

Harvey Couch Business Park Southeast 104 Acre Site

CERTIFIED BY
ENTERGY
ARKANSAS

SELECT
SITE

CERTIFIED BY
Entergy
Arkansas

Certified March 2019



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General Information

Site Name: Harvey Couch Business Park – Southeast

Site Address: 190 Harvey Couch Boulevard, Magnolia, AR 71753

Owner Contact Name: City of Magnolia

**Economic Development
Organization Contact
Information:** Magnolia Economic Development
Cammie Hambrice
P.O. Box 866
Magnolia, AR 71754
Office (870) 234-4352 Fax (870) 234-9291
ch@ccalliance.us

Site Size: 104.847 acres

**Site Control
Document:** Site is owned by the City of Magnolia.

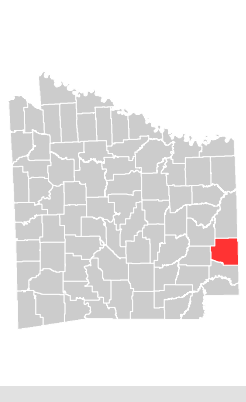
**Aerial Site Location
Map:** See attachment G1 for detail.



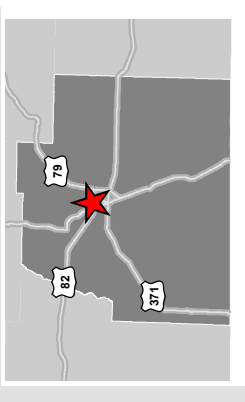
Harvey Couch Business Park - Southeast Aerial

425 West Capitol Ave, Suite 2700
 Little Rock, AR 72201
 Phone: 1-888-301-5861
goentergy.com/ar

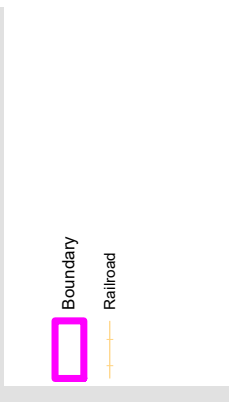
COLUMBIA COUNTY



VICINITY MAP



LEGEND



NOTE

These drawings are provided merely to assist in economic development efforts. The Entergy Companies make no representations or warranties whatsoever regarding the accuracy or completeness of any information contained herein. Entergy Companies and its subsidiaries do not warrant or make any direct inquiries about any property to the listing broker for that property.

SOURCE

Roadway: Arkansas GIS Office Download 11/2018

Created by: PEG
 Date: 11/2018

0 500 1,000 Feet
 0 120 240 Meters

N



Site Characteristics

Acreage:	104.874 acres
Dimensions:	1,645.48' x 1,290.04' x 2,915.83' x 1,881.46'
Previous Use:	Timber
Fire Rating:	Class 3
Distance to Fire Station:	2.7 Miles
Distance to Nearest Interstate:	50.1 miles to I-30/I-49 (Texarkana, AR) 43.6 miles to I-30 (Hope, AR) 60.3 miles to I-20 (Minden, LA) 62 miles to I-20 (Arcadia, LA)
Distance to Nearest 4-lane Hwy:	37.7 miles to U.S. Hwy. 167 (El Dorado, AR) 35.7 miles to U.S. Hwy. 79 (Camden, AR)
Access Points to Hwy/Interstate:	U.S. Hwy 82; U.S. Hwy 371
Road Frontage, Type and Weight Capacities:	U.S. Hwy 82 is a two-lane highway and meets state highway regulation of 80,000 lbs. capacity.
Distance to Nearest Rail:	Louisiana & North West (LNU) Railroad is on site. The 68-mile railroad interchanges traffic with Union Pacific at McNeil, AR, and Kansas City Southern at Gibsland, LA.
Distance to Nearest Commercial Airport:	3 miles from Magnolia Municipal Airport 27 miles from Southwest Regional Airport (El Dorado, AR) 57 miles from Texarkana Regional Airport (Texarkana, AR)
Distance to Nearest Port Facility:	35.7 miles to Port of Camden, AR on the Ouachita River 86.5 miles to Port of Shreveport, LA on the Red River 147 miles to Little Rock Port Authority on Arkansas River
Distance from Retail or Central Business District:	2.5 miles to downtown Magnolia



Site Characteristics

Site Type: Business Park

Site Survey: See attached behind this tab.



UNION COUNTY OFFICE
JEN WASHINGTON
1000 N. W. 10TH ST.
COLUMBIA, MO 65201
(870) 742-2800

LAFAYETTE COUNTY OFFICE
JEN WASHINGTON
1000 N. W. 10TH ST.
COLUMBIA, MO 65201
(870) 742-2800

See Existing Survey by Shedd & P.L. #101 for Main Road
Dated 10/20/2006

See Existing Survey by Shedd & P.L. #101 for Main Road
Dated 10/20/2006

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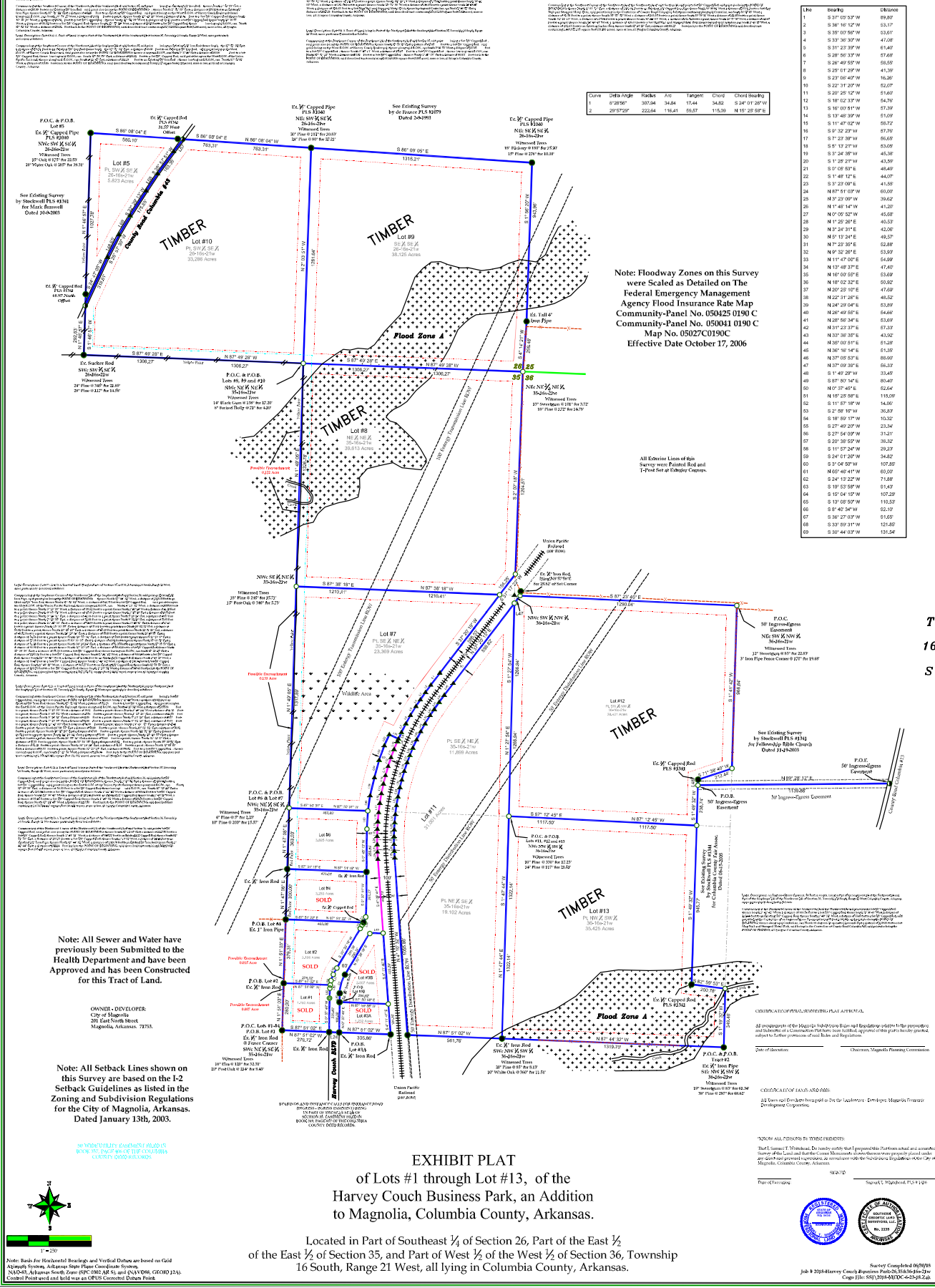
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Dated 10/20/2006

See Existing Survey by Shedd & P.L. #101 for Main Road
Dated 10/20/2006



Cost Estimates and Timing

- Cost per Acre:** \$10,000 per acre
- Special Timing Considerations:** Depending on project needs, the electric distribution line may need to be relocated.
- Clearing Cost:** Clear, grub and remove timber from site is approximately \$4,500 per acre.
- Grading Cost:** Undercut and backfill with select fill material is approximately \$23.00 per cubic yard.
- Cut/Fill Cost:** \$7.50 – \$9.00 per cubic yard; select fill \$13.50 per cubic yard
- Utility Extension or Upgrade Costs:** Electric: Entergy Arkansas estimates the cost of moving the distribution line to run along the rail and, then, along the north side of the property to be approximately \$200,000 and approximately 120 days.
- Natural Gas: Centerpoint Energy estimates 4,875 feet of 4" plastic pipe will need to run in the public ROW along Hwy. 371 and Hwy. 82. The main installation will also require boring a casing underneath a railroad track in the industrial park. The total estimated cost is approximately \$250,000 and does not include any meter stations or service lines and will take a maximum of 180 days. Capacity is about 50-100 Mcf/hour, but capacity may also depend on the upstream pipeline and other contributing factors, such as the operating pressure and length of pipe.
- Water and Sewer: Extending a 12" water main and 8" sewer line to the site is estimated at approximately \$129,472 and will take a maximum of 30 days.
- Telecom/Fiber: Depending on the telecommunication company selected, the lines will need to be extended 500-1,200 feet. This cost would be covered by the telecommunication company to service a new customer.
- Rail: on site



**MAGNOLIA ECONOMIC DEVELOPMENT
WATER AND SEWER TO SITE
OPINION OF PROBABLE COST**

**PREPARED BY: A.L. FRANKS ENGINEERING
OCTOBER 2018**

Item	Description	Units		Unit Cost	Subtotal
1	8" Sanitary Sewer (6-8 ft deep)	920	LF	\$35.00	\$32,200.00
2	4' Concrete Manholes	2	EA	\$2,000.00	\$4,000.00
3	Tie-in to Existing 8" Manhole	2	EA	\$600.00	\$1,200.00
4	Gravel Pipe Foundation	100	CY	\$15.00	\$1,500.00
5	Sewer Encasement for Railroad Bore	60	LF	\$200.00	\$12,000.00
6	12" PVC Water Main	650	LF	\$40.00	\$26,000.00
7	Water Encasement for Railroad Bore	60	LF	\$200.00	\$12,000.00
8	Street Bore for Water Main	40	LF	\$50.00	\$2,000.00
9	Water Tie-ins	2	EA	\$2,000.00	\$4,000.00
10	Blow Off Valves	2	EA	\$850.00	\$1,700.00
11	Testing	1	LS	\$5,000.00	\$5,000.00
12	Trench Safety	1	LS	\$5,000.00	\$5,000.00
TOTAL CONSTRUCTION COST					\$96,600.00
ENGINEERING DESIGN (9.25%)					\$8,936.00
INSPECTION (4.25%)					\$4,106.00
EASEMENTS					\$5,000.00
RAILROAD EASEMENTS					\$10,000.00
CONTINGENCY (5%)					\$4,830.00
TOTAL PROJECT COST					\$129,472.00

NOTES: THIS QUANTITIES ESTIMATE IS BASED ON A PRELIMINARY, NOT FINAL, DESIGN OF THE PROJECT. THE FINAL QUANTITIES MAY VARY BASED ON MORE DETAILED INFORMATION DEVELOPED DURING THE FINAL DESIGN PHASE.

THIS PRELIMINARY COST ESTIMATE IS BASED ON RECENT BIDS RECEIVED ON SIMILAR PROJECTS. ACTUAL COSTS MAY VARY DEPENDING ON CONTRACTOR'S METHODS, SOURCES OF PROJECT FUNDING, MODIFICATIONS TO THE PROJECT BY REVIEW AGENCIES OR CLIENT AFTER DATE OF ESTIMATE, MARKET CONDITIONS, TIME OF YEAR OF THE BID LETTING, AND AGE OF ESTIMATE.

Environmental

Wetlands Screening: Jurisdictional waters have been identified on the southern end of the property and the northeast corner. A permit will be required by the U.S. Army Corps of Engineers. Any applications for proposed work should be submitted at least 120 days prior to work.

See attachment E-1 for a letter from the U. S. Army Corps of Engineers and map.

Floodplain Delineation: Approximately 94 acres of the site is in Zone X which is outside of a flood zone. About 10 acres in the south/southeast corner is in Zone A which is an area of 100-year flood potential.

See attachment E-2 for detail.

Historical and Cultural Review: See attachment E-3 for detail.

Endangered Species Survey: See attachment E-4 for detail.

Environmental Phase I (and Phase II if required): See attachment E-5 for detail.

Stormwater Retention Plan: Not Applicable





DEPARTMENT OF THE ARMY

VICKSBURG DISTRICT, CORPS OF ENGINEERS

4155 CLAY STREET

VICKSBURG, MISSISSIPPI 39183-3435

REPLY TO
ATTENTION OF:

January 2, 2019

Operations Division

SUBJECT: Preliminary Jurisdictional Determination - Approximately 104-Acre Site in
Magnolia, Arkansas

Ms. Cammie Hambrice
Magnolia Economic Development
Post Office Box 866
Magnolia, Arkansas 71754

Dear Ms. Hambrice:

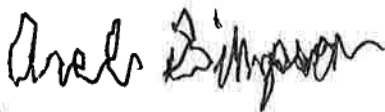
I refer to the information you submitted, on behalf of Harvey Couch Business Park, in regards to a request for a jurisdictional determination on property located in section 35, T16S-R21W, Columbia County, Arkansas (enclosure 1).

Based upon the information provided, it appears that there are jurisdictional waters of the United States located on the property subject to regulation pursuant to Section 404 of the Clean Water Act. Please note that this preliminary determination is for planning purposes only. For your information, I have enclosed a copy of our appeals form (enclosure 2) for this preliminary jurisdictional determination.

For your convenience, I am enclosing a Department of the Army permit application package with instructions (enclosure 3). Your application for any proposed work in wetlands or other waters of the United States should be submitted at least 120 days in advance of the proposed starting date. To expedite the evaluation process, please reference the Identification No. MVK-2018-857 when submitting the application.

If you have any questions, please contact Mr. Arel Simpson of this office, telephone (601) 631-5996, or e-mail address: arel.d.simpson@usace.army.mil.

Sincerely,


Charles R. Allred, Jr.
Chief, Enforcement Section
Regulatory Branch

Enclosures



2 January 2019

MVK-2018-857

Jurisdictional Determination
Harvey Coach Business Park
Magnolia, Columbia Co., AR

Preliminary
Jurisdictional Determination

Prepared by
Arel Simpson



 **US Army Corps of Engineers**

Regulatory Branch

Enforcement Section


0 150 300 600 Feet


Enclosure 1






Legend

 Project Boundary

 Jurisdictional Stream

 Potential Wetlands

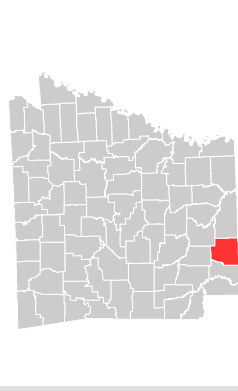
There are jurisdictional waters of the U.S. within the project boundary. Any work involving the discharge of dredged or fill material into a jurisdictional water of the U.S. will require a permit.

1:6,000

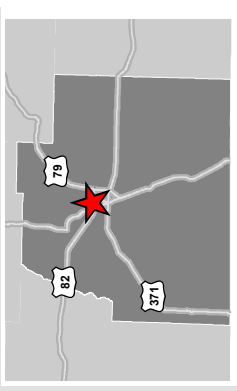
Harvey Couch Business Park - Southeast FEMA Flood Hazards

425 West Capitol Ave, Suite 2700
Little Rock, AR 72201
Phone: 1-888-301-5861
goentergy.com/ar

COLUMBIA COUNTY



VICINITY MAP



LEGEND

Boundary

Base Flood Elevation

Flood Hazard

- A
- AE
- X, 0.2 PCT ANNUAL CHANCE FLOOD
- HAZARD

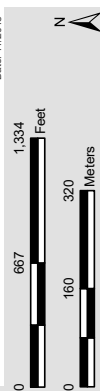
NOTE

These drawings are provided merely to assist in economic development efforts. The Energy Companies make no representations or warranties whatsoever regarding the accuracy or completeness of any information contained herein. No liability shall be assumed by the Energy Companies for flood direct inquiries about any property to the listing broker for that property.

SOURCE

Flood Hazards: FEMA FIRM Data, Downloaded 11/14/2018

Created by: PEG
Date: 11/2018





THE DEPARTMENT OF ARKANSAS
HERITAGE

Asa Hutchinson
Governor

Stacy Hurst
Director

November 6, 2018

Ms. Cammie Hambrice
Magnolia Economic Development
P.O. Box 866
Magnolia, AR 71754

RE: Columbia County – Magnolia
Section 106 Review –EDA
Proposed Industrial Site at Business Park
AHPP Tracking Number 102482

Arkansas Arts Council

Arkansas Historic
Preservation Program

Arkansas Natural
Heritage Commission

Arkansas State Archives

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars
Cultural Center

Old State House Museum

Dear Ms. Hambrice:

The staff of the Arkansas Historic Preservation Program (AHPP) has reviewed the submitted documents that were submitted regarding the proposed undertaking referenced above.

Based on the submitted information, we find that the proposed undertaking will have no effect on historic properties and that no cultural resource surveys are required.

Tribes that have expressed an interest in the area include the Caddo Nation (Ms. Tamara Francis), the Osage Nation (Dr. Andrea Hunter), the Quapaw Nation of Oklahoma (Mr. Everett Bandy), the Shawnee Tribe of Oklahoma (Ms. Tonya Tipton), and the United Keetoowah Band of Cherokee Indians (Ms. Sheila Bird). We recommend that they be consulted in accordance with 36 CFR § 800.2 (c) (2).

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Theresa Russell of my staff at 501-324-9357.

Sincerely,



Scott Kaufman
Director, AHPP

cc: Mr. Corey Dunn, EDA
Dr. Ann Early, Arkansas Archeological Survey



ARKANSAS HISTORIC
PRESERVATION PROGRAM



1100 North Street
Little Rock, AR 72201

(501) 324-9880
fax: (501) 324-9184

info@arkansaspreservation.org
www.arkansaspreservation.com

An Equal Opportunity Employer



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Arkansas Ecological Services Field Office
110 South Amity Suite 300
Conway, AR 72032-8975
Phone: (501) 513-4470 Fax: (501) 513-4480
<http://www.fws.gov/arkansas-es>

In Reply Refer To:
Consultation Code: 04ER1000-2018-SLI-1588
Event Code: 04ER1000-2018-E-02525
Project Name: Harvey Couch Business Park - Southeast

September 20, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies endangered, threatened, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). **This letter only provides an official species list and technical assistance; if you determine that listed species and/or designated critical habitat may be affected in any way by the proposed project, even if the effect is wholly beneficial, consultation with the Service will be necessary.**

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found on our website.

Please visit our website at <http://www.fws.gov/arkansas-es/IPaC/home.html> for species-specific guidance to avoid and minimize adverse effects to federally endangered, threatened, proposed, and candidate species. Our web site also contains additional information on species life history and habitat requirements that may be useful in project planning.

If your project involves in-stream construction activities, oil and natural gas infrastructure, road construction, transmission lines, or communication towers, please review our project specific guidance at <http://www.fws.gov/arkansas-es/IPaC/ProjSpec.html>.

The karst region of Arkansas is a unique region that covers the **northern third of Arkansas** and we have specific guidance to conserve sensitive cave-obligate and bat species. **Please visit <http://www.fws.gov/arkansas-es/IPaC/Karst.html> to determine if your project occurs in the karst region and to view karst specific-guidance.** Proper implementation and maintenance of best management practices specified in these guidance documents is necessary to avoid adverse effects to federally protected species and often avoids the more lengthy formal consultation process.

If your species list includes any mussels, Northern Long-eared Bat, Indiana Bat, Yellowcheek Darter, Red-cockaded Woodpecker, or American Burying Beetle, your project may require a presence/absence and/or habitat survey prior to commencing project activities. Please check the appropriate species-specific guidance on our website to determine if your project requires a survey. We strongly recommend that you contact the appropriate staff species lead biologist (see office directory or species page) prior to conducting presence/absence surveys to ensure the appropriate level of effort and methodology.

Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

Through the consultation process, we will analyze information contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take "after-the-fact." For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, **the accuracy of this species list should be verified after 90 days.** This verification can be

completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arkansas Ecological Services Field Office

110 South Amity Suite 300

Conway, AR 72032-8975

(501) 513-4470

Project Summary

Consultation Code: 04ER1000-2018-SLI-1588

Event Code: 04ER1000-2018-E-02525

Project Name: Harvey Couch Business Park - Southeast

Project Type: DEVELOPMENT

Project Description: Information is needed for a site selection program.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/33.30476155143551N93.23967445355612W>



Counties: Columbia, AR

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

Clams

NAME	STATUS
Louisiana Pearlshell <i>Margaritifera hembeli</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8468	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Phase I Environmental Site Assessment

Harvey Couch Business Park

190 Harvey Couch Boulevard

Magnolia, Columbia County, Arkansas

November 14, 2018

Terracon Project No. BB187041



Prepared for:

Magnolia Economic Development Corporation
Magnolia, Arkansas

Prepared by:

Terracon Consultants, Inc.
New Orleans, Louisiana

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

November 14, 2018



Magnolia Economic Development Corporation
211 Main Street
Magnolia, Arkansas 71753

Attn: Cammie Hambrice
P: (870) 234-4352
E: ch@ccalliance.us

Re: Phase I Environmental Site Assessment
Harvey Couch Business Park
190 Harvey Couch Boulevard
Magnolia, Columbia County, Arkansas
Terracon Project No. BB187041

Dear Ms. Hambrice:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced site. This assessment was performed in accordance with Terracon Proposal PBB187041 dated October 16, 2018.

We appreciate the opportunity to be of service to you on this project. In addition to Phase I services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.

A handwritten signature in blue ink, reading "Rachel A. Keane".

Rachel A. Keane
Senior Staff Scientist

A handwritten signature in blue ink, reading "Jessica R. Keasler".

Jessica R. Keasler
Environmental Department Manager

Attachments

Terracon Consultants, Inc. 524 Elmwood Park Blvd, Ste. 170 New Orleans, LA 70123-6814

P 504-818-3638 F 504-818-3890 terracon.com

Environmental

Facilities

Geotechnical

Materials

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APPENDIX A	Exhibit 1 - Topographic Map, Exhibit 2 - Site Diagram
APPENDIX B	Site Photographs
APPENDIX C	Historical Documentation and User Questionnaire
APPENDIX D	Environmental Database Information
APPENDIX E	Credentials
APPENDIX F	Description of Terms and Acronyms

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance Terracon Proposal PBB187041 dated October 16, 2018 and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Rachel A. Keane, Environmental Professional. Ms. Rebecca A. Gaspard performed the site reconnaissance on November 7, 2018.

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, located at 109 Harvey Couch Boulevard in Magnolia, Colombia County, Arkansas, is approximately 104-acres of cleared and wooded land. The site is not improved with any temporary or permanent structures or paved areas. Currently, the site has no occupants and hosts no operations.

Historical Information

Based on a review of earliest available historical documentation, the site was depicted as undeveloped land with an electric utility easement near the north of the site from 1949 through 2017. The surrounding area remained primarily undeveloped with the exception of the County Fairgrounds to the east of the site.

Records Review

Applicable federal and state/tribal environmental regulatory databases were reviewed for the site and surrounding properties within the specified search radii outlined in ASTM E1527-13, as well as responses from state and local regulatory agency inquiries. The site or other properties were not identified in the environmental regulatory database report.

Site Reconnaissance

The site reconnaissance was performed by Terracon representative, Ms. Rebecca A. Gaspard on November 7, 2018. At the time of the site reconnaissance, Terracon observed the site to be partially cleared, wooded land. Site features observed included pole-mounted transformers. Evidence of RECs were not observed during the site reconnaissance.

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Adjoining Properties

Located adjoining to the north of the site is partially cleared undeveloped land. Adjoining to the east of the site is undeveloped land, a residential property, and the Columbia County Fairgrounds followed by Old McNeil Road. Evidence of dumping of common household debris was observed on the eastern adjoining property. Located adjoining to the south of the site is partially cleared, wooded land and a sewage disposal pond and Highway 82. Adjoining to the west of the site is the Harvey Couch Business Park, with various offices.

Additional Services

Per the agreed scope of services specified in the proposal, a wetlands records review was conducted.

Wetlands Records Review

Terracon conducted a limited wetland review for the site to evaluate potential presence of apparent jurisdictional Waters of the U.S. (WOUS), including wetlands, as defined and regulated by federal authority under 33 CFR Parts 320-330. This review may not identify state/locally-designated wetlands.

Terracon's review of the above resources identified a freshwater stream on the southeast corner of the site. However, during site reconnaissance, evidence of wetland habitat on the remaining portions of the site was not observed. Please note this Limited Wetland Review does not constitute a formal determination and/or delineation of a potentially jurisdictional wetland, which is based on three criteria, wetland hydrology, hydrophytic vegetation, and hydric soils, as set forth in *1987 Corps of Engineers Wetland Delineation Manual* and further supported by the *applicable Regional Supplements to the Corps of Engineers Wetland Delineation Manual*.

Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527-13 on the site, located at, 109 Harvey Couch Boulevard in Magnolia, Colombia County, Arkansas. RECs, Controlled RECs (CRECs) and Historic RECs (HRECs) were not identified in connection with the site.

Recommendations

Based on the scope of services, limitations, and findings of this assessment, Terracon did not identify RECs, CRECs, or HRECs associated with the site. As such, additional investigation is not warranted at this time.

However, to determine whether regulated WOUS may be present on the site, a WOUS delineation must be performed and submitted to the U.S. Army Corps of Engineers for a jurisdictional determination, as required by Section 404 of the Clean Water Act.

1.0 INTRODUCTION

1.1 Site Description

Site Name	Harvey Couch Business Park
Site Location/Address	190 Harvey Couch Boulevard, Magnolia, Columbia County, Arkansas
Land Area	Approximately 104 acres
Site Improvements	No improvements
Anticipated Future Site Use	Redevelopment for commercial use
Purpose of the ESA	Site selection certification

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. 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 PBB187041, dated October 16, 2018, and was conducted consistent with the procedures included in ASTM E1527-13, *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 E1527-13 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 E1527-13, 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.

As requested by the client, the following additional services were performed:

- Wetland Records Review

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-on 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 is further limited by the following:

- The use of the site was not determined back to 1940, which is a data failure. Earliest available historical documentation was only provided back to 1949, at which time the site was undeveloped. Given the historic nature of the surrounding area, this data gap is not 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 Magnolia Economic Development Corporation. Use or reliance by any other party is prohibited without the written authorization of Magnolia Economic Development Corporation 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 for Services. The limitation of liability defined in the Agreement for Services is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-13 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 E1527-13.

1.6 Client Provided Information

Prior to the site visit, Ms. Cammie Hambrice, client's representative, was asked to provide the following user questionnaire information as described in ASTM E1527-13 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 Contamination at the site.			X

Terracon's consideration of the client 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 323 feet above sea level	USGS Topographic Map, Magnolia, Arkansas 2012 (Appendix C)
Topographic Gradient	General gradient towards the south-southwest	
Closest Surface Water	A freshwater pond adjoining to the south of the site	
Soil Characteristics		
Soil Type	Bibb fine sandy loam (5), Harleston very fine sandy loam (17), Sacul fine sandy loam (25)	Columbia County, Arkansas USDA-NCRS Web Soil Survey September 11, 2018
Description	The Bibb series consists of very deep, poorly drained, moderately permeable soils on flood plains of streams in the Southern Coastal Plain (133A) Major Land Resource Area. They formed in stratified loamy and sandy alluvium that are commonly and frequently flooded and water runs off the surface very slowly. Near the type location, the	

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Physical Setting Information		Source
	<p>average annual air temperature is about 65 degrees F. and the average annual precipitation is about 54 inches. Slopes range from 0 to 2 percent.</p> <p>The Harleston series consists of very deep, moderately well drained, moderately permeable soils on terraces and uplands of the Southern Coastal Plain (MLRA 133A) and the Eastern Gulf Coast Flatwoods (MLRA 152A) Major Land Resource Areas. They formed in marine or stream deposits consisting of thick beds of sandy and loamy material. Near the type location, the mean annual temperature is about 65 degrees F., and the mean annual precipitation is about 62 inches. Slopes range from 0 to 12 percent.</p> <p>The Sacul series consists of very deep, moderately well drained, slowly permeable soils that formed in acid, loamy and clayey marine sediments. These soils are on uplands of the Western and Southern Coastal Plains; MLRAs 133A and 133B. Near the type location, the average annual air temperature is about 63 degrees F and the average annual precipitation is about 50 inches. Slopes are dominantly 2 to 25 percent but range from 1 to 40 percent.</p>	
Geology/Hydrogeology		
Formation	Terrace deposits, Claibourne Group	United States Geological Survey (USGS) Digital Overlay of Arkansas, 1953 and 1993
Description	<p>Alluvial deposits on one or more terrace levels</p> <p>Mainly unconsolidated sand and silty clay/interbedded with carbonaceous clay and lignite.</p>	
Estimated Depth to First Occurrence of Groundwater	Not known – groundwater depth was not readily available.	

Physical Setting Information	Source
*Hydrogeologic Gradient	Not known - may be inferred to be parallel to topographic gradient (primarily to the south-southwest).

* 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 EDR 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: Waldo, Arkansas, published in 1968, 2014 (1:24,000)
- Topographic map: Magnolia, Arkansas, published in 1968, 2000, 2014 (1:24,000)
- Aerial photograph: USGS, published in 1949, 1965, 1989
- Aerial photograph: USDA, published in 1985
- Aerial photograph: USGS/DOQQ, published in 1994
- Aerial photograph: USDA/NAIP, published in 2006, 2010, 2013, 2017

Historical Maps and Aerial Photographs

Direction	Description
Site	Undeveloped partially cleared, wooded land with an electricity utility easement near the north of the site (1949-2017)
North	Partially cleared, undeveloped land (1949-2017)
East	County Fairground (1949-2000), structures (2006-2017)
South	Sewerage disposal pond (1949-2017), cleared land (1949-2017), followed by Highway 82 (1989-2017)
West	Rail road (1949-2017) followed by a private road and structures (2010-2017)

3.2 Historical City Directories

The EDR Digital Archives city directories used in this study were made available EDR (selected years reviewed: 2000-2014) and were reviewed at approximate five-year intervals, if readily available. Street listings not available prior to 2000. The current street address for the site was identified as 190 Harvey Couch Boulevard.

Historical City Directories

Direction	Description
Site	No Listings (2000-2014)
North	No listings (2000-2014)
East	<u>220 Old McNeil Rd.:</u> Jennings Trading Post (2000); Jennings Auction Co. (2010) <u>270 Old McNeil Rd.:</u> Free & Accepted Masons Ark (2014) <u>300 Old McNeil Rd.:</u> L&M Mowing Service, LLC (2014) <u>230-350 Old McNeil Rd.:</u> Residential (2000-2005) <u>530 Old McNeil Rd.:</u> Residential (2000-2005); JB Enterprises (2014)
South	<u>7 Highway 82:</u> Franks Animal Hospital (2010-2014); Hayes Charles DVM (2010-2014) <u>10 Highway 82:</u> Par Futures Inc (2014) <u>21 Highway 82:</u> Residential (2010-2014) <u>112 Highway 82:</u> Residential (2014) <u>1499 Highway 80:</u> Fowler Larry Trucking Inc (2000-2014)
West	No Listings (2000-2014)

The facilities listed in bold were further researched and do not represent evidence of RECs to the site at this time based upon regulatory status, apparent topographic gradient, and/or distance from the site.

3.3 Site Ownership

Based on a review of information obtained through the Columbia County Assessor's office, the site is composed of four parcels (01-06946-000, 01-06945-000, 01-06947-000, and 01-06944-000). According to the County Assessor's website, the site has been owned by the City of Magnolia since 2005. Deed records indicate that the site was previously owned by the Magnolia Economic Development Corporation. Additional history of ownership was not readily available.

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 Environmental Liens and Activity and Use Limitations

The EDR regulatory database report included a review of both Federal and State Engineering Control (EC) and Institutional Control (IC) databases. Based on a review of the database report, the site was not listed on the EC or IC databases. Please note that in addition to these federal and state listings, AULs can be recorded at the county and municipal level that may not be listed in the regulatory database report. Environmental lien and activity and use limitation records recorded against the site were not provided by the client. At the direction of the client, performance of a review of these records was not included as part of the scope of services and unless notified otherwise, we assume that the client is evaluating this information outside the scope of this report.

3.6 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
Ms. Rebecca A. Gaspard	Ms. Cammie Hambrice / (870) 234-4352	Site Representative	November 9, 2018

Terracon interviewed Ms. Cammie Hambrice with the City of Magnolia, current site representative, by phone on November 9, 2018. According to Ms. Hambrice, the adjoining sewage disposal pond has been out of operation for approximately twenty years. Ms. Hambrice was unaware of any environmental concerns in connection with the pond. Ms. Hambrice indicated that, to her knowledge, the site has never been developed. Ms. Hambrice was not aware of any of any pending, threatened, or past environmental litigation; or possible violations, liability, or environmental concerns in connection with the site.

3.7 Prior Report Review

Terracon requested the client provide any previous environmental or geotechnical reports they are aware of for the site. Previous reports were not provided by the client to Terracon for review.

4.0 RECORDS REVIEW

Regulatory database information was provided by EDR, 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.

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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
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 Sites	0.5	0
IC	Insitutional Control	Site	0
LUST	Leaking Underground Storage Tanks	0.5	0
SHWS	State Hazardous Waste Site	1	0
SWF/LF	Solid Waste Facilities/Landfills	0.5	0

Database	Description	Distance (miles)	Listings
SWID	Solid Waste Illegal Dumps	0.5	0
UST	Underground Storage Tanks	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.

Regulated facilities were not listed within the specified search distances 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 did not list facilities in the unmapped section.

4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
Magnolia Fire Department / (870) 234-5022	The Magnolia Fire department was contacted on November 9, 2018 by telephone. At the issuance of this report, a response has not been received.
Arkansas Oil and Gas Commission	The Environmental Database Report and Arkansas Oil & Gas Commission Online Well Registry was accessed on October 26, 2018 to identify registered wells within 1 mile of the site. The description of the wells is as follows: 5 groundwater wells, 16 inactive or abandoned oil wells, and five producing oil wells. No record of incident was readily identified. The identified wells are not considered evidence of a REC in connection with the site.

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	Ms. Rebecca A. Gaspard
Reconnaissance Date	November 9, 2018
Weather Conditions	55°F, overcast and windy
Site Contact/Title	None

5.2 Overview of Current Site Occupants

The site, located at 109 Harvey Couch Boulevard in Magnolia, Colombia County, Arkansas, is an approximately 104-acres of cleared and wooded land. The site is not improved with any temporary or permanent structures or paved areas. Currently the site has no occupants.

5.3 Overview of Current Site Operations

Currently the site hosts no operations.

5.4 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	

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Category	Item or Feature	Observed or Identified
	Printing operations	
	Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	
	Oil, gas or mineral production	
	Other processes or equipment	
Aboveground Chemical or Waste Storage	Aboveground storage tanks	
	Drums, barrels and/or containers \geq 5 gallons	
	MSDS or SDS	
Underground Chemical or Waste Storage, Drainage or Collection Systems	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	
	Pipeline markers	
	Interior floor drains	
Electrical Transformers/PCBs	Transformers and/or capacitors	X
	Other equipment	
Releases or Potential Releases	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	
	Surface water discoloration, odor, sheen, and/or free floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

Electrical Transformers/PCBs

Transformers and/or Capacitors

During site reconnaissance, Terracon observed one pole-mounted transformer near the southwest corner of the site. The transformer appeared to be associated with a powerline easement which runs diagonally through the northwest of the site. Information with regard to PCB content of the transformer fluids was not observed. Some transformers contain mineral oil which may contain PCBs. Entergy Arkansas maintains responsibility for the transformers, and if the transformers were “PCB contaminated”, Entergy Arkansas is not required to replace the transformer fluids until a release is identified. However, evidence of a current or past release was not observed in the vicinity of the electrical equipment during the site reconnaissance.

6.0 ADJOINING PROPERTY RECONNAISSANCE

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

Adjoining Properties

Direction	Description
North	Cleared, undeveloped land
East	Wooded land, a residential property, and the Colombia County Fairgrounds followed by Old McNeil Road
South	Undeveloped land and a sewage disposal pond followed by Highway 82
West	A railroad followed by the Harvey Couch Business Park

Colombia County Fairgrounds

During site reconnaissance, trash and debris was on the eastern adjoining property. The debris covered approximately ten square feet. Based on visual observation (only of surface materials), the debris consisted of wooden building materials, pallets, two drums (without contents), and trash. Leakage, spills or other releases from these materials were not observed during the visual reconnaissance. The debris materials did not appear to be hazardous in nature and do not represent a REC in connection with the site.

Evidence of RECs were not observed with the adjoining properties.

7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, the following additional services (e.g. Wetland Records Review) were conducted.

7.1 Wetland Records Review

Terracon conducted a limited wetland review for the site to evaluate potential presence of apparent jurisdictional Waters of the U.S., including wetlands, as defined and regulated by federal authority under 33 CFR Parts 320-330. This review may not identify state/locally-designated wetlands.

Wetlands as defined by EPA and the U.S. Army Corps of Engineers, in the *Federal Manual for Identifying and Delineating Jurisdictional Wetlands*, (Federal Interagency Committee for Wetland Determination, 1989), are “those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Jurisdictional wetlands, regulated under Section 404 of the Clean Water Act/1972, have undergone increasing regulation (Clean Water Act/1977 and 1987, Farm Bills/1985 and 1990), and are important for protection of aquatic species and waterfowl, water purification, and flood control.

Terracon reviewed the following resources to evaluate the potential presence of jurisdictional waters of the U.S., including wetlands, on the site:

- **Topographic Map**

The United States Geologic Survey (USGS) 7.5-Minute Topographic Map of the subject site was reviewed to identify drainages or other potential waters of the U.S. within the project site. A portion of the Magnolia, Arkansas Quadrangle can be seen as Exhibit 1 in Appendix A. The USGS map depicted one unnamed stream near the southeast corner of the site.

- **National Wetland Inventory Map**

National Wetland Inventory (NWI) data for the project site was reviewed to identify potential wetland areas. NWI data for the project site was published by the U.S. Department of the Interior’s Fish and Wildlife Service and depicts possible wetland areas based on stereoscopic analysis of high altitude aerial photographs. The review of the NWI data indicates a freshwater stream located on the southeast corner of the site. The NWI map data for the project area can be seen as Exhibit 3 in Appendix A.

Terracon’s review of the above resources indicated a freshwater stream on the site. Please note this Limited Wetland Review does not constitute a formal determination and/or delineation of a potentially jurisdictional wetland, which is based on three criteria, wetland hydrology, hydrophytic vegetation, and hydric soils, as set forth in *1987 Corps of Engineers Wetland Delineation Manual* and further supported by the *applicable Regional Supplements to the Corps of Engineers Wetland Delineation Manual*.

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To determine whether regulated WOUS may be present on the site, a wetland delineation must be performed and submitted to the U.S. Army Corps of Engineers for a jurisdictional determination, as required by Section 404 of the Clean Water Act.

