

**SECTION 404  
JURISDICTIONAL DELINEATION  
SANDHU LOGISTICS PROPERTY  
ALVIN, BRAZORIA COUNTY, TEXAS  
HJN 25033.001JD**

**PREPARED FOR:**

**MAY CARRIERS LLC  
SPRING, TEXAS**

**PREPARED BY:**

**HORIZON ENVIRONMENTAL SERVICES**

**21 MARCH 2025**

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**APPENDIX**

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## 1.0 INTRODUCTION

This report, along with the attached maps, photographs, and data sheets, provides the results of a Section 404 jurisdictional delineation conducted on the area of potential effect for the Sandhu Logistics project (subject site) located in Alvin, Brazoria County, Texas, by Horizon Environmental Services (Horizon) on behalf of our client:

May Carriers LLC  
23827 Sawmill Pass  
Spring, Texas 77373  
Contact: Raj Sandhu  
Phone: 832-813-9514

The purpose of this jurisdictional delineation is to provide a regulatory information base for the subject site to facilitate project planning and permitting.

Aquatic resource delineations are performed to evaluate the potential presence of “waters of the United States” (WOTUS) and other aquatic features and identify their boundaries within the designated subject site. The delineated features are then assessed on their jurisdictional status under Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act (CWA). The delineation was conducted in accordance with the 1987 US Army Corps of Engineers (USACE) *Wetlands Delineation Manual* and Regional Supplement: Atlantic and Gulf Coastal Plain Region (Version 2.0) (November 2010), USACE Regulatory Guidance Letter (RGL) No. 05-05 (7 December 2005), 2008 Clean Water Act Jurisdictional Determination Guidance (*Rapanos* Guidance), and the Supreme Court’s decision in the 2023 case of *Sackett v. Environmental Protection Agency* (EPA). The prescribed methodology requires documentation of dominant vegetation, soils, and hydrologic indicators across the site for evaluating wetland classification. Stream channels, ponds, and other WOTUS are delineated based on physical and hydrological characteristics, such as presence of an ordinary high water mark (OHWM) and other criteria as described in the guidance documents.

Specific tasks performed for this report included: 1) review of background resource data; 2) on-site field delineation of potential jurisdictional aquatic features; 3) subsequent Global Positioning System (GPS) survey of on-site delineated aquatic features and boundaries; 4) quantification of the area of on-site aquatic features; 5) an analysis of potentially jurisdictional areas based on USACE precedent; 6) documentation of hydrology, vegetation, and soils data collected from the field; and 7) preparation of exhibit maps and this report, including photo documentation.

## **2.0 PROJECT AND SITE DESCRIPTION**

### **2.1 PROJECT DESCRIPTION**

The proposed project will include the construction of a commercial development.

### **2.2 SITE DESCRIPTION**

The approximately 3.56-acre subject site is located south of the intersection of State Highway (TX) 35 and the entrance to Bob Briscoe Park in Alvin, Brazoria County, Texas (Figure 1). The adjacent land use surrounding the subject site includes parkland, vacant land, roadways, and commercial development.

## **3.0 LITERATURE REVIEW**

The literature evaluation included a review of the US Geological Survey (USGS) topographic map, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map, US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey information, light detection and ranging (LiDAR) data, color infrared aerial photography dated 2004, and real color aerial photography dated 2025.

