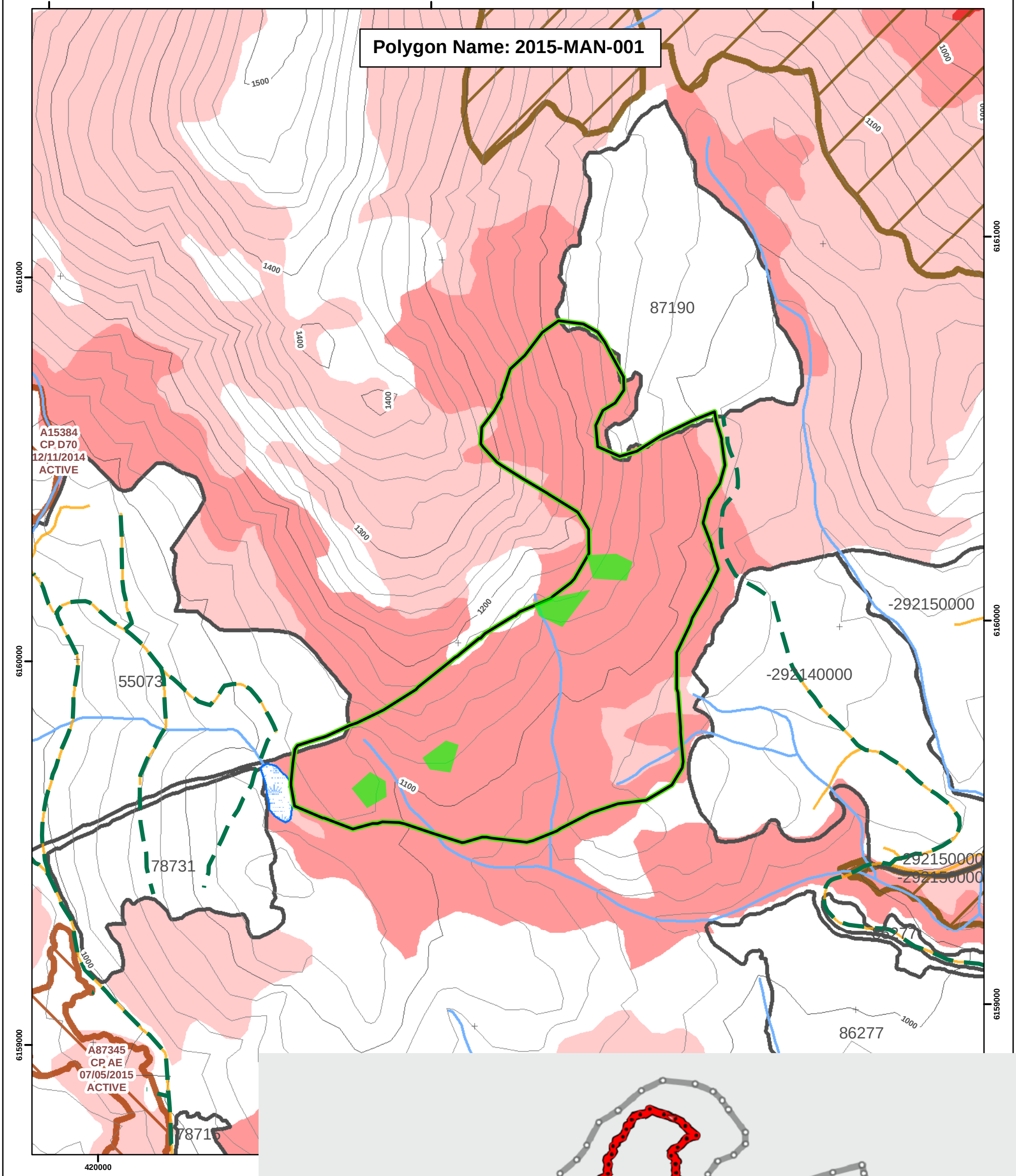
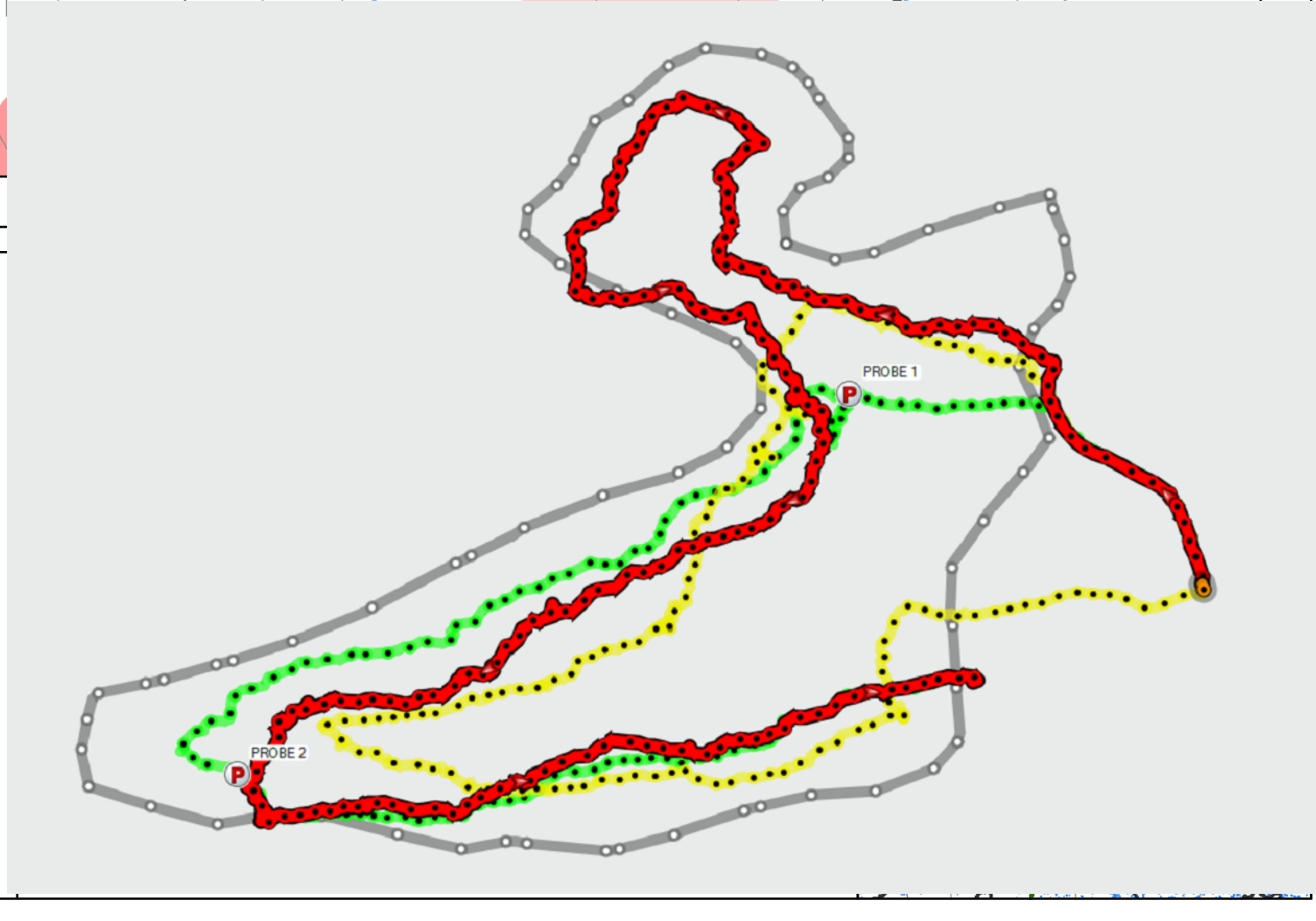
Polygon Name: 2015-MAN-001





