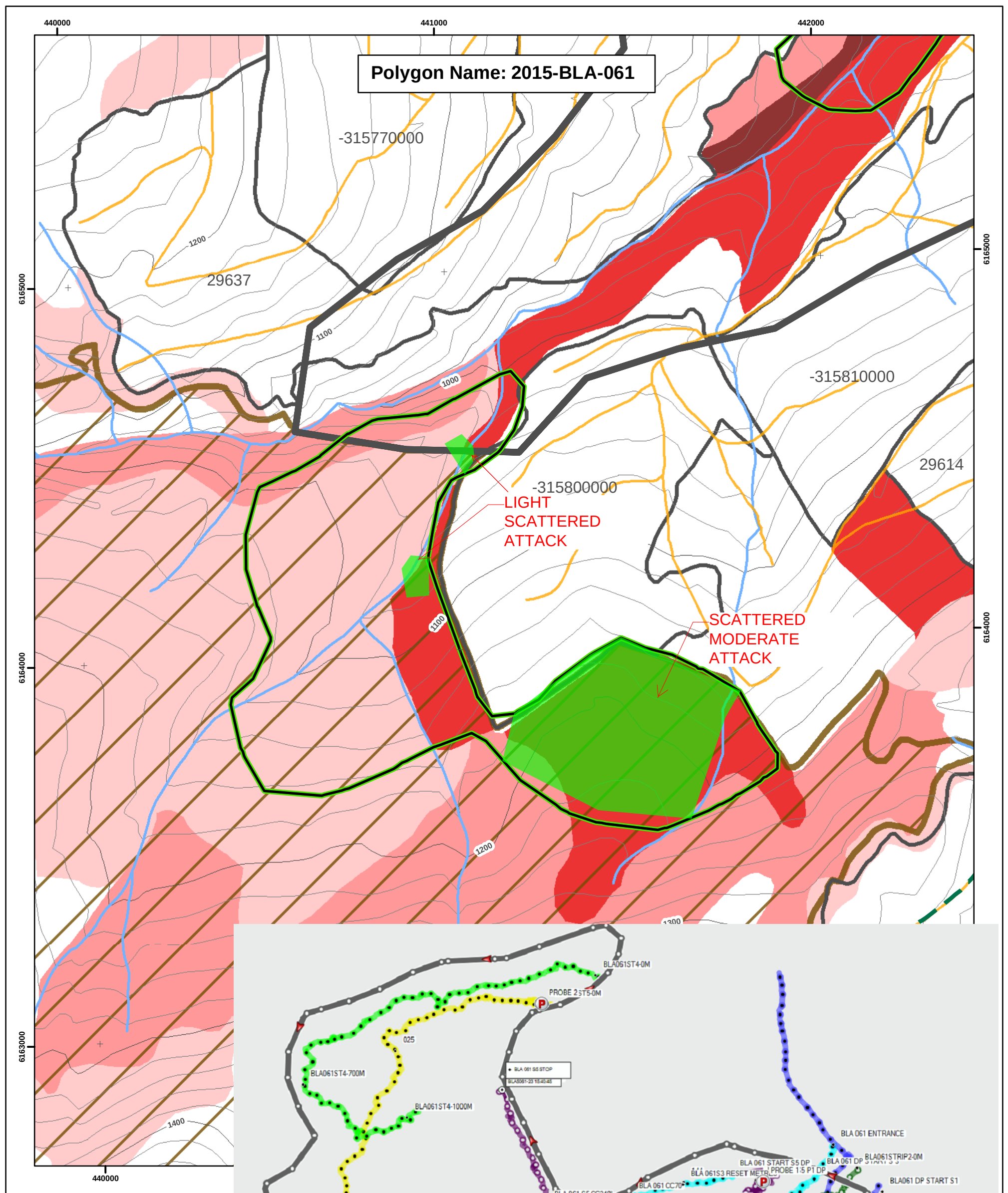
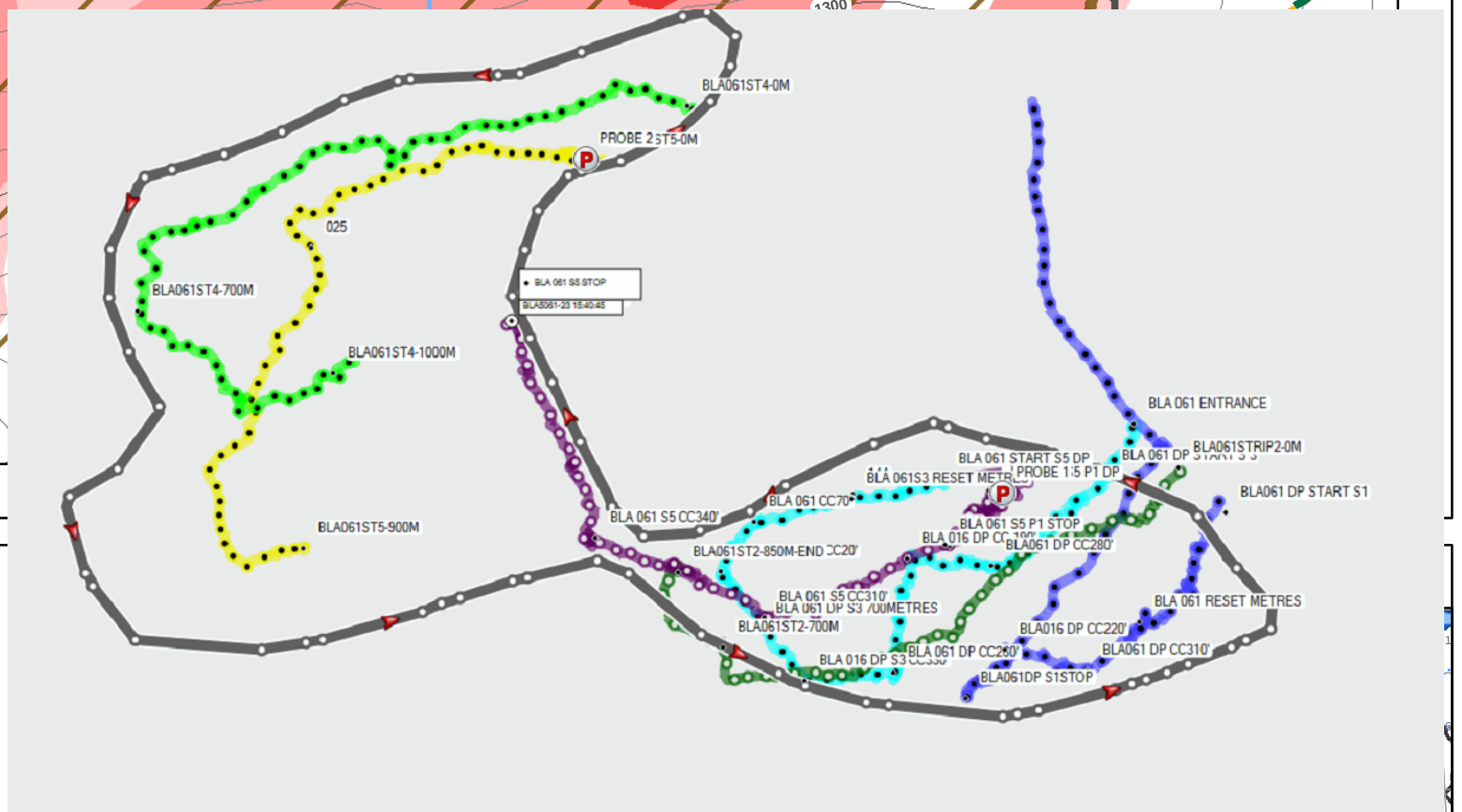




