



"STAND FOR THE FOREST"

Timber Sale Appraisal Tilden Top

Sale WL-341-2015-104-

District: Western Lane

Date: April 29, 2015

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$236,406.58	\$77,575.02	\$313,981.60
		Project Work:	(\$72,547.00)
		Advertised Value:	\$241,434.60



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Timber Description

Location: Portions of Sections 24 and 25, T17S, R9W, W.M., Lane County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	97
Western Hemlock / Fir	15	0	97
Alder (Red)	12	0	96
Maple	14	0	96

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	394	424	152	0	970
Western Hemlock / Fir	262	160	86	0	508
Alder (Red)	0	0	0	321	321
Maple	0	0	0	37	37
Total	656	584	238	358	1,836

Comments: Pond Values Used: 1st Quarter Calendar Year 2015.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
\$813.71/MBF = \$1,185/MBF - \$371.29/MBF

SCALING COST ALLOWANCE = \$5.00/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):
None.

Other Costs (No Profit & Risk added):
Final Road Maintenance = \$11,311
Firewood Sorting & Landing Slash Piling = \$2,000
TOTAL Other Costs (No Profit & Risk added) = \$13,311



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Logging Conditions

Combination#: 1

Douglas - Fir	85.00%
Western Hemlock / Fir	85.00%
Alder (Red)	85.00%
Maple	85.00%

Logging System: Cable: Large Tower >=70 **Process:** Manual Delimbing
yarding distance: Long (1,500 ft) **downhill yarding:** No
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 6 **bd. ft / load:** 4100
cost / mbf: \$256.10
machines: Log Loader (A)
Tower Yarder (Large)

Combination#: 2

Douglas - Fir	15.00%
Western Hemlock / Fir	15.00%
Alder (Red)	15.00%
Maple	15.00%

Logging System: Shovel **Process:** Manual Delimbing
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 8 **bd. ft / load:** 4200
cost / mbf: \$99.03
machines: Shovel Logger



STATE OF OREGON
DEPARTMENT OF FORESTRY

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Logging Costs

Operating Seasons: 2.00	Profit Risk: 16%
Project Costs: \$72,547.00	Other Costs (P/R): \$0.00
Slash Disposal: \$0.00	Other Costs: \$13,311.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	5.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	3.8
Alder (Red)	\$0.00	3.0	3.5
Maple	\$0.00	3.0	3.5

Local Pond Values

Date	Specie	Grade	Value
04/29/2015	Maple	Camprun	\$600.00



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$232.54	\$5.25	\$4.78	\$66.95	\$0.00	\$49.52	\$0.00	\$5.00	\$7.25	\$371.29
Western Hemlock / Fir									
\$232.54	\$5.25	\$4.78	\$70.47	\$0.00	\$50.09	\$0.00	\$5.00	\$7.25	\$375.38
Alder (Red)									
\$232.54	\$5.30	\$4.78	\$77.26	\$0.00	\$51.18	\$0.00	\$5.00	\$7.25	\$383.31
Maple									
\$232.54	\$5.30	\$4.78	\$77.26	\$0.00	\$51.18	\$0.00	\$5.00	\$7.25	\$383.31

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$564.36	\$193.07	\$0.00
Western Hemlock / Fir	\$0.00	\$472.09	\$96.71	\$0.00
Alder (Red)	\$0.00	\$600.00	\$216.69	\$0.00
Maple	\$0.00	\$600.00	\$216.69	\$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
Maple	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	970	\$193.07	\$187,277.90
Western Hemlock / Fir	508	\$96.71	\$49,128.68
Alder (Red)	321	\$216.69	\$69,557.49
Maple	37	\$216.69	\$8,017.53

Gross Timber Sale Value

Recovery: \$313,981.60

Prepared By: Jason Hayzlett

Phone: 541-935-2283

Summary of "Other Costs" for Timber Sale Appraisals

"Other Costs" with Profit and Risk to be Added:

None

Total "Other Costs" with Profit and Risk to be Added:

\$0

"Other Costs" With No Additional Profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
Final Road Maintenance	Operation		\$	11,311
Firewood sorting and landing slash piling	Operation		\$	2,000
Total "Other Costs" With No Additional Profit and Risk:				<u>\$ 13,311</u>
Cost per MBF	1,836	MBF	\$	7.25

