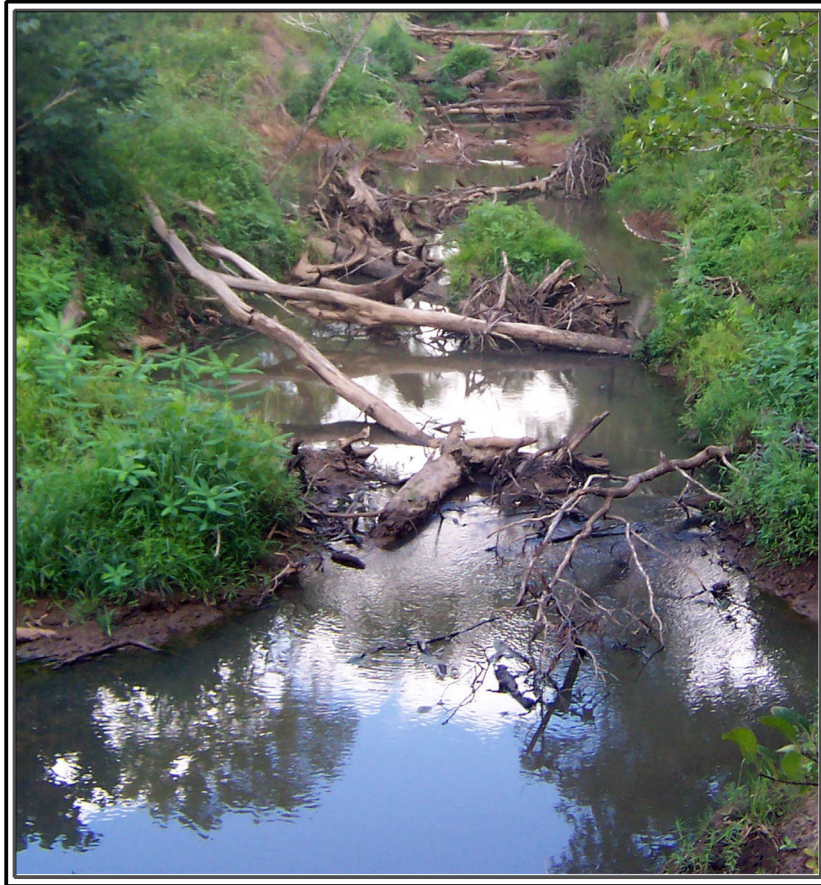


***AN ARCHAEOLOGICAL SURVEY FOR THE  
BRIGHTON PIPELINE PROJECT  
IN BRAZOS COUNTY TEXAS***



*By  
William E. Moore and Edward P. Baxter*

*Brazos Valley Research Associates  
Contract Report Number 168*

*2006*

AN ARCHAEOLOGICAL SURVEY FOR THE BRIGHTON PIPELINE  
PROJECT IN BRAZOS COUNTY, TEXAS

BVRA Project Number 06-13

Principal Investigator

William E. Moore

Prepared for

CSC Engineering and Environmental Consultants  
3407 Tabor Road  
Bryan, Texas 77808

Prepared by

Brazos Valley Research Associates  
813 Beck Street

## **ABSTRACT**

An archaeological survey of a proposed natural gas pipeline in north Brazos County, Texas was performed by Brazos Valley Research Associates (BVRA) on July 28 and 29, 2006 and October 13, 2006. This investigation examined eight main creek crossings along the 8.4 mile pipeline route. No archaeological sites were found, and no artifacts were collected.

## **ACKNOWLEDGMENTS**

BVRA is grateful to those who made the successful completion of this project possible. Rick Conlin of CSC Engineering and Environmental Consultants, Inc. supplied the necessary maps and logistical support. Jim Schooling of Brighton Energy LLC provided general information about the project including the route of the proposed pipeline as currently planned. The field survey was performed by Edward P. Baxter who also prepared some of the maps and co-authored the report. Jean Hughes, Records Conservator at the Texas Archeological Research Laboratory (TARL), performed the records check for previously recorded sites in the project area and vicinity. Figure 1 was drafted by Lili G. Lyddon. Technical support was provided by Jennifer McMillan, and Nora Rogers served as editor and proofreader.

