

BRITISH COLUMBIA ARCHAEOLOGICAL IMPACT ASSESSMENT INTERIM REPORT FORM



1. REPORT TITLE

2019-0140-13156	<i>Archaeological Impact Assessment of Proposed British Columbia Timber Sales Cutblock SAL060.</i>
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2. MANAGEMENT SUMMARY

2.1	Protected HCA Sites:	GeRw-5 (GeRw-13156-t1; New Lithic), GeRw-6 (GeRw-13156-t2; New Lithic), GeRw-7 (GeRw-13156-t3; New CD)
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 project prior to field assessment identified areas of archaeological potential within the study area.
2.3	Results:	<p>A total of 508 shovel tests were completed at 21 test locations throughout Block SAL060. Three of the shovel tests from two of the assessed locations (TLH3 & TLM3) proved positive for archaeological material resulting in the identification of previously unrecorded sites GeRw-5 & GeRw-6 (Figure 1). Cultural depression (CD) site GeRw-7 has been identified adjacent to AOPM1 but has not undergone shovel testing. The site consists of a single CD interpreted as a cache pit.</p> <p>Four areas of archaeological potential, AOPM1, AOPL1, AOPL2 & AOPG1, were observed and recorded in the block as illustrated in Figure 1 and described in Table 4 below. These AOPs have not been shovel tested.</p> <p>Eight CMTs were recorded within the study area. All CMTs consist of bark-stripped lodgepole pine and are presently dead. Increment cores were collected from seven of the CMTs. Cores yielded dates ranging between AD 1875-1925. All recorded CMTs post-date 1846, and therefore are not protected under the <i>Heritage Conservation Act</i> (HCA).</p> <p>A short segment of trail spatially associated with the CMTs was identified in the northwest corner of the block. The trail bed leads into the wetland where it disappears. A historically modified tree (squared off by axe) is also present, suggesting this may be a segment of a trapping trail.</p>
2.4	Management Recommendations:	<p>Our visual inspection and subsurface testing program of the proposed BCTS Stuart Nechako cutblock SAL060 resulted in the identification of archaeological sites GeRw-5, GeRw-6 & GeRw-7 inside proposed project boundaries. Furthermore, post AD-1846 CMTs which are not protected under the HCA are also recorded within the block.</p> <p>Site-specific recommendations are provided below, followed by general recommendations related to further development of the project area.</p> <p>GeRw-5 & GeRw-6 recommendations presented in order of preference:</p> <ol style="list-style-type: none"> Avoidance through project redesign. The sites are located within the proposed study area boundaries as assessed and will be impacted by timber harvest activities. Avoidance can be

achieved by excluding the entire site areas from the impact area and leaving a minimum 30 m buffer in which no harvesting activities will occur around the boundary of the site area.

2. **Avoidance through modified operations.** If harvest is to proceed up to the flagged site boundary of GeRw-5 & GeRw-6 trees within the flagged boundary of the site must be “stubbed.” Stubbing will prevent blowdown and subsequent soil and/or feature disturbance. All potential blowdown trees within the site boundaries must be stubbed to no less than 1 m to prevent wind fall and to remain as a site indicator for future development activities (disking, planting, etc...). During stubbing no trees can be felled, yarded, or skidded within the site boundaries. The harvested trees must be lifted outside of the site area (cherry picked). This harvesting activity should be monitored by an approved individual who is fully aware of harvesting procedures in regard to protected archaeological sites. Re-planting within the site area would require further assessment prior to site preparation.

GeRw-7 recommendations:

1. **Avoidance through project redesign.** The site is located within the proposed project footprint as assessed and may be impacted by timber harvest activities. Avoidance can be achieved by excluding the entire site from the study area and leaving a minimum 30 m buffer around the site boundary in which no timber harvest or related activities will occur.
2. **Mitigation through further work.** If timber harvest of the proposed block cannot avoid the area of site GeRw-7, further assessment and evaluation (AIA) of this site is recommended. The results of such an assessment will determine the nature of additional mitigation that may be recommended. This may include: (A) the acquisition of a HCA Section 12 Permit if it becomes apparent that a representative sample of cultural material remains are likely to have been recovered, (B) further archaeological excavation & data recovery if remains at the site prove to be extensive and/or dense, or (C) avoidance.

13156-cmt, recommendations presented in order of preference:

1. This is a post-1846 CMT site located in the study area as assessed and may be impacted by development activities. No further work is recommended for these CMTs. The CMTs at this site post-date AD 1846 and do not represent exceptional, unique or scientifically significant examples of culturally modified trees. Therefore, it is not protected under the Heritage Conservation Act.
2. A sample of increment core dates of sufficient size to capture a representation of the variation of stripping ages of lodgepole pine CMTs within the site was recorded resulting in an age range of AD 1889 and 1925 (Muir & Moon 2000).
3. These CMTs may be considered cultural heritage resources of significance to the relevant First Nations as CMTs provide datable evidence regarding the practice of an aboriginal right.

AOPG1, AOPL1, AOPL2 & AOPM1 all may be impacted by timber harvest and related activities:

1. If the AOPs are to be subject to timber harvest and/or other ground altering activities, additional work including shovel testing will be required.
2. Alternatively, the AOPs may be avoided by excluding them from the harvest area and implementing a 30 m machine free buffer around each AOP perimeter.

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. Based on the results of the present AIA archaeological remains are not anticipated in the remaining portions of the study area. As such, there are no further archaeological concerns for the proposed project footprint as illustrated in the attached Figure 1.

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:	November 4, 2019, V1			
3.7	Notification of Work Date:	July 19, 2019: <ul style="list-style-type: none"> McLeod Lake Indian Band Nak'azdli Whut'en 			
3.8	OGC Ref No.:	N/A			

4. PROPOSED DEVELOPMENT

4.1	Description:	British Columbia Timber Sales Stuart Nechako proposed cutblock SAL060 <ul style="list-style-type: none"> Logging block for timber harvest 531 ha
4.2	Location:	The block is located immediately east of the Salmon River and south of Salmon Lake at NAD 83 UTM Zone 10 UTM Coordinates (approximate center) 448819 E, 6074037 N.

