

BRITISH COLUMBIA ARCHAEOLOGICAL IMPACT ASSESSMENT INTERIM REPORT FORM



1. REPORT TITLE

2019-0140-13404	<i>Archaeological Impact Assessment of Proposed British Columbia Timber Sales Cutblock AIR20_07.</i>
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2. MANAGEMENT SUMMARY

2.1	Protected HCA Sites:	GhSg-1 (pre-1846 CMT)
2.2	Brief Overview of Study:	
	ARCHER CRM Partnership (ARCHER) conducted an archaeological impact assessment (AIA) on the subject project at the request of David Zurevinski of British Columbia Timber Sales Stuart Nechako (BCTS Stuart Nechako). An in-office review of the proposed cutblock prior to field assessment identified areas of archaeological potential (AOPs), as well as the potential for culturally modified trees (CMTs) based on the VRI data of a tree stand of sufficient age to produce pre-1846 CMTs.	
2.3	Results:	
	<p>A total of 20 subsurface tests were placed at two locations exhibiting archaeological potential. All subsurface tests returned negative results for archaeological materials. CMTs protected by the <i>Heritage Conservation Act</i> were identified.</p> <p>Four CMTs at a single location were recorded, two of which pre-date AD 1846 resulting in the identification of previously unrecorded site GhSg-1. The CMTs identified during the assessment are located outside of the proposed block boundary and are not expected to be impacted.</p>	
2.4	Management Recommendations:	
	<p>Our visual inspection and subsurface testing program of the proposed BCTS Stuart Nechako Cutblock AIR20_07 resulted in the identification of CMT site GhSg-1 outside the boundaries of the proposed project. No other archaeological or heritage remains were recorded in the course of our assessment. Site-specific recommendations are provided below, followed by general recommendations for the project.</p> <p>GhSg-1 recommendations presented in order of preference:</p> <ol style="list-style-type: none"> Avoidance. GhSg-1 is located outside the boundaries of the proposed project area as assessed and will not be impacted by logging activities. Continued avoidance is recommended by maintaining a 30 m buffer of standing trees around the boundary of the site area. Acquisition of a HCA Section 12 Permit. If avoidance is not feasible, it is recommended that the project proponent acquire a HCA Section 12 Site Alteration Permit prior to development activities in the project footprint. Issuance of this permit is warranted as information has been collected on a representative sample of CMTs found at site GhSg-1. <p>With respect to the remainder of the assessed project area, our visual and subsurface testing program did not result in the identification of additional archaeological or other cultural heritage remains. To address the prospect of unanticipated archaeological materials and/or features being discovered, it is recommended that the proponent inform its employees and contractors of this possibility. If archaeological materials or other heritage remains are uncovered during construction, work in the area of the find must immediately cease and the Archaeology Branch and/or ARCHER informed. It is recommended that the proponent also promptly inform the relevant First Nations concerning any unanticipated archaeological findings.</p>	

3. ADMINISTRATIVE INFORMATION

3.1	Permit Holder:	Frank Craig f.craig@archercrm.ca	3.2	Permit Holder Affiliation:	ARCHER CRM Partnership T: 250-567-9496
3.3	Proponent Contact:	David Zurevinski David.Zurevinski@gov.bc.ca	3.4	Proponent Affiliation:	BCTS Stuart Nechako T: 250-567-6331
3.5	Interim Report Author(s):	Marina Russell; Nicole Jackman			
3.6	Interim Report Date & Version:	August 5, 2020, V1			
3.7	Notification of Work Date:	May 11, 2020: <ul style="list-style-type: none"> • Binche Whut'en First Nation • McLeod Lake Indian Band • Nak'azdli Whut'en First Nation • Takla First Nation • Tl'azt'en First Nation • West Moberly First Nation 			
3.8	OGC Ref No.:	N/A			

4. PROPOSED DEVELOPMENT

4.1	Description:	British Columbia Timber Sales Stuart Nechako Business Area <ul style="list-style-type: none"> • Cutblock for timber harvest • Total area 109 ha
4.2	Location:	The development is located immediately south of Tchentlo Lake in the chain of the Nation Lakes, northwest of Airline Lake and northeast of Tlutsacho Lake. It is situated at NAD 83 UTM Zone 10 UTM Coordinates (approximate centre) E: 363039, N: 6116552.

