

### Exhibit F - Wetlands Delineation & Letter

April 30, 2015

Mr. Larry Henson

Louisiana Economic Development (LED)

1051 North Third St.

Baton Rouge, LA 70802-5239

Parks & Planning

Transportation

Mr. David Conner

Southwest Economic Development Alliance (SWLA)

P.O. Box 3110

Lake Charles, LA 70602

Site Development

RE: B85-Chennault Site 5 (160 Acres)

Wetlands Delineation Report

Utility Systems

Dear Gentlemen:

Land Surveying

SJB Group, LLC (SJB) has been authorized by Louisiana Economic Development (LED and Southwest Louisiana Economic Alliance (SWLA) to perform due diligence investigations to determine the existence of fatal flaws, if any, that would inhibit the development of Chennault Site 5 (+/- 160 acres), located southeast of the City of Lake Charles in Calcasieu Parish, Louisiana.

Construction Services

The attached report presents the findings of the Wetlands Delineation efforts for the site. The Wetlands Delineation was performed by SJB Group, LLC of Baton Rouge, LA.

Environmental Services

Please feel free to contact me at (225) 769-3400, at any time, should you have any questions or need further information.

Real Estate Services

Sincerely,

P. O. Box 1751

Baton Rouge, Louisiana

70821-1751

(225) 769-3400

Fax (225) 769-3596

www.sjbgroup.com

SJB GROUP, LLC

Michael L. Thompson, P.E., C.E.T.

Engineering Department Manager

### Wetland Delineation

±160-acre B-85 Chennault Site 5 Located along LA Highway 397 Lake Charles, Calcasieu Parish, Louisiana for

Mr. David Conner
SWLA Economic Development Alliance
4310 Ryan Street
Lake Charles, LA 70605

Mr. Larry Henson

Louisiana Economic Development (LED) Submitted by:

1051 North Third Street Baton Rouge, LA 70802-5239

Jason LeBourgeois

Engineering designer/Inspector

Prepared by:



P. O. Box 1751 Baton Rouge, LA 70821-1751 (225) 769-3400 Office (225) 769-3596 Fax

JUNE 2014 Ref. 11341.3

### WETLAND DELINEATION REPORT

±160-acre B-85 Chennault Site 5 Located along LA Highway 397 Lake Charles, Calcasieu Parish, Louisiana

For

Mr. David Conner SWLA Economic Development Alliance 4310 Ryan Street Lake Charles, LA 70605

Mr. Larry Henson Louisiana Economic Development (LED) 1051 North Third Street Baton Rouge, LA 70802-5239

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**SJB GROUP, LLC** P.O. Box 1751 Baton Rouge, LA 70821-1751 (225) 769-3400 Office (225) 769-3596 Fax

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11341.3 SJB GROUP, LLC

### 1.0 INTRODUCTION

### 1.1 **GENERAL**

This report details the investigation of the presence of wetlands under the jurisdiction of the United States Army Corps of Engineers (USACE) for a  $\pm 160$  acre tract of land located along Highway 397, Lake Charles, Calcasieu Parish, Louisiana. This report was prepared by SJB Group, LLC (SJB) of Baton Rouge, Louisiana at the request of Louisiana Economic Development (LED), and SWLA Economic Development Alliance (SWLA).

### 1.2 SCOPE AND PURPOSE

The purpose of this report is to present the field data that was collected, to evaluate the three diagnostic characteristics of wetlands, and to give an opinion on the presence and potential extent of jurisdictional wetlands on the site. However, the New Orleans District of the USACE has the ultimate authority to make an official determination of wetlands or jurisdiction over property in Calcasieu Parish, Louisiana. This report was prepared in accordance with guidance found in the USACE's Wetlands Delineation Manual (Environmental Laboratory, 1987) and Interim Regional Supplement to the USACE's Wetland Delineation Manual (Environmental Laboratory, 2008).

Wetlands are defined as "areas that are inundated or saturated 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" (40 CFR 230.3). The three diagnostic characteristics of wetlands are soils, vegetation, and hydrology. Wetlands must exhibit hydric soils, a prevalence of hydrophytic vegetation, and periodic soil saturation. Each of these characteristics as well as observations on modifications to normal circumstances will be described for the site. Supporting data collected from 4 sample locations, presented in Appendix A.

### 2.0 SITE DESCRIPTION

### 2.1 <u>LOCATION</u>

The site is located in Lake Charles, Calcasieu Parish, Louisiana. It is geographically located at latitude 30.214364 and longitude -93.141389. The site is in Section 12, Township 10 South, Range 8 West, Calcasieu Parish. Figure 1 is a vicinity map showing the location of the site.

### 2.2 <u>DESCRIPTION</u>

The site is ±160.0 acres located on the west side of Highway 397 and south of Broad Street. It is rectangular in shape with rough dimensions of 6,300 feet by 1,300 feet. The site is accessible from Tom Watson Road. The site consists of maintained and managed grasslands that act as runway buffers for Chennault Airport. The site is vacant grasslands with three small ponds and a small scrub/shrub habitat around the ponds. The site is maintained by the Chennault Airport.

According to aerial photographs, the site has been vacant and maintained grasslands habitat (see Figure 1, Exhibit 1, and Exhibit 2). There are no structures on the site. Photographs of the site are provided as an attachment.

### 3.0 SITE INSPECTION

### 3.1 GENERAL

On May 7<sup>th</sup>, 2014, SJB's wetland specialists inspected the site. Four representative locations (shown in Figure 2) were chosen for making field observations and collecting soil samples in order to characterize the site. At each sample location, vegetation species were recorded, soil samples were collected for identification and determination of hydric properties, and observations were made on hydrologic conditions. Each sample location was photographed (see attachment provided at the end of the report).

### 3.2 PRELIMINARY DATA GATHERING

Prior to conducting any fieldwork, SJB conducted a desktop investigation of the site using a series of maps. These maps included a 1998 USGS 7.5-minute topographic map (USGS, 1998), a 1995 USDA soil survey (USDA, 1995), and a 2013 aerial photograph (USGS, 2014).

### 3.3 SAMPLE LOCATIONS

During the field investigation, SJB conducted cursory evaluation of the entire site. After becoming familiar with the landscape features of the site, four sampling locations were chosen to characterize large homogeneous areas of habitat and to define potential wetland/non-wetland boundaries. A GPS unit was used to determine any potential wetland boundaries and soil samples were taken to identify soil types. All sample locations and wetland boundaries were flagged and mapped. The data collected during the site visit is included in the figures, exhibits, and appendices of this report.

### 3.4 FIELD PERSONNEL

Field data was collected by Jason LeBourgeois and Paul LeBlanc III. Mr. LeBourgeois has a Bachelor's degree in General Studies from University of New Orleans. He has successfully completed a Wetland Delineation Certification Program given by the Wetland Training Institute. He has been conducting Wetland Delineations for the past 3 years. Mr. LeBlanc has a Bachelor's degree in Fisheries from Louisiana State University. He has successfully completed a Wetland Delineation Certification Program given by the Wetland Training Institute. He has been conducting Wetland Delineations for the past 7 years.

### 4.0 SITE DATA

### 4.1 SOILS

According to the soil survey developed by the USDA Soil Conservation Services (SCS), the site is underlain by Mowata-Vidrine silt loam, Leton silt loam and Edgerly loam soils. Mowata-Vidrine silt loam consists of poorly drained soils with high runoff potential. Leton silt loam consists of very deep, poorly drained, very slowly permeable soils. Edgerly loam soils consist of soils that are poorly drained and high runoff potential. Mowata-Vidrine silt loams are listed as hydric soils only along terraces that are dominated with Mowata soils (USDA, 1995). Leton silt loams are listed as non-hydric soils (USDA, 1995). Edgerly loams are not listed as hydric soils (USDA, 1995).

SJB collected soil samples up to 16 inches deep for each of the four sample locations. The depth of each sample was sufficient to determine changes in the upper horizons and to observe field indicators of hydric soils. Soil samples were described and compared to descriptions and maps in the soil survey. Field

observations confirm that the majority of the site appears to be underlain by Mowata-Vidrine silt loam and Edgerly loams.

### 4.2 <u>VEGETATION</u>

The site is comprised of range and pasture land. Species observed during the inspection of the herbaceous shrub/seedling stratum include: broom-sedge (Andropogon virginicus), Soft Rush (Juncus effuses), Bahai grass (Paspalum notatum), Bull Thistle (Cirsium vulgare), Johnson Grass (Sorghum halpense), Bermuda grass (Cynodon doctylon), Tallow Tree (Sapium serbiferum), and Golden Rod (Solidago austrina).

Woody vines present during the inspection included Louisiana blackberry (*Rubus louisianus*). The wetland indicator status for these species range from facultative wetlands (FACW) to facultative (FAC). FACW species are typically found in both wetlands and non-wetland areas. FAC species typically grow in non-wetland areas but can also be found in wetlands.

### 4.3 HYDROLOGY

The average elevation on the site is approximately 15 feet above mean sea level. The site slopes in an easterly direction and has several drainage ditches located throughout the managed grassland. These ditches drain the entire site of any surface water and keeps majority of the site dry. A drainage ditch runs near the center of the property and then drains to a ditch that follows the railroad tracks to the east of the site.

