

**SENECA ENTERPRISES LTD.**

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**SPRUCE BARK BEETLE REPORT
FH16DMK010**POLYGON: **2015-PHI-023**

HECTARES:

205.31

WALKTHROUGH DISTANCE:

9100ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4)**6 6.6%****SUMMARY OF CURRENT INFESTATION**

Walkthrough shows 6% of infested pixels. The infested pixels were single tree attacks with low larval density. There is a recent cutblock in center of polygon and the light attack found was in the northern and southern portions of polygon.

LIGHT SCATTERED ATTACK**ACCESS**

Access off of the mainline to the south. Deactivated road towards center of polygon where new cutblock exists. (PHI022 to the south of the road)

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

Steep slopes running down to the mainline, 0-50%. Polygon areas of heavy Balsam especially in the east with larger spruce located to the south and East of Polygon along the mainline. Drainage runs in the west. Overall 25-30% Spruce

SIZE, BOUNDARY and PATTERN OF INFESTATION

Very light scattered attack where found attack in both the northern and southern tips. Light and scattered, code 1's on a 2 year life cycle.

INCIDENCE AND SEVERITY OF ATTACK

Probe lines didn't represent current attack, but intensity light and scattered, and 3 bark samples show low attack density and low mean larval density.

RISK OF BEETLE SPREAD

Polygon surrounded by older and newer cutblocks with cutblock in the center of this polygon. While there is evidence of attack (6 infested pixels) single trees in these areas and low risk of spread.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Good access off mainline (24km connector) steep slopes within polygon and some drainages. New cutblock road (Deactivated) runs through middle of polygon.

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

There is evidence of beetle on mostly a 2 year cycle and as has good access, may be best to schedule another walkthrough 2016/2017. Minimal light scattered attack, may want to make plans coinciding with adjacent PHI-022

OPTION 2**BAIT/ MONITOR**

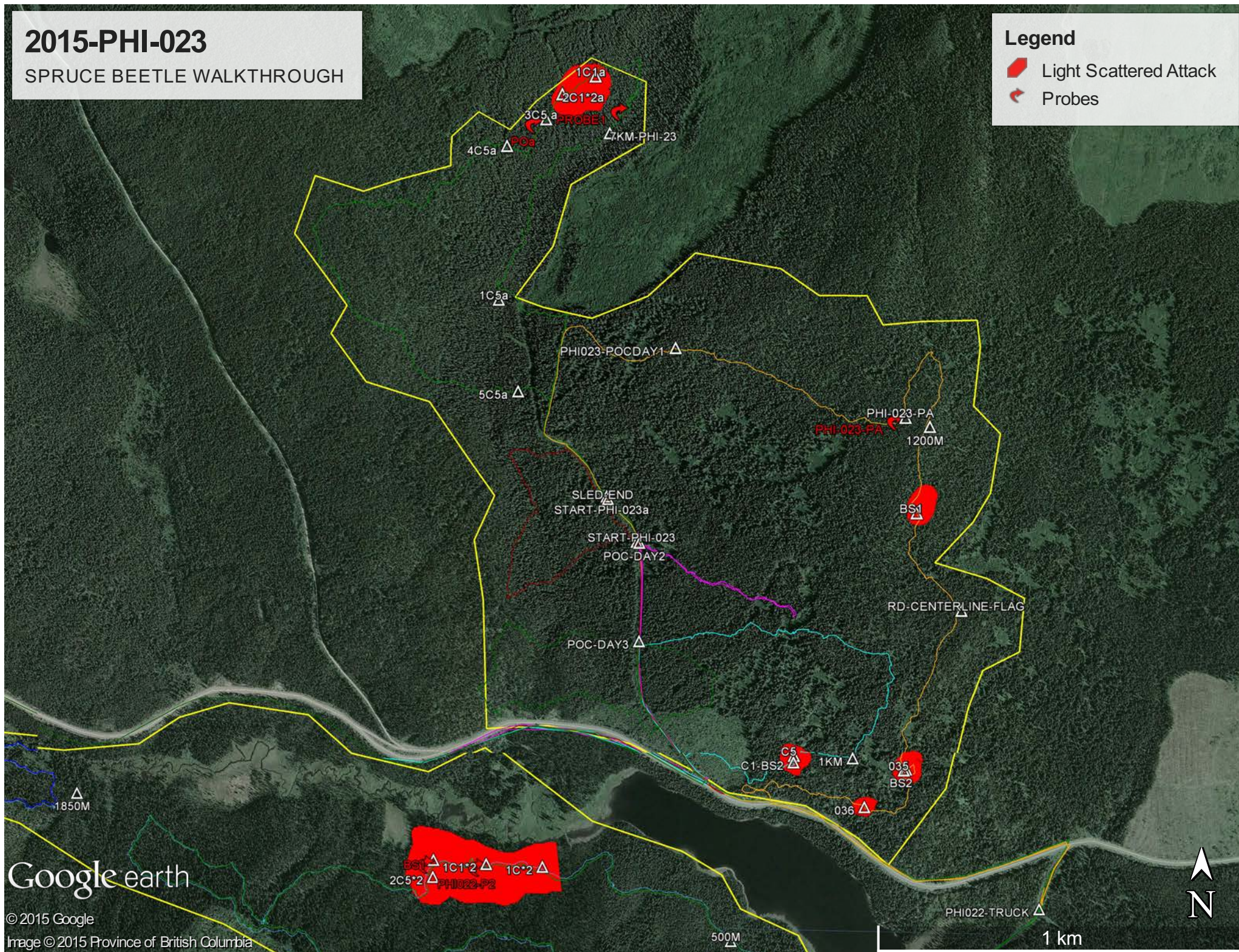
May want to setup baits 2017 in the small area where recent attack found and monitor.

2015-PHI-023

SPRUCE BEETLE WALKTHROUGH

Legend

- Light Scattered Attack
- Probes



Google earth

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DATE FROM 2 PROBE LINES AND 3 BARK SAMPLED TREES, LIGHT

Good access off mainline (24km connector) steep slopes within polygon and some drainages. New cutblock road (Deactivated) runs through middle of polygon.

