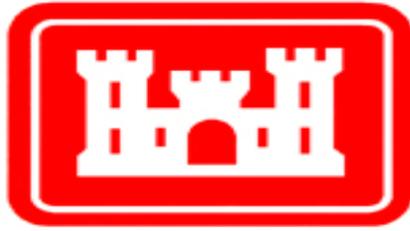


**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
DOCVILLE BORROW AREA  
HIGHWAY 39  
MERAUX, ST. BERNARD PARISH, LOUISIANA  
CONTRACT NUMBER: W912P8-07-D-0057  
TASK ORDER NUMBER: 0001**

**PREPARED FOR:**



**US Army Corps  
of Engineers**

United States Army Corps of Engineers, Mississippi Valley Division  
New Orleans District (USACE-MVN)  
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**PREPARED BY:**



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AES Project Number 0107-195-02

May 21, 2007

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## LIST OF ABBREVIATIONS

AEROSTAR	Aerostar Environmental Services, Inc.
AI#	Agency Interest Number
AST	Aboveground Storage Tanks
ASTM	American Society for Testing and Materials
AULs	Activity and Use Limitations
BLS	Below Land Surface
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CORRACTS	RCRA Corrective Action
EDMS	Electronic Document Management System
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
HTRW	Hazardous, Toxic, and Radioactive Waste
IC/EC	Institutional Controls/Engineering Controls
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LUST	Leaking Underground Storage Tank
NFRAP	No Further Remedial Action Planned
NGVD	National Geodetic Vertical Datum
NPL	National Priority List
PCB	Polychlorinated Biphenyls
PRC	Property Record Card
RCRA	Resource Conservation and Recovery Act
RCRA-LQG	RCRA Large Quantity Generators
RCRA-SQG	RCRA Small Quantity Generators
RCRA TSD	RCRA Treatment, Storage and Disposal
RE	Real Estate Number
SWF/LF	Solid Waste Facilities/Landfills
TSD	Treatment, Storage and Disposal
USACE	United States Army Corps of Engineers
USGS	United States Geological Society
UST	Underground Storage Tanks
VCP	Voluntary Cleanup Program

## **1.0 EXECUTIVE SUMMARY**

### **1.1 Site Name**

Docville Borrow Area  
Highway 39  
Meraux, St. Bernard Parish, Louisiana

### **1.2 Inspection Date(s)**

April 19, 2007

### **1.3 Name of Inspector(s)**

John M. Townsend

### **1.4 Client and User**

Client: United States Army Corps of Engineers, Mississippi Valley Division, New Orleans District  
User: Mr. Richard Gatewood, HTRW Coordinator CEMVN-PM-R

### **1.5 Site Descriptions and General Observations**

At the time of the investigation, the site consisted of an approximate 100-acre portion of a multi-thousand acre parent tract of land that consisted of wooded and cleared land. Access to the site is available via Meraux Lane to the northwest. Utility services are not currently provided to the site. The site is bordered by wooded land to the north; a canal, followed by a pump station and levee to the east; a canal, followed by multiple residential properties to the southeast; a canal, followed by wooded land and Highway 39 (Judge Perez Drive) to the southwest; a canal, followed by a vacant commercial building to the west; and multiple residential properties to the northwest.

Based on the review of aerial photographs, historical topographic maps and interviews, the site appeared to consist of wooded land in 1951 and has consisted of wooded land and a man-made canal (Docville Canal) since at least 1967.

### **1.6 Findings and Conclusions**

AEROSTAR has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-05 of the Docville Borrow Area, located along Meraux Lane, Meraux, St. Bernard Parish, Louisiana, hereafter referred to as the site. Any exceptions to, or deletions from, this practice are described in Section 2 of this report. The Executive Summary serves as a summary of this report and presents the significant findings, conclusions and recommendations. The Executive Summary should not be considered a stand-alone document and must be evaluated in conjunction with the discussions, supporting documentation, and limitations within this ESA report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the site, except for the following:

- Potential onsite concerns were noted from former oil drilling operations documented on the eastern portion of the site.

- Potential onsite concerns were noted from solid waste, which included two empty 55-gallon drums and a black plastic container, on the southwestern portion of the site.
- Potential offsite concerns were noted from multiple ASTs associated with the pump station on the eastern adjoining property.

## **1.7 Recommendations**

Based on the information gathered during this investigation, AEROSTAR recommends conducting soil and groundwater sampling in the area of the former oil drilling operations on the eastern portion of the site, and in the area of the solid waste observed on the southwestern portion of the site. Sediment sampling should be conducted along the bank of the Docville Canal, adjacent to the solid waste observed at the site. Groundwater sampling should be conducted on the eastern property boundary adjacent to the pump station on the eastern adjoining property.

The remainder of this report is organized as follows: Section 2 describes the scope of work and limitations for this report; Section 3 presents a site description; Section 4 presents user provided information; Section 5 presents a records review; Section 6 presents a summary of the site reconnaissance; Section 7 presents a summary of interviews; Section 8 presents a summary of AEROSTAR's findings and opinions; Section 9 presents a summary of AEROSTAR's conclusions; Section 10 presents any deviations from the ASTM standard; Section 11 provides additional services conducted as part of this Phase I ESA; Section 12 presents the references; Section 13 presents the signatures of environmental professionals preparing and reviewing the report; and Section 14 presents the qualifications of the environmental professionals participating in this Phase I ESA. Figures are included in Appendix A. The property record information is included in Appendix B. Site photographs are included in Appendix C. A computerized regulatory agency database search is included in Appendix D. Historical research documentation is included in Appendix E. Interview documentation is included in Appendix F. A list of references is included in Appendix G. The qualifications and resumes of the environmental professionals performing this investigation are included in Appendix H.

## 2.0 INTRODUCTION

### 2.1 Purpose

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to ASTM Standard E 1527-05, recognized environmental conditions in connection with the site. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

Although performance of this investigation in a manner that is generally consistent with the ASTM Standard E 1527-05 Standard is of benefit, it should be recognized that the Standard of “All Appropriate Inquiry” or “good commercial or customary practice” can only be made on a case-by-case basis and is subject to judicial interpretation.

### 2.2 Scope of Work

This Phase I ESA was conducted in general accordance with ASTM Standard E 1527-05, “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.” The assessment consisted of four components: records review, site reconnaissance, interviews, and report preparation.