Ministry of
Forests, Lands and
Natural Resource Operations

Spruce Bark Beetle Field Map

Polygon Name: 2015-BLA-061

Landscape Unit/BMU: Blackwater

Region: Omineca

District: Mackenzie

Mapsheet: 093012

Hectares: 76.81

Scale: 1:10,000

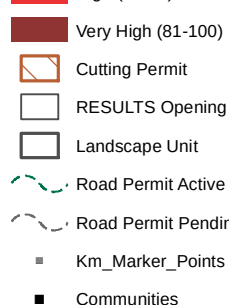
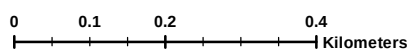
When plotted on 11x17

Coordinate System: PCS Albers

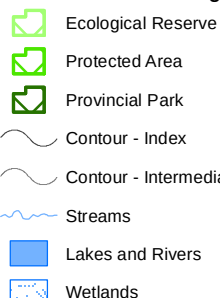
Datum: North American 1983

Date Drawn: 03/06/2015

Drawn By: msnively

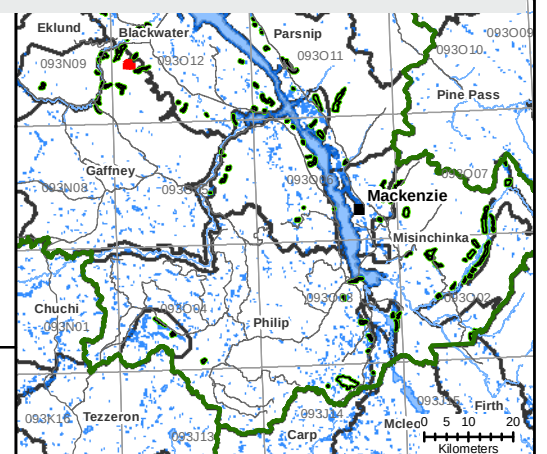


Protected Lands Designation



Disclaimer

The accuracy and completeness of the information on this map is not guaranteed.



**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: 2015-BLA-061

HECTARES:

76.81

WALKTHROUGH DISTANCE:

5500

ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)

6 10.9%

SUMMARY OF CURRENT INFESTATION

Walkthrough estimate shows only 6 infested pixels and they are spread out mostly within the South part of the polygon. Can group together although much of the attack is patchy and spread out with moderate intensity. There are also a couple other attack single trees along creek in the norther portion of Polygon. Much of the attack in Blowdown areas and are areas with heavier older attack (Code 5's)

MODERATE SCATTERED ATTACK (South) LIGHT SCATTERED ATTACK (North along drainage)

ACCESS

Access was poor. From main Finlay accessed on old cutblocks roads by ATV for 6km. Polygon Boundaries tan old cutblock. Lots of cutting along old road to get to polygon.

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

Polygon generally flat slopes with some steeper picthes around drainages. Stand mixed with average of 50% spruce throughout along with Balsam

SIZE, BOUNDARY and PATTERN OF INFESTATION

Very Scattered attack with only 6 infested pixels from walkthrough. Most of these surrounded by older attack (Code 5's) and Blowdown. Of the pixels infested, many with just one or 2 recent attacked trees per 100m. (9 code 1's, 1 code 2 attack) Can be mapped where the southern portion of polygon can be grouped

INCIDENCE AND SEVERITY OF ATTACK

From 2 probe lines attack showing a high attack moderate mean larval density. These are in areas with heavier blowdown and the southern portion of polygon has more concentrated attack

RISK OF BEETLE SPREAD

Attacked areas showing moderate signs of attack but quite dispersed. Beetle infestation will continue toii move through polygon at a slower rate but is boundaried by Old Cutblock along the highest intensity areas.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Access will be ok on older cutblock road that access the East side of polygon. Minimal slope through polygon with a few drainages.

