Exhibit HH. Hornsby Industrial Park Phase I Cultural Resources Assessment Report

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Hornsby Industrial Park Phase I Cultural Resources Assessment Report

A PHASE I CULTURAL RESOURCES SURVEY FOR THE PROPOSED HORNSBY INDUSTRIAL PARK LIVINGSTON PARISH, LOUISIANA

NEGATIVE FINDINGS
DRAFT REPORT

Prepared by

TerraXplorations, Inc.

Prepared for

Baton Rouge Area Chamber

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1001 Hampton Gate
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SEPTEMBER 2017

Baton Rouge Area Chamber
564 Laurel Street
Baton Rouge, LA 70801

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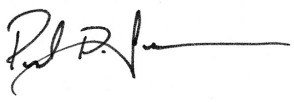
Principal Investigator
Paul D. Jackson



TerraX Report No. 2017.140

SEPTEMBER 2017

ABSTRACT

Between September 4-12, 2017, TerraXplorations, Inc. (TerraX) of Mobile, Alabama performed a cultural resources survey of 127 acres (51.40 hectares) for the proposed Hornsby Industrial Park in Livingston Parish, Louisiana. The Phase I survey was performed by Chris Rivers, Matt Sumrall, Alexander Ballesteros, and Kelsey Johnson under the direction of Paul D. Jackson, Principal Investigator. The investigation failed to identify any cultural resources within the project area and background research identified no cultural resources that would be impacted by the proposed project. Accordingly, no further archaeological studies are recommended for the proposed project.

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER I
INTRODUCTION

TerraXplorations, Inc. (TerraX) of Mobile, Alabama was contracted by the Baton Rouge Area Chamber of Baton Rouge, Louisiana to conduct a cultural resources survey for the proposed Hornsby Industrial Park in Livingston Parish, Louisiana. The Phase I survey was conducted between September 4-12, 2017 by Chris Rivers, Matt Sumrall, Alexander Ballesteros, and Kelsey Johnson with Paul D. Jackson serving as Principal Investigator. The purpose of this study was to determine if any prehistoric or historic properties exist within the limits of the project area, and if so, to document and assess each based on the National Register of Historic Places (NRHP) criteria. The investigation was conducted to support the Louisiana Economic Development (LED) Site Certification process.

The total project area, encompassing approximately 127 acres (51.40 hectares) lies north of U.S. Highway 190/Florida Boulevard between the communities of Walker and Satsuma, Louisiana (Figure 1.1). The project area is bounded by Corbin Avenue to the east and is located behind the existing Livingston Parish Industrial Park. A drainage separates the existing industrial park from the current study area. The subject property is found within Sections 20 and 21, Township 6S, Range 4E as seen on the 1980 Satsuma, Louisiana USGS 7.5' series topographic quadrangle (Figure 1.2). Photographs depicting the present state of the land within the project area are provided (Figures 1.3-1.6).

This report of Phase I investigations is presented as follows. Chapter 2 contains information regarding the past and present environmental conditions in the project area. Chapter 3 details the background research for this project. Chapter 4 presents the methodology and results of fieldwork. Chapter 5 concludes the report and summarizes our findings and recommendations. Appendix A contains the curation agreement.

