



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Thin McKenn  
Sale 341-14-67

District: Tillamook

Date: September 04, 2013

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**cost summary**

	<b>Conifer</b>	<b>Hardwood</b>	<b>Total</b>
<b>Gross Timber Sale Value</b>	\$61,410.81	\$36,534.00	\$97,944.81
		<b>Project Work:</b>	\$(45,790.00)
		<b>Advertised Value:</b>	\$52,154.81



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**timber description**

**Location:** Portions of Section 17, T2N, R8W, W.M., Tillamook County, Oregon.

**Stand Stocking:** 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95
Western Hemlock / Fir	11	0	95
Alder (Red)	14	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	0	71	22	0	0	93
Western Hemlock / Fir	0	0	10	371	228	0	0	609
Alder (Red)	43	20	0	0	0	167	70	300
Total	43	20	10	442	250	167	70	1,002



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comments: Pond Values Used: 2nd Quarter Calendar Year 2013.

Western redcedar and Other Cedars Stumpage Price = Pond Value  
minus Logging Cost:  
\$550/MBF = \$950/MBF - \$400/MBF

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

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

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

Brand and Paint: \$2/MBF x 1,002 MBF = \$2,004

Truck Assist from Non-Project Spur #1: \$25/MBF X 75 MBF = \$1,875

Fell, Buck & Limb: \$40/MBF x 1,002 MBF = \$40,080

Intermediate Supports: \$100/support x 20 supports = \$2,000

Machine Cleaning: \$1,000/machine x 1 = \$1,000

TOTAL Other Costs (with Profit & Risk to be added) = \$46,959

Other Costs (No Profit & Risk added):

Back Hoe Road Maintenance: 16 hrs x \$75/hr = \$1,200

Move-in (Back Hoe): \$650

Non-Project Road Construction: 12 stations X \$150/station = \$1,800

Road Blocking with Tank Traps: 4 each X \$75/each = \$300

Pipe Removal: 1hr X \$145/hr = \$145

Pipe Delivery to Tillamook ODF: 1hr X \$70/hr = \$70

TOTAL Other Costs (No Profit & Risk added) = \$4,165

ROAD MAINTENANCE

Spot Rocking: 20 cy/mile x \$5/cy x 1.002 MMBF x 9.1 mile / 1,002  
MBF = \$0.91/MBF

Interim Maintenance Grading: \$250 x 9.1 miles/1,002 MBF =  
\$2.27/MBF

Final Maintenance Grading: \$500 x 9.1 miles/ 1,002 MBF = \$4.54/MBF

Total Road Maintenance: \$7.72/MBF



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**logging conditions**

**combination#: 1**            Douglas - Fir                            94.00%  
                                 Western Hemlock / Fir                94.00%  
                                 Alder (Red)                              94.00%

**yarding distance:** Long (1,500 ft)                            **downhill yarding:** No  
**logging system:** Cable: Large Tower >=70                    **Process:** Manual Falling/Delimiting  
**tree size:** Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF  
**loads / day:** 6.0    **bd. ft / load:** 3,100  
**cost / mbf:** \$198.57

**machines:** Log Loader (A)  
                 Tower Yarder (Large)

**combination#: 2**            Douglas - Fir                            6.00%  
                                 Western Hemlock / Fir                6.00%  
                                 Alder (Red)                              6.00%

**yarding distance:** Short (400 ft)                            **downhill yarding:** No  
**logging system:** Shovel    **Process:** Manual Falling/Delimiting  
**tree size:** Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF  
**loads / day:** 6.0    **bd. ft / load:** 3,100  
**cost / mbf:** \$134.66

**machines:** Shovel Logger



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**logging costs**

<b>Operating Seasons:</b>	3.00	<b>Profit Risk:</b>	17.00%
<b>Project Costs:</b>	\$45,790.00	<b>Other Costs (P/R):</b>	\$46,959.00
<b>Slash Disposal:</b>	\$0.00	<b>Other Costs:</b>	\$4,165.00

**Miles of Road**

Road Maintenance: \$7.72

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	3.1
Western Hemlock / Fir	\$0.00	3.0	3.4
Alder (Red)	\$0.00	3.0	3.2



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**logging costs breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
<b>Douglas - Fir</b>									
\$194.74	\$8.11	\$13.13	\$112.91	\$46.87	\$63.88	\$0.00	\$5.00	\$4.16	\$448.80
<b>Western Hemlock / Fir</b>									
\$194.74	\$8.11	\$13.13	\$68.63	\$46.87	\$56.35	\$0.00	\$5.00	\$4.16	\$396.99
<b>Alder (Red)</b>									
\$194.74	\$8.49	\$13.13	\$76.38	\$46.87	\$57.73	\$0.00	\$5.00	\$4.16	\$406.50

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$554.09	\$105.29	\$0.00
Western Hemlock / Fir	\$0.00	\$481.75	\$84.76	\$0.00
Alder (Red)	\$0.00	\$528.28	\$121.78	\$0.00



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**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	93	\$105.29	\$9,791.97
Western Hemlock / Fir	609	\$84.76	\$51,618.84
Alder (Red)	300	\$121.78	\$36,534.00

**Gross Timber Sale Value**

Recovery: \$97,944.81

Prepared by: Bryan Huck

Phone: 503-842-2545



**PROJECT SUMMARY SHEET**

Sale: Thin McKenn

**CONSTRUCTION**

Point	E to F	2+55	stations =	\$1,964.56
Point	G to H	8+00	stations =	\$8,813.75
<b>SUBTOTAL CONSTRUCTION</b>				<b>\$10,778.31</b>

**IMPROVEMENT**

Point	E to F	46+25	stations =	\$20,021.12
Point	G to H	3+00	stations =	\$1,471.65
<b>SUBTOTAL IMPROVEMENT</b>				<b>\$21,492.77</b>

**RECONSTRUCTION**

Point	C to D	0+00	stations =	\$3,058.80
<b>SUBTOTAL RECONSTRUCTION</b>				<b>\$3,058.80</b>

**SPECIAL PROJECTS**

Brush	10.5	miles of road		\$6,300.00
<b>SUBTOTAL SPECIAL PROJECTS</b>				<b>\$6,300.00</b>

