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Cultural Resources Survey and Evaluation of Archeological Sites 41WS105, 41WS159, 41WS160, and 41WS161 for the Proposed Fence Line Project in Grasslands Units 48, 62 and 63, Lyndon B. Johnson National Grassland, Wise County, Texas

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Cultural Resources Survey and Evaluation of Archeological Sites 41WS105, 41WS159, 41WS160, and 41WS161 for the Proposed Fence Line Project in Grasslands Units 48, 62 and 63, Lyndon B. Johnson National Grassland, Wise County, Texas

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Cultural Resources Survey and Evaluation of Archeological Sites 41WS105, 41WS159, 41WS160, and 41WS161 for the Proposed Fence Line Project in Grasslands Units 48, 62 and 63, Lyndon B. Johnson National Grassland, Wise County, Texas

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ABSTRACT

The United States Forest Service (USFS) is proposing to reconstruct perimeter fencing surrounding three Grasslands units located within the Lyndon B. Johnson National Grassland (LBJ National Grassland) in Wise County, Texas. As part of the proposed perimeter fence reconstruction within the three proposed Grasslands units, the USFS is seeking a general inventory of cultural resources which includes background and historic research, archeological field survey, site delineation, a determination of the condition of recorded cultural resources, and recommendation of eligibility for listing on the National Register of Historic Places (NRHP) of any sites encountered.

The overall project tracts are subject to federal jurisdiction and falls under the regulations of Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (U.S. Code 16, §470, et seq.). To ensure compliance with Section 106 of the NHPA, the USFS contracted with TRC Environmental Corporation (TRC) to conduct any necessary field investigations required as determined during the coordination process.

The Area of Potential Effects (APE) consists of three Grasslands units where proposed perimeter fence reconstruction will occur. The three Grasslands units include Unit 48, Unit 62, and Unit 63. Together, the three Grasslands units measure 399 acres. A cultural resources survey of these three Grasslands units was performed under Section 106 of the NHPA. For these investigations, Josh Haefner served as the Principal Investigator and Steve Sarich was the Project Archeologist. Field work was conducted by Josh Haefner, Steve Sarich, Benjamin Johnson, Gregg Cestaro, and Haley Wilkerson, the latter two individuals employed by Hicks & Company, the small-business subconsultant for this project.

Results of the background review, completed prior to the field investigation determined that one previously recorded site, 41WS105, is located within the APE; no cemeteries or historic structures were noted within the APE; while one previous cultural resources survey has been performed within or within the vicinity of the APE. This previous survey was a limited seismic survey of Unit 48 and resulted in the discovery of 41WS105.

Prior to survey, TRC coordinated with the USFS on the proposed survey methodology and research design. TRC archeologists performed survey supplemented with shovel testing at the three Grasslands units on October 31–November 08 and December 04 – 06, 2019. During the investigations, a total of 412 shovel tests were excavated. Of these tests, 405 were negative for cultural materials. In addition to these tests 65 points were recorded as “No Dig” locations due to ground disturbance, slope, or other impediment. Seven shovel tests were positive for cultural materials. Three new sites were recorded within the APE and an extension to previously recorded 41WS105 (forest service number: 08130800055) was delineated as a result of the survey. As shovel testing at two of the new sites, 41WS160 (081308000526) and 41WS161 (081308000527), noted no buried cultural deposits and historic cultural materials were observable on the ground surface, these boundaries were established by the mapping of the horizontal distribution of artifacts along the ground surface. Boundaries for the 41WS105 and 41WS159 (081308000525) were based on both the distribution of positive shovel tests and the presence of cultural materials on the ground surface. Based on the results of the cultural resources survey, TRC recommends that no further investigations are necessary and the project may proceed as planned with no historic properties affected.
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1.0 INTRODUCTION

The United States Forest Service (USFS) is proposing to reconstruct perimeter fencing surrounding three Grasslands units located within the Lyndon B. Johnson National Grassland (LBJ National Grassland) in Wise County, Texas as implementation of the LBJ Prairie Savanna Restoration Project. This project is necessary to create a 40-foot fireline around LBJ National Grasslands units as these units are overgrown with dense vegetation and have limited to no mobility through them, posing a wildfire hazard. Impacts entail bulldozing to clear these perimeters of all trees and other woody vegetation, both above and below ground and new fence construction including utilization of metal t-posts and the use of an auger to drill into the ground to set metal corner posts and concrete bracing. As part of the proposed perimeter fence reconstruction, the USFS has contracted with TRC Environmental Consultants (TRC) to perform an inventory of cultural resources within three proposed Grasslands units (Units 48, 62, and 63) which includes background and historic research, archeological field survey, site delineation, a determination of the condition of recorded cultural resources, and recommendation of eligibility for listing on the National Register of Historic Places (NRHP), as amended (U.S. Code 16, §470, et seq.).

The Area of Potential Effects (APE) consists of the entirety of three Grasslands unit locations where proposed perimeter fence reconstruction will occur. The three Grasslands units include Unit 48, Unit 62, and Unit 63. Grasslands Unit 48 has an approximate perimeter measurement of 5,272 meters (m) [17,297 feet (ft)] and spans approximately 190 acres (ac). Unit 62 has an approximate perimeter measurement of 1,811 m [5,942 ft] and spans approximately 49 ac. Unit 63 has an approximate perimeter measurement of 4,035 m [13,238 ft] and spans approximately 160 ac. The total APE for the three Grasslands units is 399 ac (Figure 1-1 and Figure 1-2). Though impacts from fencing and fireline constructing will likely be limited to a 40-foot corridor around each unit; archeological survey covered the entirety of each Grasslands unit to evaluate and record any cultural resources located within the three boundaries.

Fieldwork was conducted from October 31–November 08 and December 04 – 06, 2019. The field effort consisted of pedestrian survey supplemented with shovel testing of the APE. Minimally, TRC excavated shovel tests within each of the Grasslands units at 30 m transect spacing with shovel test intervals no greater than 150 m. In certain instances, this number was increased during site recording to gather additional data on deposition. Hence, a total of 412 shovel tests were excavated during the archeological survey. Of these tests, 405 were negative for cultural materials. In addition to these tests 65 points were recorded as “No Dig” locations due to ground disturbance, slope or other impediment. Seven shovel tests were positive for cultural materials. A total of three new archeological sites were recorded during the current investigations and the site boundaries to previously recorded site 41WS105 (forest service number: 08130800055) was extended approximately 124 m to the northwest. As shovel testing at two of the new sites, 41WS160 (08130800526) and 41WS161 (08130800527), noted no buried cultural deposits and historic cultural materials were observable on the ground surface, these boundaries were established by the mapping of the horizontal distribution of artifacts along the ground surface. Extended boundary to 41WS105 and delineation of 41WS159 (08130800525) were based on both the distribution of positive shovel tests and the horizontal distribution of artifacts on the ground surface. This report presents the findings of the cultural resource investigations.
1.0: Introduction

Figure 1-1 Topographic map of APE.
Figure 1-2  Aerial map of APE.
1.0: Introduction

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2.0 PHYSIOGRAPHIC AND ENVIRONMENTAL CONTEXT

Physiography

The project area lies within the Oak woods and Prairies physiographic region of Texas, near its interface with the Blackland Prairies to the east (Figure 2-1). To the west, the Cross Timbers and Prairies are bordered by the Rolling Plains. The Oak woods and Prairies region can be further subdivided into four ecological or vegetative sub-regions: the West Cross Timbers, Fort Worth Prairie, Lampasas Cut Plain, and the East Cross Timbers. Dominant geologic units of the Cross Timbers and Prairies were formed during the Paleozoic (approximately 30 percent) and Mesozoic eras (70 percent) and the resulting topography is characterized by gently rolling uplands dissected by ephemeral and deeply cut streams.

Flora and Fauna

The proposed project lies within the Cross Timbers and Prairies Ecological Area of Texas (Gould 1960) and in the Texan Biotic Province (Blair 1950). The Cross Timbers and Prairies Ecological Area is a transitional area between the Great Plains of the central United States and the forested low mountains and hills of eastern Oklahoma and Texas. The region is a mosaic of forest, woodland, savanna, and prairie. The physiognomy of the Cross Timbers is oak woodland and tallgrass prairie. Dominant woody species include post oak (Quercus stellata), blackjack oak (Quercus marilandica), eastern red cedar (Juniperus virginiana), bumelia (Bumelia lanuginosa), and greenbrier (Smilax bona-nox). Forbs of the region include bluebonnets (Lupinus texensis), Engelmann daisy (Engelmannia pinnatifida), and Maximilian sunflower (Helianthus maximilliani). Tall and midgrasses are dominant and include such species as big bluestem (Andropogon gerardii), little bluestem (Schizachyrium scoparium), indiangrass (Sorghastrum nutans), and sideoats grama (Bouteloua curtipendula). This region is not well suited for cropland and is mostly used for rangeland and pastureland. Oil production is also a major activity in this region (Gould et al. 1960).

Mammal species typical of the Texan Biotic Province include Virginia Opossum (Didelphis virginiana), Eastern Mole (Scalopus aquaticus), Fox Squirrel (Sciurus niger), Fulvous Harvest Mouse (Reithrodontomys fulvescens), Hispid Cotton Rat (Sigmodon hispidus), Deer Mouse (Peromyscus maniculatus), Eastern Cottontail (Sylvilagus floridanus), Swamp Rabbit (Sylvilagus aquaticus), and Black-tailed Jackrabbit (Lepus californicus). Reptiles of the province include Ornate Box Turtle (Terrapene ornata), Eastern Box Turtle (Terrapene carolina), Green Anole (Anolis carolinensis), Fence Lizard (Sceloporus undulatus), Eastern Racer (Coluber constrictor), Coachwhip (Masticophus flagellum), Eastern Rat Snake (Elaphe obsoleta), Common Kingsnake (Lampropeltis getula), Cottonmouth (Agkistrodon piscivorus), and Western Diamondback Rattlesnake (Crotalus atrox). Typical anuran species include Hurter’s Spadefoot Toad (Scaphiopus hurterii), Gulf Coast Toad (Bufo valliceps), Woodhouse’s Toad (Bufo woodhousii), Northern Cricket Frog (Acris crepitans), Strecker’s Chorus Frog (Pseudacris streckeri), Gray Treefrog (Hyla versicolor), Green Treefrog (Hyla cinerea), Bullfrog (Rana catesbiana), and Rio Grande Leopard Frog (Rana berlandieri) (Blair 1950).
Figure 2-1 Project Location within the Oak Woods & Prairies Physiographic Region of Texas.
The underlying geology of Units 62, 63, and the majority of Unit 48 consists of Early Cretaceous Antlers Sand (Ka). The 1991 Geologic Atlas of Texas, Sherman Sheet notes that Antlers Sand is commonly found in the eastern part of the Trans-Pecos and High Plains and consists of sand, clay, and conglomerate. Lower and upper parts are mostly sand, the middle part chiefly clay, and grades northward to interbedded sand and clay. Sand is typically fine to coarse grained, conglomeratic in the lower parts, clayey in the upper parts. Conglomerate is mixed with chert, quartz, and quartzite as pebbles and granules. The thickness of Antlers Sand ranges between 500—650 ft. Sandstone, claystone, and conglomerate ranges in thickness as much as 200 ft, but is variable because of the irregular surface on which it was deposited. The underlying geology of the southern portion of Unit 48 also consists of Early Cretaceous Goodland Limestone and Walnut Clay, undivided (Kgw). According to the Geologic Atlas the formation is predominantly fine-grained Goodland Limestone which becomes more nodular toward the base. The formation grades downward to Walnut Clay, interbedded coquinite, and dark-gray, marly shale. The thickness of Goodland Limestone and Walnut Clay, undivided in Texas ranges from 13—20 ft. (Figure 2-2).

