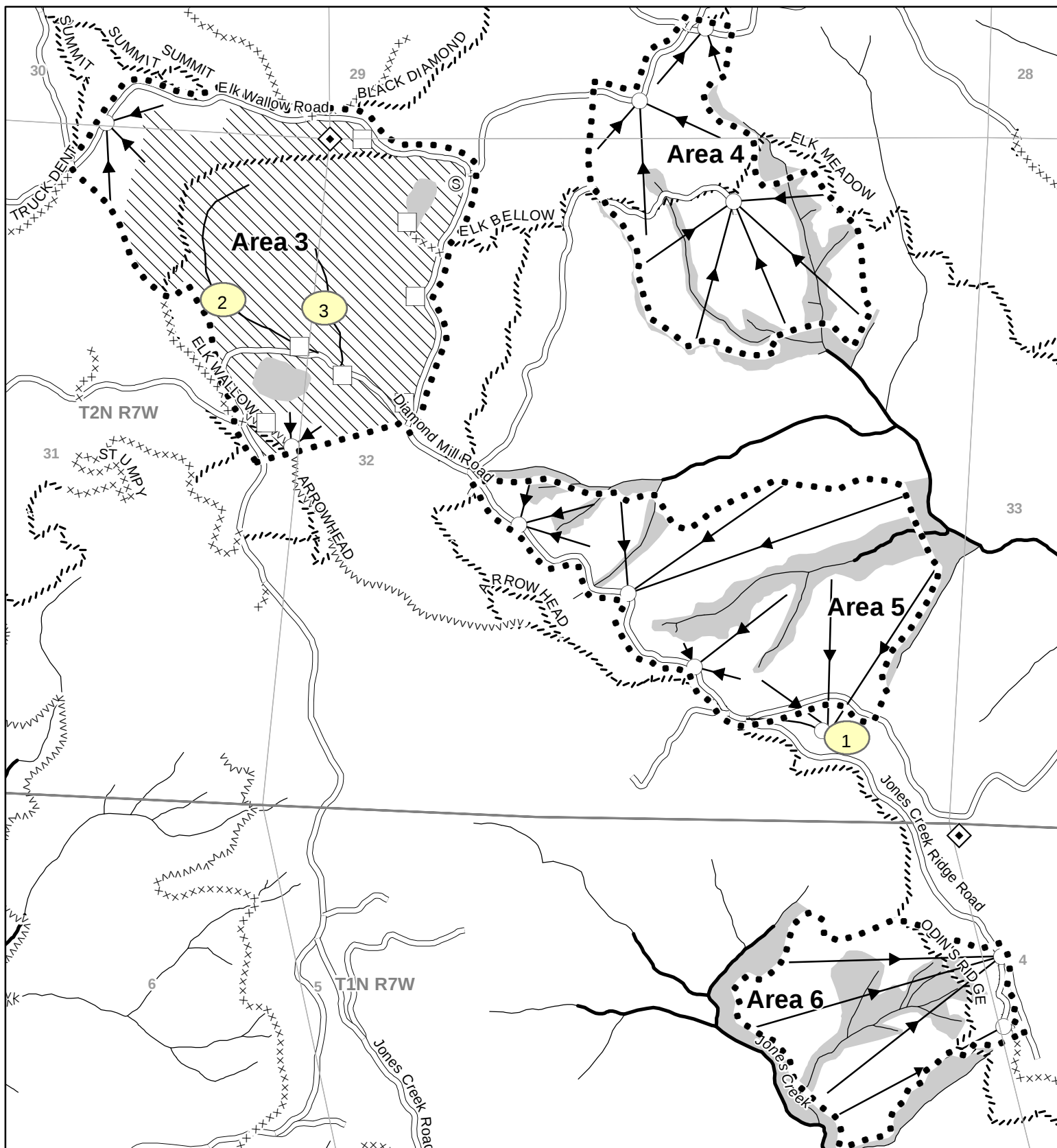
TOTAL SALE VOLUME		472	acres
SPECIES	Cruised Net (MBF)	Net Sale (MBF)	
Douglas-fir	10761	10653	
Western hemlock	205	203	
Red Alder	708	694	
TOTAL	11674	11550	



LOGGING PLAN			
Timber Sale Contract No. 341-18-60			
ODIN'S BLADE			
Portions of Sections 4 and 5, T1N, R7W, &			
Portions of Sections 20, 21, 28, 29, 30,			
31, 32, and 33, T2N, R7W, W.M.,			
Tillamook County, Oregon			
Type of		Acres	
Area		Gross	Net
1	Modified Clearcut	124	90
2	Modified Clearcut	145	103
3	Modified Clearcut	120	111
4	Modified Clearcut	79	61
5	Modified Clearcut	98	70
6	Modified Clearcut	62	37
Total		628	472

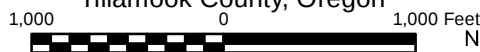
Tillamook District GIS
6/26/2017

This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.



LOGGING PLAN

Timber Sale Contract No. 341-18-60
ODIN'S BLADE
 Portions of Sections 4 and 5, T1N, R7W, &
 Portions of Sections 20, 21, 28, 29, 30,
 31, 32, and 33, T2N, R7W, W.M.,
 Tillamook County, Oregon



Tillamook District GIS
 6/26/2017

This product is for informational use and may
 not have been prepared or suitable for
 legal, engineering, or surveying purposes.

Area	Type of Operation	Acres	
		Gross	Net
1	Modified Clearcut	124	90
2	Modified Clearcut	145	103
3	Modified Clearcut	120	111
4	Modified Clearcut	79	61
5	Modified Clearcut	98	70
6	Modified Clearcut	62	37
Total		628	472

- Rock source
- Stock pile
- Waste area
- Bridge
- Gate
- Survey corner
- Domestic water supply intake
- Truck turn-around
- Helicopter landing zone
- Cultural site
- Cable yarding
- Ground Landing
- Yarder Landing
- Buffer
- Non-required thinning
- Cable yarding
- Ground yarding
- Downhill yarding
- Green tree retention area
- Restricted area
- Area boundary
- Sale boundary
- Ownership boundary
- Fish stream
- Non-fish stream
- Unsurfaced road
- Surfaced road
- Paved road
- Abandoned road
- Swing road
- Non-project road
- Blocked road
- OHV trail
- Non-motorized trail
- Transmission line
- Railroad