



TIMBER SALE PRESCRIPTION

GENERAL

Date Nov. 9, 2009	Forest, Mineral and Fire Management Unit Pigeon River MU
Timber Sale Number (if applicable)	Sale Name (or prescription name) LP Hardwoods

LOCAL CONTACT

Name Rick McDonald and Don Mittlestat	Telephone (989) 983 - 4101
Email Address mittlesd@michigan.gov	FAX Number (989) 983 - 3957

Map of Project Area Attached

LEGAL DESCRIPTION

T33N R1W Section(s) 33 SW; S1/2NW; NENW; SWNE and W1/2SE
 Year of Entry: 2010 Compartment(s):15 Stand Number(s): 67 and 68

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 179 Source: OI GPS Other _____
 Payment will be made on the basis of these estimated acres.

TREATMENT & OBJECTIVE

STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
67	M6	168	120	Selection	Northern Hardwoods
68	A7	11	30	Final Harvest	Aspen

PRESCRIPTION

- For stand 67, reduce stand basal area to 80 square feet using single tree selection/crop tree release marking techniques. See attached sheet.
- Manage for the best tree in place, however, do not mark any elm, cherry, hemlock, or other Conifers, or den trees or trees of poor vigor. Leave areas of Hemlock and Hardwoods as areas of retention
- Retain existing representation of all species currently within the hardwood stands.
- Clearcut the Aspen Management stand (68). Within the Aspen clearcut one area of retention of Approximately 0.5 acres will be required.
- See attachment for further marking instructions.

Access Will be from Tin Bridge Road. See attached map.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE

CONTRACT WORK CAN BEGIN
 Immediately Date:
CONTRACT WORK MUST BE COMPLETED BY Date August 15, 2008

PAINT LINE WORK

This is included in the bid This is not included in the bid

Paint line work to be performed: (See attached map for locations)

TYPE OF LINE	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR	
Private boundary	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yellow	<input type="checkbox"/> Other:
Stand type line	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:

Exclusions to mark and why

Standards for marking lines against private land

Not applicable.

AREA CALCULATION

This is included in the bid This is not included in the bid

UNIT	METHOD	STANDARD
Sale	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Stand	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	

Special Instructions:

Sale map is to be produced at a scale of one inch to the ¼ mile. Four inches equals a mile.

TIMBER CRUISING SPECIFICATIONS

This is included in the bid This is not included in the bid

Required Basal Area Factor: 10 20 Other:

Cruise Line Directions

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
Stands 67	Approximately .49	4 X 5
Stand 68	1	3 X 3 X
		X
		X
TOTAL NUMBER OF CRUISE POINTS	Approx. 93	

Cruise Special Instructions:

Residual basal area will be required to be taken at each cruise plot. The number of cruise plots will be determined after the acreage has been determined. The cruise will be for pulpwood in the hardwood stand (stand 67) and for pulp and sawlogs in the Aspen Management Unit (stand 68). Sawlogs in the Hardwood Unit will be 100% tallied. For stand 67, the cruise must keep Basswood and other hardwoods separate. Keep all species separate in the cruise of the Aspen Management Unit, stand 68.

Unless otherwise specified, the tally sheets used must be those supplied by the Forest, Mineral and Fire Management Unit.

TIMBER MARKING SPECIFICATIONS

This is included in the bid This is not included in the bid

Precise specifications to be delineated at pre-work meeting with DNR staff

Total Residual BA (Basal Area): 80 (Minimum 70 to Maximum 90)

TREATMENT	NUMBER	SIZE
Regeneration Gaps Per Acre	3 to 5	30' - 50' crown
Girdled Trees Per Acre		

PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	Orange slash with dots	10 inches	8 inches
Sawbolts	N/A	N/A	N/A
Pulpwood	Orange slash	5 inches	4 inches

TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR
Trees marked to leave	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Green <input type="checkbox"/> Other
Trees marked to cut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other

TALLY INTENSITIES

SPECIES / PRODUCT	RATIO
Sawlogs of all species	100%
	1 :
	1 :
	1 :

SPECIES TO FAVOR

Leave best tree in place. If encountered, leave some pockets of beech unmarked.

