Intensive Archaeological Survey of the Proposed SAWS Evans Road Water Line and Tank Project, San Antonio, Bexar County, Texas

Antiquities Permit No. 7945

Principal Investigator: Mary Jo Galindo, Ph.D., RPA

Prepared for:
San Antonio Water System
2800 US Highway 281 N
San Antonio, Texas 78212

Report Authors:
Mary Jo Galindo, Ph.D., RPA, Virginia Moore, MAG

Pape-Dawson
7800 Shoal Creek Blvd
Suite 220W
Austin, TX 78757

May 2017
Abstract

On behalf of San Antonio Water System (SAWS), Pape-Dawson conducted an intensive archaeological survey of the proposed Evans Road Water Line and Tank Project in northeastern Bexar County, Texas. The project limits extend generally southeast along Evans Road from the intersection of Hanging Oak Road to the roadway’s intersection with Green Mountain Road, where it will then proceed west and southwest for 1 mile (1.6 kilometer [km]) along Green Mountain Road, totaling about 3 miles (4.8 km). The water tank would be situated on 3.3 acres (1.3 hectares [ha]) on the north side of Evans Road about 750 feet (ft) (229 meters [m]) west of Green Mountain Road. The water line would be installed adjacent to the southwestern side of Evans Road, adjacent to the southeastern side of Green Mountain Road, and within a 37-ft (11.3-m) easement that would be comprised of an existing 12-ft (3.7-m) permanent easement and a proposed 25-ft (7.6-m) temporary construction easement. The depth of vertical impacts has not yet been determined, but utility installations typically require 6 to 8 ft (1.8 to 2.4 m), while the impacts at the water tank location may be deeper. Thus, the total project area encompasses approximately 16.8 acres (6.8 ha).

All of the project area is either within the City of San Antonio (COSA) City Limits or Extraterritorial Jurisdictional (ETJ) Boundary, which will require compliance with the Historic Preservation and Design Section of the COSA Unified Development Code (UDC). Based on SAWS’ status as a political subdivision of the State of Texas, compliance with the Antiquities Code of Texas (ACT) will also be required. However, as no Federal funding or permitting will be required for this project, compliance with Section 106 of the National Historic Preservation Act (NHPA) will not be necessary. The current investigation was conducted in compliance with the ACT and COSA UDC under Antiquities Permit No. 7945.

The purpose of the investigation was to identify all historic or prehistoric cultural resources located within the project area and to evaluate the significance and eligibility of identified resources for inclusion to the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL). All work was done in accordance with the archaeological survey standards and guidelines as developed by the Council of Texas Archaeologists (CTA) and adopted by the Texas Historical Commission (THC). The investigations included a background review and an intensive pedestrian survey with shovel testing.

The background review determined that the project area has not been previously surveyed, and no previously recorded archaeological sites are located within or immediately adjacent to the project area. Pape-Dawson conducted the intensive archaeological survey on March 14 and 22, and April 4, 2017. The project area was subject to visual inspection supplemented by judgmentally placed shovel tests in order to evaluate the potential for buried cultural resources. A total of 62 shovel tests was excavated, exceeding the minimum CTA/THC archaeological survey standards, which require 16 shovel tests per mile for linear project areas and 2 shovel tests per 1 acre for the tank location.

Pape-Dawson archaeologists recorded two new archaeological site (41BX2172, and 41BX2173) and documented two isolated finds. Sites 41BX2172 and 41BX2173 were evaluated according to the criteria in Title 36 Code of Federal Regulations Part 60.4 (36 CFR 60.4) (per the UDC) and in 13 Texas Administrative
Code 26.10 (13 TAC 26.10). Both 41BX2172 and 41BX2173 are prehistoric lithic scatters. Based on the primarily surficial nature of the cultural deposits and lack of intact features, sites 41BX2172 and 41BX2173 are not recommended for NRHP inclusion (in compliance with the COSA UDC) or SAL designation.

Pape Dawson recommends that no further cultural resources work is necessary for the proposed project and that construction be allowed to proceed within the project area. However, if undiscovered cultural material is encountered during construction, it is recommended that all work in the vicinity should cease and the COSA archaeologist be contacted to ensure compliance with the UDC. Diagnostic artifacts, project records, and photographs will be curated at the Center for Archaeological Research at The University of Texas at San Antonio.
# Table of Contents

Abstract .................................................................................................................................................. ii

Table of Contents ................................................................................................................................ iv

List of Figures ........................................................................................................................................ v

List of Tables ........................................................................................................................................ vi

Management Summary ........................................................................................................................... vii

Introduction .......................................................................................................................................... 1

Project Setting ..................................................................................................................................... 1

Cultural Chronology .............................................................................................................................. 6

Methods ............................................................................................................................................... 9

    Records Review ............................................................................................................................... 9

    Archaeological Fieldwork ............................................................................................................. 10

    Artifact Analysis and Curation ..................................................................................................... 10

Results ................................................................................................................................................. 10

    Records Review ............................................................................................................................. 10

    Historic Map Review .................................................................................................................... 13

    Archaeological Fieldwork ........................................................................................................... 15

Site Descriptions .................................................................................................................................. 20

    Site 41BX2172 ............................................................................................................................... 20

    Site 41BX2173 ............................................................................................................................... 24

Isolated Finds ....................................................................................................................................... 30

Summary and Recommendations .......................................................................................................... 35

References Cited ................................................................................................................................. 36

Appendix A

    Shovel Test Data
List of Figures

Figure 1: Project Area.................................................................................................................................................. 2
Figure 2: Project Location........................................................................................................................................... 3
Figure 3: Soils map.......................................................................................................................................................... 5
Figure 4: Previously Recorded Sites within 1 km of the Project Area................................................................. 11
Table 1: Previously Conducted Archaeological Surveys within 0.62 mile (1 km) of the Project Area. ........ 12
Figure 5: Results.......................................................................................................................................................... 16
Figure 6: General ground visibility in wooded areas............................................................................................... 17
Figure 7: General ground visibility within open areas, looking southeast........................................................... 17
Figure 8: Road cut along Evans Road with power lines and steep bank from tree-line to the fence,
looking northwest.................................................................................................................................................... 18
Figure 9: Push pile within 41BX2173 east of Green Mountain Road, looking southeast. ......................... 18
Figure 10: Old quarry road, pit and creek east of Green Mountain Road, looking north............................. 19
Figure 11: Evans Creek as it runs through the project area east of Green Mountain Road, looking
east............................................................................................................................................................................. 19
Figure 12: Site 41BX2172 map........................................................................................................................................ 21
Figure 13: General view of site 41BX2172, looking northwest................................................................................ 22
Figure 14: Projectile point recovered from 41BX2172......................................................................................... 22
Figure 15: Edge modified flake/scaper documented at site 41BX2172.............................................................. 23
Figure 16: Example of debitage observed on the surface within the site 41BX2172............................................. 23
Figure 17: Example of debitage documented within a shovel test at site 41BX2172........................................ 24
Figure 18: Site 41BX2173 map...................................................................................................................................... 25
Figure 19: General surface visibility within the site. ............................................................................................... 26
Figure 20: View of Green Mountain Road cut with site 41BX2173 along the top, looking northwest..... 26
Figure 21: General view of 41BX2173 on lower terrace with silt fencing, looking southeast. ................... 27
Figure 22: Modified flakes collected from the surface at 41BX2173................................................................. 28
Figure 23: Example of debitage and small bifacial fragments at site 41BX2173.................................................. 28
Figure 24: Example of shatter observed within positive shovel test VM15 at 41BX2173............................. 29
Figure 25: Example of cores observed on the surface at 41BX2173............................................................... 29
Figure 26: Large, heavily patinated core from the surface of site 41BX2173..................................................... 30
Figure 27: General view of IF1 south of Evans Road......................................................................................... 31
List of Tables

Table 1: Previously Conducted Archaeological Surveys within 0.62 mile (1 km) of the Project Area.......13
Management Summary

SAWS proposes to construct a water line and tank in northeastern Bexar County, Texas. The project limits extend generally southeast along Evans Road from the intersection of Hanging Oak Road to its intersection with Green Mountain Road, where it will then proceed west and southwest for 1 mile (1.6 km) along Green Mountain Road, totaling about 3 miles (4.8 km). The water tank would be situated within 3.3 acres on the north side of Evans Road about 750 ft (229 m) west of Green Mountain Road. The water line would be installed within a 37-ft (11.3-m) easement adjacent to the roadways. The depth of vertical impacts has not yet been determined, but utility installations typically require 6 to 8 ft (1.8 to 2.4 m), while the impacts at the water tank location may be deeper. The total project area encompasses approximately 16.8 acres (6.8 ha).