According to the U.S. Department of Agriculture (USDA) Web Soil Survey (2015), the soils present within Unit 48 consist of Brackett-Aledo complex with 5 to 10 percent slopes (ByE), Duffau loamy fine sand with 1 to 5 percent slopes (DfC), Frio silty clay loam, occasionally flooded (Fr), Keeter very fine sandy loam with 1 to 6 percent slopes (KtC), Keeter very fine sandy loam with 2 to 6 percent slopes, severely eroded (KtC3), Patilo-Heaton fine sands with 3 to 12 percent slopes (PhC), Pullexas soils, frequently flooded (Pu), Somervell-Aledo complex with 1 to 8 percent slopes (SoC), Venus loam with 3 to 8 percent slopes (VeC), Water (W), Duffau-Windthorst complex with 1 to 5 percent slopes, moderately eroded (WeC), Weatherford-Duffau complex with 2 to 8 percent slopes, severely eroded (WeC3), and Duffau-Weatherford complex with 3 to 8 percent slopes (WeD) (Figure 2-3).

The soils present within Unit 62 consist of Bastsil fine sandy loam with 0 to 3 percent slopes (BfB), Duffau loamy fine sand with 1 to 5 percent slopes (DfC), Keeter very fine sandy loam with 1 to 6 percent slopes (KtC), Somervell-Aledo complex with 1 to 8 percent slopes (SoC), Speck clay loam with 0 to 2 percent slopes (SpB), Venus loam with 3 to 8 percent slopes (VeC), and Weatherford-Duffau complex with 2 to 8 percent slopes, severely eroded (WeC3).

The soils present within Unit 63 consist of Bastsil loamy fine sand with 0 to 3 percent slopes (BdB), Bastsil fine sandy loam with 0 to 3 percent slopes (BfB), Duffau loamy fine sand with 1 to 5 percent slopes (DfC), Hassee fine sandy loam with 0 to 2 percent slopes (HaB), Keeter very fine sandy loam with 1 to 6 percent slopes (KtC), and Weatherford-Duffau complex with 2 to 8 percent slopes, severely eroded (WeC3) (Figure 2-4).
Figure 2-2 Underlying geology within and adjacent to the LBJ Grasslands APE.
Figure 2-3  Soils within LBJ Grasslands Unit 48 APE.
Figure 2-4  Soils within LBJ Grasslands Unit 62 and Unit 63 APE.
Cultural Resources Survey and Evaluation of Archeological Sites 41WS105, 41WS159, 41WS160, and 41WS161 for the Proposed Fence Line Project in Grasslands Units 48, 62, and 63, LBJ National Grassland, Wise County, Texas

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3.0 CULTURE HISTORY

Cultural Background

The project area lies within the northeastern reach of the North-Central Texas culture area as defined by Suhm et al. (1962). Other scholars who have contributed to this region’s chronological framework include Krieger (1946); Prewitt (1981); Prikryl 1990; and Vehik (1994). Generally, the cultural chronology of the area follows that proposed by Prikryl (1990): Paleoindian (pre 8500 before present), Early Archaic (8500–6000 B.P.), Middle Archaic (6000–3500 B.P.), Late Archaic (3500–1250 B.P.), Late Prehistoric I (1250–750 B.P.), and Late Prehistoric II (750–250 B.P.).

Paleoindian (ca. 11000–8500 BP)

While there is considerable evidence for a Paleoindian presence in the North-Central Texas area, most of this evidence comes in the form of mixed artifact assemblages and finds in surface contexts, limiting the information that can be extracted for this time period (Meltzer 1987). Early Paleoindian Clovis and Plainview points are reported with good frequency from Eastern Cross Timbers region northwest of Dallas, patterning in proximity to Denton and Clear creeks (Peter and Harrison 2011:21).

The oldest dated site within the North-Central Texas region, with a highly suspect age of 37 B.P., is the Lewisville Site. While claims that the site’s many hearth features were excavated in situ may be accurate, critiques cite lack of diagnostic artifacts (n=1) and erroneous radiocarbon dating due to lignite contamination as valid reasons to question claims to the site’s antiquity (Stanford 1981). Investigations at the Aubrey Clovis Site (Ferring 1989a, 1989b, 1990, 1995), located north of Lake Lewisville west of Elm Fork, has contributed a significant amount to what is known of regional Clovis occupations. The site is approximately seven to eight meters below the top of the Elm Fork floodplain. While the Lewisville Site assemblage consisted of more than a handful of artifacts, recovered tool and debitage samples at Aubrey number over 10,000 (Ferring 1989a). All of the lithic materials at the Aubrey Site are non-local and indicative of long-distance trade and analysis of this assemblage indicates that a curated technological organization coupled with intensive tool utilization was practiced (Ferring 1989a, 1989b). Faunal analysis suggests that there was variable exploitation of small, medium and large game including bison, deer, rabbit, squirrel, fish and turtle. Additionally, mammoth remains have been unearthed at Aubrey, although it is not clear if these animals are associated with subsistence practices. With deposits approaching eight meters below ground surface, this site is an indicator of the elusiveness of intact sites dating to this period.

Projectile points of Plainview and Dalton varieties occur with the most frequency (Prikryl 1990), and their association suggests that the area was a borderland where Plainview occupations from the Rolling and High Plains interfaced with the Dalton culture from areas located to the east (Johnson 1987). Due to mixed contexts, site dating has been done by cross referencing projectile points with same types from other, more controlled, sites. Cross dating of the Plainview and Dalton varieties date Paleoindian occupations to ca. 9.5–10 B.P. (Ferring and Yates 1997:5). Peter and Harrison (2011:21) note that these dates may correlate with the advent of early Holocene alluviation within the Trinity River Valley area.
Early Archaic (ca. 8500–6000 B.P.)

The vast majority of Early Archaic sites in the region are surface sites recorded in the Trinity River Basin and are recognized by the presence of Angostura, Early Split Stemmed, and Kirk projectile points, as well as, Clear Fork gouges (Byers 2007; Story 1990). In situ sites currently on record are limited to Lake Lewisville, which has an Early Archaic component as well as Paleoindian and Middle Archaic components (Ferring and Yates 1997). Early Archaic components have been recovered during excavations at the Aubrey Clovis Site; Ferring (1989a), however, has questioned their context.

With little in the way of isolatable sites in the region, Early Archaic lifeways are hard to define for North-Central Texas. Generally, it is hypothesized that diffused hunting and gathering subsistence economies were practiced (Prikryl 1990; Ferring and Yates 1997). Small-sized and widely distributed sites indicate high mobility.

Middle Archaic (6,000–3,500 B.P.)

In comparison with the Early Archaic, there are far less recorded Middle Archaic components for the North-Central Texas region. The Calvert Site (41DN102) at Lake Ray Roberts is the only known buried in situ site that has a definitive association with the Middle Archaic period (Byers 2007). Associated with this site were a rock-filled hearth, a flexed burial of an adult male and an unmixed assemblage of fauna and artifacts. Projectile points associated regionally with the Middle Archaic are Bulverde, Frio, Trinity, Carrollton, Wells and the basal-notched Bell and Calf Creek types. These points are often used to date surface sites (Prikryl 1990; Story 1990). Prikryl (1990:71-74) notes that within the middle Elm Fork Trinity Valley there is a noticeable paucity in Middle Archaic sites when compared to other time periods. Prikryl (1990) attributes this to the altithermal, while Ferring and Yates (1997) note that in addition to dry climate and associated reduced occupation potential, existing sites may be deeply buried.

Late Archaic (3500–1250 B.P.)

In stark contrast to the Middle Archaic, sites dating to the Late Archaic are ―by far the most common in the archaeological record‖ for North-Central Texas (Ferring and Yates 1997: 6). Prikryl (1990) notes that regional surface collections contain between two to three times the amount of Late Archaic point types than points from other archeological periods. When compared to the Middle Archaic, the ratio increases to just over 60:1 (Prikryl 1990: 52-53).

While Ferring and Yates (1997) note that regional buried Late Archaic sites are generally shallow and easily detected, they offer that this alone cannot account for their numbers in the archeological record and posit an increase in population density. Story (1981) offers that this population increase is the result of a shift in exploitation strategies, reduced mobility and a climate shift back to more mesic conditions.

Late Prehistoric I (1250–750 B.P.)

During the Late Prehistoric I period, new technologies included the bow and the arrow and ceramics. The intermittent introduction of these technologies suggests a gradual, non-abrupt transition from the Archaic to the Late Prehistoric. Prikryl (1990) notes that characteristic projectile points such as Scallorn, Steiner, and Catahoula varieties were more commonly fashioned from quartzite during the early stages of the Late
Prehistoric I. During the latter half of the Late Prehistoric I, there is an increase in the use of chert as a raw material for these point types. A brief xeric episode is posited for approximately 1000 B.P., and differing sources for these projectile points may be tied to adaptive strategies as climate stress either tethered groups to certain resource locales and/or necessitated broader ranging residential movement. Dating to the end of the Late Prehistoric I (1050 B.P.–750 B.P.), numerous graves were unearthed in Young County at the Harrell Site in periods of Plains Villager occupation at the site, about A.D. 1200–1500. From the arrangements of the individual interments and the discovery of arrow points among the bones, these mass graves have been interpreted as the result of violent events—perhaps raids from enemies competing for increasingly scarce resources such as fertile, well-watered farmland. Coupled with similar evidence of violence from sites across the Southern Plains, the Late Archaic in North-Central Texas appears to be a turbulent time. Typically, sites dating to the Late Prehistoric I period are located within floodplains and adjacent terraces.

**Late Prehistoric II (750–250 B.P.)**

The xeric conditions proposed for the Late Prehistoric I may have continued into the Late Prehistoric II period, which catalyzed a shift to a short grass prairie environment (Prikryl 1990). These grasslands may have brought back bison to the region in greater numbers. While other areas of Texas seemed to practice a mobile lifestyle possibly centered on the exploitation of the bison, North-Central Texas was also influenced by more settled cultures to the north and east. Diagnostic projectile points for this time period include Fresno, Perdiz, Maud, Washita, and Harrell. Other artifacts commonly found in assemblages dating to this period are Nocona Plain ceramics and horticultural tools fashioned from bison scapulas. Prikryl (1990) notes that chert continues to be the favored source material for lithic tools. Sites from terrace locales continue to dominate the archeological record, with the bulk of them occurring near or within the Oak woods and Prairies/Blackland Prairie ecotone.

**Historic Period**

According to Conner (1959) the area of modern-day Wise County was originally included in the Peters Colony Grant given to a Louisville, Kentucky Company by the Republic of Texas between 1841 and 1843 with immigration to the area hailing from the upper south and the north (Meining 1969). With the area of Wise County occupying the “frontier” and still heavily trafficked by tribes, permanent Anglo settlement did not begin until 1853 with Sam Woody’s homesteading approximately three miles north of the present location of the town of Aurora. In 1856, Wise County proper was organized from the larger boundary of Cooke County with the county seat county seat named Taylorsville in honor of General Zachary Taylor. The town was laid out by Absalom Bishop, an early settler in the region. Bishop, a member of the Texas Legislature, did not approve of Taylor's affiliation with the Whig Party, changed the name of the town to Decatur for Commodore Stephen Decatur. Over the next half-decade, the population continued to grow, burgeoned by the Butterfield Stage route which originally passed through Alvord, located within the LBJ National Grassland, before it was relocated through Decatur.

