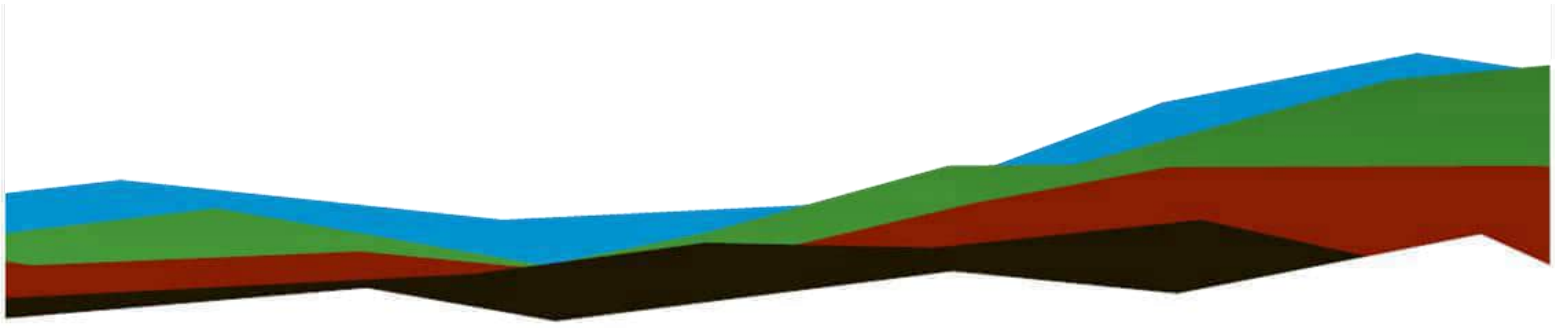
Phase I Environmental Site Assessment

MDEQ Targeted Brownfield Assessment Grant
MDEQ Contract No. 21-00148

Leake County EDD – Site 1 - Southwest
Carthage, Leake County, Mississippi
Work Order No. 1865-237149-2

November 8, 2023 | **Terracon Project No. EB237179**

Prepared for:
Mississippi Department of Environmental Quality
Jackson, Mississippi



Prepared by:
Terracon Consultants, Inc.
Ridgeland, Mississippi

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
MDEQ Target Brownfield Assessment Grant
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November 8, 2023

This document and work performed under this Phase I Environmental Site Assessment (ESA) Report was completed in accordance with the Mississippi Department of Environmental Quality (MDEQ) and Environmental Protection Agency (EPA) Region 4 Brownfields Program-approved Scope of Work (SOW) dated August 24, 2023.

Approval:

TERRACON CONTRACT/PROJECT MANAGER:

11/08/2023 — Kyle M. Little
(Signature) (Date)

TERRACON QA/QC MANAGER:

for: 11/08/2023 — Steve E. Whitting
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TERRACON QA/QC MANAGER:

for: 11/08/2023 — Bill Green
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for: 11/08/2023 — Jim W. Baxter
(Signature) (Date)

MDEQ GARD CHIEF:

Thomas L. Wallace
(Signature) (Date)

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APPENDICES

A-3: DISTRIBUTION LIST

The personnel listed below will receive copies of the Phase I ESA Report:

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EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with Terracon Proposal No. PEB237149.01 dated August 24, 2023 and was conducted consistent with the procedures included in ASTM E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Mr. Steve E. Whitting, Environmental Professional. Mr. Andy Polk performed the site reconnaissance on September 14, 2023.

Findings and Opinions

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Site Description and Use

The site consists of an approximately 40-acre parcel of land located along Highway 25 North Frontage Road, Red Water Road, and North Pearl Street in Carthage, Leake County, Mississippi. The site consists mostly of undeveloped wooded land with a former gas station site located within the northwest portion of the site. The structures at the former gas station have been demolished and the underground storage tanks (USTs) along with the associated fueling equipment have been closed and removed from the site in accordance with the Mississippi Department of Environmental Quality (MDEQ) UST regulations. All that remains from the former gas station site is concrete and/or asphalt-paved driveways and compact fill and clay gravel where the form UST pit is located.

Historical Information

Based on a review of historical resources, the site appears to have been undeveloped land from at least 1942 until 1980. By 1991, the on-site structures appear to be developed as observed during site reconnaissance. The northwest portion of the site was mainly used as a gas station and convenience store from approximately 1989 to 2004. Three 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were used for former on-site fueling operations. Four dispensers were used for gasoline and two dispensers were used for diesel. The USTs and associated fueling equipment have since been closed and removed from the site. The former on-site structures associated with the former gas station facility were demolished in July of 2023. The

site south of Redwater Road has been utilized for repeated timber harvesting operations as early as 1942 and is currently undeveloped wooded land.

Surrounding areas have mainly been undeveloped land with sparse commercial developments. Commercial properties and the Economy Inn appear west of the site by 1991. An apparent military truck and trailer storage facility appears east of the site in 2018. A Historical Recognized Environmental Condition (HREC) was identified based on the site's historical use as a gas station.

Records Review

Selected federal and state environmental regulatory databases as well as responses from local regulatory agencies were reviewed. The site was identified in the ERIS database report in the Facility Index / Facility Registry Service (FINDS/FRS) database, the Underground Storage Tank (UST) database, and the Leaking UST (LUST) database. According to the Mississippi Department of Environmental Quality (MDEQ) online UST and Groundwater and Remediation Division (GARD) database and the files reviewed that were provided by the client, this facility operated the following four USTs from 1989 to 2004: three 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST. The USTs were installed in January 1989 and were constructed with epoxy coated steel. Associated piping is constructed of fiberglass reinforced plastic. A leak was reported at the site in 1995 and was given a No Further Action (NFA) status by the MDEQ in 1996 with no other details identified.

Terracon collected soil samples around the UST pit and the fueling equipment (i.e., piping and dispensers) and one water sample was collected next to the diesel dispensers as part of a Limited Site Investigation (LSI) that was completed on September 7, 2022. The soil samples and water sample were analyzed for Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) via EPA Method 8260B and Polynuclear Aromatic Hydrocarbons (PAHs) via EPA Method 8270D. The water sample was analyzed for BTEX via EPA Method 8260B and PAHs via EPA Method 8270E. The analytical results for all collected samples were below their respective MDEQ Unrestricted Soil and Groundwater Tier I Target Remediation Goals (TRGs).

A UST Closure Assessment was subsequently completed by Terracon on May 25, 2023. This included the removal of the on-site USTs and associated fueling equipment. Soil samples were collected underneath the four corners of the UST pit, underneath the fuel dispensers, underneath the fuel piping, and from excavated spoils piles in accordance with the *Guidelines for the Permanent Closure of Petroleum Underground Storage Tank Systems* (MDEQ, July 2009). Soil samples were analyzed

for BTEX and Methyl Tertiary Butyl Ether (MTBE) via EPA Method 8260B and PAHs via EPA Method 8270D.

The analytical results of the soil samples were below their respective TRGs and MDEQ UST Typical Cleanup Levels (TCLs). However, the homogeneous fill material samples collected at the northeast and northwest corners of the UST pit were detected at BTEX and Toluene concentrations above their respective TRGS and TCLs. The affected fill material was excavated out of the pit, placed into dump trucks, and hauled to a permitted landfill for disposal. Visible free product was also observed on the perched water within the UST pit. This affected water was pumped into an on-site temporary holding frac tank and vacuum trucks, then was hauled off-site to the office of Walker-Hill Environmental located in Foxworth, Mississippi for proper disposal.

Once the UST Closure Assessment was completed by Terracon, MDEQ issued a NFA letter in response to the closure on July 11, 2023. Based on the work Terracon has completed on-site thus far and the recent NFA letter issued by the MDEQ, this former on-site facility constitutes an HREC in connection to the site.

Site Reconnaissance

During site reconnaissance, the site was observed to consist of an approximately 40-acre parcel of land that adjoins the north and south sides of Redwater Road. The site south of Redwater Road consists of undeveloped wooded land and the site north of Redwater Road consists of a former gas station facility that has recently been demolished. The only site feature observed was the compacted fill dirt and clay gravel where the former UST pit is located. This is associated with the recent UST closure and removal completed in May of 2023 with a subsequent NFA issued by the MDEQ in July of 2023. RECs were not observed in connection to the site during site reconnaissance.

Adjoining Properties

The site is located in an undeveloped, light industrial and commercial, and residential area in Leake County, Mississippi and adjacent to the Choctaw Tribe's Red Water community. The site is adjoined to the north by Mississippi Highway 25 Frontage Road and undeveloped wooded land followed by cleared, vacant land, Economy Inn, and Mississippi Highway 25; to the east by undeveloped wooded land, the northern portion of the Carthage-Leake County Airport runway, and a Mississippi Army National Guard vehicle storage facility; to the south by undeveloped wooded land; and to the west by an Economy Inn motel and North Pearl Street followed by an undeveloped lot, Red Water Clinic, and Red Water Early Childhood Center. During the

site reconnaissance, obvious indications of RECs were not identified on adjacent properties.

Significant Data Gaps

At the issuance of this report, significant data gaps that would affect the findings and conclusions of this report were not identified.

Additional Services

Per the agreed scope of services specified in the approved Scope of Work (SOW), three additional assessments were completed. These additional services include a Wetland Delineation/Assessment, a Threatened and Endangered (T&E) Species Assessment, and a Cultural Resources Assessment. The reports outlining the methodology, findings, and conclusions of these three additional assessments can be found in Appendices G, H, and I, respectively.

Conclusions

We have performed this ESA consistent with the procedures included in ASTM Practice E 1527-21 at the approximately 40-acre site located at 245 Highway 25 North, in Carthage, Leake County, Mississippi, the site. The following Historical Recognized Environmental Condition (HREC) was identified:

- **Former On-site Fueling System**
  According to the Terracon's knowledge of the site from the recent completion of multiple on-site assessment projects, this facility operated the following four USTs from 1989 to 2004: three 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST. The USTs were installed in January 1989 and were constructed of epoxy coated steel. Associated piping is constructed of fiberglass reinforced plastic. A leak was reported at the site in 1995 and was given a NFA status by the MDEQ in 1996 with no other details identified.

  Terracon collected soil samples around the UST pit and the fueling equipment (i.e., piping and dispensers) and one water sample was collected next to the diesel dispensers as part of an LSI that was completed on September 7, 2022. The soil samples and water sample were analyzed for BTEX via EPA Method 8260B and PAHs via EPA Method 8270D. The water sample was analyzed for BTEX via EPA Method 8260B and PAHs via EPA Method 8270E. The analytical results for all collected samples were below their respective TRGs.

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The analytical results of the soil samples were below their respective TRGs and TCLs. However, the homogeneous fill material samples collected at the northeast and northwest corners of the UST pit were detected at BTEX and Toluene concentrations above their respective TRGS and TCLs. The affected fill material was excavated out of the pit, placed into dump trucks, and hauled to a properly permitted landfill for disposal. Visible free product was also observed on the perched water within the UST pit. This affected water was pumped into an on-site temporary holding frac tank and vacuum trucks, then was hauled off-site to the office of Walker-Hill Environmental located in Foxworth, Mississippi for proper disposal.

Once the UST Closure Assessment was completed by Terracon, MDEQ issued a NFA letter in response to the closure on July 11, 2023. Based on the work Terracon has completed on-site thus far and the recent NFA letter issued by the MDEQ, this former on-site facility constitutes an HREC in connection to the site.

Recommendations

Based on the scope of services, limitations and conclusions of this assessment, Terracon identified a HREC in connection with the site. Terracon recommends no further investigation, given that the site remain as an industrial property.

1.0 INTRODUCTION

1.1 Site Description

Site Name	Leake County EDD - Site 1- SW
Site Location/Address	Carthage, Leake County, Mississippi
Land Area	Approximately 40 acres
Site Improvements	Concrete and/or asphalt-paved driveways at a former gas station site
Anticipated Future Site Use	Expansion of the existing Leake County Industrial Park
Reason for the ESA	Acquiring the site

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from portions of the 1989 Carthage, MS and 1989 Conway, MS USGS 7.5-minute series topographic maps. The site and adjoining properties are depicted on the Site Diagram, which is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

1.2 Scope of Services

This Phase I ESA was performed in accordance with Terracon Proposal No. PEB237149.01 dated August 24, 2023 and was conducted consistent with the procedures included in ASTM E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report.

ASTM E1527-21 contains a new definition of "migrate/migration," which refers to “the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.” By including this explicit reference to migration in ASTM E1527-21, the Standard clarifies that the potential for vapor migration should be addressed as part of a Phase

I ESA. This Phase I ESA has considered vapor migration in evaluation of RECs associated with the site.

1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

1.4 Additional Scope Limitations, ASTM Deviations and Data Gaps

Based upon the agreed-upon scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e., evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report.

Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. This ESA was further limited by the following:

- Historical information was not provided back to 1940. Uses of the site were described as far back as 1942. Because the site was undeveloped as of this date, and at the direction of the LCEDD, land title records were not reviewed. Based on this information, this data gap is not considered to be significant.

An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of the Mississippi Department of Environmental Quality (MDEQ) and the Leake County Economic Development District (LCEDD). Use or reliance by any other party is prohibited without the written authorization of the MDEQ, the LCEDD, and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's

Agreement. The limitation of liability defined in the Agreement is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-21 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-21.

1.6 Client Provided Information

Prior to the site visit, Mr. Aaron Akers, client's representative, was asked to provide the following user questionnaire information as described in ASTM E1527-21 Section 6.

Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Specialized Knowledge or Experience that is material to a REC in connection with the site.			X
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.			X
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.			X
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.			X
Obvious Indicators of Releases at the site.			X

Terracon's consideration of the LCEDD-provided information did not identify RECs. A copy of the questionnaire is included in Appendix C.

2.0 PHYSICAL SETTING

Physical Setting Information		Source
Topography		
Site Elevation	Approximately 398 feet above mean sea level	USGS Topographic Map, Conway, MS 2020
Topographic Gradient	The site slopes to the north, south of Redwater Road and gently to the south, north of Redwater Road.	
Closest Surface Water	Town Creek located approximately 1,500 feet to the west.	
Soil Characteristics		
Soil Type	OrC – Ora fine sandy loam, 5 to 8 percent slopes. SaB – Savannah fine sandy loam, 2 to 5 percent slopes. SmD2 – Smithdale fine sandy loam, 8 to 15 percent slopes.	Environmental Risk Information Services (ERIS) Physical Settings Report, Issued September 19, 2022
Description	OrC – Moderately high runoff potential when drained and high runoff potential when undrained. SaB – Moderately high runoff potential when thoroughly wet. Water flow through soil is somewhat restricted. SmD2 – Moderately low runoff potential when thoroughly wet. Water flow through soil is unimpeded.	
Geology/Hydrogeology		
Formation	Ek – Kosciusko formation	Geologic Map of Mississippi, 1969
Description	Ek – (Claiborne group), irregularly bedded sand, clay, and some quartzite.	
Estimated Depth to First Occurrence of Groundwater	Within 200 feet below ground surface.	Professional staff knowledge of the general area underlying geology.

Physical Setting Information	Source
*Hydrogeologic Gradient	Not known - may be inferred to be consistent with topographical gradient (primarily to the north and south towards Redwater Road).

* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify RECs associated with past uses. Copies of selected historical documents are included in Appendix C.

3.1 Historical Topographic Maps, Aerial Photographs, Sanborn Maps

Readily available historical USGS topographic maps, selected historical aerial photographs (at approximately 10 to 15-year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps, aerial photographs and Sanborn maps are summarized below.

Historical fire insurance maps produced by the Sanborn Map Company were requested from ERIS to evaluate past uses and relevant characteristics of the site and surrounding properties. Based upon inquiries to the above-listed Sanborn provider, Sanborn maps were not available for the site.

- Topographic map: Thomastown, MS, **1962** (1:62,500)
- Topographic map: Carthage, MS; Conway, MS, **1989**, **2015**, and **2020** (1:24,000)
- Aerial photograph: ASCS, **1942** and **1960** (1” = 500’)
- Aerial photograph: AMS, **1952** (1” = 500’)
- Aerial photograph: NASA, **1972** (1” = 500’)
- Aerial photograph: USGS, **1980**, **1985**, **1991**, and **1996** (1” = 500’)
- Aerial photograph: USDA, **2004**, **2005**, **2006**, **2007**, **2009**, **2010**, **2012**, **2014**, **2016**, **2018**, **2020**, and **2021** (1” = 500’)

Historical Maps and Aerial Photographs

Direction	Description
Site	Depicted as undeveloped wooded land (1942); depicted as undeveloped wooded land with multiple access trails transecting the site (1952); depicted as undeveloped wooded land with Redwater Road transecting the site west-east (1960-1972); depicted as undeveloped wooded land north of Redwater Road and undeveloped cleared land south of Redwater Road (1980); depicted as mostly undeveloped cleared land (1985); depicted as a **fuel and service station** with undeveloped cleared land north of Redwater Road and undeveloped wooded land south of Redwater Road (1991-1996); depicted as undeveloped cleared land south of Redwater Road and a **fuel and service station** with mostly undeveloped wooded land east of the service station (2004-2016); depicted as undeveloped wooded land south of Redwater Road (2018-2021).
North	Depicted as undeveloped wooded land (1942); depicted as undeveloped cleared and/or wooded land and Old Highway 25 (1952-1996); a motel appears north and west of the site (1996); depicted as undeveloped cleared and/or wooded land and Old Highway 25/Frontage Road, followed by New Highway 25 and a motel (2004-2020).
East	Depicted as undeveloped cleared and/or wooded land (1942-1960); depicted as undeveloped cleared and/or wooded land and the northern portion of the Carthage-Leake County Airport runway (1972-2018); depicted as undeveloped cleared and/or wooded land and the northern portion of the Carthage-Leake County Airport runway, followed by a Mississippi Army National Guard vehicle storage area (2020-2021).
South	Depicted as undeveloped wooded land (1942-1972); depicted as undeveloped cleared land (1980-1985); depicted as undeveloped wooded land (1991-1996); depicted as undeveloped cleared land (2004-2016); depicted as undeveloped wooded land (2018-2021).
West	Depicted as undeveloped wooded land and North Pearl Street followed by residential and/or commercial properties associated with the Choctaw Tribe's Red Water community (1942-2021); a motel appears north and west of the site (1996).

The former onsite fuel and service station is discussed further in Section 4.1.

3.2 Historical City Directories

The Digital Business Directory city directory used in this study was made available through ERIS (selected years reviewed: 1998-2022) and were reviewed at approximate five-year intervals, if readily available. Since these references are copyright protected, reproductions are not provided in this report. Street listings were not available prior to 1998. The current street address for the site is 245 Highway 25 North.

Historical City Directories

Direction	Description
Site	Not Listed
North	No Listings
East	No Listings
South	No Listings
West	101 Mississippi Highway 25: Hitching Rail Pizza Restaurant (2000-2008) Los Rodeos Mexican Restaurant (2012-2022) 211 Mississippi Highway 25: Econo Lodge (1998-2022) 1930 North Pearl Street: Red Water Clinic (2008-2022) 1931 North Pearl Street: Red Water Indian School (2003-2022) 1951 North Pearl Street: Georgia Poultry Equipment Company (2016-2022) AB Mechanical, Inc. (2020-2022)

3.3 Site Ownership

Based on a review of information obtained from the Leake County, Mississippi tax assessor's records, the current site owner north of Redwater Road is Mr. James Harlon Triplett and the Parcel ID number is 052250018.04. The current site owner south of Redwater Road is the LCEDD. However, based on Terracon's knowledge of the site since 2022, it is confirmed that the LCEDD owns the entire site north and south of Redwater Road.

3.4 Title Search

At the direction of the client, a title search was not included as part of the scope of services. Unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.5 Interviews Regarding Current and Historical Site Uses

The following individuals were interviewed regarding the current and historical use of the site.

Interviews

Interviewer	Name / Phone #	Title	Date/Time
Mr. Kyle Little	Mr. Aaron Akers / (601) 416-5192	Site Owner Representative	November 7, 2023 / 9:52 am

Terracon interviewed Mr. Aaron Akers, the representative for the current site owner (LCEDD) via telephone on November 7, 2023. Mr. Akers provided the following information:

- The site north of Redwater Road was purchased from Mr. James Triplett in June of 2023 and was a former and vacated gas station facility.
- The USTs, associated fueling equipment, and structures associated with the former gas station facility have since been closed, removed, and/or demolished.
- The site south of Redwater Road was purchased from International Paper in the late 1990's.
- The site south of Redwater Road was cleared from timber harvesting operations at the time of purchase.
- Mr. Akers indicated he is not aware of environmental concerns or issues associated with the surrounding properties.

To the best of his knowledge, Mr. Akers was not aware of any of the following in connection to the site:

- Pending environmental litigation
- Threatened environmental litigation
- Past environmental litigation
- Possible violations of environmental laws

- Possible environmental liability
- Any potential environmental concerns

3.6 Prior Report Review

Terracon requested the client provide any previous environmental reports they are aware of for the site. Previous reports were not provided by the client to Terracon for review. However, Terracon completed a Phase I ESA on the site north of Redwater Road (former gas station) on August 2, 2022, an LSI on September 7, 2022, and a UST Closure Assessment on May 25, 2023. All three of these previous reports have since been submitted to the LCEDD and the MDEQ.

4.0 RECORDS REVIEW

Regulatory database information was provided by ERIS, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated. The scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

4.1 Federal and State/Tribal Databases

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

Federal Databases

Database	Description	Distance (miles)	Listings
CERCLIS	Comprehensive Environmental Response, Compensation, & Liability Information System	0.5	0
CERCLIS / NFRAP	Comprehensive Environmental Response, Compensation, & Liability Information System/No Further Remedial Action Planned	0.5	0
ERNS	Emergency Response Notification System	Site	0
FINDS/FRS	Facility Index / Facility Registry Service	Site and adjoining properties	1
IC / EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1	0
NPL (Delisted)	National Priorities Delisted List	0.5	0
RCRA CORRACTS/ TSD	RCRA Corrective Action Activity	1	0
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining properties	0
RCRA Non-CORRACTS/ TSD	RCRA Non-Corrective Action Activity	0.5	0

State/Tribal Databases

Database	Description	Distance (miles)	Listings
Brownfields	Brownfields	0.5	0
IC/EC	Institutional Controls / Engineering Controls	Site	0
LUST	Leaking Underground Storage Tanks	0.5	2
SHWS	State Hazardous Waste Site	1.0	2
SWF/LF	Solid Waste Facilities/Landfills	0.5	0

Database	Description	Distance (miles)	Listings
UST	Underground Storage Tank	Site and adjoining properties	1
UST MDAC	Underground Storage Tanks – Agriculture & Commerce	Site and adjoining properties	0
VCP	Voluntary Cleanup Program	0.5	0

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D.

The following table summarizes the site-specific information provided by the database and/or gathered by this office for identified facilities within 500 feet of the site. Facilities greater than 500 feet from the site were not considered RECs to the property; therefore, not listed and discussed below. Facilities are listed in order of proximity to the site. Additional discussion for selected facilities follows the summary table.

Listed Facilities

Facility Name and Location	Estimated Distance / Direction/Gradient	Database Listings	Findings Summary
25/35 Chevron 245 Highway 25 North Carthage, MS 39051	Site	FINDS/FRS, UST, and LUST	No, discussed below

25/35 Chevron

This former on-site facility was identified in the ERIS database report in the FINDS/FRS database, the UST database, and the Leaking UST (LUST) database. According to the MDEQ online UST and GARD database and files that were provided by the client, this facility operated the following four USTs from 1989 to 2008: three 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST. The USTs were installed in January of 1989 and were constructed of epoxy coated steel. Associated piping is constructed of fiberglass reinforced plastic. A leak was reported at the site in 1995 and was given a No Further Action (NFA) status by the MDEQ in 1996 with no other details identified.

According to the FINDS/FRS database, the site is listed under Standard Industrial Classification (SIC) code 5541 (Gasoline Service Stations). The UST listing in the database report confirmed the above UST details and shows that the site has an Eligibility Undetermined (EUD) status in regard to the Mississippi Groundwater Protection Trust Fund (MGPTF). The LUST database in the database report confirmed there was a reported release at the site on September 29, 1995 and this release was given NFA status by the MDEQ on July 18, 1996.

Terracon collected soil samples around the UST pit and the fueling equipment (i.e., piping and dispensers) and one water sample was collected next to the diesel dispensers as part of an LSI that was completed on September 7, 2022. The soil samples and water sample were analyzed for BTEX via EPA Method 8260B and PAHs via EPA Method 8270D. The water sample was analyzed for BTEX via EPA Method 8260B and PAHs via EPA Method 8270E. The analytical results for all collected samples were below their respective MDEQ Unrestricted Soil and Groundwater Tier I TRGs.

A UST Closure Assessment was subsequently completed by Terracon on May 25, 2023. This included the removal of the on-site USTs and associated fueling equipment. Soil samples were collected underneath the four corners of the UST pit, underneath the fuel dispensers, underneath the fuel piping, and from excavated spoils piles in accordance with the *Guidelines for the Permanent Closure of Petroleum Underground Storage Tank Systems* (MDEQ, July 2009). Soil samples were analyzed for BTEX and MTBE via EPA Method 8260B and PAHs via EPA Method 8270D.

The analytical results of the soil samples were below their respective TRGs and MDEQ UST TCLs. However, the homogeneous fill material samples collected at the northeast and northwest corners of the UST pit were detected at BTEX and Toluene concentrations above their respective TRGS and TCLs. The affected fill material was excavated out of the pit, placed into dump trucks, and hauled to a properly permitted landfill for disposal. Visible free product was also observed on the perched water within the UST pit. This affected water was pumped into an on-site temporary holding frac tank and vacuum trucks, then was hauled off-site to the office of Walker-Hill Environmental located in Foxworth, Mississippi for proper disposal.

Once the UST Closure Assessment was completed by Terracon, MDEQ issued a NFA letter in response to the closure on July 11, 2023. Based on the work Terracon has completed on-site thus far and the recent NFA letter issued by the MDEQ, this former on-site facility constitutes an HREC in connection to the site.

The remaining facilities listed in the database report do not appear to represent RECs to the site at this time based upon regulatory status, apparent topographic gradient, and/or distance from the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The report listed four facilities in the unmapped section. Determining the location of unmapped facilities is beyond the scope of this assessment; however, these facilities were not identified as the site or adjacent properties. These facilities are listed in the database report in Appendix D.

4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
Lonzo Jones / Chief of the City of Carthage Fire Department (CFD) / Via telephone (601) 267-8473 / November 7, 2023 at 9:09 am	Terracon contacted Fire Chief Jones of the CFD to determine if there have been previous emergency responses or environmental hazards associated with the site. Mr. Brown informed Terracon that he is not aware of any historical response to the site by the CFD as it pertains to environmental issues.
Mississippi Department of Environmental Quality Online GARD and UST Database https://www.mdeq.ms.gov/water/groundwater-assessment-and-remediation/cercla-ucss-file-list-search/	The website was accessed on September 25, 2023 to retrieve information regarding the facilities listed in the ERIS database report. Information reviewed in this database was generally consistent with the database report.

5.0 SITE RECONNAISSANCE

5.1 General Site Information

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. The site and adjoining properties are depicted on the Site

Diagram, which is included in Exhibit 2 of Appendix A. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.

General Site Information

Site Reconnaissance	
Field Personnel	Mr. Andy Polk
Reconnaissance Date	September 14, 2023
Weather Conditions	80°F; Sunny and Clear
Site Contact/Title	Mr. Aaron Akers / Director of Economic & Community Development for Central Electric Power Association
Site Utilities	
Drinking Water	Carthage Water Department
Wastewater	Kosciusko Wastewater Treatment
Electric	Central Electric Power Association
Natural Gas	Atmos Energy

5.2 Overview of Current Site Occupants and Operations

The site consists of an approximately 40-acre parcel of land located along Highway 25 North Frontage Road, Redwater Road, and North Pearl Street in Carthage, Leake County, Mississippi. The site consists mostly of undeveloped wooded land with a former gas station site located within the northwest portion of the site. The structures at the former gas station have recently been demolished and the USTs along with the associated fueling equipment have been closed and removed from the site in accordance with the MDEQ UST regulations. All that remains from the former gas station site is concrete and/or asphalt-paved driveways and compact fill and clay gravel where the form UST pit is located.

5.3 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an "X") are discussed in more detail following the table.

Site Characteristics

Category	Item or Feature	Observed or Identified
Site Operations, Processes, and Equipment	Emergency generators	
	Elevators	
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Pesticide/herbicide production or storage	
	Printing operations	
	Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	
	Oil, gas or mineral production	
Aboveground Chemical or Waste Storage	Other processes or equipment	
	Aboveground storage tanks	
	Drums, barrels and/or containers ≥ 5 gallons	
Underground Chemical or Waste Storage, Drainage or Collection Systems	MSDS or SDS	
	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	

Category	Item or Feature	Observed or Identified
	Pipeline markers	
Electrical Transformers/ PCBs	Interior floor drains	
	Transformers and/or capacitors	
Releases or Potential Releases	Other equipment	
	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	X
	Surface water discoloration, odor, sheen, and/or free-floating product	
	Strong, pungent or noxious odors	
Other Notable Site Features	Exterior pipe discharges and/or other effluent discharges	
	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

Releases or Potential Releases

Construction/Demolition Debris and/or Dumped Fill Dirt

During Terracon's site reconnaissance, compacted fill dirt and clay gravel was observed where the former UST pit is located in the northwest portion of the site. This is associated with the recent UST closure completed in May of 2023 with a subsequent NFA issued by the MDEQ in July of 2023. Based on these facts, the fill material does not constitute a REC.

6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

Adjoining Properties

Direction	Description
North	Mississippi Highway 25 Frontage Road and undeveloped wooded land followed by cleared, vacant land, Economy Inn, and Mississippi Highway 25.
East	Undeveloped wooded land, the northern portion of the Carthage-Leake County Airport runway, and a Mississippi Army National Guard vehicle storage facility.
South	Undeveloped wooded land.
West	Economy Inn and North Pearl Street followed by an undeveloped lot and the Red Water Community Clinic and Early Childhood Center.

RECs were not observed with the adjoining properties.

7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the approved Scope of Work (SOW), three additional assessments were completed. These additional services include a Wetland Delineation/Assessment, a Threatened and Endangered (T&E) Species Assessment, and a Cultural Resources Assessment. The reports outlining the methodology, findings, and conclusions of these three additional assessments can be found in Appendices G, H, and I, respectively.

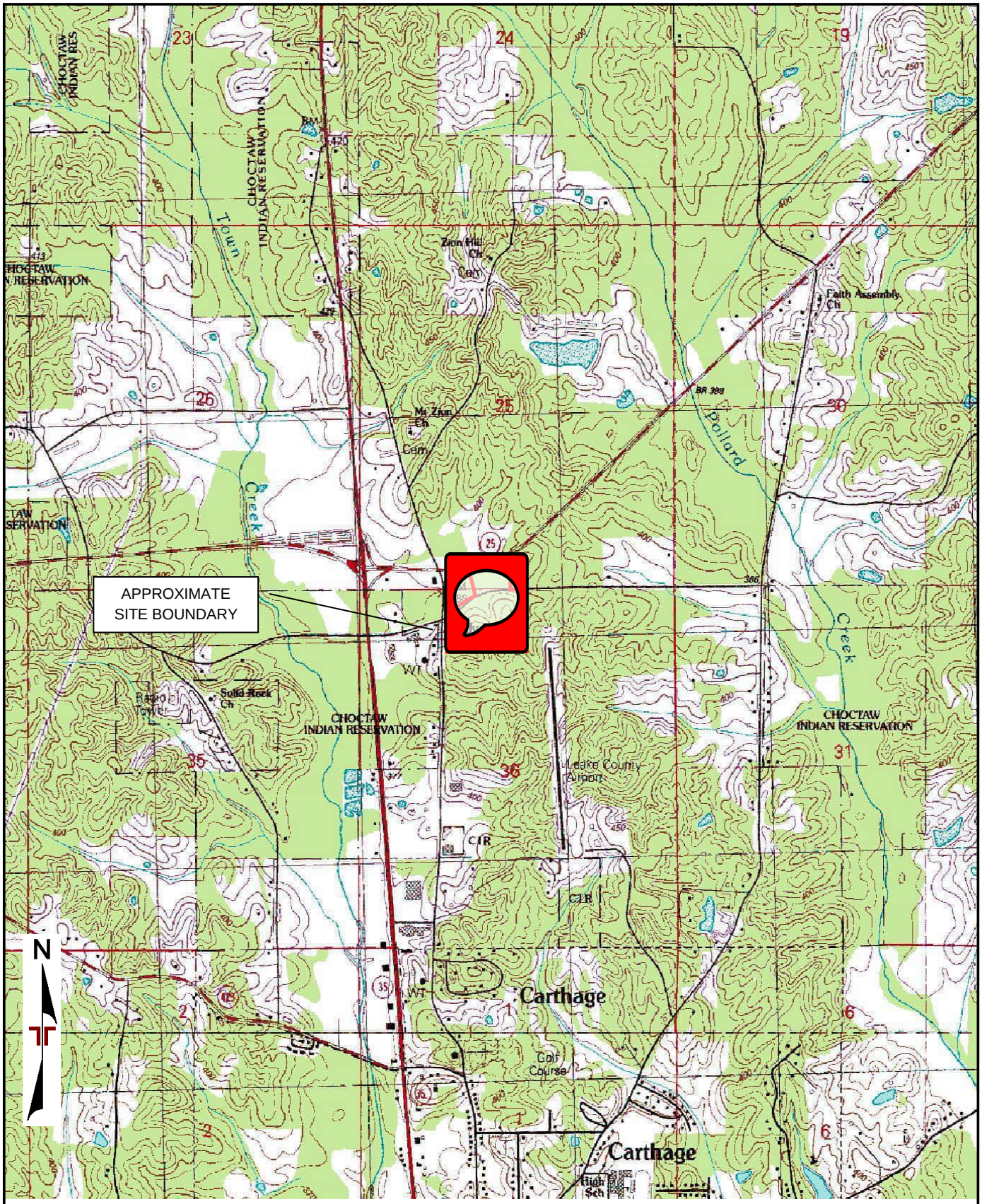
8.0 DECLARATION

I, Steve E. Whitting, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All-Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Steve E. Whitting, RPG
Senior Geologist

APPENDIX A

EXHIBIT 1 – TOPOGRAPHIC MAP
EXHIBIT 2 – SITE DIAGRAM



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
QUADRANGLES INCLUDE: CONWAY, MS (1/1/1989) and CARTHAGE, MS (1/1/1989).

Project Manager: KML	Project No. EB237179	Terracon 859 S Pear Orchard Rd Ridgeland, MS 39157-5105	TOPOGRAPHIC MAP	Exhibit
Drawn by: KML	Scale: 1"=2,000'		Leake County EDD - Site 1 - SW **Red Water Road and Hwy 25 North Frontage Road** **Carthage, Mississippi**	1
Checked by: SEW	File Name: EB237179			
Approved by: SEW	Date: 11-6-2023			

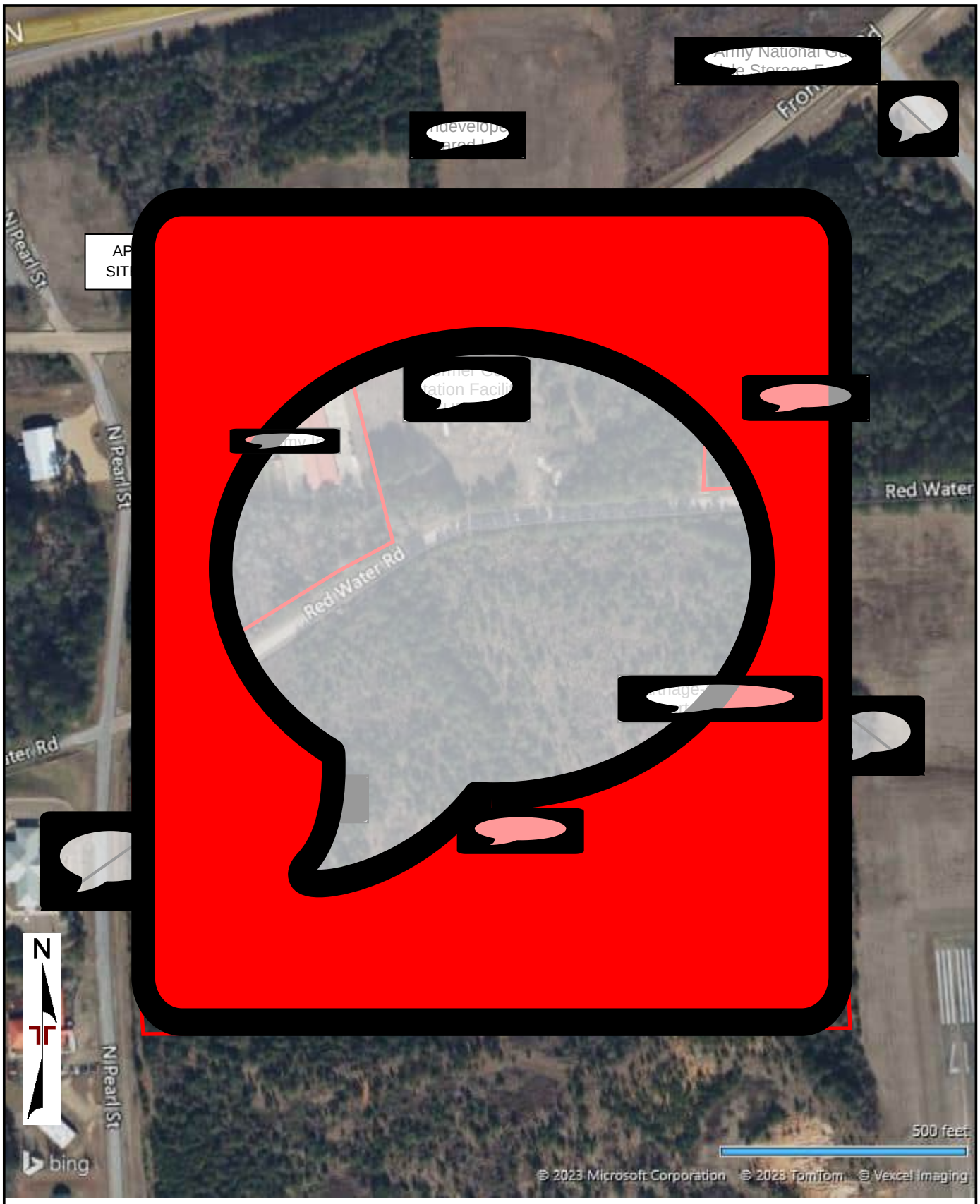


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager: KML Drawn by: KML Checked by: SEW Approved by: SEW	Project No. EB237179 Scale: AS SHOWN File Name: EB237179 Date: 11-6-2023	Terracon 859 S Pear Orchard Rd Ridgeland, MS 39157-5105	SITE DIAGRAM Leake County EDD - Site 1 - SW **Red Water Road and Hwy 25 North Frontage Road** **Carthage, Mississippi**	Exhibit 2

APPENDIX B

SITE PHOTOGRAPHS

Photo 1 View of eastern boundary of site and east adjacent Carthage-Leake County Airport runway ROW, facing south from Redwater Road.

