# 2015 & 2016 Donnelly Training Area

### **Section 106 Activities**

Much of the eastern portion of DTA has been thoroughly surveyed for cultural resources over the past decade. Because of that, Army undertakings and trainings are often found in previously surveyed areas and Section 106 consultation is covered by the USAG FWA's Operations and Maintenance Programmatic Agreement (Thomas 2014). No archaeological surveys took place in 2015 in DTA with respect to Army Undertakings. In 2016, however, a new type of Army training activity prompted Section 106 correspondence with the SHPO and stakeholders as well as a variety of site projective measures. The Arctic Anvil training event brought upwards of 8000 soldiers from the US and Canada into DTA east for simulated battles requiring excavation of fox holes, tank trenches, and other protective berms. In order to facilitate training in an area with nearly 400 archaeological sites, mechanical dig areas were established, protective signage was placed on 200 sites, and the training event was regularly inspected for damage to sites. Three Section 106 consultations related to this event took place during 2016, an original No Historic Properties Affected letter outlining the protective measures put in place to prevent damage to sites (13 July 2016), a site capping experiment with a new concrete cloth over one of the site in the APE for the training (19 July 2016), and a final letter relating minor damage to two sites in the BAX SDZ due to vehicle rutting during wet weather (12 August 2016) which resulted in an MOA to mitigate for the damage. An MOA was also developed with the University of Michigan for test excavations at XMH-00917 in the BAX SDZ (3 July 2016).

#### Archaeological Surveys

A total of 8425.5 acres were surveyed for archaeological sites by CEMML in DTA during the 2015 and 2016 field seasons. All highlighted areas in Figure 117 were covered by pedestrian transects, and shovel testing occurred in upland locations. Surveys covered the last remaining portions of the BAX SDZ (survey required under FW-PA-1207) (366.6 acres) and for the Donnelly Trail Training Area Repair Plan (13.6 acres) during the 2015 field season. During 2016, field surveys covered a PDZ in the Donnelly Dome Area of TA530 and 531 (2434.5 acres), a PDZ in the Dinosaur Ridge Area of DTA west (5544.7 acres), and in a firebreak area, also in DTA west (66 acres). Nineteen new archaeological sites were found during these surveys.



Figure 117. All surveys in DTA by year.

# Archaeological Sites and Determinations of Eligibility

Three new archaeological sites were added to the AHRS in 2015 (XMH-01536, XMH-01537, and 01539) and an additional 16 sites were added in 2016 (HEA-00685, XBD-000425 through XBD-00431 and XMH-01544 through XMH-01551) (Figure 118). Two sites had DOEs in 2015 (XMH-00282 which was combined with XMH-01171 and XMH-00322), one site was relocated in 2015 (XMH-01237), and XMH-00838 underwent testing in 2015 under FW-MOA-1411 (Figure 119).



Figure 118. DTA new sites from 2015 and 2016.



Figure 119. DTA DOEs and relocated sites from 2015 and 2016.



HEA-00685 is located on a high ridgeline off the road system in the southwest corner of DTA west, 68 km west of Delta Junction (Figure 118). This site consists of one collapsed cairn located on a small rocky rise of granitic bedrock (Figure 120). The cairn is comprised of a pile of approximately 30 rocks, most of which have flat surfaces. The pile measures 230 cm east-west, 245 cm north-south, and 25 cm at its maximum height (Figure 121, Figure 122). The rocks in the pile differ in material type (quartz schist) from the surrounding exposed bedrock and appear to have been moved from a lower-elevation outcrop. Geological maps show quartz schist exposed just downslope of the site (Wilson et al. 2016). Weathering and lichen growth patterns indicate

rearrangement of the rocks from their original location by humans. Weathering is not uniform across a single surface of the pile. Lichen growth ends abruptly on some rock faces, and lichen growth exists on the underside of some rocks, indicating those surfaces were previously exposed. The surface of the rise is exposed, and there is minimal vegetation. Vegetation consists of scattered grasses, bearberry, and sparse dwarf birch. The landform overlooks the valley of Buchanan Creek to the north and west. No test pits were excavated due to lack of sediment deposition. No surface artifacts or other cairns were found in the area.



Figure 120. Aerial view of cairn, a light spot amidst darker exposed ground.



Figure 121. HEA-00685 cairn.



Figure 122. Plan view of HEA-00685 cairn.

XBD-00	)425 (new site 2016)
Latitud	e:
Longitu	ıde:
UTM:	

XBD-00425 is located on Dinosaur Ridge in Donnelly Training Area west, 44.7 km west of Delta Junction (Figure 118). The site was found on a small knob just north of a saddle on the western side of the ridge. A 100% viewshed surrounds the site providing great vantage points to the west into the foothills of the Alaska Range and into a small unnamed stream drainage. Donnelly Dome and the Granite Mountains can be seen to the east and lower elevation peaks of the Alaska Range are visible to the southwest. The ridge crest is exposed, while the slopes are covered with sparse dwarf birch and spruce, low scrub, mosses and lichens (Figure 123).

Two chert flakes were found on the surface in a depression on the northern end of the knob (Figure 124). The flakes were not collected. A small lichen-covered rhyolite microblade core was collected from the surface (UA2016-144-001) (Figure 125). No shovel tests were excavated at the site as bedrock regolith was exposed on the surface.



Figure 123. XBD-00425 site overview.



Figure 124. XBD-00425 site map.



Figure 125. Microblade core at XBD-00425.

XBD-00426	(new site 2016)	
Latitude:		
Longitude:		
UTM:		

XBD-00426 is on Dinosaur Ridge in DTA west, 44.5km west of Delta Junction (Figure 118). A flake was found on the south side of the slope of Dinosaur Ridge, 200m south of a small tower. A few small rises scatter the slope and the flake was near the vegetation line and a large alder. The site has excellent visibility with the Alaska Range to the southwest, the Delta River and Hillbilly Hill to the east, Molybdenum Ridge to the south, and Donnelly Dome to the southeast. Sparse spruce, alder and birch are found off the top of the ridge (Figure 126).

One gray and light gray banded chert flake was discovered on a side slope but was not collected (Figure 127, Figure 128). The area upslope of the flake was searched for cultural material but none was found and no subsurface testing took place.



Figure 126. XBD-00426 site overview.



Figure 127. XBD-00426 site map.



Figure 128. XBD-00426 flake on surface.

XBD-00427	(new site 2016)
Latitude:	
Longitude:	
UTM:	

XBD-00427 is on Dinosaur Ridge in DTA West, 44.5km west of Delta Junction (Figure 118). The site is located on the apex of the north-south oriented arm of the ridge. The 360° viewshed includes the Alaska Range to the south and west and the Delta River Valley to the east. Alpine vegetation on site consists of low scrub, moss, lichens and grasses, with exposed gravels (Figure 129). A military radio tower is within 200m to the south.

A single gray chert flake was found on the surface during survey in 2016 (Figure 130, Figure 131). It was not collected and no subsurface testing took place.



Figure 129. XBD-00427 site overview.



Figure 130. XBD-00427 site map.



Figure 131. Flake on surface of XBD-00427.

XBD-00428 (	new site 2016)	
Latitude:		
Longitude:		
UTM:		

XBD-00428 is located along the ridgeline of the north-south oriented arm Dinosaur Ridge in DTA West, 44.5km west of Delta Junction (Figure 118). The 360° viewshed includes the Alaska Range to the south and west and the Delta River Valley to the east. Alpine vegetation on site consists of low scrub, moss, lichens and grasses, with exposed gravels (Figure 132). A military radio tower is located 350 m to the south.

A tan rhyolite flake was found on the surface during survey in 2016 (Figure 133, Figure 134). It was not collected, and no subsurface tests were conducted because fragmented bedrock is exposed at the surface.



Figure 132. XBD-00428 site overview.



# Figure 133. XBD-00428 site map.



Figure 134. Flake on surface of XBD-00428.

XBD-00429 (new si	te 2016)
Latitude:	
Longitude:	
UTM:	

A cairn was found on the ridgeline of the north-south arm of Dinosaur Ridge in DTA West, 44.5km west of Delta Junction (Figure 118). The 360° viewshed includes the Alaska Range to the south and west and the Delta River Valley to the east. Alpine vegetation on site consists of low scrub, moss, lichens and grasses, with exposed gravels (Figure 135).

The cairn, situated on the very end of the ridge, had a diameter of approximately 1 m and was made from over 50 rounded cobbles (Figure 136, Figure 137). The cobbles are lichen covered and grass and moss are growing up between them. No cobbles were collected and no subsurface testing was conducted.



Figure 135. XBD-00429 site overview.



Figure 136. XBD-00429 site map.



Figure 137. XBD-00429 cairn.

XBD-00430 (new site 20	)16)
Latitude:	
Longitude:	
UTM:	

XBD-00430 is located 200m down a finger ridge extending east from Dinosaur Ridge in DTA West, 44.5km west of Delta Junction (Figure 118). Although the viewshed is blocked by Dinosaur Ridge in the west and a neighboring finger ridge to the north, the distant Yukon-Tanana Uplands are visible above the Delta River valley in the east, along with Donnelly Dome and the Alaska Range foothills in the south. The ridge crest is exposed, while the slopes are covered with sparse dwarf birch and spruce, low scrub, mosses and lichens (Figure 138). The closest water is a creek in a saddle 200 m to the north.

During survey in 2016, three gray chert flakes were found on the surface on a high spot of the ridge (Figure 139, Figure 140). The artifacts were not collected and no subsurface investigations were conducted.



Figure 138. XBD-00430 site overview.







Figure 140. Flake at XBD-00430.

XBD-00431 (new site 2016)				
Latitude:				
Longitude:				
UTM:				

XBD-00431 is located 350 m down a finger ridge extending east from Dinosaur Ridge in DTA West, 44.5km west of Delta Junction (Figure 118). Although the viewshed is blocked by Dinosaur Ridge in the west and a neighboring finger ridge to the north, the distant Yukon-Tanana Uplands are visible above the Delta River valley in the east, along with Donnelly Dome and the Alaska Range foothills in the south. The ridge crest is exposed, while the slopes are covered with sparse dwarf birch and spruce, low scrub, mosses and lichens (Figure 141). The closest water is a creek in a saddle 200 m to the north.

A large rhyolite early stage biface blank was found on the surface near the toe of the ridge during survey in 2016 and collected (UA2016-141-001) (Figure 142, Figure 143). No subsurface investigations were conducted.



Figure 141. XBD-00431 site overview.



Figure 142. XBD-00431 site map.



Figure 143. Biface blank from XBD-00431.

XMH-00282 (combined with XMH-01171) Latitude:

## UTM:

#### Determination of Eligibility: Eligible

XMH-00282 was originally discovered by Chuck Holmes during a 1979 BLM land withdrawal survey (Holmes 1979b). Three black chert flakes, a gray chert flake, and a rhyolite flake were found on the exposed surface of a knoll (Figure 119). Holmes did not recommend any further assessment at that time. In 2003, a field crew surveying in the area found artifacts approximately 100 m south of XMH-00282 and did not realize that they were already at a known site. The site was given a new AHRS number, XMH-01171 (Robertson et al. 2004). As shown in Figure 144, XMH-00282 and XMH-01171 are just meters apart on the same knoll. During the 2004 field season, field technicians under the direction of archaeologist Aaron Robertson conducted Phase II evaluation of and found it eligible for the NRHP under criterion D (Raymond-Yakoubian and Robertson 2005b). At the time, protective measures were proposed to prevent or mitigate these possible effects from trail maintenance and construction at nearby 12-mile crossing, the low-water crossing of Jarvis Creek. A fence composed of recycled metal pipes with steel cable running in-between was set up to restrict access to the site from the road (Figure 145).

The site was revisited in 2015. A notched projectile point and a flake were found at UTMs 562696 E, 7081086 N, at the northern end of the feature. The black chert flake was left on surface but the obsidian notched point (UA2105-153-001) was collected. XRF analysis showed that the obsidian came from the Batza Tena source (Figure 146). The condition of the site had deteriorated since the time of the DOE. The fence had been removed and several vehicle trails are eroded to bare soil across the landform (Figure 147).

After the 2015 revisit, it was clear that both sites XMH-00282 and XMH-01171 represent the same cultural event. It is recommended that the sites are combined and renamed XMH-01171 because a DOE already exists for that site. XMH-01171 is eligible for the NRHP and there is no reason to put additional tests across the site at this time.

Below is an updated site description for XMH-01171.



Figure 144. Location of XMH-00282 adjacent to XMH-01171 on same knoll.



Figure 145. Fence separating road from XMH-01171.



Figure 146. Obsidian notched projectile point found in 2015.



Figure 147. View of XMH-01171 in 2015. Fence would originally been adjacent to the road on the far side of the truck.

XMH-01171	
Latitude:	
Longitude:	
UTM:	
Dotormination of Eligibi	ility Eligible (06/02/2000

Determination of Eligibility: Eligible (06/03/2005)

Site XMH-01171 is located on the southern edge of a terrace overlooking the Jarvis Creek floodplain, 19.5 km south of Delta Junction (Figure 119). The nearest water sources are Ober Creek and Jarvis Creek located 1.5 km and 1.7 km to the east. The view shed at the site is 180°. The Granite Mountains are visible to the southeast and Muskeg Hill can be seen to the east. Surface visibility at the site is 75% because of surface erosion (Figure 148).



Figure 148. XMH-01171 site overview.

A significant amount of stone tool production took place on site. More than 250 flakes were found on the surface and an additional 33 flakes were found buried in shovel tests or test units. Chert, basalt, rhyolite, quartzite and obsidian (a non-locally occurring material type) were present among the debitage. Seventeen tools were found at the site (Table 19). In addition to these artifacts, more than 100 of the over 250 flakes found at the site are of brown and clear glass. Whether this glass is from the contact or historic period is presently unknown. A clear glass scraper was also found at the site.

A total of 121 shovel test pits were excavated at the site (Figure 149). A 10m shovel test grid was established, although some shovel tests were excavated at 5m intervals on the northern

portion of the site. Five meter interval tests were excavated here because more soil was deeper and the likelihood of encountering subsurface artifacts was greater. All shovel tests were excavated to glacial deposits. A total of eight shovel tests were positive and artifacts were found from 1-40 cmbs.

One 1m x 1m test unit was excavated at site XMH-01171. The unit was placed just inside the tree line to the north-northeast of the site datum, in between two positive shovel tests. The test unit was excavated in 10 cm levels until glacial outwash gravels were reached. The test unit contained a 24 artifacts recovered from 10-50 cmbs.

The southwest and northeast portions of the site have sustained considerable wind erosion as well as road, vehicle and various amounts of military disturbance. As a result, soil deposition at these portions of the site averages only 15cm in depth. Soil in these deflated areas consists of loosely compacted, dark brown, organically rich loess to an average depth of 4 cm. Below this organic horizon, the sediment is compacted yellow brown loess with a low density of gravels and cobbles overlying glacial outwash gravels.

Artifact Class	Frequency	% of Assemblages
Bifaces		
Biface fragments	10	<4%
Unifaces		
End scrapers (1 of glass)	2	<1%
Uniface, flake tool	1	<1%
Burins		
Possible burin spall	1	<1%
Microblade Cores and Microblades		
Microblades	1	<1%
Flake Cores	2	<1%
Debitage		
Flakes (100+ of glass)	250+	>93%
Shatter	2	<1%
Total	269+	100%

Table 19. Lithic assemblage recorded from XMH-01171.



Figure 149. XMH-01171 site map.

More than 250 artifacts were recorded at XMH-01171, 17 of which are tools. Thirty-three artifacts were found below the surface either in positive shovel tests or in the test unit. Materials at the site include chert, basalt, rhyolite, quartzite, glass and obsidian (a non-locally occurring material type). Based on the results of the survey and testing, the site area is estimated at approximately 100m x 100m.

