

**SENECA ENTERPRISES LTD.**

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**SPRUCE BARK BEETLE REPORT
FH17DPG218**

POLYGON: MLMCF-01

HECTARES:

20

WALKTHROUGH DISTANCE:

1400

ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)

2

14.3%

SUMMARY OF CURRENT INFESTATION

Walkthrough was from Waypoints previously identified. Walked area where active falling occurring and verified results with one probe line established where current falling occurring. Walked area outside of identified trees and found that areas currently being treated were areas of concern. Lots of old attack on way to west end where current falling occurring. Walkthrough found 5 recent attacks, 16 Code 5 old attacked trees

MODERATE ATTACK.

ACCESS

Community Forest area located just west of Mackenzie. From truck walk 350m West to edge of activity.

POLYGON FEATURES (Topography, Terrain, Timber Types, Age)

Polygon identified by waypoints given to us of activity. Upon arrival, much of the area is in the process of active logging/ Falling and treatment. Cutblocks surround polygon.

SIZE, BOUNDARY and PATTERN OF INFESTATION

Walkthrough east half of polygon only represented by older Code 5 attacks. All current attack in the west where actively being treated.

INCIDENCE AND SEVERITY OF ATTACK

No current attack in east, moderate attack in west half with high sanitation rating due to lots of old attack.

RISK OF BEETLE SPREAD

Polygon in the west is being treated.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Skid trails dominate site and has good access.

RECOMMENDATIONS**OPTION 1****CONTINUE TREATMENT**

Current harvesting in the west where recent attack present.

OPTION 2**MONITOR**

Monitor site as moderate attack being cleaned up in the west half of polygon.

MLMCF-1 West Mackenzie

20.0 Hectares

Legend

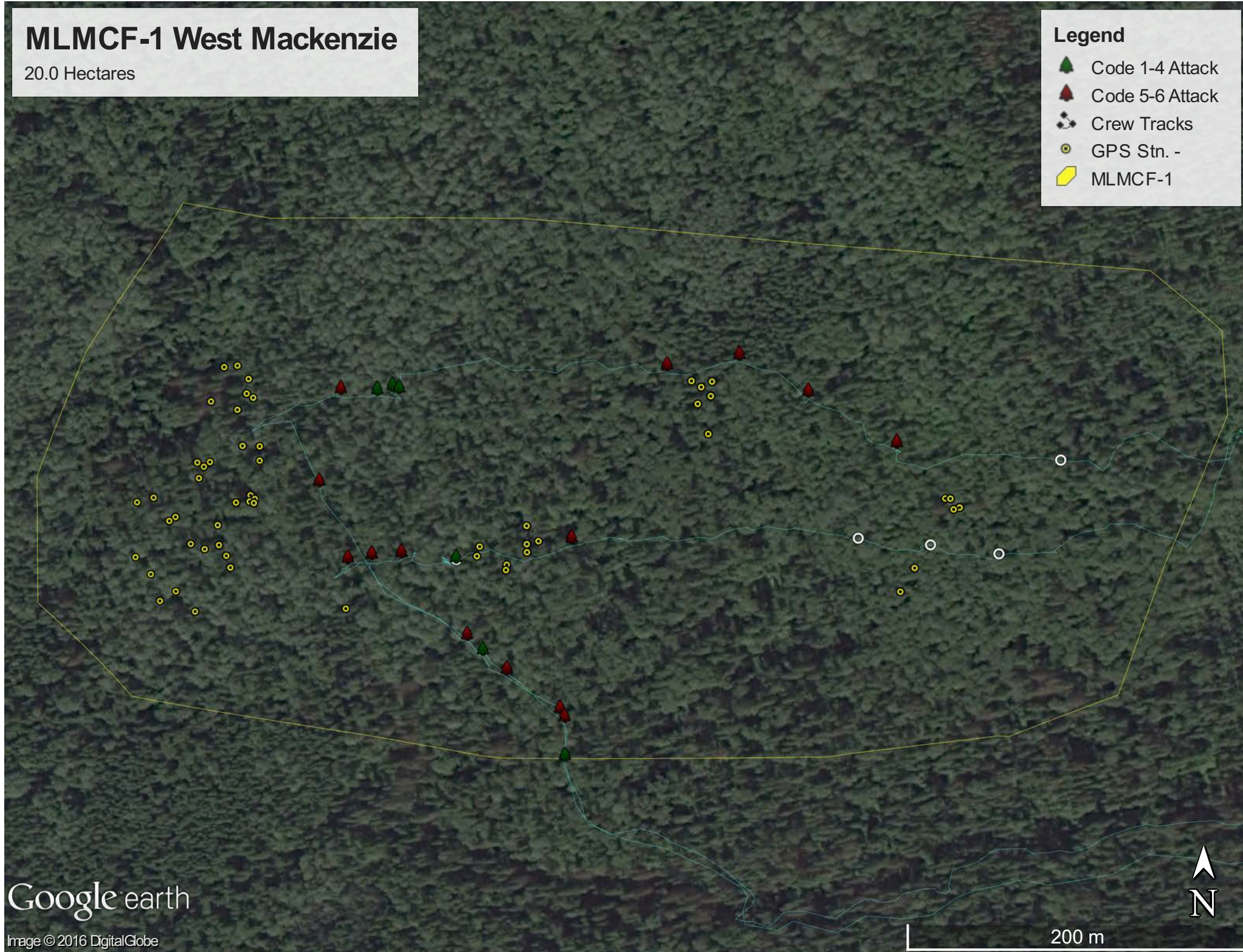
- Code 1-4 Attack
- Code 5-6 Attack
- Crew Tracks
- GPS Stn. -
- MLMCF-1