The late 1860s saw the establishment of four stores and a hotel in Decatur, which served as a supplier and market for local ranchers (Barton 2020). The eastern fork of the Chisholm Trail passed near Decatur in this period and is commemorated today by the town's annual event, the Chisholm Trail Barbeque. In 1882 the Fort Worth and Denver Railway reached Decatur, and the gambler's catch phrase "eigher from Decatur" was coined, according to local tradition, by a railway construction worker wanting to roll eights during a
game of craps. During the 1880s and 1890s, Decatur prospered as a shipping point and market for local farmers. This prosperity was reflected in the establishment of Decatur Baptist College in 1892, the building of a new courthouse in 1896, and a population that grew from only 579 in 1880 to as much as 1,746 by 1890. The town of Decatur continued to grow in the early 20th century, from a population of 1,562 in 1904 to a peak of 3,200 in 1928.

Within the area that is now the LBJ National Grasslands, early settlements included Audubon and Flatrock with stock grazing along the prairies being the primary occupation early on. Following the establishment of the railroad through the region, cash crop farming also became a productive industry (Jurney et al. 1989). The Grasslands were originally managed by the Rural Resettlement Administration and, later, by the United States Soil Conservation Service with the goal of returning eroded land to its natural state, until the early 1950s when ownership and management of its resources were transferred to the USFS.
4.0 PREVIOUS INVESTIGATIONS

According to the Texas Historical Commission (THC) Historic and Archeological Sites Atlas (Sites Atlas), one previously recorded site and one previous survey are within the boundary of Unit 48. Site 41WS105/08130800055 is a prehistoric site of unknown temporal affiliation recorded in 2010 by Dixie Environmental Services Co., LP for a 3-D Seismic Survey. The site is defined as a light density prehistoric scatter without enough information to determine eligibility of the site (THC 2019).

Only one previous archeological project has been conducted within the boundary of Unit 48 that was completed in 2010 by Brazos Valley Research Associates (THC 2019). This project is listed as a 3-D seismic survey on behalf of Devon Energy Corporation. According to the Sites Atlas, it is noted as a partial survey and covers the entire extent of Unit 48.

No previously-recorded sites or previous archeological projects are recorded within or adjacent to Units 62 and 63. Additionally, no cemeteries, properties currently listed or eligible for listing in the National Register of Historic Places (NRHP), State Antiquities Landmarks (SALs), or historical markers are within or adjacent to the any of the Grasslands units (THC 2019) (Appendix D).
5.0 FIELD METHODS

The goals of the cultural resources survey were as follows:

- Determine if cultural materials are present within the APE through pedestrian survey and shovel testing of the APE;
- If archeological deposits are present within the APE, determine their spatial extent;
- If archeological deposits are present within the APE, attempt to determine the general cultural affiliation/age of these deposits;
- Document any historic standing structures within the APE.

Fieldwork was conducted by TRC archeologists Josh Haefner, Steven Sarich, Benjamin Johnson and Hicks & Company archeologists Gregg Cestaro and Haley Wilkerson from October 31 – November 8 and December 4 – 6, 2019 and followed the guidelines and survey standards set forth by the USFS, Council of Texas Archeologists (CTA), and the THC as coordinated with the USFS through a proposed archeological survey methodology and research design. The Area of Potential Effects (APE) consists of the entirety of three Grasslands unit locations where proposed perimeter fence reconstruction will occur. The three Grasslands units include Unit 48, Unit 62, and Unit 63. Grasslands Unit 48 has an approximate perimeter measurement of 5,272 meters m [17,297 ft] and spans approximately 190 ac. Unit 62 has an approximate perimeter measurement of 1,811 m [5,942 ft] and spans approximately 49 ac. Unit 63 has an approximate perimeter measurement of 4,035 m [13,238 ft] and spans approximately 160 ac. The total APE for the three Grasslands units is 399 ac. Though impacts from fencing and fireline constructing will likely be limited to a 40-foot corridor around each unit, shovel testing and pedestrian survey covered the entirety of each Grasslands unit to evaluate and record any cultural resources located within their boundaries.

The field effort consisted of pedestrian survey supplemented with shovel testing of the APE. Minimally, TRC excavated shovel tests within each of the Grasslands units at 30 m transect spacing with shovel test intervals no greater than 150 m. In certain instances, this number was increased during site recording to gather additional data on deposition. Shovel tests were approximately 30-to 40-centimeter (cm) (11.8-inch) in diameter, and excavated to at least 80 centimeters in depth, the base of Holocene deposits, or impenetrable bedrock whichever was encountered first. Vertical control was maintained for each shovel test in arbitrary 10 cm levels. Excavated soils were screened through ¼-inch (6.25- millimeter [mm]) hardware mesh to ensure consistent artifact recovery. Standardized field notes were maintained for each shovel test describing location, soil depth, color, texture, stratigraphy, as well as the types of artifacts recovered. The location and results of all shovel tests were recorded on electronic forms created by TRC with Fulcrum, a mobile form builder and data collection program.

A total of 412 shovel tests were excavated during the archeological survey. Of these tests, 404 were negative for cultural materials. In addition to these tests, 65 points were recorded as “No Dig” locations due to ground disturbance, slope, or other impediment. Six shovel tests were positive for cultural materials. A total of three new archeological sites were recorded during the current investigations and the site boundary to previously recorded site 41WS105 was extended approximately 124 m northwest. As shovel testing at two of the new sites, 41WS160 and 41WS161, noted no buried cultural deposits and historic cultural materials were observable solely on the ground surface, these site boundaries were established by the mapping of the
horizontal distribution of artifacts along the ground surface. However, the extended boundary to site 41WS105 and delineation of site 41WS159 were based on both the distribution of positive shovel tests and the horizontal distribution of artifacts on the ground surface.

Representative project overview photographs, site photographs, and in situ artifact and feature photographs were taken throughout the project. An artifact collection policy, as coordinated with the USFS, was followed for cultural materials identified during the survey. No standing structures over 45 years of age were observed within the APE. The final report, field notes, photographs, shapefiles, and associated paper and electronic records will be housed at the TRC office in Austin, Texas. Collected artifacts and the associated report and materials will be curated at the Center for Archaeological Studies in San Marcos, Texas.
6.0 RESULTS

As noted above, the APE was determined in coordination with the USFS consisted of three Grasslands units within the LBJ National Grassland, totaling 399 ac in size. TRC archeologists performed a pedestrian survey and shovel testing within each Grasslands unit from October 31 – November 8 and December 4 – 6, 2019. Observed disturbances within the three Grasslands units was minimal, with some noted areas of erosion and clear-cut corridors particularly around the Grasslands unit boundaries along the existing fence lines. With the exception of a small number of underground pipeline corridors, the sporadic use and maintenance of two-track roads, and fencing, and the use of the land for federal public hunting, the three Grasslands units are largely devoid of landform modification. Vegetation of the APE was typical of Wise County and Cross Timbers ecology, as well as a substantial amount of secondary growth including green brier. The northern portion of Unit 48 consists of floodplain hardwood forest and post oak woodland giving way to hardwood motte and woodland and dominated by savanna grassland to the south. Vegetation of Unit 62 consists primarily of savanna grassland with hardwood motte and woodland with scattered areas of erosion, and large area of post oak woodland to the southwest. Unit 63 consists of post oak woodland centered to the northeast surrounded by savanna grassland. Some riparian herbaceous vegetation and riparian hardwood forest is present in linear bands to the southwest. (Figures 6-1 – 6-3).

Ground surface visibility was poor, less than five percent in most places apart from sporadic areas of heavy erosion, and occasionally rising between approximately 10 to 30 percent in areas of savanna grassland. Soils within Unit 48 generally consisted of sandy loam (10YR 3/2) or sandy clay loam soils (7.5YR 5/2) from 0 to 30 centimeters below ground surface (cmbs) followed by clay B-horizon soils (5YR 6/4), and sandy clay soil (5YR 4.3) from 0 to 20 cmbs over a shallow bedrock layer in the southwest portion of the Grasslands unit. Deep sand (7.5YR 6/4) was noted in and around 41WS105 and typically went from 80 to 100 cmbs. Soils within Unit 62 generally consisted of silty clay loam (7.5YR 3/3) or clay loam (10YR 5/4) from 0 to 20 cmbs followed by shallow, reddish brown clay B-horizon soils (2.5YR 2.5/4). Shovel test depth was limited on several occasions due to heavily compacted soils. Soils within the savanna grassland portions of Unit 63 generally consisted of clay loam (10YR 3/6) from 0 to 30 cmbs with underlying red clay B-horizon soils (2.5YR 4/6). Soils within the wooded section of Unit 63 generally consisted of sandy loam (10YR 4/4) from 0 to 30 cmbs with underlying reddish-brown sandy clay (5YR 4/4) or red clay (2.5YR 4/8) B-horizon soils. Complete shovel test data is included as Appendix B.

Seven shovel tests were positive for cultural materials. A total of three new archeological sites were recorded during the current investigations and the site boundary to previously recorded site 41WS105 was extended approximately 124 m northwest. As shovel testing at two of the new sites, 41WS160 and 41WS161, noted no buried cultural deposits and historic cultural materials were observable on the ground surface, these boundaries were established by the mapping of the horizontal distribution of artifacts along the ground surface. Extended boundary to 41WS105 and delineation of 41WS159 were based on both the distribution of positive shovel tests and the horizontal distribution of artifacts on the ground surface. One isolated historic feature/structure, a galvanized steel windmill, was identified within Unit 63 along the southwest boundary near County Road (CR) 2648 (Appendix D).
6.0: Results

Figure 6-1  Overview of vegetation at Unit 48, facing north.

Figure 6-2  Overview of vegetation at Unit 62, facing south.
Figure 6-3 Overview of vegetation at Unit 63, facing southeast.
Site 41WS105/08130800055 Extension

During the survey of Unit 48, previously recorded site 41WS105 was revisited to determine if additional cultural materials were present within or adjacent to the current site boundaries. The original site boundary is located on a slight ridge overlooking an unnamed tributary of Black Creek and measures approximately 6,420 square meters. 41WS105 was originally recorded during a seismic survey in 2010 on behalf of the Forest Service. The site was originally described as a light density prehistoric scatter on a slight finger ridge running roughly north-south and parallel to a tributary of Black Creek (Shaddox and Hall 2010). It is situated on the western edge of the ridge top and continues down the western slope towards the drainage. At that time, the only artifacts found at this site are described by the analyst as debitage, and very little could be said with no temporally or functionally diagnostic artifacts recorded and an absence of observed features. During the current survey, the site was revisited, and additional materials were found northwest and adjacent to the previously recorded site (Appendix D). The extension is located northwest of the previously recorded boundary with additional materials found in a clear-cut corridor with mixed hardwood forest on either side (Figure 6-4). Heavy slopes are present along the western boundary. The geology consists of Early Cretaceous Antlers Sand. The 1967 Geologic Atlas of Texas, Sherman Sheet notes that Antlers Sand is commonly found in Eastern part of Trans-Pecos and High Plains and consists of sand, clay, and conglomerate. The lower and upper parts are mostly sand, the middle part chiefly clay, and grades northward to interbedded sand and clay. Sand is fine to coarse grained, conglomeratic in lower part, clayey in upper part, and brownish-yellow. Conglomerate, chert, quartz, and quartzite are found as pebbles and granules. Thickness can be as much as 200 ft but is variable because of the irregular surface on which it was deposited. Soils in the area were found to be consistent with the USDA Web Soil Survey (2015) which classifies the soils as Patilo-Heaton fine sands with 3 to 12 percent slopes. These soils are characteristically very deep and located on gently sloping to strongly sloping uplands (USDA 1989). The typical soil profile documented during shovel testing consisted of dark brown sandy loam (10YR 4/2) from 0 to 20 cmbs overlying brown sand or sandy loam (10YR 5/3) from 20 to 100 cmbs, though occasionally terminating in reddish brown sand (5YR 4/4) between 60 to 80 cmbs. The site extension was delineated using 10 m and 20 m radial shovel tests in cardinal directions until two consecutive negative shovel tests were recorded. A total of 19 shovel tests were excavated and only three were positive for cultural materials (177-SS, 52-JH, and 63-BJ) while 16 were negative (178-SS, 176-SS, 69-BJ, 183-SS, 68-BJ, 67-BJ, 60-BJ, 61-BJ, 180-SS, 179-SS, 181-SS, 182-SS, 66-BJ, 65-BJ, 64-BJ, and 62-BJ). Subsequent to shovel testing, an approximate 10 m boundary was established based on the distribution of positive shovel tests, and a small number of surface artifacts extended the previously recorded site boundary an additional 124 m to the northwest along the clear-cut corridor. The extension measures 2,406 square-meters yielding a total revised site size of approximately 8,826 square meters. The site extension consists of nine pieces (n=9) of lithic debitage found subsurface with one large piece (n=1) of white chert debitage observed on the surface (Figures 6-5 to 6-10). Subsurface lithic debitage was predominantly found between 20 to 40 cmbs, though two pieces were found between 60 to 70 cmbs. The small amount of material and the lack of diagnostic artifacts seems to support the previous description of the site as a limited activity area. Because the site extension is located in a modified clear-cut corridor and no diagnostic artifacts were discovered during the survey, site 41DM273 has very limited research value and does not currently meet any of the criteria necessary for consideration as eligible for listing on the NRHP.
Figure 6-4  Site 41WS105 overviews facing north, east, southwest, and west (left to right).
6.0: Results

Figure 6-5  White chert debitage recorded on the surface of 41WS105 Extension.

