

***AN ARCHAEOLOGICAL SURVEY OF SUEMAUR  
EXPLORATION & PRODUCTION LLC's PRIDE  
PROSPECT  
IN GALVESTON COUNTY TEXAS***



***By***

***William E. Moore***

***Brazos Valley Research Associates  
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PRODUCTION LLC'S PRIDE PROSPECT  
IN GALVESTON COUNTY TEXAS

BVRA Project Number 08-05

Prepared for

Suemauro Exploration & Production LLC  
Frost Bank Plaza  
802 North Carancahua, Suite 100  
Corpus Christi, Texas 78740

Prepared by

Brazos Valley Research Associates  
813 Beck Street  
Bryan, Texas 77803

## **ABSTRACT**

An archaeological survey of the Suemaur Exploration & Production, LLC's Pride Prospect was conducted on February 26, 2008 by BVRA in eastern Galveston County, Texas with negative results. The investigation examined a proposed drill site, a proposed Central Gas Sales Facility, and two proposed segments of pipeline, an area consisting of 3.64 acres. Virtually all of the project area is located in a low marshy setting with no high ground; therefore no shovel tests were excavated and no artifacts were collected. At the site of the Central Gas Sales Facility, the soil consists of dredged spoil formed by the creation of the Gulf Intracoastal Waterway. It is recommended that construction be allowed to proceed as planned.

## **ACKNOWLEDGMENTS**

I appreciate the assistance given by others during this project. At Dixie Environmental Services Co., LP, Tanya Matherne and Jackie Gilliam provided maps and logistical support. William A. Martin, Staff Archaeologist at the Texas Historical Commission, discussed the project with the Principal Investigator and Ms. Matherne. Jean Hughes at the Texas Archeological Research Laboratory (TARL) on the campus of The University of Texas at Austin checked the site records for previously recorded sites in the project area. I am especially grateful to Suemaur Exploration & Production, LLC representatives Jim Devilin, Andy Grubb, and George Clark for providing project information and construction details and to Andrew Duca of C. H. Fenstermaker & Associates for providing engineering plans. Phil Bishop was the Project Archaeologist and conducted the field survey. Ally Freer, a DESCO biologist, accompanied the Project Archaeologist and assisted him with the location of the project area footprint using a Trimble Geo-Explorer XH Backpack GPS unit with sub-meter accuracy. Lili G. Lyddon created the cover and figures.

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## INTRODUCTION

Suemaar Exploration & Production, LLC of Corpus Christi, Texas plans to conduct drilling and production activities in order to develop oil and gas reserves underlying private property in a marshy area east of the Gulf Intracoastal waterway and south of a large bend in East Bay Bayou and in a separate marshy area east of State Highway 124 in the extreme eastern end of Galveston County, Texas (Figure 1). This area is known as the Pride Prospect, and it includes the proposed construction of a boarded drill site, boarded access road, 10-inch pipelines, and a Central Gas Sales Facility. From the drill site to the existing road, the distance of the boarded road will be 561 feet long and 30 feet wide. If the well is successful, the access road and underlying culverts will be upgraded to allow the mobilization of heavy equipment to the proposed drill site. The access road will be augmented with additional aggregate that will be added to its surface. While drilling operations are active, the drill site will occupy a footprint of approximately 3.10 acres and will be 300 feet by 450 feet in size. Suemaar will use a lined berm and borrow ditch around the drill site. If the well is successful, the temporary board pad will be replaced with one constructed of compacted clay, sand, and gravel. These materials will be stabilized as required with a cement additive. The permanent pad may be raised as much as 12 inches to 18 inches from the ground surface. A 10-inch pipeline will be installed primarily along existing roads from the well pad site to the Central Gas Sales Facility for a distance of approximately 9347 feet as well as from the Central Gas Facility to an existing facility for a distance of approximately 237 feet. The Central Gas Facility will occupy a footprint of 0.34 acre. The project area is depicted on the 7.5' USGS topographic quadrangle High Island (2994-422) (Figure 2).