**MOVE IN**

\$4,153.65

**GRAND TOTAL** **\$45,783.53**



## SUMMARY OF CONSTRUCTION COST

Sale: **Thin McKenn**

Road: **C to D**

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	0+00	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		0.00	miles		0.00	miles

**CULVERTS - MATERIALS & INSTALLATION**

Culverts

0	LF of 18"	\$0.00		80	LF of 24"	\$2,160.00
0	LF of 30"	\$0.00		0	LF of 36"	\$0.00
0	LF of 42"	\$0.00		0	LF of 48"	\$0.00
0	LF of 54"	\$0.00		0	LF of 60"	\$0.00
0	LF of 66"	\$0.00		0	LF of 72"	\$0.00
		\$0.00				\$2,160.00

Culvert Stakes & Markers

0	stakes	\$0.00
2	markers	\$16.00
		\$16.00

**TOTAL CULVERTS      \$2,176.00**

**ROCK**

Culvert Backfill	12+00	10	cy. of	Crushed	@	\$20.52 per c.y.=	\$205.20
Culvert Backfill	29+40	10	cy. of	Crushed	@	\$5.79 per c.y.=	\$57.90
Surface Rock	12+00	10	cy. of	Crushed	@	\$7.24 per c.y.=	\$72.40
Surface Rock	29+40	10	cy. of	Crushed	@	\$7.24 per c.y.=	\$72.40
Surface Rock	137+00	10	cy. of	Crushed	@	\$7.24 per c.y.=	\$72.40

**TOTAL ROCK      \$480.30**

**SPECIAL PROJECTS**

Remove culverts from state lands	2.00	@	\$402.50	total	\$402.50
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**TOTAL SPECIAL PROJECTS      \$402.50**

**GRAND TOTAL      \$3,058.80**

## SUMMARY OF CONSTRUCTION COST

Sale: **Thin McKenn**

Road: **E to F**

Construction -	2+55 0.05	stations miles	Improvement -	46+25 0.88	stations miles	Reconstruction -	0+00 0.00	stations miles
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**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=	
46+25		48+80	0%	0.4	Outslope	\$400	=	\$1,020.00
								<b>TOTAL</b>
								<b>\$1,020.00</b>

**IMPROVEMENT:** CLEARING AND GRUBBING -

Roadside Brushing	0.00	miles	@	\$600.00	per mile =	\$0.00
Side cast	0.018	acres	@	\$660.00	per acre =	\$11.88
Widening	0.176	acres	@	\$660.00	per acre =	\$116.16
						<b>TOTAL CLEARING AND GRUBBING</b>
						<b>\$128.04</b>

**IMPROVEMENT:** EXCAVATION -

Road Earthwork	46.25	sta.	@	\$10.00	per sta. =	\$462.50
Pullback	96	cy.	@	\$1.40	per c.y. =	\$134.40
Widening	795	cy.	@	\$1.40	per c.y. =	\$1,113.00
						<b>TOTAL EXCAVATION</b>
						<b>\$1,709.90</b>

**IMPROVEMENT:** ENDDHAUL -

Pullback	25+22	to	24+70	-64	cy. @	\$0.93	per c.y. =	(\$59.52)
Pullback	38+70	to	39+80	160	cy. @	\$0.93	per c.y. =	\$148.80
Widening	28+00	to	30+75	81	cy. @	\$0.93	per c.y. =	\$75.33
Widening	24+82	to	33+50	419	cy. @	\$0.93	per c.y. =	\$389.67
Widening	33+95	to	36+45	49	cy. @	\$0.93	per c.y. =	\$45.57
Widening	38+70	to	39+80	96	cy. @	\$0.93	per c.y. =	\$89.28
Widening	40+75	to	42+50	127	cy. @	\$0.93	per c.y. =	\$118.11
Widening	43+00	to	43+80	23	cy. @	\$0.93	per c.y. =	\$21.39
Spread & compact				891	cy. @	\$0.25	per c.y. =	\$222.75
								<b>TOTAL ENDDHAUL</b>
								<b>\$1,051.38</b>

**CULVERTS - MATERIALS & INSTALLATION**

<u>Culverts</u>	0	LF of 18"	\$0.00	40	LF of 24"	\$1,080.00
			\$0.00			\$1,080.00
<u>Culvert Stakes &amp; Markers</u>						
	0	stakes	\$0.00			
	1	markers	\$8.00			
			\$8.00			
						<b>TOTAL CULVERTS</b>
						<b>\$1,088.00</b>

**ROCK**

24+00 to	46+25	1,610	cy. of	Pit-Run	@	\$5.93	per c.y. =	\$9,547.30
46+25 to	48+80	210	cy. of	Pit-Run	@	\$5.93	per c.y. =	\$1,245.30
Culvert Backfill	43+45	10	cy. of	Crushed	@	\$5.87	per c.y. =	\$58.70
Landing Rock	48+80	20	cy. of	Pit-Run	@	\$5.93	per c.y. =	\$118.60
Turnaround Rock	0+00	20	cy. of	Pit-Run	@	\$5.93	per c.y. =	\$118.60
								<b>TOTAL ROCK</b>
								<b>\$11,088.50</b>

**SPECIAL PROJECTS**

Construct turnaround @ 46+25	0.50	hours	@	\$145.00	per hour	\$72.50
Construct waste areas -	2.50	hours	@	\$130.00	per hour	\$325.00
Construct Landing	1.00	@		\$285.00	each	\$285.00
Grade and shape road -	48.80	stations	@	\$15.50	per station	\$756.40
Road Widening	24.00	stations	@	\$150.00	per station	\$3,600.00
Spread and compact waste area	500.00	cy	@	\$0.25	per cy	\$125.00
Roll subgrade w/ vibratory roller prior to rocking -	48.80	stations	@	\$13.20	per station	\$644.16
Remove culverts from state lands	1.00	@		\$50.00	total	\$50.00
Grass seed and fertilize -	0.19	acres	@	\$220.00	per acre	\$41.80
						<b>TOTAL SPECIAL PROJECTS</b>
						<b>\$5,899.86</b>

**GRAND TOTAL** **\$21,985.68**

## SUMMARY OF CONSTRUCTION COST

Sale: **Thin McKenn**

Road: **G to H**

Construction -	8+00	stations	Improvement -	3+00	stations	Reconstruction -	0+00	stations
	0.15	miles		0.06	miles		0.00	miles