The scope of work does not include an evaluation of asbestos containing building materials, lead based paint, lead in drinking water, regulatory compliance, soil or groundwater sampling and analysis, cultural and historical resources, industrial hygiene, health and safety, ecological resources, indoor air quality, radon, site geotechnics (soils, foundations, site retention, etc.), wetlands, endangered species, or construction materials testing. AEROSTAR can provide these additional services, if requested.

#### 2.2.1 Records Review

Historical Research: Sources such as historical aerial photographs, city directories, and fire insurance maps were reviewed, if reasonably ascertainable, to evaluate the historical usage of the site and surrounding properties. Additionally, a chain-of-title and an environmental lien search were reviewed if provided by the User.

Physical Setting Sources: Various maps, reports, and technical publications were reviewed and observations of site conditions were made to evaluate the hydrogeological/geological conditions associated with the site and surrounding properties. This data can provide pertinent information about the site, including soil classification, surface water flow directions, and possibly, an indication of the local directions of surficial aquifer groundwater flow.

Environmental Public Records Review: Reasonably ascertainable local, state, tribal and federal environmental records and the regulatory database search were reviewed to help assess the likelihood of problems from migrating hazardous substance or petroleum products. Public records identifying these facilities can provide indications of the potential for recognized environmental conditions to be present at the site.

AEROSTAR obtained, reviewed and evaluated reasonably ascertainable information from the Client, User, site owner; local, state, tribal, or federal entities; and the environmental regulatory database search. The conclusions and recommendations of this report are based, in part, on this information. The data reviewed during this investigation appeared to be accurate; however, the provided services do not include the verification of the accuracy or authenticity of information provided by others.

### **2.2.2 Site Reconnaissance**

Onsite Reconnaissance: Visual and physical inspections conducted as part of this investigation included walking the interior of the site in a grid-like manner and walking the site perimeter, where accessible. Additionally, observations of access to and egress from the site were noted, as well as the presence and condition of any onsite buildings, utilities, or other improvements. During the site inspection, an emphasis was placed on observing the operations or conditions exhibiting the potential for recognized environmental conditions. All phases of the site reconnaissance were documented and photographs were taken.

Offsite Reconnaissance: Offsite reconnaissance conducted as part of this investigation included visual and physical inspections of the adjoining properties from the site boundary and from publicly accessible areas. Additionally, a vehicular reconnaissance of the surrounding properties was conducted. During these inspections, an emphasis was placed on observing the operations or conditions exhibiting the potential for recognized environmental conditions. If any sources were identified, the inspector would document the name and location of the facility.

### **2.2.3 Interviews**

AEROSTAR conducted interviews with available individuals familiar with the site, as well as local, state, tribal or federal agency representatives, regarding issues which could have an adverse effect on the environmental status of the subject site.

AEROSTAR depends on the Client, tenant, and other site personnel to provide data pertinent to determining the environmental status of the site, which may or may not exist within public records. The conclusions and recommendations of this report are based, in part, on this information. The data obtained during this investigation appeared to be accurate; however, the provided services do not include the verification of the accuracy or authenticity of information provided by others.

### **2.2.4 Report Preparation**

This report was prepared based upon the information provided by the Client and the User, the observations made during the site reconnaissance, and the information obtained from a review of readily available records. Given the inherent limitations of environmental assessment work, AEROSTAR will not guarantee that any site is free of hazardous or potentially hazardous materials or that latent or undiscovered conditions will not become evident in the future. This report was prepared within the professional conduct of the industry and in accordance with the proposal and the standard terms and conditions presented in the contract. No other warranties, representations or certifications are made.

## **2.3 Limitations**

AEROSTAR has prepared this assessment for the Client and User. AEROSTAR's assessment represents a review of certain information relating to the site that was obtained by methods described above and does not include sampling or other monitoring activities at the property. While AEROSTAR has used reasonable care to avoid reliance upon data and information that is inaccurate, AEROSTAR is not able to

verify the accuracy or completeness of all data and information available during the investigation. Some of the conclusions in this report would be different if the information upon which they are based is determined to be false, inaccurate or incomplete.

AEROSTAR makes no legal representations whatsoever concerning any matter including, but not limited to, ownership of any property or the interpretation of any law. AEROSTAR further disclaims any obligations to update the report for events taking place after the time during which the assessment was conducted.

This report is not a comprehensive site characterization and should not be construed as such. The opinions presented in this report are based upon the findings derived from a site reconnaissance, a limited review of specified regulatory records and historical sources, and comments made by the interviewees.

Phase I ESAs, by their very nature, are limited. AEROSTAR has endeavored to meet what it believes is the applicable standard of care, and, in doing so, is obliged to advise the Client and User of Phase I ESA limitations. AEROSTAR believes that providing information about limitations is essential to help the Client and User identify and thereby manage its risks. Through additional research, these risks can be mitigated - but they cannot be eliminated. AEROSTAR will, upon request, advise the Client and User of the additional research opportunities available, their impact, and their cost.

As noted above, the Phase I ESA was conducted at the referenced site, and this report was prepared for the sole use of the Client and User. This report shall not be relied upon by or transferred to any other party without the express written authorization of AEROSTAR.

Along with all of the limitations set forth in various sections of the ASTM Standard E 1527-05 protocol, the accuracy and completeness of this report is necessarily limited by the following:

- At the request of the client, a chain-of-title search was not conducted as part of this investigation.
- AEROSTAR was unable to perform a complete visual inspection of the site due to heavy vegetative ground cover and areas of standing water on the site.

### **2.3.1 Data Gaps**

Data gaps are the lack or inability to obtain information required by ASTM Standard E 1527-05 despite good faith efforts to gather such information, such as, but not limited to, the inability to conduct a site visit, inability to conduct interviews, and the inability to establish historical uses of the site or surrounding properties. Not all data gaps are significant, and a data gap will only be discussed in this section if: 1) a data gap occurs during investigation, and 2) the data gap impairs AEROSTAR's ability to meet the objectives of ASTM Standard E 1527-05.

Historical Data Source Failures: Aerial photographs were not available for review prior to 1967. City directories for the suburban areas of New Orleans provided coverage of the site vicinity, but the site and adjoining properties were not listed in any of the directories reviewed. The historical records researched did not allow the property's history to be traced back to 1940 or to the property's first developed use, whichever came first, which constitutes historical data failure per ASTM Standard E 1527-05 § 8.3.2.3.

A significant data gap was noted due to a lack of property record information provided to AEROSTAR by the site contact. Tax Collector and Tax Assessor information was unavailable for review and an environmental lien search was unable to be performed.

