



NORTHWEST TERRITORIES ARCHAEOLOGICAL SITE INVENTORY FORM

Department of Education, Culture, and Employment

1. Identification

Temporary Reporter Number (new sites): 550X (Parks Canada)

Borden Number (revisited sites): [Click here to enter text.](#)

Site Name(s): [Click here to enter text.](#)

2. Location

Site Coordinate (decimal degrees; NAD 83)

Latitude (minimum of 6 decimal places): 64.9013317

Longitude (minimum of 6 decimal places): -125.5844537

UTM (if applicable)

UTM Zone: [Click here to enter text.](#)

Easting (6 digits): [Click here to enter text.](#)

Northing (7 digits): [Click here to enter text.](#)

UTM to Lat/Long converter: [Click here to enter text.](#)

Other Locational Information

GPS Accuracy: All within 5 m

GPS Unit: Trimble Geo7X GNSS (GPS+GLONASS; H-Star Floodlight)

NTS Map Sheet: 96C/13

Site Elevation (m asl): 60

Site Elevation Determination: GPS, aggregate at 1 m accuracy

Location Description: The site is located in the hamlet of Tulita, immediately south of Bear Rock Drive on the terrace above the Mackenzie River.



3. Jurisdiction/Land Owner

Jurisdiction: Federal-Parks Canada

Land Owner: Federal - Parks Canada

4. Site Visit Information

Field Team

Team Member Role	Name and Affiliation
Permit Holder	Daniel Meyer, Lifeways of Canada Limited
Field Assistant	Cheyenne Lepka, Lifeways of Canada Limited
Elder informant	Fred Clement, Tulita
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Permit Number: NAA-2021-001

Permitting Agency: Parks Canada

Date of Visit: August 14-20, 2021

Site Visit Type: Recording (with subsurface testing)

Archaeological Project Description: Archaeological impact assessment of Parks Canada Agency's Tulita Infrastructure Project.

5. Site Typology

Site Class: Pre-European Contact Post-European Contact Undetermined

Site Type:

- Isolated Find
- Lithic Scatter
- Artifact Scatter
- Campsite
- Killsite
- Habitation
- Village
- Workshop
- Burial



- Cemetery
- Geographic Marker
- Trading Post
- Industrial
- Military
- Rock Art
- Sacred/Ceremonial
- Trail
- Transportation
- Quarry
- Other

Site Type Comments: Campsite: 2021 AIA produced several pieces of fire-cracked rock, some burnt bone; the Elder informant indicated that Indigenous groups used to camp on the landform while trading. Trading Post: Historic records and informants indicate that this was the site of the Northern Trading Company post from about 1900 to about 1945. Industrial: Physical remains and Elder informants indicate that a sawmill was in use at the site as early as the late 1950s.

6. Archaeological Features (If required, add a separate sheet or request an expanded table from ECE).

Feature ID	Feature Type	Dimensions	Description
Test 7B-M Feature	Other	1 m diameter	Unknown, likely Historic stone feature (26 stones), about 10-15 cmbs, associated with structural remains
Sawmill	Other	18 x 8 m	Wooden sawmill remains with blade and workings, primarily surficial, deteriorated condition
Depression	Cultural Depression	16 x 9 m	One meter deep depression associated with a structure (now removed) according to informant
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Click here to enter text.	Choose an item.	Click here to enter text.	Click here to enter text.

Feature Comments: [Click here to enter text.](#)

7. Archaeological Material

Description: 575 Historic/contemporary artifacts (including 223 tin can fragments) from undisturbed deposits, 271 fragments or identifiable pieces of animal bone, 48% of those by count from undisturbed contexts, 18 pieces of Precontact lithic debitage, 3 Precontact stone tools, and 6