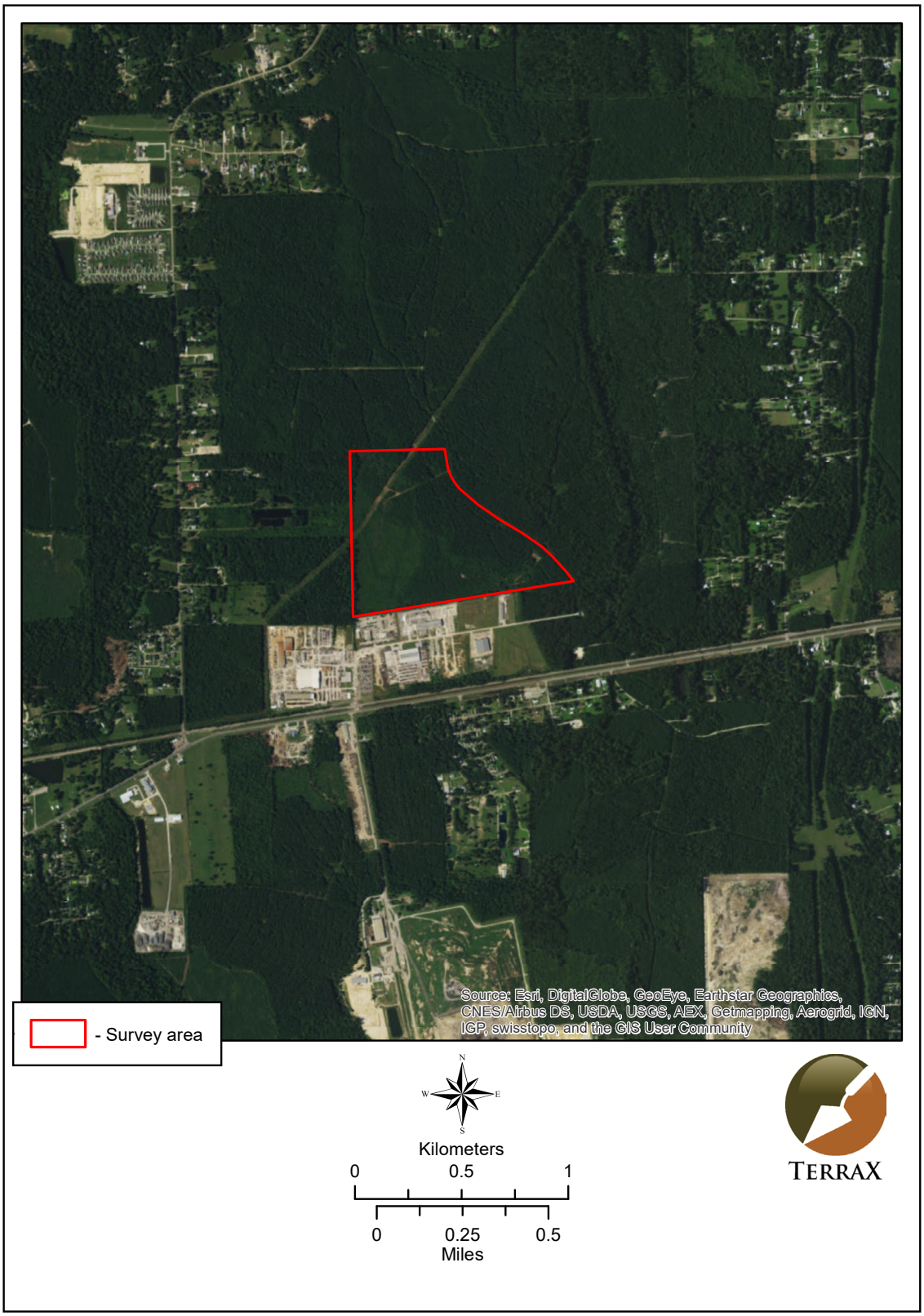


Figure 1.1. *Aerial showing project area.*

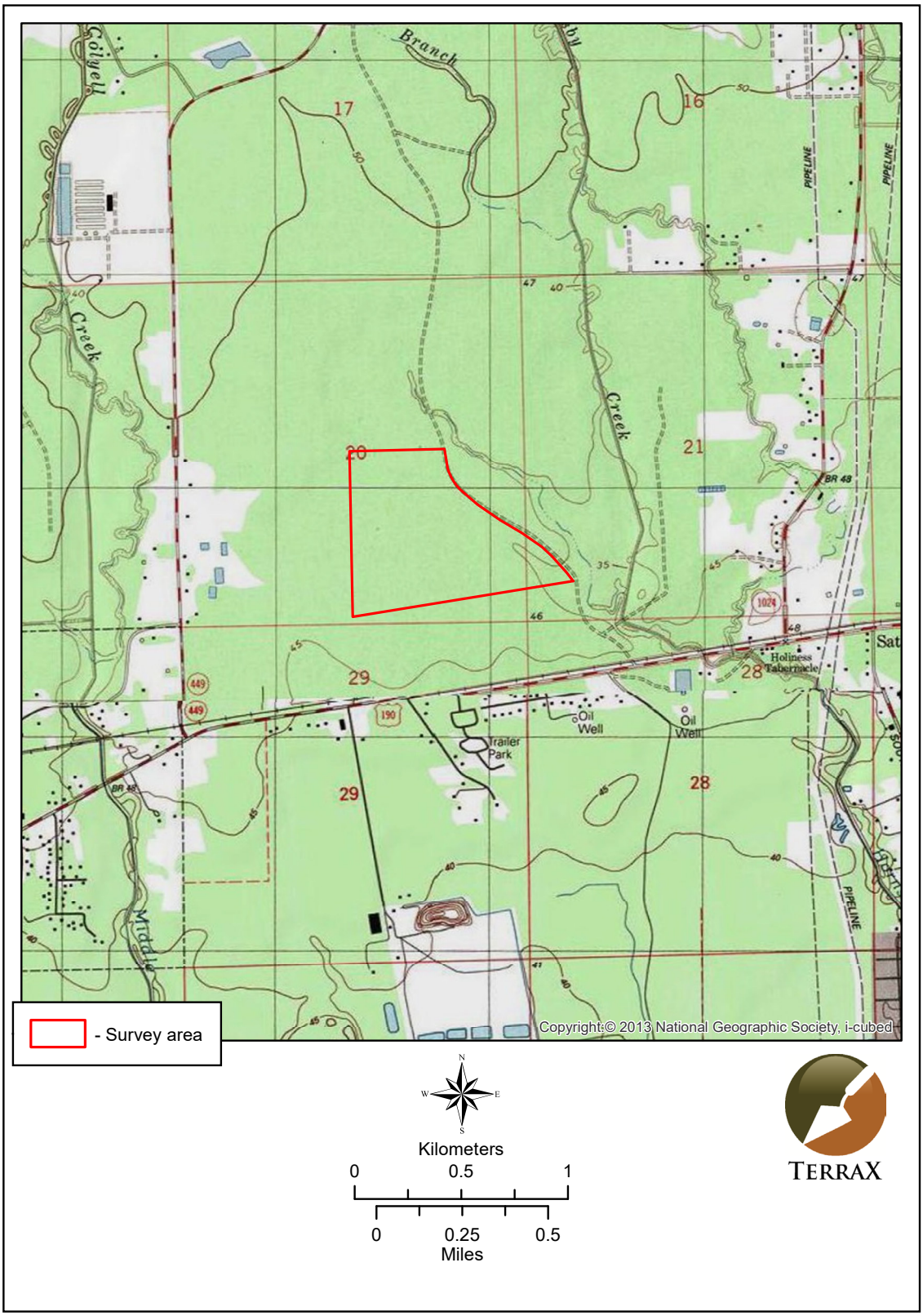


Figure 1.2. *Map showing the project area (based on the 1980 Satsuma, Louisiana USGS 7.5' series topographic quadrangle).*

Figure 1.3. *View of vegetation in southeast portion of study area, facing northwest.*

Figure 1.4. *View of exposed subsoil in southeast portion of study area, facing northeast.*

Figure 1.5 *View from northern portion of study area, facing north.*

Figure 1.6. *View from western portion of study area, facing northeast.*

CHAPTER 2
PROJECT AREA ENVIRONMENT

PHYSIOGRAPHY

The project area is located in southeast Louisiana in Livingston Parish. The parish is primarily rural and made up of mainly woodland with some pasture. The survey tract falls within the Pleistocene Terraces Physiographic Region (Figure 2.1). Deposits associated within this region consist of sand, gravel, and mud, beneath raised, flat surfaces with differing degrees of tilt and dissection depending on their relative ages. These surfaces are remnants of former flood plains along the major rivers in southern and northern Louisiana (Louisiana Geological Survey 2010). Livingston Parish is drained by the Amite, Tickfaw, and Natalbany Rivers. These rivers flow southward and empty into Lake Maurepas. The project area is located between Hornsby Creek and Colyell Creek. Elevations throughout the parish range from near sea level to about 110 ft in the northern part of the parish (McDaniel 1991).

