



"STEWARDSHIP IN FORESTRY"

District: Astoria

Timber Sale Appraisal
Green Machine
Sale 341-15-60

Date: June 04, 2014

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,013,596.71	\$0.00	\$1,013,596.71
		Project Work:	\$0.00
		Advertised Value:	\$1,013,596.71



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timber description

Location: Portions of Section 7, T6N, R8W, W.M., Clatsop County, Oregon

Stand Stocking: 100%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Western Hemlock / Fir	13	0	95

Volume by Grade	3S	Total
Western Hemlock / Fir	3,031	3,031
Total	3,031	3,031

comments: Pond Value Used 1st quarter Calender Year 2014

Expected Log markets Warrenton, OR; Tillamook, OR; Claskanine, OR; Mist, OR; Garibaldi, OR; Longview, WA; Aberdeen, WA.

SCALING COST ALLOWANCE: \$5.00/MBF

FUEL COST ALLOWANCE: \$4.00/GALLON

HAULING COST ALLOWANCE: Hauling costs equivalent to \$780. per day truck cost.

OTHER COSTS (With Profit and Risk):

Branding and Painting: \$1.00/MBF X 3,032 MBF = \$3,032.

Slash and Landing piling in MC (including move-in and pile material) = \$7,188.

TOTAL OTHER COSTS (With Profit and Risk): \$10,220

OTHER COSTS (No Profit and Risk):

Machine Wash for Invasive Species: \$2,000

TOTAL FOR OTHER COSTS (No Profit and Risk) = \$2,000.



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logging conditions

combination#:	1	Western Hemlock / Fir	100.00%
yarding distance:	Medium (800 ft)		downhill yarding: No
logging system:	Cable: Large Tower >=70		Process: Manual Falling/Delimiting
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	9.0	bd. ft / load:	4,000
cost / mbf:	\$102.60		
machines:	Log Loader (A) Tower Yarder (Large)		



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logging costs

Operating Seasons:	1.00	Profit Risk:	9.00%
Project Costs:	\$0.00	Other Costs (P/R):	\$10,220.00
Slash Disposal:	\$0.00	Other Costs:	\$2,000.00

Miles of Road

Road Maintenance: \$4.02

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Western Hemlock / Fir	\$0.00	3.0	4.0



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Western Hemlock / Fir									
\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$15.68	\$0.00	\$5.00	\$0.66	\$195.59

Specie	Amortization	Pond Value	Stumpage	Amortized
Western Hemlock / Fir	\$0.00	\$530.00	\$334.41	\$0.00



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Green Machine
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summary

Amortized

Specie	MBF	Value	Total
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Western Hemlock / Fir	3,031	\$334.41	\$1,013,596.71

Gross Timber Sale Value

Recovery: \$1,013,596.71

Prepared by: John Tillotson

Phone: 503-325-5451



**Timber Sale Appraisal
Green Machine
Sale 341-15-60 - 69**

"STEWARDSHIP IN FORESTRY"

District: Astoria

Date: May 20, 2014

Individual Sort Appraisal addendum:

Sort #	Species and Sort Specifications	Average Log Length	Estimated Net Volume		Logging Cost	Road Maintenance	Fire Protection	Appraised Hauling	Other P/R Costs	Scaling	Profit and Risk	Other	Minimum Bid Delivered Prices		(net to state)		Total Appraised Value	Bid Deposit	
			Mbf	Tons									\$/mbf	\$/Ton	\$/mbf	\$/Ton			
341-15-60	WH/fir 6"-11"		2,086	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$530.00	n/a	\$334.41	n/a	\$1,105,580.00	\$110,558.00	
341-15-61	WH/fir 12"+		641	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$550.00	n/a	\$354.41	n/a	\$352,550.00	\$35,255.00	
341-15-62	WH/fir Camp Run 6"+	28	2,727	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$540.00	n/a	\$344.41	n/a	\$1,472,580.00	\$147,258.00	
341-15-63	DF 6"-13"		33	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$645.00	n/a	\$449.41	n/a	\$21,285.00	\$2,128.50	
341-15-64	DF 14"+		130	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$685.00	n/a	\$489.41	n/a	\$89,050.00	\$8,905.00	
341-15-65	DF Camp Run 6"+	27	163	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$660.00	n/a	\$464.41	n/a	\$107,580.00	\$10,758.00	
341-15-66	RA Camp Run 6"+		51	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$500.00	n/a	\$304.41	n/a	\$25,500.00	\$2,550.00	
341-15-67	SS 6"-20"	40	46	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$520.00	n/a	\$324.41	n/a	\$23,920.00	\$2,392.00	
341-15-68	SS 21"+	40	44	n/a	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$5.00	\$15.68	\$0.66	\$250.00	n/a	\$54.41	n/a	\$11,000.00	\$1,100.00	
341-15-69	Pulp 2"+		330	2,968	\$102.60	\$4.22	\$1.45	\$62.61	\$3.37	\$1.00	\$15.68	\$0.66	\$250.00	n/a	n/a	\$27.78	n/a	\$82,444.44	\$8,244.44