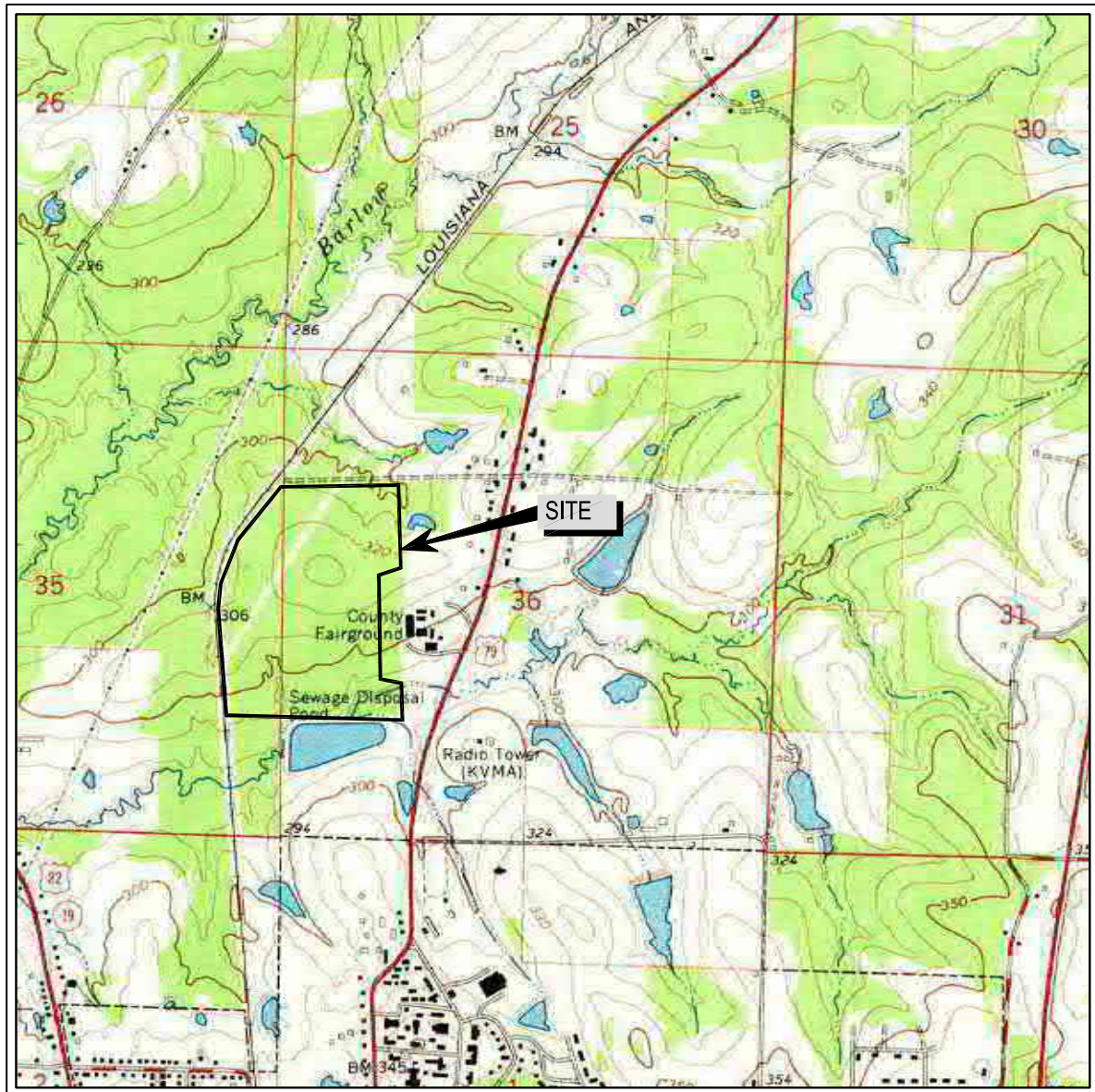
8.0 DECLARATION

I, Rachel A. Keane, 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.

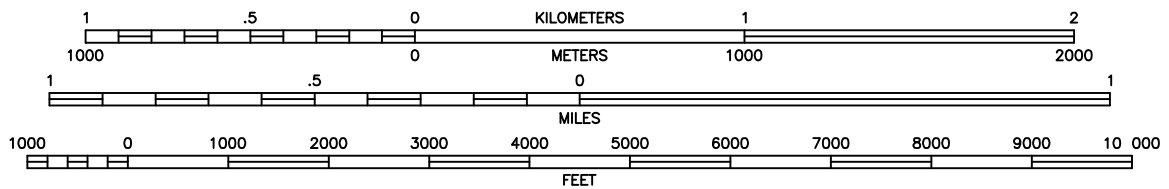
A handwritten signature in blue ink, appearing to read "Rachel A. Keane", is written over a horizontal line.

Rachel A. Keane
Senior Staff Scientist

APPENDIX A
EXHIBIT 1 – TOPOGRAPHIC MAP
EXHIBIT 2 – SITE DIAGRAM



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE
MAGNOLIA, AR
1968

7.5 MINUTE SERIES (TOPOGRAPHIC)



Project Mngr:	RAK
Drawn By:	JSL
Checked By:	MRF/RAK
Approved By:	JRK
Project No.	BB187041
Scale:	AS SHOWN
File No.	ESABB187041-1
Date:	NOV. 2018

Terracon
Consulting Engineers and Scientists

524 Elmwood Park Blvd., Ste. 170 New Orleans, LA 70123
(504) 818-3638 (504) 818-3890

TOPOGRAPHIC VICINITY MAP
PHASE I ENVIRONMENTAL SITE ASSESSMENT
HARVEY COUCH BUSINESS PARK
190 HARVEY COUCH BLVD
MAGNOLIA, COLUMBIA COUNTY, AR

EXHIBIT
1



October 26, 2018

Wetlands

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

APPENDIX B
SITE PHOTOGRAPHS

Phase I Environmental Site Assessment

Harvey Couch Business Park ■ Magnolia, Arkansas

Date Photos Taken: November 9, 2018 ■ Terracon Project No. BB187041

Terracon



Photo #1 View of the Common Street building entrance.



Photo #2 View of the west side of the site facing east.



Photo #3 View of the northeast easement opening facing northeast.



Photo #4 Representative view of the interior wooded portions of the site.



Photo #5 Representative view of interior cleared portions of the site.



Photo #6 View of on-site pole-mounted transformer.

Phase I Environmental Site Assessment

Harvey Couch Business Park ■ Magnolia, Arkansas

Date Photos Taken: November 9, 2018 ■ Terracon Project No. BB187041

Terracon



Photo #7 View of adjoining property to the east of the site.



Photo #8 View of dumping on the eastern adjoining property.



Photo #9 View of adjoining offices to the west of the site.



Photo #10 View of adjoining offices to the west of the site.

APPENDIX C
HISTORICAL DOCUMENTATION AND USER QUESTIONNAIRE

Client/User Required Questionnaire

Terracon

Person Completing Questionnaire	Name: <i>Cammie Hambrice</i> Phone: <i>870-234-4352</i> Company: <i>Magnolia Economic Dev.</i> Email: <i>ch@ccalliance.us</i>
Site Name	<i>Harvey Couch Business park-Southeast</i>
Site Address	<i>190 Harvey Couch Boulevard Magnolia, AR</i>
Point of Contact for Access	Name: <i>Cammie Hambrice</i> Phone: <i>870-234-4352</i> Company: <i>Magnolia ED</i> Email: <i>ch@ccalliance.us</i>
Access Restrictions or Special Site Requirements?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)
Confidentiality Requirements?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)
Current Site Owner	Name: <i>City of Magnolia</i> Phone: <i>870-234-1375</i> Company: Email:
Current Site Operator	Name: <i>Cammie Hambrice</i> Phone: <i>234-4352</i> Company: <i>Magnolia ED</i> Email: <i>ch@ccalliance.us</i>
Reasons for ESA (e.g., financing, acquisition, lease, etc.)	<i>site selection certification</i>
Anticipated Future Site Use	<i>Industrial sites</i>
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:

Please return this form with the signed authorization to proceed.

Proposal No. PBB187041

Responsive ■ Resourceful ■ Reliable



Harvey Couch Business Park - 104 Acre Tract

Harvey Couch Boulevard

Magnolia, AR 71753

Inquiry Number: 5464906.3

October 25, 2018

Certified Sanborn® Map Report



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

10/25/18

Site Name:

Harvey Couch Business Park -
Harvey Couch Boulevard
Magnolia, AR 71753
EDR Inquiry # 5464906.3

Client Name:

Terracon
524 Elmwood Park Blvd.
New Orleans, LA 70123
Contact: Rachel Keane



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Terracon were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 9394-4DEC-A675

PO # NA

Project BB187041

UNMAPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 9394-4DEC-A675

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☒ Library of Congress
- ☒ University Publications of America
- ☒ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Harvey Couch Business Park - 104 Acre Tract

Harvey Couch Boulevard

Magnolia, AR 71753

Inquiry Number: 5464906.4

October 25, 2018

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

10/25/18

Site Name:

Harvey Couch Business Park -
Harvey Couch Boulevard
Magnolia, AR 71753
EDR Inquiry # 5464906.4

Client Name:

Terracon
524 Elmwood Park Blvd.
New Orleans, LA 70123
Contact: Rachel Keane



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Terracon were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	NA	Latitude:	33.304016 33° 18' 14" North
Project:	BB187041	Longitude:	-93.239642 -93° 14' 23" West
		UTM Zone:	Zone 15 North
		UTM X Meters:	477690.71
		UTM Y Meters:	3685016.63
		Elevation:	322.63' above sea level

Maps Provided:

2014
2000
1968

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2014 Source Sheets



Magnolia
2014
7.5-minute, 24000



Waldo
2014
7.5-minute, 24000

2000 Source Sheets



Magnolia
2000
7.5-minute, 24000
Aerial Photo Revised 2000

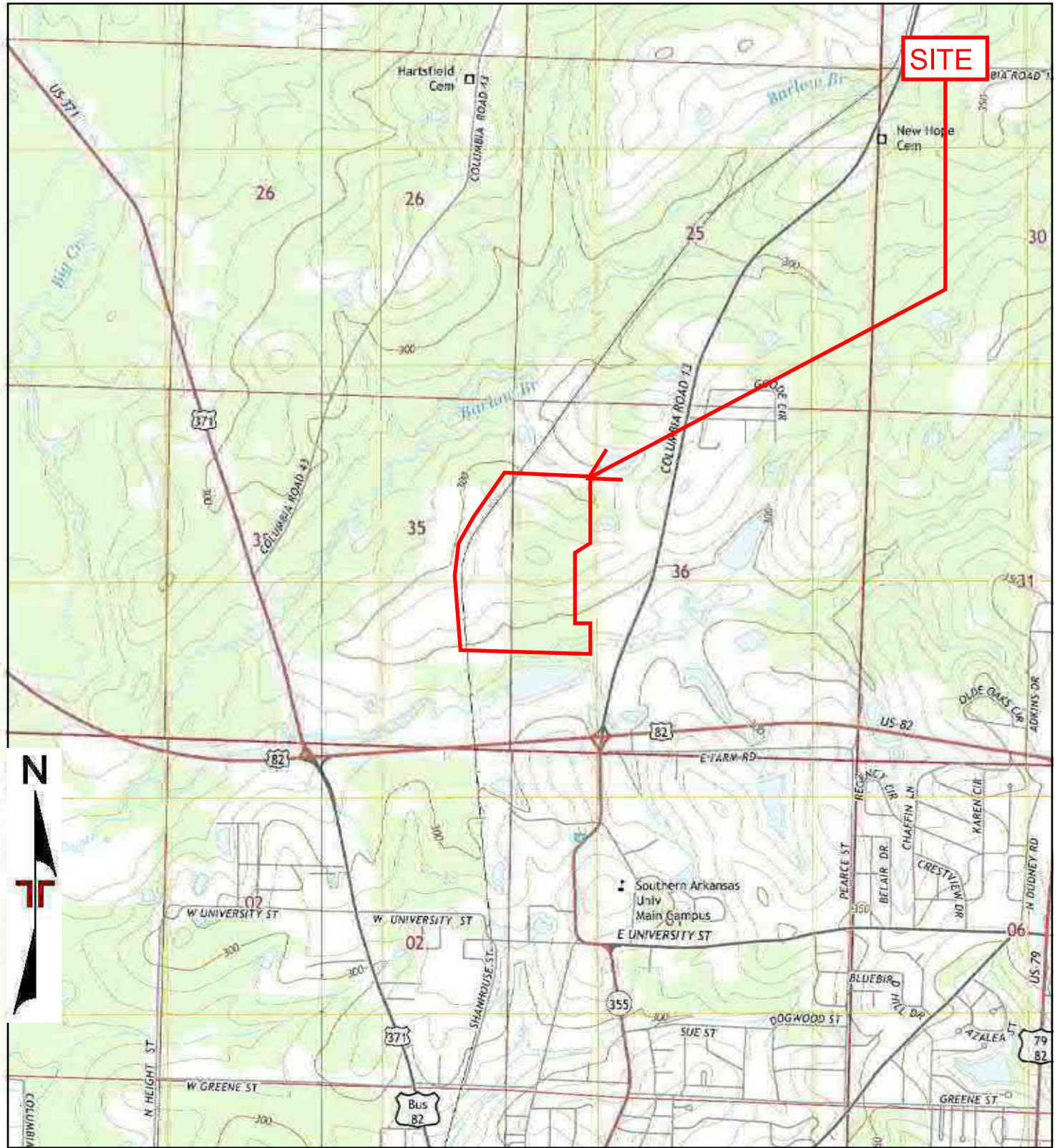
1968 Source Sheets



Waldo
1968
7.5-minute, 24000
Aerial Photo Revised 1965



Magnolia
1968
7.5-minute, 24000
Aerial Photo Revised 1965



TP, Magnolia, 2014, 7.5-minute
W, Waldo, 2014, 7.5-minute

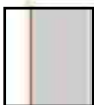
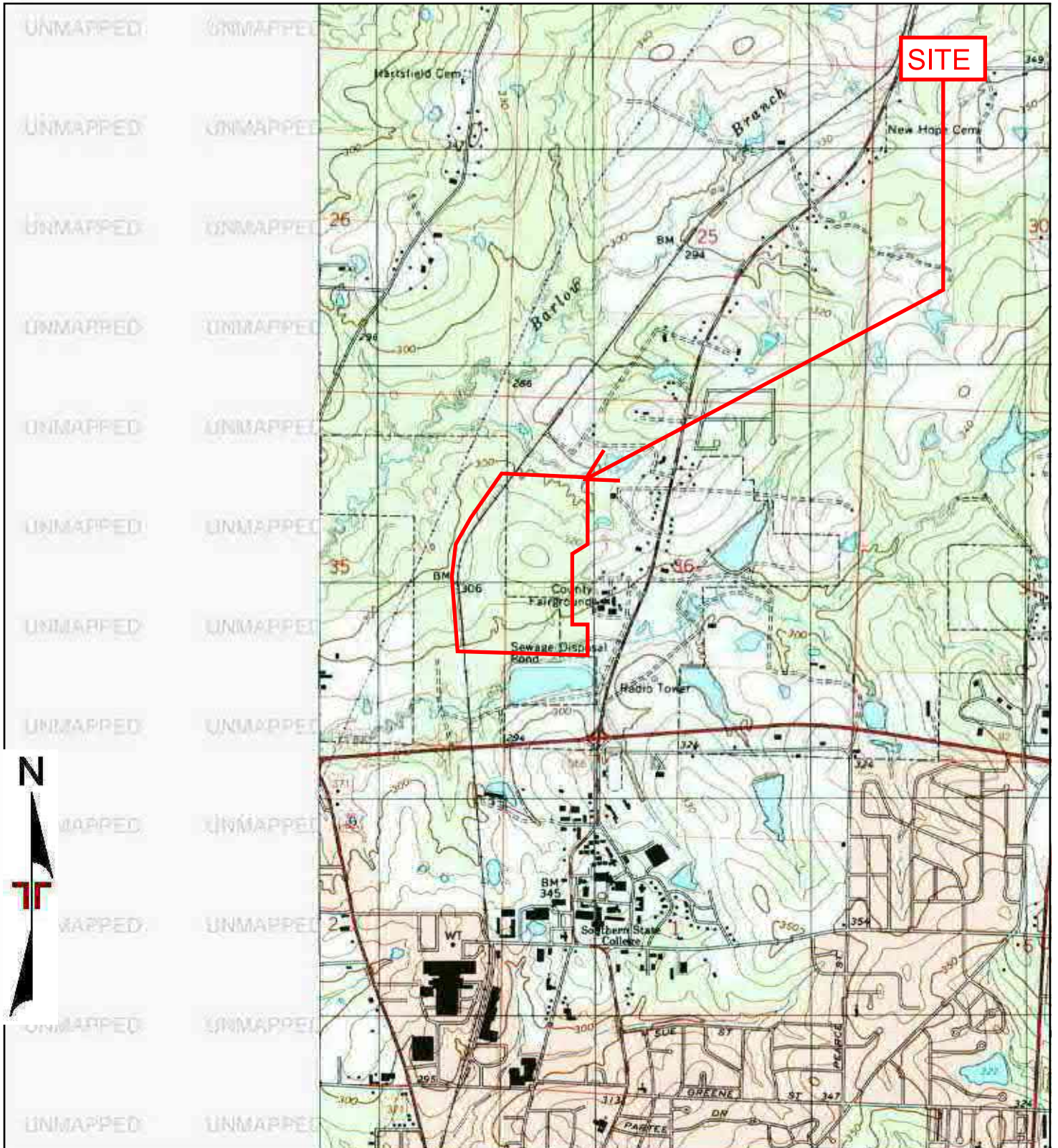


Project Manager:	Project No.
RAK	BB187041
Drawn by:	Scale:
EDR	As Shown
Checked by:	File Name:
RAK	Topo
Approved by:	Date:
JRK	2014

Terracon
524 Elmwood Park Blvd.
New Orleans, LA 70123

2014 TOPOGRAPHIC MAP
Harvey Couch Business Park - 104 Acre Trac
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix
C



TP, Magnolia, 2000, 7.5-minute



Project Manager:	RAK	Project No.:	BB187041
Drawn by:	EDR	Scale:	As Shown
Checked by:	RAK	File Name:	Topo
Approved by:	JRK	Date:	2000

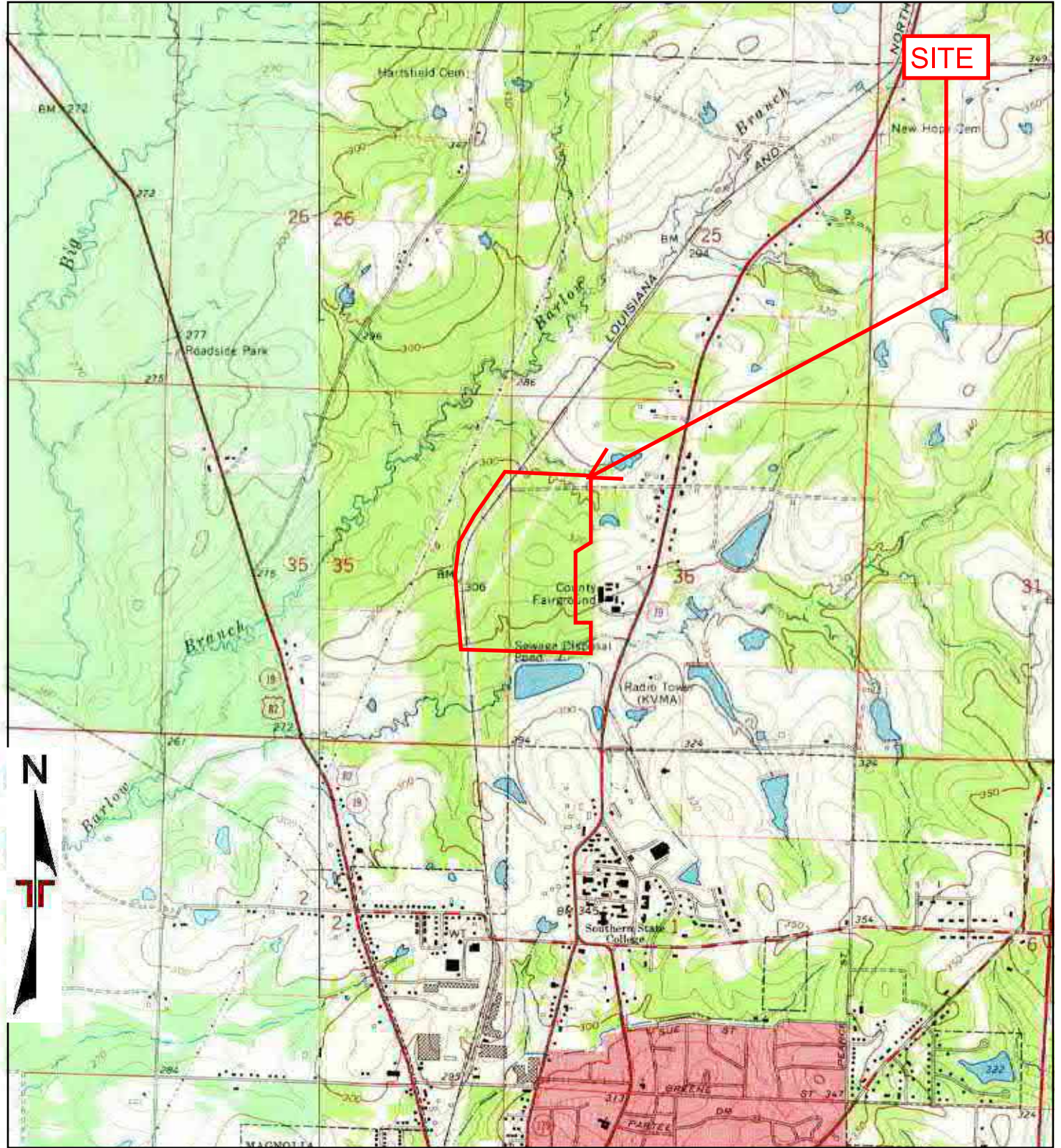
Terracon

524 Elmwood Park Blvd.
New Orleans, LA 70123

2000 TOPOGRAPHIC MAP
Harvey Couch Business Park - 104 Acre Trac
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



TP, Magnolia, 1968, 7.5-minute
W, Waldo, 1968, 7.5-minute



Project Manager:	RAK	Project No.:	BB187041
Drawn by:	EDR	Scale:	As Shown
Checked by:	RAK	File Name:	Topo
Approved by:	JRK	Date:	1968