Figure 6-6  Debitage recorded in shovel test 177 SS at 20-30 cmbs.
Figure 6-7 Two items of lithic debitage recorded in shovel test 177-SS at 30-40 cmbs.

Figure 6-8 Two items of debitage recorded in shovel test 177-SS at 60-70 cmbs.
Figure 6-9  Debitage recorded in shovel test 52-JH at 20-30 cmbs.

Figure 6-10  Debitage recorded in shovel test 63-BJ at 60-70 cmbs.
41WS159/08130800525

Site 41WS159 is an assemblage of historic cultural materials partially located within a mixed grass prairie setting with the eastern boundary of the site overlapping a small stand of mixed hardwood trees (Appendix D). The northeast boundary overlaps a channelized drainage that parallels the gravel road that leads to a pump station. A gate and dirt path parallels the drainage running, northwest to southeast (Figure 6-11). A transmission line corridor runs northeast to southwest and parallels CR 2648. The geology consists of Early Cretaceous Antlers Sand. The 1967 Geologic Atlas of Texas, Sherman Sheet notes that Antlers Sand is commonly found in Eastern part of Trans-Pecos and High Plains and consists of sand, clay, and conglomerate. The lower and upper parts are mostly sand, the middle part chiefly clay, and grades northward to interbedded sand and clay. Sand is fine to coarse grained, conglomeratic in lower part, clayey in upper part, and brownish-yellow. Conglomerate, chert, quartz, and quartzite are found as pebbles and granules. Thickness can be as much as 200 ft but is variable because of the irregular surface on which it was deposited. Topographically the area is uniformly flat. There was some evidence of push piles located in the wooded area perhaps related to the dirt road or channelized drainage. Subsoil consists of shallow, red clay typically found no deeper than 30 to 40 centimeters below surface. Measuring approximately 1,103 square meters in size, site 41WS159 is a small assemblage of historic artifacts found at surface and subsurface. The site was delineated using 10 m and 20 m cardinal radial shovel tests until two consecutive negative shovel tests could be established. Of the 20 recorded shovel tests only four were positive for historic cultural materials (101-SS, 99-SS, 72-SS, and 80-JH) while 12 were negative (181-JH, 56-JH, 191-SS, 70-BJ, 69-BJ, 75-BJ, 76-BJ, 72-BJ, 71-BJ, 73-BJ, 185-SS, 184-SS, and 100-SS), and three were recorded as ‘No dig’ tests due to their location in a drainage or in proximity to the transmission line pole (188-SS, 187-SS, 186-SS). The historic assemblage consists of one floral pattern, flow blue whiteware sherd (n=1), one undecorated whiteware sherd (n=1), one undecorated ironstone sherd (n=1), one stoneware sherd (n=1), one green glass shard (n=1), two milk glass shards (n=2), one colorless, molded glass shard (n=1), and sixteen colorless container glass shards likely from the same vessel (n=16). A total of 24 artifacts were found (Figures 6-12 – 6-16). Some cut stone was found near the eastern boundary of the site toward the road and along the fence line (Figure 6-17). Two cut stone pieces appear to be in sequence and measure approximately 20 inches [50.8 centimeters] in length. The stones are approximately 4 inches wide [10.2 centimeters]. Additional cut stones were nearby but scattered. According to the THC’s Key to Historic Ceramics (2006) the floral pattern, flow blue sherd dates between 1835 and 1900. Additionally, ironstone ranges from the 1840s to the 1930s. According to the SHA Bottle Guide (2018), the milk glass shards likely date between 1870 and 1950. The colored glass shard appears to be citron green which dates to the last quarter of the 19th century. The colorless glass likely does not date prior to 1870, but is likely more recent than that (Toulouse 1969). Some modern trash left by hunters was found within the stand of trees. Push piles were also found within the stand of trees to the east, possibly associated with the channelized drainage or dirt roadway to the northeast. Archival research was conducted at the Wise County Clerk’s office and the Wise County Heritage Museum to determine former occupation and to obtain any family history information regarding past property owners. According to an 1895 historic plat of Wise County, the land on which Unit 62 and 63 are located was part of the J.W. Crunk survey (Pressler 1895). A portion of this land was owned by J.G. Graves and conveyed to J. Fortenberry in 1886 (Wise County Clerk 1886). According to the Fortenberry family archives, the family moved to Texas from Arkansas in 1858 and, over time, built several homes around Greenwood and Slidell (Wise County Heritage Museum n.d.). After careful review of the Fortenberry family archives at the Wise County Heritage Museum, no definitive
account of a farmstead at the location of the artifact assemblage was found. However, according to additional deed research, J. Fortenberry conveyed the land to J.B. Howard on February 4, 1903 (Wise County Clerk 1903). According to family history records, John Barnett Howard and Lillie Caroline Chance moved to Texas at the turn of the century and purchased a farm two miles west of Greenwood (WCHSC 1982). This is the only written record of a farmstead located within the general vicinity of the artifact assemblage. The plot of land that J.B. Howard purchased was subsequently conveyed to J.T. Washburn in 1910 (Wise County Clerk 1910). James Thomas Washburn was born in 1868 and moved to Wise County around 1906 where he “farmed in the Greenwood community until Mrs. Washburn’s death in 1931” (Wise County Messenger 1954). While this is a vague account, there is a good possibility that this is the same farm formerly owned by J.B. Howard. Noted impacts include natural erosion, as well as artificial impacts from the channelized drainage, dirt road, the installation of transmission line poles, and push piles located in the wooded area (Figure 6-18). There is also anecdotal evidence from hunters in the area that a hunting interest group occasionally does trash clean up within the Grasslands units and may constitute an unintentional, artificial impact. Because of the small number of commonly found historic materials and several natural and artificial disturbances, site 41WS159 has very limited research value and does not meet any of the criteria necessary for consideration as eligible for listing on the NRHP.

Figure 6-11 Overview of 41WS159, facing north, east, south, and west (left to right).
Ironstone, milk glass, and molded glass recorded in 72-SS at 0-10 cmbs.

Green glass recorded in 72-SS at 10-20 cmbs.
Figure 6-14  Transfer print sherd and plain whiteware sherd recorded in 72-SS at 20-30 cmbs.

Figure 6-15  Undecorated stoneware sherd and milk glass recorded in 99-SS at 0-10 cmbs.
Cultural Resources Survey and Evaluation of Archeological Sites 41WS105, 41WS159, 41WS160, and 41WS161 for the Proposed Fence Line Project in Grasslands Units 48, 62, and 63, LBJ National Grassland, Wise County, Texas

Figure 6-16  Container glass recorded in 101-SS at 0-10 cmbs.

Figure 6-17  Possible cut stone feature near road, facing northwest.
Figure 6-18  Push pile in sparse wooded area, facing southeast.

41WS160/08130800526

Site 41WS160 is a small assemblage of historic cans and unknown metal artifacts. The site is located at the base of a western facing, eroded, gravel slope within the tree line to the west of a two-track road in the northern half of Unit 48 (Appendix D). It is situated in a relatively flat area in the mixed hardwood tree line. The geology consists of Early Cretaceous Antlers Sand. The 1967 Geologic Atlas of Texas, Sherman Sheet notes that Antlers Sand is commonly found in Eastern part of Trans-Pecos and High Plains and consists of sand, clay, and conglomerate. The lower and upper parts are mostly sand, middle part chiefly clay, and grades northward to interbedded sand and clay. Sand is fine to coarse grained, conglomeratic in lower part, clayey in upper part, and brownish-yellow. Conglomerate, chert, quartz, and quartzite are found as pebbles and granules. Thickness can be as much as 200 ft but is variable because of the irregular surface on which it was deposited. The site was discovered during systematic shovel testing of LBJ National Grasslands Unit 48. It consists of a concentration of sanitary cans, oil cans and unknown metal fragments. A possible hearth/campfire is located within the area, but heavy leaf litter limited ground surface visibility (Figure 6-19). As shovel testing at the site 41WS160 noted no buried cultural deposits and historic cultural materials were observable on the ground surface, these boundaries were established by the mapping of the horizontal distribution of artifacts along the ground surface. No artifacts were collected, and any diagnostic artifacts were documented and photographed in situ (Figures 6-20 – 6-24). There is some modern sheet metal in association with the can assemblage. According to Horn (2005) the round oil cans were introduced in 1933. However, soft drinks were first canned in 1953. The 12 oz. cans featured a pull
tab style opening first invented in 1962 and lasted until the late 1970s (Can Museum 2011). One can was labeled as Yukon Club Root Beer featuring a pull tab style top/opening. Yukon Club Root Beer cans are described as 355mL (12 fl. oz.) steel bodied, pull top cans made in the United States. This particular can style was first issued in 1967. Noted impacts include natural erosion of the sloped area immediately east of the site as well as bullet holes in the cans indicating impacts from hunters. The cans and metal artifacts are heavily rusted, and oxidation will likely continue. There is also anecdotal evidence from hunters in the area that a hunting interest group occasionally does trash clean up within the Grasslands units and may constitute an unintentional, artificial impact. Because of the small number of commonly found historic materials and several natural and artificial disturbances, site 41WS160 has very limited research value and does not meet any of the criteria necessary for consideration as eligible for listing on the NRHP.

Figure 6-19 Overview of site 41WS160, facing north, east, south, and west (left to right).
6.0: Results

Figure 6-20  Yukon Club Root Beer can.

Figure 6-21  Pull top opening common to the sanitary cans found at 41WS160.
Figure 6-22  Heavily rusted sanitary can with evidence of bullet holes.

