"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Arch Support
Sale 341-11-76

District: Tillamook **Date:** February 07, 2011

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$780,936.64	$95,680.52	$876,617.16
		Project Work:	$(72,790.00)
		Advertised Value:	$803,827.16

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District: Tillamook **Date:** February 07, 2011

timber description

Location: Portions of Sections 23 & 24, T1N, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	19	0	95
Alder (Red)	13	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	1,736	1,491	410	0	0	3,637
Alder (Red)	122	50	0	0	0	211	98	481
Total	122	50	1,736	1,491	410	211	98	4,118

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comments: Pond Values Used: 4th Quarter Calendar Year 2010.

Western Hemlock & Other Conifers Stumpage Price = Pond Value minus Logging Cost
$160/MBF = $410/MBF - $250/MBF

Western redcedar & Other Cedars Stumpage Price = Pond Value minus Logging Cost
$710/MBF = $960/MBF - $250/MBF

Pulp (Conifer and Hardwood) Price = $38.00/MBF
(See attached Pulp Appraisal sheet)

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $3.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to $700 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: $2/MBF x 4,118 MBF = $8,236
TOTAL Other Costs (with Profit & Risk to be added)= $8,236

Other Costs (No Profit & Risk added):
Slash Piling and Sorting: $2.50/acre x 173(cable) acres = $433
Cover Material for Piles: 20 piles x $5/pile = $100
Snag Creation: $10/snag x 238 snags = $2,380
OHV Filter: $75/filter x 1 filter = $75
TOTAL Other Costs (No Profit & Risk added) = $2,988

ROAD MAINTENANCE
Maintenance Rock: ($8.00/cu. yd. x 6.4 miles x 20 cu. yd./MMBF/mile x 4.118 MMBF)/4,118 MBF = $1.02/MBF

Interim Maintenance:Grading - $250/Mile x 6.4 miles x 1 grading/4,118 MBF = $.39/MBF

Vibratory Roller: $17.75/station x 52.8 stations/mile x 4 miles/4,118 = $.91/MBF

Final Maintenance:
Grading - $500/Mile x 6.4 miles x 1 grading/4,118 MBF = $.78/MBF

TOTAL Maintenance Cost = $3.10/MBF

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District: Tillamook **Date:** February 07, 2011

logging conditions

combination#: 1

	Douglas - Fir	25.00%	
	Alder (Red)	20.00%	
yarding distance:	Medium (800 ft)	**downhill yarding:**	No
logging system:	Cable: Small Tower <=40	**Process**:	Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	7.0	**bd. ft / load:**	3,300
cost / mbf:	$122.69		

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

combination#: 2

	Douglas - Fir	30.00%	
	Alder (Red)	80.00%	
yarding distance:	Long (1,500 ft)	**downhill yarding:**	No
logging system:	Cable: Medium Tower >40 - <70	**Process**:	Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	5.0	**bd. ft / load:**	3,300
cost / mbf:	$202.67		

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

combination#: 3

	Douglas - Fir	45.00%	
yarding distance:	Short (400 ft)	**downhill yarding:**	No
logging system:	Shovel	**Process**:	Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	9.0	**bd. ft / load:**	3,300
cost / mbf:	$48.43		

machines: Stroke Delimber (B)

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Arch Support
Sale 341-11-76

District: Tillamook **Date:** February 07, 2011

logging costs

Operating Seasons:	2.00	**Profit Risk:**	15.00%
Project Costs:	$72,790.00	**Other Costs (P/R):**	$8,236.00
Slash Disposal:	$0.00	**Other Costs:**	$2,988.00

Miles of Road

Road Maintenance: $3.10

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

Hauling Costs

Species	$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	$0.00	2.0	3.5
Alder (Red)	$0.00	3.0	3.0

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Arch Support
Sale 341-11-76

District: Tillamook **Date:** February 07, 2011

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$113.27	$3.26	$2.13	$91.31	$2.00	$31.80	$0.00	$5.00	$0.73	$249.50
Alder (Red)									
$186.67	$3.41	$2.13	$74.39	$2.00	$40.29	$0.00	$5.00	$0.73	$314.62

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$464.22	$214.72	$0.00
Alder (Red)	$0.00	$513.54	$198.92	$0.00

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Arch Support
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District: Tillamook **Date:** February 07, 2011

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	3,637	$214.72	$780,936.64
Alder (Red)	481	$198.92	$95,680.52

Gross Timber Sale Value

Recovery: $876,617.16

Prepared by: David Luttrell **Phone:** 503-815-7025

Pulp Appraisal

Sale Name	Arch Support

Species	Douglas-fir		Alder	
Stems Per/ac.	79	0	33	0
Acres	192	0	192	0
Total Stems	15168	0	6336	0
BF/Stem, Conversion	10	10	10	10
Total MBF Per/Species	152	0	63	0
Pond Value Per/MBF	$270	$340	$340	$0
* Logging + Hauling Costs	$204.58	$0.00	$261.06	$0.00
Stumpage	$65.42	$340.00	$78.94	$0.00
Tons Per/MBF, Conversion	10	10	10	10
Price Per/Ton	$6.54	$34.00	$7.89	$0.00
Total Tons Per/Species	1517	0	634	0
Total Value	$9,922.91	$0.00	$5,001.64	$0.00

	Total Price	Price/Ton	Price/MBF
	$14,924.54	$6.94	$69.40
Total Less P/R15%	$8,208.50	$3.82	$38.17

* Contract Price	$38

* Pulp price rounded down to nearest whole dollar

"STEWARDSHIP IN FORESTRY"

PROJECT SUMMARY SHEET

Sale: Arch Support

CONSTRUCTION

Point	C to D	2+00	stations =	$469.76
Point	E to F	5+40	stations =	$1,179.18
Point	G to H	2+00	stations =	$434.89
Point	I to J	5+00	stations =	$7,994.42
Point	K to L	9+50	stations =	$15,373.75
Point	M to N	3+60	stations =	$5,153.02
			SUBTOTAL CONSTRUCTION	**$30,605.02**