Terracon
524 Elmwood Park Blvd.
New Orleans, LA 70123

1968 TOPOGRAPHIC MAP
Harvey Couch Business Park - 104 Acre Trac
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



Harvey Couch Business Park - 104 Acre Tract

Harvey Couch Boulevard

Magnolia, AR 71753

Inquiry Number: 5464906.8

October 26, 2018

The EDR Aerial Photo Decade Package



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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

10/26/18

Site Name:

Harvey Couch Business Park -
Harvey Couch Boulevard
Magnolia, AR 71753
EDR Inquiry # 5464906.8

Client Name:

Terracon
524 Elmwood Park Blvd.
New Orleans, LA 70123
Contact: Rachel Keane



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Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2013	1"=500'	Flight Year: 2013	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2000	1"=750'	Flight Date: April 08, 2000	USGS
1994	1"=500'	Acquisition Date: February 01, 1994	USGS/DOQQ
1989	1"=750'	Flight Date: February 23, 1989	USGS
1985	1"=500'	Flight Date: April 02, 1985	USDA
1965	1"=500'	Flight Date: March 20, 1965	USGS
1949	1"=750'	Flight Date: November 20, 1949	USGS

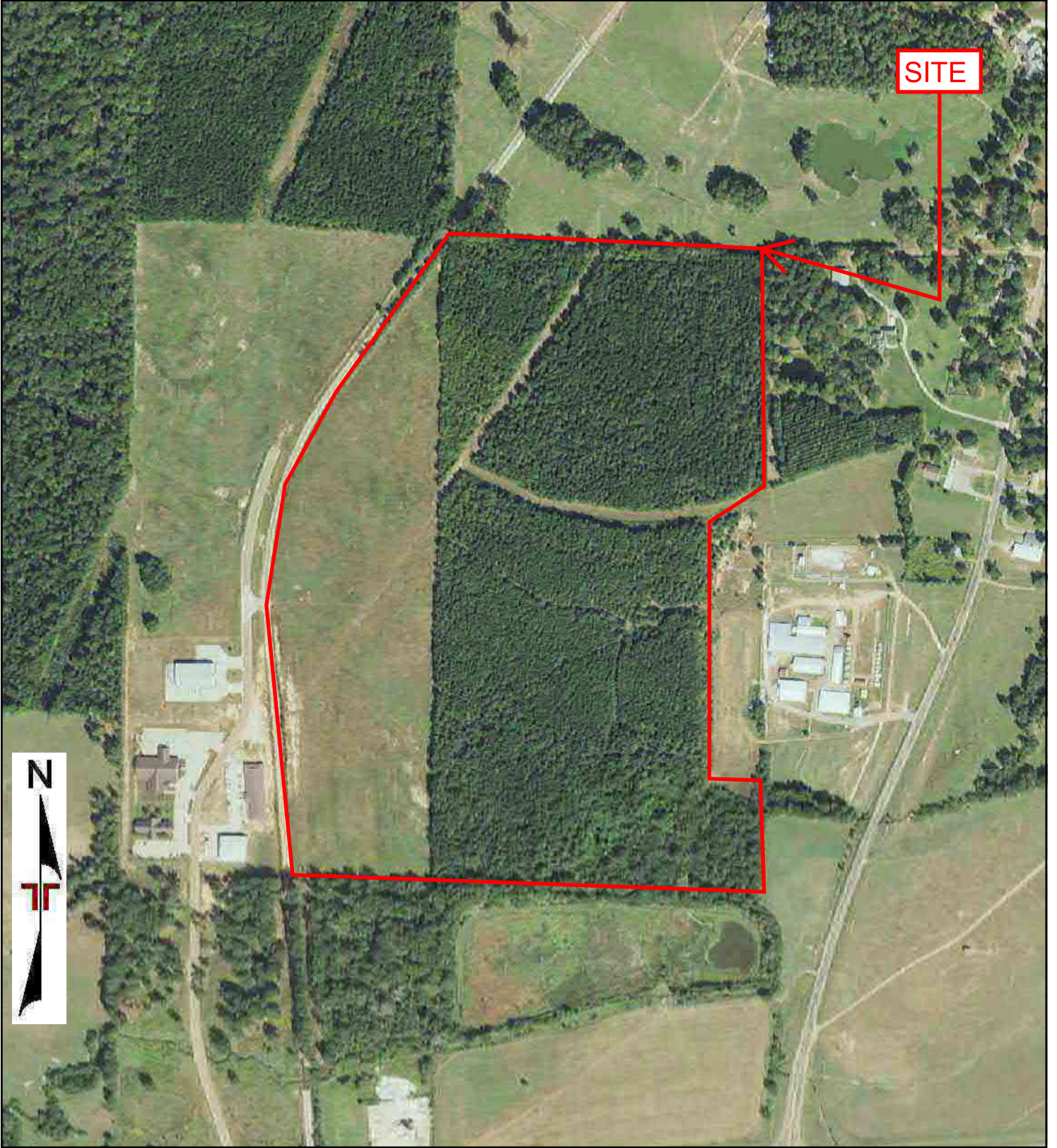
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0 Feet

500

1000

2000

Project Manager	Project No:
RAK	BB187041
Drawn By:	Scale:
EDR	As Shown
Checked By:	File Name:
RAK	Topo
Approved By:	Date:
JRK	2017

Terracon

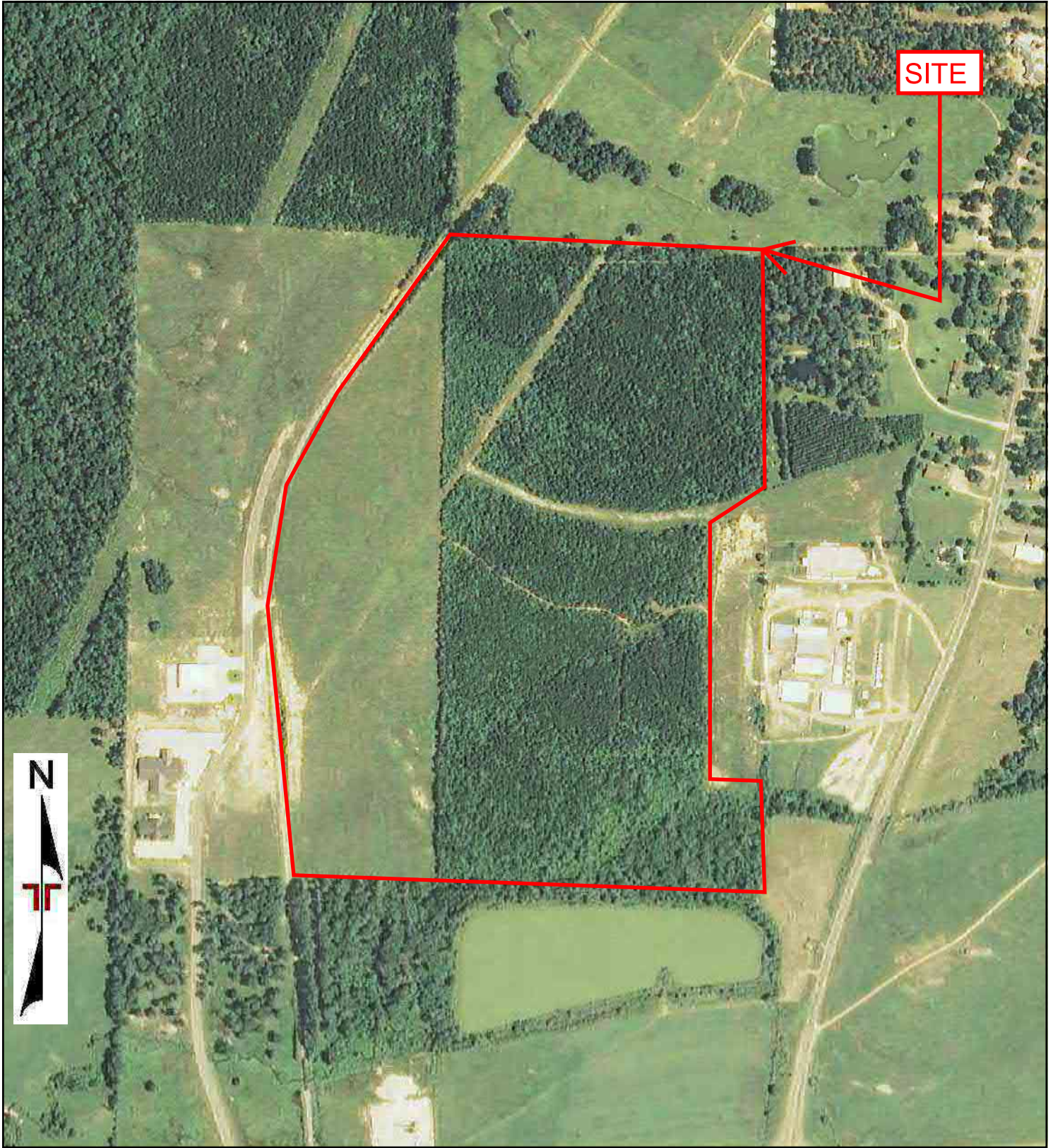
524 Elmwood Park Blvd.
New Orleans, LA 70123

2017 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tract
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



0 Feet

500

1000

2000

Project Manager	Project No:
RAK	BB187041
Drawn By:	Scale:
EDR	As Shown
Checked By:	File Name:
RAK	Topo
Approved By:	Date:
JRK	2013

Terracon

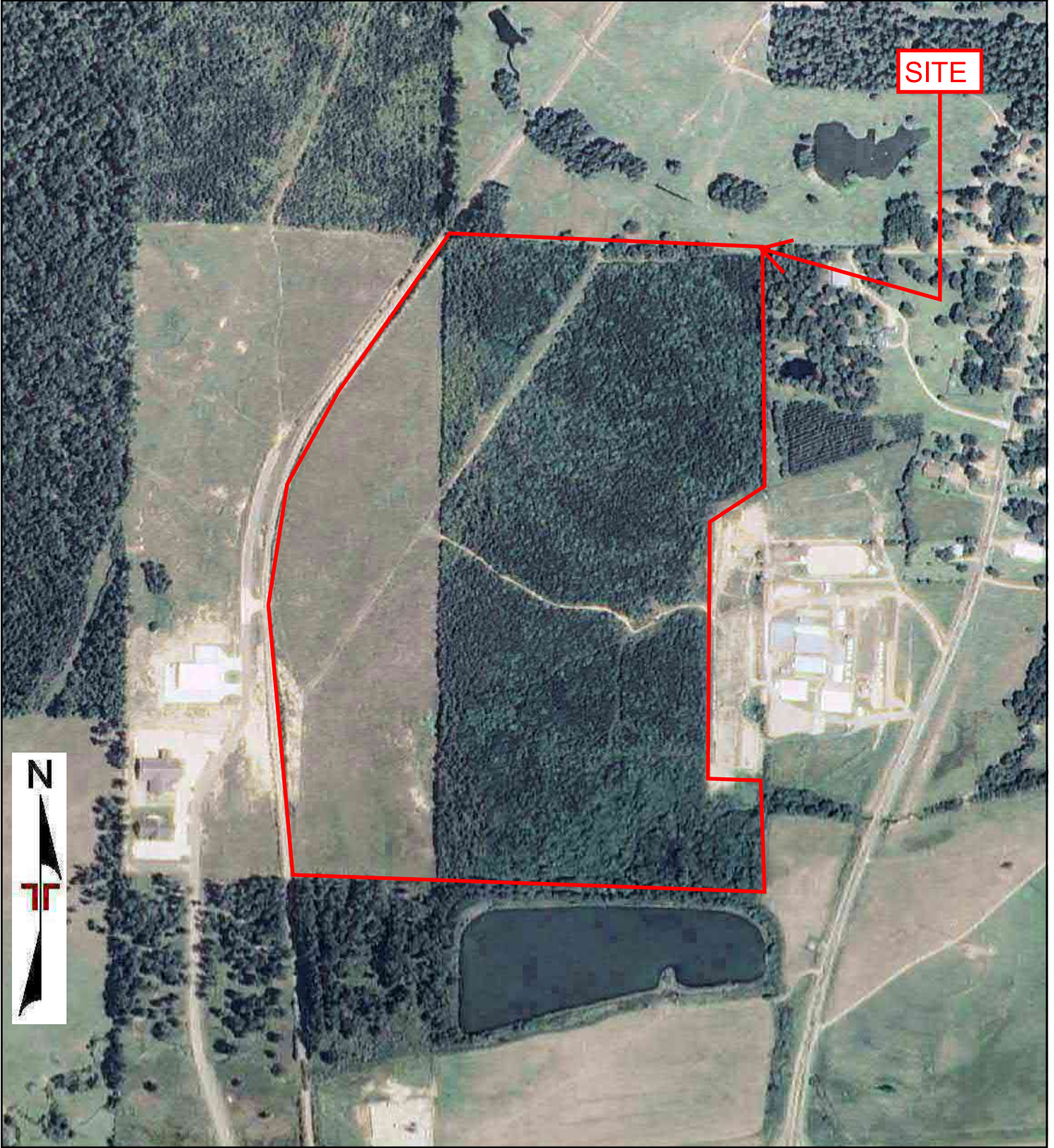
524 Elmwood Park Blvd.
New Orleans, LA 70123

2013 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tract
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



0 Feet

500

1000

2000

Project Manager	RAK	Project No:	BB187041
Drawn By:	EDR	Scale:	As Shown
Checked By:	RAK	File Name:	Topo
Approved By:	JRK	Date:	2010

Terracon

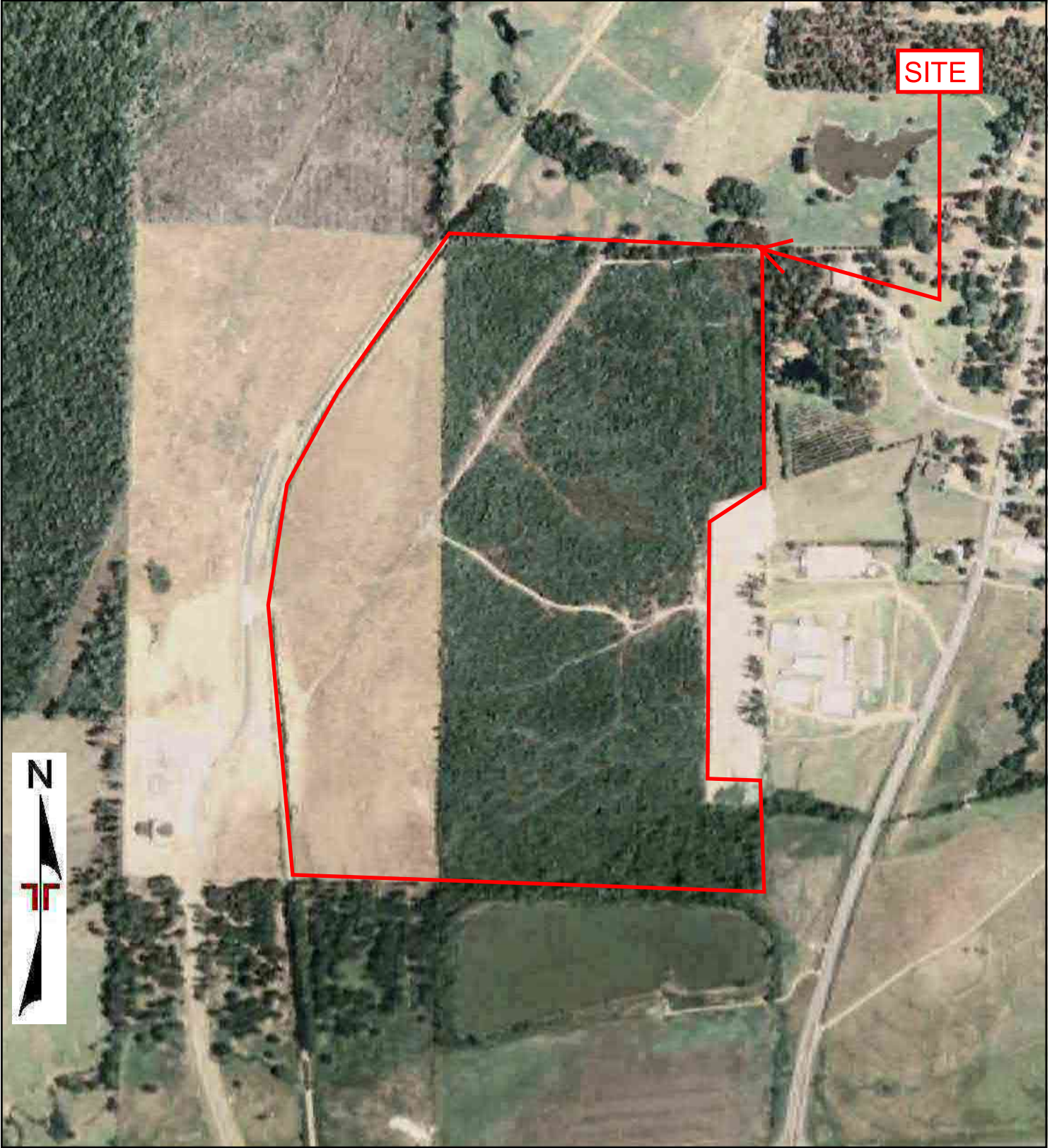
524 Elmwood Park Blvd.
New Orleans, LA 70123

2010 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tract
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



SITE



0 Feet

500

1000

2000

Project Manager	Project No:
RAK	BB187041
Drawn By:	Scale:
EDR	As Shown
Checked By:	File Name:
RAK	Topo
Approved By:	Date:
JRK	2006

Terracon

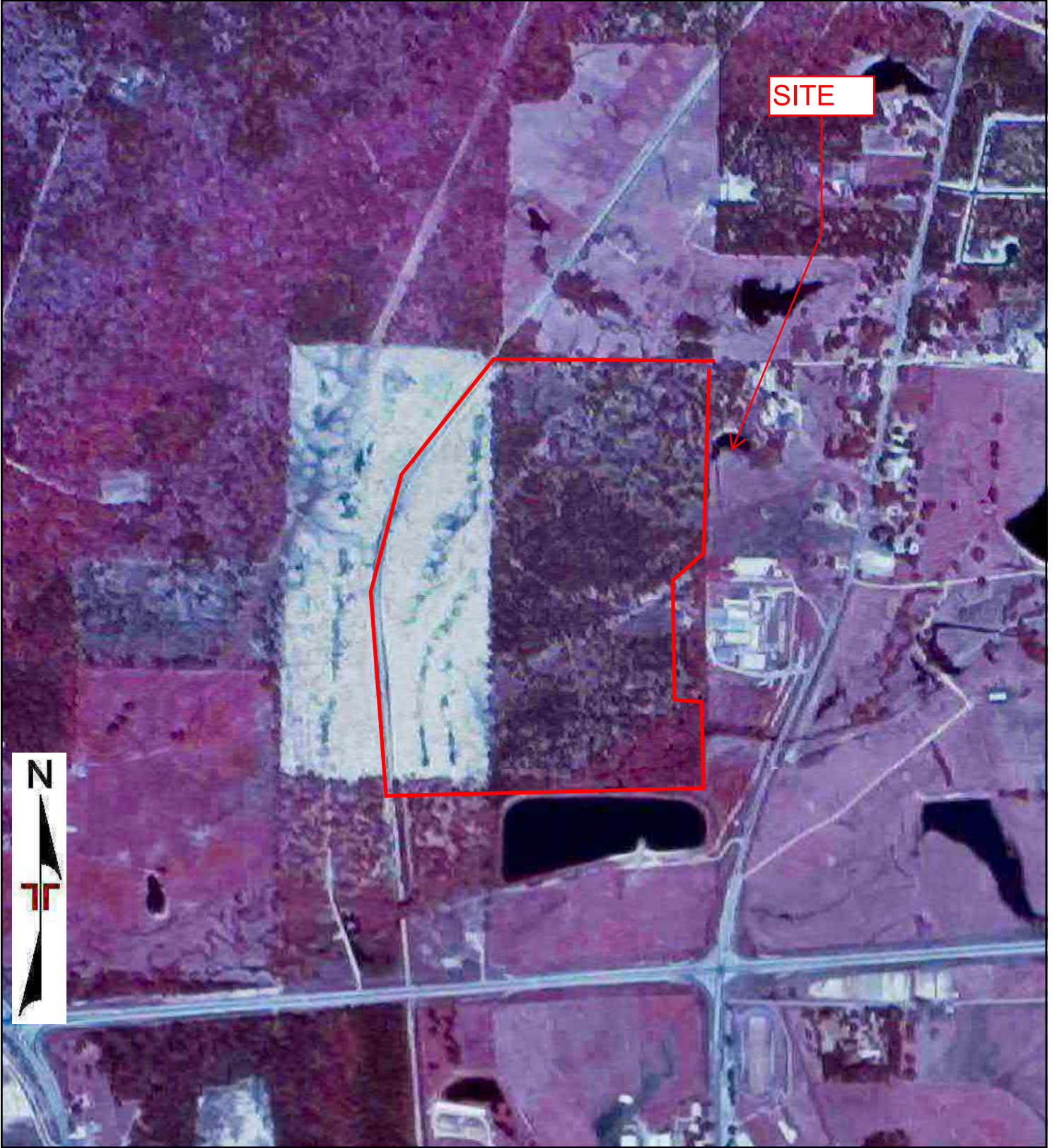
524 Elmwood Park Blvd.
New Orleans, LA 70123