5. FIELD CREW

Table 1. Field Crew

Date (dd/mm/yy)	Field Director (on site? Y/N)	Field Supervisor	Other Field Personnel
24/06/20	Marina Russell (Y)	N/A	Ashley How, Gregory Ketlo
	Laura Enns (Y)	N/A	Carling Reid, Tanner Humphreys
25/06/20	Marina Russell (Y)	N/A	Ashley How, Gregory Ketlo
	Laura Enns (Y)	N/A	Carling Reid, Tanner Humphreys

6. ARCHAEOLOGICAL METHODS & RESULTS

6.1. Pre-field Methodology

- ☒ Archaeological potential and sites are indicated on the Study Area Map
- ☐ An AOA and /or archaeological predictive model exists for the study area
Details:
- ☐ Previous field studies influenced this assessment
Details:

☒ Review of Provincial Heritage Register

Date Accessed: May 11; July 30, 2020

☒ Other

Details: Prior to fieldwork, the study area was subject to an in-office map review, this included identifying areas of archaeological potential and determining the potential presence of protected CMTs. Information used during the review included Remote Access to Archaeological Data (RAAD), orthographic photos, and records of previous archaeological assessments. Identified areas of potential which could be impacted by development activities were subject to field assessment by crew members on the ground. The terms and conditions guiding the overview and identification of archaeological potential are defined in the corresponding permit.

Table 2. Archaeological Sites in the Vicinity of the Study Area

<i>Borden No.</i>	<i>Distance & Direction from the Proposed Development</i>	<i>Site Type</i>	<i>Permit No. of Previous Visits</i>	<i>Site in Conflict (Y/N)</i>
GhSg-1	10 m north	Traditional Use – Culturally Modified Tree	2019-0140	N
GhSh-2	2447 m west	Traditional Use – Culturally Modified Tree	2007-140	N
GgSg-9	3041 m south	Cultural Depression – Cache Pit	2009-106	N
GgSg-10	3594 m southeast	Cultural Depression – Cache Pit	2009-106	N

6.2. In-field Methodology

☒ Subsurface test measurements are a minimum of 35 x 35 cm

Date Accessed: June 24 & 25, 2020

During the field assessment the study area was visually assessed by one crew with three crew members walking parallel to each other, spaced in a manner that would enable maximum coverage depending on visibility and archaeological potential of the area. Where applicable, natural and anthropogenic soil exposures (eroded banks, tree throws, etc.) in the project footprint, were visually examined for cultural remains in disturbed or secondary contexts.

The depths of the tests varied from 21 to 33 cm, at which point hard-packed glacial lacustrine sediments were encountered and the test was discontinued. All sediments from the evaluations were screened through ¼" mesh.

CMTs in or adjacent to the subject project were sought given the presence of mature forest cover. Where identified, CMTs were recorded, cored and exemplary modifications and/or scars photographed.

6.2.1	<i>Number of Crew Members:</i>	3	6.2.2	<i>Crew Spacing:</i>	10-30 m
6.2.3	<i>Other:</i>	Transects were spaced according to archaeological potential, forest/vegetation density and ground surface visibility.			

6.3. In-field Observations

Terrain through the block varies from flat and low-lying, to consistently sloping with an overall northern aspect. No well-defined landforms were noted other than breaks in slope and one short terrace. The slope along the northern boundary may represent the varying paleo-lakeshore as indicated by glacio-lacustrine sediments identified during shovel testing. The forest cover consists of a mix of spruce, sub-alpine fir and lodgepole pine. The understory includes alder, thimbleberry, Devil's club, blueberry, cranberry, black gooseberry, hellebore, rose, and various mosses.

The block was not flagged at the time of survey. No previous disturbances were noted.

6.4. Results

A total of 20 subsurface tests were completed at two test locations exhibiting archaeological potential. All subsurface tests returned negative results for archaeological materials.

CMT site GhSg-1 was identified. Stripping events at this site pre-date AD 1846.