Figure 6-23  Rusted metal container found at 41WS160.
Figure 6-24 Side view of rusted container showing evidence of bullet holes.
41WS161/08130800527

Site 41WS161 is an assemblage of late 19th or early 20th century historic artifacts mixed with modern materials (Appendix D). Located northwest of and immediately adjacent to CR 2645, the site is in a sparse stand of mixed hardwood, young growth trees (Figure 6-25). There was some evidence of tree cutting and removal. Topographically, the area is uniformly flat. Open pasture is directly to the northwest of the sparse woodland. The geology consists of Early Cretaceous Antlers Sand. The 1967 Geologic Atlas of Texas, Sherman Sheet notes that Antlers Sand is commonly found in eastern part of Trans-Pecos and High Plains and consists of sand, clay, and conglomerate. The lower and upper parts are mostly sand, the middle part chiefly clay, and grades northward to interbedded sand and clay. Sand is fine to coarse grained, conglomeratic in lower part, clayey in upper part, and brownish-yellow. Conglomerate, chert, quartz, and quartzite are found as pebbles and granules. Thickness can be as much as 200 ft, but is variable because of the irregular surface on which it was deposited. The site was discovered during systematic shovel testing of LBJ National Grasslands Unit 62. The site appears to be a trash dump consisting of a concentration of recent historic and modern materials. The artifact assemblage includes bricks and cut stone, metal fragments, a fragmented stoneware crock, a plastic bottle, a plastic bag, and modern sheet metal (Figures 6-26 – 6-30). An active residence is located southwest of the site along CR 2645, and a storage shed is southeast of the site on the opposite side of County Road 2645. Shovel tests adjacent to the site were negative and indicated shallow, red, sandy clay loam/sandy clay subsoil at 40 cmbs or less. The site was delineated based on the surface assemblage. Three fragments of a blue and gray stoneware utilitarian vessel, likely a crock, were found amongst the assemblage. One of the sherds is decorated with two parallel, cobalt blue bands that run the circumference of the crock. The lack of additional diagnostic characteristics makes precise dating difficult. It is likely a 19th to early 20th century utilitarian vessel. Additionally, a brick fragment is stamped with "DENT…FIRE B…” The brick fragment may be associated with the Denton Pressed Brick Company established in 1901 and later acquired by the Acme Brick Company in 1912 (Beck 2016). Noted impacts include natural erosion in a small number of areas and roadway construction towards the southeast where the site coincides with CR 2645. There is also anecdotal evidence from hunters in the area that a hunting interest group occasionally does trash clean up within the Grasslands units and may constitute an unintentional, artificial impact and loss of site resolution. Because of the small number of commonly found historic materials, the presence of modern materials, and several natural and artificial disturbances, site 41WS161 has very limited research value and does not meet any of the criteria necessary for consideration as eligible for listing on the NRHP.
Figure 6-25 Overview of 41WS161, facing north, east, south, and west (left to right).
Figure 6-26  Fragment of blue banded stoneware crock at 41WS161.

Figure 6-27  Overview of fragmented crock, facing southeast.
6.0: Results

Figure 6-28  Brick with letters "DEN...FIRE...B" likely produced by Denton Pressed Brick Company.

Figure 6-29  Unknown metal container, facing southeast.
Isolated Feature - Windmill

An isolated feature, a galvanized steel framed windmill, was found along the northeast side of the northwest-southeast running CR 2648 within the boundaries of Unit 63 (Appendix D). Directly adjacent to the windmill was a galvanized steel modern stock tank (Figures 6-31 –6-35). The windmill is located within a sparse stand of mixed hardwood, young growth trees. The area immediately surrounding the windmill and stock tank had been cleared of trees and the windmill built on a slightly raised, graded surface approximately 7 m in diameter. Shovel testing adjacent to the isolated feature were negative for cultural features. The galvanized stock tank is labeled Farmaster and was a modern manufacturer of a various farm equipment headquartered in Columbus, NE. The company merged with Behlen Manufacturing Company in 1983 according to the company’s history (Behlen Manufacturing 2019). Metal frame windmills span a broad range of time being first developed in 1876, increasing in popularity by the 1890s and declining in use over the course of the 1930s, 40s, and 50s as alternate technology was developed (National Park Service 2019). However, windmills for pumping water are still being used by small farms across the Great Plains. Given the presence of the Farmaster stock tank, it is likely that the windmill was constructed between the mid to late 20th century. The galvanized steel windmill is a common design throughout the rural United States and has very limited research value and does not meet any of the criteria necessary for consideration as eligible for listing on the NRHP.

Figure 6-30 Evidence of modern materials deposited and intermixed with historic materials.
Figure 6-31  Overview of windmill and modern galvanized stock tank, facing northwest.
Figure 6-32  Close up of windmill head and blades, facing northwest.

Figure 6-33  Metal piping without output to the stock tank, facing northwest.
Figure 6-34  Galvanized steel stock tank, facing southwest.

Figure 6-35  Farmaster label on stock tank, facing southeast.
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7.0 PROJECT SUMMARY AND RECOMMENDATIONS

The USFS is proposing to reconstruct perimeter fencing surrounding three Grasslands units located within the LBJ National Grassland in Wise County, Texas as implementation of the LBJ Prairie Savanna Restoration Project. This project is necessary to create a 40-foot fireline around LBJ National Grasslands units as these units are overgrown with dense vegetation and have limited to no mobility through them, posing a wildfire hazard. Impacts entail bulldozing to clear these perimeters of all trees and other woody vegetation, both above and below ground and new fence construction including utilization of metal t-posts and the use of an auger to drill into the ground to set metal corner posts and concrete bracing. As part of the proposed perimeter fence reconstruction, the USFS has contracted with TRC to perform an inventory of cultural resources within three proposed Grasslands units (Units 48, 62, and 63) which includes background and historic research, archeological field survey, site delineation, a determination of the condition of recorded cultural resources, and recommendation of eligibility for listing on the NRHP).

7.1. Project Recommendations

A background review prior to fieldwork depicted no recorded SALs, NRHP-eligible or listed properties, or cemeteries located within or adjacent to the APE. TRC archeologists performed systematic shovel testing, pedestrian survey, and visual inspection at three Grasslands units (Units 48, 62, and 63) on October 31–November 8 and December 4 – 6, 2019. During the investigations, a total of 477 shovel tests were recorded across the APE including No Dig shovel tests. Six shovel tests were positive for cultural materials. Three new sites were recorded within the APE and an extension to previously recorded site 41WS105 was delineated as a result of the survey. While the revisit of 41WS105 resulted in a small number of additional lithic artifacts, it did not yield any diagnostic artifacts that would indicate a specific temporal or cultural affiliation. The three new sites, 41WS159, 41WS160, and 41WS161, consist of historic cultural materials ranging between the late 19th to the middle part of the 20th century. In the case of 41WS161, there were a number of modern materials intermixed with the historic assemblage. In each case, there was evidence of a combination of natural and artificial impacts affecting the integrity of the assemblages. Boundaries for the 41WS105 extension and 41WS159 were based on both the distribution of positive shovel tests and the presence of cultural materials on the ground surface. As shovel testing at two of the new sites, 41WS160 and 41WS161, noted no buried cultural deposits and historic cultural materials were observable on the ground surface, these boundaries were established by the mapping of the horizontal distribution of artifacts along the ground surface. During the investigations an isolated historic windmill with an adjacent modern galvanized steel stock tank was encountered within Unit 63. The galvanized steel windmill is a common design throughout the rural United States and has very limited research value and does not meet any of the criteria necessary for consideration as eligible for listing on the NRHP. Based on the results of the survey, TRC recommends that no further investigations are necessary, and the project may proceed as planned.

In the event that any human or potential human remains are encountered during construction activities, all work should cease immediately in that specific area and the contractor shall notify local law enforcement, who in turn shall notify the local medical examiner’s office. If these remains are not considered recent by the medical officer (i.e., most likely prehistoric in age), then TRC archeologists should be notified and THC contacted.
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APPENDIX A: DESIGN PLANS AND APE
Figure 1: Vicinity Map

Land Ownership Within USFS Boundary
- USDA Forest Service Land
- Non-Forest Service Land

Map by jdgarcia
July 15, 2014
NAD 1983 Texas Statewide Mapping System
LBJ Fenceline Project
Unit 48
Lyndon B. Johnson National Grasslands
National Forests & Grasslands in Texas
Pecan Creek 7.5' Quadrangle
Wise County, Texas
Figure 2: Project Location Map

Map by jdgarcia
July 01, 2019
NAD 1983 Texas Statewide Mapping System
Figure 3: Project Location Map

LBJ Fenceline Project
Unit 62 and 63
Lyndon B. Johnson National Grasslands
National Forests & Grasslands in Texas
New Harp and Greenwood 7.5' Quadrangle
Wise County, Texas

Map by jdgarcia
July 01, 2019
NAD 1983 Texas Statewide Mapping System

1:24,000
APPENDIX B: SHOVEL TEST RESULTS
| Date       | ST ID     | Gsoing | Horizon | Land Use          | Vegetation            | % Soil | Disturbance Type | Land Use          | Vegetation Type | Subsoil Type | Reason for Termination | Dig/No Dig | ST Commments | Depth | Land Color     | Soil Texture | Status | Amelioration Type | Artifact Color |
|-----------|-----------|--------|---------|-------------------|-----------------------|-------|------------------|-------------------|------------------|--------------|----------------------| -----------|---------------|-------|---------------|--------------|--------|------------------------|---------------|
| 10/31/19  | ST-191031-01-01-01-01   | 631031 | 368936  | Two-Track Road    | Mixed Grasses         | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sand            | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-02   | 631032 | 368936  | Forest, Woodland  | None                   | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay, loam   | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-03   | 631033 | 368936  | Road, Woodland    | None                   | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay            | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-04   | 631034 | 368936  | Forest, Road      | Woodland              | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay            | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-05   | 631035 | 368936  | Creek, Woodland   | Woodland              | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay            | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-06   | 631036 | 368936  | Forest, Woodland  | None                   | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay            | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-07   | 631037 | 368936  | Forest, Woodland  | None                   | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay            | Clay         | nég      |                        |               |
| 10/31/19  | ST-191031-01-01-01-08   | 631038 | 368936  | Forest, Woodland  | None                   | 0-10% | None             | None              | Dig              | Sterile Subsoil | Negative            |            | 00:00:00          | 0-05   | 05:00:00        | 05:00:00 | Sandy Clay            | Clay         | nég      |                        |               |

