

# EXHIBIT AA. PHASE I, ARCHAEOLOGICAL SURVEY REPORT

## **PHASE I CULTURAL RESOURCES SURVEY OF A 44-ACRE/16.3-HECTARE TRACT NEAR INNIS, POINTE COUPEE PARISH, LOUISIANA Report of Negative Findings**



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Archaeology

Historic Preservation

Cultural Resource Management

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OF A 44-ACRE/16.3-HECTARE TRACT NEAR INNIS,  
POINTE COUPEE PARISH, LOUISIANA**

**Report of Negative Findings**

**Draft Report**

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**July 8, 2011**



## **ABSTRACT**

In June, 2011, SURA completed a Phase I cultural resources survey of a 44-ac (16.3 ha) tract in Pointe Coupee Parish, Louisiana. No archaeological sites were found in the APE. A silo complex was documented in the northwestern quarter of the APE. It was judged, however, that this complex does not qualify for the NRHP because the complex was not 50 years-old.

SURA concluded there were unlikely to be properties eligible for the NRHP in the current APE and recommended the property be certified as planned for industrial development.

## **ACKNOWLEDGMENTS**

The authors are grateful to many people for assistance during this project. First, Mr. Jim Cavanaugh, of the Baton Rouge Chamber, provided maps and other documents. Mr. Paul Roy, owner of the adjacent property, provided information on the area as a whole. The employees of the Pointe Coupee Port Authority were likewise helpful. Mr. John Anderson, of the Louisiana State University Department of Geography and Anthropology's Cartographic Information Center provided historical topographic maps.

The field crew consisted, on different days, of Dr. Malcolm K. Shuman, Mr. Phillip K. Taylor, Ms. Taylor Gabour, and Mr. Eddie Rowzee.

Dr. Malcolm Shuman was the principal investigator and the primary author of this report, though portions of the background chapters are taken from previous reports for which Shuman was the principal investigator.

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## **CHAPTER ONE: INTRODUCTION**

On June 17, 20, 21, 27 and 28, 2011, Surveys Unlimited Research Associates, Inc. (SURA) conducted a Phase I cultural resources survey of 44-acres (ac) (16.3 hectares [ha]) on a tract, most of which is on the southwest side of the intersection of Louisiana Highways 970 and 418, Pointe Coupee Parish, Louisiana (Figure 1). The tract surveyed is being qualified as a part of the Certified Sites Program of the Louisiana Economic Development office. This means that, upon qualification, the site will be available for industrial use. The tract lies in Sections 2 and 3, T 1 S, R 7 E.

Because the Area of Potential Effects (APE) is lies on the south side of the relict cutbank of Lower Old River and because the Lettsworth Bayou Mound (16PC7) lies about 1,000 feet (ft) (ca. 305 meters [m]) east of the APE, the State Historic Preservation Officer (SHPO) recommended a Phase I archaeological survey.

The present report will consider the environment of the project area, previous research in this area and the methodology employed in the current undertaking. The results of the survey will be described, followed by a chapter of recommendations. References cited are appended to the end of the report.

