



"STAND FOR THE FOREST"

Timber Sale Appraisal Clear Silence

Sale TL-341-2016-76-

District: Tillamook

Date: February 10, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,668,811.78	\$200,141.40	\$1,868,953.18
		Project Work:	(\$454,150.00)
		Advertised Value:	\$1,414,803.18



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Timber Description

Location: Portions of Sections 7 and 18, T1S, R6W, and portions of Sections 1, 11, 12, 13, and 14, T1S, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95
Alder (Red)	14	0	93

Volume by Grade	2S	3S	4S	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	1,916	2,968	1,574	0	0	0	0	6,458
Alder (Red)	0	0	0	61	203	145	281	690
Total	1,916	2,968	1,574	61	203	145	281	7,148

Comments: Pond Values Used: 4th Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:
 $\$110/\text{MBF} = \$430/\text{MBF} - \$320/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$830/\text{MBF} = \$1,150/\text{MBF} - \$320/\text{MBF}$

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

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

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

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

Other Costs (with Profit & Risk to be added):
Brand and Paint: $\$2/\text{MBF} \times 7,148 \text{ MBF} = \$14,296$
TOTAL Other Costs (with Profit & Risk to be added) = $\$14,296$

Other Costs (No Profit & Risk added):
Machine Cleaning: $\$1,000/\text{machine} \times 2 \text{ machines} = \$2,000$
Cover Materials for Piles: $\$5/\text{pile} \times 15 \text{ piles} = \75
Slash Piling and Sorting (Cable Ground): $\$5/\text{acre} \times 372 \text{ acres} = \$1,860$
Heliport Slash Sorting: $\$500/\text{heliport} \times 1 \text{ heliport} = \500
Non-project Road #1 Construction: $\$125/\text{station} \times 3 \text{ stations} = \375

Ditch Cleaning and Bank Sluff Removal:
Mobilization: two times – dump truck with tilt bed & small excavator: $\$890 \times 2 = \$1,780$
Small Excavator (Cat 312 or equivalent): $\$95/\text{hr} \times 40 \text{ hrs.} = \$3,800$
Dump Truck: $\$70/\text{hr} \times 40 \text{ hrs.} = \$2,800$
TOTAL Other Costs (No Profit & Risk added) = $\$13,190$

ROAD MAINTENANCE:
Spot Rocking: $20\text{cy}/\text{mmbf}/\text{mile} \times 7.0 \text{ MMBF} \times \$9.00/\text{cy} \times 14.3 \text{ miles}/7,148 \text{ MBF} = \$2.52/\text{MBF}$
Interim Grading: $\$250/\text{mile} \times 14.3 \text{ miles} \times 3 \text{ times}/7148 \text{ MBF} = \$1.50/\text{MBF}$
Final Maintenance Grading: $\$500 \times 14.3 \text{ miles}/7148 \text{ MBF} = \$1.00/\text{MBF}$
Final Maintenance Compaction: $\$950/\text{mile} \times 8 \text{ miles}/7148 \text{ MBF} = \$1.06/\text{MBF}$
TOTAL Road Maintenance: $\$6.08/\text{MBF}$



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Logging Conditions

Combination#: 1 Douglas - Fir 60.35%
 Alder (Red) 71.07%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

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

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 7 **bd. ft / load:** 3800

cost / mbf: \$225.56

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

Combination#: 2 Douglas - Fir 11.81%
 Alder (Red) 13.57%

Logging System: Shovel **Process:** Stroke Delimber

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

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 12 **bd. ft / load:** 3800

cost / mbf: \$69.56

machines: Stroke Delimber (B)

Combination#: 3 Douglas - Fir 23.67%
 Alder (Red) 13.06%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

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

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 7 **bd. ft / load:** 3700

cost / mbf: \$231.66

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

Combination#: 4 Douglas - Fir 4.18%
 Alder (Red) 2.30%

Logging System: Shovel **Process:** Stroke Delimber

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

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 11 **bd. ft / load:** 3700

cost / mbf: \$77.94

machines: Stroke Delimber (B)



STRONGER FORESTRY

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District: Tillamook

Date: February 10, 2016

Logging Costs

Operating Seasons: 2.00	Profit Risk: 10%
Project Costs: \$454,150.00	Other Costs (P/R): \$14,296.00
Slash Disposal: \$0.00	Other Costs: \$13,190.00

Miles of Road

Road Maintenance: \$6.08

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	3.8
Alder (Red)	\$0.00	3.0	3.8



STATE OF OREGON

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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									
\$202.42	\$6.38	\$1.23	\$71.84	\$2.00	\$28.39	\$0.00	\$5.00	\$1.85	\$319.11
Alder (Red)									
\$201.78	\$6.51	\$1.23	\$73.21	\$2.00	\$28.47	\$0.00	\$5.00	\$1.85	\$320.05

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$577.52	\$258.41	\$0.00
Alder (Red)	\$0.00	\$610.11	\$290.06	\$0.00



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Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	6,458	\$258.41	\$1,668,811.78
Alder (Red)	690	\$290.06	\$200,141.40

Gross Timber Sale Value

Recovery: \$1,868,953.18

Prepared By: Jonah Horn

Phone: 503-815-7022



PROJECT SUMMARY SHEET

Sale: Clear Silence

CONSTRUCTION

Point	I to J	31+30	stations =	\$104,744.56
Point	K to L	10+00	stations =	\$13,665.10
SUBTOTAL CONSTRUCTION				\$118,409.66

IMPROVEMENT

Point	A to B	105+70	stations =	\$10,210.79
Point	E to F	365+70	stations =	\$34,956.49
Point	O to P	44+00	stations =	\$16,738.38
Point	Q to R	3+30	stations =	\$1,450.11
Point	S to T	365+60	stations =	\$17,652.06
SUBTOTAL IMPROVEMENT				\$81,007.83

RECONSTRUCTION

Point	C to D	66+30	stations =	\$82,059.47
Point	G to H	101+80	stations =	\$111,616.79
Point	M to N	10+00	stations =	\$18,810.44
SUBTOTAL RECONSTRUCTION				\$212,486.70

SPECIAL PROJECTS

Roadside Brushing	21.8 Miles @	\$700.00 /Mile	\$15,260.00
Clear Creek Stockpile	1500 CY @	\$10.25 /CY	\$15,375.00
Rock Quarry Test Drilling	5.0 Hours	Inc. Move In	\$2,160.00
SUBTOTAL SPECIAL PROJECTS			\$32,795.00

MOVE IN **\$9,450.81**

GRAND TOTAL **\$454,150.00**

SUMMARY OF CONSTRUCTION COST

Sale:	Clear Silence				Road:	A to B			
<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	105+70	stations	<u>Reconstruction -</u>	0+00	stations	
	0.00	miles		2.00	miles		0.00	miles	
IMPROVEMENT: CLEARING AND GRUBBING -									
Widening				0.027	acres @	\$1,500.00	per acre =	\$40.50	
							TOTAL CLEARING AND GRUBBING	\$40.50	
IMPROVEMENT: EXCAVATION -									
Widening				112	cy. @	\$1.40	per c.y.=	\$156.80	
							TOTAL EXCAVATION	\$156.80	
IMPROVEMENT: ENDHAUL -									
Widening	71+70	to	74+60	112	cy. @	\$3.09	per c.y.=	\$346.08	
Spread & compact				112	cy. @	\$0.25	per c.y.=	\$28.00	
							TOTAL ENDHAUL	\$374.08	
CULVERTS - MATERIALS & INSTALLATION									
<u>Culverts</u>									
	40	LF of 18"	\$700.00			0	LF of 24"	\$0.00	
	40	LF of 30"	\$1,440.00			0	LF of 36"	\$0.00	
			<u>\$2,140.00</u>						
<u>Culvert Stakes & Markers</u>									
	0	stakes	\$0.00						
	5	markers	\$40.00						
			<u>\$40.00</u>						
							TOTAL CULVERTS	\$2,180.00	
ROCK									
Bedding / Backfill	40+60, 41+50	40	cy. of	Crushed	@	\$11.03	per c.y.=	\$441.20	
Spot Rock	TBD	200	cy. of	Crushed	@	\$12.84	per c.y.=	\$2,568.00	
Energy Dissipator	40+60, 41+50	10	cy. of	Riprap	@	\$7.60	per c.y.=	\$76.00	
							TOTAL ROCK	\$3,085.20	
SPECIAL PROJECTS									
Expand waste areas -		1.00	hours @	\$130.00	per hour	\$130.00			
Clean ditches -		20.00	stations @	\$80.00	each	\$1,600.00			
Grade and shape road -		105.70	stations @	\$15.50	per station	\$1,638.35			
Roll subgrade w/ vibratory roller prior to rocking -		27.80	stations @	\$13.20	per station	\$366.96			
Remove culverts from state lands		1.00	@ lump sum	\$482.90	total	\$482.90			
Grass seed and fertilize -		0.30	acres @	\$220.00	per acre	\$66.00			
Mulching -		0.150	acres @	\$600.00	per acre	\$90.00			
							TOTAL SPECIAL PROJECTS	\$4,374.21	
							GRAND TOTAL	\$10,210.79	

SUMMARY OF CONSTRUCTION COST

Sale: **Clear Silence**

Road: **C to D**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	66+30	stations
	0.00	miles		0.00	miles		1.26	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Widening Endhaul	0.299	acres	@	\$1,500.00	per acre =	\$448.50	
Scattering	3.040	acres	@	\$980.00	per acre =	\$2,979.20	
TOTAL CLEARING AND GRUBBING							\$3,427.70

RECONSTRUCTION: EXCAVATION -

Widening	1833	cy.	@	\$1.80	per c.y. =	\$3,299.40	
TOTAL EXCAVATION							\$3,299.40

RECONSTRUCTION: ENDHAUL -

Widening	8+20	to	9+50	48	cy.	@	\$3.02	per c.y. =	\$144.96	
Widening	9+50	to	10+00	91	cy.	@	\$2.89	per c.y. =	\$262.99	
Widening	14+10	to	14+70	174	cy.	@	\$2.23	per c.y. =	\$388.02	
Widening	33+70	to	34+20	78	cy.	@	\$2.75	per c.y. =	\$214.50	
Widening	35+40	to	35+90	31	cy.	@	\$2.99	per c.y. =	\$92.69	
Widening	36+20	to	36+70	61	cy.	@	\$3.10	per c.y. =	\$189.10	
Widening	37+30	to	37+60	181	cy.	@	\$3.24	per c.y. =	\$586.44	
Widening	37+60	to	38+60	116	cy.	@	\$3.34	per c.y. =	\$387.44	
Widening	39+30	to	40+30	78	cy.	@	\$3.58	per c.y. =	\$279.24	
Widening	41+50	to	42+00	73	cy.	@	\$3.85	per c.y. =	\$281.05	
Widening	57+00	to	62+00	290	cy.	@	\$2.78	per c.y. =	\$806.20	
Widening	59+50	to	60+00	242	cy.	@	\$2.82	per c.y. =	\$682.44	
Widening	62+00	to	62+80	231	cy.	@	\$3.10	per c.y. =	\$716.10	
Widening	64+60	to	65+20	139	cy.	@	\$3.31	per c.y. =	\$460.09	
Spread & compact				1833	cy.	@	\$0.25	per c.y. =	\$458.25	
TOTAL ENDHAUL										\$5,949.51

