



REPLY TO
ATTENTION OF

Exhibit 17 - Wetlands Report

DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

JUN 01 2011

Operations Division
Surveillance and Enforcement Section

Mr. Ben Summerlin
C-K Associates, LLC
17170 Perkins Road
Baton Rouge, Louisiana 70810

Dear Mr. Summerlin:

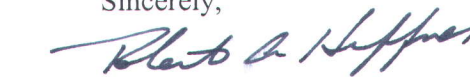
Reference is made to your request, on behalf of J. Ronald Landreneau & Associates, for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Sections 45 and 46, Township 4 South, Range 2 West, Evangeline Parish, Louisiana (enclosed map). Specifically, this property is identified as a 95.3-acre tract on and west of Industrial Park Road.

Based on review of recent maps, aerial photography, soils data, and the information provided with your request, we have determined that part of the property is wetland and may be subject to Corps' jurisdiction. The approximate limits of the wetland are designated in red on the map. A Department of the Army permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into wetlands that are waters of the United States. Additionally, a DA permit will be required if you propose to deposit dredged or fill material into other waters subject to Corps' jurisdiction. Other waters that may be subject to Corps' jurisdiction are indicated in blue on the map.

You and your client are advised that this preliminary jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date or the District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

Should there be any questions concerning these matters, please contact Mr. Furcy Zeringue at (504) 862-2099 and reference our Account No. MVN 2011-00900-SZ. If you have specific questions regarding the permit process or permit applications, please contact our Western Evaluation Section at (504) 862-1950. The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. The New Orleans District Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please complete and return the enclosed Customer Service Survey.

Sincerely,


Pete J. Serio
Chief, Regulatory Branch

Enclosures

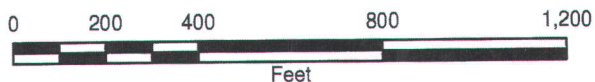
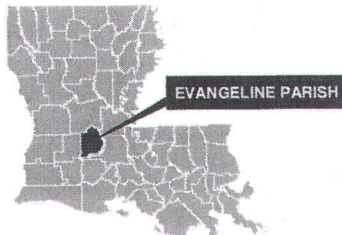
Exhibit 17 - Wetlands Report



U.S. ARMY CORPS OF ENGINEERS PRELIMINARY JURISDICTIONAL DETERMINATION

USACE FJZII In-House/Con
-Wetland (404) -Non-Wetland
-Water of US (404)

23 May 2011 Summerlin MVN 2011-00900-SZ



Reference

WETLAND DELINEATION BY C-K ASSOCIATES, LLC.



LANDRENEAU & ASSOCIATES
VILLE PLATTE, LOUISIANA

INDUSTRIAL PARK SITE CERTIFICATION

WETLAND MAP

EVANGELINE PARISH

C-K
ASSOCIATES, LLC
ENVIRONMENTAL & ENGINEERING
CONSULTANTS

Drawn:	CAL/AM9.2
Checked:	BS
Approved:	BS
Date:	2/2/11
Dwg. No.:	A6533-02

FIGURE 2

**J. RONALD LANDRENEAU &
ASSOCIATES, INC**

**EVANGELINE PARISH WARD 3
INDUSTRIAL PARK SITE CERTIFICATION
WETLAND DATA REPORT
APPROXIMATE 100 ACRE TRACT
EVANGELINE PARISH, LOUISIANA**

FEBRUARY 2011

Prepared by:

**C-K ASSOCIATES, LLC
17170 PERKINS RD.
BATON ROUGE, LA 70810
(225) 755-1000**

C-K Associates' Project No. 6533

Exhibit 17 - Wetlands Report

J. Ronald Landreneau & Associates, Inc.
Industrial Park Wetland Delineation
February 2011

EVANGELINE PARISH WARD 3 INDUSTRIAL PARK SITE CERTIFICATION WETLAND DATA REPORT APPROXIMATE 95 ACRE TRACT EVANGELINE PARISH, LOUISIANA

1.0 INTRODUCTION

C-K Associates, LLC (C-K) is pleased to report the findings of a preliminary wetland delineation conducted for J. Ronald Landreneau & Associates, Inc. The project is located on an approximate 95-acre site, herein defined as the project area. The project area is located between Louisiana Highway 3042 and Louisiana Highway 1171 on Maxie Ray Blvd, north of Ville Platte in Evangeline Parish, Louisiana. More specifically, the project area is centered at latitude 30°42'59.70"N and longitude 92°16'07.87"W (Figure 1). The purpose of the preliminary wetland delineation and this report is to identify areas that contain potential wetlands and other "Waters of the United States" as defined in 33 CFR 328.3.