All of the project area is either within the COSA City Limits or ETJ Boundary, which will require compliance with the Historic Preservation and Design Section of the COSA UDC. Based on SAWS’ status as a political subdivision of the State of Texas, compliance with the ACT will also be required. However, as no Federal funding or permitting will be required for this project, compliance with Section 106 of the NHPA will not be necessary. The current investigation was conducted in compliance with the ACT and COSA UDC under Antiquities Permit No. 7945.

Pape-Dawson conducted the intensive archaeological survey on March 14 and 22, and April 4, 2017. Dr. Mary Jo Galindo served as Principal Investigator and was assisted in the field by Virginia Moore, Katie Hill, and Jacob I. Sullivan. As a result of the survey, two new archaeological sites (41BX2172 and 41BX2173) were recorded and two isolated finds were documented. Sites 41BX2172 and 41BX2173 are both prehistoric lithic scatters, and were evaluated according to the criteria in 36 CFR 60.4 and in 13 TAC 26.10. Based on the results of the archaeological fieldwork, Pape-Dawson recommends that sites 41BX2172 and 41BX2173 are not eligible for NRHP inclusion (per COSA UDC) or SAL designation.

The principal investigator recommends that no further cultural resources work is necessary for the project area and that construction be allowed to proceed within the project area. However, if undiscovered cultural material is encountered during construction, it is recommended that all work in the vicinity should cease and the COSA archaeologist be contacted to ensure compliance with the UDC.
Introduction

On behalf of San Antonio Water System (SAWS), Pape-Dawson conducted an intensive archaeological survey of the proposed Evans Road Water Line and Tank Project in northeastern Bexar County, Texas (Figure 1). The project limits extend generally southeast along Evans Road from the intersection of Hanging Oak Road to its intersection with Green Mountain Road, where it will then proceed west and southwest for 1 mile (1.6 kilometers [km]) along Green Mountain Road, totaling about 3 miles (4.8 km) (Figure 2). The water tank would be situated within 3.3 acres (1.3 hectares [ha]) on the north side of Evans Road about 750 feet (ft) (229 meters [m]) west of Green Mountain Road. The water line would be installed adjacent to the southwestern side of Evans Road, adjacent to the southeastern side of Green Mountain Road, and within a 37‐ft (11.3‐m) easement that would be comprised of an existing 12‐ft (3.7‐m) permanent easement and a proposed 25‐ft (7.6‐m) temporary construction easement. The depth of vertical impacts has not yet been determined, but utility installations typically require 6 to 8 ft (1.8 to 2.4 m), while the impacts at the water tank location may be deeper. Thus, the total project area encompasses approximately 16.8 acres (6.8 ha).

All of the project area is either within the City of San Antonio (COSA) City Limits or Extraterritorial Jurisdictional (ETJ) Boundary, which will require compliance with the Historic Preservation and Design Section of the COSA Unified Development Code (UDC). Based on SAWS’ status as a political subdivision of the State of Texas, compliance with the Antiquities Code of Texas (ACT) will also be required. However, as no Federal funding or permitting will be required for this project, compliance with Section 106 of the National Historic Preservation Act (NHPA) will not be necessary. The investigation was conducted in compliance with the ACT and UDC under Antiquities Permit No. 7945.

Pape-Dawson conducted the intensive cultural resources survey for the proposed Evans Road Water Line and Tank Project on March 14 and 22, and April 4, 2017. The 3‐mile (4.8‐km) water line and 3.3‐acre (1.3‐ha) water tank location were subjected to visual inspection and shoveling testing. Dr. Mary Jo Galindo served as Principal Investigator and was assisted in the field by Virginia Moore, Katie Hill, and Jacob Sullivan. The goals of the investigation were to (1) locate all prehistoric and historic archaeological sites, if present, within the project area; (2) establish vertical and horizontal site boundaries, as appropriate with respect to the boundaries of the project area; (3) evaluate the significance of recorded sites for inclusion to the National Register of Historic Places (NRHP) (per UDC) or for State Antiquities Landmark (SAL) designation.

Project Setting

The project area is within a gently to moderately sloping upland setting that is characterized by an undulating and rolling landscape. Evans Creek is mapped crossing the project area, along Green Mountain Road, while Cibolo Creek is between 0.9 to 2 miles (1.4 to 3.2 km) to the east and Elm Waterhole Creek is 1 mile (1.6 km) southwest. On historic topographic maps, tributaries of both Cibolo and Elm Waterhole Creeks appear to cross Evans Road; however, present‐day stock tanks are now evident at these locations. The project area is situated within the Blackland Prairie physiographic region (Wermund 1996)
Figure 1: Project Area Topographic Map

SAWS Evans Road Project PN: 8971-01
Bexar County
Cultural Resources Report
May 2017
SAWS Evans Road Project PN: 8971-01
Bexar County
Cultural Resources Report
May 2017

Figure 2: Project Location Map
and is mostly underlain by the Lower Cretaceous-age Edwards Limestone formation; however, a small portion of the project area along the curve in Green Mountain Road is mapped as Holocene Alluvium (Bureau of Economic Geology [BEG] 1983).

Approximately 50 percent of the project area is mapped as Eckrant cobbly clay soil series on 1 to 30 percent slopes (United States Department of Agriculture, Natural Resources Conservation Service [USDA-NRCS] 2017) (Figure 3). Crawford and Bexar stony soils comprise another 37 percent of the project area, while Eddy gravelly clay loam with 1 to 8 percent slopes accounts for 7 percent of it. Finally, Krum clay with 1 to 5 percent slopes occupies 5 percent of the project area, and Houston Black gravelly clay with 3 to 5 percent soils form the remaining 1 percent (USDA-NRCS 2017). If present, cultural materials in this upland setting would likely be encountered along or near the ground surface, except for the small area along the curve in Green Mountain Road where Houston Black gravelly clay is mapped and there is potential for deeply buried archaeological deposits.

Eckrant series soils are very shallow and form in the residuum weathered from limestone. Eckrant soils consist of very dark gray, very cobbly clay with a subangular blocky structure (A-horizon) overlying limestone bedrock at depths of approximately 12 inches (30 centimeters [cm]) below ground surface (USDA-NRCS 2017; Taylor et al. 1991). Crawford and Bexar series soils are moderately deep, well-drained, and slowly permeable upland soils that also formed in the residuum weathered from limestone (USDA-NRCS 2017; Taylor et al. 1991). Crawford series soils with 0 to 5 percent slopes consist of brown silty clay with an angular blocky structure (A-horizon) yielding to brown to dark reddish brown silty clay with an angular blocky structure (B-horizon) at depths of approximately 12 inches (30 cm) below ground surface (USDA-NRCS 2017). Bexar series soils with 0 to 8 percent slopes consist of dark reddish brown cobbly clay loam with a subangular blocky structure (A-horizon) atop dark reddish brown cobbly clay with a blocky structure (B-horizon) at depths of approximately 18 inches (45 cm) below ground surface (USDA-NRCS 2017; Taylor et al. 1991).

The Eddy series consists of shallow to very shallow, well-drained, and moderately permeable soils that formed in residuum from chalky limestone (USDA-NRCS 2017; Taylor et al. 1991). These soils are on gently sloping to moderately steep uplands, and consist of light brownish gray, very gravelly clay loam with a fine granular structure (A-horizon) overlying limestone bedrock at about 10 inches (25.4 cm) below ground surface.

The Krum series consists of very deep, well-drained, and moderately slowly permeable soils that formed in calcareous clayey sediments (USDA-NRCS 2017; Taylor et al. 1991). These soils are on nearly level to moderately sloping terraces and lower slopes of valleys, and within the project area they are along Green Mountain Road, near its intersection with Evans Road. Krum soils consist of dark grayish brown silty clay with a subangular blocky structure (A-horizon) atop dark brown silty clay with an angular blocky structure (B-horizon) at approximately 26 inches (66 cm) below ground surface.

The Houston Black series consists of very deep, moderately well-drained, and very slowly permeable soils that formed in clayey residuum derived from calcareous mudstone of Cretaceous Age (USDA-NRCS 2017;
Figure 3: Soils
Taylor et al. 1991). These nearly level to moderately sloping soils occur on interfluvies and side slopes on upland ridges and plains on dissected plains. Within the project area, Houston Black gravelly clay is mapped along Green Mountain Road near the project’s southern terminus and is associated with underlying Holocene Alluvium geology (USDA-NRCS 2017; BEG 1983).

Cultural Chronology

Bexar County falls within the Central Texas archaeological region of the Central and Southern Planning Region as delineated by the THC (Mercado-Allinger et al, 1996). Cultural developments in this region are typically classified by archaeologists according to four primary chronological time periods: Paleoindian, Archaic, Late Prehistoric, and Historic. These classifications have been defined primarily by changes in material culture and subsistence strategies over time as evidenced through information and artifacts recovered from archaeological sites. This cultural chronology provides a brief summary of each major cultural period with reference to significant archaeological work that has occurred within the region.