Photo 2 View of west adjacent North Pearl Street followed by the Redwater Clinic and Early Childhood Center, facing south from Redwater Road.

Photo 3 View of western boundary of site, facing south from North Pearl Street.

Photo 4 View of west adjacent Economy Inn, facing west from the site.

Photo 5 View of former on-site gas station facility, facing south from MS Hwy 25 Frontage Road.

[redacted]ilding, facing east and just southeast of for[redacted]

Photo 7 View of former on-site gas station facility frontage followed by north adjacent MS Hwy 25 Frontage Road and undeveloped cleared land, facing north from the site.

Photo 8 View of Redwater Road transecting east-west through the site, facing east on Redwater Road.

APPENDIX C

HISTORICAL DOCUMENTATION AND USER QUESTIONNAIRE

Terracon

Client/User Required Questionnaire		
Person Completing Questionnaire	Name: AARON AIKERS Company: CENTRAL ELECTRIC	Phone: (601) 416-5192 Email: AAIKERS@CENTRALEPA.com
Site Name	Carthage 40-Acre Southwest Section Lot ESA	
Site Address	Carthage, MS	
Point of Contact for Access	Name: AARON AIKERS Company: CENTRAL ELECTRIC	Phone: (601) 416-5192 Email: AAIKERS@CENTRALEPA.com
Access Restrictions or Special Site Requirements?	✓No ___Yes (If yes, please explain)	
Confidentiality Requirements?	✓No ___Yes (If yes, please explain)	
Current Site Owner	Name: LEAKE COUNTY ECONOMIC Company: DEVELOPMENT DISTRICT	Phone: (601) 267-8002 Email:
Current Site Operator	Name: LEAKE COUNTY Company: DEVELOPMENT ASSO.	Phone: (601) 267-7161 Email:
Reasons for ESA (e.g., financing, acquisition, lease, etc.)	SITE DEVELOPMENT	
Anticipated Future Site Use	INDUSTRIAL	
Relevant Documents?	Please provide Terracon copies of prior Phase I or II ESAs, Asbestos Surveys, Environmental Permits or Audit documents, Underground Storage Tank documents, Geotechnical Investigations, Site Surveys, Diagrams or Maps, or other relevant reports or documents.	

ASTM User Questionnaire

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must respond to the following questions. Failure to provide this information to the environmental professional may result in significant data gaps, which may limit our ability to identify recognized environmental conditions resulting in a determination that "all appropriate inquiry" is not complete. This form represents a type of interview and as such, the user has an obligation to answer all questions in good faith, to the extent of their actual knowledge.

1) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.25)?
✓No ___Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)

2) Did a search of recorded land title records (or judicial records where appropriate) identify any activity and use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.26)?
✓No ___Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)

3) Do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312-28)?
✓No ___Yes (If yes, explain below)

4) Do you have actual knowledge of a lower purchase price because contamination is known or believed to be present at the site (40 CFR 312.29)?
✓No ___Yes ___Not applicable (If yes or Not applicable, explain below)

5) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases (40 CFR 312.30)?
✓No ___Yes (If yes, explain below)

6) Based on your knowledge and experience related to the site, are there any obvious indicators that point to the presence or likely presence of contamination at the site (40 CFR 312.31)?
✓No ___Yes (If yes, explain below)

Comments or explanations:

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		23091800576p
Date Completed:		September 19, 2023
Project Number:		EB237179
Project Property:		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage MS 39051
Coordinates:		
	Latitude:	32.76692684
	Longitude:	-89.53364346
	UTM Northing:	3628290.12423 Meters
	UTM Easting:	262664.965409 Meters
	UTM Zone:	UTM Zone 16S
	Elevation:	397.90 ft
	Slope Direction:	W

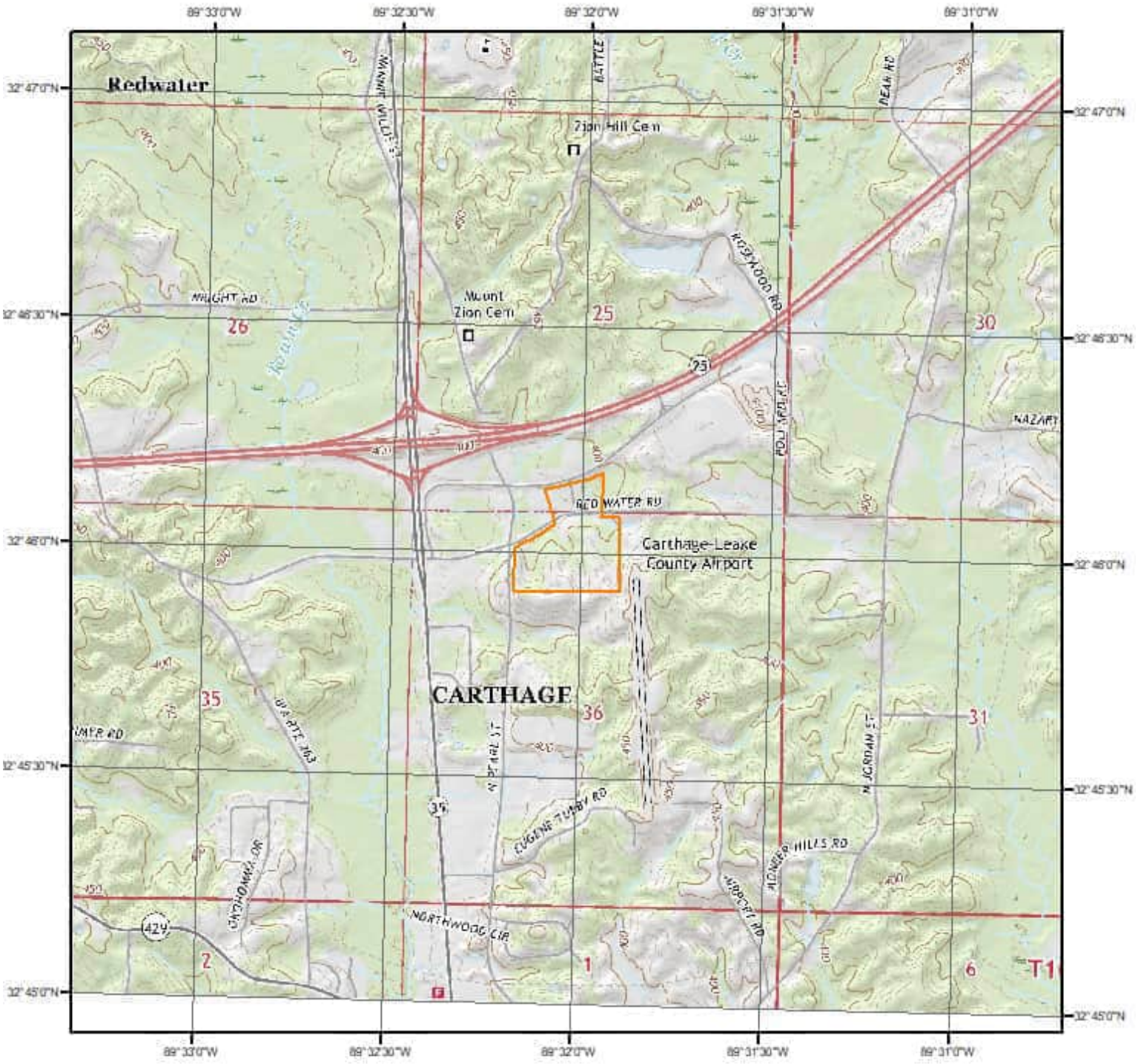
The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information



Current USGS Topo (2020)

Miles
0 0.2 0.4 0.8

N

Quadrangle(s): Conway, MS

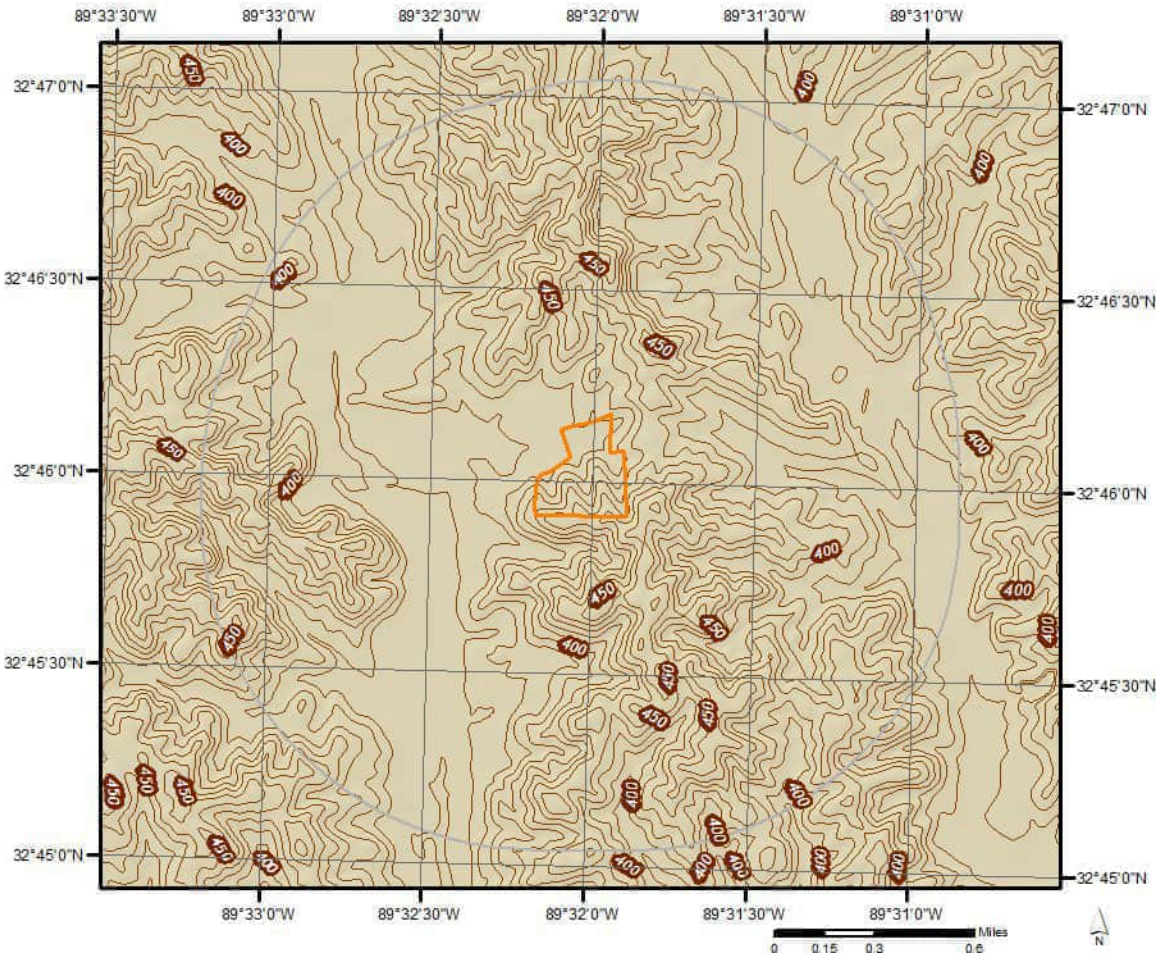
Source: USGS 7.5 Minute Topographic Map

Topographic Information

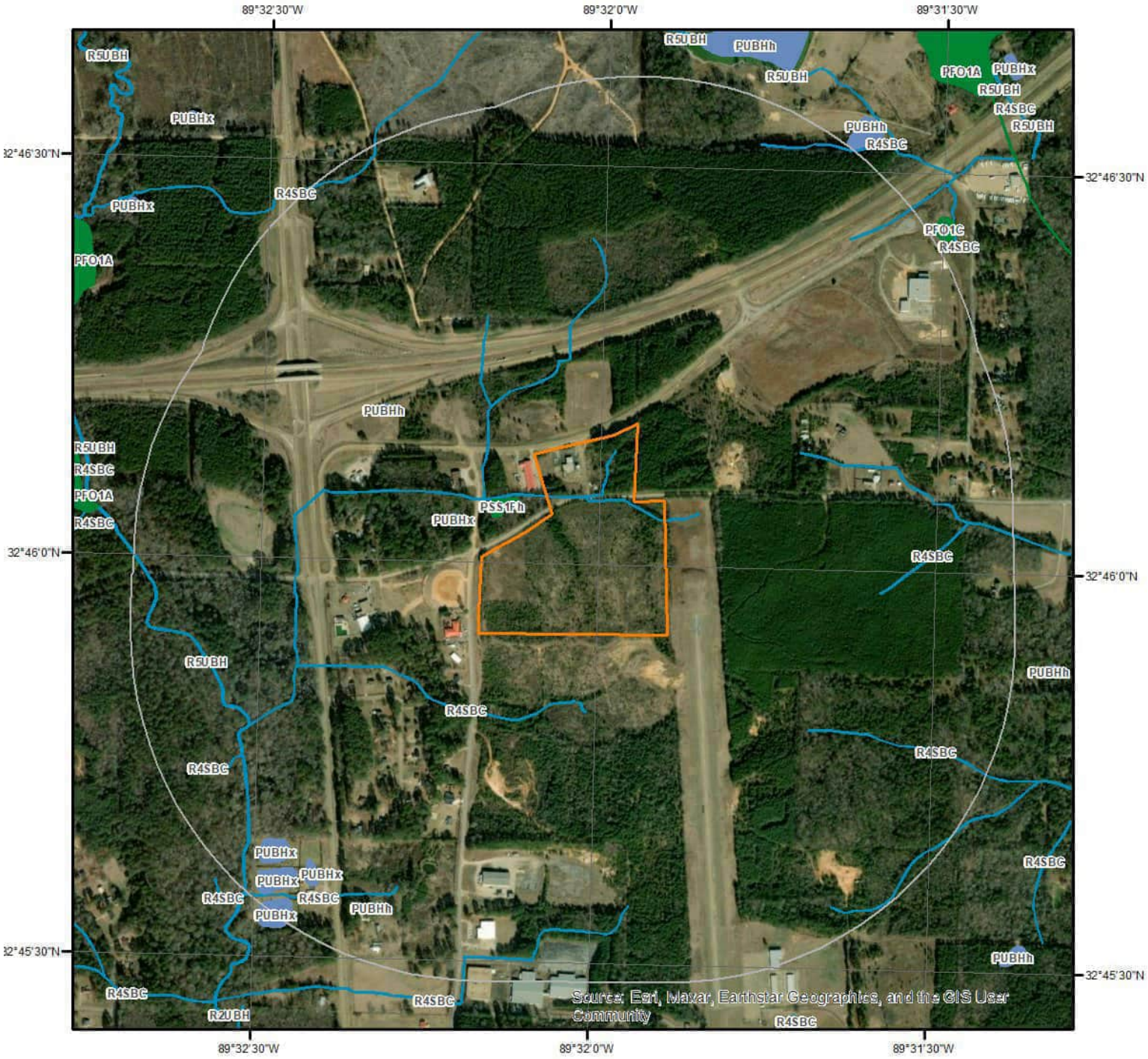
The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation:	397.90 ft
Slope Direction:	W



Hydrologic Information



Wetland

Miles
0 0.075 0.15 0.3

N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS

Hydrologic Information

Flood Hazard Zones

This map shows FEMA flood hazard zones based on FEMA's National Flood Hazard Layer. FIRM Panels are overlayed. An absent FIRM panel represents no data available.

Miles
0 0.2 0.4

N

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee
- Open Water

Quadrangle(s): Conway,MS

ERIS

Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.
For detailed Zone descriptions please click the link: https://floodadvocate.com/fema-zone-definitions

Available FIRM Panels in area:	28079C0144C(effective:2011-09-16) 28079C0143C(effective:2011-09-16) 28079C0145C(effective:2011-09-16)

Flood Zone A-01

Zone:	A
Zone subtype:	

Flood Zone X-12

Zone:	X
Zone subtype:	AREA OF MINIMAL FLOOD HAZARD

Hydrologic Information

FEMA Flood Zone Definitions

Special Flood Hazard Areas – High Risk

Special Flood Hazard Areas represent the area subject to inundation by 1-percent-annual chance flood. Structures located within the SFHA have a 26-percent chance of flooding during the life of a standard 30-year mortgage. Federal floodplain management regulations and mandatory flood insurance purchase requirements apply in these zones.

ZONE	DESCRIPTION
A	Areas subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.
AE, A1-A30	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. BFEs are shown within these zones. (Zone AE is used on new and revised maps in place of Zones A1–A30.)
AH	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are 1–3 feet. BFEs derived from detailed hydraulic analyses are shown in this zone.
AO	Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are 1–3 feet. Average flood depths derived from detailed hydraulic analyses are shown within this zone.
AR	Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection.
A99	Areas subject to inundation by the 1-percent-annual-chance flood event, but which will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may be used only when the flood protection system has reached specified statutory progress toward completion. No BFEs or flood depths are shown.

Coastal High Hazard Areas – High Risk

Coastal High Hazard Areas (CHHA) represent the area subject to inundation by 1-percent-annual chance flood, extending from offshore to the inland limit of a primary front al dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. Structures located within the CHHA have a 26-percent chance of flooding during the life of a standard 30-year mortgage. Federal floodplain management regulations and mandatory purchase requirements apply in these zones.

ZONE	DESCRIPTION
V	Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed coastal analyses have not been performed, no BFEs or flood depths are shown.
VE, V1-V30	Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. BFEs derived from detailed hydraulic coastal analyses are shown within these zones. (Zone VE is used on new and revised maps in place of Zones V1–V30.)

Hydrologic Information

Moderate and Minimal Risk Areas

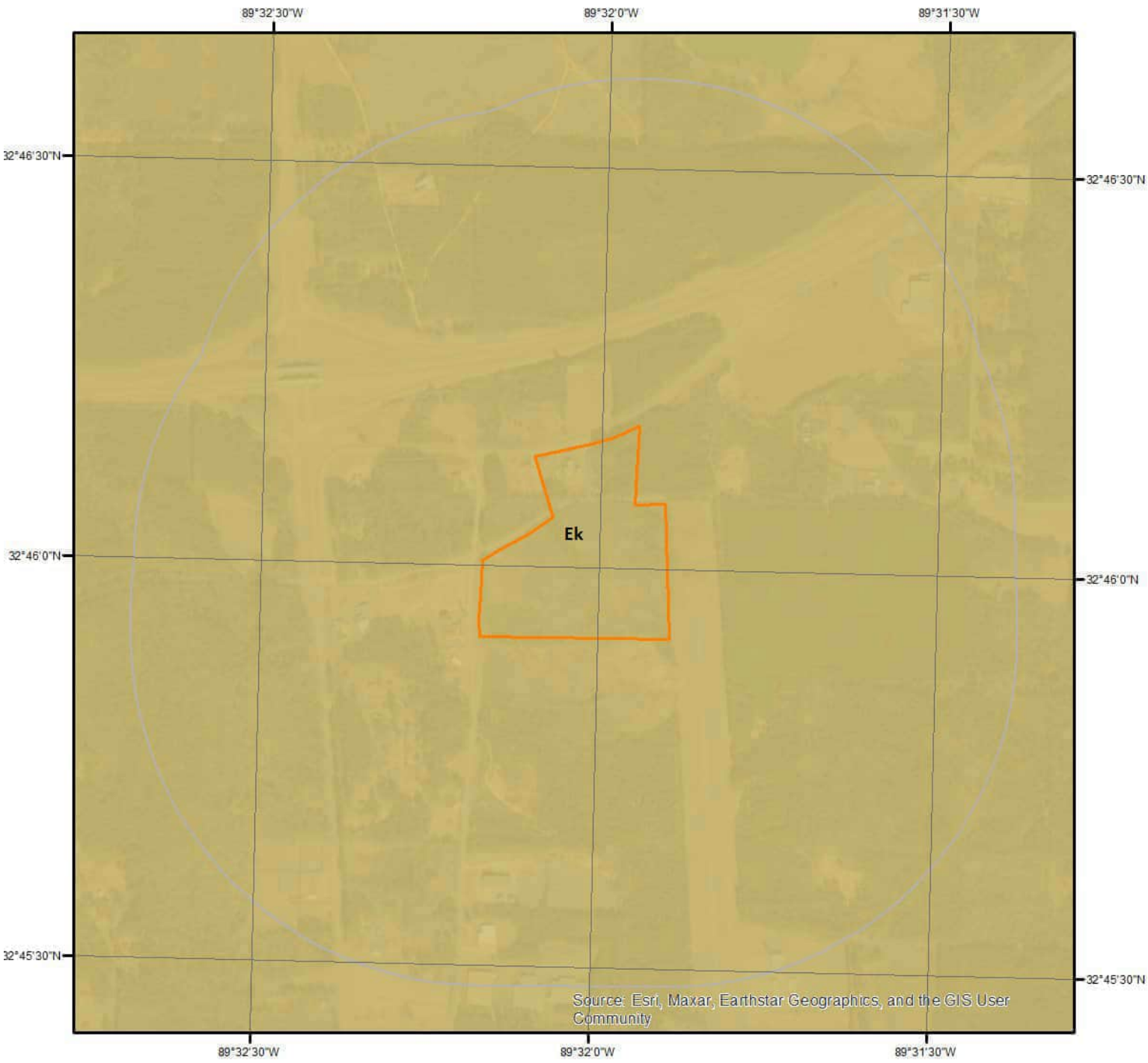
Areas of moderate or minimal hazard are studied based upon the principal source of flood in the area. However, buildings in these zones could be flooded by severe, concentrated rainfall coupled with inadequate local drainage systems. Local stormwater drainage systems are not normally considered in a community's flood insurance study. The failure of a local drainage system can create areas of high flood risk within these zones. Flood insurance is available in participating communities, but is not required by regulation in these zones. Nearly 25-percent of all flood claims filed are for structures located within these zones.

ZONE	DESCRIPTION
B, X (shaded)	Moderate risk areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent-annual-chance flood by a levee. No BFEs or base flood depths are shown within these zones. (Zone X (shaded) is used on new and revised maps in place of Zone B.)
C, X (unshaded)	Minimal risk areas outside the 1-percent and .2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C.)

Undetermined Risk Areas

ZONE	DESCRIPTION
D	Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

Geologic Information



0 0.2 0.4 Miles

N

Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS

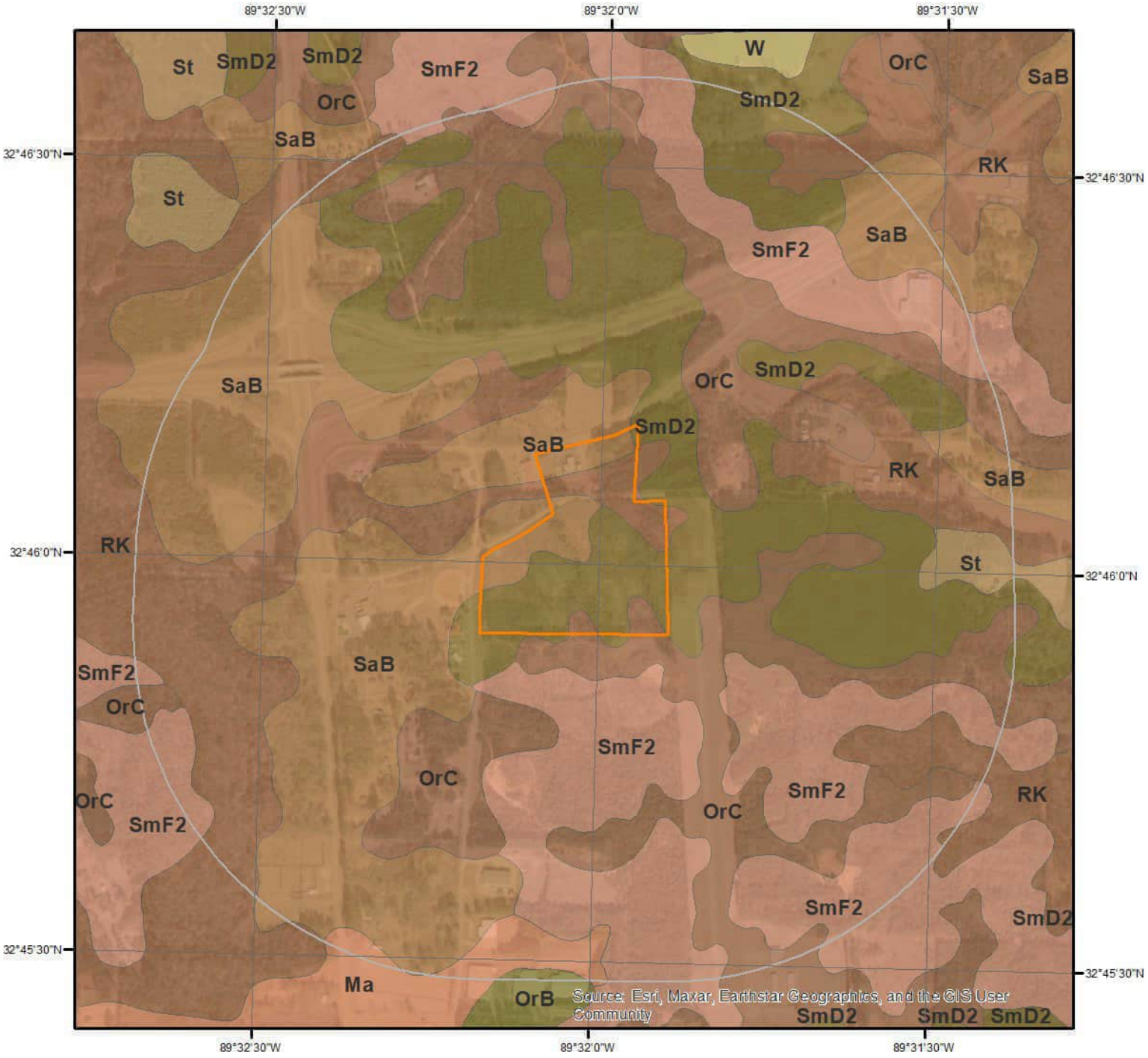
Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

Geologic Unit Ek

Unit Name:	Kosciusko formation
Unit Age:	Eocene
Primary Rock Type:	sand
Secondary Rock Type:	clay or mud
Unit Description:	Kosciusko formation - (Claiborne group), irregularly bedded sand, clay, and some quartzite.

Soil Information



SSURGO Soils

0 0.2 0.4 Miles

N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit Ma (5.88%)

Map Unit Name:	Mantachie fine sandy loam, occasionally flooded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	38cm
Drainage Class - Dominant:	Somewhat poorly drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Mantachie(90%)

horizon H1(0cm to 15cm)	Fine sandy loam
horizon H2(15cm to 203cm)	Loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: Ma - Mantachie fine sandy loam, occasionally flooded

Component: Mantachie (90%)
The Mantachie component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria.

Component: Kinston (10%)
Generated brief soil descriptions are created for major soil components. The Kinston soil is a minor component.

Map Unit OrB (5.59%)

Map Unit Name:	Ora fine sandy loam, 2 to 5 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	56cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Ora(90%)

horizon Ap(0cm to 5cm)	Fine sandy loam
horizon E(5cm to 18cm)	Fine sandy loam
horizon Bt(18cm to 64cm)	Sandy clay loam
horizon Btx(64cm to 168cm)	Sandy clay loam
horizon C(168cm to 213cm)	Sandy clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: OrB - Ora fine sandy loam, 2 to 5 percent slopes

Soil Information

Component: Ora (90%)
The Ora component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges, coastal plains. The parent material consists of fine-loamy marine deposits derived from sedimentary rock. Depth to a root restrictive layer, fragipan, is 22 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 22 inches during February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Savannah (4%)
Generated brief soil descriptions are created for major soil components. The Savannah soil is a minor component.

Component: Smithdale (3%)
Generated brief soil descriptions are created for major soil components. The Smithdale soil is a minor component.

Component: Ruston (3%)
Generated brief soil descriptions are created for major soil components. The Ruston soil is a minor component.

Map Unit OrC (38.45%)

Map Unit Name:	Ora fine sandy loam, 5 to 8 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	56cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Ora(90%)

horizon Ap(0cm to 13cm)	Fine sandy loam
horizon E(13cm to 25cm)	Fine sandy loam
horizon Bt(25cm to 61cm)	Sandy clay loam
horizon Btx(61cm to 147cm)	Sandy clay loam
horizon C(147cm to 203cm)	Sandy clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: OrC - Ora fine sandy loam, 5 to 8 percent slopes, eroded

Component: Ora (90%)
The Ora component makes up 90 percent of the map unit. Slopes are 5 to 8 percent. This component is on hillslopes, coastal plains. The parent material consists of fine-loamy marine deposits derived from sedimentary rock. Depth to a root restrictive layer, fragipan, is 20 to 30 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 22 inches during February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Ruston (5%)
Generated brief soil descriptions are created for major soil components. The Ruston soil is a minor component.

Component: Savannah (5%)
Generated brief soil descriptions are created for major soil components. The Savannah soil is a minor component.

Map Unit RK (29.05%)

Map Unit Name:	Rosebloom and Arkabutla soils, frequently flooded
Bedrock Depth - Min:	null

Soil Information

Watertable Depth - Annual Min:	0cm
Drainage Class - Dominant:	Poorly drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Rosebloom(60%)	
horizon H1(0cm to 20cm)	Silt loam
horizon H2(20cm to 122cm)	Silty clay loam
Arkabutla(33%)	
horizon H1(0cm to 46cm)	Silt loam
horizon H2(46cm to 140cm)	Silty clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: RK - Rosebloom and Arkabutla soils, frequently flooded

Component: Rosebloom (60%)
The Rosebloom component makes up 60 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Arkabutla (33%)
The Arkabutla component makes up 33 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains. The parent material consists of silty alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Component: Kirkville (7%)
Generated brief soil descriptions are created for major soil components. The Kirkville soil is a minor component.

Map Unit SaB (5.5%)

Map Unit Name:	Savannah fine sandy loam, 2 to 5 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	61cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Savannah(90%)	
horizon Ap(0cm to 13cm)	Fine sandy loam
horizon E(13cm to 25cm)	Fine sandy loam
horizon Bt(25cm to 69cm)	Sandy clay loam
horizon Btx(69cm to 180cm)	Sandy clay loam
horizon BC(180cm to 224cm)	Sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: SaB - Savannah fine sandy loam, 2 to 5 percent slopes

Soil Information

Component: Savannah (90%)
The Savannah component makes up 90 percent of the map unit. Slopes are 2 to 5 percent. This component is on slightly dissected fluviomarine terraces on coastal plains. The parent material consists of loamy fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer, fragipan, is 18 to 36 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. This component is in the F133BY003TX Loamy Over Clayey Upland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Ora (5%)
Generated brief soil descriptions are created for major soil components. The Ora soil is a minor component.

Component: Mashulaville (5%)
Generated brief soil descriptions are created for major soil components. The Mashulaville soil is a minor component.

Map Unit SmD2 (4.14%)

Map Unit Name:	Smithdale fine sandy loam, 8 to 15 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Smithdale(90%)

horizon H1(0cm to 25cm)	Fine sandy loam
horizon H2(25cm to 89cm)	Sandy clay loam
horizon H3(89cm to 203cm)	Sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: SmD2 - Smithdale fine sandy loam, 8 to 15 percent slopes, eroded

Component: Smithdale (90%)
The Smithdale component makes up 90 percent of the map unit. Slopes are 8 to 12 percent. This component is on hillslopes. The parent material consists of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Bibb (10%)
Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Map Unit SmF2 (11.16%)

Map Unit Name:	Smithdale fine sandy loam, 15 to 35 percent slopes, eroded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Smithdale(85%)

horizon A(0cm to 13cm)	Fine sandy loam

horizon E(13cm to 25cm)	Fine sandy loam
horizon B/E(25cm to 36cm)	Fine sandy loam
horizon Bt1(36cm to 89cm)	Sandy clay loam
horizon Bt2(89cm to 203cm)	Sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: SmF2 - Smithdale fine sandy loam, 15 to 35 percent slopes, eroded

Component: Smithdale (85%)
The Smithdale component makes up 85 percent of the map unit. Slopes are 15 to 35 percent. This component is on hillslopes on uplands. The parent material consists of fine-loamy marine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. Irrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Sweatman (10%)
Generated brief soil descriptions are created for major soil components. The Sweatman soil is a minor component.