SPECIES TO Reduce

None

SPECIAL MARKING INSTRUCTIONS

If a stick nest is encountered see attached timber sale prescription Appendix. Do not mark in or near areas where Hemlock is present. Ask sale administrator for further information.

Unless otherwise specified, the tally sheets used must be those provided by the Forest, Mineral and Fire Management Unit.

RESTRICTIONS

1. Forest, Mineral and Fire Management Division must to be able to identify who did what on the timber sale.
2. The contractor may not have more than two markers in one payment unit without prior approval.
3. Each marker should have an assigned area to mark (not strips).

PAINT

1. Call Don Mittlestat or Rick McDonald at (989) 983 - 4101, to make arrangements for paint.
2. Paint will be supplied from Pigeon River Country Field Office.
3. Contractor's work schedule must coincide with the DNR work schedule for paint supply.
4. The DNR will not be available on weekends or evenings.

DELIVERABLES

1. A list of names that marked or cruised each payment unit.
2. A summary of paint used (in quarts).
3. Tally summaries for each payment unit (one summary, regardless of the number of markers) and all of the original tally sheets.
4. GPS files for any GPS work.

Pigeon River Country Management Unit
Northern Hardwood Marking
LP HARDWOODS
Stand 67

1. Access for marking these stands is shown on attached map. The attached type map delineates the contract marking area.
2. For boundary line trees do the following:
 - Avoid using dead or badly damaged trees – boundary trees must last for the duration of the timber sale (up to 3-4 years).
 - Avoid using small (fast-growing) stems and those exposed to direct sunlight.
 - Marking must be done in dry weather and when tree surfaces are not wet.
 - Paint the boundary line in such a way that it can be seen both from the inside of the sale area and when walking along the line from either direction (two sides).
 - Place marks approximately six feet above the base of the tree.
 - The contractor will keep track of total quarts of paint used per-sale by color.
 - The contractor will use a GPS unit to determine enclosed acreage to the nearest one-tenth acre, unless an alternative method is approved prior by Unit Management.
3. Select crop trees. Crop trees are defined as trees which have the potential of making a grade one sawlog when they are harvested. A grade one sawlog is any tree capable of producing at least 16 feet of clear lumber. A crop tree can be ANY species of tree. Manage for the best tree in place at all times.
4. Locate 20 to 25 crop trees per acre spaced approximately 25 to 27 feet apart. In areas where 6” to 9” DBH trees predominate, the crop tree release will consist of creating a seven foot opening around the crown of the tree. This means that adjoining lesser quality dominants, co-dominants, and intermediates will have to be marked for removal. In areas where trees greater than 9” DBH predominate, the crop tree release will consist of removing the two nearest competitors from the dominant, co-dominant, and intermediate size classes.
5. After the crop tree has been selected and properly released, additional trees may have to be removed to reduce the basal area to the desired basal area. First remove high risk trees (esp. Eutypella canker) from the stand followed by trees from the sub-canopy around the crop tree. (Commercial trees will be defined as any trees that contain at least one 100” sawlog or pulp stick.) Lastly, remove any other lesser quality intermediate and co-dominate tree from the stand to reduce the basal area to the desired basal area.
6. Create an average of 3 to 5 thirty foot regeneration gap per acre, except where high quality trees predominate. All trees one inch and greater in diameter must be marked in the regeneration gap. If pockets of advanced regeneration are found, these pockets should be released by removing surrounding trees
7. Do not mark obvious den trees or trees of declining vigor which may serve as future den trees.
8. Mark trees to cut on two opposite sides. Each tree marked to cut must be stump marked from ground level to at least 6 inches above the ground in a moss free area. Paint must also be applied to trees surfaces that are dry.
9. Do not mark within 100’ of any raptor nest trees. Report these to the Contract Administrator as soon as possible and directions will be given at that time.
10. Marking of infrequently occurring species should be avoided. Consult the Contract Administrator for clarification.
11. Areas where Hemlock is present or predominate do not mark in these areas. See Contract Administrator for further instructions.