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***ARCHAEOLOGICAL SURVEY ALONG  
TEPPCO CRUDE SEAWAY PIPELINE ROUTE  
ADJACENT TO LITTLE BRUSHY CREEK,  
KAUFMAN COUNTY, TEXAS***

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Cultural Resources Report 2008-20  
March 14, 2008

*LITTLE BRUSHY CREEK ARCHAEOLOGICAL SURVEY*

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## **ABSTRACT**

Texas Eastern Products Pipeline Company (TEPPCO) intends to construct the 30-inch 6586 A&B Pipeline south of CR 283 parallel to an existing pipeline route. In order to do so, TEPPCO will have to cut and stabilize the east bank of Little Brushy Creek at two separate locations approximately 300 feet apart. The study area is approximately two miles northwest of Kaufman in Kaufman County, Texas. During the middle of March of 2008, AR Consultants, Inc. conducted an intensive pedestrian archaeological survey of the proposed stabilized areas for Ercon, Inc. which is doing the environmental permitting for TEPPCO. No cultural materials older than 50 years were seen on the ground surface, exposed in the east bank of Little Brushy Creek or uncovered in five shovel tests.

Based upon the absence of archaeological sites, AR Consultants, Inc. recommends that TEPPCO should be allowed to proceed with the bank stabilization without the need for further cultural resources investigations. We also recommend that if buried cultural materials are encountered during construction, work should stop that area immediately and the Archeology Division of the Texas Historical Commission should be notified.

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## INTRODUCTION

Texas Eastern Products Pipeline Company (TEPPCO) intends to construct the 30-inch 6586 A&B Pipeline south of CR 283 parallel to an existing pipeline route. In order to do so, TEPPCO will have to cut and stabilize the east bank of Little Brushy Creek at two separate locations approximately 300 feet apart. The study area is approximately two miles northwest of Kaufman in Kaufman County, Texas. More specifically, the proposed stabilized areas are located generally approximately 600 feet south of CR 283 and about 3,606 feet east of FM 2578. During the middle of March of 2008, AR Consultants, Inc. conducted an intensive pedestrian archaeological survey of the proposed stabilized areas for Ercon, Inc. which is doing the environmental permitting for TEPPCO. The purpose of the archaeological survey was to determine if cultural materials were present, and, if so, make recommendations about their significance and how they might be impacted by construction.

Since Little Brushy Creek contains Waters of the United States and falls within the jurisdiction of the US Army Corps of Engineers, the archaeological survey suits the Section 106, the National Historic Preservation Act of 1966. Other federal legislation such as the National Environmental Policy Act of 1969, as amended (PL-90-190), the Archaeological and Historical Preservation Act of 1974, as amended (PL-93-291), Executive Order No. 11593, "Protection and Enhancement of the Cultural Environment" and Procedures for the Protection of Historic and Cultural Properties (36CFR800) also may apply. The Texas Historical Commission, Archeology Division, will review this report as the Section 106 agency, but the Texas Antiquities Code is not applicable.

This report has been written in accordance with the guidelines for reports prepared by the Council of Texas Archeologists (ND) and adopted by the Archeology Division of the Texas Historical Commission. The following report presents a brief description of the natural and cultural environment of the area. This is followed by a description of the research design and methodology. The results of the investigation follow and constitute the body of the report. The last chapter presents recommendations that arise from the study. A list of references cited concludes the report.

## NATURAL ENVIRONMENT

The study area is located in the Blackland Prairie vegetative area of Texas. Kuchler (1966) classified the prairie as being dominated by *Andropogon-Sipa* grasses. Various other grasses are present as well. The prairie environment is one of low biotic diversity. The Texan biotic zone (Blair 1950:Figure 1) also includes the study area. This prairie savannah zone contains 47 species of mammals, 41 reptiles, and 35 amphibians.

