Timber Sale Appraisal
High Standards

Sale TL-341-2017-65-

District: Tillamook

Date: October 02, 2017

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,897,306.87	$38,754.96	$1,936,061.83
		Project Work:	($332,520.00)
		Advertised Value:	$1,603,541.83

Timber Description

Location: Portions of Sections 7, 8, 17, and 18, T2N, R7W, and Sections 12 and 13, T2N, R8W, W.M., Tillamook County, Oregon

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	95
Western Hemlock / Fir	17	0	95
Noble Fir	18	0	95
Alder (Red)	13	0	90

Volume by Grade	2S	3S	4S	8" - 9"	10" - 11"	6" - 7"	Total
Douglas - Fir	2,623	1,685	550	0	0	0	4,858
Western Hemlock / Fir	107	148	42	0	0	0	297
Noble Fir	376	168	47	0	0	0	591
Alder (Red)	0	0	0	23	6	95	124
Total	3,106	2,001	639	23	6	95	5,870

Comments: Pond Values Used: July 2017

Western Red Cedar and Other Cedars Stumpage Price = Pond Value – Logging Cost
$1,500/MBF - $300/MBF = $1,200/MBF

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

SCALING COST ALLOWANCE = $ 5.00/ MBF
BRAND AND PAINT ALLOWANCE = $2.00/ MBF
FUEL COST ALLOWANCE = $3.00/ Gallon
HAULING COST ALLOWANCE
Hauling cost equivalent to $780 daily truck cost

Other Costs with Profit and Risk to be added:
Snag creation: (Area 1-61 snags, Area 2 – 87 snags, Area 3 – 53 snags, Area 4 – 160 snags) 361 snags x $10/ snag = $3,610
TOTAL Other Costs with profit and Risk to be added = $ 3,610

Other Costs with No Profit and Risk Added:
Additional move-in: 3 pieces of equipment x $1,250 = $ 3,750
Machine Cleaning: $1000/machine x 2 machines x 2 seasons = $4,000
Slash piling and sorting (Cable Ground): $5/ac x 336 ac = $1,680
Heliport Construction: 8 hours machine loader time for slash moving @ $140/ hour = $ 1,120
Non-project Road 1: $350/ station x 7+89 stations = $2,762
Non-project Road 2: $150/ station x 2+48 stations = $372
Non-project Road 3: $150/station x 3+16 stations = $474
Non-project Road 4: $150/station x 0+72 stations = $108
Non-project Road 5: $150/station x 14+26 stations = $2,139
Non-project Road 6: $350/station x 4+81 stations = $1,684
Non-project Road 7: $150/station x 6+16 stations = $924
Non-project Road 8: $150/station x 15+35 stations = $2,303
Non-project Road 9: $150/station x 3+12 stations = $468
Road blocking (All non-project Roads 1 to 9): $50/ block x 9 roads = $450

Ditch Cleaning and Bank Sluff Removal:
Mobilization: once – dump truck w/ tilt bed & small excavator: $890 x 1 = $890
Small excavator (Cat 312 or equivalent): 40 hours @ $95/ hour = $3,800
Dump truck: 40 hours @ $70/ hour = $2,800

TOTAL Other Costs no Profit and Risk added = $ 29,724

ROAD MAINTENANCE:
Portions of North Fork, West Fork, North Fork West Fork, Gilmore, Firebreak 8, Standard Grade, and 100-Spur roads.
Spot rocking: 20cy/mmbf/mile x 5.9 MMBF x $7.00/cy x 29.1 miles/ 5870 MBF = $ 4.09/ MBF
Interm Grading, 3 times: $400/ mile x 29.1 miles x 3 times/ 5870 MBF = $5.95/ MBF
Final Maintenance Grading: $800 x 29.1 miles/5870 MBF = $3.97/ MBF
Final Maintenance Compaction: $700/mile x 3.4 miles/ 5870 MBF = $ 0.40/ MBF
Total Road Maintenance: $14.41/ MBF

Logging Conditions

Combination#: 1 Douglas - Fir 94.04%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 5.917 **bd. ft / load:** 3800
cost / mbf: $266.85
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2 Western Hemlock / Fir 92.73%
Noble Fir 89.74%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 9 **bd. ft / load:** 4200
cost / mbf: $158.73
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 3 Alder (Red) 88.67%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 9 **bd. ft / load:** 3800
cost / mbf: $175.44
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 4 Douglas - Fir 5.96%
Western Hemlock / Fir 7.27%
Noble Fir 10.26%
Alder (Red) 11.33%

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)

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	15%
Project Costs:	$332,520.00	**Other Costs (P/R):**	$3,610.00
Slash Disposal:	$0.00	**Other Costs:**	$29,724.00

Miles of Road

Road Maintenance: $14.41

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	4.2
Western Hemlock / Fir	$0.00	3.0	4.0
Noble Fir	$0.00	2.0	4.0
Alder (Red)	$0.00	3.0	3.0

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling / Brand & Paint	Other	Total
Douglas - Fir									
$255.08	$15.13	$1.49	$65.00	$0.61	$50.60	$0.00	$7.00	$5.06	$399.97
Western Hemlock / Fir									
$152.24	$15.13	$1.49	$68.25	$0.61	$35.66	$0.00	$7.00	$5.06	$285.44
Noble Fir									
$149.58	$15.13	$1.49	$102.38	$0.61	$40.38	$0.00	$7.00	$5.06	$321.63
Alder (Red)									
$163.44	$15.85	$1.49	$95.34	$0.61	$41.51	$0.00	$7.00	$5.06	$330.30

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$735.11	$335.14	$0.00
Western Hemlock / Fir	$0.00	$609.96	$324.52	$0.00
Noble Fir	$0.00	$614.04	$292.41	$0.00
Alder (Red)	$0.00	$642.84	$312.54	$0.00

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Amortized

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

Unamortized

Specie	**MBF**	**Value**	**Total**
Douglas - Fir	4,858	$335.14	$1,628,110.12
Western Hemlock / Fir	297	$324.52	$96,382.44
Noble Fir	591	$292.41	$172,814.31
Alder (Red)	124	$312.54	$38,754.96

Gross Timber Sale Value

Recovery: $1,936,061.83

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OREGON DEPARTMENT OF FORESTRY
"STEWARDSHIP IN FORESTRY"

PROJECT SUMMARY SHEET

Sale: High Standards

CONSTRUCTION

Point	I to J	8+50	stations =	$8,283.90
			SUBTOTAL CONSTRUCTION	**$8,283.90**

IMPROVEMENT

Point	A to B	531+50	stations =	$107,114.18
Point	C to D	128+50	stations =	$45,652.90
Point	E to F	243+50	stations =	$64,918.48
Point	G to H	57+00	stations =	$2,292.80
Point	K to L	3+20	stations =	$1,339.84
Point	O to P	10+70	stations =	$9,542.28
Point	Q to R	10+50	stations =	$4,709.72
			SUBTOTAL IMPROVEMENT	**$235,570.20**

RECONSTRUCTION

Point	E to F	2+80	stations =	$4,408.09
Point	I to J	5+00	stations =	$4,105.91
Point	M to N	21+80	stations =	$8,568.80
			SUBTOTAL RECONSTRUCTION	**$17,082.80**

SPECIAL PROJECTS

Stockpile	1160	CY of 3"-0" Rock			$13,896.80
Stockpile	2320	CY of 1"-0" Rock			$31,900.00
Brushing	15.8	Miles at $850/mi.			$13,430.00
Quarry Test Holes					
	Tin Shack		5 Hrs Drill	2 Hrs Exc.	$3,390.00
	Cook Creek		0 Hrs Drill	2 Hrs Exc.	$390.00
			SUBTOTAL SPECIAL PROJECTS		**$63,006.80**

MOVE IN	**$8,576.30**
GRAND TOTAL	**$332,520.00**

SUMMARY OF CONSTRUCTION COST

Sale:	**High Standards**	Road:	**A to B**	**(Gilmore, 100-Spur, FB 8)**

Construction -	0+00	stations	Improvement -	531+50	stations	Reconstruction -	0+00	stations
	0.00	miles		10.07	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Widening - ENDHAUL	0.187	acres @	$1,500.00	per acre =	$280.50	
FB8 Cutbank - SCATTER	1.200	acres @	$980.00	per acre =	$1,176.00	
				TOTAL CLEARING AND GRUBBING		**$1,456.50**

IMPROVEMENT: EXCAVATION -

Dozer work on FB8	87.60	sta. @	$80.00	per sta. =	$7,008.00	
Widening	1100	cy. @	$3.50	per c.y.=	$3,850.00	
				TOTAL EXCAVATION		**$10,858.00**

IMPROVEMENT: ENDHAUL -

Widening	Point M			210	cy. @	$2.88	per c.y.=	$604.80	
Widening	490+50	to	493+30	101	cy. @	$2.92	per c.y.=	$294.92	
Widening	493+30	to	494+40	239	cy. @	$2.98	per c.y.=	$712.22	
Widening	498+70	to	500+50	260	cy. @	$3.09	per c.y.=	$803.40	
Widening	504+10	to	505+00	109	cy. @	$3.24	per c.y.=	$353.16	
Widening	506+60	to	507+80	146	cy. @	$3.32	per c.y.=	$484.72	
Widening	524+10	to	525+70	35	cy. @	$3.39	per c.y.=	$118.65	
Spread & compact				1100	cy. @	$0.25	per c.y.=	$275.00	
							TOTAL ENDHAUL		**$3,646.87**

CULVERTS - MATERIALS & INSTALLATION

Culverts

60	LF of 18"	$1,098.00	0	LF of 24"	$0.00
		$1,098.00			$0.00

Culvert Stakes & Markers

0	stakes	$0.00		
8	markers	$64.00		
		$64.00	**TOTAL CULVERTS**	**$1,162.00**

ROCK

60+50 to 76+00 &	104+00 to 143+00	1,230	cy. of	Crushed	@	$15.05	per c.y.=	$18,511.50	
432+80 to	481+30	1,700	cy. of	Crushed	@	$13.60	per c.y.=	$23,120.00	
Culvert Bed / Backfill	All Culverts	20	cy. of	Crushed	@	$14.34	per c.y.=	$286.80	
Leveling Rock	443+90-531+50	2,000	cy. of	Pit-Run	@	$8.55	per c.y.=	$17,100.00	
Wing Wall Fill	1+30	20	cy. of	Riprap	@	$13.84	per c.y.=	$276.80	
Ditch Filter	1+60	10	cy. of	Drain	@	$18.33	per c.y.=	$183.30	
Spot Rock	283+20-432+80	300	cy. of	Crushed	@	$13.49	per c.y.=	$4,047.00	
Energy Dissipator	All Culverts	10	cy. of	Riprap	@	$11.78	per c.y.=	$117.80	
							TOTAL ROCK		**$63,643.20**