pieces of fire-cracked rock (FCR), some likely Precontact, but some associated with a possible historic feature. Over 480 historic/contemporary items were recovered from disturbed contexts and not catalogued or analyzed. Historic materials were overwhelmingly plate glass and wire nails, but there are also considerable faunal remains (including small, medium, and large mammal, bird, and fish; the large majority of it unidentifiable to element or species). There are lesser amounts of bottle glass, surprisingly few cans (most fragments were recovered from just a few tests and likely represent few cans), and relatively few ceramics, with only a few decorated pieces. Also, surprisingly for a site of this potential age, no fragments of clay tobacco pipe were recovered, but one hand-carved wooden pipe was found. Other notable historic finds include a historic “seed” bead, a shell pendant or earring, a shell button, a hair pin, and at least nine machine cut nails. The 18 pieces of Precontact debitage included 7 pieces of quartzite, 7 pieces of silicified siltstone, 2 pieces of black pebble chert, 1 other piece of black chert, and 1 piece of some type of breccia or possibly a small nodule of Tertiary Hills Welded Tuff. Stone tools recovered include one retouched flake of a grey-green obsidian, one retouched flake of a silicified peat, and one utilized flake of the same material. The obsidian retouched flake has not been sourced yet.

Collections: All of the material above was collected, however the 480+ Historic/contemporary items from disturbed contexts will not be curated.

8. Chronology

Calendar Date Range: Precontact component unknown; Historic circa AD 1900-1970

Dating Method: local informants, published sources

Chronology Comments: Usher, Peter J. 1971 Fur Trade Posts of the Northwest Territories 1870-1970. Department of Indian Affairs and Northern Development, Northern Science Research Group, Ottawa.

Radiocarbon Dates

Lab Number	Sample Material	Catalogue Number	Coventional Radiocarbon Age (+/-)	2 sigma Calibrated Date Range (BP)	Calibration Program
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9. Archaeological Culture

Cultural Affiliation: Precontact undetermined; Historic Period Euro-Canadian, Dene, Métis

Archaeological Culture Comments: informants, published sources

10. Site Dimensions and Boundaries

Site Dimensions: 190 x 85 m NW-SE x NE-SW

Site Boundary Determination: The site boundary is largely based on the comprehensive information found in the NAA-2021-001 Permit report, including detailed shovel testing in the northeastern third of the site, a series of archival historical aerial photographs, and the 1973 work of Losey on LfRq-8. The northeast boundary is effectively created by the modern gravel road, the east boundary by the property line, the southwest boundary by the Mackenzie River cut bank, and the western boundary by the structure location reported by a local informant, observable on the historic aerial imagery, and visible today as a depression.

11. Stratigraphy

The sediments encountered displayed considerable variability due to the high levels of disturbance. Those showing the lowest levels of disturbance typically had a dark brown sandy loam from surface to as shallowly as 10 cmbs, to as much as about 35 cmbs. This Ap horizon sometimes had gravel in it presumably due to other ground disturbing activities and the movement of soil across the site. The Ap horizon was typically thinnest to the north and thickest to the south. Beneath this soil horizon a mottled dark brown/red/black/tan sandy loam was encountered. The black patches typically derived from what appears to be charcoal/burning, possibly from a combination of natural fire, historic use, or Precontact use; a determination of this is not possible through shovel testing. There is frequently degraded wood, not typically distinguishable as log, root, or milled lumber. In overall appearance this horizon compares favourably with the 20-25 cm thick soil horizon in which Losey (1973) identified the LfRq-8 feature. We have referred to this soil as the historic A/B horizon, as without an undisturbed soil from this location, it is difficult to determine to what extent this horizon comprises the B horizon alone or portions of the historic A horizon as well. We have observed similarly mottled soils on other Historic period archaeological sites where historic use has essentially churned up a thin A horizon into the B horizon creating a similar mottled soil. We are unable to fully comment on its relationship to an undisturbed soil profile as none are present here. Excavation will be needed to understand this soil horizon, its genesis, and its level of disturbance. In some tests it appears as if cultivation would have absolutely reworked the entire A horizon extending into the B, whereas in others the thickness of the Ap horizon suggests that additional earth has been moved into these areas. This historic A/B horizon is encountered as shallowly as about 10 cmbs, and in some cases not until over 30 or 40 cmbs. The underlying C horizon, consisting commonly of mottled brown/red/gray clay sand, often with gravel, was encountered as shallowly as only 10 cmbs, in one case at about 70



cmbs, but most commonly by about 40 cmbs. Inspection found the riverbank and steep slope both heavily overgrown with vegetation and covered with a considerable mass of ice-rafted or spring run-off associated driftwood. There were only a few short sections with an exposed cut that could be inspected. From the assortment of contemporary refuse items seen, it is apparent that some of the deposits along the bank are materials bulldozed to the edge (and likely over it). Otherwise, the deposits visible are massive brown silts up to 2 m in thickness, with no clear signs of palaeosols or other breaks in stratigraphy in those visible sections. These silts overly other massive layers of gravels and cobbles down to river level.