Paleoindian (11,500 B.P. – 8,800 B.P.)

Although there is some debate about whether pre-Clovis Paleoindian peoples lived in Texas, there is evidence of Paleoindian occupation within Texas by 11,500 B.P. Collins (1995:376, 381) has proposed dividing this period into early and late phases, with Dalton, San Patrice, and Plainview possibly providing the transition between them. Research has shown Paleoindians were gathering wild plants and hunting large mammals (mammoth, bison, etc.) as well as smaller terrestrial and aquatic animals (Collins 1995: 381; Bousman et al. 2004: 75). Projectile points characteristic of the Paleoindian period in Central Texas are lanceolate-shaped and include Clovis, Plainview, and Folsom (Turner and Hester 1999). In Texas, most Paleoindian sites are classified as procurement or consumption sites (Bousman et al. 2004: 76-78), but a few, such as the Wilson-Leonard site in Williamson County (Collins 1995) and the Pavo Real site in Bexar County (Henderson 1980), have produced burials in context (Collins 1995: 383). Other Paleoindian sites discovered within Bexar County include site 41BX47 on Leon Creek (Tennis 1996), the Richard Beene site (41BX831) (Thoms and Mandel 2007), and the St. Mary’s Hall site (41BX229), which has provided insight into a more diverse diet for Paleoindian groups (Hester 1978).

As the climate warmed, the Paleoindian people began to shift away from hunting large animals. The changing environment, which led to extinction of the megafauna, likely influenced their decision to focus more on hunting small game animals, including deer and rabbit, as well as gathering edible roots, nuts, and fruits (Black 1989). This change in food supply, as well as a different set of stone tools, marks the transition into the Archaic Period.

Archaic (8,800 B.P. – 1,200 B.P.)

Usually divided into early, middle, late, and sometimes transitional sub-periods, the Archaic marks a gradual shift from hunting Megafauna and some smaller animals supplemented with wild plants to a focus
on hunting and gathering medium and small animals and wild plants, and an eventual transition to agriculture. Beginning with Clear Fork gouges and Guadalupe bifaces in the Early Archaic (8500 B.P. – 6000 B.P.) (Turner and Hester 1999; Collins 1995), Early Archaic people produced a variety of point types. The variety of points and their scattered distribution over a large area in the Early Archaic may indicate smaller groups of people moving over larger territories (Prewitt 1981). Point types transition to Bell-Andice-Calf Creek, Taylor, and Nolan-Travis points in the Middle Archaic (6000 B.P. – 4000 B.P.) (Turner and Hester 1999; Collins 1995), and burned rock middens become an important characteristic. The Middle Archaic focus on constructing burned rock ovens to cook a diverse array of plant food (Black 1989) suggests a slightly more sedentary focus. The Bulverde, Pedernales, Ensor, Frio, and Marcos points in the Late Archaic (4000 B.P. – 1300 B.P.) (Turner and Hester 1999; Collins 1995) mirror the diversity of point types found in the Early Archaic. During the Late Archaic, cemeteries, especially associated with rock shelters, become common in central Texas (Dockall et al. 2006). In Bexar County, sites with Early Archaic components include the Housman Road site (41BX47), the Richard Beene site (41BX831) (Thoms and Mandel 2007), the Higgins site (41BX184) (Black et al. 1998), and the Panther Springs site (41BX228) (Black and McGraw 1985). While the Elm Waterhole site (41BX300) is representative of a Middle Archaic site within Bexar County (McNatt et al. 2000), the Granberg site (41BX17\41BX271) in San Antonio is a multi-component site with occupations from both the Middle and Late Archaic sub-periods.

Late Prehistoric (1,200 B.P. – 250 B.P.)

As the Archaic transitioned into the Late Prehistoric period, several technological changes become apparent. The most notable change is the use of the bow and arrow rather than the spear and atlatl, as evidenced by smaller dart points. Another significant innovation is the creation and use of ceramic vessels. The use of earth and rock ovens as well as burned rock middens continued, and some groups began to practice consistent horticulture during this time as well; however, horticulture was introduced relatively late in the Central Texas region, and did not appear to have much of an effect on the overall subsistence strategies of the Late Prehistoric people (Collins 2004). Also during this period, there are indications of major population movements, changes in settlement patterns, and perhaps lower population densities (Black 1989). Archaeologists divide the Late Prehistoric into two phases: the Austin, followed by the Toyah phase. The Austin phase is characterized by some of the earliest arrow points, the Scallorn and Edwards types, while the Perdiz-type arrow point and bone-tempered ceramics represent the Toyah phase (Prewitt 1981). Cemeteries become more common in the Late Prehistoric period.

Historic (1600s – 1950)

While there is an overlap between the prehistoric and historic periods (sometimes called the protohistoric), Europeans did not explore the area until the seventeenth century. Alonso de León’s 1689 and 1690 expeditions and Domingo Terán de los Ríos’ 1691 expedition were likely the some of the first interactions between Europeans and Native groups (de la Teja 1995:6). These explorations helped the Spanish choose locations to establish five missions in and around what would later become San Antonio. Don Martín de Alarcón established the first mission, San Antonio de Valero, in 1718, on the west bank of
the San Pedro Creek, followed by the Presidio San Antonio de Béxar and the Villa de Béxar (de la Teja 1995). However, by 1722 the Marqués de San Miguel de Aguayo had moved the presidio and villa to the west side of the San Antonio River (Clark et al. 1975). Other missions, including Mission San José y San Miguel de Aguayo, Nuestra Señora de la Purísima Concepción, San Juan Capistrano, and San Francisco de la Espada were established in the area from 1718 to 1731 (Clark et al. 1975). Most of the Native American people recruited to live at these missions comprised many different groups (Campbell 1977), but it is difficult to know all the groups that were present due to the variations in spelling and phonetic complexity. The missions used this Native labor force to construct acequias, or irrigation ditches, which helped them to develop self-sustaining communities bordered by farmland. (Long 2010).

In 1731, Spain sent 16 families from the Canary Islands to the villa de Béxar to establish the secular village. With the arrival of these families, surveyors set out the city’s main plaza, or Plaza de las Islas, next to the church, designated a spot for the Casas Reales, and began to establish residential lots (Spell 1962). In 1773, San Antonio de Béxar Presidio was named the capital of Spanish Texas, and the settlement including mission Indians had a population of about 2,000 by 1778 (Fehrenbach 2010). During this period of early settlement, water was an essential component for successful settlement and survival. The acequia system, begun with the arrival of the missionaries, continued to expand to serve irrigation and drinking water needs. The acequia system influenced the street layout in the city (Cox 2005:20) and played an integral part in contact between the Spanish, who brought the engineering concepts for the system, and the indigenous groups forced to provide the construction labor.

During the 1820s and early 1830s, American settlers began moving to San Antonio in increasing numbers, though the population remained predominately Mexican. In 1824, Texas and Coahuila were united into a single state with its capital at Saltillo. San Antonio fought for Mexican Independence in 1813, then for its own sovereignty during the Texas Revolution. The Siege of Bexar and the Battle of the Alamo, in 1835 and 1836, were both located within San Antonio, showing its importance in the region. After Texas gained its independence from Mexico in 1836, Bexar County was created and San Antonio was chartered as its seat (Long 2010). However, this was not the end of conflict in the city; a dispute with Comanche Indians resulted in the Council House Fight in 1840, and Woll’s invasion in 1842 precipitated Texas’ entrance into the United States as the 28th state.

On March 2, 1861, Texas seceded from the Union and soon after the Civil War began. San Antonio became a Confederate storage area as well as a location where military units could be organized; however, the city kept its distance from most of the actual fighting (Fehrenbach 2010). After the Civil War, San Antonio continued to grow larger, spurred on by the arrival of the railroad in 1877 (Fehrenbach 2010). Industries such as cattle, distribution, ranching, mercantile, gas, oil, and military centers in San Antonio prospered. The city served as the distribution point for the Mexico-United States border as well as the rest of the southwest. At the turn of the twentieth century, San Antonio was the largest city in Texas with a population of more than 53,000. Much of the city’s growth after the Civil War was a result of an influx of southerners fleeing the decimated, reconstruction-era south. An additional population increase came after 1910, when large numbers of Mexicans began moving into Texas to escape the Mexican Revolution (Fehrenbach 2010).
Modernization increased dramatically between the 1880s and the 1890s, compared to the rest of the United States. Civic government, utilities, electric lights and street railways, street paving and maintenance, water supply, telephones, hospitals, and a city power plant were all built or planned around this time (Fehrenbach 2010). The First United States Volunteer Cavalry was organized in San Antonio during the Spanish-American War, and San Antonio was an important military center for the army and air forces during both world wars. Its five military bases provided an important economic base and contributed to the evolution of the city’s medical research industry.