Site XMH-01171 is a high-density site with both surface and subsurface components. With buried cultural material and multiple tool types, including possible contact period artifacts, XMH-01171 is in an excellent position to contribute to our knowledge of prehistoric land use patterns. In situ artifacts and soil stratigraphy indicate datable material and diagnostic artifacts may be present and could be used to date human use of the site, potentially contributing to a broader regional context. Site XMH-01171 is an intact archaeological site with integrity. The site is eligible for inclusion in the National Register of Historic Places under criterion D, for its potential to yield information important in understanding the prehistory of the region.

#### XMH-00322 (DOE 2015)



XMH-00322 was discovered by J. Steele in 1980 during a survey of the Fort Greely Bison Trail (Steele 1980). Numerous flakes, of a variety of materials, were noted scattered along the top of a north-south trending glacial ridge. The site was noted on a map and described as being 5.4 km south of the Alaska Highway, 12.3 km southeast of the Richardson Highway entrance to Fort Greely, and a quarter mile east of a lake (Figure 119). CEMML crews tried to find the site in 2014 and 2015 using both the map and the coordinates found in the AHRS (Figure 150). The site was never relocated and no landform matching the description in Steele's report was ever found in the vicinity. Because its existence cannot be verified and no other archaeological sites have been found nearby that may correspond to the same description, XMH-00322 is not eligible for the NRHP. The coordinates of the site place it within the boundary of the Jarvis Creek Archaeological District (XMH-01553). Because neither the landform nor the artifacts can be relocated, XMH-00322 is not a contributing property to XMH-01553.



Figure 150. Area surveyed in 2014 and 2015 for XMH-00322 (green outline).



Determination of Eligibility: Eligible

Site XMH-00838 is situated 45 m above the Delta River floodplain on the southern side of a partially deflating bluff, 25 km south of Delta Junction (Figure 119). The site was located in 1998 by P. Bowers and J. Cook after making an inspection of nearby site XMH-00297. Northern Land Use Research, Inc. (NLUR) excavated a test trench and five 1x1 units during the 1998 investigation. They discovered artifacts, bone, and charred wood on the surface and buried in stratigraphic context. The site has a thick section of loess, sand, and paleosols spanning the entire Holocene (Potter et al. 2007). Although this site has a rich cultural record and significant potential for further research, a DOE was never completed.

In 2012 a CEMML crew conducted Phase II evaluations of XMH-00838 from 16-30 August 2012. This fieldwork included site mapping, excavation of nine test pits and 1x2 test unit, and recovery of surface artifacts that had eroded out of the bluff edge down the slope south of the

site (Figure 152, Figure 152). A total of 40 artifacts were recovered including two chert scrapers, a net sinker, an obsidian flake and two tabular cores (UA2012-92).

The site demonstrated significant impact by wind erosion, wildlife, and possibly recreation and training in the intervening 15 years since original discovery. Comparison of the present bluff edge location to the 1998 site map and photographs demonstrate that approximately 1 m of sediment has eroded back from the bluff face (Figure 152). The exposed bluff edge continues to undergo wind erosion and bison trails along the bluff edge (and bison hair caught in roots along the bluff face) indicate that bison are also contributing to physical weathering of the site.

The lack of artifacts in the shovel tests north of the bluff edge, the new test units and the general infrequency of artifacts elsewhere across the site suggests that either the site has a low density of cultural material or much of the prehistoric campsite has already been eroded during the past. Despite this, the site was found eligible for the NRHP on 19 December, 2013 under criterion D because of its well stratified loess, paleosol, and volcanic ash sequences that preserve significant Holocene paleoenvironmental information, the multicomponent nature of the site, the excellent preservation of organic remains for dating, and because of the possible preservation of deeply buried cultural materials.



Figure 151. XMH-00838 site overview.



Figure 152. XMH-00838 DOE site map.

In 2015 CEMML again revisited the site for excavations under FW-MOA-1411. This MOA mainly targeted mitigation for erosion control measures at nearby site XMH-00297 (Delta River Overlook). New artifacts were found eroding out of the bluff edge again in 2015. A new datum was set at a higher elevation of the bluff. Near this datum, the excavation of new trench units were began in an attempt to recover artifacts in situ (Figure 153). Though the excavations were only partially complete, no definite cultural material was found in situ. A possible feature was located in the southern unit trench where bone and burnt wood particles were found within a feature-like soil stain (Figure 154). No additional material was recovered.



Figure 153. XMH-00838 site map 2015.



Figure 154. Possible hearth feature at XMH-00838.

The majority of work during this phase has centered on paleoenvironmental research, dating, and correlating paleosols with XMH-00297 up the bluff. A 2x1 m excavation unit was dug at the southern portion of the site for a geological trench. No artifacts were located but soil samples were taken for testing by Josh Reuther University of Alaska Museum of the North), Jennifer Kielhofer (University of Arizona), and Laurence Forget Brisson (University of Quebec at Montreal). Reuther has radiocarbon dated several of the paleosols at XMH-00838 and correlated them with paleosols found at XMH-00297 (Figure 155). Kielhofer is using organic geochemical techniques on the organic compounds in the buried soils to detect ancient temperatures. Brisson is using sediment samples to help refine feldspar single-grain optically stimulated luminescence techniques to date buried wind-blown silts. All of this research is currently ongoing. More work is expected at the site in upcoming field seasons.



Figure 155. Correlation between XMH-00838 and XMH-00297.

# XMH-01237 (relocated 2015) Latitude: Longitude: Longitu

#### Determination of Eligibility: Not evaluated

XMH-01237 is located 27.5 km south of Delta Junction and 1 km west of Donnelly Dome in DTA east (Figure 118). It also falls within the boundaries of the Donnelly Ridge Archaeological District (XMH-00388). The site was found by D. Odess under contract for Tanana Chiefs Conference (TCC) in 2002. It was situated on the highest knob of a ridge overlooking a small drainage and Dome Lake (Figure 156). In 2014 and 2015 CEMML revisited the site to confirm the coordinates. They were able relocate the 2002 shovel tests and excavations (Figure 157).

Over a four dozen basalt, chert, and chalcedony flakes were found in nine of twelve test pits excavated at the site (Figure 157, Table 20). Artifacts were primarily flake fragments and bifacial pressure flakes. Although Odess (2002) reported a large number of quartzite flakes, these were found not to be artifacts.



Figure 156. XMH-01237 site overview.



Figure 157. XMH-01237 site map.

Table 20. XMH-01237	' accession log.
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Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2016-149-0001	STP 8	7	Bifacial pressure flakes, flake frags	Basalt, gray chert
UA2016-149-0002	STP 8	1	Bifacial pressure flake	Basalt
UA2016-149-0003	STP 8	1	Charcoal sample	
UA2016-149-0004	STP 9	1	Pebble tool	Gray chert
UA2016-149-0005	STP 10	1	Bifacial pressure flake	Basalt
UA2016-149-0006	STP 10	1	Charcoal sample	
UA2016-149-0007	ST 11/T7	32	Bifacial pressure flakes, flake frags	Basalt, chalcedony
UA2016-149-0008	Removed from	collection		
UA2016-149-0009	ST 11/T7	1	Charcoal sample	
UA2016-149-0010	STP 12	1	Charcoal sample	
UA2016-149-0011	STP 15	2	Flake fragment, edge prep flake	Basalt
UA2016-149-0012	STP 18	6	Bifacial thinning, flake frags	Basalt, gray chert
UA2016-149-0013	STP 18	1	Charcoal sample	
UA2016-149-0014	STP 19	2	Bifacial thinning, flake frag	Basalt
UA2016-149-0015	STP 19	3	Flake fragments	Basalt, gray chert
UA2016-149-0016	STP 20	1	Interior flake	Basalt

XMH-01536 (new site 2015)	
Latitude:	
Longitude:	
UTM:	

XMH-01536 is located on Donnelly Ridge, 30 km south of Delta Junction and 2 km southwest of Donnelly Dome (Figure 118). This site was discovered during a 2002 survey by D. Odess under contract with TCC but never reported (Odess 2002). Two black chert flakes were located on the surface of a large ridge with exposed soil and a great view of Donnelly Dome to the northeast (UA2015-150) (Figure 158). The site was revisited in 2015 by CEMML to verify its location. The site was relocated but no new artifacts were found on the surface and subsurface testing was not conducted. The site is found within the boundaries of the Donnelly Ridge Archaeological District (XMH-00388).



Figure 158. XMH-01536 site overview.

XMH-01537 (new site 2015) Latitude: **Example** Longitude: **Example** UTM:

Determination of Eligibility: Not evaluated

XMH-01537 is located on Donnelly Ridge, 30 km south of Delta Junction and 2.5 km southwest of Donnelly Dome (Figure 118). This site was discovered during a 2002 survey by D. Odess under contract with TCC but never reported (Odess 2002). One black chert retouched flake was located on the surface of a large ridge with exposed soil and a great view of Donnelly Dome to the northeast (UA2015-151-001) (Figure 159). The site was revisited in 2015 by CEMML to verify its location. The site was relocated but no new artifacts were found on the surface and no artifacts were discovered in a shovel test. A 4 cm thick organic mat overlies 15 cm of silt at the site (Figure 160). Glacial outwash gravels are found at the base of the profile and are mixed with the overlying silt. The site is found within the boundaries of the Donnelly Ridge Archaeological District (XMH-00388).



Figure 159. XMH-01537 site overview.


Figure 160. XMH-01537 stratigraphic profile.



Determination of Eligibility: Not evaluated

XMH-01539 is located 29 km south of Delta Junction and 2.5 km west of Donnelly Dome (Figure 118). This is a site of an early 1900's vehicle found less than 10 meters to the west of the Old Richardson Highway (Figure 161). The vehicle (uncertain if it is a car or truck) is situated in a lower saddle down slope of the Old Richardson highway. Much of the body is rusted and destroyed, metal scrap can be found on the ground surrounding the vehicle though no tires, windows, windshield or engine appear to be present on the surface (Figure 162, Figure 163). The steering wheel is also absent however man gauges are present on the dashboard as well as the housing for the headlights on the front bumper. A tree grows very closely to and through the vehicle and may be hard to see depending on the time of year and leaf coverage. Because of its proximity to the Old Richardson highway, the vehicle is in danger of destruction in the event of any road improvements.



Figure 161. XMH-01539 site map.



Figure 162. XMH-01539 site overview.



Figure 163. XMH-01539 car.

XMH-01544 (new site 2016)
Latitude:
Longitude:
UTM:
Determination of Eligibility: Not evaluated

XMH-01544 is located in the center of Dinosaur Ridge in DTA West, 49 km west of Delta Junction (Figure 118). Dinosaur Ridge is a long linear bedrock feature located between the little Delta River (west) and Delta Creek (east) (Figure 164). The Nenana Gravel bedrock is tertiary age (11-3.5 million years old) sedimentary rock composed of poorly sorted conglomerate, sandstone, and mudflow deposits with thin lignite beds (Csejtey et al. 1992). The terrain is rugged and treeless. The surface is exposed along the crest of the ridge (Figure 165).

XMH-01544 consists of two lithic artifacts identified in a small blow out at the top of the ridge line. The viewshed is blocked by Dinosaur Ridge in the N, leaving 180° open to views of the Delta Creek, Delta River and Donnelly Dome to the east and the Alaska Range from the Granites in the southeast to the west, where the Little Delta River is just visible. The vegetation consists of black spruce, dwarf birch, low scrub, mosses and lichens. The surface has isolated exposures.

Two gray chert flakes were found within 20 cm of each other. The larger of the two flakes had retouch along one lateral margin. The artifacts were not collected. Total lack of deposition made subsurface testing at this location unfeasible.



Figure 164. Dinosaur Ridge archaeological sites.



Figure 165. Dinosaur Ridge overview.

XMH-01545 (new site 2016)
Latitude:
Longitude:
UTM:

XMH-01545 is located on a prominent knoll of Dinosaur Ridge (Figure 118, Figure 164). The viewshed is 360° from the highest point of the site, encompassing the distant Yukon-Tanana Uplands to the northeast, the Delta Creek, Delta River and Donnelly Dome to the east, and the Alaska Range sweeping from the Granite Mountains in the southeast to the west where the Little Delta River runs north and intersects the Tanana River (Figure 166). The alpine tundra vegetation consists of dwarf birch, low scrub, mosses and lichens. The surface is dotted with small exposures. The closest water source is a small unnamed creek in a valley to the northeast. Some modern trash and a relatively recent fire pit (Figure 167) are the only indications of recent use.

A small surface lithic scatter was identified in a 20 x 60 m area during survey in 2016 (Figure 168). Five flakes, one beige chert, one gray chert, and three rhyolite, were found on the surface. The artifacts were not collected and no subsurface investigations were conducted.



Figure 166. XMH-01545 site overview.



Figure 167. Fire pit near XMH-01545.



Figure 168. XMH-01545 site map.



Figure 169. Flake on surface of XMH-01545.



XMH-01546 is located 20 km south of Delta Junction and 2.2 km east of the Richardson Highway on a gravel ridge in DTA East (Figure 118). The site was found during a shovel test on a north-south ridgeline parallel to Windy Ridge, 1 km to the west. Two unnamed kettle lakes are the nearest water sources, 500 m east of the site. The ridge is higher than the surrounding area and provides good visibility to the north. The Donnelly Flats and Fort Greely are visible to the northeast and the Granite Mountains can be seen in the southwest. The Alaska pipeline is also located 500 m to the west. The site has approximately 5% surface exposure as most of the ground is covered in low bush cranberries. Vegetation in the area includes dwarf birch, alder, spruce, low scrub, moss, and lichen (Figure 170).

Three chert flakes were found in one of seven test units, 0-15 cmbs (Figure 171, Table 21). A 7 cm organic mat overlies approximately 25 cm of loess at the site. The lowest 10 cm is mixed with glacial outwash gravels (Figure 172, Figure 173).



Figure 170. XMH-01546 site overview.



Figure 171. XMH-01546 site map.

Table 21.	XMH-01546	accession I	og.
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Accession #	Provenience	Quantity	Artifact Type	<b>Raw Material</b>
UA2016-140-0001	WT54, 0-10 cmbs	1	<b>Flake fragment</b>	Gray chert
UA2016-140-0002	WT54, 10-15 cmbs	2	Edge-preparation flake, frag	Gray chert



Figure 172. XMH-01546 stratigraphic profile.



Figure 173. XMH-01546 test pit.

XMH-01547 (new site 2016)	
Latitude:	
Longitude:	
UTM:	

XMH-01547 is located 21 km south of Delta Junction and 1.3 km west of the Richardson Highway on a small gravel rise in DTA East (Figure 118). An isolated flake was found on the surface of the hill. The site has approximately 15% surface exposure. Most of the ridge is covered with moss and lichen (Figure 174). Spruce are found on the slopes. The site has a 360° viewshed with Donnelly Dome to the southwest, the Granite Mountains to the southeast, and Donnelly Dome and the Alaska pipeline to the west. The nearest water sources are two lakes, 1 km to the southwest.

A gray chert retouched flake was found on the surface (UA2016-139-001) (Figure 175, Figure 176). No shovel testing was conducted but the surface of the nearby rises were inspected. No other artifacts were found.



Figure 174. XMH-01547 site overview.



Figure 175. XMH-01547 site map.



Figure 176. Artifact on surface at XMH-01547.

# XMH-01548 (new site 2016) Latitude: Longitude: Longitud

#### Determination of Eligibility: Not evaluated

XMH-01548 is located on the shore of String Lake, 0.5 km west of 33 Mile Loop Road in DTA East, 8.8 km east of the Richardson Highway and 18 km south of Delta Junction (Figure 118). A single lanceolate point was found on the eastern shore of String Lake. The water-worn biface was found among the shoreline gravels. The nearest water sources are String Lake, and Drum and Guitar Lakes immediately to the north. The viewshed to the east is blocked by the ridge which contains XMH-00929 (100 m to the northeast) and XMH-00890 (100 m to the southeast). To the west and southwest, Donnelly Dome and the Alaska Range are visible. Vegetation is a mix of moss, grass, and lichen in the vicinity of the artifact (Figure 177). Spruce, alder, and birch appear less than 20 m from the lake edge. No shovel tests were excavated but the site is thought to be an isolated projectile point on the edge of the lake (UA2016-145-001) (Figure 178, Figure 179). No other artifacts were found on surface.