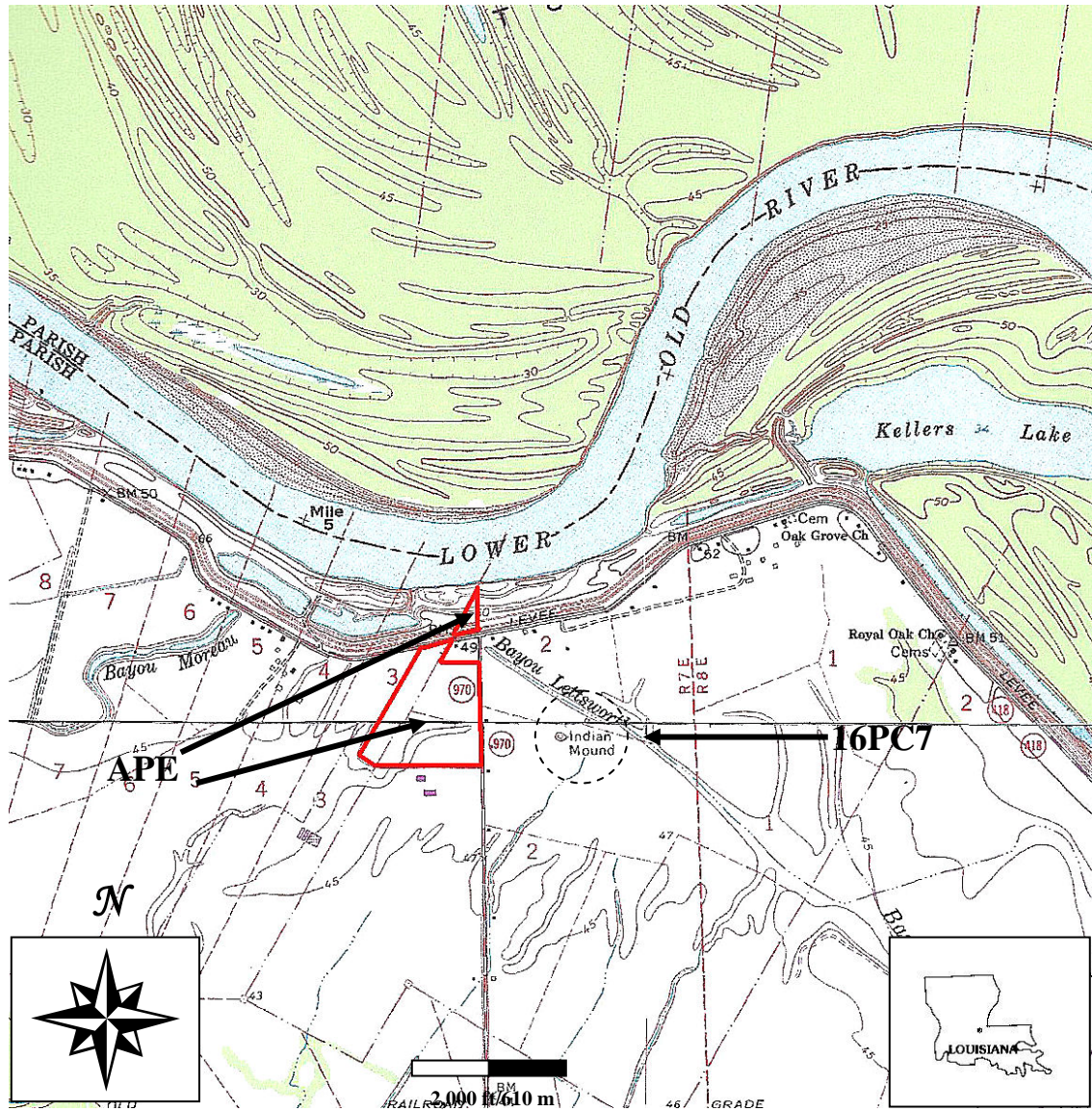
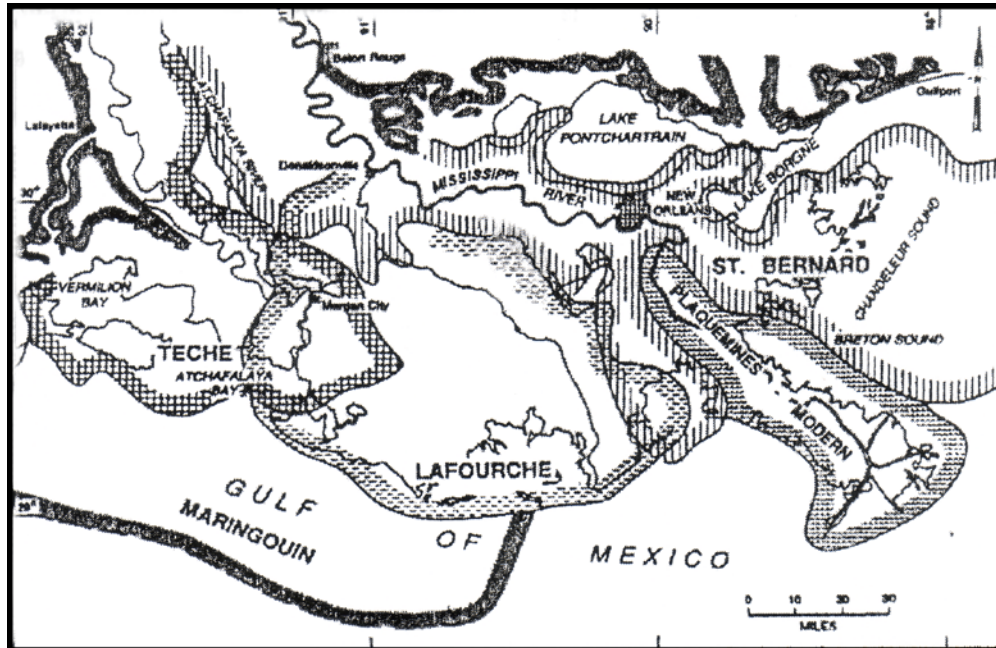


Figure 1. Portions of Innis, La. 7.5-minute and Turnbull Island, La. 7.5-minute topographic quadrangles showing location of APE and site 16PC7 (Lettsworth Bayou Mound).

## CHAPTER TWO: NATURAL SETTING

### Geomorphology

Much of southeastern Louisiana owes its existence to the activity of the Mississippi River, which created the Maringouin (9,000-6500 B.P.) and Teche (5800-3900 B.P.) deltas (Figure 2, Table 1). According to Weinstein and Kelley (1992:3-4), the Maringouin delta once reached 40 to 50 mi (miles) (ca. 65 to 81 km [kilometers]) beyond the current shoreline. Sea level was 40 to 60 ft (ca. 12 to 18 m) lower than it is now and when the sea rose to its current level, the Maringouin delta retreated. Those of its landforms that were not eroded away were buried.



**Figure 2. Widely accepted interpretation of the sequence for the development of Holocene era delta complexes (Source: Frazier 1967).**

The Teche delta began to form about 5800 years ago when the sea reached its current level. Bayous Teche, Boeuf, L'Ourse, and Black have all been trunk channels of the Teche system. The natural levees associated with this system have partially subsided but may still be detected as surface exposures .5 to 1 mi (.8 to 1.6 km) wide (Weinstein and Kelley 1992:3).

