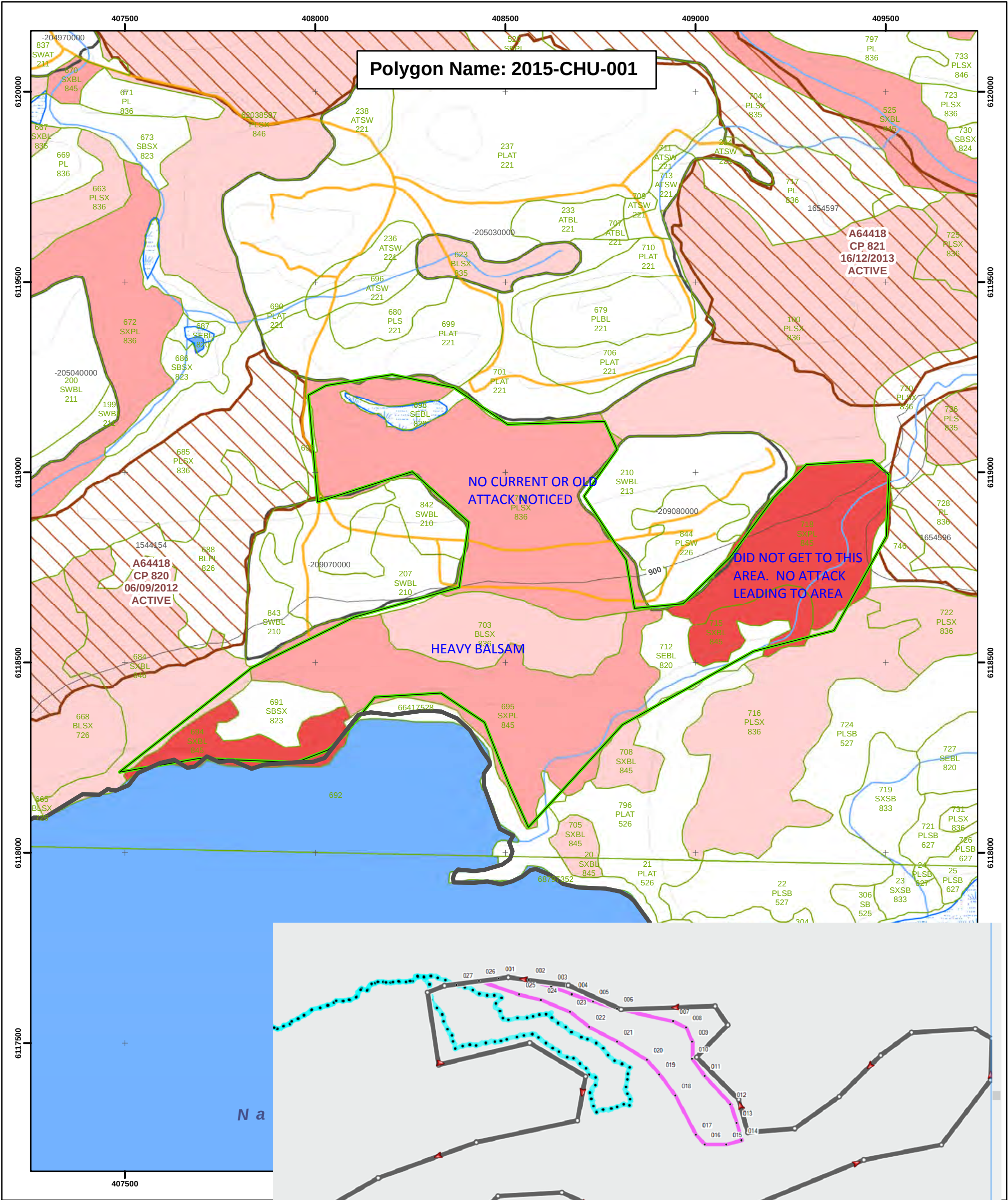
