Archaeological Phase I Testing of 41BP854 at the Texas Army National Guard's Camp Swift Training Facility in Bastrop County, Texas

by
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Principal Investigator
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Preparedfor:
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The University of Texas at San Antonio
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Archaeological Report, No. 431

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Abstract

In November 2009, the Center for Archaeological Research (CAR) of The University of Texas at San Antonio, at the request of the Texas Army National Guard (TXARNG) conducted archaeological Phase I Testing of a partially documented historical site on the TXARNG's Camp Swift training facility located in Bastrop County, Texas, for the Adjutant General's Office. Dr. Raymond Mauldin, CAR Assistant Director, served as Principal Investigator. The investigation consisted of a pedestrian survey accompanied by shovel testing of approximately six acres (2.43 ha) of wooded land on the 11,500-acre (4654-ha) facility. The site was previously identified by personnel from the Cultural Resources Department of the TXARNG.

While only three artifacts were recovered from shovel tests, a large surface scatter of historic artifacts was recorded on the site, including three features. One feature appears to be the foundation of a structure. Another, a brick alignment in close proximity to large numbers of glazed brick and a probable waster-sherd pile, appears to be the remnant of a pottery kiln. The third feature, a grouping of gravestone fragments, indicates that the property belonged to the William Scarborough family in the late 1800s. Due to the probable location of a kiln and the potential for a burial on the site, the CAR recommends that the site, 41BP854, be considered potentially eligible for the National Register of Historic Places (NRHP). Based on the potential significance of the cultural features, the site should be protected from future impact.

Following laboratory processing and analysis, and in consultation with both the TXARNG and the Texas Historical Commission (THC), all sediment samples were discarded. This discard was in conformance with THC guidelines. All remaining archaeological samples collected by the CAR, along with all associated documents, notes, and photographs, were prepared for curation according to THC guidelines and are temporarily curated at the CAR at The University of Texas at San Antonio and will be permanently curated at the Texas Archeological Research Laboratory (TARL) in Austin, Texas. The CAR requested and was assigned a trinomial (41BP854) for the site. The TexSite records are on file at TARL.

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Acknowledgements

The author would like to thank LTC Dennis Tilson, training site manager, and MAJ Ed Limbo, range manager, at the Camp Swift training facility and Kristen Mt. Joy, Mark Pane, and Marie Archambeault (formerly) of the Cultural Resources Management Program in the Adjutant General's Office for their assistance. Dr. Raymond Mauldin, CAR Assistant Director, served as Principal Investigator on the project. The field crew consisted of the author, Cody Miller, and Raymond Mauldin. Melissa Eiring prepared the artifacts and paperwork for curation. Kelly Harris drafted the final figures and acted as editor for the final manuscript.

Introduction

In November 2009 the Center for Archaeological Research (CAR) of The University of Texas at San Antonio conducted Phase I Testing on a partially documented, but not formally recorded, historic site located on the TXARNG's Camp Swift training facility in north-central Bastrop County, Texas. Camp Swift, roughly 13 km south of the City of Elgin and 13 km north of the City of Bastrop, lies on the Lake Bastrop and Elgin East Texas USGS 7.5-minute quadrangles (Figure 1). The work was performed for the Adjutant General's Office with Dr. Raymond Mauldin, CAR Assistant Director, serving as Principal Investigator.

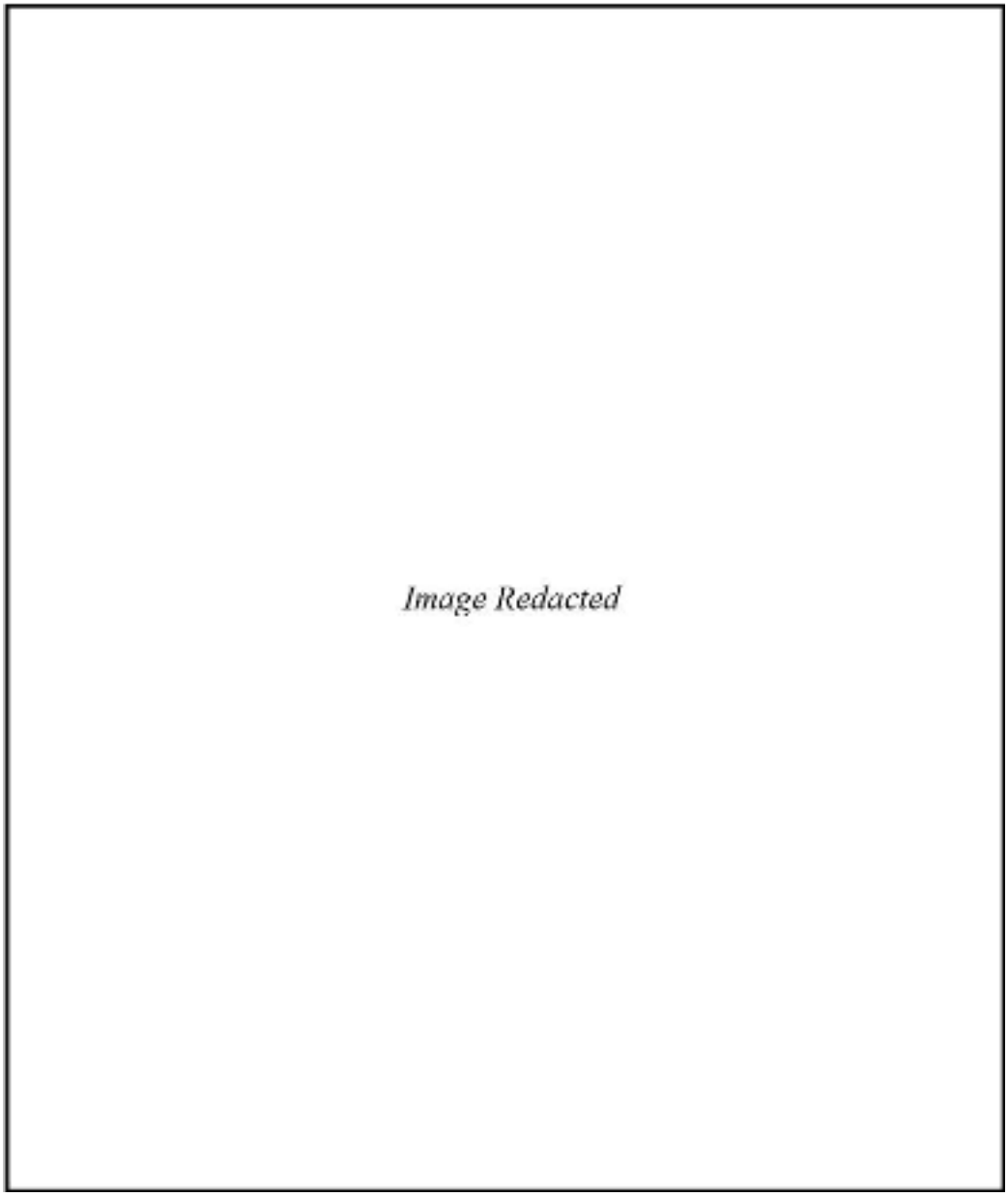

Figure 1. *Project area on the Lake Bastrop and Elgin East Texas USGS 7.5-minute quadrangle maps.*

The site was first identified and partially documented by TXARNG personnel during construction of a Volksmarch trail in the area in 2008. Because of the possibility of damage to the site from the installation of firebreaks to suppress a large wildfire in July 2009 (Figure 2), the CAR was contracted to complete the site documentation and to make a recommendation as to the site's NRHP eligibility. The testing consisted of a pedestrian survey accompanied by shovel testing of approximately six wooded acres (2.43 ha) encasing structural remnants and surface artifacts located on the southwestern portion of the approximately 11,500-acre (4,654 ha) facility (Figure 3). The testing resulted in the documentation and delineation of historic site 41BP854.

This document summarizes the results of the fieldwork and provides recommendations regarding the management and NRHP eligibility of cultural resources located on this facility. Following the introduction, the report provides a brief overview of the project area and summarizes the archaeological knowledge about the region. It then discusses the fieldwork and laboratory methodology employed during the project followed by the results of the archaeological testing and recommendations for site 41BP854.

Project Environs

The Camp Swift training facility consists of rolling terrain dissected by both intermittent and flowing streams. The facility is drained by Big Sandy Creek and its tributaries, Dogwood Creek, Dogwood Branch, McLaughlin Creek, and Harris Creek, which eventually discharge into the Colorado River, approximately 13 km to the southwest (Handbook of Texas Online 2010). The project area, located immediately southeast of Dogwood Branch, ranges in elevation from 158 to 162 m (520 to 530 ft.) AMSL.