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
3+00		7+00	40%	0.1	Outslope	\$400	=	\$1,600.00	
7+00		9+00	45%	0.1	Outslope	\$425	=	\$850.00	
9+00		11+00	60%	0.1	Outslope	\$1,521	=	\$3,042.00	
								<b>TOTAL</b>	<b>\$5,492.00</b>

**IMPROVEMENT:** CLEARING AND GRUBBING -

Scattering	0.200	acres @	\$980.00	per acre =	\$196.00		<b>\$196.00</b>
							<b>TOTAL CLEARING AND GRUBBING</b>

**IMPROVEMENT:** EXCAVATION -

Road Earthwork	3.00	sta. @	\$10.00	per sta. =	\$30.00		<b>\$30.00</b>
							<b>TOTAL EXCAVATION</b>

**ROCK**

3+00 to	11+00	610	cy. of	Pit-Run	@	\$4.16	per c.y.=	\$2,537.60
0+00 to	3+00	240	cy. of	Pit-Run	@	\$4.16	per c.y.=	\$998.40
Landing Rock	11+00	20	cy. of	Pit-Run	@	\$4.16	per c.y.=	\$83.20
								<b>TOTAL ROCK</b>
								<b>\$3,619.20</b>

**SPECIAL PROJECTS**

Construct Landing	1.00	@	\$285.00	per hour	\$285.00			
Construct waste areas -	1.50	hours @	\$145.00	per hour	\$217.50			
Grade and shape road -	11.00	stations @	\$15.50	per station	\$170.50			
Roll subgrade w/ vibratory roller prior to rocking -	11.00	stations @	\$13.20	per station	\$145.20			
Remove large stumps -	1.00	lump sum @	\$130.00		\$130.00			
							<b>TOTAL SPECIAL PROJECTS</b>	<b>\$948.20</b>

**GRAND TOTAL** **\$10,285.40**

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_run	Location:	Sec. 17 , T2N, R8W, W.M.
Sale:	<b>Thin McKenn</b>	Road:	2730 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	2730 c.y.
Drill Pct.:	100%	In Place Total:	1950 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$435.00

Load Dump Truck: \$0.70 /cu.yd. x 2730 cu.yds. = \$1,911.00

Subtotal \$2,346.00

Move in Roller and Compactor	1	@	\$675.05	=	\$675.05
Move in Grader	1	@	\$262.80	=	\$262.80
Move in Excavator	1	@	\$1,209.47	=	\$1,209.47
Move in Trucks	2	@	\$224.74	=	\$449.48
Change Gradation					

Subtotal \$2,596.80

**TOTAL PRODUCTION COSTS** **\$4,942.80**

Base Cost= \$1.81 Per Cu.Yd.

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
E to F 2400 4625 (Pit-Run)	3.02	1.10	1.81	5.93	1610	\$9,547.30
E to F 4625 4880 (Pit-Run)	3.02	1.10	1.81	5.93	210	\$1,245.30
E to F Landing Rock (Pit-Run)	3.02	1.10	1.81	5.93	20	\$118.60
E to F Turnaround Rock (Pit-Run)	3.02	1.10	1.81	5.93	20	\$118.60
G to H 300 1100 (Pit-Run)	1.25	1.10	1.81	4.16	610	\$2,537.60
G to H 0 300 (Pit-Run)	1.25	1.10	1.81	4.16	240	\$998.40
G to H Landing Rock (Pit-Run)	1.25	1.10	1.81	4.16	20	\$83.20
				Total C.Y.	2730	Sub Total

**TOTAL ROCKING COSTS** **\$14,649.00**

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	Sec. 8 , T2N, R8W, W.M.
Sale:	<b>Thin McKenn</b>	Road:	60 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	60 c.y.
Drill Pct.:	0%	In Place Total:	43 c.y.
Move in Loader	1	@	\$926.62 = \$926.62
Change Gradation			Subtotal \$926.62
			TOTAL PRODUCTION COSTS \$926.62
Base Cost=	\$15.44	Per Cu.Yd.	

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
C to D Culvert Backfill (Crushed)	18.82	1.00	0.70	20.52	10	\$205.20
C to D Culvert Backfill (Crushed)	4.09	1.00	0.70	5.79	10	\$57.90
C to D Surface Rock (Crushed)	4.09	2.45	0.70	7.24	10	\$72.40
C to D Surface Rock (Crushed)	4.09	2.45	0.70	7.24	10	\$72.40
C to D Surface Rock (Crushed)	4.09	2.45	0.70	7.24	10	\$72.40
E to F Culvert Backfill (Crushed)	4.87	1.00	0.70	5.87	10	\$58.70
				Total C.Y.	60	Sub Total \$539.00
						TOTAL ROCKING COSTS \$539.00

## Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Thin McKenn**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
54.0	Pavement	30
8.0	Main Lines	7
7.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Brush Cutter	\$836.05		\$4.00	0.00	0.00	0	\$0.00	\$836.05
1	Excavators (Large)	\$1,250.87	1	\$44.80	0.00	0.00	0	\$0.00	\$1,250.87
1	Tractors (D6) for W/A	\$1,004.84	2	\$7.10	0.00	0.00	0	\$0.00	\$1,004.84
1	Dump Truck (10 cy +)	\$276.00		\$2.85	0.00	0.00	0	\$0.00	\$276.00
1	Water Truck (2500 Gal)	\$264.17		\$2.85	0.00	0.00	0	\$0.00	\$264.17
<b>TOTAL MOVE-IN COSTS:</b>									<b>\$4,153.65</b>



## OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

*Thin McKenn*

1. **Type of Sale**  
Partial Cut, Recovery.
2. **Legal Description**  
Portions of section 17, T2N, R8W, W.M., Tillamook County, Oregon.
3. **Sale Acreage**  
Sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 (Partial Cut)	141	124

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**

A total of 42 plots were sampled. All plots were full cruise plots at a spacing of 350' x 350'. All conifers 6 inches DBH and greater containing 20 net board feet and all hardwoods 7 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees and measured for merchantable bole height, diameter, and form factor.

##### B. **Plot size**

A basal area factor of 33.61 was used for this sale. The point of observation is 4.5 feet.

##### C. **Grading System**

All species were graded using Columbia River Log Scaling and Grading Bureau rules favoring a 40' log.