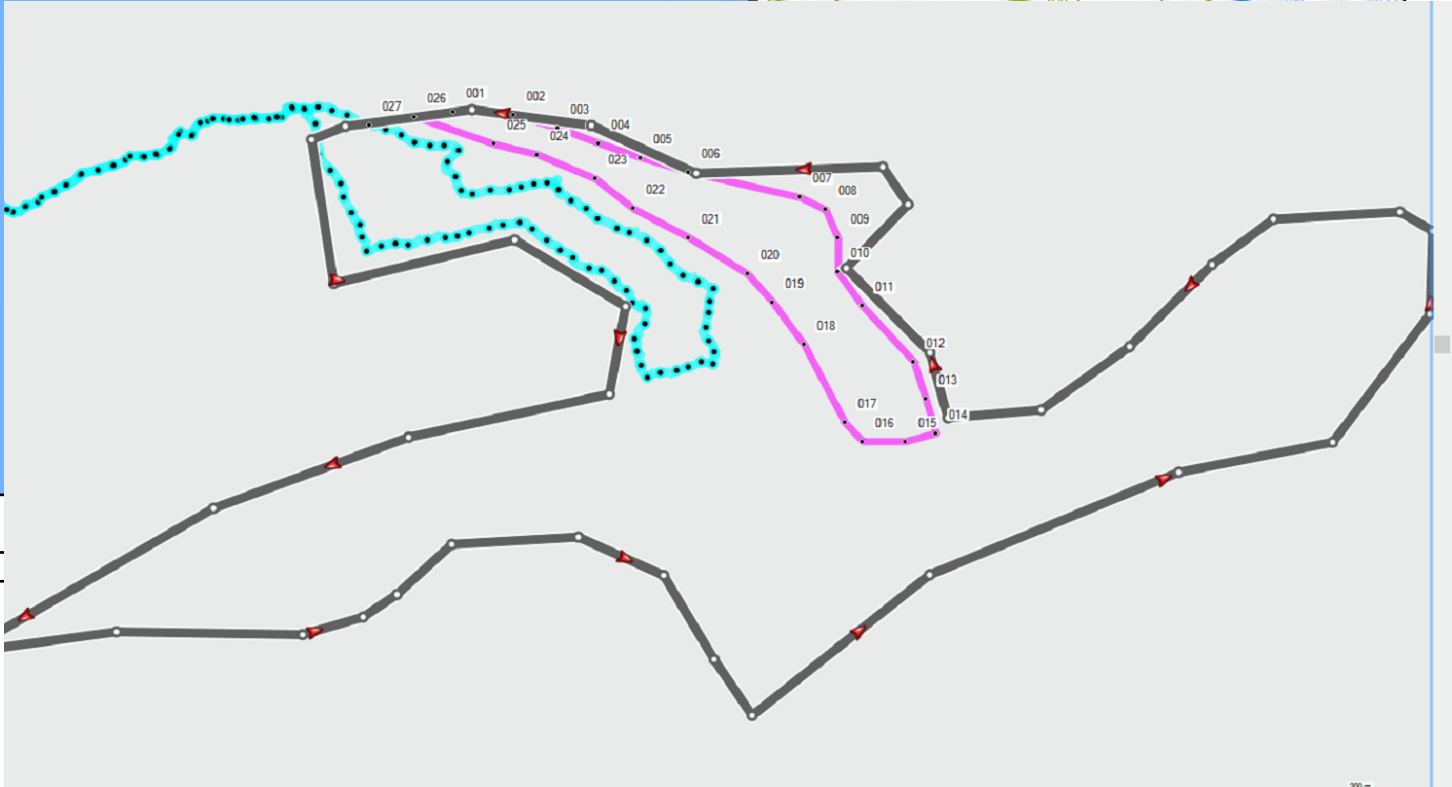