In 1921, a disastrous flood engulfed downtown San Antonio with up to 12 ft (3.7 m) of water. The Olmos Dam was built in response to this event to prevent further flooding. Sections of the San Antonio River were straightened and widened in areas to control the water flow. Another recommendation was to construct an underground channel in downtown San Antonio and to cover portions of the river with concrete. This last idea was controversial, but a compromise was eventually agreed upon to create a Riverwalk with shops and restaurants along the water channel, which was completed in 1941 (Fisher 2010).

**Methods**

**Records Review**

Prior to fieldwork, Pape-Dawson archaeologists conducted a thorough background literature and records search of the proposed project area. This research included reviewing the Bulverde (2998-423), Bat Cave (2998-424), Longhorn (2998-422), and Schertz (2998-421) U.S. Geologic Survey (USGS) 7.5-minute topographic quadrangle maps at the Texas Archeological Research Laboratory (TARL) and searching the THC’s Texas Archeological Sites Atlas (THC 2017) online database (Atlas) for any previously recorded surveys and historic or prehistoric archaeological sites located within a 0.62-mile (1-km) radius of the project area. The review also included information on the following types of cultural resources located within the 0.62-mile (1-km) study area: NRHP-listed properties, sites, and districts, SALs, Official Texas Historical Markers (OTHM), Registered Texas Historic Landmarks (RTHL), cemeteries, and local historic landmarks and districts. The archaeologists also examined U.S. Department of Agriculture (USDA) Soil Survey of Bexar County (Taylor et al. 1991), Natural Resources Conservation Service (NRCS) Web Soil Survey, the Geologic Atlas of Texas-San Antonio Sheet (BEG 1983), and historic maps and aerials that depict the project area.

As a part of the review, a Pape-Dawson archaeologist examined the Texas Department of Transportation (TxDOT) Historic Overlay, a mapping/GIS system with historic maps and resource information covering most portions of the state (Foster et al. 2006). In addition to this source, historic and modern aerial photographs (Nationwide Environmental Title Research Online [NETR Online] 2017) were reviewed to identify Historic High Probability Areas (HHPAs).
Archaeological Fieldwork

Pape-Dawson’s investigations consisted of an intensive pedestrian survey supplemented by judgmental shovel testing across the project area. Subsurface investigations involved shovel testing in settings with the potential to contain intact, buried cultural material. During the survey, archaeologists assessed the project area for potentially deeply buried cultural deposits, and the need for mechanical trenching where Holocene Alluvium is mapped along Green Mountain Road. Survey methods followed the CTA/THC Archeological Survey Standards for Texas.

Pedestrian transects were spaced at intervals of no more than 98 feet (30 m) across the width of the project area. A total of 62 shovel tests were excavated to investigate the 3-mile (4.8-km) water line and 3.3-acre (1.3-ha) water tank location, exceeding the state’s minimum standards, which require 16 shovel tests per mile for linear project areas and 2 shovel tests per 1 acre for the tank location. Shovel tests were roughly 11.8 inches (30 cm) in diameter and were excavated in 4-inch (10-cm) levels to sterile clay, bedrock, or to a maximum of 31.5 inches (80 cm) below the ground surface when intact soils were encountered. All soils were screened through ¼-inch (0.64-cm) wire mesh unless clay concentrations were high enough to require hand sorting. All shovel tests were recorded, visually described, plotted by a Global Positioning System (GPS) unit, and backfilled upon completion.

All archaeological site boundaries were determined by the horizontal extent of the subsurface and/or surface material. Site settings and representative cultural materials were photographed, and site boundaries were mapped and marked with a GPS device. A State of Texas Archeological Site Form was filled out for each site identified and submitted to TARL. All isolated finds identified during the course of the survey were photographed and marked with a GPS unit. Archaeological sites were evaluated according to the criteria in Title 36 Code of Federal Regulations Part 60.4 (36 CFR 60.4) and in 13 Texas Administrative Code 26.10 (13 TAC 26.10).

Artifact Analysis and Curation

Potentially diagnostic artifacts and artifacts recovered from shovel tests were collected and brought back to Pape-Dawson for cleaning and analysis. Diagnostic artifacts, project records, and photographs will be curated at the Center for Archaeological Research at The University of Texas at San Antonio. Any non-diagnostic material that may have been collected for analysis in Pape-Dawson’s Archaeological Laboratory will be discarded in consultation with the THC.

Results

Records Review

The background review revealed that there are no previously recorded sites within the project area and that the project area has not been previously surveyed (Figure 4). Three previously recorded archaeological sites (41BX1378, 41BX2105, and 41BX2135) and eight previously conducted cultural resources surveys are within 0.62 mile (1 km) of the project area (Table 1) (State Department of Highways...
This page has been redacted as it contains restricted information
Table 1: Previously Conducted Archaeological Surveys within 0.62 mile (1 km) of the Project Area.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Firm/Institution</th>
<th>Antiquities Permit #</th>
<th>Year Conducted</th>
<th>Survey Type</th>
<th>Location (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Conservation Service</td>
<td>-</td>
<td>-</td>
<td>1979</td>
<td>Area</td>
<td>0.40 mile (0.64 km) southwest of the project area</td>
</tr>
<tr>
<td>Federal Highway Administration</td>
<td>State Department of Highways and Public Transportation</td>
<td>-</td>
<td>1984</td>
<td>Linear</td>
<td>0.25 mile (0.40 km) south of the project area</td>
</tr>
<tr>
<td>Texas Historical Commission</td>
<td>Judson Independent School District/Paul Price and Associates</td>
<td>2318</td>
<td>2000</td>
<td>Area</td>
<td>0.62 mile (1 km) southeast of the project area</td>
</tr>
<tr>
<td>Federal Highway Administration</td>
<td>Texas Department of Transportation/CAR-UTSA</td>
<td>4182</td>
<td>2007</td>
<td>Linear</td>
<td>0.25 mile (0.40 km) south of the project area</td>
</tr>
<tr>
<td>Federal Highway Administration</td>
<td>Texas Department of Transportation/Blanton and Associates</td>
<td>5624</td>
<td>2010</td>
<td>Linear</td>
<td>0.25 mile (0.40 km) south of the project area</td>
</tr>
<tr>
<td>Texas Historical Commission</td>
<td>CPS Energy\SWCA</td>
<td>6851</td>
<td>2015</td>
<td>Linear</td>
<td>adjacent the project area at Evans Road and Green Mountain Road intersection</td>
</tr>
<tr>
<td>Texas Historical Commission</td>
<td>SAWS\SWCA</td>
<td>7295</td>
<td>2016</td>
<td>Linear</td>
<td>0.60 mile (0.93 km) east of the project area</td>
</tr>
<tr>
<td>COSA Office of Historic Preservation</td>
<td>Private Client/ Pape-Dawson</td>
<td>-</td>
<td>2016</td>
<td>Area</td>
<td>0.60 mile (0.90 km) west of the project area</td>
</tr>
</tbody>
</table>
and Public Transportation 1984; Schroeder 2001; Thompson et al. 2008; Young and Sanchez 2014; Moore et al. 2016; Acuña 2016). In addition, the THC (2017) Atlas database revealed that no cemeteries, NRHPs, SAL, RTHLs, or local historic landmarks and districts are within 0.62 mile (1 km) of the project area.

Cultural Resources within 0.62 Mile (1 km) of the Project Area

Site 41BX1378 was recorded as a prehistoric open campsite in 2000 by Paul Price and Associates during a survey of a 159-acre tract for Judson Independent School District that was situated about 0.62 mile (1 km) southeast of the current project area. One projectile point (dart) fragment along with two biface fragments were noted (Schroeder 2001). Buried cultural material was confined to the upper 3.9 inches (10 cm) of soil (Schroeder 2001). Site 41BX2105 is a lithic scatter recorded in 2015 during a survey of the Vista Ridge Water Pipeline by SWCA Environmental Consultants that was situated about 0.62 mile (1 km) east northeast of the project area. Buried deposits extend to 3.9 inches (10 cm) below ground surface (THC 2017).

Site 41BX2135 is a prehistoric lithic scatter and procurement area from an unknown temporal period that was recorded about 0.60 mile (0.90 km) west of the northern terminus of the project area (Moore et al. 2016). A sprawling site, 41BX2135 covers 146.5 acres with abundant outcrops of raw material and three areas of concentrated artifacts, including lithic debitage, cores, scrapers, bifaces, and projectile point fragments. Archaeological deposits were encountered in the upper 7.9 inches (20 cm) of soil. A large quantity of early-stage bifaces and biface fragments were observed throughout the site, in addition to lithic debitage and naturally and culturally modified chert shatter. A sparse number of late-stage bifaces were also observed; however, these artifacts were highly fragmented in most cases. Two dart point bases and two projectile point fragments, including the distal tip and medial fragments, were observed. Site 41BX2135 is a large lithic scatter that appears to have been used for lithic procurement, reduction, and tool manufacturing over an extended period of time as field observations revealed almost every stage of tool manufacture represented at the site. Based on the lack of diagnostic artifacts and intact features, as well as the surficial to very shallow nature of the deposits, site 41BX2135 was recommended not eligible for listing in the NRHP and no further work was recommended (Moore et al. 2016).