#### 5. **Computation Procedure**

The volumes and statistics for the timber cruised were computed using SuperACE 2008, developed by Atterbury Consultants, Inc. The standard error and the coefficient of variation for the cruise based on net board feet per acre are 9.1% and 58.9% respectively.

**6. Hidden Defect and Breakage**

A 5% reduction was applied to conifers and a 10% reduction to hardwood volumes for hidden defect and breakage. This was in addition to visual defect deducted during the cruise.

**7. Timber Description**

The stand was harvested in the early 1960's and planted. Residual trees were left during this harvest leading to a component of larger trees scattered in stand.

<b>Sale Area – Species</b>	<b>DBH</b>	<b>Merchantable Bole Height</b>	<b>Merchantable Top</b>
Area 1 - Douglas-fir	14	55	5"
Area 1 - Alder	14	39	6"
Area 1 – Western Hemlock	11	44	5"

**8. Cruiser Names/Dates**

Contractor & ODF Staff; 11/2011 & 5/2013 respectively

**9. Revenue Distribution**

FDF: 100%

Tax Code: 56

Deed Numbers: 15 & 35

**10. Attachments**

Volume Summaries

Log Stock Tables

Logging Plan Map

**11. Stand and Log Stock Tables Species Key**

DL – Douglas-fir leave

DF – Douglas-fir take

AL – Red alder leave

RA – Red alder take

RC – Western red cedar reserved

SL – Sitka spruce leave

SS – Sitka spruce take

WL – Western hemlock leave

WH – Western hemlock take



TC		TLOGSTVB		Log Stock Table - MBF														
Project:										TOTALTMK								
T2N R8W S17 TTHIN												T2N R8W S17 TTHIN						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1			Date	7/22/2013					
2N	8W	17	TEST4	THIN	124.40	42	259	Time	3:08:35PM									
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
WL	CO	2	28		10		10	.9					10					
WL	CO	2	40		381	.8	378	34.4					82	140	106	50		
WL	CO	3	21		3		3	.3				3						
WL	CO	3	22		10		10	.9		1				7				
WL	CO	3	32		27	.9	27	2.5			2	12	10	3				
WL	CO	3	36		21		21	1.9			4	5	11					
WL	CO	3	38		1		1	.1			1							
WL	CO	3	40		430	.3	429	39.0			19	56	254	78	11	10		
WL	CO	4	13		3		3	.2		3								
WL	CO	4	15		7	16.2	6	.5		5								
WL	CO	4	16		9		9	.8		8								
WL	CO	4	17		1		1	.1			1							
WL	CO	4	18		3		3	.3		2	2							
WL	CO	4	20		7		7	.6		4			3					
WL	CO	4	21		8	9.6	8	.7		4	2	2						
WL	CO	4	22		13		13	1.1		4	9							
WL	CO	4	23		9		9	.8		9								
WL	CO	4	24		14		14	1.2		14								
WL	CO	4	25		7		7	.6		7								
WL	CO	4	26		12		12	1.1		4		8						
WL	CO	4	27		5		5	.5		5	1							
WL	CO	4	28		12		12	1.1		12								
WL	CO	4	30		5		5	.4		5								
WL	CO	4	31		1		1	.1		1								
WL	CO	4	32		13		13	1.2		4		9						
WL	CO	4	33		7		7	.7		7								
WL	CO	4	34		4		4	.3		4								
WL	CO	4	35		3		3	.3		3								
WL	CO	4	36		20		20	1.8		2	9	9						
WL	CO	4	37		14		14	1.3		14								
WL	CO	4	38		3		3	.3		2		2						
WL	CO	4	39		2		2	.2		2								
WL	CO	4	40		41		41	3.7		10	10	22						
WL	Totals				1,107		1,101	40.8		133	60	129	278	174	161	116	50	
WH	CO	2	40		11	9.8	10	1.7					10					
WH	CO	3	32		81	5.0	77	12.6			9	68						
WH	CO	3	36		20	5.0	19	3.2			10	9						
WH	CO	3	40		292	5.8	275	45.3			32	112	111	21				
WH	CO	4	12		2	5.0	2	.3		2								
WH	CO	4	14		1	5.0	1	.1		1								
WH	CO	4	15		10	5.0	10	1.6		10								
WH	CO	4	16		23	5.0	22	3.7		22								
WH	CO	4	17		12	5.0	11	1.8		11								
WH	CO	4	18		2	5.0	2	.3		2								
WH	CO	4	19		11	5.0	10	1.6		10								
WH	CO	4	21		5	5.0	5	.8		5								
WH	CO	4	22		14	5.0	13	2.2		6		7						
WH	CO	4	24		14	5.0	14	2.3		10		4						
WH	CO	4	25		8	5.0	7	1.2		7								
WH	CO	4	26		15	5.0	14	2.3		14								



TC		TLOGSTVB		Log Stock Table - MBF															
Project:										TOTALTMK									
T2N R8W S17 TTHIN										T2N R8W S17 TTHIN									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	3										
2N	8W	17	TEST4	THIN	124.40	42	259	Date	7/22/2013										
								Time	3:08:35PM										
Spp	T	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches										
									MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23
AL	H	4	15		1		1	.5				1							
AL	H	4	17		5		5	3.2				5							
AL	H	4	18		4		4	2.6				4							
AL	H	4	19		4		4	2.4				4							
AL	H	4	29		6		6	4.0				6							
AL	H	4	32		7		7	4.4					7						
AL	H	4	38		27	4.0	26	17.1				26							
AL	H	4	39		4		4	2.5				4							
AL	H	4	40		57	3.8	55	36.2				22	33						
AL	Totals				156	2.3	152	5.6				74	33	37		8			
DL	CO	2	32		24		24	10.8						8	6	10			
DL	CO	2	34		9		9	3.9							9				
DL	CO	2	40		84	5.7	79	34.8						13	55	12			
DL	CO	3	32		17		17	7.5				8		9					
DL	CO	3	36		3		3	1.5				3							
DL	CO	3	37		2		2	.7			2								
DL	CO	3	38		6		6	2.5				6							
DL	CO	3	40		60	1.5	59	26.1				15	34	10					
DL	CO	4	12		1		1	.3			1								
DL	CO	4	14		0		0	.1			0								
DL	CO	4	15		1		1	.3			1								
DL	CO	4	16		2		2	.8			2								
DL	CO	4	19		2		2	.7			2								
DL	CO	4	21		1		1	.6			1								
DL	CO	4	23		1		1	.6			1								
DL	CO	4	24		1		1	.4			1								
DL	CO	4	27		2		2	.8			2								
DL	CO	4	31		2		2	.7			2								
DL	CO	4	34		2		2	.9			2								
DL	CO	4	35		4		4	1.7			4								
DL	CO	4	36		2		2	1.0			2								
DL	CO	4	40		7		7	3.3			7								
DL	Totals				232	2.4	227	8.4			27	2	32	43	31	69	22		
NL	CO	2	20		4		4	2.3						4					
NL	CO	2	30		4		4	1.9						4					
NL	CO	2	36		16		16	8.4							16				
NL	CO	2	40		117	2.6	114	59.8						6	33	39	30	7	
NL	CO	3	27		1		1	.7			1								
NL	CO	3	40		42		42	22.0			9	11	22						
NL	CO	4	12		0		0	.2			0								
NL	CO	4	13		0		0	.2			0								
NL	CO	4	18		1		1	.7			1								
NL	CO	4	20		5	24.1	4	2.1			1			3					
NL	CO	4	22		1	20.0	1	.5				1							
NL	CO	4	24		1		1	.3			1								
NL	CO	4	28		1		1	.5			1								
NL	CO	4	39		1		1	.5			1								
NL	Totals				196	2.4	191	7.1			4	10	13	22	14	36	55	30	7
DF	CO	3	21		7	5.0	6	6.7					6						

