OREGON DEPARTMENT OF FORESTRY

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
East Ranch
Sale 341-13-88

District: **Tillamook**

Date: **November 13, 2012**

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cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$223,034.70	$158,153.06	$381,187.76
		Project Work:	$(49,340.00)
		Advertised Value:	$331,847.76

timber description

Location: Portions of Sections 16 and 21, T3S, R8W, W.M., Tillamook County, Oregon.

Stand Stocking: 80%

SpecieName	**AvgDBH**	**Amortization (%)**	**Recovery (%)**
Douglas - Fir	22	0	95
Western Hemlock / Fir	21	0	95
Red Cedar	11	0	95
Alder (Red)	15	0	90

Volume by Grade	2S	2S 12"+	3S	3S 10" -	4S	4S 8" - 9'	SM	Total
Douglas - Fir	719	0	67	0	50	0	0	836
Western Hemlock / Fir	223	0	101	0	25	0	0	349
Red Cedar	0	0	0	0	3	0	0	3
Alder (Red)	0	110	0	317	0	248	14	689
Total	942	110	168	317	78	248	14	1,877

comments: Pond Values Used: 3rd Quarter Calendar Year 2012.

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

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $4.00/Gallon

HAULING COST ALLOWANCE
Hauling cost equivalent to $780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: $2/MBF x 1,877/MBF = $3,754
Snag Creation (girdling): $10/snag x 66 snags = $660
TOTAL Other Costs (with Profit & Risk to be added) =$4,414

Other Costs (No Profit & Risk added):
Slash Piling and Sorting: $5/acre cable harvest x 15 acres = $75
Cover Material for Piles: 3 piles x $5/pile = $15
TOTAL Other Costs (No Profit & Risk added) = $90

ROAD MAINTENANCE
Maintenance Rock Area 1: ($22/cu.yd. x 1.1 miles x 20cu.yd./MMBF/mile x 1.877MMBF)/1877= $.48

Final Maintenance:
Grading: $500/Mile x 1.1 miles x 1 grading/1877 MBF = .29

Total Maintenance Cost = $0.77

logging conditions

combination#: 1

Douglas - Fir	77.00%
Western Hemlock / Fir	77.00%
Red Cedar	77.00%
Alder (Red)	77.00%

yarding distance: Medium (800 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: 4.0
bd. ft / load: 3,200
cost / mbf: $112.36

machines: Stroke Delimber (B)

combination#: 2

Douglas - Fir	23.00%
Western Hemlock / Fir	23.00%
Red Cedar	23.00%
Alder (Red)	23.00%

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: 4.0
bd. ft / load: 3,300
cost / mbf: $214.72

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

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logging costs

Operating Seasons:	1.00	**Profit Risk:**	20.00%
Project Costs:	$49,340.00	**Other Costs (P/R):**	$4,414.00
Slash Disposal:	$0.00	**Other Costs:**	$90.00

Miles of Road

Road Maintenance: $0.77

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	3.0
Western Hemlock / Fir	$0.00	2.0	3.2
Red Cedar	$0.00	1.0	2.5
Alder (Red)	$0.00	2.0	2.0

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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$135.90	$0.81	$2.34	$113.75	$2.35	$51.03	$0.00	$5.00	$0.05	$311.23
Western Hemlock / Fir									
$135.90	$0.81	$2.34	$106.64	$2.35	$49.61	$0.00	$5.00	$0.05	$302.70
Red Cedar									
$135.90	$0.81	$2.34	$273.00	$2.35	$82.88	$0.00	$5.00	$0.05	$502.33
Alder (Red)									
$135.90	$0.85	$2.34	$178.75	$2.35	$64.04	$0.00	$5.00	$0.05	$389.28

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$523.50	$212.27	$0.00
Western Hemlock / Fir	$0.00	$429.23	$126.53	$0.00
Red Cedar	$0.00	$975.00	$472.67	$0.00
Alder (Red)	$0.00	$618.82	$229.54	$0.00

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summary

Amortized

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

Unamortized

Specie	**MBF**	**Value**	Total
Douglas - Fir	836	$212.27	$177,457.72
Western Hemlock / Fir	349	$126.53	$44,158.97
Red Cedar	3	$472.67	$1,418.01
Alder (Red)	689	$229.54	$158,153.06

Gross Timber Sale Value

Recovery: $381,187.76

Prepared by: Nick Stumpf **Phone:** 503-842-2545

OREGON DEPARTMENT OF FORESTRY
"STEWARDSHIP IN FORESTRY"

PROJECT SUMMARY SHEET

Sale: East Ranch

CONSTRUCTION

Point	A to B	18+74	stations =	$10,083.95
Point	C to D	7+65	stations =	$5,118.91
Point	E to F	2+20	stations =	$638.69
Point	G to H	3+70	stations =	$3,718.70
		SUBTOTAL CONSTRUCTION		**$19,560.25**

IMPROVEMENT

Point	A to B	47+15	stations =	$21,730.75
Point	G to H	8+00	stations =	$6,524.99
		SUBTOTAL IMPROVEMENT		**$28,255.74**