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**Notes:**
- % GSV: % gravel in soil
- Land Use: Type of land use
- Vegetation Type: Type of vegetation
- Subsoil Type: Type of subsoil
- Reason for Termination: Reason for termination of test
- Dig/No Dig: Whether the test was dug or not
- ST Commments: Test community
- Depth: Depth of soil
- Land Color: Color of land
- Soil Texture: Texture of soil
- Status: Status of test
- Amelioration Type: Type of amelioration
- Artifact Color: Color of artifact
10/31/19 ST-191031-013-SS 631230 3689352 Forest Woodland 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-013-JH 630949 3689349 Forest Woodland 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-014-SS 631198 3689273 Forest Woodland 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 50 to 60.10 to 60.50 to 60.Sandy clay loam. neg
10/31/19 ST-191031-015-SS 631053 3689277 Forest Woodland 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-021-SS 631093 3689115 Forest Woodland 0-10% Slope 0-25% Dig Sterile Subsoil Negative Heavily wooded. Large root limited shovel test depth. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-016-SS 630944 3689202 Forest Woodland 0-10% None None Dig Sterile Subsoil Negative Heavily wooded. Roots at base and throughout. 10 to 20.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-014-JH 630940 3689139 Forest Forest 10-20% None None Dig roots Negative Roots 0 to 25 very dark brown Clay loam neg
10/31/19 ST-191031-013-JH 631166 3689136 Forest Forest 10-20% None None No dig Slope No dig
10/31/19 ST-191031-013-JH 631166 3689136 Forest Forest 10-20% None None No dig Slope No dig
10/31/19 ST-191031-013-GC 631029 3689225 Floodplain, Riparian Floodplain 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-013-GC 631093 3689156 Floodplain, Riparian Floodplain 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-042-JH 630985 3689059 Creek, Drainage, Floodplain, Forest Forest, Woodland 10-20% Inundated 0-25% Dig Max ST Depth Negative Nice woodland but rooty
10/31/19 ST-191031-046-JH 631022 3688959 Creek, Drainage, Floodplain, Forest Forest, Woodland 10-20% Inundated 0-25% Dig Max ST Depth Negative Nice woodland but rooty
10/31/19 ST-191031-014-HW 631101 3689179 Forest Woodland 0-10% None None Dig Sterile Subsoil Negative Root intrusion 0 to 10 very dark brown Clay loam neg
10/31/19 ST-191031-018-SS 631168 3689169 Forest Woodland 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 60 to 70% gravel
10/31/19 ST-191031-014-GC 631093 3689156 Floodplain, Riparian Floodplain 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
10/31/19 ST-191031-014-GC 631093 3689156 Floodplain, Riparian Floodplain 0-10% None None Dig Heavy Roots Negative Heavily wooded. Roots at base and throughout. 20 to 30.10 to 60.40 to 99.Sandy clay loam. neg
11/1/19 ST-191101-016-GC 639909 3695782 Oil Field, Pasture, Scrub, Short Grasses 0-10% Industrial 26-50% Dig Compact Soils Negative Fence corner of oil pad
| Date     | Code       | Site   | Observation | Management | Disturbance | Result       |
|----------|------------|--------|-------------|------------|-------------|--------------|
| 11/19    | ST-18131-027-SS | 619739 | 3691767b    | Pasture    | Mixed Grasses | 0-10% Slope  |
| 11/19    | ST-05162-02-CC | 619624 | 3691608b    | Pond       | Forest, Inundated Grasses | 10-20% Commercial |
| 11/19    | ST-18131-019-SS | 619853 | 3691543b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-03-CC | 619643 | 3691582b    | Pasture    | Mixed Grasses | 0-10% None   |
| 11/19    | ST-05162-02-CC | 619854 | 3691710b    | Creek, Drainage Floodplain | Riparian Woodland, Scrub | 0-10% Inundated None |
| 11/19    | ST-18131-029-SS | 619755 | 3695451b    | Forest, Pasture | Forest, Woodland | 10-20% Erosion None |
| 11/19    | ST-18131-012-CC | 619915 | 3691615b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-03-CC | 619648 | 3691648b    | Creek, Pasture | Woodland | 30-40% Erosion None |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-01-CC | 619654 | 3691695b    | Creek, Drainage Floodplain | Riparian Woodland, Scrub | 0-10% Inundated None |
| 11/19    | ST-18131-011-SS | 619907 | 3691652b    | Pasture    | Mixed Grasses | 0-10% Inundated None |
| 11/19    | ST-05162-01-CC | 619913 | 3691517b    | Pasture    | Pasture     | 0-10% Catharated None |
| 11/19    | ST-18131-012-CC | 619947 | 3691751b    | Forest, Pasture | Forest, Pasture | 0-10% None |
| 11/19    | ST-05162-03-CC | 619984 | 3691559b    | Pasture    | Mixed Grasses | 0-10% Slope |
| 11/19    | ST-05162-03-CC | 619755 | 3691651b    | Forest, Pasture | Forest, Woodland | 10-20% Erosion None |
| 11/19    | ST-18131-009-SS | 619915 | 3691615b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-03-CC | 619984 | 3691559b    | Pasture    | Mixed Grasses | 0-10% Slope |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-01-CC | 619913 | 3691517b    | Pasture    | Pasture     | 0-10% Catharated None |
| 11/19    | ST-18131-011-SS | 619907 | 3691652b    | Pasture    | Mixed Grasses | 0-10% Inundated None |
| 11/19    | ST-05162-01-CC | 619913 | 3691517b    | Pasture    | Pasture     | 0-10% Catharated None |
| 11/19    | ST-18131-012-CC | 619947 | 3691751b    | Forest, Pasture | Forest, Pasture | 0-10% None |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-03-CC | 619984 | 3691559b    | Pasture    | Mixed Grasses | 0-10% Slope |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-01-CC | 619913 | 3691517b    | Pasture    | Pasture     | 0-10% Catharated None |
| 11/19    | ST-18131-011-SS | 619907 | 3691652b    | Pasture    | Mixed Grasses | 0-10% Inundated None |
| 11/19    | ST-05162-01-CC | 619913 | 3691517b    | Pasture    | Pasture     | 0-10% Catharated None |
| 11/19    | ST-18131-012-CC | 619947 | 3691751b    | Forest, Pasture | Forest, Pasture | 0-10% None |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-03-CC | 619984 | 3691559b    | Pasture    | Mixed Grasses | 0-10% Slope |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
| 11/19    | ST-05162-03-CC | 619984 | 3691559b    | Pasture    | Mixed Grasses | 0-10% Slope |
| 11/19    | ST-18131-009-SS | 619750 | 3691671b    | Pasture    | Pasture     | 0-10% None   |
11/4/19 ST-191004-024-HW 631094 3688899 Forest Mixed 20-30% Erosion 25-40% Dig Sherline Subsoil Negative 30/15 20 very pale brown Sandy loam neg 20/15 20 very pale brown Sandy loam neg 40/15 20 light reddish gray Sandy loam neg 40/15 20 very pale brown Sandy loam neg 40/15 20 light reddish gray Sandy loam neg

11/4/19 ST-191004-018-HW 631096 3689068 Forest 0-10% None Dig Sherline Subsoil Negative Used to erosional drainage

11/4/19 ST-191004-023-HW 631093 3688914 Two-Track Road 10-20% Recreation None Dig Sherline Subsoil Negative 30/10 0 red Sandy Clay neg 30/10 0 red Sandy Clay neg 30/10 0 very dark brown Sandy Clay neg 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg

11/1/19 ST-191101-037-SS 639540 3695710 Creek Riparian Woodland 70-80% Erosion 51-75% Dig Sherline Subsoil Negative Eroded creek bank. Dredged pond 40m south. Steep slope

11/4/19 ST-191004-020-HW 631096 3689028 Two-Track Road 10-20% Recreation None No dig Heavy Disturbance No dig No dig, roadway

11/4/19 ST-191004-026-HW 631339 3688877 Forest Forest, Mixed 20-30% Erosion 30-45% Dig Sherline Subsoil Negative

11/4/19 ST-191004-025-HW 631210 3688886 Forest Forest, Mixed 20-30% Erosion 30-45% Dig Sherline Subsoil Negative

11/4/19 ST-191004-017-HW 631093 3689064 Forest Riparian Woodland 0-10% None None Dig Sherline Subsoil Negative 50/10 0 reddish brown Sandy clay neg 50/10 0 reddish brown Sandy clay neg 50/10 0 Sandy Clay neg 50/10 0 Sandy Clay neg 50/10 0 Sandy Clay neg

11/1/19 ST-191101-038-SS 639617 3695657 Pasture Mixed Grasses 70-80% None None Dig Sherline Subsoil Negative Sandy topsoil with deep red heavy clay subsoil. Distinct from typical

11/1/19 ST-191101-038-JH 639639 3695500 Pasture Pasture 0-10% Erosion None Dig Sherline Subsoil Negative next to erosional drainage 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg

11/1/19 ST-191101-039-SS 639711 3695590 Pasture Mixed Grasses 0-10% None None Dig Sherline Subsoil Negative 5m southeast above eroded area.

11/1/19 ST-191101-040-SS 639808 3695517 Pasture Mixed Grasses 0-10% Slope 0-25% Dig Sherline Subsoil Negative

11/1/19 ST-191101-039-JH 639587 3695568 Pasture Pasture 0-10% Erosion None Dig Sherline Subsoil Negative next to erosional drainage 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg 30/10 0 Sandy Clay neg

11/1/19 ST-191101-044-SS 639833 3695897 Pasture Mixed Grasses 0-10% Slope 0-25% Dig Sherline Subsoil Negative

11/1/19 ST-191101-037-GC 639511 3695591 Creek,Floodplain,Forest Forest, Woodland 20-30% Erosion 26-50% Dig Sherline Subsoil Negative

11/4/19 ST-191004-029-HW 631283 3688815 Forest Mixed 20-30% Erosion 30-45% Dig Sherline Subsoil Negative

11/4/19 ST-191004-028-HW 631454 3688819 Forest Mixed 20-30% Erosion 30-45% Dig Sherline Subsoil Negative

11/4/19 ST-191004-027-HW 631486 3688820 Forest Mixed 20-30% Erosion 30-45% Dig Sherline Subsoil Negative

11/4/19 ST-191004-030-HW 631133 3688818 Forest Mixed 20-30% Erosion 30-45% Dig Sherline Subsoil Negative
11/4/19 ST-191104-E08-HW 638817 3689514 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative Heavily wooded area, terminated early due to root intrusion 01/3 5 to 15 very dark gray Sandy loam Clay Clay
11/4/19 ST-191104-E09-HW 638429 3689820 Forest Forest 0-10% Erosion None None Dig Open grading, slope above 80% 01/3 10 to 20 dark yellow brown Sandy clay loam Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Clear Cut,Woodland 20-30% Grading 76-99% No dig 01/3 5 to 15 very light yellowish brown Sandy clay soil Clay Clay
11/4/19 ST-191104-E05-HW 638966 3690423 Forest Forest,Mixed 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E03-HW 638938 3690499 Forest Forest,Mixed 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638917 3690694 Forest Forest 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E03-HW 638938 3690499 Forest Forest,Mixed 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E05-HW 638966 3690423 Forest Forest,Mixed 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E03-HW 638938 3690499 Forest Forest,Mixed 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Tree line in high calcium in creost. and heather gravels. Bedded at base 01/3 10 to 20 very dark gray Sandy clay loam Clay Clay
11/4/19 ST-191104-E08-HW 638817 3689514 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Boulders, top soil 01/3 15 to 20 very dark gray Sandy clay loam Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Grass,E Riparian Woodland 0-10% Erosion None None Dig Rooting depth 01/3 10 to 20 dark yellow brown Sandy clay loam Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest 0-10% Erosion None None Dig Open grading, slope above 80% 01/3 10 to 20 dark yellow brown Sandy clay loam Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E08-HW 638817 3689514 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E08-HW 638817 3689514 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest 0-10% Erosion None None Dig Heavy Disturbance Negative 01/3 10 to 20 dark yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E08-HW 638817 3689514 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E06-HW 638966 3690499 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
11/4/19 ST-191104-E07-HW 638819 3690318 Forest Forest,Grass,E Riparian Woodland 0-10% None None Dig Heavy Disturbance Negative 01/3 10 to 20 yellow brown Sandy soil Clay Clay
| Date       | ST-191105-000-01 | ID      | Description                           |
|------------|------------------|---------|---------------------------------------|
| 11/5/19    | ST-191105-000-01 | 639390  | 3694483 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-001-01 | 639469  | 3694524 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-002-01 | 639434  | 3694551 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-003-01 | 639319  | 3694653 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-004-01 | 639196  | 3694777 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-005-01 | 639089  | 3694852 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-006-01 | 639067  | 3694940 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-007-01 | 639552  | 3694452 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Thick Root Negative           |
| 11/5/19    | ST-191105-008-01 | 639469  | 3694483 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-009-01 | 639539  | 3694562 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-010-01 | 639331  | 3694766 Pasture Mixed Grasses 0-10%   |
|            |                  | None    | None Dig Sterile Subsoil Negative     |
| 11/5/19    | ST-191105-011-01 | 639326  | 3694766 Pasture Mixed Grasses 0-10%   |

**Transmission Line Corridor:**
- Ceramic and glass in top 10 centimeters. Small number of Novitas Germani including blue transfer print found down to 100 millimeters in loam-clay. No artifacts post-Bronze Age southeast of road in clear gravel n western. Some of Frostman Line (0-20) centimeters. 6