### **3.1 TOPOGRAPHY**

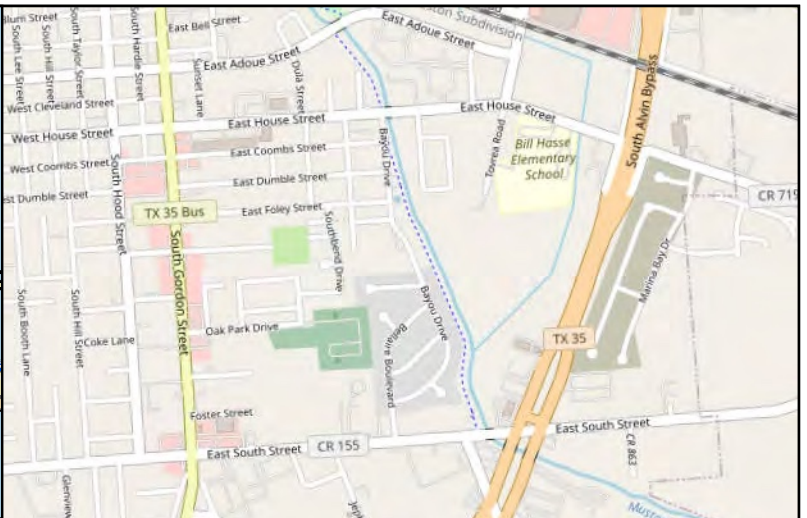
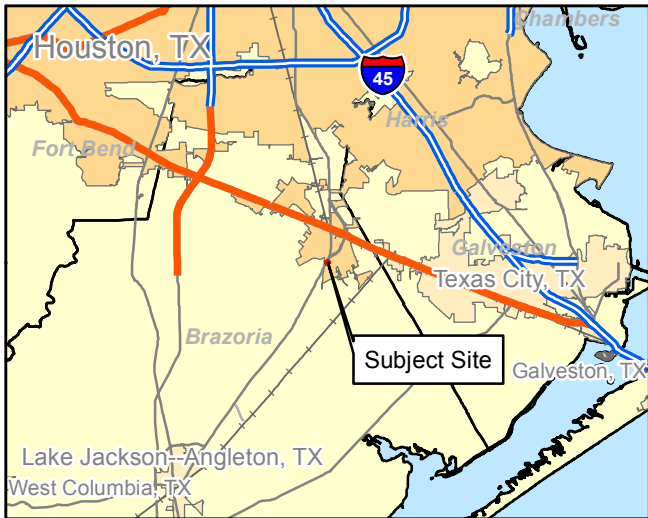
USGS topographic quadrangle maps are commonly used by regulatory agencies to review potential features on a site. This map was reviewed to determine the possible location(s) of aquatic features and to assess their potential jurisdictional classification, as well as to provide a general sense of surface water flow patterns across the site.

Topographically, the subject site is flat, with elevation approximately 35 feet above mean sea level (AMSL) throughout the site (USGS, 1977) (Figure 2). No aquatic features were indicated on the topographic map.


### **3.2 FLOODPLAINS**

FEMA maintains flood insurance rate maps (FIRMs). These maps show the flood risk for a particular area categorized by flood risk zones. FEMA FIRM map data were reviewed to evaluate the location of any mapped floodplain in relation to potential aquatic resources located within the subject site.

None of subject site is located within the 100-year floodplain (FEMA, 2020) (Figure 3).