IMPROVEMENT

Point	A to B	97+30	stations =	$8,530.51
Point	C to D	12+00	stations =	$1,150.54
Point	I to J	14+00	stations =	$13,373.98
Point	O to P	6+60	stations =	$1,002.42
Point	A to Q	132+70	stations =	$13,052.49
			SUBTOTAL IMPROVEMENT	**$37,109.94**

RECONSTRUCTION

Point	G to H	3+50	stations =	$1,106.16
			SUBTOTAL RECONSTRUCTION	**$1,106.16**

SPECIAL PROJECTS

Rock Quarry Exploration				$870.00
			SUBTOTAL SPECIAL PROJECTS	**$870.00**

MOVE IN **$3,098.88**

GRAND TOTAL **$72,790.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **A to B**

Construction -	0+00	stations	Improvement -	97+30	stations	Reconstruction -	0+00	stations
	0.00	miles		1.84	miles		0.00	miles

IMPROVEMENT: EXCAVATION -									
Ditchline Cleanout and Endhaul				97.30	sta. @	$50.00	per sta. =	$4,865.00	
							TOTAL EXCAVATION		**$4,865.00**
ROCK									
Spot Rock	*	100	cy. of	Crushed	@	$8.29	per c.y.=	$829.00	
							TOTAL ROCK		**$829.00**
SPECIAL PROJECTS									
Grade and shape road -				97.30	stations @	$15.50	per station	$1,508.15	
Roll subgrade w/ vibratory roller upon completion of grading				97.30	stations @	$13.20	per station	$1,284.36	
Grass seed near live streams				0.20	acres @	$220.00	per acre	$44.00	
							TOTAL SPECIAL PROJECTS		**$2,836.51**
							GRAND TOTAL		**$8,530.51**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **C to D**

Construction -	2+00	stations	Improvement -	12+00	stations	Reconstruction -	0+00	stations
	0.04	miles		0.23	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				
12+00		14+00	20%		Outslope	$139	=		$278.00	
									TOTAL	**$278.00**

ROCK

Spot Rock		*	50	cy. of	Jaw-Run	@	$13.25	per c.y.=	$662.50	
									TOTAL ROCK	**$662.50**

SPECIAL PROJECTS

Grade and shape road -	14.00	stations @	$15.50	per station	$217.00
Roll subgrade w/ vibratory roller	14.00	stations @	$13.20	per station	$184.80
Construct Landing	1.00	lump sum @	$245.00		$245.00
Grass seed and fertilize -	0.15	acres @	$220.00	per acre	$33.00
				TOTAL SPECIAL PROJECTS	**$679.80**

GRAND TOTAL **$1,620.30**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **E to F**

Construction -	5+40	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.10	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		5+40	20%		Outslope	$139	=	$750.60	
								TOTAL	**$750.60**

SPECIAL PROJECTS

Grade and shape road -	5.40	stations @	$15.50	per station	$83.70	
Roll subgrade w/ vibratory roller -	5.40	stations @	$13.20	per station	$71.28	
Construct Landing	1.00	lump sum @	$245.00		$245.00	
Grass seed and fertilize -	0.13	acres @	$220.00	per acre	$28.60	
				TOTAL SPECIAL PROJECTS		**$428.58**

GRAND TOTAL **$1,179.18**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **G to H**

Construction -	2+00	stations	Improvement -	0+00	stations	Reconstruction -	3+50	stations
	0.04	miles		0.00	miles		0.07	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		2+00	20%		Outslope	$139	=	$278.00	
							TOTAL		**$278.00**

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.420	acres @	$980.00	per acre =	$411.60	
				TOTAL CLEARING AND GRUBBING		**$411.60**

RECONSTRUCTION: EXCAVATION -

Road Earthwork	3.50	sta. @	$120.00	per sta. =	$420.00	
				TOTAL EXCAVATION		**$420.00**

SPECIAL PROJECTS

Grade and shape road -	5.50	stations @	$15.50	per station	$85.25	
Roll subgrade w/ vibratory roller -	5.50	stations @	$13.20	per station	$72.60	
Construct Landing	1.00	lump sum @	$245.00		$245.00	
Grass seed and fertilize -	0.13	acres @	$220.00	per acre	$28.60	
				TOTAL SPECIAL PROJECTS		**$431.45**

GRAND TOTAL **$1,541.05**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **I to J**

Construction -	5+00	stations	Improvement -	14+00	stations	Reconstruction -	0+00	stations
	0.09	miles		0.27	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			
14+00		15+00	40%		Outslope	$243	=	$243.00	
15+00		16+00	60%			$1,493	=	$1,493.00	
16+00		19+00	55%			$689	=	$2,067.00	
								TOTAL	**$3,803.00**

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.600	acres @	$980.00	per acre =	$588.00	
				TOTAL CLEARING AND GRUBBING		**$588.00**

IMPROVEMENT: EXCAVATION -

Road Earthwork	14.00	sta. @	$75.00	per sta. =	$1,050.00	
				TOTAL EXCAVATION		**$1,050.00**

ROCK

0+00	to	19+00	1,050	cy. of	Jaw-Run	@	$13.07	per c.y.=	$13,723.50	
Landing Rock		19+00	100	cy. of	Jaw-Run	@	$13.19	per c.y.=	$1,319.00	
								TOTAL ROCK		**$15,042.50**

SPECIAL PROJECTS

Grade and shape road -	19.00	stations @	$15.50	per station	$294.50	
Roll subgrade w/ vibratory roller prior to rocking -	19.00	stations @	$13.20	per station	$250.80	
Construct Landing	1.00	lump sum @	$245.00		$245.00	
Grass seed and fertilize -	0.43	acres @	$220.00	per acre	$94.60	
				TOTAL SPECIAL PROJECTS		**$884.90**

GRAND TOTAL **$21,368.40**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **K to L**