Component: Bibb (5%)
Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Map Unit St (0.24%)

Map Unit Name:	Stough fine sandy loam, rarely flooded
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	38cm
Drainage Class - Dominant:	Somewhat poorly drained
Hydrologic Group - Dominant:	C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Stough(90%)

horizon H1(0cm to 20cm)	Fine sandy loam
horizon H2(20cm to 97cm)	Sandy loam
horizon H3(97cm to 203cm)	Sandy clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: St - Stough fine sandy loam, rarely flooded

Component: Stough (90%)
The Stough component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Bibb (10%)
Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Wells and Additional Sources

Wells & Additional Sources

N

0 0.25 0.5 1 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	ID	Distance (ft)	Direction
	No records found		

Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
	No records found		

USGS National Water Information System

Map Key	Site No	Distance (ft)	Direction
3	USGS-324556089321701	597.80	WSW
6	USGS-324612089315001	559.18	NE
7	USGS-324543089320402	1135.03	S
7	USGS-324543089320401	1135.03	S
9	USGS-324617089315101	816.03	NNE
11	USGS-324612089322201	1478.91	NW
12	USGS-324533089314801	2199.98	SSE
15	USGS-324612089323601	2544.51	WNW
16	USGS-324533089313801	2513.53	SE
18	USGS-324521089320701	3356.29	S
20	USGS-324516089321001	3859.28	S
24	USGS-324645089312501	4411.19	NE
26	USGS-324653089322101	4763.82	NNW
27	USGS-324505089321501	4990.08	SSW

Wells from NWIS

Map Key	ID	Distance (ft)	Direction
	No records found		

State Sources

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Public Water Supply Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Water Wells

Wells and Additional Sources Summary

Map Key	Well ID	Distance (ft)	Direction
1	079F0055	311.88	WSW
2	079F0009	496.32	WSW
4	079F0001	588.54	WSW
5	079F0046	553.55	NE
8	079F0012	797.48	NNE
10	079F0005	1430.91	WNW
13	079F0037	2240.70	SSE
14	079F0039	2492.71	WNW
17	079F0027	2560.11	SE
19	079F0004	3417.77	S
21	079F0059	3924.71	S
22	079F0071	4110.23	S
23	079G0037	4397.29	NE
25	079F0018	4717.33	NNW
28	079K0007	5033.24	SSW

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	WSW	0.11	597.80	385.75	FED USGS

Site No:	USGS-324556089321701
Site Type:	Well
Formation Type:	Sparta Sand
Date Drilled:	19600101
Well Depth:	118
Well Depth Unit:	ft
Well Hole Depth:	
Well Hole Depth Unit:	
Reporting Agency:	USGS Mississippi Water Science Center
Station Name:	079F0001 LEAKE
Latitude:	32.76569050000000
Longitude:	-89.5381273000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	NE	0.11	559.18	424.40	FED USGS

Site No:	USGS-324612089315001
Site Type:	Well
Formation Type:	
Date Drilled:	19720101
Well Depth:	70.0
Well Depth Unit:	ft
Well Hole Depth:	
Well Hole Depth Unit:	
Reporting Agency:	USGS Mississippi Water Science Center
Station Name:	079F0046 LEAKE
Latitude:	32.77013490000000
Longitude:	-89.5306270900000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	S	0.21	1,135.03	428.79	FED USGS

Site No:	USGS-324543089320402
Site Type:	Well
Formation Type:	Winona-Neshoba Aquifer
Date Drilled:	19620101
Well Depth:	318
Well Depth Unit:	ft
Well Hole Depth:	

Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0055 LEAKE
Latitude: 32.76207950000000
Longitude: -89.5345160000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	S	0.21	1,135.03	428.79	FED USGS

Site No: USGS-324543089320401
Site Type: Well
Formation Type: Sparta Sand
Date Drilled: 19620101
Well Depth: 136
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0009 LEAKE
Latitude: 32.76207950000000
Longitude: -89.5345160000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	NNE	0.15	816.03	426.20	FED USGS

Site No: USGS-324617089315101
Site Type: Well
Formation Type:
Date Drilled: 19610101
Well Depth: 94.0
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0012 LEAKE
Latitude: 32.77152379000000
Longitude: -89.5309049000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	NW	0.28	1,478.91	383.30	FED USGS

Site No: USGS-324612089322201
Site Type: Well
Formation Type:
Date Drilled: 19560101

Well Depth: 129
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0005 LEAKE
Latitude: 32.77013486000000
Longitude: -89.5395163000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	SSE	0.42	2,199.98	453.61	FED USGS

Site No: USGS-324533089314801
Site Type: Well
Formation Type:
Date Drilled: 19700101
Well Depth: 120
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0037 LEAKE
Latitude: 32.75930180000000
Longitude: -89.5300714000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	WNW	0.48	2,544.51	392.57	FED USGS

Site No: USGS-324612089323601
Site Type: Well
Formation Type: Sparta Sand
Date Drilled: 19700101
Well Depth: 106
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0039 LEAKE
Latitude: 32.77013484000000
Longitude: -89.5434053000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
16	SE	0.48	2,513.53	431.79	FED USGS

Site No: USGS-324533089313801

Site Type: Well
Formation Type:
Date Drilled: 19600101
Well Depth: 105
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0027 LEAKE
Latitude: 32.75930183000000
Longitude: -89.5272935000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	S	0.64	3,356.29	407.14	FED USGS

Site No: USGS-324521089320701
Site Type: Well
Formation Type:
Date Drilled: 19530101
Well Depth: 100
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0004 LEAKE
Latitude: 32.75596850000000
Longitude: -89.5353493000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	S	0.73	3,859.28	393.65	FED USGS

Site No: USGS-324516089321001
Site Type: Well: Test hole not completed as a well
Formation Type:
Date Drilled: 19961223
Well Depth:
Well Depth Unit:
Well Hole Depth: 786
Well Hole Depth Unit: ft
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0059 LEAKE
Latitude: 32.75457964000000
Longitude: -89.5361827000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	NE	0.84	4,411.19	383.39	FED USGS

Site No: USGS-324645089312501
Site Type: Well
Formation Type: Winona-Neshoba Aquifer
Date Drilled: 19740101
Well Depth: 276
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079G0037 LEAKE
Latitude: 32.77930147000000
Longitude: -89.5236825000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	NNW	0.90	4,763.82	439.21	FED USGS

Site No: USGS-324653089322101
Site Type: Well
Formation Type:
Date Drilled: 19620101
Well Depth: 102
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079F0018 LEAKE
Latitude: 32.78152353000000
Longitude: -89.5392386000000

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	SSW	0.95	4,990.08	387.58	FED USGS

Site No: USGS-324505089321501
Site Type: Well
Formation Type:
Date Drilled:
Well Depth: 80.0
Well Depth Unit: ft
Well Hole Depth:
Well Hole Depth Unit:
Reporting Agency: USGS Mississippi Water Science Center
Station Name: 079K0007 LEAKE
Latitude: 32.75152410000000
Longitude: -89.5375716000000

Wells and Additional Sources Detail Report

Water Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	WSW	0.06	311.88	395.47	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0055	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1962	Quarter 1:	
Aquifer:	WNSB	Quarter 2:	
Use:	IT	Maximum Rate:	
Well Depth:	318	County Name:	LEAKE
Casing Diameter:	0	Owner Name:	RED WATER SCHOOL
Casing Length:		Section:	36
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7656
Elevation:		Long DD:	-89.5372
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	WSW	0.09	496.32	388.11	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0009	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1962	Quarter 1:	
Aquifer:	SPRT	Quarter 2:	
Use:	UN	Maximum Rate:	
Well Depth:	136	County Name:	LEAKE
Casing Diameter:	6	Owner Name:	RED WATER SCHOOL
Casing Length:		Section:	36
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7656
Elevation:		Long DD:	-89.5378
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	WSW	0.11	588.54	385.44	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0001	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1960	Quarter 1:	

Aquifer:	SPRT	Quarter 2:	
Use:	UN	Maximum Rate:	
Well Depth:	118	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	RED WATER SCHOOL
Casing Length:		Section:	36
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7656
Elevation:		Long DD:	-89.5381
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NE	0.10	553.55	419.79	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0046	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1972	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	70	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	R AND R FARMS
Casing Length:		Section:	25
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.77
Elevation:		Long DD:	-89.5306
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	NNE	0.15	797.48	429.43	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0012	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1961	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	94	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	BANETT, O H
Casing Length:		Section:	25
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7714
Elevation:		Long DD:	-89.5308
Screen1 Bottom:			

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	WNW	0.27	1,430.91	382.86	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0005	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1956	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	129	County Name:	LEAKE
Casing Diameter:	1	Owner Name:	MURPHY, JEWEL
Casing Length:		Section:	25
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.77
Elevation:		Long DD:	-89.5394
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	SSE	0.42	2,240.70	454.10	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0037	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1970	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	120	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	JUNIOR COMBY
Casing Length:		Section:	36
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7592
Elevation:		Long DD:	-89.53
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	WNW	0.47	2,492.71	391.08	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0039	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1970	Quarter 1:	
Aquifer:	SPRT	Quarter 2:	

Use:	DO	Maximum Rate:	
Well Depth:	106	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	ASPHALT PLANT
Casing Length:		Section:	26
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.77
Elevation:		Long DD:	-89.5433
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	SE	0.48	2,560.11	434.80	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0027	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1960	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	105	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	SCRUNER, HAROLD
Casing Length:		Section:	36
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7592
Elevation:		Long DD:	-89.5272
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
19	S	0.65	3,417.77	411.31	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0004	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1953	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	100	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	WRIGHT, HOYT
Casing Length:		Section:	36
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7558
Elevation:		Long DD:	-89.5353
Screen1 Bottom:			

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	S	0.74	3,924.71	404.86	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0059	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	12/23/1996	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	TH	Maximum Rate:	
Well Depth:	786	County Name:	LEAKE
Casing Diameter:	0	Owner Name:	CARTHAGE, CITY OF
Casing Length:	0	Section:	36
Screen Length:	0	Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7544
Elevation:		Long DD:	-89.5361
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
22	S	0.78	4,110.23	406.93	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0071	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	5/10/2012	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	IR	Maximum Rate:	
Well Depth:	115	County Name:	LEAKE
Casing Diameter:	4	Owner Name:	COHERN, BILL
Casing Length:	85	Section:	36
Screen Length:	30	Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7539
Elevation:		Long DD:	-89.535
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NE	0.83	4,397.29	383.27	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079G0037	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1974	Quarter 1:	
Aquifer:	WNSB	Quarter 2:	
Use:	DO	Maximum Rate:	

Wells and Additional Sources Detail Report

Well Depth:	276	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	KEMPLE, WALTER
Casing Length:		Section:	30
Screen Length:		Township:	11N
App Name:		Range:	08E
Date Expired:		Lat DD:	32.7792
Elevation:		Long DD:	-89.5236
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NNW	0.89	4,717.33	442.43	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079F0018	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:	1/1/1962	Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	102	County Name:	LEAKE
Casing Diameter:	2	Owner Name:	TURCE, T L
Casing Length:		Section:	25
Screen Length:		Township:	11N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7814
Elevation:		Long DD:	-89.5392
Screen1 Bottom:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	SSW	0.95	5,033.24	388.16	WATER WELLS

Permit No:		Ben Use 1:	
Well ID:	079K0007	Ben Use 2:	
Boh No:		Ben Use 3:	
Date Drilled:		Quarter 1:	
Aquifer:		Quarter 2:	
Use:	DO	Maximum Rate:	
Well Depth:	80	County Name:	LEAKE
Casing Diameter:	0	Owner Name:	WALLACE, T E
Casing Length:		Section:	01
Screen Length:		Township:	10N
App Name:		Range:	07E
Date Expired:		Lat DD:	32.7514
Elevation:		Long DD:	-89.5375
Screen1 Bottom:			

Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *LEAKE* County: **3**

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *LEAKE* County

No Measures/Homes:	9
Geometric Mean:	0.7
Arithmetic Mean:	1.1
Median:	0.5
Standard Deviation:	1.1
Maximum:	5.4
% >4 pCi/L:	11
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the State/EPA Residential Radon Survey of Mississippi, conducted during 1990-91. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

Appendix

Federal Sources

FEMA National Flood Hazard Layer — **FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data — **INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data — **PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level — **RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS) — **SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database — **SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

USGS Current Topo — **US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology — **US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System — **FED USGS**

The U.S. Geological Survey's (USGS) National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. NWIS database information is obtained through the Water Quality Data Portal (WQP).

Wells from NWIS — **FED USGS**

The U.S. Geological Survey's (USGS) National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This select NWIS Wells dataset contains specific Site Types from the overall NWIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ranney type well, Hyporheic-zone well, Interconnected Wells, Multiple wells; Spring Group Site Type: Spring; and Other Group Site Types: Aggregate groundwater use, Cistern. Applicable NWIS database information is obtained through the Water Quality Data Portal (WQP).

Appendix

State Sources

Oil and Gas Wells **OGW**

Oil and Gas Wells Data collected by Mississippi Oil and Gas Board.

Public Water Supply Wells **PWSW**

The Office of Land and Water Resources (OLWR) is charged with conserving, managing, and protecting the water resources of Mississippi. The agency regulates water quantity issues affecting the beneficial use of these resources in the best interest and welfare of the citizens of the state. The OLWR also maintains a list of Public Water Supply Wells.

Water Wells **WATER WELLS**

List of water wells and water well permits provided by the Water Resources Management Division, MDEQ Office of Land and Water Resources.

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Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

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TOPOGRAPHIC MAPS

Project Property:	Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage MS 39051
Project No:	EB237179
Requested By:	Terracon
Order No:	23091800576
Date Completed:	September 19, 2023

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

We have searched USGS collections of current topographic maps and historical topographic maps for the project property. Below is a list of maps found for the project property and adjacent area. Maps are from 7.5 and 15 minute topographic map series, if available.

Year	Map Series
1962	15
1989	7.5
2015	7.5
2020	7.5

Topographic Map Symbology for the maps may be available in the following documents:

Pre-1947

Page 223 of 1918 Topographic Instructions

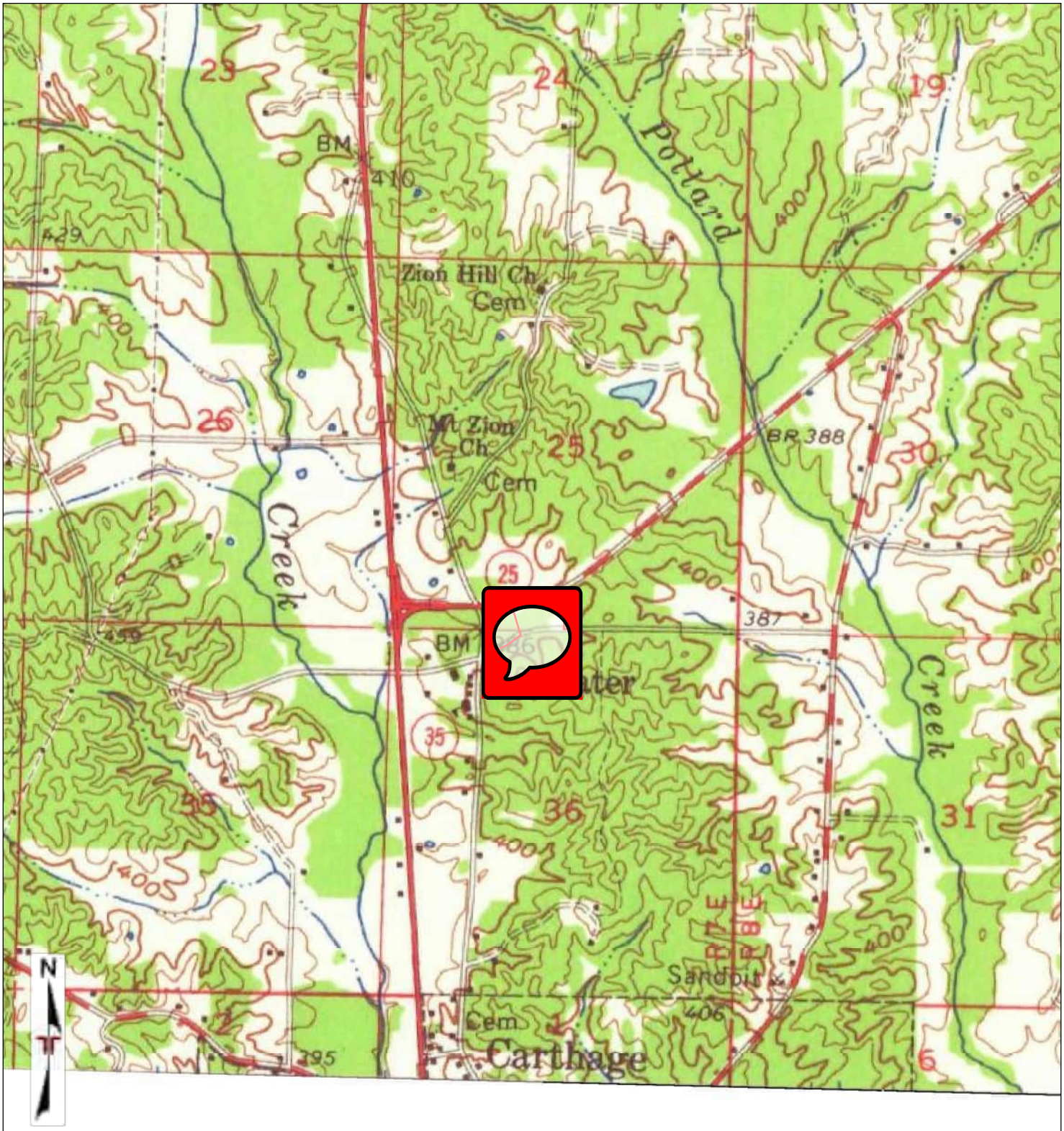
Page 130 of 1928 Topographic Instructions

1947-2009

Topographic Map Symbols

2009-present

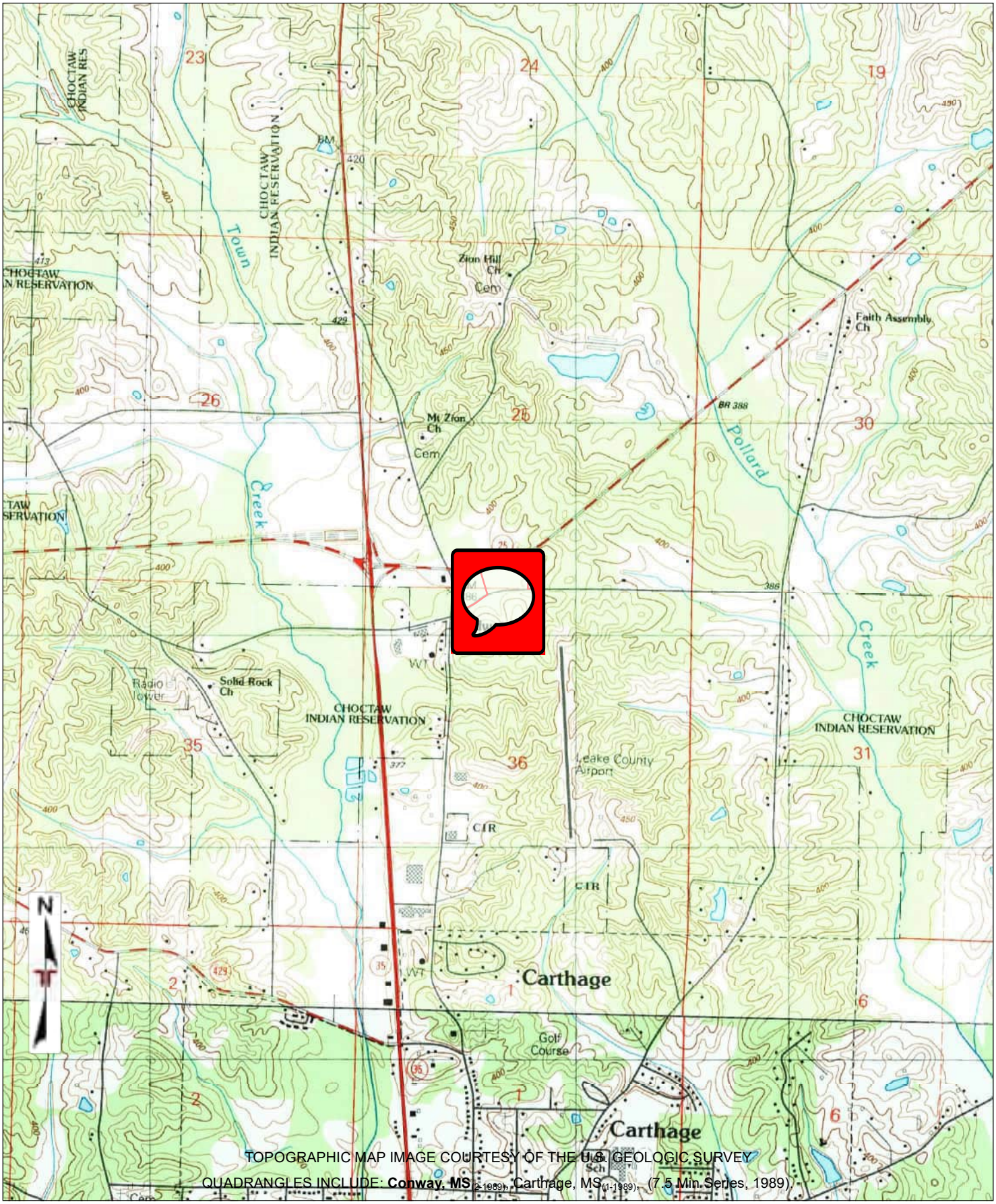
US Topo Map Symbols



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGIC SURVEY

QUADRANGLES INCLUDE: **Thomastown, MS**$_{(1\text{-}1962)}$, (15 Min Series, 1962).

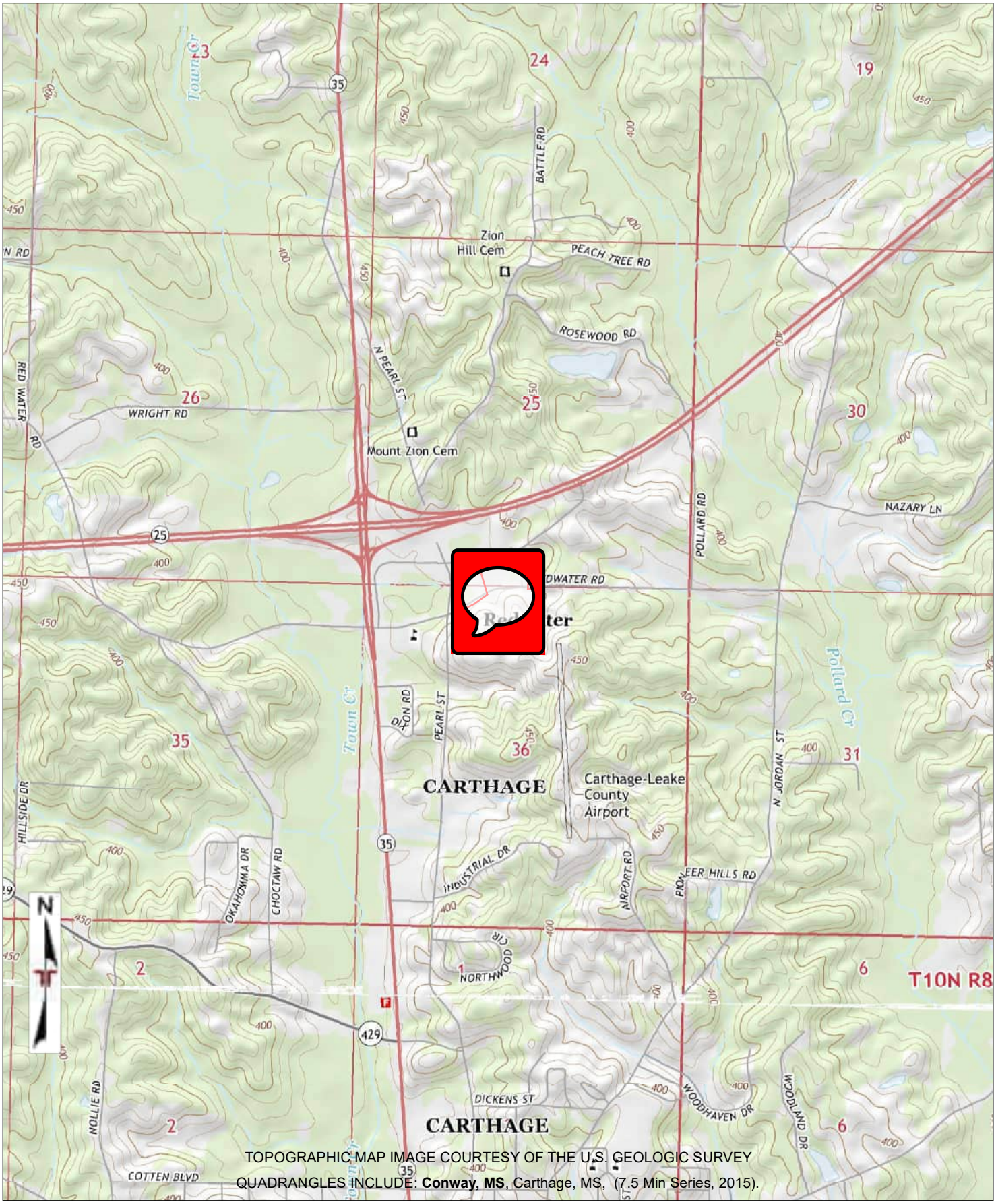
Project Manager:	**Project No:** EB237179	Terracon	TOPOGRAPHIC MAP (1962)	Appendix
Drawn By:	**Scale:** 1" = 2000'		Leake County - Southwest Section	C
Checked By:	**File Name:** 23091800576	859 Pear Orchard Rd Ridgeland, Mississippi 39157	Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	
Approved By:	**Date:** 2023-09-19			



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGIC SURVEY

QUADRANGLES INCLUDE: **Conway, MS** (1-1989), Carthage, MS (1-1989), (7.5 Min. Series, 1989).

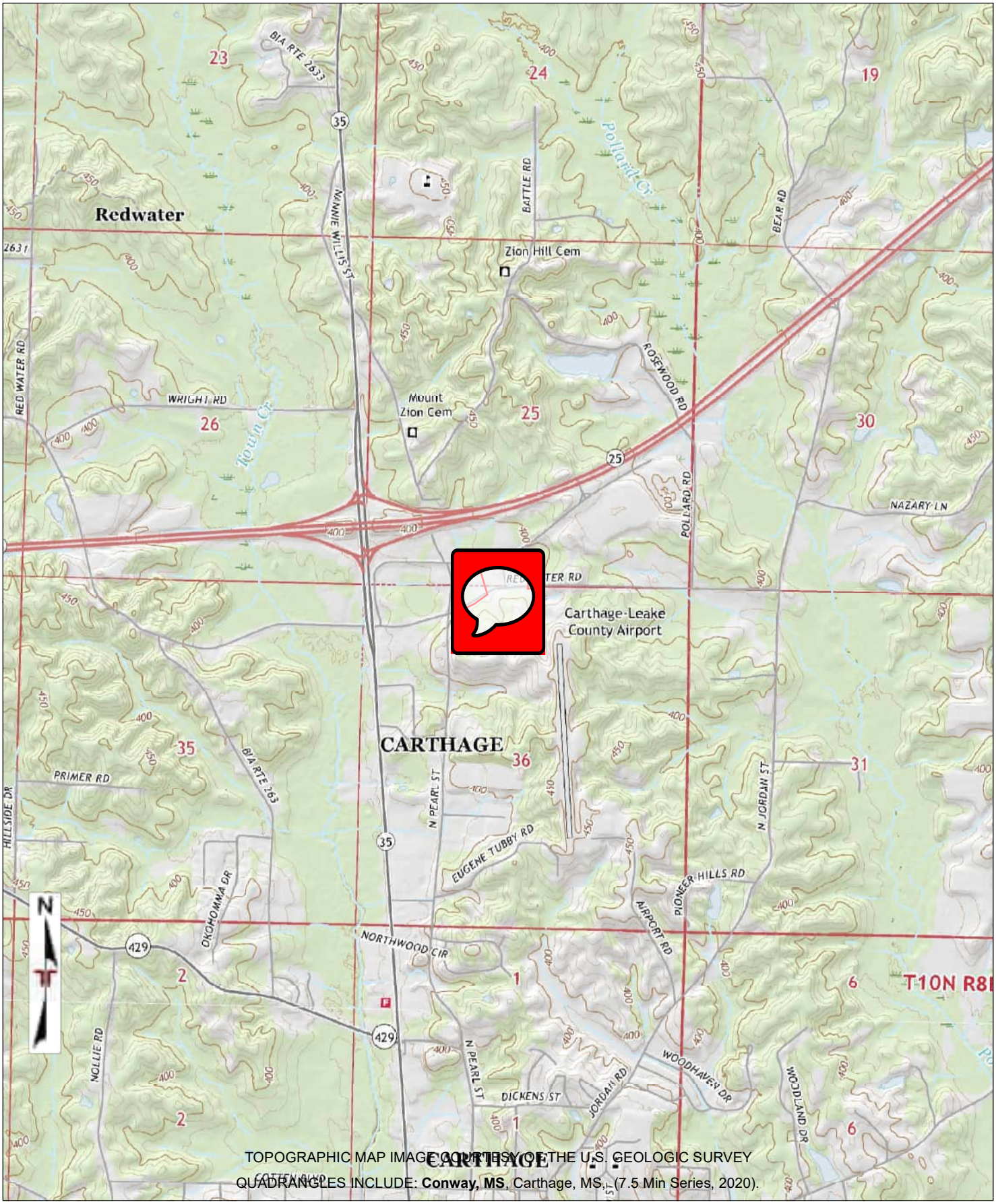
Project Manager:	**Project No:** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	TOPOGRAPHIC MAP (1989) Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	Appendix C
Drawn By:	**Scale:** 1" = 2000'			
Checked By:	**File Name:** 23091800576			
Approved By:	**Date:** 2023-09-19			



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGIC SURVEY

QUADRANGLES INCLUDE: **Conway, MS**, Carthage, MS, (7.5 Min Series, 2015).

Project Manager:	**Project No:** EB237179	Terracon	TOPOGRAPHIC MAP (2015)	Appendix
Drawn By:	**Scale:** 1" = 2000'		Leake County - Southwest Section	C
Checked By:	**File Name:** 23091800576	859 Pear Orchard Rd Ridgeland, Mississippi 39157	Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	
Approved By:	**Date:** 2023-09-19			



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGIC SURVEY
QUADRANGLES INCLUDE: **Conway, MS**, Carthage, MS., (7.5 Min Series, 2020).

Project Manager:	**Project No:** EB237179	Terracon	TOPOGRAPHIC MAP (2020)	Appendix
Drawn By:	**Scale:** 1" = 2000'		Leake County - Southwest Section	C
Checked By:	**File Name:** 23091800576	859 Pear Orchard Rd Ridgeland, Mississippi 39157	Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	
Approved By:	**Date:** 2023-09-19			

HISTORICAL AERIALS

Project Property: Leake County - Southwest Section
Mississippi Highway 25 North Frontage Road and Red Water
Carthage Mississippi 39051

Project No.: EB237179

Requested By: Terracon

Order No: 23091800576

Date Completed: September 20,2023

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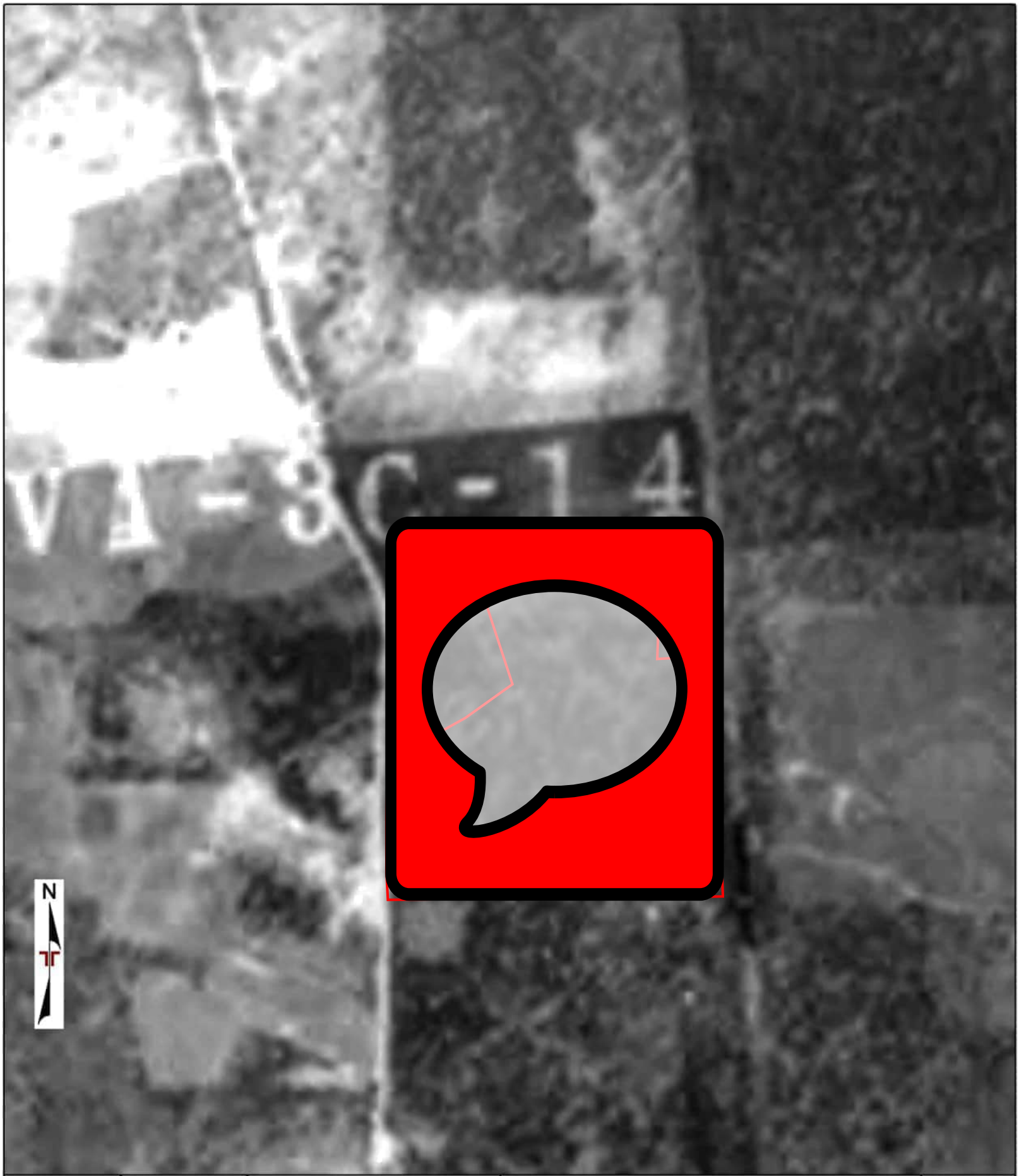
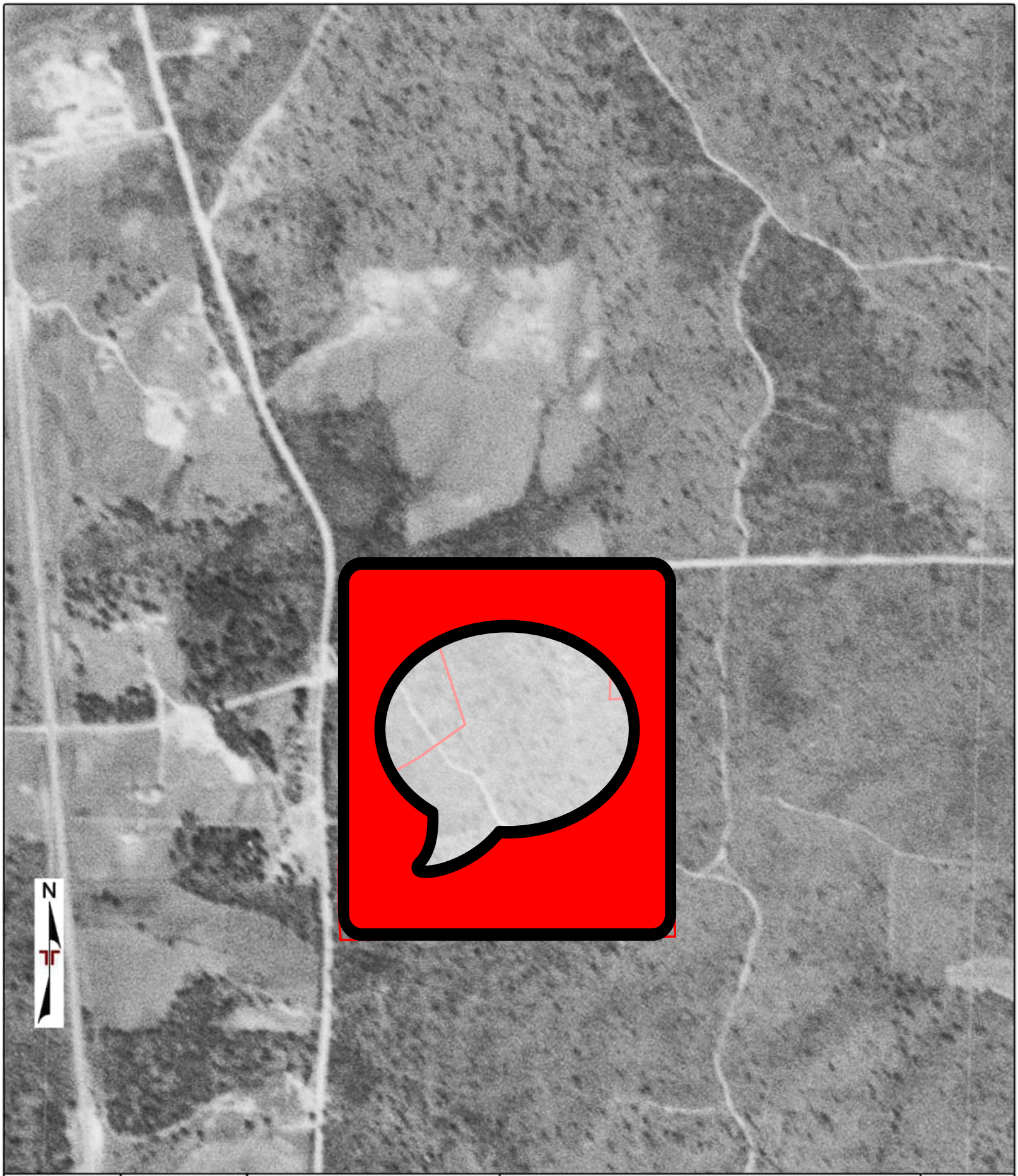
Date	Source	Scale	Comments
1942	Agricultural Stabilization & Conserv. Service	1" = 500'	Photo Index - Best Available
1952	Army Mapping Service	1" = 500'	
1960	Agricultural Stabilization & Conserv. Service	1" = 500'	Photo Index - Best Available
1972	National Aeronautics And Space Admin	1" = 500'	
1980	United States Geological Survey	1" = 500'	
1985	United States Geological Survey	1" = 500'	
1991	United States Geological Survey	1" = 500'	
1996	United States Geological Survey	1" = 500'	
2004	United States Department of Agriculture	1" = 500'	
2005	United States Department of Agriculture	1" = 500'	
2006	United States Department of Agriculture	1" = 500'	
2007	United States Department of Agriculture	1" = 500'	
2009	United States Department of Agriculture	1" = 500'	
2010	United States Department of Agriculture	1" = 500'	
2012	United States Department of Agriculture	1" = 500'	
2014	United States Department of Agriculture	1" = 500'	
2016	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2020	United States Department of Agriculture	1" = 500'	
2021	United States Department of Agriculture	1" = 500'	



Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1942 - ASCS)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			