BRITISH COLUMBIA
Ministry of Forests, Lands and Natural Resource Operations

Spruce Bark Beetle Field Map

Polygon Name: 2015-MAN-001

Landscape Unit/BMU:	Manson
Region:	Omineca
District:	Mackenzie
Mapsheet:	093N09
Hectares:	70.97
Scale:	1:10,000
When plotted on 11x17	
Coordinate System:	PCS Albers
Datum:	North American 1983
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: MAN-001 HECTARES: 70.97

WALKTHROUGH DISTANCE: 7150

ESTIMATED INFFESTED PIXELS FROM WALKTHROUGH (Code 1-4) 4 **5.6%**

SUMMARY OF CURRENT INFESTATION

Walkthrough has 5% infested Pixels. On Walkthrough found a total of 4 Code 1 trees and established 2 probe lines on 2 of these areas to encompass the infestation and recent attack.

LIGHT SCATTERED ATTACK.

ACCESS

Access by overgrown road to East side of Polygon,

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

Steep slopes from West down to East throughout. (35-45%) Stand a mix of Spruce Balsam (60/40) with heavy patches of aspen all along the ridge. (Elev 1080m-1300m)

SIZE, BOUNDARY and PATTERN OF INFESTATION

Very minimal attack with 4 total code 1's found.. Probes were done on attacked areas and not relfective of while area just of the minimal attacked areas. Such small attack zones as walkthrough shows around 5% infested pixels.

INCIDENCE AND SEVERITY OF ATTACK

very minimal attack and low severity.

RISK OF BEETLE SPREAD

light beetle infestation, may eventual gain momoentum, surrounded by cutblocks.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Decent access to edge of polygon, active logging a couple of KMs south on this road. Within polygon, some challenging slopes.

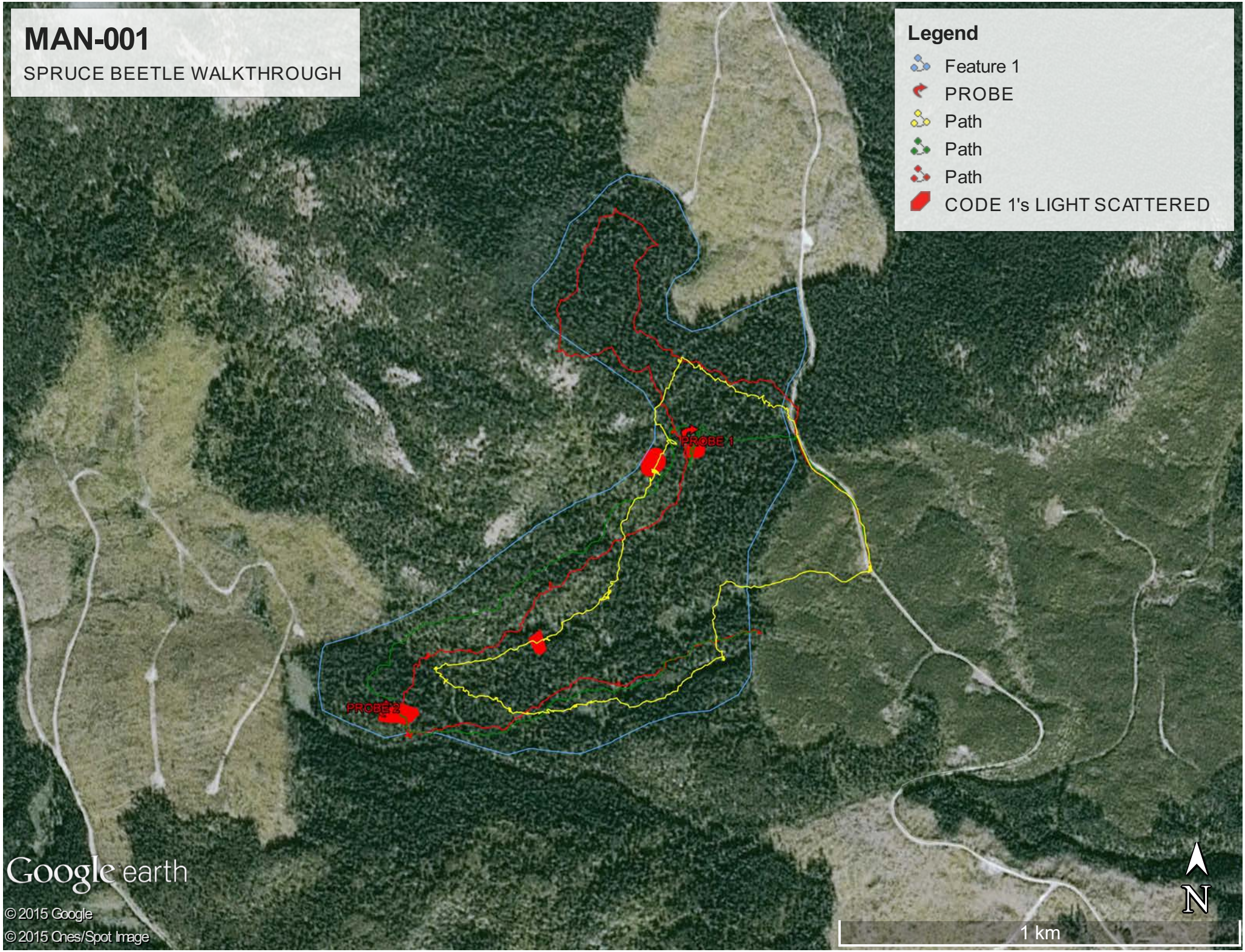
RECOMMENDATIONS

OPTION 1

LEAVE- MONITOR

Sanitation and Salvage Rating is MODERATE but this is not representative of entire polygon. Only 5% attacked trees, areas of attack very small.