MOVE IN **$1,524.01**

GRAND TOTAL **$49,340.00**

SUMMARY OF CONSTRUCTION COST

Sale: **East Ranch** Road: **A to B**

Construction -	18+74	stations	Improvement -	47+15	stations	Reconstruction -	0+00	stations
	0.35	miles		0.89	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
47+15		51+00	15%		Outslope	$107	=	$411.95	
51+00		52+40	10%		Outslope	$90	=	$126.00	
52+40		56+50	15%		Outslope	$107	=	$438.70	
56+50		59+30	25%		Outslope	$165	=	$462.00	
59+30		62+15	20%		Outslope	$139	=	$396.15	
62+15		63+50	30%		Outslope	$191	=	$257.85	
63+50		64+32	10%		Outslope	$90	=	$73.80	
64+32		64+88	Turnaround		Outslope	$200	=	$112.00	
64+88		65+28	10%		Outslope	$90	=	$36.00	
65+28		65+90	Land. Const.		Outslope	$500	=	$310.00	
								TOTAL	**$2,624.45**

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.870	acres @	$980.00	per acre =	$852.60	
					TOTAL CLEARING AND GRUBBING	**$852.60**

IMPROVEMENT: EXCAVATION -

Ditching & Culvert Cleanout	0+00	to	24+00	24.00	sta. @	$50.00	per sta. =	$1,200.00	
Ditching & Culvert Cleanout	27+60	to	45+80	18.20	sta. @	$50.00	per sta. =	$910.00	
								TOTAL EXCAVATION	**$2,110.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts

92	LF of 18"	$1,610.00	120	LF of 24"	$3,240.00	
40	LF of 30"	$1,440.00	0	LF of 36"	$0.00	
		$3,050.00			$3,240.00	

Culvert Stakes & Markers

7 markers	$56.00		
	$56.00	**TOTAL CULVERTS**	**$6,346.00**

ROCK

0+00	to	14+50	250	cy. of	Crushed 1 1/2"	@	$28.15	per c.y.=	$7,037.50 *	
26+00	to	28+50	110	cy. of	Crushed 3"	@	$23.15	per c.y.=	$2,546.50 *	
39+60	to	43+50	150	cy. of	Crushed 3"	@	$23.15	per c.y.=	$3,472.50 *	
Culvert Backfill		10 CY/Culvert	70	cy. of	Crushed 1 1/2"	@	$26.30	per c.y.=	$1,841.00 *	
Spot Rock		Marked in Field	100	cy. of	Crushed 3"	@	$23.15	per c.y.=	$2,315.00 *	
									TOTAL ROCK	**$17,212.50**

* Price includes move in for roller and grader

SPECIAL PROJECTS

Grade and shape road -	65.89	stations @	$15.50	per station	$1,021.30	
Roll subgrade w/ vibratory roller prior to rocking -	65.89	stations @	$13.20	per station	$869.75	
Remove culverts from state lands	6.00	@	$397.50	total	$397.50	
Grass seed and fertilize -	1.73	acres @	$220.00	per acre	$380.60	
					TOTAL SPECIAL PROJECTS	**$2,669.15**

GRAND TOTAL **$31,814.70**

SUMMARY OF CONSTRUCTION COST

Sale: **East Ranch** Road: **C to D**

Construction -	7+65	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.14	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 or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+00	50%		Outslope	$459	=	$459.00	
1+00		4+00	55%		Outslope	$689	=	$2,067.00	
4+00		5+10	45%		Outslope	$269	=	$295.90	
5+10		6+05	Fill Const.		Outslope	$1,000	=	$950.00	
6+00		7+05	55%		Outslope	$689	=	$723.45	
7+05		7+65	Land. Const.		Outslope	$600	=	$360.00	
								TOTAL	**$4,855.35**

SPECIAL PROJECTS

Grade and shape road -	7.65	stations @	$15.50	per station	$118.58	
Roll subgrade w/ vibratory roller -	7.65	stations @	$13.20	per station	$100.98	
Grass seed and fertilize -	0.20	acres @	$220.00	per acre	$44.00	
				TOTAL SPECIAL PROJECTS		**$263.56**

GRAND TOTAL **$5,118.91**

SUMMARY OF CONSTRUCTION COST

Sale: **East Ranch** Road: **E to F**

Construction -	2+20	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.04	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 or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+00	30%		Outslope	$191	=	$191.00	
1+00		1+65	Turnaround		Outslope	$155	=	$100.75	
1+65		2+20	Land Const.		Outslope	$500	=	$275.00	
								TOTAL	**$566.75**

SPECIAL PROJECTS

Grade and shape road -	2.20	stations @	$15.50	per station	$34.10	
Roll subgrade w/ vibratory roller -	2.20	stations @	$13.20	per station	$29.04	
Grass seed and fertilize -	0.04	acres @	$220.00	per acre	$8.80	
				TOTAL SPECIAL PROJECTS		**$71.94**