**T2N R8W S17 TTHIN** **T2N R8W S17 TTHIN**  
**Twp Rge Sec Tract Type Acres Plots Sample Trees** **Page 4**  
**2N 8W 17 TEST4 THIN 124.40 42 259** **Date 7/22/2013**  
**Time 3:08:35PM**

Spp	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches										
										MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23
DF		CO	3		22	2	5.0	2	1.9		2									
DF		CO	3		32	15	5.0	14	15.5			7	7							
DF		CO	3		40	52	5.0	49	53.1					40	10					
DF		CO	4		15	2	5.0	2	2.2		2									
DF		CO	4		19	3	5.0	2	2.6		2									
DF		CO	4		20	4	5.0	3	3.7		3									
DF		CO	4		36	4	5.0	4	4.2		4									
DF		CO	4		40	10	5.0	9	10.0		5	4								
DF		Totals				98	5.0	93	3.4		19	11	7	46	10					
RC		CO	3		40	10		10	39.5			4				5				
RC		CO	4		13	3		3	11.8		3									
RC		CO	4		20	5		5	21.5		3	2								
RC		CO	4		22	3		3	12.5		3									
RC		CO	4		24	3		3	13.4		3									
RC		CO	4		27	0		0	1.2			0								
RC		Totals				24		24	.9		12	7				5				
Total All Species						2,820	4.4	2,696	100.0		392	402	484	579	279	274	198	80	7	

T2N R8W S17 TTHIN T2N R8W S17 TTHIN  
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt  
 2N 8W 17 TEST4 THIN 124.40 42 259 S W

S Sp	So T	Gr rt	%	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 Ft	Dia In	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
WL	CO	2	35	.8	3,148	3,124	389			68	32		3		97	40	15	342	2.14	9.1	
WL	CO	3	44	.3	3,963	3,950	491	0	78	20	2		3	6	92	38	10	142	1.08	27.9	
WL	CO	4	21	.9	1,788	1,772	220	60	39	1		13	38	13	37	27	6	35	0.41	51.2	
<b>WL</b>	<b>Totals</b>		41	.6	8,899	8,847	1,101	12	42	33	12	3	10	5	83	32	8	100	0.89	88.2	
WH	CO	2	1	9.8	91	82	10								100	40	12	181	1.17	.5	
WH	CO	3	61	5.6	3,161	2,985	371		94	6					21	79	38	8	95	0.67	31.3
WH	CO	4	38	6.6	1,954	1,825	227	87	13			25	35	19	20	25	5	26	0.29	68.9	
<b>WH</b>	<b>Totals</b>		23	6.0	5,206	4,892	609	32	62	5		9	13	20	58	29	6	49	0.45	100.7	
RA	H	D														12	15		0.00	.4	
RA	H	3	15	24.6	481	363	45		67	33		33		13	53	31	11	98	1.26	3.7	
RA	H	4	85	15.0	2,406	2,046	255		98	2		12	33	15	39	28	7	41	0.52	49.8	
<b>RA</b>	<b>Totals</b>		11	16.6	2,887	2,408	300		93	7		15	28	15	41	28	7	45	0.57	53.9	
AL	H	2	4	4.8	64	61	8								100	24	15	200	1.93	.3	
AL	H	3	20		243	243	30		100						55	45	35	11	144	1.21	1.7
AL	H	4	76	2.7	944	918	114		100			15	5	6	74	30	7	52	0.59	17.7	
<b>AL</b>	<b>Totals</b>		6	2.3	1,251	1,222	152		95	5		11	9	15	65	30	7	62	0.67	19.7	
DL	CO	2	49	4.1	939	901	112								30	70	37	14	285	1.88	3.2
DL	CO	3	38	1.1	707	699	87		88	12					19	81	38	9	122	0.93	5.7
DL	CO	4	13		223	223	28	97	3			18	20	26	35	27	5	29	0.43	7.8	
<b>DL</b>	<b>Totals</b>		8	2.4	1,869	1,823	227	12	34	54		2	2	25	70	33	8	109	0.94	16.7	
NL	CO	2	72	2.2	1,138	1,113	138			45	55	3	3		94	36	16	392	2.35	2.8	
NL	CO	3	23		348	348	43		100						3	97	39	8	105	0.76	3.3
NL	CO	4	5	13.7	88	76	9	47	18	35		63	26		11	21	6	33	0.64	2.3	
<b>NL</b>	<b>Totals</b>		7	2.4	1,574	1,537	191	2	24	34	40	5	4		91	33	10	183	1.33	8.4	
DF	CO	3	77	5.0	607	576	72	2	84	13			11	20	69	33	9	98	0.78	5.9	
DF	CO	4	23	5.0	179	170	21	81	19			38			62	27	5	29	0.33	5.9	
<b>DF</b>	<b>Totals</b>		3	5.0	785	746	93	20	69	10		9	9	16	67	30	7	63	0.58	11.7	
RC	CO	3	39		76	76	10		45	55					100	40	7	117	1.78	.7	
RC	CO	4	61		117	117	15	83	17			55	45			19	5	18	0.47	6.5	
<b>RC</b>	<b>Totals</b>		1		194	194	24	50	28	22		33	27		39	20	5	27	0.70	7.2	
<b>Type Totals</b>				4.4	22,665	21,669	2,696	15	54	23	8	7	12	12	70	30	7	71	0.68	306.6	