Figure 177. XMH-01548 site overview.



Figure 178. XMH-01548 site map.



Figure 179. Projectile point from the shore of XMH-01548.



XMH-01549 is located 48 km west of Delta Junction in DTA West (Figure 118). Flakes were found on a small finger ridge extending 100 m south of the apex of Dinosaur Ridge. The viewshed is blocked by Dinosaur Ridge in the north, leaving 180° open to views of the Delta Creek, Delta River and Donnelly Dome to the east, and the Alaska Range from the Granites in the southeast to the west, where the Little Delta River is just visible. The vegetation consists of black spruce, dwarf birch, low scrub, mosses and lichens (Figure 180). The surface has isolated exposures.

A small lithic scatter was identified during survey in 2016. Six tan and gray chert flakes were observed on the surface of the ridge (Figure 181, Figure 182). The artifacts were not collected and no subsurface investigations were conducted.



Figure 180. XMH-01549 site overview.



Figure 181. XMH-01549 site map.



Figure 182. Flakes on surface at XMH-01549.

XMH-0155	0 (new site 2016)
Latitude:	
Longitude	
UTM:	

XMH-01550 is located 45 km west of Delta Junction in DTA West (Figure 118). Artifacts were found in a saddle on Dinosaur Ridge between two finger ridges extending south from the main ridgeline. The viewshed is blocked by the surrounding ridges in all but the southeast quadrant, where Hillbilly Hill, Delta Creek, Delta River, the Granites and Donnelly Dome are visible. The vegetation consists of scattered birch and black spruce, dwarf birch, low scrub, mosses and lichens (Figure 183).

A small surface lithic scatter containing 17 gray chert flakes was identified during survey in 2016 (Figure 184, Figure 185). The artifacts were not collected and no subsurface investigations were conducted.



Figure 183. XMH-01550 site overview.



Figure 184. XMH-01550 site map.



Figure 185. Artifacts on surface at XMH-01550.

XMH-01551	L (new site 2010	6)
Latitude:		
Longitude:		
UTM:		

XMH-01551 is located 45 km west of Delta Junction in DTA West (Figure 118). The site was found on the south side of a small knob on Dinosaur Ridge, overlooking a saddle between two finger ridges. The viewshed is filled by Dinosaur Ridge to the north, east and west, and the Alaska Range to the south. Alpine vegetation of low scrub, mosses and lichens is dotted with isolated spruce (Figure 186). A creek in the saddle below is the closest water source.

A single gray chert flake fragment was found on the surface during survey in 2016 (Figure 187, Figure 188). The artifact was not collected and no subsurface investigations were conducted.



Figure 186. XMH-01551 site overview.



Figure 187. XMH-01551 site map.



Figure 188. Artifact on surface at XMH-01551.

# 2015 & 2016 Gerstle River Training Area

# **Section 106 Activities**

There were no Section 106 undertakings in the GRTA in 2015 or 2016

# Archaeological Surveys

During the 2015 field season, 29.3 acres of land were surveyed in the GRTA in flat, birch forest west of the Gerstle River (Figure 189). This area was identified by Fort Wainwright's Environmental Division as a future timber sale area. Pedestrian transects covered the area with shovel tests placed adjacent to an existing trail. Shovel tests revealed 30 cm of silt overlying rounded gravels and cobbles of likely alluvial origin. No archaeological sites were discovered. No archaeological surveys took place in the training area in 2016.



Figure 189. All surveys in GRTA by year. The x color area was surveyed in 2015.

# Archaeological Sites and Determinations of Eligibility

No new archaeological sites were discovered and no DOE's were conducted in the GRTA during the 2015 or 2016 field seasons.

# 2015 & 2016 Black Rapids Training Area

#### **Section 106 Activities**

There were no Section 106 undertakings in the BRTA in 2015 or 2016.

#### Archaeological Surveys

No archaeological surveys took place in the training area in 2015 or 2016 (Figure 190).



Figure 190. All surveys in BRTA by year.

### Archaeological Sites and Determinations of Eligibility

No new archaeological sites were discovered in the BRTA during the 2015 or 2016 field seasons. One site, XMH-01504, was evaluated for its NRHP eligibility in 2015 (Figure 191).



Figure 191. Location of DOE site in BRTA.



#### Determination of Eligibility: Not eligible

XMH-01504 is located in the southern part of BRTA, 59 km south of Delta Junction (Figure 191). A lithic scatter was found on a bedrock outcrop partway up a slope in the Alaska Range. The viewshed from the site encompasses the Delta River floodplain to the west and the Alaska Range rising east and west of the floodplain. Upper Suzy Q Creek is the closest water source, 350 m to the south, and an active ATV trail runs north-south 10 m to the west.

The alpine rocky moist low scrub ecosystem is typified by moss, lichen, crowberry, lingonberry, blueberry, bear berry, Labrador Tea, grasses, bunch berries, and dwarf birch. Surface exposure

is 100% on the outcrop and 40% on the surrounding area. The area is actively used for military training, resulting in litter, displaced rocks and shallow fire pits (Figure 192).

The site was identified upon discovery of three green chert flakes on exposed bedrock in a 20 cm<sup>2</sup> area 3 m north of datum (Figure 193Figure 194). The flakes were not collected and no subsurface testing was conducted in the area at that time. Upon returning for a DOE, an additional 25 flakes were found in the same area (Table 22).

Nineteen shovel test pits were excavated at 10 m intervals of north to south and 5 m intervals east to west where sufficient sediment was found (Figure 194). No additional cultural material was found in subsurface testing.

The landform is composed of shallow windblown silts over bedrock. Five centimeters of organic mat covers 20 cm of well sorted silt. Below this, the top of the bedrock is broken and frost heaved, leaving 10 cm a layer of mixed silt and gravel sized material (Figure 195, Figure 196).

All of the artifacts discovered at the site were on the surface. A total of 28 flakes of six different raw materials (green chert, white chert, gray chert, light gray chert, tan chert, and basalt) make up the entire assemblage (Table 23). Green chert flakes make up almost half of the assemblage. Gray chert and basalt are the second most frequent materials. The majority of flakes (73%) are undiagnostic flake fragments. Of the diagnostic flakes, most are related to late state bifacial sharpening for sharpening a knife or projectile point.



Figure 192. XMH-01504 site overview.



Figure 193. Artifact scatter at XMH-01504. Yellow flags mark flakes.

Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-148-001	surface concentration 1	1	Flake fragment	green chert
UA2015-148-002	surface concentration 1	1	Bifacial pressure flake	green chert
UA2015-148-003	surface concentration 1	1	<b>Flake fragment</b>	green chert
UA2015-148-004	surface concentration 1	1	Flake fragment	green chert
UA2015-148-005	surface concentration 1	1	Edge preparation flake	green chert
UA2015-148-006	surface concentration 1	1	Flake fragment	gray chert
UA2015-148-007	surface concentration 1	1	Flake fragment	white chert
UA2015-148-008	surface concentration 1	1	Bifacial pressure flake	black basalt
UA2015-148-009	surface concentration 1	1	Interior flake	green chert
UA2015-148-010	surface concentration 1	1	Bifacial pressure flake	green chert
UA2015-148-011	surface concentration 1	1	<b>Flake fragment</b>	green chert
UA2015-148-012	surface concentration 1	1	Bifacial pressure flake	green chert
UA2015-148-013	surface concentration 1	1	<b>Flake fragment</b>	green chert
UA2015-148-014	surface concentration 1	1	Flake fragment	black basalt
UA2015-148-015	surface concentration 1	1	Flake fragment	green chert
UA2015-148-016	surface concentration 1	1	<b>Flake fragment</b>	green chert
UA2015-148-017	surface concentration 1	1	Flake fragment	green chert
UA2015-148-018	surface concentration 1	1	<b>Flake fragment</b>	gray chert
UA2015-148-019	surface concentration 1	1	<b>Flake fragment</b>	gray chert
UA2015-148-020	surface concentration 1	1	Linear flake	gray chert
UA2015-148-021	surface concentration 1	1	Flake fragment	light gray chert
UA2015-148-022	surface concentration 1	1	<b>Flake fragment</b>	gray chert
UA2015-148-023	surface concentration 1	1	Flake fragment	tan chert
UA2015-148-024	surface concentration 1	1	Flake fragment	gray chert
UA2015-148-025	surface concentration 1	1	<b>Flake fragment</b>	light gray chert
UA2015-148-026	surface concentration 1	1	Flake fragment	black basalt
UA2015-148-027	surface concentration 1	1	Interior flake	black basalt
UA2015-148-028	surface concentration 1	1	Flake fragment	green chert

	Table 22.	XMH-01504	accession	log.
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Figure 194. XMH-01504 site map.

The USAG FWA finds XMH-01504 not eligible for inclusion in the NRHP under criterion D, information potential. This is for several reasons. First, the site, although not disturbed previous to investigation, is entirely made up of surface artifacts with no contextual information or datable materials. Second, the site was removed in its entirety during Phase II investigation. Third, there are no diagnostic artifacts or non-local, traceable raw materials in the assemblage. Fourth, the elements of the site cannot be used to test hypotheses about prehistoric occupation in the area beyond identifying a place people once briefly visited. There only ten archaeological sites located in the BRTA. They are almost exclusively small surface lithic scatters. No archaeological district has been proposed for this area and it is unlikely that one will be in the future due to the transience indicated by the archaeological record in the area.







Figure 196. XMH-01504 test pit.

Table 23. XMH-01504 flake analysis.

			Flake Typ	е			
				Bifacial		Edge	
			Fragment	Pressure	Interior	Preparat	Linear
a	—	Green Ch	8	2	1	1	0
teri	White Ch	1	0	0	0	0	
Mat		Gray Che	5	0	0	0	1
ME		Light Gray (	2	0	0	0	0
ä		Tan Che	1	0	0	0	0
		Basalt	2	1	1	0	0
		Total	73%	12%	8%	4%	4%

# 2015 & 2016 Whistler Creek Training Area

# **Section 106 Activities**

A total of 61 acres of land in WCTA were surveyed for archaeological sites along the access trail leading into a rock climbing locality during the 2015 field season (Figure 197). The trail was to be cleared of vegetation so that army training activities could take place. One archaeological site was found outside of the project APE during this survey and the SHPO concurred with a finding of No Historic Properties Affected on 12/22/15. No surveys took place in WCTA in 2016.

# Archaeological Surveys

Most of WCTA has not been surveyed for archaeological sites. Army training and scientific studies in the training area have been curtailed by the existence of a golden eagle nest located near the eastern end of the access trail on the top of the climbing rock face. Only 61 acres have been examined thus far (Figure 197).



Figure 197. Archaeological surveys and sites in WCTA by year.

# Archaeological Sites and Determinations of Eligibility

One new archaeological site was discovered in the WCTA in 2015, XMH-01538 (Figure 197). No sites were evaluated for their eligibility on the NRHP during the 2015 or 2016 field season.

# XMH-01538 (new site 2015) Latitude: Longitude: Longitud

#### Determination of Eligibility: Not eligible

XMH-01538 is located in WCTA, 61 km south of Delta Junction (Figure 197). An artifact was found on top of a small northwest-south east trending knoll part way up the slope of the Alaska Range south on the East side of the Delta River (Figure 198). The nearest water sources are Boulder Creek and Whistler creek which run perpendicular to the knoll and are 500 meters to the north and south respectively. The alpine rocky moist low scrub ecosystem is typified by moss, lichen, crowberry, lingonberry, blueberry, bear berry, Labrador tea, grasses, bunch berries, and dwarf birch. Surface exposure is 100% on the outcrop and 0% on the surrounding area (Figure 199).



Figure 198. Location of XMH-01538 in WCTA.



Figure 199. XMH-01538 site overview.



Figure 200. XMH-01538 site map.



Figure 201. Chert flake on surface at XMH-01538.

# 2015 & 2016 Tok Fuel Terminal

# **Section 106 Activities**

There were no undertakings requiring Section 106 consultation in Tok Fuel Terminal during 2015 or 2016. The terminal is property is undergoing restoration in the area where fuel tanks were located during the cold war. Archaeological surveys on Six-Mile Hill on the northern end of the property are being done in anticipation of future divesting of this property.

# Archaeological Surveys

Forty-one acres were surveyed in Tok Fuel Terminal in 2015. Six new sites were found (Figure 202).



Figure 202. All archaeological surveys and sites at Tok Fuel Terminal.

# Archaeological Sites and Determinations of Eligibility

Six archaeological sites were discovered on Tok Fuel Terminal property in 2015 (TNX-00231

through TNX-00236) (Figure 203). One additional site was discovered in 2016 (TNX-00256) (Figure 202).

Three sites were evaluated for NRHP eligibility in Tok Terminal in 2015, TNX-00007, 00010, and 00023. TNX-00007 and TNX-00023 were merged into one site under TNX-00007, and results are reported under that number. One site, TNX-00008 was evaluated for its NRHP eligibility in 2016.



Figure 203. Newly discovered archaeological sites and DOE sites at Tok Terminal.

TNX-00007 and TNX-00023(DOE 2015)
Latitude:
Longitude:
UTM:

#### Determination of Eligibility: Eligible

TNX-00007 and TNX-00023 were identified as small lithic scatters on the top of Six-Mile Hill, ten km west of Tok, during a survey by Cook in 1981 (Figure 203). The sites were relocated in by CEMML in 2012, and in 2015, an investigation for a DOE of the sites discovered artifacts across the surface of the hill, linking the two sites. The sites are therefore merged under one AHRS number, TNX-00007, and a new datum coordinate at the center point of the hill is given above. The crest of the hill is roughly 30 m wide, and runs 90 m east-west, with a small rise at the east end dropping to a low saddle then rising to a small, lower hill at the west end (Figure 204 through Figure 207). The current view of the Alaska Range to the south, the Yukon-Tanana Uplands to the north and the surrounding valley floor varies with vegetation density, giving glimpses of the 360° viewshed the hill would have when unforested. The Tanana River, 3.42 km to the north, is the closest water source. Vegetation typical of the upland moist mixed forest ecosystem includes aspen, spruce, alder, birch, willow, low scrub, flowers, mosses and grasses. Natural surface exposure is null, although disturbed soils and gravels account for 15% exposure. Disturbances include an ATV trail running the length of the site, push piles, fox holes, a power pole on east and west ends, associated cables, a recent fire ring and modern trash.

TNX-00007 was discovered by J. Cook in 1981. The AHRS card reports several flakes, including obsidian, on the highest outcrop on the hill north of the Tok Pump Station (Tok Fuel Terminal) within the fenced perimeter. A 2001 survey by the Army Corps of Engineers could not relocate the site inside the then-current fence line (Hanson 2001). No subsurface work was conducted. Due to extensive disturbance on the fenced in tank farm, a determination of ineligibility due to lack of integrity was recommended. In early 2015, a CEMML survey discovered 4 chert flakes in one of two shovel tests excavated on the west end of the hilltop. This location was later determined to be TNX-00007 due to its proximity to AHRS site coordinates.

TNX-00023 was also recorded by Cook in 1981. The AHRS card notes "several microblades, bifaces, and many flakes within a 30 m x 30 m area near the weather station on the hill just north of the Tok Pump Station" (AHRS card). The site area was also visited during the 2001 Army Corps survey and flakes were observed on the road. No subsurface work was conducted. A 2012 survey of Tok Fuel Terminal by CEMML relocated TNX-00023 on the east end of the hill, the likeliest match to AHRS coordinates. Twelve surface flakes were observed, and a shovel test excavated to determine extent of disturbance. The shovel test contained a biface fragment and three flakes, one with retouch.