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Green Machine
Date: May 21, 2014
By: John Tillotson

MBF: 3,031
\$/MBF: \$4.02

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Interim	Grader 14G	\$778	1	8	\$100	\$1,578
	Grader 14G	\$778	1	40	\$100	\$4,778
Final	Dump Truck 12CY	\$163	1	8	\$79	\$795
Road	FE Loader C966	\$778	1	4	\$83	\$1,110
Maintenance	Vibratory Roller	\$778	1	20	\$77	\$2,318
Haul Route	Water Truck 2,500 gallon	\$190	1	16	\$89	\$1,614
Total						\$12,193

*Final Road Maint: Grade only on Saddle Mtn. County Rd.
 Water, Process and Compact all crushed rock from Green Mtn. Gate to Timber Sale Area.

Final Road Maintenance

Production Rates	Miles/day	Distance(miles)	Days	Hours
Grader	1.5	6.0	4.0	40.0
Vibratory Roller	1.5	2.0	1.3	13.3

Site Prep Appraisal

Sale Number: 341-15-
Sale Name: Green Machine
Date: 04/21/2014

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre
Doug-fir	A	1.0	3.0
Hemlock/Fir	B	1.5	4.5
Hemlock/Spruce	C	2.0	6.0
Hemlock	D	2.0	6.0
Conifer/Hardwood	E	1.5	4.5
Whole Tree Yarding	F	0.5	0.5

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area
1	MC	C	1.0	2	\$129.00	\$258.00
In-unit Piling						Sub Total = \$258.00
Sale Area	Number of Landings to be Piled	Cost/Landing Pile	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area
1	6	\$930.00	\$5,580.00	6	\$5.00	\$60.00
*Cost includes separating firewood					Materials	Sub Total = \$60.00
					Landing Piling	Sub Total = \$5,580.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance			Move-In	Sub Total = \$1,290.00
\$1,290.00	1	\$1,290.00				
Grand Total =						\$7,188.00

TIMBER CRUISE REPORT
Green Machine
FY2014

1. **Sale Area Location:**

The Sale Area is located in portions of Section 7, T6N, R8W, Willamette Meridian., Clatsop County, Oregon.

2. **Fund Distribution:**

BOF = 100% Tax Code = 1-02 = 100%

3. **Sale Acreage and Treatments by Area:**

Area	Harvest Type	Gross Acres	Non-Stocked	GTRA	Type N Stream Buffer	Existing R/W	New R/W	Net Acres	Survey Method
1	MC	87	5	3	1	2	0	76	GIS

4. **Cruisers and Cruise Dates:**

Areas 2 was cruised by Jon Long, Andrew Arvin, and John Choate in November, 2013.

5. **Cruise Method and Computations:**

Area 1 was designed for a variable plot cruise using a 54.45 Basal Area Factor (BAF). 26 plots were sampled with grade to count ratio of 1:1 on a 7 x 4 chain grid. Trees with a DBH of 6-7 inches were tallied to estimate the number of trees per acre.

The data was downloaded to the Atterbury SUPER A.C.E. program and computations were made at the Astoria District Office. See the attached Cruise Design for more details on cruise methods.

<u>AREA</u>	<u>CRUISE</u>	<u>CRUISE TYPE</u>
1	GMACH	T07NR08W 08 01CC

6. **Timber Description:**

Area 1- This stand is approximately 72 years old and is dominated by hemlock with some minor components of Sitka spruce, true fir, Douglas-fir, and red alder . Some windthrow is evident along the East and West edges of the sale Area.