SPECIAL PROJECTS

Construct ditchouts between 2+20 & 4+40 -	3.00	@	$60.00	each	$180.00	
Place riprap to repair hole behind wing wall -	1.50	hours @	$145.00	per hour	$217.50	
Grade and shape road to 481+30 -	481.30	stations @	$15.50	per station	$7,460.15	
Pull ditch and endhaul from 0+00 to 103+00 -	103.00	stations @	$70.00	per station	$7,210.00	
Construct settlement basin at 0+20 -	1.00	@	$75.00		$75.00	
Construct/shoot ditch from 443+90 to 468+90 -	25.00	stations @	$190.00	per station	$4,750.00	
Roll subgrade w/ vibratory roller to 481+30 -	481.30	stations @	$13.20	per station	$6,353.16	
Grass seed and fertilize -	0.19	acres @	$220.00	per acre	$41.80	
Mulching -	0.100	acres @	$600.00	per acre	$60.00	
				TOTAL SPECIAL PROJECTS		**$26,347.61**

GRAND TOTAL	**$107,114.18**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **C to D** **(Standard Grade)**

Construction -	0+00	stations	Improvement -	128+50	stations	Reconstruction -	0+00	stations
	0.00	miles		2.43	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.032	acres	@	$1,500.00	per acre =	$48.00	
Widening	0.216	acres	@	$1,500.00	per acre =	$324.00	
Scattering	0.950	acres	@	$980.00	per acre =	$931.00	
				TOTAL CLEARING AND GRUBBING			**$1,303.00**

IMPROVEMENT: EXCAVATION -

Pullback	135	cy. @	$1.40	per c.y.=	$189.00	
Widening	574	cy. @	$1.40	per c.y.=	$803.60	
				TOTAL EXCAVATION		**$992.60**

IMPROVEMENT: ENDHAUL -

Pullback	69+30	to	70+30	135	cy. @	$2.87	per c.y.=	$387.45	
Widening	0+00	to	1+40	108	cy. @	$3.19	per c.y.=	$344.52	
Widening	5+80	to	6+50	55	cy. @	$3.10	per c.y.=	$170.50	
Widening	8+60	to	10+50	147	cy. @	$3.04	per c.y.=	$446.88	
Widening	34+80	to	35+70	39	cy. @	$3.02	per c.y.=	$117.78	
Widening	50+70	to	52+10	51	cy. @	$2.89	per c.y.=	$147.39	
Widening	69+30	to	70+30	174	cy. @	$2.87	per c.y.=	$499.38	
Spread & compact				709	cy. @	$0.25	per c.y.=	$177.25	
							TOTAL ENDHAUL		**$2,291.15**

CULVERTS - MATERIALS & INSTALLATION

Culverts

160	LF of 18"	$2,928.00	0	LF of 24"	$0.00	
		$2,928.00			$0.00	

Culvert Stakes & Markers

0	stakes	$0.00		
21	markers	$168.00		
		$168.00	**TOTAL CULVERTS**	**$3,096.00**

ROCK

0+00	to	12+70	450	cy. of	Crushed	@	$14.44	per c.y.=	$6,498.00	
0+00	to	34+50	600	cy. of	Crushed	@	$16.11	per c.y.=	$9,666.00	
85+40	to	128+50	740	cy. of	Crushed	@	$15.19	per c.y.=	$11,240.60	
Culvert Bed / Backfill		All Culverts	50	cy. of	Crushed	@	$14.95	per c.y.=	$747.50	
Junction Rock		0+00, 128+50	20	cy. of	Crushed	@	$15.50	per c.y.=	$310.00	
Junction Rock		0+00	20	cy. of	Crushed	@	$14.55	per c.y.=	$291.00	
Spot Rock		34+50-85+40	200	cy. of	Crushed	@	$13.69	per c.y.=	$2,738.00	
Energy Dissipator		All Culverts	25	cy. of	Riprap	@	$12.26	per c.y.=	$306.50	
								TOTAL ROCK		**$31,797.60**

SPECIAL PROJECTS

Improve waste area at 99+60 -	1.50	hours @	$130.00	per hour	$195.00	
Construct ditch before culverts at 1+40, 6+50, 10+50 -	4.00	stations @	$100.00	per station	$400.00	
Pull ditch and endhaul where needed -	25.00	stations @	$70.00	per station	$1,750.00	
Grade and shape road -	128.50	stations @	$15.50	per station	$1,991.75	
Roll subgrade w/ vibratory roller prior to rocking -	128.50	stations @	$13.20	per station	$1,696.20	
Grass seed and fertilize -	0.28	acres @	$220.00	per acre	$61.60	
Mulching -	0.130	acres @	$600.00	per acre	$78.00	
				TOTAL SPECIAL PROJECTS		**$6,172.55**
				GRAND TOTAL		**$45,652.90**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **E to F** **(North Fork West Fork)**

Construction -	0+00	stations	Improvement -	243+50	stations	Reconstruction -	2+80	stations
	0.00	miles		4.61	miles		0.05	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.033	acres @	$1,500.00	per acre =	$49.50	
Widening	0.131	acres @	$1,500.00	per acre =	$196.50	
				TOTAL CLEARING AND GRUBBING		**$246.00**

IMPROVEMENT: EXCAVATION -

Pullback	106	cy. @	$1.40	per c.y.=	$148.40	
Widening	528	cy. @	$2.25	per c.y.=	$1,188.00	
Drill & Shoot	120	cy. @	$26.40	per c.y.=	$3,168.00	
				TOTAL EXCAVATION		**$4,504.40**

IMPROVEMENT: ENDHAUL -

Pullback	24+30	to	25+10	47	cy. @	$3.14	per c.y.=	$147.58	
Pullback	168+20	to	169+10	33	cy. @	$3.13	per c.y.=	$103.29	
Pullback	199+40	to	200+10	26	cy. @	$2.82	per c.y.=	$73.32	
Widening	24+30	to	25+10	94	cy. @	$3.14	per c.y.=	$295.16	
Widening	145+70	to	146+10	70	cy. @	$3.98	per c.y.=	$278.60	
Widening	149+20	to	150+70	217	cy. @	$3.83	per c.y.=	$831.11	
Widening	164+80	to	165+00	30	cy. @	$3.26	per c.y.=	$97.80	
Widening	168+20	to	169+10	20	cy. @	$3.13	per c.y.=	$62.60	
Widening	171+70	to	172+70	217	cy. @	$3.00	per c.y.=	$651.00	
Spread & compact				754	cy. @	$0.25	per c.y.=	$188.50	
							TOTAL ENDHAUL		**$2,728.96**

RECONSTRUCTION: CLEARING AND GRUBBING -

Widening	0.146	acres @	$1,500.00	per acre =	$219.00	
				TOTAL CLEARING AND GRUBBING		**$219.00**

RECONSTRUCTION: EXCAVATION -

Widening	810	cy. @	$1.60	per c.y.=	$1,296.00	
				TOTAL EXCAVATION		**$1,296.00**

RECONSTRUCTION: ENDHAUL -

Widening	214+40	to	217+20	520	cy. @	$3.43	per c.y.=	$1,783.60	
Spread & compact fill				290	cy. @	$1.10	per c.y.=	$319.00	
Spread & compact waste				520	cy. @	$0.25	per c.y.=	$130.00	
							TOTAL ENDHAUL		**$2,232.60**

CULVERTS - MATERIALS & INSTALLATION

Culverts

60	LF of 18"	$1,098.00	30	LF of 24"	$855.00	
70	LF of 30"	$2,660.00	30	LF of 36"	$1,745.00	
		$3,758.00			$2,600.00	

Culvert Stakes & Markers

0	stakes	$0.00		
26	markers	$208.00		
		$208.00	**TOTAL CULVERTS**	**$6,566.00**

ROCK

0+00 to	65+60	1,120	cy. of	Crushed	@	$15.46	per c.y.=	$17,315.20	
214+40 to	217+20	150	cy. of	Pit-run	@	$10.27	per c.y.=	$1,540.50	
214+40 to	217+20	70	cy. of	Crushed	@	$14.26	per c.y.=	$998.20	
Culvert Bed / Backfill	All Culverts	60	cy. of	Crushed	@	$15.80	per c.y.=	$948.00	
Road Scour Fill	184+60-186+60	60	cy. of	Pit-Run	@	$8.87	per c.y.=	$532.20	
Inlet Armor	184+60	10	cy. of	Riprap	@	$11.87	per c.y.=	$118.70	
Junction Rock	65+60	10	cy. of	Crushed	@	$15.31	per c.y.=	$153.10	
Spot Rock	65+60-134+40	200	cy. of	Crushed	@	$16.39	per c.y.=	$3,278.00	
Energy Dissipator	All Culverts	35	cy. of	Riprap	@	$14.54	per c.y.=	$508.90	
Spot Rock	134+40-246+30	400	cy. of	Crushed	@	$14.39	per c.y.=	$5,756.00	
Bank Armor	172+20	200	cy. of	Riprap	@	$26.66	per c.y.=	$5,332.00	
Bank Armor	180+10	40	cy. of	Riprap	@	$26.87	per c.y.=	$1,074.80	
Bank Armor	199+70	60	cy. of	Riprap	@	$27.30	per c.y.=	$1,638.00	
							TOTAL ROCK		**$39,193.60**

SPECIAL PROJECTS

Access routes for bank armoring -	3.00	hours @	$145.00	per hour	$435.00	
Construct waste areas -	1.50	hours @	$130.00	per hour	$195.00	
Grade and shape road -	246.30	stations @	$15.50	per station	$3,817.65	
Pull ditch and endhaul where needed -	42.00	stations @	$90.00	per station	$3,780.00	
Construct loaded truck turnaround at 96+00 -	1.00	@	$150.00		$150.00	
Roll subgrade w/ vibratory roller prior to rocking -	246.30	stations @	$13.20	per station	$3,251.16	
Remove culverts from state lands	3.00	@	$505.40	total	$505.40	
Grass seed and fertilize -	0.39	acres @	$220.00	per acre	$85.80	
Mulching -	0.200	acres @	$600.00	per acre	$120.00	
				TOTAL SPECIAL PROJECTS		**$12,340.01**