Historic Map Review

Pape-Dawson archaeologists reviewed 11 maps dating between 1845 and 1953 from the Texas Department of Transportation’s (TxDOT) Historic Overlay system (Foster et al. 2006). Of these, only three dating to 1871, 1887, and 1938 provided information specific to the project area. In addition, historic-age topographic maps dating from 1959 to 1992 as well as aerial imagery from 1955 to 2016 that were provided by Nationwide Environmental Title Research [NETR] were also examined during the historic map review.

The 1871 map of Bexar County by the General Land Office depicts the northern project area terminus at property owned by Francisco Valdez (Abstract No. 478-3/4), then traversing unassigned property before crossing lands owned by W. W. Warring (Abstract No. 89-1/2), R. B. Lewis (Abstract No. 412), and Pedro Sanchez (Abstract No. 411) (Foster et al. 2006). Evans Road is depicted on the 1887 map of Bexar County
by J. D. Rullmann, which allows one to refine the georeferencing of the 1871 GLO map by comparison. According to Rullmann’s map, the project area begins at the southeastern corner of E. Valdez’s Abstract No. 478-3/4 and then heads southeast, clipping the corner of E. F. Moore’s Abstract No. 429, and traversing James Hamilton’s Abstract No. 90 and Edward Evans Abstract No. 410 before turning west-southwest along Evan’s southern property boundary and ending near the center of Pedro Sanchez’ (Sanches’) Abstract No. 411 (Foster et al. 2006).

The 1938 Bracken U.S. Army Corps of Engineers map depicts a tributary to Long Creek (present-day Elm Waterhole Creek) crossing the project area near its northern terminus, and a tributary to Cibolo Creek crossing midway along Evan Road. Two structures and a well are depicted west of the Evans Road and Green Mountain Road intersection, while two other structures are east of the intersection. This area is labeled, “E. Tonne.” No tributaries are shown crossing Green Mountain Road on this 1938 map, but Taylor (et al. 1991:Map Sheet 23) does depict five crossings by Evans Creek tributaries along this road.

The project area is depicted on Stoner System Map Sheets 1043 and 1044 that date circa 1940. Evans Road traverses property belonging to Vera M. Classen Marbach, Udo H. Classen, and P. J. Classen. The segment of Evans Road that comprises the project area appears to be within the extensive Classen Ranch. Green Mountain Road is not entirely constructed, but a segment intersecting with Evans Road does extend along property lines shared by the Classens and John W. Stoepler. This road is not depicted as turning southeast, but it’s future path would traverse a 184-acre tract belonging to H. Y. Tonne.

A 1955 aerial photograph shows no apparent development adjacent to the project area, which is within a rural ranching landscape (NETR Online 2017). Two areas of clearing stand out: midway along Evans Road to the west and at the intersection of Evans Road and Green Mountain Road. Both of these roads appear unpaved and no wider than two lanes. Conditions appear unchanged in the 1963 aerial, except the clearing midway along Evans Road to the west is more pronounced, and Hanging Oak Road is now visible as an unpaved road (NETR Online 2017). The 1966 aerial is unchanged except structures appear near the northern project area terminus (NETR Online 2017). In 1973, an unpaved road associated with these structures leads to a quarry that is west of the project area. Quarrying activities are also apparent east of Evans Road and west of Green Mountain Road (NETR Online 2017). No HHPAs were identified within or adjacent to the project area through historic map review.
Archaeological Fieldwork

The archaeological survey was conducted on March 14 and 22, and April 4, 2017, by Pape-Dawson archaeologists Mary Jo Galindo, Virginia Moore, Katie Hill, and Jake Sullivan. The archaeological investigations included an intensive pedestrian survey with shovel testing across the project area (Figure 5). The project landscape was found to consist of gently to moderately sloping uplands situated above Elm Waterhole Creek and Cibolo Creek. Along Green Mountain Road, the project area is crossed by a number of unnamed drainages as well as Evans Creek. Dense concentrations of limestone and chert gravels and cobbles were often observed across the surface of the sloping upland landforms as were large outcrops of limestone bedrock. Vegetation within the project area primarily consisted of short grass and groves of oak and Ashe Juniper. Ground surface visibility throughout the project area varied between 0 and 50 percent depending on leaf litter (Figure 6 Figure 7).

Disturbances within the project area have resulted from both natural and artificial impacts. Artificial impacts included the construction of both Evans Road and Green Mountain Road along the edge of the project area, and an overhead power-line running along Evans Road (Figure 8). The stretch of the project area running east of Green Mountain Road shows evidence of additional disturbances such as large push piles and large pits from previous mining activities (Figure 9 and Figure 10). Natural impacts include erosion into the unnamed drainages that bisect the project area, bioturbation caused primarily by tree fall and animal burrowing, and numerous game and cattle trails crisscrossing the project area (Figure 11).

Along with visual surface inspection, a total of 62 shovel tests were excavated to investigate the project area (Figure 5). Shovel tests were placed in areas with the perceived potential to contain intact soils to evaluate the impact of the proposed project on cultural resources. Shovel tests typically exposed very dark brown to dark reddish brown silty loam to very gravelly clay loam. In addition, some shovel tests encountered very mottled compact cobbly clays (Appendix A). A total of 20 shovel tests were positive for cultural material resulting in the recordation of two new sites (41BX2172 and 41BX2173), as well as two isolated finds (IF01 and IF02). Detailed descriptions of the sites and the two isolated finds are presented below.
Figure 5: Results

Evans Road PN: 8971-01
Bexar County, Texas
Cultural Resources Report
May 2017
Figure 6: General ground visibility in wooded areas.

Figure 7: General ground visibility within open areas, looking southeast.
Figure 8: Road cut along Evans Road with power lines and steep bank from tree-line to the fence, looking northwest.

Figure 9: Push pile within 41BX2173 east of Green Mountain Road, looking southeast.
Figure 10: Old quarry road, pit and creek east of Green Mountain Road, looking north.

Figure 11: Evans Creek as it runs through the project area east of Green Mountain Road, looking northeast.
Site Descriptions

**Site 41BX2172**

Site 41BX2172 is a newly recorded prehistoric lithic scatter located in the northwestern end of the project area (Figure 12). The site is situated on gently sloping upland terrain that is located 0.93 miles (1.5 km) northeast of Elm Waterhole Creek. Vegetation at the site is characterized by a scatter of mesquite, oak, persimmon, and Ashe Juniper trees and native grasses (Figure 13). Ground surface visibility ranged from 0 to 50 percent at the time of site recordation. Limestone covers the landscape as it erodes from rock outcrops frequently exposed across the project area. Amongst the non-cultural material, archaeologists identified a scatter of lithic debitage and tools. Based on this surficial scatter the site was defined as a 2 acre (0.83 ha) area extending roughly 1 mile (1.6 km) northwest to southeast along the south side of Evans Road.

The site was initially discovered based on its surface expression. Observed lithic artifacts include debitage, cores, scrapers, and a projectile point fragment. The artifacts were found scattered along the project area and concentrated within a small clearing on an upland setting, east of an unnamed tributary to Elm Waterhole Creek and southeast of Evans Road, and consisting of roughly 2,297 ft (700 m) at the northern end of the project area. The lithic concentration is within a small clearing of short grasses and cacti, with some areas of erosion or exposed bedrock, and surrounded by thick vegetation consisting primarily of Ashe Juniper and oak.

A total of 12 shovel tests was excavated to investigate site 41BX2172, of which two were positive for cultural material (Appendix A). Artifacts were encountered at depths ranging from 0 to 11.8 inches (30 cm below surface [cmbs]); however, the greatest density of artifacts was documented on the surface. In addition, the positive shovel tests are clustered within a concentration of lithic material visible on the surface. Artifacts recovered from the shovel tests include burned rock, lithic debitage, and a tool. One Projectile point fragment found on the surface measures about 2.4 inches (6 cm) long by 0.8 inches (2 cm) wide and exhibits a probable impact fracture of its distal end (Figure 14). The site of an inclusion, the break may alternatively have occurred during manufacture, but the prevalence of serration along the lateral edges suggests it was a completed point that broke during use. The convex base is rounded and its neck is side tapered, but not side notched, resulting in weak shoulders. The thick and diminutive dart projectile point fragment resembles Transitional Archaic types. Other surficial artifacts included 2 edge-modified flakes (scrapers), 11 tertiary flakes (one buried, one with patination, and one with pot lidding), 1 core, and 5 pieces of shatter (Figure 15 and Figure 16). In addition, about 30 pieces of burned rock (0-5 cm diameter) were encountered in a shovel test along with a core, 4 flakes, and 3 pieces of shatter (Figure 17). Non-related modern trash (2 pieces of white ware, 1 piece of yellow ware, 1 clear glass threaded neck shard, and numerous auto parts) was also commonly encountered.
This page has been redacted as it contains restricted information
Figure 13: General view of site 41BX2172, looking northwest.