CULVERTS - MATERIALS & INSTALLATION

Culverts

0	LF of 18"	\$0.00	350	LF of 24"	\$9,450.00
90	LF of 30"	\$3,240.00	0	LF of 36"	\$0.00
		\$3,240.00			\$9,450.00

Culvert Stakes & Markers

0	stakes	\$0.00
10	markers	\$80.00
		\$80.00

TOTAL CULVERTS \$12,770.00

ROCK

0+00	to	66+30	3,510	cy. of	Crushed	@	\$13.02	per c.y. =	\$45,700.20	
0+00	to	23+00	290	cy. of	Crushed	@	\$12.68	per c.y. =	\$3,677.20	
Landing Rock		45+50	80	cy. of	Crushed	@	\$13.11	per c.y. =	\$1,048.80	
Fill Reconstruction		35+70, 37+50	180	cy. of	Pit-Run	@	\$8.58	per c.y. =	\$1,544.40	
Junction Rock		0+00	20	cy. of	Crushed	@	\$12.53	per c.y. =	\$250.60	
Energy Dissipator		All Culverts	50	cy. of	Riprap	@	\$8.54	per c.y. =	\$427.00	
TOTAL ROCK										\$52,648.20

SPECIAL PROJECTS

Remove road block -	0.50	hours	@	\$145.00	per hour	\$72.50	
Construct waste areas -	1.00	hours	@	\$130.00	per hour	\$130.00	
Improve Landing at 45+50 -	1.00		@	\$200.00	each	\$200.00	
Remove logs from fill at 51+20 -	2.00	hours	@	\$145.00	per hour	\$290.00	
Grade and shape road -	66.30	stations	@	\$14.00	per station	\$928.20	
Construct turnaround near end of road -	1.00		@	\$75.00	each	\$75.00	
Remove two stream fills near Point D -	5.00	hours	@	\$145.00	per hour	\$725.00	
Roll subgrade w/ vibratory roller prior to rocking -	66.30	stations	@	\$13.20	per station	\$875.16	
Remove large stump at 51+60 -	1.00	lump sum	@	\$130.00		\$130.00	
Grass seed and fertilize -	1.41	acres	@	\$220.00	per acre	\$310.20	
Mulching -	0.381	acres	@	\$600.00	per acre	\$228.60	
TOTAL SPECIAL PROJECTS							\$3,964.66

GRAND TOTAL \$82,059.47

SUMMARY OF CONSTRUCTION COST

Sale:

Clear Silence

Road:

E to F

Construction -	0+00	stations	Improvement -	365+70	stations	Reconstruction -	0+00	stations
	0.00	miles		6.93	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Pullback	0.009	acres	@	\$1,500.00	per acre =	\$13.50	
Widening	0.037	acres	@	\$1,500.00	per acre =	\$55.50	
TOTAL CLEARING AND GRUBBING							\$69.00

IMPROVEMENT: EXCAVATION -

Pullback	20	cy.	@	\$1.40	per c.y. =	\$28.00	
Widening	131	cy.	@	\$1.40	per c.y. =	\$183.40	
TOTAL EXCAVATION							\$211.40

IMPROVEMENT: ENDHAUL -

Pullback	309+20	to	309+70	20	cy.	@	\$3.54	per c.y. =	\$70.80	
Widening	224+10	to	224+90	35	cy.	@	\$2.74	per c.y. =	\$95.90	
Widening	302+90	to	303+50	18	cy.	@	\$3.38	per c.y. =	\$60.84	
Widening	309+20	to	310+20	78	cy.	@	\$3.56	per c.y. =	\$277.68	
Spread & compact				151	cy.	@	\$0.25	per c.y. =	\$37.75	
TOTAL ENDHAUL										\$542.97

CULVERTS - MATERIALS & INSTALLATION

Culverts

0	LF of 18"	\$0.00	70	LF of 24"	\$1,890.00
80	LF of 30"	\$2,880.00	70	LF of 36"	\$2,885.00
60	LF of 42"	\$4,440.00	0	LF of 48"	\$0.00
		<u>\$7,320.00</u>			<u>\$4,775.00</u>

Culvert Stakes & Markers

0	stakes	\$0.00
12	markers	\$96.00
		<u>\$96.00</u>

TOTAL CULVERTS \$12,191.00

ROCK

Bedding / Backfill	All Culverts	120	cy. of	Crushed	@	\$13.33	per c.y. =	\$1,599.60	
Spot Rock	TBD	600	cy. of	Crushed	@	\$16.94	per c.y. =	\$10,164.00	
Outlet Fill Repair	45+90, 75+20	40	cy. of	Riprap	@	\$8.41	per c.y. =	\$336.40	
Energy Dissipator	All Culverts	30	cy. of	Riprap	@	\$9.90	per c.y. =	\$297.00	
TOTAL ROCK									\$12,397.00

SPECIAL PROJECTS

Construct waste areas -	1.50	hours @	\$130.00	per hour	\$195.00	
Clean ditches -	30.00	stations @	\$80.00	each	\$2,400.00	
Grade and shape road -	210.60	stations @	\$15.50	per station	\$3,264.30	
Roll subgrade w/ vibratory roller prior to rocking -	210.60	stations @	\$13.20	per station	\$2,779.92	
Remove culverts from state lands	6.00	@ lump sum	\$687.50	total	\$687.50	
Grass seed and fertilize -	0.42	acres @	\$220.00	per acre	\$92.40	
Mulching -	0.210	acres @	\$600.00	per acre	\$126.00	
TOTAL SPECIAL PROJECTS						\$9,545.12

GRAND TOTAL \$34,956.49

SUMMARY OF CONSTRUCTION COST

Sale:

Clear Silence

Road:

G to H

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	101+80	stations
	0.00	miles		0.00	miles		1.93	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Side cast	0.041	acres @	\$1,500.00	per acre =	\$61.50	
Widening Endhaul	0.182	acres @	\$1,500.00	per acre =	\$273.00	
Scattering	4.210	acres @	\$980.00	per acre =	\$4,125.80	
TOTAL CLEARING AND GRUBBING						\$4,460.30

RECONSTRUCTION: EXCAVATION -

Pullback	278	cy. @	\$1.40	per c.y. =	\$389.20	
Widening	1419	cy. @	\$1.40	per c.y. =	\$1,986.60	
TOTAL EXCAVATION						\$2,375.80

RECONSTRUCTION: ENDHAUL -

Pullback	36+70	to	37+30	70	cy. @	\$2.05	per c.y. =	\$143.50	
Pullback	89+50	to	89+80	104	cy. @	\$3.51	per c.y. =	\$365.04	
Pullback	90+20	to	90+50	104	cy. @	\$3.54	per c.y. =	\$368.16	
Widening	17+60	to	18+80	94	cy. @	\$1.83	per c.y. =	\$172.02	
Widening	20+30	to	20+80	59	cy. @	\$2.10	per c.y. =	\$123.90	
Widening	22+20	to	22+70	44	cy. @	\$2.35	per c.y. =	\$103.40	
Widening	25+30	to	25+90	139	cy. @	\$2.78	per c.y. =	\$386.42	
Widening	36+40	to	37+60	371	cy. @	\$3.20	per c.y. =	\$1,187.20	
Widening	38+70	to	39+30	231	cy. @	\$3.35	per c.y. =	\$773.85	
Widening	40+70	to	41+20	39	cy. @	\$3.51	per c.y. =	\$136.89	
Widening	65+60	to	65+90	59	cy. @	\$3.79	per c.y. =	\$223.61	
Widening	70+20	to	70+70	39	cy. @	\$4.05	per c.y. =	\$157.95	
Widening	82+60	to	84+30	198	cy. @	\$4.13	per c.y. =	\$817.74	
Widening	89+50	to	90+50	146	cy. @	\$4.40	per c.y. =	\$642.40	
Spread & compact				1697	cy. @	\$0.25	per c.y. =	\$424.25	
TOTAL ENDHAUL									\$6,026.33

CULVERTS - MATERIALS & INSTALLATION

Culverts

30	LF of 18"	\$525.00	110	LF of 24"	\$2,970.00
80	LF of 30"	\$2,880.00	90	LF of 36"	\$3,525.00
60	LF of 42"	\$4,440.00	60	LF of 48"	\$5,010.00
		<u>\$7,845.00</u>			<u>\$11,505.00</u>

Culvert Stakes & Markers

0 stakes	\$0.00
10 markers	<u>\$80.00</u>
	<u>\$80.00</u>

TOTAL CULVERTS \$19,430.00

ROCK

0+00 to	101+80	3,600	cy. of	Crushed	@	\$17.17	per c.y. =	\$61,812.00	
Bedding / Backfill	Pipes > 36"	100	cy. of	Crushed	@	\$16.12	per c.y. =	\$1,612.00	
Landing Rock	30+00	80	cy. of	Crushed	@	\$16.67	per c.y. =	\$1,333.60	
Fill Reconstruction	3+00,62+00,68+50	1,200	cy. of	Pit-Run	@	\$7.44	per c.y. =	\$8,928.00	
Energy Dissipator	All Culverts	60	cy. of	Riprap	@	\$8.06	per c.y. =	\$483.60	
TOTAL ROCK									\$74,169.20

SPECIAL PROJECTS

Construct waste areas -	2.00	hours @	\$130.00	per hour	\$260.00	
Construct landing/heliport at 30+00 -	1.00	@	\$250.00	each	\$250.00	
Remove fill from stream channel at end of road -	6.00	hours @	\$145.00	per hour	\$870.00	
Grade and shape road -	101.80	stations @	\$14.00	per station	\$1,425.20	
Construct turnaround at 26+50 & 96+80 -	2.00	@	\$75.00	each	\$150.00	
Roll subgrade w/ vibratory roller prior to rocking -	101.80	stations @	\$13.20	per station	\$1,343.76	
Grass seed and fertilize -	1.98	acres @	\$220.00	per acre	\$435.60	
Mulching -	0.701	acres @	\$600.00	per acre	\$420.60	
TOTAL SPECIAL PROJECTS						\$5,155.16