## CONTENTS

ABSTRACT .....	ii
ACKNOWLEDGMENTS .....	iii
CONTENTS .....	iv
INTRODUCTION.....	1
ENVIRONMENTAL SETTING .....	5
ARCHAEOLOGICAL BACKGROUND .....	7
METHODS OF INVESTIGATION.....	8
RESULTS AND CONCLUSIONS .....	11
RECOMMENDATIONS .....	12
REFERENCES CITED .....	13

Appendix I: Shovel Test Log

## FIGURES

Figure 1. General Location .....	2
Figure 2. Project Area, West Half .....	3
Figure 3. Project Area, East Half .....	4
Figure 4. View of Clay Ridgetop .....	6
Figure 5. View of Clay Floodplain.....	6
Figure 6. Shovel Tests, Areas 1-5.....	9
Figure 7. Shovel Tests, Areas 6 and 7 .....	10

## INTRODUCTION

Brighton Energy LLC of Tulsa, Oklahoma plans to construct a natural gas pipeline across a portion of north Brazos County, Texas (Figure 1). The length of the line is 8.4 miles. It will be placed in a trench eight inches wide and four feet deep. The diameter of the pipe will vary from 3 to 4 inches. The easement width will be between 30 and 50 feet. A portion of the line (4000 feet) has already been constructed at the eastern end of the project area. The project area is depicted on two USGS 7.5' topographic quadrangles. They are Clear Lake dated 1959 (revised 1980) (3096-442) and Kurten dated 1963 (photorevised 1980) (3096-431) (Figure 2).

The entire project area is on private property. Therefore, no permit from the Texas Historical Commission was required. Also, this project is not regulated by a federal agency. Brighton LLC funded this study in order to ensure that no significant archaeological sites will be affected. The pipeline crosses 16 creeks or tributaries of creeks. They are (from east to west) Hog Creek (a major tributary of Cedar Creek), Jack Creek (a major tributary of Cedar Creek), an unnamed tributary of Cedar Creek, the main channel of Cedar Creek, several unnamed tributaries of Ferrill Branch, and the main channel of Ferrill Branch. The creek crossings are depicted in figures 2 and 3.