Table 3. Assessment Results

Subsurface Test Area	Description*	Stratigraphy	Dimensions (m) (L x W)	Subsurface Tests		
				Total	Positive	Negative
TL1	A break-in-slope, possibly relict beach of Tchentlo Lake. Judgemental shovel testing was employed.	0-13 cm organics, 13-25 cm grey gravel sand, likely old lake bottom, 25-33 cm + light brown gravelly sand, possibly old lake bottom; 90% small rounded pebbles throughout	7 m x 7 m	10	0	10
TL2	A short north-facing terrace overlooking Tchentlo Lake to the north. Judgemental shovel testing was employed.	0-6 cm organics, 6-8 cm grey clay sand, 8-18 cm light brown clay sand, 18-21 cm + grey clay.	8 m x 3 m	10	0	10

7. ARCHAEOLOGICAL SITE SUMMARY

7.A	Borden No.	GhSg-1	7.A1	New/Revisited:	New Dimensions: 45 m NW-SE; 26 m NE-SW
7.A2	Site Type:		Traditional Use – Culturally Modified Tree – Bark stripped – Cambium Stripped (Lodgepole Pine)		
7.A3	Impact Assessment:		Four CMTs at a single location were recorded in detail, photographed and cored. All CMTs consist of dead lodgepole pine that were bark-stripped for cambium collection. Two of the CMTs were rotten and undatable, and two pre-date AD 1846 as per the attached CMT recording form (AD 1830). CMTs identified during the assessment are located approximately 10 m outside of the proposed block boundary and are not expected to be impacted.		
7.A4	Management Recommendations:		Avoidance. The site is located outside the boundaries of the proposed project area as assessed and will not be impacted by logging activities. Continued avoidance is recommended by maintaining a 30 m buffer of standing trees around the boundary of the site area.		

7.A5	Significance Evaluation:	<p>Scientific Significance: Low: Culturally modified trees can contribute to our understanding of past land use, travel routes, and subsistence activities in this region. However, these modifications represent the most common type of CMT recorded in this region, all are dead and decaying and a small number of CMTs are present at the site. No associated trail feature was identified. As a result, the site is given low scientific significance.</p> <p>Ethnic Significance: High: The relevant First Nations rate all archaeological sites in their traditional territories as high.</p> <p>Public Significance: Low: Site location is difficult to access and would hold little interest for the general public.</p>
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8. DISCLOSURE STATEMENT & SIGNATURE

Project footprint boundaries illustrated on the attached map(s) indicate those areas subject to the archaeological assessment described in this report, unless otherwise noted. If future or final construction and development plans differ from those presented here, the results of this assessment may not be applicable in part or in whole.

To address the prospect of unanticipated archaeological remains being discovered, it is recommended that the proponent inform its employees and contractors of this possibility. If archaeological materials or other heritage remains are uncovered during construction, work in the area of the find must immediately cease and the Archaeology Branch and/or ARCHER informed. It is recommended that the proponent also promptly inform the relevant First Nations concerning any unanticipated archaeological findings.

It was not the intent of this study to identify, evaluate, or comment on the presence or absence of Aboriginal Rights in the study area. Completion of this study does not "abrogate or derogate from aboriginal treaty rights" (Heritage Conservation Act Sec. 8). The study was conducted without prejudice to First Nations Treaty Negotiations, aboriginal rights or aboriginal title.

It is my opinion that the reported fieldwork and this corresponding report were completed in agreement with the requirements of the relevant Heritage Inspection Permit issued by the Archaeology Branch. I concur that the above information is true given available information.

Sincerely,

ORIGINAL DOCUMENT SIGNED

Nicole Jackman, M.A., RPCA
Field Director, on behalf of,

Frank Craig, B.A., RPCA
Permit holder

9. REFERENCES CITED

Subject Report Citation: Subject Report Citation:

ARCHER CRM Partnership

2020 Archaeological Impact Assessment of Proposed British Columbia Timber Sales Cutblock AIR20_07. HCA Permit 2019-0140. ARCHER CRM Partnership file #13404, Submitted to British Columbia Timber Sales. Copies on file at the Archaeology Branch, Victoria, BC.