RECOMMENDATIONS**OPTION 1****PROBE/ BAITS**

Southern portion of polygon has scattered attack throughout for the most part. Probe may be the best way to determine further intensity ratings and to stratify area better. Mostly Code 1's on a two year cycle so could probe to determine further action. Access on overgrown old cutblock road comes fairly close to area.

OPTION 2**TRAP TREES/ MONITOR**

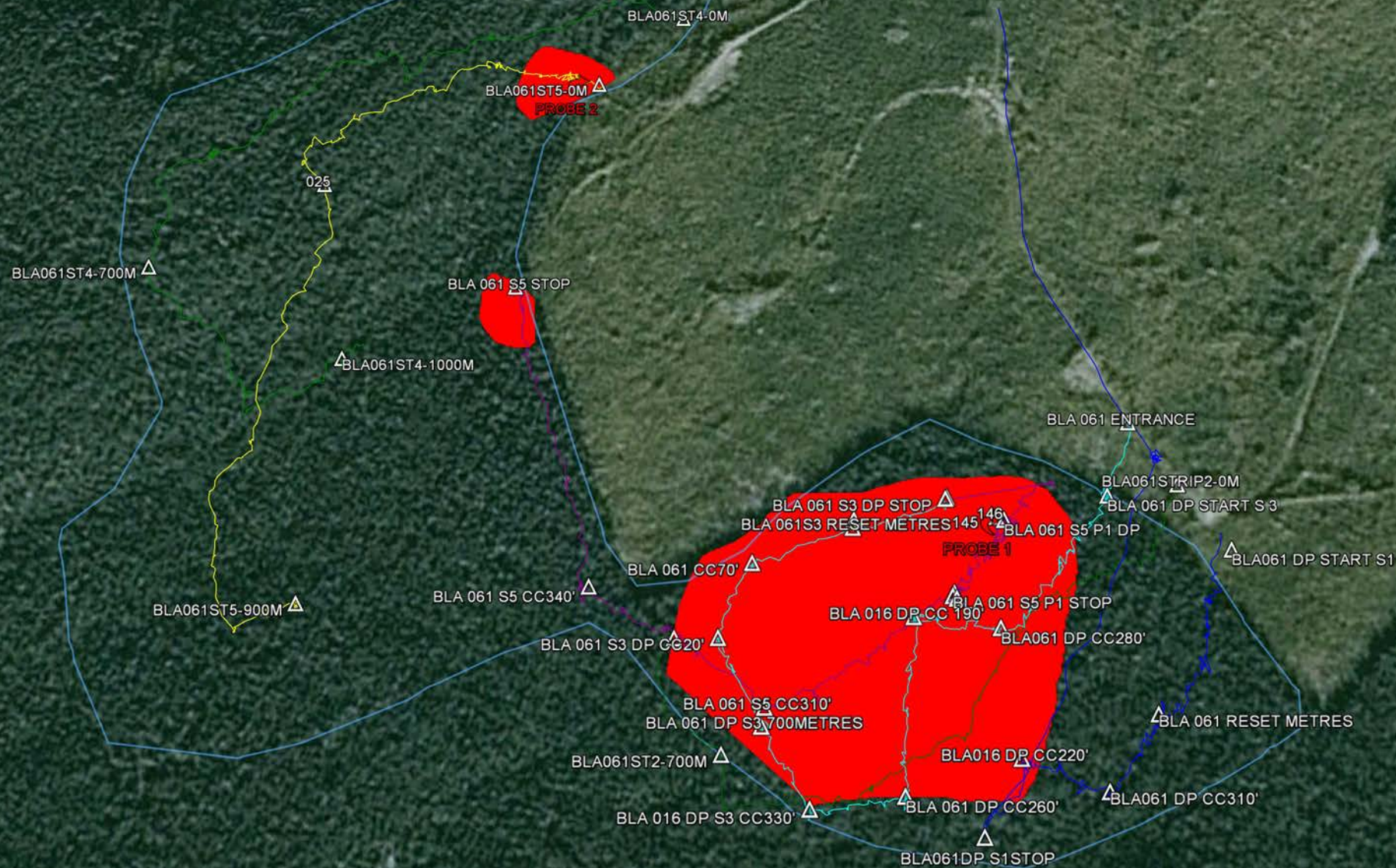
There is an old road through cutblock that comes fairly close to south part of polygon and could set trap tree trails although most of the attack Code 1's on a 2 year cycle and could wait. Monitor area.

2015-BLA-061

SPRUCE BEETLE WALKTHROUGH

Legend

-  MODERATE ATTACK
-  PROBE



Google earth

© 2015 Cnes/Spot Image

500 m



Summary						
2015-BLA-061	HEC	76.81	METERS WALKED	5500	% TRAVERSED	7.2%
PIXELS COVERED BY WALKTHROUGH	55	INFESTED PIXELS	6	ESTIMATED % OF BLOCK INFESTED (From Walk through)		10.9%

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	6.6	0.0	0.0	0.0	0.0	0.0	0.0	75.9
25.1-30.0	5.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0	148.4
30.1-35.0	7.1	28.4	0.0	0.0	0.0	0.0	0.0	3.6	42.6
35.1-40.0	9.4	47	0.0	0.0	0.0	0.0	0.0	0.0	18.8
40.1-45.0	11.6	23.2	0.0	0.0	0.0	0.0	0.0	0.0	23.2
45.1-50.0	13.8	41.4	0.0	6.9	0.0	0.0	0.0	0.0	0
50.1-55.0	16.2	32.4	0.0	0.0	0.0	0.0	0.0	0.0	0
55.1-60.0	18.7	112.2	18.7	0.0	0.0	0.0	0.0	0.0	0
60.1 +	25.3	25.3	25.3	0.0	0.0	0.0	0.0	12.7	0
TOTALS	388.9	321.8	44.0	6.9	0.0	0.0	0.0	16.2	308.9

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
2.75	< 3.9 SEVERE Attack Density	9.25	>24.9 EXTREME Mean Larval Density

TABLE 2- Spruce Beetle Management Options after Walkthrough

% 2015 ATTACK	13.1%	##	SANITATION AND SALVAGE HARVEST PRIORITY RATING			
% 2014 ATTACK	0.0%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)	787.5
% 2013 ATTACK	4.2%	##	MODERATE	600-999	PROBE (To Obtain Further Info)	
% HOST IN STAND	55.7%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING	

FROM 2 PROBE LINES ESTABLISHED IN ATTACK AREAS.