Google earth

Image © 2016 DigitalGlobe

N

200 m



Summary									
MLMCF-01		20	METERS WALKED	1400	% TRAVERSED		7.0%		
PIXELS COVERED BY WALKTHROUGH		14	INFESTED PIXELS		2	ESTIMATED % OF BLOCK INFESTED (From Walk through)			14.3%

TABLE 5- Spruce Beetle Infestation Summary Sheet

OF NOTE- Results taken from a 100m Probe Line established at 1 per 50 hectares to represent

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES
			2015		2014		2013		
			1	2	3	4	5	6	
17.5-25.0	3.3	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0
25.1-30.0	5.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0	47.7
30.1-35.0	7.1	7.1	0.0	0.0	0.0	0.0	0.0	0.0	63.9
35.1-40.0	9.4	9.4	0.0	0.0	0.0	0.0	0.0	0.0	18.8
40.1-45.0	11.6	23.2	23.2	0.0	0.0	0.0	0.0	0.0	46.4
45.1-50.0	13.8	13.8	0.0	0.0	0.0	0.0	13.8	0.0	0
50.1-55.0	16.2	0	0.0	0.0	0.0	0.0	32.4	0.0	0
55.1-60.0	18.7	0	0.0	0.0	0.0	0.0	0.0	0.0	0
60.1 +	25.3	0	0.0	0.0	0.0	0.0	0.0	0.0	0
TOTALS	138.1	68.7	23.2	0	0.0	0.0	46.2	0	176.8

TABLE 4- Spruce Beetle Attack Density and Larval Density Rating

MEAN NO. OF ENTRANCE HOLES PER 225 cm2 PHLOEM SAMPLE	< 1 LOW Attack Density	MEAN NO. OF LIVING LARVAE PER 225 cm2 PHLOEM SAMPLE	< 4.9 LOW Mean Larval Density
	1.0- 1.9 MOD Attack Density		5.0 - 14.9 MOD Mean Larval Density
	2.0 - 3.9 HIGH Attack Density		15-24.9 HIGH Mean Larval Density
	< 3.9 SEVERE Attack Density		>24.9 EXTREME Mean Larval Density
1.50		0.50	

TABLE 2- Spruce Beetle Management Options after Walkthrough

% 2015 ATTACK	16.8%	##	SANITATION AND SALVAGE HARVEST PRIORITY RATING			
% 2014 ATTACK	0.0%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)	1103.5
% 2013 ATTACK	33.5%	##	MODERATE	600-999	PROBE (To Obtain Further Info)	
% HOST IN STAND	43.9%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING	

SUMMARY OF ALL CARDS
FS1111

NUMBER OF CARDS

1

ACCESS - Community Forest area located just west of Mackenzie. From truck walk 350m West to edge of activity.