Waters of the United States are aquatic areas that are either navigable or have a significant nexus to a navigable water. These areas are regulated by the United States Army Corps of Engineers (USACE). Navigable waters are "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce" (33 CFR 329.4). Any area below the ordinary high water mark [33 CFR 328.3(e)] may fall under Federal jurisdiction as a navigable water.

Waters of the United States, regardless of navigability, can generally be categorized as either: 1) deepwater aquatic habitats, 2) special aquatic sites, or 3) other waters of the United States. Deepwater aquatic habitats are "areas that are permanently inundated at mean annual water depths greater than 6.6 feet or permanently inundated areas, less than or equal to 6.6 feet in depth that do not support rooted-emergent or woody plant species". Special aquatic sites include: 1) sanctuaries and refuges, 2) wetlands, 3) mudflats, 4) vegetated shallows, 5) coral reefs and 6) riffle and pool complexes. Other waters of the United States include, but are not limited to: 1) isolated wetlands and lakes, 2) intermittent streams, 3) prairie potholes and 4) other waters that are not part of a tributary system to interstate waters or navigable waters of the United States (USACE 1987).

Wetlands are classified as a special aquatic site and 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" (USACE 1987). These areas are referred to as "wetlands" throughout this report whereas deepwater aquatic habitats, special aquatic sites and other waters of the United States are referred to as "other waters" in this report.

Exhibit 17 - Wetlands Report

J. Ronald Landreneau & Associates, Inc.
Industrial Park Wetland Delineation
February 2011

indicators and soil profiles were documented at each data point (Attachment A). Digital photographic documentation of each data point and general site photographs are included in Attachment B.

Dominant vegetative species accounting for greater than 20% of vegetation present in each data plot were recorded for each vertical stratum: tree canopy or individual trees, sapling layer, shrub layer, herbaceous layer, and woody vine layer. Percent cover for each dominant species was determined by ocular estimation. Plant communities met hydrophytic vegetation criteria if greater than 50% of the dominant species from all strata were classified as obligatory, facultative-wet, or facultative species (USACE 2008).

Wetland hydrology criteria were based on the observation of primary and secondary field indicators. Wetland hydrology criteria were met if one primary field indicator was observed or at least two secondary indicators were observed.

Soil samples were obtained by excavating an approximate 16-inch soil pit. Soil color was recorded by matching soil samples throughout the profile to color chips contained in a Munsell 7 soil color chart. Hydric soil criteria were met when soil samples indicated a matrix chroma of two or less in mottled soils or a matrix chroma of one or less in unmottled soils.

Data points, other waters, and wetland areas were mapped utilizing a Trimble® GeoXH® differential global positioning system (DGPS) utilizing real-time corrections. Acreage was obtained by exporting the data from the DGPS unit into ESRI® ArcMap Version 9.3 drafting software.

4.0 RESULTS

Five data points were collected during the field investigation (Figure 2). DP2 and DP4 indicated the presence of wetlands by containing hydrophytic vegetation, wetland hydrology indicators, and field characteristics of hydric soils. DP1, DP3 and DP5 contained either hydric soil characteristics or hydrophytic vegetation, however, these points lacked wetland hydrology indicators. Based on the field observations there was one other "waters of the U.S." identified in the project area. Much of the acreage within the project, primarily the area north of the road, is currently in agriculture and had recently been plowed during the site visit. A summary of data collected by C-K is provided below.