The geologic strata on Camp Swift consists primarily of recent sediments and soils that overlay sandstone and yellowish-brown to light gray mudstone beds with ironstone inclusions and lignite seams. This bedrock formation, the Wilcox Group-Calvert Bluff formation, was laid down during the Paleocene-Eocene Epochs (Barnes 1974). Weathering of the bedrock has resulted in red buff-colored sandy soils deposited through colluvial, alluvial, and possible eolian processes (Bousman and Fields 1988; Frederick and Bateman 2001). Camp Swift is largely composed of Axtell, Demona, Patilo,

Figure 2. *Damage on the project area from a large wildfire in July 2009.*

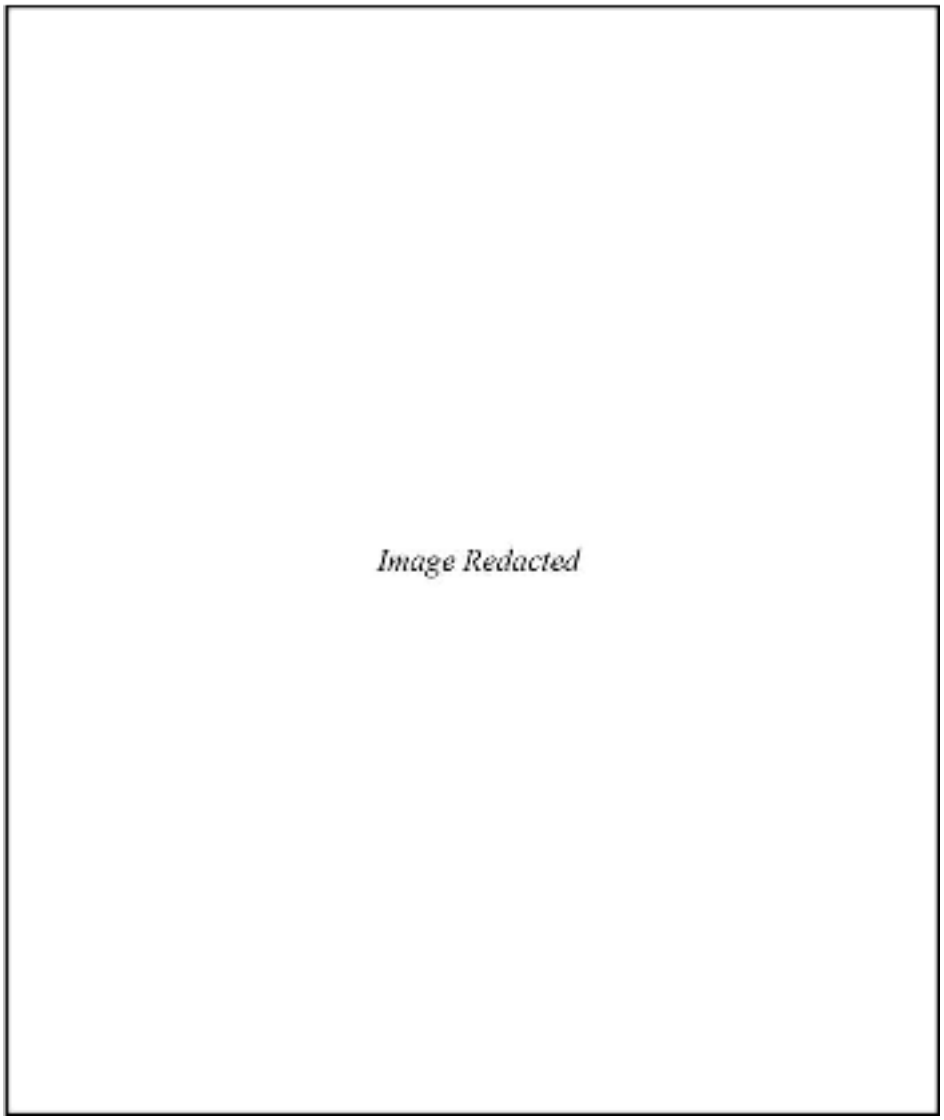

Figure 3. *Aerial photograph of the project area on the Camp Swift training facility.*

Siltsid, Tabor, and Gowen series soils associated with stream terraces, uplands, ridgetops, sideslopes, floodplains, and bottomlands (Baker 1979). The six-acre project area contains approximately equal halves of Edge fine sandy loam (AfC) and Wilson clay loam (WsB). AfC soils are associated with ridges and derive from residuum parent material weathered from shale and siltstone in the Wilcox formation of Eocene age. AfC soils are more than 2-m deep and are composed of fine sandy loam transitioning to clay at 20 cm, and to clay loam at 46-cm below surface (cmbs; Web Soil Survey 2010). Wilson clay loams are found on stream terraces and originate from clayey alluvium of quaternary age derived from mixed sources. This soil type is over 2-m deep, consisting of approximately 15 cm of clay loam overlying clay (Web Soil Survey 2010).

The Camp Swift training facility is located within the Post Oak Savannah floral province. This non-pastured area of vegetation consists largely of post oak (*Quercus stellata*) and blackjack oak (*Quercus marilandica*), red cedar (*Juniperus virginiana*), and loblolly pine (*Pinus taeda*) with some black hickory (*Carya texana*) dominating the upper story. The understory consists of flora typical of tall grass prairies, which are dominated by little bluestem (*Schizachyrium scoparium*). Also present in the understory are switchgrass (*Panicum virgatum*), purpletop (*Tridens flavus*), silver bluestem (*Bothriochloa saccharoides*), and Texas wintergrass (Stipa leucotricha; Gould 1975).

Bastrop County falls within the Texan biotic province. The common mammalian species found in this region include

white-tailed deer (*Odocoileus virginianus*), eastern cottontail rabbit (*Sylvilagus floridanus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and fox squirrel (*Sciurus niger*). There are also numerous bird species common throughout the county including the northern bobwhite (*Colinus virginianus*), eastern meadowlark (*Sturnella magna*), mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferous*), field sparrow (*Spizella pusilla*), red-tailed hawk (*Buteo jamaicensis*), and belted kingfisher (*Ceryle alcyon*; Blair 1950).

Climate in this region is typically humid and subtropical with cool winters and hot summers. Rainfall distribution is almost even throughout the year with a slight increase between April and June and again in September. Average annual rainfall for Bastrop County is 36.82 in. (93.52 cm), and temperatures range from an average January low of 40ºF to an average July high of 96ºF (Marks 2013). The annual growing season in Bastrop County is 270 days (Marks 2013).

Cultural History

In Central Texas, researchers have been able to document a long prehistoric sequence that can be broken down into four major time periods: Paleoindian, Archaic, Late Prehistoric, and Historic (Black 1989; Collins 1995; Prewitt 1981). These periods are further divided into subperiods that correspond to changing material cultures. Each of these time periods is briefly discussed here to illustrate the general archaeological potential of the region.

Paleoindian

The Paleoindian period (11,500-8800 BP) is often divided into early and late subperiods, and each is characterized by particular projectile point styles and subsistence patterns (Collins 1995). The period begins at the close of the Pleistocene with the earliest evidence of humans in the Central Texas region. In addition to Clovis and Folsom point types, bifacial Clear Fork tools and finely flaked end scrapers characterize the early Paleoindian period (Black 1989). The first stemmed points (i.e., Wilson), as opposed to lanceolate points (i.e., Angostura and Golondrina), begin to appear during the late Paleoindian period. The earliest Native Americans have often been assumed to be hunter-gatherers subsisting primarily on large game including mastodon, mammoth, and *Bison antiquus*. However, recent research from the Wilson-Leonard site in Central Texas (Collins 1998) and new perspectives on Paleoindian adaptations (Tankersley and Isaac 1990) indicate that the diet of these early inhabitants may have been much broader.

In Central Texas many of the sites containing Paleoindian materials are found on high terraces, valley margins, and upland locations (Black 1989). This seems to fit with a broader pattern of Paleoindian site distributions where sites are located on landforms providing views of the surrounding landscape, are centered on critical resource zones, or are found in highly productive resource areas (Tankersley and Isaac 1990). Common Paleoindian locations include burial, cache, camp, kill, quarry, and ritual sites. Projectile points are also often recovered as isolated finds from a variety of landforms (Collins 1995; Hester 1995).

Archaic

The Archaic period (8800-1200 BP) is identified as a period of intensification of hunting and gathering and a move toward greater exploitation of local resources. As a result, a broadening of the material culture is evident, including the "extensive use of heated rock" in cooking (Collins 1995:383). Food processing technologies appeared to have broadened as features such as hearths, middens, and ovens increase in frequency during this time (Black and McGraw 1985). Large cemeteries also appeared during this period signaling the likely establishment of regional "territories" (Black and McGraw 1985).

