



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Kirk to Enterprise  
Sale FG-341-2017-29-

District: Forest Grove

Date: April 12, 2017

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**Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$812,482.66	\$0.00	\$812,482.66
		Project Work:	(\$28,440.00)
		Advertised Value:	\$784,042.66



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**District: Forest Grove**

**Date: April 12, 2017**

## Timber Description

**Location:** Portions of Sections 3, 4, 10, 15, and 22, T5N, R3W, W.M., Columbia County, Oregon.

**Stand Stocking:** 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	13	0	99

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	38	2,076	339	2,453
<b>Total</b>	38	2,076	339	2,453

**Comments:** Pond Values Used: 1st Quarter Calendar Year 2017.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:  
 $\$184.13/\text{MBF} = \$495/\text{MBF} - \$310.87/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:  
 $\$864.13/\text{MBF} = \$1,175/\text{MBF} - \$310.87/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:  
 $\$334.13/\text{MBF} = \$645/\text{MBF} - \$310.87/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

BRANDING AND PAINTING COST ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

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

Other Costs (with Profit & Risk to be added):  
Non Project Roads:  $18.25 \text{ sta.} \times \$100/\text{sta.} = \$1,825$   
TOTAL Other Costs (with Profit & Risk to be added) = \$1,825

Other Costs (No Profit & Risk added):  
Block/Waterbar Roads/Skid Trails:  $20 \text{ hrs} \times \$150/\text{hour} = \$3,000$   
Pile Landing Slash/Sort Firewood:  $30 \text{ hrs} \times \$150/\text{hour} = \$4,500$   
Area 7 Slash Piling:  $9 \text{ acres} @ \$150/\text{acre} = \$1,350$   
Equipment Cleaning:  $3 \times \$1,000/\text{Piece} = \$3,000$   
TOTAL Other Costs (No Profit & Risk added) = \$11,850

ROAD MAINTENANCE  
Move-in: \$4,000  
General Road Maintenance:  
 $7.6 \text{ miles} \times \$600/\text{mile} = \$4,560$   
TOTAL Road Maintenance:  $\$8,560/2,453 \text{ MBF} = \$3.49/\text{MBF}$



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**Logging Conditions**

<b>Combination#:</b> 1	Douglas - Fir	100.00%
<b>Logging System:</b> Shovel		<b>Process:</b> Stroke Delimber
<b>yarding distance:</b> Short (400 ft)		<b>downhill yarding:</b> No
<b>tree size:</b> Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
<b>loads / day:</b> 6		<b>bd. ft / load:</b> 3700
<b>cost / mbf:</b> \$142.88		
<b>machines:</b> Stroke Delimber (B)		

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### Logging Costs

Operating Seasons: 2.00	Profit Risk: 20%
Project Costs: \$28,440.00	Other Costs (P/R): \$1,825.00
Slash Disposal: \$0.00	Other Costs: \$11,850.00

#### Miles of Road

Road Maintenance: \$3.49

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	2.0	4.0



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Kirk to Enterprise Sale FG-341-2017-29-

**District: Forest Grove**

**Date: April 12, 2017**

## Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
<b>Douglas - Fir</b>									
\$142.88	\$3.52	\$3.58	\$98.48	\$0.74	\$49.84	\$0.00	\$7.00	\$4.83	\$310.87

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$642.09	\$331.22	\$0.00



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District: Forest Grove

Date: April 12, 2017

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**Summary**

**Amortized**

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

**Unamortized**

Specie	MBF	Value	Total
Douglas - Fir	2,453	\$331.22	\$812,482.66

**Gross Timber Sale Value**

**Recovery:** \$812,482.66

**Prepared By:** Eric Foucht

**Phone:** 503-359-7473

**TIMBER SALE SUMMARY**  
**KIRK TO ENTERPRISE**  
**Contract No. 341-17-29**

1. **Location:** Portions of Sections 3, 4, 10, 15, and 22, T5N, R3W, W.M., Columbia County, Oregon.
2. **Type of Sale:** This timber sale is 196 net acres of Moderate Partial Cut in 6 sale areas, and one 9 acre sale area consisting of several small Group Selection Partial Cut Areas. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, 100% Columbia County.
4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
5. **Cruise:** The Timber Sale was cruised by ODF Cruisers in February of 2017. For more information see Cruise Report.
6. **Timber Description:**

The Timber Sale Area consists of six well stocked stands of Douglas-fir that range in age from 35 to 40 years. Within two stands are inclusions of more sparsely stocked areas infected with *Phellinus weirii*.

7. **Prescription:** Areas 1-6 will be partially cut to a target basal area of 120 square feet. Area seven will be clearcut.

The following table summarizes the ODF cruise estimates for the portion of trees removed to meet the basal area target.

Sale Area	Net Acres	Average DBH	Trees/Acre	Net MBF/Acre
Area 1	6	12	110	9.9
Area 2	10	12	90	8.0
Area 3	35	13	107	13.4
Area 4	61	14	111	15.8
Area 5	9	11	134	9.5
Area 6	75	13	88	9.5
Area 7	9	12	120	14.6

8. **Topography and Logging Method:**

Slopes within the sale areas are generally less than 35% and all Sale Areas may be yarded with a ground-based harvest system. Thinning is optional in a portion of Area 3 which is much steeper. Elevations range from 840 to 1660 feet. The following table summarizes the estimated maximum and average tractor skid trail length for each Sale Area.



Sale Area	Tractor		Cable	
	Average	Maximum	Average	Maximum
Area 1	320	860	None	None
Area 2	330	890	None	None
Area 3	340	890	None	None
Area 4	250	790	None	None
Area 5	320	855	None	None
Area 6	250	780	None	None
Area 7	370	620	None	None

9. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove travel north on SR 47 through Banks. Continue on SR 47 as it merges with SR 26, then splits off again to the right toward Vernonia near MP 77. Continue north on SR47 approximately 16 miles through Vernonia then for another 8 miles to Apiary Road. Turn right onto Apiary Road and travel 4.9 miles to Karth Road and turn right. Travel Karth Road for approximately 1.2 miles, turn left onto Grouse Road and continue ¼ mile to Area 4. On Apiary road, continue ½ mile past Karth Road to Mudge Road. Turn left and travel ½ mile to Enterprise Road. Turn right and proceed 1½ mile to Area 3.

10. **Projects:**

Project No. 1	Road Improvement	\$5,468.80
Project No. 2	Surfacing	\$18,992.40
Project No. 3:	Grass Seed, Fertilize & Mulch	\$105.50
	Move in and equipment cleaning:	\$3,872.30
	Total:	\$28,440.00

PROJECT COST SUMMARY SHEET

Timber Sale: Kirk to Enterprise  
Sale Number: 341-17-29

**PROJECT NO. 1: IMPROVEMENT**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
<u>A to B</u>	<u>34+55</u>	<u>\$5,468.80</u>
	34+55 stations	
	0.65 miles	

**TOTAL PROJECT NO. 1 COST = \$5,468.80**

**PROJECT NO. 2: SURFACING**

<u>Road Segment</u>	<u>Rock Amount</u>	<u>Rock Type</u>	<u>Cost</u>
<u>A to B</u>	<u>120 cy</u>	<u>1 1/2" - 0</u>	<u>\$484.80</u>
<u>A to B</u>	<u>864 cy</u>	<u>3" - 0</u>	<u>\$18,507.60</u>
Total			

**TOTAL PROJECT NO. 2 COST = \$18,992.40**

**PROJECT NO. 3 GRASS SEED, FERTILIZE, & MULCH**

**TOTAL PROJECT NO. 3 COST = \$106.50**

**MOVE-IN & EQUIPMENT CLEANING**

Grader	\$686.10
Loader	\$618.87
Roller (smooth/grid) & Compactor	\$445.22
Excavator (Large) - Equipment Cleaning	\$1,686.10
Dump Trucks	\$436.01