5. FIELD CREW

Table 1. Field Crew

Date (dd/mm/yy)	Field Director (on site? Y/N)	Field Supervisor	Other Field Personnel
29/08/19	Marina Russell (Y)	N/A	Carling Reid, David Quewezance (Nak'azdli)
29/08/19	Marina Russell (Y)	N/A	Hanjo Zink, Aaron Rogers, Daryl Sam (Naka'zdli)
30/08/19	Marina Russell (Y)	N/A	David Quewezance (Naka'zdli), Carling Reid, Aaron Rogers, Daryl Sam (Naka'zdli), Hanjo Zink
16/09/19	Marina Russell (Y)	N/A	Laura Enns, Vanessa Prince (Naka'zdli), David Quewezance (Naka'zdli), Carling Reid
17/09/19	Marina Russell (Y)	N/A	Gregory Ketlo, David Quewezance (Naka'zdli)
17/09/19	Laura Enns (Y)	N/A	Stuart Nash (Naka'zdli), Carling Reid
18/09/19	Marina Russell (Y)	N/A	Gregory Ketlo, David Quewezance (Naka'zdli)
18/09/19	Laura Enns (Y)	N/A	Stuart Nash (Naka'zdli), Carling Reid
19/09/19	Marina Russell (Y)	N/A	Gregory Ketlo, David Quewezance (Naka'zdli)
19/09/19	Laura Enns (Y)	N/A	Stuart Nash (Naka'zdli), Carling Reid
20/09/19	Marina Russell (Y)	N/A	Gregory Ketlo, Stuart Nash (Naka'zdli)
20/09/19	Laura Enns (Y)	N/A	David Quewezance (Naka'zdli), Carling Reid
20/19/19	Laura Enns (Y)	N/A	Gene Kristiansen, Aaron Rogers
10/10/19	Laura Enns (Y)	N/A	Carling Reid, Aaron Rogers
15/10/19	Laura Enns (Y)	N/A	David Quewezance (Naka'zdli), Carling Reid, Aaron Rogers

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: December 12, 2019

- ☒ 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 Culturally Modified Trees (CMTs). Information used during the review included Remote Access to Archaeological Data (RAAD), Integrated Land and Resource Registry (ILRR), 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>
GeRw-5	Within block boudanry	Cultural material; lithics	2019-140	Y
GeRw-6	Within block boudanry	Cultural material; lithics	2019-140	Y
GeRw-7	Within block boudanry	Cultural depression	2019-140	Y
GeRw-1	119 m north	Cultural depression	2007-140	N
GeRw-3	308 m south	Cultural material; lithics	2016-124	N

6.2. In-field Methodology

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

Date Accessed: August 29, 30, September 16-20, October 10 and 15, 2019

Where available, natural and anthropogenic soil exposures (eroded banks, tree throws, etc.) in the project footprint were visually examined for cultural remains. Shovel testing was conducted in assessed areas of high potential. The depths of the tests averaged around 25-40 cm depth below surface (dbs), at which point glacial sediments were encountered and the test was discontinued. All sediments from subsurface tests were screened through ¼" mesh.

CMTs in or adjacent to the subject project were sought given the presence of mature forest cover. Where

identified, a sample of CMTs was recorded, cored and exemplary modifications and/or scars photographed.

6.2.1	Number of Crew Members:	2-6	6.2.2	Crew Spacing:	5-20 m
6.2.3	Other:	Transects were spaced according to archaeological potential, forest density and ground surface visibility.			

6.3. In-field Observations

The study area is situated over flat to gradually sloping terrain. In addition to the well-defined streams that parallel the block boundary, which include the Salmon River, small wetlands and ephemeral drainage systems are scattered throughout the block. Stream and wetland margins varied from poorly defined to having intermittent flat terraces, points and knolls. Forest cover consists of lodgepole pine and mixed spruce, with moderate to heavy blowdown. Shrubs and ground cover observed in the understory include rose, alder, highbush cranberry, soapberry, Labrador tea, white rhododendron, princess pine, horsetail and bunchberry.

The block boundary was not flagged at the time of survey.

A short segment of trail spatially associated with CMTs was identified in the northwest corner of the block. The trail bed leads into the wetland where it disappears. A historically modified tree which has been squared off with an axe suggests this may be a segment of a trapping trail.

Fire scars were observed on standing trees throughout the study area, and moderate deadfall was observed throughout. No other previous disturbances were noted.

6.4. Results

A total of 508 shovel tests were completed at 21 test locations throughout Block SAL060. Three of the shovel tests from two of the assessed locations (TLH3 & TLM3) proved positive for archaeological material, resulting in the identification of sites GeRw-5 and GeRw-6. Site GeRw-7 was identified adjacent to AOPM1 and consists of a single CD interpreted as a cache pit. Refer to 7. *Archaeological Site Summary* below for detailed site descriptions.

Four additional areas of archaeological potential, AOPM1, AOPL1, AOPL2 & AOPG1, were observed and recorded in the block as illustrated in Figure 1 and described in Table 4 below.

Eight CMTs were identified within the study area. All CMTs consist of bark-stripped lodgepole pine and are presently dead.

Table 3. Assessment Results

Subsurface Test Area	Description*	Dimensions (L x W)	Subsurface Tests		
			Total	Positive	Negative
TLM1	A wide flat terrace overlooking a wetland associated with the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-5 cm duff; 5-11 cm grey brown sandy silt; 11-23 cm orange brown coarse sandy silt; 23-26 cm coarse yellow brown sand 60% pebbles throughout.	90 m x 9 m	57	0	57
TLM2	A small terrace associated with the Salmon River. Systematic testing was conducted with	15 m x 3 m	14	0	14

	negative results. Stratigraphy is uniform throughout test area as per TLM1.				
TLM3 (GeRw-5)	A terrace overlooking a wetland associated with the Salmon River. Systematic shovel testing resulted in the identification of the site GeRw-5. Refer to site description for stratigraphy.	105 m x 18 m	70	1	69
TLM4	A small terrace associated with a low lying and wetland area by the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-4 cm dbs duff; 4-16 cm light grey fine sand; 16-23 cm light orange brown fine sand; 23-29 cm light brown coarse sand 60% pebbles.	12 m x 4 m	10	0	10
TLM5	A small terrace associated with a wetland. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-5 cm dbs duff; 5-19 cm light brown fine sand; 19-27 cm light yellow brown fine sand 40% pebbles, 10% cobbles.	12 m x 4 m	10	0	10
TLM6	An elevated terrace above the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-3 cm dbs duff; 3-6 cm grey clay sand; 6-21 cm orange brown clay sand; 21-27 cm light brown clay sand; 23-31 cm coarse light brown sand 60% pebbles & cobbles.	60 m x 4 m	32	0	32
TLM7	A small terrace associated with the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-6 cm dbs duff; 6-11 cm red brown silty sand; 11-16 cm grey brown silty sand; 16-29 cm medium brown sandy clay.	12 m x 3 m	10	0	10
TLM8	A small terrace associated with the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-6 cm dbs duff; 6-10 cm grey silty sand; 10-17 cm red brown silty sand; 17-25 cm silty light brown sand 30% inclusions.	12 m x 3 m	10	0	10