The project area is located in close proximity to the Gulf Intracoastal Waterway, a major transportation route which was created in part using the main channel of East Bay Bayou. Since prehistoric shell middens and campsites have been found along this stream and throughout the area, an archaeological survey was required by the Texas Historical Commission. In order to fulfill this requirement, DESCO subcontracted with BVRA to perform this service.

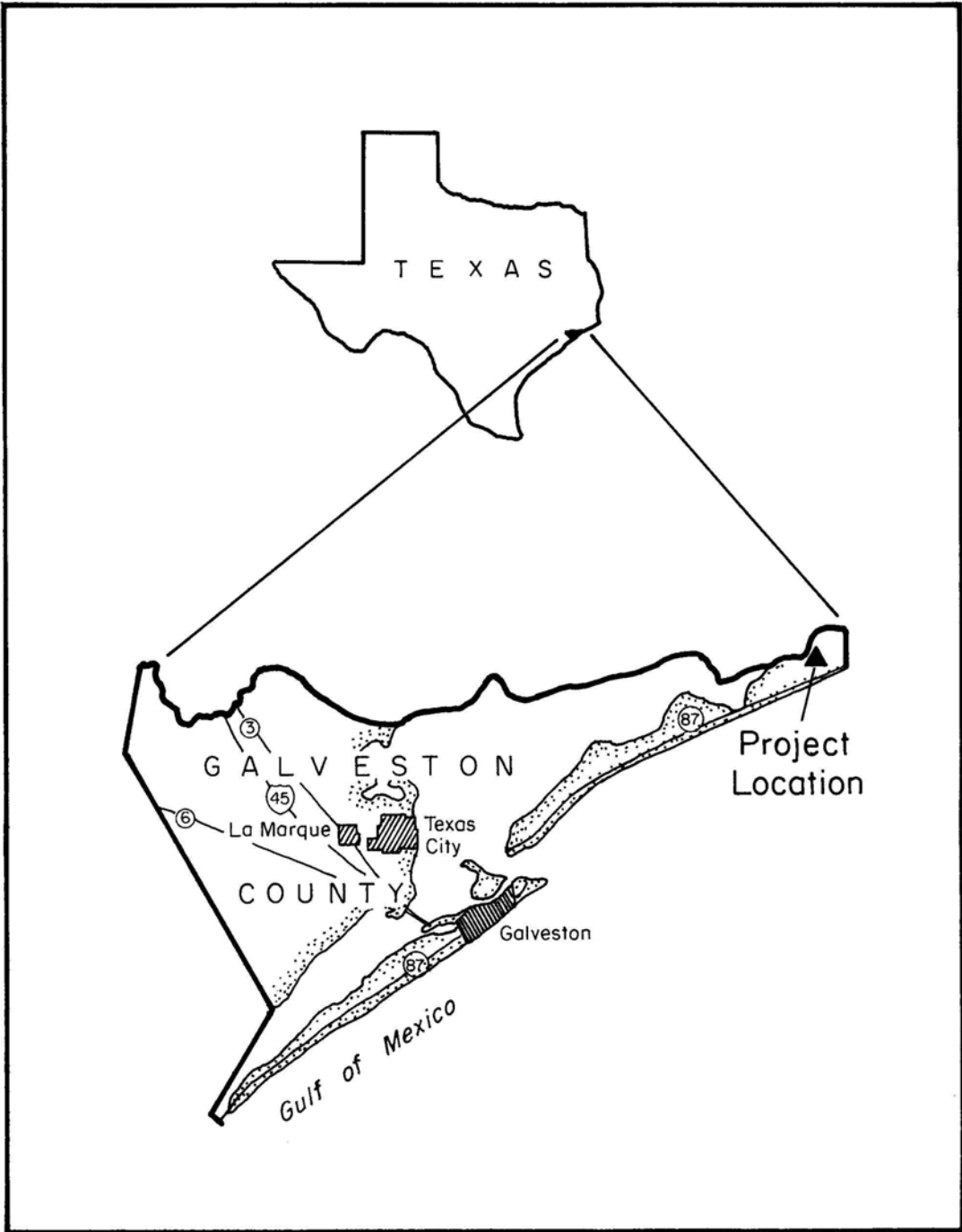


Figure 1. General Location

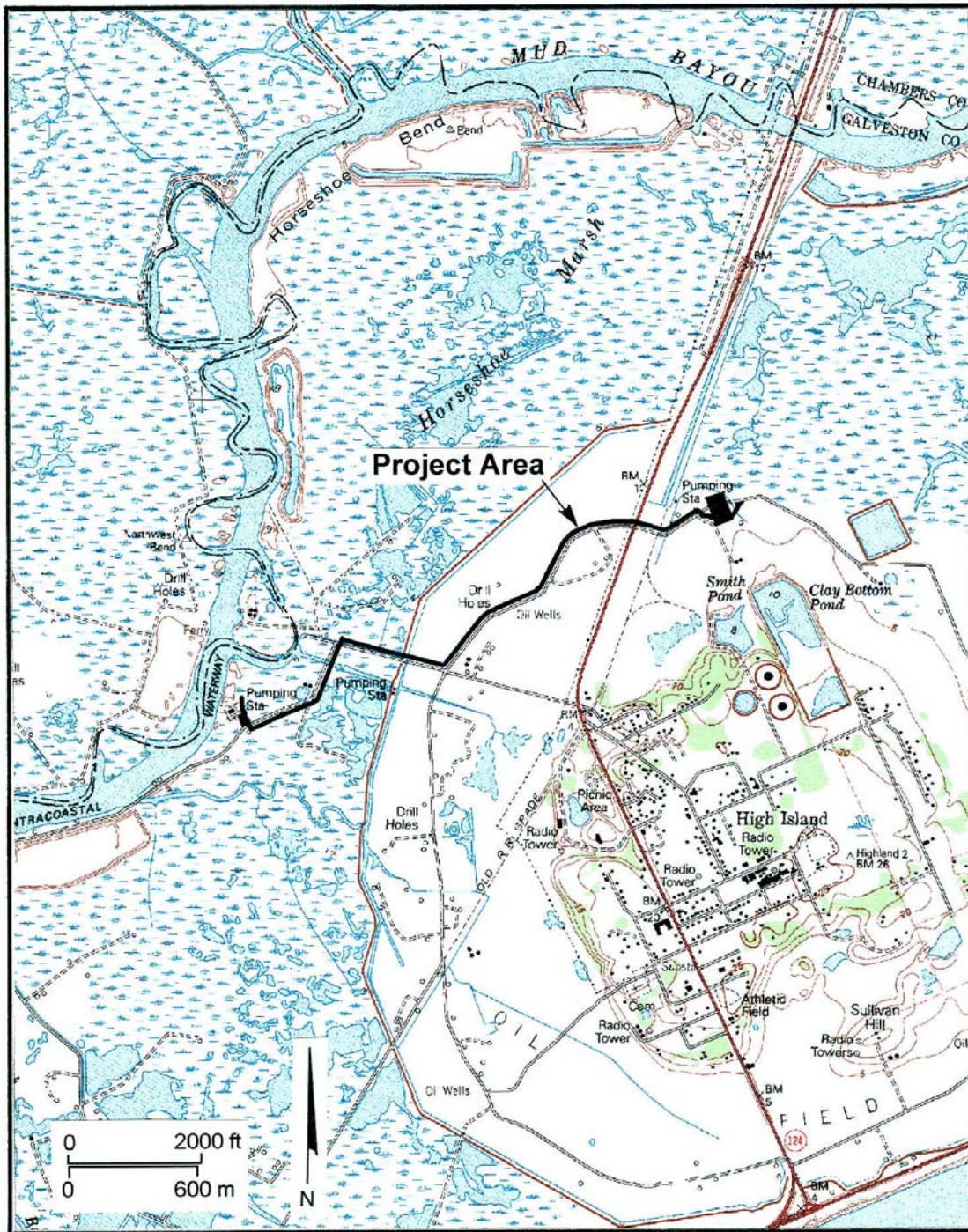


Figure 2. Project Area on Topographic Map High Island



## ENVIRONMENTAL SETTING

The following information is taken from the soil survey for Galveston County (Crenwelge et al. 1988). Galveston County is located in the southeast part of Texas along the Gulf of Mexico and has a total area of 424,961 acres. Generally, the land surface is characterized as broad and nearly level with elevations ranging from sea level to about 45 feet in the northwest part of the county. The modern climate of Galveston County consists of hot and humid summers and mild winters. In winter, the average temperature is 47 degrees Fahrenheit, and the average daily temperature is 33 degrees Fahrenheit. In summer, the average temperature is 83 degrees Fahrenheit, and the average daily temperature is 87 degrees Fahrenheit. Total annual precipitation is 39.73 inches. Of this amount, 23 inches (60%) usually falls in April through September. A check of the soil survey for Galveston County revealed that the Central Gas Sales