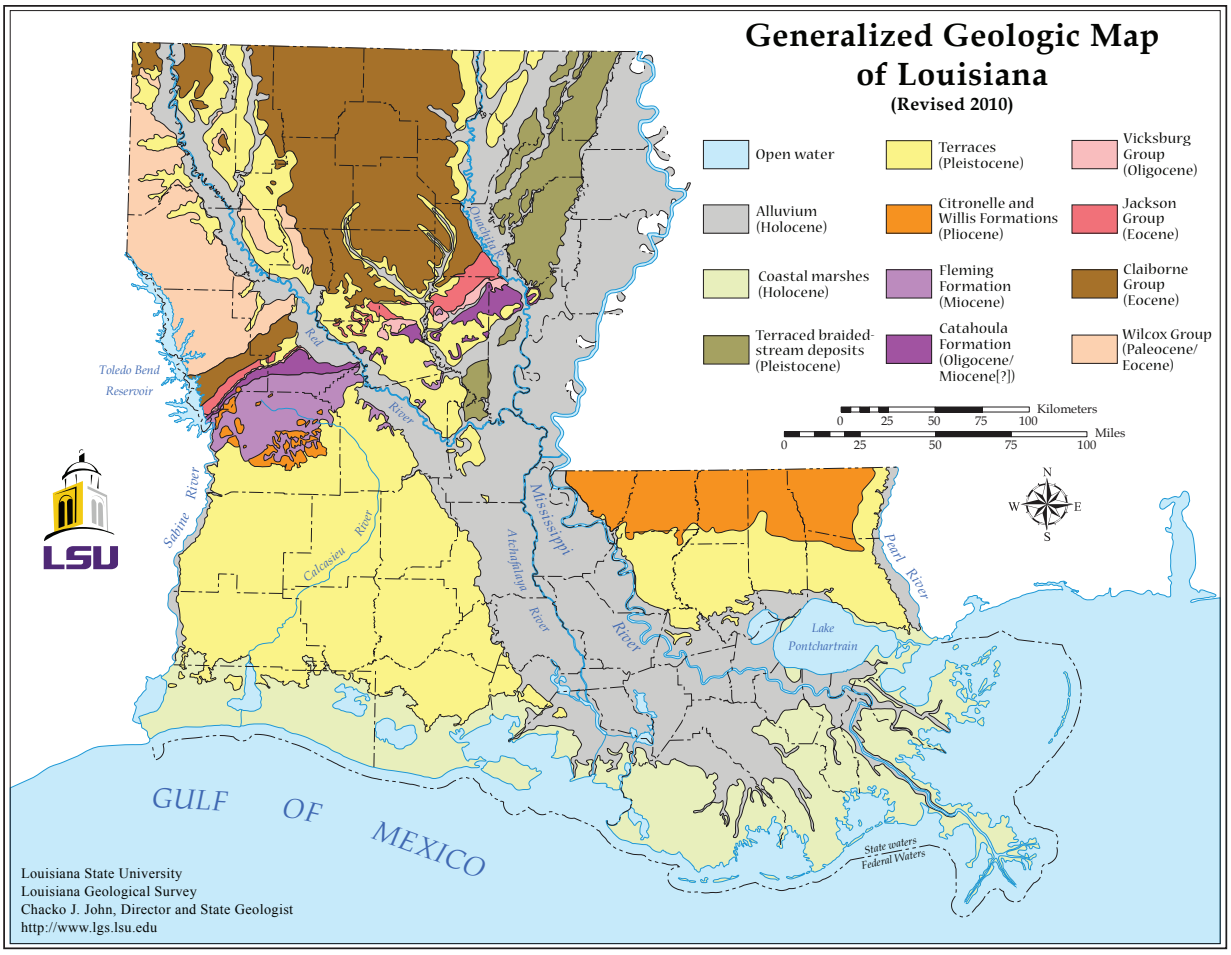


Figure 2.1. *Geologic map of Louisiana (Louisiana Geological Survey 2010).*

SOILS

A review of the Web Soil Survey (2017) identified three soil types within the project area. Encrow silt loam, occasionally flooded are poorly drained soils found on terraces. Woodland and pasture are the primary uses of this soil. It is also well suited for homesite and recreational development. Satsuma silt loam, 1 to 3 percent slopes is described as somewhat poorly drained and is found on stream terrace ridges. This soil is gently sloping and subject to rare flooding. It is well suited to pasture. Lastly, Springfield silt loam occurs on terraces and is level and poorly drained. Most areas are used as woodland while some are used for pasture or homesite development (Childs 1979).

FLORA

Nearby wooded areas are comprised mainly of willow (*Salix nigra*) and other water-tolerant hardwoods, including cottonwood (*Populous deltoides*), sweet gum (*Liquidambar spp.*), and sycamore (*Platanus occidentalis*). Natural levees and abandoned point bars, less subject to long periods of flooding, support live oak (*Quercus virginiana*), magnolia (*Magnolia spp.*), hickory (*Carya cordiformis* and *Carya alba*), pecan (*Carya illinoensis*), and sweet gum (*Liquidambar styraciflua*) (Kniffen and Hilliard 1988:79). The backswamp areas are dominated by Tupelo or black gum (*Nyssa aquatica*), baldcypress (*Taxodium distichum*), and red maple (*Acer rubrum*). The environment is typically suited for wildlife habitat, timber, agriculture, hunting, and trapping.