**Legend**

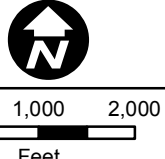
 Subject Site



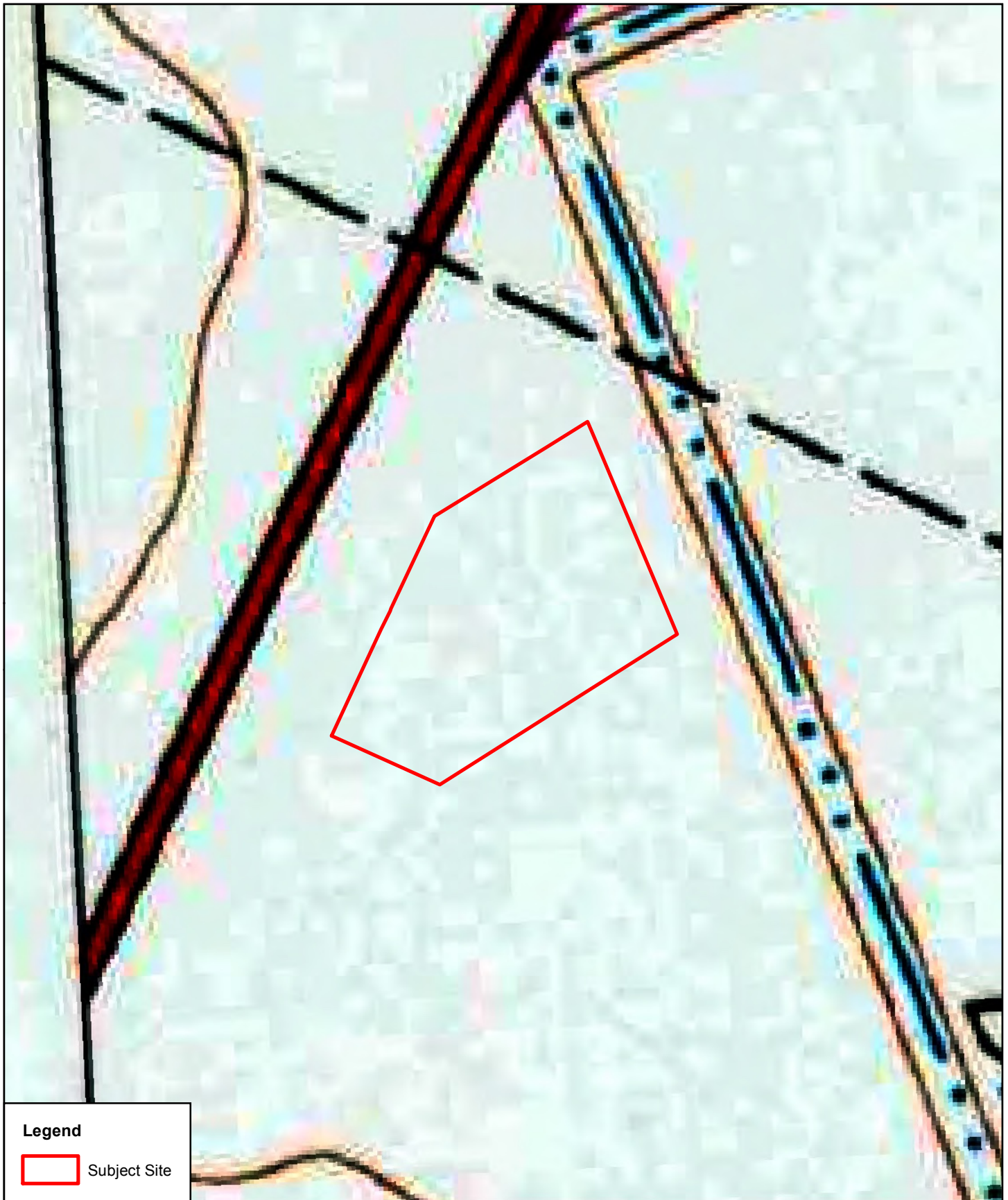
Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	OSM, 2025

**Figure 1**


Vicinity Map  
Sandhu Logistics Property  
Alvin, Brazoria County, Texas



0 1,000 2,000  
Feet



**Legend**


 Subject Site

**Horizon**<sup>™</sup>  
Environmental Services

Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	USGS, 1977

**Figure 2**

Topographic Map  
Sandhu Logistics Property  
Alvin, Brazoria County, Texas



0 100 200  
Feet

Subject Site does not fall within floodplain



**Legend**

 Subject Site



Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	FEMA, 2020; Nearmap, 2025

**Figure 3**

Flood Hazard Map  
Sandhu Logistics Property  
Alvin, Brazoria County, Texas



0 100 200  
Feet

### 3.3 SOILS

The USDA NRCS maintains the Web Soil Survey, an online soils database which includes NRCS-mapped soil data by county. The NRCS Soil Survey map encompassing the subject site was reviewed as a reference for the general soil characteristics likely to be found within the subject site, and to determine which of the soils may exhibit hydric characteristics and therefore may be more likely to contain features such as wetlands.

According to the Brazoria County soil survey, the subject site and surrounding vicinity are dominated by the following soil (Figure 4):

**TABLE 1  
SOILS**

Soil Name	Soil Type	Soil Depth (feet)	Underlying Material	Permeability	Available Water Capacity	Shrink-Swell Capacity	Hydric?
Lake Charles clay, 0 to 1% slopes (24)	clay	0 to 6.6	mottled clay	very slow to slow	high	high	non-hydric

Sources: NRCS, 2025

### 3.4 NATIONAL WETLANDS INVENTORY

The NWI database is a publicly available resource compiled by the USFWS from aerial assessments that provides information on the approximate abundance, characteristics, and distribution of wetlands. While known to have a certain margin of error, this database was reviewed as a contributing resource to help identify potential features within the subject site.

