SENECA ENTERPRISES LTD.
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SPRUCE BARK BEETLE REPORT FH17DPG218

STAR PROBE# **2016-PHI-0164** 272

NUMBER OF CODE 1-4 ATTACK 0

PROBE LINE YES

SUMMARY OF CURRENT INFESTATION

MODERATE ATTACK

Grouping of sites PHI-0161, 0162, 0163, 0164 and 0165. These sites are all along the west edge of the Phillips area and all sites (Except 0165) have recent signs of attack. PHI-0161 has 3Code1ès, 1 Code3… PHI-0162- has 4 Code 1ès, 1 Code 2, 1 Code 3…. PHI-0163 found 1 Code 3 off fo Probe line.... PHI -0164 has 3 Code 1ès and 1 Code 3 attack. All sites are after ATV for 2km, than walk around 1km to them. Minimal slopes, heavy

ACCESS

ATV 2.0km than walk North 1.2km (0161) 1.3km (0162), 800m (0163), 900m (0164) For 0165 walk south 600m. All relatively flat for access,

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

All sites relatively flat and leading in Balsam. Open stands.

SIZE, BOUNDARY and PATTERN OF INFESTATION

Site 161 Probe line has 1 attacked tree but the largest one in site. Site dominated in Balsam, moderate larval and attack densities and High Sanitation Rating.

INCIDENCE AND SEVERITY OF ATTACK

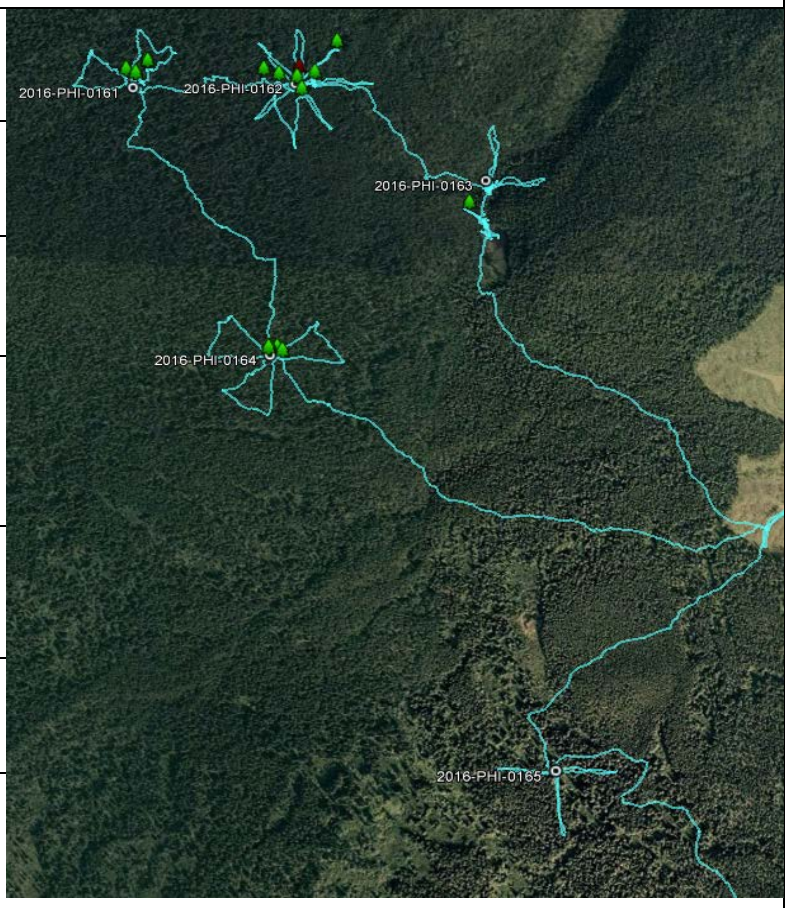
Three Probe lines established in sites 161, 162 and 164. Sites 161 and 164 minimal spruce, high priority rating, site 162 mod high rating. All sites have moderate larval densities and attack densities but all attacked areas have beetle that will fly 2017, (Code 3 or Code 1 trees on a 1 year cycle) Attacked trees are the largest ones in their respective sites.

RISK OF BEETLE SPREAD and SURROUNDING SITES

Moderate. Fairly concentrated grouping of attack in sites, 0161-0164 and on west edge of Phillips area. Not large spruce component in area, any large DBH spruce seems to have been attacked. Some lighter attack north on site 0159 and will continue to move within area.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MGMT ISSUES

Access relatively flat but after ATV 2.0km crew walked 600m- 1.2km to sites.



RECOMMENDATIONS

OPTION 1 **FALL AND BURN**

Few spruce trees in area and not sure of future logging plans for area as dominated by Balsam. Large DBH spruce are mostly attacked and may be more practical to Fall and burn as access limited with ATV 2.0km and than walk 600m-1.2km May be too many for this and harvesting likely better. While most attack is Code 1 on a 2 year cycle, there are Code 3 attack and Code 1;s on a 1 year life cycle (30%) and beetle will fly in 2017. Combined priority rating over 1000 from these 4 sites.

