

TIMBER SALE PRESCRIPTION

				GENERAL					
Date Forest, Mineral and Fire Mar						ement Unit			
08/01/2011					Crystal Falls Sale Name (or prescription name)				
Timber Sale Num	,			,					
12-0??-11-01 Aspen Measurement Block Test A									
				LOCAL CONTACT					
Name				Telephone					
Tom Seablom				(906) 485-1 FAX	966				
Email Address									
seablomt@mic	higan.gov			()	-				
⊠ Map of Pro	oject Area Atta	ched							
T44N R 27W	Section(s) 11	& 12		EGAL DESCRIPTION E1/2 & W1/2					
Year of Entry:	2011 Compa	rtment(s):2	22 Stand Nu	ımber(s): 26					
,					FOLLOWING	ACREACE			
	IHIS	IIMBER SA	ALE CONTRA	ACT IS BASED ON THE	FOLLOWING	ACREAGE			
Estimated Acre	es: 41.4 Sou	urce: 🗌 O	I ⊠ GPS	Other					
Payment will be	made on the basis	of these es	timated acres.						
i ayınısını win bə	mado on mo baoic	01 111000 00		ATMENT & OBJECTIV	F				
STAND#	COVER TYPE	ACRES	BA	TREATMENT	_	MANAGEMENT OBJECTIVE			
						MANAGEMENT OBOLOTTE			
26	A6	41.4	126.6	Final Harvest	Aspen				
				PRESCRIPTION					
1. Cut all	trees greate	er than 2	dbh exce	ept pine and cedar	`.				
	t of vernal p								
	verage DBH								
4. Mixed s	tand of asper	ı, balsam	fir, bals	sam polar, red map	ole, white s	spruce and other hardwoods.			
5.									
6.									
7.									
8.									
9. 10.									
Access Kates	Grade Pd								
Acces Races	Grade Nd								
DNR P	REPARATION W	ORK TO B	E DONE PRI	OR TO CONTRACT W	ORK	ESTIMATED DATE			
N/A									
CONTRACT W	ORK CAN BEGIN	1							
⊠ Imr	mediately 🔲	Date:							
	-								
CONTRACT W	ORK MUST BE C	OMPLETE	BY Nove	mper 15, 2011					

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			Blue	Other:					
Sale boundary			Red	Other:					
Sale cutting unit			Yellow	Other:					
Stand type line				Other:					
Exclusions to mark and why Standards for marking lines	against private l	land							
AREA CALCULATION ☐ This is included in the bid ☑ This is not included in the bid									
UNIT METHO	OD .			STANDARD					
Sale	S String Cha	ain 🗌 Other							
Payment Unit GP									
Stand	S String Cha	ain Other							
Special Instructions:	TIMB	ER CRUISING SPI	ECIFICATIONS						
Cruise Line Directions The plots have already been established. The plot locations and numbering is shown on page 5.									
CRUISING UNIT	S	NUMBER OF PLO	TS PER ACRE	SPACING (CHA	AINS)				
Northwest Forty		1		N/a X N/a					
				N/a X N/a					
				X					
				X					
TOTAL NUMBER OF CRUIS	SE POINTS	42	2						

Cruise Special Instructions:

Temporary plots have been established. The test measurement can't be done by the same people that set up the plots. Plot center is PVC pipe sticking out at least 4" above the ground, flagged, painted, numbered and easy to see. Additional flagging has been placed overhead so the plot may be easily located. All trees, whether 'cut' or 'leave', which are 'in' using a Limiting Distance Table with a Basal Area Factor of 10 have been marked. Marking consists of a horizontal line (about 6") at dbh and a tree number anywhere on the tree, but clearly visible from plot center. Tree numbers start at 1 for each plot.

Azimuth and distance to the center of the tree at the base from the plot center have been recorded along with species. This information will be provided to you by the DNR in an Excel format. When trees are near the edge of the stand, the 'walkthrough' method (Ducey et al 2004) was used to determine 'in' trees. Trees 'in' from the 'walkthrough' method have been counted twice, have two numbers painted on the tree and are listed twice on the Excel spreadsheet.

Using the tree data in the spreadsheet, cruise each tree on the plot according to the following procedure. An example of the data and tally card is shown on page 6. The entire spreadsheet will be emailed to the winning bidder.