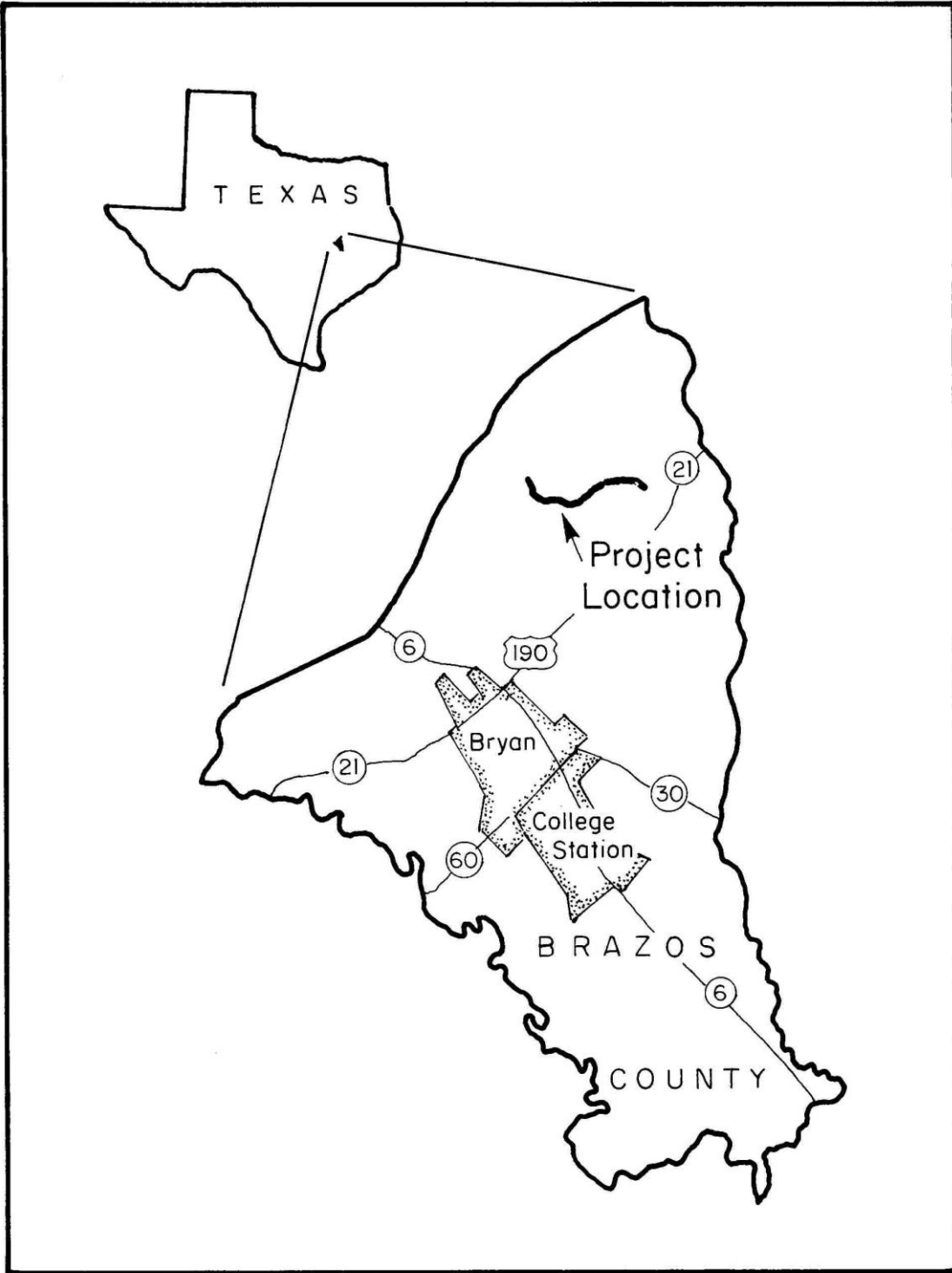
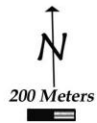
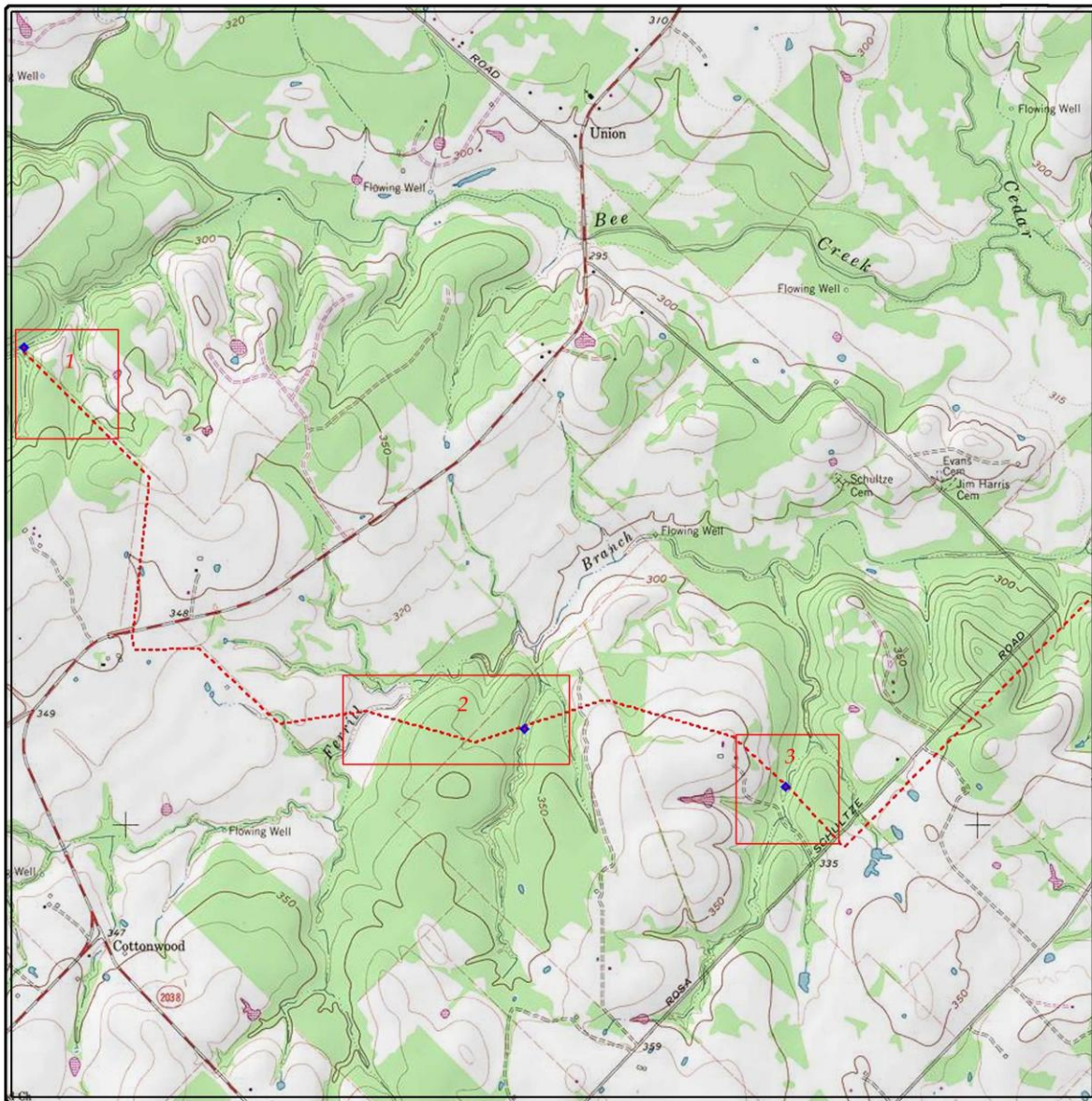