A significant data gap was noted between 1951 and 1967 when construction activities occurred at the site and along the site's southwestern property boundary to develop the Docville Canal and the Twenty Arpent Canal. No historical data was available for review for this period.

#### **2.4 Special Terms and Conditions**

This report, and the information contained herein, shall be the sole property of AEROSTAR until payment of any unpaid balance is made in full. The Client and User agree that until payment is made in full, the Client and User shall not have a proprietary interest in this report or the information contained herein. AEROSTAR shall have the absolute right to request the return of any and all copies of this report submitted to other parties, public or private, on behalf of the Client and User in the event of nonpayment of outstanding fees by the Client pursuant to AEROSTAR's proposal.

#### **2.5 User Reliance**

This report is intended for the sole use of Client and User. Its contents may not be relied upon by other parties without the explicit written consent of AEROSTAR. This is not a statement of suitability of the property for any use or purpose. The user shall be held to the same limitations as detailed in Section 2.3.

## **3.0 SITE DESCRIPTION**

### **3.1 Location**

The site is located along Meraux Lane, Meraux, St. Bernard Parish, Louisiana, and is shown in Appendix A, Figure 1 (Street Site Location Map). The site is located in Section 4, Township 13 South, Range 13 East as referenced in the "Chalmette, Louisiana" USGS topographic quadrangle map, dated 1998, presented in Appendix A, Figure 2 (Topographic Site Location Map). Please also refer to the Site Plan presented in Appendix A, Figure 3, and to St. Bernard Parish Tax Assessor's information of the site in Appendix B.

### **3.2 Site and Vicinity General Characteristics**

At the time of our investigation, the site consisted of an approximate 100-acre portion of a multi-thousand acre tract of land. The site was developed with a man-made canal and two sewer access points at the time of this investigation. In addition, two oil wells were reportedly located on the eastern portion of the site; however, they were not observed during the site inspection. The immediate vicinity surrounding the site is primarily characterized by wooded land and residential properties. Please refer to the Street Site Location Map in Figure 1, the Topographic Site Location Map in Figure 2, and the Site Plan in Figure 3 for additional details.

### **3.3 Current Use(s) of the Site**

The site was developed with a man-made canal and two sewer access points at the time of this investigation. A pile of solid waste, which included two 55-gallon drums and an approximately 25 to 35 gallon plastic container, were observed on the southwestern portion of the site. According to an interview performed with Ms. Becky Cieutat, site owner representative, and the LDNR website, two oil wells are located on the eastern portion of the site. One well was listed as being temporarily out of service and the other was listed as being abandoned and plugged on the LDNR website. Observations made during the site reconnaissance are further discussed in Section 6 of this report.

### **3.4 Structures, Roads, and Other Improvements on the Site**

#### **3.4.1 Existing Structures**

The site is developed with a man-made canal and two sewer access points. Two oil wells were reportedly located on the eastern portion of the site; however, they were not observed during the site inspection.

#### **3.4.2 Existing Roads**

Meraux Lane is located northwest of the site. Highway 39 is located to the southwest of the site. The site is developed with a dirt trail road extending along the southwestern and southeastern property boundaries.

#### **3.4.3 Heating/Cooling System**

Heating and cooling services are not provided to the site.

#### **3.4.4 Utilities (including Sewage Disposal)**

Utility services are not currently provided to the site; however, two sewer man-holes were observed on the southeastern portion of the site during the site inspection. The access points appeared to be a part of

the sewer system associated with the multiple residential properties on the southeastern adjoining property.

### 3.4.5 Potable Water

Potable water is not provided to the site.

### 3.5 Current Uses of the Adjoining Properties

The current uses of the adjoining properties are as follows:

<b>Table 1 Description of Adjoining Parcels</b>		
<b>Direction From Site</b>	<b>Address</b>	<b>Description of Current Use</b>
North	NA	Wooded land
East	NA	Canal, pump station, and levee
Southeast	NA	Canal and multiple residential properties
Southwest	NA	Canal and wooded land
West	NA	Canal and abandoned commercial property
Northwest	NA	Multiple residential property

Based on the information reviewed as part of this assessment, the current uses of adjoining properties are not suspected of having the potential to negatively impact the site, except for the following:

- Potential offsite concerns were noted from multiple ASTs associated with the eastern adjoining property.

## **4.0 USER PROVIDED INFORMATION**

### **4.1 Title Records**

A chain-of-title report for the site was not provided to AEROSTAR by the User or Client.

### **4.2 Environmental Liens or Activity and Use Limitations**

An environmental lien search was ordered through EDR; however, the report was not available for review prior to the completion of this report. An addendum letter will be issued upon AEROSTAR's receipt and review of the environmental lien search. The user and site owner representative both stated that they were unaware of any environmental liens or AULs associated with the site.

### **4.3 Specialized Knowledge**

No information was provided to AEROSTAR by the User with respect to any specialized knowledge or experience that may pertain to recognized environmental conditions in connection with the site.

### **4.4 Commonly Known or Reasonably Ascertainable Information**

The User was not aware of any commonly known or reasonably ascertainable information about the site that would indicate the presence of recognized environmental conditions associated with the property.

### **4.5 Valuation Reduction for Environmental Issues**

The User indicated that the site has not been devalued due to environmental concerns. The site owner representative was unable to provide AEROSTAR with tax assessment information associated with the parent tract or the site.

### **4.6 Owner, Property Manager, and Occupant Information**

The parent property and site are owned and managed by the Meraux Foundation. The site is not occupied.

### **4.7 Reason for Performing Phase I ESA**

This Phase I ESA is being performed as part of a potential real estate transaction.

### **4.8 Other**

No other information was obtained from the User.

## 5.0 RECORDS REVIEW

### 5.1 Standard Environmental Record Sources

As a part of this assessment, AEROSTAR reviewed information sources to obtain existing information pertaining to a release of hazardous substances or petroleum products on or near the site. AEROSTAR obtained an ASTM regulatory database search through EDR. A copy of the database report is included in Appendix D. AEROSTAR also reviewed other available standard environmental record sources on the LDNR and LDEQ websites, as needed. Table 2 presents the summary of the regulatory database report.