TLM9	A terrace associated with the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-6 cm dbs duff; 6-13 cm light grey silty sand; 13-26 cm light brown fine silt; 26-33 cm silty grey brown compact fine silt.	21 m x 3 m	16	0	16
TLM10	A small terrace associated with the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-8 cm dbs duff; 8-13 cm light grey silty sand; 13-25 cm medium red brown silty sand; 25-34 cm yellow silty sand 40% pebbles.	8 m x 3 m	10	0	10
TLM11	A small terrace associated with the Salmon River. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout and the same as TLM10.	8 m x 4 m	10	0	10
TLH1	A knoll adjacent to a wetland. Judgemental testing was conducted with negative results. Stratigraphy is uniform throughout: 0-3 cm dbs duff; 3-12 cm orange brown sandy silt 20% pebbles; 12-35 cm brown grey silty clay 30% pebbles and cobbles.	9 m x 5 m	10	0	10
TLH2	A terrace adjacent to a wetland. Systematic testing with judgemental tests placed at the areas deemed to have the highest potential, all results were negative. Stratigraphy is uniform throughout: 0-3 cm dbs duff; 3-10 cm brown silty coarse sand 70% pebbles; 10-30 cm grey loose sand 60% pebbles.	90 m x 4 m	42	0	42
TLH3 (GeRw-6)	A terrace ending at a point overlooking a wetland and stream complex on three sides. Systematic and judgemental testing was conducted which resulted in the identification of GeRw-6. Stratigraphy is uniform throughout: 0-3 cm dbs duff; 3-16 cm coarse brown silty sand 80% pebbles; 16-32 cm grey brown coarse silty sand 90% pebbles.	80 m x 12 m	56	2	54
TLL1	A small point overlooking a wetland and stream complex. Judgemental testing was	11 m x 10 m	14	0	14

	conducted with negative results. Stratigraphy is uniform throughout: 0-3 cm dbf duff; 3-14 cm orange brown coarse sand 40% pebbles and cobbles; 14-22 cm grey brown coarse sand 45% gravels and cobbles.				
TLL2	A small knoll overlooking a lake. Judgemental testing was conducted with negative results. Stratigraphy is uniform throughout: 0-3 cm dbf duff; 3-13 cm red brown coarse sand; 30% pebbles and cobbles; 13-23 cm tan brown coarse sand 40% pebbles and cobbles.	10 m x 7 m	10	0	10
TLL3	A small point terrace overlooking a stream and wetland complex. Judgemental testing was conducted with negative results. Stratigraphy is uniform throughout: 0-6 cm dbf duff; 6-25 cm orange brown coarse sand; 25-33 cm grey silty sand 30% gravels and cobbles.	8 m x 5 m	10	0	10
TLL4	A small point terrace overlooking a stream and wetland complex. Judgemental testing was conducted with negative results. Stratigraphy is uniform throughout: 0-6 cm dbf duff; 6-12 cm red brown silty sand; 12-27 cm yellow brown silty sand; 27-37 cm grey silty sand 30% pebbles and cobbles.	8 m x 7 m	10	0	10
TLL5	A large terrace overlooking a large stream and wetland complex. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-6 cm dbf duff; 6-24 cm orange brown coarse sand; 24-35 cm grey brown glacial till 30% pebbles and cobbles throughout.	105 m x 3-9 m	51	0	51
TLL6	A large terrace overlooking a large stream and wetland complex. Systematic testing was conducted with negative results. Stratigraphy is uniform throughout: 0-4 cm dbf duff; 4-21 cm red brown coarse sand 30% pebbles; 21-32 cm yellow brown coarse sand 35% gravels and cobbles.	110 m x 4 m	46	0	46

TLG1	A small terrace overlooking a stream and wetland complex. Judgemental testing was conducted with negative results. Stratigraphy is uniform throughout and consists of red brown sandy silt overlaying a glacial till layer.	12 m x 5 m	10	0	10
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Table 4. Locations identified as having archaeological potential (not subject to impact assessment)

AOP # Area	Description	Dimensions (L x W)
AOPG1	A terrace with a point section associated with a wetland to the north. The terrace varied in width and is reflected in the size of the AOP.	100 m x 10-20 m
AOPL1	A long terrace overlooking a major wetland and stream complex to the east.	245 m x 15 m
AOPL2	A terrace associated with the same stream and wetland complex as AOPL1.	190 m x 15 m
AOPM1	A section of terrace located between the newly identified site GeRw-7 to the west and a wetland complex to the east.	36 m x 15 m

7. ARCHAEOLOGICAL SITE SUMMARY

7.A	Borden No.	GeRw-5	7.A1	New/Revisited:	New Dimensions: 10 m N-S; 10 m E-W
7.A2	Site Type:	Precontact – Cultural Material – Subsurface – Lithic			
7.A3	Impact Assessment:	<p>The site is situated on a 5 m high southwest-facing terrace, 95 m from the Salmon River (Figure 3). A total of 70 shovel tests were completed at the location, one of which proved positive for archaeological materials, and 12 of which are inside the flagged site boundary. One grey basalt tertiary flake was recovered @ 5-15 cm dbs from ST1. The site was demarcated with yellow ARCHER “No Work Zone” flagging.</p> <p><i>ST1 Stratigraphy</i> 0-4 cm dbs loose brown littermat; 4-10 cm loose light grey sandy silts with 20% pebbles, and gravels [cultural]; 10-23 cm orange brown loose silty sand with 60% cobbles & pebbles [cultural]; 23-32 cm loose medium brown sandy silt with 80% small pebbles.</p> <p>The site is currently in good condition with minimal damage from blowdown and archaeological investigation.</p>			
7.A4	Management Recommendations:	Avoidance through project redesign; avoidance through modified operations; mitigation through further work.			
7.A5	Significance Evaluation:	<p>Scientific Significance: Low - The site is a low density subsurface lithic site. No diagnostic artifacts, cultural stratigraphy, or faunal material was identified.</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>			

