



SENECA ENTERPRISES LTD.

PO BOX 1902, PRINCE GEORGE, BC, V2L 5E3
Phone: (250) 561-0890, Fax: (250) 564-3275

NUMBER OF CODE 1-4 ATTACK

6

SPRUCE BARK BEETLE REPORT FH17DPG218

STAR PROBE# 2016-PHI-0162

270

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 3 Code 1's, 1 Code 3... PHI-0162- has 4 Code 1's, 1 Code 2, 1 Code 3.... PHI-0163 found 1 Code 3 off for Probe line.... PHI-0164 has 3 Code 1's and 1 Code 3 attack. All sites are after ATV for 2km, then 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

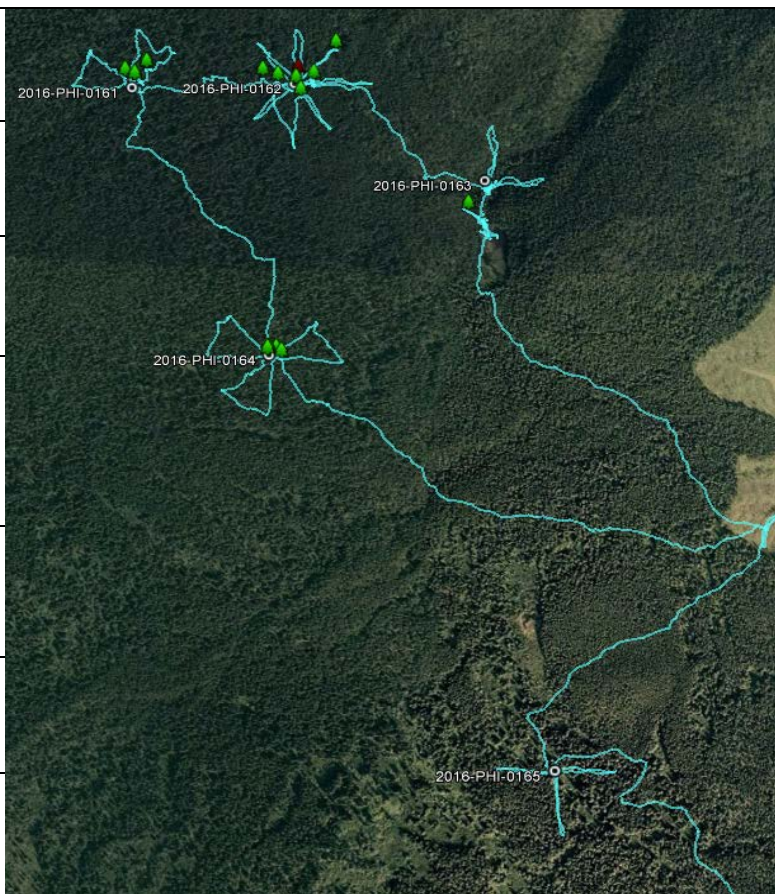
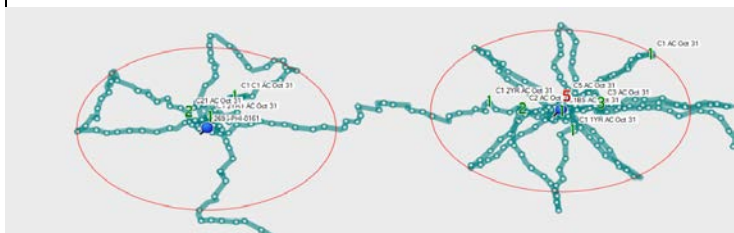
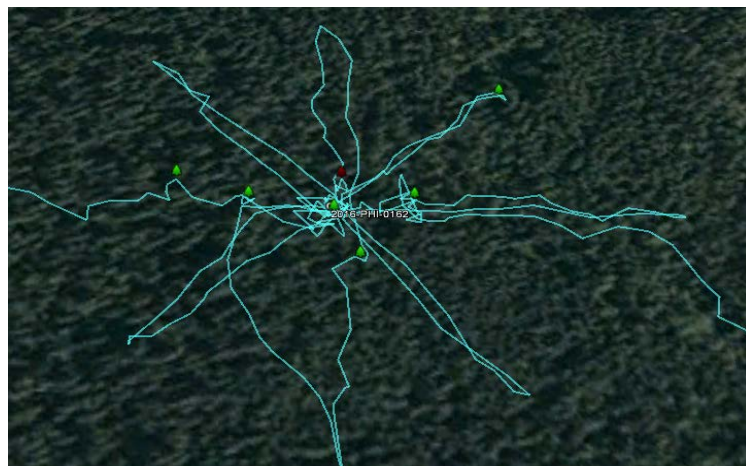
FALL AND BURN