**Table 1. The sequence of the deltas, their names (after their main supply river), and ages (Source: Coleman 1988).**

Maringouin (7,500 to 5,000 years ago)
Teche (5,500 to 3,800 years ago)
St. Bernard (4,000 to 2,000 years ago)
Lafourche (2,500 to 800 years ago)
Modern Mississippi (Birdfoot) (1,000 years ago to today)
Atchafalaya (50 years ago to today)

There is no general agreement as to the easternmost extent of the Teche delta, with Weinstein and Gagliano (1985:123) placing this limit about 30 mi (48.5 km ) east of Houma and Smith et al. (1986:61-62) placing the easternmost limit at Houma; the latter researchers also suggest that delta formation took place somewhat later, between approximately 4500 and 3500 B.P.

By about 4800 years before the present, the Mississippi began to abandon the Teche delta and began the creation of a new outlet near present-day New Orleans (Weinstein and Kelley 1992:4). Nevertheless, a portion of the Mississippi's discharge continued through the older Teche delta and when the Mississippi finally abandoned the Teche for good, the Red River occupied the course of Bayou Teche and began to empty directly into the Gulf (Weinstein and Kelley 1992:5).

It is not known how long the Red River occupied the Bayou Teche channel. Weinstein and Kelley (1992:5) point out that archaeological data argue for the Red River leaving the Teche course between 1800 and 1900 years ago.

The Mississippi River, meanwhile, began to shift westward again and this time began to flow down Bayou Lafourche, with this system reaching its peak flow approximately 2000 years before the present (Weinstein and Kelley 1992:5). Some time after 1500 B.P., the Fardoche Distributary System formed through the development of a crevasse channel in the current Mississippi River meander belt; this crevasse channel is the present Bayou Fardoche (Britsch 1998: 13-14; Tornqvist et al.1996; Wells 2001:5)

The current delta south and southeast of New Orleans began to form about 1,000 years ago, with the amount of flow down Bayou Lafourche diminishing significantly. Weinstein and Kelley (1992:5) state that after this, "subsidence and marine transgression became the dominant processes within the Terrebonne marsh."

The project area was heavily influenced by the creation of the Atchafalaya River, which happened less than 500 years ago when the Old River-Turnbull Island meander of the Mississippi River intersected the Red River. Floods incited by that event created a crevasse on the south side of the meander and this crevasse eventually became the Atchafalaya River (Fisk



1952:65; Wells 2001:5). The new Atchafalaya River increased in flow until 1831, when the Old River-Turnbull Island meander was artificially cut off to separate the Atchafalaya from the Mississippi and Red rivers (Wells 2001:5). According to Wells, the clearing away of logjams in the Atchafalaya River during the 1840s and 1850s caused the river's channel to increase significantly, resulting in increased flooding in the Atchafalaya Basin. The consequence would have been the diversion of the Mississippi's main channel into the Atchafalaya had not the Old River Control structure been built in 1963 (Wells 2001:5).

## **Soils**

The project area is formed of soils pertaining to the Commerce-Mhoon association (USDA 1971). The soils form a nearly level land surface, with loams at the higher elevations. Commerce soils, which comprise about 65 percent of the association, are slightly acid to mildly alkaline. They have a dark grayish-brown silt loam surface and a grayish brown silty clay loam subsoil. Mhoon soils, which form about 20 percent of the association, have a dark gray silt loam surface and a dark gray silty clay loam subsoil. The remaining 15 percent of the association is made up of Convent, Vacherie and Sharkey soils (USDA 1971).

## **Flora**

Common vegetation in the general area includes the water oak (*Quercus nigra*), the sweet-gum (*Liquidambar styraciflua*), ironwood (*Carpinus caroliniana*), American elm (*Ulmus virginiana*), black willow (*Salix nigra*), hackberry (*Celtis laevigata*) and live oak (*Quercus negundo*). Palmettos (*Sabal minor*) are very common shrubs. Ground cover such as Virginia creeper (*Parthenocissus quinquefolia*) and poison ivy (*Rhus radicans toxicodendron*) are also prolific.

The poorly drained fresh water swamps at the base of the natural levees of the distributaries are dominated by the bald cypress (*Taxodium distichum*) and the tupelo (*Nyssa aquatica*). Red maple (*Acer rubrum* var. *drummondii*) and ash trees (*Fraxinus* spp.) represent the other sub-dominants in this community. Shrubs include wax myrtle (*Myrica cerifera*), dahoon berry (*Ilex cassine*), and button bush (*Cephalanthus occidentalis*). Ground cover consists of smart weed (*Persicaria punctata*), alligator weed (*Alternanthera philoxeroides*), lizard's tail (*Saururus cernuus*), pickerel-weed (*Pontederia cordata* L.), and water hyacinth (*Eichornia crassipes*) (Brown 1945).

## **Fauna**

A relatively large variety of animal life of all classes currently can be found in the vicinity of the project area and were likely to have been present during prehistory. Among the mammals present then and now are the muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and the white tailed deer (*Odocoileus virginianus*), as well as others (Lowery 1974).

Reptiles include the alligator (*Alligator mississippiensis*), the eastern box turtle (*Terrapene carolina*), and a vast array of snakes, from water moccasins (*Agkistrodon piscivorus*) to water snakes (e.g., *Nerodia rhombifera*). A number of frogs and salamanders comprise the amphibian population (Dundee and Rossman 1989).