<b>TABLE 2 Regulatory Database Summary</b>				
<b>Source</b>	<b>Applicable Search Distance</b>	<b>Site</b>	<b>Adjoining Property</b>	<b>Within ASTM search distances</b>
Federal NPL Site	1.0 mile	0	0	0
Federal Delisted NPL	0.5 mile	0	0	0
Federal CERCLIS List	0.5 mile	0	0	0
Federal CERCLIS NFRAP Site List	0.5 mile	0	0	0
Federal RCRA CORRACTS and TSD Facilities	1.0 mile	0	0	0
Federal RCRA Non-CORRACTS TSD Facilities	0.5 mile	0	0	0
Federal RCRA Generators Lists	Site and adjoining properties	0	0	0
Federal IC/EC Registries	Site Only	0	NA	0
Federal ERNS	Site Only	0	NA	0
State- and Tribal-equivalent NPL Sites	1.0 mile	0	0	0
State- and Tribal-equivalent CERCLIS Sites	0.5 mile	0	0	0
State and Tribal Landfill and/or Solid Waste Disposal Site Lists	0.5 mile	0	0	0
State and Tribal LUST Lists	0.5 mile	0	0	0
State and Tribal Registered UST Lists	Site and adjoining properties	0	0	0
State and Tribal IC/EC	Site Only	0	NA	0
State and Tribal voluntary cleanup sites	0.5 mile	0	0	0
State and Tribal Brownfield sites	0.5 mile	0	0	0

No NPL, delisted NPL, CERCLIS, CERCLIS NFRAP, SWF/LF VCP, Brownfields sites, CORRACTS TSD, non-CORRACTS TSD, Federal IC/EC registries, ERNS, state- or tribal- equivalent NPL, state- or tribal-equivalent CERCLIS facilities, LUST, UST, or AST facilities were identified within the ASTM-specified search distances for the subject site.

In addition to reviewing the database report, AEROSTAR performed reconnaissance of the site vicinity to identify any sites not mapped by EDR due to inadequate or inaccurate address information and to look for

unregistered facilities. Two additional petroleum fueling facilities were observed within a half mile of the site during field reconnaissance performed by AEROSTAR. The facilities are discussed below:

Quick Check Food Mart, 4713 East Judge Perez Drive, Facility AI# 127025: This gasoline station was observed approximately 0.2 miles northwest of the site along Highway 39 (Judge Perez Drive). Four fueling islands were observed at the facility. A public request made through the LDEQ website indicated that an incident report concerning surface water was issued for the facility in January 2005. According to the report, the facility was operating and discharging from a sewage treatment plant without an LPDES permit into the Forty Arpent Canal, which extends along the site's eastern property boundary. The report indicated that the incident status was closed as of March 2, 2005. AEROSTAR attempted to contact Ms. Melinda Molieri, LDEQ, regarding the facility, but the phone calls were not returned prior to the completion of this report. The facility was vacant and abandoned at the time of the site reconnaissance. Groundwater flow in the vicinity of the facility appears to be towards the Mississippi River to the southwest, away from the site. Based on the information gathered during this investigation, this facility is not suspected of negatively impacting the site at this time.

Quick Check Food Mart, 4725 East Judge Perez Drive, Facility AI# 68775: This gasoline station was observed approximately 0.3 miles south of the site along Highway 39 (Judge Perez Drive). Two fueling islands were observed at the facility. A public request made through the LDEQ website indicated that a site inspection was performed at the site in October 2005 to assess damage caused by Hurricane Katrina. According to the report, the facility sustained six to seven feet of water damage during hurricane Katrina but the vent pipes and USTs appeared to be in tact with no signs of leaking. Another inspection of the facility's USTs was performed at the site in March 2006 to ensure that the facility was closed and no longer in operation. According to the report, the front of the building was severely damaged during hurricane Katrina and the facility was vacant. The USTs appeared to be intact and still in the ground at the facility. The public request did not indicate that there were any incidents at the facility or warning letters issued to the facility by the LDEQ. AEROSTAR attempted to contact Ms. Melinda Molieri, LDEQ, regarding the facility, but the phone calls were not returned prior to the completion of this report. The facility was vacant and abandoned at the time of the site reconnaissance. Groundwater flow in the vicinity of the facility appears to be towards the Mississippi River to the southwest, away from the site. Based on the information gathered during this investigation, this facility is not suspected of negatively impacting the site at this time.

## **5.2 Additional Environmental Record Sources**

Based on an interview with Ms. Becky Cieutat, site owner representative, AEROSTAR performed a review of oil production wells on the LDNR website and discovered that two wells were drilled on the eastern portion of the site. According to the website, each well has two associated serial numbers. The first well, serial numbers 232057 and 233021, was directionally drilled to a measured depth of 13,644 feet BLS and a true vertical depth of 9,918 feet BLS as of September 13, 2005. The well's initial serial number was permitted in September 2005 and expired in March 2006, when it was re-permitted with the second serial number. According to the information associated with the well's latest serial number, the well's measured depth was 13,944 feet BLS and its true vertical depth was 10,218 feet BLS as of March 10, 2006. The product code indicated that no product (oil or gas) had been produced from the well, and its status code indicates that it has been temporarily abandoned.

The second well, serial numbers 232056 and 233036, was directionally drilled from the site towards the east-northeast to a measured depth of 17,199 feet BLS and a true vertical depth of 9,570 feet BLS on September 13, 2005. The well's initial serial number was permitted in September 2005 and expired in March 2006, when it was re-permitted with the second serial number. According to the information associated with the well's latest serial number, the well's measured depth was 12,901 feet BLS and its

true vertical depth was 9,456 feet BLS as of March 13, 2006. The product code indicated that no product (oil or gas) had been produced from the well. The well was plugged and abandoned as of April 16, 2006. According to plug and abandonment information, the well was plugged with cement between the depths of 3,200 feet BLS and 3,500 feet BLS and again from 10 feet to 110 feet BLS. The casing was then cut and buried five feet BLS.

According to research information reviewed, a common procedure in directional oil drilling involves combining oil, water, or synthetic oil with other chemicals to form a toxic drilling mixture that is circulated through the well hole. These mixtures frequently contain toxic materials such as oil and grease, suspended solids, phenol, arsenic, chromium, cadmium, lead, mercury, naturally occurring radioactive materials, and barium. The composition of drilling muds varies widely depending on the location and depth of the well and the type of drilling fluid used. Directional drilling sites frequently require up to two acres of land to stage the drilling rig, well, and support infrastructure, which causes significant soil erosion, soil loss, and sediment contamination of surface waters during the preparation and development of the drilling site. Directional drilling techniques also require extensive use of gas or oil powered drilling equipment which can cause environmental impacts through accidental releases or leaks. Based on the information reviewed as part of this investigation, potential onsite concerns were noted from the former drilling operations on the eastern portion of the site.