Construction -	9+50	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.18	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		2+00	30%		Outslope	$191	=	$382.00	
2+00		4+00	70%			$2,193	=	$4,386.00	
4+00		9+50	40%			$243	=	$1,336.50	
								TOTAL	**$6,104.50**

ROCK

0+00	to	9+50	560	cy. of	Jaw-Run	@	$13.20	per c.y.=	$7,392.00	
Landing Rock		9+50	100	cy. of	Jaw-Run	@	$13.20	per c.y.=	$1,320.00	
									TOTAL ROCK	**$8,712.00**

SPECIAL PROJECTS

Grade and shape road -	9.50	stations @	$15.50	per station	$147.25	
Roll subgrade w/ vibratory roller prior to rocking -	9.50	stations @	$13.20	per station	$125.40	
Construct Landing	1.00	lump sum @	$245.00		$245.00	
Grass seed and fertilize -	0.18	acres @	$220.00	per acre	$39.60	
					TOTAL SPECIAL PROJECTS	**$557.25**

GRAND TOTAL **$15,373.75**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **M to N**

Construction -	3+60	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.07	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		3+60	35%		Outslope	$191	=	$687.60	
								TOTAL	**$687.60**

ROCK

0+00	to	3+60	210	cy. of	Jaw-Run	@	$13.21	per c.y.=	$2,774.10	
Landing Rock		3+60	100	cy. of	Jaw-Run	@	$13.21	per c.y.=	$1,321.00	
									TOTAL ROCK	**$4,095.10**

SPECIAL PROJECTS

Grade and shape road -	3.60	stations @	$15.50	per station	$55.80
Roll subgrade w/ vibratory roller prior to rocking -	3.60	stations @	$13.20	per station	$47.52
Construct Landing	1.00	lump sum @	$245.00		$245.00
Grass seed and fertilize -	0.10	acres @	$220.00	per acre	$22.00
				TOTAL SPECIAL PROJECTS	**$370.32**

GRAND TOTAL **$5,153.02**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **O to P**

Construction -	0+00	stations	Improvement -	6+60	stations	Reconstruction -	0+00	stations
	0.00	miles		0.13	miles		0.00	miles

						TOTAL CLEARING AND GRUBBING		**$0.00**
IMPROVEMENT: EXCAVATION -								
Ditchline Cleanout and Endhaul				6.60	sta. @	$50.00	per sta. = $330.00	
							TOTAL EXCAVATION	**$330.00**
ROCK								
Spot Rock *	50	cy. of	Crushed		@	$9.22	per c.y.= $461.00	
							TOTAL ROCK	**$461.00**
SPECIAL PROJECTS								
Grade and shape road -				6.60	stations @	$15.50	per station $102.30	
Roll subgrade upon completion of grading				6.60	stations @	$13.20	per station $87.12	
Grass seed and fertilize waste area				0.10	acres @	$220.00	per acre $22.00	
							TOTAL SPECIAL PROJECTS	**$211.42**
							GRAND TOTAL	**$1,002.42**

SUMMARY OF CONSTRUCTION COST

Sale: **Arch Support** Road: **A to Q**

Construction -	0+00	stations	Improvement -	132+70	stations	Reconstruction -	0+00	stations
	0.00	miles		2.51	miles		0.00	miles

IMPROVEMENT: EXCAVATION -

Ditchline Cleanout and Endhaul			132.70	sta. @	$50.00	per sta. =	$6,635.00
						TOTAL EXCAVATION	**$6,635.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts							
	34	LF of 18"	$595.00				
Culvert Stakes & Markers							
	1	stakes	$8.00				
			$8.00			**TOTAL CULVERTS**	**$603.00**

ROCK

Spot Rock *	200	cy. of	Crushed	@	$9.81	per c.y.=	$1,962.00
						TOTAL ROCK	**$1,962.00**

SPECIAL PROJECTS

Grade and shape road -	132.70	stations @	$15.50	per station	$2,056.85	
Roll subgrade w/ vibratory roller prior to rocking -	132.70	stations @	$13.20	per station	$1,751.64	
Grass seed and fertilize -	0.20	acres @	$220.00	per acre	$44.00	
				TOTAL SPECIAL PROJECTS		**$3,852.49**

GRAND TOTAL **$13,052.49**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Jaw-Run	Location:	Archers Road	
Sale:	**Arch Support**		Road:	2170 c.y.
Swell:	1.40		Stockpile:	c.y.
Shirinkage	1.16		Total Truck Loads:	2170 c.y.
Drill Pct.:	100%		In Place Total:	1550 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. Pump out pit floor						$2,900.00
Drill & Shoot:	$2.50	/cu.yd.	x	1550 cu.yds.	=	$3,875.00
Load Crusher:	$0.70	/cu.yd.	x	2170 cu.yds.	=	$1,519.00
Crush Rock:	$1.85	/cu.yd.	x	2170 cu.yds.	=	$4,014.50
Load Dump Truck:	$0.70	/cu.yd.	x	2170 cu.yds.	=	$1,519.00
					Subtotal	$13,827.50

Move In/Set-up jaw					$1,597.00
Move In and set up Drill and Compressor	1	@	$695.75	=	$695.75
Move in Roller and Compactor	1	@	$695.75	=	$695.75
Move in Grader	1	@	$240.90	=	$240.90
Move in Loader	1	@	$915.98	=	$915.98
Move in Excavator	1	@	$1,191.73	=	$1,191.73
Move in Trucks	4	@	$232.07	=	$928.28
				Subtotal	$6,265.39