12. Environmental Context

Terrain/Landform: The site is located about 600 m east of the confluence of the McKenzie and Great Bear Rivers, on the 15-20 m terrace overlooking the Mackenzie River to the south. The site lies between Bear Rock Drive and the river terrace edge in the hamlet of Tulita.

Local Elevation (m): 15-20 m

Local Elevation Determination: Height relative to river level, and based on information derived from NTS and GPS source data.

Environment Comments: [Click here to enter text.](#)

13. Site Condition and Disturbance

Inspection of aerial imagery indicates that the Project area has been heavily disturbed in the past by Historic Period and contemporary activities such as building construction, road building, vehicle and foot paths, agriculture, and other common use. That a series of buildings have been constructed and, in most cases, later demolished or moved is apparent. Nonetheless, we found that only 11 of the 56 shovel tests were completely disturbed. A total of 24 of the tests encountered some type of fill (driveway, road, or pathway gravels or simply disturbed soil fills), clustered primarily in the northwest adjacent to, but extending well beyond, the modern drive, and along the north fence adjacent to Bear Rock Drive. Forty-two of the tests showed clear signs of a buried "historic" soil horizon, albeit in a few cases very thin and disturbed. Surface reconnaissance was undertaken of most the site area but was most intensive in the area slated for infrastructure development. No artifacts were observed on the surface, nor were there any surface indications of potential buried features such as depressions or linear patterns in vegetation. Erosion is active along the terrace edge, and has undoubtedly removed portions of the site. Considering the removal of the historic structures, the site may be considered to be about 40% intact, but further work is required to better establish this conclusion.

14. Site Description

Site 550X is a multicomponent Precontact and Historic Period archaeological site representing the remains of Precontact camping activities and the remains of the Northern Trading Company post at Fort Norman (now Tulita). Given its location, it would not be surprising to encounter Protohistoric materials here. In 2021, in addition to surface reconnaissance, a total of 56 screened shovel tests were excavated within or directly adjacent to a proposed development footprint in the northeastern third of the site. Forty-one of those tests showed evidence of substantial intact Holocene deposits beneath either the zone of cultivation or other significant disturbance. This site is most likely related to LfRq-8 recorded by Losey (1973). Losey (1973) states that LfRq-8 (FN-2) was exposed in the lower terrace at the edge of Jack Hardy's property (this is the PCA Bear Rock Drive property). That site consisted of a large,



130 x 75 cm hearth, with a maximum thickness of 10 cm in the center. The top of the feature was observed to be at 12 cm below surface, and was composed of ash, calcined bone (hare, fish, and beaver), and fire-cracked rock (FCR). Lithic debitage and stone tools were also recovered. Fifty percent of the feature had been lost to erosion. Hanks (1982) revisited LfRq-8 and makes it clear that it was on the Jack Hardy property and is associated with the Northern Trading Company buildings, which had been bulldozed over the riverbank when a potato garden was cleared. Hanks (1982) collected historic ceramics and four Precontact pieces of debitage in Jack Hardy's potato garden, from 10-40 m north of the terrace edge, and suggested that these would have represented the "rear section" of the Precontact site.

The 2021 AIA also yielded evidence of a Precontact occupation on this landform. Fourteen shovel tests produced Precontact artifacts. Seven of those tests yielded Precontact artifacts in undisturbed contexts, whereas seven produced artifacts in only disturbed contexts. Precontact artifacts include 18 pieces of lithic debitage, 3 stone tools, and 6 pieces of FCR. Among the Precontact debitage recovered was a flake of greenish-gray obsidian, quite possibly from a source in northwestern British Columbia at Mt. Edziza. Given the historic use of the site and mixing of some materials, at the testing stage it is difficult to conclude if any of the faunal remains recovered are associated with the Precontact occupation, but they may be, particularly if burned. All of these tests with Precontact materials were in roughly the north half of the Project area, well north of the terrace where LfRq-8 was previously described. LfRq-8 is probably located along southwestern margin of the property. There is no reason to believe that future work might not show spatial continuity with 550X, which is at most 50 m away. Importantly, the presence of an intact Precontact hearth feature in similar soil horizons as observed in the Project area suggest that additional such intact features may be present in the development zone. While previous observations along the riverbank suggest that stratified deposits are present on the property (Hanks 1982), poor exposure conditions in 2021 did not allow us to reach the same conclusions.