Sandy Clay Loam, Ceramic-Porcelain (Euro-American), Ceramic-Whiteware (Euro-American), Container Glass, Ceramic Transfer Print, Ceramic-Whiteware (Euro-American)
| Date       | Site  | Soil Type                  | Soil Color | Soil Texture | Erosion   | Digging | Subsoil  | Results | Notes                                        |
|------------|-------|----------------------------|------------|--------------|-----------|---------|----------|---------|---------------------------------------------|
| 11/6/19    | ST-191106-017-BJ | 639552 3694962 | Forest      | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 10 dark brown                             |
| 11/6/19    | ST-191106-012-BJ | 639495 3695078 | Forest Woodland | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 30 dark brown                             |
| 11/6/19    | ST-191106-011-BJ | 639598 3695178 | Forest Young Forest | 10-20%     | Erosion   | None    | Sterile  | Negative | Bottom strat mottled with 7.5 YR 5/6 clay                       |
| 11/6/19    | ST-191106-007-BJ | 638961 3694560 | Forest Young Forest | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 25 dark brown                             |
| 11/6/19    | ST-191106-005-BJ | 639241 3694544 | Pasture Mixed Grasses | 10-20%     | Erosion   | None    | Sterile  | Negative | Sandy clay at surface                           |
| 11/5/19    | ST-191105-080-JH | 638960 3694865 | Pasture Mixed Grasses | 0-10%         | Erosion   | None    | Sterile  | Negative | Just west of berm                               |
| 11/5/19    | ST-191105-079-JH | 639076 3694758 | Pasture Mixed Grasses | 0-10%         | Erosion   | None    | Sterile  | Negative | just west of berm                               |
| 11/6/19    | ST-191106-024-BJ | 639612 3694780 | Pasture Pasture      | 20-30%        | Erosion   | None    | Sterile  | Negative | 0 to 30 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-019-BJ | 639720 3695131 | Pasture Short Grasses | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 30 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-018-BJ | 639614 3695053 | Forest Forest          | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 30 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-016-BJ | 639478 3694889 | Forest Forest          | 10-20%        | Erosion   | None    | Sterile  | Negative | 0 to 30 reddish brown Sandy clay neg           |
| 11/6/19    | ST-191106-015-BJ | 639409 3694805 | Pasture Short Grasses | 20-30%        | Erosion   | None    | Sterile  | Negative | 0 to 20 sandy clay                             |
| 11/6/19    | ST-191106-014-BJ | 639336 3694914 | Forest, Trail Young Forest | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 25 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-013-BJ | 639417 3694995 | Forest Woodland      | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 30 dark brown                             |
| 11/6/19    | ST-191106-012-BJ | 639693 3695278 | Pasture Pasture      | 0-10%         | Grading   | 26-50% | Sterile  | Negative | 0 to 30 red brown                               |
| 11/6/19    | ST-191106-010-BJ | 639034 3695362 | Forest Two Track Road Clear Cut Woodland | 30-40%     | Grading   | 26-50% | Sterile  | Negative | container glass shard and one plain whiteware sherd in the top 10 cmbs. Shallow strong red subsoil Adjacent to roadway and transmission line corridor. |
| 11/6/19    | ST-191106-008-BJ | 638862 3694660 | Forest Young Forest | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 20 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-003-BJ | 639062 3694720 | Pasture Mixed Grasses | 10-20%        | Erosion   | None    | Sterile  | Negative | 0 to 20 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-002-BJ | 638989 3694809 | Forest Young Forest | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 20 strong brown Sandy clay neg           |
| 11/6/19    | ST-191106-001-BJ | 639045 3695039 | Pasture Mixed Grasses | 0-10%         | Erosion   | None    | Sterile  | Negative | 0 to 30 strong brown Sandy clay neg           |

**Legend:**
- **Soil Color:**
  - dark brown
  - reddish brown
  - yellowish red
  - strong brown
  - brown
  - dark reddish gray
  - dark brown
  - light brown
  - sandy clay
  - sandy soil
  - clay soil
  - sand
- **Soil Texture:**
  - Sandy Clay Loam
  - Clay Loam
  - Sandy Clay
- **Results:**
  - Positive
  - Negative
  - Delineation test next to bedrock pavers
  - Container Glass 15
  - Container Glass 1
  - Milk Glass 2

**Notes:**
- Bedrock pavers
- Adjacent to roadway and transmission line corridor.
- 15 milk glass shards and 15 plain whiteware sherds in the top 10 cmbs. Shallow strong red subsoil.
- Delineation test next to bedrock pavers.
| Date       | Vendor | Job Number | Date Code | Site | Status | Zone | Slope |
|------------|--------|------------|-----------|------|--------|------|-------|
| 11/6/19    | ST     | ST-191106-098-JH | 639385   | 3694883 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-097-JH | 639443   | 3694977 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-082-JH | 638859   | 3694839 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-089-JH | 639420   | 3694428 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-095-JH | 639645   | 3695141 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-094-JH | 639732   | 3695236 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-093-JH | 638789   | 3694774 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-091-JH | 638925   | 3694650 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-090-JH | 639005   | 3694557 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-086-JH | 639338   | 3694436 | Forest | 10-20%| None   |
| 11/6/19    | ST     | ST-191106-085-JH | 639166   | 3694547 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-084-JH | 639038   | 3694671 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-087-JH | 639445   | 3694312 | Energy Corridor | 10-20%| None   |
| 11/6/19    | ST     | ST-191106-028-JH | 639926   | 3694966 | Pasture | Short Grasses | 50-60% | Erosion |
| 11/6/19    | ST     | ST-191106-107-SS | 639343   | 3694368 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-107-JH | 639554   | 3694709 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-104-JH | 639858   | 3695015 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-103-SS | 638961   | 3694702 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-102-SS | 638874   | 3694782 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-101-JH | 639543   | 3694895 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-087-JH | 639445   | 3694312 | Energy Corridor | 10-20%| None   |
| 11/6/19    | ST     | ST-191106-028-JH | 639926   | 3694966 | Pasture | Short Grasses | 50-60% | Erosion |
| 11/6/19    | ST     | ST-191106-107-SS | 639343   | 3694368 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-107-JH | 639554   | 3694709 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-104-JH | 639858   | 3695015 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-103-SS | 638961   | 3694702 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-102-SS | 638874   | 3694782 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-101-JH | 639543   | 3694895 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-087-JH | 639445   | 3694312 | Energy Corridor | 10-20%| None   |
| 11/6/19    | ST     | ST-191106-028-JH | 639926   | 3694966 | Pasture | Short Grasses | 50-60% | Erosion |
| 11/6/19    | ST     | ST-191106-107-SS | 639343   | 3694368 | Forest | 0-10% | None   |
| 11/6/19    | ST     | ST-191106-107-JH | 639554   | 3694709 | Forest | 0-10% | None   |
12/5/19 ST-191205-160-SS 631045 3688565 Forest Clear Cut,Mixed Grasses 0-10% Slope 51-75% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-161-SS 639064 3695039 Pasture Pasture,Short Grasses 0-10% Erosion 26-50% Dig Sterile Subsoil Negative 490N 500E 0 to 15

12/5/19 ST-191205-162-SS 639086 3695062 Pasture Pasture 0-10% Grading 51-75% Dig Sterile Subsoil Negative 520N 520E 0 to 30

12/5/19 ST-191205-163-SS 631045 3688625 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-164-SS 631045 3688621 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-165-SS 631045 3688622 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-166-SS 631045 3688623 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-167-SS 631045 3688624 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-168-SS 631045 3688625 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-169-SS 631045 3688626 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-170-SS 631045 3688627 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-171-SS 631045 3688628 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-172-SS 631045 3688629 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-173-SS 631045 3688630 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-174-SS 631045 3688631 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-175-SS 631045 3688632 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-176-SS 631045 3688633 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-177-SS 631045 3688634 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-178-SS 631045 3688635 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-179-SS 631045 3688636 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-180-SS 631045 3688637 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-181-SS 631045 3688638 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-182-SS 631045 3688639 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-183-SS 631045 3688640 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-184-SS 631045 3688641 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-185-SS 631045 3688642 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-186-SS 631045 3688643 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-187-SS 631045 3688644 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-188-SS 631045 3688645 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-189-SS 631045 3688646 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-190-SS 631045 3688647 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-191-SS 631045 3688648 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-192-SS 631045 3688649 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15

12/5/19 ST-191205-193-SS 631045 3688650 Forest Clear Cut,Mixed Grasses 0-10% Slope 0-25% Dig Sterile Subsoil Negative 450N 550E 0 to 15
12/5/19 ST-191205-177-SS  Energy Corridor, Forest Clear Cut, Woodland 20-30% Utility 26-50% Dig Max ST Depth Positive
500m N. Sandy loam to max ST depth. Adjacent to tree line of clear cut corridor. At corridor edge. Small number (5 total) of sheet flakes. No cultural materials beyond 70 cmbs.

500m N. Sandy loam to max ST depth. Adjacent to tree line SW of clear cut corridor. At corridor edge. Small number (5 total) of chert flakes. No cultural materials beyond 70 cmbs.

12/5/19 ST-191205-178-SS 631446 3688791 Forest Woodland 0-10% Bioturbation 26-50% Dig Max ST Depth Negative
Incorporated. Sandy loam to max ST depth. Heavy roots throughout. No evidence of cultural material. In woodland SW of clear cut corridor.

12/5/19 ST-191205-179-SS 631475 3688771 Forest Woodland 0-10% Bioturbation 26-50% Dig Max ST Depth Negative
Incorporated. Sandy loam to max ST depth. Heavy roots throughout. No evidence of cultural material. In woodland SW of clear cut corridor.

12/5/19 ST-191205-180-SS 631475 3688783 Forest Woodland 0-10% Bioturbation 26-50% Dig Root Negative
Incorporated. Sandy loam to max ST depth. Heavy roots throughout. No evidence of cultural material. In woodland SW of clear cut corridor. Large root limited ST depth to 80 cmbs.

12/5/19 ST-191205-181-SS 631486 3688772 Forest Woodland 0-10% Bioturbation 0-25% Dig Max ST Depth Negative
Along animal trail. No evidence of cultural material. Adjacent to woodland SW of clear cut corridor.

12/5/19 ST-191205-182-SS 631485 3688783 Forest Woodland 0-10% Bioturbation 0-25% Dig Max ST Depth Negative
Along animal trail. No evidence of cultural material. Adjacent to woodland SW of clear cut corridor. At clear cut boundary.

12/5/19 ST-191205-183-SS 639095 3695026 Forest Woodland 0-10% Bioturbation 0-25% Dig Max ST Depth Negative
In small stand of trees surrounded by mixed grass prairie. Shallow red subsoil. Roots throughout ST.

12/5/19 ST-191205-184-SS 639094 3695038 Forest Woodland 0-10% Bioturbation 0-25% Dig Sterile Subsoil Negative
In small stand of trees surrounded by mixed grass prairie. Shallow red subsoil. Roots throughout ST.

12/5/19 ST-191205-185-SS 639095 3695060 Drainage, Forest Inundated, Woodland 0-10% Grading 76-99% No dig Heavy Disturbance No dig
20m North delineation test off 101-SS. In small stand of trees with channelized drainage running NW-SE. ST in drainage.

12/5/19 ST-191205-186-SS 639068 3695052 Energy Corridor, Pasture Mixed Grasses 0-10% Utility Completely Destroyed No dig Proximity To Existing Utility No dig
10 North delineation test off 72-SS. Half meter west of transmission pole.