The Early, Middle, and Late Archaic subperiods correspond with changes in climatic conditions and resource availability and are distinguished by differences in diagnostic projectile points (Collins 1995). During the Early Archaic (8800-5000 BP), a variety of Early Corner-Notched (Uvalde, Martindale, and Baker) and then later Early Basal-Notched (Bell and Andice) points appeared across Central Texas. Early Archaic sites are often recorded on river terraces or on hills overlooking valleys (Hester 1995:439). A new set of temporally diagnostic artifacts are associated with the onset of the Middle Archaic (5000-2400 BP) including Pedernales, Langtry, Kinney, and Bulverde point types as well as triangular bifaces and tubular stone pipes (Black 1989; Hester 1995). In addition to the upland setting, Middle Archaic campsites are commonly located on floodplains, low terraces, and natural levees. The Late Archaic (2400-1200 BP) is characterized by the presence of Shumla, Montell, and Marcos point types and a diminution of projectile point sites near the end of the subperiod (i.e. Ensor, Ellis, and Figueroa). Late Archaic sites are usually located near modern stream channels and occur in all topographic settings (Black 1989; Hester 1995).

Late Prehistoric

The Late Prehistoric period (1200-350 BP) in Central Texas marks a distinctive shift from the use of the atlatl

and dart to the use of the bow and arrow (Black 1989). This period is further subdivided into two phases termed the Austin and Toyah.

The Austin Phase occurred between 1200 BP and 650 BP (Prewitt 1981) and is marked by several temporal diagnostics including Scallorn and Edwards arrow points. It appears that the use of burned rock middens may have reached its peak during this phase (Black and Creel 1997). The introduction of ceramics to Central Texas coincides with the beginning of the Toyah Phase, which spans the final three centuries of the Late Prehistoric (Black 1989). Characteristic artifacts of this phase include Perdiz and Cliffton arrow points (Black 1986). Material culture associated with the Late Prehistoric period points to increasing complexity in subsistence patterns and to very large prehistoric populations (Black 1989; Collins 1995).

Historic

The Historic period in South Texas begins with the arrival of Europeans. Although the Historic period theoretically begins in Texas with the shipwreck of the Narvaez expedition along the Texas coast in 1528, the majority of the inhabitants of Texas were Native Americans until the late eighteenth century. From AD 1550 to the late 1600s European forays into South and Central Texas were infrequent. The first Europeans settled in the region in early AD 1700 (Taylor 1996). The southward incursion of the Comanche and Apache and the northward expansion of Spanish influence led to the displacement of many of the area's indigenous groups. Decimated by disease brought by Europeans, many of the remaining groups sought refuge in the numerous Spanish missions established early in the eighteenth century (Moses 2004). The move to the missions significantly impacted the hunter-gatherer way of life and the material culture. Artifacts from the Historic period reflect European influences and include ceramics, glass, and metal along with pre-Hispanic Goliad wares and lithic arrow points, gunflints, and tools.

In Bastrop County, the early Historic period was emphasized by Spanish *entradas* across the region, including those by Domingo Terán de los Rios in 1691, Pedro de Aguirre in 1709, and Louis Jucherean St. Denis in 1714 (Foster 1995). In 1804 a small Spanish fort, Puesta de Colorado, was constructed at the Camino Real crossing of the Colorado River (Leffler 2001). This location was colonized by Stephen F. Austin in 1830 as the center of his "Little Colony" (Marks 2010b). Due to altercations with Native American groups, settlement further westward into the Camp Swift area was scarce until roughly 1836 when Texas gained independence from Mexico, and the Texas Rangers offered settlers better protection (Leffler 2001). Generous land grants offered by the Republic of Texas, a treaty with the Comanche in 1845, and the expansion of the railroads into the region in the 1870s resulted in the arrival of more people, new towns, such as Sayersville, McDade, Oak Hill, and Elgin, and a substantial increase in farming on the Camp Swift area (Leffler 2001). At the outbreak of World War II, the United States Army began to acquire land for the construction of a military training base near Bastrop. A total of 55,906 acres (22,624 ha) was originally purchased displacing approximately 350 families. By 1943 Camp Swift was the largest training facility in Texas (Leffler 2001).

Previous Archaeological Investigations

Two hundred and ninety-four archaeological sites have been documented as a result of multiple investigations at Camp Swift training facility, including 228 ineligible sites, 54 potentially eligible sites, and 12 eligible sites for the NRHP. Multiple archaeological investigations have been completed on the facility over the last 30 years. These investigations include a 1975 University of Texas Anthropological Society (UT-TAS) survey (Fawcett, Jr. 1975), a 1979 Lower Colorado River Authority (LCRA) survey (Skelton and Freeman 1979), several Espey, Huston & Associates (EH&A) surveys (Moore 1987; Nash et al. 1996; Schmidt and Cruse 1995), a series of AGTX surveys (Leshley 1994, 1996; Robinson 2001; Stringer and Wormser 1996; Sullo and Wormser 1996; Wormser 1993a, b, 1994; Wormser et al. 1997; Wormser and Leshley 1995; Wormser and Sullo 1996), two 2000 University of Texas at San Antonio Center for Archaeological Research (UTSA-CAR) surveys (Prochnow 2001; Robinson et al. 2001), two Center for Archaeological Studies (CAS) surveys (Nickels et al. 2010; Nickels et al. 2005), and four CAS testing projects (Lohse and Bousman 2006; Nickels and Bousman 2008; Nickels and Lehman 2004 Nickels et al. 2003).

A review of the 294 documented sites on the Camp Swift training facility revealed that 16 sites lie within a 1.5-km radius of the subject of this report, site 41BP854 (Figure 4): 7 prehistoric (41BP127, 41BP498, 41BP522, 41BP524, 41BP527, 41BP528, and 41BP799) and 9 historic (41BP160-163, 41BP166, 41BP169, 41BP400, 41BP514, and 41BP794). Of the 16 sites, only 41BP528 was recommended as potentially eligible for the NRHP.

Site 41BP528 was originally documented by the AGTX in 1996/1997 and UTSA-CAR (Robinson 2001; Robinson et al. 2001), then followed first by Phase I Testing (Nickels and Lehman 2004) and later by Phase II Testing (Lohse