GRAND TOTAL **$638.69**

SUMMARY OF CONSTRUCTION COST

Sale: **East Ranch** Road: **G to H**

Construction -	3+70	stations	Improvement -	8+00	stations	Reconstruction -	0+00	stations
	0.07	miles		0.15	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			
8+00		8+50	10%		Outslope	$90	=	$45.00	
8+50		9+50	45%		Outslope	$269	=	$269.00	
9+50		11+10	35%		Outslope	$191	=	$305.60	
11+10		11+70	Land. Const.		Outslope	$600	=	$360.00	
								TOTAL	**$979.60**

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.370	acres @	$980.00	per acre =	$362.60	
					TOTAL CLEARING AND GRUBBING	**$362.60**

IMPROVEMENT: EXCAVATION -

Road Earthwork	8.00	sta. @	$30.00	per sta. =	$240.00	
					TOTAL EXCAVATION	**$240.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts

30	LF of 24"	$810.00	
		$810.00	

Culvert Stakes & Markers

1	markers	$8.00	
		$8.00	
		TOTAL CULVERTS	**$818.00**

ROCK

0+00	to	4+00	160	cy. of	Crushed 3"	@	$23.15	per c.y.=	$3,704.00	*
5+30	to	9+00	150	cy. of	Crushed 3"	@	$23.15	per c.y.=	$3,472.50	*
Culvert Backfill		6+20	10	cy. of	Crushed 1 1/2"	@	$26.30	per c.y.=	$263.00	*
* Price includes move in for roller and grader									**TOTAL ROCK**	**$7,439.50**

SPECIAL PROJECTS

Grade and shape road -	11.70	stations @	$15.50	per station	$181.35	
Roll subgrade w/ vibratory roller prior to rocking -	11.70	stations @	$13.20	per station	$154.44	
Grass seed and fertilize -	0.31	acres @	$220.00	per acre	$68.20	
				TOTAL SPECIAL PROJECTS		**$403.99**

GRAND TOTAL **$10,243.69**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	Purchaser Option
Sale:	**East Ranch**	Road:	1000 c.y.

Move in Roller and Compactor	1	@	$413.62	=	$413.62
Move in Grader	1	@	$153.91	=	$153.91
Move in Trucks	1	@	$132.19	=	$132.19
				Subtotal	$699.72
				TOTAL PRODUCTION COSTS	$699.72

Base Cost= $0.70 Per Cu.Yd.

Road Segment	Purchase Price $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
A to B 0 1450 (Crushed 1 1/2")	25.00	2.45	0.70	28.15	250		$7,037.50
A to B 2600 2850 (Crushed 3")	20.00	2.45	0.70	23.15	110		$2,546.50
A to B 3960 4350 (Crushed 3")	20.00	2.45	0.70	23.15	150		$3,472.50
A to B Culvert Backfill (Crushed 1 1/2")	25.00	0.60	0.70	26.30	70		$1,841.00
A to B Spot Rock (Crushed 3")	20.00	2.45	0.70	23.15	100		$2,315.00
G to H 0 400 (Crushed 3")	20.00	2.45	0.70	23.15	160		$3,704.00
G to H 530 900 (Crushed 3")	20.00	2.45	0.70	23.15	150		$3,472.50
G to H Culvert Backfill (Crushed 1 1/2")	25.00	0.60	0.70	26.30	10		$263.00
				Total C.Y.	1000	Sub Total	$24,652.00

TOTAL ROCKING COSTS	$24,652.00

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

Sale: **East Ranch**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
46.0	Pavement	30
3.5	Main Lines	7
2.0	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)	$686.82	1	$44.80	0.00	0.00	0	$0.00	$686.82
1	Tractor (D8)	$666.28	2	$15.10	0.00	0.00	0	$0.00	$666.28
1	Dump Truck (10 cy +)	$170.91		$2.85	0.00	0.00	0	$0.00	$170.91

TOTAL MOVE-IN COSTS: $1,524.01

"STEWARDSHIP IN FORESTRY"

East Ranch

Volume Summary

Area 1-Modified Clearcut

66 acres

SPECIES	Cruised Net MBF/ Acre	Cruised Net MBF	Hidden D&B	Net Sale MBF
Douglas-fir	13.3	880	5%	836
Hemlock	5.6	367	5%	349
Spruce		0	5%	0
Western red cedar	0.1	3	5%	3
Alder	11.6	765	10%	689
TOTAL	30.5	2016		1877

TOTAL SALE VOLUME 66 acres

SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	880	836
Hemlock	367	349
Spruce	0	0
Noble Fir	3	3
Red Alder	765	689
TOTAL	2016	1877

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
East Ranch

1. Type of Sale

Regeneration harvest, Recovery.

2. Legal Description

Sections 16 and 21, T3S, 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 (Clearcut)	68	66

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

- **Area 1**: 24 plots were sampled on a square grid pattern spaced 400' between plots and 400' between cruise lines.

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 sampled for tree species, DBH, form factor, merchantable height, visible defect and grade. Diameters were measured outside bark to the nearest inch and merchantable heights were recorded to the nearest foot. The point of tree observation was 4.5 feet on all plots.