GRAND TOTAL \$111,616.79

SUMMARY OF CONSTRUCTION COST

Sale:

Clear Silence

Road:

I to J

Construction -	31+30	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.59	miles		0.00	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		
0+00		7+50	40%	0.3	Outslope	\$243	=	\$1,822.50
7+50		17+50	80%	0.4	Ditch	\$5,511	=	\$55,110.00
17+50		22+50	60%	0.6	Outslope	\$1,793	=	\$8,965.00
22+50		24+50	70%	0.6	Ditch	\$4,072	=	\$8,144.00
24+50		31+30	45%	0.7	Outslope	\$269	=	\$1,829.20
								TOTAL
								\$75,870.70

CULVERTS - MATERIALS & INSTALLATION

Culverts

60	LF of 18"	\$1,050.00	80	LF of 24"	\$2,160.00
		\$1,050.00			\$2,160.00

Culvert Stakes & Markers

0 stakes	\$0.00
4 markers	\$32.00
	\$32.00

TOTAL CULVERTS \$3,242.00

ROCK

0+00 to	31+30	1,690	cy. of	Stockpile	@	\$9.88 per c.y.=	\$16,697.20
Traction - 18 Stations	0-2,7-19,22-26	320	cy. of	Crushed	@	\$17.20 per c.y.=	\$5,504.00
Landing Rock	31+30	80	cy. of	Stockpile	@	\$10.22 per c.y.=	\$817.60
Junction Rock	0+00	30	cy. of	Stockpile	@	\$9.53 per c.y.=	\$285.90
Energy Dissipator	All Culverts	20	cy. of	Riprap	@	\$12.72 per c.y.=	\$254.40
							TOTAL ROCK
							\$23,559.10

SPECIAL PROJECTS

Construct waste areas -	2.50	hours @	\$130.00	per hour	\$325.00
Construct ditchouts at 17+50 & 24+50 -	2.00	@	\$60.00	each	\$120.00
Construct landing at 31+30 -	1.00	@	\$250.00	each	\$250.00
Grade and shape road -	31.30	stations @	\$14.00	per station	\$438.20
Construct turnaround before landing -	1.00	@	\$75.00	each	\$75.00
Roll subgrade w/ vibratory roller prior to rocking -	31.30	stations @	\$13.20	per station	\$413.16
Grass seed and fertilize -	1.67	acres @	\$220.00	per acre	\$367.40
Mulching -	0.140	acres @	\$600.00	per acre	\$84.00
					TOTAL SPECIAL PROJECTS
					\$2,072.76

GRAND TOTAL \$104,744.56

SUMMARY OF CONSTRUCTION COST

Sale:

Clear Silence

Road:

K to L

Construction -	10+00	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.19	miles		0.00	miles		0.00	miles

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

<u>Station</u>	<u>to</u>	<u>Station</u>	Avg. Sideslope	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>		
0+00		1+20	20%		Outslope	\$139	=	\$166.80
1+20		4+40	10%		Outslope	\$90	=	\$288.00
4+40		6+50	30%		Outslope	\$191	=	\$401.10
6+50		8+00	40%		Outslope	\$243	=	\$364.50
8+00		9+00	30%		Outslope	\$191	=	\$191.00
9+00		10+00	10%		Outslope	\$90	=	\$90.00
								TOTAL \$1,501.40

ROCK

0+00	to	10+00	610	cy. of	Crushed	@	\$13.35	per c.y.=	\$8,143.50
Landing Rock		6+00, 10+00	160	cy. of	Crushed	@	\$13.44	per c.y.=	\$2,150.40
Junction Rock		0+00	20	cy. of	Crushed	@	\$13.26	per c.y.=	\$265.20
Fill		4+40	40	cy. of	Pit-Run	@	\$8.53	per c.y.=	\$341.20
TOTAL ROCK									\$10,900.30

SPECIAL PROJECTS

Construct landings at 6+00 and 10+00 -	2.00	@	\$250.00	each	\$500.00	
Construct turnarounds before landings -	2.00	@	\$75.00	each	\$150.00	
Grade and shape road -	10.00	stations @	\$14.00	per station	\$140.00	
Roll subgrade w/ vibratory roller prior to rocking -	10.00	stations @	\$13.20	per station	\$132.00	
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00	
Grass seed and fertilize -	0.37	acres @	\$220.00	per acre	\$81.40	
				TOTAL SPECIAL PROJECTS		\$1,263.40

GRAND TOTAL	\$13,665.10
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SUMMARY OF CONSTRUCTION COST

Sale:

Clear Silence

Road:

M to N

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	10+00	stations
	0.00	miles		0.00	miles		0.19	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Widening	0.074	acres	@	\$1,500.00	per acre =	\$111.00	
Scattering	0.640	acres	@	\$1,500.00	per acre =	\$960.00	
TOTAL CLEARING AND GRUBBING							\$1,071.00

RECONSTRUCTION: EXCAVATION -

Widening	552	cy.	@	\$1.40	per c.y.=	\$772.80	
TOTAL EXCAVATION							\$772.80

RECONSTRUCTION: ENDHAUL -

Widening	3+60	to	4+80	70	cy.	@	\$2.71	per c.y.=	\$189.70	
Widening	4+80	to	6+60	347	cy.	@	\$3.07	per c.y.=	\$1,065.29	
Widening	7+90	to	8+60	135	cy.	@	\$3.43	per c.y.=	\$463.05	
Spread & compact				552	cy.	@	\$0.25	per c.y.=	\$138.00	
TOTAL ENDHAUL										\$1,856.04

CULVERTS - MATERIALS & INSTALLATION

Culverts

0	LF of 18"	\$0.00	40	LF of 24"	\$1,080.00
		\$0.00			\$1,080.00

Culvert Stakes & Markers

0	stakes	\$0.00
1	markers	\$8.00
		\$8.00

TOTAL CULVERTS \$1,088.00

ROCK

0+00 to	10+00	610	cy. of	Crushed	@	\$16.31	per c.y.=	\$9,949.10	
Landing Rock	4+80, 10+00	160	cy. of	Crushed	@	\$16.43	per c.y.=	\$2,628.80	
Junction Rock	0+00	20	cy. of	Crushed	@	\$16.19	per c.y.=	\$323.80	
Energy Dissipator	7+90	5	cy. of	Riprap	@	\$8.46	per c.y.=	\$42.30	
TOTAL ROCK									\$12,944.00

SPECIAL PROJECTS

Construct waste areas -	1.00	hours	@	\$130.00	per hour	\$130.00	
Improve landings at 4+80 & 10+00 -	2.00		@	\$200.00	each	\$400.00	
Construct turn around at 3+60 and 9+00 -	2.00		@	\$75.00	each	\$150.00	
Grade and shape road -	10.00	stations	@	\$14.00	per station	\$140.00	
Roll subgrade w/ vibratory roller prior to rocking -	10.00	stations	@	\$13.20	per station	\$132.00	
Grass seed and fertilize -	0.45	acres	@	\$220.00	per acre	\$99.00	
Mulching -	0.046	acres	@	\$600.00	per acre	\$27.60	
TOTAL SPECIAL PROJECTS							\$1,078.60

GRAND TOTAL \$18,810.44

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Clear Silence</u>				Road:	<u>O to P</u>			
Construction -	0+00	stations	Improvement -	44+00	stations	Reconstruction -	0+00	stations	
	0.00	miles		0.83	miles		0.00	miles	
IMPROVEMENT: CLEARING AND GRUBBING -									
Widening			0.071	acres	@	\$1,500.00	per acre =	\$106.50	
TOTAL CLEARING AND GRUBBING									\$106.50
IMPROVEMENT: EXCAVATION -									
Widening			285	cy.	@	\$1.80	per c.y. =	\$513.00	
TOTAL EXCAVATION									\$513.00
IMPROVEMENT: ENDHAUL -									
Widening	4+40	to	5+00	52	cy. @	\$2.64	per c.y. =	\$137.28	
Widening	18+30	to	18+90	35	cy. @	\$3.16	per c.y. =	\$110.60	
Widening	18+90	to	19+20	26	cy. @	\$3.18	per c.y. =	\$82.68	
Widening	26+20	to	26+40	8	cy. @	\$3.45	per c.y. =	\$27.60	
Widening	27+00	to	28+50	109	cy. @	\$3.53	per c.y. =	\$384.77	
Widening	37+30	to	38+00	55	cy. @	\$3.89	per c.y. =	\$213.95	
Spread & compact				285	cy. @	\$0.25	per c.y. =	\$71.25	
TOTAL ENDHAUL									\$1,028.13
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 & Markers</u>									
		0	stakes	\$0.00					
		1	markers	\$8.00					
				\$8.00					
TOTAL CULVERTS									\$1,088.00
ROCK									
0+00 to	44+00	750	cy. of	Crushed	@	\$15.44	per c.y. =	\$11,580.00	
Bedding / Backfill	19+30	20	cy. of	Crushed	@	\$14.32	per c.y. =	\$286.40	
Junction Rock	0+00	20	cy. of	Crushed	@	\$14.91	per c.y. =	\$298.20	
Energy Dissipator	19+30	5	cy. of	Riprap	@	\$10.89	per c.y. =	\$54.45	
TOTAL ROCK									\$12,219.05
SPECIAL PROJECTS									
Grade and shape road -		44.00	stations	@	\$14.00	per station	\$616.00		
Roll subgrade w/ vibratory roller prior to rocking -		44.00	stations	@	\$13.20	per station	\$580.80		
Remove culverts from state lands		1.00	@		\$482.90	total	\$482.90		
Grass seed and fertilize -		0.20	acres	@	\$220.00	per acre	\$44.00		
Mulching -		0.100	acres	@	\$600.00	per acre	\$60.00		
TOTAL SPECIAL PROJECTS									\$1,783.70
GRAND TOTAL									\$16,738.38

SUMMARY OF CONSTRUCTION COST

Sale:				Clear Silence				Road:				Q to R			
<u>Construction -</u>		<u>0+00</u>	stations	<u>Improvement -</u>		<u>3+30</u>	stations	<u>Reconstruction -</u>		<u>0+00</u>	stations				
		0.00	miles			0.06	miles			0.00	miles				
ROCK															
0+00 to		3+30	70	cy. of	Crushed	@	\$15.06	per c.y.=	\$1,054.20						
Junction Rock		0+00, 3+30	20	cy. of	Crushed	@	\$15.06	per c.y.=	\$301.20						
									TOTAL ROCK		\$1,355.40				
SPECIAL PROJECTS															
Grade and shape road -					3.30	stations @	\$15.50	per station	\$51.15						
Roll subgrade w/ vibratory roller prior to rocking -					3.30	stations @	\$13.20	per station	\$43.56						
									TOTAL SPECIAL PROJECTS		\$94.71				
									GRAND TOTAL		\$1,450.11				