OPTION 2


MAN-001
SPRUCE BEETLE WALKTHROUGH
Legend
Feature 1
PROBE
Path
Path
Path
CODE 1's LIGHT SCATTERED
PROBE 1
PROBE 2
Google earth
© 2015 Google
© 2015 Cnes/Spot Image
N
1 km

Summary

MAN-001	HEC	70.97	METERS WALKED	7150	% TRAVERSED	10.1%
PIXELS COVERED BY WALKTHROUGH	71.5	INFESTED PIXELS	4	**ESTIMATED % OF BLOCK INFESTED (From Walk through)**		**5.6%**

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	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0
25.1-30.0	5.3	15.9	0.0	0.0	0.0	0.0	0.0	0.0	5.3
30.1-35.0	7.1	0	0.0	0.0	0.0	0.0	0.0	0.0	0
35.1-40.0	9.4	56.4	0.0	0.0	0.0	0.0	0.0	0.0	37.6
40.1-45.0	11.6	92.8	0.0	0.0	0.0	0.0	0.0	0.0	46.4
45.1-50.0	13.8	55.2	41.4	0.0	0.0	0.0	0.0	0.0	41.4
50.1-55.0	16.2	48.6	0.0	0.0	0.0	0.0	0.0	0.0	32.4
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	50.6
TOTALS	326.8	285.4	41.4	0	0.0	0.0	0.0	0	213.7

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
2.00	< 3.9 SEVERE Attack Density	**3.75**	>24.9 EXTREME Mean Larval Density

TABLE 2- Spruce Beetle Management Options after Walkthrough

% 2015 ATTACK	12.7%	##	SANITATION AND SALVAGE HARVEST PRIORITY RATING		
% 2014 ATTACK	0.0%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)
% 2013 ATTACK	0.0%	##	MODERATE	600-999	PROBE (To Obtain Further Info)
% HOST IN STAND	60.5%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING

766.0

SANITATION RATING BASED OFF OF 2 PROBES WHICH WERE THE ONLY ATTACKED AREAS AND ESTABLISHED LINES TO GET ATTACK DATA.

SUMMARY OF ALL CARDS FS1111

NUMBER OF CARDS: 2

ACCESS - Access by overgrown road to East side of Polygon,

POLYGON FEATURES - Steep slopes from West down to East throughout. (35-45%) Stand a mix of Spruce Balsam (60/40) with heavy patches of aspen all along the ridge. (Elev 1080m-1300m)

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	5	0	0	0	0	0	0	0	0
25.1-30.0	5.3	3	0	0	0	0	0	0	1	0
30.1-35.0	7.1	0	0	0	0	0	0	0	0	0
35.1-40.0	9.4	6	0	0	0	0	0	0	4	0
40.1-45.0	11.6	8	0	0	0	0	0	0	4	0
45.1-50.0	13.8	4	3	0	0	0	0	0	3	0
50.1-55.0	16.2	3	0	0	0	0	0	0	2	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	2	0
TOTALS		29	3	0	0	0	0	0	16	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
4	8	0	15	0	0	0	0	0

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION

Very minimal attack with 4 total code 1's found.. Probes were done on attacked areas and not relfective of while area just of the minimal attacked areas. Such small attack zones as walkthrough shows around 5% infested pixels.

INCIDENCE AND SEVERITY OF THE INFESTATION

very minimal attack and low severity.

RISK OF BEETLE SPREAD

light beetle infestation, may eventual gain momoentum, surrounded by cutblocks.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Decent access to edge of polygon, active logging a couple of KMs south on this road. Within polygon, some challenging slopes.

PROBE #1

SPRUCE BEETLE PROBE CARD

LOCATION		PAGE	OF
MAN-001	0421456 6160245	1	2
BEARING	**DISTANCE**	**STRIP WIDTH**	
200°	100	10	

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	3							
25.1 - 30.0	5.3	2							1
30.1 - 35.0	7.1								
35.1 - 40.0	9.4	2							1
40.1 - 45.0	11.6	3							1
45.1 - 50.0	13.8	3	2						1
50.1 - 55.0	16.2	2							1
55.1 - 60.0	18.7								
60.1 +	25.3								
TOTALS		19	2						7

BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN		
						Attacked		Unattacked
1A	2	/	6	/	/	/	/	/
1B	3	/	7	/	/	/	/	/

COMMENTS
-Sample tree had thining crown and heavy woodpecker. Some green needles.

CREW NAMES	DATE Y	M	D
JAMES. K.	15	10	12

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

PROBE #2

SPRUCE BEETLE PROBE CARD

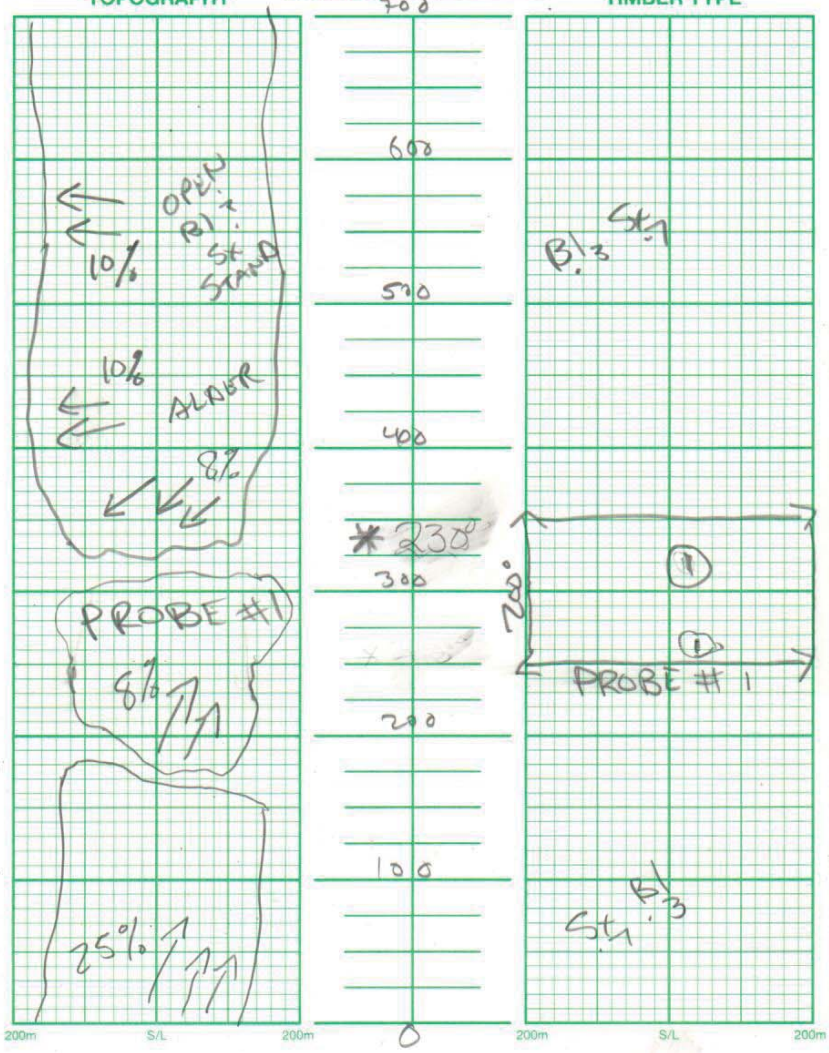
LOCATION		PAGE	OF
MAN-001	0420727 6159611	2	2
BEARING	**DISTANCE**	**STRIP WIDTH**	
150°	100 m	18	