TC		TSTNDSUM		Stand Table Summary												
Project										TOTALTMK						
T2N R8W S17 TTHIN										T2N R8W S17 TTHIN						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
2N	8W	17	TEST4	THIN	124.40	42	259	Date:	07/16/2011							
								Time:	1:36:14PM							
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
WL		9	4	86	55	8.836	3.79	10.65	6.4	29.7	2.19	68	316	273	85	39
WL		11	2	85	86	2.425	1.60	4.85	10.0	40.0	1.55	48	194	192	60	24
WL		12	1	90	70	1.019	.80	2.04	9.9	45.0	.65	20	92	80	25	11
WL		13	3	87	79	2.605	2.40	5.21	13.4	50.0	2.23	70	260	278	87	32
WL		14	5	84	68	4.164	4.45	6.41	17.5	58.8	3.60	112	377	447	140	47
WL		15	5	85	94	3.362	4.13	6.72	20.7	79.9	4.56	139	538	568	173	67
WL		16	5	88	96	3.014	4.15	6.03	23.7	98.3	4.57	143	593	569	178	74
WL		17	5	82	83	2.865	4.52	4.90	30.0	95.9	4.69	147	470	584	182	58
WL		18	12	84	86	5.736	10.08	11.02	29.6	98.4	10.44	326	1,084	1,299	406	135
WL		19	10	83	88	4.262	8.39	8.52	32.7	109.8	8.91	279	936	1,109	347	116
WL		20	6	86	86	2.267	4.95	4.17	38.1	121.6	5.09	159	507	633	198	63
WL		21	4	88	92	1.402	3.33	3.14	36.2	143.3	3.63	114	449	452	141	56
WL		22	6	84	90	1.819	4.80	3.94	42.5	140.8	5.36	168	555	667	209	69
WL		23	6	83	97	1.753	5.06	3.78	48.6	168.5	5.88	184	637	731	229	79
WL		24	2	88	92	.509	1.60	1.27	46.8	192.0	1.91	60	245	237	74	30
WL		25	1	86	86	.235	.80	.47	61.1	220.0	.92	29	103	114	36	13
WL		26	3	83	89	.651	2.40	1.30	58.6	206.7	2.44	76	269	304	95	33
WL		27	1	78	104	.201	.80	.40	64.6	225.0	.83	26	91	104	32	11
WL		28	2	81	108	.374	1.60	.94	68.2	258.0	2.04	64	241	254	79	30
WL		29	2	84	96	.349	1.60	.70	88.5	320.0	1.98	62	223	246	77	28
WL		30	1	82	82	.163	.80	.33	85.3	280.0	.89	28	91	111	35	11
WL		31	2	83	99	.305	1.60	.61	102.7	392.5	2.01	63	240	250	78	30
WL		33	2	78	113	.269	1.60	.67	96.7	362.0	2.08	65	244	259	81	30
WL		41	1	71	113	.087	.80	.17	177.5	530.0	.99	31	93	123	39	12
WL		Totals	91	85	81	48.675	76.04	88.24	28.1	100.3	79.45	2,480	8,847	9,884	3,085	1,101
WH		7	1	82	21	2.994	.80	2.99	2.5	20.0	.24	7	60	30	9	7
WH		8	4	83	36	9.906	3.46	7.61	5.0	24.0	1.23	38	183	153	48	23
WH		9	7	86	60	12.680	5.60	14.49	7.0	30.0	3.40	102	435	423	126	54
WH		10	8	85	69	11.738	6.40	16.14	9.1	36.4	4.67	146	587	581	182	73
WH		11	3	83	66	3.638	2.40	6.06	9.1	38.0	1.77	55	230	220	69	29
WH		12	3	86	80	3.296	2.59	5.57	13.6	50.9	2.43	76	283	302	94	35
WH		13	14	87	79	12.797	11.80	22.99	14.9	58.3	10.93	341	1,340	1,359	425	167
WH		14	5	87	76	3.743	4.00	7.49	15.2	59.0	3.64	114	442	453	141	55
WH		15	5	87	85	3.362	4.13	6.07	22.1	84.6	4.30	134	514	535	167	64
WH		16	3	87	86	1.868	2.55	3.74	24.7	93.9	2.95	92	351	366	115	44
WH		17	2	83	104	1.015	1.60	2.54	24.6	86.0	2.00	62	218	249	78	27
WH		18	5	86	93	2.264	4.00	4.98	28.6	101.8	4.56	142	507	568	177	63
WH		Totals	60	85	66	69.301	49.32	100.68	13.0	51.1	42.12	1,312	5,150	5,240	1,632	641
RA		9	1	80	17	1.811	.80	1.81	4.8	20.0	.24	9	36	30	11	5
RA		10	6	82	67	8.803	4.80	8.80	12.4	45.0	3.02	110	396	376	136	49
RA		11	5	79	41	6.063	4.00	6.06	10.5	26.0	1.75	64	158	217	79	20
RA		12	2	82	82	2.038	1.60	3.06	14.3	43.3	1.21	44	132	150	55	16
RA		13	4	82	73	3.835	3.53	6.44	14.1	51.1	2.49	91	329	310	113	41
RA		14	4	84	47	2.994	3.20	3.74	15.1	52.0	1.56	57	195	194	70	24
RA		15	3	75	77	2.251	2.76	2.90	22.4	79.6	1.78	65	231	222	81	29
RA		16	6	66	85	6.814	9.51	10.47	18.5	47.2	5.33	194	494	663	241	61
RA		17	3	65	82	3.398	5.36	4.92	18.8	66.5	2.55	92	327	317	115	41
RA		18	2	80	63	1.160	2.05	1.16	43.8	82.2	1.40	51	95	175	63	12
RA		19	3	52	82	3.117	6.14	3.52	17.0	63.8	1.65	60	225	205	74	28
RA		22	1	75	70	.303	.80	.61	41.2	95.0	.69	25	58	86	31	7