The eastern bank of Little Brushy Creek lies within the Wilson-Burleson Soil Association which consists of nearly level to strongly sloping upland prairie loams or clays (Pringle 1977:General Soils Map). The specific soils within the study area consists of occasionally flooded Gowen clay loam (Pringle 1977:Sheet 43). The C horizon for the Gowen clay loam is listed as being 25 inches bs (Pringle 1977:12, 24). The Gowen soils are recent in

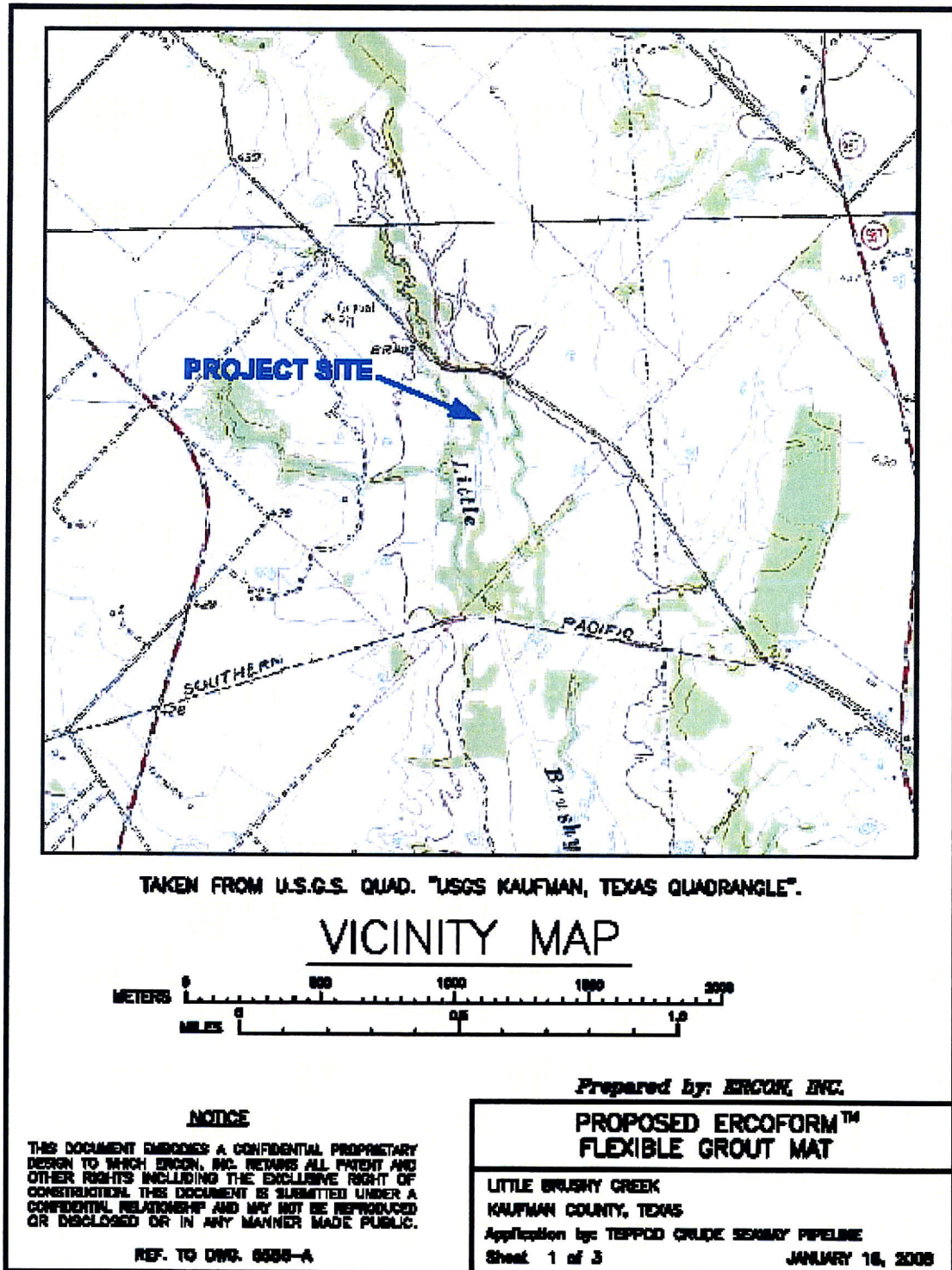


Figure 1. Location of study area plotted on a portion of the Kaufman, Texas 7.5' USGS map. Map provided by Ercon, Inc.

origin and have little horizon development but do show stratification and have changed very little from their original alluvial deposition (Pringle 1977:50-51). Little Brushy Creek is mapped as intermittent on both the USGS map and the Kaufman County Soils Map.

## PREVIOUS INVESTIGATIONS

Since the 1970s, numerous small-scale cultural resources surveys were conducted of transmission corridors, pipelines, and Soil Conservation Service floodwater retarding structures throughout Kaufman County (Ferring 1975; Lynott and Banks 1977). The overall impression from these studies is that historic and prehistoric cultural resources are present, but are widely scattered and sites are small in size and frequently have been deflated onto the surface of the upland.