TOTAL PRODUCTION COSTS	$20,092.89

Base Cost= $9.26 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
C to D Spot Rock (Jaw-Run)	2.59	1.40	9.26	13.25	50		$662.50
I to J 0 1900 (Jaw-Run)	2.71	1.10	9.26	13.07	1050		$13,723.50
I to J Landing Rock (Jaw-Run)	2.83	1.10	9.26	13.19	100		$1,319.00
K to L 0 950 (Jaw-Run)	2.84	1.10	9.26	13.20	560		$7,392.00
K to L Landing Rock (Jaw-Run)	2.84	1.10	9.26	13.20	100		$1,320.00
M to N 0 360 (Jaw-Run)	2.85	1.10	9.26	13.21	210		$2,774.10
M to N Landing Rock (Jaw-Run)	2.85	1.10	9.26	13.21	100		$1,321.00
				Total C.Y.	2170	Sub Total	$28,512.10

TOTAL ROCKING COSTS	$28,512.10

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	Jorden Creek Stockpile		
Sale:	**Arch Support**		Road:		350 c.y.
			Total Truck Loads:		350 c.y.
Load Dump Truck:	$0.70 /cu.yd.	x	350 cu.yds.	=	$245.00
				Subtotal	$245.00
Move in loader (Within Area)	1	@	$80.00	=	$80.00
Move in Trucks	1	@	$232.07	=	$232.07
				Subtotal	$312.07
			TOTAL PRODUCTION COSTS		$557.07
Base Cost=	$1.59 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 Spot Rock (Crushed)	5.60	1.10	1.59	8.29	100		$829.00
O to P Spot Rock (Crushed)	6.53	1.10	1.59	9.22	50		$461.00
A to Q Spot Rock (Crushed)	7.12	1.10	1.59	9.81	200		$1,962.00
				Total C.Y.	350	Sub Total	$3,252.00
					TOTAL ROCKING COSTS		$3,252.00

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

Sale: **Arch Support**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
45.0	Pavement	30
12.0	Main Lines	7
6.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move ($/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Excavators (Large)	$1,226.23	1	$44.80	0.00	0.00	0	$0.00	$1,226.23
1	Tractors (D7)	$1,067.78	2	$11.30	0.00	0.00	0	$0.00	$1,067.78
2	Dump Truck (10 cy +)	$570.00		$2.85	0.00	0.00	0	$0.00	$570.00
1	Water Truck (1500 Gal)	$234.87		$2.85	0.00	0.00	0	$0.00	$234.87
					TOTAL MOVE-IN COSTS:				$3,098.88

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Arch Support

1. Type of Sale
Regeneration harvest, Recovery

2. Legal Description
Sections 23 and 24, T 1 N, R 7 W, W.M. Tillamook County, Oregon

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

	ACRES	
	Gross	Net
Area 1 (Clearcut)	82	73
Area 2 (Clearcut)	134	119

Gross Acres
Area within the Timber Sale Boundary signs

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

4. Cruising Procedures

A. Cruise Method
A total of 32 variable radius plots were used on the sale area, spaced on a rectangular grid of 350' x 700'. All plots were full cruise plots. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 9 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were graded and measured for merchantable height, diameter, and form factor. The standard error and the coefficient of variation for the cruise as based on net board feet per acre shown in the table below.

Cruise Statistics (Net/BF Volume Per Acre)			
Area	Number of Plots	SE(%)	CV (%)
1	13	21.5	74.7
2	19	9.1	38.5
Total	32	9.5	53.6

B. Plot size

A basal area factor of 40 was used for the sale area. The point of observation is 4.5 feet.

5. Computation Procedure

All trees were graded according to Columbia River Log Scaling and Grading Rules. Tree heights were recorded to a 6 inch top outside bark for all conifers; or three tenths (0.3) of DBH, whichever was greater. Log lengths all favored 40 feet. Height and diameter measurement standards were to the nearest foot or inch respectively.

6. Hidden Defect and Breakage

A 5% and 10 % hidden defect and breakage was applied to conifers and hardwoods respectively in addition to visible defect deducted during cruising.

7. Timber Description

The entire sale area has burned 3 times in the Tillamook fires, the last time being 1945. Both Areas were aerially seeded in 1950-51.

Area 1 (Modified Clearcut) – This stand is approximately 60 years old consisting of mainly Douglas-fir with about 22% mix of alder. The Douglas-fir averages 18.1 inches in DBH, with an average merchantable height of 92 feet to a merchantable top (5" d.i.b.). The Red alder averages 14.0 inches in DBH, with an average merchantable height of 74 feet to a merchantable top (6" d.i.b.). The understory is comprised of mostly sword fern with pockets of vine maple and some Oregon grape. About 34 acres in the northern half of Area 1 was commercially thinned in 2000 with the Phelps Timber Sale. The rest of the Area has had no prior management.

Area 2 (Modified Clearcut) – This stand is approximately 60 years old consisting of Douglas-fir with about 9% mix of alder. The Douglas-fir averages 18.8 inches in DBH, with an average merchantable height of 100 feet to a merchantable top (5" d.i.b.). The Red alder averages 13.0 inches in DBH, with an average merchantable height of 78 feet to a merchantable top (6" d.i.b.). The understory is comprised of mostly sword fern with pockets of vine maple and some Oregon grape. About 67 acres on the southern half of the Area was commercially thinned in 1994 with the Air Jordan Timber Sale. About 15 acres of alder appears to have been sprayed in the northeast corner of Area 2. The rest of Area 2 has had no prior management.