Historic records and informant knowledge indicated the presence of a fur trade post in this location dating to as early as 1900. During the 2021 AIA, while many Historic artifacts were recovered, no intact foundations, cellar pits, or privy pits were encountered, and no formal refuse dumps were encountered. Overall materials are distributed across the area tested, but not evenly. Altogether, few tests provided any direct evidence of structural remains apart from plate glass and nails. The only other test to provide definitive evidence of structural remains was Test 7B-M. At first believed to be the remains of a Precontact hearth uncovered in Test 7C, when uncovered more fully through expansion over an approximately 1.4 m² area and its depth explored, the stones overlay obvious structural remains also associated with the "historic" horizon. This possible feature has only been partially uncovered and not fully excavated. We have used the term "possible" because while the remains uncovered clearly represent something, they may be heavily disturbed remains in a secondary context. Despite the heavy near surface disturbance across the Project area, it holds intact archaeological remains associated with Site 550X.

While most structural evidence of this occupation has been purposefully removed, the hundreds of artifacts and faunal remains recovered in both undisturbed and disturbed contexts demonstrate its presence, and the large amount of archaeological data still potentially recoverable from Site 550X. Several artifacts recovered are consistent with an early 20th century occupation. Faunal remains suggest a diversity of small, medium, and large mammals, birds including birds of prey and waterfowl, and fish. Some of the faunal remains show signs of secondary uses as tools or for bead-making. No high-density dumps were encountered, but there are moderate to high density refuse areas, most notably in the area along the northern fence.

The remains of a historic sawmill are present in the southeastern corner of the site, outside the Project area. Testing encountered one possible intact feature, but one only partially exposed and excavated given the scope of the AIA. This feature appears to have been associated with one of the original Northern Traders compound buildings, but a full understanding of it awaits its excavation. Other features are likely present that we were unable to detect, as surface



signs have been obliterated since the early 1970s, and shovel test density would have had to have been much greater to “guarantee” a hit. A third-party GPR study was undertaken in 2020 in one of the most disturbed areas of the site, and would have likely only covered the area where a single historic building was located. Our informant Fred Clement confirmed that there should be other cellar pits and privy pits associated with the Northern Traders compound. Shovel testing demonstrated that the overall site disturbance was clearly not enough to have removed all traces of these typically deep features.

15. Site Significance

Site Significance Rating: Medium

Site Significance Comments: Although Precontact artifact densities are not high at Site 550X, further study of the remains here may make a significant contribution to our understanding of Precontact lifeways in the area given the evidence of camping and exotic toolstones. There are relatively few Precontact archaeological sites in this area, even fewer of which have been studied to a significant degree. In addition, while heavily disturbed, the Historic fur trade component of the site is at least partially intact, and there is reason to believe that features with high information potential, such as privy pits, are likely still largely intact. Focused efforts have moderate to high potential to contribute to our knowledge of this period.

16. Site Risk Assessment

Portions of the site have been lost to erosion along the river cutbank, and this will continue in the future. Previous Historic human activity has also had a major impact on the site, and continued uses of these land parcels for Parks and domestic purposes will likely have at least minor impacts, particularly for any uses that cause any more than shallow ground disturbance.

17. Site Recommendations

Only a portion of the site has been systematically investigated. Further subsurface testing in the remainder of the site is necessary to fully understand its condition and archaeological potential. This should be undertaken particularly if threatened with ground disturbing activities. In addition, the importance of proper GPR studies at Site 550X is hard to overstate. With the history of building construction, demolition, and earth moving at the site, there are very likely additional subsurface remains as observed in Tests 7B-M. While foundations or footings may not be present, there should be cellar and outhouse pits preserved below disturbed levels. Given all of the metal objects about the property ruling out the use of magnetometry, the only alternative to a GPR survey would be to mechanically strip the topsoil from the area with a backhoe or grader and monitor for the stains and artifacts that would mark the top of such pit or depression features. Site should be avoided by a minimum of 30 m from the west and north boundary, and 150 m from the east boundary.



