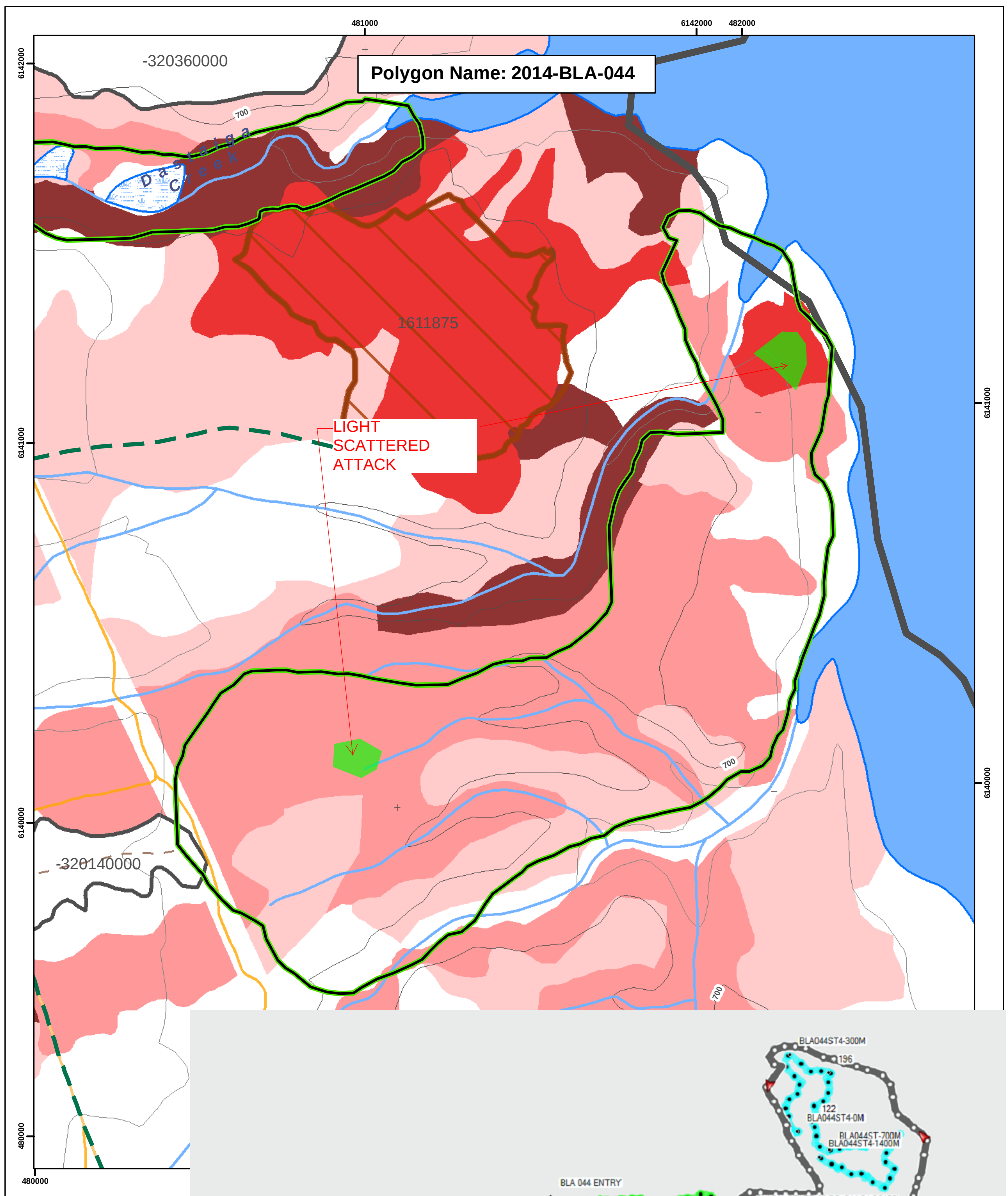
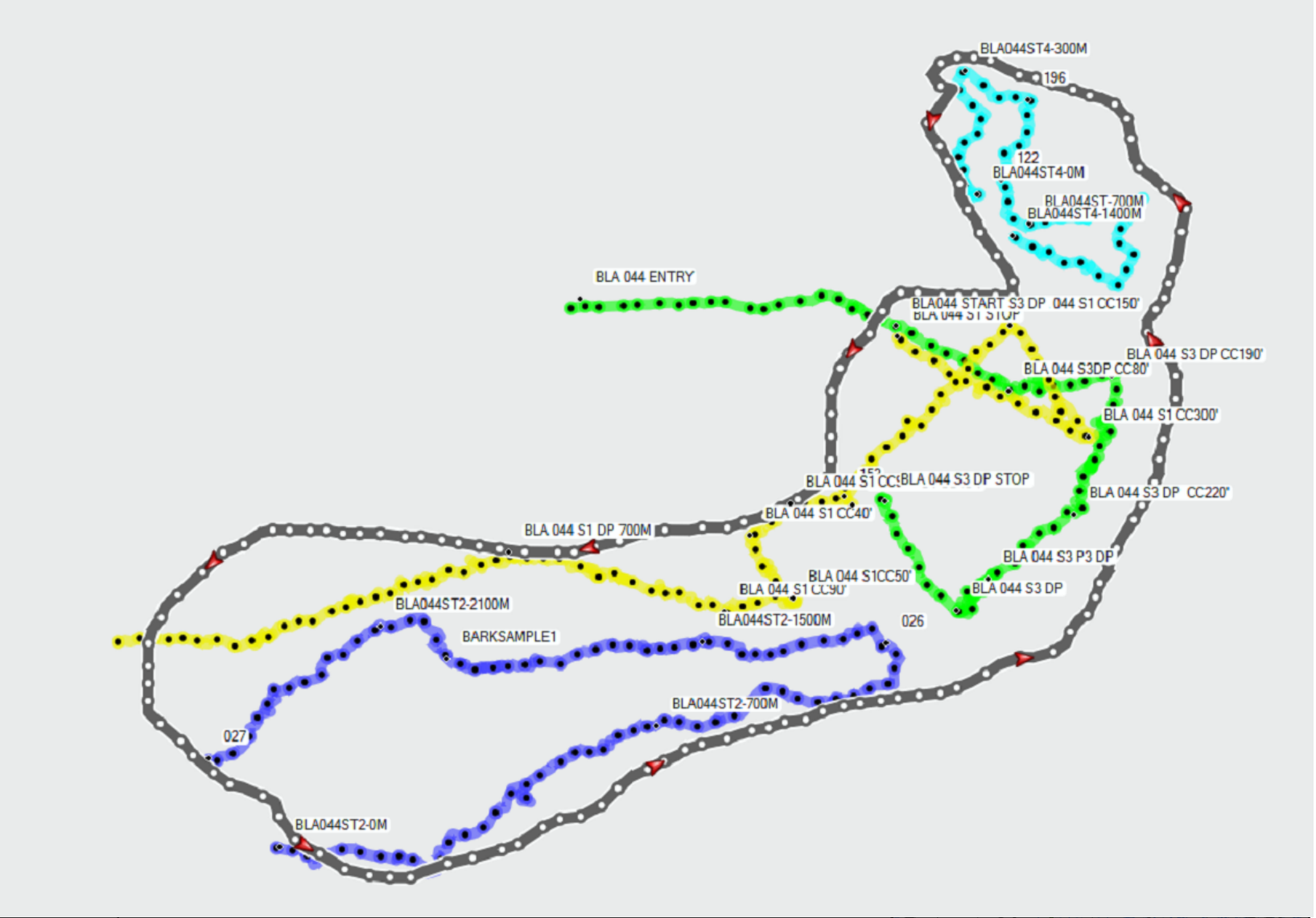