Fish are currently, as well as prehistorically, important as a food source. Many varieties of fresh water fish would have been found in the bayous during ancient times. Examples of fish currently available are the alligator gar (*Lepisosteus spatula*), the largemouth bass (*Micropterus salmoides*), the channel catfish (*Ictalurus punctatus*) and the blue catfish (*Tetalurus fureatus*).

Bird life is also rich in this area, and as might be expected, waterbirds were among the most numerous types. Ducks would have abounded, including the mallard (*Anas platyrhynchos*), the American pintail (*Anas acua*), and the blue winged teal (*Anas discors*). Also present were the great blue heron (*Ardea herodias*), the great egret (*Egretta alba*), and the snowy egret (*Egretta thula*) (Lowery 1955).

### **CHAPTER THREE: PREVIOUS INVESTIGATIONS**

#### **Investigations within 1 mi (1.62 km) of Study Area**

The only archaeological project recorded for the above radius was the Atlas project of Jones and Shuman (1987). In that year, as part of a multi-year project to map the Indian mounds of Ascension, Iberville, Pointe Coupee, St. James and West Baton Rouge parishes, Dennis Jones and Malcolm Shuman visited and mapped 16PC7 (Jones and Shuman 1987:131-132; DOA n.d.). In their volume, they concluded that 16PC7, the Lettsworth Bayou Mound, was the same as 16PC4, the Bud Genin Place Mound. They described it as 130 ft by 120 ft (39.6 m by 36.6 m) at the base and 9.8 ft (2.9 m) high. They suggested that this was a truncated pyramidal mound, rather than a burial mound. As such, it would presumably date to Baytown times or later.

Figure 3 is a photograph of the 16PC7 mound taken on June 17, 2011.



**Figure 3. 2011 photograph of 16PC7 mound, facing ESE.**



## **CHAPTER FOUR: METHODOLOGY**

The methodology employed in this project consisted of archival research, interviews with the owner of the adjacent tract and port authority personnel, fieldwork and laboratory work.

**Archival Research:** SURA conducted a preliminary review of available records, such as maps and previous reports, at the Louisiana Division of Archaeology (LDOA).

**Interview:** The landowner of the adjacent tract, Mr. Paul Roy, was interviewed as to his knowledge of cultural materials in the project area.

**Fieldwork:** Due to the proximity of 16PC7, shovel tests were excavated at 98.4 ft (30 m) intervals along transects spaced 98.4 ft (30 m) apart. All material excavated was screened using ¼" hardware cloth, except in cases where the soil was too wet or contained too much clay content to permit screening. In those cases, the excavated material was broken up by hand or trowel and visually examined. No shovel tests were excavated in areas of standing water, excessive slope or where there was obvious surface disturbance (i.e., areas where the topsoil had been removed or construction activity was evident). When cultural materials are found, archaeological sites are defined using standard site definition methodology; that is, shovel tests are excavated along a grid oriented to the cardinal directions (or, in cases where the topography renders this not feasible, oriented to grid north) and excavation of shovel tests continues until two successive shovel tests are negative or a natural barrier (e.g., a water course or a steep hillside or an area of disturbance) is encountered. Shovel tests intervals for site definition are 32.8 ft (10 m), except that in the case of sites 164 ft (50 m) or more in lateral extent, shovel tests may be excavated at intervals as specified in the LDOA field standards for site definition. Sites are mapped using tape and compass and photographed. Material recovered is taken to the SURA offices for cleaning and analysis.

**Laboratory work:** Cultural material recovered was taken to the SURA offices for cleaning and analysis.

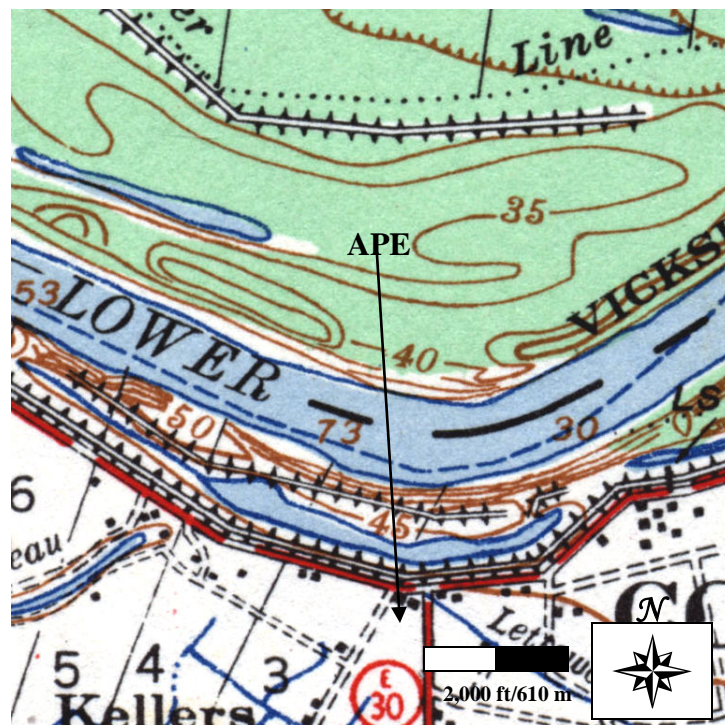
**Curation Statement:** At the end of the project all cultural material recovered will be turned over to such facility as the LDOA designates for curation.