SJB observed no positive indicators of wetland hydrology at the four sample locations.

### 5.0 FINDINGS AND CONCLUSIONS

### 5.1 FINDINGS

Data was gathered and observations were made on the three diagnostic characteristics of jurisdictional wetlands on the  $\pm 160.0$ -acre site. The findings include:

<u>Soils:</u> The soils observed on the site (Mowata-Vidrine silt loam, Leton silt loam, and Edgerly loam) are consistent with soil surveys developed by the USDA

NRCS (USDA, Service 1995). The soil survey is provided in Exhibit 2. Field data indicate that the majority of the site is underlain by Mowata-Vidrine silt loam which is listed as a hydric soil under wooded natural conditions. The hydric criteria for wetlands soils were met at three of the four (Sites 1, 2, and 3) sample locations.

<u>Vegetation</u>: Facultative vegetation is present throughout the entire site with hydrophytic vegetation located in ranged and pasture land areas. Vegetation is primarily classified as facultative and facultative-wetland. The majority of the vegetation that is present on the site is considered hydrophytic. The vegetation criterion for wetlands was met at all sample locations.

<u>Hydrology</u>: The entire site has been cleared of any established forested habitat and only small areas of scrub shrub habitats are present. Surface runoff throughout the site appears to drain in an easterly direction. Indicators of wetland hydrology were not observed at the sample locations throughout the site. The hydrology criteria for wetlands were not met at any of the sample locations.

<u>Potential Wetlands:</u> The site appears to have no areas identifiable as potential jurisdictional wetlands. However, there are several drainage ditches that may be classified as other waters. These drainage ditches are mapped on Figure 2 along with the three small ponds.

### 5.2 <u>CONCLUSIONS</u>

Based on this information reviewed and the field data collected, there are no potential jurisdictional wetlands on the site. Positive evidence of the all three diagnostic characteristics for jurisdictional wetlands was not found at each of the sample locations shown on Figure 2. Based on information reviewed of the site and the field data collected, there are no potential jurisdictional wetlands on the site. However, due to the many drainage ditches that run throughout the property, these ditches may fall into the category of "other waters" as described in the USACE Wetland Delineation Manual.

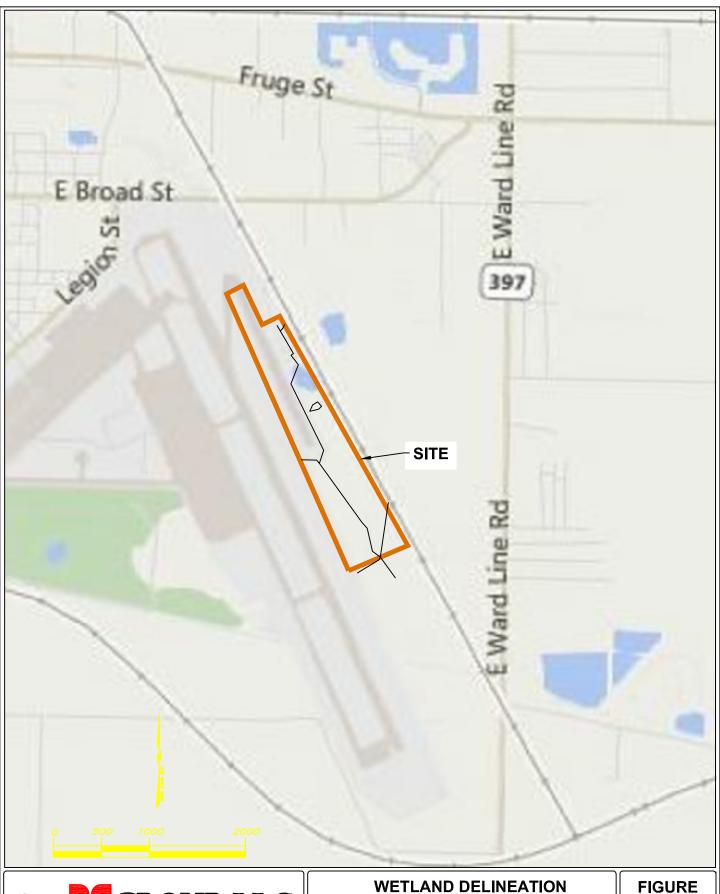
The USACE, under the authority of the Clean Water Act, Section 404 and the Rivers and Harbors Act, Section 10 has the responsibility to make a final determination of the location and extent of jurisdictional wetlands and navigable waters on this property. This report represents the opinion of the investigators

and should be considered preliminary until final determination is obtained from the USACE New Orleans District.

### 6.0 <u>REFERENCES</u>

- Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.
- Environmental Laboratory, 2008. Interim Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Atlantic and Gulf Coast Plain Region. Vicksburg, MS. October 2008.
- U.S. Department of Agriculture, black-and-white aerial photography from 1940.
- U.S. Department of Agriculture, Soil Conservation Service. 1995. Soil mapping Units and Hydric Soils Designations, Louisiana. Third edition. 1995.
- U.S. Geological Survey. "Lake Charles, Louisiana," 7.5-minute topographic quadrangle map, 1994.

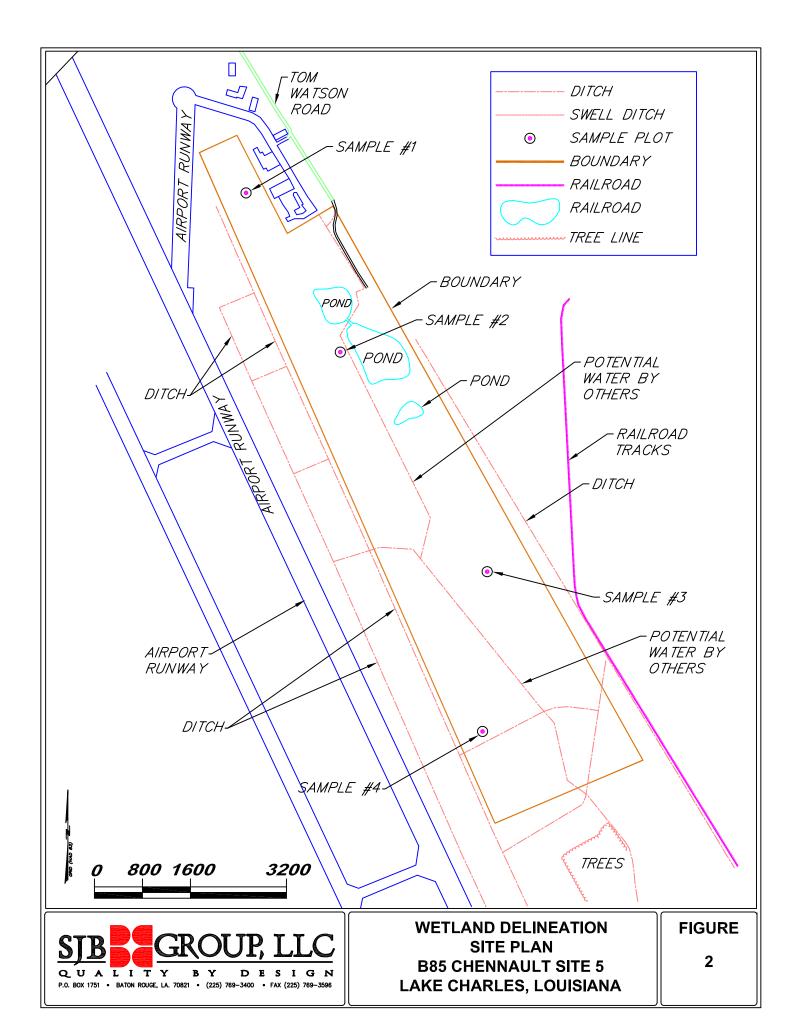
United States Geological Survey, color aerial photography from 2013.