GRAND TOTAL	**$69,326.57**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **G to H**

Construction -	0+00	stations	Improvement -	57+00	stations	Reconstruction -	0+00	stations
	0.00	miles		1.08	miles		0.00	miles

IMPROVEMENT: EXCAVATION -

Widening				80	cy. @	$1.40	per c.y.=	$112.00	
							TOTAL EXCAVATION		**$112.00**

IMPROVEMENT: ENDHAUL -

Widening	30+40	to	37+00	80	cy. @	$3.19	per c.y.=	$255.20	
Spread & compact				80	cy. @	$0.25	per c.y.=	$20.00	
							TOTAL ENDHAUL		**$275.20**

SPECIAL PROJECTS

Grade and shape road include. pull ditches across -	57.00	stations @	$20.00	per station	$1,140.00	
Roll subgrade w/ vibratory roller prior to rocking -	57.00	stations @	$13.20	per station	$752.40	
Grass seed and fertilize -	0.06	acres @	$220.00	per acre	$13.20	
				TOTAL SPECIAL PROJECTS		**$1,905.60**
				GRAND TOTAL		**$2,292.80**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **I to J**

Construction -	8+50	stations	Improvement -	0+00	stations	Reconstruction -	5+00	stations
	0.16	miles		0.00	miles		0.09	miles

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

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
5+00		6+20	85%	0.5	Outslope	$4,558	=	$5,469.60	
6+20		7+00	50%		Outslope	$459	=	$367.20	
7+00		10+00	30%		Outslope	$191	=	$573.00	
10+00		11+00	45%		Outslope	$269	=	$269.00	
11+00		13+50	30%		Outslope	$191	=	$477.50	
								TOTAL	**$7,156.30**

RECONSTRUCTION: CLEARING AND GRUBBING -

Side cast	0.028	acres @	$1,500.00	per acre =	$42.00	
Widening	0.052	acres @	$1,500.00	per acre =	$78.00	
Scattering	0.510	acres @	$980.00	per acre =	$499.80	
					TOTAL CLEARING AND GRUBBING	**$619.80**

RECONSTRUCTION: EXCAVATION -

Pullback	146	cy. @	$1.40	per c.y.=	$204.40	
Widening	403	cy. @	$1.90	per c.y.=	$765.70	
					TOTAL EXCAVATION	**$970.10**

RECONSTRUCTION: ENDHAUL -

Pullback	4+00	to	5+00	146	cy. @	$3.04	per c.y.=	$443.84	
Widening	0+00	to	0+80	186	cy. @	$3.29	per c.y.=	$611.94	
Widening	4+00	to	5+00	217	cy. @	$3.04	per c.y.=	$659.68	
Spread & compact				549	cy. @	$0.25	per c.y.=	$137.25	
								TOTAL ENDHAUL	**$1,852.71**

ROCK

0+00	to	1+00	70	cy. of	Pit-Run	@	$10.39	per c.y.=	$727.30	
Junction Rock		0+00	20	cy. of	Pit-Run	@	$10.39	per c.y.=	$207.80	
									TOTAL ROCK	**$935.10**

SPECIAL PROJECTS

Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Grade and shape road -	13.50	stations @	$14.00	per station	$189.00	
Roll subgrade w/ vibratory roller prior to rocking -	13.50	stations @	$13.20	per station	$178.20	
Grass seed and fertilize -	0.72	acres @	$220.00	per acre	$158.40	
Mulching -	0.117	acres @	$600.00	per acre	$70.20	
					TOTAL SPECIAL PROJECTS	**$855.80**

GRAND TOTAL **$12,389.81**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **K to L**

Construction -	0+00	stations	Improvement -	3+20	stations	Reconstruction -	0+00	stations
	0.00	miles		0.06	miles		0.00	miles

ROCK

0+00	to	3+20	60	cy. of	Crushed	@	$15.60	per c.y.=	$936.00
Junction Rock		0+00, 3+20	20	cy. of	Crushed	@	$15.60	per c.y.=	$312.00

TOTAL ROCK **$1,248.00**

SPECIAL PROJECTS

Grade and shape road -	3.20	stations @	$15.50	per station	$49.60
Roll subgrade w/ vibratory roller prior to rocking -	3.20	stations @	$13.20	per station	$42.24

TOTAL SPECIAL PROJECTS **$91.84**

GRAND TOTAL **$1,339.84**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **M to N**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	21+80	stations
	0.00	miles		0.00	miles		0.41	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Side cast	0.075	acres @	$660.00	per acre =	$49.50	
Widening	0.101	acres @	$660.00	per acre =	$66.66	
Scattering	1.800	acres @	$980.00	per acre =	$1,764.00	
				TOTAL CLEARING AND GRUBBING		**$1,880.16**

RECONSTRUCTION: EXCAVATION -

Pullback	399	cy. @	$1.40	per c.y.=	$558.60	
Widening	424	cy. @	$2.25	per c.y.=	$954.00	
				TOTAL EXCAVATION		**$1,512.60**

RECONSTRUCTION: ENDHAUL -

Pullback	0+00	to	1+80	217	cy. @	$3.07	per c.y.=	$666.19	
Pullback	2+90	to	3+90	121	cy. @	$3.25	per c.y.=	$393.25	
Pullback	7+70	to	8+20	61	cy. @	$3.49	per c.y.=	$212.89	
Widening	0+00	to	1+80	260	cy. @	$3.07	per c.y.=	$798.20	
Widening	2+90	to	3+90	109	cy. @	$3.25	per c.y.=	$354.25	
Widening	7+70	to	8+20	55	cy. @	$3.49	per c.y.=	$191.95	
Spread & compact				823	cy. @	$0.25	per c.y.=	$205.75	
							TOTAL ENDHAUL		**$2,822.48**

CULVERTS - MATERIALS & INSTALLATION

Culvert Stakes & Markers			
0 stakes	$0.00		
2 markers	$16.00		
	$16.00	**TOTAL CULVERTS**	**$16.00**

ROCK

0+00	to	1+00	70	cy. of	Pit-Run	@	$8.69	per c.y.=	$608.30	
Fill Armor		16+40	10	cy. of	Riprap	@	$12.70	per c.y.=	$127.00	
Junction Rock		0+00	20	cy. of	Pit-Run	@	$8.68	per c.y.=	$173.60	
Scour Fill		14+80-16+40	30	cy. of	Pit-Run	@	$8.99	per c.y.=	$269.70	
								TOTAL ROCK		**$1,178.60**

SPECIAL PROJECTS

Unplug culvert inlet -	2.00	@	$60.00	each	$120.00	
Reconstruct landing -	1.00	@	$150.00		$150.00	
Grade and shape road -	21.80	stations @	$14.00	per station	$305.20	
Roll subgrade w/ vibratory roller prior to rocking -	21.80	stations @	$13.20	per station	$287.76	
Grass seed and fertilize -	0.80	acres @	$220.00	per acre	$176.00	
Mulching -	0.200	acres @	$600.00	per acre	$120.00	
				TOTAL SPECIAL PROJECTS		**$1,158.96**

GRAND TOTAL **$8,568.80**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **O to P**

Construction -	0+00	stations	Improvement -	10+70	stations	Reconstruction -	0+00	stations
	0.00	miles		0.20	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.061	acres @	$660.00	per acre =	$40.26	
Berm	0.018	acres @	$1,500.00	per acre =	$27.00	
Scattering	0.100	acres @	$980.00	per acre =	$98.00	
				TOTAL CLEARING AND GRUBBING		**$165.26**

IMPROVEMENT: EXCAVATION -

Pullback	191	cy. @	$1.40	per c.y.=	$267.40	
Remove outside berm	77	cy. @	$1.80	per c.y.=	$138.60	
				TOTAL EXCAVATION		**$406.00**

IMPROVEMENT: ENDHAUL -

Pullback	5+60	to	7+80	191	cy. @	$3.19	per c.y.=	$609.29	
Remove outside berm	1+90	to	3+80	56	cy. @	$3.01	per c.y.=	$168.56	
Remove outside berm	7+80	to	8+50	21	cy. @	$3.23	per c.y.=	$67.83	
Spread & compact				268	cy. @	$0.25	per c.y.=	$67.00	
							TOTAL ENDHAUL		**$912.68**

CULVERTS - MATERIALS & INSTALLATION

Culverts						
30	LF of 18"	$549.00	0	LF of 24"	$0.00	
		$549.00			$0.00	
Culvert Stakes & Markers						
0	stakes	$0.00				
1	markers	$8.00				
		$8.00		**TOTAL CULVERTS**		**$557.00**

ROCK

0+00 to	10+70	390	cy. of	Crushed	@	$13.41	per c.y.=	$5,229.90	
Culvert Bed / Backfill	6+80	10	cy. of	Crushed	@	$14.41	per c.y.=	$144.10	
Junction Rock	0+00, 10+70	40	cy. of	Crushed	@	$13.51	per c.y.=	$540.40	
Energy Dissipator	6+80	5	cy. of	Riprap	@	$11.89	per c.y.=	$59.45	
							TOTAL ROCK		**$5,973.85**

SPECIAL PROJECTS

Grade and shape road -	10.70	stations @	$15.50	per station	$165.85	
Construct ditch -	5.60	stations @	$150.00	per station	$840.00	
Roll subgrade w/ vibratory roller prior to rocking -	10.70	stations @	$13.20	per station	$141.24	
Remove large stumps -	1.00	lump sum @	$260.00		$260.00	
Grass seed and fertilize -	0.28	acres @	$220.00	per acre	$61.60	
Mulching -	0.098	acres @	$600.00	per acre	$58.80	
				TOTAL SPECIAL PROJECTS		**$1,527.49**

GRAND TOTAL **$9,542.28**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **Q to R-** **(West Fork)**

Construction -	0+00	stations	Improvement -	10+50	stations	Reconstruction -	0+00	stations
	0.00	miles		0.20	miles		0.00	miles