OPTION 1 **CRUISE HARVEST**

Think this area will need to be addressed and further south as well. Access is ok but not developed but infestation will continue to grow although very few spruce trees.

Summary

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TABLE 5- Spruce Beetle Infestation Summary Sheet

OF NOTE- Results taken from a 100m Probe Line

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	3.3	0.0	0.0	0.0	0.0	0.0	0.0	26.4
25.1-30.0	5.3	0	0.0	0.0	0.0	0.0	0.0	0.0	42.4
30.1-35.0	7.1	7.1	0.0	0.0	0.0	0.0	0.0	0.0	14.2
35.1-40.0	9.4	0	9.4	0.0	0.0	0.0	0.0	0.0	37.6
40.1-45.0	11.6	11.6	0.0	0.0	0.0	0.0	0.0	0.0	34.8
45.1-50.0	13.8	13.8	13.8	0.0	0.0	0.0	0.0	0.0	0
50.1-55.0	16.2	0	0.0	0.0	0.0	0.0	0.0	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	59.0	35.8	23.2	0	0.0	0.0	0.0	0	155.4

TABLE 4- Spruce Beetle Attack Density and Larval Density Rating

MEAN NO. OF ENTRANCE HOLES PER 225 cm2 PHLOEM SAMPLE		MEAN NO. OF LIVING LARVAE PER 225 cm2 PHLOEM SAMPLE	
	< 1 LOW Attack Density		< 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
1.00	< 3.9 SEVERE Attack Density	9.00	>24.9 EXTREME Mean Larval Density

TABLE 2- Spruce Beetle Management Options after Walkthrough

			SANITATION AND SALVAGE HARVEST PRIORITY RATING			
% 2016 ATTACK	39.3%	##				
% 2015 ATTACK	0.0%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)	1082.1
% 2014 ATTACK	0.0%	##	MODERATE	600-999	PROBE (To Obtain Further Info)	
% HOST IN STAND	27.5%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING	

SUMMARY OF ALL CARDS FS1111

NUMBER OF CARDS: 1

ACCESS - ATV 2.0km than walk North 1.2km (0161) 1.3km (0162), 800m (0163), 900m (0164) For 0165 walk south 600m. All relatively flat for access,

SITE FEATURES - All sites relatively flat and leading in Balsam. Open stands.

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	1	0	0	0	0	0	0	8	0
25.1-30.0	5.3	0	0	0	0	0	0	0	8	0
30.1-35.0	7.1	1	0	0	0	0	0	0	2	0
35.1-40.0	9.4	0	1	0	0	0	0	0	4	0
40.1-45.0	11.6	1	0	0	0	0	0	0	3	0
45.1-50.0	13.8	1	1	0	0	0	0	0	0	0
50.1-55.0	16.2	0	0	0	0	0	0	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		4	2	0	0	0	0	0	25	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	2	1	18	2	4	0	0	0