Figure 1. General Location



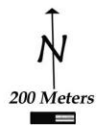
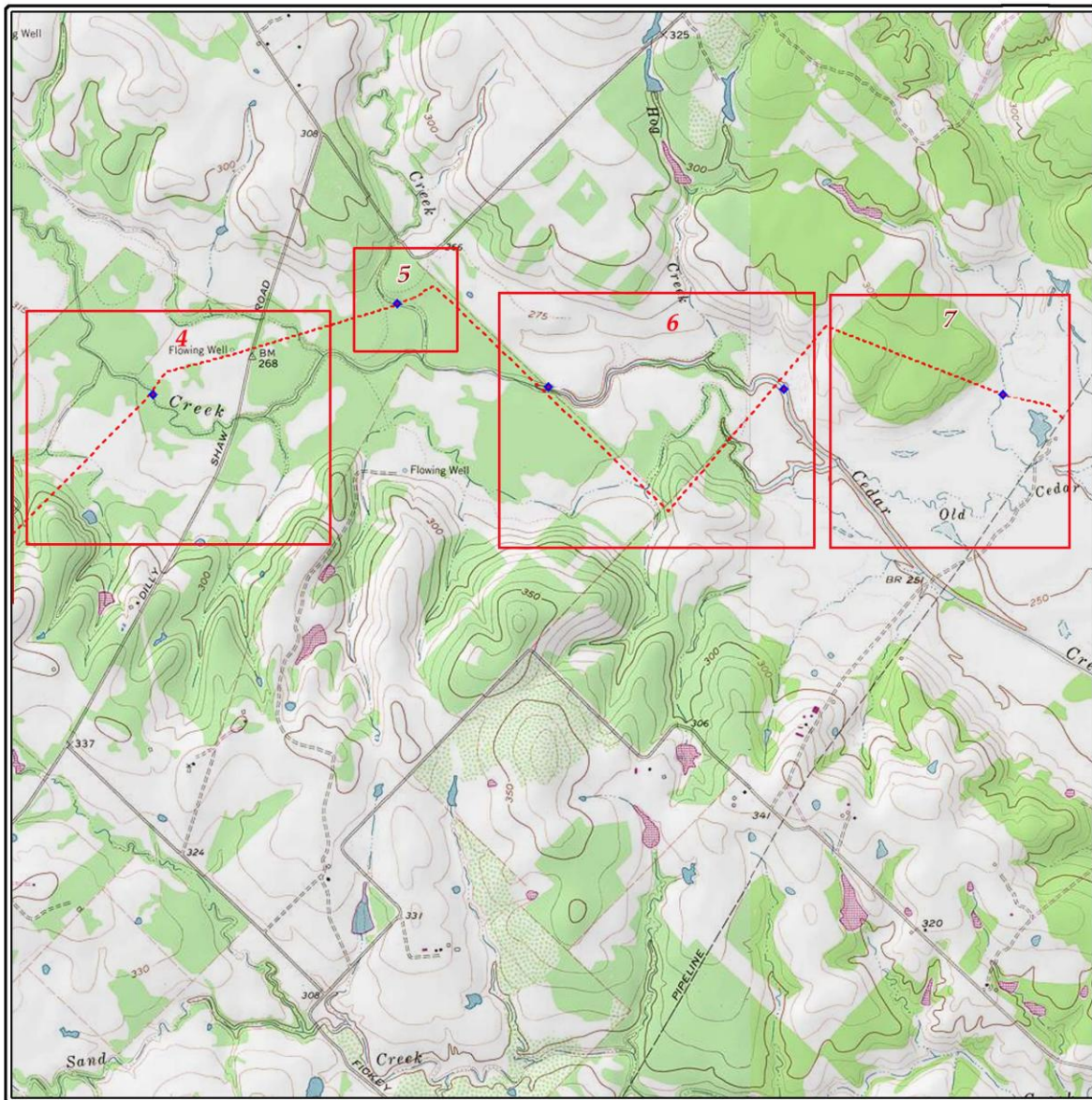
USGS Kurten, Texas  
 Quadrangle 3096-431

**-----** Proposed Pipeline

**□** Survey Area

Figure 2. Project Area, West Half





USGS Clear Lake and Kurten, Texas  
 Quadrangles 3096-442 and 3096-431

----- Proposed Pipeline  
 Survey Area

Figure 3. Project Area, East Half

## ENVIRONMENTAL SETTING

### General

The project area is located within the West Gulf Coastal Plain section of the Coastal Plain physiographic province as defined by Fenneman (1938:100-120). Fenneman subdivides this province according to the age of the geological formations (Gulf series) that roughly parallel the Texas coastline. The area is hilly and situated within the East Texas timber belt. Gould (1969) describes it as an area characterized by gently rolling to hilly topography with light colored soils that are acid sandy loams or sands.

The climate is sub humid to humid, and the weather is considered to be predominately warm. Annual rainfall for Brazos County is 39.21 inches. A January minimum temperature of 42 degrees Fahrenheit and a July maximum temperature of 95 degrees Fahrenheit combine to produce a growing season of 274 days (Kingston and Harris 1983:180). The altitude varies from 200-400 feet.