**TOTAL MOVE-IN & EQUIPMENT CLEANING COST = \$3,872.30**

**TOTAL CREDITS \$28,440.00**

# SUMMARY OF CONSTRUCTION COST

Timber Sale: Kirk to Enterprise Sale Number: 341-17-29  
 Road Segment: A to B Improvement: 34+55 stations  
0.65 miles

## PROJECT NO. 1

### EXCAVATION

Clean culvert inlet & outlet	3	ea @	\$25.00	per ea =	\$75.00
Grade, ditch, & roll	34.55	sta @	\$36.00	per sta =	\$1,243.80
					<b>TOTAL EXCAVATION COSTS =</b>
					<b>\$1,318.80</b>

### CULVERTS - MATERIALS & INSTALLATION

#### Culverts

90 LF of 18" \$1,800.00  
 80 LF of 24" \$2,320.00

#### Culvert Markers

3 markers \$30.00

**TOTAL CULVERT COSTS = \$4,150.00**

**PROJECT NO. 1 TOTAL COST = \$5,468.80**

## PROJECT NO. 2:

### SURFACING

	5	" deep =	25 cy/sta				
Spot Rock	864	cy of	3" - 0	@	\$17.46	per cy =	\$15,085.44
Turnouts (4)	46	cy of	3" - 0	@	\$17.46	per cy =	\$803.16
Turnaround	10	cy of	3" - 0	@	\$17.46	per cy =	\$174.60
Landing	140	cy of	3" - 0	@	\$17.46	per cy =	\$2,444.40
Culvert Bedding/Backfill	120	cy of	1 1/2" - 0	@	\$4.04	per cy =	\$484.80
Rock Total =	1,180						
	1,060	cy of	3" - 0		\$17.46	per cy =	\$18,507.60
	120	cy of	1 1/2" - 0		\$4.04	per cy =	\$484.80

**PROJECT NO. 2 TOTAL COST = \$18,992.40**

## PROJECT NO. 3:

Grass seed & fertilizer	0.10	acres	@	\$425.00	per acre =	\$42.50
Mulch	8	bales	@	\$8.00	per bale =	\$64.00

**PROJECT NO. 3 TOTAL COST = \$106.50**

**TOTAL COST = \$24,567.70**

## RESIDUAL STAND SPECIFICATIONS

SALE NAME: Kirk to Enterprise

SALE NUMBER: 341-17-29

### AREA 1

Residual QMD assumption (from leave tree cruise information) = 

12
----

  
Target Relative Density = 

35
----

	Minimum	Target	Maximum
Relative Density	32	35	38
Basal Area	110	120	130
Trees per Acre	140	153	166

### AREA 2

Residual QMD assumption (from leave tree cruise information) = 

15
----

  
Target Relative Density = 

35
----

	Minimum	Target	Maximum
Relative Density	28	31	34
Basal Area	110	120	130
Trees per Acre	90	98	106

### AREA 3

Residual QMD assumption (from leave tree cruise information) = 

16
----

  
Target Relative Density = 

35
----

	Minimum	Target	Maximum
Relative Density	28	30	33
Basal Area	110	120	130
Trees per Acre	79	86	93

$$RD = BA / \sqrt{DBH}$$

$$BA = \sqrt{DBH} (RD)$$

$$TPA = (BA/acre) / (BA/tree)$$

$$BA / tree = (\pi r^2) / (144)$$

#### AREA 4

Residual QMD assumption (from leave tree cruise information) = 

16
35

  
Target Relative Density =

	Minimum	Target	Maximum
Relative Density	28	30	33
Basal Area	110	120	130
Trees per Acre	79	86	93

#### AREA 5

Residual QMD assumption (from leave tree cruise information) = 

12
35

  
Target Relative Density =

	Minimum	Target	Maximum
Relative Density	32	35	38
Basal Area	110	120	130
Trees per Acre	140	153	166

#### AREA 6

Residual QMD assumption (from leave tree cruise information) = 

13
35

  
Target Relative Density =

	Minimum	Target	Maximum
Relative Density	31	33	36
Basal Area	110	120	130
Trees per Acre	119	130	141

**CRUISE REPORT**  
**Kirk to Enterprise**  
**341-17-29**

**1. LOCATION:** Portions of Sections 3, 4, 10, 15, and 22 T5N, R3W, W.M., Columbia County, Oregon.

**2. CRUISE DESIGN:**

Pre-cruise evaluation indicated that the stand's average DBH is approximately 14 inches and its Coefficient of Variation is about 50%. For sales of this size and approximate value, ODF cruise standards require a Sampling Error of 8% at a 68% confidence level, and a minimum sample size of 100 graded trees. The cruise design chosen for this sale is a variable radius sample plot using a 20 BAF prism.

**3. SAMPLING METHOD:**

The Timber Sale Area was cruised in February, 2017. The Timber Sale Area was sampled with 39 variable radius grade plots using a 20 BAF prism. Plots were laid out on a 7 chain x 4 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain. Cruisers 'thinned' plots from below to 120 ft<sup>2</sup> of basal area by assigning a 'Take' or 'Leave' status to each tree in every (grade) plot.

**4. CRUISE RESULTS**

186 trees were measured and graded producing a cumulative Sampling Error of 7.8% on the Basal Area and 8.3% on the Board Foot Volume.

**5. TREE MEASUREMENT AND GRADING:**

All sample trees were measured and graded following Columbia River Log Scale grade rules and favored 40 foot segments.

a) **Height Standards:**

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

c) **Form Factors** were measured for each grade tree using a form point of 16 feet.

**5. DATA PROCESSING**

a) **Volumes and Statistics,** Cruise estimates and sampling statistics, were derived from Super Ace 2008 cruise software

b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

**6. Cruisers:** The sale was cruised by ODF cruisers Kenton Burns, and Mark Savage.

Prepared by:

\_\_\_\_\_  
Kenton Burns

\_\_\_\_\_  
Date

Reviewed by:

\_\_\_\_\_  
Eric Foucht

\_\_\_\_\_  
Date

TC PSTATS		PROJECT STATISTICS								PAGE	1
		PROJECT KIRKFIN								DATE	2/15/2017
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
05N 05N	03 03W	04 04	00A1 00A6	00PC 00PC	THR	196.00	39	420	S	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			39	420	10.8						
CRUISE			39	420	10.8	41,451	1.0				
DBH COUNT											
REFOREST											
COUNT											
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-L			233	110.1	14.1	94	31.8	119.5	17,315	17,315	4,011
DOUG FIR-T			186	101.2	13.1	94	26.2	94.9	12,240	12,127	2,904
WHEMLOCK-L			1	.2	21.0	99	0.1	.5	82	82	18
TOTAL			420	211.5	13.6	94	58.2	214.9	29,637	29,524	6,933
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-L			53.0	3.5	189	196	203				
DOUG FIR-T			40.0	2.9	131	135	138				
WHEMLOCK-L											
TOTAL			53.8	2.6	165	169	174	116	29	13	
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-L			48.4	3.2	44	45	47				
DOUG FIR-T			39.6	2.9	31	32	33				
WHEMLOCK-L											
TOTAL			49.4	2.4	39	40	41	97	24	11	
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-L			38.6	6.2	103	110	117				
DOUG FIR-T			48.4	7.7	93	101	109				
WHEMLOCK-L			624.5	99.9	0	0	0				
TOTAL			27.5	4.4	202	211	221	30	8	3	
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-L			8.6	1.4	118	119	121				
DOUG FIR-T			48.9	7.8	87	95	102				
WHEMLOCK-L			624.5	99.9	0	1	1				
TOTAL			22.2	3.6	207	215	223	20	5	2	
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-L			12.6	2.0	16,966	17,315	17,663				
DOUG FIR-T			52.0	8.3	11,119	12,127	13,136				
WHEMLOCK-L			624.5	99.9	0	82	164				
TOTAL			26.0	4.2	28,298	29,524	30,750	27	7	3	
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-L			11.1	1.8	3,939	4,011	4,082				
DOUG FIR-T			50.8	8.1	2,668	2,904	3,140				