B. Plot size

- In the sale area all plots were variable radius plots. A BAF of 40 was used for all species.

C. Grading System

Tree heights were measured to a 6" merchantable top for conifers, and 7" for hardwoods. All measurements were outside the bark. All species were graded using Columbia River Log Scaling and Grading Bureau rules, favoring a 40' log.

5. Computation Procedure

The volumes and statistics for the timber cruised were computed using SuperACE 2004, developed by Atterbury Consultants, Inc. The standard error and the coefficient of variation for the cruise as based on net board feet per acre shown in the table below.

Area	C.V. (%)	S.E. (%)
1	79.5	16.6

6. Hidden Defect and Breakage

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

7. Timber Description

The area is a mix of larger diameter Douglas-fir, alder, hemlock and spruce. The alder stands are starting to show signs of breakage and blow down. The conifer is primarily in scattered clumps with an occasional open grown tree interspersed with the alder. This area has had no prior management.

Sale Area – Species (%)	DBH	Merchantable Bole Height	Merchantable Top
Area 1 - Douglas-fir (42%)	22.3	71	5”
Area 1 - Hemlock (18%)	21.3	82	5”
Area 1 - Alder (35%)	14.9	62	6”

8. Cruiser Names/Dates

Luttrell, Wells, Stumpf, Fox

9. Revenue Distribution

FDF 100%

Tax Code: 8 - 100%

Deed Numbers: 447, 458

10. Attachments

Stand Table Volume Summaries

Log Stock Tables

Logging Plan

11. <u>Stand and Log Stock Tables Species Key</u>

DL – Douglas-fir leave
DF – Douglas-fir take
RA – Red alder take
RC – Western red cedar reserved
SS – Sitka spruce reserved
WL – Western hemlock leave
WH – Western hemlock take
OC – Conifer snag

T **TSPCSTGR**

Species, Sort Grade - Board Foot Volumes (Type)

Project: ESTRANCH

Page 1
Date 11/6/2012
Time 9:25:57AM

T03S R08W S21 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
03S	08W	21	AREA1	MC	66.00	24	148	S	W

T03S R08W S21 TMC

				%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs
									Log Scale Dia.				Log Length							
Spp	S T	So rt	Gr ad	Net BdFt	Def%	Gross	Net	Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ln Ft	Bd Ft	CF/ Lf	Per /Acre
RA		H	S	2		234	234	15				100				100	40	940	4.98	.2
RA		H	2	16		1,953	1,953	129		1	56	43	5	1	26	67	35	305	2.59	6.4
RA		H	3	46	.2	5,298	5,289	349		88	9	3	1	4	25	70	37	128	1.01	41.3
RA		H	4	36	1.3	4,173	4,117	272		100			13	28	27	33	27	42	0.47	97.6
RA	**Totals**			36	.6	11,658	11,593	765		76	14	11	6	12	25	57	30	80	0.78	145.6
DF		CO	2	86	.5	11,610	11,551	762			25	75			3	97	40	515	2.73	22.4
DF		CO	3	8	.4	1,053	1,049	69		79	21			6	36	58	35	117	0.97	9.0
DF		CO	4	6		737	737	49	59	41			34	30	8	28	26	32	0.46	23.1
DF	**Totals**			42	.5	13,400	13,337	880	3	8	23	65	2	2	6	90	33	245	1.68	54.5
WH		CO	2	64	.2	3,605	3,597	237			19	81			3	97	40	538	2.73	6.7
WH		CO	3	29		1,629	1,629	108		55	21	24		2	8	90	38	158	1.09	10.3
WH		CO	4	7		338	338	22	52	48			14	25	5	56	29	37	0.48	9.0
WH	**Totals**			17	.1	5,572	5,564	367	3	19	19	59	1	2	5	92	35	214	1.39	26.1
DL		CO	2	94		696	696	46			35	65			9	91	38	451	2.68	1.5
DL		CO	4	6		37	37	2	68	32			32			68	31	36	0.59	1.0
DL	**Totals**			2		733	733	48	3	2	33	61	2		9	90	35	286	1.95	2.6
RC		CO	4	100		51	51	3	100				100				19	20	0.34	2.5
RC	**Totals**			0		51	51	3	100				100				19	20	0.34	2.5
WL		CO	2	98		319	319	21				100			19	81	36	1105	6.36	.3
WL		CO	4	2		4	4	0		100			100				16	30	1.02	.1
WL	**Totals**			1		323	323	21		1		99	1		19	79	29	747	5.39	.4
BM		H	4	100		76	76	5		100				100			21	30	0.43	2.5
BM	**Totals**			0		76	76	5		100				100			21	30	0.43	2.5
SS		CO	3	100		199	199	13		10		90			10	90	36	255	2.11	.8
SS	**Totals**			1		199	199	13		10		90			10	90	36	255	2.11	.8
Type Totals					.4	32,012	31,875	2,104	2	35	19	45	3	6	13	78	31	136	1.10	235.0