8. Cruiser Names/Dates

2010 Contract Cruise

9. Revenue Distribution

FDF: 100%
Tax Code: 9-2
Deed Numbers: 157, 159

10. Attachments

Stand Table
Volume Summaries
Log Stock Tables
Species, Sort, Grade Tables
Logging Plan

11. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave
DF – Douglas-fir take
RA – Red alder take
RC – Western red cedar reserved
SS – Sitka spruce reserved
WH – Western hemlock reserved
NF – Noble fir reserved
OC - Snags

"STEWARDSHIP IN FORESTRY"

Arch Support

Volume Summary

Area 1-Harvest Type				
		73 acres		
SPECIES	Gross MBF/ Acre	Gross MBF	Visible & Hidden D&B	Net Vol MBF
Douglas-fir	14.4	1048	6.2%	983
		0	5.0%	0
		0	5.0%	0
		0	5.0%	0
Alder	3.8	279	13.3%	242
TOTAL	18.2	1327		1225

Areas 2-Harvest Type				
		119 acres		
SPECIES	Gross MBF/ Acre	Gross MBF	Visible & Hidden D&B	Net Vol MBF
Douglas-fir	23.6	2814	5.7%	2654
		0	5.0%	0
		0	5.0%	0
		0	5.0%	0
Alder	2.3	268	10.8%	239
TOTAL	25.9	3082		2893

TOTAL SALE VOLUI	192 acres	
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)
Douglas-fir	3862	3637
Red Alder	547	481
TOTAL	4409	4118

TC TSTNDSUM

Stand Table Summary

Project ASUPORT

T01N R07W S23 T0100

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	23	100	0100	73.00	13	70

T01N R07W S23 T0100

Page: 1
Date: 12/16/201(
Time: 2:06:38PM

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.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		8	1	69	21	6.122	2.14	6.12	3.6	20.0	.64	22	122	46	16	9
DF		9	2	76	71	9.674	4.27	9.67	10.0	40.0	2.75	96	387	201	70	28
DF		10	1	77	65	3.918	2.14	3.92	12.6	40.0	1.41	49	157	103	36	11
DF		14	1	75	92	1.999	2.14	4.00	17.2	60.0	1.96	69	240	143	50	18
DF		15	2	89	84	3.483	4.27	5.22	24.0	66.7	3.61	125	348	263	92	25
DF		16	1	83	132	1.530	2.14	4.59	19.3	76.7	2.52	89	352	184	65	26
DF		17	1	85	111	1.356	2.14	2.71	29.1	120.0	2.25	79	325	164	58	24
DF		18	2	81	106	2.419	4.27	4.84	29.5	105.0	4.27	143	508	311	104	37
DF		19	4	85	115	4.341	8.55	10.85	30.5	115.0	9.42	331	1,248	688	241	91
DF		20	3	81	103	2.938	6.41	6.86	35.2	120.0	6.88	241	823	502	176	60
DF		21	5	82	121	4.442	10.68	12.44	35.6	133.6	12.63	443	1,661	922	323	121
DF		22	6	81	114	4.857	12.82	12.95	38.5	141.2	14.27	499	1,829	1,042	364	134
DF		24	1	83	123	.680	2.14	2.04	43.2	176.7	2.51	88	361	183	64	26
DF		25	7	80	121	4.388	14.96	11.28	54.1	207.2	17.40	611	2,338	1,270	446	171
DF		26	3	79	119	1.739	6.41	5.22	49.0	186.7	7.29	256	974	532	187	71
DF		28	2	80	128	.999	4.27	2.50	70.4	264.0	5.01	176	660	366	128	48
DF		29	1	85	138	.466	2.14	1.40	73.6	346.7	2.93	103	485	214	75	35
DF		30	2	80	116	.871	4.27	2.18	78.2	296.0	4.89	170	644	357	124	47
DF		32	2	78	105	.765	4.27	1.91	81.0	290.0	4.46	155	555	326	113	40
DF		35	1	71	95	.320	2.14	.64	108.1	265.0	1.97	69	170	144	50	12
DF		Totals	48	79	92	57.307	102.57	111.34	34.3	127.4	109.08	3,814	14,186	7,963	2,784	1,036
RA		9	1	76	21	4.837	2.14	4.84	4.8	20.0	.64	23	97	46	17	7
RA		11	1	74	72	3.238	2.14	3.24	17.2	50.0	1.53	56	162	112	41	12
RA		12	2	74	77	5.442	4.27	8.16	12.0	36.7	2.70	98	299	197	72	22
RA		13	3	84	80	6.955	6.41	9.27	18.5	65.0	4.72	172	603	345	125	44
RA		14	3	80	76	5.997	6.41	9.99	16.0	58.0	4.40	160	580	321	117	42
RA		15	3	76	76	5.224	6.41	6.97	20.5	80.0	3.93	143	557	287	104	41
RA		17	3	83	98	4.067	6.41	8.13	27.2	105.0	6.13	221	854	448	162	62
RA		18	2	82	98	2.419	4.27	4.84	29.6	105.0	3.98	143	508	291	105	37
RA		19	1	76	88	1.085	2.14	2.17	26.7	50.0	1.66	58	109	121	42	8
RA		20	1	81	75	.979	2.14	1.96	34.5	100.0	1.86	68	196	136	49	14
RA		Totals	20	79	74	40.243	42.74	59.57	19.2	66.5	31.54	1,141	3,964	2,303	833	289
OC		19	1	88	33	1.085	2.14									
OC		22	1	89	100	.809	2.14									
OC		Totals	2	88	62	1.895	4.27									
Totals			70	79	84	99.445	149.58	170.91	29.0	106.2	140.62	4956	18,150	10,265	3,618	1,325