### **5.3 Physical Setting Sources**

The "Chalmette, Louisiana" USGS topographic quadrangle map, dated 1998; and regulatory files available regarding properties of environmental concern in the site vicinity were reviewed as sources for obtaining information regarding the physical setting of the site and surrounding vicinity.

#### **5.3.1 Regional Geology**

The aquifer system of Southeastern Louisiana is made up of five sand aquifers. Shallow sand, 200 foot sand, 400 foot sand, 700 foot sand, and 1,200 foot sand are the aquifers within the system. The shallow aquifers are not extensive enough to yield sufficient quantities of water. In these shallow aquifers the water is not considered potable. The majority of water yielded has a chloride content greater than 250 parts per million. The principal aquifer in the area is the 700 foot sand aquifer. It supplies the portion of the parish that is north of the Mississippi River. This aquifer has a chloride content less than 250 parts per million. The principal source of surface water in Jefferson Parish is the Mississippi River. There are four public water suppliers in the parish that pump 38.9 million gallons a day from the river.

#### **5.3.2 Topography**

The area of the investigation is located in Section 4, Township 13 South, Range 13 East as referenced in the 7.5-minute USGS Topographical Quadrangle Map of "Chalmette, Louisiana," dated 1998. Based on a review of the topographic map, the site appears to have little topographic relief. According to the topographic map, the site is situated at an elevation of approximately 5 feet above the NGVD of 1929.

Surface water bodies were identified on the topographic map on the site and in the vicinity of the site. The Docville Canal is located in the central portion of the site oriented from southwest to northeast and extends across the northern adjoining property. Forty Arpent Canal is oriented northwest to southeast along the site's eastern property boundary. The Twenty Arpent Canal is oriented northwest to southeast along the site's southwestern property boundary. Although not identified on the topographic map, an unnamed canal was observed oriented southwest to northeast along the site's southeastern property boundary. Bayou Chaperon, a large low-lying wetland area, is located approximately 200 feet northeast of the site. The Mississippi River was observed approximately 3,800 feet west-southwest of the site.

Based upon a review of the topographic map, regional shallow groundwater flow in the immediate vicinity of the site appears to be towards the southwest, towards the Mississippi River. Actual groundwater flow in the vicinity of the property may be locally influenced by seasonal rainfall, proximity to surface bodies of water (lakes, rivers, canals), surface topography, underground structures, soil and bedrock geology, production wells and other factors beyond the scope of this study.

### **5.3.3 Soils/Geology**

The United States Department of Agriculture Soil Conservation Service, *Soil Survey of St. Bernard Parish, Louisiana*, Map No. 20 was reviewed to identify native soil characteristics in the vicinity of the site. According to the survey, the soils are primarily classified as Sharkey silty clay loam and Westwego clay.

Sharkey silty clay loam is a level, poorly drained soil located in low and intermediate positions on the natural levees of the Mississippi River and its distributaries. Typically, the upper part of the surface layer is a dark grayish brown silty clay loam about 5 inches thick. The lower part is dark gray clay about 5 inches thick. The subsoil is dark gray clay in the upper part, gray clay in the middle part, and dark gray clay in the lower part. The underlying material to a depth of about 60 inches is gray clay. Adequate water is available to plants in most years. A seasonal high water table fluctuates between ground level and a depth of two feet. Permeability is slow. Water runs off the surface slowly. The soil has a high shrink-swell potential. Natural fertility is high.

Westwego clay is a level and poorly drained mineral soil. It is in swamps that have been drained and are protected from most flooding. Areas range from about 10 to 1,000 acres. Slope is less than one percent. Typically, the surface layer is dark grayish brown clay about five inches thick. The subsoil to a depth of about 32 inches is dark gray, firm clay. The subsoil has shrunk and cracked, and it remains cracked when re-wetted. The next layer, to a depth of about 37 inches, is very dark gray, firm clay. Below that, to a depth of 55 inches is very dark grayish brown, very fluid muck. The underlying material to a depth of about 75 inches is dark gray, very fluid clay. In places, many logs and stumps are buried in the lower layers. Under normal conditions, the water table is maintained at a depth of about one foot to three feet. After heavy rains, the water table may be near the surface for short periods. In places where the soil has subsided, the water table is near the surface most of the time. Permeability is very slow in the soil material, but water flows rapidly through the network of cracks. Even if the cracks in the surface layer are covered by fill material, the cracks in the subsoil remain open. Water and air move freely through these cracks. The total subsidence potential is medium to high. The shrink-swell potential is high.

### **5.3.4 Hydrogeology**

St. Bernard Parish has a very limited supply of fresh water. Groundwater is produced from three aquifers in St. Bernard Parish. The major aquifers are the St. Bernard Delta 200-foot sand aquifer, the 700-foot sand aquifer, and the 1,200-foot sand aquifer. Due to saltwater intrusion, the parish contains little or no potable water except for occasional lenses of freshwater floating on saltwater. The hydrologic regime of St. Bernard Parish involves the movement of freshwater and saltwater masses through the region as a result of interaction between the Mississippi River discharge, regional precipitation, winds, and tides. The current hydrologic system is influenced by both natural and manmade factors. The basic natural hydrologic system is based on the pattern of major abandoned distributary channels of the ancient Mississippi River delta complex and interdisciplinary basin channels which serve to drain swamps and marshes into estuarine lakes, bays, and sounds.

#### **5.4 Historical Use Information on the Site**

Based on the review of aerial photographs, historical topographic maps and interviews, the site appeared to consist of wooded land in 1951 and has consisted of wooded land and a man-made canal (Docville Canal) since at least 1967.