## CHAPTER FIVE: RESULTS

### Archival Research

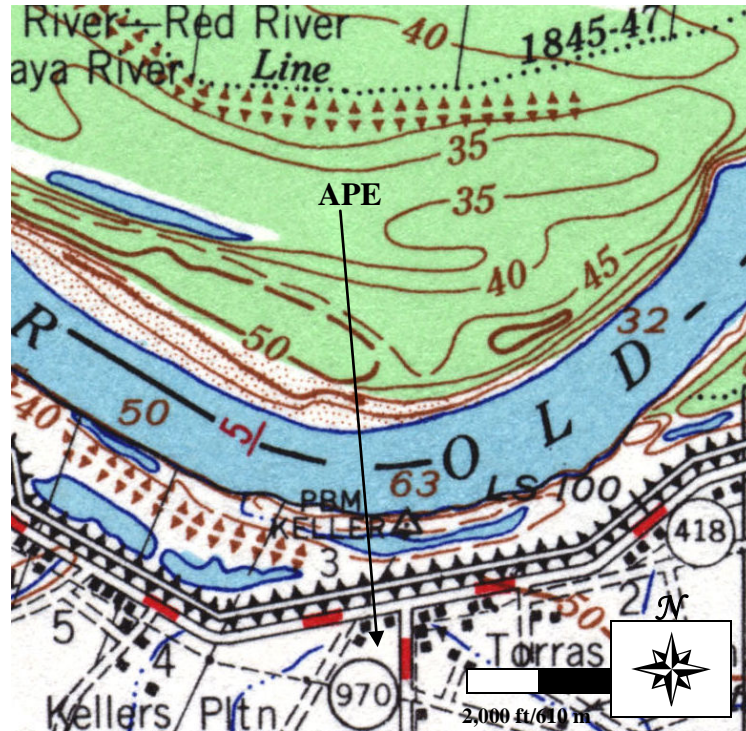
A number of sources were consulted, including the site and project files at the Louisiana Division of Archaeology, and the historic map collection at the Cartographic Information Center (LSUCIC) of the Department of Geography and Anthropology, Louisiana State University. The latter was especially useful, as there exist a number of historic topographic maps of the area. These include the Artonish, La. 1939, 1958, and 1967 15-minute sheets; the Innis, La. 1965 15-minute sheet; and the Turnbull Island, La. 7.5-minute sheet. Also consulted were the Batchelor, La. 1941 and 1955 15-minute sheets, though these did not show the project area proper.

As may be seen on the 1939 Artonish, La. map (Figure 4), there are two structures along the River Road, in what would be the northern part of the current APE. By 1958



**Figure 4. Portion of Artonish, La. 1939 15-minute topographic map, showing survey area (Source: LSUCIC)**

there is a third structure slightly southwest of these original two structures (Figure 5). By 1967, however, only one structure remains (Figure 6). These were probably tenant houses on what was once Kellers Plantation, which is named on the 1939 and 1958 Artonish 15-minute maps. By 1996, these structures are gone, but what is evidently the silo appears slightly southwest of them on the Turnbull Island, La. 1996 7.5-minute map (Figure 7). The Innis 1965 15-minute sheet shows no structures in the southern portion of the APE but for the first time the 16PC7 mound is clearly shown (Figure 8).



**Figure 5. Portion of Artonish, La. 1958 15-minute topographic map, showing survey area (Source: LSUCIC).**



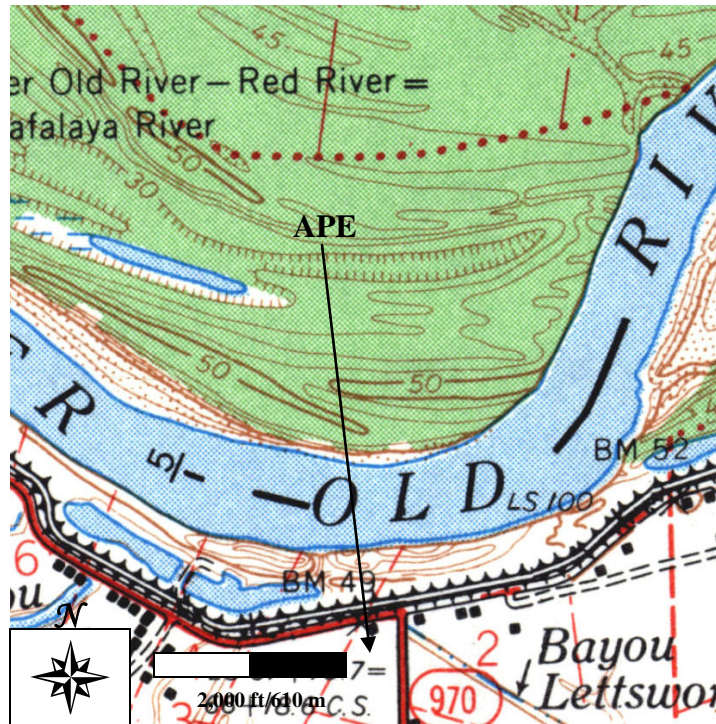


Figure 6. Portion of Artonish, La. 1967 15-minute topographic map, showing survey area (Source: LSUCIC).