TC TLOGSTVB

Log Stock Table - MBF

Project: ASUPORT

T01N R07W S23 T0100

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	23	100	0100	73.00	13	70

T01N R07W S23 T0100

Date 12/16/2010

Time 1:55:52PM

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+
DF		CO	2	26	11		11	1.1							11					
DF		CO	2	40	479		479	46.2						147	145	120	67			
DF		CO	3	23	2		2	.2				2								
DF		CO	3	27	2		2	.2				2								
DF		CO	3	29	2		2	.2				2								
DF		CO	3	30	7		7	.6				7								
DF		CO	3	31	1		1	.1			1									
DF		CO	3	32	5		5	.5				5								
DF		CO	3	33	2		2	.2			2									
DF		CO	3	36	28		28	2.7				10	12	6						
DF		CO	3	37	3		3	.3			3									
DF		CO	3	40	377	1.3	372	36.0			16	58	151	62	18	68				
DF		CO	4	12	1		1	.1		1										
DF		CO	4	13	4		4	.4		1	2	1								
DF		CO	4	14	1		1	.1			1									
DF		CO	4	15	10		10	1.0		10										
DF		CO	4	18	2		2	.2		2										
DF		CO	4	20	1		1	.1		1										
DF		CO	4	21	1		1	.1		1										
DF		CO	4	22	1		1	.1		1										
DF		CO	4	23	7		7	.6		4	3									
DF		CO	4	25	4		4	.4		4										
DF		CO	4	26	1		1	.1			1									
DF		CO	4	28	1		1	.1			1									
DF		CO	4	29	2		2	.2		2										
DF		CO	4	32	4		4	.4		4										
DF		CO	4	33	2		2	.2		2										
DF		CO	4	34	17		17	1.7		17										
DF		CO	4	35	18		18	1.7		18										
DF		CO	4	37	11		11	1.1		11										
DF		CO	4	40	39	19.7	31	3.0		9	22									
DF		Totals			1,048	1.2	1,036	78.2		90	52	87	163	215	174	188	67			
RA		H	3	23	12		12	4.0					12							
RA		H	3	31	13	13.3	11	4.0						11						
RA		H	3	32	30	3.3	29	9.9					13	16						
RA		H	3	38	18		18	6.1					18							
RA		H	3	40	74		74	25.7				30	44							
RA		H	4	17	8		8	2.7			2	6								
RA		H	4	18	1		1	.5			1									
RA		H	4	22	15	46.4	8	2.8			5			3						
RA		H	4	23	4		4	1.3			4									
RA		H	4	24	4		4	1.3			4									
RA		H	4	25	3		3	1.0			3									
RA		H	4	28	10		10	3.5				10								
RA		H	4	29	16		16	5.7			16									
RA		H	4	31	8		8	2.7			8									
RA		H	4	32	5		5	1.7			5									
RA		H	4	34	7		7	2.5			7									
RA		H	4	35	12		12	4.1			12									
RA		H	4	36	5		5	1.6			5									
RA		H	4	40	26		26	8.9				26								

TC TLOGSTVB

Log Stock Table - MBF

Project: ASUPORT

T01N R07W S23 T0100

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	23	100	0100	73.00	13	70

T01N R07W S23 T0100

Date 12/16/2010

Time 1:55:52PM

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+
RA		H	4	41	8		8	2.7			8									
RA		H	UT	15	7		7	2.4			7									
RA		H	UT	24	13		13	4.5			4	9								
RA		Totals			299	3.3	289	21.8			91	81	86	30						
Total All Species					1,348	1.7	1,325	100.0		90	144	168	249	246	174	188	67			

TC TLOGSTVB

Log Stock Table - MBF

Project: ASUPORT

T01N R07W S24 T0200

T01N R07W S24 T0200

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	24	200	0200	119.00	19	112

Page 1
Date 12/16/2010
Time 2:10:06PM

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+
DF		CO	2	25	20		20	.7								20				
DF		CO	2	32	18		18	.7							18					
DF		CO	2	40	1,334	1.4	1,316	47.1						274	394	561	56	30		
DF		CO	3	16	6		6	.2						6						
DF		CO	3	18	11	15.4	10	.3							10					
DF		CO	3	19	2		2	.1				2								
DF		CO	3	20	12		12	.4				5	7							
DF		CO	3	21	3		3	.1		1		2								
DF		CO	3	26	10		10	.4							10					
DF		CO	3	27	4		4	.1		2		2								
DF		CO	3	30	3		3	.1			3									
DF		CO	3	31	2		2	.1			2									
DF		CO	3	32	33		33	1.2				33								
DF		CO	3	35	14		14	.5				4	9							
DF		CO	3	36	83		83	3.0			24	36	22							
DF		CO	3	37	8		8	.3			8									
DF		CO	3	40	966		966	34.6			98	264	320	128	63	92				
DF		CO	4	12	4		4	.2		3		1								
DF		CO	4	13	8		8	.3		2	5	1								
DF		CO	4	14	7		7	.2		6	1									
DF		CO	4	15	7		7	.2		6		1								
DF		CO	4	16	13		13	.5		10	1	2								
DF		CO	4	17	4		4	.1		4										
DF		CO	4	18	13		13	.5		11	1									
DF		CO	4	19	7		7	.3		4	3									
DF		CO	4	20	5		5	.2		3		2								
DF		CO	4	21	19		19	.7		12	2	5								
DF		CO	4	22	11		11	.4		5		5								
DF		CO	4	24	12		12	.4		12										
DF		CO	4	25	9		9	.3		9										
DF		CO	4	26	7		7	.2		7										
DF		CO	4	27	4		4	.2		2	2									
DF		CO	4	29	2		2	.1		2										
DF		CO	4	30	2		2	.1		2										
DF		CO	4	31	35		35	1.2		32	2									
DF		CO	4	34	3		3	.1		3										
DF		CO	4	35	8		8	.3		8										
DF		CO	4	36	5		5	.2		5										
DF		CO	4	38	4		4	.2		4										
DF		CO	4	40	95		95	3.4		36	59									
DF		Totals			2,814		2,794	89.4		192	214	366	359	409	496	672	56	30		
RA		H	3	32	38		38	14.0				18	21							
RA		H	3	33	14		14	5.0			14									
RA		H	3	36	16		16	5.9			16									
RA		H	3	40	21	2.8	20	7.3							20					
RA		H	4	14	8		8	2.8			8									
RA		H	4	18	9		9	3.2			9									
RA		H	4	19	3		3	1.3			3									
RA		H	4	22	12		12	4.2			12									
RA		H	4	27	17	10.0	15	5.6					15							
RA		H	4	29	2		2	.8			2									