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		
2016-PHI-0162	270	

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	23.1	0.0	0.0	0.0	0.0	0.0	0.0	49.5
25.1-30.0	5.3	26.5	0.0	0.0	0.0	0.0	0.0	0.0	5.3
30.1-35.0	7.1	35.5	0.0	0.0	0.0	0.0	0.0	0.0	7.1
35.1-40.0	9.4	37.6	0.0	0.0	0.0	0.0	0.0	0.0	9.4
40.1-45.0	11.6	0	11.6	0.0	11.6	0.0	0.0	0.0	0
45.1-50.0	13.8	0	0.0	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	145.9	122.7	11.6	0	11.6	0.0	0.0	0	71.3

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
	2.50		< 3.9 SEVERE Attack Density	10.00

TABLE 2- Spruce Beetle Management Options after Walkthrough

% 2016 ATTACK	8.0%	8.0	SANITATION AND SALVAGE HARVEST PRIORITY RATING		
% 2015 ATTACK	8.0%	##	LIGHT	0-599	890.1
% 2014 ATTACK	0.0%	##	MODERATE	600-999	
% HOST IN STAND	67.2%	##	HEAVY	1000+	
				RECOMMEND CRUISING/ LOGGING	

SUMMARY OF ALL CARDS FS1111	NUMBER OF CARDS	1
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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,
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SITE FEATURES -	All sites relatively flat and leading in Balsam. Open stands.
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DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			2015		2014		2013		BL	AT
			1	2	3	4	5	6		
17.5-25.0	3.3	7	0	0	0	0	0	0	15	0
25.1-30.0	5.3	5	0	0	0	0	0	0	1	0
30.1-35.0	7.1	5	0	0	0	0	0	0	1	0
35.1-40.0	9.4	4	0	0	0	0	0	0	1	0
40.1-45.0	11.6	0	1	0	1	0	0	0	0	0
45.1-50.0	13.8	0	0	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		21	1	0	1	0	0	0	18	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	5	2	20	2	3	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
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 MANAGEMENT ISSUES
Access relatively flat but after ATV 2.0km crew walked 600m- 1.2km to sites.