IMPROVEMENT: EXCAVATION -

Widening	51	cy. @	$1.40	per c.y.=	$71.40		
						TOTAL EXCAVATION	**$71.40**

IMPROVEMENT: ENDHAUL -

Widening	6+00	to	6+20	12	cy. @	$3.77	per c.y.=	$45.24		
Widening	7+30	to	8+30	39	cy. @	$3.82	per c.y.=	$148.98		
Spread & compact				51	cy. @	$0.25	per c.y.=	$12.75		
									TOTAL ENDHAUL	**$206.97**

ROCK

Shoulder Fill	0+00-6+50	200	cy. of	Pit-Run	@	$8.20	per c.y.=	$1,640.00		
									TOTAL ROCK	**$1,640.00**

SPECIAL PROJECTS

Re-position large riprap in stream and on banks -	16.00	hours @	$145.00	per hour	$2,320.00		
Construct / Pull ditch from 4+30 to 6+00 -	1.70	stations @	$100.00	per station	$170.00		
Grade and shape road -	10.50	stations @	$15.50	per station	$162.75		
Roll subgrade w/ vibratory roller prior to rocking -	10.50	stations @	$13.20	per station	$138.60		
						TOTAL SPECIAL PROJECTS	**$2,791.35**

GRAND TOTAL **$4,709.72**

SUMMARY OF CONSTRUCTION COST

Sale: **High Standards** Road: **Stockpiles**

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

ROCK

1"-0" Crushed	2,320	cy. of	Crushed	@	$13.75	per c.y.=	$31,900.00	
3"-0" Crushed	1,160	cy. of	Crushed	@	$11.98	per c.y.=	$13,896.80	
							TOTAL ROCK	**$45,796.80**

GRAND TOTAL	**$45,796.80**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_run	Location:	SW 1/4, SE 1/4, Sec 13, T2N, R8W, WM	
Sale:	**High Standards**		Road:	3035 c.y.
Swell:	1.40		Stockpile:	c.y.
Shirinkage	1.16		Total Truck Loads:	3035 c.y.
Drill Pct.:	0%		In Place Total:	2168 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area adjacent to pit, place overburden in Waste Area, spread and compact.							$3,065.10
Rip Rock:	$1.90	/cu.yd.	x	2168	cu.yds.	=	$4,119.20
Load Dump Truck:	$0.70	/cu.yd.	x	3035	cu.yds.	=	$2,124.50
						Subtotal	$9,308.80

Move in Roller and Compactor	1	@	$842.18	=	$842.18
Move in Grader	1	@	$275.70	=	$275.70
Move in D-8	1	@	$1,294.26	=	$1,294.26
Move in Excavator	1	@	$1,433.23	=	$1,433.23
Move in Trucks	2	@	$283.91	=	$567.82
				Subtotal	$4,413.19

TOTAL PRODUCTION COSTS $13,721.99

Base Cost= $4.52 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
A to B Leveling Rock (Pit-Run)	2.93	1.10	4.52	8.55	2000		$17,100.00
A to B Wing Wall Fill (Riprap)	7.92	1.40	4.52	13.84	20		$276.80
A to B Energy Dissipator (Riprap)	5.86	1.40	4.52	11.78	10		$117.80
C to D Energy Dissipator (Riprap)	6.34	1.40	4.52	12.26	25		$306.50
E to F 21440 21720 (Pit-run)	4.65	1.10	4.52	10.27	150		$1,540.50
E to F Road Scour Fill (Pit-Run)	2.95	1.40	4.52	8.87	60		$532.20
E to F Inlet Armor (Riprap)	5.95	1.40	4.52	11.87	10		$118.70
E to F Energy Dissipator (Riprap)	8.62	1.40	4.52	14.54	35		$508.90
E to F Bank Armor (Riprap)	20.74	1.40	4.52	26.66	200		$5,332.00
E to F Bank Armor (Riprap)	20.95	1.40	4.52	26.87	40		$1,074.80
E to F Bank Armor (Riprap)	21.38	1.40	4.52	27.30	60		$1,638.00
I to J 0 100 (Pit-Run)	4.77	1.10	4.52	10.39	70		$727.30
I to J Junction Rock (Pit-Run)	4.77	1.10	4.52	10.39	20		$207.80
M to N 0 100 (Pit-Run)	3.07	1.10	4.52	8.69	70		$608.30
M to N Fill Armor (Riprap)	6.78	1.40	4.52	12.70	10		$127.00
M to N Junction Rock (Pit-Run)	3.06	1.10	4.52	8.68	20		$173.60
M to N Scour Fill (Pit-Run)	3.37	1.10	4.52	8.99	30		$269.70
O to P Energy Dissipator (Riprap)	5.97	1.40	4.52	11.89	5		$59.45
Q to R- Shoulder Fill (Pit-Run)	2.58	1.10	4.52	8.20	200		$1,640.00
				Total C.Y.	3035	Sub Total	$32,359.35

TOTAL ROCKING COSTS $32,359.35

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	3-Inch	Location:	NE 1/4, SE 1/4,Sec 12, T2N, R8W, WM	
Sale:	**High Standards**		Road:	5970 c.y.
Swell:	1.40		Stockpile:	c.y.
Shirinkage	1.16		Total Truck Loads:	5970 c.y.
Drill Pct.:	100%		In Place Total:	4264 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area near pit, place overburden in Waste Area, spread and compact.							$4,055.92
Drill & Shoot:	$2.50	/cu.yd.	x	4264	cu.yds.	=	$10,660.00
Load Crusher:	$0.70	/cu.yd.	x	5970	cu.yds.	=	$4,179.00
Crush Rock:	$2.60	/cu.yd.	x	5970	cu.yds.	=	$15,522.00
Load Dump Truck:	$0.70	/cu.yd.	x	5970	cu.yds.	=	$4,179.00
						Subtotal	$38,595.92

Move In/Set-up Crusher	1	@	$4,532.00	=	$4,532.00
Move In and set up Drill and Compressor	1	@	$842.18	=	$842.18
Move in Roller and Compactor	1	@	$842.18	=	$842.18
Move in Grader	1	@	$275.70	=	$275.70
Move in Loader	1	@	$1,115.93	=	$1,115.93
Move in Excavator	1	@	$1,433.23	=	$1,433.23
Move in Trucks	3	@	$283.91	=	$851.73
Move in Water Truck	1	@	$333.72	=	$333.72
				Subtotal	$10,226.67
				TOTAL PRODUCTION COSTS	$48,822.59

Base Cost= $8.18 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
A to B 60+50 to 76+00 & 104+00 to 143+00	4.42	2.45	8.18	15.05	1230		$18,511.50
A to B 43280 48130 (Crushed)	2.97	2.45	8.18	13.60	1700		$23,120.00
A to B Ditch Filter (Drain)	8.75	1.40	8.18	18.33	10		$183.30
A to B Spot Rock (Crushed)	2.86	2.45	8.18	13.49	300		$4,047.00
C to D 0 1270 (Crushed)	3.81	2.45	8.18	14.44	450		$6,498.00
C to D Junction Rock (Crushed)	3.92	2.45	8.18	14.55	20		$291.00
C to D Spot Rock (Crushed)	3.06	2.45	8.18	13.69	200		$2,738.00
E to F 21440 21720 (Crushed)	3.63	2.45	8.18	14.26	70		$998.20
E to F Spot Rock (Crushed)	3.76	2.45	8.18	14.39	400		$5,756.00
O to P 0 1070 (Crushed)	2.78	2.45	8.18	13.41	390		$5,229.90
O to P Junction Rock (Crushed)	2.88	2.45	8.18	13.51	40		$540.40
Stockpiles 3"-0" Crushed (Crushed)	2.20	1.60	8.18	11.98	1160		$13,896.80
				Total C.Y.	5970	Sub Total	$81,810.10

TOTAL ROCKING COSTS	$81,810.10

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	1-Inch	Location:	NE 1/4, NE 1/4, Sec 12, T2N, R8W, WM
Sale:	**High Standards**	Road:	5230 c.y.
Swell:	1.40	Stockpile:	c.y.
Shirinkage	1.16	Total Truck Loads:	5230 c.y.
Drill Pct.:	100%	In Place Total:	3736 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area near pit, place overburden in Waste Area, spread and compact.							$6,305.93
Drill & Shoot:	$2.50	/cu.yd.	x	3736	cu.yds.	=	$9,340.00
Load Crusher:	$0.70	/cu.yd.	x	5230	cu.yds.	=	$3,661.00
Crush Rock:	$3.40	/cu.yd.	x	5230	cu.yds.	=	$17,782.00
Load Dump Truck:	$0.70	/cu.yd.	x	5230	cu.yds.	=	$3,661.00
						Subtotal	$40,749.93

Move In/Set-up Crusher	1	@	$5,965.00	=	$5,965.00
Move In and set up Drill and Compressor	1	@	$842.18	=	$842.18
Move in Roller and Compactor	1	@	$842.18	=	$842.18
Move in Grader	1	@	$275.70	=	$275.70
Move in Loader	1	@	$1,115.93	=	$1,115.93
Move in Excavator	1	@	$1,433.23	=	$1,433.23
Move in Trucks	3	@	$283.91	=	$851.73
Move in Water Truck	1	@	$333.72	=	$333.72
				Subtotal	$11,659.67
				TOTAL PRODUCTION COSTS	$52,409.60

Base Cost= $10.02 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
A to B Culvert Bed / Backfill (Crushed)	2.92	1.40	10.02	14.34	20		$286.80
C to D 0 3450 (Crushed)	3.64	2.45	10.02	16.11	600		$9,666.00
C to D 8540 12850 (Crushed)	2.72	2.45	10.02	15.19	740		$11,240.60
C to D Culvert Bed / Backfill (Crushed)	3.53	1.40	10.02	14.95	50		$747.50
C to D Junction Rock (Crushed)	3.03	2.45	10.02	15.50	20		$310.00
E to F 0 6560 (Crushed)	2.99	2.45	10.02	15.46	1120		$17,315.20
E to F Culvert Bed / Backfill (Crushed)	4.38	1.40	10.02	15.80	60		$948.00
E to F Junction Rock (Crushed)	2.84	2.45	10.02	15.31	10		$153.10
E to F Spot Rock (Crushed)	3.92	2.45	10.02	16.39	200		$3,278.00
K to L 0 320 (Crushed)	3.13	2.45	10.02	15.60	60		$936.00
K to L Junction Rock (Crushed)	3.13	2.45	10.02	15.60	20		$312.00
O to P Culvert Bed / Backfill (Crushed)	2.99	1.40	10.02	14.41	10		$144.10
Stockpiles 1"-0" Crushed (Crushed)	2.13	1.60	10.02	13.75	2320		$31,900.00
				Total C.Y.	5230	Sub Total	$77,237.30