SPRUCE BEETLE PROBE CARD

LOCATION PHI-023		0047276 6102888		PAGE 1	OF 1					
BEARING 150		DISTANCE 100m		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									
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		6							37	
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. GALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
	1	1	1	1	1	1	1			
COMMENTS										
CREW NAMES						DATE Y M D 15 12 12				

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



BRITISH COLUMBIA



P.A.

BEETLE PROBE CARD

LOCATION PHI-023		0472876 6102076		ELEVATION 1275	LATITUDE	PAGE	OF				
BEARING 120		STRIP LINE NO 2		STRIP WIDTH 10m	DISTANCE 100m	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		11						2		77	
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. GALLOW ADULTS	FRESH (GREEN) BLOWDOWN					
						Attacked	Unattacked				
N/A											
N/A											
COMMENTS HEAVY BALSAM. - PINK FLAG USED											
CREW NAMES						DATE Y M D 15 12 02					

FS 1111A RPG 00/02 7530881049 (100/bdl)



BARK SAMPLE 1

BEETLE PROBE CARD

LOCATION		0472408		ELEVATION	LATITUDE		PAGE		OF		
PHI-023		6101832		1220			1		2		
BEARING	STRIP LINE NO	STRIP WIDTH	DISTANCE	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											
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN					
						Attacked		Unattacked			
S		/	1	/	/						
N		/	3	/	/						
COMMENTS											
HEAVY BASAL STAND, 70% BL, 30% SX.											
CREW NAMES						DATE					
JAMES KELLY						15 12 02					

FS 1111A RPG 00/02 7530881049 (100/bd)



BARK SAMPLE 2

BEETLE PROBE CARD

LOCATION		0472847		ELEVATION	LATITUDE		PAGE		OF		
PHI-023		6101155		1130			2		2		
BEARING	STRIP LINE NO	STRIP WIDTH	DISTANCE	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											
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN					
						Attacked		Unattacked			
P	/		3								
S	/		0								
COMMENTS											
STAND IS 60% SX, 40% BL. - CLOSE TO MAINLINE - CORNER. - AVG DBH OF SX 50-55cm.											
CREW NAMES						DATE					
JAMES KELLY						15 12 02					

FS 1111A RPG 00/02 7530881049 (100/bd)



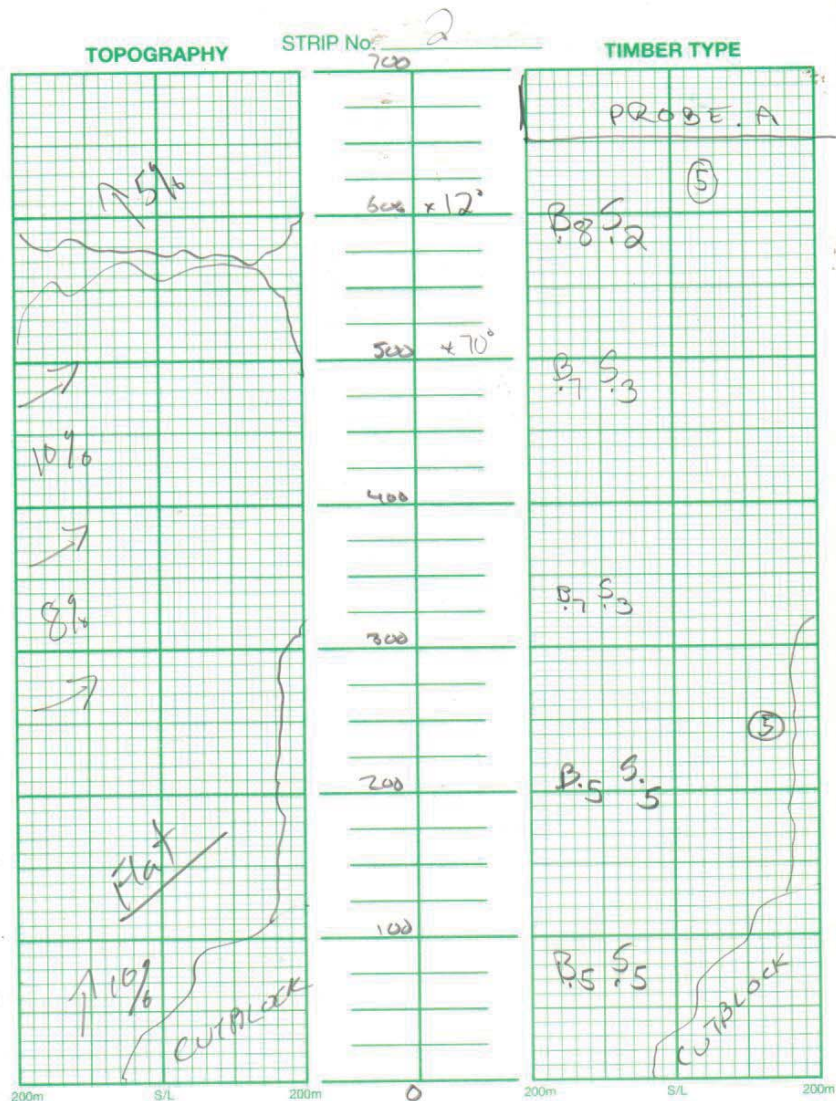
BRITISH
COLUMBIA



BEETLE PROBE CARD

BARK SAMPLE 3

LOCATION		0472605		ELEVATION	LATITUDE		PAGE	OF		
PHI-023		610468		1094						
BEARING	STRIP LINE NO	STRIP WIDTH	DISTANCE	BEETLE SPECIES						
				☐ SB ☐ MPB ☐ DFB						
DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
									MAIN	OTHER
			1	2	3	4	5	6		
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										
BARK SAMPLES 15cm x 15cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE	NO. CALLOW ADULTS	FRESH (GREEN) BLOWDOWN				
						Attacked	Unattacked			
12	2	1	3	1	1					
5	3	1	2	1	1					
COMMENTS										
- Red fading crown										
-										
CREW NAMES						DATE				
JAMES KELLY						Y M D				
						15 12 11				