SUMMARY OF CONSTRUCTION COST

Sale:

Clear Silence

Road:

S to T

Construction -	0+00	stations	Improvement -	365+60	stations	Reconstruction -	0+00	stations
	0.00	miles		6.92	miles		0.00	miles

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	140	LF of 18"	<u>\$2,450.00</u>	0	LF of 24"	\$0.00
			\$2,450.00			\$0.00
<u>Half Rounds</u>	80	LF of 24"	<u>\$1,422.40</u>	0	LF of 30"	\$0.00
			\$1,422.40			\$0.00
<u>Culvert Stakes & Markers</u>	16	stakes	\$128.00			
	4	markers	<u>\$32.00</u>			
			\$160.00			
						TOTAL CULVERTS

TOTAL CULVERTS	\$4,032.40
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ROCK

Bedding / Backfill	All Culverts	80	cy. of	Crushed	@	\$18.63 per c.y.=	\$1,490.40
Spot Rock	TBD	600	cy. of	Crushed	@	\$15.62 per c.y.=	\$9,372.00
Turnout Rock	39+00, 56+00	40	cy. of	Crushed	@	\$19.68 per c.y.=	<u>\$787.20</u>

TOTAL ROCK	\$11,649.60
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SPECIAL PROJECTS

Re-shape dented culvert inlet -	0.00	hours @	\$28.00	per hour	\$0.00
Remove gate assembly -	0.00	hours @	\$88.00	per hour	\$0.00
Construct waste areas -	0.00	hours @	\$130.00	per hour	\$0.00
Construct sediment traps below pipes at 16+00, 39+00, 56+00 -	9.00	@	\$30.00	each	\$270.00
Fill roadway @ area of 0+00 -	0.00	hours @	\$130.00	per hour	\$0.00
Fill ditch/emb from 0+00 to 0+00 -	0.00	hours @	\$130.00	per hour	\$0.00
Remove log cribbing @ 0+00 -	0.00	hours @	\$130.00	per hour	\$0.00
Grade and shape road -	53.80	stations @	\$15.50	per station	\$833.90
Roll subgrade w/ vibratory roller prior to rocking -	53.80	stations @	\$13.20	per station	\$710.16
Grass seed and fertilize -	0.30	acres @	\$220.00	per acre	\$66.00
Mulching -	0.150	acres @	\$600.00	per acre	\$90.00

TOTAL SPECIAL PROJECTS	\$1,970.06
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GRAND TOTAL	\$17,652.06
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ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_run	Location:	NE1/4, SW1/4, Sec 12, T1S, R7W, W.M.
Sale:	Clear Silence	Road:	1485 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	1485 c.y.
Drill Pct.:	0%	In Place Total:	1061 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$2,114.20

Rip Rock:	\$1.90 /cu.yd.	x	1061 cu.yds.	=	\$2,015.90
Load Dump Truck:	\$0.70 /cu.yd.	x	1485 cu.yds.	=	\$1,039.50

Subtotal \$5,169.60

Move in D-8 (Within Area)	1	@	\$188.00	=	\$188.00
Move in Excavator (Within Area)	1	@	\$556.00	=	\$556.00
Move in Trucks	2	@	\$297.49	=	\$594.98

Subtotal \$1,338.98

Base Cost=	\$4.38	Per Cu.Yd.			
			TOTAL PRODUCTION COSTS		\$6,508.58

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 Fill Reconstruction (Pit-Run)	3.15	1.05	4.38	8.58	180	\$1,544.40
G to H Fill Reconstruction (Pit-Run)	2.01	1.05	4.38	7.44	1200	\$8,928.00
G to H Energy Dissipator (Riprap)	2.28	1.40	4.38	8.06	60	\$483.60
K to L Fill (Pit-Run)	3.10	1.05	4.38	8.53	40	\$341.20
M to N Energy Dissipator (Riprap)	2.68	1.40	4.38	8.46	5	\$42.30
				Total C.Y.	1485	Sub Total \$11,339.50

	TOTAL ROCKING COSTS	\$11,339.50
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ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Existing Stockpile	Location:	NE1/4, NW1/4, Sec 15, T1S, R7W, W.M.
Sale:	Clear Silence	Road:	1800 c.y.
Swell:	1.00		
Shrinkage	1.00	Total Truck Loads:	1800 c.y.
Drill Pct.:	0%		

Load Dump Truck: \$0.70 /cu.yd. x 1800 cu.yds. = \$1,260.00

Subtotal \$1,260.00

Base Cost= \$0.70 Per Cu.Yd.

TOTAL PRODUCTION COSTS \$1,260.00

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
I to J 0 3130 (Stockpile)	6.73	2.45	0.70	9.88	1690	\$16,697.20
I to J Landing Rock (Stockpile)	7.07	2.45	0.70	10.22	80	\$817.60
I to J Junction Rock (Stockpile)	6.38	2.45	0.70	9.53	30	\$285.90
				Total C.Y.	<u> 1800 </u>	Sub Total <u> \$17,800.70 </u>

TOTAL ROCKING COSTS \$17,800.70

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	NE1/4, NW1/4, Sec 15, T1S, R7W, W.M.
Sale:	Clear Silence	Road:	13795 c.y.
Swell:	1.40		
Shrinkage	1.16	Total Truck Loads:	13795 c.y.
Drill Pct.:	100%	In Place Total:	9854 c.y.

Pit Development & Cleanup including Clearing and grubbing of					\$9,000.00
Waste Area @ adjacent to pit, place overburden					
in Waste Area, spread and compact.					
Drill & Shoot:		\$2.50 /cu.yd.	x	9854 cu.yds.	= \$24,635.00
Load Crusher:		\$0.70 /cu.yd.	x	13795 cu.yds.	= \$9,656.50
Crush Rock:	Weighted Average =	\$2.73 /cu.yd.	x	13795 cu.yds.	= \$37,660.35
Load Dump Truck:	3" @ \$2.60	\$0.70 /cu.yd.	x	13795 cu.yds.	= \$9,656.50
	1.5" @ \$3.00				

Subtotal \$90,608.35

Move In/Set-up Crusher	1	@	\$5,009.00	=	\$5,009.00
Move In and set up Drill and Compressor	1	@	\$880.52	=	\$880.52
Move in Roller and Compactor	1	@	\$880.52	=	\$880.52
Move in Grader	1	@	\$287.13	=	\$287.13
Move in D-8	1	@	\$1,444.97	=	\$1,444.97
Move in Loader	1	@	\$1,250.97	=	\$1,250.97
Move in Excavator	1	@	\$1,606.71	=	\$1,606.71
Move in Trucks	4	@	\$297.49	=	\$1,189.96
Move in Water Truck	1	@	\$349.68	=	\$349.68

Subtotal \$12,899.46

Base Cost=	<u>\$7.50</u>	Per Cu.Yd.	TOTAL PRODUCTION COSTS	\$103,507.81
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Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B Bedding / Backfill (Crushed)	2.13	1.40	7.50	11.03	40	\$441.20
A to B Spot Rock (Crushed)	2.89	2.45	7.50	12.84	200	\$2,568.00
A to B Energy Dissipator (Riprap)	2.13	1.40	4.07	7.60	10	\$76.00
C to D 0 6630 (Crushed)	3.07	2.45	7.50	13.02	3510	\$45,700.20
C to D 0 2300 (Crushed)	2.73	2.45	7.50	12.68	290	\$3,677.20
C to D Landing Rock (Crushed)	3.16	2.45	7.50	13.11	80	\$1,048.80
C to D Junction Rock (Crushed)	2.58	2.45	7.50	12.53	20	\$250.60
C to D Energy Dissipator (Riprap)	3.07	1.40	4.07	8.54	50	\$427.00
E to F Bedding / Backfill (Crushed)	4.43	1.40	7.50	13.33	120	\$1,599.60
E to F Spot Rock (Crushed)	6.99	2.45	7.50	16.94	600	\$10,164.00
E to F Outlet Fill Repair (Riprap)	2.94	1.40	4.07	8.41	40	\$336.40
E to F Energy Dissipator (Riprap)	4.43	1.40	4.07	9.90	30	\$297.00
G to H 0 10180 (Crushed)	7.22	2.45	7.50	17.17	3600	\$61,812.00
G to H Bedding / Backfill (Crushed)	7.22	1.40	7.50	16.12	100	\$1,612.00
G to H Landing Rock (Crushed)	6.72	2.45	7.50	16.67	80	\$1,333.60
I to J Traction - 18 Stations (Crushed)	7.25	2.45	7.50	17.20	320	\$5,504.00
I to J Energy Dissipator (Riprap)	7.25	1.40	4.07	12.72	20	\$254.40
K to L 0 1000 (Crushed)	3.40	2.45	7.50	13.35	610	\$8,143.50
K to L Landing Rock (Crushed)	3.49	2.45	7.50	13.44	160	\$2,150.40
K to L Junction Rock (Crushed)	3.31	2.45	7.50	13.26	20	\$265.20
M to N 0 1000 (Crushed)	6.36	2.45	7.50	16.31	610	\$9,949.10
M to N Landing Rock (Crushed)	6.48	2.45	7.50	16.43	160	\$2,628.80
M to N Junction Rock (Crushed)	6.24	2.45	7.50	16.19	20	\$323.80
O to P 0 4400 (Crushed)	5.49	2.45	7.50	15.44	750	\$11,580.00
O to P Bedding / Backfill (Crushed)	5.42	1.40	7.50	14.32	20	\$286.40
O to P Junction Rock (Crushed)	4.96	2.45	7.50	14.91	20	\$298.20
O to P Energy Dissipator (Riprap)	5.42	1.40	4.07	10.89	5	\$54.45
Q to R 0 330 (Crushed)	5.11	2.45	7.50	15.06	70	\$1,054.20
Q to R Junction Rock (Crushed)	5.11	2.45	7.50	15.06	20	\$301.20
S to T Bedding / Backfill (Crushed)	9.73	1.40	7.50	18.63	80	\$1,490.40
S to T Spot Rock (Crushed)	5.67	2.45	7.50	15.62	600	\$9,372.00
S to T Turnout Rock (Crushed)	9.73	2.45	7.50	19.68	40	\$787.20
Clear Creek Quarry Stockpile (Crushed)	1.15	1.60	7.50	10.25	1500	\$15,375.00
					Total C.Y. 13795	Sub Total \$201,161.85

TOTAL ROCKING COSTS **\$201,161.85**

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

Sale: **Clear Silence**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
28.0	Pavement	30
20.0	Main Lines	7
10.0	Steep Grades	2

[illegible]



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Clear Silence*

1. Type of Sale

Thinning/Regeneration harvest, Recovery.