**BRITISH
COLUMBIA**

Ministry of
Forests, Lands and
Natural Resource Operations

Spruce Bark Beetle Field Map

Polygon Name: 2014-BLA-0

Landscape	
Unit/BMU:	Blackwater
Region:	Omineca
District:	Mackenzie
Mapsheet:	093006
Hectares:	141.61
Scale:	1:10,000
When plotted on 11x17	
Coordinate System:	PCS Albers
Datum:	North American 19
Date Drawn:	03/06/2015
Drawn By:	msnively

**SENECA ENTERPRISES LTD.**

PO BOX 1902, PRINCE GEORGE, BC, V2L 5E3

Phone: (250) 561-0890, Fax: (250) 564-3275

**SPRUCE BARK BEETLE REPORT
FH16DMK010**POLYGON: **2014-BLA-044**

HECTARES:

141.61

WALKTHROUGH DISTANCE:

8250ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)**3 3.6%****SUMMARY OF CURRENT INFESTATION**

Walkthrough of 141 hectare Polygon only found three recently infested pixels. There are pockets of old attack Code 5's but beetle spread is quite slow and trees identified have a low attack density. (5 Code 1's identified in walkthrough) Polygon flat and access good as close to Finlay Main.

LIGHT SCATTERED ATTACK**ACCESS**

Access is just off of Finlay Main where west portion of Polygon under powerlines. Small walk in to start, Polygon 2km long

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

Minimal slopes throughout, some small draws and wet areas. Polygon is a mixed stand of Spruce, dead Pine, Balsam, Cottonwood, and birch with about 60% spruce in areas traversed. Polygon has Williston Lake on the East boundary and to the west starts near Finlay Mainline

SIZE, BOUNDARY and PATTERN OF INFESTATION

Large polygon of 140 hectares and walkthrough identified 3 pixels with current attack and 5 Code 1 attacked trees. Relatively flat and lots of areas with old Code 5 attack scattered throughout.