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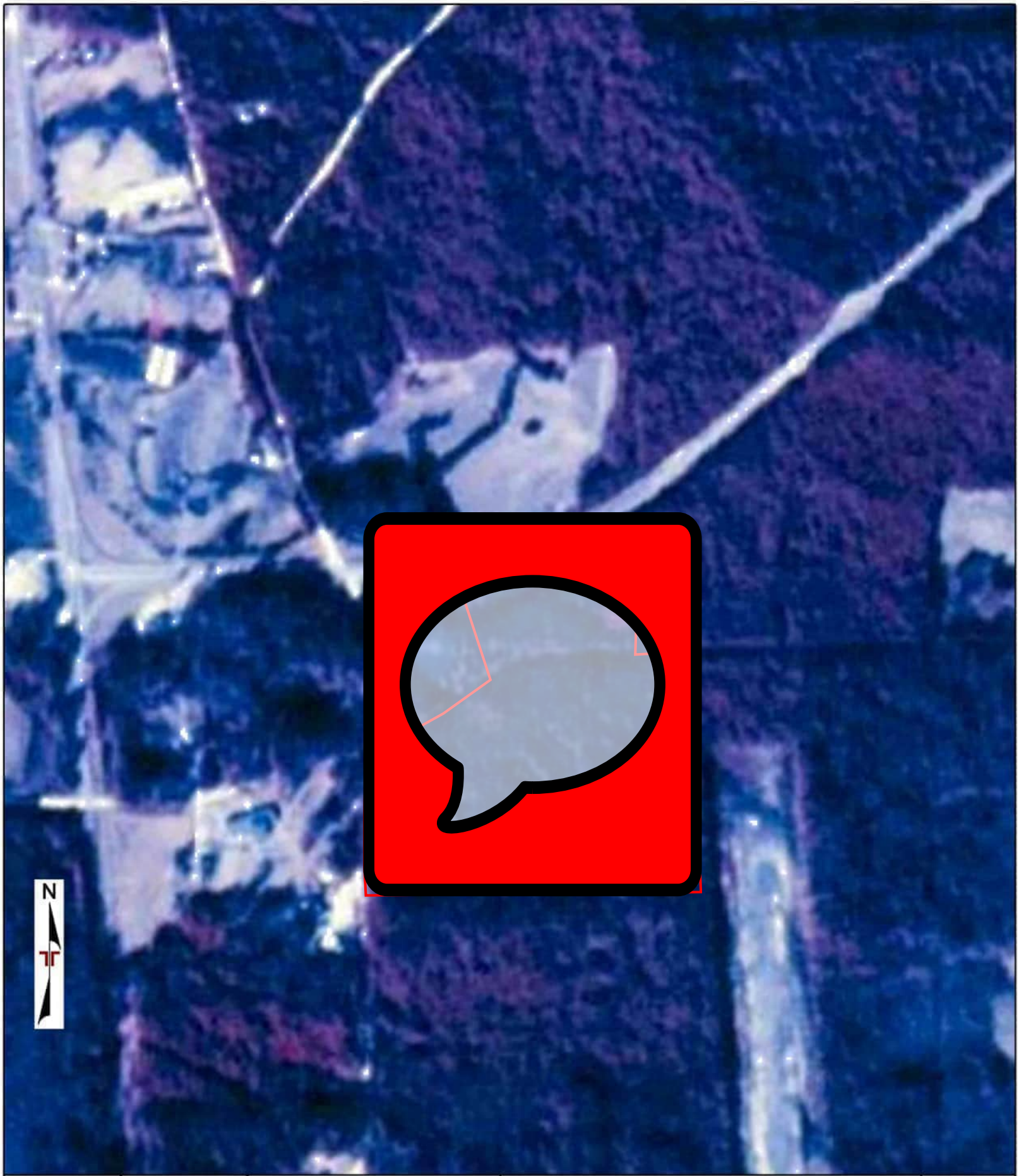
Drawn by:	Scale: 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			

Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1960 - ASCS) Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	Appendix C
Drawn by:	Scale: 1" = 500'			
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			



Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1972 - NASA)	Appendix
Drawn by:	Scale: 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			

Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1980 - USGS)	Appendix
Drawn by:	Scale: 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			

Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1985 - USGS)	Appendix
Drawn by:	Scale: 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			

Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1991 - USGS) Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	Appendix C
Drawn by:	Scale: 1" = 500'			
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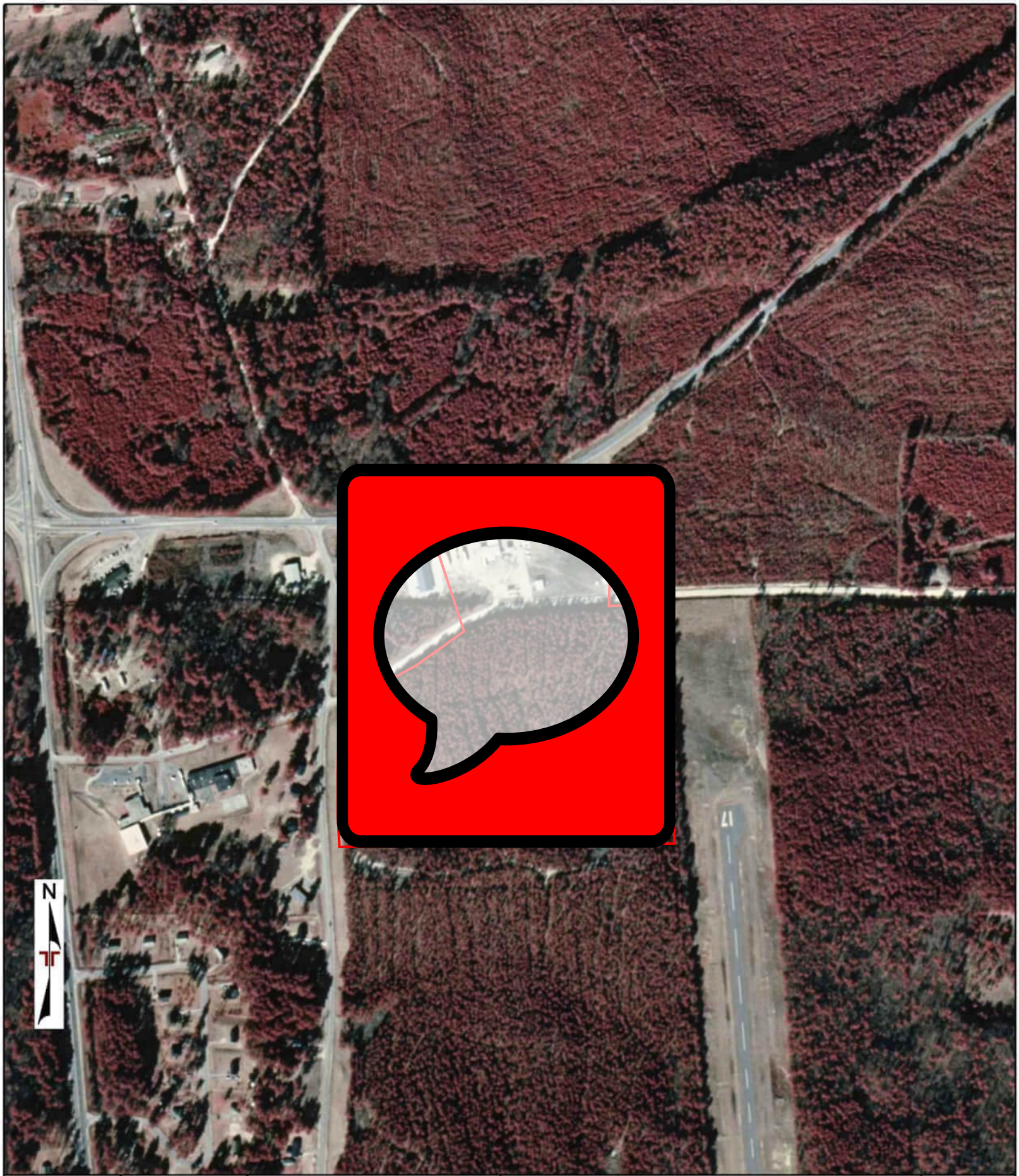
Approved by:	Date: 2023-09-20			



Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (1996 - USGS)	Appendix
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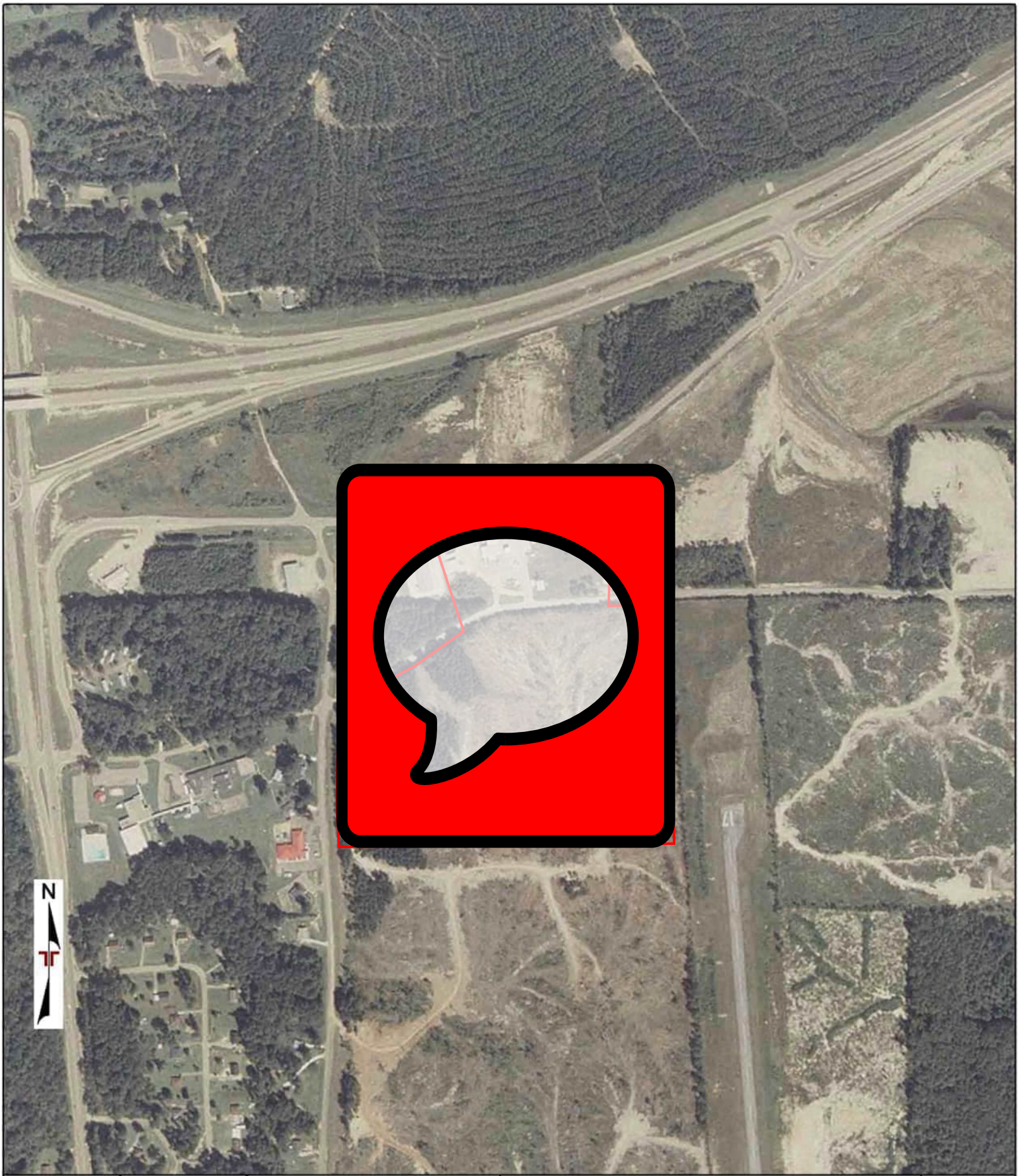
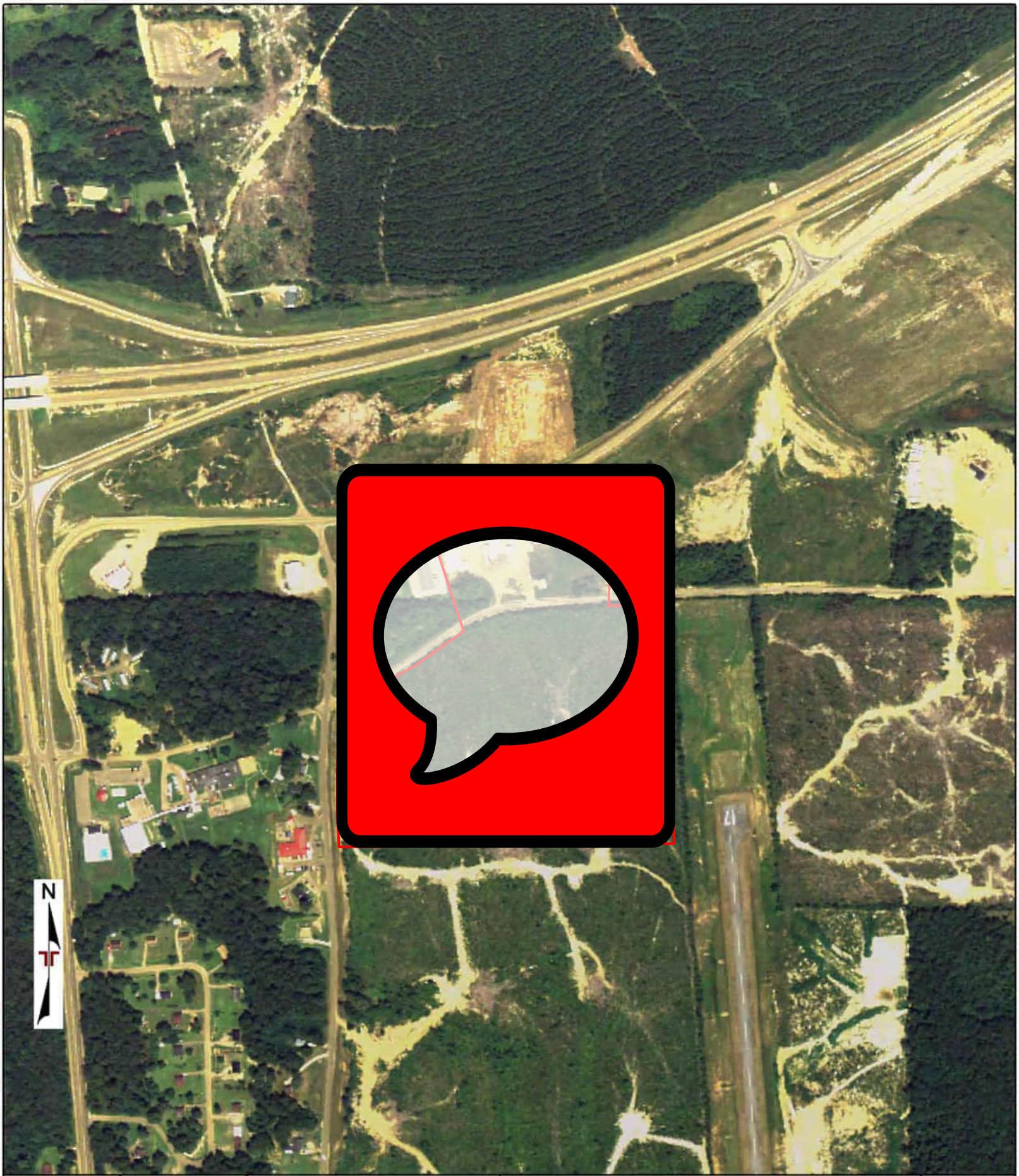
Approved by:	Date: 2023-09-20			



Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2004 - USDA)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			



Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2005 - USDA)	Appendix
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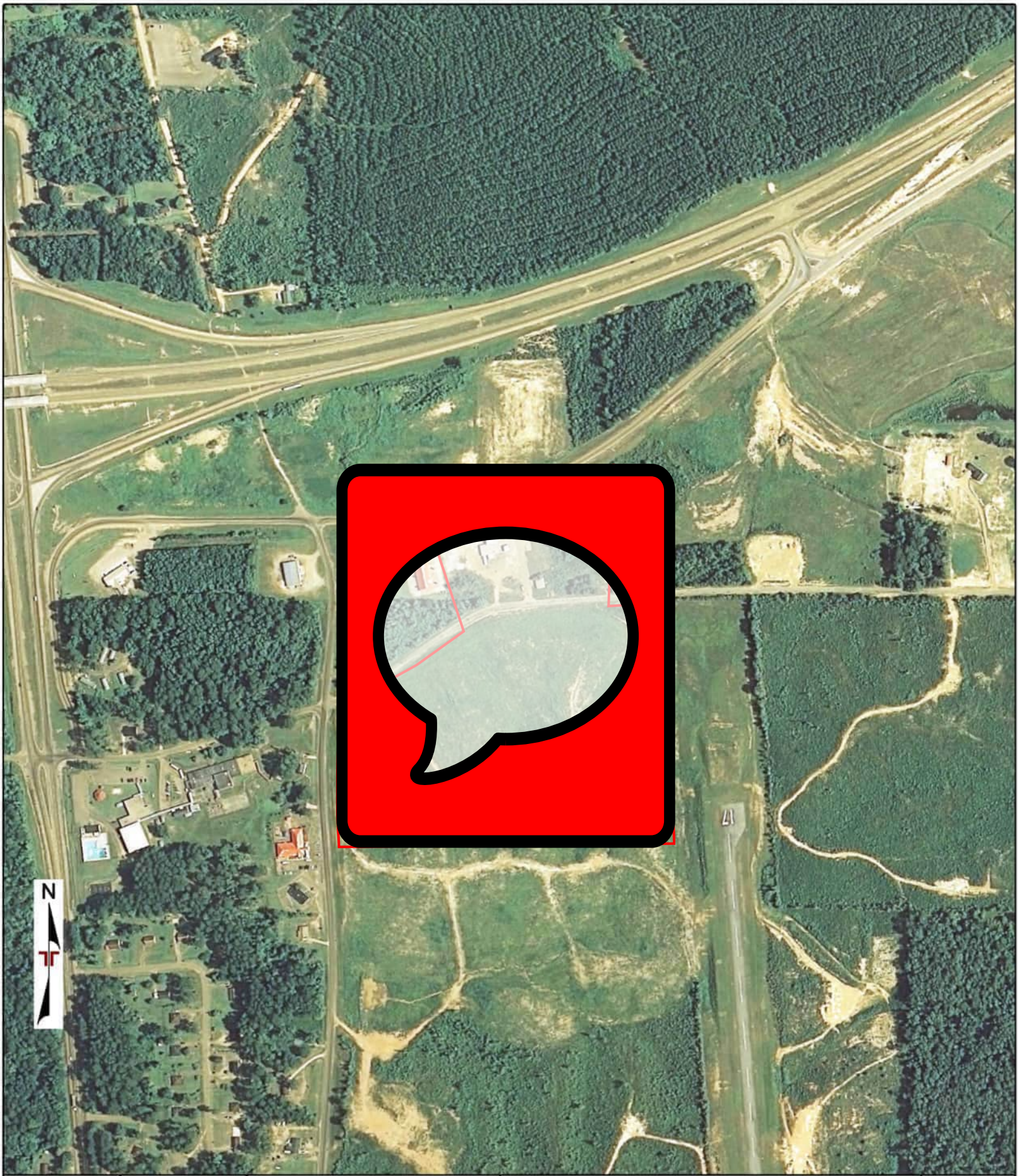
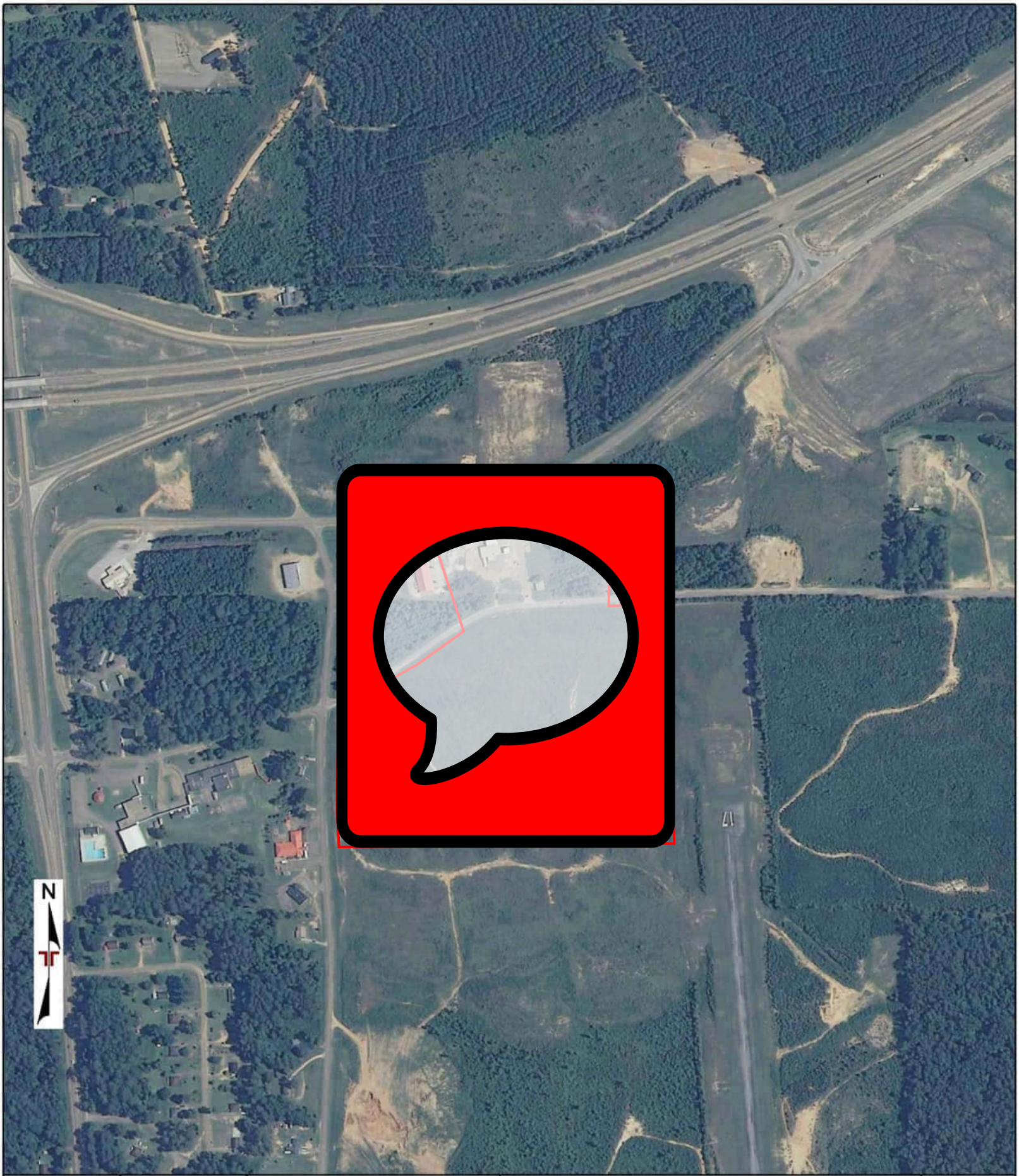
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			

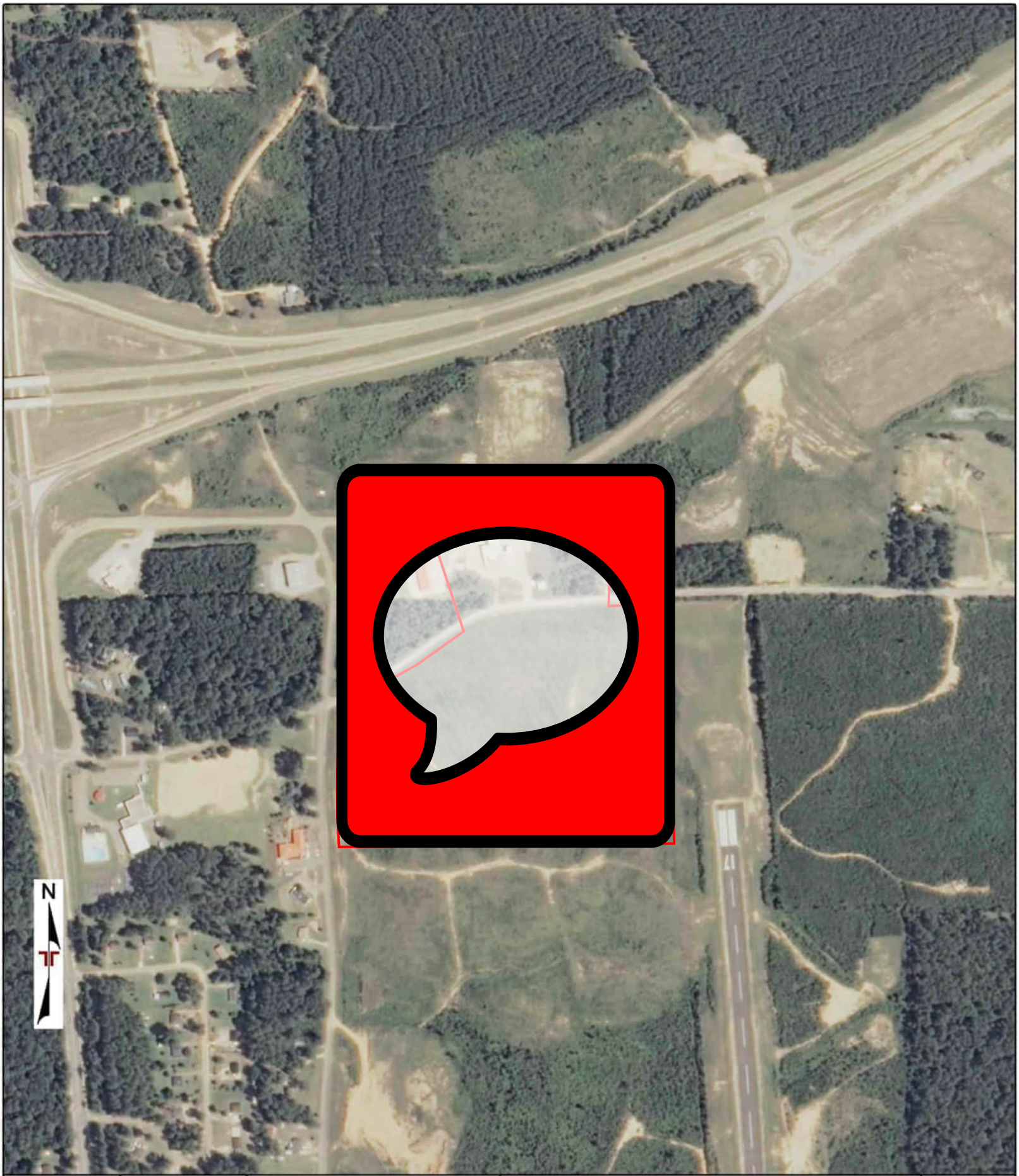
Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2006 - USDA)	Appendix
Drawn by:	Scale: 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			



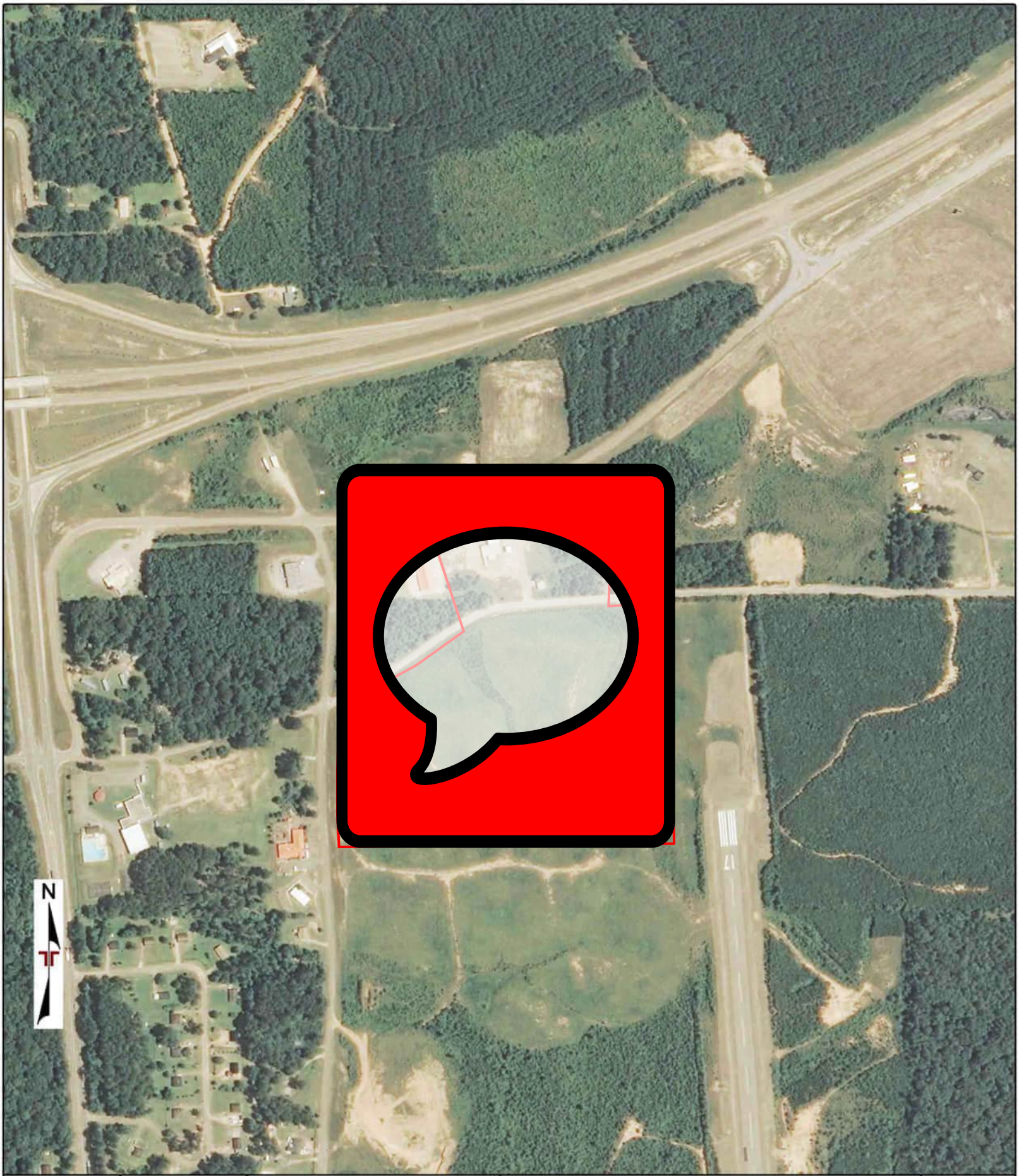
Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2007 - USDA)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			



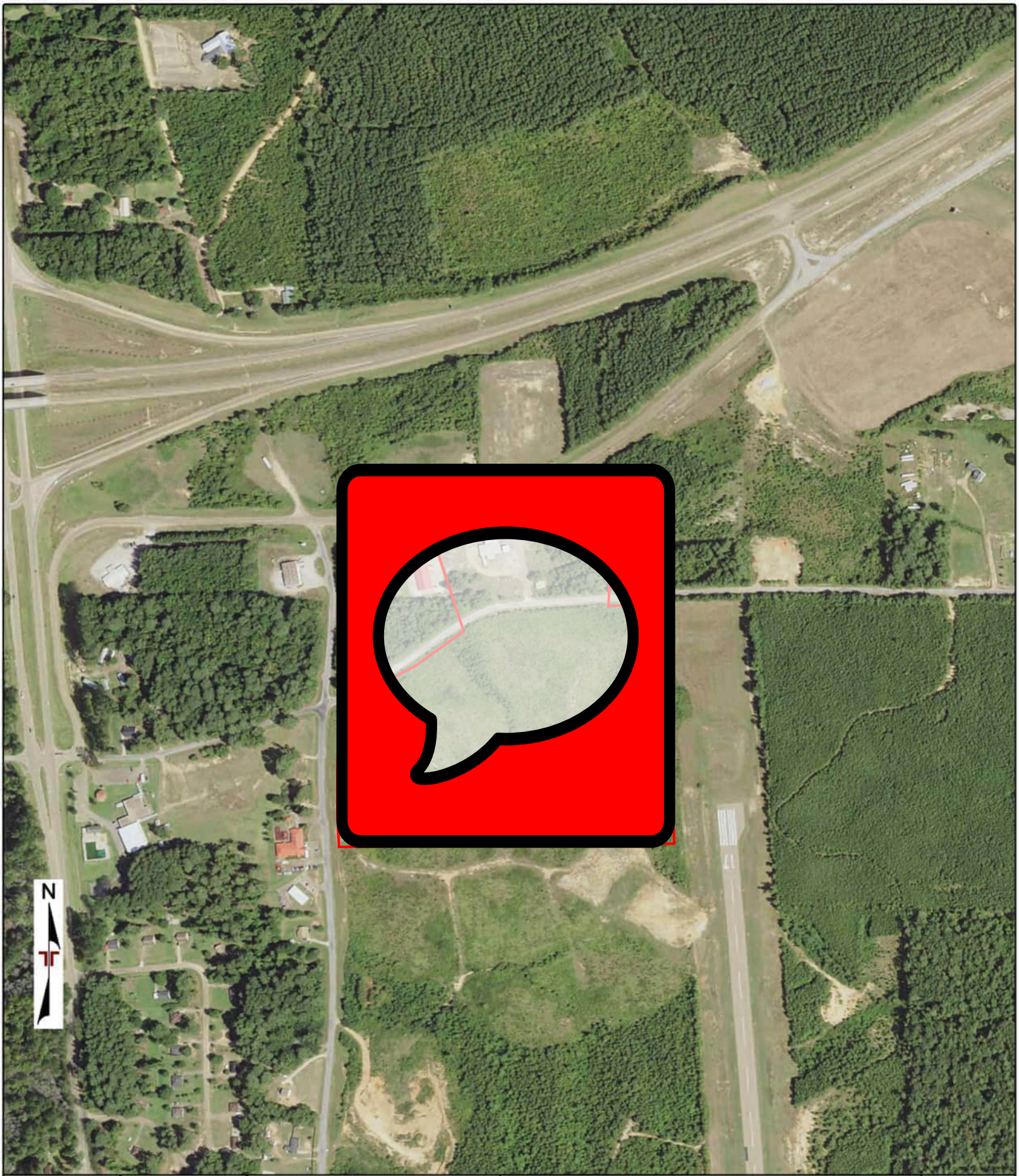
Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2009 - USDA)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			



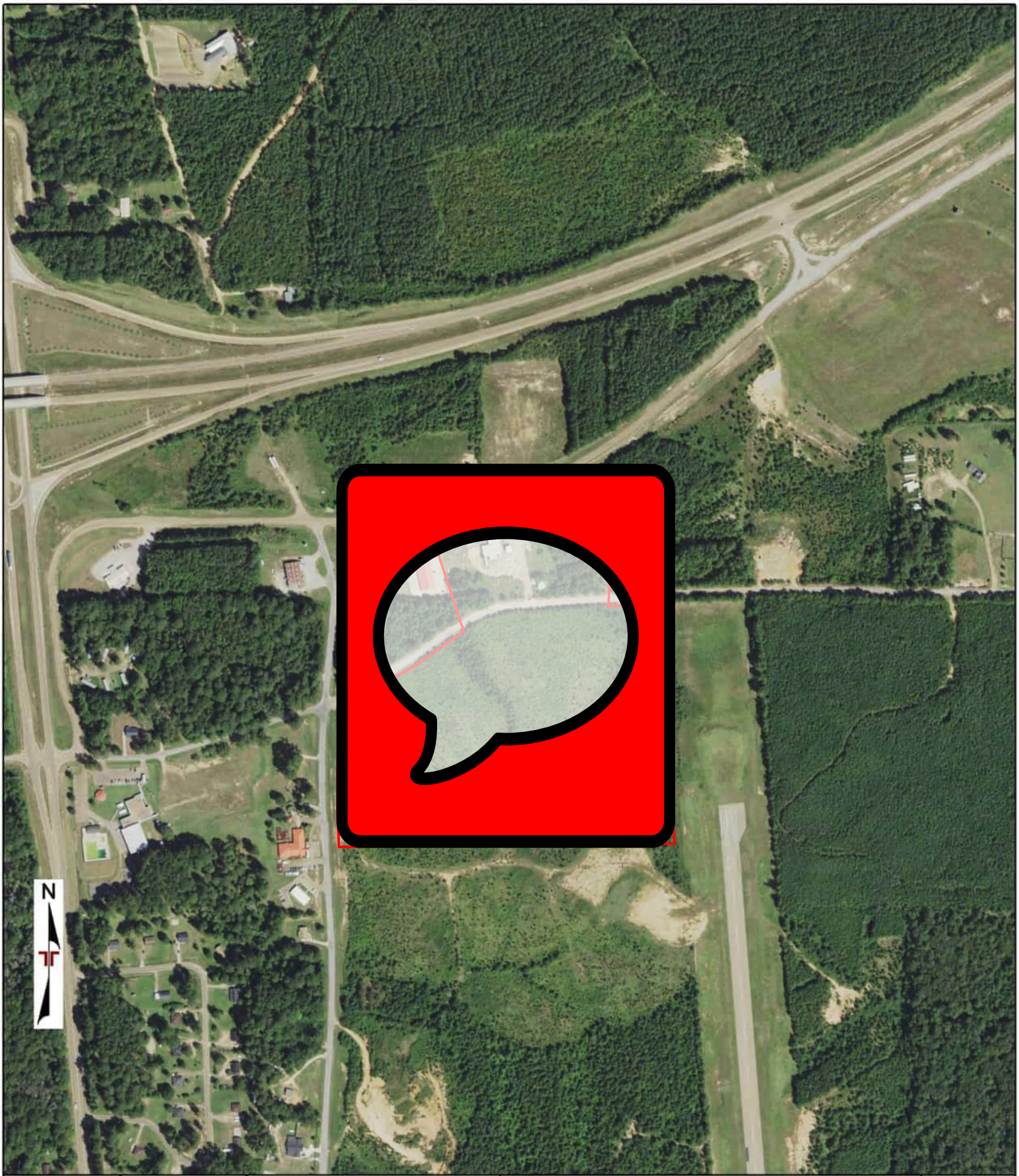
Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2010 - USDA) Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	Appendix C
Drawn by:	Scale: 1" = 500'			
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			