Ministry of
Forests, Lands and
Natural Resource Operations

Spruce Bark Beetle Field Map

Polygon Name: 2015-CHU-001

Landscape Unit/BMU: Chuchi

Region: Omineca

District: Mackenzie

Mapsheet: 093N01

Hectares: 89.86

Scale: 1:10,000

When plotted on 11x17

Coordinate System: NAD 1983 UTM Zone 10N

Datum: North American 1983

Date Drawn: 02/12/2015

Drawn By: msnively

Med (41-60)

High (61-80)

Very High (81-100)

Cutting Permit

RESULTS Opening

VRI Polygon

Beetle Management Unit

Natural Resource District

Road Permit Active

Road Permit Pending

Km Markers

Original winter Range

Wildlife Habitat Area

Protected Lands Designation

Ecological Reserve

Protected Area

Provincial Park

Contour - Index

Contour - Intermediate

Streams

Lakes and Rivers

Wetlands

0

0.1

0.2

0.4

Kilometers

0

5

10

20

Kilometers

0

0.1

0.2

0.4

Kilometers

0

5

10

20

Kilometers

**SENECA ENTERPRISES LTD.**

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

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

**SPRUCE BARK BEETLE REPORT
FH16DMK016,017**

POLYGON: 2015-CHU-001

HECTARES:

89.86

WALKTHROUGH DISTANCE:

3800

ESTIMATED INFESTED PIXELS FROM

WALKTHROUGH (Code 1-4)

0 0.0%

SUMMARY OF CURRENT INFESTATION

Walkthrough shows no current attack, and 2 code 5 attacked trees found in walkthrough. Average of 70% Balsam throughout area walked, did not have time due to unseasonable conditions to continue further through polygon to higher risk area in the East. From what we was seen, assume minimal attack as heavy Balsam and no real evidence of attack found.

NO ATTACKED TREES FOUND , Southern half of polygon not walked,

ACCESS

Access via difficult sled due to conditions, than walk in 1.1km to West portion of Polygon/

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

Minimal Slopes throughout, ran out of time but ran into heavy balsam in the south of polygon and southern half of polygon not examined. Appears to be mostly Balsam towards the lake.

SIZE, BOUNDARY and PATTERN OF INFESTATION

There was no current and minimal old attack found in walkthrough. Ran into heavy Balsam towards south along lines and ran out of time to continue walkthrough as difficult conditions of sledding and walking due to unseasonable warm weather

INCIDENCE AND SEVERITY OF ATTACK

No recent attacked trees found

RISK OF BEETLE SPREAD

With no attack and heavy presence of Balsam, minimal risk of spread.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Access good in the right season and walk in 1.1km to West portion of polygon.

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

No probe lines established and polygon has heavy Balsam component. Did not reach southern portion of polygon but mainly Balsam noticed through that area. That said, need to schedule walkthrough that targets higher risk area in the East CREEK DRAW