INCIDENCE AND SEVERITY OF ATTACK

From three probe lines and 2 bark samples, attack density is low. It is spread out throughout polygon and mostly in flat blowdown areas. Only 2 pockets of attack found.

RISK OF BEETLE SPREAD

Polygon has 2 pockets of attack scattered far apart within polygon and beetle could spread within polygon, it is a light attack density and won't move too quickly.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Good access as only 200m from Mainline. Flat polygon with a few draws.

RECOMMENDATIONS**OPTION 1****MONITOR**

With small pockets of attack, can monitor and schedule walkthrough 2016. Only 5 code 1 trees located amongst patches of old attacked Code 5 spruce.

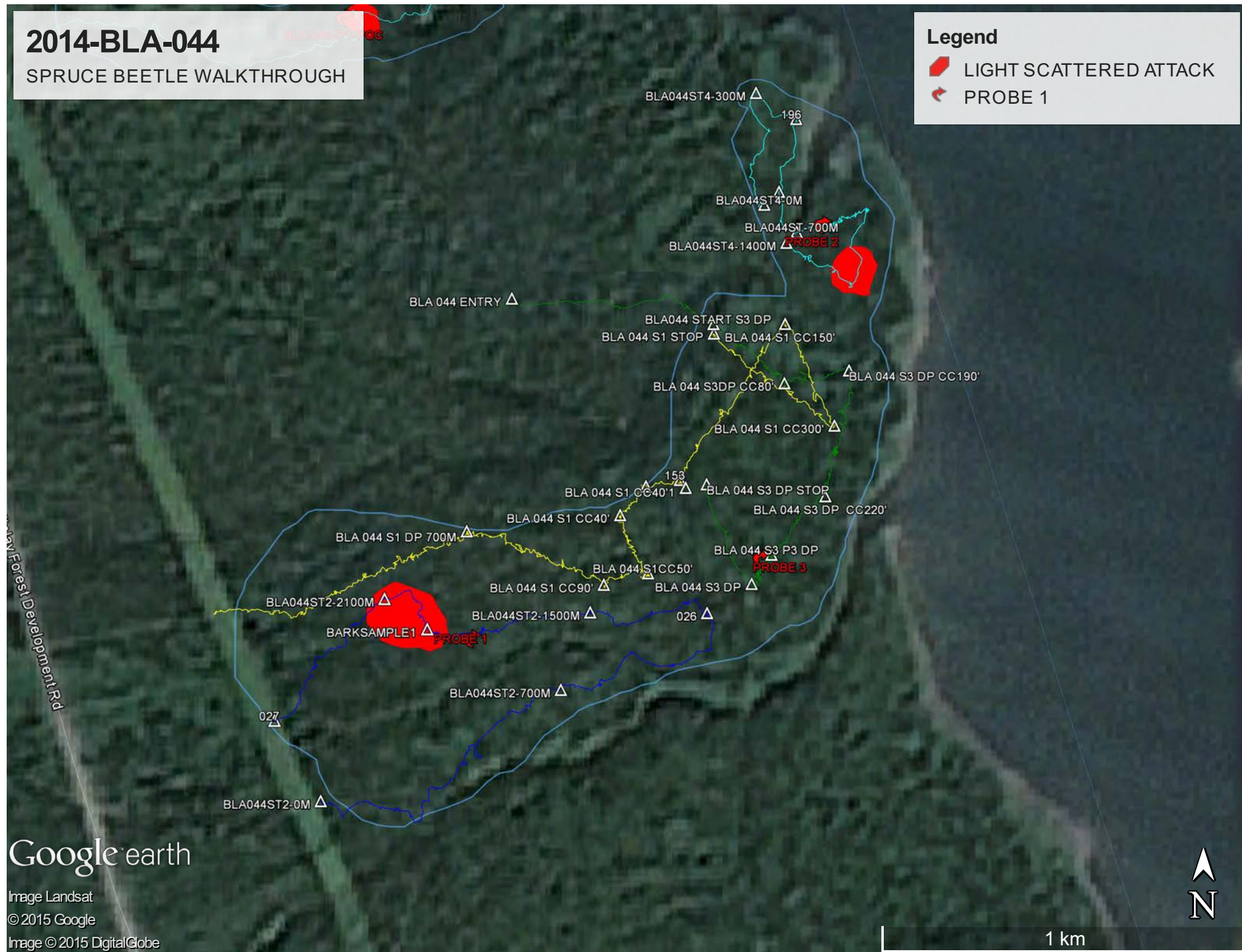
OPTION 2**PROBE/ BAIT**

Could also schedule a mini probe in concentrated areas identified and a Bait program or fall and burn single trees. One area located close to Williston Lake, another a few hundred meters into Polygon.