2. Legal Description

Portions of Sections 1, 11, 12, 13 and 14, T1S, R7W, W.M., and portions of Sections 7 and 18, T1S, R6W, 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 (Modified Clearcut)	89	70
Area 2 (Modified Clearcut)	127	99
Area 3 (Partial Cut)	233	183
Area 4 (Modified Clearcut)	87	67

Gross Acres

Area within the Timber Sale Boundary signs.

Net acres

Used for calculating the advertised volume.

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

4. Cruising Procedures

A. Cruise Method

The timber sale areas were cruised with variable plots. Areas 1, 2 and 4 were cruised to create a 350' square grid while Area 3 was cruised to create a 350' by 700' grid. All conifers 8" DBH and greater containing 20 board feet and all hardwoods 8" DBH and greater containing 30 board feet were recorded on all plots. Species were recorded on all trees and measured for merchantable bole height, diameter, and form factor. Merchantable heights were recorded to 6" and 7" outside bark for conifers and hardwoods respectively.

Area	Number of Plots	Acres
1	28	70
2	37	99
3	27	183
4	32	67
Total	124	419

B. Plot size

BAF for each area as follows: Areas 1 and 2 (27.78 and 40 BAF), Area 3 (40 BAF), and Area 4 (33.61 and 40 BAF). Areas 1, 2, and 4 were cruised with varying basal area factors. When cruising, higher than average tree counts per plot was an indicator on which BAF would be used. If tree counts were above 8 per plot then a 40 BAF was used. If below, a 27.78 BAF was used to cruise. Point of tree 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

Plot data was entered into SuperAce for computation of basal areas, ingrowth, advertised volumes, volume summaries, log stock tables, and stand tables for each species and type. Areas 1, 2, and 4 were cruised in 2015. Area 3 was cruised in 2008 and grown forward to this report's date with an adjustment for reduced growth due to Swiss Needle Cast. Net sale acreage was used for volume calculation.

6. Hidden Defect and Breakage

Cruise Statistics (Board Foot Volumes)			
Area	Number of Plots	SE (%)	CV (%)
1	28	8.5	44.1
2	37	9.8	59.4
3	27	8.4	42.9
4	32	8.2	46.5
Total	124	6.6	73.3

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

7. Timber Description

These areas burned in the 1933 Tillamook Fire, 1939 Saddle Mountain Fire, and a very small portion of Areas 2 and 3 burned in the 1945 Wilson River Fire. Planting data is unavailable for majority of Areas 2, 3, and 4. The northwest portion of Area 1 and the east corner of Area 2 were seeded in 1961-1962. This sale did not receive any historical herbicide spraying. Bear damage was noted in all of the sale areas but most prevalent in Area 2, totaling 1 snag per acre.

Sale Area – Species	AVG DBH	Merchantable Bole Height	Merchantable Top
Area 1: Douglas-fir	15.7	60	5"
Area 1: Red alder	18.9	58	6"
Area 2: Douglas-fir	15.6	57	5"
Area 2: Red alder	13.9	39	6"
Area 3: Douglas-fir take	13.7	51	5"
Area 3: Red alder take	13.1	43	6"
Area 4: Douglas-fir	13.2	54	5"
Area 4: Red alder	17.4	57	6"

Above data derived from Statistics (type) report using SuperAce 2008, developed by Atterbury Consultants, Inc.

8. Cruiser Names/Dates

Area 3 Service Contract 2008. Areas 1, 2, and 4 cruised by district personnel in 2015.

9. Revenue Distribution

FDF: 100%

Tax Code: 9-2

Deed Number: 161

10. Attachments

Stand Table

Volume Summaries

Log Stock Tables

Logging Plan Map

11. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave

DF – Douglas-fir take

NF – Noble fir take

AL – Red alder leave

RA – Red alder take

RC – Western Red Cedar leave

WL – Western hemlock leave

WH – Western hemlock take

OC – Conifer Snags (Class 1 or 2 and DBH > 15")

OH – Conifer Snags other than OC

TC TLOGSTVB				Log Stock Table - MBF																
				Project: CLRSLNC																
T02S R07W S12 T0100										T02S R07W S12 T0100										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
02S	07W	12	AREA1-HARV	0100	70.00	28	109	Date	11/30/2015											
										Time	1:29:54PM									
S Spp	So	Gr	Log	T	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	CO	2	14		8	7.1	7	.4								7				
DF	CO	2	17		10		10	.6									10			
DF	CO	2	19		10		10	.6							10					
DF	CO	2	20		6		6	.3						6						
DF	CO	2	26		11	5.3	11	.6							11					
DF	CO	2	28		17		17	1.0						17						
DF	CO	2	32		37		37	2.1							15	22				
DF	CO	2	34		32	6.2	30	1.7							13	17				
DF	CO	2	40		536	.2	535	30.5						200	171	139	25			
DF	CO	3	21		5		5	.3					5							
DF	CO	3	22		14		14	.8		2				11						
DF	CO	3	27		14		14	.8					14							
DF	CO	3	29		2		2	.1				2								
DF	CO	3	31		3	14.3	2	.1				2								
DF	CO	3	32		170		170	9.7			29	111	30							
DF	CO	3	34		2		2	.1			2									
DF	CO	3	40		539	.5	537	30.6			79	147	294	16						
DF	CO	4	11		2		2	.1		2										
DF	CO	4	15		5		5	.3		4	1									
DF	CO	4	16		15		15	.8		15										
DF	CO	4	17		4		4	.2		4										
DF	CO	4	18		15		15	.8		15										
DF	CO	4	19		14		14	.8		14										
DF	CO	4	20		14		14	.8		10		5								
DF	CO	4	21		11		11	.6		9	1	1								
DF	CO	4	22		6		6	.4		6										
DF	CO	4	23		8		8	.4		1	6									
DF	CO	4	24		19		19	1.1		18	2									
DF	CO	4	25		8		8	.5		7	2									
DF	CO	4	26		18		18	1.0		18										
DF	CO	4	28		16		16	.9		16										
DF	CO	4	29		2		2	.1		2										
DF	CO	4	30		10		10	.5		10										
DF	CO	4	32		46		46	2.6			16	30								
DF	CO	4	33		28		28	1.6		28										
DF	CO	4	34		18		18	1.0		18										
DF	CO	4	35		13		13	.7		13										
DF	CO	4	37		9		9	.5		9										
DF	CO	4	38		10		10	.6		10										
DF	CO	4	39		3		3	.2		3										
DF	CO	4	40		51		51	2.9		25	7	20								
DF	Totals				1,762		1,755	96.0		259	144	319	343	251	220	185	35			
RA	H	2	26		11		11	38.2					11							
RA	H	2	28		12		12	40.5					12							
RA	H	4	29		3		3	11.8			3									
RA	H	4	30		3		3	9.5			3									
RA	Totals				29		29	1.6			6		23							
DL	CO	2	28		14	4.8	13	29.1											13	
DL	CO	2	40		30	.7	30	66.9								7	22			

TC TLOGSTVB				Log Stock Table - MBF																													
				Project: CLRSLNC																													
T02S R07W S12 T0100														T02S R07W S12 T0100																			
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees				Page		2													
02S		07W		12		AREA1-HARV		0100		70.00		28		109				Date		11/30/2015													
																		Time		1:29:54PM													
S Spp T				So Gr rt de		Log Len		Gross MBF		% Def		Net MBF		% Spc		Net Volume by Scaling Diameter in Inches																	
																2-3		4-5		6-7		8-9		10-11		12-13		14-15		16-19		20-23	
DL				CO		3 32		1				1		3.2				1															
DL				CO		4 32		0				0		.7		0																	
DL				Totals				45		1.9		44		2.4		0		1				7		22				13					
Total All Species								1,836				1,828		100.0		259		150		320		343		274		220		192		58		13	

Stand Table Summary																
TC		TSTNDSUM														
Project CLRSLNC																
T02S R07W S12 T0100														T02S R07W S12 T0100		
Twp	Rge	Sec	Tract		Type			Acres		Plots	Sample Trees			Page:	1	
02S	07W	12	AREA1-HARV		0100			70.00		28	109			Date:	11/30/2015	
														Time:	1:26:03PM	
S Spc	T	Sample		FF	Ht	Trees/ Acre	BA/	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s		
		DBH	Trees	16'	Tot		Acre		Acre	Net Cu.Ft.		Net Bd.Ft.	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits
DF		8	1	81	21	6.993	2.44	6.99	3.2	20.0	.64	23	140	45	16	10
DF		9	3	84	60	16.575	7.32	16.58	8.2	36.7	3.88	136	608	272	95	43
DF		10	1	82	61	4.475	2.44	4.48	10.1	40.0	1.29	45	179	90	32	13
DF		11	3	86	79	11.096	7.32	18.49	9.6	42.0	5.06	178	777	354	124	54
DF		12	10	84	85	30.130	23.66	50.94	12.0	50.8	17.47	613	2,587	1,223	429	181
DF		13	3	85	82	7.135	6.58	14.27	12.5	46.9	5.08	178	669	356	125	47
DF		14	5	84	88	11.417	12.20	20.55	17.3	60.0	10.13	355	1,233	709	248	86
DF		15	4	83	76	7.956	9.76	11.93	20.4	71.7	6.92	243	855	485	170	60
DF		16	11	86	96	17.628	24.61	37.54	20.5	79.0	21.91	769	2,965	1,534	538	208
DF		17	4	86	111	6.194	9.76	13.94	26.5	105.6	10.53	370	1,471	737	259	103
DF		18	6	84	87	7.444	13.15	16.27	24.9	90.3	11.54	405	1,470	808	283	103
DF		19	7	85	100	8.299	16.34	17.46	32.6	115.2	16.23	570	2,011	1,136	399	141
DF		20	5	85	98	5.594	12.20	11.19	33.4	123.0	10.64	373	1,376	745	261	96
DF		21	7	84	80	6.794	16.34	10.85	36.9	125.1	11.40	400	1,358	798	280	95
DF		22	4	85	92	3.416	9.02	6.83	41.7	158.3	8.12	285	1,082	569	200	76
DF		23	4	85	97	3.126	9.02	6.25	47.2	181.7	8.42	295	1,136	589	207	80
DF		24	9	82	101	6.518	20.48	13.58	41.4	164.6	16.03	562	2,235	1,122	394	156
DF		25	3	83	121	2.148	7.32	6.44	44.3	187.8	8.13	285	1,210	569	200	85
DF		26	2	84	94	1.324	4.88	3.31	51.7	188.0	4.87	171	622	341	120	44
DF		28	1	81	95	.571	2.44	.57	103.0	430.0	1.67	59	245	117	41	17
DF		29	1	80	98	.370	1.70	.74	59.4	205.0	1.25	44	152	88	31	11
DF		30	1	92	21	.497	2.44	.50	54.9	300.0	.78	27	149	54	19	10
DF		31	1	84	136	.466	2.44	1.40	82.8	390.0	3.30	116	545	231	81	38
DF		Totals		96	84 83	166.166	223.89	291.09	22.3	86.1	185.30	6,502	25,074	12,971	4,551	1,755
DL		34	1	83	140	.227	1.43	.68	101.8	496.7	1.90	69	338	133	48	24
DL		41	1	88	111	.156	1.43	.47	127.2	630.0	1.63	59	294	114	42	21
DL		Totals		2	85 128	.382	2.86	1.15	112.1	551.0	3.54	129	632	247	90	44
RA		18	1	77	75	1.213	2.14	2.43	25.0	85.0	1.67	61	206	117	42	14
RA		20	1	78	76	.982	2.14	1.96	31.7	105.0	1.71	62	206	120	44	14
RA		Totals		2	77 75	2.195	4.29	4.39	28.0	94.0	3.38	123	412	237	86	29
OH		9	2	79	95	6.467	2.86									
OH		17	2	81	58	2.109	3.32									
OH		22	1	82	96	.376	.99									
OH		34	1	47	44	.301	1.90									
OH		40	1	73	45	.313	2.73									
OH		48	1	62	36	.217	2.73									
OH		60	1	20	36	.139	2.73									
OH		Totals		9	77 82	9.922	17.26									
Totals			109	84	83	178.666	248.30	296.63	22.8	88.1	192.21	6754	26,119	13,455	4,727	1,828