TC TLOGSTVB

Log Stock Table - MBF

Project: ESTRANCH

T03S R08W S21 TMC **T03S R08W S21 TMC**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees		
03S	08W	21	AREA1	MC	66.00	24	148	Page	1
								Date	11/6/2012
								Time	9:29:12AM

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											
RA		H	S	40	15		15	2.0									15			
RA		H	2	20	7		7	.9								7				
RA		H	2	21	1		1	.2				1								
RA		H	2	32	34		34	4.5							24	10				
RA		H	2	40	86		86	11.3						35		17	15	20		
RA		H	3	19	4		4	.6					4							
RA		H	3	20	1		1	.1				1								
RA		H	3	21	5		5	.7							5					
RA		H	3	30	8		8	1.0				1			6					
RA		H	3	32	88	.7	87	11.4				37	27	8	6	10				
RA		H	3	38	2		2	.3					2							
RA		H	3	40	242		242	31.6			7	102	125	7						
RA		H	4	12	0		0	.0			0									
RA		H	4	13	0		0	.0			0									
RA		H	4	14	2		2	.3			2									
RA		H	4	16	8		8	1.1			6		2							
RA		H	4	17	3		3	.4			3									
RA		H	4	18	14		14	1.8			13	1								
RA		H	4	19	3		3	.4			3									
RA		H	4	20	5		5	.6			5									
RA		H	4	21	17		17	2.2			17									
RA		H	4	22	2		2	.3			2									
RA		H	4	23	9		9	1.2			7	3								
RA		H	4	24	5		5	.6			5									
RA		H	4	25	12		12	1.6			12									
RA		H	4	27	4		4	.5			4									
RA		H	4	28	11		11	1.5			11									
RA		H	4	29	15	7.9	14	1.8			14									
RA		H	4	31	7		7	.9			7									
RA		H	4	32	35		35	4.5			15	9	11							
RA		H	4	33	24	10.4	21	2.8			21									
RA		H	4	35	10		10	1.3			10									
RA		H	4	36	12		12	1.6			12									
RA		H	4	37	8		8	1.1			8									
RA		H	4	40	68		68	8.9			20	39	9							
RA		Totals			769		765	36.4			206	194	180	50	42	43	30	20		
DF		CO	2	32	10		10	1.1							4	6				
DF		CO	2	34	14		14	1.6										14		
DF		CO	2	40	742	.5	738	83.9						75	75	223	257	108		
DF		CO	3	21	1		1	.1				1								
DF		CO	3	22	1		1	.1					1							
DF		CO	3	25	2		2	.2				2								
DF		CO	3	31	2		2	.2					2							
DF		CO	3	32	13		13	1.4				3	5	4						
DF		CO	3	33	3		3	.4				1	2							
DF		CO	3	34	6		6	.7				6								
DF		CO	3	35	2		2	.2				2								
DF		CO	3	40	40	.7	40	4.5			2	10	17	5		6				
DF		CO	4	13	1		1	.2		1		1								
DF		CO	4	15	1		1	.1				1								

TC TLOGSTVB

Log Stock Table - MBF

Project: ESTRANCH

T03S R08W S21 TMC

T03S R08W S21 TMC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03S	08W	21	AREA1	MC	66.00	24	148

Page 2
Date 11/6/2012
Time 9:29:12AM

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	4	17	3		3	.3			2	1								
DF		CO	4	18	2		2	.3			2	1								
DF		CO	4	19	8		8	.9		6	2		1							
DF		CO	4	20	1		1	.1			1									
DF		CO	4	23	3		3	.3		1	2									
DF		CO	4	26	2		2	.3				2								
DF		CO	4	27	8		8	.9		6		2								
DF		CO	4	30	1		1	.1			1									
DF		CO	4	34	4		4	.5		4										
DF		CO	4	38	7		7	.8		7										
DF		CO	4	39	5		5	.5		5										
DF		CO	4	40	2		2	.3			2									
DF		Totals			884		880	41.8		29	14	32	28	84	79	234	257	122		
WH		CO	2	32	8	7.0	7	1.9								7				
WH		CO	2	40	230		230	62.8						14	19	93	65	39		
WH		CO	3	29	2		2	.5					2							
WH		CO	3	32	9		9	2.5				5			4					
WH		CO	3	36	2		2	.6					2							
WH		CO	3	37	4		4	1.2					4							
WH		CO	3	39	2		2	.6				2								
WH		CO	3	40	88		88	23.9			3	27	13	19		25				
WH		CO	4	12	1		1	.2		1										
WH		CO	4	16	1		1	.2				1								
WH		CO	4	18	2		2	.5			1		1							
WH		CO	4	23	2		2	.6		2										
WH		CO	4	29	3		3	.8		3										
WH		CO	4	31	1		1	.3			1									
WH		CO	4	40	7		7	1.9			7									
WH		CO	4	41	5		5	1.5		5										
WH		Totals			368		367	17.5		12	12	35	23	33	23	125	65	39		
DL		CO	2	32	4		4	8.5						4						
DL		CO	2	40	42		42	86.5							12	14			16	
DL		CO	4	16	1		1	1.6			1									
DL		CO	4	40	2		2	3.4		2										
DL		Totals			48		48	2.3		2	1			4	12	14			16	
RC		CO	4	19	3		3	100.0		3										
RC		Totals			3		3	.2		3										
WL		CO	2	32	4		4	19.2								4				
WL		CO	2	40	17		17	79.5											17	
WL		CO	4	16	0		0	1.3			0									
WL		Totals			21		21	1.0			0					4			17	
BM		H	4	21	5		5	100.0			5									
BM		Totals			5		5	.2			5									
SS		CO	3	32	1		1	9.8			1									
SS		CO	3	40	12		12	90.2								12				