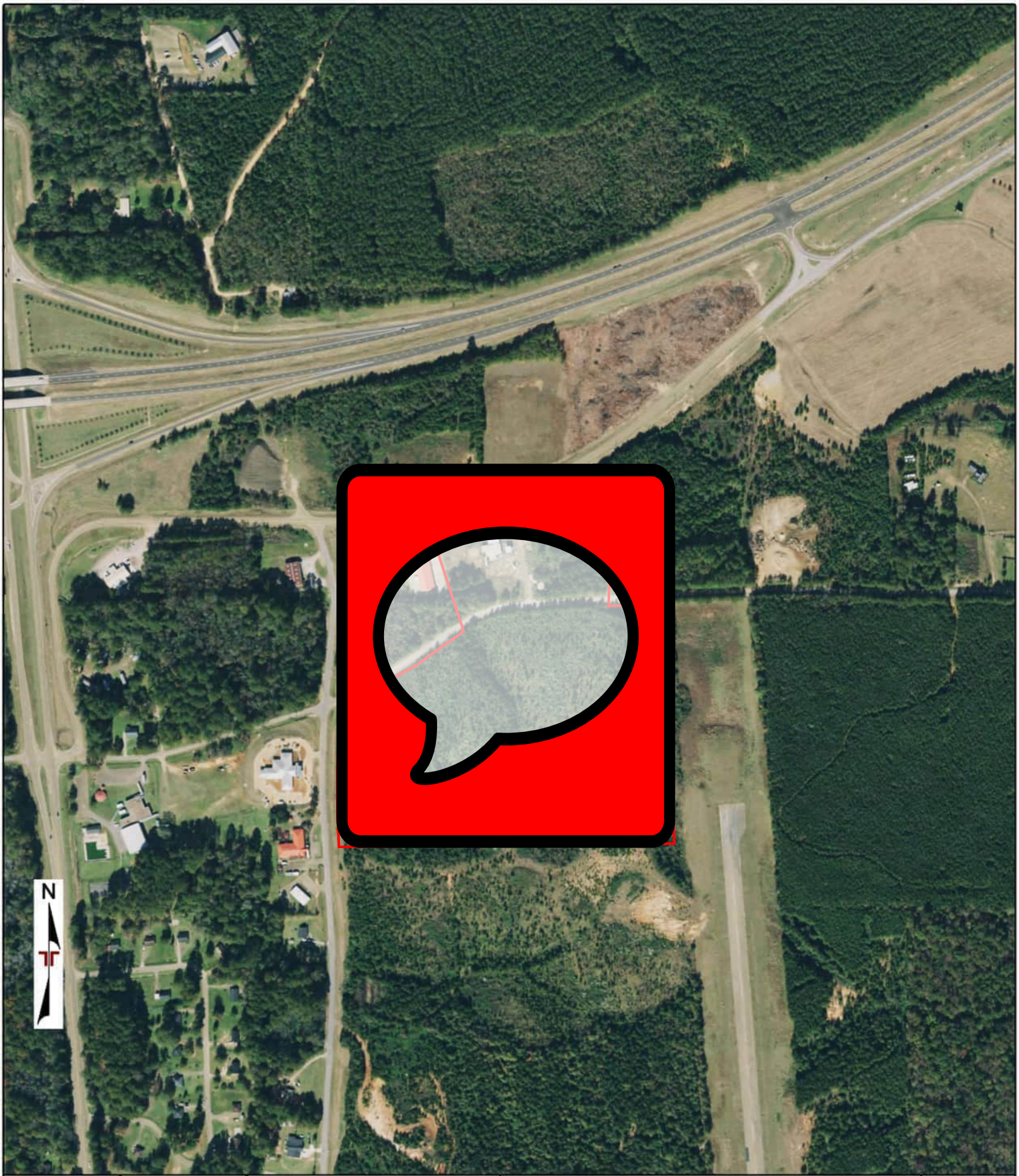
Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2012 - USDA)	Appendix
Drawn by:	Scale: 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			



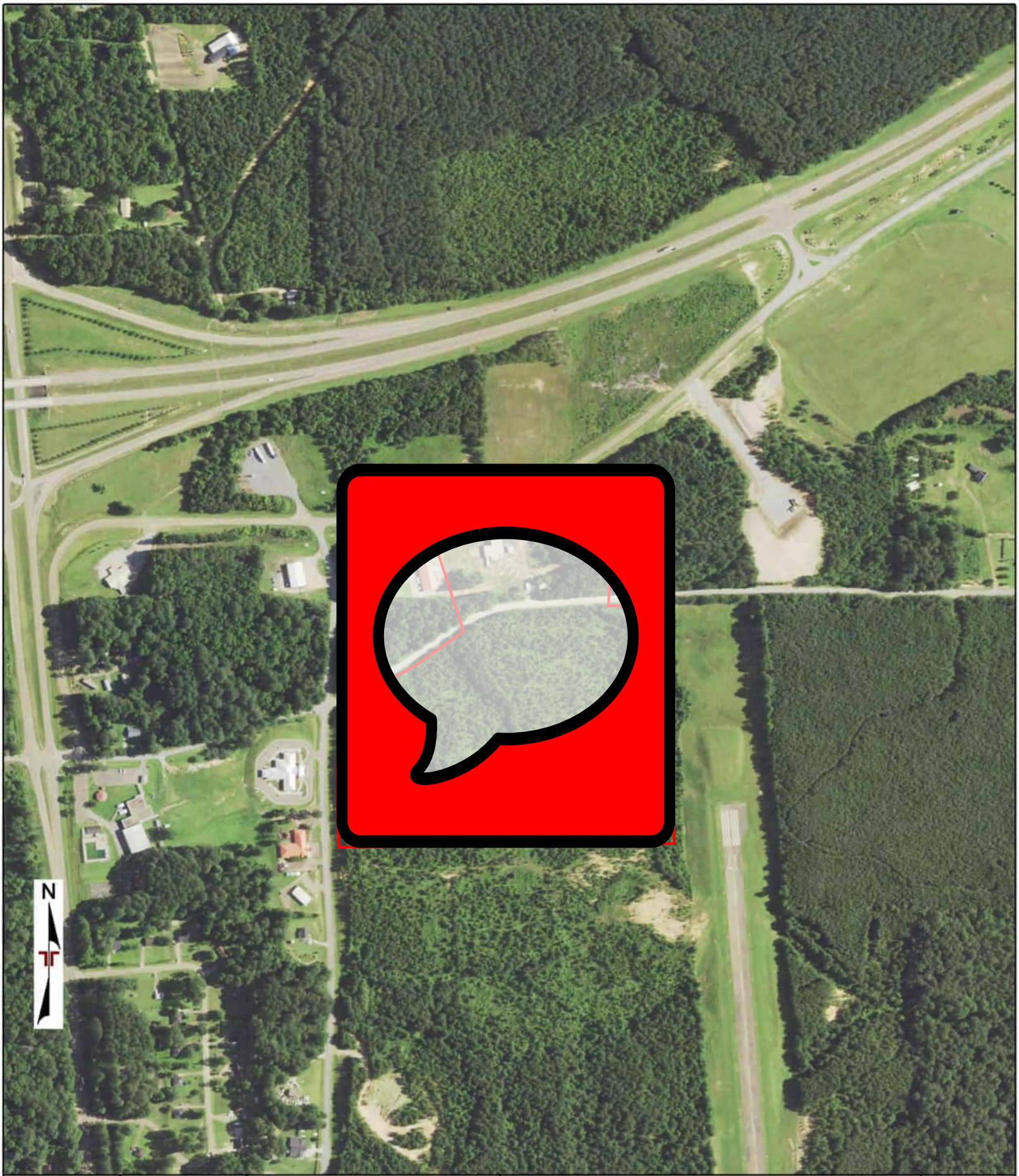
Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2014 - USDA)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			



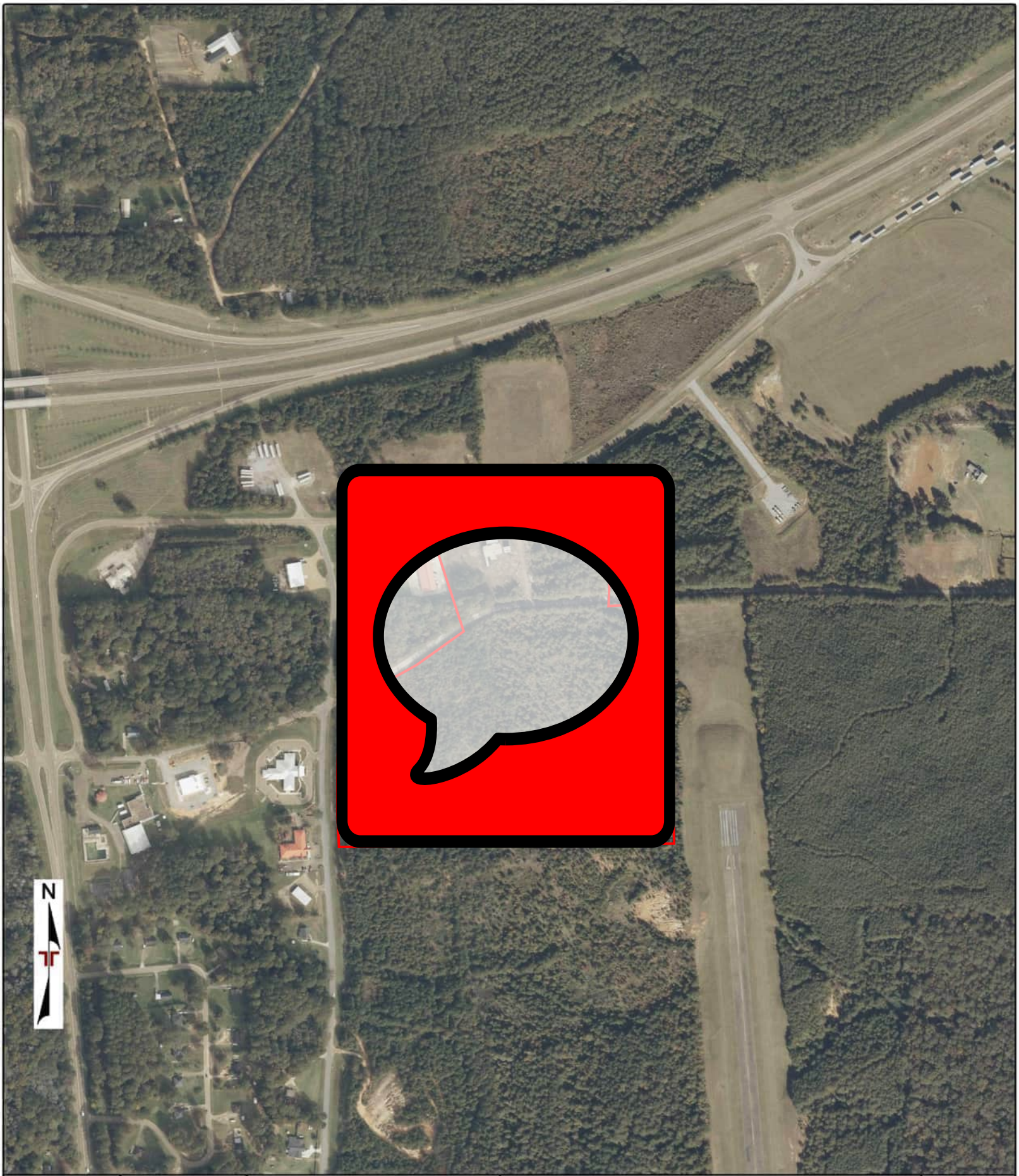
Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2016 - USDA)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			



Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2018 - USDA) Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	Appendix C
Drawn by:	Scale: 1" = 500'			
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			



Project Manager:	Project No. EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2020 - USDA) Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	Appendix C
Drawn by:	Scale: 1" = 500'			
Checked by:	File Name: 23091800576			
Approved by:	Date: 2023-09-20			



Project Manager:	**Project No.** EB237179	Terracon 859 Pear Orchard Rd Ridgeland, Mississippi 39157	AERIAL PHOTO (2021 - USDA)	Appendix
Drawn by:	**Scale:** 1" = 500'		Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage, Mississippi 39051	C
Checked by:	**File Name:** 23091800576			
Approved by:	**Date:** 2023-09-20			

CITY DIRECTORY

Project Property:	*Leake County - Southwest Section* *Mississippi Highway 25 North Frontage Road and Red Water Road* *Carthage,MS 39051*
Project No:	*EB237179*
Requested By:	*Terracon*
Order No:	*23091800576*
Date Completed:	*September 21, 2023*

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September 21, 2023
RE: CITY DIRECTORY RESEARCH
Mississippi Highway 25 North Frontage Road and Red Water Road
Carthage,MS 39051

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:
100-500 of MS Hwy 25 N
1900-2000 of N Pearl St
Search Notes:
MS Hwy 25 N is also known as Frontage Rd in Carthage.

Search Results Summary

Date	Source	Comment
2022	DIGITAL BUSINESS DIRECTORY	
2020	DIGITAL BUSINESS DIRECTORY	
2016	DIGITAL BUSINESS DIRECTORY	
2011	DIGITAL BUSINESS DIRECTORY	
2008	DIGITAL BUSINESS DIRECTORY	
2003	DIGITAL BUSINESS DIRECTORY	
2000	DIGITAL BUSINESS DIRECTORY	
1998	DIGITAL BUSINESS DIRECTORY	

2022 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

101 **LOS RODEOS FAMILY MEXICAN**...*FOOD PRODUCTS (WHLS)*
101 **LOS RODEOS FAMILY MEXICAN**...*FRUITS & VEGETABLES & PRODUCERETAIL*
101 **LOS RODEOS FAMILY MEXICAN**...*MEXICAN FOOD PRODUCTS-WHOLESALE*
101 **LOS RODEOS FAMILY MEXICAN**...*MEXICAN FOOD PRODUCTS-MANUFACTURERS*
211 **ECONOMY INN**...*HOTELS & MOTELS*
321 **WALTER KIMBLE**...*RESIDENTIAL*

2022 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1909 **RICKY ANDERSON**...*RESIDENTIAL*
1930 **ATKINSON, MICHELLE S**...*NURSES-PRACTITIONERS*
1930 **CHOCTAW RED WATER CLINIC**...*CLINICS*
1931 **RED WATER EARLY CHILDHOOD**...*NONPROFIT ORGANIZATIONS*
1931 **RED WATER EARLY CHILDHOOD**...*CHILD CARE SERVICE*
1951 **A B MECHANICAL INC**...*MECHANICAL CONTRACTORS*
1951 **GEORGIA POULTRY EQUIPMENT CO**...*POULTRY EQUIPMENT & SUPPLIES (WHLS)*

2020 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

101 **LOS RODEOS FAMILY MEXICAN**...*FOOD PRODUCTS (WHLS)*
101 **LOS RODEOS FAMILY MEXICAN**...*FRUITS & VEGETABLES & PRODUCERETAIL*
101 **LOS RODEOS FAMILY MEXICAN**...*MEXICAN FOOD PRODUCTS-WHOLESALE*
101 **LOS RODEOS FAMILY MEXICAN**...*MEXICAN FOOD PRODUCTS-MANUFACTURERS*
211 **ECONOMY INN**...*HOTELS & MOTELS*
321 **WALTER KIMBLE**...*RESIDENTIAL*

2020 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1909 **PHYLLIS ANDERSON**...*RESIDENTIAL*
1930 **ATKINSON, MICHELLE S**...*NURSES-PRACTITIONERS*
1931 **RED WATER EARLY CHILDHOOD**...*CHILD CARE SERVICE*
1931 **RED WATER EARLY CHILDHOOD**...*NONPROFIT ORGANIZATIONS*
1951 **A B MECHANICAL INC**...*MECHANICAL CONTRACTORS*
1951 **GEORGIA POULTRY EQUIPMENT CO**...*POULTRY EQUIPMENT & SUPPLIES (WHLS)*

2016 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

0 **FEDERICK CONSTRUCTION CO LLC**...*EXCAVATING CONTRACTORS*
101 **LOS RODEOS FAMILY MEXICAN**...*MEXICAN FOOD PRODUCTS-MANUFACTURERS*
101 **LOS RODEOS FAMILY MEXICAN**...*MEXICAN FOOD PRODUCTS-WHOLESALE*
211 **ECONOMY INN**...*HOTELS & MOTELS*
321 **WALTER KIMBLE**...*RESIDENTIAL*

2016 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1909 **RICKY ANDERSON**...*RESIDENTIAL*
1930 **ATKINSON, MICHELLE S**...*NURSES-PRACTITIONERS*
1931 **RED WATER EARLY CHILDHOOD**...*CHILD CARE SERVICE*
1951 **GEORGIA POULTRY EQUIPMENT CO**...*POULTRY EQUIPMENT & SUPPLIES (WHLS)*

2011 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

101 **LOS RODEOS FAMILY MEXICAN**...*GENERAL LINE GROCERY MERCHANT WHOLS*
211 **ECONOMY INN**...*HOTELS & MOTELS, EXCEPT CASINO HOTELS*
247 **JESSICA RAMIREZ**...*RESIDENTIAL*

2011 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1927 **GERALDINE JOHN**...*RESIDENTIAL*
1927 **KENNETH JOHN**...*RESIDENTIAL*
1931 **RED WATER EARLY CHILDHOOD**...*CHILD DAY CARE SVCS*
1937 **JIMMY BILLIE**...*RESIDENTIAL*

2008 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

0	**SQUARE COUNTY AUCTIONS**...*AUCTIONEERS*
101	**HITCHING RAIL**...*RESTAURANTS*
101	**HITCHING RAIL RESTAURANT**...*EATING PLACE*
211	**ECONOMY INN**...*HOTEL*
295	**HEATHER KIMBLE**...*RESIDENTIAL*

2008 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1930	**REDWATER CLINIC**...*HOME HEALTH CARE SERVICES*
1931	**RED WATER PARENT-CHILD DEV**...*CHILD CARE SERVICE*
1937	**JAMES C BILLIE**...*RESIDENTIAL*

2003 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

0 **BUD'S PLACE**
0 **GREYHOUND BUS LINES**
0 **HITCHING RAIL**...*PIZZA RESTAURANTS*
0 **SQUARE COUNTY AUCTIONS**...*PERSONAL SERVICE AGENTS, BROKERS, AND BUREAUS*
211 **ECONO LODGE**...*MOTELS*

2003 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1890 **TAYLOR MACHINE WORKS**...*DIESEL, SEMI-DIESEL, OR DUEL-FUEL ENGINES, INCLUDING MARINE*
1931 **RED WATER INDIAN SCHOOL**...*PUBLIC ELEMENTARY AND SECONDARY SCHOOLS*

2000 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

0 **BARNES FURNITURE**
0 **BUD'S PLACE**
0 **GREYHOUND BUS LINES**
0 **LYNN FEDERICK CONSTRUCTION CO**
0 **SQUARE COUNTY AUCTIONS**...*PERSONAL SERVICE AGENTS, BROKERS, AND BUREAUS*
101 **HITCHING RAIL**...*PIZZA RESTAURANTS*
211 **ECONO LODGE**...*MOTELS*

2000 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

1890 **TAYLOR MACHINE WORKS**...*DIESEL, SEMI-DIESEL, OR DUEL-FUEL ENGINES, INCLUDING MARINE*

1998 MS HWY 25 N

SOURCE: DIGITAL BUSINESS DIRECTORY

0 **BARNES FURNITURE**...*FLOOR COVERING STORES*
0 **BUDS PLACE**...*GROCERY STORES*
0 **FEDERICK LYNN CONSTRUCTION CO**...*EXCAVATION WORK*
0 **SERIO'S CORNER**...*GROCERY STORES*
103 **MISSISSIPPI TRANSPORTATION RIGHT OF WAY FIELD**
211 **ECONO LODGE**...*HOTELS AND MOTELS*

1998 N PEARL ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

FIRE INSURANCE MAPS

Project Property:	Leake County - Southwest Section Mississippi Highway 25 North Frontage Road and Red Water Road Carthage MS 39051
Project No:	EB237179
Requested By:	Terracon
Order No:	23091800576
Date Completed:	September 19, 2023

Please note that no information was found for your site or adjacent properties.

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APPENDIX D

ENVIRONMENTAL DATABASE INFORMATION

DATABASE REPORT

Project Property:	*Leake County - Southwest Section* *Mississippi Highway 25 North Frontage Road and Red Water Road* *Carthage MS 39051*
Project No:	*EB237179*
Report Type:	*Database Report*
Order No:	*23091800576*
Requested by:	*Terracon Consultants, Inc.*
Date Completed:	*September 19, 2023*

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Table of Contents

Executive Summary

Property Information:

Project Property:		*Leake County - Southwest Section* *Mississippi Highway 25 North Frontage Road and Red Water Road Carthage MS 39051*
Project No:		*EB237179*
Coordinates:		
	Latitude:	*32.76692684*
	Longitude:	*-89.53364346*
	UTM Northing:	*3,628,290.12*
	UTM Easting:	*262,664.97*
	UTM Zone:	*UTM Zone 16S*
Elevation:		*398 FT*

Order Information:

Order No:	*23091800576*
Date Requested:	*September 18, 2023*
Requested by:	*Terracon Consultants, Inc.*
Report Type:	*Database Report*

Historicals/Products:

Aerial Photographs	*Historical Aerials (with Project Boundaries)*
City Directory Search	*CD - 2 Street Search*
ERIS Xplorer	*ERIS Xplorer*
Excel Add-On	*Excel Add-On*
Fire Insurance Maps	*US Fire Insurance Maps*
Physical Setting Report (PSR)	*Physical Setting Report (PSR)*
Topographic Map	*Topographic Maps*
terraDOCS Report	*terraDOCS (Terracon)*

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	0	-	-	0
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	0	-	-	0
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0
FRP	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
DELISTED FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
DOE FUSRAP	Y	1	0	0	0	0	0	0
State								
SHWS	Y	1	0	0	**1**	0	**1**	**2**
DELISTED SHWS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWF PERMIT	Y	0.5	0	0	0	0	-	0
DEBRIS	Y	0.5	0	0	0	0	-	0
LUST	Y	0.5	**1**	0	0	**1**	-	**2**
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	**1**	0	0	-	-	**1**
UST PERMIT	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	0	0	-	-	0
UST MDAC	Y	0.25	0	0	0	-	-	0
TANK	Y	0.25	0	0	0	-	-	0
DTNK	Y	0.25	0	0	0	-	-	0
VCP	Y	0.5	0	0	0	0	-	0
BROWNFIELDS	Y	0.5	0	0	0	0	-	0
ENG	Y	0.5	0	0	0	0	-	0
INST	Y	0.5	0	0	0	0	-	0
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED INDIAN LST	Y	0.5	0	0	0	0	-	0
DELISTED INDIAN UST	Y	0.25	0	0	0	-	-	0

County ***No County databases were selected to be included in the search.***

Additional Environmental Records

Federal

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FINDS/FRS	Y	PO	**1**	-	-	-	-	**1**
TRIS	Y	PO	0	-	-	-	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS FED SITES	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
ERNS PFAS	Y	0.5	0	0	0	0	-	0
PFAS NPDES	Y	0.5	0	0	0	0	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS TSCA	Y	0.5	0	0	0	0	-	0
PFAS E-MANIFEST	Y	0.5	0	0	0	0	-	0
PFAS IND	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
FUDS MRS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
LM SITES	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
AFS	Y	PO	0	-	-	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0
PCBT	Y	0.5	0	0	0	0	-	0
PCB	Y	0.5	0	0	0	0	-	0
State								
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
ENSITE	Y	0.5	0	0	0	0	-	0
Tribal	***No Tribal additional environmental record sources available for this State.***							
County	***No County additional environmental record sources available for this State.***							
Total:			***3***	*0*	***1***	***1***	***1***	***6***

**** PO – Property Only***
**** 'Property and adjoining properties' database search radii are set at 0.25 miles.***

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
1	FINDS/FRS	2535 CHEVRON	245 HIGHWAY 25 NORTH CARTHAGE MS 39051 ***Registry ID:*** *110044618143*	NNW	0.00 / 0.00	-8	17
1	UST	25/35 Chevron	245 Highway 25 North Carthage MS 39051 ***Facility ID:*** *10622*	NNW	0.00 / 0.00	-8	17
1	LUST	25/35 Chevron	245 Highway 25 North Carthage MS 39051 ***Facility ID:*** *10622*	NNW	0.00 / 0.00	-8	21

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
2	SHWS	Chevron 25/35 (UST Facility ID 10622)	Carthage MS	NNW	0.15 / 799.83	-4	22
			Agency Int No* | *Status State* | *Status State Dt: Active |				
3	LUST	Brantley's	Highway 35 North Carthage MS 39051	SW	0.40 / 2,112.47	-29	22
			Facility ID: 10164				
4	SHWS	KK Trucking	Carthage MS	ENE	0.53 / 2,800.80	-16	24
			Agency Int No* | *Status State* | *Status State Dt: 39187 | |				

Executive Summary: Summary by Data Source

Standard

State

SHWS - CERCLA/Uncontrolled Sites File List

A search of the SHWS database, dated Jul 19, 2023 has found that there are 2 SHWS site(s) within approximately 1.00 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
Chevron 25/35 (UST Facility ID 10622)	Carthage MS	NNW	0.15 / 799.83	2
	***Agency Int No | Status State | Status State Dt**: Active |*			
KK Trucking	Carthage MS	ENE	0.53 / 2,800.80	4
	***Agency Int No | Status State | Status State Dt**: 39187 | |*			

LUST - Leaking Underground Storage Tanks

A search of the LUST database, dated May 31, 2023 has found that there are 2 LUST site(s) within approximately 0.50 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
25/35 Chevron	245 Highway 25 North Carthage MS 39051	NNW	0.00 / 0.00	1
	***Facility ID**: 10622*			
Brantley's	Highway 35 North Carthage MS 39051	SW	0.40 / 2,112.47	3
	***Facility ID**: 10164*			

UST - Underground Storage Tanks

A search of the UST database, dated May 31, 2023 has found that there are 1 UST site(s) within approximately 0.25 miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
25/35 Chevron	245 Highway 25 North Carthage MS 39051	NNW	0.00 / 0.00	1
	***Facility ID**: 10622*			

Non Standard

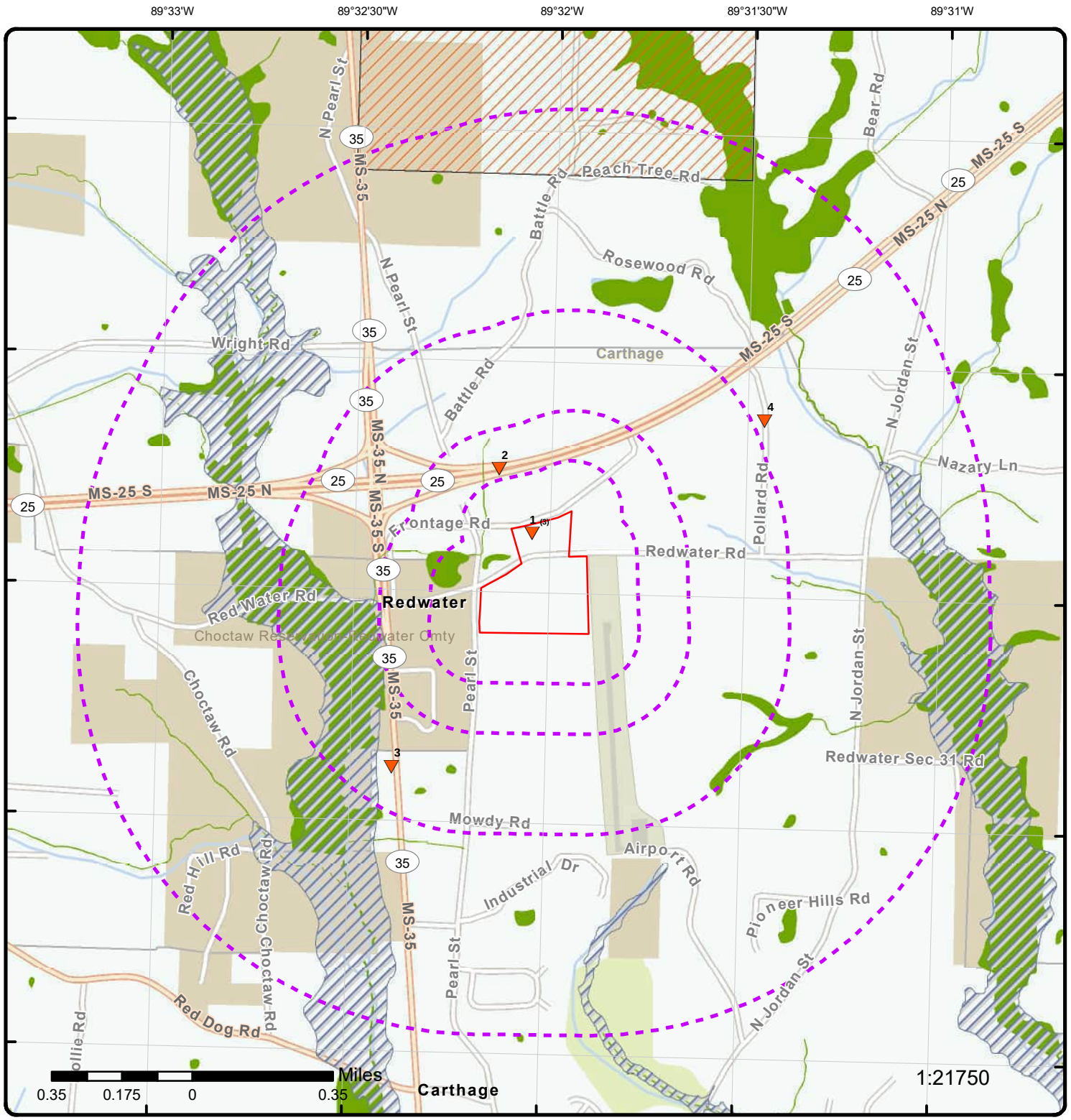
Federal

FINDS/FRS - Facility Registry Service/Facility Index

A search of the FINDS/FRS database, dated Aug 18, 2022 has found that there are 1 FINDS/FRS site(s) within approximately 0.02

miles of the project property.

Lower Elevation	Address	Direction	Distance (mi/ft)	Map Key
2535 CHEVRON	245 HIGHWAY 25 NORTH CARTHAGE MS 39051 ***Registry ID**: 110044618143*	NNW	0.00 / 0.00	1

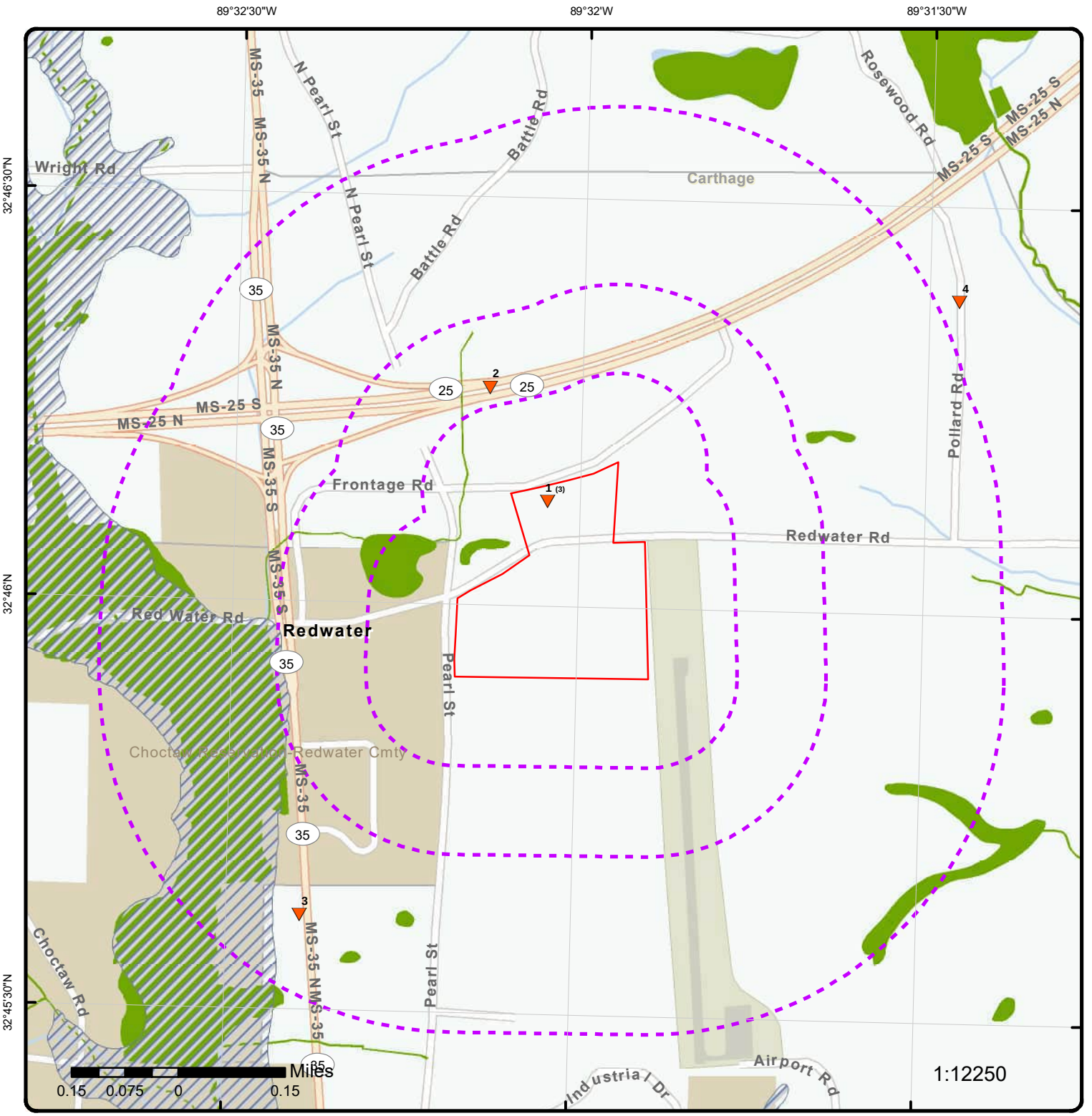


Map: 1.0 Mile Radius

Order Number: 23091800576

Address: Mississippi Highway 25 North Frontage Road and Red Water Road, Carthage, MS

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

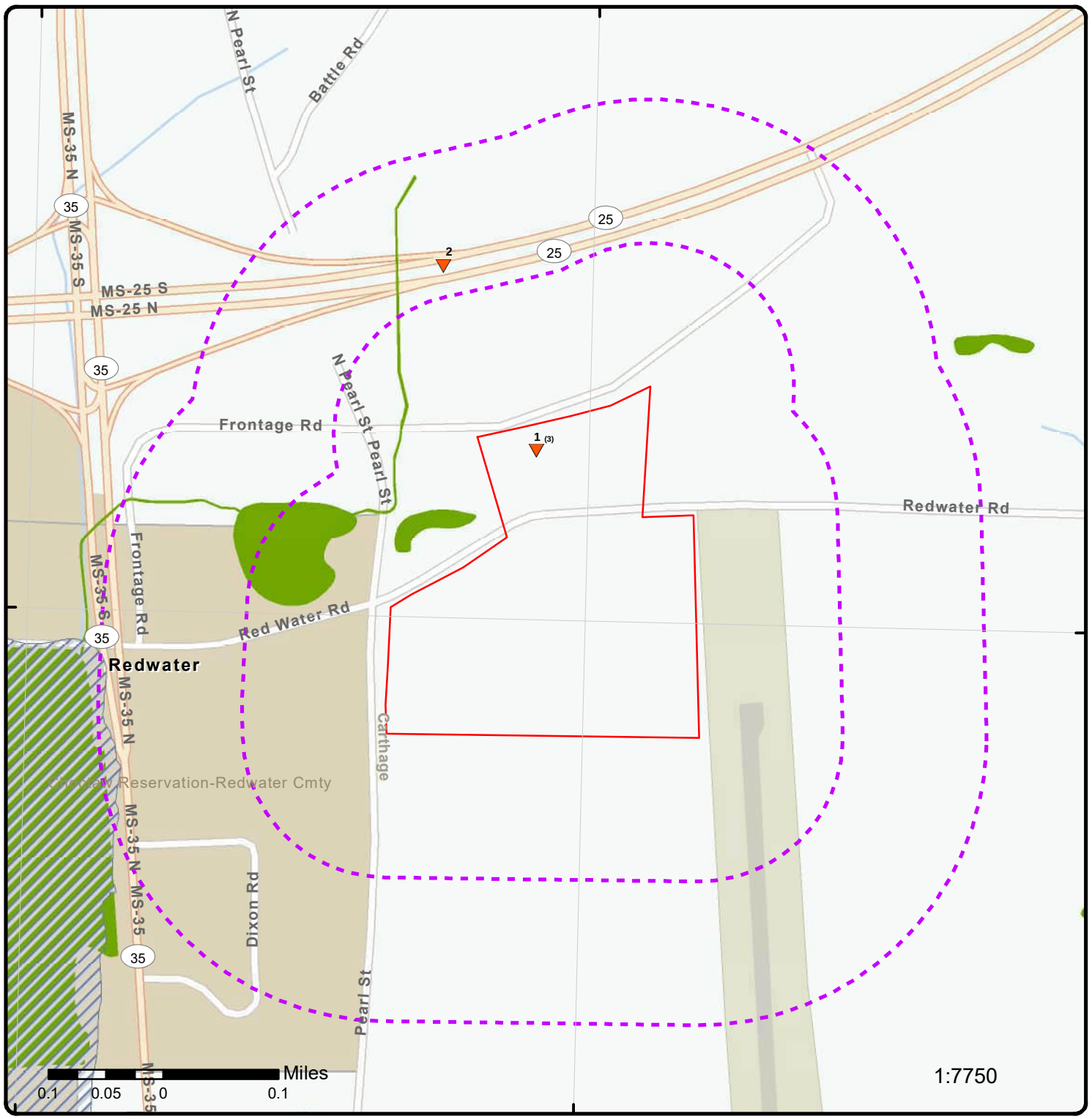


Map: 0.5 Mile Radius

Order Number: 23091800576

Address: Mississippi Highway 25 North Frontage Road and Red Water Road, Carthage, MS