**VICINITY MAP B85 CHENNAULT SITE 5** LAKE CHARLES, LOUISIANA

1

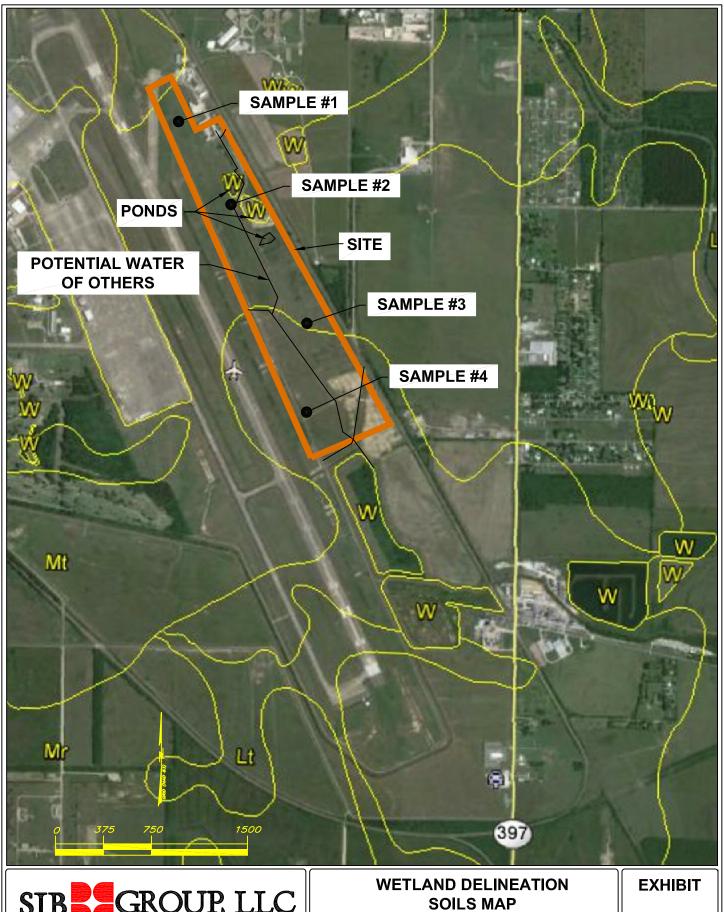






WETLAND DELINEATION 2013 AERIAL PHOTOGRAPH B85 CHENNAULT SITE 5 LAKE CHARLES, LOUISIANA **EXHIBIT** 

1



STB GROUP, LLC

Q U A L I T Y B Y D E S I G N
P.O. BOX 1751 • BATON ROUGE, LA. 70821 • (225) 769–3400 • FAX (225) 769–3596

WETLAND DELINEATION
SOILS MAP
B85 CHENNAULT SITE 5
LAKE CHARLES, LOUISIANA

2

## DATA FORM ROUTINE WETLAND DETERMINATION (Atlantic and Gulf Coast Plain Region) SAMPLE LOCATION 1

| Project/Site:       | 160 acres-loca      |             |  | 97 Site 5    |                | Date:               | 5/7/2014           |  |
|---------------------|---------------------|-------------|--|--------------|----------------|---------------------|--------------------|--|
| Applicant/Owner:    | David Conner        |             |  |              |                | Parish:             | Calcasieu          |  |
| Investigator:       | P. LeBlanc; J.I     | _eBourg     | eois   |              |                | State:              | Louisiana          |  |
|                     |                     |             |  |              |                | Sample Locati       | ion:               | 1  |
| Landform (hillslope | e, terrace, etc.):  |             | Plains   | Slope:       | 1%             | Section, Town       | ship, Range:       | Sect 12, Twn 10 South, Range 8 West            |
| Subregion (LRR or   |                     | LRR         |  | Lat:         |                | Long:               | •                  | Datum:   |
| Soil Map Unit Nam   | e:                  | Mowata      | -Vidrine silt                                  | loam         |                | NWI classifica      | ation:             | None   |
| Are climatic hydrol | ogical condition    | s on the    | site typical f                                 | or this ti   | me of yea      | ar?                 | (Yes) No           | (If no, explain in Remarks)                    |
| Are Vegetation      | No, Soil_           | No ,        | Hydrolog                                       | y <u>No</u>  | significa      | ntly disturbed?     | Are Normal         | Circumstances present on the site?             |
| Are Vegetation      | No, Soil            | No ,        | Hydrolog                                       | y <u>No</u>  | naturally      | problematic?        |                    | (Yes) No                                       |
| SUMMARY OF FIR      | NDINGS: WETL        | AND DE      | TERMINAT                                       | ION          |                |                     |                    |  |
|                     |                     | (           | Circle)  |              |                |                     |                    | (Circle)                                       |
| Hydrophytic Veget   | ation Present?      | (Yes)       | No   |              |                |                     |                    |  |
| Wetland Hydrology   |                     | Yes         | (No)   |              |                |                     |                    |  |
| Hydric Soils Prese  |                     | (Yes)       | No   |              | la thia Ca     | mpling Point Wit    | thin a Watland?    | Yes (No)                                       |
| Remarks:            | iiti                | (165)       | INU  |              | is iiis sa     | Inpling Form with   | min a welland?     | Yes (No)                                       |
|                     | Plot #1 located a   |             | , , ,  |              |                |                     |                    |  |
| HYDROLOGY           |                     |             |  |              |                |                     |                    |  |
| Wetland Hydro       | logy Indicators     | <del></del> |  |              |                |                     | Second             | lary Indicators (minimum 2 required)           |
| Primary Indicators  |                     |             | ed; check all t                                | hat apply    | )              |                     |                    | Surface Soil Cracks (B6)                       |
| Surface W           | ater (A1)           |             |  |              | Water-Sta      | ained Leaves (B     | 9)                 | Sparsley Vegetated Surfaces (Concave)          |
| High Wate           | r Table (A2)        |             |  |              |                | auna (B13)          |                    | Drainage Patterns (B10)                        |
|                     | in Upper 12 inche   | s (A3)      |  |              |                | Sulfide Odor (C     |                    | Moss Trim Lines (B16)                          |
| Water Mai           | ` '                 |             |  |              |                | Root Channels u     |                    | Dry-Season Water Table (C2)                    |
|                     | Deposits (B2)       |             |  |              |                | of Reduced Iron     | , ,                | Crayfish Burrows (C8)                          |
| Drift Depo          |                     |             |  |              | -              | on Reduction in     | Tilled Solls (C6)  | Saturation Visible on Aerial Imagery           |
| Iron Depos          | or Crust (B4)       |             |  |              |                | k Surface (C7)      |                    | Geomorphic Position (D2) Shallow Aquitard (D3) |
|                     | Visible on Aerial   | Imagery (   | B7)  |              | Other (Ex      | plain Remarks)      |                    | FAC-Neutral Test (D5)                          |
| Field Observati     |                     |             | <u>,                                      </u> |              |                |                     |                    |  |
| Surface Water F     |                     | es (No)     |  | (in.)        |                |                     |                    |  |
| Depth of Free W     |                     |             | -  | (in.)        |                |                     |                    |  |
| Saturated Soil F    |                     | es (No)     |  | (in.)        | Wotland        | l Hydrology Pı      | resent? Ye         | es (No)  |
|                     |                     | 65 (110)    | -  | _ (111.)     | vvelianic      | i nyurology Fi      | resent: re         | ;5 (NO)  |
| (includes capilla   |                     |             |  |              |                | \ 'C 'III           |                    |  |
| Describe Recorded D | pata (stream guage, | monitoring  | wells, aerial ph                               | otos, previo | ous inspection | ons), if available: |                    |  |
| Remarks:            | Aerial photogra     | aphs use    | ed to determ                                   | ine brea     | k in habit     | at types and hi     | storical use of \$ | Site.  |
|                     | . 0                 | •           |  |              |                | <b>31</b>           |                    |  |
|                     |                     |             |  |              |                |                     |                    |  |
|                     |                     |             |  |              |                |                     |                    |  |
|                     |                     |             |  |              |                |                     |                    |  |