Figure 14: Projectile point recovered from 41BX2172.
Figure 15: Edge modified flake/scaper documented at site 41BX2172.

Figure 16: Example of debitage observed on the surface within the site 41BX2172.
Figure 17: Example of debitage documented within a shovel test at site 41BX2172.

The portion of the site that is within the current project area is important for its locational value, but has limited research value based on a lack of features, the paucity of artifacts in general and of diagnostic artifacts in particular, and the absence of intact buried deposits. No further investigation is recommended for the portion of the site that is within the current project area. The site likely extends beyond the project area limits and may include burned rock features containing dateable material.

Site 41BX2173

Site 41BX2173 is a newly recorded prehistoric lithic scatter located in the southeastern end of the project area above and east of Green Mountain Road (Figure 18). The site is situated on sloping upland terrain that is located southeast of the headwaters of Evans Creek. Vegetation at the site is characterized by a scatter of oak, and Ashe Juniper trees and native grasses. Ground surface visibility ranged from 0 to 50 percent at the time of site recordation due to dense leaf litter (Figure 19). Chert cobbles cover the landscape as it erodes from rock outcrops frequently exposed across the project area. Amongst the non-cultural material, archaeologists identified a scatter of lithic debitage, cores and tools. Based on this surficial scatter the site was defined as a 0.6 acre (0.24 ha) area extending roughly 1,050 ft (320 m) north to southeast above the road cut for Green Mountain Road (Figure 20).
This page has been redacted as it contains restricted information
Figure 19: General surface visibility within site 41BX2173.

Figure 20: View of Green Mountain Road cut with site 41BX2173 along the top, looking northwest.
The site was initially discovered along a sloped stretch of the project area with a silt fence running parallel to Green Mountain Road (Figure 21). Vegetation at the site is characterized by mesquite, oak, persimmon, and Ashe Juniper trees and native grasses. The site in general comprises a moderate-density lithic scatter spanning a ridge and its lower terraces. Observed lithic artifacts include debitage, cores, scrapers, and biface fragments. The artifacts were found scattered along the project area eroding down slope, away from the road cut, and scattered across the top of the ridge. Along the top of the landform, the density of artifacts increased with more flakes and cores observed on the surface than on the lower terraces.

![Figure 21: General view of 41BX2173 on lower terrace with silt fencing, looking southeast.](image)

A total of nine shovel tests was excavated within the site. Shovel test deposits generally extended no deeper than 12 inches (30 cm) below surface. Typical soils encountered were brown to very dark grayish brown, cobbly clay loam terminating at bedrock (Appendix A). Of the nine shovel tests excavated within the site, six were positive for cultural material. The positive shovel tests extended over the ridge to the end of the project area; thus, the site likely extends beyond the project area boundary. Artifacts recovered from the shovel tests consisted of roughly 40 pieces of shatter, 3 cores, and 17 flakes. Artifacts scattered across the surface included multiple cores, bifacial fragments, modified flake tools, debitage and shatter (Figure 22, Figure 23, Figure 24, Figure 25). A number of the lithic material observed on the surface was heavily patinated (Figure 26).
Figure 22: Modified flakes collected from the surface at 41BX2173.

Figure 23: Example of debitage and small bifacial fragments observed on the surface at site 41BX2173.
Figure 24: Example of shatter observed within positive shovel test VM15 at 41BX2173.

Figure 25: Example of cores observed on the surface at 41BX2173.
The portion of site 41BX2173 that is within the current project area is important for its locational value, but has limited research value based on a lack of features, the paucity of artifacts in general and of diagnostic artifacts in particular, and the absence of intact buried deposits. In addition, the portion of the site within the project area has experienced extensive disturbance associated with the construction of Green Mountain Road, and previous mining activities as evidenced by overgrown pits and push piles. No further investigation is recommended for the portion of the site that is within the current project area. The site likely extends beyond the project area limits and probably extends across Green Mountain Road.

**Isolated Finds**

Two isolated finds were documented during the course of the archaeological survey (see Figure 5). IF1 consists of three flakes recovered from two shovel tests along the southeastern end of the easement paralleling Evans Road. Vegetation in the area consisted of Ashe Juniper, oak, and grasses. This stretch of the project area was heavily disturbed as the majority fell within the excavated slope toward Evans Road (Figure 27). Soils within the shovel tests were very shallow, very dark brown, cobbly silty clay (Figure 28). One tertiary and one secondary flake were documented between 4 to 8 inches (10 to 20 cm) below the surface in shovel test VM09 (Figure 29) and one tertiary flake was observed in JS12 between 0 to 4 inches (0 to 10 cm) below surface (Figure 30). A total of four additional shovel tests were excavated during delineation, all of which were negative for cultural material. As no other cultural material was encountered, the isolated artifact did not warrant official site designation.
Figure 27: General view of IF1 south of Evans Road.

Figure 28: Profile of positive shovel test JS12.
Figure 29: Lithics from IF1 shovel test VM09.

Figure 30: Lithic from IF1 shovel test JS12.
Isolated Find 2 (IF2) was noted in the 3.3 acre (1.3 ha) location of the proposed water tank (see Figure 5). Vegetation within the area consisted primarily of Ashe Juniper and oak, with small grassy open areas. Due to the wooded nature of the area, ground surface visibility was minimal (Figure 31). A total of six shovel tests were excavated within this area none of which contained cultural materials. Soils were generally very dark gray to dark grayish brown cobbly silty clay (Figure 32). IF2 consisted of two flakes, and one modified flake all observed on the surface within the western portion of the area (Figure 33). No additional cultural material was observed on the ground surface. Due to the lack of additional artifacts in the area, it was recorded as an isolated find.

Figure 31: General view of IF2 surface visibility and vegetation.
Figure 32: Soil profile of negative shovel test VM19.

Figure 33: Artifacts observed at IF2.
Summary and Recommendations

Pape-Dawson conducted an intensive archaeological survey of the proposed Evans Road Water Line and Tank Project in Bexar County, Texas, on behalf of SAWWS. The project area was defined as the 3-mile (4.8-km) water line adjacent to Evans Road and Green Mountain Road, and the 3.3-acre (1.8-ha) water tank location. The water line would be installed adjacent to the southwestern side of Evans Road, adjacent to the southeastern side of Green Mountain Road, and within a 37-ft (11.3-m) easement that would be comprised of an existing 12-ft (3.7-m) permanent easement and a proposed 25-ft (7.6-m) temporary construction easement. The depth of vertical impacts has not yet been determined, but utility installations typically require 6 to 8 ft (1.8 to 2.4 m), while the impacts at the water tank location may be deeper. Thus, the total project area encompasses approximately 16.8 acres (6.8 ha).

All of the project area is either within the COSA City Limits or ETJ Boundary, which required compliance with the COSA UDC. Based on SAWWS' status as a political subdivision of the State of Texas, compliance with the ACT was also required. However, as no Federal funding or permitting was required for this project, compliance with Section 106 of the National Historic Preservation Act was not necessary. The current investigation was conducted in compliance with the ACT and COSA UDC under Antiquities Permit No. 7945.

The background review determined that the project area has not been previously surveyed, and no previously recorded archaeological sites are located within or immediately adjacent to the project area. Pape-Dawson conducted the intensive archaeological survey on March 14 and 22, and April 4, 2017. The project area was subject to visual inspection supplemented by judgmentally placed shovel tests in order to evaluate the potential for buried cultural resources. A total of 62 shovel tests was excavated, exceeding the minimum CTA/THC archaeological survey standards, which require 16 shovel tests per mile for linear project areas and 2 shovel tests per 1 acre for the tank location.

Pape-Dawson archaeologists recorded two new archaeological site (41BX2172 and 41BX2173) and documented two isolated finds. Sites 41BX2172 and 41BX2173 were evaluated according to the criteria in 36 CFR 60.4 (per the UDC) and in 13 TAC 26.10. Both 41BX2172 and 41BX2173 are prehistoric lithic scatters. Based on the primarily surficial nature of the cultural deposits and lack of intact features, sites 41BX2172 and 41BX2173 are not recommended for NRHP inclusion, in compliance with the COSA’s UDC, or for SAL designation.