STRIP NO.: 2 DIRECTION: 90°, 70°, 12°

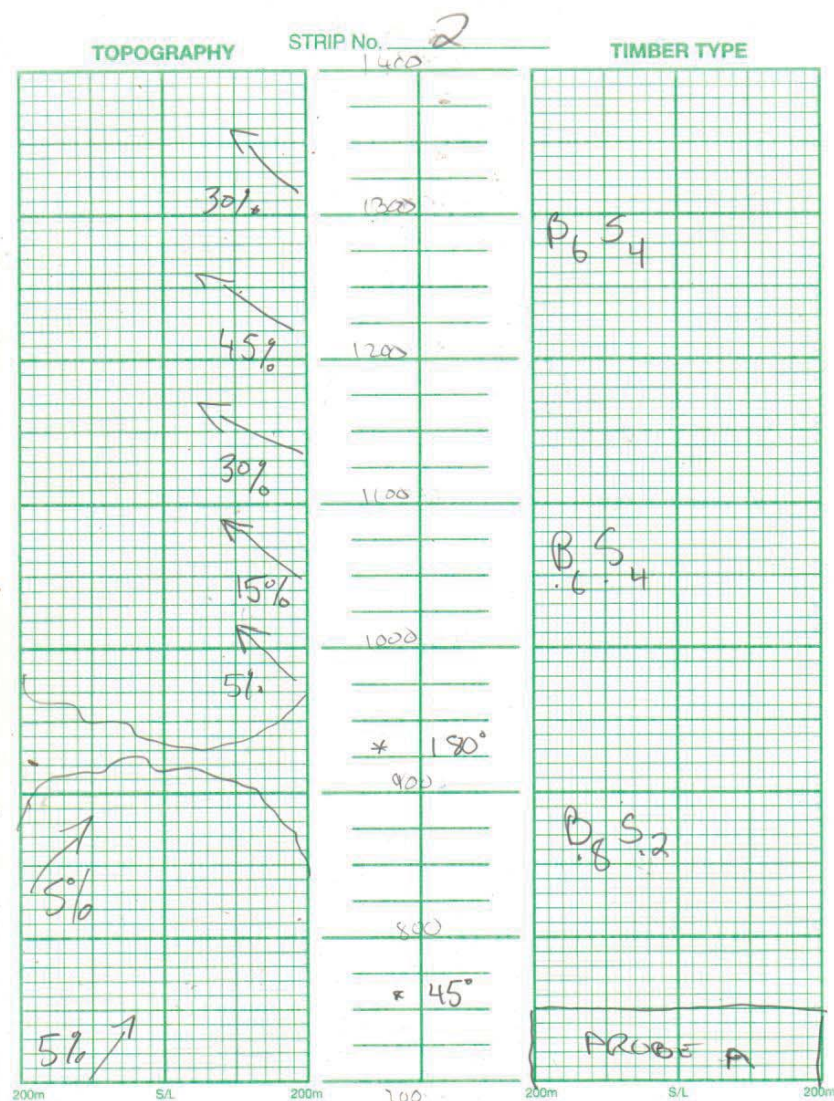
START STRIP: 0m

JOB NO.: PHI-023 DATE: DEC 2 / 2015

CREW: JAMES

REMARKS: HEAVY BALSAM

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



STRIP NO.: 2 DIRECTION: 12°, 45°, 180°

START STRIP: 700

JOB NO.: PHI-023 DATE: DEC 2 / 2015

CREW: JAMES KAHN

REMARKS:

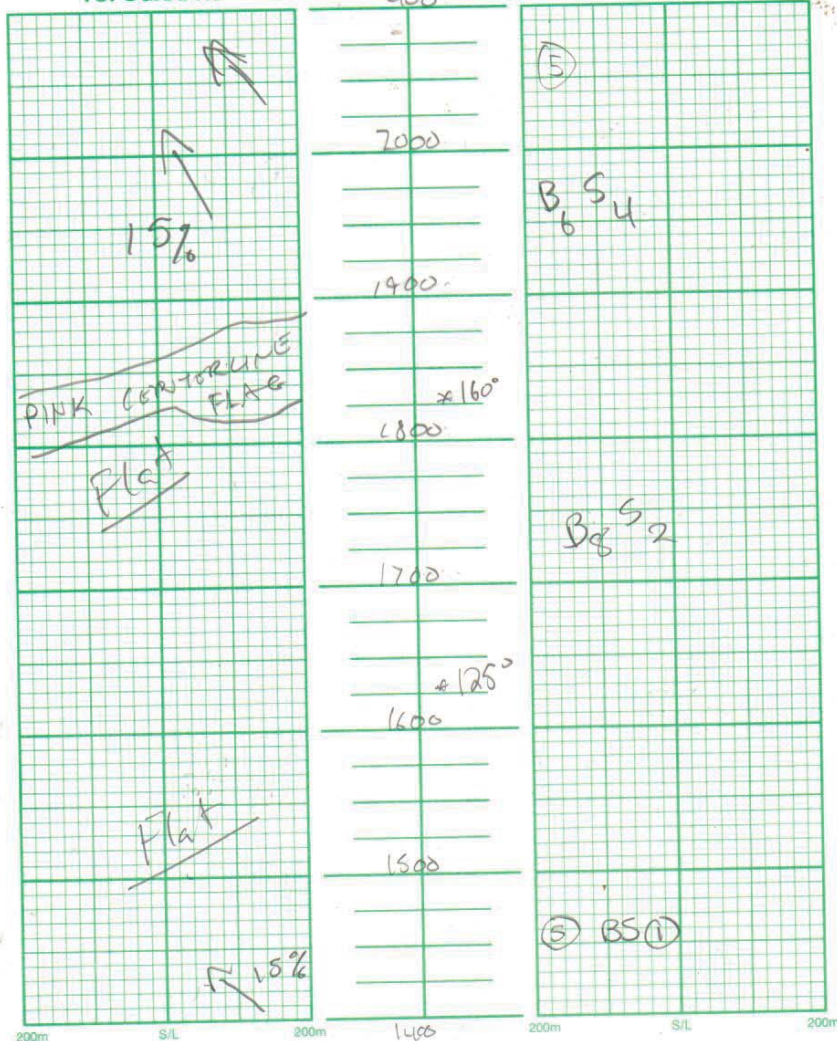
irl www.irlsupplies.com
Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. 2