|   | Absolute | Dominant                       | Indicator | Dominance Test worksheet:                                  |
|---|----------|--------------------------------|-----------|--|
| Tree Stratum (Plot size: 30 ft )                      | % Cover  | Species?                       | Status    |  |
| 1.  |          |                                |           | Number of Dominant Species                                 |
| 2.  |          |                                |           | That are OBL, FACW, or FAC6_(A)                            |
| 2   |          |                                |           | , , , ,  |
|   |          |                                |           | Total Number of Dominant                                   |
|   |          |                                |           | Species across All Strata <u>6 (B)</u>                     |
|   |          |                                |           | <u></u>  |
|   |          |                                |           | , (D : 10 : 11 :   |
| 7   |          |                                |           | % of Dominant Species that                                 |
| Mowata-Vidrine silt loan                              |          |                                |           | are OBL, FACW, or FAC: 100% (A/B)                          |
|   | :        | <ul><li>Total Cove</li></ul>   | r         |  |
| Sapling Stratum (Plot size: 30ft )                    |          |                                |           | Prevalence Index worksheet:                                |
| Sapium serbiferum                                     | 10       | No                             | FAC       | OBL speciesx1  |
| 2   |          |                                |           | FACW speciesx2   |
| 3   |          |                                |           | FAC species 8 x3 24  |
| 4.  |          |                                |           | FACU speciesx4   |
| 5.  |          |                                |           | UPL species x5   |
| 6.  |          |                                |           | Column Totals: 8 (A) 24 (B)                                |
|   |          |                                |           | Prevalence Index: B/A = 3                                  |
| 7   |          |                                |           | Trevalence index. Birt =                                   |
|   | 10       | <ul><li>Total Cove</li></ul>   | r         |  |
| Shrub Stratum (Plot size: 30ft )                      |          |                                |           | Hydrophytic Vegetation Indicators:                         |
| 1   |          |                                |           | Y Dominance Test is >50%                                   |
| 2   |          |                                |           | Y Prevalence Index is <= 3.0 *                             |
| 3   |          |                                |           | N Problematic Hydrophytic Vegetation *                     |
| 4.  |          |                                |           |  |
| 5.  |          |                                |           | * Indicators of hydric soil and wetland hydrology          |
| 0   |          |                                |           | must be present, unless disturbed or problematic.          |
|   |          |                                |           | must be present, unless disturbed of problematic.          |
| 7   |          |                                |           |  |
|   | :        | <ul> <li>Total Cove</li> </ul> | r         | Definitions of Vegetation Strata:                          |
| Herb Stratum (Plot size: 30ft )                       |          |                                |           |  |
| 1. Paspalum notatum                                   | 10       | Yes                            | FAC       | Tree - Woody plants, excluding vines, approximately        |
| 2. Cirsium vulgare                                    | 10       | No                             | FAC       | 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger |
| 3. Andropogon virginicus                              | 15       | Yes                            | FAC       | in diameter at breast height (DBH).                        |
| Sorghum halpense                                      | 15       | Yes                            | FAC       | in diamotor at broadt holght (BBH).                        |
| 5. Solidago austrina                                  | 10       | Yes                            | FAC       | Sapling-Woody plants, excluding woody vines,               |
|   |          |                                |           |  |
| 6. Cynodon doctylon                                   | 30       | Yes                            | FAC       | approximately 20 ft (6m) or more in height and             |
| 7   |          |                                |           | less than 3 in. (7.6 cm) DBH                               |
|   | 90%      | = Total Cove                   | r         |  |
| Woody Vine Stratum (Plot size: 30ft )                 |          |                                |           | Shrub-Woody plants, excluding woody vines,                 |
| 1. Rubus Iouisianus                                   | 10       | Yes                            | FAC       | approximately 3 to 20 ft (1 to 6m) in height.              |
| 2.  |          |                                |           | , , ,  |
| 3.  |          |                                |           | Herb- All herbaceous (non-woody) plants, including         |
|   |          |                                |           | herbaceousvines, regardless of size. Includes woody        |
|   |          |                                |           |  |
| 5   |          |                                |           | plants, except woody vines, less than approximately        |
| 6.  |          |                                | -         | 3 ft (1m) in height.                                       |
| 7   |          |                                |           | Woody Vine- All woody vines, regardless of height.         |
|   | 10 :     | <ul><li>Total Cove</li></ul>   | r         | <u>                                     </u>               |
|   |          |                                |           |  |
| Remarks: (If observed, list morphological adaptations | below).  |                                |           |  |
|   |          |                                |           |  |
|   |          |                                |           |  |
|   |          |                                |           | Hydrophytic  |
|   |          |                                |           | Vegetation   |
|   |          |                                |           | Present? Yes_X No  |

### SAMPLE LOCATION 1

| Map Unit Name<br>(Series and Pha                  |   | Mowata Series  |  | Drainage Class:  | Poorly drain   | Poorly drained  |  |  |
|---|---|--|--|--|--|-----------------|--|--|
| Taxonomy (Sub                                     | group):   | Mowata-Vidrine   | silt loam  | Field Observations<br>Confirm Mapped Type?   | (Yes) N  | No              |  |  |
| Profile Description Depth (inches) 0-8 8-16 16-20 | Matrix Color (Munsell Moistidrir 10 YR 4/2 10 YR 5/2 10 YR 4/3  | n %<br>90<br>85<br>85                                  | REDOX FEA<br>Mottle Colors<br>(Munsell Moist)<br>10 YR 5/1<br>10 YR 5/4<br>10 YR 7/2   | Mottle (Type* / Location**) C.M. C.M. C.M.   | Texture / Remarks Silt loam Silt loam Silt loam                                      |                 |  |  |
| *Type:C   |   | Depletion, RM=Rec                                      | duced Matrix, CS=Cove  | red or Coated Sand Gra**   |  | Pore Lining, Ma |  |  |
| Hi Hi Hi BI Hy St OI Th Si Si Si                  | istosol (A1) istic Epipedon (A2) lack Histic (A3) ydrogen Sulfide (A4) tratified Layers (A5) brganic Streaking in Si cm Mucky Mineral (A cm Muck (A9) epleted below Dark S hick Dark Surface (12 andy Mucky Mineral ( andy Gleyed Matrix (S andy Redox (S5) tripped Matrix (S6) eark Surface (S7) | sandy Soils (A6)<br>A7)<br>Surface (A11)<br>2)<br>(S1) | Polyvalue Below S Thin Dark Surface Loamy Mucky Mir Loamy Gleyed Ma x Depleted Matrix (F Redox Dark Surfa Depleted Dark Su Redox Depression Depleted Ochric (F Iron-Maganese M Umbric Surface (F | Surface (S8) e (S9) neral (F1) atrix (F2) F3) ace (F6) urface (F7) n (F8) (F11) lasses (F12) | 1 cm Muck ( 2 cm Muck ( Piedmont FI Piedmont FI Red Parent Very Shallov Other (Expla | (A9)            | s (F19)<br>s (F19)<br>)<br>e (TF12)<br>s)<br>vegetation<br>ust be present, |  |
| WETLAND DET                                       | [ERMINATION   |  |  | <del></del>  |  |                 |  |  |
| Ty  | ctive Layer<br>ype:<br>epth (inches):   | (if observed):   |  | Hydric Soils Present?  | <b>(</b> Y   | (Circ           | cle)<br>No   |  |
| Remarks:  | Soil listed as Hydric.  |  |  | Tryunc Sons i resent:  | ,,   | esj             | No   |  |

### DATA FORM ROUTINE WETLAND DETERMINATION (Atlantic and Gulf Coast Plain Region) SAMPLE LOCATION 2

| - · · /o·  |                                   |             |                    | =            |              |                               | - /- /            |  |  |  |
|--|-----------------------------------|-------------|--------------------|--------------|--------------|-------------------------------|-------------------|--|--|--|
| Project/Site:  | ů ,                               |             |                    |              |              | Date:                         | 5/7/2014          |  |  |  |
| Applicant/Owner:   |                                   |             |                    |              |              | Parish:                       | Calcasieu         |  |  |  |
| Investigator:  | P. LeBlanc; J.l                   | ebourge     | 3015               |              |              | State:                        | Louisiana         |  |  |  |
|  |                                   |             |                    |              |              | Sample Locati                 |                   | 2  |  |  |
| Landform (hillslope  |                                   |             | Plains             | _Slope:      | 1%           | Section, Town                 | ship, Range:      | Sect 12, Twn 10 South, Range 8 West            |  |  |
| Subregion (LRR or  | ,                                 | LRR         |                    | Lat:         |              | Long:                         |                   | Datum:   |  |  |
| Soil Map Unit Nam  |                                   |             | -Vidrine silt      |              |              | NWI classifica                |                   | PEM  |  |  |
| Are climatic hydrol  | ogical condition                  | s on the    | site typicai i     | or this ti   | me or yea    | ar'?                          | (Yes) No          | (If no, explain in Remarks)                    |  |  |
| Are Vegetation   | No, Soil_                         | No,         | Hydrology          | / <u>No</u>  | significa    | ntly disturbed?               | Are Normal        | Circumstances present on the site?             |  |  |
| Are Vegetation   | No, Soil_                         | <u>No ,</u> | Hydrology          | / <u>No</u>  | naturally    | problematic?                  |                   | Yes (No)                                       |  |  |
| SUMMARY OF FINDINGS: WETLAND DETERMINATION   |                                   |             |                    |              |              |                               |                   |  |  |  |
|  |                                   | ((          | Circle)            | <u>,</u>     |              |                               |                   | (Circle)                                       |  |  |
| Hydrophytic Veget  | ation Present?                    | (Yes)       | No                 |              |              |                               |                   |  |  |  |
| Wetland Hydrology  |                                   | Yes         | (No)               |              |              |                               |                   |  |  |  |
| Hydric Soils Prese   |                                   | (Yes)       | No                 |              | Is this Sa   | mpling Point Wit              | hin a Wetland?    | Yes (No)                                       |  |  |
| Remarks:   | 111:                              | (100)       | 110                |              | lo uno ca    | Inpling Form Tric             | IIII a vvolana.   | 163 (140)                                      |  |  |
| Sample Plot #2 located near the ponds located near the north central portion of the site.  Area appears to have had dirt work done in area previously mapped as a PEM on the NWI maps. |                                   |             |                    |              |              |                               |                   |  |  |  |
| HYDROLOGY  |                                   |             |                    |              |              |                               |                   |  |  |  |
| Wetland Hydro  | logy Indicators                   | :           |                    |              |              |                               | Seconda           | ary Indicators (minimum 2 required)            |  |  |
| Primary Indicators   |                                   | is require  | ed; check all t    | hat apply    |              |                               | =                 | Surface Soil Cracks (B6)                       |  |  |
| Surface W  | , ,                               |             |                    |              |              | ained Leaves (B9              | 9)                | Sparsley Vegetated Surfaces(Concave)           |  |  |
|  | r Table (A2)<br>in Upper 12 inche | oc (A3)     |                    |              |              | auna (B13)<br>Sulfide Odor (C | 1)                | Drainage Patterns (B10)  Moss Trim Lines (B16) |  |  |
| Water Mar  |                                   | S (A3)      |                    |              |              | Root Channels u               |                   | Dry-Season Water Table (C2)                    |  |  |
|  | Deposits (B2)                     |             |                    |              | _            | of Reduced Iron               |                   | Crayfish Burrows (C8)                          |  |  |
| Drift Depo   | sits (B3)                         |             |                    |              | Recent Ire   | on Reduction in T             | Tilled Soils (C6) | Saturation Visible on Aerial Imagery           |  |  |
|  | or Crust (B4)                     |             |                    |              | _            | k Surface (C7)                |                   | Geomorphic Position (D2)                       |  |  |
| Iron Depos   | sits (B5)<br>Visible on Aerial l  | magary (    | D7\                |              | Other (Ex    | plain Remarks)                |                   | Shallow Aquitard (D3) FAC-Neutral Test (D5)    |  |  |
|  |                                   | magery (i   |                    |              |              |                               |                   | TAC-Neutral Test (D3)                          |  |  |
| Field Observati  | -                                 | (A.L.)      |                    | <i>(</i> : \ |              |                               |                   |  |  |  |
| Surface Water F  |                                   | es (No)     |                    | _ (in.)      |              |                               |                   |  |  |  |
| Depth of Free W  |                                   |             |                    | _(in.)       | Motlone      | l Usalvalaas Du               | vacant? Va        | o (No)   |  |  |
| Saturated Soil F   |                                   | es (No)     |                    | _(in.)       | wetiand      | l Hydrology Pr                | resent? Ye        | es (No)  |  |  |
| (includes capilla<br>Describe Recorded D   | <u> </u>                          |             | wells serial abo   |              | Luc incocció | ana) if available.            |                   |  |  |  |
| Describe Recorded L  | data (Stream guage,               | nonitoning  | wells, aeriai pric | nos, previo  | inspection   | ons), ii avaliable.           |                   |  |  |  |
| Remarks:   | Aerial photogra                   | aphs use    | d to determ        | ne brea      | k in habit   | at types and his              | storical use of S | Site.  |  |  |
|  | . 3                               | •           |                    |              |              | ,,                            |                   |  |  |  |
|  |                                   |             |                    |              |              |                               |                   |  |  |  |
|  |                                   |             |                    |              |              |                               |                   |  |  |  |
|  |                                   |             |                    |              |              |                               |                   |  |  |  |