TOTAL ROCKING COSTS	$77,237.30

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

Sale: **High Standards**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
44.0	Pavement	30
17.4	Main Lines	7
7.2	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	Drill & Compressor	$1,037.76		$46.00	0.00	0.00	2	$92.00	$1,129.76
1	Brush Cutter	$1,008.93		$4.00	0.00	0.00	2	$8.00	$1,016.93
1	Excavators (Med.)	$1,178.03		$35.50	0.00	0.00	2	$71.00	$1,249.03
1	Excavators (Large)	$1,466.96	1	$44.80	0.00	0.00	2	$89.60	$1,556.56
1	Tractor (D8)	$1,361.73	2	$15.10	0.00	0.00	2	$30.20	$1,391.93
2	Dump Truck (10 cy +)	$699.44		$2.85	0.00	0.00	2	$11.40	$710.84
1	Dump Truck (Off Hiway)	$1,178.03	1	$4.75	0.00	0.00	2	$9.50	$1,187.53
1	Water Truck (2500 Gal)	$333.72		$2.85	0.00	0.00	0	$0.00	$333.72

TOTAL MOVE-IN COSTS:	$8,576.30

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
High Standards

1. Type of Sale

Regeneration harvest, Recovery

2. Legal Description

Sections 7, 8, 17, 18, T2N, R7W, and Sections 12, 13, T2N, R8W, W.M., Tillamook County, Oregon.

3. Sale Acreage

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

	ACRES	
	Gross	**Net**
Area 1 (Modified Clearcut)	113	87
Area 2 (Modified Clearcut)	148	109
Area 3 (Modified Clearcut)	104	88
Area 4 (Modified Clearcut)	94	80

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

All of the sale areas were cruised on a rectangular grid with 350’ between plots and 700’ between lines.

The Timber Sale Areas were cruised using variable plot sampling. All conifers 8” DBH and greater containing 20 board feet and all hardwoods 10” DBH and greater containing 30 board feet were recorded on all plots. Also recorded for sampled trees on all plots were height, species, diameter, form factor, and merchantable bole heights recorded to 6” or 7” outside bark for conifers and hardwoods, respectively.

B. Plot size

BAF used on for sale areas 1, 2, and 3 was 27.78 and a BAF of 20 was used on area 4. Point of tree observation was 4.5 feet.

C. Grading System

All species were graded using the 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. All of the sale areas were cruised in 2015. All areas were grown forward to September 2017. The net sale acreage was used for volume calculation.

Statistics – Net Board Feet/ Acre			
	# Plots measure	SE %	CV %
Area 1	11	16.2	51.4
Area 2	16	11.9	46.2
Area 3	14	15.5	55.8
Area 4	15	14.4	53.9
Total	56	8.0	60.2

6. Hidden Defect and Breakage

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

7. Timber Description

All of the Areas except the western tip of Area 4 was burned in the 1933 Tillamook Fire and all of the areas except the northeastern edge of Area 1 were burned again in the 1945 Wilson River/ Salmonberry Fire. The sale areas were planted in the 1959-60 except the following areas, the northeast edge of Area 1, the western ½ of Area 3. All of the sale areas were aerially sprayed in the 1970’s to control alder growth which resulted in shorter alder bole lengths and deformity multiple tops. About 60% of the four sale areas were previously thinned by West Standard which was completed in 2003. No other stand management has occurred.

The stands are predominately Douglas-fir with minor components of noble fir, western hemlock, and red alder.

Sale Area - Species	DBH	Merchantable Bole Height	Merchantable Top

Area 1: Douglas-fir	17	58	5”
Area 1: Hemlock	19	59	5”
Area 2: Douglas-fir	20	76	5”
Area 2: Hemlock	14	42	5”
Area 2: Alder	14	38	6”
Area 3: Douglas-fir	16	59	5”
Area 3: Hemlock	14	42	5”
Area 3: Alder	11	32	6”
Area 4: Douglas-fir	17	59	5”
Area 4: Hemlock	20	66	5”
Area 4: Alder	14	37	6”

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

8. Cruiser /Dates

Areas 1, 2, 3, and 4 contract 2015.

9. Revenue Distribution

FDF: 93%; CSL: 7%

Deed Number: 0, 35, 146, 266, 591(Washington County) 2% By Value.

Tax Code: 5600 100%

The timber on Deed #591 is owned by Washington County. The county share of revenue from these lands must be distributed to Washington County in accordance with the IGA 314.291184.

LCR Obligations are as follows:

Project No. 35591G29 = $743.03 (Sec. 18, T2N, R7W)

10. Attachments

Stand Tables (Areas 1, 2, 3, and 4)

Log Stock Tables (Areas 1, 2, 3, and 4)

Volume Summary

Logging Plan Map

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir take
RA – Red alder take
NF – Noble Fir take
WH – Western hemlock take
OC1 – Snag Class 1
OC2 – Snag Class 2

FI TLOGSTVB

Log Stock Table - MBF

Project: HIGHSTAN

T02N R07W S08 TSALE

T02N R07W S08 TSAL

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	08	601_AREA1	SALE	87.00	11	54

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Date 8/7/2017

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	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
Spp	T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		CO	2	12	10		10	.8						10						
DF		CO	2	24	22		22	1.8								22				
DF		CO	2	32	10		10	.8						10						
DF		CO	2	40	504	1.0	499	40.9						152	151	195				
DF		CO	3	32	72	3.1	69	5.7				41	29							
DF		CO	3	34	3		3	.3			3									
DF		CO	3	37	5		5	.4			5									
DF		CO	3	38	5		5	.4			5									
DF		CO	3	40	431	1.5	424	34.8			54	99	272							
DF		CO	4	16	17	25.8	13	1.1		4			9							
DF		CO	4	17	5		5	.4		3	2									
DF		CO	4	18	5		5	.4		5										
DF		CO	4	19	14		14	1.1		12	2									
DF		CO	4	22	8		8	.6		8										
DF		CO	4	23	2		2	.2		2										
DF		CO	4	24	5		5	.4		5										
DF		CO	4	25	5		5	.4		5										
DF		CO	4	26	8		8	.6		8										
DF		CO	4	27	11		11	.9		11										
DF		CO	4	28	4		4	.3		4										
DF		CO	4	29	12		12	1.0		12										
DF		CO	4	30	6		6	.5		3	3									
DF		CO	4	31	9		9	.7		9										
DF		CO	4	32	16		16	1.3		16										
DF		CO	4	33	26		26	2.2		26										
DF		CO	4	34	8		8	.6		4	4									
DF		CO	4	40	14		14	1.1		14										
DF			Totals		1,238	1.5	1,220	92.5		154	77	139	310	172	151	217				
WH		CO	2	40	24		24	33.2						24						
WH		CO	3	32	37		37	50.0					37							
WH		CO	3	34	7		7	9.7				7								
WH		CO	4	18	2		2	3.4		2										
WH		CO	4	20	3		3	3.8		3										
WH			Totals		73		73	5.6		5		7	37	24						
OC		*	*	32	25		25	100.0			25									
OC			Totals		25		25	1.9			25									
Total All Species					1,337	1.4	1,319	100.0		159	103	146	346	196	151	217				

FI TSTNDSUM

Stand Table Summary

Project HIGHSTAN

T02N R07W S08 TSALE

T02N R07W S08 TSALE

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	08	601_AREA1	SALE	87.00	11	54

Page: 1
Date: 08/07/201
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					Av				Average Log			Net	Net	Totals		
	S		Sample	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.			
Spc	T	DBH	Trees	16'	Tot	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
DF		9		80	68	5.642	2.61	5.79	9.7	32.1	1.59	56	186	139	49	16
DF		10		78	65	4.570	2.61	4.69	11.7	42.9	1.57	55	201	137	48	17
DF		13		86	75	10.817	10.45	16.66	16.2	57.1	7.70	270	952	670	235	83
DF		14		84	66	4.663	5.22	4.79	18.5	58.9	2.53	89	282	220	77	25
DF		15		84	74	4.062	5.22	8.34	17.0	58.9	4.04	142	492	351	123	43
DF		16		80	56	12.496	18.29	16.50	20.6	66.7	9.67	339	1,100	841	295	96
DF		17		86	94	3.163	5.22	6.50	25.8	93.7	4.77	168	609	415	146	53
DF		18		86	84	8.463	15.67	17.38	27.9	104.5	13.82	485	1,816	1,203	422	158
DF		19		85	87	6.330	13.06	13.00	32.1	111.4	11.88	417	1,449	1,033	363	126
DF		20		87	100	2.285	5.22	5.87	33.0	122.1	5.51	193	717	480	168	62
DF		21		84	88	4.145	10.45	8.51	40.7	136.6	9.87	346	1,163	859	301	101
DF		23		84	98	1.888	5.22	3.88	46.1	171.4	5.10	179	665	443	156	58
DF		24		83	79	.864	2.61	1.77	46.4	144.6	2.35	82	257	204	72	22
DF		25		83	93	2.380	7.84	4.89	56.1	194.6	7.82	274	952	680	239	83
DF		26		84	107	1.462	5.22	3.00	64.9	254.4	5.56	195	764	483	170	66
DF		27		84	105	1.352	5.22	2.78	70.9	257.1	5.61	197	714	488	171	62
DF		28		85	116	1.254	5.22	3.86	54.7	239.3	6.03	211	924	524	184	80
DF		29		86	92	.583	2.61	1.20	74.3	278.6	2.54	89	334	221	77	29
DF		30		87	111	.543	2.61	1.12	91.4	401.8	2.91	102	448	253	89	39
DF		Totals		83	78	76.963	130.62	130.55	29.8	107.4	110.86	3,890	14,024	9,645	3,384	1,220
WH		19		82	67	1.372	2.62	2.82	25.2	89.8	2.28	71	254	198	62	22
WH		20		85	63	1.232	2.62	2.53	26.5	89.8	2.15	67	228	187	58	20
WH		22		82	109	1.008	2.62	2.07	50.0	174.1	3.32	104	361	289	90	31
WH		Totals		83	77	3.612	7.86	7.43	32.6	113.3	7.75	242	842	674	211	73
OC		20		86	92	1.232	2.62	1.23	73.9	236.5	2.27	91	291	198	79	25
OC		Totals		86	92	1.232	2.62	1.23	73.9	236.5	2.27	91	291	198	79	25
Totals				83	78	81.807	141.09	139.21	30.3	108.9	120.88	4223	15,158	10,517	3,674	1,319