RISK OF BEETLE SPREAD

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Access will be ok on older cutblock road that access the East side of polygon. Minimal slope through polygon with a few drainages.

SPRUCE BEETLE PROBE CARD

LOCATION BLA 061		N 35° 37.044' / W 123° 55.723'		PAGE 1	OF 1					
BEARING 320°		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	"							B	T
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		24	1	1					16	
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
N. SAMPLE	6	NONE	8	NONE	NONE					
S. SAMPLE	8	NONE	7	NONE	NONE					
COMMENTS THIS SX HAS BEEN PICKED OVER THOROUGHLY BY WOOLY WOOL PECKER										
CREW NAMES Don & Dave						DATE 15 10 23				

CC 1111 BDC 2000/01 7530881048 (100/bdl)

SPRUCE BEETLE PROBE CARD

BLA-061 Probe 2

LOCATION 55° 37' 21.4" N 123° 56' 11.9" W		PAGE 1	OF 1						
BEARING 274°		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	1							"
35.1 - 40.0	9.4								
40.1 - 45.0	11.6								
45.1 - 50.0	13.8	1							
50.1 - 55.0	16.2								
55.1 - 60.0	18.7								
60.1 +	25.3	1							1
TOTALS		1							2 42
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	12	0	0		1		
S	18	0	10	6	0		1		
COMMENTS one large SX with larvae gentle slope - sx widely spaced in this area - mostly small Balsam									
CREW NAMES Don & Dave						DATE 15 10 23			

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

STRIP NO.: 1 DIRECTION: 220°
START STRIP: 50-m
JOB NO.: 3LA-061 DATE: OCT/21/15
CREW: DON & DAVE
REMARKS:

 www.irisupplies.com
Ph: 1-800-663-6845

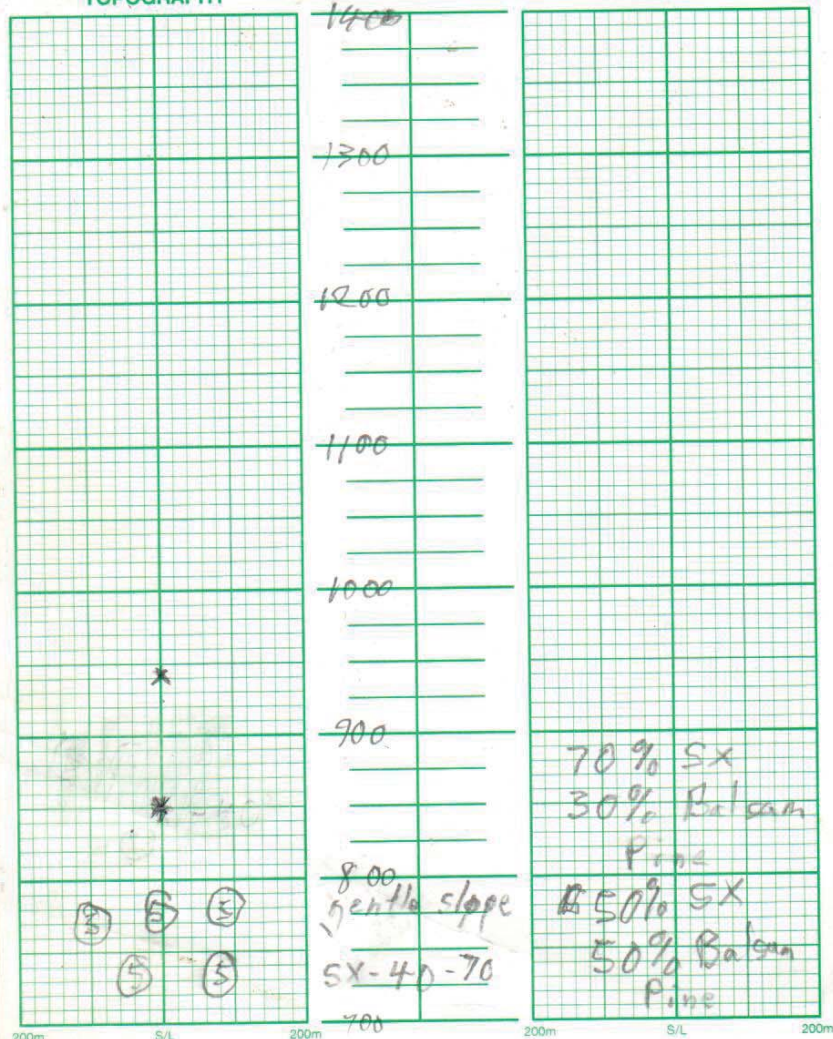
STRIP NO.: 2 DIRECTION: 226°
START STRIP: _____
JOB NO.: DATE: 15/10/21
CREW: Don & Dave
REMARKS: _____