7.B	Borden No.	GeRw-6	7.B1	New/Revisited:	New Dimensions: 13 m N-S; 36 m E-W Polygon 1: 10 m N-S; 10 m E-W Polygon 2: 10 m N-S; 10 m E-W
7.B2	Site Type:	Precontact – Cultural Material – Subsurface – Lithic			
7.B3	Impact Assessment:	<p>The site is situated on a 2 m high southwest-facing terrace on a wetland margin (Figure 5). A total of 56 shovel tests were completed at the location, two of which proved positive for archaeological materials, and 13 of which are inside the flagged site boundary. A basalt thumbnail scraper was recovered @ 1-3 cm dbs in ST1; and a basalt tertiary flake was recovered @ 2-10 cm dbs from ST2. The site was demarcated with yellow ARCHER “No Work Zone” flagging.</p> <p><i>ST2 Stratigraphy</i> 0-2 cm dbs loose brown littermat; 2-15 cm loose medium brown silt with 15% pebbles [cultural]; 15-29 cm medium brown silt with 40% cobbles & pebbles.</p> <p>The site is currently in good condition with minimal damage from blowdown and archaeological investigation.</p>			
7.B4	Management Recommendations:	Avoidance through project redesign; avoidance through modified operations; mitigation through further work.			
7.B5	Significance Evaluation:	<p>Scientific Significance: Low - The site is a low density subsurface lithic site. No diagnostic artifacts, cultural stratigraphy, or faunal material was identified.</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>			

7.C	Borden No.	GeRw-7	7.C1	New/Revisited:	New Dimensions: 11 m N-S; 11 m E-W												
7.C2	Site Type:	Precontact – Subsistence Feature – Cultural Depression – Cache Pit															
7.C3	Impact Assessment:	<p>The site is situated on gently sloping terrain with an eastern aspect toward the adjacent wetland 40 m east. The CD was marked and labelled with a single flag.</p> <p>A single cultural depression (CD) with the following dimensions was identified:</p> <table> <tr> <th>CD#</th><th>Length (m)</th><th>Width (m)</th><th>Depth (m)</th><th>Orient.</th><th>Berm (m)</th></tr> <tr> <td>1</td><td>1.05</td><td>0.75</td><td>0.35</td><td>E-W</td><td>0.60</td></tr> </table> <p>No shovel testing was conducted around the CD feature and the site boundary was not definitely delineated. The site is currently in good condition with some tree throws adjacent to the feature.</p>				CD#	Length (m)	Width (m)	Depth (m)	Orient.	Berm (m)	1	1.05	0.75	0.35	E-W	0.60
CD#	Length (m)	Width (m)	Depth (m)	Orient.	Berm (m)												
1	1.05	0.75	0.35	E-W	0.60												
7.C4	Management Recommendations:	Avoidance through project redesign; mitigation through further work.															
7.C5	Significance Evaluation:	<p>Scientific Significance: Low-moderate - The site consists of a single cultural depression. It is assigned low-moderate as it is currently unknown whether there is a subsurface component to the site.</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>															

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

Muir, R.J., and H. Moon
2000 *Sampling Culturally Modified Tree Sites*. British Columbia Ministry of Forests and Range, Aboriginal Affairs Branch, Copies available from Archaeology Branch, Victoria, BC.

Subject Report Citation:

ARCHER CRM Partnership
2019 *Archaeological Impact Assessment of Proposed British Columbia Timber Sales Cutblock SAL060*. HCA Permit 2019-0140. ARCHER CRM Partnership file 13156 Submitted to BCTS Stuart Nechako. 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 1560 BC-16, Vanderhoof, BC, V0J 3A1
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.

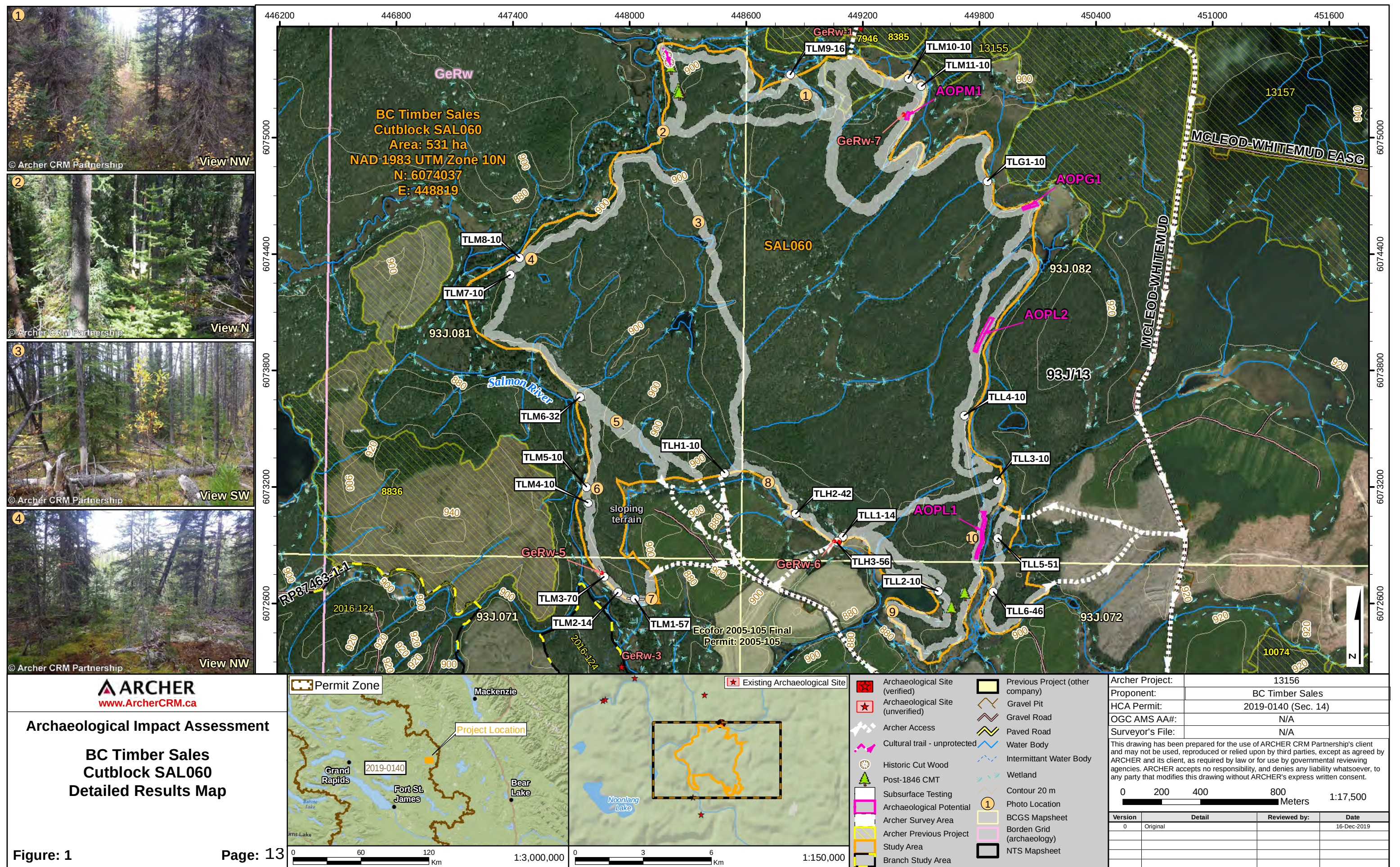
12. APPENDICES

Required:

- ☒ General Area Map (Figure 1)
- ☒ Study Area Map (Figure 1)
- ☒ Photo Plate(s) (Figure 2, 4, 6 & 8)

If Applicable:

- ☒ Detailed Development Map (Figure 1)
- ☐ Subsurface Test Log
- ☒ Site Forms, Site Maps and Related Documents (Figures 3, 5 & 7; Appendix 1 - artifact tables & siteforms)
- ☐ Other Details:





View W



View SW



View W



View SE



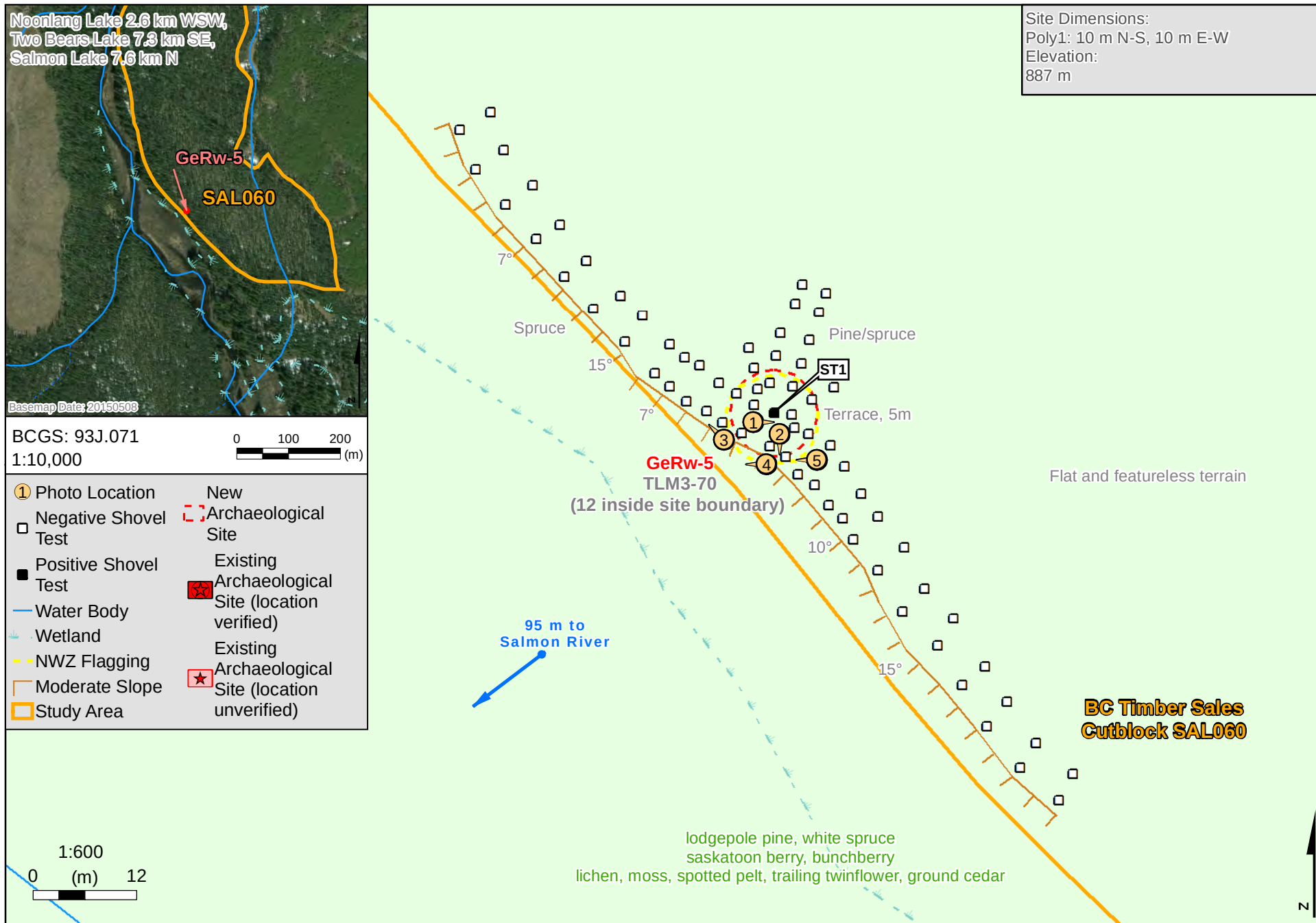
View S



View SSW

See Figure 1 for photo locations.

	Figure: 2	Photo Plate: BC Timber Sales - Cutblock SAL060	HCA Permit 2019-0140	Date 2019-09-19	14
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ARCHER	Figure No.	Archaeological Site #'s: Temp/Borden	HCA Permit	Project no.	Fieldwork Date of Completion	Datum Point NAD 1983 UTM Zone 10N	15
	3	GeRw-13156-t1/GeRw-5	2019-0140	13156	20/09/2019	E: 447857, N: 6072760	