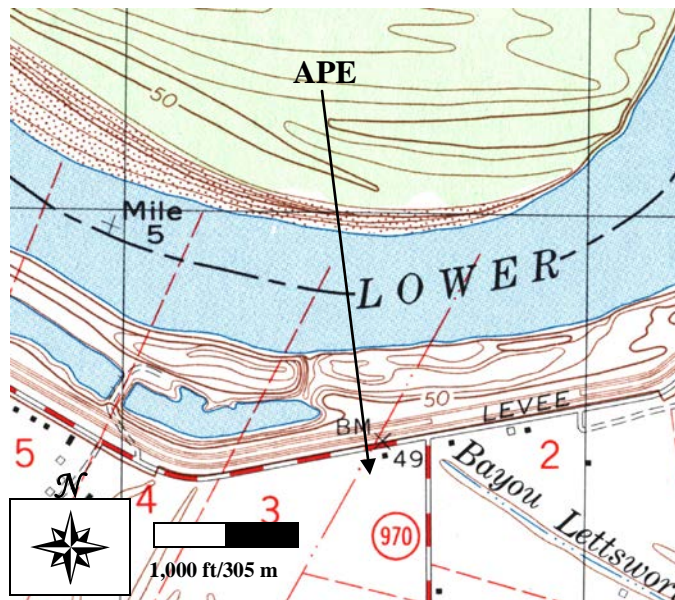
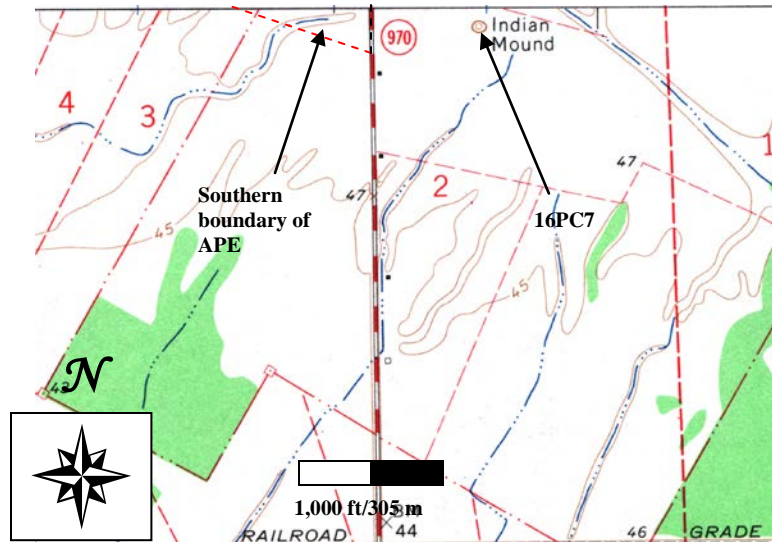


Figure 7. Portion of Turnbull Island, La. 1996 7.5-minute topographic map, showing survey area (Source: LSUCIC).



**Figure 8. Portion of Innis, La. 1965 15-minute topographic map, showing southern part of survey area (red dashed line) and nearby 16PC7 mound (Source: LSUCIC).**

## Fieldwork

The survey area or APE occupies a natural levee area on the south side of Lower Old River. A plat of the APE is shown in Figure 9 and an aerial view is shown in Figure 10.