200

TIMBER TYPE



STRIP NO.: 2

DIRECTION: 180°, 125°, 160°

START STRIP: 1400

JOB NO.: RH1-023

DATE: DEC 2 / 2015

CREW: JAMES KELLY

REMARKS:

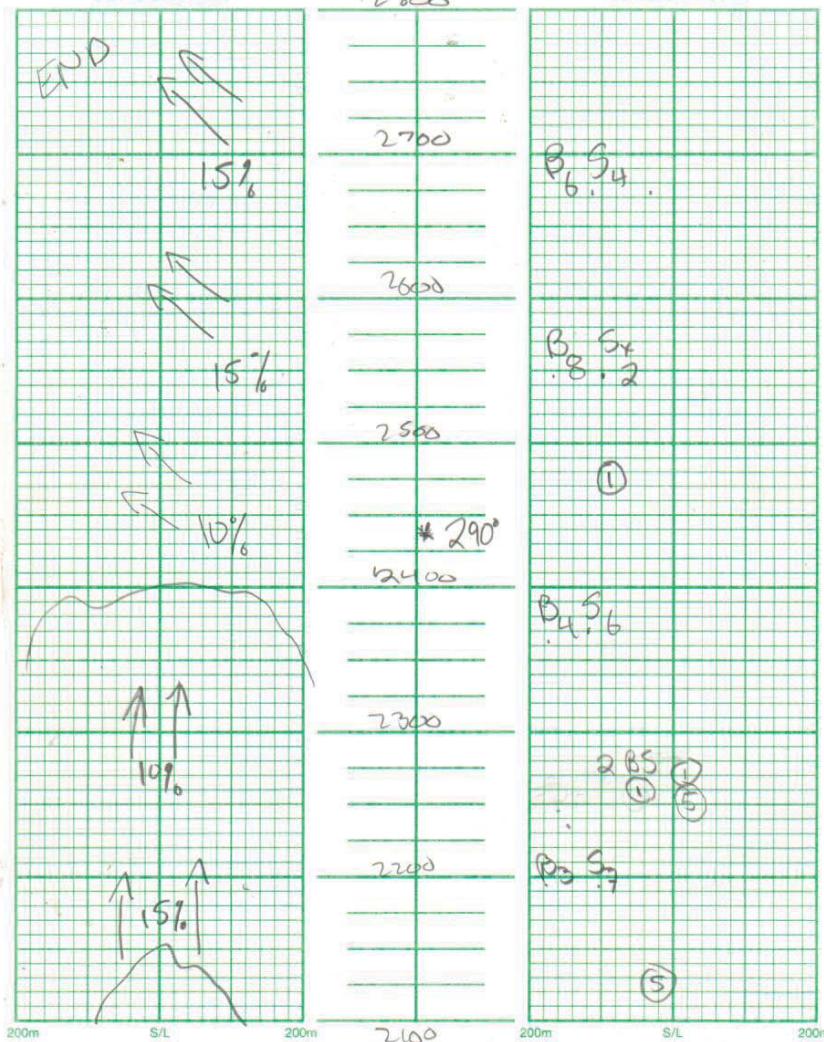
www.irisupplies.com
Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. 2

2800

TIMBER TYPE



STRIP NO.: 2

DIRECTION: 160°, 290°

START STRIP: 2100

JOB NO.: RH1-023

DATE: DEC 2 / 2015

CREW: JAMES KELLY

REMARKS:

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Ph: 1-800-663-6843

STRIP NO.: 1 DIRECTION: 276, 040, 300
START STRIP: 0-700
JOB NO.: PH 1-023 DATE: Dec 2, 15
CREW: Pat
REMARKS:

 www.irisupplies.com
Ph: 1-800-863-6843

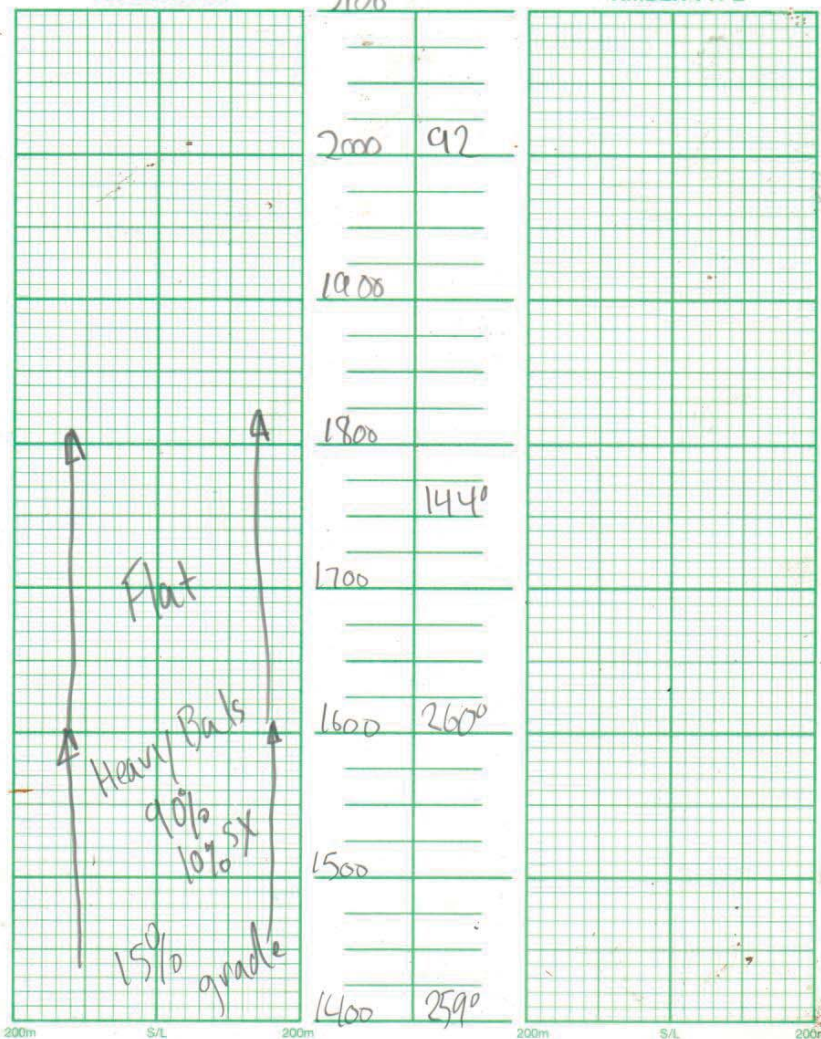
STRIP NO.: 1 DIRECTION: 300, 252°, 213°
START STRIP: 700-1400
JOB NO.: PH-023 DATE: Dec 2, 15
CREW: Pat
REMARKS:

 www.irlsupplies.com
Ph: 1-800-683-6941

TOPOGRAPHY

STRIP No. 1

TIMBER TYPE



STRIP NO.: 1

DIRECTION:

259, 260, 144, 92

START STRIP:

1400 - 2100

JOB NO.:

PHI-023

DATE:

Dec 2, 15

CREW:

REMARKS:

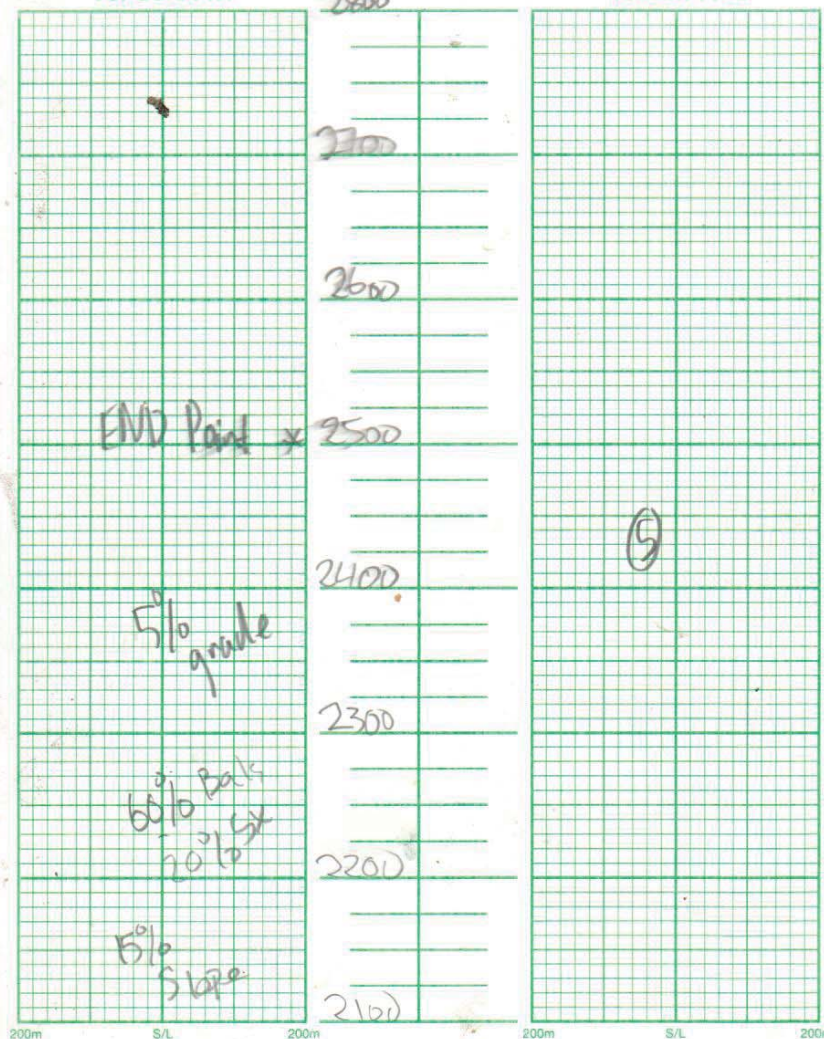


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TOPOGRAPHY

STRIP No. 1

TIMBER TYPE



STRIP NO.:

DIRECTION:

START STRIP:

JOB NO.:

DATE:

CREW:

REMARKS:

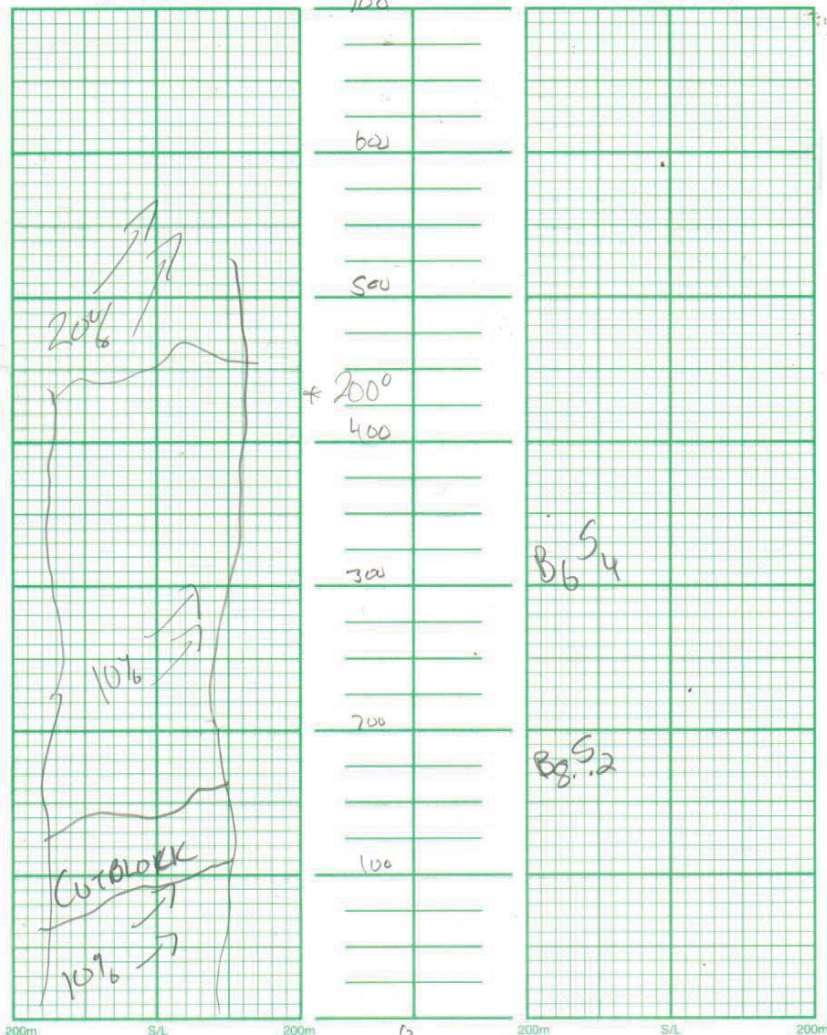


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TOPOGRAPHY

STRIP No. 3

TIMBER TYPE



STRIP NO.: 3

DIRECTION: 106°

START STRIP: 0m

JOB NO.: PH1-023

DATE: DEC 9 1205

CREW: JAMES PAT

REMARKS:

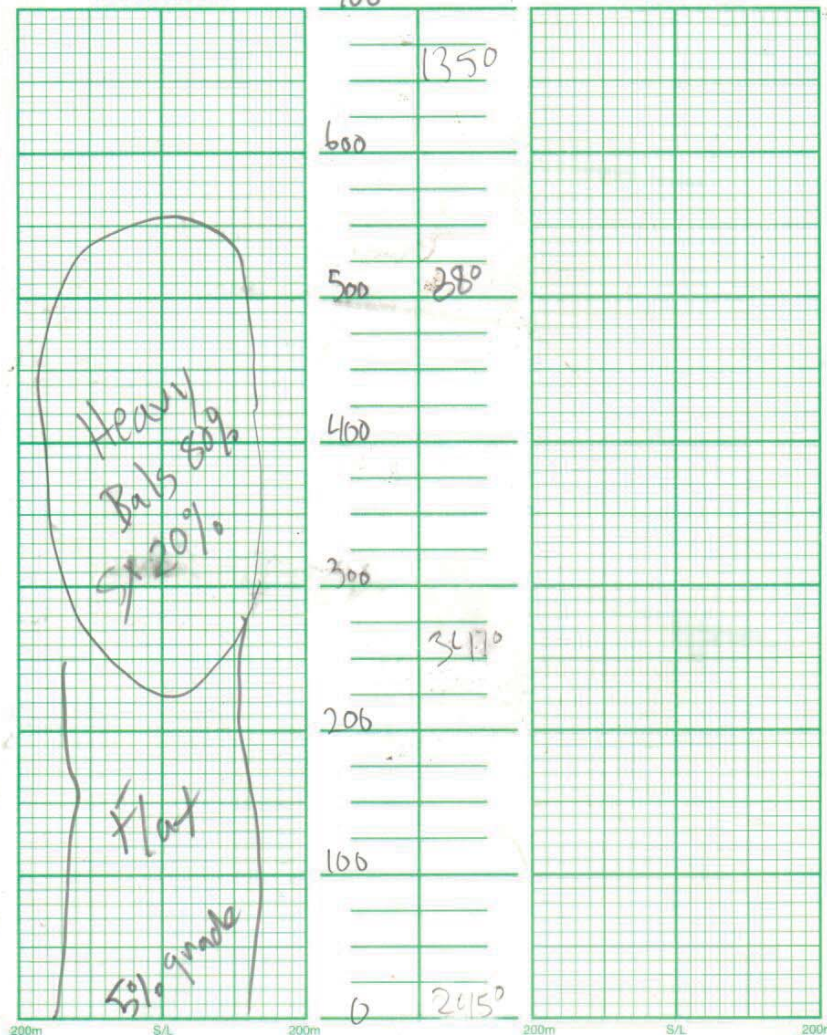


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TOPOGRAPHY

STRIP No. 2

TIMBER TYPE



STRIP NO.: 2

DIRECTION: 215, 347, 88°, 135

START STRIP: 0-700

JOB NO.: PH1-023

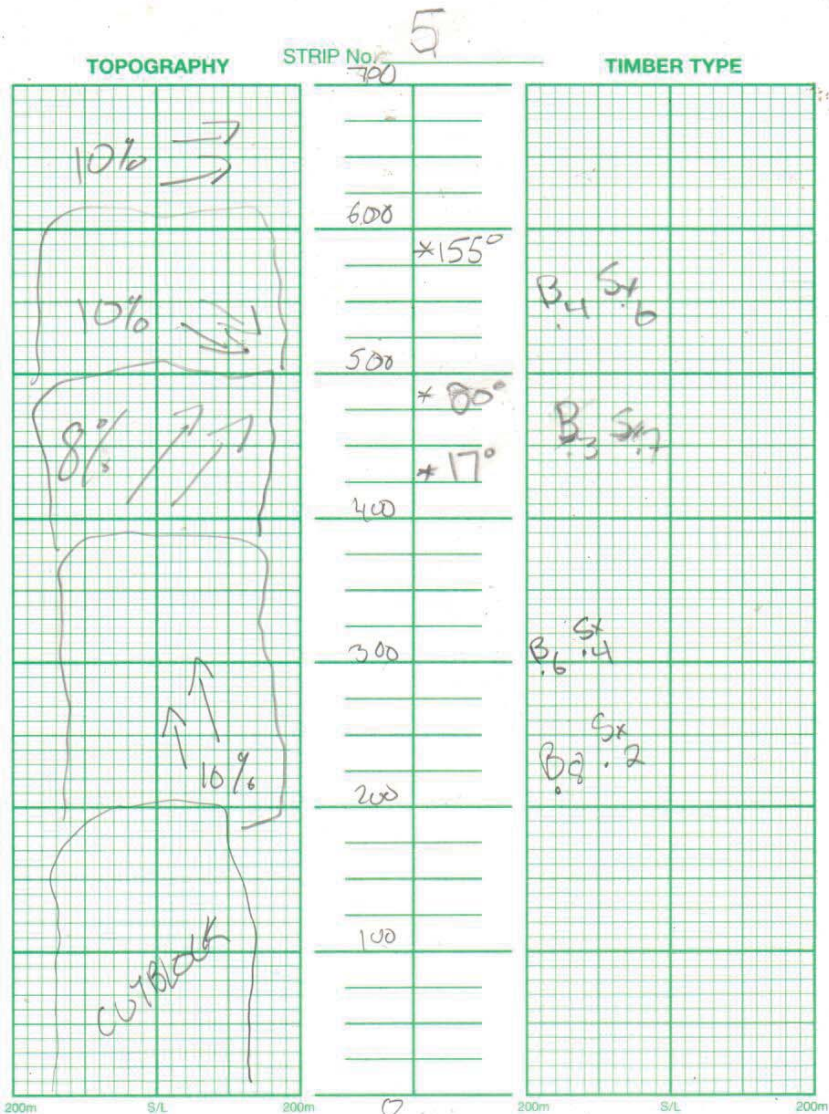
DATE: Dec 9, 15

CREW: Pat / James

REMARKS:



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Ph: 1-800-663-6843



STRIP NO.: 5

DIRECTION: 80°, 17°, 80°, 155°

START STRIP: 0

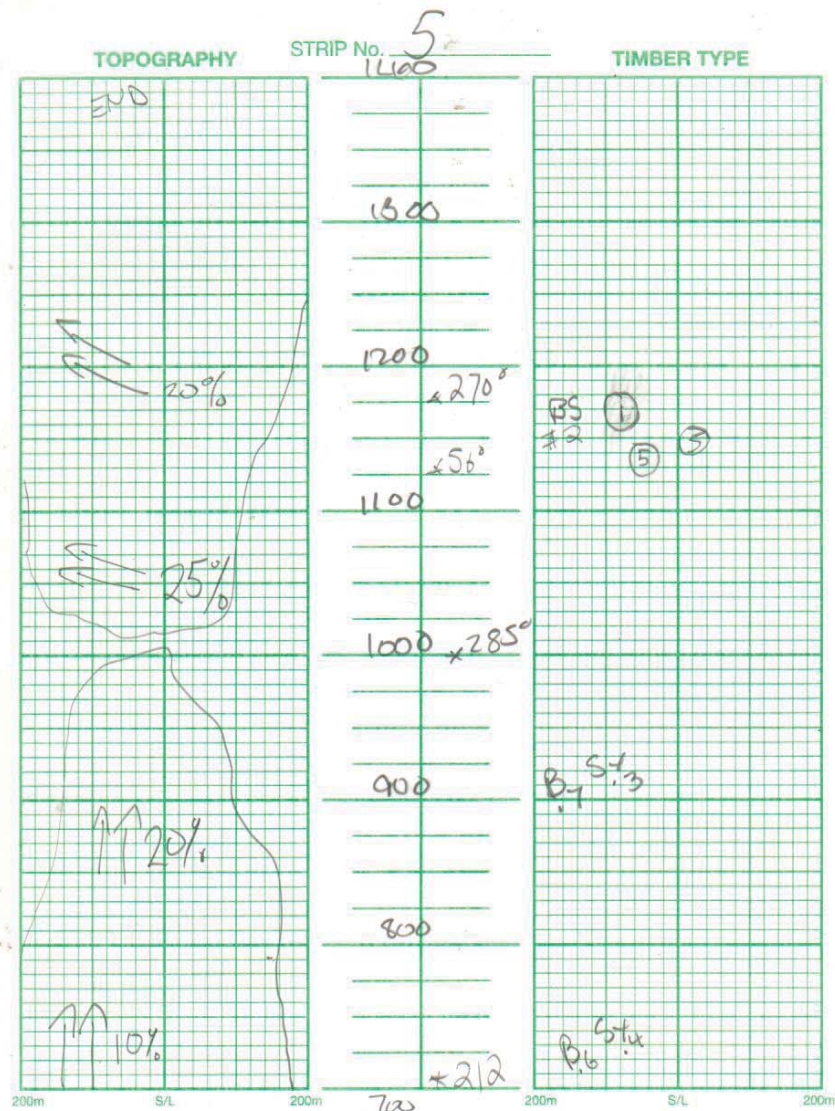
JOB NO.: PH1-023

DATE: Dec 11/2015

CREW: SAMBLES 11

REMARKS:

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STRIP NO.: 5

DIRECTION: 212°, 285°, 56°, 270°

START STRIP: 700

JOB NO.: PH1-023

DATE: Dec 11/2015

CREW: 8-times 1 PAT

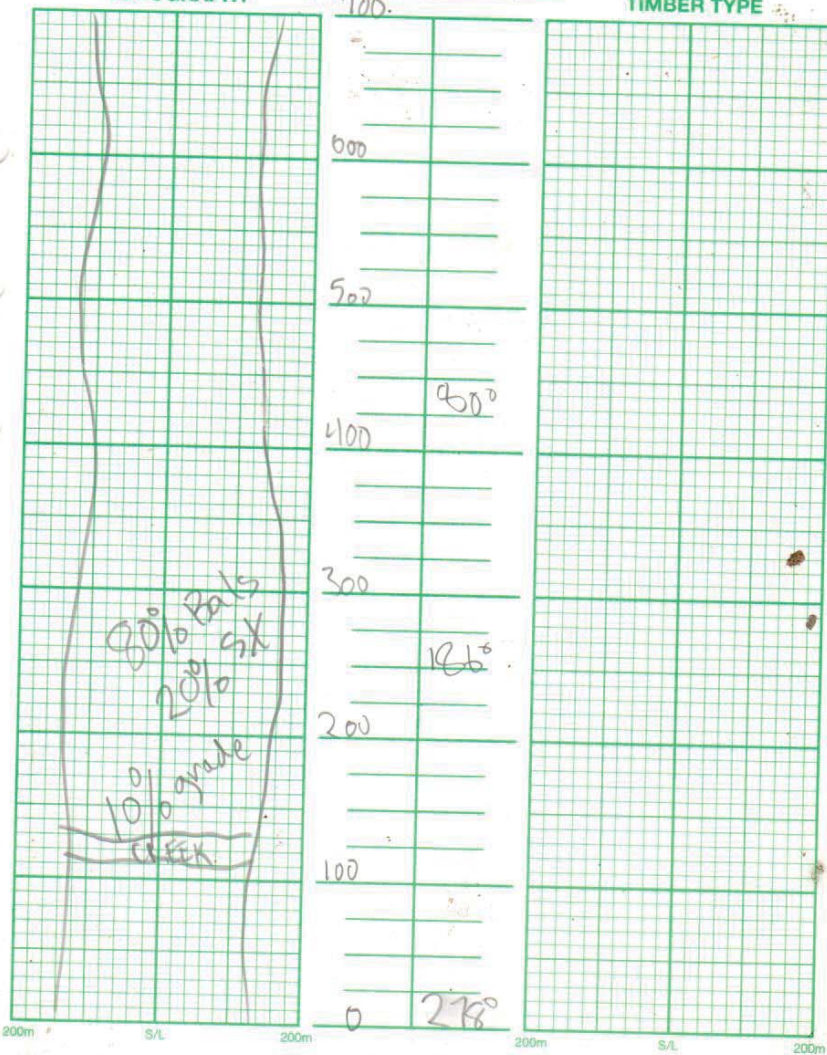
REMARKS:

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TOPOGRAPHY

STRIP No. 6

TIMBER TYPE



STRIP NO.: 6 DIRECTION: 278°, 186°, 80°
 START STRIP: 0-700
 JOB NO.: PH1-023 DATE: Dec 11, 15
 CREW: Pat / James
 REMARKS:

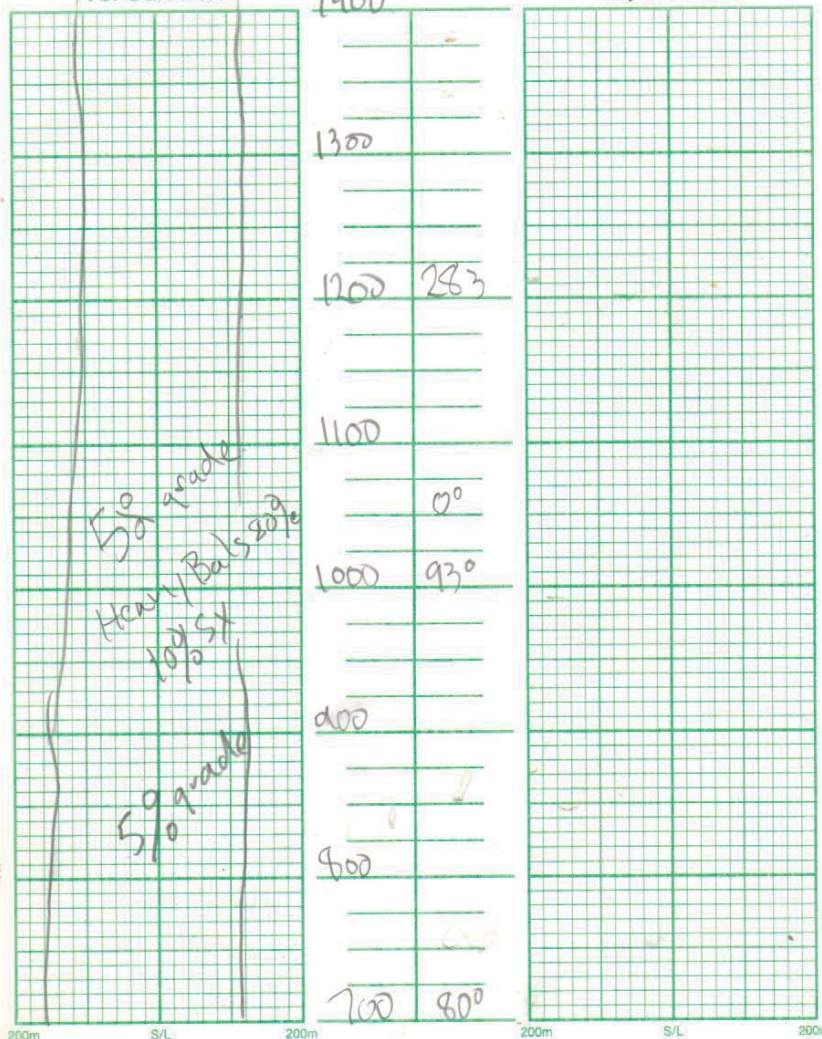


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 Ph: 1-800-663-6843

TOPOGRAPHY

STRIP No. 6

TIMBER TYPE



STRIP NO.: 6 DIRECTION: 80°, 93°, 0°, 283°
 START STRIP: 700-1400
 JOB NO.: PH1-023 DATE: Dec 11, 2015
 CREW: Pat / James
 REMARKS:



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