The review of the USFWS NWI map revealed that no aquatic features may be located within the subject site (Figure 5).

### 3.5 LiDAR

LiDAR is a remote sensing technique that more accurately depicts landscape, topographic relief, and hydrologic connections, making it possible to identify certain aquatic features and characterize their functions. LiDAR is a relatively new tool and LiDAR coverage availability varies. LiDAR data were obtained for the subject site to evaluate elevation changes throughout the subject site.

A review of LiDAR data indicated that the subject site is generally flat, with elevations ranging from approximately 9.9 feet above mean sea level (AMSL) to 10.4 feet AMSL on the southern portion of the site. The LiDAR data indicated lower elevation on the northern portion of the subject site. Refer to Figure 6 for an illustration of LiDAR data within the subject site.



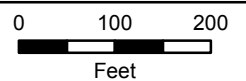
**Legend**

- Subject Site
- Soil Unit Boundary



Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	Nearmap, 2025; NRCS, 2025

**Figure 4**  
Soils Map  
Sandhu Logistics Property  
Alvin, Brazoria County, Texas





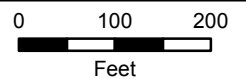
**Legend**

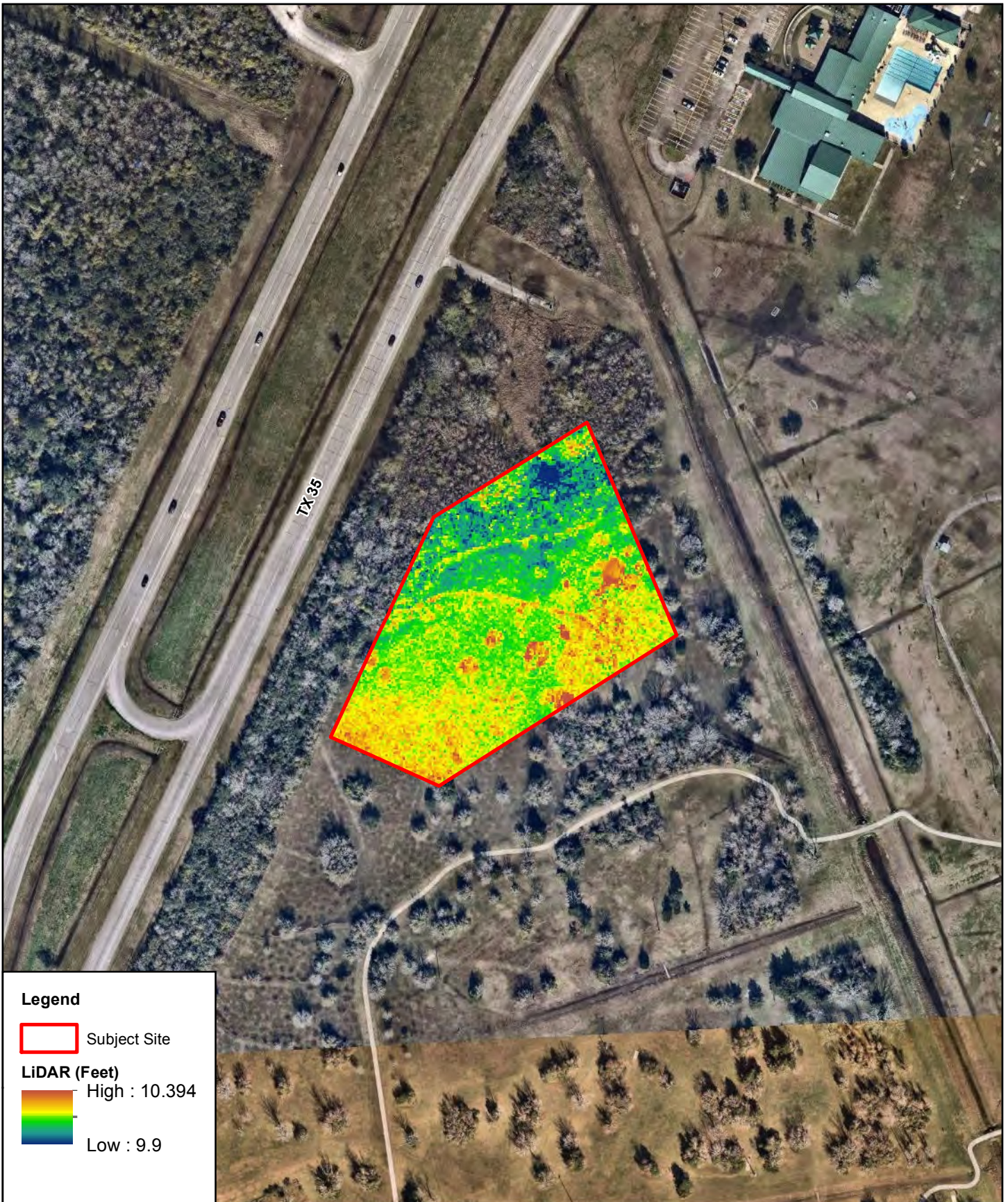
- Subject Site
- NWI Feature



Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	Nearmap, 2025; USFWS, 2025

**Figure 5**  
 NWI Map  
 Sandhu Logistics Property  
 Alvin, Brazoria County, Texas






**Legend**

 Subject Site

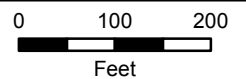
**LiDAR (Feet)**

 High : 10.394  
 Low : 9.9



Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	Nearmap, 2025; Stratmap, 2018

**Figure 6**  
 LiDAR Map  
 Sandhu Logistics Property  
 Alvin, Brazoria County, Texas



### 3.5 AERIAL PHOTOGRAPHY

Aerial photographs aid in understanding the state and function of land resources. Aerial photographs of the subject site were reviewed for signs of surface water, saturated soils, vegetative signatures, and aquatic features, as well as hydrological connections. Signs of saturated soils and vegetative signatures on aerial images indicate whether the land may be functioning as a wetland or supporting a stream system. Using aerial photographs from different