7. **Statistical Analysis and Stand Summary:** (See also "Statistical Summary-Type Reports", attached.) Evaluated on Net BF/Acre.

Area	Target CV %	Target SE %	Actual CV %	Actual SE %
1	45	8	42.8	8.1

The statistics for the cruise is "Take" and "Leave" stands combined based on Net BF/ACRE.

8. **Volumes by Species and Sort:** (See the Species, Sort, Grade, and the Log Stock Table attached.) Volumes do not include "in-growth". The majority of defect and breakage was culled during the cruise. The total net MBF volumes by species and grade are as follows:

Species	DBH	Net. Vol.	2 Saw	3 Saw	4 Saw	% D & B	Sale%
W. Hemlock	13	2,727	472	1,641	614	3	90
Sitka Spruce	24	90	44	46		0	3
Douglas-fir	22	163	93	62	8	0	5
Totals		2,980					

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red Alder	14	51	0	17	29	5	6	2

TOTAL NET SAWLOG VOLUME	3,031
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Sort breakdown:

Sort #	Species	Sort Specifications	Net MBF	Sale %
1	WH/fir	6"-11" Sawlogs	2,086	69
2	WH/fir	12"+ Sawlogs	641	21
4	DF	6"-13" Sawlogs	33	1
5	DF	14"+ Sawlogs	130	4
7	RA	Camp Run 6"+ Sawlogs	51	2
8	SS	6"-20" Sawlogs	46	2
9	SS	21"+ Sawlogs	44	1
10	Pulp	2"+ Pulp	2,968 Tons	n/a

Pulp Volume:

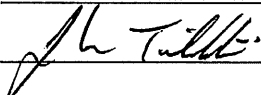
Species	DBH	Net Tons
All (Primarily WH)	7	2,968

*Pulp volume is based on the cruised volume of submerchantable material (240 tons) and approximately 10% of the saw log volume will be generated from the submerchantable tops of the saw timber.

9. Approvals:

Prepared by: John Tillotson

Date: November 21, 2013

Approved by: 

Date: 12/1/2013

10. Attachments:

- Species, Sort & Grade (Volume) Reports: 1 page
- Statistical Report-Sawlog: 1 page
- Statistical Report-Pulp: 1 page
- Log Stock Table-MBF (cut): 1 page
- Log Stock Table-Pulp: 1 page
- Stand Table (cut) 1 page
- Cruise Designs and Maps: 3 page

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Green Machine Area 1

Harvest Type: CC

Approx. Cruise Acres: 78 Estimated CV% ^{Net BF/Acre} 45 SE% Objective ^{Net BF/Acre} 8

Planned Sale Volume: 2.73 MMBF Estimated Sale Area Value/Acre: \$10,500

A. Cruise Goals: (a) Grade minimum 80 conifer and 10 hardwood trees:
(b) Sample 31 cruise plots; (c) Other goals (Determine "automark" thinning standards;
X Determine log grades for sale value; X Determine snag and leave tree species and
sizes; Determine LWD (down wood) cubic feet and decay classes; Determine
"diameter limit" harvest parameters; Determine log sort volumes for test run of log sort program.)

B. Cruise Design:

1. **Plot Cruises:** BAF 54.45 (Full point; Half point) (circle one)

Fixed Plot Size Plot Radius feet

Cruise Line Direction(s) 43 / 223 Az.

Cruise Line Spacing 7 (chains) (feet)

Cruise Plot Spacing 4 (chains) (feet)

Grade/Count Ratio 1:1

2. **ITS (Sample Tree) Cruises:** Measure-grade ratios: D-fir Hemlock
Spruce True Fir Cedar Hardwood

C. Tree Measurements:

1. **Diameter:** Minimum DBH to cruise is 6" for conifers and 7" for hardwoods.
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees
> 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to
closest estimate.

2. **Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in
merchantable height, estimating to the nearest 5 feet is acceptable.

3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" or 40% of dob at 16'
form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees
> 18" dbh.

4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree
measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer
species on the cruise area, and use these to calculate average FF for the species on the
cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32'
and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull
segments can be any length. For conifers, minimum merchantable segment length is 12'; for
hardwoods, it's 10'. Maximum segment length is 40'. One foot of trim is assumed for each
merch. segment. Do not use "double dash" (--) feature on the data recorder.