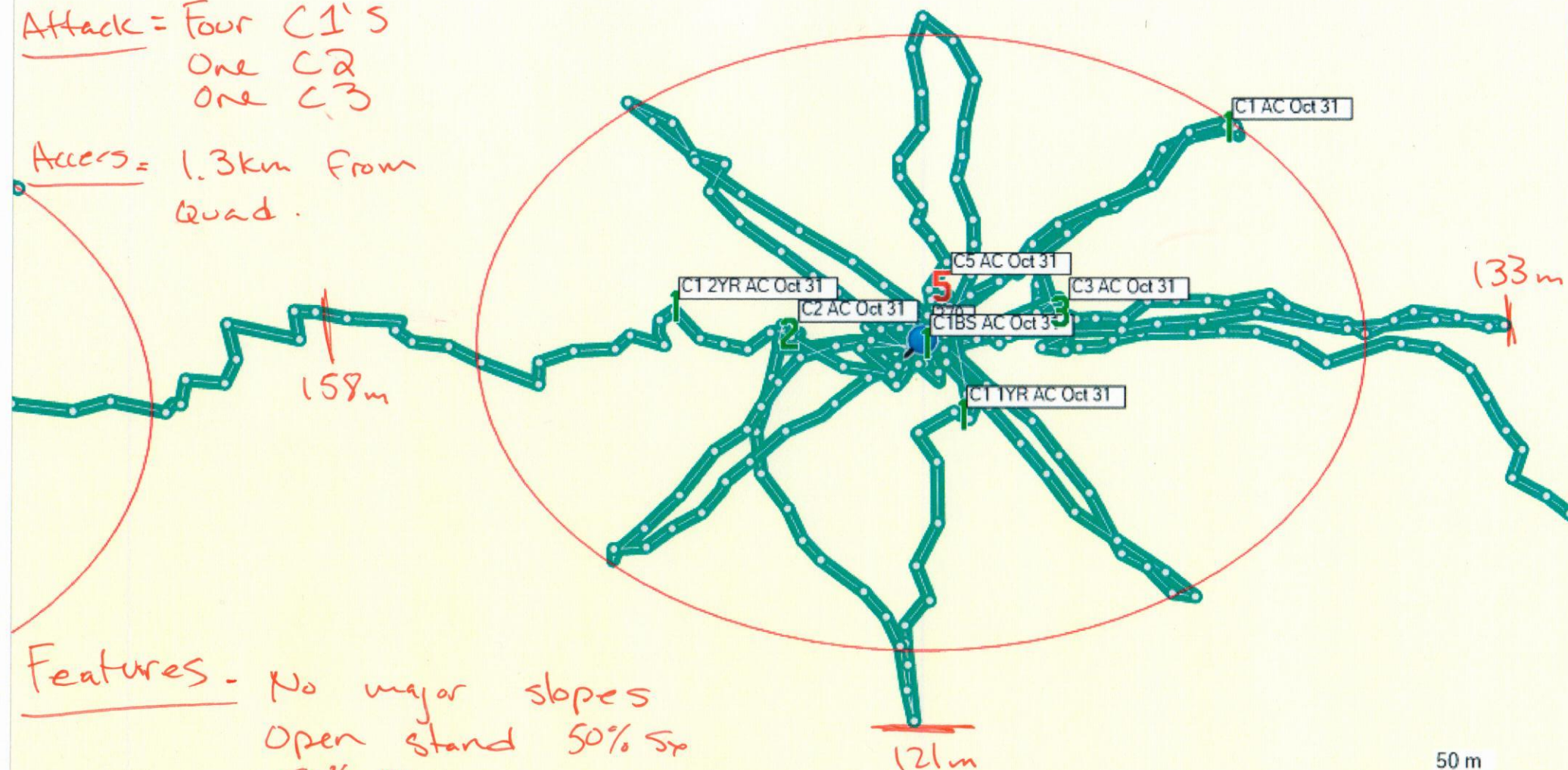
OCT 31ST

270

AC

Attack = Four C1's
One C2
One C3

Access = 1.3km From
Quad.

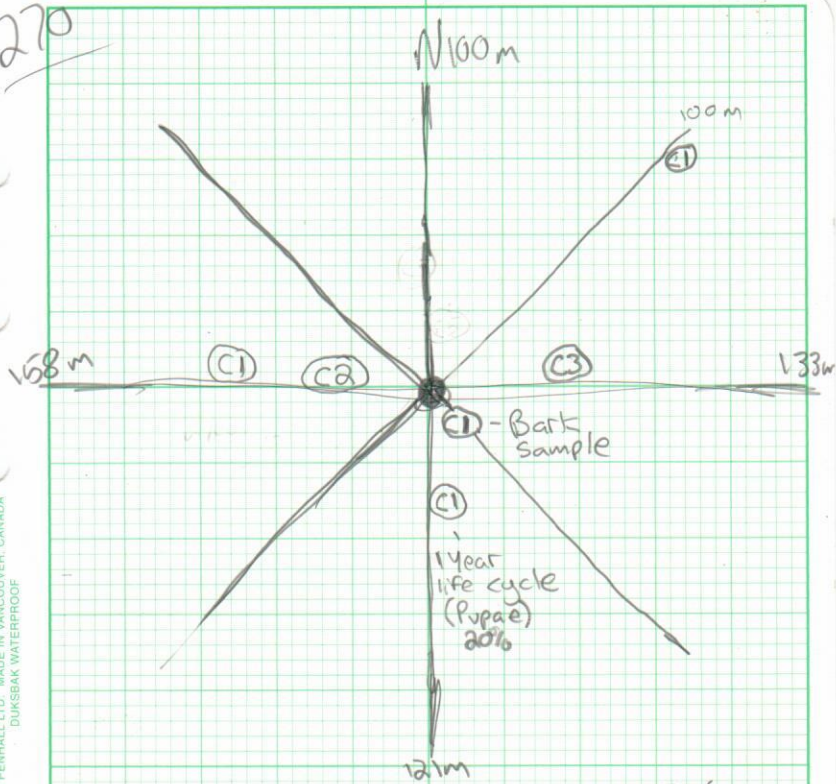


Features - No major slopes
Open stand 50% Sr
50% Bl.

50 m

overzoom

270



Access - truck parked to 10 V 0477506
 quadred to 6115918
 10 V 0475995
 6116596

270 Plot Centre - 10 V 0475206
 6117408

Aaron Colebank Oct 31st, 2016

* South line pushed to 121m
 east line pushed to 133m
 west line pushed to 158m

METRIC FIELD



LOCATION 270 east		ELEVATION 1210 m	LATITUDE 60° 04' 15" 306		PAGE 1 OF 1						
BEARING 90°	STRIP LINE NO east	STRIP WIDTH 10 m	DISTANCE 100 m	BEETLE SPECIES ☒ SB ☐ MPB ☐ DFB							
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	MAIN	OTHER	
12.5 - 17.4	2.0										
17.5 - 25.0	3.3										
25.1 - 30.0	5.3										
30.1 - 35.0	7.1										
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		21	1	1						18	
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 Aaron Colebant						DATE Y 2016 M 10 D 31					