2006 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tr
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



0 Feet

750

1500

3000

Project Manager	RAK	Project No:	BB187041
Drawn By:	EDR	Scale:	As Shown
Checked By:	RAK	File Name:	Topo
Approved By:	JRK	Date:	2000

Terracon

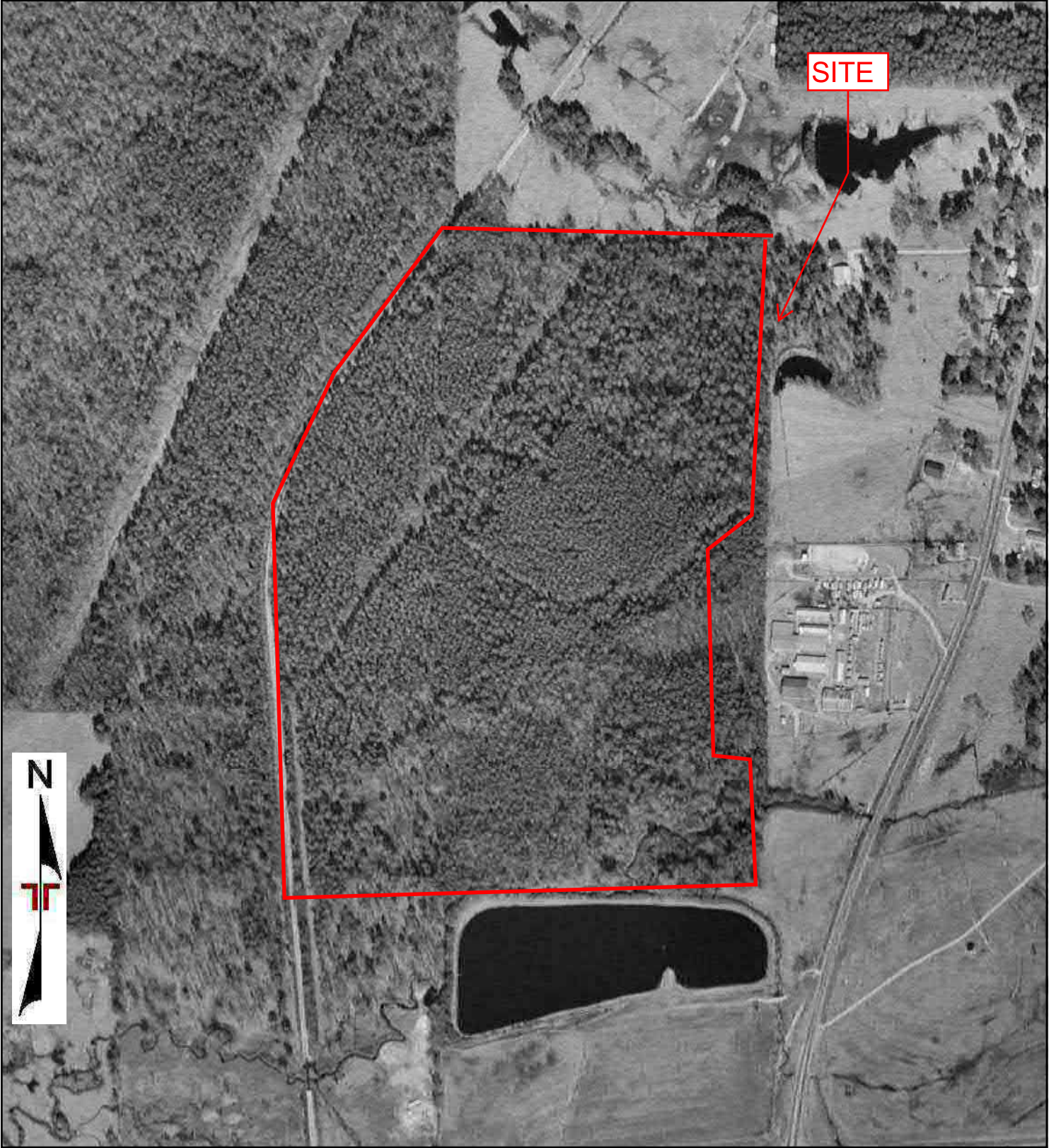
524 Elmwood Park Blvd.
New Orleans, LA 70123

2000 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tr
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



0 Feet

500

1000

2000

Project Manager	Project No:
RAK	BB187041
Drawn By:	Scale:
EDR	As Shown
Checked By:	File Name:
RAK	Topo
Approved By:	Date:
JRK	1994

Terracon

524 Elmwood Park Blvd.
New Orleans, LA 70123

1994 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tract
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



0 Feet 750 1500 3000

Project Manager	Project No:
RAK	BB187041
Drawn By:	Scale:
EDR	As Shown
Checked By:	File Name:
RAK	Topo
Approved By:	Date:
JRK	1989



524 Elmwood Park Blvd.
New Orleans, LA 70123

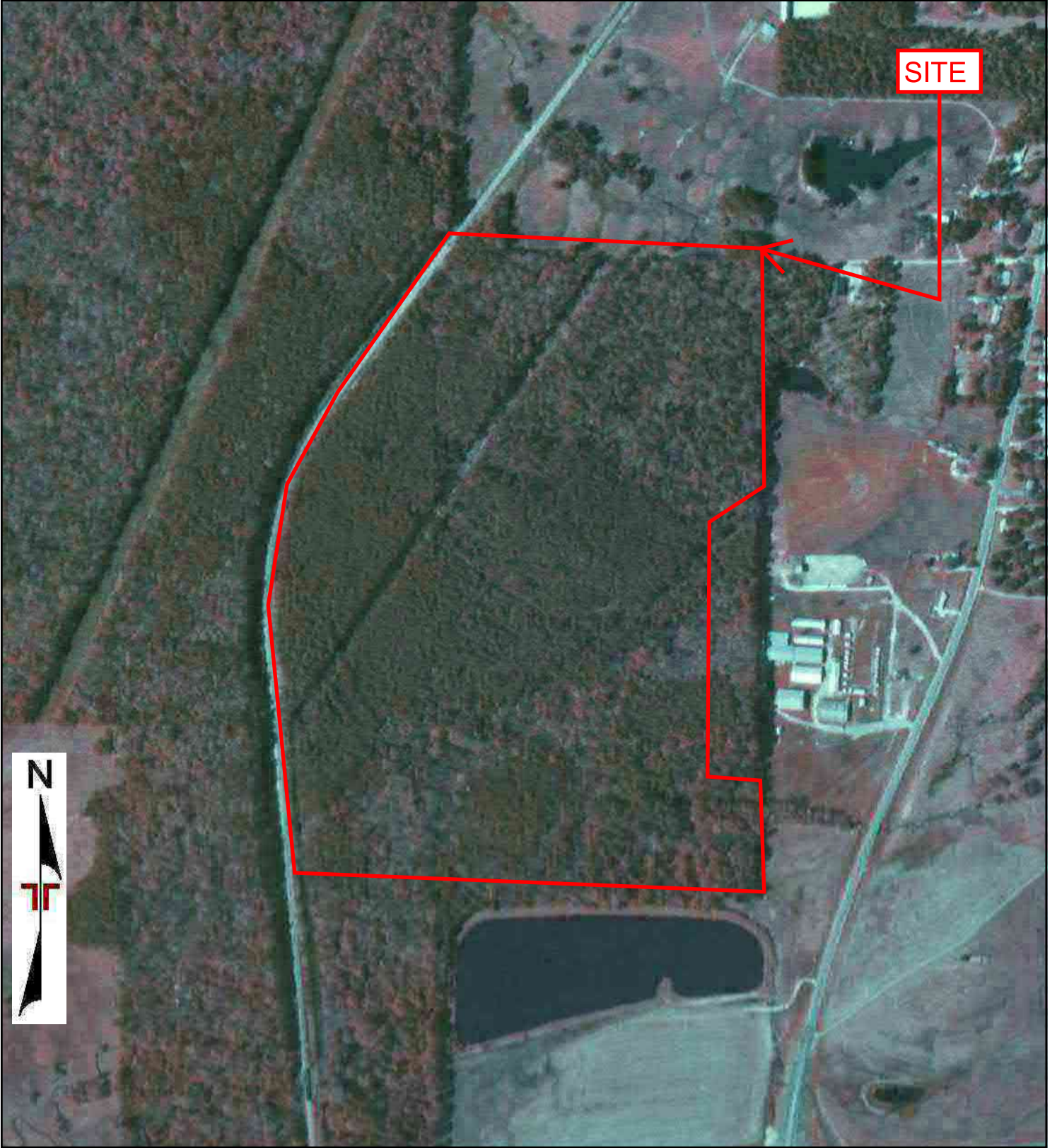
1989 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tract

Harvey Couch Boulevard

Magnolia, AR 71753

Appendix
C



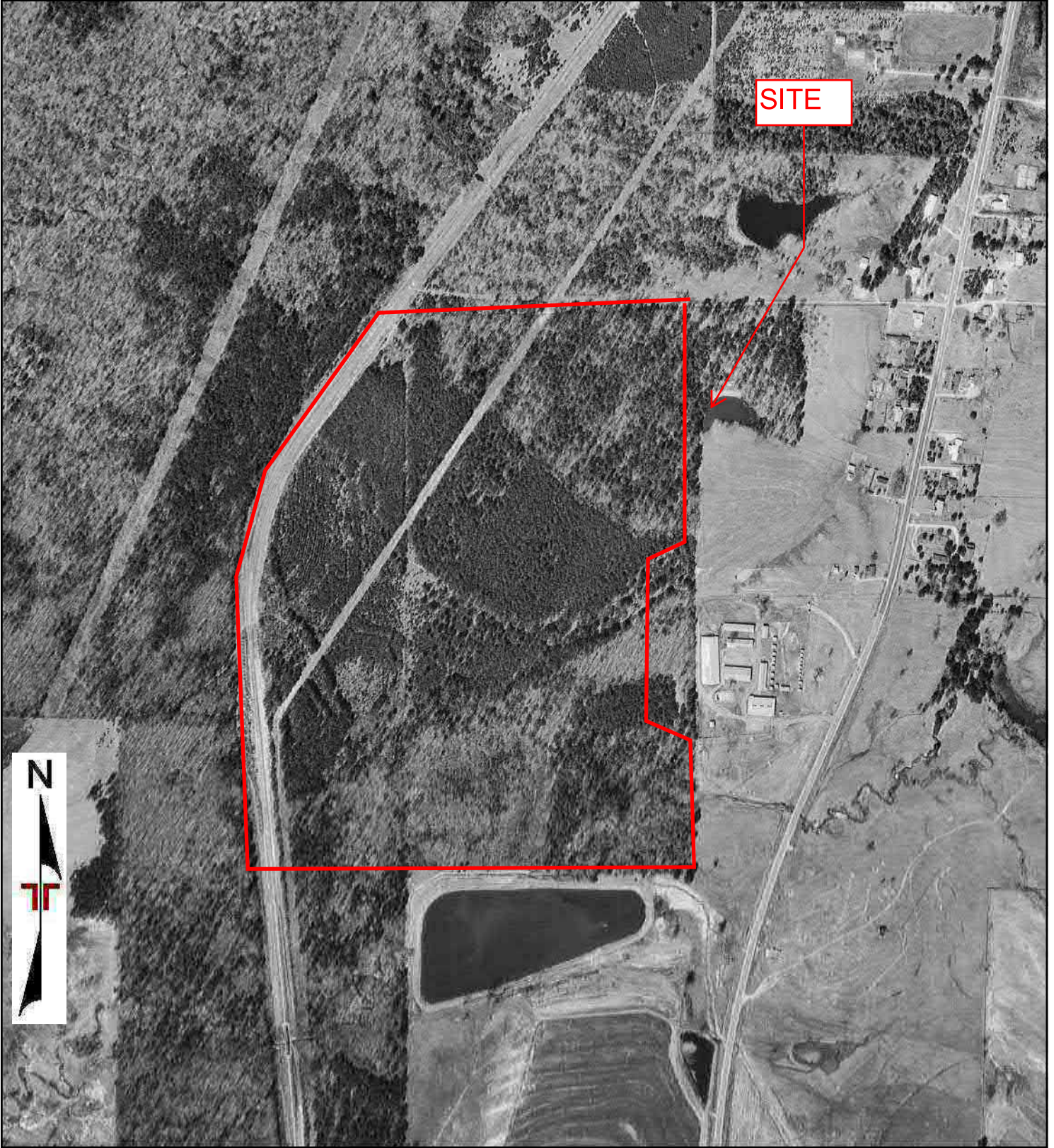
0 Feet

500

1000

2000

Project Manager RAK	Project No: BB187041	 524 Elmwood Park Blvd. New Orleans, LA 70123	1985 AERIAL PHOTOGRAPH	Appendix
Drawn By: EDR	Scale: As Shown		Harvey Couch Business Park - 104 Acre Tr	C
Checked By: RAK	File Name: Topo		Harvey Couch Boulevard	
Approved By: JRK	Date: 1985		Magnolia, AR 71753	



0 Feet

500

1000

2000

Project Manager	RAK	Project No:	BB187041
Drawn By:	EDR	Scale:	As Shown
Checked By:	RAK	File Name:	Topo
Approved By:	JRK	Date:	1965

Terracon

524 Elmwood Park Blvd.
New Orleans, LA 70123

1965 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tr
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C



0 Feet

750

1500

3000

Project Manager	Project No:
RAK	BB187041
Drawn By:	Scale:
EDR	As Shown
Checked By:	File Name:
RAK	Topo
Approved By:	Date:
JRK	1949

Terracon

524 Elmwood Park Blvd.
New Orleans, LA 70123

1949 AERIAL PHOTOGRAPH

Harvey Couch Business Park - 104 Acre Tract
Harvey Couch Boulevard
Magnolia, AR 71753

Appendix

C

APPENDIX D
ENVIRONMENTAL DATABASE INFORMATION

Harvey Couch Business Park - 104 Acre Tract

Harvey Couch Boulevard

Magnolia, AR 71753

Inquiry Number: 5464906.2s

October 25, 2018

The EDR Radius Map™ Report with GeoCheck®



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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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MAPPED SITES SUMMARY

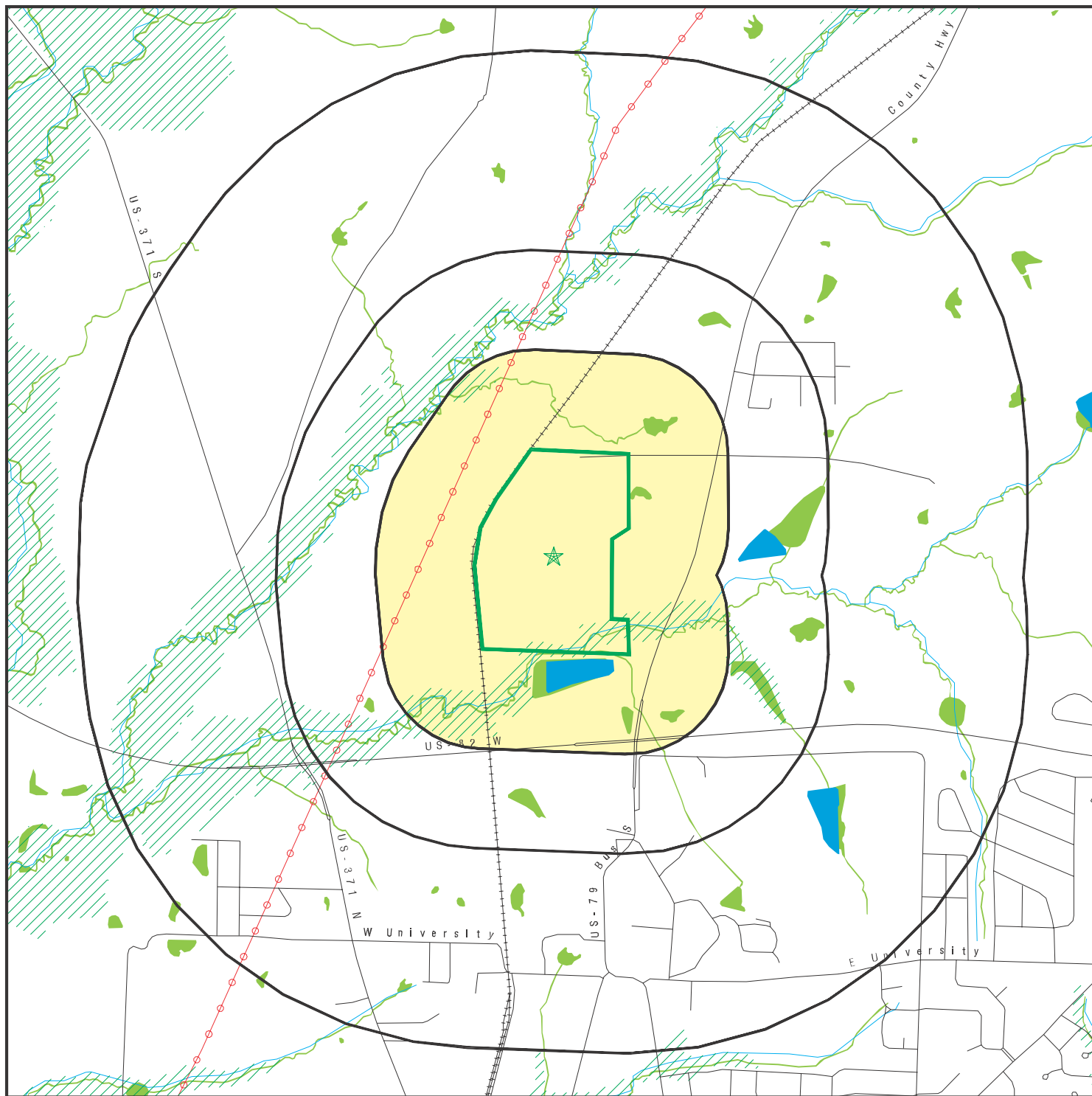
Target Property Address:
HARVEY COUCH BOULEVARD
MAGNOLIA, AR 71753













Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

OVERVIEW MAP - 5464906.2S



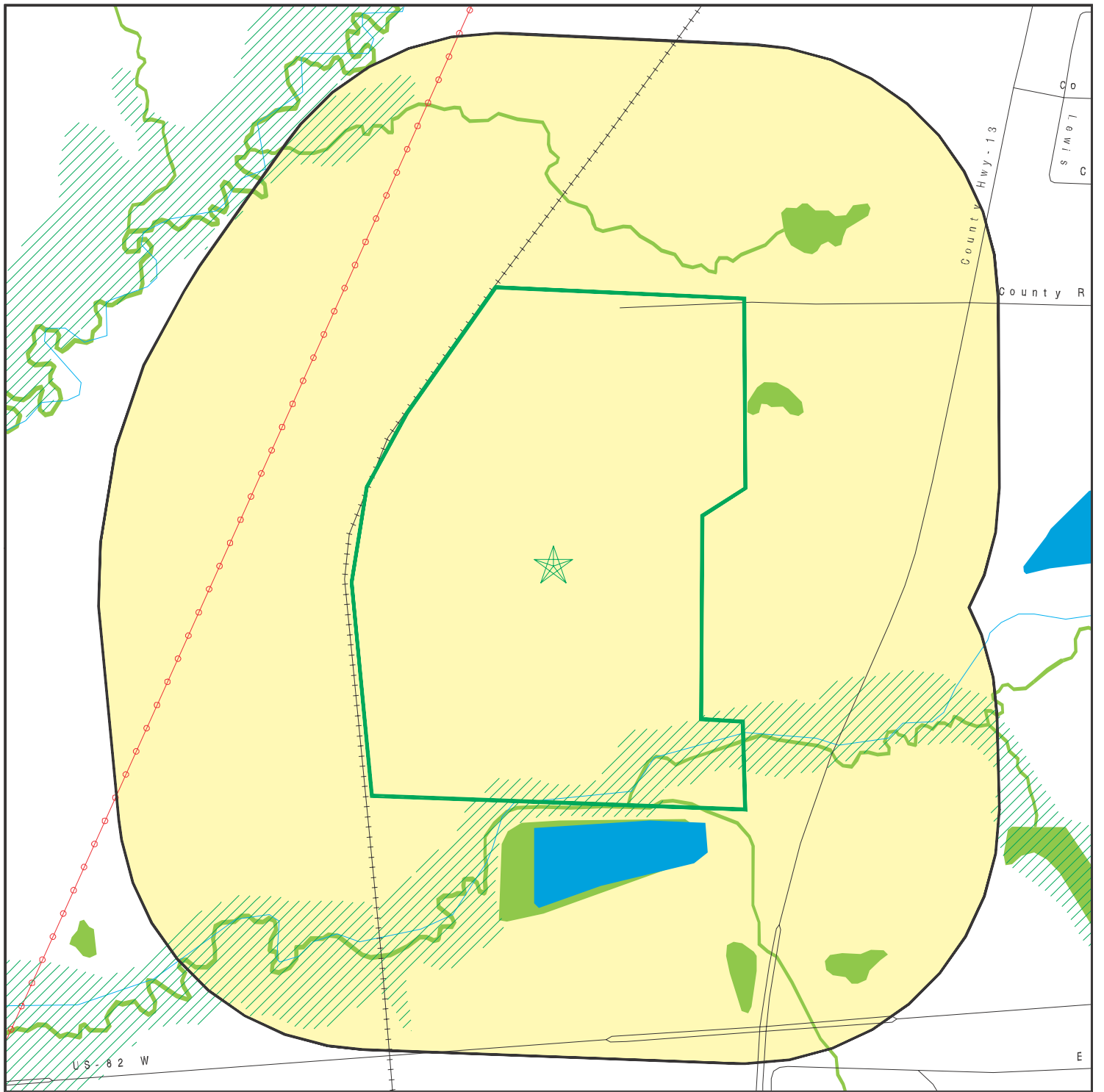
-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  State Wetlands