dates adds a historical component to the review and allows for an understanding of changes over time. Additionally, color-infrared aerial photographs assist in the interpretation of natural resources by the various color differences rendered on the photographs which can highlight areas with increased moisture; these were also reviewed for the subject site.

A review of the 2004 infrared aerial photograph indicates that the subject site consists of upland grassland with scattered trees and dense vegetation along a fence (Figure 7). The 2025 aerial photograph shows the subject site in a similar nature as in the 2004 photo, with increased canopy cover and denser vegetation (Figure 8). No potential wetlands were observed on the subject site based on the review of aerial photography.

### 4.0 FIELD METHODOLOGY

The field delineation of jurisdictional areas was conducted according to the 1987 USACE *Wetlands Delineation Manual* and Regional Supplement: Atlantic and Gulf Coastal Plain Region (Version 2.0) (November 2010), USACE RGL No. 05-05 (7 December 2005), 2008 CWA Jurisdictional Determination Guidance (*Rapanos* Guidance), and the Supreme Court's decision in the 2023 case of *Sackett v. EPA*. The hydric nature of vegetation species was determined from the USACE National Wetland Plant List. Soil color and chroma were determined with the aid of Munsell Soil Color Charts. Soil pits were excavated to a minimum depth of 20 inches for soil characterization. Wetland hydrology was determined by observation of obvious physical and hydrological characteristics such as saturated soils, ponding, sediment deposits, and/or obvious topographic indicators.

Data point locations were selected based upon a review of electronic, aerial, and topographic data (see Figure 9). Horizon's field visit was conducted on 4 March 2025. Field data forms and site photographs are provided in Appendix A.

### 5.0 ON-SITE FINDINGS

The results of the jurisdictional delineation indicated that no aquatic features or wetlands were observed within the subject site. The site consists of upland woodlands and maintained parkland. No areas meeting the requisite criteria for jurisdictional WOTUS were identified within the subject site.