|                                     |                |                       | Absolute    | Dominant     | Indicator      | Dominance Test worksheet:                                  |
|-------------------------------------|----------------|-----------------------|-------------|--------------|----------------|--|
| Tree Stratum                        | (Plot size:    | 30 ft )               | % Cover     | Species?     | Status         |  |
| 1.                                  |                |                       |             |              |                | Number of Dominant Species                                 |
| 2.                                  |                |                       |             |              |                | That are OBL, FACW, or FAC6_(A)                            |
| ^                                   |                |                       |             |              |                | ,  |
| 4                                   |                |                       |             |              |                | Total Number of Dominant                                   |
| 5                                   |                |                       | _           |              |                | Species across All Strata <u>6 (B)</u>                     |
|                                     |                |                       |             |              |                | <u></u>  |
|                                     |                |                       | _           |              |                | Of at Danainant On asias that                              |
| 7                                   |                |                       |             |              |                | % of Dominant Species that                                 |
|                                     | l              | Mowata-Vidrine silt l |             |              |                | are OBL, FACW, or FAC: 100% (A/B)                          |
|                                     |                |                       |             | = Total Cove | er             |  |
|                                     | (Plot size:    | 30ft )                |             |              |                | Prevalence Index worksheet:                                |
| <ol> <li>Sapium serbifer</li> </ol> | um             |                       | 10          | No           | FAC            | OBL speciesx1  |
| 2                                   |                |                       |             |              |                | FACW speciesx2   |
| 3                                   |                |                       |             |              |                | FAC species 8 x3 24  |
| 4                                   |                |                       |             |              |                | FACU speciesx4   |
|                                     |                |                       |             |              |                | UPL speciesx5  |
| 6.                                  |                |                       |             |              |                | Column Totals: 8 (A) 24 (B)                                |
| 7.                                  |                |                       |             |              |                | Prevalence Index: B/A = 3                                  |
|                                     |                |                       |             | = Total Cove |                |  |
| Clausela Chuatassa                  | (Diet eine     | 204                   |             | = TOTAL COVE | <del>5</del> 1 | Hudronbutis Variation Indicators                           |
| Shrub Stratum                       | ,              | 30ft )                |             |              |                | Hydrophytic Vegetation Indicators:                         |
| 1                                   |                |                       |             |              |                | Y Dominance Test is >50%                                   |
|                                     |                |                       |             |              | -              | Y Prevalence Index is <= 3.0 *                             |
| 3                                   |                |                       |             |              |                | N Problematic Hydrophytic Vegetation *                     |
| 4                                   |                |                       |             |              |                |  |
| 5                                   |                |                       |             |              |                | * Indicators of hydric soil and wetland hydrology          |
| 6                                   |                |                       |             |              |                | must be present, unless disturbed or problematic.          |
| 7                                   |                |                       |             |              |                |  |
|                                     |                |                       |             | = Total Cove | ~r             | Definitions of Vagatation Strata                           |
| Llaula Ctuatuus                     | (Diet eine     | 204                   |             | = TOTAL COVE | <del>5</del> 1 | Definitions of Vegetation Strata:                          |
| Herb Stratum                        | (Plot size:    | 30ft )                |             |              | E40            | <del>-</del>   |
| 1. Paspalum notat                   |                |                       | 10          | Yes          | FAC            | Tree - Woody plants, excluding vines, approximately        |
| 2. Cirsium vulgare                  |                |                       | 10          | No           | FAC            | 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger |
| <ol><li>Andropogon virg</li></ol>   |                |                       | 15          | Yes          | FAC            | in diameter at breast height (DBH).                        |
| <ol> <li>Sorghum halper</li> </ol>  |                |                       | 15          | Yes          | FAC            |  |
| <ol><li>Solidago austrir</li></ol>  |                |                       | 10          | Yes          | FAC            | Sapling-Woody plants, excluding woody vines,               |
| <ol><li>Cynodon doctyle</li></ol>   | on             |                       | 30          | Yes          | FAC            | approximately 20 ft (6m) or more in height and             |
| 7                                   |                |                       |             |              |                | less than 3 in. (7.6 cm) DBH                               |
|                                     |                |                       | 90%         | = Total Cove | er             |  |
| Woody Vine Stratum                  | n (Plot size:  | 30ft )                |             |              |                | Shrub-Woody plants, excluding woody vines,                 |
| Rubus louisianu                     | •              | ,                     | 10          | Yes          | FAC            | approximately 3 to 20 ft (1 to 6m) in height.              |
|                                     |                |                       | - $ $       | 100          | 17.0           | approximately 5 to 25 ft (1 to 5ff) in neight.             |
| 3.                                  |                |                       |             |              |                | Herb- All herbaceous (non-woody) plants, including         |
|                                     |                |                       | _           |              |                |  |
|                                     |                |                       |             |              |                | herbaceousvines, regardless of size. Includes woody        |
|                                     |                |                       | _           |              |                | plants, except woody vines, less than approximately        |
|                                     |                |                       | _           |              |                | 3 ft (1m) in height.                                       |
| 7                                   |                |                       |             |              |                | Woody Vine- All woody vines, regardless of height.         |
|                                     |                |                       | 10          | = Total Cove | er             |  |
|                                     |                |                       |             |              |                |  |
| Remarks: (If observe                | ved, list morp | hological adaptation  | ons below). |              |                |  |
|                                     |                |                       |             |              |                |  |
|                                     |                |                       |             |              |                | Livedroub, 4to   |
|                                     |                |                       |             |              |                | Hydrophytic  |
|                                     |                |                       |             |              |                | Vegetation   |
|                                     |                |                       |             |              |                | Present? Yes_X No  |

### SAMPLE LOCATION 2

| SUILS                                     |   | SAIVI               | IPLE LOCATION 2  |   |   |  |  |
|---|---|---------------------|--|---|---|--|--|
| Map Unit Name<br>(Series and Ph           |   | Mowata Series       |  | Drainage Class:   | Poorly drained  |  |  |
| Taxonomy (Sul                             | bgroup):  | Mowata-Vidrine silt | loam   | Field Observations<br>Confirm Mapped Type?  | ? (Yes) No  |  |  |
| Profile Descript                          | tion:   |                     |  |   |   |  |  |
| Depth<br>(inches)<br>0-8<br>8-16<br>16-20 | Matrix Color (Munsell Moistidrin 10 YR 4/2 10 YR 5/2 10 YR 4/3  | %<br>90<br>85<br>85 | Mottle Colors (Munsell Moist) 10 YR 5/1 10 YR 5/4 10 YR 7/2  | Mottle (Type* / Location**) C.M. C.M. C.M.  | Texture / Remarks Silt loam Silt loam Silt loam   |  |  |
| *Type:                                    |   | epletion, RM=Reduce | ed Matrix, CS=Cover  | ed or Coated Sand Gra**   |   | ining, M=Matrix  |  |
| H H S S S S S S S S S S S S S S S S S S   | Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Btratified Layers (A5) Drganic Streaking in Sa Grom Mucky Mineral (A I cm Muck (A9) Depleted below Dark S Thick Dark Surface (12 Bandy Mucky Mineral (S Bandy Gleyed Matrix (S Bandy Redox (S5) Btripped Matrix (S6) Dark Surface (S7) | andy Soils (A6)     | Polyvalue Below S Thin Dark Surface Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surface Depleted Dark Surface Redox Depression Depleted Ochric (I Iron-Maganese Ma Umbric Surface (F | Surface (S8)  (S9)  eral (F1)  strix (F2)  (S3)  ce (F6)  rface (F7)  n (F8)  F11)  asses (F12) | 1 cm Muck (A9) 2 cm Muck (A10) Piedmont Floodpla Piedmont Floodpla Red Parent Mater Very Shallow Dark Other (Explain in I | ain Soils (F19) ain Soils (F19) ain Soils (F19) aial (TF2) a Surface (TF12) Remarks) aphytic vegetation alogy must be present, |  |
|   | TERMINATION   |                     |  | Γ   |   |  |  |
| Т   | ictive Layer<br>Гуре:<br>Depth (inches):  | (if observed):      |  | Hydric Soils Present?   | (Yes)   | (Circle)   |  |
| Remarks:                                  | Soil listed as Hydric.  |                     |  | in yana osma i rocem.   | (198)   |  |  |