#### **5.5 Historical Use of Adjoining Properties**

Based on the review of aerial photographs, historical topographic maps and interviews, the northern adjoining property appeared to be wooded land in 1951 and has been developed as wooded land and the Docville Canal since at least 1967. The eastern adjoining property appeared to consist of the Forty Arpent Canal and a levee from at least 1951 to at least 1967; the Forty Arpent Canal, a levee, and a cleared area of land in 1972; the Forty Arpent Canal, a levee and a trail road from at least 1979 to at least 1983; and has been developed with a canal, a levee, and a pump station since at least 1989. The southeastern adjoining properties appeared to be wooded land developed with a canal from at least 1951 to at least 1967 and have been developed with a canal and multiple residential structures since at least 1972. The southwestern adjoining property appeared to be wooded land in 1951 and has been developed with a canal and wooded land since at least 1967. The western adjoining property appeared to be wooded land in 1951, developed with a canal and wooded land in 1967, a canal and wooded land from at least 1972 to at least 1989, and has been developed with a canal and a commercial-type structure since at least 1994. The northwestern adjoining properties appeared to be wooded land from at least 1951 to at least 1967 and have been developed with multiple residential structures since at least 1979. Based on the historical adjoining property use, the potential exists for the eastern adjoining property to have negatively impacted the site.

#### **5.6 Standard Historical Sources Reviewed**

##### **5.6.1 Aerial Photograph Review**

To evaluate the previous land uses of the property and surrounding area, a series of aerial photographs was reviewed. The aerial photographs provide a progressive overview of parcels pertaining to this assessment.

AEROSTAR personnel reviewed aerial photographs from 1967, 1979, 1983, 1994, and 2003 provided by EDR and Terra-Server.com. Color copies of the 1967, 1979, 1983, 1994, and 2003 aerial photographs are provided in Appendix E. Descriptions of AEROSTAR's observations are outlined in Table 3.

**TABLE 3**  
**Summary of Aerial Photograph Observations**

Source	Photograph Date	Photograph Scale	Remarks
EDR	1967	Not available	<p>Site: Wooded land with the Docville Canal visible oriented southwest to northeast across the northwestern portion of the site.</p> <p>North: Wooded land with the Docville Canal visible oriented southwest to northeast on the central portion.</p> <p>East: The Forty Arpent Canal, oriented northwest to southeast, is visible and followed by wooded land.</p> <p>Southeast: Wooded land.</p> <p>Southwest: Grassy land developed with a canal.</p> <p>West: Grassy land developed with a canal.</p> <p>Northwest: Wooded land.</p>
EDR	1979	Not available	<p>Site: A trail road is visible oriented north to south across the central portion of the site. No other significant changes were noted.</p> <p>North: A trail road is visible oriented north to south across the central portion of the property. No other significant changes were noted.</p> <p>East: The existing pump station is visible on the canal.</p> <p>Southeast: Multiple residential-type structures are visible. A portion of the property is not visible due to a tear in the aerial photograph.</p> <p>Southwest: Wooded land developed with a canal.</p> <p>West: Wooded land developed with a canal.</p> <p>Northwest: Multiple residential-type structures are visible.</p>
EDR	1983	Not available	<p>Site: No significant changes. The trail road appears to be partially overgrown.</p> <p>North: No significant changes. The trail road appears to be partially overgrown.</p> <p>East: No significant changes.</p> <p>Southeast: Additional residential-type structures are visible.</p> <p>Southwest: No significant changes.</p> <p>West: A commercial-type structure is visible.</p> <p>Northwest: No significant changes.</p>
EDR	1994	Not available	<p>Site: The trail road is no long visible on the site. No other significant changes.</p> <p>North: The trail road is no longer visible. No other significant changes.</p> <p>East: No significant changes.</p> <p>Southeast: No significant changes.</p> <p>Southwest: No significant changes.</p> <p>West: No significant changes.</p> <p>Northwest: No significant changes.</p>

<b>TABLE 3</b>			
<b>Summary of Aerial Photograph Observations</b>			
<b>Source</b>	<b>Photograph Date</b>	<b>Photograph Scale</b>	<b>Remarks</b>
Terra-Server	2002	Not available	Site: No significant changes. North: No significant changes. East: No significant changes. Southeast: No significant changes. Southwest: No significant changes. West: No significant changes. Northwest: No significant changes.
LDNR website	2004	Not available	Site: No significant changes. North: No significant changes. East: No significant changes. Southeast: No significant changes. Southwest: No significant changes. West: No significant changes. Northwest: No significant changes.

### **5.6.2 Property Ownership Records**

Site information required by the St. Bernard Parish Tax Assessor Office was not provided to AEROSTAR by the site owner representative. A chain-of-title was not provided to AEROSTAR by the Client or User.

### **5.6.3 City Directory Review**

AEROSTAR performed a search of historical city directories for the Suburban Areas of New Orleans dating back to 1940 as part of this investigation. The directories provided coverage of the site vicinity, but the site and adjoining properties were not listed in any of the city directories reviewed.

### **5.6.4 Fire Insurance Map Review**

Fire Insurance Maps did not provide coverage for the site.

### **5.6.5 Other Historical Sources**

No other historical sources were reviewed during this investigation.

#### Topographic Maps

Historical topographic maps from 1951, 1972, 1979, 1989, 1994, and 1998 of the site area were provided by EDR. Historical topographic maps are included in Appendix E. Descriptions of AEROSTAR's observations are outlined in Table 4.

**TABLE 4**  
**Summary of Historical Topographic Map Observations**

<b>Source</b>	<b>Map Date</b>	<b>Map Scale</b>	<b>Remarks</b>
EDR	1951	1:24,000	Site: Wooded land. North: Wooded land. East: Forty Arpent Canal, levee, and wooded land. Southeast: Wooded land. Southwest: Wooded land. West: Wooded land. Northwest: Wooded land.
EDR	1972	1:24,000	Site: Docville Canal is visible. No significant change. North: Docville Canal and wooded land. East: Extension of Forty Arpent Canal is visible. Southeast: Wooded land followed by multiple structures. Southwest: Cleared land and a canal are visible along the southwestern property boundary. West: No significant change. Northwest: Wooded land.
EDR	1979	1:24,000	Site: No significant changes. North: No significant changes. East: The existing pump station is visible on the canal. Southeast: A canal is visible along the southeastern property boundary. Southwest: A canal and wooded land are visible. West: No significant changes. Northwest: Meraux Lane is visible to the northwest.
EDR	1989	1:24,000	Site: No significant change. North: No significant change. East: No significant change. Southeast: Multiple roads visible. Southwest: No significant change. West: No significant change. Northwest: No significant change.
EDR	1994	1:24,000	Site: No significant change. North: No significant change. East: No significant change. Southeast: No significant change. Southwest: No significant change. West: No significant change. Northwest: No significant change.

<b>TABLE 4</b>			
<b>Summary of Historical Topographic Map Observations</b>			
<b>Source</b>	<b>Map Date</b>	<b>Map Scale</b>	<b>Remarks</b>
EDR	1998	1:24,000	Site: No significant change. North: No significant change. East: No significant change. Southeast: No significant change. Southwest: No significant change. West: No significant change. Northwest: No significant change.