**Legend**

 Subject Site



Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	NAIP, 2004

**Figure 7**

2004 Infrared Aerial Photograph  
Sandhu Logistics Property  
Alvin, Brazoria County, Texas



0 100 200  
Feet



**Legend**

 Subject Site



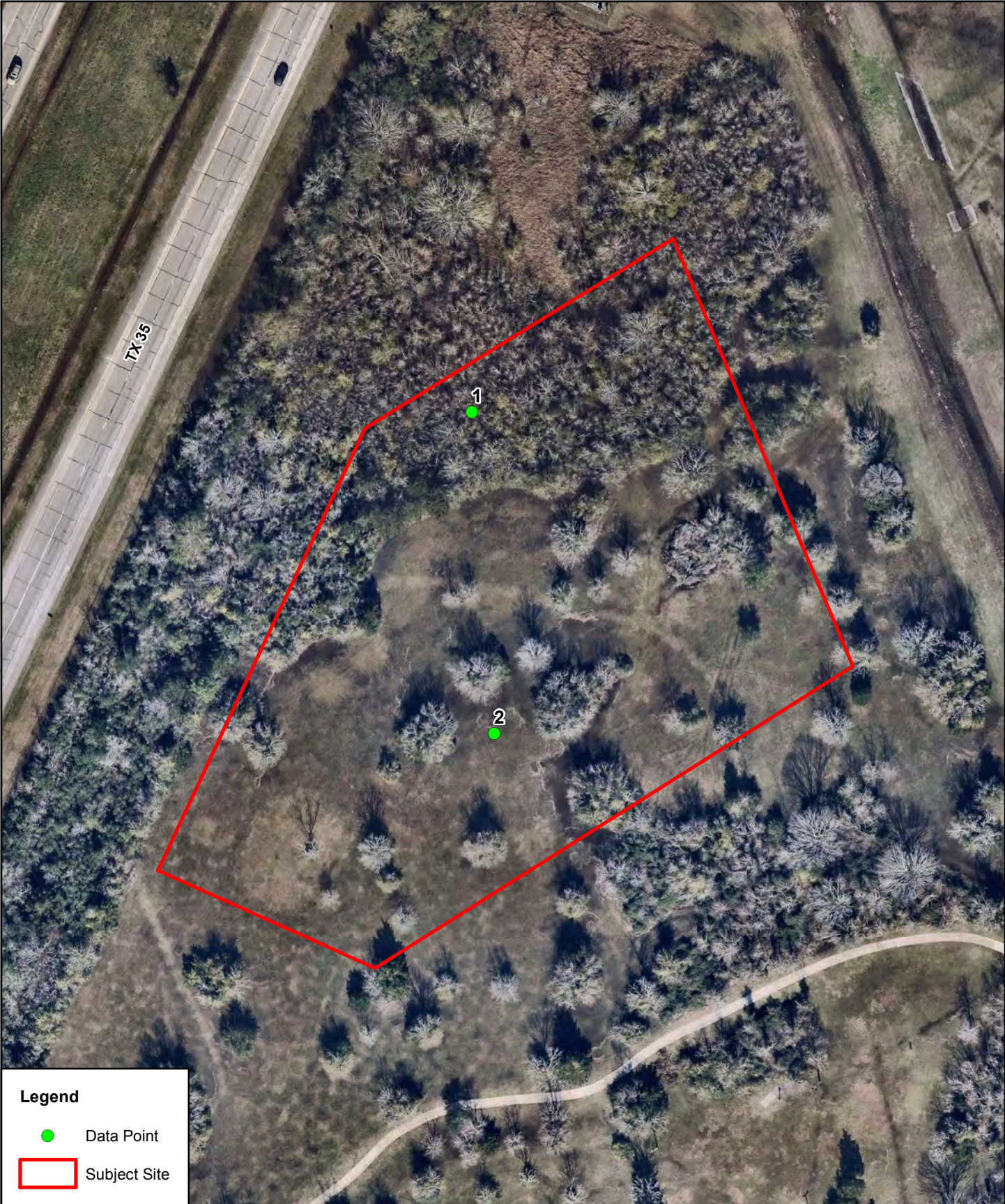
Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	Nearmap, 2025