DBH: Measure Diameter at Breast Height (DBH) in the location marked on each tree. Round down to the nearest 10^{th} . Use a d-tape, or the average of a caliper where two measurements are taken at 90° .

 $H_S(1')$: Record $H_S(1')$ for all trees with DBH \geq 9.1". Measure height for the sawtimber portion of the tree in feet to a 9" Diameter Outside Bark (DOB) or to the sawlog stopper, which is a lower point on the tree (see Product Standards and Cruising Manual). Round down to the nearest 1'. Minimum recordable height is 9' (considers a 1' stump). Record heights less than 9' as 0'. This may occur on a tree with no 8' minimum log (9.1" tree with a fork at 6') or has no quality (9.1" tree with branches all the way to the ground). Use a Wheeler Pentaprism®, Laser Ace®, Gator Eyes® or similar device to determine the 9" location on the stem and a clinometer, Relaskop, Laser Ace® or similar device to determine H_S .

 $L_{\text{DS}}\colon$ If a sub-portion of the stem is defective between H_{S} and the stump, record the total cumulative length of defect to the nearest 1'. This may be in one section or multiple sections, but is recorded as one number. If in multiple sections, add the sections together and record one number. The minimum length for a sawlog is 8'. There is no maximum length. See Product Standards and Cruising Manual for information on deduct.

 $L_{\text{DSR}}\colon$ If a portion of L_{DS} is recoverable as pulpwood, record the length of deduct that is recoverable to the nearest 1'. The minimum length for recoverable pulpwood is 8'. There is no maximum length. For example, if there is a $(H_{\text{S}}=)30\text{'sawlog}$ section in a tree with a 10' section in the middle that is defective $(L_{\text{DS}}=10\text{'})$, 9' of which could be a pulp log, then $L_{\text{DSR}}=9\text{'}$.

 $H_4(1')\colon \text{Record } H_4(1')$ for all trees with DBH 2 4.6". Measure height of the tree in feet to a 4" Diameter Outside Bark (DOB) regardless of merchantability. Round down to the nearest 1'. This can be, but is not necessarily the merchantable height. Record height to a 4" DOB regardless of the location of the pulpwood stopper (denoted as H_P). Use a Wheeler Pentaprism®, Laser Ace®, Gator Eyes® or similar device to determine the 4" location on the stem and use a clinometer, Relaskop, Laser Ace® or similar device to determine H_4 .

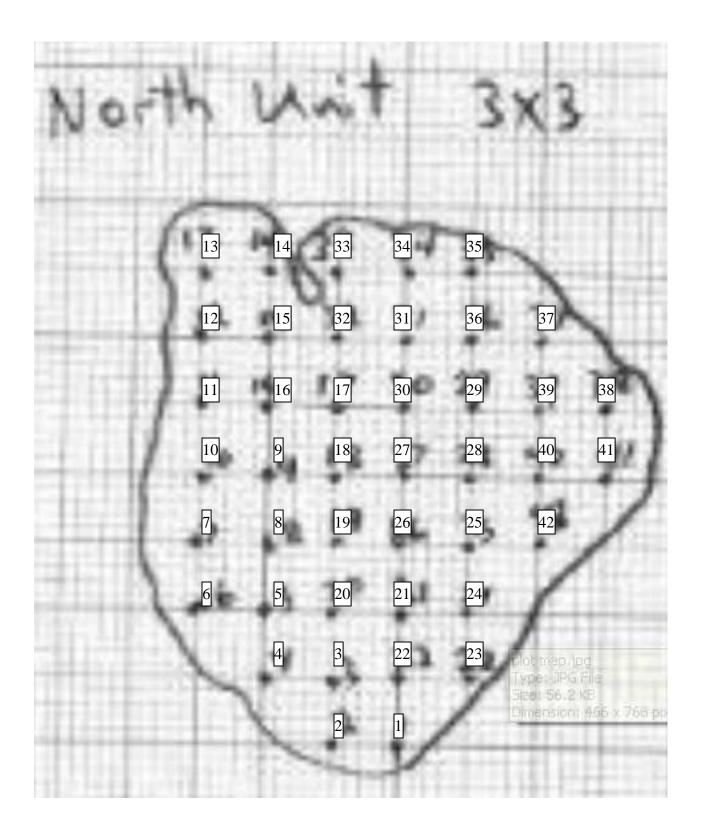
 $H_p(1')$: If the limit of pulpwood merchantability is lower on the tree than H_4 , record $H_p(1')$, the height to a pulpwood stopper (See Product Standards and Cruising Manual); otherwise record H_p as H_4 . The minimum recordable height for H_p is 9' (considers a 1' stump). If the tree does not contain at least one 8' pulp log, record H_p = 0. Use a clinometer, Relaskop, Laser Ace® or similar device to determine H_p .