① ST1, view of profile/side where flake was found, roughly level with large root



② View from edge of ST1 to wetland associated with Salmon River



③ AOPM3, edge along Salmon River and wetland



④ View along edge near positive test



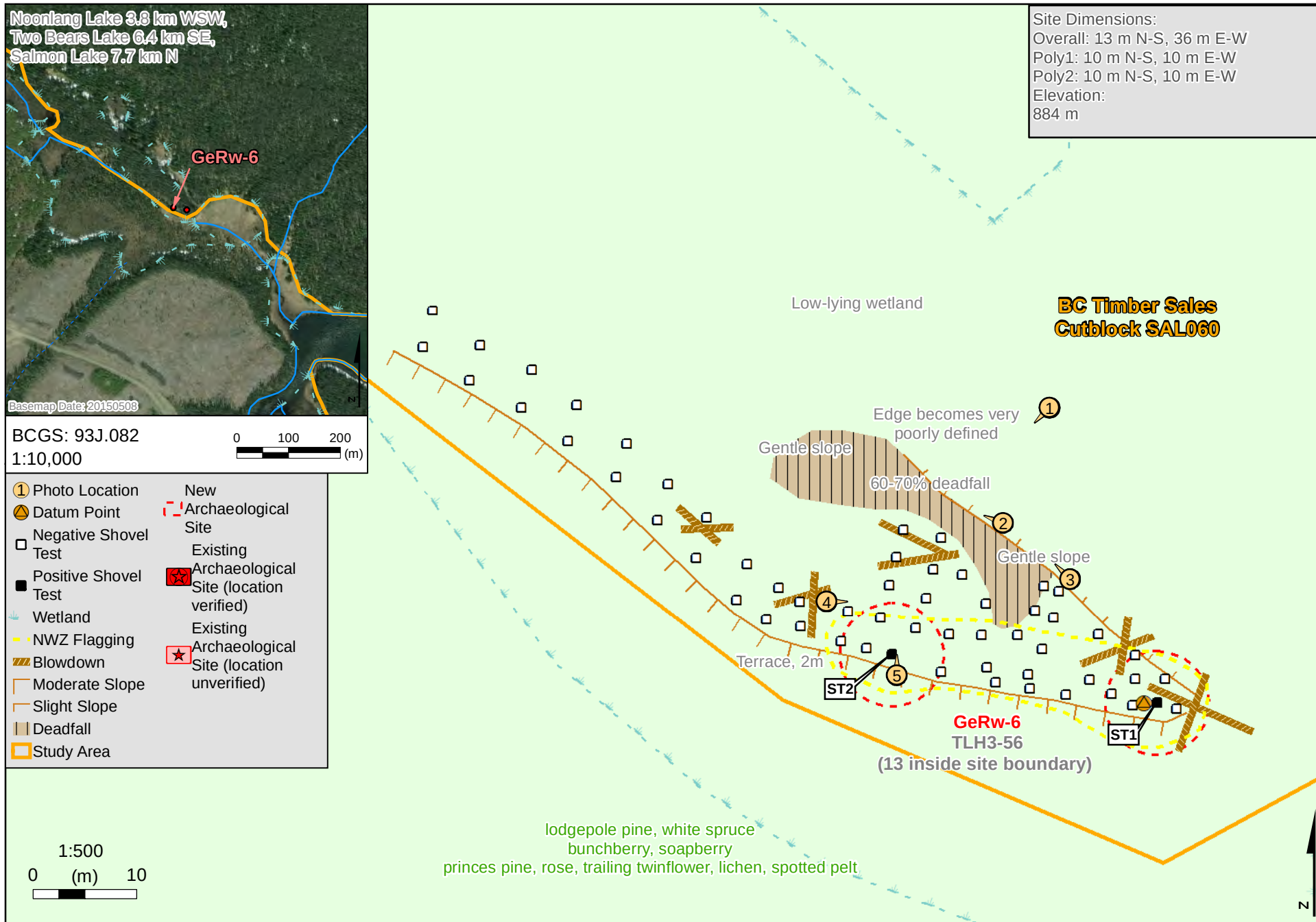
⑤ Overview of ST1 area with metal tag, view to wetland



⑥ Artifact - Basalt debitage flake, tertiary

See detailed sitemap for photo locations.

	Figure #: 4	Archaeological Site GeRw-13156-t1/GeRw-5 Photos	HCA Permit #: 2019-0140	Fieldwork Date of Completion 20/09/2019	16
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ARCHER	Figure No.	Archaeological Site #'s: Temp/Borden	HCA Permit	Project no.	Fieldwork Date of Completion	Datum Point NAD 1983 UTM Zone 10N	17
	5	GeRw-13156-t2/GeRw-6	2019-0140	13156	16/09/2019	E: 449077, N: 6072917	



© Archer CRM Partnership

① Heavy deadfall



© Archer CRM Partnership

② View from delineation tests back from ST2 to heavy deadfall



© Archer CRM Partnership

③ Start of heavy deadfall



© Archer CRM Partnership

④ View from west end of site with site flagging



© Archer CRM Partnership

⑤ ST2 Profile



© Archer CRM Partnership

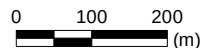
⑥ Artifact - Basalt unifacial scraper

See detailed sitemap for photo locations.

	Figure #: 6	Archaeological Site GeRw-13156-t2/GeRw-6 Photos	HCA Permit #: 2019-0140	Fieldwork Date of Completion 16/09/2019	18
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BCGS: 93J.082
 1:10,000



- | | |
|-----------------------|---|
| ① Photo Location | New |
| ● Cultural Depression | □ Archaeological Site |
| Wetland | Existing |
| Contour 20 m | □ Archaeological Site (location verified) |
| Berm | Existing |
| Slope Direction | □ Archaeological Site (location unverified) |
| Study Area | |
| Archaeological | |
| Potential - Verified | |



Site Dimensions:
 Poly1: 11 m N-S, 11 m E-W
 Elevation:
 906 m



ARCHER	Figure No.	Archaeological Site #'s: Temp/Borden	HCA Permit	Project no.	Fieldwork Date of Completion	Datum Point NAD 1983 UTM Zone 10N	19
	7	GeRw-13156-t3/GeRw-7	2019-0140	13156	19/09/2019	E: 449409, N: 6075119	



① View south to site, uneven terrain



② View of cultural depression



③ View of cultural depression to AOPM1



④ View of AOPM1 along edge



⑤ View to wetland from AOPM1

See detailed sitemap for photo locations.

	Figure #: 8	Archaeological Site GeRw-13156-t3/GeRw-7 Photos	HCA Permit #: 2019-0140	Fieldwork Date of Completion 19/09/2019	20
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Provincial Catalogue #	Catalogue	Artifact Category	ArtifactType	Weight g	Color	Material	Opacity	Pattern	Location	#	DBScm	Count	Cataloguer
Prov#0001	7758	Debitage	Flake, Tertiary	0.20	Grey	Basalt	Opaque	Solid	Test Pit	1	5to15	1	njackman

Provincial Catalogue #	ARCHER Catalogue	Artifact Category	ArtifactType	Lengthmm	Widthmm	Thicknessmm	Weightg	Color	Material	Opacity	Patterning	Location:	#	DBScm	Count
Prov#0001	7759	Unifacial Tools	Scraper, Thumbnail	22.00	21.00	3.50	2.40	Grey	Basalt	Opaque	Solid	Test Pit	1	0-3	1
Prov#0002	7860	Debitage	Flake, tertiary	-	-	-	0.70	Grey	Basalt	Opaque	Solid	Test Pit	2	2 to 10	1



British Columbia Site Inventory Form

Borden Number: GeRw-5

Protected by Legislation: YES

Identification:

Temporary Number	Site Name	Assigned By	Date Assigned
GeRw-13156-t1		Russell, Marina	20/Sep/2019

Map Reference:

GIS Populated					Historic Source				
Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone	Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
54 47'57"	-123 48'40"	447856	6072758	10			447857	6072760	10

Map Sheet

Number	Spatial Accuracy
93J.071	GPS
93J/13	GPS

Accuracy Remarks

2019-140: Site location, shape and size digitized using shapefile. Location matches GIS coordinates, shape/size match site form dimensions.