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	1							
25.1 - 30.0	5.3	1							
30.1 - 35.0	7.1								
35.1 - 40.0	9.4	2							2
40.1 - 45.0	11.6	2							2
45.1 - 50.0	13.8	1	1						1
50.1 - 55.0	16.2	1							1
55.1 - 60.0	18.7								
60.1 +	25.3								2
TOTALS		10	1						9

BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN		
						Attacked		Unattacked
2A	3	/	2	/	/	/	/	/
2B	/	/	/	/	/	/	/	/

COMMENTS
open stand. Represents majority of walkthrough

CREW NAMES	DATE Y	M	D
JAMES K.	15	10	12



STRIP NO.: MAN-001 DIRECTION: 280°-230°

START STRIP: 0-700

JOB NO.: SEN. WALK DATE: OCT/12/2015

CREW: JAMES K.

REMARKS: Minimal attack

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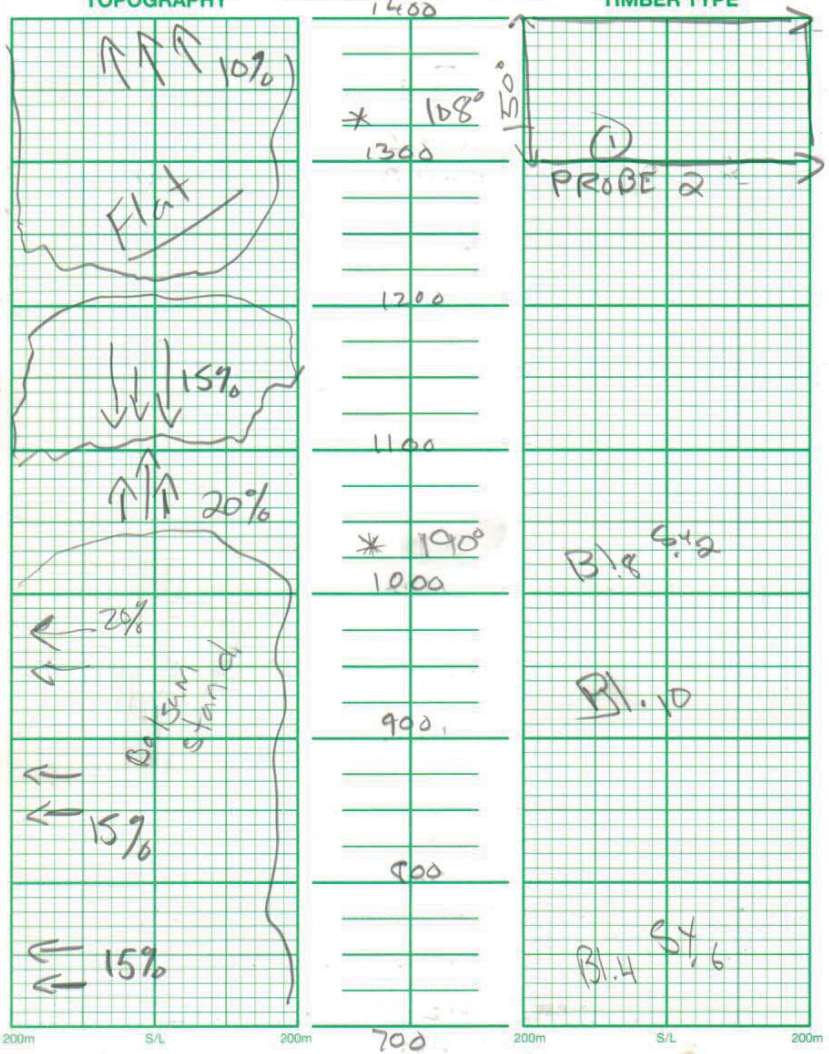

STRIP NO.: MAN-001 DIRECTION: 230°-190°-108°

START STRIP: 1400-2100

JOB NO.: SEN. WALK DATE: OCT/12/2015

CREW: JAMES K

REMARKS: Very low attack seen

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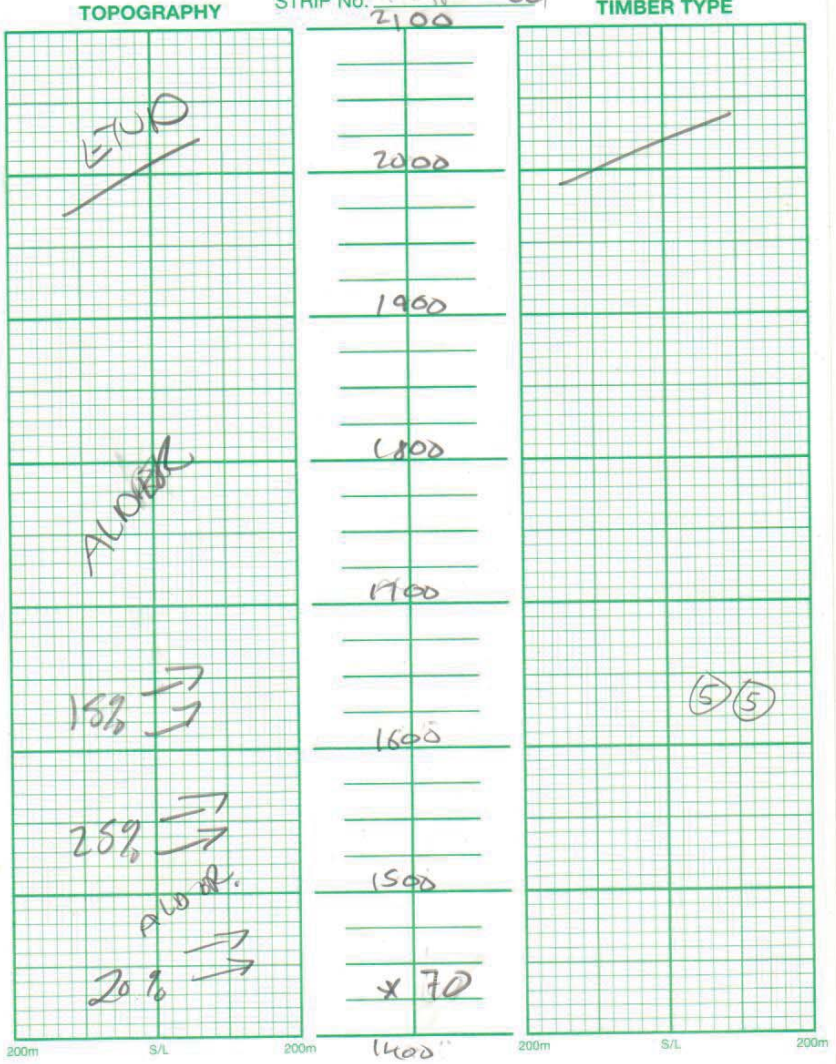
TOPOGRAPHY STRIP No. MAN-001 **TIMBER TYPE**