This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Harvey Couch Business Park - 104 Acre Tract
 ADDRESS: Harvey Couch Boulevard
 Magnolia AR 71753
 LAT/LONG: 33.304016 / 93.239642

CLIENT: Terracon
 CONTACT: Rachel Keane
 INQUIRY #: 5464906.2s
 DATE: October 25, 2018 10:41 am

DETAIL MAP - 5464906.2S



- | | |
|---|--|
|  Target Property |  Indian Reservations BIA |
|  Sites at elevations higher than or equal to the target property |  Power transmission lines |
|  Sites at elevations lower than the target property |  100-year flood zone |
|  Manufactured Gas Plants |  500-year flood zone |
|  Sensitive Receptors |  National Wetland Inventory |
|  National Priority List Sites |  State Wetlands |
|  Dept. Defense Sites | |

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Harvey Couch Business Park - 104 Acre Tract
 ADDRESS: Harvey Couch Boulevard
 Magnolia AR 71753
 LAT/LONG: 33.304016 / 93.239642

CLIENT: Terracon
 CONTACT: Rachel Keane
 INQUIRY #: 5464906.2s
 DATE: October 25, 2018 10:42 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
SWID	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LTANKS	0.500		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
SPILLS 80	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PERMITS	TP		NR	NR	NR	NR	NR	0
AR Sludge	0.500		0	0	0	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	TP		NR	NR	NR	NR	NR	0
---------	----	--	----	----	----	----	----	---

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NO SITES FOUND

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
------	--------	-----------	--------------	-----	-------------

NO SITES FOUND

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arrl Date	Active Date
AR	AIRS	Permitted Facility Emission & Stack Data	Department of Environmental Quality	09/24/2018	09/25/2018	09/28/2018
AR	ASBESTOS	Asbestos Notification of Intent Database	Department of Environmental Quality	07/23/2018	07/25/2018	08/23/2018
AR	AST	Aboveground Tank Database	Department of Environmental Quality	09/17/2018	09/18/2018	09/28/2018
AR	BROWNFIELDS	Brownfields Projects	Department of Environmental Quality	08/08/2018	08/10/2018	08/23/2018
AR	CDL	Methamphetamine Contaminated Properties Listing	Department of Environmental Quality	07/23/2018	07/25/2018	08/23/2018
AR	COAL ASH	Coal Ash Disposal Site Listing	Department of Environmental Quality	05/16/2018	05/22/2018	07/23/2018
AR	ENFORCEMENT	Consent Administrative Order, Notice of Violation Information	Department of Environmental Quality	07/23/2018	07/25/2018	08/23/2018
AR	ENG CONTROLS	Engineering Controls Sites Listing	Department of Environmental Quality	08/08/2018	08/10/2018	08/23/2018
AR	Financial Assurance 1	Financial Assurance Information Listing	Department of Environmental Quality	06/14/2018	06/19/2018	07/23/2018
AR	Financial Assurance 2	Financial Assurance Information Listing	Department of Environmental Quality	03/31/2014	04/18/2014	05/13/2014
AR	Financial Assurance 3	Financial Assurance Information Listing	Department of Environmental Quality	09/17/2018	09/18/2018	09/28/2018
AR	INST CONTROL	Institutional Control/Land Use Restriction Sites	Department of Environmental Quality	08/08/2018	08/10/2018	08/23/2018
AR	LTANKS	Leaking Underground Storage Tank Data	Department of Environmental Quality	09/17/2018	09/18/2018	09/28/2018
AR	PERMITS	Permit Data System	Department of Environmental Quality	09/10/2018	09/11/2018	09/28/2018
AR	RGA HWS	Recovered Government Archive State Hazardous Waste Facilities	Department of Environmental Quality	07/01/2013	07/01/2013	01/02/2014
AR	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Environmental Quality	07/01/2013	07/01/2013	01/16/2014
AR	RGA LUST	Recovered Government Archive Leaking Underground Storage Tank	Department of Environmental Quality	09/10/2018	09/11/2018	09/28/2018
AR	SHWS	Hazardous Substance Remedial Action Trust Fund Priority List	Department of Environmental Quality	07/08/2018	07/11/2018	08/23/2018
AR	SLUDGE	Poultry Sludge Permit Sites	Department of Environmental Quality	03/30/2009	01/03/2013	03/06/2013
AR	SPILLS	Emergency Response Incidents	FirstSearch	05/08/2011	01/03/2013	03/06/2013
AR	SPILLS 80	SPILLS80 data from FirstSearch	FirstSearch	08/02/2018	08/06/2018	08/23/2018
AR	SPILLS 90	SPILLS90 data from FirstSearch	Department of Environmental Quality	08/01/2018	08/06/2018	08/23/2018
AR	SWF/LF	Solid Waste Facility Permit Database	Department of Environmental Quality	08/03/2018	08/06/2018	08/23/2018
AR	SWID	Solid Waste Illegal Dumps Database	Department of Environmental Quality	12/31/2013	09/24/2014	10/29/2014
AR	SWRCY	Recycling Directory	Department of Environmental Management	07/02/2018	07/18/2018	08/23/2018
AR	TIER 2	Tier 2 Information Listing	Arkansas Oil & Gas Commission	09/17/2018	09/18/2018	09/28/2018
AR	UIC	Underground Injection Wells Database Listing	Department of Environmental Quality	04/30/2018	05/17/2018	06/21/2018
AR	UST	Underground Storage Tank Data	Department of Environmental Quality	09/30/2017	05/08/2018	07/20/2018
AR	VCP	Voluntary Cleanup Program Sites	Department of Interior	09/10/2018	09/11/2018	09/14/2018
US	2020 COR ACTION	2020 Corrective Action Program List	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	ABANDONED MINES	Abandoned Mines	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	BRS	Biennial Reporting System	Environmental Protection Agency	07/01/2014	07/10/2014	10/20/2014
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Justice, Consent Decree Library	06/30/2018	07/17/2018	10/05/2018
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	EPA	03/01/2018	03/28/2018	06/22/2018
US	CONSENT	Superfund (CERCLA) Consent Decrees	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	CORRACTS	Corrective Action Report	Environmental Protection Agency	05/31/2018	07/26/2018	10/05/2018
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Department of Transportation, Office of Pipeline	07/31/2012	08/07/2012	09/18/2012
US	DOD	Department of Defense Sites	EPA	07/17/2018	08/09/2018	09/07/2018
US	DOT OPS	Incident and Accident Data	Environmental Protection Agency	09/02/2018	09/05/2018	09/14/2018
US	Delisted NPL	National Priority List Deletions	EDR, Inc.			
US	ECHO	Enforcement & Compliance History Information	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	National Response Center, United States Coast	06/18/2018	06/27/2018	09/14/2018
US	EPA WATCH LIST	EPA WATCH LIST				
US	ERNS	Emergency Response Notification System				

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	11/07/2016	01/05/2017	04/07/2017
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017
US	FINDS	Facility Index System/Facility Registry System	EPA	08/07/2018	09/05/2018	10/05/2018
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	08/22/2018	08/22/2018	10/05/2018
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/26/2018	03/27/2018	06/08/2018
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Services, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/13/2018	05/18/2018	07/20/2018
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/10/2018	05/18/2018	07/20/2018
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/13/2018	05/18/2018	07/20/2018
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/10/2018	05/18/2018	07/20/2018
US	INDIAN VCP R1	Underground Storage Tanks on Indian Land	EPA, Region 1	07/27/2015	09/29/2015	02/16/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Listing	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	07/17/2018	08/09/2018	10/05/2018
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	07/17/2018	08/09/2018	10/05/2018
US	LUCIS	Land Use Control Information System	Department of the Navy	05/14/2018	05/18/2018	07/20/2018
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	NPL	National Priority List	EPA	07/17/2018	08/09/2018	09/07/2018
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	06/01/2017	06/09/2017	10/13/2017
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	Proposed NPL	Proposed National Priority List Sites	EPA	07/17/2018	08/09/2018	09/07/2018
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/02/2018	07/05/2018	10/05/2018
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RMP	Risk Management Plans	Environmental Protection Agency	08/01/2018	08/22/2018	10/05/2018
US	ROD	Records Of Decision	EPA	07/17/2018	08/09/2018	10/05/2018
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	07/17/2018	08/09/2018	09/07/2018
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	07/17/2018	08/09/2018	09/07/2018
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017	10/11/2017	11/03/2017
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (EPA	10/12/2016	02/03/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/18/2018	06/20/2018	09/14/2018
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	05/18/2018	06/20/2018	09/14/2018
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	07/31/2018	08/28/2018	09/14/2018
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	05/31/2018	06/27/2018	10/05/2018
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	05/18/2018	06/20/2018	09/14/2018
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	07/31/2018	08/28/2018	09/14/2018
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/01/2018	08/29/2018	10/05/2018
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	09/30/2017	06/19/2018	09/14/2018
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	08/10/2018	08/10/2018	09/10/2018
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	07/01/2018	08/01/2018	08/31/2018
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2016	07/25/2017	09/25/2017
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2017	02/23/2018	04/09/2018
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	12/31/2017	06/15/2018	07/09/2018
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
AR	State Wetlands	Wetland Inventory	US Fish & Wildlife Service			
US	Topographic Map	Current USGS 7.5 Minute Topographic Map	U.S. Geological Survey			
US	Oil/Gas Pipelines		PennWell Corporation			
US	Electric Power Transmission Line Data		PennWell Corporation			

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

HARVEY COUCH BUSINESS PARK - 104 ACRE TRACT
HARVEY COUCH BOULEVARD
MAGNOLIA, AR 71753

TARGET PROPERTY COORDINATES

Latitude (North):	33.304016 - 33° 18' 14.46"
Longitude (West):	93.239642 - 93° 14' 22.71"
Universal Transverse Mercator:	Zone 15
UTM X (Meters):	477690.2
UTM Y (Meters):	3684824.5
Elevation:	323 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6062709 MAGNOLIA, AR
Version Date:	2014
West Map:	6062501 WALDO, AR
Version Date:	2014

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

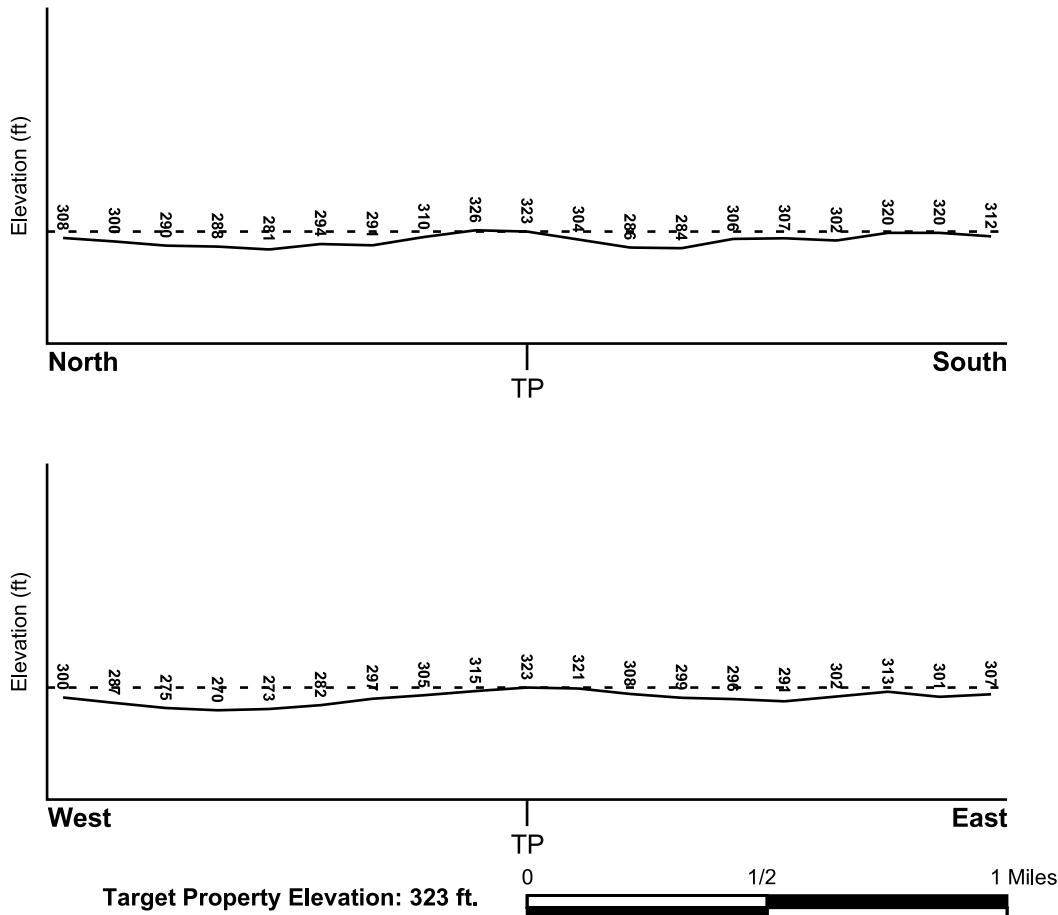
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
05027C0190C	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
05027C0160C	FEMA FIRM Flood data
05027C0180C	FEMA FIRM Flood data
05027C0170C	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

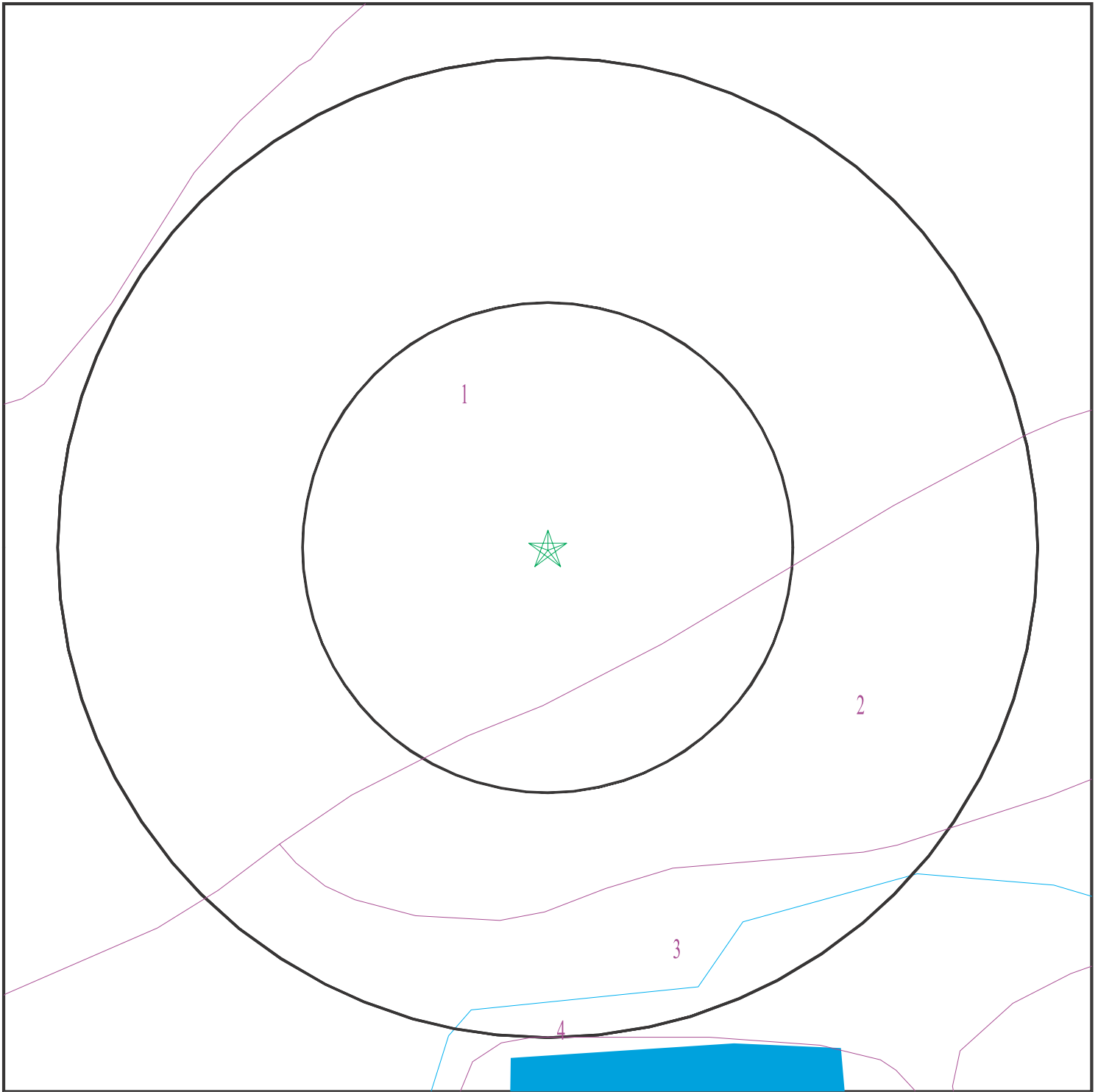
Era:	Cenozoic
System:	Tertiary
Series:	Eocene Claiborne Group
Code:	Te2 (<i>decoded above as Era, System & Series</i>)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5464906.2s



- ★ Target Property
- SSURGO Soil
- Water

0 1/16 1/8 1/4 Miles



SITE NAME: Harvey Couch Business Park - 104 Acre Tract
ADDRESS: Harvey Couch Boulevard
Magnolia AR 71753
LAT/LONG: 33.304016 / 93.239642

CLIENT: Terracon
CONTACT: Rachel Keane
INQUIRY #: 5464906.2s
DATE: October 25, 2018 10:42 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Sacul

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 92 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5
2	3 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5
3	7 inches	42 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5
4	42 inches	72 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 5.5 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Harleston

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 76 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	5 inches	9 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
2	9 inches	33 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
3	33 inches	72 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5
4	0 inches	5 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 4	Max: 6 Min: 4.5

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 3

Soil Component Name: Bibb

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 31 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 5.5 Min: 4.5
2	11 inches	72 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 5.5 Min: 4.5

Soil Map ID: 4

Soil Component Name: Water

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000113932	1/2 - 1 Mile South
3	USGS40000113928	1/2 - 1 Mile SSE
A4	USGS40000068144	1/2 - 1 Mile WSW
A5	USGS40000113937	1/2 - 1 Mile WSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
2	AR0000615	1/2 - 1 Mile South