TC		TSTNDSUM		Stand Table Summary											
Project										TOTALTMK					
T2N R8W S17 TTHIN										T2N R8W S17 TTHIN					
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees		Page:	2				
2N	8W	17	TEST4		THIN	124.40	42	259		Date:	07/16/2011				
										Time:	1:36:14PM				
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits
RA	Totals	40	75	66	42.589	44.56	53.50	16.1	50.0	23.67	860	2,676	2,944	1,069	333
DL	14	2	86	59	1.497	1.60	2.25	15.9	50.0	.98	36	112	122	44	14
DL	16	2	79	78	1.146	1.60	2.29	19.4	60.0	1.23	45	138	153	55	17
DL	17	2	86	77	1.015	1.60	2.03	21.5	67.5	1.20	44	137	149	54	17
DL	19	4	83	97	1.626	3.20	3.25	30.3	105.0	2.71	98	341	337	123	42
DL	20	1	88	108	.463	1.01	.93	38.5	130.0	.98	36	120	122	44	15
DL	22	1	89	126	.374	.99	1.12	37.3	153.3	1.15	42	172	143	52	21
DL	23	3	87	111	.978	2.82	2.23	46.0	170.1	2.83	103	380	351	128	47
DL	24	1	81	129	.255	.80	.76	39.3	163.3	.83	30	125	103	37	16
DL	25	2	80	125	.470	1.60	1.41	44.9	166.7	1.74	63	235	217	79	29
DL	26	1	74	94	.217	.80	.43	41.4	145.0	.49	18	63	61	22	8
DL	Totals	19	84	91	8.041	16.02	16.71	30.7	109.1	14.13	514	1,823	1,758	639	227
NL	14	1	90	116	.904	.97	1.81	22.1	105.0	.96	40	190	119	50	24
NL	17	1	86	75	.508	.80	1.02	21.0	70.0	.51	21	71	64	27	9
NL	22	1	85	123	.303	.80	.91	35.2	130.0	.77	32	118	96	40	15
NL	23	2	84	87	.636	1.83	1.27	42.5	164.5	1.30	54	209	161	67	26
NL	24	1	83	109	.255	.80	.51	58.6	215.0	.72	30	110	89	37	14
NL	25	1	88	80	.235	.80	.47	53.2	195.0	.60	25	92	75	31	11
NL	27	2	89	100	.403	1.60	1.01	60.4	254.0	1.46	61	256	182	76	32
NL	28	1	92	122	.187	.80	.56	63.8	323.3	.86	36	182	107	45	23
NL	30	1	83	114	.163	.80	.49	64.0	270.0	.75	31	132	93	39	16
NL	32	1	94	97	.143	.80	.29	86.4	415.0	.59	25	119	74	31	15
NL	42	1	97	103	.083	.80	.08	204.0	710.0	.41	17	59	51	21	7
NL	Totals	13	87	101	3.819	10.80	8.41	44.2	182.7	8.92	372	1,537	1,110	462	191
AL	10	1	77	35	1.467	.80	1.47	7.0	20.0	.28	10	29	35	13	4
AL	11	1	78	58	1.213	.80	1.21	12.4	40.0	.41	15	49	52	19	6
AL	12	1	75	26	1.019	.80	1.02	8.9	30.0	.25	9	31	31	11	4
AL	13	4	81	72	4.297	3.87	4.30	22.5	69.8	2.78	97	300	346	121	37
AL	14	2	79	70	1.948	2.08	2.70	22.8	58.9	1.69	61	159	210	76	20
AL	16	1	54	96	1.895	2.65	1.89	14.1	60.0	.73	27	114	91	33	14
AL	17	3	80	69	1.879	2.88	3.25	24.6	66.2	2.21	80	215	274	99	27
AL	18	3	79	71	1.631	2.88	3.26	25.3	79.4	2.27	83	259	283	103	32
AL	19	1	88	17	.406	.80									
AL	22	1	83	50	.303	.80	.61	27.9	110.0	.47	17	67	58	21	8
AL	Totals	18	76	65	16.058	18.37	19.71	20.3	62.0	11.11	399	1,222	1,382	497	152
DF	10	1	84	27	1.467	.80	1.47	5.8	20.0	.24	8	29	30	11	4
DF	12	1	83	79	1.019	.80	2.04	10.3	40.0	.60	21	82	75	26	10
DF	13	1	84	68	.868	.80	1.74	10.9	45.0	.54	19	78	67	24	10
DF	14	1	84	59	.749	.80	1.50	11.5	45.0	.49	17	67	61	21	8
DF	15	1	88	111	.823	1.01	1.65	22.3	95.0	1.05	37	156	130	46	19
DF	16	1	86	111	.573	.80	1.15	25.1	105.0	.82	29	120	102	36	15
DF	17	1	84	105	.703	1.11	1.41	30.3	110.0	1.21	43	155	151	53	19
DF	19	1	84	101	.406	.80	.81	36.8	120.0	.85	30	98	106	37	12
DF	Totals	8	85	75	6.608	6.92	11.75	17.3	66.8	5.80	204	785	722	253	98
RC	8	1	61	17	2.293	.80	2.29	3.2	10.0	.17	7	23	21	9	3
RC	11	2	69	34	2.425	1.60	2.43	9.0	20.0	.51	22	49	64	27	6
RC	13	2	61	38	1.736	1.60	1.74	14.5	25.0	.59	25	43	74	31	5
RC	16	1	72	57	.573	.80	.57	35.5	60.0	.48	20	34	59	25	4

TC		TSTNDSUM		Stand Table Summary													
Project										TOTALTMK							
T2N R8W S17 TTHIN										T2N R8W S17 TTHIN							
Twp	Rge	Sec	Tract		Type			Acres	Plots	Sample Trees			Page:	3			
2N	8W	17	TEST4		THIN			124.40	42	259			Date:	07/16/2011			
													Time:	1:36:14PM			
Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals				
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF	
RC		43	1	60	78	.079	.80	.16	178.4	280.0	.67	28	44	83	35	6	
RC		Totals		7	65	32	7.106	5.60	7.19	14.3	27.0	2.42	103	194	301	128	24
OC		10	1	73	22	1.467	.80										
OC		23	1	88	80	.277	.80										
OC		26	1	87	90	.217	.80										
OC		Totals		3	77	38	1.962	2.40									
Totals			259	82	70	204.158	230.03	306.17	20.4	72.6	187.62	6242	22,234	23,339	7,765	2,766	