STRIP NO.: MAN-001 DIRECTION: 105°-70

START STRIP: 1400-2100

JOB NO.: SEN. WALK DATE: OCT 12 2015

CREW: JAMES K.

REMARKS: No attack

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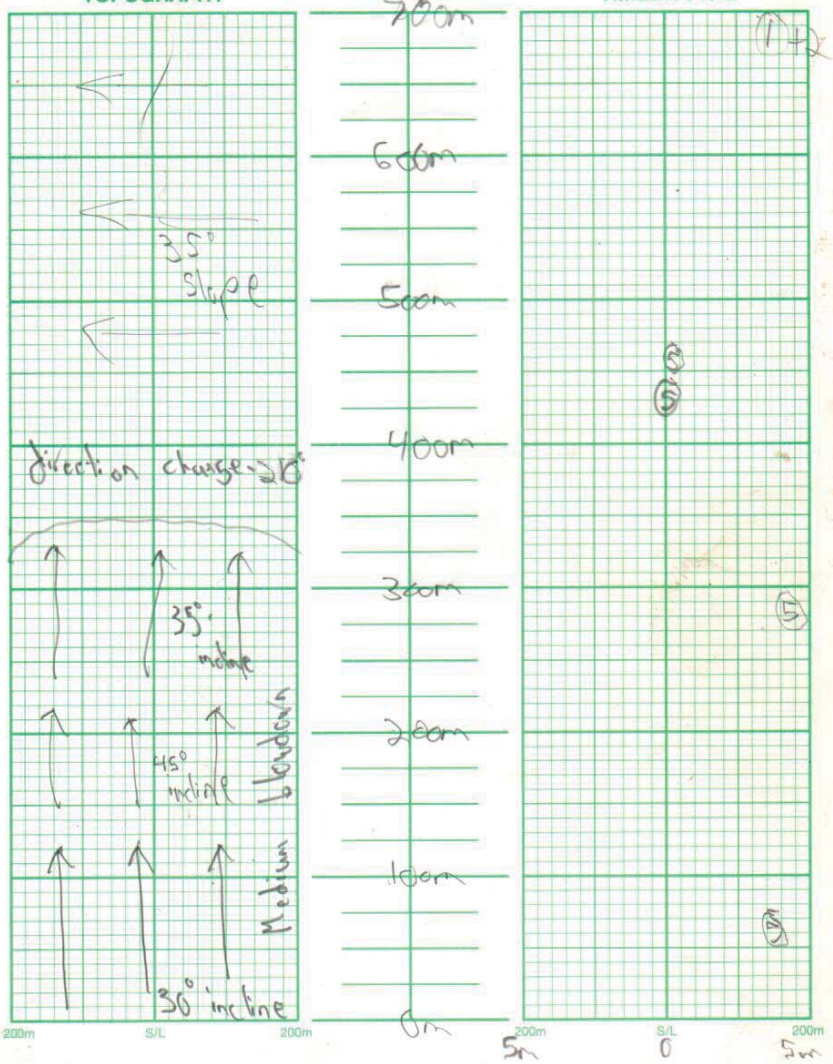
TOPOGRAPHY STRIP No. Man-001 **TIMBER TYPE**



STRIP NO.: Man-001 DIRECTION: 300°

START STRIP: 0m-700m

JOB NO.: Seneca walkthrough DATE: Oct. 12/15

CREW: Dailen Videgain

REMARKS: Thick of Alder

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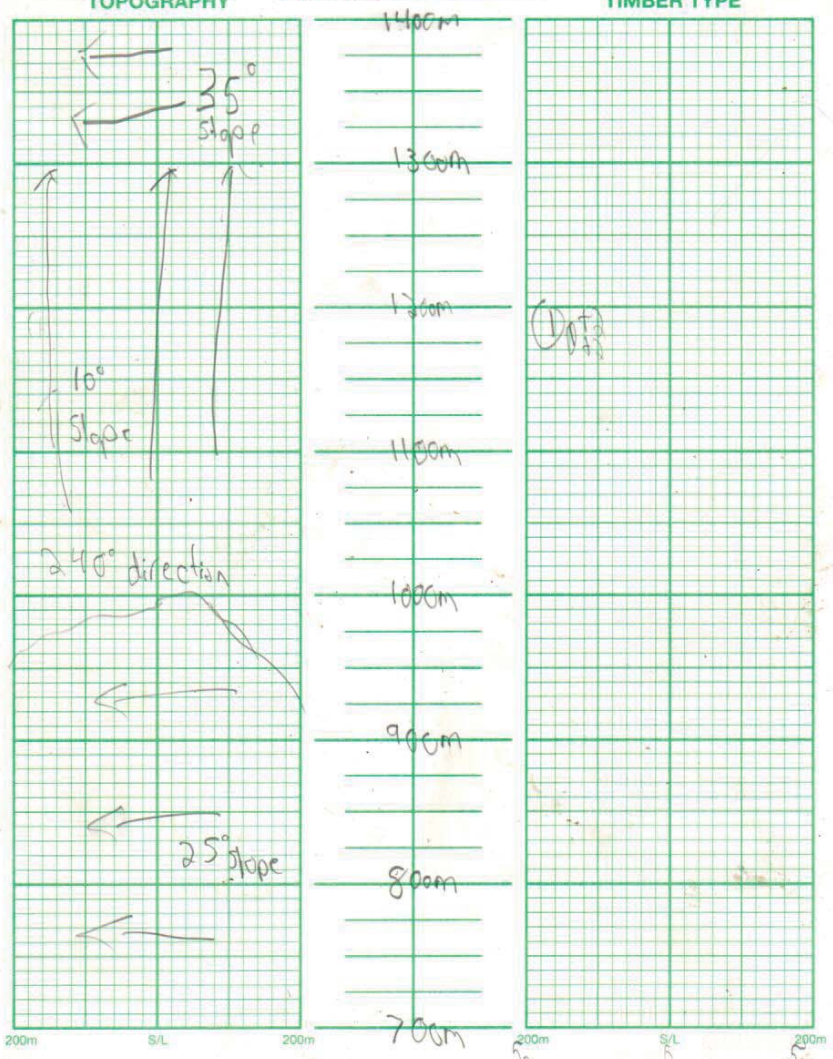
TOPOGRAPHY STRIP No. MAN-001 TIMBER TYPE