TC PSTATS				PROJECT STATISTICS					PAGE	2
				PROJECT KIRKFIN					DATE	2/15/2017
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
05N	03	04	00A1	00PC	THR	196.00	39	420	S	W
05N	03W	04	00A6	00PC						
CL	68.1		COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK-L			624.5	99.9	0	18	37			
TOTAL			25.3	4.0	6,653	6,933	7,213	25	6	3



Species, Sort Grade - Board Foot Volumes (Type)														Page 1					
Project: KIRKFIN														Date 2/16/2017					
														Time 6:44:10AM					
T05N R03W S04 T00PC										T05N R03W S04 T00PC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
05N	03W	04	00A1	00PC	6.00	1	10	S	W										
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre	
			Def%	Gross	Net	Log Scale Dia.				Log Length				Ln Dia	Bd	CF/ Lf			
DF	L	3M	69	11,703	11,703	70	26	74		59	41	35	7	77	0.50	152.9			
DF	L	4M	31	5,134	5,134	31	43	57		100		26	6	35	0.28	146.7			
DF	L	Totals	63	16,836	16,836	101	31	69		30	41	28	31	7	56	0.41	299.5		
DF	T	3M	80	2.6	8,227	8,010	48	100		100		40	7	73	0.44	110.4			
DF	T	4M	20		1,908	1,908	11	100		32	68		19	6	26	0.26	73.7		
DF	T	Totals	37	2.1	10,135	9,918	60	100		6	13	81	31	7	54	0.40	184.1		
Type Totals				.8	26,971	26,754	161	20	80		2	24	26	48	31	7	55	0.40	483.6

Species, Sort Grade - Board Foot Volumes (Type)										Page 1									
Project: KIRKFIN										Date	2/16/2017								
										Time	6:44:10AM								
T05N R03W S04 T00PC										T05N R03W S04 T00PC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
05N	03W	04	00A2	00PC	10.00	2	19	S	W										
S So Gr Spp T rt ad		% Net BdFt	Bd. Ft. per Acre		Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre			
		Def%	Gross	Net		Log Scale Dia.				Log Length				Ln	Dia		Bd	CF/ Lf	
DF	L	3M				20	58	22		46	4	50	33	8	76	0.55	229.8		
DF	L	Totals				20	58	22		46	4	50	33	8	76	0.55	229.8		
DF	T	3M				100					100				40	7	72	0.47	89.7
DF	T	4M				15					100				14	6	17	0.24	89.7
DF	T	Totals				80	100				19				27	7	45	0.41	179.3
Type Totals						256	14	71	15	6	31	3	60	30	7	63	0.50	409.1	

Species, Sort Grade - Board Foot Volumes (Type)										Page 1											
Project: KIRKFIN										Date	2/16/2017										
										Time	6:44:10AM										
T05N R03W S04 T00PC										T05N R03W S04 T00PC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
05N	03W	04	00A3	00PC	35.00	8	88	S	W												
S So Gr T rt ad Spp		% Net BdFt	Bd. Ft. per Acre		Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre					
		Def%	Gross	Net		Log Scale Dia.				Log Length				Ln	Dia		Bd	CF/ Lf			
DF	L	3M	98	18,450	18,450	646	16	46	35	4	56	9	36	32	8	89	0.65	206.2			
DF	L	4M	2	321	321	11	43	57			100			23	6	35	0.27	9.2			
DF L Totals		58		18,771	18,771	657	16	46	34	4	56	9	35	32	8	87	0.64	215.3			
DF	T	CU													6	8		0.00	2.0		
DF	T	2M	1	10.0	283	255	9	100				100				40	12	180	1.18	1.4	
DF	T	3M	85		11,334	11,334	397	100				12				88	39	8	93	0.56	122.3
DF	T	4M	14		1,833	1,833	64	100				28	72			22	6	27	0.29	68.5	
DF T Totals		42		.2	13,450	13,421	470	98	2		4	10	10	76	33	7	69	0.50	194.3		
Type Totals				.1	32,221	32,193	1,127	9	68	21	2	2	37	9	52	32	8	79	0.57	409.6	

Species, Sort Grade - Board Foot Volumes (Type)										Page 1									
Project: KIRKFIN										Date	2/16/2017								
										Time	6:44:10AM								
T05N R03W S04 T00PC										T05N R03W S04 T00PC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
05N	03W	04	00A4	00PC	61.00	12	144	S	W										
S So Gr Spp T rt ad		% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
		Def%	Gross	Net	Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf			
DF	L	3M	99	18,766	18,766	1,145	16	48	36	51	29	20	31	8	91	0.65	205.8		
DF	L	4M	1	72	72	4		100				100	38	6	60	0.71	1.2		
DF	L	Totals	54	18,837	18,837	1,149	16	48	36	50	29	20	31	8	91	0.65	207.0		
DF	T	CU											18	9		0.00	9.8		
DF	T	2M	2	4.4	485	464	28		100	100			27	13	151	1.18	3.1		
DF	T	3M	83	1.0	13,227	13,091	799	100		5	6	89	38	8	101	0.64	129.3		
DF	T	4M	15	2.7	2,362	2,297	140	100		31	62	7	23	6	28	0.32	82.0		
DF	T	Totals	45	1.4	16,074	15,852	967	97	3	4	16	5	74	31	8	71	0.55	224.2	
WH	L	3M	100	263	263	16	8	32	61	100			27	10	127	1.03	2.1		
WH	L	Totals	1	263	263	16	8	32	61	100			27	10	127	1.03	2.1		
Type Totals				.6	35,175	34,952	2,132	8	70	21	2	35	18	44	31	8	81	0.60	433.3

Species, Sort Grade - Board Foot Volumes (Type)														Page 1								
Project: KIRKFIN														Date 2/16/2017								
														Time 6:44:10AM								
T05N R03W S04 T00PC										T05N R03W S04 T00PC												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt													
05N	03W	04	00A5	00PC	9.00	2	21	S	W													
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre Def% Gross Net		Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre					
			Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf								
4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft												
DF	L	3M	78	11,662	11,662	105	30	70		21	44	35	33	7	57	0.42	203.4					
DF	L	4M	22	3,140	3,140	28	35	65		18	82		24	6	31	0.27	102.0					
DF	L	Totals	61	14,802	14,802	133	31	69		4	34	35	28	30	6	48	0.38	305.4				
DF	T	3M	83	7,990	7,990	72	100				100				40	7	67	0.41	118.4			
DF	T	4M	17	9.0	1,684	1,532	100				60	40		17	6	22	0.30	69.0				
DF	T	Totals	39	1.6	9,673	9,522	86				10	6	84	32	6	51	0.39	187.5				
Type Totals				.6	24,476	24,324	219				19	81		6	23	21	50	30	6	49	0.38	492.9

Species, Sort Grade - Board Foot Volumes (Type)										Page 1									
Project: KIRKFIN										Date	2/16/2017								
										Time	6:44:10AM								
T05N R03W S04 T00PC										T05N R03W S04 T00PC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
05N	03W	04	00A6	00PC	75.00	14	138	S	W										
S So Gr T rt ad Spp		% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
							Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf				
DF	L	3M	90	14,157	14,157	1,062	26	65	9	34	26	40	32	7	66	0.49	214.1		
DF	L	4M	10	1,544	1,544	116	39	61		4	96		23	6	28	0.25	54.9		
DF	L	Totals	62	15,702	15,702	1,178	27	65	8	0	40	24	36	30	7	58	0.46	268.9	
DF	T	CU											16	8		0.00	11.4		
DF	T	3M	88	.6	8,474	8,426	632	100		14	8	78	37	8	83	0.53	102.0		
DF	T	4M	12	1.6	1,124	1,106	83	100		48	52		19	6	22	0.30	49.6		
DF	T	Totals	38	.7	9,598	9,533	715	100		6	18	7	69	30	7	59	0.46	162.9	
Type Totals				.3	25,300	25,234	1,893	17	78	5	2	32	17	48	30	7	58	0.46	431.9