Pape Dawson recommends that no further cultural resources work is necessary for the proposed project and that construction be allowed to proceed within the project area. However, if undiscovered cultural material is encountered during construction, it is recommended that all work in the vicinity should cease and the COSA archaeologist be contacted to ensure compliance with the UDC. Diagnostic artifacts, project records, and photographs will be curated at the Center for Archaeological Research at The University of Texas at San Antonio.
References Cited

Acuna, Laura
2016  

Black, S.L.
1989  

Bousman, C.B., B.W. Baker, and A.C. Kerr
2004  

Bureau of Economic Geology (BEG)
1983  

Collins, Michael B.
1995  

2004  

Foster, T.R., T. Summerville, and T. Brown
2006  

Moore, Virginia A., Mary Jo Galindo, Alamea N. Young, and Nesta J. Anderson
2016  
*Cultural Resources Investigation of the Fischer Tract Project, Bexar County, Texas.* Prepared for submission to the City of San Antonio Office of Historic Preservation. Pape-Dawson, San Antonio.

Nationwide Environmental Title Research (NETR Online)
2017  

Pertulla, T.K. (editor)
2004  
*The Prehistory of Texas*. Texas A&M University Press, College Station.
Prewitt, E.R.


Schroeder, Eric A.

State Department of Highways and Public Transportation [SDHPT [now TxDOT]]
1984  *Letter Report: Loop 1604 From 0.2 Miles West of the Missouri Pacific Railroad to 0.3 Miles West of the Texas and New Orleans Railroad*, Cultural Resources Assessment, Bexar County. State Department of Highways and Public Transportation, Austin.

Taylor, F. B., R. Hailey, and D. L. Richmond
1991  *Soil Survey of Bexar County, Texas*. U. S. Department of Agriculture, Soil Conservation Service, in cooperation with the Texas Agricultural Experiment Station, Washington, D.C.

Texas Historical Commission (THC)

Thompson, Jennifer L., Kristi M. Ulrich and Barbara A. Meissner

Turner, E. S. and T. R. Hester

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS)

Wermund, E.G.
1996  *Physiographic Map of Texas*. Bureau of Economic Geology. The University of Texas at Austin.

Young, Brandon S. and Joseph M. Sanchez
2014  *Intensive Archeological Survey of Selected Parts of Loop 1604 From US 90 to IH 35 in the City of San Antonio, Bexar County, Texas*. Antiquities Permit No. 5624. Blanton & Associates, Austin

37
Appendix A

Shovel Test Data
<table>
<thead>
<tr>
<th>ST #</th>
<th>Site</th>
<th>Site ST #</th>
<th>Level</th>
<th>Depth</th>
<th>Positive/Negative</th>
<th>Munsell</th>
<th>Soil Color</th>
<th>Soil Texture</th>
<th>Cultural Material</th>
<th>Comments/Reason for Termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>MJ01</td>
<td></td>
<td></td>
<td>1</td>
<td>0-30</td>
<td>N</td>
<td>10YR3/6</td>
<td>very dark yellowish brown</td>
<td>silty clay</td>
<td>none</td>
<td>90 percent limestone cobbles, gravels and pebbles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>30-35</td>
<td>N</td>
<td>7.5YR8/1</td>
<td>white</td>
<td>limestone</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>MJ02</td>
<td>41BX2172</td>
<td>ST08</td>
<td>1</td>
<td>0-30</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>30 percent limestone cobbles, gravels and pebbles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>30-35</td>
<td>N</td>
<td>7.5YR8/1</td>
<td>white</td>
<td>limestone</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>MJ03</td>
<td></td>
<td></td>
<td>1-4</td>
<td>0-35</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>30 percent limestone cobbles, gravels and pebbles.</td>
</tr>
<tr>
<td>MJ04</td>
<td>41BX2172</td>
<td>ST09</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>burned rock</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10-20</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>1 clear glass, 25 burned rock, 7 flakes, 1 core</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>20-30</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>5 burned rock</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>30-40</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at limestone impenetrable cobbles.</td>
</tr>
<tr>
<td>MJ05</td>
<td></td>
<td></td>
<td>1</td>
<td>0-5</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>clay loam</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>MJ06</td>
<td></td>
<td></td>
<td>1-3</td>
<td>0-25</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>clay loam</td>
<td>none</td>
<td>30 percent limestone cobbles, and pebbles. Terminated at bedrock.</td>
</tr>
<tr>
<td>MJ07</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>clay loam</td>
<td>none</td>
<td>30 percent limestone cobbles, and pebbles. Terminated at bedrock.</td>
</tr>
<tr>
<td>MJ08</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>clay loam</td>
<td>none</td>
<td>20 percent limestone cobbles, and pebbles. Terminated at bedrock.</td>
</tr>
<tr>
<td>VM01</td>
<td></td>
<td></td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>10YR4/3</td>
<td>brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>VM02</td>
<td>41BX2172</td>
<td>ST06</td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>10YR2/2</td>
<td>brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>VM03</td>
<td>41BX2172</td>
<td>ST04</td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>10YR2/2</td>
<td>brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>VM04</td>
<td>41BX2172</td>
<td>ST12</td>
<td>1-3</td>
<td>0-30</td>
<td>N</td>
<td>10YR2/2</td>
<td>brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>VM05</td>
<td>41BX2172</td>
<td>ST14</td>
<td>1</td>
<td>0-5</td>
<td>N</td>
<td>10YR2/2</td>
<td>brown</td>
<td>silty clay</td>
<td>none</td>
<td>Flakes observed on surface between VM05 and JS04. Terminated at bedrock.</td>
</tr>
<tr>
<td>VM06</td>
<td>41BX2172</td>
<td>ST10</td>
<td>1-2</td>
<td>0-15</td>
<td>N</td>
<td>5YR3/3</td>
<td>dark reddish brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>VM07</td>
<td>41BX2172</td>
<td>ST02</td>
<td>1-2</td>
<td>0-12</td>
<td>N</td>
<td>5YR3/3</td>
<td>dark reddish brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>ST #</td>
<td>Site</td>
<td>Site ST #</td>
<td>Level</td>
<td>Depth</td>
<td>Positive/Negative</td>
<td>Munsell</td>
<td>Soil Color</td>
<td>Soil Texture</td>
<td>Cultural Material</td>
<td>Comments/Reason for Termination</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-----------</td>
<td>-------</td>
<td>-------</td>
<td>------------------</td>
<td>---------</td>
<td>------------</td>
<td>--------------</td>
<td>-------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>VM08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ST02</td>
<td>0-50</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark gray</td>
</tr>
<tr>
<td>VM09</td>
<td>IF01</td>
<td></td>
<td>1-5</td>
<td>0-50</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark gray</td>
<td>loam</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>VM11</td>
<td></td>
<td></td>
<td>1-6</td>
<td>0-55</td>
<td>N</td>
<td>2.5YR5/6 mottled with 10YR3/2, 10YR7/2 and 7.5YR5/8</td>
<td>red mottled with very dark grayish brown, light gray, and strong brown</td>
<td>compact silty clay</td>
<td>none</td>
<td>Terminated at sterile soils.</td>
</tr>
<tr>
<td>VM12</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-18</td>
<td>N</td>
<td>10YR4/2</td>
<td>very dark brown</td>
<td>cobbly clay</td>
<td>none</td>
<td>Terminated at sterile soils.</td>
</tr>
<tr>
<td>VM13</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-9</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>very cobbly silty clay loam</td>
<td>none</td>
<td>Terminated at impassable cobbles.</td>
</tr>
<tr>
<td>VM14</td>
<td>ST02</td>
<td></td>
<td>1-3</td>
<td>9-30</td>
<td>N</td>
<td>10YR3/2 mottled with 10YR8/1</td>
<td>very dark grayish brown mottle with white</td>
<td>clay loam</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>VM15</td>
<td></td>
<td>41BX2173</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>35 shatter/burned rock, 7 flakes, 1 core</td>
<td>Various lithic debris scattered across surface.</td>
</tr>
<tr>
<td>VM15</td>
<td></td>
<td></td>
<td>2</td>
<td>10-20</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>VM15</td>
<td></td>
<td></td>
<td>3</td>
<td>20-25</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
</tbody>
</table>

**Notes:**
- **VM08:** 1-5: Depth range 0-50
- **VM09:** IF01: Site Site ST #
- **VM11:** 1-6: Level 0-55
- **VM12:** 1-2: Level 0-18
- **VM13:** 1-2: Level 0-9
- **VM14:** 1-3: Level 9-30
- **VM15:** ST02: Site 41BX2173
### Table A-1. Shovel Test Data