### Project Area

The project area passes through woods and pasture. The soils, as identified through shovel testing, are clay and sand. Of the 44 shovel tests excavated 23 contained a sandy mantle. The remaining 21 tests were dug through clay at the surface. In virtually all areas, soils were very shallow. Of the 44 tests excavated, 21 were terminated at 10 cm or less, and 18 were terminated between 20 and 50 cm. One test was dug to 60 cm, 1 was dug to 90 cm, and 1 was dug to 100 cm. Two views of the project area depict a clay ridge top in the uplands (Figure 4) and a clay floodplain (Figure 5).



Figure 4. View of Clay Ridgetop



Figure 5. View of Clay Floodplain

## ARCHAEOLOGICAL BACKGROUND

According to a published planning document for the Eastern Planning Region of Texas (Kenmotsu and Perttula 1993:Figure 1.1.2), Brazos County is situated within the Southeast Texas archeological study region. In 1985, according to a statistical overview published by the Texas Historical Commission (Biesaart et al. 1985:114), Brazos County contained 33 recorded sites. In 1985, 0 sites in the county had been excavated, 0 had been tested by hand, and 33 had been surface collected. Two recorded prehistoric sites in the county were listed as Paleoindian, 1 was listed as General Archaic, and 1 was listed as Late Prehistoric (Biesaart et al. 1985:114). The archaeological potential of Brazos County is reflected in part by the increasing number of recorded sites found as a result of cultural resource management studies. As a result of these investigations, the number of recorded sites now stands at over 150 sites (TARL site records).

Previous work in this area has been sparse. There are no recorded sites on the Kurten topographic quadrangle, and no surveys have been conducted near the current project area. Some of the more notable investigations conducted in Brazos County include the Millican project (Navasota River Basin) (Kotter 1982), the Richard Carter site (41BZ74) (Carlson 1983, 1987), the Brazos Valley Slopes Archaeological project (Thoms 1993a), White Creek Archaeological project (Thoms 1993b), the Bush Presidential Library (Moore and Warren 1993), and the Tradition Golf and Country Club at University Ranch (Moore 2000, 2001)

The single largest archaeological project in the general area was a 20-year study at the Texas Municipal Power Agency (TMPA) site in Grimes County by Espey, Huston & Associates, Inc. resulting in numerous contract reports. This study resulted in the recording, testing, and mitigation of a large number of prehistoric and historic sites. The Project Archaeologist for TMPA, Edward P. Baxter, supervised all phases of this project. The interested reader is advised to consult the library at the TARL in order to gain access to those reports that were generated as a result of this investigation.

The interested reader is referred to the site records at TARL for information regarding these projects. And *Archeology in the Eastern Planning Region, Texas: A Planning Document* published by the Texas Historical Commission (Kenmotsu and Perttula 1993).