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)



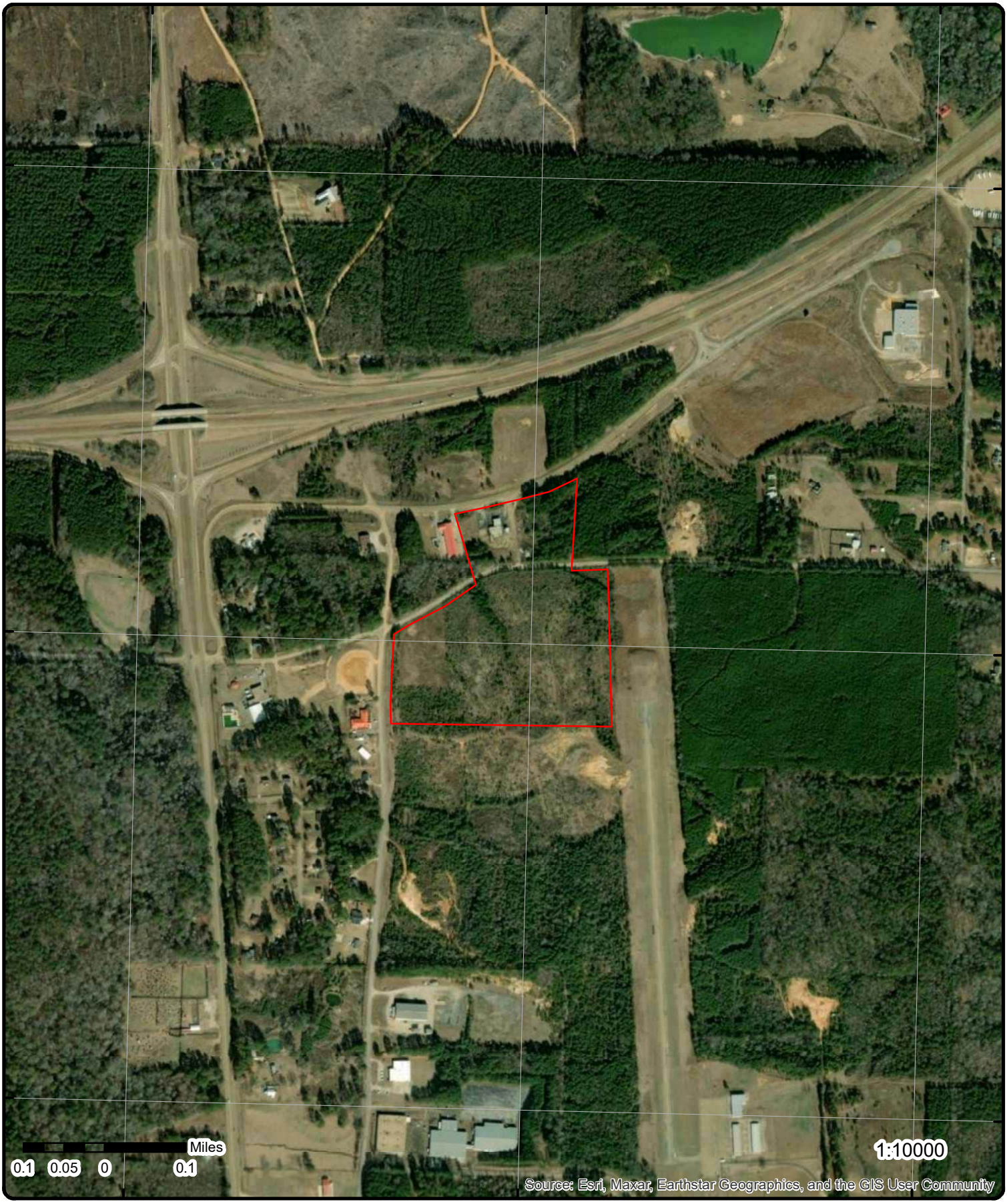
Map: 0.25 Mile Radius

Order Number: 23091800576

Address: Mississippi Highway 25 North Frontage Road and Red Water Road, Carthage, MS

- Project Property
- Buffer Outline
- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

Source: © 2021 ESRI StreetMap Premium

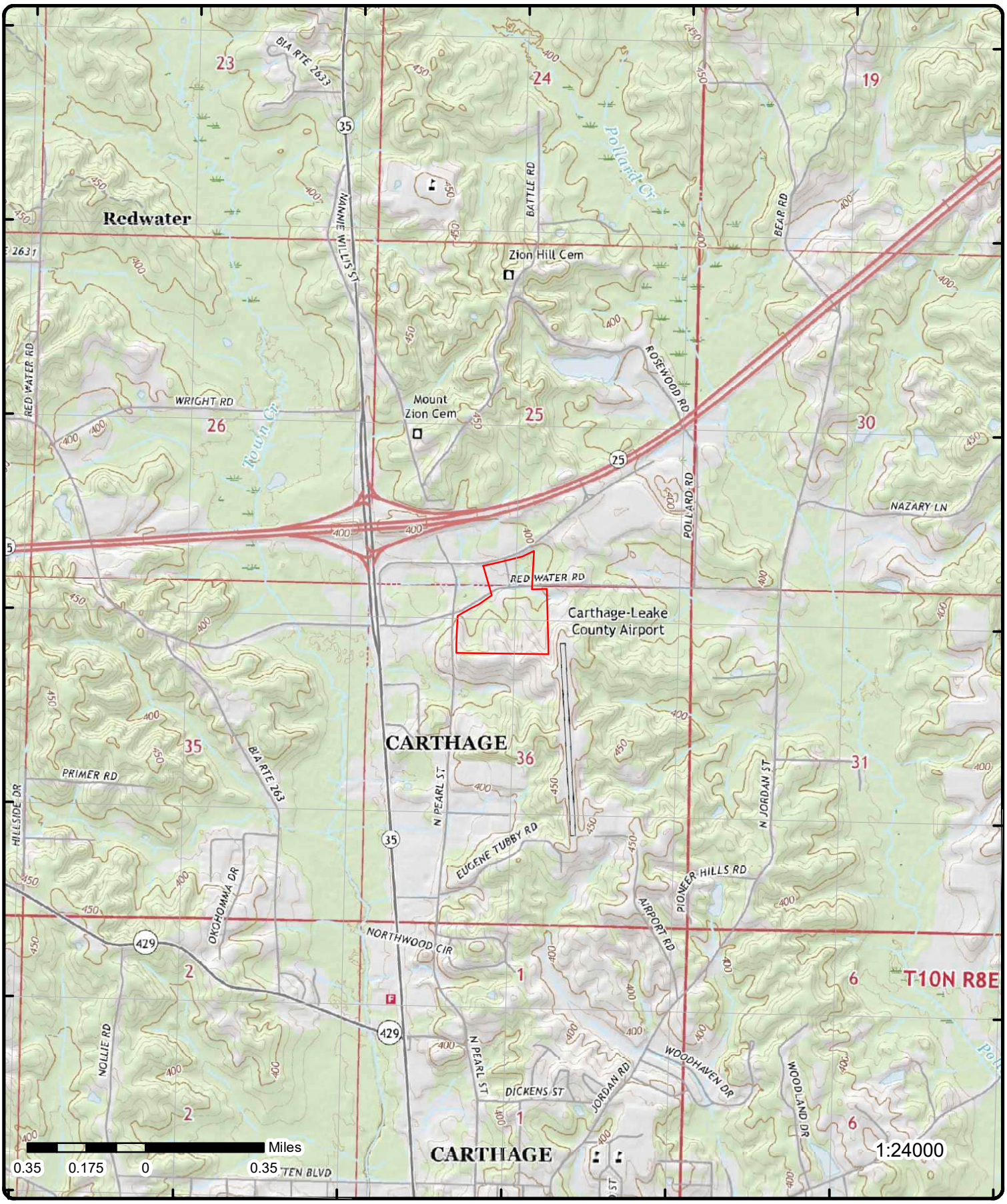


Aerial **Year: 2018**

Order Number: 23091800576

Address: Mississippi Highway 25 North Frontage Road and Red Water Road, Cartl

Source: ESRI World Imagery



Topographic Map

Year: 2020

Order Number: 23091800576

Address: Mississippi Highway 25 North Frontage Road and Red Water Road, MS

Quadrangle(s): Carthage MS, Conway MS, Renfroe MS

Source: USGS Topographic Map

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 3	NNW	0.00 / 0.00	390.01 / -8	2535 CHEVRON 245 HIGHWAY 25 NORTH CARTHAGE MS 39051	FINDS/FRS

Registry ID: 110044618143
FIPS Code: 28079
HUC Code: 03180001
Site Type Name: STATIONARY
Location Description:
Supplemental Location:
Create Date: 05-JAN-12
Update Date:
Interest Types: STATE MASTER
SIC Codes: 5541
SIC Code Descriptions: GASOLINE SERVICE STATIONS
NAICS Codes:
NAICS Code Descriptions:
Conveyor: MS-ENSITE
Federal Facility Code:
Federal Agency Name:
Tribal Land Code:
Tribal Land Name:
Congressional Dist No: 02
Census Block Code: 280790406001071
EPA Region Code: 04
County Name: LEAKE
US/Mexico Border Ind:
Latitude: 32.768889
Longitude: -89.534139
Reference Point:
Coord Collection Method: GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA OFF)
Accuracy Value: 3
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110044618143
Data Source: Facility Registry Service - Single File
Program Acronyms:

MS-ENSITE:24423

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	2 of 3	NNW	0.00 / 0.00	390.01 / -8	25/35 Chevron 245 Highway 25 North Carthage MS 39051	UST

Facility ID: 10622
Facility Name: 25/35 Chevron
Address: 245 Highway 25 North
City: Carthage
Zip: 39051
County: Leake
Owner Name: Murrill Triplett
Latitude Degree: 32
Latitude Minutes: 46
Latitude Seconds: 8.0000
Facility Name(Cap): 25/35 Chevron
Facility Address(Cap): 245 Highway 25 North
Facility City(Cap): Carthage
Facility Zip(Cap): 39051
Facility State(Cap): MS
Owner ID(Cap): 1020831
Longitude Degree: 89
Longitude Minutes: 32
Longitude Seconds: 2.9000
Owner Name(Cap): Murrill Triplett
Data Source: MDEQ UST Facilities & Owners Information; MDEQ Current CAP Summary

Delivery Prohibition

Date Revoked:	2023-02-28 15:44:53	***Revoke Reason:***	N.A.
Tank:	4	***Physically Tag Dt:***	
Capacity:	10000	***Group1:***	ALL
Product:	Diesel	***Group2:***	10622
Date Revoked:	2023-02-28 15:44:54	***Revoke Reason:***	N.A.
Tank:	2	***Physically Tag Dt:***	
Capacity:	10000	***Group1:***	ALL
Product:	Gasoline	***Group2:***	10622
Date Revoked:	2023-02-28 15:44:54	***Revoke Reason:***	N.A.
Tank:	3	***Physically Tag Dt:***	
Capacity:	10000	***Group1:***	ALL
Product:	Gasoline	***Group2:***	10622
Date Revoked:	2023-02-28 15:44:53	***Revoke Reason:***	N.A.
Tank:	1	***Physically Tag Dt:***	
Capacity:	10000	***Group1:***	ALL
Product:	Gasoline	***Group2:***	10622

Violation Details

Oce Status:	Red Tag	***Manager:***	Justin Estes
Due Date:	2023-03-30 00:00:00	***Fac Count:***	2957
Override Date:		***Own Count:***	1505
Oce Status:	Red Tag	***Manager:***	Justin Estes
Due Date:	2015-03-06 00:00:00	***Fac Count:***	2957
Override Date:		***Own Count:***	1505

Additional Details

Tank ID:		***Pipe Index:***	1
Tank Index:	1	***Pipe Status Desc:***	Temporarily Out of Service
Tank Status:	Temporarily Out of Service	***Pipe Install Dt:***	1989-01-01 00:00:00
Tank Capacity:	10000	***Pipe Dt Last Used:***	2008-09-11 00:00:00
Tank Mat Desc:	Epoxy Coated Steel	***Pipe Date Closed:***	
Tank Mod Desc:	Cathodically Protected	***Pipe Mat Desc:***	Fiberglass Reinforced Plastic
Tank Types:	Normal	***Pipe Mod Desc:***	None
Tank Emergency:	False	***Pipe Manufacturer:***	
Date Last Used:	2008-09-11 00:00:00	***Pipe Type Desc:***	Pressurized
Date Closed:		***Pipe CLS Status:***	
Closure Stat Desc:		***Pipe LD:***	Groundwater/Vapor Monitoring
Substance:	Gasoline	***Alld Type:***	Mechanical
Installed Tank Dt:	1989-01-01 00:00:00	***Expr1:***	
Overfill Type:		***Expr2:***	
Small Delivery:	False	***Owner Address:***	245 Higway 25 North
Compartment No:		***Owner City:***	Carthage
Overfill Prevention:	No	***Owner State:***	MS
Spill Prevention:	No	***Owner Zip:***	39051
Tank LD:	Groundwater/Vapor Monitoring	***Owner Phone:***	(601)267-4510

Additional Details

Tank ID:		***Pipe Index:***	4
Tank Index:	4	***Pipe Status Desc:***	Temporarily Out of Service
Tank Status:	Temporarily Out of Service	***Pipe Install Dt:***	1989-01-01 00:00:00
Tank Capacity:	10000	***Pipe Dt Last Used:***	2008-09-11 00:00:00
Tank Mat Desc:	Epoxy Coated Steel	***Pipe Date Closed:***	
Tank Mod Desc:	Cathodically Protected	***Pipe Mat Desc:***	Fiberglass Reinforced Plastic
Tank Types:	Normal	***Pipe Mod Desc:***	None

Tank Emergency:	False	**Pipe Manufacturer:**	
Date Last Used:	2008-09-11 00:00:00	**Pipe Type Desc:**	Pressurized
Date Closed:		**Pipe CLS Status:**	
Closure Stat Desc:		**Pipe LD:**	Groundwater/Vapor Monitoring
Substance:	Diesel	**Alld Type:**	Mechanical
Installed Tank Dt:	1989-01-01 00:00:00	**Expr1:**	
Overfill Type:		**Expr2:**	
Small Delivery:	False	**Owner Address:**	245 Higway 25 North
Compartment No:		**Owner City:**	Carthage
Overfill Prevention:	No	**Owner State:**	MS
Spill Prevention:	No	**Owner Zip:**	39051
Tank LD:	Groundwater/Vapor Monitoring	**Owner Phone:**	(601)267-4510

Additional Details

Tank ID:		**Pipe Index:**	2
Tank Index:	2	**Pipe Status Desc:**	Temporarily Out of Service
Tank Status:	Temporarily Out of Service	**Pipe Install Dt:**	1989-01-01 00:00:00
Tank Capacity:	10000	**Pipe Dt Last Used:**	2008-09-11 00:00:00
Tank Mat Desc:	Epoxy Coated Steel	**Pipe Date Closed:**	
Tank Mod Desc:	Cathodically Protected	**Pipe Mat Desc:**	Fiberglass Reinforced Plastic
Tank Types:	Normal	**Pipe Mod Desc:**	None
Tank Emergency:	False	**Pipe Manufacturer:**	
Date Last Used:	2008-09-11 00:00:00	**Pipe Type Desc:**	Pressurized
Date Closed:		**Pipe CLS Status:**	
Closure Stat Desc:		**Pipe LD:**	Groundwater/Vapor Monitoring
Substance:	Gasoline	**Alld Type:**	Mechanical
Installed Tank Dt:	1989-01-01 00:00:00	**Expr1:**	
Overfill Type:		**Expr2:**	
Small Delivery:	False	**Owner Address:**	245 Higway 25 North
Compartment No:		**Owner City:**	Carthage
Overfill Prevention:	No	**Owner State:**	MS
Spill Prevention:	No	**Owner Zip:**	39051
Tank LD:	Groundwater/Vapor Monitoring	**Owner Phone:**	(601)267-4510

Additional Details

Tank ID:		**Pipe Index:**	3
Tank Index:	3	**Pipe Status Desc:**	Temporarily Out of Service
Tank Status:	Temporarily Out of Service	**Pipe Install Dt:**	1989-01-01 00:00:00
Tank Capacity:	10000	**Pipe Dt Last Used:**	2008-09-11 00:00:00
Tank Mat Desc:	Epoxy Coated Steel	**Pipe Date Closed:**	
Tank Mod Desc:	Cathodically Protected	**Pipe Mat Desc:**	Fiberglass Reinforced Plastic
Tank Types:	Normal	**Pipe Mod Desc:**	None
Tank Emergency:	False	**Pipe Manufacturer:**	
Date Last Used:	2008-09-11 00:00:00	**Pipe Type Desc:**	Pressurized
Date Closed:		**Pipe CLS Status:**	
Closure Stat Desc:		**Pipe LD:**	Groundwater/Vapor Monitoring
Substance:	Gasoline	**Alld Type:**	Mechanical
Installed Tank Dt:	1989-01-01 00:00:00	**Expr1:**	
Overfill Type:		**Expr2:**	
Small Delivery:	False	**Owner Address:**	245 Higway 25 North
Compartment No:		**Owner City:**	Carthage
Overfill Prevention:	No	**Owner State:**	MS
Spill Prevention:	No	**Owner Zip:**	39051
Tank LD:	Groundwater/Vapor Monitoring	**Owner Phone:**	(601)267-4510

Tank Info Bank

Owner ID:	1020831	**Spillprevention:**	No
Ownphone:	(601)267-4510	**Date Installed Tnk:**	1989-01-01 00:00:00
Ownaddr:	245 Higway 25 North	**Overfilltype:**	
Owncity:	Carthage	**Smalldelivery:**	False
Ownstate:	MS	**Tankemergen:**	False
Ownzip:	39051	**Tanktypes:**	Normal

O Name:	Murrill Triplett	***Compartmentnumber:***	
Facility ID:	10622	***Pipe Index:***	1
Facname:	25/35 Chevron	***Pipe Install Date:***	1989-01-01 00:00:00
Locaddr:	245 Highway 25 North	***Pipe Status Desc:***	Temporarily Out of Service
Loccity:	Carthage	***Pipe Mat Desc:***	Fiberglass Reinforced Plastic
Loczip:	39051	***Pipe Mod Desc:***	None
Locstate:	MS	***Pipe Dt Closed:***	
County:	Leake	***Pipeclsstatus:***	
Tank Capacity:	10000	***Dt Last Used:***	2008-09-11 00:00:00
Tank Substance:	Gasoline	***Pipe Id:***	Groundwater/Vapor Monitoring
Tank Index:	1	***Alld Type:***	Mechanical
Tank Status:	Temporarily Out of Service	***Pipe Type Desc:***	Pressurized
Tankmatdesc:	Epoxy Coated Steel	***Pipe Manufacturer:***	
Tankmoddesc:	Cathodically Protected	***Latitude Degree:***	32
Closurestatusdesc:		***Latitude Minutes:***	46
Tank Date Closed:		***Latitude Seconds:***	8.0000
Datelastused:	2008-09-11 00:00:00	***Longitude Degree:***	89
Tankld:	Groundwater/Vapor Monitoring	***Longitude Minutes:***	32
Overfillprevention:	No	***Longitude Seconds:***	2.9000

Tank Info Bank

Owner ID:	1020831	***Spillprevention:***	No
Ownphone:	(601)267-4510	***Date Installed Tnk:***	1989-01-01 00:00:00
Ownaddr:	245 Higway 25 North	***Overfilltype:***	
Owncity:	Carthage	***Smalldelivery:***	False
Ownstate:	MS	***Tankemergen:***	False
Ownzip:	39051	***Tanktypes:***	Normal
O Name:	Murrill Triplett	***Compartmentnumber:***	
Facility ID:	10622	***Pipe Index:***	2
Facname:	25/35 Chevron	***Pipe Install Date:***	1989-01-01 00:00:00
Locaddr:	245 Highway 25 North	***Pipe Status Desc:***	Temporarily Out of Service
Loccity:	Carthage	***Pipe Mat Desc:***	Fiberglass Reinforced Plastic
Loczip:	39051	***Pipe Mod Desc:***	None
Locstate:	MS	***Pipe Dt Closed:***	
County:	Leake	***Pipeclsstatus:***	
Tank Capacity:	10000	***Dt Last Used:***	2008-09-11 00:00:00
Tank Substance:	Gasoline	***Pipe Id:***	Groundwater/Vapor Monitoring
Tank Index:	2	***Alld Type:***	Mechanical
Tank Status:	Temporarily Out of Service	***Pipe Type Desc:***	Pressurized
Tankmatdesc:	Epoxy Coated Steel	***Pipe Manufacturer:***	
Tankmoddesc:	Cathodically Protected	***Latitude Degree:***	32
Closurestatusdesc:		***Latitude Minutes:***	46
Tank Date Closed:		***Latitude Seconds:***	8.0000
Datelastused:	2008-09-11 00:00:00	***Longitude Degree:***	89
Tankld:	Groundwater/Vapor Monitoring	***Longitude Minutes:***	32
Overfillprevention:	No	***Longitude Seconds:***	2.9000

Tank Info Bank

Owner ID:	1020831	***Spillprevention:***	No
Ownphone:	(601)267-4510	***Date Installed Tnk:***	1989-01-01 00:00:00
Ownaddr:	245 Higway 25 North	***Overfilltype:***	
Owncity:	Carthage	***Smalldelivery:***	False
Ownstate:	MS	***Tankemergen:***	False
Ownzip:	39051	***Tanktypes:***	Normal
O Name:	Murrill Triplett	***Compartmentnumber:***	
Facility ID:	10622	***Pipe Index:***	3
Facname:	25/35 Chevron	***Pipe Install Date:***	1989-01-01 00:00:00
Locaddr:	245 Highway 25 North	***Pipe Status Desc:***	Temporarily Out of Service
Loccity:	Carthage	***Pipe Mat Desc:***	Fiberglass Reinforced Plastic
Loczip:	39051	***Pipe Mod Desc:***	None
Locstate:	MS	***Pipe Dt Closed:***	
County:	Leake	***Pipeclsstatus:***	
Tank Capacity:	10000	***Dt Last Used:***	2008-09-11 00:00:00
Tank Substance:	Gasoline	***Pipe Id:***	Groundwater/Vapor Monitoring
Tank Index:	3	***Alld Type:***	Mechanical

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Tank Status:	Temporarily Out of Service	**Pipe Type Desc:**	Pressurized
Tankmatdesc:	Epoxy Coated Steel	**Pipe Manufacturer:**	
Tankmoddesc:	Cathodically Protected	**Latitude Degree:**	32
Closurestatusdesc:		**Latitude Minutes:**	46
Tank Date Closed:		**Latitude Seconds:**	8.0000
Datelastused:	2008-09-11 00:00:00	**Longitude Degree:**	89
TankId:	Groundwater/Vapor Monitoring	**Longitude Minutes:**	32
Overfillprevention:	No	**Longitude Seconds:**	2.9000

Tank Info Bank

Owner ID:	1020831	**Spillprevention:**	No
Ownphone:	(601)267-4510	**Date Installed Tnk:**	1989-01-01 00:00:00
Ownaddr:	245 Higway 25 North	**Overfilltype:**	
Owncity:	Carthage	**Smalldelivery:**	False
Ownstate:	MS	**Tankemergen:**	False
Ownzip:	39051	**Tanktypes:**	Normal
O Name:	Murrill Triplett	**Compartmentnumber:**	
Facility ID:	10622	**Pipe Index:**	4
Facname:	25/35 Chevron	**Pipe Install Date:**	1989-01-01 00:00:00
Locaddr:	245 Highway 25 North	**Pipe Status Desc:**	Temporarily Out of Service
Loccity:	Carthage	**Pipe Mat Desc:**	Fiberglass Reinforced Plastic
Loczip:	39051	**Pipe Mod Desc:**	None
Locstate:	MS	**Pipe Dt Closed:**	
County:	Leake	**Pipeclsstatus:**	
Tank Capacity:	10000	**Dt Last Used:**	2008-09-11 00:00:00
Tank Substance:	Diesel	**Pipe Id:**	Groundwater/Vapor Monitoring
Tank Index:	4	**Alld Type:**	Mechanical
Tank Status:	Temporarily Out of Service	**Pipe Type Desc:**	Pressurized
Tankmatdesc:	Epoxy Coated Steel	**Pipe Manufacturer:**	
Tankmoddesc:	Cathodically Protected	**Latitude Degree:**	32
Closurestatusdesc:		**Latitude Minutes:**	46
Tank Date Closed:		**Latitude Seconds:**	8.0000
Datelastused:	2008-09-11 00:00:00	**Longitude Degree:**	89
TankId:	Groundwater/Vapor Monitoring	**Longitude Minutes:**	32
Overfillprevention:	No	**Longitude Seconds:**	2.9000

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	3 of 3	NNW	0.00 / 0.00	390.01 / -8	25/35 Chevron 245 Highway 25 North Carthage MS 39051	LUST

Facility ID:	10622
County:	Leake
Latitude Degree:	32
Latitude Minutes:	46
Latitude Seconds:	8.0000
Longitude Degree:	89
Longitude Minutes:	32
Longitude Seconds:	2.9000

Delivery Prohibition

Tank:	1	**Product:**	Gasoline
Physically Tag Dt:		**Capacity:**	10000
Date Revoked:	2023-02-28 15:44:53	**Group1:**	ALL
Revoke Reason:	N.A.	**Group2:**	10622
Tank:	2	**Product:**	Gasoline
Physically Tag Dt:		**Capacity:**	10000
Date Revoked:	2023-02-28 15:44:54	**Group1:**	ALL
Revoke Reason:	N.A.	**Group2:**	10622
Tank:	4	**Product:**	Diesel
Physically Tag Dt:		**Capacity:**	10000
Date Revoked:	2023-02-28 15:44:53	**Group1:**	ALL
Revoke Reason:	N.A.	**Group2:**	10622

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB

Tank:	3	**Product:**	Gasoline
Physically Tag Dt:		**Capacity:**	10000
Date Revoked:	2023-02-28 15:44:54	**Group1:**	ALL
Revoke Reason:	N.A.	**Group2:**	10622

Violation Detail

Oce Status:	Red Tag	**Manager:**	Justin Estes
Next Due Date:	2023-03-30 00:00:00	**Facility Count:**	2957
Override Due Date:		**Owner Count:**	1505
Oce Status:	Red Tag	**Manager:**	Justin Estes
Next Due Date:	2015-03-06 00:00:00	**Facility Count:**	2957
Override Due Date:		**Owner Count:**	1505

Additional Details

Event Seq:	1	**Last LDR:**	1996-07-14 00:00:00
Active USTs:	0	**Last GWS:**	
Lust Rep Came:		**Last PTT:**	
MGPTF Status:	EUD	**Activity:**	NFA
Priority:	0	**Start Date:**	1996-07-18 00:00:00
Event Started:	1995-09-29 00:00:00	**Closed Date:**	1996-07-18 00:00:00
Confirmed on:	1995-10-02 00:00:00	**Money Paid:**	0.0000
PM:	Heather Cochran		
Owner Name:	Murrill Triplett		
Owner Address1:	Rr 8 Box 329		
Owner Address2:			
Owner City:	Carthage		
Owner State:	MS		
Owner Zip:	39051		
Owner Phone No:	(601)267-4510		
Contractor Comp Name:			
Contractor Engineer:			
Contractor Phone No:			

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
2	1 of 1	NNW	0.15 / 799.83	393.97 / -4	Chevron 25/35 (UST Facility ID 10622) Carthage MS	SHWS

EPA ID No:		**RUAO/Order/BFA:**	
Agency Int No:		**Phase 1 Asses Dt:**	8/2/2022
Status State:	Active	**Typ of Remed Soil:**	
Status State Dt:		**Soil Contam:**	
Federal Status:		**Soil Rmdtion Desc:**	
Federal Status Dt:		**Surf Water Contam:**	
Discovery Dt:	8/2/2022	**Surf Wtr Remed:**	
Inst Cntrl Dt:		**SW Rmdtion Desc:**	
Grant Asses Dt:		**Grnd Wtr Contam:**	
Highest Conc:		**Size of Site Acres:**	7.36
Units:		**Project Manager:**	Wallace, Thomas
Voluntary Cleanup:		**County:**	Leake
Vol Cleanups Desc:		**Latitude:**	32.7711
Eng Control:		**Longitude:**	-89.53548
Grnd Wtr Remed:			
GW Remed Desc:			
Major Contaminant:	REC		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
3	1 of 1	SW	0.40 / 2,112.47	369.37 / -29	Brantley's Highway 35 North Carthage MS 39051	LUST

Facility ID:	10164
County:	Leake
Latitude Degree:	32
Latitude Minutes:	45
Latitude Seconds:	36.9000
Longitude Degree:	89
Longitude Minutes:	32
Longitude Seconds:	23.2300

Additional Details

Event Seq:	1	**Last LDR:**	
Active USTs:	0	**Last GWS:**	
Lust Rep Came:		**Last PTT:**	
MGPTF Status:	Federal	**Activity:**	NFA
Priority:	0	**Start Date:**	2008-09-29 00:00:00
Event Started:	2008-09-10 00:00:00	**Closed Date:**	2008-09-29 00:00:00
Confirmed on:		**Money Paid:**	2025.0000
PM:	Michael Usry		
Owner Name:	MGM Oil Inc		
Owner Address1:	PO Box 90		
Owner Address2:			
Owner City:	Lexington		
Owner State:	MS		
Owner Zip:	39095		
Owner Phone No:	(662)289-4103		
Contractor Comp Name:	WSP USA Inc. (Formerly EarthCon)		
Contractor Engineer:	Joe Ricker		
Contractor Phone No:	(601)853-2134		

Event Seq:	1	**Last LDR:**	
Active USTs:	0	**Last GWS:**	
Lust Rep Came:		**Last PTT:**	
MGPTF Status:	Federal	**Activity:**	New Site
Priority:	0	**Start Date:**	2008-09-10 00:00:00
Event Started:	2008-09-10 00:00:00	**Closed Date:**	2008-09-29 00:00:00
Confirmed on:		**Money Paid:**	2025.0000
PM:	Michael Usry		
Owner Name:	MGM Oil Inc		
Owner Address1:	PO Box 90		
Owner Address2:			
Owner City:	Lexington		
Owner State:	MS		
Owner Zip:	39095		
Owner Phone No:	(662)289-4103		
Contractor Comp Name:	WSP USA Inc. (Formerly EarthCon)		
Contractor Engineer:	Joe Ricker		
Contractor Phone No:	(601)853-2134		

Event Seq:	1	**Last LDR:**	
Active USTs:	0	**Last GWS:**	
Lust Rep Came:		**Last PTT:**	
MGPTF Status:	Federal	**Activity:**	Assessing
Priority:	0	**Start Date:**	2008-09-29 00:00:00
Event Started:	2008-09-10 00:00:00	**Closed Date:**	2008-09-29 00:00:00
Confirmed on:		**Money Paid:**	2025.0000
PM:	Michael Usry		
Owner Name:	MGM Oil Inc		
Owner Address1:	PO Box 90		
Owner Address2:			
Owner City:	Lexington		
Owner State:	MS		
Owner Zip:	39095		
Owner Phone No:	(662)289-4103		
Contractor Comp Name:	WSP USA Inc. (Formerly EarthCon)		
Contractor Engineer:	Joe Ricker		
Contractor Phone No:	(601)853-2134		

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
4	1 of 1	ENE	0.53 / 2,800.80	382.30 / -16	KK Trucking Carthage MS	SHWS

EPA ID No:		**RUAO/Order/BFA:**	
Agency Int No:	39187	**Phase 1 Asses Dt:**	
Status State:		**Typ of Remed Soil:**	
Status State Dt:		**Soil Contam:**	
Federal Status:		**Soil Rmdtion Desc:**	
Federal Status Dt:		**Surf Water Contam:**	
Discovery Dt:	5/15/2007	**Surf Wtr Remed:**	
Inst Cntrl Dt:		**SW Rmdtion Desc:**	
Grant Asses Dt:		**Grnd Wtr Contam:**	
Highest Conc:		**Size of Site Acres:**	
Units:		**Project Manager:**	
Voluntary Cleanup:		**County:**	Leake
Vol Cleanups Desc:		**Latitude:**	32.7730611111111
Eng Control:		**Longitude:**	-89.5241888888889
Grnd Wtr Remed:			
GW Remed Desc:			
Major Contaminant:			

Unplottable Summary

Total: 4 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
FINDS/FRS	LEAKE COUNTY BOARD OF SUPERVISORS, LEAKE COUNTY INDUSTRIAL SITE	PEARL STREET ***Registry ID:*** 110024591100	CARTHAGE MS	39051	816003618
FINDS/FRS	MISSISSIPPI BAND OF CHOCTAW INDIANS, CITY OF CARTHAGE WATER AND SEWER SYSTEM IMP	NORTH PEARL STREET ***Registry ID:*** 110044630441	CARTHAGE MS	39051	816006331
UST	William Settlemire Property	Sr 25 ***Facility ID:*** 12065	Carthage MS	39051	819742356
UST	William Settlemire Property	Sr 25 ***Facility ID:*** 12116	Carthage MS	39051	819742357

Unplottable Report

Site: ***LEAKE COUNTY BOARD OF SUPERVISORS, LEAKE COUNTY INDUSTRIAL SITE***
PEARL STREET CARTHAGE MS 39051

FINDS/FRS

Registry ID:	110024591100
FIPS Code:	28079
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	02-MAY-06
Update Date:	06-JAN-12
Interest Types:	STATE MASTER
SIC Codes:	1629
SIC Code Descriptions:	HEAVY CONSTRUCTION, NOT ELSEWHERE CLASSIFIED
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	
Tribal Land Name:	
Congressional Dist No:	
Census Block Code:	
EPA Region Code:	04
County Name:	LEAKE
US/Mexico Border Ind:	
Latitude:	
Longitude:	
Reference Point:	
Coord Collection Method:	
Accuracy Value:	
Datum:	NAD83
Source:	
Facility Detail Rprt URL:	https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110024591100
Data Source:	Facility Registry Service - Single File
Program Acronyms:	

MS-ENSITE:22925

Site: ***MISSISSIPPI BAND OF CHOCTAW INDIANS, CITY OF CARTHAGE WATER AND SEWER SYSTEM IMP***
NORTH PEARL STREET CARTHAGE MS 39051

FINDS/FRS

Registry ID:	110044630441
FIPS Code:	28079
HUC Code:	
Site Type Name:	STATIONARY
Location Description:	
Supplemental Location:	
Create Date:	05-JAN-12
Update Date:	
Interest Types:	STATE MASTER
SIC Codes:	
SIC Code Descriptions:	
NAICS Codes:	
NAICS Code Descriptions:	
Conveyor:	
Federal Facility Code:	
Federal Agency Name:	
Tribal Land Code:	

Tribal Land Name:
Congressional Dist No:
Census Block Code:
EPA Region Code: 04
County Name: LEAKE
US/Mexico Border Ind:
Latitude:
Longitude:
Reference Point:
Coord Collection Method:
Accuracy Value:
Datum: NAD83
Source:
Facility Detail Rprt URL: https://ofmpub.epa.gov/frs_public2/fii_query_detail.disp_program_facility?p_registry_id=110044630441
Data Source: Facility Registry Service - Single File
Program Acronyms:

MS-ENSITE:35710

Site: ***William Settlemire Property***
Sr 25 Carthage MS 39051

UST

Facility ID: 12065
Facility Name: William Settlemire Property
Address: Sr 25
City: Carthage
Zip: 39051
County: Leake
Owner Name: MS Department of Transportation
Latitude Degree:
Latitude Minutes:
Latitude Seconds:
Owner Name(Cap):
Data Source: MDEQ UST Facilities & Owners Information

Facility Name(Cap):
Facility Address(Cap):
Facility City(Cap):
Facility Zip(Cap):
Facility State(Cap):
Owner ID(Cap):
Longitude Degree:
Longitude Minutes:
Longitude Seconds:

Additional Details

Tank ID:
Tank Index: 1
Tank Status: Permanently Out of Use
Tank Capacity: 0
Tank Mat Desc: Unknown
Tank Mod Desc: None
Tank Types: Normal
Tank Emergency: False
Date Last Used: 1998-01-01 00:00:00
Date Closed: 1998-01-01 00:00:00
Closure Stat Desc: Removed from Ground
Substance: Unknown
Installed Tank Dt:
Overfill Type:
Small Delivery: False
Compartment No:
Overfill Prevention: No
Spill Prevention: No
Tank LD:

Pipe Index: 1
Pipe Status Desc: Permanently Out of Use
Pipe Install Dt:
Pipe Dt Last Used: 1998-01-01 00:00:00
Pipe Date Closed: 1998-01-01 00:00:00
Pipe Mat Desc: Unknown
Pipe Mod Desc: None
Pipe Manufacturer:
Pipe Type Desc:
Pipe CLS Status: Removed from Ground
Pipe LD: Not Listed
Alld Type:
Expr1:
Expr2:
Owner Address: Kim Swilley Environmental Division
Owner City: Jackson
Owner State: MS
Owner Zip: 39215
Owner Phone: (601)359-7111