18. Project-Specific Site Management Recommendations

We recommend that a comprehensive GPR study focusing on all areas of potential impact from the development be commissioned. Any anomalies likely representing historic features identified through the GPR survey to be impacted by the Project should be investigated and appropriately mitigated (excavated) prior to development. The results of this AIA also suggest that three portions of the Project area should be subjected to further mitigation prior to any ground disturbing impacts from development including, but not limited to soil stripping, construction work, staging of equipment, stockpiling of materials, or heavy vehicle traffic. These Areas of Concern are based on the results of the subsurface testing program, assessment of soil profiles and disturbance, artifact analyses, and review of historic aerial imagery. If additional GPR surveys are conducted as recommended, these may be modified, or additional Areas of Concern identified. As of now, outside of these Areas of Concern, we have no further concerns for archaeological resources within the Project areas based on the results of this AIA program. Area of Concern 1 (AOC 1) is the area to the north of the existing gravel driveway, and possibly extending beneath it. Bore hole BH3b directly on the edge of the drive illustrated that the gravel fill of the drive likely overlies the “historic” A/B horizon associated with Precontact and Historic materials. Testing in this area identified a relatively thick “historic” A/B horizon, with relatively high artifact densities including a unique wood smoking pipe. This area is also the “backyard” of at least two of the original Northern Traders structures. Such areas just to the east have proven rich in artifacts. More importantly, two of the shovel tests in AOC1 produced Precontact materials consisting of three pieces of debitage, and one retouched obsidian flake tool. If this area is to be disturbed, we recommend that 3 m² of test excavations be placed at each of the Test 6A and Test 8B locations to further investigate the Precontact materials here and provide a greater sample of materials associated with the obsidian find. This work may indicate the need for additional mitigative excavations. If the area of the gravel driveway is to be impacted, the gravel should be mechanically stripped and then subsurface testing undertaken. If no modifications are planned for this area, continued use of the driveway for heavy vehicle traffic is of no concern provided that that traffic is restricted to the actual drive and does not impact the less disturbed areas to the north between the drive and the fence. Area of Concern 2 (AOC 2) is in the northeast part of the potential development zone, south of the fence and north of a line of two small trees. This area provided direct evidence of a possible intact historic feature associated with one of the original buildings, and also had Precontact artifacts. The moderate densities of refuse indicated in Tests 8F and 7A indicate high potential to collect a good sample of artifacts and faunal remains likely discarded in the “backyard” of some of the original Northern Traders buildings. Prior to any ground disturbing activities, we recommend that the possible feature at Tests 7B-M be formally excavated with a 3 x 3 m excavation block, and that six other 1 m² dispersed or aggregated excavation units be used to test other areas. The results of this work may indicate that additional mitigative excavations are necessary. Area of Concern 3 (AOC 3) is located south of AOC 2. Six of the subsurface tests in this area produced Precontact artifacts, including a stone tool. For Historic Period materials, artifact recovery rates were relatively high, including limited evidence of buried structural remains, and domestic items such as the shell button and hairpin. Testing found that this area in the Northern Traders compound interior is among the least disturbed. We recommend that prior to impact, four 1 m² dispersed units be excavated in this area, with up to an additional 6 m² appended to those dependent on the results. The findings of this work may indicate that additional mitigative excavations are necessary.

19. General Comments

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20. References

82-520, Hanks, Christopher C., 1982, Site Inspections in the Fort Norman Area – 1982, Submitted in compliance with archaeological permit #82-520, Report on file, Prince of Wales Northern Heritage Centre.



73-336, Losey, Timothy C., 1973, MacKenzie Pipeline Archaeological Project, A Report. Report on file, Prince of Wales Northern Heritage Centre.

NAA-2021-001, Meyer, Dan, and Cheyanne Lepka, 2022, Archaeological Impact Assessment, Parks Canada Agency Tulita Infrastructure Project, Final Report, Permit NAA-2021-001. Report on file, Parks Canada Agency, Terrestrial Archaeology, Winnipeg.

Usher, Peter J., 1971 Fur Trade Posts of the Northwest Territories 1870-1970. Department of Indian Affairs and Northern Development, Northern Science Research Group, Ottawa.