 $L_{D4}\colon$ If a sub-portion of the stem is defective between H_S and H_4 (or H_P , if $H_4 \neq H_P$) or between H_P and the stump when H_S = 0, record the total cumulative length of defect to the nearest 1'. This may be in one section or multiple sections, but is recorded as one number. If in multiple sections, add the sections together and record one number. The minimum length for pulpwood is 8'. There is no maximum length. See Product Standards and Cruising Manual for information on deduct.

In addition to the tree measurements, you must track your time conducting this test. If you are using a portable data recorder, this could be used for time tracking. Time starts when you leave your truck to begin measurement and ends when you return to your truck. If you take breaks or lunch in the woods, then stop your time at the beginning of each break and start when you resume work. This is an important attribute of our test so it is important that you remember to start and stop your time appropriately.

Tally sheets will be provided by the DNR. Output from an electronic data recorder is acceptable.

TIMBER MARKING SPECIFICATIONS									
☐ This is included in the bid									
☐ Precise specifications to be delineated at pre-work meeting with DNR staff									
Total Merchantable Residual	BA (Basal Area): (M	linimum to Maximum)						
TREAT	MENT	NUMBER	SIZE						
Regeneration Gaps Per Acre Girdled Trees Per Acre									
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB						
Sawlogs									
Sawbolts									
Pulpwood									
TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR						
Trees marked to leave	WORK TO BE DONE	NOT AFFLICABLE	Green						
Trees marked to leave			Other						
Trees marked to cut		_	Orange						
Trees marked to eat			1 = 0						
TALLY INTENSITIES SPECIES / PRODUCT RATIO									
TALLY INTENSITIES SPECIES / PRODUCT RATIO									
		1:							
		1 :							
		1:							
		1:							
SPECIAL MARKING INSTRUC	CTIONS								
Unless otherwise specified, the ta	ally sheets used must be those pr	ovided by the Forest Manageme	nt Unit.						
•									
<u>RESTRICTIONS</u>									
	sion must to be able to identify	who did what on the timber sa	ale.						
2. This work is to be perform	ned by one person.								
PAINT									
1. None needed.									
DELIVERABLES									
The name of the person t	that did the cruising.								
	e Excel spreadsheet provided	by the DNR.							
, , , , , , , , , , , , , , , , , , , ,		• •							