Upstream and along the East Fork valley, archaeological surveys and excavations were conducted at Lake Ray Hubbard [formerly Forney Reservoir]. The surveys were not systematic or comprehensive and focused on areas which had high probability for containing preserved prehistoric site deposits. In 1963, the Dallas Archeological Society (DAS) surveyed the area of Lake Ray Hubbard and recorded 33 archaeological sites (Harris and Suhm 1963). This survey described 20 sites already known to the DAS membership (Hannah 1941; Hannah and Harris 1948), and located 13 previously unrecorded sites. Only limited excavations were subsequently conducted (Ross 1966; Lorrain and Hoffrichter 1968), but along with the previous DAS excavations, they did provide evidence of the way of life practiced by the Late Prehistoric peoples who occupied this part of the East Fork valley.

No archaeological sites are listed within or immediately adjacent to the study area on the Texas Archeological Sites Atlas (2008). However, the prehistoric sites 41KF90, KF92 and 93 are located along Kings Creek east of the study area. The sites were recorded by Fred Wendorf in 1940. Collected artifacts include sherds, dart points, Bristol bifaces, lithic tools and "Waco" sinkers.

No residences were shown within the study area on the 1936 Soil Map for Kaufman County, Texas (Texas Agricultural Experiment Station 1936) or the 1936 General Highway Map for Kaufman County, Texas (Texas State Highway Department 1936). However, one residence is shown just northwest of the west bank of Little Brushy Creek on the 1936 General Highway Map. However, it is not shown the 1960 USGS map or the 1977 Kaufman County Soils Map (Pringle 1977).

## RESEARCH DESIGN AND METHODOLOGY

### Research Design

Several sites have been recorded along Big Brushy, Bachelors and Kings Creeks in similar settings to that of the proposed pipeline route along Little Brushy Creek.

Therefore, we feel that the prehistoric archaeological sites might be present that may range from Archaic to Late Prehistoric in age.

Although the presence of historic sites is difficult to predict since the historic European settlers were not tied to water due to the construction of wells and cisterns, we feel that the historic archaeological potential is low due to the distance from a historic transportation route.

### Methodology

The pipeline is 30 inches in diameter and the right-of-way is approximately 50 feet wide. Approximately 10 feet of each bank will be impacted by construction and the banks are about 300 feet apart.

The archaeologist armed with USGS maps surveyed each bank of Little Brushy Creek by two north-south oriented transects spaced approximately 10 m apart for approximately 50 feet east or west of the banks. Both banks of the drainage were shovel tested as suggested by the Council of Texas Archeologists (2002) and the shovel tests were excavated to at least 10 cm into the C horizon. The creek bank walls also were examined. The clay matrices were not screened but inspected manually and the shovel test pit walls were visually examined for cultural materials. In addition, notes on the terrain and vegetation were taken as were photographs.

No backhoe trenching was done because the C horizon was within shovel testing depth.

## RESULTS

### The Survey Area

The survey area is adjacent to improved pasture. West of the fence line where the stabilization will occur, the terrain gently rises south and then slopes. Trees include one-inch diameter mesquites, six-inch diameter hackberry and young eastern red cedar trees. Understory vegetation includes bermuda grass, grape vine, berry vine, saw greenbriar, broomweed, bunch grass, burrs and other grass species. Ground visibility in the pasture ranged from 30 to 50 percent and it was less than 10 percent west of the fence. Eye-height visibility was excellent.

Little Brushy Creek is approximately 10 m wide and 4 m deep. The east bank is mainly vertical but does slope at a 20 degree angle in the vicinity of the southernmost proposed stabilization area. Clear water from recent rains was running in a clay substrate that contained limestone gravel bars.

### The Survey

The shovel tests are described generally in the text, but specific information is provided in Table 1. Shovel test locations are shown on Figure 2.