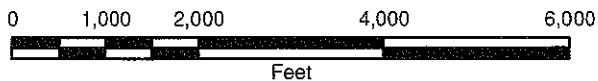
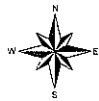
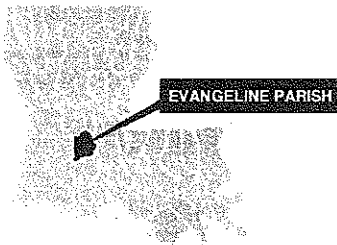
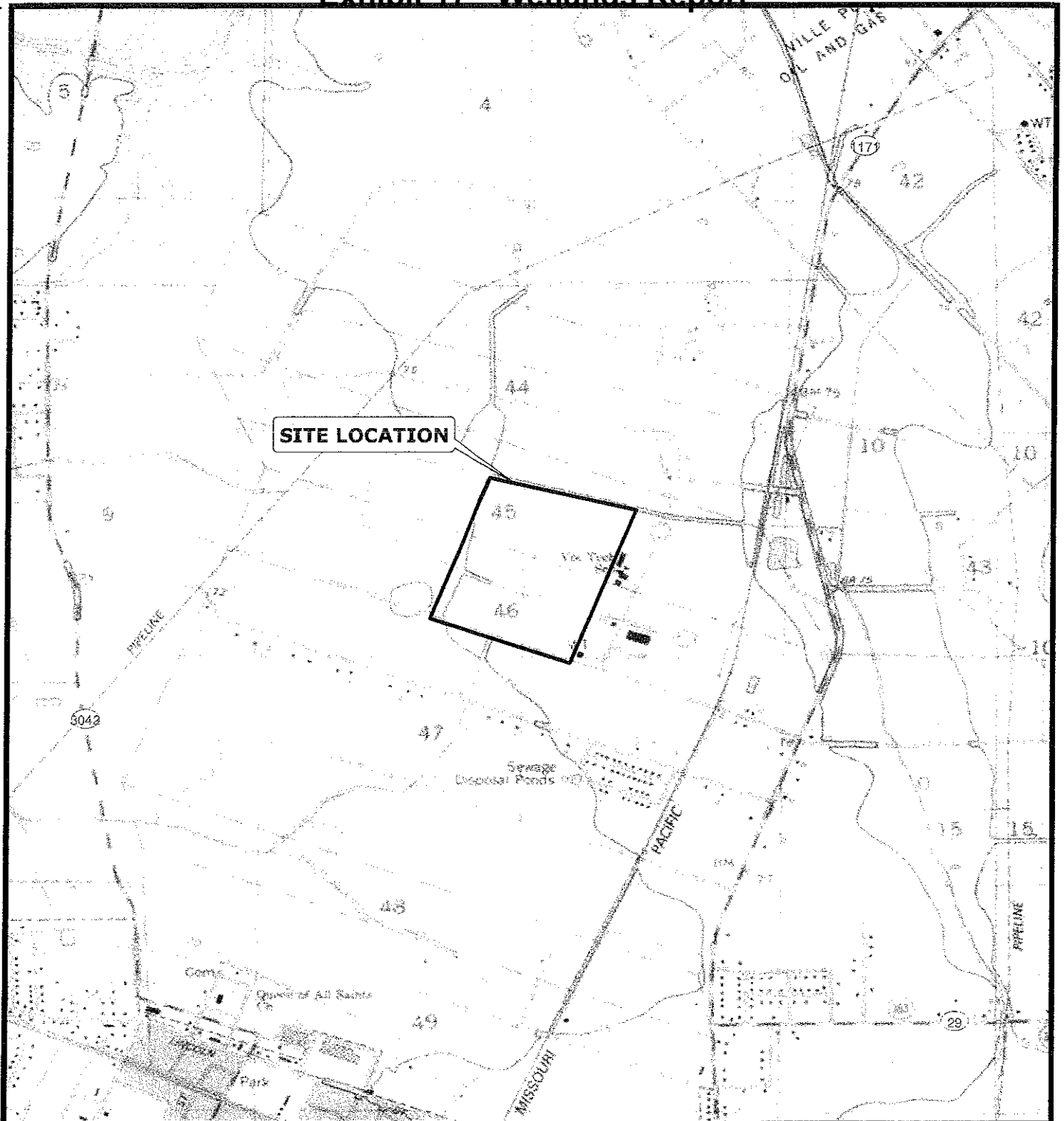
4.1 Vegetation

The project area is currently dominated by two habitats: 1) agricultural fields and 2) mowed/maintained fields. The agricultural fields are located north of the road and make up the largest portion of the project area. The mowed fields are located to the south of the road. The agricultural fields had been recently plowed prior to C-K's field investigation and were void of vegetation. Typical dominant vegetation in the mowed fields included: common carpetgrass (*Axonopus*