**Tilden Top
341-15-104
Combined Project Costs**

Project 1	Tilden Ridge Road improvement and rocking	\$51,577
Project 2	New construction of Spur 1 and rocking	\$20,970
TOTAL PROJECT COSTS		\$72,547

State Timber Sale Contract
 341-15-104
 Tilden Top

Final Road Maintenance Cost Summary

Totals	Tilden Ridge Rd	Spur 1	TOTAL
Stations	322.00	21.00	
Cost/Sta	\$ 31.26	\$ 35.59	
Total Cost	\$ 10,064	\$ 747	\$ 10,811

Spot Rocking	Tilden Ridge Rd	Spur 1	TOTAL
Total Yds	120	10	
Rock Size	*Variable	*Variable	
\$/yd	\$31.21	\$31.21	
Subtotal	\$ 3,746	\$ 312	\$ 4,058

Grade,Shape & Pull Ditches	Tilden Ridge Rd	Spur 1	TOTAL
Stations	322.00	21.00	
\$/STA	\$ 18.35	\$ 18.35	
Subtotal	\$ 5,909	\$ 385	\$ 6,294

Install Waterbars	Tilden Ridge Rd	Spur 1	TOTAL
# of waterbars	6.00		
\$/waterbar	\$35.00	\$35.00	
Subtotal	\$ 210.00	\$ -	\$ 210.00

Landing clean up	Tilden Ridge Rd	Spur 1	TOTAL
Stations	4.00	1.00	
\$/STA	\$ 50.00	\$ 50.00	
Subtotal	\$ 200	\$ 50	\$ 250

Move In	Initial	Between Proj.
Grader	\$ 500	
Vibratory Rolloer		
D * Cat		
Excavator		
Dump Truck		

Move in costs associated with one entry for the entire project

Total Final Maintenance Costs Plus Move In \$ 11,311

Rocking and Compaction

Rock Source: 3/4"-0" rock shall be purchased from a commercial source. 3"-0", 1 2/2"-0", and Pit Run rock may be acquired from a STATE source.

Rock Quantity (Inplace)

Base Rock	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	TOTAL
Rock Size	3"-0"	3"-0"	3"-0"	3"-0"	
Stations	86.00	16.20	4.80	4.50	112.00
Approx yds/sta	33	44	33	17	
Subtotal base (cu. yds)	2838	713	158	77	3786

Cap Rock	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	TOTAL
Rock Size	0	0	*3/4"-0"	0	
Stations			4.8		5.00
Approx yds/sta			17		
Subtotal cap (cu. yds)	0	0	82	0	82

Landings	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	TOTAL
Rock Size	Pit Run	Pit Run	0	0	
Stations	4.00	2.00			6.00
Approx yds/sta	30	30			
Subtotal base (cu. yds)	120	60	0	0	180

Additional Rock	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	TOTAL
Rock Size	Pit Run	3"-0"	0	3"-0"	
Turnouts, Turn-Arounds, Widening	3	1		17	
Approx cu. yds	20	33		10	
Subtotal Additional Rock (cu. yds)	60	33	0	170	263

Rock Size	3"-0"	0	3"-0"	*3/4"-0"	
Number of Points	9	0	1	10	
Curve Widening/Spot Rocking (Yds)	220		10	10	
Subtotal Additional Rock (cu. yds)	220	0	10	100	330

Rock Size	0	0	*3/4"-0"	1 1/2"-0"	
Number of Points			1	4	
Curve Widening/Spot Rocking (Yds)			10	10	
Subtotal Spot/Widening Rock	0	0	10	40	50
Subtotal Additional Rock (cu. yds)	280	33	20	310	643

ROCK COST (Rock + Delivery)

Road Segment/Name	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	TOTAL
Rock Size	3"-0"	3"-0"	3"-0"	3"-0"	
Approx cu. yds	2838	713	158	77	3786
Cost/yard (includes load/spread)	\$6.88	\$6.88	\$6.88	\$6.88	
Subtotal Cost "Base" Rock	\$ 19,525	\$ 4,904	\$ 1,090	\$ 526	\$ 26,045

Rock Size	0	0	*3/4"-0"	0	
Approx cu. yds	0	0	82	0	82
Cost/yard (includes load/spread)	\$6.88	\$6.88	\$31.21	\$6.88	
Subtotal Cost "Cap" Rock	\$ -	\$ -	\$ 2,547	\$ -	\$ 2,547