Logs shall be segmented and graded as follows:

All conifer shall have the following lengths: 16', 24', 32', and 40'
All hardwoods shall have log lengths of 20', 30', and 40'.

Grade all trees to 40 foot and 32 foot lengths, minimize logs less than 16 feet.

For trees less than 8" DBH tally heights to a 3" dib top on tally card by spp.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)
- B. Sort: Use code "1" (Domestic).
- C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; UT = Utility; 0 = Cull

7. Deductions: Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.

8. Standard Field Procedures: Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.

ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.

9. Cruising Equipment: Relaskop Logger's Tape (with dbh on back)
 Biltmore Stick Compass Cruise Cards in Tatum OR Data Recorder
 Cruise Design Rangefinder Cruise Map Yellow Flagging Blue Flagging

10. Attachments: A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.)
 B. Data Recorder Instructions
 C. Other

Cruise Design by: Jana Tillotson
 Approved by: [Signature]
 Date: 11/19/13

EXHIBIT "A"

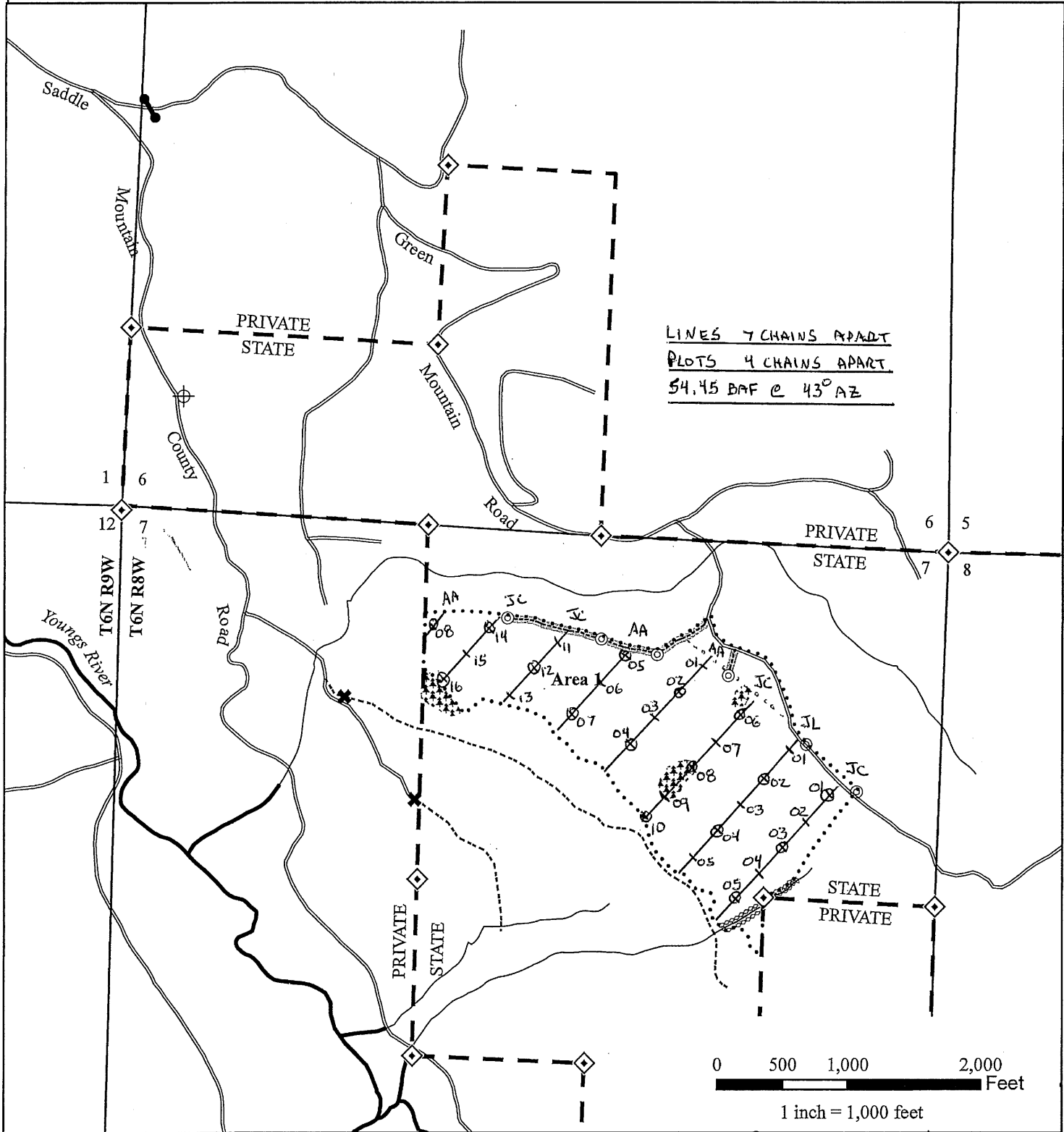
OF TIMBER SALE CONTRACT NO. 341-15-
SECTION 7
T6N, R8W, W.M., CLATSOP COUNTY, OREGON