6.0 LITERATURE CITED

- Natural Resources Conservation Service [NRCS]. 2006. Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 5.0. G.W. Hurt and L.M. Vasilas (eds.). U.S. Department of Agriculture, Natural Resources Conservation Service, Ft. Worth, Texas, U.S.A.
- Natural Resources Conservation Service [NRCS]. 2010a. National Hydric Soils List by State. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Staff. <<http://websoilsurvey.nrcs.usda.gov/app/>>. Accessed 3 February, 2011.
- Natural Resource Conservation Service [NRCS]. 2010b. Official Soil Series Descriptions. U.S. Department of Agriculture, Natural Resource Conservation Service. <<http://soils.usda.gov/technical/classification/osd/index.html>>. Accessed 3 February, 2011.
- Natural Resource Conservation Service [NRCS]. 2010c. PLANTS Database. U.S. Department of Agriculture, Natural Resource Conservation Service. <<http://plants.usda.gov/index.html>>. Accessed 3 February, 2011.
- Natural Resources Conservation Service [NRCS]. 2010d. Web Soil Survey. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Staff. <<http://websoilsurvey.nrcs.usda.gov/app/>>. Accessed 3 February, 2011.
- Soil Conservation Service [SCS]. 1974. Soil Survey of Evangeline Parish. U.S. Department of Agriculture Soil Conservation Service. August 1974.
- U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetland Delineation Manual. Wetland Research Program Technical Report Y-87-1, Waterways Experiment Station, Environmental Laboratory, Vicksburg, MS.
- U.S. Army Corps of Engineers [USACE]. 2008. Interim Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. U.S. Army Engineer Research and Development Center, Vicksburg, Mississippi, U.S.A.

Exhibit 17 - Wetlands Report



Reference

USGS 7.5 MINUTE QUADRANGLE MAP, VILLE PLATTE, LA.



LANDRENEAU & ASSOCIATES
VILLE PLATTE, LOUISIANA

INDUSTRIAL PARK SITE CERTIFICATION

SITE LOCATION MAP

EVANGELINE PARISH

CK
ASSOCIATES, LLC
ENVIRONMENTAL & ENGINEERING
CONSULTANTS

Drawn:	CAL/AM9.2
Checked:	BS
Approved:	BS
Date:	2/2/11
Dwg. No.:	A6533-01

FIGURE 1

Exhibit 17 - Wetlands Report

ATTACHMENTS

Exhibit 17 - Wetlands Report

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Industrial Park 100-acre Delineation City/County: Evangeline Sampling Date: 1/28/2011
 Applicant/Owner: J. Ronald Landreneau & Associates, Inc. State: LA Sampling Point: DP1
 Investigator(s): B. Summerlin Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%
 Subregion (LRR or MLRA): LRR T Lat: 30°43'03.38"N Long: 92°16'13.93"W Datum: WGS84
 Soil Map Unit Name: Wrightsville-Vidrine Complex NWI classification: N/A

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 _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Plot located in mowed area south of road.	

HYDROLOGY

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

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SOIL

Sampling Point: DP1

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 ¹	Loc ²		
0-10	10YR 4/3	100					silt loam	
10-16	10YR 5/2	80	10YR 4/6	20	C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Mucky Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20)
- ☐ (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) (LRR T, U)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if observed):

Type: N/A
Depth (inches): N/A

Hydric Soil Present? Yes ☐ No ☒

Remarks:

well drained area. No water in pit or on ground, despite recent heavy rains.

Exhibit 17 - Wetlands Report

VEGETATION – Use scientific names of plants.

Sampling Point: DP2

Tree Stratum (Plot sizes: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling Stratum (_____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Shrub Stratum (_____)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
_____ = Total Cover				
Herb Stratum (<u>1/10 acre</u>)				Definitions of Vegetation Strata: Tree <input type="checkbox"/> Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling <input type="checkbox"/> Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub <input type="checkbox"/> Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb <input type="checkbox"/> All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine <input type="checkbox"/> All woody vines, regardless of height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. <u>Andropogon virginicus</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Paspalum vvillei</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Juncus effusus</u>	<u>5</u>	<u>no</u>	<u>FACW</u>	
4. <u>Ranunculus muricatus</u>	<u>5</u>	<u>no</u>		
5. <u>Eleocharis palustris</u>	<u>5</u>	<u>no</u>	<u>OBL</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>95</u> = Total Cover				
Woody Vine Stratum (_____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Remarks: (If observed, list morphological adaptations below).				