ADDITIONAL ROCK

Rock Size	Pit Run	3"-0"	0	3"-0"	
Approx cu. yds Turnouts/Arounds	60	33	0	170	263
Cost/yard (includes load/spread)	\$2.70	\$6.88	\$0.00	\$6.88	
Subtotal	\$162.00	\$227.04	\$0.00	\$1,169.60	

Rock Size	3"-0"	0	3"-0"	*3/4"-0"	
Approx cu. Yds Spot/Widening	220	0	10	100	330
Cost/yard (includes load/spread)	\$6.88	\$0.00	\$6.88	\$31.21	
Subtotal	\$1,513.60	\$0.00	\$68.80	\$3,121.35	

Rock Size	0		*3/4"-0"	1 1/2"-0"	
Approx cu. Yds Spot/Widening	0		10	40	50
Cost/yard (includes load/spread)	\$0.00	\$0.00	\$31.21	\$6.88	
Subtotal	\$0.00	\$0.00	\$312.14	\$275.20	

Rock Size	0	0			
Approx cu. Yds Engery Disipator	0	0			0
Cost/yard (includes load/spread)	\$0.00	\$10.70			
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	
Subtotal Cost "Additional" Rock	\$ 1,676	\$ 227	\$ 381	\$ 4,566	\$ 6,850

LANDING ROCK

Rock Size	Pit Run	Pit Run	\$	\$	
Approx cu. yds	120	60	\$ -	\$ -	180
Cost/yard (includes load/spread)	\$2.70	\$2.70	\$2.70	\$2.70	
Subtotal Cost "Landing" Rock	\$ 324	\$ 162	\$ -	\$ -	\$ 486

Grand total quarry approx yds	3018	805.8	240	246.5	4310
Total Quarry Rock Cost	\$ 21,525	\$ 5,293	\$ 4,018	\$ 5,092	\$ 35,928

Compaction and Processing	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	TOTAL
Road Stations	90.00	18.20	9.60	4.50	122.00
Lifts	1	1	1	1	
Cost/Station	\$24.28	\$24.28	\$48.56	\$24.28	
Subtotal Compaction	\$ 2,185	\$ 442	\$ 466	\$ 109	\$ 3,202

\$/yd ³ rock in place & compacted	Tilden Ridge Rd Improvement	Spur 1 Grade < 15%	Spur 1 Grade > 15%	Tilden Ridge Rd	Total
Total Rock Costs	\$23,710	\$5,735	\$4,484	\$5,202	\$ 39,131

Move-in included in subgrade construction
Due to rounding, the numbers in the table above may not add up to the totals shown.

State Timber Sale Contract
Tilden Top
341-15-104

Subgrade Construction/Culverts
Processing and Decking Right-of-Way Logs Not Included

Totals	Tilden Ridge Rd Improvement	Spur 1	Tilden Ridge Rd	TOTAL
Stations	86	21	288	395
Cost/Sta	\$144	\$512	\$ 36	
Cost	\$ 12,381	\$ 10,751	\$ 10,284	\$ 33,416.00

Earthwork

Clearing and Grubbing	Tilden Ridge Rd Improvement	Spur 1	Tilden Ridge Rd	TOTAL
Acreage	0.26	1.93		
Cost/Acre	\$1,337.00	\$1,337.00	\$1,337.00	
Total	\$ 348	\$ 2,580	\$ -	\$ 2,928

Excavation yards are bank run from State's design

Construction/Excavation	Tilden Ridge Rd Improvement	Spur 1	Tilden Ridge Rd	TOTAL
Stations		21		
Drift/Excavation Cu Yd	490	700	30	
\$/sta	\$122.00	\$190.00	\$122.00	
Drift/Excavation \$/yd	\$1.95	\$1.80	\$10.00	
Landing Construction	\$389.00	\$778.00		
Subtotal	\$ 1,345	\$ 6,028	\$ 300	\$ 7,672

End-haul Costs are in addition to excavation costs above. Assumes 5% loss of endhaul material.