FAUNA

A variety of fauna thrives within this region due to the abundance of water. Mammal types in the area include deer (*Odocoileus virginianus*), fox (*Urocyon spp.*), squirrel (*Sciurus spp.*), rabbit (*Sylvagus spp.*), raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), and opossum (*Didelphus virginiana*). In the backswamp lakes, tributary streams, and river channels, numerous bird species, including herons, egrets, and migratory ducks are also present. The waterways and flooded backswamps are also home to large numbers of fish species, snakes, turtles, and alligators (*Alligator mississippiensis*) (Kniffen and Hilliard 1988:79).

CLIMATE

The climate in this area is characterized as humid, warm, and subtropical due in large part to the Gulf of Mexico. Winters are mild with an average temperature of 51 degrees Fahrenheit (F) and an average daily minimum temperature of 40 degrees F. In summer, the average temperature is 80 degrees F. Humidity is generally high, with an average at dawn of 85 percent. The average annual total precipitation is 55 inches. Thunderstorms are common between June and September. Snow is seldom encountered in this region (Childs 1979).

CHAPTER 3
PREVIOUS RESEARCH

LITERATURE AND DOCUMENT SEARCH

Background research was conducted prior to the survey to identify previously recorded historic and prehistoric properties within a one-mile radius of the proposed project area located in Livingston Parish, Louisiana. This search included an online query of the Louisiana Division of Archaeology [LDOA] Cultural Resources Viewer (LDOA 2017) performed on September 12, 2017. A one-mile (1.6 kilometers [km]) radius search was conducted around the project area for previously recorded archaeological sites, previous cultural resources surveys, and previously recorded historic structures. An examination of the Historic Standing Structure Survey Files at the State Library in Baton Rouge, Louisiana was performed on September 12, 2017 to ascertain whether any historic resources have been recorded within or near the study area that are not depicted on the LDOA Cultural Resources Viewer (LDOA 2017). Lastly, a query into the National Register of Historic Places (NRHP) (National Park Service 2017) was conducted. The project area is found within Sections 20 and 21, Township 6S, Range 4E as seen on the 1980 Satsuma, Louisiana, USGS 7.5' series topographic quadrangle (Figure 3.1).

A search of the LDOA Cultural Resources Viewer (LDOA 2017) does not list any archaeological sites within a mile of the study area. An examination of the NRHP online files also does not list any National Register properties within a mile of the study area. A search of the Phase I Surveys database maintained by LDOA (2017) identified two previous Phase I cultural surveys within a mile of the project area (Figure 3.1).

LDOA# 22-4544. *Phase One Cultural Resources Survey of 93 Acres (37.6 hectares) Proposed for Industrial Use, Walker, Livingston Parish, Louisiana.* SURA, Inc. performed this archaeological study in 2014. No cultural resources were found (Shuman et al. 2014).

LDOA# 22-4508. *A Negative Findings Phase I Cultural Resources Survey of the Proposed Corbin Avenue Telecommunications Tower, Lincoln Parish.* MRS Consultants, Inc. conducted this cellular tower investigation in 2013. No cultural resources were identified as a result of this project (Freeman and Ryba 2014).

Lastly, an examination of the Historic Standing Structure Survey Files at the State Library in Baton Rouge, Louisiana was reviewed for this project. No recorded historic structures are located near the proposed project area. Additionally, several historic maps were inspected for structures within the project boundaries. The 1931 Livingston Parish Soil Survey Map as well as the 1942 and 1953 Satsuma, Louisiana 15' topographic quadrangles do not show any structures within the project boundaries.