OPTION 2**NO ACTION**

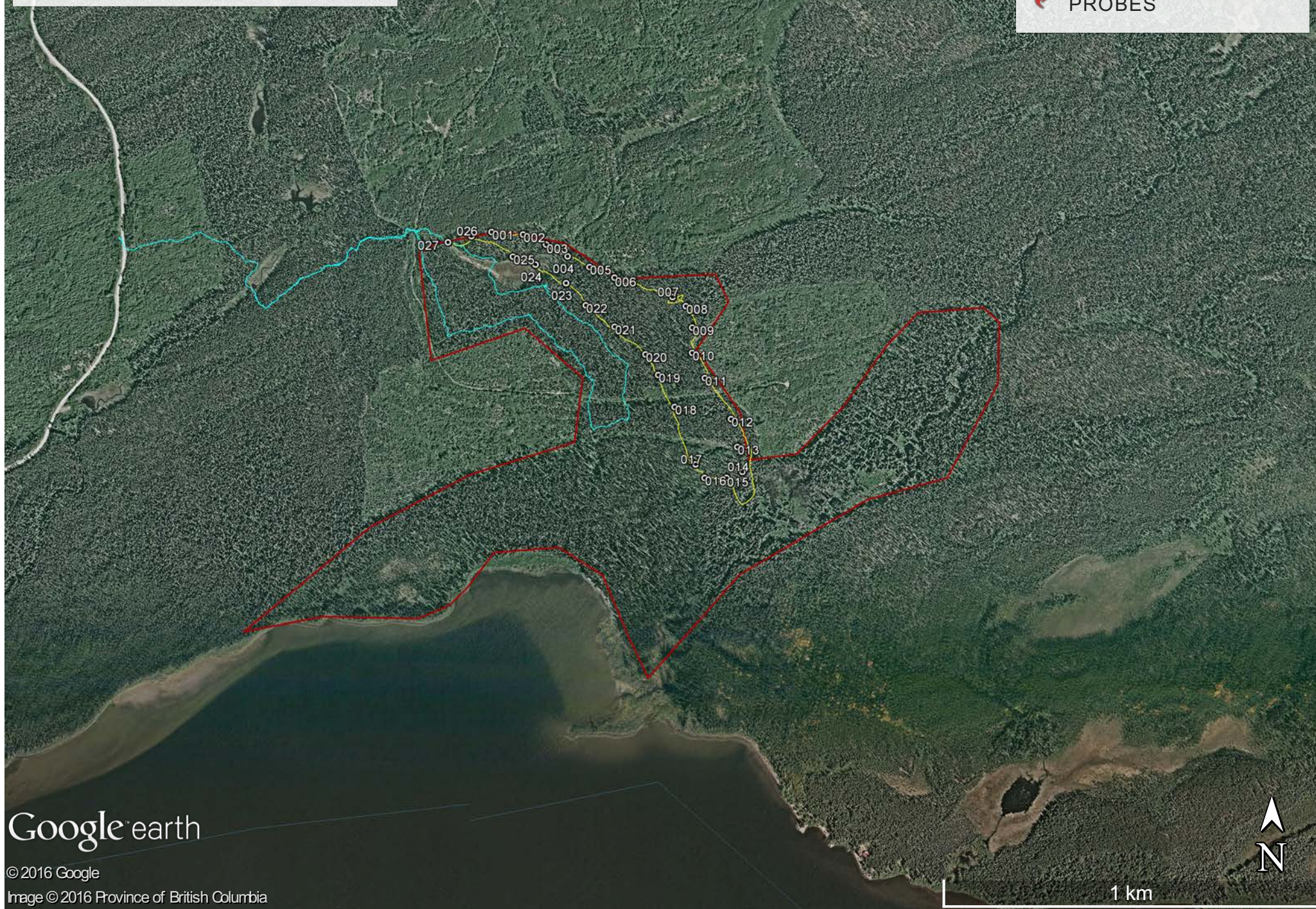
NO current attack found,

2015-CHU-001

SPRUCE BEETLE WALKTHROUGHS

Legend

-  NO CURRENT ATTACK
-  PROBES



Google earth

OF NOTE- Results taken from a 100m Probe Line established at 1 per 50 hectares to represent