Cu Yd (side cast pull back)	300			
\$/yd	\$1.95			
Cu Yd (grading and shaping)	450		300	
\$/sta	\$4.50		\$4.00	
Cu Yd	700			
\$/sta	\$2.00			
Subtotal	\$ 4,010	\$ -	\$ 1,200	\$ 5,210

Subgrade Treatment

Compaction w/ Roller	Tilden Ridge Rd Improvement	Spur 1	Tilden Ridge Rd	TOTAL
Road Stations	86	21	0	107
Cost/STA	\$ 20.20	\$ 20.20	\$ 20.20	
Subtotal	\$ 1,737	\$ 424	\$ -	\$ 2,161

Grade and Shape	Tilden Ridge Rd Improvement	Spur 1	Tilden Ridge Rd	TOTAL
Road Stations	86	21	288	
Cost/STA	\$ 36.70	\$ 18.35	\$ 24.83	
Subtotal	\$ 3,156	\$ 385	\$ 7,151	\$ 10,692

Oblique Waterbars/Rolling Dip	Tilden Ridge Rd Improvement	Spur 1	Tilden Ridge Rd	TOTAL
Type	Rolling Dips		Oblique Waterbars	
Points	2	0	6	8
Cost per Waterbar	\$ 226.00		\$ 50.00	
Subtotal	\$ 452	\$ -	\$ 300	\$ 752

Move in Cost	Initial	Between Projects		
D-7 Cat	\$ 1,500		Project Cost	\$ 29,416
Dump Truck	\$ 200			
grader	\$ 500		Move In Cost	\$ 4,000
excavator	\$ 1,500			
vibratory roller	\$ 200		Total Cost	<u><u>\$ 33,416</u></u>
water truck	\$ 100			
small excavator	\$ -			

Cruise Report

Tilden Top

SALE # 341-15-104

Sale Area: Portions of Sections 24 and 25, T17S, R9W, W.M., Lane County, Oregon. The net harvestable acres are 85. There are 3 acres of stream buffers, approximately 3 acre of new road construction within the timber sale boundary, and 2 acres of existing road. Acres were determined by using a combination of aerial photos, GPS, GIS, and topographic maps.

Stand Description: Tilden Top is a mixed species harvest unit dominated by Douglas-fir and Western Hemlock. The stand is variable between the uplands and draws. The uplands consist of nice conifer and some tightly spaced Hemlock/fir. The draws contain a major component of hardwoods with some scattered conifers. There is some Big Leaf Maple. Red Alder exists in openings and gaps throughout the stand but is mainly concentrated in the draws. The stands average DBH is 13.5 inches. The average DBH for Douglas-fir is 14", Western Hemlock being 15", and Alder being 12". Understory vegetation is light in the uplands, except for your occasional patches of Rhododendron, and approaching moderate near the draws. The unit consists of 60 to 70% slopes. The terrain is moderately convex with long slopes.