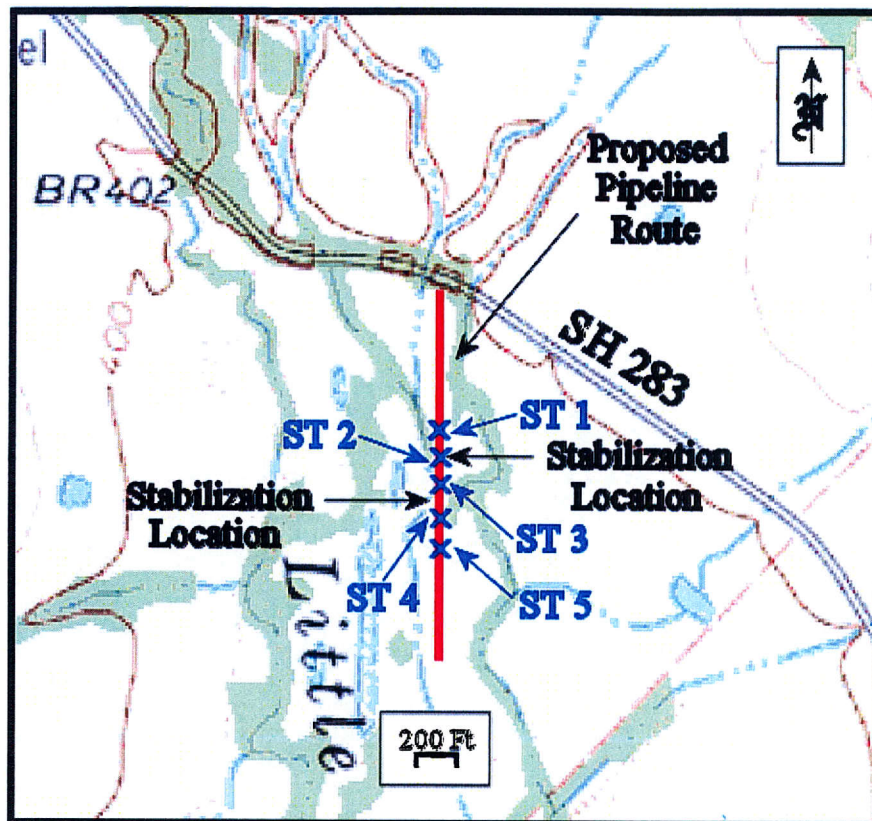


Figure 2. Shovel test locations plotted on an enlarged portion (500%) of the Kaufman, Texas 7.5' USGS map.

Survey began approximately 100 m north of the northernmost proposed stabilized location and went south. Due to the presence of an existing pipeline route, shovel tests were excavated in areas deemed undisturbed and were spaced approximately 50 m apart. The first shovel test (ST1) was excavated approximately 50 m north of the northernmost stabilized location because a gully that was at least a meter deep was present where the survey began and allowed for excellent ground exposure. The five shovel tests uncovered loamy clay that overlaid clay at contacts ranging from 55 to 70 cm bs. The shovel tests were terminated at depths ranging from 76 to 89 cm bs. The clay compares favorably with the description for the C horizon as described in the Soils Book for Kaufman County.

After the shovel testing was done, the archaeologist then walked the west bank of the creek and visually examined the east bank wall for exposed cultural materials. None were seen. The northernmost stabilization location is shown in Figure 3 and the southernmost in Figure 4. Also the gravel bars were visually examined and no knappable lithic resources were present.



Figure 3. Northernmost stabilization location. View is to the east.



Figure 4. Southernmost stabilization location. View is to the southeast.

## Conclusions

No cultural materials older than 50 years were seen on the ground surface, in the east bank walls or uncovered in five shovel tests. The absence of prehistoric sites is problematical in that sites in similar locations have been recorded along adjacent intermittent drainages. It may be that the other sites are located on elevations above flooding such as finger ridges along Kings Creek which are absent in the study area. The absence of historic sites may be due to the distance from historic transportation routes.

Table 1. Shovel test information.

ST No.	Depth (cm.)	Description*
1	0-70 70-89+	Very dark gray (10YR3/1) moist loamy clay Grayish-brown (10YR5/2) moist clay
2	0-55 55-79+	Dark grayish-brown (10YR4/2) loamy clay Grayish-brown clay
3	0-58 58-76+	Dark grayish-brown loamy clay Grayish-brown clay
4	0-66 66-78+	Dark grayish-brown loamy clay Grayish-brown clay
5	0-67 67-79+	Dark grayish-brown loamy clay Grayish-brown clay

\* Munsell color chart numbers are listed only first time used.

## RECOMMENDATIONS

Based upon the absence of archaeological sites, AR Consultants, Inc. recommends that that TEPPCO should be allowed to cut and stabilize the east bank of Little Brushy Creek without further cultural resource investigations. However, if cultural materials are encountered during the construction of the wastewater treatment plant, work in that area should stop immediately and the Archeology Division of the Texas Historical Commission should be notified.

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