Approximate Net Acreage MC Acres
Area 1 (MC) - 76



Legend

- Timber Sale Boundary
- Ownership Boundary
- Surfaced Road
- Unsurfaced Road
- Landing to Construct
- New Road Construction
- Type F Stream
- Type N Stream
- Posted Stream Buffer
- Green Tree Retention Area
- Sections
- Gate
- Registered Water Use Site
- Survey Monument



TC TSTATS				STATISTICS				PAGE	1	
				PROJECT GMACH				DATE	5/20/2014	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	08W	07	A1 SORT	01CC	76.00	29	187	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		29	187	6.4						
CRUISE		17	99	5.8	27,657	.4				
DBH COUNT										
REFOREST										
COUNT		12	83	6.9						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	86	336.1	12.5	51		284.5	37,069	35,893	9,948	9,948
SNAG	4	8.2	20.5	63		18.8				
DOUG FIR	3	6.7	21.6	77		16.9	2,141	2,141	581	581
R ALDER	4	10.6	14.0	28		11.3	716	674	250	250
S SPRUCE	2	2.4	23.9	81		7.5	1,186	1,186	318	318
TOTAL	99	363.9	13.1	51		338.9	41,111	39,894	11,097	11,097
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL:	68.1 %	COEFF	SAMPLE TREES - BF			# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		88.4	9.5	139	154	168				
SNAG										
DOUG FIR		27.8	19.2	267	330	393				
R ALDER		82.8	47.3	66	125	184				
S SPRUCE		85.6	80.2	151	760	1,369				
TOTAL		106.0	10.6	146	164	181	449	112	50	
CL:	68.1 %	COEFF	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		57.8	10.9	299	336	373				
SNAG		247.6	46.7	4	8	12				
DOUG FIR		243.1	45.9	4	7	10				
R ALDER		288.4	54.4	5	11	16				
S SPRUCE		278.3	52.6	1	2	4				
TOTAL		47.6	9.0	331	364	397	94	23	10	
CL:	68.1 %	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		44.3	8.4	261	284	308				
SNAG		236.1	44.6	10	19	27				
DOUG FIR		245.1	46.3	9	17	25				
R ALDER		270.3	51.0	6	11	17				
S SPRUCE		254.4	48.0	4	8	11				
TOTAL		29.8	5.6	320	339	358	37	9	4	
CL:	68.1 %	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
WHEMLOCK		51.1	9.7	32,428	35,893	39,358				
SNAG										
DOUG FIR		248.1	46.8	1,138	2,141	3,144				
R ALDER		300.9	56.8	291	674	1,057				
S SPRUCE		254.5	48.1	616	1,186	1,756				
TOTAL		42.8	8.1	36,669	39,894	43,119	76	19	8	