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

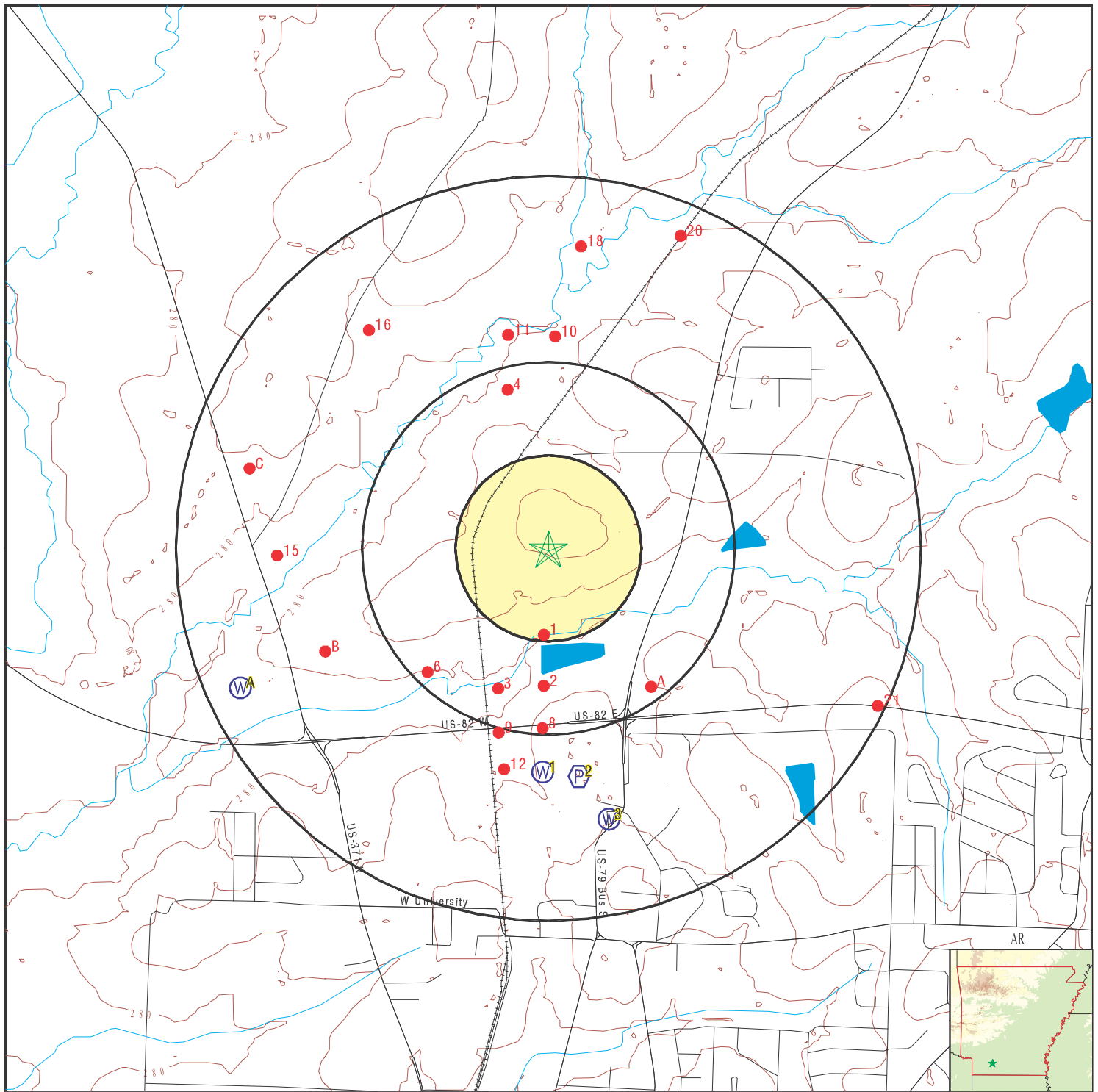
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	AROG60000026097	1/8 - 1/4 Mile South

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	AROG60000026278	1/4 - 1/2 Mile South
3	AROG60000025011	1/4 - 1/2 Mile SSW
4	AROG60000029335	1/4 - 1/2 Mile NNW
A5	AROG60000026132	1/4 - 1/2 Mile SE
6	AROG60000029333	1/4 - 1/2 Mile SW
A7	AROG60000031547	1/4 - 1/2 Mile SE
8	AROG60000023891	1/4 - 1/2 Mile South
9	AROG60000023718	1/2 - 1 Mile SSW
10	AROG60000026505	1/2 - 1 Mile North
11	AROG60000028967	1/2 - 1 Mile North
12	AROG60000029097	1/2 - 1 Mile SSW
B13	AROG60000029393	1/2 - 1 Mile WSW
B14	AROG60000029395	1/2 - 1 Mile WSW
15	AROG60000030056	1/2 - 1 Mile West
16	AROG60000023349	1/2 - 1 Mile NW
C17	AROG60000029695	1/2 - 1 Mile WNW
18	AROG60000027018	1/2 - 1 Mile North
C19	AROG60000029873	1/2 - 1 Mile WNW
20	AROG60000027856	1/2 - 1 Mile NNE
21	AROG60000029571	1/2 - 1 Mile ESE

PHYSICAL SETTING SOURCE MAP - 5464906.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Harvey Couch Business Park - 104 Acre Tract
 ADDRESS: Harvey Couch Boulevard
 Magnolia AR 71753
 LAT/LONG: 33.304016 / 93.239642

CLIENT: Terracon
 CONTACT: Rachel Keane
 INQUIRY #: 5464906.2s
 DATE: October 25, 2018 10:42 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
South
1/2 - 1 Mile
Lower

FED USGS USGS40000113932

Organization ID:	USGS-AR	Organization Name:	USGS Arkansas Water Science Center
Monitor Location:	17S21W01BBC1	Type:	Well
Description:	Not Reported	HUC:	11140203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Sparta Sand	Aquifer Type:	Not Reported
Construction Date:	19651101	Well Depth:	548
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	47	Level reading date:	2005-03-10
Feet below surface:	269.75	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2003-03-12	Feet below surface:	270.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2001-04-04	Feet below surface:	309.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	2000-04-13	Feet below surface:	293.50
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-02-19	Feet below surface:	328.24
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-08-04	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1998-05-07	Feet below surface:	301.30
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-03-18	Feet below surface:	326.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1993-05-20	Feet below surface:	327.32
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1992-06-03	Feet below surface:	318.36
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1990-03-29	Feet below surface:	320.20
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1989-04-05	Feet below surface:	322.03
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-04-28	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-04-05	Feet below surface:	316.35
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1987-04-02	Feet below surface:	302.10
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-04-10	Feet below surface:	301.29
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1985-04-18	Feet below surface:	302.58
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1984-04-11	Feet below surface:	325.71
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1983-04-12	Feet below surface:	328.24
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-03-30	Feet below surface:	329.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-10-22	Feet below surface:	321.73
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-03-31	Feet below surface:	327.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-10-10	Feet below surface:	317.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-03-19	Feet below surface:	304.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-11-01	Feet below surface:	313.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-03-14	Feet below surface:	305.18
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-12-14	Feet below surface:	304.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-04-05	Feet below surface:	306.21
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1977-04-18	Feet below surface:	302.94
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1976-04-07	Feet below surface:	286.41
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1975-11-18	Feet below surface:	279.61
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1975-03-27	Feet below surface:	289.47
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1974-11-06	Feet below surface:	277.8
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1974-04-10	Feet below surface:	271.2
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1973-11-13	Feet below surface:	281.37
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Level reading date:	1973-04-04	Feet below surface:	268.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-11-09	Feet below surface:	280.53
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1972-04-13	Feet below surface:	267.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-10-29	Feet below surface:	274.25
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1971-04-01	Feet below surface:	265.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-09-30	Feet below surface:	292.4
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1970-04-14	Feet below surface:	282.16
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-10-23	Feet below surface:	280.57
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1969-04-10	Feet below surface:	276.86
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-10-15	Feet below surface:	266.83
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1968-04-02	Feet below surface:	263.82
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1967-11-13	Feet below surface:	268.2
Feet to sea level:	Not Reported	Note:	Not Reported

2
South
1/2 - 1 Mile
Lower

FRDS PWS AR0000615

Epa region:	06	State:	AR
Pwsid:	AR0000615	Pwsname:	SOUTHERN ARKANSAS UNIVERSITY
Cityserved:	Not Reported	Stateserved:	AR
Zipsserved:	Not Reported	Fipscounty:	05027
Status:	Closed	Retpopsrwd:	2370
Pwssvcconn:	948	Psource longname:	Groundwater
Pwstype:	CWS	Owner:	Local_Govt
Contact:	P.O. BOX 1413, SAU	Contactorgname:	Not Reported
Contactphone:	870-234-5120	Contactaddress1:	P.O. BOX 1413, SAU
Contactaddress2:	Not Reported	Contactcity:	MAGNOLIA
Contactstate:	AR	Contactzip:	71753
Pwsactivitycode:	I		
PWS ID:	AR0000615	PWS type:	Operator
PWS name:	WILLIE FRANKLIN	PWS address:	Not Reported
PWS city:	Not Reported	PWS state:	Not Reported
PWS zip:	Not Reported	PWS ID:	AR0000615
Activity status:	Active	Date system activated:	Not Reported
Date system deactivated:	Not Reported	Retail population:	00002370
System name:	SOUTHERN ARKANSAS UNIVERSITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System address:	Not Reported	System address:	P. O. BOX 1413, SAU
System city:	MAGNOLIA	System state:	AR
System zip:	71753		
Population served:	1,001 - 2,500 Persons	Treatment:	Treated
Latitude:	331742	Longitude:	0931417

3 SSE 1/2 - 1 Mile Lower

FED USGS USGS40000113928

Organization ID:	USGS-AR	Organization Name:	USGS Arkansas Water Science Center
Monitor Location:	17S21W01BBD1	Type:	Well
Description:	Not Reported	HUC:	08040201
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Sparta Sand	Aquifer Type:	Not Reported
Construction Date:	19430101	Well Depth:	425
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A4 WSW 1/2 - 1 Mile Lower

FED USGS USGS40000068144

Organization ID:	USGS-AR	Organization Name:	USGS Arkansas Water Science Center
Monitor Location:	6169 MAGNOLIA WATER WORKS	Type:	Well
Description:	6169 MAGNOLIA WW	HUC:	11140203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Sparta Sand	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	491
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A5 WSW 1/2 - 1 Mile Lower

FED USGS USGS40000113937

Organization ID:	USGS-AR	Organization Name:	USGS Arkansas Water Science Center
Monitor Location:	16S21W35CCD1	Type:	Well
Description:	Not Reported	HUC:	11140203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Units:	Not Reported
Aquifer:	Mississippi embayment aquifer system		
Formation Type:	Cane River Formation	Aquifer Type:	Not Reported
Construction Date:	19700801	Well Depth:	488
Well Depth Units:	ft	Well Hole Depth:	540
Well Hole Depth Units:	ft		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground water levels, Number of Measurements:	39	Level reading date:	2003-03-11
Feet below surface:	39.50	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2001-04-04	Feet below surface:	60.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1999-02-19	Feet below surface:	86.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-08-05	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-07-08	Feet below surface:	175.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-03-07	Feet below surface:	115.88
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1997-03-07	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1995-06-02	Feet below surface:	297.66
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1993-08-05	Feet below surface:	Not Reported
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1993-05-19	Feet below surface:	307.40
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1992-06-04	Feet below surface:	299.64
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1990-03-29	Feet below surface:	288.05
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1989-04-06	Feet below surface:	296.92
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1988-04-06	Feet below surface:	292.90
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1987-03-31	Feet below surface:	286.44
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1986-04-10	Feet below surface:	287.52
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1985-04-17	Feet below surface:	264.41
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1984-04-11	Feet below surface:	266.69
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1983-04-07	Feet below surface:	257.47
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-03-30	Feet below surface:	263.63
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-10-22	Feet below surface:	265.51

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-03-31	Feet below surface:	297.89
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-10-16	Feet below surface:	316.33
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-03-19	Feet below surface:	293.29
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-12-07	Feet below surface:	285.60
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-03-14	Feet below surface:	310.48
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1978-12-07	Feet below surface:	298.49
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1978-04-05	Feet below surface:	291.72
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1977-04-18	Feet below surface:	276.02
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1976-10-13	Feet below surface:	275.53
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1976-04-07	Feet below surface:	271.21
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1975-11-18	Feet below surface:	271.58
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1975-03-27	Feet below surface:	302.85
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1974-11-06	Feet below surface:	304.4
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1974-04-10	Feet below surface:	281.56
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.
Level reading date:	1973-11-13	Feet below surface:	272.95
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1973-04-04	Feet below surface:	246.68
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-11-08	Feet below surface:	251.71
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1972-04-13	Feet below surface:	243.85
Feet to sea level:	Not Reported	Note:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

South

1/8 - 1/4 Mile

OIL_GAS

AROG60000026097

Permit: 13503
Company Name: LBOC LLC
Well #: 5
Production ID: 0
Total Depth Drilled: 2136
Well Status: C
Ground Elevation, Kelly Bushing: Not Reported
Total Measured Depth: 0
Geologic Formation: Not Reported

API #: 03139008480000
Well Name: SAXON A 5
Well Type: OIL
Depth to Bedrock: 2136
Plugged Back Depth: 0
Status Date: 10-MAY-56
Elevation: 189
Well Field: LISBON NORTH
Log Types: Not Reported

2

South

1/4 - 1/2 Mile

OIL_GAS

AROG60000026278

Permit: 13529
Company Name: LBOC LLC
Well #: 2-X
Production ID: 0
Total Depth Drilled: 2076
Well Status: C
Ground Elevation, Kelly Bushing: Not Reported
Total Measured Depth: 0
Geologic Formation: Not Reported

API #: 03139008450000
Well Name: SAXON A 2 X
Well Type: OIL
Depth to Bedrock: 2076
Plugged Back Depth: 0
Status Date: 22-MAY-56
Elevation: 174
Well Field: LISBON NORTH
Log Types: Not Reported

3

SSW

1/4 - 1/2 Mile

OIL_GAS

AROG60000025011

Permit: 13082
Company Name: LBOC LLC
Well #: 3
Production ID: 0
Total Depth Drilled: 2089
Well Status: C
Ground Elevation, Kelly Bushing: Not Reported
Total Measured Depth: 0
Geologic Formation: Not Reported

API #: 03139008460000
Well Name: SAXON A 3
Well Type: OIL
Depth to Bedrock: 2089
Plugged Back Depth: 0
Status Date: 31-OCT-55
Elevation: 184
Well Field: LISBON NORTH
Log Types: EL

4

NNW

1/4 - 1/2 Mile

OIL_GAS

AROG60000029335

Permit: 35842
Company Name: Petro Chem Operating Company Inc
Well Name: GSLU TR 35 1 1
Well #: 1
Production ID: 0

API #: 03027115030000
Well Type: OIL
Depth to Bedrock: 8500

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Total Depth Drilled:	0	Plugged Back Depth:	0
Well Status:	EX	Status Date:	01-NOV-95
Ground Elevation, Kelly Bushing:	Not Reported	Elevation:	0
Total Measured Depth:	0	Well Field:	GRAYSON
Geologic Formation:	Not Reported	Log Types:	Not Reported

**A5
SE
1/4 - 1/2 Mile**

OIL_GAS AROG60000026132

Permit:	11253	API #:	03027005830000
Company Name:	Burnett Production Co		
Well Name:	Southern State College A 1		
Well #:	A-1	Well Type:	OIL
Production ID:	0	Depth to Bedrock:	0
Total Depth Drilled:	4511	Plugged Back Depth:	0
Well Status:	DA	Status Date:	31-JAN-53
Ground Elevation, Kelly Bushing:	K	Elevation:	306
Total Measured Depth:	0	Well Field:	Not Reported
Geologic Formation:	Not Reported	Log Types:	Not Reported

**6
SW
1/4 - 1/2 Mile**

OIL_GAS AROG60000029333

Permit:	35826	API #:	03027115790000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU 35 2 2	Well #:	35-2-2
Well Type:	OIL	Production ID:	0
Depth to Bedrock:	0	Total Depth Drilled:	8500
Plugged Back Depth:	0	Well Status:	PR
Status Date:	12-NOV-95	Ground Elevation, Kelly Bushing:	G
Elevation:	314	Total Measured Depth:	0
Well Field:	Not Reported	Geologic Formation:	Not Reported
Log Types:	Not Reported		

**A7
SE
1/4 - 1/2 Mile**

OIL_GAS AROG60000031547

Permit:	47960	API #:	03027120830000
Company Name:	Betsy Production Company, Inc		
Well Name:	SAU 1	Well #:	1
Well Type:	OIL	Production ID:	0
Depth to Bedrock:	4650	Total Depth Drilled:	0
Plugged Back Depth:	0	Well Status:	PW
Status Date:	30-JUN-15	Ground Elevation, Kelly Bushing:	Not Reported
Elevation:	0	Total Measured Depth:	0
Well Field:	Not Reported	Geologic Formation:	Not Reported
Log Types:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

8

South

1/4 - 1/2 Mile

OIL_GAS

AROG60000023891

Permit: 12708
Company Name: LBOC LLC
Well #: 1
Production ID: 28280
Total Depth Drilled: 2067
Well Status: C
Ground Elevation, Kelly Bushing: Not Reported
Total Measured Depth: 0
Geologic Formation: Not Reported

API #: 03139008430000
Well Name: Saxon A 1
Well Type: OIL
Depth to Bedrock: 0
Plugged Back Depth: 0
Status Date: 15-JUL-55
Elevation: 162
Well Field: LISBON NORTH
Log Types: EL

9

SSW

1/2 - 1 Mile

OIL_GAS

AROG60000023718

Permit: 13036
Company Name: LBOC LLC
Well #: 4
Production ID: 0
Total Depth Drilled: 2080
Well Status: C
Ground Elevation, Kelly Bushing: Not Reported
Total Measured Depth: 0
Geologic Formation: Not Reported

API #: 03139008470000
Well Name: SAXON A 4
Well Type: OIL
Depth to Bedrock: 2080
Plugged Back Depth: 0
Status Date: 15-OCT-55
Elevation: 168
Well Field: LISBON NORTH
Log Types: CORL

10

North

1/2 - 1 Mile

OIL_GAS

AROG60000026505

Permit: 23477
Company Name: Curry Bob
Well #: 2
Production ID: 28294
Total Depth Drilled: 7887
Well Status: PA
Ground Elevation, Kelly Bushing: Not Reported
Total Measured Depth: 0
Geologic Formation: Not Reported

API #: 03027103620000
Well Name: Baskin 2
Well Type: OIL
Depth to Bedrock: 0
Plugged Back Depth: 0
Status Date: 28-AUG-75
Elevation: 297
Well Field: BARLOW BRANCH
Log Types: Not Reported

11

North

1/2 - 1 Mile

OIL_GAS

AROG60000028967

Permit: 35655
Company Name: Petro Chem Operating Company Inc
Well Name: NINA GRAYSON WARNOCK
Well #: 3
Production ID: 0

API #: 03027115450000
Well Type: OIL
Depth to Bedrock: 9000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Total Depth Drilled:	0	Plugged Back Depth:	0
Well Status:	EX	Status Date:	03-MAR-95
Ground Elevation, Kelly Bushing:	Not Reported	Elevation:	0
Total Measured Depth:	0	Well Field:	GRAYSON
Geologic Formation:	Not Reported	Log Types:	Not Reported

12 SSW 1/2 - 1 Mile

OIL_GAS AROG60000029097

Permit:	35728	API #:	03027115660000
Company Name:	Alice Sidney Oil Company LP		
Well Name:	Crone S T 1	Well #:	1
Well Type:	OIL	Production ID:	0
Depth to Bedrock:	0	Total Depth Drilled:	8400
Plugged Back Depth:	0	Well Status:	DA
Status Date:	26-SEP-95	Ground Elevation, Kelly Bushing:	Not Reported
Elevation:	296	Total Measured Depth:	0
Well Field:	GRAYSON	Geologic Formation:	Not Reported
Log Types:	Not Reported		

B13 WSW 1/2 - 1 Mile

OIL_GAS AROG60000029393

Permit:	38887	API #:	03027117090000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU TR 34 1 2		
Well #:	2	Well Type:	OIL
Production ID:	0	Depth to Bedrock:	8300
Total Depth Drilled:	0	Plugged Back Depth:	0
Well Status:	EX	Status Date:	17-DEC-06
Ground Elevation, Kelly Bushing:	Not Reported	Elevation:	0
Total Measured Depth:	0	Well Field:	GRAYSON
Geologic Formation:	Not Reported	Log Types:	Not Reported

B14 WSW 1/2 - 1 Mile

OIL_GAS AROG60000029395

Permit:	38896	API #:	03027117100000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU TR 34 5 3		
Well #:	3	Well Type:	OIL
Production ID:	35483	Depth to Bedrock:	0
Total Depth Drilled:	8316	Plugged Back Depth:	8310
Well Status:	C	Status Date:	16-OCT-06
Ground Elevation, Kelly Bushing:	Not Reported	Elevation:	0
Total Measured Depth:	0	Well Field:	GRAYSON
Geologic Formation:	Not Reported	Log Types:	IND DEN

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

15
West
1/2 - 1 Mile

OIL_GAS AROG60000030056

Permit:	35382	API #:	03027115310000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU 35 5 1	Well #:	35-5-1
Well Type:	OIL	Production ID:	27791
Depth to Bedrock:	0	Total Depth Drilled:	8862
Plugged Back Depth:	0	Well Status:	PR
Status Date:	29-JUL-94	Ground Elevation, Kelly Bushing:	G
Elevation:	273	Total Measured Depth:	0
Well Field:	GRAYSON	Geologic Formation:	Not Reported
Log Types:	Not Reported		