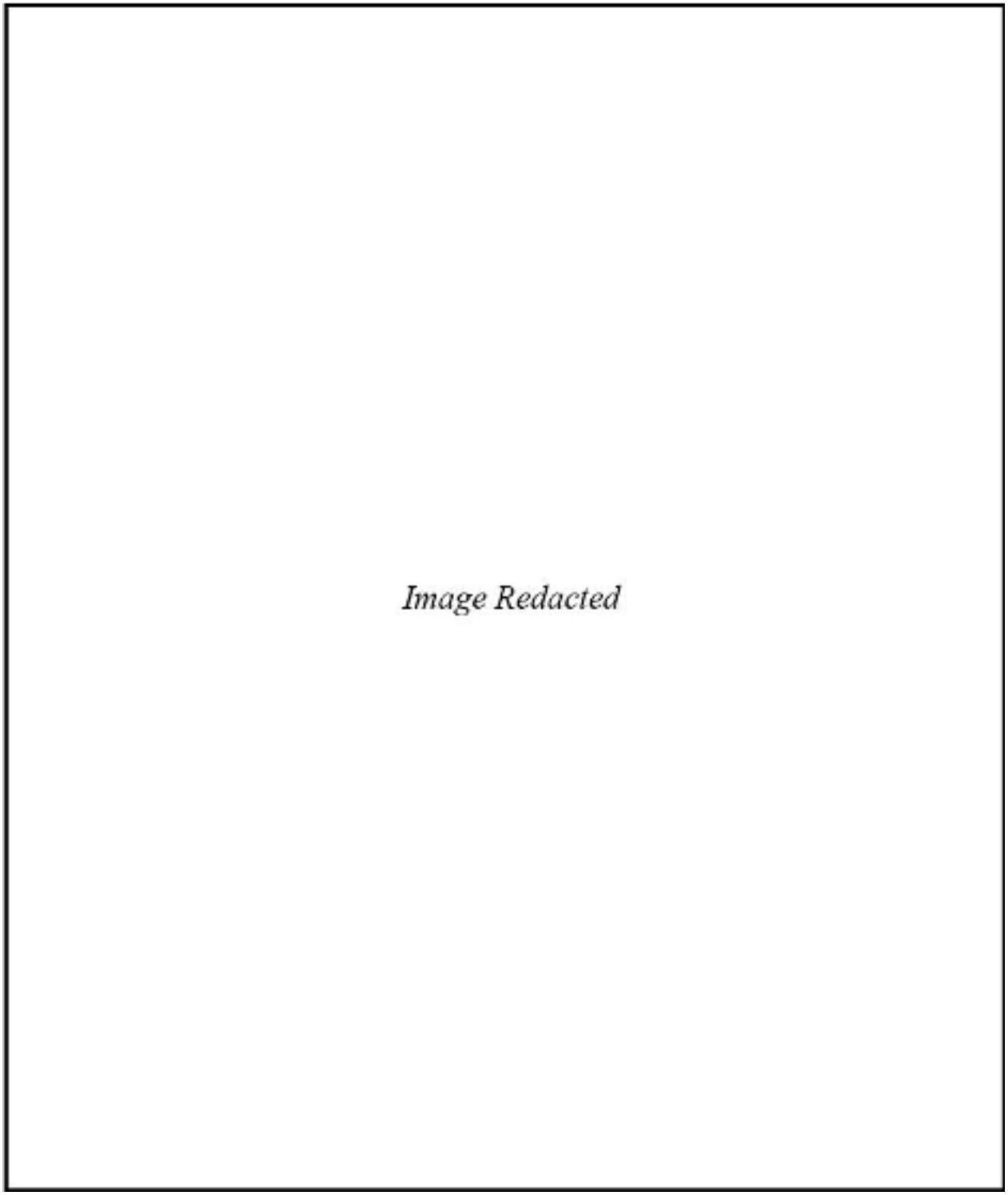

Figure 4. *Archaeological sites located within a 1.5-km radius of 41BP854.*

and Bousman 2006). It is a single component site (Late Archaic) of 2,400 m² situated approximately 1,243 m north of 41BP854. Artifacts recovered from shovel tests and test units include large amounts of burned rock, debitage, and a Bulverde-type point. No cultural material was evident on the surface. The site was recommended as potentially eligible due to the possibility of more intact buried deposits.

The remaining six prehistoric sites, three open campsites and three lithic scatters, ranging in size from 700 to 22,284 m², were investigated by Skelton and Freeman (1979) for the LCRA (41BP127), Robinson (2001) and Robinson et al. (2001) of the AGTX/UTSA-CAR (41BP127, 41BP498, 41BP522, 41BP524, and 41BP527), Nickels et al. (2003) of CAS (41BP127, 41BP498, and 41BP527), and Nickels et al. (2010) of CAS (41BP127 and 41BP799). Two of the sites are located approximately 1,480 m southwest and four roughly 1,245 m north-northeast of 41BP854 (see Figure 4). No diagnostic material was recovered from any of the sites. Two of the sites consisted of surface scatters only, and one contained only buried material. All six sites were shovel tested.

The nine historic sites near 41BP854 (see Figure 4) consist of three house sites (41BP160/161, 41BP162, and 41BP169), two corrals (41BP166 and 41BP794), two wells (41BP163 and 41BP514), and one trash scatter (41BP400). It is likely that 41BP160 and 41BP161 are the same site, bisected by Oak Hill Cemetery Road (Nickels et al. 2010; Robinson 2001; Robinson et al. 2001; Skelton and Freeman 1979). The sites, covering approximately 100 m², consist of the remains of several outbuildings, a corral, and a scatter of historic artifacts including brick, ceramics, glass, and metal. This may have been the site of the Cottle family house (Nickels et al. 2010). Located adjacent to Oak Hill Cemetery Road approximately 369 m up the road from the Cottle home site are the remains of a corral, site 41BP794, formerly owned by H. Washington (Nickels et al. 2010). The enclosure covers roughly 121 m².

Also located adjacent to Oak Hill Cemetery Road, 41BP162 consists of house and cistern footings, as well as scatters of brick, ceramics, glass, metal, and mortar. This site measures roughly 55 m² and was the site of the Scruggs homestead occupied prior to 1920 until World War II (Nickels et al. 2010; Robinson 2001; Robinson et al. 2001; Skelton and Freeman 1979). Two of the historic sites are located in the immediate vicinity of the Scruggs' house site. 41BP163 consists of a well and is approximately 150 m from the house, and 41BP166, the remains of a corral, is located roughly 171 m away (Robinson 2001; Robinson et al. 2001; Skelton and Freeman 1979).

The fourth house site, 41BP169 is located roughly 1,100 m north-northeast of the Scruggs' and Cottle's home sites. The site is approximately 93 m² and consists of brick, ceramics, footings, and glass (Robinson 2001; Robinson et al. 2001; Skelton and Freeman 1979). 41BP400, located along Oak Hill Cemetery Road, consists of a historic trash scatter. Ceramics and glass were recovered from this 400 m² dump (Robinson 2001; Robinson et al. 2001). A second well, 41BP514, is not situated near the road but is roughly 1,344 m to the east of 41BP854. The site, 119 m², contains remnants of a hand-dug brick well, lumber, and metal (Robinson 2001; Robinson et al. 2001).

Field and Laboratory Methods

As part of the archaeological services provided to the TXARNG and in accordance with the THC guidelines, the CAR was contracted to conduct the following fieldwork: 1) complete a 100 percent pedestrian survey accompanied by shovel testing of the area surrounding the foundation and artifact scatter revealed during the Volksmarch trail construction; 2) provide GPS data for all shovel tests; 3) identify, delineate, and provide GPS data for the boundary of the site; 4) record the site and request a trinomial; 5) deliver shape files of the site boundary to the TXARNG; and 6) make a recommendation as to the site's NRHP eligibility. This section presents the field and laboratory methods used during the archaeological investigations of 41BP854.

Field Methods

The total area encompassing the foundation and artifact scatter is approximately 6 acres (2.43 ha). The archaeological investigation consisted of a pedestrian survey and shovel testing. The CAR field crew traversed the project area notating, photographing, and recording surface feature and artifact concentrations with Trimble Geo XT GPS units. Surface artifacts were not collected. Aerial photographs, GPS units, and hand-held compasses were used to orient crew members.

To delineate the boundary of the cultural material concentration and fulfill THC minimum standards for site documentation, 14 shovel tests (STs) were excavated, 12 immediately outside the scatter of surface artifacts and two near features inside the site. Shovel tests were 30 cm in diameter and, when not prevented by obstacles (i.e. cobbles, large roots), extended to 60 cmbs or until sterile subsoil was encountered. The shovel tests were excavated in 10-cm increments, and all soil from each level was screened through 1/4-inch hardware cloth. A small bag of soil was sampled from each level and returned to the CAR for soil susceptibility and Munsell color analysis. All artifacts encountered in shovel tests were recovered by

appropriate provenience and returned to the CAR laboratory for processing, analysis, and curation. A standardized shovel test form was completed for each shovel test, even if no artifacts were recovered. Data collected from each shovel test included the final excavation depth, a tally of all materials recovered from each 10-cm level, and a brief soil description (hardness and inclusions). The location of every shovel test was identified through the use of GPS units. Shovel test locations were sketched onto aerial photographs as a backup to GPS provenience information. Any additional observations considered pertinent were included as comments on the standard shovel test excavation form. Based on the results of shovel testing, the site boundary was plotted on an aerial photograph and a topographic quadrangle map using location data collected with a GPS unit. A TexSite form was prepared, and a trinomial was obtained.

Laboratory Methods

Cultural materials and records obtained and/or generated during the project were prepared in accordance with federal regulation 36 CFR part 79 and THC requirements for State Held-in-Trust collections. Additionally, the materials were curated in accordance with current guidelines of the Texas Archaeological Laboratory (TARL). Artifacts processed in the CAR laboratory were washed, air-dried and stored in 4-mm zip locking archival-quality bags. Materials needing extra support were double-bagged. Acid-free labels were placed in all artifact bags. Each label contained provenience information and a corresponding lot number written in archival ink, with pencil, or produced by a laser-printer. Artifacts were separated by class and stored in acid-free boxes. Digital photographs were printed on acid-free paper, labeled with archivally appropriate materials, and placed in archival-quality sleeves. All field forms were completed with pencil. Upon completion of the project, collected materials were temporally housed at the CAR.