## METHODS OF INVESTIGATION

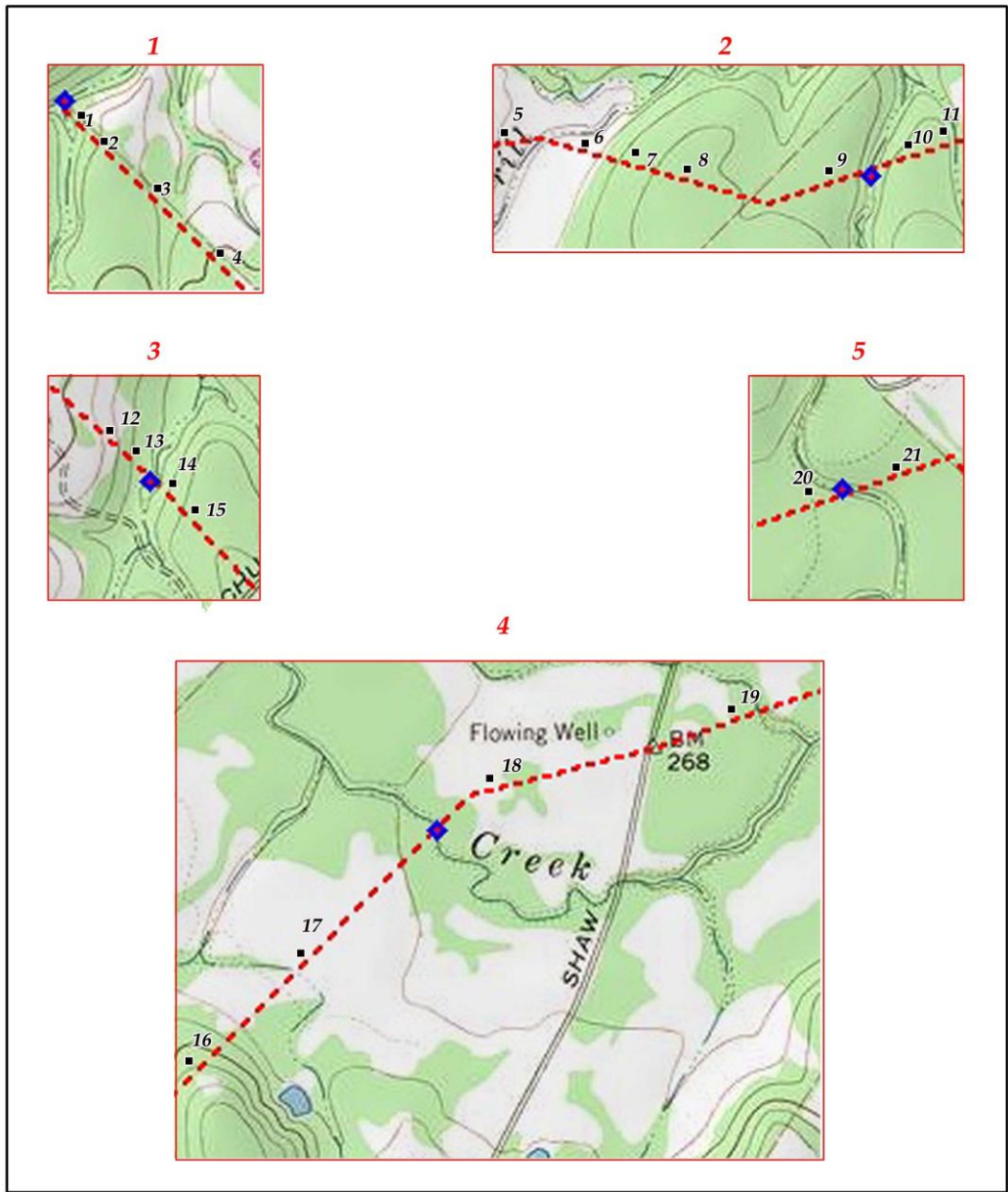
### Pre-Field Tasks

Prior to entering the field, the site records at TARL were checked for the presence of previously recorded archaeological sites in the project area and vicinity. Relevant archaeological reports documenting work in Brazos County were reviewed in order to become familiar with the types of prehistoric and historic sites found in the area.

### Field Survey

The Principal Investigator was William E. Moore, and the Project Archaeologist was Edward P. Baxter. An archaeological survey of eight major creek crossings and eight tributaries of creeks was conducted on July 28 and 29, 2006 and October 13, 2006. In all, the area examined consisted of pasture and woods with poor surface visibility. When possible, creek banks and eroded areas were inspected for cultural materials. Forty-four shovel tests were excavated in an attempt to locate buried cultural materials. It should be stated here that portions of the project area were not staked or flagged. On the second trip, the Project Archaeologist observed a disturbed area, 4000 feet in length, containing a newly constructed pipeline. Initially, he shovel tested plotted on the topographic map using GPS coordinates supplied by CSC 100 feet to the north. Following a conversation with Rick Conlin at CSC, he learned that the pipeline had already been installed in this area. Therefore, he examined the disturbed area adjacent to the pipeline to make sure an archaeological site had not been affected. A hand-held GPS was used to find the coordinates of creek crossings supplied by the engineers. Approximate locations of the proposed line on both sides of the creek were shovel tested. One creek crossing was not examined, because landowner permission had not been obtained.

All excavated earth was screened through quarter-inch hardware cloth. Data obtained from shovel tests were recorded on a shovel test log (Appendix I). All shovel tests were backfilled after evaluation and mapping, and the location of each test was plotted on the topographic map (figures 6 and 7). These figures are enlargements of the areas, and they are depicted in figures 2 and 3 above. Photographs of the project area were taken with a digital camera, and a hand-held GPS was used to create waypoints to help locate project area boundaries.