POLYGON FEATURES - Polygon identified by waypoints given to us of activity. Upon arrival, much of the area is in the process of active logging/ Falling and treatment. Cutblocks surround polygon.

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			2015		2014		2013			
			1	2	3	4	5	6	BL	AT
17.5-25.0	3.3	3	0	0	0	0	0	0	0	0
25.1-30.0	5.3	1	0	0	0	0	0	0	9	0
30.1-35.0	7.1	1	0	0	0	0	0	0	9	0
35.1-40.0	9.4	1	0	0	0	0	0	0	2	0
40.1-45.0	11.6	2	2	0	0	0	0	0	4	0
45.1-50.0	13.8	1	0	0	0	0	1	0	0	0
50.1-55.0	16.2	0	0	0	0	0	2	0	0	0
55.1-60.0	18.7	0	0	0	0	0	0	0	0	0
60.1 +	25.3	0	0	0	0	0	0	0	0	0
TOTALS		9	2	0	0	0	3	0	24	0
BARK SAMPLES 15 cm x 15 cm		NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE ADULTS	NO. CALLOW	FRESH (GREEN) BLOWDOWN			
							Attacked Yr _____ Yr _____		Unattacked	
2		3	0	1	3	0	0	0	0	

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION

Walkthrough east half of polygon only represented by older Code 5 attacks. All current attack in the west where actively being treated.

INCIDENCE AND SEVERITY OF THE INFESTATION

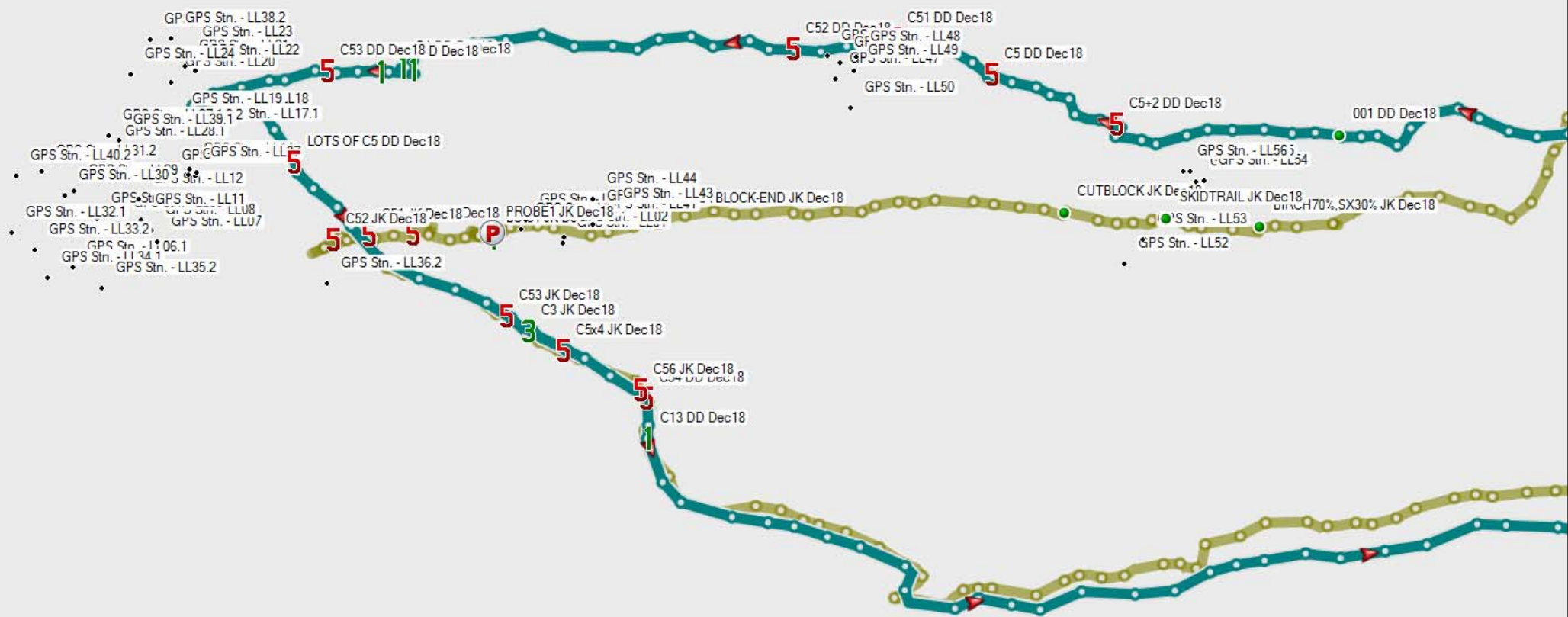
No current attack in east, moderate attack in west half with high sanitation rating due to lots of old attack.