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	GMACH			DATE	5/22/2014		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	07W	07	AREA 2	PLP	76.00	29	15	1	W		
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL		29	15	.5							
CRUISE		13	15	1.2	8,009	.2					
DBH COUNT											
REFOREST COUNT											
BLANKS		16									
100 %											
STAND SUMMARY											
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
WHEMLOCK	15	105.4	7.0	21		28.2	351	351	295	295	
TOTAL	15	105.4	7.0	21		28.2	351	351	295	295	
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.	INF. POP.			
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
WHEMLOCK	131.7	37.9	2	4	5						
TOTAL	131.7	37.9	2	4	5	749	187	83			
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.	INF. POP.			
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
WHEMLOCK	122.5	23.1	81	105	130						
TOTAL	122.5	23.1	81	105	130	621	155	69			
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.	INF. POP.			
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
WHEMLOCK	122.5	23.1	22	28	35						
TOTAL	122.5	23.1	22	28	35	621	155	69			
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.	INF. POP.			
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
WHEMLOCK	271.6	51.3	171	351	531						
TOTAL	271.6	51.3	171	351	531	3,050	762	339			

Stand Table Summary																
Project GMACH																
T06N R08W S07 T01CC										T06N R08W S07 T01CC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:								
06N	08W	07	A1 SORT	01CC	76.00	29	99	1	Date:	05/20/20						
									Time:	11:09:08AM						
Spc	T	DBH	Sample Trees	FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
H		8	1	88	96	9.476	3.31	18.95	7.5	35.0		142	663		108	50
H		9	9	88	76	67.388	29.77	97.34	9.1	35.4		884	3,444		671	262
H		10	9	87	75	54.585	29.77	72.78	11.9	41.7		867	3,032		659	230
H		11	12	88	77	60.148	39.70	90.22	13.1	46.7		1,178	4,210		895	320
H		12	7	87	76	29.482	23.16	46.33	15.1	52.7		699	2,443		531	186
H		13	6	88	81	21.825	19.85	40.06	17.2	57.2		691	2,293		525	174
H		14	7	88	85	21.661	23.16	43.32	20.1	72.9		870	3,156		661	240
H		15	8	88	85	21.564	26.46	43.13	23.1	83.7		997	3,612		758	275
H		16	6	88	92	14.215	19.85	28.43	28.0	100.0		796	2,843		605	216
H		17	7	88	93	14.690	23.16	29.38	33.9	120.7		995	3,547		756	270
H		18	2	90	82	3.744	6.62	7.49	32.8	117.5		245	880		186	67
H		19	5	87	87	8.400	16.54	16.80	38.7	134.0		650	2,251		494	171
H		20	2	90	100	3.032	6.62	4.55	55.7	216.7		253	986		192	75
H		21	3	86	83	4.126	9.92	8.25	45.3	158.3		374	1,307		284	99
H		25	1	82	84	.970	3.31	1.94	63.5	205.0		123	398		94	30
H		28	1	88	124	.774	3.31	2.32	79.0	356.7		183	828		139	63
H		Totals	86	88	80	336.082	284.48	551.29	18.0	65.1		9,948	35,893		7,560	2,728
D		20	1	86	74	2.582	5.63	5.16	33.5	115.0		173	594		131	45
D		22	1	82	105	2.134	5.63	4.27	48.0	175.0		205	747		156	57
D		23	1	86	110	1.952	5.63	3.90	52.0	205.0		203	800		154	61
D		Totals	3	85	94	6.668	16.90	13.34	43.6	160.6		581	2,141		441	163
S		19	1	87	100	1.907	3.76	3.81	43.5	150.0		166	572		126	43
S		37	1	87	89	.503	3.76	1.01	151.5	610.0		152	614		116	47
S		Totals	2	87	98	2.410	7.51	4.82	66.0	246.0		318	1,186		242	90
A		9	1	86	17	6.375	2.82									
A		18	1	85	53	1.594	2.82	1.59	44.0	80.0		70	127		53	10
A		19	1	85	68	1.430	2.82	2.86	31.5	105.0		90	300		68	23
A		21	1	85	67	1.171	2.82	2.34	38.5	105.0		90	246		69	19
A		Totals	4	86	35	10.570	11.27	6.80	36.8	99.1		250	674		190	51
SN		15	1	86	85	3.825	4.69									
SN		17	1	88	78	2.978	4.69									
SN		32	1	85	36	.840	4.69									
SN		40	1	86	21	.538	4.69									
SN		Totals	4	87	73	8.181	18.78									
Totals			99	88	79	363.911	338.93	576.25	19.3	69.2		11097	39,894		8,434	3,032

TC TLOGSTVB

Log Stock Table - MBF

Project: **GMACH**

T06N R08W S07 T01CC

T06N R08W S07 T01CC

Twp Rge Sec Tract Type Acres Plots Sample Trees
 06N 08W 07 A1 SORT 01CC 76.00 29 99