Results

Using a Trimble Geo XT GPS unit, the artifact scatters recorded at the time of the Volksmarch trail construction were located. The CAR field crew traversed the area (approximately 6 acres; 2.43 ha) surrounding these artifacts. This resulted in the documentation of a large scatter of historic artifacts including glass (Figures 5 and 6), metal, ceramics (Figures 7 and 8), bricks, and glazed bricks (Figure 9). Three features were located: a partial stone foundation with large quantities of brick (Figure 10), a brick alignment with a large scatter of ceramics and glazed brick (Figures 11 and 12), and sections of one or more gravestones (Figures 13, 14, and 15). Because the gravestone fragments are scattered in the vicinity of the stone foundation, the location of the probable burial was not determined (Figure 16). One fragment is inscribed "LY.3RD…….76", another "IN.ME……O…..L.SCARB.. WHO..WAS BOR…J", a third fragment was inscribed "1876" and with other writing that is illegible, and the fourth and fifth fragments have no discernible writing.

Figure 5. *Snuff bottle observed on the site.*

Figure 6. *An example of glass from 41BP854.*

Figure 7. *An example of a ceramic sherd.*

Figure 8. *"Pinched" ceramic fragments.*

Figure 9. *Glazed brick observed on the site.*

Figure 10. *Foundation stones and brick.*

Figure 11. *Brick alignment located on a slight rise on the southwestern portion of the site.*

Figure 12. *Ceramic and glazed brick scatter near brick alignment.*

Figure 13. *Gravestone fragment roughly 13-m east of the foundation.*

Figure 14. *Gravestone fragment roughly 47-m west of the foundation.*

Figure 15. *Gravestone fragments roughly 35-m west of the foundation.*

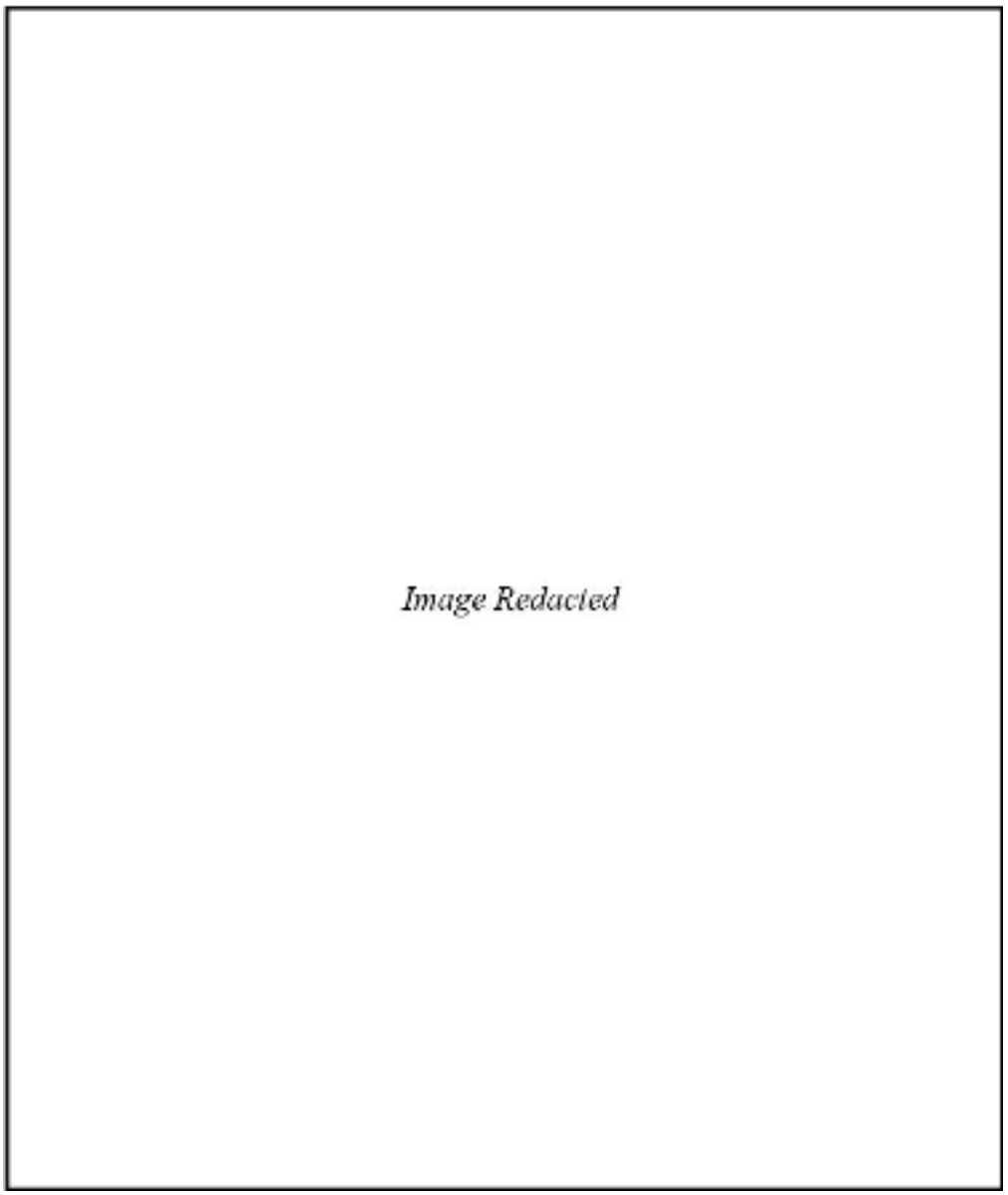

Figure 16. *Aerial map of 41BP854 with the locations of features and artifacts.*

Fourteen shovel tests were excavated to delineate the site boundary (Figure 17). As excavations commenced shovel tests were dug to 60 cmbs. However, after concluding that sterile clay was fairly shallow, the remaining tests were halted upon reaching this deposit. Four shovel tests were excavated to 60 cmbs, two to 50 cmbs, and eight to 40 cmbs. Two of the tests, STs CMM1 and CMM5 were positive. A single ceramic sherd was recovered from Level 5 of ST CMM1. Because the sherd was recovered from the sterile heavy clay, it is most likely that the artifact worked its way down through cracks in the clay as it expanded and contracted, and therefore, it is highly probable that the artifact is not in its primary context. Three shards of clear glass were recovered from Levels 2 and 3 of ST CMM5. This test was located near the center of the site between the foundation and gravestone fragments (Figures 16 and 17).

The excavated soils from the fourteen shovel tests were consistent with soil (WsB or AfC) type descriptions and locations based on Web Soil Survey data (2010; Figure 18). For the most part soils in the shovel tests were composed of soft sand near the surface becoming higher in clay content until, at approximately 40 cmbs, they turned to compact red clay. In general, the tests excavated on the Wilson clay loams were a darker, redder color than the tests excavated on the Edge fine sandy loam. The sediment contained low occurrences of small pebbles throughout the excavated levels. One test, ST RM4, had moderate occurrences of gravels from 27-30 cmbs lying on top of the compact red clay. Charcoal occurred in the upper levels of shovel tests falling on soils in the areas recently affected by wildfire.