SPRUCE BEETLE WALKTHROUGH

BLA-043-P1-FOC

 LIGHT SCATTERED ATTACK
 PROBE 1



Google™ earth

Image Landsat

© 2015 Google

Image © 2015 DigitalGlobe

Summary						
2014-BLA-044	HEC	141.61	METERS WALKED	8250	% TRAVERSED	5.8%
PIXELS COVERED BY WALKTHROUGH	82.5	INFESTED PIXELS	3	ESTIMATED % OF BLOCK INFESTED (From Walk through)		3.6%

DATA FROM 3 PROBE LINES AND 2 BARK SAMPLES

BLA-044 Probe 1

SPRUCE BEETLE
PROBE CARD

LOCATION 55°24'22.4" 123°17'55.9"		PAGE 1 OF 1							
BEARING 262°	DISTANCE 100m	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	1							1
25.1 - 30.0	5.3	111				1			1111
30.1 - 35.0	7.1	11111							111111
35.1 - 40.0	9.4	1111				1			1
40.1 - 45.0	11.6	1111							1
45.1 - 50.0	13.8	111							
50.1 - 55.0	16.2	11							
55.1 - 60.0	18.7	11							11
60.1 +	25.3					1			
TOTALS		25					3		15
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN			
						Attacked	Unattacked		
1									
1									
COMMENTS no beetle found in this probe									
CREW NAMES Don & Dave						DATE Y M D 15 10 26			

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

BLA-044 Probe 2

SPRUCE BEETLE
PROBE CARD

LOCATION 55°24'58.7" 123°17'01.8"		PAGE 1 OF 1							
BEARING 68°	DISTANCE 100m	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	11							
25.1 - 30.0	5.3	11111							11
30.1 - 35.0	7.1	11111							1
35.1 - 40.0	9.4	111							
40.1 - 45.0	11.6	111							
45.1 - 50.0	13.8	1111	1						
50.1 - 55.0	16.2	1							1
55.1 - 60.0	18.7								
60.1 +	25.3								1
TOTALS		31	1	0	0	0	0	0	5
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN			
						Attacked	Unattacked		
N	15	0	5	0	8				
S	10	0	4	0	6				
COMMENTS one tree found with beetle flat terrain - many healthy SX									
CREW NAMES Dave & Don						DATE Y M D 15 10 27			

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

BLA-044 Bark-

SPRUCE BEETLE
PROBE CARD

LOCATION <i>Sample 1</i>		PAGE <i>1</i>		OF <i>1</i>						
BEARING		DISTANCE <i>2030m</i>		STRIP WIDTH						
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									
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										
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
<i>N</i>	<i>0</i>	<i>0</i>	<i>6</i>	<i>0</i>	<i>0</i>					
<i>S</i>	<i>0</i>	<i>0</i>	<i>4</i>	<i>0</i>	<i>0</i>					
COMMENTS										
CREW NAMES <i>Don & Dave</i>										
DATE Y M D <i>15 10 26</i>										

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

BLA-044
Bark Sample 2SPRUCE BEETLE
PROBE CARD

LOCATION <i>55°24'55.5" 123°17'05.6"</i>		PAGE <i>1</i>		OF <i>1</i>						
BEARING		DISTANCE <i>1340m</i>		STRIP WIDTH						
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									
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										
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
<i>N</i>	<i>10</i>	<i>0</i>	<i>4</i>	<i>0</i>	<i>2</i>					
<i>S</i>	<i>10</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>0</i>					
COMMENTS <i>SX 50 red with frass heavy wood-peker activity</i>										
CREW NAMES <i>Don & Dave</i>										
DATE Y M D <i>15 10 27</i>										

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

PROBE

SPRUCE BEETLE PROBE CARD

LOCATION BLA 044		N. 55° 24.490'		PAGE 1 OF 1	
BEARING 220°		DISTANCE 100 m		STRIP WIDTH 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	
17.5 - 25.0	3.3								
25.1 - 30.0	5.3								
30.1 - 35.0	7.1								
35.1 - 40.0	9.4								x
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	me							
TOTALS		40					5		17