10. REPORT DISTRIBUTION

Contact	Affiliation
David Zurevinski 250-567-6331 David.Zurevinski@gov.bc.ca	British Columbia Timber Sales Stuart Nechako 15560 BC-16, Vanderhoof, BC, V0J 3A0
Damian Hind 250-953-3334 Damian.Hind@gov.bc.ca	Archaeology Branch 1250 Quadra St, Victoria, BC V8W 2K7

11. SHAPE FILES

- ☒ Study area shape files have been sent to archsiteform@gov.bc.ca Study area shapefiles will be submitted on the anniversary date of the Permit.

12. APPENDICES

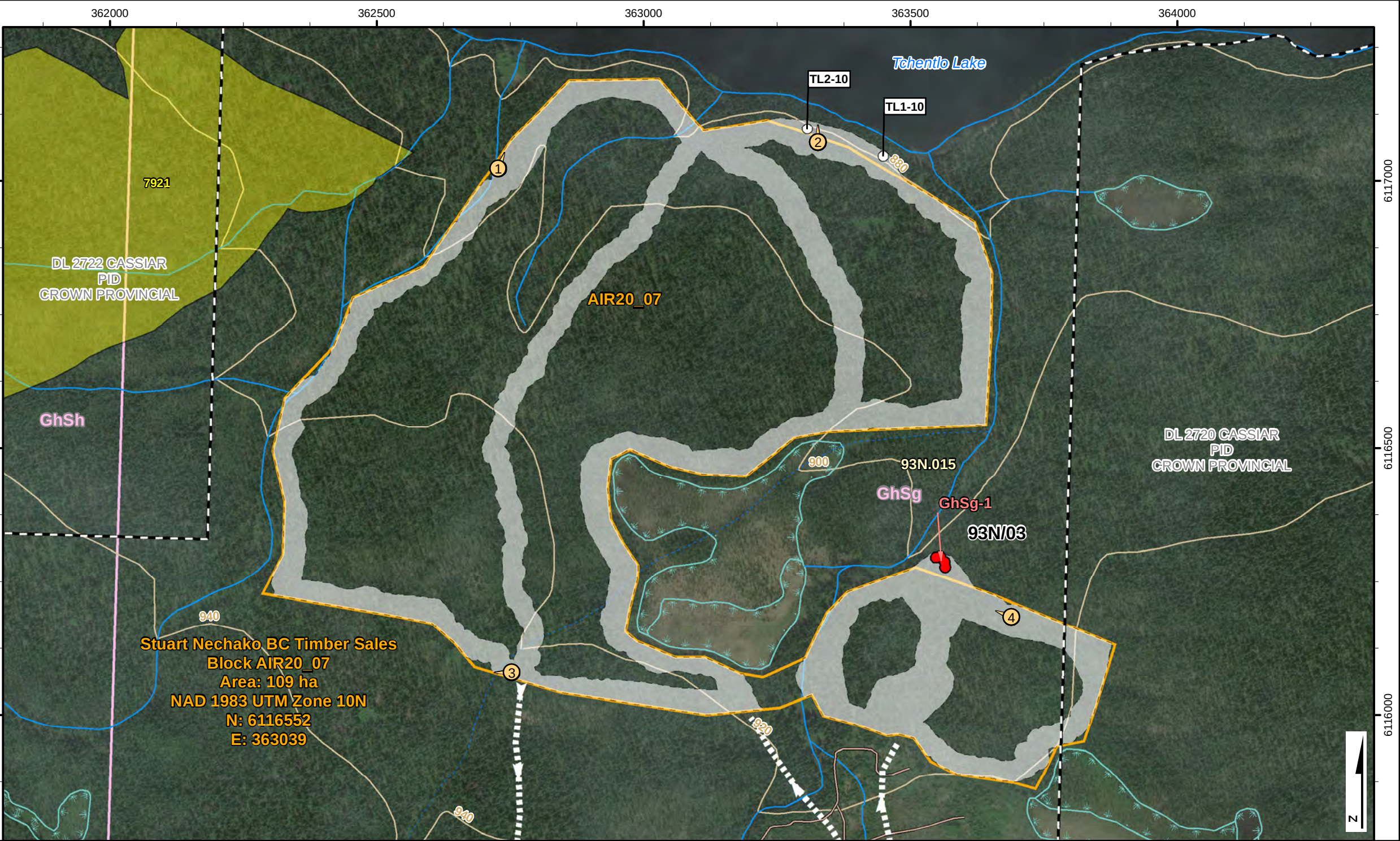
Required:

- ☒ General Area Map (Figure 1)
- ☒ Study Area Map (Figure 1)
- ☒ Photo Plate(s) (Figure 3)

If Applicable:

- ☒ Detailed Development Map (Figure 1)
- ☐ Subsurface Test Log
- ☒ Site Forms, Site Maps and Related Documents (Figure 2 & 3, Appendix A)
- ☐ Other Details:

13. APPENDIX A Site forms and related documents





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Archaeological Impact Assessment

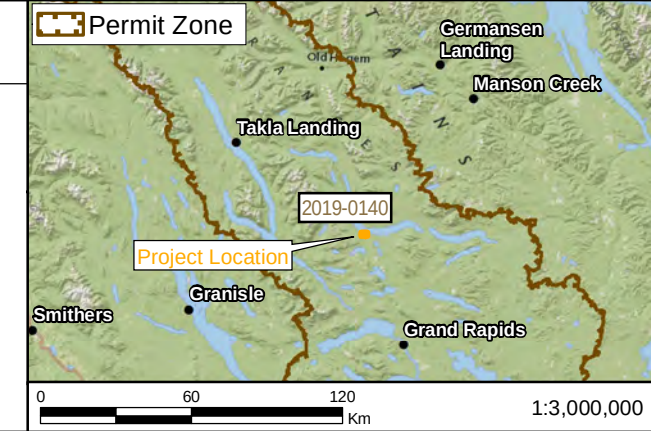
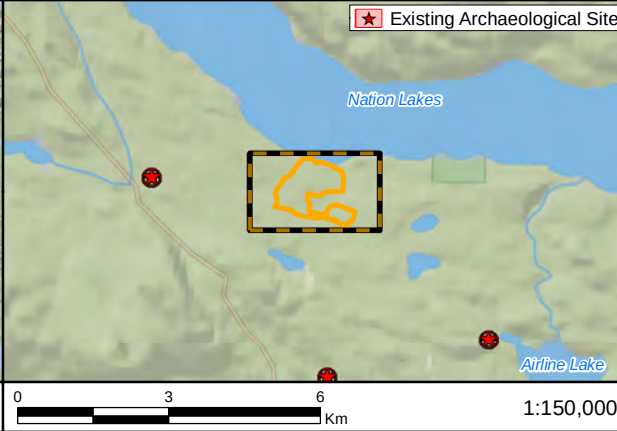
Stuart Nechako BC Timber Sales