### DATA FORM ROUTINE WETLAND DETERMINATION (Atlantic and Gulf Coast Plain Region) SAMPLE LOCATION 3

| Project/Site:                              | 160 acres-loca    | ited neai  | Highway 39        | 7 Site 5     |               | Date:   | 5/7/2014          |   |  |  |
|--|-------------------|------------|-------------------|--------------|---------------|---|-------------------|---|--|--|
| Applicant/Owner:                           | David Conner      | and Larr   | <u>y Henson</u>   |              |               | Parish:   | Calcasieu         |   |  |  |
| Investigator:                              | P. LeBlanc; J.l   | _eBourg    | eois              |              |               | State:  | Louisiana         |   |  |  |
|  |                   |            |                   |              |               | Sample Location                                   | on:               | 3   |  |  |
| Landform (hillslope                        | , terrace, etc.): |            | Plains            | Slope:       | 1%            | Section, Towns                                    | ship, Range:      | Sect 12, Twn 10 South, Range 8 West               |  |  |
| Subregion (LRR or                          | MLRA):            | LRR        |                   | Lat:         |               | Long:   |                   | Datum:  |  |  |
| Soil Map Unit Nam                          |                   |            | -Vidrine silt I   |              |               | NWI classificat                                   | tion:             | None  |  |  |
| Are climatic hydrol                        | ogical condition  | s on the   | site typical f    | or this tir  | me of yea     | ar?   | (Yes) No          | (If no, explain in Remarks)                       |  |  |
| Are Vegetation                             | No, Soil          | No,        | Hydrology         | / No         | significa     | ntly disturbed?                                   | Are Normal (      | Circumstances present on the site?                |  |  |
| Are Vegetation                             | No, Soil_         | No ,       | Hydrology         | / No         | naturally     | problematic?                                      |                   | (Yes) No  |  |  |
| SUMMARY OF FINDINGS: WETLAND DETERMINATION |                   |            |                   |              |               |   |                   |   |  |  |
|  |                   | (1         | Circle)           |              |               |   |                   | (Circle)  |  |  |
| Hydrophytic Vegeta                         | ation Present?    | (Yes)      | No                |              |               |   |                   |   |  |  |
| Wetland Hydrology                          | Present?          | Yes        | (No)              |              |               |   |                   |   |  |  |
| Hydric Soils Prese                         |                   | (Yes)      | No                |              | Is this Sa    | mpling Point With                                 | hin a Wetland?    | Yes (No)  |  |  |
| Remarks:                                   |                   |            |                   |              |               | -   |                   |   |  |  |
|  |                   |            |                   |              |               |   |                   |   |  |  |
| HYDROLOGY                                  |                   |            |                   |              |               |   |                   |   |  |  |
| Wetland Hydro                              | logy Indicators   | ;:         |                   |              |               |   | Seconda           | ary Indicators (minimum 2 required)               |  |  |
| Primary Indicators                         |                   | is requir  | ed; check all tl  | hat apply)   |               |   | _                 | Surface Soil Cracks (B6)                          |  |  |
| Surface W                                  |                   |            |                   |              |               | ained Leaves (B9                                  | 9)                | Sparsley Vegetated Surfaces (Concave)             |  |  |
|  | r Table (A2)      | - (40)     |                   |              |               | auna (B13)  | 4)                | Drainage Patterns (B10)                           |  |  |
| Saturated Water Mar                        | in Upper 12 inche | s (A3)     |                   | -            |               | n Sulfide Odor (C <sup>o</sup><br>Root Channels u |                   | Moss Trim Lines (B16) Dry-Season Water Table (C2) |  |  |
|  | Deposits (B2)     |            |                   | -            |               | of Reduced Iron                                   |                   | Crayfish Burrows (C8)                             |  |  |
| Drift Depos                                |                   |            |                   | -            |               | on Reduction in T                                 | , ,               | Saturation Visible on Aerial Imagery              |  |  |
|  | or Crust (B4)     |            |                   |              |               | k Surface (C7)                                    | ( ,               | Geomorphic Position (D2)                          |  |  |
| Iron Depos                                 | sits (B5)         |            |                   |              | Other (Ex     | plain Remarks)                                    |                   | Shallow Aquitard (D3)                             |  |  |
| Inundated                                  | Visible on Aerial | lmagery (  | B7)               |              |               |   |                   | x FAC-Neutral Test (D5)                           |  |  |
| Field Observati                            | ons:              |            |                   |              |               |   |                   |   |  |  |
| Surface Water F                            | Present? Y        | es (No)    |                   | (in.)        |               |   |                   |   |  |  |
| Depth of Free W                            | ater in Pit? Y    | es (No)    |                   | (in.)        |               |   |                   |   |  |  |
| Saturated Soil P                           |                   | es (No)    |                   | (in.)        | Wetland       | Hydrology Pr                                      | esent? (Ye        | es) No  |  |  |
| (includes capilla                          | ry fringe)        |            |                   | - ' '        |               | -   | •                 | •   |  |  |
| Describe Recorded D                        |                   | monitoring | wells, aerial pho | otos, previo | us inspection | ons), if available:                               |                   |   |  |  |
| Remarks:                                   | Aorial photogra   | anhe ucc   | od to dotormi     | no broal     | , in hahit    | at types and his                                  | storical use of S | 2ito  |  |  |
| Nemarks.                                   | Aeriai priotogra  | apris use  | tu to determi     | ne brear     | l III Habit   | at types and mis                                  | storical use of S | oile.   |  |  |
|  |                   |            |                   |              |               |   |                   |   |  |  |
|  |                   |            |                   |              |               |   |                   |   |  |  |
|  |                   |            |                   |              |               |   |                   |   |  |  |