TC TLOGSTVB

Log Stock Table - MBF

Project: ASUPORT

T01N R07W S24 T0200

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	24	200	0200	119.00	19	112

Date 12/16/2010
Time 2:10:06PM

Spp	ST	Sort	Grade	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	4	32	19		19	6.9				19								
RA		H	4	40	109		109	40.1			92		18							
RA		H	UT	20	8		8	2.8			8									
RA		Totals			276		273	8.7			163	36	54			20				
DL		CO	2	40	24		24	41.7						24						
DL		CO	3	40	21		21	37.5					21							
DL		CO	4	40	12		12	20.8		5	7									
DL		Totals			57		57	1.8		5	7		21	24						
Total All Species					3,147		3,124	100.0		197	384	402	434	433	516	672	56	30		

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: ASUPORT

Page 1
Date 12/16/2010
Time 1:58:16PM

T01N R07W S23 T0100

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
01N	07W	23	100	0100	73.00	13	70	S	W

T01N R07W S23 T0100

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CO	2	47		6,714	6,714	490			65	35		2		98	39	327	2.03	20.6
DF		CO	3	41	1.2	5,883	5,815	424		64	30	6		3	2	95	38	149	1.09	39.0
DF		CO	4	12	5.9	1,762	1,658	121	74	26			16	15	34	35	28	32	0.36	51.8
DF	**Totals**			78	1.2	14,360	14,186	1,036	9	29	43	19	2	4	5	89	34	127	1.01	111.3
RA		H	3	49	1.9	2,011	1,973	144		81	19			8	28	64	35	129	1.00	15.3
RA		H	4	44	5.4	1,812	1,714	125		97	3		7	36	26	31	29	48	0.51	35.5
RA		H	UT	7		277	277	20		100			35	65			19	31	0.47	8.8
RA	**Totals**			22	3.3	4,099	3,964	289		89	11		6	24	25	45	29	67	0.66	59.6
Type Totals					1.7	18,459	18,150	1,325	7	42	36	15	3	8	9	80	32	106	0.90	170.9

TC TSTNDSUM

Stand Table Summary

Project ASUPORT

T01N R07W S24 T0200

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	24	200	0200	119.00	19	112

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.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		8	1	77	64	5.066	1.77	5.07	7.5	30.0	1.09	38	152	129	45	18
DF		9	1	77	64	4.003	1.77	4.00	9.0	30.0	1.02	36	120	122	43	14
DF		11	1	86	91	2.680	1.77	5.36	10.5	50.0	1.61	57	268	192	67	32
DF		12	4	87	87	9.007	7.07	18.01	11.9	47.5	6.09	214	856	725	254	102
DF		13	5	83	76	9.593	8.84	15.35	15.2	50.0	6.63	233	767	789	277	91
DF		14	2	85	88	3.309	3.54	6.62	16.2	62.5	3.05	107	414	364	128	49
DF		15	2	78	107	2.882	3.54	5.76	21.5	70.0	3.54	124	403	421	148	48
DF		16	1	86	110	1.267	1.77									
DF		17	7	84	107	7.853	12.38	20.19	22.6	88.3	13.05	457	1,784	1,553	544	212
DF		18	2	84	109	2.001	3.54	5.00	26.8	100.0	3.82	134	500	454	159	60
DF		19	5	83	118	4.491	8.84	12.57	27.8	101.4	9.95	349	1,275	1,185	416	152
DF		20	4	83	109	3.242	7.07	7.30	36.6	130.0	7.61	267	948	906	318	113
DF		21	8	84	115	5.882	14.15	16.17	33.9	123.6	15.69	548	2,000	1,867	652	238
DF		22	10	81	118	6.699	17.68	18.09	38.9	144.8	20.12	704	2,619	2,394	838	312
DF		23	2	81	122	1.226	3.54	3.68	39.7	156.7	4.16	146	576	495	174	69
DF		24	8	82	109	4.503	14.15	12.38	44.1	165.9	15.56	546	2,055	1,852	650	244
DF		25	9	81	117	4.669	15.92	12.97	48.1	185.6	17.79	624	2,407	2,116	743	286
DF		26	4	80	97	1.919	7.07	4.32	56.8	188.9	6.99	245	815	832	292	97
DF		27	3	83	106	1.334	5.31	4.00	49.9	205.6	5.69	200	823	678	238	98
DF		28	6	77	132	2.481	10.61	7.44	59.7	220.0	12.67	444	1,638	1,507	529	195
DF		29	1	80	107	.386	1.77	.77	88.8	325.0	1.95	69	251	232	82	30
DF		30	5	79	113	1.801	8.84	3.96	81.9	311.8	9.25	325	1,236	1,101	386	147
DF		31	3	77	129	1.012	5.31	3.04	74.6	286.7	6.46	227	870	769	270	104
DF		32	1	78	133	.317	1.77	.95	81.1	346.7	2.20	77	329	261	92	39
DF		36	1	83	143	.250	1.77	.75	105.2	496.7	2.25	79	373	268	94	44
DF		Totals	96	82	100	87.872	169.77	193.77	32.3	121.2	178.24	6,249	23,480	21,211	7,436	2,794
RA		10	2	90	78	6.485	3.54	9.73	9.2	40.0	2.47	90	389	294	107	46
RA		12	4	81	88	9.007	7.07	13.51	15.2	50.0	5.64	205	675	671	244	80
RA		13	2	76	72	3.837	3.54	3.84	24.4	65.0	2.57	94	249	306	111	30
RA		14	2	82	68	3.309	3.54	3.31	25.4	80.0	2.32	84	265	276	100	31
RA		15	2	82	73	2.882	3.54	5.76	16.0	62.5	2.58	92	360	307	110	43
RA		18	1	80	72	1.001	1.77	2.00	27.1	85.0	1.53	54	170	182	65	20
RA		26	1	80	83	.480	1.77	.96	61.1	195.0	1.64	59	187	196	70	22
RA		Totals	14	83	78	26.999	24.76	39.11	17.3	58.7	18.75	678	2,296	2,232	807	273
DL		18	2	86	107	2.001	3.54	4.00	31.9	120.0	3.51	128	480	418	152	57
DL		Totals	2	86	107	2.001	3.54	4.00	31.9	120.0	3.51	128	480	418	152	57
Totals			112	82	95	116.873	198.06	236.88	29.8	110.8	200.50	7055	26,256	23,860	8,395	3,124