Owner More Than 5 Tanks

No. of Tanks: 24
Owner Address: Kim Swilley Environmental Division
Owner City: Jackson
Owner State: MS
Owner Zip: 39215
Phone No.: (601)359-7111

Tank Info Bank

Owner ID:	1130032	***Spillprevention:***	No
Ownphone:	(601)359-7111	***Date Installed Tnk:***	
Ownaddr:	Kim Swilley Environmental Division	***Overfilltype:***	
Owncity:	Jackson	***Smalldelivery:***	False
Ownstate:	MS	***Tankemergen:***	False
Ownzip:	39215	***Tanktypes:***	Normal
O Name:	MS Department of Transportation	***Compartmentnumber:***	
Facility ID:	12065	***Pipe Index:***	1
Facname:	William Settlemire Property	***Pipe Install Date:***	
Locaddr:	Sr 25	***Pipe Status Desc:***	Permanently Out of Use
Loccity:	Carthage	***Pipe Mat Desc:***	Unknown
Loczip:	39051	***Pipe Mod Desc:***	None
Locstate:	MS	***Pipe Dt Closed:***	1998-01-01 00:00:00
County:	Leake	***Pipeclsstatus:***	Removed from Ground
Tank Capacity:	0	***Dt Last Used:***	1998-01-01 00:00:00
Tank Substance:	Unknown	***Pipe Id:***	Not Listed
Tank Index:	1	***Alld Type:***	
Tank Status:	Permanently Out of Use	***Pipe Type Desc:***	
Tankmatdesc:	Unknown	***Pipe Manufacturer:***	
Tankmoddesc:	None	***Latitude Degree:***	
Closurestatusdesc:	Removed from Ground	***Latitude Minutes:***	
Tank Date Closed:	1998-01-01 00:00:00	***Latitude Seconds:***	
Datelastused:	1998-01-01 00:00:00	***Longitude Degree:***	
Tankld:		***Longitude Minutes:***	
Overfillprevention:	No	***Longitude Seconds:***	

Site: ***William Settlemire Property***
Sr 25 Carthage MS 39051

UST

Facility ID:	12116	***Facility Name(Cap):***	
Facility Name:	William Settlemire Property	***Facility Address(Cap):***	
Address:	Sr 25	***Facility City(Cap):***	
City:	Carthage	***Facility Zip(Cap):***	
Zip:	39051	***Facility State(Cap):***	
County:	Leake	***Owner ID(Cap):***	
Owner Name:	MS Department of Transportation	***Longitude Degree:***	
Latitude Degree:		***Longitude Minutes:***	
Latitude Minutes:		***Longitude Seconds:***	
Latitude Seconds:			
Owner Name(Cap):			
Data Source:	MDEQ UST Facilities & Owners Information		

Additional Details

Tank ID:		***Pipe Index:***	1
Tank Index:	1	***Pipe Status Desc:***	Permanently Out of Use
Tank Status:	Permanently Out of Use	***Pipe Install Dt:***	
Tank Capacity:	0	***Pipe Dt Last Used:***	1998-01-01 00:00:00
Tank Mat Desc:	Unknown	***Pipe Date Closed:***	1998-01-01 00:00:00
Tank Mod Desc:	None	***Pipe Mat Desc:***	Unknown
Tank Types:	Normal	***Pipe Mod Desc:***	None
Tank Emergency:	False	***Pipe Manufacturer:***	
Date Last Used:	1998-01-01 00:00:00	***Pipe Type Desc:***	
Date Closed:	1998-01-01 00:00:00	***Pipe CLS Status:***	Removed from Ground
Closure Stat Desc:	Removed from Ground	***Pipe LD:***	Not Listed
Substance:	Unknown	***Alld Type:***	
Installed Tank Dt:		***Expr1:***	
Overfill Type:		***Expr2:***	
Small Delivery:	False	***Owner Address:***	Kim Swilley Environmental Division
Compartment No:		***Owner City:***	Jackson
Overfill Prevention:	No	***Owner State:***	MS
Spill Prevention:	No	***Owner Zip:***	39215
Tank LD:		***Owner Phone:***	(601)359-7111

Owner More Than 5 Tanks

No. of Tanks:	24
Owner Address:	Kim Swilley Environmental Division
Owner City:	Jackson
Owner State:	MS
Owner Zip:	39215
Phone No.:	(601)359-7111

Tank Info Bank

Owner ID:	1130032
Ownphone:	(601)359-7111
Ownaddr:	Kim Swilley Environmental Division
Owncity:	Jackson
Ownstate:	MS
Ownzip:	39215
O Name:	MS Department of Transportation
Facility ID:	12116
Facname:	William Settlemire Property
Locaddr:	Sr 25
Loccity:	Carthage
Loczip:	39051
Locstate:	MS
County:	Leake
Tank Capacity:	0
Tank Substance:	Unknown
Tank Index:	1
Tank Status:	Permanently Out of Use
Tankmatdesc:	Unknown
Tankmoddesc:	None
Closurestatusdesc:	Removed from Ground
Tank Date Closed:	1998-01-01 00:00:00
Datelastused:	1998-01-01 00:00:00
Tankld:	
Overfillprevention:	No
Spillprevention:	No
Date Installed Tnk:	
Overfilltype:	
Smalldelivery:	False
Tankemergen:	False
Tanktypes:	Normal
Compartmentnumber:	
Pipe Index:	1
Pipe Install Date:	
Pipe Status Desc:	Permanently Out of Use
Pipe Mat Desc:	Unknown
Pipe Mod Desc:	None
Pipe Dt Closed:	1998-01-01 00:00:00
Pipeclsstatus:	Removed from Ground
Dt Last Used:	1998-01-01 00:00:00
Pipe Id:	Not Listed
Alld Type:	
Pipe Type Desc:	
Pipe Manufacturer:	
Latitude Degree:	
Latitude Minutes:	
Latitude Seconds:	
Longitude Degree:	
Longitude Minutes:	
Longitude Seconds:	

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List: NPL

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: May 25, 2023

National Priority List - Proposed: PROPOSED NPL

Sites proposed by the United States Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: May 25, 2023

Deleted NPL: DELETED NPL

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: May 25, 2023

SEMS List 8R Active Site Inventory: SEMS

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the SEMS GIS/REST file layer obtained from EPA's Facility Registry Service.

Government Publication Date: Jul 26, 2023

SEMS List 8R Archive Sites: SEMS ARCHIVE

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

Government Publication Date: Jul 26, 2023

Inventory of Open Dumps, June 1985: ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

Comprehensive Environmental Response, Compensation and Liability Information System - CERCLIS: CERCLIS

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

EPA Report on the Status of Open Dumps on Indian Lands: IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

CERCLIS - No Further Remedial Action Planned: CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens: CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action: RCRA CORRACTS

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Jul 10, 2023

RCRA non-CORRACTS TSD Facilities: RCRA TSD

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by RCRA.

Government Publication Date: Jul 10, 2023

RCRA Generator List: RCRA LQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Jul 10, 2023

RCRA Small Quantity Generators List: RCRA SQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Jul 10, 2023

RCRA Very Small Quantity Generators List: RCRA VSQG

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Jul 10, 2023

RCRA Non-Generators: RCRA NON GEN

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Jul 10, 2023

RCRA Sites with Controls: RCRA CONTROLS

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Jul 10, 2023

Federal Engineering Controls-ECs: FED ENG

This list of Engineering controls (ECs) is provided by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents issued in fiscal years 1982-2021 for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 22, 2023

Federal Institutional Controls- ICs: FED INST

This list of Institutional controls (ICs) is provided by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents issued in fiscal years 1982-2021 for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Jun 22, 2023

Land Use Control Information System: LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

Government Publication Date: Sep 1, 2006

Institutional Control Boundaries at NPL sites: NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

Government Publication Date: May 25, 2023

Emergency Response Notification System: ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System: ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System: ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Apr 3, 2023

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database: FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

Government Publication Date: Sep 13, 2022

FEMA Underground Storage Tank Listing: FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan: FRP

This listing contains facilities that have submitted Facility Response Plans (FRPs) to the U.S. Environmental Protection Agency (EPA). Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs. Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments. This listing includes FRP facilities from an applicable EPA FOIA file and Homeland Infrastructure Foundation-Level Data (HIFLD) data file.

Government Publication Date: May 2, 2023

Delisted Facility Response Plans: DELISTED FRP

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: May 2, 2023

Historical Gas Stations: HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries: REFN

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

Government Publication Date: Mar 9, 2023

Petroleum Product and Crude Oil Rail Terminals: BULK TERMINAL

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

Government Publication Date: Jun 29, 2022

LIEN on Property: SEMS LIEN

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

Government Publication Date: Jul 26, 2023

Superfund Decision Documents: SUPERFUND ROD

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

Government Publication Date: Mar 23, 2023

Formerly Utilized Sites Remedial Action Program: DOE FUSRAP

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

Government Publication Date: Mar 4, 2017

State

CERCLA/Uncontrolled Sites File List: SHWS

CERCLA/Uncontrolled Sites File List made available by Mississippi Department of Environmental Quality (MDEQ). This list contains sites in Mississippi where there is the presence or potential presence of a hazardous substance, pollutant, or contaminant. This database is state equivalent CERCLIS.

Government Publication Date: Jul 19, 2023

Delisted CERCLA/Uncontrolled Sites File List: DELISTED SHWS

This database contains a list of closed hazardous substance, pollutant, or contaminant Sites that were removed from the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: Jul 19, 2023

Solid Waste Management Facilities Listing: SWF/LF

Solid Waste Management Facilities Listing made available by Mississippi Department of Environmental Quality (MDEQ). This is a list of facilities engaged in the storage, treatment, processing, or disposal of nonhazardous solid waste.

Government Publication Date: Jul 31, 2022

Solid Waste Facility Permits: SWF PERMIT

A list of Solid Waste Facility Permits made available by the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: May 26, 2023

Hurricane Katrina Debris Disposal Site Locations: DEBRIS

A list of sites for hurricane Katrina debris disposal, made available by Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: May 31, 2008

Leaking Underground Storage Tanks: LUST

A list of Leaking Underground Storage Tanks (LUSTs), made available by Mississippi Department of Environmental Quality (MDEQ). This list includes historical and current LUST incidents reported to MDEQ.

Government Publication Date: May 31, 2023

Delisted Leaking Storage Tanks: DELISTED LST

This database contains a list of closed leaking storage tank sites that were removed from the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: May 31, 2023

Underground Storage Tanks: UST

A list of Underground Storage Tanks (USTs), made available by Mississippi Department of Environmental Quality (MDEQ). This listing includes USTs from the MDEQ'S Groundwater Assessment and Remediation Division UST Program data reports, which also includes facilities that currently do not have any actively registered tanks, as well as tanks prohibited to receive product delivery.

Government Publication Date: May 31, 2023

Underground Storage Tank Permits: UST PERMIT

A list of Underground Storage Tank Permits made available by the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: May 26, 2023

Aboveground Storage Tanks: AST

A list of Aboveground Storage Tanks (ASTs) inspected by the Mississippi Department of Agriculture & Commerce (MDAC).

Government Publication Date: Jun 28, 2023

Underground Storage Tanks - Agriculture & Commerce: UST MDAC

A list of Underground storage Tanks inspected by the Mississippi Department of Agriculture & Commerce (MDAC).

Government Publication Date: Jun 28, 2023

Storage Tanks: TANK

A list of Unspecified Storage Tanks inspected by the Mississippi Department of Agriculture & Commerce (MDAC).

Government Publication Date: Jun 28, 2023

Delisted Storage Tanks: DTNK

This database contains a list of closed storage tank sites that were removed from the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: May 31, 2023

Voluntary Evaluation Program Sites: VCP

A list of reported uncontrolled sites managed by Mississippi Department of Environmental Quality (MDEQ). An uncontrolled site is a site, facility, plant, or location where hazardous or toxic wastes have been released into the environment and there is no federal environmental program which can handle the problem.

Government Publication Date: Jul 19, 2023

Uncontrolled Sites List Brownfields: BROWNFIELDS

A list of brownfields, made available by Mississippi Department of Environmental Quality (MDEQ). This list contains sites in Mississippi where there is the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Government Publication Date: Jul 19, 2023

Sites with Engineering Controls: ENG

List of sites on the Uncontrolled Sites File list where engineering controls (ECs) have been implemented. The Uncontrolled Sites File list is made available by the Mississippi Department of Environmental Quality (MDEQ), and contains sites in Mississippi where there is the presence or potential presence of a hazardous substance, pollutant, or contaminant.
Government Publication Date: Jul 19, 2023

Sites with Institutional Controls: INST
List of sites on the Uncontrolled Sites File list where institutional controls (ICs) have been implemented. The Uncontrolled Sites File list is made available by the Mississippi Department of Environmental Quality (MDEQ), and contains sites in Mississippi where there is the presence or potential presence of a hazardous substance, pollutant, or contaminant.
Government Publication Date: Jul 19, 2023

Tribal

Leaking Underground Storage Tanks on Tribal/Indian Lands: INDIAN LUST
This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 4, which includes Mississippi, is made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 20, 2023

Underground Storage Tanks on Tribal/Indian Lands: INDIAN UST
This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 4, which includes Mississippi, is made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 20, 2023

Delisted Tribal Leaking Storage Tanks: DELISTED INDIAN LST
Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 26, 2023

Delisted Tribal Underground Storage Tanks: DELISTED INDIAN UST
Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).
Government Publication Date: Apr 26, 2023

County

No County databases were selected to be included in the search.

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index: FINDS/FRS
The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the Environmental Protection Agency (US EPA).
Government Publication Date: Aug 18, 2022

Toxics Release Inventory (TRI) Program: TRIS
The U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of toxic chemicals from U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. There are currently 770 individually listed chemicals and 33 chemical categories covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual reporting forms for each chemical. Note that the TRI chemical list does not include all toxic chemicals used in the U.S. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.
Government Publication Date: Oct 19, 2022

PFOA/PFOS Contaminated Sites: PFAS NPL

This list of National Priorities List (NPL) and related Superfund Alternative Agreement (SAA) sites where PFOA or PFOS contaminants have been detected in water and/or soil is provided by the U.S. Environmental Protection Agency (EPA). EPA Disclaimer with FOIA file: Inclusion on the list does not necessarily mean that drinking water has been affected, nor does inclusion mean that anyone at the site has been exposed or is at risk for detrimental health effects.

Government Publication Date: Jun 15, 2023

Federal Agency Locations with Known or Suspected PFAS Detections: PFAS FED SITES

List of Federal agency locations with known or suspected detections of Per- and Polyfluoroalkyl Substances (PFAS), made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data. EPA outlines that these data are gathered from several federal entities, such as the Federal Superfund program, Department of Defense (DOD), National Aeronautics and Space Administration, Department of Transportation, and Department of Energy. The dates this data was extracted for the PFAS Analytic Tools range from March 2022 to April 2023. Sites on this list do not necessarily reflect the source/s of PFAS contamination and detections do not indicate level of risk or human exposure at the site. Agricultural notifications in this data are limited to DOD sites only. At this time, the EPA is aware that this list is not comprehensive of all Federal agencies.

Government Publication Date: Apr 24, 2023

SSEHRI PFAS Contamination Sites: PFAS SSEHRI

This PFAS Contamination Site Tracker database is compiled by the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents, and this is cited in the tracker. Locations for the Known PFAS Contamination Sites are sourced from the PFAS Sites and Community Resources Map, credited to the Northeastern University's PFAS Project Lab, Silent Spring Institute, and the PFAS-REACH team. Disclaimer: The source conveys the data undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Access the following source link for the most current information: https://pfasproject.com/pfas-sites-and-community-resources/

Government Publication Date: Oct 9, 2022

National Response Center PFAS Spills: ERNS PFAS

This Per- and Poly-Fluoroalkyl Substances (PFAS) Spills dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The National Response Center (NRC), operated by the U.S. Coast Guard, serves as an emergency call center that fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. Response center calls from 1990 to the most recent complete calendar year where there was indication of Aqueous Film Forming Foam (AFFF) usage are included in this dataset. NRC calls may reference AFFF usage in the "Material Involved" or "Incident Description" fields. Limitations: The data from the NRC website contain initial incident data that has not been validated or investigated by a federal/state response agency. Keyword searches may misidentify some incident reports that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS spills/release incidents.

Government Publication Date: Apr 15, 2023

PFAS NPDES Discharge Monitoring: PFAS NPDES

This list of National Pollutant Discharge Elimination System (NPDES) permitted facilities with required monitoring for Per- and Polyfluoroalkyl (PFAS) Substances is made available via the U.S. Environmental Protection Agency (EPA)'s PFAS Analytic Tools. Any point-source wastewater discharger to waters of the United States must have a NPDES permit, which defines a set of parameters for pollutants and monitoring to ensure that the discharge does not degrade water quality or impair human health. This list includes NPDES permitted facilities associated with permits that monitor for Per- and Polyfluoroalkyl Substances (PFAS), limited to the years 2007 - present. EPA further advises the following regarding these data: currently, fewer than half of states have required PFAS monitoring for at least one of their permittees, and fewer states have established PFAS effluent limits for permittees. For states that may have required monitoring, some reporting and data transfer issues may exist on a state-by-state basis.

Government Publication Date: May 1, 2023

Perfluorinated Alkyl Substances (PFAS) from Toxic Release Inventory: PFAS TRI

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a per- or polyfluoroalkyl (PFAS) substance included in the U.S. Environmental Protection Agency's (EPA) consolidated PFAS Master List of PFAS Substances. Encompasses Toxics Release Inventory records included in the EPA PFAS Analytic Tools. The EPA's TRI database currently tracks information on disposal or releases of 770 individually listed toxic chemicals and 33 chemical categories from thousands of U.S. facilities and details about how facilities manage those chemicals through recycling, energy recovery, and treatment.

Government Publication Date: Oct 19, 2022

Perfluorinated Alkyl Substances (PFAS) Water Quality: PFAS WATER

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated Master List of PFAS Substances.
Government Publication Date: Jul 20, 2020

PFAS TSCA Manufacture and Import Facilities: PFAS TSCA

The U.S. Environmental Protection Agency (EPA) issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. This list is specific only to TSCA Manufacture and Import Facilities with reported per- and poly-fluoroalkyl (PFAS) substances. Data file is sourced from EPA's PFAS Analytic Tools TSCA dataset which includes CDR/Inventory Update Reporting data from 1998 up to 2020. Disclaimer: This data file includes production and importation data for chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures in DSSTox. Note that some regulations have specific chemical structure requirements that define PFAS differently than the lists in EPA's CompTox Chemicals Dashboard. Reporting information on manufactured or imported chemical substance amounts should not be compared between facilities, as some companies claim Chemical Data Reporting Rule data fields for PFAS information as Confidential Business Information.
Government Publication Date: Jan 5, 2023

PFAS Waste Transfers from RCRA e-Manifest : PFAS E-MANIFEST

This Per- and Poly-Fluoroalkyl Substances (PFAS) Waste Transfers dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. Every shipment of hazardous waste in the U.S. must be accompanied by a shipment manifest, which is a critical component of the cradle-to-grave tracking of wastes mandated by the Resource Conservation and Recovery Act (RCRA). According to the EPA, currently no Federal Waste Code exists for any PFAS compounds. To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: • PFAS • PFOA • PFOS • PERFL • AFFF • GENX • GEN-X (plus the Vermont state-specific waste codes). Limitations: Amount or concentration of PFAS being transferred cannot be determined from the manifest information. Keyword searches may misidentify some manifest records that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS waste transfers.
Government Publication Date: Apr 9, 2023

PFAS Industry Sectors: PFAS IND

This Per- and Poly-Fluoroalkyl Substances (PFAS) Industry Sectors dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The EPA developed the dataset from various sources that show which industries may be handling PFAS including: EPA's Enforcement and Compliance History Online (ECHO) records restricted to potential PFAS-handling industry sectors; ECHO records for Fire Training Sites identified where fire-fighting foam may have been used in training exercises; and 14 CFR Part 139 Airports compiled from historic and current records from the FAA Airport Data and Information Portal. Since July 2006, all certificated Part 139 Airports are required to have fire-fighting foam onsite that meet certain military specifications, which to date have been fluorinated (Aqueous Film Forming Foam). Limitations: Inclusion in this dataset does not indicate that PFAS are being manufactured, processed, used, or released by the facility. Listed facilities potentially handle PFAS based on their industrial profile, but are unconfirmed by the EPA. Keyword searches in ECHO for Fire Training sites may misidentify some facilities and should not be considered to be an exhaustive list of fire training facilities in the U.S.
Government Publication Date: Apr 16, 2023

Hazardous Materials Information Reporting System: HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.
Government Publication Date: Sep 1, 2020

National Clandestine Drug Labs: NCDL

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.
Government Publication Date: Feb 8, 2023

Toxic Substances Control Act: TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Apr 11, 2019

Hist TSCA: HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.
The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing: FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing: FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List: PRP

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).

Government Publication Date: Jan 25, 2023

State Coalition for Remediation of Drycleaners Listing: SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRD no longer maintains this data, refer to applicable state source data where available.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS): ICIS

The Integrated Compliance Information System (ICIS) database contains integrated enforcement and compliance information across most of U.S. Environmental Protection Agency's (EPA) programs. The vision for ICIS is to replace EPA's independent databases that contain enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions and a subset of the Permit Compliance System (PCS), which supports the National Pollutant Discharge Elimination System (NPDES). This information is maintained by the EPA Headquarters and at the Regional offices. A future release of ICIS will completely replace PCS and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities that support compliance and enforcement programs, including incident tracking, compliance assistance, and compliance monitoring.

Government Publication Date: Jan 21, 2023

Drycleaner Facilities: FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. The EPA tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: Apr 15, 2023

Delisted Drycleaner Facilities: DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: Apr 15, 2023

Formerly Used Defense Sites: FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset.

Government Publication Date: Jul 12, 2022

FUDS Munitions Response Sites: FUDS MRS

Boundaries of Munitions Response Sites (MRS), published with the Formerly Used Defense Sites (FUDS) Annual Report to Congress (ARC) by the U.S. Army Corps of Engineers (USACE). An MRS is a discrete location within a Munitions response area (MRA) that is known to require a munitions response. An MRA means any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). This data is compiled from the USACE's Geospatial MRS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) MRS dataset.

Government Publication Date: Jul 12, 2022

Former Military Nike Missile Sites: FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents: PIPELINE INCIDENT

A list of flagged pipeline incidents made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types.

Government Publication Date: Dec 30, 2022

Material Licensing Tracking System (MLTS): MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites: HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File: MINES

The Master Index File (MIF) is provided by the United States Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

Government Publication Date: May 1, 2023

Surface Mining Control and Reclamation Act Sites: SMCRA

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This inventory contains information on the type and extent of Abandoned Mine Land (AML) impacts, as well as information on the cost associated with the reclamation of those problems. The data is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed. Disclaimer: Per the OSMRE, States and tribes who enter their data into eAMLIS (AML Inventory System) may truncate their latitude and longitude so the precise location of usually dangerous AMLs is not revealed in an effort to protect the public from searching for these AMLs, most of which are on private property. If more precise location information is needed, please contact the applicable state/tribe of interest.

Government Publication Date: Jun 13, 2023

Mineral Resource Data System: MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

DOE Legacy Management Sites: LM SITES

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Tile II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: May 25, 2023

Alternative Fueling Stations: ALT FUELS

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG), and Renewable Diesel (R20 and above) fuel type locations.

Government Publication Date: Aug 30, 2023

Superfunds Consent Decrees: CONSENT DECREES

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS) since 2010. CMS may not reflect the latest developments in a case nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Apr 19, 2023

Air Facility System: AFS

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

Registered Pesticide Establishments: SSTS

This national list of active EPA-registered foreign and domestic pesticide and/or device-producing establishments is based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that each producing establishment must place its EPA establishment number on the label or immediate container of each pesticide, active ingredient or device produced. An EPA establishment number on a pesticide product label identifies the EPA registered location where the product was produced. The list of establishments is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Mar 1, 2023

Polychlorinated Biphenyl (PCB) Transformers: PCBT

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

Polychlorinated Biphenyl (PCB) Notifiers: PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Mar 20, 2023

State

Dry Cleaning Facilities: DRYCLEANERS

A listing of dry cleaning facilities registered with the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: Mar 31, 2023

Delisted Drycleaners: DELISTED DRYCLEANERS

List of sites removed from the drycleaning facilities registered with the Mississippi Department of Environmental Quality (MDEQ).

Government Publication Date: Mar 31, 2023

Environmental Site Information System: ENSITE

List of sites found in the Mississippi Department of Environmental Quality (MDEQ) electronic environmental Site Information System (enSite). Includes sites under the following regulatory programs: Surface Water National Pollutant Discharge Elimination System (NPDES) Program, Air Title V, Construction and Operating Programs, Solid and Hazardous Waste Programs, Geology Surface Mining and Reclamation Division, and the Waste Tire Program.

Government Publication Date: May 26, 2023

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

APPENDIX E

CREDENTIALS

Steve E. Whitting, PG, CPG
Senior Geologist

PROFESSIONAL EXPERIENCE

Steve is a Senior Geologist and Authorized Project Reviewer in Terracon's Baton Rouge, LA, office. He has over 40 years of experience as a geologist with 30 years of experience in environmental consulting.

Steve's extensive experience includes agency interaction and planning, performing and managing Phase I and Phase II Environmental Site Assessments (ESA), Statewide Order 29-B and Risk-Elevation/Corrective Action Program (RECAP) site investigations, Remedial Investigation/Feasibility Studies, RCRA Facility Investigations, groundwater monitoring programs, soil, and groundwater remediation projects, and underground storage tank (UST) closures for governmental, commercial and industrial clients.

Steve has worked on multiple brownfield sites where he prepared Work Plans/Quality Assurance Project Plans (QAPPs) and was the Quality Assurance Manager (QAM) during plan implementation. As an Authorized Project Reviewer (APR), he is responsible for assuring compliance with Terracon's Project Quality Manual (PQM) requirements. The PQM defines Terracon's project quality management processes, consistent with our Quality Program Manual, for the processes, tasks, and deliverables associated with projects performed by the company.

In 2011, Steve was recognized by the Environmental Protection Agency (EPA) and the Louisiana Department of Environmental Quality (LDEQ) for his role in the successful implementation of remedial activities at the Shell Chemical, LP Norco Plant that resulted in a "Ready for Re-use" determination for the 103-acre plant.

REPRESENTATIVE CHLORINATED SOLVENT SITE PROJECTS

Agracel, Inc. - Former Core's Cleaners, 1000 Highway 190 Business, Covington, LA – 4/2022 to present

As Senior Geologist and Project Manager, Steve prepared the Voluntary Remedial Investigation Application and Work Plan and has directed the ongoing site investigation of a former on-site dry cleaner. Following completion of a RECAP Evaluation, Steve will prepare a Voluntary Remedial Action Plan and assist the client in obtaining a Certificate of Completion for the site.

Multiple Clients - Former KFC/One Hour Martinizing, 702 Metairie Road, and Oakridge Place Shopping Center, 800 Metairie Road in Metairie, LA - 3/2014 to present

Prior to joining Terracon, Steve directed the remediation of chlorinated solvents utilizing sodium permanganate and persulfate injection coupled with multi-phased extraction at the former One Hour Martinizing dry cleaner site at 702 Metairie Road in Metairie, LA. Conducted post-remediation confirmatory sampling and additional delineation requested by LDEQ. Since 2022, Steve has served as a Senior Consultant to Stirling Properties, the owner of the adjoining Oakridge Place Shopping Center which was impacted by the chlorinated solvent plume. Steve provides technical and regulatory advice as the owners seek to obtain a Certificate of Completion under LDEQ's Voluntary Remediation Program.

EDUCATION

Bachelor of Science, Geology, University of Arkansas at Fayetteville, 1978

REGISTRATIONS

American Institute of Professional Geologists CPG No. 8561
Professional Geologist:
Louisiana No. 346
Tennessee No. TN1529
Arkansas No. 487
Mississippi RPG No. 0733

CERTIFICATIONS & TRAINING

EPA Region 6 QA Quality Project & Program Management Training

CPT-pro/SEISMIC-pro Software Training

EarthSoft EQuIS Database Training
ASTM E1903-11 Phase II ESA Assessor Training

ASTM E2600-10 Vapor Encroachment Screen Training

Principal Consultant for Remediation Design/Construction, PSI

Principal Consultant for Phase II/III ESAs, PSI

RECAP 101 and Advanced RECAP Workshops, LDEQ

Principal Consultant for Phase I ESAs, PSI

Project Manager Certification Program (PMCP)

Underground Storage Tank Rules and Regulations Training, LDEQ

Steve E. Whitting, PG, CPG (continued)

Victory Real Estate Investments – Katy's Cleaners, 4041 Williams Blvd, Kenner, LA – 2/2006 to 8/2006* and 6/2023 to present
Prior to joining Terracon, Steve provided technical correspondence to LDEQ regarding the Management Option 2 RECAP Evaluation. After becoming reinvolved with the site in 2023, Steve developed a corrective action approach utilizing anerobic bioremediation for targeted remediation of chlorinated solvents at an isolated "hot spot" that exceeded the site Limiting RECAP Standard. He also prepared a cost analysis showing the economic benefit of remediation verses indefinite-term monitoring.

McDonald's – 2220 S. Sherwood Forest Blvd, Baton Rouge, LA - 3/2014 to 12/2016*
Directed a Phase II ESA/RECAP Site Investigation and prepared a Corrective Action Plan for remediating chlorinated solvent contamination from an off-site dry cleaner utilizing a slurry wall at the property boundary and on-site oxidant injection at the McDonalds restaurant at 2220 S. Sherwood Forest Blvd. in Baton Rouge, LA.

REPRESENTATIVE OILFIELD SITE PROJECTS

Jones, Swanson, Huddell & Garrison, LLC – Hero Lands Company, LLC V. Chevron USA, Inc. | Plaquemines Parish, LA – 1/4/2022 to 5/26/2022
Reviewed consultant's reports for compliance with Statewide Order 29-B and RECAP sampling and reporting requirements and furnished expert opinions/recommendations and testimony concerning findings and path forward. Developed a Most Feasible Plan for remediation of petroleum hydrocarbons, metals, and chloride-impacted soil and groundwater utilizing excavation and a recovery trench system.

East Baton Rouge Parish School System – Proposed School Site | Baton Rouge Parish, LA – 1/7/2022 to 3/11/2022
Steve performed a Limited Site Investigation of the 33-acre site for the proposed school on South Reitz Avenue. An abandoned salt-water disposal well was located on the property, and a former oil and gas facility with a tank battery was on the south adjoining property. Directed soil and groundwater sampling and analysis for Statewide Order 29-B and RECAP parameters analysis and evaluated results.

Gold King Realty – Former Jennings Holdings, LLC Siegen Oil Field Location | Baton Rouge, LA – 3/30/2021 to present
Steve performed third-party oversight of the subsurface investigation of a former oil and gas facility located on the north side of Interstate 10, approximately 0.5 miles northwest of Siegen Lane in Baton Rouge, LA. He reviewed the consultant's reports for compliance with Statewide Order 29-B and RECAP sampling and reporting requirements and furnished expert opinions/recommendations concerning findings and the path forward.

'Confidential Client' – Office of Conservation Legacy Project | East Baton Rouge Parish, LA – 8/1/2019 to 9/27/21
Steve provided third-party oversight of the subsurface investigation of a former oil and gas facility in East Baton Rouge Parish. He reviewed the consultant's reports for compliance with Statewide Order 29-B and RECAP sampling and reporting requirements and furnished expert opinions/recommendations concerning findings and the path forward.

MSHA Certificate of Training for Surface, Non-metal Mining Operations

The Technique of Professional Geological Witnessing with Emphasis on Louisiana Oil and Gas Matters

Applied Geostatistics

Effective Supervisory Management Training

Underground Storage Tank Seminar, LDEQ

OSHA 29 CFR 1910.120

HAZWOPER, Supervisor

AFFILIATIONS
Baton Rouge Geological Society – Past Vice President, President, and Director

American Institute of Professional Geologists – Past President, Louisiana Section

WORK HISTORY
Terracon Consultants, Inc., Environmental Department Manager, 2019-Present

Professional Service Industries, Inc. (PSI), Regional Geologist, 2006-2019

URS, Senior Project Manager, 2001-2006

C-K Associates, Inc., Managing Partner/Senior Project Manager, 1990-2001

Southwestern Laboratories, Inc., Hydrogeologist/Laboratory Supervisor, 1984-1990

Cooper Consultants, Inc., Project Geololgist, 1980-1983

Woodward-Clyde Consultants, Geologic Technician, 1979-1980

* *Work performed prior to joining Terracon.*

REPRESENTATIVE BROWNFIELDS PROJECTS

City of Alexandria Generic QAPP for Brownfields Projects, Alexandria, LA – 1/2022
QA/QC Reviewer. Steve reviewed the plan and utilized the QAPP Review Checklist to ensure conformance with the requirements of EPA QA/R5. The QAPP was prepared to document the planning, implementation, and assessment procedures of and how specific QA and QC activities will be applied during the performance of Brownfields projects.

Jefferson Parish Department of Environmental Affairs Brownfields Program, Jefferson Parish, LA - 2/2012 to 9/2013*
Prepared a Work Plan/QAPP to acquire information necessary to support a RECAP Evaluation of the Former Davis Concrete Site and Lot C Jefferson Parish, LA. Served as the Quality Assurance Manager (QAM) and was responsible for the conformance of project activities with requirements to laboratory Standard Operating Procedures (SOPs), the QAPP, and applicable EPA Quality Control (QC) guidelines.

Jefferson Parish Department of Environmental Affairs Brownfields Program, Jefferson Parish, LA - 7/2012 to 7/2013*
Prepared a Work Plan/QAPP to acquire information necessary to support a Management Option 2 (MO-2) RECAP Evaluation of the Lowery Brothers Rigging Center, Jefferson Parish, LA. Served as QAM and was responsible for the conformance of project activities with requirements to laboratory SOPs, the QAPP, and applicable EPA Quality QC guidelines.

REPRESENTATIVE PHASE I & II ENVIRONMENTAL SITE ASSESSMENT / LIMITED SITE INVESTIGATION PROJECTS

Chase Bank – Multiple Locations in Louisiana, 3/2019 to present
As Environmental Professional, directs Phase I Environmental Site Assessments on multiple commercial sites in Louisiana. Provided technical consultation in the identification of RECs and development of recommendations.

East Baton Rouge Council on Aging – Suburb Gracie/Riddick, Baton Rouge, LA - 9/2019 to 1/2020
Directed a Limited Site Investigation (LSI) of two vacant lots to investigate on and off-site Recognized Environmental Conditions (RECs) associated with former on-site and off-site drycleaning operations.

Stantec Consulting Services, Inc., Baton Rouge, LA - 10/2017 to 5/2018*
Prepared Sampling and Analyses Plan and Quality Assurance Project Plan (QAPP) for the Phase II ESA of the 21.3-acre former Central Wastewater Treatment Plant located at 2443 River Road in Baton Rouge, LA. He directed the Phase II ESA, which included the advancement of multiple soil borings utilizing "direct-push" technology and collecting soil and groundwater samples for laboratory analyses. He provided consultation, technical assistance, and review of the Phase II report.

Sysco Corporation, Broussard, LA – 2/2016 to 4/2016*
He directed Phase II ESA of the 57-acre Doerle Food Services facility in Broussard, LA. Activities included a ground-penetrating radar survey to locate underground utilities, a camera study to determine what lines are connected to the oil-water separator (OWS) and potential OWS systems, and the advancement of multiple soil borings utilizing "direct-push" technology and collection of soil and groundwater samples for laboratory analyses and provided consultation, technical assistance, and review of the Phase II ESA report.

Jacobs-CSRS, New Orleans, LA - 3/2013 to 8/2015*
Directed Phase II Environmental Site Assessment services for lead in shallow soils, vertical and horizontal delineation of impacted soils, and preparation and implementation of a Corrective Action Plan for the redevelopment of the Avery Alexander School located at 5800 St. Roch Avenue, New Orleans, Louisiana.

REPRESENTATIVE RISK-BASED CORRECTIVE ACTION (RECAP) PROJECTS

Community School for Apprenticeship Learning – CSAL ChoctawFormer, Baton Rouge, LA - 5/2019 to 9/2019

Directed LSI of proposed CSAL Choctaw campus at former UST site/auto repair facility. Prepared RECAP-compliant Site Investigation Work Plan (SIWP) to address exceedances of RECAP Screening Standards and provided oversight during the implementation of the SIWP. Provided technical and regulatory guidance while preparing Management Option 1 (MO-1) RECAP Evaluation Submittal to LDEQ and obtained a No Further Action (NFA) status for the site.

Ascension Parish Government, Gonzales –, LA 12/2010 to 8/2011*

Directed Phase II ESA and RECAP Site Investigation and prepared MO-1 RECAP Evaluation of diesel fuel aboveground storage tank site for planned South Louisiana Fairgrounds expansion. The Phase II ESA and RECAP Site Investigation included the advancement of multiple soil borings utilizing "direct-push" technology and collecting soil and groundwater samples for laboratory analyses. The RECAP Evaluation established site-specific RECAP Standards (RS) that protected human health and the environment, resulting in a "No Further Action" determination by the LDEQ.