Facility, short pipeline (237 feet), and a portion of the long pipeline (9347 feet) is located within Ijam clay, 0 to 2 percent slopes (ImA). According to Crenwelge, et al. 1988:21), this soil is found in coastal marshes and is formed from materials dredged from bays and canals. In a typical profile, the surface layer of ImA soils is dark grayish-brown clay about 10 inches thick. Below this is an underlying layer of calcareous dark gray clay to a depth of 25 inches. The middle part consists of moderately alkaline gray clay with a few strata of sand to a depth of 56 inches. The lower part, to a depth of 61 inches, is neutral bluish gray sand that has a few strata of sandy clay loam. This soil is poorly drained, and flooding is a hazard. The drill site is located in Kemah silt loam, 1 to 3 percent slopes (KeB). It is described in the soil survey for Galveston County (Crenwelge et al. 1988:23-24) as a gently sloping, somewhat sloping, poorly drained soil that has clayey subsoil. In a typical profile, an acidic silty loam overlies a gray clay at a depth of 35 inches.



Figure 3. Central Gas Sales Facility Site (looking north)

## ARCHAEOLOGICAL BACKGROUND

The areas most likely to contain significant prehistoric sites are the shorelines along the mainland and the inland bays and streams where Indians gathered to consume *Rangia cuneata*, oysters, and brackish water clams. As they discarded the used shells, large middens often accumulated. This was a seasonal practice, as they camped on the shell heaps until they moved to other areas. Evidence for campsites consists of pottery, animal bone, flakes, and flint tools such as arrow points. Shell middens have been recorded along the coast and in inland settings, and these sites are a common occurrence in the area. Since the prehistoric Indians probably traversed the entire area within the project area boundaries, any elevated landform above water is likely to contain evidence of their presence. A recent survey by archaeologists from Prewitt and Associates (Gadus and Moss 2001), for example, documented shell middens along East Bay Bayou, which has been dredged (in part) to form the Gulf Intracoastal Waterway. Prewitt's project area extended from High Island to the Brazos River Diversion Channel in Brazoria, Chambers, and Galveston counties. The potential for offshore sites has to be viewed as high based on the presence of the McFaddin Beach site (41JF50) in adjacent Jefferson County.

Historic accounts of Indian activity in the area suggest that the area was intensively utilized during different seasons of the year. Explorers such as Cabeza de Vaca observed the local Indians moving about the area where they subsisted on various foods and animals that were available at that time. He noted that in the winter they inhabited an island (possibly Galveston Island) where they ate roots and fish and slept on mats on shells with a few skins for cover. In the spring they returned to the mainland or seashore where they collected berries and oysters. In the summer they moved back to the island where they ate wild potatoes along with a few buffalo and deer (Gilmore 1974: Table 1).