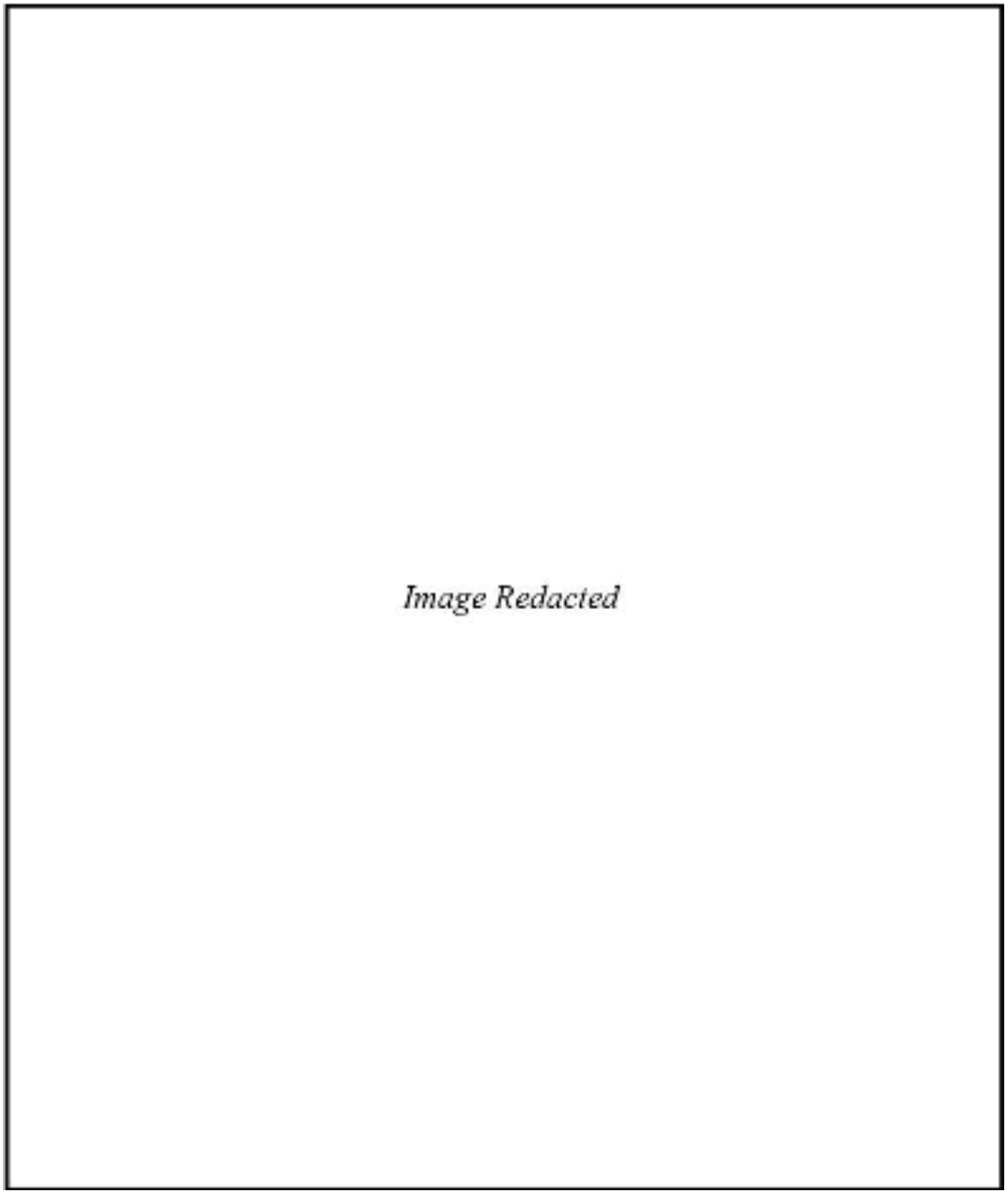

Figure 17. *Location of shovel tests on 41BP854.*

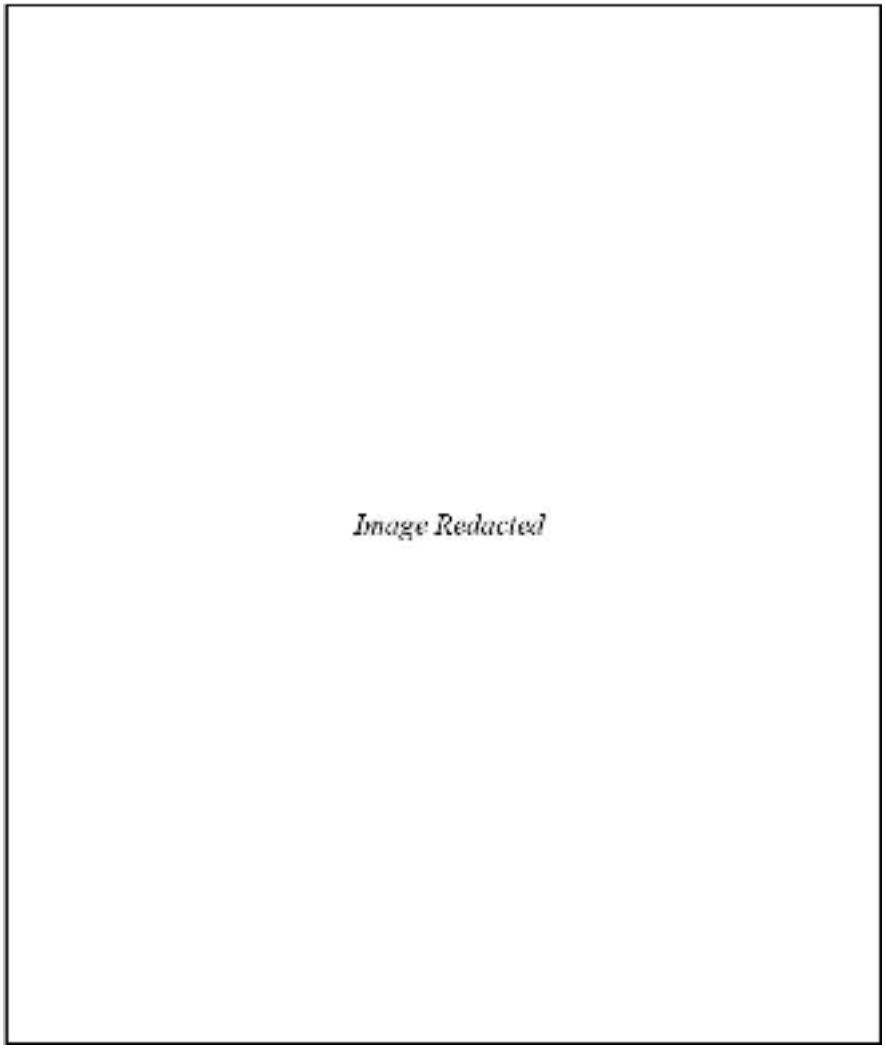

Figure 18. *Soil colors from the shovel tests (Level 2) on a soil map of the project area.*

As noted above the soil samples collected from all levels of shovel tests were analyzed for magnetic susceptibility. The magnetic susceptibility (MS) of sediment is a gauge of how easily the soil can be magnetized (Dearing 1999; Gose and Nickels 2001). This measure is primarily linked to the concentration and grain size of ferromagnetic minerals in the sediment (Mauldin and Broehm 2001). Processes related to an increase in the organic matter or changes in the mineralogy of sediments in a sample can result in an increase in MS values in a sediment sample (Collins et al. 1994; Mauldin and Broehm 2001; McClean and Kean 1993; Singer and Fine 1989). Higher MS values are usually associated with sediments with higher organic content, likely from the production of maghemite and iron oxide during organic decay (Reynolds and King 1995). Soil formation, weathering, and cultural processes, such as the accumulation of ash, charcoal, and refuse, can concentrate organic material impacting susceptibility readings (Mauldin and Broehm 2001).

Sixty-six samples were analyzed. Samples were air dried at the CAR on a non-metal surface. They were then ground to a uniform grain size with a ceramic mortar and pestle and packed into preweighed plastic cubes. The sample weight

was then calculated to correct for differences in mass since samples with greater mass have higher susceptibility values. The cubes were placed into a MS2B Dual Frequency Sensor that, in conjunction with a MS2 Magnetic Susceptibility Meter, measures the MS of the sample. The MS readings were then corrected for differences in sample weights.

Summary data by level for Levels 1 through 4 for the 14 shovel tests are presented in Table 1. Because a large wildfire in July 2009 affected the entire area of the site, the consequential increases in organic matter from charred materials in the top layer of sediments should result in increased MS values across 41BP854. Considering the mean and median values, it is apparent that Level 2 has slightly higher overall values, suggesting that materials with higher potential for magnetism are slightly greater in this level. However, the standard deviation values and the overall range reflect considerable variability in the scores. Figure 19 presents the results of the MS values for Level 3 (20-30 cm) of the survey area. Darker reds represent areas of higher magnetic susceptibility values, whereas lighter color ranges represent lower values. With the exception of ST CMM2, higher values are confined to the northern portion of the site. These higher values may indicate increased cultural activity within this zone. This portion of the site is in the vicinity of the foundation. However, the soils within the project area may also contribute to higher values, as Figure 19 suggests. Table 2 presents a comparison of the mean, minimum, and maximum values for the Wilson clay loam (WsB) soils and the Edge fine sandy loam (AfC) soils. The WsB soils have higher levels than the AfC soils suggesting that the differences reflected in Figure 19 are related to differences in the magnetic potential of the parent material. However, note that STs RM1 and RM2 have lower MS values yet are located on WsB soils, and ST RM4 has a higher MS value and is on AfC soil. Overall it appears that the higher MS values may be reflecting organic material from cultural activity.

Site 41BP854

The cultural remains documented at site 41BP854 suggest a house scatter dated to the late 1800s located near the Oak Hill community (Figure 20). Oak Hill developed during the 1850s and 1860s as a dispersed rural community, eventually containing a church, school, graveyard, small store, and a steam-powered cotton gin and grist mill (Sitton 2006). Gravestone fragments (see Figures 13, 14, and 15) suggest that the site was occupied in 1876 by a family with the surname Scarborough. An interview of JoNell Hancock Majors in an oral history project on previous Camp Swift residents (Freeman et al. 2006) mentions the Scarborough family from Oak Hill. Ms. Majors, who was born in 1927, states that her grandmother was Ida Scarborough and her great grandfather was William Scarborough. He lived on property in the Oak Hill area, farming and working as a peddler. She states that William Scarborough was a Civil War veteran (Freeman et al. 2006:148).