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: ASUPORT

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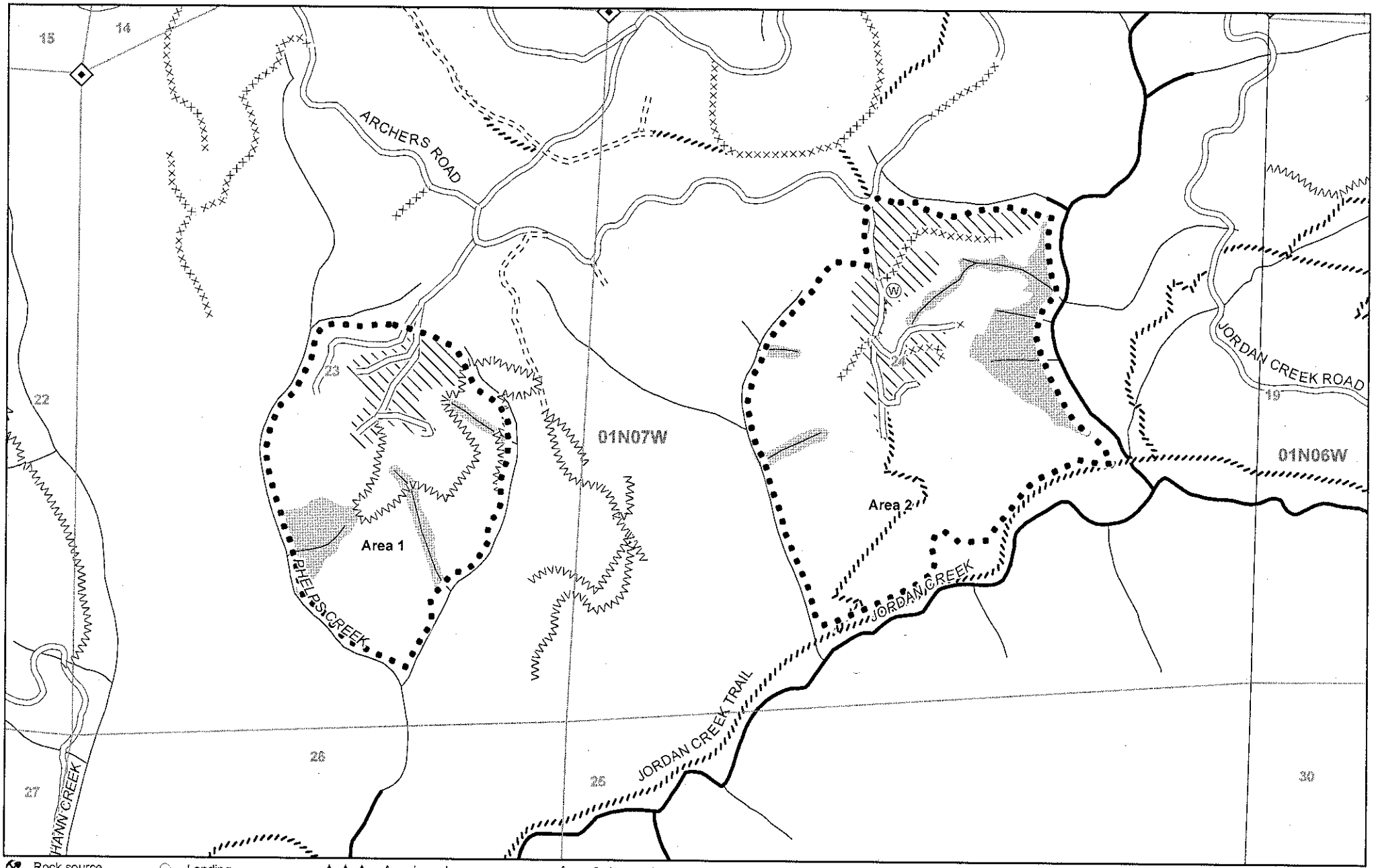
Date 12/16/2010
Time 2:36:52PM

T01N R07W S24 T0200

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
01N	07W	24	200	0200	119.00	19	112	S	W

T01N R07W S24 T0200

Spp	ST	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CO	2	48	1.3	11,531	11,377	1,354			73	27		1	1	97	40	334	2.16	34.1
DF		CO	3	41	.2	9,730	9,715	1,156	0	73	21	6	3	2	4	91	38	125	0.89	77.7
DF		CO	4	11		2,388	2,388	284	67	33			24	23	16	37	25	29	0.35	82.0
DF	**Totals**			89	.7	23,649	23,480	2,794	7	34	44	15	4	4	4	89	33	121	0.99	193.8
RA		H	3	32	.6	745	740	88		77	23				59	41	34	96	0.84	7.7
RA		H	4	65	1.0	1,506	1,491	177		100			11	17	11	62	29	53	0.53	28.1
RA		H	UT	3		65	65	8		100			100				20	20	0.32	3.2
RA	**Totals**			9	.8	2,315	2,296	273		93	7		10	11	26	53	30	59	0.59	39.1
DL		CO	2	41		200	200	24			100					100	40	200	1.18	1.0
DL		CO	3	38		180	180	21		100						100	40	180	1.12	1.0
DL		CO	4	21		100	100	12	40	60						100	40	50	0.44	2.0
DL	**Totals**			2		480	480	57	8	50	42					100	40	120	0.80	4.0
Type Totals					.7	26,445	26,256	3,124	6	39	41	14	4	4	6	86	32	111	0.92	236.9



LOGGING PLAN

Timber Sale Contract No. 341-11-76
ARCH SUPPORT
Portions of Sections 23 and 24
T1N, R7W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

N

Area	Type of Operation	Acres Gross	Net
1	Modified clearcut	82	73
2	Modified clearcut	134	119
Total		216	192

12/22/2010