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION

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INCIDENCE AND SEVERITY OF THE INFESTATION

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RISK OF BEETLE SPREAD

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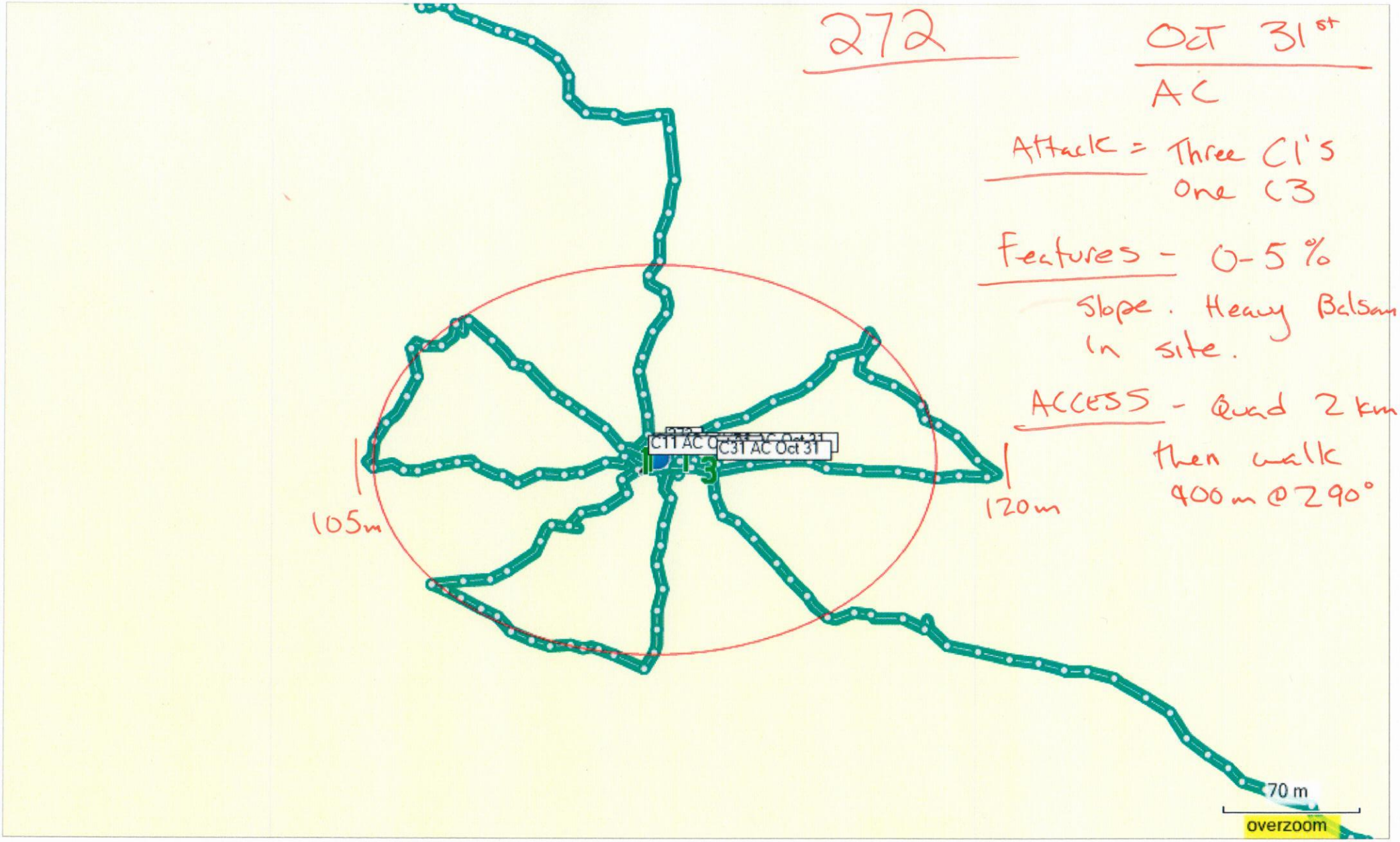
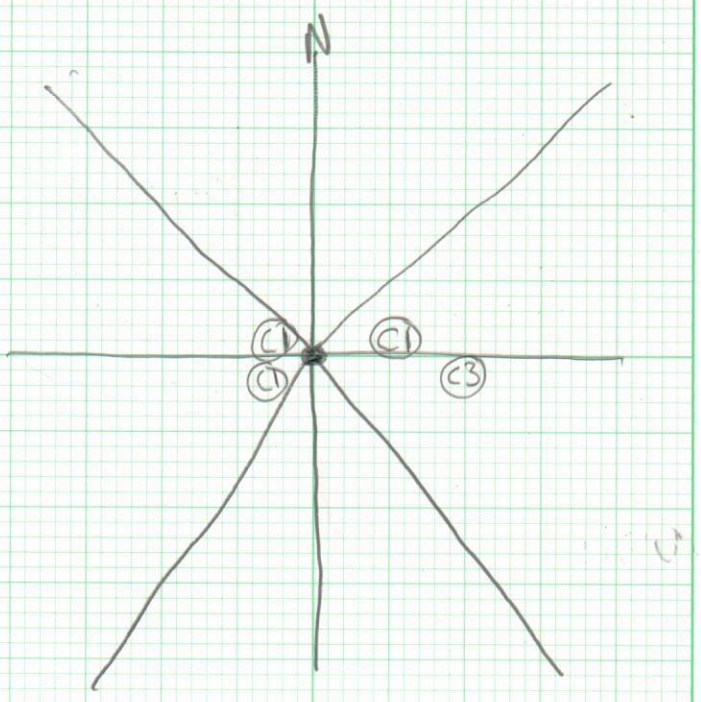
ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Access relatively flat but after ATV 2.0km crew walked 600m- 1.2km to sites.


272
Oct 31st
AC
Attack = Three C1's
One C3
Features - 0-5 %
Slope. Heavy Balsam
In site.
ACCESS - Quad 2 km
then walk
400m @ 290°
105m
120m
C11 AC Oct 31
C31 AC Oct 31
70 m
overzoom

272



Access- truck parked @ 10 U 0477506 6115918
Quadded to 10 U 0475995 6116596

272 Plot centre. 10 U 0475166 6116898

Aaron Colebank Oct 31st, 206

(A) east line pushed to 120m
West line pushed to 105m

R.D. PENHALL LTD., MADE IN VANCOUVER, CANADA
DUKSBAK WATERPROOF

METRIC FIELD

SPRUCE BEETLE PROBE CARD

LOCATION		PAGE
272 West	10 U 0475166 6116898	elev: 1210 m
BEARING	**DISTANCE**	**STRIP WIDTH**
270°	100m	10 m

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	BI
17.5 - 25.0	3.3								
25.1 - 30.0	5.3								
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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		4	2						19

BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN	
						Attacked	Unattacked
North							
South							

COMMENTS

⊙ - Bark Sample

CREW NAMES	DATE (Y M D)
Aaron Colebank	2016 10 31

FS 1111 RPG 2000/01 7530881048 (100/bdl)