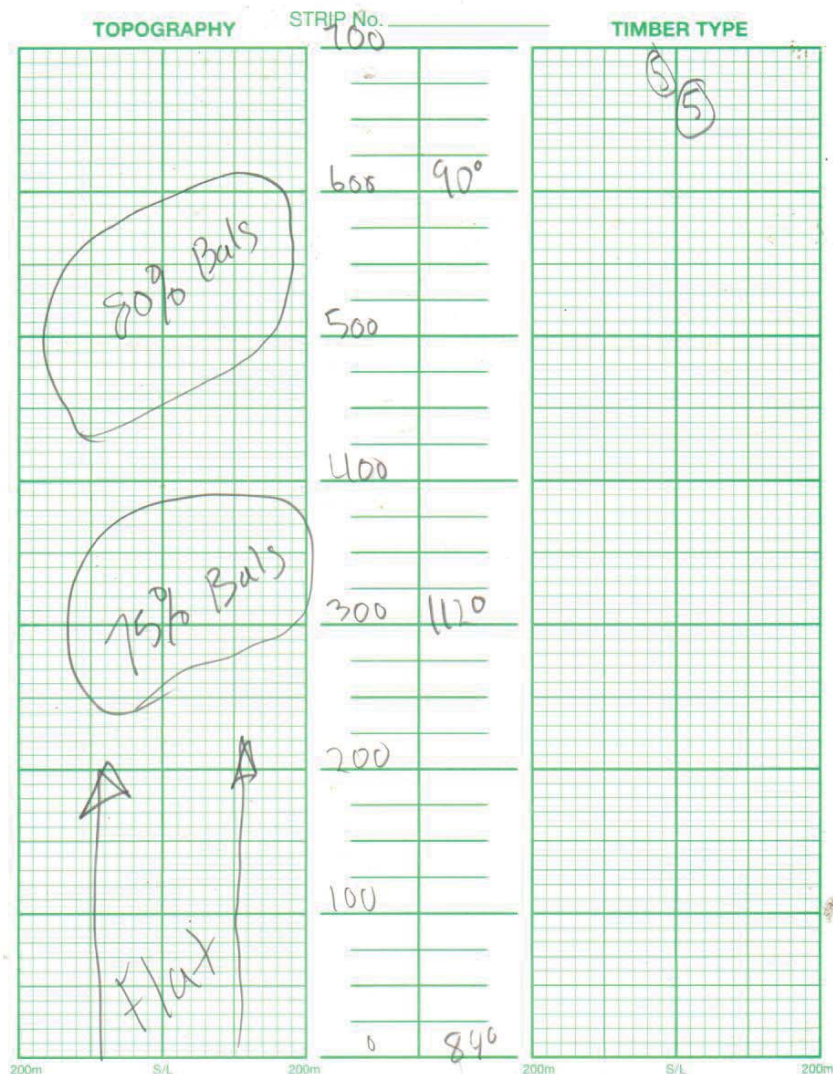
DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES
			2015		2014		2013		
			1	2	3	4	5	6	
17.5-25.0	3.3	0	0.0	0.0	0.0	0.0	0.0	0.0	0
25.1-30.0	5.3	0	0.0	0.0	0.0	0.0	0.0	0.0	0
30.1-35.0	7.1	0	0.0	0.0	0.0	0.0	0.0	0.0	0
35.1-40.0	9.4	0	0.0	0.0	0.0	0.0	0.0	0.0	0
40.1-45.0	11.6	0	0.0	0.0	0.0	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	0.0	0	0.0	0	0.0	0.0	0.0	0	0

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
0.00	< 3.9 SEVERE Attack Density	0.00	>24.9 EXTREME Mean Larval Density

TABLE 2- Spruce Beetle Management Options after Walkthrough						
% 2015 ATTACK	0.0%	0.0	SANITATION AND SALVAGE HARVEST PRIORITY RATING			
% 2014 ATTACK	0.0%	##	LIGHT	0-599	LEAVE (Monitor, Trap Trees, Baits, etc)	0.0
% 2013 ATTACK	0.0%	##	MODERATE	600-999	PROBE (To Obtain Further Info)	
% HOST IN STAND	0.0%	##	HEAVY	1000+	RECOMMEND CRUISING/ LOGGING	

NO PROBE LINES ESTABLISHED, NO RECENT and MINIMAL OLD ATTACK FOUND.