TC TLOGSTVB				Log Stock Table - MBF Project: KIRKFIN																
T05N R03W S04 T00PC										T05N R03W S04 T00PC										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
05N	03W	04	00A1	00PC	6.00	1	10	Date	2/16/2017											
								Time	6:44:10AM											
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+
DF	L		3M	34	29		29	17.9		4		24								
DF	L		3M	35	13		13	8.1				13								
DF	L		3M	36	10		10	6.5		10										
DF	L		3M	37	15		15	9.1					15							
DF	L		3M	38	3		3	2.1		3										
DF	L		4M	24	9		9	5.5			9									
DF	L		4M	25	7		7	4.1		7										
DF	L		4M	26	9		9	5.5			9									
DF	L		4M	27	7		7	4.1		7										
DF	T		3M	40	49	2.6	48	29.9			26	22								
DF	T		4M	14	4		4	2.3			4									
DF	T		4M	22	8		8	4.9			8									
DF		Totals			162		161	100.0		32	55	59	15							
Total All Species					162		161	100.0		32	55	59	15							

TC TLOGSTVB				Log Stock Table - MBF																
				Project: KIRKFIN																
T05N R03W S04 T00PC										T05N R03W S04 T00PC										
Twp	Rge	Sec	Tract			Type	Acres	Plots	Sample Trees	Page	1									
05N	03W	04	00A2			00PC	10.00	2	19	Date	2/16/2017									
										Time	6:44:10AM									
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+
DF	L		3M	28	61		61	23.9		4		19		38						
DF	L		3M	30	19		19	7.5		4		15								
DF	L		3M	32	8		8	3.0		8										
DF	L		3M	38	88		88	34.4		20			68							
DF	T		3M	40	65		65	25.4			55	10								
DF	T		4M	12	3		3	1.1			3									
DF	T		4M	14	8		8	3.0			8									
DF	T		4M	16	3		3	1.0			3									
DF	T		4M	20	2		2	.8			2									
DF		Totals			256		256	100.0	35	70	44	68	38							
Total All Species					256		256	100.0	35	70	44	68	38							



TC TLOGSTVB				Log Stock Table - MBF																
				Project: KIRKFIN																
T05N R03W S04 T00PC										T05N R03W S04 T00PC										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
05N	03W	04	00A3	00PC	35.00	8	88	Date	2/16/2017											
								Time	6:44:10AM											
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+
DF	L		3M	26	42		42	3.8						17	25					
DF	L		3M	27	25		25	2.2				4	20							
DF	L		3M	28	215		215	19.1		23		57	9	100	27					
DF	L		3M	29	37		37	3.2					18	9	9					
DF	L		3M	30	41		41	3.7		17			15		9					
DF	L		3M	31	1		1	.1		1										
DF	L		3M	32	14		14	1.2				5		9						
DF	L		3M	33	20		20	1.7				8				12				
DF	L		3M	34	21		21	1.9		7		9		5						
DF	L		3M	36	80		80	7.1		7		50	10			13				
DF	L		3M	37	4		4	.3		4										
DF	L		3M	38	130		130	11.5		27		9	80	14						
DF	L		3M	39	5		5	.4		5										
DF	L		3M	40	10		10	.9		10										
DF	L		4M	22	6		6	.6			6									
DF	L		4M	24	5		5	.4		5										
DF	T	CU		6																
DF	T		2M	40	10	10.0	9	.8					9							
DF	T		3M	32	15		15	1.3			15									
DF	T		3M	34	13		13	1.2			13									
DF	T		3M	35	19		19	1.7				9	9							
DF	T		3M	36	4		4	.3			4									
DF	T		3M	38	24		24	2.2			7	7	11							
DF	T		3M	40	321		321	28.5			76	162	83							
DF	T		4M	12	2		2	.2			2									
DF	T		4M	14	7		7	.6			7									
DF	T		4M	18	4		4	.3			4									
DF	T		4M	20	6		6	.5			6									
DF	T		4M	22	7		7	.6			7									
DF	T		4M	24	5		5	.5			5									
DF	T		4M	26	7		7	.7			7									
DF	T		4M	28	10		10	.9			10									
DF	T		4M	30	16		16	1.5			16									
DF	Totals				1,128		1,127	100.0		106	186	321	255	163	71	24				
Total All Species					1,128		1,127	100.0		106	186	321	255	163	71	24				

TC TLOGSTVB				Log Stock Table - MBF																	
				Project: KIRKFIN																	
T05N R03W S04 T00PC										T05N R03W S04 T00PC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1												
05N	03W	04	00A4	00PC	61.00	12	144	Date	2/16/2017												
										Time	6:44:10AM										
Spp	T	S	So	Gr	Log	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	L				3M 26	66		66	3.1				8	9	20	29					
DF	L				3M 27	65		65	3.1		5		11	19	18	11					
DF	L				3M 28	330		330	15.6		36		74	49	137	34					
DF	L				3M 29	23		23	1.1		2				10	11					
DF	L				3M 30	96		96	4.5		25		8	41		22					
DF	L				3M 32	177		177	8.4		6		10	52	22	88					
DF	L				3M 33	49		49	2.3		11		38								
DF	L				3M 34	112		112	5.3		39		11	62							
DF	L				3M 36	67		67	3.2		14		30	23							
DF	L				3M 37	26		26	1.2		3			23							
DF	L				3M 38	80		80	3.8		20			60							
DF	L				3M 39	12		12	.5					12							
DF	L				3M 40	38		38	1.8		14			12	12						
DF	L				3M 41	5		5	.2		5										
DF	L				4M 38	4		4	.2			4									
DF	T				CU 3																
DF	T				CU 6																
DF	T				CU 14																
DF	T				CU 21																
DF	T				CU 22																
DF	T				CU 39																
DF	T				2M 24	10	5.9	9	.4						9	9					
DF	T				2M 26	9	7.7	9	.4						10						
DF	T				2M 30	10		10	.5												
DF	T				3M 24	16	5.8	15	.7			8		8							
DF	T				3M 26	9		9	.4					9							
DF	T				3M 28	10		10	.4					10							
DF	T				3M 30	11	15.4	9	.4					9							
DF	T				3M 32	27	4.1	26	1.2			19	7								
DF	T				3M 34	23		23	1.1			23									
DF	T				3M 36	41	2.7	40	1.9			20	8	12							
DF	T				3M 38	5		5	.2			5									
DF	T				3M 40	666	.5	662	31.3			74	320	269							
DF	T				4M 12	2		2	.1			2									
DF	T				4M 14	4		4	.2			4									
DF	T				4M 16	11	29.0	8	.4			5		3							
DF	T				4M 18	16		16	.8			11	5								
DF	T				4M 20	13		13	.6			13									
DF	T				4M 22	5		5	.2			5									
DF	T				4M 24	28		28	1.3			28									
DF	T				4M 25	6		6	.3			6									
DF	T				4M 26	12		12	.6			12									
DF	T				4M 28	18		18	.8			18									
DF	T				4M 30	18	3.5	18	.8			18									
DF	T				4M 38	10		10	.5			10									
DF					Totals	2,130		2,116	99.2		179	278	536	681	238	204					
WH	L				3M 26	10		10	60.5							10					
WH	L				3M 28	6		6	39.5		1			5							
WH					Totals	16		16	.8		1			5		10					

TC TLOGSTVB				Log Stock Table - MBF																																				
				Project: KIRKFIN																																				
T05N R03W S04 T00PC										T05N R03W S04 T00PC																														
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees				Page		2																				
05N		03W		04		00A4		00PC		61.00		12		144				Date		2/16/2017																				
																		Time		6:44:10AM																				
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+	
Total All Species							2,146				2,132		100.0		180		278		536		686		238		214															