STRIP NO.: MAN-001 DIRECTION: 240°

START STRIP: 700m - 1400m

JOB NO.: Seneca walkthrough DATE: Oct. 12/15

CREW: Dailen. V

REMARKS: Thick of Alder

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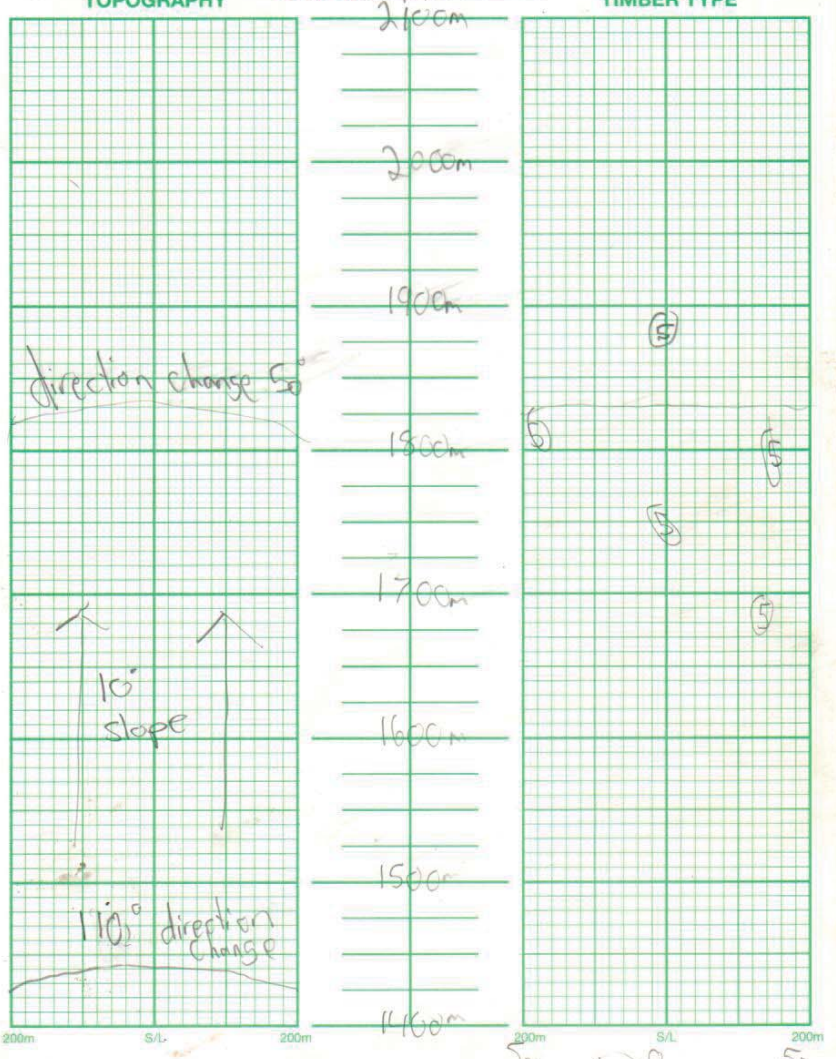
TOPOGRAPHY STRIP No. MAN-001 TIMBER TYPE



STRIP NO.: MAN-001 DIRECTION: 110°(335m) 50°(350m)

START STRIP: 1400m - 2100m

JOB NO.: Seneca walkthrough DATE: Oct. 12/15

CREW: Dailen. V

REMARKS: Thick of Alder

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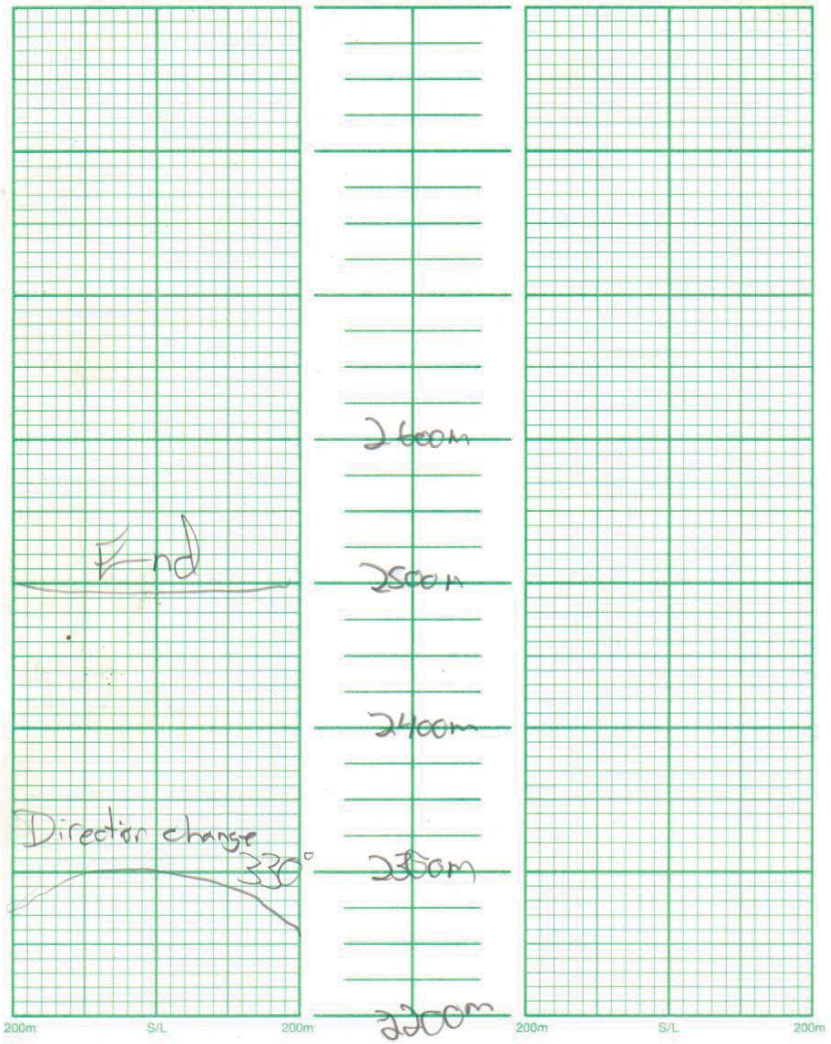
TOPOGRAPHY STRIP No. MAN-001 TIMBER TYPE