 www.irisupplies.com
Ph: 1-800-663-6841

TOPOGRAPHY

STRIP No. BLA-061

TIMBER TYPE

STRIP NO.: 2DIRECTION: 40°

START STRIP: _____

JOB NO.: _____

CREW: Don & Dave

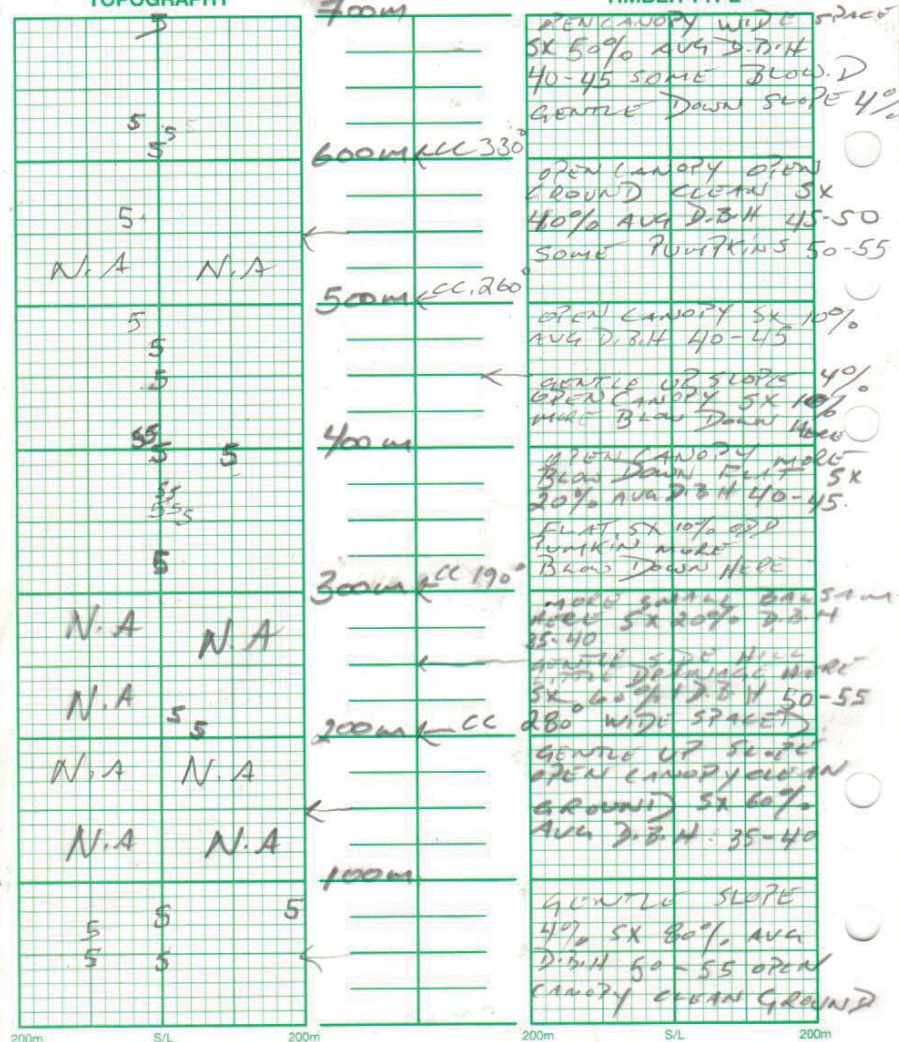
REMARKS: _____

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Ph: 1-800-663-6843

TOPOGRAPHY

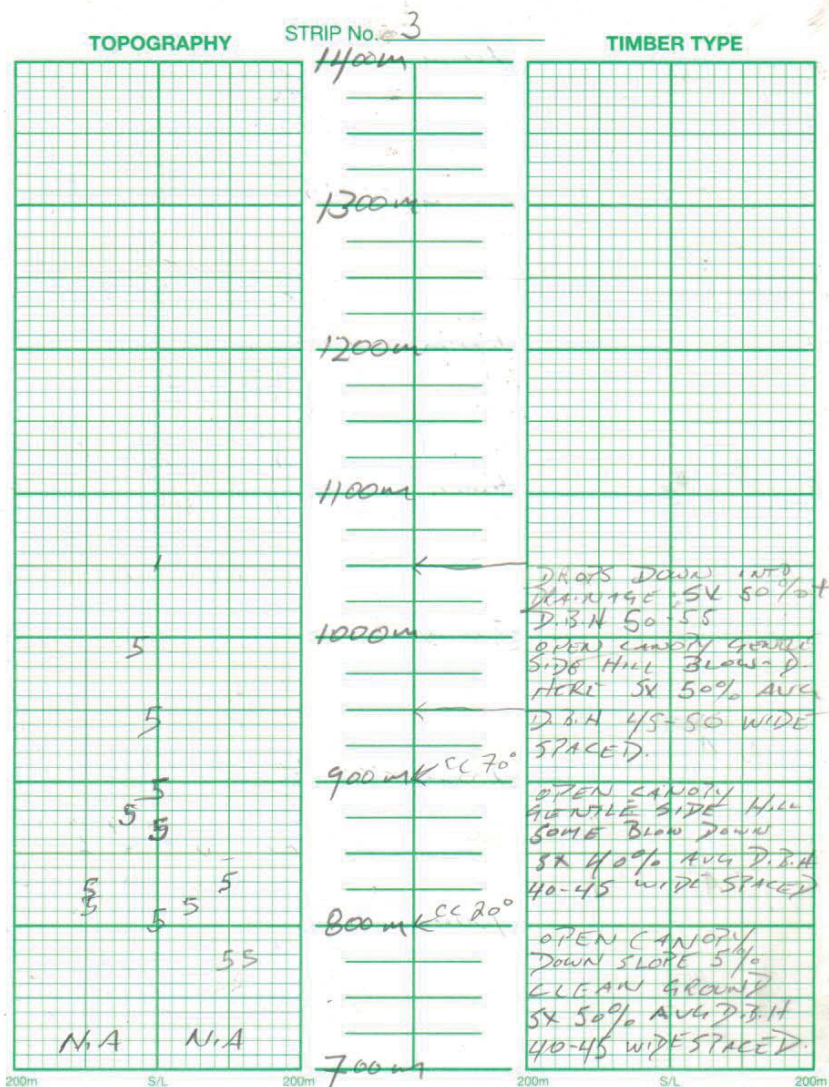
STRIP No. 3

TIMBER TYPE

STRIP NO.: 3DIRECTION: 220°START STRIP: 0-MJOB NO.: BLA-061CREW: Don & Dave

REMARKS: _____

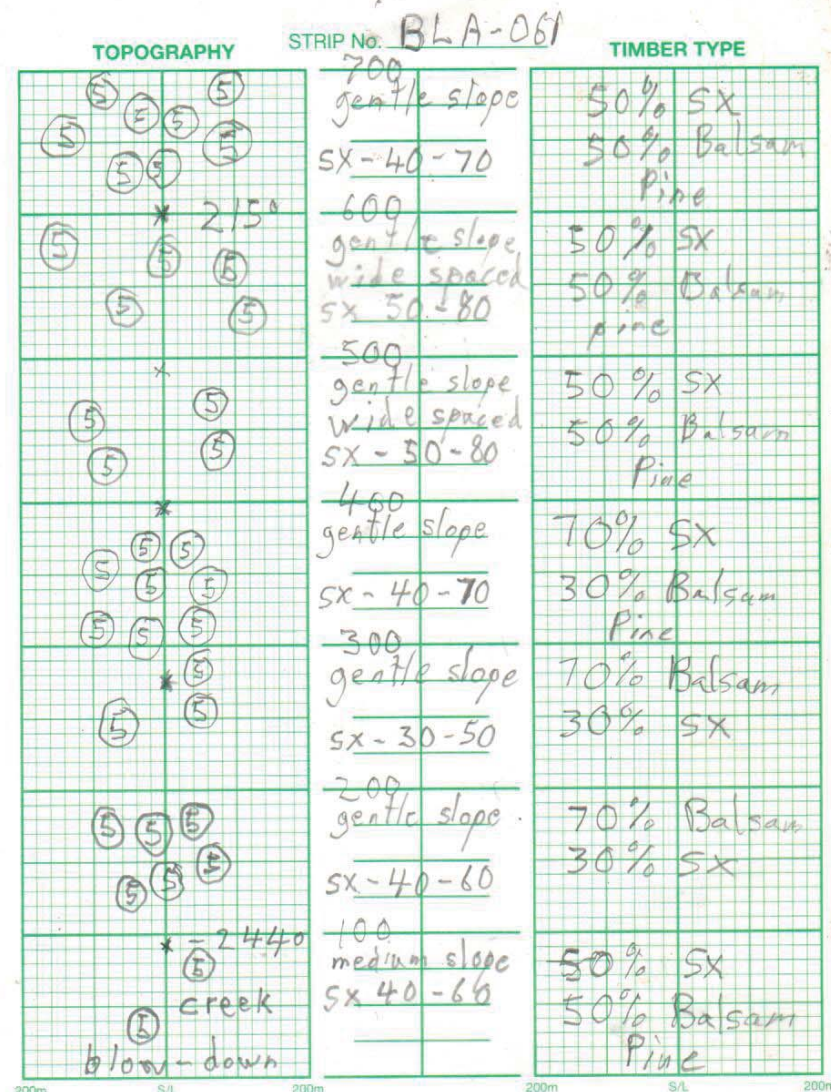
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Ph: 1-800-663-6843



STRIP NO.: 3 DIRECTION: 330°
 START STRIP: 700m
 JOB NO.: BLA 061 DATE: OCT/22/15
 CREW: DON & DAVE
 REMARKS:



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 Ph: 1-800-663-6843



STRIP NO.: 4 DIRECTION: 318°
 START STRIP:
 JOB NO.: DATE: 15/10/22
 CREW: Don & Dave
 REMARKS:

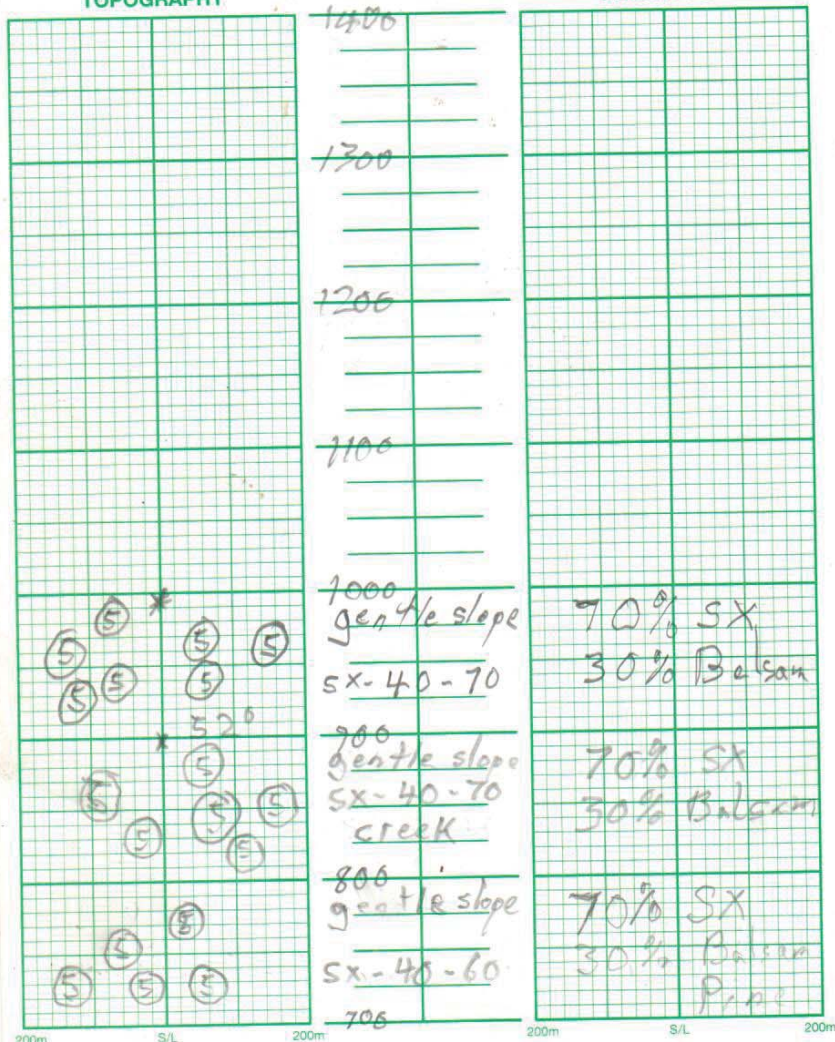


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 Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. BLA-061