Site Location:

Description	Site Access
2019-140: The site is ~95 m NE of the Salmon River, 2.6 km ENE of Noonlang Lake, 7.3 km NW of Two Bears Lake, and 7.6 km S of Salmon Lake.	2019-140: From Fort St. James travel north, then west, on Hwy 27 for 7.4 km to junction with Tachie Rd. Continue onto N Rd. for 18.9 km. Continue straight/north onto Germansen Landing Rd, travel 20.5 km. Turn right/east and proceed 12 km. Turn left (north) and proceed 3.8 km. Turn right (northeast) onto McLeod Tsilcoh FSR, travel 15.8 km. Veer right/south onto McLeod-Whitemud Rd, travel south 4.9 km. Turn right/west onto unnamed FSR. Travel 2.8 km to existing cutblock. The site can be accessed on foot at the provided coordinates ~ 675 m to west.

Street Address:

Street Number	Street Name	City	Postal Code

Site Dimensions:

Length (m)	Width (m)	Site Area	Comments
10 N-S	10 E-W		2019-140: Site boundary based on observed location of positive subsurface test and 5 m buffer. The site was demarcated with yellow ARCHER "No Work Zone" flagging.

British Columbia Site Inventory Form

Borden Number: GeRw-5

Environment:

Elevation (metres above Sea Level)

User Elevation	GIS Elevation	Elevation Comments
887-887	-19-4016	2019-140: Elevation determined by GPS.

Biogeography

Type	Name	Description
GIS Drainage	SALMON RIVER	
GIS EcoRegion	Fraser Basin	
Minor Drainage		2019-140: Wetland immediately southwest.
Micro Topography		2019-140: A 5 m high southwest-facing terrace.
GIS VegetationZone	SBSmk1	

Tenure/Reserves:

Jurisdiction	Tenure/Reserves T	Description	Tenure Remarks
GIS RegionalDistrict		Fraser-Fort George	
GIS Municipalities		Fraser-Fort George, Subd. A	
GIS LandDistricts		Cariboo District	
Provincial	Forestry	2019-140: BCTS Stuart Nechako.	2019-140: Cutblock SAL060.

Site Typology:

Class	Type	Sub Type	Descriptor
PRECONTACT	Cultural Material	Subsurface	Lithics

Feature Description Table

Feature #	Length	Width	Dia.	Depth	DBS from	DBS To	Shape	Orientation	Berm/Rim	Colour
Feature Remarks										

Cultural Material :

Type	Status	Repository	Date
Artifact	Collected	Exploration Place	20/Sep/2019

Details

2019-140: One grey basalt tertiary flake was recovered from ST1. Artifact table attached.

Stratigraphy:

Minimum	Maximum	General Stratigraphy Remarks
0.05	0.15	2019-140: Stratigraphy uniform. 0-4 cm dbs loose brown littermat; 4-10 cm loose light grey sandy silts with 20% pebbles, and gravels; 10-23 cm orange brown loose silty sand with 60% cobbles & pebbles; 23-32 cm loose medium brown sandy silt with 80% small pebbles.

British Columbia Site Inventory Form

Borden Number: GeRw-5

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	20/Sep/2019	2019 140	Arch	2019-140: Avoidance or further assessment.	Future	Logging	2019-140: Site identified in proposed cutblock. If avoidance is practiced the site will not be impacted.
					Present	Arch Investigation	2019-140: A total of 12 subsurface tests were placed inside the site boundary, and an additional 58 tests placed along landform while determining site extent.
					Ongoing	Other	2019-140: Minimal damage from blowdown/deadfall in site area.

References:

<i>Report Title</i>	<i>Report Date</i>	<i>Report Authors</i>	<i>Comments</i>
2019-140			

Remarks:

<i>Date</i>	<i>Remarks</i>
16/Dec/2019	2019-140: Sites GeRw-6 and 7 also identified during current assessment.

Attached Documents:

<i>Type</i>	<i>Description</i>	<i>Filename</i>
Document, Combined	2019-140 Site map, Photo plate, Artifact table	GeRw-5 2019-140 Site map, Photo plate, Artifact table.pdf

British Columbia Site Inventory Form

Borden Number: GeRw-6

Protected by Legislation: YES

Identification:

Temporary Number	Site Name	Assigned By	Date Assigned
GeRw-13156-t2		Russell, Marina	16/Sep/2019

Map Reference:

GIS Populated					Historic Source				
Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone	Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
54 48'3"	-123 47'32"	449064	6072920	10			449077	6072917	10

Map Sheet

Number	Spatial Accuracy
93J/13	GPS
93J.082	GPS

Accuracy Remarks

2019-140: Site location, shape and size digitized using shapefile. Location matches GIS coordinates, shape/size match site form dimensions.

Site Location:

Description	Site Access
2019-140: The site is ~1.3 km E of the Salmon River, 3.8 km ENE of Noonlang Lake, 6.4 km NW of Two Bears Lake, and 7.7 km S of Salmon Lake.	2019-140: From Fort St. James travel north, then west, on Hwy 27 for 7.4 km to junction with Tachie Rd. Continue onto N Rd. for 18.9 km. Continue straight/north onto Germansen Landing Rd, travel 20.5 km. Turn right/east and proceed 12 km. Turn left (north) and proceed 3.8 km. Turn right (northeast) onto McLeod Tsilcoh FSR, travel 15.8 km. Veer right/south onto McLeod-Whitemud Rd, travel south 4.9 km. Turn right/west onto unnamed FSR. Travel 2.8 km to existing cutblock. The site can be accessed on foot at the provided coordinates ~ 515 m to east-northeast.

Street Address:

Street Number	Street Name	City	Postal Code

Site Dimensions:

Length (m)	Width (m)	Site Area	Comments
36 E-W	13 N-S		2019-140: Site boundary based on observed locations of two positive subsurface tests and 5 m buffer, as such the site consists of two individual 10 x 10 m polygons. The site was demarcated with yellow ARCHER "No Work Zone" flagging.

British Columbia Site Inventory Form

Borden Number: GeRw-6

Environment:

Elevation (metres above Sea Level)

User Elevation	GIS Elevation	Elevation Comments
884-884	-19-4016	2019-140: Elevation determined by GPS.