Exhibit 17 - Wetlands Report

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Industrial Park 100-acre Delineation City/County: Evangeline Sampling Date: 1/28/2011
 Applicant/Owner: J. Ronald Landreneau & Associates, Inc. State: LA Sampling Point: DP3
 Investigator(s): B. Summerlin Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%
 Subregion (LRR or MLRA): LRR T Lat: 30°42'55.39"N Long: 92°16'10.86"W Datum: WGS84
 Soil Map Unit Name: Patoutville-Crowley Complex NWI classification: N/A

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 _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Plot located on a well drained area alongside ditch.	

HYDROLOGY

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

Exhibit 17 - Wetlands Report

SOIL₃

Sampling Point: DP3

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 ¹	Loc ²		
0-4	10YR 4/4	100			C	M	silt loam	
4-16	10YR 5/2	100			C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Mucky Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20)
- ☐ (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) (LRR T, U)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if observed):

Type: N/A
Depth (inches): N/A

Hydric Soil Present? Yes ☐ No ☒

Remarks:

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VEGETATION – Use scientific names of plants.

Sampling Point: DP4

Tree Stratum (Plot sizes: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: 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%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
			_____ = Total Cover	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling Stratum (_____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			_____ = Total Cover	
Shrub Stratum (_____)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
			_____ = Total Cover	
Herb Stratum (1/10 acre)				Definitions of Vegetation Strata: Tree □ Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling □ Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub □ Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb □ All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine □ All woody vines, regardless of height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. <u>Axonopus fissifolius</u>	<u>40</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Cynodon dactylon</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	
3. <u>Ranunculus muricatus</u>	<u>10</u>	<u>yes</u>	_____	
4. <u>Juncus effusus</u>	<u>10</u>	<u>yes</u>	<u>FACW</u>	
5. <u>Eleocharis palustris</u>	<u>10</u>	<u>yes</u>	<u>OBL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
			<u>80</u> = Total Cover	
Woody Vine Stratum (_____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			_____ = Total Cover	

Remarks: (If observed, list morphological adaptations below).

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WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Industrial Park 100-acre Delineation City/County: Evangeline Sampling Date: 1/28/2011
 Applicant/Owner: J. Ronald Landreneau & Associates, Inc. State: LA Sampling Point: DP5
 Investigator(s): B. Summerlin Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0%
 Subregion (LRR or MLRA): LRR T Lat: 30°43'01.87"N Long: 92°16'00.54"W Datum: WGS84
 Soil Map Unit Name: Patoutville-Crowley Complex NWI classification: N/A

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 _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: Plot taken in the tract north of the road in the southeast corner. The southeast corner of the northern tract is the only section north of the road that is not actively in agriculture. This area appears to have been used a practice field for baseball. Bases and backstops are still present although the area hasn't been recently mowed.	

HYDROLOGY

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

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SOIL

Sampling Point: DP5

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 ¹	Loc ²		
0-8	10YR 4/4	100			C	M	silt loam	
8-16	10YR 4/3	100			C	M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Mucky Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)

- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20)
- ☐ (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12) (LRR T, U)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if observed):