TC TLOGSTVB				Log Stock Table - MBF																		
				Project: CLRSLNC																		
T02S R07W S12 T0200										T02S R07W S12 T0200												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2													
02S	07W	12	AREA2-HARV	0200	99.00	37	159	Date	11/30/2015													
									Time	1:32:38PM												
Spp	T	S	So	Gr	Log	Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
											2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		H	D		35																	
RA		H	D		36																	
RA		H		4	28		14		14	3.8			14									
RA		H		UT	16		1		1	.4			1									
RA		H		2	12		11		11	3.0							11					
RA		H		2	30		10		10	2.6					10							
RA		H		2	32		18		18	5.0					18							
RA		H		3	16		17		17	4.7					17							
RA		H		3	32		31		31	8.5					31							
RA		H		4	15		2		2	.5			2									
RA		H		4	16		7	25.0	5	1.5				5								
RA		H		4	17		4		4	1.0			4									
RA		H		4	18		6		6	1.7				6								
RA		H		4	19		4		4	1.2			4									
RA		H		4	20		19		19	5.2				9		10						
RA		H		4	21		3		3	.9			3									
RA		H		4	22		3		3	.8			3									
RA		H		4	23		8		8	2.1			8									
RA		H		4	24		23	8.6	21	5.7			4	7			10					
RA		H		4	26		6		6	1.5			6									
RA		H		4	28		5		5	1.3			5									
RA		H		4	32		20		20	5.4			7	13								
RA		H		4	34		16	20.0	13	3.6			13									
RA		H		4	35		18		18	4.9			18									
RA		H		4	36		5	33.3	3	.9			3									
RA		H		4	38		13	7.8	12	3.3			12									
RA		H		4	39		23	5.6	22	6.0			22									
RA		H		4	40		94	5.5	89	24.5			65	24								
RA		Totals					379	4.2	363	18.6			192	64	48	38	10	11				
OC		CO		2	40		8		8	90.0					8							
OC		CO		4	18		1		1	10.0		1										
OC		Totals					9		9	.5		1			8							
DL		CO		2	32		7		7	25.0							7					
DL		CO		2	40		21	5.9	20	71.1								11		9		
DL		CO		3	16		1		1	2.2					1							
DL		CO		4	18		0		0	1.7				0								
DL		Totals					30	4.2	28	1.4			0		1		7	11	9			
SS		CO		D	15																	
SS		Totals																				
WH		CO		3	32		7		7	85.7				7								
WH		CO		4	23		1		1	14.3		1										
WH		Totals					8		8	.4		1			7							
Total All Species							1,973		1,955	100.0		231	288	282	477	190	143	220	116	9		

TC		Stand Table Summary															TSTNDSUM		
Project															CLRSLNC				
T02S R07W S12 T0200															T02S R07W S12 T0200				
Twp	Rge	Sec	Tract		Type			Acres		Plots	Sample Trees			Page:	1				
02S	07W	12	AREA2-HARV		0200			99.00		37	159			Date:	11/30/2015				
															Time:	1:31:19PM			
S Spc	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s					
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF			
DF		8	3	76	26	10.630	3.71	7.09	3.5	20.0	.71	25	142	71	25	14			
DF		9	2	81	55	5.599	2.47	2.80	7.8	30.0	.62	22	84	61	22	8			
DF		10	4	84	49	9.071	4.95	11.34	6.8	24.0	2.20	77	272	218	77	27			
DF		11	2	84	81	3.748	2.47	5.62	10.6	46.7	1.70	60	262	169	59	26			
DF		12	4	84	89	7.685	6.04	12.22	14.2	50.0	4.94	173	611	489	171	60			
DF		13	3	85	90	4.026	3.71	8.05	14.4	55.0	3.31	116	443	327	115	44			
DF		14	7	84	74	9.626	10.29	16.43	13.9	53.0	6.52	229	871	645	226	86			
DF		15	6	84	84	7.378	9.05	13.75	19.8	71.4	7.75	272	981	767	269	97			
DF		16	7	85	94	7.370	10.29	13.85	24.1	90.0	9.51	334	1,247	942	330	123			
DF		17	13	84	89	11.582	18.26	24.29	23.2	86.0	16.06	564	2,090	1,590	558	207			
DF		18	9	85	91	7.531	13.31	16.07	26.6	96.1	12.20	428	1,544	1,207	424	153			
DF		19	2	85	87	1.256	2.47	2.51	30.6	102.5	2.19	77	258	217	76	25			
DF		20	4	84	106	2.517	5.49	5.85	32.9	116.2	5.49	193	680	544	191	67			
DF		21	1	92	106	.740	1.78	2.22	31.2	133.3	1.97	69	296	195	69	29			
DF		22	5	85	107	2.343	6.18	5.15	40.4	135.5	5.93	208	698	588	206	69			
DF		23	2	86	138	.857	2.47	1.71	52.6	205.0	2.57	90	352	255	89	35			
DF		24	2	84	103	.787	2.47	1.97	37.1	144.0	2.08	73	283	206	72	28			
DF		25	4	83	114	1.771	6.04	4.95	48.2	193.9	6.80	239	960	673	236	95			
DF		26	8	88	123	2.979	10.98	7.26	61.8	275.3	12.78	448	1,998	1,265	444	198			
DF		28	1	86	115	.416	1.78	1.25	59.7	266.7	2.13	75	333	210	74	33			
DF		29	3	85	91	1.046	4.80	2.48	56.5	252.5	3.99	140	626	395	139	62			
DF		30	2	87	124	.615	3.02	1.59	81.5	369.7	3.70	130	589	366	129	58			
DF		Totals		94	83	79	99.575	132.05	168.47	24.0	92.7	115.17	4,041	15,621	11,402	4,001	1,546		
RA		9	1	74	70	4.592	2.03	4.59	10.4	30.0	1.31	48	138	130	47	14			
RA		10	1	87	38	2.583	1.41	2.58	7.3	30.0	.52	19	77	52	19	8			
RA		11	2	84	38	4.270	2.82	2.13	7.0	20.0	.41	15	43	41	15	4			
RA		12	8	82	62	15.140	11.89	13.35	16.7	49.2	6.13	223	657	606	221	65			
RA		13	4	83	57	6.114	5.64	6.11	16.7	52.5	2.81	102	321	278	101	32			
RA		14	7	82	63	9.805	10.48	11.70	21.0	55.1	6.74	245	645	668	243	64			
RA		15	7	83	46	8.037	9.86	5.74	23.2	58.0	3.67	133	333	363	132	33			
RA		16	3	85	55	3.027	4.23	4.04	24.0	62.5	2.67	97	252	264	96	25			
RA		17	3	85	64	3.075	4.85	4.36	29.0	78.9	3.48	127	344	345	125	34			
RA		18	5	84	61	4.337	7.66	5.49	26.7	65.9	4.03	146	362	399	145	36			
RA		19	1	84	57	.716	1.41	.72	16.4	30.0	.32	12	21	32	12	2			
RA		20	3	84	66	2.221	4.85	4.73	24.4	100.2	3.18	116	473	315	114	47			
RA		Totals		45	82	58	63.917	67.12	65.54	19.6	56.0	35.27	1,283	3,667	3,492	1,270	363		
DL		34	1	89	132	.119	.75	.36	84.8	433.3	.83	30	155	82	30	15			
DL		39	1	83	131	.091	.75	.27	110.6	483.3	.83	30	131	82	30	13			
DL		Totals		2	86	132	.210	1.50	.63	95.9	454.9	1.66	60	286	164	60	28		
OC		21	1	84	71	.449	1.08	.90	34.2	100.0	.77	31	90	76	30	9			
OC		26	2	83	58	.586	2.16												
OC		Totals		3	83	63	1.036	3.24	.90	34.2	100.0	0.77	31	90	76	30	9		
WH		15	1	86	73	.612	.75	1.22	18.1	70.0	.71	22	86	70	22	8			
WH		Totals		1	86	73	.612	.75	1.22	18.1	70.0	0.71	22	86	70	22	8		
OH		8	1	72	38	2.151	.75												
OH		11	1	77	100	1.638	1.08												
OH		26	1	85	21	.204	.75												
OH		31	1	64	58	.143	.75												

TC		TSTNDSUM												Stand Table Summary																			
														Project				CLRSLNC															
T02S R07W S12 T0200														T02S R07W S12 T0200																			
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page: 2																	
02S		07W		12		AREA2-HARV		0200		99.00		37		159		Date: 11/30/2015																	
																Time: 1:31:19PM																	
S		Av							Average Log		Net		Net		Totals																		
T		Sample		FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.																				
Sp		DBH	Trees	16'	Tot	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF																	
OH		35	2	69	89	.225	1.50																										
OH		38	1	46	25	.137	1.08																										
OH		42	1	88	134	.078	.75																										
OH		44	2	73	38	.142	1.50																										
OH		48	1	84	50	.086	1.08																										
OH		60	1	63	30	.055	1.08																										
OH		61	1	80	90	.037	.75																										
OH		Totals	13	74	63	4.896	11.08																										
SS		8	1	70	17	2.151	.75																										
SS		Totals	1	70	17	2.151	.75																										
Totals		159		83	69	172.397	216.49	236.76	23.0	83.4	153.57	5437	19,749	15,204	5,382	1,955																	