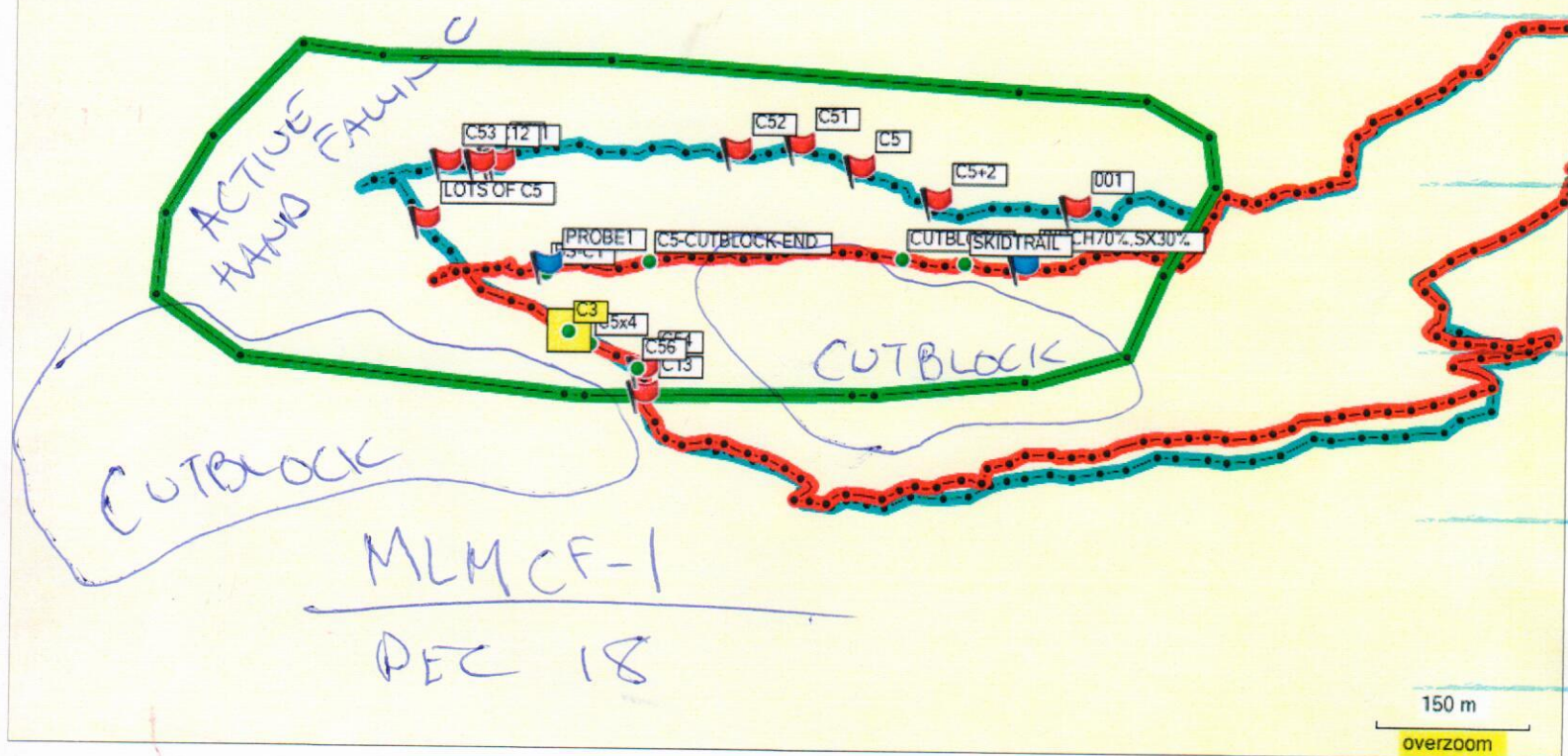
RISK OF BEETLE SPREAD

Polygon in the west is being treated.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Skid trails dominate site and has good access.





Attack = C1 = 4 C3 = 1
 C5 = 16

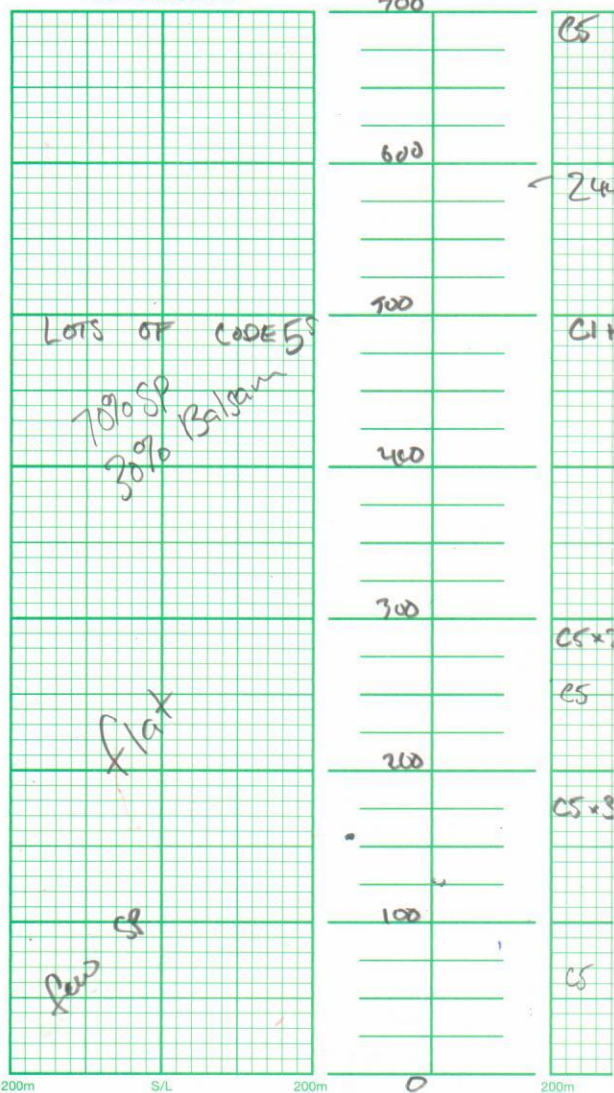
Access - From truck, walk 350 m @ 240°

Features - West - active hand falling
 - Cutblocks surrounding polygon.
 - Lots of old Attack.
 - Many skid trail in polygon

SPRUCE BEETLE PROBE CARD

LOCATION MLMCF-1		PAGE		OF						
BEARING 265°		DISTANCE 90m		STRIP WIDTH 10m						
DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			1	2	3	4	5	6		
17.5 - 25.0	3.3	∴								BRCM
25.1 - 30.0	5.3	•								∴
30.1 - 35.0	7.1	•								U
35.1 - 40.0	9.4	•								•
40.1 - 45.0	11.6	∴	⊙							∴
45.1 - 50.0	13.8	•				•				
50.1 - 55.0	16.2					∴				
55.1 - 60.0	18.7									
60.1 +	25.3									
TOTALS		9	1		3				16	
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
W	2	/	/	3	/					
E	3	/	1	/	/					
COMMENTS - PROBE END @ 90° DUE TO ACTIVE FALLING. - BS = ⊙										
CREW NAMES JAMES KELLY						DATE Y M D 16 12 18				