FI TLOGSTVB

Log Stock Table - MBF

Project: HIGHSTAN

T02N R07W S18 TSALE **T02N R07W S18 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	18	700_AREA2	SALE	109.00	16	87

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Date 8/7/2017
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Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		CO	2	20	13		13	.6						13						
DF		CO	2	32	168	2.0	165	7.3						77	68	21				
DF		CO	2	36	21	11.1	19	.8						19						
DF		CO	2	40	1,400	1.1	1,385	61.0						278	401	370	309	28		
DF		CO	3	23	4		4	.2				2	2							
DF		CO	3	25	4		4	.2				4								
DF		CO	3	29	3		3	.1			3									
DF		CO	3	32	99	6.5	93	4.1			16	69	9							
DF		CO	3	36	18	7.1	17	.7					17							
DF		CO	3	37	4		4	.2			4									
DF		CO	3	40	389	1.3	384	16.9			81	136	167							
DF		CO	4	13	3		3	.1		3										
DF		CO	4	16	9		9	.4		8	1									
DF		CO	4	17	5		5	.2		2	2	1								
DF		CO	4	18	3		3	.1		1	2									
DF		CO	4	19	9		9	.4		3	4	2								
DF		CO	4	20	9		9	.4		6	2	2								
DF		CO	4	21	3		3	.1			2	2								
DF		CO	4	22	12		12	.5		4	6	2								
DF		CO	4	23	11		11	.5		7	4									
DF		CO	4	25	18		18	.8		18										
DF		CO	4	26	9		9	.4		9										
DF		CO	4	27	9		9	.4		9										
DF		CO	4	29	9		9	.4		9										
DF		CO	4	30	3		3	.1		3										
DF		CO	4	31	12		12	.5		12										
DF		CO	4	32	7		7	.3		7										
DF		CO	4	33	14	10.9	12	.5		12										
DF		CO	4	34	6		6	.3		6										
DF		CO	4	36	9		9	.4		9										
DF		CO	4	39	3		3	.2		3										
DF		CO	4	40	19		19	.8		19										
DF		Totals			2,306	1.5	2,271	95.1		150	125	219	195	386	468	391	309	28		
WH		CO	2	40	29	2.8	28	36.0							28					
WH		CO	3	40	45	2.1	44	57.6			6		39							
WH		CO	4	21	3		3	3.9		3										
WH		CO	4	22	2		2	2.5		2										
WH		Totals			79	2.2	77	3.2		5	6		39		28					
RA		*	*	32	12		12	39.8			12									
RA		H	4	40	18		18	60.2			18									
RA		Totals			30		30	1.3			30									
OC		*	*	32	9		9	100.0			9									
OC		Totals			9		9	.4			9									
Total All Species					2,424	1.5	2,388	100.0		155	170	219	234	386	496	391	309	28		

FI TSTNDSUM

Stand Table Summary

Project **HIGHSTAN**

T02N R07W S18 TSALE **T02N R07W S18 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	18	700_AREA2	SALE	109.00	16	87

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Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		11		86	92	5.193	3.59	10.67	9.3	40.2	2.81	99	429	307	108	47
DF		12		85	96	4.364	3.59	8.96	12.5	50.9	3.19	112	456	348	122	50
DF		13		85	82	1.859	1.80	3.82	12.3	48.2	1.33	47	184	145	51	20
DF		14		86	104	3.206	3.59	6.59	19.8	77.7	3.72	131	512	406	142	56
DF		15		86	93	4.189	5.39	8.60	20.4	80.4	5.01	176	691	547	192	75
DF		16		86	90	2.455	3.59	5.04	22.4	88.4	3.22	113	446	351	123	49
DF		17		85	88	6.523	10.78	13.40	24.5	95.5	9.34	328	1,280	1,018	357	140
DF		18		87	94	2.909	5.39	5.98	30.0	114.3	5.11	179	683	557	196	74
DF		19		82	89	1.741	3.59	3.58	31.9	99.1	3.25	114	354	355	124	39
DF		20		87	107	4.713	10.78	10.49	38.8	142.6	11.59	407	1,495	1,263	443	163
DF		21		86	95	5.700	14.37	10.98	41.5	160.7	13.00	456	1,764	1,417	497	192
DF		23		87	97	3.895	10.78	7.33	43.7	152.9	9.12	320	1,121	995	349	122
DF		24		87	105	4.751	14.37	12.20	44.6	183.2	15.49	544	2,235	1,689	593	244
DF		25		86	104	2.182	7.18	4.48	39.4	159.4	5.03	177	714	549	193	78
DF		26		86	107	1.005	3.59	2.58	52.9	229.3	3.89	137	592	424	149	65
DF		27		84	103	.465	1.80	.48	87.9	396.4	1.20	42	189	130	46	21
DF		28		86	118	3.017	12.57	8.85	58.7	260.3	14.80	519	2,305	1,613	566	251
DF		29		83	105	1.202	5.39	3.29	62.2	265.2	5.83	205	873	636	223	95
DF		31		85	123	1.396	7.18	4.30	72.2	335.7	8.85	310	1,444	964	338	157
DF		32		85	115	.981	5.39	2.69	81.0	372.3	6.20	218	1,000	676	237	109
DF		33		83	110	.614	3.59	1.26	112.5	479.4	4.04	142	604	440	155	66
DF		34		84	134	.289	1.80	.89	93.3	432.1	2.36	83	384	258	90	42
DF		36		84	135	.256	1.80	.79	104.4	500.0	2.35	82	395	256	90	43
DF		37		83	112	.242	1.80	.50	142.2	610.7	2.02	71	304	220	77	33
DF		38		83	134	.230	1.80	.71	113.2	532.1	2.28	80	376	249	87	41
DF		Totals		86	99	63.377	145.48	138.45	36.8	150.5	145.05	5,090	20,831	15,811	5,548	2,271
WH		17		86	81	1.194	1.80	2.46	24.8	95.4	1.95	61	234	212	66	26
WH		21		82	78	.764	1.80	1.57	35.3	106.7	1.78	56	168	194	61	18
WH		23		88	105	.632	1.80	1.30	57.8	235.8	2.40	75	306	262	82	33
WH		Totals		85	86	2.590	5.40	5.33	35.9	133.0	6.13	191	709	668	209	77
RA		11		82	80	2.529	1.77	2.56	17.8	65.5	1.25	46	168	137	50	18
RA		24		70	29	.578	1.77	.58	66.9	191.7	1.07	39	111	116	42	12
RA		Totals		80	71	3.107	3.54	3.14	26.9	88.8	2.32	84	279	253	92	30
OC		17		85	54	1.221	1.83	1.22	31.7	70.3	.97	39	86	106	42	9
OC		Totals		85	54	1.221	1.83	1.22	31.7	70.3	0.97	39	86	106	42	9
Totals				85	96	70.295	156.24	148.13	36.5	147.9	154.47	5404	21,904	16,837	5,891	2,388

FI TLOGSTVB

Log Stock Table - MBF

Project: **HIGHSTAN**

T02N R08W S12 TSALE **T02N R08W S12 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
02N	08W	12	604_AREA3	SALE	88.00	14	76	Page 1 Date 8/7/2017 Time 1:22:53PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
									Net Volume by Scaling Diameter in Inches											
DF		CO	2	14	12		12	1.7							12					
DF		CO	2	40	193	3.4	186	28.0						165	21					
DF		CO	3	32	90	8.6	82	12.4				56	26							
DF		CO	3	40	302	2.8	294	44.2			71	91	132							
DF		CO	4	16	3		3	.5		3										
DF		CO	4	17	4		4	.6		4										
DF		CO	4	18	20		20	3.0		20										
DF		CO	4	20	5		5	.8		5										
DF		CO	4	22	5		5	.8		5										
DF		CO	4	23	4		4	.5		4										
DF		CO	4	24	3		3	.4		3										
DF		CO	4	25	6		6	.9		6										
DF		CO	4	26	3	33.3	2	.3		2										
DF		CO	4	32	8		8	1.2		8										
DF		CO	4	34	16		16	2.4		16										
DF		CO	4	35	3		3	.5		3										
DF		CO	4	37	3		3	.5		3										
DF		CO	4	39	8		8	1.2		8										
DF		Totals			688	3.5	665	48.4		91	71	147	158	165	32					
NF		CO	2	32	10		10	1.7						10						
NF		CO	2	40	368	4.7	350	61.9						71	69	103	41	29	38	
NF		CO	3	30	2		2	.4				2								
NF		CO	3	32	26		26	4.5				26								
NF		CO	3	33	3		3	.5			3									
NF		CO	3	35	3		3	.6			3									
NF		CO	3	38	5		5	.9			5									
NF		CO	3	39	4		4	.7					4							
NF		CO	3	40	123	4.3	118	20.9			38	61	19							
NF		CO	4	14	1		1	.2		1										
NF		CO	4	20	7		7	1.3		2	5									
NF		CO	4	22	2		2	.4		2										
NF		CO	4	25	2		2	.3			2									
NF		CO	4	27	8		8	1.4		8										
NF		CO	4	34	11		11	1.9		11										
NF		CO	4	37	3		3	.5		3										
NF		CO	4	40	11		11	1.9		11										
NF		Totals			589	3.9	566	41.3		37	56	89	23	81	69	103	41	29	38	
WH		CO	2	40	25		25	26.9								25				
WH		CO	3	40	42		42	45.7			15		27							
WH		CO	4	16	6		6	6.4		6										
WH		CO	4	30	11		11	11.8		8	2									
WH		CO	4	36	8		8	9.2		8										
WH		Totals			91		91	6.6		23	17		27			25				
RA		H	4	30	8	25.0	6	17.9			6									
RA		H	4	34	17	20.0	14	40.2			14									
RA		H	4	40	14		14	41.9			14									
RA		Totals			39	13.8	34	2.5			34									