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

COMMENTS

CREW NAMES

Don & Dave

DATE

Y M D

15 10 27

STRIP NO.: 1 DIRECTION: 80
START STRIP: 75
JOB NO.: BLA 044 DATE: OCT/26/15
CREW: _____
REMARKS: _____

 www.irtsupplies.com
Ph: 1-800-863-6848



www.irlsupplies.com
Ph: 1-800-663-6843

STRIP NO.: 1 DIRECTION: 100°
START STRIP: 700 m
JOB NO.: 32A 044 DATE: OCT/26/15
CREW: DON & PAVE
REMARKS:  www.irisupplies.com
Ph: 1-800-663-6843



www.irlsupplies.com
Ph: 1-800-663-6843

TOPOGRAPHY		STRIP No. 1	TIMBER TYPE
N.A	N.A	2100m	5X 10% AVG D.B.H. 45-50 WIDE SPACE DOWN SLOPE HERE
N.A	5		80% OPEN FLAT GROUND CLEAR
N.A	N.A	2000m	5X 20% D.B.H. 35-40
N.A	N.A		FLAT FLAT
N.A	N.A	1900m	5X 70% AVG D.B.H. 45-50
N.A	N.A		FLAT ALDER NO TREES
N.A	N.A		VOID AREA ALDER TREES
N.A	N.A	1800m	FLAT GROUND OPEN CANOPY 5X 60% AVG D.B.H. 40-45 WIDE SPACE 2 CLEAR
N.A	N.A	1700m	FLAT OPEN GROUND 5X 40% AVG D.B.H. 30-35 WIDE SPACED
N.A	N.A		FLAT OPEN CANOPY OPEN GROUND 5X 50% AVG D.B.H. 30-35
5	N.A	1600m c.c. 40°	FLAT GROUND CLEAN OPEN CANOPY 5X 30% AVG D.B.H. 30-35
N.A	N.A	1500m 50-90°	
N.A	N.A		
5	5	1400m	

STRIP NO.: 1400m DIRECTION: 40°
 START STRIP: 1400m
 JOB NO.: 3LA 044 DATE: OCT 126115
 CREW: DORE DAVE
 REMARKS:



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TOPOGRAPHY		STRIP No. 1	TIMBER TYPE
N.A	N.A	2800	FLAT OPEN GROUND WIDE SPACED 5X 90% AVG D.B.H. 35-40
5			
N.A	N.A	2700	FLAT OPEN CANOPY WIDE SPACED 5X AVG D.B.H. 35-40 AT 90%
N.A	N.A	2600m	SLIGHT GRADE 40% WIDE SPACED 5X 70% AVG D.B.H. 35-40
N.A	N.A		FLAT GROUND OPEN CANOPY
N.A	N.A	2500m	FLAT GROUND OPEN CANOPY 5X 60% WIDE SPACED AVG D.B.H. 45-50
5			
5		2400m c.c. 30°	FLAT GROUND 5X 70% AVG D.B.H. 35-40 WIDE SPACED
N.A	N.A		NEED HILL FLAT
N.A	N.A	2300m	FLAT BIRCH 5X 55-60 OPEN CLEAN GROUND 5X WIDE SPACED 10%
N.A	N.A	2200m	GENTLY SLOPE HILL 50% 5X 10% AVG D.B.H. 35-40 WIDE SPACED
5			
5		2100m	OPEN GROUND CLEAN

STRIP NO.: 1 DIRECTION: 150°
 START STRIP: 2100 m
 JOB NO.: 3LA-044 DATE: OCT 126115
 CREW: DORE DAVE
 REMARKS:



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TOPOGRAPHY

STRIP No. BLA044

TIMBER TYPE

no attack	700	gentle slope	50% SX
			50% Balsam
(5) (5)	600	gentle slope	70% SX
			30% Balsam
(5)	500	gentle slope	70% SX
			30% Balsam
(5) (5)	400	gentle slope	50% SX
			50% Balsam
(5) (5) - 50°	300	gentle slope	80% SX
			20% Balsam
no attack	200	flat terrain	60% SX
			40% Balsam
no attack	100	gentle slope	60% SX
			40% Balsam

STRIP NO.: 2

DIRECTION: 108°

START STRIP:

JOB NO.:

DATE: 15/10/26

CREW: Don + Dave

REMARKS:


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TOPOGRAPHY

STRIP No. BLA-044

TIMBER TYPE

no attack	1400	gentle slope	50% SX
			50% Poplar
(5) (5)	1300	gentle slope	80% SX
			20% Poplar
creek	1200	gentle slope	80% SX
			20% Poplar
no attack	1100	gentle slope	80% SX
			20% Poplar
no attack	1000	gentle slope	50% SX
			50% Poplar
creek	900	gentle slope	50% SX
			50% Poplar
no attack	800	gentle slope	50% SX
			50% Poplar

STRIP NO.: 2

DIRECTION: 108°

START STRIP:

JOB NO.:

DATE: 15/10/26

CREW: Don + Dave

REMARKS:


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TOPOGRAPHY

STRIP No.