STRIP No. MLMCF-1



STRIP NO.: 1 DIRECTION: 274°

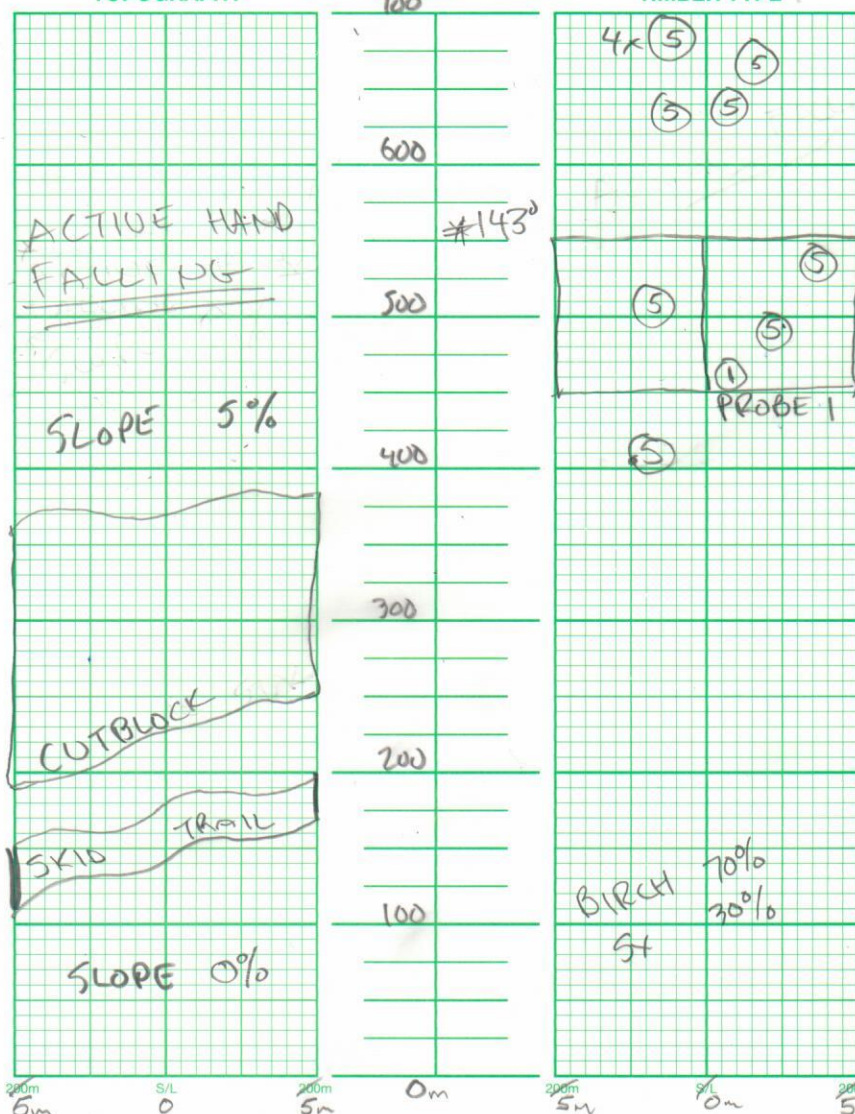
START STRIP:

JOB NO.: MLMCF-1 DATE: DEC 18/

CREW: PARRYL JAMES

REMARKS: _____

STRIP No. MLMCF-1



STRIP NO.: 1 DIRECTION: 265° - 143°

START STRIP:

JOB NO.: MLMCF-1 DATE: DEC 18 12016

CREW: JAMES / DARRYL

REMARKS: _____ www.irisupplies.com
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