TIMBER TYPE



STRIP NO.: 4 DIRECTION: 215
 START STRIP: _____
 JOB NO.: _____ DATE: 15/10/22
 CREW: Don & Dave
 REMARKS: _____

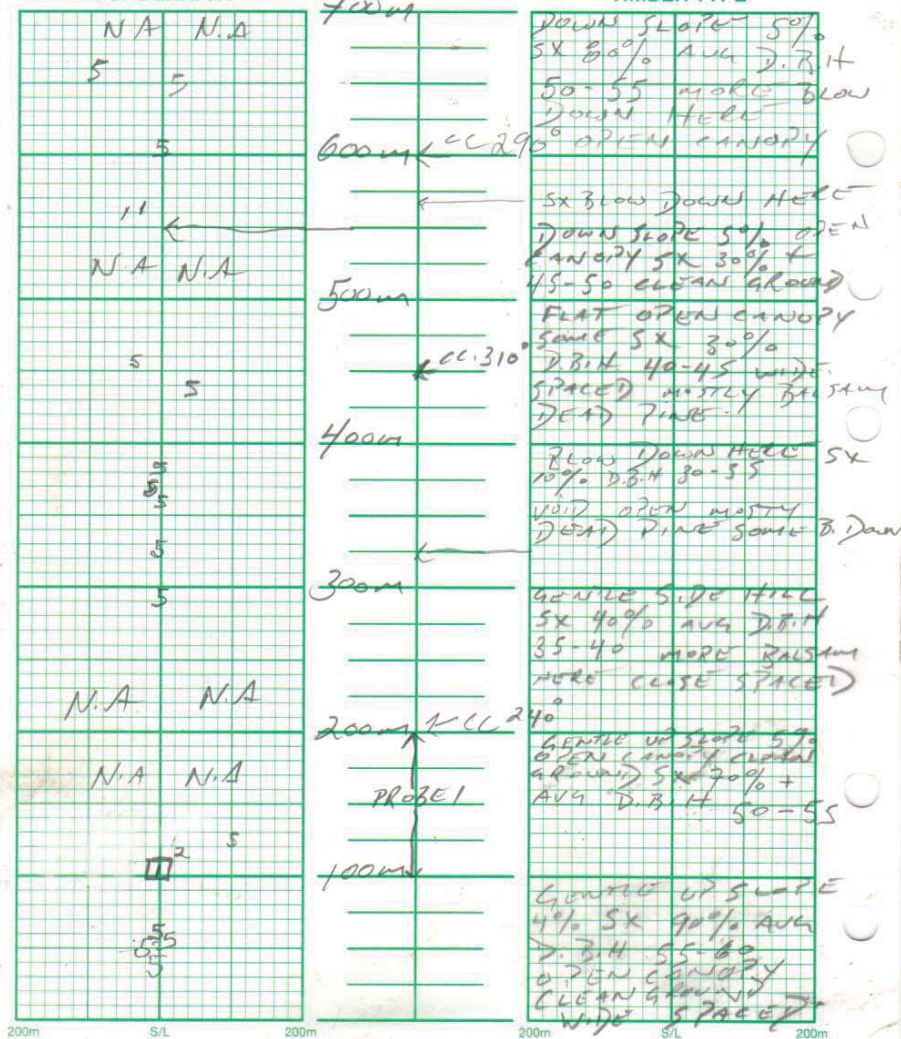


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TOPOGRAPHY

STRIP No. 5

TIMBER TYPE



STRIP NO.: 5 DIRECTION: 220°
 START STRIP: 0-m
 JOB NO.: BLA 061 DATE: OCT/23/15
 CREW: DON & DAVE
 REMARKS: _____

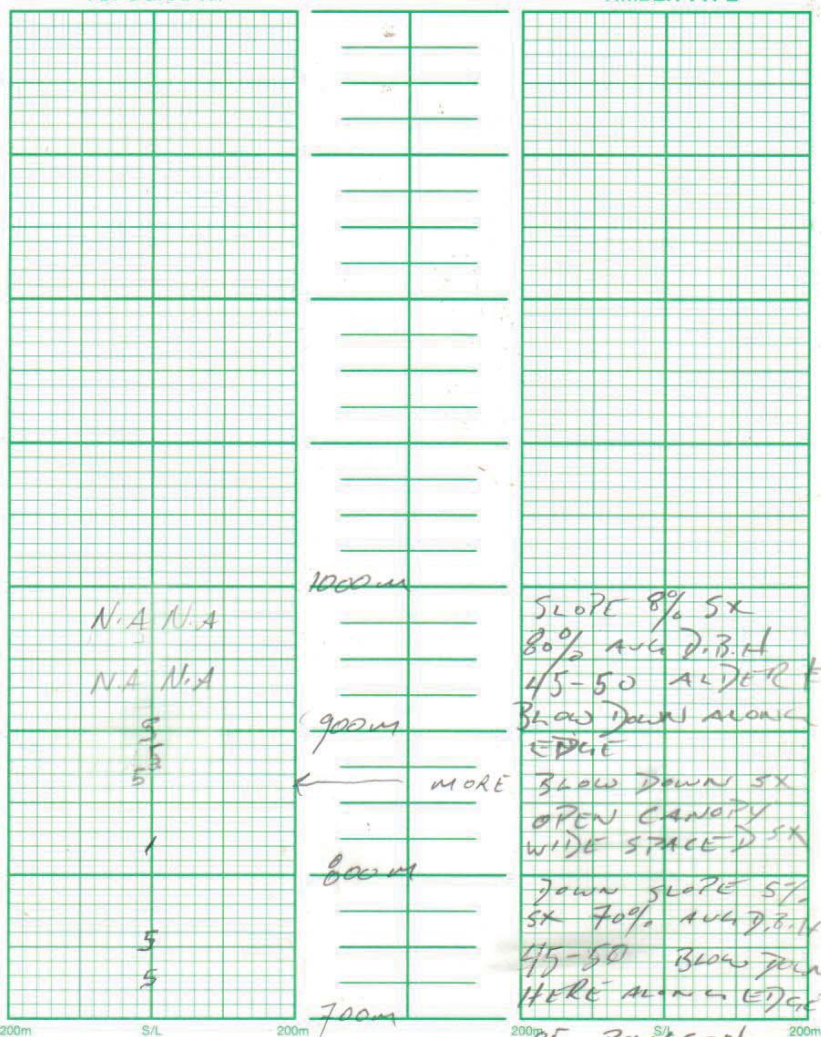


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TOPOGRAPHY

STRIP No. 5

TIMBER TYPE



STRIP NO.: 5

DIRECTION: 340°

START STRIP: 700-m

JOB NO.: BLA 061 DATE: OCT 123/15

CREW: DON & DAVE

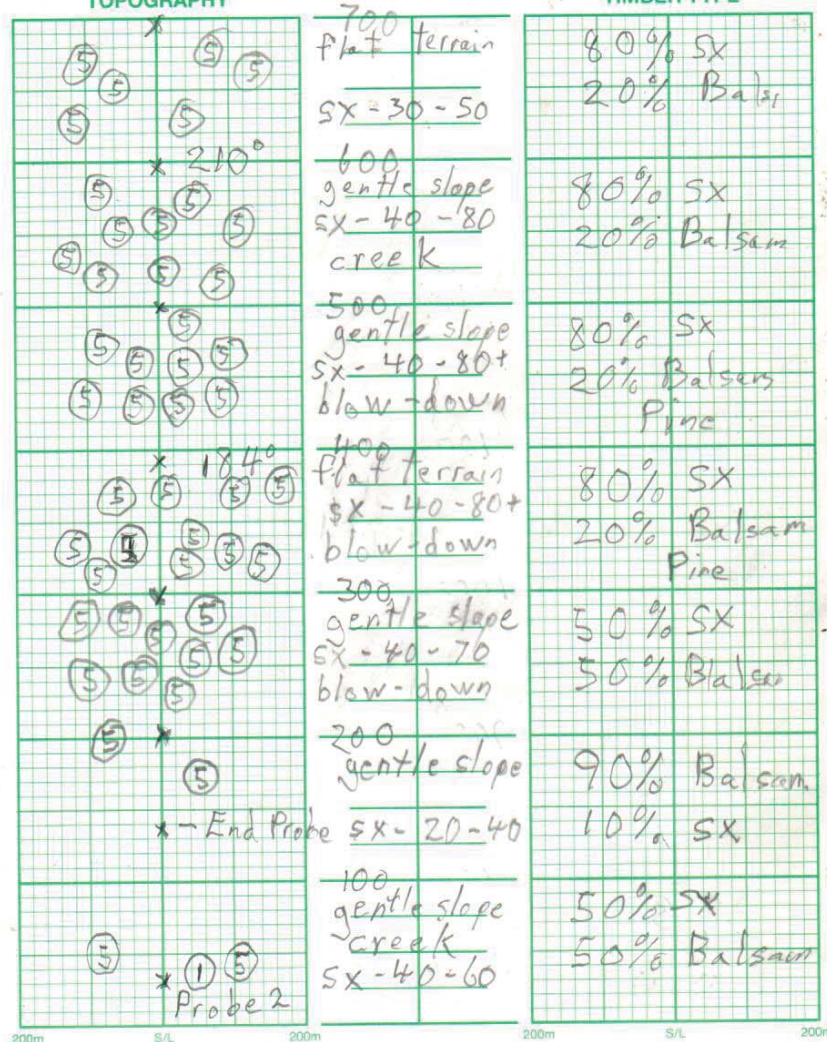
REMARKS:


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 Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. BLA-061

TIMBER TYPE



STRIP NO.: 5

DIRECTION: 274°

START STRIP:

JOB NO.:

DATE: 15/10/23

CREW:

Don & Dave

REMARKS:


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 Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. BLA-061

TIMBER TYPE

	1400			
	1300			
	1200			
	1100			
	1000			
	900			
	gentle slope			90% SX
	SX-40-80			10% Balsam
	800			
	gentle slope			80% SX
	SX-40-80+			20% Balsam

STRIP NO. 5DIRECTION: 210°

START STRIP: _____

JOB NO.: _____

DATE: 15/10/23CREW: Don + Dave

REMARKS: _____


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