In July 2015, CEMML evaluations recorded artifacts along the surface of the landform with no gaps between the two sites. A physical datum was established at the landform midpoint and a shovel test grid laid out at 10 m intervals, with several offset at 5 m intervals to accommodate narrow topography on the west end of the hill (Figure 208). A total of 44 shovel test were excavated to bedrock. Cultural materials in intact stratigraphy were found in 12 of these. Two units were excavated in areas of highest artifact density. All artifacts were collected from the site, due to the danger of destruction from active recreational use (Table 24). Surface artifacts were recorded with a total station prior to collection. Artifacts consisted of 173 flakes (90 surface, 83 subsurface) and 11 tools (7 surface, 4 subsurface). Two charcoal sample and a soil sample were recovered from the units. Material types include chert (black, greys, tan, white,

banded, and red), black basalt, obsidian and white chalcedony. Nine flakes show signs of thermal alteration and four have cortex. Surface tools include a chert burin, chert burin spall, retouched chert flake, a basalt biface, two chert microblades, and one retouched chert microblade. A broken chert scraper, chert uniface, and two chert microblades were found subsurface. All tools except the burin spall were clustered 20 m east and slightly south of datum.

Test units were excavated in 10 cm levels, measured from the highest surface point. Unit 40W3S was excavated between two positive shovel tests on the crest of the western hill. Cultural materials were found in the unit from 0 to 40 cmbs and consisted of 21 historic buttons, 25 chert flakes (4 of which were heat treated), 9 basalt flakes, 1 chalcedony flake, and 1 obsidian flake. A charcoal sample from 30-40 cmbs was dated to 300 +/- 30 radiocarbon years BP and a soil sample was collected at 35 cmbs from a possible hearth feature in the northwest quadrant. Artifacts were concentrated from 10-30 cmbs. The entire unit was excavated to 40 cmbs, after which the northwest quadrant was excavated to sand at 54 cmbs. Due to compacted soil and time constraints, 40W 3S was not completely excavated to bedrock.

Unit 12E 3S was excavated in the surface tool cluster near three positive shovel tests. A datum 8 cm above surface was used for measurements. Cultural materials, consisting of 15 chert flakes, 2 basalt flakes, a chert uniface and a retouched chert microblade, were found from 8-18 cmbs. A charcoal sample was also collected at 17 cmbs. Excavations ended at an uneven layer of bedrock that ranged from 17 to 32 cmbs.

Despite disturbance from military and recreational use, the majority of the remaining stratigraphy at TNX-00007 is intact. Shovel test depths ranged from 7-73 cmbs, with the majority 20-30 cm deep. Excavations on the western hill contained gravels in the upper 10 cm from a gravel pad. The organic layer and upper silts have been removed and exposed to erosion in the disturbed trail, power pole areas and western hill. Although an average of 10 cm disturbed soils were noted in these areas, shovel testing uncovered intact stratigraphy from 10-51 cm deep. Stratigraphy across the site generally consisted of a 5-10 cm thick organic layer above unconformably deposited aeolian silts terminating in often degrading granitic or metamorphic or volcanic bedrock (Figure 209 through Figure 211).. Artifacts were found in the silt deposits down to bedrock. While modern activity has removed soil layers, and added fill on the western hill, the remaining soil appears to be intact as originally deposited.



Figure 204. TNX-00007 site overview (W-E).



Figure 205. TNX-00007 site overview (W-E).



Figure 206. TNX-00007 site overview (W-E).



Figure 207. TNX-00007 site overview (W-E).



#### Figure 208. TNX-00007 site map.

Table 24	TNX-00007	accession log	· .
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Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-139-001	KST2, 15-20 cmbs	1	flake fragment	gray chert
UA2015-139-002	KST2, 20-25 cmbs	1	flake fragment	gray chert
UA2015-139-003	KST2, 25-30 cmbs	1	flake fragment	black basalt
UA2015-139-004	KST2, 20-35 cmbs	1	flake fragment	black basalt
UA2015-139-005	40W 0N, 11 cmbs	1	flake fragment	gray chert
UA2015-139-006	40W 0N, 19 cmbs	1	primary decortication flake	gray chert
UA2015-139-007	30W 5N, 0-10 cmbs	1	late bifacial thinning flake	gray chert
UA2015-139-008	30W 5N, 0-10 cmbs	1	medial microblade fragment	gray chert
UA2015-139-008.1	30W 5N, 10-15 cmbs	1	bifacial pressure flake	gray chert
UA2015-139-008.2	30W 5N, 10-15 cmbs	1	flake fragment	gray chert
UA2015-139-009	40W 5S, 40 cmbs	1	linear flake	gray chert
UA2015-139-010	10W 10N, 20-30 cmbs	1	flake fragment	gray chert
UA2015-139-011	10W 0N, 0-6 cmbs	1	calcined bone fragment	
UA2015-139-012		1	n/a	
UA2015-139-013		1	n/a	
UA2015-139-014	0E 0N, 3 cmbs	1	flake fragment	black basalt
UA2015-139-015.1	0E 0N, 5 cmbs	1	flake fragment	black basalt
UA2015-139-015.2	0E 0N, 5 cmbs	1	flake fragment	black basalt
UA2015-139-016	0E 0N, 5.5 cmbs	1	flake fragment	black basalt
UA2015-139-017	0E 0N, 7 cmbs	1	primary decortication flake	gray chert
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UA2015-139-018	0E 0N, 8 cmbs	1	flake fragment	black basalt
UA2015-139-019	0E 0N, 11 cmbs	1	secondary decortication flake	black basalt
UA2015-139-020	0E 0N, 11 cmbs	1	bifacial pressure flake	black basalt
UA2015-139-021	40W 3S, NE, 0-10 cmbd	1	flake fragment	black basalt
UA2015-139-022	40W 3S, NE, 0-10 cmbd	5	buttons	metal
UA2015-139-023	40W 3S, NE, 10-20 cmbd	3	buttons	metal
UA2015-139-024	40W 3S, NE, 10-20 cmbd	1	bifacial pressure flake	gray chert
UA2015-139-025	40W 3S, SW, 10-20 cmbd	3	buttons	metal
UA2015-139-026	within 50 cmbs of 40W 3S, surface	3	buttons	metal
UA2015-139-027	2.28S, 39.26W, NE, 19 cmbd	1	flake fragment	black basalt
UA2015-139-028.1	40W 3S, SW, 10-20 cmbd	1	flake fragment	black basalt
UA2015-139-028.2	40W 3S, SW, 10-20 cmbd	1	flake fragment	black basalt
UA2015-139-029	40W 3S, NE, 10-20 cmbd	1	flake fragment	black basalt
UA2015-139-030	40W 3S, SW, 10-20 cmbd	1	buttons	metal
UA2015-139-031	40W 3S, NW, 10-20 cmbd	1	buttons	metal
UA2015-139-032	40W 3S, SE, 10-20 cmbd	1	bifacial pressure flake	red chert
UA2015-139-033	40W 3S, NW, 10-20 cmbd	1	flake fragment	gray chert
UA2015-139-034	40W 3S, SE, 10-20 cmbd	1	flake fragment	gray chert
UA2015-139-035	40W 3S, SE, 10-20 cmbd	1	flake fragment	gray chert
UA2015-139-036	40W 3S, SE, 10-20 cmbd	2	flake fragment	gray chert
UA2015-139-037	2.30S 39.42W, NE, 10-20 cmbd	1	bifacial pressure flake	gray chert
UA2015-139-038	2.37S 39.38W, NE, 20-30 cmbd	1	bifacial pressure flake	obsidian
UA2015-139-039	2.58S 39.43W, SE, 20-30 cmbd	1	flake fragment	gray chert
UA2015-139-040		1	n/a	0,
UA2015-139-041	40W 3S, SE, 20-30 cmbd	1	flake fragment	gray chert
UA2015-139-042.1	40W 3S, SW, 20-30 cmbd	1	flake fragment	gray chert
UA2015-139-042.2	40W 3S, SW, 20-30 cmbd	1	edge preparation flake	gray chert
UA2015-139-042.3	40W 3S. SW. 20-30 cmbd	1	bifacial pressure flake	chalcedonv
UA2015-139-043	40W 3S, SW, 20-30 cmbd	1	flake fragment	, gray chert
UA2015-139-044	40W 3S. NE. 20-30 cmbd	1	flake fragment	grav chert
UA2015-139-045	40W 3S, NE, 20-30 cmbd	1	flake fragment	black basalt
UA2015-139-046		1	n/a	
UA2015-139-047	40W 3S, NE, 20-30 cmbd	1	, bifacial pressure flake	gray chert
UA2015-139-048	40W 3S, SW, 20-30 cmbd	1	flake fragment	gray chert
UA2015-139-049	40W 3S. NE. 20-30 cmbd	1	flake fragment	grav chert
UA2015-139-050	.64N .55E. SE. 25 cmbd	1	bifacial pressure flake	grav chert
UA2015-139-051	.74N .03E. SE. 20 cmbd	1	flake fragment	grav chert
UA2015-139-052	.66N .36E, SE, 26 cmbd	1	edge preparation flake	red chert
UA2015-139-053.1	40W 3S. SE. 20-30 cmbd	1	flake fragment	grav chert
UA2015-139-053.2	40W 3S. SE. 20-30 cmbd	1	flake fragment	black basalt
UA2015-139-054	.91N .50E. SE. 23 cmbd	1	flake fragment	red chert
UA2015-139-055	.88N .41E. SE. 24 cmbd	1	bifacial thinning flake	grav chert
UA2015-139-056	.34N .88E. NW. 24 cmbd	1	flake fragment	grav chert
UA2015-139-057	40W 3S, NW, 20-30 cmbd	1	flake fragment	grav chert
UA2015-139-058	.15N .61E, NW. 35 cmbd	1	charcoal	charcoal
UA2015-139-059	.11N .85E. NW, 35-38 cmbd	1	charcoal	charcoal
UA2015-139-060	40W 3S, NW, 30-40 cmbd	1	flake fragment	gray chert
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UA2015-139-061	.55N .65E, SW, 35 cmbd	2 bags	soil sample	
UA2015-139-062	40W 3S, NE, 30-40 cmbd	1	bifacial thinning flake	black basalt
UA2015-139-063	.59N .20E, SE, 37.5 cmbd	1	bifacial pressure flake	black basalt
UA2015-139-064	530.389N 495.931E, 101.483Z	1	flake fragment	black basalt
UA2015-139-065	530.430N 495.931E, 101.484Z	1	bifacial pressure flake	black basalt
UA2015-139-066	533.465N 498.158E, 101.873Z	1	flake fragment	black basalt
UA2015-139-067	533.538N 498.874E, 101.890Z	1	flake fragment	black basalt
UA2015-139-068	534.435N 500.179E, 102.026Z	1	flake fragment	black basalt
UA2015-139-069	534.564N 500.559E, 102.039Z	1	flake fragment	obsidian
UA2015-139-070	534.160N 501.060E, 102.035Z	1	primary decortication flake	light gray chert
UA2015-139-071	533.364N 501.556E, 101.966Z	1	edge preparation flake	black basalt
UA2015-139-072	534.689N 501.139E, 102.077Z	1	distal burin spall	gray chert
UA2015-139-073	534.907N 501.012E, 102.088Z	1	platform rejuvenation flake	light gray chert
UA2015-139-074	534.205N 502.825E. 102.051Z	1	bifacial pressure flake	black basalt
UA2015-139-075	534.493N 503.157E. 102.078Z	1	flake fragment	grav chert
UA2015-139-076	534.839N 503.546E. 102.105Z	1	flake fragment	black basalt
UA2015-139-077	535.164N 503.466F. 102.1427	1	bifacial pressure flake	grav chert
UA2015-139-078	535 581N 502 777F 102 1697	1	flake fragment	black basalt
LIA2015-139-079	535 646N 503 222E 102 1787	1	hifacial pressure flake	black basalt
UA2015-139-080	535 788N 503 495F 102 1917	1	hifacial pressure flake	black basalt
UA2015-139-081	536 038N 503 205E 102 2187	1	flake fragment	black basalt
LIA2015-139-082	536 072N 503 500F 102 2377	1	flake fragment	black basalt
UA2015-139-082	536 421N 503 280E 102 2417	1	flake fragment	obsidian
UA2015-139-085	536 918N 503 755F 102 2277	1	flake fragment	light gray chart
	536 9//N 503 089E 102 2397	1	flake fragment	black basalt
UA2015-139-085.1	536 9//N 503 089E, 102 239Z	1	flake fragment	grav chart
UA2015-139-085.2	536 472N 503 503E 102 2717	1	flake fragment	black basalt
UA2015-139-080	536 558N 503 910F 102 2687	1	flake fragment	black basalt
UA2015-139-087.1		1	flake fragment	black basalt
UA2013-139-087.2		1	hifacial prossure flake	stringd obsidion
UA2013-139-088	530.3351N 504.235E, 102.2802	1	flake fragment	black basalt
UA2015-159-069.1	557.014N 504.158E, 102.551Z	1	flake fragment	black basalt
UA2015-159-069.2	557.014N 504.158E, 102.551Z	1	hifagial prossure flake	DIACK DASAIL
UA2015-139-089.3	537.014N 504.158E, 102.3312	1	bilacial pressure flake	gray chert
UA2015-139-090	537.519N 504.584E, 102.3482	1	bilacial pressure liake	gray chert
UA2015-139-091	537.249N 505.701E, 102.4152	1	fields from and	gray chert
UA2015-139-092	537.635N 506.284E, 102.4502	1	flake fragment	DIACK DASAIT
UA2015-139-093	537.859N 507.169E, 102.4822	1	flake fragment	gray chert
UA2015-139-094	538.388N 506.704E, 102.4722	1	flake fragment	gray chert
UA2015-139-095	539.259N 506.054E, 102.4322	1	bifacial pressure flake	gray chert
UA2015-139-096	539.317N 507.568E, 102.530Z	1	flakefragment	gray chert
UA2015-139-097	540.295N 511.356E, 102.869Z	1	flakefragment	gray chert
UA2015-139-098	540.537N 513.921E, 103.300Z	1	flakefragment	light gray chert
UA2015-139-099	542.840N 518.110E, 103.895Z	1	flakefragment	black basalt
UA2015-139-100	541.174N 519.660E, 104.176Z	1	flakefragment	black basalt
UA2015-139-101	543.179N 520.815E, 104.126Z	1	flake fragment	black basalt
UA2015-139-102	543.179N 523.888E, 104.422Z	1	edge preparation flake	gray chert
UA2015-139-103	542.961N 525.230E, 104.553Z	1	flake fragment	black basalt
UA2015-139-104	543.566N 526.001E, 104.562Z	1	flake fragment	black basalt
UA2015-139-105	543.402N 543.402E, 104.637Z	1	flake fragment	black chert