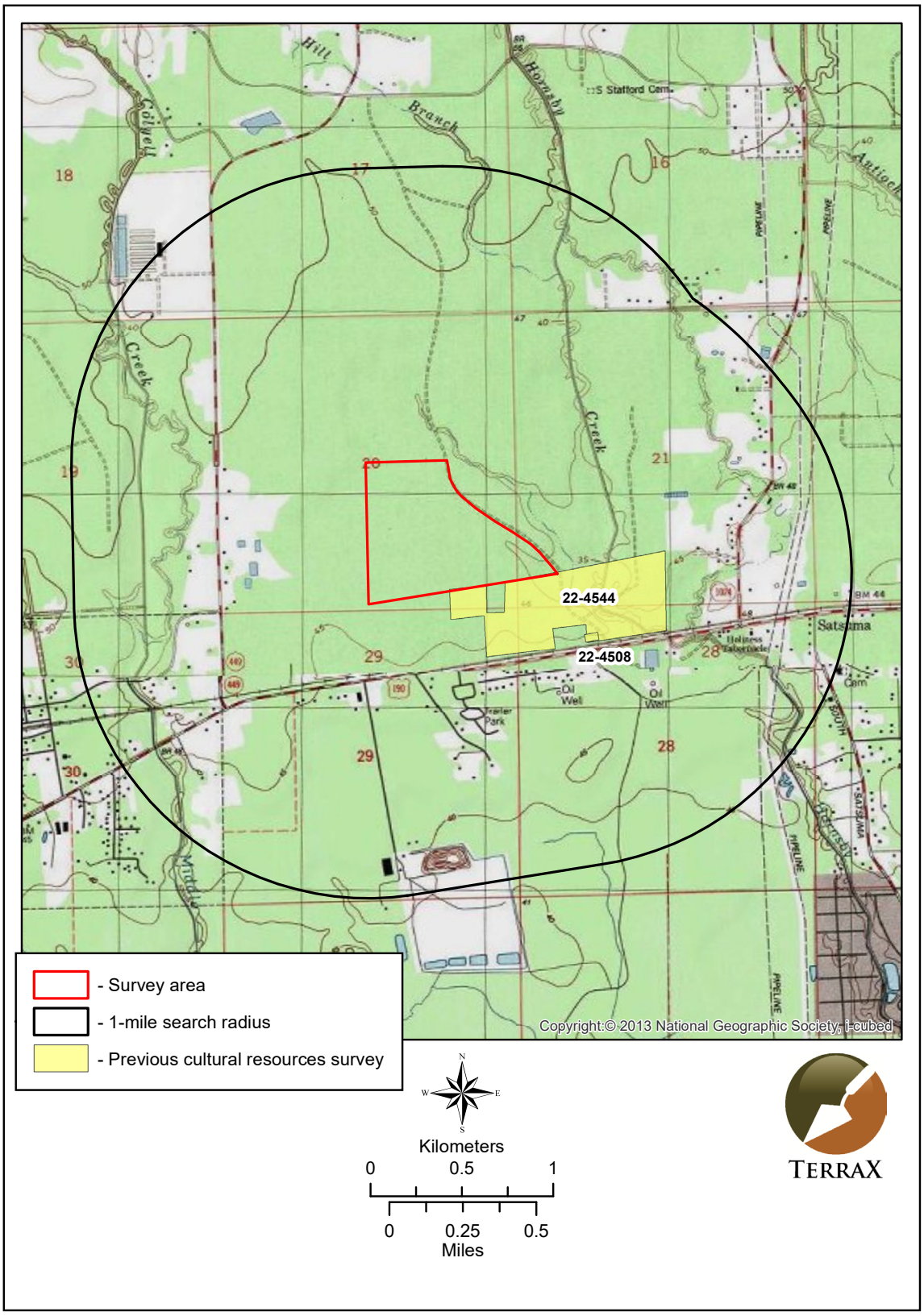


Figure 3.1. *Map showing previous cultural resources surveys within the one-mile search radius (based on the 1980 Satsuma, Louisiana USGS 7.5' series topographic quadrangle).*

CHAPTER 4
METHODOLOGY AND FIELD RESULTS

FIELD METHODS

The field survey conducted implemented standard archaeological survey techniques. Full land coverage requirements were achieved through visual inspections of the entire survey area and subsurface testing. While conducting visual inspections, any exposed surfaces were carefully examined for cultural material. Ground surface exposure was mostly obstructed by pine straw, leaf litter, or standing water.

Subsurface testing was performed along 30-m interval transects comprised of shovel tests spaced 30 m apart. When cultural material is found, a series of shovel tests are placed in cardinal directions at 10-m intervals around the positive shovel tests. Testing continues until two consecutive negative shovel tests are excavated in each direction. Standard shovel tests consist of 30 centimeter (cm) diameter cylindrical holes excavated to the top of the sterile subsoil layer or until water was encountered. Soils from each test were screened through 1/4-inch (0.64 cm) hardware cloth for the purpose of recovering any cultural material that may exist at that location. If cultural material is encountered, the material is sorted by provenience and placed into bags labeled with the pertinent excavation information before being transported to TerraX's laboratory.