Block AIR20_07

Detailed Results Map

Figure: 1

Page: 8

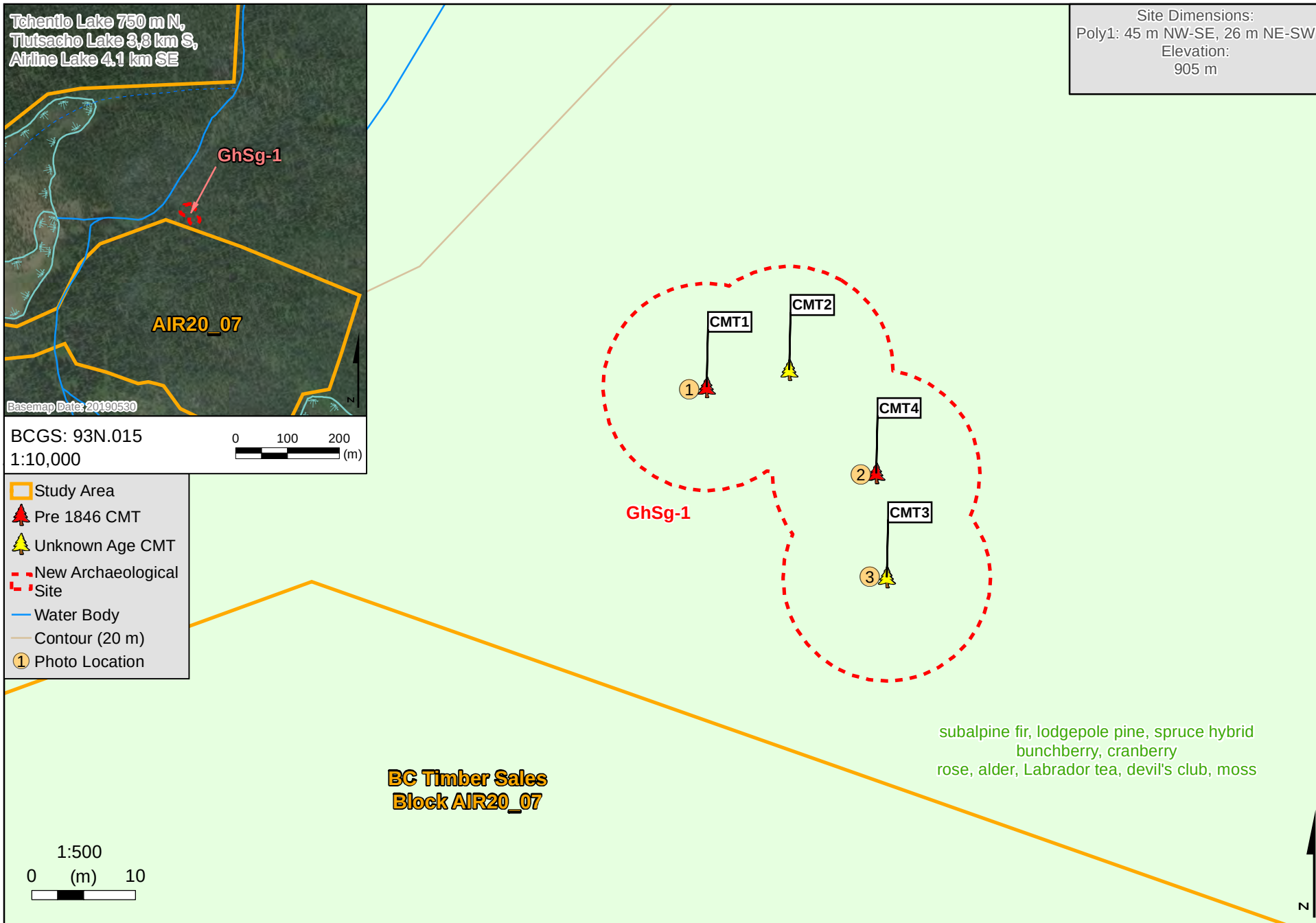


- Subsurface Testing
- New Archaeological Site
- ▭ Land Parcel
- ▭ Archer Survey
- ▭ Archer Access
- ▭ Study Area
- ▭ Prior Archer Project (Fieldwork)
- ▭ Road Gravel
- ▭ Water Body
- ▭ Intermittant Water Body
- ▭ Wetland
- ▭ Contour (20 m)
- ① Photo Location
- ▭ BCGS Mapsheet
- ▭ Borden Grid (archaeology)
- ▭ NTS Mapsheet

Archer Project:	13404
Proponent:	SNBCTS
HCA Permit:	2019-0140 (Sec. 12.2)
OGC AMS AA#:	N/A
Surveyor's File:	N/A
This drawing has been prepared for the use of ARCHER CRM Partnership's client and may not be used, reproduced or relied upon by third parties, except as agreed by ARCHER and its client, as required by law or for use by governmental reviewing agencies. ARCHER accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without ARCHER's express written consent.	
0 80 160 320 Meters 1:8,000	
Version	Detail
0	Original

NAD 1983 UTM Zone 10N; Meters

DRM - o.leblanc - 06-Aug-2020



Site Dimensions:
Poly1: 45 m NW-SE, 26 m NE-SW
Elevation:
905 m

ARCHER	Figure No.	Archaeological Site #'s: Temp/Borden	HCA Permit	Project no.	Fieldwork Date of Completion	Datum Point (CMT 1) NAD 1983 UTM Zone 10N	9
	2	GhSg-13404-T1/GhSg-1	2019-0140	13404	25/06/2020	E: 363547, N: 6116295	



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① CMT 1



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② CMT 4



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③ CMT 3

See detailed sitemap for photo locations.