TC TLOGSTVB				Log Stock Table - MBF																
				Project: KIRKFIN																
T05N R03W S04 T00PC										T05N R03W S04 T00PC										
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page		1						
05N	03W	04	00A5	00PC			9.00	2	21			Date		2/16/2017						
										Time		6:44:10AM								
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+
DF	L		3M	26	7		7	3.1				7								
DF	L		3M	28	4		4	1.9		4										
DF	L		3M	29	7		7	3.1			7									
DF	L		3M	30	4		4	1.9		4										
DF	L		3M	31	7		7	3.1				7								
DF	L		3M	32	15		15	6.8		7		8								
DF	L		3M	33	8		8	3.8				8								
DF	L		3M	34	16		16	7.3		8		8								
DF	L		3M	36	8		8	3.8				8								
DF	L		3M	38	26		26	12.0		6			20							
DF	L		3M	40	2		2	1.0		2										
DF	L		4M	20	5		5	2.4			5									
DF	L		4M	23	7		7	3.0			7									
DF	L		4M	24	5		5	2.3		5										
DF	L		4M	26	7		7	3.0			7									
DF	L		4M	28	5		5	2.3		5										
DF	T		3M	40	72		72	32.8			63	9								
DF	T		4M	12	1		1	.6			1									
DF	T		4M	14	5		5	2.3			5									
DF	T		4M	18	2		2	.9			2									
DF	T		4M	28	7	20.0	5	2.5			5									
DF	Totals				220		219	100.0		41	102	55	20							
Total All Species				220		219	100.0		41	102	55	20								

TC TLOGSTVB				Log Stock Table - MBF															
				Project: KIRKFIN															
T05N R03W S04 T00PC										T05N R03W S04 T00PC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1										
05N	03W	04	00A6	00PC	75.00	14	138	Date	2/16/2017										
										Time	6:44:10AM								
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+
DF	L		3M 24	8		8	.4			8									
DF	L		3M 26	45		45	2.4		6		39								
DF	L		3M 27	37		37	2.0		24		14								
DF	L		3M 28	111		111	5.9		18	8	45		41						
DF	L		3M 29	38		38	2.0			8	7			23					
DF	L		3M 30	119		119	6.3		40		67	12							
DF	L		3M 31	12		12	.6		4		8								
DF	L		3M 32	75		75	4.0		27	10	19	7	12						
DF	L		3M 33	49		49	2.6		9		40								
DF	L		3M 34	125		125	6.6		36		43	45							
DF	L		3M 35	20		20	1.1				20								
DF	L		3M 36	175		175	9.2		32		70	72							
DF	L		3M 38	207		207	10.9		61			123	23						
DF	L		3M 39	12		12	.6					12							
DF	L		3M 40	29		29	1.5		17			12							
DF	L		4M 20	5		5	.3			5									
DF	L		4M 22	64		64	3.4		19	38	6								
DF	L		4M 23	10		10	.5		5		5								
DF	L		4M 24	25		25	1.3		9	16									
DF	L		4M 25	12		12	.6		12										
DF	T		CU 2																
DF	T		CU 3																
DF	T		CU 4																
DF	T		CU 22																
DF	T		CU 29																
DF	T		CU 34																
DF	T		3M 22	15	6.8	14	.7				7	7							
DF	T		3M 24	27		27	1.4					27							
DF	T		3M 26	18		18	.9				7	11							
DF	T		3M 28	10		10	.6					10							
DF	T		3M 29	8		8	.4			8									
DF	T		3M 30	11		11	.6					11							
DF	T		3M 32	37	6.8	34	1.8			9	15	10							
DF	T		3M 34	15		15	.8			15									
DF	T		3M 36	11		11	.6			11									
DF	T		3M 38	25		25	1.3			16		10							
DF	T		3M 40	457		457	24.2			180	217	61							
DF	T		4M 12	8		8	.4			8									
DF	T		4M 14	3		3	.1			3									
DF	T		4M 16	23	5.8	22	1.2			18	4								
DF	T		4M 18	2		2	.1			2									
DF	T		4M 20	5		5	.3			5									
DF	T		4M 22	9		9	.5			9									
DF	T		4M 24	10		10	.5			10									
DF	T		4M 26	6		6	.3			6									
DF	T		4M 28	14		14	.8			14									
DF	T		4M 30	3		3	.2			3									
DF	Totals			1,897		1,893	100.0		318	410	634	433	75	23					
Total All Species				1,897		1,893	100.0		318	410	634	433	75	23					

TC TSTNDSUM				Stand Table Summary												
				Project		KIRKFIN										
T05N R03W S04 T00PC										T05N R03W S04 T00PC						
Twp	Rge	Sec	Tract	Type			Acres		Plots	Sample Trees			Page: 1			
05N	03W	04	00A1	00PC			6.00		1	10			Date: 02/16/20			
												Time: 6:44:11AM				
Spc	S T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.		Net Bd.Ft.	Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF
DF	L	10	2	88	83	73.339	40.00	146.68	7.1	35.0	29.49	1,035	5,134	177	62	31
DF	L	13	2	89	99	43.396	40.00	86.79	15.8	70.0	39.05	1,370	6,075	234	82	36
DF	L	14	1	88	92	18.709	20.00	37.42	16.5	70.0	17.60	618	2,619	106	37	16
DF	L	16	1	88	96	14.324	20.00	28.65	25.0	105.0	20.43	717	3,008	123	43	18
DF		Totals	6	88	90	149.767	120.00	299.53	12.5	56.2	106.57	3,739	16,836	639	224	101
DF	T	10	1	90	81	36.669	20.00	36.67	12.8	60.0	13.34	468	2,200	80	28	13
DF	T	11	1	90	95	30.305	20.00	60.61	9.7	45.0	16.84	591	2,727	101	35	16
DF	T	13	2	92	94	43.396	40.00	86.79	14.3	57.5	35.48	1,245	4,991	213	75	30
DF		Totals	4	91	90	110.370	80.00	184.07	12.5	53.9	65.66	2,304	9,918	394	138	60
Totals		10		89	90	260.137	200.00	483.61	12.5	55.3	172.23	6043	26,754	1,033	363	161

TC		TSTNDSUM													Stand Table Summary												
													Project KIRKFIN														
T05N R03W S04 T00PC													T05N R03W S04 T00PC														
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page: 1									
05N		03W		04		00A2		00PC			10.00		2		19			Date: 02/16/20									
																		Time: 6:44:11AM									
S	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	L	12	2	88	90	25.465	20.00	50.93	11.5	45.0	16.62	583	2,292	166	58	23											
DF	L	15	6	88	100	48.892	60.00	97.78	21.8	90.0	60.79	2,133	8,801	608	213	88											
DF	L	16	2	88	110	14.324	20.00	42.97	17.8	80.0	21.82	766	3,438	218	77	34											
DF	L	17	2	88	110	12.688	20.00	38.07	18.8	80.0	20.39	716	3,045	204	72	30											
DF		Totals		12	88	100	101.370	120.00	229.75	18.3	76.5	119.63	4,197	17,575	1,196	420	176										
DF	T	11	1	89	93	15.153	10.00	30.31	9.5	40.0	8.22	288	1,212	82	29	12											
DF	T	12	5	88	89	63.662	50.00	127.32	10.9	44.0	39.53	1,387	5,602	395	139	56											
DF	T	13	1	89	93	10.849	10.00	21.70	14.1	55.0	8.70	305	1,193	87	31	12											
DF		Totals		7	88	90	89.664	70.00	179.33	11.0	44.7	56.46	1,981	8,008	565	198	80										
Totals		19		88	96	191.033	190.00	409.08	15.1	62.5	176.08	6178	25,583	1,761	618	256											