|   | Absolute | Dominant                       | Indicator | Dominance Test worksheet:                                  |
|---|----------|--------------------------------|-----------|--|
| Tree Stratum (Plot size: 30 ft )                      | % Cover  | Species?                       | Status    |  |
| 1.  |          |                                |           | Number of Dominant Species                                 |
| 2.  |          |                                |           | That are OBL, FACW, or FAC6_(A)                            |
| 2   |          |                                |           | , , , ,  |
|   |          |                                |           | Total Number of Dominant                                   |
|   |          |                                |           | Species across All Strata <u>6 (B)</u>                     |
|   |          |                                |           | <u></u>  |
|   |          |                                |           | , 15 · 10 · 11 ·   |
| 7   |          |                                |           | % of Dominant Species that                                 |
| Mowata-Vidrine silt loan                              |          |                                |           | are OBL, FACW, or FAC: 100% (A/B)                          |
|   | :        | <ul><li>Total Cove</li></ul>   | r         |  |
| Sapling Stratum (Plot size: 30ft )                    |          |                                |           | Prevalence Index worksheet:                                |
| Sapium serbiferum                                     | 10       | No                             | FAC       | OBL speciesx1  |
| 2   |          |                                |           | FACW speciesx2   |
| 3   |          |                                |           | FAC species 8 x3 24  |
| 4.  |          |                                |           | FACU speciesx4   |
| 5.  |          |                                |           | UPL species x5   |
| 6.  |          |                                |           | Column Totals: 8 (A) 24 (B)                                |
|   |          |                                |           | Prevalence Index: B/A = 3                                  |
| 7   |          |                                |           | Trevalence index. Birt =                                   |
|   | 10       | <ul><li>Total Cove</li></ul>   | r         |  |
| Shrub Stratum (Plot size: 30ft )                      |          |                                |           | Hydrophytic Vegetation Indicators:                         |
| 1   |          |                                |           | Y Dominance Test is >50%                                   |
| 2   |          |                                |           | Y Prevalence Index is <= 3.0 *                             |
| 3   |          |                                |           | N Problematic Hydrophytic Vegetation *                     |
| 4.  |          |                                |           |  |
| 5.  |          |                                |           | * Indicators of hydric soil and wetland hydrology          |
| 0   |          |                                |           | must be present, unless disturbed or problematic.          |
|   |          |                                |           | must be present, unless disturbed of problematic.          |
| 7   |          |                                |           |  |
|   | :        | <ul> <li>Total Cove</li> </ul> | r         | Definitions of Vegetation Strata:                          |
| Herb Stratum (Plot size: 30ft )                       |          |                                |           |  |
| 1. Paspalum notatum                                   | 10       | Yes                            | FAC       | Tree - Woody plants, excluding vines, approximately        |
| 2. Cirsium vulgare                                    | 10       | No                             | FAC       | 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger |
| 3. Andropogon virginicus                              | 15       | Yes                            | FAC       | in diameter at breast height (DBH).                        |
| Sorghum halpense                                      | 15       | Yes                            | FAC       | in diamotor at broadt holght (BB11).                       |
| 5. Solidago austrina                                  | 10       | Yes                            | FAC       | Sapling-Woody plants, excluding woody vines,               |
|   |          |                                |           |  |
| 6. Cynodon doctylon                                   | 30       | Yes                            | FAC       | approximately 20 ft (6m) or more in height and             |
| 7   |          |                                |           | less than 3 in. (7.6 cm) DBH                               |
|   | 90%      | = Total Cove                   | r         |  |
| Woody Vine Stratum (Plot size: 30ft )                 |          |                                |           | Shrub-Woody plants, excluding woody vines,                 |
| 1. Rubus Iouisianus                                   | 10       | Yes                            | FAC       | approximately 3 to 20 ft (1 to 6m) in height.              |
| 2.  |          |                                |           | , , ,  |
| 3.  |          |                                |           | Herb- All herbaceous (non-woody) plants, including         |
|   |          |                                |           | herbaceousvines, regardless of size. Includes woody        |
|   |          |                                |           |  |
| 5   |          |                                |           | plants, except woody vines, less than approximately        |
| 6.  |          |                                | -         | 3 ft (1m) in height.                                       |
| 7   |          |                                |           | Woody Vine- All woody vines, regardless of height.         |
|   | 10 :     | <ul><li>Total Cove</li></ul>   | r         | <u>                                     </u>               |
|   |          |                                |           |  |
| Remarks: (If observed, list morphological adaptations | below).  |                                |           |  |
|   |          |                                |           |  |
|   |          |                                |           |  |
|   |          |                                |           | Hydrophytic  |
|   |          |                                |           | Vegetation   |
|   |          |                                |           | Present? Yes_X No  |

### SAMPLE LOCATION 3

| JUILS  |  | 3/  | AWIFEE LOCATION 3   | <u></u>   |   |   |
|--|--|---|---|---|---|---|
| Map Unit Name<br>(Series and Ph  |  | Mowata Series                                   |   | Drainage Class:   | Poorly drained  |   |
| Taxonomy (Sul  | bgroup):   | Mowata-Vidrine                                  | silt loam   | Field Observations<br>Confirm Mapped Type   |   |   |
| Profile Descript   | tion:  |   |   |   |   |   |
| Depth (inches)         Matrix Color (Munsell Moistidri 10 YR 4/2)           8-16         10 YR 5/2           16-20         10 YR 4/3 |  | rin % (Munsell Moist) 90 10 YR 5/1 85 10 YR 7/2 |   | Mottle (Type* / Location**)  C.M.  C.M.  C.M.                                     | Texture / F Silt lo Silt lo   | am<br>am  |
| *Type:   |  | Depletion, RM=Red                               | duced Matrix, CS=Cove   |   | ** Location: PL=Pore Lining   | •   |
| H  | Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Btratified Layers (A5) Drganic Streaking in S G cm Mucky Mineral (A Cm Muck (A9) Depleted below Dark S Thick Dark Surface (12 Bandy Mucky Mineral (S Bandy Gleyed Matrix (S Bandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) | 507)<br>Surface (A11)<br>(S1)                   | Polyvalue Below Thin Dark Surface Loamy Mucky Min Loamy Gleyed Marrix ( Redox Dark Surface Depleted Dark Surface Redox Depressio Depleted Ochric ( Iron-Maganese M Umbric Surface ( | e (S9) neral (F1) atrix (F2) F3) ace (F6) urface (F7) in (F8) (F11) flasses (F12) | 1 cm Muck (A9) 2 cm Muck (A10) Piedmont Floodplain S Piedmont Floodplain S Red Parent Material ( Very Shallow Dark Su Other (Explain in Rem  * Indicators of hydrophy and wetland hydrology unless disturbed or pre | Soils (F19) TF2) rface (TF12) earks) rtic vegetation y must be present, |
| WETLAND DE   | TERMINATION  |   |   |   |   |   |
| Т  | ctive Layer  Type:  Depth (inches):  | (if observed):                                  |   | Hydric Soils Present?   |   | (Circle)  |
| Remarks:   | Soil listed as Hydric.   |   |   |   | (133)   |   |

# DATA FORM ROUTINE WETLAND DETERMINATION (Atlantic and Gulf Coast Plain Region) SAMPLE LOCATION 4

| Project/Site:                              | 160 acres-loc      | ated nea   | r Highway 39      | 97 Site 5    |                   | Date:               | 5/7/2014          |                                      |  |
|--|--------------------|------------|-------------------|--------------|-------------------|---------------------|-------------------|--------------------------------------|--|
| Applicant/Owner:                           | David Conner       |            |                   |              |                   | Parish:             | Calcasieu         |                                      |  |
| Investigator:                              | P. LeBlanc; J.     | LeBourg    | eois              |              |                   | State:              | Louisiana         |                                      |  |
|  |                    |            |                   |              |                   | Sample Location     | on:               | 4                                    |  |
| Landform (hillslope                        |                    |            | Plains            | _Slope:      | 1%                | Section, Towns      | ship, Range:      | Sect 12, Twn 10 South, Range 8 West  |  |
| Subregion (LRR or                          | •                  | LRR        |                   | Lat:         |                   | Long:               |                   | Datum:                               |  |
| Soil Map Unit Nam                          |                    |            | silt loam         |              |                   | NWI classificat     |                   | None                                 |  |
| Are climatic hydrol                        | ogical conditior   | ns on the  | site typical f    | or this ti   | me of yea         | ar?                 | (Yes) No          | (If no, explain in Remarks)          |  |
| Are Vegetation                             | No, Soil           | No,        | Hydrology         | / <u>No</u>  | significa         | ntly disturbed?     | Are Normal        | Circumstances present on the site?   |  |
| Are Vegetation                             | No, Soil           | No ,       | Hydrology         | / <u>No</u>  | naturally         | problematic?        |                   | (Yes) No                             |  |
| SUMMARY OF FINDINGS: WETLAND DETERMINATION |                    |            |                   |              |                   |                     |                   |                                      |  |
|  |                    | (          | Circle)           |              |                   |                     |                   | (Circle)                             |  |
| Hydrophytic Veget                          | ation Present?     | (Yes)      | No                |              |                   |                     |                   |                                      |  |
| Wetland Hydrology                          | / Present?         | Yes        | (No)              |              |                   |                     |                   |                                      |  |
| Hydric Soils Prese                         | nt?                | Yes        | (No)              |              | Is this Sa        | mpling Point With   | nin a Wetland?    | Yes (No)                             |  |
| Remarks:                                   |                    |            |                   |              |                   |                     |                   |                                      |  |
| Sample F                                   | Plot #4 located    | at couth   | orn portion of    | the Site     |                   |                     |                   |                                      |  |
| Sample                                     | 10t #4 10cateu     | at South   | eni portion di    | lile Sile    |                   |                     |                   |                                      |  |
|  |                    |            |                   |              |                   |                     |                   |                                      |  |
|  |                    |            |                   |              |                   |                     |                   |                                      |  |
|  |                    |            |                   |              |                   |                     |                   |                                      |  |
| HYDROLOGY                                  |                    |            |                   |              |                   |                     |                   |                                      |  |
| Wetland Hydro                              | logy Indicator     | · ·        |                   |              |                   |                     | Second            | ary Indicators (minimum 2 required)  |  |
| Primary Indicators                         |                    |            | ed: check all t   | hat apply    | )                 |                     | <u> </u>          | Surface Soil Cracks (B6)             |  |
| Surface W                                  |                    | - 10 10 4  |                   |              |                   | ained Leaves (B9    | ·<br>)            | Sparsley Vegetated Surfaces (Concave |  |
| High Wate                                  | r Table (A2)       |            |                   | 1            | Aquatic F         | auna (B13)          | ,                 | Drainage Patterns (B10)              |  |
| Saturated                                  | in Upper 12 inch   | es (A3)    |                   |              | Hydroger          | Sulfide Odor (C     | 1)                | Moss Trim Lines (B16)                |  |
| Water Mai                                  | ks (B1)            |            |                   |              |                   | Root Channels up    |                   | Dry-Season Water Table (C2)          |  |
|  | Deposits (B2)      |            |                   |              | -                 | of Reduced Iron     | , ,               | Crayfish Burrows (C8)                |  |
| Drift Depo                                 |                    |            |                   |              | -                 | on Reduction in T   | illed Soils (C6)  | Saturation Visible on Aerial Imagery |  |
|  | or Crust (B4)      |            |                   |              |                   | k Surface (C7)      |                   | Geomorphic Position (D2)             |  |
| Iron Depos                                 | , ,                |            |                   |              | Other (Ex         | plain Remarks)      |                   | Shallow Aquitard (D3)                |  |
| Inundated                                  | Visible on Aerial  | Imagery    | (B7)              |              |                   |                     |                   | x FAC-Neutral Test (D5)              |  |
| Field Observat                             | ions:              |            |                   |              |                   |                     |                   |                                      |  |
| Surface Water F                            | Present?           | 'es (No)   |                   | (in.)        |                   |                     |                   |                                      |  |
| Depth of Free W                            | /ater in Pit? \    | es (No)    |                   | (in.)        |                   |                     |                   |                                      |  |
| Saturated Soil F                           | resent?            | es (No)    |                   | (in.)        | Wetland           | Hydrology Pr        | esent? Ye         | es (No)                              |  |
| (includes capilla                          |                    |            |                   |              |                   | -                   |                   |                                      |  |
| Describe Recorded D                        | Data (stream guage | monitoring | wells, aerial pho | otos, previo | ous inspection    | ons), if available: |                   |                                      |  |
| Danasilas                                  | A: - L L t         |            | t  - t            |              | la tan la a la te | -4.4                |                   | 24-                                  |  |
| Remarks:                                   | Aeriai photogi     | apns use   | ea to determ      | ine brea     | k in nabit        | at types and his    | storical use of s | oite.                                |  |
|  |                    |            |                   |              |                   |                     |                   |                                      |  |
|  |                    |            |                   |              |                   |                     |                   |                                      |  |
|  |                    |            |                   |              |                   |                     |                   |                                      |  |