FI TLOGSTVB

Log Stock Table - MBF

Project: **HIGHSTAN**

T02N R08W S12 TSALE

T02N R08W S12 TSAL

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
02N	**08W**	**12**	**604_AREA3**	**SALE**	**88.00**	14	76

Page **2**
Date **8/7/2017**
Time **1:22:53PM**

Spp	**S T**	**So rt**	**Gr 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	24-29	30-39	40+
OC		*	*	32	17		17	100.0			17									
OC		Totals			17		17	1.2			17									
Total All Species					1,425	3.7	1,373	100.0		151	194	236	209	247	101	127	41	29	38	

FI TSTNDSUM

Stand Table Summary

Project **HIGHSTAN**

T02N R08W S12 TSALE **T02N R08W S12 TSALE**

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
02N	**08W**	**12**	**604_AREA3**	**SALE**	88.00	14	76

Page: **1**
Date: **08/07/2017**
Time: **1:20:13PM**

Spc	**S T**	**DBH**	**Sample Trees**	**FF 16'**	**Av Ht Tot**	**Trees/ Acre**	**BA/ Acre**	**Logs Acre**	**Average Log Net Cu.Ft.**	**Average Log Net Bd.Ft.**	**Tons/ Acre**	**Net Cu.Ft. Acre**	**Net Bd.Ft. Acre**	**Totals Tons**	**Totals Cunits**	**Totals MBF**
DF		11		86	76	2.966	2.05	3.04	15.5	64.1	1.33	47	195	117	41	17
DF		12		87	66	4.984	4.10	5.11	15.2	58.8	2.50	78	300	220	69	26
DF		13		79	54	4.247	4.10	6.53	12.4	39.2	2.29	81	256	201	71	23
DF		14		87	70	9.155	10.25	13.14	16.2	56.5	6.01	213	742	529	188	65
DF		15		78	69	3.190	4.10	4.91	12.1	46.3	1.68	60	227	148	52	20
DF		16		89	86	5.608	8.20	11.50	19.0	72.1	6.48	218	829	570	192	73
DF		17		90	86	4.967	8.20	10.19	26.0	102.9	7.46	265	1,048	656	233	92
DF		18		82	75	5.538	10.25	7.95	29.3	90.1	6.56	233	716	577	205	63
DF		19		87	96	6.959	14.34	15.29	31.4	114.7	13.54	480	1,754	1,192	423	154
DF		20		88	91	5.383	12.30	10.12	34.0	118.5	9.71	344	1,199	854	303	106
DF		23		89	102	.741	2.05	1.52	49.4	187.0	2.12	75	284	187	66	25
DF		Totals		86	78	53.739	79.92	89.30	23.4	84.6	59.68	2,094	7,552	5,252	1,843	665
NF		10		90	83	3.623	2.06	3.72	13.2	63.9	1.16	49	238	102	43	21
NF		12		92	70	2.516	2.06	2.58	19.2	74.6	1.17	50	192	103	44	17
NF		13		88	109	2.144	2.06	4.40	16.0	69.3	1.66	71	305	146	62	27
NF		14		89	95	3.697	4.12	7.58	17.4	63.9	3.10	132	485	273	116	43
NF		16		89	82	2.831	4.12	4.35	15.0	56.8	1.54	65	247	135	58	22
NF		17		85	92	2.507	4.12	1.29	9.5	32.0	.29	12	41	25	11	4
NF		18		89	99	2.236	4.12	5.73	26.2	108.7	3.53	150	623	311	132	55
NF		20		91	100	1.812	4.12	3.72	41.4	165.1	3.62	154	614	319	135	54
NF		23		87	95	1.370	4.12	2.81	48.5	181.1	3.21	136	509	282	120	45
NF		24		87	106	1.258	4.12	2.58	49.8	199.8	3.03	129	515	266	113	45
NF		26		86	107	.580	2.06	1.19	51.2	223.7	1.43	61	266	126	54	23
NF		27		92	109	1.072	4.12	2.75	51.5	225.9	4.01	141	621	353	124	55
NF		29		84	102	.462	2.06	.95	58.6	245.0	1.31	56	232	115	49	20
NF		30		91	92	.431	2.06	.88	73.0	314.3	1.52	65	278	134	57	24
NF		38		92	107	.265	2.06	.27	193.8	1225.2	1.24	53	333	109	46	29
NF		40		86	157	.476	4.12	.98	153.2	958.9	3.52	150	937	310	132	82
NF		Totals		89	94	27.279	51.45	45.78	32.2	140.6	35.33	1,472	6,436	3,109	1,295	566
WH		11		55	22	2.892	2.06	2.97	6.8	22.3	.65	20	66	57	18	6
WH		13		87	59	4.141	4.11	4.25	21.7	61.4	2.95	92	261	260	81	23
WH		15		92	97	1.785	2.06	3.67	21.3	100.5	2.49	78	368	220	69	32
WH		20		70	37	.969	2.06	1.00	37.4	33.5	1.19	37	33	105	33	3
WH		25		91	86	.607	2.06	1.25	58.9	245.6	2.35	73	306	207	65	27
WH		Totals		78	55	10.395	12.33	13.13	22.9	78.9	9.64	301	1,036	848	265	91
RA		10		80	63	7.008	4.05	3.55	13.3	43.5	1.30	47	154	114	41	14
RA		12		80	55	4.867	4.05	2.46	20.7	65.2	1.40	51	161	123	45	14
RA		13		85	43	2.074	2.02	2.10	17.7	32.6	1.02	37	68	90	33	6
RA		Totals		81	57	13.949	10.11	8.11	16.7	47.3	3.71	135	383	327	119	34
OC		17		84	59	1.375	2.06	1.37	47.1	138.8	1.62	65	191	142	57	17
OC		Totals		84	59	1.375	2.06	1.37	47.1	138.8	1.62	65	191	142	57	17
Totals				85	77	106.737	155.88	157.69	25.8	98.9	109.98	4067	15,597	9,678	3,579	1,373

FI TLOGSTVB

Log Stock Table - MBF

Project: **HIGHSTAN**

T02N R07W S07 TSALE **T02N R07W S07 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	07	600_AREA4	SALE	80.00	15	84

Page 1
Date 8/7/2017
Time 1:28:48PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		*	*	32	15		15	2.0			15									
DF		CO	2	32	5		5	.6						5						
DF		CO	2	40	326	1.3	322	42.8						108	96	118				
DF		CO	3	24	7		7	.9				7								
DF		CO	3	32	51	16.3	43	5.7				29	14							
DF		CO	3	37	4		4	.5			2	2								
DF		CO	3	40	282	.4	281	37.3			81	53	147							
DF		CO	4	13	0		0	.1		0										
DF		CO	4	17	1		1	.1			1									
DF		CO	4	18	4		4	.5		3	1									
DF		CO	4	19	4		4	.5		4										
DF		CO	4	20	5		5	.7		5										
DF		CO	4	21	3		3	.4		3										
DF		CO	4	22	4		4	.6		4										
DF		CO	4	23	2		2	.3		2										
DF		CO	4	24	2		2	.2		2										
DF		CO	4	26	2		2	.3		2										
DF		CO	4	27	6		6	.9		6										
DF		CO	4	28	8		8	1.0		8										
DF		CO	4	29	2		2	.3		2										
DF		CO	4	30	2		2	.2		2										
DF		CO	4	31	1		1	.2			1									
DF		CO	4	32	2		2	.3		2										
DF		CO	4	33	2		2	.3		2										
DF		CO	4	34	6		6	.8		6										
DF		CO	4	35	2		2	.3		2										
DF		CO	4	36	2		2	.3		2										
DF		CO	4	37	2		2	.2		2										
DF		CO	4	38	2		2	.3		2										
DF		CO	4	40	9		9	1.2		9										
DF		Totals			765	1.8	752	83.0		73	101	91	161	113	96	118				
RA		H	3	40	6	6.7	6	9.6					6							
RA		H	4	21	5	33.3	3	5.5			3									
RA		H	4	25	6		6	9.9			6									
RA		H	4	35	11		11	17.2			11									
RA		H	4	37	6		6	10.1			6									
RA		H	4	40	31	2.6	30	47.7			6	23								
RA		Totals			66	4.5	63	6.9			33	23	6							
WH		CO	2	40	34	1.3	33	56.0						22		12				
WH		CO	3	34	2		2	2.6				2								
WH		CO	3	40	18		18	30.4				18								
WH		CO	4	16	1		1	2.2		1										
WH		CO	4	19	2		2	2.8		2										
WH		CO	4	26	1		1	2.2		1										
WH		CO	4	36	2		2	3.6		2										
WH		Totals			60		60	6.6		7		20		22		12				
NF		CO	2	40	20	10.1	18	58.2						7		11				

FI TLOGSTVB

Log Stock Table - MBF

Project: HIGHSTAN

T02N R07W S07 TSALE

T02N R07W S07 TSAL

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
02N	**07W**	**07**	**600_AREA4**	**SALE**	**80.00**	15	84

Page 2
Date 8/7/2017
Time 1:28:48PM

Spp	S **T**	**So rt**	**Gr 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	24-29	30-39	40+
NF		CO	3	37	2	14.3	2	5.6			2									
NF		CO	3	40	9		9	28.3				9								
NF		CO	4	16	1		1	4.7		1										
NF		CO	4	18	1		1	3.3			1									
NF		Totals			34	6.9	31	3.5		1	3	9		7		11				
Total All Species					925	2.1	906	100.0		81	137	143	167	141	96	141				

FI TSTNDSUM

Stand Table Summary

Project HIGHSTAN

T02N R07W S07 TSALE **T02N R07W S07 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	07	600_AREA4	SALE	80.00	15	84