TC		TSTNDSUM															Stand Table Summary														
Project															KIRKFIN																
T05N R03W S04 T00PC															T05N R03W S04 T00PC																
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1											
05N		03W		04		00A3		00PC			35.00		8		88			Date:		02/16/20											
															Time:		6:44:11AM														
Spc	S	Sample		FF	Ht	Av	Trees/	BA/	Logs	Average Log		Net	Net	Tons/	Cu.Ft.	Net	Bd.Ft.	T o t a l s													
		DBH	Trees							16'	Tot							Acre	Acre	Acre	Net	Net	Acre	Acre	Acre	Tons	Cunits	MBF			
DF	L	10	1	87	75		4.584	2.50	9.17	6.3	35.0	1.65	58	321	58	20	11														
DF	L	13	2	89	99		5.424	5.00	10.85	16.0	70.0	4.95	174	759	173	61	27														
DF	L	14	7	88	99		16.370	17.50	32.74	17.6	70.7	16.43	577	2,315	575	202	81														
DF	L	15	5	88	105		10.186	12.50	24.45	18.3	76.7	12.78	448	1,874	447	157	66														
DF	L	16	12	88	105		21.486	30.00	55.51	20.1	86.5	31.77	1,115	4,799	1,112	390	168														
DF	L	17	8	89	109		12.688	20.00	36.48	19.9	85.2	20.70	726	3,109	724	254	109														
DF	L	18	2	89	111		2.829	5.00	8.49	22.5	103.3	5.44	191	877	190	67	31														
DF	L	19	9	89	105		11.427	22.50	33.01	24.8	110.8	23.36	820	3,657	818	287	128														
DF	L	23	1	90	120		.866	2.50	2.60	41.8	196.7	3.10	109	511	108	38	18														
DF	L	26	1	89	130		.678	2.50	2.03	57.3	270.0	3.32	117	549	116	41	19														
DF		Totals	48	88	103		86.540	120.00	215.32	20.1	87.2	123.50	4,333	18,771	4,323	1,517	657														
DF	T	9	1	88	81		5.659	2.50	5.66	9.3	50.0	1.50	52	283	52	18	10														
DF	T	11	4	87	84		15.153	10.00	15.15	15.5	65.0	6.71	236	985	235	82	34														
DF	T	12	9	88	96		28.648	22.50	57.30	12.0	50.6	19.52	685	2,897	683	240	101														
DF	T	13	6	89	102		16.273	15.00	32.55	15.5	67.5	14.40	505	2,197	504	177	77														
DF	T	14	7	88	95		16.370	17.50	32.74	17.1	70.0	15.95	560	2,292	558	196	80														
DF	T	15	7	89	98		14.260	17.50	28.52	20.6	88.6	16.77	589	2,526	587	206	88														
DF	T	16	4	88	102		7.162	10.00	14.32	24.8	106.2	10.13	355	1,522	354	124	53														
DF	T	17	1	87	107		1.586	2.50	3.17	28.7	120.0	2.59	91	381	91	32	13														
DF	T	18	1	88	109		1.415	2.50	2.83	33.4	120.0	2.70	95	340	94	33	12														
DF		Totals	40	88	95		106.526	100.00	192.24	16.5	69.8	90.27	3,167	13,421	3,159	1,109	470														
Totals		88		88	99		193.066	220.00	407.56	18.4	79.0	213.77	7501	32,193	7,482	2,625	1,127														



TC TSTNDSUM				Stand Table Summary												
				Project		KIRKFIN										
T05N R03W S04 T00PC										T05N R03W S04 T00PC						
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page:	1			
05N	03W	04	00A4	00PC			61.00	12	144			Date:	02/16/20			
													Time:	6:44:11AM		
Spc	S T	Sample		FF	Av Ht	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	16'	Tot				Net	Net				Tons	Cunits	MBF
DF	L	11	1	88	80	2.525	1.67	5.05	9.1	40.0	1.31	46	202	80	28	12
DF	L	12	1	88	90	2.122	1.67	4.24	11.5	45.0	1.39	49	191	84	30	12
DF	L	13	4	88	91	7.233	6.67	14.47	14.8	63.7	6.09	214	922	372	130	56
DF	L	14	6	88	93	9.354	10.00	18.71	16.7	70.0	8.90	312	1,310	543	191	80
DF	L	15	12	88	100	16.297	20.00	36.67	18.9	82.2	19.79	694	3,015	1,207	424	184
DF	L	16	14	88	101	16.711	23.33	41.78	20.0	85.1	23.82	836	3,557	1,453	510	217
DF	L	17	7	88	105	7.402	11.67	20.09	20.6	86.8	11.81	414	1,745	720	253	106
DF	L	18	9	89	110	8.488	15.00	24.52	23.5	105.8	16.43	577	2,594	1,002	352	158
DF	L	19	10	89	111	8.465	16.67	25.39	25.2	117.3	18.25	640	2,980	1,113	391	182
DF	L	20	7	89	114	5.348	11.67	16.04	29.9	144.8	13.68	480	2,322	834	293	142
DF		Totals	71	88	101	83.945	118.33	206.97	20.6	91.0	121.47	4,262	18,837	7,409	2,600	1,149
DF	T	10	1	89	104	3.056	1.67	6.11	7.6	35.0	1.32	46	214	80	28	13
DF	T	11	5	86	92	12.627	8.33	20.20	10.7	45.0	6.18	217	909	377	132	55
DF	T	12	4	89	94	8.488	6.67	14.85	12.3	52.9	5.21	183	785	318	112	48
DF	T	13	12	86	93	21.698	20.00	43.40	13.9	52.9	17.20	603	2,296	1,049	368	140
DF	T	14	17	88	101	26.504	28.33	53.01	17.5	75.0	26.49	929	3,976	1,616	567	243
DF	T	15	7	88	96	9.507	11.67	19.01	20.2	82.9	10.92	383	1,575	666	234	96
DF	T	16	14	88	101	16.711	23.33	32.23	24.1	101.5	22.10	775	3,271	1,348	473	200
DF	T	17	9	86	101	9.516	15.00	19.03	28.0	112.8	15.17	532	2,146	925	325	131
DF	T	18	3	85	102	2.829	5.00	6.60	26.1	102.9	4.91	172	679	300	105	41
DF		Totals	72	87	97	110.937	120.00	214.45	17.9	73.9	109.50	3,842	15,852	6,679	2,344	967
WH	L	21	1	83	99	.693	1.67	2.08	28.3	126.7	1.88	59	263	115	36	16
WH		Totals	1	83	99	.693	1.67	2.08	28.3	126.7	1.88	59	263	115	36	16
Totals		144		88	99	195.575	240.00	423.49	19.3	82.5	232.84	8163	34,952	14,204	4,979	2,132

TC TSTNDSUM				Stand Table Summary												
				Project		KIRKFIN										
T05N R03W S04 T00PC										T05N R03W S04 T00PC						
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page: 1				
05N	03W	04	00A5	00PC			9.00	2	21			Date: 02/16/20				
													Time: 6:44:11AM			
Spc	S T	Sample		FF	Av Ht	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	16'	Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF	L	8	1	86	72	28.648	10.00	28.65	4.6	20.0	3.79	133	573	34	12	5
DF	L	10	2	87	83	36.669	20.00	73.34	7.0	35.0	14.56	511	2,567	131	46	23
DF	L	11	2	88	86	30.305	20.00	60.61	9.1	40.0	15.66	549	2,424	141	49	22
DF	L	12	3	88	94	38.197	30.00	76.39	12.1	50.0	26.39	926	3,820	238	83	34
DF	L	14	2	88	96	18.709	20.00	37.42	17.0	70.0	18.09	635	2,619	163	57	24
DF	L	15	1	88	100	8.149	10.00	16.30	21.8	90.0	10.13	356	1,467	91	32	13
DF	L	17	1	88	99	6.344	10.00	12.69	27.5	105.0	9.94	349	1,332	89	31	12
DF		Totals	12	87	87	167.021	120.00	305.39	11.3	48.5	98.56	3,458	14,802	887	311	133
DF	T	10	2	88	86	36.669	20.00	36.67	12.8	60.0	13.34	468	2,200	120	42	20
DF	T	11	4	88	86	60.610	40.00	90.92	10.8	45.0	27.96	981	4,091	252	88	37
DF	T	12	2	89	86	25.465	20.00	38.20	13.4	53.3	14.64	514	2,037	132	46	18
DF	T	13	1	84	94	10.849	10.00	21.70	15.2	55.0	9.38	329	1,193	84	30	11
DF		Totals	9	88	87	133.594	90.00	187.48	12.2	50.8	65.31	2,292	9,522	588	206	86
Totals		21		88	87	300.615	210.00	492.87	11.7	49.4	163.87	5750	24,324	1,475	517	219