## PREVIOUS INVESTIGATIONS

A check of the site records by Jean Hughes, Assistant Curator of Records at TARL in Austin, Texas, revealed no previously recorded archaeological sites in the project area. In the 1950s, Thomas Nolan Campbell (1957) reported on the Caplen site (41GV1), and his work represents the first professional study of a prehistoric site in the county. Prehistoric cemeteries have been documented in the area and include the Caplen site located just south of the Gulf Intracoastal Waterway on Bolivar Peninsula, the Jamaica Beach site (41GV5) and the Mitchell Ridge site (41GV66) located on Galveston Island facing West Bay. Aten (1965) conducted excavations at the Jamaica Beach site and found human remains believed to be associated with the coastal Karankawa. Work by Ricklis (1994) at Mitchell Ridge identified habitation features such as hearths, pits, a house floor, activity areas, and four burial areas with about 52 individuals present. In 1998, Prewitt and Associates, Inc. conducted a very large survey (85 miles) along the Gulf Intracoastal Waterway from High Island to the Brazos River Diversion Channel in Brazoria, Chambers, and Galveston counties (Gadus and Moss 2001), and portions of this study were very close to the current project area. Seven new sites were identified: four prehistoric shell middens, one twentieth-century house site, and two twentieth-century shipwrecks. Two of the shell middens in Chambers County (41CH360 and 41CH361) were considered to be potentially eligible for listing in the National Register of Historic Places. Both sites are on low rises surrounded by natural marsh vegetation. In addition to the detailed monograph by Ricklis (1994) and the in-depth report by Gadus and Moss (2001), the interested reader is referred to two major works that discuss in detail the archaeology of Southeast Texas. These are Aten's (1983) exhaustive work entitled *Indians of the Upper Texas Coast* and *The Archeology and Bioarcheology of the Gulf Plain* (Story et al. 1990).

## METHODS

Prior to entering the field, the Principal Investigator discussed the project with the lead reviewer for this project, William A. Martin, Staff Archaeologist of the Texas Historical Commission, Archeology Division. It was decided at this meeting that the Central Gas Sales Facility, the 327-foot segment of pipeline that connects this facility with the access road, and 2000 feet of pipeline that passes through the marsh north of the Central Gas Sales Facility are the only areas that needed to be investigated. The rest of the pipeline, between the marshy area and the drill site, was viewed by all parties at the meeting as a low probability area for an archaeological site. Next, relevant reports involving previous archaeological research in the area and elsewhere in the county were reviewed in order to become familiar with the kinds of sites known to occur in the area. Phil Bishop and Ally Freer walked over as much of the project as possible given the wet conditions of the marshy setting. The footprints of the Central Gas Facility and drill site were not flagged. Therefore, the field survey crew located the corners of the Central Gas Sales Facility and drill site using a Trimble Geo-Explorer GPS unit with sub-meter accuracy. Because of the wet conditions and lack of high ground, shovel testing was not conducted. The field survey crew also looked for the presence of historic sites that might be visible in the form of features. The project was documented through field notes and digital photographs.

## RESULTS AND CONCLUSIONS

A review of site records at the Texas Archeological Laboratory in Austin, Texas revealed no previously recorded archaeological sites in the project area, and the area has not been examined by professional archaeologists. The site of the Central Gas Sales Facility is not viewed as a likely setting for a prehistoric site because of the marshy conditions and presence of disturbed soils. If the soil survey for Galveston County is accurate, the proposed construction in the area where the Central Gas Sales Facility and 237-foot pipeline will be constructed will not be deep enough to penetrate the IMA soils created by dredge spoil resulting from the creation of the Gulf Intracoastal Waterway. It is possible that prehistoric shell middens or small camps may have been present along the bank of the bayou in prior to the creation of the Gulf Intracoastal Waterway, but the dredging of the canal in some areas would have destroyed them. The 1998 survey by Prewitt and Associates (Gadus and Moss 2001) examined a large area north of the canal for a distance of six kilometers and one kilometer inland from the canal and main channel of the bayou. The four shell middens were found near the bayou, no prehistoric sites were found inland from this stream, and no sites were found in the low-lying marshy areas. The proposed drill site is not viewed as a likely setting for a prehistoric site because of the marshy conditions and distance to the nearest stream (East Bay Bayou). This study revealed that portions of the project area had been disturbed through oil and gas activities. This study was performed according to the minimum survey standards as outlined by the Texas Historical Commission, Archeology Division.

## **RECOMMENDATIONS**

No archaeological sites were found in the project area. Therefore, it is recommended that Suemaur Exploration & Production, LLC. be allowed to proceed with construction as planned. Should evidence of an archaeological site be found during construction, all work in the area of the find must cease until the situation can be evaluated by the Texas Historical Commission, Archeology Division and the United States Army Corps of Engineers. In the event that additional areas are added to the project, the Texas Historical Commission must be notified as additional survey(s) by a professional archaeologist may be necessary.

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