	Figure #: 3	Archaeological Site GhSg-13404-T1/GhSg-1 Photos	HCA Permit #: 2019-0140	Fieldwork Date of Completion 25/06/2020	10
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Site #:	GhSg-1 (GhSg-13404-t1)				Development:	Stuart-Nechako BCTS AIR20-07						Date:	25-Jun-20					Recorders:					MR, AH, GK	
CMT #	Species	Alive ?	Type	No. Scars	Scar No.	Scar Morph (W, OT, H)	SDE (°)	SLP (°)	SLP DIR	DBH (cm)	HAG	LEN	WID	DEP	Scar Shape	Top Shape	Cut Mark	Basal "V"	Cut Branch	Chop	Core Y/N	Core Hgt	Photo	Comments
1	PI	D	BS	1	1	OT	65	3	S	47	26	120	8	16	L	AR	N	N	N	N	Y	100	5193	1830 AD
2	PI	D	BS	1	1	OT	42	1	S	45	21	46	5	11	L	T	N	N	N	N	rotten	n/a	n/a	n/a
3	PI	D	BS	1	1	OT	42	2	S	30	30	74	9	6	L	AR	N	N	N	N	rotten	n/a	5203	n/a
4	PI	D	BS	1	1	OT	60	2	S	47	0	127	10	11	R	I	N	N	N	N	Y	109	5204	1830 AD

Legend

All dimensions measured in centimeters (CM)

SP (Species): PL (lodgepole pine), At (Aspen), E (Birch), Pa (Whitebark pine), Py (Yellow pine), S (Spruce)

A/D: A (alive) or D (dead)

Type (Site type descriptor): T (Tapered), R (Rectangular), G (Girdled), O (Other), CS (Cambium stripped)

Scar Morph: W (Window), OT (Open Top), H (Healed)

SDE (Side of tree): measured in degrees

SLP (Slope): Slope of terrain in degrees

SLP DIR: Direction of slope

Scar shape: R (Rectangular), C (Columnar), G (Girdled), IT (Inverted triangle), T (Triangle), L (lenticular), H (Healed), BD/BO (Blaze - Diamond or Oval), IR (Irregular)

Top Shape: (S) Square, C (Round), X (X-cut), MX (Multi-X cut), SL/SR (Stepped - Left or Right), AL/AR (Angled - Left or Right), T (Tapered), IR (Irregular)

Cutmark: Y (yes), N (no)

Basal V: Y (yes), N (no) **Cut branch:** Y (yes), N (no) **Chop:** Y (yes), N (no) **Core:** Y (yes), N (no)

Core Hgt/Rotten: Height of core in cm, or R (Rotten)



British Columbia Site Inventory Form

Borden Number: GhSg-1

Protected by Legislation: YES

Identification:

Temporary Number	Site Name	Assigned By	Date Assigned
GhSg-13404-T1		Russell, Marina	25/Jun/2020

Map Reference:

GIS Populated					Historic Source				
Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone	Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
55 10'28"	-125 8'33"	363557	6116289	10			363547	6116295	10
Map Sheet									
Number	Spatial Accuracy								
93N/03	GPS								
93N.015	GPS								
Accuracy Remarks									
2019-140: Site location, shape and size digitized using shapefile. Location matches GIS coordinates, size/shape match site form dimensions.									

Site Location:

Description	Site Access
2019-140: The site is 750 m south of Tchentlo Lake, 3.8 km north of Tlutsacho Lake, and 4.1 km northwest of Airline Lake.	2019-140: From Fort St. James travel west on Stuart Drive West/Stuart Lake HWY/BC-27 for 7.4 km. Turn left (northwest) onto Tachie Rd and travel for 40.7 km. Turn right (northeast) onto the Leo FSR and continue for 70.1 km. At the Y-intersection keep right (northwest) onto the Driftwood FSR and travel for 2.8 km. Turn right (east) onto the Leo Airline FSR and continue for 2.7 km. Turn left (north) onto an unnamed spur road and travel for 1.6 km. Turn right (northeast) onto a deactivated unnamed spur road and travel for 575 m. Turn left (north) onto another unnamed spur road and continue for 700 m to the end of the road. The site can be accessed on foot ~ 400 m to the north.