UA2015-139-106.1	543.594N 528.641E, 104.724Z	1	flake fragment	gray chert
UA2015-139-106.2	543.594N 528.641E, 104.724Z	1	flake fragment	black basalt
UA2015-139-107	542.560N 530.598E, 104.949Z	1	flake fragment	black basalt
UA2015-139-108	542.310N 531.249E, 105.030Z	1	flake fragment	light gray chert
UA2015-139-109	543.955N 530.772E, 104.896Z	1	flake fragment	gray chert
UA2015-139-110	543.857N 530.958E, 104.914Z	1	flake fragment	black basalt
UA2015-139-111	543.940N 531.622E, 104.920Z	1	flake fragment	black basalt
UA2015-139-112	543.329N 531.518E, 104.983Z	1	flake fragment	black basalt
UA2015-139-113	543.319N 531.723E, 104.995Z	1	flake fragment	gray chert
UA2015-139-114	543.513N 531.857E, 104.959Z	1	bifacial pressure flake	black basalt
UA2015-139-115	543.352N 532.265E, 104.997Z	1	platform rejuvenation flake	light gray chert
UA2015-139-116	543.903N 533.079E, 104.973Z	1	flake fragment	black basalt
UA2015-139-117	543.263N 532.985E, 105.024Z	1	flake fragment	black chert
UA2015-139-118	542.734N 533.576E, 105.137Z	1	flake fragment	black basalt
UA2015-139-119	542.819N 533.857E, 105.101Z	1	bifacial pressure flake	gray chert
UA2015-139-120	542.091N 533.079E, 105.166Z	1	flake fragment	black basalt
UA2015-139-121	542.501N 534.081E, 105.111Z	1	bifacial pressure flake	gray chert
UA2015-139-122	541.763N 538.614E, 104.957Z	1	flake fragment	black basalt
UA2015-139-123	542.061N 538.723E, 104.924Z	1	secondary decortication flake	red chert
UA2015-139-124	542.704N 539.481E, 104.931Z	1	edge preparation flake	gray chert
UA2015-139-125	542.706N 540.456E, 104.884Z	1	bifacial pressure flake	black chert
UA2015-139-126	542.735N 541.650E, 104.853Z	1	flake fragment	black chert
UA2015-139-127		1	n/a	
UA2015-139-128	539.791N 541.425E, 104.903Z	1	bifacial pressure flake	black basalt
UA2015-139-129	541.543N 542.163E, 104.868Z	1	bifacial pressure flake	black basalt
UA2015-139-130	541.940N 542.005E, 104.886Z	1	flake fragment	black basalt
UA2015-139-131	542.325N 543.505E, 104.839Z	1	flake fragment	black basalt
UA2015-139-132	541.486N 544.025E, 104.836Z	1	flake fragment	black basalt
UA2015-139-133	538.028N 543.259E, 104.827Z	1	bifacial pressure flake	gray chert
UA2015-139-134	535.508N 545.087E, 104.788Z	1	flake fragment	black basalt
UA2015-139-135	543.785N 540.510E, 104.818Z	1	burin	light gray chert
UA2015-139-136	537.696N 543.442E, 104.807Z	1	blank fragment	black basalt
UA2015-139-137	541.215N 539.702E, 104.961Z	1	retouched flake	gray chert
UA2015-139-138	535.917N 546.231E, 104.788Z	1	late bifacial thinning flake	gray chert
UA2015-139-139	536.667N 546.150E, 104.856Z	1	flake fragment	black basalt
UA2015-139-140	538.950N 549.146E, 105.239Z	1	flake fragment	black basalt
UA2015-139-141	541.858N 551.614E, 105.403Z	1	flake fragment	black basalt
UA2015-139-142	539.189N 552.803E, 105.487Z	1	bifacial pressure flake	gray chert
UA2015-139-143	541.582N 560.060E, 105.765Z	1	bifacial pressure flake	black basalt
UA2015-139-144	541.613N 560.548E, 105.742Z	1	flake fragment	black basalt
UA2015-139-145	541.429N 560.998E, 105.731Z	1	flake fragment	light gray chert
UA2015-139-146	541.053N 561.437E, 105.759Z	1	flake fragment	black chert
UA2015-139-147	541.005N 561.315E, 105.760Z	1	medial microblade fragment	gray chert
UA2015-139-148	540.859N 561.091E, 105.764Z	1	medial microblade fragment	black chert
UA2015-139-149.1	540.818N 561.364E, 105.801Z	1	flake fragment	black basalt
UA2015-139-149.2	540.818N 561.364E, 105.801Z	1	bifacial pressure flake	gray chert
UA2015-139-149.3	540.818N 561.364E, 105.801Z	1	bifacial pressure flake	gray chert
UA2015-139-150	541.529N 561.935E, 105.781Z	1	flake fragment	black basalt
UA2015-139-151	541.419N 562.050E, 105.781Z	1	flake fragment	quartzite
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UA2015-139-152	540.916N 562.447E, 105.749Z	1	bifacial pressure flake	gray chert
UA2015-139-153	540.972N 562.280E, 105.784Z	1	flake fragment	gray chert
UA2015-139-154	540.972N 563.788E, 105.656Z	1	flake fragment	gray chert
UA2015-139-155	10E 10S, 10-20 cmbs	1	flake fragment	black basalt
UA2015-139-156	30E 0N, 0-15 cmbs	1	flake fragment	black basalt
UA2015-139-157	10E 15S, 4-17 cmbs	1	bifacial pressure flake	obsidian
UA2015-139-158	10E 15S, 4-17 cmbs	1	bifacial pressure flake	black basalt
UA2015-139-159	10E 15S, 20-30 cmbs	1	flake fragment	red chert
UA2015-139-160.1	30E 10S, 0-20 cmbs	1	flake fragment	black basalt
UA2015-139-160.2	30E 10S, 0-20 cmbs	1	bifacial pressure flake	black basalt
UA2015-139-160.3	30E 10S, 0-20 cmbs	1	flake fragment	gray chert
UA2015-139-161	10E 15S, 47-51 cmbs	1	flake fragment	gray chert
UA2015-139-162	20E 0N, 30-40 cmbs	1	flake fragment	gray chert
UA2015-139-163	20E 0N, 30-40 cmbs	1	late bifacial thinning flake	gray chert
UA2015-139-164	10E 0N, 10-15 cmbs	1	end scraper	light gray chert
UA2015-139-165	40E 10N, 0-10 cmbs	1	flake fragment	black basalt
UA2015-139-166	12.70E 3.16S, surface	1	late bifacial thinning flake	black basalt
UA2015-139-167	12.79E 3.09S, surface	1	flake fragment	black basalt
UA2015-139-168	2.76S 12.14E, 9 cmbd	1	flake fragment	gray chert
UA2015-139-169	2.12S 12.29E, 10 cmbd	1	flake fragment	light gray chert
UA2015-139-170	2.14S 12.15E, 9.5 cmbd	1	flake fragment	black basalt
UA2015-139-171	12E 3S, NW, 0-10 cmbd	1	flake fragment	black basalt
UA2015-139-172	2.15S 12.13E, 11 cmbd	1	flake fragment	black chert
UA2015-139-173	12E 3S, SW, 0-10 cmbd	1	flake fragment	black chert
UA2015-139-174	2.63S 12.23E, 11.5 cmbd	1	scraper	gray chert
UA2015-139-175	2.70S 12.32E, 11 cmbd	1	flake fragment	black chert
UA2015-139-176	2.72S 12.09E, 12 cmbd	1	flake fragment	black chert
UA2015-139-177	12E 3S, NW, 0-10 cmbd	1	flake fragment	gray chert
UA2015-139-178	2.40S 12.36E, 14 cmbd	1	flake fragment	gray chert
UA2015-139-179	2.13S 12.44E, 14 cmbd	1	bifacial pressure flake	gray chert
UA2015-139-180	2.19S, 12.58E, surface	1	bifacial pressure flake	gray chert
UA2015-139-181	12E 3S, NE, 0-10 cmbd	1	bifacial pressure flake	tan chert
UA2015-139-182	12E 3S, SE, 0-10 cmbd	1	retouched proximal microblade fragment	light gray chert
UA2015-139-183	2.19S 12.64E, 18 cmbd	1	edge preparation flake	gray chert
UA2015-139-184	12E 3S, SE, 0-10 cmbd	1	bifacial pressure flake	gray chert
UA2015-139-185	2.67S 12.5E, 18 cmbd	1	flake fragment	gray chert
UA2015-139-186	2.75S 12.12E, 17 cmbd	1	charcooal	
UA2015-139-187	12E 3S, SW, 0-10 cmbd	1	bifacial pressure flake	light gray chert
UA2015-139-188	OE ON, 3 cmbs	1	biface fragment	black basalt



Figure 209. TNX-00007 stratigraphic profile.



Figure 210. TNX-00007 excavation until (west).



Figure 211. TNX-00007 excavation until (east).

TNX-00007 is a large buried lithic scatter, partially exposed on the surface by military activities and erosion. Multiple tool and material types were found, including two that may be sourced. A total of 179 flakes and 13 tools were recovered in archaeological investigations. A possible hearth feature yielded a charcoal sample dating to 300 +/- 30 radiocarbon years BP. Despite some areas with disturbed upper soil layers, the site appears to be largely intact and retains sufficient integrity to generate useful data. The variety and abundance of material types and tools, presence of obsidian, and datable charcoal indicate TNX-00007 has the potential to add to our knowledge of prehistoric trade activities, and landscape and resource use. The USAG FWA finds TNX-00007 eligible for inclusion in the NRHP under Criterion D.

TNX-00008 (DOE 2016) Latitude: Longitude: Lo

## Determination of Eligibility: Not eligible

TNX-00008 was identified as small lithic scatters on the east end of Six-Mile Hill, ten km west of Tok, during a survey by Cook in 1981 (Figure 203). The knoll has stepped terraces descending steeply south to the valley floor, which is visible along with the Alaska Range foothills in the open viewshed to southeast. The closest water is the Tanana River, 3.5 km to the north. Vegetation includes spruce, aspen, low scrub, moss, and lichen (Figure 212). Exposed bedrock and a lightly used ATV trail account for the 6% surface visibility. In addition to the trail, modern trash and a hunting stand 10 m north of the site boundaries are further indications of recent recreational activity.

Fieldwork for a DOE was performed in 2016. No physical datum had been previously set, and neither surface artifacts nor the 2012 shovel test could be relocated. A mapping datum was placed within 5 m of the 2012 shovel test coordinates. A shovel test grid was set up at 5 m intervals to cover the landform (Figure 213). A total of 41 shovel tests were excavated, with 2 positives. One produced one grey rhyolite and four black chert flakes, bone fragments, and an ashy soil sample. The other contained a small black chert scraper (Figure 214). The bone fragments are likely modern. Artifacts were found from 0-27 cmbs (Table 25).

A unit was excavated next to the shovel test containing the scraper. It was excavated by stratigraphic units as indicated by sediment color changes to 17 cmbs, with one quadrant excavated to 32 cmbs. No artifacts were found before work was terminated due to time constraints.

Site stratigraphy consists of unconformably deposited aeolian silts with weak soil development overlying bedrock. The organic layer averages 5cm thick and the silts average 15-20 cm with a maximum deposition of 39 cm. Artifacts were found throughout the silt layer (Figure 215, Figure 216).



Figure 212. TNX-00008 site overview.



Figure 213. TNX-00008 site map.

Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2016-157-001.1	480 N 100 E, 0-10 cmbs	1	flake fragment	black chert
UA2016-157-001.2	480 N 100 E, 0-10 cmbs	1	bifacial pressure flake	black chert
UA2016-157-001.3	480 N 100 E, 0-10 cmbs	1	bifacial pressure flake	black chert
UA2016-157-001.4	480 N 100 E, 0-10 cmbs	1	bifacial thinning	grey rhyolite
UA2016-157-002	480 N 100 E, 0-10 cmbs	16	bone fragments	
UA2016-157-003	480 N 100 E, 10-27 cmbs	3	bone fragments	
UA2016-157-004	480 N 100 E, 10-27 cmbs	1	bifacial pressure flake	black chert
UA2016-157-005	480 N 100 E, 2-5 cmbs	1	soil sample	
UA2016-157-006		1	missing	
UA2016-157-007	505 N 90 E, 0-12 cmbs	1	scraper	black chert

Table 25. TNX-00008 accession log.



Figure 214. Scraper from TNX-00008.







Figure 216. TNX-00008 excavation unit.

TNX-00008 is a small lithic scatter. Phase I and II investigations uncovered a total of 8 flakes composed of 3 material types (grey rhyolite, black chert, and grey chert) and one tool, a scraper, also of black chert. No high quality traceable or datable materials were recovered. Due to the shallow soil deposition, intensive testing strategy, and scarce cultural remains, TNX-00008 has little further potential to contribute to our knowledge of prehistory and is ineligible for the NRHP. No archaeological districts have yet been established in this area. Even if a district was created in the future, data from TNX-00008 would shed little light on the prehistoric habitation of the area, subsistence practices, or technology.

## TNX-00010 (DOE 2015) Latitude: Longitude: UTM: Determination of Eligibility: Eligible

TNX-00010 is located on a narrow finger extending southwest on the western end of Six-Mile Hill, 10 km Tok (Figure 203). J. Cook discovered the site during a 1981 survey on the basis of several flakes on the surface of an outcrop west of the hill north of the fuel terminal (AHRS card). Soil deposition decreases as the landform extends to the south, exposing large bedrock boulders. The 220° viewshed is excellent of the Alaska Range and valley floor to the south and Yukon-Tanana Uplands to the northwest and northeast, although vegetation and the rising landform block the view directly north. The Tanana River, 3.5 km to the north, is the closest water source. The ecosystem shifts from upland moist mixed forest to alpine on the outcrop precipice. Vegetation includes spruce, birch, aspen, willow, low scrub, grasses, mosses and lichens (Figure 217, Figure 218). Exposed surface consisting of natural bedrock outcrops and ATV trail surface makes up 20% of the site area. The site is impacted by multiple ATV trails, modern fire rings, modern trash, and a moose field dressing site, less than 5 years old.

A CEMML survey in 2012 relocated the site using the AHRS coordinates and matching the physical description. Eight black chert and two basalt flakes were observed on the surface. No subsurface excavations were conducted. In 2015, CEMML returned to TNX-00010 to evaluate it for inclusion in the NRHP. Artifacts were exposed on the surface in disturbed areas. As no physical datum was previously installed, a mapping datum was set at the above coordinates. A shovel test grid was established at 5 m intervals due to the narrow topography, with one offset at 7E 6N on an isolated rise (Figure 219). Of 31 shovel tests, 6 contained cultural materials. All shovel tests were excavated to bedrock. Artifacts were also found in a unit excavated at 0E 4N, near a positive shovel test in an undisturbed area. All artifacts were collected from the site, due to the danger of destruction from active recreational use. Surface artifacts were recorded with a total station prior to collection. A total of 54 flakes were recovered (27 from the surface), along with a rhyolite lanceolate point found on the surface (Figure 220, Table 26). Material types include basalt (black and grey), chert (black, greys, and purple), obsidian, and rhyolite. One basalt surface flake had cortex. No soil or charcoal samples were collected.

Unit OE 4N was located north of the mapping datum, near the densest concentration of subsurface artifacts. It was excavated in 10 cm levels, measured from the highest surface point, to degrading bedrock. Flakes (six basalt, two chert, and four obsidian) were found from 20-40 cmbs. The unit terminated at an uneven bedrock layer, with depths from 41-49 cmbs.

Stratigraphy at TNX-00010 is composed of unconformably deposited aeolian silts tapering off to exposed bedrock in the southwest. Shovel test depths range from 0-51 cmbs, with the majority from 20-35 cmbs. Two shovel tests on exposed bedrock lacked soil for excavation and the surface of a 1 m<sup>2</sup> area centered on the shovel test location was intensely examined for artifacts. Unit soils are comprised of a thin 7 cm organic layer followed by silt deposits 30 cm thick (Figure 221, Figure 222). The bedrock below is a Tertiary or Cretaceous intrusive volcanic rock. Artifacts were recovered in the silts from 20-40 cmbs in the screen, though all in situ artifacts were recorded from 30-35 cmbs. No subsurface disturbances were noted, although recreational and trail use has compacted the organic layer to varying degrees.

TNX-00010 is a large buried lithic scatter, partially exposed by recreational use. A total of one projectile point and 54 flakes were recovered from TNX-00010. Since subsurface artifacts were found in intact stratigraphy, the site retains integrity. The presence of a formal tool and multiple material types, including obsidian which has been sourced to Wiki Peak, indicates the potential to increase our understanding of prehistoric material acquisition and trade routes. USAG FWA finds TNX-00010 eligible for inclusion in the NRHP under Criterion D.



Figure 217. TNX-00010 site overview (SW).



Figure 218. TNX-00010 site overview (NE).





Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-140-001	1.89 S 2.21-2.23 E, surface	1	lanceolate point	tan rhyolite
UA2015-140-002	ST 5E 5S, 0-25 cmbs, screen	1	flake fragment	gray chert
UA2015-140-003	ST 0E 5S, 10-20 cmbs, screen	1	bifacial pressure flake	purple chert
UA2015-140-004	ST 5W 15S, 0-13 cmbs, screen	1	flake fragment	black chert
UA2015-140-005	ST 5W 15S, 13-16 cmbs, screen	1	flake fragment	black chert
UA2015-140-006	ST 5W 15S, 20 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-007	ST 15W 20S, 0-8 cmbs, screen	1	flake fragment	gray chert
UA2015-140-008	ST 15W 20S, 0-8 cmbs, screen	1	flake fragment	gray chert
UA2015-140-009.1	ST 0E 5N, 30-40 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-009.2	ST 0E 5N, 30-40 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-009.3	ST 0E 5N, 30-40 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-009.4	ST 0E 5N, 30-40 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-009.5	ST 0E 5N, 30-40 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-009.6	ST 0E 5N, 30-40 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-010.1	ST 25W 25S, 0-10 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-010.2	ST 25W 25S, 0-10 cmbs, screen	1	bifacial pressure flake	black chert
UA2015-140-011	4.91N 0.68E, 30 cmbs	1	bifacial pressure flake	gray chert
UA2015-140-012	0E 4N NE, 20-30 cmbs	1	bifacial pressure flake	black chert
UA2015-140-013	4.9N .7E, 32 cmbs	1	flake fragment	obsidian
UA2015-140-014	4.96N .32E, 34 cmbs	1	platform rejuv. flake	obsidian
UA2015-140-015	4.72N .16E, 35 cmbs	1	interior flake	obsidian
UA2015-140-016	0E 4N NW, 30-35 cmbs	1	edge preparation flake	obsidian
UA2015-140-017	4.9N .72E, 30 cmbs	1	flake fragment	black basalt
UA2015-140-018	4.65N .90E, 31 cmbs	1	bifacial pressure flake	black basalt
UA2015-140-019	4.92N .83E, 31 cmbs	1	bifacial pressure flake	black basalt
UA2015-140-020	4.90N .61E, 32 cmbs	1	bifacial pressure flake	black basalt
UA2015-140-021.1	0E 4N NE, 30-40 cmbs	1	bifacial pressure flake	black basalt
UA2015-140-021.2	0E 4N NE, 30-40 cmbs	1	bifacial pressure flake	black basalt
UA2015-140-022	N475.349 E482.827 Z98.985, surface	1	flake fragment	black chert
UA2015-140-023	N478.081 E484.287 Z98.937, surface	1	flake fragment	light gray chert
UA2015-140-024	N479.551 E484.074 Z98.481, surface	1	flake fragment	gray chert
UA2015-140-025	N476.949 E487.775 Z98.982, surface	1	bifacial pressure flake	light gray chert
UA2015-140-026	N481.128 E488.133 Z99.734, surface	1	flake fragment	black chert
UA2015-140-027	,		0	
UA2015-140-028	N480.246 E489.487 Z99.886, surface	1	flake fragment	black chert
UA2015-140-029	N480.666 E490.893 Z100.137, surface	1	flake fragment	black chert
UA2015-140-030	N481.781 E490.233 Z100.364, surface	1	flake fragment	black chert
UA2015-140-031	N482.569 E489.252 Z100.238, surface	1	flake fragment	gray chert
UA2015-140-032	N481.973 E490.962 Z100.475, surface	1	flake fragment	black basalt
UA2015-140-033	N482.451 E490.171 Z100.465. surface	1	flake fragment	black chert
UA2015-140-034			U - •	
UA2015-140-035	N484.818 E490.427 Z100.898. surface	1	primary decort. flake	black basalt
UA2015-140-036	N483.140 E492.103 Z100.915. surface	1	flake fragment	black basalt
UA2015-140-037	N483.179 E492.151 Z100.929. surface	1	flake fragment	black basalt
UA2015-140-038	N483.791 E492.337 Z101.129. surface	1	bifacial pressure flake	black chert

# Table 26. TNX-00010 accession log.

UA2015-140-039	N483.873 E492.461 Z101.149, surface	1	flake fragment	black chert
UA2015-140-040	N485.459 E491.950 Z101.161, surface	1	bifacial pressure flake	gray chert
UA2015-140-041	N486.241 E491.454 Z101.082, surface	1	bifacial pressure flake	gray chert
UA2015-140-042	N486.172 E492.427 Z101.228, surface	1	flake fragment	gray chert
UA2015-140-043	N487.220 E493.107 Z101.268, surface	1	bifacial pressure flake	black chert
UA2015-140-044	N487.450 E493.068 Z101.265, surface	1	flake fragment	gray chert
UA2015-140-045	N488.061 E493.479 Z101.275, surface	1	flake fragment	black basalt
UA2015-140-046	N494.267 E502.760 Z99.804, surface	1	flake fragment	black basalt
UA2015-140-047	N494.479 E503.362 Z99.807, surface	1	flake fragment	black basalt
UA2015-140-048	N494.599 E503.391 Z99.804, surface	1	flake fragment	black basalt
UA2015-140-049	N496.423 E505.084 Z100.005, surface	1	flake fragment	tan rhyolite
UA2015-140-050	N499.696 E508.528 Z100.331, surface	1	flake fragment	black chert
UA2016-155-001	N7027634 E389812, surface	10	flakes	basalt, obsidian



Figure 220. Projectile point on surface at TNX-00010.



Figure 221. TNX-00010 stratigraphic profile.



Figure 222. TNX-00010 excavation unit.



TNX-00231 is located on the northeast end of Six-Mile Hill, 10 km west of Tok (Figure 203). The site was discovered during a 2015 survey of the forested portions near the north end of the landform. The Tanana River, 3.5 km to the north, is the nearest water source. The spruce forest has an understory of sphagnum, blueberry other small shrubs (Figure 223). Two parallel ATV trails run north to south 50 m west and east of the site. Two shovel tests were excavated on a small rise spanning 30 m north to south and 20m east to west. One shovel test yielded three basalt flakes and charcoal (Table 27). In this area, silt covers gravel to a depth of approximately 20 cm. A thin (5 cm) organic horizon caps the deposits (Figure 224, Figure 225).



Figure 223. TNX-00231 site overview.

Table 27. TNX-00231	accession	log.
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Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-142-0001.1	ST7, 0-16 cmbs	1	Flake fragment	Basalt
UA2015-142-0001.2	ST7, 0-16 cmbs	1	Bifacial pressure flake	Basalt
UA2015-142-0001.3	ST7, 0-16 cmbs	1	Primary decortication flake	Basalt



Figure 224. TNX-00231 stratigraphic profile.



Figure 225. TNX-00231 test pit.



TNX-00232 is located on the northeast end of Six-Mile Hill, 10 km west of Tok (Figure 203). The site was discovered during a 2015 survey of the forested portions of the landform, 56 m north of TNX-00008. A road at the base of the landform, which drops steeply to the east, runs north-south toward the Tanana River, 3.5 km to the north, and the fuel terminal to the south. Vegetation nearby consists of moss, black spruce and aspen (Figure 226). The site is located approximately 4 m off a dirt ATV trail (Figure 227). Test pits were dug on a small moss covered mound. A microblade fragment was found in one of two test pits (Table 28). Approximately 60 cm of silt was found overlying bedrock in this location. A 5-8 cm organic layer was found atop silts with moderate soil development (Figure 228, Figure 229).



Figure 226. TNX-00232 site overview.



Figure 227. TNX-00232 site map.



Table 28. TNX-00232 accession log.

Figure 228. TNX-00232 stratigraphic profile.

1079 1/6 dark yellowish brown sandy silt

10YR 3/2 very dark grayish brown sandy sift



Figure 229. TNX-00232 test pit. 202

TNX-00233 (new site 2015)					
Latitude:					
Longitude	:				
UTM:					

TNX-00233 is located on the northeast end of Six-Mile Hill, 10 km west of Tok (Figure 203). The site was discovered during a 2015 survey of the forested portions of the landform. The Tanana River, 3.5 km to the north, is the closest water source. Vegetation nearby consists of black spruce and aspen with an understory of willow, bear berries, and sphagnum moss (Figure 230). ATV trails surround the site but none run directly through it or within 10 m (Figure 231). Test pits were dug on a small moss covered mound. Flakes were found in three of ten test pits excavated in the area (Table 29). Beneath a 10 cm thick organic horizon, layers of silt and coarse silt mixed with gravel cover decomposed bedrock to a depth of nearly 40 cm (Figure 232, Figure 233).



Figure 230. TNX-00233 site overview.





Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-144-001	ST TT18, 0-11 cmbs	1	Flake fragment	Black basalt
UA2015-144-002.1	ST TT17, 5-15 cmbs	1	Bifacial pressure Flake	Black basalt
UA2015-144-002.2	ST TT17, 5-15 cmbs	1	Flake fragment	Black chert
UA2015-144-003.1	ST TT21, 20-30 cmbs	1	Bifacial pressure Flake	Gray chert
UA2015-144-003.2	ST TT21, 20-30 cmbs	1	Flake fragment	Gray chert
UA2015-144-003.3	ST TT21, 20-30 cmbs	1	Flake fragment	Gray chert
UA2015-144-003.4	ST TT21, 20-30 cmbs	1	Flake fragment	Gray chert



Figure 232. TNX-00233 stratigraphic profile.



Figure 233. TNX-00233 test pit.

## TNX-00234 (new site 2015) Latitude: Longitude: UTM:

#### Determination of Eligibility: Not evaluated

TNX-00234 is located on the northeast end of Six-Mile Hill, 10 km west of Tok (Figure 203). The site was discovered during a 2015 survey of the forested portions of the landform. The Tanana River, 3.5 km to the north, is the closest water source. Vegetation nearby consists of black spruce and aspen with an understory of willow, bear berries, alder, fireweed, Labrador tea, rose, ericaceous plants, and sphagnum moss (Figure 234). The site is located on a small rise at stretching 200 m by 20 m (Figure 235). Thick spruce vegetation prevents visibility of nearby landmarks. Access to the site is through an ATV trail that runs through the west of the site. A broken basalt flake was discovered in one of five test pits excavated on the rise (Table 30). The moss layer overlies a 5 cm thick organic horizon. Beneath this is 15-20 cm of silt over bedrock regolith (Figure 236, Figure 237).



Figure 234. TNX-00234 site overview.



Figure 235. TNX-00234 site map.

Table 30	. TNX-00234 accessior	ı log.
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Accession # Provenience		Quantity Artifact Type		Raw Material
UA2015-145-001	ST TT30, 20-30 cmbs	1	Flake fragment	Basalt



Figure 236. TNX-00234 stratigraphic profile.



Figure 237. TNX-00234 test pit.

TNX-0023	TNX-00235 (new site 2015)							
Latitude:								
Longitude	2:							
UTM:								

TNX-00235 is located on the northeast end of Six-Mile Hill, 10 km west of Tok (Figure 203). The site was discovered during a 2015 survey of the forested portions of the landform. The Tanana River, 3.5 km to the north, is the closest water source. Vegetation consists of spruce and aspen with an understory of alder, crowberry, low brush cranberry, and rose (Figure 238). The site is located on a small rise at stretching 40 m by 15 m (Figure 239). Five gray chert and two basalt flakes were found in two of two test pits excavated on the rise (Table 31). The moss layer overlies a 5 cm thick organic horizon. Flakes were found in silt approximately 8-20 cmbs. In this location, a thick, 10 cm, organic layer overlies 15 -20 cm of silt over bedrock regolith (Figure 240, Figure 241).



Figure 238. TNX-00235 site overview.



Figure 239. TNX-00235 site map.

Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-146-001.1	TT31, 8-25 cmbs	1	Flake fragment	Basalt
UA2015-146-001.2	TT31, 8-25 cmbs	1	Edge preparation flake	Basalt
UA2015-146-002.1	TT32, 12-25 cmbs	1	Flake fragment	Gray chert
UA2015-146-002.2	TT32, 12-25 cmbs	1	Bifacial pressure flake	Gray chert
UA2015-146-002.3	TT32, 12-25 cmbs	1	Edge preparation flake	Gray chert
UA2015-146-002.4	TT32, 12-25 cmbs	1	Bifacial pressure flake	Gray chert
UA2015-146-002.5	TT32, 12-25 cmbs	1	Flake fragment	Gray chert



Figure 240. TNX-00235 stratigraphic profile.



Figure 241. TNX-00235 test pit.

TNX-00236 (new	TNX-00236 (new site 2015)						
Latitude:							
Longitude:							
UTM:							

TNX-00236 is located on the eastern end of Six-Mile Hill, 10 km west of Tok (Figure 203). It is approximately 70 m south and downslope of TNX-00008. The hill descends south to the flats in a series of steps that parallel Tok Terminal Hill and each of these steps has contained positive test pits. The viewshed is 180° to the south, with the nearest water source being the Tanana River roughly 3.5 km north of the site. Vegetation surrounding the site consists of spruce and sparse birch, with pumpkin berry, crowberry, and moss in the understory (Figure 242). There is no surface visibility. Although no disturbances were noted on site, an active ATV trail runs 20 m to the north (Figure 243).



Figure 242. TNX-00236 site overview.

The site was discovered during survey in 2015 when a flake was found in each of three positive shovel tests. Three other shovel tests contained no cultural materials. The artifacts consist of one basalt and two grey chert flakes (Table 32). All artifacts came from the 20 cm of loess beneath the organic root mat and above the bedrock. One shovel test was excavated in 2016 for preliminary DOE investigations. It contained 25 chert and basalt flakes from 0-20 cmbs in an

aeolian silt deposit. There was a thin organic horizon above the silt, and the shovel test terminated when bedrock was encountered at 30 cmbs (Figure 244, Figure 245). No further work was conducted due to time constraints.





Table 52. The 00250 accession log

Accession #	Provenience	Quantity	Artifact Type	Raw Material
UA2015-147-001	TT35, 2-21 cmbs	1	Bifacial pressure flake	Basalt
UA2015-147-002	TT36, 6-30 cmbs	1	Bifacial pressure flake	Gray chert
UA2015-147-003	TT37, 10-20 cmbs	1	Bifacial pressure flake	Gray chert
UA2016-158-001	NE16-5, 0-20 cmbs	24	Flake lot	Basalt, chert
UA2016-158-002	NE16-5, 0-20 cmbs	1	Flake fragment	Gray chert







Figure 245. TNX-00236 test pit.

TNX-00256 (new site 2016) Latitude: Longitude: Longitud TNX-00256 is located on the northeast end of Six-Mile Hill, 10 km west of Tok (Figure 203). TNX-00008 is on the hill's high spot, 60 m to the east. A projectile point was found on the surface in the middle of a trail in 2016. The viewshed is blocked by a predominantly spruce forest. Other vegetation includes aspen, willow, soapberry, rose, fireweed, low scrub, and moss (Figure 246). The closest water source is the Tanana River, 3.5 km to the north. The surface is only exposed on the ATV trail crossing the site, about 50% of the known site area.

A projectile point was found on the ATV trail surface and collected (Figure 247). Three shovel tests were excavated within 5 m of the trail to the north, south and west. The one west was also in the trail and contained a single grey chert flake from 0-5 cmbs (Table 33). The other shovel tests were negative. The positive shovel test was used as the site datum; no physical datum was placed.

Stratigraphy consists of a 14 cm thick organic layer over a 45 cm thick aeolian silt deposit. Below that, the silts are mixed with sand to at least 78 cmbs (Figure 249, Figure 250). Artifacts were found from 0-5 cmbs in the dark brown silt exposed on the trail's surface, which is just below the organic layer off-trail. The erosion of the organic layer on the trail surface is the only disturbance observed.



Figure 246. TNX-00256 site overview.



Figure 247. TNX-00256 site map.

Table 33	. TNX-00256	accession	log.
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Accession #	ession # Provenience		Artifact Type	<b>Raw Material</b>
UA2016-142-001	3902877027570, surface	1	Projectile point fragment	Gray chert
UA2016-142-002	JT4, 0-5 cmbs	1	Bifacial pressure flake	



Figure 248. Projectile point on surface at TNX-00256.



Figure 249. TNX-00256 stratigraphic profile.



Figure 250. TNX-00256 test pit.