TC TLOGSTVB

Log Stock Table - MBF

Project: ESTRANCH

T03S R08W S21 TMC

T03S R08W S21 TMC

Page 3
Date 11/6/2012
Time 9:29:12AM

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03S	08W	21	AREA1	MC	66.00	24	148

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+
SS				Totals	13		13	.6			1					12				
Total All Species					2,113		2,104	100.0		45	239	261	231	171	157	432	353	182	33	

TC TSTNDSUM

Stand Table Summary

Project **ESTRANCH**

T03S R08W S21 TMC **T03S R08W S21 TMC**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03S	08W	21	AREA1	MC	66.00	24	148

Page: 1
Date: 11/06/201
Time: 9:28:31AM

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		9	1	79	29	3.773	1.67	3.77	4.6	20.0	.50	17	75	33	11	5
DF		10	1	78	46	3.056	1.67	3.06	9.2	30.0	.80	28	92	53	19	6
DF		11	1	77	63	2.525	1.67	2.53	15.1	40.0	1.09	38	101	72	25	7
DF		13	1	80	55	1.808	1.67	1.81	20.6	40.0	1.06	37	72	70	25	5
DF		14	1	78	45	1.559	1.67	1.56	20.5	40.0	.91	32	62	60	21	4
DF		16	1	86	69	1.194	1.67	2.39	17.3	50.0	1.18	41	119	78	27	8
DF		19	1	81	114	.846	1.67	1.69	37.2	135.0	1.79	63	229	118	42	15
DF		21	1	82	119	.693	1.67	2.08	32.5	126.7	1.92	68	263	127	45	17
DF		23	4	82	96	2.311	6.67	5.20	45.3	154.4	6.72	236	803	443	156	53
DF		25	1	78	138	.489	1.67	1.47	51.9	206.7	2.17	76	303	143	50	20
DF		26	1	85	123	.452	1.67	1.36	55.2	230.0	2.13	75	312	140	49	21
DF		28	7	85	120	2.728	11.67	8.19	63.1	276.7	14.73	517	2,265	972	341	149
DF		29	3	84	119	1.090	5.00	2.91	74.4	323.8	6.17	216	941	407	143	62
DF		30	2	85	132	.679	3.33	2.04	78.1	366.7	4.53	159	747	299	105	49
DF		31	4	85	140	1.272	6.67	3.82	84.2	394.2	9.16	321	1,504	604	212	99
DF		32	2	87	154	.597	3.33	2.09	86.3	457.1	5.14	180	955	339	119	63
DF		33	2	87	129	.561	3.33	1.68	92.1	465.0	4.42	155	783	292	102	52
DF		34	4	85	124	1.057	6.67	3.17	93.4	445.8	8.44	296	1,414	557	195	93
DF		35	1	81	138	.249	1.67	.75	101.1	473.3	2.16	76	354	142	50	23
DF		37	1	88	127	.223	1.67	.67	114.6	596.7	2.19	77	400	144	51	26
DF		38	3	85	122	.635	5.00	1.69	130.3	647.5	6.29	221	1,096	415	146	72
DF		39	1	84	142	.201	1.67	.60	138.5	740.0	2.38	83	446	157	55	29
DF		Totals	44	81	85	27.999	73.33	54.50	55.3	244.7	85.86	3,013	13,337	5,667	1,988	880
RA		9	1	81	68	3.773	1.67	3.77	10.5	40.0	1.09	40	151	72	26	10
RA		10	5	81	60	15.279	8.33	15.28	11.1	44.0	4.64	169	672	306	111	44
RA		11	4	81	67	10.102	6.67	12.63	12.4	38.0	4.31	157	480	284	103	32
RA		12	3	86	69	6.366	5.00	8.49	14.7	52.5	3.43	125	446	226	82	29
RA		13	6	82	78	10.849	10.00	18.08	15.2	53.0	7.58	276	958	500	182	63
RA		14	8	83	85	12.473	13.33	23.39	18.0	66.0	11.56	420	1,543	763	277	102
RA		15	7	85	69	9.507	11.67	14.94	20.9	69.1	8.57	312	1,032	565	206	68
RA		16	4	82	88	4.775	6.67	9.55	23.1	83.7	6.08	221	800	401	146	53
RA		17	5	85	82	5.287	8.33	10.57	25.9	95.0	7.53	274	1,004	497	181	66
RA		18	4	82	83	3.773	6.67	6.60	32.2	108.6	5.85	213	717	386	140	47
RA		19	4	85	85	3.386	6.67	5.93	36.9	134.3	6.02	219	796	397	144	53
RA		20	3	80	73	2.292	5.00	4.58	33.3	101.7	4.20	153	466	277	101	31
RA		22	1	78	76	.631	1.67	1.26	39.8	135.0	1.38	50	170	91	33	11
RA		23	2	80	68	1.155	3.33	1.73	51.2	153.3	2.44	89	266	161	59	18
RA		24	2	77	44	1.061	3.33	1.59	37.8	130.0	1.65	60	207	109	40	14
RA		25	1	80	59	.489	1.67	.49	73.7	150.0	.99	36	73	65	24	5
RA		26	3	79	58	1.356	5.00	2.26	54.5	138.0	3.38	123	312	223	81	21
RA		28	1	80	67	.390	1.67	.78	58.3	220.0	1.25	45	171	82	30	11
RA		29	1	81	78	.363	1.67	.73	75.9	250.0	1.52	55	182	100	36	12
RA		30	1	80	63	.340	1.67	.68	66.0	235.0	1.23	45	160	81	30	11
RA		31	1	83	87	.318	1.67	.64	97.3	385.0	1.70	62	245	112	41	16
RA		35	1	84	96	.249	1.67	.50	132.1	540.0	1.81	66	269	120	44	18
RA		38	1	58	78	.212	1.67	.42	138.6	225.0	1.61	59	95	106	39	6
RA		52	2	65	97	.226	3.33	.68	192.8	556.7	3.59	131	377	237	86	25
RA		Totals	71	82	73	94.650	118.33	145.57	23.3	79.6	93.42	3,397	11,593	6,166	2,242	765
WH		13	1	80	41	1.808	1.67	1.81	9.2	20.0	.53	17	36	35	11	2
WH		14	2	88	93	3.118	3.33	4.68	22.9	90.0	3.43	107	421	227	71	28
WH		15	1	87	107	1.358	1.67	2.72	24.7	105.0	2.15	67	285	142	44	19