## **6.0 SITE RECONNAISSANCE**

### **6.1 Methodology and Limiting Conditions**

Visual and physical inspections conducted as part of this investigation included walking the interior of the site in a grid-like manner and walking the site perimeter, where accessible. Additionally, observations of access to and egress from the site were noted, as well as the presence and condition of any onsite buildings, utilities, or other improvements. AEROSTAR was unable to perform a complete visual inspection of the site due to heavy vegetative ground cover and areas of standing water on the site. This visual and physical inspection of the property focused primarily on its surface features. Property use and significant features are indicated on the Site Plan which is included as Figure 3 in Appendix A. Site photographs are included in Appendix C.

### **6.2 General Site Setting**

#### **6.2.1 Current Use(s) of the Site**

The site is developed with a man-made canal and two sewer access points. In addition, two oil wells were reportedly located on the eastern portion of the site; however, they were not observed during the site inspection. According to the LDNR website, one well was listed as being temporarily out of service and the other was listed as being abandoned and plugged.

#### **6.2.2 Past Use(s) of the Site**

No indication of the site's previous use was observed during the site reconnaissance.

#### **6.2.3 Current Uses of Adjoining Properties**

The site is currently bordered by undeveloped wooded land to the north; a man-made canal and pump station, followed by a levee, to the east; a man-made canal, followed by multiple residential properties to the southeast; a man-made canal, followed by undeveloped wooded land to the southwest; a man-made canal, followed by a vacant commercial structure to the west; and multiple residential properties to the northwest.

#### **6.2.4 Past Uses of Adjoining Properties**

No indication of the northern, eastern, southeastern, southwestern, or northwestern adjoining properties' past uses was observed during the site reconnaissance. An abandoned and vacant commercial structure was observed on the western adjoining property. No signs or indications of the previous uses of the structure were observed during the site reconnaissance; however, the structure contained two bay doors that are consistent with repair activities.

#### **6.2.5 Current or Past Uses in the Surrounding Area**

The surrounding area is currently used primarily for residential purposes. Several vacant and abandoned commercial structures, which included two former gasoline stations, were observed in the area.

## **6.2.6 Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions**

The site appears to have little topographical relief. The Forty Arpent Canal, the Twenty Arpent, and an unnamed canal were observed bordering the eastern, southwestern, and southeastern boundaries of the property, respectively. The Docville Canal was observed on the site.

## **6.2.7 General Description of Structures**

No structures were observed on the site during the site reconnaissance.

## **6.2.8 Roads**

A dirt access road provides access to the site from Meraux Lane to the northwest and runs adjacent to the southwestern and southeastern property boundaries. The dirt road ends at the clearing on the eastern portion of the site and does not provide access to the interior of the site.

## **6.2.9 Potable Water Supplies**

Potable water services are not provided to the site.

## **6.2.10 Sewage Disposal System**

Sewage disposal services are not provided to the site. Two sewer man-holes were observed on the southeastern portion of the site and may be related to the residences on the southeastern adjoining property.

## **6.3 Exterior Observations**

### **6.3.1 Hazardous Substances and Petroleum Products**

An empty 55-gallon drum labelled “Sodium Hypochlorite” and an empty 55-gallon drum labelled “Curing Compound” were observed on the southwestern portion of the site.

### **6.3.2 Storage Tanks**

No ASTs/USTs were observed during the site inspection. An approximately 25 to 35 gallon plastic container was observed on the southwestern portion of the site. The container was empty at the time of the site inspection. No odors were noted in the vicinity of the container.

### **6.3.3 Odors**

No odors were noted during the site inspection.

### **6.3.4 Pools of Liquids**

No pools of liquids were observed during the site inspection.

### **6.3.5 Drums**

An empty 55-gallon drum labelled “Sodium Hypochlorite” and an empty 55-gallon drum labelled “Curing Compound” were observed on the southwestern portion of the site.

### **6.3.6 Unidentified Substance Containers**

An approximately 25 to 35 gallon plastic container was observed on the southwestern portion of the site. The container was empty at the time of the site inspection. No odors were noted in the vicinity of the container.

### **6.3.7 PCBs**

No evidence of PCB-containing equipment was observed during the site inspection.

### **6.3.8 Pits, Ponds or Lagoons**

No pits, ponds or lagoons were observed during the site inspection. The Forty Arpent Canal, the Twenty Arpent, and an unnamed canal were observed bordering the eastern, southwestern, and southeastern boundaries of the property, respectively. The Docville Canal was observed on the site.

### **6.3.9 Stained Soil or Pavement**

No stained soil was observed during the site reconnaissance.

### **6.3.10 Stressed Vegetation**

No stressed vegetation was observed during the site reconnaissance.

### **6.3.11 Solid Waste**

A pile of wood debris was observed on the northwestern portion of the site. A pile of solid waste, which included two 55-gallon drums, an unidentified AST, a large tire, and miscellaneous trash debris, was observed on the southwestern portion of the site near the Docville Canal.

### **6.3.12 Wastewater**

No wastewater discharges to or from the site were observed during the site inspection.

### **6.3.13 Wells**

No potable, irrigation, or industrial wells were observed during the site inspection; however, an interview with the site owner representative and a review of the LDNR website indicated that two oil production wells were located on the eastern portion of the site. One of the wells has reportedly been abandoned below land surface. The second well is listed on the LDNR website as being temporarily abandoned, which indicates that the well may still be located at the site but is currently inactive.

### **6.3.14 Septic Systems**

No septic systems were observed during the site inspection.

## **6.4 Interior Observations**

### **6.4.1 Hazardous Substances and Petroleum Products**

No structures were observed on the site during the site reconnaissance.

### **6.4.2 Storage Tanks**

No structures were observed on the site during the site reconnaissance.

### **6.4.3 Odors**

No structures were observed on the site during the site reconnaissance.

### **6.4.4 Pools of Liquid**

No structures were observed on the site during the site reconnaissance.

### **6.4.5 Drums**

No structures were observed on the site during the site reconnaissance.

### **6.4.6 Unidentified Substance Containers**

No structures were observed on the site during the site reconnaissance.

### **6.4.7 PCBs**

No structures were observed on the site during the site reconnaissance.

### **6.4.8 Heating and Cooling**

No structures were observed on the site during the site reconnaissance.