LABORATORY METHODS AND COLLECTION CURATION

All cultural materials recovered during field projects are delivered to TerraX's laboratory in Tuscaloosa, Alabama for processing. Here, materials are sorted by provenience, cleaned, and analyzed. Along with the cultural material, all project records, photographs, and maps produced while conducting the investigation are transported for curation at the at the Troy University Archaeological Research Center in Troy, Alabama. No artifacts were found during this survey. A copy of the curation agreement can be found in Appendix A.

RESULTS OF FIELD INVESTIGATION

The project area has a low likelihood for encountering significant cultural resources. The study area lies within a mostly wooded tract between Colyell Creek and Hornsby Creek. The project area was mostly flat with no noticeable elevation change. Young hardwoods and brush dominate the vegetation in the western portion while pines occur throughout the rest of the project area. A powerline corridor runs northeast-southwest through the north portion of the project area. Several small streams with shallow banks were also observed. The subject tract drains to the southeast. Logging and hunting have impacted the area slightly. Surface visibility was mostly obstructed due to grasses, pine straw, and leaves. Subsurface testing revealed predominantly hydric soils.

This Phase I investigation included the attempt of 565 shovel tests along 35 transects. Of the 565 attempted shovel tests, 447 were negative and 118 were not excavated due to wetlands. Most of the unexcavated shovel test fell in standing water as the entire project area is very low-lying. No cultural material was encountered during subsurface testing or during visual inspections of the study area. A map has been produced showing placement of shovel tests within the study area (Figure 4.1). Shovel test profiles generally revealed 10-20 cm of pale brown or gray silty clay over a pale brown or yellowish brown silty clay.

In addition to the archaeological survey, a review of architectural resources was conducted for this project. The purpose of the architectural review was to determine the effect, if any, on historic architectural resources located within the project area. No historic resources were found within the APE.