Street Address:

Street Number	Street Name	City	Postal Code

Site Dimensions:

Length (m)	Width (m)	Site Area	Comments
45 NW-SE	26 NE-SW		2019-140: Site dimensions based on the observed location of four CMTs and a 10 m buffer. CMTs were tied with yellow CMT flagging tape.

British Columbia Site Inventory Form

Borden Number: GhSg-1

Environment:

Elevation (metres above Sea Level)

User Elevation	GIS Elevation	Elevation Comments
905-905	-19-4663	2019-140: Elevation determined by GPS.

Biogeography

Type	Name	Description
GIS Drainage	NATION RIVER	
GIS EcoRegion	Fraser Basin	
Minor Drainage		2019-140: Wetland ~ 225 m to west, Tchentlo Lake ~ 750 m to north.
Micro Topography		2019-140: Flat to gently south sloping terrain.
GIS VegetationZone	SBSmk1	

Tenure/Reserves:

Jurisdiction	Tenure/Reserves T	Description	Tenure Remarks
Provincial	Forestry	2019-140: BCTS Stuart Nechako.	2019-140: Block AIR20_07.
GIS LandDistricts		Cassiar District	
GIS Municipalities		Bulkley-Nechako, Subd. A	
GIS RegionalDistrict		Buckley-Nechako	

Site Typology:

Class	Type	Sub Type	Descriptor
TRADITIONAL USE	Culturally Modified Tree	Bark-Stripped	Cambium-Stripped

CMT

Feature Description Table

Feature #	Length	Width	Dia.	Depth	DBS from	DBS To	Shape	Orientation	Berm/Rim	Colour
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CMTs (n=4)

Feature Remarks

2019-140: Four cambium stripped lodgepole pine CMTs, two of which were rotten and undateable. All CMTs on dead trees. Two cores were collected for dating purposes. CMT table attached.

Cultural Material :

Type	Status	Repository	Date
Other Sample	Collected	Archer CRM Partnership	25/Jun/2020

Details

2019-140: Two cores were collected from two CMTs for dating purposes.

British Columbia Site Inventory Form

Borden Number: GhSg-1***Chronology:***

<i>Method</i>	<i>Source</i>	<i>Chronology Remarks</i>
Dendrochronology Cross Dating	2019:140: CMTs 1 and 4.	2019-140: CMTs 2 and 3 were too rotten to core but are presumed to pre date AD 1846 based on their condition, lobe thickness, and proximity to CMTs 1 and 4.

<i>From Date</i>	<i>From Date Qualifier</i>	<i>From Date Calendar</i>	<i>To Date</i>	<i>To Date Qualifier</i>	<i>To Date Calendar</i>
1830	Exact	AD			
1846	Before	AD			

Radiocarbon Dates:

<i>RCD Unadjusted</i>	<i>RCD Unadjusted Variation (+/-)</i>	<i>RCD Lab Name</i>	<i>RCD Lab No.</i>	<i>RCD Adjusted</i>
<i>RCD Remarks</i>				
<i>RCD Remarks</i>				

British Columbia Site Inventory Form

Borden Number: GhSg-1

Site Condition:

<i>Condition</i>					<i>Disturbance History</i>		
<i>Assessed By</i>	<i>Assessment Date</i>	<i>Pemit Number</i>	<i>Issuing Agency</i>	<i>Recommendation</i>	<i>History</i>	<i>Factor</i>	<i>Remarks</i>
Russell, Marina	25/Jun/2020	2019 140	Arch	2019-140: Avoidance or acquisition of site alteration permit.	Past	Decay	2019-140: All four CMTs are on dead lodgepole pine, two of which were too rotten to core.
					Present	Arch Investigation	2019-140: Two increment cores were collected from two of the four CMTs for dating purposes.
					Future	Logging	2019-140: The site is located outside the boundaries of the proposed cut block as assessed and will not be impacted by logging activities. Continued avoidance is recommended by maintaining a 30 m buffer of standing trees around the boundary of the site area.

References:

<i>Report Title</i>	<i>Report Date</i>	<i>Report Authors</i>	<i>Comments</i>
2019-0140			

Attached Documents:

<i>Type</i>	<i>Description</i>	<i>Filename</i>
Document, Combined	2019-140 Site map, Photo plate, CMT table	GhSg-1 2019-140 Site map, Photo plate, CMT table.pdf