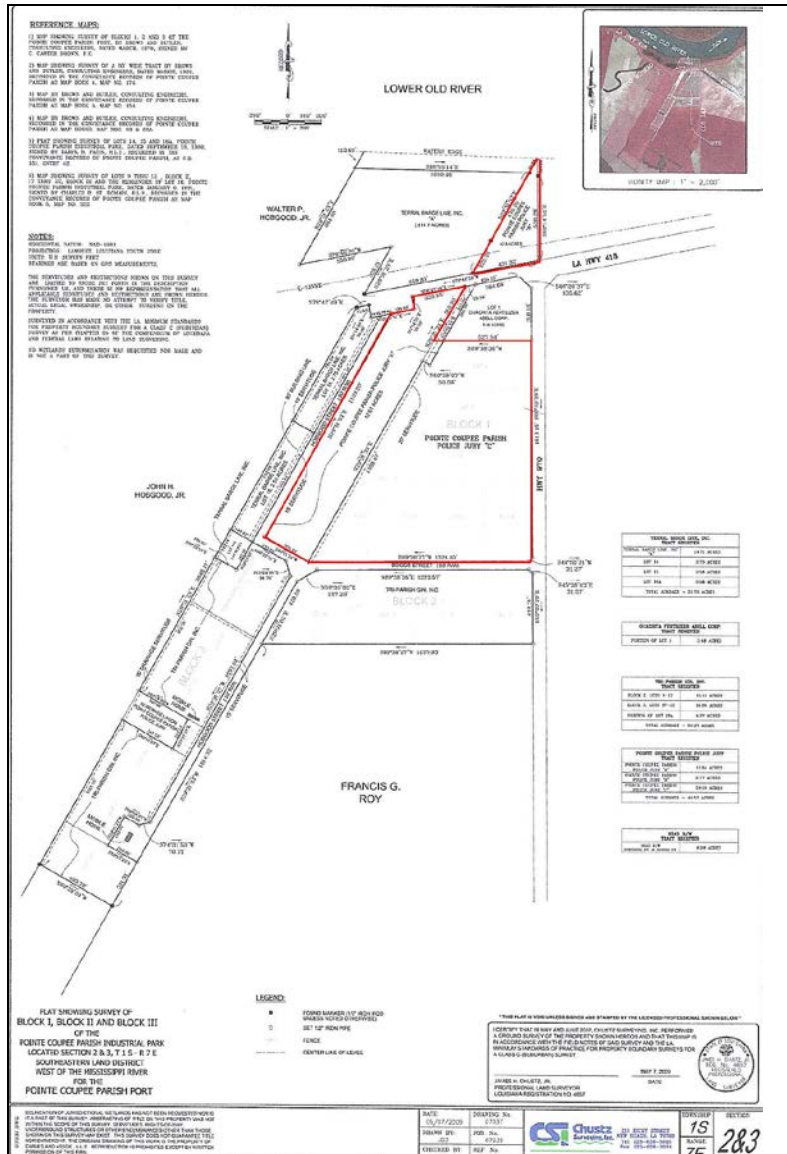
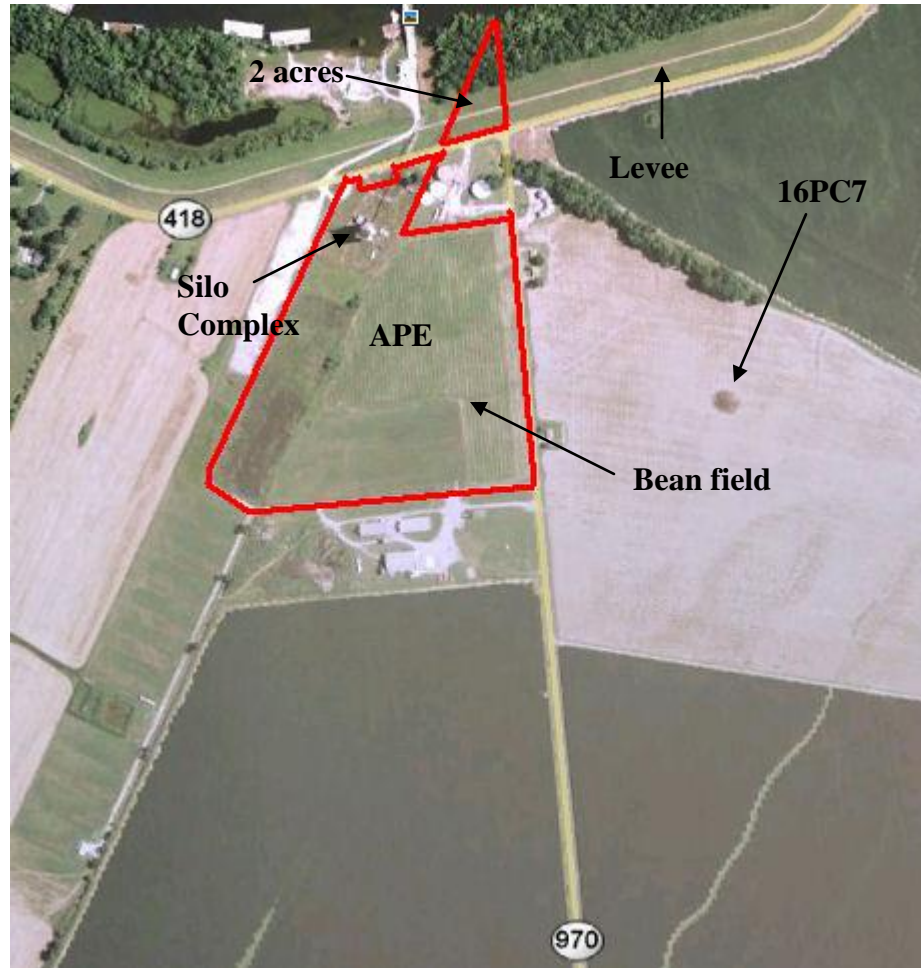


Figure 9. Survey plat of APE (outlined in red) (Source: Client).



**Figure 10. Aerial view of APE, showing site 16PC7 (Source: Google Earth).**

Most of the APE is a bean field (Figures 11 and 12). A small area in the northwestern portion of the APE contains a concrete silo, iron conveyor belt trestle and two related wooden buildings. These are shown in Figures 13 and 14.