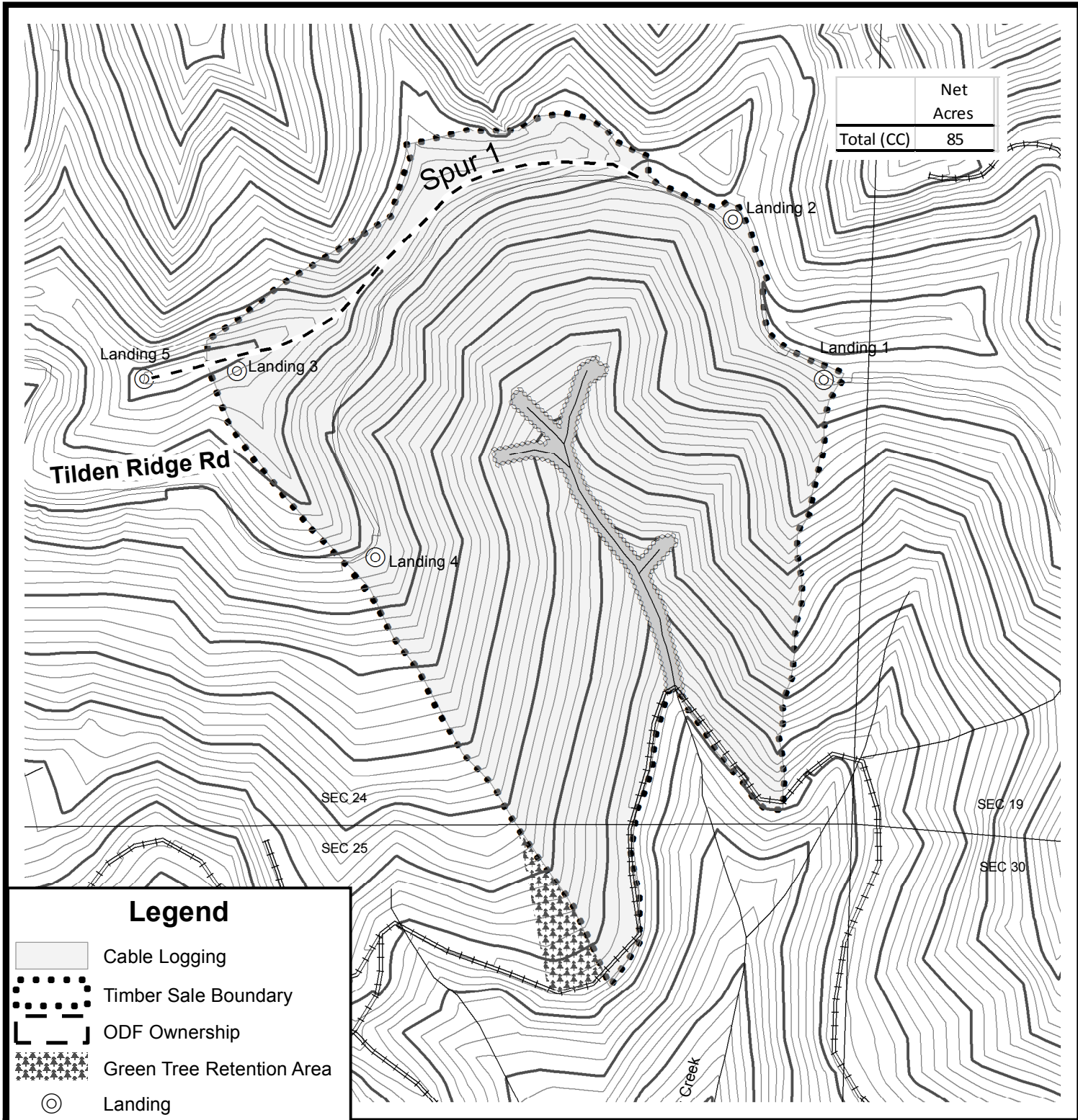
Cruise Method: The sale area was cruised in a grid pattern using a systematic variable radius plot sampling method. A Basal Area Factor of 33.61 was used for the cruise above Tilden Ridge Rd and a BAF of 40 bellow Tilden Ridge Rd. A total of 12 cruise plots were captured above the road and 42 plots below. Every tree was graded using the official rules for log scaling for the above species. 2 saw and 3 saw quality lumber favored 40' and 36' log lengths. Deductions for defect were estimated on a tree by tree basis. Logs that were not at least 12 feet in length and having at least 20 bf were not counted. The average BF/Acre cruised was used to determine the volume present in the Right-of-Way daylighting of Project 1. Only the volume outside of the posted timber sale is included in the additional Right-of-Way volume.

Volume within the Timber Sale Boundary






Volumes were computed by using the Super Ace program.

	2 Saw (MBF)	3 Saw (MBF)	4 Saw (MBF)	Camp Run (MBF)	Sub-Total (MBF)
Douglas-fir	375	403	145		923
Western Hemlock	250	152	82		484
Alder				304	304
Big Leaf Maple				37	37
Additional Volume associated with the Right-of-Way daylighting in Project 1					88
Total (MBF)					1836


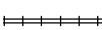

Average BF/Acre = 20,565




Legend

-  Cable Logging
-  Timber Sale Boundary
-  ODF Ownership
-  Green Tree Retention Area
-  Landing

Roads

-  Surfaced road
-  Old road bed - not driveable
-  New Road Construction

Streams

-  Fish
-  Nonfish
-  Posted Stream Buffer

Logging Plan Map

OF TIMBER SALE CONTRACT NO. 341-15-104
TILDEN TOP
PORTIONS OF SECTIONS 24 & 25, T17S, R9W, W.M.
LANE COUNTY, OREGON

0 250 500 1,000
Feet

1 inch = 500 feet
Contours = 20'



"STEWARDSHIP IN FORESTRY"

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