16
NW
1/2 - 1 Mile

OIL_GAS AROG60000023349

Permit:	35214	API #:	03027115060000
Company Name:	Weiser Brown Operating Company		
Well Name:	Crone 1	Well #:	1
Well Type:	OIL	Production ID:	0
Depth to Bedrock:	0	Total Depth Drilled:	8369
Plugged Back Depth:	0	Well Status:	DA
Status Date:	14-DEC-93	Ground Elevation, Kelly Bushing:	Not Reported
Elevation:	0	Total Measured Depth:	0
Well Field:	GRAYSON	Geologic Formation:	Not Reported
Log Types:	Not Reported		

C17
WNW
1/2 - 1 Mile

OIL_GAS AROG60000029695

Permit:	35151	API #:	03027115130000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU 35 2 1	Well #:	35-2-1
Well Type:	OIL	Production ID:	27785
Depth to Bedrock:	0	Total Depth Drilled:	8450
Plugged Back Depth:	0	Well Status:	PR
Status Date:	10-JAN-03	Ground Elevation, Kelly Bushing:	Not Reported
Elevation:	296	Total Measured Depth:	0
Well Field:	GRAYSON	Geologic Formation:	Not Reported
Log Types:	Not Reported		

18
North
1/2 - 1 Mile

OIL_GAS AROG60000027018

Permit:	22979	API #:	03027102540000
Company Name:	Curry Bob	Well Name:	Height Christine 1

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Well #:	1	Well Type:	OIL
Production ID:	28293	Depth to Bedrock:	0
Total Depth Drilled:	7850	Plugged Back Depth:	0
Well Status:	PA	Status Date:	23-OCT-79
Ground Elevation, Kelly Bushing:	Not Reported	Elevation:	339
Total Measured Depth:	0	Well Field:	BARLOW BRANCH
Geologic Formation:	Not Reported	Log Types:	Not Reported

C19 WNW 1/2 - 1 Mile

OIL_GAS AROG60000029873

Permit:	43411	API #:	03027117800000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU TR 35 3 3		
Well #:	3	Well Type:	OIL
Production ID:	0	Depth to Bedrock:	8300
Total Depth Drilled:	8286	Plugged Back Depth:	8070
Well Status:	PR	Status Date:	21-AUG-10
Ground Elevation, Kelly Bushing:	Not Reported	Elevation:	0
Total Measured Depth:	0	Well Field:	GRAYSON
Geologic Formation:	Not Reported	Log Types:	PEX AIT DNL

20 NNE 1/2 - 1 Mile

OIL_GAS AROG60000027856

Permit:	24442	API #:	03027105210000
Company Name:	Curry Bob	Well Name:	BEN T LANEY TR 3
Well #:	3	Well Type:	OIL
Production ID:	0	Depth to Bedrock:	7827
Total Depth Drilled:	7827	Plugged Back Depth:	0
Well Status:	DA	Status Date:	27-JUN-77
Ground Elevation, Kelly Bushing:	G	Elevation:	304
Total Measured Depth:	0	Well Field:	Not Reported
Geologic Formation:	Not Reported	Log Types:	Not Reported

21 ESE 1/2 - 1 Mile

OIL_GAS AROG60000029571

Permit:	35101	API #:	03027115050000
Company Name:	Petro Chem Operating Company Inc		
Well Name:	GSLU 35 3 1	Well #:	35-3-1
Well Type:	OIL	Production ID:	27793
Depth to Bedrock:	0	Total Depth Drilled:	8500
Plugged Back Depth:	0	Well Status:	PR
Status Date:	11-JUN-93	Ground Elevation, Kelly Bushing:	Not Reported
Elevation:	284	Total Measured Depth:	0
Well Field:	GRAYSON	Geologic Formation:	Not Reported
Log Types:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

RADON

AREA RADON INFORMATION

State Database: AR Radon

Radon Test Results

Total Meas	Mean	Geom mean	Median	Std Dev	Max	% Sites>4 pCi/L	% Sites>20 pCi/L
16	0.5	0.3	0.3	0.5	1.8	0	0

Federal EPA Radon Zone for COLUMBIA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 71753

Number of sites tested: 10

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.660 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: US Fish & Wildlife Service

Telephone: 703-358-2171

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Arkansas Community Public Water Systems

Source: Health Department

Telephone: 501-661-2623

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Source: Arkansas Geographic Information Office

Telephone: 501-682-2929

Oil and gas well locations.

RADON

State Database: AR Radon

Source: Department of Health

Telephone: 501-661-2301

Radon Test Results

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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APPENDIX E CREDENTIALS

Jessica Keasler, AICP

ENVIRONMENTAL DEPARTMENT MANAGER

PROFESSIONAL EXPERIENCE

Ms. Keasler is an experienced environmental services professional having obtained an Environmental Science degrees from Louisiana State University and the University of Alabama. While with Terracon, Ms. Keasler has performed various environmental consulting services including Environmental Site Assessments (ESA), National Environmental Policy Act (NEPA) assessments, permitting, risk-based assessments and remediation. Ms. Keasler has been responsible for project management, project setup, field investigations, development of sampling plans, analytical data review and summary, regulatory interaction, report preparation and Geographical Information System (GIS) map production.

Ms. Keasler meets the qualifications of an Environmental Professional as defined by EPA's AAI. She has performed all aspects of Phase I ESA's including site reconnaissance and report preparation for sites throughout the Southeast. The ESAs have ranged from parcels of land less than an acre to 100 or more acres. Clients for these projects have consisted on lending institutions, site owners, potential buyers and land developers. Typical sites included vacant land in metropolitan areas for future development, and developed sites planned for property transfer or redevelopment. Activities of Phase II ESAs have included identification of potential contaminants, preparation and execution of work plans and sampling and analytical plans. Phase II activities also included review of data in comparison to the regulatory standards.

PROJECT EXPERIENCE

Proposed Zaxby's Restaurants | Various Locations, Louisiana

Ms. Keasler was the environmental project manager for the multiple proposed Zaxby's restaurants facilities located in Louisiana. Each project entailed a Phase I Environmental Site Assessment in accordance with ASTM 1527-15. All of the sites were undeveloped land. No issues were identified at any of the sites.

Ruffino's Restaurant | Baton Rouge, Louisiana

Ms. Keasler conducted a Phase I ESA under a short timeframe for a restaurant manager and chef interested in taking ownership of Ruffino's Restaurant and the property it is located on. The site reconnaissance was conducted while the restaurant was not open for business, in order to minimize disruption to customers and alleviate limitations. In addition to the site reconnaissance and interviews with knowledgeable people, historical records and regulatory data were reviewed. Terracon identified no Recognized Environmental Conditions (REC) and indicated no further investigation was warranted.

Colonial and Hospital Apartments | Baton Rouge, Louisiana

Terracon was retained to assist in obtaining environmental clearance for the redevelopment of two public housing apartment complexes located in Baton Rouge. The redevelopment projects would be receiving funding from the Department of Housing and Urban Development (HUD), and therefore were subject to HUD's environmental review procedures. A Phase I Environmental Site Assessment (ESA) for the site in accordance with ASTM 1527-05 and the EPA's All Appropriate Inquiry was also performed. The Phase I ESA identified historic drycleaners and gas station in the vicinity of the site, and recommended a subsurface investigation. The Limited Site Investigation (LSI) included installation of soil borings and temporary monitor wells and collection of soil and groundwater samples. The results of the LSI indicated no evidence of impact from these sources.

Elder Wood Preserving | Mansura, Louisiana

As the project manager for the Phase I ESA and subsequent Limited Site Investigation (LSI), Ms. Keasler conducted the site visit for the 19-acre tract of land developed with the Elder Wood Preserving, Co. The historical review identified this facility has operated at this site since 1976, and had expanded to the current 19-acre size in 2002. Based on the historical use of hazardous wastes, chemicals and petroleum products during the operation of this facility, a subsurface

EDUCATION

Master of Science
Environmental Studies with Planning
and Management and Wetland
Science and Management, Louisiana
State University
2006

Bachelor of Science
Environmental Science
University of Alabama
2004

CERTIFICATIONS

American Institute of Certified Planners

29 CFR 1910.120 Hazardous Waste
Operations and Emergency Response
- 40 Hour & 8-hour refresher

Transportation Worker Identification
Credential (TWIC)

AFFILIATIONS

Louisiana Brownfields Association

American Planning Association
LA Capitol Section Director 2014-2015;
Treasurer, 2012-2013

Louisiana Water Environment
Association President 2016-2017,
President Elect, 2015-2016
Secretary, 2013-2015

Society of Wetland Scientists

Women's Energy Network

WORK HISTORY

Terracon Consultants, Inc.
2009 – Present

Aquaterra Engineering, LLC
2006 - 2009



Jessica Keasler (continued)

investigation was recommended. The scope of the LSI included installation of 13 soil borings and 2 temporary monitor wells. One soil sample was collected from each boring in addition to 5 surface soil background samples and 1 surface soil sample from the retention pond. Based on the analytical results, Terracon concluded that the on-site operations did not adversely impact the subsurface soils on-site.

Peters Road Site | Harvey, Louisiana

Ms. Keasler served as the project manager for the Phase I & II ESA of an industrial facility. The site encompassed 14 acres separated onto three parcels by the adjacent streets, and included 19 buildings. The Phase I ESA identified numerous Recognized Environmental Conditions (RECs) with each parcel relating to the previous uses of site. The Phase II ESA consisted of the installation of 36 soil borings and temporary monitor wells in addition to sampling existing monitoring wells and a ground-penetrating radar survey. Based on a review of the data, seven areas of concern were identified to require further assessment. Ms. Keasler assisted the client in developing a preliminary corrective action plan for the areas to estimate the overall cost for environmental clean-up.

2,367-Acre Tract | Livingston Parish, Louisiana

Ms. Keasler conducted a Phase I ESA for Livingston Parish prior to the acquisition of a 2,367-tract of undeveloped bottomland hardwood swamp under the Coastal Impact Assistance Program (CIAP). The property was located northwest of the Blind River outlet into Lake Maurepas. Ms. Keasler traversed the majority of the site via boat and airboat and identified some inaccessible areas as limitations.

River South | Baton Rouge, Louisiana

Ms. Keasler served as the project manager for the environmental consulting services for the proposed River South to be located in Baton Rouge, Louisiana. Environmental Clearance activities in accordance with the Housing and Urban Development (HUD) environmental review procedures were required in order to obtain tax credit incentives from the Louisiana Housing Authority. Terracon performed an Environmental Assessment in accordance with 24 CFR Part 58. Terracon performed a Phase I Environmental Site Assessment (ESA) for the site in accordance with ASTM 1527-13 and the EPA's All Appropriate Inquiry. The project area consisted of multiple scattered lots generally located along Highland Road in Baton Rouge.

Central Consolidation Force Main | Baton Rouge, Louisiana

Ms. Keasler served as the Project Manager for the environmental work for this project, which included a Phase I ESA, wetland delineation and consulting, and Limited Site Investigation (LSI). The force main alignment consisted of approximately 33,120 linear feet of continuous new pipeline construction. The Phase I ESA was conducted on a wider alignment than was necessary for the line in order to aid the design engineers in determining the exact placement of the force main, which in many cases was within an existing road right-of-way. As a result of the Phase I ESA, numerous Recognized Environmental Conditions (REC) were identified, most notable of which was the intersection with a former closed unregulated municipal landfill. A LSI was conducted along the force main alignment in the vicinity of the landfill. Findings of the LSI included identification of trash layers within the alignment and presence of various contaminants. Ms. Keasler assisted the client with consultation with the Department of Environmental Quality (DEQ) regarding the portion of the alignment within the former landfill. The Phase I ESA also identified numerous area of potential wetland habitat which included multiple bayou crossings. Ms. Keasler conducted wetland delineations in the vicinity of these suspect areas. The wetland report was submitted to the US Army Corps of Engineers with the alignment drawings and plans in order to obtain Section 404 permits.

PRESENTATIONS

"Natural Resources and NEPA" presented to Louisiana Engineering Society Conference, January 2014

"Benefits from Supplemental Due Diligence in Historically Developed Areas" presented at the Louisiana ASCE Conference, January 2012

"Ecological Constraints on Property Development" presented to Mississippi Commercial Association of Realtors, May 2009

PUBLISHED ARTICLES

"Benefits from Supplemental Due Diligence in Historically Developed Areas" published in the Louisiana Civil Engineer Journal August 2012.



Rachel A. Keane

SENIOR STAFF SCIENTIST

PROFESSIONAL EXPERIENCE

Ms. Keane is an experienced environmental services professional who received a Bachelor of Science degree in Limnology from the University of Central Florida in 1997. Since starting her career, Ms. Keane performed various field and laboratory services before concentrating on a career as an environmental consultant and professional. Since then, Ms. Keane acted as a contributing writer of documents required by the National Environmental Policy Act (NEPA) as well as Phase I Environmental Site Assessments (ESAs), and threatened and assisted in natural resources surveys for various projects. Ms. Keane's NEPA experience in producing and managing NEPA compliance documentation has been for various Federal agencies including HUD, the VA, FEMA, NIH, FCC, and FHWA.

Ms. Keane meets the qualifications of an Environmental Professional as defined by EPA's AAI. She has performed all aspects of Phase I ESA's including site reconnaissance and report preparation for over 200 sites throughout the Southeast. The ESAs have ranged from parcels of land less than an acre to 100+ acres. Clients for these projects have consisted on lending institutions, site owners, potential buyers and land developers. Typical sites included vacant land in metropolitan areas for future development, and developed sites planned for property transfer or redevelopment.

PROJECT EXPERIENCE

Dollar General Stores | Various Locations, Louisiana and Mississippi

Ms. Keane was the environmental Project Manager for the multiple proposed Dollar General retail stores located in Louisiana and Mississippi. Each project entailed a Phase I Environmental Site Assessment in accordance with ASTM 1527-13. Sites included undeveloped and developed sites in urban and rural settings. In few circumstances, RECs were identified with further assessment recommended.

Multiple Commercial Properties | Various Locations, Louisiana and Mississippi*

Ms. Keane conducted Phase I ESA investigations for various commercial properties for Hancock/Whitney Bank throughout Louisiana and central and south Mississippi. Properties included shopping centers, restaurant chains, hospitals, fuel stations, office buildings, other medical facilities, as well as vacant undeveloped land. In some cases, RECs were identified and further assessment was recommended.

Proposed CarMax Car Dealership | Lafayette and Shreveport, Louisiana and Gulf Port, Mississippi*

Ms. Keane was the Project Manager for the completion of Phase I ESAs, Threatened & Endangered Species Assessments, Jurisdictional Waters of the U.S. Desktop Assessments, and Cultural Resources Assessments. Wetland concerns were identified for two (2) of the proposed locations. Ms. Keane managed and facilitated the resolution of these issues.

Artspace Projects, Andrew J Bell, Environmental Assessment | New Orleans, LA*

Ms. Keane acted as the Project Manager and principal technical writer for the assessment of environmental impacts associated with the redevelopment of the Andrew J Bell school property into residential use. Partial funding was provided by the Department of Housing and Urban Development (HUD) via the City of New Orleans and the State. Ms. Keane also facilitated the completion of lead-based paint and asbestos abatement services by scheduling and managing appropriate staff.

Habitat for Humanity – Four (4) Residences | Lafayette, Louisiana*

Ms. Keane served as the Project Manager and principal technical writer to prepare the Phase I ESA and Environmental Assessment (EA) in compliance with HUD and NEPA for the construction of four (4) single-family residences on contiguous parcels in Lafayette, Louisiana. The Phase I ESA was conducted in compliance with the appropriate ASTM Standard. Resources assessed for the EA included, but was not limited to, historic resources, endangered species, floodplain impacts, and other natural and community resources. No issues of concern were identified for either the Phase I ESA or the EA.

EDUCATION

Bachelor of Science
Limnology
University of Central Florida
1997

CERTIFICATIONS

Occupational Safety and Health
Administration – 10-Hour Training

WORK HISTORY

Terracon Consultants, Inc.
2018 – Present

Professional Service Industries, Inc.
2007 - 2018

GEC, Inc
2001 – 2006

Barry Vittor & Associates
1997 – 2000

Reedy Creek Improvement District
1996 - 1997

*Work performed prior to joining Terracon.



Rebecca Gaspard

ASSISTANT ENVIRONMENTAL SCIENTIST

PROFESSIONAL EXPERIENCE

Ms. Gaspard is an Assistant Environmental Scientist for Terracon's New Orleans, Louisiana office. She has a Bachelor of Science from Southeastern Louisiana University. As an Assistant Environmental Scientist, works on Phase I Environmental Site Assessments (ESA), National Environmental Policy Act (NEPA) Environmental Reviews, and other environmental projects. Responsibilities have included development of project documents; implementation of field work and report writing; and communication with clients and regulatory agencies.

PROJECT EXPERIENCE

Phase I Environmental Site Assessments | Various Locations

Ms. Gaspard has performed all aspects of Phase I ESA's including site reconnaissance and report preparation for sites throughout the Southeast. The ESAs have ranged from parcels of land less than an acre to commercially and industrially developed properties. Clients for these projects have consisted of lending institutions, site owners, potential buyers and land developers. Typical sites included vacant land in metropolitan areas for future development, and developed sites planned for property transfer or redevelopment. The projects included identification of recognized environmental conditions, wetlands screenings, historical and cultural review, and regulatory compliance review.

Tulane Parking Garage | New Orleans, Louisiana

Ms. Gaspard has performed environmental review for the proposed fiberline installation at the communications compound within an existing parking garage. The scope included limited historical review, site reconnaissance, and regulatory records review.

Pilot Travel Center | New Orleans, Louisiana

A Phase I ESA for an approximately 2.81-acre tract of land in the historical industrial district of New Orleans. During the Phase I ESA Recognized Environmental Conditions (RECs) associated with prior adjoining site use and on-site auto service were identified. Based on these RECs, a Limited Site Investigation (LSI) was conducted to determine impact to the site soil and groundwater from the on-site auto service and adjoining facilities

Minh Cahn Supermarket | New Orleans, Louisiana

Terracon completed a Phase I ESA on this commercially developed retail property. Ms. Gaspard assisted in the site reconnaissance and report preparation. Several Recognized Environmental Conditions (REC) were observed during the ESA associated with historical on-site dry cleaning and adjoining Underground Storage Tanks (USTs). Following this report a Limited Site Investigation (LSI) was conducted to determine the subsurface impact to the site' soil and groundwater.

Iberia Bank | Various locations throughout the southeast

Iberia Bank has partnered with Terracon for a series of Phase I ESA's including site reconnaissance and report preparation for sites throughout the Southeast. The ESAs have ranged from vacant parcels of land to currently operating commercial facilities. Typical sites included vacant land in metropolitan areas for future development, and developed sites planned for property transfer or redevelopment. The projects included identification of recognized environmental conditions, wetlands screenings, radon testing, historical and cultural review, regulatory compliance review, and limited visual assessments for asbestos.

Dollar General | Various locations throughout Louisiana

Dollar General has partnered with Terracon for a series of Phase I ESA's including site reconnaissance and report preparation for sites throughout the Southeast. Typical sites included vacant land in metropolitan areas for future development. The projects included identification of recognized environmental conditions, historical and cultural review, and regulatory compliance review.



EDUCATION

Bachelor of Science, Environmental, Southeastern Louisiana University, 2016

CERTIFICATIONS

OSHA HAZWOPER 40-Hour Certification

PROFESSIONAL MEMBERSHIPS

Commercial Real Estate Women

WORK HISTORY

Terracon Consultants, Inc., 2017-Present

APPENDIX F
DESCRIPTION OF TERMS AND ACRONYMS

Description of Selected General Terms and Acronyms

<i>Term/Acronym</i>	<i>Description</i>
ACM	<p>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).</p> <p>Regulatory agencies have generally defined ACM as a material containing greater than 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.</p> <p>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.</p>
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.
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

Description of Selected General Terms and Acronyms

<i>Term/Acronym</i>	<i>Description</i>
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-13 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
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 E1527-13 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
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.

Description of Selected General Terms and Acronyms

<i>Term/Acronym</i>	<i>Description</i>
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.
pCi/L	picoCuries per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in picoCuries per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ('cradle to grave"). 42 U.S.C. 6901 et seq.
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.
RCRA CORRACTS/TS Ds	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/TS Ds	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.
REC	Recognized Environmental Conditions are defined by ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment. <i>De minimis</i> conditions are not recognized environmental conditions."
SCL	State "CERCLIS" List (see SPL /State Priority List, below).
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State "CERCLIS" List.
SQG	Small Quantity Generator
SWF/LF	State and/or Tribal database of Solid Waste/Landfill facilities. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-13, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.
VOC	Volatile Organic Compound

Description of Selected General Terms and Acronyms

Term/Acronym	Description
	<p>Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The <u>Corps of Engineers Wetlands Delineation Manual</u> (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present.</p>
Wetlands	<p>The federal Clean Water Act which regulates “waters of the US,” also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U. S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.</p>