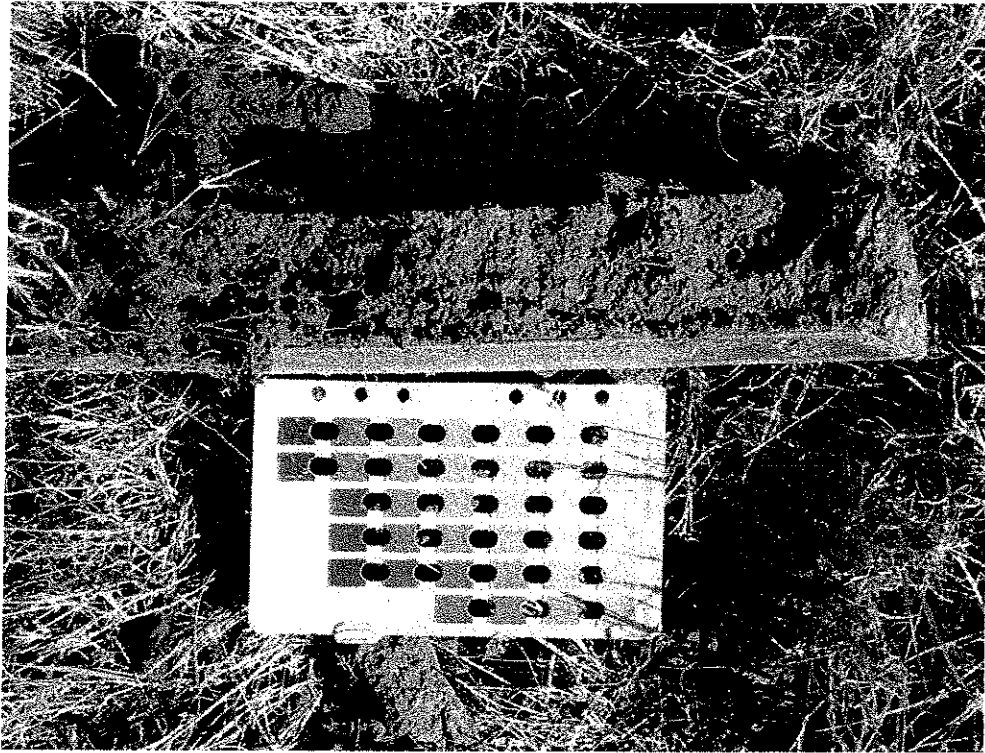
Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ☐ No ☒

Remarks:

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DP1 Soil Profile



DP1 Habitat Photo

Exhibit 17 - Wetlands Report

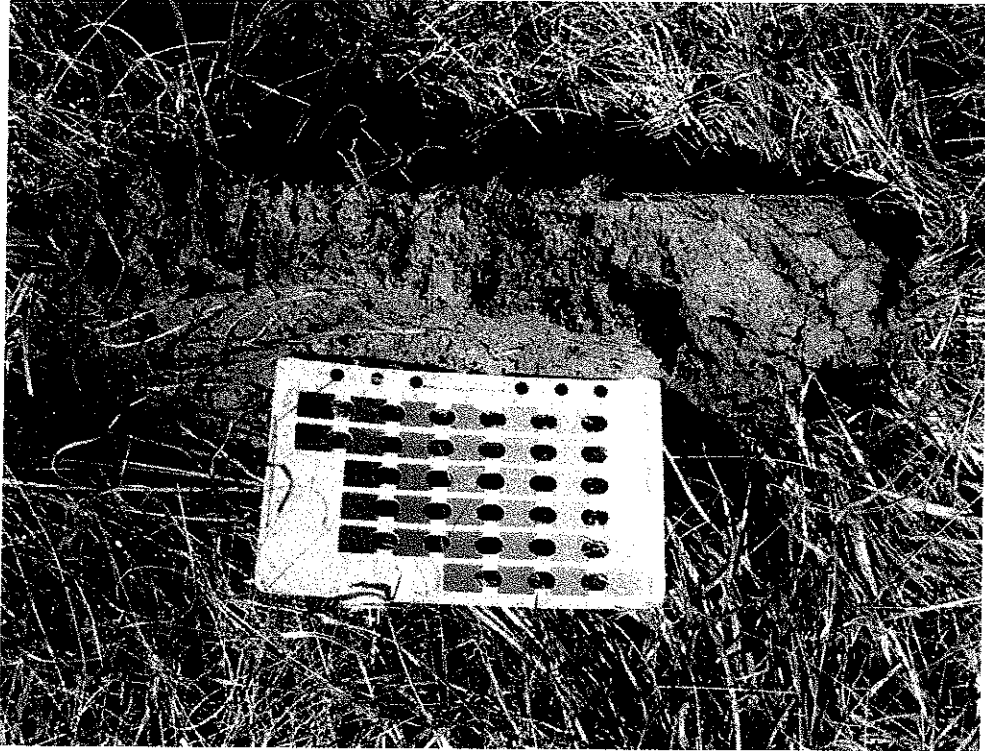


DP3 Soil Profile



DP3 Habitat Photo

Exhibit 17 - Wetlands Report



DP5 Soil Profile



DP5 Habitat Photo