FI TLOGSTVB				Log Stock Table - MBF																
				Project: CLRSLNC																
T01S R07W S12 T120										T01S R07W S12 T120										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2											
01S	07W	12	AREA3-GROW	120	183.00	0	134	Date	11/30/2015											
										Time	1:37:50PM									
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	?	8	4	27	22		22	1.2		22										
DF	?	8	4	28	8		8	.4		8										
DF	?	8	4	32	38		38	2.1		22	16									
DF	?	8	4	35	7		7	.4		7										
DF	?	8	4	36	89		89	4.9		89										
DF	?	8	4	38	29		29	1.6		29										
DF	?	8	4	40	160		160	8.8		116	9			35						
DF				Totals	1,849	1.8	1,816	29.6		565	465	515	127	69		75				
WL	?	8	2	36	42		42	21.3						42						
WL	?	8	3	32	36		36	18.2				36								
WL	?	8	3	36	85		85	43.2					85							
WL	?	8	4	21	8		8	4.1		8										
WL	?	8	4	23	5		5	2.7		5										
WL	?	8	4	32	7		7	3.6		7										
WL	?	8	4	34	14		14	7.0		14										
WL				Totals	197		197	3.2		34		36	85	42						
OC	*	*	32	128		128	100.0			128										
OC				Totals	128		128	2.1			128									
RA	?	8	?	R 22	6		6	5.6			6									
RA	?	8	?	R 23	8		8	7.3			8									
RA	?	8	?	R 30	26		26	24.5					26							
RA	?	8	?	R 32	31		31	29.0					31							
RA	?	8	?	R 34	36		36	33.6			36									
RA				Totals	107		107	1.8			50		57							
AL	?	8	?	R 19	5		5	8.0			5									
AL	?	8	?	R 32	31		31	48.1					31							
AL	?	8	?	R 40	28		28	43.9			28									
AL				Totals	65		65	1.1			34		31							
Total All Species				6,205	1.2	6,132	100.0		958	1102	1170	884	491	374	744	408				

FI		TSTNDSUM															Stand Table Summary												
Project																	CLRSLNC												
T01S R07W S12 T120																	T01S R07W S12 T120												
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1									
01S		07W		12		AREA3-GROW		120			183.00		0		134			Date:		11/30/2015									
																		Time:		1:36:11PM									
S		Sample		FF		Ht		Av			Average Log		Net		Net		Totals												
T		DBH		Trees		16'		Tot		Trees/			BA/		Logs		Tons		Cunits		MBF								
Sp		T		DBH		Trees		16'		Tot		Acre			Acre		Acre		Acre		Acre		Acre						
DL		8		84		62		4.140			1.61		4.52		3.7		23.6		.45		17		107						
DL		10		87		91		5.544			3.22		9.15		9.3		50.8		2.34		85		465						
DL		11		85		87		13.727			9.67		27.59		9.6		47.1		7.25		264		1,301						
DL		12		87		104		9.496			8.06		20.75		12.6		60.1		7.19		262		1,246						
DL		14		87		105		6.454			6.45		14.10		15.5		72.2		6.01		219		1,019						
DL		15		88		109		8.180			9.67		17.88		19.7		90.2		9.68		352		1,612						
DL		16		86		111		2.414			3.22		5.28		22.3		85.5		3.23		117		451						
DL		17		88		118		4.249			6.45		10.52		24.3		112.0		7.03		256		1,178						
DL		18		83		103		3.771			6.45		7.21		31.9		124.6		6.32		230		899						
DL		19		87		102		2.515			4.84		5.50		29.9		127.7		4.52		164		702						
DL		20		88		110		1.505			3.22		4.11		27.7		124.9		3.13		114		514						
DL		21		88		111		2.730			6.45		7.47		32.8		150.8		6.72		245		1,126						
DL		22		87		113		2.464			6.45		6.73		36.9		157.9		6.82		248		1,063						
DL		23		86		112		2.245			6.45		5.52		45.0		200.4		6.84		249		1,106						
DL		24		88		107		.513			1.61		1.68		36.4		184.7		1.69		61		311						
DL		25		80		111		1.423			4.84		4.15		42.9		168.2		4.90		178		698						
DL		27		87		130		1.205			4.84		3.95		55.6		281.6		6.04		220		1,113						
DL		28		85		122		1.863			8.06		5.70		56.6		279.5		8.88		323		1,593						
DL		29		89		134		1.062			4.84		3.48		62.0		311.9		5.94		216		1,086						
DL		30		87		133		.969			4.84		3.18		69.1		354.9		6.03		219		1,127						
DL		31		88		118		.302			1.61		.99		66.1		396.8		1.80		65		393						
DL		32		86		122		.848			4.84		2.47		81.8		409.6		5.56		202		1,012						
DL		34		87		114		.249			1.61		.82		78.7		440.0		1.77		64		360						
DL		36		82		152		.224			1.61		.74		104.0		534.3		2.10		76		393						
DL		Totals		86		102		78.093			120.91		173.48		25.6		120.3		122.23		4,445		20,873						
DF		8		86		68		25.748			9.67		28.14		6.4		36.9		5.14		180		1,038						
DF		9		88		80		10.136			4.84		14.82		7.5		41.3		3.19		112		611						
DF		11		86		93		8.043			4.84		14.61		9.6		49.6		3.99		140		725						
DF		12		86		99		24.453			19.35		48.53		12.0		53.5		16.56		581		2,595						
DF		14		86		106		21.252			22.57		48.20		15.8		67.0		21.69		761		3,227						
DF		16		86		94		1.207			1.61		2.64		18.7		76.6		1.40		49		202						
DF		17		87		92		1.061			1.61		2.32		22.1		100.2		1.46		51		232						
DF		18		88		102		.940			1.61		2.05		27.4		117.9		1.60		56		242						
DF		20		86		103		.752			1.61		1.64		35.8		135.5		1.68		59		223						
DF		22		87		113		1.232			3.22		2.69		40.5		185.6		3.11		109		500						
DF		26		86		117		.435			1.61		1.42		45.7		227.9		1.86		65		325						
DF		Totals		86		90		95.260			72.55		167.08		13.0		59.4		61.67		2,164		9,921						
WL		14		88		82		1.475			1.61		3.21		15.1		74.6		1.55		49		239						
WL		15		94		101		1.272			1.61		2.77		22.4		122.0		1.98		62		338						
WL		17		86		84		.974			1.61		2.12		25.2		108.5		1.71		53		230						
WL		18		91		92		.863			1.61		1.88		31.8		142.4		1.91		60		267						
WL		Totals		90		90		4.584			6.43		9.97		22.4		107.7		7.15		223		1,074						
OC		13		88		115		1.731			1.61		1.73		28.4		81.0		1.23		49		140						
OC		16		86		78		1.108			1.61		1.11		44.3		126.6		1.23		49		140						
OC		20		85		66		.769			1.61		.77		63.8		182.3		1.23		49		140						
OC		33		54		23		.277			1.61		.28		177.3		506.3		1.23		49		140						
OC		38		67		28		.204			1.61		.20		241.3		689.1		1.23		49		140						
OC		Totals		84		85		4.089			8.03		4.09		60.0		171.5		6.14		246		701						
RA		10		83		73		3.080			1.56		3.21		12.2		61.4		1.07		39		197						

FI		TSTNDSUM		Stand Table Summary												
				Project		CLRSLNC										
T01S R07W S12 T120													T01S R07W S12 T120			
Twp		Rge	Sec	Tract		Type		Acres		Plots	Sample Trees		Page:		2	
01S		07W	12	AREA3-GROW		120		183.00		0	134		Date:		11/30/2015	
														Time:		1:36:11PM
S	Sample			Av					Average Log		Net	Net	T o t a l s			
Spc	T	DBH	Trees	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.			
			16'	Tot	Acre	Acre	Acre		Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
RA		16		87	81	1.109	1.56	2.31	20.7	92.1	1.31	48	213	240	87	39
RA		18		85	73	.863	1.56	1.80	24.1	98.3	1.19	43	177	218	79	32
RA		Totals		84	75	5.052	4.69	7.32	17.8	80.2	3.58	130	587	655	238	107
AL		13		86	75	1.732	1.56	1.81	23.6	86.0	1.17	43	155	214	78	28
AL		16		86	75	1.109	1.56	2.31	19.8	86.0	1.26	46	199	231	84	36
AL		Totals		86	75	2.841	3.13	4.12	21.5	86.0	2.43	88	354	445	162	65
Totals				86	94	189.918	215.73	366.06	19.9	91.5	203.20	7296	33,510	37,185	13,352	6,132

TC TLOGSTVB				Log Stock Table - MBF																	
				Project: CLRSLNC																	
T01S R07W S12 T0200										T01S R07W S12 T0200											
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees		Page	2										
01S	07W	12	AREA4-HARV		0200	67.00	32	97		Date	11/30/2015										
										Time	1:35:38PM										
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+
WH		CO	2	40		36		36	85.5						36						
WH		CO	3	40		6		6	14.5			6									
WH		Totals				42		42	2.4			6			36						
NF		CO	2	40		57		57	98.1					14				43			
NF		CO	4	27		1		1	1.9		1										
NF		Totals				58		58	3.3		1			14				43			
DL		CO	2	40		17		17	96.3					5			12				
DL		CO	3	26		1		1	3.7			1									
DL		Totals				18		18	1.0			1		5			12				
RC		CO	2	40		6		6	92.3				6								
RC		CO	4	23		0		0	7.7		0										
RC		Totals				6		6	.4		0			6							
Total All Species						1,732		1,729	100.0		301	197	216	330	253	135	202	52	43		