- ◆ GPS Position
- Shovel Test
- Proposed Pipeline

Figure 6. Shovel Tests, Areas 1-5

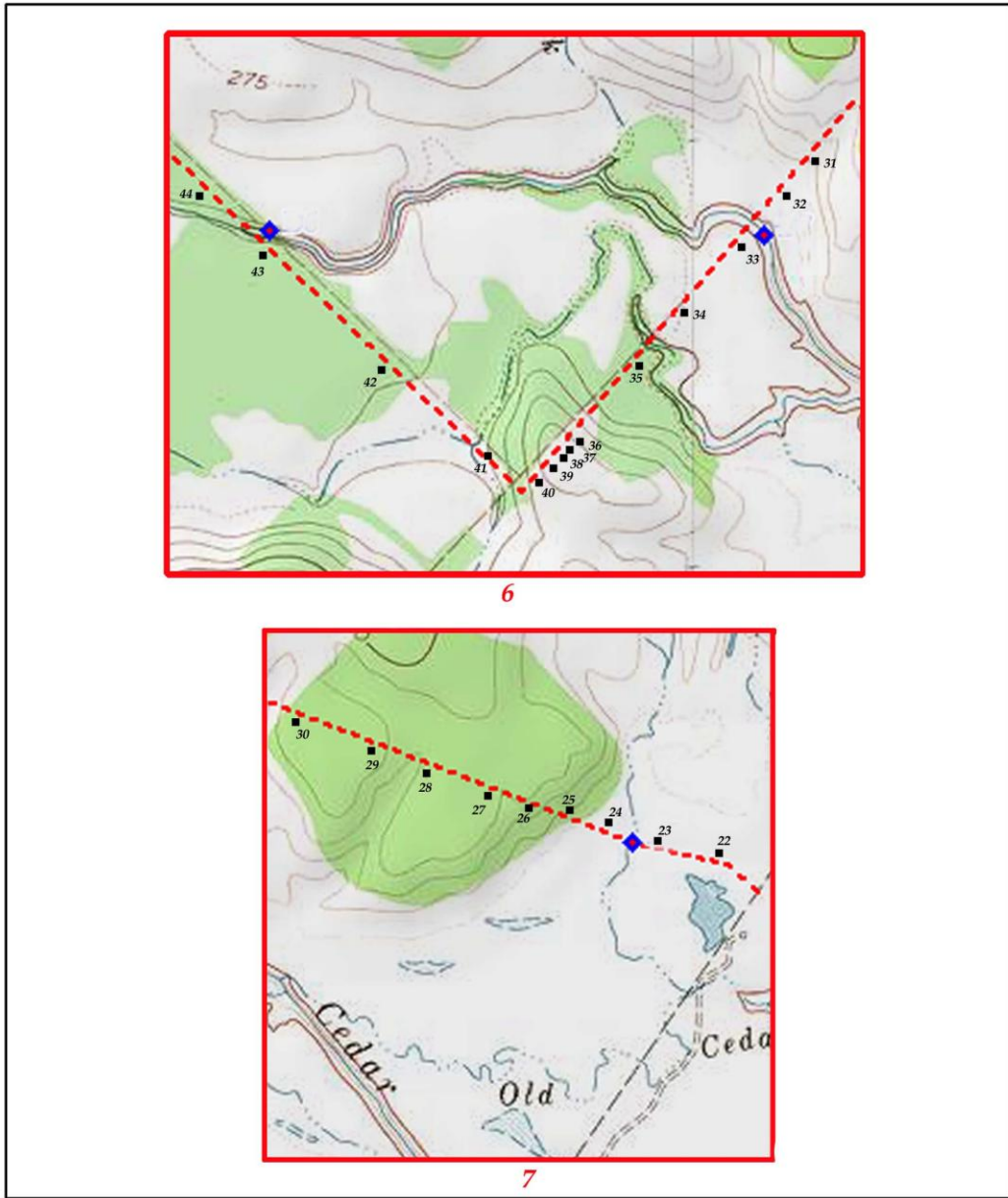


Figure 7. Shovel Tests, Areas 6 and 7

## **RESULTS AND CONCLUSIONS**

Examination of the files at TARL in Austin, Texas revealed no sites have been recorded in the project area, and a professional archaeologist had not previously examined the tract. No archaeological sites were found. Possible evidence of a prehistoric campsite was found on a sandy hill overlooking Cedar Creek to the north. Five shovel tests recovered shatter, potlids, and possible burned rock. Although natural grass fires could be responsible for the creation of these items, it is possible that there is a prehistoric site on this landform. Additional shovel tests would be necessary to make this determination. There is no definitive evidence, however, of a prehistoric site within the right-of-way at this location. This survey was conducted in accordance with the Minimum Survey Standards as outlined by the Texas Historical Commission, Archeology Division.



## **RECOMMENDATIONS**

BVRA conducted an archaeological survey at eight major creek crossings along a proposed natural gas pipeline. No definitive evidence of a prehistoric site was found within the gas pipeline right-of-way, and no historic sites were observed. It is therefore, recommended that construction be allowed to proceed as planned. Should prehistoric or historic artifacts be encountered during the installation of the pipeline at any location along the right-of-way all work should cease until a determination can be made regarding the significance of the find. If the path of the right-of-way is moved to an area not examined during this survey, additional archaeological survey should be performed, especially in the area overlooking Cedar Creek where a possible site was found.

## REFERENCES CITED

- Biesaat, Lynne A., Wayne R. Roberson, and Lisa Clinton Spotts  
1985 *Prehistoric Archeological Sites in Texas: A Statistical Overview*. Office of the State Archeologist, Special Report 28. Texas Historical Commission.
- Carlson, Shawn Bonath  
1983 *Archeological and Historical Investigations at the Richard Carter Site (41BZ74), Brazos County, Texas*. Archeological Research Laboratory, Reports of Investigations Number 2. Texas A&M University.  
  