Page: 1
Date: 08/07/201
Time: 1:26:15PM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		8		65	38	3.770	1.38	3.77	13.2	50.8	1.49	50	192	119	40	15
DF		9		83	55	2.979	1.38	3.06	7.1	32.1	.62	22	98	49	17	8
DF		12		83	77	3.351	2.76	3.44	19.9	69.6	1.95	69	240	156	55	19
DF		13		84	69	5.711	5.52	5.87	21.9	69.6	3.67	129	408	293	103	33
DF		14		86	71	6.155	6.90	10.11	16.1	53.6	4.63	163	542	370	130	43
DF		15		83	71	1.072	1.38	2.20	16.8	48.2	1.05	37	106	84	30	8
DF		16		86	83	3.770	5.52	7.74	21.6	79.0	4.75	167	612	380	134	49
DF		17		85	91	3.340	5.52	6.86	22.9	89.7	4.48	157	615	358	126	49
DF		18		83	79	6.702	12.41	10.71	29.7	95.7	9.05	318	1,024	724	254	82
DF		19		83	87	5.347	11.03	10.30	32.7	113.6	9.59	337	1,169	767	269	94
DF		20		85	96	3.016	6.90	6.19	38.7	130.7	6.83	240	810	547	192	65
DF		21		84	78	.547	1.38	1.12	38.6	117.9	1.24	43	132	99	35	11
DF		23		86	100	.997	2.76	2.05	48.7	176.8	2.84	100	362	227	80	29
DF		24		78	79	1.824	5.52	2.81	49.7	150.0	3.98	140	422	318	112	34
DF		25		85	98	2.094	6.90	4.30	56.3	212.1	6.90	242	913	552	194	73
DF		26		85	108	.386	1.38	.79	68.4	262.5	1.54	54	208	124	43	17
DF		27		81	104	.714	2.76	1.47	70.2	241.1	2.93	103	353	234	82	28
DF		28		84	106	.662	2.76	1.70	62.0	250.7	3.00	105	426	240	84	34
DF		30		84	108	.574	2.76	1.18	89.4	345.5	3.00	105	407	240	84	33
DF		31		81	104	.536	2.76	1.10	93.4	321.4	2.93	103	354	234	82	28
DF	Totals			83	78	53.547	89.65	86.78	30.9	108.3	76.48	2,683	9,394	6,118	2,147	752
RA		10		78	53	2.271	1.36	2.30	10.1	33.9	.64	23	78	51	19	6
RA		12		83	30	1.877	1.36	1.90	9.8	22.6	.51	19	43	41	15	3
RA		14		78	57	1.344	1.36	1.36	21.4	56.5	.80	29	77	64	23	6
RA		15		80	55	1.159	1.36	1.17	25.6	67.8	.83	30	80	66	24	6
RA		16		81	60	3.028	4.09	3.07	32.7	79.1	2.76	100	243	221	80	19
RA		17		82	63	.887	1.36	.90	38.2	90.4	.94	34	81	75	27	7
RA		18		81	57	1.572	2.72	.80	44.1	135.6	.97	35	108	77	28	9
RA		23		74	62	.469	1.36	.48	80.6	158.2	1.05	38	75	84	31	6
RA	Totals			80	53	12.608	14.99	11.98	25.8	65.5	8.50	309	785	680	247	63
WH		17		83	79	.917	1.38	1.89	22.8	78.6	1.37	43	148	110	34	12
WH		19		78	74	.725	1.38	1.49	28.5	78.6	1.36	42	117	109	34	9
WH		21		84	96	.587	1.38	1.21	43.7	157.2	1.69	53	190	135	42	15
WH		23		75	83	.485	1.38	1.00	48.8	129.1	1.56	49	129	125	39	10
WH		32		79	94	.244	1.38	.50	102.4	325.7	1.65	51	164	132	41	13
WH	Totals			80	83	2.958	6.91	6.08	39.1	122.9	7.62	238	748	610	191	60
NF		17		84	74	.843	1.39	1.73	23.3	74.8	.97	40	130	78	32	10
NF		26		84	107	.390	1.39	.80	31.4	122.8	.60	25	98	48	20	8
NF		28		86	97	.334	1.39	.69	72.3	240.3	1.19	50	165	95	40	13
NF	Totals			84	87	1.568	4.16	3.22	35.8	122.0	2.77	115	393	221	92	31
Totals				82	74	70.680	115.70	108.06	31.0	104.8	95.37	3346	11,320	7,629	2,677	906

OREGON DEPARTMENT OF FORESTRY

"STEWARDSHIP IN FORESTRY"

High Standards

Volume Summary

Area 1-Modifed Clearcut

87 acres

	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	14.0	1220	1%	1208
Western Hemlock	0.8	73	1%	72
TOTAL	14.9	1293		1280

Area 2-Modifed Clearcut

109 acres

	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	20.8	2271	1%	2248
Western Hemlock	0.7	77	1%	76
Red Alder	0.3	30	2%	29
TOTAL	21.8	2378		2353

Area 3-Modifed Clearcut

88 acres

	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	7.6	665	1%	658
Western Hemlock	1.0	91	1%	90
Noble Fir	6.4	566	1%	560
Red Alder	0.4	34	2%	33
TOTAL	15.4	1356		1341

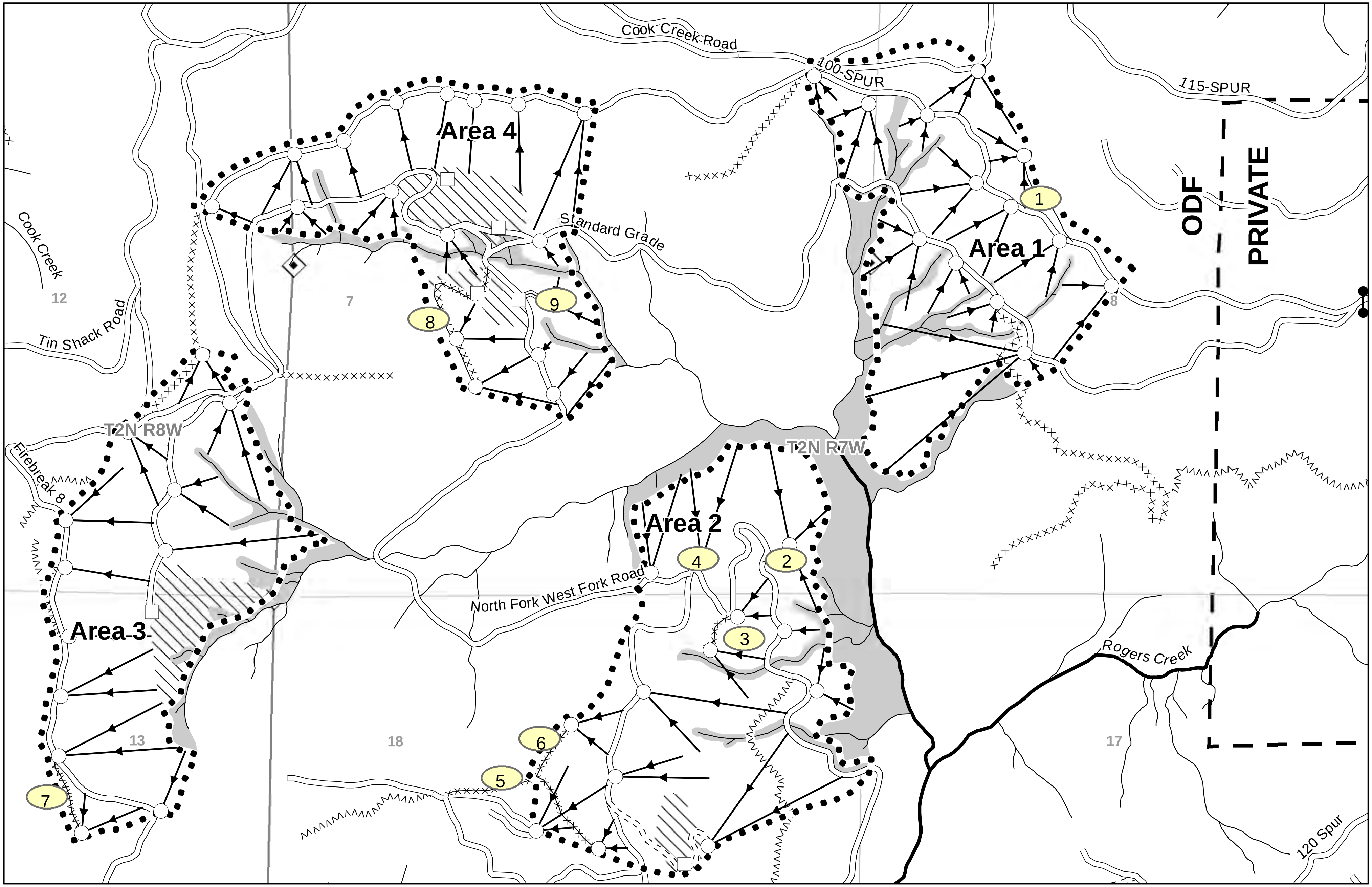
Area 4-Modifed Clearcut

80 acres

	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	9.4	752	1%	744
Western Hemlock	0.8	60	1%	59
Noble Fir	0.4	31	1%	31
Red Alder	0.8	63	2%	62
TOTAL	11.3	906		896

TOTAL SALE VOLUME 364 acres

SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	4908	4858
Western Hemlock	301	297
Noble Fir	597	591
Red Alder	127	124
TOTAL	5933	5870



⚒ Rock source
Ⓢ Stock pile
Ⓦ Waste area
Bridge
Gate
◈ Survey corner
Ⓓ Domestic water supply intake
Ⓣ Truck turn-around
Ⓗ Helicopter landing zone
Ⓒ Cultural site

Buffer
Non-required thinning
Cable yarding
Ground yarding
Helicopter yarding
Downhill yarding
Green tree retention area

Restricted area
Area boundary
Sale boundary
Ownership boundary
Fish stream
Non-fish stream
Unsurfaced road
Surfaced road
Paved road
VVVVVVV Abandoned road

--A-- Swing road
②Non-project road
×××××Blocked road
OHV trail
Non-motorized trail
Transmission line
Railroad
Cable yarding
□ Ground Landing
○ Yarder Landing

LOGGING PLAN

Timber Sale Contract No. 341-18-65
HIGH STANDARDS
Portions of Sections 7, 8, 17, & 18, T2N, R7W, and
Sections 12 & 13, T2N, R8W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

N

Area	Type of Operation	Acres Gross	Acres Net
1	Modified Clearcut	113	87
2	Modified Clearcut	148	109
3	Modified Clearcut	104	88
4	Modified Clearcut	94	80
Total		459	364

Tillamook District GIS
10/2/2017