TC		TSTNDSUM															Stand Table Summary														
Project															KIRKFIN																
T05N R03W S04 T00PC															T05N R03W S04 T00PC																
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1											
05N		03W		04		00A6		00PC			75.00		14		138			Date:		02/16/20											
																		Time:		6:44:11AM											
Spc	S	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s																	
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF															
DF	L	8	1	86	77	4.093	1.43	4.09	5.1	30.0	.59	21	123	45	16	9															
DF	L	9	5	87	79	16.168	7.14	32.34	4.8	24.0	4.42	155	776	331	116	58															
DF	L	10	3	88	80	7.858	4.29	15.72	6.8	35.0	3.05	107	550	229	80	41															
DF	L	11	11	88	85	23.811	15.71	47.62	9.3	40.9	12.61	442	1,948	946	332	146															
DF	L	12	9	87	83	16.370	12.86	32.74	10.6	41.7	9.91	348	1,364	743	261	102															
DF	L	13	7	88	87	10.849	10.00	21.70	14.1	57.9	8.73	306	1,255	655	230	94															
DF	L	14	17	88	95	22.718	24.29	45.44	16.9	68.5	21.87	767	3,114	1,640	575	234															
DF	L	15	12	88	96	13.969	17.14	27.94	20.9	88.3	16.65	584	2,468	1,249	438	185															
DF	L	16	9	88	99	9.208	12.86	20.46	22.7	94.5	13.23	464	1,934	992	348	145															
DF	L	17	5	88	103	4.532	7.14	10.88	23.2	93.3	7.18	252	1,015	539	189	76															
DF	L	18	3	89	104	2.425	4.29	5.66	28.6	114.3	4.61	162	647	346	121	49															
DF	L	19	2	89	110	1.451	2.86	4.35	25.2	116.7	3.13	110	508	234	82	38															
DF		Totals	84	88	89	133.452	120.00	268.93	13.8	58.4	105.98	3,719	15,702	7,949	2,789	1,178															
DF	T	9	1	92	87	3.234	1.43	3.23	10.9	60.0	1.01	35	194	75	26	15															
DF	T	10	2	91	89	5.238	2.86	5.24	12.8	60.0	1.91	67	314	143	50	24															
DF	T	11	9	88	88	19.482	12.86	28.14	11.6	48.5	9.32	327	1,364	699	245	102															
DF	T	12	10	86	91	18.189	14.29	32.74	11.5	45.6	10.72	376	1,492	804	282	112															
DF	T	13	7	86	91	10.849	10.00	21.70	13.6	54.3	8.40	295	1,178	630	221	88															
DF	T	14	14	88	97	18.709	20.00	37.42	17.1	74.6	18.28	641	2,793	1,371	481	209															
DF	T	15	7	87	102	8.149	10.00	16.30	20.6	88.6	9.55	335	1,443	716	251	108															
DF	T	16	2	87	105	2.046	2.86	4.09	24.2	102.5	2.82	99	419	212	74	31															
DF	T	17	2	86	96	1.813	2.86	2.72	32.0	123.3	2.48	87	335	186	65	25															
DF		Totals	54	88	93	87.709	77.14	151.58	14.9	62.9	64.49	2,263	9,533	4,837	1,697	715															
Totals		138		88	90	221.161	197.14	420.51	14.2	60.0	170.47	5982	25,234	12,786	4,486	1,893															

**VOLUME SUMMARY**

(Shown in MBF)

**Kirk to Enterprise****341-17-29****AREA 1: PC-M (6 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	0	48	11	59
	Hidden D&B (2%)	()	(1)	()	(1)
	<b>NET TOTAL</b>	0	47	11	58
	% of Total	0	81	19	

**AREA 2: PC-M (10 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	0	65	15	80
	Hidden D&B (2%)	()	(1)	()	(2)
	<b>NET TOTAL</b>	0	64	15	78
	% of Total	0	82	18	

**AREA 3: PC-M (35 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	9	397	64	470
	Hidden D&B (2%)	()	(8)	(1)	(9)
	<b>NET TOTAL</b>	9	389	63	461
	% of Total	2	84	14	

**AREA 4: PC-M (61 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	28	799	140	967
	Hidden D&B (2%)	(1)	(16)	(3)	(19)
	<b>NET TOTAL</b>	27	783	137	948
	% of Total	3	83	14	

**AREA 5: PC-M (9 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	0	72	14	86
	Hidden D&B (2%)	()	(1)	()	(2)
	<b>NET TOTAL</b>	0	71	14	84
	% of Total	0	85	15	

**AREA 6: PC-M (75 ACRES)**

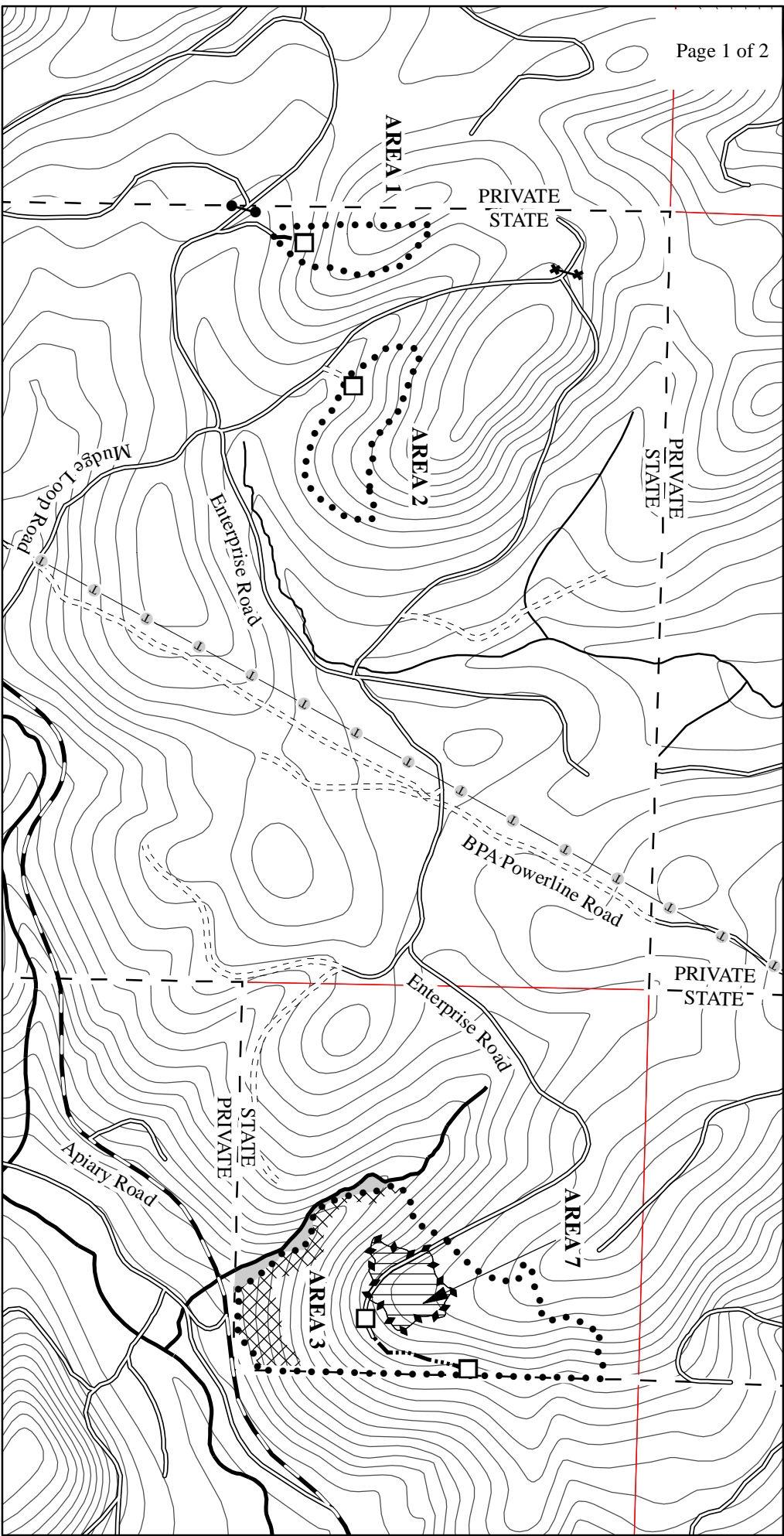
SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	0	632	83	715
	Hidden D&B (2%)	()	(13)	(2)	(14)
	<b>NET TOTAL</b>	0	619	81	701
	% of Total	0	88	12	