Page 1
 Date 5/20/2014
 Time 11:09:08AM

Spp	T	S	So	Gr	Log	Gross MBF	% Def	Net MBF	% Spp	Net Volume by Scaling Diameter in Inches										
										2-3	4-5	6-11	12-21	22-27	28-39	40-41	42-43	44-45	46-47	48-49
H		DO	CU	8																
H		DO	CU	27																
H		DO	2S	32		26	6.3	24	.9			24								
H		DO	2S	40		452	.9	448	16.4			448								
H		DO	3S	16		19		19	.7			19								
H		DO	3S	24		2		2	.1			2								
H		DO	3S	32		547	2.4	534	19.6			509	25							
H		DO	3S	40		1,115	2.6	1,086	39.8			942	144							
H		DO	4S	16		247	2.3	241	8.8			241								
H		DO	4S	24		296		296	10.9			296								
H		DO	4S	32		114	31.8	77	2.8			77								
H		Totals				2,817	3.2	2,728	90.0			2087	641							
SN		DO	CU	16																
SN		DO	CU	20																
SN		DO	CU	24																
SN		DO	CU	38																
SN		DO	CU	40																
SN		Totals																		
D		DO	CU	8																
D		DO	2S	32		93		93	57.1			93								
D		DO	3S	32		37		37	22.9			37								
D		DO	3S	40		25		25	15.2			25								
D		DO	4S	24		8		8	4.8			8								
D		Totals				163		163	5.4			33	130							
A		DO	CU	10																
A		DO	2S	40		18	5.0	17	33.0			17								
A		DO	3S	30		20		20	38.2			20								
A		DO	3S	40		11	11.1	10	18.9			10								
A		DO	4S	16		2		2	3.5			2								
A		DO	4S	20		4	25.0	3	6.4			3								
A		Totals				54	5.9	51	1.7			15	36							
S		DO	2S	40		44		44	48.8			44								
S		DO	3S	40		46		46	51.2			11	35							
S		Totals				90		90	3.0			11	35	44						
Total All Species						3,124	3.0	3,032	100.0			2145	843	44						

T06N R08W S07 T01CC T06N R08W S07 T01CC
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 06N 08W 07 A1 SORT 01CC 76.00 29 99 1 W

Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
H	DO	CU													18		0.00	9.2	
H	DO	2S	17	1.2	6,285	6,211	472		91	9			5	95	39	246	1.60	25.3	
H	DO	3S	60	2.5	22,149	21,597	1,641	90	10		1	0	33	66	36	87	0.68	247.7	
H	DO	4S	23	6.4	8,635	8,085	614	100			39	48	13		21	29	0.40	278.3	
H	Totals		90	3.2	37,069	35,893	2,727 2,728	76	22	2	10	11	23	56	28	64	0.63	560.5	
SN	DO	CU													33		0.00	15.0	
SN	Totals														33		0.00	15.0	
D	DO	CU													8		0.00	4.1	
D	DO	2S	57		1,222	1,222	93		100				100		32	299	2.14	4.1	
D	DO	3S	38		816	816	62	40	60				60	40	37	122	1.06	6.7	
D	DO	4S	5		103	103	8	100					100		24	40	0.67	2.6	
D	Totals		5		2,141	2,141	163	20	80			5	80	15	27	123	1.23	17.4	
A	DO	CU													10		0.00	6.4	
A	DO	2S	33	5.0	234	222	17		100				100		40	190	1.70	1.2	
A	DO	3S	57	4.0	401	385	29	33	67			67	33		35	127	1.30	3.0	
A	DO	4S	10	17.7	81	66	5	100			100				18	25	0.68	2.6	
A	Totals		2	5.9	716	674	51	29	71		10	38	52		20	51	0.95	13.2	
S	DO	2S	48		578	578	44		100				100		40	1150	5.87	.5	
S	DO	3S	52		607	607	46	25	75				100		40	141	1.16	4.3	
S	Totals		3		1,186	1,186	90	13	39	49			100		40	246	1.65	4.8	
Type Totals				3.0	41,111	39,894	3,031 3,032	71	26	3	9	11	25	55	28	65	0.64	610.9	