# **Summary**

Archaeological surveys by CEMML crews during the 2015 and 2016 field seasons covered over 18,000 acres of Army managed lands in central Alaska (Table 34). The areas with the most coverage, YTA and DTA, also see the majority of the soldier training and development projects.

	FWA	TFTA	ΥΤΑ	DTA	GRTA	BRTA	WCTA	Tok	TOTAL
Acres 2015	0	520	4309.5	380.2	29.3	0	61	41	5341
Acres 2016	0	415	4611.6	8045.2	0	0	0	0	13071.8
Acres total	0	935	8921.1	8425.4	29.3	0	61	41	18412.8

Table 34. Summary of 2015-2016 surveys.

Thirty-three new prehistoric archaeological sites were discovered over the same period (Table 35). One known historic plane crash was also given an AHRS number, FAI-02368.

	FWA	TFTA	YTA	DTA	GRTA	BRTA	WCTA	Tok	TOTAL
2015	0	FAI-02368 FAI-02391 FAI-02392 FAI-02393 FAI-02394	XBD-00414	XMH-01536 XMH-01537 XMH-01539	0	0	XMH-1538	TNX-00231 TNX-00232 TNX-00233 TNX-00234 TNX-00235 TNX-00236	16
2016	0	FAI-02361	0	HEA-00685 XBD-00425 XBD-00426 XBD-00427 XBD-00428 XBD-00430 XBD-00430 XBD-00431 XMH-01544 XMH-01545 XMH-01546 XMH-01547 XMH-01548 XMH-01550 XMH-01550	0	0	0	TNX-00256	18
Total	0	6	1	19	0	0	1	7	34

#### Table 35. Summary of 2015-2016 new sites.

Sixteen sites were evaluated for their eligibility for the NRHP. Of these, four were found eligible. One site, FAI-02323 was found not individually eligible, but to be a contributing property to the
Blair Lakes Archaeological District (FAI-00335). In addition to the work summarized in the tables, two sites (FAI-00044 and XMH-00838) were updated, one site (XMH-01237) was relocated, and nine sites had boundary determinations (FAI-02054 through FAI-02062).

		Location	Eligible	District Affiliation
2015 Sites	FAI-02238	TFTA	No	Noncontributing element of FAI-00335
	FAI-02323	TFTA	No	Contributing element of FAI-00335
	FAI-02391	TFTA	No	Noncontributing element of FAI-00335
	FAI-02394	TFTA	No	Noncontributing element of FAI-00335
	XBD-00111	YTA	No	N/A
	XBD-00414	YTA	No	N/A
	XMH-00282	DTA	Yes	N/A
	XMH-00322	DTA	No	Noncontributing element of XMH-01553
	XNH-01504	BRTA	No	N/A
	TNX-00007	Tok	Yes	N/A
	TNX-00010	Tok	Yes	N/A
2016 Sites	FAI-02246	TFTA	No	Noncontributing element of FAI-00335
	FAI-02247	TFTA	No	Noncontributing element of FAI-00335
	FAI-02368	TFTA	Yes	N/A
	XBD-00162	YTA	No	N/A
	TNX-00008	Tok	No	N/A
	Total Not Eligible		12	
	Total Eligible		4	
	Contributes to a District		1	_

Table 36. Summary of 2015-2016 DOEs, boundary testing, and relocations.

## References

Anderson, D.D. 1968. "A Stone Age Campsite at the Gateway to America." *Scientific American* 218(6): 24-33.

Anderson, D.D. 1970. "Microblade Traditions in Northwestern Alaska." *Arctic Anthropology* 7(2): 2-16.

Andrews, E.F. 1987. "Archaeological Evidence of European Contact: The Han Athabascans near Eagle, Alaska." *High Plains Applied Anthropologist 7(2)*: 51-64.

Andrews, E.F. 1977. *Report on the Cultural Resources of the Doyon Region, Central Alaska: Volumes I and II.* Fairbanks: Anthropology and Historic Preservation, Cooperative Park Studies Unit, University of Alaska Occasional Paper No. 5.

Andrews, E.F. 1975. *Salcha: an Athabaskan Band of the Tanana River and its Culture.* M.A. Thesis, Fairbanks: Department of Anthropology, University of Alaska.

Bacon, G.H. 1978. *Final Report on the Archeological Survey of the XM-1 Tank Range, Fort Greely, Alaska*. Fairbanks: Prepared for the U.S. Army Corps of Engineers, Alaska District, by Alaskaarctic.

Bacon, G.H., and C.E. Holmes. 1980. *Archaeological Survey and Inventory of Cultural Resources at Fort Greely*. Fairbanks: Prepared by Alaskaarctic.

Baugher, J. 2012. USAAS-USAAC-USAAF-USAF Aircraft Serial Numbers—1908 to Present. *http://www.JoeBaugher.com* 

Baugher, J. 2009. Protectors of the S.A.C. The P/F-82 Twin Mustang. http://www.456fis.org/F82\_TWIN\_MUSTANG.htm

Bever, M.R. 2001a. "An Overview of Alaskan Late Pleistocene Archaeology: Historical Themes and Current Perspectives." *Journal of World Prehistory* 15(2): 125-191.

Bever, M.R. 2001b. "Stone Tool Technology and the Mesa Complex: Developing a Framework of Alaska Paleoindian Prehistory." *Arctic Anthropology 38(2)*: 98-118.

Bever, M.R. 2006. "Too Little, Too Late? The Radiocarbon Chronology of Alaska and the Peopling of the New World." *American Antiquity* 71(4): 595-620.

Bigelow, N.H., and R.W.M. Powers. 2001. "Climate, Vegetation, and Archaeology 14,000-9000 Cal Yr B.P. in Central Alaska." *Arctic Anthropology 38(2)*: 171-195.

Bradley, Z., J. Cook, and A. Frizzera. 1973. *Preliminary Survey Report, Blair Lakes Alaska*. Fairbanks: University of Alaska Fairbanks, Anthropology Department.

Buchanan, B., and M. Collard. 2008. "Phenetics, Cladistics, and the Search for the Alaskan Ancestors of the Paleoindians: a Reassessment of Relationships Among the Clovis, Nenana, and Denali Archaeological Complexes." *Journal of Archaeological Science* 35: 1683-1694.

Bureau of Land Management and U.S. Army. 1994. *Fort Wainwright Fort Greely: Resource Management Plan, Final Environmental Impact Statement.* Anchorage: Bureau of Land Management, Steese/White Mountains District and U.S. Army, 6<sup>th</sup> Infantry Division.

Clark, D.W. 2001. "Microblade-Culture Systematics in the Far Interior Northwest." *Arctic Anthropology 38(2)*: 64-80.

Clark, D.W. 1981. "Prehistory of the Western Subarctic." In *The Handbook of North American Indian: Subarctic,* Volume 6, by J. Helm, 120. Washington, D.C.: Smithsonian Institution.

Clark, D.W. 1992. "The Archaic in the Extreme Northwest of North America." *Revista de Arqueologia Americana 5*: 71-99.

Cloe, J.H. and M.F. Monaghan. 1984. *Top Cover for America: The Air Force in Alaska, 1920–1983*. Pictorial Histories, Missoula.

Cook, J.P. 1975. "Archaeology of Interior Alaska." *Western Canadian Journal of Anthropology 3*: 125-133.

Cook, J.P. 1996. "Healy Lake." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 323-327. Chicago: University of Chicago Press.

Cook, J.P. 1989. "Historic Archeology and Ethnohistory at Healy Lake, Alaska." *Arctic* 42(3): 109-118.

Cook, J.P. 1979. *Site XBD-094: Aircraft Assault Strip Fort Wainwright, Alaska*. Fairbanks: Final Report to U.S. Army Corps of Engineers.

Cook, J.P. 1969. *The Early Prehistory of Healy Lake, Alaska*. Ph.D. Dissertation, Madison: Department of Anthropology, University of Wisconsin.

Cook, J.P., and T.E. Gillispie. 1986."Notched Points and Microblades." 13<sup>th</sup> Annual Meeting of the Alaska Anthropological Association. Fairbanks: Alaska.

Csejtey, B. Jr., M.W. Mullen, D.P. Cox, G.D. Stricker. 1992. *Geology and geochronology of the Healy quatrangle, south-central Alaska*. U.S. Geological Survey Miscellaneous Investigations Series Map I-1961, 63 p.

Davis, L. 1996. F-82 Twin Mustang. *Mini in Action* 8. Squadron/Signal Publications. Carrollton.

Dean, F.H. 2000. *America's Hundred Thousand: U.S. Production Fighters of World War II.* Schiffer, Atglen.

Dean, J. 1987. The Lonely Long Ranger. Sentry Books 17(5): September.

Dixon, E.J. 1985. "Cultural Chronology of Central Interior Alaska." Arctic Anthropology 22: 47-66.

Dixon, E.J., G.S. Smith, and D. Plaskett. 1980. *Archeological Survey and Inventory of Cultural Resources, Fort Wainwright, Alaska.* Prepared for the U.S. Army Corps of Engineers, Alaska District.

Dorr, R. and D. Donald. 1990. Fighters of the United States Air Force. Temple, London.

Dumond, D.E. 2001. "The Archaeology of Eastern Beringia: Some Contrasts and Connections." *Arctic Anthropology 38(2)*: 196-2005.

Esdale, J.A. 2008. "A Current Synthesis of the Northern Archaic." *Arctic Anthropology* 45(2): 3-38.

Esdale, J.A., A.S. Pelto, and W.E. McLaren. 2016. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2015*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A. A. Robertson, and W. Johnson. 2015a. "Banjo Lake: A Middle Holocene Site in the Tanana Valley." *Alaska Journal of Anthropology* 13(1):35-56.

Esdale, J.A., K.S. Yeske, H. D. Hardy, J. Lynch and W.E. McLaren. 2015b. *Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands 2014.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., A.S. Pelto, and W.E. McLaren. 2015c. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2014*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., K.S. Yeske, H. D. Hardy, W.E. McLaren, J. Lynch and L. Sample. 2014. *Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands 2013.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., and W.E. McLaren. 2014. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2013*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., and W.E. McLaren. 2013a. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area. Annual Report 2012*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., K.S. Yeske, W.E. McLaren, H. Hardy, M.A. Sweeney, J Quinn, and N. Loukianoff. 2013b. *Section 110 Report. Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands, 2012.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., and A.C. Robertson. 2007. *Final Report: Archaeological Data Recovery for Sites XMH-00284 and XMH-00881, 33-Mile Loop Road Gravel Source Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2007.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., J. Quinn, K.S. Yeske, and W.E. McLaren. 2012a. 2011 Archaeological Survey and *Report of CRTC Project Areas in Donnelly Training Area for the Cold Regions Test Center*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., E.P. Gaines, W.E. McLaren, and J. Quinn. 2012b. *Battle Area Complex Surface Danger Zone Archaeological Site Monitoring, Donnelly Training Area: Annual Report 2010 and 2011.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Esdale, J.A., E.P. Gaines, K.S. Yeske, W.E. McLaren, M. Shimel, and J.F. Kunesh. 2012c. *Section 110 Report, Cultural Resources Survey and Evaluation, Fort Wainwright and Training Lands: 2010 and 2011.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Espenshade, C.T. 2010. *Archaeological Investigations, Donnelly Training Area near Delta Junction, Alaska.* Greensboro: Prepared by New South Associates. Technical Report 1922.

Gaines, E.P. 2009. *Report: Archaeological Survey and Evaluation Fort Wainwright and Fort Richardson, Alaska 2008.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P., H. Hardy, and H. Brown. 2010a. *Final Report: Determination of National Register Eligibility for Eleven Archaeological Sites at Fort Greely, Alaska 2010.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P., K.S. Yeske, and S.J. McGowan. 2010b. *Annual Report: Cultural Resources Survey and Evaluation, Fort Wainwright, Alaska 2009.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P., K.S. Yeske, S.J. Shirar, W.C. Johnson, and J.F. Kunesh. 2011. "Pleistocene Archaeology of the Tanana Flats, Eastern Beringia." *Current Research in the Pleistocene* 29:42-44.

Gamza, T. 1995. *Excavation and Evaluation of Sullivan's Roadhouse (XBD-061), Fort Greely, Alaska 1994.* Anchorage: Final Report, Prepared for the Office of History and Archaeology, Division of Parks and Recreation, Alaska Department of Natural Resources.

Goebel, G. 2017. "The Twin Mustang/ Postwar Mustangs." *Air Vectors.* February 1. Accessed October 10, 2017. *www.airvectors.net* 

Goebel, T., J. Esdale, M. Mueller, and C. Ketron. 2014. *New Prehistoric Archaeological Research in the Blair Lakes Area, Tanana Valley, Alaska*. Paper presented at the 41<sup>st</sup> Annual Meeting of the Alaska Anthropological Association, Fairbanks, AK.

Goebel, T., W.R. Powers, N.H. Bigelow, and A.S. Higgs. 1996. "Walker Road." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, 356-363. Chicago: University of Chicago Press.

Goldberg, A. (editor). 1978. "A History of the United States Air Force, 1907-1957." Arno Press Inc., Princeton.

Grove, C.. 2016. "To settle Alaska case of pilfered plane parts, Georgia salvagers pay up." *Alaska Dispatch News*, September 28. Accessed October 10, 2017. *www.adn.com* 

Haynes, T.L., and W.E. Simeone. 2007. *Upper Tanana Ethnographic Overview and Assessment, Wrangell St. Elias National Park and Preserve.* Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Hedman, W., A. Robertson, N. Fichter, and K. Anderson. 2003. *Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2002.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Higgs, A.S., B.A. Potter, P.M. Bowers, and O.K. Mason. 1999. *Cultural Resource Survey Report of the Yukon Training Area and Fort Greely Army Lands Withdrawal, Alaska. Vol. 2.* Fairbanks: Prepared by Northern Land Use Research, Inc.

Holmes, C.E. 1979a. *Report on Archeological Reconnaissance: Yukon Training Command Withdrawal Area. Fort Wainwright.* Report prepared for the U.S. Army Corps of Engineers under Contract DACA85-79-M-0001.

Holmes, C.E. 1979b. Archaeological Reconnaissance Report for Fort Wainwright, Fort Greely, and Fort Richardson Withdrawal Lands, Alaska. Fairbanks: Prepared for the 172<sup>nd</sup> Infantry Brigade.

Holmes, C.E. 1996. "Broken Mammoth." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 312-318. Chicago: University of Chicago Press.

Holmes, C.E. 1998. "New Data Pertaining to Swan Point, the Oldest Micoblade Site Known in Alaska." *Current Research in the Pleistocene 15*: 21-22.

Holmes, C.E. 2001."Tanana River Valley Archaeology Circa 14,000 to 9,000 B.P." *Arctic Anthropology 38(2)*: 154-170.

Holmes, C.E. 2007."The East Beringian Tradition and the Transitional Period: New Data from Swan Point." 34<sup>th</sup> Annual Meeting of the Alaskan Anthropological Association. Fairbanks.

Holmes, C.E., and J. Anderson. 1986. *Archaeology and Paleoecology of the Delta River Area, Interior Alaska.* . Anchorage: National Science Foundation Project Summary Manuscript on file at the State Historic Preservation Office.

Holmes, C.E., R. VanderHoek, and T.E. Dilley. 1996. "Swan Point." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 319-323. Chicago: University of Chicago Press.

Holmes, G.W. 1965. *Geologic Reconnaissance Along the Alaska Highway, Delta River to Tok Junction, Alaska. Bulletin B 1181-H.* Anchorage: U.S. Geological Survey.

Johnson, W.C., and S.R. Bozarth. 2008. *Geoarchaeology and Environmental Reconstruction at XMH-874, Fort Wainwright Donnelly Training Area.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

King, R. 2006. *Alaska's Richardson Highway: Connecting Valdez and Fairbanks for 100 Years.* Bureau of Land Management Alaska Frontiers Winter 2005-2006. Kingston, P. 2006. "The Alaska Highway: The Biggest and Hardest Job Since the Panama Canal." *American History Magazine*, June 2006.