<table>
<thead>
<tr>
<th>ST #</th>
<th>Site</th>
<th>Site ST #</th>
<th>Level</th>
<th>Depth</th>
<th>Positive/Negative</th>
<th>Munsell</th>
<th>Soil Color</th>
<th>Soil Texture</th>
<th>Cultural Material</th>
<th>Comments/Reason for Termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM16</td>
<td>41BX2173</td>
<td>ST09</td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>20-30</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>VM17</td>
<td></td>
<td></td>
<td>1-3</td>
<td>0-25</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td>Terminated at impassable cobbles.</td>
</tr>
<tr>
<td>VM18</td>
<td></td>
<td></td>
<td>1-4</td>
<td>0-35</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td>Terminated at impassable cobbles.</td>
</tr>
<tr>
<td>VM19</td>
<td>IF02</td>
<td></td>
<td>1</td>
<td>0-5</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>cobbly clay loam</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1-2</td>
<td>5-19</td>
<td>N</td>
<td>10YR3/2 mottled with 10YR7/8 and 10YR8/1</td>
<td>very dark grayish brown mottle with yellow and white</td>
<td>cobbly clay loam</td>
<td>none</td>
<td>Terminated at impassable cobbles.</td>
</tr>
<tr>
<td>JS01</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS02</td>
<td>41BX2172</td>
<td>ST07</td>
<td>1-2</td>
<td>0-15</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS03</td>
<td>41BX2172</td>
<td>ST05</td>
<td>1-2</td>
<td>0-15</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS04</td>
<td>41BX2172</td>
<td>ST01</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>1 flake</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS05</td>
<td>41BX2172</td>
<td>ST13</td>
<td>1-3</td>
<td>0-25</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS06</td>
<td>41BX2172</td>
<td>ST03</td>
<td>1-3</td>
<td>0-25</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS07</td>
<td>41BX2172</td>
<td>ST11</td>
<td>1-3</td>
<td>0-30</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS08</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-15</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS09</td>
<td></td>
<td></td>
<td>1-3</td>
<td>0-25</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>JS10</td>
<td></td>
<td></td>
<td>1-3</td>
<td>0-30</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at impassable gravels.</td>
</tr>
<tr>
<td>JS11</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR4/1 with 2.5Y6/6</td>
<td>olive yellow with dark gray</td>
<td>clay</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3-6</td>
<td>20-60</td>
<td>N</td>
<td>2.5Y6/6 with 10YR4/1</td>
<td>dark gray with olive yellow</td>
<td>clay loam with clay</td>
<td>none</td>
<td>Terminated at sterile soils.</td>
</tr>
<tr>
<td>JS12</td>
<td>IF01</td>
<td></td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>1 flake</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10-20</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at impassable gravels.</td>
</tr>
<tr>
<td>JS13</td>
<td></td>
<td></td>
<td>1-5</td>
<td>0-50</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6-8</td>
<td>50-80</td>
<td>N</td>
<td>10YR4/2</td>
<td>dark grayish brown</td>
<td>silty loam</td>
<td>none</td>
<td>Terminated at sterile soils.</td>
</tr>
<tr>
<td>ST #</td>
<td>Site</td>
<td>Site ST #</td>
<td>Level</td>
<td>Depth</td>
<td>Positive/Negative</td>
<td>Munsell</td>
<td>Soil Color</td>
<td>Soil Texture</td>
<td>Cultural Material</td>
<td>Comments/Reason for Termination</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-----------</td>
<td>-------</td>
<td>-------</td>
<td>------------------</td>
<td>---------</td>
<td>------------</td>
<td>--------------</td>
<td>------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>JS14</td>
<td></td>
<td></td>
<td>1-4</td>
<td>0-40</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at large root.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>20-30</td>
<td>N</td>
<td>2.5Y6/6</td>
<td>olive yellow</td>
<td>degrading limestone</td>
<td>none</td>
<td>Terminated at degrading limestone bedrock.</td>
</tr>
<tr>
<td>JS16</td>
<td></td>
<td></td>
<td>1</td>
<td>0–10</td>
<td>N</td>
<td>7.5YR8/1</td>
<td>white</td>
<td>degrading limestone</td>
<td>none</td>
<td>Terminated at degrading limestone bedrock.</td>
</tr>
<tr>
<td>JS17</td>
<td>41BX2173</td>
<td>ST08</td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>none</td>
<td>flake on surface near by.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10-15</td>
<td>N</td>
<td>7.5YR8/1</td>
<td>white</td>
<td>degrading limestone</td>
<td>none</td>
<td>Terminated at degrading limestone bedrock.</td>
</tr>
<tr>
<td>JS18</td>
<td>41BX2173</td>
<td>ST04</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>1 flake, 1 core, 1 shatter</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10-20</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>20-25</td>
<td>N</td>
<td>7.5YR8/1</td>
<td>white</td>
<td>degrading limestone</td>
<td>none</td>
<td>Terminated at degrading limestone bedrock.</td>
</tr>
<tr>
<td>JS19</td>
<td>41BX2173</td>
<td>ST05</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>loam</td>
<td>1 flake</td>
<td></td>
</tr>
<tr>
<td></td>
<td>41BX2173</td>
<td>ST05</td>
<td>2</td>
<td>10-20</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>loam</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>JS19</td>
<td>41BX2173</td>
<td>ST05</td>
<td>3</td>
<td>20-30</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>loam</td>
<td>none</td>
<td>Terminated at degrading limestone bedrock.</td>
</tr>
<tr>
<td>JS20</td>
<td></td>
<td></td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>10YR3/1</td>
<td>very dark gray</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at impassable gravels.</td>
</tr>
<tr>
<td>JS21</td>
<td>IF02</td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>none</td>
<td>1 flake observed on surface near by. Terminated at impassable gravels.</td>
</tr>
<tr>
<td>JS22</td>
<td>IF02</td>
<td></td>
<td>1</td>
<td>0–5</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>silty clay</td>
<td>none</td>
<td>Terminated at limestone bedrock.</td>
</tr>
<tr>
<td>KH01</td>
<td></td>
<td></td>
<td>1-5</td>
<td>0-50</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>loamy clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>KH02</td>
<td>IF01</td>
<td></td>
<td>1-4</td>
<td>0-40</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>loamy clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>KH03</td>
<td>IF01</td>
<td></td>
<td>1-4</td>
<td>0-40</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>KH04</td>
<td>IF01</td>
<td></td>
<td>1-2</td>
<td>0-15</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>KH05</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR3/2 with 10YR2/1</td>
<td>very dark grayish brown with black</td>
<td>sandy clay</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>20-25</td>
<td>N</td>
<td>10YRS/8</td>
<td>yellowish brown</td>
<td>clay fill</td>
<td>none</td>
<td>Terminated due to disturbed soils.</td>
</tr>
<tr>
<td>ST #</td>
<td>Site</td>
<td>Site ST #</td>
<td>Level</td>
<td>Depth</td>
<td>Positive/Negative</td>
<td>Munsell</td>
<td>Soil Color</td>
<td>Soil Texture</td>
<td>Cultural Material</td>
<td>Comments/Reason for Termination</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-----------</td>
<td>-------</td>
<td>-------</td>
<td>------------------</td>
<td>----------</td>
<td>------------</td>
<td>--------------</td>
<td>------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>KH06</td>
<td></td>
<td></td>
<td>1-4</td>
<td>0-40</td>
<td>N</td>
<td>10YR4/2</td>
<td>brown</td>
<td>loamy clay</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>40-50</td>
<td>N</td>
<td>10YR4/2 with 7.5YR6/3</td>
<td>brown with light brown</td>
<td>loamy clay</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>KH07</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-20</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>loamy clay</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>KH08</td>
<td></td>
<td></td>
<td>1-2</td>
<td>0-15</td>
<td>N</td>
<td>10YR2/1</td>
<td>black</td>
<td>loamy clay</td>
<td>none</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>KH09</td>
<td></td>
<td></td>
<td>1</td>
<td>0-5</td>
<td>N</td>
<td>degrading limestone</td>
<td>none</td>
<td>Degrading limestone throughout. Terminated at bedrock.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH10</td>
<td>41BX2173</td>
<td>ST01</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>loam</td>
<td>1 flake</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
<tr>
<td>KH11</td>
<td>41BX2173</td>
<td>ST07</td>
<td>1</td>
<td>0-10</td>
<td>N</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>loam</td>
<td>none</td>
<td>Terminated at degrading limestone bedrock.</td>
</tr>
<tr>
<td>KH12</td>
<td>41BX2173</td>
<td>ST03</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>sandy clay</td>
<td>1 flake</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>10-20</td>
<td>P</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>sandy clay</td>
<td>4 flakes, 1 core, 4 shatter</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>20-30</td>
<td>N</td>
<td>10YR2/2</td>
<td>very dark brown</td>
<td>sandy clay</td>
<td>none</td>
<td>Terminated at bedrock.</td>
</tr>
<tr>
<td>KH13</td>
<td>41BX2173</td>
<td>ST06</td>
<td>1</td>
<td>0-10</td>
<td>P</td>
<td>10YR3/2</td>
<td>very dark grayish brown</td>
<td>loam</td>
<td>3 flakes, 1 shatter</td>
<td>Degrading limestone cobbles throughout. Terminated at bedrock.</td>
</tr>
</tbody>
</table>