An online search revealed that the Oak Hill Cemetery contains graves from the Scarborough family, including Ara Foster Scarborough (1850-1926) and W. J. Scarborough. W. J. Scarborough's gravestone reveals that he died on July 8, 1918, at the age of 76 (suggesting a birth year of 1842), was the son of John B. and Elizabeth Finkley Scarborough, and was a corporal in Company A of the 3rd Arkansas Infantry, CSA (Rootsweb 2010b; USGenWeb 2010). Company A, also known as the Arkansas Travelers, was composed of volunteers organized in Portland, Arkansas, by Captain William H. Tebbs in May 1861. In Lynchburg, Virginia, in July 1861, the Arkansas Travelers were assigned to Company A of the 3rd Arkansas. In September 1862, members of Company L from Ashley County, Arkansas, were also assigned to Company A (Gerdes 2010). Online research revealed that William J. Scarborough, born in Mississippi in 1842 and listed on the Drew County, Arkansas, 1860 census, enlisted in Company L in Latonia, Arkansas, in July 1861. His brother, Private James S. Scarborough was also a member of Company L. William transferred to Company A of the 3rd Arkansas Infantry in September 1862. The last record of Scarborough with the Company was of his promotion to Second Corporal in April 1863 (Gerdes 2010).

Records from the 1880 census list William J. Scarborough as a resident of Bastrop County, suggesting a move from Arkansas sometime after the Civil War. The 1880 census also lists L. A. Scarborough and T. A. Scarborough as residents of Bastrop County (Rootsweb 2010a). Four additional graves with the Scarborough surname are listed at the Oak Hill Cemetery: Virginia R. Scarborough (1872-1952), Thomas Lee Scarborough (1874-1946), William J. Scarborough (1885-1975), and Albert Scarborough II (born 1963; Rootsweb 2010b; USGenWeb 2010).

The large quantity of glazed bricks near the brick alignment on the site (see Figures 9, 11, 12, and 21), points to the possibility that the residents of 41BP854 were producing ceramics. In addition to the bricks, large quantities of stoneware were observed in the area. Of interest are multiple fragments of fired clay that appear to be pinched (see Figure 8) suggesting that possibly amateurs or children were experimenting with the clay. Because of the high costs of importing stoneware, settlers in the 1800s had to rely on locally produced wares. More than 60 stoneware potteries are documented as operating during the 1800s and early 1900s in Texas, including Bastrop County (Lebo and Cliff 2010).

Table 1. Soil Magnetic Susceptibility Values from Shovel Tests

Level	No. of Samples	Mean	St. Dev.	Min.	Max.	Median
1	14	0.301	0.146	0.188	0.703	0.269
2	14	0.317	0.116	0.172	0.599	0.300
3	14	0.299	0.124	0.155	0.529	0.278
4	14	0.227	0.098	0.125	0.446	0.200

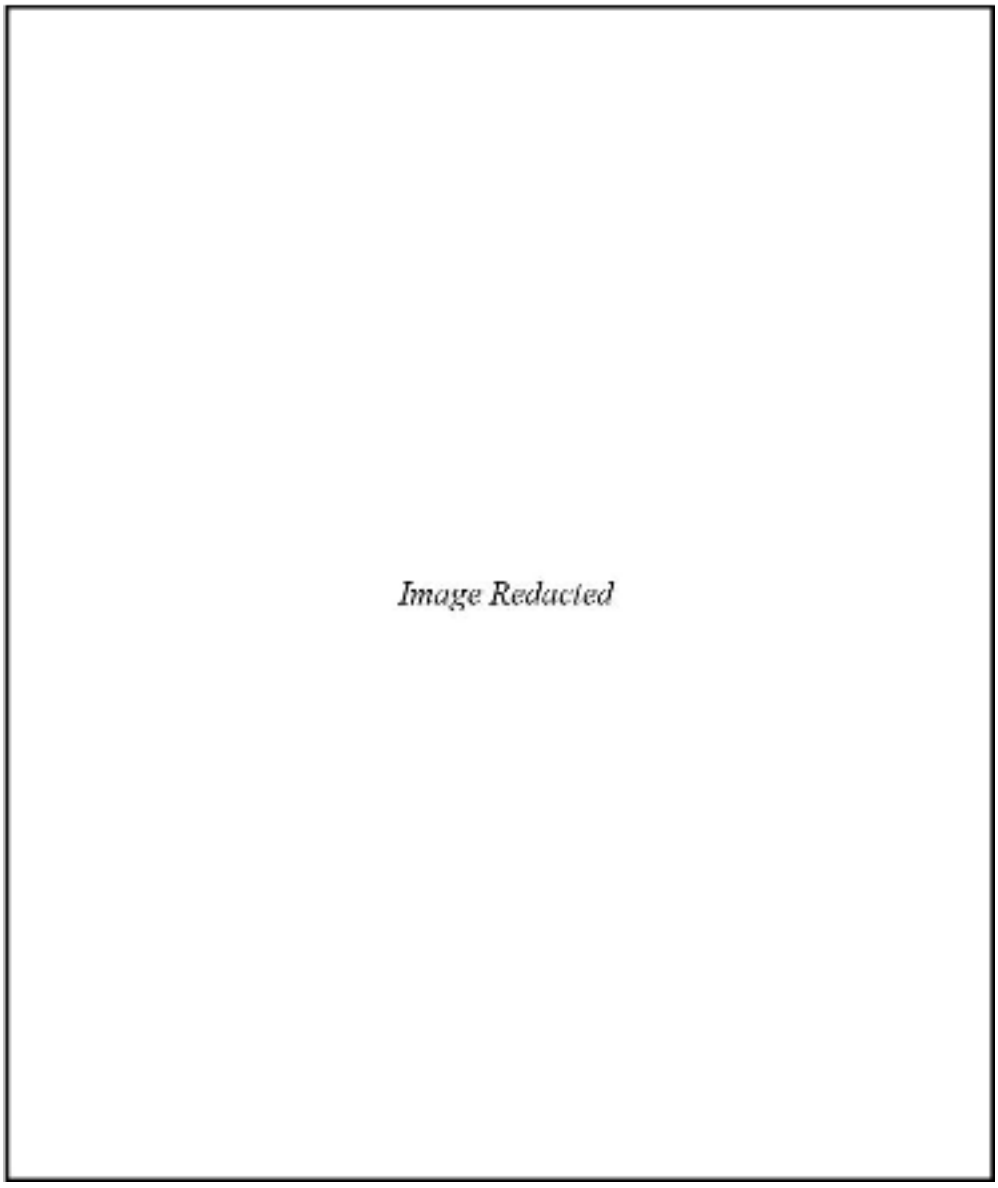

Figure 19. *Soil magnetic susceptibility values for the shovel tests (Level 3).*

Table 2. Soil Magnetic Susceptibility Values from Shovel Tests by Soil Units

Level	WsB Soils				AfC Soils			
	n	Mean	Min.	Max.	n	Mean	Min.	Max.
1	6	0.308	0.188	0.509	8	0.295	0.138	0.703
2	6	0.343	0.172	0.599	8	0.298	0.196	0.458
3	6	0.350	0.174	0.529	8	0.261	0.155	0.459
4	6	0.265	0.155	0.446	8	0.198	0.125	0.328