Kitchener, L. 1954. *Flag Over the North. The Story of the Northern Commercial Company.* Superior Publishing Company, Seattle Washington.

Knaack, M.S. 1978. *Encyclopedia of US Air Force Aircraft and Missile Systems, Volume 1: Post-World War II Fighters, 1945–1973*. Office of Air Force History, pp. 13–21, Washington, D.C.

Lanford, S., and R. Mills. 2006. *HILLS BROS. Coffee Can Chronology: Field Guide.* BLM-Alaska Open File Report 109. U.S. Department of the interior, Bureau of Land Management, Fairbanks.

Lively, R.A. 1996. "Chugwater." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 308-311. Chicago: University of Chicago Press.

Loeffler, K.L. 2013. "Georgia Aircraft Restorer Settles Dispute with Federal Authorities Over Removing Rare Aircraft Parts from Alaska Public Land." Anchorage, AK: Department of Justice, December 19.

Marshall, T. 2007. *Archaeological Survey and Evaluation: Fort Wainwright, 2006*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Maurer, M. 1969. *Combat Squadrons of the Air Force, World War II*. Office of Air Force History: Washington, D.C.

McFadyen Clark, A. 1981."Koyukon." In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm, 582-601. Washington, D.C.: Smithsonian Institution.

McFadyen Clark, A. 1996. *Who Lived in This House? A Study of Koyukuk River Semi Subterranean Houses.* Hull: Mercury Series Archaeological Survey of Canada Paper 153. Canadian Museum of Civilization.

McKennan, R.A. 1981."Tanana." In *Handbook of North American Indians, Volume 6: Subarctic,* by J. Helm. Washington, D.C.: Smithsonian Institution.

McLaren, D.R. 1993. Double Menace: P-82 Twin Mustang. VIP Aero, Colorado Springs.

Meltzer, D.J. 2001. "Late Pleistocene Cultural and Technological Diversity of Beringia: A View from Down Under." *Arctic Anthropology 38(2)*: 206-213.

Menard, D.W. 1993. USAF Plus Fifteen: A Photo History, 1947-1962. Schiffer, Atglen.

Military Factory. 2017. "North American F-82/P-82 Twin Mustang Long-Range Escort/ Ground Attack/ Nightfighter Aircraft." *Military Factory*. May 17. *www.militaryfactory.com* 

Mishler, C.W. 1986. *Born With the River: An Ethnographic History of Alaska's Goodpaster and Big Delta Indians.* Fairbanks: Alaska Departmet of Natural Resources, Division of Geological and Geophysical Surveys Reports, Public Data File 68-14.

Mondey, D. 1994. *F-82 Twin Mustang. The Concise Guide to American Aircraft of World War II.* Chartwell, NJ.

Muhs, D.R. and J.R. Budahn. 2006. "Geochemical evidence for the origin of late Quaternary loess in central Alaska." *Canadian Journal of Earth Science* 43: 323-337.

National Park Service. 1998. *National Register Bulletin: Guidelines for Evaluating and Documenting Historic Aviaiton Prpoerties*. Written by A. Millbrooke, P.W.Andrus, and D.B. Whipple. 27 pp.

Natural Resources Conservation Service. 2010. *Soil Survey for Alaska: Fort Greely and Donnelly Training Area*. Palmer: Natural Resources Conservation Service.

Neely, R., J. Burr. 2001 Early Mining History: Fort Wainwright and Fort Greely, Alaska. Prepared by the Center for Ecological Management of Military Lands, Colorado State University, Fort Collins, Colorado. CEMML TPS 01-3.

Odess, D. 2002. *Preliminary Report of Archaeological Investigations on Military Lands in the Vicinity of Donnelly Dome, Alaska, Under TCC Contract #DAPC49=01-D-0004.* Fairbanks: Report on file with the Tanana Chiefs Conference.

Odess, D., and J.T. Rasic. 2007. "Toolkit Composition and Assemblage Variability: The Implications of Nogahabara I, Northern Alaska." *American Antiquity 72(4)*: 691-717.

Pape, G.R 1977. Escort Fighter: Flying the F-82 Twin Mustang in the Cold War. *Wings* 7(6). Sentry Books.

Pearson, G.A., and W.R. Powers. 2001. "The Campus Site Re-Excavation: New Efforts to Unravel Its Ancient and Recent Past." *Arctic Anthropology 38(1)*: 100-119.

Peele, R. (editor). 1941. *Mining Engineers' Handbook*, Volume I and II. Third Edition. John Wiley & Sons, Inc., New York.

Phillips, W.T., Sr. 1984. *Roadhouses of the Richarson Highway, the First Quarter Century: 1898-1923.* Anchorage: State of Alaska, Alaska Historical Commission,

Pink, T. 2005. *Soil Survey of Fort Greely and Donnelly Training Area, Alaska*. Washington D.C.: USDA-Natural Resources Conservation Service.

Polk, R. L. & Company. 1907-1909. *Polk's 1905-1906 Alaska Yukon Gazetteer and Business Directory*. R. L. Polk & Co. Seattle, WA.

Polk, R. L. & Company. 1924. Polk's 1923-*1924 Alaska Yukon Gazetteer and Business Directory.* R. L. Polk & Co. Seattle, WA.

Potter, B.A. 2008. "Exploratory Models of Intersite Variability in Mid to Late Holocene Central Alaska." *Arctic 61(4)*: 407-425.

Potter, B.A. 2004. "Modeling Intersite Variability in Interior Alaska: Overcoming Conceptual Ambiguity Through Pattern Recognition." 60<sup>th</sup> Annual Meeting of the Society for American Archaeology. Montreal.

Potter, B.A. 2007. "Models of Faunal Processing and Economy in Early Holocene Interior Alaska." *Environmental Archaeology* 12(1): 3-23.

Potter, B.A. 2008. "Radiocarbon Chronology of Central Alaska: Technological Continuity and Economic Change." *Radiocarbon 50(2)*: 181-204.

Potter, B.A. 2001. "Recent Investigations at the Gerstle River Site, a Multicomponent Site in Central Alaska." *Current Research in the Pleistocene 18*: 52-54.

Potter, B.A. 2005. *Site Location Model and Survey Strategy for Cultural Resources in the Alaska Railroad Northern Rail Extension Project Area.* Fairbanks: Report submitted by Northern Land Use Research, Inc. and ICF Consulting Services, LLC.

Potter, B.A., J.D. Irish, J.D. Reuther, C.I Gelvin-Reymiller, and V.T. Holliday. 2011. "A Terminal Pleistocene Child Cremation and Residential Structure from Eastern Beringia." *Science 331*: 1058-1062.

Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. 2008. "Little Delta Dune Site: A Late-Pleistocene Multicomponent Site in Central Alaska." *Current Research in the Pleistocene* 25: 132-135.

Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. 2007a. *Results of the 2007 Cultural Resource Survey of Proposed Alaska Railroad Northern Rail Extension Routes, Alaska.* Fairbanks: Report submitted by Northern Land Use Research, Inc.

Potter, B.A., P.M. Bowers, J.D. Reuther, and O.K. Mason. 2007b. "Holocene Assemblage Variability in the Tanana Basin: NLUR Archaeological Research, 1994-2004." *Alaska Journal of Anthropology 5(1)*: 23-42.

Potter, B.A., S.C. Gerlach, A.S. Higgs, and P.M. Bowers. 2000. *Final Cultural Resources Survey: Fort Greely, Yukon Training Area (Fort Wainwright), Alaska for the National Missile Defense Program, for USAR Space and Missile Defense Command*. Fairbanks: Report prepared by Northern Land Use Research, Inc.

Powers, W.R., and J.F. Hoffecker. 1989. "Late Pleistocene Settlement in the Nenana Valley, Central Alaska." *American Antiquity* 54(2): 263-287.

Price, K. 2002. *Homesteads on Fort Wainwright, Alaska*. Fort Collins: Center for Environmental Management of Military Lands, Colorado State University.

Rabich, J.C., and D.R. Reger. 1977. *Archaeological Excavations at the Gerstle River Quarry Site. In, Archaeological Survey Projects 1977.* Anchorage: OHA Miscellaneous Publications 18, Office of History and Archaeology.

Racine, C.H., R. Lichvar, B. Murray, G. Tande, R. Lipkin, and M. Duffy. 1997. *A Floristic Inventory and Spatial Database for Fort Wainwright, Interior Alaska.* Fairbanks: U.S. Army Cold Regions Research and Engineering Laboratory, Special Report 97-23.

Raymond-Yakoubian, J., and A. Robertson. 2005. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2004.* Annual Report, Fort Collins: Center for Environmental Management of Military Lands (CEMML).

Raymond-Yakoubian, J., and A. Robertson. 2006. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2005.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Ream, B.A. 1986. Old Fish Camp: an Ethnohistoric and Archeological Analysis of a Lower Yukon Koyukon Athapaskan Winter Village, Khotol River, Alaska. M.A. Thesis, Department of Anthropology, Western Washington University.

Reeves, M. 2008. *Alaska Gold: The History of Gold Dredge No. 8,* Gold Fever Press, Fairbanks, AK.

Reynolds, G.L. 1983. *Archaeological Reconnaissance of Four Borrow Pits, Fort Wainwright, Alaska*. Anchorage: Submitted to the U.S. Army Corps of Engineers.

Reynolds, G.L. 1998. *Archaeological Site Report Fort Greely Cantonment Area*. Anchorage: Manuscript on file at the Office of History and Archaeology.

Reynolds, G.L. 1986. *Inventory of Cultural Resources and Overview, Phase I.* Prepared for the 172<sup>nd</sup> Infantry Brigade by Georgeanne Reynolds, Fairbanks: Alaska Heritage Group, Inc.

Reynolds, G.L. 1985. *Survey of Construction Projects, Fort Wainwright Cantonment*. Anchorage: Manuscript on file at the Office of History and Archaeology.

Robertson, A.C. 2009. U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., J. Esdale, W.C. Johnson, S.R. Bozarth, S. McGowan, M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. 2009. *Final Report: 2006-2007 Archaeological Data Recovery for Site XMH-00874 Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. 2008. *Archaeological Data Recovery for Site XMH-00874, Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska, 2007.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., M. Proue, P. Hall, S. Shirar, and C.K. Paraso. 2007. *Archaeological Survey, Evaluation, and Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2006.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., N. Fichter, and K. Anderson. 2004. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright 2003*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., S.J. Meitl, D. White, P. Gilbert, and C. Ciancibelli. 2009. *Archaeological Survey and Evaluation: Donnelly Training Area, Fort Wainwright 2008.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Scott, P. 2009. Tug of Warbirds. Smithsonian Enterprises 23(5):12.

Sheppard, W., A.F. Seffian, D.P. Staley, and N.H. Bigelow. 1991. *Late Holocene Occupations at the Terrace Site, Tok, Alaska.* Final Report, Fairbanks: Prepared for U.S. Air Force Over-the-Horizon Backscatter Radar Program.

Shinkwin, A.D. 1979. *Dakah De'nin's Village and the Dixthada Site: a Contribution to Northern Alaskan Prehistory.* National Museum of Man Mercury Series NO. 91.

Staley, D.P. 1993. A Phase 1 Cultural Resources Survey of 19 Locations for the Proposed Yukon Measurement and Debriefing System in Interior Alaska. Albuquerque: Mariah and Associates.

Steele, J.L. 1980. *Fort Greely Bison Trail Archaeologica Survey: May 1980*. Anchorage: Alaska District, U.S. Army Corpos of Engineers.

Steele, J.L. 1983a. *Cultural Resource Assessment of a Powerline Extension: Fort Greely, Alaska.* Anchorage: Alaska District, U.S. Army Corps of Engineers.

Steele, J.L. 1983b. *Cultural Resources Assessment of Proposed Borrow Area, Fort Wainwright, Alaska.* Anchorage: Report on file at the Office of History and Archaeology.

Steele, J.L. 1982a. Archaeological Assessment of Proposed Range Control Headquarters Building, Fort Wainwright, Alaska. Anchorage: Alaska District, U.S. Army Corps of Engineers.

Steele, J.L. 1982b. *Cultural Resource Assessment for a Quarry Site at Donnelly Dome, Fort Greely, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.

Steele, J.L. 1980a. Archaeological Assessment of Squad Assault Range, Powerline Extension, and *M-16 Record Fire Range, Fort Greely, Alaska.* Anchorage: Alaska District, U.S. Army Corps of Engineers.

Steele, J.L. 1980b. *Fort Greely Bison Trail Archaeological Survey, Fort Greely, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.

Tanana Chiefs Conference, Inc. 1993. *Forest Resources of Bureau of Land Management and Military Lands Within a 100 Mile Radius of Fairbanks, Alaska.* Fairbanks: Prepared for the Bureau of Land Management.

Tanner, K.S. 2008. The Inglewood Ghost. Air Classics 44(7).

Thomas, N. 2014. Fort Wainwright Operations and Management Project Reviews Annual Report January 2013-December 2014. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Thompson, W. E. 2003. Alaskan Twin Mustangs: North American F-82 Operations in Alaska. *Wings* 33(5). Sentry Books.

Thompson, W.E. 2001. Double Trouble, the F-82 Twin Mustang in Korea. *Air Enthusiast* 93. Key Publishing.

U.S. Army Garrison, Alaska (USARAK). 2007. *Integrated Natural Resources Management Plan 2007-2012, Volume 1.* Fort Wainwright: Environmental Office, Directorate of Public Works.

U.S. Army Garrison, Alaska (USARAK). 2002. *Integrated Natural Resources Management Plan 2002-2006, Volume 1: Fort Greely and Donnelly Training Area.* Fort Wainwright: Environmental Division, Directorate of Public Works.

VanStone, J.W., and I. Goddard. 1981. "Territorial Groups of West-Central Alaska Before 1898." In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm, 556-561. Washington D.C.: Smithsonian Institution.

Viereck, L.A., and E.L., Jr. Little. 1972. *Alaska Trees and Shrubs.* Washington, D.C.: Agricultural Handbook 410. U.S. Forest Service.

West, F.H. 1975. "Dating the Denali Complex." Arctic Anthropology 12: 76-81.

West, F.H. 1996. "Donnelly Ridge." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 302-307. Chicago: University of Chicago Press.

West, F.H. 1996. "Other Sites in the Tangle Lakes." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 403-408. Chicago: University of Chicago Press.

West, F.H.. 1981. The Archaeology of Beringia. New York: Columbia Press.

West, F.H. 1967. "The Donnelly Ridge Site and the Definition of an Early Core and Blade Complex in Central Alaska." *American Antiquity 32(2)*: 360-382.

Wickersham, J. 1938. Old Yukon: Tales-Trails–Trials. Washington Law Book Co. Washington D.C.

Wikipedia Entry. 2017. North American F-82 Twin Mustang. https://en.wikipedia.org/wiki/North\_American\_F-82\_Twin\_Mustang

Wilson, F.H., Hults, C.P., Mull, C.G., and S.M. Karl. 2016. *Geological Map of Alaska, US Geological Survey Scientific Investigations Map 3340 and Digital Database Files*. US Geological Survey.

Yarborough, L.F. 1978. *Chena River Lakes Project Cultural Resource Investigation*. Final Report, Fairbanks: Prepared for the U.S. Army Corps of Engineers, Alaska District.

Yesner, D.R. 2001. "Human Dispersal into Interior Alaska: Antecedent Conditions, Mode of Colonization, and Adaptations." *Quaternary Science Reviews*: 315-327.

Yesner, D.R., and G.A. Pearson. 2002. "Microblades and Migrations: Ethnic and Economic Models in the Peopling of the Americas." In *Thinking Small: Global Perspectives on Microlithization*, by R.G. Elston and S.L. Kuhn, 133-161. Arlington: Archaeological Papers of the American Anthropological Association Number 12. Yesner, D.R., C.E. Holmes, and G. Pearson. 1999. "Recent Excavations at the Broken Mammoth Site, Big Delta, Alaska: Reflections on Activity Patterning and Artifact Assemblages." 64<sup>th</sup> Annual Meeting of the Society for American Archaeology. Chicago.