STRIP NO.: Man-001 DIRECTION: 330°

START STRIP: 2200m-2500m

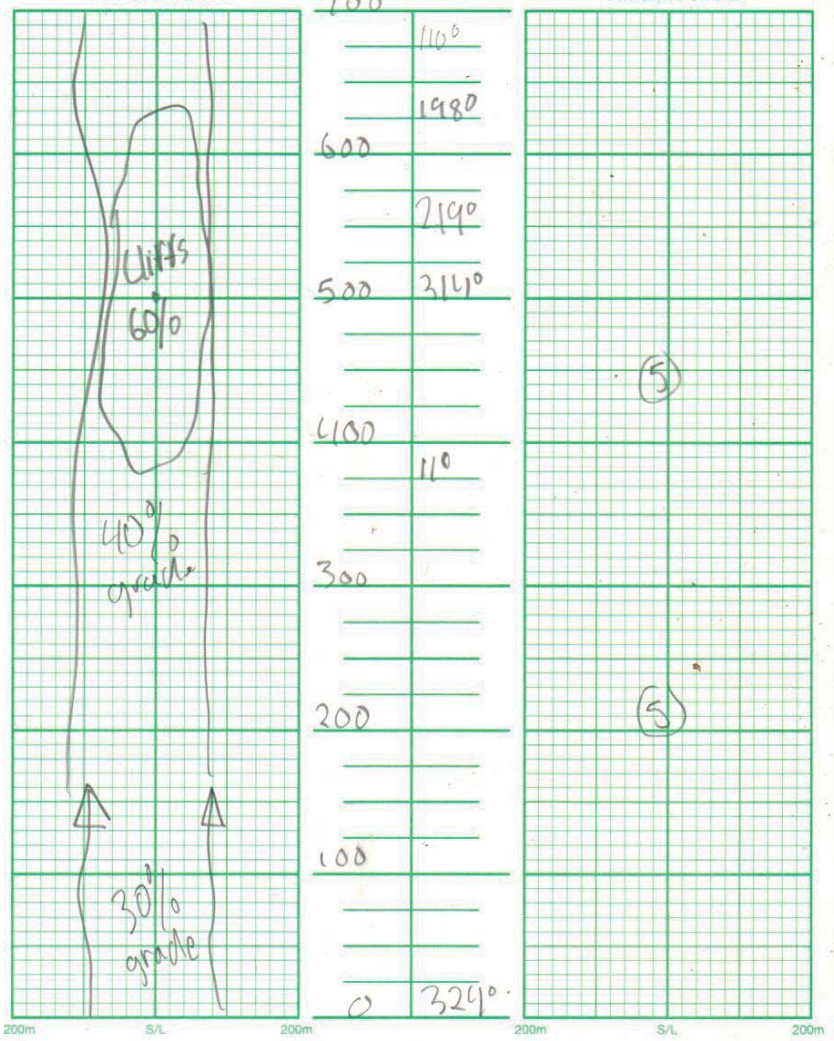
JOB NO.: Seneca walkout DATE: Oct. 12/15

CREW: Dailen. V

REMARKS: Many Alder

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

TOPOGRAPHY STRIP No. Man-001 TIMBER TYPE



STRIP NO.: Man-001 DIRECTION: 324°, 110°, 314°, 219°, 198°

START STRIP: 0-700

JOB NO.: Seneca/walk DATE: Oct 12, 15

CREW: Pat Poirier

REMARKS:

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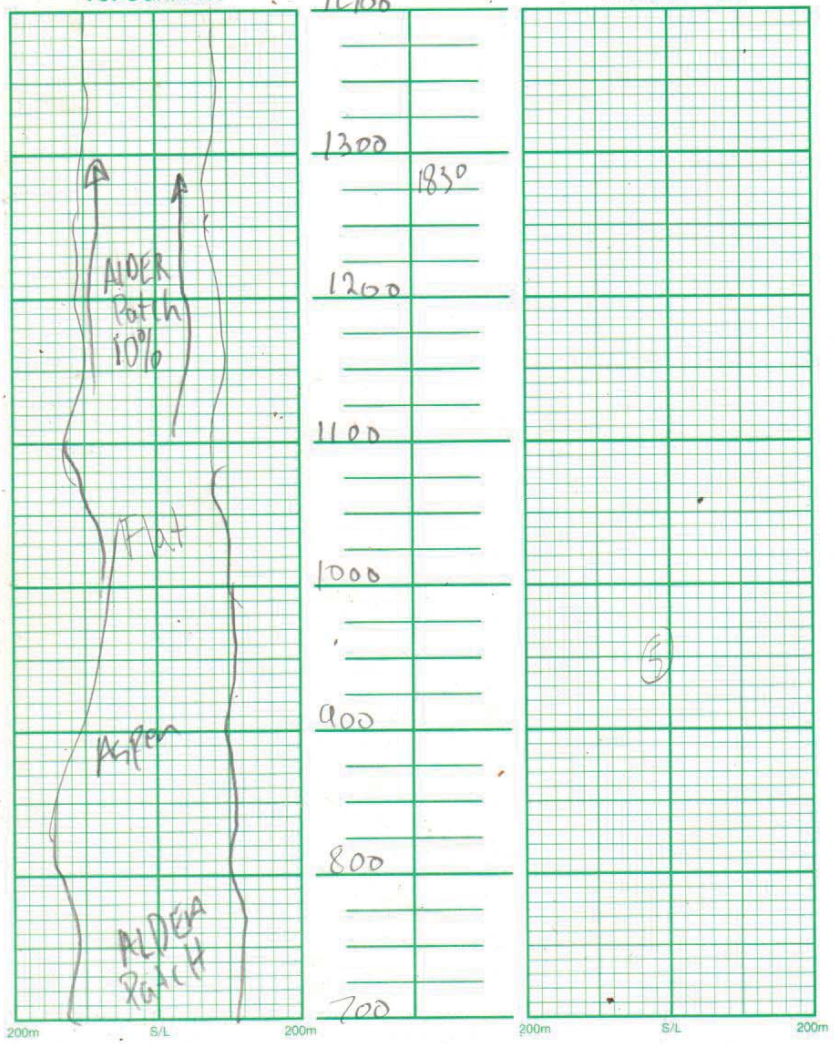
TOPOGRAPHY