**Figure 8**

2025 Aerial Photograph  
 Sandhu Logistics Property  
 Alvin, Brazoria County, Texas



0 100 200  
 Feet



**Legend**


- Data Point
- Subject Site

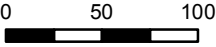
**Horizon**<sup>™</sup>  
Environmental Services

Date:	03/19/2025
Drawn:	KRW
HJN NO:	25033 WD
Source:	Nearmap, 2025

**Figure 9**

Jurisdictional Delineation Map  
Sandhu Logistics Property  
Alvin, Brazoria County, Texas





0      50      100  
Feet

## 6.0 SUMMARY

The results of the jurisdictional delineation indicated that the no areas meeting the requisite criteria for jurisdictional WOTUS were identified within the subject site.

The professional opinions expressed in this report are based on Horizon's interpretation of the currently applicable statutory and regulatory provisions, as implemented by the EPA and USACE. The USACE and the EPA are the final authority over the jurisdictional status of wetlands, streams, and other potential WOTUS per Section 404 of the CWA. The findings discussed in this report are solely the opinion of Horizon and have not been verified by the aforementioned regulatory agencies. This WOTUS delineation report may be used in support of the USACE jurisdictional determination process, or to support applications for regulatory permits that may be required from the USACE for future construction activities.

If you have any questions or require additional information, please feel free to contact me at (512) 328-2430 or [sflesher@horizon-esi.com](mailto:sflesher@horizon-esi.com).

Sincerely,  
For Horizon Environmental Services



Scott Flesher  
Vice President/Ecological Program Manager

## 7.0 LITERATURE CITED

- (FEMA) Federal Emergency Management Agency. Flood Insurance Rate Map (FIRM) Panel No. 48039C0165K, Brazoria County, Texas. 30 December 2020.
- (NAIP) US Department of Agriculture, National Agriculture Imagery Program. Farm Service Agency, Aerial Photography Field Office. Digital orthophoto quarter-quadrangle, Brazoria, Texas. 2004.
- (Nearmap) Nearmap US, Inc. Nearmap Vertical™ digital orthographic photograph, <<https://go.nearmap.com>>. Imagery date 13 January 2025.
- (NRCS) US Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Soil map data layer updated 12 September 2019. Soil descriptions accessed 19 March 2025.
- \_\_\_\_\_. Hydric Soils List, <[https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcseprd1316620.html](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316620.html)>. Accessed 19 March 2025.
- (OSM) OpenStreetMap contributors. OpenStreetMap, <<http://www.openstreetmap.org>>. Available under the Open Database License ([www.opendatacommons.org/licenses/odbl](http://www.opendatacommons.org/licenses/odbl)). Accessed 19 March 2025.
- Reed, Porter B. National List of Plant Species That Occur in Wetlands: South Plains (Region 6). Washington, DC: US Department of the Interior, Fish and Wildlife Service, Research and Development. 1988.
- (StratMap) Strategic Mapping Program. LiDAR imagery updated 22 March 2018.
- (USFWS) US Department of the Interior, Fish and Wildlife Service. National Wetlands Inventory Wetlands Mapper, <<http://www.fws.gov/wetlands/Data/Mapper.html>>. Accessed 19 March 2025.
- (USGS) US Geological Survey. 7.5-minute series topographic maps, Algoa, Texas, quadrangle. 1977.

**APPENDIX A**  
**FIELD DATA FORMS AND SITE PHOTOGRAPHS**

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Sandhu Logistics Property City/County: Alvin/Brazoria County Sampling Date: 2025-03-04  
 Applicant/Owner: May Carriers LLC State: Texas Sampling Point: 1  
 Investigator(s): Scott Flesher Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.395788 Long: -95.246350 Datum: WGS84  
 Soil Map Unit Name: Lake Charles clay, 0 to 1% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Sample point was taken in an upland forested area.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Aquatic Fauna (B13) ___ High Water Table (A2)      ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3)      ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1)      ___ Oxidized Rhizospheres along Living Roots (C3) ___ Sediment Deposits (B2)      ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4)      ___ Thin Muck Surface (C7) ___ Iron Deposits (B5)      ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<b>Secondary Indicators (minimum of two required)</b> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) ___ Sphagnum moss (D8) (LRR T, U)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Hydrology criteria not met.	