**Figure 11. View along northern boundary of APE, facing WSW, with back to LA 970.**



**Figure 12. APE, taken from SE corner of survey area, with back to LA 970, facing NW.**





**Figure 13. Concrete silo in NW portion of APE, as seen from top of levee, facing SSE.**



**Figure 14. Wooden building associated with silo, NW portion of APE, facing SE.**

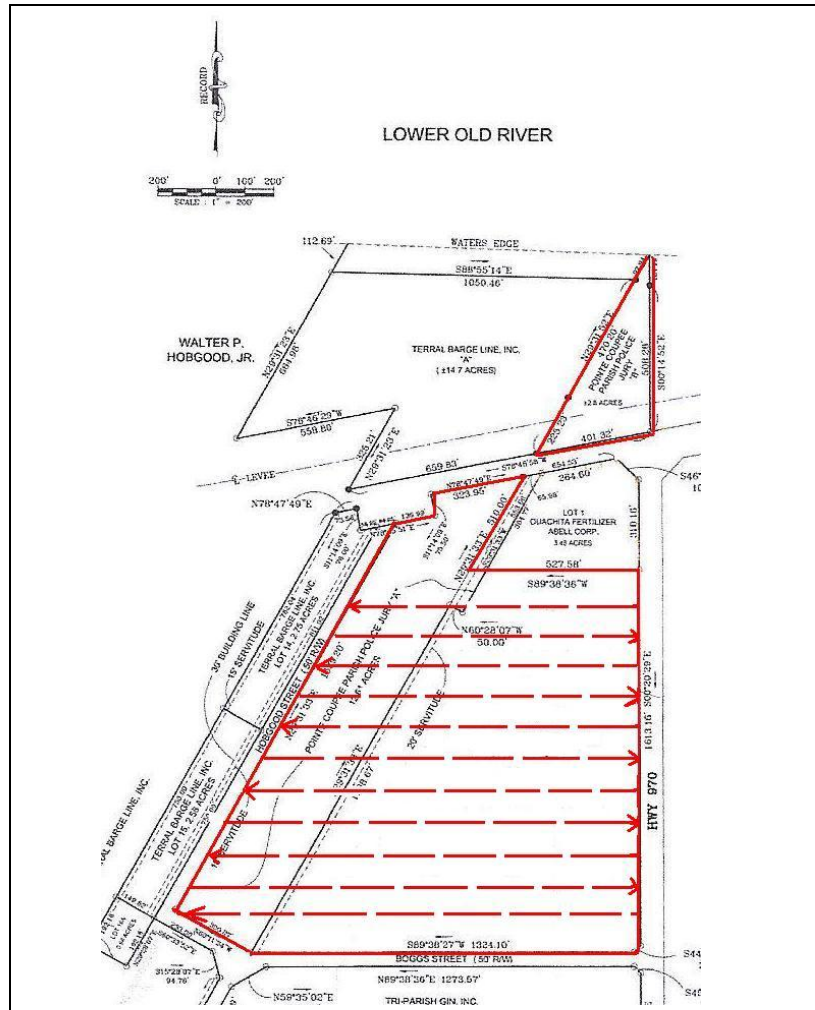
Interviews with Mr. Paul Roy, landowner of the adjacent tract, and with the Port Authority confirmed that the silo complex was constructed in 1975. Five judgmental shovel tests around the silo revealed heavy gravel concentrations and subsurface disturbance.

A 2-ac (.81-ha) plot of land on the batture side of the Old River levee, or between the River Rd (LA 418) and Old River (Figure 15), is also a part of the APE. Discounting the levee itself, this area is composed of sloping, built land, about half of which was submerged at the time of the survey. No standing structures or cultural materials were observed and no shovel tests were excavated in that area.



**Figure 15. Part of 2 acre portion of APE between River Road (LA 418) and Old River, facing ENE.**

The remaining portion of the APE, which is the bean field (Figure 10), was surveyed at 32.8 ft (10 m) transect and shovel test intervals. A total of 12 transects were conducted and 162 shovel tests were excavated. Figure 16 shows the locations and directions of the shovel test transects.



**Figure 16. APE, showing shovel test transects.**

Typical shovel test profiles are shown below, in Figure 17.



**Figure 17. Representative shovel test profiles.**

All shovel tests were negative. The only cultural properties in the APE were the silo and associated conveyor and wooden structures, which dated to 1975. These properties therefore do not meet the 50-year threshold for historic properties. The structures shown on the historic topographic maps appear to have been leveled to make room for the silo complex, which was part of the APE, and for the tank form at the southwestern side of the LA 970/LA 418 intersection, which is *not* part of the APE. The silo area showed considerable subsurface disturbance, such that there was no possibility of integrity to any archaeological deposits.

## **CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS**

In June, 2011, SURA completed a Phase I cultural resources survey of a 44-ac (16.3 ha) tract in Pointe Coupee Parish, Louisiana.

### **Archaeological Sites**

No archaeological sites were found in the APE.

### **Standing Structures/Engineering Structures**

One concrete silo, two wooden out-buildings associated with it, and a steel-framed conveyor that had formerly been used to transport material from the Old River to the silo were all noted in the northwestern quarter of the APE. It was judged, however, that this complex does not qualify for the NRHP for the following reason:

For a property to be eligible for listing on the NRHP, it must not have achieved significance within the last 50 years (NPS 1995:2), possess integrity and be able to satisfy at least one of four criteria.

Informant data indicated the complex in question was constructed in 1975. Thus, it does not meet the 50-year threshold mentioned above.

### **Recommendations**

SURA concludes that there are unlikely to be properties eligible for the NRHP in the current APE and recommends that the property be certified for development as planned.

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## Maps

- 1939 Artonish, La. 15-minute topographic quadrangle. U.S. Geological Survey, Washington, D.C.
- 1958 Artonish, La. 15-minute topographic quadrangle. U.S. Geological Survey, Washington, D.C.

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