**AREA 7: MC (9 ACRES)**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	2	105	18	125
	Hidden D&B (2%)	()	(2)	()	(3)
	<b>NET TOTAL</b>	2	103	18	122
	% of Total	2	84	14	

**SALE TOTAL**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir		38	2,076	339	2,453

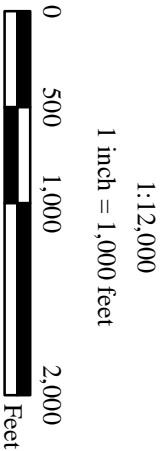


# Legend

- Timber Sale Boundary
- Area Boundary
- Paved County Road
- Surfaced Road
- Unsurfaced Road
- Non Project Road
- Type F Stream
- Type N Stream
- Stream Buffer
- Group Selection Area
- Thinning Optional Area
- Electric Transmission Lines
- ODF Ownership Boundary
- Sections
- 20 Foot Contour
- Tractor Landing
- Gate
- Blockage

## LOGGING PLAN

FOR TIMBER SALE CONTRACT #341-17-29  
KIRK TO ENTERPRISE  
PORTIONS OF SECTIONS 3, 4, 10, 15, & 22,  
T5N, R3W, W.M.  
COLUMBIA COUNTY, OREGON.



APPROXIMATE NET ACRES  
CABLE YARDING = 205 ACRES  
TRACTOR YARDING = 0 ACRES

Forest Grove District GIS  
February, 2017

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

# LOGGING PLAN

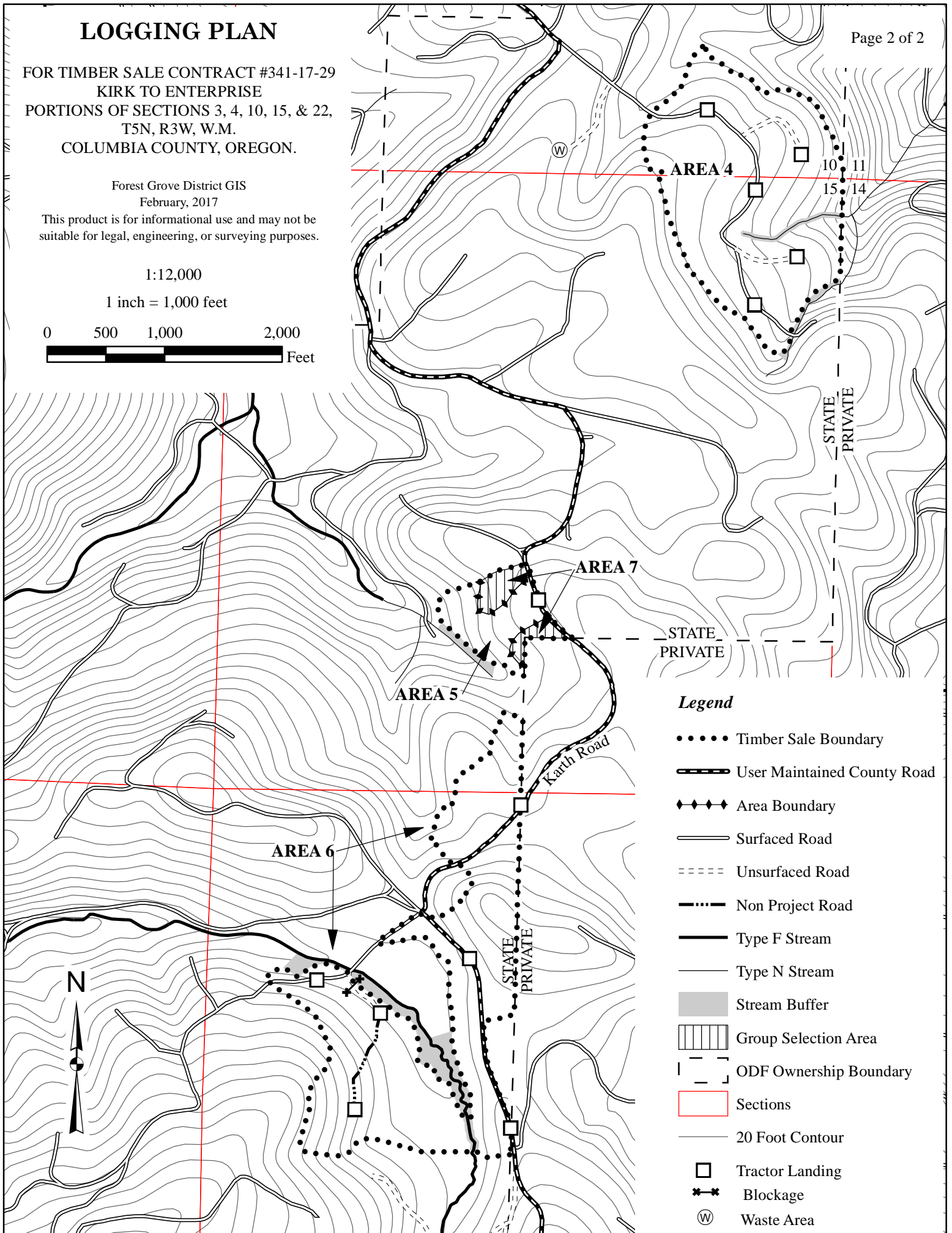
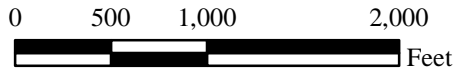
FOR TIMBER SALE CONTRACT #341-17-29  
KIRK TO ENTERPRISE  
PORTIONS OF SECTIONS 3, 4, 10, 15, & 22,  
T5N, R3W, W.M.  
COLUMBIA COUNTY, OREGON.

Forest Grove District GIS  
February, 2017

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suitable for legal, engineering, or surveying purposes.

1:12,000

1 inch = 1,000 feet



## Legend

- ..... Timber Sale Boundary
- User Maintained County Road
- ◆◆◆ Area Boundary
- Surfaced Road
- Unsurfaced Road
- Non Project Road
- Type F Stream
- Type N Stream
- Stream Buffer
- ▨ Group Selection Area
- - - ODF Ownership Boundary
- Sections
- 20 Foot Contour
- Tractor Landing
- ✕✕ Blockage
- Ⓜ Waste Area