TC TSTNDSUM

Stand Table Summary

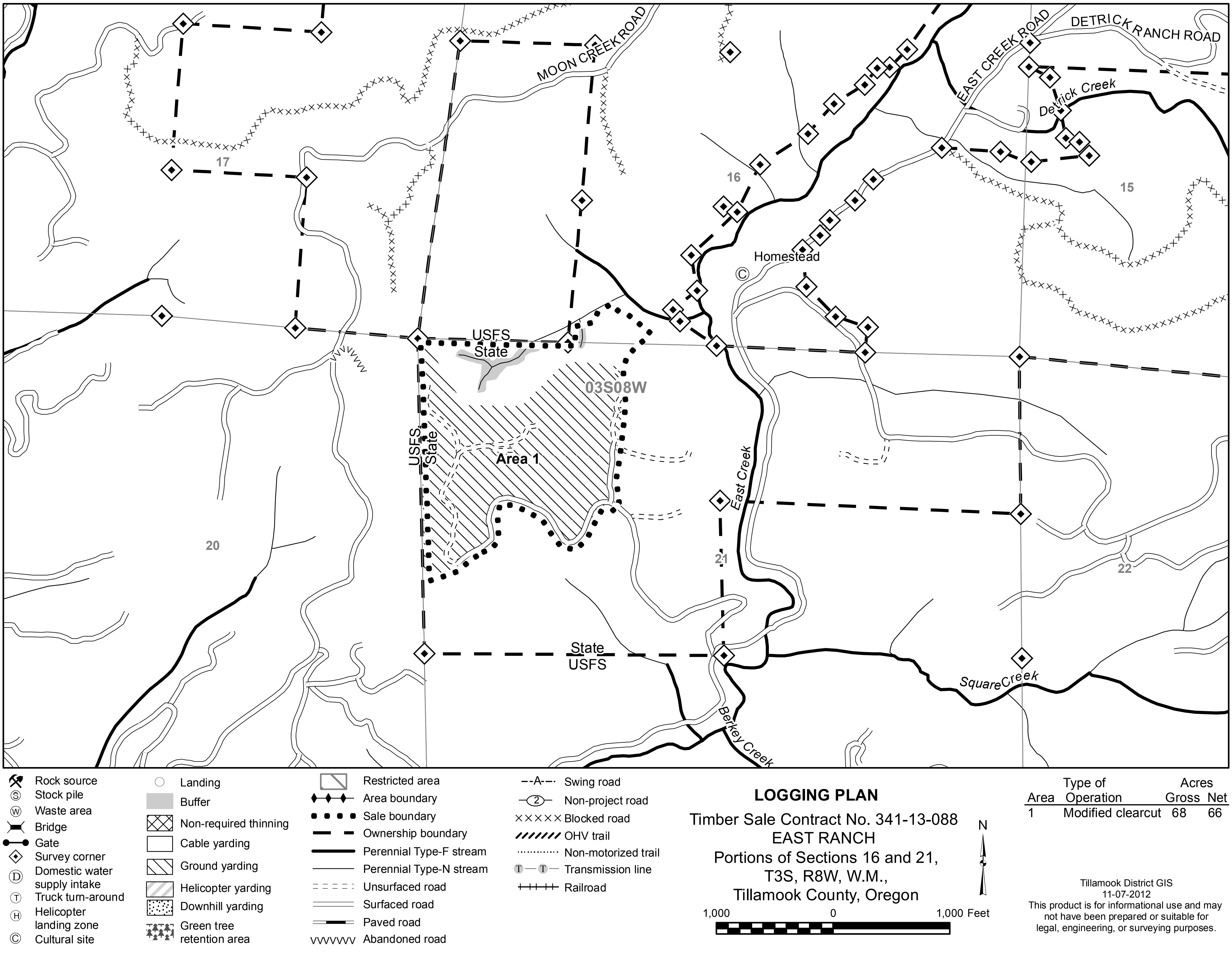
Project ESTRANCH

T03S R08W S21 TMC **T03S R08W S21 TMC**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03S	08W	21	AREA1	MC	66.00	24	148

Page: 2
Date: 11/06/201
Time: 9:28:31AM

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
WH		17	1	87	107	1.057	1.67	3.17	22.8	93.3	2.31	72	296	153	48	20
WH		18	1	86	105	.943	1.67	1.89	35.3	130.0	2.13	67	245	141	44	16
WH		21	1	87	100	.693	1.67	1.39	47.4	175.0	2.10	66	243	139	43	16
WH		25	1	88	122	.489	1.67	1.47	54.7	253.3	2.57	80	372	169	53	25
WH		26	2	85	86	.904	3.33	1.36	77.2	300.0	3.35	105	407	221	69	27
WH		27	2	80	95	.838	3.33	1.68	76.2	260.0	4.09	128	436	270	84	29
WH		28	1	88	105	.390	1.67	.78	86.8	385.0	2.16	68	300	143	45	20
WH		29	1	85	97	.363	1.67	.73	88.2	345.0	2.05	64	251	135	42	17
WH		30	1	87	150	.340	1.67	1.02	91.9	473.3	2.99	94	482	198	62	32
WH		31	1	87	116	.318	1.67	.95	81.0	386.7	2.47	77	369	163	51	24
WH		34	1	84	128	.264	1.67	.79	99.8	480.0	2.53	79	381	167	52	25
WH		35	1	86	144	.249	1.67	.75	120.8	630.0	2.89	90	471	191	60	31
WH		37	1	85	161	.223	1.67	.89	111.8	637.5	3.19	100	569	211	66	38
WH		Totals	19	86	96	13.357	31.67	26.06	49.1	213.5	40.97	1,280	5,564	2,704	845	367
DL		22	1	84	97	.631	1.67	1.26	49.1	165.0	1.71	62	208	113	41	14