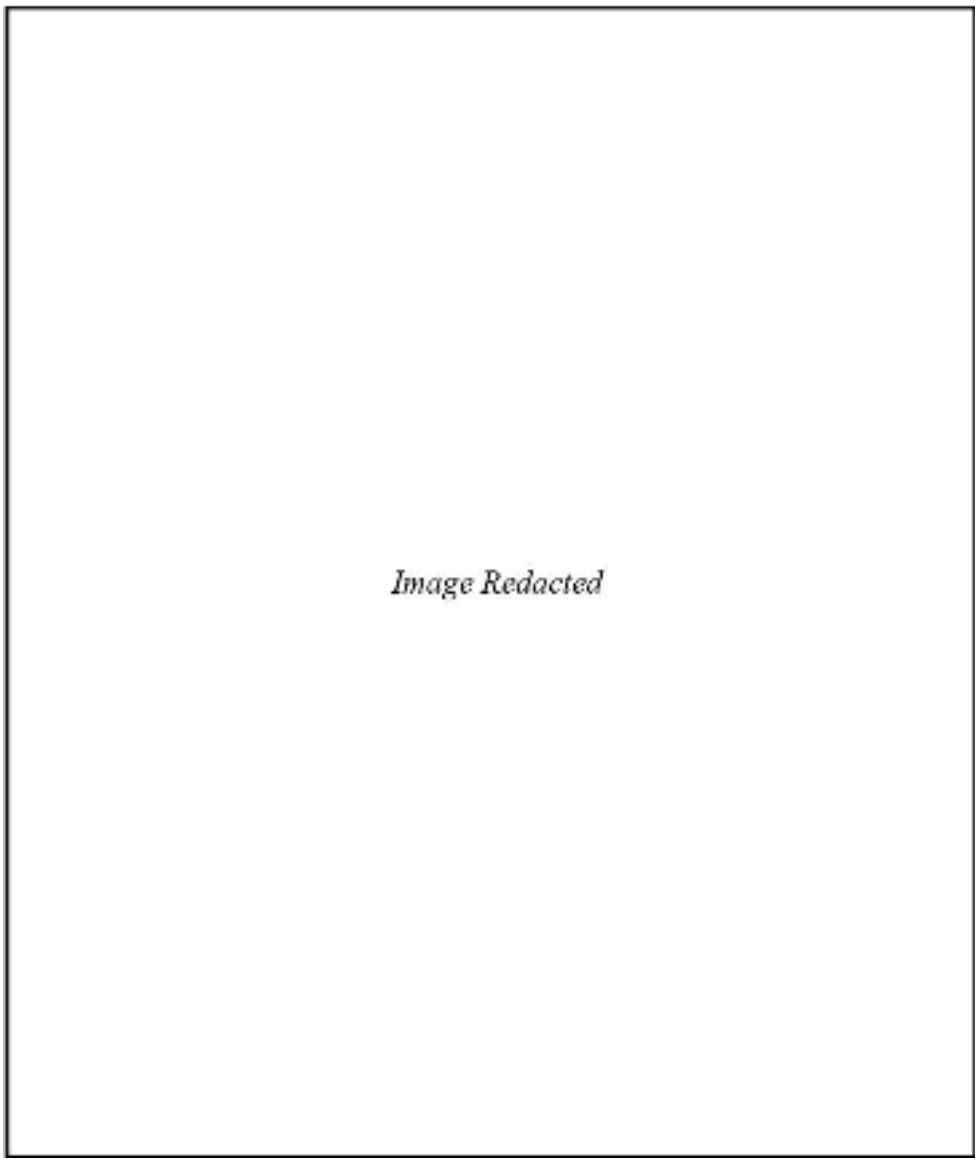

Figure 20. *Location of 41BP854 and adjacent historic sites in reference to the Oak Hill Community.*

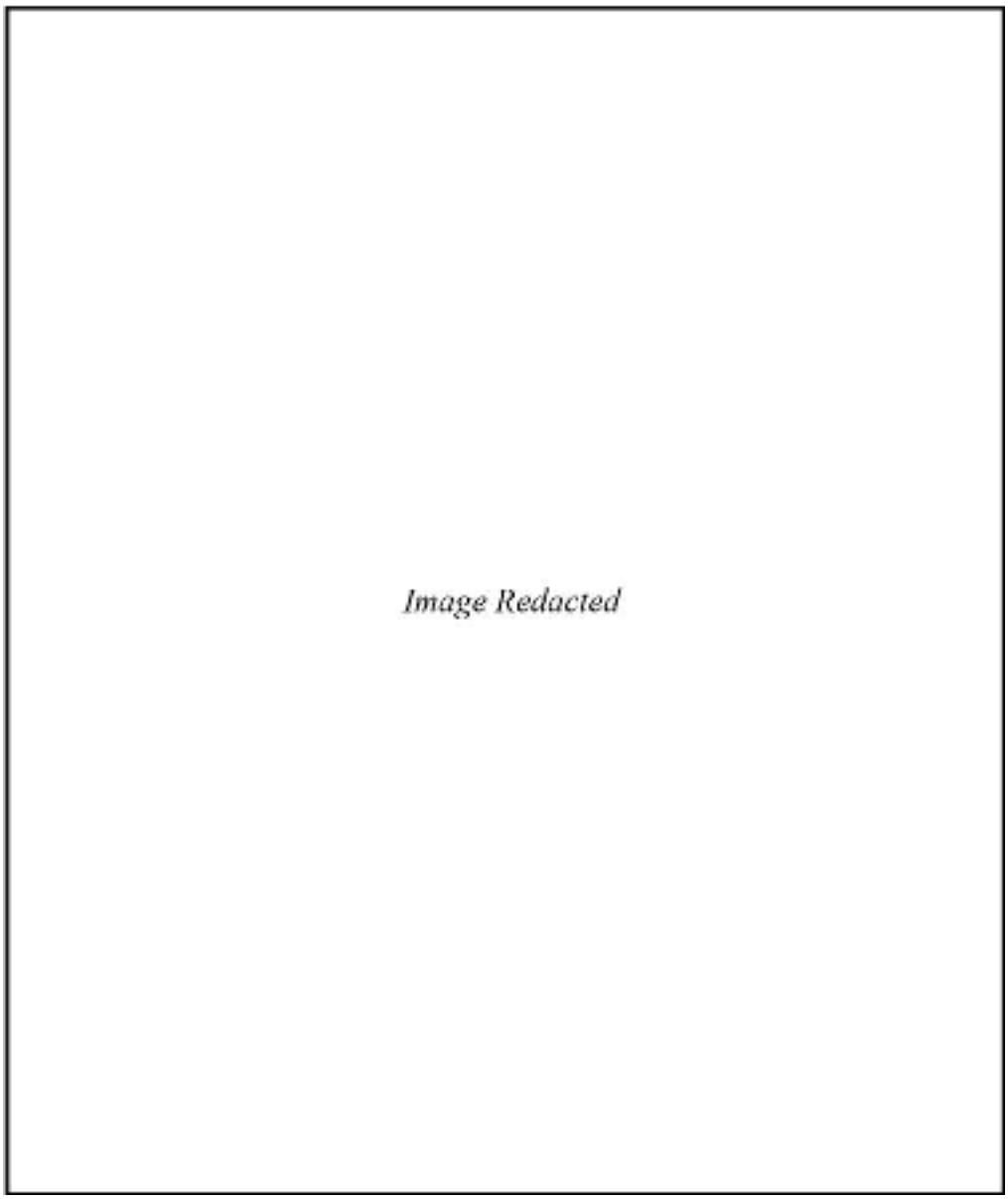

Figure 21. *Map showing location of probable kiln.*

Archaeological materials indicating potteries include waster-sherd piles. Sites producing ceramics tend to be located near suitable clay outcrops such as the Woodbine Formation and the Wilcox Group and were often run by male family members. Wares manufactured for household use, including bowls, churns, jars, and jugs, were largely wheel-thrown and then fired in wood-burning kilns, which typically were updraft and downdraft beehive and crossdraft groundhog kilns (Lebo and Cliff 2010). The crossdraft groundhog kiln was one of the earliest and most consistently used kilns in the southern United States in the 1800s. These small kilns, suited for part-time family use, were constructed of brick foundation walls underground, making use of natural hillside slopes for insulation and structural support (Sweezy 1994). The presence of glazed bricks and the large amount of sherds, including pinched pieces, likely representing a waster pile of failures, suggest that site 41BP854 contained a pottery kiln.

Summary and Recommendations

The CAR of UTSA conducted Phase I Testing of a partially documented historic site on the TXARNG's Camp Swift training facility in November 2009. The investigation consisted of a pedestrian survey and shovel testing of approximately six wooded acres (2.43 ha). The archaeological work was conducted to delineate the site's boundaries and to provide recommendations as to management and NRHP eligibility. The CAR requested and was assigned a trinomial (41BP854) for the site. The TexSite records are on file at TARL.

Fourteen shovel tests were excavated resulting in the removal of 0.47 m^3 of sediment. While only three artifacts (6.4 artifacts per m^3) were recovered from shovel tests, a large surface scatter of historic artifacts was recorded on the site, including three features. Because one of the features, a brick alignment, is in close proximity to large numbers of glazed brick and numerous stoneware sherds, including pinched ceramic remnants, it can be surmised that site 41BP854 was a home site with a kiln for producing stonewares. A once functional kiln on the site greatly increases research value of the home site. Another of the features, a grouping of gravestone fragments, indicates that the property belonged to the William Scarborough family in the late 1800s. Due to the probable location of a kiln and the presence of several fragments of gravestones, suggestive of burials on the site, the CAR recommends that 41BP854 be considered potentially eligible for listing to the NRHP. To determine eligibility, the CAR recommends avoidance until such time that additional assessment, including testing to locate the burial(s) and archival research to learn more about the Scarborough family, can be completed. Based on the potential significance of the cultural features, the site should be protected from future impact.

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