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: 1

<u>Tree Stratum</u> (Plot size: <u>30' radius</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <i>Triadica sebifera</i>	20	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.00</u> (A/B)														
2. <i>Celtis occidentalis</i>	10	Y	FACU															
3. <i>Juniperus virginiana</i>	10	Y	FACU															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
<u>40.0</u> = Total Cover 50% of total cover: <u>20.0</u> 20% of total cover: <u>8.0</u>				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right">Total % Cover of:</td> <td style="width:50%; text-align:left">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>75</u></td> <td>x 3 = <u>225</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>305.00</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.21</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>75</u>	x 3 = <u>225</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>305.00</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>75</u>	x 3 = <u>225</u>																	
FACU species <u>20</u>	x 4 = <u>80</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>95</u> (A)	<u>305.00</u> (B)																	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30' radius</u> )																		
1. <i>Ilex vomitoria</i>	50	Y	FAC															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
<u>50.0</u> = Total Cover 50% of total cover: <u>25.0</u> 20% of total cover: <u>10.0</u>																		
<u>Herb Stratum</u> (Plot size: <u>30' radius</u> )																		
1. _____																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
<u>0</u> = Total Cover 50% of total cover: <u>0.0</u> 20% of total cover: <u>0.0</u>																		
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u> )																		
1. <i>Smilax bona-nox</i>	5	Y	FAC															
2. _____																		
3. _____																		
4. _____																		
5. _____																		
<u>5.0</u> = Total Cover 50% of total cover: <u>2.5</u> 20% of total cover: <u>1.0</u>																		
Remarks: (If observed, list morphological adaptations below). Vegetation criteria met.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														

**SOIL**

Sampling Point: 1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-20	10YR	3/1	100				CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, B)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and                  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         | wetland hydrology must be present,                                     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              | unless disturbed or problematic.                                       |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

Soil criteria not met.



## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Sandhu Logistics Property City/County: Alvin/Brazoria County Sampling Date: 2025-03-04  
 Applicant/Owner: May Carriers LLC State: Texas Sampling Point: 2  
 Investigator(s): Scott Flesher Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.394185 Long: -95.248176 Datum: WGS84  
 Soil Map Unit Name: Lake Charles clay, 0 to 1% slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:  
 Sample point was taken in an upland grassland area.

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Aquatic Fauna (B13) ___ High Water Table (A2)      ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3)      ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1)      ___ Oxidized Rhizospheres along Living Roots (C3) ___ Sediment Deposits (B2)      ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4)      ___ Thin Muck Surface (C7) ___ Iron Deposits (B5)      ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<b>Secondary Indicators (minimum of two required)</b> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) ___ Sphagnum moss (D8) (LRR T, U)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
 Hydrology criteria not met.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30' radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
<b>Herb Stratum</b> (Plot size: <u>30' radius</u> )				
1. <i>Stenotaphrum secundatum</i>	100	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>50.0</u>		20% of total cover: <u>20.0</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30' radius</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover: <u>0.0</u>		20% of total cover: <u>0.0</u>		
<p>Remarks: (If observed, list morphological adaptations below). Vegetation criteria met.</p>				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

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**Prevalence Index worksheet:**

	Total % Cover of:		Multiply by:	
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species	<u>0</u>	x 2 =	<u>0</u>	
FAC species	<u>100</u>	x 3 =	<u>300</u>	
FACU species	<u>0</u>	x 4 =	<u>0</u>	
UPL species	<u>0</u>	x 5 =	<u>0</u>	
Column Totals:	<u>100</u>	(A)	<u>300.00</u>	(B)

Prevalence Index = B/A = 3.0

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?**      Yes       No

**SOIL**

Sampling Point: 2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-20	10YR	3/2					CL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A, B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20)
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<b>(MLRA 153B)</b>
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Marl (F10) (LRR U)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)		

<b>Restrictive Layer (if observed):</b>	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____ Depth (inches): _____	

Remarks:  
Soil criteria not met.



2  
2025-03-04

Lat/Long: 29.394706, -95.247604



2  
2025-03-04

Lat/Long: 29.394707, -95.247603