DL		28	1	85	108	.390	1.67	1.17	54.7	240.0	1.76	64	281	116	42	19
DL		48	1	82	134	.133	1.67	.13	373.6	1840.0	1.36	50	244	90	33	16
DL		Totals	3	84	105	1.154	5.00	2.56	68.5	285.8	4.83	176	733	319	116	48
WL		46	1	84	99	.144	1.67	.43	158.1	746.7	2.19	68	323	145	45	21
WL		Totals	1	84	99	.144	1.67	.43	158.1	746.7	2.19	68	323	145	45	21
SS		28	1	83	86	.390	1.67	.78	75.8	255.0	1.54	59	199	101	39	13
SS		Totals	1	83	86	.390	1.67	.78	75.8	255.0	1.54	59	199	101	39	13
BM		11	1	79	32	2.525	1.67	2.53	9.0	30.0	.60	23	76	40	15	5
BM		Totals	1	79	32	2.525	1.67	2.53	9.0	30.0	0.60	23	76	40	15	5
RC		11	1	84	23	2.525	1.67	2.53	6.5	20.0	.38	16	51	25	11	3
RC		Totals	1	84	23	2.525	1.67	2.53	6.5	20.0	0.38	16	51	25	11	3
OC		19	1	99	29	.846	1.67									
OC		24	1	98	17	.531	1.67									
OC		44	1	98	33	.158	1.67									
OC		48	1	98	33	.133	1.67									
OC		60	2	85	24	.170	3.33									
OC		72	1	84	60	.059	1.67									
OC		Totals	7	97	27	1.896	11.67									
Totals			148	83	76	144.641	246.67	234.96	34.2	135.7	229.79	8032	31,875	15,166	5,301	2,104



LOGGING PLAN

Timber Sale Contract No. 341-13-088
EAST RANCH
Portions of Sections 16 and 21,
T3S, R8W, W.M.,
Tillamook County, Oregon

Area	Type of Operation	Acres Gross	Acres Net
1	Modified clearcut	68	66

Tillamook District GIS
11-07-2012