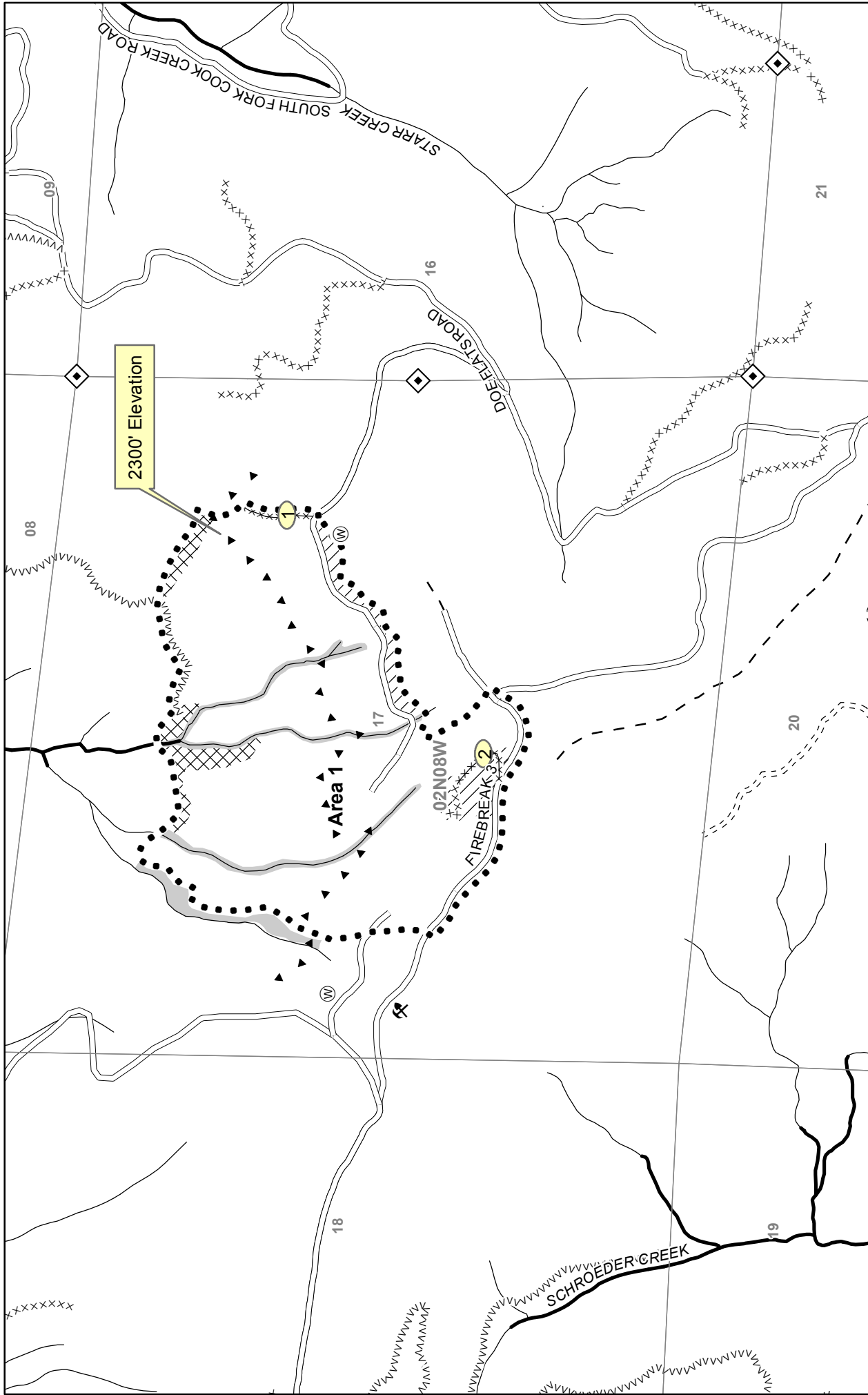


"STEWARDSHIP IN FORESTRY"

**Thin Mckenn**

**Volume Summary**

<b>Area 1-Modified Clear Cut</b>				
124.4 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	0.8	98	5%	93
Hemlock	5.2	641	5%	609
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	2.7	333	10%	300
<b>TOTAL</b>	<b>8.6</b>	<b>1072</b>		<b>1002</b>



<ul style="list-style-type: none"> <li>Rock source</li> <li>Stock pile</li> <li>Waste area</li> <li>Bridge</li> <li>Gate</li> <li>Survey corner</li> <li>Domestic water supply intake</li> <li>Truck turn-around</li> <li>Helicopter landing zone</li> <li>Cultural site</li> </ul>	<ul style="list-style-type: none"> <li>Landing</li> <li>Buffer</li> <li>Non-required thinning</li> <li>Cable yarding</li> <li>Ground yarding</li> <li>Helicopter yarding</li> <li>Downhill yarding</li> <li>Green tree retention area</li> </ul>	<ul style="list-style-type: none"> <li>Restricted area</li> <li>Area boundary</li> <li>Sale boundary</li> <li>Ownership boundary</li> <li>Perennial Type-F stream</li> <li>Perennial Type-N stream</li> <li>Unsurfaced road</li> <li>Surfaced road</li> <li>Paved road</li> <li>Abandoned road</li> </ul>	<ul style="list-style-type: none"> <li>--A-- Swing road</li> <li>Ⓞ Non-project road</li> <li>XXXXX Blocked road</li> <li>////// OHV trail</li> <li>..... Non-motorized trail</li> <li>Ⓞ-Ⓞ Transmission line</li> <li>+++++ Railroad</li> <li>▲ 2300' Elevation</li> </ul>
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**LOGGING PLAN**

Timber Sale Contract No. 341-14-067  
 THIN MCKENN  
 Portions of Section 17  
 T2N, R8W, W.M.,  
 Tillamook County, Oregon

1,000 0 1,000 Feet

N

Type of	Area	Operation	Gross Net
1	1	Partial Cut	141 124

Tillamook District GIS  
 7/24/2013  
 This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.