BLA-044

TIMBER TYPE

(5)	110	flat terrain	70% SX
Bark	SX-30-60	30% Pine	
Sample	2000	Birch	
1	gentle slope	70% SX	
(5)	SX-20-50	30% Birch	
	1900	Pine Balsam	
* End P.	gentle slope	70% SX	
(5)	SX-20-50	30% Birch	
(5)	1800	Pine Balsam	
* Probel	gentle slope	70% SX	
no attack	SX-30-50	30% Birch	
	1700	60% Pine	
*	gentle slope	40% SX	
no attack	SX-30-50	50% SX	
	1600	50% Poplar	
*	gentle slope	50% Pine	
no attack	SX-30-50	50% Poplar	
	1500	50% Pine	
*	gentle slope	50% Poplar	
no attack	SX-30-50	50% Pine	

STRIP NO.: 2

DIRECTION: 262°

START STRIP:

JOB NO.:

DATE: 15/10/26

CREW:

Don & Dave

REMARKS:


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 Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No.

BLA-044

TIMBER TYPE

	2800		
	2700		
* End			
*	2600	flat terrain	80% SX
(5)	SX-20-60	20% Pine	
	2500	Cottonwood	
*	flat terrain	80% SX	
(5)	SX-20-60	20% Pine	
	2400		
*	flat terrain	90% SX	
(5)	SX-20-50	10% Pine	
(5)	2300		
*	flat terrain	90% SX	
(5)	SX-30-50	10% Pine	
	2200		
*	flat terrain	80% SX	
(5)	SX-30-50	20% Pine	
		Birch	

STRIP NO.: 2

DIRECTION: 262°

START STRIP:

JOB NO.:

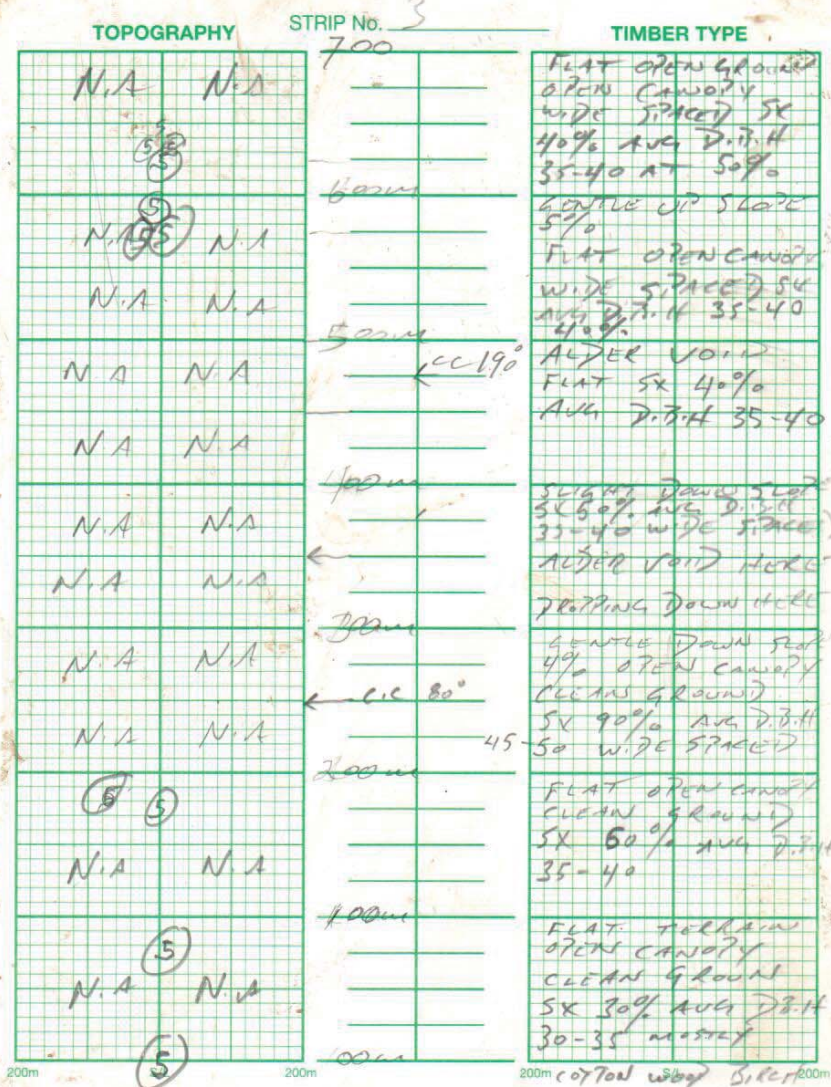
DATE: 15/10/26

CREW:

Dave & Don

REMARKS:


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STRIP NO.: 3 DIRECTION: 130°