SUMMARY OF ALL CARDS FS1111						NUMBER OF CARDS		0		
ACCESS -		Access via difficult sled tdue to conditions, than walk in 1.1km to West portion of Polygon/								
POLYGON FEATURES -		Minimal Slopes throughout, ran out of time but ran into heavy balsam in the south of polygon and southern half of polygon not examined. Appears to be mostly Balsam towards the lake.								
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	0	0	0	0	0	0	0	0	0
25.1-30.0	5.3	0	0	0	0	0	0	0	0	0
30.1-35.0	7.1	0	0	0	0	0	0	0	0	0
35.1-40.0	9.4	0	0	0	0	0	0	0	0	0
40.1-45.0	11.6	0	0	0	0	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		0	0	0	0	0	0	0	0	0
BARK SAMPLES 15 cm x 15 cm	NO. ENTRANC E HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE ADULTS	NO. CALLOW	FRESH (GREEN) BLOWDOWN				
						Attacked Y r	Y r	Unattacked		
0	0	0	0	0	0	0	0	0	0	
SIZE, BOUNDARY AND PATTERN OF THE INFESTATION										
There was no current and minimal old attack found in walkthrough. Ran into heavy Balsam towards south along lines and ran out of time to continue walkthrough as difficult conditions of sledding and walking due to unseasonable warm weather										
INCIDENCE AND SEVERITY OF THE INFESTATION										
No recent attacked trees found										
RISK OF BEETLE SPREAD										
With no attack and heavy presence of Balsam, minimal risk of spread.										
ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES										
Access good in the right season and walk in 1.1km to West portion of polygon.										



STRIP NO.: 1 DIRECTION: 84°, 112°, 90°

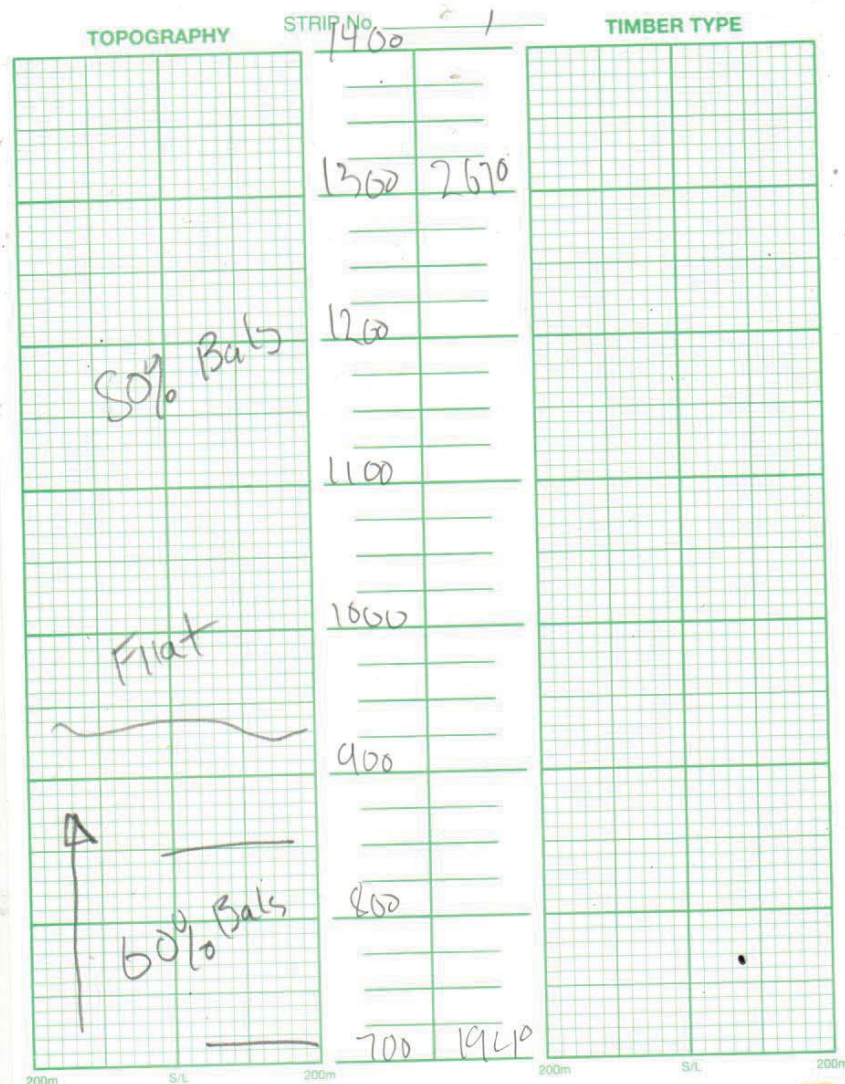
START STRIP: 0-200

JOB NO.: CHU-001 DATE: FEB 3, 16

CREW: Pat Poirier

REMARKS:

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



STRIP NO.: 1 DIRECTION:

START STRIP: 200-1400

JOB NO.: CHU-001 DATE: FEB 3, 16

CREW: Pat Poirier

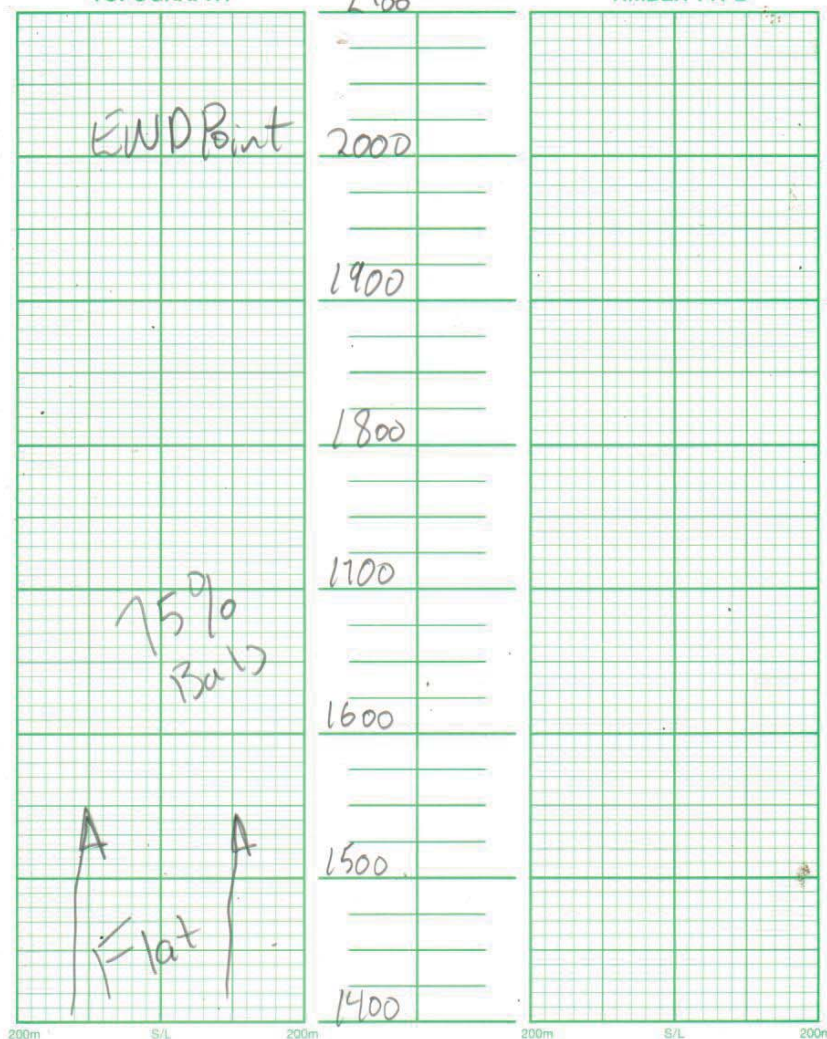
REMARKS:

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

TOPOGRAPHY

STRIP No. 1

TIMBER TYPE



STRIP NO.: 1

DIRECTION:

START STRIP:

1400 - 2000

JOB NO.:

GHU-001

DATE:

FEB 3, 16

CREW:

Pat Poivier

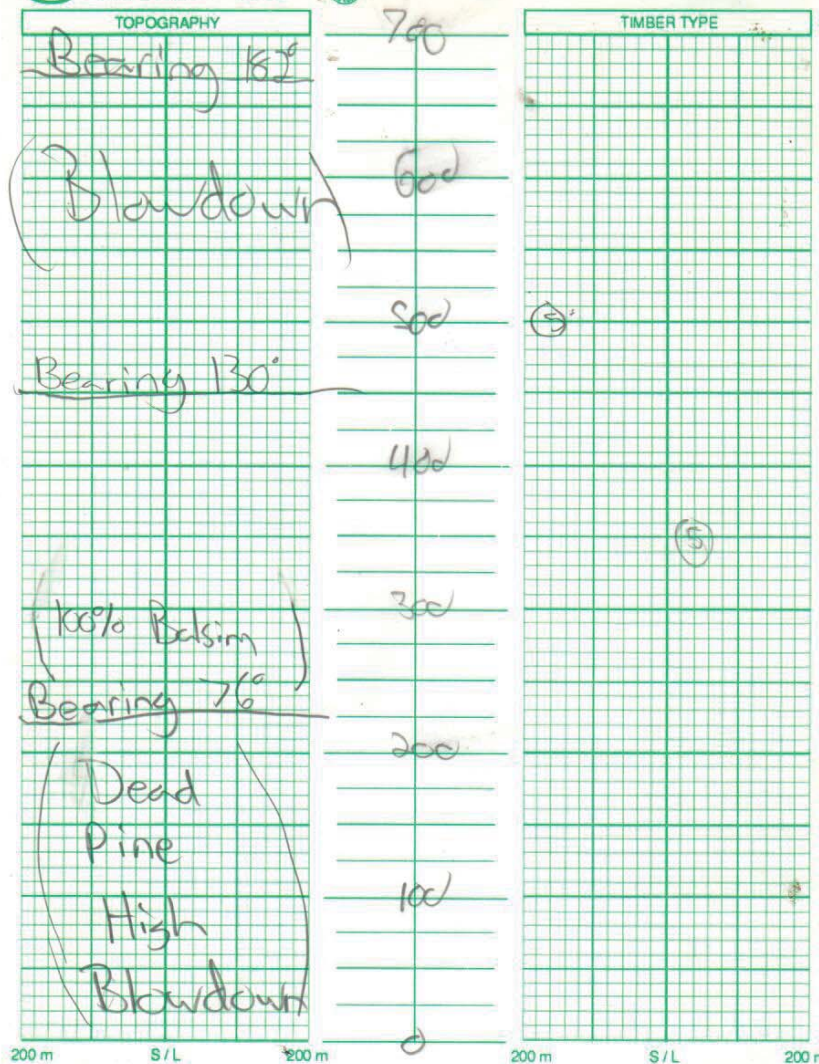
REMARKS:



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Province of
British ColumbiaMinistry of
Forests

COMPASS AND TRAVERSE



C.P. No. 1

BLOCK

DIRECTION:

164°(25%), 76°(25%), 130°(25%)

START OF STRIP

0m - 70m

JOB NO.:

GHU-001

DATE:

Feb. 3/16

CREW:

D. L. N. V.

REMARKS:

High blowdown (15% spruce, 45% Balsam, 35% dead pine, 5% other)

FS 375 HVA 92/01

Ministry of
Forests

TOPOGRAPHY		TIMBER TYPE	
		1400	
		1300	
		1200	
		1100	
		1000	
		900	
		800	
		700	

C.P. No. 2	BLOCK	
DIRECTION 182°(25m), 80°(200m), 18°(200m)	START OF STRIP 700-1406	
JOB NO. CHU-001	DATE Feb. 3/16	
CREW Dailen V		
REMARKS High Blowing (15% spruce, 45% Baking, 35% dead pine, 5% other)		

Ministry of
Forests[illegible]

C.P. No. 3	BLOCK	
DIRECTION 312° (300m) 260° (150m)	START OF STRIP 1400m - 1650m	
JOB NO. CHU-001	DATE Feb. 3/16	
CREW Dailen V		
REMARKS High Blawdown. (15% spruce, 45% Bals. m, 35% dead pine, 5% other)		