New Orleans BioInnovation Center, New Orleans, LA - 9/2008 to 7/2009*

Steve prepared MO-2 RECAP Evaluation and Corrective Action Plan for UST Closures. The RECAP Evaluation utilized data gathered during a Phase II ESA and RECAP Assessment to establish site-specific RECAP Standards that protected human health and the environment, resulting in a "No Further Action" determination by the LDEQ.

REPRESENTATIVE UNDERGROUND STORAGE TANK PROJECTS

Salco Construction, Inc. – Former Jeff Cobb Auto Works, Baton Rouge, LA - 9/2019 to 3/2020

Directed waste characterization sampling of stockpiled soils from a former UST tank hold and prepared RECAP-compliant Soil Reuse Plan for submittal to the LDEQ.

Boos Development, Super Discount Zone Former Jubilee #4811 - 2007 to 2009*

Prepared UST Closure Assessment for planned CVS pharmacy.

REPRESENTATIVE REMEDIATION PROJECT

Juban Land Holdings, LLC – Former Louisiana State Police Firing Range, Walker, LA - 9/2017 to 2/2022

Before joining Terracon, he directed the LDEQ-mandated Groundwater Characterization Study at 142-acre former Louisiana State Police Firing Range in Walker, LA. The study included the installation of multiple permanent groundwater monitoring wells in three Areas of Investigation; groundwater sampling and analyses for lead, semivolatiles, and explosives; potentiometric surface mapping; and development of Management Option 1 (MO-1) RECAP Standards and potential remedial options and costs. He prepared the Corrective Action Plan (CAP) for the remediation of lead-impacted soils. Since joining Terracon, provided remedial oversight and client/agency liaison during the implementation of the CAP and prepared the Corrective Action Report (CAR) for submittal to LDEQ. Based on the CAR, the site was granted No Further Action At This Time Status.

REPRESENTATIVE GROUNDWATER MONITORING PROJECTS

Plaquemine Remediation Service, LLC, Bayou Sorrel, LA - 2/2019 to present

Guides development and provides technical review of the Annual Groundwater Monitoring Report, which summarizes all groundwater activities for the preceding calendar year for 17 monitoring wells/piezometers. The report includes an evaluation of the monitoring strategy in relation to the direction of groundwater flow and locations of wells associated with the facilities." The report also documents sampling activities, quality assurance/quality control evaluation, explanation of data, potentiometric and isopleth maps, and presentation of analytical data summaries.

Motiva Enterprises/Shell Chemical, Norco, LA – 2006 to 2014*

Client Manager/Principal Consultant for all groundwater monitoring programs at the Norco, Louisiana refinery (2006-2014).

ChevronTexaco Pascagoula Refinery – 8/2004 to 5/2005*
Served as on-site Senior Geologist on multiple projects, including geotechnical investigations for planned expansions, new compliance monitoring wells installed, and plugging and abandonment of over 200 monitoring wells (August 2004 to May 2005).

MISCELLANEOUS

Jefferson Parish Department of Environmental Affairs, Jefferson Parish, LA – 8/2016 to 7/2018*
He developed a Remedial Action Plan to repair a Leachate Aeration Pond at the Jefferson Parish Sanitary Landfill. The scope of services included replacing the HDPE liner and underlying clay liner as necessary. He provided project management and technical support during repair activities.

ExxonMobil LNG Project FERC Permitting – 3/2004*
He prepared LDNR permit applications for multiple injection wells at two sites.

Kyle M. Little, RPG

Senior Staff Scientist

EDUCATION
Bachelor of Science, Professional Geology, Mississippi State University, 2016

CERTIFICATIONS
Registered Professional Geologist
Mississippi Cert. No. 1000

WORK HISTORY
Terracon Consultants, Inc., August 2021 – present

Allen Engineering & Science 2017 – 2021

Ergon, Inc. 2014 – 2015

AFFILIATIONS
Mississippi Geological Society

PROFESSIONAL EXPERIENCE

Kyle Little has provided environmental assessments, compliance, and remediation services to clients for over 7 years. Based in Terracon's Ridgeland, Mississippi office, Kyle manages projects throughout Mississippi.

His experience ranges from performing technical field work to project management. His projects have included: environmental compliance management at a variety of industrial facilities; Phase I and Phase II ESAs at commercial and industrial sites throughout Mississippi; EPA Brownfield Assessment and Cleanup grants; Asbestos-Containing Material (ACM) inspection and abatement projects; Lead-Based Paint inspections; indoor air quality assessments; Spill Prevention Control and Countermeasure (SPCC) plans; Subsurface vapor monitoring at commercial sites; Gas and groundwater monitoring well installations; Regulatory reporting for landfill gas, leachate, stormwater, and groundwater; and regular environmental inspections at various lumber mills, paper mills, landfills, and other industrial sites across Mississippi.

Kyle is an environmental project manager with Terracon. This includes regularly communicating with clients and subcontractors, preparing scopes of work and project budgets, and working throughout the project to ensure budgets and deadlines are met.

PROJECT EXPERIENCE

MacroSource, Greenville, MS
Mr. Little served as field geologist from 2021 – 2023. He has performed groundwater, surface water, and surficial soil sampling at the site. He also managed an emergency response to a pot ash spill in Lake Ferguson in October 2022.

Former 25/35 Chevron, Carthage, MS
Mr. Little completed Phase I and Phase II ESAs in August and September of 2022 at this facility for the Leake County Development Association (LCDA). This work included assessment and delineation of potential contamination around the on-site fueling equipment. He included the LCDA as a beneficiary under MDEQ's Brownfield Target Assessment Program in October 2022 to cover costs associated with Underground Storage Tank (UST) removal and closure at this site. In May 2023, Mr. Little oversaw the UST Removal and Closure, as well as remediation of sludge within the UST bed.

International Paper, Redwood, MS
Mr. Little managed this facility's water and solid waste environmental compliance from 2017 to 2021. Tasks included monthly, bi-monthly, semi-annual, and annual compliance monitoring and reporting to support the mill's National Pollutant Discharge and Elimination System (NPDES) permits, solid waste permit, and SPCC plan.

Quad County Landfill, Byhalia, MS
Mr. Little managed this facility's water and solid waste environmental compliance from 2017 to 2021. Tasks included monthly, bi-monthly, semi-annual, and annual compliance monitoring and reporting to support the landfill's National Pollutant Discharge and Elimination System (NPDES) permit, solid waste permits, and SPCC plan. He generated the MDEQ-approved Methane Monitoring Plan for this landfill, installed all groundwater and landfill gas monitoring wells, established groundwater Upper Prediction Limits (UPLs), and laid the foundation for environmental compliance during early stage's of this landfill's construction of its municipal waste cells.

L. Andy Polk

GEOLOGIST / ENVIRONMENTAL SPECIALIST

PROFESSIONAL EXPERIENCE

Andy Polk is a geologist in Terracon's Jackson, Mississippi office. He provides full field services, ranging from asbestos investigations and environmental assessments to regulatory compliance studies and remediation system operation and maintenance.

Andy has conducted asbestos and lead-based paint inspections for clients such as Mississippi Department of Transportation, Mississippi Department of Environmental Quality, commercial developers and national financial institutions.

He provides field supervision for large remediation projects, responsible for field management decisions and informed, logical sample collection locations and procedures. His experience includes numerous types of field equipment such as: air monitoring equipment and sampling pumps, water level meters, oil/water interface probes, dissolved oxygen and oxidation/reduction potential meters, pH, temperature, conductivity and turbidity meters, photo ionization detectors as well as other specialized field meters. Andy's unsurpassed attention to detail and accurate equipment calibration ensures accurate field data collection.

Andy routinely oversees all aspects of the drilling and sampling process for environmental assessments to include collection of soil and groundwater samples. He has performed drilling and groundwater sampling throughout Mississippi, Louisiana and Tennessee and has experience with these states sampling techniques and methods.

Education

Bachelor of Science
Geology; Minor in Mathematics
University of Texas at Arlington
2002

Certifications

AHERA Asbestos Inspector
MDEQ Asbestos Inspector
(No. ABI-00001298)

MDEQ Certified to Permanently Close USTs

OSHA 29 CFR.1910.120 Training for HAZWOPER 45-hour Hazardous Waste Operations

Mine Safety & Health Safety Training

Work History

Terracon Consultants, Inc.
2009 – Present

Aquaterra Engineering, LLC
2003 – 2009

Tom Griffith Environmental Drilling Services
1998 – 1999

PROJECT EXPERIENCE

Regions Bank, sites throughout Mississippi

Andy has performed asbestos surveying for various Regions Bank sites throughout Mississippi. Terracon conducts Phase I ESA, business environmental risk considerations, asbestos, lead and mold-related services for this national client.

Wal-Mart Stores – site throughout Mississippi

Andy has conducted asbestos surveying for Wal-Mart sites throughout Mississippi. Terracon conducts Phase I ESA, asbestos, mold-related and subsurface investigation services for this national client.

Illinois Central Rail Road; Greenwood Yard – Greenwood, Mississippi

Andy has provided field remediation services for this project since it was initiated. The site consists of an approximate 2-mile rail road corridor and the associated Greenwood yard. Terracon performed a Phase I Environmental Site Assessment (ESA) of the site and identified 8 on-site and 9 off-site Recognized Environmental Conditions (REC's). These REC's consisted of the locomotive fueling area, a direct truck to locomotive fueling area, depot heating plant, lead based paint and several petroleum based REC's off-site. Based on our performance during the Phase I ESA, Terracon was awarded the Phase II ESA. Andy is monitoring contaminants from off-site REC's and corresponding with our client regarding the most appropriate methods of providing remediation services.

Illinois Central Rail Road, Derailment – Gallman, Mississippi

Andy provided environmental field services for this project. The site consists of an approximate 1.0-acre area along and adjacent to the main line rail corridor just outside Gallman, Mississippi. During a derailment, several railcars loaded with molten sulfur were damaged, resulting in a leak of approximately 25,000 gallons of liquid sulfur. Several follow-up sampling events were completed to establish the success of the remedial efforts. Subsequent to the initial cleanup immediately after the derailment, Andy became involved in the delineation, remediation and follow up monitoring were completed without the need to shut-down rail activity on the adjacent main line.

Jim W. Baxter

Regional Services Specialist/Senior Ecologist

PROFESSIONAL EXPERIENCE

Jim is a Senior Ecologist in the Atlanta Office. Project duties include jurisdictional waters delineations, Section 404 permitting, threatened and endangered species habitat assessments and surveys, state waters guidance, stream buffer variance applications, guidance for mitigation banking, and Phase I Environmental Site Assessments (ESA). He is a lead reviewer for natural resource work and oversees various ecological projects throughout the southeast.

Historical experience includes jurisdictional waters development planning and guidance throughout the southeastern United States, including coordination with United States Army Corps of Engineers (USACE) districts in Georgia, Florida, Tennessee, Arkansas, Virginia, Alabama, Louisiana, North Carolina, and South Carolina. Jim's historical experience includes forest ecology and wildlife management activities, including completing a Georgia Warnell School of Forest Resources research study on timberland valuation and management throughout Georgia. Additionally, He has performed biological assessments for threatened and endangered species, including the Indiana bat, gopher tortoise, red-cockaded woodpecker, and various plant species.

PROJECT EXPERIENCE

TRANSPORTATION

Post Road/ State Route 371 Project

Project Manager for ecology services associated with widening a six-mile corridor along State Route 371 in Cumming, Forsyth County, Georgia. The project was performed to the Georgia Department of Transportation (GDOT) Environmental Procedures Manual (EPM) standards. A wetland delineation, state waters review, threatened and endangered (T&E) species study and other applicable environmental surveys were performed. Site plans were reviewed to prepare a Clean Water Act (CWA) Section 404 permit with the USACE and stream buffer variance with the Georgia Environmental Protection Division (GEPD). T&E studies included a complete habitat study for protected bats, an aquatics survey, and a presence/absence survey for the Georgia aster.

Matt Highway/ State Route 369 Project

Project Manager for ecology services involved with a road widening of State Route 369 at the Forsyth/Cherokee County line in Cumming, Georgia. The project was performed to the standards of the GDOT EPM. A wetland delineation, state waters review, T&E species study, and other applicable environmental surveys were conducted. Site plans were reviewed to prepare a CWA Section 404 permit. T&E studies included a full habitat study for protected bats and a presence/absence survey for the White Fringeless Orchid.

EDUCATION

Master of Forest Resources, University of Georgia, 2002

Bachelor of Science, University of the South, Natural Resources, 2000

TRAINING

Wetland Delineation Field Methods – Environmental Services, Inc. In-house Training Program, 2005

Plant ID: Wetlands & Their Bodies – Institute for Wetland & Environmental Education and Research, Inc., 2008

Section 7 Endangered Species Interagency Consultation – Duncan & Duncan Wetland & Endangered Species Training, 2011

16 Hour USACE Regional Supplement Wetland Delineation Training – Richard Chinn Environmental Training, Inc., July 2018

AFFILIATIONS

Society of Wetland Scientists
Society of American Foresters

Jim W. Baxter (continued)

Additional Transportation Projects
Project Manager on numerous additional GDOT projects in Fulton, Forsyth, Gwinnett, and Dekalb Counties. Project types included road expansion, road widening, side expansion/improvement, and intersection expansion/improvement. The scope of services on these projects included ecology work as described in the two complex projects above.

TRANSMISSION LINE

Roundtop Road Site – Ellijay, GA
Project Manager for ecology services involved in constructing a 17-mile transmission corridor. The project required a full Indiana bat and Northern long-eared bat habitat assessment.

Results were utilized to perform mist netting and acoustic monitoring at the site. Formal consultation with the USFWS led to a finding of not likely to affect bat species adversely.

TELECOMMUNICATIONS

Proposed Telecommunications Tower Sites – Southeast
Project Manager for numerous proposed telecommunications tower sites across the southeast. Ecology services include wetland delineation and permitting, state waters guidance, Indiana bat surveys, and protected species habitat assessments. Agency coordination for mitigation involved ecological impacts on numerous sites where avoidance is not achievable. Has completed nest surveys and monitoring projects for protected bird species at tower sites throughout the United States. Site analysis for species includes osprey, hawk species, bald eagle, and numerous migratory songbirds.

COMMERCIAL

Proposed Commercial Sites - Southeast
Project Manager for ecology services involved with the construction of various commercial projects throughout the southeast, including projects in Georgia, Alabama, Florida, Arkansas, Virginia, Mississippi, Louisiana, and South Carolina. These projects required a wetland delineation, threatened and endangered species survey, migratory bird surveys, and Section 404 permitting (as applicable). State variance approvals for water impacts and buffer zones were also performed in certain cases.

Proposed Data Center Sites – Southeast
Project Manager for ecology services involved with the construction of proposed data centers primarily in the state of Georgia. These projects required a wetland delineation, threatened and endangered species survey, migratory bird surveys, cultural resource surveys, tree surveys and Section 404 permitting (as applicable). State variance approvals for water impacts and buffer zones were also performed in certain cases. Assissted with SDD and permitting compliance portions of numerous projects.

RENEWABLE ENERGY

Proposed Solar Farm Sites – Southeast
Project Manager for ecology services involved with constructing solar farms throughout the southeast, including projects in Georgia, Alabama, Florida, Arkansas, Virginia, Mississippi, Louisiana, and South Carolina. These projects required a wetland delineation, threatened and endangered species survey, migratory bird surveys, and Section 404 permitting (as applicable). Land area studies included proposed solar farm footprint, transmission corridors, and substation locations for interconnection.

David Brunet

Wetland Specialist

PROFESSIONAL EXPERIENCE

David Brunet has more than 22 years of experience as a wetlands consultant. He has conducted fieldwork associated with wetland delineations and Coastal Use Permits. He performed various rare and endangered species surveys and habitat surveys for multiple projects.

For four years, David served as the Environmental Program Manager / Coastal Zone Administrator for the St. Tammany Parish Government. In this role, he was responsible for reviewing all local Coastal Use Permits for compliance with local and state regulations and issuing permits as appropriate. He ensured that all parish projects followed local, state, and federal environmental permits and assisted various state and federal agencies in data collection efforts on the Pearl River System in St. Tammany Parish.

While in this role, he led several notable efforts to increase environmental and coastal awareness:

- Produced St. Tammany Parish's first Coastal Master Project List for prioritizing coastal restoration projects.
- Led the effort to start the first local government-owned wetland mitigation bank and led the effort to begin a parish environmental education program in the local school system.
- Led the effort to begin a beneficial use of dredge material program for St. Tammany Parish to help with Coastal Restoration.
- Served as a citizen representative on the Lower Pearl River Ecosystem Study Commission started by the LA Legislature.

PROJECT EXPERIENCE

Goodson, Wetland Delineation, Slidell, LA
Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination. The project size was 60 acres.

Goodson, Wetland Delineation, Slidell, LA
Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination. The project size was 85 acres.

Hollingshead, Wetland Delineation and Permits, Lacombe, LA
Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as all the permitting (Corps of Engineers (Section 10 and 404), Scenic Rivers, Coastal Use, State Lands, local, etc.) required to construct a residence, boathouse, and dock. The project size was 1.5 acres.

Planche Estates, Wetland Delineation and Permits, Covington, LA
Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as all the permitting (Corps of Engineers (Section 10 and 404), Coastal Use, State Lands, local, etc.) required to construct a residential subdivision. The project size was 180 acres.

Herberger, Wetland Delineation and Permits, Goodbee, LA
Environmental Consultant. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as all the permitting (Corps of Engineers (Section 10 and 404), Coastal Use, State Lands, local, etc.) required to construct a residential subdivision. The project size was 260 acres.

EDUCATION

Master of Science, Biology, Northeast Louisiana University (currently University of Louisiana at Monroe), 1995

Bachelor of Science, Biology, Northeast Louisiana University (currently University of Louisiana at Monroe), 1994

WORK HISTORY

Terracon, 2022 – present

Brunet Wetland Consulting, Wetland Consultant/ Environmental Specialist, 2004 – 2022

St. Tammany Parish Government, Department of Engineering, Environmental Program Manager, Coastal Zone Administrator, 2013 - 2017

AQ Construction, Environmental Specialist / Field Engineer, 2012 - 2013

**Work performed while working for another employer*

SEFL Jackson, Wetland Delineation and T&E Assessment, Jackson, MS
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a commercial development. The project size was 35.4 acres.

SEFL Bossier, Wetland Delineation and T&E Assessment, Bossier City, LA
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a commercial development. The project size was 28 acres.

SR Winnsboro, Wetland Delineation, Permit Matrix, and T&E Assessment, Winnsboro, LA
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 70 acres.

SR Arcadia, Wetland Delineation, Permit Matrix, and T&E Assessment, Arcadia, LA
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 55 acres.

Hecate, Wetland Delineation, Permit Matrix, and T&E Assessment, Tallullah, LA
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 7,500 acres.

Caddo Parish solar, Wetland Delineation, Permit Matrix, and T&E Assessment, Bossier City, LA
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 2,562 acres.

Caddo Parish solar, Wetland Delineation, Permit Matrix, and T&E Assessment, Bossier City, LA
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 2,562 acres.

Wingate solar, Wetland Delineation, Permit Matrix, and T&E Assessment, Hattiesburg, MS
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 1,000 acres.

Hecate, Wetland Delineation, Permit Matrix, and T&E Assessment, Dundee, MS
Project Scientist. David was responsible for the fieldwork, data collection, drafting, reporting, etc., required to obtain a Jurisdictional Determination, as well as a T&E Assessment required to construct a solar development. David also prepared a permit matrix showing which local, state, or federal permits may be required to construct the project. The project size was 3,300 acres.

Spencer McQuaig

Staff Scientist

PROFESSIONAL EXPERIENCE

Spencer McQuaig is an engineering technician based in Terracon's Ridgeland, Mississippi office. Working under the supervision of project managers, Spencer performs site reconnaissance for Phase I Environmental Site Assessments (ESAs), collects field samples for soils and asbestos containing materials, and assists with installing and operating temporary and permanent groundwater monitoring wells and remediation systems.

Spencer works with Terracon engineers, geologists, drillers and field crews to ensure each client receives high quality services in a timely manner and within budget. His project experience includes small-to-large sites throughout Mississippi and south Louisiana.

After Hurricaine Ida made landfall in 2021, Spencer was on the Terracon response team mobilized to New Orleans. He worked long hours in dire conditions to provide environmental assessments and hazardous materials surveys as part of the recovery efforts of local schools and businesses.

PROJECT EXPERIENCE

A sample of Spencer's environmental project experience over the past year:

Dollar General stores throughout Mississippi
Assisted with field services and report preparation for Phase I ESAs prior to site purchase and development.

Delta Health Alliance, Head Start Facilities throughout Mississippi
Conducted site reconnaissance, collected samples for potential asbestos containing materials for multiple Phase I ESAs and asbestos surveys of Head Start facilities, as well as Indoor Air Quality (IAQ) testing.

Jefferson Davis School District, New Orleans
Assisted with environmental site assessments and hazardous materials surveys for post-hurricane services.

Quick Trip Convience Stores, Louisiana and Mississippi
Collected and analyzed asbestos air monitioring samples, and performed oversite of asbestos abatement, while conducting air monitoring activities.

U.S. Federal Courthouses, Hattiesburg and Oxford, MS
Conducted asbestos air monitoring for renovations taking place throughout multiple floors of the courthouses.

Cellular phone towers throughout Louisiana and Mississippi
Conducted Phase I ESAs prior to development of sites for new cell towers. Services provided for multiple clients.

Corinth Storage Facilities, Corinth, MS
Provided field services for Phase I ESA prior to land purchase and development of new storage facility. This project consisted of large storage warehouses, housing everything from chemicals to personal belongings, over six different sites.

EDUCATION

Bachelor of Science, Geology
University of Mississippi, 2020

CERTIFICATIONS

Niosh 582 certified

MDEQ and LDEQ:
Asbestos Inspector and Air Monitor

Asbestos Contractor Supervisor

40-Hour HAZWOPER training

WORK HISTORY

Terracon Consultants, Inc.,
2020– Present

Lovell Engineering Associates,
Valdosta, GA – Intern
2016

TTL Inc, Valdosta, GA – Intern
2015

William Green, M.A., R.P.A.

PRINCIPAL/DEPARTMENT MANANGER
ENVIRONMENTAL PLANNING SERVICES

PROFESSIONAL EXPERIENCE

Mr. Green is a Principal of Terracon and a Department Manager for Environmental Planning Services in Terracon's Columbia, South Carolina office. Mr. Green has over 35 years of experience conducting cultural resource projects in the eastern U.S. and has been involved with more than 1,000 projects since beginning his career in 1987. His job responsibilities include the management and execution of cultural resource projects, including Reconnaissance and Phase I Surveys, Phase II Evaluative Testing, and Phase III Data Recovery Projects. Mr. Green is also responsible for preparing agreement documents, Native American consultation, agency coordination, and helping to prepare educational and public displays.

SELECTED PROJECT EXPERIENCE

HYDROELECTRIC PROJECTS

Smith Mountain Hydroelectric Project (FERC Project No. 2210) – Bedford, Campbell, Franklin, and Pittsylvania Counties, VA

Project Manager and Principal Investigator for Appalachian Power Company's Smith Mountain Hydroelectric Project. Conducted Phase II testing, data recovery excavations, HAER documentation, stakeholder consultation, and prepared a revised Historic Properties Management Plan (HPMP) for the relicensing of a hydroelectric facility in south-central, Virginia.
Professional Services Completed: Ongoing
Terracon Fee: $800,000

Parr Hydroelectric Project (FERC Project No. 1894) – Fairfield & Newberry Counties, SC

Project Manager and Principal Investigator for the Parr Hydroelectric Project. Conducted an initial Historic and Archaeological Resources Study*, tribal consultation*, Phase II archaeological testing, and preparation of a Historic Properties Management Plan (HPMP) for the relicensing of a hydroelectric facility in Fairfield and Newberry Counties, South Carolina. The project area consists of the Parr Shoals Development and the Fairfield Pumped Storage facility.
Professional Services Completed: 2018
Terracon Fee: $60,000

***Millville Hydroelectric Project (FERC Project No. 2343) – Jefferson County, WV**

Co-Project Manager and Co-Author for the Millville Hydroelectric Project located in Jefferson County, West Virginia. Conducted a Historic Resources Study of the Millville Hydroelectric facility, an unmanned, run-of-river generating facility that included the dam, intake structure, headrace, powerhouse, and tailrace.
Professional Services Completed: 2014

***London/Marmet and Winfield Hydroelectric Projects (FERC Project Nos. 1175 and 1290) – Kanawha and Putnam Counties, WV**

Project Manager and Principal Investigator for the London/Marmet and Winfield Hydroelectric Projects. Conducted Phase I cultural resource surveys and prepared Historic Properties Management Plans (HPMP) for Appalachian Power Company's relicensing of the London/Marmet and Winfield Hydroelectric Projects in Kanawha and Putnam counties, West Virginia. Project area included three hydroelectric facilities along the Kanawha River near Charleston.
Professional Services Completed: 2010

***Claytor Hydroelectric Project (FERC Project No. 739) – Pulaski County, VA**

Project Manager and Principal Investigator for a Phase I Survey, Phase II Testing, and Phase III Mitigation efforts for Appalachian Power Company's Claytor Hydroelectric Project in Pulaski County, Virginia. Investigation included 101 miles of shoreline and eight islands in Claytor Lake.
Professional Services Completed: 2010

EDUCATION

Ph.D. Candidate (ABD), Anthropology, State University of New York at Albany, 1996

M.A., Anthropology/Public Service Archaeology, University of South Carolina, Columbia, 1991.

B.A., Anthropology and Sociology, Queens College, City University of New York, 1988.

CERTIFICATIONS

Register of Professional Archaeologists (formerly SOPA), 1996

AFFILIATIONS

Society for American Archaeology

Southeastern Archaeology Conference

WORK HISTORY

Terracon Consultants, Inc., Principal / Dept. Manager, Natural and Cultural Resources 2014-Present

Arrowstone Consulting Solutions, LLC – Vice President/Owner 2014

S&ME – Principal Archaeologist and Cultural Resources Department Manager 2006-2013

TRC Environmental Corporation Program/Branch Manager, Archaeology 2000-2006

South Carolina Department of Archives and History/State Historic Preservation Office – Staff Archaeologist, GIS Coordinator and Native American Consultation Coordinator 1998-2000

University of South Carolina – Instructor, Dept. of Anthropology 1999

Louis Berger and Associates, Inc. – Archaeologist/Principal Investigator 1996-1998

State University of New York at Albany – Research Assistant/Co-Project Director for the United State Military Academy Cultural Resource Management Project 1995

State University of New York at Albany– Teaching Assistant, Dept. of Anthropology 1993-1994

New York State Museum – Cultural Education Specialist 1992-1994

Indiana University of Pennsylvania – Instructor/Field Supervisor 1992

Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology – Archaeologist 1990-1992

William G. Green, M.A., R.P.A. (continued)

*__Saluda Hydroelectric Project (FERC Project No. 516) – Lexington, Newberry, Richland and Saluda Counties, SC__

Project Manager and Principal Investigator for the Saluda Hydroelectric Project. Conducted reconnaissance (Stage I) and intensive (Stage II) cultural resources surveys, prepared survey plans and a Historic Properties Management Plan (HPMP), and provided consultation services for SCE&G's relicensing of the Saluda Hydroelectric Project located in Lexington, Newberry, Richland, and Saluda Counties, South Carolina. Project area included approximately 620 miles of shoreline and 125 islands in Lake Murray.

Professional Services Completed: 2008

ARCHAEOLOGICAL DATA RECOVERY PROJECTS

Smith Mountain Hydroelectric Project (FERC Project No. 2210) – Bedford and Pittsylvania Counties, VA

Project Manager and Principal Investigator for data recovery excavations at sites 44BE249 and 44PY43 at the Smith Mountain Hydroelectric Project. Occupations at the two sites were primarily Late Woodland in age, although smaller components dating back to the Early Archaic were noted. Conducted on behalf of Appalachian Power Company.

Professional Services Completed: 2022

Terracon Fee: $700,000

Yellow House Creek – Berkeley County, SC

Project Manager and Principal Investigator for archaeological data recovery excavations at sites 38BK1800, 38BK1801, and 38BK1803/1804 at the Yellow House Creek Borrow Site located on Daniel Island in Berkeley County, South Carolina. Conducted on behalf of the South Carolina Ports Authority

Professional Services Completed: 2019

Terracon Fee: $915,000

Riverlights Development – New Hanover County, NC

Project Manager and Co-Principal Investigator for archaeological data recovery excavations at sites 31NH750, 31NH752, 31NH755/755**, and 31NH761, and supplementary Phase II testing at site 31NH760 located along the Cape Fear River in Wilmington, North Carolina. Conducted on behalf of Newland Communities, Inc., Wilmington, North Carolina.

Professional Services Completed: 2017

Terracon Fee: $670,000

CULTURAL RESOURCE SURVEY AND TESTING PROJECTS

River Neck to Kingsburg 16-inch Gas Main Extension – Florence County, SC

Project Manager and Principal Investigator for a Phase I cultural resources survey of approximately 14.5 miles and Phase II testing of four archaeological sites at the proposed River Neck to Kingsburg gas main extension in Florence County, South Carolina. Conducted on behalf of Thomas & Hutton Engineering, Mt. Pleasant, South Carolina.

Professional Services Completed: 2021

Terracon Fee: $90,000

Highland 300 MW Solar Farm – Highland County, OH

Project Manager and Principal Investigator for a Phase I survey of approximately 2,285 acres and Phase II testing of one site at the Highland 300 MW Solar Farm in Highland County, Ohio. Conducted on behalf of Hecate Energy Highland, LLC,Chicago, Illiniois

Professional Services Completed: 2021

Terracon Fee: $275,000

Shreveport to Atlanta Fiber Optic Line – Alabama, Mississippi, and Louisiana

Project Manager and Principal Investigator for a Phase I cultural resources survey of the proposed 622-mile Shreveport to Atlanta Fiber Optic Line in Alabama, Mississippi, and Louisiana. Conducted on behaf of the Zayo Group, Atlanta, Georgia.

Professional Services Completed: 2020

Terracon Fee: $42,500

University of South Carolina – Instructor, Dept. of Anthropology
1990

ADDITIONAL TRAINING

FERC Environmental Review and Compliance for Natural Gas Facilities, 2018

Section 106: Agreement Documents, 2011

OSHA 10-hr. Construction Awareness Training, 2010

FERC Environmental Review and Compliance for Natural Gas Facilities, 2009

OSHA Excavation Safety/Competent Person Training, 2007

Section 106: Principals and Practice, 2006

FERC Environmental Report Preparation for Energy Projects, 2002

Section 106: Introduction to Section 106, 2001

OSHA Hazardous Communication Training, 1997

* *Work performed prior to joining Terracon.*

Barbara E. M. Gengenbach, M.A., RPA #5333

PROJECT ARCHAEOLOGIST, NATURAL AND CULTURAL RESOURCES

PROFESSIONAL EXPERIENCE

Barbara is an Archaeologist with Terracon's Columbia, SC office. She has worked as an Archaeologist since graduating with her Master of Arts degree in Field Archaeology from the University of York in 2013. Ms. Gengenbach joined Terracon in Fall 2019, and her job responsibilities include preparing reports, leading archaeological field evaluations, and performing National Register evaluations for archaeological sites. Ms. Gengenbach has worked on archaeological projects across the eastern United States, Ms. Gengenbach's field experience includes Phase I surveys, Phase II Evaluative Testing, Phase III Data Recovery projects, Geophysical Surveys, and Archaeological Monitoring.

SELECTED PROJECT EXPERIENCE

ARCHAEOLOGICAL DATA RECOVERY PROJECTS

Data Recovery at Three Archaeological Sites- Florence County, South Carolina

Archaeological Field Director for archaeological data recovery excavations at three sites located in Florence County, South Carolina. These sites range from Middle Archaic to Mississippian Periods and has the potential to provide information about lifeways in the area.

Smith Mountain Lake- Pittsylvania County, Virginia

Archaeologist for archaeological data recovery excavations at a site located in Pittsylvania County, Virginia. This site ranges from Paleoindian to Woodland Periods and has the potential to provide information about lifeways during the early Holocene.

CULTURAL RESOURCE SURVEY AND TESTING PROJECTS

Mount Juliet Costco Phase I, Wilson County, Tennessee

Archaeological Field Director for Phase I archaeological survey of approximately 20 acres for a proposed new Costco Wholesale Center located in Mount Juliet, Wilson County, Tennessee.

Stennis Space Center Phase I, Hancock County, Mississippi

Archaeological Field Director for Phase I archaeological survey of approximately 430 acres for proposed timber harvedsting at the NASA John C. Stennis Space Center in Hancock County, Mississippi.

Charleston Naval Weapons Station, Berkeley County, South Carolina

Archaeological Field Director for Phase I archaeological survey on approximately 70 acres for a proposed new naval weapons station at Joint Base Charleston in North Charleston, Berkeley County, South Carolina.

Hoffman Solar, Franklin County Kentucky and Sumner and Wilson Counties, Tennessee

Archaeological Field Director for Phase I archaeological survey on approximately 500 acres for a proposed solar site in Franklin, Simpson County, Kentucky as well as the survey of approximately 20 miles of transmission line corridor in Kentucky and Tennessee.

Fox Squirrel and Fox Squirrel 2 Solar Projects, Madison County, Ohio

Archaeological Field Director for a Phase I survey or approximately 4,000 acres and Phase II evaluative testing of a Mid to Late 19th century house site in Mt. Sterling, Madison County, Ohio.

EDUCATION

Master of Arts, Field Archaeology, University of York, 2013

Bachelor of Arts, Anthropology-Archaeology, State University of New York at Potsdam, 2012

CERTIFICATIONS

NCPTT Archaeological Prospection Workshop, 2023

Register of Professional Archaeologists, 2022

OSHA 10-hr. Construction Awareness Training, 2019

IADC RigPass Accreditation Program, Safeland, 2019.

WORK HISTORY

Terracon Consultants, Inc., Staff Scientist, 2021–Present

Terracon Consultants, Inc., Field Scientist, 2019–2021

Desco Environmental Consultants, LP, Archaeological Crew Chief, 2019

HDR,Inc., Archaeological field technician, 2019

Environmental Research and Design, Archaeological field technician, 2014,2016,2018

TRC Environmental, Archaeological field technician, 2018

Open Range Archaeology, Project Archaeologist, 2017-2018

Commonwealth Heritage Group, Archaeological field technician, 2017

Curtin Archaeological Consulting, Archaeological field technician, 2014, 2016

Panamerican Consultants, Inc., Archaeological field technician, 2016

Public Archaeology Laboratory, Inc., Archaeological field technician, 2016

Thomas Jefferson's Poplar

Barbara E. M. Gengenbach, M.A. (continued)

East Hightower Trail Sidewalk Installation, Walton County, Georgia
Field Director for a Phase I survey of approximately .5 miles of proposed sidewalk for GDOT in Social Circle, Georgia.

Cherokee Road Sidewalk Installation, Walton County, Georgia
Field Director for a Phase I survey of approximately .5 miles of proposed sidewalk for GDOT in Social Circle, Georgia.

River Neck to Kingsburg Phase I and II– Florence County, South Carolina
Archaeologist for Phase I archaeological survey along a 14-mile gas pipeline right-of-way (ROW) and Phase II evaluative testing at identified archaeological sites within said ROW.

Beechwood at Camden – Kershaw County, South Carolina
Field Director for Phase I archaeological survey on approximately 70 acres for a proposed retirement community in Camden, Kershaw Co., SC. Archaeologist for Phase II evaluative testing of an early 19th century house site and associated grounds.

Shreveport to Atlanta Fiber Optic Line – Louisiana, Mississippi, and Alabama
Field Director for a Phase I Cultural Resources investigation of 14 Section 10 waterway crossings and six wetland handhole locations along a 622-mile proposed Zayo Fiber Optic Line.

*** Burr Ferry 3D – Vernon Parish, Louisiana**
Archaeological Crew Chief for a Phase I survey of 3D seismic survey drilling locations in Vernon Parish, Louisiana.

***HDR Solar Project – Shelby County, Tennessee**
Archaeological Field Technician for a Phase I archaeological survey of an approximately 3,000 acre solar project outside of Memphis, Tennessee. Included shovel testing and pedestrian survey.

***Mohawk Valley Solar, Montgomery County, New York**
Archaeological Field Technician for a Phase I archaeological survey of an approximately 800 acre solar project near Canajoharie, New York.

***Diamond Pipeline- Cushing, Oklahoma to Memphis, Tennessee**
Archaeological Monitor during the construction of approximately 200-mile section of a 20 inch sweet crude oil pipeline.

***I-540 Expansion Project- Wake County, North Carolina**
Archaeological Field Technician for Phase I and II investigations along approximately 26-miles of proposed highway.

***Poplar Forest Parkway Project- Bedford County, Virginina**
Archaeological Field Technician for a Phase I archaeological survey on a two-mile proposed parkway for Thomas Jefferson's Poplar Forest.

APPENDIX F

DESCRIPTION OF TERMS AND ACRONYMS

Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining). Regulatory agencies have generally defined ACM as a material containing greater that one (1) percent asbestos, however some states (e.g., California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable. Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally Exempt Small Quantity Generators
CFR	Code of Federal Regulations
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-21 as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report."
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic

Description of Selected General Terms and Acronyms

Term/Acronym	Description
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a "solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-21 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time of the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition."
IC/EC	A listing of sites with institutional and/or engineering controls in place. IC include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. EC include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.
ILP	Innocent Landowner/Operator Program

Description of Selected General Terms and Acronyms

Term/Acronym	Description
LQG	Large Quantity Generators
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is "No Further Remedial Action Planned," as more particularly described under the Records Review section of this report.
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.