1 1 asp 43 19.7 1 2 asp 51 32 1 3 bf 90 24 1 4 asp 126 13.9 1 4 asp 126 13.9 1 5 bf 164 5.6 1 6 bf 164 11.5 1 7 ws 203 7.9 1 8 asp 257 25.4 1 9 bf 278 5.9 1 10 bf 310 24.9 1 11 ws 343 23.5 2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 5 bf 82 16.3	Plot#	Tree #	Species	Azimuth	Distance	DBH	H _s 1'	L _{DS}	L _{DSR}	H _P 1'	H ₄ 1'	L _{D4}
1 3 bf 90 24 1 4 asp 126 13.9 1 5 bf 164 5.6 1 6 bf 164 11.5 1 7 ws 203 7.9 1 8 asp 257 25.4 1 9 bf 278 5.9 1 10 bf 310 24.9 1 11 ws 343 23.5 2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 4 bp 74 30.9 2 5 bf 82 16.3 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 11 bp	1	1	asp	43	19.7							
1 4 asp 126 13.9 1 5 bf 164 5.6 1 1 6 bf 164 11.5 1 7 ws 203 7.9 1 1 7 ws 203 7.9 1 1 1 8 asp 257 25.4 1 1 9 bf 278 5.9 1 1 10 bf 310 24.9 1 1 1 1 ws 343 23.5 2 1 bf 19 8 8 1 1 1 1 ws 343 23.5 1 1 1 1 ws 343 23.5 1 1 1 ws 343 23.5 1 1 1 1 ws 1 </td <td>1</td> <td>2</td> <td>asp</td> <td>51</td> <td>32</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1	2	asp	51	32							
1 5 bf 164 5.6 1 6 bf 164 11.5 1 7 ws 203 7.9 1 8 asp 257 25.4 1 9 bf 278 5.9 1 10 bf 310 24.9 1 11 ws 343 23.5 2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 5 bf 82 16.3 2 6 bp 120 15.2 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4	1	3	bf	90	24							
1 6 bf 164 11.5 1 7 ws 203 7.9 1 8 asp 257 25.4 1 9 bf 278 5.9 1 10 bf 310 24.9 1 11 ws 343 23.5 2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 5 bf 82 16.3 2 6 bp 120 15.2 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4 2 11 bp 202 16 2 12 bf 202 14.6 2 13 bp	1	4	asp	126	13.9							
1 7 ws 203 7.9 1 8 asp 257 25.4 1 9 bf 278 5.9 1 10 bf 310 24.9 1 11 ws 343 23.5 2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 5 bf 82 16.3 2 6 bp 120 15.2 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4 2 11 bp 202 16 2 12 bf 202 14.6 2 13 bp 222 20.4 2 15 bp	1	5	bf	164	5.6							
1 8 asp 257 25.4 1 9 bf 278 5.9 1 10 bf 310 24.9 1 11 ws 343 23.5 2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 5 bf 82 16.3 2 6 bp 120 15.2 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4 2 11 bp 202 16 2 12 bf 202 14.6 2 13 bp 222 20.4 2 14 bp 239 19.3 2 15 bp <td>1</td> <td>6</td> <td>bf</td> <td>164</td> <td>11.5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1	6	bf	164	11.5							
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1 11 ws 343 23.5 <	1	9	bf	278	5.9							
2 1 bf 19 8 2 2 bf 55 10.1 2 3 asp 69 9.9 2 4 bp 74 30.9 2 5 bf 82 16.3 2 6 bp 120 15.2 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4 2 11 bp 202 16 2 12 bf 202 14.6 2 13 bp 222 20.4 2 14 bp 239 19.3 2 15 bp 280 25 2 16 bf 280 17.9	1	10	bf	310	24.9							
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2 5 bf 82 16.3 2 6 bp 120 15.2 2 7 bf 121 17.1 2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4 2 11 bp 202 16 2 12 bf 202 14.6 2 13 bp 222 20.4 2 14 bp 239 19.3 2 15 bp 280 25 2 16 bf 280 17.9	2	3	asp	69	9.9							
2 5 bf 82 16.3 <td>2</td> <td>4</td> <td>bp</td> <td>74</td> <td>30.9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	2	4	bp	74	30.9							
2 7 bf 121 17.1	2	5	-	82	16.3							
2 8 bp 122 27 2 9 bp 146 19.1 2 10 ws 198 4.4 2 11 bp 202 16 2 12 bf 202 14.6 2 13 bp 222 20.4 2 14 bp 239 19.3 2 15 bp 280 25 2 16 bf 280 17.9		6	bp	120								
2 9 bp 146 19.1 </td <td>2</td> <td>7</td> <td>bf</td> <td>121</td> <td>17.1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	2	7	bf	121	17.1							
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2 15 bp 280 25 2 16 bf 280 17.9	2	13	bp	222	20.4							
2 15 bp 280 25 2 16 bf 280 17.9	2	14	bp	239	19.3							
	2	15	bp	280	25							
3 1 ws 108 41	2	16	bf	280	17.9							
, J , I , WJ , IOO , T.I , , , , , , , , , , , , , , , , , , ,	3	1	ws	108	4.1							
3 2 asp 117 26.6												
3 3 asp 127 19.6			·									
3 4 rm 139 19.9			·									
3 5 bf 252 10.8												
3 6 bp 285 19.1												
3 7 bp 333 35												