STRIP No. MAN-001

TIMBER TYPE



STRIP NO.: Man-001 DIRECTION: 203°

START STRIP: 700 - 1400

JOB NO.: Seneca/walk DATE: Oct 12, 15

CREW: Pat Poirier

REMARKS: No attack

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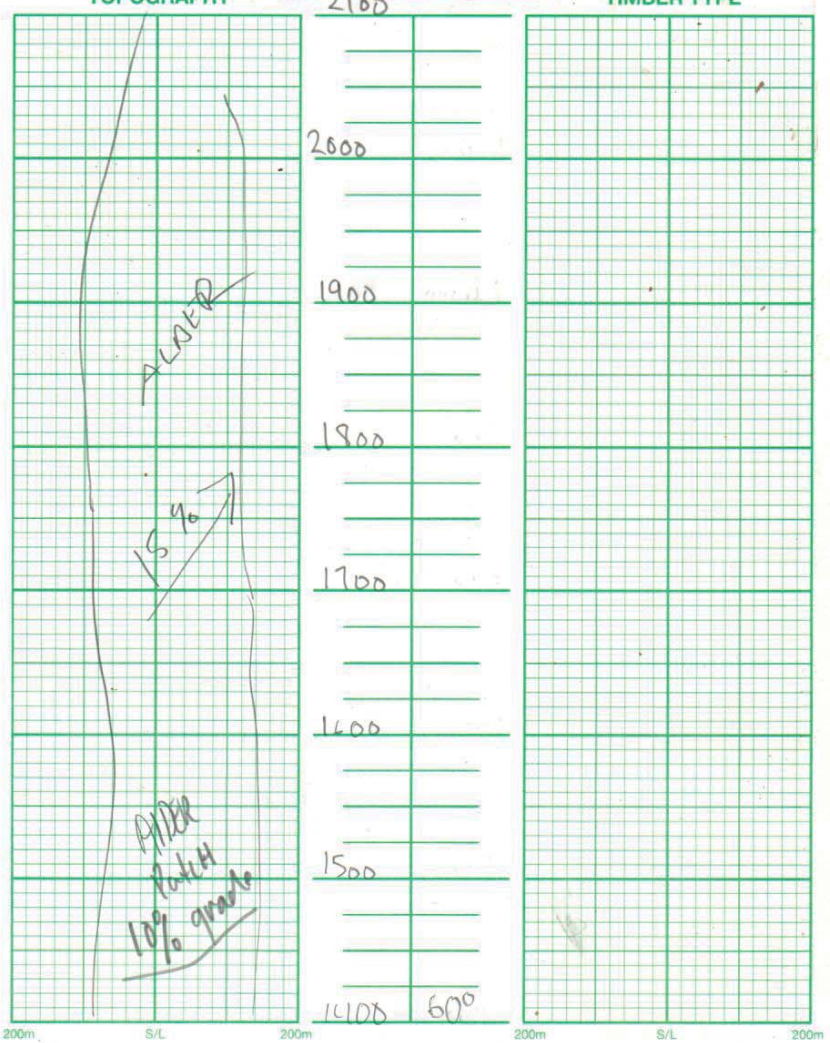
TOPOGRAPHY

STRIP No. Man-001

TIMBER TYPE



STRIP NO.: Man-001 DIRECTION: 60°

START STRIP: 1400 - 2100

JOB NO.: Seneca/walk DATE: Oct 12, 15

CREW: Pat Poirier

REMARKS: No attack

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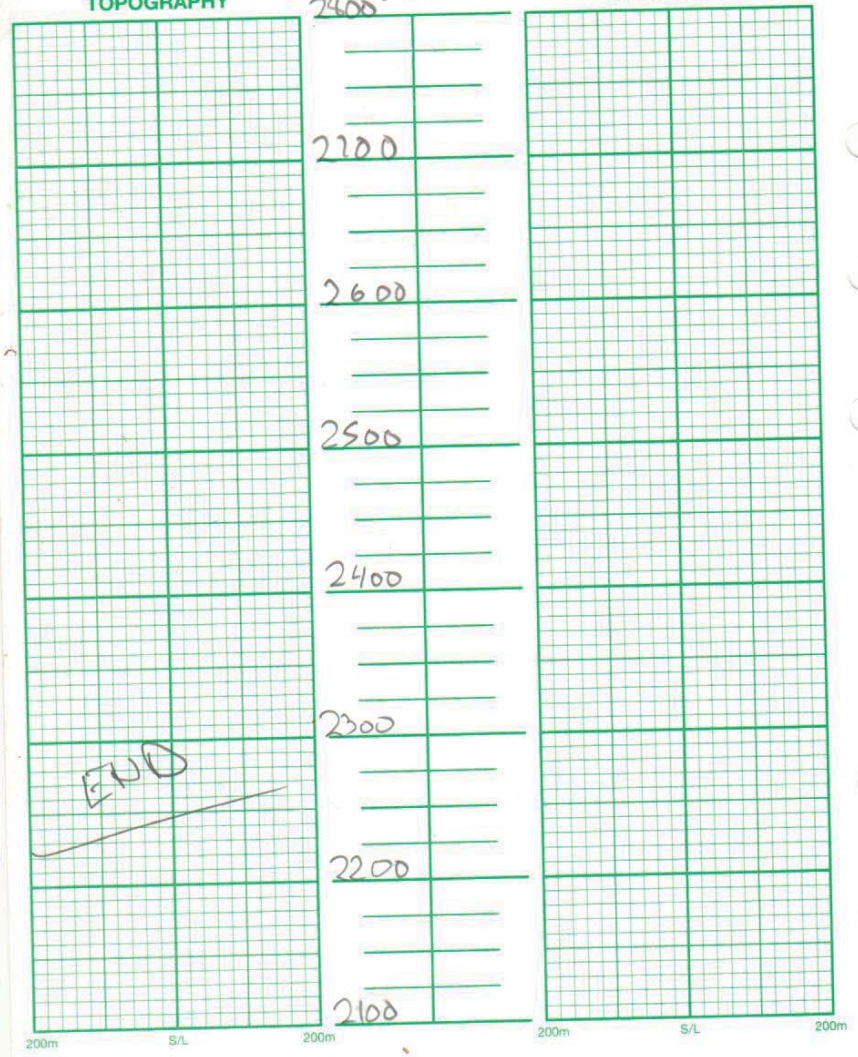
STRIP No. Man - 001

TOPOGRAPHY



TIMBER TYPE

STRIP NO.: Man - 001 **DIRECTION:**

START STRIP: 2100 - 2800

JOB NO.: Seneca/walk **DATE:** Oct 12, 15

CREW: Pat Poirier

REMARKS:

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