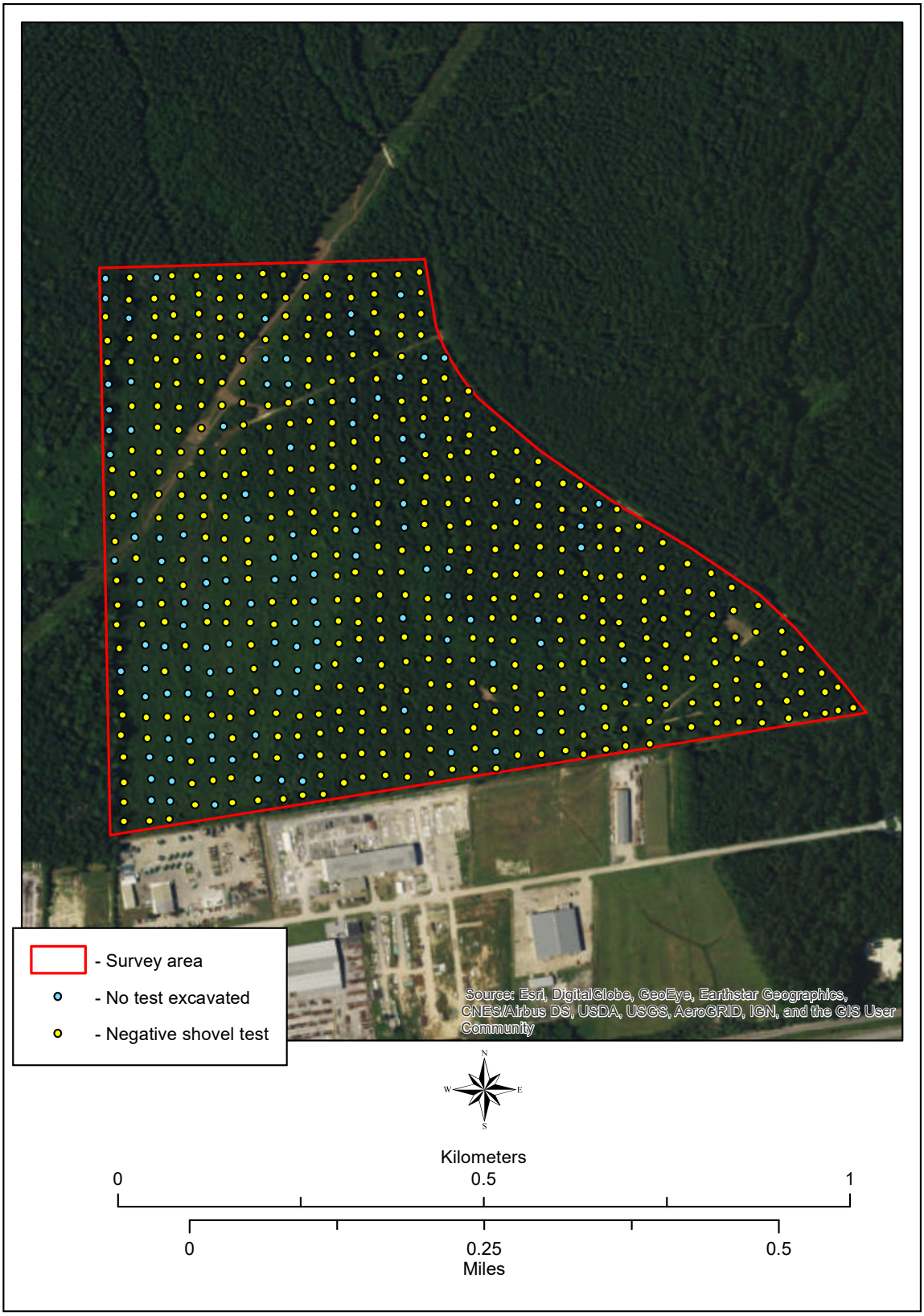


Figure 4.1. *Aerial showing shovel test locations within the project area.*

CHAPTER 5
SUMMARY AND RECOMMENDATIONS

TerraX, under contract with the Baton Rouge Area Chamber conducted a cultural resources survey for the proposed Hornsby Industrial Park in Livingston Parish, Louisiana. This survey was performed to support the LED Site Certification process. The study area is located behind the existing Livingston Parish Industrial Park north of U.S. Highway 190/Florida Boulevard. The Phase I survey was performed between September 4-12, 2017 by Chris Rivers, Matt Sumrall, Alexander Ballesteros, and Kelsey Johnson with Paul D. Jackson serving as Principal Investigator. A total of 447 excavated shovel tests revealed mostly shallow, hydric soils within a forested tract totaling approximately 127 acres. The investigation did not identify any cultural resources within the project area and background research identified no historic properties that would be impacted by the proposed project. Accordingly, no further archaeological studies are recommended for the proposed Hornsby Industrial Park.

REFERENCES

Freeman and Beth Ryba
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1991 *Soil Survey of Livingston Parish, Louisiana*. United States Department of Agriculture, Soil Conservation Service in cooperation with Louisiana Agricultural Experiment Station and Louisiana State Soil and Water Conservation Committee.

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2017 National Register of Historic Places. Department of the Interior, Washington, D.C. Available online at www.cr.nps.gov/nr. Accessed on September 1, 2017.

Shuman, Malcolm et al.
2014 *Phase One Cultural Resources Survey of 93 Acres (37.6 hectares) Proposed for Industrial Use, Walker, Livingston Parish, Louisiana.* Prepared by SURA, Inc. LDOA#22-4544.

Web Soil Survey
2017 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Electronic document, http://websoilsurvey.nrcs.usda.gov/.

APPENDIX A
Curation Agreement

TROY UNIVERSITY

Archaeological
Research Center

Date: September 30, 2016

Paul Jackson
TerraXplorations Inc.
3523 18th Ave NE
Tuscaloosa, Al 35406

Dear Paul:

As per your request, this letter is to confirm our standing agreement with you to provide curation services to TerraXplorations, Inc. on an as-needed basis. As you know, we are recognized by a variety of Federal agencies as a repository meeting the standards in 36 CFR Part 79 and have formal agreements to provide curation under these guidelines to multiple federal agencies such as the Army National Guard and Natural Resources Conservation Service.

Please be advised that once a year we must be notified of all reports in which we were named as the repository. Project collections must be submitted within one calendar year of completion. Small projects may be complied for periodic submission. The AHC survey policy specifies which materials must be curated (Administrative Code of Alabama, Chapter 460-X-9). Renewal of this agreement is contingent upon compliance.

We appreciate this opportunity to be of assistance and look forward to working with you in the future.

Sincerely,

Jason Mann
Director
Archeological Research Center
Troy University