TC		Stand Table Summary														
Project										CLRSLNC						
T01S R07W S12 T0200										T01S R07W S12 T0200						
Twp	Rge	Sec	Tract		Type			Acres		Plots	Sample Trees			Page: 1		
01S	07W	12	AREA4-HARV		0200			67.00		32	97			Date: 11/30/2015 Time: 1:34:53PM		
S Spc	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s		
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		7	1	83	48	7.795	2.08	7.80	3.3	20.0	.74	26	156	50	17	10
DF		8	2	84	28	11.937	4.17	11.94	3.5	20.0	1.20	42	239	80	28	16
DF		9	6	83	73	28.294	12.50	33.01	8.1	35.7	7.58	266	1,179	508	178	79
DF		10	6	87	78	22.918	12.50	30.56	9.5	38.7	8.31	291	1,184	557	195	79
DF		11	8	85	79	25.254	16.67	31.57	13.5	49.0	12.12	426	1,547	812	285	104
DF		12	5	84	94	13.263	10.42	23.87	13.0	52.2	8.85	311	1,247	593	208	84
DF		13	5	86	85	11.301	10.42	20.34	14.6	53.3	8.45	297	1,085	566	199	73
DF		14	2	86	91	3.898	4.17	7.80	16.5	65.0	3.66	128	507	245	86	34
DF		15	6	84	106	10.186	12.50	20.37	21.2	82.5	12.30	432	1,681	824	290	113
DF		16	3	87	97	4.476	6.25	8.95	23.8	95.0	6.07	213	850	406	143	57
DF		17	6	89	107	7.930	12.50	17.18	26.6	110.8	13.01	457	1,903	872	306	128
DF		18	5	86	115	5.895	10.42	14.15	29.4	120.0	11.86	416	1,698	794	279	114
DF		19	3	83	109	3.174	6.25	8.46	28.0	102.5	6.76	237	868	453	159	58
DF		20	3	87	94	2.865	6.25	5.73	37.7	133.3	6.16	216	764	413	145	51
DF		21	3	88	113	2.598	6.25	6.06	40.5	171.4	6.99	245	1,039	469	164	70
DF		22	1	82	107	.789	2.08	1.58	50.5	180.0	2.27	80	284	152	53	19
DF		23	2	88	108	1.444	4.17	3.61	45.7	192.0	4.71	165	693	316	111	46
DF		24	4	86	110	2.653	8.33	6.63	49.2	206.0	9.30	326	1,366	623	219	92
DF		25	1	91	113	.611	2.08	1.83	48.3	233.3	2.52	88	428	169	59	29
DF		27	2	83	126	1.048	4.17	3.14	57.2	235.0	5.12	180	739	343	120	49
DF		28	1	83	117	.487	2.08	1.46	59.1	243.3	2.46	86	356	165	58	24
DF		30	1	85	106	.424	2.08	1.27	61.5	260.0	2.23	78	331	149	52	22
DF		31	1	81	145	.397	2.08	1.19	83.5	363.3	2.84	100	433	191	67	29
DF		33	1	88	114	.351	2.08	1.05	85.3	396.7	2.56	90	417	172	60	28
DF		Totals	78	85	82	169.990	162.50	269.57	19.3	77.9	148.08	5,197	20,993	9,922	3,482	1,407
RA		15	3	83	77	7.470	9.17	14.94	18.5	71.7	7.59	276	1,071	508	185	72
RA		16	1	86	76	2.188	3.06	4.38	21.4	85.0	2.57	94	372	172	63	25
RA		17	1	82	75	1.938	3.06	3.88	24.0	85.0	2.56	93	330	171	62	22
RA		18	1	80	103	1.729	3.06	3.46	33.5	125.0	3.18	116	432	213	78	29
RA		21	1	66	75	1.270	3.06	2.54	32.5	85.0	2.28	83	216	153	55	14
RA		23	2	79	62	2.118	6.11	4.24	37.0	127.5	4.31	157	540	289	105	36
RA		Totals	9	81	77	16.714	27.50	33.43	24.5	88.6	22.49	818	2,961	1,507	548	198
NF		35	1	91	120	.561	3.75	1.68	99.4	513.3	4.02	167	864	269	112	58
NF		Totals	1	91	120	.561	3.75	1.68	99.4	513.3	4.02	167	864	269	112	58
WH		26	1	91	99	1.017	3.75	2.03	72.9	310.0	4.75	148	631	318	99	42
WH		Totals	1	91	99	1.017	3.75	2.03	72.9	310.0	4.75	148	631	318	99	42
DL		34	1	85	129	.198	1.25	.59	95.5	450.0	1.56	57	268	105	38	18
DL		Totals	1	85	129	.198	1.25	.59	95.5	450.0	1.56	57	268	105	38	18
RC		25	1	75	76	.367	1.25	.73	55.1	130.0	.95	40	95	64	27	6
RC		Totals	1	75	76	.367	1.25	.73	55.1	130.0	0.95	40	95	64	27	6
OH		10	2	82	90	4.584	2.50									
OH		11	1	86	110	1.894	1.25									
OH		12	1	62	60	1.592	1.25									
OH		50	1	73	42	.092	1.25									
OH		52	1	84	70	.085	1.25									
OH		Totals	6	79	88	8.246	7.50									

TC TSTNDSUM				Stand Table Summary											
				Project			CLRSLNC								
T01S R07W S12 T0200												T01S R07W S12 T0200			
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page:	2		
01S	07W	12	AREA4-HARV	0200			67.00	32	97			Date:	11/30/2015		
												Time:	1:34:53PM		
S Spc	T	Sample		Av				Average Log		Net		Net	T o t a l s		
		DBH	Trees	FF Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF
Totals		97	85	82	197.093	207.50	308.04	20.9	83.8	181.85	6427	25,812	12,184	4,306	1,729



"STEWARDSHIP IN FORESTRY"

Clear Silence

Volume Summary

Area 1- Modified Clearcut				
70 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Area
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	25.1	1755	1%	1737
Alder	0.4	29	2%	28
TOTAL	25.5	1784		1766

Areas 2-Modified Clearcut				
99 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Area
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	15.6	1546	1%	1531
Alder	3.7	363	2%	360
TOTAL	19.3	1910		1891

Areas 3-Partial Cut				
183 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Area
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	9.9	1816	1%	1797
Alder	0.6	107	2%	106
TOTAL	10.5	1923		1903

Areas 4-Modified Clearcut				
67 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Area
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	21.0	1407	1%	1392
Alder	3.0	198	2%	196
TOTAL	24.0	1605		1588

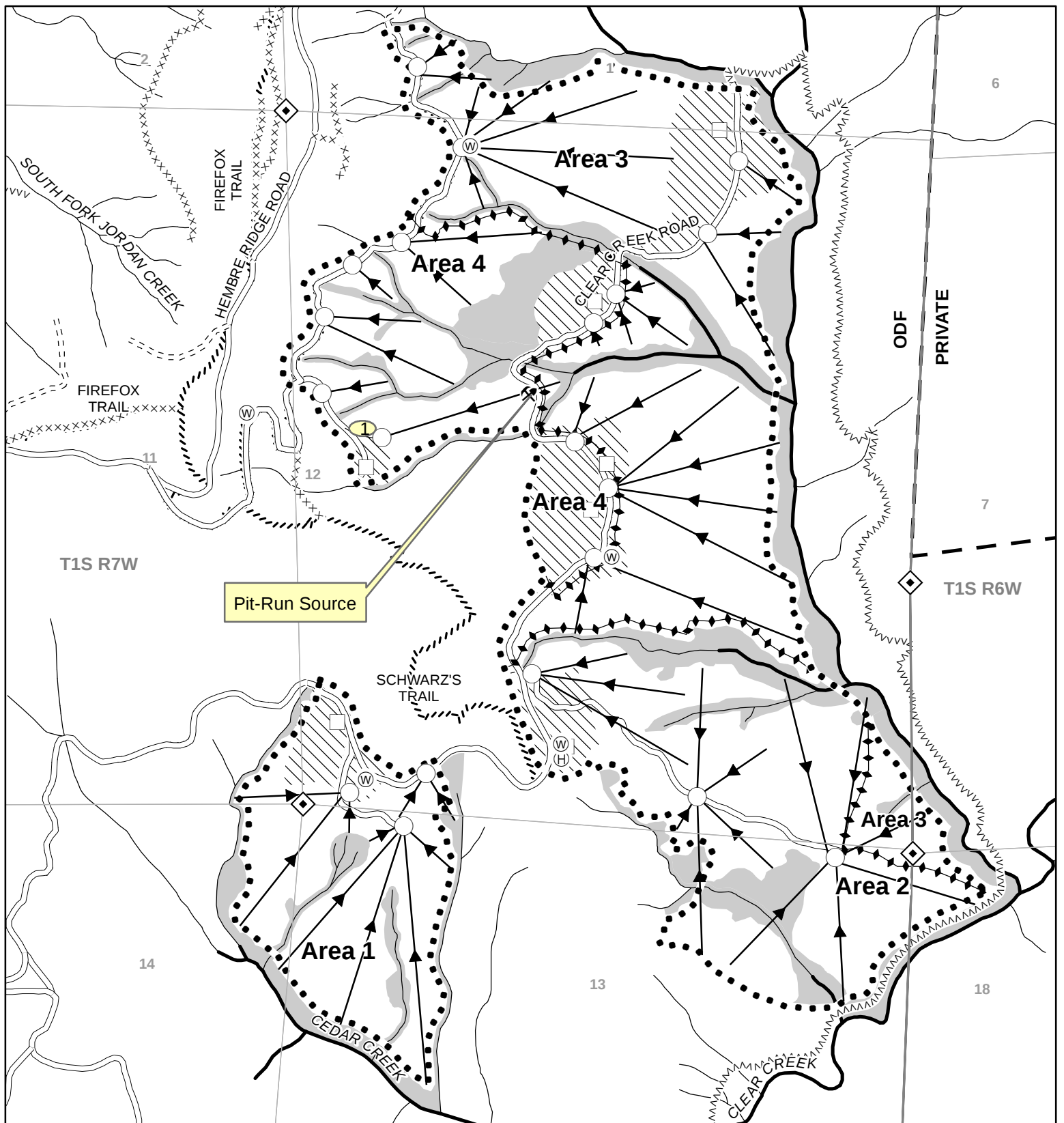


"STEWARDSHIP IN FORESTRY"

Clear Silence

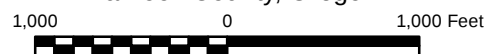
Volume Summary

TOTAL SALE VOLUME			419	acres
SPECIES	Cruised Net (MBF)		Net Sale (MBF)	
Douglas-fir	6524		6458	
Red alder	698		690	
TOTAL	7222		7148	



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

LOGGING PLAN
 Timber Sale Contract No. 341-16-76
CLEAR SILENCE
 Portions of Sections 7 and 18, T1S, R6W, &
 Portions of Sections 1, 11, 12, 13, and 14
 T1S, R7W, W.M.,
 Tillamook County, Oregon



Tillamook District GIS
 12/08/2015
 This product is for informational use and may
 not have been prepared or suitable for
 legal, engineering, or surveying purposes.

Area	Type of Operation	Acres	
		Gross	Net
1	Modified Clearcut	89	70
2	Modified Clearcut	127	99
3	Partial Cut	233	183
4	Modified Clearcut	87	67
Total		536	419