### **6.4.9 Stains or Corrosion**

No structures were observed on the site during the site reconnaissance.

### **6.4.10 Drains and Sumps**

No structures were observed on the site during the site reconnaissance.

## 7.0 INTERVIEWS

Reasonable attempts were made to interview the available key site manager and occupants. AEROSTAR also conducted interviews with other individuals familiar with the site, as well as local, state, tribal or federal agency representatives, where available, regarding issues which could have an adverse effect on the environmental status of the site. Copies of interview documentation are included as Appendix F.

### 7.1 Interview with Site Owner

AEROSTAR interviewed Ms. Becky Cieutat, site owner representative, regarding the current and historical uses of the site. Ms. Cieutat stated that the site is a part of a much larger, several thousand acre, tract of land owned by the Meraux Foundation. Ms. Cieutat was unable to provide AEROSTAR with a parcel identification number or tax assessor information for the parent tract. According to Ms. Cieutat, all legal information regarding the property has been boxed up in preparation for relocating her office and would not be available for several weeks. Ms. Cieutat stated that the site is currently unoccupied and consists of wooded land. According to Ms. Cieutat, some trees were cut to prevent forest fires, and the eastern portion of the site was cleared as part of the development of an oil well (AEROSTAR has since learned from the LDNR website that there are actually two wells located on the eastern portion of the site). Ms. Cieutat was unsure if the well is currently producing oil, but believed it was dry and is currently inactive. Ms. Cieutat stated that the site may have been used for hunting in the past. According to Ms. Cieutat, herbicides and pesticides have never been applied to the site and there are currently no ASTs/USTs located on the site. Ms. Cieutat stated that there have not been any previous assessments performed on the site. Ms. Cieutat was unaware of any environmental liens or AULs associated with the site. Ms. Cieutat stated that the site has not been devalued for environmental purposes and that the value of the site was representative of its market value. Ms. Cieutat was not aware of any other potential environmental concerns associated with the site.

### 7.2 Interview with Site Manager

Please refer to Section 7.1.

### 7.3 Interviews with Occupants

The site is unoccupied.

### 7.4 Interviews with Local Government Officials

AEROSTAR interviewed Mr. Jeff Wells, LDNR Engineering Department, regarding the oil wells observed on the site. Mr. Wells stated that information regarding oil wells is available on the LDNR website and includes the wells current status. According to Mr. Wells, the status codes 03, 18, and 29, associated with the oil wells at the site, stand for permit expired/no product code, temporarily abandoned, and plugged and abandoned dry hole, respectively. Mr. Wells stated that if the wells had ever produced oil, they would have been assigned status codes indicating such. Mr. Wells stated that the "Oil/Gas Well Bottom Holes and Bores" feature on the LDNR website indicates the intended target of the well bottom, which indicates that the wells drilled at the site were directionally drilled to the east-northeast of the site. According to Mr. Wells, the oil wells at the site do not appear to have produced oil. Mr. Wells stated that oil wells are only permitted for six months at a time and multiple serials numbers may indicate that the wells were re-permitted.

AEROSTAR attempted to interview Ms. Melinda Molieri, LDEQ, regarding former gasoline stations in the vicinity of the site; however, Ms. Molieri did not return phone calls prior to the completion of this report.

## **7.5 Interviews with Others**

AEROSTAR interviewed Mr. Mike Brown, USACE, regarding the reasons for performing the Phase I ESA. Mr. Brown stated that the USACE is proposing to use the site as a borrow pit and is performing a Phase I ESA as due diligence. Mr. Brown was not aware of any environmental liens or AULs associated with the site. Mr. Brown believed the value of the site was representative of its market value. Mr. Brown was not aware of any specialized knowledge or other possible environmental concerns associated with the site.

## 8.0 FINDINGS AND OPINIONS

### 8.1 Known or Suspect Recognized Environmental Conditions

Potential onsite concerns were noted from former oil drilling operations documented on the eastern portion of the site.

Potential onsite concerns were noted from solid waste, which included two empty 55-gallon drums and a black plastic container, on the southwestern portion of the site.

Potential offsite concerns were noted from multiple ASTs associated with the pump station on the eastern adjoining property.

### 8.2 Historical Recognized Environmental Conditions

No historical recognized environmental conditions were noted at the site.

### 8.3 De Minimis Conditions

No on site *de minimis* conditions were noted at the site.

## 9.0 CONCLUSIONS

AEROSTAR has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-05 of the Docville Borrow Area, located along Meraux Lane, Meraux, St. Bernard Parish, Louisiana. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the site, except for the following:

- Potential onsite concerns were noted from former oil drilling operations documented on the eastern portion of the site.
- Potential onsite concerns were noted from solid waste, which included two empty 55-gallon drums and a black plastic container, on the southwestern portion of the site.
- Potential offsite concerns were noted from multiple ASTs associated with the pump station on the eastern adjoining property.

## 10.0 DEVIATIONS

AEROSTAR prepared this Phase I ESA in accordance with ASTM Standard E 1527-05.

## **11.0 ADDITIONAL SERVICES**

Under the terms of the agreement between Client and AEROSTAR, no additional services were provided in association with the Phase I ESA. There may be environmental issues or conditions at a site that the Client may wish to assess in connection with commercial real estate that are outside the scope of this practice (the non-scope considerations). No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all inclusive: asbestos-containing materials; radon; lead-based paint; lead in drinking water; wetlands; regulatory compliance; cultural and historical resources; industrial hygiene; health and safety; ecological resources; endangered species; indoor air quality; and high voltage power lines.

## 12.0 REFERENCES

References reviewed during the Phase I ESA are documented in Appendix G.

**13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS**

This is to certify the Phase I ESA Report of the Docville Borrow Area, located along Meraux Lane, Meraux, St. Bernard Parish, Louisiana, has been examined by the undersigned.

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

John Townsend  
Project Scientist

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Neil Hornick, P.G., CHMM  
Senior Project Manager

#### **14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS**

This assessment was completed by John Townsend, Project Scientist, and reviewed by Neil Hornick, P.G., CHMM, Senior Project Manager, both employees of AEROSTAR. We declare that, to the best of our professional knowledge, we meet the definition of environmental professional as defined in § 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess the property of a nature, history, and setting of the site. We have developed and performed the all appropriate inquiries in conformance with the standards set forth on 40 CFR Part 312. Qualifications of personnel participating in this assessment are provided in Appendix H.