|   | Absolute | Dominant                       | Indicator | Dominance Test worksheet:                                  |
|---|----------|--------------------------------|-----------|--|
| Tree Stratum (Plot size: 30 ft )                      | % Cover  | Species?                       | Status    |  |
| 1.  |          |                                |           | Number of Dominant Species                                 |
| 2.  |          |                                |           | That are OBL, FACW, or FAC6_(A)                            |
| 2   |          |                                |           | , , , ,  |
|   |          |                                |           | Total Number of Dominant                                   |
|   |          |                                |           | Species across All Strata <u>6 (B)</u>                     |
|   |          |                                |           | <u></u>  |
|   |          |                                |           | , 15 · 10 · 11 ·   |
| 7   |          |                                |           | % of Dominant Species that                                 |
| Mowata-Vidrine silt loan                              |          |                                |           | are OBL, FACW, or FAC: 100% (A/B)                          |
|   | :        | <ul><li>Total Cove</li></ul>   | r         |  |
| Sapling Stratum (Plot size: 30ft )                    |          |                                |           | Prevalence Index worksheet:                                |
| Sapium serbiferum                                     | 10       | No                             | FAC       | OBL speciesx1  |
| 2   |          |                                |           | FACW speciesx2   |
| 3   |          |                                |           | FAC species 8 x3 24  |
| 4.  |          |                                |           | FACU speciesx4   |
| 5.  |          |                                |           | UPL species x5   |
| 6.  |          |                                |           | Column Totals: 8 (A) 24 (B)                                |
|   |          |                                |           | Prevalence Index: B/A = 3                                  |
| 7   |          |                                |           | Trevalence index. Birt =                                   |
|   | 10       | <ul><li>Total Cove</li></ul>   | r         |  |
| Shrub Stratum (Plot size: 30ft )                      |          |                                |           | Hydrophytic Vegetation Indicators:                         |
| 1   |          |                                |           | Y Dominance Test is >50%                                   |
| 2   |          |                                |           | Y Prevalence Index is <= 3.0 *                             |
| 3   |          |                                |           | N Problematic Hydrophytic Vegetation *                     |
| 4.  |          |                                |           |  |
| 5.  |          |                                |           | * Indicators of hydric soil and wetland hydrology          |
| 0   |          |                                |           | must be present, unless disturbed or problematic.          |
|   |          |                                |           | must be present, unless disturbed of problematic.          |
| 7   |          |                                |           |  |
|   | :        | <ul> <li>Total Cove</li> </ul> | r         | Definitions of Vegetation Strata:                          |
| Herb Stratum (Plot size: 30ft )                       |          |                                |           |  |
| 1. Paspalum notatum                                   | 10       | Yes                            | FAC       | Tree - Woody plants, excluding vines, approximately        |
| 2. Cirsium vulgare                                    | 10       | No                             | FAC       | 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger |
| 3. Andropogon virginicus                              | 15       | Yes                            | FAC       | in diameter at breast height (DBH).                        |
| Sorghum halpense                                      | 15       | Yes                            | FAC       | in diamotor at broadt holght (BB11).                       |
| 5. Solidago austrina                                  | 10       | Yes                            | FAC       | Sapling-Woody plants, excluding woody vines,               |
|   |          |                                |           |  |
| 6. Cynodon doctylon                                   | 30       | Yes                            | FAC       | approximately 20 ft (6m) or more in height and             |
| 7   |          |                                |           | less than 3 in. (7.6 cm) DBH                               |
|   | 90%      | = Total Cove                   | r         |  |
| Woody Vine Stratum (Plot size: 30ft )                 |          |                                |           | Shrub-Woody plants, excluding woody vines,                 |
| 1. Rubus Iouisianus                                   | 10       | Yes                            | FAC       | approximately 3 to 20 ft (1 to 6m) in height.              |
| 2.  |          |                                |           | , , ,  |
| 3.  |          |                                |           | Herb- All herbaceous (non-woody) plants, including         |
|   |          |                                |           | herbaceousvines, regardless of size. Includes woody        |
|   |          |                                |           |  |
| 5   |          |                                |           | plants, except woody vines, less than approximately        |
| 6.  |          |                                | -         | 3 ft (1m) in height.                                       |
| 7   |          |                                |           | Woody Vine- All woody vines, regardless of height.         |
|   | 10 :     | <ul><li>Total Cove</li></ul>   | r         | <u>                                     </u>               |
|   |          |                                |           |  |
| Remarks: (If observed, list morphological adaptations | below).  |                                |           |  |
|   |          |                                |           |  |
|   |          |                                |           |  |
|   |          |                                |           | Hydrophytic  |
|   |          |                                |           | Vegetation   |
|   |          |                                |           | Present? Yes_X No  |

### SAMPLE LOCATION 4

| Solid Savifice Education 4  |  |  |   |   |  |          |
|---|--|--|---|---|--|----------|
| Map Unit Name<br>(Series and Phase):  |  | Edgerly Series                             |   | Drainage Class:                           | Poorly drained   |          |
| Taxonomy (Subgroup):  |  | Edgerly silt loam                          |   | Field Observations<br>Confirm Mapped Type | ? (Yes) No   |          |
| Profile Descripti   | ion:                                   |  |   |   |  |          |
| 0-7 10 YR 3/2 95<br>7-17 10 YR 3/1 85   |  | 95<br>85<br>85                             | 95         10 YR 6/2         C.M           85         7.5 YR 4/6         C.M  |   | Texture / Remarks Silt loam Silt loam Silt loam  |          |
| *Type:0   |  | epletion, RM=Reduc                         | ced Matrix, CS=Cove   |   | ** Location: PL=Pore Lini Indicators for Problema  | •        |
| Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Streaking in Sandy 5 cm Mucky Mineral (A7) 1 cm Muck (A9) Depleted below Dark Surface Thick Dark Surface (12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) |  | arrace (A11)<br>Surface (A11)<br>2)<br>S1) | Polyvalue Below Surface (S8) Thin Dark Surface (S9) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depression (F8) Depleted Ochric (F11) Iron-Maganese Masses (F12) Umbric Surface (F13) |   | 1 cm Muck (A9) 2 cm Muck (A10) Piedmont Floodplain Soils (F19) Piedmont Floodplain Soils (F19) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)  * Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |          |
| WETLAND DET   | TERMINATION                            |  |   |   |  |          |
| T   | ctive Layer<br>ype:<br>Depth (inches): | (if observed):                             |   | Hydric Soils Present?                     | Yes  | (Circle) |
| Remarks:  | Soil listed as non-hyd                 | dric.                                      |   | nyunc sons Present?                       | Tes  | (NO)     |



PHOTOGRAPH 1: Typical view across the entire site.



PHOTOGRAPH 2: View of Leton silt loam soils mapped along the northern portion of the site.





PHOTOGRAPH 3: View of the habitat located near sample location #2.



PHOTOGRAPH 4: View of the habitat facing south.





PHOTOGRAPH 5: View of the pond located near the center of the site.



PHOTOGRAPH 6: View of Edgerly soils located throughout the site.





PHOTOGRAPH 7: View of drainage ditch runing through the center of the site.



PHOTOGRAPH 8: View of the drainage swells that runs throughout the site.





PHOTOGRAPH 9: View of the soil sample located near sample location #4.



PHOTOGRAPH 10: View of the site along the Chennault runaway.