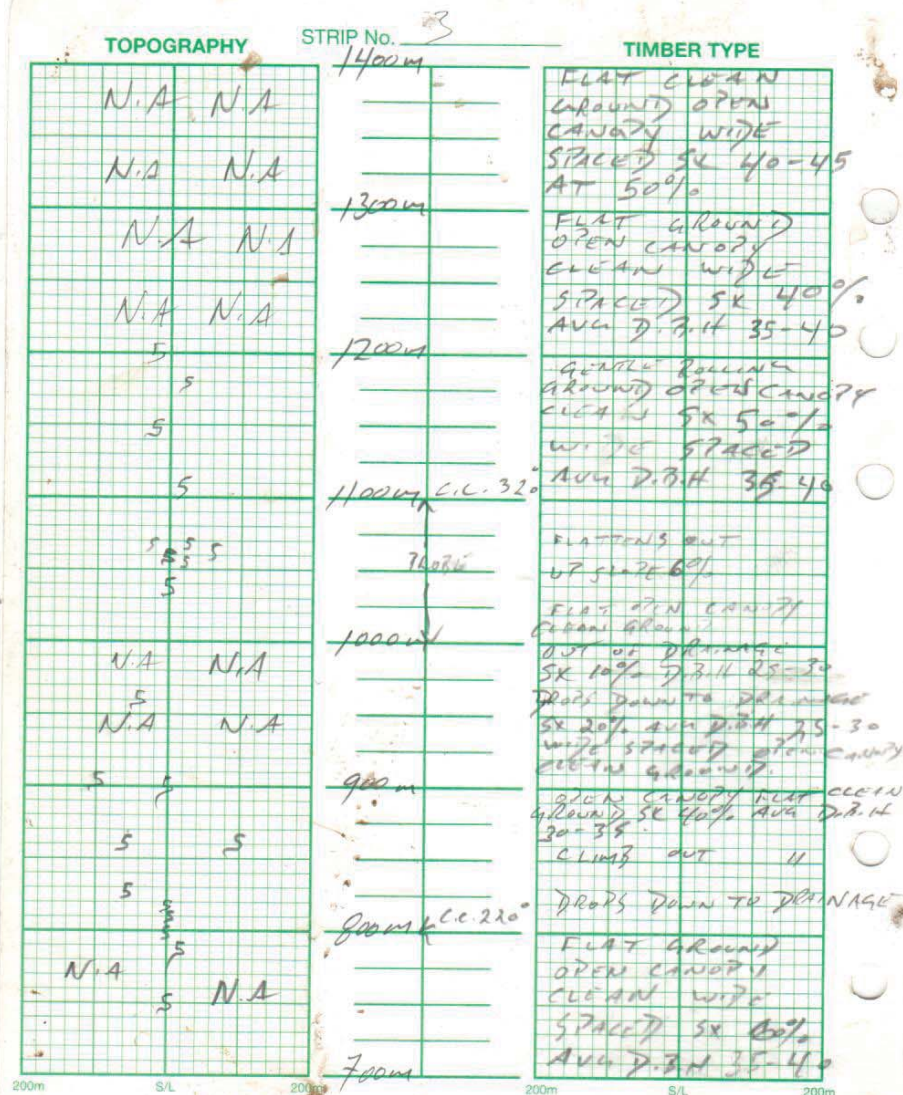
START STRIP: 0-M

JOB NO.: BLA-044 DATE: OCT/27/15

CREW: DAVE & DON

REMARKS:

in www.irlsupplies.com
Ph: 1-800-663-6843



STRIP NO.: 3 DIRECTION:

START STRIP: 700 m

JOB NO.: BLA-044 DATE: OCT/27/15

CREW: DON & DAVE

REMARKS:

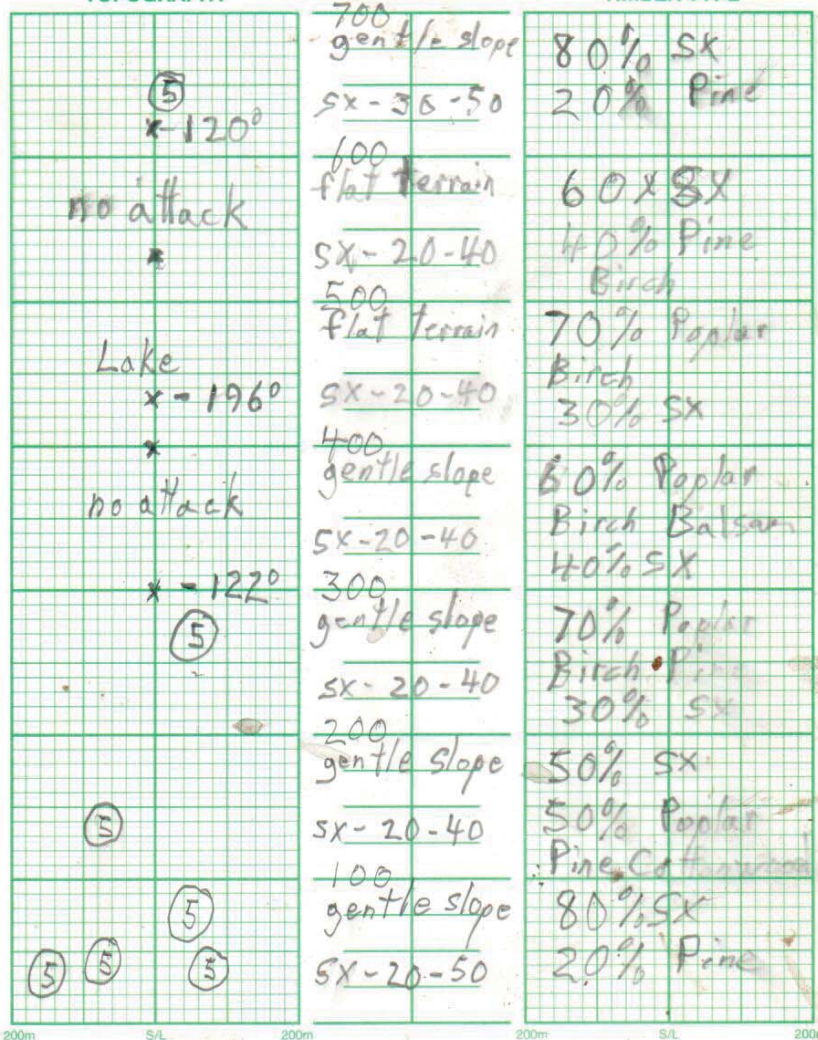
in www.irlsupplies.com
Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No.

BLA-044

TIMBER TYPE



STRIP NO.: 4

DIRECTION: 350°

START STRIP:

JOB NO.:

DATE: 15/10/27

CREW: Don & Dave

REMARKS:

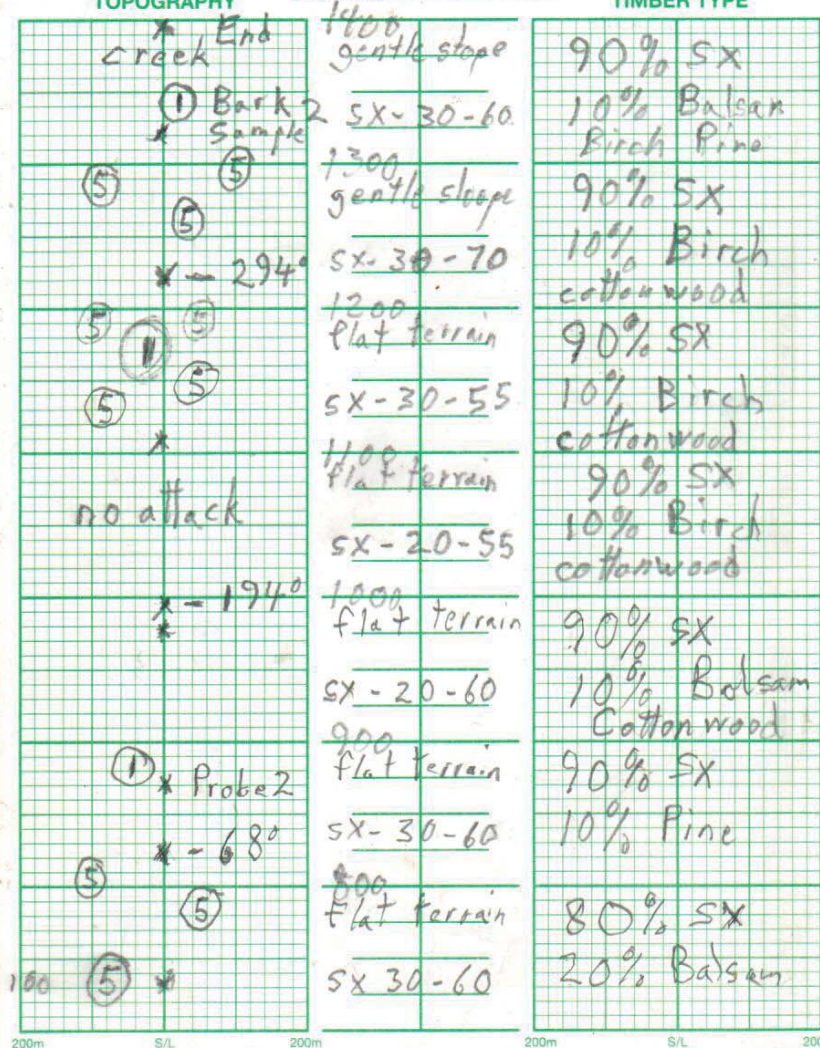

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 Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No.

BLA-044

TIMBER TYPE



STRIP NO.: 4

DIRECTION: 122°

START STRIP:

JOB NO.:

DATE: 15/10/27

CREW: Don & Dave

REMARKS:


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