1987 *The Richard Carter Site (41BZ74) Brazos County, Texas: Results of the 1985 Field Season*. Archeological Research Laboratory, Reports of Investigations Number 4. Texas A&M University.
- Fenneman, Nevin M.  
1938 *Physiography of Eastern United States*. McGraw Hill. New York.
- Gould, F. W.  
1969 *Texas Plants: A Checklist and Ecological Summary*. The Agricultural and Mechanical College of Texas, Texas Agricultural Experiment Station. College Station.
- Kenmotsu, Nancy Adele, and Timothy K. Perttula  
1993 *Archeology in the Eastern Planning Region, Texas: A Planning Document*. Department of Antiquities Protection, Cultural Resource Management Report 3, Texas Historical Commission, Austin.
- Kingston, Mike, and Ruth Harris (Editors)  
1983 *Texas Almanac and State Industrial Guide*. A. H. Belo Corporation. Dallas.
- Kotter, Steven M.  
1982 *A Preliminary Assessment of the Cultural Resources within the Millican Project, Navasota River Basin, Brazos, Grimes, Leon, Madison and Robertson Counties, Texas*. Prewitt and Associates, Inc., Reports of Investigations, Number 19.
- Moore, William E.  
2000 *An Archaeological Survey of the Tradition Golf and Country Club at University Ranch in Central Brazos County, Texas*. Brazos Valley Research Associates, Contract Report Number 68.

Moore, William E. (continued)

2001 *A Phase I Archaeological Survey of a Proposed 211 Acre Addition to the Tradition Golf and Country Club at University Ranch in Central Brazos County, Texas.* Brazos Valley Research Associates, Contract Report Number 79.

Moore, William E., and James E. Warren

1993 *A Cultural Resources Survey of the Bush Presidential Library Center Project Brazos County, Texas.* Report Number 312, Archaeology Consultants, Inc. George West.

Thoms, Alston V. (Editor)

1993a *The Brazos Valley Slopes Archaeological Project: Cultural Resources Assessments for the Texas A&M University Animal Teaching and Research Complex, Brazos County, Texas.* Archaeological Research Laboratory, Texas A&M University, Reports of Investigations Number 14. College Station.

1993b *The White Creek Archaeological Project: Cultural Resources Assessments for the Proposed Texas A&M University Wastewater Treatment Plant, Brazos County, Texas.* Archaeological Research Laboratory, Texas A&M University, Reports of Investigations Number 13. College Station.

Appendix I. Shovel Test Log

<b>Shovel Test</b>	<b>Depth (cm)</b>	<b>Soil Type</b>	<b>Area Description</b>
1	< 10	Clay	Road Clearing, Woods
2	< 10	Clay	Road Clearing, Woods
3	< 10	Clay	Road Clearing, Woods
4	10	Sand/Clay	Road Clearing, Woods
5	30	Sand/Clay	Pasture
6	30	Sand/Clay	Pasture
7	30	Sand/Clay	Woods
8	30	Sand/Clay	Pasture
9	40	Sand/Clay	Pasture
10	< 10	Clay	Pasture
11	20	Clay	Pasture
12	10	Clay	Pasture
13	10	Clay	Woods
14	20	Clay	Woods
15	20	Clay	Woods
16	< 10	Clay	Woods
17	< 10	Clay	Woods
18	< 10	Clay	Pasture
19	< 10	Clay	Pasture
20	10	Sand/Clay	Woods
21	10	Sand/Clay	Woods
22	30	Sand/Clay	Disturbed by Pipeline Construction
23	50	Sand/Clay	Disturbed by Pipeline Construction

<b>Shovel Test</b>	<b>Depth (cm)</b>	<b>Soil Type</b>	<b>Area Description</b>
24	10	Clay Loam/Clay	Disturbed by Pipeline Construction
25	100	Sand with Gravels	Disturbed by Pipeline Construction
26	40	Sand/Clay	Disturbed by Pipeline Construction
27	50	Sand/Clay	Disturbed by Pipeline Construction
28	40	Sand/Clay	Disturbed by Pipeline Construction
29	60	Sand/Clay	Disturbed by Pipeline Construction
30	40	Sand/Clay	Disturbed by Pipeline Construction
31	30	Sand/Clay	Bottomland Pasture
32	20	Sand/Clay	Bottomland Pasture
33	10	Clay	Bottomland Pasture
34	10	Clay	Bottomland Pasture
35	10	Clay	Bottomland Pasture
36	90	Sand/Clay	Top of Hill Overlooking Bottomland
37	60	Sand/Clay	Top of Hill Overlooking Bottomland
38	50	Sand/Clay	Top of Hill Overlooking Bottomland
39	30	Sand/Clay	Top of Hill Overlooking Bottomland
40	10	Sand/Clay	Top of Hill Overlooking Bottomland
41	10	Clay	Bottomland Pasture
42	10	Clay	Bottomland Pasture
43	10	Clay	Bottomland Pasture
44	10	Clay	Bottomland Pasture

\*All tests were negative