Biogeography

Type	Name	Description
Minor Drainage		2019-140: Wetlands immediately southwest and north.
GIS EcoRegion	Fraser Basin	
Micro Topography		2019-140: A 2 m high southwest-facing terrace.
GIS Drainage	SALMON RIVER	
GIS VegetationZone	SBSmk1	

Tenure/Reserves:

Jurisdiction	Tenure/Reserves T	Description	Tenure Remarks
GIS LandDistricts		Cariboo District	
GIS Municipalities		Fraser-Fort George, Subd. A	
Provincial	Forestry	2019-140: BCTS Stuart Nechako.	2019-140: Cutblock SAL060.
GIS RegionalDistrict		Fraser-Fort George	

Site Typology:

Class	Type	Sub Type	Descriptor
PRECONTACT	Cultural Material	Subsurface	Lithics

Feature Description Table

Feature #	Length	Width	Dia.	Depth	DBS from	DBS To	Shape	Orientation	Berm/Rim	Colour
Feature Remarks										

Cultural Material :

Type	Status	Repository	Date
Artifact	Observed	Exploration Place	16/Sep/2019

Details

2019-140: A basalt thumbnail scraper was recovered from ST1; and a basalt tertiary flake was recovered from ST2. Artifact table attached.

British Columbia Site Inventory Form

Borden Number: GeRw-6

Stratigraphy:

<i>Minimum</i>	<i>Maximum</i>	<i>General Stratigraphy Remarks</i>
0.01	0.10	2019-140: ST1: 0-3 cm dbs duff; 3-16 cm coarse brown silty sand 80% pebbles; 16-32 cm grey brown coarse silty sand 90% pebbles. ST 2: 0-2 cm dbs loose brown littermat; 2-15 cm loose medium brown silt with 15% pebbles; 15-29 cm medium brown silt with 40% cobbles & pebbles. Stratigraphy relatively uniform throughout site.

British Columbia Site Inventory Form

Borden Number: GeRw-6

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	16/Sep/2019	2019 140	Arch	2019-140: Avoidance or further assessment.	Ongoing	Other	2019-140: Minimal damage from blowdown/deadfall in site area.
					Present	Arch Investigation	2019-140: A total of 13 subsurface tests were placed inside the site boundary and an additional 43 tests were placed along the landform while determining site extent.
					Future	Logging	2019-140: Site identified in proposed cutblock. If avoidance is practiced the site will not be impacted.

References:

<i>Report Title</i>	<i>Report Date</i>	<i>Report Authors</i>	<i>Comments</i>
2019-140			

Remarks:

<i>Date</i>	<i>Remarks</i>
16/Dec/2019	2019-140: Sites GeRw-5 and 7 also recorded during the current assessment.

Attached Documents:

<i>Type</i>	<i>Description</i>	<i>Filename</i>
Document, Combined	2019-140 Site map, Photo plate, Artifact table	GeRw-6 2019-140 Site map, Photo plate, Artifact table.pdf

British Columbia Site Inventory Form

Borden Number: GeRw-7

Protected by Legislation: YES

Identification:

Temporary Number	Site Name	Assigned By	Date Assigned
GeRw-13156-t3		Russell, Marina	19/Sep/2019

Map Reference:

GIS Populated					Historic Source				
Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone	Latitude	Longitude	UTM Easting	UTM Northing	UTM Zone
54 49'14"	-123 47'15"	449409	6075119	10			449409	6075119	10
Map Sheet									
Number	Spatial Accuracy								
93J/13	GPS								
93J.082	GPS								
Accuracy Remarks									
2019-140: Site location, shape and size digitized using shapefile. Location matches GIS coordinates, shape/size match site form dimensions.									

Site Location:

Description	Site Access
2019-140: The site is ~1.2 km E of the Salmon River, 5.1 km NE of Noonlang Lake, 5.7 km SSE of Salmon Lake and 7.6 km NNW of Two Bears Lake.	2019-140: From Fort St. James travel north, then west, on Hwy 27 for 7.4 km to junction with Tachie Rd. Continue onto N Rd. for 18.9 km. Continue straight/north onto Germansen Landing Rd, travel 20.5 km. Turn right/east and proceed 12 km. Turn left (north) and proceed 3.8 km. Turn right (northeast) onto McLeod Tsilcoh FSR, travel 15 km. The site can be accessed on foot at the provided coordinates ~ 700 m to south-southwest.

Street Address:

Street Number	Street Name	City	Postal Code

Site Dimensions:

Length (m)	Width (m)	Site Area	Comments
11 N-S	11 E-W		2019-140: Site boundary is based on the observed location of a single cache pit and 5 m buffer. The CD was marked and labelled with a single flag. An unassessed area of archaeological potential is also immediately associated with the site area to the east. No shovel testing was conducted around the CD feature and the site boundary was not delineated.

British Columbia Site Inventory Form

Borden Number: GeRw-7

Environment:

Elevation (metres above Sea Level)

User Elevation	GIS Elevation	Elevation Comments
906-906	-19-4016	2019-140: Elevation determined by GPS.

Biogeography

Type	Name	Description
Micro Topography		2019-140: Gently east sloping terrain, ~ 30 m back from a 5 m high terrace edge overlooking wetland to east.
GIS VegetationZone	SBSmk1	
Micro Topography		2019-140: Wetland immediately east.
GIS EcoRegion	Fraser Basin	
GIS Drainage	SALMON RIVER	

Tenure/Reserves:

Jurisdiction	Tenure/Reserves T	Description	Tenure Remarks
GIS Municipalities		Fraser-Fort George, Subd. A	
GIS RegionalDistrict		Fraser-Fort George	
Provincial	Forestry	2019-140: BCTS Stuart Nechako.	2019-140: Cutblock SAL060.
GIS LandDistricts		Cariboo District	

Site Typology:

Class	Type	Sub Type	Descriptor
PRECONTACT	Subsistence Feature	Cultural Depression	Cache Pit

Cultural Depression

Feature Description Table

Feature #	Length	Width	Dia.	Depth	DBS from	DBS To	Shape	Orientation	Berm/Rim	Colour
CD1	1.05	0.75		0.35				E-W	Presence	

Feature Remarks

2019-140: Berm width 0.6 m. Interpreted as cache pit based on size/shape.

British Columbia Site Inventory Form

Borden Number: GeRw-7

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	19/Sep/2019	2019 140	Arch	2019-140: Avoidance or further assessment.	Ongoing	Other	2019-140: Minimal damage from blowdown/deadfall in site area, with some tree throws adjacent to the feature.
					Present	Arch Investigation	2019-140: Subsurface testing has not been completed at the site. Site consists of a single cache pit in good condition.
					Future	Logging	2019-140: Site identified in proposed cutblock. If avoidance is practiced the site will not be impacted.

References:

<i>Report Title</i>	<i>Report Date</i>	<i>Report Authors</i>	<i>Comments</i>
2019-140			

Remarks:

<i>Date</i>	<i>Remarks</i>
16/Dec/2019	2019-140: Sites GeRw-5 and 6 also identified during current assessment.