12/5/19 ST-191205-187-SS 639068 3695062 Pasture Mixed Grass, Woodland 0-10% Grading 51-75% Dig Sterile Subsoil Negative
20m north delineation. Along fence line and 15m SE of road.
APPENDIX C: HISTORICAL AND ARCHIVAL RESEARCH
THE STATE OF TEXAS

Know all Men by these Presents:

COUNTY OF

In the State of

State of

State of

The County of

for and in consideration of the sum

of

Dollars, to be paid by

unto

the said

said

State of

South of

West of

for Grant, Sell and Convey unto the said

all that certain

A. D. 1903

hereof

also

the

beginning

beginning

To Have and to Have the above described premises, together with all and singular the rights and appurtenances thereto, as the same or any part thereof, which at the time of the execution hereof are held by

and assigns forever

to

and assigns, against every person whomsoever lawfully claiming or to claim the

not

Warrant

Witneses

A. D. 1903

Witneses of record as of Grantor:

THE STATE OF TEXAS

COUNTY OF

The State of

before

County, Texas, on this day personally

appended

of said

not

the said

A. D. 1903

THE STATE OF TEXAS

COUNTY OF

before

County, Texas, on this day personally

appended

of said

the said

A. D. 1903

Plaint for record

M. and recorded the

Day of

Day of

Clark County Court, This

County, Texas,
The State of Texas

Know all men by these presents,

That we J G Graves and W H Graves, wife of J H Graves, of the County of Wise, in the State of Texas, do, for ourselves, our heirs, executors and assigns, convey and sell unto the said J H Graves of the County of Wise in the State of Texas, all that certain tract or parcel of land lying and situated in Wise County, Texas, being a part of the NW-NE corner of a tract conveyed to us by John Sank,' etc.

This tract or parcel of land is described as follows: Beginning at the East corner of a tract of land sold to W P Foster by J T S Clark from which a PC bush is S 50 W 125 50. Thence S 55 E 60 pr to J J Long from which a post and bush is N 5 50 pr a 40 bush S 55 W 150. Thence S 55 W 60 pr a post and bush is N 55 E 150 pr a 40 bush S 55 W 150 pr Thence N 55 W 150 pr a PC bush is N 55 E 36 pr Thence N 55 W 150 pr to place of beginning. To have and to hold the above described premises together with all and singular the rights and appurtenances thereto in any wise belonging unto the said J H Graves and his heirs and assigns forever and we do hereby bind ourselves, heirs, executors and administrators to warrant and forever defend all and singular the said premises unto the said J H Graves and his heirs and assigns against every person whomsoever lawfully claiming or claiming the same or any part thereof.

Witness our hands this 25th day of September, A D 1886.

J G Graves
W H Graves

The State of Texas

Before me, R D Bailey, Notary Public in and for Wise County, Texas, on this day personally appeared J H Graves to me personally known to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 25th day of September, A D 1886.

R D Bailey, Notary Public
Wise Co. Texas
THE STATE OF TEXAS
Know all Men by these Presents:

COUNTY OF

That we, J.H. Howard and wife, I.A. Howard, for and in consideration of the sum of

DOLLARS, for and in consideration of the sum of

have granted, sold and conveyed, and by these presents do grant, sell and convey unto the said

of the County of

that certain tract or parcel of land and situate in

and described in the plat or survey of land attached hereto, bounded as follows:

Beginning at the northeast corner of the plat as the same is laid out to W.C. Foster by J.W. T. Clark

From which a line southeasterly 100 feet to

From which a line southeasterly 100 feet to

From which a line southeasterly 100 feet to

Continuing southeasterly to the beginning,

To have and to hold the above-described premises, together with all and singular the rights and appurtenances thereto in anywise belonging unto said

heirs and assigns forever. And we, the said

heirs, executors and administrators of

Warrant and Powers, together with the said premises unto the said



WITNESS our hands and seals

this

day of

A.D. 1906.

To have and to hold the above-described premises, together with all and singular the rights and appurtenances thereto in anywise belonging unto said

heirs and assigns forever. And we, the said

heirs, executors and administrators of

Warrant and Powers, together with the said premises unto the said



WITNESS our hands and seals

this

day of

A.D. 1906.

To have and to hold the above-described premises, together with all and singular the rights and appurtenances thereto in anywise belonging unto said

heirs and assigns forever. And we, the said

heirs, executors and administrators of

Warrant and Powers, together with the said premises unto the said



WITNESS our hands and seals

this

day of

A.D. 1906.

Filed for record the

day of

A.D. 1906.

WRITTEN IN OPEN COURT

COUNTY OF

County, Texas, this day personally

know to me to be the person whose name

is subscribed to the foregoing instrument, and acknowledged to me that

he exercised the same for the purposes and

consideration therein expressed.

THE STATE OF TEXAS

COUNTY OF

County, Texas, on this day personally

know to me to be the person whose name

is subscribed to the foregoing instrument, and acknowledged to me that

she exercised the same for the purposes and

consideration therein expressed.

THE STATE OF TEXAS

County, Texas, on this day personally

know to me to be the person whose name

is subscribed to the foregoing instrument, and acknowledged to me that

she exercised the same for the purposes and

consideration therein expressed.
William Fortenberry brought his family to Tex, from Sharp Co., Ark., in 1858. In this area there were other members of the family, cousins Etc. The main idea in moving to Tex, was to enter the cow business. The first stop in Tex was at the Fort area. This stop was made because other members in the family had come before and settled here. They remained in the Fort Point area for one year and then came west to the C. corner of Wise co., and just west of the Denton co., L.P. This is the corner of Wise, Cooke and Denton counties.

A nice home was built on the high hill in NE. Wise co. The present owner of this property is James Fortenberry. They dug a cellar and dug a well. The remains of the old cellar and well are visible today. The high hill was the logical place to build. At this time the red man was the main concern. The site made a good observation point. There is a rose bush in the front yard that was planted before the Civil War and blooms each spring. This rare attraction really brings in the tourists each year.

In Oct. 1858 a member of the family was killed by the I.ians, about a mile south of the home place. The state erected a marker a few years ago in honor of this brave citizen about 3/4 mile south east of where the loss of life occurred. This cousin was Severe Fortenberry, and the remains are in the Gregory or Pollard Cemetery about 2 miles from the marker on M. way 51.

In early 1871 the state closed in on the Fortenberry family and told them they would have to move west. There was not even any horse trading in this area. They were told that they would have to go west of Jacksboro. The answer was very emphatic no. It turned out that they had to buy the property direct from the state at the rate of 3.50 per acre.

At this time the Chisholm trail was in full operation. Spen the oldest boy was eight years of age when they came from Ark. He made a real hand on the trail and went up eight times.

In 1877 Spen was married to Kate Moore. He could see his way because he had a cattle business in full operation. The young couple met at a house warming. The dance was most gay and some unknown of community young men were present. The best dancer in the group turned out to be Sam Bass. Some of my mother's childhood memories was hearing granny tell about dancing with Sam. He lost his life by gunfire a sort time later at Round Rock, Tex.

A short time before the party the Fortenberry Family had erected a log cabin about two miles east of the first home site. The I.ians had been driven into the Island Territory. They moved to the creek due to an abundance of wood and water. There was more game and that was a factor in more being on the table.

The log cabin was very fine and well furnished. An item that was in the house was an expensive Seth Thomas clock. This clock is in the Henry and Catherine W. House and I can hear it ticking as I write this information. My Father was born in the cabin along with three brothers. Kerett was the second son being born in 1882. He followed the path of his father and was in the cow business at an early age.

In 1890 the family had grown and prospered and began plans for a very modern home, a two story Victorian. The present home was completed in 1901 five miles north of Slidell on the north bank of Whites Creek. There was no public road to the structure at the time but automobiles came a road was run by the house.

The contractor was Tom Wadson and was the best available at the time. It has five rooms down stairs a three bed rooms above and one is a double. The materials in the house are all cypress and has beaded walls and ceilings. The lumber cost 3 cents per foot and the entire cost $3500.00. Have heard the family say the head carpenter made $1.50 a day.

Kate Fortenberry lived in this house until 1943. After the death of grand Pa, she operated the ranch, and we and grand Ma laid the foundation for the largest Pure Breed short horn cattle herd in the state of Tex. The business has been carried on by the sons and grandchildren to the present. In the past years a pure breed hereford in my line has been added.

In the fall of 1973 John C. White Commissioner of Agriculture, Tex, presented us with a plaque that honored the present owners Mr. and Mrs. Henry Fortenberry for having been on a farm and operating it for a 100 years in the same family. There are very few more homes steads in the state.

We have kept the home in repair and live there much of the time and have a nice herd of cattle there, and on other property.

More information on this subject is available in the Denton Co. History.

Henry H. Fortenberry

P.S. More comments about house, Parlor has double base boards, carved window sashings. Ceiling design of cypress wood and original flooring. Living room has big fireplace with carved mantel. Original hardware on all doors and windows add charm to the house. The front door is high lighted with stained glass and the wide screen door surrounded much of the lower floor. The house was built, is shown at the top of the chimney and lighting rods reach for the sky. This house site behind a white pickett fence.
Robert and Oma Howard, Eva Marie, and John Fulton in the front yard of the old Howard homeplace on farm near Greenwood.

Laura married John Moore; Lum married Nellie Fullingham; Nellie June married Walter Derryberry. Mary Jane’s parents, Hulin Fulton and Margaret Hill, were born in Ireland.

Joseph C. Chance died on February 27, 1909. Mary Jane died August 28, 1913. Both are buried in Henrietta, Texas.

John and Lillie Howard are buried at Greenwood. Lillie lived to be ninety years of age. She passed away November 28, 1948.

The following is an excerpt from a poem written by Ernest after his father died.

"His life to us was a noble lesson taught, May it reflect then for more than aught.
For the life he lived 'twas his desire.
Would help his loved to look up higher —
The noble spirit he possessed,
Went hand in hand with him to rest.
Remember then children and bear in mind.
A mother's love only will excel father's—you'll find."

Compiled by Eva Marie (Howard) Atkins

JOE BARNETT HOWARD

Joe Barnett Howard was born March 26, 1890. His parents were John Barnett Howard and Lillie Caroline Chance. They came to Texas from Monett, Missouri. After their marriage they lived in the Brumlow community. Their home was at the foot of "Tater Hill," some miles north of Decatur and west of the town of Greenwood. Joe was the fourth child of ten children born to John and Lillie, most of them being born in Brumlow.

John Barnett and Lillie bought a farm two miles west of Greenwood. This farm was later owned by Joe and Chloe Howard.

Joe attended the Greenwood Male and Female College. He later taught school in Seminole County, Okla-

homa. He later returned to Greenwood, Texas and married Chloe Edith Koiner of Krum, Texas, in Denton County on October 26, 1917.

The town of Greenwood was a thriving place. It had several grocery stores, a barbershop, two drug stores, and a cotton gin.

Joe worked hard to build up the land, by rotating crops and growing peas and fertilizing with barnyard manure. He had a big fruit orchard and vegetable garden.

The first child born to Joe and Chloe Howard was Wilma. She was born September 11, 1918. She married Joe England on December 24, 1941. They had two children. Their names are Robert Thurmond and Terry Don.

Their next child, Charles Warren was born November 8, 1920. He married Emily Jones of Fernandina Beach, Florida. They had two children and their names are Charles Jr. and David.

Joe and Chloe Howard’s third child, Lillie Mae, was born January 24, 1924. She married J. E. Haynes. Their
Services Held For James Washburn

James Washburn, "Mr Washburn," as he was affectionately known to his family and close friends, departed this life on April 25, 1944, at the age of 71. He was born in Tama County, Iowa, on December 15, 1872. He was married to Emma Washburn in 1890 and later lost his wife in 1932. They moved to Tama County in the early years of their marriage and raised their family in the community. He was a member of theMethodist Church, serving as a lay leader in his church. He was a valued member of the community, known for his helpfulness and kindness.

Mr Washburn was a marksman in the Republican Army and served in the Spanish-American War. He was a member of the Masonic Lodge and served as a deacon in the Methodist Church.

The funeral services were held at the Methodist Church in Tama on Thursday, April 28, 1944, at 2:30 p.m. The Rev. W. L. Jordan, pastor of the Methodist Church, officiated.

The remains of James Washburn were interred at the Tama Cemetery with full military honors.

In addition to his wife, he was survived by two sons and three daughters. He is also survived by two grandchildren and a host of nieces and nephews.

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APPENDIX D: SURVEY RESULTS AND SITE MAPS
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